APEX LABORATORIES, LLC
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Data Package for

Anchor QEA, LLC

Former Reynolds Metals Reduction Plant RI/FS-sed

Project number: 110730-02.01

Apex Laboratories Work Order number:

A13A243

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Analytical Case Narrative

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Analytical Case Narrative

Client: Anchor QEA, LLC
Date: 02/12/2013
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Apex Work Order number: A13A243

This data package contains data associated with analysis of samples for the above referenced Apex work order numbers. The data package Table of Contents, along with the PDF bookmarks, allow for ease of navigation and location of items within the data deliverable.

The Sample Receipt Documentation section of this package contains sample receipt information, including sample temperature and condition of receipt documented on Cooler Receipt Form(s). Apex analyzed the samples by the methods indicated on the Chain of Custody. Any additional analyses requested are indicated on the Apex Work Order.

If any anomalies were encountered during analysis that could potentially impact data quality, sample results are qualified and/or a separate Case Narrative is included in the Analytical Report. Please refer to the Notes and Definition section of the Analytical Report(s) for Qualifier explanations, Conventions, and the Blank Policy.

Data represented in this package are in compliance with the referenced method(s), both technically and for completeness, for all conditions other than those stated above and/or noted by qualification of the reported data. The signature below verifies that the Laboratory Director or his designee has authorized release of this data package.



Rochelle Auran,
Quality Assurance Manager
Apex Laboratories, LLC

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Analytical Report

Apex Labs

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Wednesday, February 6, 2013

Cindy Fields
Anchor QEA, LLC Tigard
6650 SW Redwood Lane Ste. 333
Portland, OR 97224

RE: Former Reynolds Metals Reduction Plant RI/FS-sed / 110

Enclosed are the results of analyses for work order A13A243, which was received by the laboratory on 1/11/2013 at 3:10:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

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Darwin Thomas, Business Development Director

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AQ-SSA4-24-0-1	A13A243-01	Soil	01/11/13 11:50	01/11/13 15:10
AQ-SSA4-24-1-2	A13A243-02	Soil	01/11/13 11:52	01/11/13 15:10
AQ-SSA4-25-0-1	A13A243-05	Soil	01/11/13 12:20	01/11/13 15:10
AQ-SSA4-25-1-2	A13A243-06	Soil	01/11/13 12:23	01/11/13 15:10
AQ-SSA4-26-0-1	A13A243-08	Soil	01/11/13 12:55	01/11/13 15:10
AQ-SSA4-26-1-2	A13A243-09	Soil	01/11/13 13:00	01/11/13 15:10
AQ-SSA4-76-0-1	A13A243-11	Soil	01/11/13 12:55	01/11/13 15:10
AQ-SSA4-76-1-2	A13A243-12	Soil	01/11/13 13:00	01/11/13 15:10
AQ-SSA4-27-0-1	A13A243-14	Soil	01/11/13 13:30	01/11/13 15:10
AQ-SSA4-27-1-2	A13A243-15	Soil	01/11/13 13:35	01/11/13 15:10
AQ-SSA4-RB-011113	A13A243-18	Water	01/11/13 14:30	01/11/13 15:10

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-24-0-1 (A13A243-01RE1)			**Matrix: Soil**		**Batch: 1301478**			
Acenaphthene	ND	2.08	4.16	ug/kg dry	1	01/23/13 11:31	EPA 8270D (SIM)	
Acenaphthylene	ND	2.08	4.16	"	"	"	"	
Anthracene	ND	2.08	4.16	"	"	"	"	
Benz(a)anthracene	**9.23**	2.08	4.16	"	"	"	"	
Benzo(a)pyrene	**12.2**	2.08	4.16	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**37.2**	4.16	8.31	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**36.1**	2.08	4.16	"	"	"	"	
Chrysene	**22.7**	2.08	4.16	"	"	"	"	
Dibenz(a,h)anthracene	**4.03**	2.08	4.16	"	"	"	"	J
Dibenzofuran	ND	2.08	4.16	"	"	"	"	
Fluoranthene	**14.1**	2.08	4.16	"	"	"	"	
Fluorene	ND	2.08	4.16	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**20.3**	2.08	4.16	"	"	"	"	
1-Methylnaphthalene	ND	4.16	8.31	"	"	"	"	
2-Methylnaphthalene	ND	4.16	8.31	"	"	"	"	
Naphthalene	ND	4.16	8.31	"	"	"	"	
Phenanthrene	**4.83**	2.08	4.16	"	"	"	"	
Pyrene	**16.0**	2.08	4.16	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 84 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*102 %*	*Limits: 30-120 %*	"	"	"	

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-24-1-2 (A13A243-02RE1)			**Matrix: Soil**		**Batch: 1301478**			
Acenaphthene	ND	2.31	4.63	ug/kg dry	1	01/23/13 12:23	EPA 8270D (SIM)	
Acenaphthylene	ND	2.31	4.63	"	"	"	"	
Anthracene	ND	2.31	4.63	"	"	"	"	
Benz(a)anthracene	ND	2.31	4.63	"	"	"	"	
Benzo(a)pyrene	ND	2.31	4.63	"	"	"	"	
Benzo(b)fluoranthene	ND	2.31	4.63	"	"	"	"	
Benzo(k)fluoranthene	ND	2.31	4.63	"	"	"	"	
Benzo(g,h,i)perylene	**8.07**	2.31	4.63	"	"	"	"	
Chrysene	ND	2.31	4.63	"	"	"	"	
Dibenz(a,h)anthracene	ND	2.31	4.63	"	"	"	"	
Dibenzofuran	ND	2.31	4.63	"	"	"	"	
Fluoranthene	ND	2.31	4.63	"	"	"	"	
Fluorene	ND	2.31	4.63	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**3.66**	2.31	4.63	"	"	"	"	J
1-Methylnaphthalene	ND	4.63	9.25	"	"	"	"	
2-Methylnaphthalene	ND	4.63	9.25	"	"	"	"	
Naphthalene	ND	4.63	9.25	"	"	"	"	
Phenanthrene	ND	2.31	4.63	"	"	"	"	
Pyrene	ND	2.31	4.63	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 84 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*99 %*	*Limits: 30-120 %*	"	"	"	

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-25-0-1 (A13A243-05)			**Matrix: Soil**		**Batch: 1301443**			
Acenaphthene	**15.7**	10.1	20.3	ug/kg dry	5	01/21/13 18:43	EPA 8270D (SIM)	J
Acenaphthylene	ND	10.1	20.3	"	"	"	"	
Anthracene	**69.0**	10.1	20.3	"	"	"	"	
Benz(a)anthracene	**3480**	10.1	20.3	"	"	"	"	
Benzo(a)pyrene	**7120**	10.1	20.3	"	"	"	"	
Dibenz(a,h)anthracene	**2240**	10.1	20.3	"	"	"	"	
Dibenzofuran	**16.4**	10.1	20.3	"	"	"	"	J
Fluoranthene	**3080**	10.1	20.3	"	"	"	"	B-02
Fluorene	ND	10.1	20.3	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**7090**	10.1	20.3	"	"	"	"	
1-Methylnaphthalene	ND	20.3	40.6	"	"	"	"	
2-Methylnaphthalene	ND	20.3	40.6	"	"	"	"	
Naphthalene	ND	20.3	40.6	"	"	"	"	
Phenanthrene	**399**	10.1	20.3	"	"	"	"	
Pyrene	**3470**	10.1	20.3	"	"	"	"	B
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 83 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*100 %*	*Limits: 30-120 %*	"	"	"	
AQ-SSA4-25-0-1 (A13A243-05RE1)			**Matrix: Soil**		**Batch: 1301443**			
Benzo(b+k)fluoranthene(s)	**17600**	406	811	ug/kg dry	100	01/22/13 10:46	EPA 8270D (SIM)	Q-26
Benzo(g,h,i)perylene	**8330**	203	406	"	"	"	"	
Chrysene	**7690**	203	406	"	"	"	"	
AQ-SSA4-25-1-2 (A13A243-06RE1)			**Matrix: Soil**		**Batch: 1301478**			
Acenaphthene	ND	2.36	4.71	ug/kg dry	1	01/23/13 12:49	EPA 8270D (SIM)	
Acenaphthylene	ND	2.36	4.71	"	"	"	"	
Anthracene	**3.29**	2.36	4.71	"	"	"	"	J
Benz(a)anthracene	**18.3**	2.36	4.71	"	"	"	"	
Benzo(a)pyrene	**27.4**	2.36	4.71	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**72.4**	4.71	9.42	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**33.9**	2.36	4.71	"	"	"	"	
Chrysene	**33.1**	2.36	4.71	"	"	"	"	
Dibenz(a,h)anthracene	**7.14**	2.36	4.71	"	"	"	"	
Dibenzofuran	ND	2.36	4.71	"	"	"	"	
Fluoranthene	**24.6**	2.36	4.71	"	"	"	"	
Fluorene	ND	2.36	4.71	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**28.9**	2.36	4.71	"	"	"	"	
1-Methylnaphthalene	ND	4.71	9.42	"	"	"	"	

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Darwin Thomas, Business Development Director

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-25-1-2 (A13A243-06RE1)			**Matrix: Soil**		**Batch: 1301478**			
2-Methylnaphthalene	ND	4.71	9.42	ug/kg dry	1	"	EPA 8270D (SIM)	
Naphthalene	ND	4.71	9.42	"	"	"	"	
Phenanthrene	**9.75**	2.36	4.71	"	"	"	"	
Pyrene	**24.2**	2.36	4.71	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 89 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*104 %*	*Limits: 30-120 %*	"	"	"	
AQ-SSA4-26-0-1 (A13A243-08)			**Matrix: Soil**		**Batch: 1301443**			
Acenaphthene	**3.13**	2.03	4.05	ug/kg dry	1	01/21/13 19:37	EPA 8270D (SIM)	J
Acenaphthylene	**3.48**	2.03	4.05	"	"	"	"	J
Anthracene	**11.8**	2.03	4.05	"	"	"	"	
Benz(a)anthracene	**445**	2.03	4.05	"	"	"	"	
Benzo(a)pyrene	**913**	2.03	4.05	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**2880**	4.05	8.10	"	"	"	"	Q-26
Chrysene	**1470**	2.03	4.05	"	"	"	"	
Dibenz(a,h)anthracene	**405**	2.03	4.05	"	"	"	"	
Dibenzofuran	**2.65**	2.03	4.05	"	"	"	"	J
Fluoranthene	**384**	2.03	4.05	"	"	"	"	B-02
Fluorene	**2.28**	2.03	4.05	"	"	"	"	J
Indeno(1,2,3-cd)pyrene	**1590**	2.03	4.05	"	"	"	"	
1-Methylnaphthalene	ND	4.05	8.10	"	"	"	"	
2-Methylnaphthalene	ND	4.05	8.10	"	"	"	"	
Naphthalene	ND	4.05	8.10	"	"	"	"	
Phenanthrene	**54.2**	2.03	4.05	"	"	"	"	
Pyrene	**430**	2.03	4.05	"	"	"	"	B
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 86 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*103 %*	*Limits: 30-120 %*	"	"	"	

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-26-0-1 (A13A243-08RE1)			**Matrix: Soil**		**Batch: 1301443**			
Benzo(g,h,i)perylene	**2330**	40.5	81.0	ug/kg dry	20	01/22/13 11:14	EPA 8270D (SIM)	
AQ-SSA4-26-1-2 (A13A243-09RE1)			**Matrix: Soil**		**Batch: 1301478**			
Acenaphthene	ND	2.17	4.33	ug/kg dry	1	01/23/13 13:15	EPA 8270D (SIM)	
Acenaphthylene	ND	2.17	4.33	"	"	"	"	
Anthracene	ND	2.17	4.33	"	"	"	"	
Benz(a)anthracene	ND	2.17	4.33	"	"	"	"	
Benzo(a)pyrene	ND	2.17	4.33	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**6.92**	4.33	8.66	"	"	"	"	J, Q-26
Benzo(g,h,i)perylene	**7.92**	2.17	4.33	"	"	"	"	
Chrysene	**2.50**	2.17	4.33	"	"	"	"	J
Dibenz(a,h)anthracene	ND	2.17	4.33	"	"	"	"	
Dibenzofuran	ND	2.17	4.33	"	"	"	"	
Fluoranthene	ND	2.17	4.33	"	"	"	"	
Fluorene	ND	2.17	4.33	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**4.97**	2.17	4.33	"	"	"	"	
1-Methylnaphthalene	ND	4.33	8.66	"	"	"	"	
2-Methylnaphthalene	ND	4.33	8.66	"	"	"	"	
Naphthalene	ND	4.33	8.66	"	"	"	"	
Phenanthrene	ND	2.17	4.33	"	"	"	"	
Pyrene	ND	2.17	4.33	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 79 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*93 %*	*Limits: 30-120 %*	"	"	"	

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Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-76-0-1 (A13A243-11)			**Matrix: Soil**		**Batch: 1301443**			
Acenaphthene	**2.47**	2.16	4.32	ug/kg dry	1	01/21/13 20:32	EPA 8270D (SIM)	J
Acenaphthylene	**2.92**	2.16	4.32	"	"	"	"	J
Anthracene	**8.53**	2.16	4.32	"	"	"	"	
Benz(a)anthracene	**320**	2.16	4.32	"	"	"	"	
Benzo(a)pyrene	**638**	2.16	4.32	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**2070**	4.32	8.63	"	"	"	"	Q-26
Chrysene	**936**	2.16	4.32	"	"	"	"	
Dibenz(a,h)anthracene	**294**	2.16	4.32	"	"	"	"	
Dibenzofuran	ND	2.16	4.32	"	"	"	"	
Fluoranthene	**274**	2.16	4.32	"	"	"	"	B-02
Fluorene	ND	2.16	4.32	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**1230**	2.16	4.32	"	"	"	"	
1-Methylnaphthalene	ND	4.32	8.63	"	"	"	"	
2-Methylnaphthalene	ND	4.32	8.63	"	"	"	"	
Naphthalene	ND	4.32	8.63	"	"	"	"	
Phenanthrene	**39.2**	2.16	4.32	"	"	"	"	
Pyrene	**310**	2.16	4.32	"	"	"	"	B
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 84 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*107 %*	*Limits: 30-120 %*	"	"	"	

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-76-0-1 (A13A243-11RE1)			**Matrix: Soil**		**Batch: 1301443**			
Benzo(g,h,i)perylene	**2290**	21.6	43.2	ug/kg dry	10	01/22/13 11:42	EPA 8270D (SIM)	
AQ-SSA4-76-1-2 (A13A243-12)			**Matrix: Soil**		**Batch: 1301443**			
Acenaphthene	ND	2.34	4.67	ug/kg dry	1	01/21/13 20:59	EPA 8270D (SIM)	
Acenaphthylene	ND	2.34	4.67	"	"	"	"	
Anthracene	ND	2.34	4.67	"	"	"	"	
Benz(a)anthracene	**2.57**	2.34	4.67	"	"	"	"	J
Benzo(a)pyrene	**2.89**	2.34	4.67	"	"	"	"	J
Benzo(b+k)fluoranthene(s)	**8.91**	4.67	9.34	"	"	"	"	J, Q-26
Benzo(g,h,i)perylene	**15.5**	2.34	4.67	"	"	"	"	
Chrysene	**3.26**	2.34	4.67	"	"	"	"	J
Dibenz(a,h)anthracene	ND	2.34	4.67	"	"	"	"	
Dibenzofuran	ND	2.34	4.67	"	"	"	"	
Fluoranthene	ND	2.34	4.67	"	"	"	"	
Fluorene	ND	2.34	4.67	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**7.84**	2.34	4.67	"	"	"	"	
1-Methylnaphthalene	ND	4.67	9.34	"	"	"	"	
2-Methylnaphthalene	ND	4.67	9.34	"	"	"	"	
Naphthalene	ND	4.67	9.34	"	"	"	"	
Phenanthrene	ND	2.34	4.67	"	"	"	"	
Pyrene	ND	2.34	4.67	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 88 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*113 %*	*Limits: 30-120 %*	"	"	"	

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-27-0-1 (A13A243-14RE1)			**Matrix: Soil**		**Batch: 1301478**			
Acenaphthene	ND	2.15	4.30	ug/kg dry	1	01/23/13 13:41	EPA 8270D (SIM)	
Acenaphthylene	ND	2.15	4.30	"	"	"	"	
Anthracene	**3.24**	2.15	4.30	"	"	"	"	J
Benz(a)anthracene	**61.1**	2.15	4.30	"	"	"	"	
Benzo(a)pyrene	**116**	2.15	4.30	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**403**	4.30	8.61	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**262**	2.15	4.30	"	"	"	"	
Chrysene	**218**	2.15	4.30	"	"	"	"	
Dibenz(a,h)anthracene	**45.0**	2.15	4.30	"	"	"	"	
Dibenzofuran	ND	2.15	4.30	"	"	"	"	
Fluoranthene	**51.7**	2.15	4.30	"	"	"	"	
Fluorene	ND	2.15	4.30	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**197**	2.15	4.30	"	"	"	"	
1-Methylnaphthalene	ND	4.30	8.61	"	"	"	"	
2-Methylnaphthalene	ND	4.30	8.61	"	"	"	"	
Naphthalene	ND	4.30	8.61	"	"	"	"	
Phenanthrene	**11.8**	2.15	4.30	"	"	"	"	
Pyrene	**57.1**	2.15	4.30	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 86 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*100 %*	*Limits: 30-120 %*	"	"	"	

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-27-1-2 (A13A243-15)			**Matrix: Soil**		**Batch: 1301443**			
Acenaphthene	**10.3**	9.20	18.4	ug/kg dry	5	01/21/13 21:52	EPA 8270D (SIM)	J
Acenaphthylene	**23.9**	9.20	18.4	"	"	"	"	
Anthracene	**67.9**	9.20	18.4	"	"	"	"	
Benz(a)anthracene	**3320**	9.20	18.4	"	"	"	"	
Benzo(a)pyrene	**6200**	9.20	18.4	"	"	"	"	
Dibenz(a,h)anthracene	**2080**	9.20	18.4	"	"	"	"	
Dibenzofuran	**11.3**	9.20	18.4	"	"	"	"	J
Fluoranthene	**1480**	9.20	18.4	"	"	"	"	B-02
Fluorene	**9.85**	9.20	18.4	"	"	"	"	J
1-Methylnaphthalene	ND	18.4	36.8	"	"	"	"	
2-Methylnaphthalene	ND	18.4	36.8	"	"	"	"	
Naphthalene	ND	18.4	36.8	"	"	"	"	
Phenanthrene	**150**	9.20	18.4	"	"	"	"	
Pyrene	**1830**	9.20	18.4	"	"	"	"	B
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 88 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*101 %*	*Limits: 30-120 %*	"	"	"	
AQ-SSA4-27-1-2 (A13A243-15RE1)			**Matrix: Soil**		**Batch: 1301443**			
Benzo(b+k)fluoranthene(s)	**18400**	368	736	ug/kg dry	100	01/22/13 12:09	EPA 8270D (SIM)	Q-26
Benzo(g,h,i)perylene	**11700**	184	368	"	"	"	"	
Chrysene	**16600**	184	368	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**8530**	184	368	"	"	"	"	
AQ-SSA4-RB-011113 (A13A243-18)			**Matrix: Water**		**Batch: 1301407**			
Acenaphthene	ND	0.0213	0.0426	ug/L	1	01/18/13 21:37	EPA 8270D (SIM)	
Acenaphthylene	ND	0.0213	0.0426	"	"	"	"	
Anthracene	ND	0.0213	0.0426	"	"	"	"	
Benz(a)anthracene	ND	0.0213	0.0426	"	"	"	"	
Benzo(a)pyrene	ND	0.0213	0.0426	"	"	"	"	
Benzo(b)fluoranthene	ND	0.0213	0.0426	"	"	"	"	
Benzo(k)fluoranthene	ND	0.0213	0.0426	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.0213	0.0426	"	"	"	"	
Chrysene	ND	0.0213	0.0426	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0213	0.0426	"	"	"	"	
Dibenzofuran	ND	0.0213	0.0426	"	"	"	"	
Fluoranthene	ND	0.0213	0.0426	"	"	"	"	
Fluorene	ND	0.0213	0.0426	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0213	0.0426	"	"	"	"	

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-RB-011113 (A13A243-18)			**Matrix: Water**		**Batch: 1301407**			
1-Methylnaphthalene	ND	0.0426	0.0851	ug/L	1	"	EPA 8270D (SIM)	
2-Methylnaphthalene	ND	0.0426	0.0851	"	"	"	"	
Naphthalene	ND	0.0426	0.0851	"	"	"	"	
Phenanthrene	ND	0.0213	0.0426	"	"	"	"	
Pyrene	ND	0.0213	0.0426	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 69 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*100 %*	*Limits: 30-120 %*	"	"	"	

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-24-0-1 (A13A243-01)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**83.1**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**590**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	
AQ-SSA4-24-1-2 (A13A243-02)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**81.4**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**260**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	
AQ-SSA4-25-0-1 (A13A243-05)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**87.9**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**3200**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	
AQ-SSA4-25-1-2 (A13A243-06)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**82.5**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**520**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	
AQ-SSA4-26-0-1 (A13A243-08)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**85.5**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**2300**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	
AQ-SSA4-26-1-2 (A13A243-09)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**81.8**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**300**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-76-0-1 (A13A243-11)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**86.2**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**1400**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	
AQ-SSA4-76-1-2 (A13A243-12)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**81.3**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**330**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	
AQ-SSA4-27-0-1 (A13A243-14)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**83.6**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**860**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	
AQ-SSA4-27-1-2 (A13A243-15)			**Matrix: Soil**					
Batch: 1301260								
Total Solids	**86.9**	1.00	1.00	% by Weight	1	01/15/13 13:00	SM 2540 G	
Batch: 1301280								
Total Organic Carbon	**4600**	100	200	mg/kg	"	01/16/13 16:00	PSEP/SM 5310B MOD	

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
AQ-SSA4-24-0-1 (A13A243-01)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**83.1**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	
AQ-SSA4-24-1-2 (A13A243-02)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**81.4**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	
AQ-SSA4-25-0-1 (A13A243-05)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**87.9**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	
AQ-SSA4-25-1-2 (A13A243-06)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**82.5**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	
AQ-SSA4-26-0-1 (A13A243-08)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**85.5**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	
AQ-SSA4-26-1-2 (A13A243-09)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**81.8**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	
AQ-SSA4-76-0-1 (A13A243-11)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**86.2**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	
AQ-SSA4-76-1-2 (A13A243-12)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**81.3**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	
AQ-SSA4-27-0-1 (A13A243-14)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**83.6**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	
AQ-SSA4-27-1-2 (A13A243-15)			**Matrix: Soil**		**Batch: 1301260**			
% Solids	**86.9**	1.00	1.00	% by Weight	1	01/15/13 15:07	Apex SOP	

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301407 - EPA 3510C (Acid Extraction)							**Water**					
Blank (1301407-BLK1)					Prepared: 01/18/13 10:56 Analyzed: 01/18/13 20:16							
EPA 8270D (SIM)												
Acenaphthene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Anthracene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	0.0200	0.0400	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Chrysene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Fluoranthene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Fluorene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0200	0.0400	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0200	0.0400	"	"	---	---	---	---	---	---	
Naphthalene	ND	0.0200	0.0400	"	"	---	---	---	---	---	---	
Phenanthrene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Pyrene	ND	0.0100	0.0200	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 72 %*		*Limits: 25-120 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*92 %*		*30-120 %*				*"*			
LCS (1301407-BS1)					Prepared: 01/18/13 10:56 Analyzed: 01/18/13 20:43							
EPA 8270D (SIM)												
Acenaphthene	3.20	0.0100	0.0200	ug/L	1	4.00	---	80	45-125%	---	---	
Acenaphthylene	3.26	0.0100	0.0200	"	"	"	---	82	50-125%	---	---	
Anthracene	3.60	0.0100	0.0200	"	"	"	---	90	55-125%	---	---	
Benz(a)anthracene	3.78	0.0100	0.0200	"	"	"	---	94	"	---	---	
Benzo(a)pyrene	4.25	0.0100	0.0200	"	"	"	---	106	"	---	---	
Benzo(b)fluoranthene	4.50	0.0100	0.0200	"	"	"	---	112	45-125%	---	---	
Benzo(k)fluoranthene	4.09	0.0100	0.0200	"	"	"	---	102	"	---	---	
Benzo(b+k)fluoranthene(s)	8.49	0.0200	0.0400	"	"	8.00	---	106	"	---	---	
Benzo(g,h,i)perylene	3.37	0.0100	0.0200	"	"	4.00	---	84	40-125%	---	---	

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301407 - EPA 3510C (Acid Extraction)							**Water**					
LCS (1301407-BS1)					Prepared: 01/18/13 10:56 Analyzed: 01/18/13 20:43							
Chrysene	3.73	0.0100	0.0200	ug/L	"	"	---	93	55-125%	---	---	
Dibenz(a,h)anthracene	3.95	0.0100	0.0200	"	"	"	---	99	40-125%	---	---	
Dibenzofuran	3.30	0.0100	0.0200	"	"	"	---	83	55-125%	---	---	
Fluoranthene	4.16	0.0100	0.0200	"	"	"	---	104	"	---	---	
Fluorene	3.53	0.0100	0.0200	"	"	"	---	88	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	3.57	0.0100	0.0200	"	"	"	---	89	45-125%	---	---	
1-Methylnaphthalene	3.23	0.0200	0.0400	"	"	"	---	81	"	---	---	
2-Methylnaphthalene	3.24	0.0200	0.0400	"	"	"	---	81	"	---	---	
Naphthalene	3.04	0.0200	0.0400	"	"	"	---	76	40-125%	---	---	
Phenanthrene	3.39	0.0100	0.0200	"	"	"	---	85	50-125%	---	---	
Pyrene	4.11	0.0100	0.0200	"	"	"	---	103	"	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 77 %*	*Limits: 25-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*90 %*	*30-120 %*			*"*					
LCS Dup (1301407-BSD1)					Prepared: 01/18/13 10:56 Analyzed: 01/18/13 21:10							Q-19
EPA 8270D (SIM)												
Acenaphthene	3.42	0.0100	0.0200	ug/L	1	4.00	---	85	45-125%	7	30%	
Acenaphthylene	3.50	0.0100	0.0200	"	"	"	---	87	50-125%	7	30%	
Anthracene	3.82	0.0100	0.0200	"	"	"	---	96	55-125%	6	30%	
Benz(a)anthracene	3.89	0.0100	0.0200	"	"	"	---	97	"	3	30%	
Benzo(a)pyrene	4.39	0.0100	0.0200	"	"	"	---	110	"	3	30%	
Benzo(b)fluoranthene	4.44	0.0100	0.0200	"	"	"	---	111	45-125%	1	30%	
Benzo(k)fluoranthene	4.32	0.0100	0.0200	"	"	"	---	108	"	6	30%	
Benzo(b+k)fluoranthene(s)	8.67	0.0200	0.0400	"	"	8.00	---	108	"	2	30%	
Benzo(g,h,i)perylene	3.50	0.0100	0.0200	"	"	4.00	---	88	40-125%	4	30%	
Chrysene	3.82	0.0100	0.0200	"	"	"	---	95	55-125%	2	30%	
Dibenz(a,h)anthracene	4.24	0.0100	0.0200	"	"	"	---	106	40-125%	7	30%	
Dibenzofuran	3.51	0.0100	0.0200	"	"	"	---	88	55-125%	6	30%	
Fluoranthene	4.33	0.0100	0.0200	"	"	"	---	108	"	4	30%	
Fluorene	3.67	0.0100	0.0200	"	"	"	---	92	50-125%	4	30%	
Indeno(1,2,3-cd)pyrene	3.68	0.0100	0.0200	"	"	"	---	92	45-125%	3	30%	
1-Methylnaphthalene	3.44	0.0200	0.0400	"	"	"	---	86	"	6	30%	
2-Methylnaphthalene	3.43	0.0200	0.0400	"	"	"	---	86	"	6	30%	
Naphthalene	3.26	0.0200	0.0400	"	"	"	---	81	40-125%	7	30%	
Phenanthrene	3.64	0.0100	0.0200	"	"	"	---	91	50-125%	7	30%	

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Darwin Thomas, Business Development Director

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301407 - EPA 3510C (Acid Extraction)							**Water**					
LCS Dup (1301407-BSD1)					Prepared: 01/18/13 10:56 Analyzed: 01/18/13 21:10							Q-19
Pyrene	4.30	0.0100	0.0200	ug/L	"	"	---	107	"	5	30%	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 82 %*		*Limits: 25-120 %*		*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*89 %*		*30-120 %*		*"*					

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301443 - EPA 3546							**Soil**					
Blank (1301443-BLK1)					Prepared: 01/21/13 12:50 Analyzed: 01/21/13 16:27							
EPA 8270D (SIM)												
Acenaphthene	ND	1.54	3.08	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Anthracene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	3.08	6.15	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Chrysene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Fluoranthene	**2.38**	1.54	3.08	"	"	---	---	---	---	---	---	B-02, J
Fluorene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	3.08	6.15	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	3.08	6.15	"	"	---	---	---	---	---	---	
Naphthalene	ND	3.08	6.15	"	"	---	---	---	---	---	---	
Phenanthrene	ND	1.54	3.08	"	"	---	---	---	---	---	---	
Pyrene	**5.44**	1.54	3.08	"	"	---	---	---	---	---	---	B
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 88 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*117 %*	*30-120 %*			*"*					
LCS (1301443-BS1)					Prepared: 01/21/13 12:50 Analyzed: 01/21/13 16:54							
EPA 8270D (SIM)												
Acenaphthene	742	2.00	4.00	ug/kg wet	1	800	---	93	45-125%	---	---	
Acenaphthylene	778	2.00	4.00	"	"	"	---	97	"	---	---	
Anthracene	809	2.00	4.00	"	"	"	---	101	55-125%	---	---	
Benz(a)anthracene	806	2.00	4.00	"	"	"	---	101	50-125%	---	---	
Benzo(a)pyrene	902	2.00	4.00	"	"	"	---	113	"	---	---	
Benzo(b)fluoranthene	886	2.00	4.00	"	"	"	---	111	45-125%	---	---	
Benzo(k)fluoranthene	877	2.00	4.00	"	"	"	---	110	"	---	---	
Benzo(b+k)fluoranthene(s)	1750	4.00	8.00	"	"	1600	---	109	"	---	---	
Benzo(g,h,i)perylene	906	2.00	4.00	"	"	800	---	113	40-125%	---	---	

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301443 - EPA 3546							**Soil**					
LCS (1301443-BS1)					Prepared: 01/21/13 12:50 Analyzed: 01/21/13 16:54							
Chrysene	792	2.00	4.00	ug/kg wet	"	"	---	99	55-125%	---	---	
Dibenz(a,h)anthracene	889	2.00	4.00	"	"	"	---	111	40-125%	---	---	
Dibenzofuran	764	2.00	4.00	"	"	"	---	96	50-125%	---	---	
Fluoranthene	823	2.00	4.00	"	"	"	---	103	55-125%	---	---	B-02
Fluorene	785	2.00	4.00	"	"	"	---	98	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	847	2.00	4.00	"	"	"	---	106	40-125%	---	---	
1-Methylnaphthalene	755	4.00	8.00	"	"	"	---	94	45-125%	---	---	
2-Methylnaphthalene	766	4.00	8.00	"	"	"	---	96	"	---	---	
Naphthalene	721	4.00	8.00	"	"	"	---	90	40-125%	---	---	
Phenanthrene	765	2.00	4.00	"	"	"	---	96	50-125%	---	---	
Pyrene	816	2.00	4.00	"	"	"	---	102	45-125%	---	---	B
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 93 %*	*Limits: 45-120 %*		*Dilution: 1x*						
p-Terphenyl-d14 (Surr)			*103 %*	*30-120 %*		*"*						
Duplicate (1301443-DUP1)					Prepared: 01/21/13 12:50 Analyzed: 01/21/13 17:49							
QC Source Sample: AQ-SSA4-24-0-1 (A13A243-01)												
EPA 8270D (SIM)												
Acenaphthene	ND	1.99	3.98	ug/kg dry	1	---	ND	---	---	---	30%	
Acenaphthylene	ND	1.99	3.98	"	"	---	ND	---	---	---	30%	
Anthracene	ND	1.99	3.98	"	"	---	ND	---	---	---	30%	
Benz(a)anthracene	**8.76**	1.99	3.98	"	"	---	11.1	---	---	23	30%	
Benzo(a)pyrene	**11.4**	1.99	3.98	"	"	---	14.1	---	---	21	30%	
Benzo(b+k)fluoranthene(s)	**40.1**	3.98	7.97	"	"	---	48.2	---	---	18	30%	Q-26
Benzo(g,h,i)perylene	**50.3**	1.99	3.98	"	"	---	56.4	---	---	11	30%	
Chrysene	**23.8**	1.99	3.98	"	"	---	25.0	---	---	5	30%	
Dibenz(a,h)anthracene	**4.56**	1.99	3.98	"	"	---	5.64	---	---	21	30%	
Dibenzofuran	ND	1.99	3.98	"	"	---	ND	---	---	---	30%	
Fluoranthene	**13.0**	1.99	3.98	"	"	---	16.0	---	---	21	30%	B-02
Fluorene	ND	1.99	3.98	"	"	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	**24.8**	1.99	3.98	"	"	---	29.3	---	---	17	30%	
1-Methylnaphthalene	ND	3.98	7.97	"	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	3.98	7.97	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	3.98	7.97	"	"	---	ND	---	---	---	30%	
Phenanthrene	**3.89**	1.99	3.98	"	"	---	5.34	---	---	32	30%	Q-17, J
Pyrene	**13.7**	1.99	3.98	"	"	---	16.7	---	---	20	30%	B

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301443 - EPA 3546							**Soil**					
Duplicate (1301443-DUP1)					Prepared: 01/21/13 12:50 Analyzed: 01/21/13 17:49							
QC Source Sample: AQ-SSA4-24-0-1 (A13A243-01)												
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 80 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*110 %*	*30-120 %*			*"*					
Matrix Spike (1301443-MS1)					Prepared: 01/21/13 12:50 Analyzed: 01/21/13 22:20							
QC Source Sample: AQ-SSA4-27-1-2 (A13A243-15)												
EPA 8270D (SIM)												
Acenaphthene	845	10.8	21.7	ug/kg dry	5	868	10.3	96	45-125%	---	---	
Acenaphthylene	873	10.8	21.7	"	"	"	23.9	98	"	---	---	
Anthracene	991	10.8	21.7	"	"	"	67.9	106	55-125%	---	---	
Benz(a)anthracene	6120	10.8	21.7	"	"	"	3320	323	50-125%	---	---	Q-03
Benzo(a)pyrene	8960	10.8	21.7	"	"	"	6200	318	"	---	---	Q-03
Benzo(b)fluoranthene	23400	10.8	21.7	"	"	"	17700	663	45-125%	---	---	Q-03
Benzo(k)fluoranthene	7200	10.8	21.7	"	"	"	4240	341	"	---	---	Q-03
Benzo(b+k)fluoranthene(s)	30000	21.7	43.4	"	"	1740	21400	497	"	---	---	Q-03
Benzo(g,h,i)perylene	15100	10.8	21.7	"	"	868	12700	283	40-125%	---	---	Q-03
Chrysene	24600	10.8	21.7	"	"	"	17700	796	55-125%	---	---	Q-03
Dibenz(a,h)anthracene	3270	10.8	21.7	"	"	"	2080	137	40-125%	---	---	Q-03
Dibenzofuran	879	10.8	21.7	"	"	"	11.3	100	"	---	---	
Fluoranthene	3520	10.8	21.7	"	"	"	1480	235	55-125%	---	---	B-02, Q-03
Fluorene	916	10.8	21.7	"	"	"	9.85	104	20-125%	---	---	
Indeno(1,2,3-cd)pyrene	10900	10.8	21.7	"	"	"	8670	253	40-125%	---	---	Q-03
1-Methylnaphthalene	856	21.7	43.4	"	"	"	ND	99	45-125%	---	---	
2-Methylnaphthalene	846	21.7	43.4	"	"	"	ND	98	"	---	---	
Naphthalene	801	21.7	43.4	"	"	"	ND	92	40-125%	---	---	
Phenanthrene	1050	10.8	21.7	"	"	"	150	104	50-125%	---	---	
Pyrene	4040	10.8	21.7	"	"	"	1830	255	45-125%	---	---	B, Q-03
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 92 %*	*Limits: 45-120 %*			*Dilution: 5x*					
p-Terphenyl-d14 (Surr)			*102 %*	*30-120 %*			*"*					

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301478 - EPA 3546							**Soil**					
Blank (1301478-BLK1)					Prepared: 01/22/13 16:04 Analyzed: 01/23/13 10:38							
EPA 8270D (SIM)												
Acenaphthene	ND	1.67	3.33	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Anthracene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	3.33	6.67	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Chrysene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Fluoranthene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Fluorene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	3.33	6.67	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	3.33	6.67	"	"	---	---	---	---	---	---	
Naphthalene	ND	3.33	6.67	"	"	---	---	---	---	---	---	
Phenanthrene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Pyrene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 97 %*	*Limits: 45-120 %*				*Dilution: 1x*				
p-Terphenyl-d14 (Surr)			*119 %*	*30-120 %*				*"*				
LCS (1301478-BS1)					Prepared: 01/22/13 16:04 Analyzed: 01/23/13 11:05							
EPA 8270D (SIM)												
Acenaphthene	764	2.00	4.00	ug/kg wet	1	800	---	95	45-125%	---	---	
Acenaphthylene	791	2.00	4.00	"	"	"	---	99	"	---	---	
Anthracene	831	2.00	4.00	"	"	"	---	104	55-125%	---	---	
Benz(a)anthracene	801	2.00	4.00	"	"	"	---	100	50-125%	---	---	
Benzo(a)pyrene	888	2.00	4.00	"	"	"	---	111	"	---	---	
Benzo(b)fluoranthene	843	2.00	4.00	"	"	"	---	105	45-125%	---	---	
Benzo(k)fluoranthene	855	2.00	4.00	"	"	"	---	107	"	---	---	
Benzo(b+k)fluoranthene(s)	1690	4.00	8.00	"	"	1600	---	106	"	---	---	
Benzo(g,h,i)perylene	813	2.00	4.00	"	"	800	---	102	40-125%	---	---	

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301478 - EPA 3546							**Soil**					
LCS (1301478-BS1)					Prepared: 01/22/13 16:04		Analyzed: 01/23/13 11:05					
Chrysene	818	2.00	4.00	ug/kg wet	"	"	---	102	55-125%	---	---	
Dibenz(a,h)anthracene	829	2.00	4.00	"	"	"	---	104	40-125%	---	---	
Dibenzofuran	772	2.00	4.00	"	"	"	---	97	50-125%	---	---	
Fluoranthene	837	2.00	4.00	"	"	"	---	105	55-125%	---	---	
Fluorene	802	2.00	4.00	"	"	"	---	100	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	807	2.00	4.00	"	"	"	---	101	40-125%	---	---	
1-Methylnaphthalene	754	4.00	8.00	"	"	"	---	94	45-125%	---	---	
2-Methylnaphthalene	775	4.00	8.00	"	"	"	---	97	"	---	---	
Naphthalene	740	4.00	8.00	"	"	"	---	92	40-125%	---	---	
Phenanthrene	778	2.00	4.00	"	"	"	---	97	50-125%	---	---	
Pyrene	825	2.00	4.00	"	"	"	---	103	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 96 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*103 %*	*30-120 %*			*"*					
Duplicate (1301478-DUP1)					Prepared: 01/22/13 16:04		Analyzed: 01/23/13 11:57					
QC Source Sample: AQ-SSA4-24-0-1 (A13A243-01RE1)												
EPA 8270D (SIM)												
Acenaphthene	ND	2.05	4.09	ug/kg dry	1	---	ND	---	---	---	30%	
Acenaphthylene	ND	2.05	4.09	"	"	---	ND	---	---	---	30%	
Anthracene	ND	2.05	4.09	"	"	---	ND	---	---	---	30%	
Benz(a)anthracene	**9.06**	2.05	4.09	"	"	---	9.23	---	---	2	30%	
Benzo(a)pyrene	**12.5**	2.05	4.09	"	"	---	12.2	---	---	2	30%	
Benzo(b+k)fluoranthene(s)	**37.9**	4.09	8.19	"	"	---	37.2	---	---	2	30%	Q-26
Benzo(g,h,i)perylene	**36.5**	2.05	4.09	"	"	---	36.1	---	---	1	30%	
Chrysene	**19.9**	2.05	4.09	"	"	---	22.7	---	---	13	30%	
Dibenz(a,h)anthracene	**4.03**	2.05	4.09	"	"	---	4.03	---	---	0.06	30%	J
Dibenzofuran	ND	2.05	4.09	"	"	---	ND	---	---	---	30%	
Fluoranthene	**14.2**	2.05	4.09	"	"	---	14.1	---	---	0.3	30%	
Fluorene	ND	2.05	4.09	"	"	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	**20.7**	2.05	4.09	"	"	---	20.3	---	---	2	30%	
1-Methylnaphthalene	ND	4.09	8.19	"	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	4.09	8.19	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	4.09	8.19	"	"	---	ND	---	---	---	30%	
Phenanthrene	**5.77**	2.05	4.09	"	"	---	4.83	---	---	18	30%	
Pyrene	**15.0**	2.05	4.09	"	"	---	16.0	---	---	6	30%	

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12232 S.W. Garden Place
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503-718-2323 Phone
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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301478 - EPA 3546							**Soil**					
Duplicate (1301478-DUP1)					Prepared: 01/22/13 16:04 Analyzed: 01/23/13 11:57							
QC Source Sample: AQ-SSA4-24-0-1 (A13A243-01RE1)												
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 86 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*104 %*	*30-120 %*			*"*					
Matrix Spike (1301478-MS1)					Prepared: 01/22/13 16:04 Analyzed: 01/23/13 14:08							
QC Source Sample: AQ-SSA4-27-0-1 (A13A243-14RE1)												
EPA 8270D (SIM)												
Acenaphthene	843	2.33	4.66	ug/kg dry	1	933	ND	90	45-125%	---	---	
Acenaphthylene	891	2.33	4.66	"	"	"	ND	96	"	---	---	
Anthracene	951	2.33	4.66	"	"	"	3.24	102	55-125%	---	---	
Benz(a)anthracene	969	2.33	4.66	"	"	"	61.1	97	50-125%	---	---	
Benzo(a)pyrene	1100	2.33	4.66	"	"	"	116	105	"	---	---	
Benzo(b)fluoranthene	1240	2.33	4.66	"	"	"	320	99	45-125%	---	---	
Benzo(k)fluoranthene	982	2.33	4.66	"	"	"	86.6	96	"	---	---	
Benzo(b+k)fluoranthene(s)	2220	4.66	9.33	"	"	1870	403	98	"	---	---	
Benzo(g,h,i)perylene	1110	2.33	4.66	"	"	933	262	91	40-125%	---	---	
Chrysene	1070	2.33	4.66	"	"	"	218	91	55-125%	---	---	
Dibenz(a,h)anthracene	955	2.33	4.66	"	"	"	45.0	98	40-125%	---	---	
Dibenzofuran	869	2.33	4.66	"	"	"	ND	93	"	---	---	
Fluoranthene	983	2.33	4.66	"	"	"	51.7	100	55-125%	---	---	
Fluorene	884	2.33	4.66	"	"	"	ND	95	20-125%	---	---	
Indeno(1,2,3-cd)pyrene	1020	2.33	4.66	"	"	"	197	88	40-125%	---	---	
1-Methylnaphthalene	811	4.66	9.33	"	"	"	ND	87	45-125%	---	---	
2-Methylnaphthalene	832	4.66	9.33	"	"	"	ND	89	"	---	---	
Naphthalene	803	4.66	9.33	"	"	"	ND	86	40-125%	---	---	
Phenanthrene	894	2.33	4.66	"	"	"	11.8	95	50-125%	---	---	
Pyrene	985	2.33	4.66	"	"	"	57.1	100	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 87 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*93 %*	*30-120 %*			*"*					

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301260 - PSEP Solids in Soil/Sediment									**Sediment**			
Duplicate (1301260-DUP1)					Prepared: 01/14/13 10:35		Analyzed: 01/15/13 13:00					
QC Source Sample: Other (A13A229-01)												
SM 2540 G												
Total Solids	**72.5**	1.00	1.00	% by Weight	1	---	72.5	---	---	0	20%	
Duplicate (1301260-DUP2)					Prepared: 01/14/13 10:35		Analyzed: 01/15/13 13:00					
QC Source Sample: AQ-SSA4-24-0-1 (A13A243-01)												
SM 2540 G												
Total Solids	**83.6**	1.00	1.00	% by Weight	1	---	83.1	---	---	0.6	20%	

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301280 - PSEP TOC							**Soil**					
Blank (1301280-BLK1)					Prepared: 01/14/13 15:35 Analyzed: 01/16/13 16:00							
PSEP/SM 5310B MOD												
Total Organic Carbon	ND	100	200	mg/kg	1	---	---	---	---	---	---	
LCS (1301280-BS1)					Prepared: 01/14/13 15:35 Analyzed: 01/16/13 16:00							
PSEP/SM 5310B MOD												
Total Organic Carbon	9600			mg/kg	1	10000	---	96	85-115%	---	---	
Duplicate (1301280-DUP1)					Prepared: 01/14/13 15:35 Analyzed: 01/16/13 16:00							
QC Source Sample: AQ-SSA4-24-0-1 (A13A243-01)												
PSEP/SM 5310B MOD												
Total Organic Carbon	**1100**	100	200	mg/kg	1	---	590	---	---	60	20%	Q-01

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1301260 - PSEP Solids in Soil/Sediment											**Sediment**	
Duplicate (1301260-DUP1)					Prepared: 01/14/13 10:35		Analyzed: 01/15/13 15:07					
QC Source Sample: Other (A13A229-01)												
Apex SOP												
% Solids	**72.5**	1.00	1.00	% by Weight	1	---	72.5	---	---	0	20%	
Duplicate (1301260-DUP2)					Prepared: 01/14/13 10:35		Analyzed: 01/15/13 15:07					
QC Source Sample: AQ-SSA4-24-0-1 (A13A243-01)												
Apex SOP												
% Solids	**83.6**	1.00	1.00	% by Weight	1	---	83.1	---	---	0.6	20%	

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1301407							
A13A243-18	Water	EPA 8270D (SIM)	01/11/13 14:30	01/18/13 10:56	470mL/1mL	1000mL/1mL	2.13

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1301443							
A13A243-05	Soil	EPA 8270D (SIM)	01/11/13 12:20	01/21/13 12:50	11.22g/2mL	10g/2mL	0.89
A13A243-05RE1	Soil	EPA 8270D (SIM)	01/11/13 12:20	01/21/13 12:50	11.22g/2mL	10g/2mL	0.89
A13A243-08	Soil	EPA 8270D (SIM)	01/11/13 12:55	01/21/13 12:50	11.55g/2mL	10g/2mL	0.87
A13A243-08RE1	Soil	EPA 8270D (SIM)	01/11/13 12:55	01/21/13 12:50	11.55g/2mL	10g/2mL	0.87
A13A243-11	Soil	EPA 8270D (SIM)	01/11/13 12:55	01/21/13 12:50	10.75g/2mL	10g/2mL	0.93
A13A243-11RE1	Soil	EPA 8270D (SIM)	01/11/13 12:55	01/21/13 12:50	10.75g/2mL	10g/2mL	0.93
A13A243-12	Soil	EPA 8270D (SIM)	01/11/13 13:00	01/21/13 12:50	10.53g/2mL	10g/2mL	0.95
A13A243-15	Soil	EPA 8270D (SIM)	01/11/13 13:35	01/21/13 12:50	12.51g/2mL	10g/2mL	0.80
A13A243-15RE1	Soil	EPA 8270D (SIM)	01/11/13 13:35	01/21/13 12:50	12.51g/2mL	10g/2mL	0.80
Batch: 1301478							
A13A243-01RE1	Soil	EPA 8270D (SIM)	01/11/13 11:50	01/22/13 16:04	11.58g/2mL	10g/2mL	0.86
A13A243-02RE1	Soil	EPA 8270D (SIM)	01/11/13 11:52	01/22/13 16:04	10.62g/2mL	10g/2mL	0.94
A13A243-06RE1	Soil	EPA 8270D (SIM)	01/11/13 12:23	01/22/13 16:04	10.29g/2mL	10g/2mL	0.97
A13A243-09RE1	Soil	EPA 8270D (SIM)	01/11/13 13:00	01/22/13 16:04	11.29g/2mL	10g/2mL	0.89
A13A243-14RE1	Soil	EPA 8270D (SIM)	01/11/13 13:30	01/22/13 16:04	11.12g/2mL	10g/2mL	0.90

Conventional Chemistry Parameters

Prep: PSEP Solids in Soil/Sediment

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1301260							
A13A243-01	Soil	SM 2540 G	01/11/13 11:50	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA
A13A243-02	Soil	SM 2540 G	01/11/13 11:52	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA
A13A243-05	Soil	SM 2540 G	01/11/13 12:20	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA
A13A243-06	Soil	SM 2540 G	01/11/13 12:23	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA
A13A243-08	Soil	SM 2540 G	01/11/13 12:55	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA
A13A243-09	Soil	SM 2540 G	01/11/13 13:00	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA
A13A243-11	Soil	SM 2540 G	01/11/13 12:55	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA
A13A243-12	Soil	SM 2540 G	01/11/13 13:00	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA
A13A243-14	Soil	SM 2540 G	01/11/13 13:30	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA
A13A243-15	Soil	SM 2540 G	01/11/13 13:35	01/14/13 10:35	1N/A/1N/A	1N/A/1N/A	NA

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Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Prep: PSEP Solids in Soil/Sediment

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor

Prep: PSEP TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1301280							
A13A243-01	Soil	PSEP/SM 5310B MOD	01/11/13 11:50	01/14/13 15:35	5g/5g	5g/5g	NA
A13A243-02	Soil	PSEP/SM 5310B MOD	01/11/13 11:52	01/14/13 15:35	5g/5g	5g/5g	NA
A13A243-05	Soil	PSEP/SM 5310B MOD	01/11/13 12:20	01/14/13 15:35	5g/5g	5g/5g	NA
A13A243-06	Soil	PSEP/SM 5310B MOD	01/11/13 12:23	01/14/13 15:35	5g/5g	5g/5g	NA
A13A243-08	Soil	PSEP/SM 5310B MOD	01/11/13 12:55	01/14/13 15:35	5g/5g	5g/5g	NA
A13A243-09	Soil	PSEP/SM 5310B MOD	01/11/13 13:00	01/14/13 15:35	5g/5g	5g/5g	NA
A13A243-11	Soil	PSEP/SM 5310B MOD	01/11/13 12:55	01/14/13 15:35	5g/5g	5g/5g	NA
A13A243-12	Soil	PSEP/SM 5310B MOD	01/11/13 13:00	01/14/13 15:35	5g/5g	5g/5g	NA
A13A243-14	Soil	PSEP/SM 5310B MOD	01/11/13 13:30	01/14/13 15:35	5g/5g	5g/5g	NA
A13A243-15	Soil	PSEP/SM 5310B MOD	01/11/13 13:35	01/14/13 15:35	5g/5g	5g/5g	NA

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

Notes and Definitions

Qualifiers:

B	Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-01	Percent recovery and/or RPD is outside acceptance limits.
Q-03	Percent recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-17	RPD between original and duplicate sample is outside of established control limits.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-26	Peak separation for Benzo(b) and Benzo(k)fluoranthenes does not meet method specified criteria. Reported result includes the combined area of the two isomers and should be considered the total of Benzo(b+k)Fluoranthenes.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

A13A243

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

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720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

Julia Labadie (360) 715 2708 jlabadie@anchorqea.com

TAT: 7-10 business days (standard) AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com Page 1 of 2

Lab Contact: Darwin Thomas	Project: Former Reynolds Metals Reduction Plant RI/FS
Lab: APEX Laboratories	Project No.: 110730-02.01
Address: 12232 SW Garden Place	Sampler(s): JL, [illegible]
City, State, Zip: : Tigard, OR 97223	Shipping Method: Courier
Phone: 503.718.2323	
Darwin Mobile: 503.784.7477	

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	Analyses Requested: Fluoride	Cyanide (WAD and Total)	Total Metals (13 PP – see note)	TCLP Metals (13 PP – see note)	SIM PAHs	SVOCs	PCB Aroclors (Low Level)	Sb, As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn	Total Solids, TOC	VOCs	NWTPH-Dx	HOLD
AQ-SSAU-24-0-1	1/11/2013	1150	SO	2					X				X			
AQ-SSAU-24-1-2		1152		2					X				X			
AQ-SSAU-24-2-3		1155		2												X
AQ-SSAU-24-3-4		1158		2												X
AQ-SSAU-25-0-1		1220		2					X				X			
AQ-SSAU-25-1-2		1223		2					X				X			
AQ-SSAU-25-2-3		1225		2												X
AQ-SSAU-26-0-1		1255		2					X				X			
AQ-SSAU-26-1-2		1300		2					X				X			
AQ-SSAU-26-2-3		1305		2												X
AQ-SSAU-76-0-1		1295		2					X				X			
AQ-SSAU-76-1-2		1300		2					X				X			
AQ-SSAU-76-2-3		1305		2												X
AQ-SSAU-27-0-1		1330		2					X				X			
AQ-SSAU-27-1-2		1335		2					X				X			

Relinquished: (Signature)	Relinquished: (Signature)	Relinquished: (Signature)	Special Instructions/Notes:
Printed Name: Julia Labadie	Printed Name:	Printed Name:	~~Total and TCLP Metals include the 13 Priority Pollutant Metals: Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn~~ 6
Company: Anchor QEA, LLC	Company:	Company:	
Date/Time: 1/11/2013 1510	Date/Time:	Date/Time:	
Received By:	Received By:	Received By:	
Printed Name: Cam O'Brien	Printed Name:	Printed Name:	
Company: Apex	Company:	Company:	# of Coolers: 2 / Cooler Temp(s):
Date/Time: 1/11/13 1510	Date/Time:	Date/Time:	COC Seals Intact? / Bottles Intact? ✓

Apex Laboratories

Darwin Thomas

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

A13A243

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

TAT: 7-10 business days (standard) AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com Page 2 of 2

Lab Contact: Darwin Thomas	Project: Former Reynolds Metals Reduction Plant RI/FS
Lab: APEX Laboratories	Project No.: 110730-02.01
Address: 12232 SW Garden Place	Sampler(s): JLM
City, etc: : Tigard, OR 97223	Shipping Method: Courier
Phone: 503.718.2323	
Darwin Mobile: 503.784.7477	

Analyses Requested

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	PAHs – SIM PAHs	HOLD	TS, TOC
AQ-SSA4-27-2-3	1/11/2013	1340	SO	2		X	
AQ-SSA4-27-34	1/11/2013	1345	SO	2		X	
AQ-SSA4-RB-011113	1/11/2013	1430	WQ	4	X		

Relinquished: (Signature)	Relinquished: (Signature)	Relinquished: (Signature)	Special Instructions/Notes:	
Printed Name: Julia Labadie	Printed Name:	Printed Name:		
Company: Anchor QEA, LLC	Company:	Company:		
Date/Time: 1/11/2013	Date/Time:	Date/Time:		
Received By:	Received By:	Received By:		
Printed Name: Dan O Brien	Printed Name:	Printed Name:		
Company: Apex	Company:	Company:	# of Coolers: 2	Cooler Temp(s):
Date/Time: 1/11/13 1510	Date/Time:	Date/Time:	COC Seals Intact?	Bottles Intact?

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Anchor QEA, LLC Tigard	Project: **Former Reynolds Metals Reduction Plant RI/FS-sed**	
6650 SW Redwood Lane Ste. 333	Project Number: 110730-02.01	**Reported:**
Portland, OR 97224	Project Manager: Cindy Fields	02/06/13 13:31

APEX LABS COOLER RECEIPT FORM

Client: Anchor - Seattle Element WO#: A13 A243

Project/Project #: Former Reynolds

Delivery info:

Date/Time Received: 1/18/13 @ 1510 By: COC

Delivered by: Apex Courier X Client ___FedEx ___UPS ___Swift ___Senvoy ___SDS ___Other ___

Cooler Inspection Inspected by: COC @ 1843

Chain of Custody Included? Yes X No ___

Signed/Dated by Client? Yes X No ___

Signed/Dated by Apex? Yes Y No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (deg. C)	1.4	1.6					
Received on Ice? (Y/N)	→						
Temp. Blanks? (Y/N)	→						
Ice Type: (Gel/Real/Other)	→						
Condition:	good →						

Cooler out of temp? (Y/N) Possible reason why: ___

If some coolers are in temp and some out, were green dot applied to out of temperature samples Yes/No/NA

Samples Inspection: Inspected by: LB @ 955

All Samples Intact? Yes X No ___ Comments: ___

Bottle Labels/COCs agree? Yes X No ___ Comments: ___

Containers Appropriate for Analysis? Yes X No ___ Comments: ___

Do VOA Vials have Visible Headspace? Yes ___ No ___ NA X

Comments ___

Water Samples: pH Checked and Appropriate (except VOAs): Yes ___ No ___ NA X

Comments: ___

Additional Information: ___

Labeled by: ES See Project Contact Form: Y

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Sample Receipt Documentation

(Work orders, Chain of Custody & Cooler Receipt Forms)

A13A243

Apex Laboratories

Client:	**Anchor QEA, LLC Tigard**	**Project Manager:**	**Darwin Thomas**
Project:	**Former Reynolds Metals Reduction Plant RI/FS-sed**	**Project Number:**	**110730-02.01**

Report To:

Anchor QEA, LLC Tigard
Cindy Fields
6650 SW Redwood Lane Ste. 333
Portland, OR 97224
Phone: (503) 670-1108
Fax: na

Invoice To:

Anchor QEA, LLC Tigard
Accounts Payable
6650 SW Redwood Lane Ste. 333
Portland, OR 97224
Phone :(503) 670-1108
Fax: na

Date Due:	01/22/13 17:00 (7 day TAT)		
Received By:	Cameron L O'Brien	Date Received:	01/11/13 15:10
Logged In By:	Emily Swanson	Date Logged In:	01/12/13 10:18

Default Cooler received at 1.4°C

Custody Seals	No	Containers Intact	Yes	COC/Labels Agree	Yes	PH Confirmed	No	Received On Ice	Yes

Default Cooler received at 1.6°C

Custody Seals	No	Containers Intact	Yes	COC/Labels Agree	Yes	PH Confirmed	No	Received On Ice	Yes

Analysis	Due	TAT	Expires	Comments
A13A243-01 AQ-SSA4-24-0-1 [Soil] Sampled 01/11/13 11:50 2 Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 11:50	Total Solids result used for dry weight
Project Mgmt				
Data Package	01/22/13 17:00	7	04/20/13 11:50	
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 11:50	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 11:50	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 11:50	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 11:50	MDL--Freeze upon reciept
A13A243-02 AQ-SSA4-24-1-2 [Soil] Sampled 01/11/13 11:52 2 Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 11:52	Total Solids result used for dry weight
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 11:52	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 11:52	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 11:52	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 11:52	MDL--Freeze upon reciept

A13A243

Apex Laboratories

Client:	**Anchor QEA, LLC Tigard**	**Project Manager:**	**Darwin Thomas**
Project:	**Former Reynolds Metals Reduction Plant RI/FS-sed**	**Project Number:**	**110730-02.01**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A13A243-03 AQ-SSA4-24-2-3 [Soil] Sampled 01/11/13 11:55		**2**		**hold**
Containers				
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 11:55	
A13A243-04 AQ-SSA4-24-3-4 [Soil] Sampled 01/11/13 11:58		**2**		**hold**
Containers				
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 11:58	
A13A243-05 AQ-SSA4-25-0-1 [Soil] Sampled 01/11/13 12:20		**2**		
Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 12:20	Total Solids result used for dry weight
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 12:20	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 12:20	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 12:20	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 12:20	MDL--Freeze upon reciept
A13A243-06 AQ-SSA4-25-1-2 [Soil] Sampled 01/11/13 12:23		**2**		
Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 12:23	Total Solids result used for dry weight
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 12:23	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 12:23	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 12:23	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 12:23	MDL--Freeze upon reciept
A13A243-07 AQ-SSA4-25-2-3 [Soil] Sampled 01/11/13 12:25		**2**		**hold**
Containers				
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 12:25	

A13A243

Apex Laboratories

Client:	**Anchor QEA, LLC Tigard**	**Project Manager:**	**Darwin Thomas**
Project:	**Former Reynolds Metals Reduction Plant RI/FS-sed**	**Project Number:**	**110730-02.01**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A13A243-08 AQ-SSA4-26-0-1 [Soil] Sampled 01/11/13 12:55		**2**		
Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 12:55	Total Solids result used for dry weight
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 12:55	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 12:55	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 12:55	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 12:55	MDL--Freeze upon reciept
A13A243-09 AQ-SSA4-26-1-2 [Soil] Sampled 01/11/13 13:00		**2**		
Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 13:00	Total Solids result used for dry weight
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 13:00	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 13:00	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 13:00	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 13:00	MDL--Freeze upon reciept
A13A243-10 AQ-SSA4-26-2-3 [Soil] Sampled 01/11/13 13:05		**2**		**hold**
Containers				
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 13:05	
A13A243-11 AQ-SSA4-76-0-1 [Soil] Sampled 01/11/13 12:55		**2**		
Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 12:55	Total Solids result used for dry weight
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 12:55	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 12:55	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 12:55	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 12:55	MDL--Freeze upon reciept

A13A243

Apex Laboratories

Client:	**Anchor QEA, LLC Tigard**	**Project Manager:**	**Darwin Thomas**
Project:	**Former Reynolds Metals Reduction Plant RI/FS-sed**	**Project Number:**	**110730-02.01**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A13A243-12 AQ-SSA4-76-1-2 [Soil] Sampled 01/11/13 13:00		**2**		
Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 13:00	Total Solids result used for dry weight
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 13:00	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 13:00	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 13:00	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 13:00	MDL--Freeze upon reciept
A13A243-13 AQ-SSA4-76-2-3 [Soil] Sampled 01/11/13 13:05		**2**		**hold**
Containers				
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 13:05	
A13A243-14 AQ-SSA4-27-0-1 [Soil] Sampled 01/11/13 13:30		**2**		
Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 13:30	Total Solids result used for dry weight
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 13:30	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 13:30	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 13:30	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 13:30	MDL--Freeze upon reciept
A13A243-15 AQ-SSA4-27-1-2 [Soil] Sampled 01/11/13 13:35		**2**		
Containers				
Dry Weight				
Dry Weight	01/16/13 17:00	3	07/10/13 13:35	Total Solids result used for dry weight
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 13:35	
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/25/13 13:35	MDL
Wet Chem				
Solids, Total (SM 2540 G)	01/22/13 17:00	7	07/10/13 13:35	Used for DW result
Total Organic Carbon - Sediment (PSEP)	01/22/13 17:00	7	01/25/13 13:35	MDL--Freeze upon reciept

A13A243

Apex Laboratories

Client:	**Anchor QEA, LLC Tigard**	**Project Manager:**	**Darwin Thomas**
Project:	**Former Reynolds Metals Reduction Plant RI/FS-sed**	**Project Number:**	**110730-02.01**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A13A243-16 AQ-SSA4-27-2-3 [Soil] Sampled 01/11/13 13:40 2 Containers				**hold**
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 13:40	
A13A243-17 AQ-SSA4-27-3-4 [Soil] Sampled 01/11/13 13:45 2 Containers				**hold**
Sample Control				
Freeze Samples	01/22/13 17:00	7	01/18/13 13:45	
A13A243-18 AQ-SSA4-RB-011113 [Water] Sampled 01/11/13 14:30 4 Containers				
Semivols (SIM)				
8270 SIM PAH (Low Level)	01/22/13 17:00	7	01/18/13 14:30	MDL

Reviewed By

Date

A13A243

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

Julia Labadie (360) 715 2708 jlabadie@anchorqea.com

TAT: 7-10 business days (standard) **AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com** Page 1 of 2

Lab Contact: **Darwin Thomas**	Project: **Former Reynolds Metals Reduction Plant RI/FS**
Lab: **APEX Laboratories**	
Address: **12232 SW Garden Place**	Project No.: **110730-02.01**
City, State, Zip: **: Tigard, OR 97223**	Sampler(s): **JL, [illegible]**
Phone: **503.718.2323**	Shipping Method: **Courier**
Darwin Mobile: **503.784.7477**	

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	Fluoride	Cyanide (WAD and Total)	Total Metals (13 PP – see note)	TCLP Metals (13 PP – see note)	SIM PAHs	SVOCs	PCB Aroclors (Low Level)	Sb, As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn	Total Solids, TOC	VOCs	NWTPH-Dx	HOLD
AQ-SSAU-24-0-1	1/11/2013	1150	SO	2					X				X			
AQ-SSAU-24-1-2		1152		2					X				X			
AQ-SSAU-24-2-3		1155		2												X
AQ-SSAU-24-3-4		1158		2												X
AQ-SSAU-25-0-1		1220		2					X				X			
AQ-SSAU-25-1-2		1223		2					X				X			
AQ-SSAU-25-2-3		1225		2												X
AQ-SSAU-26-0-1		1255		2					X				X			
AQ-SSAU-26-1-2		1300		2					X				X			
AQ-SSAU-26-2-3		1305		2												X
AQ-SSAU-76-0-1		1255		2					X				X			
AQ-SSAU-76-1-2		1300		2					X				X			
AQ-SSAU-76-2-3		1305		2												X
AQ-SSAU-27-0-1		1330		2					X				X			
AQ-SSAU-27-1-2		1335		2					X				X			

Relinquished: (Signature)	Relinquished: (Signature)	Relinquished: (Signature)	Special Instructions/Notes: ~~Total and TCLP Metals include the 13 Priority Pollutant Metals: Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn~~
Printed Name: Julia Labadie	Printed Name:	Printed Name:	
Company: Anchor QEA, LLC	Company:	Company:	
Date/Time: 1/11/2013 1510	Date/Time:	Date/Time:	
Received By:	Received By:	Received By:	
Printed Name: Con O'Brien	Printed Name:	Printed Name:	
Company: Apex	Company:	Company:	# of Coolers: 2 / Cooler Temp(s):
Date/Time: 1/11/13 1510	Date/Time:	Date/Time:	COC Seals Intact? / Bottles Intact? ✓

A13A243

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

TAT: 7-10 business days (standard) **AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com**

Lab Contact: **Darwin Thomas**	Project: **Former Reynolds Metals Reduction Plant RI/FS**
Lab: **APEX Laboratories**	
Address: **12232 SW Garden Place**	Project No.: **110730-02.01**
City, etc: **: Tigard, OR 97223**	Sampler(s): **JL**
Phone: **503.718.2323**	Shipping Method: **Courier**
Darwin Mobile: **503.784.7477**	

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	PAHs – SIM PAHs	HOLD	TS, TOC
AQ-SSAY-27-2-3	1/11/2013	1340	SO	2		X	
AQ-SSAY-27-34	1/11/2013	1345	SO	2		X	
AQ-SSAY-RB-011113	1/11/2013	1430	WQ	4	X		

Relinquished: (Signature)	Relinquished: (Signature)	Relinquished: (Signature)	Special Instructions/Notes:
Printed Name: Julia Labadie	Printed Name:	Printed Name:	
Company: Anchor QEA, LLC	Company:	Company:	
Date/Time: 1/11/2013	Date/Time:	Date/Time:	
Received By:	Received By:	Received By:	
Printed Name: Cam O Brien	Printed Name:	Printed Name:	
Company: Apex	Company:	Company:	# of Coolers: 2 / Cooler Temp(s):
Date/Time: 1/11/13 1510	Date/Time:	Date/Time:	COC Seals Intact? / Bottles Intact?

APEX LABS COOLER RECEIPT FORM

Client: Anchor - Seattle Element WO#: A13 A2477

Project/Project #: Former Reynolds

Delivery info:

Date/Time Received: 1/11/13 @ 1510 By: COB

Delivered by: Apex Courier X Client ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___

Cooler Inspection Inspected by: COB @ 1843

Chain of Custody Included? Yes X No ___

Signed/Dated by Client? Yes X No ___

Signed/Dated by Apex? Yes Y No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (deg. C)	1.4	1.6					
Received on Ice? (Y/N)	→						
Temp. Blanks? (Y/N)	→						
Ice Type: (Gel/Real/Other)	→						
Condition:	good →						

Cooler out of temp? (Y/N) Possible reason why: ___

If some coolers are in temp and some out, were green dot applied to out of temperature samples Yes/No/NA

Samples Inspection: Inspected by: LR @ 955

All Samples Intact? Yes X No ___ Comments: ___

Bottle Labels/COCs agree? Yes X No ___ Comments: ___

Containers Appropriate for Analysis? Yes X No ___ Comments: ___

Do VOA Vials have Visible Headspace? Yes ___ No ___ NA X

Comments ___

Water Samples: pH Checked and Appropriate (except VOAs): Yes ___ No ___ NA X

Comments: ___

Additional Information: ___

Labeled by: ES See Project Contact Form: Y

APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

CLP-Like Forms

Apex Laboratories

SDG: A13A243

CLASS: GCMS

METHOD: EPA 8270D (SIM)

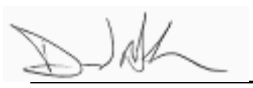
ANALYSES DATA PACKAGE COVER PAGE

EPA 8270D (SIM)

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed

Client Sample Id:	Lab Sample Id:	Matrix
AQ-SSA4-24-0-1	A13A243-01	Soil
AQ-SSA4-24-1-2	A13A243-02	Soil
AQ-SSA4-25-0-1	A13A243-05	Soil
AQ-SSA4-25-1-2	A13A243-06	Soil
AQ-SSA4-26-0-1	A13A243-08	Soil
AQ-SSA4-26-1-2	A13A243-09	Soil
AQ-SSA4-76-0-1	A13A243-11	Soil
AQ-SSA4-76-1-2	A13A243-12	Soil
AQ-SSA4-27-0-1	A13A243-14	Soil
AQ-SSA4-27-1-2	A13A243-15	Soil
AQ-SSA4-RB-011113	A13A243-18	Water

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 2/13/2013 10:22AM
Title: Technical Director

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D (SIM)

Laboratory: Apex Laboratories **SDG:** A13A243

Client: Anchor QEA, LLC Tigard **Project:** Former Reynolds Metals Reduction Plant R

Matrix: Soil

Analyte	MDL	MRL	Units
Acenaphthene	---	4.00	ug/kg
Acenaphthylene	---	4.00	ug/kg
Anthracene	---	4.00	ug/kg
Benz(a)anthracene	---	4.00	ug/kg
Benzo(a)pyrene	---	4.00	ug/kg
Benzo(b)fluoranthene	---	4.00	ug/kg
Benzo(k)fluoranthene	---	4.00	ug/kg
Benzo(b+k)fluoranthene(s)	---	8.00	ug/kg
Benzo(g,h,i)perylene	---	4.00	ug/kg
Chrysene	---	4.00	ug/kg
Dibenz(a,h)anthracene	---	4.00	ug/kg
Dibenzofuran	---	4.00	ug/kg
Fluoranthene	---	4.00	ug/kg
Fluorene	---	4.00	ug/kg
Indeno(1,2,3-cd)pyrene	---	4.00	ug/kg
1-Methylnaphthalene	---	8.00	ug/kg
2-Methylnaphthalene	---	8.00	ug/kg
Naphthalene	---	8.00	ug/kg
Phenanthrene	---	4.00	ug/kg
Pyrene	---	4.00	ug/kg

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D (SIM)

Laboratory: Apex Laboratories **SDG:** A13A243

Client: Anchor QEA, LLC Tigard **Project:** Former Reynolds Metals Reduction Plant R

Matrix: Water

Analyte	MDL	MRL	Units
Acenaphthene	---	0.0200	ug/L
Acenaphthylene	---	0.0200	ug/L
Anthracene	---	0.0200	ug/L
Benz(a)anthracene	---	0.0200	ug/L
Benzo(a)pyrene	---	0.0200	ug/L
Benzo(b)fluoranthene	---	0.0200	ug/L
Benzo(k)fluoranthene	---	0.0200	ug/L
Benzo(b+k)fluoranthene(s)	---	0.0400	ug/L
Benzo(g,h,i)perylene	---	0.0200	ug/L
Chrysene	---	0.0200	ug/L
Dibenz(a,h)anthracene	---	0.0200	ug/L
Dibenzofuran	---	0.0200	ug/L
Fluoranthene	---	0.0200	ug/L
Fluorene	---	0.0200	ug/L
Indeno(1,2,3-cd)pyrene	---	0.0200	ug/L
1-Methylnaphthalene	---	0.0400	ug/L
2-Methylnaphthalene	---	0.0400	ug/L
Naphthalene	---	0.0400	ug/L
Phenanthrene	---	0.0200	ug/L
Pyrene	---	0.0200	ug/L

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-24-0-1

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-01RE1	File ID:	D3012306.D
Sampled:	01/11/13 11:50	Prepared:	01/22/13 16:04	Analyzed:	01/23/13 11:31
Solids:	83.14	Preparation:	EPA 3546	Initial/Final:	11.58 g / 2 mL
Batch:	1301478	Sequence:	3A23005	Calibration:	A3A1601
Instrument:	SV-GCMS4				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	4.15	U
208-96-8	Acenaphthylene	1	4.15	U
120-12-7	Anthracene	1	4.15	U
56-55-3	Benz(a)anthracene	1	9.23	
50-32-8	Benzo(a)pyrene	1	12.2	
	Benzo(b+k)fluoranthene(s)	1	37.2	
191-24-2	Benzo(g,h,i)perylene	1	36.1	
218-01-9	Chrysene	1	22.6	
53-70-3	Dibenz(a,h)anthracene	1	4.15	U
132-64-9	Dibenzofuran	1	4.15	U
206-44-0	Fluoranthene	1	14.1	
86-73-7	Fluorene	1	4.15	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	20.3	
90-12-0	1-Methylnaphthalene	1	8.31	U
91-57-6	2-Methylnaphthalene	1	8.31	U
91-20-3	Naphthalene	1	8.31	U
85-01-8	Phenanthrene	1	4.83	
129-00-0	Pyrene	1	16.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	519	434	84	45 - 120	
p-Terphenyl-d14 (Surr)	519	532	102	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	851928	5.3	929742	5.3	
Acenaphthene-d10 (ISTD)	374518	6.98	413147	6.98	
Phenanthrene-d10 (ISTD)	481250	8.43	543406	8.43	
Chrysene-d12 (ISTD)	333552	11.08	348476	11.08	
Perylene-d12 (ISTD)	301713	13.33	298705	13.33	
Dibenz(a,h)anthracene-d14 (ISTD)	216355	15.49	204301	15.49	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-24-1-2

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-02RE1	File ID:	D3012308.D
Sampled:	01/11/13 11:52	Prepared:	01/22/13 16:04	Analyzed:	01/23/13 12:23
Solids:	81.43	Preparation:	EPA 3546	Initial/Final:	10.62 g / 2 mL
Batch:	1301478	Sequence:	3A23005	Calibration:	A3A1601	Instrument:	SV-GCMS4

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	4.63	U
208-96-8	Acenaphthylene	1	4.63	U
120-12-7	Anthracene	1	4.63	U
56-55-3	Benz(a)anthracene	1	4.63	U
50-32-8	Benzo(a)pyrene	1	4.63	U
205-99-2	Benzo(b)fluoranthene	1	4.63	U
207-08-9	Benzo(k)fluoranthene	1	4.63	U
191-24-2	Benzo(g,h,i)perylene	1	8.07	
218-01-9	Chrysene	1	4.63	U
53-70-3	Dibenz(a,h)anthracene	1	4.63	U
132-64-9	Dibenzofuran	1	4.63	U
206-44-0	Fluoranthene	1	4.63	U
86-73-7	Fluorene	1	4.63	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	4.63	U
90-12-0	1-Methylnaphthalene	1	9.25	U
91-57-6	2-Methylnaphthalene	1	9.25	U
91-20-3	Naphthalene	1	9.25	U
85-01-8	Phenanthrene	1	4.63	U
129-00-0	Pyrene	1	4.63	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	578	483	84	45 - 120	
p-Terphenyl-d14 (Surr)	578	573	99	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	860842	5.3	929742	5.3	
Acenaphthene-d10 (ISTD)	380007	6.98	413147	6.98	
Phenanthrene-d10 (ISTD)	495152	8.43	543406	8.43	
Chrysene-d12 (ISTD)	347288	11.08	348476	11.08	
Perylene-d12 (ISTD)	314023	13.33	298705	13.33	
Dibenz(a,h)anthracene-d14 (ISTD)	220847	15.49	204301	15.49	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-25-0-1

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-05	File ID:	F3012112.D
Sampled:	01/11/13 12:20	Prepared:	01/21/13 12:50	Analyzed:	01/21/13 18:43
Solids:	87.90	Preparation:	EPA 3546	Initial/Final:	11.22 g / 2 mL
Batch:	1301443	Sequence:	3A21005	Calibration:	A2L2701
Instrument:	SV-GCMS6				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	5	20.3	DU
208-96-8	Acenaphthylene	5	20.3	DU
120-12-7	Anthracene	5	69.0	D
56-55-3	Benz(a)anthracene	5	3480	D
50-32-8	Benzo(a)pyrene	5	7120	D
53-70-3	Dibenz(a,h)anthracene	5	2240	D
132-64-9	Dibenzofuran	5	20.3	DU
206-44-0	Fluoranthene	5	3080	D
86-73-7	Fluorene	5	20.3	DU
193-39-5	Indeno(1,2,3-cd)pyrene	5	7090	D
90-12-0	1-Methylnaphthalene	5	40.6	DU
91-57-6	2-Methylnaphthalene	5	40.6	DU
91-20-3	Naphthalene	5	40.6	DU
85-01-8	Phenanthrene	5	399	D
129-00-0	Pyrene	5	3470	BD

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	507	421	83	45 - 120	
p-Terphenyl-d14 (Surr)	507	507	100	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	886442	5.33	851550	5.33	
Acenaphthene-d10 (ISTD)	422534	7.02	429042	7.02	
Phenanthrene-d10 (ISTD)	677357	8.46	714822	8.46	
Chrysene-d12 (ISTD)	641065	11.11	634011	11.11	
Perylene-d12 (ISTD)	587817	13.36	515041	13.36	
Dibenz(a,h)anthracene-d14 (ISTD)	491600	15.55	376881	15.54	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-25-0-1

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-05RE1	File ID:	F3012204.D
Sampled:	01/11/13 12:20	Prepared:	01/21/13 12:50	Analyzed:	01/22/13 10:46
Solids:	87.90	Preparation:	EPA 3546	Initial/Final:	11.22 g / 2 mL
Batch:	1301443	Sequence:	3A22002	Calibration:	A2L2701
Instrument:	SV-GCMS6				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
	Benzo(b+k)fluoranthene(s)	100	17600	D
191-24-2	Benzo(g,h,i)perylene	100	8330	D
218-01-9	Chrysene	100	7690	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	886820	5.33	949891	5.33	
Acenaphthene-d10 (ISTD)	432088	7.02	469490	7.02	
Phenanthrene-d10 (ISTD)	688670	8.46	761907	8.46	
Chrysene-d12 (ISTD)	575306	11.11	650778	11.11	
Perylene-d12 (ISTD)	496142	13.35	542199	13.35	
Dibenz(a,h)anthracene-d14 (ISTD)	376680	15.53	412733	15.53	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-25-1-2

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-06RE1	File ID:	D3012309.D
Sampled:	01/11/13 12:23	Prepared:	01/22/13 16:04	Analyzed:	01/23/13 12:49
Solids:	82.52	Preparation:	EPA 3546	Initial/Final:	10.29 g / 2 mL
Batch:	1301478	Sequence:	3A23005	Calibration:	A3A1601
Instrument:	SV-GCMS4				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	4.71	U
208-96-8	Acenaphthylene	1	4.71	U
120-12-7	Anthracene	1	4.71	U
56-55-3	Benz(a)anthracene	1	18.3	
50-32-8	Benzo(a)pyrene	1	27.4	
	Benzo(b+k)fluoranthene(s)	1	72.4	
191-24-2	Benzo(g,h,i)perylene	1	33.9	
218-01-9	Chrysene	1	33.1	
53-70-3	Dibenz(a,h)anthracene	1	7.14	
132-64-9	Dibenzofuran	1	4.71	U
206-44-0	Fluoranthene	1	24.6	
86-73-7	Fluorene	1	4.71	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	28.9	
90-12-0	1-Methylnaphthalene	1	9.42	U
91-57-6	2-Methylnaphthalene	1	9.42	U
91-20-3	Naphthalene	1	9.42	U
85-01-8	Phenanthrene	1	9.75	
129-00-0	Pyrene	1	24.1	

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	589	522	89	45 - 120	
p-Terphenyl-d14 (Surr)	589	612	104	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	846423	5.3	929742	5.3	
Acenaphthene-d10 (ISTD)	373317	6.98	413147	6.98	
Phenanthrene-d10 (ISTD)	486376	8.43	543406	8.43	
Chrysene-d12 (ISTD)	343880	11.08	348476	11.08	
Perylene-d12 (ISTD)	311268	13.33	298705	13.33	
Dibenz(a,h)anthracene-d14 (ISTD)	221943	15.49	204301	15.49	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-26-0-1

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-08	File ID:	F3012114.D
Sampled:	01/11/13 12:55	Prepared:	01/21/13 12:50	Analyzed:	01/21/13 19:37
Solids:	85.50	Preparation:	EPA 3546	Initial/Final:	11.55 g / 2 mL
Batch:	1301443	Sequence:	3A21005	Calibration:	A2L2701
Instrument:	SV-GCMS6				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	4.05	U
208-96-8	Acenaphthylene	1	4.05	U
120-12-7	Anthracene	1	11.8	
56-55-3	Benz(a)anthracene	1	445	
50-32-8	Benzo(a)pyrene	1	913	
	Benzo(b+k)fluoranthene(s)	1	2880	
218-01-9	Chrysene	1	1470	
53-70-3	Dibenz(a,h)anthracene	1	405	
132-64-9	Dibenzofuran	1	4.05	U
206-44-0	Fluoranthene	1	384	
86-73-7	Fluorene	1	4.05	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1590	
90-12-0	1-Methylnaphthalene	1	8.10	U
91-57-6	2-Methylnaphthalene	1	8.10	U
91-20-3	Naphthalene	1	8.10	U
85-01-8	Phenanthrene	1	54.2	
129-00-0	Pyrene	1	430	B

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	506	435	86	45 - 120	
p-Terphenyl-d14 (Surr)	506	520	103	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	968707	5.33	851550	5.33	
Acenaphthene-d10 (ISTD)	464925	7.02	429042	7.02	
Phenanthrene-d10 (ISTD)	772509	8.46	714822	8.46	
Chrysene-d12 (ISTD)	733634	11.11	634011	11.11	
Perylene-d12 (ISTD)	694742	13.36	515041	13.36	
Dibenz(a,h)anthracene-d14 (ISTD)	614545	15.55	376881	15.54	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-26-0-1

Laboratory:	Apex Laboratories		SDG:	A13A243	
Client:	Anchor QEA, LLC Tigard		Project:	Former Reynolds Metals Reduction Plant RI/FS-sed	
Matrix:	Soil	Laboratory ID:	A13A243-08RE1	File ID:	F3012205.D
Sampled:	01/11/13 12:55	Prepared:	01/21/13 12:50	Analyzed:	01/22/13 11:14
Solids:	85.50	Preparation:	EPA 3546	Initial/Final:	11.55 g / 2 mL
Batch:	1301443	Sequence:	3A22002	Calibration:	A2L2701
Instrument:	SV-GCMS6				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
191-24-2	Benzo(g,h,i)perylene	20	2330	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	894664	5.33	949891	5.33	
Acenaphthene-d10 (ISTD)	426529	7.02	469490	7.02	
Phenanthrene-d10 (ISTD)	693267	8.46	761907	8.46	
Chrysene-d12 (ISTD)	577488	11.11	650778	11.11	
Perylene-d12 (ISTD)	497004	13.35	542199	13.35	
Dibenz(a,h)anthracene-d14 (ISTD)	377314	15.53	412733	15.53	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-26-1-2

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-09RE1	File ID:	D3012310.D
Sampled:	01/11/13 13:00	Prepared:	01/22/13 16:04	Analyzed:	01/23/13 13:15
Solids:	81.85	Preparation:	EPA 3546	Initial/Final:	11.29 g / 2 mL
Batch:	1301478	Sequence:	3A23005	Calibration:	A3A1601
Instrument:	SV-GCMS4				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	4.33	U
208-96-8	Acenaphthylene	1	4.33	U
120-12-7	Anthracene	1	4.33	U
56-55-3	Benz(a)anthracene	1	4.33	U
50-32-8	Benzo(a)pyrene	1	4.33	U
	Benzo(b+k)fluoranthene(s)	1	8.66	U
191-24-2	Benzo(g,h,i)perylene	1	7.92	
218-01-9	Chrysene	1	4.33	U
53-70-3	Dibenz(a,h)anthracene	1	4.33	U
132-64-9	Dibenzofuran	1	4.33	U
206-44-0	Fluoranthene	1	4.33	U
86-73-7	Fluorene	1	4.33	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	4.97	
90-12-0	1-Methylnaphthalene	1	8.66	U
91-57-6	2-Methylnaphthalene	1	8.66	U
91-20-3	Naphthalene	1	8.66	U
85-01-8	Phenanthrene	1	4.33	U
129-00-0	Pyrene	1	4.33	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	541	428	79	45 - 120	
p-Terphenyl-d14 (Surr)	541	502	93	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	882251	5.3	929742	5.3	
Acenaphthene-d10 (ISTD)	390304	6.98	413147	6.98	
Phenanthrene-d10 (ISTD)	518910	8.43	543406	8.43	
Chrysene-d12 (ISTD)	365783	11.08	348476	11.08	
Perylene-d12 (ISTD)	319421	13.33	298705	13.33	
Dibenz(a,h)anthracene-d14 (ISTD)	222301	15.48	204301	15.49	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-76-0-1

Laboratory: Apex Laboratories | SDG: A13A243

Client: Anchor QEA, LLC Tigard | Project: Former Reynolds Metals Reduction Plant RI/FS-sed

Matrix: Soil | Laboratory ID: A13A243-11 | File ID: F3012116.D

Sampled: 01/11/13 12:55 | Prepared: 01/21/13 12:50 | Analyzed: 01/21/13 20:32

Solids: 86.18 | Preparation: EPA 3546 | Initial/Final: 10.75 g / 2 mL

Batch: 1301443 | Sequence: 3A21005 | Calibration: A2L2701 | Instrument: SV-GCMS6

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	4.32	U
208-96-8	Acenaphthylene	1	4.32	U
120-12-7	Anthracene	1	8.53	
56-55-3	Benz(a)anthracene	1	320	
50-32-8	Benzo(a)pyrene	1	639	
	Benzo(b+k)fluoranthene(s)	1	2070	
218-01-9	Chrysene	1	936	
53-70-3	Dibenz(a,h)anthracene	1	294	
132-64-9	Dibenzofuran	1	4.32	U
206-44-0	Fluoranthene	1	274	
86-73-7	Fluorene	1	4.32	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1230	
90-12-0	1-Methylnaphthalene	1	8.64	U
91-57-6	2-Methylnaphthalene	1	8.64	U
91-20-3	Naphthalene	1	8.64	U
85-01-8	Phenanthrene	1	39.2	
129-00-0	Pyrene	1	310	B

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	540	451	84	45 - 120	
p-Terphenyl-d14 (Surr)	540	580	107	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	948660	5.33	851550	5.33	
Acenaphthene-d10 (ISTD)	450087	7.02	429042	7.02	
Phenanthrene-d10 (ISTD)	740177	8.46	714822	8.46	
Chrysene-d12 (ISTD)	662138	11.11	634011	11.11	
Perylene-d12 (ISTD)	618034	13.36	515041	13.36	
Dibenz(a,h)anthracene-d14 (ISTD)	518817	15.54	376881	15.54	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-76-0-1

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-11RE1	File ID:	F3012206.D
Sampled:	01/11/13 12:55	Prepared:	01/21/13 12:50	Analyzed:	01/22/13 11:42
Solids:	86.18	Preparation:	EPA 3546	Initial/Final:	10.75 g / 2 mL
Batch:	1301443	Sequence:	3A22002	Calibration:	A2L2701
Instrument:	SV-GCMS6				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
191-24-2	Benzo(g,h,i)perylene	10	2290	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	874413	5.33	949891	5.33	
Acenaphthene-d10 (ISTD)	425123	7.01	469490	7.02	
Phenanthrene-d10 (ISTD)	682139	8.46	761907	8.46	
Chrysene-d12 (ISTD)	571913	11.11	650778	11.11	
Perylene-d12 (ISTD)	500092	13.36	542199	13.35	
Dibenz(a,h)anthracene-d14 (ISTD)	383990	15.53	412733	15.53	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-76-1-2

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-12	File ID:	F3012117.D
Sampled:	01/11/13 13:00	Prepared:	01/21/13 12:50	Analyzed:	01/21/13 20:59
Solids:	81.31	Preparation:	EPA 3546	Initial/Final:	10.53 g / 2 mL
Batch:	1301443	Sequence:	3A21005	Calibration:	A2L2701 Instrument: SV-GCMS6

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	4.67	U
208-96-8	Acenaphthylene	1	4.67	U
120-12-7	Anthracene	1	4.67	U
56-55-3	Benz(a)anthracene	1	4.67	U
50-32-8	Benzo(a)pyrene	1	4.67	U
	Benzo(b+k)fluoranthene(s)	1	9.34	U
191-24-2	Benzo(g,h,i)perylene	1	15.5	
218-01-9	Chrysene	1	4.67	U
53-70-3	Dibenz(a,h)anthracene	1	4.67	U
132-64-9	Dibenzofuran	1	4.67	U
206-44-0	Fluoranthene	1	4.67	U
86-73-7	Fluorene	1	4.67	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	7.83	
90-12-0	1-Methylnaphthalene	1	9.34	U
91-57-6	2-Methylnaphthalene	1	9.34	U
91-20-3	Naphthalene	1	9.34	U
85-01-8	Phenanthrene	1	4.67	U
129-00-0	Pyrene	1	4.67	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	584	513	88	45 - 120	
p-Terphenyl-d14 (Surr)	584	658	113	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	991361	5.33	851550	5.33	
Acenaphthene-d10 (ISTD)	487358	7.02	429042	7.02	
Phenanthrene-d10 (ISTD)	798492	8.46	714822	8.46	
Chrysene-d12 (ISTD)	638098	11.1	634011	11.11	
Perylene-d12 (ISTD)	537890	13.35	515041	13.36	
Dibenz(a,h)anthracene-d14 (ISTD)	427635	15.53	376881	15.54	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-27-0-1

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-14RE1	File ID:	D3012311.D
Sampled:	01/11/13 13:30	Prepared:	01/22/13 16:04	Analyzed:	01/23/13 13:41
Solids:	83.60	Preparation:	EPA 3546	Initial/Final:	11.12 g / 2 mL
Batch:	1301478	Sequence:	3A23005	Calibration:	A3A1601
Instrument:	SV-GCMS4				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	4.30	U
208-96-8	Acenaphthylene	1	4.30	U
120-12-7	Anthracene	1	4.30	U
56-55-3	Benz(a)anthracene	1	61.1	
50-32-8	Benzo(a)pyrene	1	116	
	Benzo(b+k)fluoranthene(s)	1	403	
191-24-2	Benzo(g,h,i)perylene	1	262	
218-01-9	Chrysene	1	218	
53-70-3	Dibenz(a,h)anthracene	1	45.0	
132-64-9	Dibenzofuran	1	4.30	U
206-44-0	Fluoranthene	1	51.7	
86-73-7	Fluorene	1	4.30	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	197	
90-12-0	1-Methylnaphthalene	1	8.61	U
91-57-6	2-Methylnaphthalene	1	8.61	U
91-20-3	Naphthalene	1	8.61	U
85-01-8	Phenanthrene	1	11.8	
129-00-0	Pyrene	1	57.1	

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	538	464	86	45 - 120	
p-Terphenyl-d14 (Surr)	538	536	100	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	825651	5.3	929742	5.3	
Acenaphthene-d10 (ISTD)	349497	6.98	413147	6.98	
Phenanthrene-d10 (ISTD)	445867	8.43	543406	8.43	
Chrysene-d12 (ISTD)	321496	11.08	348476	11.08	
Perylene-d12 (ISTD)	291325	13.33	298705	13.33	
Dibenz(a,h)anthracene-d14 (ISTD)	218850	15.49	204301	15.49	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-27-1-2

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-15	File ID:	F3012119.D
Sampled:	01/11/13 13:35	Prepared:	01/21/13 12:50	Analyzed:	01/21/13 21:52
Solids:	86.94	Preparation:	EPA 3546	Initial/Final:	12.51 g / 2 mL
Batch:	1301443	Sequence:	3A21005	Calibration:	A2L2701
Instrument:	SV-GCMS6				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	5	18.4	DU
208-96-8	Acenaphthylene	5	23.8	D
120-12-7	Anthracene	5	67.9	D
56-55-3	Benz(a)anthracene	5	3320	D
50-32-8	Benzo(a)pyrene	5	6200	D
53-70-3	Dibenz(a,h)anthracene	5	2080	D
132-64-9	Dibenzofuran	5	18.4	DU
206-44-0	Fluoranthene	5	1480	D
86-73-7	Fluorene	5	18.4	DU
90-12-0	1-Methylnaphthalene	5	36.8	DU
91-57-6	2-Methylnaphthalene	5	36.8	DU
91-20-3	Naphthalene	5	36.8	DU
85-01-8	Phenanthrene	5	150	D
129-00-0	Pyrene	5	1830	BD

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	460	404	88	45 - 120	
p-Terphenyl-d14 (Surr)	460	464	101	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	949722	5.33	851550	5.33	
Acenaphthene-d10 (ISTD)	455884	7.02	429042	7.02	
Phenanthrene-d10 (ISTD)	741183	8.46	714822	8.46	
Chrysene-d12 (ISTD)	740571	11.11	634011	11.11	
Perylene-d12 (ISTD)	735027	13.36	515041	13.36	
Dibenz(a,h)anthracene-d14 (ISTD)	661229	15.56	376881	15.54	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-27-1-2

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	A13A243-15RE1	File ID:	F3012207.D
Sampled:	01/11/13 13:35	Prepared:	01/21/13 12:50	Analyzed:	01/22/13 12:09
Solids:	86.94	Preparation:	EPA 3546	Initial/Final:	12.51 g / 2 mL
Batch:	1301443	Sequence:	3A22002	Calibration:	A2L2701
Instrument:	SV-GCMS6				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
	Benzo(b+k)fluoranthene(s)	100	18400	D
191-24-2	Benzo(g,h,i)perylene	100	11700	D
218-01-9	Chrysene	100	16600	D
193-39-5	Indeno(1,2,3-cd)pyrene	100	8530	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	913707	5.33	949891	5.33	
Acenaphthene-d10 (ISTD)	429428	7.01	469490	7.02	
Phenanthrene-d10 (ISTD)	699140	8.46	761907	8.46	
Chrysene-d12 (ISTD)	583797	11.11	650778	11.11	
Perylene-d12 (ISTD)	500939	13.35	542199	13.35	
Dibenz(a,h)anthracene-d14 (ISTD)	375376	15.53	412733	15.53	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET
EPA 8270D (SIM)

AQ-SSA4-RB-011113

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Water	Laboratory ID:	A13A243-18	File ID:	F3011820.D
Sampled:	01/11/13 14:30	Prepared:	01/18/13 10:56	Analyzed:	01/18/13 21:37
		Preparation:	EPA 3510C (Acid Extraction	Initial/Final:	470 mL / 1 mL
Batch:	1301407	Sequence:	3A18003	Calibration:	A2L2701	Instrument:	SV-GCMS6

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
83-32-9	Acenaphthene	1	0.0426	U
208-96-8	Acenaphthylene	1	0.0426	U
120-12-7	Anthracene	1	0.0426	U
56-55-3	Benz(a)anthracene	1	0.0426	U
50-32-8	Benzo(a)pyrene	1	0.0426	U
205-99-2	Benzo(b)fluoranthene	1	0.0426	U
207-08-9	Benzo(k)fluoranthene	1	0.0426	U
191-24-2	Benzo(g,h,i)perylene	1	0.0426	U
218-01-9	Chrysene	1	0.0426	U
53-70-3	Dibenz(a,h)anthracene	1	0.0426	U
132-64-9	Dibenzofuran	1	0.0426	U
206-44-0	Fluoranthene	1	0.0426	U
86-73-7	Fluorene	1	0.0426	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.0426	U
90-12-0	1-Methylnaphthalene	1	0.0851	U
91-57-6	2-Methylnaphthalene	1	0.0851	U
91-20-3	Naphthalene	1	0.0851	U
85-01-8	Phenanthrene	1	0.0426	U
129-00-0	Pyrene	1	0.0426	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	10.6	7.29	69	25 - 120	
p-Terphenyl-d14 (Surr)	10.6	10.6	100	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	738145	5.33	672855	5.33	
Acenaphthene-d10 (ISTD)	376181	7.02	329278	7.02	
Phenanthrene-d10 (ISTD)	652121	8.47	559263	8.46	
Chrysene-d12 (ISTD)	668670	11.11	584130	11.11	
Perylene-d12 (ISTD)	537182	13.37	486310	13.36	
Dibenz(a,h)anthracene-d14 (ISTD)	350871	15.55	298789	15.54	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 8270D (SIM)

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Batch: 1301407 Batch Matrix: Water
Preparation: EPA 3510C (Acid Extraction)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	1301407-BLK1	F3011817.D	01/18/13 10:56	
LCS	1301407-BS1	F3011818.D	01/18/13 10:56	
LCS Dup	1301407-BSD1	F3011819.D	01/18/13 10:56	
AQ-SSA4-RB-011113	A13A243-18	F3011820.D	01/18/13 10:56	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

PREPARATION BATCH SUMMARY

EPA 8270D (SIM)

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Batch: 1301443
Batch Matrix: Soil
Preparation: EPA 3546

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	1301443-BLK1	F3012107.D	01/21/13 12:50	
LCS	1301443-BS1	F3012108.D	01/21/13 12:50	
AQ-SSA4-24-0-1 (Dup)	1301443-DUP1	F3012110.D	01/21/13 12:50	
AQ-SSA4-27-1-2 (MS)	1301443-MS1	F3012120.D	01/21/13 12:50	
AQ-SSA4-25-0-1	A13A243-05	F3012112.D	01/21/13 12:50	
AQ-SSA4-25-0-1	A13A243-05RE1	F3012204.D	01/21/13 12:50	
AQ-SSA4-26-0-1	A13A243-08	F3012114.D	01/21/13 12:50	
AQ-SSA4-26-0-1	A13A243-08RE1	F3012205.D	01/21/13 12:50	
AQ-SSA4-76-0-1	A13A243-11	F3012116.D	01/21/13 12:50	
AQ-SSA4-76-0-1	A13A243-11RE1	F3012206.D	01/21/13 12:50	
AQ-SSA4-76-1-2	A13A243-12	F3012117.D	01/21/13 12:50	
AQ-SSA4-27-1-2	A13A243-15	F3012119.D	01/21/13 12:50	
AQ-SSA4-27-1-2	A13A243-15RE1	F3012207.D	01/21/13 12:50	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

PREPARATION BATCH SUMMARY

EPA 8270D (SIM)

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Batch: 1301478 Batch Matrix: Soil
Preparation: EPA 3546

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	1301478-BLK1	D3012304.D	01/22/13 16:04	
LCS	1301478-BS1	D3012305.D	01/22/13 16:04	
AQ-SSA4-24-0-1 (Dup)	1301478-DUP1	D3012307.D	01/22/13 16:04	
AQ-SSA4-27-0-1 (MS)	1301478-MS1	D3012312.D	01/22/13 16:04	
AQ-SSA4-24-0-1	A13A243-01RE1	D3012306.D	01/22/13 16:04	
AQ-SSA4-24-1-2	A13A243-02RE1	D3012308.D	01/22/13 16:04	
AQ-SSA4-25-1-2	A13A243-06RE1	D3012309.D	01/22/13 16:04	
AQ-SSA4-26-1-2	A13A243-09RE1	D3012310.D	01/22/13 16:04	
AQ-SSA4-27-0-1	A13A243-14RE1	D3012311.D	01/22/13 16:04	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
EPA 8270D (SIM)

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Water	Laboratory ID:	1301407-BLK1	File ID:	F3011817.D
Prepared:	01/18/13 10:56	Preparation:	EPA 3510C (Acid Extraction	Initial/Final:	1000 mL / 1 mL
Analyzed:	01/18/13 20:16	Instrument:	SV-GCMS6		
Batch:	1301407	Sequence:	3A18003	Calibration:	A2L2701

CAS NO.	COMPOUND	CONC. (ug/L)	Q
83-32-9	Acenaphthene	0.0200	U
208-96-8	Acenaphthylene	0.0200	U
120-12-7	Anthracene	0.0200	U
56-55-3	Benz(a)anthracene	0.0200	U
50-32-8	Benzo(a)pyrene	0.0200	U
205-99-2	Benzo(b)fluoranthene	0.0200	U
207-08-9	Benzo(k)fluoranthene	0.0200	U
	Benzo(b+k)fluoranthene(s)	0.0400	U
191-24-2	Benzo(g,h,i)perylene	0.0200	U
218-01-9	Chrysene	0.0200	U
53-70-3	Dibenz(a,h)anthracene	0.0200	U
132-64-9	Dibenzofuran	0.0200	U
206-44-0	Fluoranthene	0.0200	U
86-73-7	Fluorene	0.0200	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0200	U
90-12-0	1-Methylnaphthalene	0.0400	U
91-57-6	2-Methylnaphthalene	0.0400	U
91-20-3	Naphthalene	0.0400	U
85-01-8	Phenanthrene	0.0200	U
129-00-0	Pyrene	0.0200	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	5.00	3.60	72	25 - 120	
p-Terphenyl-d14 (Surr)	5.00	4.61	92	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	693915	5.33	672855	5.33	
Acenaphthene-d10 (ISTD)	351413	7.02	329278	7.02	
Phenanthrene-d10 (ISTD)	587583	8.47	559263	8.46	
Chrysene-d12 (ISTD)	618595	11.11	584130	11.11	
Perylene-d12 (ISTD)	542893	13.37	486310	13.36	
Dibenz(a,h)anthracene-d14 (ISTD)	363301	15.55	298789	15.54	

METHOD BLANK DATA SHEET
EPA 8270D (SIM)

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	1301443-BLK1	File ID:	F3012107.D
Prepared:	01/21/13 12:50	Preparation:	EPA 3546	Initial/Final:	13 g / 2 mL
Analyzed:	01/21/13 16:27	Instrument:	SV-GCMS6		
Batch:	1301443	Sequence:	3A21005	Calibration:	A2L2701

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
83-32-9	Acenaphthene	3.08	U
208-96-8	Acenaphthylene	3.08	U
120-12-7	Anthracene	3.08	U
56-55-3	Benz(a)anthracene	3.08	U
50-32-8	Benzo(a)pyrene	3.08	U
205-99-2	Benzo(b)fluoranthene	3.08	U
207-08-9	Benzo(k)fluoranthene	3.08	U
	Benzo(b+k)fluoranthene(s)	6.15	U
191-24-2	Benzo(g,h,i)perylene	3.08	U
218-01-9	Chrysene	3.08	U
53-70-3	Dibenz(a,h)anthracene	3.08	U
132-64-9	Dibenzofuran	3.08	U
206-44-0	Fluoranthene	3.08	U
86-73-7	Fluorene	3.08	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.08	U
90-12-0	1-Methylnaphthalene	6.15	U
91-57-6	2-Methylnaphthalene	6.15	U
91-20-3	Naphthalene	6.15	U
85-01-8	Phenanthrene	3.08	U
129-00-0	Pyrene	5.44	B

SYSTEM MONITORING COMPOUND	ADDED (ug/kg wet)	CONC (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	385	340	88	45 - 120	
p-Terphenyl-d14 (Surr)	385	448	117	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	795910	5.32	851550	5.33	
Acenaphthene-d10 (ISTD)	400145	7.02	429042	7.02	
Phenanthrene-d10 (ISTD)	639472	8.46	714822	8.46	
Chrysene-d12 (ISTD)	503259	11.11	634011	11.11	
Perylene-d12 (ISTD)	406965	13.36	515041	13.36	
Dibenz(a,h)anthracene-d14 (ISTD)	298184	15.54	376881	15.54	

METHOD BLANK DATA SHEET
EPA 8270D (SIM)

Laboratory:	Apex Laboratories			SDG:	A13A243
Client:	Anchor QEA, LLC Tigard			Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil	Laboratory ID:	1301478-BLK1	File ID:	D3012304.D
Prepared:	01/22/13 16:04	Preparation:	EPA 3546	Initial/Final:	12 g / 2 mL
Analyzed:	01/23/13 10:38	Instrument:	SV-GCMS4		
Batch:	1301478	Sequence:	3A23005	Calibration:	A3A1601

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
83-32-9	Acenaphthene	3.33	U
208-96-8	Acenaphthylene	3.33	U
120-12-7	Anthracene	3.33	U
56-55-3	Benz(a)anthracene	3.33	U
50-32-8	Benzo(a)pyrene	3.33	U
205-99-2	Benzo(b)fluoranthene	3.33	U
207-08-9	Benzo(k)fluoranthene	3.33	U
	Benzo(b+k)fluoranthene(s)	6.67	U
191-24-2	Benzo(g,h,i)perylene	3.33	U
218-01-9	Chrysene	3.33	U
53-70-3	Dibenz(a,h)anthracene	3.33	U
132-64-9	Dibenzofuran	3.33	U
206-44-0	Fluoranthene	3.33	U
86-73-7	Fluorene	3.33	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.33	U
90-12-0	1-Methylnaphthalene	6.67	U
91-57-6	2-Methylnaphthalene	6.67	U
91-20-3	Naphthalene	6.67	U
85-01-8	Phenanthrene	3.33	U
129-00-0	Pyrene	3.33	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg wet)	CONC (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	417	404	97	45 - 120	
p-Terphenyl-d14 (Surr)	417	496	119	30 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	901579	5.3	929742	5.3	
Acenaphthene-d10 (ISTD)	390653	6.98	413147	6.98	
Phenanthrene-d10 (ISTD)	504340	8.43	543406	8.43	
Chrysene-d12 (ISTD)	312713	11.08	348476	11.08	
Perylene-d12 (ISTD)	252781	13.33	298705	13.33	
Dibenz(a,h)anthracene-d14 (ISTD)	171178	15.49	204301	15.49	

LCS / LCS DUPLICATE RECOVERY

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Water		
Batch:	1301407	Laboratory ID:	1301407-BS1
Preparation:	EPA 3510C (Acid Extraction)	Initial/Final:	1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. (*=Out)	QC LIMITS REC.
Acenaphthene	4.00	3.20	80	45 - 125
Acenaphthylene	4.00	3.26	82	50 - 125
Anthracene	4.00	3.60	90	55 - 125
Benz(a)anthracene	4.00	3.78	94	55 - 125
Benzo(a)pyrene	4.00	4.25	106	55 - 125
Benzo(b)fluoranthene	4.00	4.50	112	45 - 125
Benzo(k)fluoranthene	4.00	4.09	102	45 - 125
Benzo(b+k)fluoranthene(s)	8.00	8.49	106	45 - 125
Benzo(g,h,i)perylene	4.00	3.37	84	40 - 125
Chrysene	4.00	3.73	93	55 - 125
Dibenz(a,h)anthracene	4.00	3.95	99	40 - 125
Dibenzofuran	4.00	3.30	83	55 - 125
Fluoranthene	4.00	4.16	104	55 - 125
Fluorene	4.00	3.53	88	50 - 125
Indeno(1,2,3-cd)pyrene	4.00	3.57	89	45 - 125
1-Methylnaphthalene	4.00	3.23	81	45 - 125
2-Methylnaphthalene	4.00	3.24	81	45 - 125
Naphthalene	4.00	3.04	76	40 - 125
Phenanthrene	4.00	3.39	85	50 - 125
Pyrene	4.00	4.11	103	50 - 125

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Water		
Batch:	1301407	Laboratory ID:	1301407-BSD1
Preparation:	EPA 3510C (Acid Extraction)	Initial/Final:	1000 mL / 1 mL

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS
Acenaphthene	4.00	3.42	85	7	30	45 - 125
Acenaphthylene	4.00	3.50	87	7	30	50 - 125
Anthracene	4.00	3.82	96	6	30	55 - 125
Benz(a)anthracene	4.00	3.89	97	3	30	55 - 125
Benzo(a)pyrene	4.00	4.39	110	3	30	55 - 125
Benzo(b)fluoranthene	4.00	4.44	111	1	30	45 - 125
Benzo(k)fluoranthene	4.00	4.32	108	6	30	45 - 125
Benzo(b+k)fluoranthene(s)	8.00	8.67	108	2	30	45 - 125
Benzo(g,h,i)perylene	4.00	3.50	88	4	30	40 - 125
Chrysene	4.00	3.82	95	2	30	55 - 125
Dibenz(a,h)anthracene	4.00	4.24	106	7	30	40 - 125
Dibenzofuran	4.00	3.51	88	6	30	55 - 125
Fluoranthene	4.00	4.33	108	4	30	55 - 125
Fluorene	4.00	3.67	92	4	30	50 - 125
Indeno(1,2,3-cd)pyrene	4.00	3.68	92	3	30	45 - 125
1-Methylnaphthalene	4.00	3.44	86	6	30	45 - 125
2-Methylnaphthalene	4.00	3.43	86	6	30	45 - 125
Naphthalene	4.00	3.26	81	7	30	40 - 125
Phenanthrene	4.00	3.64	91	7	30	50 - 125
Pyrene	4.00	4.30	107	5	30	50 - 125

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil		
Batch:	1301443	Laboratory ID:	1301443-BS1
Preparation:	EPA 3546	Initial/Final:	10 g / 2 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Acenaphthene	800	742	93	45 - 125
Acenaphthylene	800	778	97	45 - 125
Anthracene	800	809	101	55 - 125
Benz(a)anthracene	800	806	101	50 - 125
Benzo(a)pyrene	800	902	113	50 - 125
Benzo(b)fluoranthene	800	886	111	45 - 125
Benzo(k)fluoranthene	800	877	110	45 - 125
Benzo(b+k)fluoranthene(s)	1600	1750	109	45 - 125
Benzo(g,h,i)perylene	800	906	113	40 - 125
Chrysene	800	792	99	55 - 125
Dibenz(a,h)anthracene	800	889	111	40 - 125
Dibenzofuran	800	764	96	50 - 125
Fluoranthene	800	823	103	55 - 125
Fluorene	800	785	98	50 - 125
Indeno(1,2,3-cd)pyrene	800	847	106	40 - 125
1-Methylnaphthalene	800	755	94	45 - 125
2-Methylnaphthalene	800	766	96	45 - 125
Naphthalene	800	721	90	40 - 125
Phenanthrene	800	765	96	50 - 125
Pyrene	800	816	102	45 - 125

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil		
Batch:	1301478	Laboratory ID:	1301478-BS1
Preparation:	EPA 3546	Initial/Final:	10 g / 2 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Acenaphthene	800	764	95	45 - 125
Acenaphthylene	800	791	99	45 - 125
Anthracene	800	831	104	55 - 125
Benz(a)anthracene	800	801	100	50 - 125
Benzo(a)pyrene	800	888	111	50 - 125
Benzo(b)fluoranthene	800	843	105	45 - 125
Benzo(k)fluoranthene	800	855	107	45 - 125
Benzo(b+k)fluoranthene(s)	1600	1690	106	45 - 125
Benzo(g,h,i)perylene	800	813	102	40 - 125
Chrysene	800	818	102	55 - 125
Dibenz(a,h)anthracene	800	829	104	40 - 125
Dibenzofuran	800	772	97	50 - 125
Fluoranthene	800	837	105	55 - 125
Fluorene	800	802	100	50 - 125
Indeno(1,2,3-cd)pyrene	800	807	101	40 - 125
1-Methylnaphthalene	800	754	94	45 - 125
2-Methylnaphthalene	800	775	97	45 - 125
Naphthalene	800	740	92	40 - 125
Phenanthrene	800	778	97	50 - 125
Pyrene	800	825	103	45 - 125

* = Values outside of QC limits

DUPLICATES
EPA 8270D (SIM)

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC Tigard
Matrix: Soil
Batch: 1301443
Preparation: EPA 3546
Source Sample Name: AQ-SSA4-24-0-1

SDG: A13A243
Project: Former Reynolds Metals Reduction Plant RI
Laboratory ID: 1301443-DUP1
Lab Source ID: A13A243-01
Initial/Final: 12.08 g / 2 mL
% Solids: 83.14

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ug/kg dry)	C	DUPLICATE CONCENTRATION (ug/kg dry)	C	RPD %	Q	METHOD
Acenaphthene	30	ND		ND				EPA 8270D (SIM)
Acenaphthylene	30	ND		ND				EPA 8270D (SIM)
Anthracene	30	ND		ND				EPA 8270D (SIM)
Benz(a)anthracene	30	11.1		8.76		23		EPA 8270D (SIM)
Benzo(a)pyrene	30	14.1		11.4		21		EPA 8270D (SIM)
Benzo(b+k)fluoranthene(s)	30	48.1		40.1		18		EPA 8270D (SIM)
Benzo(g,h,i)perylene	30	56.4		50.3		11		EPA 8270D (SIM)
Chrysene	30	25.0		23.8		5		EPA 8270D (SIM)
Dibenz(a,h)anthracene	30	5.63		4.56		21		EPA 8270D (SIM)
Dibenzofuran	30	ND		ND				EPA 8270D (SIM)
Fluoranthene	30	16.0		13.0		21		EPA 8270D (SIM)
Fluorene	30	ND		ND				EPA 8270D (SIM)
Indeno(1,2,3-cd)pyrene	30	29.3		24.8		17		EPA 8270D (SIM)
1-Methylnaphthalene	30	ND		ND				EPA 8270D (SIM)
2-Methylnaphthalene	30	ND		ND				EPA 8270D (SIM)
Naphthalene	30	ND		ND				EPA 8270D (SIM)
Phenanthrene	30	5.34		ND				EPA 8270D (SIM)
Pyrene	30	16.7		13.7		20		EPA 8270D (SIM)

* Values outside of QC limits

DUPLICATES
EPA 8270D (SIM)

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC Tigard
Matrix: Soil
Batch: 1301478
Preparation: EPA 3546
Source Sample Name: AQ-SSA4-24-0-1

SDG: A13A243
Project: Former Reynolds Metals Reduction Plant RI
Laboratory ID: 1301478-DUP1
Lab Source ID: A13A243-01RE1
Initial/Final: 11.76 g / 2 mL
% Solids: 83.14

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ug/kg dry)	C	DUPLICATE CONCENTRATION (ug/kg dry)	C	RPD %	Q	METHOD
Acenaphthene	30	ND		ND				EPA 8270D (SIM)
Acenaphthylene	30	ND		ND				EPA 8270D (SIM)
Anthracene	30	ND		ND				EPA 8270D (SIM)
Benz(a)anthracene	30	9.23		9.06		2		EPA 8270D (SIM)
Benzo(a)pyrene	30	12.2		12.5		2		EPA 8270D (SIM)
Benzo(b+k)fluoranthene(s)	30	37.2		37.9		2		EPA 8270D (SIM)
Benzo(g,h,i)perylene	30	36.1		36.5		1		EPA 8270D (SIM)
Chrysene	30	22.6		19.9		13		EPA 8270D (SIM)
Dibenz(a,h)anthracene	30	4.03		ND				EPA 8270D (SIM)
Dibenzofuran	30	ND		ND				EPA 8270D (SIM)
Fluoranthene	30	14.1		14.2		0.3		EPA 8270D (SIM)
Fluorene	30	ND		ND				EPA 8270D (SIM)
Indeno(1,2,3-cd)pyrene	30	20.3		20.7		2		EPA 8270D (SIM)
1-Methylnaphthalene	30	ND		ND				EPA 8270D (SIM)
2-Methylnaphthalene	30	ND		ND				EPA 8270D (SIM)
Naphthalene	30	ND		ND				EPA 8270D (SIM)
Phenanthrene	30	4.83		5.76		18		EPA 8270D (SIM)
Pyrene	30	16.0		15.0		6		EPA 8270D (SIM)

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8270D (SIM)

AQ-SSA4-27-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Batch: 1301443
Laboratory ID: 1301443-MS1
Preparation: EPA 3546
Initial/Final: 10.61 g / 2 mL
Source Sample Name: AQ-SSA4-27-1-2

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	MS CONCENTRATION (ug/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Acenaphthene	867	10.3	845	96	45 - 125
Acenaphthylene	867	23.8	873	98	45 - 125
Anthracene	867	67.9	991	106	55 - 125
Benz(a)anthracene	867	3320	6110	323 *	50 - 125
Benzo(a)pyrene	867	6200	8960	318 *	50 - 125
Benzo(b)fluoranthene	867	17700	23400	663 *	45 - 125
Benzo(k)fluoranthene	867	4240	7190	341 *	45 - 125
Benzo(b+k)fluoranthene(s)	1730	21400	30000	497 *	45 - 125
Benzo(g,h,i)perylene	867	12700	15100	283 *	40 - 125
Chrysene	867	17700	24600	796 *	55 - 125
Dibenz(a,h)anthracene	867	2080	3270	137 *	40 - 125
Dibenzofuran	867	11.3	879	100	40 - 125
Fluoranthene	867	1480	3520	235 *	55 - 125
Fluorene	867	9.85	915	104	20 - 125
Indeno(1,2,3-cd)pyrene	867	8670	10900	253 *	40 - 125
1-Methylnaphthalene	867	ND	856	99	45 - 125
2-Methylnaphthalene	867	ND	846	98	45 - 125
Naphthalene	867	ND	800	92	40 - 125
Phenanthrene	867	150	1050	104	50 - 125
Pyrene	867	1830	4040	255 *	45 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8270D (SIM)

AQ-SSA4-27-0-1

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil		
Batch:	1301478	Laboratory ID:	1301478-MS1
Preparation:	EPA 3546	Initial/Final:	10.26 g / 2 mL

Source Sample Name: AQ-SSA4-27-0-1

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	MS CONCENTRATION (ug/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Acenaphthene	933	ND	843	90	45 - 125
Acenaphthylene	933	ND	891	96	45 - 125
Anthracene	933	3.24	951	102	55 - 125
Benz(a)anthracene	933	61.1	969	97	50 - 125
Benzo(a)pyrene	933	116	1100	105	50 - 125
Benzo(b)fluoranthene	933	320	1240	99	45 - 125
Benzo(k)fluoranthene	933	86.6	982	96	45 - 125
Benzo(b+k)fluoranthene(s)	1870	403	2220	98	45 - 125
Benzo(g,h,i)perylene	933	262	1110	91	40 - 125
Chrysene	933	218	1070	91	55 - 125
Dibenz(a,h)anthracene	933	45.0	955	98	40 - 125
Dibenzofuran	933	ND	869	93	40 - 125
Fluoranthene	933	51.7	983	100	55 - 125
Fluorene	933	ND	884	95	20 - 125
Indeno(1,2,3-cd)pyrene	933	197	1020	88	40 - 125
1-Methylnaphthalene	933	ND	811	87	45 - 125
2-Methylnaphthalene	933	ND	832	89	45 - 125
Naphthalene	933	ND	803	86	40 - 125
Phenanthrene	933	11.8	894	95	50 - 125
Pyrene	933	57.1	985	100	45 - 125

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	2L26023	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	2L26023-TUN1	F2122601.D	12/26/12 16:07
Initial Cal Blank	2L26023-ICB1	F2122602.D	12/26/12 16:34
Cal Standard	2L26023-CAL1	F2122603.D	12/26/12 17:02
Cal Standard	2L26023-CAL2	F2122604.D	12/26/12 17:30
Cal Standard	2L26023-CAL3	F2122605.D	12/26/12 17:58
Cal Standard	2L26023-CAL4	F2122606.D	12/26/12 18:25
Cal Standard	2L26023-CAL5	F2122607.D	12/26/12 18:53
Cal Standard	2L26023-CAL6	F2122608.D	12/26/12 19:20
Cal Standard	2L26023-CAL7	F2122609.D	12/26/12 19:48
Cal Standard	2L26023-CAL8	F2122610.D	12/26/12 20:16
Cal Standard	2L26023-CAL9	F2122611.D	12/26/12 20:43
Cal Standard	2L26023-CALA	F2122612.D	12/26/12 21:11
Initial Cal Check	2L26023-ICV1	F2122614.D	12/26/12 22:06

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A15024	Instrument:	SV-GCMS4
Matrix:	Soil	Calibration:	A3A1601

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	3A15024-TUN1	D3011501.D	01/15/13 15:17
Calibration Blank	3A15024-CCB1	D3011502.D	01/15/13 15:41
Cal Standard	3A15024-CAL1	D3011503.D	01/15/13 16:07
Cal Standard	3A15024-CAL2	D3011504.D	01/15/13 16:33
Cal Standard	3A15024-CAL3	D3011505.D	01/15/13 16:59
Cal Standard	3A15024-CAL4	D3011506.D	01/15/13 17:25
Cal Standard	3A15024-CAL5	D3011507.D	01/15/13 17:51
Cal Standard	3A15024-CAL6	D3011508.D	01/15/13 18:16
Cal Standard	3A15024-CAL7	D3011509.D	01/15/13 18:42
Cal Standard	3A15024-CAL8	D3011510.D	01/15/13 19:08
Cal Standard	3A15024-CAL9	D3011511.D	01/15/13 19:33
Cal Standard	3A15024-CALA	D3011512.D	01/15/13 19:59
Initial Cal Check	3A15024-ICV1	D3011514.D	01/15/13 20:50

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A18003	Instrument:	SV-GCMS6
Matrix:	Water	Calibration:	A2L2701

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	3A18003-TUN1	F3011801.D	01/18/13 09:56
Calibration Check	3A18003-CCV1	F3011802.D	01/18/13 10:24
Calibration Blank	3A18003-CCB1	F3011803.D	01/18/13 10:52
Blank	1301407-BLK1	F3011817.D	01/18/13 20:16
LCS	1301407-BS1	F3011818.D	01/18/13 20:43
LCS Dup	1301407-BSD1	F3011819.D	01/18/13 21:10
AQ-SSA4-RB-011113	A13A243-18	F3011820.D	01/18/13 21:37

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A21005	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	3A21005-TUN2	F3012104.D	01/21/13 12:32
Calibration Check	3A21005-CCV2	F3012105.D	01/21/13 12:59
Calibration Blank	3A21005-CCB2	F3012106.D	01/21/13 13:27
Blank	1301443-BLK1	F3012107.D	01/21/13 16:27
LCS	1301443-BS1	F3012108.D	01/21/13 16:54
AQ-SSA4-24-0-1 (Dup)	1301443-DUP1	F3012110.D	01/21/13 17:49
AQ-SSA4-25-0-1	A13A243-05	F3012112.D	01/21/13 18:43
AQ-SSA4-26-0-1	A13A243-08	F3012114.D	01/21/13 19:37
AQ-SSA4-76-0-1	A13A243-11	F3012116.D	01/21/13 20:32
AQ-SSA4-76-1-2	A13A243-12	F3012117.D	01/21/13 20:59
AQ-SSA4-27-1-2	A13A243-15	F3012119.D	01/21/13 21:52
AQ-SSA4-27-1-2 (MS)	1301443-MS1	F3012120.D	01/21/13 22:20

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A22002	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	3A22002-TUN1	F3012201.D	01/22/13 09:24
Calibration Check	3A22002-CCV1	F3012202.D	01/22/13 09:52
Calibration Blank	3A22002-CCB1	F3012203.D	01/22/13 10:19
AQ-SSA4-25-0-1	A13A243-05RE1	F3012204.D	01/22/13 10:46
AQ-SSA4-26-0-1	A13A243-08RE1	F3012205.D	01/22/13 11:14
AQ-SSA4-76-0-1	A13A243-11RE1	F3012206.D	01/22/13 11:42
AQ-SSA4-27-1-2	A13A243-15RE1	F3012207.D	01/22/13 12:09

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A23005	Instrument:	SV-GCMS4
Matrix:	Soil	Calibration:	A3A1601

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	3A23005-TUN1	D3012301.D	01/23/13 09:22
Calibration Check	3A23005-CCV1	D3012302.D	01/23/13 09:46
Calibration Blank	3A23005-CCB1	D3012303.D	01/23/13 10:12
Blank	1301478-BLK1	D3012304.D	01/23/13 10:38
LCS	1301478-BS1	D3012305.D	01/23/13 11:05
AQ-SSA4-24-0-1	A13A243-01RE1	D3012306.D	01/23/13 11:31
AQ-SSA4-24-0-1 (Dup)	1301478-DUP1	D3012307.D	01/23/13 11:57
AQ-SSA4-24-1-2	A13A243-02RE1	D3012308.D	01/23/13 12:23
AQ-SSA4-25-1-2	A13A243-06RE1	D3012309.D	01/23/13 12:49
AQ-SSA4-26-1-2	A13A243-09RE1	D3012310.D	01/23/13 13:15
AQ-SSA4-27-0-1	A13A243-14RE1	D3012311.D	01/23/13 13:41
AQ-SSA4-27-0-1 (MS)	1301478-MS1	D3012312.D	01/23/13 14:08

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Lab File ID:	F2122601.D	Injection Date:	12/26/12
Instrument ID:	SV-GCMS6	Injection Time:	16:07
Sequence:	2L26023	Lab Sample ID:	2L26023-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 51	10 - 80% of m/z 198	34.94	PASS
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Less than 100% of m/z 198	49.76	PASS
m/z 70	Less than 2% of m/z 69	0.00	PASS
m/z 127	10 - 80% of m/z 198	42.39	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.71	PASS
m/z 275	10 - 60% of m/z 198	24.85	PASS
m/z 365	1 - 100% of m/z 198	3.67	PASS
m/z 441	Less than 24% of m/z 442	16.02	PASS
m/z 442	40 - 200% of m/z 198	123.69	PASS
m/z 443	15 - 24% of m/z 442	19.64	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Lab File ID:	D3011501.D	Injection Date:	01/15/13
Instrument ID:	SV-GCMS4	Injection Time:	15:17
Sequence:	3A15024	Lab Sample ID:	3A15024-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 51	10 - 80% of m/z 198	61.64	PASS
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Less than 100% of m/z 198	88.36	PASS
m/z 70	Less than 2% of m/z 69	0.00	PASS
m/z 127	10 - 80% of m/z 198	58.91	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.68	PASS
m/z 275	10 - 60% of m/z 198	19.44	PASS
m/z 365	1 - 100% of m/z 198	1.51	PASS
m/z 441	Less than 24% of m/z 442	15.74	PASS
m/z 442	40 - 200% of m/z 198	63.88	PASS
m/z 443	15 - 24% of m/z 442	19.00	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Lab File ID:	F3011801.D	Injection Date:	01/18/13
Instrument ID:	SV-GCMS6	Injection Time:	09:56
Sequence:	3A18003	Lab Sample ID:	3A18003-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 51	10 - 80% of m/z 198	32.95	PASS
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Less than 100% of m/z 198	47.92	PASS
m/z 70	Less than 2% of m/z 69	0.19	PASS
m/z 127	10 - 80% of m/z 198	42.70	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.71	PASS
m/z 275	10 - 60% of m/z 198	24.78	PASS
m/z 365	1 - 100% of m/z 198	3.51	PASS
m/z 441	Less than 24% of m/z 442	16.49	PASS
m/z 442	40 - 200% of m/z 198	106.19	PASS
m/z 443	15 - 24% of m/z 442	19.52	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Lab File ID:	F3012104.D	Injection Date:	01/21/13
Instrument ID:	SV-GCMS6	Injection Time:	12:32
Sequence:	3A21005	Lab Sample ID:	3A21005-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 51	10 - 80% of m/z 198	32.33	PASS
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Less than 100% of m/z 198	46.22	PASS
m/z 70	Less than 2% of m/z 69	0.00	PASS
m/z 127	10 - 80% of m/z 198	41.77	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.95	PASS
m/z 275	10 - 60% of m/z 198	24.62	PASS
m/z 365	1 - 100% of m/z 198	3.43	PASS
m/z 441	Less than 24% of m/z 442	16.21	PASS
m/z 442	40 - 200% of m/z 198	109.53	PASS
m/z 443	15 - 24% of m/z 442	19.30	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Lab File ID:	F3012201.D	Injection Date:	01/22/13
Instrument ID:	SV-GCMS6	Injection Time:	09:24
Sequence:	3A22002	Lab Sample ID:	3A22002-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 51	10 - 80% of m/z 198	31.61	PASS
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Less than 100% of m/z 198	46.37	PASS
m/z 70	Less than 2% of m/z 69	0.00	PASS
m/z 127	10 - 80% of m/z 198	42.09	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.63	PASS
m/z 275	10 - 60% of m/z 198	26.72	PASS
m/z 365	1 - 100% of m/z 198	3.97	PASS
m/z 441	Less than 24% of m/z 442	8.18	PASS
m/z 442	40 - 200% of m/z 198	126.11	PASS
m/z 443	15 - 24% of m/z 442	19.12	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Lab File ID:	D3012301.D	Injection Date:	01/23/13
Instrument ID:	SV-GCMS4	Injection Time:	09:22
Sequence:	3A23005	Lab Sample ID:	3A23005-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 51	10 - 80% of m/z 198	59.06	PASS
m/z 68	Less than 2% of m/z 69	0.00	PASS
m/z 69	Less than 100% of m/z 198	84.64	PASS
m/z 70	Less than 2% of m/z 69	0.04	PASS
m/z 127	10 - 80% of m/z 198	58.52	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.69	PASS
m/z 275	10 - 60% of m/z 198	18.09	PASS
m/z 365	1 - 100% of m/z 198	1.26	PASS
m/z 441	Less than 24% of m/z 442	15.80	PASS
m/z 442	40 - 200% of m/z 198	50.97	PASS
m/z 443	15 - 24% of m/z 442	19.22	PASS

INITIAL CALIBRATION DATA (Summary)
EPA 8270D (SIM)

Laboratory: Apex Laboratories SDG: A13A243

Client: Anchor QEA, LLC Tigard Project: Former Reynolds Metals Reduction Plant RI/FS-sec

Calibration: A2L2701 Date: 12/27/12 10:41 Instrument: SV-GCMS6

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Acenaphthene	1.173739	Ave	2.287452	7.051	4.555332E-02			15	
Acenaphthylene	1.851946	Ave	5.833503	6.878	5.951347E-02			15	
Anthracene	1.013528	Ave	6.998292	8.538	5.291563E-02			15	
Benz(a)anthracene	0.9917026	Ave	4.230028	11.102	3.586837E-02			15	
Benzo(a)pyrene	0.9150785	Ave	15.86037	13.259	5.553151E-02			15	
Benzo(b)fluoranthene	0.9829723	Ave	13.63485	12.672	3.217039E-02			15	
Benzo(k)fluoranthene	1.064958	Ave	10.30243	12.714	5.278145E-02			15	
Benzo(b+k)fluoranthene(s)	1.038743	Ave	10.8418	12.71	0.1220731			15	
Benzo(g,h,i)perylene	1.096766	Ave	10.81006	16.147	6.370635E-02			15	
Chrysene	0.9556463	Ave	2.643246	11.143	0.0454745			15	
Dibenz(a,h)anthracene	1.051243	Ave	11.95832	15.624	4.234175E-02			15	
Dibenzofuran	1.659642	Ave	3.066552	7.22	0.0200701			15	
Fluoranthene	0.9924639	Ave	8.152707	9.65	1.797673E-02			15	
Fluorene	1.264801	Ave	4.474232	7.551	4.086574E-02			15	
Indeno(1,2,3-cd)pyrene	1.101855	Ave	3.698001	15.561	7.780319E-02			15	
1-Methylnaphthalene	0.5950433	Ave	3.299035	6.11	2.260591E-02			15	
2-Methylnaphthalene	0.6441933	Ave	3.786072	6.01	1.590592E-02			15	
Naphthalene	1.083487	Ave	1.38528	5.35	1.374074E-02			15	
Phenanthrene	1.055236	Ave	2.874098	8.49	2.051334E-02			15	
Pyrene	1.02585	Ave	7.476818	9.874	5.437273E-02			15	
2-Fluorobiphenyl (Surr)	1.434892	Ave	2.757016	6.364	7.832536E-02			15	
p-Terphenyl-d14 (Surr)	0.8079918	Ave	3.420997	10.03	0.0197457			15	

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA
EPA 8270D (SIM)

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC Tigard
Calibration: A2L2701
SDG: A13A243
Project: Former Reynolds Metals Reduction Plant RI/F
Instrument: SV-GCMS6
Calibration Date: 12/27/12 10:41

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acenaphthene	20	1.111542	50	1.170427	100	1.16634	200	1.168496	500	1.212206	1000	1.189357
Acenaphthylene	20	1.655994	50	1.747315	100	1.751573	200	1.78919	500	1.904209	1000	1.907888
Anthracene	20	0.898125	50	0.943712	100	0.9424041	200	0.9598623	500	1.038447	1000	1.048625
Benz(a)anthracene	20	1.080991	50	0.9809427	100	0.9413075	200	0.9325174	500	0.9873505	1000	0.9801951
Benzo(a)pyrene	20	0.7140041	50	0.7502756	100	0.7681996	200	0.8226123	500	0.9055539	1000	0.9543023
Benzo(b)fluoranthene	20	0.7891134	50	0.8145583	100	0.8534845	200	0.9109069	500	0.9942035	1000	1.028121
Benzo(k)fluoranthene	20	0.9057426	50	0.9201435	100	0.9718779	200	0.986639	500	1.085298	1000	1.105131
Benzo(b+k)fluoranthene(s)	40	0.8843994	100	0.8941095	200	0.9282532	400	0.9611685	1000	1.06172	2000	1.07384
Benzo(g,h,i)perylene	20	0.9192806	50	0.9313141	100	0.97894	200	1.031477	500	1.148635	1000	1.170813
Chrysene	20	0.8983799	50	0.9430561	100	0.9440313	200	0.9612978	500	0.9897985	1000	0.9698646
Dibenz(a,h)anthracene	20	0.8390535	50	0.9260174	100	0.9152212	200	0.9902652	500	1.079271	1000	1.104615
Dibenzofuran	20	1.554404	50	1.610363	100	1.643614	200	1.630932	500	1.694476	1000	1.697899
Fluoranthene	20	0.9155036	50	0.9255301	100	0.9029488	200	0.9160261	500	0.9773789	1000	0.9802658
Fluorene	20	1.169836	50	1.218451	100	1.226797	200	1.23365	500	1.312347	1000	1.332387
Indeno(1,2,3-cd)pyrene	20	1.046717	50	1.063732	100	1.058315	200	1.062667	500	1.138344	1000	1.107346
1-Methylnaphthalene	20	0.5549417	50	0.5833622	100	0.5809977	200	0.5803499	500	0.6084564	1000	0.6044001
2-Methylnaphthalene	20	0.5992169	50	0.6220067	100	0.6254345	200	0.6275844	500	0.6578528	1000	0.652672
Naphthalene	20	1.064433	50	1.08938	100	1.086788	200	1.072531	500	1.111599	1000	1.081583
Phenanthrene	20	0.9945761	50	1.030209	100	1.032057	200	1.041569	500	1.090121	1000	1.065677
Pyrene	20	0.9853655	50	0.9443206	100	0.9219698	200	0.9432618	500	1.019707	1000	1.03148
2-Fluorobiphenyl (Surr)	20	1.352357	50	1.403909	100	1.416417	200	1.415369	500	1.475408	1000	1.454151
p-Terphenyl-d14 (Surr)	20	0.7650904	50	0.7734597	100	0.7893111	200	0.7880503	500	0.8216779	1000	0.812645

INITIAL CALIBRATION DATA (Continued)
EPA 8270D (SIM)

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/F
Calibration: A2L2701
Instrument: SV-GCMS6
Matrix:
Calibration Date: 12/27/12 10:41

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acenaphthene	2000	1.170529	4000	1.201833	6000	1.17443	8000	1.172231				
Acenaphthylene	2000	1.891057	4000	1.97661	6000	1.934196	8000	1.961427				
Anthracene	2000	1.055461	4000	1.108289	6000	1.061832	8000	1.078522				
Benz(a)anthracene	2000	0.9804454	4000	1.02376	6000	0.9992673	8000	1.010249				
Benzo(a)pyrene	2000	0.9855492	4000	1.078527	6000	1.075747	8000	1.096014				
Benzo(b)fluoranthene	2000	1.047441	4000	1.153607	6000	1.094232	8000	1.144056				
Benzo(k)fluoranthene	2000	1.132671	4000	1.177073	6000	1.196721	8000	1.168288				
Benzo(b+k)fluoranthene(s)	4000	1.096926	8000	1.171861	12000	1.151576	16000	1.163574				
Benzo(g,h,i)perylene	2000	1.172548	4000	1.22307	6000	1.197934	8000	1.193645				
Chrysene	2000	0.9542195	4000	0.9828189	6000	0.9602047	8000	0.9527913				
Dibenz(a,h)anthracene	2000	1.109382	4000	1.168691	6000	1.192467	8000	1.187444				
Dibenzofuran	2000	1.658551	4000	1.721452	6000	1.685773	8000	1.698954				
Fluoranthene	2000	1.011343	4000	1.097639	6000	1.089844	8000	1.10816				
Fluorene	2000	1.289724	4000	1.346168	6000	1.282889	8000	1.23576				
Indeno(1,2,3-cd)pyrene	2000	1.107158	4000	1.153123	6000	1.141236	8000	1.139915				
1-Methylnaphthalene	2000	0.5970445	4000	0.6145957	6000	0.6122636	8000	0.6140215				
2-Methylnaphthalene	2000	0.6485906	4000	0.6705127	6000	0.6672323	8000	0.6708301				
Naphthalene	2000	1.060369	4000	1.094485	6000	1.083185	8000	1.09052				
Phenanthrene	2000	1.062064	4000	1.088492	6000	1.067448	8000	1.080147				
Pyrene	2000	1.056331	4000	1.117663	6000	1.109408	8000	1.128996				
2-Fluorobiphenyl (Surr)	2000	1.435809	4000	1.485741	6000	1.445049	8000	1.464706				
p-Terphenyl-d14 (Surr)	2000	0.8195871	4000	0.850296	6000	0.8312949	8000	0.8285053				

INITIAL CALIBRATION DATA (Summary)
EPA 8270D (SIM)

Laboratory: Apex Laboratories SDG: A13A243

Client: Anchor QEA, LLC Tigard Project: Former Reynolds Metals Reduction Plant RI/FS-sec

Calibration: A3A1601 Date: 01/16/13 09:28 Instrument: SV-GCMS4

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Acenaphthene	1.290177	Ave	2.994663	7.013	6.772149E-02			15	
Acenaphthylene	1.986501	Ave	3.443291	6.843	7.019732E-02			15	
Anthracene	1.086772	Ave	3.361771	8.502	4.992895E-02			15	
Benz(a)anthracene	1.14997	Ave	4.413597	11.07	1.307677E-02			15	
Benzo(a)pyrene	1.032484	Ave	13.08033	13.221	7.431363E-02			15	
Benzo(b)fluoranthene	1.165827	Ave	9.21809	12.633	4.032269E-02			15	
Benzo(k)fluoranthene	1.204926	Ave	4.789869	12.679	5.817418E-02			15	
Benzo(b+k)fluoranthene(s)	1.193186	Ave	6.190307	12.666	0.2013361			15	
Benzo(g,h,i)perylene	1.406556	Ave	3.290963	16.081	9.167494E-02			15	
Chrysene	1.074743	Ave	2.992816	11.112	3.603649E-02			15	
Dibenz(a,h)anthracene	1.234268	Ave	4.61731	15.56	0.0808646			15	
Dibenzofuran	1.618183	Ave	1.916061	7.19	1.684051E-02			15	
Fluoranthene	0.9888301	Ave	4.515105	9.616	5.353697E-02			15	
Fluorene	1.281179	Ave	3.048238	7.521	4.257865E-02			15	
Indeno(1,2,3-cd)pyrene	1.368823	Ave	1.344684	15.501	9.340902E-02			15	
1-Methylnaphthalene	0.6103507	Ave	2.290166	6.07	3.699932E-03			15	
2-Methylnaphthalene	0.6407706	Ave	2.916484	5.977	7.797978E-02			15	
Naphthalene	1.093671	Ave	2.127212	5.32	1.621658E-02			15	
Phenanthrene	1.122404	Ave	1.868131	8.453	5.722723E-02			15	
Pyrene	0.9999962	Ave	4.122467	9.84	1.955555E-02			15	
2-Fluorobiphenyl (Surr)	1.361441	Ave	2.196708	6.332	6.375573E-02			15	
p-Terphenyl-d14 (Surr)	0.8209297	Ave	2.233075	9.991	3.032252E-02			15	

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a2) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA
EPA 8270D (SIM)

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC Tigard
Calibration: A3A1601
SDG: A13A243
Project: Former Reynolds Metals Reduction Plant RI/F
Instrument: SV-GCMS4
Calibration Date: 01/16/13 09:28

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acenaphthene	20	1.256729	50	1.315362	100	1.32003	200	1.310824	500	1.365737	1000	1.302944
Acenaphthylene	20	1.853476	50	1.93435	100	1.926352	200	1.962921	500	2.074923	1000	2.05236
Anthracene	20	1.025585	50	1.068816	100	1.059707	200	1.063501	500	1.140687	1000	1.112846
Benz(a)anthracene	20	1.27944	50	1.172821	100	1.126312	200	1.106866	500	1.163027	1000	1.148667
Benzo(a)pyrene	20	0.8313636	50	0.8740097	100	0.8889754	200	0.9426753	500	1.05991	1000	1.106086
Benzo(b)fluoranthene	20	1.030019	50	1.069229	100	1.029554	200	1.075269	500	1.15926	1000	1.213907
Benzo(k)fluoranthene	20	1.112278	50	1.120131	100	1.169201	200	1.176932	500	1.271935	1000	1.237843
Benzo(b+k)fluoranthene(s)	40	1.089356	100	1.107545	200	1.112276	400	1.135255	1000	1.222711	2000	1.23065
Benzo(g,h,i)perylene	20	1.351896	50	1.350335	100	1.347819	200	1.386624	500	1.466369	1000	1.461059
Chrysene	20	1.077213	50	1.104854	100	1.088217	200	1.083383	500	1.117547	1000	1.088651
Dibenz(a,h)anthracene	20	1.140706	50	1.1918	100	1.18092	200	1.184887	500	1.258613	1000	1.256103
Dibenzofuran	20	1.572904	50	1.631193	100	1.611739	200	1.61442	500	1.678044	1000	1.654464
Fluoranthene	20	0.9239543	50	0.9524367	100	0.9511625	200	0.9417774	500	1.018901	1000	1.015835
Fluorene	20	1.213952	50	1.257266	100	1.247035	200	1.244753	500	1.323573	1000	1.317699
Indeno(1,2,3-cd)pyrene	20	1.38061	50	1.392957	100	1.372709	200	1.368139	500	1.387831	1000	1.367366
1-Methylnaphthalene	20	0.5799191	50	0.6039617	100	0.608678	200	0.6008186	500	0.6260393	1000	0.623334
2-Methylnaphthalene	20	0.6055583	50	0.633324	100	0.6312595	200	0.6206159	500	0.6518192	1000	0.651256
Naphthalene	20	1.098326	50	1.12003	100	1.115724	200	1.093856	500	1.130389	1000	1.093682
Phenanthrene	20	1.086367	50	1.119147	100	1.122366	200	1.113088	500	1.167374	1000	1.130349
Pyrene	20	0.954937	50	0.9588743	100	0.9528247	200	0.9508417	500	1.028905	1000	1.026714
2-Fluorobiphenyl (Surr)	20	1.31465	50	1.375366	100	1.372432	200	1.385953	500	1.411374	1000	1.38878
p-Terphenyl-d14 (Surr)	20	0.8071944	50	0.8251393	100	0.8209703	200	0.8272058	500	0.860422	1000	0.8332371

INITIAL CALIBRATION DATA (Continued)
EPA 8270D (SIM)

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/F
Calibration: A3A1601
Instrument: SV-GCMS4
Matrix:
Calibration Date: 01/16/13 09:28

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acenaphthene	2000	1.26054	4000	1.2682	6000	1.253388	8000	1.248019				
Acenaphthylene	2000	1.986445	4000	2.013333	6000	2.010623	8000	2.050226				
Anthracene	2000	1.096196	4000	1.14063	6000	1.078977	8000	1.080778				
Benz(a)anthracene	2000	1.114506	4000	1.14951	6000	1.110114	8000	1.12844				
Benzo(a)pyrene	2000	1.106722	4000	1.179299	6000	1.164968	8000	1.170835				
Benzo(b)fluoranthene	2000	1.224529	4000	1.301018	6000	1.289331	8000	1.266155				
Benzo(k)fluoranthene	2000	1.225231	4000	1.268734	6000	1.218385	8000	1.248585				
Benzo(b+k)fluoranthene(s)	4000	1.229215	8000	1.288024	12000	1.256647	16000	1.260178				
Benzo(g,h,i)perylene	2000	1.442824	4000	1.443416	6000	1.413267	8000	1.401956				
Chrysene	2000	1.062502	4000	1.076601	6000	1.044974	8000	1.003488				
Dibenz(a,h)anthracene	2000	1.239412	4000	1.316434	6000	1.286084	8000	1.287717				
Dibenzofuran	2000	1.601992	4000	1.623369	6000	1.58505	8000	1.608651				
Fluoranthene	2000	0.976079	4000	1.049702	6000	1.031301	8000	1.027152				
Fluorene	2000	1.280162	4000	1.325502	6000	1.312464	8000	1.289388				
Indeno(1,2,3-cd)pyrene	2000	1.339626	4000	1.383224	6000	1.350339	8000	1.345429				
1-Methylnaphthalene	2000	0.6068206	4000	0.6236968	6000	0.6102631	8000	0.6199753				
2-Methylnaphthalene	2000	0.6360513	4000	0.665277	6000	0.6534737	8000	0.6590712				
Naphthalene	2000	1.058978	4000	1.082551	6000	1.068636	8000	1.074539				
Phenanthrene	2000	1.109968	4000	1.13837	6000	1.122708	8000	1.114303				
Pyrene	2000	1.004156	4000	1.055665	6000	1.03657	8000	1.030474				
2-Fluorobiphenyl (Surr)	2000	1.348654	4000	1.344104	6000	1.335912	8000	1.337184				
p-Terphenyl-d14 (Surr)	2000	0.8195226	4000	0.8191985	6000	0.8020583	8000	0.7943485				

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI
Instrument ID:	SV-GCMS6	Calibration:	A2L2701
Lab File ID:	F2122614.D		
Sequence:	2L26023	Inject Date:	12/26/12
Lab Sample ID:	2L26023-ICV1	Inject Time:	22:06

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Acenaphthene	1000	1010	1.2	70 - 130
Acenaphthylene	1000	1030	2.8	70 - 130
Anthracene	1000	1050	5.3	70 - 130
Benz(a)anthracene	1000	1020	2.4	70 - 130
Benzo(a)pyrene	1000	1060	6.3	70 - 130
Benzo(b)fluoranthene	1000	1060	5.5	70 - 130
Benzo(k)fluoranthene	1000	1040	4.1	70 - 130
Benzo(b+k)fluoranthene(s)	2000	2080	4.0	70 - 130
Benzo(g,h,i)perylene	1000	1050	5.5	70 - 130
Chrysene	1000	1020	2.4	70 - 130
Dibenz(a,h)anthracene	1000	1060	6.1	70 - 130
Dibenzofuran	1000	1030	2.6	70 - 130
Fluoranthene	1000	1050	5.2	70 - 130
Fluorene	1000	1050	5.4	70 - 130
Indeno(1,2,3-cd)pyrene	1000	1020	2.3	70 - 130
1-Methylnaphthalene	1000	1030	3.3	70 - 130
2-Methylnaphthalene	1000	1030	3.3	70 - 130
Naphthalene	1000	1000	0.4	70 - 130
Phenanthrene	1000	1010	1.4	70 - 130
Pyrene	1000	1060	6.3	70 - 130
2-Fluorobiphenyl (Surr)	1000	1030	3.2	0 - 200
p-Terphenyl-d14 (Surr)	1000	1040	4.5	0 - 200

* = Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI
Instrument ID:	SV-GCMS4	Calibration:	A3A1601
Lab File ID:	D3011514.D		
Sequence:	3A15024	Inject Date:	01/15/13
Lab Sample ID:	3A15024-ICV1	Inject Time:	20:50

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Acenaphthene	1000	1040	3.9	70 - 130
Acenaphthylene	1000	1060	5.9	70 - 130
Anthracene	1000	1040	4.3	70 - 130
Benz(a)anthracene	1000	1020	2.4	70 - 130
Benzo(a)pyrene	1000	1110	11.2	70 - 130
Benzo(b)fluoranthene	1000	1080	7.9	70 - 130
Benzo(k)fluoranthene	1000	1050	5.0	70 - 130
Benzo(b+k)fluoranthene(s)	2000	2120	6.1	70 - 130
Benzo(g,h,i)perylene	1000	1030	3.3	70 - 130
Chrysene	1000	1030	2.8	70 - 130
Dibenz(a,h)anthracene	1000	1040	3.5	70 - 130
Dibenzofuran	1000	1030	3.5	70 - 130
Fluoranthene	1000	1050	5.2	70 - 130
Fluorene	1000	1060	6.4	70 - 130
Indeno(1,2,3-cd)pyrene	1000	1020	2.3	70 - 130
1-Methylnaphthalene	1000	1040	3.5	70 - 130
2-Methylnaphthalene	1000	1050	4.6	70 - 130
Naphthalene	1000	1000	0.2	70 - 130
Phenanthrene	1000	1010	1.2	70 - 130
Pyrene	1000	1050	5.0	70 - 130
2-Fluorobiphenyl (Surr)	1000	1040	3.5	75 - 125
p-Terphenyl-d14 (Surr)	1000	1040	3.8	75 - 125

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Instrument ID:	SV-GCMS6	Calibration:	A2L2701
Lab File ID:	F3011802.D	Calibration Date:	12/27/12 10:41
Sequence:	3A18003	Injection Date:	01/18/13
Lab Sample ID:	3A18003-CCV1	Injection Time:	10:24

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Acenaphthene	Ave	1000	999		1.173739	1.173076	-0.06	20
Acenaphthylene	Ave	1000	1010		1.851946	1.866471	0.8	20
Anthracene	Ave	1000	1030		1.013528	1.048662	3.5	20
Benz(a)anthracene	Ave	1000	1000		0.9917026	0.9962337	0.5	20
Benzo(a)pyrene	Ave	1000	1040		0.9150785	0.9559458	4.5	20
Benzo(b)fluoranthene	Ave	1000	1070		0.9829723	1.054973	7.3	20
Benzo(k)fluoranthene	Ave	1000	1110		1.064958	1.183089	11.1	20
Benzo(b+k)fluoranthene(s)	Ave	2000	2170		1.038743	1.127742	8.6	20
Benzo(g,h,i)perylene	Ave	1000	951		1.096766	1.042635	-4.9	20
Chrysene	Ave	1000	1050		0.9556463	1.003431	5.0	20
Dibenz(a,h)anthracene	Ave	1000	1080		1.051243	1.140176	8.5	20
Dibenzofuran	Ave	1000	1030		1.659642	1.712766	3.2	20
Fluoranthene	Ave	1000	1090		0.9924639	1.085421	9.4	20
Fluorene	Ave	1000	1060		1.264801	1.345671	6.4	20
Indeno(1,2,3-cd)pyrene	Ave	1000	993		1.101855	1.094311	-0.7	20
1-Methylnaphthalene	Ave	1000	1040		0.5950433	0.6198304	4.2	20
2-Methylnaphthalene	Ave	1000	1030		0.6441933	0.6624696	2.8	20
Naphthalene	Ave	1000	1010		1.083487	1.091373	0.7	20
Phenanthrene	Ave	1000	1020		1.055236	1.073663	1.7	20
Pyrene	Ave	1000	1130		1.02585	1.158056	12.9	20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Instrument ID:	SV-GCMS6	Calibration:	A2L2701
Lab File ID:	F3012105.D	Calibration Date:	12/27/12 10:41
Sequence:	3A21005	Injection Date:	01/21/13
Lab Sample ID:	3A21005-CCV2	Injection Time:	12:59

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Acenaphthene	Ave	1000	993		1.173739	1.165196	-0.7	20
Acenaphthylene	Ave	1000	1030		1.851946	1.911286	3.2	20
Anthracene	Ave	1000	1050		1.013528	1.068453	5.4	20
Benz(a)anthracene	Ave	1000	1020		0.9917026	1.014219	2.3	20
Benzo(a)pyrene	Ave	1000	1080		0.9150785	0.990461	8.2	20
Benzo(b)fluoranthene	Ave	1000	1120		0.9829723	1.100689	12.0	20
Benzo(k)fluoranthene	Ave	1000	1090		1.064958	1.16482	9.4	20
Benzo(b+k)fluoranthene(s)	Ave	2000	2200		1.038743	1.141674	9.9	20
Benzo(g,h,i)perylene	Ave	1000	1140		1.096766	1.250145	14.0	20
Chrysene	Ave	1000	1030		0.9556463	0.9817464	2.7	20
Dibenz(a,h)anthracene	Ave	1000	1080		1.051243	1.14054	8.5	20
Dibenzofuran	Ave	1000	1020		1.659642	1.697577	2.3	20
Fluoranthene	Ave	1000	1090		0.9924639	1.083987	9.2	20
Fluorene	Ave	1000	1070		1.264801	1.352115	6.9	20
Indeno(1,2,3-cd)pyrene	Ave	1000	1070		1.101855	1.184082	7.5	20
1-Methylnaphthalene	Ave	1000	1060		0.5950433	0.6296189	5.8	20
2-Methylnaphthalene	Ave	1000	1060		0.6441933	0.6843756	6.2	20
Naphthalene	Ave	1000	1000		1.083487	1.084881	0.1	20
Phenanthrene	Ave	1000	1010		1.055236	1.07011	1.4	20
Pyrene	Ave	1000	1070		1.02585	1.101334	7.4	20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Instrument ID:	SV-GCMS6	Calibration:	A2L2701
Lab File ID:	F3012202.D	Calibration Date:	12/27/12 10:41
Sequence:	3A22002	Injection Date:	01/22/13
Lab Sample ID:	3A22002-CCV1	Injection Time:	09:52

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Acenaphthene	Ave	1000	1010		1.173739	1.181218	0.6	20
Acenaphthylene	Ave	1000	1010		1.851946	1.866481	0.8	20
Anthracene	Ave	1000	1040		1.013528	1.050076	3.6	20
Benz(a)anthracene	Ave	1000	1010		0.9917026	0.9994991	0.8	20
Benzo(a)pyrene	Ave	1000	1050		0.9150785	0.9610051	5.0	20
Benzo(b)fluoranthene	Ave	1000	1090		0.9829723	1.069972	8.9	20
Benzo(k)fluoranthene	Ave	1000	1030		1.064958	1.093359	2.7	20
Benzo(b+k)fluoranthene(s)	Ave	2000	2100		1.038743	1.088584	4.8	20
Benzo(g,h,i)perylene	Ave	1000	1060		1.096766	1.16484	6.2	20
Chrysene	Ave	1000	1030		0.9556463	0.9883616	3.4	20
Dibenz(a,h)anthracene	Ave	1000	1060		1.051243	1.109419	5.5	20
Dibenzofuran	Ave	1000	1010		1.659642	1.680615	1.3	20
Fluoranthene	Ave	1000	1010		0.9924639	1.002613	1.0	20
Fluorene	Ave	1000	1060		1.264801	1.344582	6.3	20
Indeno(1,2,3-cd)pyrene	Ave	1000	1010		1.101855	1.114629	1.2	20
1-Methylnaphthalene	Ave	1000	1040		0.5950433	0.6199427	4.2	20
2-Methylnaphthalene	Ave	1000	1040		0.6441933	0.6672976	3.6	20
Naphthalene	Ave	1000	1010		1.083487	1.098225	1.4	20
Phenanthrene	Ave	1000	1020		1.055236	1.077992	2.2	20
Pyrene	Ave	1000	1020		1.02585	1.050813	2.4	20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Instrument ID:	SV-GCMS4	Calibration:	A3A1601
Lab File ID:	D3012302.D	Calibration Date:	01/16/13 09:28
Sequence:	3A23005	Injection Date:	01/23/13
Lab Sample ID:	3A23005-CCV1	Injection Time:	09:46

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Acenaphthene	Ave	1000	1030		1.290177	1.325364	2.7	20
Acenaphthylene	Ave	1000	1050		1.986501	2.087819	5.1	20
Anthracene	Ave	1000	1100		1.086772	1.191367	9.6	20
Benz(a)anthracene	Ave	1000	1040		1.14997	1.199067	4.3	20
Benzo(a)pyrene	Ave	1000	1110		1.032484	1.147788	11.2	20
Benzo(b)fluoranthene	Ave	1000	1090		1.165827	1.266206	8.6	20
Benzo(k)fluoranthene	Ave	1000	1080		1.204926	1.300233	7.9	20
Benzo(b+k)fluoranthene(s)	Ave	2000	2160		1.193186	1.288686	8.0	20
Benzo(g,h,i)perylene	Ave	1000	1110		1.406556	1.562812	11.1	20
Chrysene	Ave	1000	1080		1.074743	1.158008	7.7	20
Dibenz(a,h)anthracene	Ave	1000	1090		1.234268	1.344673	8.9	20
Dibenzofuran	Ave	1000	1010		1.618183	1.636028	1.1	20
Fluoranthene	Ave	1000	1050		0.9888301	1.042808	5.5	20
Fluorene	Ave	1000	1030		1.281179	1.321079	3.1	20
Indeno(1,2,3-cd)pyrene	Ave	1000	1070		1.368823	1.469665	7.4	20
1-Methylnaphthalene	Ave	1000	1040		0.6103507	0.634931	4.0	20
2-Methylnaphthalene	Ave	1000	1040		0.6407706	0.6677616	4.2	20
Naphthalene	Ave	1000	1020		1.093671	1.115292	2.0	20
Phenanthrene	Ave	1000	1030		1.122404	1.159877	3.3	20
Pyrene	Ave	1000	1050		0.9999962	1.05036	5.0	20

** Quadratic Curve fit may be weighted (1/a or 1/a2).

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	2L26023	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (2L26023-ICV1)			Lab File ID: F2122614.D		Analyzed: 12/26/12 22:06			
2-Fluorobiphenyl (Surr)	1000	103	0 - 200	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	104	0 - 200	10.03	10.03	0.0000	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A15024	Instrument:	SV-GCMS4
Matrix:	Soil	Calibration:	A3A1601

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (3A15024-CCB1)			Lab File ID: D3011502.D		Analyzed: 01/15/13 15:41			
2-Fluorobiphenyl (Surr)			45 - 120	0	6.332	-6.3320	+/-1.0	
p-Terphenyl-d14 (Surr)			30 - 120	0	9.991	-9.9910	+/-1.0	
Initial Cal Check (3A15024-ICV1)			Lab File ID: D3011514.D		Analyzed: 01/15/13 20:50			
2-Fluorobiphenyl (Surr)	1000	104	75 - 125	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	104	75 - 125	9.99	9.991	-0.0010	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A18003	Instrument:	SV-GCMS6
Matrix:	Water	Calibration:	A2L2701

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (3A18003-CCV1)			Lab File ID: F3011802.D		Analyzed: 01/18/13 10:24			
2-Fluorobiphenyl (Surr)	1000	102	80 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	96	80 - 120	10.02	10.03	-0.0100	+/-1.0	
Calibration Blank (3A18003-CCB1)			Lab File ID: F3011803.D		Analyzed: 01/18/13 10:52			
2-Fluorobiphenyl (Surr)			45 - 120	0	6.364	-6.3640	+/-1.0	
p-Terphenyl-d14 (Surr)			30 - 120	0	10.03	-10.0300	+/-1.0	
Blank (1301407-BLK1)			Lab File ID: F3011817.D		Analyzed: 01/18/13 20:16			
2-Fluorobiphenyl (Surr)	5.00	72	25 - 120	6.37	6.364	0.0060	+/-1.0	
p-Terphenyl-d14 (Surr)	5.00	92	30 - 120	10.03	10.03	0.0000	+/-1.0	
LCS (1301407-BS1)			Lab File ID: F3011818.D		Analyzed: 01/18/13 20:43			
2-Fluorobiphenyl (Surr)	5.00	77	25 - 120	6.37	6.364	0.0060	+/-1.0	
p-Terphenyl-d14 (Surr)	5.00	90	30 - 120	10.03	10.03	0.0000	+/-1.0	
LCS Dup (1301407-BSD1)			Lab File ID: F3011819.D		Analyzed: 01/18/13 21:10			
2-Fluorobiphenyl (Surr)	5.00	82	25 - 120	6.37	6.364	0.0060	+/-1.0	
p-Terphenyl-d14 (Surr)	5.00	89	30 - 120	10.03	10.03	0.0000	+/-1.0	
AQ-SSA4-RB-011113 (A13A243-18)			Lab File ID: F3011820.D		Analyzed: 01/18/13 21:37			
2-Fluorobiphenyl (Surr)	10.6	69	25 - 120	6.37	6.364	0.0060	+/-1.0	
p-Terphenyl-d14 (Surr)	10.6	100	30 - 120	10.03	10.03	0.0000	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A21005	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (3A21005-CCV2)			Lab File ID: F3012105.D		Analyzed: 01/21/13 12:59			
2-Fluorobiphenyl (Surr)	1000	101	80 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	109	80 - 120	10.02	10.03	-0.0100	+/-1.0	
Calibration Blank (3A21005-CCB2)			Lab File ID: F3012106.D		Analyzed: 01/21/13 13:27			
2-Fluorobiphenyl (Surr)			45 - 120	0	6.364	-6.3640	+/-1.0	
p-Terphenyl-d14 (Surr)			30 - 120	0	10.03	-10.0300	+/-1.0	
Blank (1301443-BLK1)			Lab File ID: F3012107.D		Analyzed: 01/21/13 16:27			
2-Fluorobiphenyl (Surr)	385	88	45 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	385	117	30 - 120	10.03	10.03	0.0000	+/-1.0	
LCS (1301443-BS1)			Lab File ID: F3012108.D		Analyzed: 01/21/13 16:54			
2-Fluorobiphenyl (Surr)	500	93	45 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	500	103	30 - 120	10.02	10.03	-0.0100	+/-1.0	
Duplicate (1301443-DUP1)			Lab File ID: F3012110.D		Analyzed: 01/21/13 17:49			
2-Fluorobiphenyl (Surr)	498	80	45 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	498	110	30 - 120	10.02	10.03	-0.0100	+/-1.0	
AQ-SSA4-25-0-1 (A13A243-05)			Lab File ID: F3012112.D		Analyzed: 01/21/13 18:43			
2-Fluorobiphenyl (Surr)	507	83	45 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	507	100	30 - 120	10.02	10.03	-0.0100	+/-1.0	
AQ-SSA4-26-0-1 (A13A243-08)			Lab File ID: F3012114.D		Analyzed: 01/21/13 19:37			
2-Fluorobiphenyl (Surr)	506	86	45 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	506	103	30 - 120	10.02	10.03	-0.0100	+/-1.0	
AQ-SSA4-76-0-1 (A13A243-11)			Lab File ID: F3012116.D		Analyzed: 01/21/13 20:32			
2-Fluorobiphenyl (Surr)	540	84	45 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	540	107	30 - 120	10.02	10.03	-0.0100	+/-1.0	
AQ-SSA4-76-1-2 (A13A243-12)			Lab File ID: F3012117.D		Analyzed: 01/21/13 20:59			
2-Fluorobiphenyl (Surr)	584	88	45 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	584	113	30 - 120	10.02	10.03	-0.0100	+/-1.0	
AQ-SSA4-27-1-2 (A13A243-15)			Lab File ID: F3012119.D		Analyzed: 01/21/13 21:52			
2-Fluorobiphenyl (Surr)	460	88	45 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	460	101	30 - 120	10.02	10.03	-0.0100	+/-1.0	
Matrix Spike (1301443-MS1)			Lab File ID: F3012120.D		Analyzed: 01/21/13 22:20			
2-Fluorobiphenyl (Surr)	542	92	45 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	542	102	30 - 120	10.01	10.03	-0.0200	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A22002	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (3A22002-CCV1)			Lab File ID: F3012202.D		Analyzed: 01/22/13 09:52			
2-Fluorobiphenyl (Surr)	1000	100	80 - 120	6.36	6.364	-0.0040	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	110	80 - 120	10.02	10.03	-0.0100	+/-1.0	
Calibration Blank (3A22002-CCB1)			Lab File ID: F3012203.D		Analyzed: 01/22/13 10:19			
2-Fluorobiphenyl (Surr)			45 - 120	0	6.364	-6.3640	+/-1.0	
p-Terphenyl-d14 (Surr)			30 - 120	0	10.03	-10.0300	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A23005	Instrument:	SV-GCMS4
Matrix:	Soil	Calibration:	A3A1601

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (3A23005-CCV1)			Lab File ID: D3012302.D		Analyzed: 01/23/13 09:46			
2-Fluorobiphenyl (Surr)	1000	102	80 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	110	80 - 120	9.99	9.991	-0.0010	+/-1.0	
Calibration Blank (3A23005-CCB1)			Lab File ID: D3012303.D		Analyzed: 01/23/13 10:12			
2-Fluorobiphenyl (Surr)			45 - 120	0	6.332	-6.3320	+/-1.0	
p-Terphenyl-d14 (Surr)			30 - 120	0	9.991	-9.9910	+/-1.0	
Blank (1301478-BLK1)			Lab File ID: D3012304.D		Analyzed: 01/23/13 10:38			
2-Fluorobiphenyl (Surr)	417	97	45 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	417	119	30 - 120	9.99	9.991	-0.0010	+/-1.0	
LCS (1301478-BS1)			Lab File ID: D3012305.D		Analyzed: 01/23/13 11:05			
2-Fluorobiphenyl (Surr)	500	96	45 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	500	103	30 - 120	9.99	9.991	-0.0010	+/-1.0	
AQ-SSA4-24-0-1 (A13A243-01RE1)			Lab File ID: D3012306.D		Analyzed: 01/23/13 11:31			
2-Fluorobiphenyl (Surr)	519	84	45 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	519	102	30 - 120	9.99	9.991	-0.0010	+/-1.0	
Duplicate (1301478-DUP1)			Lab File ID: D3012307.D		Analyzed: 01/23/13 11:57			
2-Fluorobiphenyl (Surr)	511	86	45 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	511	104	30 - 120	9.99	9.991	-0.0010	+/-1.0	
AQ-SSA4-24-1-2 (A13A243-02RE1)			Lab File ID: D3012308.D		Analyzed: 01/23/13 12:23			
2-Fluorobiphenyl (Surr)	578	84	45 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	578	99	30 - 120	9.99	9.991	-0.0010	+/-1.0	
AQ-SSA4-25-1-2 (A13A243-06RE1)			Lab File ID: D3012309.D		Analyzed: 01/23/13 12:49			
2-Fluorobiphenyl (Surr)	589	89	45 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	589	104	30 - 120	9.99	9.991	-0.0010	+/-1.0	
AQ-SSA4-26-1-2 (A13A243-09RE1)			Lab File ID: D3012310.D		Analyzed: 01/23/13 13:15			
2-Fluorobiphenyl (Surr)	541	79	45 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	541	93	30 - 120	9.99	9.991	-0.0010	+/-1.0	
AQ-SSA4-27-0-1 (A13A243-14RE1)			Lab File ID: D3012311.D		Analyzed: 01/23/13 13:41			
2-Fluorobiphenyl (Surr)	538	86	45 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	538	100	30 - 120	9.99	9.991	-0.0010	+/-1.0	
Matrix Spike (1301478-MS1)			Lab File ID: D3012312.D		Analyzed: 01/23/13 14:08			
2-Fluorobiphenyl (Surr)	583	87	45 - 120	6.33	6.332	-0.0020	+/-1.0	
p-Terphenyl-d14 (Surr)	583	93	30 - 120	9.99	9.991	-0.0010	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	2L26023	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Blank (2L26023-ICB1)			Lab File ID: F2122602.D			Analyzed: 12/26/12 16:34			
Naphthalene-d8 (ISTD)	664822	5.33	938021	5.33	71	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	305451	7.02	436271	7.02	70	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	485319	8.46	708312	8.47	69	50 - 200	-0.0100	+/-0.50	
Chrysene-d12 (ISTD)	397734	11.11	629591	11.11	63	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	343868	13.37	525934	13.37	65	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	274405	15.55	413757	15.55	66	50 - 200	0.0000	+/-0.50	
Cal Standard (2L26023-CAL1)			Lab File ID: F2122603.D			Analyzed: 12/26/12 17:02			
Naphthalene-d8 (ISTD)	765666	5.34	938021	5.33	82	50 - 200	0.0100	+/-0.50	
Acenaphthene-d10 (ISTD)	353383	7.02	436271	7.02	81	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	575421	8.47	708312	8.47	81	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	490661	11.11	629591	11.11	78	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	428709	13.37	525934	13.37	82	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	345270	15.55	413757	15.55	83	50 - 200	0.0000	+/-0.50	
Cal Standard (2L26023-CAL2)			Lab File ID: F2122604.D			Analyzed: 12/26/12 17:30			
Naphthalene-d8 (ISTD)	725587	5.33	938021	5.33	77	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	331503	7.02	436271	7.02	76	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	525796	8.47	708312	8.47	74	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	447651	11.11	629591	11.11	71	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	386418	13.37	525934	13.37	73	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	309627	15.55	413757	15.55	75	50 - 200	0.0000	+/-0.50	
Cal Standard (2L26023-CAL3)			Lab File ID: F2122605.D			Analyzed: 12/26/12 17:58			
Naphthalene-d8 (ISTD)	674667	5.34	938021	5.33	72	50 - 200	0.0100	+/-0.50	
Acenaphthene-d10 (ISTD)	310304	7.02	436271	7.02	71	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	495244	8.47	708312	8.47	70	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	411194	11.11	629591	11.11	65	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	346134	13.37	525934	13.37	66	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	274644	15.55	413757	15.55	66	50 - 200	0.0000	+/-0.50	
Cal Standard (2L26023-CAL4)			Lab File ID: F2122606.D			Analyzed: 12/26/12 18:25			
Naphthalene-d8 (ISTD)	792005	5.34	938021	5.33	84	50 - 200	0.0100	+/-0.50	
Acenaphthene-d10 (ISTD)	363142	7.02	436271	7.02	83	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	586730	8.47	708312	8.47	83	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	495476	11.11	629591	11.11	79	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	419505	13.37	525934	13.37	80	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	328306	15.55	413757	15.55	79	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	2L26023	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (2L26023-CAL5)			Lab File ID: F2122607.D			Analyzed: 12/26/12 18:53			
Naphthalene-d8 (ISTD)	671062	5.33	938021	5.33	72	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	308964	7.02	436271	7.02	71	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	486669	8.47	708312	8.47	69	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	424838	11.11	629591	11.11	67	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	356595	13.37	525934	13.37	68	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	278703	15.55	413757	15.55	67	50 - 200	0.0000	+/-0.50	
Cal Standard (2L26023-CAL6)			Lab File ID: F2122608.D			Analyzed: 12/26/12 19:20			
Naphthalene-d8 (ISTD)	938021	5.33	938021	5.33	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	436271	7.02	436271	7.02	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	708312	8.47	708312	8.47	100	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	629591	11.11	629591	11.11	100	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	525934	13.37	525934	13.37	100	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	413757	15.55	413757	15.55	100	50 - 200	0.0000	+/-0.50	
Cal Standard (2L26023-CAL7)			Lab File ID: F2122609.D			Analyzed: 12/26/12 19:48			
Naphthalene-d8 (ISTD)	733808	5.33	938021	5.33	78	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	343841	7.02	436271	7.02	79	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	552427	8.47	708312	8.47	78	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	505302	11.11	629591	11.11	80	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	417763	13.37	525934	13.37	79	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	332771	15.55	413757	15.55	80	50 - 200	0.0000	+/-0.50	
Cal Standard (2L26023-CAL8)			Lab File ID: F2122610.D			Analyzed: 12/26/12 20:16			
Naphthalene-d8 (ISTD)	711375	5.33	938021	5.33	76	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	333714	7.02	436271	7.02	76	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	544082	8.47	708312	8.47	77	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	524268	11.12	629591	11.11	83	50 - 200	0.0100	+/-0.50	
Perylene-d12 (ISTD)	442988	13.37	525934	13.37	84	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	370781	15.56	413757	15.55	90	50 - 200	0.0100	+/-0.50	
Cal Standard (2L26023-CAL9)			Lab File ID: F2122611.D			Analyzed: 12/26/12 20:43			
Naphthalene-d8 (ISTD)	797400	5.33	938021	5.33	85	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	384035	7.02	436271	7.02	88	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	623988	8.47	708312	8.47	88	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	611404	11.12	629591	11.11	97	50 - 200	0.0100	+/-0.50	
Perylene-d12 (ISTD)	529407	13.37	525934	13.37	101	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	453984	15.56	413757	15.55	110	50 - 200	0.0100	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	2L26023	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (2L26023-CALA)			Lab File ID: F2122612.D			Analyzed: 12/26/12 21:11			
Naphthalene-d8 (ISTD)	765316	5.33	938021	5.33	82	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	367063	7.02	436271	7.02	84	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	598844	8.47	708312	8.47	85	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	602469	11.12	629591	11.11	96	50 - 200	0.0100	+/-0.50	
Perylene-d12 (ISTD)	525398	13.37	525934	13.37	100	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	464425	15.57	413757	15.55	112	50 - 200	0.0200	+/-0.50	
Initial Cal Check (2L26023-ICV1)			Lab File ID: F2122614.D			Analyzed: 12/26/12 22:06			
Naphthalene-d8 (ISTD)	1435721	5.34	938021	5.33	153	50 - 200	0.0100	+/-0.50	
Acenaphthene-d10 (ISTD)	680289	7.02	436271	7.02	156	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	1121531	8.47	708312	8.47	158	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	1050255	11.11	629591	11.11	167	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	915983	13.37	525934	13.37	174	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	742609	15.55	413757	15.55	179	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A15024	Instrument:	SV-GCMS4
Matrix:	Soil	Calibration:	A3A1601

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Blank (3A15024-CCB1)			Lab File ID: D3011502.D			Analyzed: 01/15/13 15:41			
Naphthalene-d8 (ISTD)	611927	5.3	1025784	5.3	60	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	257026	6.98	444197	6.98	58	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	335082	8.43	613830	8.43	55	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	209493	11.08	446946	11.08	47	50 - 200	0.0000	+/-0.50	*
Perylene-d12 (ISTD)	179386	13.33	388702	13.33	46	50 - 200	0.0000	+/-0.50	*
Dibenz(a,h)anthracene-d14 (ISTD)	121304	15.49	283222	15.49	43	50 - 200	0.0000	+/-0.50	*
Cal Standard (3A15024-CAL1)			Lab File ID: D3011503.D			Analyzed: 01/15/13 16:07			
Naphthalene-d8 (ISTD)	889262	5.3	1025784	5.3	87	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	376374	6.98	444197	6.98	85	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	506735	8.43	613830	8.43	83	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	349606	11.08	446946	11.08	78	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	307567	13.33	388702	13.33	79	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	215919	15.49	283222	15.49	76	50 - 200	0.0000	+/-0.50	
Cal Standard (3A15024-CAL2)			Lab File ID: D3011504.D			Analyzed: 01/15/13 16:33			
Naphthalene-d8 (ISTD)	825549	5.3	1025784	5.3	80	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	356647	6.98	444197	6.98	80	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	478436	8.43	613830	8.43	78	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	331338	11.08	446946	11.08	74	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	286038	13.33	388702	13.33	74	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	200839	15.49	283222	15.49	71	50 - 200	0.0000	+/-0.50	
Cal Standard (3A15024-CAL3)			Lab File ID: D3011505.D			Analyzed: 01/15/13 16:59			
Naphthalene-d8 (ISTD)	682857	5.3	1025784	5.3	67	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	294266	6.98	444197	6.98	66	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	397072	8.43	613830	8.43	65	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	273530	11.08	446946	11.08	61	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	236452	13.33	388702	13.33	61	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	166328	15.49	283222	15.49	59	50 - 200	0.0000	+/-0.50	
Cal Standard (3A15024-CAL4)			Lab File ID: D3011506.D			Analyzed: 01/15/13 17:25			
Naphthalene-d8 (ISTD)	801623	5.3	1025784	5.3	78	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	337818	6.98	444197	6.98	76	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	450117	8.43	613830	8.43	73	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	304906	11.08	446946	11.08	68	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	263813	13.33	388702	13.33	68	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	187174	15.48	283222	15.49	66	50 - 200	-0.0100	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence: 3A15024
Instrument: SV-GCMS4
Matrix: Soil
Calibration: A3A1601

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (3A15024-CAL5)			Lab File ID: D3011507.D			Analyzed: 01/15/13 17:51			
Naphthalene-d8 (ISTD)	716217	5.3	1025784	5.3	70	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	309837	6.98	444197	6.98	70	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	421034	8.43	613830	8.43	69	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	299123	11.08	446946	11.08	67	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	261460	13.33	388702	13.33	67	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	185795	15.49	283222	15.49	66	50 - 200	0.0000	+/-0.50	
Cal Standard (3A15024-CAL6)			Lab File ID: D3011508.D			Analyzed: 01/15/13 18:16			
Naphthalene-d8 (ISTD)	1025784	5.3	1025784	5.3	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	444197	6.98	444197	6.98	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	613830	8.43	613830	8.43	100	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	446946	11.08	446946	11.08	100	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	388702	13.33	388702	13.33	100	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	283222	15.49	283222	15.49	100	50 - 200	0.0000	+/-0.50	
Cal Standard (3A15024-CAL7)			Lab File ID: D3011509.D			Analyzed: 01/15/13 18:42			
Naphthalene-d8 (ISTD)	704363	5.3	1025784	5.3	69	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	305059	6.98	444197	6.98	69	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	423770	8.43	613830	8.43	69	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	304980	11.08	446946	11.08	68	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	259281	13.33	388702	13.33	67	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	189915	15.49	283222	15.49	67	50 - 200	0.0000	+/-0.50	
Cal Standard (3A15024-CAL8)			Lab File ID: D3011510.D			Analyzed: 01/15/13 19:08			
Naphthalene-d8 (ISTD)	802846	5.3	1025784	5.3	78	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	358087	6.99	444197	6.98	81	50 - 200	0.0100	+/-0.50	
Phenanthrene-d10 (ISTD)	502192	8.43	613830	8.43	82	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	385691	11.08	446946	11.08	86	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	324879	13.33	388702	13.33	84	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	246571	15.5	283222	15.49	87	50 - 200	0.0100	+/-0.50	
Cal Standard (3A15024-CAL9)			Lab File ID: D3011511.D			Analyzed: 01/15/13 19:33			
Naphthalene-d8 (ISTD)	786327	5.3	1025784	5.3	77	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	348644	6.99	444197	6.98	78	50 - 200	0.0100	+/-0.50	
Phenanthrene-d10 (ISTD)	484154	8.43	613830	8.43	79	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	372576	11.08	446946	11.08	83	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	314026	13.34	388702	13.33	81	50 - 200	0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	244775	15.5	283222	15.49	86	50 - 200	0.0100	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A15024	Instrument:	SV-GCMS4
Matrix:	Soil	Calibration:	A3A1601

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (3A15024-CALA)			Lab File ID: D3011512.D			Analyzed: 01/15/13 19:59			
Naphthalene-d8 (ISTD)	812086	5.3	1025784	5.3	79	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	365311	6.99	444197	6.98	82	50 - 200	0.0100	+/-0.50	
Phenanthrene-d10 (ISTD)	514523	8.43	613830	8.43	84	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	393469	11.09	446946	11.08	88	50 - 200	0.0100	+/-0.50	
Perylene-d12 (ISTD)	330106	13.34	388702	13.33	85	50 - 200	0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	258147	15.51	283222	15.49	91	50 - 200	0.0200	+/-0.50	
Initial Cal Check (3A15024-ICV1)			Lab File ID: D3011514.D			Analyzed: 01/15/13 20:50			
Naphthalene-d8 (ISTD)	1756887	5.3	1025784	5.3	171	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	764384	6.98	444197	6.98	172	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	1075594	8.43	613830	8.43	175	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	779804	11.08	446946	11.08	174	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	684093	13.33	388702	13.33	176	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	512938	15.5	283222	15.49	181	50 - 200	0.0100	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A18003	Instrument:	SV-GCMS6
Matrix:	Water	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (3A18003-CCV1)			Lab File ID: F3011802.D			Analyzed: 01/18/13 10:24			
Naphthalene-d8 (ISTD)	672855	5.33				50 - 200		+/-0.50	
Acenaphthene-d10 (ISTD)	329278	7.02				50 - 200		+/-0.50	
Phenanthrene-d10 (ISTD)	559263	8.46				50 - 200		+/-0.50	
Chrysene-d12 (ISTD)	584130	11.11				50 - 200		+/-0.50	
Perylene-d12 (ISTD)	486310	13.36				50 - 200		+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	298789	15.54				50 - 200		+/-0.50	
Calibration Blank (3A18003-CCB1)			Lab File ID: F3011803.D			Analyzed: 01/18/13 10:52			
Naphthalene-d8 (ISTD)	729983	5.34	672855	5.33	108	50 - 200	0.0100	+/-0.50	
Acenaphthene-d10 (ISTD)	343555	7.02	329278	7.02	104	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	554262	8.47	559263	8.46	99	50 - 200	0.0100	+/-0.50	
Chrysene-d12 (ISTD)	537333	11.11	584130	11.11	92	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	436475	13.36	486310	13.36	90	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	261822	15.54	298789	15.54	88	50 - 200	0.0000	+/-0.50	
Blank (1301407-BLK1)			Lab File ID: F3011817.D			Analyzed: 01/18/13 20:16			
Naphthalene-d8 (ISTD)	693915	5.33	672855	5.33	103	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	351413	7.02	329278	7.02	107	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	587583	8.47	559263	8.46	105	50 - 200	0.0100	+/-0.50	
Chrysene-d12 (ISTD)	618595	11.11	584130	11.11	106	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	542893	13.37	486310	13.36	112	50 - 200	0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	363301	15.55	298789	15.54	122	50 - 200	0.0100	+/-0.50	
LCS (1301407-BS1)			Lab File ID: F3011818.D			Analyzed: 01/18/13 20:43			
Naphthalene-d8 (ISTD)	701014	5.34	672855	5.33	104	50 - 200	0.0100	+/-0.50	
Acenaphthene-d10 (ISTD)	350288	7.02	329278	7.02	106	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	605755	8.47	559263	8.46	108	50 - 200	0.0100	+/-0.50	
Chrysene-d12 (ISTD)	675557	11.12	584130	11.11	116	50 - 200	0.0100	+/-0.50	
Perylene-d12 (ISTD)	595124	13.37	486310	13.36	122	50 - 200	0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	413818	15.55	298789	15.54	138	50 - 200	0.0100	+/-0.50	
LCS Dup (1301407-BSD1)			Lab File ID: F3011819.D			Analyzed: 01/18/13 21:10			
Naphthalene-d8 (ISTD)	751644	5.33	672855	5.33	112	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	366819	7.02	329278	7.02	111	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	613008	8.47	559263	8.46	110	50 - 200	0.0100	+/-0.50	
Chrysene-d12 (ISTD)	675229	11.11	584130	11.11	116	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	602065	13.37	486310	13.36	124	50 - 200	0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	418560	15.55	298789	15.54	140	50 - 200	0.0100	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A18003	Instrument:	SV-GCMS6
Matrix:	Water	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
AQ-SSA4-RB-011113 (A13A243-18)			Lab File ID: F3011820.D			Analyzed: 01/18/13 21:37			
Naphthalene-d8 (ISTD)	738145	5.33	672855	5.33	110	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	376181	7.02	329278	7.02	114	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	652121	8.47	559263	8.46	117	50 - 200	0.0100	+/-0.50	
Chrysene-d12 (ISTD)	668670	11.11	584130	11.11	114	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	537182	13.37	486310	13.36	110	50 - 200	0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	350871	15.55	298789	15.54	117	50 - 200	0.0100	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A21005	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (3A21005-CCV2)			Lab File ID: F3012105.D			Analyzed: 01/21/13 12:59			
Naphthalene-d8 (ISTD)	851550	5.33				50 - 200		+/-0.50	
Acenaphthene-d10 (ISTD)	429042	7.02				50 - 200		+/-0.50	
Phenanthrene-d10 (ISTD)	714822	8.46				50 - 200		+/-0.50	
Chrysene-d12 (ISTD)	634011	11.11				50 - 200		+/-0.50	
Perylene-d12 (ISTD)	515041	13.36				50 - 200		+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	376881	15.54				50 - 200		+/-0.50	
Calibration Blank (3A21005-CCB2)			Lab File ID: F3012106.D			Analyzed: 01/21/13 13:27			
Naphthalene-d8 (ISTD)	859964	5.33	851550	5.33	101	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	425737	7.02	429042	7.02	99	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	712952	8.46	714822	8.46	100	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	559265	11.11	634011	11.11	88	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	451727	13.36	515041	13.36	88	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	326766	15.53	376881	15.54	87	50 - 200	-0.0100	+/-0.50	
Blank (1301443-BLK1)			Lab File ID: F3012107.D			Analyzed: 01/21/13 16:27			
Naphthalene-d8 (ISTD)	795910	5.32	851550	5.33	93	50 - 200	-0.0100	+/-0.50	
Acenaphthene-d10 (ISTD)	400145	7.02	429042	7.02	93	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	639472	8.46	714822	8.46	89	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	503259	11.11	634011	11.11	79	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	406965	13.36	515041	13.36	79	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	298184	15.54	376881	15.54	79	50 - 200	0.0000	+/-0.50	
LCS (1301443-BS1)			Lab File ID: F3012108.D			Analyzed: 01/21/13 16:54			
Naphthalene-d8 (ISTD)	921282	5.33	851550	5.33	108	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	437522	7.02	429042	7.02	102	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	708773	8.46	714822	8.46	99	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	624478	11.11	634011	11.11	98	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	516497	13.36	515041	13.36	100	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	386059	15.54	376881	15.54	102	50 - 200	0.0000	+/-0.50	
Duplicate (1301443-DUP1)			Lab File ID: F3012110.D			Analyzed: 01/21/13 17:49			
Naphthalene-d8 (ISTD)	950191	5.33	851550	5.33	112	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	465268	7.02	429042	7.02	108	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	752807	8.46	714822	8.46	105	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	578069	11.11	634011	11.11	91	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	475182	13.36	515041	13.36	92	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	352692	15.53	376881	15.54	94	50 - 200	-0.0100	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A21005	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
AQ-SSA4-25-0-1 (A13A243-05)			Lab File ID: F3012112.D			Analyzed: 01/21/13 18:43			
Naphthalene-d8 (ISTD)	886442	5.33	851550	5.33	104	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	422534	7.02	429042	7.02	98	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	677357	8.46	714822	8.46	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	641065	11.11	634011	11.11	101	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	587817	13.36	515041	13.36	114	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	491600	15.55	376881	15.54	130	50 - 200	0.0100	+/-0.50	
AQ-SSA4-26-0-1 (A13A243-08)			Lab File ID: F3012114.D			Analyzed: 01/21/13 19:37			
Naphthalene-d8 (ISTD)	968707	5.33	851550	5.33	114	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	464925	7.02	429042	7.02	108	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	772509	8.46	714822	8.46	108	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	733634	11.11	634011	11.11	116	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	694742	13.36	515041	13.36	135	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	614545	15.55	376881	15.54	163	50 - 200	0.0100	+/-0.50	
AQ-SSA4-76-0-1 (A13A243-11)			Lab File ID: F3012116.D			Analyzed: 01/21/13 20:32			
Naphthalene-d8 (ISTD)	948660	5.33	851550	5.33	111	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	450087	7.02	429042	7.02	105	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	740177	8.46	714822	8.46	104	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	662138	11.11	634011	11.11	104	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	618034	13.36	515041	13.36	120	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	518817	15.54	376881	15.54	138	50 - 200	0.0000	+/-0.50	
AQ-SSA4-76-1-2 (A13A243-12)			Lab File ID: F3012117.D			Analyzed: 01/21/13 20:59			
Naphthalene-d8 (ISTD)	991361	5.33	851550	5.33	116	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	487358	7.02	429042	7.02	114	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	798492	8.46	714822	8.46	112	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	638098	11.1	634011	11.11	101	50 - 200	-0.0100	+/-0.50	
Perylene-d12 (ISTD)	537890	13.35	515041	13.36	104	50 - 200	-0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	427635	15.53	376881	15.54	113	50 - 200	-0.0100	+/-0.50	
AQ-SSA4-27-1-2 (A13A243-15)			Lab File ID: F3012119.D			Analyzed: 01/21/13 21:52			
Naphthalene-d8 (ISTD)	949722	5.33	851550	5.33	112	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	455884	7.02	429042	7.02	106	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	741183	8.46	714822	8.46	104	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	740571	11.11	634011	11.11	117	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	735027	13.36	515041	13.36	143	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	661229	15.56	376881	15.54	175	50 - 200	0.0200	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A21005	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (1301443-MS1)			Lab File ID: F3012120.D			Analyzed: 01/21/13 22:20			
Naphthalene-d8 (ISTD)	922890	5.33	851550	5.33	108	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	458105	7.02	429042	7.02	107	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	748859	8.46	714822	8.46	105	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	729241	11.11	634011	11.11	115	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	697724	13.36	515041	13.36	135	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	629104	15.55	376881	15.54	167	50 - 200	0.0100	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A22002	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (3A22002-CCV1)			Lab File ID: F3012202.D			Analyzed: 01/22/13 09:52			
Naphthalene-d8 (ISTD)	949891	5.33				50 - 200		+/-0.50	
Acenaphthene-d10 (ISTD)	469490	7.02				50 - 200		+/-0.50	
Phenanthrene-d10 (ISTD)	761907	8.46				50 - 200		+/-0.50	
Chrysene-d12 (ISTD)	650778	11.11				50 - 200		+/-0.50	
Perylene-d12 (ISTD)	542199	13.35				50 - 200		+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	412733	15.53				50 - 200		+/-0.50	
Calibration Blank (3A22002-CCB1)			Lab File ID: F3012203.D			Analyzed: 01/22/13 10:19			
Naphthalene-d8 (ISTD)	927391	5.33	949891	5.33	98	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	442972	7.02	469490	7.02	94	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	710947	8.46	761907	8.46	93	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	566532	11.11	650778	11.11	87	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	472591	13.35	542199	13.35	87	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	362751	15.53	412733	15.53	88	50 - 200	0.0000	+/-0.50	
AQ-SSA4-25-0-1 (A13A243-05RE1)			Lab File ID: F3012204.D			Analyzed: 01/22/13 10:46			
Naphthalene-d8 (ISTD)	886820	5.33	949891	5.33	93	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	432088	7.02	469490	7.02	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	688670	8.46	761907	8.46	90	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	575306	11.11	650778	11.11	88	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	496142	13.35	542199	13.35	92	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	376680	15.53	412733	15.53	91	50 - 200	0.0000	+/-0.50	
AQ-SSA4-26-0-1 (A13A243-08RE1)			Lab File ID: F3012205.D			Analyzed: 01/22/13 11:14			
Naphthalene-d8 (ISTD)	894664	5.33	949891	5.33	94	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	426529	7.02	469490	7.02	91	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	693267	8.46	761907	8.46	91	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	577488	11.11	650778	11.11	89	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	497004	13.35	542199	13.35	92	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	377314	15.53	412733	15.53	91	50 - 200	0.0000	+/-0.50	
AQ-SSA4-76-0-1 (A13A243-11RE1)			Lab File ID: F3012206.D			Analyzed: 01/22/13 11:42			
Naphthalene-d8 (ISTD)	874413	5.33	949891	5.33	92	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	425123	7.01	469490	7.02	91	50 - 200	-0.0100	+/-0.50	
Phenanthrene-d10 (ISTD)	682139	8.46	761907	8.46	90	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	571913	11.11	650778	11.11	88	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	500092	13.36	542199	13.35	92	50 - 200	0.0100	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	383990	15.53	412733	15.53	93	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A22002	Instrument:	SV-GCMS6
Matrix:	Soil	Calibration:	A2L2701

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
AQ-SSA4-27-1-2 (A13A243-15RE1)			Lab File ID: F3012207.D			Analyzed: 01/22/13 12:09			
Naphthalene-d8 (ISTD)	913707	5.33	949891	5.33	96	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	429428	7.01	469490	7.02	91	50 - 200	-0.0100	+/-0.50	
Phenanthrene-d10 (ISTD)	699140	8.46	761907	8.46	92	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	583797	11.11	650778	11.11	90	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	500939	13.35	542199	13.35	92	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	375376	15.53	412733	15.53	91	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A23005	Instrument:	SV-GCMS4
Matrix:	Soil	Calibration:	A3A1601

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (3A23005-CCV1)			Lab File ID: D3012302.D			Analyzed: 01/23/13 09:46			
Naphthalene-d8 (ISTD)	929742	5.3				50 - 200		+/-0.50	
Acenaphthene-d10 (ISTD)	413147	6.98				50 - 200		+/-0.50	
Phenanthrene-d10 (ISTD)	543406	8.43				50 - 200		+/-0.50	
Chrysene-d12 (ISTD)	348476	11.08				50 - 200		+/-0.50	
Perylene-d12 (ISTD)	298705	13.33				50 - 200		+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	204301	15.49				50 - 200		+/-0.50	
Calibration Blank (3A23005-CCB1)			Lab File ID: D3012303.D			Analyzed: 01/23/13 10:12			
Naphthalene-d8 (ISTD)	896155	5.3	929742	5.3	96	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	394092	6.98	413147	6.98	95	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	497891	8.43	543406	8.43	92	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	338370	11.08	348476	11.08	97	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	286837	13.33	298705	13.33	96	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	191923	15.49	204301	15.49	94	50 - 200	0.0000	+/-0.50	
Blank (1301478-BLK1)			Lab File ID: D3012304.D			Analyzed: 01/23/13 10:38			
Naphthalene-d8 (ISTD)	901579	5.3	929742	5.3	97	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	390653	6.98	413147	6.98	95	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	504340	8.43	543406	8.43	93	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	312713	11.08	348476	11.08	90	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	252781	13.33	298705	13.33	85	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	171178	15.49	204301	15.49	84	50 - 200	0.0000	+/-0.50	
LCS (1301478-BS1)			Lab File ID: D3012305.D			Analyzed: 01/23/13 11:05			
Naphthalene-d8 (ISTD)	864685	5.3	929742	5.3	93	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	374765	6.98	413147	6.98	91	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	511318	8.43	543406	8.43	94	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	359662	11.08	348476	11.08	103	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	319465	13.33	298705	13.33	107	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	231030	15.5	204301	15.49	113	50 - 200	0.0100	+/-0.50	
AQ-SSA4-24-0-1 (A13A243-01RE1)			Lab File ID: D3012306.D			Analyzed: 01/23/13 11:31			
Naphthalene-d8 (ISTD)	851928	5.3	929742	5.3	92	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	374518	6.98	413147	6.98	91	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	481250	8.43	543406	8.43	89	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	333552	11.08	348476	11.08	96	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	301713	13.33	298705	13.33	101	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	216355	15.49	204301	15.49	106	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A23005	Instrument:	SV-GCMS4
Matrix:	Soil	Calibration:	A3A1601

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Duplicate (1301478-DUP1)			Lab File ID: D3012307.D			Analyzed: 01/23/13 11:57			
Naphthalene-d8 (ISTD)	875165	5.3	929742	5.3	94	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	374368	6.98	413147	6.98	91	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	482308	8.43	543406	8.43	89	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	343848	11.08	348476	11.08	99	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	308755	13.33	298705	13.33	103	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	217847	15.49	204301	15.49	107	50 - 200	0.0000	+/-0.50	
AQ-SSA4-24-1-2 (A13A243-02RE1)			Lab File ID: D3012308.D			Analyzed: 01/23/13 12:23			
Naphthalene-d8 (ISTD)	860842	5.3	929742	5.3	93	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	380007	6.98	413147	6.98	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	495152	8.43	543406	8.43	91	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	347288	11.08	348476	11.08	100	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	314023	13.33	298705	13.33	105	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	220847	15.49	204301	15.49	108	50 - 200	0.0000	+/-0.50	
AQ-SSA4-25-1-2 (A13A243-06RE1)			Lab File ID: D3012309.D			Analyzed: 01/23/13 12:49			
Naphthalene-d8 (ISTD)	846423	5.3	929742	5.3	91	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	373317	6.98	413147	6.98	90	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	486376	8.43	543406	8.43	90	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	343880	11.08	348476	11.08	99	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	311268	13.33	298705	13.33	104	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	221943	15.49	204301	15.49	109	50 - 200	0.0000	+/-0.50	
AQ-SSA4-26-1-2 (A13A243-09RE1)			Lab File ID: D3012310.D			Analyzed: 01/23/13 13:15			
Naphthalene-d8 (ISTD)	882251	5.3	929742	5.3	95	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	390304	6.98	413147	6.98	94	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	518910	8.43	543406	8.43	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	365783	11.08	348476	11.08	105	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	319421	13.33	298705	13.33	107	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	222301	15.48	204301	15.49	109	50 - 200	-0.0100	+/-0.50	
AQ-SSA4-27-0-1 (A13A243-14RE1)			Lab File ID: D3012311.D			Analyzed: 01/23/13 13:41			
Naphthalene-d8 (ISTD)	825651	5.3	929742	5.3	89	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	349497	6.98	413147	6.98	85	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	445867	8.43	543406	8.43	82	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	321496	11.08	348476	11.08	92	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	291325	13.33	298705	13.33	98	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	218850	15.49	204301	15.49	107	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D (SIM)

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A23005	Instrument:	SV-GCMS4
Matrix:	Soil	Calibration:	A3A1601

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (1301478-MS1)			Lab File ID: D3012312.D			Analyzed: 01/23/13 14:08			
Naphthalene-d8 (ISTD)	776600	5.3	929742	5.3	84	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	314393	6.99	413147	6.98	76	50 - 200	0.0100	+/-0.50	
Phenanthrene-d10 (ISTD)	424113	8.43	543406	8.43	78	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	321596	11.08	348476	11.08	92	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	295279	13.33	298705	13.33	99	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	231186	15.49	204301	15.49	113	50 - 200	0.0000	+/-0.50	

HOLDING TIME SUMMARY
EPA 8270D (SIM)

Laboratory: Apex Laboratories SDG: A13A243

Client: Anchor QEA, LLC Tigard Project: Former Reynolds Metals Reduction Plant RI/FS-sed

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
AQ-SSA4-24-0-1	01/11/13 11:50	01/11/13 15:10	01/22/13 16:04	11.18	14.00	01/23/13 11:31	0.81	40.00	
AQ-SSA4-24-1-2	01/11/13 11:52	01/11/13 15:10	01/22/13 16:04	11.18	14.00	01/23/13 12:23	0.85	40.00	
AQ-SSA4-25-0-1	01/11/13 12:20	01/11/13 15:10	01/21/13 12:50	10.02	14.00	01/21/13 18:43	0.25	40.00	
AQ-SSA4-25-0-1	01/11/13 12:20	01/11/13 15:10	01/21/13 12:50	10.02	14.00	01/22/13 10:46	0.91	40.00	
AQ-SSA4-25-1-2	01/11/13 12:23	01/11/13 15:10	01/22/13 16:04	11.15	14.00	01/23/13 12:49	0.86	40.00	
AQ-SSA4-26-0-1	01/11/13 12:55	01/11/13 15:10	01/21/13 12:50	10.00	14.00	01/21/13 19:37	0.28	40.00	
AQ-SSA4-26-0-1	01/11/13 12:55	01/11/13 15:10	01/21/13 12:50	10.00	14.00	01/22/13 11:14	0.93	40.00	
AQ-SSA4-26-1-2	01/11/13 13:00	01/11/13 15:10	01/22/13 16:04	11.13	14.00	01/23/13 13:15	0.88	40.00	
AQ-SSA4-76-0-1	01/11/13 12:55	01/11/13 15:10	01/21/13 12:50	10.00	14.00	01/21/13 20:32	0.32	40.00	
AQ-SSA4-76-0-1	01/11/13 12:55	01/11/13 15:10	01/21/13 12:50	10.00	14.00	01/22/13 11:42	0.95	40.00	
AQ-SSA4-76-1-2	01/11/13 13:00	01/11/13 15:10	01/21/13 12:50	9.99	14.00	01/21/13 20:59	0.34	40.00	
AQ-SSA4-27-0-1	01/11/13 13:30	01/11/13 15:10	01/22/13 16:04	11.11	14.00	01/23/13 13:41	0.90	40.00	
AQ-SSA4-27-1-2	01/11/13 13:35	01/11/13 15:10	01/21/13 12:50	9.97	14.00	01/21/13 21:52	0.38	40.00	
AQ-SSA4-27-1-2	01/11/13 13:35	01/11/13 15:10	01/21/13 12:50	9.97	14.00	01/22/13 12:09	0.97	40.00	
AQ-SSA4-RB-011113	01/11/13 14:30	01/11/13 15:10	01/18/13 10:56	6.85	7.00	01/18/13 21:37	0.45	40.00	

Apex Laboratories

SDG: A13A243

CLASS: WET

METHOD: Apex SOP

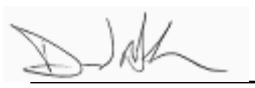
ANALYSES DATA PACKAGE COVER PAGE

Apex SOP

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed

Client Sample Id:	Lab Sample Id:	Matrix
AQ-SSA4-24-0-1	A13A243-01	Soil
AQ-SSA4-24-1-2	A13A243-02	Soil
AQ-SSA4-25-0-1	A13A243-05	Soil
AQ-SSA4-25-1-2	A13A243-06	Soil
AQ-SSA4-26-0-1	A13A243-08	Soil
AQ-SSA4-26-1-2	A13A243-09	Soil
AQ-SSA4-76-0-1	A13A243-11	Soil
AQ-SSA4-76-1-2	A13A243-12	Soil
AQ-SSA4-27-0-1	A13A243-14	Soil
AQ-SSA4-27-1-2	A13A243-15	Soil

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 2/13/2013 10:23AM
Title: Technical Director

METHOD DETECTION AND REPORTING LIMITS

Apex SOP

Laboratory: Apex Laboratories **SDG:** A13A243

Client: Anchor QEA, LLC Tigard **Project:** Former Reynolds Metals Reduction Plant R

Matrix: Soil

Analyte	MDL	MRL	Units
% Solids	---	1.00	% by Weight

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-24-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-01
Sampled: 01/11/13 11:50
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 83.14
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	83.1	1		Apex SOP

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-24-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-02
Sampled: 01/11/13 11:52
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 81.43
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	81.4	1		Apex SOP

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-25-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-05
Sampled: 01/11/13 12:20
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 87.90
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	87.9	1		Apex SOP

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-25-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-06
Sampled: 01/11/13 12:23
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 82.52
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	82.5	1		Apex SOP

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-26-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-08
Sampled: 01/11/13 12:55
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 85.50
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	85.5	1		Apex SOP

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-26-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-09
Sampled: 01/11/13 13:00
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 81.85
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	81.8	1		Apex SOP

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-76-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-11
Sampled: 01/11/13 12:55
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 86.18
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	86.2	1		Apex SOP

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-76-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-12
Sampled: 01/11/13 13:00
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 81.31
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	81.3	1		Apex SOP

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-27-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-14
Sampled: 01/11/13 13:30
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 83.60
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	83.6	1		Apex SOP

INORGANIC ANALYSIS DATA SHEET
Apex SOP

AQ-SSA4-27-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-15
Sampled: 01/11/13 13:35
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 86.94
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
DRYWT	% Solids	86.9	1		Apex SOP

PREPARATION BATCH SUMMARY

Apex SOP

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Batch: 1301260 Batch Matrix: Soil
Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
AQ-SSA4-24-0-1 (Dup)	1301260-DUP2		01/14/13 10:35	
AQ-SSA4-24-0-1	A13A243-01		01/14/13 10:35	
AQ-SSA4-24-1-2	A13A243-02		01/14/13 10:35	
AQ-SSA4-25-0-1	A13A243-05		01/14/13 10:35	
AQ-SSA4-25-1-2	A13A243-06		01/14/13 10:35	
AQ-SSA4-26-0-1	A13A243-08		01/14/13 10:35	
AQ-SSA4-26-1-2	A13A243-09		01/14/13 10:35	
AQ-SSA4-76-0-1	A13A243-11		01/14/13 10:35	
AQ-SSA4-76-1-2	A13A243-12		01/14/13 10:35	
AQ-SSA4-27-0-1	A13A243-14		01/14/13 10:35	
AQ-SSA4-27-1-2	A13A243-15		01/14/13 10:35	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

DUPLICATES

Apex SOP

AQ-SSA4-24-0-1

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC Tigard
Matrix: Soil
Batch: 1301260
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: AQ-SSA4-24-0-1

SDG: A13A243
Project: Former Reynolds Metals Reduction Plant RI
Laboratory ID: 1301260-DUP2
Lab Source ID: A13A243-01
Initial/Final: 1 N/A / 1 N/A
% Solids: 83.14

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
% Solids	20	83.1		83.6		0.6		Apex SOP

* Values outside of QC limits

HOLDING TIME SUMMARY
Apex SOP

Laboratory: Apex Laboratories SDG: A13A243

Client: Anchor QEA, LLC Tigard Project: Former Reynolds Metals Reduction Plant RI/FS-sed

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
AQ-SSA4-24-0-1	01/11/13 11:50	01/11/13 15:10	01/14/13 10:35	2.95	180.00	01/15/13 15:07	4.14	180.00	
AQ-SSA4-24-1-2	01/11/13 11:52	01/11/13 15:10	01/14/13 10:35	2.95	180.00	01/15/13 15:07	4.14	180.00	
AQ-SSA4-25-0-1	01/11/13 12:20	01/11/13 15:10	01/14/13 10:35	2.93	180.00	01/15/13 15:07	4.12	180.00	
AQ-SSA4-25-1-2	01/11/13 12:23	01/11/13 15:10	01/14/13 10:35	2.93	180.00	01/15/13 15:07	4.11	180.00	
AQ-SSA4-26-0-1	01/11/13 12:55	01/11/13 15:10	01/14/13 10:35	2.90	180.00	01/15/13 15:07	4.09	180.00	
AQ-SSA4-26-1-2	01/11/13 13:00	01/11/13 15:10	01/14/13 10:35	2.90	180.00	01/15/13 15:07	4.09	180.00	
AQ-SSA4-76-0-1	01/11/13 12:55	01/11/13 15:10	01/14/13 10:35	2.90	180.00	01/15/13 15:07	4.09	180.00	
AQ-SSA4-76-1-2	01/11/13 13:00	01/11/13 15:10	01/14/13 10:35	2.90	180.00	01/15/13 15:07	4.09	180.00	
AQ-SSA4-27-0-1	01/11/13 13:30	01/11/13 15:10	01/14/13 10:35	2.88	180.00	01/15/13 15:07	4.07	180.00	
AQ-SSA4-27-1-2	01/11/13 13:35	01/11/13 15:10	01/14/13 10:35	2.88	180.00	01/15/13 15:07	4.06	180.00	

Apex Laboratories

SDG: A13A243

CLASS: WET

METHOD: PSEP/SM 5310B MOD

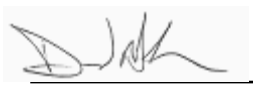
ANALYSES DATA PACKAGE COVER PAGE

PSEP/SM 5310B MOD

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed

Client Sample Id:	Lab Sample Id:	Matrix
AQ-SSA4-24-0-1	A13A243-01	Soil
AQ-SSA4-24-1-2	A13A243-02	Soil
AQ-SSA4-25-0-1	A13A243-05	Soil
AQ-SSA4-25-1-2	A13A243-06	Soil
AQ-SSA4-26-0-1	A13A243-08	Soil
AQ-SSA4-26-1-2	A13A243-09	Soil
AQ-SSA4-76-0-1	A13A243-11	Soil
AQ-SSA4-76-1-2	A13A243-12	Soil
AQ-SSA4-27-0-1	A13A243-14	Soil
AQ-SSA4-27-1-2	A13A243-15	Soil

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 
Name: David G. Jack

Forms Created: 2/13/2013 10:23AM
Title: Technical Director

METHOD DETECTION AND REPORTING LIMITS

PSEP/SM 5310B MOD

Laboratory: Apex Laboratories **SDG:** A13A243

Client: Anchor QEA, LLC Tigard **Project:** Former Reynolds Metals Reduction Plant R

Matrix: Soil

Analyte	MDL	MRL	Units
Total Organic Carbon	---	200	mg/kg

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-24-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-01
Sampled: 01/11/13 11:50
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 83.14
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	590	1		PSEP/SM 5310B MOD

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-24-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-02
Sampled: 01/11/13 11:52
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 81.43
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	260	1		PSEP/SM 5310B MOD

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-25-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-05
Sampled: 01/11/13 12:20
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 87.90
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	3200	1		PSEP/SM 5310B MOD

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-25-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-06
Sampled: 01/11/13 12:23
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 82.52
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	520	1		PSEP/SM 5310B MOD

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-26-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-08
Sampled: 01/11/13 12:55
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 85.50
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	2300	1		PSEP/SM 5310B MOD

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-26-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-09
Sampled: 01/11/13 13:00
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 81.85
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	300	1		PSEP/SM 5310B MOD

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-76-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-11
Sampled: 01/11/13 12:55
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 86.18
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	1400	1		PSEP/SM 5310B MOD

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-76-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-12
Sampled: 01/11/13 13:00
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 81.31
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	330	1		PSEP/SM 5310B MOD

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-27-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-14
Sampled: 01/11/13 13:30
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 83.60
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	860	1		PSEP/SM 5310B MOD

INORGANIC ANALYSIS DATA SHEET
PSEP/SM 5310B MOD

AQ-SSA4-27-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-15
Sampled: 01/11/13 13:35
Prepared: 01/14/13 15:35
Analyzed: 01/16/13 16:00
Solids: 86.94
Preparation: PSEP TOC
Initial/Final: 5 g / 5 g
Batch: 1301280
Sequence: 3A16003
Calibration: A1L0503
Instrument: TOC

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	Q	Method
NA	Total Organic Carbon	4600	1		PSEP/SM 5310B MOD

PREPARATION BATCH SUMMARY

PSEP/SM 5310B MOD

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Batch: 1301280 Batch Matrix: Soil
Preparation: PSEP TOC

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	1301280-BLK1		01/14/13 15:35	
LCS	1301280-BS1		01/14/13 15:35	
AQ-SSA4-24-0-1 (Dup)	1301280-DUP1		01/14/13 15:35	
AQ-SSA4-24-0-1	A13A243-01		01/14/13 15:35	
AQ-SSA4-24-1-2	A13A243-02		01/14/13 15:35	
AQ-SSA4-25-0-1	A13A243-05		01/14/13 15:35	
AQ-SSA4-25-1-2	A13A243-06		01/14/13 15:35	
AQ-SSA4-26-0-1	A13A243-08		01/14/13 15:35	
AQ-SSA4-26-1-2	A13A243-09		01/14/13 15:35	
AQ-SSA4-76-0-1	A13A243-11		01/14/13 15:35	
AQ-SSA4-76-1-2	A13A243-12		01/14/13 15:35	
AQ-SSA4-27-0-1	A13A243-14		01/14/13 15:35	
AQ-SSA4-27-1-2	A13A243-15		01/14/13 15:35	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

BLANKS
PSEP/SM 5310B MOD

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Instrument ID: TOC
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence: 3A16003
Calibration: A1L0503

Lab Sample ID	Analyte	Found	RL	Units	C	Method
1301280-BLK1	Total Organic Carbon	ND	200	mg/kg		PSEP/SM 5310B MOD
3A16003-CCB1	Total Organic Carbon	ND	200 (Inst)	mg/kg		PSEP/SM 5310B MOD
3A16003-CCB2	Total Organic Carbon	ND	200 (Inst)	mg/kg		PSEP/SM 5310B MOD
3A16003-CCB3	Total Organic Carbon	ND	200 (Inst)	mg/kg		PSEP/SM 5310B MOD

(Inst) indicates on-Instrument Result and Reporting Level. Used for non-digested Instrument Blanks.

LCS / LCS DUPLICATE RECOVERY

PSEP/SM 5310B MOD

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix:	Soil		
Batch:	1301280	Laboratory ID:	1301280-BS1
Preparation:	PSEP TOC	Initial/Final:	5 g / 5 g

COMPOUND	SPIKE ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS % REC. (*=Out)	QC LIMITS REC.
Total Organic Carbon	10000	9600	96	85 - 115

* = Values outside of QC limits

DUPLICATES
PSEP/SM 5310B MOD

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC Tigard
Matrix: Soil
Batch: 1301280
Preparation: PSEP TOC
Source Sample Name: AQ-SSA4-24-0-1

SDG: A13A243
Project: Former Reynolds Metals Reduction Plant RI
Laboratory ID: 1301280-DUP1
Lab Source ID: A13A243-01
Initial/Final: 5 g / 5 g
% Solids: 83.14

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/kg)	C	DUPLICATE CONCENTRATION (mg/kg)	C	RPD %	Q	METHOD
Total Organic Carbon	20	590		1100		60	*	PSEP/SM 5310B MOD

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY
PSEP/SM 5310B MOD

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	0H31010	Instrument:	TOC
Matrix:	Soil	Calibration:	A1L0503

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	0H31010-CAL1		08/31/10 11:00
Cal Standard	0H31010-CAL2		08/31/10 11:00
Cal Standard	0H31010-CAL3		08/31/10 11:00
Cal Standard	0H31010-CAL4		08/31/10 11:00
Cal Standard	0H31010-CAL5		08/31/10 11:00
Cal Standard	0H31010-CAL6		08/31/10 11:00
Cal Standard	0H31010-CAL7		08/31/10 11:00
Cal Standard	0H31010-CAL8		08/31/10 11:00
Cal Standard	0H31010-CAL9		08/31/10 11:00
Cal Standard	0H31010-CALA		08/31/10 11:00
Cal Standard	0H31010-CALB		08/31/10 11:00

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY
PSEP/SM 5310B MOD

Laboratory:	Apex Laboratories	SDG:	A13A243
Client:	Anchor QEA, LLC Tigard	Project:	Former Reynolds Metals Reduction Plant RI/FS-sed
Sequence:	3A16003	Instrument:	TOC
Matrix:	Soil	Calibration:	A1L0503

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	3A16003-CCV1		01/16/13 16:00
Calibration Blank	3A16003-CCB1		01/16/13 16:00
Blank	1301280-BLK1		01/16/13 16:00
LCS	1301280-BS1		01/16/13 16:00
AQ-SSA4-24-0-1	A13A243-01		01/16/13 16:00
AQ-SSA4-24-0-1 (Dup)	1301280-DUP1		01/16/13 16:00
AQ-SSA4-24-1-2	A13A243-02		01/16/13 16:00
AQ-SSA4-25-0-1	A13A243-05		01/16/13 16:00
AQ-SSA4-25-1-2	A13A243-06		01/16/13 16:00
AQ-SSA4-26-0-1	A13A243-08		01/16/13 16:00
AQ-SSA4-26-1-2	A13A243-09		01/16/13 16:00
AQ-SSA4-76-0-1	A13A243-11		01/16/13 16:00
Calibration Check	3A16003-CCV2		01/16/13 16:00
Calibration Blank	3A16003-CCB2		01/16/13 16:00
AQ-SSA4-76-1-2	A13A243-12		01/16/13 16:00
AQ-SSA4-27-0-1	A13A243-14		01/16/13 16:00
AQ-SSA4-27-1-2	A13A243-15		01/16/13 16:00
Calibration Check	3A16003-CCV3		01/16/13 16:00
Calibration Blank	3A16003-CCB3		01/16/13 16:00

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

INITIAL AND CONTINUING CALIBRATION CHECK

PSEP/SM 5310B MOD

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Instrument ID: TOC
Calibration: A1L0503
Control Limt: +/- 10.00%
Sequence: 3A16003

Lab Sample ID	Analyte	True	Found	%R	Units	Method
3A16003-CCV1	Total Organic Carbon	10000	9200	92	mg/kg	PSEP/SM 5310B MOD
3A16003-CCV2	Total Organic Carbon	10000	9600	96	mg/kg	PSEP/SM 5310B MOD
3A16003-CCV3	Total Organic Carbon	10000	9900	99	mg/kg	PSEP/SM 5310B MOD

* Values outside of QC limits

HOLDING TIME SUMMARY
PSEP/SM 5310B MOD

Laboratory: Apex Laboratories SDG: A13A243

Client: Anchor QEA, LLC Tigard Project: Former Reynolds Metals Reduction Plant RI/FS-sed

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
AQ-SSA4-24-0-1	01/11/13 11:50	01/11/13 15:10	01/14/13 15:35	3.16	14.00	01/16/13 16:00	5.17	14.00	
AQ-SSA4-24-1-2	01/11/13 11:52	01/11/13 15:10	01/14/13 15:35	3.15	14.00	01/16/13 16:00	5.17	14.00	
AQ-SSA4-25-0-1	01/11/13 12:20	01/11/13 15:10	01/14/13 15:35	3.14	14.00	01/16/13 16:00	5.15	14.00	
AQ-SSA4-25-1-2	01/11/13 12:23	01/11/13 15:10	01/14/13 15:35	3.13	14.00	01/16/13 16:00	5.15	14.00	
AQ-SSA4-26-0-1	01/11/13 12:55	01/11/13 15:10	01/14/13 15:35	3.11	14.00	01/16/13 16:00	5.13	14.00	
AQ-SSA4-26-1-2	01/11/13 13:00	01/11/13 15:10	01/14/13 15:35	3.11	14.00	01/16/13 16:00	5.13	14.00	
AQ-SSA4-76-0-1	01/11/13 12:55	01/11/13 15:10	01/14/13 15:35	3.11	14.00	01/16/13 16:00	5.13	14.00	
AQ-SSA4-76-1-2	01/11/13 13:00	01/11/13 15:10	01/14/13 15:35	3.11	14.00	01/16/13 16:00	5.13	14.00	
AQ-SSA4-27-0-1	01/11/13 13:30	01/11/13 15:10	01/14/13 15:35	3.09	14.00	01/16/13 16:00	5.10	14.00	
AQ-SSA4-27-1-2	01/11/13 13:35	01/11/13 15:10	01/14/13 15:35	3.08	14.00	01/16/13 16:00	5.10	14.00	

Apex Laboratories

SDG: A13A243

CLASS: WET

METHOD: SM 2540 G

ANALYSES DATA PACKAGE COVER PAGE

SM 2540 G

Laboratory: Apex Laboratories

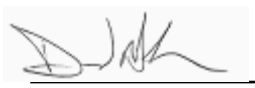
Client: Anchor QEA, LLC Tigard

SDG: A13A243

Project: Former Reynolds Metals Reduction Plant RI/FS-sed

Client Sample Id:	Lab Sample Id:	Matrix
AQ-SSA4-24-0-1	A13A243-01	Soil
AQ-SSA4-24-1-2	A13A243-02	Soil
AQ-SSA4-25-0-1	A13A243-05	Soil
AQ-SSA4-25-1-2	A13A243-06	Soil
AQ-SSA4-26-0-1	A13A243-08	Soil
AQ-SSA4-26-1-2	A13A243-09	Soil
AQ-SSA4-76-0-1	A13A243-11	Soil
AQ-SSA4-76-1-2	A13A243-12	Soil
AQ-SSA4-27-0-1	A13A243-14	Soil
AQ-SSA4-27-1-2	A13A243-15	Soil

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been autorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: 

Name: David G. Jack

Forms Created: 2/13/2013 10:23AM

Title: Technical Director

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G

Laboratory: Apex Laboratories **SDG:** A13A243

Client: Anchor QEA, LLC Tigard **Project:** Former Reynolds Metals Reduction Plant R

Matrix: Soil

Analyte	MDL	MRL	Units
Total Solids	---	1.00	% by Weight

Note: MDLs are listed only if the corresponding analyte was evalutated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-24-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-01
Sampled: 01/11/13 11:50
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 83.14
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	83.1	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-24-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-02
Sampled: 01/11/13 11:52
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 81.43
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	81.4	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-25-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-05
Sampled: 01/11/13 12:20
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 87.90
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	87.9	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-25-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-06
Sampled: 01/11/13 12:23
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 82.52
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	82.5	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-26-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-08
Sampled: 01/11/13 12:55
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 85.50
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	85.5	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-26-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-09
Sampled: 01/11/13 13:00
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 81.85
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	81.8	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-76-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-11
Sampled: 01/11/13 12:55
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 86.18
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	86.2	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-76-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-12
Sampled: 01/11/13 13:00
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 81.31
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	81.3	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-27-0-1

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-14
Sampled: 01/11/13 13:30
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 83.60
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	83.6	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET
SM 2540 G

AQ-SSA4-27-1-2

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Matrix: Soil
Laboratory ID: A13A243-15
Sampled: 01/11/13 13:35
Prepared: 01/14/13 10:35
Analyzed: 01/15/13 15:07
Solids: 86.94
Preparation: Total Solids (SM2540G/PSI
Initial/Final: 1 N/A / 1 N/A
Batch: 1301260
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	86.9	1		SM 2540 G

PREPARATION BATCH SUMMARY

SM 2540 G

Laboratory: Apex Laboratories
SDG: A13A243
Client: Anchor QEA, LLC Tigard
Project: Former Reynolds Metals Reduction Plant RI/FS-sed
Batch: 1301260 Batch Matrix: Soil
Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
AQ-SSA4-24-0-1 (Dup)	1301260-DUP2		01/14/13 10:35	
AQ-SSA4-24-0-1	A13A243-01		01/14/13 10:35	
AQ-SSA4-24-1-2	A13A243-02		01/14/13 10:35	
AQ-SSA4-25-0-1	A13A243-05		01/14/13 10:35	
AQ-SSA4-25-1-2	A13A243-06		01/14/13 10:35	
AQ-SSA4-26-0-1	A13A243-08		01/14/13 10:35	
AQ-SSA4-26-1-2	A13A243-09		01/14/13 10:35	
AQ-SSA4-76-0-1	A13A243-11		01/14/13 10:35	
AQ-SSA4-76-1-2	A13A243-12		01/14/13 10:35	
AQ-SSA4-27-0-1	A13A243-14		01/14/13 10:35	
AQ-SSA4-27-1-2	A13A243-15		01/14/13 10:35	

Note: Client samples are listed only if they are included in this report.
Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

DUPLICATES
SM 2540 G

AQ-SSA4-24-0-1

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC Tigard
Matrix: Soil
Batch: 1301260
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: AQ-SSA4-24-0-1

SDG: A13A243
Project: Former Reynolds Metals Reduction Plant RI
Laboratory ID: 1301260-DUP2
Lab Source ID: A13A243-01
Initial/Final: 1 N/A / 1 N/A
% Solids: 83.14

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Solids	20	83.1		83.6		0.6		SM 2540 G

* Values outside of QC limits

HOLDING TIME SUMMARY
SM 2540 G

Laboratory: Apex Laboratories SDG: A13A243

Client: Anchor QEA, LLC Tigard Project: Former Reynolds Metals Reduction Plant RI/FS-sed

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
AQ-SSA4-24-0-1	01/11/13 11:50	01/11/13 15:10	01/14/13 10:35	2.95	180.00	01/15/13 15:07	1.19		
AQ-SSA4-24-1-2	01/11/13 11:52	01/11/13 15:10	01/14/13 10:35	2.95	180.00	01/15/13 15:07	1.19		
AQ-SSA4-25-0-1	01/11/13 12:20	01/11/13 15:10	01/14/13 10:35	2.93	180.00	01/15/13 15:07	1.19		
AQ-SSA4-25-1-2	01/11/13 12:23	01/11/13 15:10	01/14/13 10:35	2.93	180.00	01/15/13 15:07	1.19		
AQ-SSA4-26-0-1	01/11/13 12:55	01/11/13 15:10	01/14/13 10:35	2.90	180.00	01/15/13 15:07	1.19		
AQ-SSA4-26-1-2	01/11/13 13:00	01/11/13 15:10	01/14/13 10:35	2.90	180.00	01/15/13 15:07	1.19		
AQ-SSA4-76-0-1	01/11/13 12:55	01/11/13 15:10	01/14/13 10:35	2.90	180.00	01/15/13 15:07	1.19		
AQ-SSA4-76-1-2	01/11/13 13:00	01/11/13 15:10	01/14/13 10:35	2.90	180.00	01/15/13 15:07	1.19		
AQ-SSA4-27-0-1	01/11/13 13:30	01/11/13 15:10	01/14/13 10:35	2.88	180.00	01/15/13 15:07	1.19		
AQ-SSA4-27-1-2	01/11/13 13:35	01/11/13 15:10	01/14/13 10:35	2.88	180.00	01/15/13 15:07	1.19		

APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Raw Data

APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Benchsheet & Analysis Sequence Data

Batch 1301407
Sequence 3A18003 (A13A243-18) SV-GCMS6

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301407 (Water)

Prep Method: EPA 3510C (Acid Extraction)

MW #	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH
	1301407-BLK1		QC	01/18/13 10:56	1000	1				100			
	1301407-BSD1		QC	01/18/13 10:56	1000	1	A13A260		50	100			
	1301407-BS1		QC	01/18/13 10:56	1000	1	A13A260		50	100			
	A13A243-18	A	8270 SIM PAH (Low I	01/18/13 10:56	470	1				100	AQ-SSA4-RB-011113	MDL	

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A12D224	10/23/14	Concentrated Hydrochloric Acid
A12F235	01/01/18	Glass Wool
A12K196	05/27/13	Sodium Sulfate Lot #BF1012
A12L175	06/11/13	Sodium Sulfate Lot #IG-1201
A12L236	06/18/13	DCM CHEM PROD. #12110114

Analyte Spike(s)

Std ID	Exp. Date	Description
A13A260	04/15/13	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A12L188	03/17/13	PAH Soil and Water Surr. (50ppm)

Prepared By: Date

BS 1-21-13

Reviewed By: Date

Printed: 1/21/2013 9:51:58AM

2/13/13 A13A243 Anchor Former Reynolds Metals Reduction Plant RI/FS-sed Apex Laboratories Data Package Page 184 of 716

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301407 (Water)

Prep Method: EPA 3510C (Acid Extraction)

MW #	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH
	1301407-BLK1		QC	01/18/13 10:56	1000	1				100			H+
	1301407-BSD1		QC	01/18/13 10:56	1000	1	A13A260		50	100			
	1301407-BS1		QC	01/18/13 10:56	1000	1	A13A260		50	100			
	A13A243-18	A	8270 SIM PAH (Low L	01/18/13 10:56	~~1000~~ 470	1				100	AQ-SSA4-RB-011113	MDL	

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A12D224	10/23/14	Concentrated Hydrochloric Acid
A12F235	01/01/18	Glass Wool
A12L175	06/11/13	Sodium Sulfate Lot #IG-1201
A12L236	06/18/13	DCM CHEM PROD. #12110114

Sodium Sulfate - A12L196

Analyte Spike(s) BR

Std ID	Exp. Date	Description
A13A260	04/15/13	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s) BR

Std ID	Exp. Date	Description
A12L188	03/17/13	PAH Soil and Water Surr. (50ppm)

Witness: [signature] 1/18/13

BR 1-18-13
Prepared By: Date

[signature] 1-18-13
Reviewed By: Date

Printed: 1/18/2013 11:19:09AM

2/13/13 A13A243 Anchor Former Reynolds Metals Reduction Plant RI/FS-sed Apex Laboratories Data Package Page 185 of 716

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	3A18003	Instrument:	SV-GCMS6
Date:	01/18/13 00:00	Calibration:	A2L2701

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	3A18003-TUN1	Soil	QC	QC			A12L094	A13A099
2	3A18003-CCV1	Soil	QC	QC			A12L094	A13A203
3	3A18003-CCB1	Soil	QC	QC			A12L094	
4	A13A316-02RE1	Water	8270 SIM PAH	EVREN Northwest, Inc.	01/21/13	1301365	A12L094	
5	3A18003-IBL1	Soil	QC	QC			A12L094	
6	1301409-BLK1	Soil	QC	QC		1301409	A12L094	
7	1301409-BS1	Soil	QC	QC		1301409	A12L094	
8	A13A237-05	Soil	8270 SIM PAH	PBS Engineering and Environmental	01/24/13	1301409	A12L094	
9	1301409-DUP1	Soil	QC	QC		1301409	A12L094	
10	A13A316-01	Soil	8270 SIM PAH	EVREN Northwest, Inc.	01/21/13	1301409	A12L094	
11	A13A320-01	Soil	8270 SIM PAH	Amec Environment & Infrastructure, Inc	01/21/13	1301409	A12L094	
12	A13A320-02	Soil	8270 SIM PAH	Amec Environment & Infrastructure, Inc	01/21/13	1301409	A12L094	
13	A13A320-03	Soil	8270 SIM PAH	Amec Environment & Infrastructure, Inc	01/21/13	1301409	A12L094	
14	A13A237-05RE1	Soil	8270 SIM PAH	PBS Engineering and Environmental	01/24/13	1301409	A12L094	
15	1301409-DUP2	Soil	QC	QC		1301409	A12L094	
16	3A18003-IBL2	Soil	QC	QC			A12L094	
17	1301407-BLK1	Water	QC	QC		1301407	A12L094	
18	1301407-BS1	Water	QC	QC		1301407	A12L094	
19	1301407-BSD1	Water	QC	QC		1301407	A12L094	
20	A13A243-18	Water	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301407	A12L094	
21	3A18003-IBL3	Soil	QC	QC			A12L094	

Data Entered By: BS 1-21-13

Data Reviewed By: [signature] 1/21/13

Comments:

SEQUENCE REVIEW SHEET

SEQUENCE: 3A18003 Seq. Date: 1/18/2013

SEQUENCE LOG

Calibration ID: A2L2701

SampleID	Analysis	Matrix	Batch	Analyzed
3A18003-TUN1	8270 SIM PAH	Soil	3A18003	1/18/2013 9:56:00AM
"	+8270 SIM PAH (Low Level)	"	"	"
3A18003-CCV1	8270 SIM PAH	Soil	3A18003	1/18/2013 10:24:00AM
"	+8270 SIM PAH (Low Level)	"	"	"
3A18003-CCB1	8270 SIM PAH	Soil	3A18003	1/18/2013 10:52:00AM
"	+8270 SIM PAH (Low Level)	"	"	"
A13A316-02RE1	8270 SIM PAH	Water	1301365	1/18/2013 11:20:00AM
1301409-BLK1	8270 SIM PAH	Soil	1301409	1/18/2013 3:15:00PM
1301409-BS1	8270 SIM PAH	Soil	1301409	1/18/2013 3:43:00PM
A13A237-05	8270 SIM PAH	Soil	1301409	1/18/2013 4:11:00PM
1301409-DUP1	8270 SIM PAH	Soil	1301409	1/18/2013 4:38:00PM
A13A316-01	8270 SIM PAH	Soil	1301409	1/18/2013 5:05:00PM
A13A320-01	8270 SIM PAH	Soil	1301409	1/18/2013 5:33:00PM
A13A320-02	8270 SIM PAH	Soil	1301409	1/18/2013 6:00:00PM
A13A320-03	8270 SIM PAH	Soil	1301409	1/18/2013 6:27:00PM
A13A237-05RE1	8270 SIM PAH	Soil	1301409	1/18/2013 6:55:00PM
1301409-DUP2	8270 SIM PAH	Soil	1301409	1/18/2013 7:22:00PM
1301407-BLK1	8270 SIM PAH (Low Level)	Water	1301407	1/18/2013 8:16:00PM
1301407-BS1	8270 SIM PAH (Low Level)	Water	1301407	1/18/2013 8:43:00PM
1301407-BSD1	8270 SIM PAH (Low Level)	Water	1301407	1/18/2013 9:10:00PM
A13A243-18	8270 SIM PAH (Low Level)	Water	1301407	1/18/2013 9:37:00PM

MS TUNE SAMPLES

0 Total Failures

CONTINUING CALIBRATION VERIFICATION

0 Total Failures in 1 CCVs

ISTD AREAS

3A18003-CCV1

8270 SIM PAH	RT	RESP	% Rec (vs. Curve)	Rpt	Qualifier
Naphthalene-d8 (ISTD)	5.33	672855	72		
Acenaphthene-d10 (ISTD)	7.02	329278	75		
Phenanthrene-d10 (ISTD)	8.46	559263	79		
Chrysene-d12 (ISTD)	11.11	584130	93		
Perylene-d12 (ISTD)	13.36	486310	92		
Dibenz(a,h)anthracene-d14 (IST	15.54	298789	72		

8270 SIM PAH (Low L	RT	RESP	% Rec (vs. Curve)	Rpt	Qualifier
Naphthalene-d8 (ISTD)	5.33	672855	72		
Acenaphthene-d10 (ISTD)	7.02	329278	75		
Phenanthrene-d10 (ISTD)	8.46	559263	79		

Chrysene-d12 (ISTD)	11.11	584130	93
Perylene-d12 (ISTD)	13.36	486310	92
Dibenz(a,h)anthracene-d14 (IST	15.54	298789	72

EXTRACTION BLANKS

0 Total Failures in 2 Blank(s)

LAB CONTROL SPIKES

0 Failures in 3 LCS/LCSDs

SURROGATE RECOVERY

No Surrogate Failures

SAMPLE HITS

A13A316-02RE1 8270 SIM PAH

Analyte	IResult (ng/mL)	FResult ug/L	Rpt?	FMDL ug/L	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Phenanthrene	**964.93**	24.1	YES	----	0.500	10			

A13A316-01 8270 SIM PAH

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Naphthalene	**89.66**	291	YES	----	64.9	5			
Fluorene	**686.16**	2230	YES	----	64.9	5			
Phenanthrene	**2,379.79**	7730	YES	----	64.9	5			
Pyrene	**38.99**	127	YES	----	64.9	5			

A13A320-01 8270 SIM PAH

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Phenanthrene	**51.71**	134	YES	----	51.8	5			
Fluoranthene	**60.23**	156	YES	----	51.8	5			
Pyrene	**84.38**	219	YES	----	51.8	5			
Benz(a)anthracene	**28.59**	74.1	YES	----	51.8	5			
Chrysene	**39.59**	103	YES	----	51.8	5			
Benzo(b+k)fluoranthene(s)	**44.44**	115	YES	----	104	5	Q-26		
Benzo(a)pyrene	**29.70**	77.0	YES	----	51.8	5			
Indeno(1,2,3-cd)pyrene	**25.28**	65.5	YES	----	51.8	5			
Benzo(g,h,i)perylene	**28.01**	72.6	YES	----	51.8	5			

A13A320-03 8270 SIM PAH

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Acenaphthylene	**20.87**	1140	YES	----	1090	100			
Phenanthrene	**24.12**	1310	YES	----	1090	100			
Anthracene	**23.48**	1280	YES	----	1090	100			
Fluoranthene	**153.69**	8370	YES	----	1090	100			
Pyrene	**140.14**	7630	YES	----	1090	100			
Benz(a)anthracene	**95.14**	5180	YES	----	1090	100			
Chrysene	**90.51**	4930	YES	----	1090	100			
Benzo(b+k)fluoranthene(s)	**164.17**	8940	YES	----	2180	100	Q-26		
Benzo(a)pyrene	**85.75**	4670	YES	----	1090	100			
Indeno(1,2,3-cd)pyrene	**68.06**	3710	YES	----	1090	100			
Benzo(g,h,i)perylene	**51.77**	2820	YES	----	1090	100			

A13A237-05RE1 8270 SIM PAH

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Indeno(1,2,3-cd)pyrene	**45.91**	31.4	YES	----	13.7	1			
Benzo(g,h,i)perylene	**291.69**	200	YES	----	13.7	1			

SEQUENCE REVIEW SHEET

SEQUENCE: 3A18003 Seq. Date: 1/18/2013

MISSED HOLD TIMES

No Hold Times Missed

SEQUENCE REVIEW SHEET

SEQUENCE: 3A18003 Seq. Date: 1/18/2013

ANALYTE QUALIFIERS

A13A316-01

Analyte	Qualifier	Text	Rpt?
Acenaphthylene	R-02		YES
Acenaphthene	R-02		YES
Anthracene	R-02		YES

3 Reportable Qualifier(s)

A13A320-01

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES

1 Reportable Qualifier(s)

A13A320-03

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES

1 Reportable Qualifier(s)

SAMPLE QUALIFIERS

1301365-BSD1

Analyte	Qualifier	CustomValue
ALL	Q-19	

1301407-BSD1

Analyte	Qualifier	CustomValue
ALL	Q-19	

1301409-BS1

Analyte	Qualifier	CustomValue
ALL	Q-18	

1301409-DUP1

Analyte	Qualifier	CustomValue
ALL	RR-1	

A13A237-05

Analyte	Qualifier	CustomValue
ALL	RR-1	

A13A320-02

Analyte	Qualifier	CustomValue
ALL	RR-1	

Injection Log

Directory: C:\HPCHEM\2\DATA\2013-01\3A18003

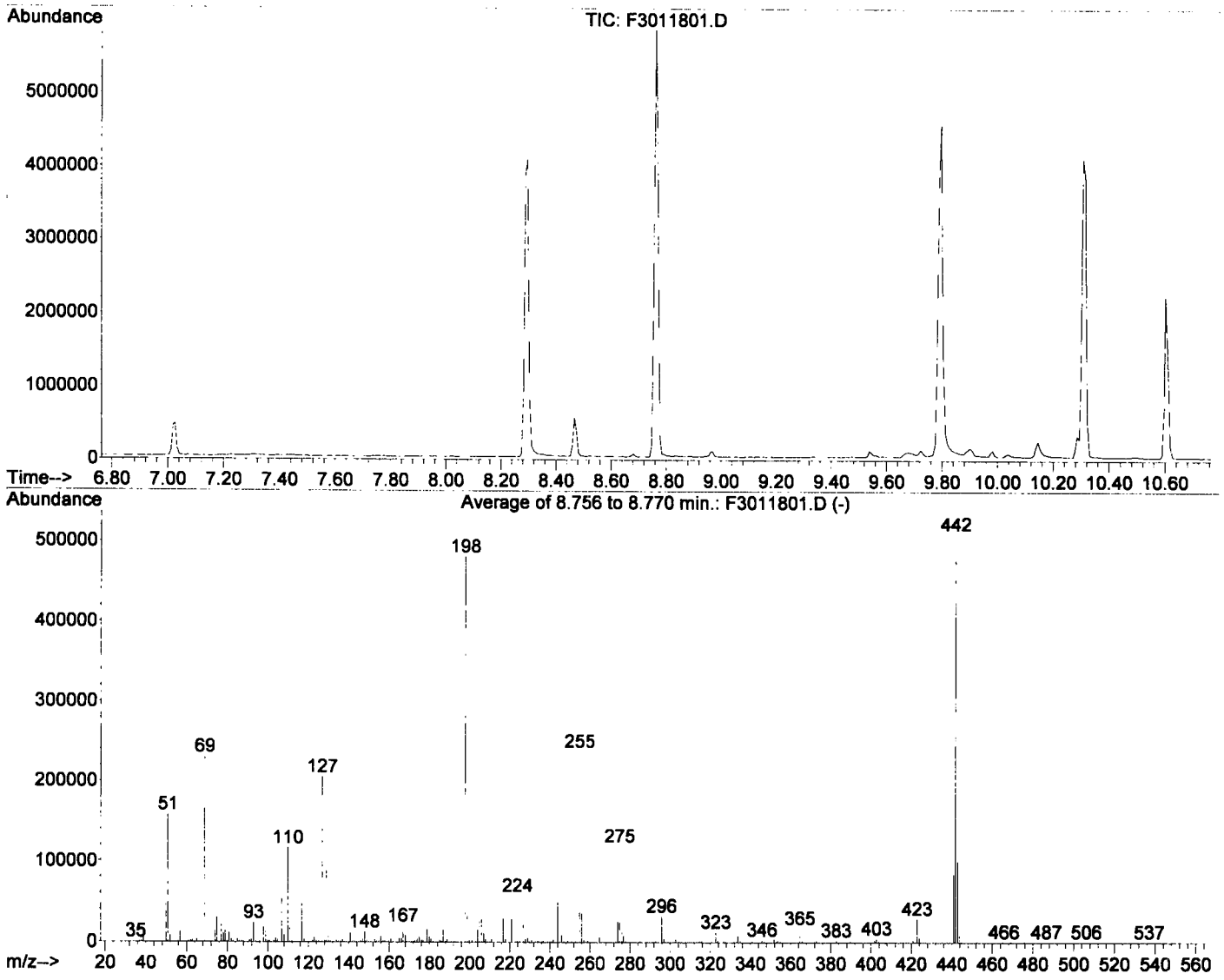
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	F3011801.d	1.	3A18003-TUN1	1x A13A099@50ng ...	18 Jan 2013 09:56
2	2	F3011802.d	1.	3A18003-CCV1	1x A13A203@1000p...	18 Jan 2013 10:24
3	3	F3011803.d	1.	3A18003-CCB1	1x DCM+ISTD	18 Jan 2013 10:52
4	4	F3011804.d	1.	A13A316-02RE1@10	10x Water 800m...	18 Jan 2013 11:20
5	3	F3011805.d	1.	3A18003-IBL1	1x DCM+ISTD	18 Jan 2013 11:47
6	5	F3011806.d	1.	1301409-BLK1	1x Soil 11.00g...	18 Jan 2013 15:15
7	6	F3011807.d	1.	1301409-BS1	1x Soil 10.00g...	18 Jan 2013 15:43
8	7	F3011808.d	1.	A13A237-05@5	5x Soil 10.00g...	18 Jan 2013 16:11
9	8	F3011809.d	1.	1301409-DUP1@5	5x Soil 10.00g...	18 Jan 2013 16:38
10	9	F3011810.d	1.	A13A316-01@5	5x Soil 10.68g...	18 Jan 2013 17:05
11	10	F3011811.d	1.	A13A320-01@5	5x Soil 11.36g...	18 Jan 2013 17:33
12	11	F3011812.d	1.	A13A320-02@100	100x Soil 11.8...	18 Jan 2013 18:00
13	12	F3011813.d	1.	A13A320-03@100	100x Soil 10.9...	18 Jan 2013 18:27
14	13	F3011814.d	1.	A13A237-05RE1	1x Soil 10.05g...	18 Jan 2013 18:55
15	14	F3011815.d	1.	1301409-DUP2	1x Soil 9.89g/...	18 Jan 2013 19:22
16	3	F3011816.d	1.	3A18003-IBL2	1x DCM+ISTD	18 Jan 2013 19:49
17	15	F3011817.d	1.	1301407-BLK1	1x Water 1000m...	18 Jan 2013 20:16
18	16	F3011818.d	1.	1301407-BS1	1x Water 1000m...	18 Jan 2013 20:43
19	17	F3011819.d	1.	1301407-BSD1	1x Water 1000m...	18 Jan 2013 21:10
20	18	F3011820.d	1.	A13A243-18	1x Water 470mL...	18 Jan 2013 21:37
21	3	F3011821.d	1.	3A18003-IBL3	1x DCM+ISTD	18 Jan 2013 22:04

✓

1-21-13

DFTPP

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011801.D Vial: 1
Acq On : 18 Jan 2013 9:56 am Operator: bsj
Sample : 3A18003-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH



AutoFind: Scans 612, 613, 614; Background Corrected with Scan 609

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	33.0	158622	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.9	230684	PASS
70	69	0.00	2	0.2	441	PASS
127	198	10	80	42.7	205533	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	481387	PASS
199	198	5	9	6.7	32293	PASS
275	198	10	60	24.8	119304	PASS
365	198	1	100	3.5	16897	PASS
441	442	0.01	24	16.5	84279	PASS
442	198	50	200	106.2	511200	PASS
443	442	15	24	19.5	99781	PASS

1-18-13
BSJ

F3011801.D DFTP8270.M Fri Jan 18 10:26:27 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011801.D Vial: 1
Acq On : 18 Jan 2013 9:56 am Operator: bsj
Sample : 3A18003-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 18 10:26 2013 Quant Results File: DFTP8270.RES

Quant Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration
DataAcq Meth : DFTP8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.33	136	229357	2000.000	ng/ml	0.00
2) Acenaphthene-d10	7.03	162	103412	2000.000	ng/ml	0.00
3) Phenanthrene-d10	8.47	188	207549	2000.000	ng/ml	0.00
7) Chrysene-d12	11.12	240	193318	2000.000	ng/ml	0.00
8) Perylene-d12	13.38	264	152027	2000.000	ng/ml	0.00
9) Dibenz(ah)anthracene-d14	15.56	292	100356	2000.000	ng/mL	0.00
Target Compounds						Qvalue
4) Pentachlorophenol (PCP)	8.30	266	629741	89.770	ng/mL	94
5) DFTPP	8.76	198	660138	55.179	ng/mL#	60
6) DDT	10.60	235	422365	18.387	ng/mL#	100

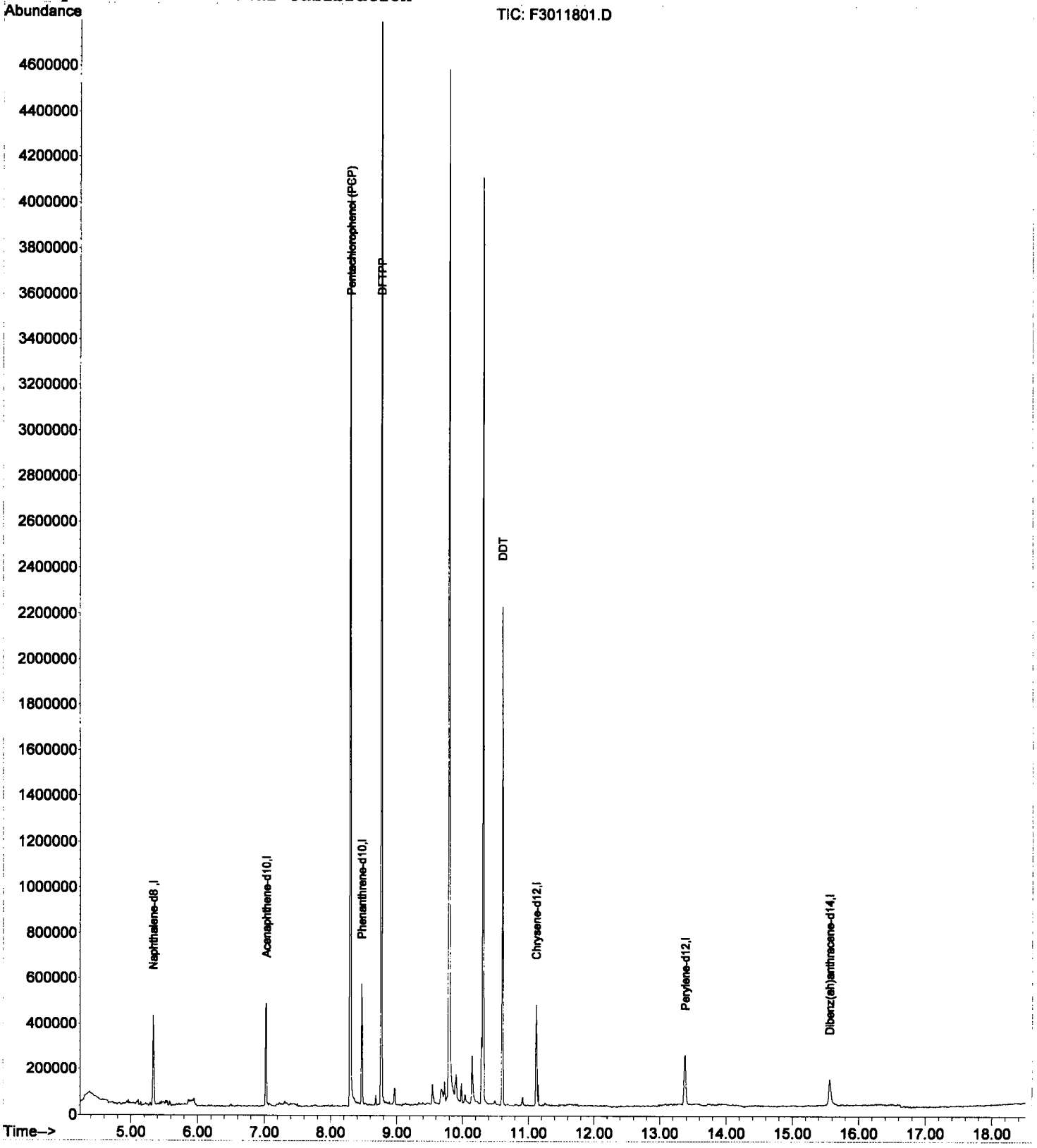
1-18-13
BSJ

(#) = qualifier out of range (m) = manual integration
F3011801.D DFTP8270.M Fri Jan 18 10:26:45 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011801.D Vial: 1
Acq On : 18 Jan 2013 9:56 am Operator: bsj
Sample : 3A18003-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 18 10:26 2013 Quant Results File: DFTP8270.RES

Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011802.D Vial: 2
Acq On : 18 Jan 2013 10:24 am Operator: bsj
Sample : 3A18003-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	72	0.00
2	T	Naphthalene	1000.000	1007.278	-0.7	72	0.00
3	T	2-Methylnaphthalene	1000.000	1028.371	-2.8	73	0.00
4	T	1-Methylnaphthalene	1000.000	1041.656	-4.2	74	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	75	0.00
6	S	2-Fluorobiphenyl(Surr)	1000.000	1015.077	-1.5	76	0.00
7		Dimethylphthalate	1000.000	1037.520	-3.8	77	0.00
8	T	Acenaphthylene	1000.000	1007.843	-0.8	74	0.00
9	T	Acenaphthene	1000.000	999.435	0.1	74	0.00
10		Dibenzofuran	1000.000	1032.009	-3.2	76	0.00
11		Diethylphthalate	1000.000	1005.482	-0.5	77	0.00
12	T	Fluorene	1000.000	1063.939	-6.4	76	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	79	0.00
14		Phenanthrene	1000.000	1017.462	-1.7	80	0.00
15	T	Anthracene	1000.000	1034.665	-3.5	79	0.00
16	T	Carbazole	1000.000	1121.144	-12.1	80	0.00
17		Di-n-butylphthalate	1000.000	995.805	0.4	80	0.00
18	T	Fluoranthene	1000.000	1093.663	-9.4	87	0.00
19	T	Pyrene	1000.000	1128.874	-12.9	89	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	93	0.00
21	S	Terphenyl-d14(Surr)	1000.000	962.887	3.7	89	0.00
22		Benzyl Butyl phthalate	1000.000	915.509	8.4	85	0.00
23	T	Benz(a)Anthracene	1000.000	1004.569	-0.5	94	0.00
24	T	Chrysene	1000.000	1050.002	-5.0	96	0.00
25		Bis(2-ethylhexyl)phthalate	1000.000	967.515	3.2	85	0.00
26		Di-n-octyl phthalate	1000.000	855.373	14.5	83	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	92	0.00
28	T	Benzo(b)Fluoranthene	1000.000	1073.248	-7.3	95	0.00
29	T	Benzo(k)Fluoranthene	1000.000	1110.925	-11.1	99	0.00
30	T	Benzo(b+k)Fluoranthene	2000.000	2171.359	-8.6	97	0.00
31		Benzo (e) Pyrene	1000.000	1068.967	-6.9	96	0.00
32	T	Benzo(a)Pyrene	1000.000	1044.660	-4.5	93	0.00
33		Perylene	1000.000	1041.457	-4.1	94	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	72	0.00
35	T	Indeno(1,2,3-cd)Pyrene	1000.000	993.153	0.7	71	0.00
36	T	Dibenz(a,h)Anthracene	1000.000	1084.598	-8.5	75	0.00
37	T	Benzo(g,h,i)Perylene	1000.000	950.646	4.9	64	0.00

1-18-13

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F3011802.D F21227.M Fri Jan 18 11:52:36 2013 VOAGCMS1 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011802.D Vial: 2
Acq On : 18 Jan 2013 10:24 am Operator: bsj
Sample : 3A18003-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 18 11:52 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	672855	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	329278	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	559263	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	584130	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	486310	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.54	292	298789	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	239801	1015.077	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	227228	962.887	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	367168	1007.278	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	222873	1028.371	ng/ml	93
4) 1-Methylnaphthalene	6.10	142	208528	1041.656	ng/ml	99
7) Dimethylphthalate	6.75	163	221998	1037.520	ng/mL	100
8) Acenaphthylene	6.87	152	307294	1007.843	ng/ml	99
9) Acenaphthene	7.05	153	193134	999.435	ng/ml	98
10) Dibenzofuran	7.22	168	281988	1032.009	ng/mL	95
11) Diethylphthalate	7.44	149	220665	1005.482	ng/mL	81
12) Fluorene	7.55	166	221550	1063.939	ng/ml	99
14) Phenanthrene	8.48	178	300230	1017.462	ng/mL	100
15) Anthracene	8.54	178	293239	1034.665	ng/ml	98
16) Carbazole	8.69	167	259200	1121.144	ng/ml	99
17) Di-n-butylphthalate	9.04	149	352068	995.805	ng/mL	100
18) Fluoranthene	9.65	202	303518	1093.663	ng/ml	99
19) Pyrene	9.87	202	323829	1128.874	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	138537	915.509	ng/mL	97
23) Benz(a)Anthracene	11.10	228	290965	1004.569	ng/ml	98
24) Chrysene	11.14	228	293067	1050.002	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.13	149	199206	967.515	ng/mL	100
26) Di-n-octyl phthalate	12.03	149	253492	855.373	ng/mL	96
28) Benzo(b)Fluoranthene	12.66	252	256522	1073.248	ng/ml	99
29) Benzo(k)Fluoranthene	12.71	252	287674	1110.925	ng/ml	100
30) Benzo(b+k)Fluoranthene	12.71	252	548432	2171.359	ng/ml	99
31) Benzo (e) Pyrene	13.16	252	259207	1068.967	ng/mL	99
32) Benzo(a)Pyrene	13.25	252	232443	1044.660	ng/ml	100
33) Perylene	13.41	252	251522	1041.457	ng/mL	100
35) Indeno(1,2,3-cd)Pyrene	15.55	276	163484	993.153	ng/ml	92
36) Dibenz(a,h)Anthracene	15.62	278	170336	1084.598	ng/ml	94
37) Benzo(g,h,i)Perylene	16.13	276	155764	950.646	ng/ml	96

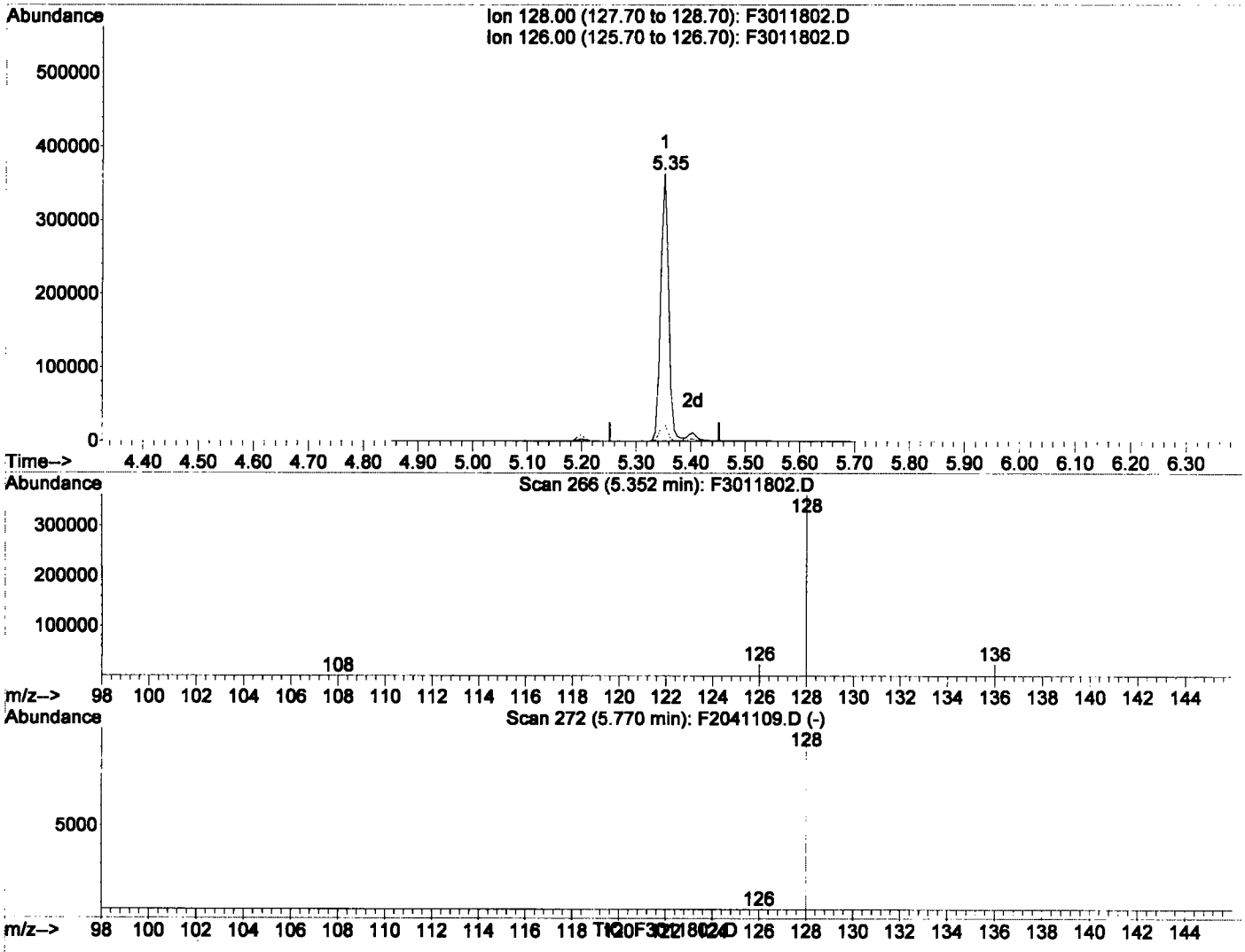
1-18-13
BSJ

(#) = qualifier out of range (m) = manual integration
F3011802.D F21227.M Fri Jan 18 11:52:13 2013 VOAGCMS1 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011802.D Vial: 2
Acq On : 18 Jan 2013 10:24 am Operator: bsj
Sample : 3A18003-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 18 11:52 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(2) Naphthalene (T)

5.35min 1007.28ng/ml

response 367168

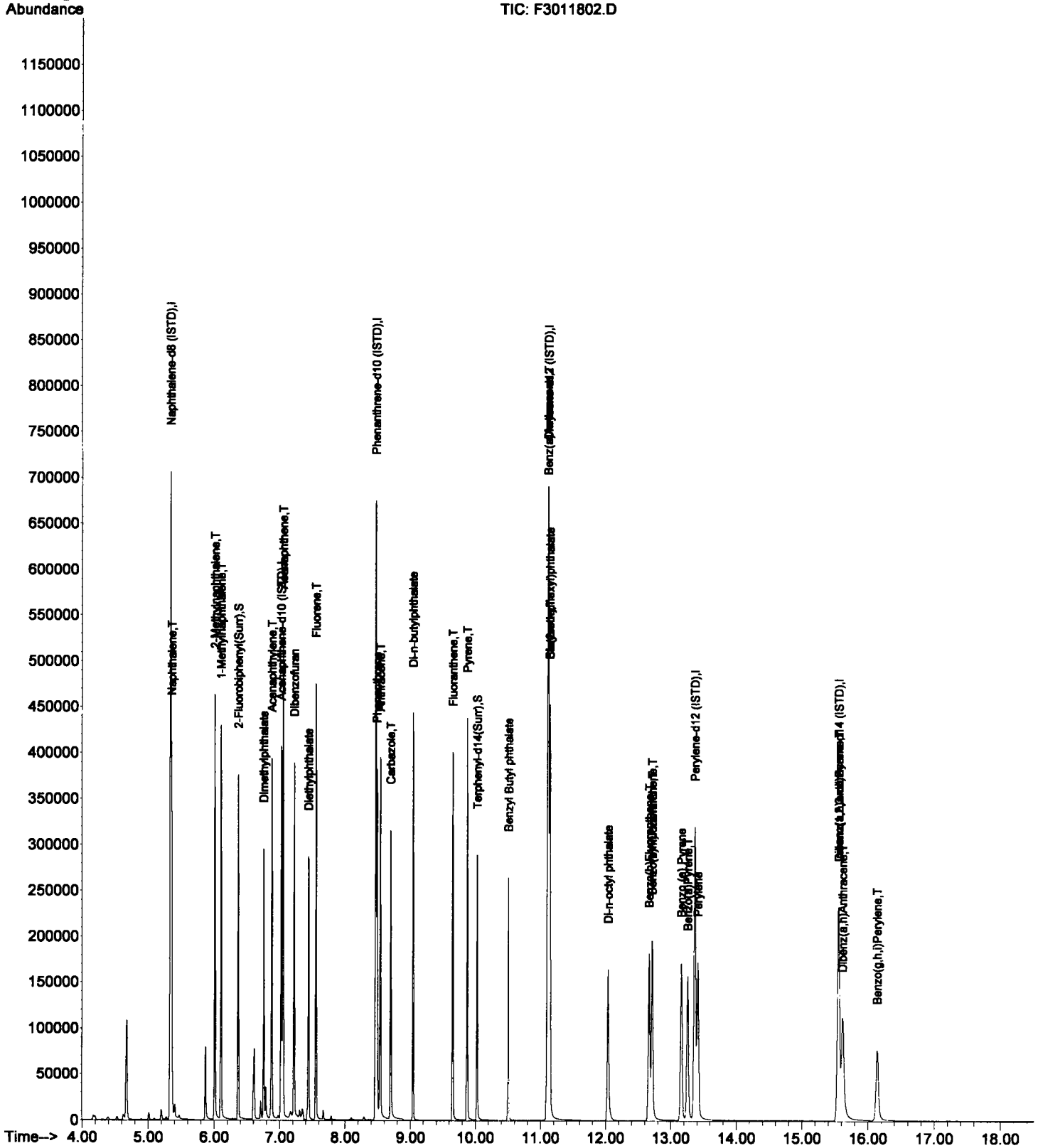
Ion	Exp%	Act%
128.00	100	100
126.00	7.00	6.73
0.00	0.00	0.00
0.00	0.00	0.00

F3011802.D F21227.M Fri Jan 18 11:52:23 2013 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011802.D Vial: 2
Acq On : 18 Jan 2013 10:24 am Operator: bsj
Sample : 3A18003-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 18 11:52 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011803.D Vial: 3
Acq On : 18 Jan 2013 10:52 am Operator: bsj
Sample : 3A18003-CCB1 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 18 11:44 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.34	136	729983	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	343555	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.47	188	554262	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	537333	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	436475	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.54	292	261822	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	0.00	172	0	0.000	ng/ml	
21) Terphenyl-d14(Surr)	0.00	244	0	0.000	ng/ml	
Target Compounds						Qvalue
2) Naphthalene	0.00	128	0	N.D.		
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	0.00	168	0	N.D.		
11) Diethylphthalate	0.00	149	0	N.D.		
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	0.00	178	0	N.D.		
15) Anthracene	0.00	178	0	N.D.		
16) Carbazole	0.00	167	0	N.D.		
17) Di-n-butylphthalate	0.00	149	0	N.D.		
18) Fluoranthene	0.00	202	0	N.D.		
19) Pyrene	0.00	202	0	N.D.		
22) Benzyl Butyl phthalate	0.00	149	0	N.D.		
23) Benz(a)Anthracene	11.11	228	1213	4.553	ng/ml	91
24) Chrysene	11.11	228	1213	4.724	ng/ml	92
25) Bis(2-ethylhexyl)phthalate	0.00	149	0	N.D.		
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.		
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.		
30) Benzo(b+k)Fluoranthene	0.00	252	0	N.D.		
31) Benzo (e) Pyrene	0.00	252	0	N.D.		
32) Benzo(a)Pyrene	0.00	252	0	N.D.		
33) Perylene	13.36	252	1367	6.306	ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	0.00	276	0	N.D.		
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.		
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.		

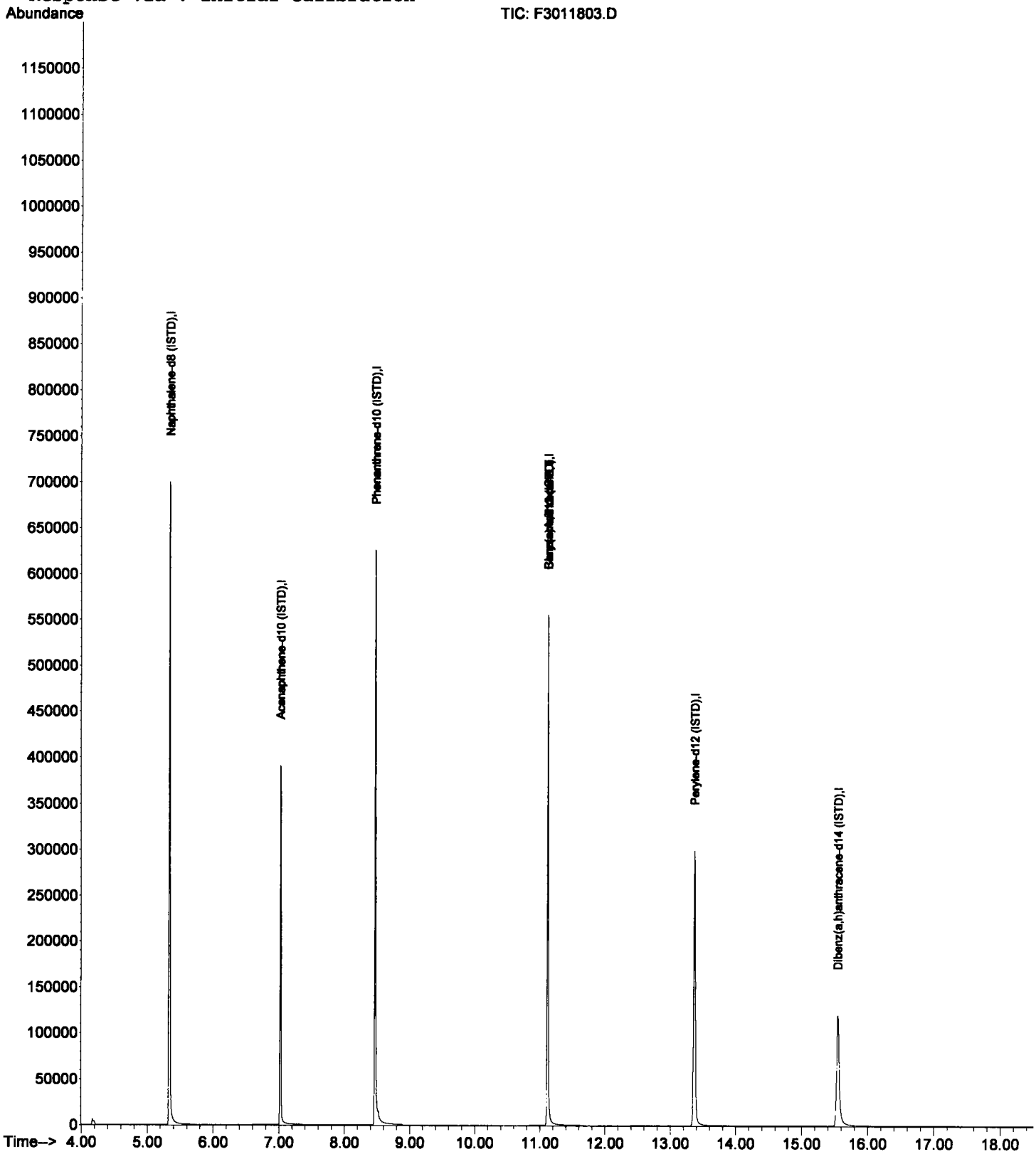
1-18-13
BSJ

(#) = qualifier out of range (m) = manual integration
F3011803.D F21227.M Fri Jan 18 11:44:58 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011803.D Vial: 3
Acq On : 18 Jan 2013 10:52 am Operator: bsj
Sample : 3A18003-CCB1 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 18 11:44 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011817.D Vial: 15
Acq On : 18 Jan 2013 8:16 pm Operator: bsj
Sample : 1301407-BLK1 Inst : SV-GCMS6
Misc : 1x Water 1000mL/1mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 8:52 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	693915	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	351413	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.47	188	587583	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	618595	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.37	264	542893	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.55	292	363301	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.37	172	908516	3603.509	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.03	244	1151756	4608.686	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	4898	13.029	ng/ml	97
3) 2-Methylnaphthalene	6.01	142	1097	4.908	ng/ml	90
4) 1-Methylnaphthalene	6.10	142	684	3.313	ng/ml	89
7) Dimethylphthalate	6.76	163	408	1.787	ng/mL#	73
8) Acenaphthylene	6.88	152	261	0.802	ng/ml#	67
9) Acenaphthene	7.05	153	248	1.203	ng/ml#	3
10) Dibenzofuran	7.22	168	526	1.804	ng/mL#	41
11) Diethylphthalate	7.44	149	872	3.723	ng/mL	79
12) Fluorene	7.55	166	281	1.264	ng/ml	84
14) Phenanthrene	8.49	178	1025	3.306	ng/mL	70
15) Anthracene	8.49	178	1025	3.442	ng/ml	65
16) Carbazole	8.65	167	205	0.844	ng/ml#	69
17) Di-n-butylphthalate	9.04	149	13671	36.804	ng/mL	100
18) Fluoranthene	9.65	202	429	1.471	ng/ml#	58
19) Pyrene	9.88	202	387	1.284	ng/ml#	58
22) Benzyl Butyl phthalate	10.50	149	9824	61.304	ng/mL	94
23) Benz(a)Anthracene	11.11	228	1414	4.610	ng/ml	86
24) Chrysene	11.11	228	1414	4.784	ng/ml	87
25) Bis(2-ethylhexyl)phthalate	11.13	149	9974	45.743	ng/mL	99
26) Di-n-octyl phthalate	11.99	149	247	71.929	ng/mL#	87
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.		
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.		
30) Benzo(b+k)Fluoranthene	12.67	252	225	0.798	ng/ml#	56
31) Benzo (e) Pyrene	0.00	252	0	N.D.		
32) Benzo(a)Pyrene	0.00	252	0	N.D.		
33) Perylene	13.37	252	1641	6.087	ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	15.54	276	216	1.079	ng/ml#	1
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.		
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.		

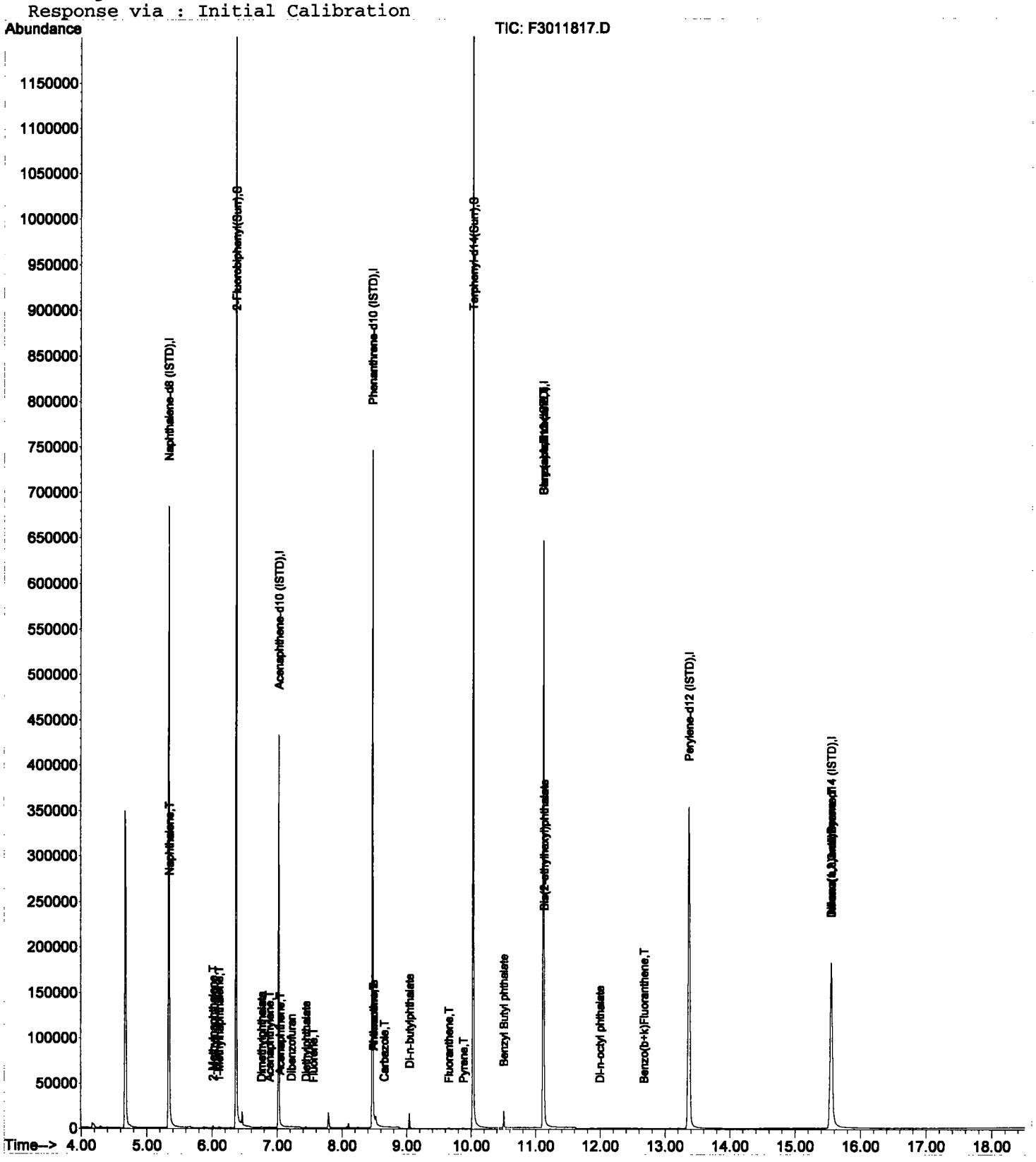
1-21-13 BSD

(#) = qualifier out of range (m) = manual integration
F3011817.D F21227.M Mon Jan 21 08:52:55 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011817.D Vial: 15
Acq On : 18 Jan 2013 8:16 pm Operator: bsj
Sample : 1301407-BLK1 Inst : SV-GCMS6
Misc : 1x Water 1000mL/1mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 8:52 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



F3011817.D F21227.M Mon Jan 21 08:52:56 2013 VOAGCMS1 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011818.D Vial: 16
Acq On : 18 Jan 2013 8:43 pm Operator: bsj
Sample : 1301407-BS1 Inst : SV-GCMS6
Misc : 1x Water 1000mL/1mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 8:52 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.34	136	701014	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	350288	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.47	188	605755	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.12	240	675557	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.37	264	595124	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.55	292	413818	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.37	172	973266	3872.730	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.03	244	1223302	4482.236	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	1153318	3036.887	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	731337	3238.953	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	673575	3229.540	ng/ml	99
7) Dimethylphthalate	6.76	163	817893	3593.201	ng/mL	100
8) Acenaphthylene	6.88	152	1057543	3260.427	ng/ml	99
9) Acenaphthene	7.05	153	658245	3201.996	ng/ml	97
10) Dibenzofuran	7.22	168	959600	3301.267	ng/mL	91
11) Diethylphthalate	7.44	149	803347	3440.974	ng/mL	80
12) Fluorene	7.55	166	781717	3528.842	ng/ml	98
14) Phenanthrene	8.49	178	1083343	3389.607	ng/mL	100
15) Anthracene	8.54	178	1103976	3596.308	ng/ml	98
16) Carbazole	8.70	167	993033	3965.602	ng/ml	98
17) Di-n-butylphthalate	9.04	149	1517808	3963.543	ng/mL	100
18) Fluoranthene	9.65	202	1250016	4158.473	ng/ml	100
19) Pyrene	9.88	202	1275614	4105.521	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	687499	3928.407	ng/mL	94
23) Benz(a)Anthracene	11.10	228	1265224	3777.061	ng/ml	98
24) Chrysene	11.15	228	1203427	3728.126	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.13	149	984627	4134.992	ng/mL	100
26) Di-n-octyl phthalate	12.03	149	1690861	4188.582	ng/mL	94
28) Benzo(b)Fluoranthene	12.67	252	1315892	4498.849	ng/ml	97
29) Benzo(k)Fluoranthene	12.72	252	1294561	4085.191	ng/ml	99
30) Benzo(b+k)Fluoranthene	12.72	252	2623925	8489.184	ng/ml	98
31) Benzo (e) Pyrene	13.17	252	1210700	4079.998	ng/mL	100
32) Benzo(a)Pyrene	13.26	252	1156049	4245.613	ng/ml	99
33) Perylene	13.42	252	1143704	3869.767	ng/mL	96
35) Indeno(1,2,3-cd)Pyrene	15.56	276	813020	3566.131	ng/ml	91
36) Dibenz(a,h)Anthracene	15.62	278	859458	3951.321	ng/ml	93
37) Benzo(g,h,i)Perylene	16.14	276	765348	3372.607	ng/ml	94

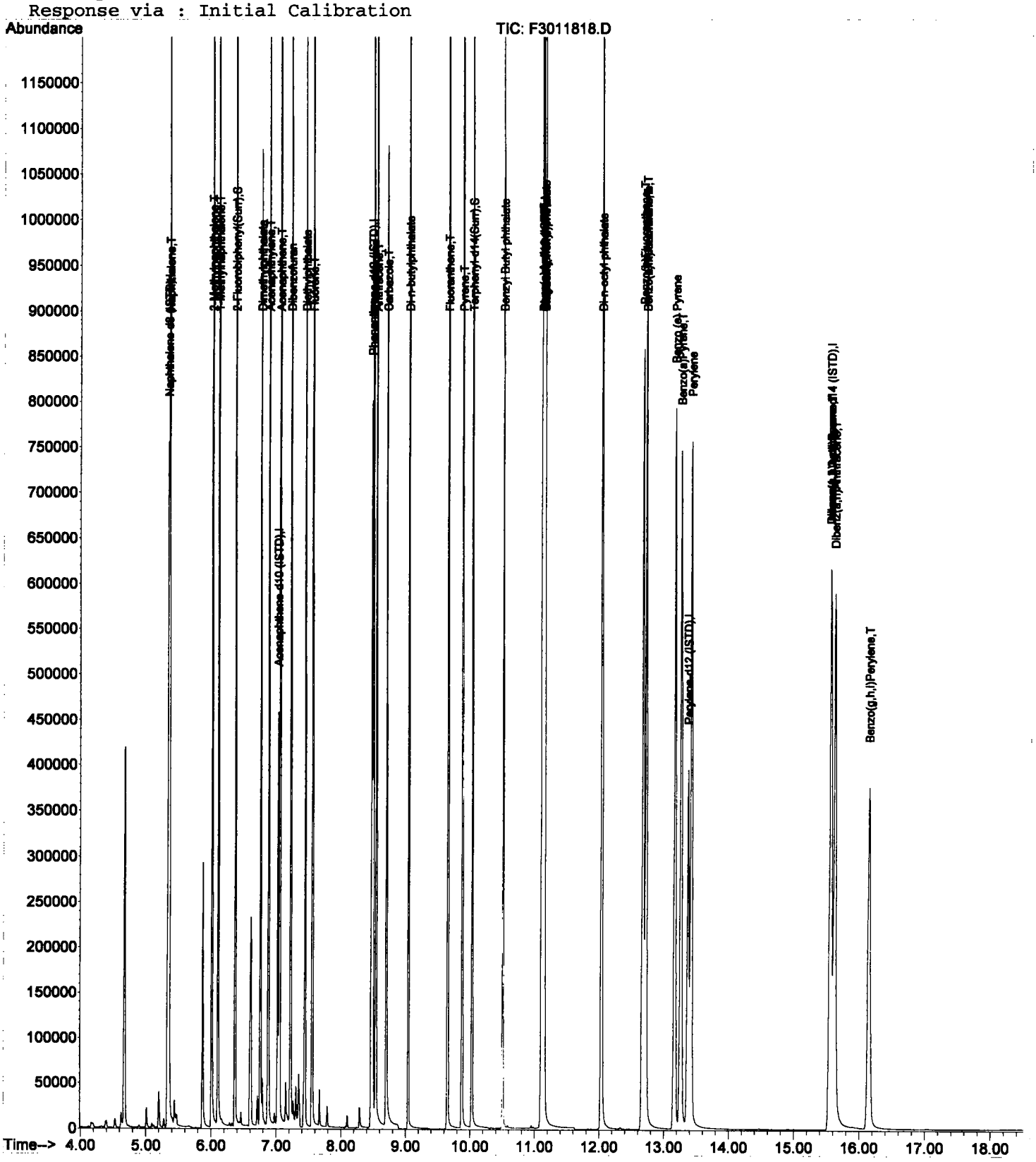
1-21-13 BSS

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011818.D Vial: 16
Acq On : 18 Jan 2013 8:43 pm Operator: bsj
Sample : 1301407-BS1 Inst : SV-GCMS6
Misc : 1x Water 1000mL/1mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 8:52 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011819.D Vial: 17
Acq On : 18 Jan 2013 9:10 pm Operator: bsj
Sample : 1301407-BSD1 Inst : SV-GCMS6
Misc : 1x Water 1000mL/1mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 8:52 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-19

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	751644	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	366819	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.47	188	613008	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	675229	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.37	264	602065	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.55	292	418560	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.37	172	1073848	4080.392	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.03	244	1216714	4460.263	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	1326135	3256.730	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	830644	3430.967	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	768411	3436.076	ng/ml	99
7) Dimethylphthalate	6.76	163	896485	3760.984	ng/mL	100
8) Acenaphthylene	6.88	152	1187645	3496.524	ng/ml	99
9) Acenaphthene	7.05	153	735922	3418.522	ng/ml	98
10) Dibenzofuran	7.22	168	1069305	3512.897	ng/mL	91
11) Diethylphthalate	7.44	149	877563	3589.466	ng/mL	80
12) Fluorene	7.55	166	852370	3674.381	ng/ml	97
14) Phenanthrene	8.49	178	1175821	3635.427	ng/mL	99
15) Anthracene	8.54	178	1187784	3823.540	ng/ml	98
16) Carbazole	8.69	167	1050364	4144.920	ng/ml	98
17) Di-n-butylphthalate	9.04	149	1611087	4157.350	ng/mL	100
18) Fluoranthene	9.65	202	1315806	4325.547	ng/ml	100
19) Pyrene	9.87	202	1351519	4298.352	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	690674	3948.466	ng/mL	94
23) Benz(a)Anthracene	11.10	228	1302583	3890.477	ng/ml	98
24) Chrysene	11.14	228	1231676	3817.493	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.13	149	983136	4130.736	ng/mL	100
26) Di-n-octyl phthalate	12.03	149	1692553	4194.093	ng/mL	94
28) Benzo(b)Fluoranthene	12.67	252	1313681	4439.512	ng/ml	99
29) Benzo(k)Fluoranthene	12.72	252	1384321	4318.081	ng/ml	99
30) Benzo(b+k)Fluoranthene	12.72	252	2712374	8674.175	ng/ml	98
31) Benzo (e) Pyrene	13.17	252	1261894	4203.493	ng/mL	100
32) Benzo(a)Pyrene	13.26	252	1210257	4393.452	ng/ml	98
33) Perylene	13.42	252	1198948	4009.919	ng/mL	97
35) Indeno(1,2,3-cd)Pyrene	15.56	276	849634	3684.509	ng/ml	91
36) Dibenz(a,h)Anthracene	15.62	278	931754	4235.167	ng/ml	92
37) Benzo(g,h,i)Perylene	16.15	276	803767	3501.778	ng/ml	95

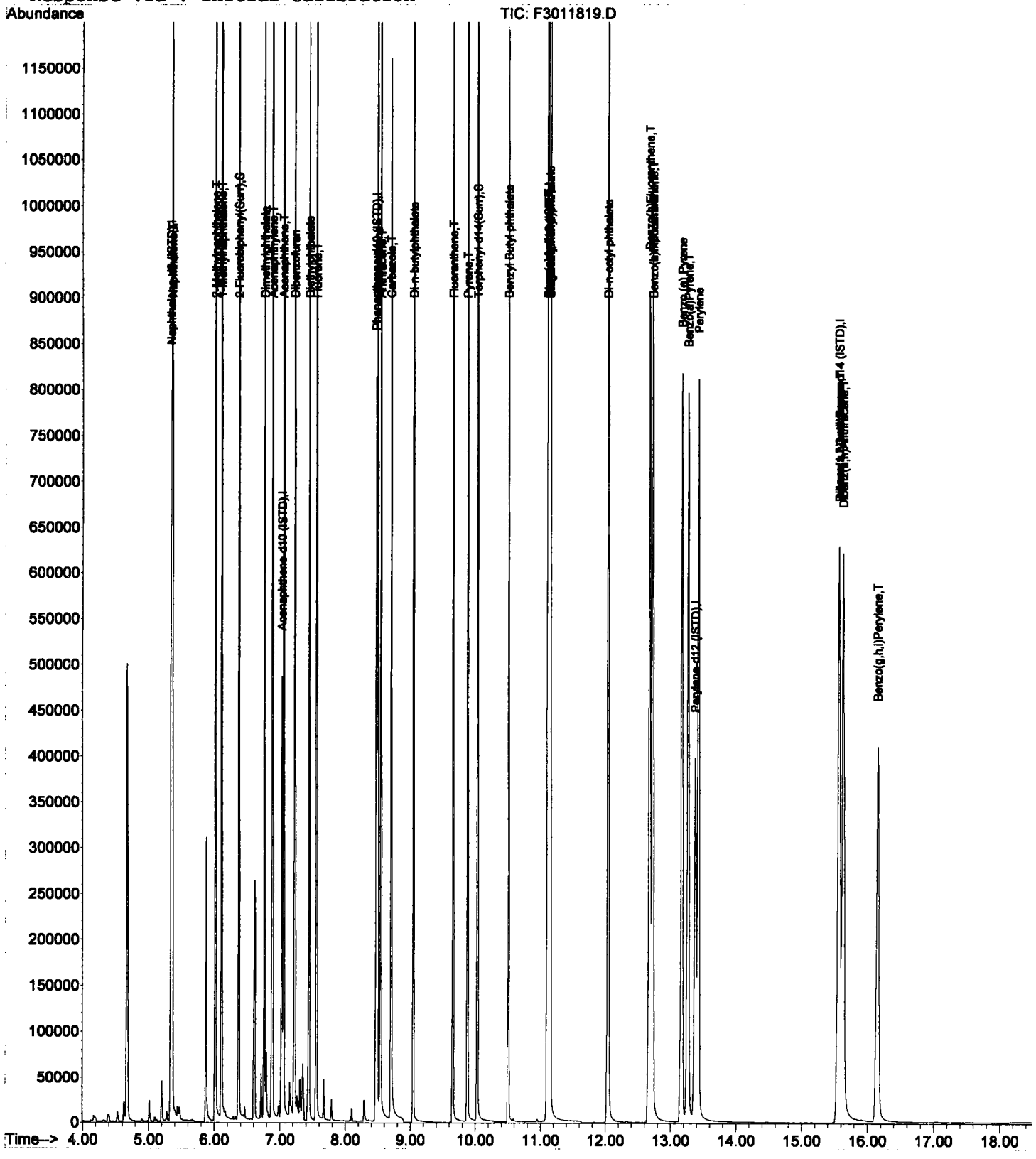
1-21-13

(#) = qualifier out of range (m) = manual integration
F3011819.D F21227.M Mon Jan 21 08:53:00 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011819.D Vial: 17
Acq On : 18 Jan 2013 9:10 pm Operator: bsj
Sample : 1301407-BSD1 Inst : SV-GCMS6
Misc : 1x Water 1000mL/1mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 8:52 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011820.D Vial: 18
Acq On : 18 Jan 2013 9:37 pm Operator: bsj
Sample : A13A243-18 Inst : SV-GCMS6
Misc : 1x Water 470mL/1mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 8:53 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	738145	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	376181	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.47	188	652121	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	668670	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.37	264	537182	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.55	292	350871	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.37	172	924388	3425.061	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.03	244	1351827	5004.173	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	6375	15.942	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	1448	6.090	ng/ml	89
4) 1-Methylnaphthalene	6.11	142	864	3.934	ng/ml	92
7) Dimethylphthalate	6.75	163	737	3.015	ng/mL#	73
8) Acenaphthylene	6.88	152	531	1.524	ng/ml#	67
9) Acenaphthene	7.05	153	408	1.848	ng/ml#	69
10) Dibenzofuran	7.22	168	804	2.576	ng/mL	92
11) Diethylphthalate	7.44	149	1689	6.737	ng/mL	82
12) Fluorene	7.56	166	496	2.085	ng/ml	95
14) Phenanthrene	8.49	178	1894	5.505	ng/mL	75
15) Anthracene	8.54	178	371	1.123	ng/ml#	61
16) Carbazole	8.70	167	627	2.326	ng/ml#	69
17) Di-n-butylphthalate	9.04	149	39857	96.681	ng/mL	100
18) Fluoranthene	9.65	202	1051	3.248	ng/ml#	58
19) Pyrene	9.87	202	806	2.410	ng/ml#	58
22) Benzyl Butyl phthalate	10.50	149	12460	71.930	ng/mL	98
23) Benz(a)Anthracene	11.11	228	1859	5.607	ng/ml	89
24) Chrysene	11.14	228	508	1.590	ng/ml#	58
25) Bis(2-ethylhexyl)phthalate	11.13	149	17472	74.130	ng/mL	97
26) Di-n-octyl phthalate	12.02	149	467	72.483	ng/mL#	87
28) Benzo(b)Fluoranthene	12.67	252	534	2.023	ng/ml#	57
29) Benzo(k)Fluoranthene	12.71	252	281	0.982	ng/ml#	56
30) Benzo(b+k)Fluoranthene	12.67	252	939	3.366	ng/ml	70
31) Benzo (e) Pyrene	13.16	252	412	1.538	ng/mL#	62
32) Benzo(a)Pyrene	13.25	252	287	1.168	ng/ml#	56
33) Perylene	13.41	252	264	0.990	ng/mL	55
35) Indeno(1,2,3-cd)Pyrene	15.56	276	428	2.214	ng/ml#	1
36) Dibenz(a,h)Anthracene	15.62	278	278	1.507	ng/ml#	49
37) Benzo(g,h,i)Perylene	16.15	276	303	1.575	ng/ml#	42

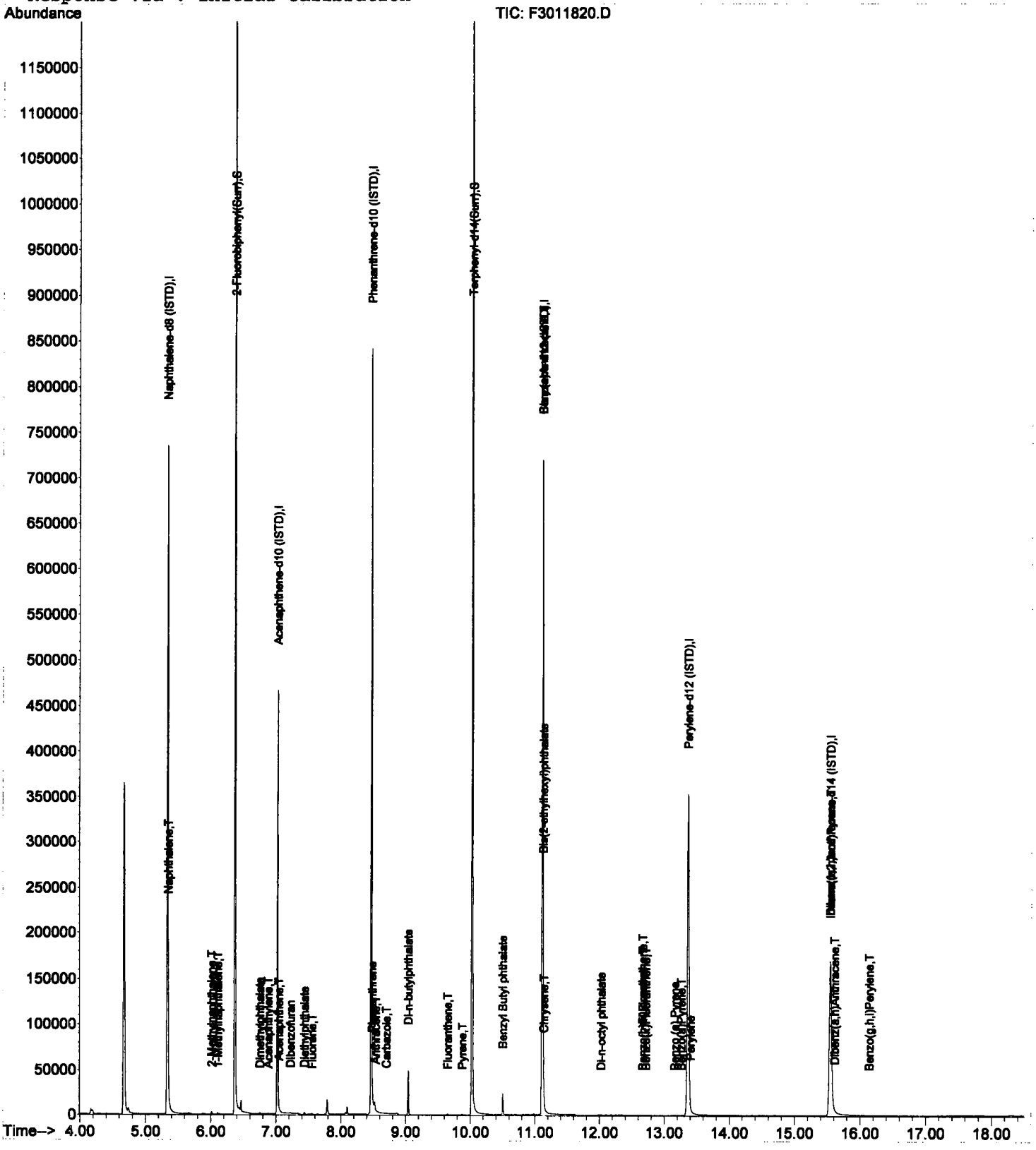
1-21-13 BSJ

(#) = qualifier out of range (m) = manual integration
F3011820.D F21227.M Mon Jan 21 08:53:02 2013 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A18003\F3011820.D Vial: 18
Acq On : 18 Jan 2013 9:37 pm Operator: bsj
Sample : A13A243-18 Inst : SV-GCMS6
Misc : 1x Water 470mL/1mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 8:53 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Benchsheet & Analysis Sequence Data

Batch 1301443
Sequence 3A21005 (A13A243-05,08,11,12,15)SV-GCMS6

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301443 (Soil)

Prep Method: EPA 3546

MW #	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH
	1301443-BLK1		QC	01/21/13 12:50	13	2				100			
	1301443-BS1		QC	01/21/13 12:50	10	2	A13A260		100	100			
	A13A243-01	A	8270 SIM PAH (Low I	01/21/13 12:50	10.56	2				100	AQ-SSA4-24-0-1	MDL	
	1301443-DUP1		QC	01/21/13 12:50	12.08	2		A13A243-01		100			
	A13A243-02	A	8270 SIM PAH (Low I	01/21/13 12:50	10.41	2				100	AQ-SSA4-24-1-2	MDL	
	A13A243-05	A	8270 SIM PAH (Low I	01/21/13 12:50	11.22	2				100	AQ-SSA4-25-0-1	MDL	
	A13A243-05RE1	A	8270 SIM PAH (Low I	01/21/13 12:50	11.22	2				100	AQ-SSA4-25-0-1	Added 1/22/2013 by bsj	
	A13A243-06	A	8270 SIM PAH (Low I	01/21/13 12:50	10.42	2				100	AQ-SSA4-25-1-2	MDL	
	A13A243-08	A	8270 SIM PAH (Low I	01/21/13 12:50	11.55	2				100	AQ-SSA4-26-0-1	MDL	
	A13A243-08RE1	A	8270 SIM PAH (Low I	01/21/13 12:50	11.55	2				100	AQ-SSA4-26-0-1	Added 1/22/2013 by bsj	
	A13A243-09	A	8270 SIM PAH (Low I	01/21/13 12:50	10.92	2				100	AQ-SSA4-26-1-2	MDL	
	A13A243-11	A	8270 SIM PAH (Low I	01/21/13 12:50	10.75	2				100	AQ-SSA4-76-0-1	MDL	
	A13A243-11RE1	A	8270 SIM PAH (Low I	01/21/13 12:50	10.75	2				100	AQ-SSA4-76-0-1	Added 1/22/2013 by bsj	
	A13A243-12	A	8270 SIM PAH (Low I	01/21/13 12:50	10.53	2				100	AQ-SSA4-76-1-2	MDL	
	A13A243-14	A	8270 SIM PAH (Low I	01/21/13 12:50	10.24	2				100	AQ-SSA4-27-0-1	MDL	
	A13A243-15	A	8270 SIM PAH (Low I	01/21/13 12:50	12.51	2				100	AQ-SSA4-27-1-2	MDL	
	1301443-MS1		QC	01/21/13 12:50	10.61	2	A13A260	A13A243-15	100	100			
	A13A243-15RE1	A	8270 SIM PAH (Low I	01/21/13 12:50	12.51	2				100	AQ-SSA4-27-1-2	Added 1/22/2013 by bsj	

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A09L114	12/31/20	Extractions Balance
A12F235	01/01/18	Glass Wool
A12K196	05/27/13	Sodium Sulfate Lot #BF1012
A12L236	06/18/13	DCM CHEM PROD. #12110114

Analyte Spike(s)

Std ID	Exp. Date	Description
A13A260	04/15/13	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A12L188	03/17/13	PAH Soil and Water Surr. (50ppm)

Prepared By: Date

BS 1-22-13

Reviewed By: Date

Printed: 1/22/2013 11:50:26AM

2/13/13 A13A243 Anchor Former Reynolds Metals Reduction Plant RI/FS.sed - Apex Laboratories Data Package Page 214 of 716

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301443 (Soil)

Prep Method: EPA 3546

MW #	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH
Method 3546 digestion time and temperature achieved? Initial:													

Prepared By: Date

Reviewed By: Date

Printed: 1/22/2013 11:50:26AM

2/13/13 A13A243 Anchor Former Reynolds Metals Reduction Plant RI/FS-sed Apex Laboratories Data Package Page 212 of 716

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301443 (Soil)

Prep Method: EPA 3546

MW #	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH
	1301443-BLK1		QC	01/21/13 12:50	13	2				100			
	1301443-BS1		QC	01/21/13 12:50	10	2	A13A260		100	100			
	A13A243-01	A	8270 SIM PAH (Low I	01/21/13 12:50	10.56	2				100	AQ-SSA4-24-0-1	MDL	
	1301443-DUP1		QC	01/21/13 12:50	12.08	2		A13A243-01		100			
	A13A243-02	A	8270 SIM PAH (Low I	01/21/13 12:50	10.41	2				100	AQ-SSA4-24-1-2	MDL	
	A13A243-05	A	8270 SIM PAH (Low I	01/21/13 12:50	11.22	2				100	AQ-SSA4-25-0-1	MDL	
	A13A243-06	A	8270 SIM PAH (Low I	01/21/13 12:50	10.42	2				100	AQ-SSA4-25-1-2	MDL	
	A13A243-08	A	8270 SIM PAH (Low I	01/21/13 12:50	11.55	2				100	AQ-SSA4-26-0-1	MDL	
	A13A243-09	A	8270 SIM PAH (Low I	01/21/13 12:50	10.92	2				100	AQ-SSA4-26-1-2	MDL	
	A13A243-11	A	8270 SIM PAH (Low I	01/21/13 12:50	10.75	2				100	AQ-SSA4-76-0-1	MDL	
	A13A243-12	A	8270 SIM PAH (Low I	01/21/13 12:50	10.53	2				100	AQ-SSA4-76-1-2	MDL	
	A13A243-14	A	8270 SIM PAH (Low I	01/21/13 12:50	10.24	2				100	AQ-SSA4-27-0-1	MDL	
	A13A243-15	A	8270 SIM PAH (Low I	01/21/13 12:50	12.51	2				100	AQ-SSA4-27-1-2	MDL	
	1301443-MS1		QC	01/21/13 12:50	10.61	2	A13A260	A13A243-15	100	100			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A09L114	12/31/20	Extractions Balance
A12F235	01/01/18	Glass Wool
A12K196	05/27/13	Sodium Sulfate Lot #BF1012
A12L236	06/18/13	DCM CHEM PROD. #12110114

Analyte Spike(s)

Std ID	Exp. Date	Description
A13A260	04/15/13	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A12L188	03/17/13	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion time and temperature achieved?
Initial:

Prepared By: Date

Reviewed By: 1-21-13 Date

Printed: 1/21/2013 4:08:23PM

2/13/13 A13A243 Anchor Former Reynolds Metals Reduction Plant RI/FS Soil Apex Laboratories Data Package Page 213 of 716

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301443 (Soil)

Prep Method: EPA 3546

MW #	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH
1	1301443-BLK1		QC	01/21/13 12:50	10 13.00	2				100			
2	1301443-BS1		QC	01/21/13 12:50	10	2	A13A260		100	100			
3	A13A243-01	A	8270 SIM PAH (Low I	01/21/13 12:50	10 10.56	2				100	AQ-SSA4-24-0-1	MDL Sand/rock	
4	1301443-DUP1		QC	01/21/13 12:50	10 12.08	2		A13A243-01		100		↓	
5	A13A243-02	A	8270 SIM PAH (Low I	01/21/13 12:50	10 10.41	2				100	AQ-SSA4-24-1-2	MDL Sand	
6	A13A243-05	A	8270 SIM PAH (Low I	01/21/13 12:50	10 11.22	2				100	AQ-SSA4-25-0-1	MDL Sand/rock	
7	A13A243-06	A	8270 SIM PAH (Low I	01/21/13 12:50	10 10.42	2				100	AQ-SSA4-25-1-2	MDL	
8	A13A243-08	A	8270 SIM PAH (Low I	01/21/13 12:50	10 11.55	2				100	AQ-SSA4-26-0-1	MDL	
9	A13A243-09	A	8270 SIM PAH (Low I	01/21/13 12:50	10 10.92	2				100	AQ-SSA4-26-1-2	MDL	
10	A13A243-11	A	8270 SIM PAH (Low I	01/21/13 12:50	10 10.75	2				100	AQ-SSA4-76-0-1	MDL	
11	A13A243-12	A	8270 SIM PAH (Low I	01/21/13 12:50	10 10.53	2				100	AQ-SSA4-76-1-2	MDL	
12	A13A243-14	A	8270 SIM PAH (Low I	01/21/13 12:50	10 10.29	2				100	AQ-SSA4-27-0-1	MDL	
13	A13A243-15	A	8270 SIM PAH (Low I	01/21/13 12:50	10 12.51	2				100	AQ-SSA4-27-1-2	MDL	
14	1301443-MS1		QC	01/21/13 12:50	10 10.61	2	A13A260	A13A243-15	100	100		↓	

Standards/Reagents

Reagent(s)		
Std ID	Exp. Date	Description
A09L114	12/31/20	Extractions Balance
A12F235	01/01/18	Glass Wool
A12K196	05/27/13	Sodium Sulfate Lot #BF1012
A12L236	06/18/13	DCM CHEM PROD. #12110114

Analyte Spike(s)		
Std ID	Exp. Date	Description
A13A260	04/15/13	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)		
Std ID	Exp. Date	Description
A12L188	03/17/13	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion time and temperature achieved? Yes

Initial: MK

Witness: MK 1/21/13

Prepared By: 1/21/13 Date

Reviewed By: 1-21-13 Date

Printed: 1/21/2013 12:51:42PM

2/13/13 A13A243 Anchor Former Reynolds Metals Reduction Plant RI/FS-Std Apex Laboratories Data Package Page 214 of 716

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**3A21005**	Instrument:	**SV-GCMS6**
Date:	**01/21/13 00:00**	Calibration:	**A2L2701**

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	3A21005-TUN1	Soil	QC	QC			A12L094	A13A099
2	3A21005-CCV1	Soil	QC	QC			A12L094	A13A203
3	3A21005-CCB1	Soil	QC	QC			A12L094	
4	3A21005-TUN2	Soil	QC	QC			A12L094	A13A099
5	3A21005-CCV2	Soil	QC	QC			A12L094	A13A203
6	3A21005-CCB2	Soil	QC	QC			A12L094	
7	1301443-BLK1	Soil	QC	QC		1301443	A12L094	
8	1301443-BS1	Soil	QC	QC		1301443	A12L094	
9	A13A243-01	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
10	1301443-DUP1	Soil	QC	QC		1301443	A12L094	
11	A13A243-02	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
12	A13A243-05	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
13	A13A243-06	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
14	A13A243-08	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
15	A13A243-09	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
16	A13A243-11	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
17	A13A243-12	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
18	A13A243-14	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
19	A13A243-15	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
20	1301443-MS1	Soil	QC	QC		1301443	A12L094	
21	3A21005-IBL1	Soil	QC	QC			A12L094	

Data Entered By: BSJ 1-22-13

Data Reviewed By: [illegible] 1/23/13

Comments:

SEQUENCE REVIEW SHEET

SEQUENCE: 3A21005 Seq. Date: 1/21/2013

SEQUENCE LOG

Calibration ID: A2L2701

SampleID	Analysis	Matrix	Batch	Analyzed
3A21005-TUN1	8270 SIM PAH (Low Level)	Soil	3A21005	1/21/2013 10:19:00AM
3A21005-CCV1	8270 SIM PAH (Low Level)	Soil	3A21005	1/21/2013 10:47:00AM
3A21005-CCB1	8270 SIM PAH (Low Level)	Soil	3A21005	1/21/2013 11:14:00AM
3A21005-TUN2	8270 SIM PAH (Low Level)	Soil	3A21005	1/21/2013 12:32:00PM
3A21005-CCV2	8270 SIM PAH (Low Level)	Soil	3A21005	1/21/2013 12:59:00PM
3A21005-CCB2	8270 SIM PAH (Low Level)	Soil	3A21005	1/21/2013 1:27:00PM
1301443-BLK1	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 4:27:00PM
1301443-BS1	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 4:54:00PM
A13A243-01	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 5:21:00PM
1301443-DUP1	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 5:49:00PM
A13A243-02	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 6:15:00PM
A13A243-05	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 6:43:00PM
A13A243-06	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 7:10:00PM
A13A243-08	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 7:37:00PM
A13A243-09	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 8:05:00PM
A13A243-11	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 8:32:00PM
A13A243-12	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 8:59:00PM
A13A243-14	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 9:25:00PM
A13A243-15	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 9:52:00PM
1301443-MS1	8270 SIM PAH (Low Level)	Soil	1301443	1/21/2013 10:20:00PM

MS TUNE SAMPLES

0 Total Failures

CONTINUING CALIBRATION VERIFICATION

3A21005-CCV1 8270 SIM PAH (Low L	Result	Value	%Rec	LCL	UCL	STDID	Status	Qualifiers
Benzo(b)fluoranthene	1,322.25	1000	132	80	120	A13A203	FAIL	Q-14
Benzo(b+k)fluoranthene(s)	2,561.21	2000	128	80	120	A13A203	FAIL	Q-14
Benzo(k)fluoranthene	1,256.03	1000	126	80	120	A13A203	FAIL	Q-14

3 CCC Failures

3 Total Failures in 2 CCVs

ISTD AREAS

3A21005-CCV2

8270 SIM PAH (Low L	RT	RESP	% Rec (vs. Curve)	Rpt	Qualifier
Naphthalene-d8 (ISTD)	5.33	851550	91		
Acenaphthene-d10 (ISTD)	7.02	429042	98		
Phenanthrene-d10 (ISTD)	8.46	714822	101		
Chrysene-d12 (ISTD)	11.11	634011	101		
Perylene-d12 (ISTD)	13.36	515041	98		
Dibenz(a,h)anthracene-d14 (IS1	15.54	376881	91		

SEQUENCE REVIEW SHEET

SEQUENCE: 3A21005 Seq. Date: 1/21/2013

EXTRACTION BLANKS

1301443-BLK1 8270 SIM PAH (Low I	Result	MDL	MRL	>MRL/MDL?	Fail?	Qualifier
Fluoranthene	2.38	1.54	3.08	>1/2MRL	FAIL	B-02
Pyrene	5.44	1.54	3.08	>MRL	FAIL	

2 Total Failures in 1 Blank(s)

LAB CONTROL SPIKES

0 Failures in 1 LCS/LCSDs

DUPLICATES

1301443-DUP1 8270 SIM PAH (Low (Source: A13A243-01)

	Result	Source Res.	RPD	RPDL	MDL	MRL	P/F	Qualifier
Phenanthrene	3.89	5.34	32	30	1.99	3.98	FAIL	Q-17

MATRIX SPIKES

1301443-MS1 8270 SIM PAH (Low(Source: A13A243-15)

	Result	Spike Amt	Source Res	%Rec	LCL	UCL	P/F	Qualifier
Benz(a)anthracene	6120	868	3320	323	50	125	FAIL	Q-03
Benzo(a)pyrene	8960	868	6200	318	50	125	FAIL	Q-03
Benzo(b)fluoranthene	23400	868	17700	663	45	125	FAIL	Q-03
Benzo(k)fluoranthene	7200	868	4240	341	45	125	FAIL	Q-03
Benzo(b+k)fluoranthene(s)	30000	1740	21400	497	45	125	FAIL	Q-03
Benzo(g,h,i)perylene	15100	868	12700	283	40	125	FAIL	Q-03
Chrysene	24600	868	17700	796	55	125	FAIL	Q-03
Dibenz(a,h)anthracene	3270	868	2080	137	40	125	FAIL	Q-03
Fluoranthene	3520	868	1480	235	55	125	FAIL	B-02,Q-03
Indeno(1,2,3-cd)pyrene	10900	868	8670	253	40	125	FAIL	Q-03
Pyrene	4040	868	1830	255	45	125	FAIL	B,Q-03

SURROGATE RECOVERY

No Surrogate Failures

SAMPLE HITS

A13A243-01 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Phenanthrene	23.44	5.34	YES	----	4.56	1			
Fluoranthene	70.04	16.0	YES	----	4.56	1	B-02		
Pyrene	73.18	16.7	YES	----	4.56	1	B		
Benz(a)anthracene	48.66	11.1	YES	----	4.56	1			
Chrysene	109.91	25.0	YES	----	4.56	1			
Benzo(b+k)fluoranthene(s)	211.33	48.2	YES	----	9.12	1	Q-26		
Benzo(a)pyrene	61.82	14.1	YES	----	4.56	1			
Indeno(1,2,3-cd)pyrene	128.70	29.3	YES	----	4.56	1			
Dibenz(a,h)anthracene	24.73	5.64	YES	----	4.56	1			
Benzo(g,h,i)perylene	247.41	56.4	YES	----	4.56	1			

A13A243-02 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Indeno(1,2,3-cd)pyrene	22.11	5.22	YES	----	4.72	1			
Benzo(g,h,i)perylene	51.90	12.2	YES	----	4.72	1			

A13A243-05 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Phenanthrene	393.33	399	YES	----	20.3	5			
Anthracene	68.01	69.0	YES	----	20.3	5			
Fluoranthene	3,038.83	3080	YES	----	20.3	5	B-02		
Pyrene	3,419.33	3470	YES	----	20.3	5	B		
Benz(a)anthracene	3,433.26	3480	YES	----	20.3	5			
Benzo(a)pyrene	7,021.52	7120	YES	----	20.3	5			
Indeno(1,2,3-cd)pyrene	6,993.67	7090	YES	----	20.3	5			
Dibenz(a,h)anthracene	2,207.60	2240	YES	----	20.3	5			

A13A243-06 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Phenanthrene	48.18	11.2	YES	----	4.65	1			
Fluoranthene	91.57	21.3	YES	----	4.65	1	B-02		
Pyrene	80.93	18.8	YES	----	4.65	1	B		
Benz(a)anthracene	66.61	15.5	YES	----	4.65	1			
Chrysene	76.68	17.8	YES	----	4.65	1			
Benzo(b+k)fluoranthene(s)	149.19	34.7	YES	----	9.31	1	Q-26		
Benzo(a)pyrene	68.19	15.9	YES	----	4.65	1			
Indeno(1,2,3-cd)pyrene	68.93	16.0	YES	----	4.65	1			
Benzo(g,h,i)perylene	76.61	17.8	YES	----	4.65	1			

A13A243-08 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Phenanthrene	267.72	54.2	YES	----	4.05	1			
Anthracene	58.03	11.8	YES	----	4.05	1			
Fluoranthene	1,894.42	384	YES	----	4.05	1	B-02		
Pyrene	2,123.83	430	YES	----	4.05	1	B		
Benz(a)anthracene	2,197.65	445	YES	----	4.05	1			
Chrysene	7,268.80	1470	YES	----	4.05	1			
Benzo(b+k)fluoranthene(s)	14,207.39	2880	YES	----	8.10	1	Q-26		
Benzo(a)pyrene	4,507.87	913	YES	----	4.05	1			
Indeno(1,2,3-cd)pyrene	7,868.94	1590	YES	----	4.05	1			
Dibenz(a,h)anthracene	1,998.72	405	YES	----	4.05	1			

A13A243-09 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Benzo(b+k)fluoranthene(s)	43.59	9.76	YES	----	8.96	1	Q-26		
Indeno(1,2,3-cd)pyrene	34.77	7.79	YES	----	4.48	1			
Benzo(g,h,i)perylene	61.28	13.7	YES	----	4.48	1			

A13A243-11 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Phenanthrene	181.54	39.2	YES	----	4.32	1			
Anthracene	39.53	8.53	YES	----	4.32	1			
Fluoranthene	1,271.25	274	YES	----	4.32	1	B-02		
Pyrene	1,437.50	310	YES	----	4.32	1	B		
Benz(a)anthracene	1,482.55	320	YES	----	4.32	1			
Chrysene	4,334.80	936	YES	----	4.32	1			
Benzo(b+k)fluoranthene(s)	9,607.19	2070	YES	----	8.63	1	Q-26		
Benzo(a)pyrene	2,957.99	638	YES	----	4.32	1			
Indeno(1,2,3-cd)pyrene	5,708.10	1230	YES	----	4.32	1			
Dibenz(a,h)anthracene	1,362.84	294	YES	----	4.32	1			

A13A243-12 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Indeno(1,2,3-cd)pyrene	33.54	7.84	YES	----	4.67	1			
Benzo(g,h,i)perylene	66.20	15.5	YES	----	4.67	1			

A13A243-14 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Phenanthrene	44.12	10.3	YES	----	4.67	1			
Fluoranthene	213.31	49.8	YES	----	4.67	1	B-02		
Pyrene	233.85	54.6	YES	----	4.67	1	B		
Benz(a)anthracene	247.57	57.8	YES	----	4.67	1			
Chrysene	865.43	202	YES	----	4.67	1			
Benzo(b+k)fluoranthene(s)	1,668.61	390	YES	----	9.35	1	Q-26		
Benzo(a)pyrene	457.86	107	YES	----	4.67	1			
Indeno(1,2,3-cd)pyrene	920.71	215	YES	----	4.67	1			
Dibenz(a,h)anthracene	201.99	47.2	YES	----	4.67	1			
Benzo(g,h,i)perylene	1,282.11	300	YES	----	4.67	1			

A13A243-15 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Acenaphthylene	25.94	23.9	YES	----	18.4	5			
Phenanthrene	163.42	150	YES	----	18.4	5			
Anthracene	73.84	67.9	YES	----	18.4	5			
Fluoranthene	1,612.97	1480	YES	----	18.4	5	B-02		
Pyrene	1,992.91	1830	YES	----	18.4	5	B		
Benz(a)anthracene	3,606.15	3320	YES	----	18.4	5			
Benzo(a)pyrene	6,738.60	6200	YES	----	18.4	5			
Dibenz(a,h)anthracene	2,262.48	2080	YES	----	18.4	5			

MISSED HOLD TIMES

No Hold Times Missed

SEQUENCE REVIEW SHEET

SEQUENCE: 3A21005 Seq. Date: 1/21/2013

ANALYTE QUALIFIERS

1301443-BLK1

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES

1 Reportable Qualifier(s)

1301443-BS1

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES
Pyrene	B		YES

2 Reportable Qualifier(s)

A13A243-01

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES
Pyrene	B		YES
Benzo(b+k)fluoranthene(s)	Q-26		YES

3 Reportable Qualifier(s)

1301443-DUP1

Analyte	Qualifier	Text	Rpt?
Phenanthrene	Q-17		YES
Fluoranthene	B-02		YES
Pyrene	B		YES
Benzo(b+k)fluoranthene(s)	Q-26		YES

4 Reportable Qualifier(s)

A13A243-02

Analyte	Qualifier	Text	Rpt?
Pyrene	B		YES
Benzo(b+k)fluoranthene(s)	Q-26		YES

2 Reportable Qualifier(s)

A13A243-05

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES
Pyrene	B		YES

2 Reportable Qualifier(s)

A13A243-06

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES
Pyrene	B		YES
Benzo(b+k)fluoranthene(s)	Q-26		YES

3 Reportable Qualifier(s)

A13A243-08

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES
Pyrene	B		YES
Benzo(b+k)fluoranthene(s)	Q-26		YES

3 Reportable Qualifier(s)

A13A243-09

Analyte	Qualifier	Text	Rpt?
Pyrene	B		YES
Benzo(b+k)fluoranthene(s)	Q-26		YES

2 Reportable Qualifier(s)

A13A243-11

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES
Pyrene	B		YES
Benzo(b+k)fluoranthene(s)	Q-26		YES

3 Reportable Qualifier(s)

A13A243-12

Analyte	Qualifier	Text	Rpt?
Pyrene	B		YES
Benzo(b+k)fluoranthene(s)	Q-26		YES

2 Reportable Qualifier(s)

A13A243-14

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES
Pyrene	B		YES
Benzo(b+k)fluoranthene(s)	Q-26		YES

3 Reportable Qualifier(s)

A13A243-15

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES
Pyrene	B		YES

2 Reportable Qualifier(s)

1301443-MS1

Analyte	Qualifier	Text	Rpt?
Fluoranthene	B-02		YES
Fluoranthene	Q-03		YES
Pyrene	B		YES
Pyrene	Q-03		YES
Benz(a)anthracene	Q-03		YES
Chrysene	Q-03		YES
Benzo(b)fluoranthene	Q-03		YES
Benzo(b+k)fluoranthene(s)	Q-03		YES
Benzo(k)fluoranthene	Q-03		YES
Benzo(a)pyrene	Q-03		YES
Indeno(1,2,3-cd)pyrene	Q-03		YES
Dibenz(a,h)anthracene	Q-03		YES
Benzo(g,h,i)perylene	Q-03		YES

13 Reportable Qualifier(s)

SAMPLE QUALIFIERS

3A21005-CCB1

Analyte	Qualifier	CustomValue
ALL	Q-14	

3A21005-CCV1

Analyte	Qualifier	CustomValue
ALL	Q-14	

3A21005-TUN1

Analyte	Qualifier	CustomValue
ALL	Q-14	

Injection Log

Directory: C:\HPCHEM\2\DATA\2013-01\3A21005

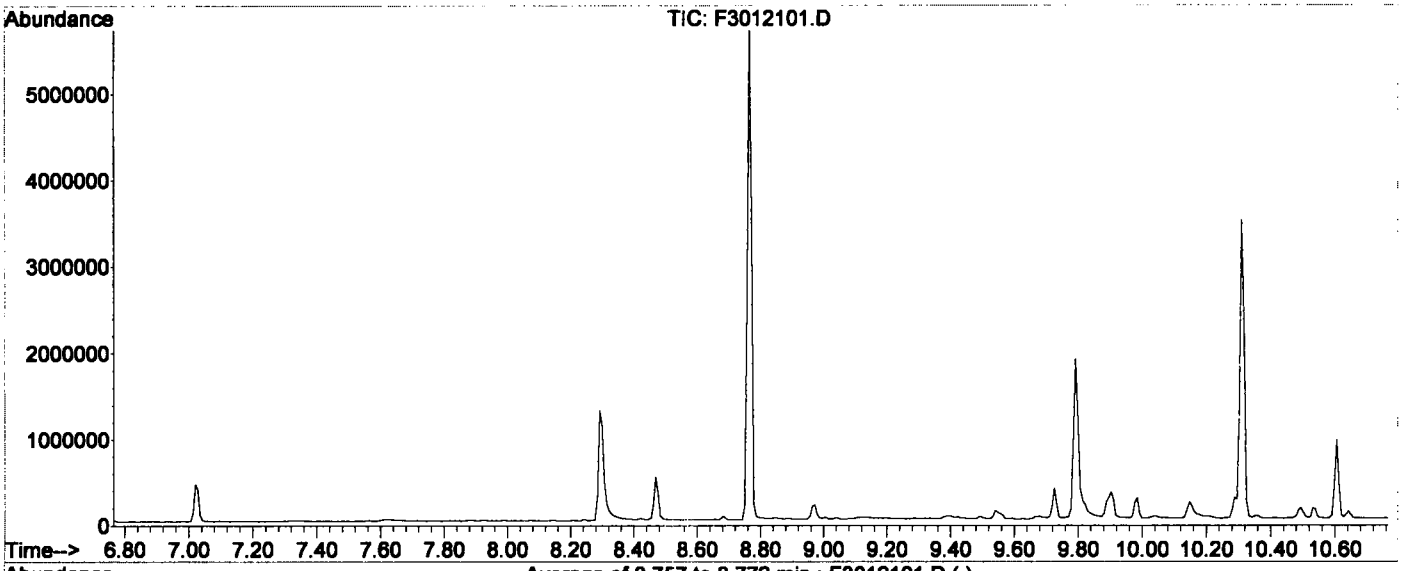
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	F3012101.d	1.	3A21005-TUN1	1x A13A099@50ng ...	21 Jan 2013 10:19
2	2	F3012102.d	1.	3A21005-CCV1	1x A13A203@1000p...	21 Jan 2013 10:47
3	3	F3012103.d	1.	3A21005-CCB1	1x DCM+ISTD	21 Jan 2013 11:14
4	1	F3012104.d	1.	3A21005-TUN2	1x A13A099@50ng ...	21 Jan 2013 12:32
5	2	F3012105.d	1.	3A21005-CCV2	1x A13A203@1000p...	21 Jan 2013 12:59
6	3	F3012106.d	1.	3A21005-CCB2	1x DCM+ISTD	21 Jan 2013 13:27
7	4	F3012107.d	1.	1301443-BLK1	1x Soil 11.00...	21 Jan 2013 16:27
8	5	F3012108.d	1.	1301443-BS1	1x Soil 10.00...	21 Jan 2013 16:54
9	6	F3012109.d	1.	A13A243-01	1x Soil 10.56...	21 Jan 2013 17:21
10	7	F3012110.d	1.	1301443-DUP1	1x Soil 12.08...	21 Jan 2013 17:49
11	8	F3012111.d	1.	A13A243-02	1x Soil 10.41...	21 Jan 2013 18:15
12	9	F3012112.d	1.	A13A243-05@5	5x Soil 11.22...	21 Jan 2013 18:43
13	10	F3012113.d	1.	A13A243-06	1x Soil 10.42...	21 Jan 2013 19:10
14	11	F3012114.d	1.	A13A243-08	1x Soil 11.55...	21 Jan 2013 19:37
15	12	F3012115.d	1.	A13A243-09	1x Soil 10.92...	21 Jan 2013 20:05
16	13	F3012116.d	1.	A13A243-11	1x Soil 10.75...	21 Jan 2013 20:32
17	14	F3012117.d	1.	A13A243-12	1x Soil 10.53...	21 Jan 2013 20:59
18	15	F3012118.d	1.	A13A243-14	1x Soil 10.24...	21 Jan 2013 21:25
19	16	F3012119.d	1.	A13A243-15@5	5x Soil 12.51...	21 Jan 2013 21:52
20	17	F3012120.d	1.	1301443-MS1@5	5x Soil 10.61...	21 Jan 2013 22:20
21	3	F3012121.d	1.	3A21005-IBL1	1x DCM+ISTD	21 Jan 2013 22:46

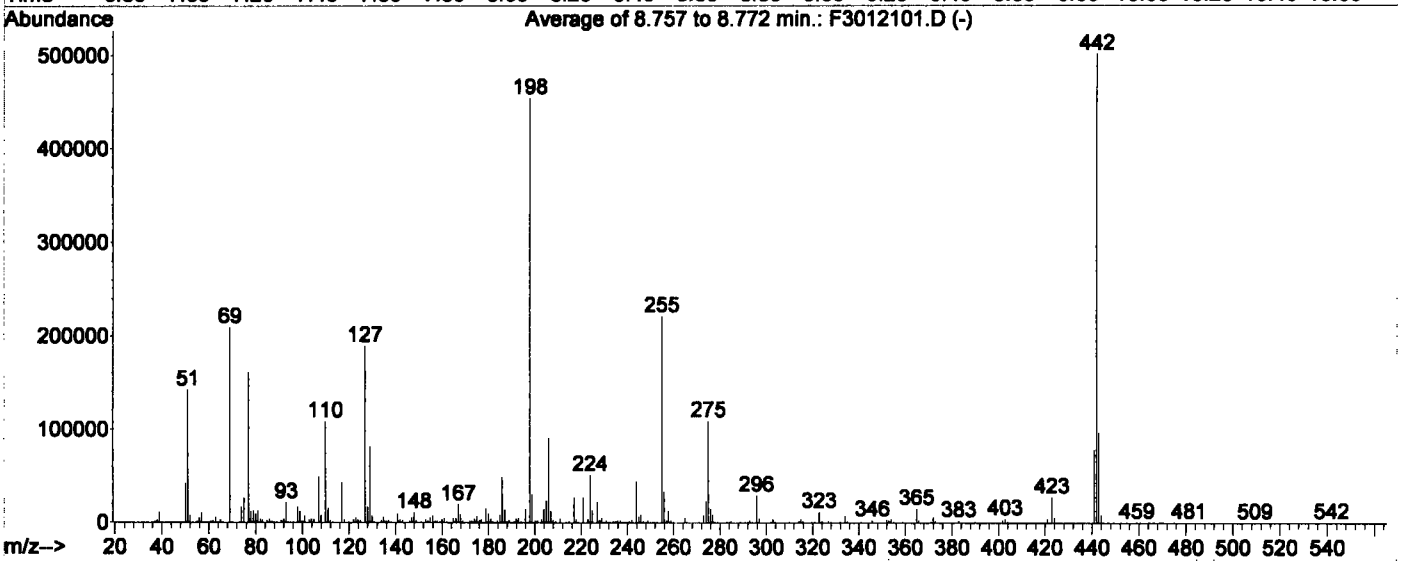
✓

1-22-13

DFTPP

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012101.D Vial: 1
Acq On : 21 Jan 2013 10:19 am Operator: bsj
Sample : 3A21005-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH





AutoFind: Scans 612, 613, 614; Background Corrected with Scan 609

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	31.2	141575	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.1	208989	PASS
70	69	0.00	2	0.4	821	PASS
127	198	10	80	41.7	189142	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	453648	PASS
199	198	5	9	6.6	29871	PASS
275	198	10	60	24.0	108806	PASS
365	198	1	100	3.3	14819	PASS
441	442	0.01	24	15.6	78096	PASS
442	198	50	200	110.5	501408	PASS
443	442	15	24	19.3	96656	PASS

Q-14

1-21-13

F3012101.D DFTP8270.M Mon Jan 21 10:59:39 2013 VOAGCMS1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012101.D Vial: 1
Acq On : 21 Jan 2013 10:19 am Operator: bsj
Sample : 3A21005-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 10:59 2013 Quant Results File: DFTP8270.RES

Quant Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration
DataAcq Meth : DFTP8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.33	136	205609	2000.000	ng/ml	0.00
2) Acenaphthene-d10	7.02	162	94721	2000.000	ng/ml	0.00
3) Phenanthrene-d10	8.47	188	192572	2000.000	ng/ml	0.00
7) Chrysene-d12	11.12	240	151314	2000.000	ng/ml	0.00
8) Perylene-d12	13.38	264	67052	2000.000	ng/ml	0.00
9) Dibenz(ah)anthracene-d14	15.57	292	29508	2000.000	ng/mL	0.00
Target Compounds						Qvalue
4) Pentachlorophenol (PCP)	8.30	266	243313	37.382	ng/mL	93
5) DFTPP	8.76	198	622452m	56.075	ng/mL	
6) DDT	10.60	235	166905	7.831	ng/mL#	100

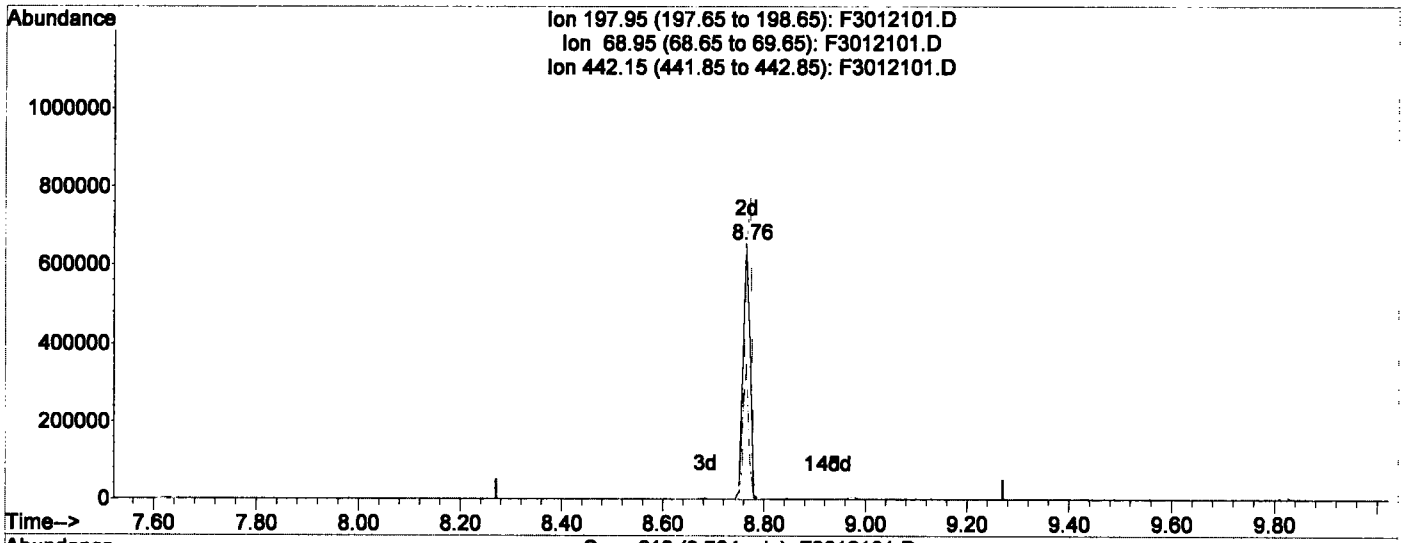
1-21-13
350

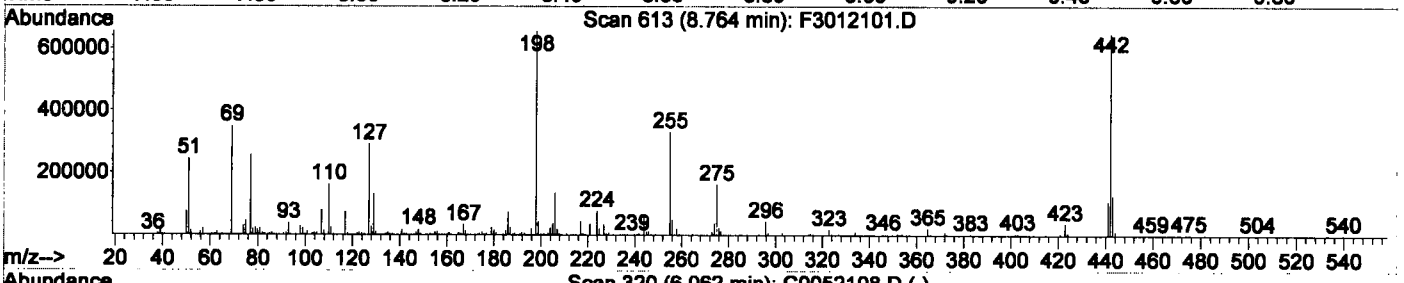
(#) = qualifier out of range (m) = manual integration
F3012101.D DFTP8270.M Mon Jan 21 11:00:05 2013 VOAGCMS1

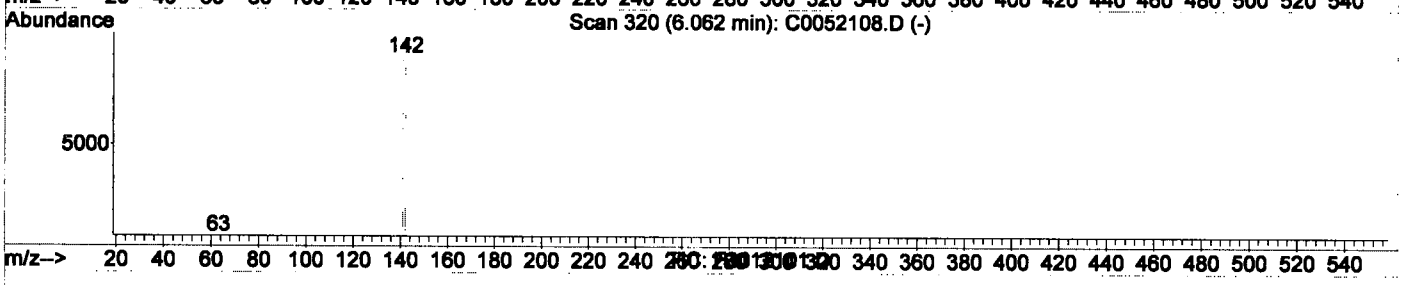
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012101.D Vial: 1
Acq On : 21 Jan 2013 10:19 am Operator: bsj
Sample : 3A21005-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 10:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Single Level Calibration







(5) DFTPP

8.76min 56.08ng/mL m

response 622452

Ion	Exp%	Act%
197.95	100	100
68.95	67.10	0.19#
442.15	65.30	0.17#
0.00	0.00	0.00

1-21-13 856

F3012101.D DFTP8270.M Mon Jan 21 10:59:58 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012101.D Vial: 1
Acq On : 21 Jan 2013 10:19 am Operator: bsj
Sample : 3A21005-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 10:59 2013 Quant Results File: DFTP8270.RES

Quant Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration
DataAcq Meth : DFTP8270

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.33	136	205609	2000.000 ng/ml	0.00
2) Acenaphthene-d10	7.02	162	94721	2000.000 ng/ml	0.00
3) Phenanthrene-d10	8.47	188	192572	2000.000 ng/ml	0.00
7) Chrysene-d12	11.12	240	151314	2000.000 ng/ml	0.00
8) Perylene-d12	13.38	264	67052	2000.000 ng/ml	0.00
9) Dibenz(ah)anthracene-d14	15.57	292	29508	2000.000 ng/mL	0.00
Target Compounds					Qvalue
4) Pentachlorophenol (PCP)	8.30	266	243313	37.382 ng/mL	93
5) DFTPP	8.89	198	2467	N.D.	
6) DDT	10.60	235	166905	7.831 ng/mL#	100

MJ

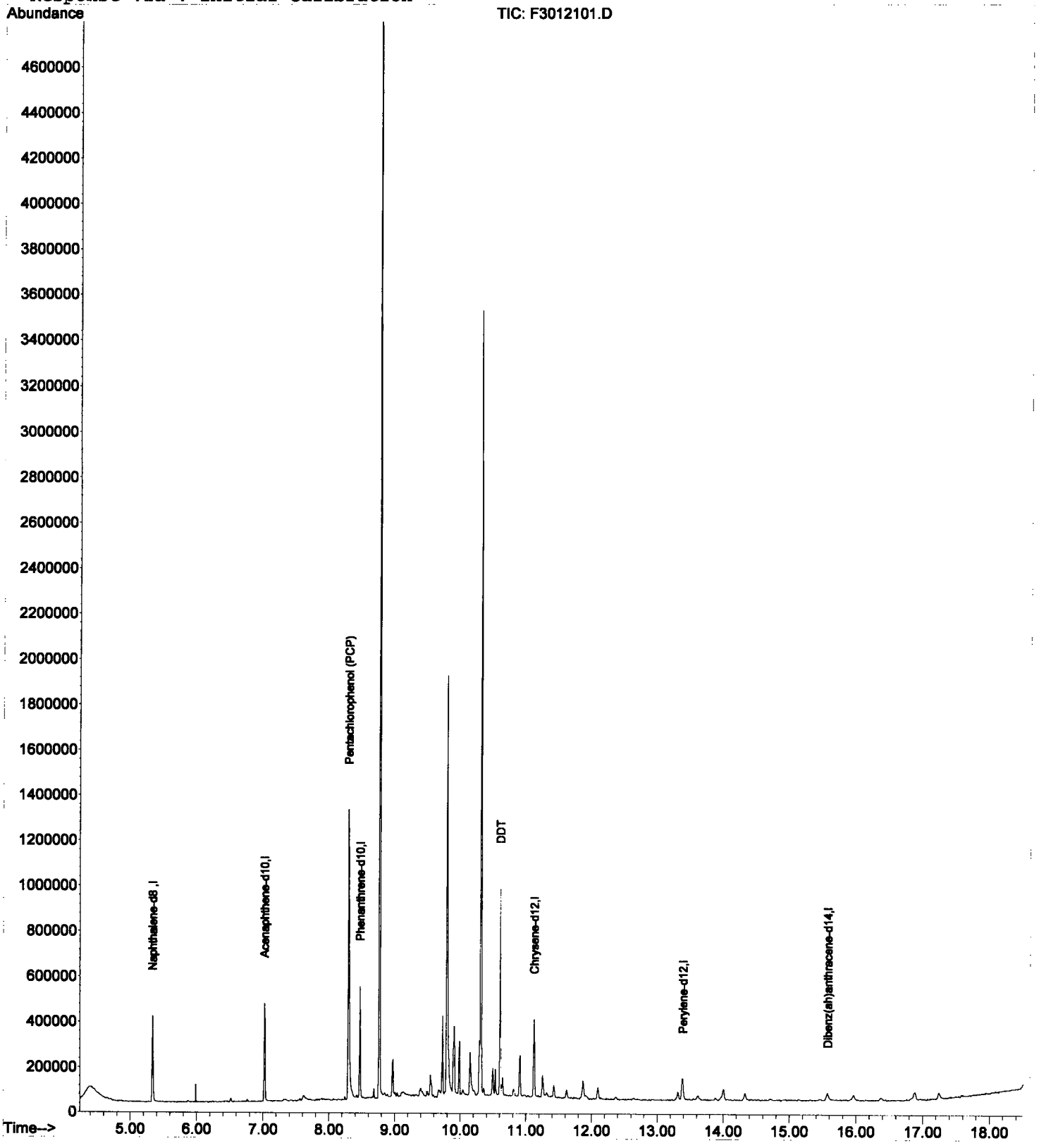
1-21-13 BSO

(#) = qualifier out of range (m) = manual integration
F3012101.D DFTP8270.M Mon Jan 21 10:59:43 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012101.D Vial: 1
Acq On : 21 Jan 2013 10:19 am Operator: bsj
Sample : 3A21005-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 10:59 2013 Quant Results File: DFTP8270.RES

Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012102.D Vial: 2
Acq On : 21 Jan 2013 10:47 am Operator: bsj
Sample : 3A21005-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

Q14

Q-14

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	73	0.00
2	T	Naphthalene	1000.000	1002.224	-0.2	73	0.00
3	T	2-Methylnaphthalene	1000.000	1042.511	-4.3	75	0.00
4	T	1-Methylnaphthalene	1000.000	1046.639	-4.7	75	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	76	0.00
6	S	2-Fluorobiphenyl(Surr)	1000.000	1036.027	-3.6	77	0.00
7		Dimethylphthalate	1000.000	1045.644	-4.6	78	0.00
8	T	Acenaphthylene	1000.000	978.749	2.1	72	0.00
9	T	Acenaphthene	1000.000	992.823	0.7	74	0.00
10		Dibenzofuran	1000.000	1025.577	-2.6	76	0.00
11		Diethylphthalate	1000.000	985.984	1.4	76	0.00
12	T	Fluorene	1000.000	989.628	1.0	71	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	80	0.00
14		Phenanthrene	1000.000	1008.713	-0.9	80	0.00
15	T	Anthracene	1000.000	1036.742	-3.7	80	0.00
16	T	Carbazole	1000.000	1091.239	-9.1	79	0.00
17		Di-n-butylphthalate	1000.000	1034.802	-3.5	85	0.00
18	T	Fluoranthene	1000.000	1146.204	-14.6	93	0.00
19	T	Pyrene	1000.000	1146.273	-14.6	91	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	87	0.00
21	S	Terphenyl-d14(Surr)	1000.000	1087.154	-8.7	94	0.00
22		Benzyl Butyl phthalate	1000.000	986.787	1.3	86	0.00
23	T	Benz(a)Anthracene	1000.000	1014.638	-1.5	89	0.00
24	T	Chrysene	1000.000	1013.109	-1.3	87	0.00
25		Bis(2-ethylhexyl)phthalate	1000.000	1014.193	-1.4	83	0.00
26		Di-n-octyl phthalate	1000.000	791.707	20.8	71	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	51	0.00
28	T	Benzo(b)Fluoranthene	1000.000	1322.251	-32.2#	64	0.00
29	T	Benzo(k)Fluoranthene	1000.000	1256.033	-25.6	61	0.00
30	T	Benzo(b+k)Fluoranthene	2000.000	2561.214	-28.1	63	-0.05
31		Benzo (e) Pyrene	1000.000	1188.936	-18.9	59	0.00
32	T	Benzo(a)Pyrene	1000.000	1062.021	-6.2	51	0.00
33		Perylene	1000.000	1022.040	-2.2	50	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	25	0.00
35	T	Indeno(1,2,3-cd)Pyrene	1000.000	996.234	0.4	24	0.00
36	T	Dibenz(a,h)Anthracene	1000.000	1038.792	-3.9	24	0.00
37	T	Benzo(g,h,i)Perylene	1000.000	1044.041	-4.4	24	0.00

1-21-13 350

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F3012102.D F21227.M Mon Jan 21 13:54:54 2013 VOAGCMS1 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012102.D Vial: 2
Acq On : 21 Jan 2013 10:47 am Operator: bsj
Sample : 3A21005-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 11:31 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-14

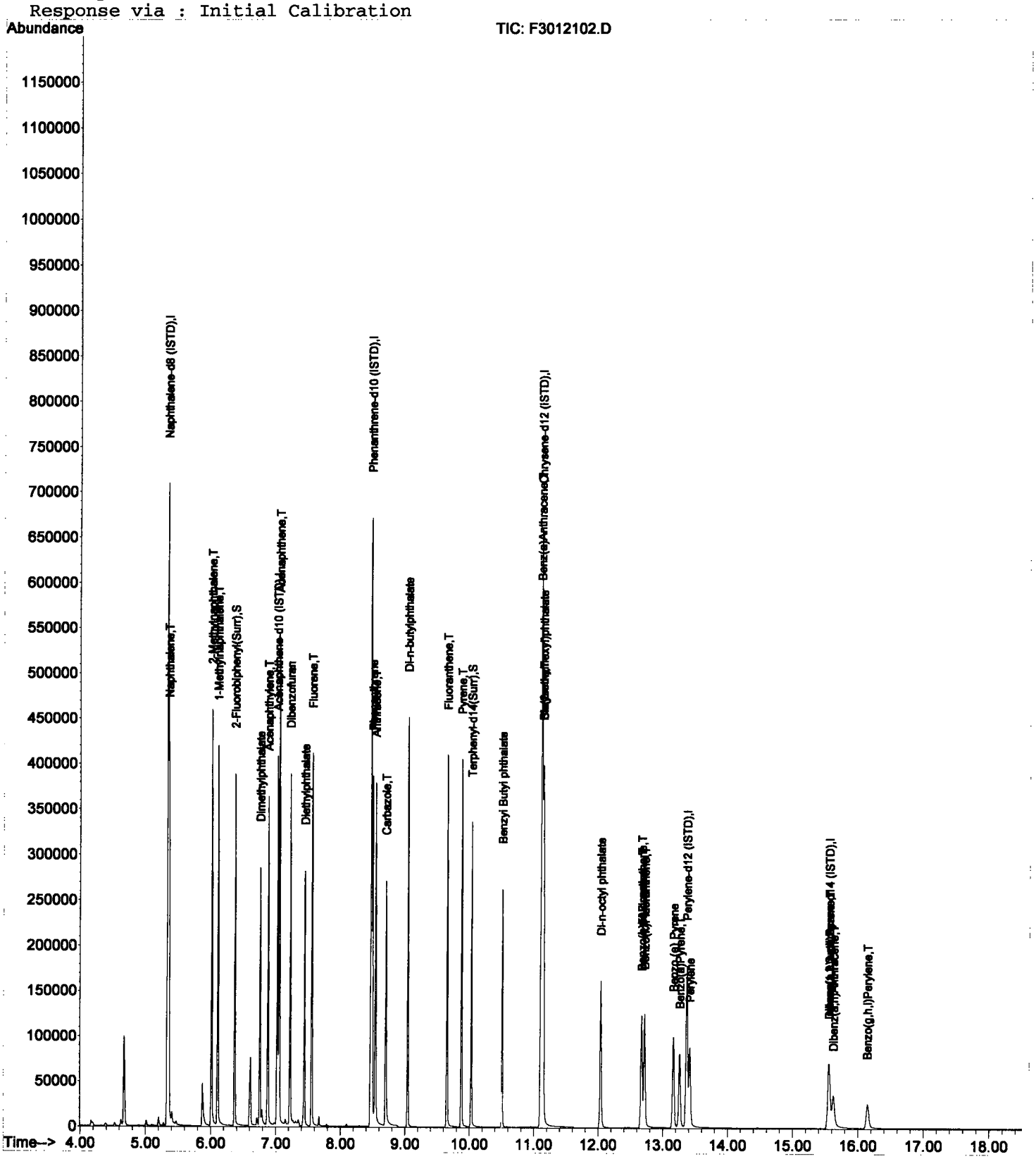
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	681877	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	330611	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.47	188	567633	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	546557	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.37	264	265737	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.55	292	102062	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.37	172	245741	1036.027	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.03	244	240051	1087.154	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	370224	1002.224	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	228967	1042.511	ng/ml	94
4) 1-Methylnaphthalene	6.11	142	212335	1046.639	ng/ml	99
7) Dimethylphthalate	6.75	163	224642	1045.644	ng/mL	99
8) Acenaphthylene	6.87	152	299631	978.749	ng/ml	100
9) Acenaphthene	7.05	153	192633	992.823	ng/ml	98
10) Dibenzofuran	7.22	168	281365	1025.577	ng/mL	92
11) Diethylphthalate	7.44	149	217262	985.984	ng/mL	79
12) Fluorene	7.55	166	206910	989.628	ng/ml	98
14) Phenanthrene	8.49	178	302103	1008.713	ng/mL	99
15) Anthracene	8.54	178	298225	1036.742	ng/ml	98
16) Carbazole	8.70	167	256062	1091.239	ng/ml	98
17) Di-n-butylphthalate	9.04	149	371331	1034.802	ng/mL	100
18) Fluoranthene	9.65	202	322860	1146.204	ng/ml	100
19) Pyrene	9.87	202	333741	1146.273	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	139718	986.787	ng/mL	95
23) Benz(a)Anthracene	11.10	228	274978	1014.638	ng/ml	98
24) Chrysene	11.14	228	264581	1013.109	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.13	149	195385	1014.193	ng/mL	99
26) Di-n-octyl phthalate	12.03	149	217520	791.707	ng/mL	95
28) Benzo(b)Fluoranthene	12.67	252	172694	1322.251	ng/ml	100
29) Benzo(k)Fluoranthene	12.71	252	177728	1256.033	ng/ml	99
30) Benzo(b+k)Fluoranthene	12.67	252	353489	2561.214	ng/ml#	56
31) Benzo (e) Pyrene	13.16	252	157536	1188.936	ng/mL	99
32) Benzo(a)Pyrene	13.26	252	129126	1062.021	ng/ml	99
33) Perylene	13.41	252	134878	1022.040	ng/mL	99
35) Indeno(1,2,3-cd)Pyrene	15.56	276	56017	996.234	ng/ml	92
36) Dibenz(a,h)Anthracene	15.62	278	55727	1038.792	ng/ml	94
37) Benzo(g,h,i)Perylene	16.14	276	58434	1044.041	ng/ml	95

1-21-13 JS

(#) = qualifier out of range (m) = manual integration
F3012102.D F21227.M Mon Jan 21 11:31:15 2013 VOAGCMS1

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012102.D Vial: 2
Acq On : 21 Jan 2013 10:47 am Operator: bsj
Sample : 3A21005-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 11:31 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012103.D Vial: 3
Acq On : 21 Jan 2013 11:14 am Operator: bsj
Sample : 3A21005-CCB1 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 13:54 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-14

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	660598	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	307891	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.47	188	522299	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.12	240	405744	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.37	264	155067	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.56	292	62203	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	0.00	172	0	0.000	ng/ml	
21) Terphenyl-d14(Surr)	0.00	244	0	0.000	ng/ml	
Target Compounds						Qvalue
2) Naphthalene	0.00	128	0	N.D.		
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	0.00	168	0	N.D.		
11) Diethylphthalate	0.00	149	0	N.D.		
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	0.00	178	0	N.D.		
15) Anthracene	0.00	178	0	N.D.		
16) Carbazole	0.00	167	0	N.D.		
17) Di-n-butylphthalate	0.00	149	0	N.D.		
18) Fluoranthene	0.00	202	0	N.D.		
19) Pyrene	0.00	202	0	N.D.		
22) Benzyl Butyl phthalate	0.00	149	0	N.D.		
23) Benz(a)Anthracene	11.11	228	897	4.459	ng/ml	89
24) Chrysene	11.11	228	897	4.627	ng/ml	90
25) Bis(2-ethylhexyl)phthalate	0.00	149	0	N.D.		
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.		
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.		
30) Benzo(b+k)Fluoranthene	0.00	252	0	N.D.		
31) Benzo (e) Pyrene	0.00	252	0	N.D.		
32) Benzo(a)Pyrene	0.00	252	0	N.D.		
33) Perylene	13.37	252	425	5.519	ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	0.00	276	0	N.D.		
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.		
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.		

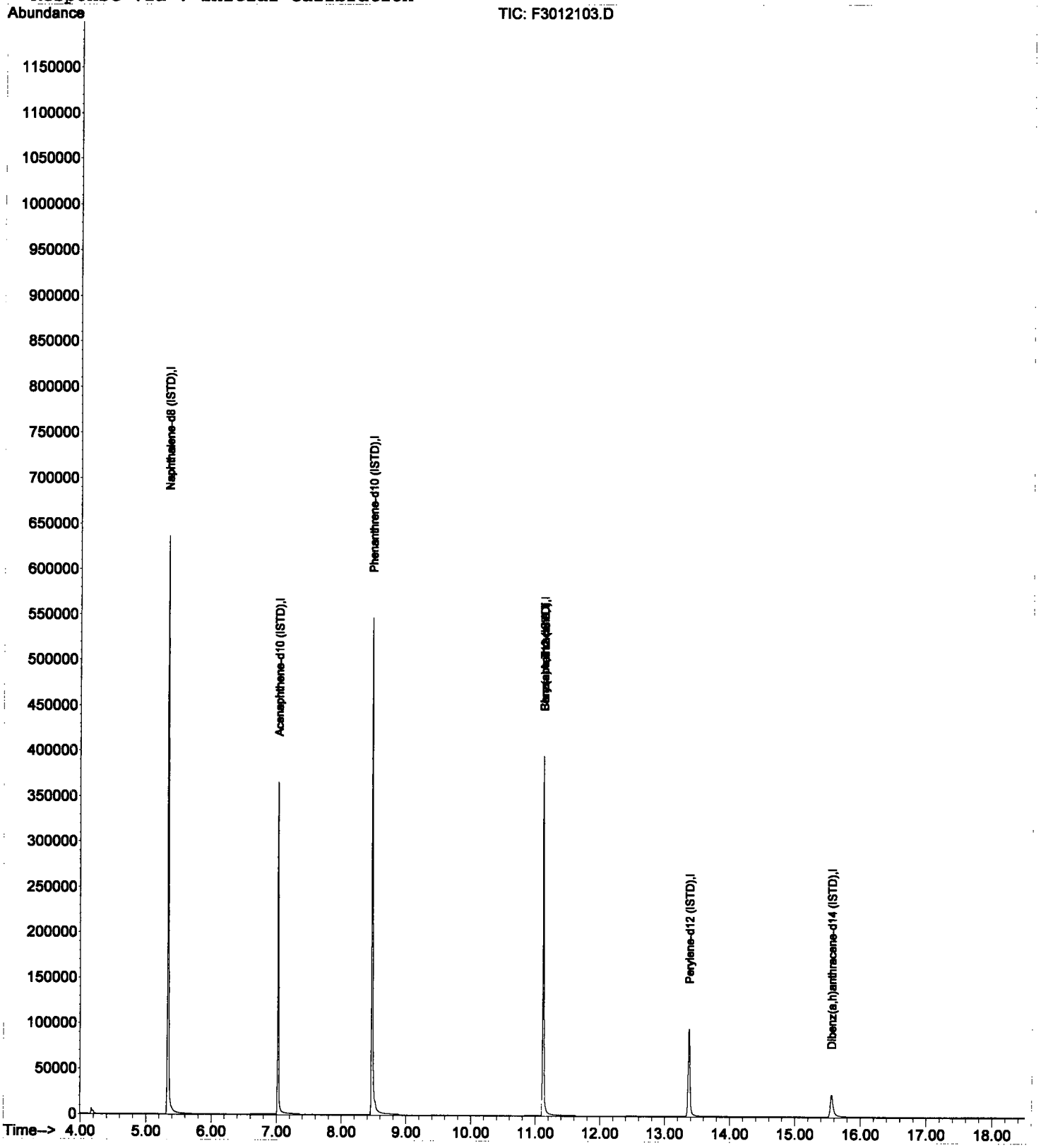
1-22-13 BSS

(#) = qualifier out of range (m) = manual integration
F3012103.D F21227.M Mon Jan 21 13:54:27 2013 VOAGCMS1

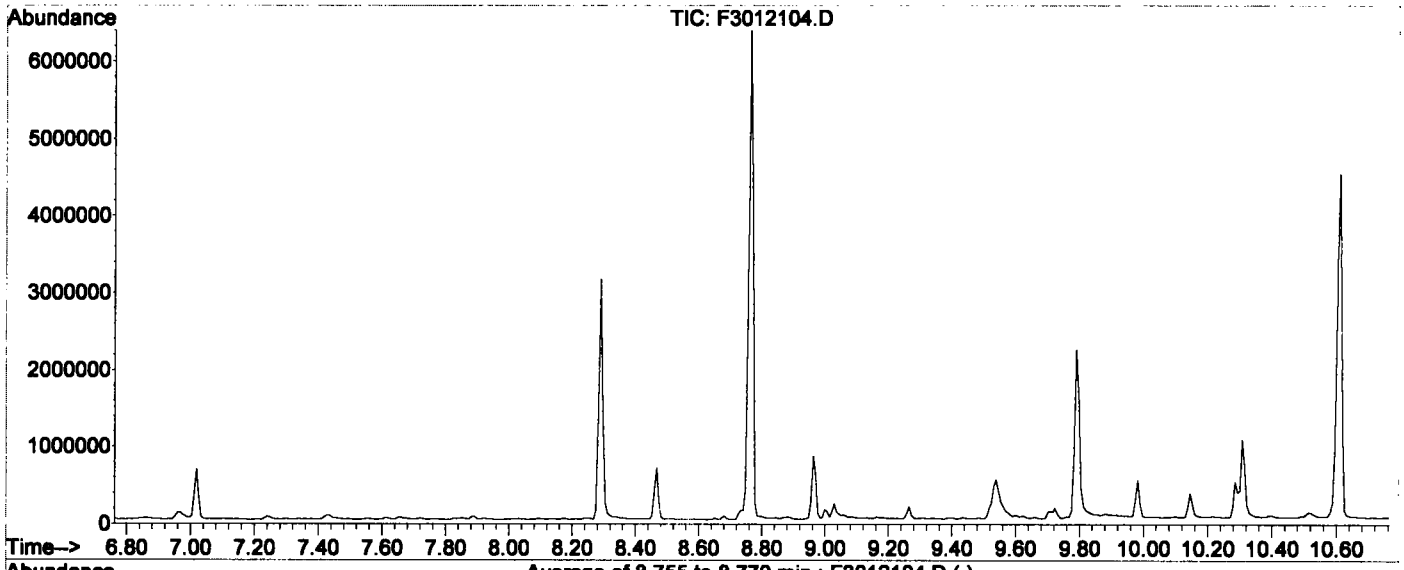
Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012103.D Vial: 3
Acq On : 21 Jan 2013 11:14 am Operator: bsj
Sample : 3A21005-CCB1 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 13:54 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012104.D Vial: 1
Acq On : 21 Jan 2013 12:32 pm Operator: bsj
Sample : 3A21005-TUN2 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH



AutoFind: Scans 612, 613, 614; Background Corrected with Scan 609

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	32.3	164962	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.2	235826	PASS
70	69	0.00	2	0.0	0	PASS
127	198	10	80	41.8	213134	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	510208	PASS
199	198	5	9	7.0	35474	PASS
275	198	10	60	24.6	125589	PASS
365	198	1	100	3.4	17498	PASS
441	442	0.01	24	16.2	90597	PASS
442	198	50	200	109.5	558848	PASS
443	442	15	24	19.3	107853	PASS

1-21-13 BSa

F3012104.D DFTP8270.M Mon Jan 21 13:53:59 2013 VOAGCMS1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012104.D Vial: 1
Acq On : 21 Jan 2013 12:32 pm Operator: bsj
Sample : 3A21005-TUN2 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 16:04 2013 Quant Results File: DFTP8270.RES

Quant Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration
DataAcq Meth : DFTP8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.33	136	270789	2000.000	ng/ml	0.00
2) Acenaphthene-d10	7.02	162	123273	2000.000	ng/ml	0.00
3) Phenanthrene-d10	8.47	188	238130	2000.000	ng/ml	0.00
7) Chrysene-d12	11.12	240	212206	2000.000	ng/ml	0.00
8) Perylene-d12	13.38	264	189325	2000.000	ng/ml	0.00
9) Dibenz(ah)anthracene-d14	15.56	292	150062	2000.000	ng/mL	0.00
Target Compounds						Qvalue
4) Pentachlorophenol (PCP)	8.29	266	407853	50.673	ng/mL	93
5) DFTPP	8.76	198	709097m	51.660	ng/mL	
6) DDT	10.61	235	944439	35.836	ng/mL#	100

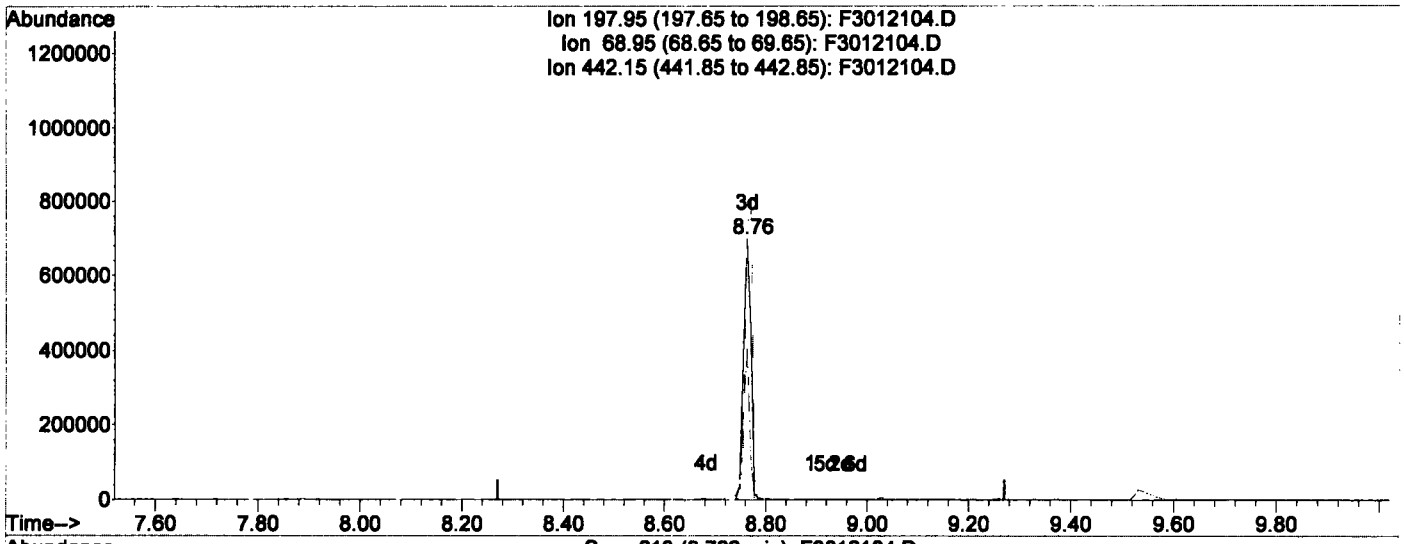
1-21-13 BS

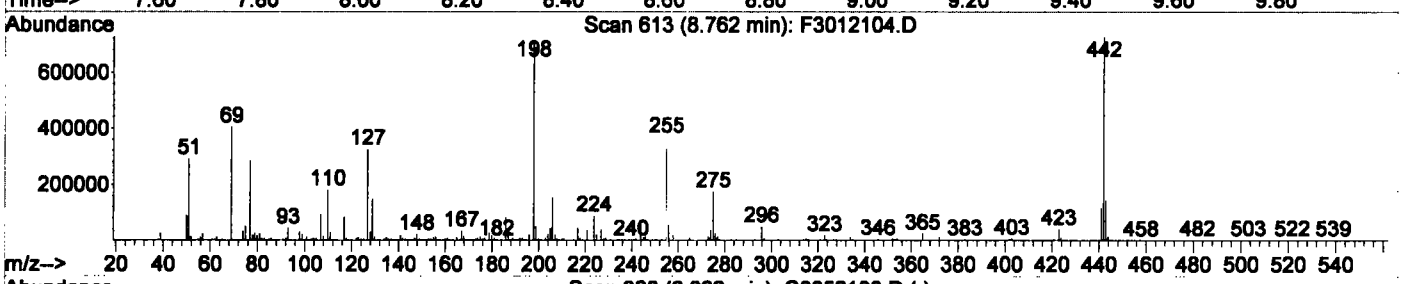
(#) = qualifier out of range (m) = manual integration
F3012104.D DFTP8270.M Mon Jan 21 16:05:00 2013 VOAGCMS1 Page 1

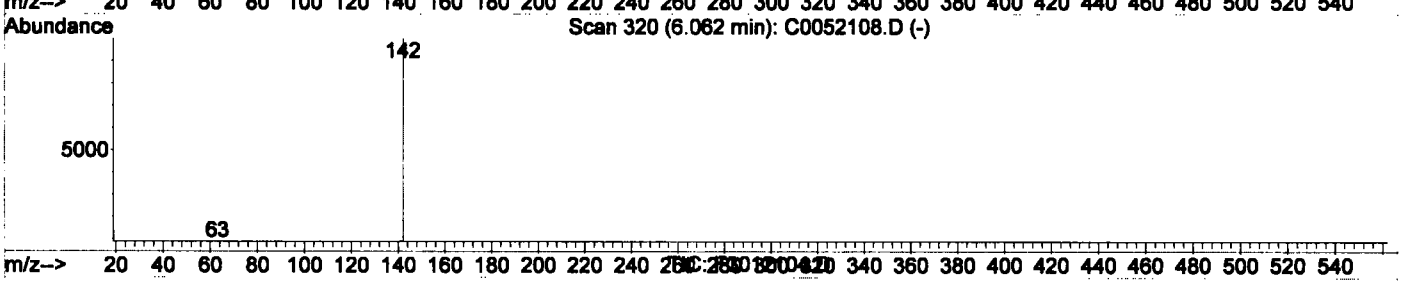
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012104.D Vial: 1
Acq On : 21 Jan 2013 12:32 pm Operator: bsj
Sample : 3A21005-TUN2 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 16:04 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Single Level Calibration







(5) DFTPP

8.76min 51.66ng/mL m

response 709097

Ion	Exp%	Act%
197.95	100	100
68.95	67.10	0.14#
442.15	65.30	0.17#
0.00	0.00	0.00

1-21-13 BSJ

1/23/13

F3012104.D DFTP8270.M Mon Jan 21 16:04:48 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012104.D Vial: 1
Acq On : 21 Jan 2013 12:32 pm Operator: bsj
Sample : 3A21005-TUN2 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 13:54 2013 Quant Results File: DFTP8270.RES

Quant Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration
DataAcq Meth : DFTP8270

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.33	136	270789	2000.000 ng/ml	0.00
2) Acenaphthene-d10	7.02	162	123273	2000.000 ng/ml	0.00
3) Phenanthrene-d10	8.47	188	238130	2000.000 ng/ml	0.00
7) Chrysene-d12	11.12	240	212206	2000.000 ng/ml	0.00
8) Perylene-d12	13.38	264	189325	2000.000 ng/ml	0.00
9) Dibenz(ah)anthracene-d14	15.56	292	150062	2000.000 ng/mL	0.00
Target Compounds					Qvalue
4) Pentachlorophenol (PCP)	8.29	266	407853	50.673 ng/mL	93
5) DFTPP	8.89	198	2482	N.D.	
6) DDT	10.61	235	944439	35.836 ng/mL#	100

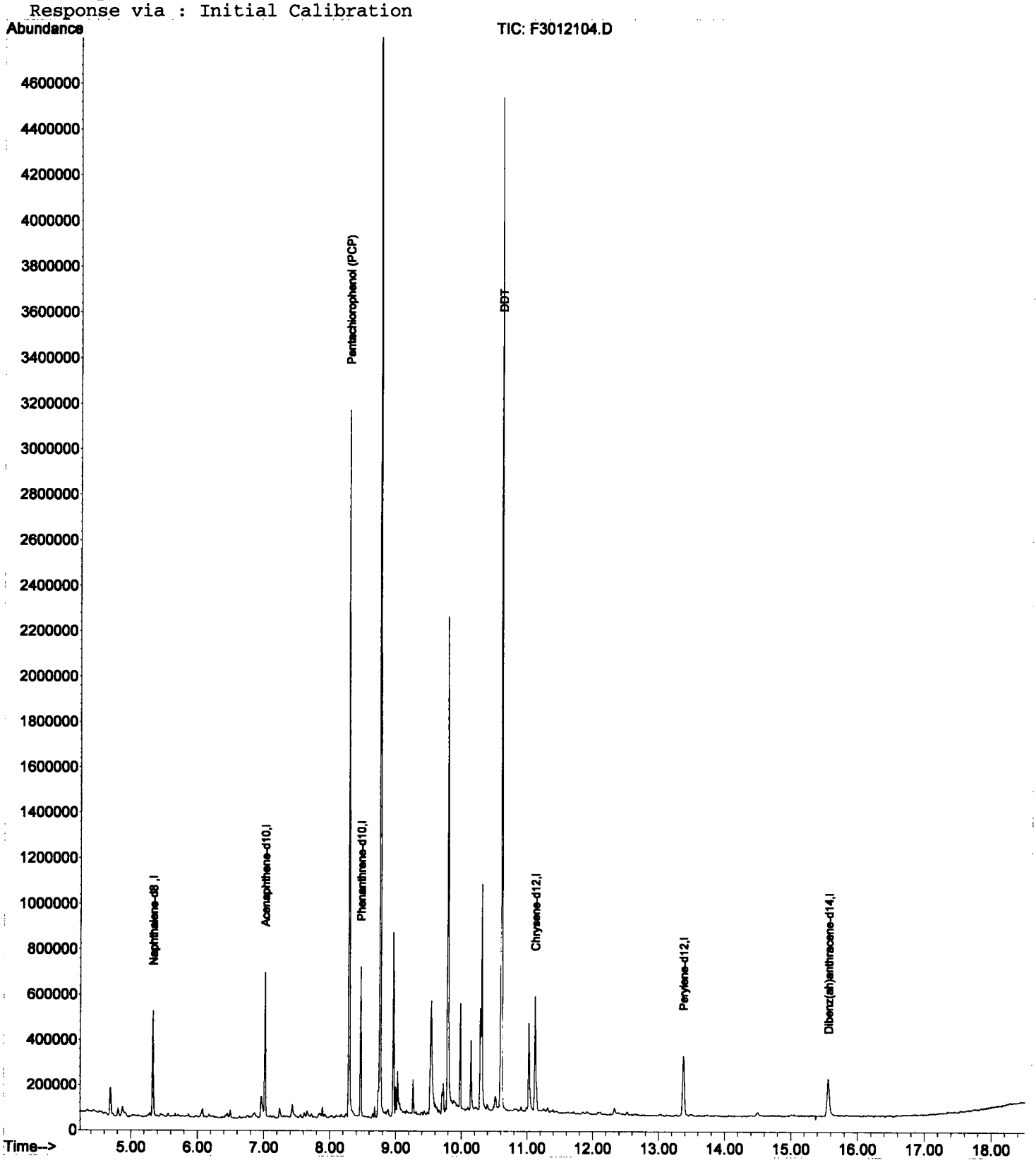
MJ
1-21-13
BSJ

(#) = qualifier out of range (m) = manual integration
F3012104.D DFTP8270.M Mon Jan 21 13:54:05 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012104.D Vial: 1
Acq On : 21 Jan 2013 12:32 pm Operator: bsj
Sample : 3A21005-TUN2 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 13:54 2013 Quant Results File: DFTP8270.RES

Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012105.D Vial: 2
Acq On : 21 Jan 2013 12:59 pm Operator: bsj
Sample : 3A21005-CCV2 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	91	0.00
2	T	Naphthalene	1000.000	1001.286	-0.1	91	0.00
3	T	2-Methylnaphthalene	1000.000	1062.376	-6.2	95	0.00
4	T	1-Methylnaphthalene	1000.000	1058.106	-5.8	95	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	98	0.00
6	S	2-Fluorobiphenyl(Surr)	1000.000	1014.563	-1.5	98	0.00
7		Dimethylphthalate	1000.000	1034.004	-3.4	100	0.00
8	T	Acenaphthylene	1000.000	1032.042	-3.2	99	0.00
9	T	Acenaphthene	1000.000	992.721	0.7	96	0.00
10		Dibenzofuran	1000.000	1022.858	-2.3	98	0.00
11		Diethylphthalate	1000.000	1035.981	-3.6	104	0.00
12	T	Fluorene	1000.000	1069.034	-6.9	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	101	0.00
14		Phenanthrene	1000.000	1014.095	-1.4	101	0.00
15	T	Anthracene	1000.000	1054.192	-5.4	103	0.00
16	T	Carbazole	1000.000	1100.086	-10.0	101	0.00
17		Di-n-butylphthalate	1000.000	1065.450	-6.5	110	0.00
18	T	Fluoranthene	1000.000	1092.218	-9.2	112	0.00
19	T	Pyrene	1000.000	1073.582	-7.4	108	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	101	0.00
21	S	Terphenyl-d14(Surr)	1000.000	1092.693	-9.3	109	0.00
22		Benzyl Butyl phthalate	1000.000	1158.840	-15.9	117	0.00
23	T	Benz(a)Anthracene	1000.000	1022.705	-2.3	104	0.00
24	T	Chrysene	1000.000	1027.311	-2.7	102	0.00
25		Bis(2-ethylhexyl)phthalate	1000.000	1183.619	-18.4	113	0.00
26		Di-n-octyl phthalate	1000.000	1179.609	-18.0	128	-0.01
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	98	-0.01
28	T	Benzo(b)Fluoranthene	1000.000	1119.756	-12.0	105	-0.01
29	T	Benzo(k)Fluoranthene	1000.000	1093.770	-9.4	103	-0.01
30	T	Benzo(b+k)Fluoranthene	2000.000	2198.185	-9.9	104	-0.06
31		Benzo (e) Pyrene	1000.000	1085.322	-8.5	104	-0.01
32	T	Benzo(a)Pyrene	1000.000	1082.378	-8.2	102	0.00
33		Perylene	1000.000	1062.062	-6.2	101	-0.01
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	91	-0.01
35	T	Indeno(1,2,3-cd)Pyrene	1000.000	1074.626	-7.5	97	0.00
36	T	Dibenz(a,h)Anthracene	1000.000	1084.945	-8.5	94	-0.02
37	T	Benzo(g,h,i)Perylene	1000.000	1139.847	-14.0	97	-0.01

1-21-13 BSJ

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F3012105.D F21227.M Mon Jan 21 13:55:37 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012105.D Vial: 2
Acq On : 21 Jan 2013 12:59 pm Operator: bsj
Sample : 3A21005-CCV2 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 13:54 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	851550	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	429042	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	714822	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	634011	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	515041	2000.000	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.54	292	376881	2000.000	ng/mL	-0.01
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	312297	1014.563	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	279880	1092.693	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	461915	1001.286	ng/ml	99
3) 2-Methylnaphthalene	6.00	142	291390	1062.376	ng/ml	92
4) 1-Methylnaphthalene	6.10	142	268076	1058.106	ng/ml	98
7) Dimethylphthalate	6.75	163	288278	1034.004	ng/mL	100
8) Acenaphthylene	6.87	152	410011	1032.042	ng/ml	99
9) Acenaphthene	7.04	153	249959	992.721	ng/ml	96
10) Dibenzofuran	7.22	168	364166	1022.858	ng/mL	92
11) Diethylphthalate	7.44	149	296243	1035.981	ng/mL	80
12) Fluorene	7.55	166	290057	1069.034	ng/ml	99
14) Phenanthrene	8.48	178	382469	1014.095	ng/mL	99
15) Anthracene	8.53	178	381877	1054.192	ng/ml	98
16) Carbazole	8.69	167	325074	1100.086	ng/ml	98
17) Di-n-butylphthalate	9.04	149	481468	1065.450	ng/mL	100
18) Fluoranthene	9.64	202	387429	1092.218	ng/ml	100
19) Pyrene	9.87	202	393629	1073.582	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	190333	1158.840	ng/mL	94
23) Benz(a)Anthracene	11.10	228	321513	1022.705	ng/ml	98
24) Chrysene	11.14	228	311219	1027.311	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.13	149	264511	1183.619	ng/mL	99
26) Di-n-octyl phthalate	12.02	149	392625	1179.609	ng/mL	94
28) Benzo(b)Fluoranthene	12.66	252	283450	1119.756	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	299965	1093.770	ng/ml	99
30) Benzo(b+k)Fluoranthene	12.66	252	588009	2198.185	ng/ml#	56
31) Benzo (e) Pyrene	13.15	252	278721	1085.322	ng/mL	98
32) Benzo(a)Pyrene	13.25	252	255064	1082.378	ng/ml	100
33) Perylene	13.40	252	271652	1062.062	ng/mL	98
35) Indeno(1,2,3-cd)Pyrene	15.55	276	223129	1074.626	ng/ml	95
36) Dibenz(a,h)Anthracene	15.60	278	214924	1084.945	ng/ml	95
37) Benzo(g,h,i)Perylene	16.13	276	235578	1139.847	ng/ml	96

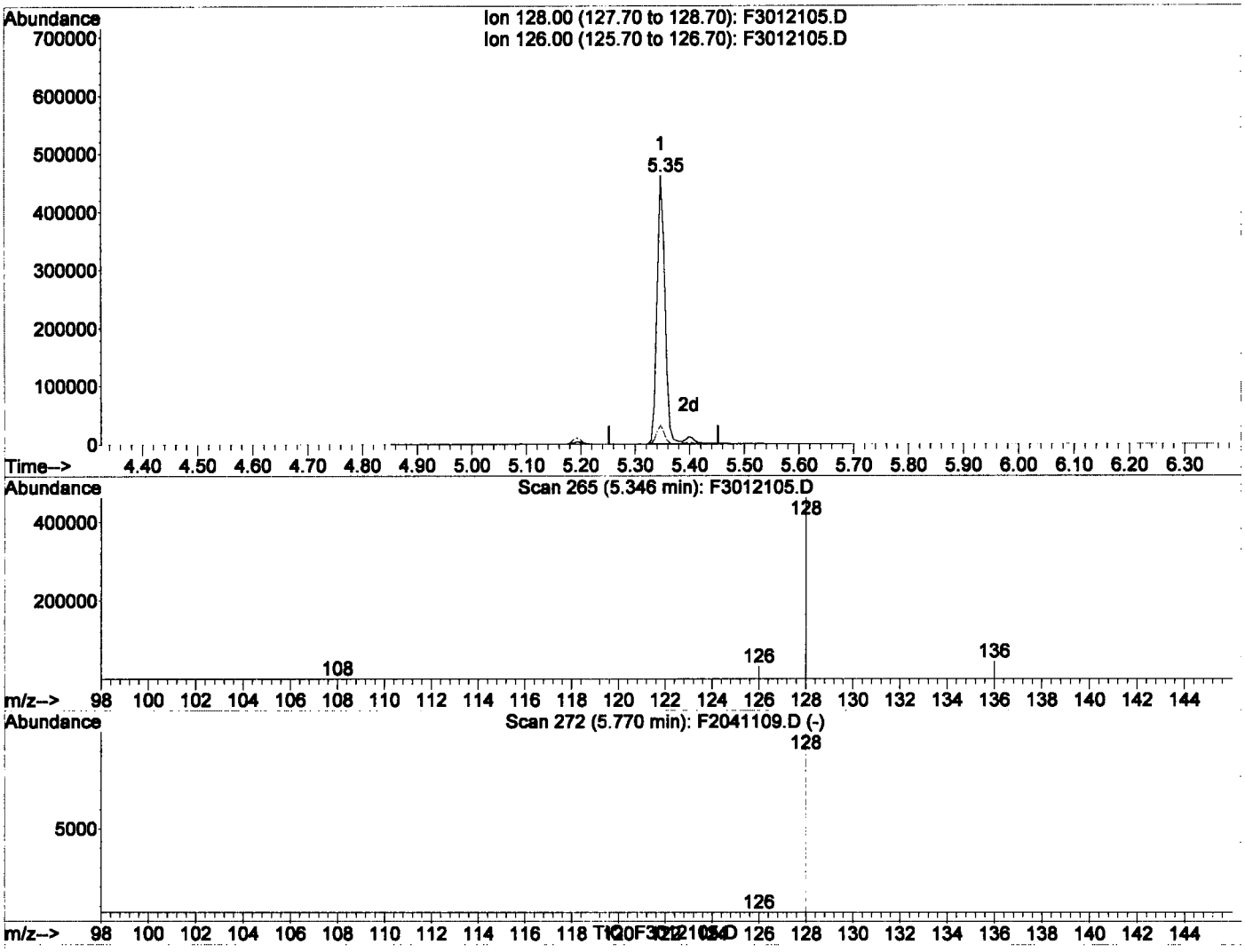
1-21-13 BSJ

(#) = qualifier out of range (m) = manual integration
F3012105.D F21227.M Mon Jan 21 13:54:30 2013 VOAGCMS1 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012105.D Vial: 2
Acq On : 21 Jan 2013 12:59 pm Operator: bsj
Sample : 3A21005-CCV2 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 13:54 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(2) Naphthalene (T)

5.35min 1001.29ng/ml

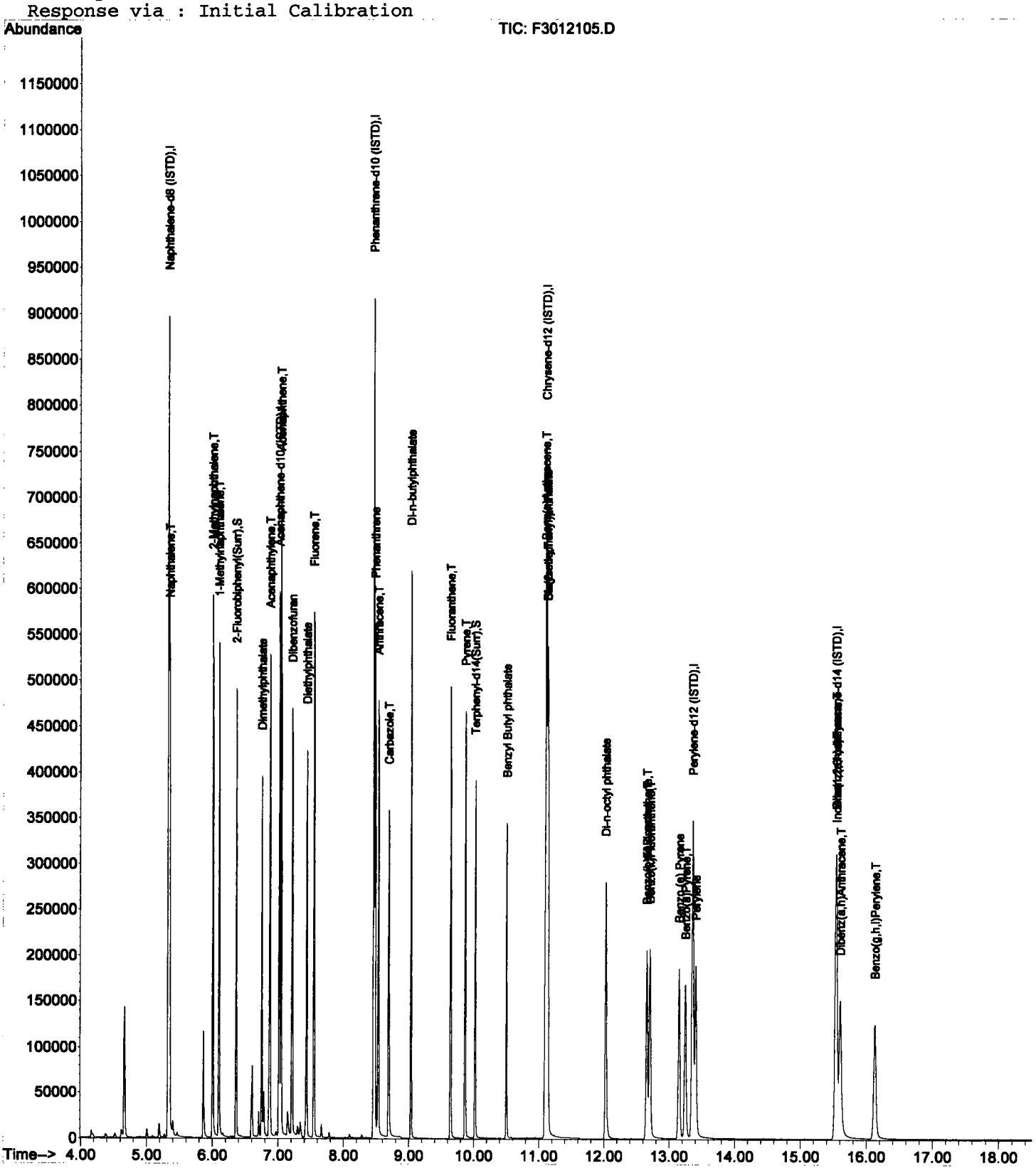
response 461915

Ion	Exp%	Act%
128.00	100	100
126.00	7.00	6.72
0.00	0.00	0.00
0.00	0.00	0.00

F3012105.D F21227.M Mon Jan 21 13:55:08 2013 VOAGCMS1

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012105.D Vial: 2
Acq On : 21 Jan 2013 12:59 pm Operator: bsj
Sample : 3A21005-CCV2 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 13:54 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012106.D Vial: 3
Acq On : 21 Jan 2013 1:27 pm Operator: bsj
Sample : 3A21005-CCB2 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 13:54 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	859964	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	425737	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	712952	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	559265	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	451727	2000.000	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.53	292	326766	2000.000	ng/mL	-0.01
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	0.00	172	0	0.000	ng/ml	
21) Terphenyl-d14(Surr)	0.00	244	0	0.000	ng/ml	
Target Compounds						Qvalue
2) Naphthalene	5.35	128	356	0.764	ng/ml#	1
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	6.74	163	228	0.824	ng/mL#	73
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	0.00	168	0	N.D.		
11) Diethylphthalate	7.43	149	10753	37.896	ng/mL	82
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	8.48	178	355	0.944	ng/mL#	59
15) Anthracene	8.48	178	355	0.983	ng/ml#	61
16) Carbazole	0.00	167	0	N.D.		
17) Di-n-butylphthalate	9.04	149	3058	6.785	ng/mL#	89
18) Fluoranthene	9.65	202	490	1.385	ng/ml#	58
19) Pyrene	9.87	202	1065	2.912	ng/ml	95
22) Benzyl Butyl phthalate	10.50	149	367	2.533	ng/mL#	20
23) Benz(a)Anthracene	11.11	228	1238	4.464	ng/ml	87
24) Chrysene	11.11	228	1238	4.633	ng/ml	88
25) Bis(2-ethylhexyl)phthalate	11.12	149	560	2.841	ng/mL	85
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.		
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.		
30) Benzo(b+k)Fluoranthene	0.00	252	0	N.D.		
31) Benzo (e) Pyrene	0.00	252	0	N.D.		
32) Benzo(a)Pyrene	0.00	252	0	N.D.		
33) Perylene	13.36	252	1401	6.245	ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	15.53	276	220	1.222	ng/ml#	1
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.		
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.		

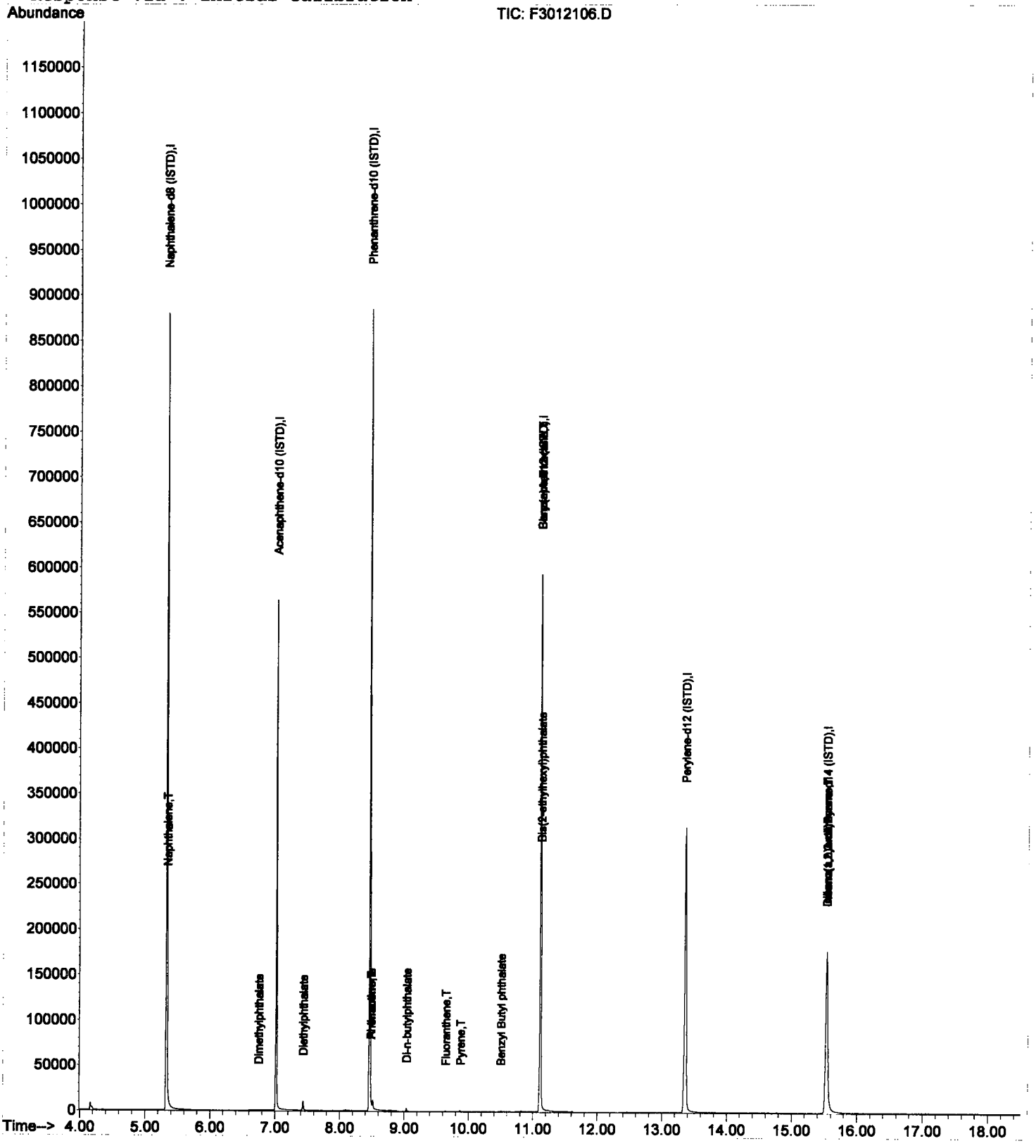
1-21-13
BJ

(#) = qualifier out of range (m) = manual integration
F3012106.D F21227.M Mon Jan 21 13:54:32 2013 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012106.D Vial: 3
Acq On : 21 Jan 2013 1:27 pm Operator: bsj
Sample : 3A21005-CCB2 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 21 13:54 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



F3012106.D F21227.M Mon Jan 21 13:54:33 2013 VOAGCMS1 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012107.D Vial: 4
Acq On : 21 Jan 2013 4:27 pm Operator: bsj
Sample : 1301443-BLK1 Inst : SV-GCMS6
Misc : 1x Soil 11.00g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

B
B-02

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.32	136	795910	2000.000	ng/ml	-0.01
5) Acenaphthene-d10 (ISTD)	7.02	164	400145	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	639472	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	503259	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	406965	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.54	292	298184	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	633960	2208.286	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.03	244	592280	2913.121	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.34	128	920	2.134	ng/ml	18
3) 2-Methylnaphthalene	6.00	142	387	1.510	ng/ml	90
4) 1-Methylnaphthalene	6.10	142	200	0.845	ng/ml#	6
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	0.00	168	0	N.D.		
11) Diethylphthalate	7.43	149	7519	28.193	ng/mL	88
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	8.48	178	576	1.707	ng/mL#	59
15) Anthracene	8.48	178	571	1.762	ng/ml#	61
16) Carbazole	8.64	167	911	3.446	ng/ml#	69
17) Di-n-butylphthalate	9.03	149	39341	97.317	ng/mL	99
18) Fluoranthene	9.64	202	4906	15.460	ng/ml B-02	95
19) Pyrene	9.86	202	11588	35.329	ng/ml B	99
22) Benzyl Butyl phthalate	10.51	149	8646	66.318	ng/mL	100
23) Benz(a)Anthracene	11.11	228	1175	4.709	ng/ml	90
24) Chrysene	11.11	228	1175	4.886	ng/ml	91
25) Bis(2-ethylhexyl)phthalate	11.13	149	17922	101.032	ng/mL	97
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.		
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.		
30) Benzo(b+k)Fluoranthene	12.66	252	293	1.386	ng/ml#	56
31) Benzo (e) Pyrene	13.16	252	842	4.149	ng/mL#	62
32) Benzo(a)Pyrene	13.16	252	842	4.522	ng/ml#	56
33) Perylene	13.36	252	1205	5.962	ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	15.54	276	318	1.936	ng/ml#	1
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.		
37) Benzo(g,h,i)Perylene	16.13	276	943	5.767	ng/ml	88

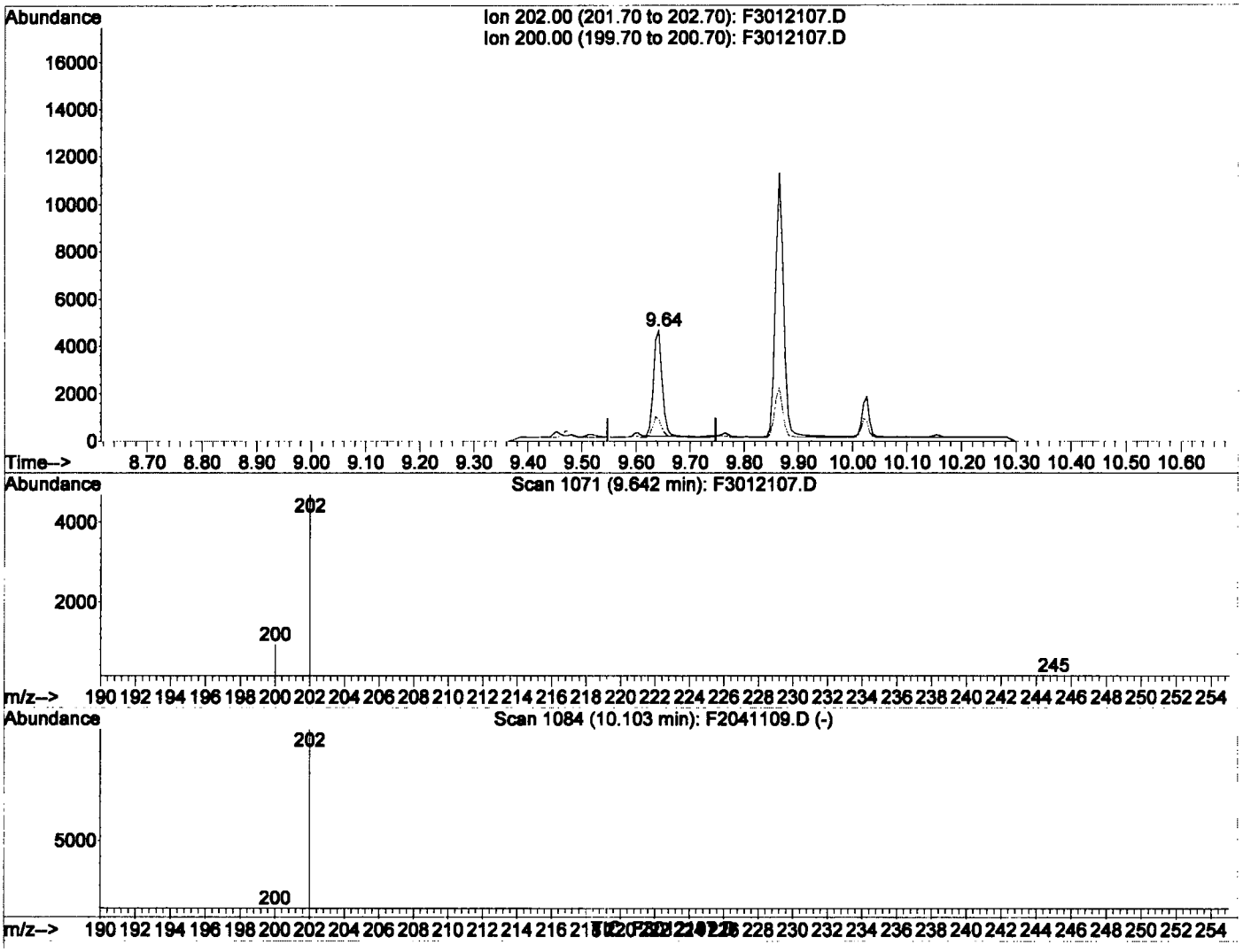
1-22-13
BSJ

(#) = qualifier out of range (m) = manual integration
F3012107.D F21227.M Tue Jan 22 08:59:21 2013 VOAGCMS1 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012107.D Vial: 4
Acq On : 21 Jan 2013 4:27 pm Operator: bsj
Sample : 1301443-BLK1 Inst : SV-GCMS6
Misc : 1x Soil 11.00g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(18) Fluoranthene (T)

9.64min 15.46ng/ml

response 4906

B.02

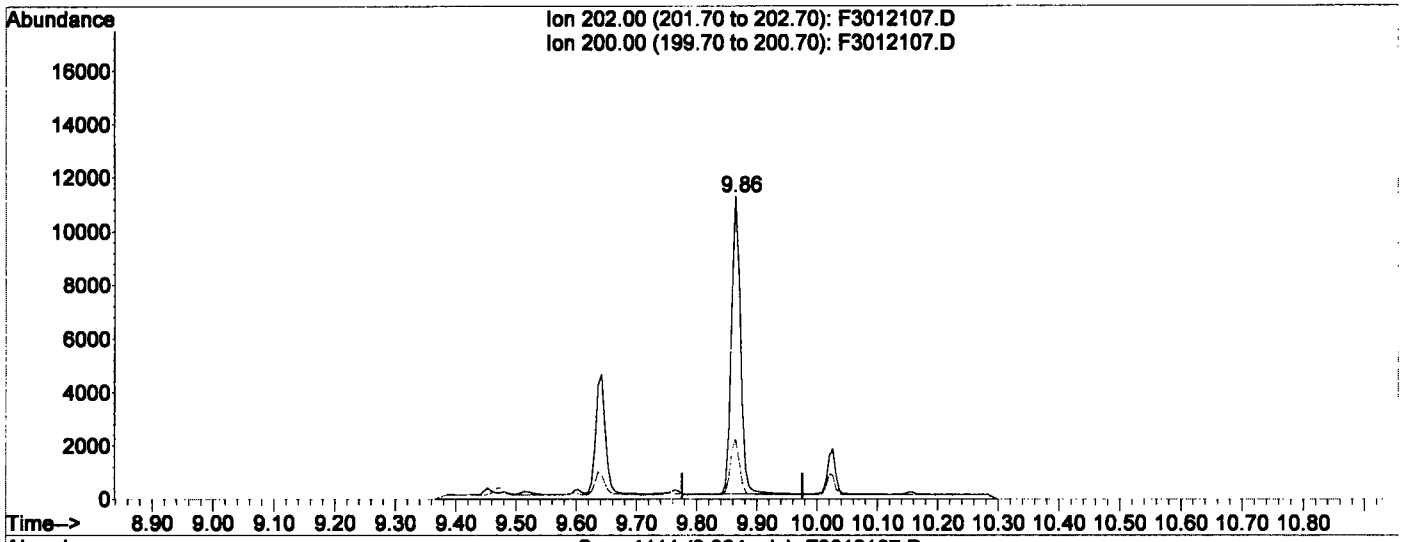
Ion	Exp%	Act%
202.00	100	100
200.00	18.60	20.71
0.00	0.00	0.00
0.00	0.00	0.00

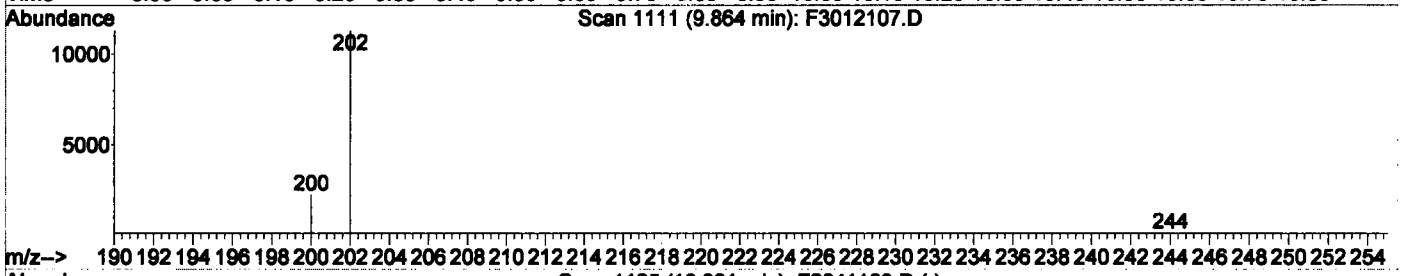
F3012107.D F21227.M Tue Jan 22 09:10:35 2013 VOAGCMS1

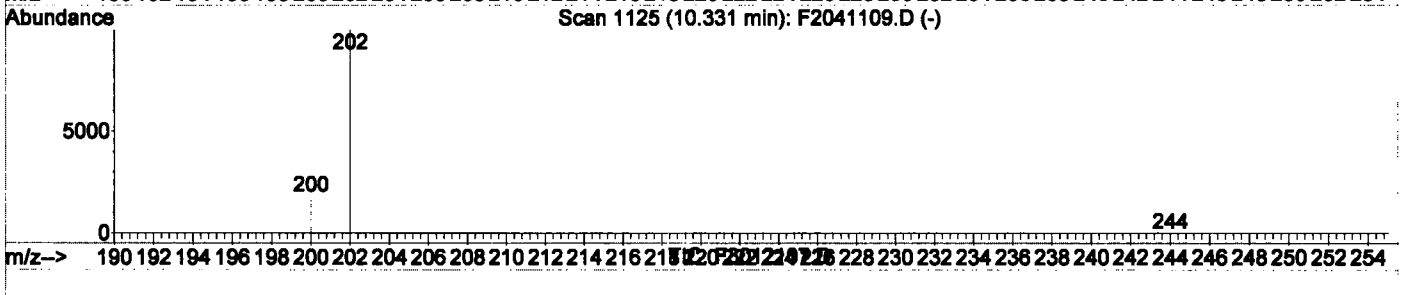
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012107.D Vial: 4
Acq On : 21 Jan 2013 4:27 pm Operator: bsj
Sample : 1301443-BLK1 Inst : SV-GCMS6
Misc : 1x Soil 11.00g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(19) Pyrene (T)

9.86min 35.33ng/ml

response 11588

Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.11
0.00	0.00	0.00
0.00	0.00	0.00

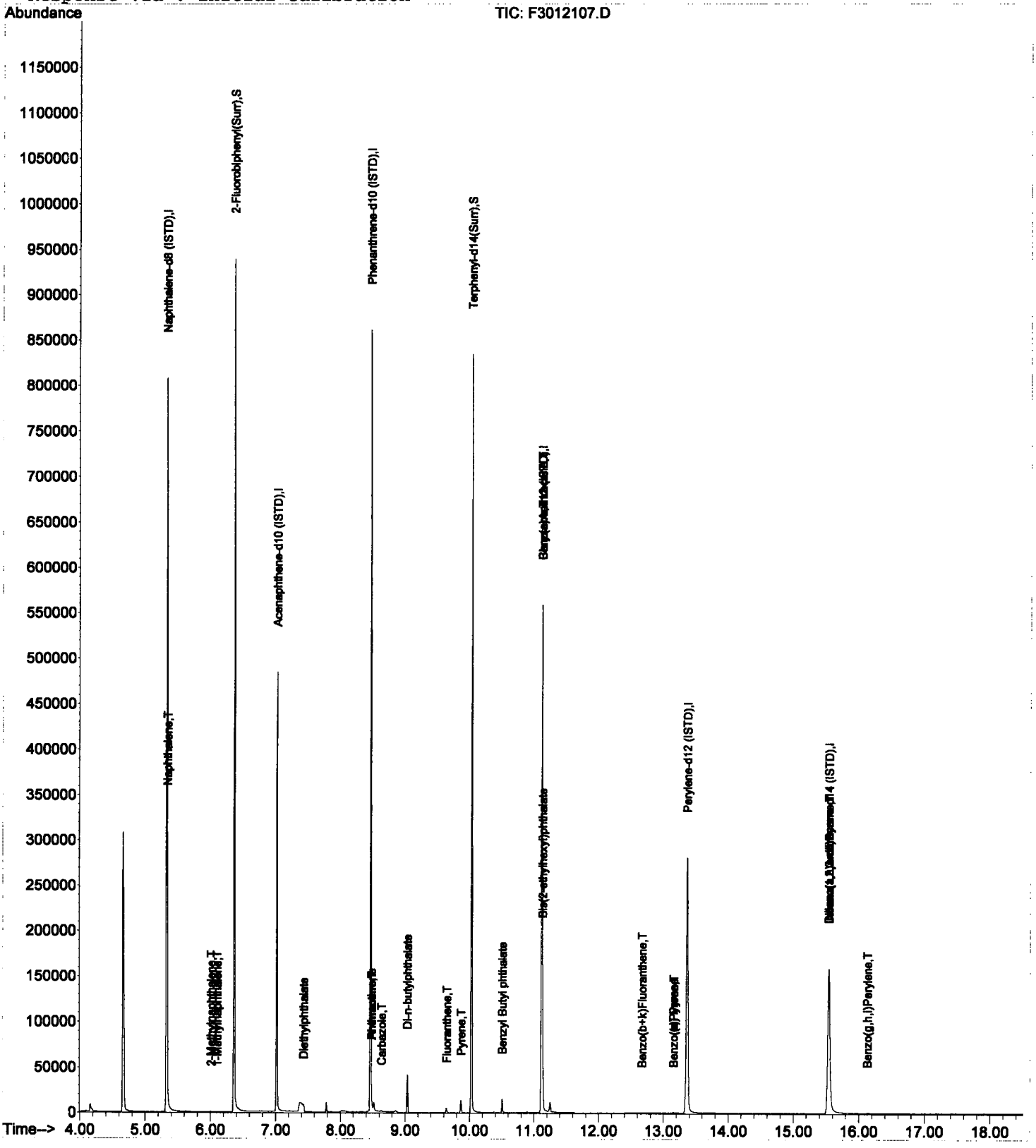
B

F3012107.D F21227.M Tue Jan 22 09:10:41 2013 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012107.D Vial: 4
Acq On : 21 Jan 2013 4:27 pm Operator: bsj
Sample : 1301443-BLK1 Inst : SV-GCMS6
Misc : 1x Soil 11.00g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



F3012107.D F21227.M Tue Jan 22 08:59:22 2013 VOAGCMS1 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012108.D Vial: 5
Acq On : 21 Jan 2013 4:54 pm Operator: bsj
Sample : 1301443-BS1 Inst : SV-GCMS6
Misc : 1x Soil 10.00g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	921282	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	437522	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	708773	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	624478	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	516497	2000.000	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.54	292	386059	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	728196	2319.847	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	648049	2568.702	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	1799632	3605.764	ng/ml	99
3) 2-Methylnaphthalene	6.00	142	1135801	3827.573	ng/ml	92
4) 1-Methylnaphthalene	6.10	142	1034902	3775.618	ng/ml	98
7) Dimethylphthalate	6.75	163	1111834	3910.663	ng/mL	100
8) Acenaphthylene	6.87	152	1576264	3890.727	ng/ml	99
9) Acenaphthene	7.04	153	952000	3707.622	ng/ml	96
10) Dibenzofuran	7.22	168	1387528	3821.708	ng/mL	90
11) Diethylphthalate	7.44	149	1088131	3731.511	ng/mL	80
12) Fluorene	7.55	166	1086511	3926.830	ng/ml	99
14) Phenanthrene	8.48	178	1430414	3825.031	ng/mL	99
15) Anthracene	8.53	178	1453419	4046.485	ng/ml	98
16) Carbazole	8.69	167	1186930	4050.983	ng/ml	98
17) Di-n-butylphthalate	9.03	149	1868031	4169.084	ng/mL	99
18) Fluoranthene	9.64	202	1447599	4115.820	ng/ml	99
19) Pyrene	9.87	202	1482797	4078.688	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	746871	4616.734	ng/mL	93
23) Benz(a)Anthracene	11.09	228	1248553	4032.166	ng/ml	98
24) Chrysene	11.14	228	1181220	3958.644	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.12	149	1040504	4727.065	ng/mL	100
26) Di-n-octyl phthalate	12.02	149	1642562	4376.387	ng/mL	95
28) Benzo(b)Fluoranthene	12.66	252	1125153	4432.334	ng/ml	99
29) Benzo(k)Fluoranthene	12.71	252	1205926	4384.804	ng/ml	99
30) Benzo(b+k)Fluoranthene	12.71	252	2344667	8740.482	ng/ml	100
31) Benzo (e) Pyrene	13.15	252	1098295	4264.637	ng/mL	99
32) Benzo(a)Pyrene	13.25	252	1066152	4511.521	ng/ml	100
33) Perylene	13.41	252	1085066	4230.259	ng/mL	96
35) Indeno(1,2,3-cd)Pyrene	15.55	276	901126	4236.793	ng/ml	94
36) Dibenz(a,h)Anthracene	15.61	278	902259	4446.359	ng/ml	95
37) Benzo(g,h,i)Perylene	16.13	276	958717	4528.485	ng/ml	97

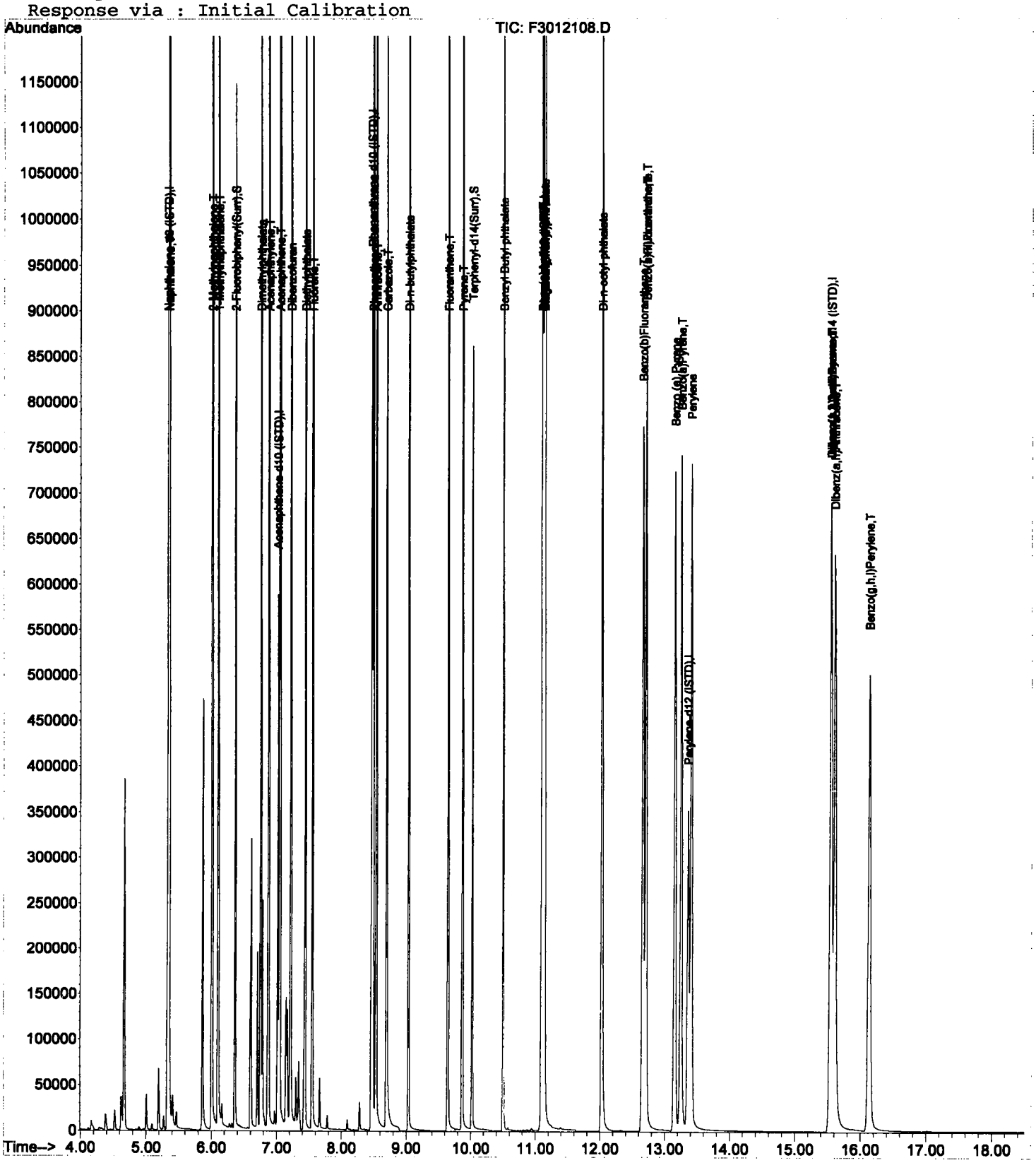
1-22-13 BSJ

(#) = qualifier out of range (m) = manual integration
F3012108.D F21227.M Tue Jan 22 08:59:23 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012108.D Vial: 5
Acq On : 21 Jan 2013 4:54 pm Operator: bsj
Sample : 1301443-BS1 Inst : SV-GCMS6
Misc : 1x Soil 10.00g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



F3012108.D F21227.M Tue Jan 22 08:59:24 2013 VOAGCMS1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:32 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

NR
MB contamination
MK 1/23/13

Q-28
Q-24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	932216	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	455765	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	749460	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	582515	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	470706	2000.000	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.53	292	345598	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	637996	1951.138	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	630718	2680.101	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	3105	6.148	ng/ml#	80
3) 2-Methylnaphthalene	6.00	142	3134	10.437	ng/ml	94
4) 1-Methylnaphthalene	6.10	142	2207	7.957	ng/ml	95
7) Dimethylphthalate	6.75	163	317	1.070	ng/mL#	73
8) Acenaphthylene	6.87	152	677	1.604	ng/ml#	67
9) Acenaphthene	7.04	153	754	2.819	ng/ml	98
10) Dibenzofuran	7.22	168	1171	3.096	ng/mL	96
11) Diethylphthalate	7.43	149	4820	15.868	ng/mL	82
12) Fluorene	7.54	166	804	2.789	ng/ml	98
14) Phenanthrene	8.48	178	9268	23.438	ng/mL	98
15) Anthracene	8.53	178	2027	5.337	ng/ml	97
16) Carbazole	8.69	167	1978	6.384	ng/ml	97
17) Di-n-butylphthalate	9.04	149	25085	52.946	ng/mL	100
18) Fluoranthene	9.64	202	26048	70.039	ng/ml	99
19) Pyrene	9.87	202	28133	73.184	ng/ml	100
22) Benzyl Butyl phthalate	10.50	149	7809	51.748	ng/mL	99
23) Benz(a)Anthracene	11.10	228	14054	48.657	ng/ml	97
24) Chrysene	11.14	228	30592	109.909	ng/ml	94
25) Bis(2-ethylhexyl)phthalate	11.13	149	22520	109.680	ng/mL	98
26) Di-n-octyl phthalate	12.10	149	222	71.896	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	40241	173.943	ng/ml Q-28	98
29) Benzo(k)Fluoranthene	12.70	252	11112	44.334	ng/ml	95
30) Benzo(b+k)Fluoranthene	12.66	252	51665m	211.334	ng/ml Q24	
31) Benzo (e) Pyrene	13.15	252	28789	122.661	ng/mL	99
32) Benzo(a)Pyrene	13.25	252	13315	61.825	ng/ml	99
33) Perylene	13.40	252	6828	29.209	ng/mL	89
35) Indeno(1,2,3-cd)Pyrene	15.54	276	24504	128.698	ng/ml	98
36) Dibenz(a,h)Anthracene	15.59	278	4492	24.728	ng/ml	82
37) Benzo(g,h,i)Perylene	16.12	276	46889	247.409	ng/ml	96

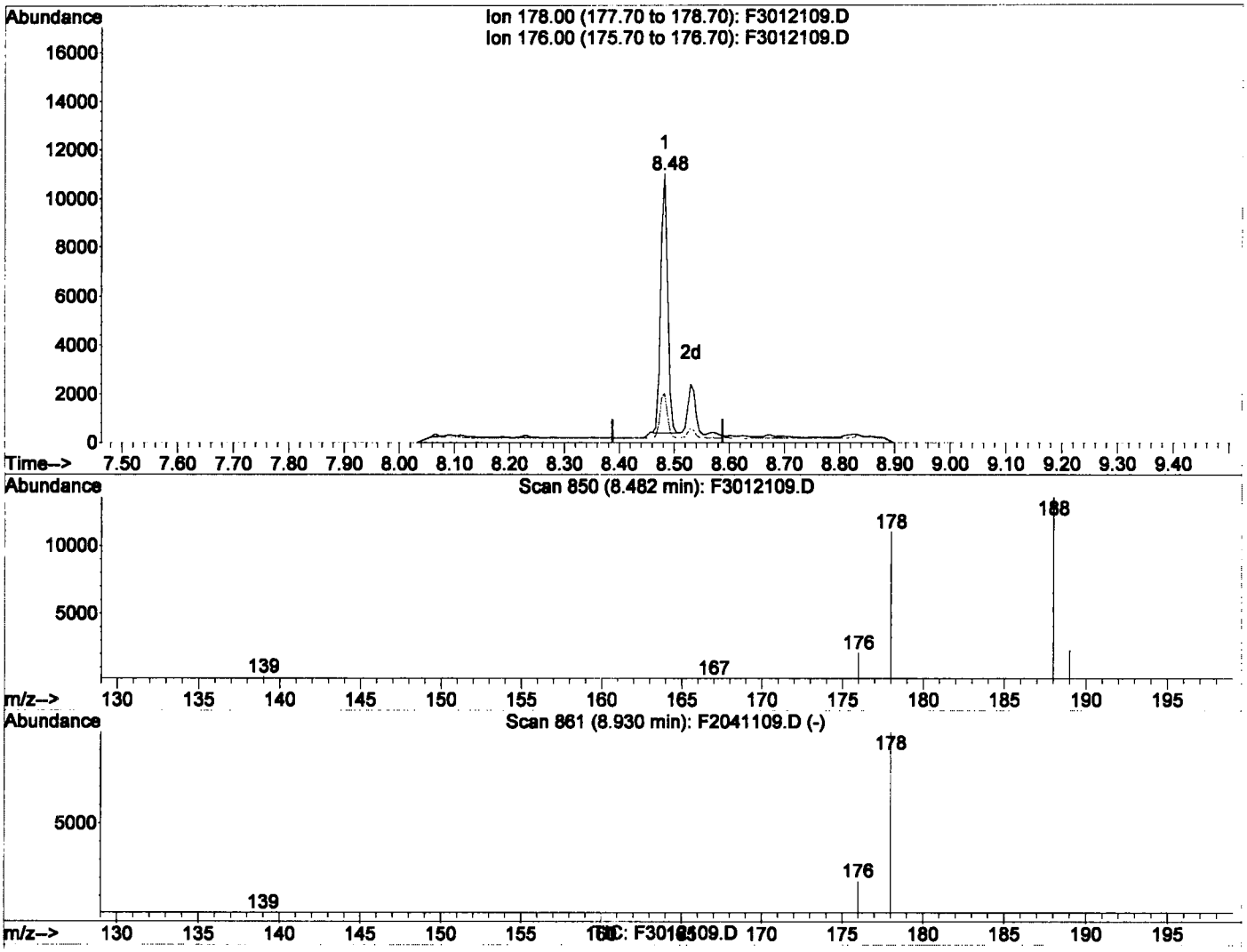
1-22-13 BSJ

(#) = qualifier out of range (m) = manual integration
F3012109.D F21227.M Tue Jan 22 09:32:40 2013 VOAGCMS1 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(14) Phenanthrene

8.48min 23.44ng/mL

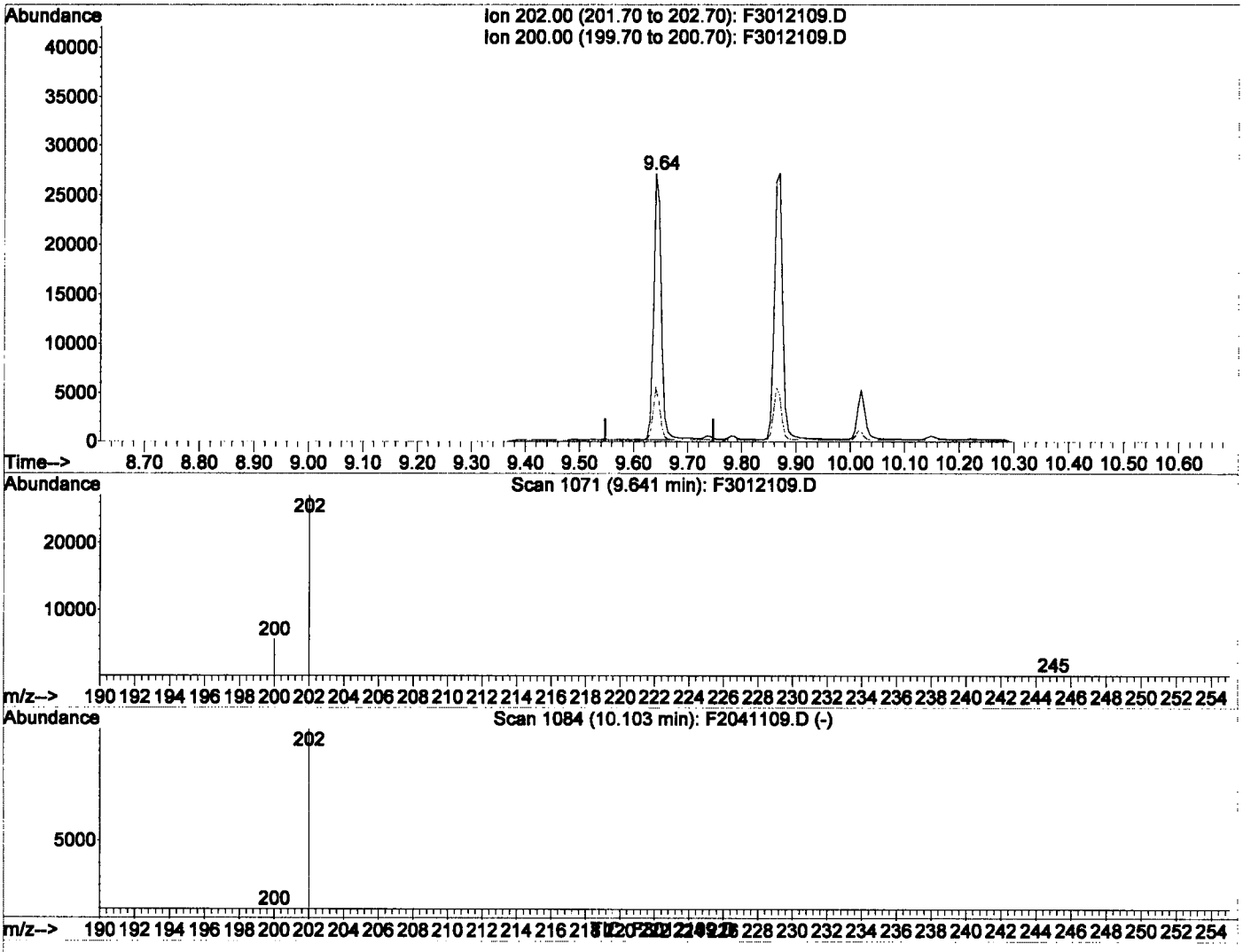
response 9268

Ion	Exp%	Act%
178.00	100	100
176.00	18.10	18.97
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(18) Fluoranthene (T)

9.64min 70.04ng/ml

response 26048

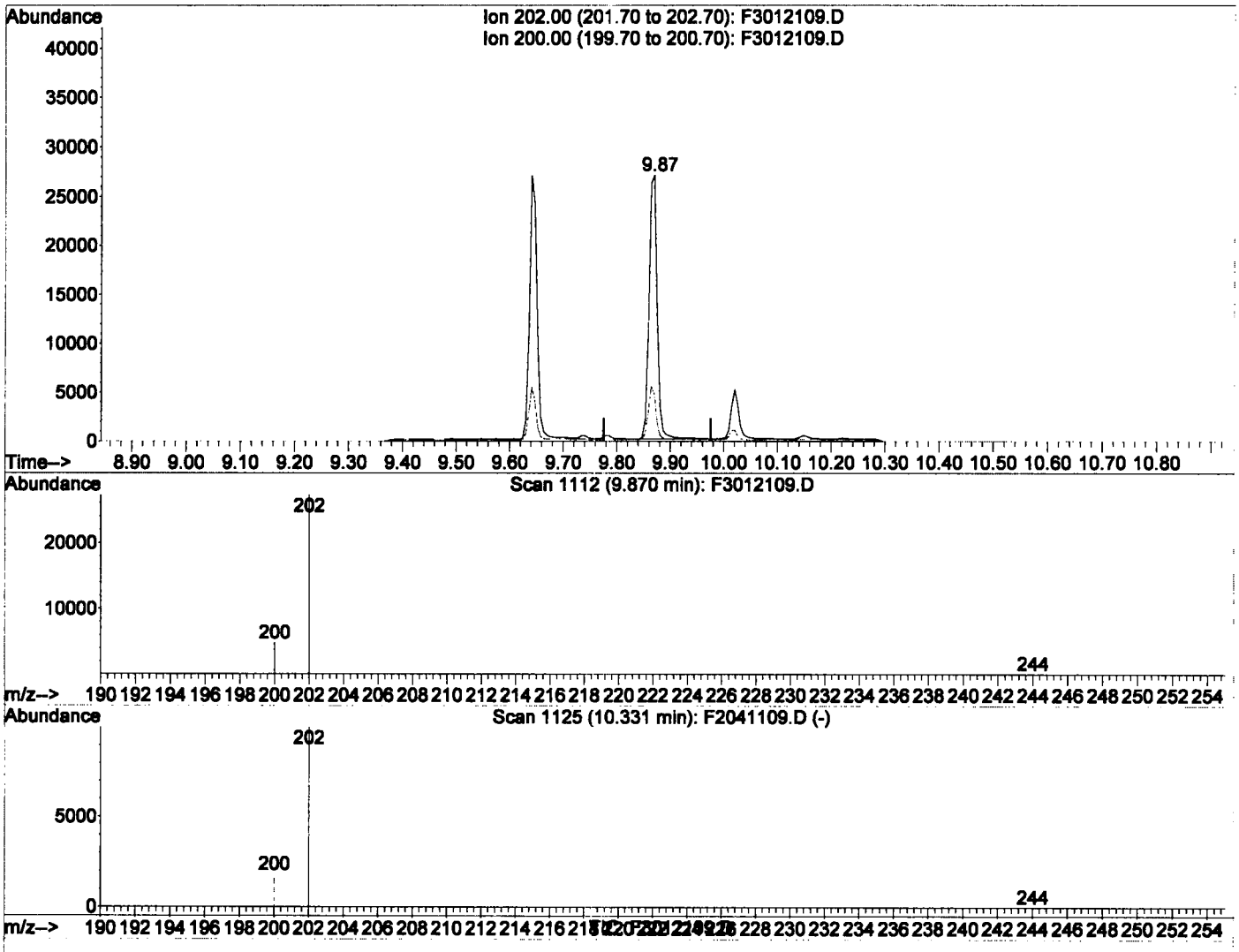
Ion	Exp%	Act%
202.00	100	100
200.00	18.60	18.90
0.00	0.00	0.00
0.00	0.00	0.00

F3012109.D F21227.M Tue Jan 22 09:31:14 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(19) Pyrene (T)

9.87min 73.18ng/ml

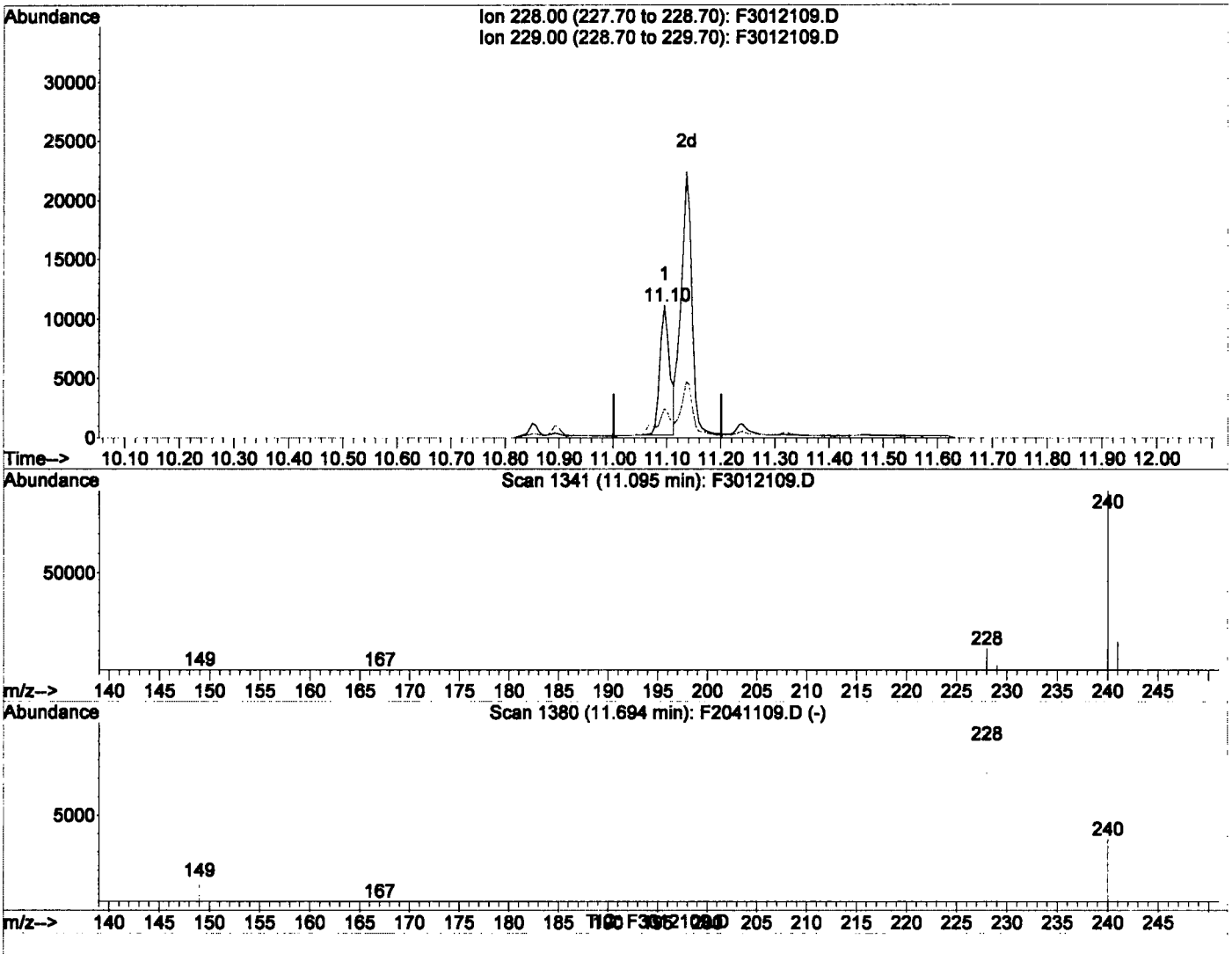
response 28133

Ion	Exp%	Act%
202.00	100	100
200.00	18.80	18.97
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(23) Benz(a)Anthracene (T)

11.10min 48.66ng/ml

response 14054

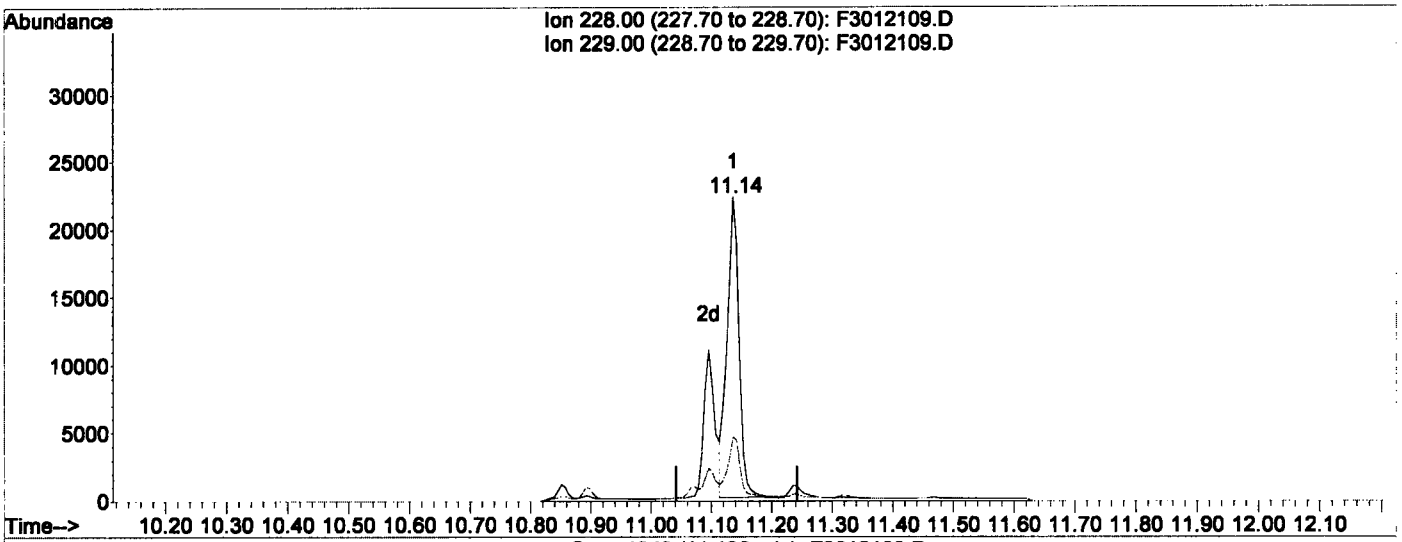
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	19.93
0.00	0.00	0.00
0.00	0.00	0.00

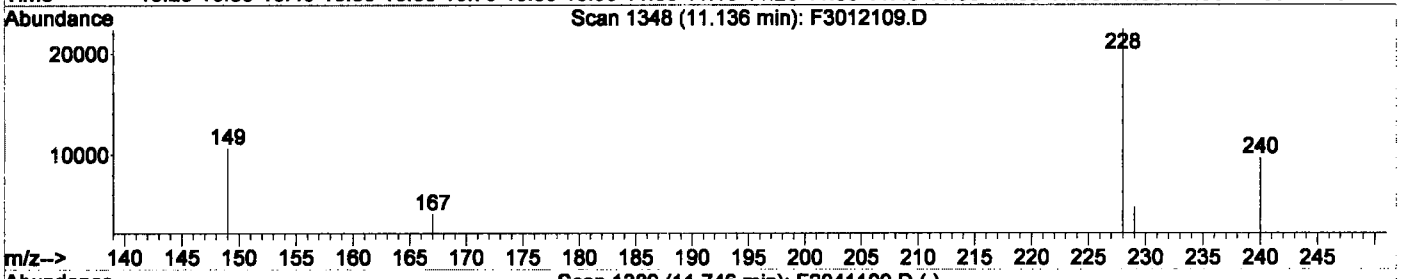
F3012109.D F21227.M Tue Jan 22 09:31:35 2013 VOAGCMS1

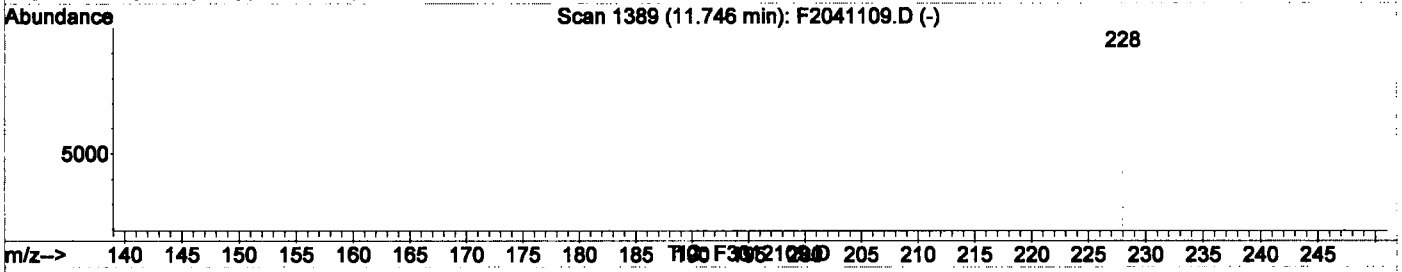
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(24) Chrysene (T)

11.14min 109.91ng/ml

response 30592

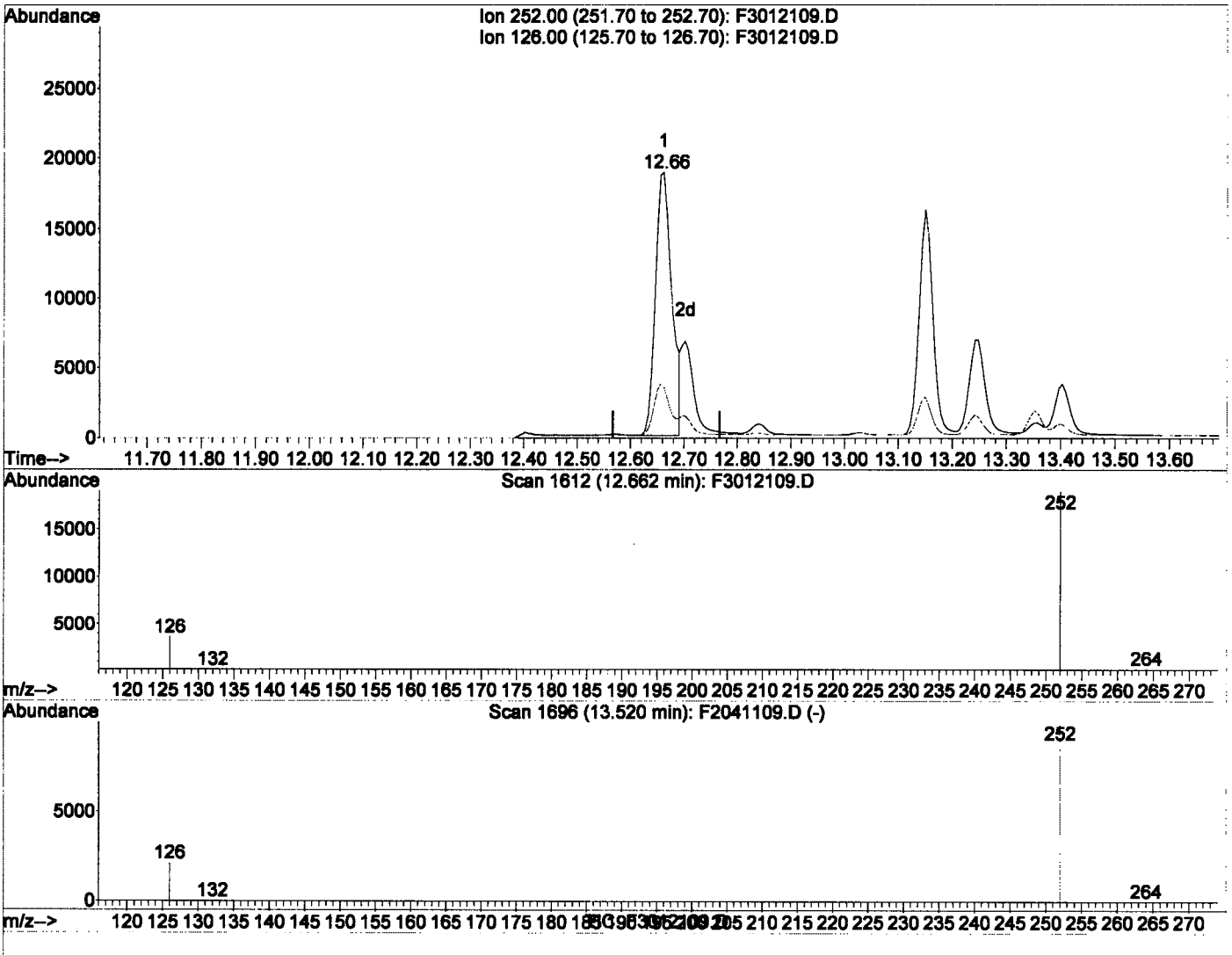
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	21.76
0.00	0.00	0.00
0.00	0.00	0.00

F3012109.D F21227.M Tue Jan 22 09:31:40 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(28) Benzo(b)Fluoranthene (T)

12.66min 173.94ng/ml

response 40241

Q-28

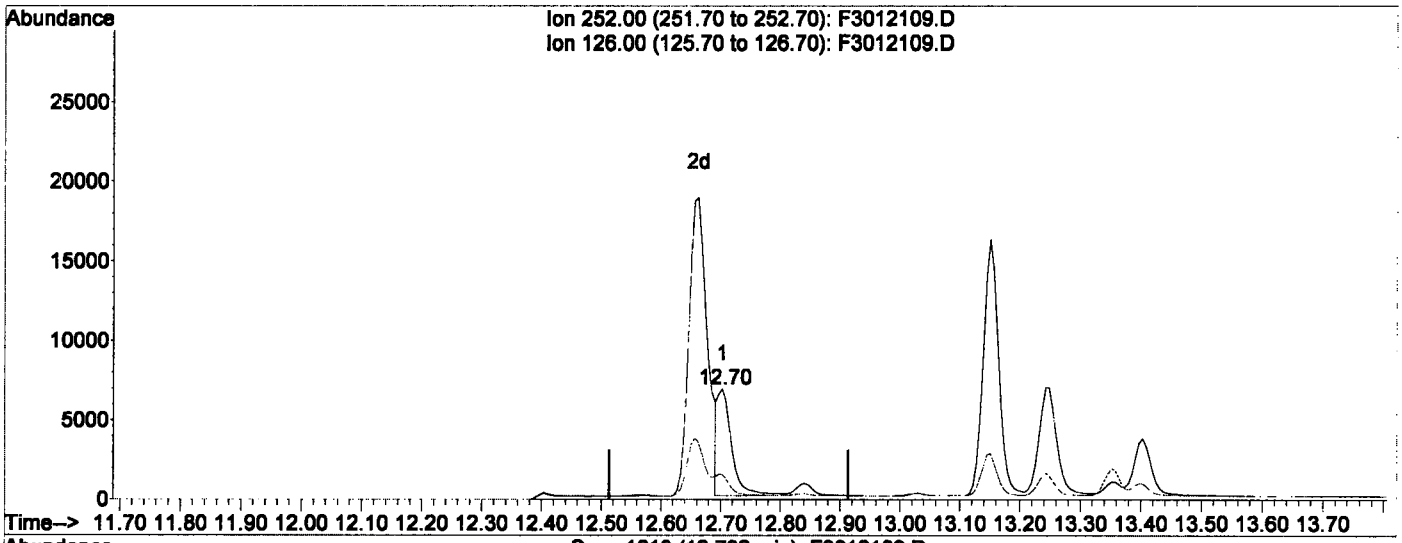
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	18.50
0.00	0.00	0.00
0.00	0.00	0.00

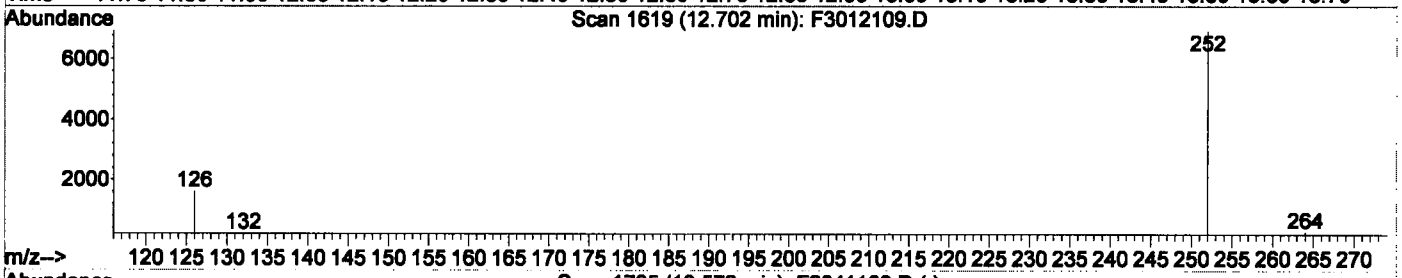
F3012109.D F21227.M Tue Jan 22 09:31:47 2013 VOAGCMS1

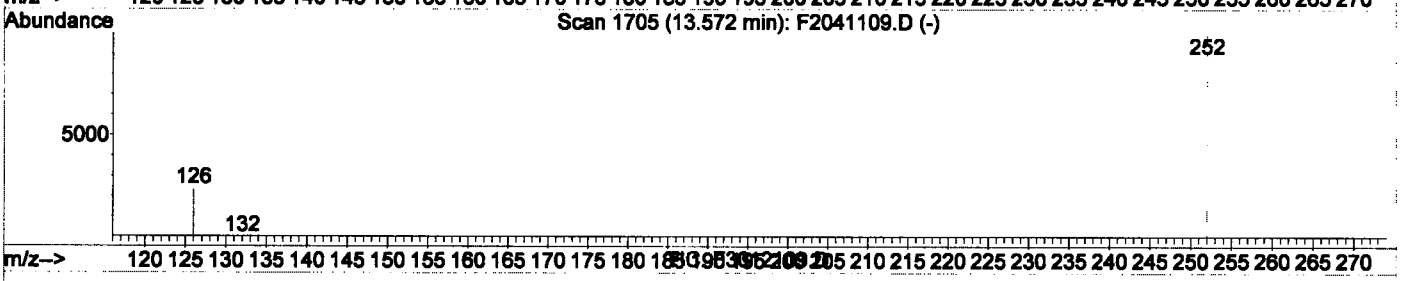
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.70min 44.33ng/ml

response 11112

Q28

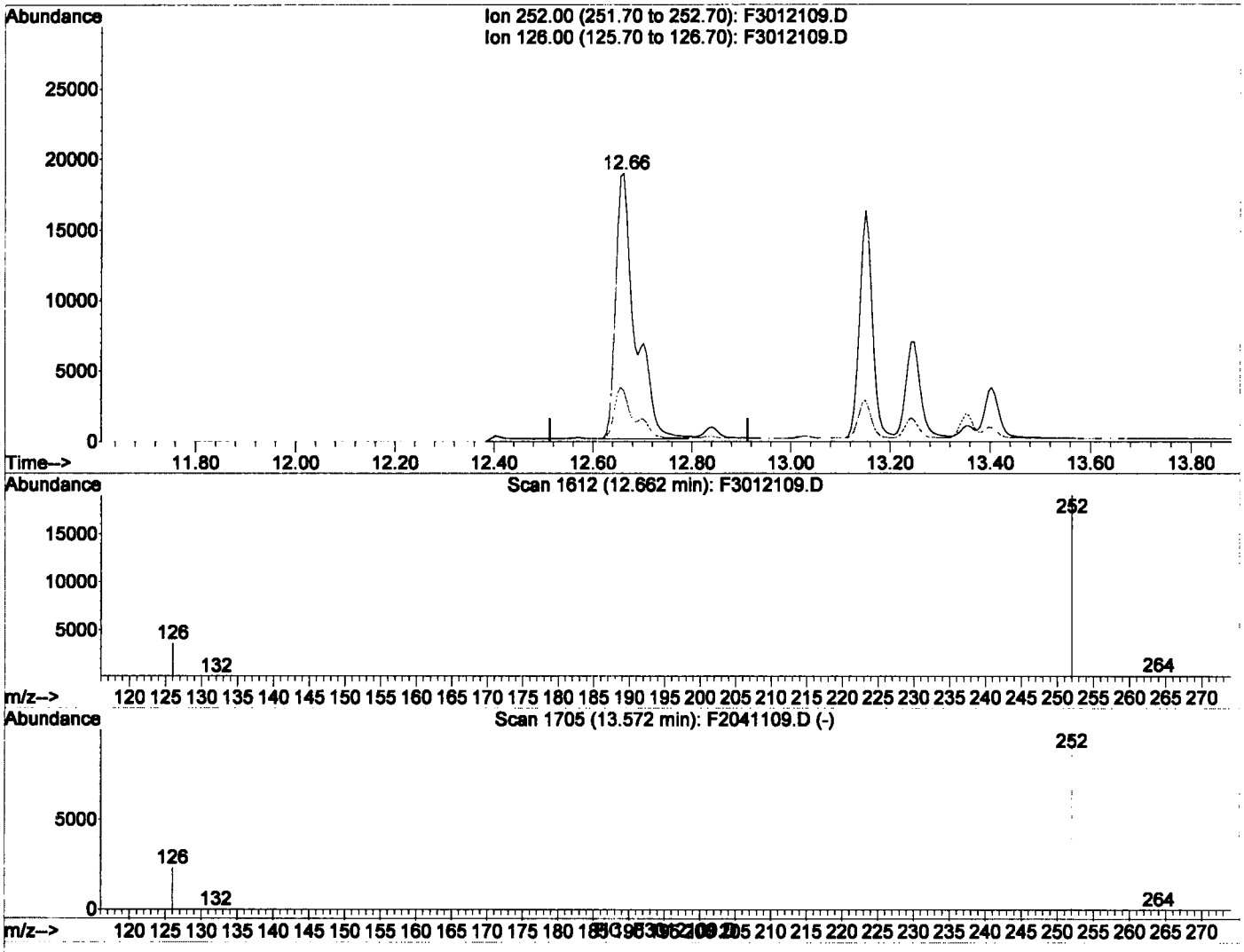
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	22.73
0.00	0.00	0.00
0.00	0.00	0.00

F3012109.D F21227.M Tue Jan 22 09:31:51 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:32 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(30) Benzo(b+k)Fluoranthene (T)

12.66min 211.33ng/ml m

response 51665

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.94
0.00	0.00	0.00
0.00	0.00	0.00

0.24

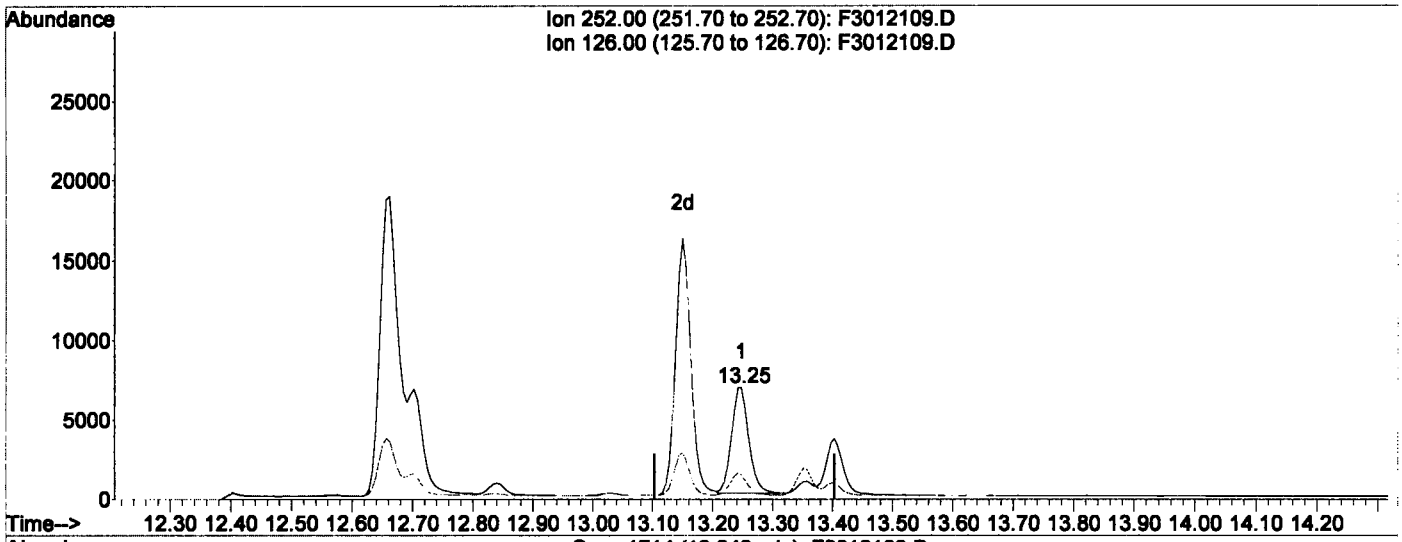
1-22-13

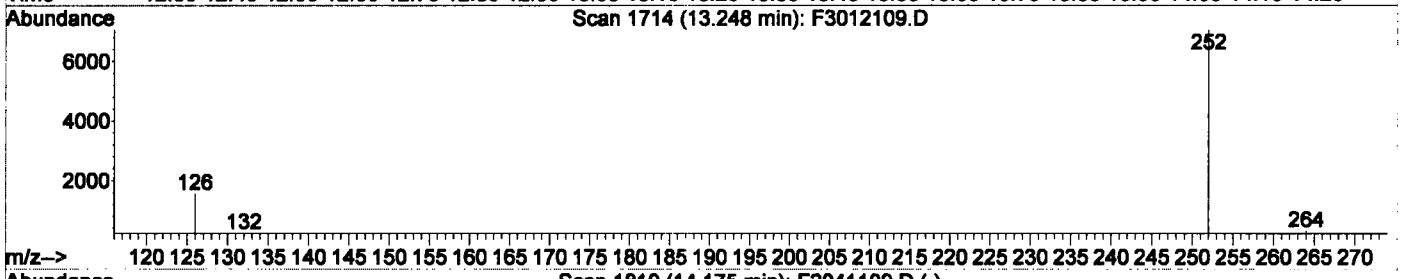
F3012109.D F21227.M Tue Jan 22 09:32:04 2013 VOAGCMS1

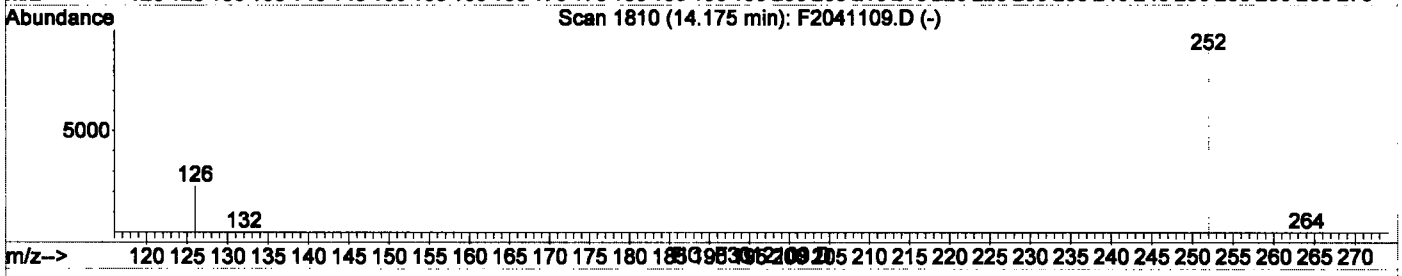
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:32 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(32) Benzo(a)Pyrene (T)

13.25min 61.82ng/ml

response 13315

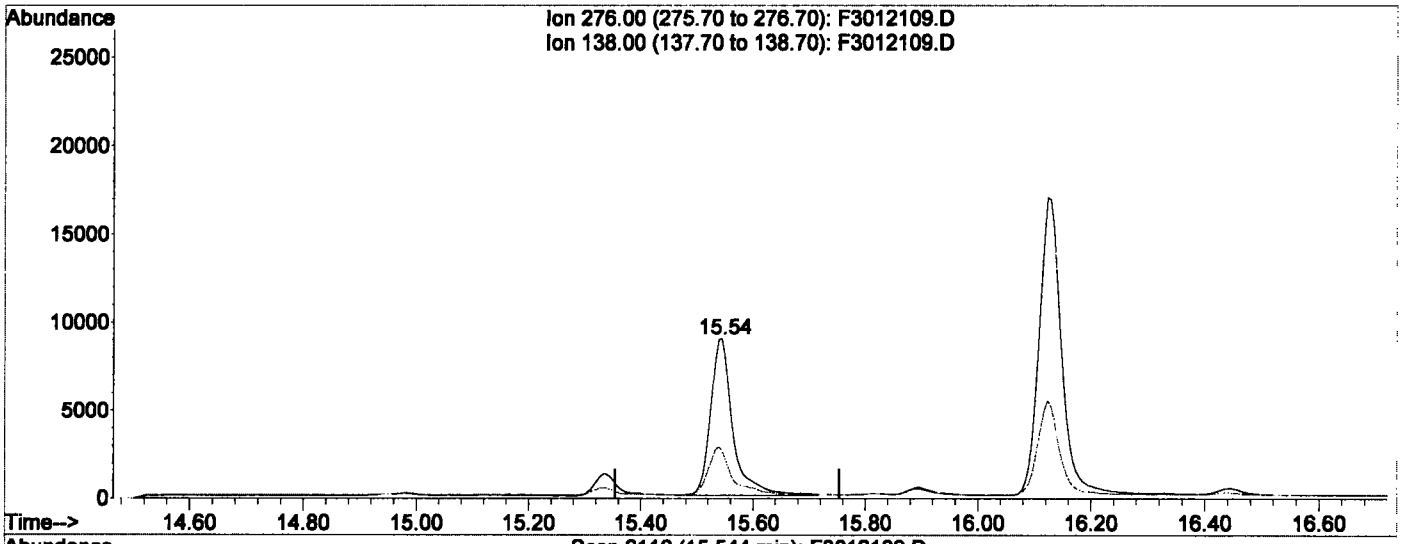
Ion	Exp%	Act%
252.00	100	100
126.00	20.10	20.50
0.00	0.00	0.00
0.00	0.00	0.00

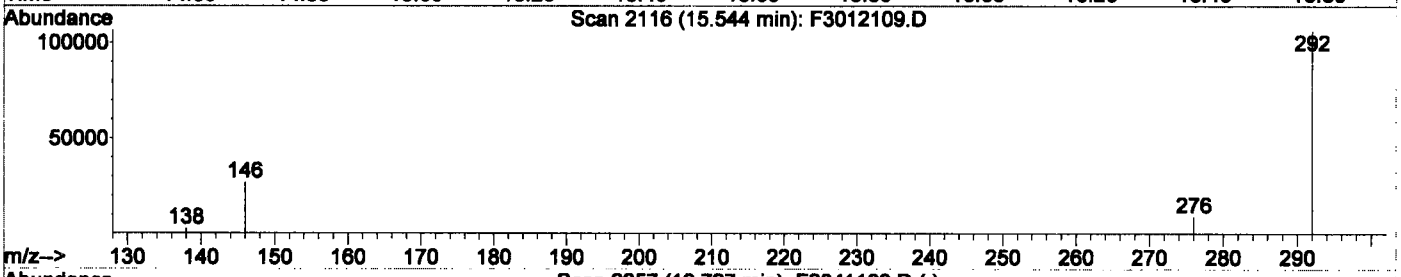
F3012109.D F21227.M Tue Jan 22 09:32:10 2013 VOAGCMS1

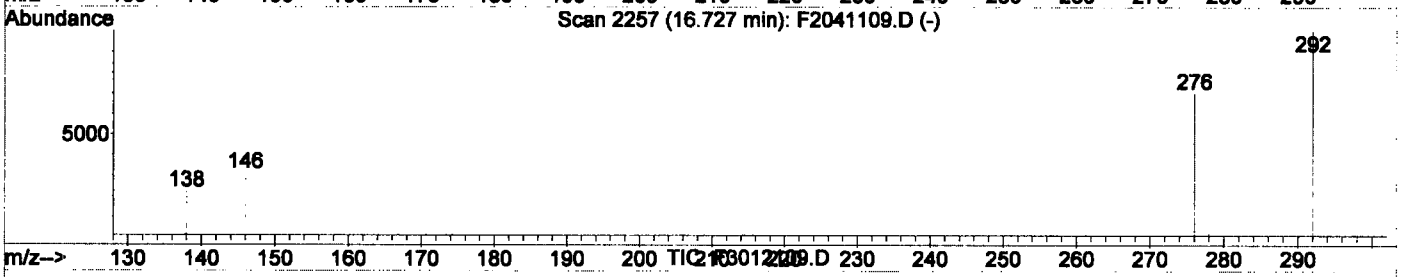
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:32 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(35) Indeno(1,2,3-cd)Pyrene (T)

15.54min 128.70ng/ml

response 24504

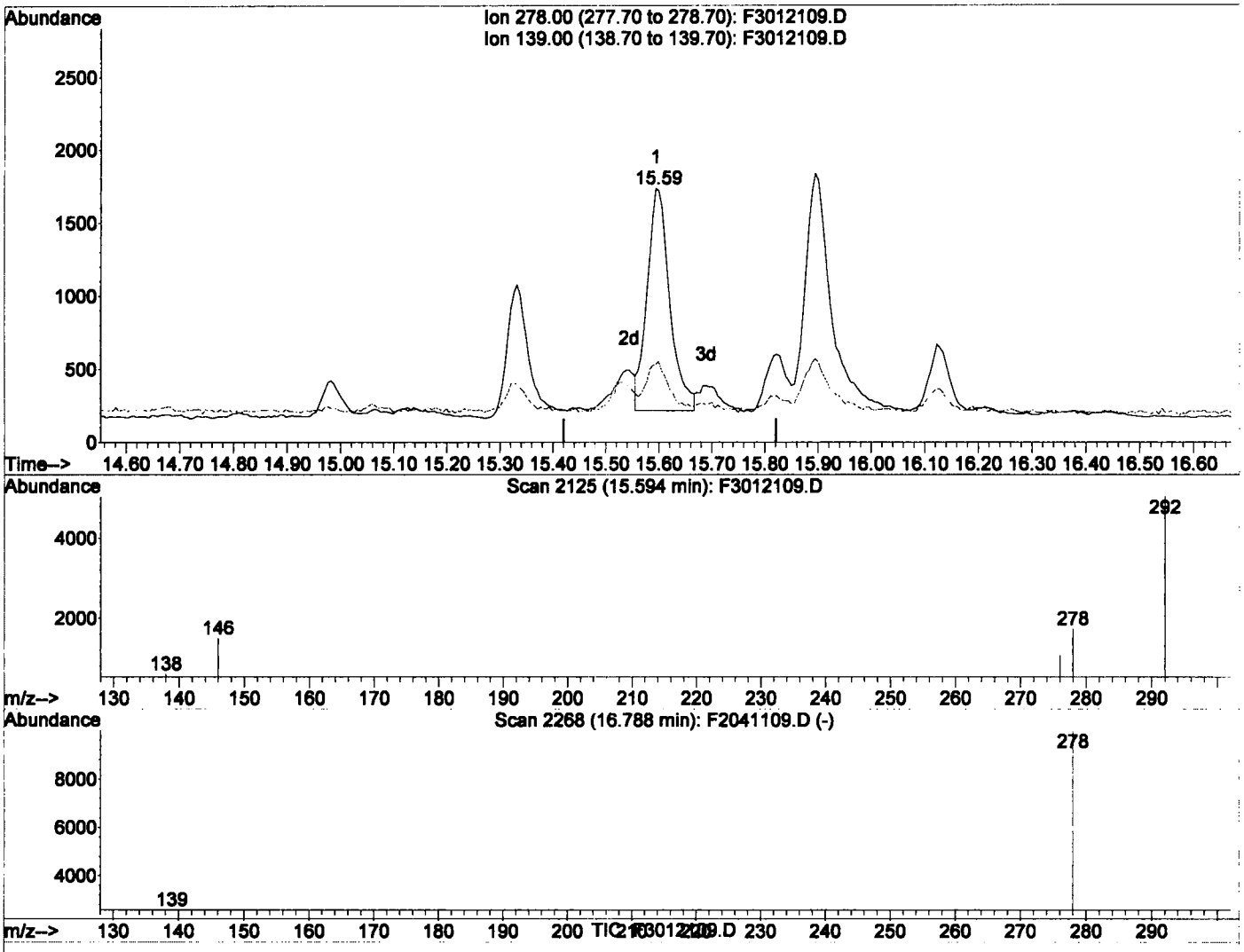
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	32.90
0.00	0.00	0.00
0.00	0.00	0.00

F3012109.D F21227.M Tue Jan 22 09:32:20 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:32 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(36) Dibenz(a,h)Anthracene (T)

15.59min 24.73ng/ml

response 4492

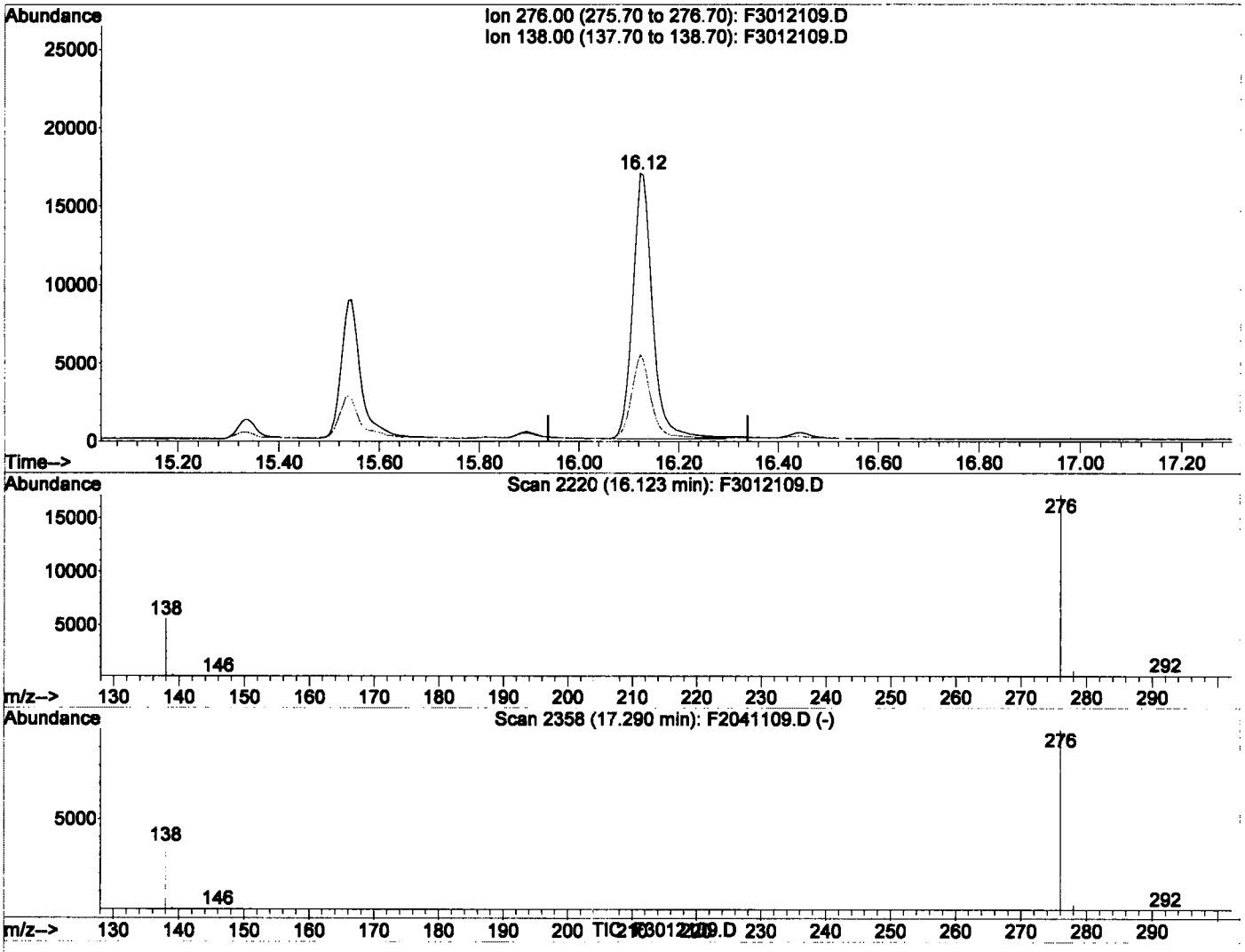
Ion	Exp%	Act%
278.00	100	100
139.00	25.90	16.96
0.00	0.00	0.00
0.00	0.00	0.00

F3012109.D F21227.M Tue Jan 22 09:32:24 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:32 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.12min 247.41ng/ml

response 46889

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.52
0.00	0.00	0.00
0.00	0.00	0.00

F3012109.D F21227.M Tue Jan 22 09:32:30 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	932216	2000.000 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	455765	2000.000 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	749460	2000.000 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	582515	2000.000 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	470706	2000.000 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.53	292	345598	2000.000 ng/mL	-0.02
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.36	172	637996	1951.138 ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	630718	2680.101 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthalene	5.35	128	3105	6.148 ng/ml#	80
3) 2-Methylnaphthalene	6.00	142	3134	(10.437) ng/ml	94
4) 1-Methylnaphthalene	6.10	142	2207	7.957 ng/ml	95
7) Dimethylphthalate	6.75	163	317	1.070 ng/mL#	73
8) Acenaphthylene	6.87	152	677	1.604 ng/ml#	67
9) Acenaphthene	7.04	153	754	2.819 ng/ml	98
10) Dibenzofuran	7.22	168	1171	3.096 ng/mL	96
11) Diethylphthalate	7.43	149	4820	15.868 ng/mL	82
12) Fluorene	7.54	166	804	2.789 ng/ml	98
14) Phenanthrene	8.48	178	9268	23.438 ng/mL	98
15) Anthracene	8.53	178	2027	5.337 ng/ml	97
16) Carbazole	8.69	167	1978	6.384 ng/ml	97
17) Di-n-butylphthalate	9.04	149	25085	52.946 ng/mL	100
18) Fluoranthene	9.64	202	26048	70.039 ng/ml	99
19) Pyrene	9.87	202	28133	73.184 ng/ml	100
22) Benzyl Butyl phthalate	10.50	149	7809	51.748 ng/mL	99
23) Benz(a)Anthracene	11.10	228	14054	48.657 ng/ml	97
24) Chrysene	11.14	228	30592	109.909 ng/ml	94
25) Bis(2-ethylhexyl)phthalate	11.13	149	22520	109.680 ng/mL	98
26) Di-n-octyl phthalate	12.10	149	222	71.896 ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	40241	173.943 ng/ml	98
29) Benzo(k)Fluoranthene	12.70	252	11112	44.334 ng/ml	95
30) Benzo(b+k)Fluoranthene	12.66	252	53500	218.840 ng/ml	97
31) Benzo (e) Pyrene	13.15	252	28789	122.661 ng/mL	99
32) Benzo(a)Pyrene	13.25	252	13315	61.825 ng/ml	99
33) Perylene	13.40	252	6828	29.209 ng/mL	89
35) Indeno(1,2,3-cd)Pyrene	15.54	276	24504	128.698 ng/ml	98
36) Dibenz(a,h)Anthracene	15.59	278	4492	24.728 ng/ml	82
37) Benzo(g,h,i)Perylene	16.12	276	46889	247.409 ng/ml	96

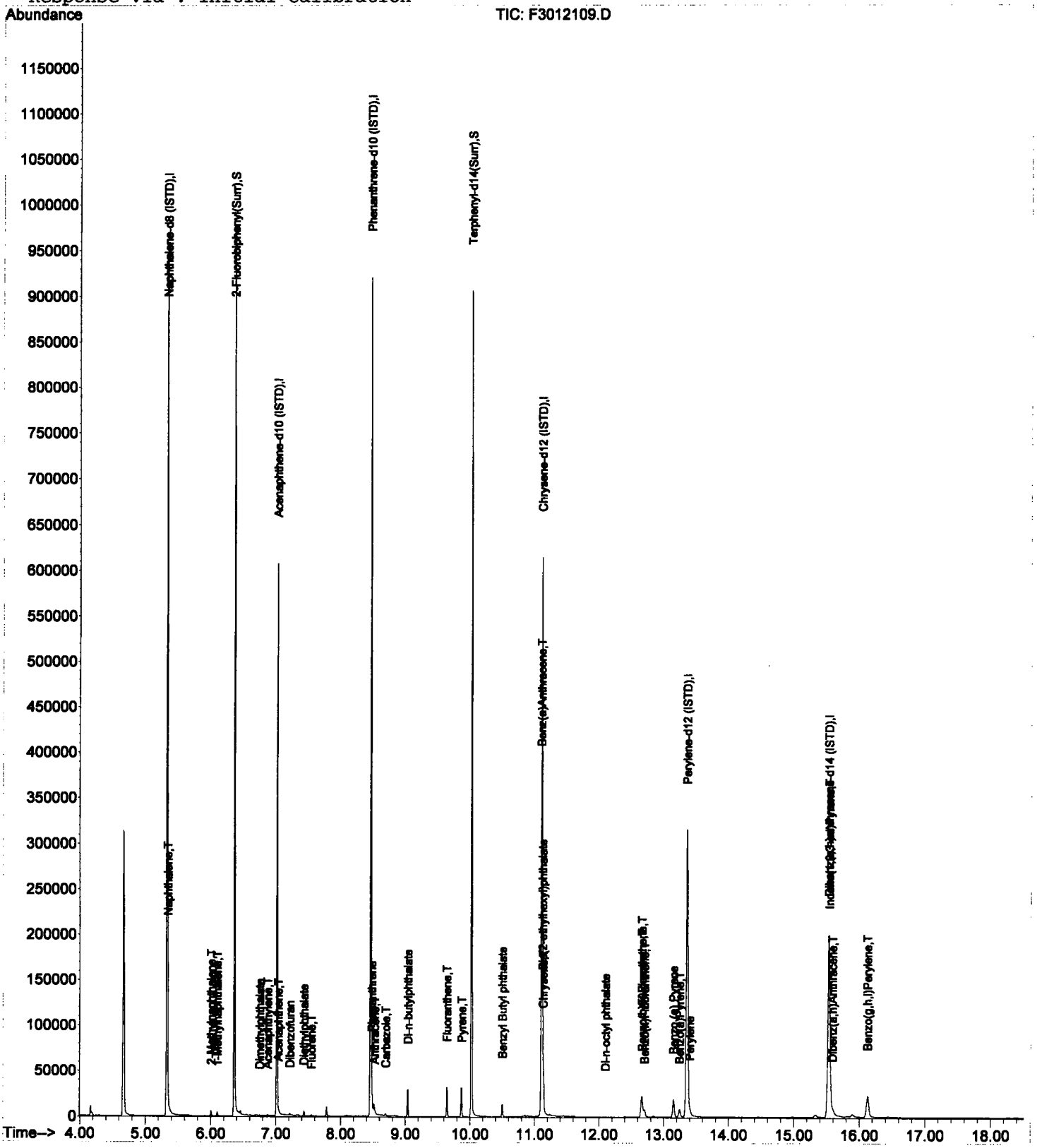
MJ 1-22-13 BSS

(#) = qualifier out of range (m) = manual integration
F3012109.D F21227.M Tue Jan 22 08:59:26 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012109.D Vial: 6
Acq On : 21 Jan 2013 5:21 pm Operator: bsj
Sample : A13A243-01 Inst : SV-GCMS6
Misc : 1x Soil 10.56g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:33 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q 28
Q-26

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	950191	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	465268	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	752807	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	578069	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	475182	2000.000	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.53	292	352692	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	665429	1993.469	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	644517	2759.801	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	2537	4.929	ng/ml#	80
3) 2-Methylnaphthalene	6.00	142	974	3.182	ng/ml	98
4) 1-Methylnaphthalene	6.10	142	510	1.804	ng/ml	92
7) Dimethylphthalate	6.75	163	213	0.705	ng/mL#	73
8) Acenaphthylene	6.87	152	523	1.214	ng/ml#	67
9) Acenaphthene	7.04	153	496	1.817	ng/ml	92
10) Dibenzofuran	7.22	168	817	2.116	ng/mL	99
11) Diethylphthalate	7.43	149	3968	12.796	ng/mL	82
12) Fluorene	7.55	166	500	1.699	ng/ml	97
14) Phenanthrene	8.48	178	7745	(19.499)	ng/mL J	97
15) Anthracene	8.53	178	1783	4.674	ng/ml	99
16) Carbazole	8.69	167	1692	5.437	ng/ml	97
17) Di-n-butylphthalate	9.03	149	8815	18.523	ng/mL	99
18) Fluoranthene	9.64	202	24315	65.089	ng/ml	100
19) Pyrene	9.87	202	26475	68.564	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	8132	54.303	ng/mL	99
23) Benz(a)Anthracene	11.10	228	12608	43.986	ng/ml	90
24) Chrysene	11.14	228	32946	119.277	ng/ml	97
25) Bis(2-ethylhexyl)phthalate	11.13	149	9996	49.058	ng/mL	95
26) Di-n-octyl phthalate	12.10	149	286	72.106	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	38996	166.974	ng/ml	98
29) Benzo(k)Fluoranthene	12.70	252	10656	42.114	ng/ml Q28	96
30) Benzo(b+k)Fluoranthene	12.66	252	49649m	201.174	ng/ml Q26	
31) Benzo (e) Pyrene	13.15	252	27835	117.479	ng/mL	99
32) Benzo(a)Pyrene	13.24	252	12476	57.383	ng/ml	98
33) Perylene	13.40	252	7224	30.612	ng/mL	80
35) Indeno(1,2,3-cd)Pyrene	15.54	276	24202	124.555	ng/ml	98
36) Dibenz(a,h)Anthracene	15.60	278	4242	22.882	ng/ml	86
37) Benzo(g,h,i)Perylene	16.12	276	48864	252.644	ng/ml	96

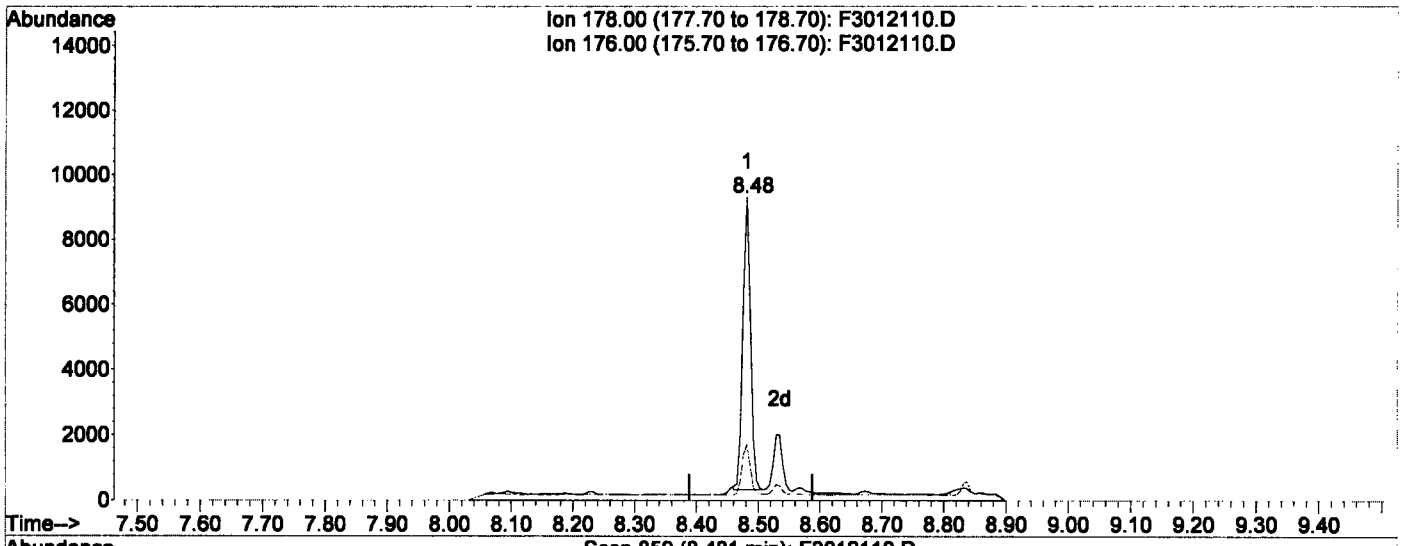
1-22-13
BS

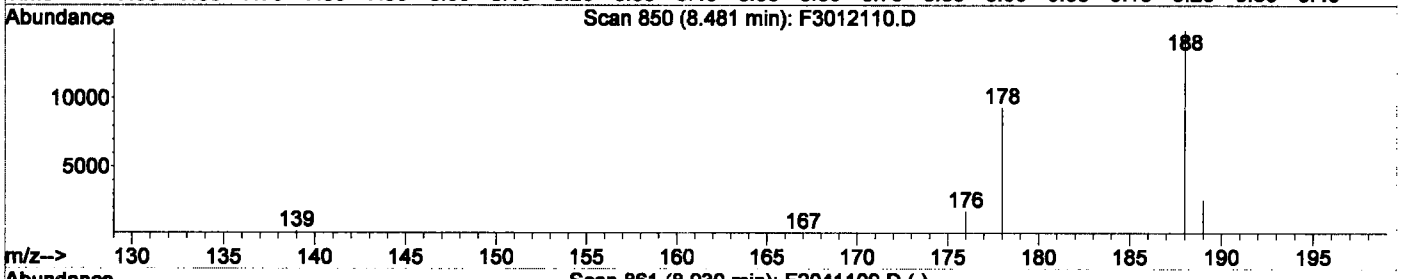
(#) = qualifier out of range (m) = manual integration
F3012110.D F21227.M Tue Jan 22 09:34:40 2013 VOAGCMS1

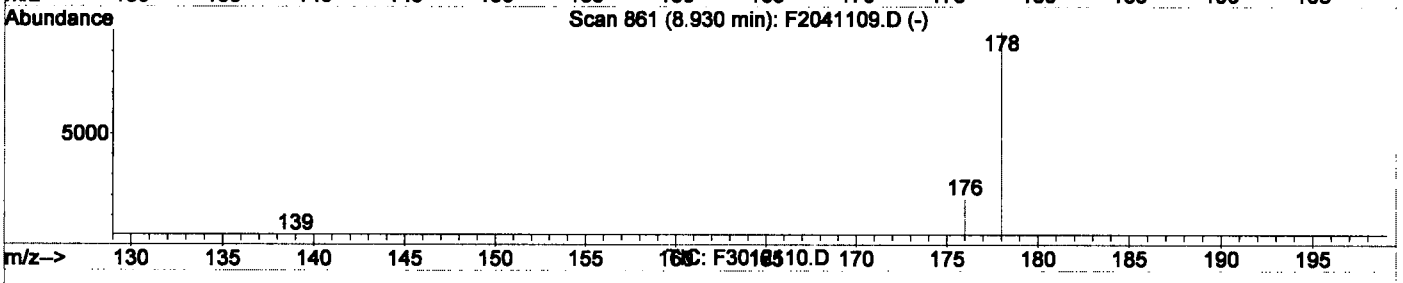
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(14) Phenanthrene

8.48min 19.50ng/mL

response 7745

Ion	Exp%	Act%
178.00	100	100
176.00	18.10	19.38
0.00	0.00	0.00
0.00	0.00	0.00

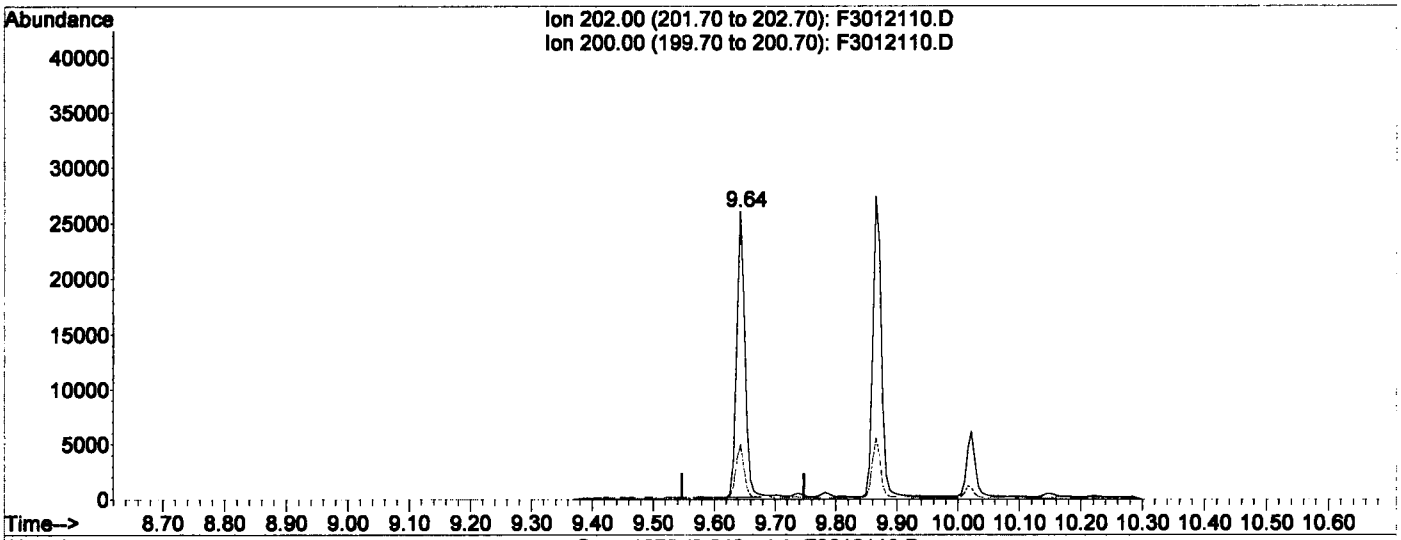
J

F3012110.D F21227.M Tue Jan 22 09:33:11 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(18) Fluoranthene (T)

9.64min 65.09ng/ml

response 24315

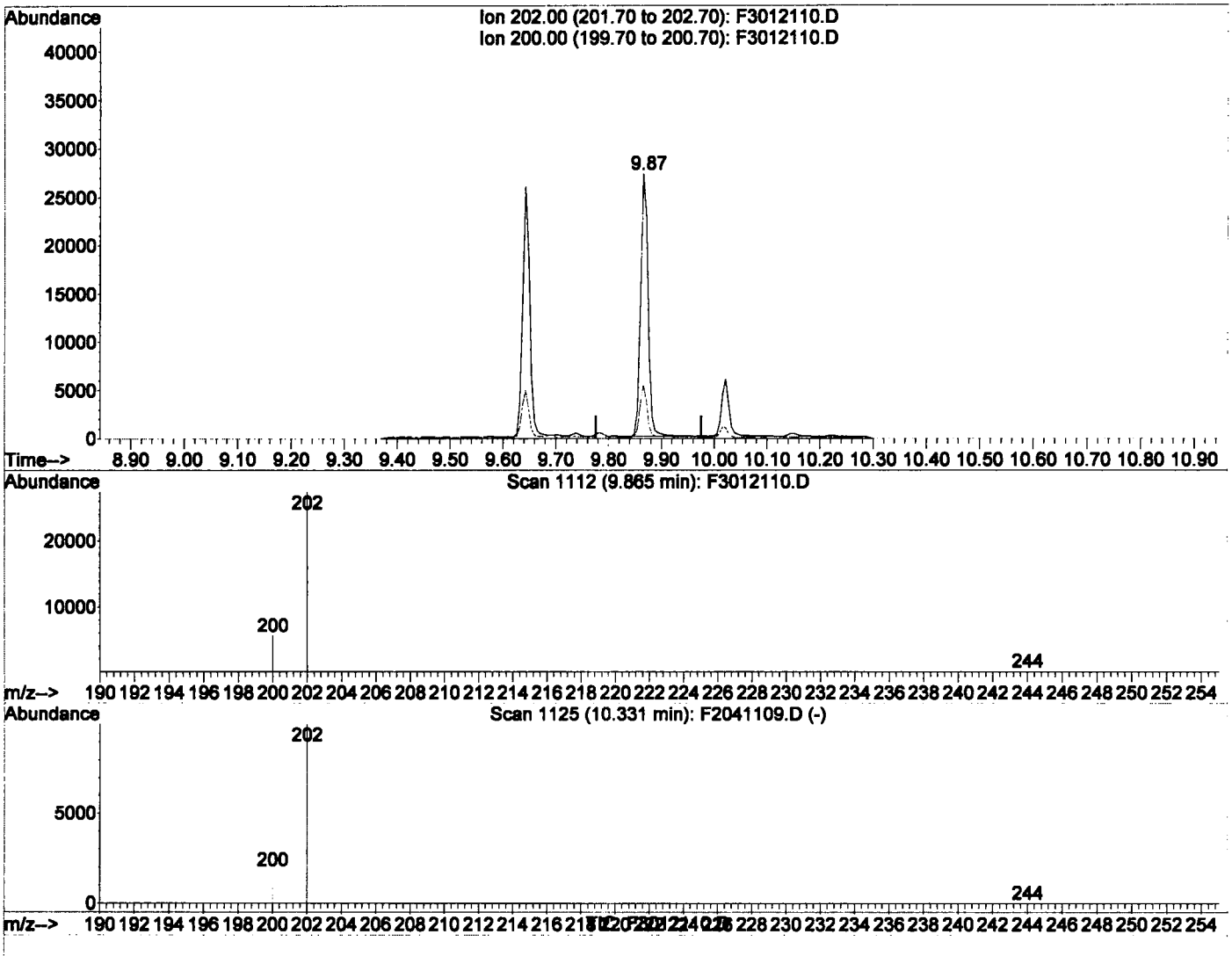
Ion	Exp%	Act%
202.00	100	100
200.00	18.60	18.82
0.00	0.00	0.00
0.00	0.00	0.00

F3012110.D F21227.M Tue Jan 22 09:33:18 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(19) Pyrene (T)

9.87min 68.56ng/ml

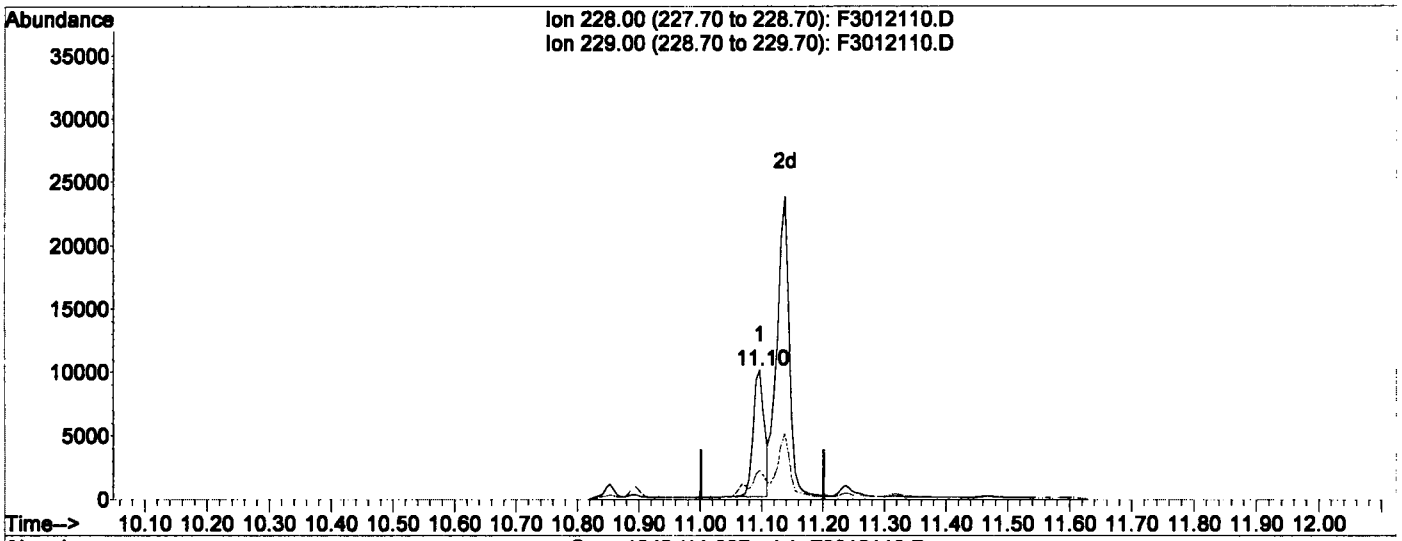
response 26475

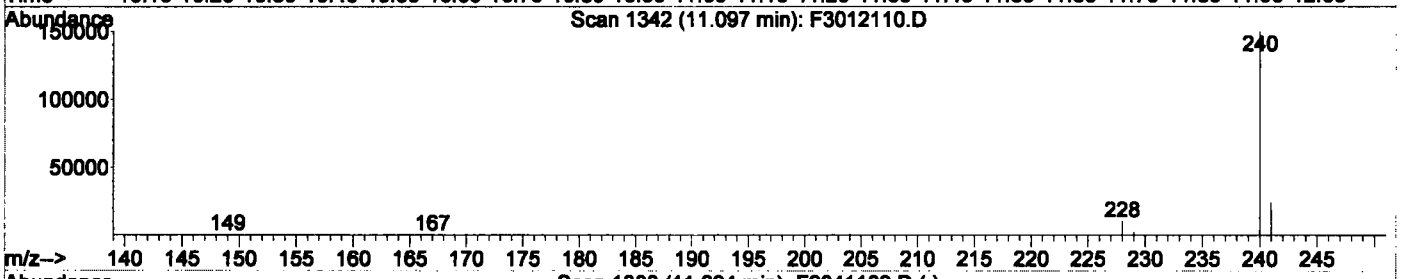
Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.14
0.00	0.00	0.00
0.00	0.00	0.00

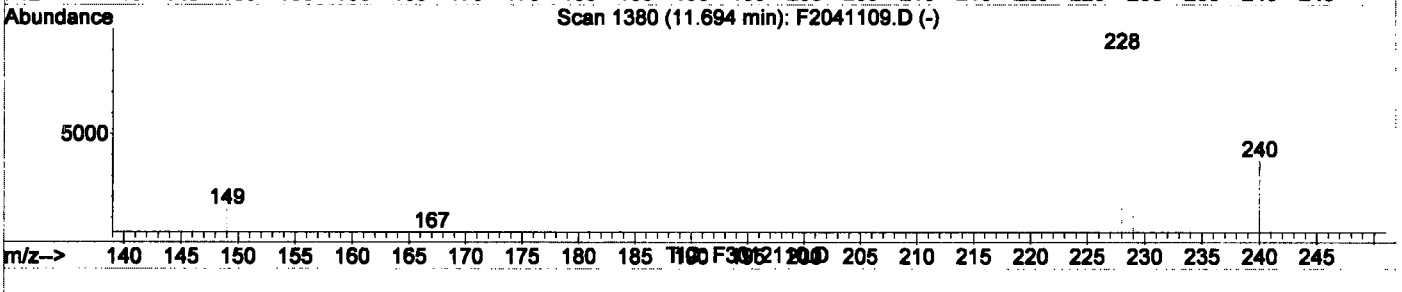
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(23) Benz(a)Anthracene (T)

11.10min 43.99ng/ml

response 12608

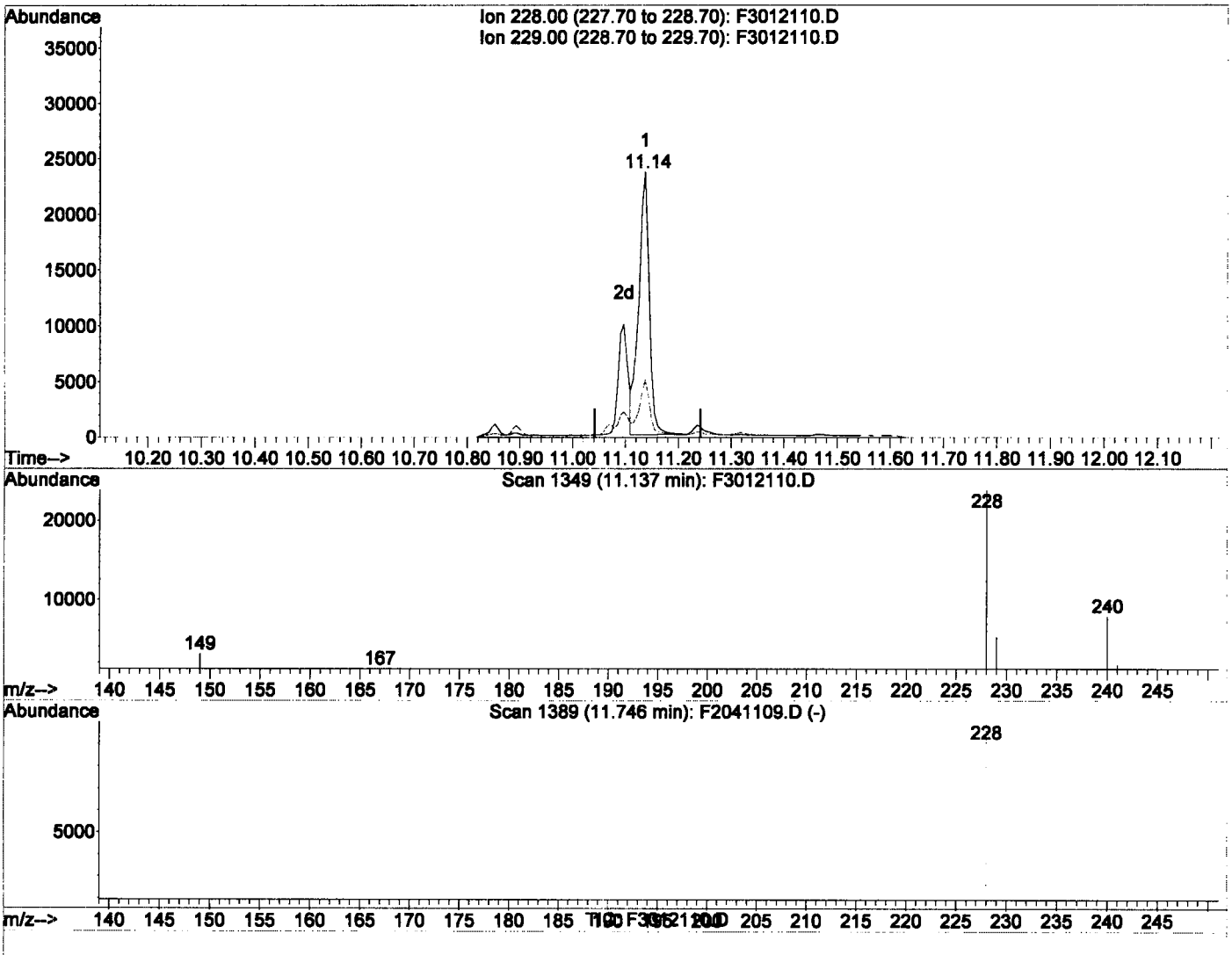
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	23.04
0.00	0.00	0.00
0.00	0.00	0.00

F3012110.D F21227.M Tue Jan 22 09:33:29 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(24) Chrysene (T)

11.14min 119.28ng/ml

response 32946

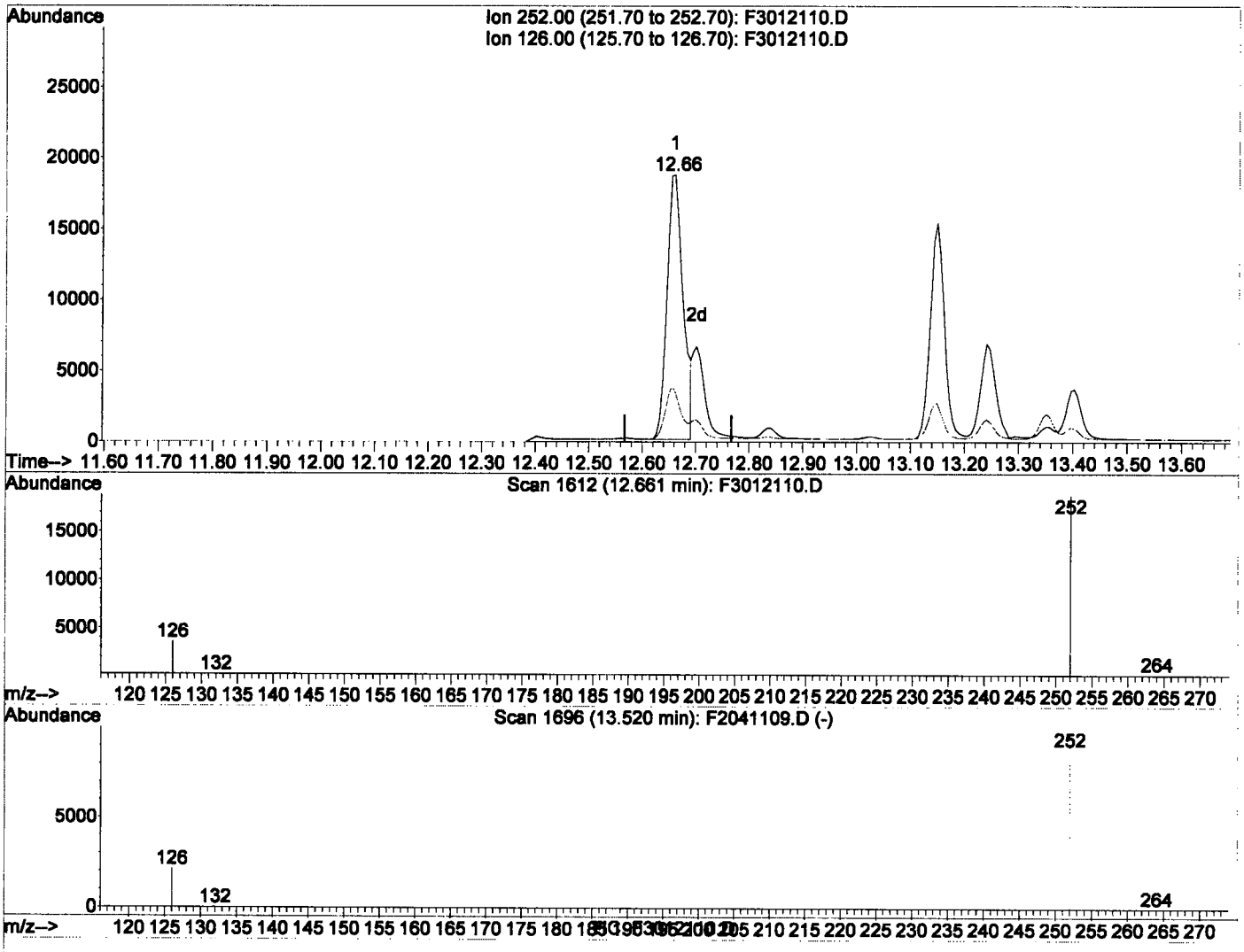
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	20.58
0.00	0.00	0.00
0.00	0.00	0.00

F3012110.D F21227.M Tue Jan 22 09:33:33 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(28) Benzo(b)Fluoranthene (T)

12.66min 166.97ng/ml

response 38996

Q 28

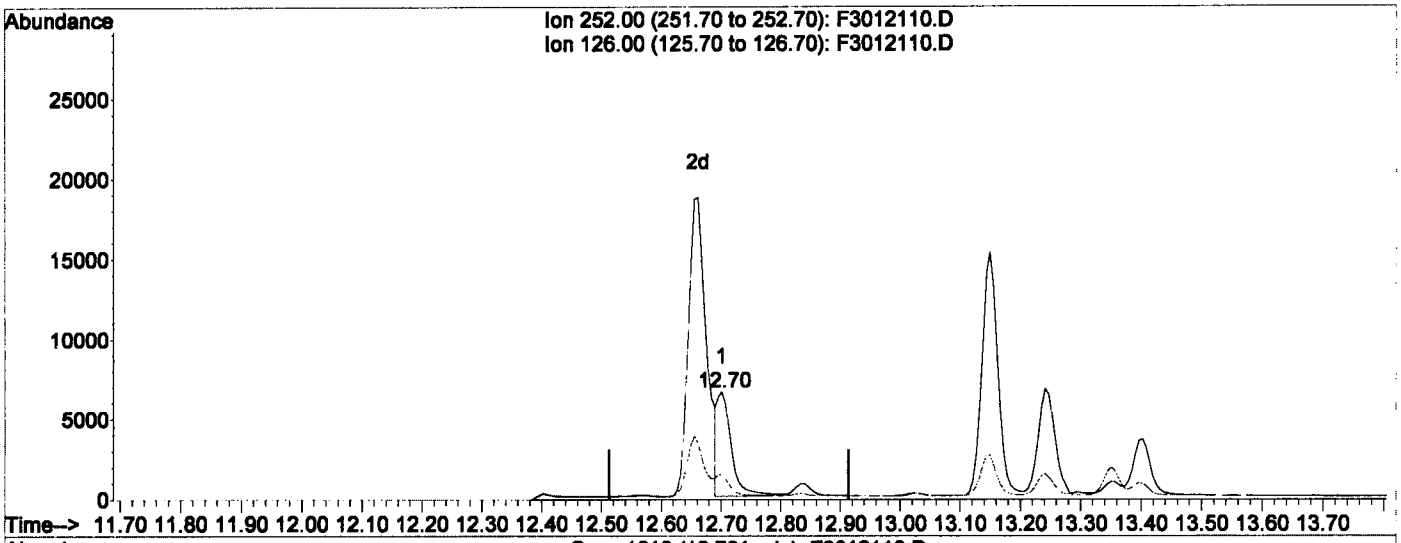
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	18.60
0.00	0.00	0.00
0.00	0.00	0.00

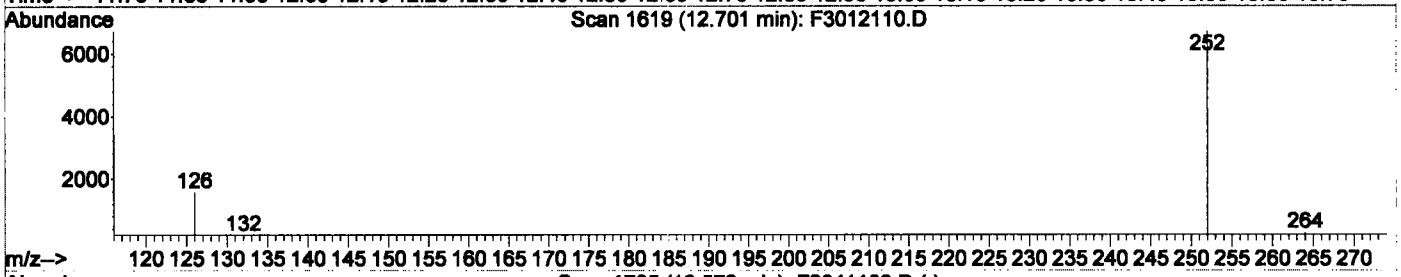
F3012110.D F21227.M Tue Jan 22 09:33:42 2013 VOAGCMS1

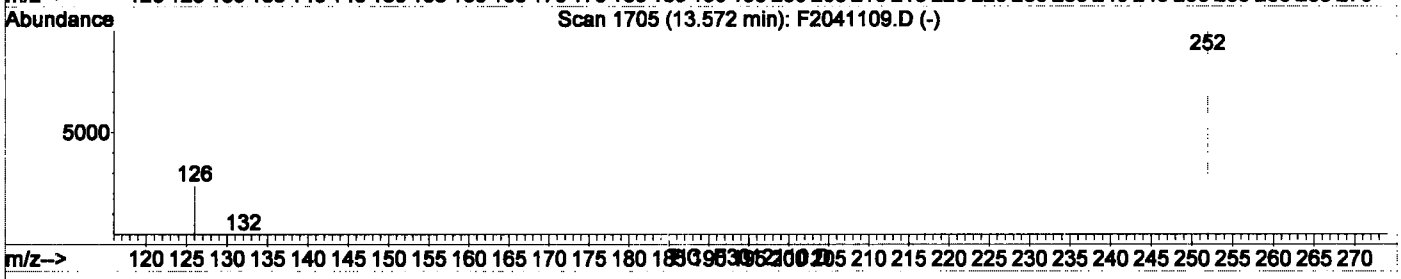
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.70min 42.11ng/ml

response 10656

Q-28

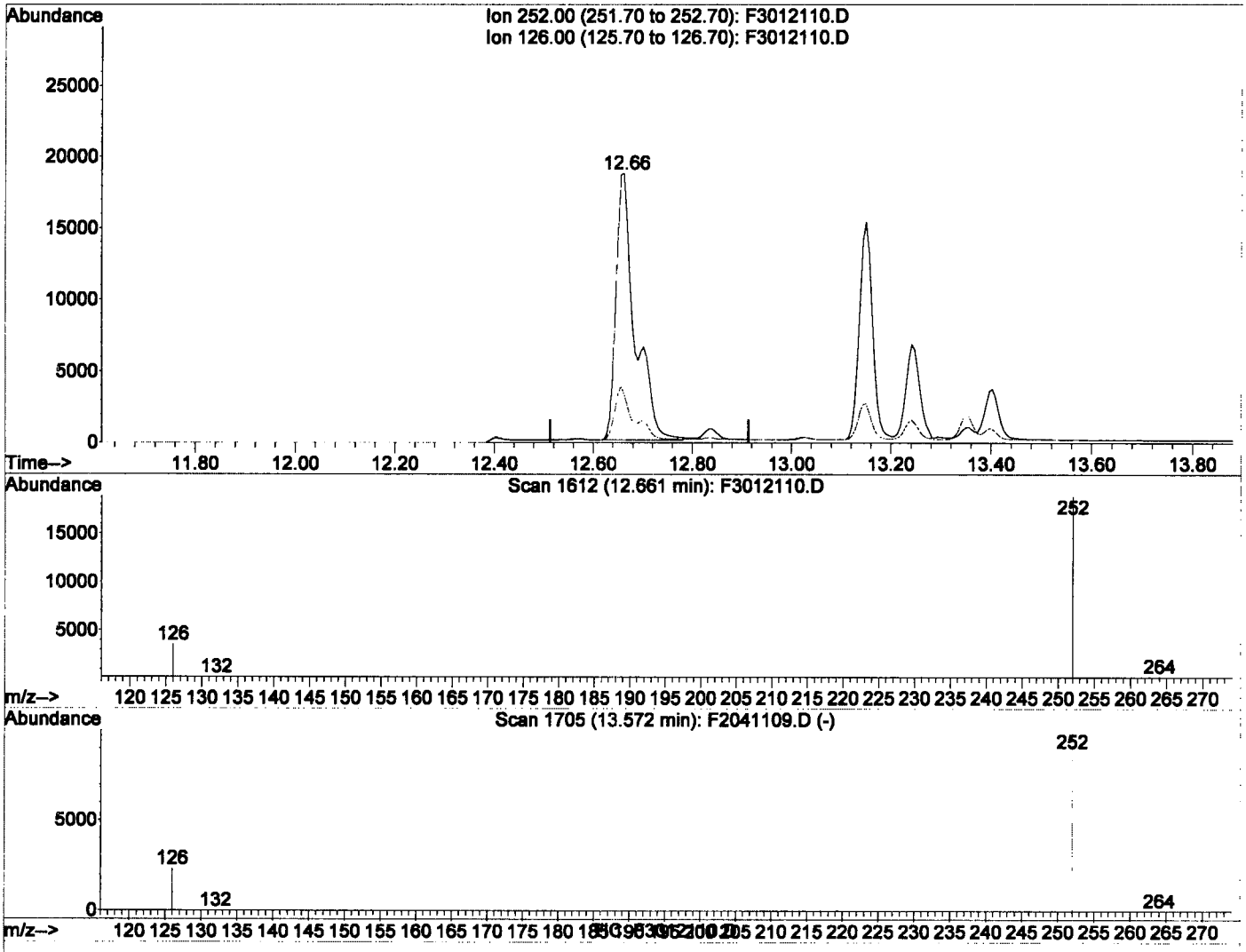
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	22.43
0.00	0.00	0.00
0.00	0.00	0.00

F3012110.D F21227.M Tue Jan 22 09:33:47 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:33 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(30) Benzo(b+k)Fluoranthene (T)

12.66min 201.17ng/ml m

response 49649

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	20.35
0.00	0.00	0.00
0.00	0.00	0.00

Q 24
1-22-13 383

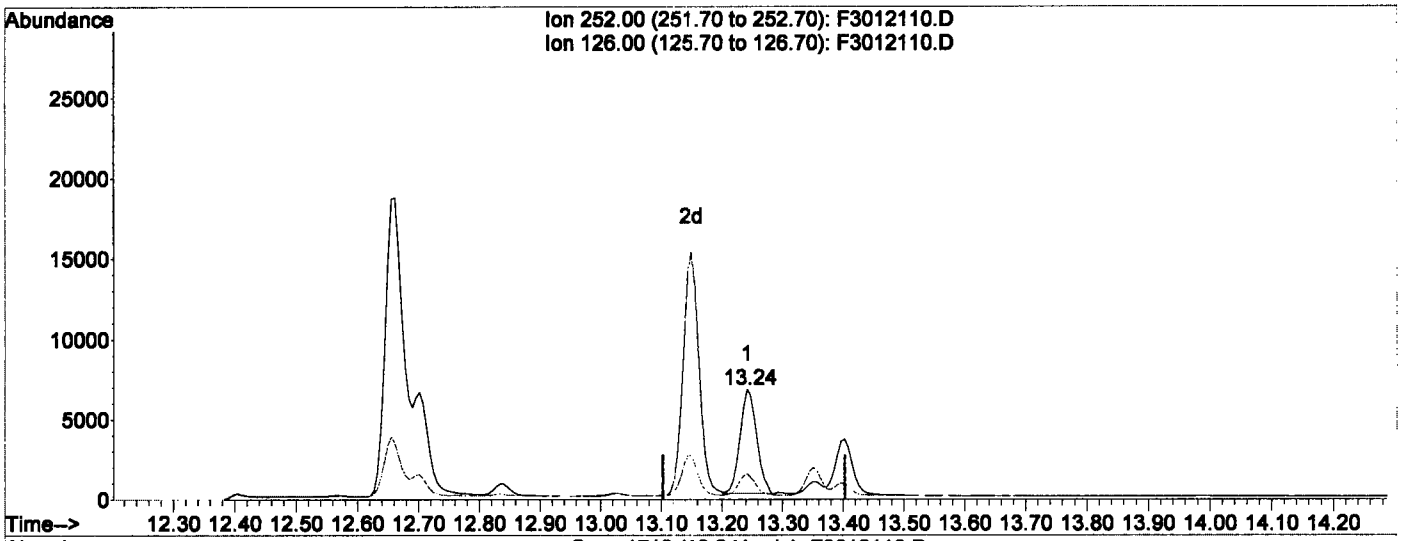
1/23/13

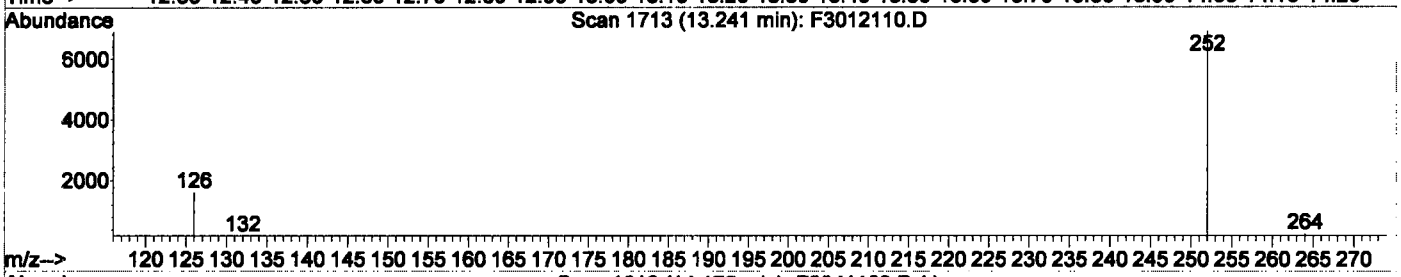
F3012110.D F21227.M Tue Jan 22 09:34:00 2013 VOAGCMS1

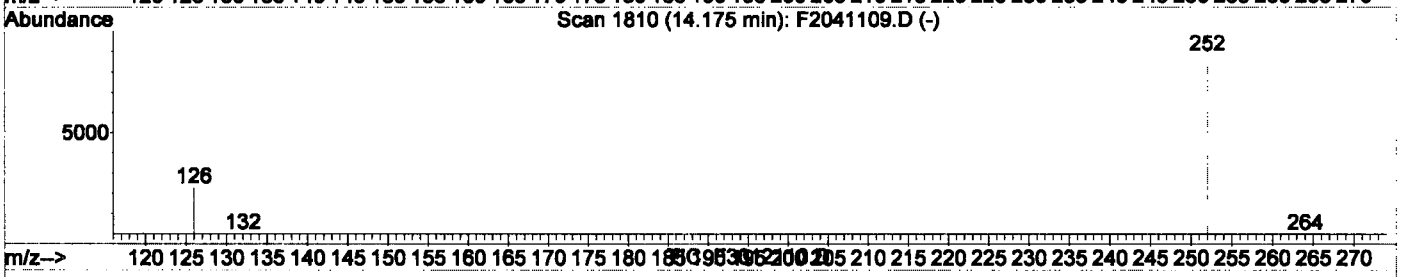
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:33 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(32) Benzo(a)Pyrene (T)

13.24min 57.38ng/ml

response 12476

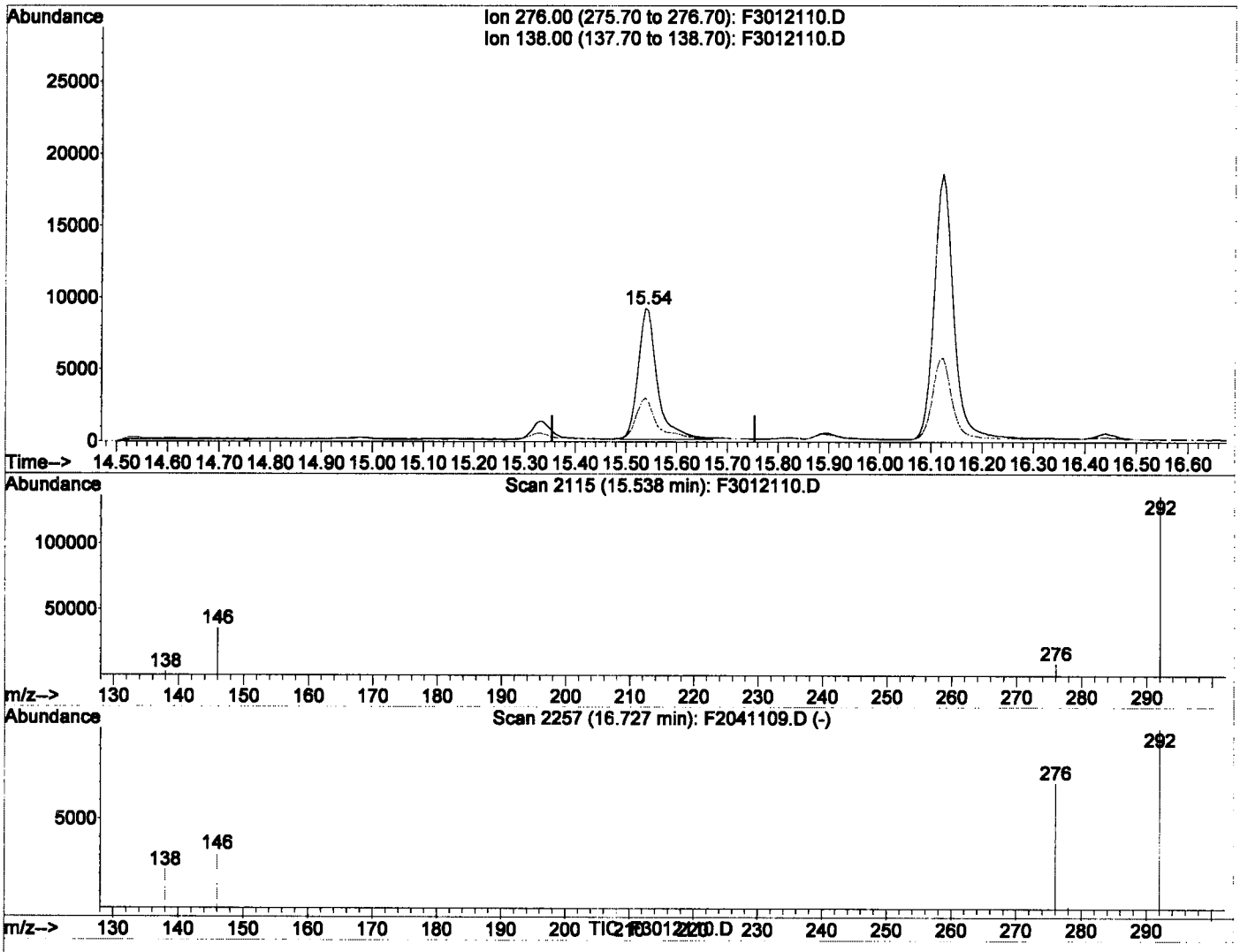
Ion	Exp%	Act%
252.00	100	100
126.00	20.10	20.81
0.00	0.00	0.00
0.00	0.00	0.00

F3012110.D F21227.M Tue Jan 22 09:34:14 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:33 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.54min 124.55ng/ml

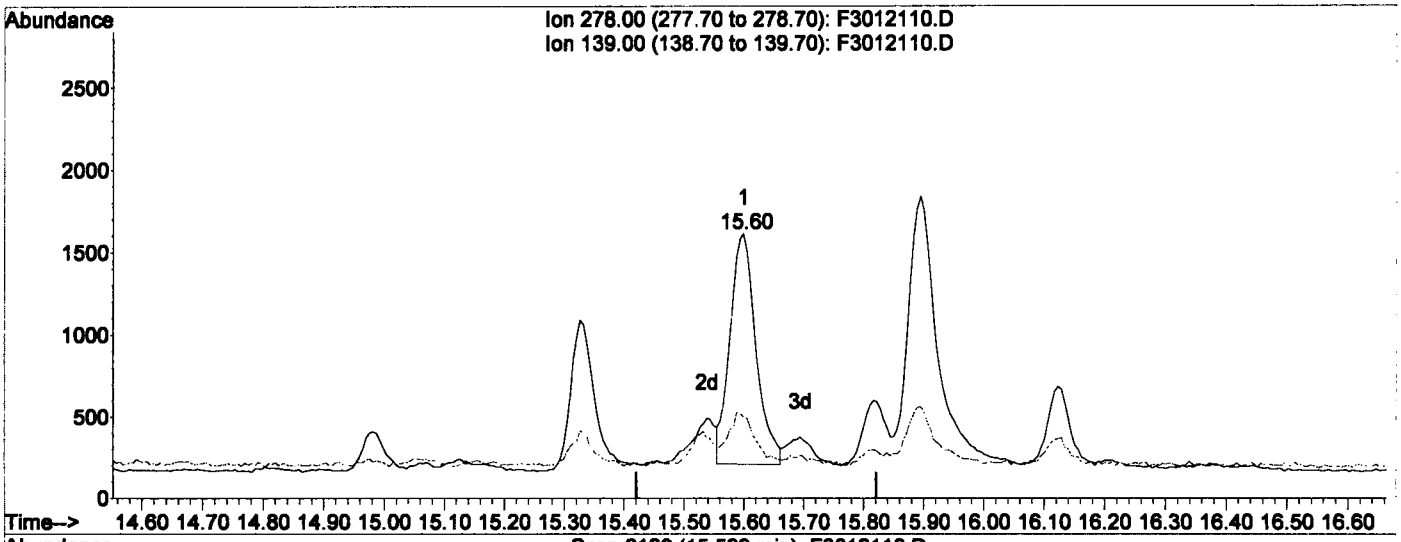
response 24202

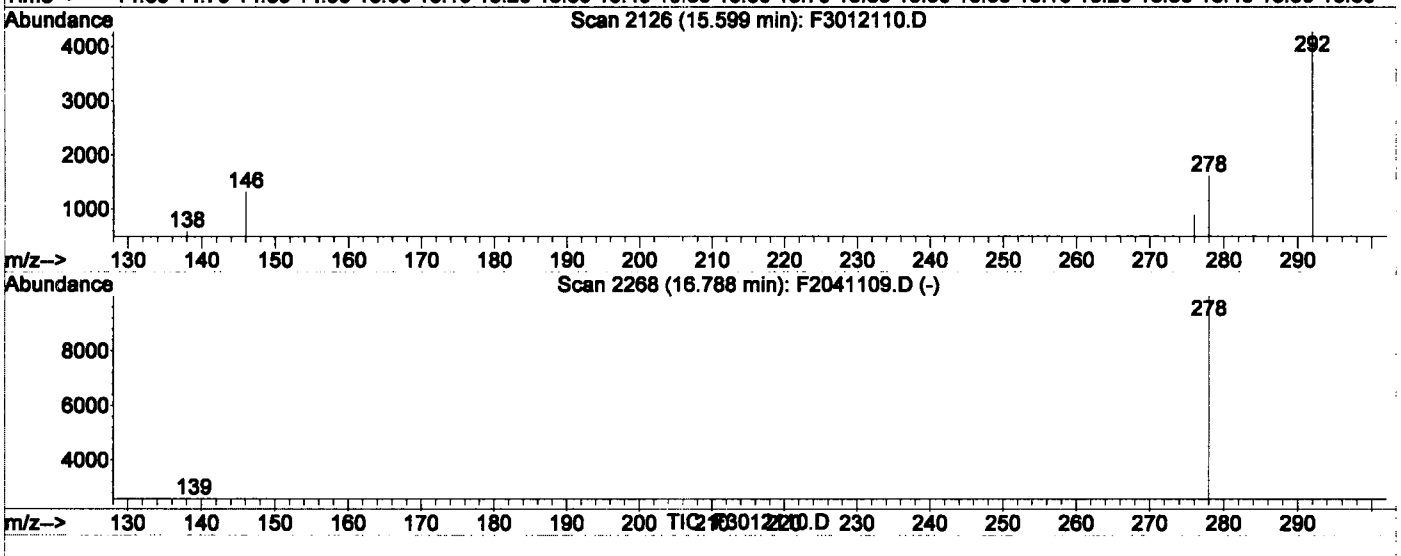
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	32.96
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:33 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration





(36) Dibenz(a,h)Anthracene (T)

15.60min 22.88ng/ml

response 4242

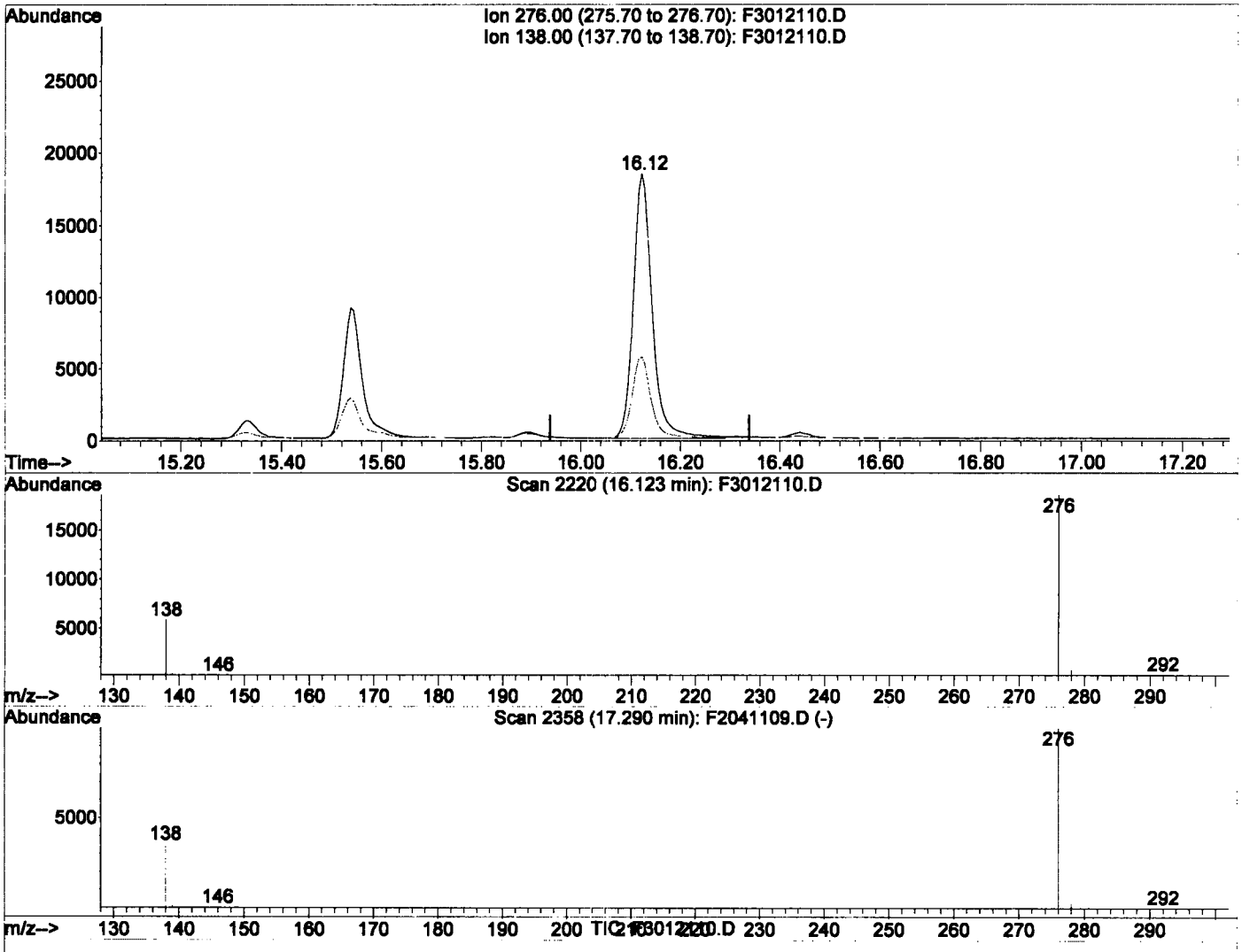
Ion	Exp%	Act%
278.00	100	100
139.00	25.90	18.67
0.00	0.00	0.00
0.00	0.00	0.00

F3012110.D F21227.M Tue Jan 22 09:34:28 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:33 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.12min 252.64ng/ml

response 48864

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.28
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	950191	2000.000 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	465268	2000.000 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	752807	2000.000 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	578069	2000.000 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	475182	2000.000 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.53	292	352692	2000.000 ng/mL	-0.02
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.36	172	665429	1993.469 ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	644517	2759.801 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthalene	5.35	128	2537	4.929 ng/ml#	80
3) 2-Methylnaphthalene	6.00	142	974	3.182 ng/ml	98
4) 1-Methylnaphthalene	6.10	142	510	1.804 ng/ml	92
7) Dimethylphthalate	6.75	163	213	0.705 ng/mL#	73
8) Acenaphthylene	6.87	152	523	1.214 ng/ml#	67
9) Acenaphthene	7.04	153	496	1.817 ng/ml	92
10) Dibenzofuran	7.22	168	817	2.116 ng/mL	99
11) Diethylphthalate	7.43	149	3968	12.796 ng/mL	82
12) Fluorene	7.55	166	500	1.699 ng/ml	97
14) Phenanthrene	8.48	178	7745	(19.499) ng/mL J	97
15) Anthracene	8.53	178	1783	4.674 ng/ml	99
16) Carbazole	8.69	167	1692	5.437 ng/ml	97
17) Di-n-butylphthalate	9.03	149	8815	18.523 ng/mL	99
18) Fluoranthene	9.64	202	24315	65.089 ng/ml	100
19) Pyrene	9.87	202	26475	68.564 ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	8132	54.303 ng/mL	99
23) Benz(a)Anthracene	11.10	228	12608	43.986 ng/ml	90
24) Chrysene	11.14	228	32946	119.277 ng/ml	97
25) Bis(2-ethylhexyl)phthalate	11.13	149	9996	49.058 ng/mL	95
26) Di-n-octyl phthalate	12.10	149	286	72.106 ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	38996	166.974 ng/ml	98
29) Benzo(k)Fluoranthene	12.70	252	10656	42.114 ng/ml	96
30) Benzo(b+k)Fluoranthene	12.66	252	51526	208.780 ng/ml	98
31) Benzo (e) Pyrene	13.15	252	27835	117.479 ng/mL	99
32) Benzo(a)Pyrene	13.24	252	12476	57.383 ng/ml	98
33) Perylene	13.40	252	7224	30.612 ng/mL	80
35) Indeno(1,2,3-cd)Pyrene	15.54	276	24202	124.555 ng/ml	98
36) Dibenz(a,h)Anthracene	15.60	278	4242	22.882 ng/ml	86
37) Benzo(g,h,i)Perylene	16.12	276	48864	252.644 ng/ml	96

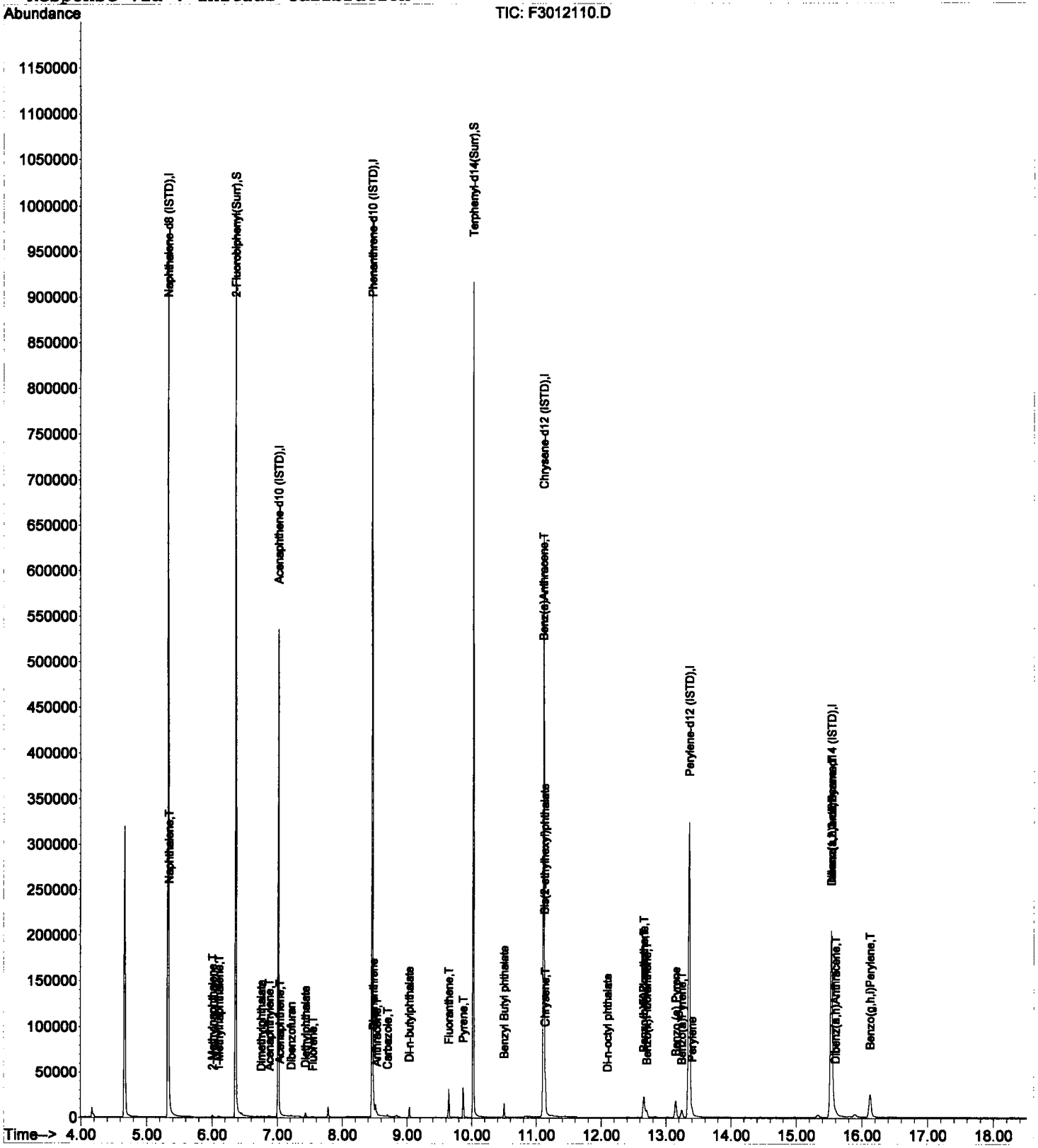
WT 1-22-13 1358

(#) = qualifier out of range (m) = manual integration
F3012110.D F21227.M Tue Jan 22 08:59:28 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012110.D Vial: 7
Acq On : 21 Jan 2013 5:49 pm Operator: bsj
Sample : 1301443-DUP1 Inst : SV-GCMS6
Misc : 1x Soil 12.08g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012111.D Vial: 8
Acq On : 21 Jan 2013 6:15 pm Operator: bsj
Sample : A13A243-02 Inst : SV-GCMS6
Misc : 1x Soil 10.41g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

NR MB contamination MK 1/23/13

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q28
Q-24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	960205	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	472904	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	764521	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	576892	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	463004	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	343429	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	624426	1840.428	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	630578	2705.623	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	1384	2.661	ng/ml#	80
3) 2-Methylnaphthalene	6.01	142	334	1.080	ng/ml	95
4) 1-Methylnaphthalene	6.10	142	214	0.749	ng/ml	84
7) Dimethylphthalate	6.75	163	226	0.735	ng/mL#	73
8) Acenaphthylene	6.87	152	337	0.770	ng/ml#	67
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	7.22	168	359	0.915	ng/mL#	41
11) Diethylphthalate	7.43	149	3563	11.304	ng/mL	81
12) Fluorene	7.55	166	260	0.869	ng/ml	90
14) Phenanthrene	8.48	178	1694	4.200	ng/mL	97
15) Anthracene	8.53	178	668	1.724	ng/ml#	61
16) Carbazole	8.69	167	671	2.123	ng/ml#	69
17) Di-n-butylphthalate	9.03	149	15474	32.017	ng/mL	100
18) Fluoranthene	9.64	202	3260	8.593	ng/ml	99
19) Pyrene	9.87	202	4440	(11.322)	ng/ml J	99
22) Benzyl Butyl phthalate	10.50	149	8324	55.699	ng/mL	100
23) Benz(a)Anthracene	11.10	228	2940	(10.278)	ng/ml J	96
24) Chrysene	11.13	228	1856	6.733	ng/ml	98
25) Bis(2-ethylhexyl)phthalate	11.13	149	14788	72.724	ng/mL	98
26) Di-n-octyl phthalate	12.09	149	232	71.935	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	3223	(14.163)	ng/ml Q28	99
29) Benzo(k)Fluoranthene	12.70	252	1057	4.287	ng/ml#	56
30) Benzo(b+k)Fluoranthene	12.66	252	4531	(18.842)	ng/ml Q24	98
31) Benzo (e) Pyrene	13.15	252	3307	14.325	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	1072	5.060	ng/ml	90
33) Perylene	13.40	252	1757	7.641	ng/mL	79
35) Indeno(1,2,3-cd)Pyrene	15.54	276	4183	22.108	ng/ml	81
36) Dibenz(a,h)Anthracene	15.59	278	548	3.036	ng/ml#	49
37) Benzo(g,h,i)Perylene	16.12	276	9774	51.898	ng/ml	95

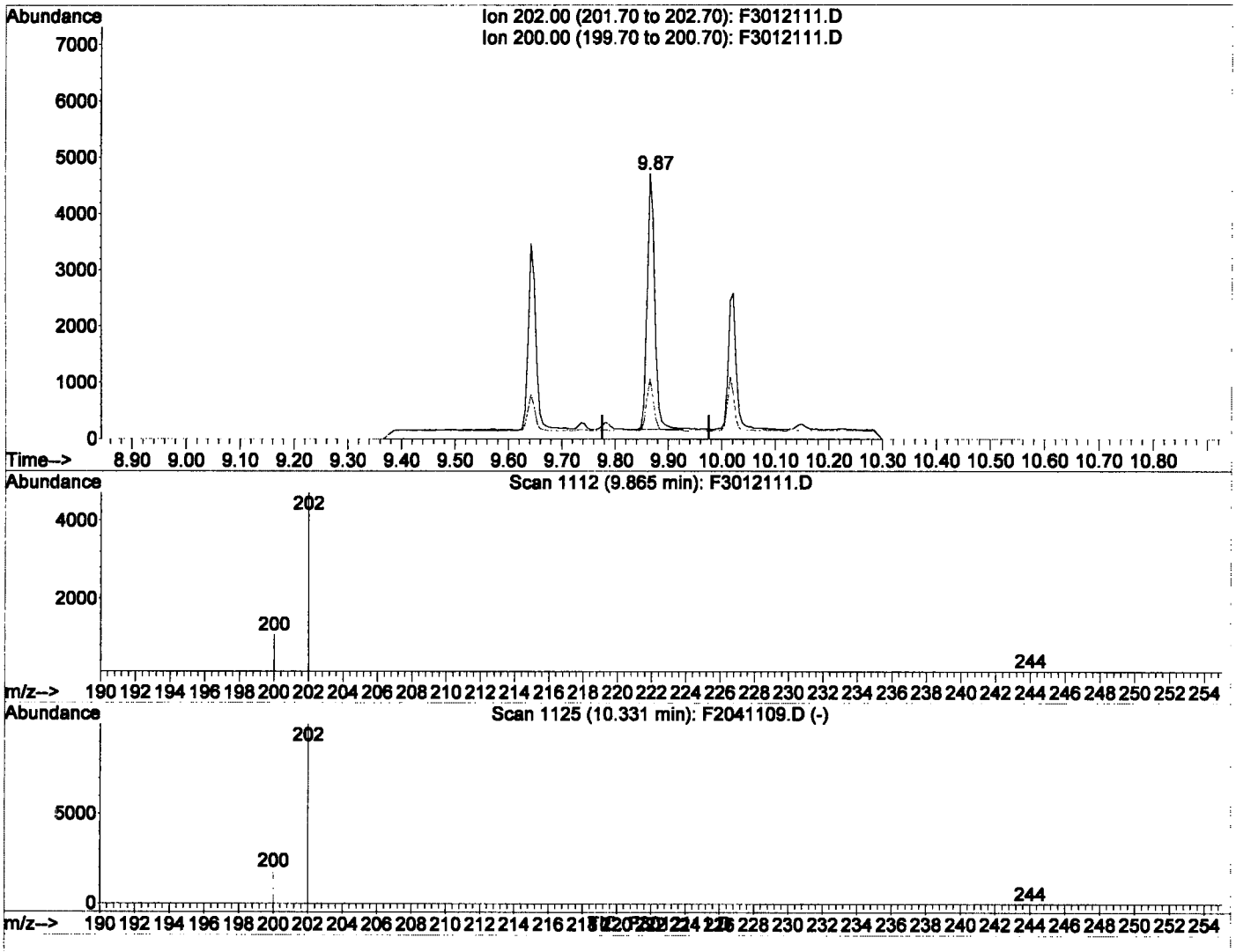
1-22-13

(#) = qualifier out of range (m) = manual integration
F3012111.D F21227.M Tue Jan 22 08:59:31 2013 VOAGCMS1 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012111.D Vial: 8
Acq On : 21 Jan 2013 6:15 pm Operator: bsj
Sample : A13A243-02 Inst : SV-GCMS6
Misc : 1x Soil 10.41g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(19) Pyrene (T)

9.87min 11.32ng/ml

response 4440

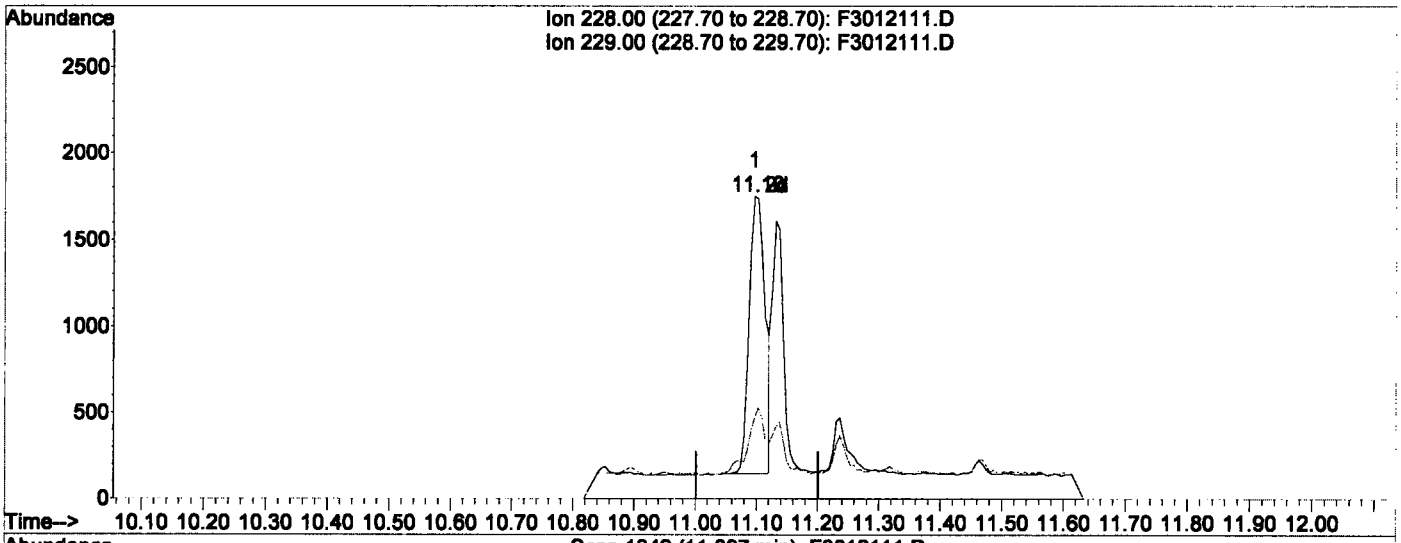
Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.10
0.00	0.00	0.00
0.00	0.00	0.00

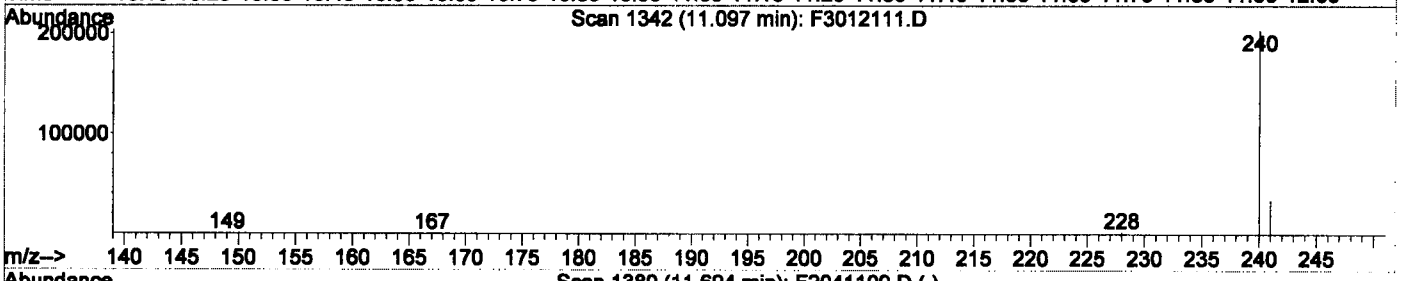
F3012111.D F21227.M Tue Jan 22 09:35:18 2013 VOAGCMS1

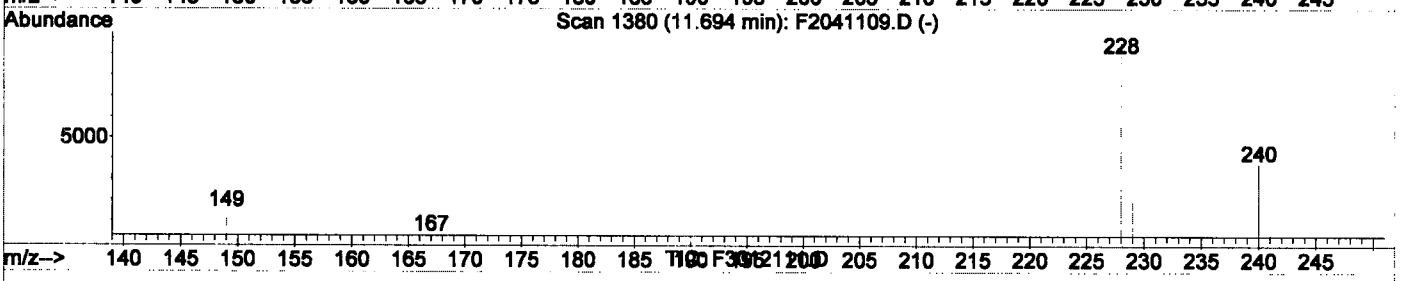
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012111.D Vial: 8
Acq On : 21 Jan 2013 6:15 pm Operator: bsj
Sample : A13A243-02 Inst : SV-GCMS6
Misc : 1x Soil 10.41g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(23) Benz(a)Anthracene (T)

11.10min 10.28ng/ml

response 2940

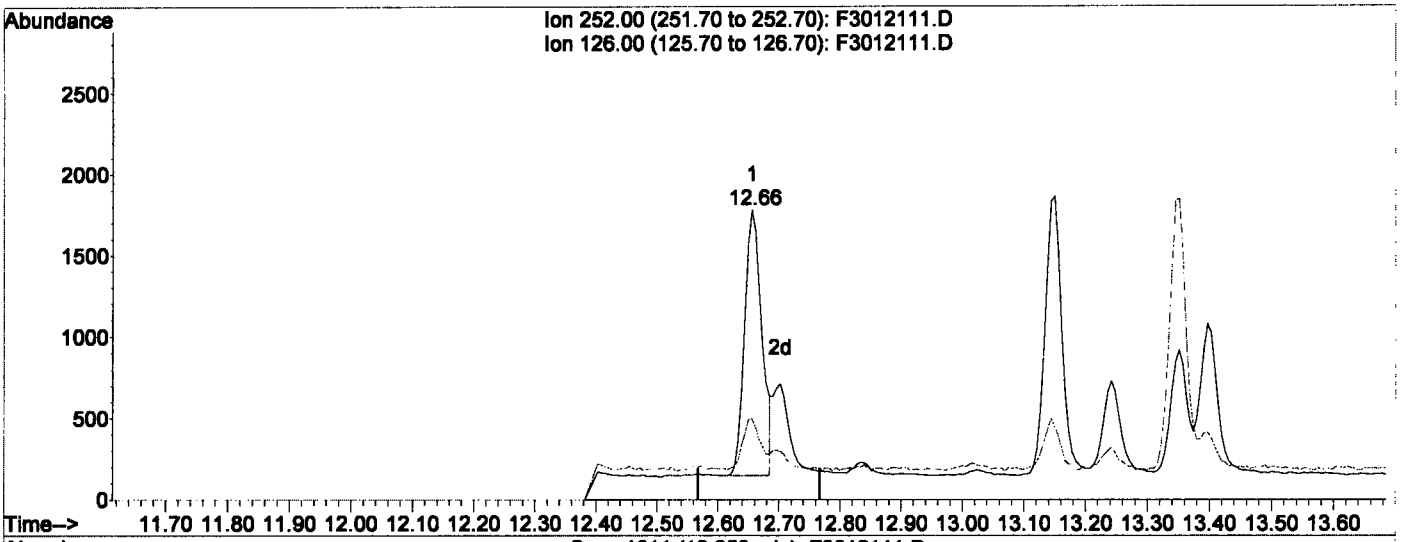
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	16.90
0.00	0.00	0.00
0.00	0.00	0.00

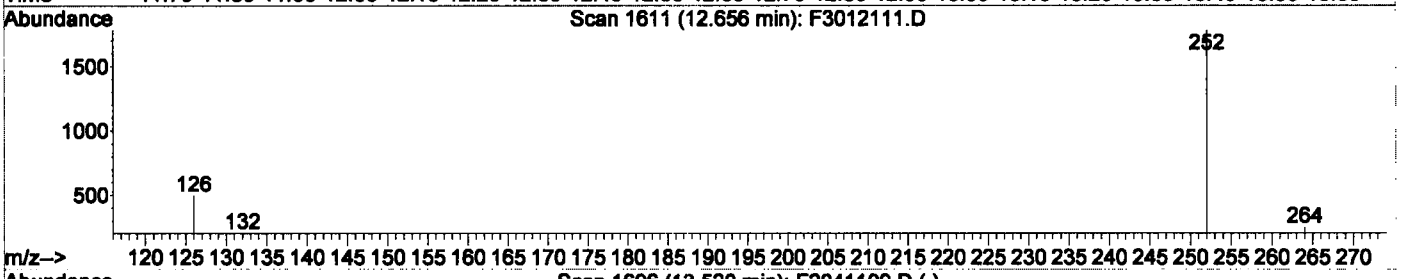
F3012111.D F21227.M Tue Jan 22 09:35:28 2013 VOAGCMS1

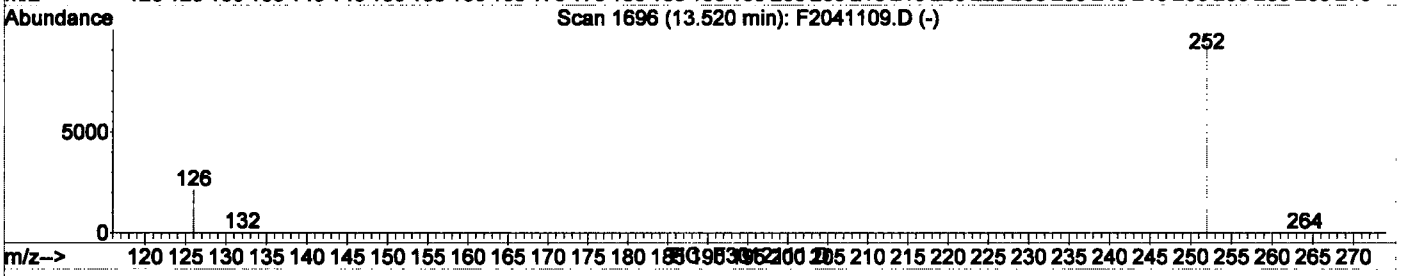
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012111.D Vial: 8
Acq On : 21 Jan 2013 6:15 pm Operator: bsj
Sample : A13A243-02 Inst : SV-GCMS6
Misc : 1x Soil 10.41g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.66min 14.16ng/ml

response 3223

Q 28

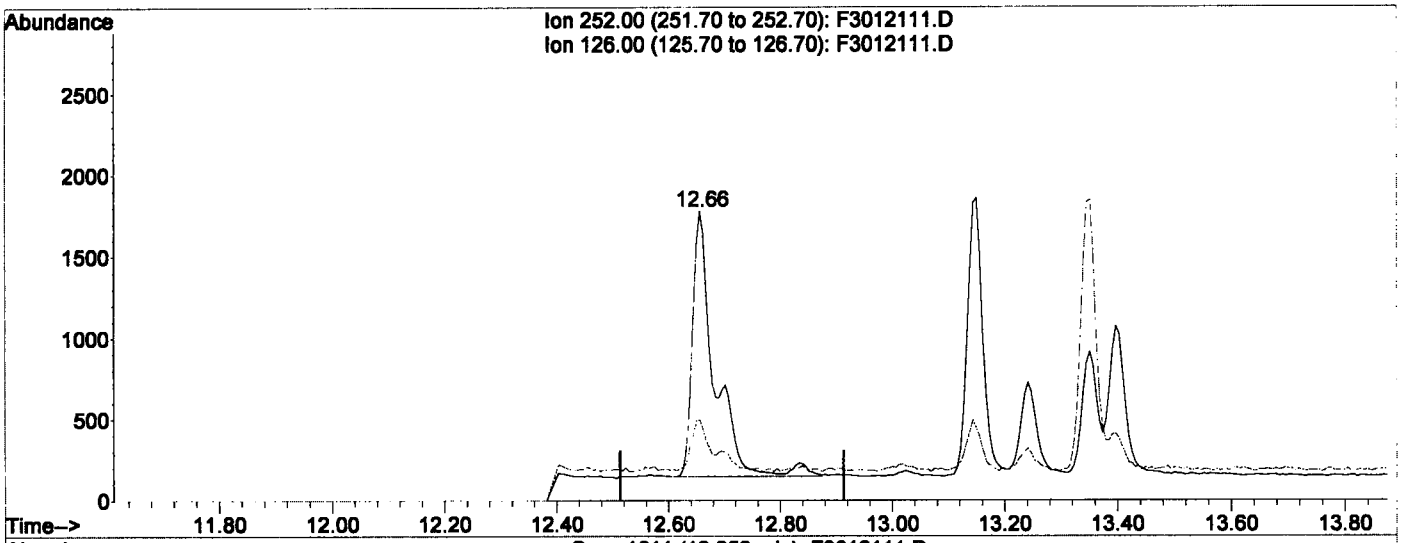
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	19.73
0.00	0.00	0.00
0.00	0.00	0.00

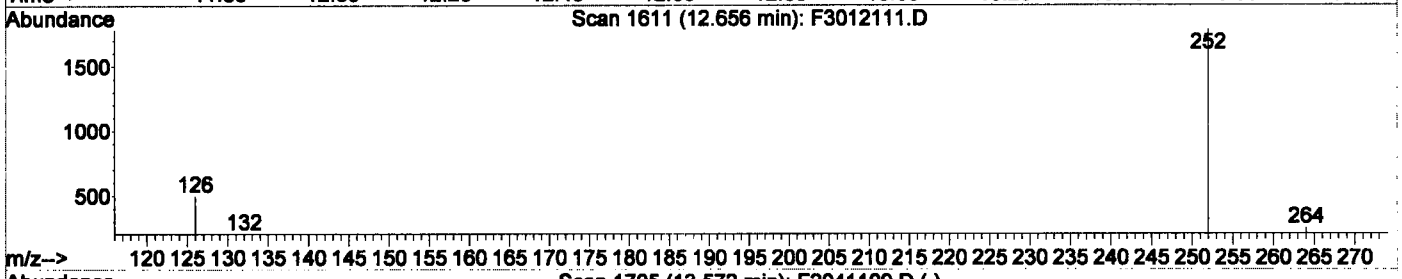
F3012111.D F21227.M Tue Jan 22 09:35:40 2013 VOAGCMS1

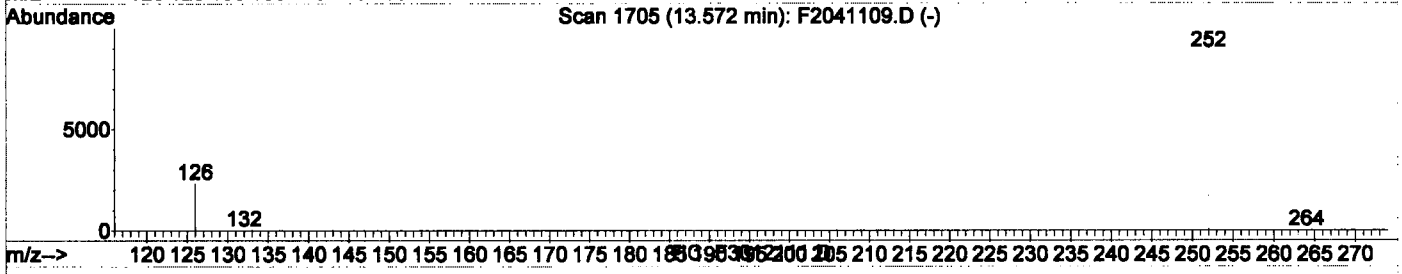
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012111.D Vial: 8
Acq On : 21 Jan 2013 6:15 pm Operator: bsj
Sample : A13A243-02 Inst : SV-GCMS6
Misc : 1x Soil 10.41g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.66min 18.84ng/ml

response 4531

Q-24

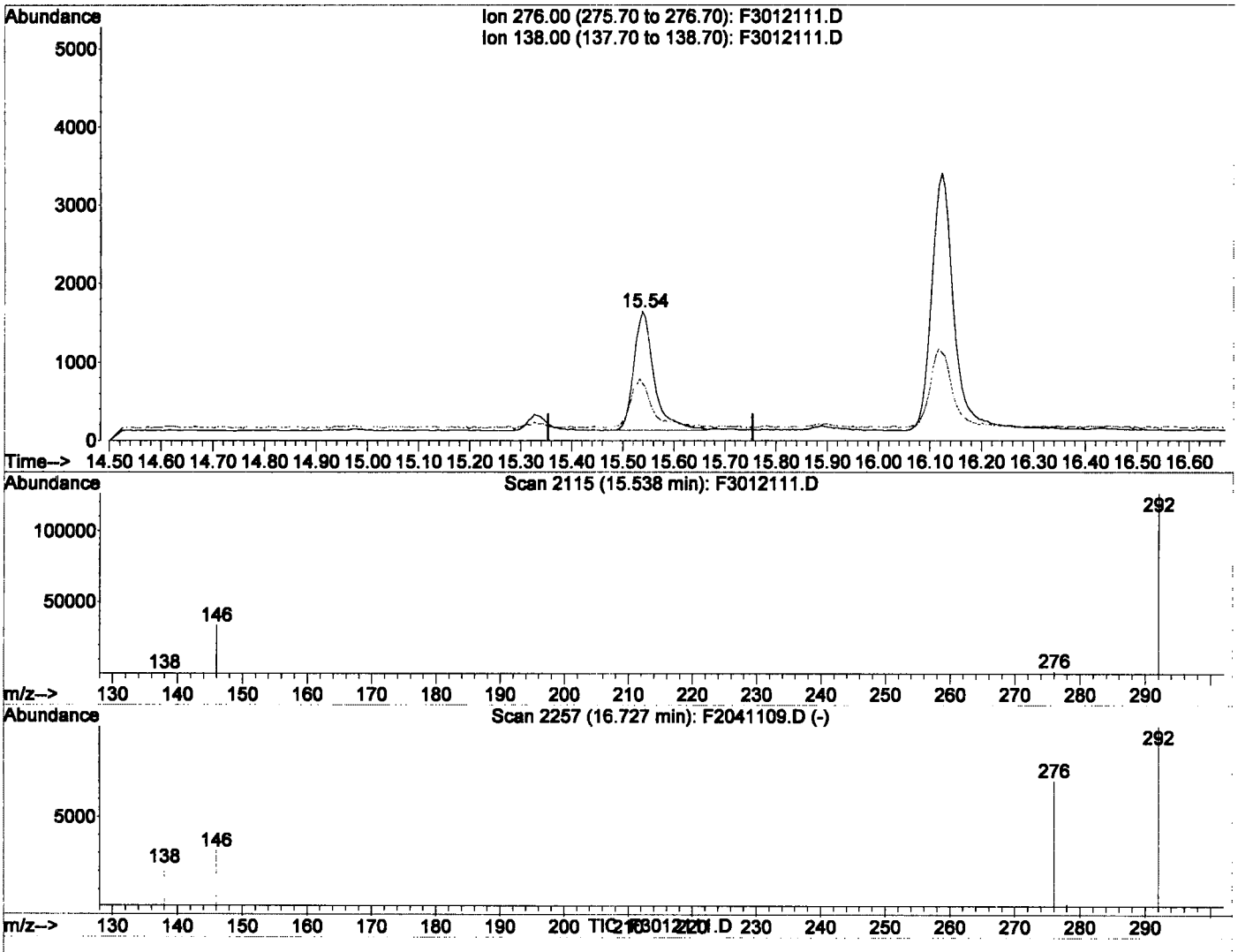
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.80
0.00	0.00	0.00
0.00	0.00	0.00

F3012111.D F21227.M Tue Jan 22 09:35:50 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012111.D Vial: 8
Acq On : 21 Jan 2013 6:15 pm Operator: bsj
Sample : A13A243-02 Inst : SV-GCMS6
Misc : 1x Soil 10.41g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.54min 22.11ng/ml

response 4183

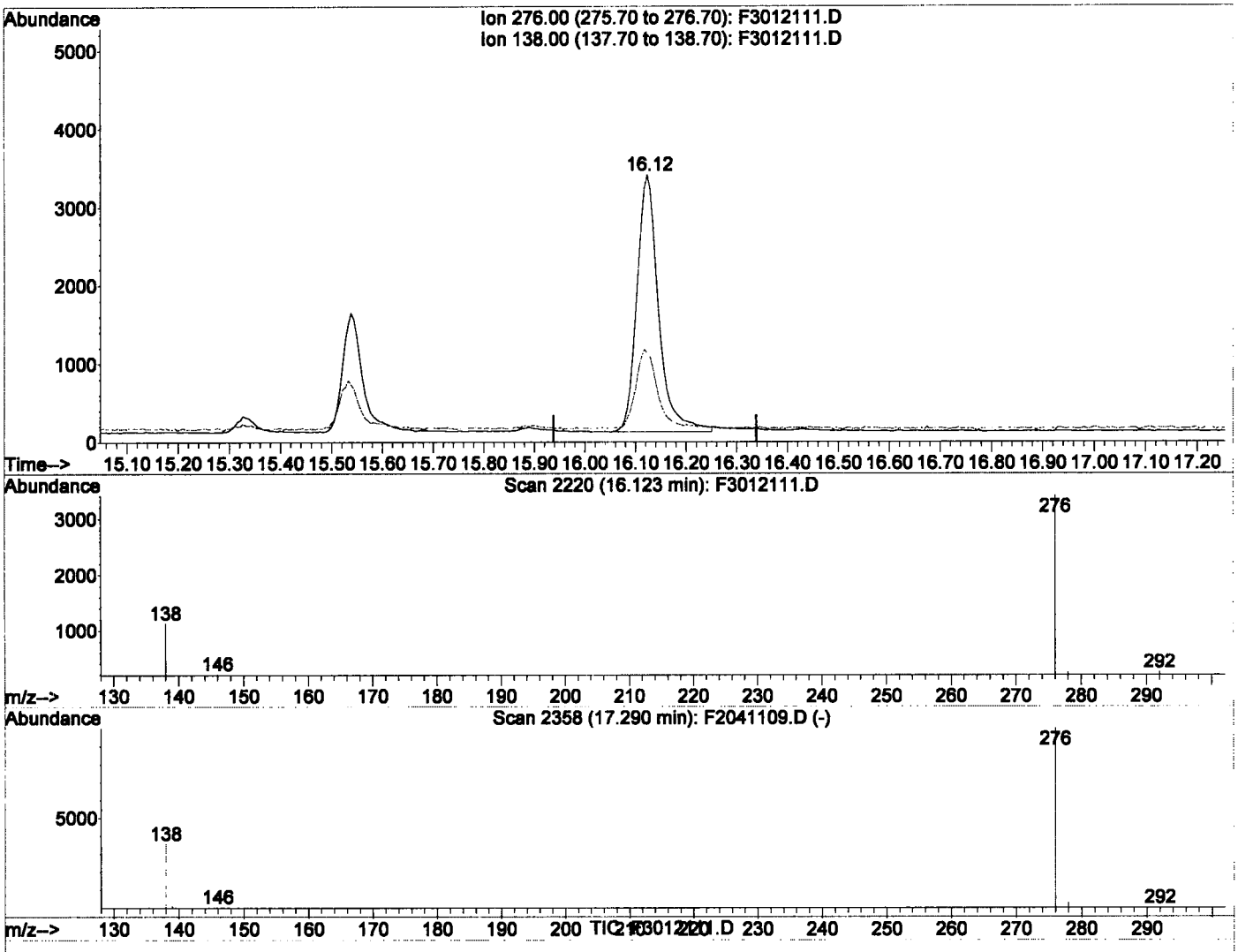
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	42.34
0.00	0.00	0.00
0.00	0.00	0.00

F3012111.D F21227.M Tue Jan 22 09:36:02 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012111.D Vial: 8
Acq On : 21 Jan 2013 6:15 pm Operator: bsj
Sample : A13A243-02 Inst : SV-GCMS6
Misc : 1x Soil 10.41g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.12min 51.90ng/ml

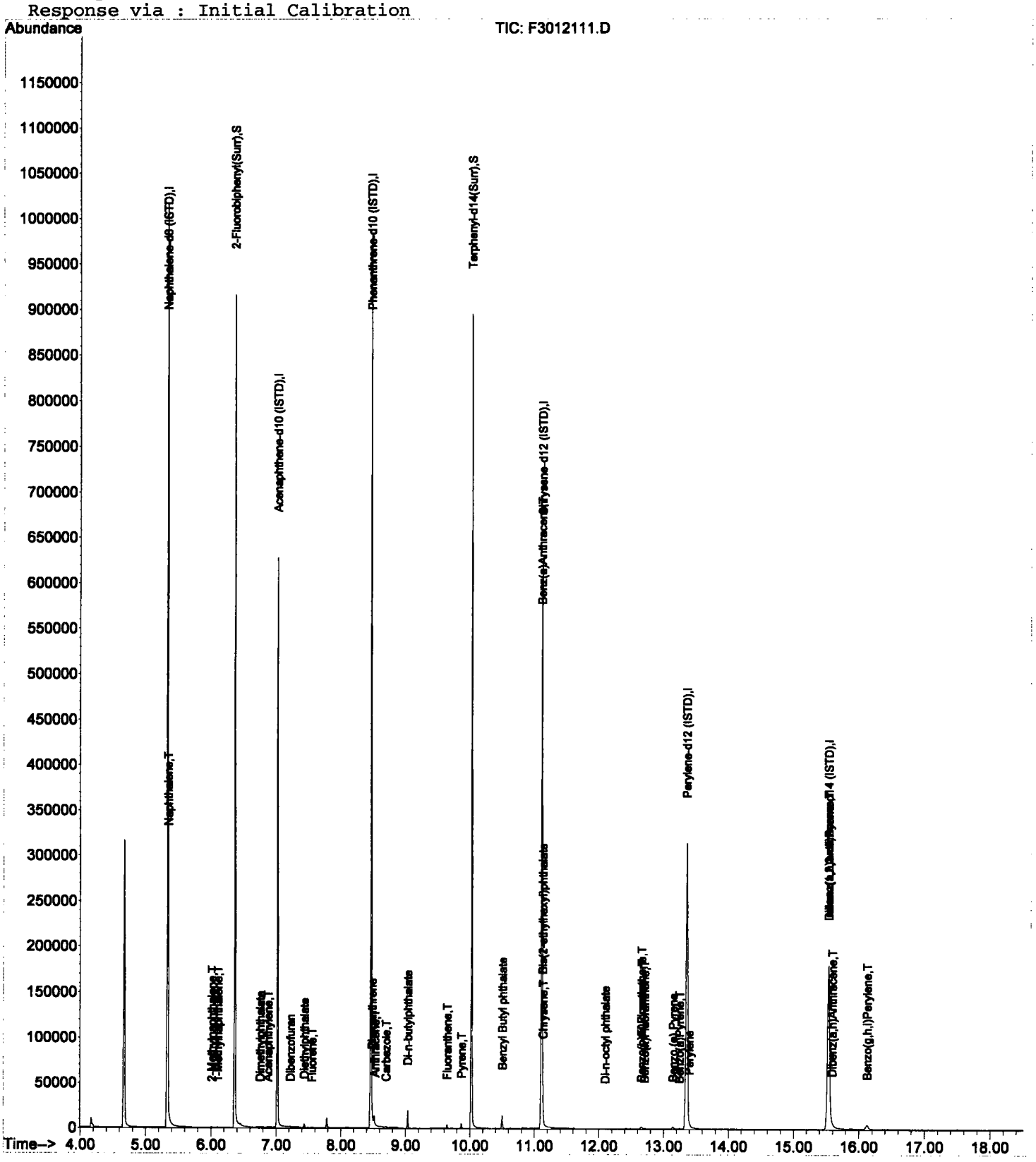
response 9774

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	29.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012111.D Vial: 8
Acq On : 21 Jan 2013 6:15 pm Operator: bsj
Sample : A13A243-02 Inst : SV-GCMS6
Misc : 1x Soil 10.41g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:40 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

RR-2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	886442	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	422534	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	677357	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	641065	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	587817	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.55	292	491600	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	125861	415.184	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	129471	499.912	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	4955	10.318	ng/ml	97
3) 2-Methylnaphthalene	6.01	142	1773	6.210	ng/ml	99
4) 1-Methylnaphthalene	6.10	142	1001	3.795	ng/ml	100
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.87	152	1179	3.013	ng/ml#	67
9) Acenaphthene	7.04	153	3848	(15.518)	ng/ml J	99
10) Dibenzofuran	7.22	168	5677	(16.191)	ng/mL	93
11) Diethylphthalate	7.43	149	2402	8.529	ng/mL	82
12) Fluorene	7.55	166	2669	9.988	ng/ml	95
14) Phenanthrene	8.48	178	140570	393.328	ng/mL	100
15) Anthracene	8.53	178	23344	68.007	ng/ml	99
16) Carbazole	8.69	167	22412	80.040	ng/ml	99
17) Di-n-butylphthalate	9.03	149	5240	12.237	ng/mL#	89
18) Fluoranthene	9.64	202	1021431	3038.832	ng/ml	99
19) Pyrene	9.86	202	1187990	3419.331	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	1499	9.026	ng/mL	99
23) Benz(a)Anthracene	11.10	228	1091339	3433.256	ng/ml	98
24) Chrysene	11.14	228	2505819	8180.512	ng/ml RR-2	95
25) Bis(2-ethylhexyl)phthalate	11.13	149	18656	82.562	ng/mL	79
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	12.67	252	5001513	17312.027	ng/ml	98
29) Benzo(k)Fluoranthene	12.71	252	1181644	3775.216	ng/ml RR-2	94
30) Benzo(b+k)Fluoranthene	12.67	252	6200911m	20311.190	ng/ml	
31) Benzo (e) Pyrene	13.16	252	3191778	10889.837	ng/mL	99
32) Benzo(a)Pyrene	13.25	252	1888432	7021.515	ng/ml	99
33) Perylene	13.40	252	430452	1474.556	ng/mL	98
35) Indeno(1,2,3-cd)Pyrene	15.56	276	1894137	6993.667	ng/ml	100
36) Dibenz(a,h)Anthracene	15.60	278	570434	2207.601	ng/ml	93
37) Benzo(g,h,i)Perylene	16.16	276	2648845	9825.639	ng/ml RR-2	97

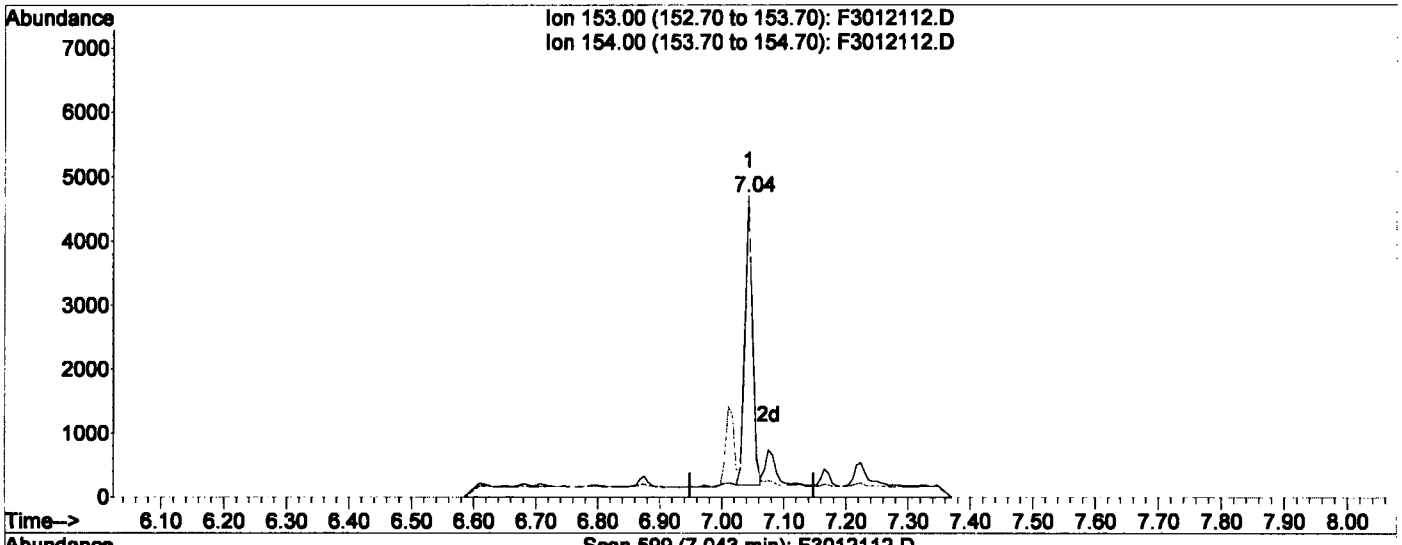
1-22-13
BSS

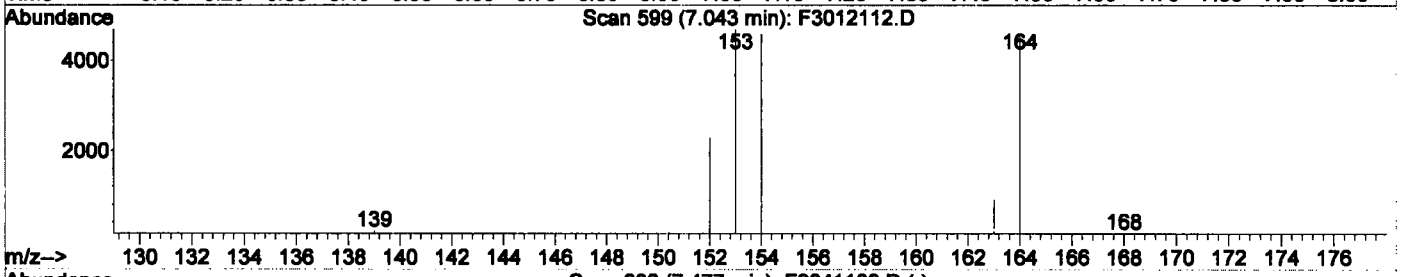
(#) = qualifier out of range (m) = manual integration
F3012112.D F21227.M Tue Jan 22 09:41:17 2013 VOAGCMS1

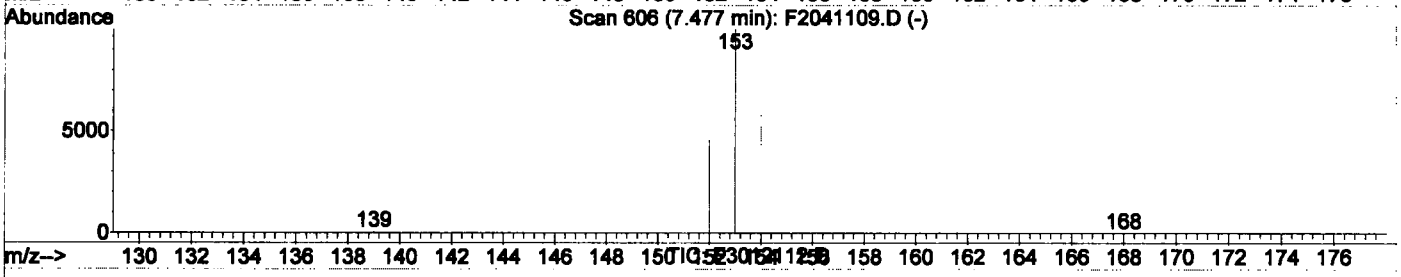
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(9) Acenaphthene (T)

7.04min 15.52ng/ml

response 3848

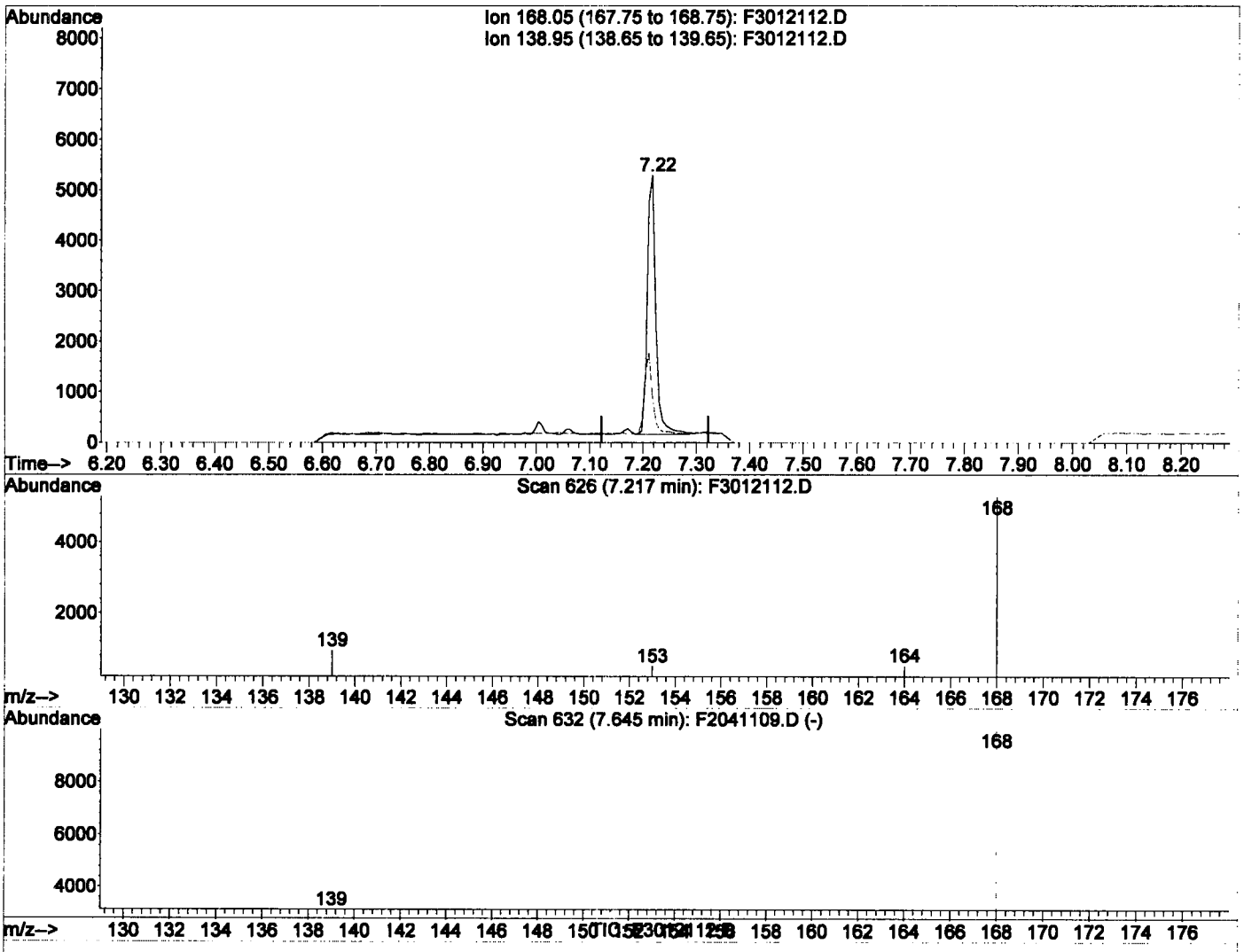
Ion	Exp%	Act%
153.00	100	100
154.00	93.50	94.36
0.00	0.00	0.00
0.00	0.00	0.00

F3012112.D F21227.M Tue Jan 22 09:37:54 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(10) Dibenzofuran

7.22min 16.19ng/mL

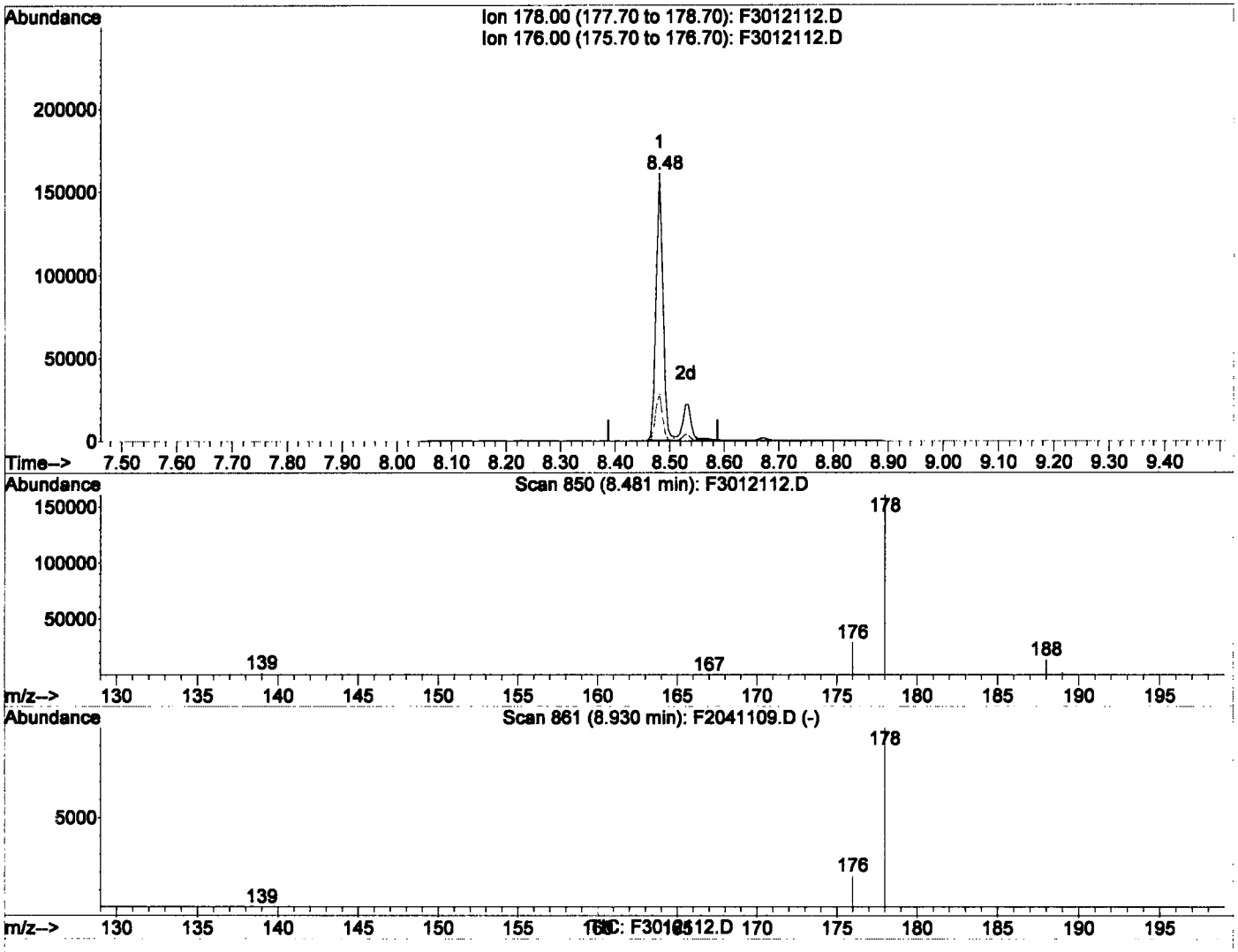
response 5677

Ion	Exp%	Act%
168.05	100	100
138.95	33.60	29.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(14) Phenanthrene

8.48min 393.33ng/mL

response 140570

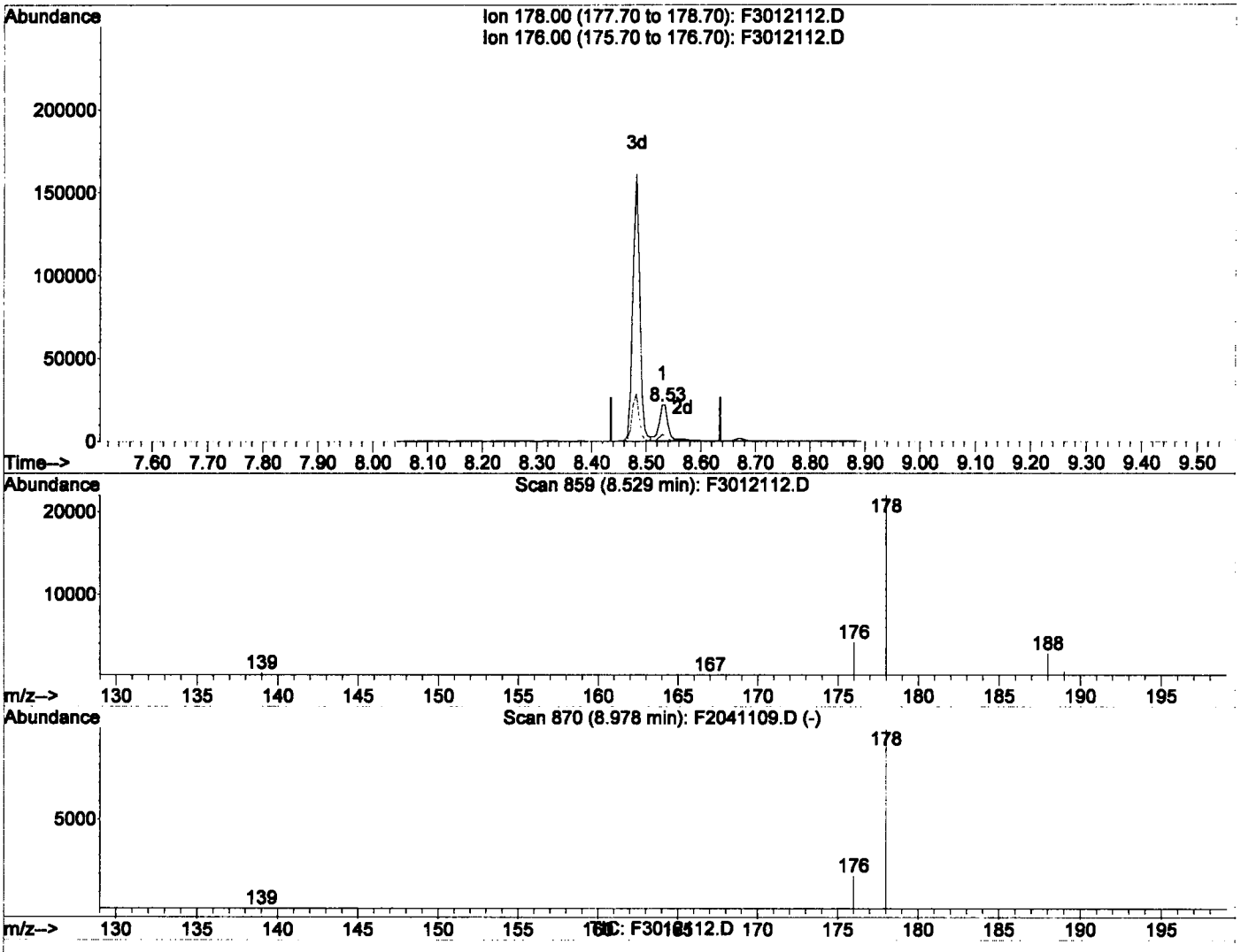
Ion	Exp%	Act%
178.00	100	100
176.00	18.10	18.11
0.00	0.00	0.00
0.00	0.00	0.00

F3012112.D F21227.M Tue Jan 22 09:38:05 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(15) Anthracene (T)

8.53min 68.01ng/ml

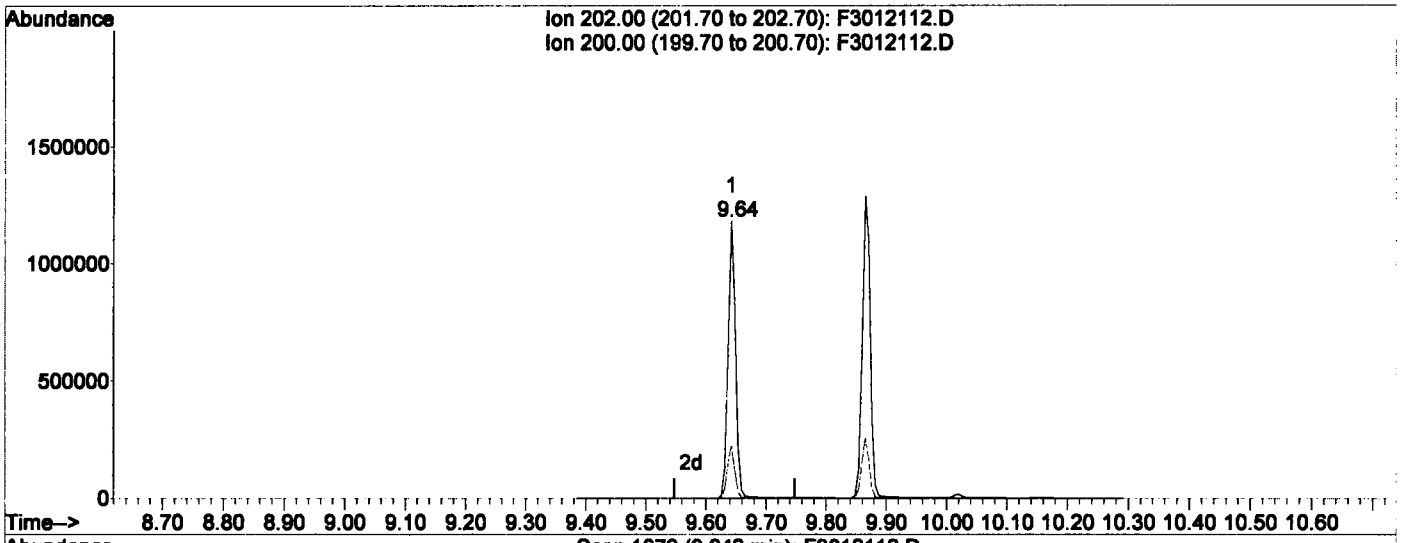
response 23344

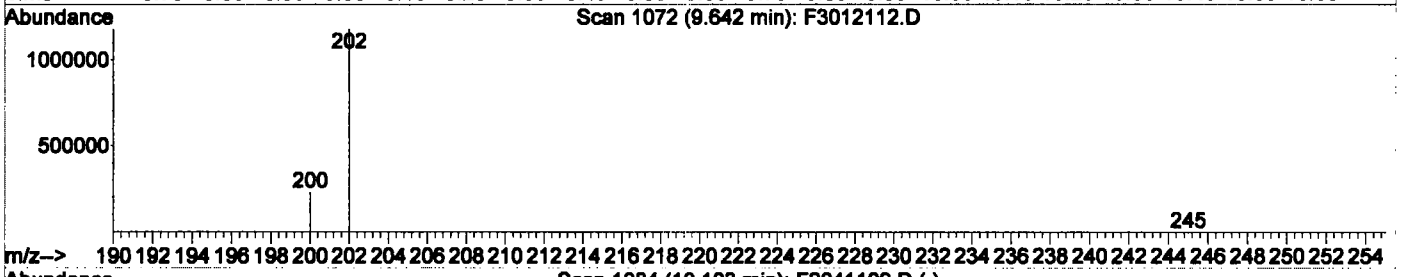
Ion	Exp%	Act%
178.00	100	100
176.00	16.60	17.19
0.00	0.00	0.00
0.00	0.00	0.00

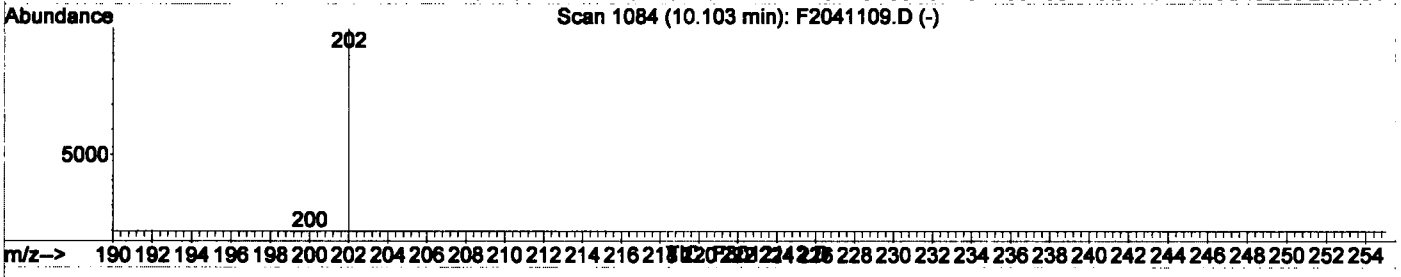
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(18) Fluoranthene (T)

9.64min 3038.83ng/ml

response 1021431

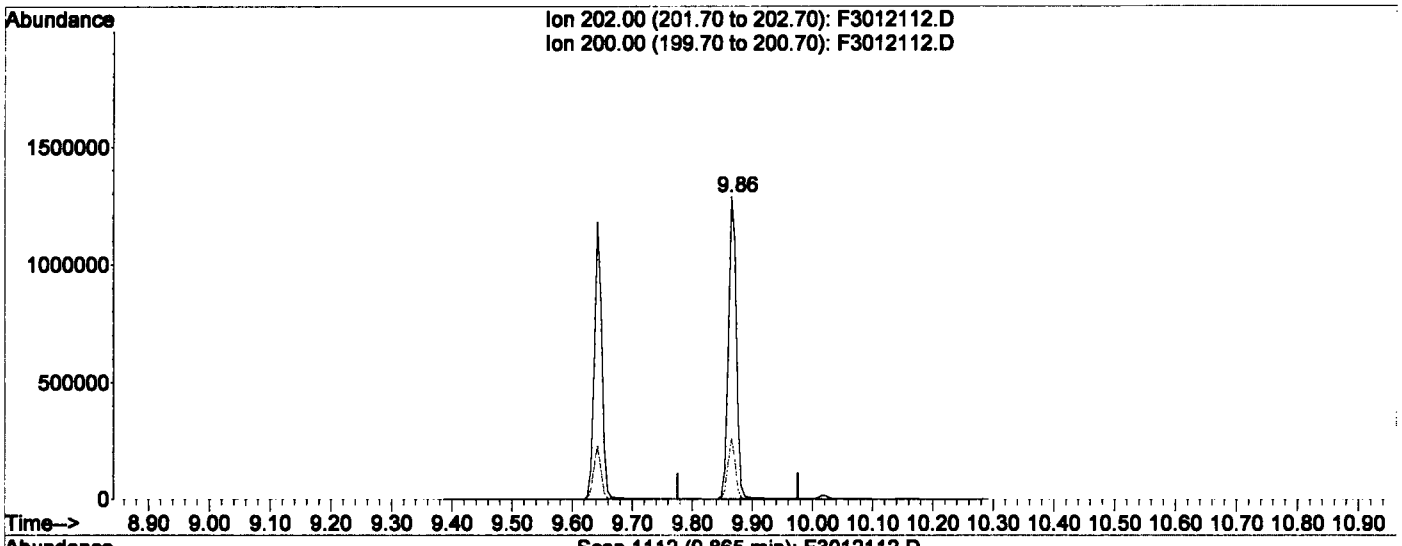
Ion	Exp%	Act%
202.00	100	100
200.00	18.60	19.08
0.00	0.00	0.00
0.00	0.00	0.00

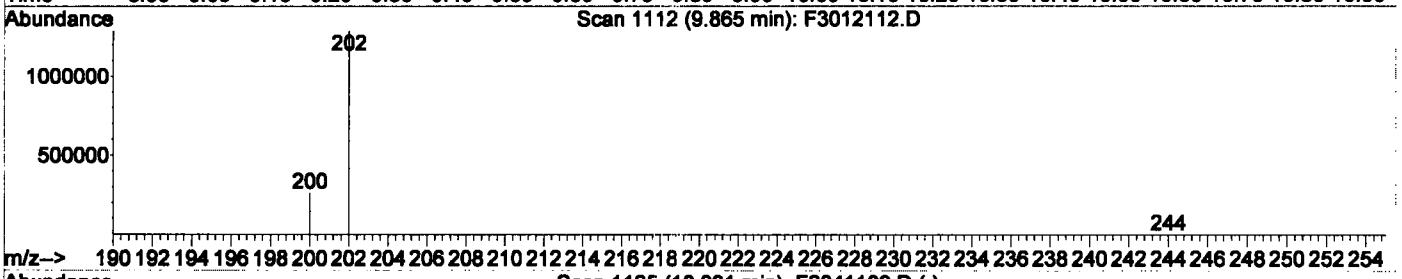
F3012112.D F21227.M Tue Jan 22 09:38:18 2013 VOAGCMS1

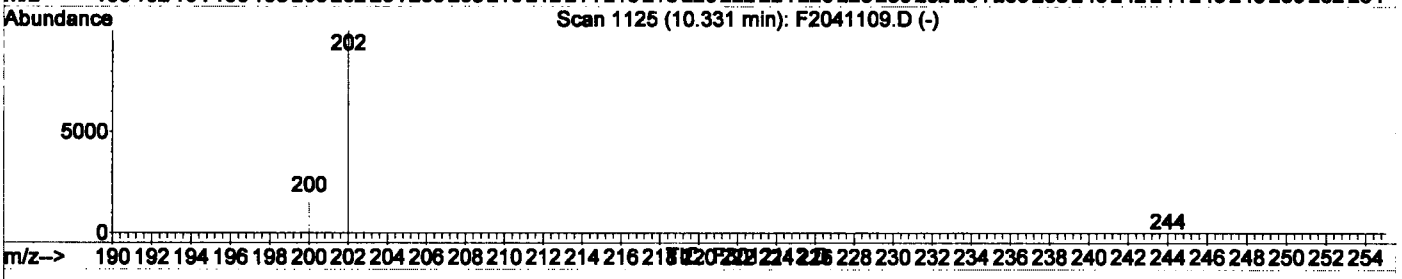
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(19) Pyrene (T)

9.86min 3419.33ng/ml

response 1187990

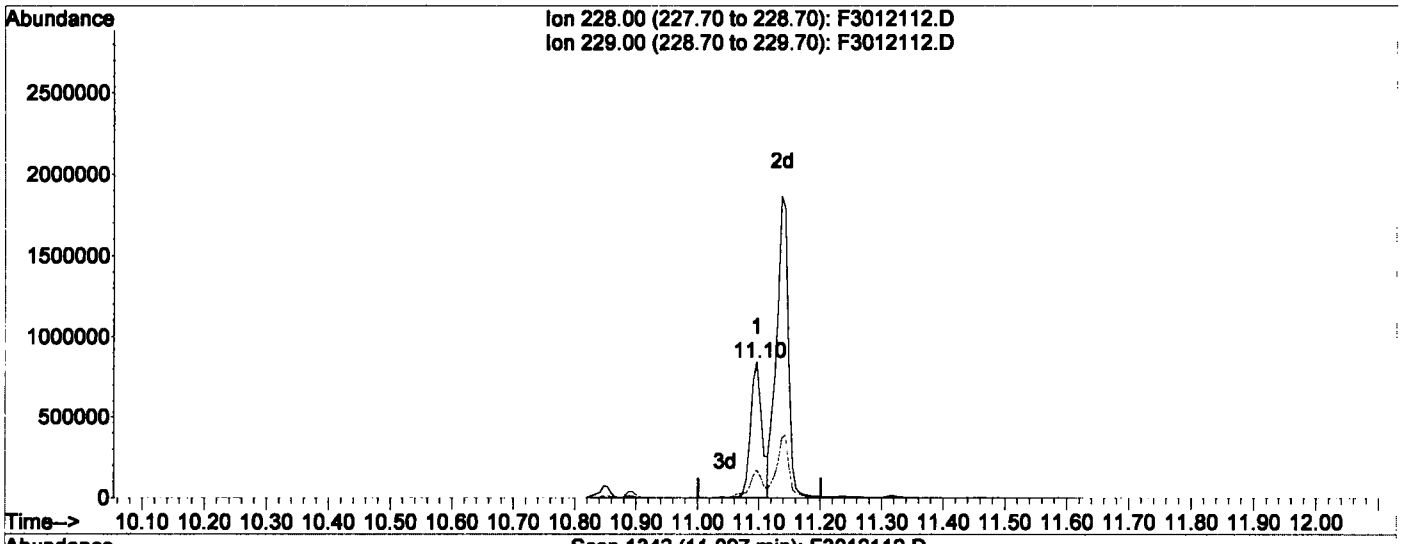
Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.17
0.00	0.00	0.00
0.00	0.00	0.00

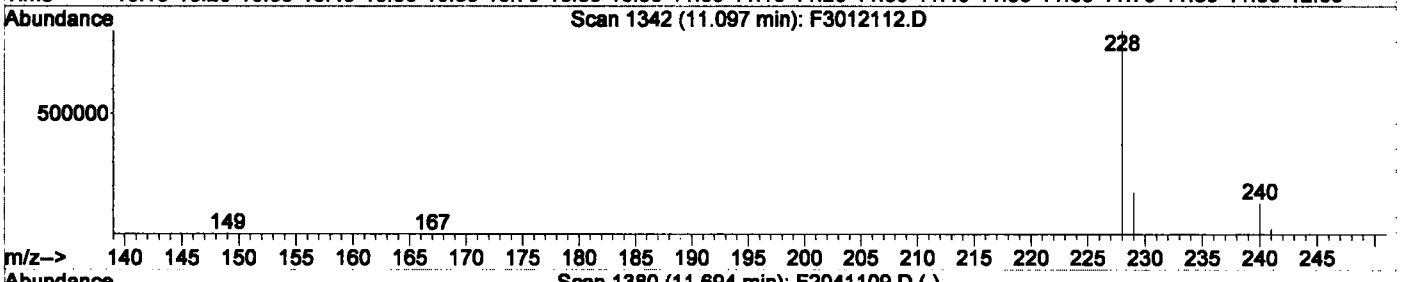
F3012112.D F21227.M Tue Jan 22 09:38:23 2013 VOAGCMS1

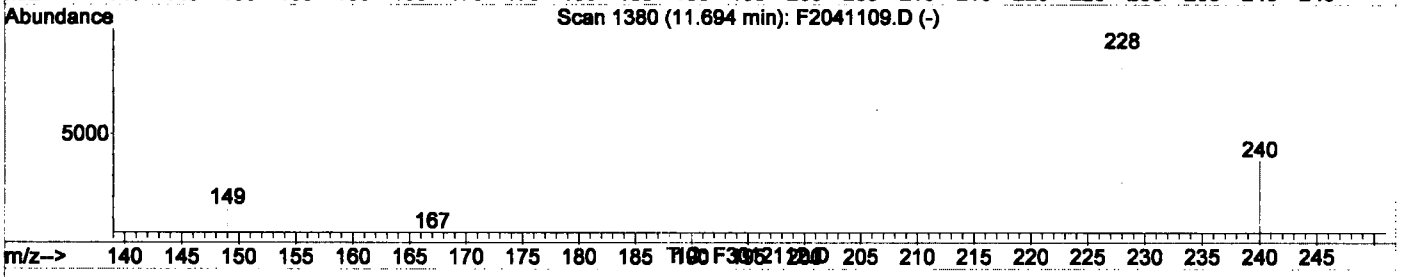
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(23) Benz(a)Anthracene (T)

11.10min 3433.26ng/ml

response 1091339

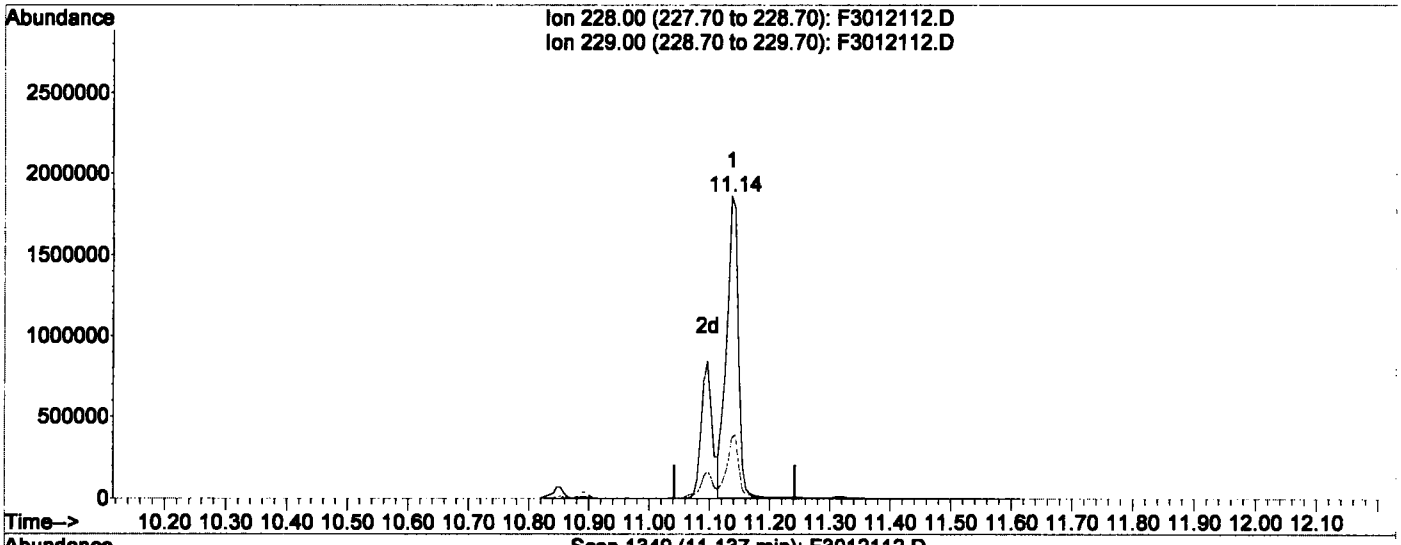
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	19.63
0.00	0.00	0.00
0.00	0.00	0.00

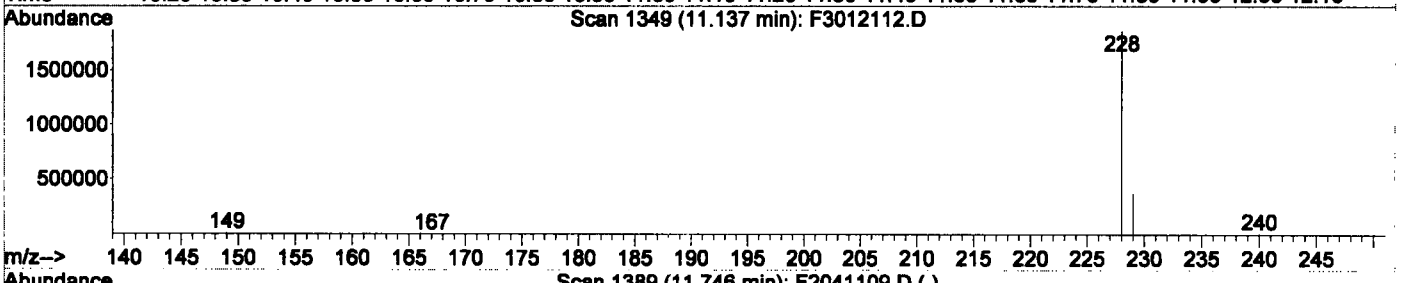
F3012112.D F21227.M Tue Jan 22 09:38:33 2013 VOAGCMS1

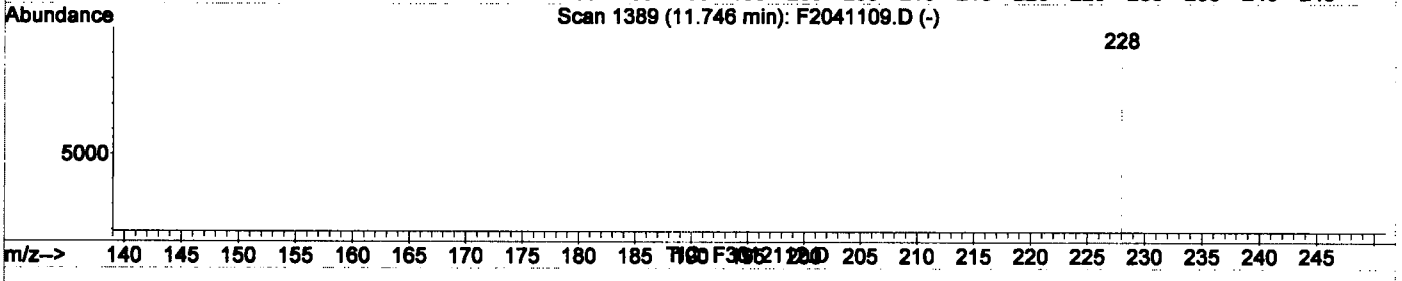
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(24) Chrysene (T)

11.14min 8180.51ng/ml

response 2505819

RRL-2

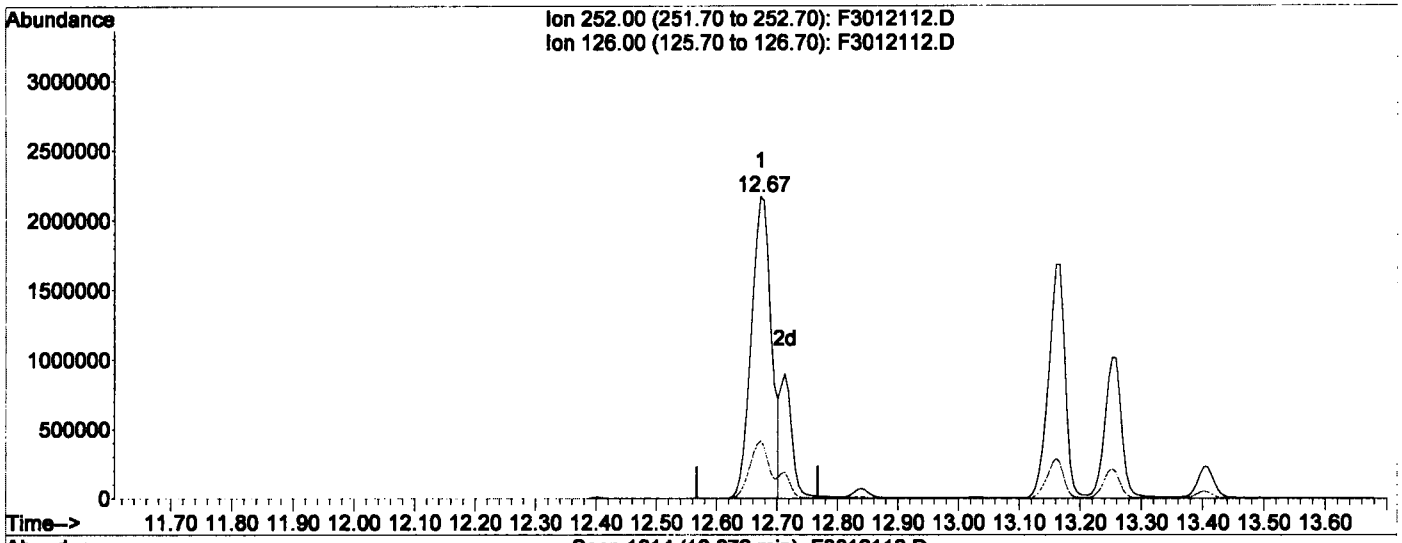
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	21.31
0.00	0.00	0.00
0.00	0.00	0.00

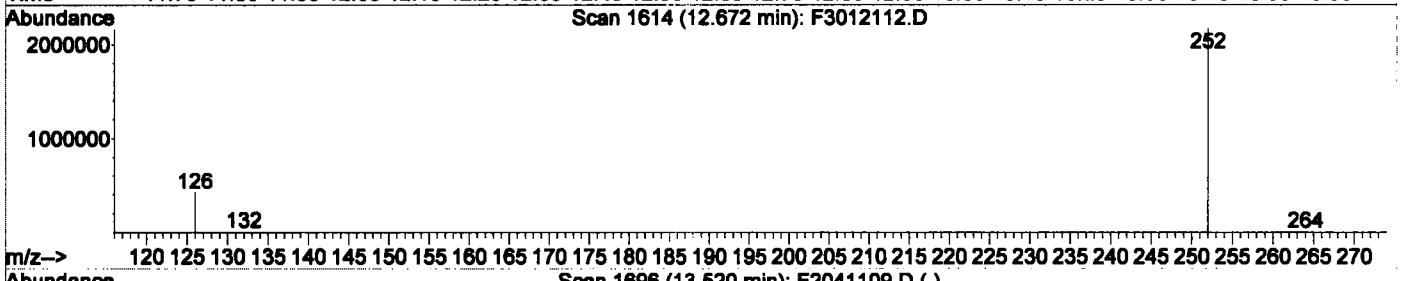
F3012112.D F21227.M Tue Jan 22 09:38:38 2013 VOAGCMS1

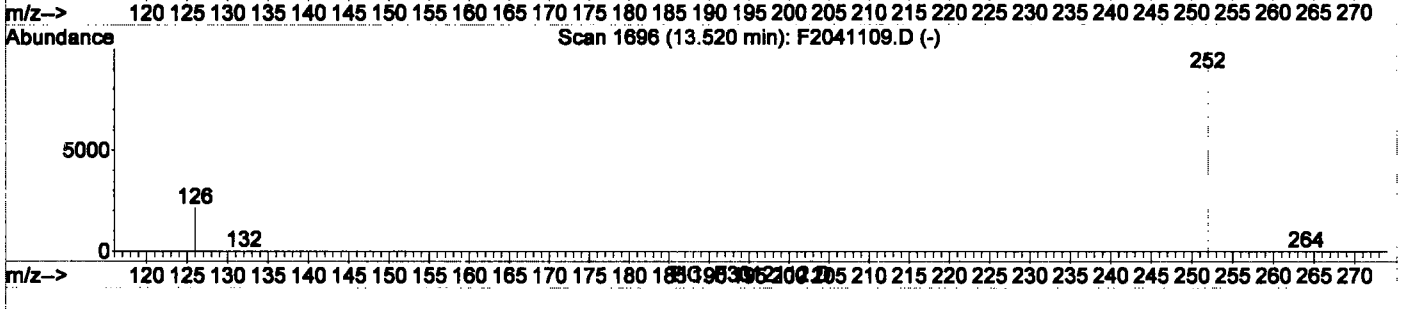
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.67min 17312.03ng/ml

response 5001513

RR. 2

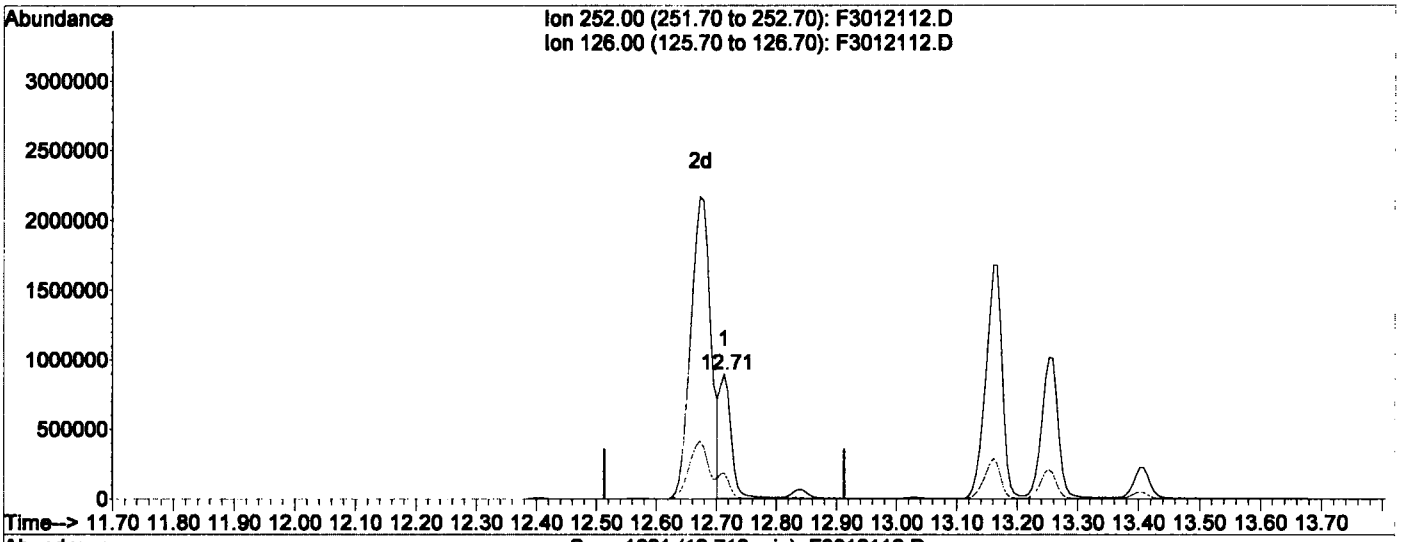
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	18.35
0.00	0.00	0.00
0.00	0.00	0.00

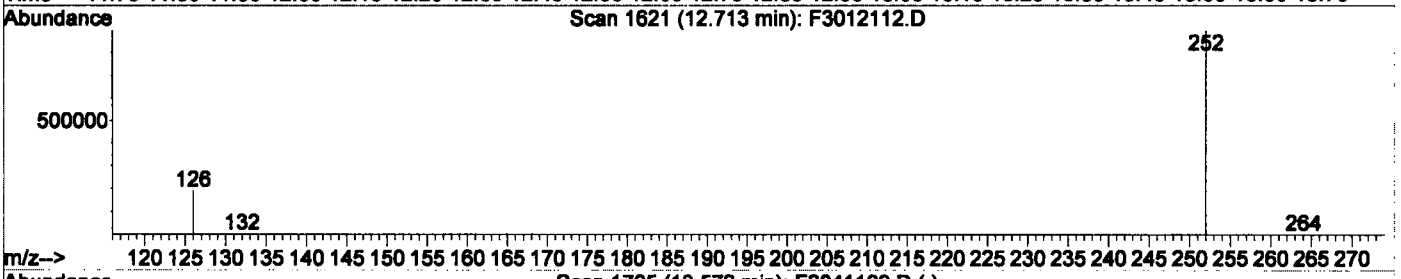
F3012112.D F21227.M Tue Jan 22 09:39:51 2013 VOAGCMS1

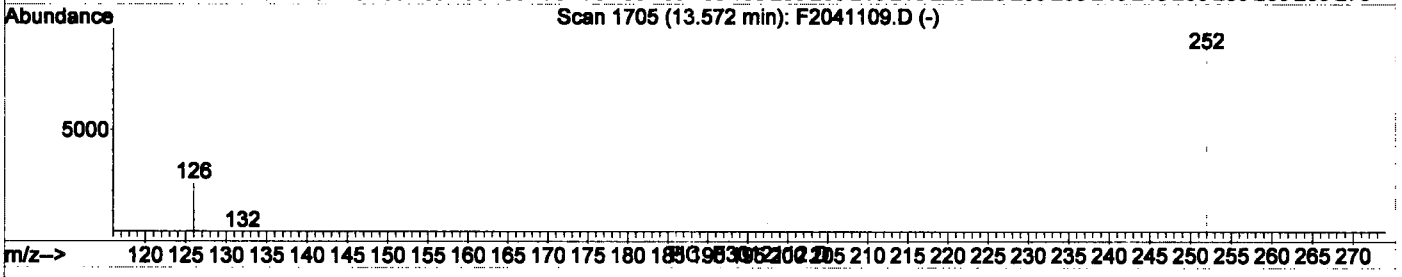
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.71min 3775.22ng/ml

response 1181644

RR-2

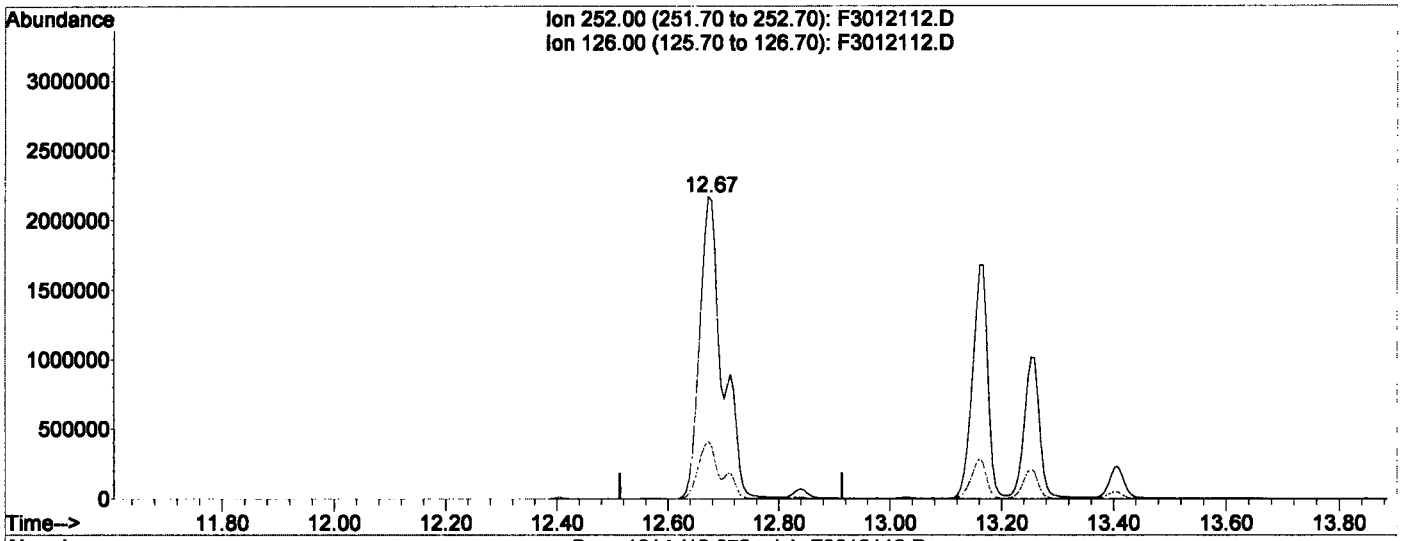
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	23.46
0.00	0.00	0.00
0.00	0.00	0.00

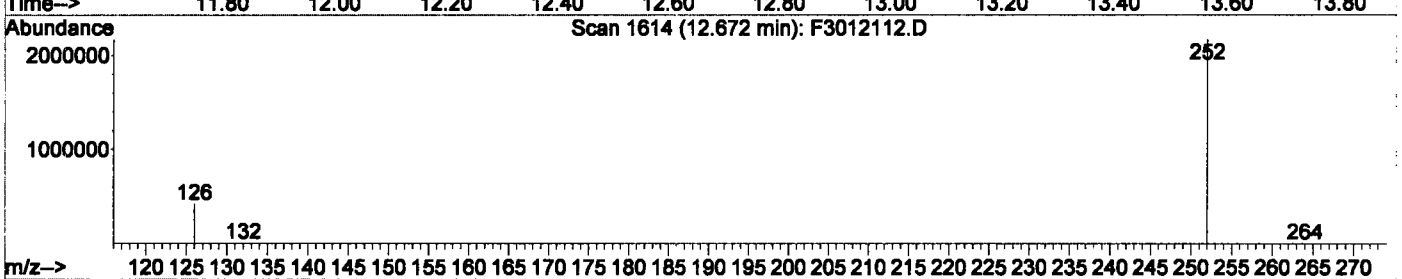
F3012112.D F21227.M Tue Jan 22 09:39:55 2013 VOAGCMS1

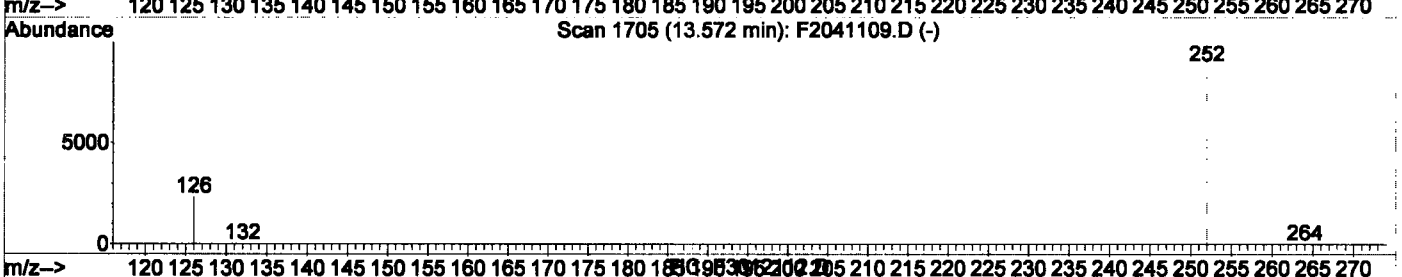
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:40 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.67min 20311.19ng/ml m

response 6200911

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.69
0.00	0.00	0.00
0.00	0.00	0.00

RK-2
1-22-13 BSO

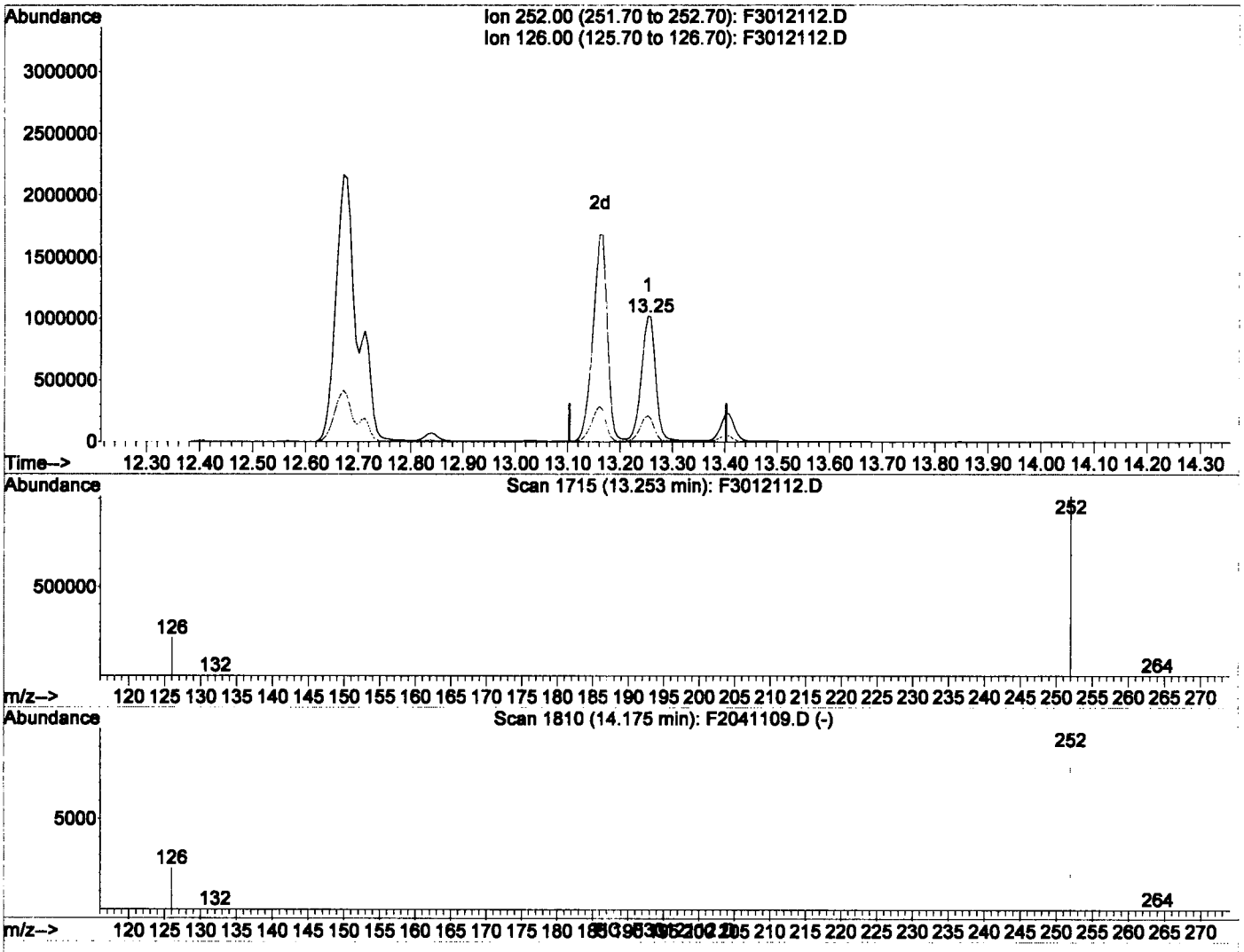
1/23/13 MKP

F3012112.D F21227.M Tue Jan 22 09:40:19 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:40 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(32) Benzo(a)Pyrene (T)

13.25min 7021.52ng/ml

response 1888432

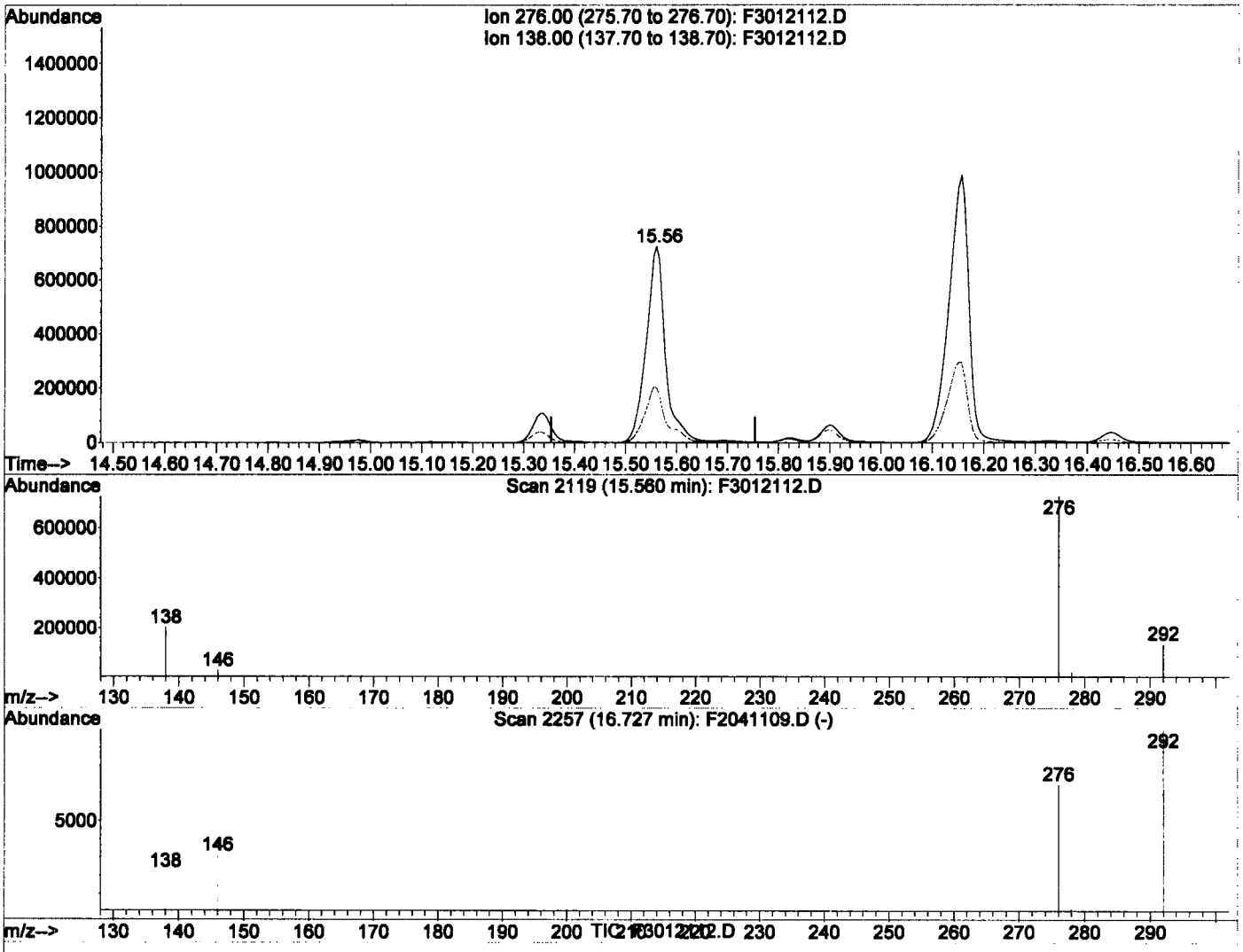
Ion	Exp%	Act%
252.00	100	100
126.00	20.10	20.38
0.00	0.00	0.00
0.00	0.00	0.00

F3012112.D F21227.M Tue Jan 22 09:40:26 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:40 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.56min 6993.67ng/ml

response 1894137

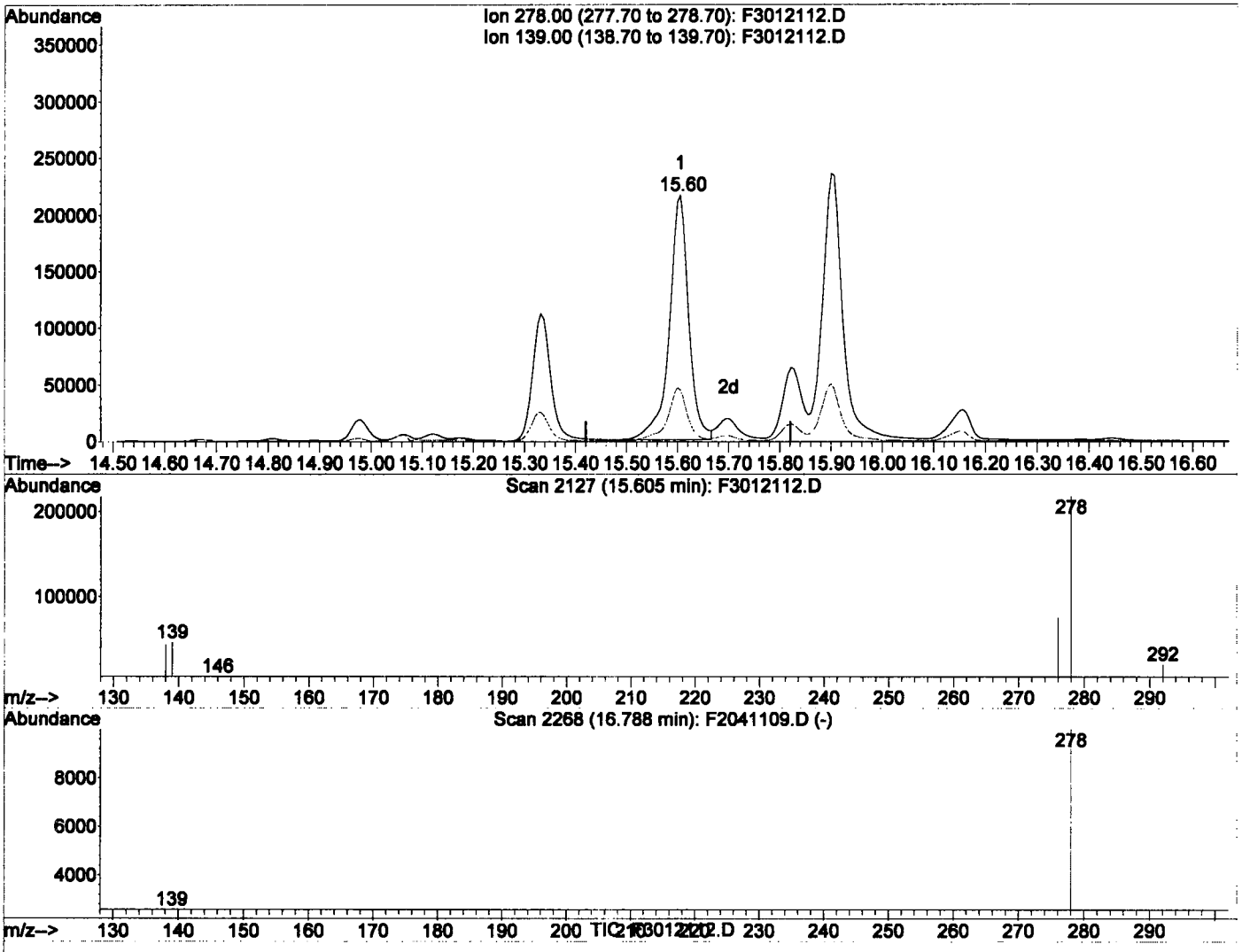
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	31.68
0.00	0.00	0.00
0.00	0.00	0.00

F3012112.D F21227.M Tue Jan 22 09:40:51 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:40 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(36) Dibenz(a,h)Anthracene (T)

15.60min 2207.60ng/ml

response 570434

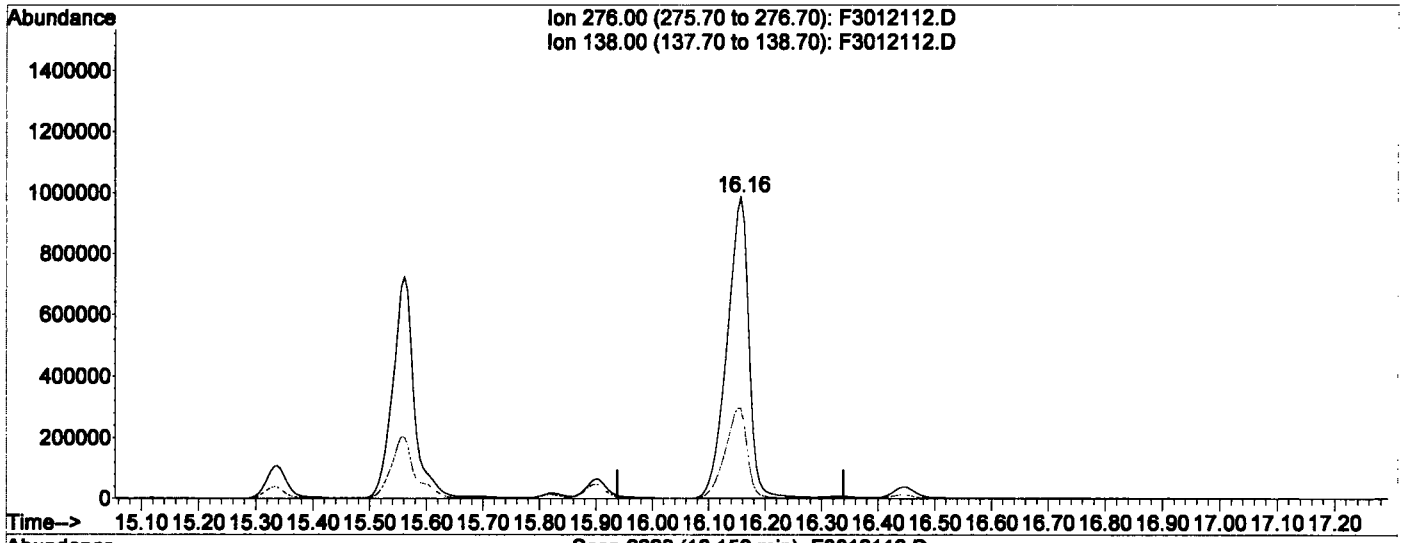
Ion	Exp%	Act%
278.00	100	100
139.00	25.90	22.33
0.00	0.00	0.00
0.00	0.00	0.00

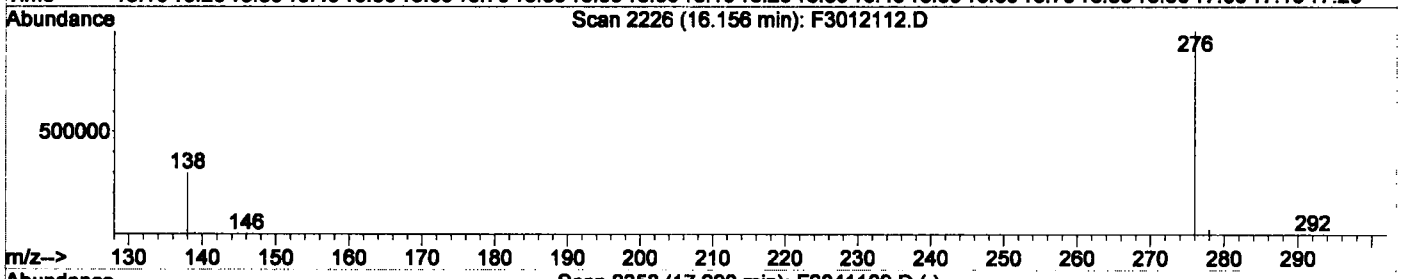
F3012112.D F21227.M Tue Jan 22 09:40:56 2013 VOAGCMS1

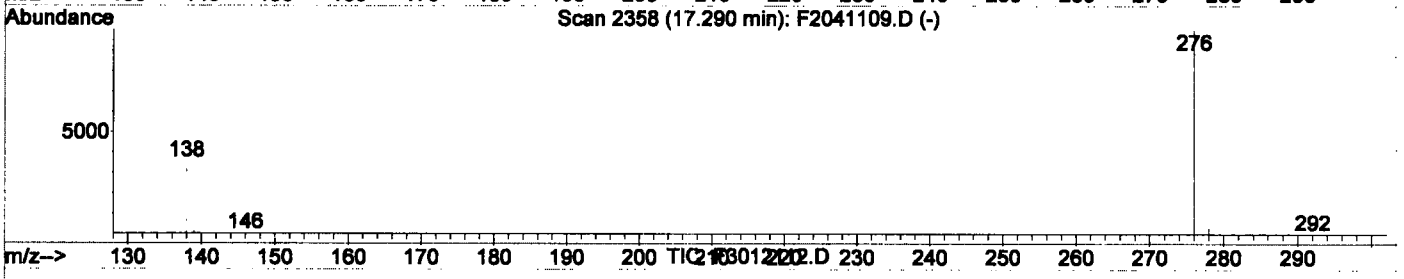
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:40 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(37) Benzo(g,h,i)Perylene (T)

16.16min 9825.64ng/ml

response 2648845

RR. 2

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.89
0.00	0.00	0.00
0.00	0.00	0.00

F3012112.D F21227.M Tue Jan 22 09:41:03 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	886442	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	422534	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	677357	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	641065	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	587817	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.55	292	491600	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	125861	415.184	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	129471	499.912	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	4955	10.318	ng/ml	97
3) 2-Methylnaphthalene	6.01	142	1773	6.210	ng/ml	99
4) 1-Methylnaphthalene	6.10	142	1001	3.795	ng/ml	100
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.87	152	1179	3.013	ng/ml#	67
9) Acenaphthene	7.04	153	3848	15.518	ng/ml	99
10) Dibenzofuran	7.22	168	5677	16.191	ng/mL	93
11) Diethylphthalate	7.43	149	2402	8.529	ng/mL	82
12) Fluorene	7.55	166	2669	9.988	ng/ml	95
14) Phenanthrene	8.48	178	140570	393.328	ng/mL	100
15) Anthracene	8.53	178	23344	68.007	ng/ml	99
16) Carbazole	8.69	167	22412	80.040	ng/ml	99
17) Di-n-butylphthalate	9.03	149	5240	12.237	ng/mL#	89
18) Fluoranthene	9.64	202	1021431	3038.832	ng/ml	99
19) Pyrene	9.86	202	1187990	3419.331	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	1499	9.026	ng/mL	99
23) Benz(a)Anthracene	11.10	228	1091339	3433.256	ng/ml	98
24) Chrysene	11.14	228	2505819	8180.512	ng/ml	95
25) Bis(2-ethylhexyl)phthalate	11.13	149	18656	82.562	ng/mL	79
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	12.67	252	5001513	17312.027	ng/ml	98
29) Benzo(k)Fluoranthene	12.71	252	1181644	3775.216	ng/ml	94
30) Benzo(b+k)Fluoranthene	12.67	252	6337777	20759.497	ng/ml	97
31) Benzo (e) Pyrene	13.16	252	3191778	10889.837	ng/mL	99
32) Benzo(a)Pyrene	13.25	252	1888432	7021.515	ng/ml	99
33) Perylene	13.40	252	430452	1474.556	ng/mL	98
35) Indeno(1,2,3-cd)Pyrene	15.56	276	1894137	6993.667	ng/ml	100
36) Dibenz(a,h)Anthracene	15.60	278	570434	2207.601	ng/ml	93
37) Benzo(g,h,i)Perylene	16.16	276	2648845	9825.639	ng/ml	97

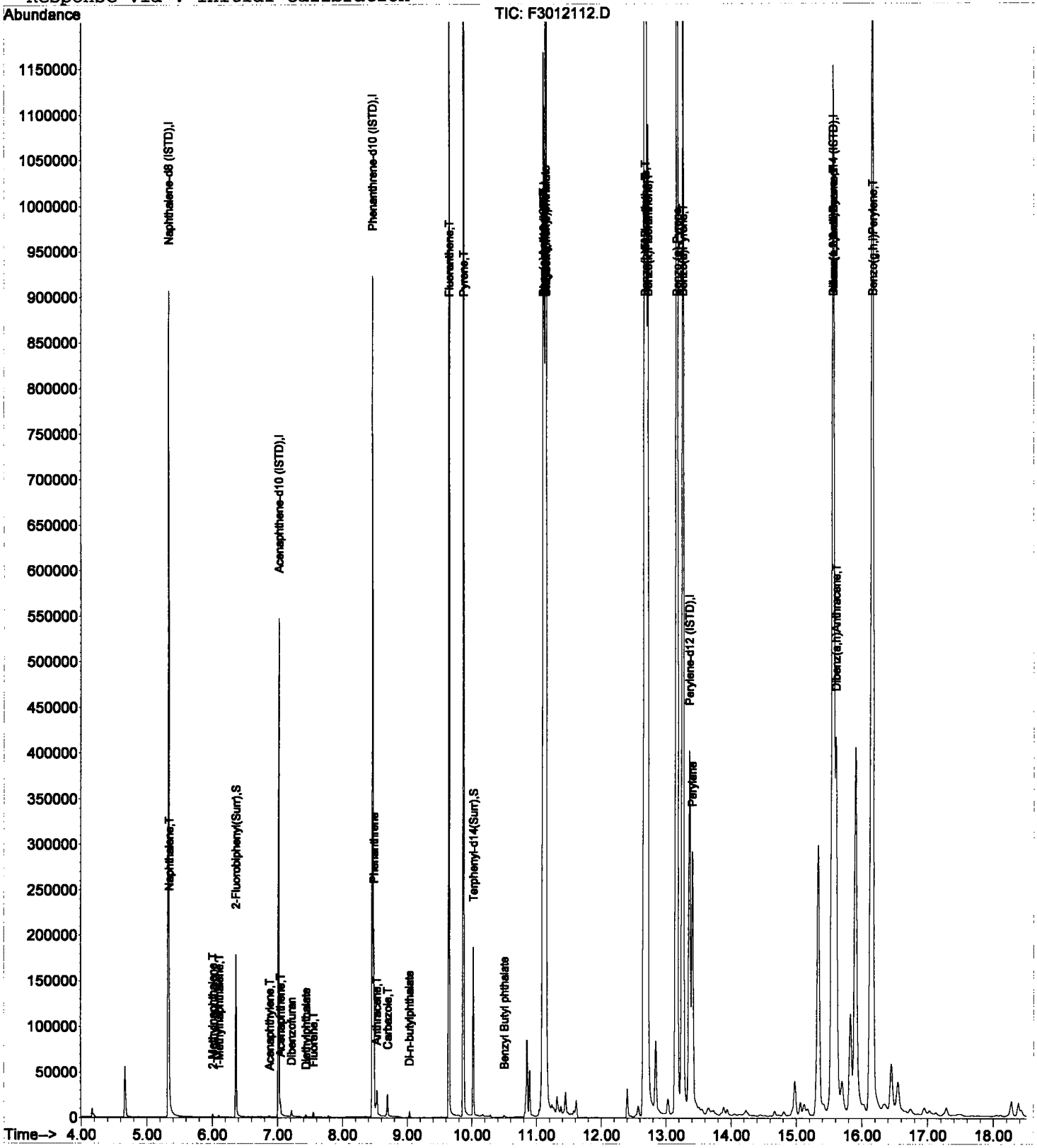
M] 1-22-13 BSJ

(#) = qualifier out of range (m) = manual integration
F3012112.D F21227.M Tue Jan 22 08:59:33 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012112.D Vial: 9
Acq On : 21 Jan 2013 6:43 pm Operator: bsj
Sample : A13A243-05@5 Inst : SV-GCMS6
Misc : 5x Soil 11.22g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:44 2013 Quant Results File: F21227.RES

NR, MB contamination MKT 1/23/13

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-28
Q-24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	927248	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	462629	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	741387	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	571951	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	464399	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	362126	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	745923	2247.357	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	669453	2897.239	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	2499	4.975	ng/ml#	80
3) 2-Methylnaphthalene	6.00	142	692	2.317	ng/ml	97
4) 1-Methylnaphthalene	6.10	142	432	1.566	ng/ml	93
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.87	152	1001	2.337	ng/ml#	67
9) Acenaphthene	7.04	153	2588	9.532	ng/ml	97
10) Dibenzofuran	7.22	168	1059	2.759	ng/mL	97
11) Diethylphthalate	7.43	149	3302	10.709	ng/mL	80
12) Fluorene	7.55	166	1380	4.717	ng/ml	97
14) Phenanthrene	8.48	178	18847	48.181	ng/mL	98
15) Anthracene	8.53	178	6039	16.074	ng/ml J	100
16) Carbazole	8.69	167	2615	8.532	ng/ml	96
17) Di-n-butylphthalate	9.03	149	19376	41.341	ng/mL	99
18) Fluoranthene	9.64	202	33689	91.571	ng/ml	99
19) Pyrene	9.87	202	30775	80.928	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	7946	53.629	ng/mL	100
23) Benz(a)Anthracene	11.09	228	18892	66.614	ng/ml	98
24) Chrysene	11.14	228	20956	76.680	ng/ml	93
25) Bis(2-ethylhexyl)phthalate	11.12	149	16122	79.970	ng/mL	97
26) Di-n-octyl phthalate	12.10	149	220	71.902	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	26096	114.333	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	9613	38.875	ng/ml Q28	98
30) Benzo(b+k)Fluoranthene	12.66	252	35984m	149.190	ng/ml Q24	
31) Benzo (e) Pyrene	13.14	252	14661	63.314	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	14490	68.194	ng/ml	99
33) Perylene	13.40	252	5222	22.642	ng/mL	84
35) Indeno(1,2,3-cd)Pyrene	15.54	276	13751	68.926	ng/ml	98
36) Dibenz(a,h)Anthracene	15.59	278	2957	15.535	ng/ml J	89
37) Benzo(g,h,i)Perylene	16.12	276	15214	76.613	ng/ml	97

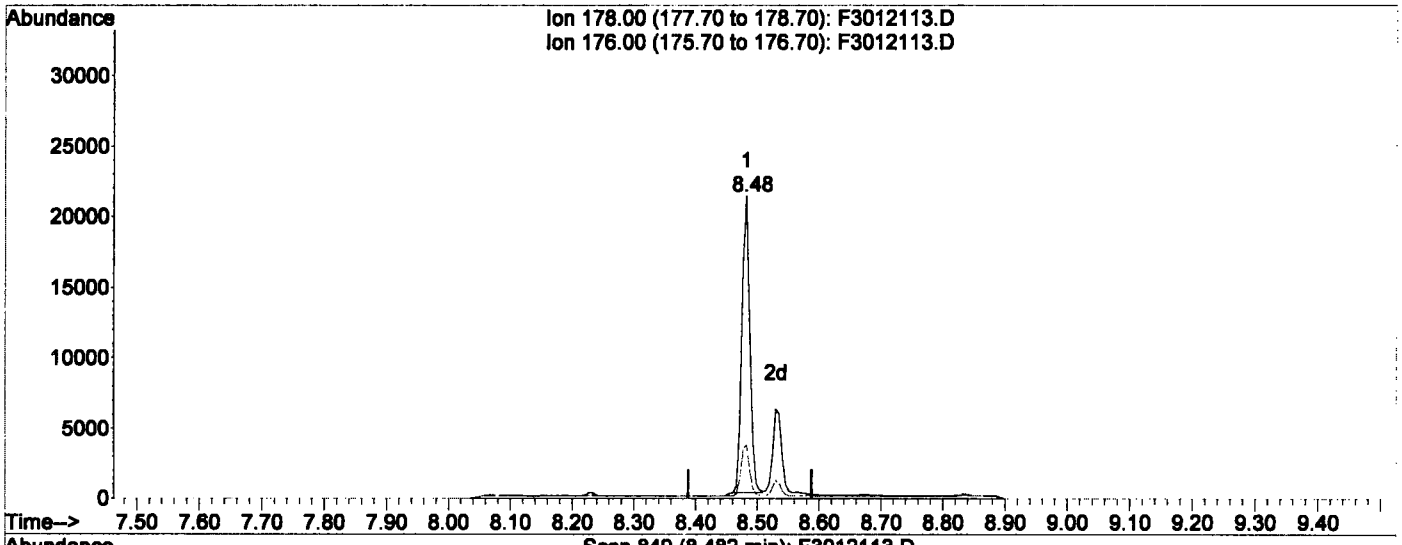
1-22-13 BS

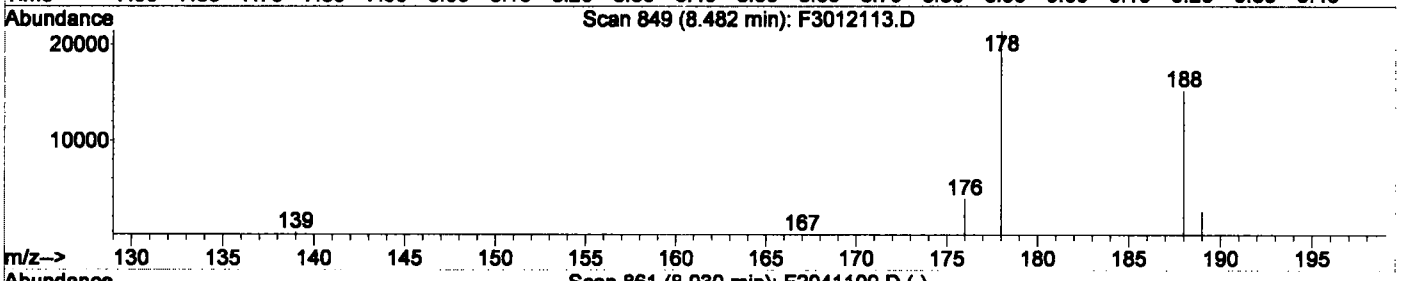
(#) = qualifier out of range (m) = manual integration
F3012113.D F21227.M Tue Jan 22 09:44:35 2013 VOAGCMS1

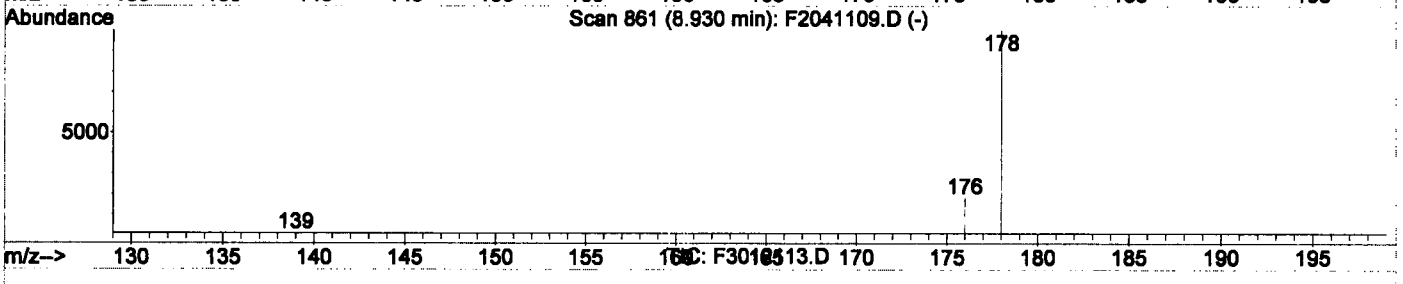
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(14) Phenanthrene

8.48min 48.18ng/mL

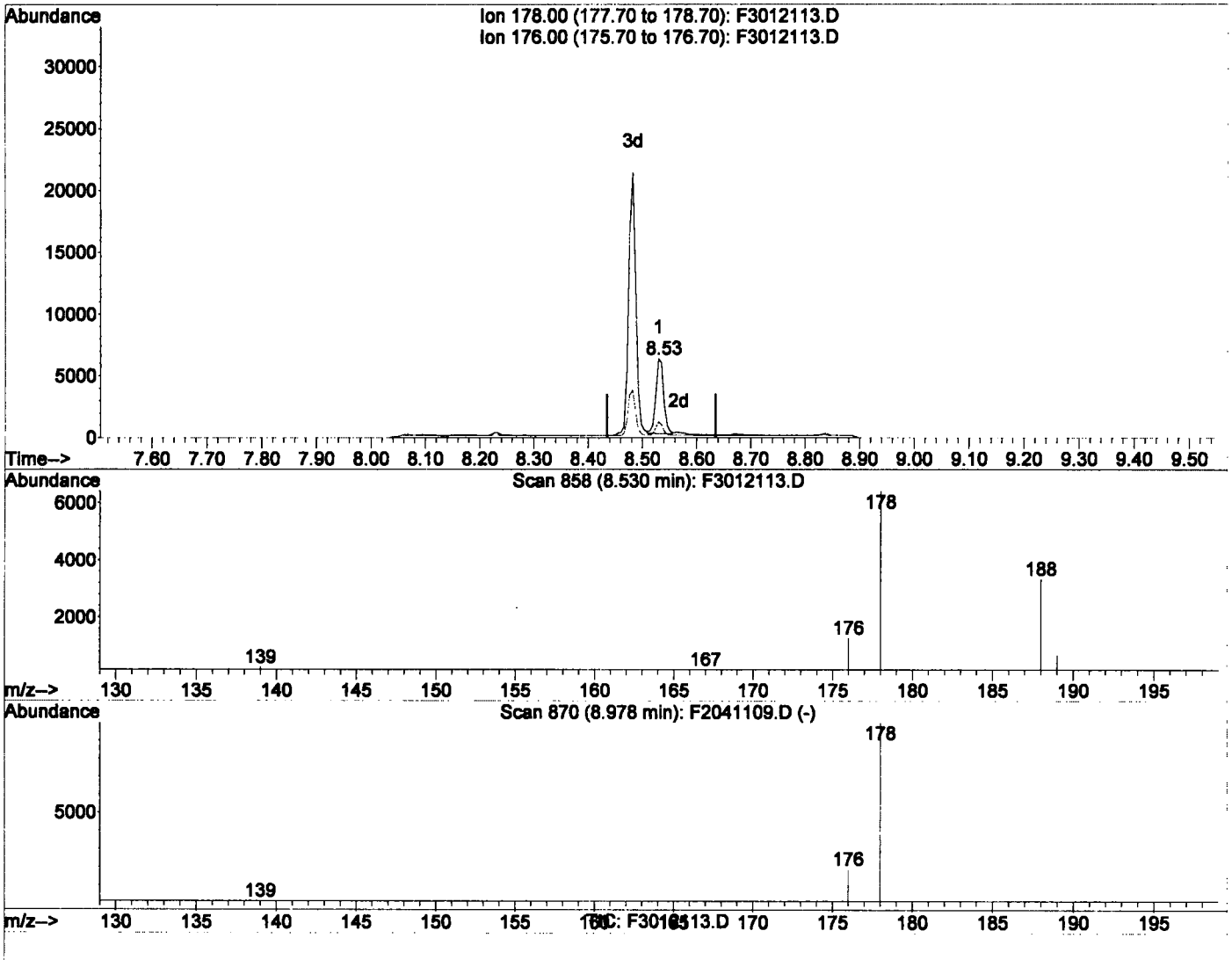
response 18847

Ion	Exp%	Act%
178.00	100	100
176.00	18.10	18.78
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(15) Anthracene (T)

8.53min 16.07ng/ml

response 6039

Ion	Exp%	Act%
178.00	100	100
176.00	16.60	16.72
0.00	0.00	0.00
0.00	0.00	0.00

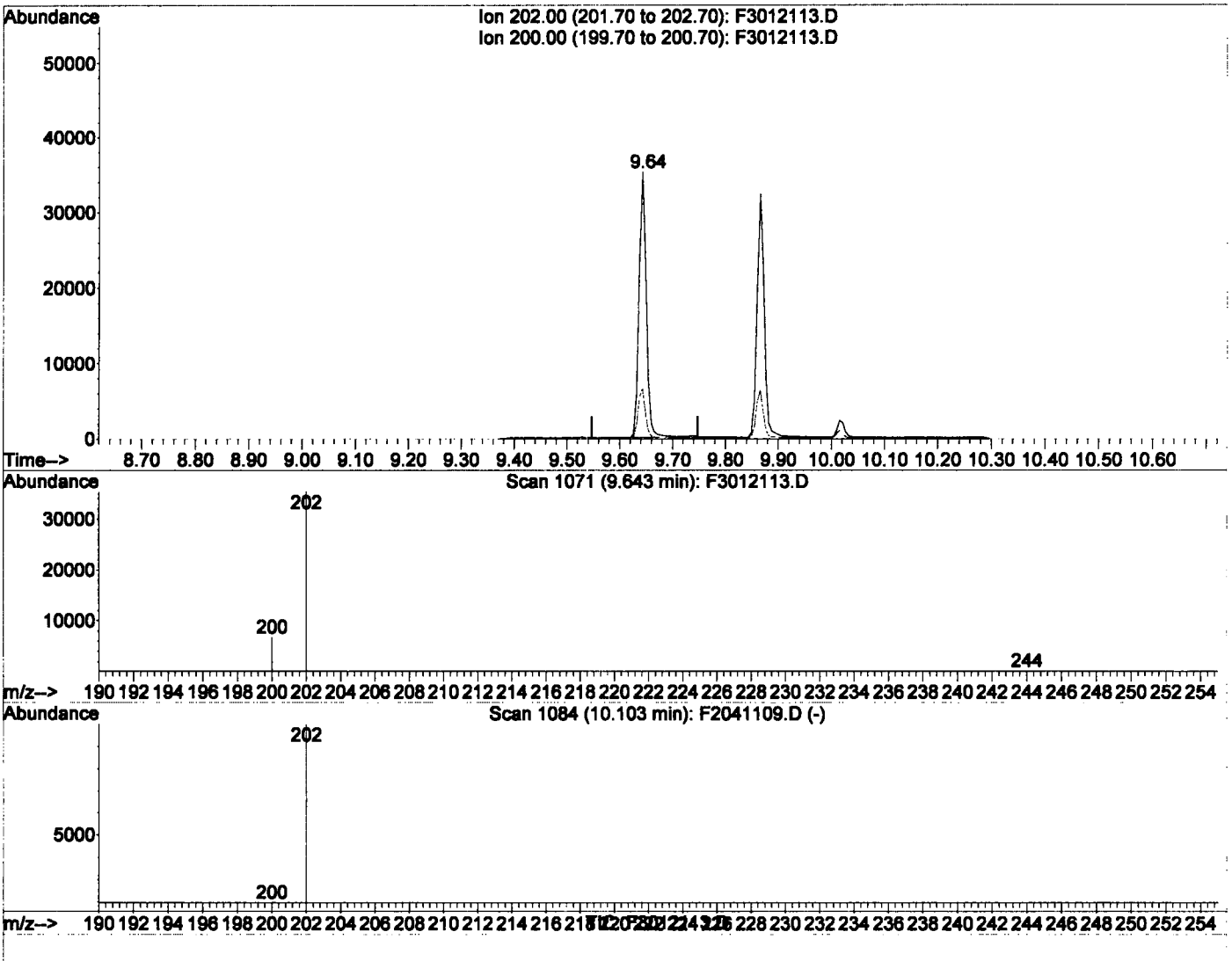
J

F3012113.D F21227.M Tue Jan 22 09:42:37 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(18) Fluoranthene (T)

9.64min 91.57ng/ml

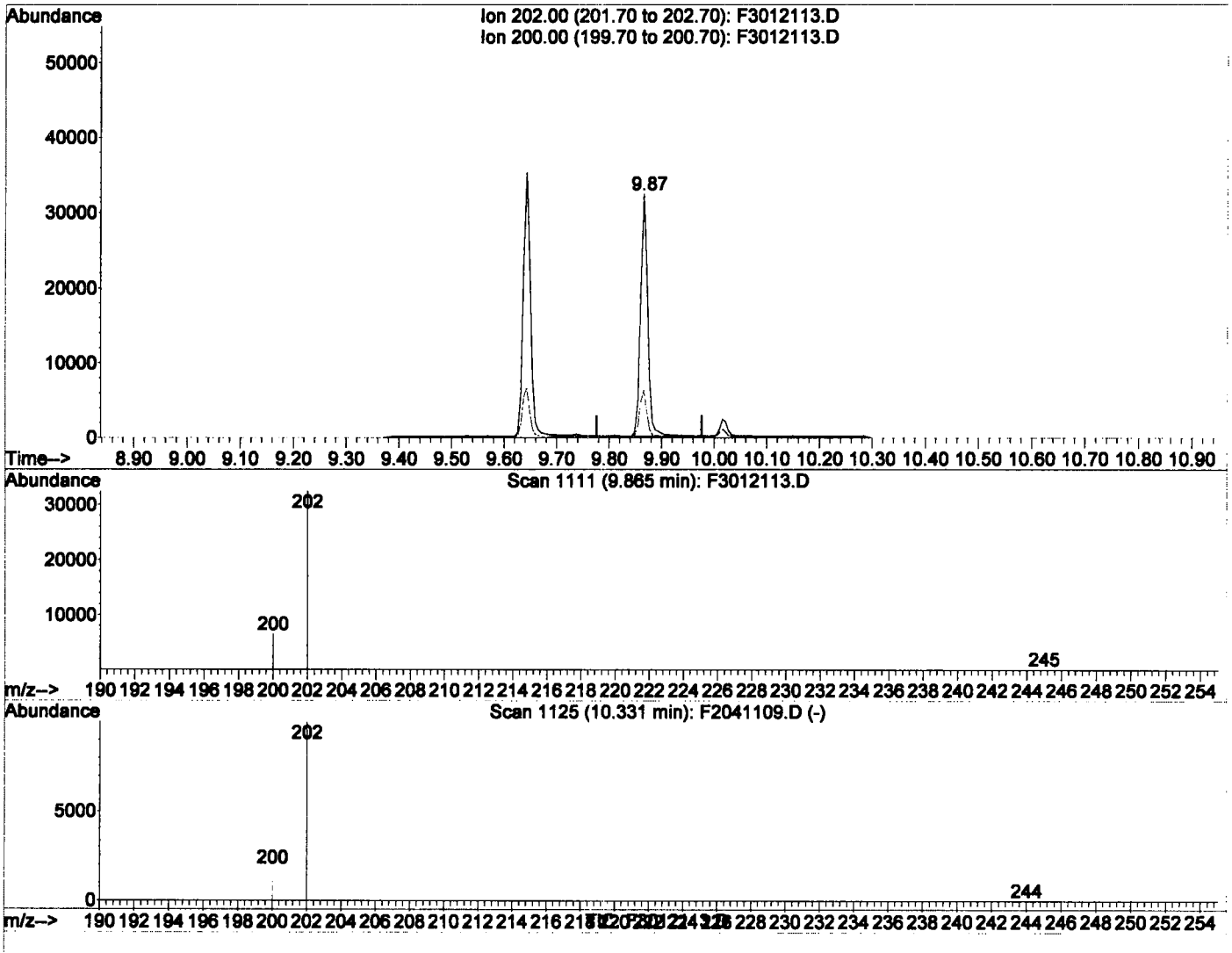
response 33689

Ion	Exp%	Act%
202.00	100	100
200.00	18.60	18.86
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(19) Pyrene (T)

9.87min 80.93ng/ml

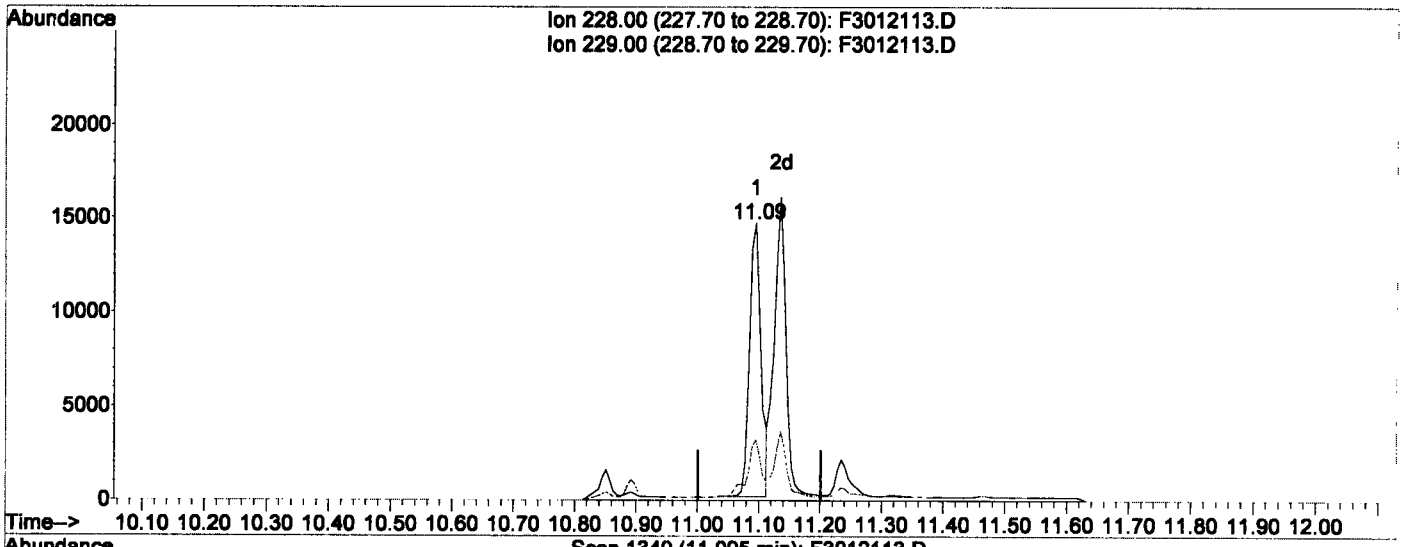
response 30775

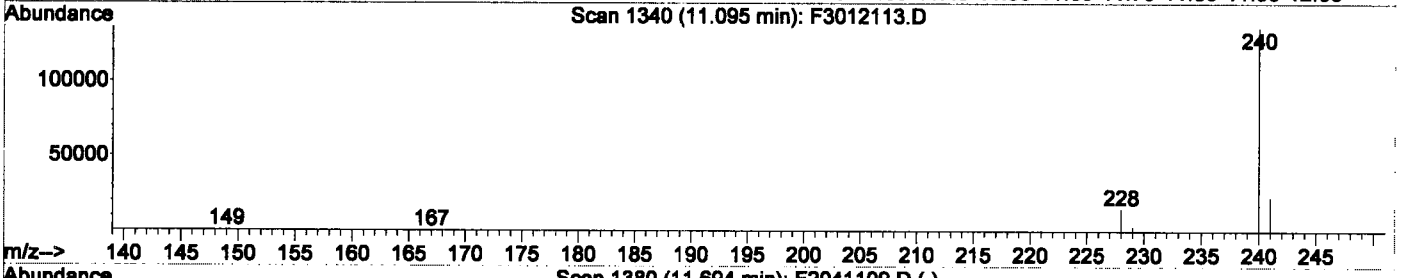
Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.37
0.00	0.00	0.00
0.00	0.00	0.00

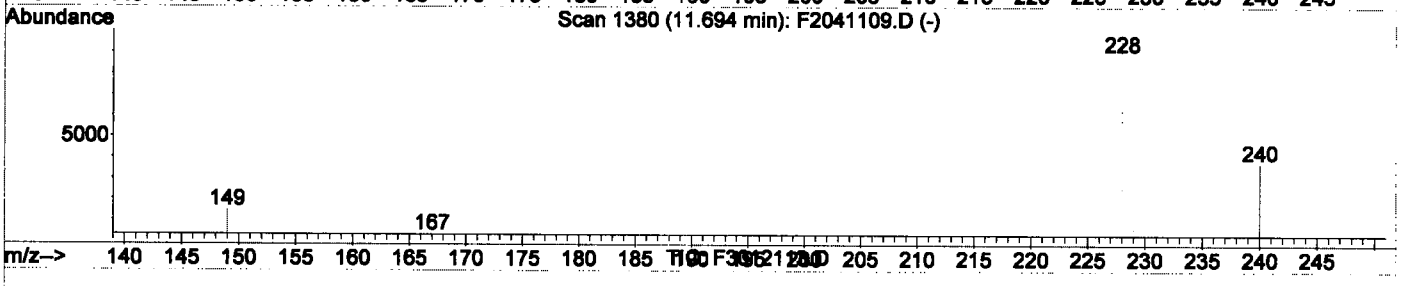
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(23) Benz(a)Anthracene (T)

11.09min 66.61ng/ml

response 18892

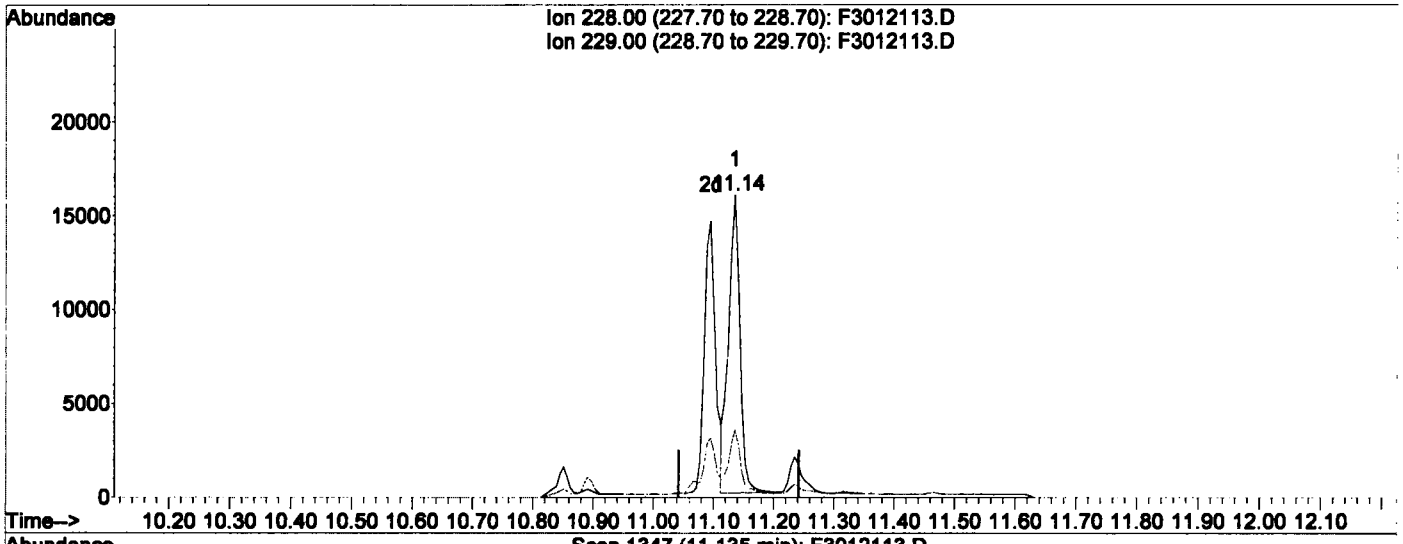
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	19.55
0.00	0.00	0.00
0.00	0.00	0.00

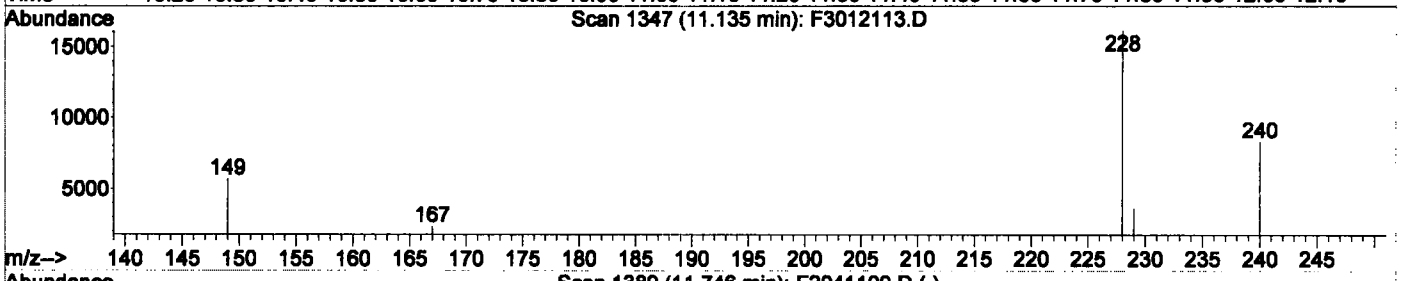
F3012113.D F21227.M Tue Jan 22 09:43:04 2013 VOAGCMS1

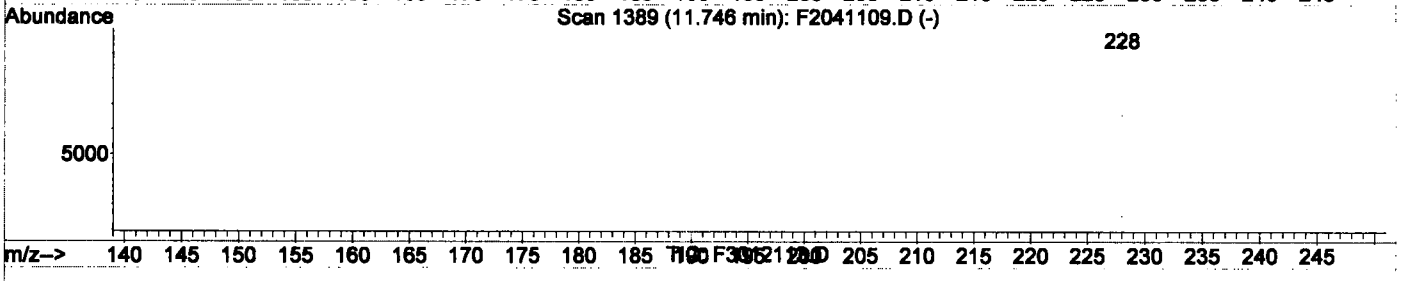
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(24) Chrysene (T)

11.14min 76.68ng/ml

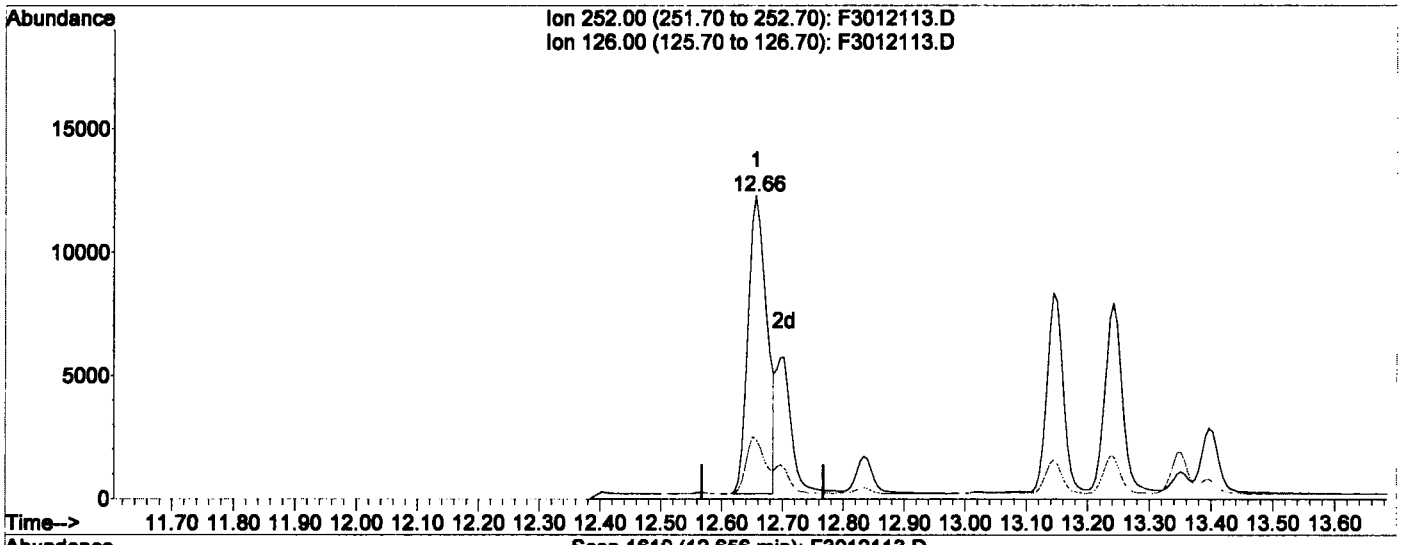
response 20956

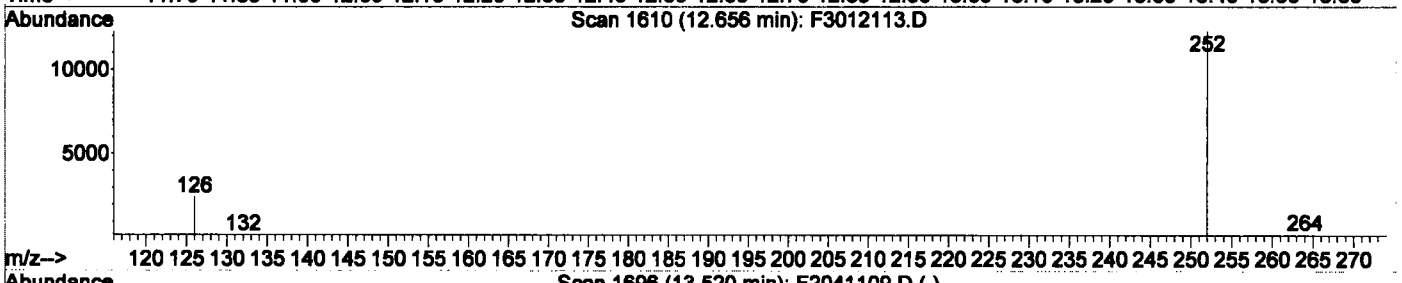
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	22.46
0.00	0.00	0.00
0.00	0.00	0.00

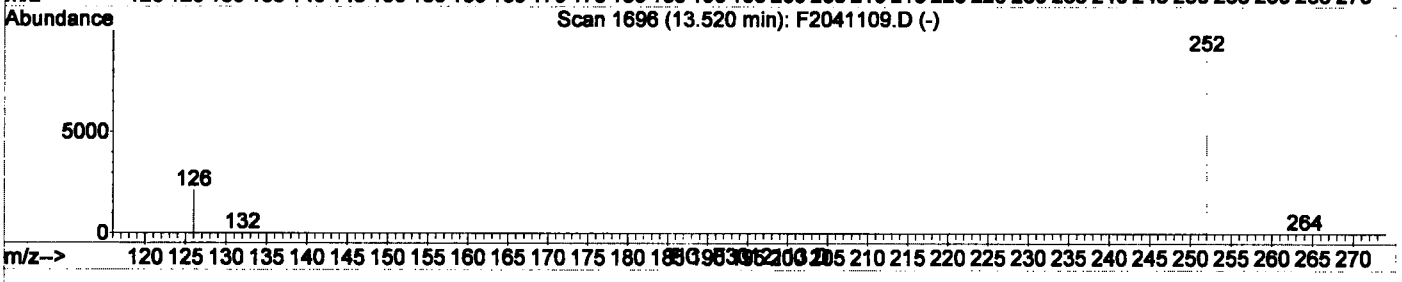
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.66min 114.33ng/ml

response 26096

Q-28

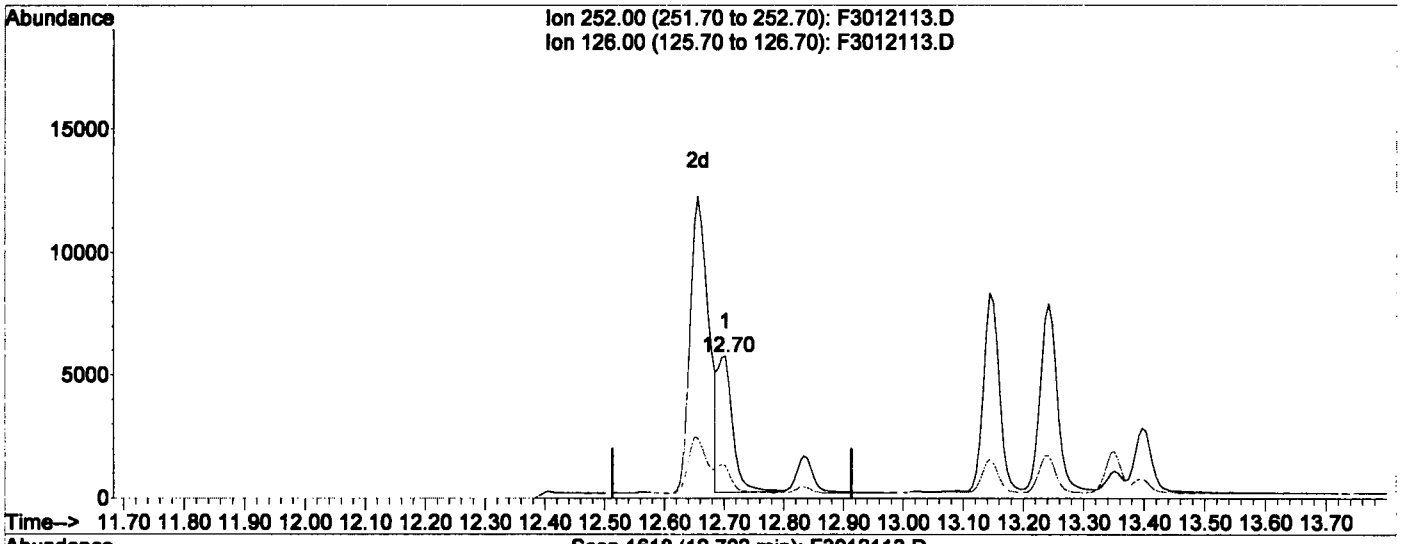
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	19.70
0.00	0.00	0.00
0.00	0.00	0.00

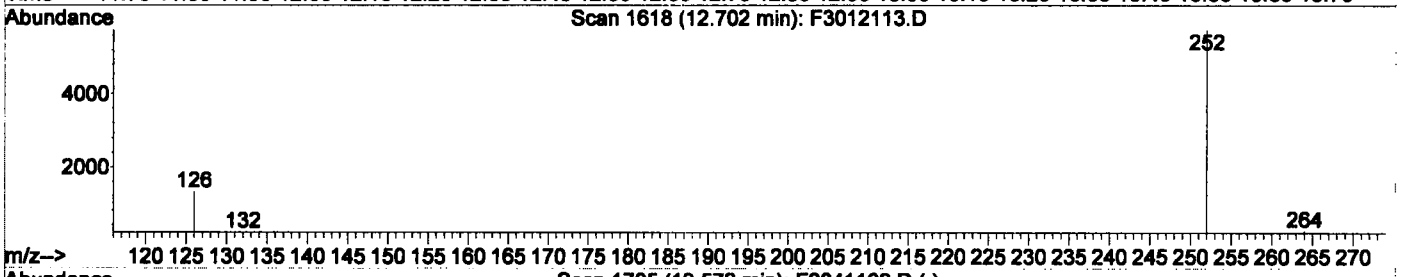
F3012113.D F21227.M Tue Jan 22 09:43:16 2013 VOAGCMS1

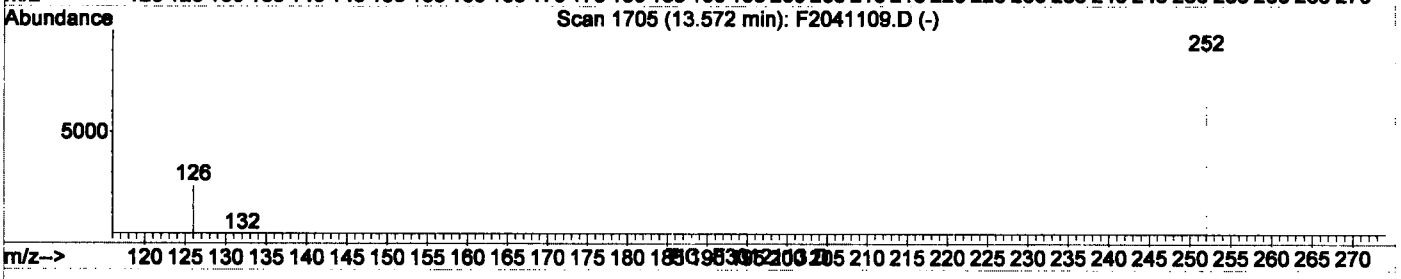
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.70min 38.87ng/ml

response 9613

Q-28

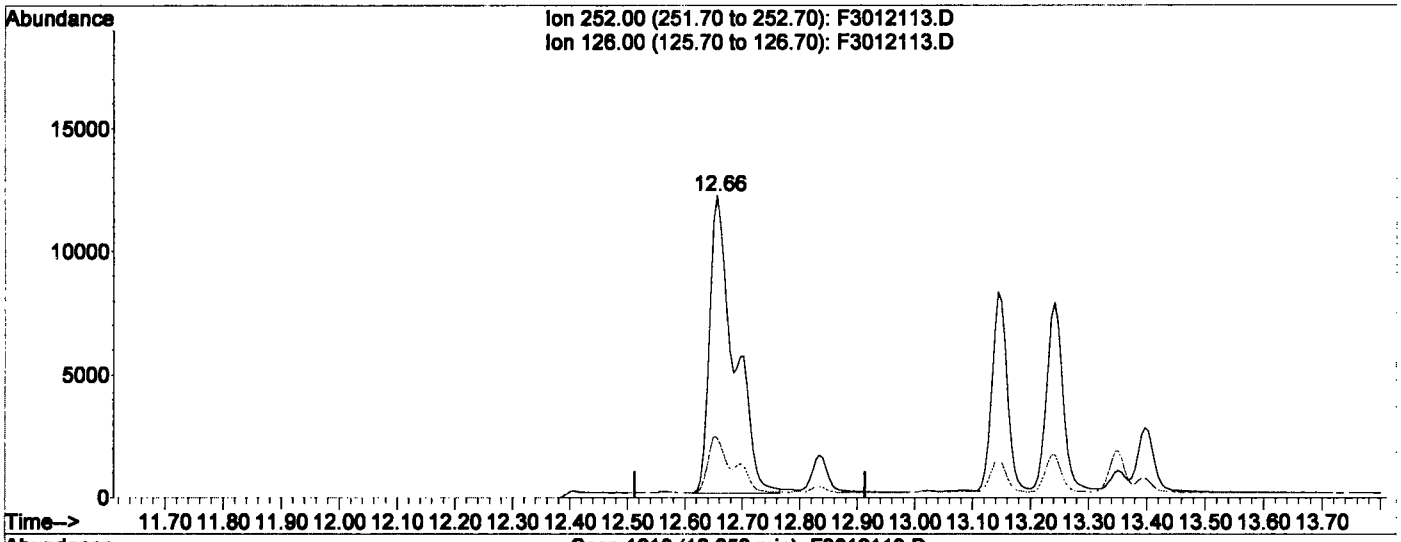
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.42
0.00	0.00	0.00
0.00	0.00	0.00

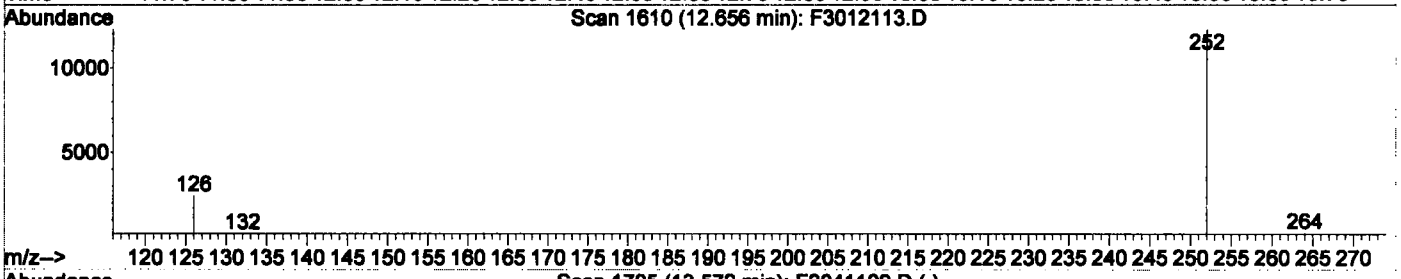
F3012113.D F21227.M Tue Jan 22 09:43:20 2013 VOAGCMS1

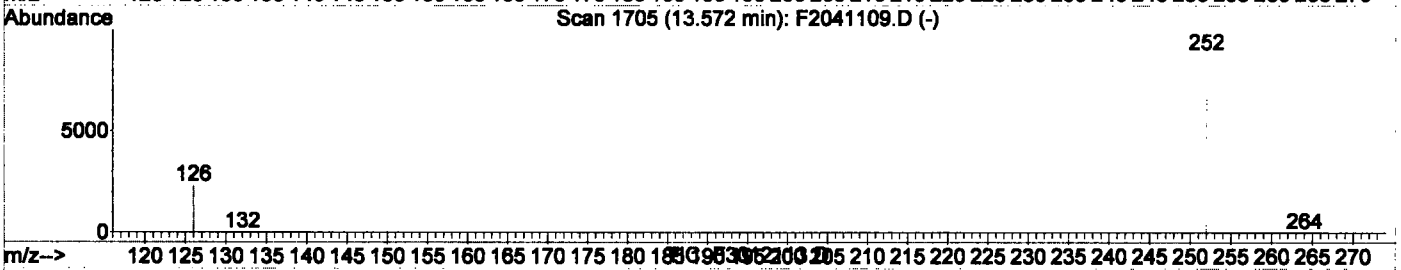
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:44 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.66min 149.19ng/ml m

response 35984

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	21.39
0.00	0.00	0.00
0.00	0.00	0.00

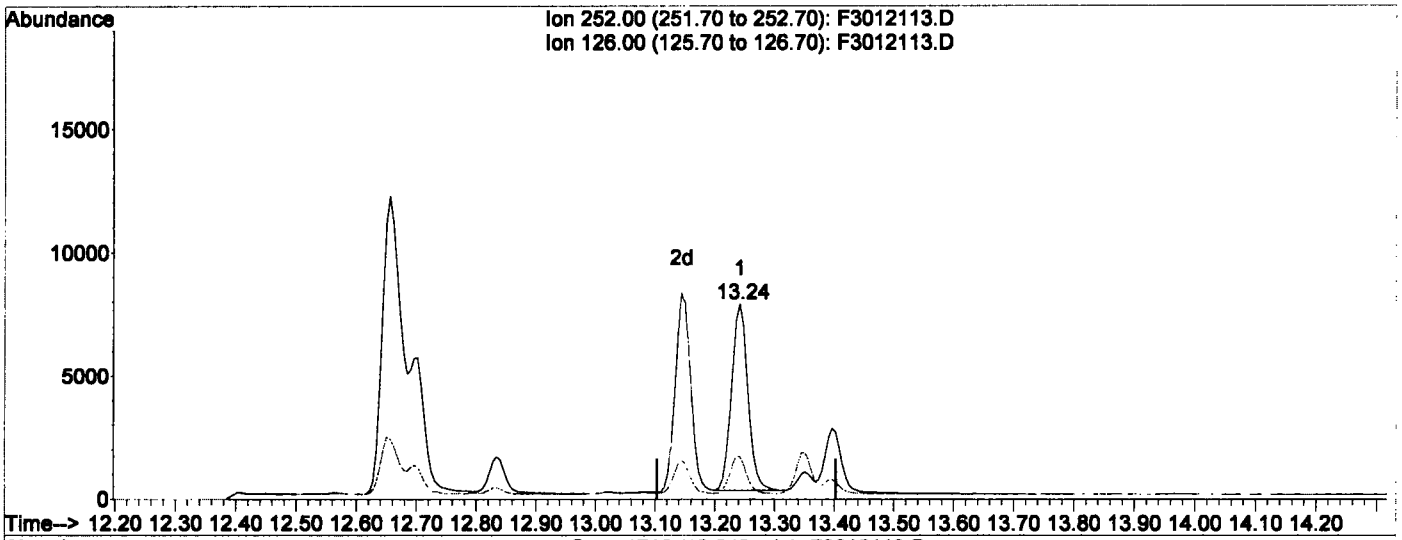
Q-24
1-22-13 BSO

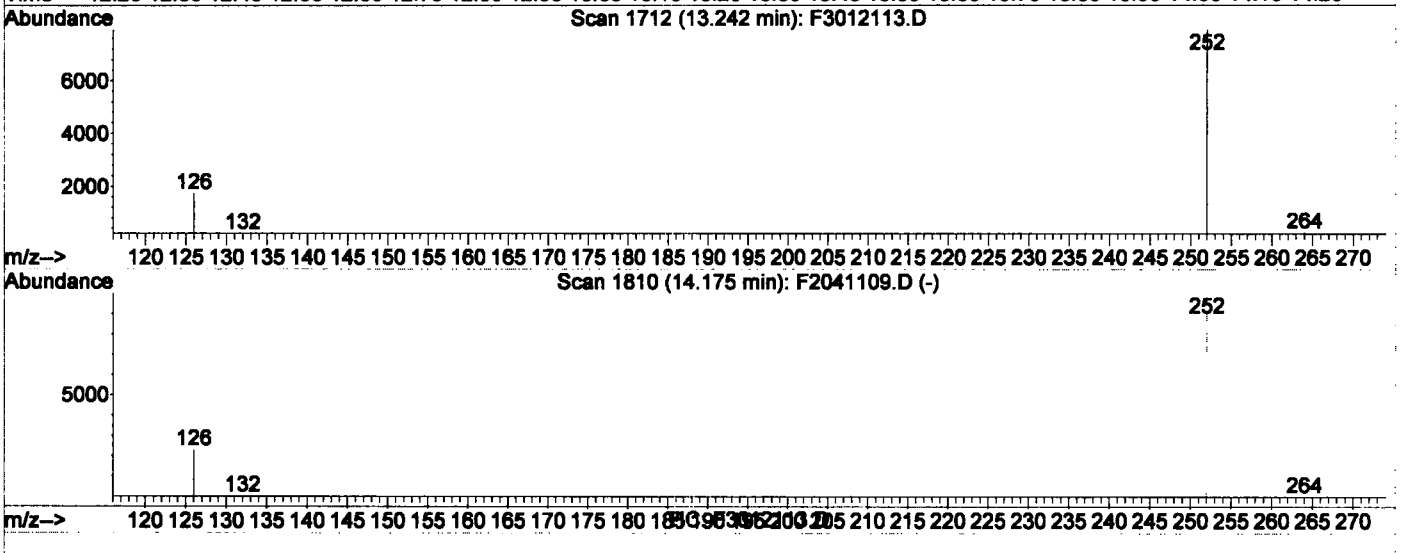
F3012113.D F21227.M Tue Jan 22 09:44:07 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:44 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration





(32) Benzo(a)Pyrene (T)

13.24min 68.19ng/ml

response 14490

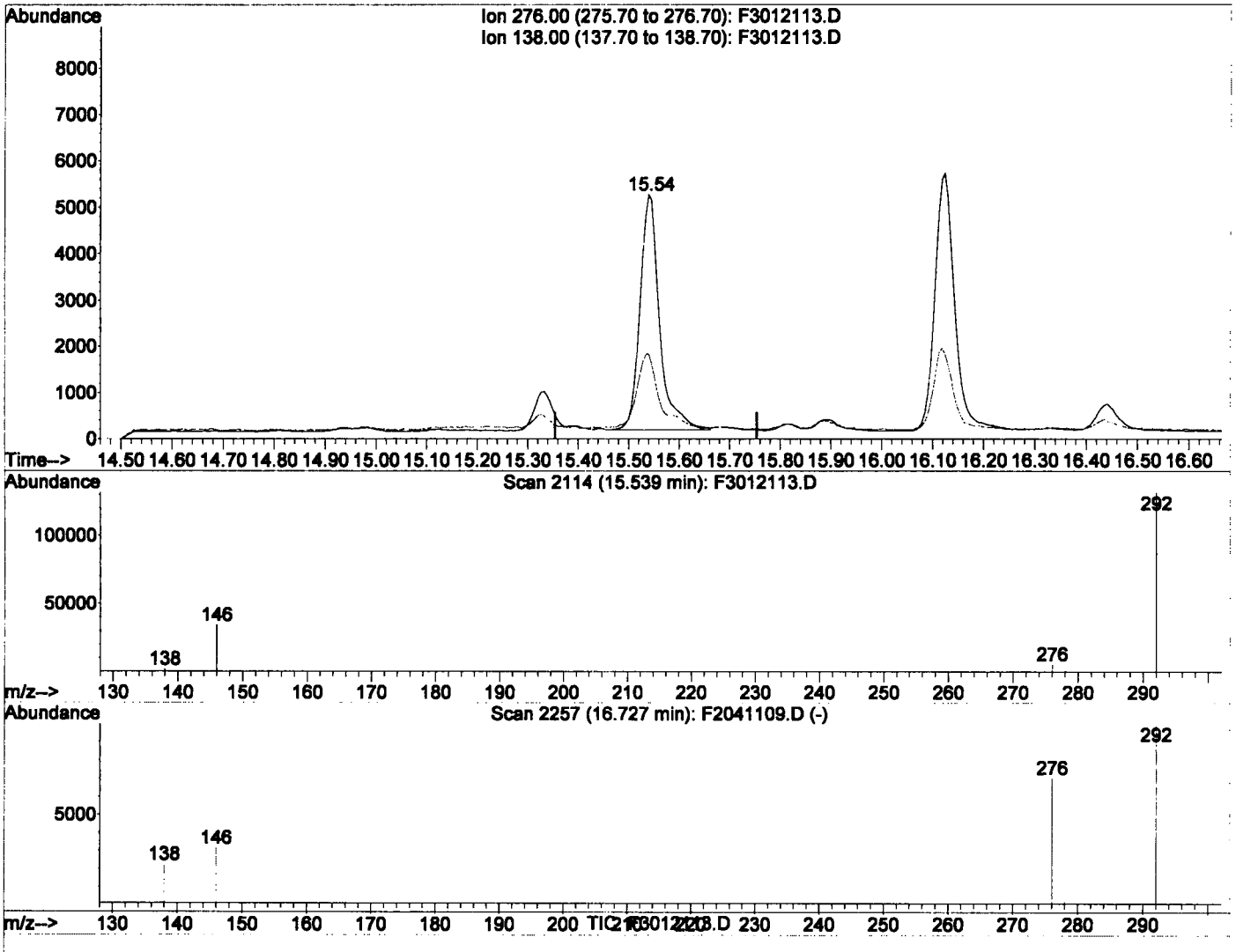
Ion	Exp%	Act%
252.00	100	100
126.00	20.10	20.43
0.00	0.00	0.00
0.00	0.00	0.00

F3012113.D F21227.M Tue Jan 22 09:44:12 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:44 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.54min 68.93ng/ml

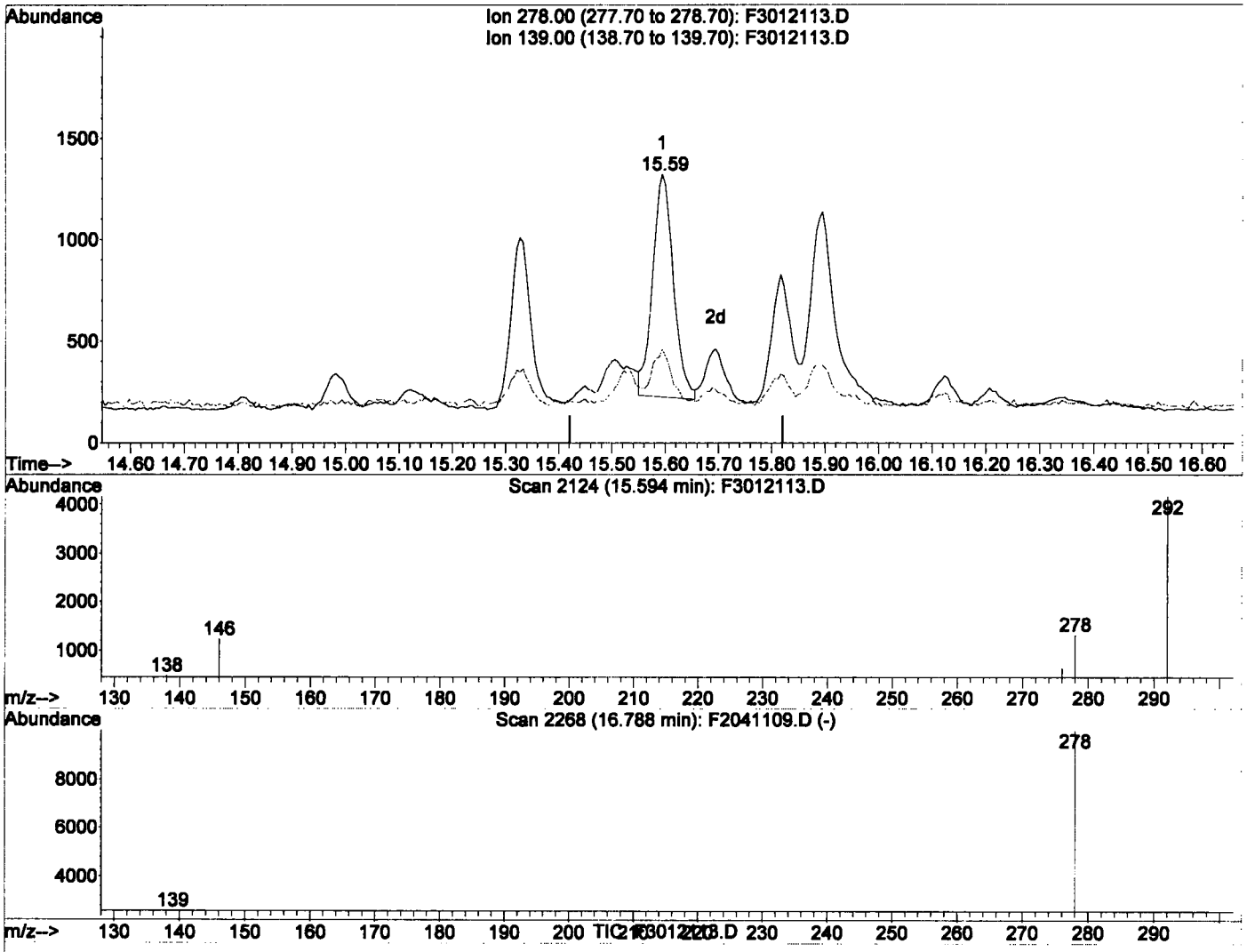
response 13751

Ion	Exp%	Act%
276.00	100	100
138.00	31.80	30.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:44 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(36) Dibenz(a,h)Anthracene (T)

15.59min 15.54ng/ml

response 2957

Ion	Exp%	Act%
278.00	100	100
139.00	25.90	20.32
0.00	0.00	0.00
0.00	0.00	0.00

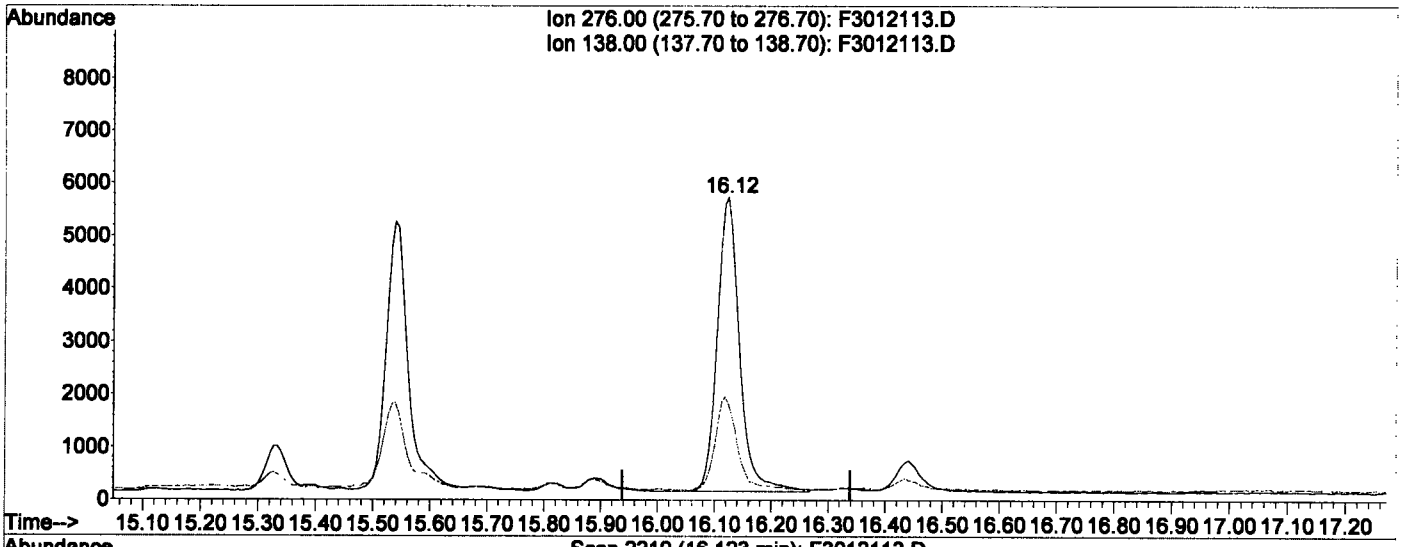
J

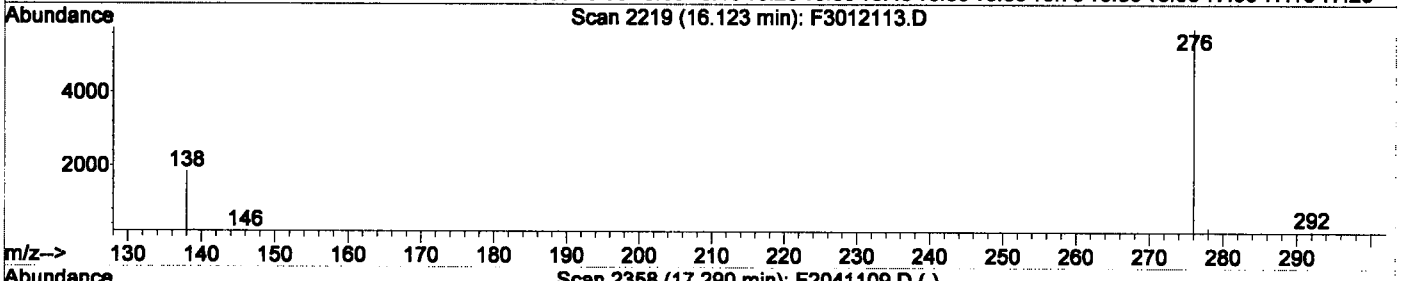
F3012113.D F21227.M Tue Jan 22 09:44:24 2013 VOAGCMS1

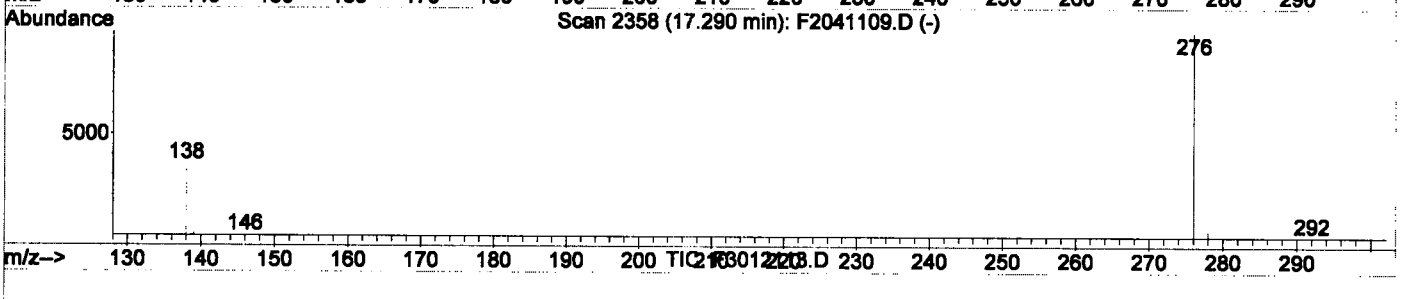
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:44 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(37) Benzo(g,h,i)Perylene (T)

16.12min 76.61ng/ml

response 15214

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	31.08
0.00	0.00	0.00
0.00	0.00	0.00

F3012113.D F21227.M Tue Jan 22 09:44:28 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	927248	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	462629	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	741387	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	571951	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	464399	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	362126	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	745923	2247.357	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	669453	2897.239	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	2499	4.975	ng/ml#	80
3) 2-Methylnaphthalene	6.00	142	692	2.317	ng/ml	97
4) 1-Methylnaphthalene	6.10	142	432	1.566	ng/ml	93
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.87	152	1001	2.337	ng/ml#	67
9) Acenaphthene	7.04	153	2588	9.532	ng/ml	97
10) Dibenzofuran	7.22	168	1059	2.759	ng/mL	97
11) Diethylphthalate	7.43	149	3302	10.709	ng/mL	80
12) Fluorene	7.55	166	1380	4.717	ng/ml	97
14) Phenanthrene	8.48	178	18847	48.181	ng/mL	98
15) Anthracene	8.53	178	6039	16.074	ng/ml	100
16) Carbazole	8.69	167	2615	8.532	ng/ml	96
17) Di-n-butylphthalate	9.03	149	19376	41.341	ng/mL	99
18) Fluoranthene	9.64	202	33689	91.571	ng/ml	99
19) Pyrene	9.87	202	30775	80.928	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	7946	53.629	ng/mL	100
23) Benz(a)Anthracene	11.09	228	18892	66.614	ng/ml	98
24) Chrysene	11.14	228	20956	76.680	ng/ml	93
25) Bis(2-ethylhexyl)phthalate	11.12	149	16122	79.970	ng/mL	97
26) Di-n-octyl phthalate	12.10	149	220	71.902	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	26096	114.333	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	9613	38.875	ng/ml	98
30) Benzo(b+k)Fluoranthene	12.66	252	36121	149.758	ng/ml	98
31) Benzo (e) Pyrene	13.14	252	14661	63.314	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	14490	68.194	ng/ml	99
33) Perylene	13.40	252	5222	22.642	ng/mL	84
35) Indeno(1,2,3-cd)Pyrene	15.54	276	13751	68.926	ng/ml	98
36) Dibenz(a,h)Anthracene	15.59	278	2957	15.535	ng/ml	89
37) Benzo(g,h,i)Perylene	16.12	276	15214	76.613	ng/ml	97

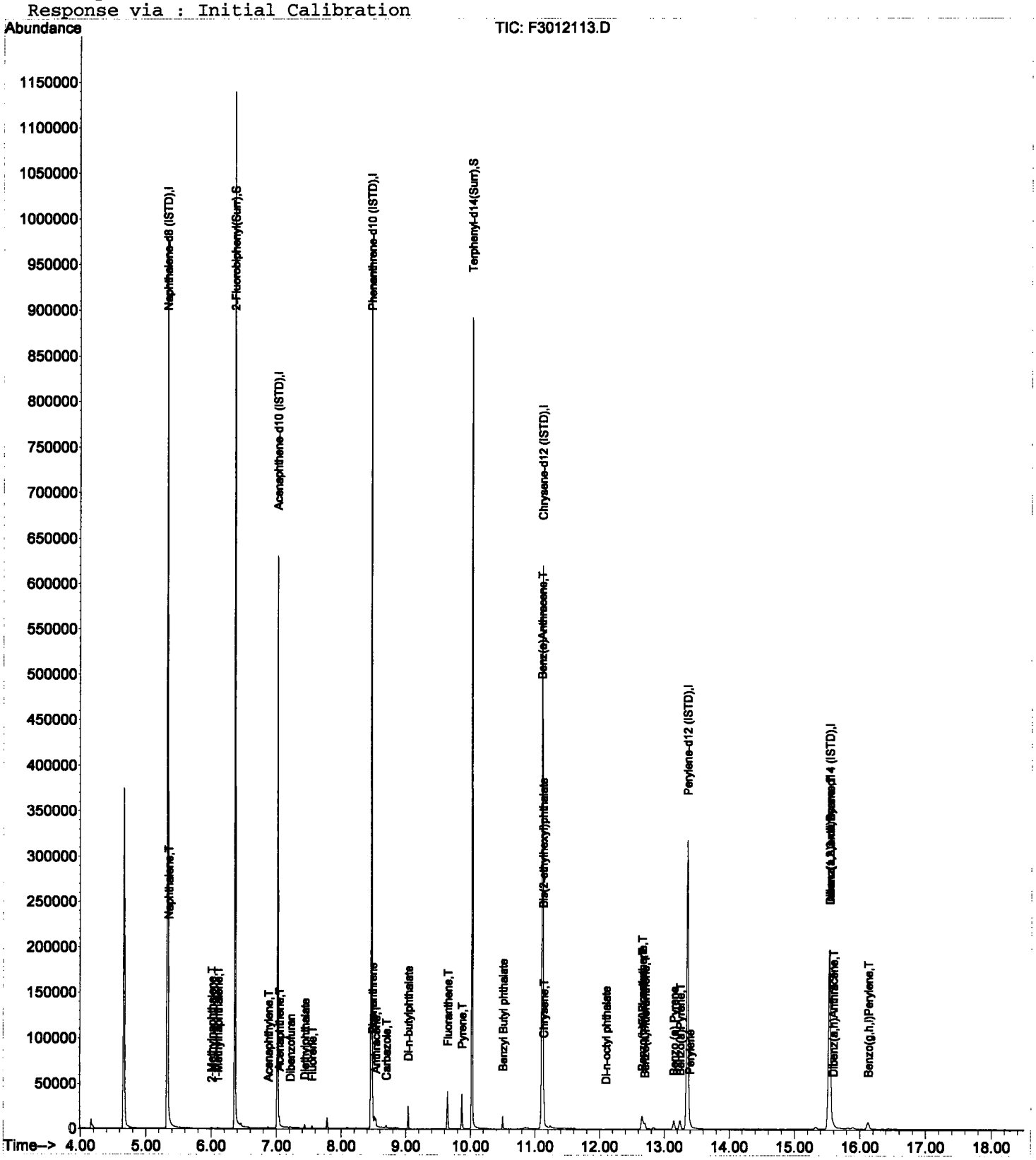
MJ
(-22 (3
BS

(#) = qualifier out of range (m) = manual integration
F3012113.D F21227.M Tue Jan 22 08:59:35 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012113.D Vial: 10
Acq On : 21 Jan 2013 7:10 pm Operator: bsj
Sample : A13A243-06 Inst : SV-GCMS6
Misc : 1x Soil 10.42g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:46 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-28
Q-26
RL-2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	968707	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	464925	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	772509	2000.000	ng/ml	-0.01
20) Chrysene-d12 (ISTD)	11.11	240	733634	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	694742	2000.000	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.55	292	614545	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	716523	2148.118	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	760896	2567.254	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.34	128	7554	14.394	ng/ml	93
3) 2-Methylnaphthalene	6.00	142	2727	8.740	ng/ml	96
4) 1-Methylnaphthalene	6.10	142	1820	6.315	ng/ml	96
7) Dimethylphthalate	6.75	163	260	0.861	ng/mL#	73
8) Acenaphthylene	6.87	152	7402	(17.194)	ng/ml J	99
9) Acenaphthene	7.04	153	4221	(15.470)	ng/ml J	99
10) Dibenzofuran	7.22	168	5043	(13.071)	ng/mL	95
11) Diethylphthalate	7.43	149	2686	8.668	ng/mL	84
12) Fluorene	7.55	166	3306	(11.244)	ng/ml J	91
14) Phenanthrene	8.48	178	109120	267.720	ng/mL	100
15) Anthracene	8.53	178	22716	58.026	ng/ml	99
16) Carbazole	8.69	167	21518	67.382	ng/ml	97
17) Di-n-butylphthalate	9.03	149	11172	22.877	ng/mL	99
18) Fluoranthene	9.64	202	726212	1894.415	ng/ml	99
19) Pyrene	9.86	202	841543	2123.825	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	10109	53.191	ng/mL	99
23) Benz(a)Anthracene	11.10	228	799448	2197.654	ng/ml	96
24) Chrysene	11.14	228	2548059	7268.802	ng/ml	97
25) Bis(2-ethylhexyl)phthalate	11.12	149	25380	98.147	ng/mL	85
26) Di-n-octyl phthalate	12.00	149	347	72.066	ng/mL#	87
28) Benzo(b)Fluoranthene	12.67	252	4051331	11864.866	ng/ml Q28	98
29) Benzo(k)Fluoranthene	12.71	252	1056646	2856.297	ng/ml	94
30) Benzo(b+k)Fluoranthene	12.67	252	5126440m	14207.391	ng/ml Q26	
31) Benzo (e) Pyrene	13.16	252	2695511	7781.232	ng/mL	98
32) Benzo(a)Pyrene	13.25	252	1432923	4507.865	ng/ml	99
33) Perylene	13.40	252	628181	1820.706	ng/mL	100
35) Indeno(1,2,3-cd)Pyrene	15.57	276	2664186	7868.941	ng/ml	98
36) Dibenz(a,h)Anthracene	15.61	278	645624	1998.725	ng/ml	93
37) Benzo(g,h,i)Perylene	16.17	276	4164685	12357.898	ng/ml RL-2	96

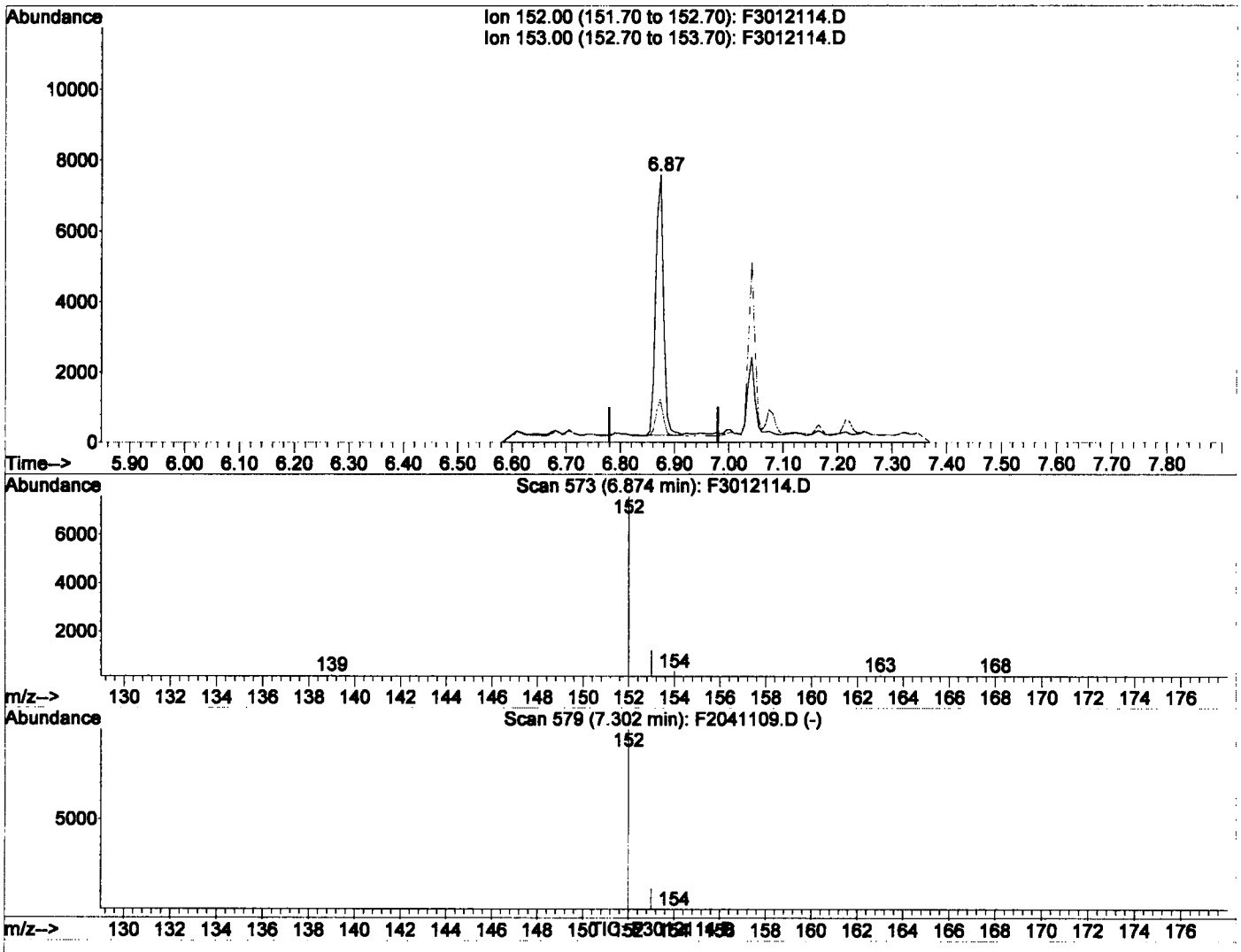
1-22-13
BJ

(#) = qualifier out of range (m) = manual integration
F3012114.D F21227.M Tue Jan 22 09:47:34 2013 VOAGCMS1 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(8) Acenaphthylene (T)

6.87min 17.19ng/ml

response 7402

Ion	Exp%	Act%
152.00	100	100
153.00	13.20	13.60
0.00	0.00	0.00
0.00	0.00	0.00

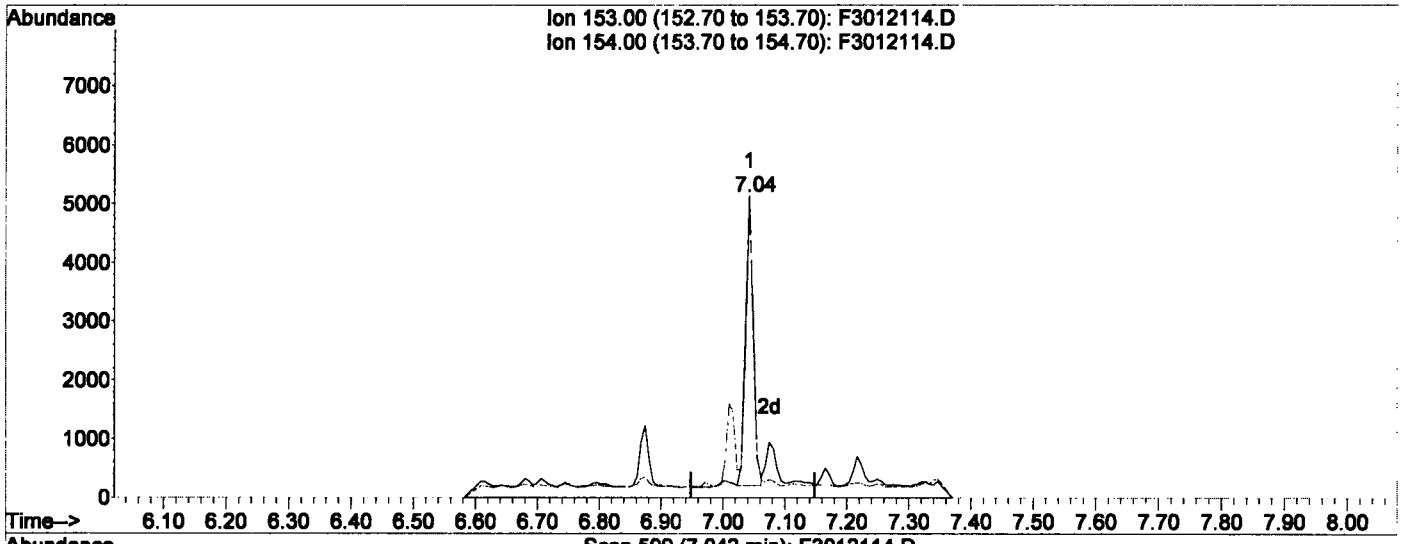
J

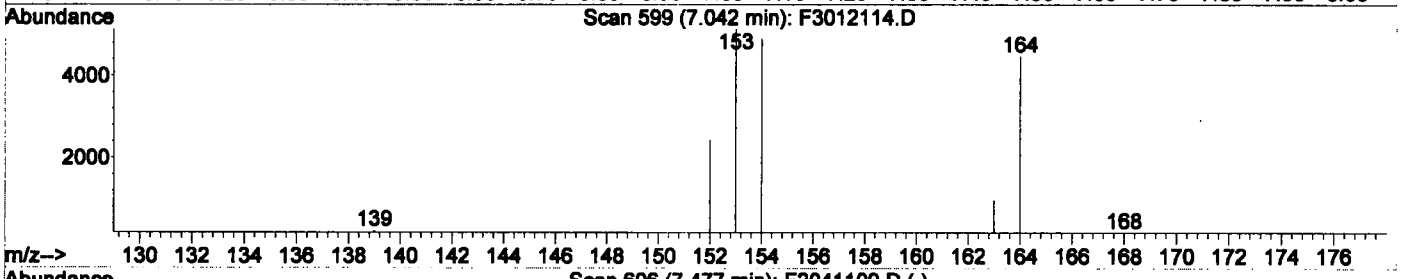
F3012114.D F21227.M Tue Jan 22 09:45:03 2013 VOAGCMS1

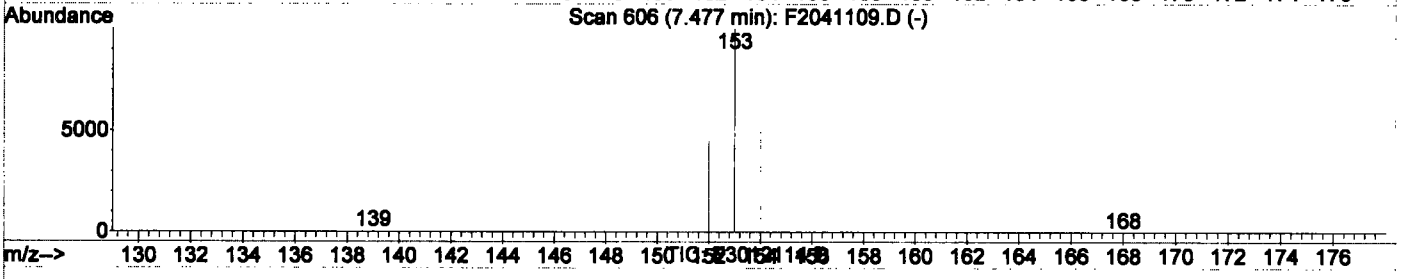
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(9) Acenaphthene (T)

7.04min 15.47ng/ml

response 4221

Ion	Exp%	Act%
153.00	100	100
154.00	93.50	94.79
0.00	0.00	0.00
0.00	0.00	0.00

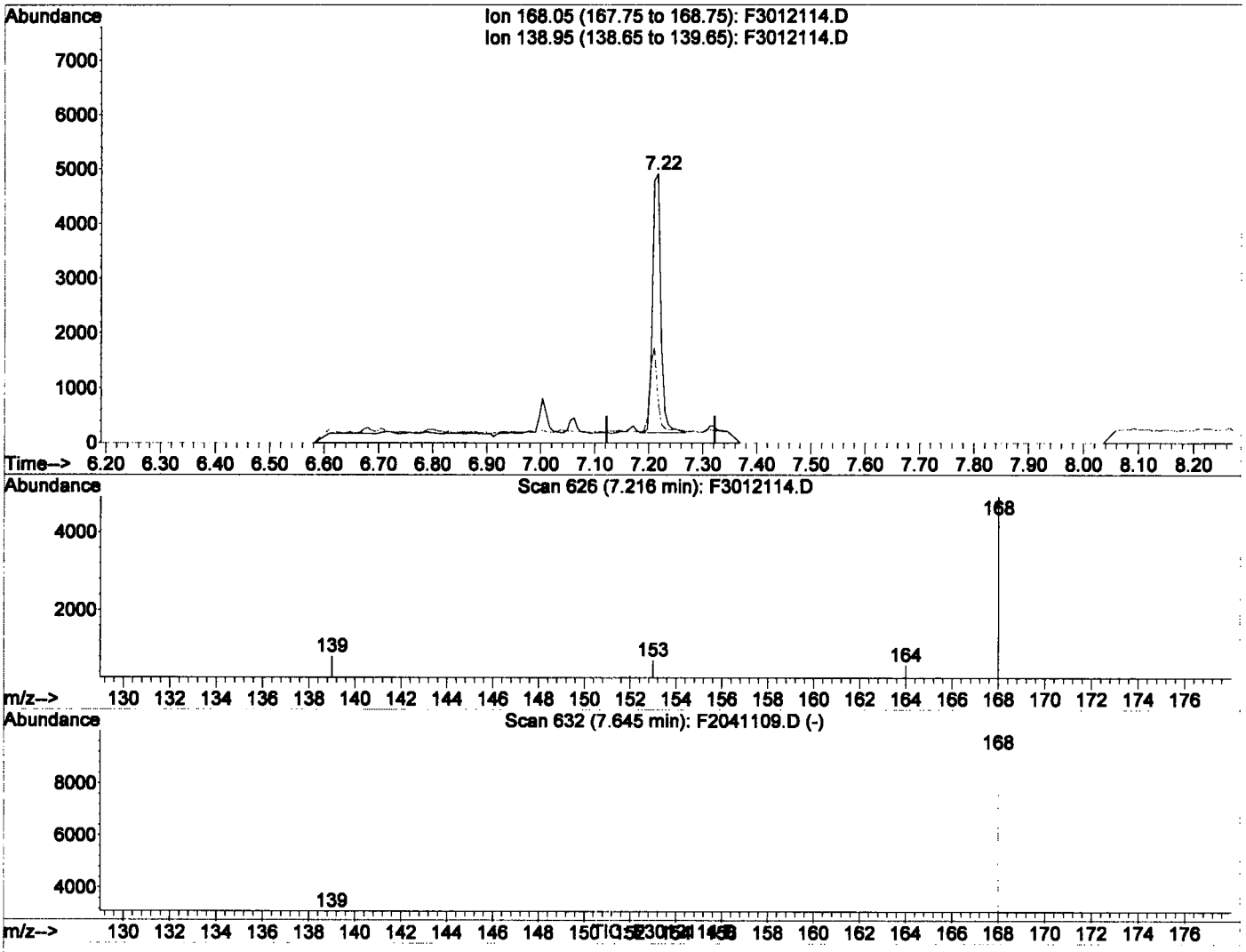
J

F3012114.D F21227.M Tue Jan 22 09:45:07 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(10) Dibenzofuran

7.22min 13.07ng/mL

response 5043

Ion	Exp%	Act%
168.05	100	100
138.95	33.60	30.50
0.00	0.00	0.00
0.00	0.00	0.00

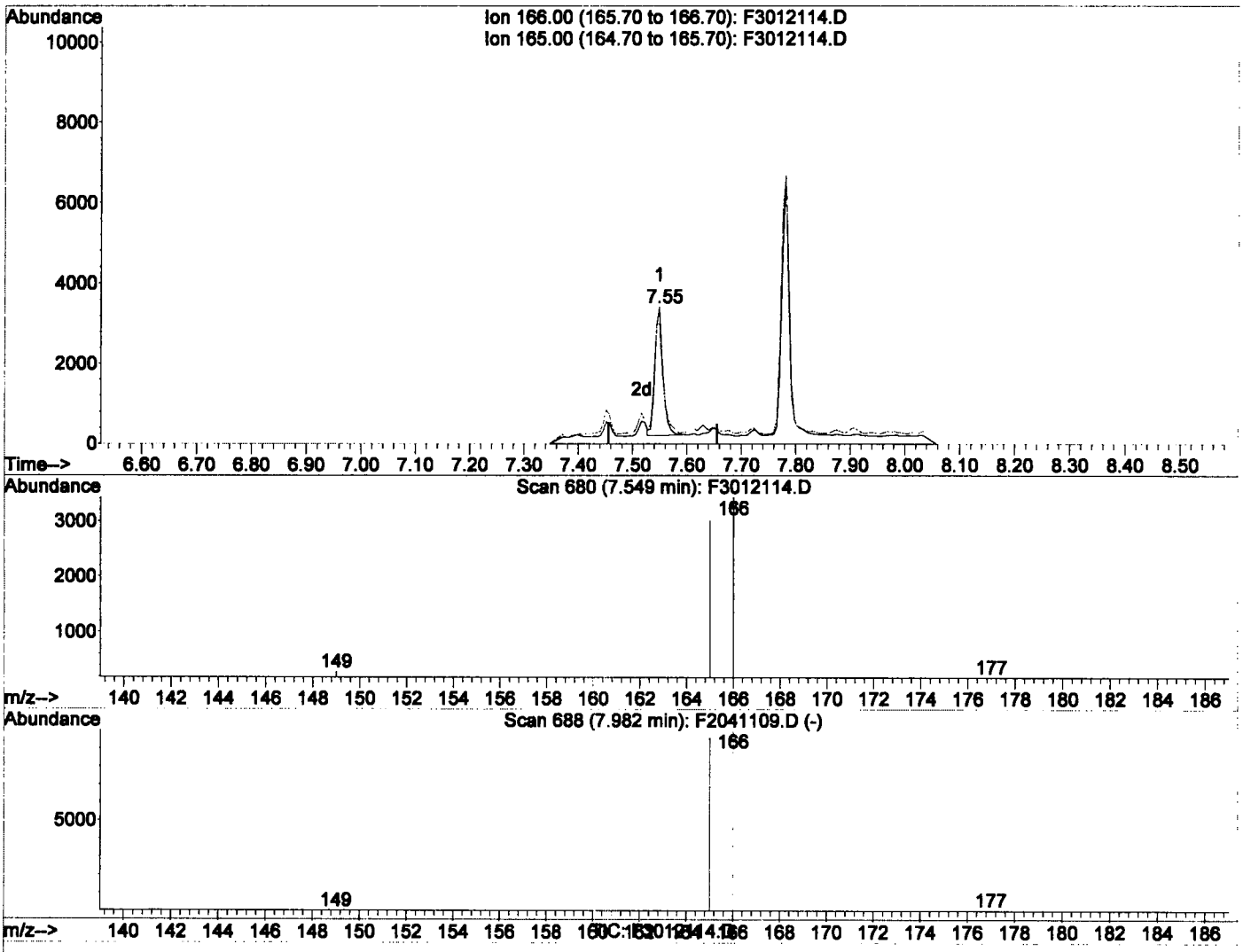
J

F3012114.D F21227.M Tue Jan 22 09:45:12 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(12) Fluorene (T)

7.55min 11.24ng/ml

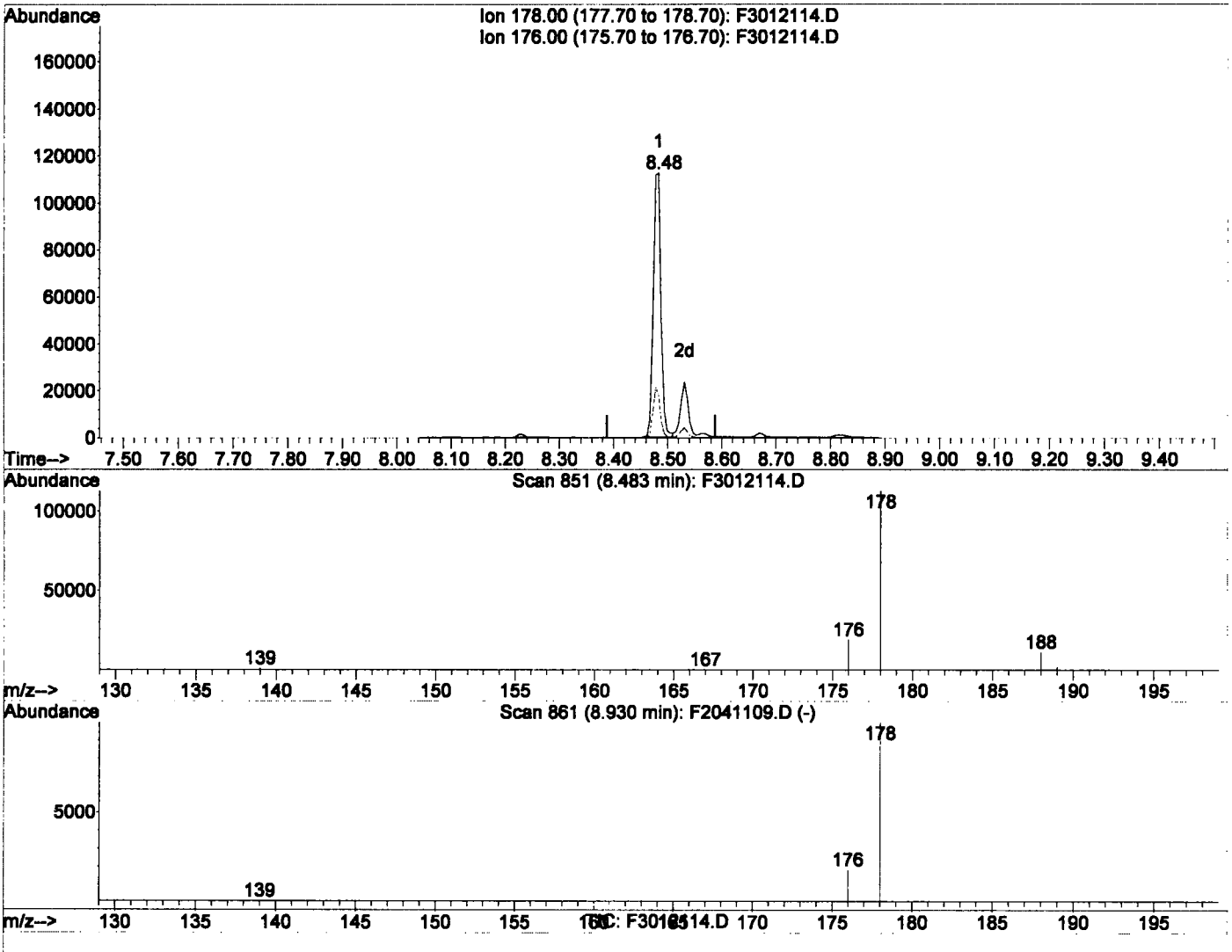
response 3306

Ion	Exp%	Act%
166.00	100	100
165.00	88.20	96.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(14) Phenanthrene

8.48min 267.72ng/mL

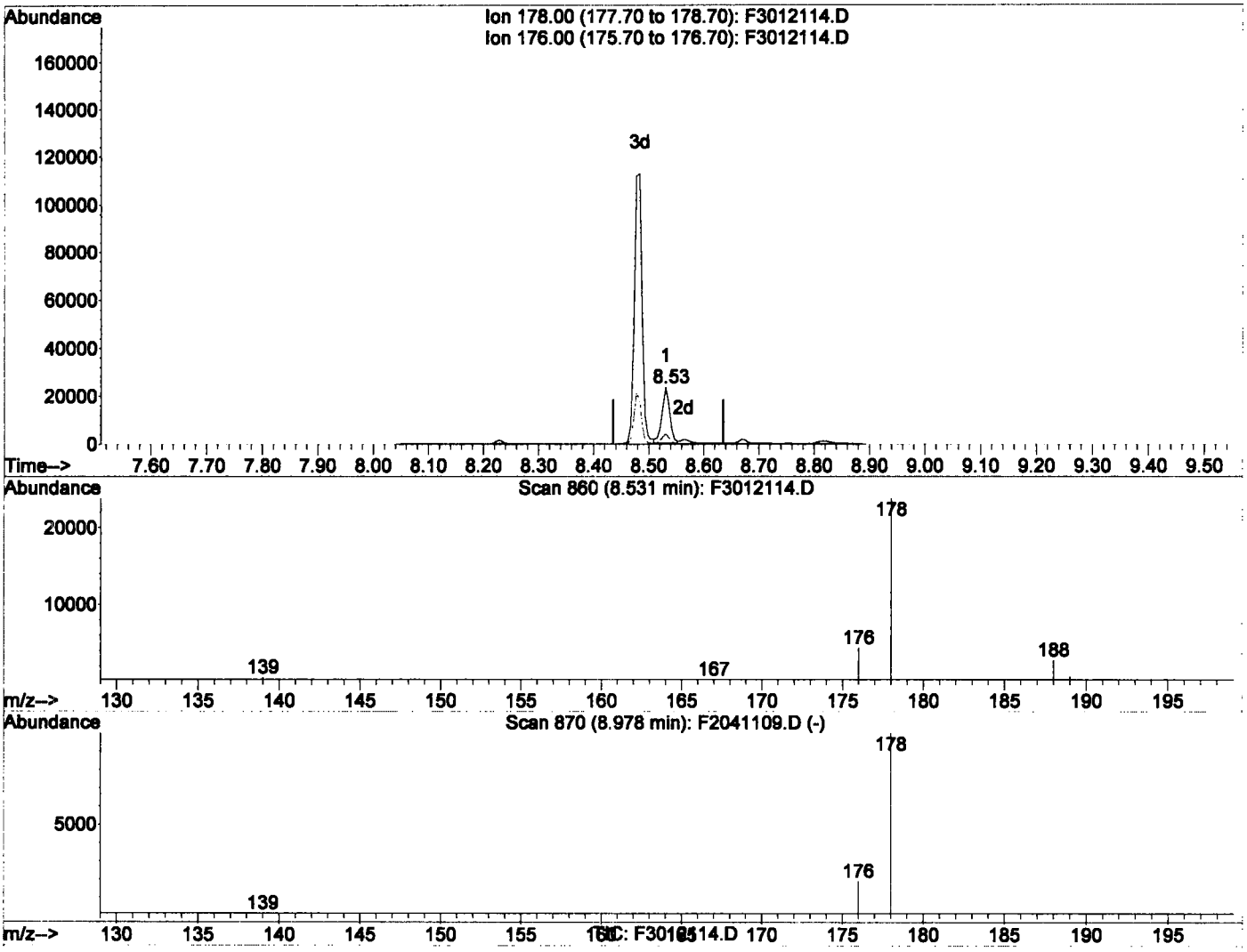
response 109120

Ion	Exp%	Act%
178.00	100	100
176.00	18.10	18.01
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(15) Anthracene (T)

8.53min 58.03ng/ml

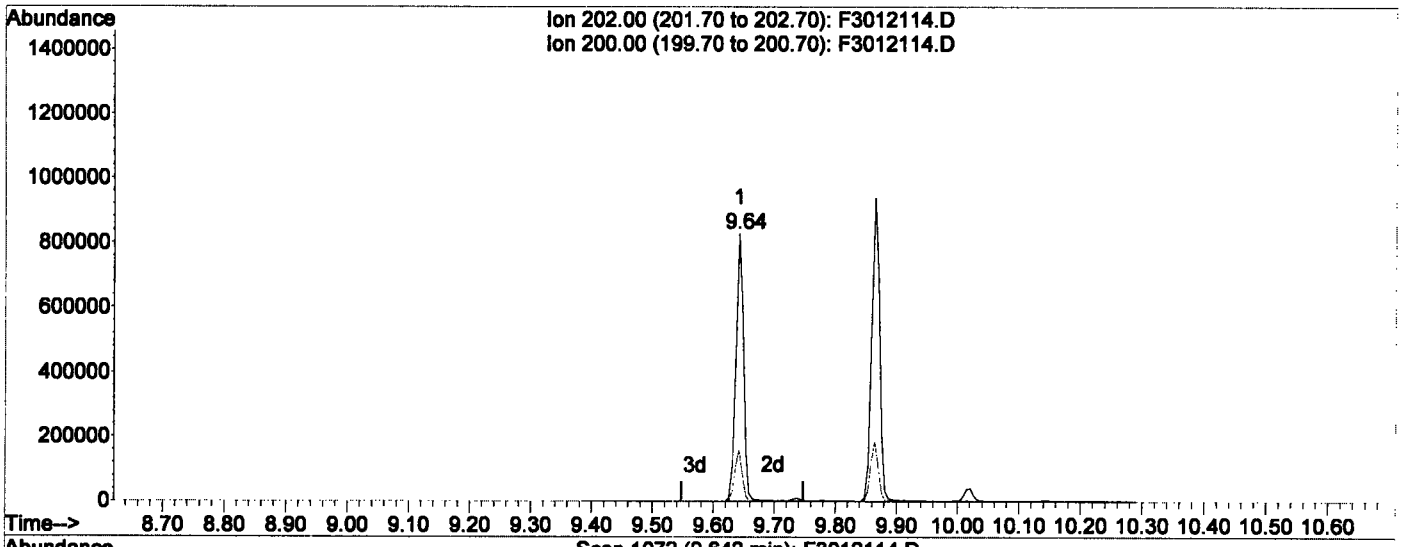
response 22716

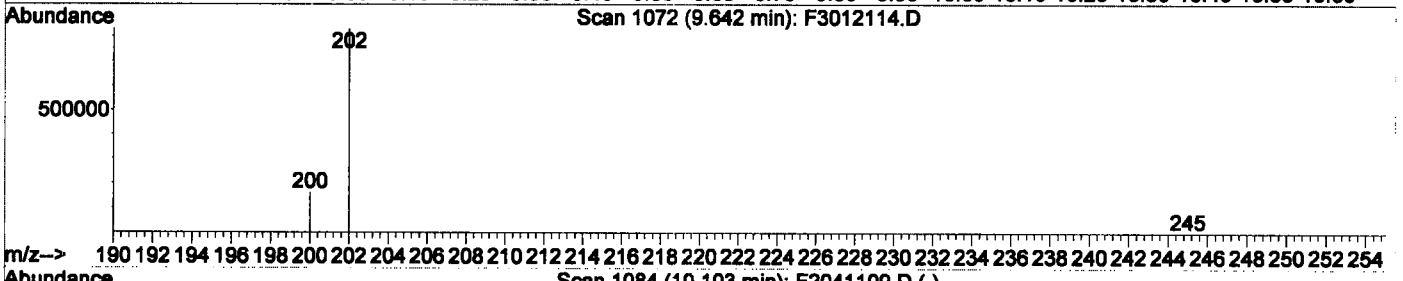
Ion	Exp%	Act%
178.00	100	100
176.00	16.60	16.31
0.00	0.00	0.00
0.00	0.00	0.00

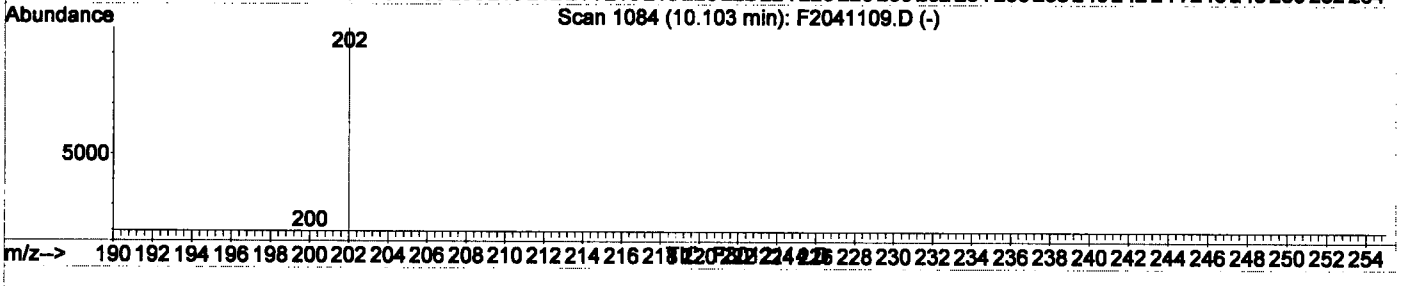
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(18) Fluoranthene (T)

9.64min 1894.42ng/ml

response 726212

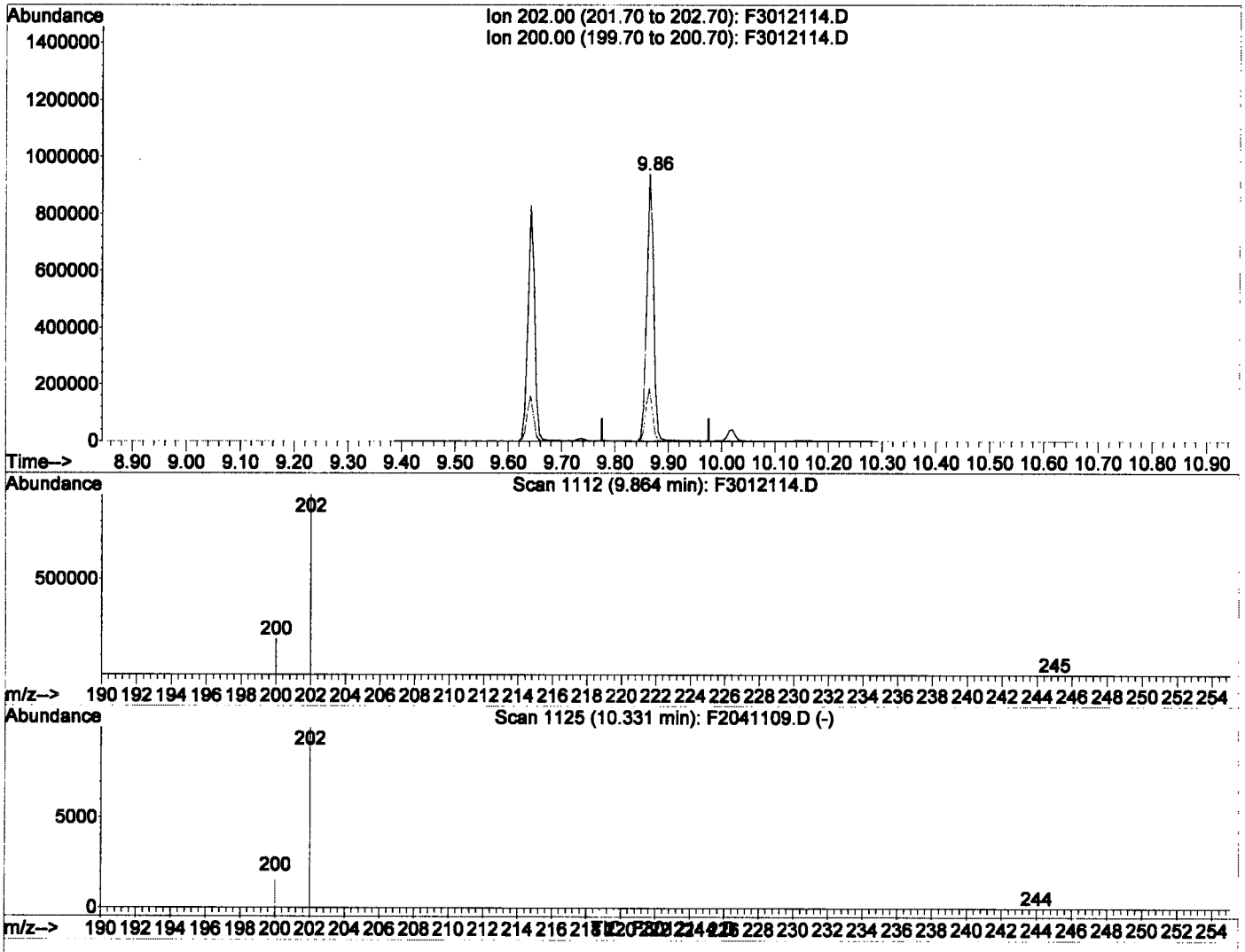
Ion	Exp%	Act%
202.00	100	100
200.00	18.60	19.10
0.00	0.00	0.00
0.00	0.00	0.00

F3012114.D F21227.M Tue Jan 22 09:45:34 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(19) Pyrene (T)

9.86min 2123.83ng/ml

response 841543

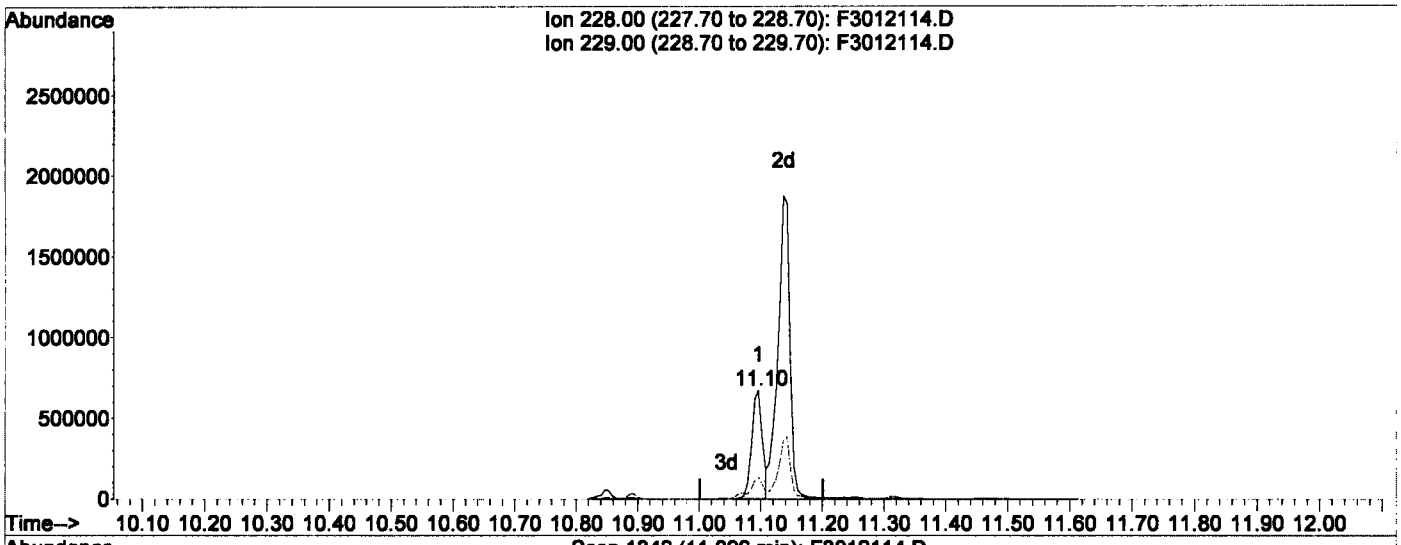
Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.36
0.00	0.00	0.00
0.00	0.00	0.00

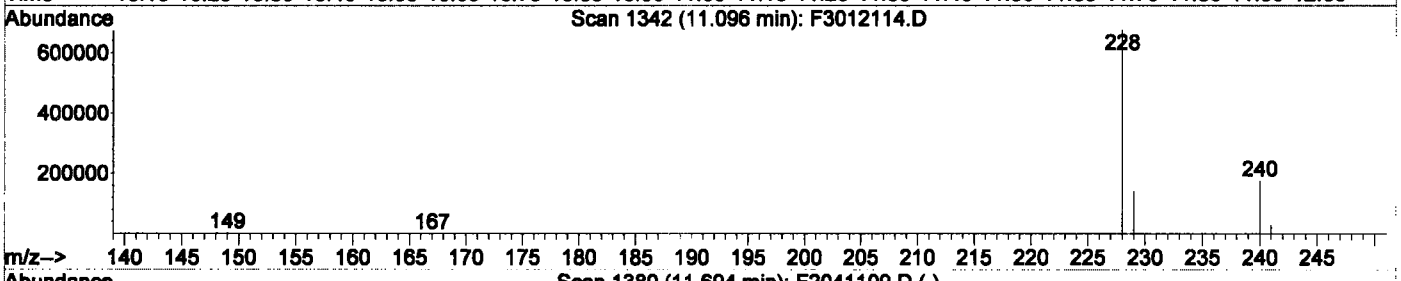
F3012114.D F21227.M Tue Jan 22 09:45:38 2013 VOAGCMS1

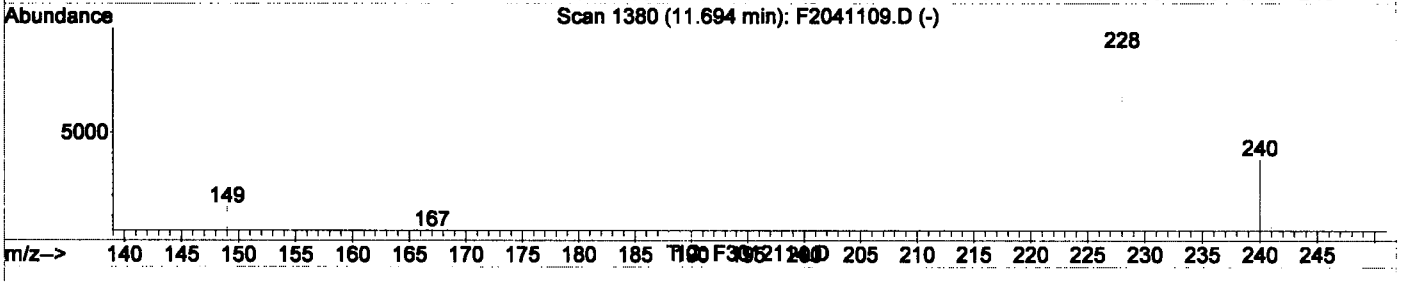
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(23) Benz(a)Anthracene (T)

11.10min 2197.65ng/ml

response 799448

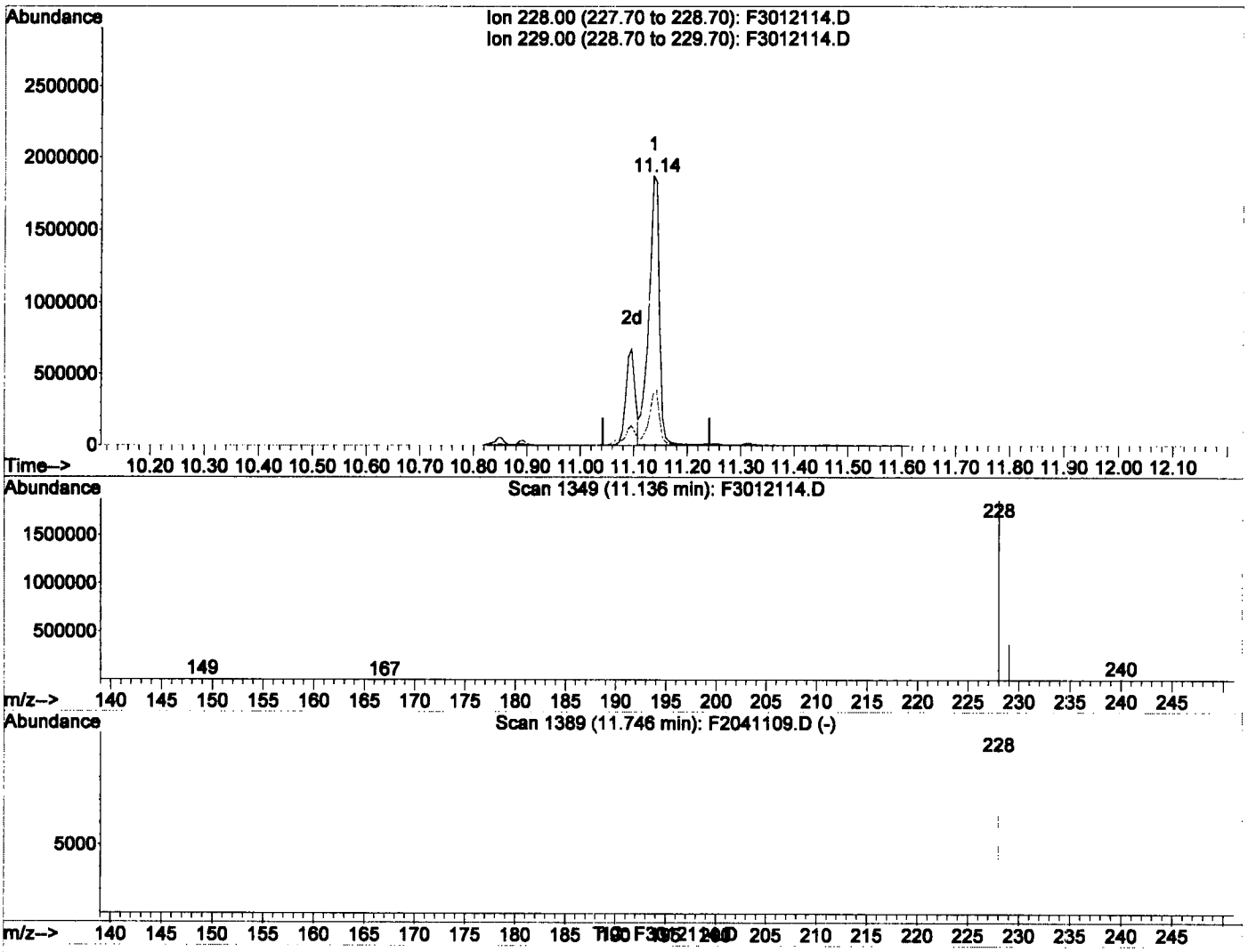
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	20.60
0.00	0.00	0.00
0.00	0.00	0.00

F3012114.D F21227.M Tue Jan 22 09:45:44 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(24) Chrysene (T)

11.14min 7268.80ng/ml

response 2548059

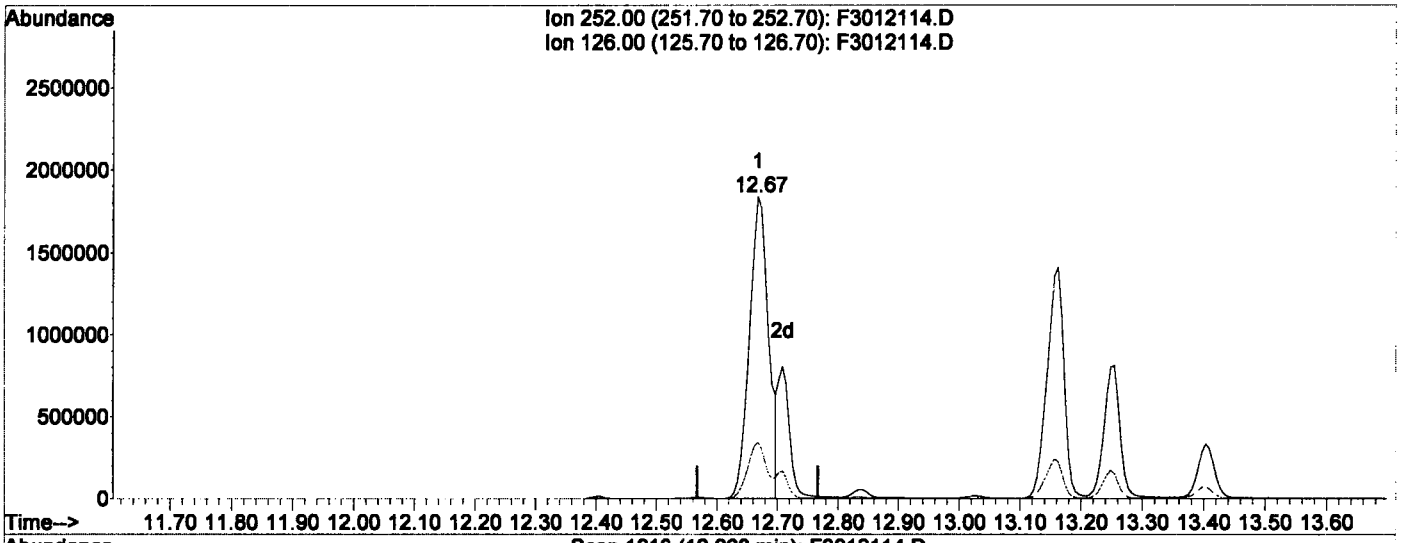
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	20.24
0.00	0.00	0.00
0.00	0.00	0.00

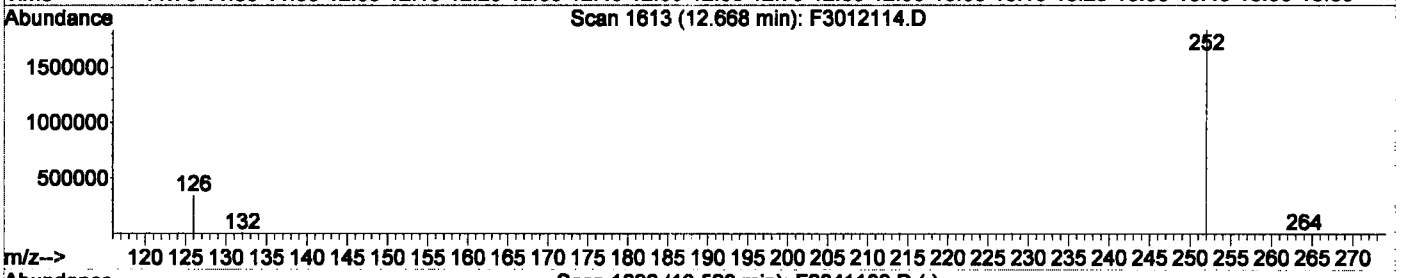
F3012114.D F21227.M Tue Jan 22 09:45:49 2013 VOAGCMS1

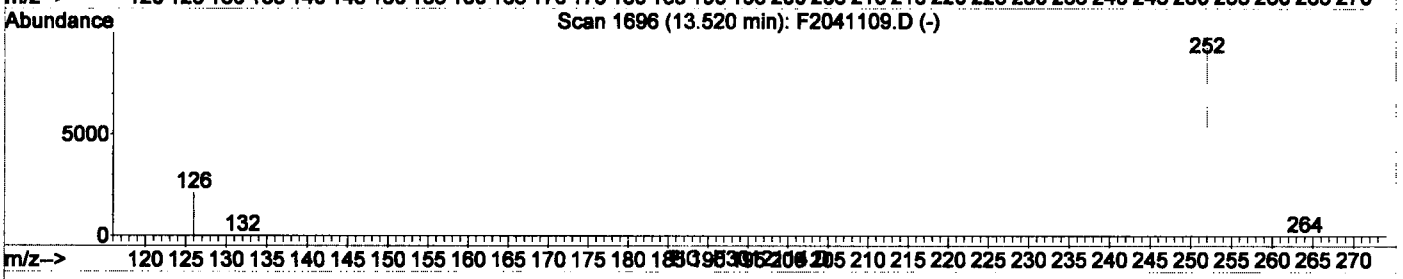
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.67min 11864.87ng/ml

response 4051331

Q-28

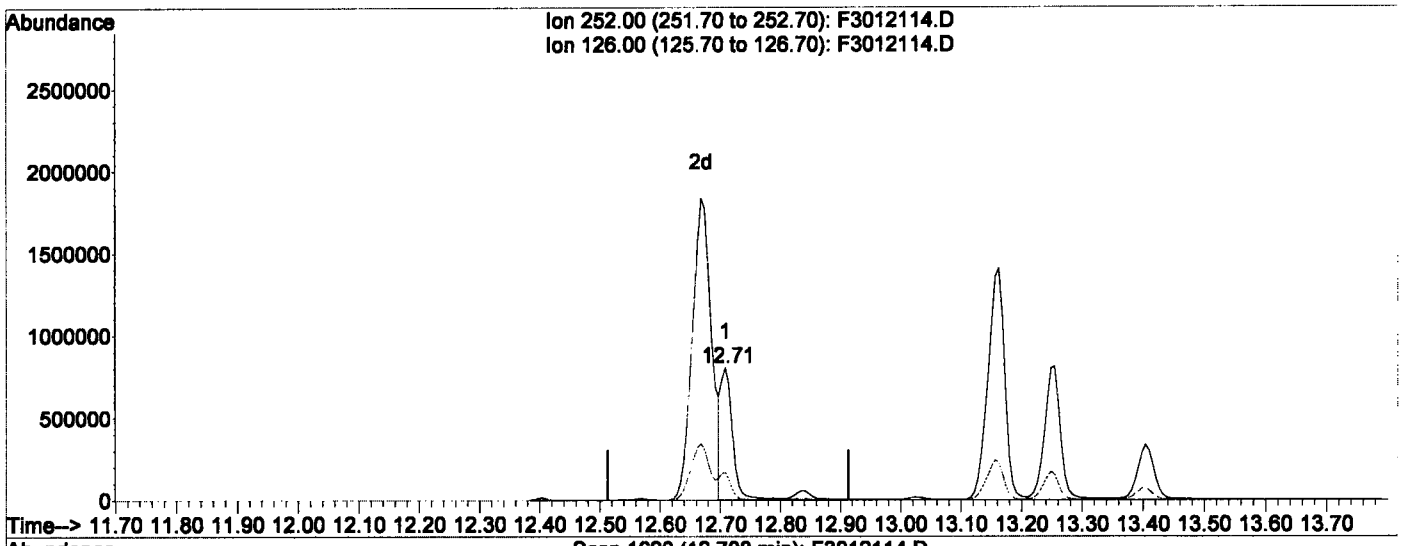
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	18.19
0.00	0.00	0.00
0.00	0.00	0.00

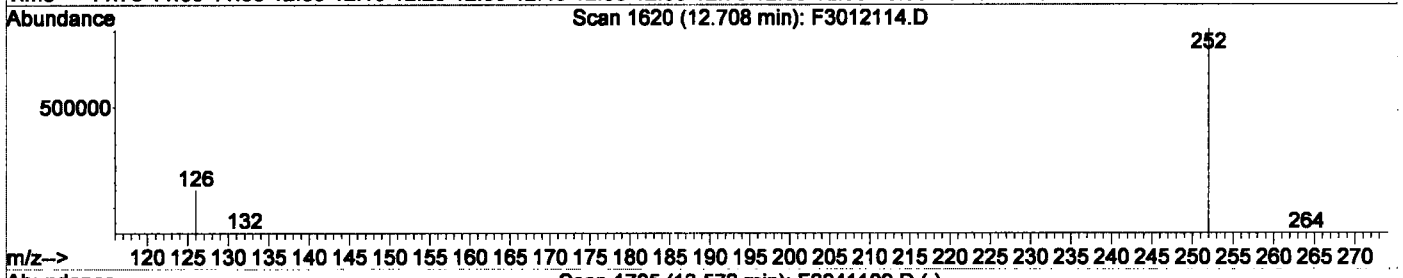
F3012114.D F21227.M Tue Jan 22 09:45:57 2013 VOAGCMS1

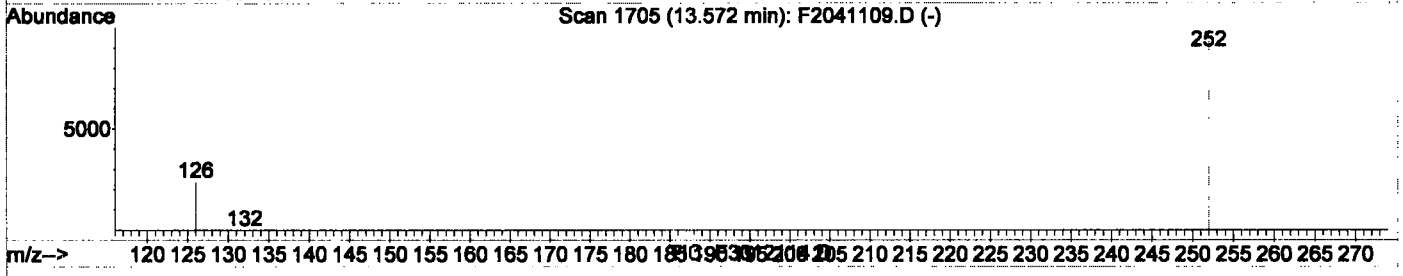
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.71min 2856.30ng/ml

response 1056646

Q28

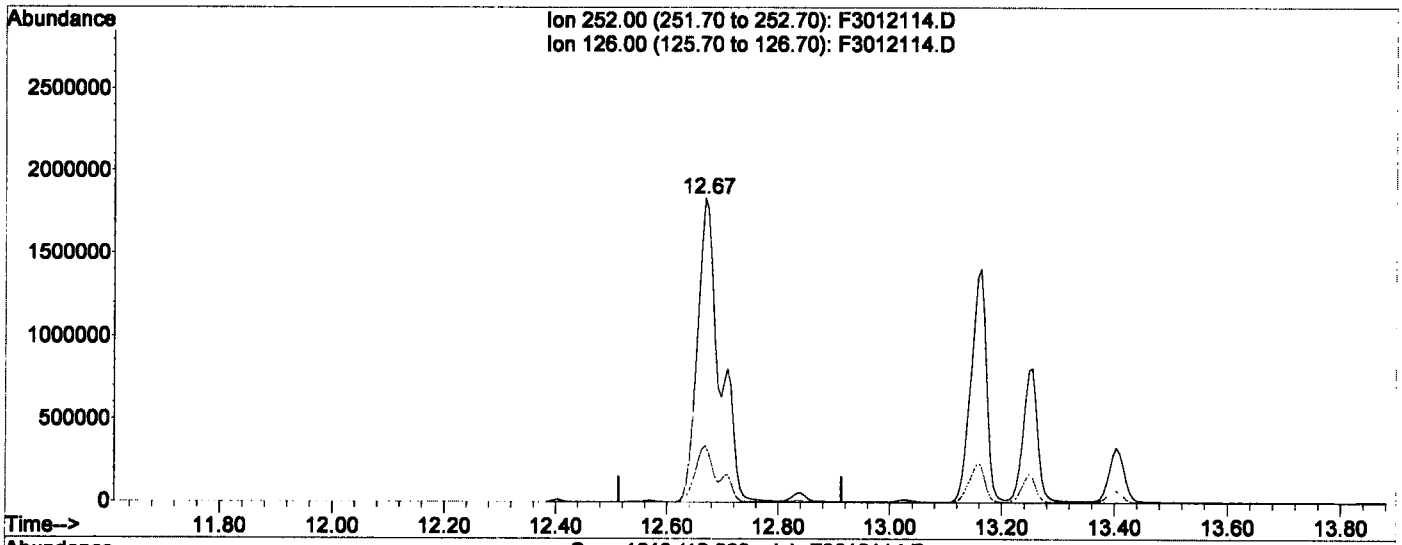
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	23.39
0.00	0.00	0.00
0.00	0.00	0.00

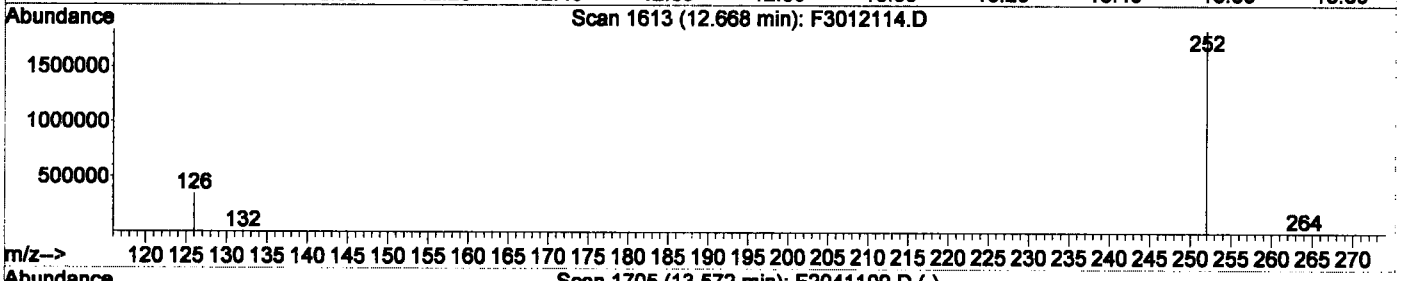
F3012114.D F21227.M Tue Jan 22 09:46:01 2013 VOAGCMS1

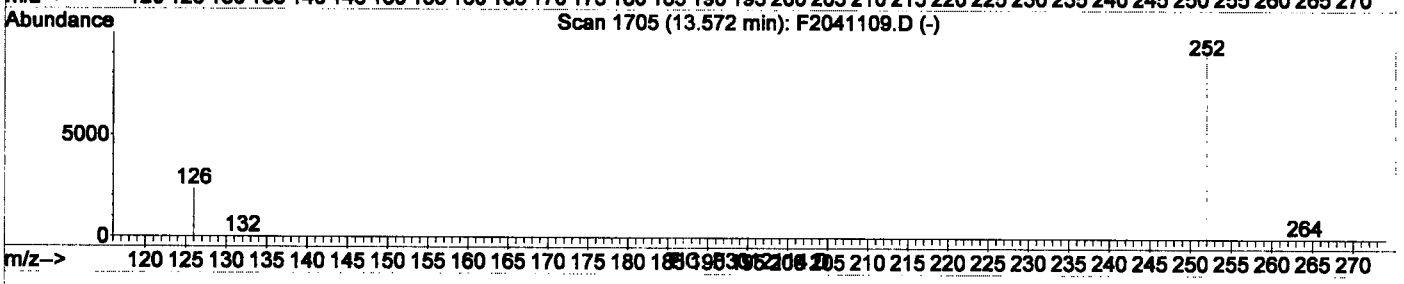
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:46 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.67min 14207.39ng/ml m

response 5126440

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.66
0.00	0.00	0.00
0.00	0.00	0.00

Q. 26
1-22-13 BSO

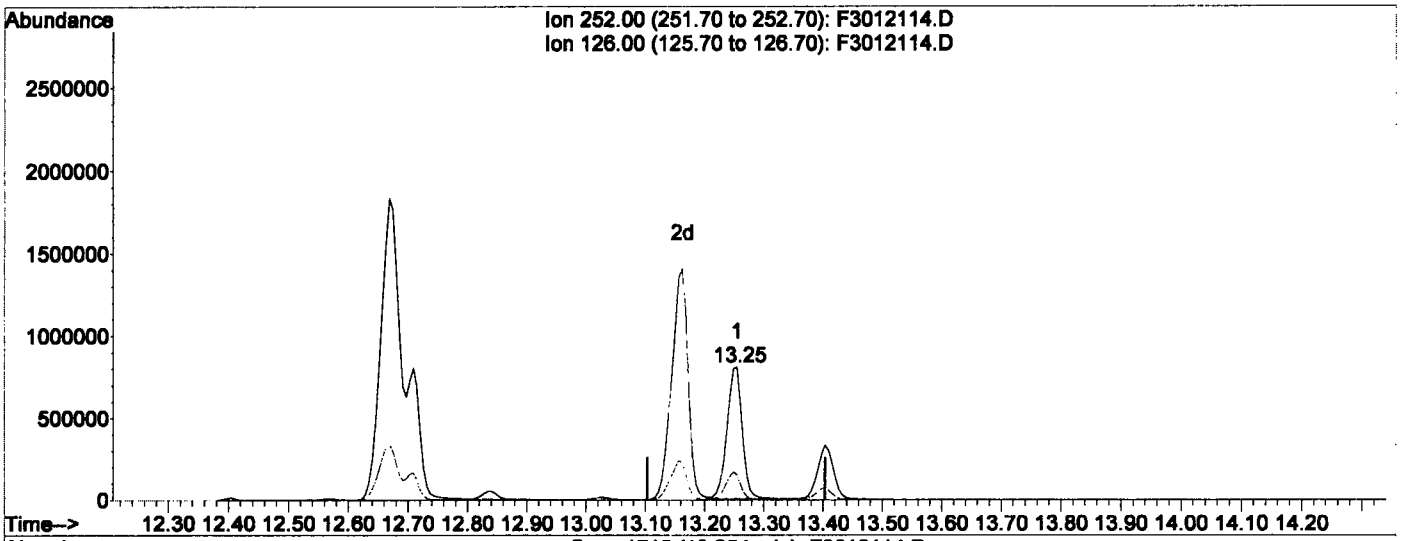
1/23/13 MK

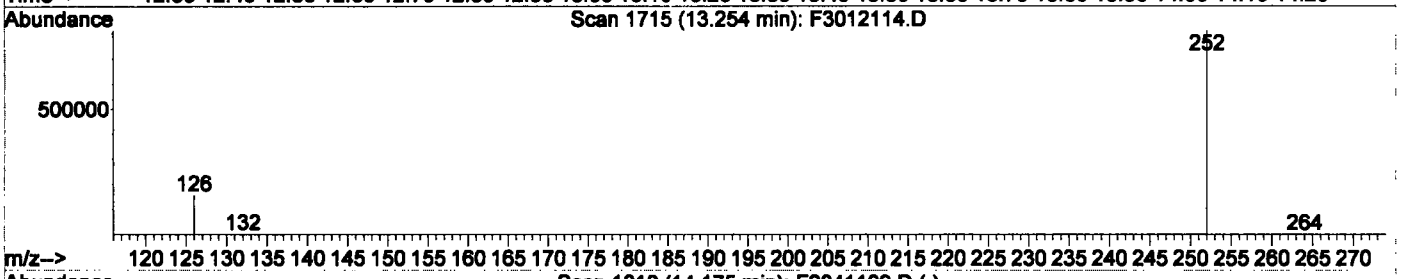
F3012114.D F21227.M Tue Jan 22 09:46:20 2013 VOAGCMS1

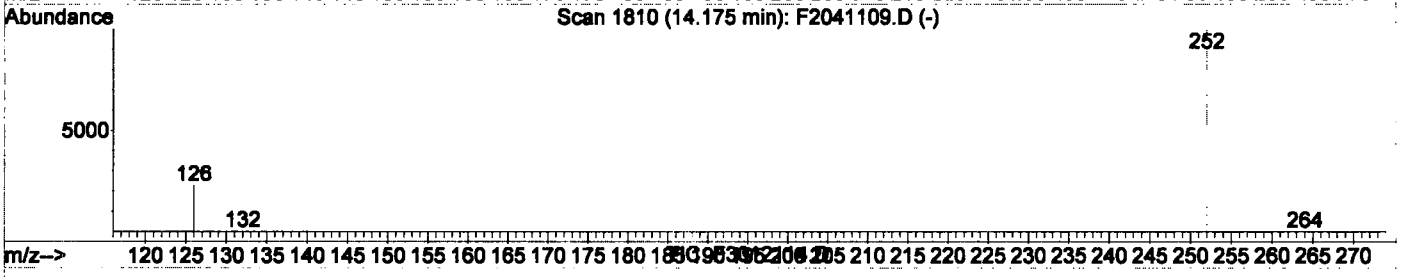
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:46 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(32) Benzo(a)Pyrene (T)

13.25min 4507.87ng/ml

response 1432923

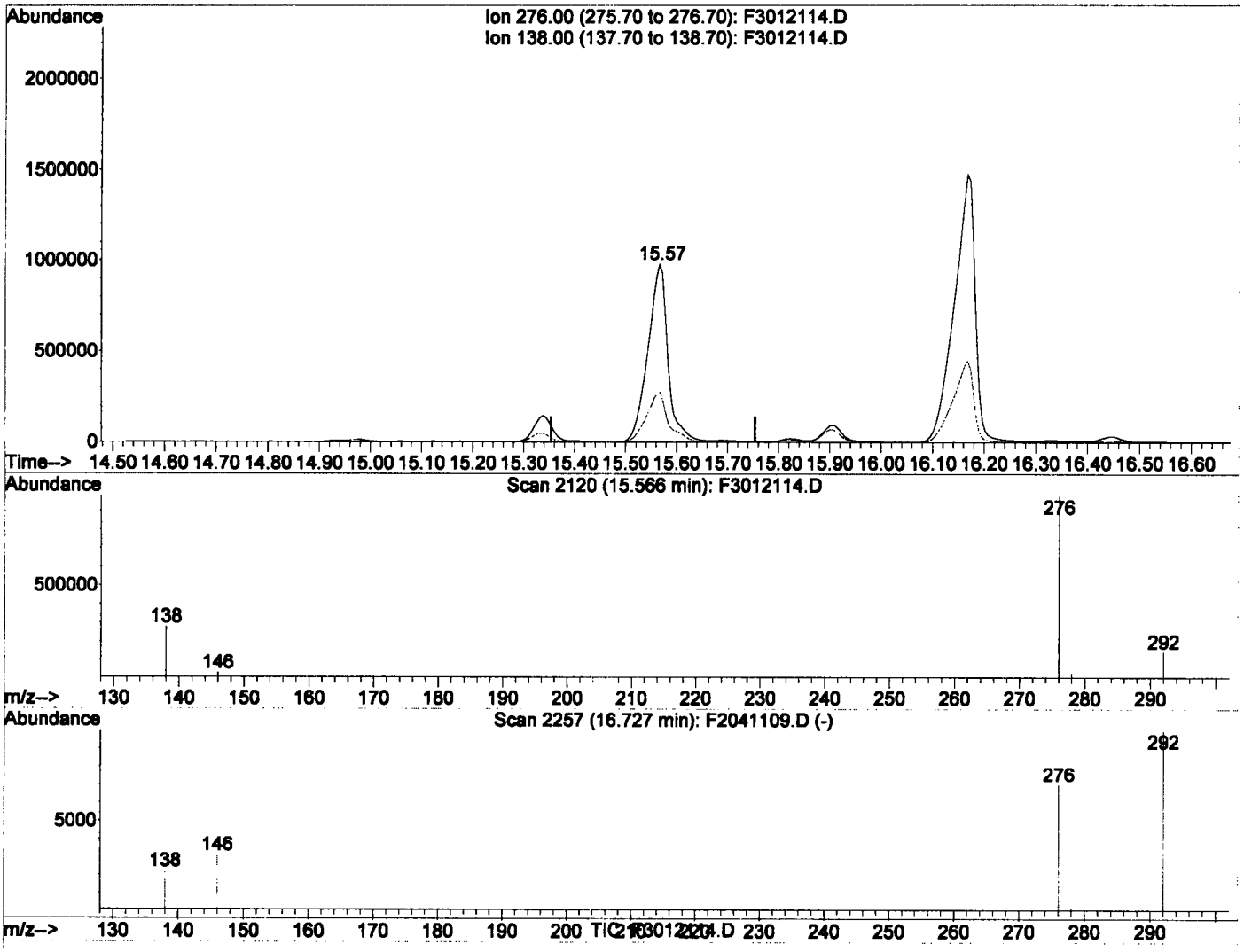
Ion	Exp%	Act%
252.00	100	100
126.00	20.10	20.65
0.00	0.00	0.00
0.00	0.00	0.00

F3012114.D F21227.M Tue Jan 22 09:46:27 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:46 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.57min 7868.94ng/ml

response 2664186

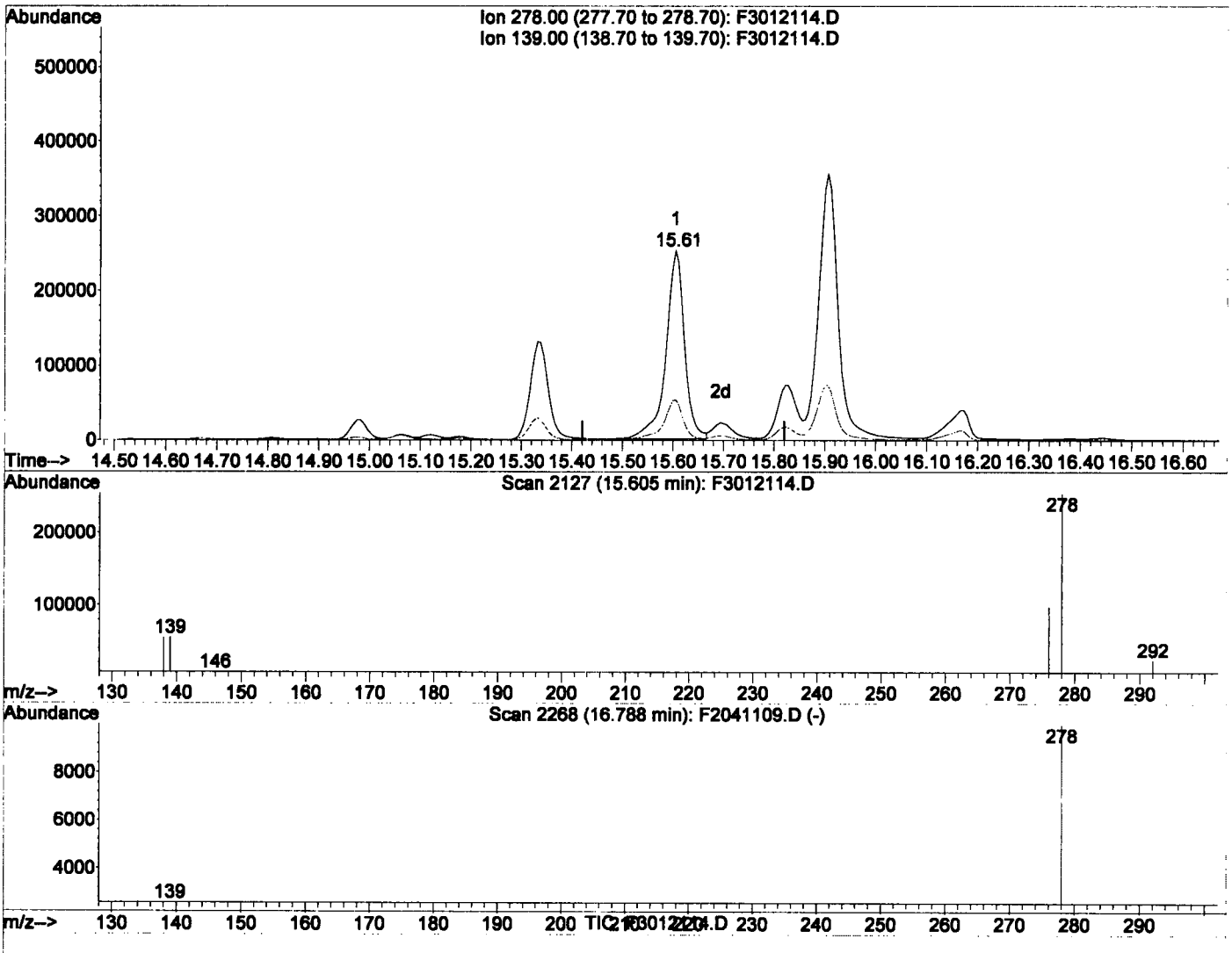
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	30.70
0.00	0.00	0.00
0.00	0.00	0.00

F3012114.D F21227.M Tue Jan 22 09:46:35 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:46 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(36) Dibenz(a,h)Anthracene (T)

15.61min 1998.72ng/ml

response 645624

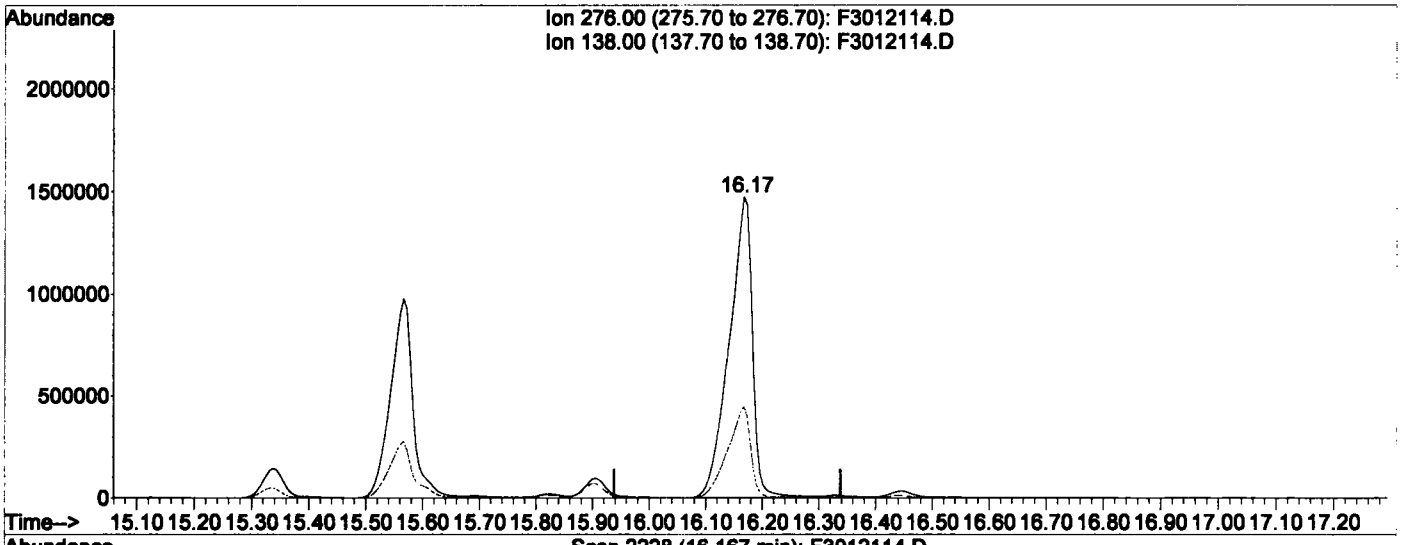
Ion	Exp%	Act%
278.00	100	100
139.00	25.90	22.41
0.00	0.00	0.00
0.00	0.00	0.00

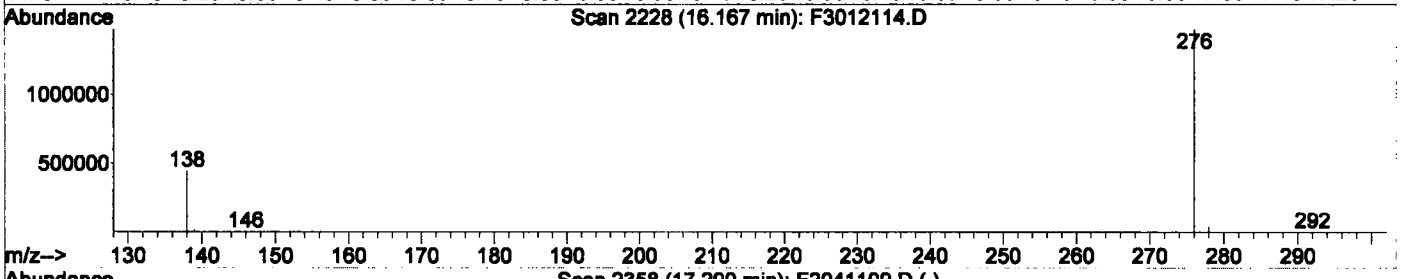
F3012114.D F21227.M Tue Jan 22 09:46:41 2013 VOAGCMS1

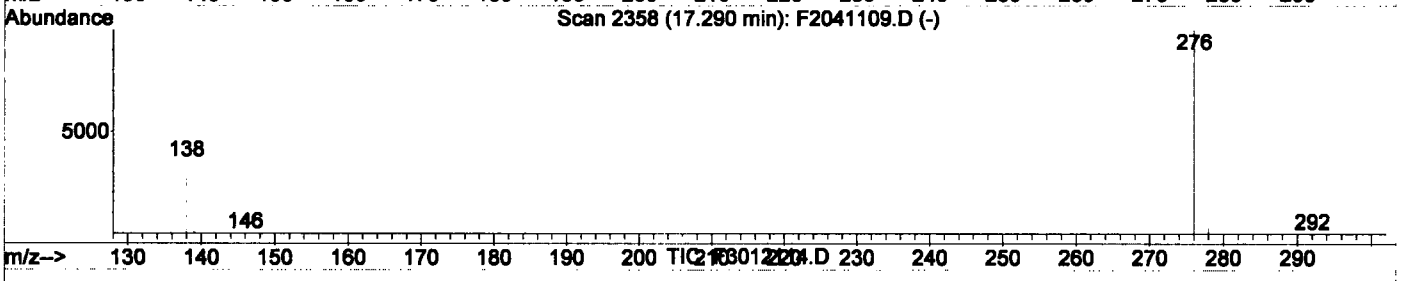
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:46 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(37) Benzo(g,h,i)Perylene (T)

16.17min 12357.90ng/ml

response 4164685

RL-2

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	968707	2000.000 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	464925	2000.000 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	772509	2000.000 ng/ml	-0.01
20) Chrysene-d12 (ISTD)	11.11	240	733634	2000.000 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	694742	2000.000 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.55	292	614545	2000.000 ng/mL	0.00
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.36	172	716523	2148.118 ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	760896	2567.254 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthalene	5.34	128	7554	14.394 ng/ml	93
3) 2-Methylnaphthalene	6.00	142	2727	8.740 ng/ml	96
4) 1-Methylnaphthalene	6.10	142	1820	6.315 ng/ml	96
7) Dimethylphthalate	6.75	163	260	0.861 ng/mL#	73
8) Acenaphthylene	6.87	152	7402	17.194 ng/ml	99
9) Acenaphthene	7.04	153	4221	15.470 ng/ml	99
10) Dibenzofuran	7.22	168	5043	13.071 ng/mL	95
11) Diethylphthalate	7.43	149	2686	8.668 ng/mL	84
12) Fluorene	7.55	166	3306	11.244 ng/ml	91
14) Phenanthrene	8.48	178	109120	267.720 ng/mL	100
15) Anthracene	8.53	178	22716	58.026 ng/ml	99
16) Carbazole	8.69	167	21518	67.382 ng/ml	97
17) Di-n-butylphthalate	9.03	149	11172	22.877 ng/mL	99
18) Fluoranthene	9.64	202	726212	1894.415 ng/ml	99
19) Pyrene	9.86	202	841543	2123.825 ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	10109	53.191 ng/mL	99
23) Benz(a)Anthracene	11.10	228	799448	2197.654 ng/ml	96
24) Chrysene	11.14	228	2548059	7268.802 ng/ml	97
25) Bis(2-ethylhexyl)phthalate	11.12	149	25380	98.147 ng/mL	85
26) Di-n-octyl phthalate	12.00	149	347	72.066 ng/mL#	87
28) Benzo(b)Fluoranthene	12.67	252	4051331	11864.866 ng/ml	98
29) Benzo(k)Fluoranthene	12.71	252	1056646	2856.297 ng/ml	94
30) Benzo(b+k)Fluoranthene	12.67	252	5234383	14506.544 ng/ml	97
31) Benzo (e) Pyrene	13.16	252	2695511	7781.232 ng/mL	98
32) Benzo(a)Pyrene	13.25	252	1432923	4507.865 ng/ml	99
33) Perylene	13.40	252	628181	1820.706 ng/mL	100
35) Indeno(1,2,3-cd)Pyrene	15.57	276	2664186	7868.941 ng/ml	98
36) Dibenz(a,h)Anthracene	15.61	278	645624	1998.725 ng/ml	93
37) Benzo(g,h,i)Perylene	16.17	276	4164685	12357.898 ng/ml	96

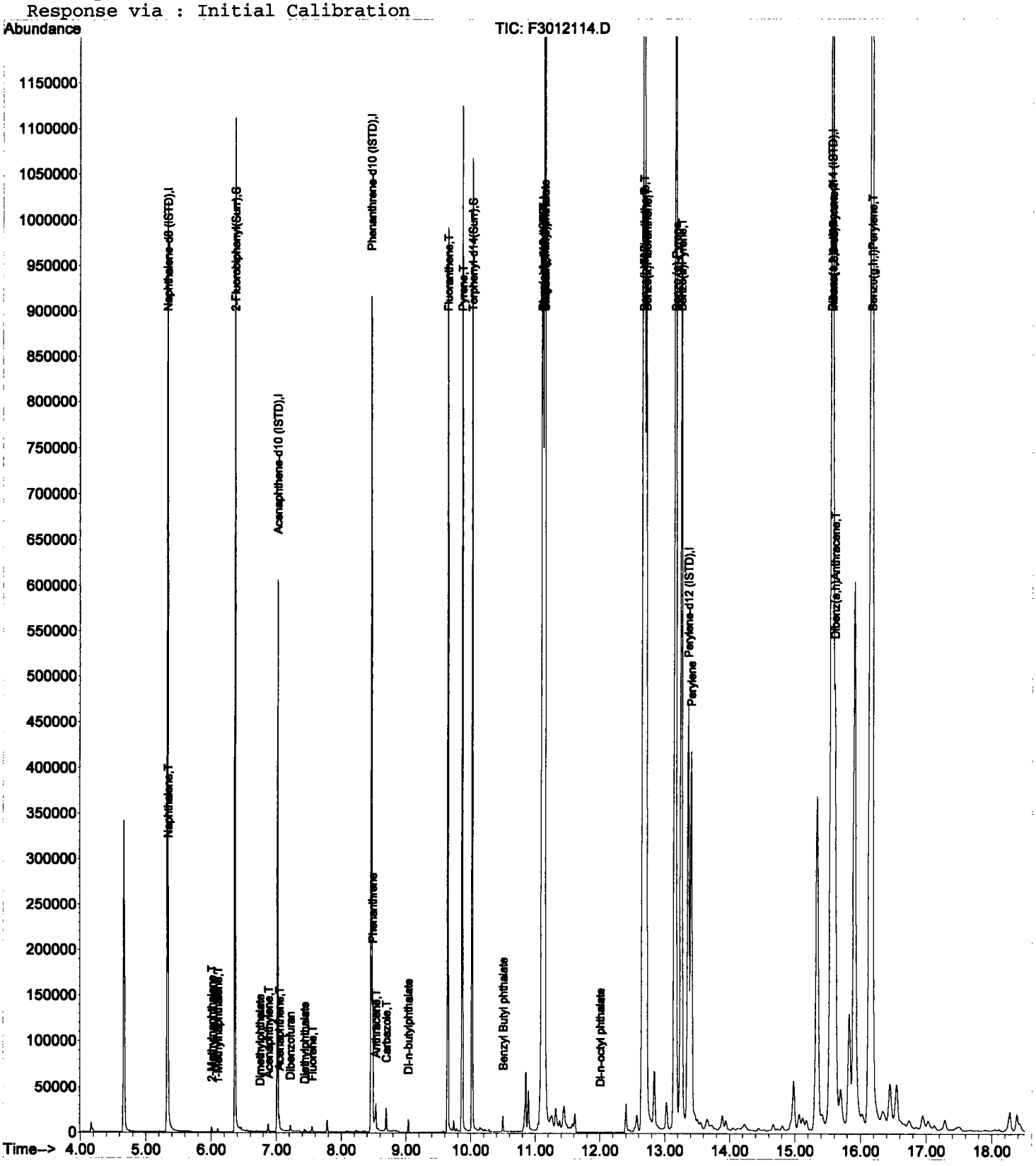
MDJ 1-22-13 BSJ

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012114.D Vial: 11
Acq On : 21 Jan 2013 7:37 pm Operator: bsj
Sample : A13A243-08 Inst : SV-GCMS6
Misc : 1x Soil 11.55g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:48 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	971084	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	484655	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	797828	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	621557	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	516549	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	408543	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	751003	2159.832	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	734549	2925.249	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	2222	4.224	ng/ml#	80
3) 2-Methylnaphthalene	6.00	142	1175	3.757	ng/ml	88
4) 1-Methylnaphthalene	6.10	142	731	2.530	ng/ml	83
7) Dimethylphthalate	6.75	163	217	0.689	ng/mL#	73
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	7.22	168	341	0.848	ng/mL#	41
11) Diethylphthalate	7.43	149	3121	9.662	ng/mL	80
12) Fluorene	7.55	166	278	0.907	ng/ml	96
14) Phenanthrene	8.48	178	1910	4.537	ng/mL	95
15) Anthracene	8.53	178	379	0.937	ng/ml#	61
16) Carbazole	8.69	167	390	1.182	ng/ml#	69
17) Di-n-butylphthalate	9.04	149	12146	24.082	ng/mL	100
18) Fluoranthene	9.64	202	3907	9.868	ng/ml	99
19) Pyrene	9.86	202	4546	(11.109)	ng/ml J	99
22) Benzyl Butyl phthalate	10.50	149	9488	58.925	ng/mL	100
23) Benz(a)Anthracene	11.10	228	3839	(12.456)	ng/ml J	100
24) Chrysene	11.14	228	5470	(18.418)	ng/ml J	99
25) Bis(2-ethylhexyl)phthalate	11.12	149	9084	41.463	ng/mL	100
26) Di-n-octyl phthalate	12.10	149	218	71.840	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	9097	35.832	ng/ml Q-28	99
29) Benzo(k)Fluoranthene	12.70	252	2654	9.649	ng/ml	92
30) Benzo(b+k)Fluoranthene	12.66	252	11694m	43.589	ng/ml Q-24	
31) Benzo (e) Pyrene	13.14	252	6465	25.101	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	3060	(12.947)	ng/ml J	98
33) Perylene	13.40	252	2188	8.529	ng/mL	84
35) Indeno(1,2,3-cd)Pyrene	15.54	276	7827	34.775	ng/ml	87
36) Dibenz(a,h)Anthracene	15.59	278	1355	6.310	ng/ml#	49
37) Benzo(g,h,i)Perylene	16.12	276	13728	61.275	ng/ml	96

NDR MB contamination MH 1/23/13

Q-28 Q-26

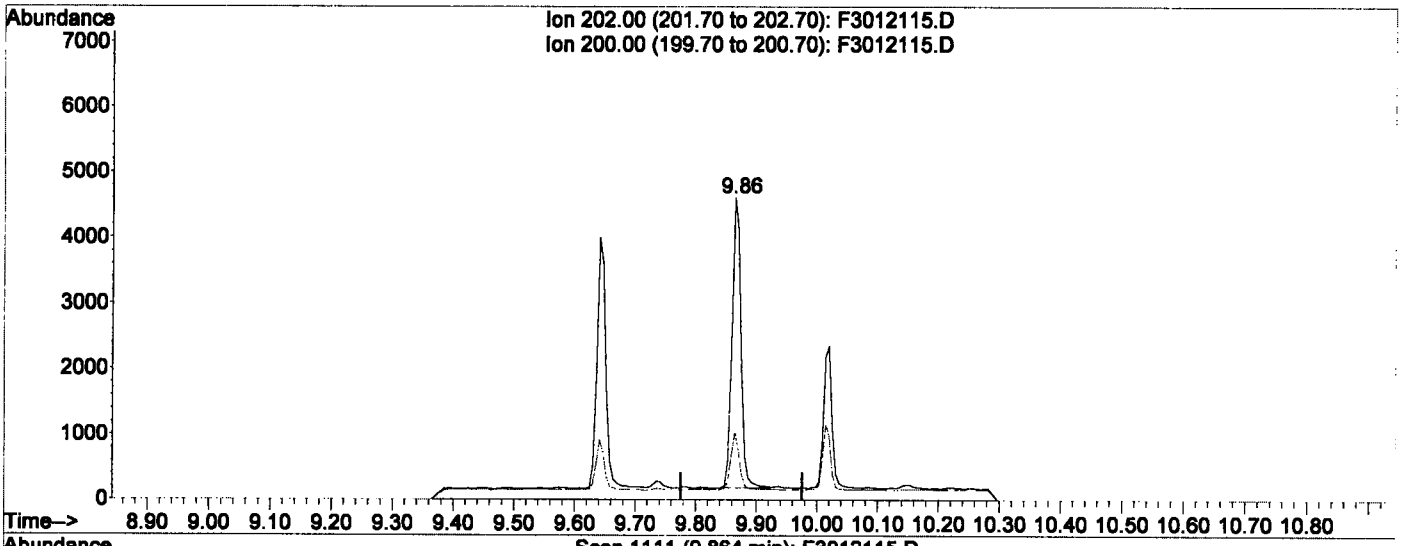
1-22-13 BSS

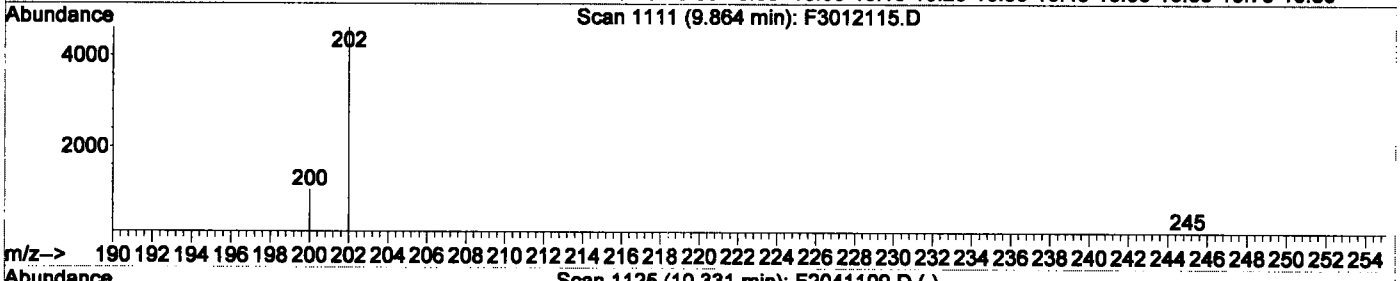
(#) = qualifier out of range (m) = manual integration
F3012115.D F21227.M Tue Jan 22 09:49:26 2013 VOAGCMS1 Page 1

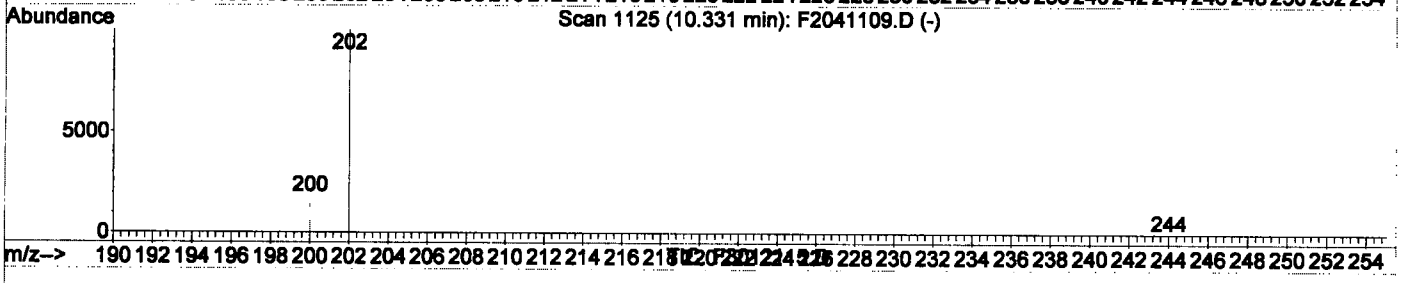
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(19) Pyrene (T)

9.86min 11.11ng/ml

response 4546

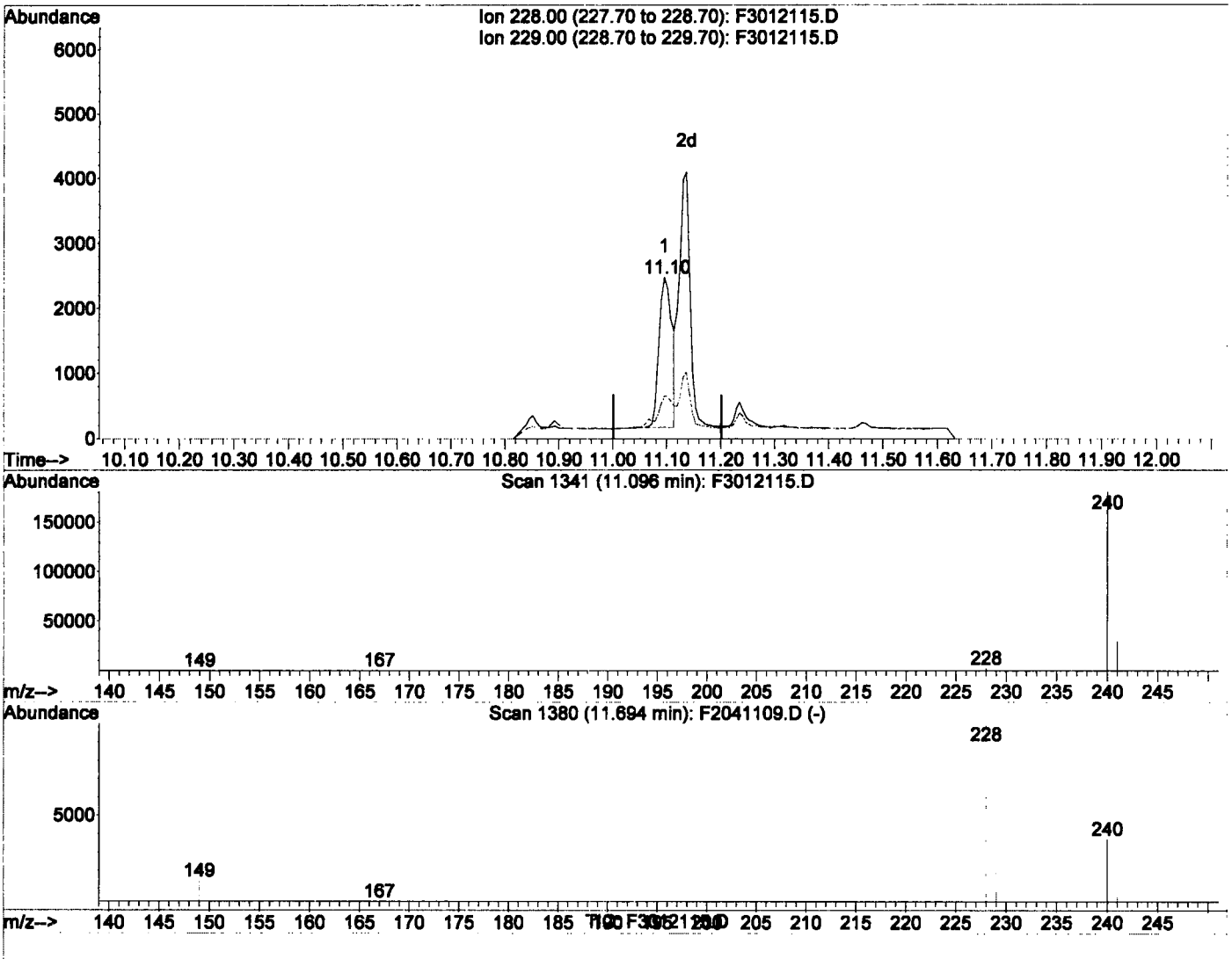
Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.47
0.00	0.00	0.00
0.00	0.00	0.00

F3012115.D F21227.M Tue Jan 22 09:48:26 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(23) Benz(a)Anthracene (T)

11.10min 12.46ng/ml

response 3839

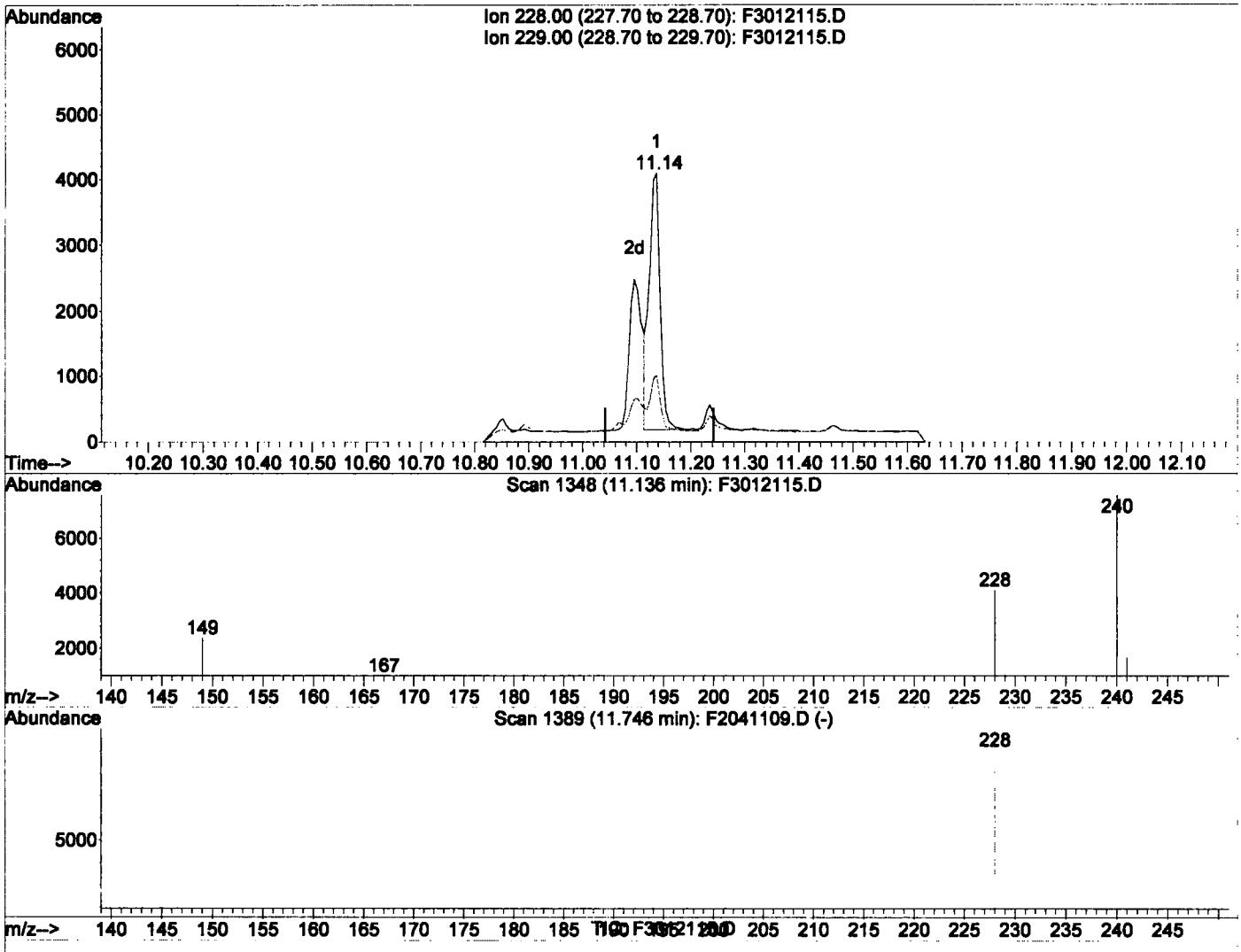
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	18.75
0.00	0.00	0.00
0.00	0.00	0.00

F3012115.D F21227.M Tue Jan 22 09:48:35 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(24) Chrysene (T)

11.14min 18.42ng/ml

response 5470

Ion	Exp%	Act%
228.00	100	100
229.00	19.10	19.52
0.00	0.00	0.00
0.00	0.00	0.00

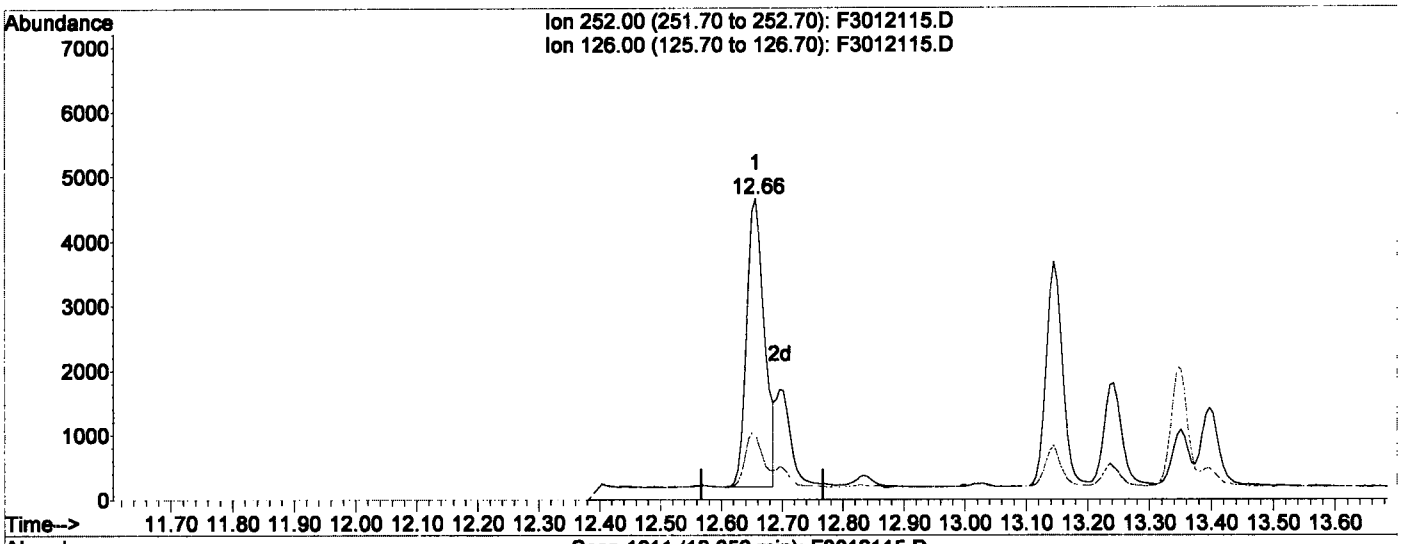
J

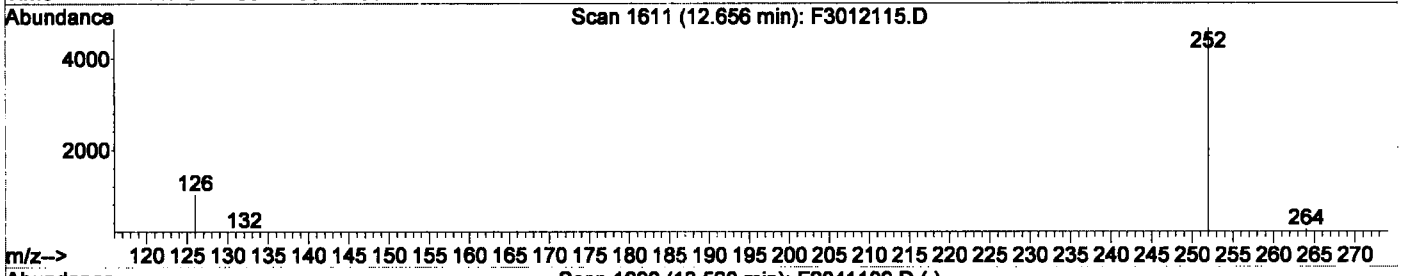
F3012115.D F21227.M Tue Jan 22 09:48:40 2013 VOAGCMS1

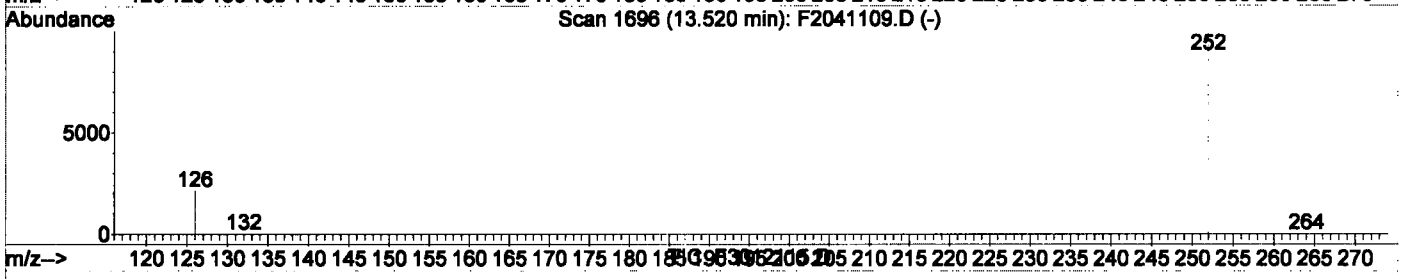
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.66min 35.83ng/ml

response 9097

Q-28

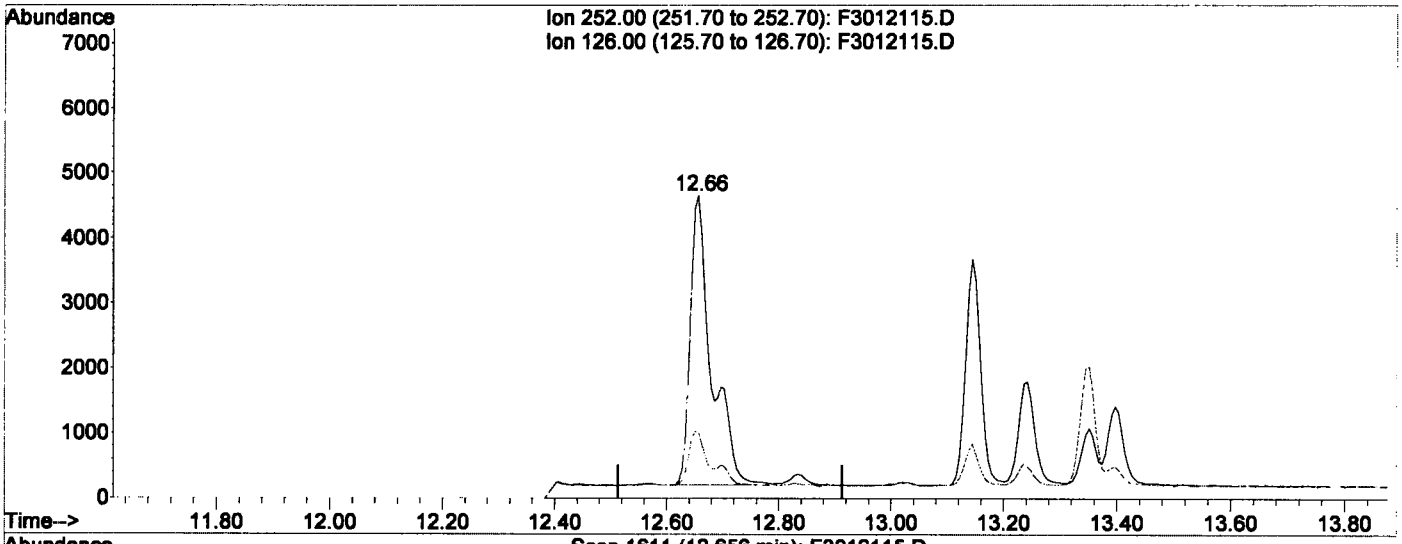
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	19.72
0.00	0.00	0.00
0.00	0.00	0.00

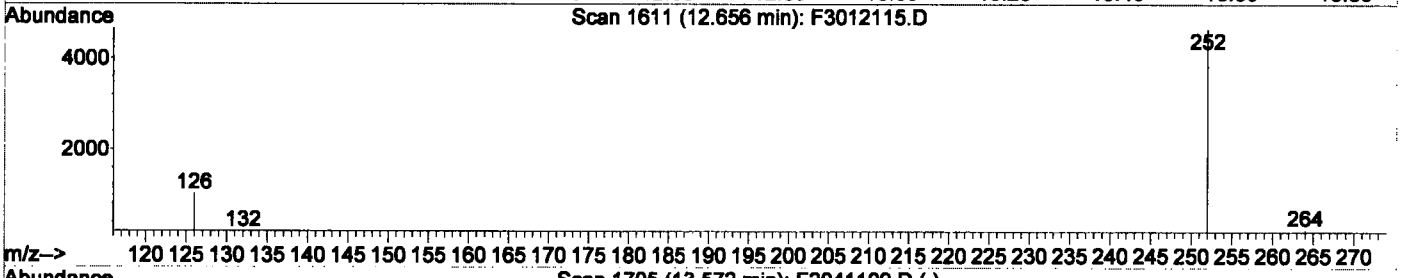
F3012115.D F21227.M Tue Jan 22 09:48:48 2013 VOAGCMS1

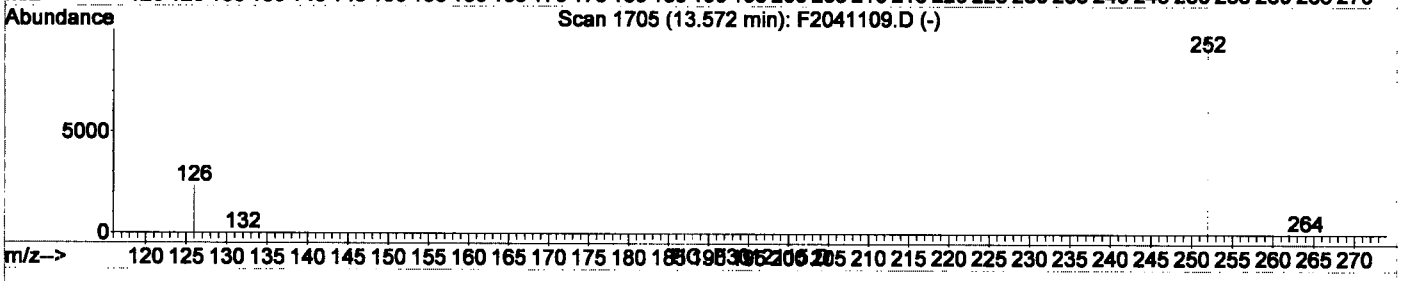
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:48 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.66min 43.59ng/ml m

response 11694

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	20.08
0.00	0.00	0.00
0.00	0.00	0.00

Q-24
1-22-13 355

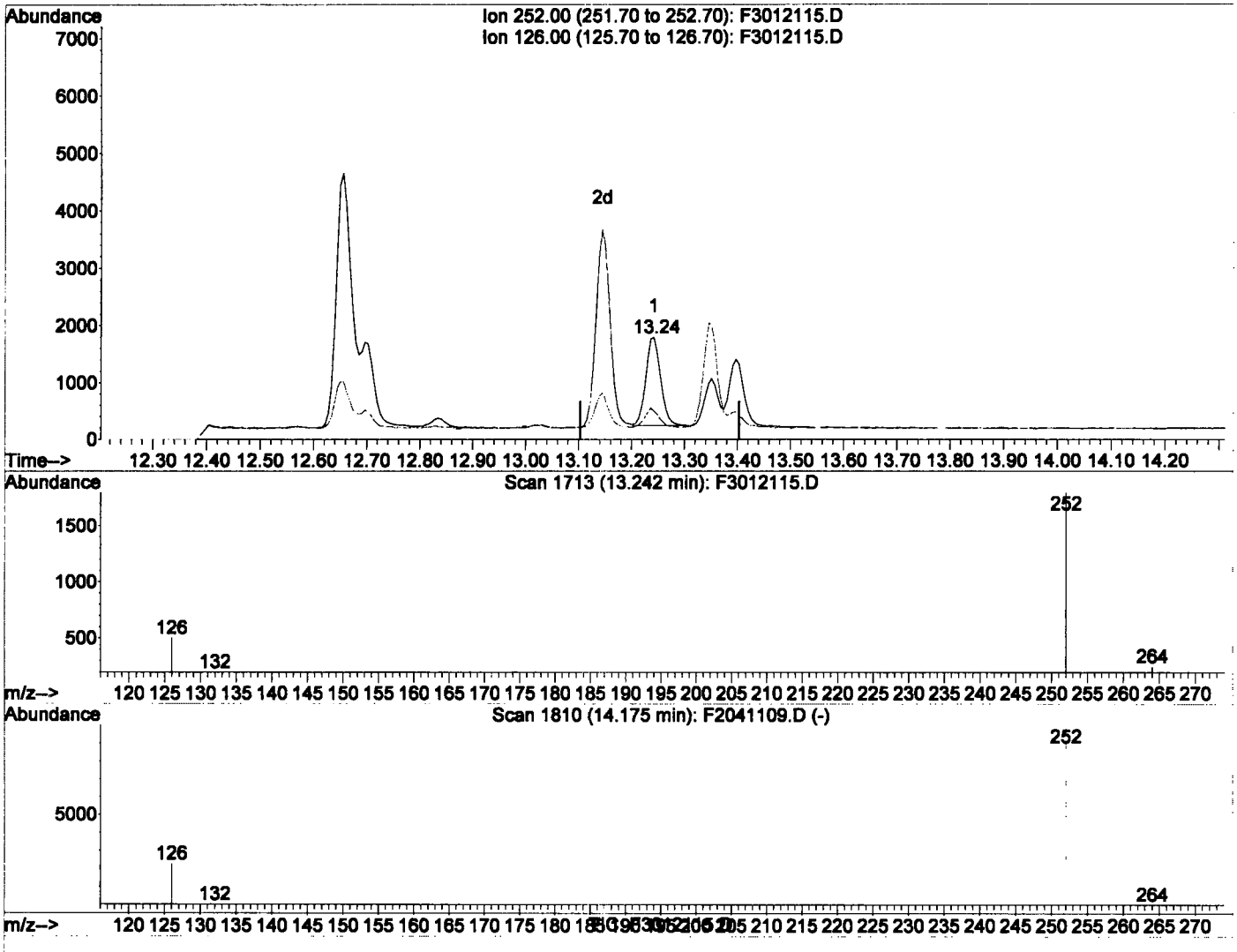
1/23/13 MK

F3012115.D F21227.M Tue Jan 22 09:49:00 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:48 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(32) Benzo(a)Pyrene (T)

13.24min 12.95ng/ml

response 3060

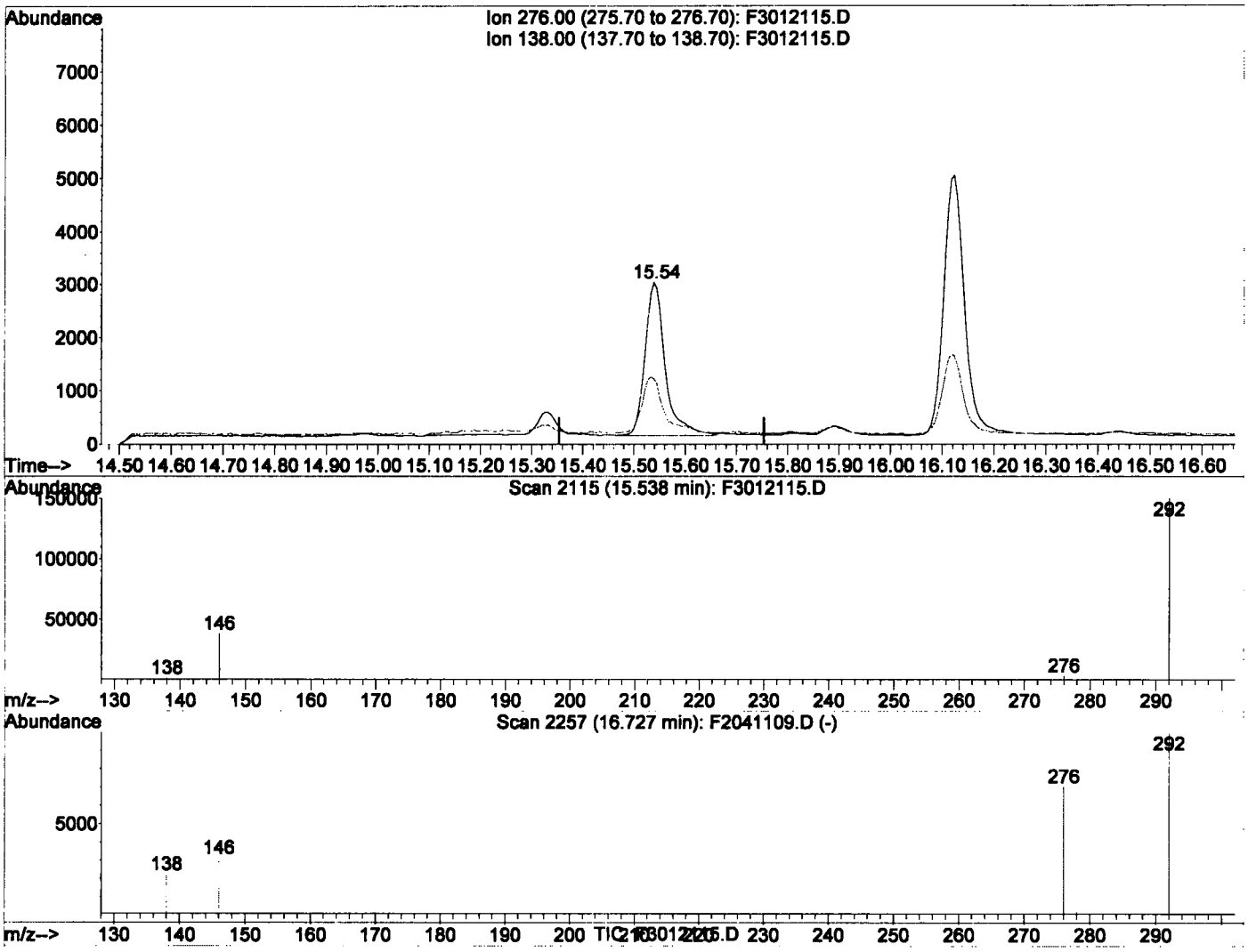
Ion	Exp%	Act%
252.00	100	100
126.00	20.10	21.24
0.00	0.00	0.00
0.00	0.00	0.00

F3012115.D F21227.M Tue Jan 22 09:49:05 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:48 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.54min 34.77ng/ml

response 7827

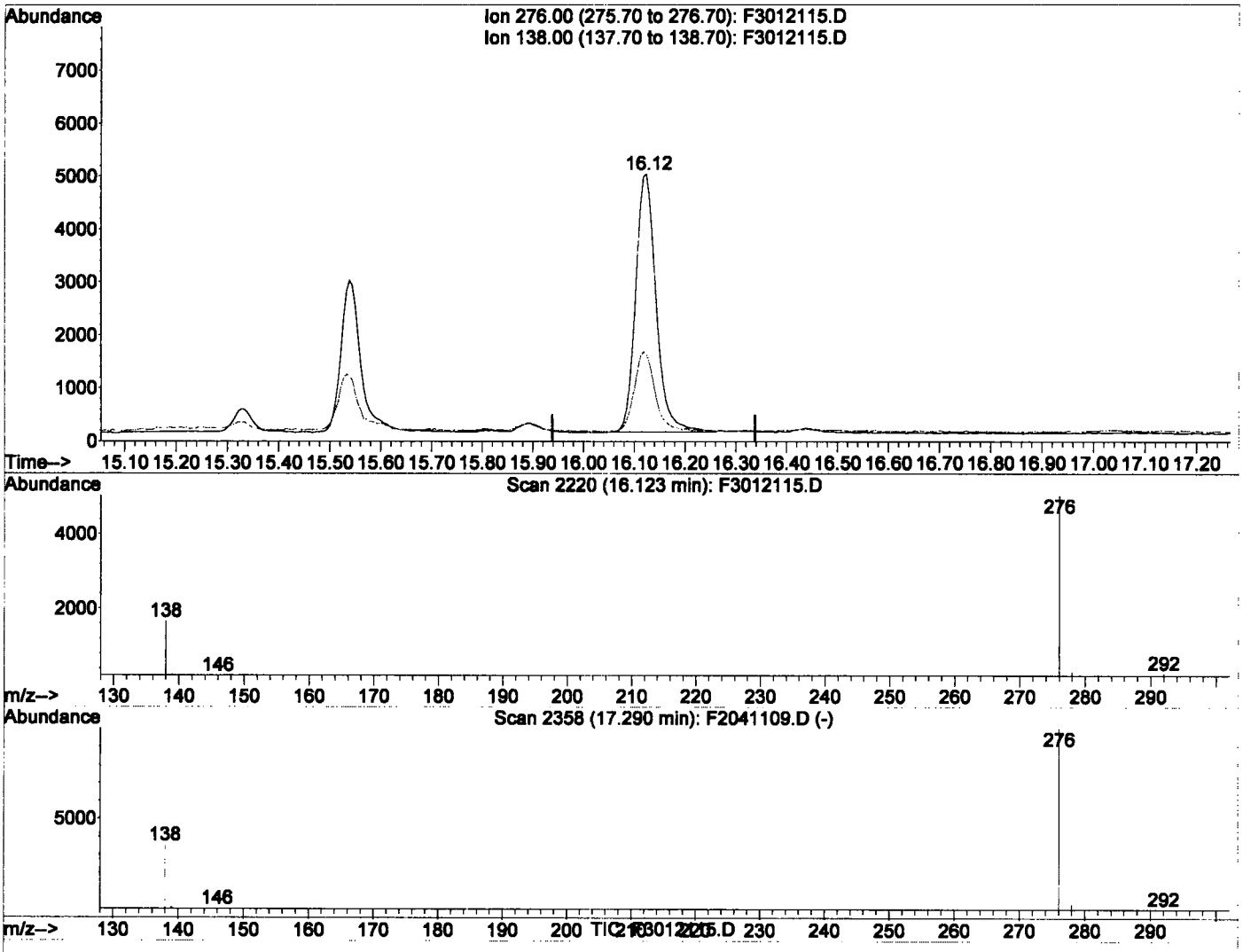
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	38.98
0.00	0.00	0.00
0.00	0.00	0.00

F3012115.D F21227.M Tue Jan 22 09:49:12 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:48 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.12min 61.28ng/ml

response 13728

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.75
0.00	0.00	0.00
0.00	0.00	0.00

F3012115.D F21227.M Tue Jan 22 09:49:18 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	971084	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	484655	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	797828	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	621557	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	516549	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	408543	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	751003	2159.832	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	734549	2925.249	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	2222	4.224	ng/ml#	80
3) 2-Methylnaphthalene	6.00	142	1175	3.757	ng/ml	88
4) 1-Methylnaphthalene	6.10	142	731	2.530	ng/ml	83
7) Dimethylphthalate	6.75	163	217	0.689	ng/mL#	73
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	7.22	168	341	0.848	ng/mL#	41
11) Diethylphthalate	7.43	149	3121	9.662	ng/mL	80
12) Fluorene	7.55	166	278	0.907	ng/ml	96
14) Phenanthrene	8.48	178	1910	4.537	ng/mL	95
15) Anthracene	8.53	178	379	0.937	ng/ml#	61
16) Carbazole	8.69	167	390	1.182	ng/ml#	69
17) Di-n-butylphthalate	9.04	149	12146	24.082	ng/mL	100
18) Fluoranthene	9.64	202	3907	9.868	ng/ml	99
19) Pyrene	9.86	202	4546	11.109	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	9488	58.925	ng/mL	100
23) Benz(a)Anthracene	11.10	228	3839	12.456	ng/ml	100
24) Chrysene	11.14	228	5470	18.418	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.12	149	9084	41.463	ng/mL	100
26) Di-n-octyl phthalate	12.10	149	218	71.840	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	9097	35.832	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	2654	9.649	ng/ml	92
30) Benzo(b+k)Fluoranthene	12.66	252	11988	44.685	ng/ml	98
31) Benzo (e) Pyrene	13.14	252	6465	25.101	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	3060	12.947	ng/ml	98
33) Perylene	13.40	252	2188	8.529	ng/mL	84
35) Indeno(1,2,3-cd)Pyrene	15.54	276	7827	34.775	ng/ml	87
36) Dibenz(a,h)Anthracene	15.59	278	1355	6.310	ng/ml#	49
37) Benzo(g,h,i)Perylene	16.12	276	13728	61.275	ng/ml	96

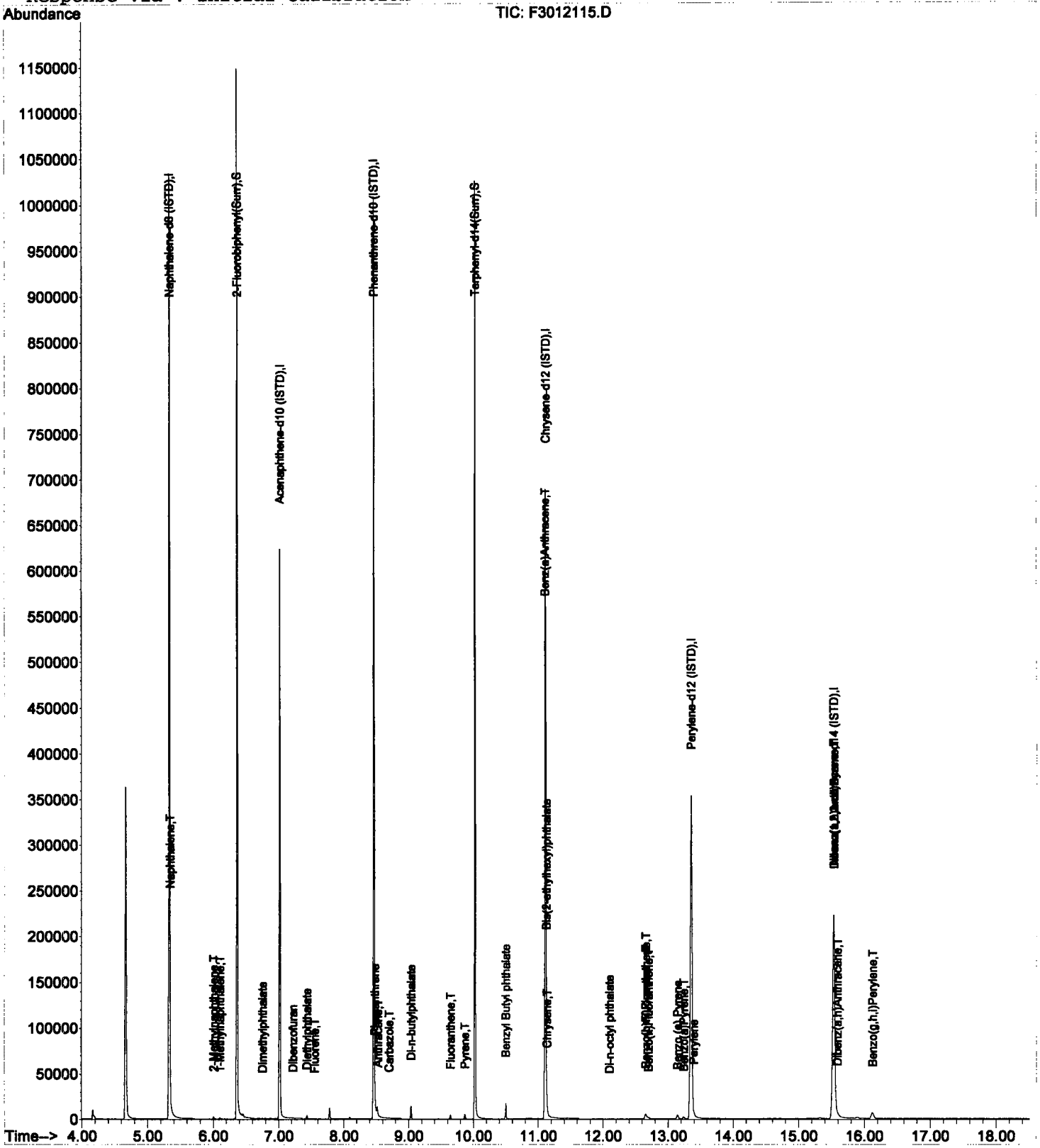
MJ 1-22-13

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012115.D Vial: 12
Acq On : 21 Jan 2013 8:05 pm Operator: bsj
Sample : A13A243-09 Inst : SV-GCMS6
Misc : 1x Soil 10.92g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:51 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-28
Q-24
RR-2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	948660	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	450087	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	740177	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	662138	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	618034	2000.000	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.54	292	518817	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	675038	2090.464	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	718283	2685.160	ng/ml	-0.01
Target Compounds						Qvalue
2) Naphthalene	5.35	128	4837	9.412	ng/ml	100
3) 2-Methylnaphthalene	6.00	142	1729	5.658	ng/ml	99
4) 1-Methylnaphthalene	6.10	142	1078	3.819	ng/ml	98
7) Dimethylphthalate	6.75	163	241	0.824	ng/mL#	73
8) Acenaphthylene	6.87	152	5642	(13.537)	ng/ml J	99
9) Acenaphthene	7.04	153	3021	(11.437)	ng/ml	96
10) Dibenzofuran	7.22	168	3087	8.265	ng/mL	94
11) Diethylphthalate	7.43	149	2923	9.744	ng/mL	80
12) Fluorene	7.55	166	2289	8.042	ng/ml	93
14) Phenanthrene	8.48	178	70896	181.538	ng/mL	99
15) Anthracene	8.53	178	14828	39.531	ng/ml	99
16) Carbazole	8.69	167	13399	43.790	ng/ml	99
17) Di-n-butylphthalate	9.03	149	11586	24.761	ng/mL	100
18) Fluoranthene	9.64	202	466928	1271.246	ng/ml	99
19) Pyrene	9.87	202	545753	1437.496	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	10276	59.908	ng/mL	100
23) Benz(a)Anthracene	11.09	228	486754	1482.551	ng/ml	97
24) Chrysene	11.14	228	1371465	4334.800	ng/ml	95
25) Bis(2-ethylhexyl)phthalate	11.13	149	17448	74.759	ng/mL	91
26) Di-n-octyl phthalate	12.01	149	341	72.143	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	2378329	7829.756	ng/ml Q-28	99
29) Benzo(k)Fluoranthene	12.71	252	695912	2114.654	ng/ml Q-24	98
30) Benzo(b+k)Fluoranthene	12.66	252	3083804m	9607.191	ng/ml	
31) Benzo (e) Pyrene	13.16	252	1634807	5304.995	ng/mL	98
32) Benzo(a)Pyrene	13.25	252	836446	2957.993	ng/ml	98
33) Perylene	13.40	252	389856	1270.195	ng/mL	99
35) Indeno(1,2,3-cd)Pyrene	15.56	276	1631549	5708.097	ng/ml	99
36) Dibenz(a,h)Anthracene	15.60	278	371647	1362.836	ng/ml	94
37) Benzo(g,h,i)Perylene	16.16	276	2705738	9510.157	ng/ml RR-2	97

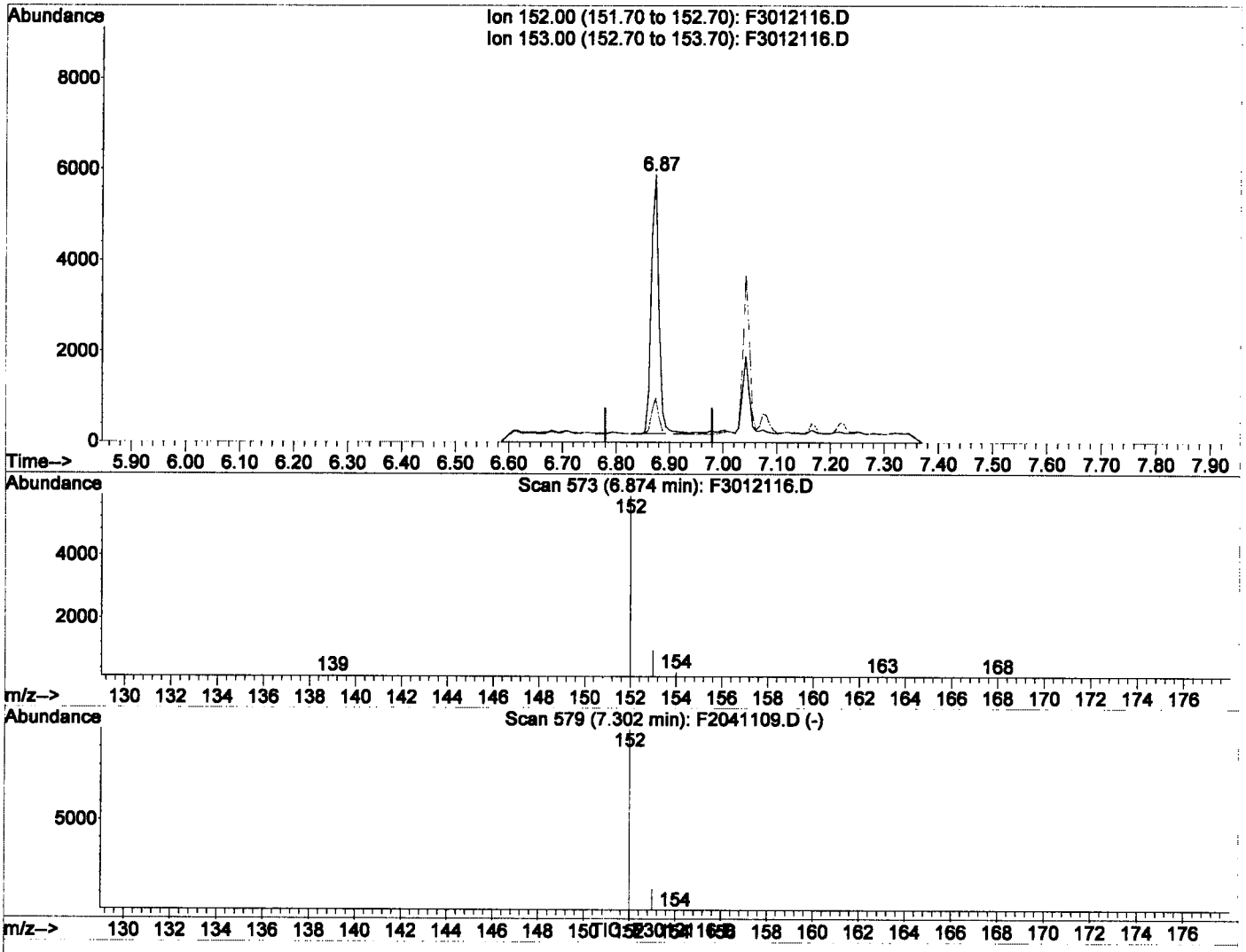
1-22-13
BSJ

(#) = qualifier out of range (m) = manual integration
F3012116.D F21227.M Tue Jan 22 09:52:10 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(8) Acenaphthylene (T)

6.87min 13.54ng/ml

response 5642

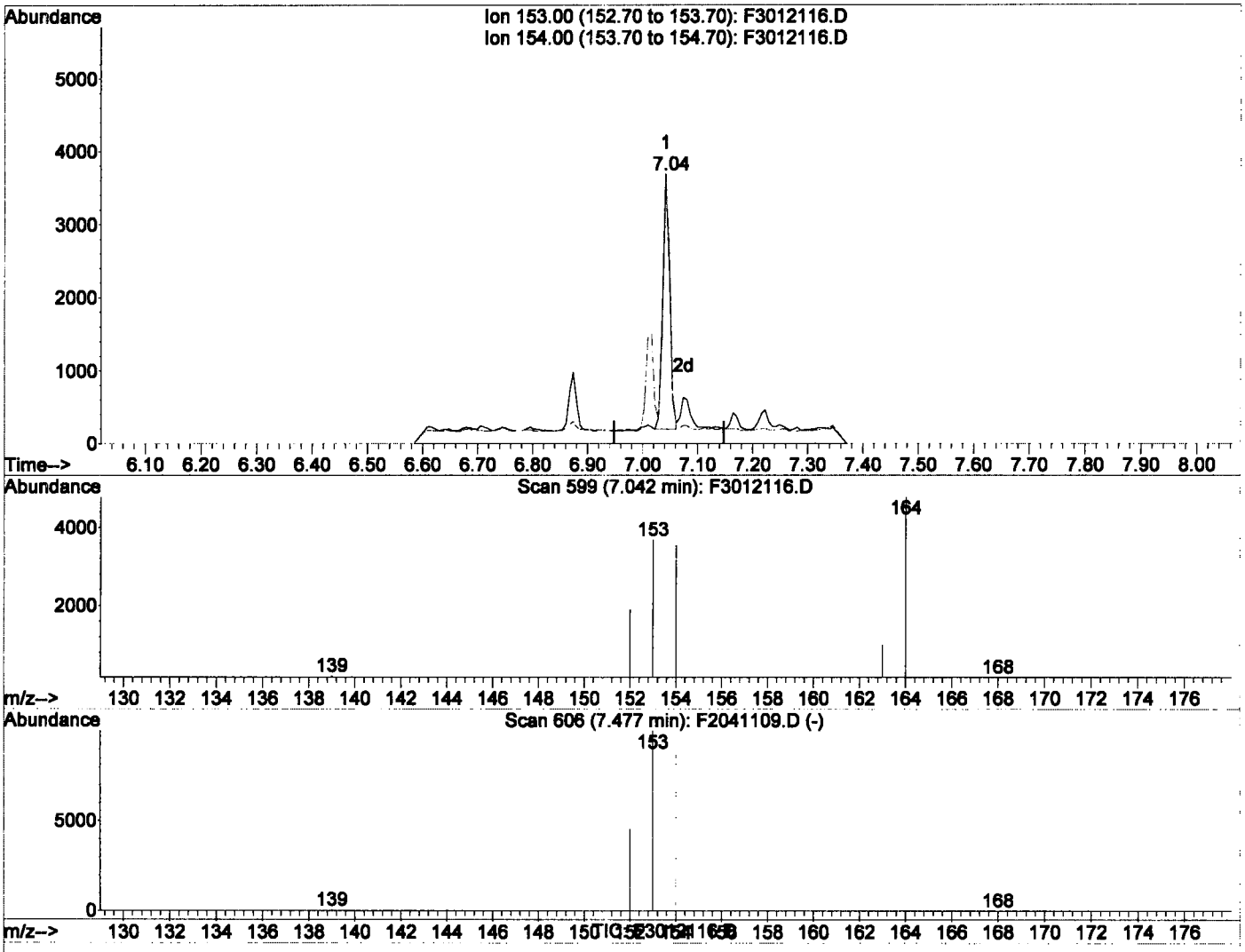
Ion	Exp%	Act%
152.00	100	100
153.00	13.20	13.51
0.00	0.00	0.00
0.00	0.00	0.00

F3012116.D F21227.M Tue Jan 22 09:50:32 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(9) Acenaphthene (T)

7.04min 11.44ng/ml

response 3021

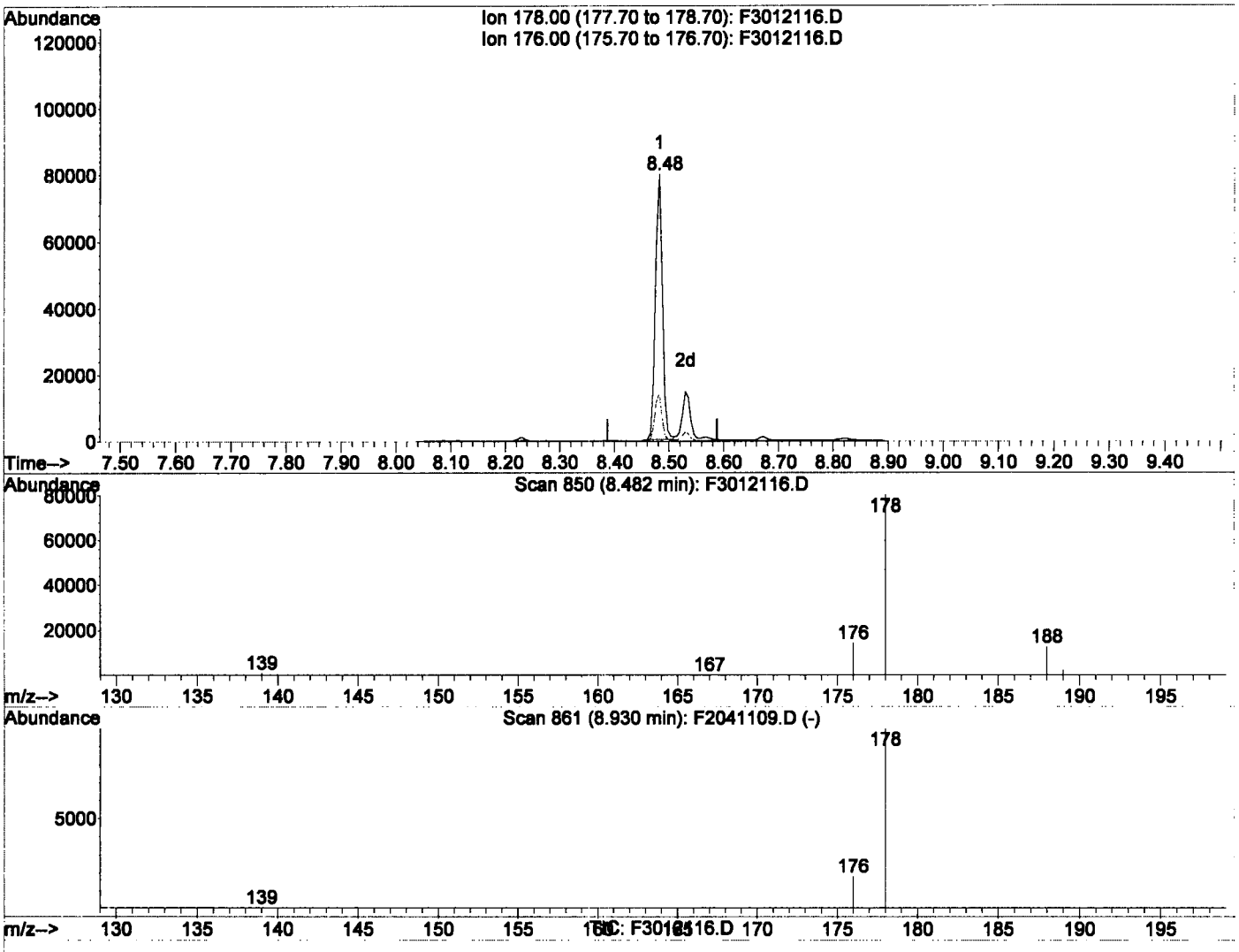
Ion	Exp%	Act%
153.00	100	100
154.00	93.50	97.12
0.00	0.00	0.00
0.00	0.00	0.00

F3012116.D F21227.M Tue Jan 22 09:50:36 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(14) Phenanthrene

8.48min 181.54ng/mL

response 70896

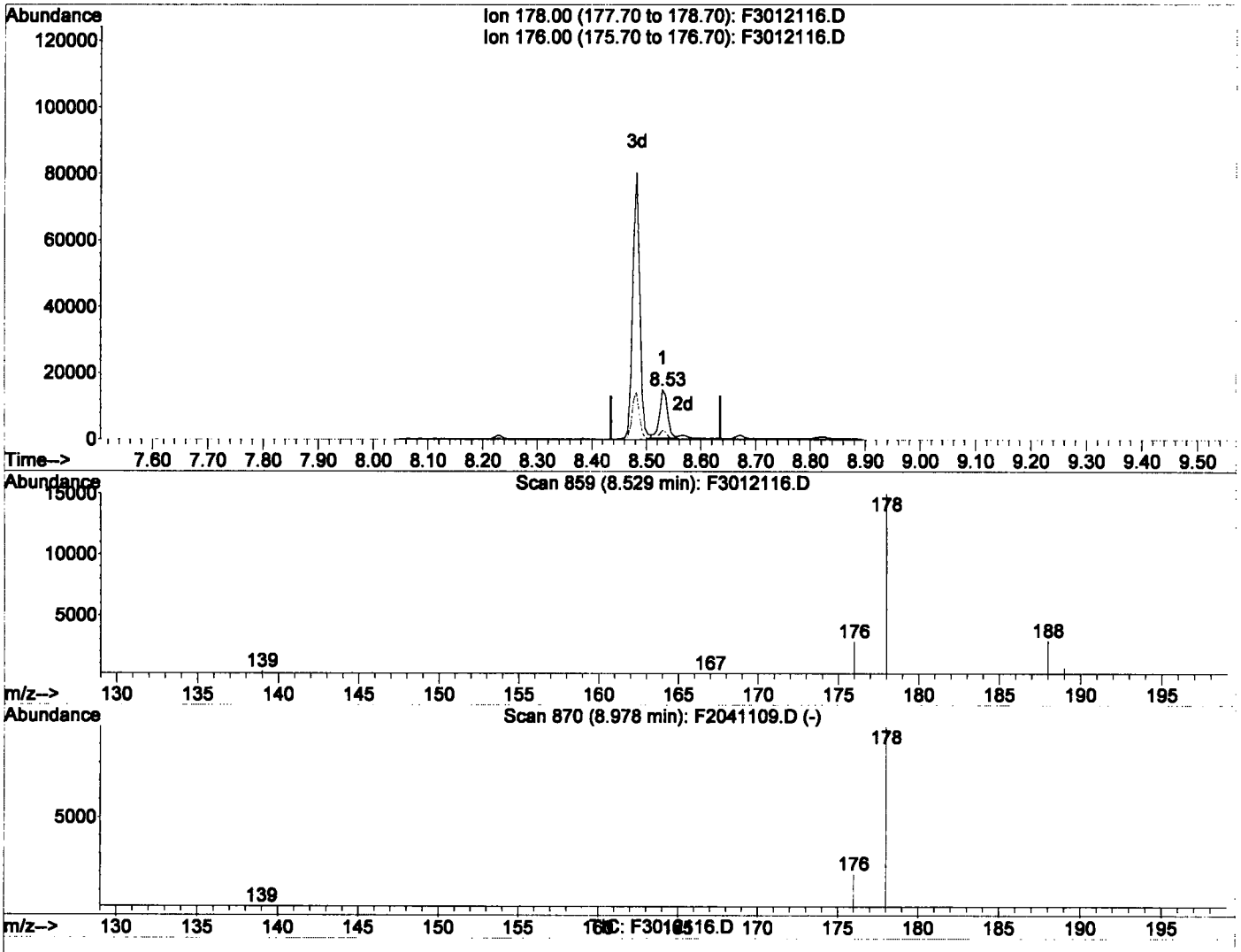
Ion	Exp%	Act%
178.00	100	100
176.00	18.10	18.37
0.00	0.00	0.00
0.00	0.00	0.00

F3012116.D F21227.M Tue Jan 22 09:50:44 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(15) Anthracene (T)

8.53min 39.53ng/ml

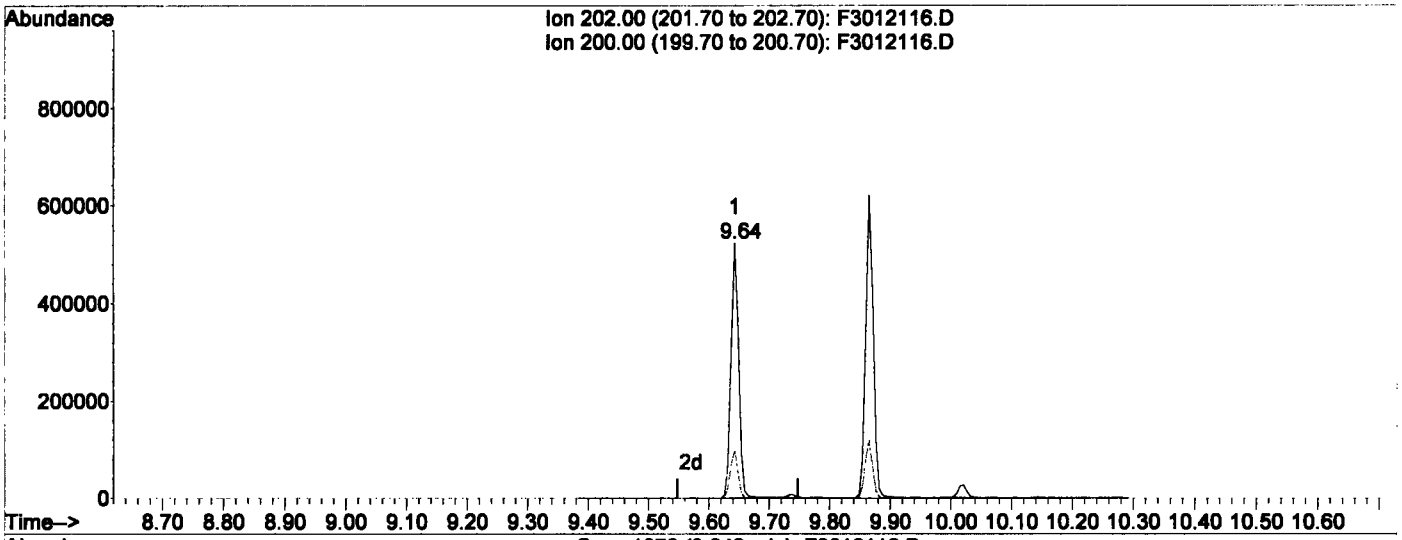
response 14828

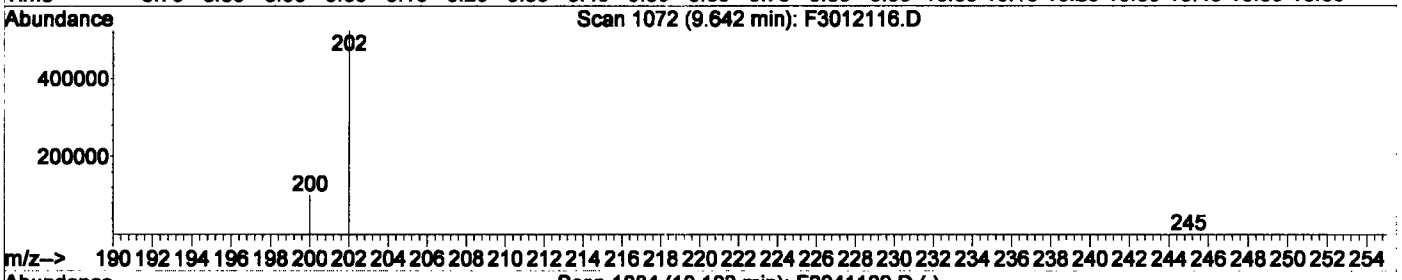
Ion	Exp%	Act%
178.00	100	100
176.00	16.60	16.22
0.00	0.00	0.00
0.00	0.00	0.00

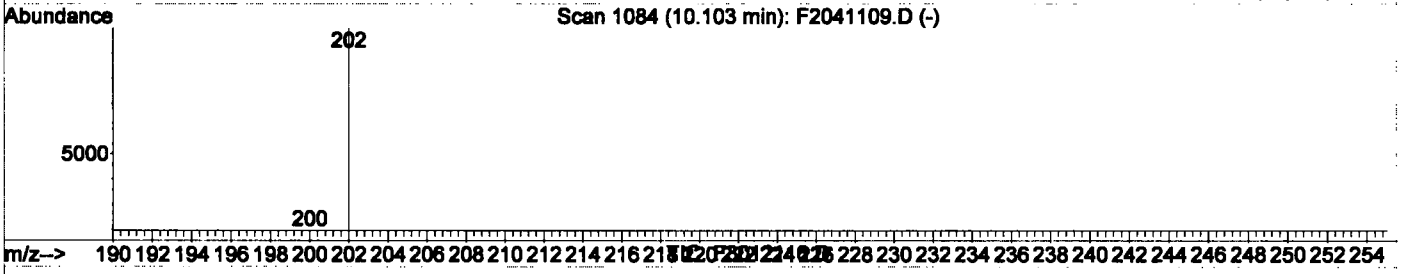
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(18) Fluoranthene (T)

9.64min 1271.25ng/ml

response 466928

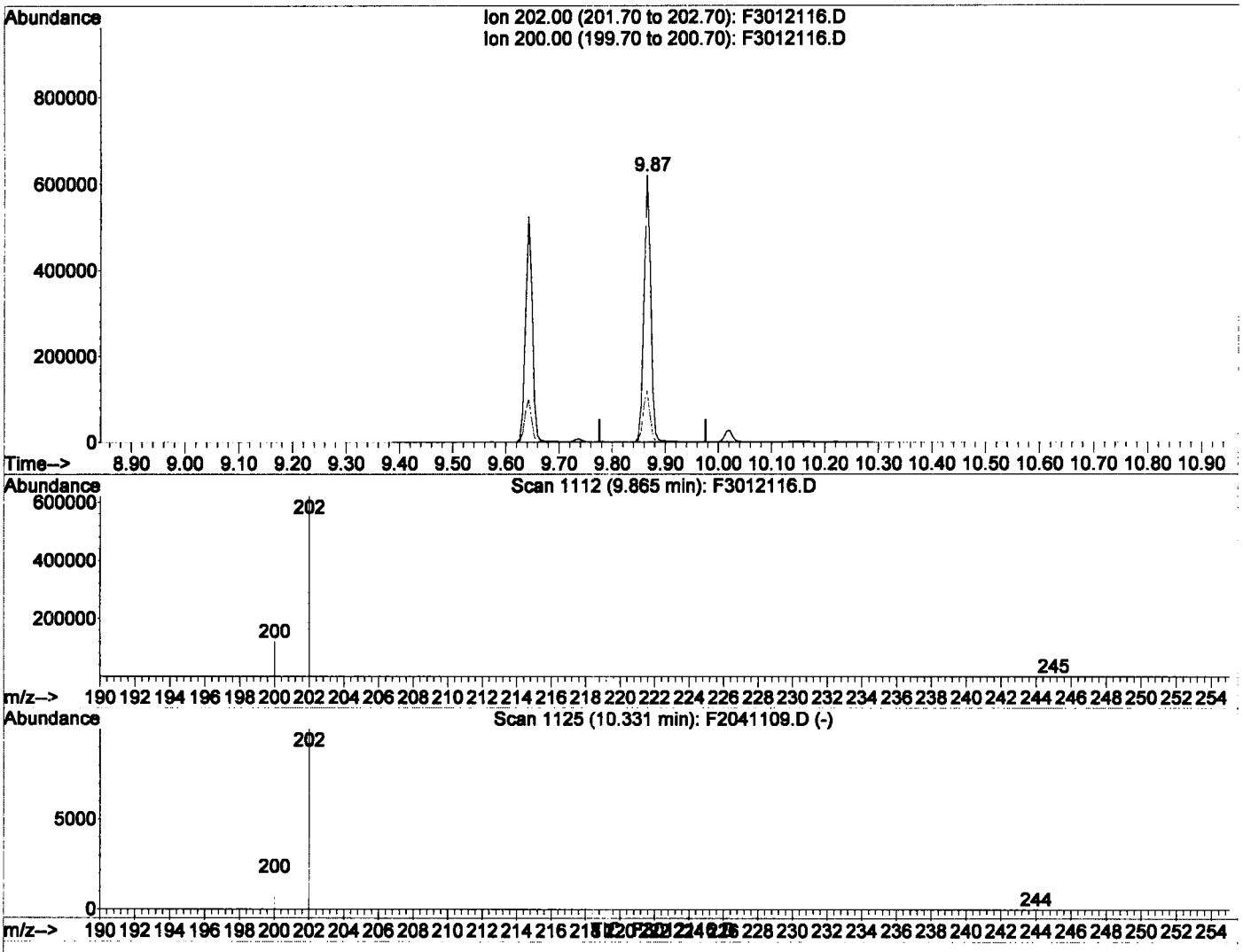
Ion	Exp%	Act%
202.00	100	100
200.00	18.60	18.87
0.00	0.00	0.00
0.00	0.00	0.00

F3012116.D F21227.M Tue Jan 22 09:50:58 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(19) Pyrene (T)

9.87min 1437.50ng/ml

response 545753

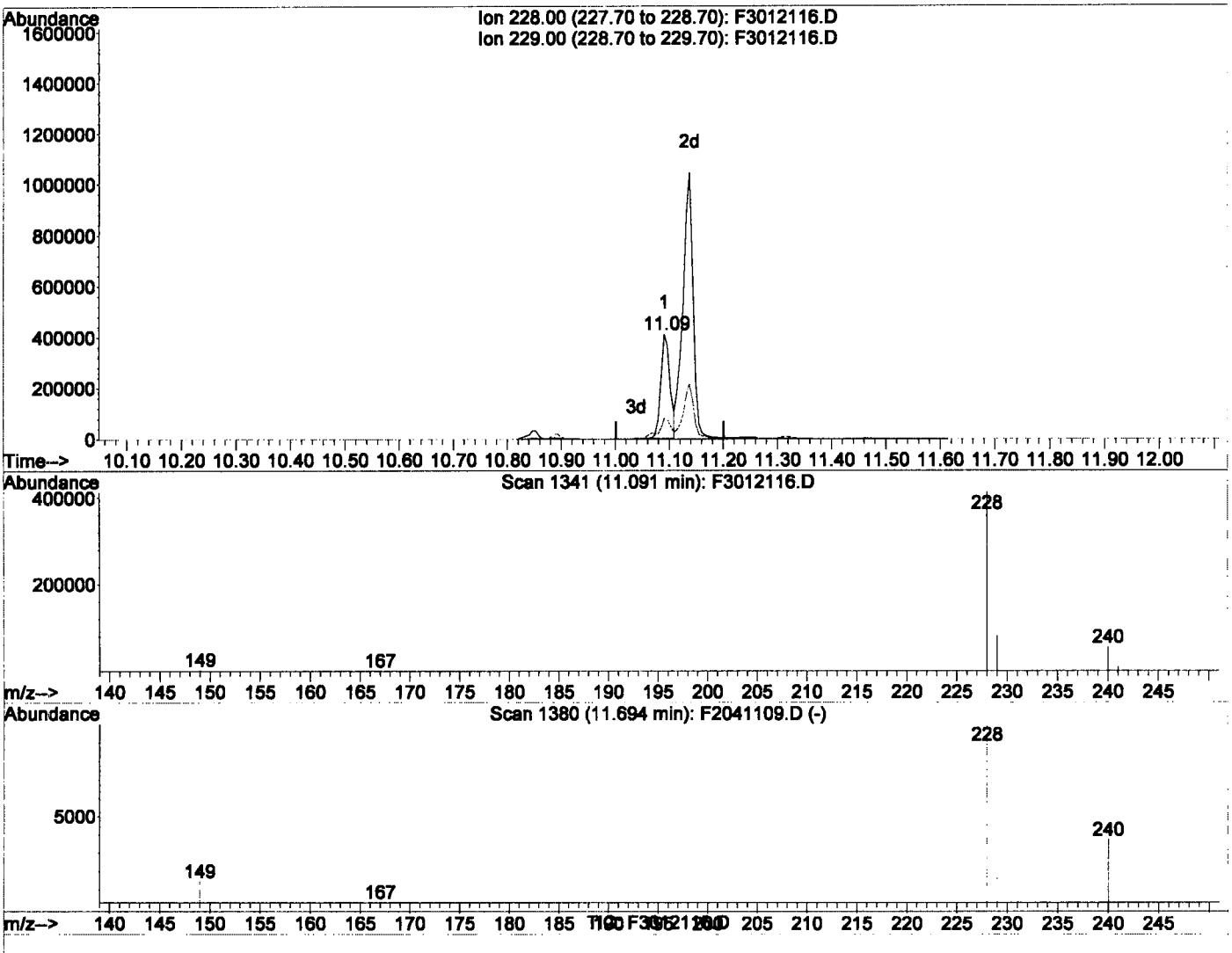
Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.37
0.00	0.00	0.00
0.00	0.00	0.00

F3012116.D F21227.M Tue Jan 22 09:51:03 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(23) Benz(a)Anthracene (T)

11.09min 1482.55ng/ml

response 486754

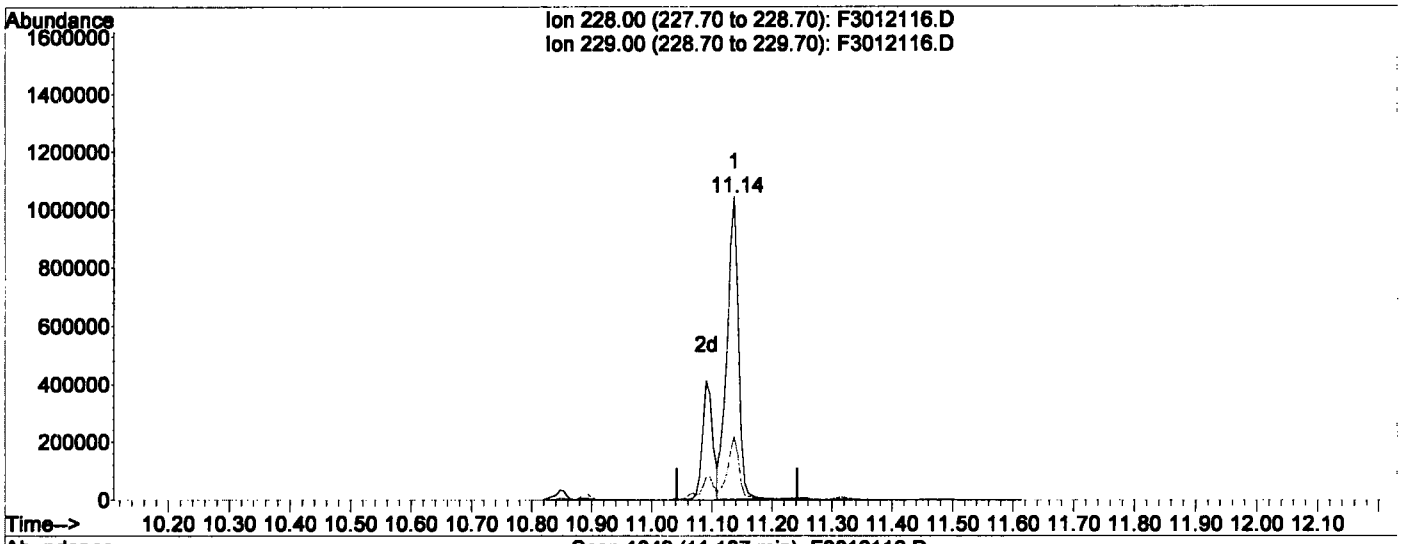
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	20.13
0.00	0.00	0.00
0.00	0.00	0.00

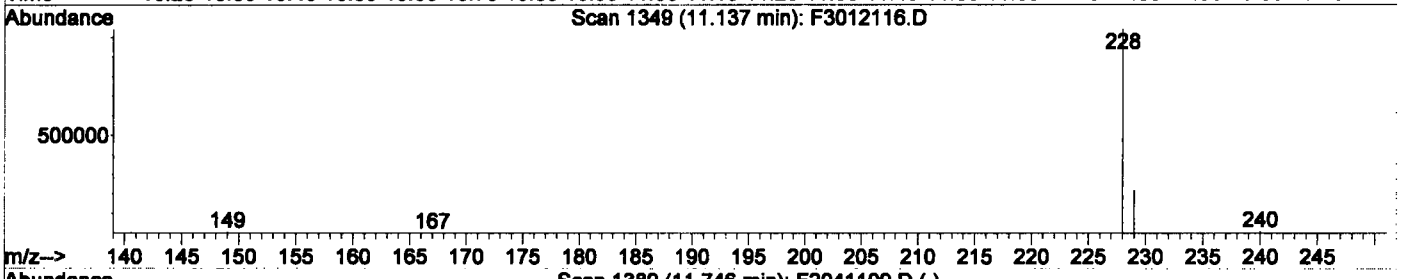
F3012116.D F21227.M Tue Jan 22 09:51:10 2013 VOAGCMS1

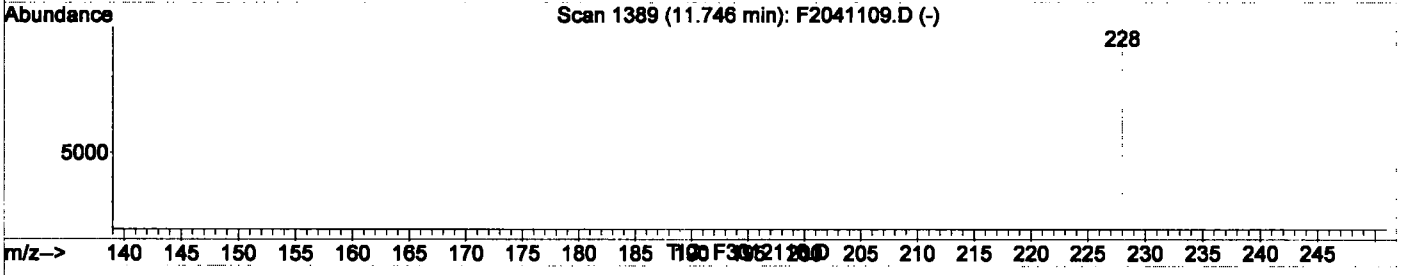
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(24) Chrysene (T)

11.14min 4334.80ng/ml

response 1371465

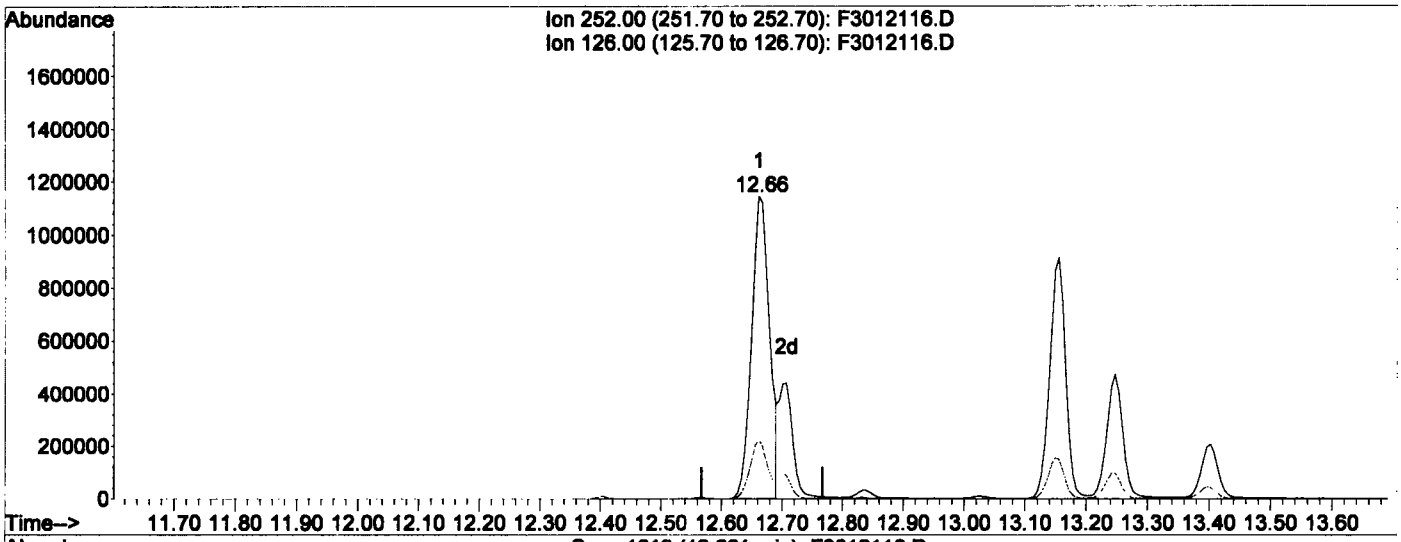
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	21.17
0.00	0.00	0.00
0.00	0.00	0.00

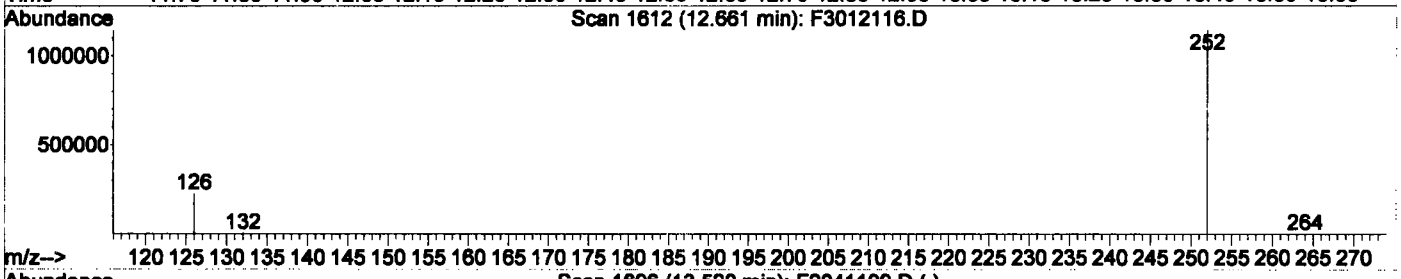
F3012116.D F21227.M Tue Jan 22 09:51:15 2013 VOAGCMS1

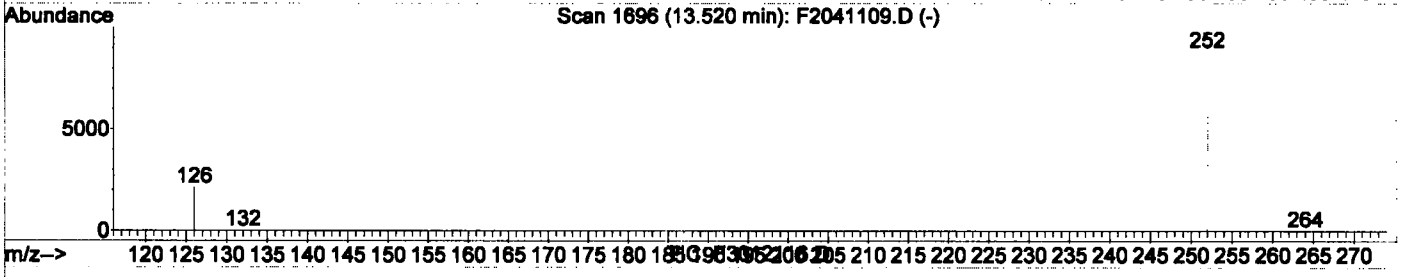
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.66min 7829.76ng/ml

response 2378329

Q-28

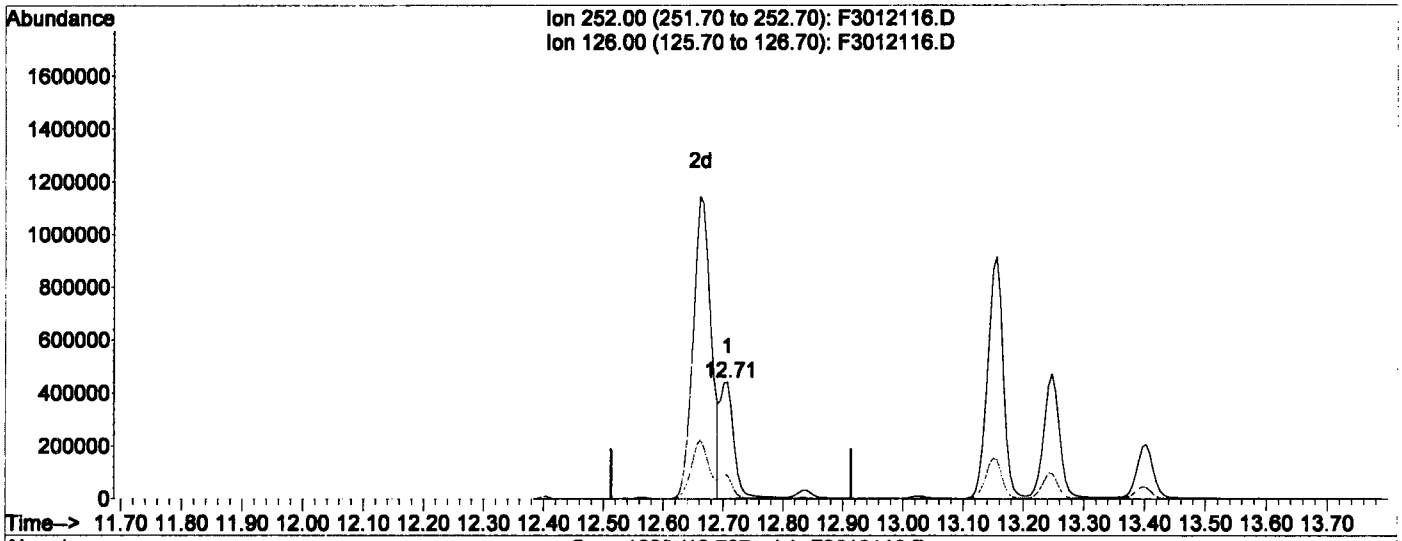
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	19.54
0.00	0.00	0.00
0.00	0.00	0.00

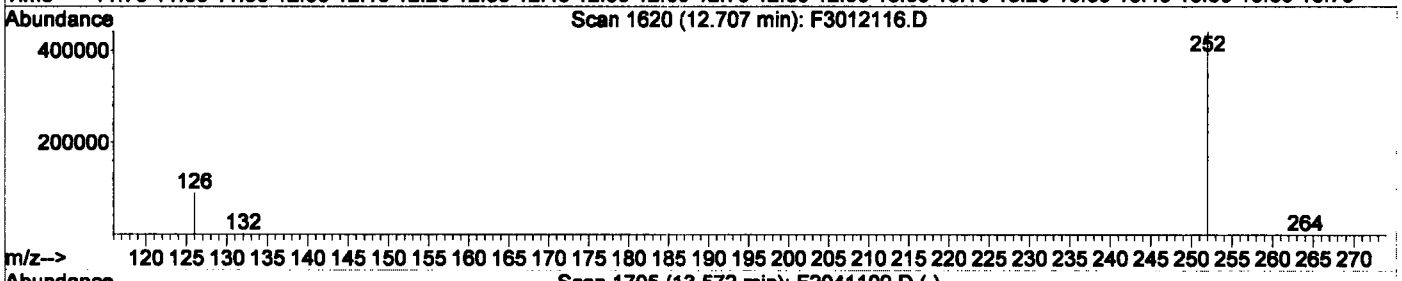
F3012116.D F21227.M Tue Jan 22 09:51:23 2013 VOAGCMS1

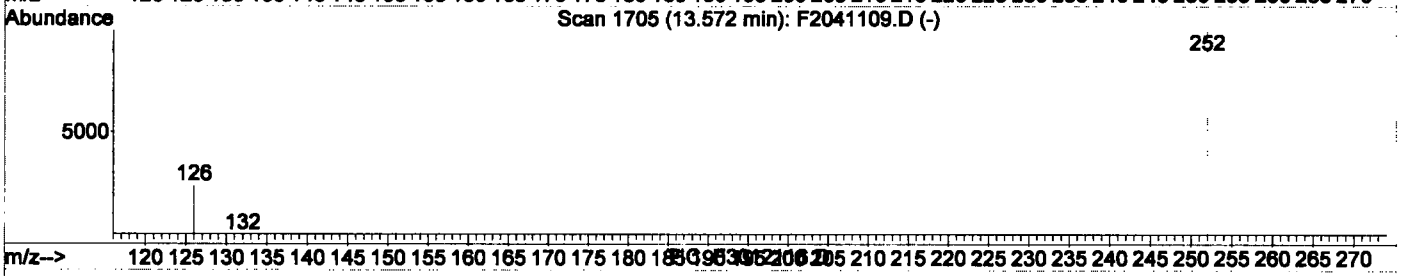
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.71min 2114.65ng/ml

response 695912

Q-28

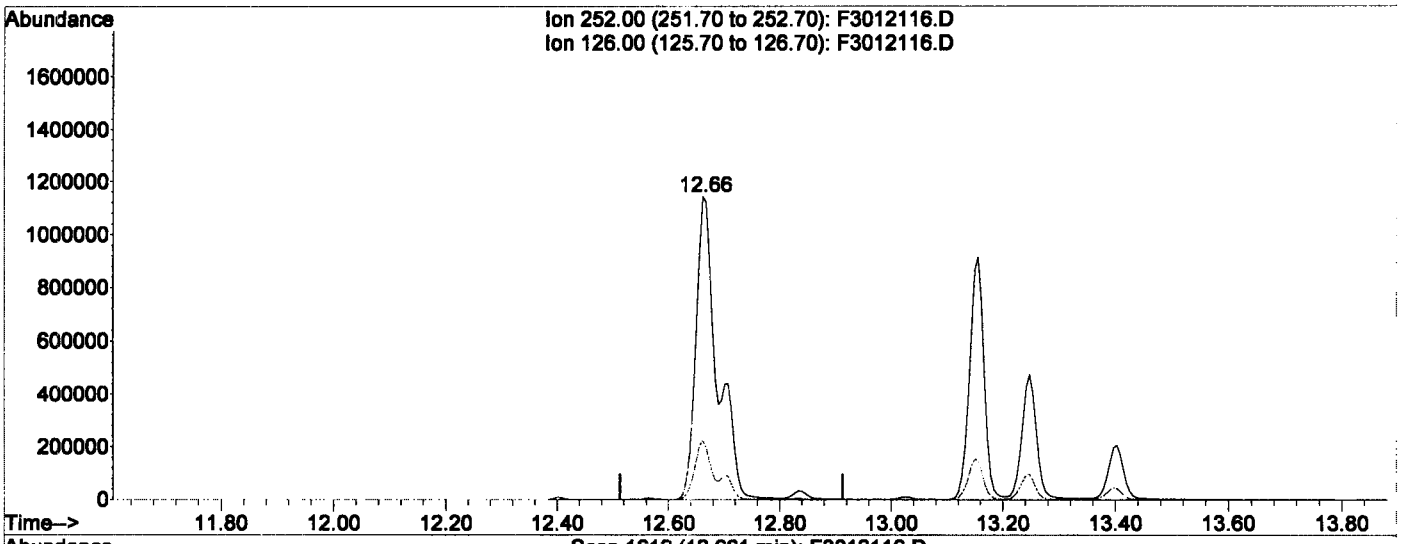
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.48
0.00	0.00	0.00
0.00	0.00	0.00

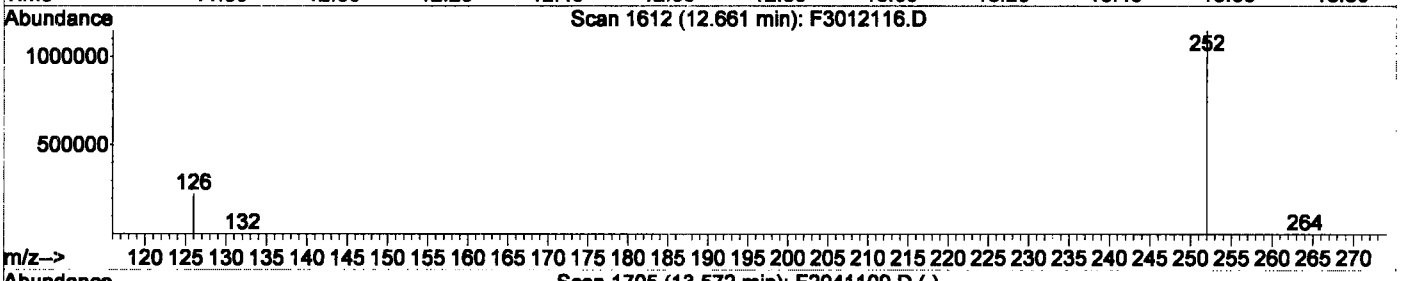
F3012116.D F21227.M Tue Jan 22 09:51:27 2013 VOAGCMS1

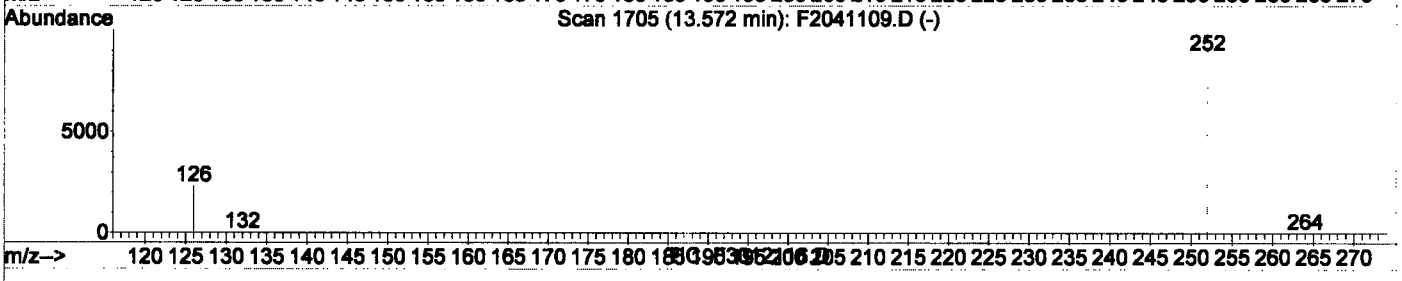
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:51 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.66min 9607.19ng/m(m)

response 3083804

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.93
0.00	0.00	0.00
0.00	0.00	0.00

Q-24
1-22-13 BSS

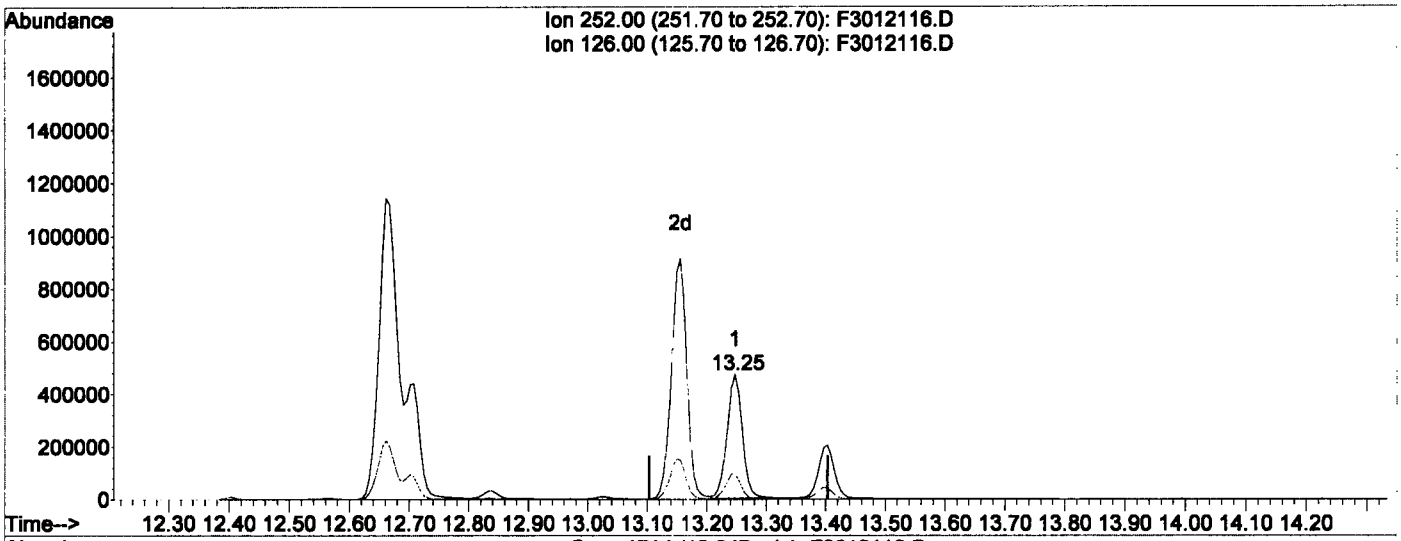
1/23/13 MKV

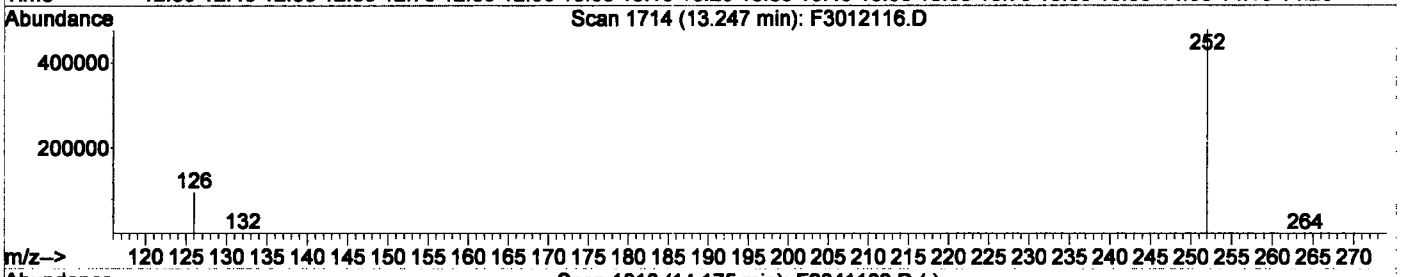
F3012116.D F21227.M Tue Jan 22 09:51:37 2013 VOAGCMS1

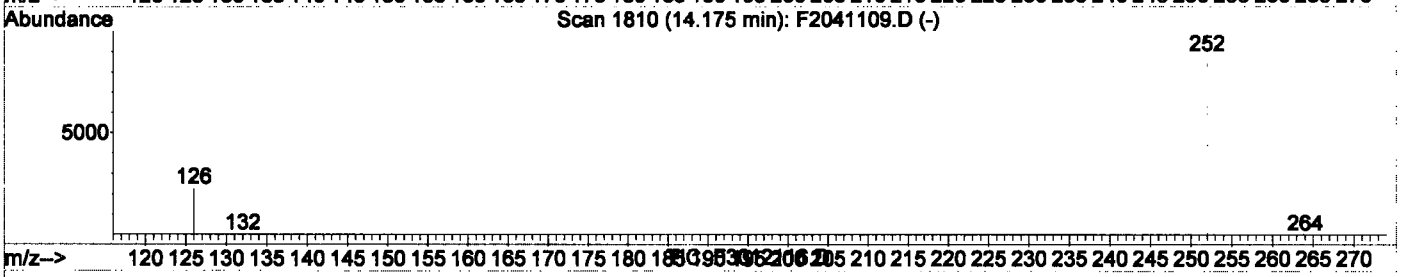
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:51 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(32) Benzo(a)Pyrene (T)

13.25min 2957.99ng/ml

response 836446

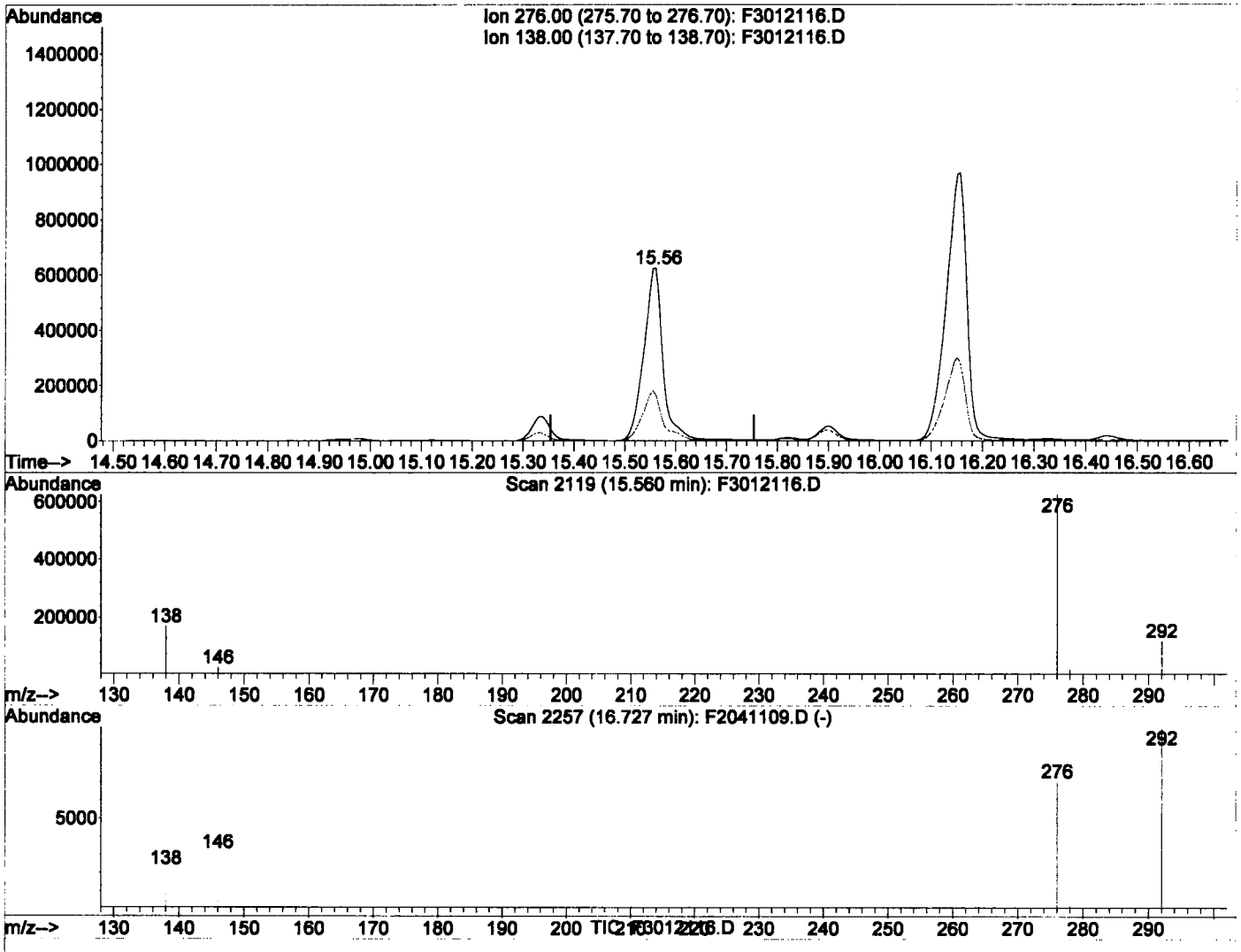
Ion	Exp%	Act%
252.00	100	100
126.00	20.10	20.91
0.00	0.00	0.00
0.00	0.00	0.00

F3012116.D F21227.M Tue Jan 22 09:51:43 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:51 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.56min 5708.10ng/ml

response 1631549

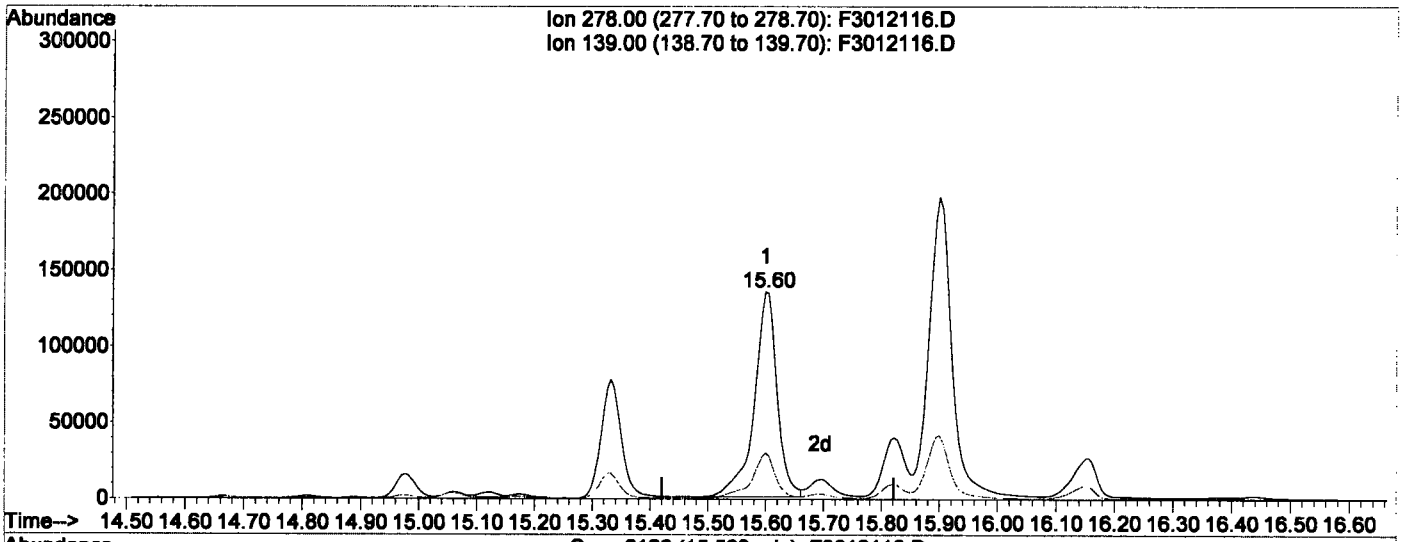
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	30.99
0.00	0.00	0.00
0.00	0.00	0.00

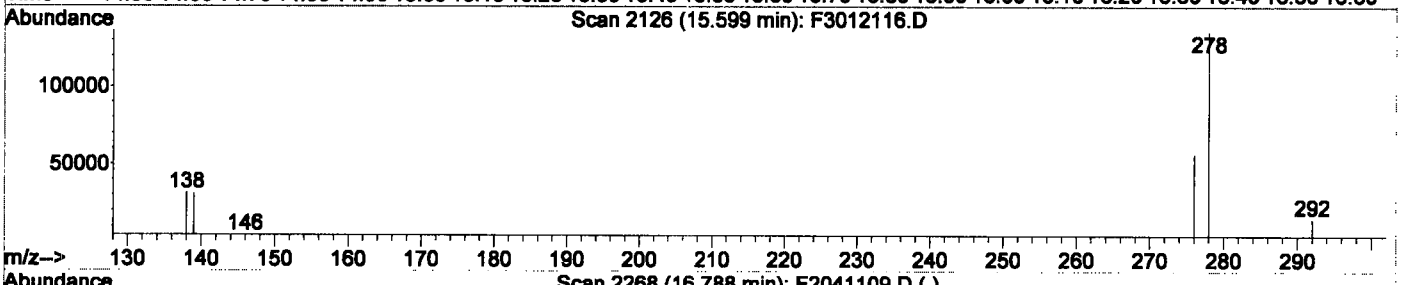
F3012116.D F21227.M Tue Jan 22 09:51:51 2013 VOAGCMS1

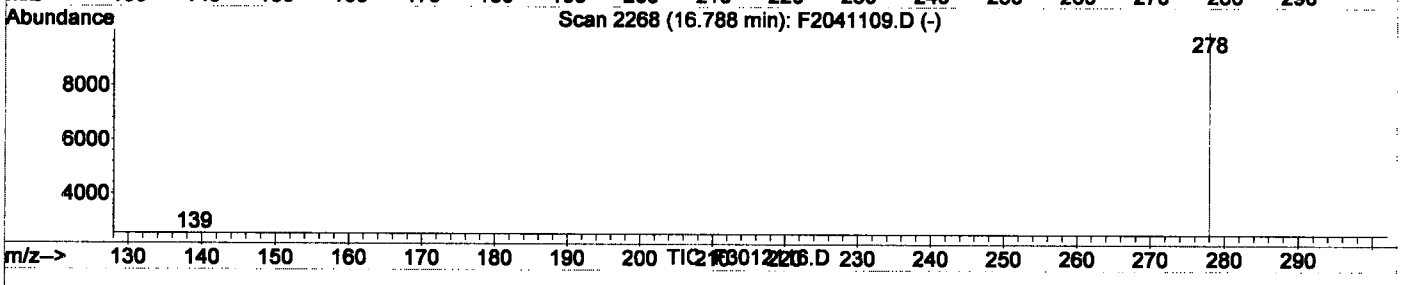
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:51 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(36) Dibenz(a,h)Anthracene (T)

15.60min 1362.84ng/ml

response 371647

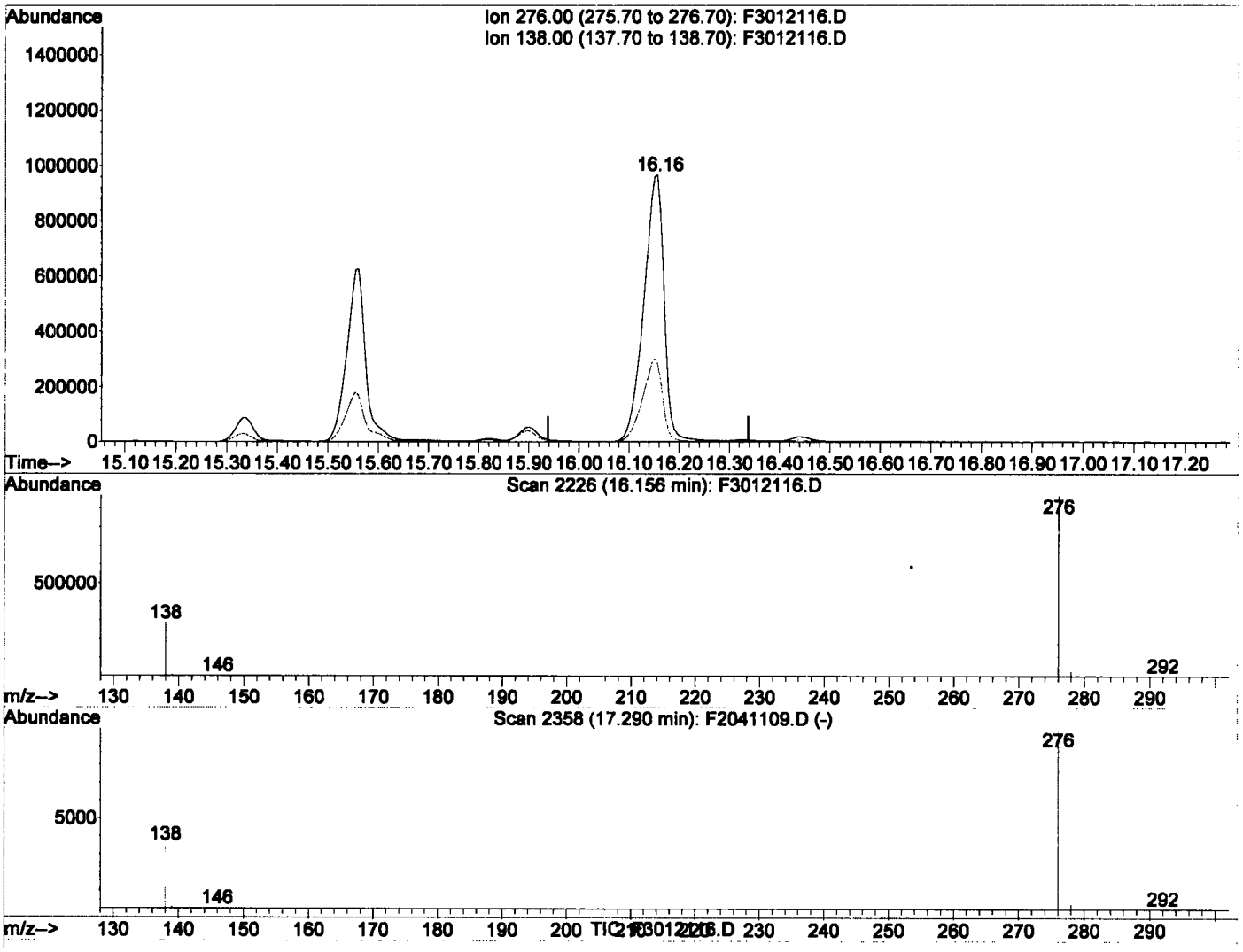
Ion	Exp%	Act%
278.00	100	100
139.00	25.90	22.89
0.00	0.00	0.00
0.00	0.00	0.00

F3012116.D F21227.M Tue Jan 22 09:51:56 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:51 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.16min 9510.16ng/ml

response 2705738

RR. 2

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.99
0.00	0.00	0.00
0.00	0.00	0.00

F3012116.D F21227.M Tue Jan 22 09:52:01 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	948660	2000.000 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	450087	2000.000 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	740177	2000.000 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	662138	2000.000 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	618034	2000.000 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.54	292	518817	2000.000 ng/mL	0.00
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.36	172	675038	2090.464 ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	718283	2685.160 ng/ml	-0.01
Target Compounds					Qvalue
2) Naphthalene	5.35	128	4837	9.412 ng/ml	100
3) 2-Methylnaphthalene	6.00	142	1729	5.658 ng/ml	99
4) 1-Methylnaphthalene	6.10	142	1078	3.819 ng/ml	98
7) Dimethylphthalate	6.75	163	241	0.824 ng/mL#	73
8) Acenaphthylene	6.87	152	5642	13.537 ng/ml	99
9) Acenaphthene	7.04	153	3021	11.437 ng/ml	96
10) Dibenzofuran	7.22	168	3087	8.265 ng/mL	94
11) Diethylphthalate	7.43	149	2923	9.744 ng/mL	80
12) Fluorene	7.55	166	2289	8.042 ng/ml	93
14) Phenanthrene	8.48	178	70896	181.538 ng/mL	99
15) Anthracene	8.53	178	14828	39.531 ng/ml	99
16) Carbazole	8.69	167	13399	43.790 ng/ml	99
17) Di-n-butylphthalate	9.03	149	11586	24.761 ng/mL	100
18) Fluoranthene	9.64	202	466928	1271.246 ng/ml	99
19) Pyrene	9.87	202	545753	1437.496 ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	10276	59.908 ng/mL	100
23) Benz(a)Anthracene	11.09	228	486754	1482.551 ng/ml	97
24) Chrysene	11.14	228	1371465	4334.800 ng/ml	95
25) Bis(2-ethylhexyl)phthalate	11.13	149	17448	74.759 ng/mL	91
26) Di-n-octyl phthalate	12.01	149	341	72.143 ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	2378329	7829.756 ng/ml	99
29) Benzo(k)Fluoranthene	12.71	252	695912	2114.654 ng/ml	98
30) Benzo(b+k)Fluoranthene	12.66	252	3148324	9808.194 ng/ml	98
31) Benzo (e) Pyrene	13.16	252	1634807	5304.995 ng/mL	98
32) Benzo(a)Pyrene	13.25	252	836446	2957.993 ng/ml	98
33) Perylene	13.40	252	389856	1270.195 ng/mL	99
35) Indeno(1,2,3-cd)Pyrene	15.56	276	1631549	5708.097 ng/ml	99
36) Dibenz(a,h)Anthracene	15.60	278	371647	1362.836 ng/ml	94
37) Benzo(g,h,i)Perylene	16.16	276	2705738	9510.157 ng/ml	97

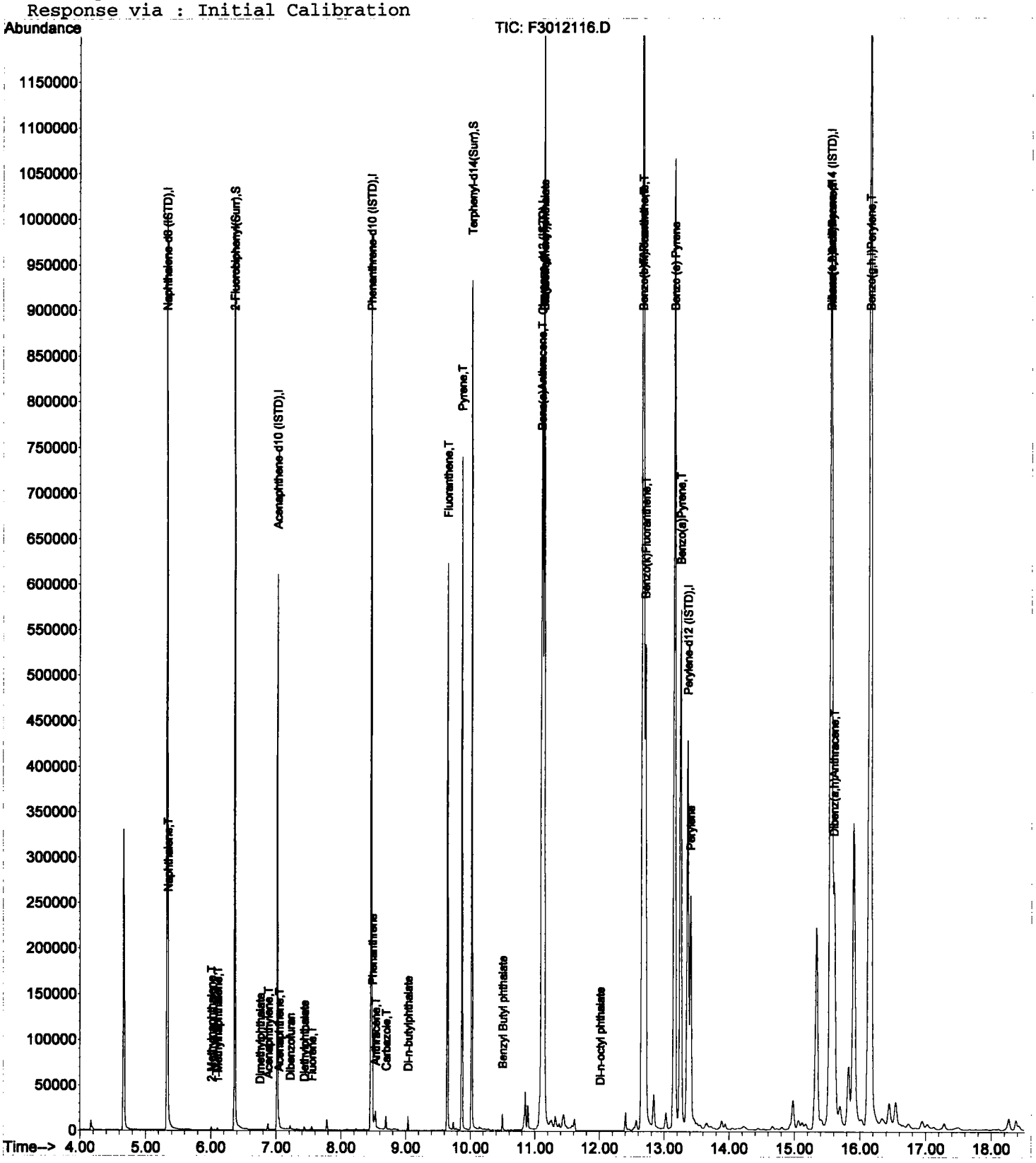
MNT 1-22-13 BSG

(#) = qualifier out of range (m) = manual integration
F3012116.D F21227.M Tue Jan 22 08:59:43 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012116.D Vial: 13
Acq On : 21 Jan 2013 8:32 pm Operator: bsj
Sample : A13A243-11 Inst : SV-GCMS6
Misc : 1x Soil 10.75g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:56 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-28
Q-24

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	991361	2000.000 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	487358	2000.000 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	798492	2000.000 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.10	240	638098	2000.000 ng/ml	-0.01
27) Perylene-d12 (ISTD)	13.35	264	537890	2000.000 ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	427635	2000.000 ng/mL	-0.02
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.36	172	768105	2196.764 ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	725773	2815.377 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthalene	5.35	128	2287	4.258 ng/ml#	80
3) 2-Methylnaphthalene	6.01	142	1410	4.416 ng/ml	99
4) 1-Methylnaphthalene	6.10	142	809	2.743 ng/ml	88
7) Dimethylphthalate	6.75	163	260	0.821 ng/mL#	73
8) Acenaphthylene	6.87	152	219	0.485 ng/ml#	67
9) Acenaphthene	0.00	153	0	N.D.	
10) Dibenzofuran	7.22	168	397	0.982 ng/mL#	41
11) Diethylphthalate	7.44	149	3235	9.959 ng/mL	80
12) Fluorene	7.55	166	290	0.941 ng/ml	100
14) Phenanthrene	8.48	178	1722	4.087 ng/mL	95
15) Anthracene	8.53	178	314	0.776 ng/ml#	61
16) Carbazole	8.70	167	330	1.000 ng/ml#	69
17) Di-n-butylphthalate	9.03	149	17662	34.989 ng/mL	100
18) Fluoranthene	9.64	202	2886	7.284 ng/ml	98
19) Pyrene	9.87	202	3619	8.836 ng/ml	98
22) Benzyl Butyl phthalate	10.50	149	12889	77.972 ng/mL	99
23) Benz(a)Anthracene	11.10	228	3473	(10.977) ng/ml J	95
24) Chrysene	11.13	228	4257	(13.962) ng/ml	92
25) Bis(2-ethylhexyl)phthalate	11.13	149	15646	69.563 ng/mL	98
26) Di-n-octyl phthalate	12.09	149	422	72.414 ng/mL#	87
28) Benzo(b)Fluoranthene	12.65	252	8301	31.400 ng/ml Q-28	100
29) Benzo(k)Fluoranthene	12.70	252	2308	8.058 ng/ml	92
30) Benzo(b+k)Fluoranthene	12.65	252	10657m	(38.147) ng/ml Q-24	
31) Benzo (e) Pyrene	13.14	252	6163	22.979 ng/mL	95
32) Benzo(a)Pyrene	13.24	252	3043	(12.365) ng/ml J	97
33) Perylene	13.40	252	2308	8.640 ng/mL	63
35) Indeno(1,2,3-cd)Pyrene	15.53	276	7902	33.540 ng/ml	93
36) Dibenz(a,h)Anthracene	15.59	278	1387	6.171 ng/ml	90
37) Benzo(g,h,i)Perylene	16.12	276	15524	66.198 ng/ml	95

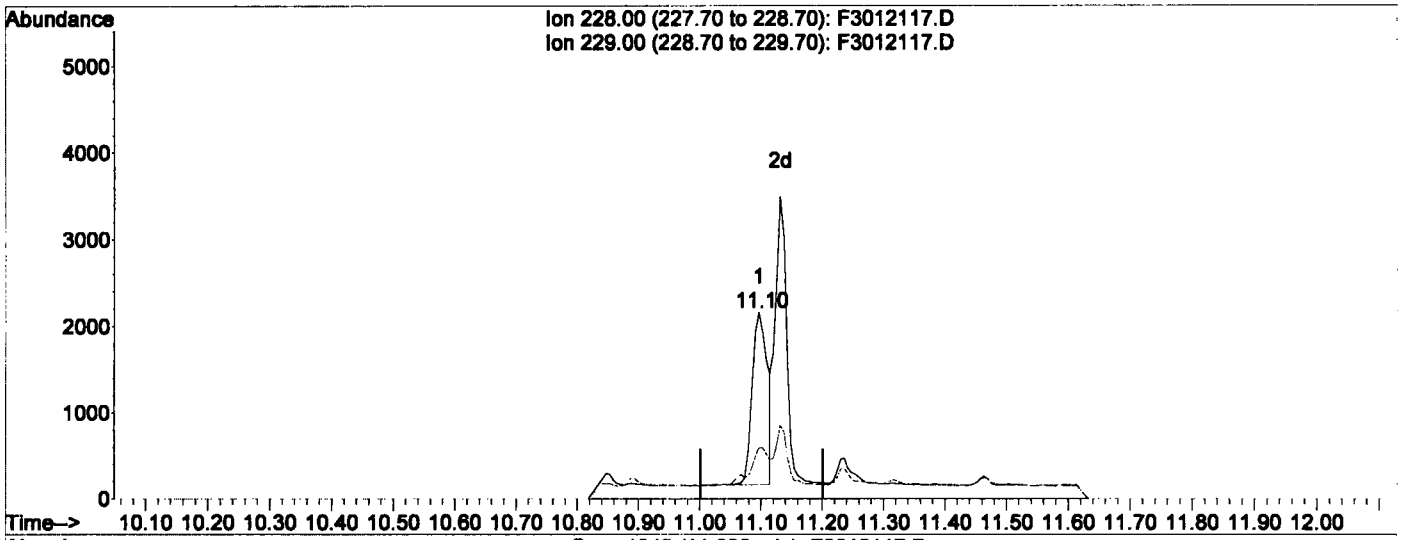
1-22-13 BSS

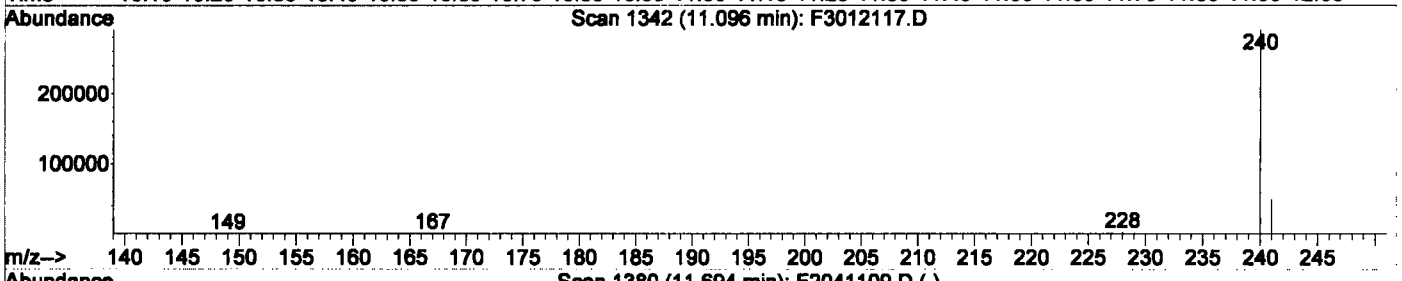
(#) = qualifier out of range (m) = manual integration

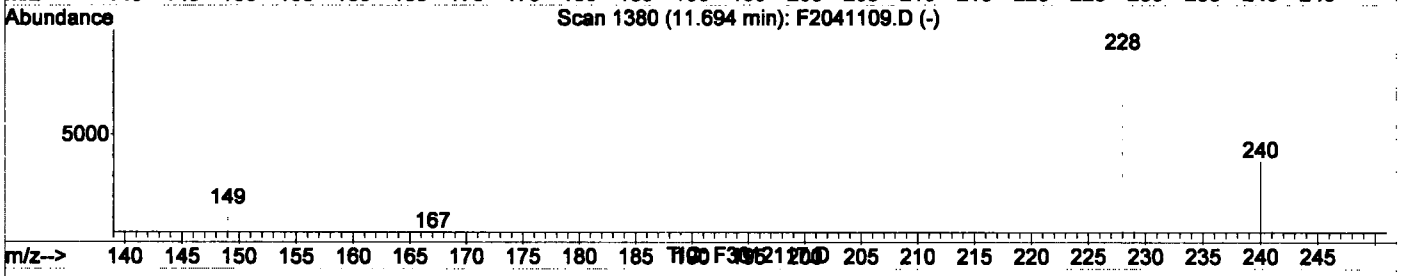
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(23) Benz(a)Anthracene (T)

11.10min 10.98ng/ml

response 3473

Ion	Exp%	Act%
228.00	100	100
229.00	18.60	16.47
0.00	0.00	0.00
0.00	0.00	0.00

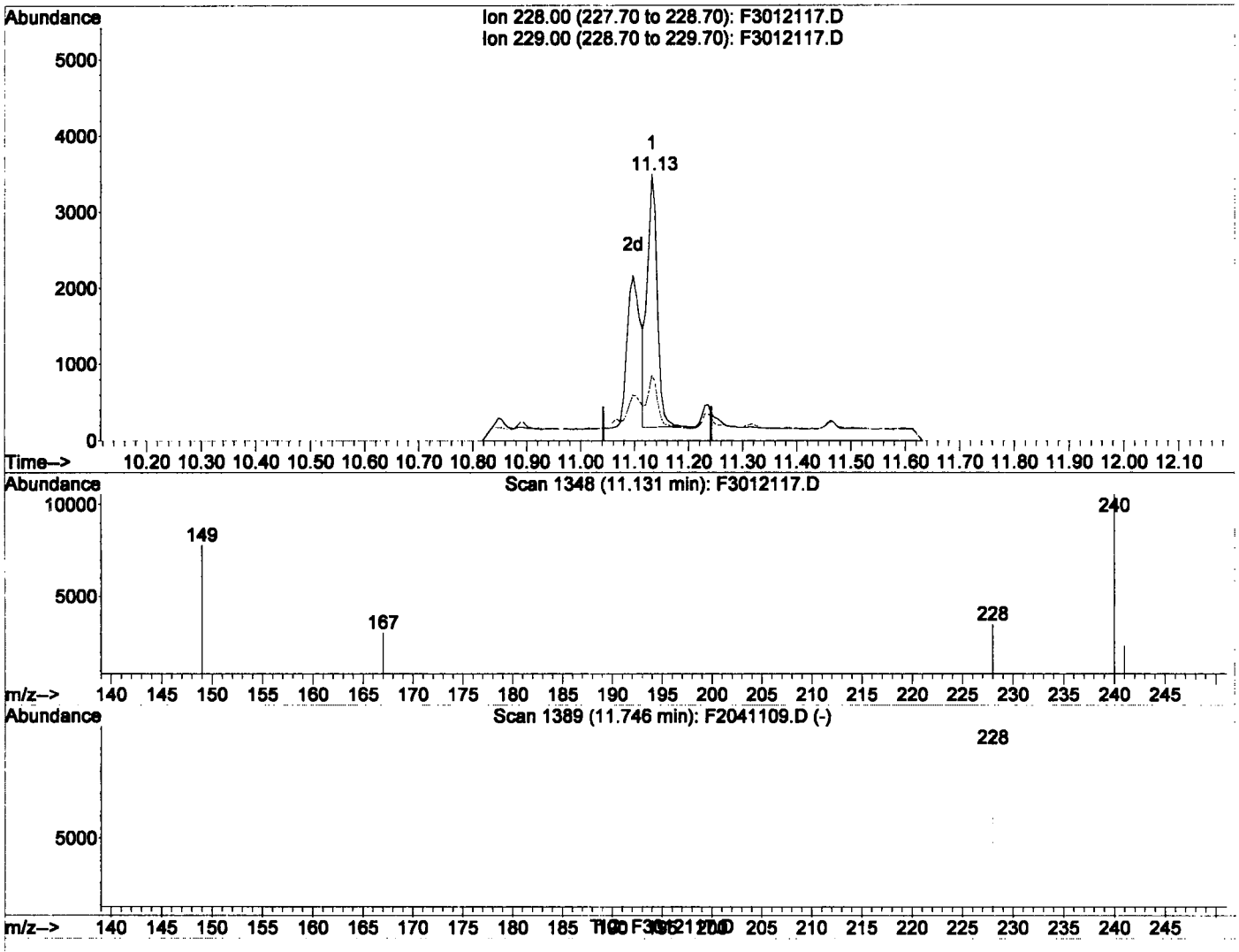
J

F3012117.D F21227.M Tue Jan 22 09:55:58 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(24) Chrysene (T)

11.13min 13.96ng/ml

response 4257

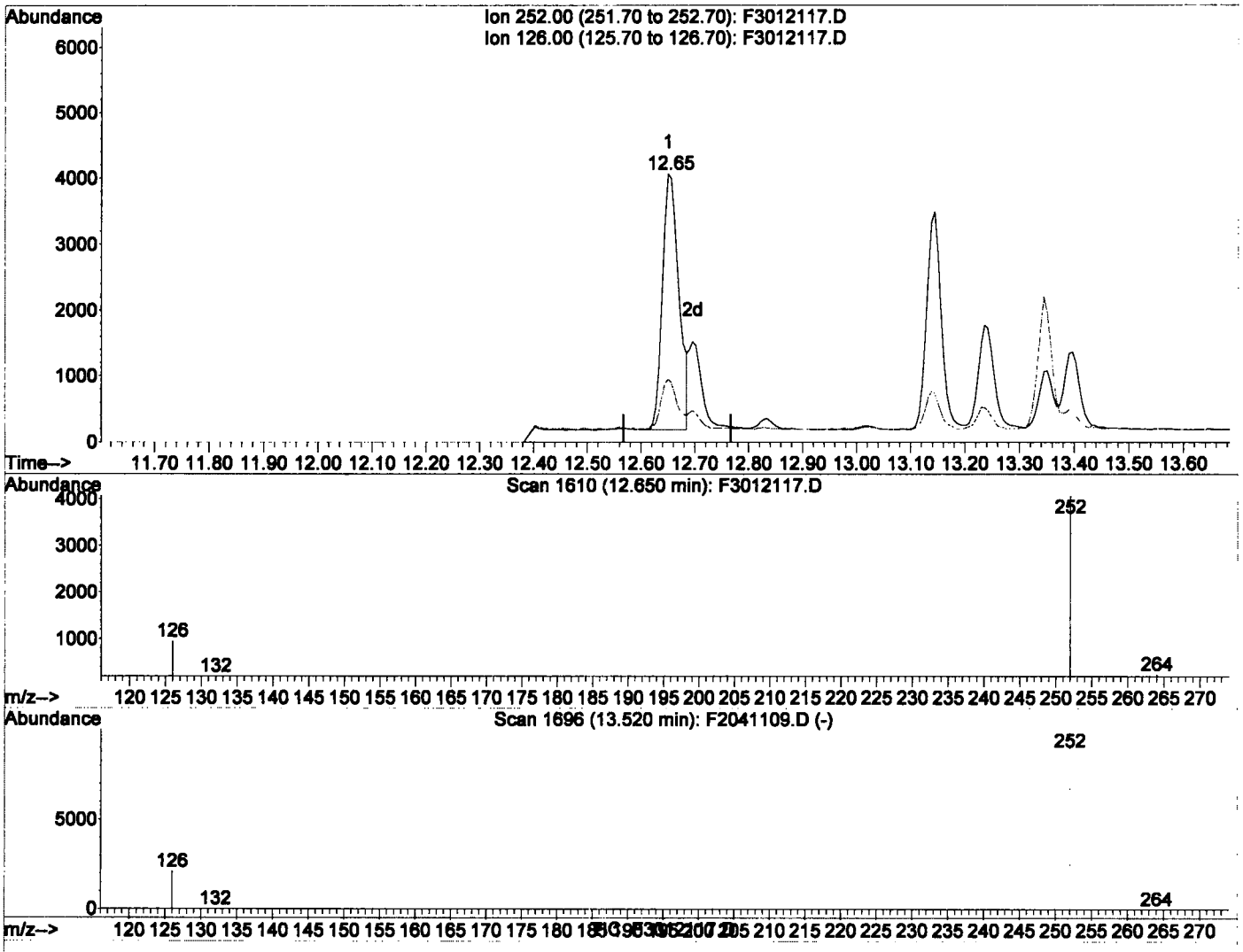
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	22.50
0.00	0.00	0.00
0.00	0.00	0.00

F3012117.D F21227.M Tue Jan 22 09:56:03 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(28) Benzo(b)Fluoranthene (T)

12.65min 31.40ng/ml

response 8301

Q28

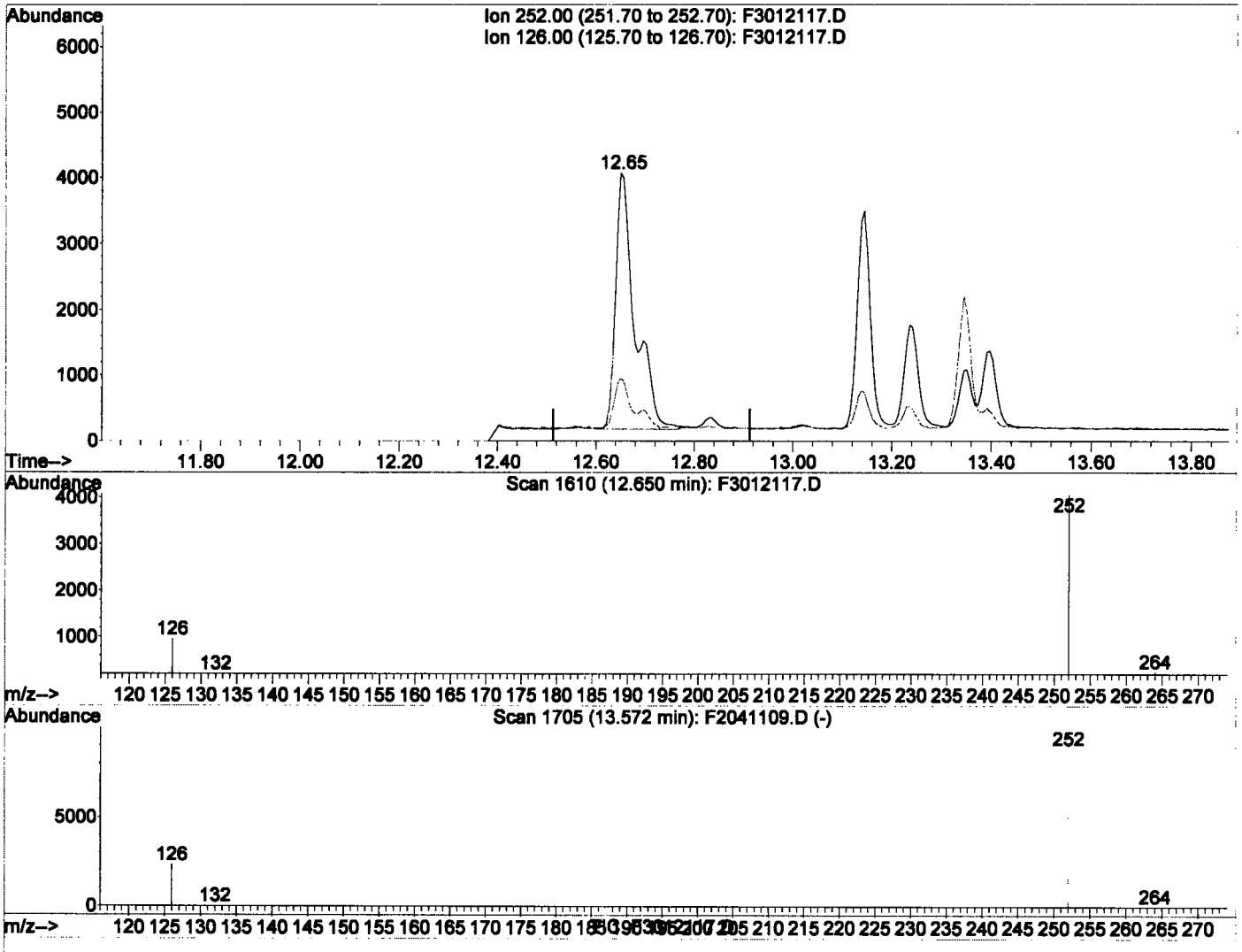
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	19.32
0.00	0.00	0.00
0.00	0.00	0.00

F3012117.D F21227.M Tue Jan 22 09:56:12 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:56 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(30) Benzo(b+k)Fluoranthene (T)

12.65min 38.15ng/ml m

response 10657

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.49
0.00	0.00	0.00
0.00	0.00	0.00

Q-26
1-22-13 755

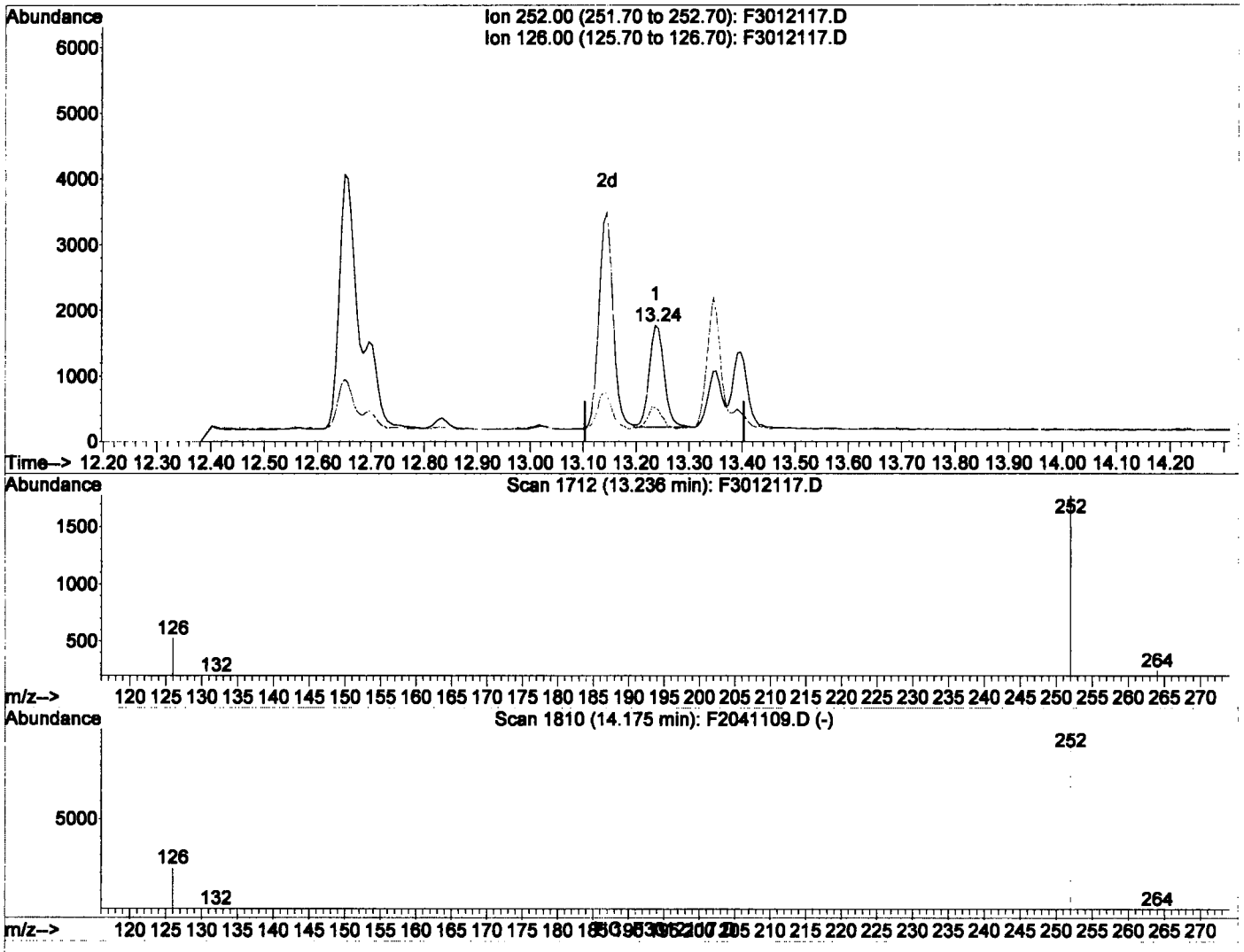
11/23/13 MKZ

F3012117.D F21227.M Tue Jan 22 09:56:27 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:56 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(32) Benzo(a)Pyrene (T)

13.24min 12.36ng/ml

response 3043

Ion	Exp%	Act%
252.00	100	100
126.00	20.10	21.39
0.00	0.00	0.00
0.00	0.00	0.00

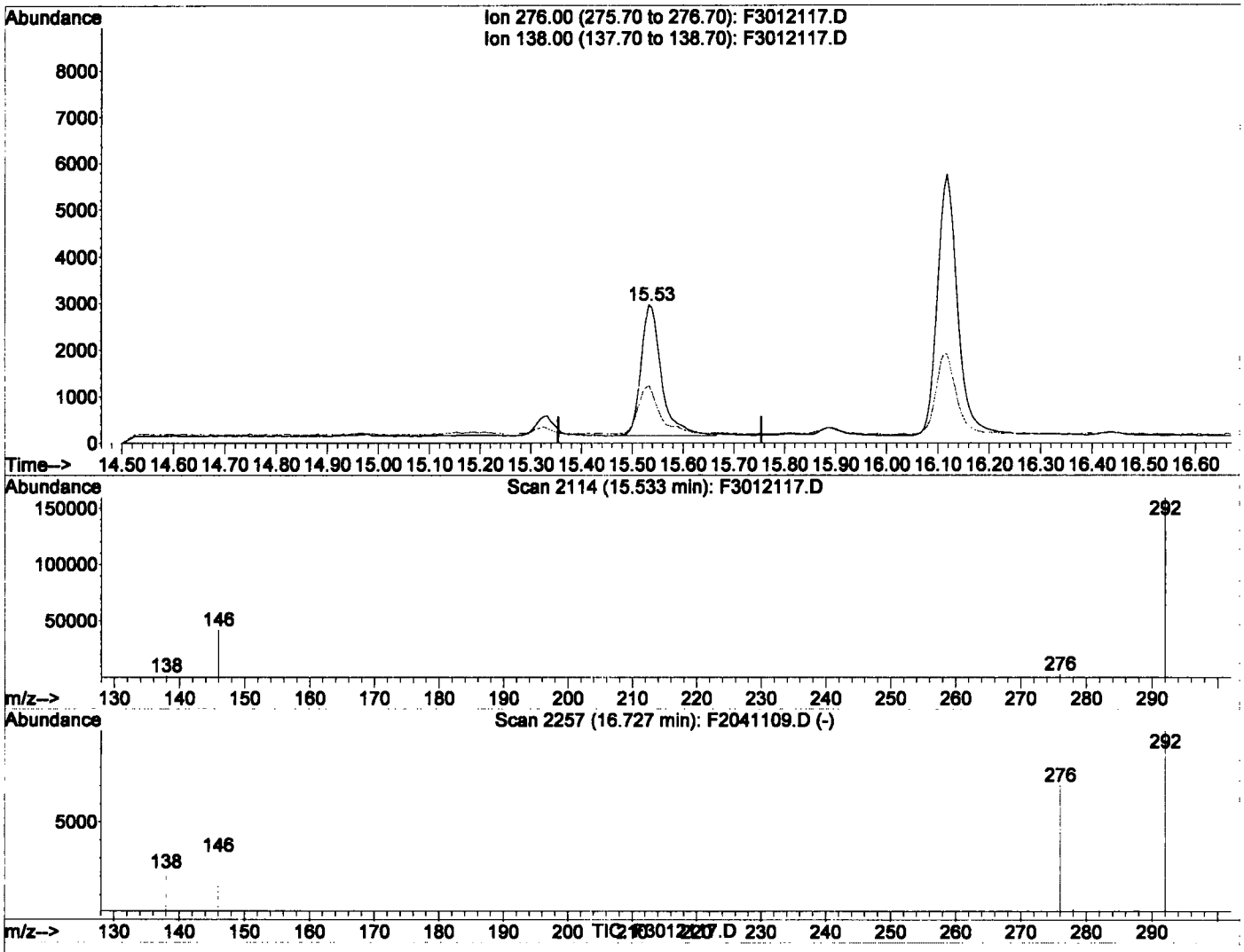
J

F3012117.D F21227.M Tue Jan 22 09:56:59 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:56 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.53min 33.54ng/ml

response 7902

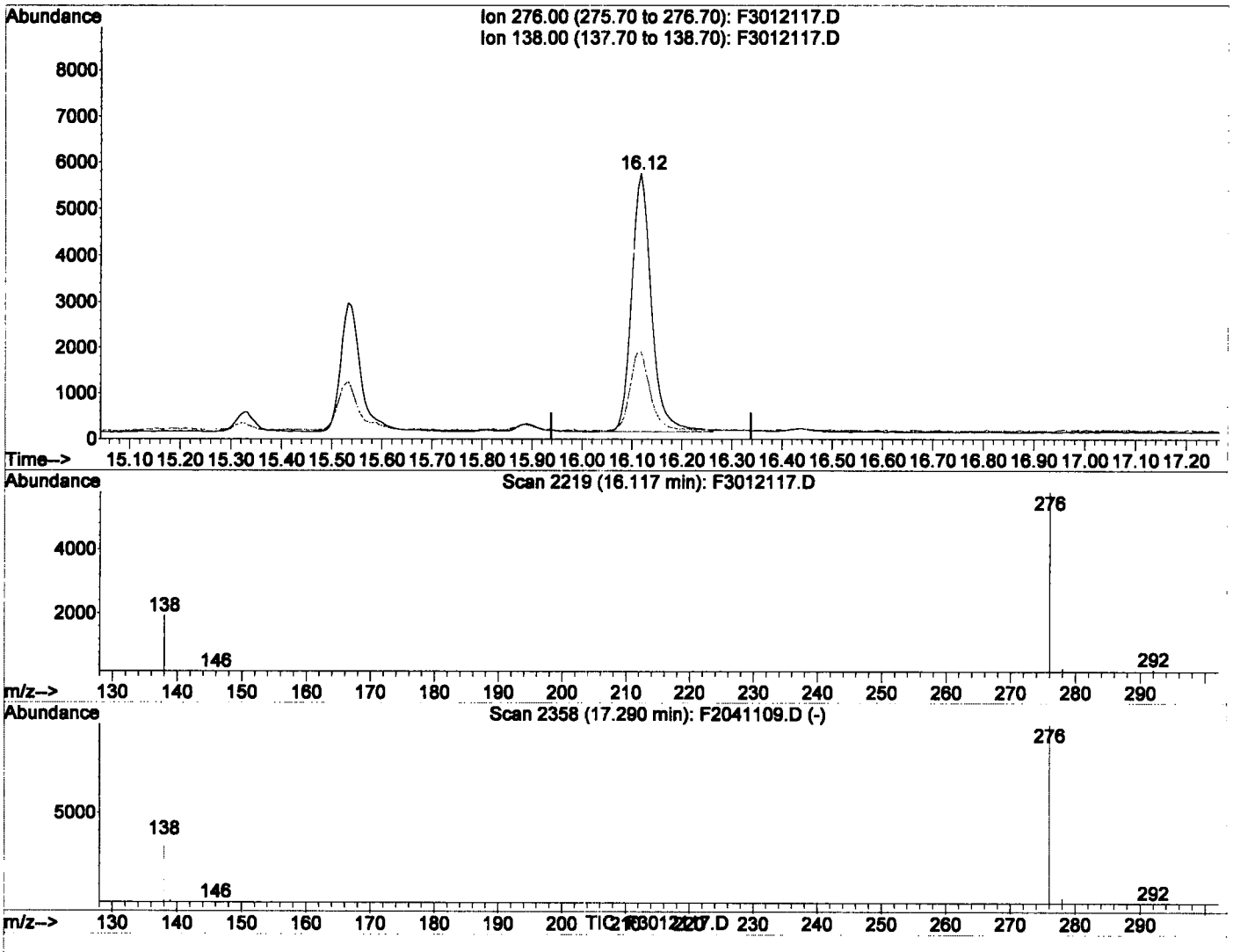
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	35.64
0.00	0.00	0.00
0.00	0.00	0.00

F3012117.D F21227.M Tue Jan 22 09:57:05 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:56 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.12min 66.20ng/ml

response 15524

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	29.89
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	991361	2000.000 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	487358	2000.000 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	798492	2000.000 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.10	240	638098	2000.000 ng/ml	-0.01
27) Perylene-d12 (ISTD)	13.35	264	537890	2000.000 ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	427635	2000.000 ng/mL	-0.02
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.36	172	768105	2196.764 ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	725773	2815.377 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthalene	5.35	128	2287	4.258 ng/ml#	80
3) 2-Methylnaphthalene	6.01	142	1410	4.416 ng/ml	99
4) 1-Methylnaphthalene	6.10	142	809	2.743 ng/ml	88
7) Dimethylphthalate	6.75	163	260	0.821 ng/mL#	73
8) Acenaphthylene	6.87	152	219	0.485 ng/ml#	67
9) Acenaphthene	0.00	153	0	N.D.	
10) Dibenzofuran	7.22	168	397	0.982 ng/mL#	41
11) Diethylphthalate	7.44	149	3235	9.959 ng/mL	80
12) Fluorene	7.55	166	290	0.941 ng/ml	100
14) Phenanthrene	8.48	178	1722	4.087 ng/mL	95
15) Anthracene	8.53	178	314	0.776 ng/ml#	61
16) Carbazole	8.70	167	330	1.000 ng/ml#	69
17) Di-n-butylphthalate	9.03	149	17662	34.989 ng/mL	100
18) Fluoranthene	9.64	202	2886	7.284 ng/ml	98
19) Pyrene	9.87	202	3619	8.836 ng/ml	98
22) Benzyl Butyl phthalate	10.50	149	12889	77.972 ng/mL	99
23) Benz(a)Anthracene	11.10	228	3473	10.977 ng/ml	95
24) Chrysene	11.13	228	4257	13.962 ng/ml	92
25) Bis(2-ethylhexyl)phthalate	11.13	149	15646	69.563 ng/mL	98
26) Di-n-octyl phthalate	12.09	149	422	72.414 ng/mL#	87
28) Benzo(b)Fluoranthene	12.65	252	8301	31.400 ng/ml	100
29) Benzo(k)Fluoranthene	12.70	252	2308	8.058 ng/ml	92
30) Benzo(b+k)Fluoranthene	12.65	252	10983	39.314 ng/ml	97
31) Benzo (e) Pyrene	13.14	252	6163	22.979 ng/mL	95
32) Benzo(a)Pyrene	13.24	252	3043	12.365 ng/ml	97
33) Perylene	13.40	252	2308	8.640 ng/mL	63
35) Indeno(1,2,3-cd)Pyrene	15.53	276	7902	33.540 ng/ml	93
36) Dibenz(a,h)Anthracene	15.59	278	1387	6.171 ng/ml	90
37) Benzo(g,h,i)Perylene	16.12	276	15524	66.198 ng/ml	95

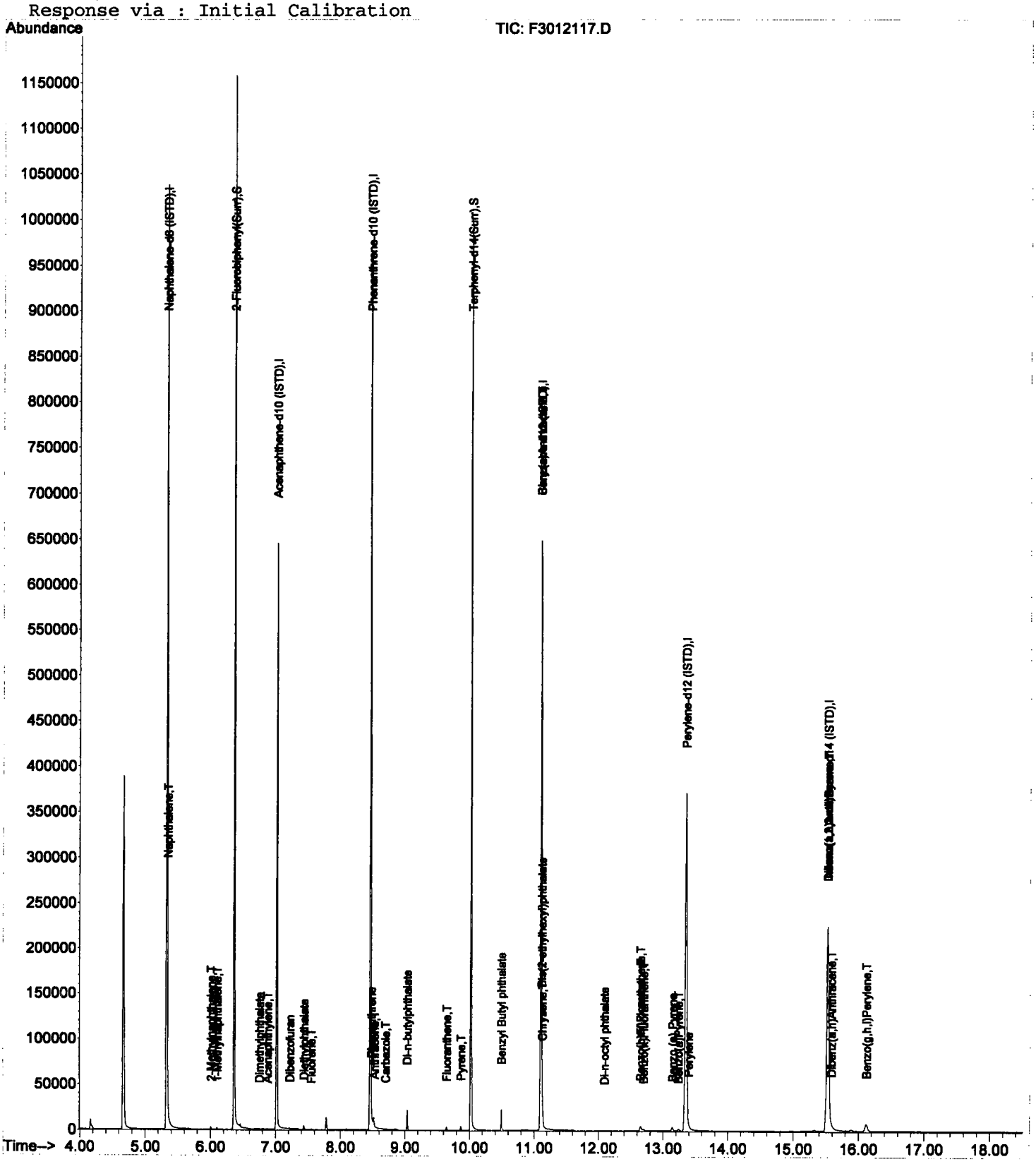
MJ 1-22-13 BST

(#) = qualifier out of range (m) = manual integration
F3012117.D F21227.M Tue Jan 22 08:59:45 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012117.D Vial: 14
Acq On : 21 Jan 2013 8:59 pm Operator: bsj
Sample : A13A243-12 Inst : SV-GCMS6
Misc : 1x Soil 10.53g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



F3012117.D F21227.M Tue Jan 22 08:59:46 2013 VOAGCMS1 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:58 2013 Quant Results File: F21227.RES

NR MB contaminated 1/23/13 MLT

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-28
Q-26

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	985607	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	481869	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	776226	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	667677	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	587826	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	475197	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	716360	2072.112	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	724439	2685.706	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	3122	5.847	ng/ml	96
3) 2-Methylnaphthalene	6.00	142	1283	4.041	ng/ml	93
4) 1-Methylnaphthalene	6.10	142	694	2.367	ng/ml	98
7) Dimethylphthalate	6.75	163	204	0.651	ng/mL#	73
8) Acenaphthylene	6.87	152	1210	2.712	ng/ml#	67
9) Acenaphthene	7.04	153	1564	5.531	ng/ml	96
10) Dibenzofuran	7.22	168	1007	2.518	ng/mL	99
11) Diethylphthalate	7.43	149	2301	7.165	ng/mL	79
12) Fluorene	7.55	166	952	3.124	ng/ml	94
14) Phenanthrene	8.48	178	18069	44.119	ng/mL	99
15) Anthracene	8.53	178	4389	11.158	ng/ml J	97
16) Carbazole	8.69	167	3271	10.194	ng/ml	96
17) Di-n-butylphthalate	9.04	149	8678	17.685	ng/mL	99
18) Fluoranthene	9.64	202	82166	213.314	ng/ml	99
19) Pyrene	9.86	202	93108	233.854	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	9692	56.034	ng/mL	99
23) Benz(a)Anthracene	11.09	228	81964	247.574	ng/ml	99
24) Chrysene	11.14	228	276101	865.435	ng/ml	96
25) Bis(2-ethylhexyl)phthalate	11.12	149	10738	45.627	ng/mL	98
26) Di-n-octyl phthalate	12.09	149	238	71.850	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	390660	1352.193	ng/ml Q-28	99
29) Benzo(k)Fluoranthene	12.70	252	113636	363.048	ng/ml	95
30) Benzo(b+k)Fluoranthene	12.66	252	509426m	1668.608	ng/ml Q-26	
31) Benzo (e) Pyrene	13.14	252	259919	886.789	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	123143	457.860	ng/ml	98
33) Perylene	13.40	252	56267	192.745	ng/mL	97
35) Indeno(1,2,3-cd)Pyrene	15.54	276	241042	920.713	ng/ml	99
36) Dibenz(a,h)Anthracene	15.59	278	50451	201.987	ng/ml	92
37) Benzo(g,h,i)Perylene	16.12	276	334106	1282.114	ng/ml	97

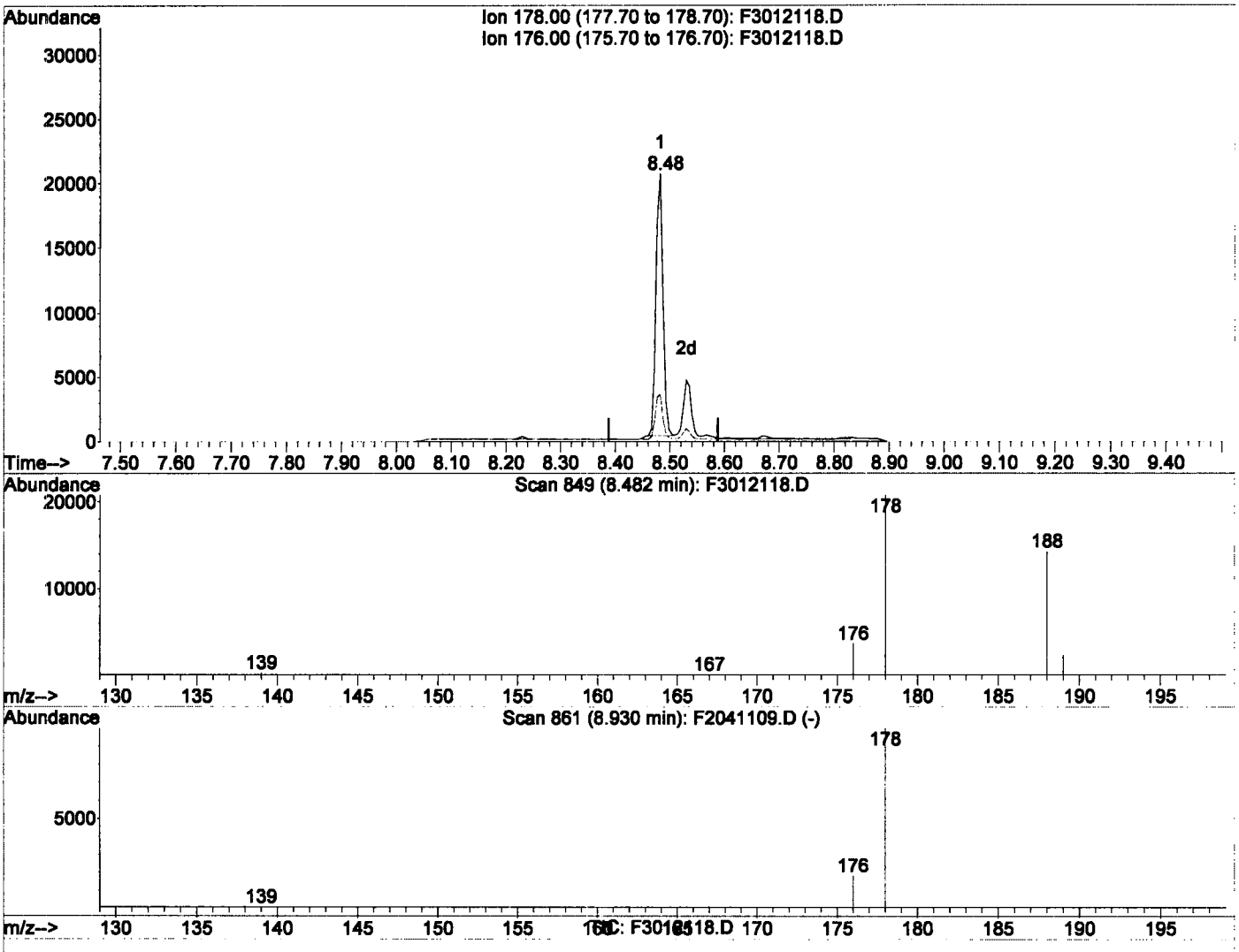
1-22-13 BSS

(#) = qualifier out of range (m) = manual integration
F3012118.D F21227.M Tue Jan 22 09:59:10 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(14) Phenanthrene

8.48min 44.12ng/mL

response 18069

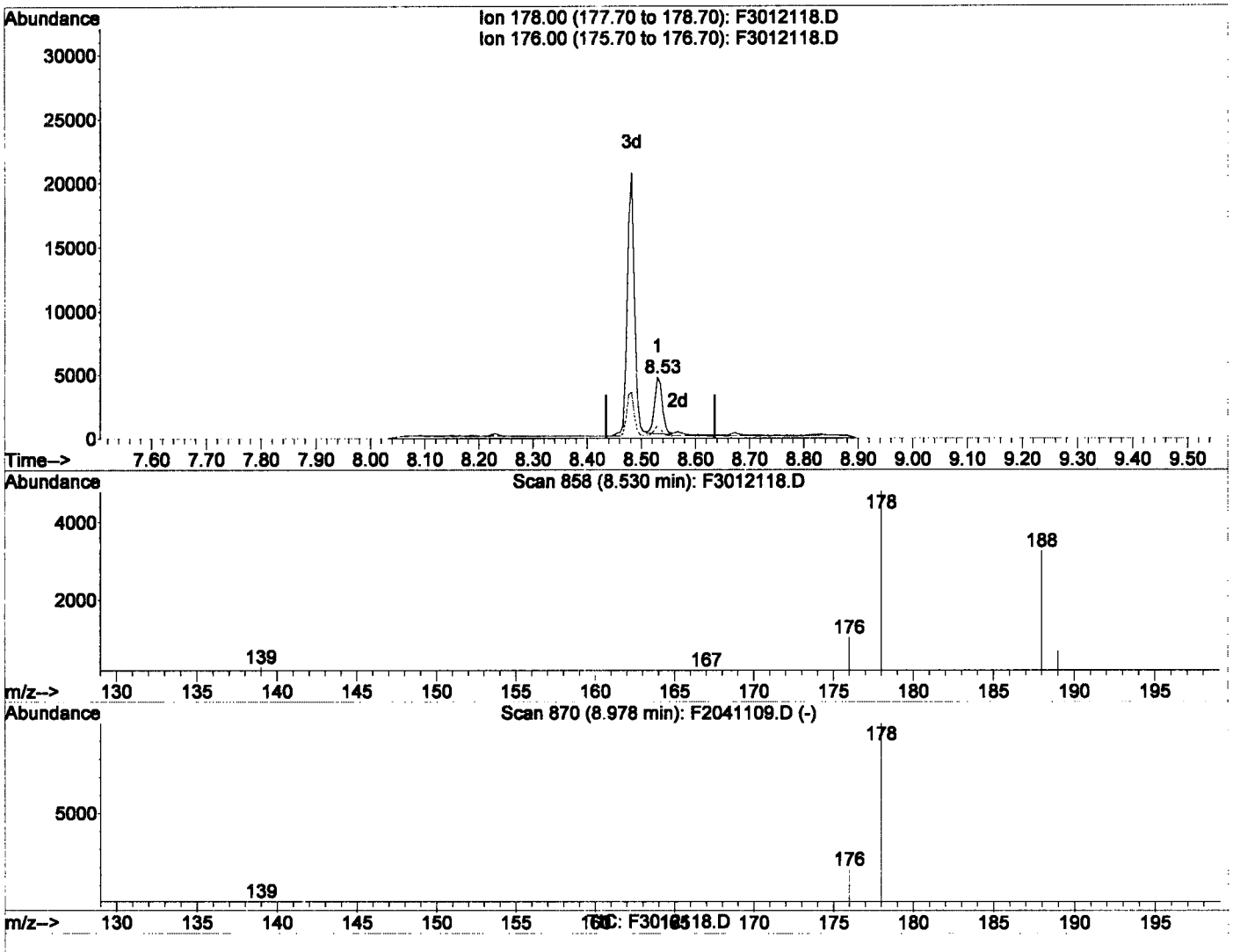
Ion	Exp%	Act%
178.00	100	100
176.00	18.10	18.72
0.00	0.00	0.00
0.00	0.00	0.00

F3012118.D F21227.M Tue Jan 22 09:57:45 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(15) Anthracene (T)

8.53min 11.16ng/ml

response 4389

Ion	Exp%	Act%
178.00	100	100
176.00	16.60	18.07
0.00	0.00	0.00
0.00	0.00	0.00

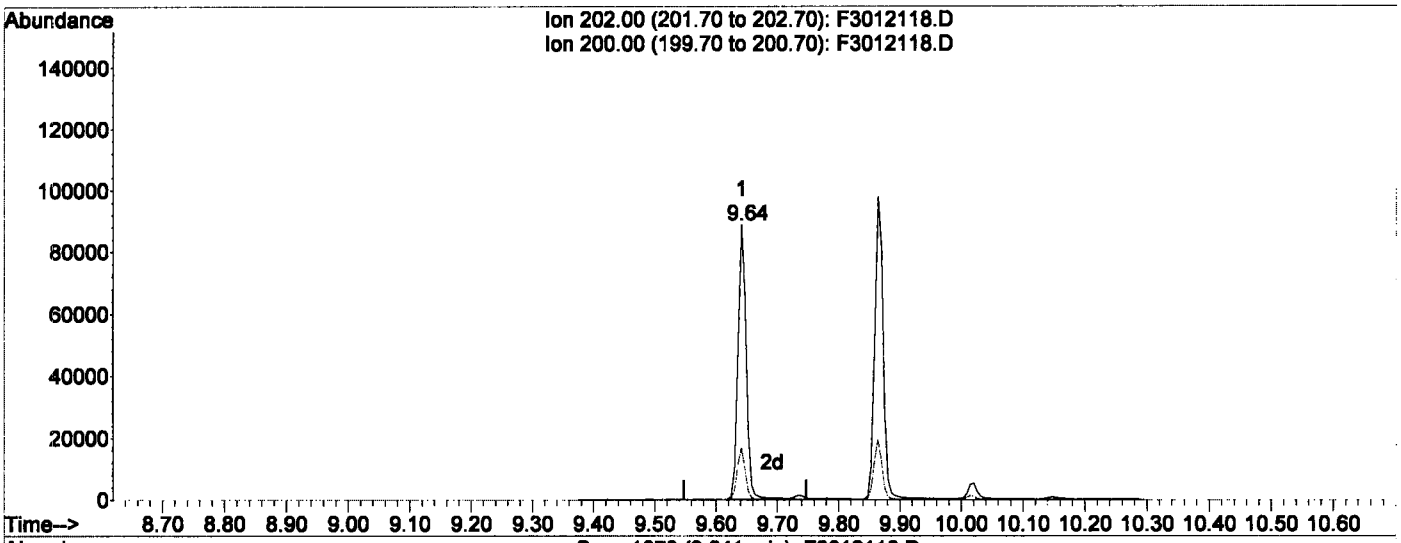
J

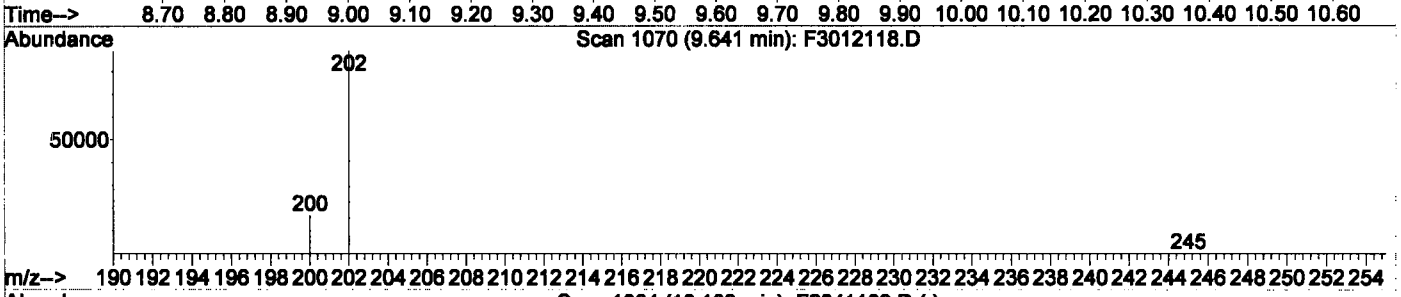
F3012118.D F21227.M Tue Jan 22 09:57:50 2013 VOAGCMS1

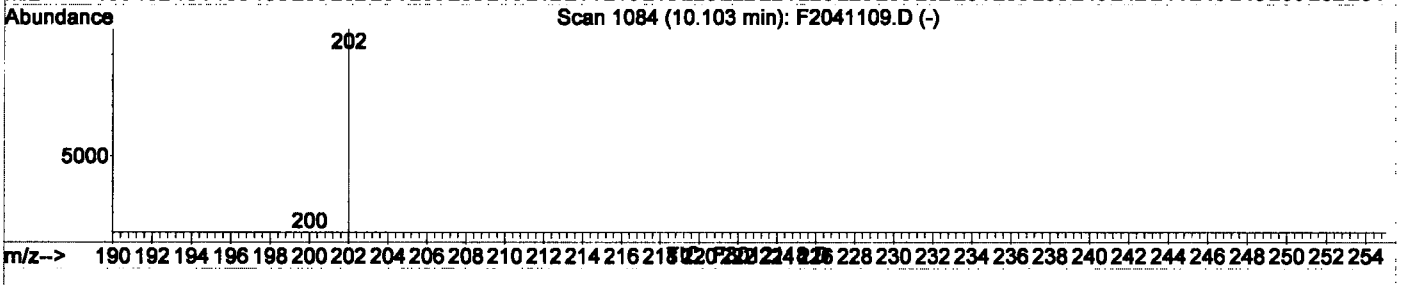
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(18) Fluoranthene (T)

9.64min 213.31ng/ml

response 82166

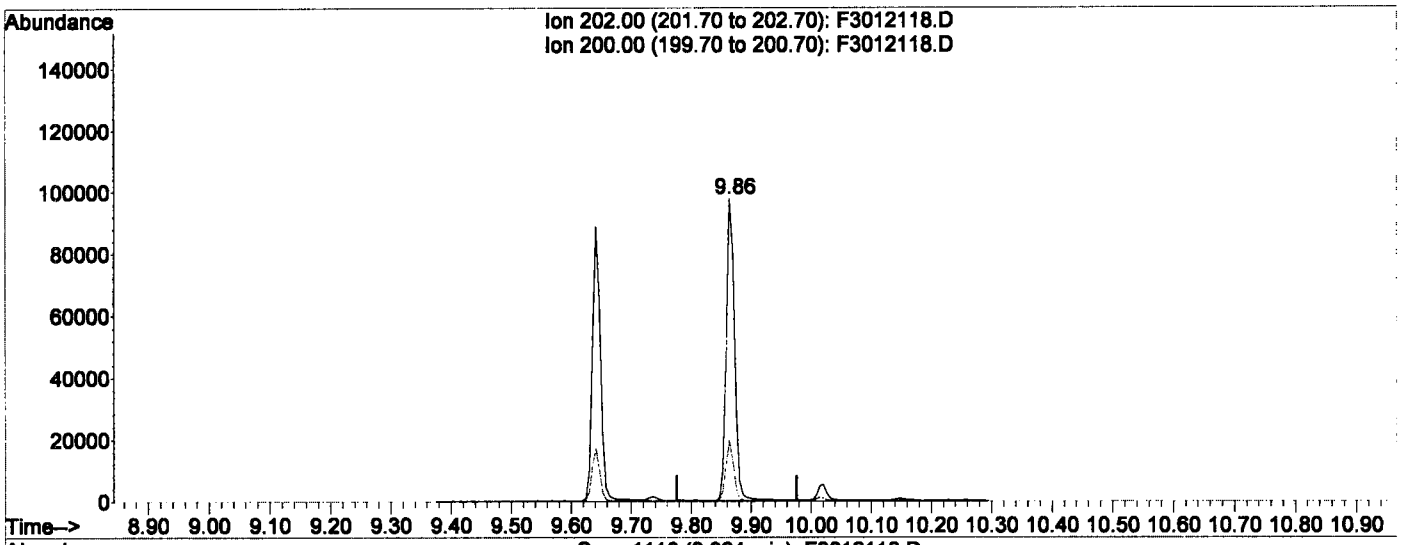
Ion	Exp%	Act%
202.00	100	100
200.00	18.60	19.17
0.00	0.00	0.00
0.00	0.00	0.00

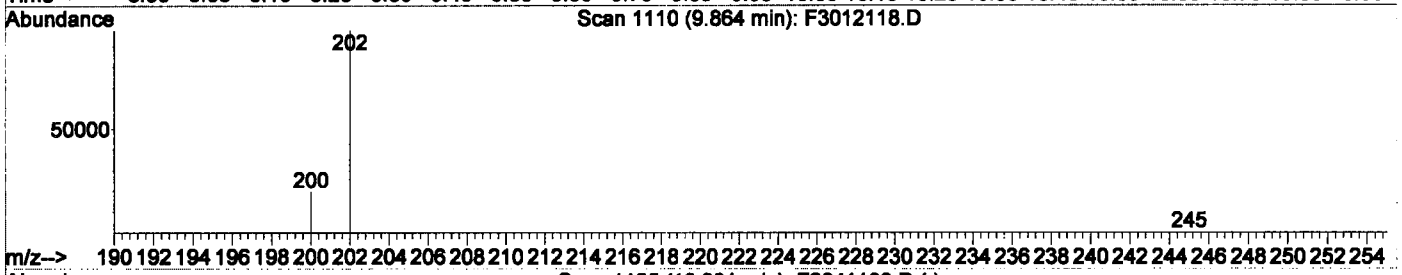
F3012118.D F21227.M Tue Jan 22 09:57:56 2013 VOAGCMS1

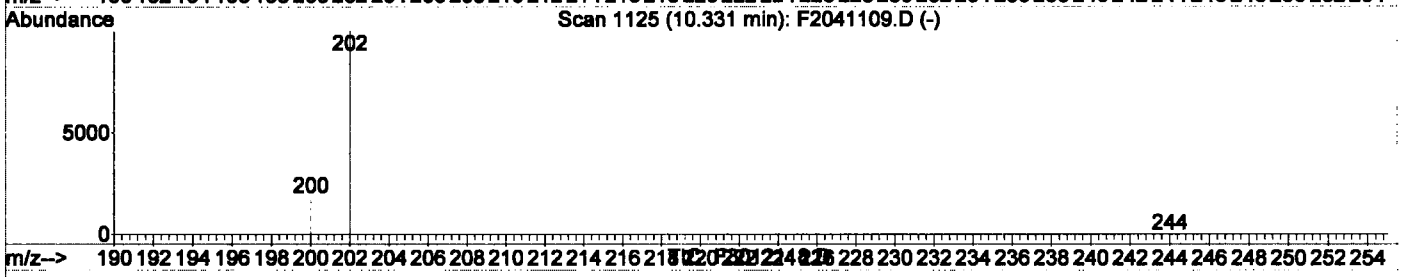
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(19) Pyrene (T)

9.86min 233.85ng/ml

response 93108

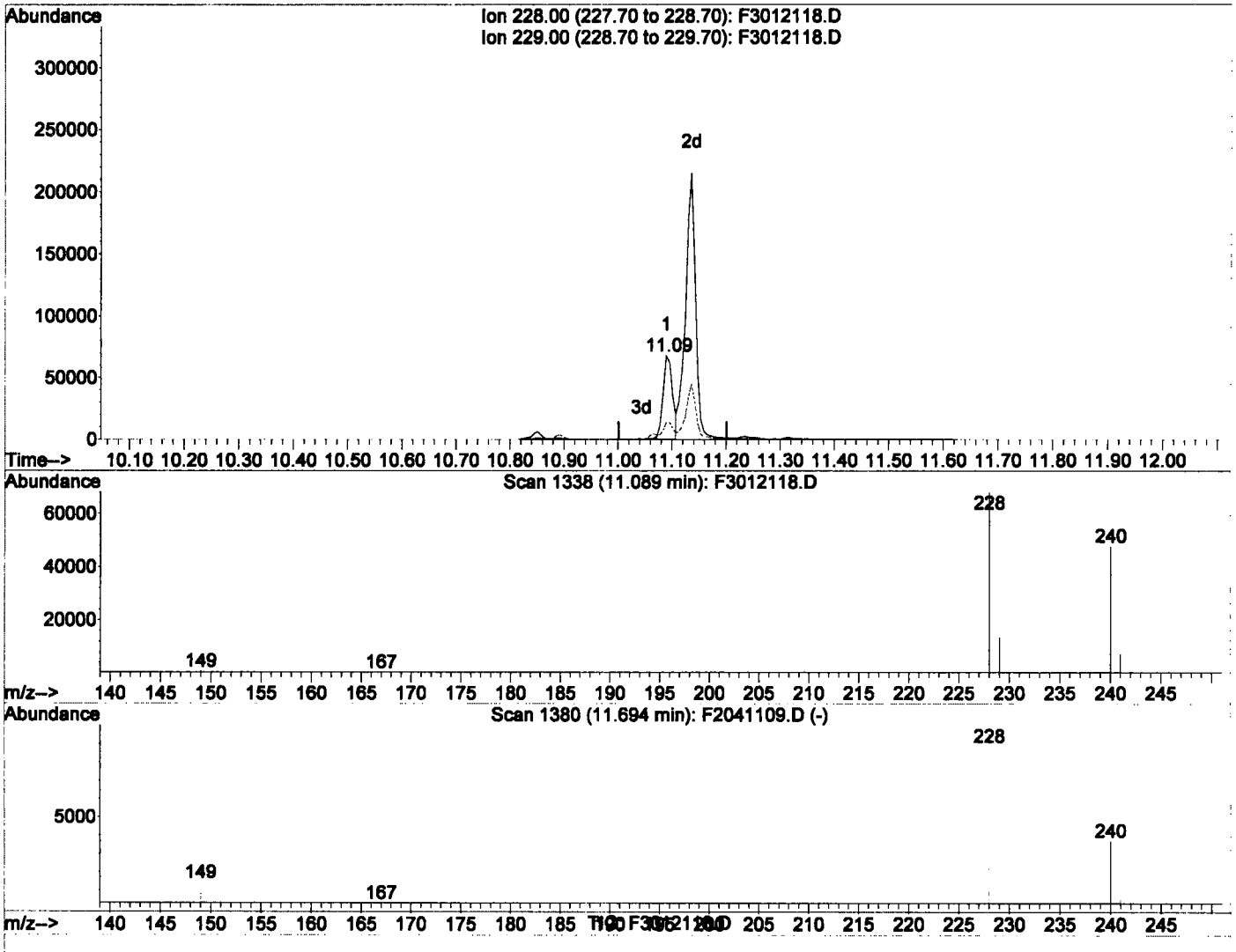
Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.27
0.00	0.00	0.00
0.00	0.00	0.00

F3012118.D F21227.M Tue Jan 22 09:58:01 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(23) Benz(a)Anthracene (T)

11.09min 247.57ng/ml

response 81964

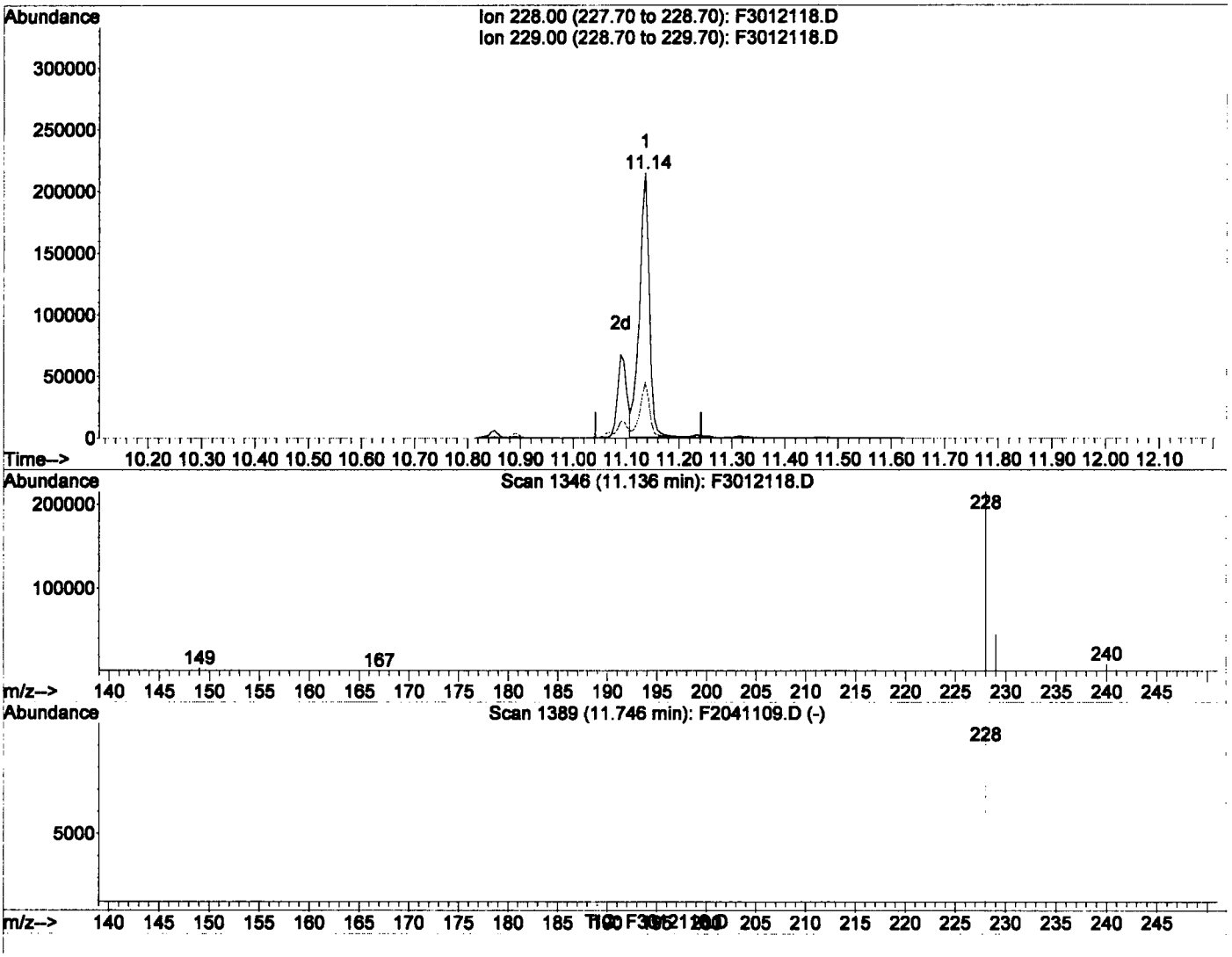
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	18.86
0.00	0.00	0.00
0.00	0.00	0.00

F3012118.D F21227.M Tue Jan 22 09:58:08 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(24) Chrysene (T)

11.14min 865.43ng/ml

response 276101

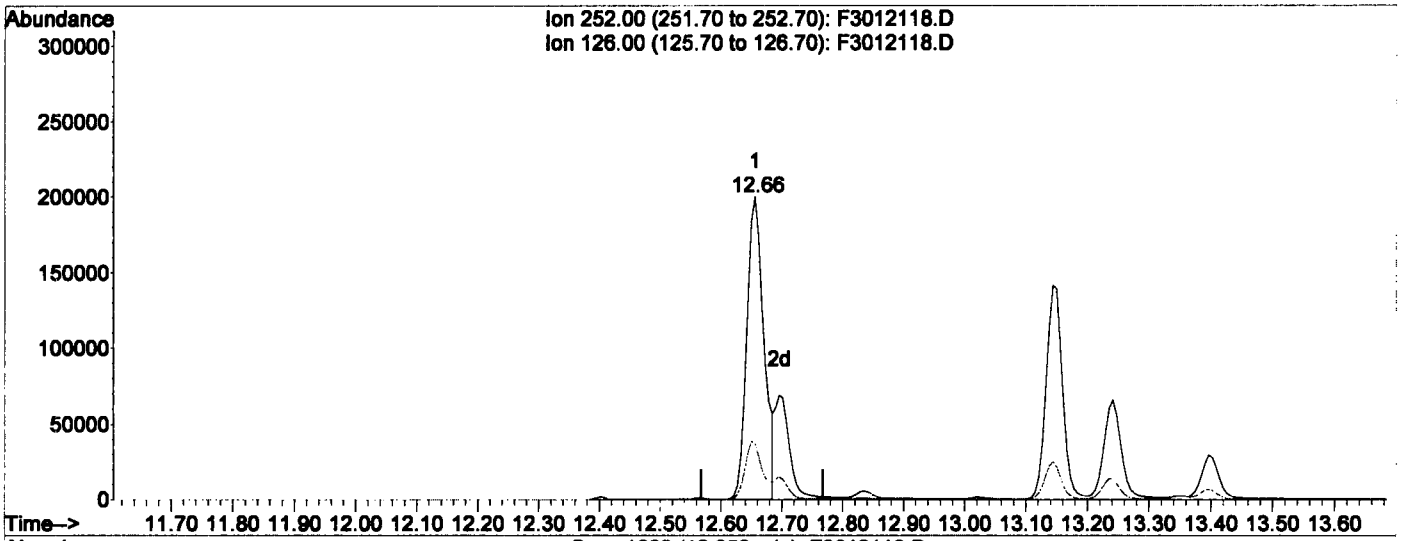
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	20.82
0.00	0.00	0.00
0.00	0.00	0.00

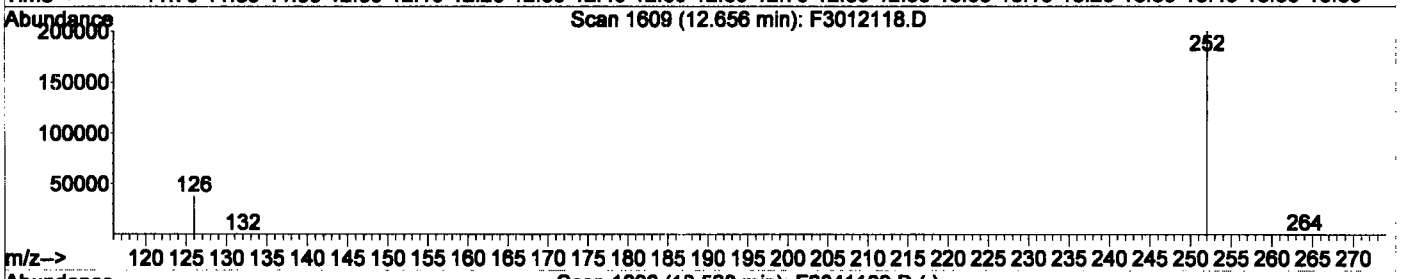
F3012118.D F21227.M Tue Jan 22 09:58:12 2013 VOAGCMS1

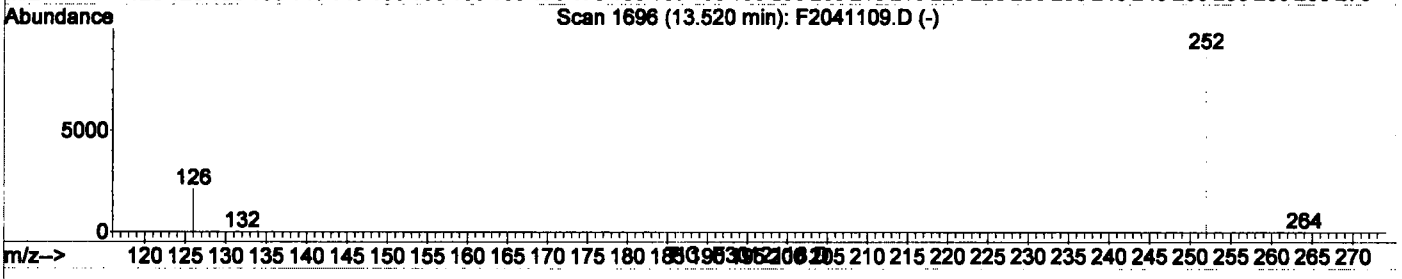
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.66min 1352.19ng/ml

response 390660

Q-28

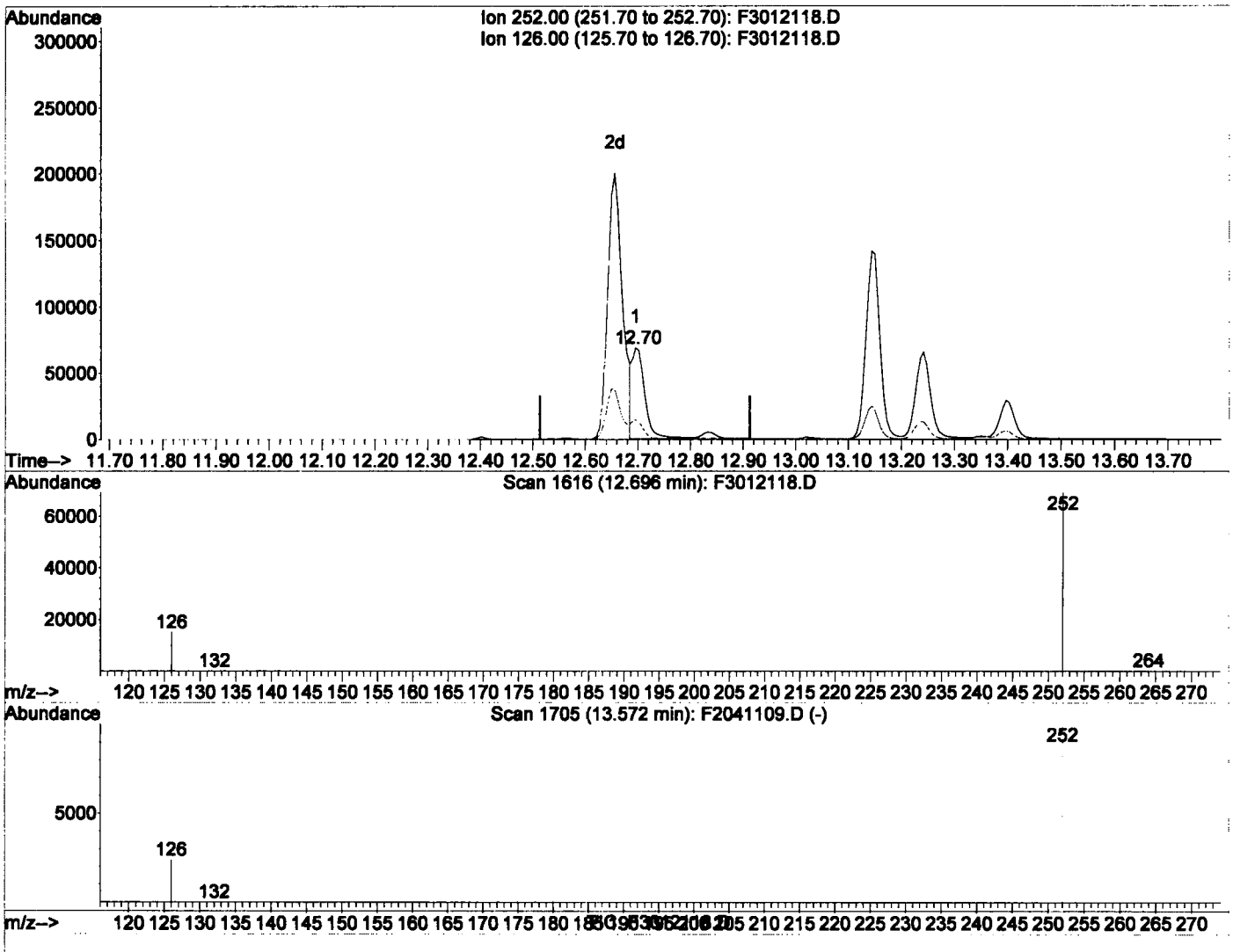
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	18.66
0.00	0.00	0.00
0.00	0.00	0.00

F3012118.D F21227.M Tue Jan 22 09:58:19 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(29) Benzo(k)Fluoranthene (T)

12.70min 363.05ng/ml

response 113636

Q-28

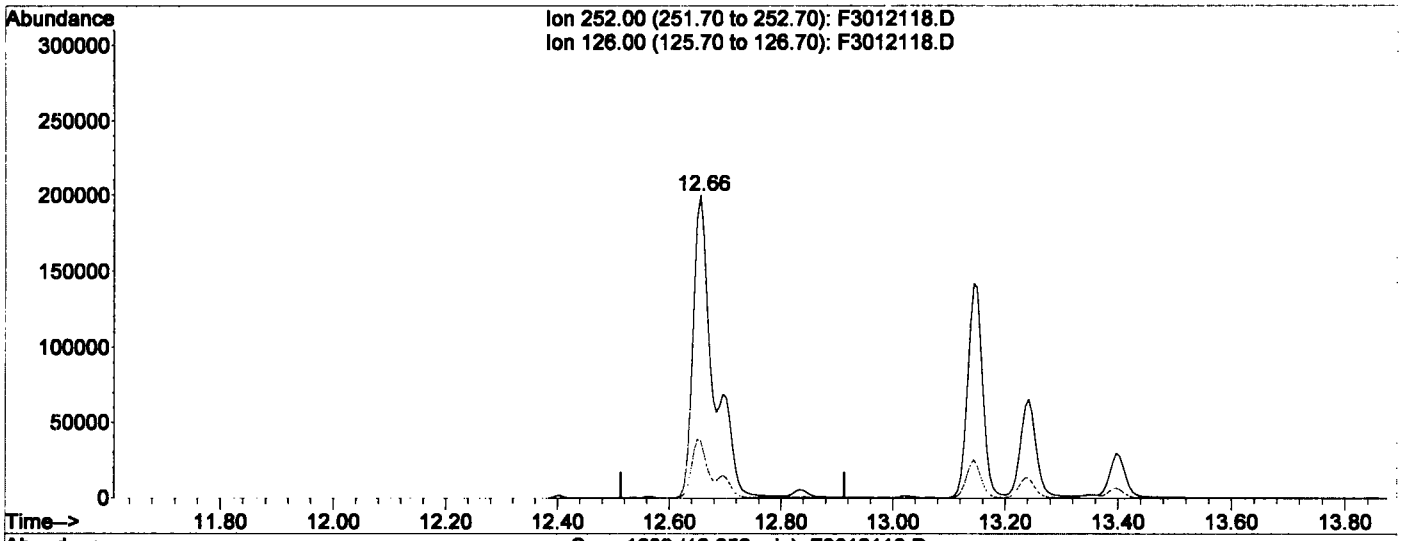
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	23.01
0.00	0.00	0.00
0.00	0.00	0.00

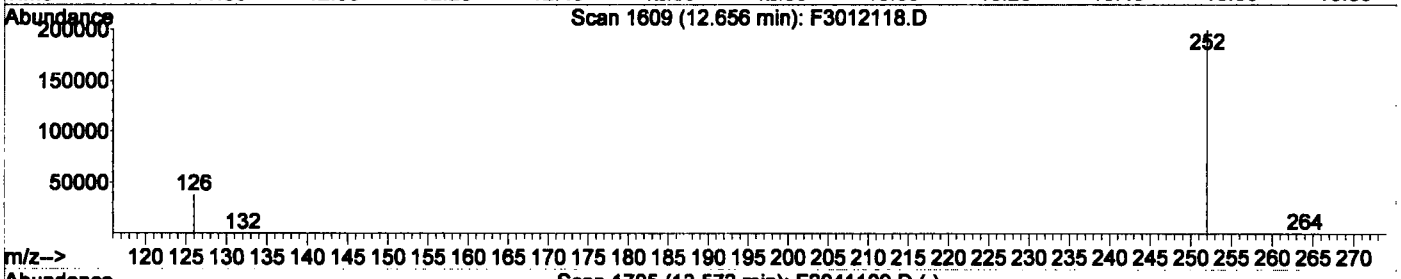
F3012118.D F21227.M Tue Jan 22 09:58:25 2013 VOAGCMS1

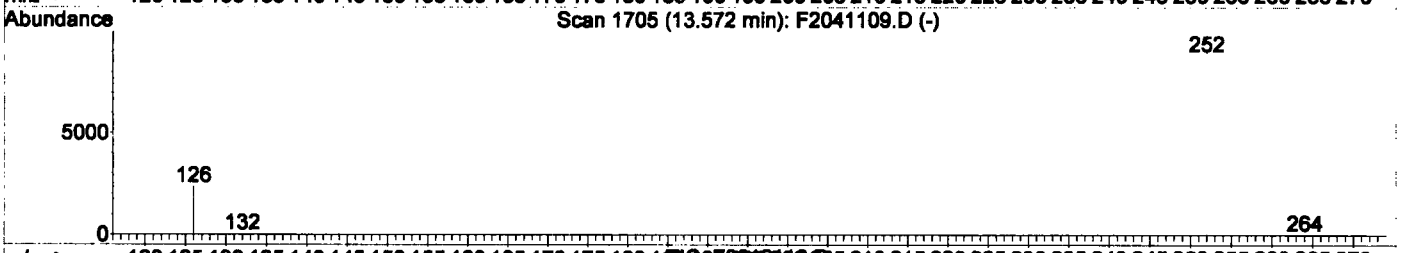
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:58 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.66min 1668.61ng/ml m

response 509426

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.89
0.00	0.00	0.00
0.00	0.00	0.00

Q-26
1-22-13

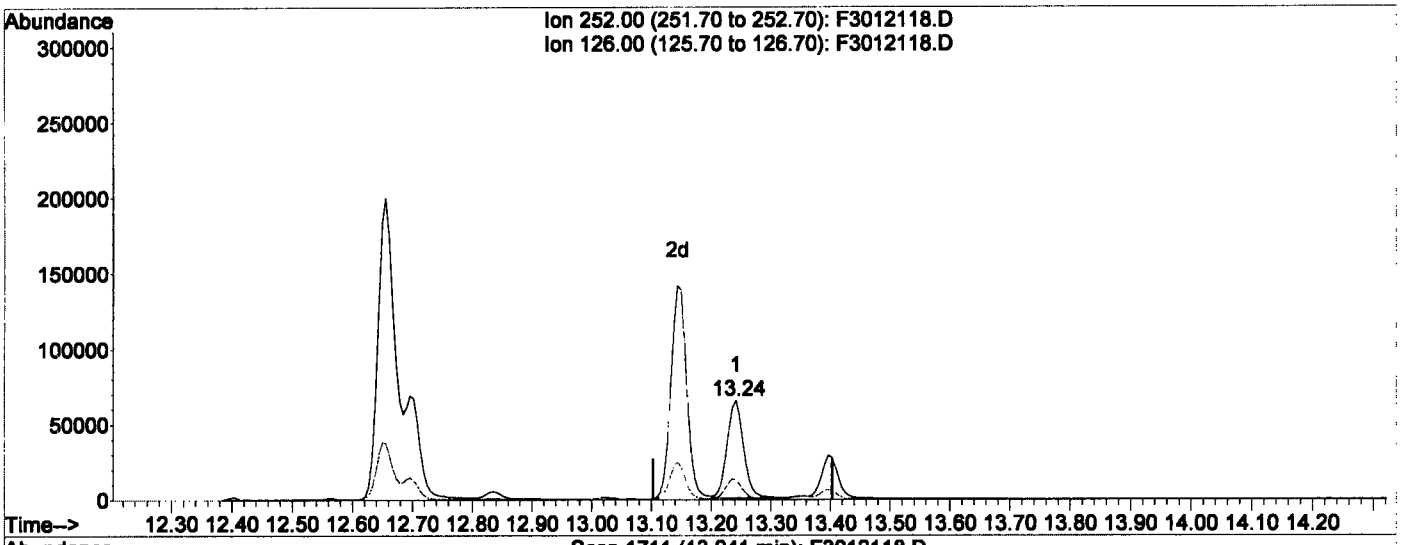
1/23/13

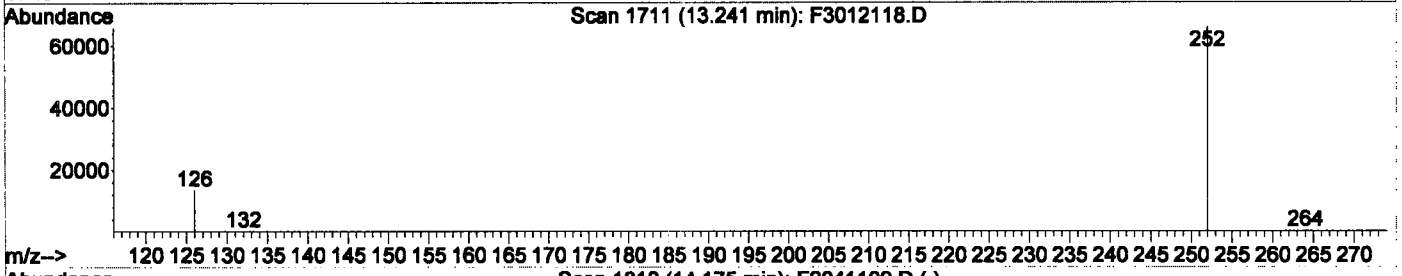
F3012118.D F21227.M Tue Jan 22 09:58:40 2013 VOAGCMS1

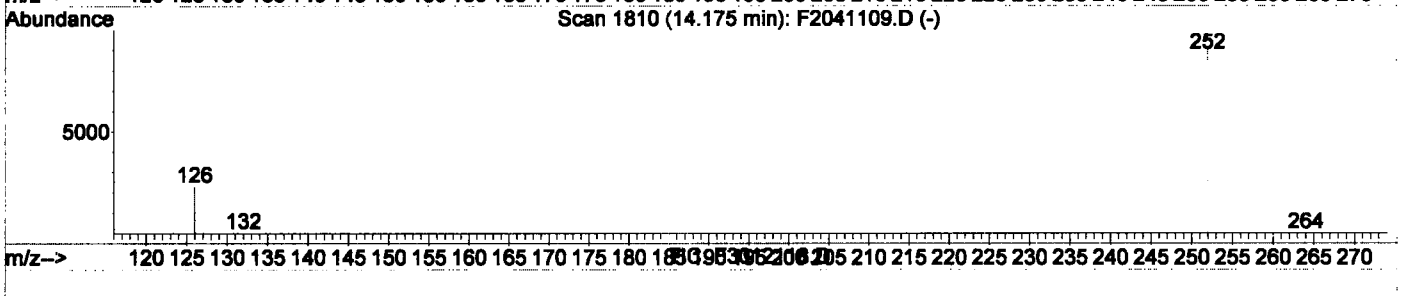
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:58 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(32) Benzo(a)Pyrene (T)

13.24min 457.86ng/ml

response 123143

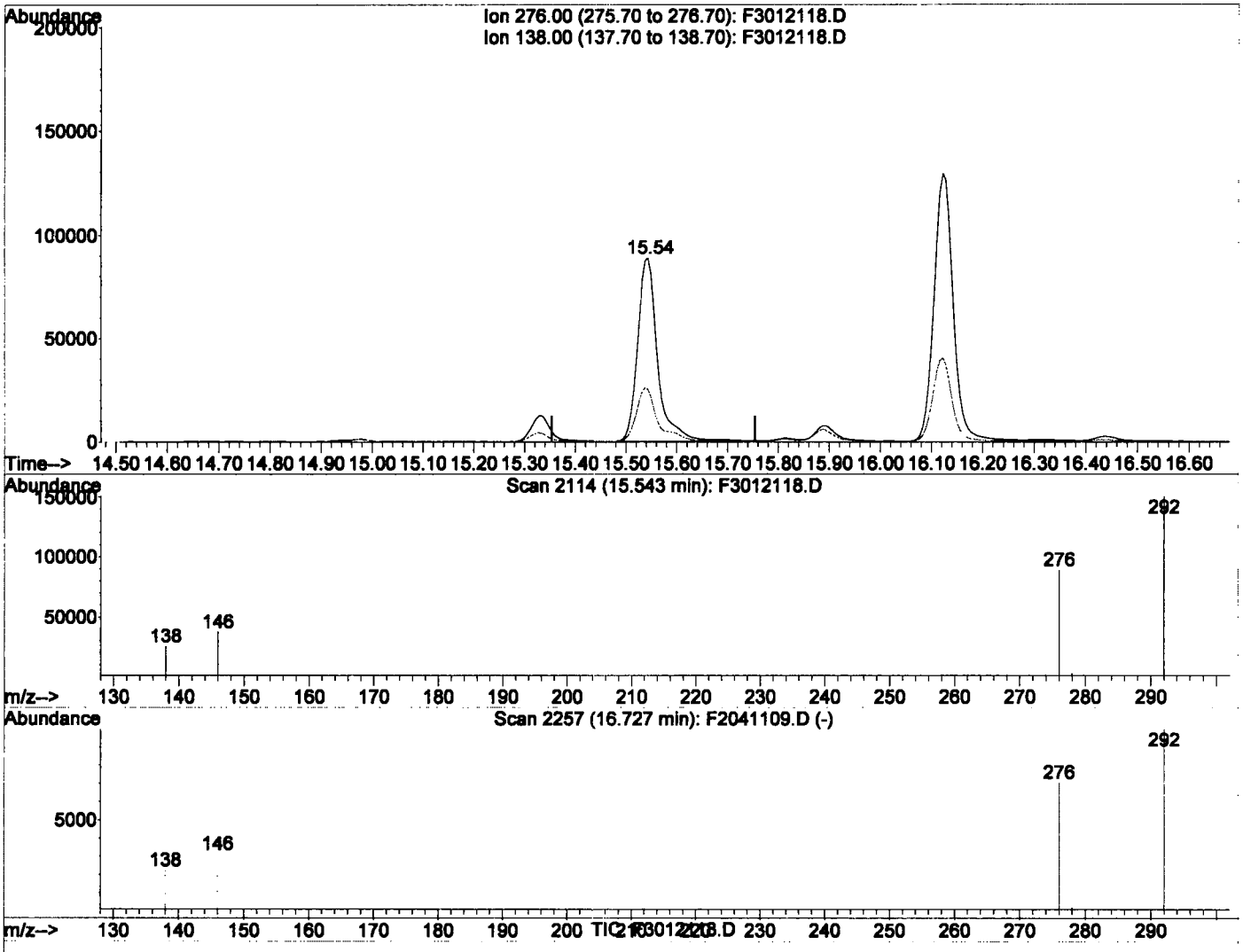
Ion	Exp%	Act%
252.00	100	100
126.00	20.10	20.82
0.00	0.00	0.00
0.00	0.00	0.00

F3012118.D F21227.M Tue Jan 22 09:58:45 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:58 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.54min 920.71ng/ml

response 241042

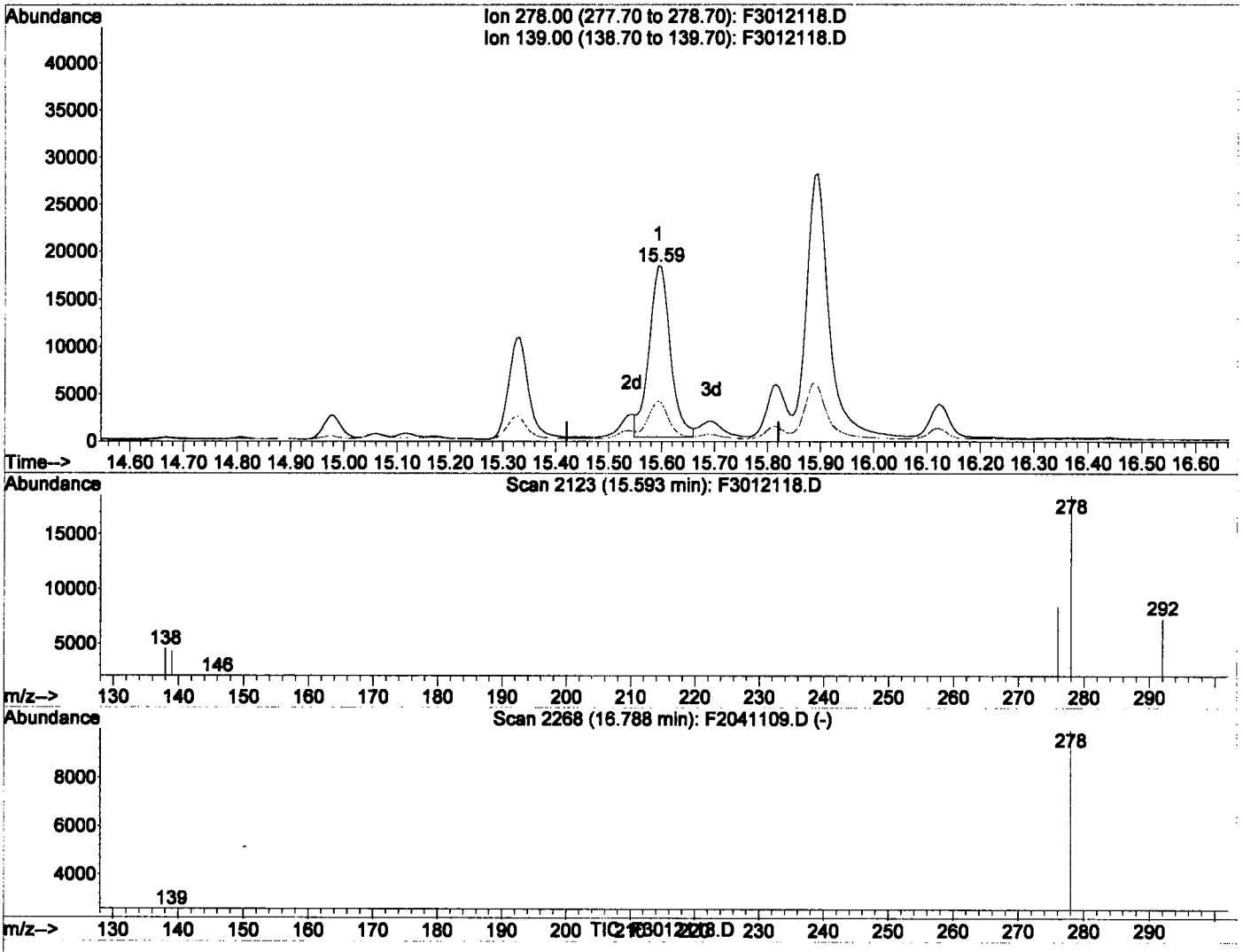
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	31.34
0.00	0.00	0.00
0.00	0.00	0.00

F3012118.D F21227.M Tue Jan 22 09:58:51 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:58 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(36) Dibenz(a,h)Anthracene (T)

15.59min 201.99ng/ml

response 50451

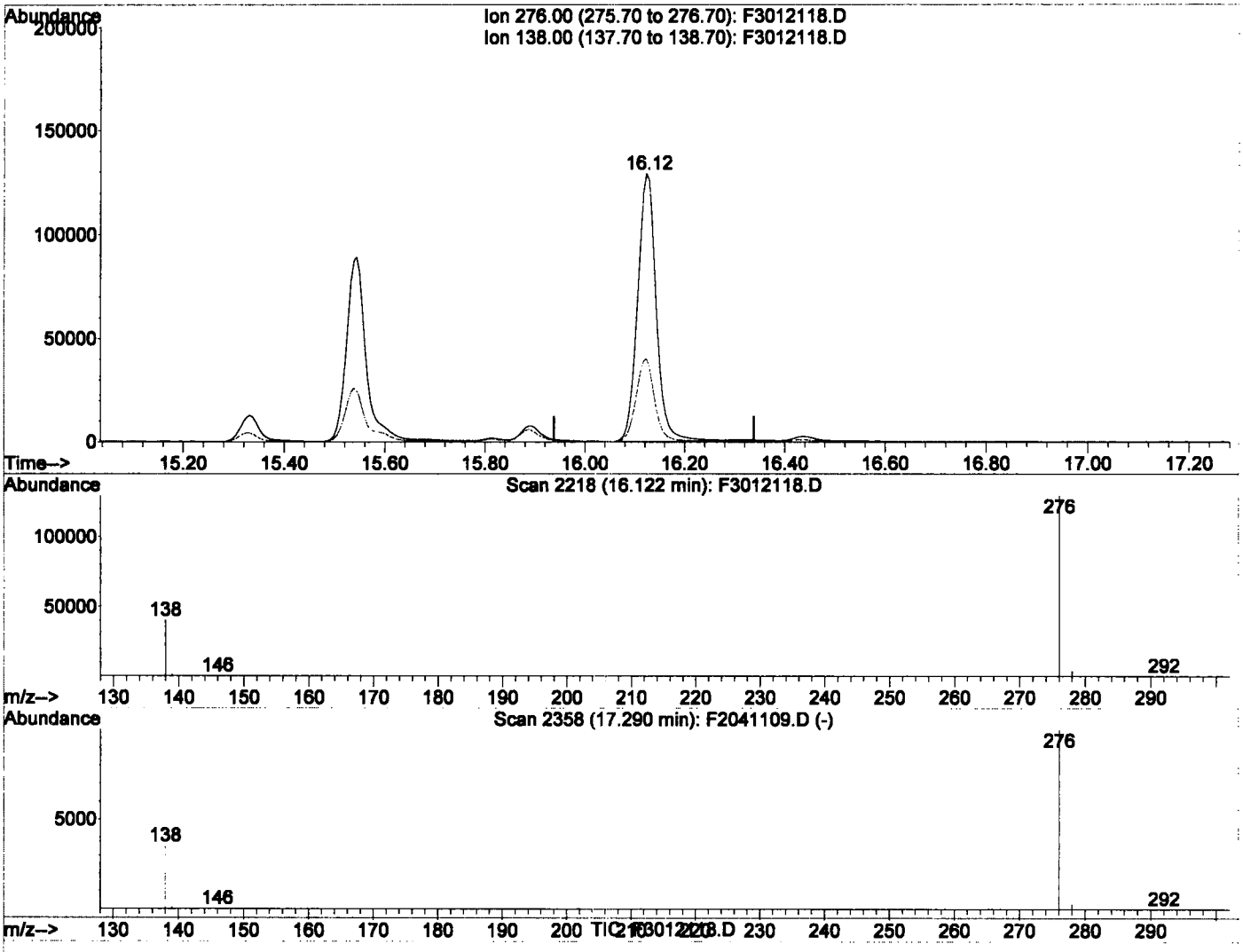
Ion	Exp%	Act%
278.00	100	100
139.00	25.90	21.60
0.00	0.00	0.00
0.00	0.00	0.00

F3012118.D F21227.M Tue Jan 22 09:58:57 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:58 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.12min 1282.11ng/ml

response 334106

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.91
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	985607	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	481869	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	776226	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	667677	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	587826	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	475197	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	716360	2072.112	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	724439	2685.706	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	3122	5.847	ng/ml	96
3) 2-Methylnaphthalene	6.00	142	1283	4.041	ng/ml	93
4) 1-Methylnaphthalene	6.10	142	694	2.367	ng/ml	98
7) Dimethylphthalate	6.75	163	204	0.651	ng/mL#	73
8) Acenaphthylene	6.87	152	1210	2.712	ng/ml#	67
9) Acenaphthene	7.04	153	1564	5.531	ng/ml	96
10) Dibenzofuran	7.22	168	1007	2.518	ng/mL	99
11) Diethylphthalate	7.43	149	2301	7.165	ng/mL	79
12) Fluorene	7.55	166	952	3.124	ng/ml	94
14) Phenanthrene	8.48	178	18069	44.119	ng/mL	99
15) Anthracene	8.53	178	4389	11.158	ng/ml	97
16) Carbazole	8.69	167	3271	10.194	ng/ml	96
17) Di-n-butylphthalate	9.04	149	8678	17.685	ng/mL	99
18) Fluoranthene	9.64	202	82166	213.314	ng/ml	99
19) Pyrene	9.86	202	93108	233.854	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	9692	56.034	ng/mL	99
23) Benz(a)Anthracene	11.09	228	81964	247.574	ng/ml	99
24) Chrysene	11.14	228	276101	865.435	ng/ml	96
25) Bis(2-ethylhexyl)phthalate	11.12	149	10738	45.627	ng/mL	98
26) Di-n-octyl phthalate	12.09	149	238	71.850	ng/mL#	87
28) Benzo(b)Fluoranthene	12.66	252	390660	1352.193	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	113636	363.048	ng/ml	95
30) Benzo(b+k)Fluoranthene	12.66	252	517281	1694.337	ng/ml	98
31) Benzo (e) Pyrene	13.14	252	259919	886.789	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	123143	457.860	ng/ml	98
33) Perylene	13.40	252	56267	192.745	ng/mL	97
35) Indeno(1,2,3-cd)Pyrene	15.54	276	241042	920.713	ng/ml	99
36) Dibenz(a,h)Anthracene	15.59	278	50451	201.987	ng/ml	92
37) Benzo(g,h,i)Perylene	16.12	276	334106	1282.114	ng/ml	97

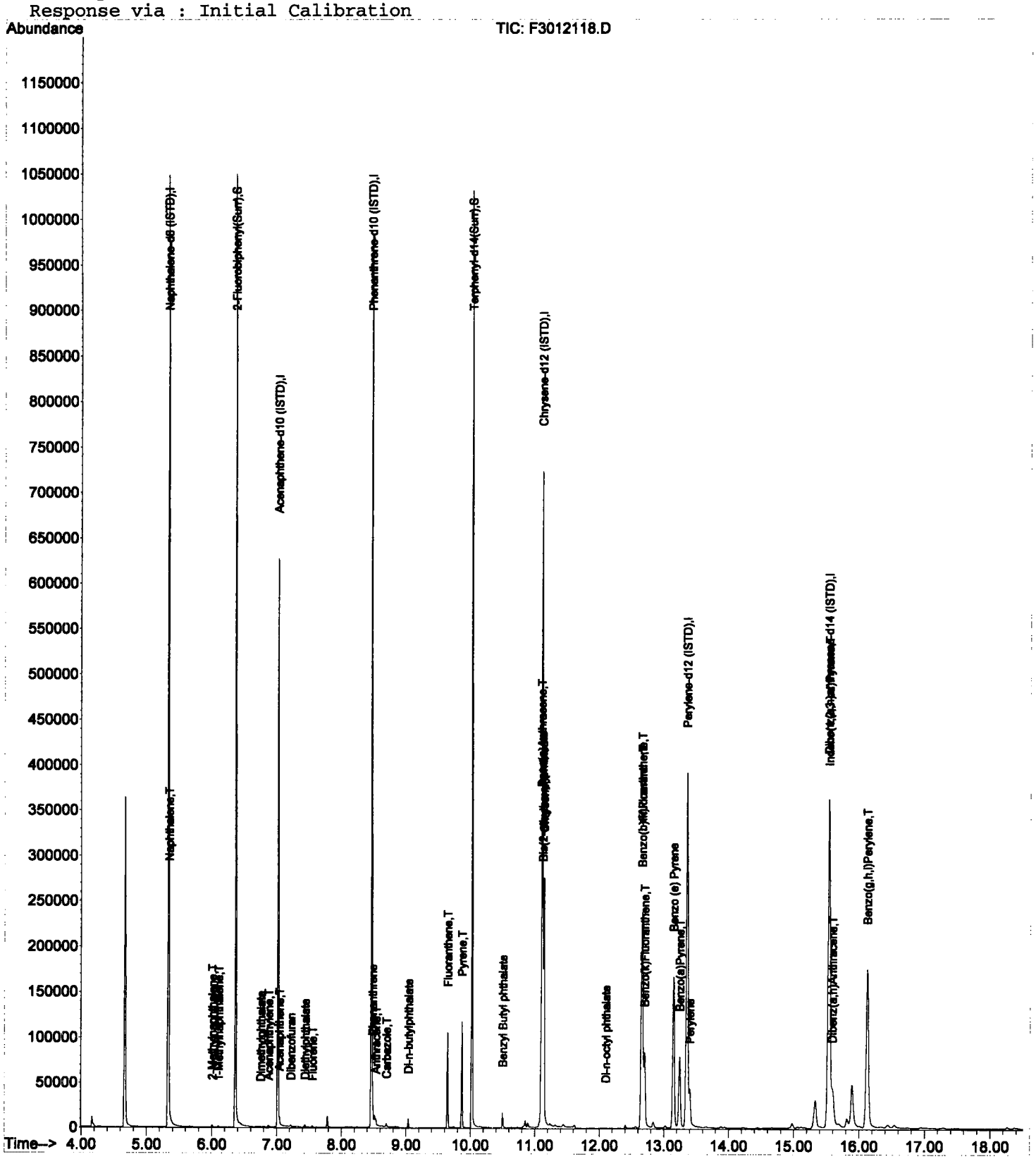
MJ 1-22-13

(#) = qualifier out of range (m) = manual integration
F3012118.D F21227.M Tue Jan 22 08:59:48 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012118.D Vial: 15
Acq On : 21 Jan 2013 9:25 pm Operator: bsj
Sample : A13A243-14 Inst : SV-GCMS6
Misc : 1x Soil 10.24g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

DR-2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	949722	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	455884	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	741183	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	740571	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	735027	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.56	292	661229	2000.000	ng/mL	0.01
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	143689	439.319	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	150834	504.145	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	4614	8.968	ng/ml	93
3) 2-Methylnaphthalene	6.01	142	1400	4.577	ng/ml	93
4) 1-Methylnaphthalene	6.10	142	707	2.502	ng/ml	98
7) Dimethylphthalate	6.70	163	253	0.854	ng/mL#	73
8) Acenaphthylene	6.87	152	10950	25.939	ng/ml	100
9) Acenaphthene	7.04	153	3002	11.221	ng/ml J	97
10) Dibenzofuran	7.22	168	4637	12.257	ng/mL	100
11) Diethylphthalate	7.43	149	1311	4.315	ng/mL	79
12) Fluorene	7.55	166	3088	10.711	ng/ml J	85
14) Phenanthrene	8.48	178	63908	163.422	ng/mL	100
15) Anthracene	8.53	178	27735	73.841	ng/ml	100
16) Carbazole	8.69	167	13317	43.463	ng/ml	99
17) Di-n-butylphthalate	9.03	149	2312	4.934	ng/mL#	89
18) Fluoranthene	9.64	202	593248	1612.969	ng/ml	98
19) Pyrene	9.87	202	757646	1992.906	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	2796	14.574	ng/mL	100
23) Benz(a)Anthracene	11.10	228	1324224	3606.146	ng/ml	91
24) Chrysene	11.15	228	6793684	19198.685	ng/ml DR-2	99
25) Bis(2-ethylhexyl)phthalate	11.15	149	25481	97.615	ng/mL#	42
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	12.68	252	6936898	19202.187	ng/ml	97
29) Benzo(k)Fluoranthene	12.72	252	1804595	4610.774	ng/ml DR-2	94
30) Benzo(b+k)Fluoranthene	12.68	252	8885701	23276.111	ng/ml	97
31) Benzo (e) Pyrene	13.17	252	4164566	11363.112	ng/mL	98
32) Benzo(a)Pyrene	13.26	252	2266216	6738.599	ng/ml	99
33) Perylene	13.41	252	988333	2707.563	ng/mL	97
35) Indeno(1,2,3-cd)Pyrene	15.58	276	3434657	9428.377	ng/ml DR-2	98
36) Dibenz(a,h)Anthracene	15.61	278	786340	2262.484	ng/ml	93
37) Benzo(g,h,i)Perylene	16.18	276	4993837	13772.051	ng/ml DR-2	96

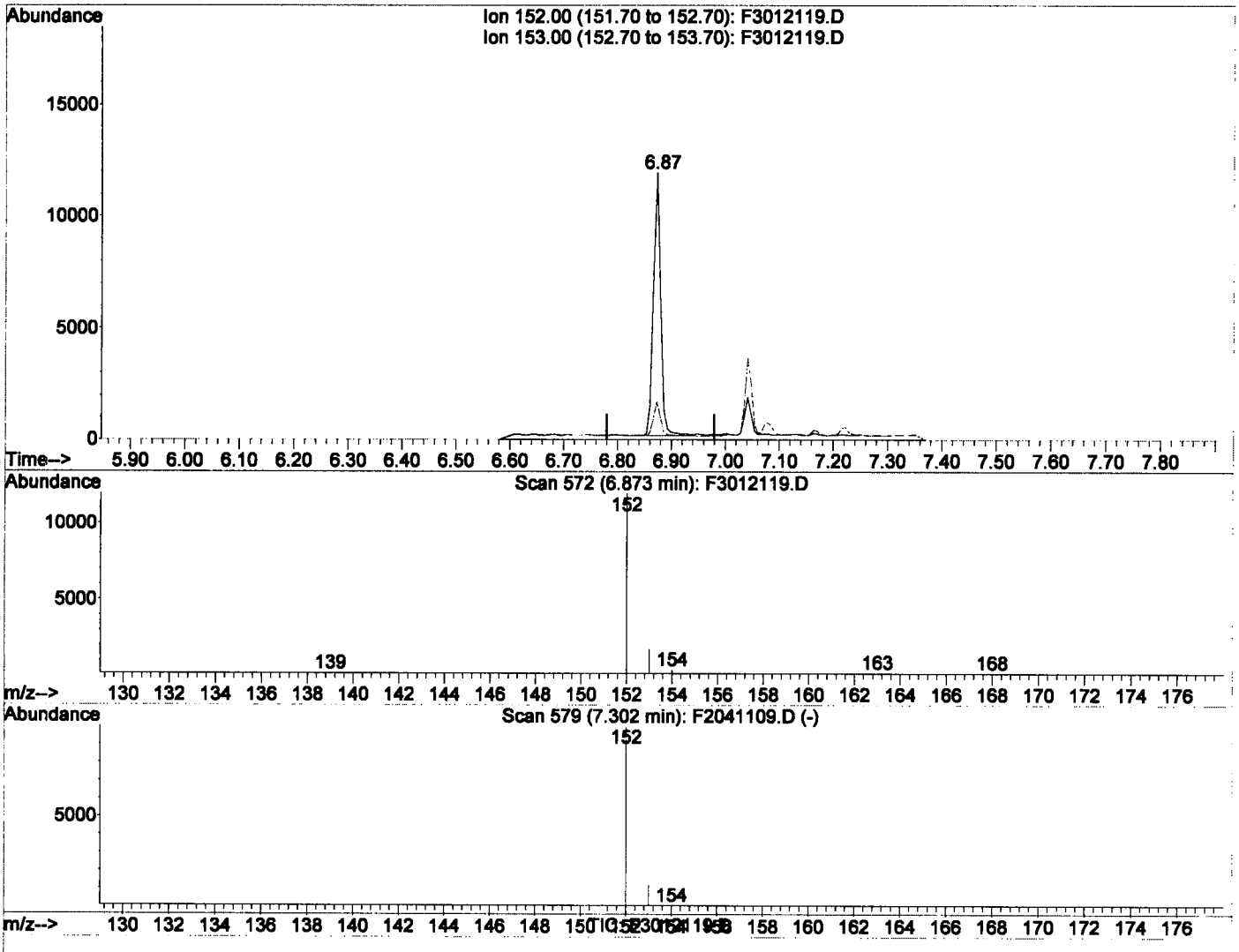
1-22-13 BSJ

(#) = qualifier out of range (m) = manual integration
F3012119.D F21227.M Tue Jan 22 08:59:50 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(8) Acenaphthylene (T)

6.87min 25.94ng/ml

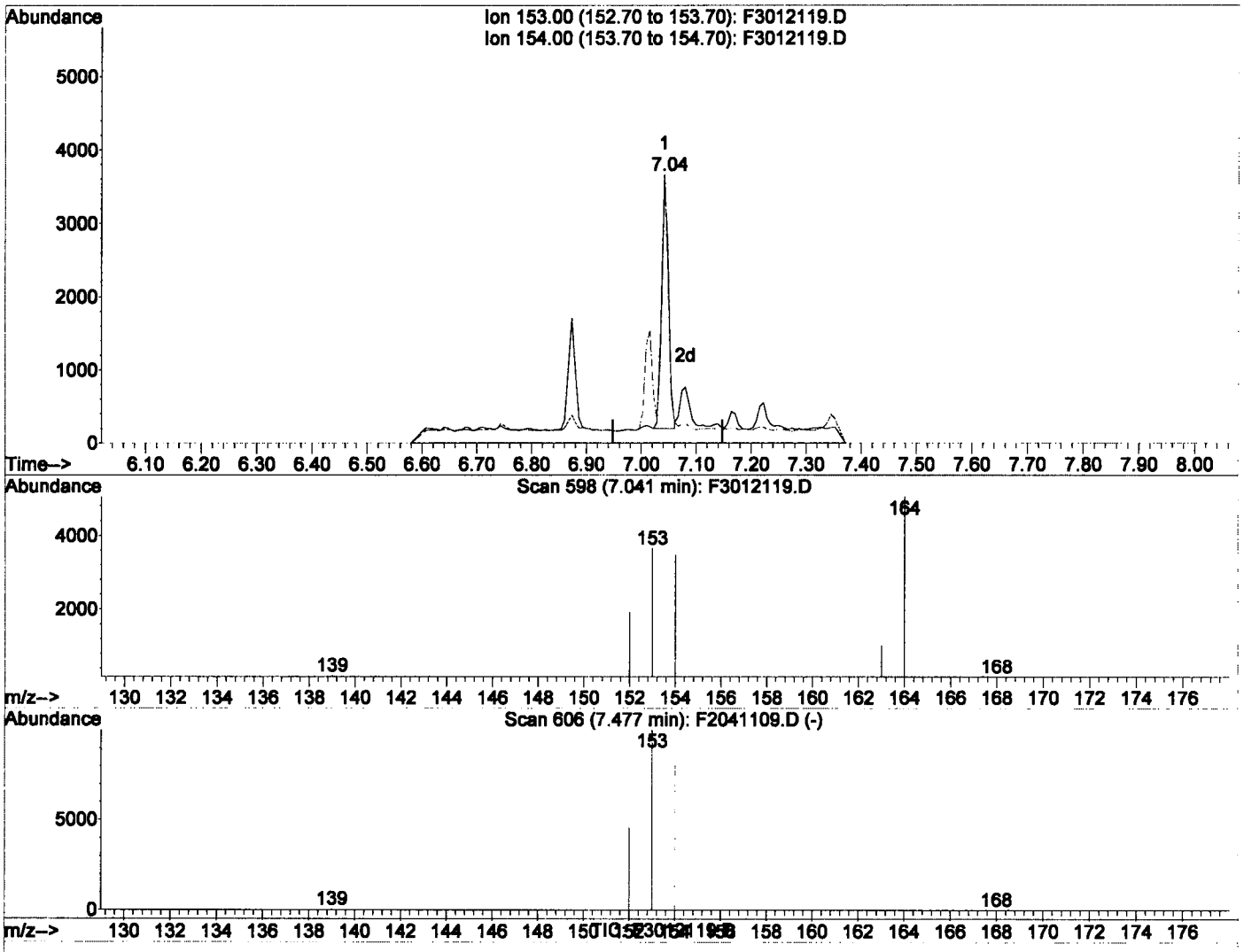
response 10950

Ion	Exp%	Act%
152.00	100	100
153.00	13.20	13.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(9) Acenaphthene (T)

7.04min 11.22ng/ml

response 3002

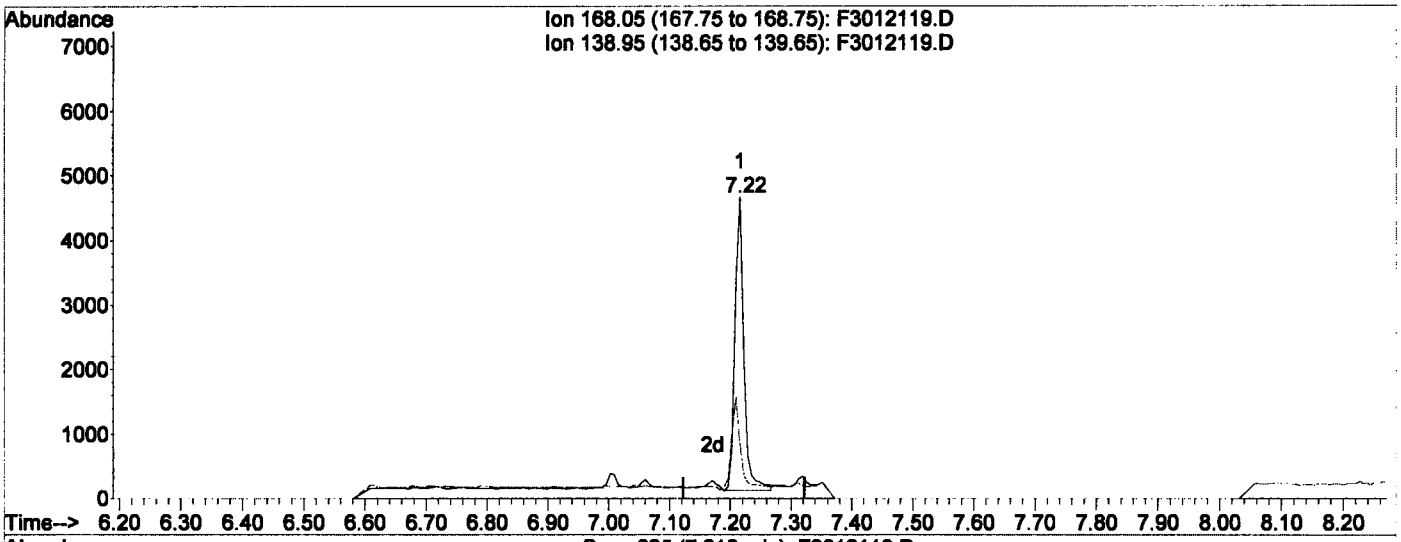
Ion	Exp%	Act%
153.00	100	100
154.00	93.50	96.44
0.00	0.00	0.00
0.00	0.00	0.00

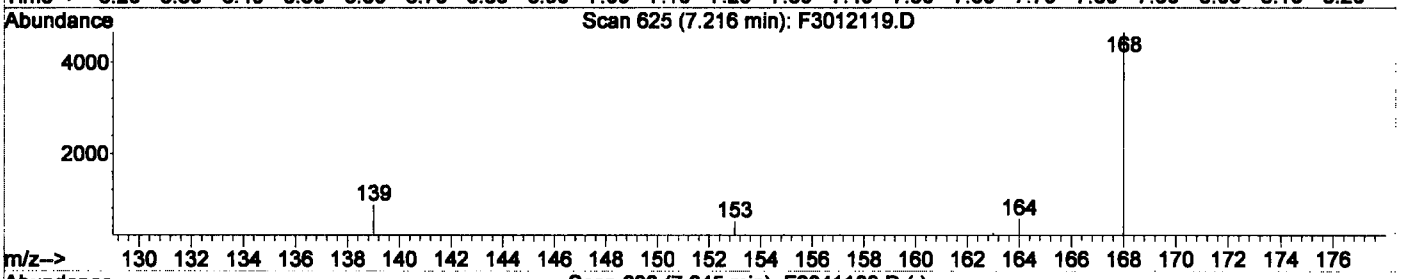
F3012119.D F21227.M Tue Jan 22 10:00:39 2013 VOAGCMS1

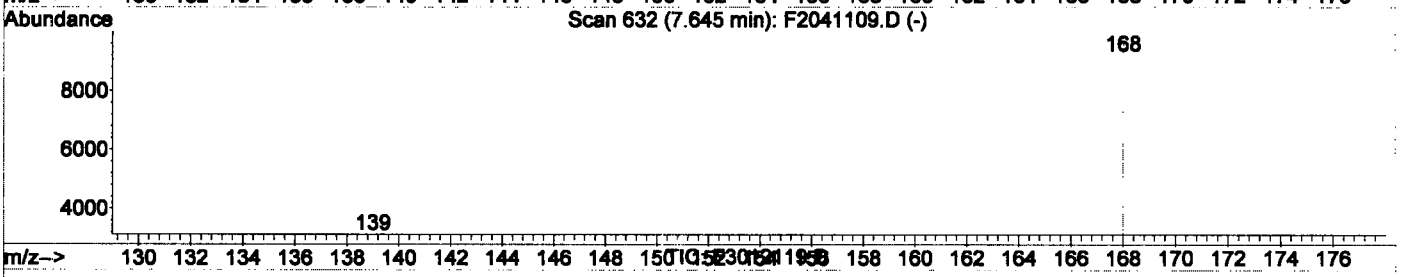
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(10) Dibenzofuran

7.22min 12.26ng/mL

response 4637

Ion	Exp%	Act%
168.05	100	100
138.95	33.60	33.69
0.00	0.00	0.00
0.00	0.00	0.00

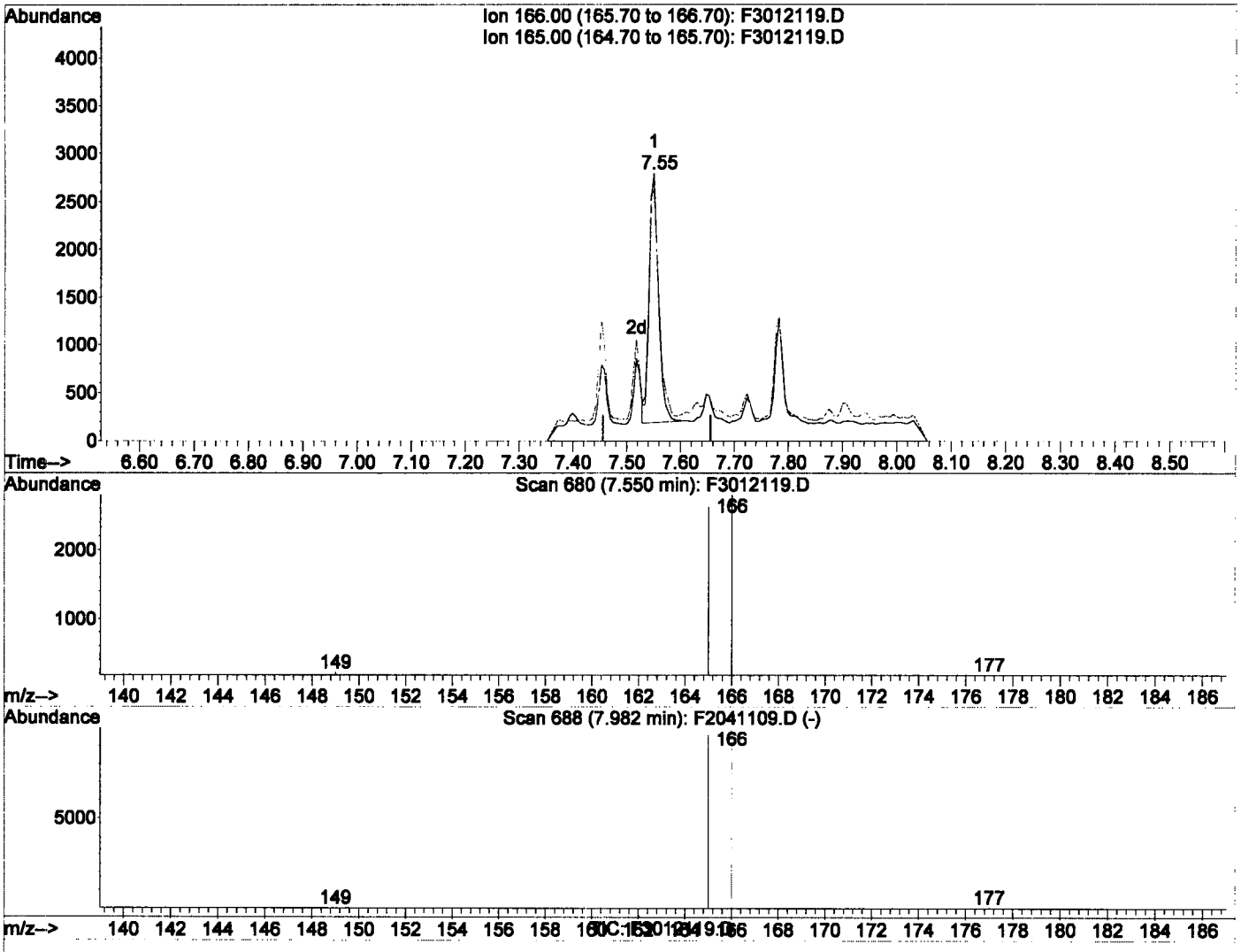
J

F3012119.D F21227.M Tue Jan 22 10:00:44 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(12) Fluorene (T)

7.55min 10.71ng/ml

response 3088

Ion	Exp%	Act%
166.00	100	100
165.00	88.20	102.14
0.00	0.00	0.00
0.00	0.00	0.00

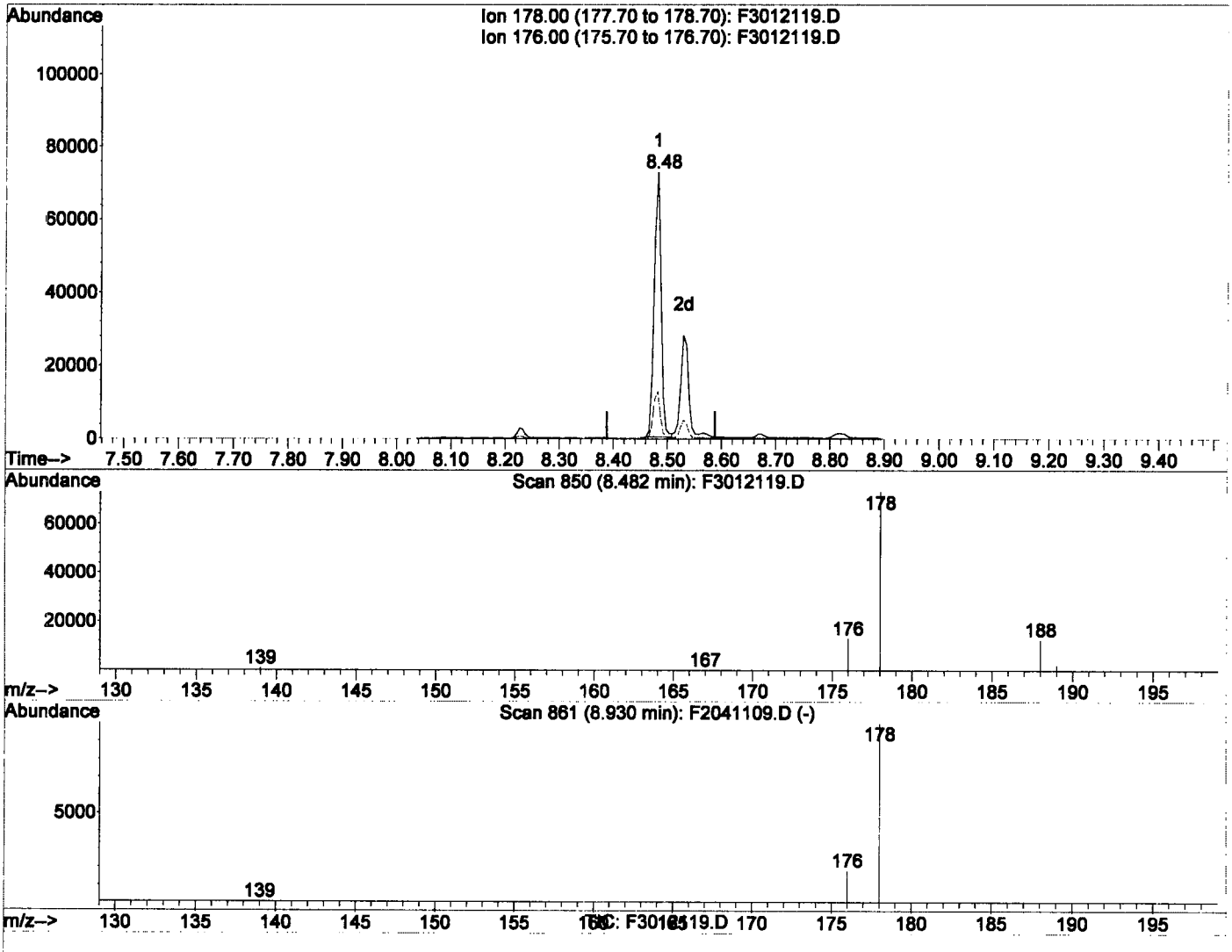
J

F3012119.D F21227.M Tue Jan 22 10:00:50 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(14) Phenanthrene

8.48min 163.42ng/mL

response 63908

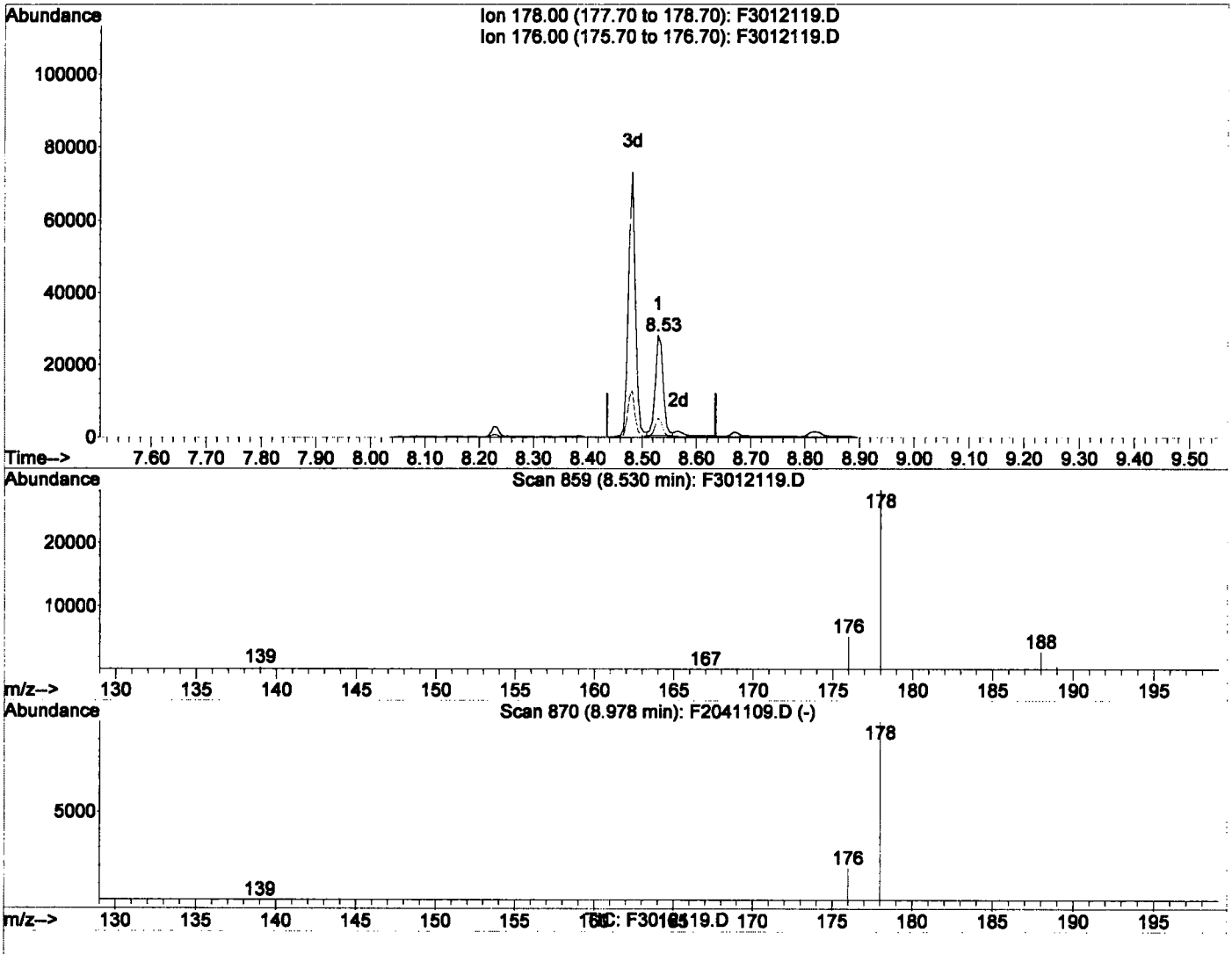
Ion	Exp%	Act%
178.00	100	100
176.00	18.10	18.23
0.00	0.00	0.00
0.00	0.00	0.00

F3012119.D F21227.M Tue Jan 22 10:00:55 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(15) Anthracene (T)

8.53min 73.84ng/ml

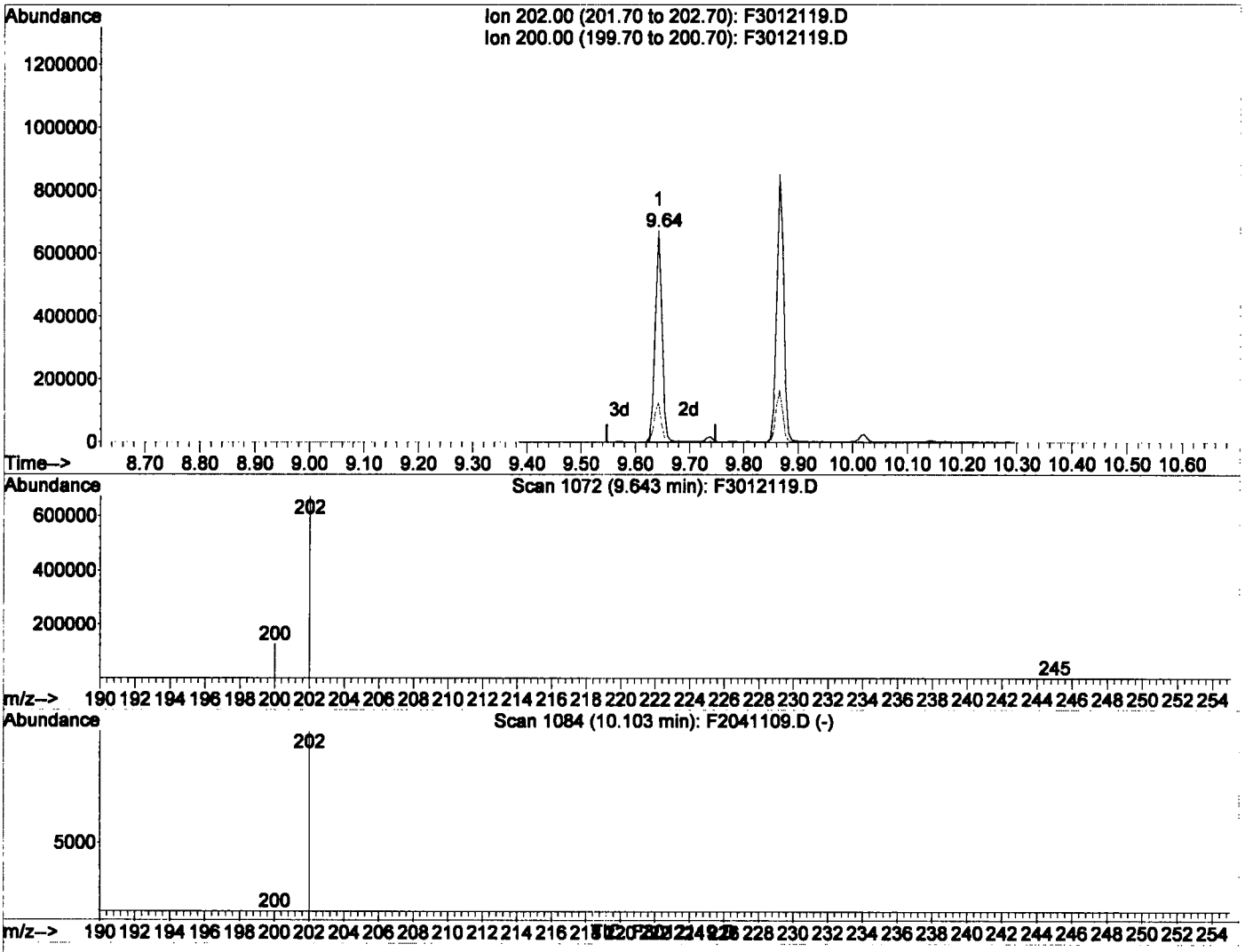
response 27735

Ion	Exp%	Act%
178.00	100	100
176.00	16.60	16.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(18) Fluoranthene (T)

9.64min 1612.97ng/ml

response 593248

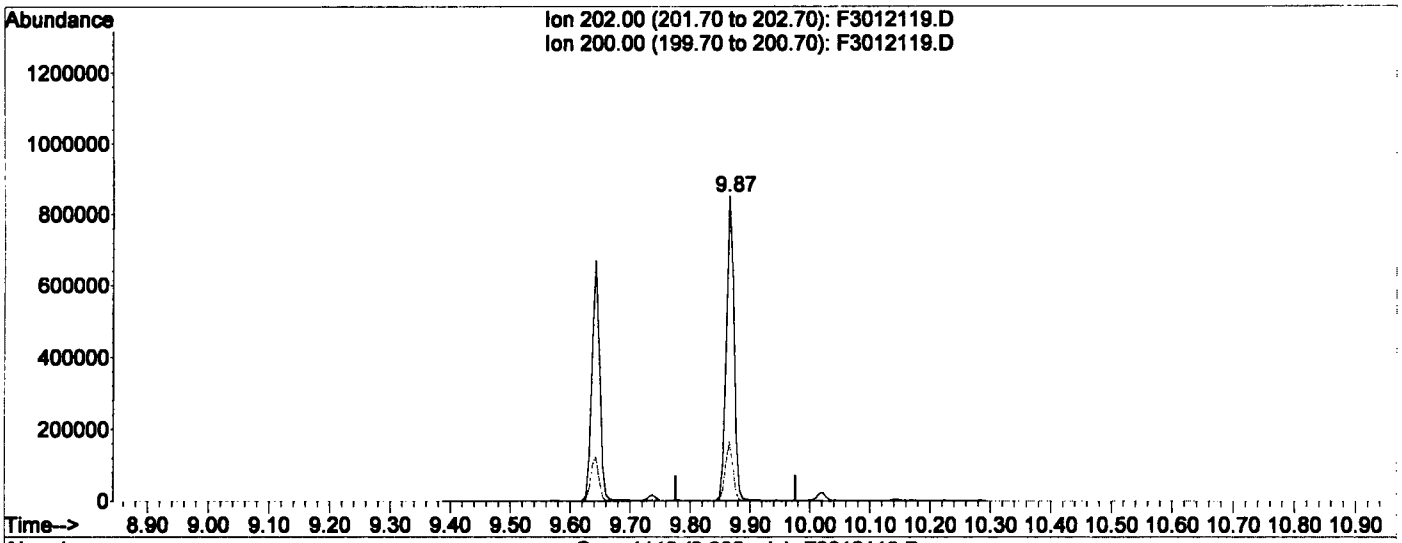
Ion	Exp%	Act%
202.00	100	100
200.00	18.60	19.32
0.00	0.00	0.00
0.00	0.00	0.00

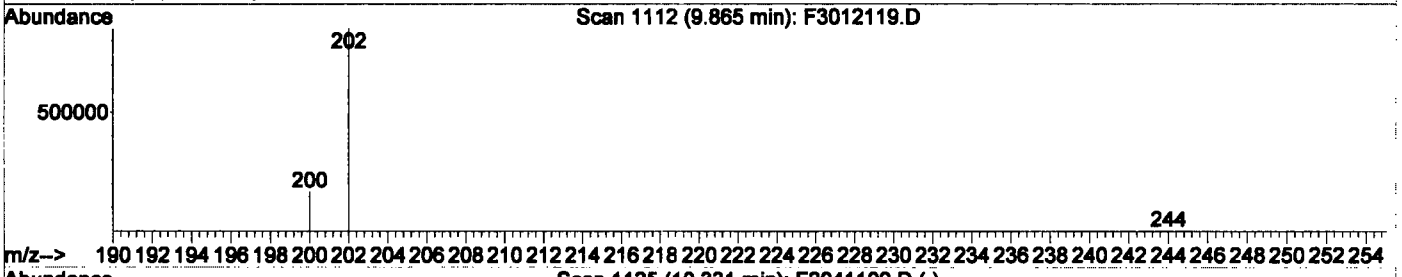
F3012119.D F21227.M Tue Jan 22 10:01:05 2013 VOAGCMS1

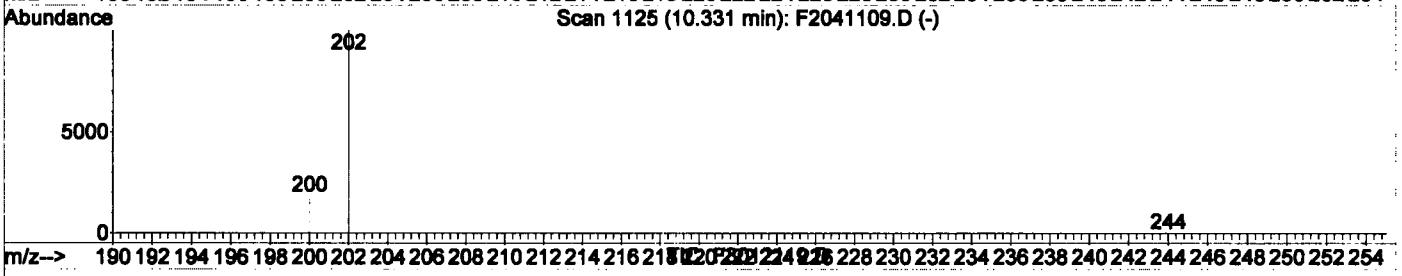
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(19) Pyrene (T)

9.87min 1992.91ng/ml

response 757646

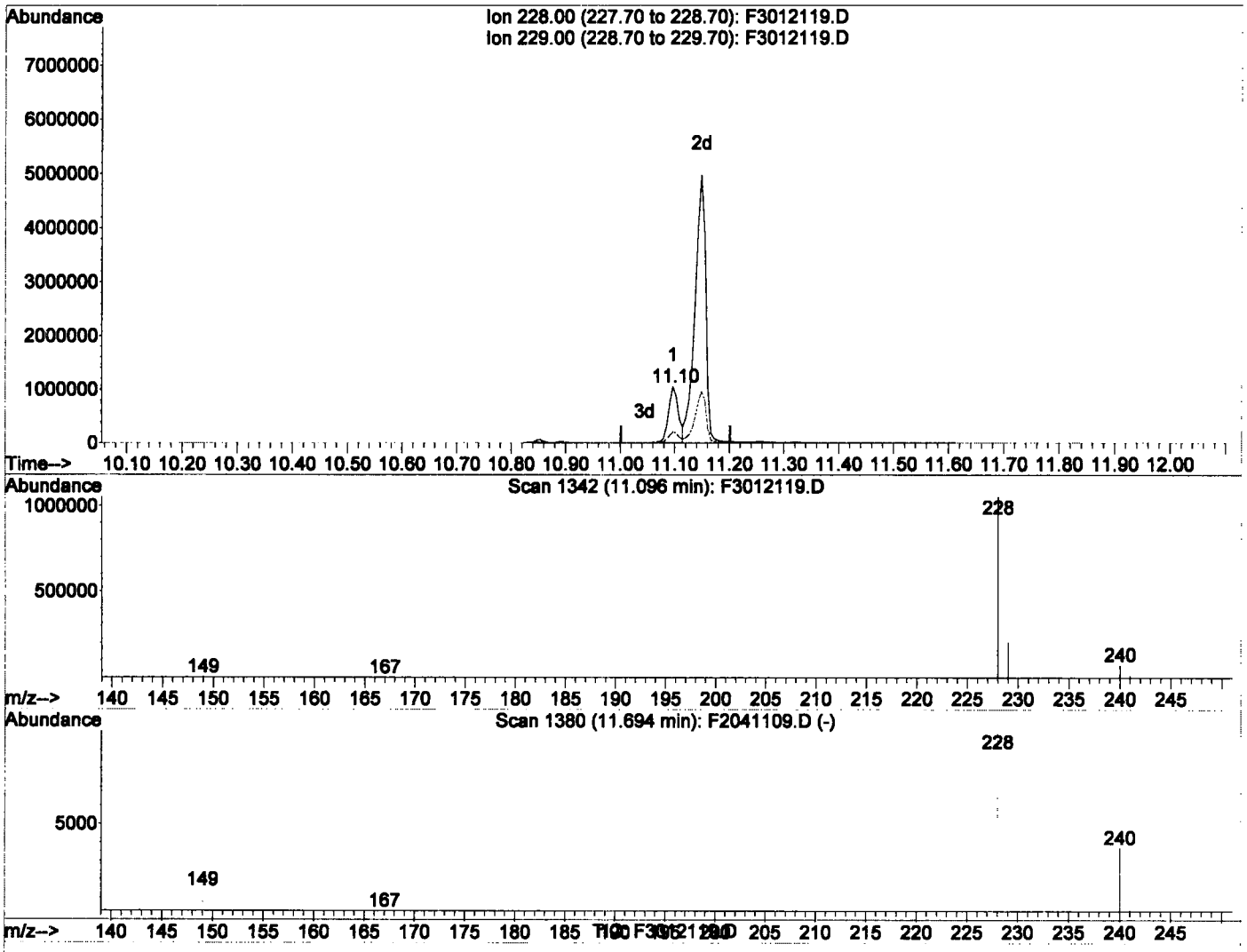
Ion	Exp%	Act%
202.00	100	100
200.00	18.80	19.21
0.00	0.00	0.00
0.00	0.00	0.00

F3012119.D F21227.M Tue Jan 22 10:01:10 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(23) Benz(a)Anthracene (T)

11.10min 3606.15ng/ml

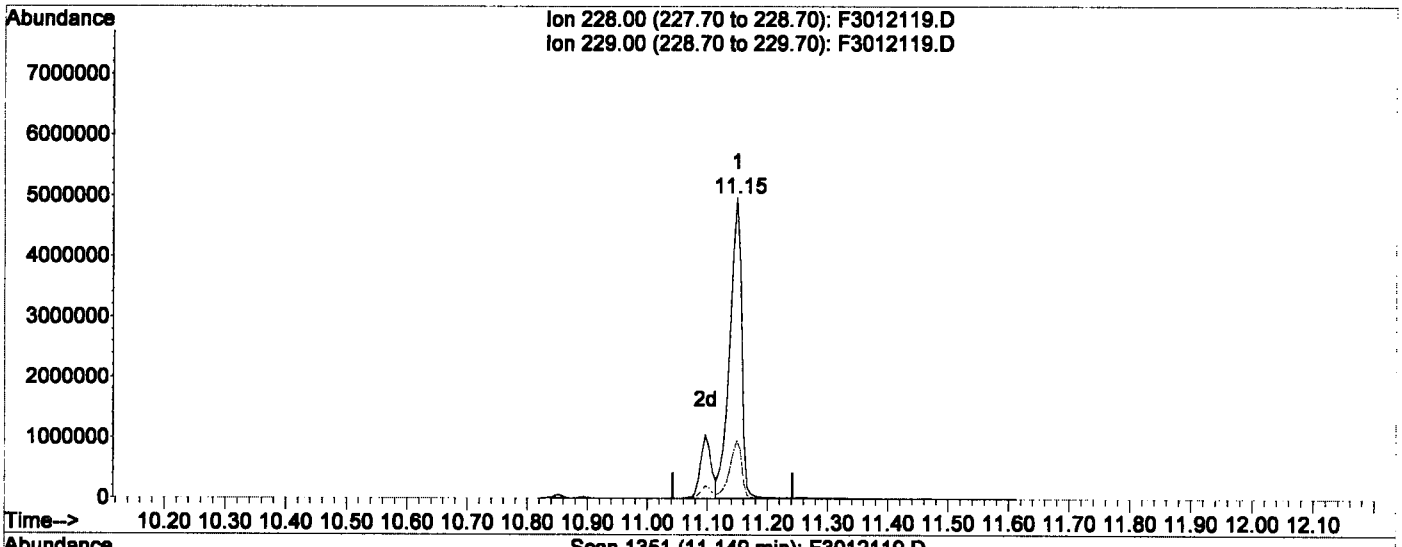
response 1324224

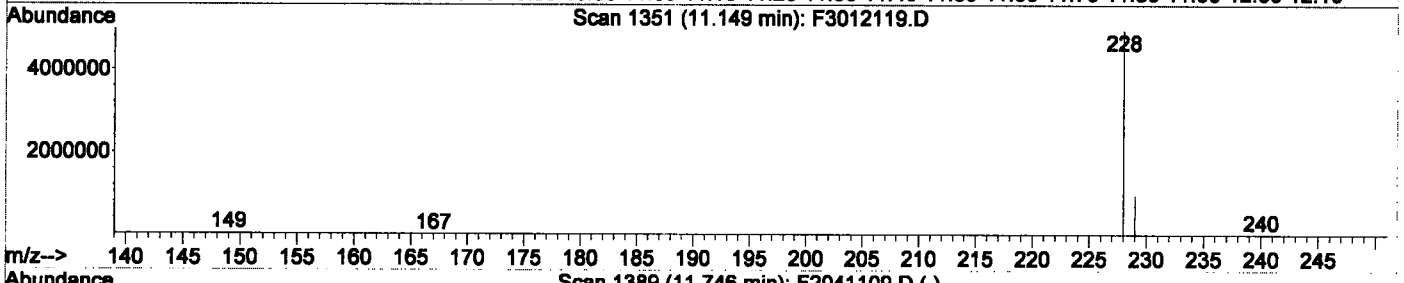
Ion	Exp%	Act%
228.00	100	100
229.00	18.60	22.79
0.00	0.00	0.00
0.00	0.00	0.00

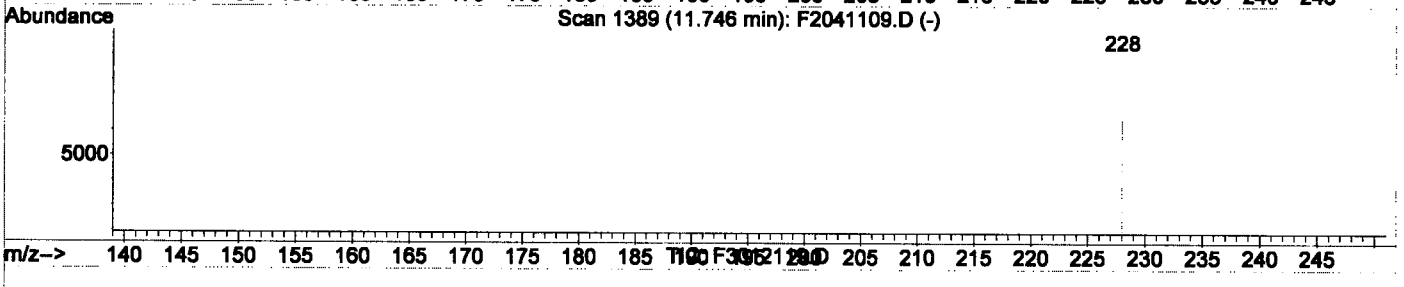
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(24) Chrysene (T)

11.15min 19198.68ng/ml

response 6793684

RR-2

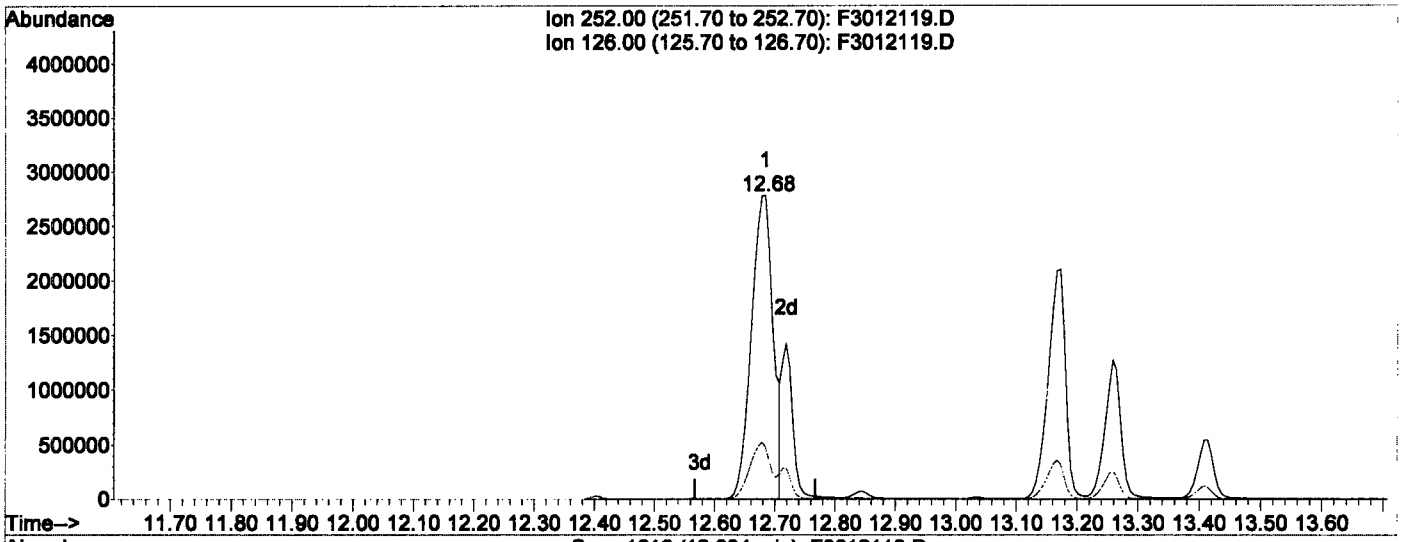
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	19.72
0.00	0.00	0.00
0.00	0.00	0.00

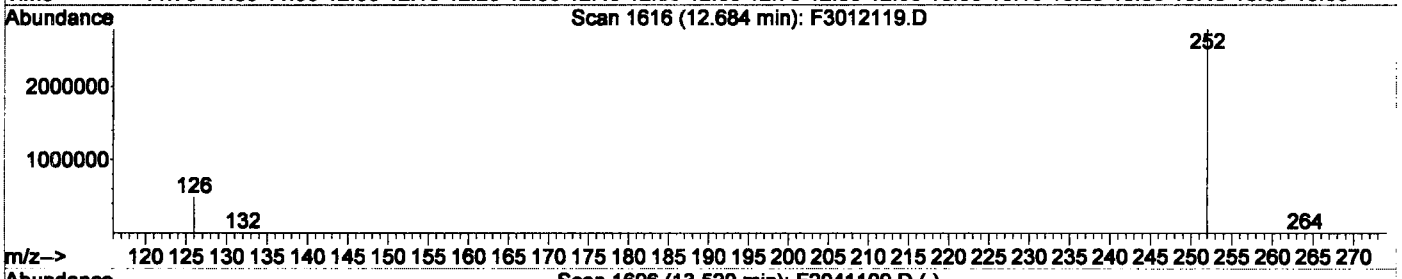
F3012119.D F21227.M Tue Jan 22 10:01:23 2013 VOAGCMS1

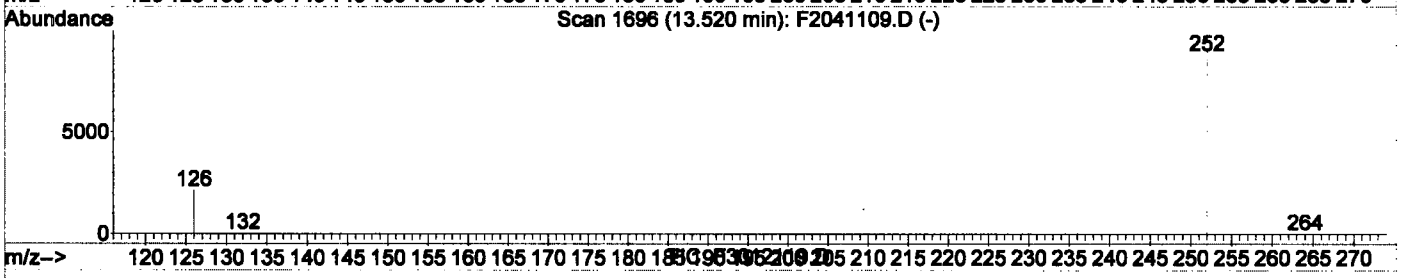
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (I)

12.68min 19202.19ng/ml

response 6936898

RR-2

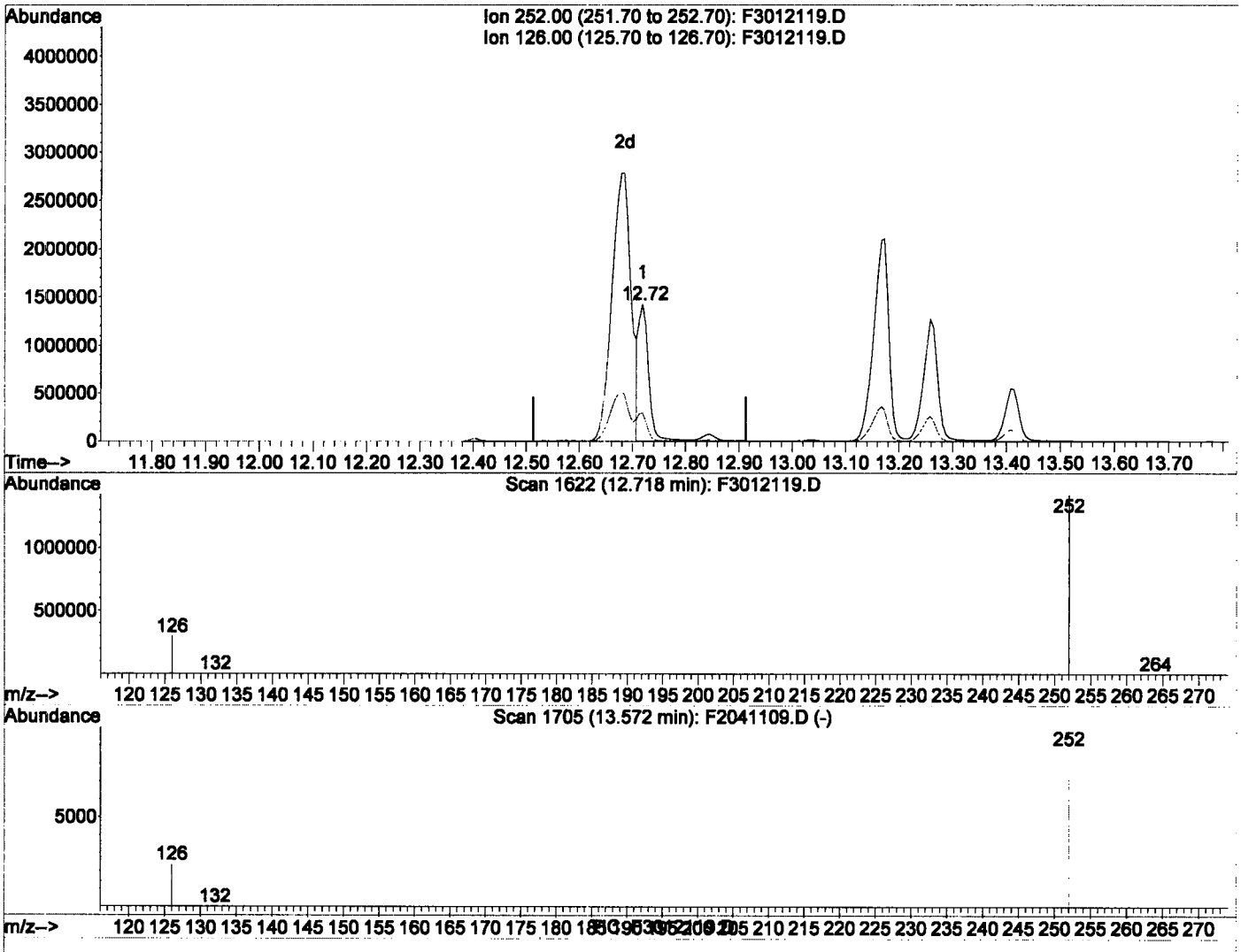
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	18.02
0.00	0.00	0.00
0.00	0.00	0.00

F3012119.D F21227.M Tue Jan 22 10:01:31 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(29) Benzo(k)Fluoranthene (T)

12.72min 4610.77ng/ml

response 1804595

RL-2

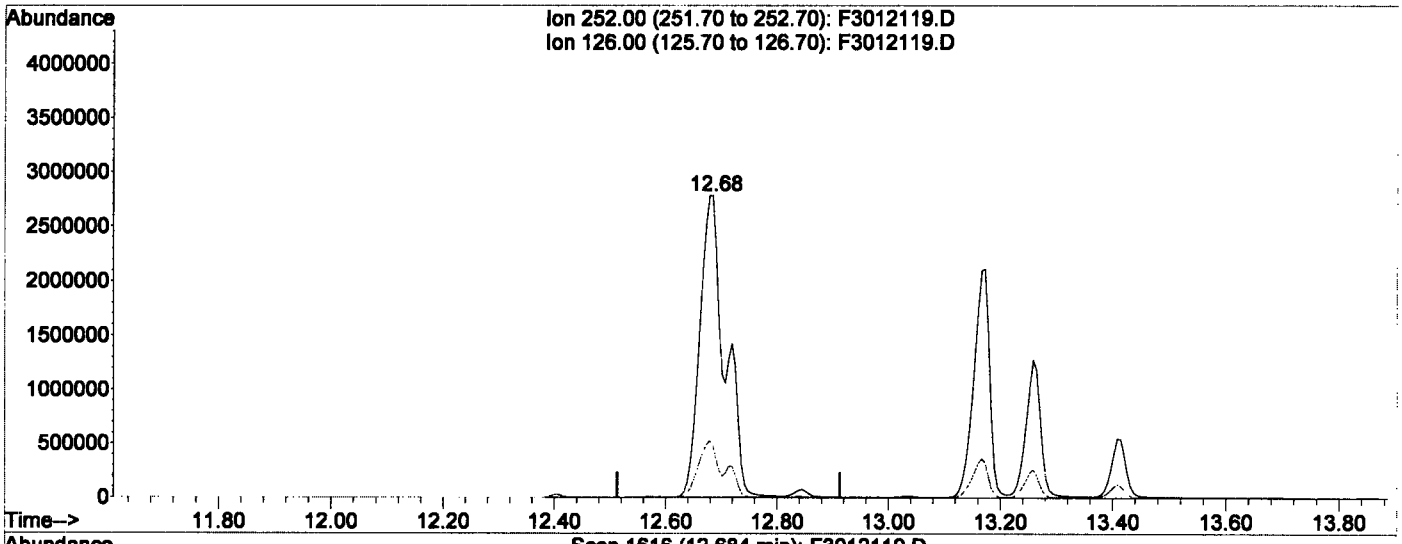
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	23.36
0.00	0.00	0.00
0.00	0.00	0.00

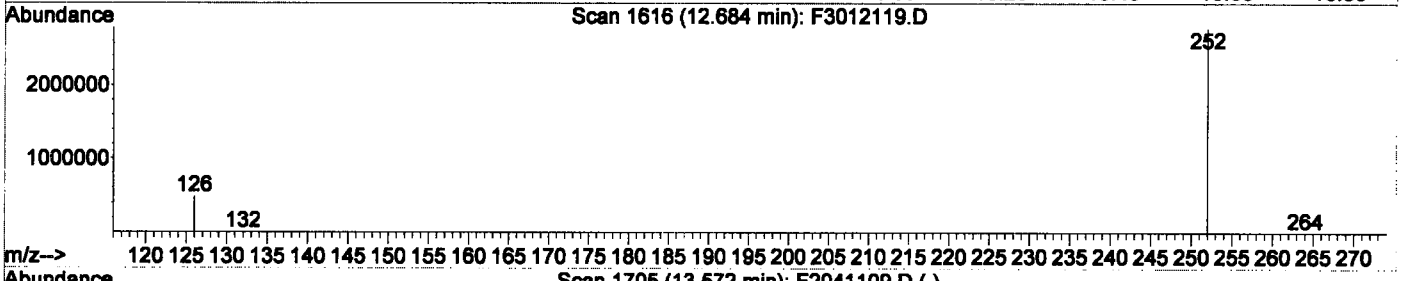
F3012119.D F21227.M Tue Jan 22 10:01:35 2013 VOAGCMS1

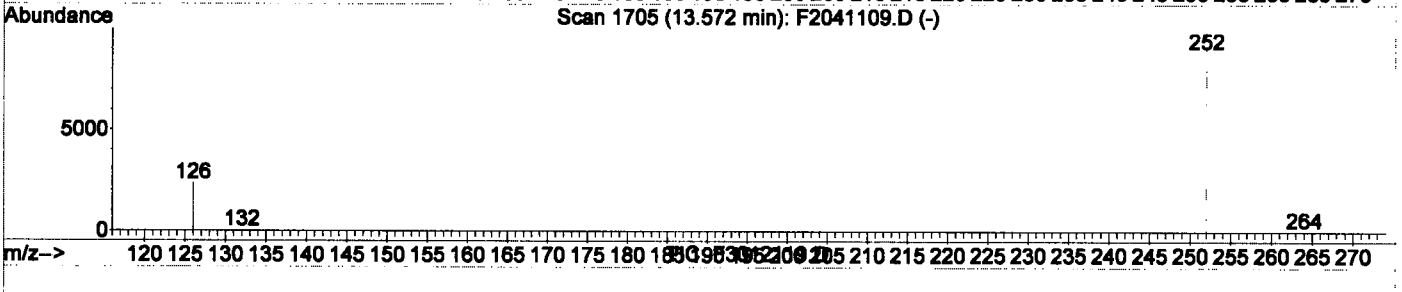
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.68min 23276.11ng/ml

response 8885701

RR-2

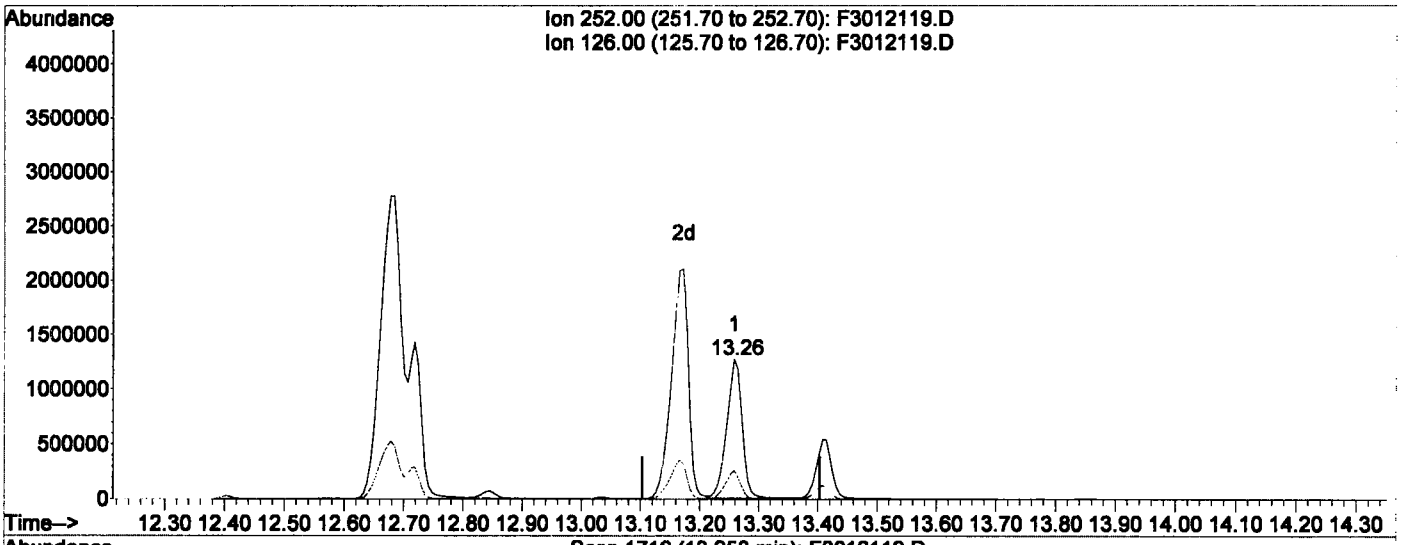
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.11
0.00	0.00	0.00
0.00	0.00	0.00

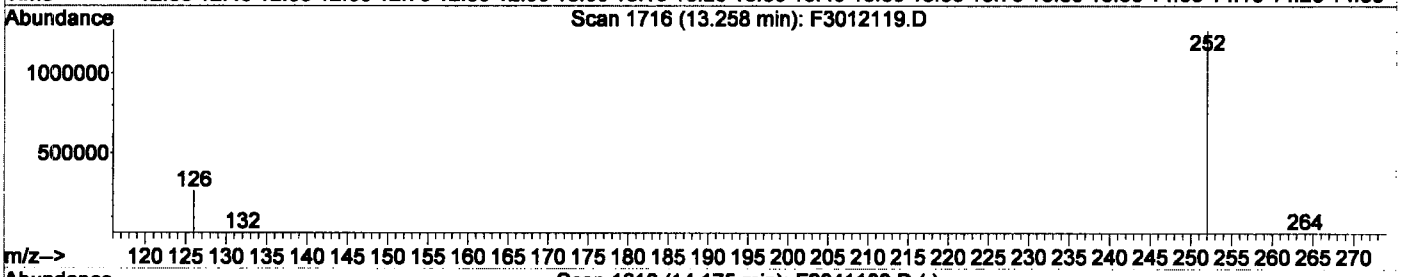
F3012119.D F21227.M Tue Jan 22 10:01:44 2013 VOAGCMS1

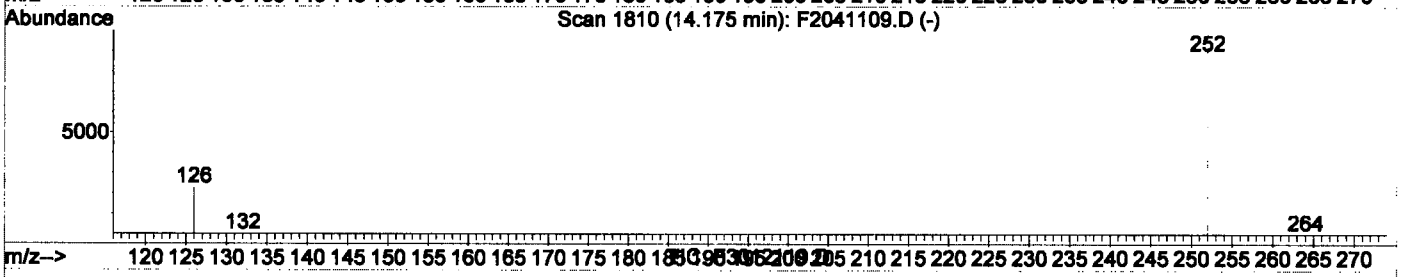
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(32) Benzo(a)Pyrene (T)

13.26min 6738.60ng/ml

response 2266216

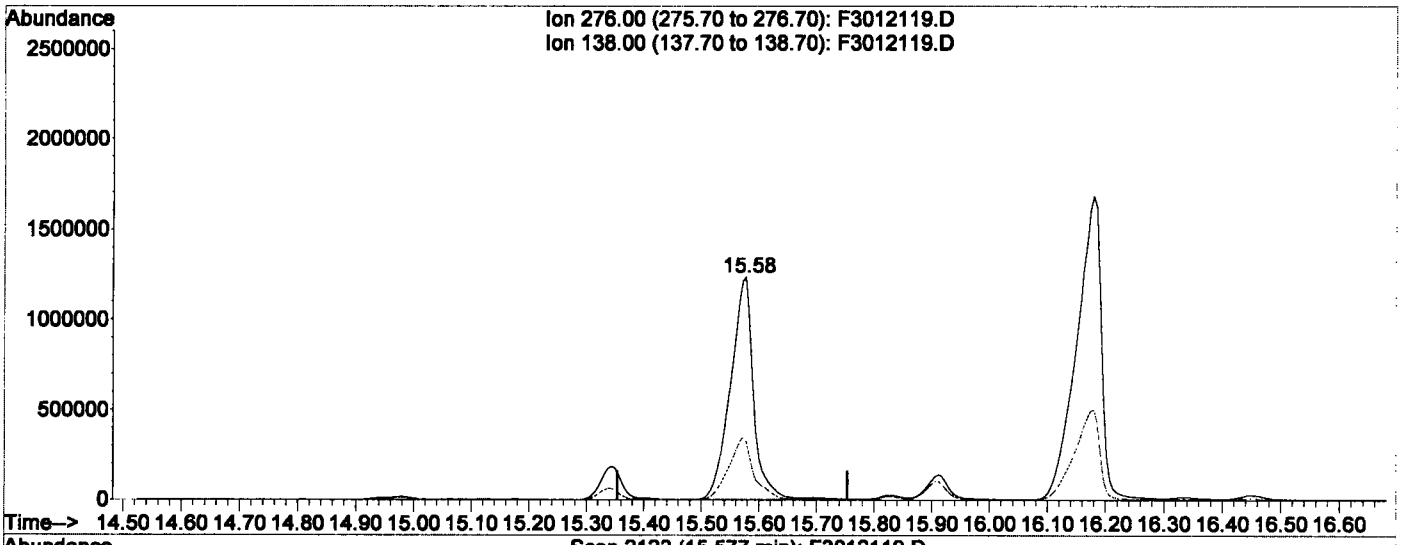
Ion	Exp%	Act%
252.00	100	100
126.00	20.10	20.42
0.00	0.00	0.00
0.00	0.00	0.00

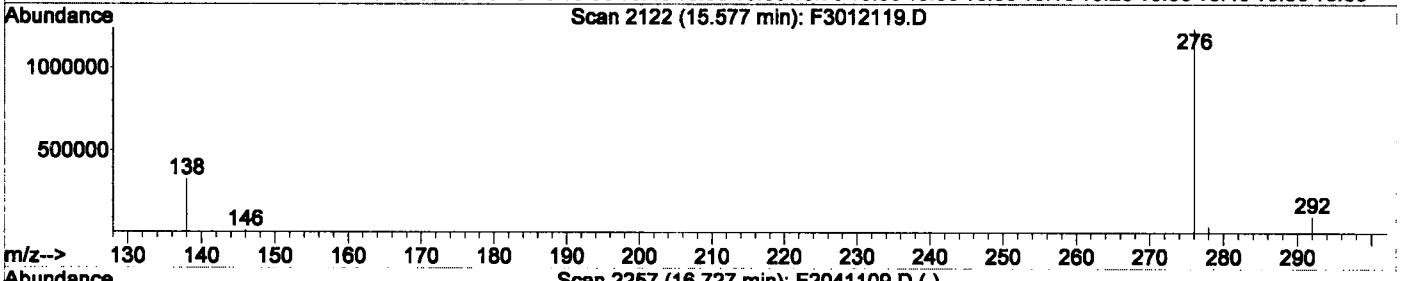
F3012119.D F21227.M Tue Jan 22 10:01:50 2013 VOAGCMS1

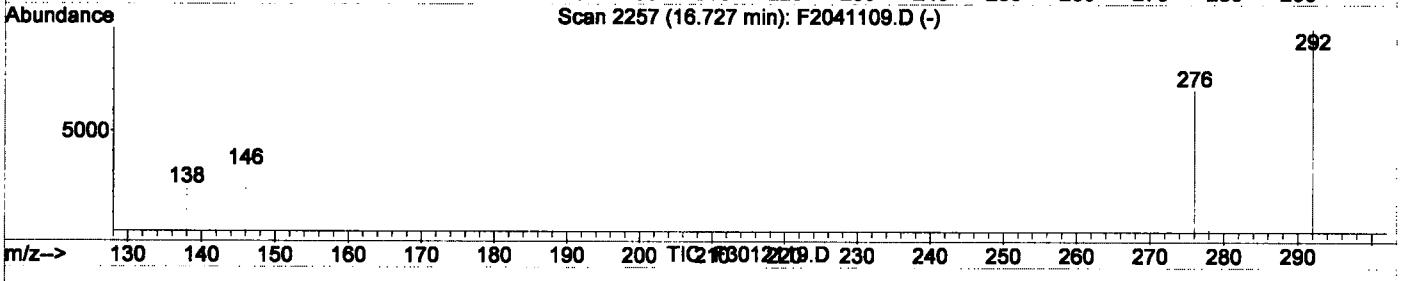
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(35) Indeno(1,2,3-cd)Pyrene (T)

15.58min 9428.38ng/ml

response 3434657

RR-2

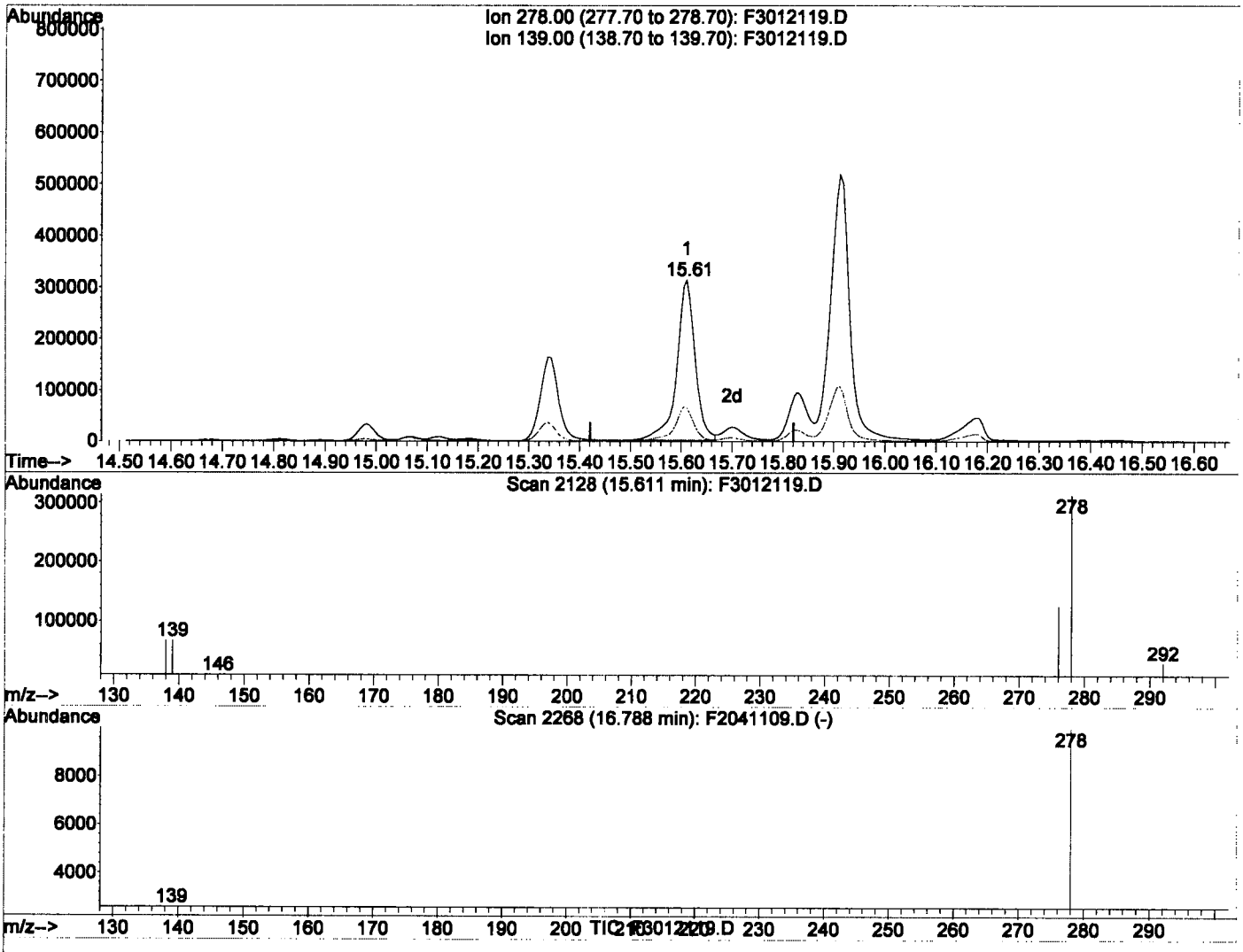
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	30.53
0.00	0.00	0.00
0.00	0.00	0.00

F3012119.D F21227.M Tue Jan 22 10:01:57 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(36) Dibenz(a,h)Anthracene (T)

15.61min 2262.48ng/ml

response 786340

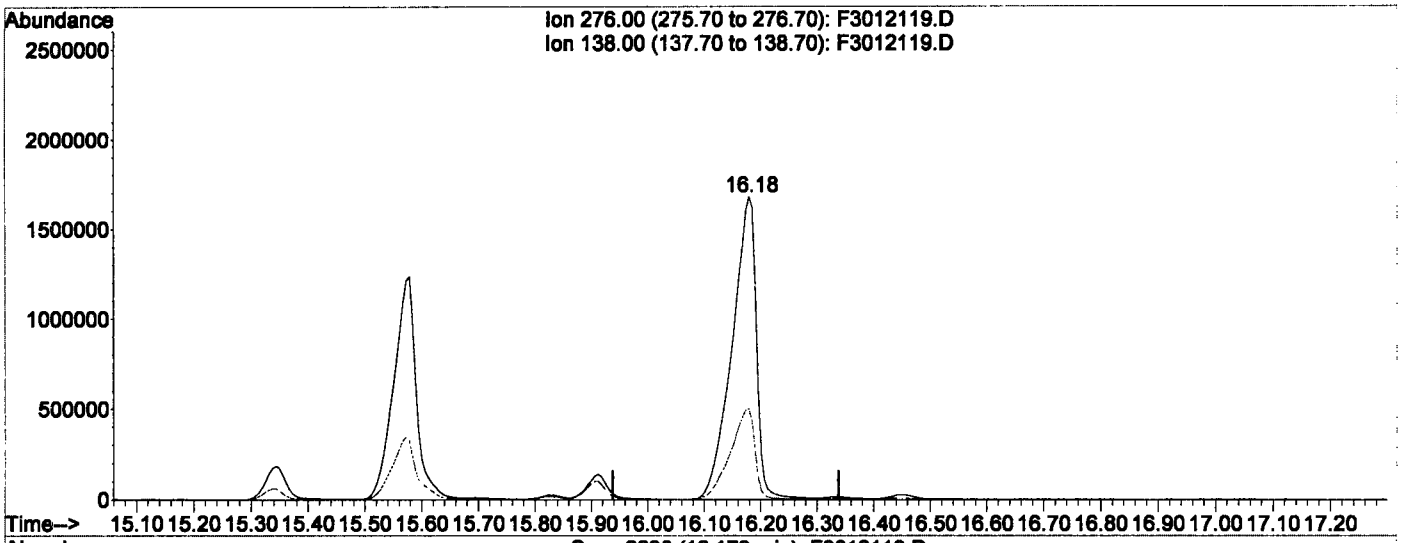
Ion	Exp%	Act%
278.00	100	100
139.00	25.90	22.56
0.00	0.00	0.00
0.00	0.00	0.00

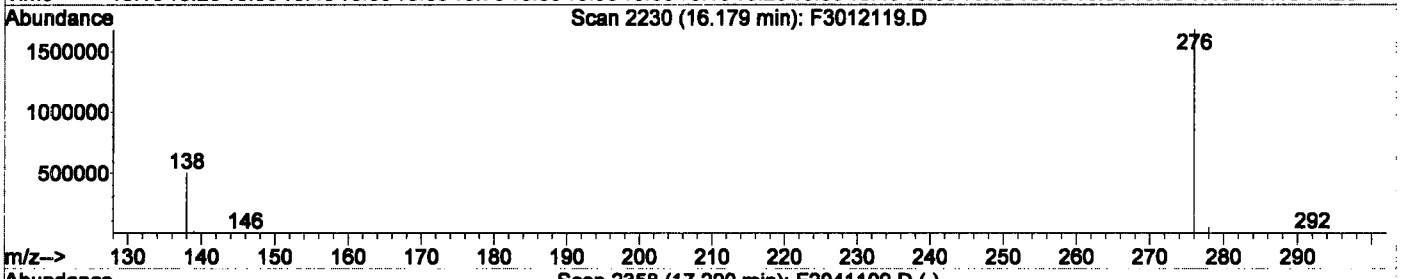
F3012119.D F21227.M Tue Jan 22 10:02:02 2013 VOAGCMS1

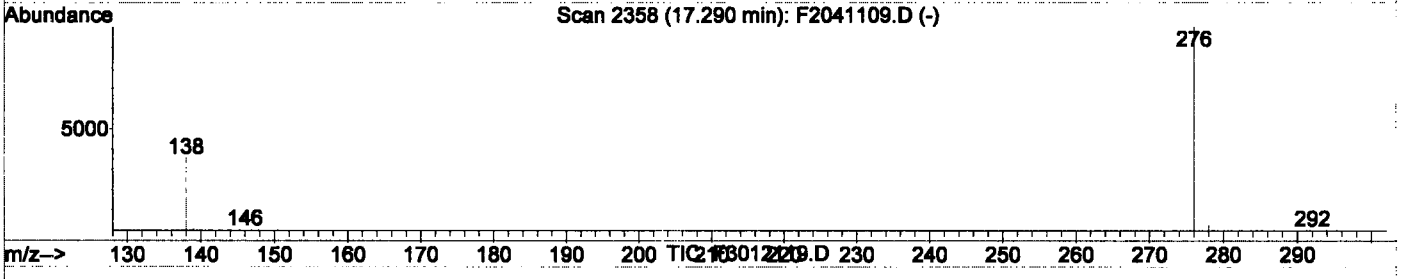
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(37) Benzo(g,h,i)Perylene (T)

16.18min 13772.05ng/ml

response 4993837

RR-2

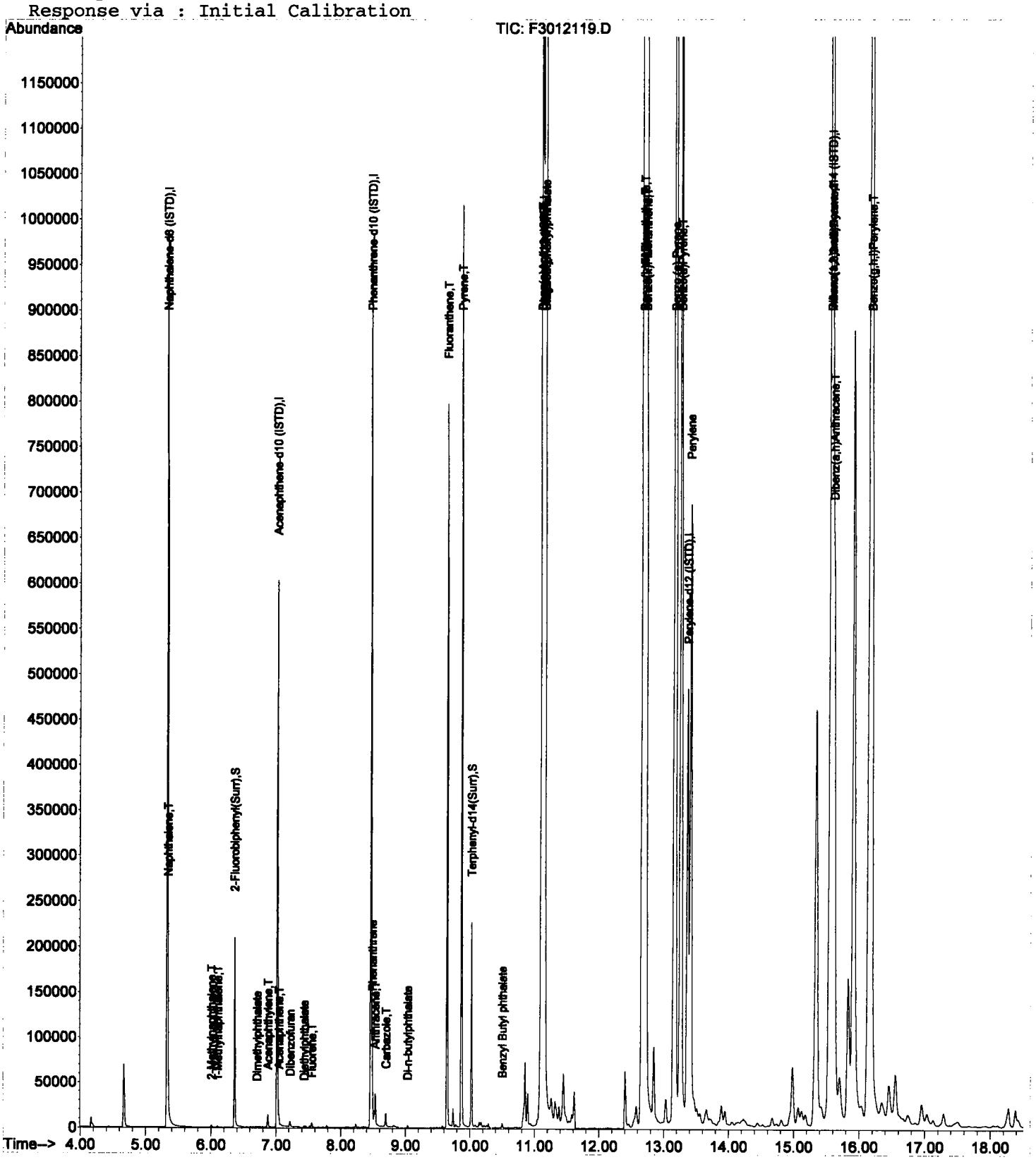
Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.39
0.00	0.00	0.00
0.00	0.00	0.00

F3012119.D F21227.M Tue Jan 22 10:02:07 2013 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012119.D Vial: 16
Acq On : 21 Jan 2013 9:52 pm Operator: bsj
Sample : A13A243-15@5 Inst : SV-GCMS6
Misc : 5x Soil 12.51g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012120.D Vial: 17
Acq On : 21 Jan 2013 10:20 pm Operator: bsj
Sample : 1301443-MS1@5 Inst : SV-GCMS6
Misc : 5x Soil 10.61g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q.03

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	922890	2000.000 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	458105	2000.000 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	748859	2000.000 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	729241	2000.000 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	697724	2000.000 ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.55	292	629104	2000.000 ng/mL	0.00
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.36	172	150729	458.609 ng/ml	0.00
21) Terphenyl-d14(Surr)	10.01	244	150718	511.584 ng/ml	-0.01
Target Compounds					Qvalue
2) Naphthalene	5.35	128	369111	738.267 ng/ml	99
3) 2-Methylnaphthalene	6.00	142	231993	780.439 ng/ml	93
4) 1-Methylnaphthalene	6.10	142	216726	789.301 ng/ml	99
7) Dimethylphthalate	6.75	163	245051	823.193 ng/mL	100
8) Acenaphthylene	6.87	152	341618	805.337 ng/ml	100
9) Acenaphthene	7.04	153	209509	779.285 ng/ml	97
10) Dibenzofuran	7.21	168	308091	810.456 ng/mL	94
11) Diethylphthalate	7.43	149	242069	792.825 ng/mL	80
12) Fluorene	7.55	166	244634	844.422 ng/ml	98
14) Phenanthrene	8.48	178	383603	970.873 ng/mL	100
15) Anthracene	8.53	178	346901	914.113 ng/ml	98
16) Carbazole	8.69	167	289189	934.166 ng/ml	98
17) Di-n-butylphthalate	9.03	149	398097	840.916 ng/mL	100
18) Fluoranthene	9.64	202	1207066	3248.226 ng/ml	99
19) Pyrene	9.86	202	1432146	3728.492 ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	161940	857.214 ng/mL	98
23) Benz(a)Anthracene	11.10	228	2038987	5638.868 ng/ml	93
24) Chrysene	11.15	228	7892979	22651.799 ng/ml	98
25) Bis(2-ethylhexyl)phthalate	11.13	149	262870	1022.669 ng/mL	96
26) Di-n-octyl phthalate	12.02	149	359555	959.417 ng/mL	94
28) Benzo(b)Fluoranthene	12.68	252	7403116	21588.356 ng/ml	99
29) Benzo(k)Fluoranthene	12.72	252	2464961	6634.737 ng/ml	97
30) Benzo(b+k)Fluoranthene	12.68	252	10033119	27686.899 ng/ml	97
31) Benzo (e) Pyrene	13.17	252	4500705	12936.825 ng/mL	99
32) Benzo(a)Pyrene	13.26	252	2637885	8263.115 ng/ml	100
33) Perylene	13.41	252	1235680	3566.161 ng/mL	99
35) Indeno(1,2,3-cd)Pyrene	15.57	276	3473588	10022.159 ng/ml	98
36) Dibenz(a,h)Anthracene	15.61	278	997439	3016.414 ng/ml	94
37) Benzo(g,h,i)Perylene	16.18	276	4811972	13948.156 ng/ml	96

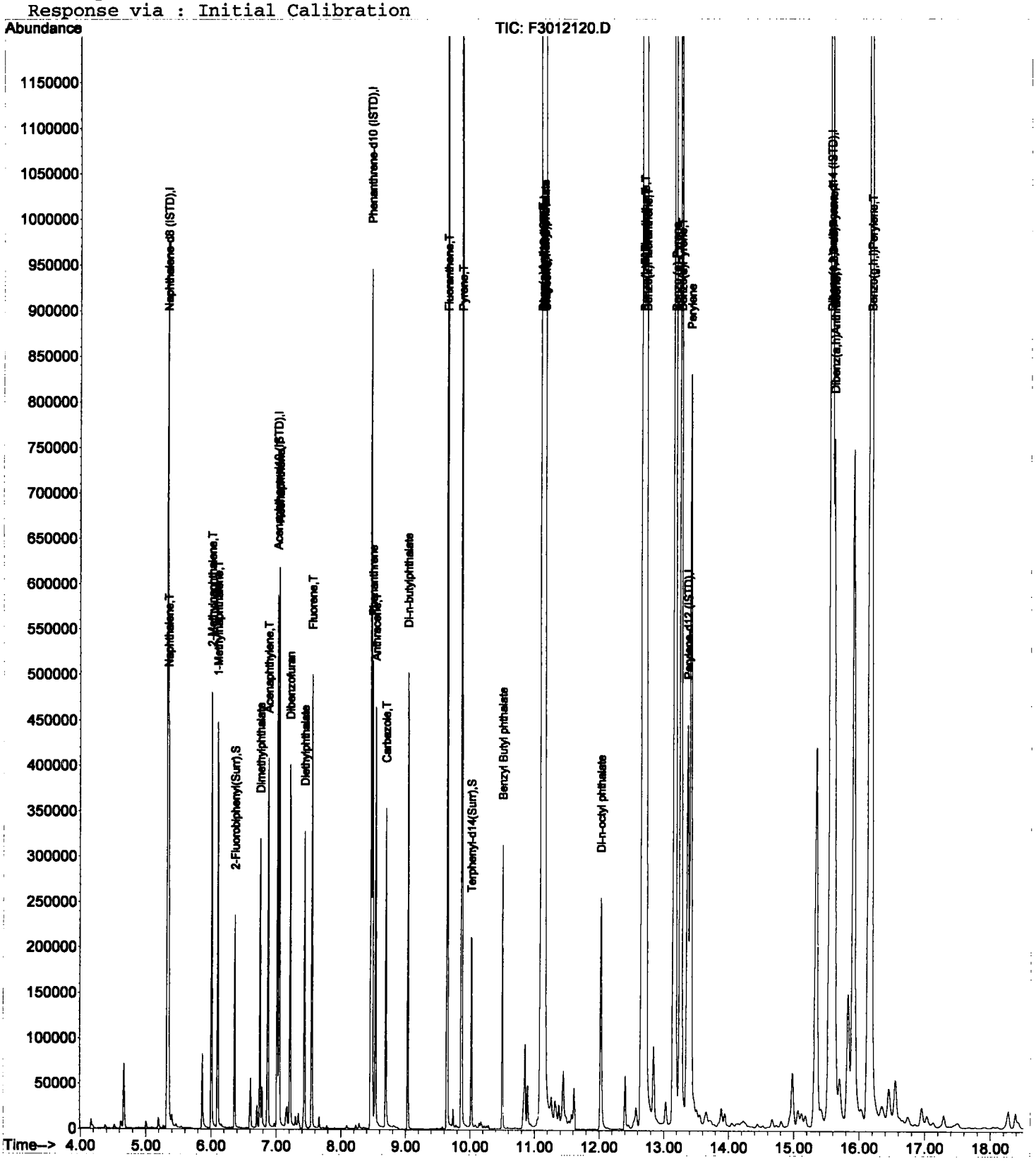
1-22-13

(#) = qualifier out of range (m) = manual integration
F3012120.D F21227.M Tue Jan 22 08:59:52 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A21005\F3012120.D Vial: 17
Acq On : 21 Jan 2013 10:20 pm Operator: bsj
Sample : 1301443-MS1@5 Inst : SV-GCMS6
Misc : 5x Soil 10.61g/2mL SIM-PAH(LL) (A24 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 8:59 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



F3012120.D F21227.M Tue Jan 22 08:59:53 2013 VOAGCMS1 Page 2

APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Benchsheet & Analysis Sequence Data

Sequence 3A22002 (A13A243-05RE1,08RE1,11RE1,15RE1)SV-GCMS6

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	3A22002	Instrument:	SV-GCMS6
Date:	01/22/13 00:00	Calibration:	A2L2701

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	3A22002-TUN1	Soil	QC	QC			A12L094	A13A099
2	3A22002-CCV1	Soil	QC	QC			A12L094	A13A203
3	3A22002-CCB1	Soil	QC	QC			A12L094	
4	A13A243-05RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
5	A13A243-08RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
6	A13A243-11RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
7	A13A243-15RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
8	3A22002-IBL1	Soil	QC	QC			A12L094	
9	1301459-BLK1	Water	QC	QC		1301459	A12L094	
10	1301459-BS1	Water	QC	QC		1301459	A12L094	
11	1301459-BSD1	Water	QC	QC		1301459	A12L094	
12	A13A309-01	Water	8270 SIM PAH	URS - Portland	01/23/13	1301459	A12L094	
13	A13A309-02	Water	8270 SIM PAH	URS - Portland	01/23/13	1301459	A12L094	
14	A13A336-02	Water	8270 SIM PAH	Sevenson Environmental Services, Inc.	01/28/13	1301459	A12L094	
15	A13A336-02RE1	Water	8270 SIM PAH	Sevenson Environmental Services, Inc.	01/28/13	1301459	A12L094	
16	A13A381-01	Water	8270 SIM PAH	Grant Associates, Inc.	01/24/13	1301459	A12L094	
17	A13A381-02	Water	8270 SIM PAH	Grant Associates, Inc.	01/24/13	1301459	A12L094	
18	A13A381-03	Water	8270 SIM PAH	Grant Associates, Inc.	01/24/13	1301459	A12L094	
19	A13A280-01	Soil	8270 SIM PAH (16)	Alpha Environmental	01/23/13	1301470	A12L094	
20	A13A293-01	Soil	8270 SIM PAH (16)	Staton Companies	01/25/13	1301470	A12L094	
21	A13A336-01	Soil	8270 SIM PAH	Sevenson Environmental Services, Inc.	01/28/13	1301470	A12L094	
22	A13A341-01	Soil	8270 SIM PAH (16)	Xavier Environmental	01/24/13	1301470	A12L094	
23	A13A367-03	Soil	8270 SIM PAH (16)	EcoTech, LLC	01/24/13	1301470	A12L094	
24	3A22002-IBL2	Soil	QC	QC			A12L094	

Data Entered By: BS 1-23-13

Data Reviewed By: [illegible] 1/23/13

Comments:

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**3A22002**	Instrument:	**SV-GCMS6**
Date:	**01/22/13 00:00**	Calibration:	**A2L2701**

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	3A22002-TUN1	Soil	QC	QC			A12L094	A13A099
2	3A22002-CCV1	Soil	QC	QC			A12L094	A13A203
3	3A22002-CCB1	Soil	QC	QC			A12L094	
4	A13A243-05RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
5	A13A243-08RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
6	A13A243-11RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
7	A13A243-15RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301443	A12L094	
8	3A22002-IBL1	Soil	QC	QC			A12L094	

Data Entered By: PSJ 1-22-13

Data Reviewed By: [illegible] 1/23/13

Comments: Partial

SEQUENCE REVIEW SHEET

SEQUENCE: 3A22002 Seq. Date: 1/22/2013

SEQUENCE LOG

Calibration ID: A2L2701

SampleID	Analysis	Matrix	Batch	Analyzed
3A22002-TUN1	8270 SIM PAH	Soil	3A22002	1/22/2013 9:24:00AM
"	+8270 SIM PAH (16)	"	"	"
"	+8270 SIM PAH (Low Level)	"	"	"
3A22002-CCV1	8270 SIM PAH	Soil	3A22002	1/22/2013 9:52:00AM
"	+8270 SIM PAH (16)	"	"	"
"	+8270 SIM PAH (Low Level)	"	"	"
3A22002-CCB1	8270 SIM PAH	Soil	3A22002	1/22/2013 10:19:00AM
"	+8270 SIM PAH (16)	"	"	"
"	+8270 SIM PAH (Low Level)	"	"	"
A13A243-05RE1	8270 SIM PAH (Low Level)	Soil	1301443	1/22/2013 10:46:00AM
A13A243-08RE1	8270 SIM PAH (Low Level)	Soil	1301443	1/22/2013 11:14:00AM
A13A243-11RE1	8270 SIM PAH (Low Level)	Soil	1301443	1/22/2013 11:42:00AM
A13A243-15RE1	8270 SIM PAH (Low Level)	Soil	1301443	1/22/2013 12:09:00PM
1301459-BLK1	8270 SIM PAH	Water	1301459	1/22/2013 1:04:00PM
1301459-BS1	8270 SIM PAH	Water	1301459	1/22/2013 1:32:00PM
1301459-BSD1	8270 SIM PAH	Water	1301459	1/22/2013 2:00:00PM
A13A309-01	8270 SIM PAH	Water	1301459	1/22/2013 2:28:00PM
A13A309-02	8270 SIM PAH	Water	1301459	1/22/2013 2:56:00PM
A13A336-02	8270 SIM PAH	Water	1301459	1/22/2013 3:23:00PM
A13A336-02RE1	8270 SIM PAH	Water	1301459	1/22/2013 4:01:00PM
A13A381-01	8270 SIM PAH	Water	1301459	1/22/2013 4:29:00PM
A13A381-02	8270 SIM PAH	Water	1301459	1/22/2013 4:57:00PM
A13A381-03	8270 SIM PAH	Water	1301459	1/22/2013 5:23:00PM
A13A280-01	8270 SIM PAH (16)	Soil	1301470	1/22/2013 5:51:00PM
A13A293-01	8270 SIM PAH (16)	Soil	1301470	1/22/2013 6:19:00PM
A13A336-01	8270 SIM PAH	Soil	1301470	1/22/2013 6:45:00PM
A13A341-01	8270 SIM PAH (16)	Soil	1301470	1/22/2013 7:13:00PM
A13A367-03	8270 SIM PAH (16)	Soil	1301470	1/22/2013 7:40:00PM

MS TUNE SAMPLES

0 Total Failures

CONTINUING CALIBRATION VERIFICATION

0 Total Failures in 1 CCVs

ISTD AREAS

3A22002-CCV1

8270 SIM PAH	RT	RESP	% Rec (vs. Curve)	Rpt	Qualifier
Naphthalene-d8 (ISTD)	5.33	949891	101		
Acenaphthene-d10 (ISTD)	7.02	469490	108		
Phenanthrene-d10 (ISTD)	8.46	761907	108		

Chrysene-d12 (ISTD)	11.11	650778	103		
Perylene-d12 (ISTD)	13.35	542199	103		
Dibenz(a,h)anthracene-d14 (IST	15.53	412733	100		
8270 SIM PAH (16)	RT	RESP	% Rec (vs. Curve)	Rpt	Qualifier
Naphthalene-d8 (ISTD)	5.33	949891	101		
Acenaphthene-d10 (ISTD)	7.02	469490	108		
Phenanthrene-d10 (ISTD)	8.46	761907	108		
Chrysene-d12 (ISTD)	11.11	650778	103		
Perylene-d12 (ISTD)	13.35	542199	103		
Dibenz(a,h)anthracene-d14 (IST	15.53	412733	100		
8270 SIM PAH (Low L	RT	RESP	% Rec (vs. Curve)	Rpt	Qualifier
Naphthalene-d8 (ISTD)	5.33	949891	101		
Acenaphthene-d10 (ISTD)	7.02	469490	108		
Phenanthrene-d10 (ISTD)	8.46	761907	108		
Chrysene-d12 (ISTD)	11.11	650778	103		
Perylene-d12 (ISTD)	13.35	542199	103		
Dibenz(a,h)anthracene-d14 (IST	15.53	412733	100		

EXTRACTION BLANKS

0 Total Failures in 1 Blank(s)

LAB CONTROL SPIKES

0 Failures in 2 LCS/LCSDs

SURROGATE RECOVERY

A13A336-02 8270 SIM PAH

Surrogate	Recovery	Lower Limit	Upper Limit	Dilution	Rpt?	Fails?	Qualifiers
p-Terphenyl-d14 (Surr)	154	30	120	100	Yes	Fail	S-05

1 Failure(s)

A13A336-02RE1 8270 SIM PAH

Surrogate	Recovery	Lower Limit	Upper Limit	Dilution	Rpt?	Fails?	Qualifiers
2-Fluorobiphenyl (Surr)		45	120	10000	(NR)	Fail	S-01
p-Terphenyl-d14 (Surr)	1660	30	120	10000	(NR)	Fail	S-01

2 Failure(s)

A13A336-01 8270 SIM PAH

Surrogate	Recovery	Lower Limit	Upper Limit	Dilution	Rpt?	Fails?	Qualifiers
2-Fluorobiphenyl (Surr)	132	45	120	500	Yes	Fail	S-05
p-Terphenyl-d14 (Surr)	179	30	120	500	Yes	Fail	S-05

2 Failure(s)

SEQUENCE REVIEW SHEET

SEQUENCE: 3A22002 Seq. Date: 1/22/2013

SAMPLE HITS

A13A243-05RE1 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Chrysene	379.23	7690	YES	----	406	100			
Benzo(b+k)fluoranthene(s)	865.64	17600	YES	----	811	100	Q-26		
Benzo(g,h,i)perylene	411.01	8330	YES	----	406	100			

A13A243-08RE1 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Benzo(g,h,i)perylene	574.44	2330	YES	----	81.0	20			

A13A243-11RE1 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Benzo(g,h,i)perylene	1,062.37	2290	YES	----	43.2	10			

A13A243-15RE1 8270 SIM PAH (Low Level)

Analyte	IResult (ng/mL)	FResult ug/kg	Rpt?	FMDL ug/kg	FMRL	Dilution	Qualifier(s)	Conf	RPD%
Chrysene	904.07	16600	YES	----	368	100			
Benzo(b+k)fluoranthene(s)	998.17	18400	YES	----	736	100			
Indeno(1,2,3-cd)pyrene	463.77	8530	YES	----	368	100			
Benzo(g,h,i)perylene	634.51	11700	YES	----	368	100			

SEQUENCE REVIEW SHEET

SEQUENCE: 3A22002

Seq. Date: 1/22/2013

MISSED HOLD TIMES

No Hold Times Missed

SEQUENCE REVIEW SHEET

SEQUENCE: 3A22002 Seq. Date: 1/22/2013

ANALYTE QUALIFIERS

A13A243-05RE1

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES

1 Reportable Qualifier(s)

A13A336-02

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES
2-Fluorobiphenyl (Surr)	S-05		YES
p-Terphenyl-d14 (Surr)	S-05		YES

3 Reportable Qualifier(s)

A13A381-02

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES

1 Reportable Qualifier(s)

A13A280-01

Analyte	Qualifier	Text	Rpt?
Acenaphthylene	R-02		YES
Acenaphthene	R-02		YES
Anthracene	R-02		YES

3 Reportable Qualifier(s)

A13A293-01

Analyte	Qualifier	Text	Rpt?
Acenaphthylene	R-02		YES
Acenaphthene	R-02		YES
Anthracene	R-02		YES
Fluoranthene	R-02		YES

4 Reportable Qualifier(s)

A13A336-01

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES
2-Fluorobiphenyl (Surr)	S-05		YES
p-Terphenyl-d14 (Surr)	S-05		YES

3 Reportable Qualifier(s)

A13A341-01

Analyte	Qualifier	Text	Rpt?
Acenaphthylene	R-02		YES
Acenaphthene	R-02		YES
Anthracene	R-02		YES
Fluoranthene	R-02		YES

4 Reportable Qualifier(s)

A13A367-03

Analyte	Qualifier	Text	Rpt?
Acenaphthene	R-02		YES
Fluorene	R-02		YES
2-Fluorobiphenyl (Surr)	S-05		YES
p-Terphenyl-d14 (Surr)	S-05		YES

4 Reportable Qualifier(s)

SAMPLE QUALIFIERS

1301459-BSD1

Analyte	Qualifier	CustomValue
ALL	Q-19	

1301470-MS1

Analyte	Qualifier	CustomValue
ALL	RR-1	
ALL	RR-1	

A13A203-01

Analyte	Qualifier	CustomValue
ALL	RR-1	

A13A228-04

Analyte	Qualifier	CustomValue
ALL	R-04	

A13A243-01

Analyte	Qualifier	CustomValue
ALL	A-01	NR, re-extract due to MB contamination

A13A243-02

Analyte	Qualifier	CustomValue
ALL	A-01	NR, re-extract due to MB contamination

A13A243-06

Analyte	Qualifier	CustomValue
ALL	A-01	NR, re-extract due to MB contamination

A13A243-09

Analyte	Qualifier	CustomValue
ALL	A-01	NR, re-extract due to MB contamination

A13A243-14

Analyte	Qualifier	CustomValue
ALL	A-01	NR, re-extract due to MB contamination

A13A381-01

Analyte	Qualifier	CustomValue
ALL	RR-1	

A13A383-01

Analyte	Qualifier	CustomValue
ALL	RR-1	
ALL	RR-1	

Injection Log

Directory: C:\HPCHEM\2\DATA\2013-01\3A22002

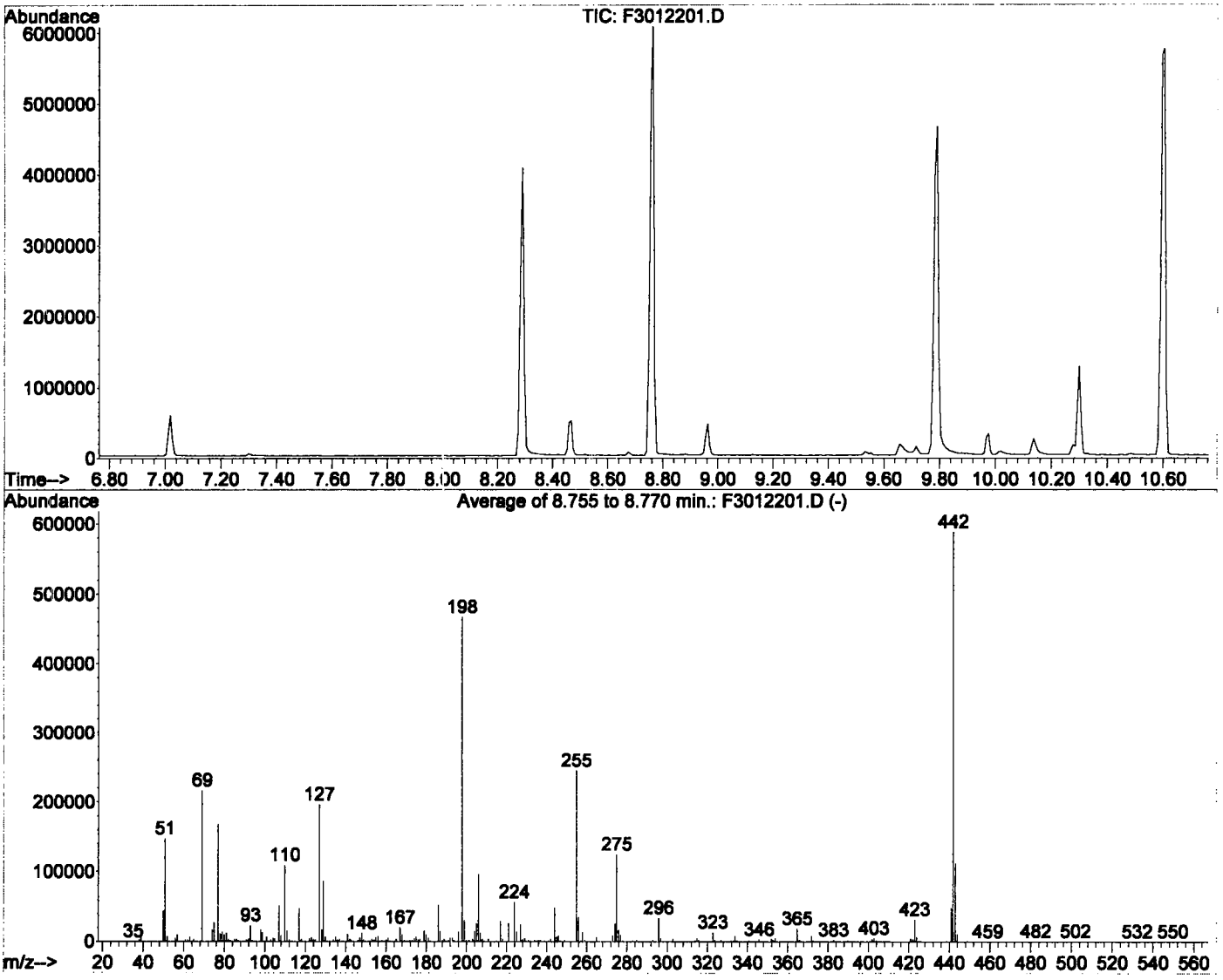
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	F3012201.d	1.	3A22002-TUN1	1x A13A099@50ng ...	22 Jan 2013 09:24
2	2	F3012202.d	1.	3A22002-CCV1	1x A13A203@1000p...	22 Jan 2013 09:52
3	3	F3012203.d	1.	3A22002-CCB1	1x DCM+ISTD	22 Jan 2013 10:19
4	4	F3012204.d	1.	A13A243-05RE1@100	100x Soil 11....	22 Jan 2013 10:46
5	5	F3012205.d	1.	A13A243-08RE1@20	20x Soil 11.5...	22 Jan 2013 11:14
6	6	F3012206.d	1.	A13A243-11RE1@10	10x Soil 10.7...	22 Jan 2013 11:42
7	7	F3012207.d	1.	A13A243-15RE1@100	100x Soil 12....	22 Jan 2013 12:09
8	3	F3012208.d	1.	3A22002-IBL1	1x DCM+ISTD	22 Jan 2013 12:36
9	8	F3012209.d	1.	1301459-BLK1	1x Water 1100m...	22 Jan 2013 13:04
10	9	F3012210.d	1.	1301459-BS1	1x Water 1000m...	22 Jan 2013 13:32
11	10	F3012211.d	1.	1301459-BSD1	1x Water 1000m...	22 Jan 2013 14:00
12	11	F3012212.d	1.	A13A309-01	1x Water 1000m...	22 Jan 2013 14:28
13	12	F3012213.d	1.	A13A309-02	1x Water 1040m...	22 Jan 2013 14:56
14	13	F3012214.d	1.	A13A336-02@100	100x Water 730...	22 Jan 2013 15:23
15	14	F3012215.d	1.	A13A336-02RE1@10000	10000x Water 7...	22 Jan 2013 16:01
16	15	F3012216.d	1.	A13A381-01@100	100x Water 900...	22 Jan 2013 16:29
17	16	F3012217.d	1.	A13A381-02	1x Water 1070m...	22 Jan 2013 16:57
18	17	F3012218.d	1.	A13A381-03	1x Water 960mL...	22 Jan 2013 17:23
19	18	F3012219.d	1.	A13A280-01@50	50x Soil 11.63...	22 Jan 2013 17:51
20	19	F3012220.d	1.	A13A293-01@20	20x Soil 10.67...	22 Jan 2013 18:19
21	20	F3012221.d	1.	A13A336-01@500	500x Soil 11.3...	22 Jan 2013 18:45
22	21	F3012222.d	1.	A13A341-01@20	20x Soil 10.42...	22 Jan 2013 19:13
23	22	F3012223.d	1.	A13A367-03@50	50x Soil 10.49...	22 Jan 2013 19:40
24	3	F3012224.d	1.	3A22002-IBL2	1x DCM+ISTD	22 Jan 2013 20:08

✓

1-23-13

DFTPP

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012201.D Vial: 1
Acq On : 22 Jan 2013 9:24 am Operator: bsj
Sample : 3A22002-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH



AutoFind: Scans 612, 613, 614; Background Corrected with Scan 608

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	31.6	147669	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.4	216590	PASS
70	69	0.00	2	0.0	0	PASS
127	198	10	80	42.1	196630	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	467118	PASS
199	198	5	9	6.6	30959	PASS
275	198	10	60	26.7	124829	PASS
365	198	1	100	4.0	18539	PASS
441	442	0.01	24	8.2	48192	PASS
442	198	50	200	126.1	589077	PASS
443	442	15	24	19.1	112648	PASS

1-22-13
BSJ

F3012201.D DFTP8270.M Tue Jan 22 09:54:42 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012201.D Vial: 1
Acq On : 22 Jan 2013 9:24 am Operator: bsj
Sample : 3A22002-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:54 2013 Quant Results File: DFTP8270.RES

Quant Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration
DataAcq Meth : DFTP8270

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.33	136	258060	2000.000 ng/ml	0.00
2) Acenaphthene-d10	7.02	162	114211	2000.000 ng/ml	0.00
3) Phenanthrene-d10	8.47	188	215227	2000.000 ng/ml	0.00
7) Chrysene-d12	11.11	240	184890	2000.000 ng/ml	0.00
8) Perylene-d12	13.36	264	148401	2000.000 ng/ml	-0.02
9) Dibenz(ah)anthracene-d14	15.54	292	111062	2000.000 ng/mL	-0.02
Target Compounds					Qvalue
4) Pentachlorophenol (PCP)	8.29	266	548049	75.338 ng/mL	92
5) DFTPP	8.76	198	708112	57.077 ng/mL#	59
6) DDT	10.60	235	1354173	56.850 ng/mL#	100

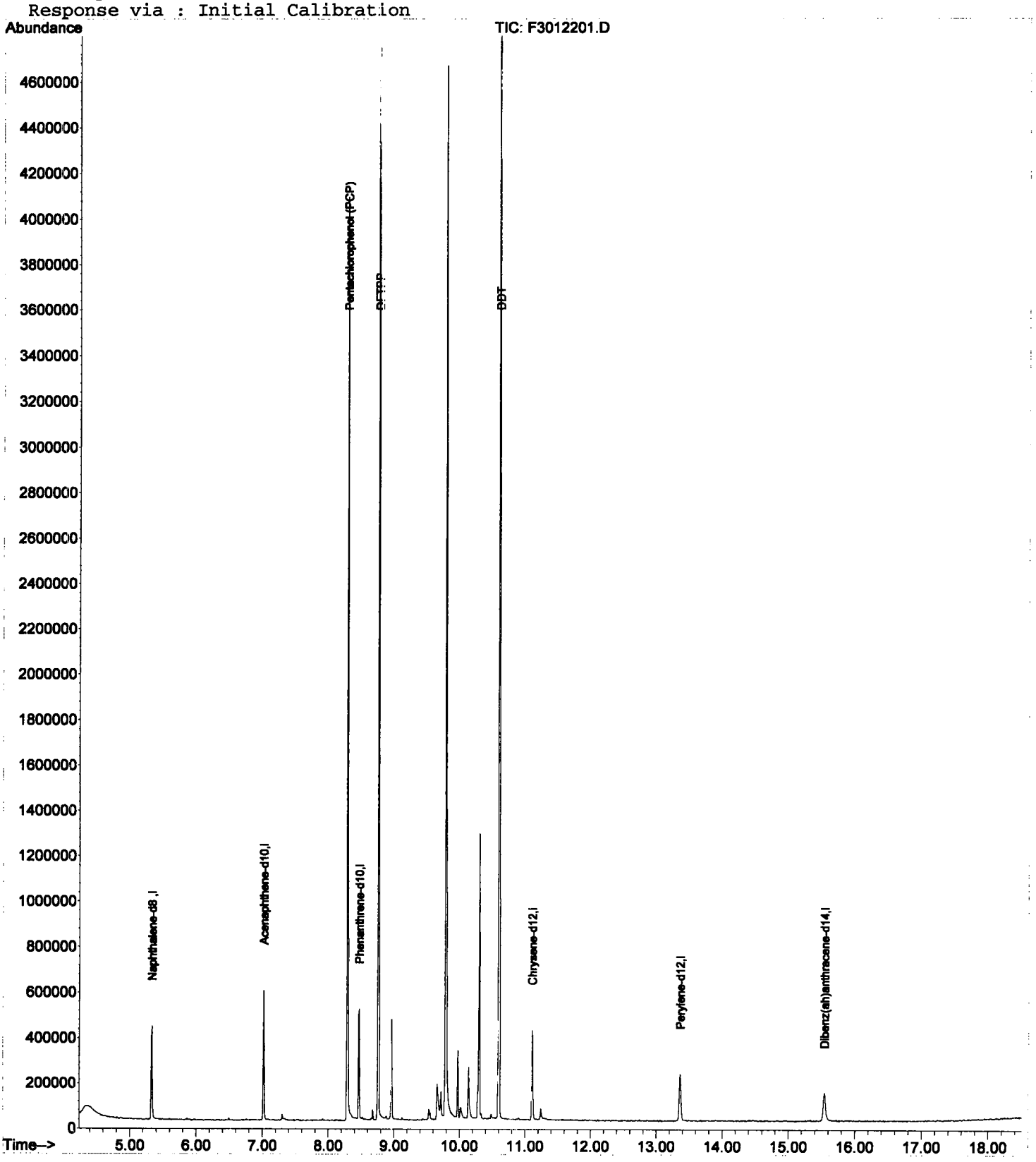
1-22-13 BSJ

(#) = qualifier out of range (m) = manual integration
F3012201.D DFTP8270.M Tue Jan 22 09:54:46 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012201.D Vial: 1
Acq On : 22 Jan 2013 9:24 am Operator: bsj
Sample : 3A22002-TUN1 Inst : SV-GCMS6
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 9:54 2013 Quant Results File: DFTP8270.RES

Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Jan 16 16:10:02 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012202.D Vial: 2
Acq On : 22 Jan 2013 9:52 am Operator: bsj
Sample : 3A22002-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHCDS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	101	0.00
2	T	Naphthalene	1000.000	1013.602	-1.4	103	0.00
3	T	2-Methylnaphthalene	1000.000	1035.866	-3.6	104	0.00
4	T	1-Methylnaphthalene	1000.000	1041.845	-4.2	104	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	108	0.00
6	S	2-Fluorobiphenyl(Surr)	1000.000	999.179	0.1	106	0.00
7		Dimethylphthalate	1000.000	1025.027	-2.5	108	0.00
8	T	Acenaphthylene	1000.000	1007.848	-0.8	105	-0.01
9	T	Acenaphthene	1000.000	1006.372	-0.6	107	0.00
10		Dibenzofuran	1000.000	1012.637	-1.3	107	-0.01
11		Diethylphthalate	1000.000	983.828	1.6	108	-0.01
12	T	Fluorene	1000.000	1063.078	-6.3	109	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	108	0.00
14		Phenanthrene	1000.000	1021.565	-2.2	109	0.00
15	T	Anthracene	1000.000	1036.060	-3.6	108	0.00
16	T	Carbazole	1000.000	1075.809	-7.6	105	0.00
17		Di-n-butylphthalate	1000.000	1015.928	-1.6	111	0.00
18	T	Fluoranthene	1000.000	1010.226	-1.0	110	0.00
19	T	Pyrene	1000.000	1024.334	-2.4	110	-0.01
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	103	0.00
21	S	Terphenyl-d14(Surr)	1000.000	1097.323	-9.7	113	0.00
22		Benzyl Butyl phthalate	1000.000	1085.748	-8.6	113	0.00
23	T	Benz(a)Anthracene	1000.000	1007.862	-0.8	105	-0.01
24	T	Chrysene	1000.000	1034.234	-3.4	105	0.00
25		Bis(2-ethylhexyl)phthalate	1000.000	1168.037	-16.8	114	0.00
26		Di-n-octyl phthalate	1000.000	1056.693	-5.7	117	-0.01
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	103	-0.02
28	T	Benzo(b)Fluoranthene	1000.000	1088.507	-8.9	107	-0.01
29	T	Benzo(k)Fluoranthene	1000.000	1026.668	-2.7	102	-0.01
30	T	Benzo(b+k)Fluoranthene	2000.000	2095.964	-4.8	105	-0.01
31		Benzo (e) Pyrene	1000.000	1045.060	-4.5	105	-0.02
32	T	Benzo(a)Pyrene	1000.000	1050.189	-5.0	104	-0.01
33		Perylene	1000.000	1025.636	-2.6	103	-0.01
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	-0.02
35	T	Indeno(1,2,3-cd)Pyrene	1000.000	1011.593	-1.2	100	-0.02
36	T	Dibenz(a,h)Anthracene	1000.000	1055.341	-5.5	100	-0.02
37	T	Benzo(g,h,i)Perylene	1000.000	1062.068	-6.2	99	-0.02

1-22-13
350

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F3012202.D F21227.M Tue Jan 22 10:13:54 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012202.D Vial: 2
Acq On : 22 Jan 2013 9:52 am Operator: bsj
Sample : 3A22002-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 10:13 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	949891	2000.000 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	469490	2000.000 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	761907	2000.000 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	650778	2000.000 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	542199	2000.000 ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	412733	2000.000 ng/mL	-0.02
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.36	172	336557	999.179 ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	288499	1097.323 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthalene	5.35	128	521597	1013.602 ng/ml	99
3) 2-Methylnaphthalene	6.00	142	316930	1035.866 ng/ml	93
4) 1-Methylnaphthalene	6.10	142	294439	1041.845 ng/ml	98
7) Dimethylphthalate	6.75	163	312717	1025.027 ng/mL	100
8) Acenaphthylene	6.87	152	438147	1007.848 ng/ml	99
9) Acenaphthene	7.04	153	277285	1006.372 ng/ml	97
10) Dibenzofuran	7.21	168	394516	1012.637 ng/mL	94
11) Diethylphthalate	7.43	149	307852	983.828 ng/mL	81
12) Fluorene	7.55	166	315634	1063.078 ng/ml	99
14) Phenanthrene	8.48	178	410665	1021.565 ng/mL	99
15) Anthracene	8.53	178	400030	1036.060 ng/ml	98
16) Carbazole	8.69	167	338840	1075.809 ng/ml	99
17) Di-n-butylphthalate	9.03	149	489329	1015.928 ng/mL	100
18) Fluoranthene	9.64	202	381949	1010.226 ng/ml	99
19) Pyrene	9.86	202	400311	1024.334 ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	183044	1085.748 ng/mL	98
23) Benz(a)Anthracene	11.09	228	325226	1007.862 ng/ml	98
24) Chrysene	11.14	228	321602	1034.234 ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.13	149	267932	1168.037 ng/mL	100
26) Di-n-octyl phthalate	12.02	149	357029	1056.693 ng/mL	95
28) Benzo(b)Fluoranthene	12.66	252	290069	1088.507 ng/ml	100
29) Benzo(k)Fluoranthene	12.70	252	296409	1026.668 ng/ml	97
30) Benzo(b+k)Fluoranthene	12.70	252	590229	2095.964 ng/ml	100
31) Benzo (e) Pyrene	13.14	252	282533	1045.060 ng/mL	98
32) Benzo(a)Pyrene	13.24	252	260528	1050.189 ng/ml	100
33) Perylene	13.40	252	276168	1025.636 ng/mL	97
35) Indeno(1,2,3-cd)Pyrene	15.54	276	230022	1011.593 ng/ml	95
36) Dibenz(a,h)Anthracene	15.60	278	228947	1055.341 ng/ml	95
37) Benzo(g,h,i)Perylene	16.12	276	240384	1062.068 ng/ml	97

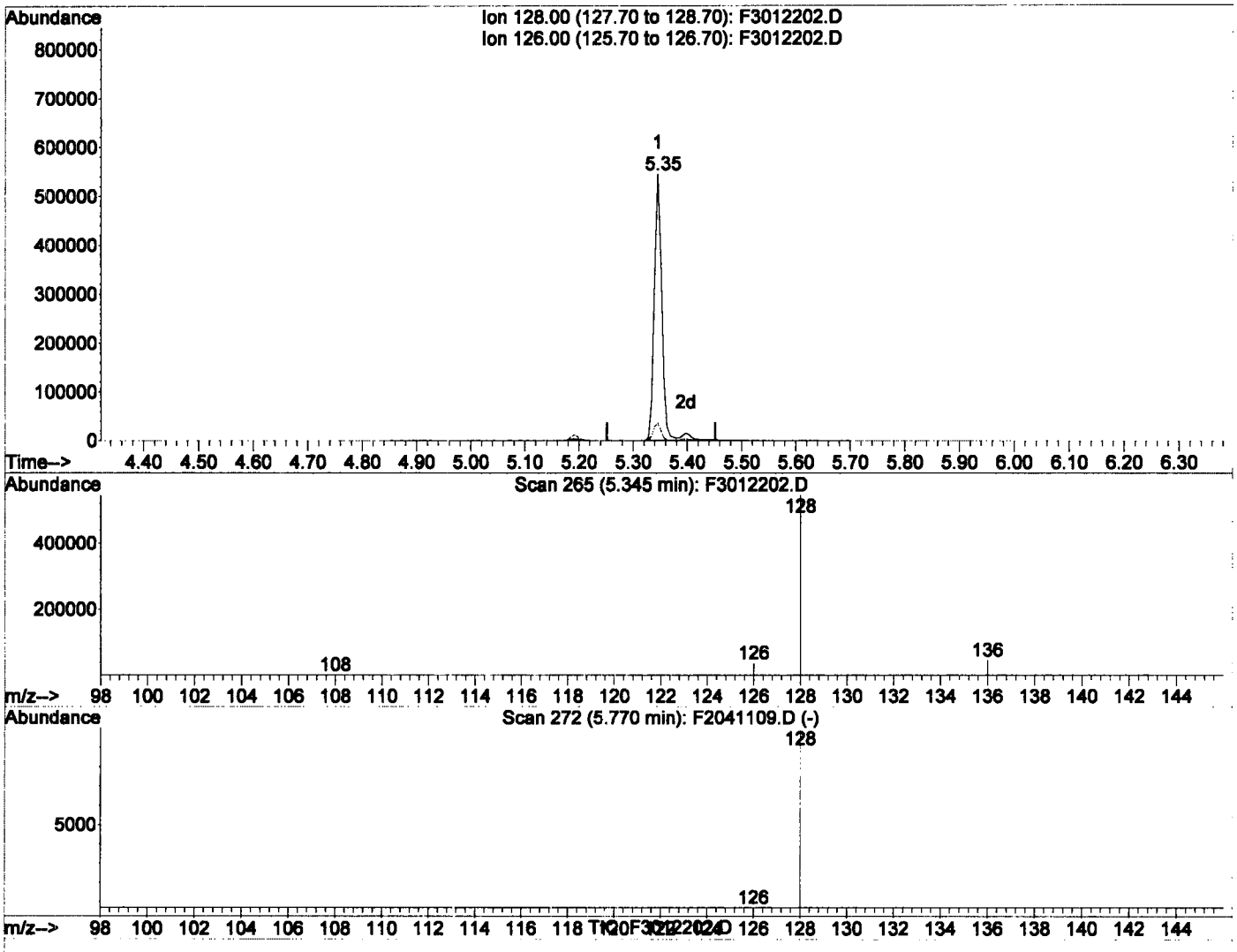
1-22-13
BSJ

(#) = qualifier out of range (m) = manual integration
F3012202.D F21227.M Tue Jan 22 10:13:10 2013 VOAGCMS1 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012202.D Vial: 2
Acq On : 22 Jan 2013 9:52 am Operator: bsj
Sample : 3A22002-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 10:13 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(2) Naphthalene (T)

5.35min 1013.60ng/ml

response 521597

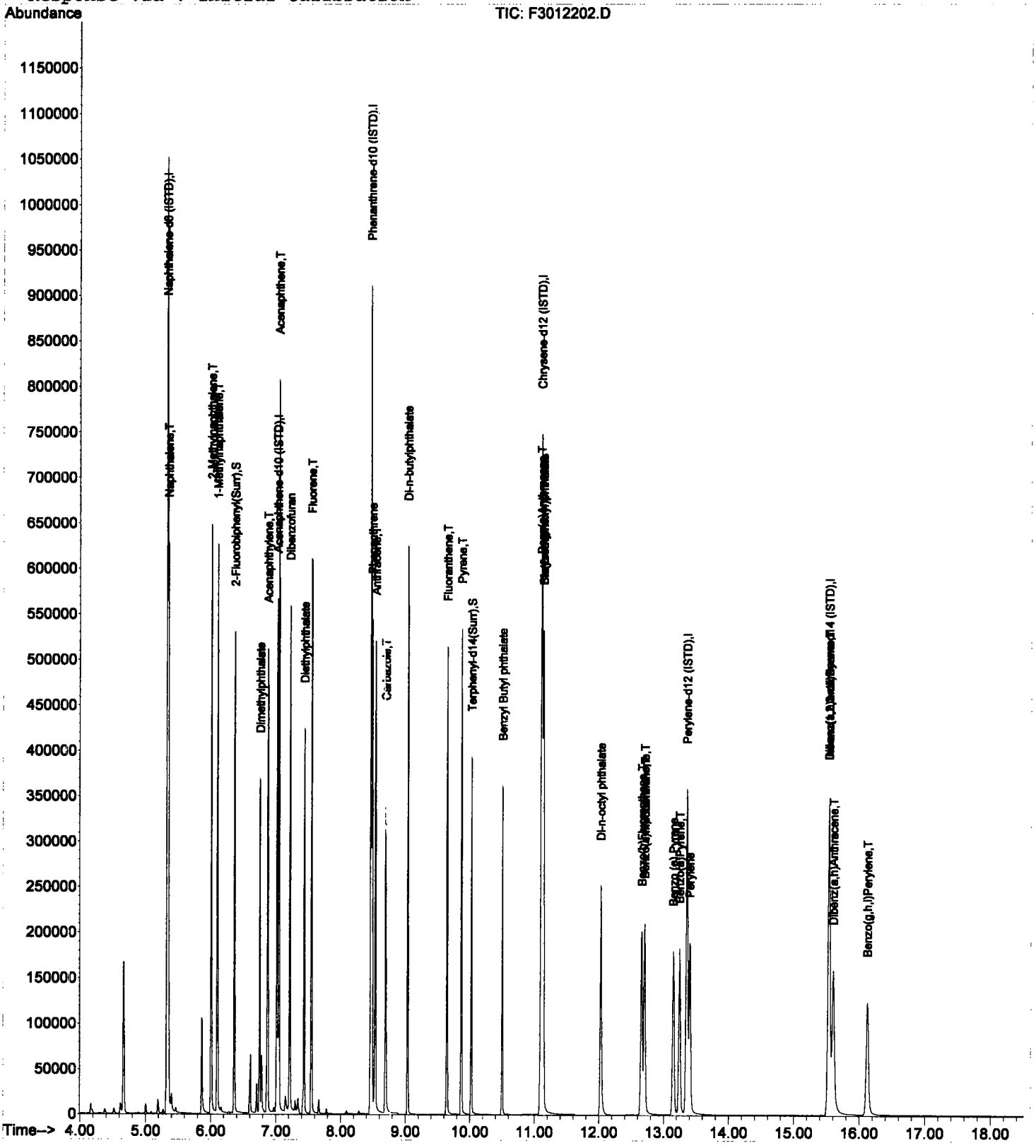
Ion	Exp%	Act%
128.00	100	100
126.00	7.00	6.77
0.00	0.00	0.00
0.00	0.00	0.00

F3012202.D F21227.M Tue Jan 22 10:13:42 2013 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012202.D Vial: 2
Acq On : 22 Jan 2013 9:52 am Operator: bsj
Sample : 3A22002-CCV1 Inst : SV-GCMS6
Misc : 1x A13A203@1000ppb SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 10:13 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



F3012202.D F21227.M Tue Jan 22 10:13:11 2013 VOAGCMS1 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012203.D Vial: 3
Acq On : 22 Jan 2013 10:19 am Operator: bsj
Sample : 3A22002-CCB1 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	927391	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	442972	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	710947	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	566532	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	472591	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	362751	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	0.00	172	0	0.000	ng/ml	
21) Terphenyl-d14(Surr)	0.00	244	0	0.000	ng/ml	
Target Compounds						Qvalue
2) Naphthalene	0.00	128	0	N.D.		
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	0.00	168	0	N.D.		
11) Diethylphthalate	0.00	149	0	N.D.		
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	8.46	178	279	0.744	ng/mL#	59
15) Anthracene	8.46	178	270	0.749	ng/ml#	61
16) Carbazole	0.00	167	0	N.D.		
17) Di-n-butylphthalate	0.00	149	0	N.D.		
18) Fluoranthene	0.00	202	0	N.D.		
19) Pyrene	0.00	202	0	N.D.		
22) Benzyl Butyl phthalate	0.00	149	0	N.D.		
23) Benz(a)Anthracene	11.11	228	1275	4.539	ng/ml	91
24) Chrysene	11.11	228	1280	4.728	ng/ml	92
25) Bis(2-ethylhexyl)phthalate	0.00	149	0	N.D.		
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.		
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.		
30) Benzo(b+k)Fluoranthene	0.00	252	0	N.D.		
31) Benzo (e) Pyrene	0.00	252	0	N.D.		
32) Benzo(a)Pyrene	0.00	252	0	N.D.		
33) Perylene	13.35	252	1491	6.353	ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	15.53	276	269	1.346	ng/ml#	1
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.		
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.		

1-22-13

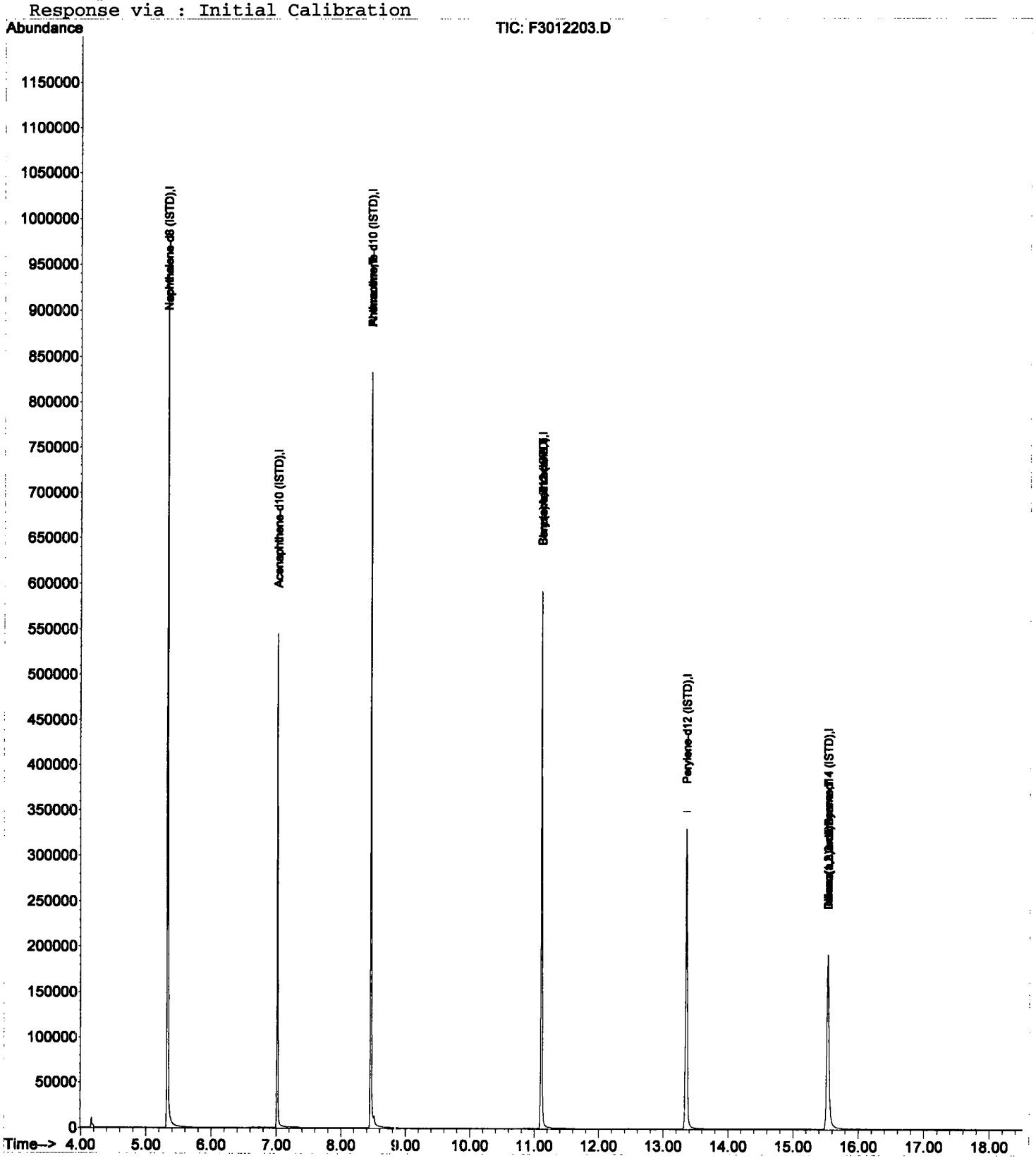
350

(#) = qualifier out of range (m) = manual integration
F3012203.D F21227.M Tue Jan 22 11:52:27 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012203.D Vial: 3
Acq On : 22 Jan 2013 10:19 am Operator: bsj
Sample : 3A22002-CCB1 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012204.D Vial: 4
Acq On : 22 Jan 2013 10:46 am Operator: bsj
Sample : A13A243-05RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 11.22g/2mL SIM-PAH(#24,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:53 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-28
Q-26

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	886820	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	432088	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	688670	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	575306	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	496142	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	376680	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	5563	17.945	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	5205	22.395	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	371	0.772	ng/ml#	80
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	7.22	168	240	0.669	ng/mL#	41
11) Diethylphthalate	7.44	149	378	1.313	ng/mL#	65
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	8.48	178	6196	17.052	ng/mL	99
15) Anthracene	8.53	178	1083	3.103	ng/ml#	61
16) Carbazole	8.70	167	893	3.137	ng/ml#	69
17) Di-n-butylphthalate	9.03	149	404	0.928	ng/mL#	89
18) Fluoranthene	9.64	202	39471	115.500	ng/ml	98
19) Pyrene	9.87	202	45750	129.517	ng/ml	99
22) Benzyl Butyl phthalate	0.00	149	0	N.D.		
23) Benz(a)Anthracene	11.09	228	39938	140.003	ng/ml	89
24) Chrysene	11.13	228	104248	379.229	ng/ml	95
25) Bis(2-ethylhexyl)phthalate	11.13	149	606	2.988	ng/mL#	42
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	12.66	252	173228	710.396	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	47652	180.373	ng/ml	97
30) Benzo(b+k)Fluoranthene	12.66	252	223060m	865.641	ng/ml	
31) Benzo (e) Pyrene	13.14	252	115137	465.414	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	57953	255.295	ng/ml	99
33) Perylene	13.40	252	15702	63.728	ng/mL	90
35) Indeno(1,2,3-cd)Pyrene	15.54	276	66684	321.332	ng/ml	99
36) Dibenz(a,h)Anthracene	15.59	278	16436	83.014	ng/ml	93
37) Benzo(g,h,i)Perylene	16.12	276	84901	411.014	ng/ml	96

Q28
Q-26

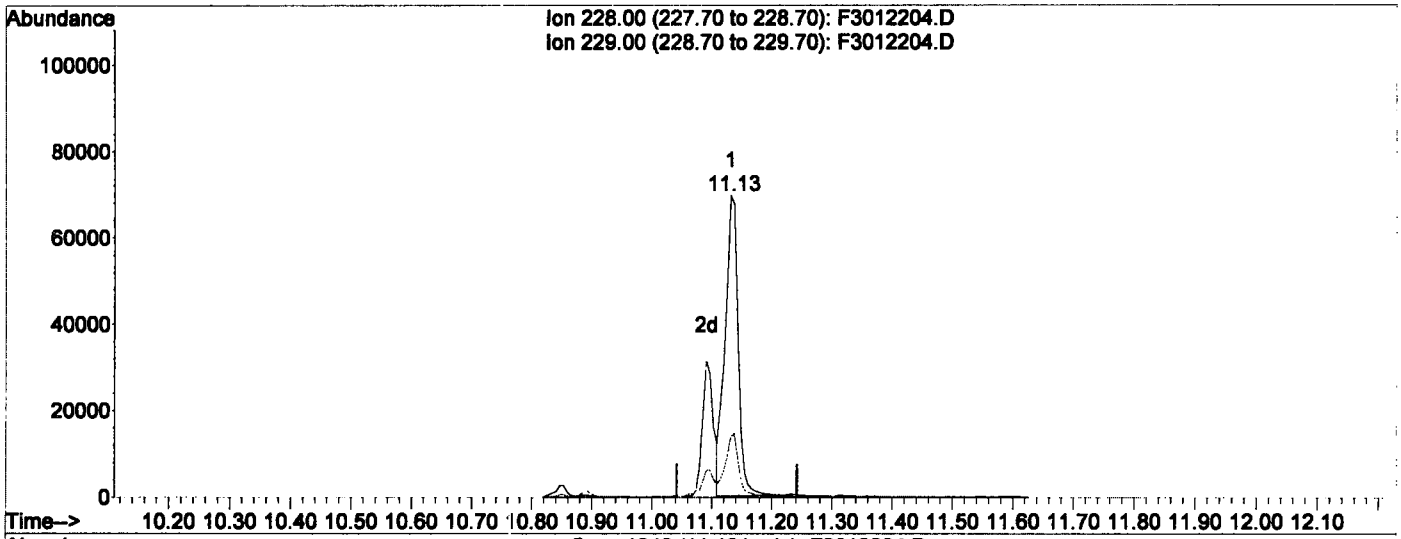
1-22-13
BSJ

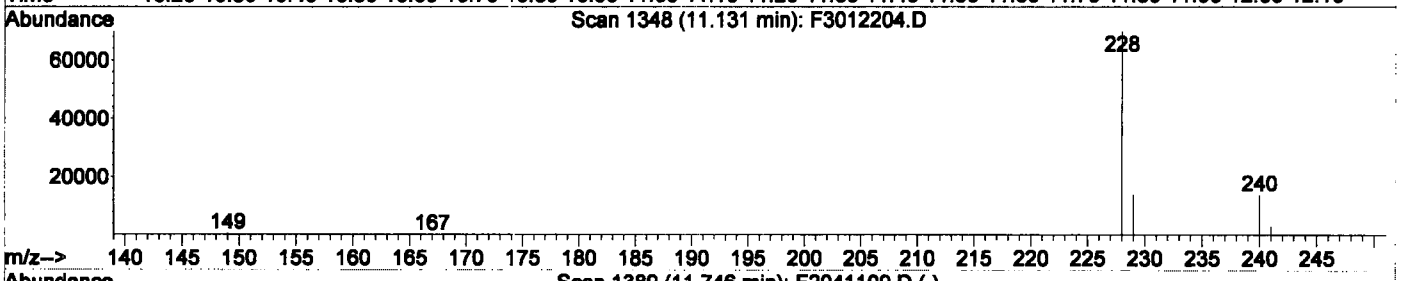
(#) = qualifier out of range (m) = manual integration
F3012204.D F21227.M Tue Jan 22 11:53:40 2013 VOAGCMS1 Page 1

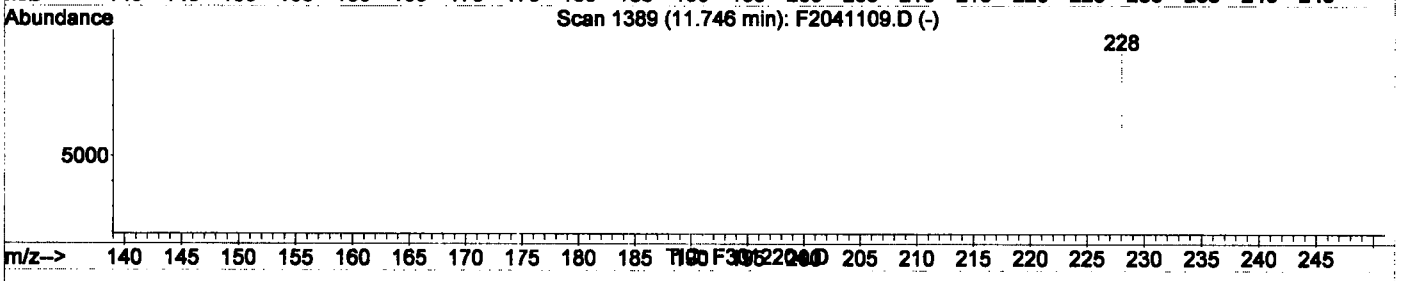
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012204.D Vial: 4
Acq On : 22 Jan 2013 10:46 am Operator: bsj
Sample : A13A243-05RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 11.22g/2mL SIM-PAH(#24,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(24) Chrysene (T)

11.13min 379.23ng/ml

response 104248

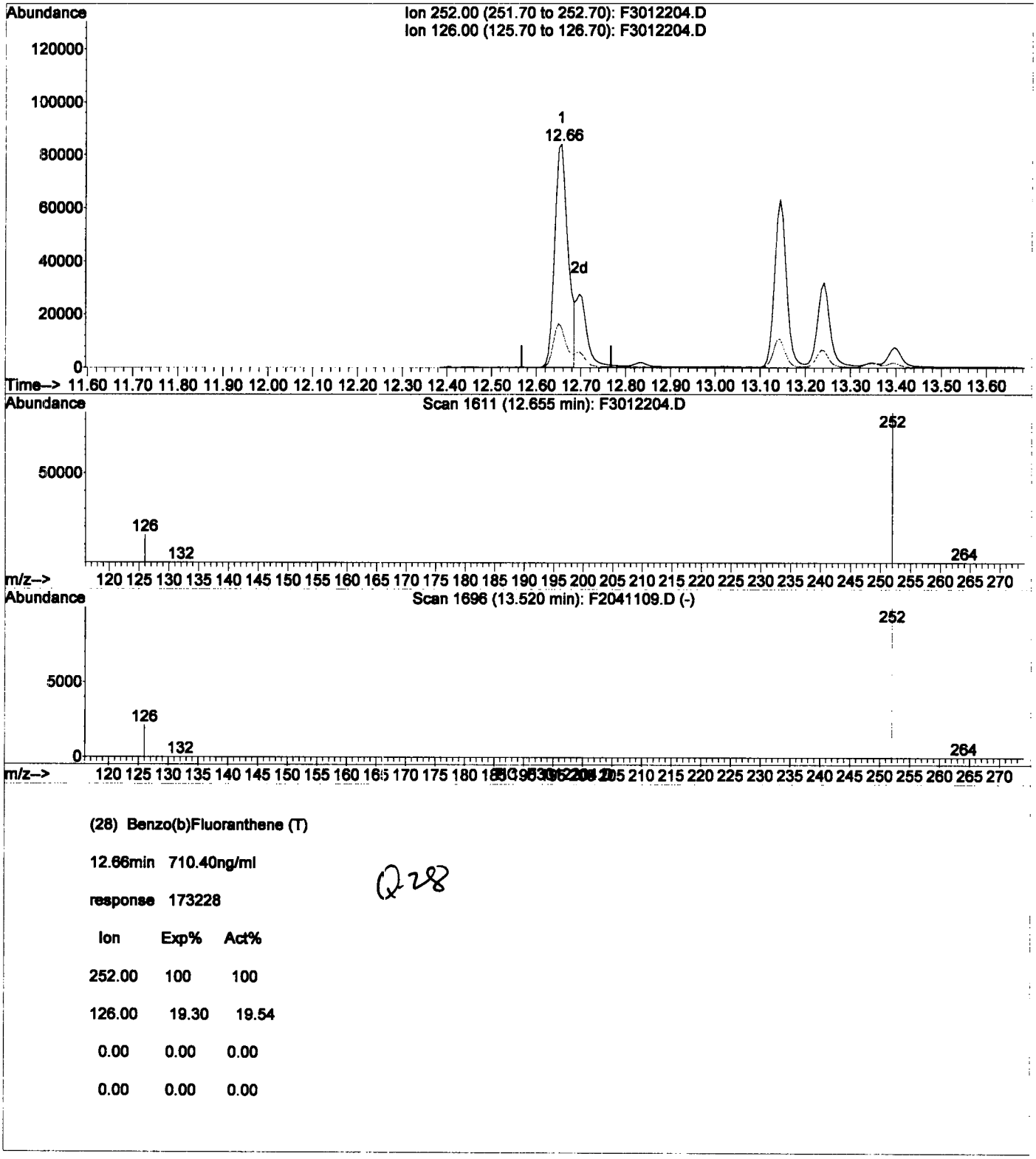
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	21.15
0.00	0.00	0.00
0.00	0.00	0.00

F3012204.D F21227.M Tue Jan 22 11:52:56 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012204.D Vial: 4
Acq On : 22 Jan 2013 10:46 am Operator: bsj
Sample : A13A243-05RE1@10C Inst : SV-GCMS6
Misc : 100x Soil 11.22g/2mL SIM-PAH(#24,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(28) Benzo(b)Fluoranthene (T)

12.66min 710.40ng/ml

response 173228

Q28

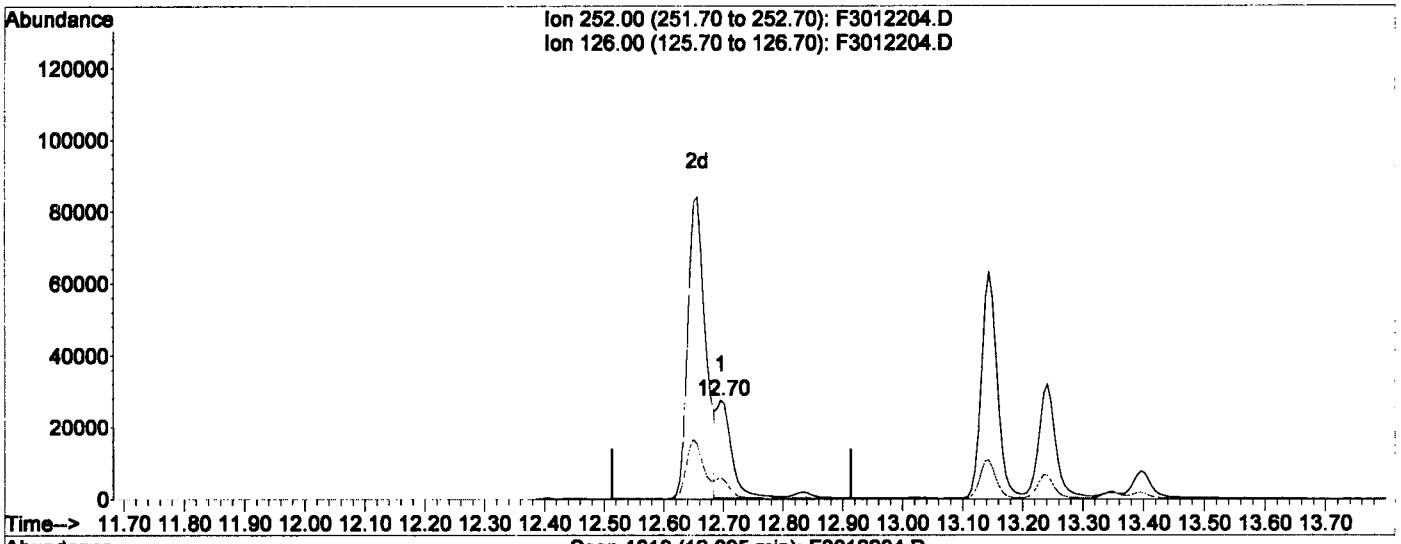
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	19.54
0.00	0.00	0.00
0.00	0.00	0.00

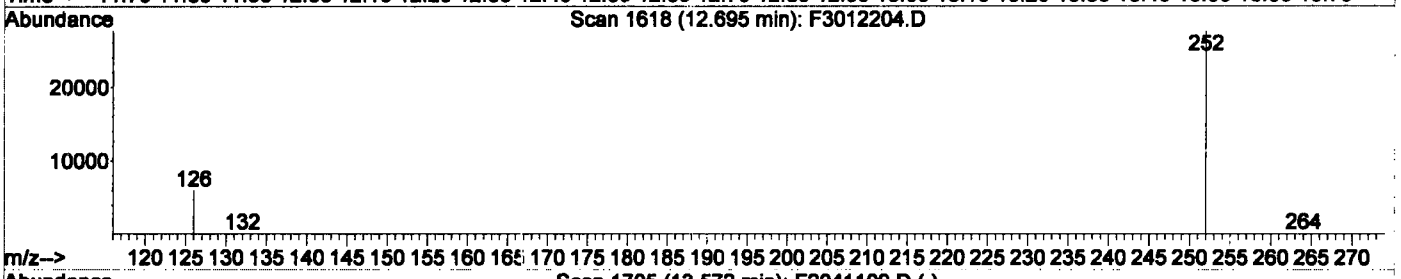
F3012204.D F21227.M Tue Jan 22 11:53:04 2013 VOAGCMS1

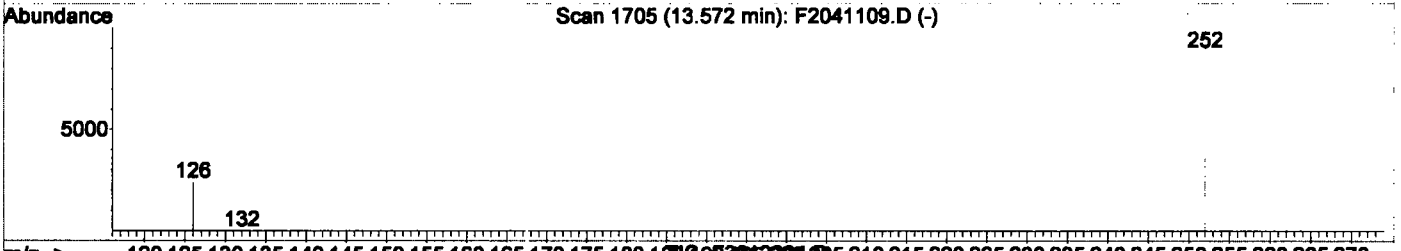
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012204.D Vial: 4
Acq On : 22 Jan 2013 10:46 am Operator: bsj
Sample : A13A243-05RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 11.22g/2mL SIM-PAH(#24,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.70min 180.37ng/ml

response 47652

Q28

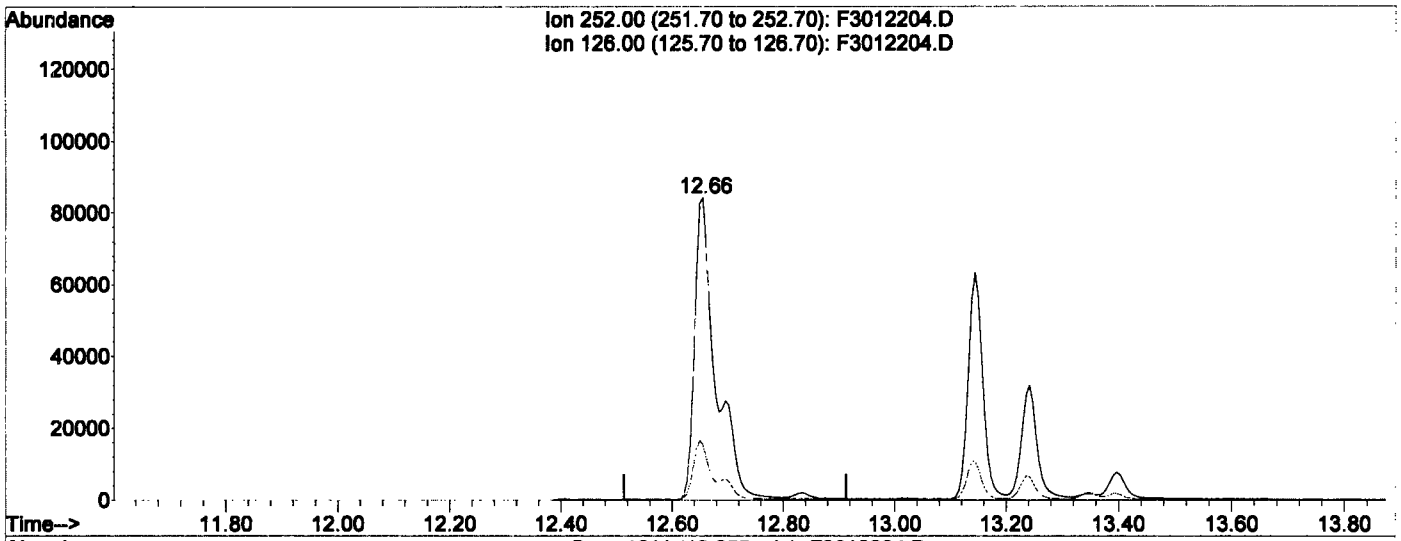
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.32
0.00	0.00	0.00
0.00	0.00	0.00

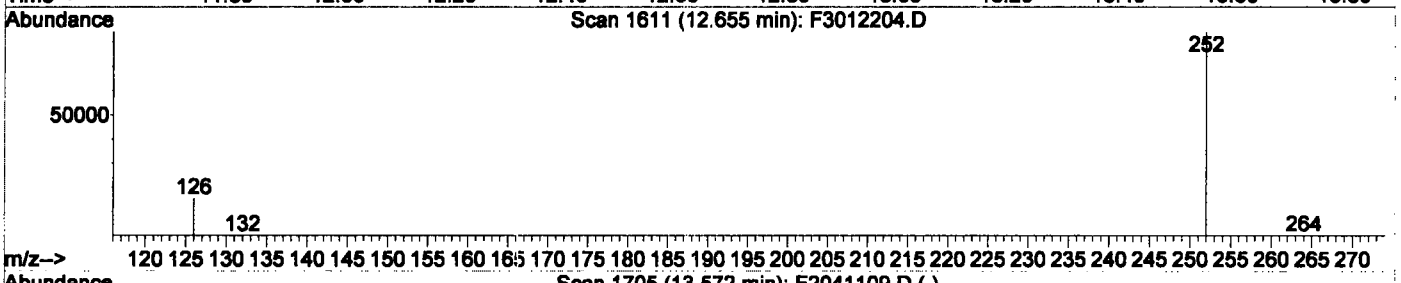
F3012204.D F21227.M Tue Jan 22 11:53:08 2013 VOAGCMS1

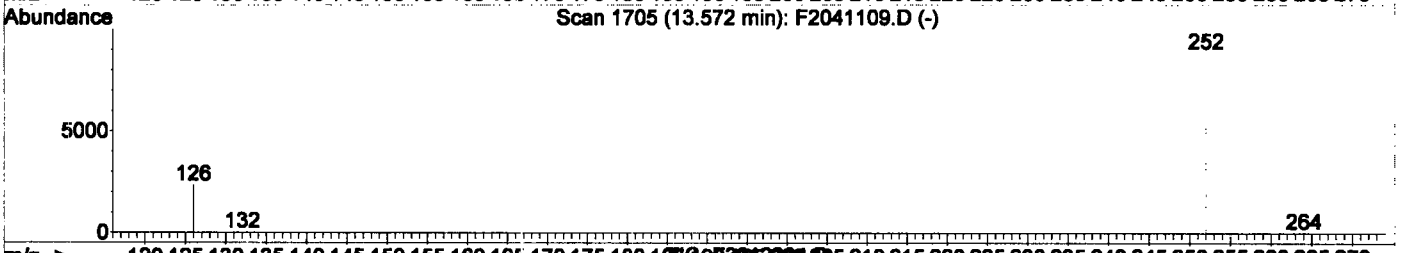
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012204.D Vial: 4
Acq On : 22 Jan 2013 10:46 am Operator: bsj
Sample : A13A243-05RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 11.22g/2mL SIM-PAH(#24,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:53 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.66min 865.64ng/ml m

response 223060

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.75
0.00	0.00	0.00
0.00	0.00	0.00

Q-26

1-22-13

BSS

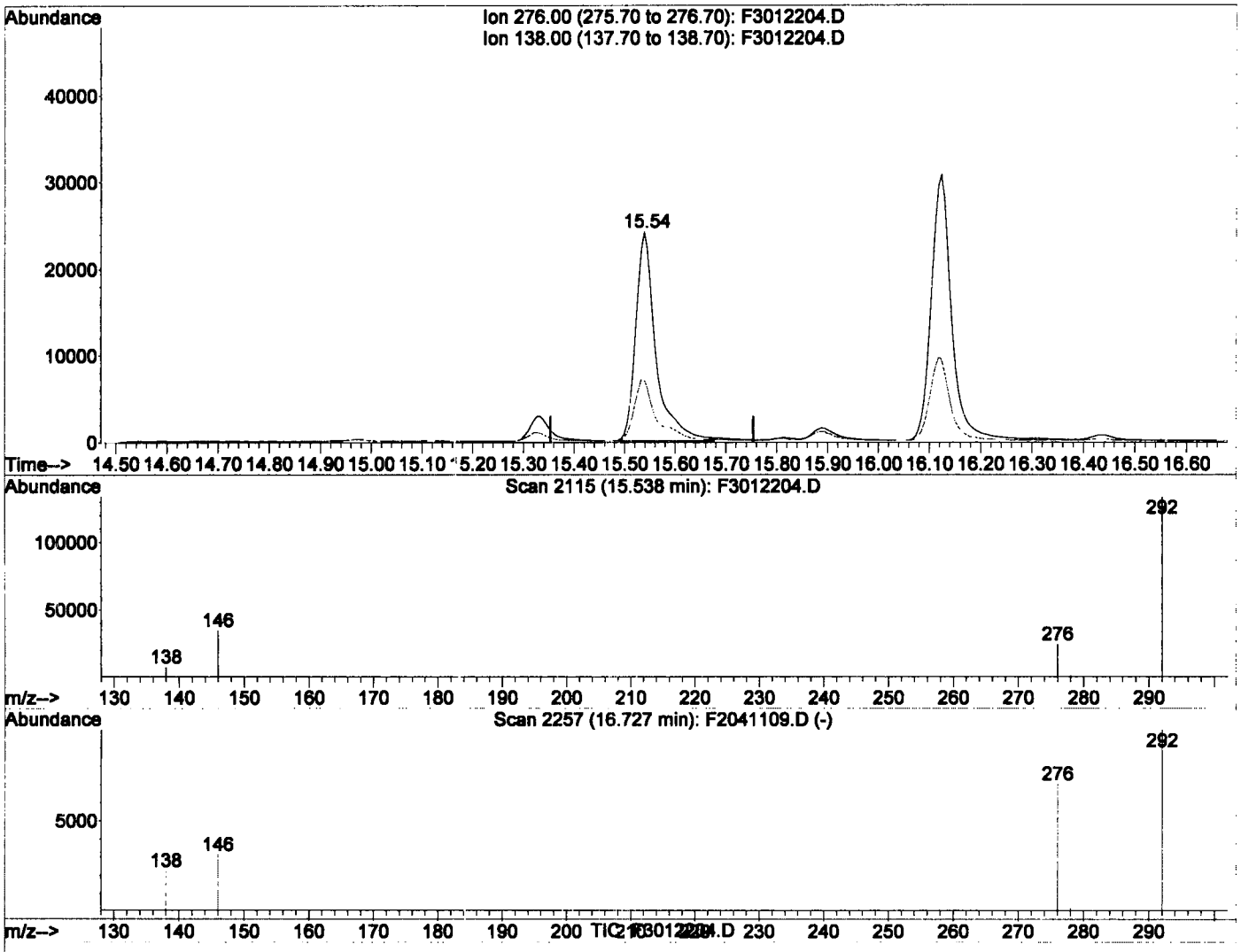
1/23/13

F3012204.D F21227.M Tue Jan 22 11:53:19 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012204.D Vial: 4
Acq On : 22 Jan 2013 10:46 am Operator: bsj
Sample : A13A243-05RE1@10C Inst : SV-GCMS6
Misc : 100x Soil 11.22g/2mL SIM-PAH(#24,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:53 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.54min 321.33ng/ml

response 66684

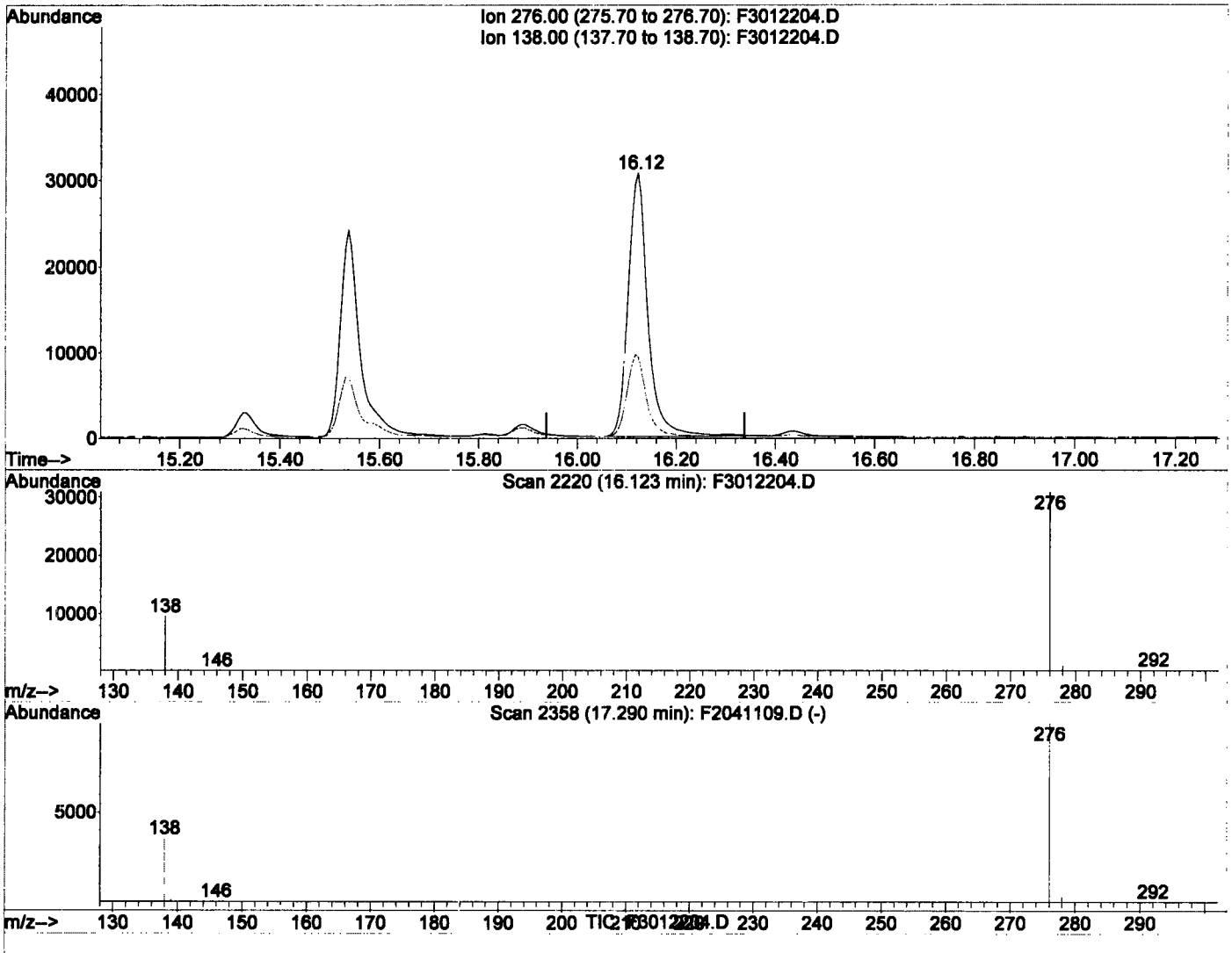
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	32.60
0.00	0.00	0.00
0.00	0.00	0.00

F3012204.D F21227.M Tue Jan 22 11:53:28 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012204.D Vial: 4
Acq On : 22 Jan 2013 10:46 am Operator: bsj
Sample : A13A243-05RE1@10C Inst : SV-GCMS6
Misc : 100x Soil 11.22g/2mL SIM-PAH(#24,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:53 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.12min 411.01ng/ml

response 84901

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.71
0.00	0.00	0.00
0.00	0.00	0.00

F3012204.D F21227.M Tue Jan 22 11:53:34 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012204.D Vial: 4
Acq On : 22 Jan 2013 10:46 am Operator: bsj
Sample : A13A243-05RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 11.22g/2mL SIM-PAH(#24,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	886820	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	432088	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	688670	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	575306	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	496142	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	376680	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	5563	17.945	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	5205	22.395	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	371	0.772	ng/ml#	80
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	7.22	168	240	0.669	ng/mL#	41
11) Diethylphthalate	7.44	149	378	1.313	ng/mL#	65
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	8.48	178	6196	17.052	ng/mL	99
15) Anthracene	8.53	178	1083	3.103	ng/ml#	61
16) Carbazole	8.70	167	893	3.137	ng/ml#	69
17) Di-n-butylphthalate	9.03	149	404	0.928	ng/mL#	89
18) Fluoranthene	9.64	202	39471	115.500	ng/ml	98
19) Pyrene	9.87	202	45750	129.517	ng/ml	99
22) Benzyl Butyl phthalate	0.00	149	0	N.D.		
23) Benz(a)Anthracene	11.09	228	39938	140.003	ng/ml	89
24) Chrysene	11.13	228	104248	379.229	ng/ml	95
25) Bis(2-ethylhexyl)phthalate	11.13	149	606	2.988	ng/mL#	42
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	12.66	252	173228	710.396	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	47652	180.373	ng/ml	97
30) Benzo(b+k)Fluoranthene	12.66	252	226455	878.816	ng/ml	98
31) Benzo (e) Pyrene	13.14	252	115137	465.414	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	57953	255.295	ng/ml	99
33) Perylene	13.40	252	15702	63.728	ng/mL	90
35) Indeno(1,2,3-cd)Pyrene	15.54	276	66684	321.332	ng/ml	99
36) Dibenz(a,h)Anthracene	15.59	278	16436	83.014	ng/ml	93
37) Benzo(g,h,i)Perylene	16.12	276	84901	411.014	ng/ml	96

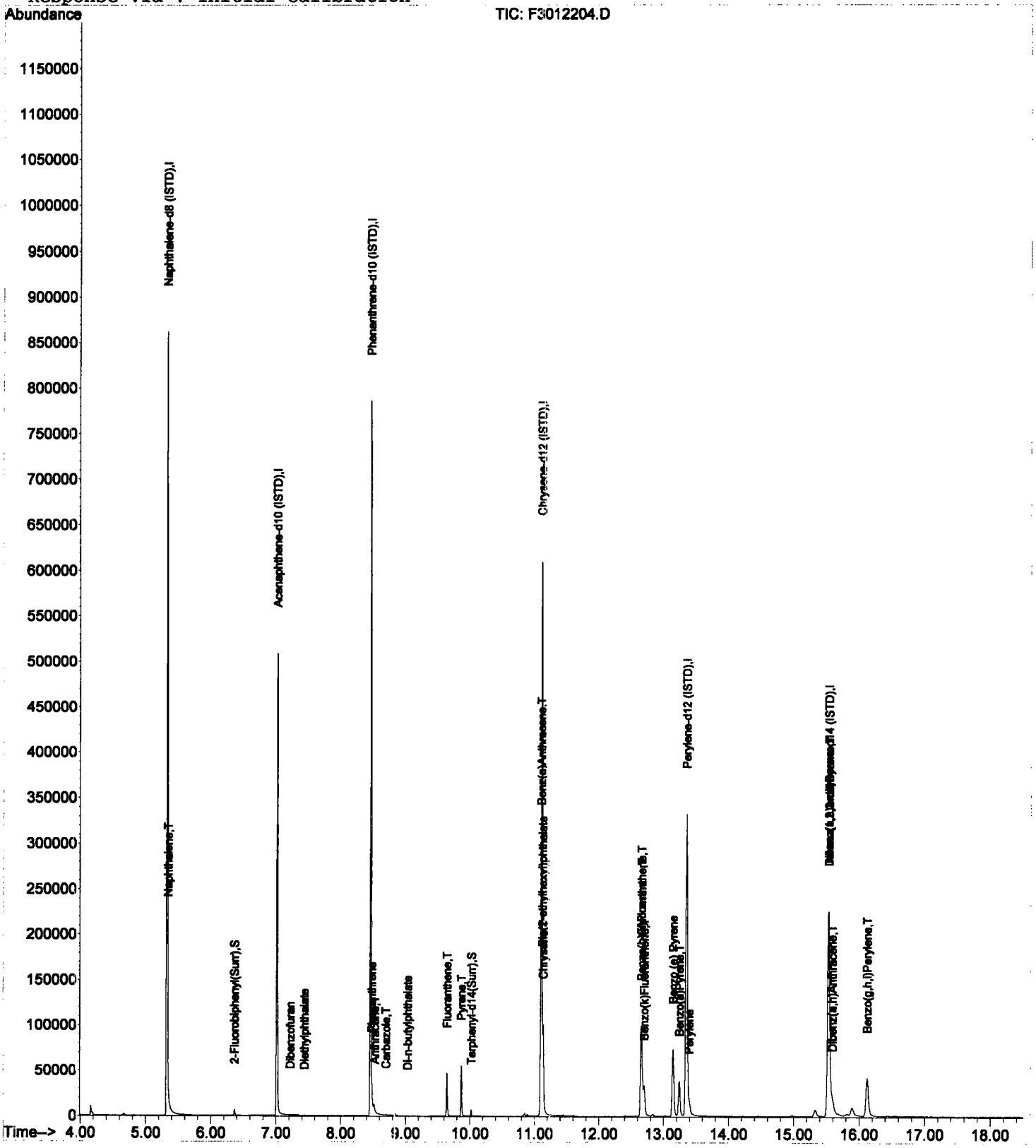
MS 1-22-13 BSS

(#) = qualifier out of range (m) = manual integration
F3012204.D F21227.M Tue Jan 22 11:52:30 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012204.D Vial: 4
Acq On : 22 Jan 2013 10:46 am Operator: bsj
Sample : A13A243-05RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 11.22g/2mL SIM-PAH(#24,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



F3012204.D F21227.M Tue Jan 22 11:52:30 2013 VOAGCMS1 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012205.D Vial: 5
Acq On : 22 Jan 2013 11:14 am Operator: bsj
Sample : A13A243-08RE1@20 Inst : SV-GCMS6
Misc : 20x Soil 11.55g/2mL SIM-PAH(#37) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	894664	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	426529	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.46	188	693267	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	577488	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	497004	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	377314	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	29360	95.944	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	27019	115.811	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	510	1.052	ng/ml#	80
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.87	152	354	0.896	ng/ml#	67
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	7.22	168	224	0.633	ng/mL#	41
11) Diethylphthalate	7.44	149	363	1.277	ng/mL#	65
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	8.48	178	4351	11.895	ng/mL	98
15) Anthracene	8.53	178	782	2.226	ng/ml#	61
16) Carbazole	8.70	167	697	2.432	ng/ml#	69
17) Di-n-butylphthalate	9.03	149	550	1.255	ng/mL#	89
18) Fluoranthene	9.64	202	26595	77.306	ng/ml	99
19) Pyrene	9.87	202	30374	85.418	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	324	2.166	ng/mL	71
23) Benz(a)Anthracene	11.10	228	27810	97.120	ng/ml	97
24) Chrysene	11.14	228	94078	340.940	ng/ml	96
25) Bis(2-ethylhexyl)phthalate	11.13	149	694	3.409	ng/mL#	42
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	12.66	252	121492	497.366	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	38376	145.010	ng/ml	98
30) Benzo(b+k)Fluoranthene	12.66	252	164031	635.460	ng/ml	98
31) Benzo (e) Pyrene	13.14	252	85924	346.725	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	38030	167.239	ng/ml	99
33) Perylene	13.40	252	19925	80.727	ng/mL	91
35) Indeno(1,2,3-cd)Pyrene	15.54	276	81886	393.924	ng/ml	100
36) Dibenz(a,h)Anthracene	15.59	278	15774	79.536	ng/ml	86
37) Benzo(g,h,i)Perylene	16.12	276	118858	574.436	ng/ml	97

1-22-13

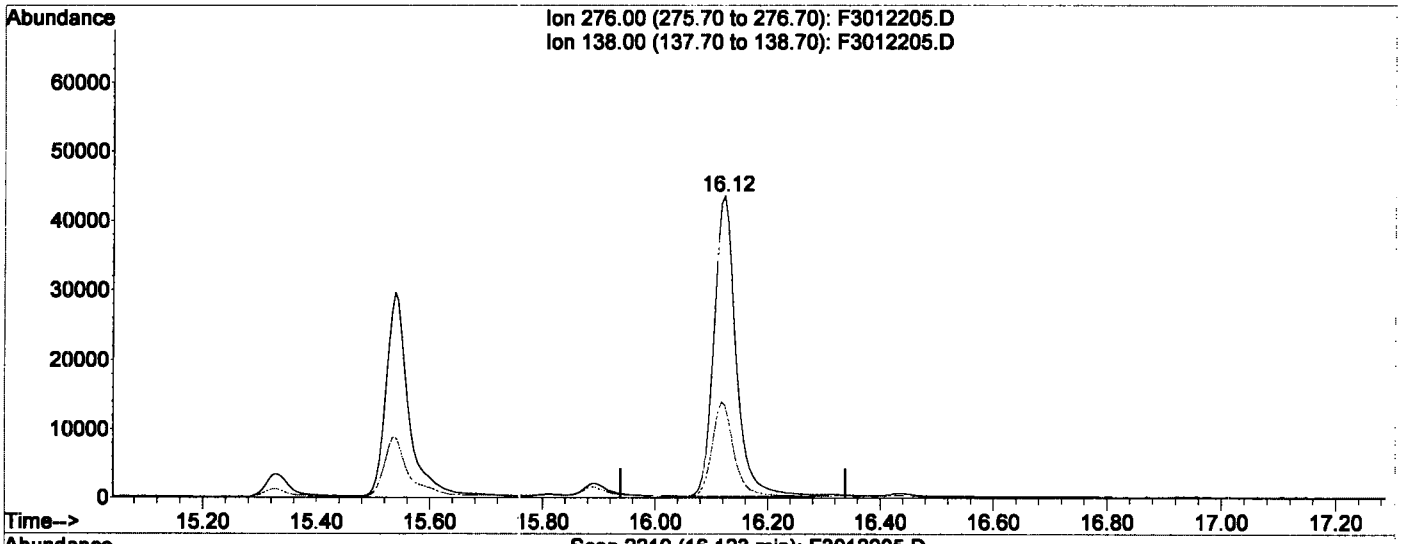
BSD

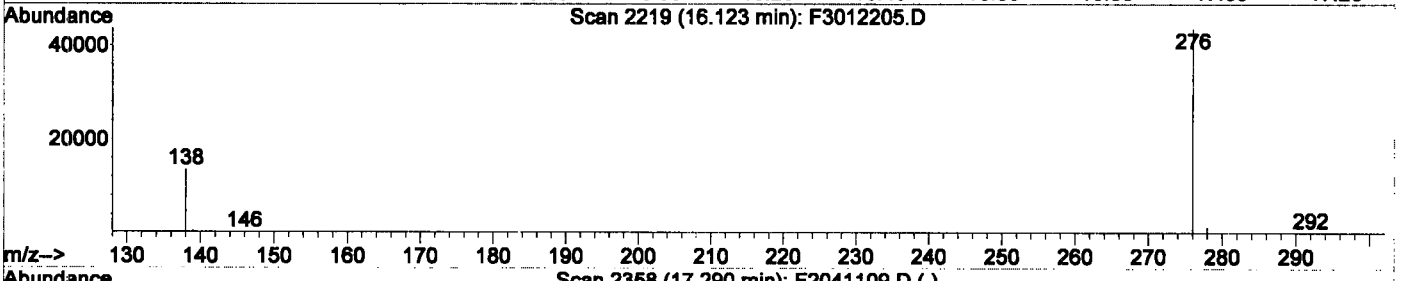
(#) = qualifier out of range (m) = manual integration
F3012205.D F21227.M Tue Jan 22 11:52:32 2013 VOAGCMS1 Page 1

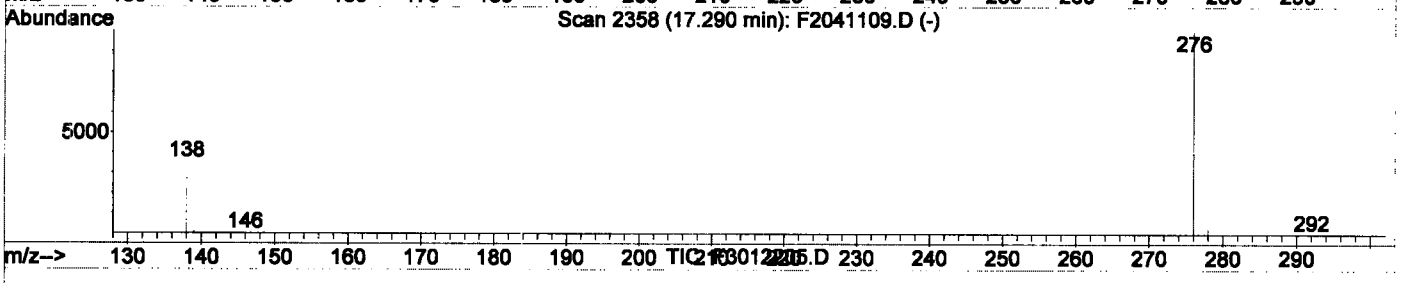
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012205.D Vial: 5
Acq On : 22 Jan 2013 11:14 am Operator: bsj
Sample : A13A243-08RE1@20 Inst : SV-GCMS6
Misc : 20x Soil 11.55g/2mL SIM-PAH(#37) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(37) Benzo(g,h,i)Perylene (T)

16.12min 574.44ng/ml

response 118858

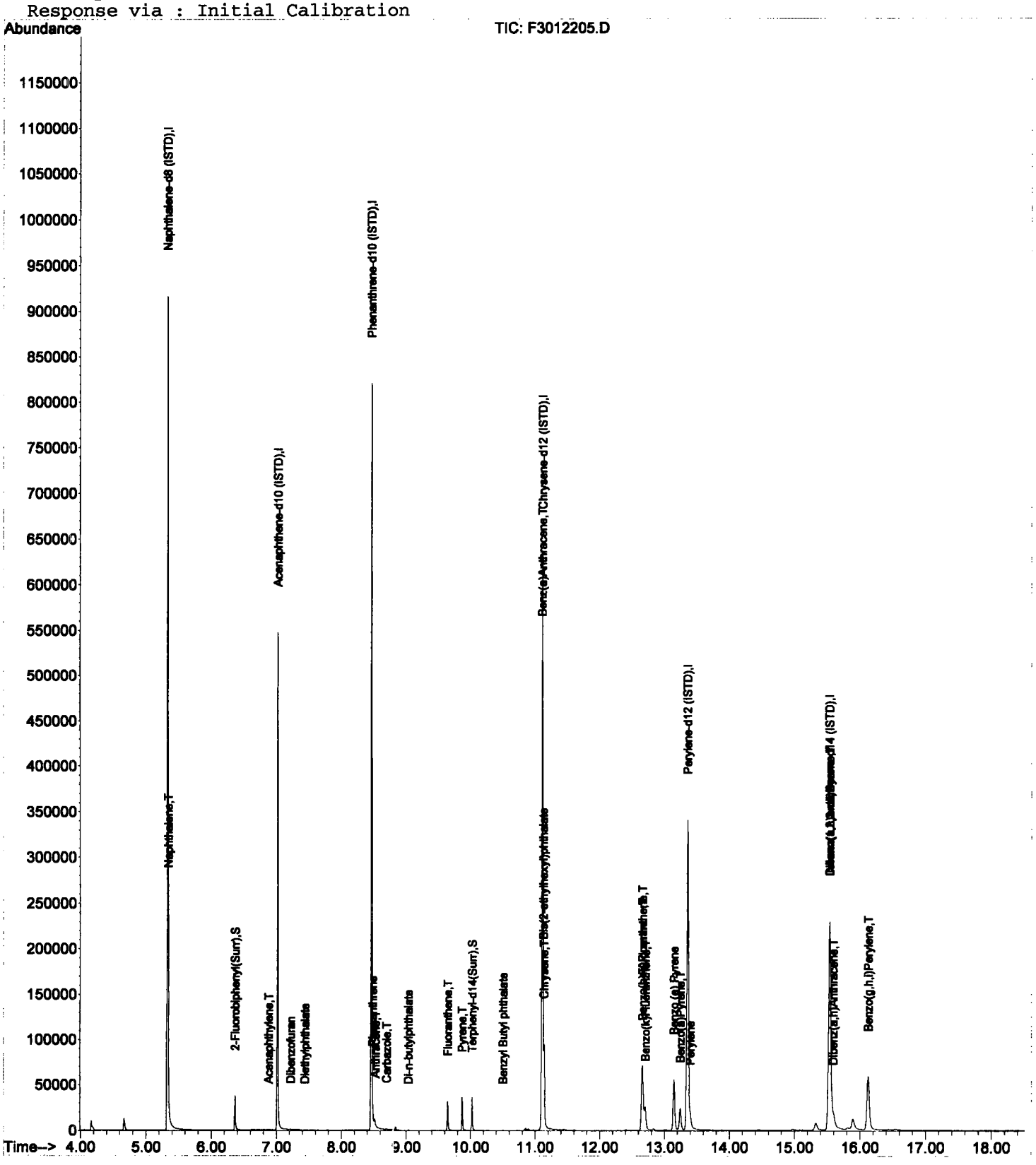
Ion	Exp%	Act%
276.00	100	100
138.00	32.80	30.83
0.00	0.00	0.00
0.00	0.00	0.00

F3012205.D F21227.M Tue Jan 22 11:53:56 2013 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012205.D Vial: 5
Acq On : 22 Jan 2013 11:14 am Operator: bsj
Sample : A13A243-08RE1@20 Inst : SV-GCMS6
Misc : 20x Soil 11.55g/2mL SIM-PAH(#37) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 11:52 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012206.D Vial: 6
Acq On : 22 Jan 2013 11:42 am Operator: bsj
Sample : A13A243-11RE1@10 Inst : SV-GCMS6
Misc : 10x Soil 10.75g/2mL SIM-PAH(#37) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:56 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	874413	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.01	164	425123	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.46	188	682139	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	571913	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.36	264	500092	2000.000	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.53	292	383990	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	67397	220.972	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	65925	285.327	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	701	1.480	ng/ml#	80
3) 2-Methylnaphthalene	6.00	142	242	0.859	ng/ml#	4
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.87	152	623	1.583	ng/ml#	67
9) Acenaphthene	7.04	153	309	1.239	ng/ml#	65
10) Dibenzofuran	7.22	168	309	0.876	ng/mL#	41
11) Diethylphthalate	7.44	149	574	2.026	ng/mL#	65
12) Fluorene	7.55	166	242	0.900	ng/ml	92
14) Phenanthrene	8.48	178	7033	19.541	ng/mL	98
15) Anthracene	8.53	178	1326	3.836	ng/ml	96
16) Carbazole	8.70	167	1194	4.234	ng/ml#	69
17) Di-n-butylphthalate	9.03	149	1279	2.966	ng/mL#	89
18) Fluoranthene	9.64	202	44241	130.698	ng/ml	99
19) Pyrene	9.86	202	51840	148.162	ng/ml	99
22) Benzyl Butyl phthalate	10.50	149	794	5.359	ng/mL	92
23) Benz(a)Anthracene	11.10	228	44110	155.545	ng/ml	98
24) Chrysene	11.14	228	134051	490.538	ng/ml	96
25) Bis(2-ethylhexyl)phthalate	11.12	149	1169	5.799	ng/mL	81
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	12.66	252	205862	837.558	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	63004	236.600	ng/ml	97
30) Benzo(b+k)Fluoranthene	12.66	252	275238	1059.694	ng/ml	98
31) Benzo (e) Pyrene	13.14	252	144603	579.907	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	65996	288.429	ng/ml	98
33) Perylene	13.40	252	33814	136.152	ng/mL	96
35) Indeno(1,2,3-cd)Pyrene	15.54	276	142385	673.054	ng/ml	99
36) Dibenz(a,h)Anthracene	15.59	278	26881	133.184	ng/ml	93
37) Benzo(g,h,i)Perylene	16.12	276	223706	1062.365	ng/ml	97

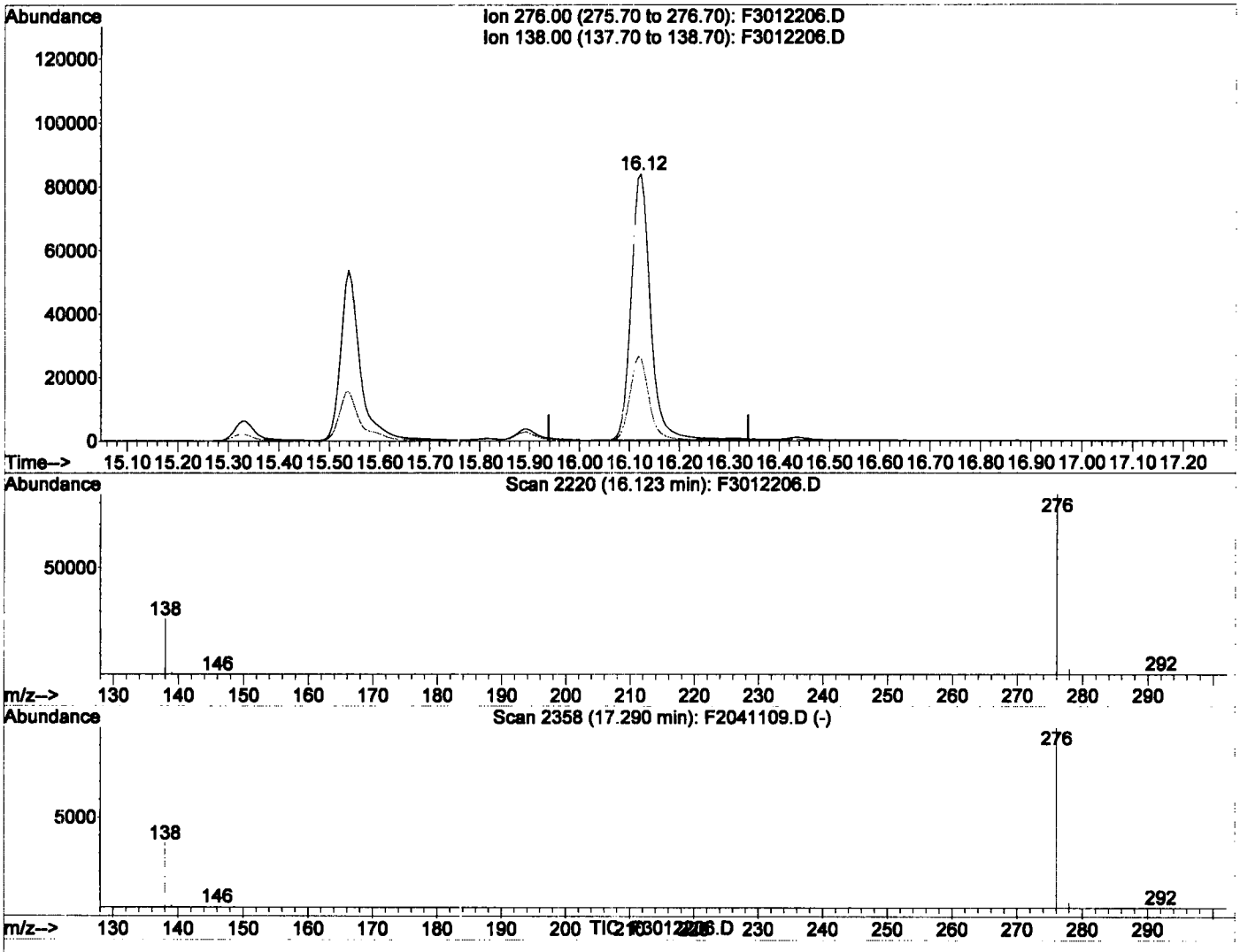
1-22-13 BST

(#) = qualifier out of range (m) = manual integration
F3012206.D F21227.M Tue Jan 22 12:56:12 2013 VOAGCMS1 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012206.D Vial: 6
Acq On : 22 Jan 2013 11:42 am Operator: bsj
Sample : A13A243-11RE1@10 Inst : SV-GCMS6
Misc : 10x Soil 10.75g/2mL SIM-PAH(#37) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:56 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.12min 1062.37ng/ml

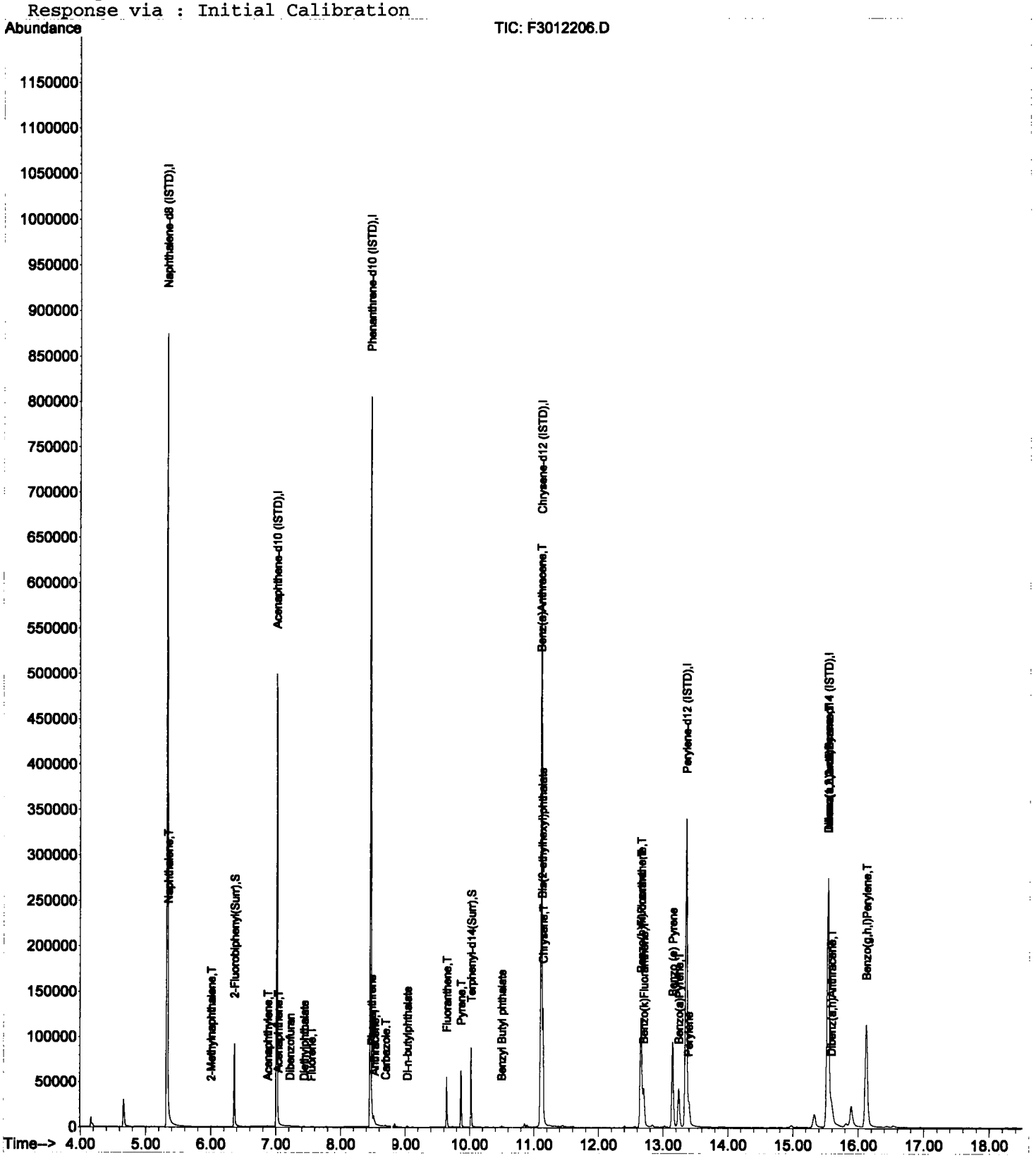
response 223706

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	31.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012206.D Vial: 6
Acq On : 22 Jan 2013 11:42 am Operator: bsj
Sample : A13A243-11RE1@10 Inst : SV-GCMS6
Misc : 10x Soil 10.75g/2mL SIM-PAH(#37) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:56 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012207.D Vial: 7
Acq On : 22 Jan 2013 12:09 pm Operator: bsj
Sample : A13A243-15RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 12.51g/2mL SIM-PAH(24,30,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:57 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Q-28
Q-24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	913707	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.01	164	429428	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.46	188	699140	2000.000	ng/ml	-0.01
20) Chrysene-d12 (ISTD)	11.11	240	583797	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	500939	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	375376	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	6025	19.556	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	5153	21.848	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	375	0.758	ng/ml#	80
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.87	152	440	1.107	ng/ml#	67
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	0.00	168	0	N.D.		
11) Diethylphthalate	0.00	149	0	N.D.		
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	8.48	178	2736	7.417	ng/mL	99
15) Anthracene	8.53	178	1001	2.825	ng/ml#	61
16) Carbazole	8.70	167	429	1.484	ng/ml#	69
17) Di-n-butylphthalate	9.03	149	282	0.638	ng/mL#	89
18) Fluoranthene	9.64	202	21075	60.746	ng/ml	100
19) Pyrene	9.86	202	26719	74.508	ng/ml	99
22) Benzyl Butyl phthalate	0.00	149	0	N.D.		
23) Benz(a)Anthracene	11.09	228	42557	147.014	ng/ml	93
24) Chrysene	11.14	228	252192	904.070	ng/ml	98
25) Bis(2-ethylhexyl)phthalate	11.13	149	976	4.743	ng/mL#	42
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	12.65	252	199022	808.360	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	58050	217.628	ng/ml Q28	94
30) Benzo(b+k)Fluoranthene	12.65	252	259698m	998.173	ng/ml Q24	
31) Benzo (e) Pyrene	13.15	252	123236	493.382	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	56725	247.492	ng/ml	98
33) Perylene	13.40	252	28537	114.710	ng/mL	95
35) Indeno(1,2,3-cd)Pyrene	15.54	276	95909	463.765	ng/ml	99
36) Dibenz(a,h)Anthracene	15.59	278	17387	88.122	ng/ml	89
37) Benzo(g,h,i)Perylene	16.12	276	130613	634.506	ng/ml	97

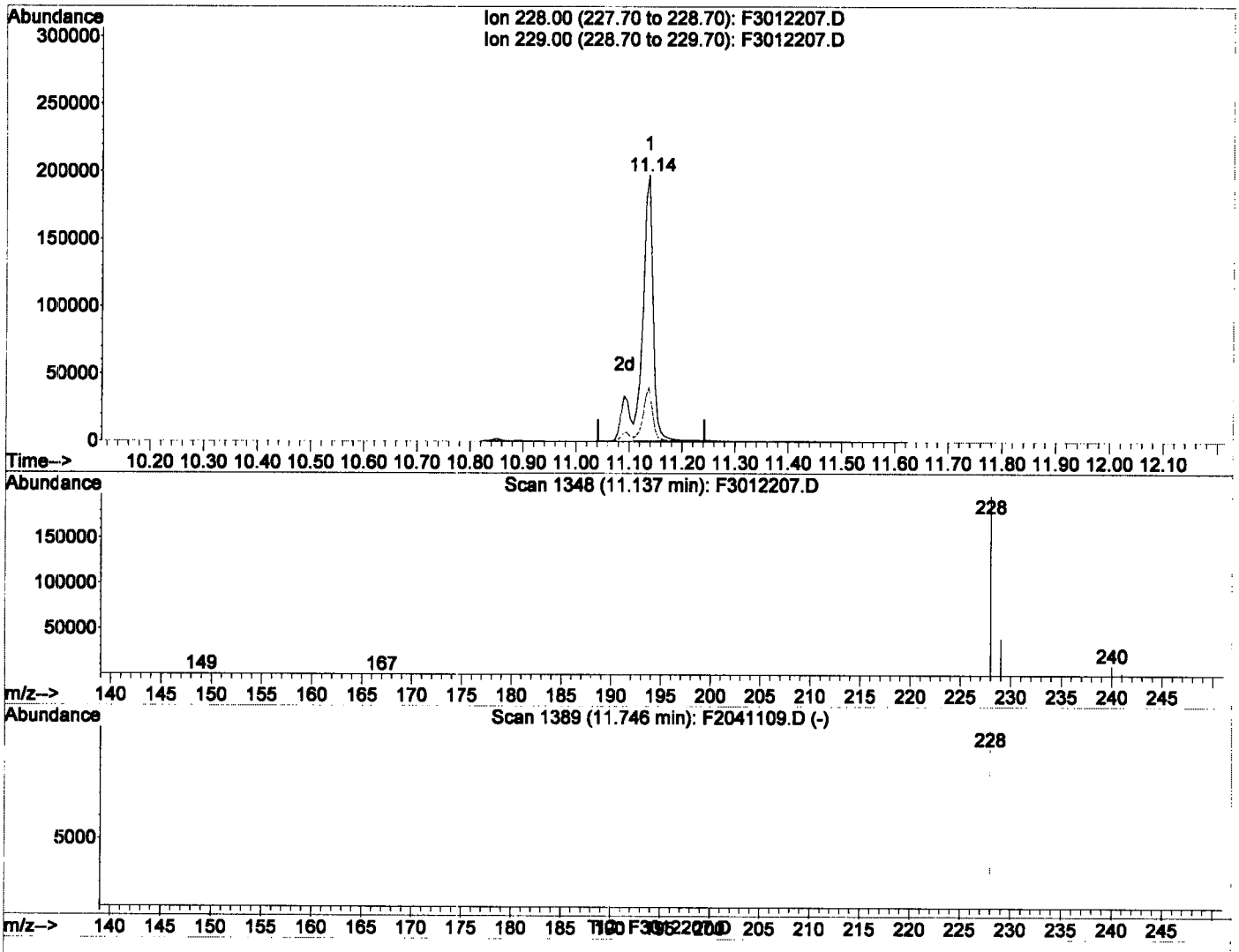
1-22-13
BSJ

(#) = qualifier out of range (m) = manual integration
F3012207.D F21227.M Tue Jan 22 12:57:31 2013 VOAGCMS1 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012207.D Vial: 7
Acq On : 22 Jan 2013 12:09 pm Operator: bsj
Sample : A13A243-15RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 12.51g/2mL SIM-PAH(24,30,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:56 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(24) Chrysene (T)

11.14min 904.07ng/ml

response 252192

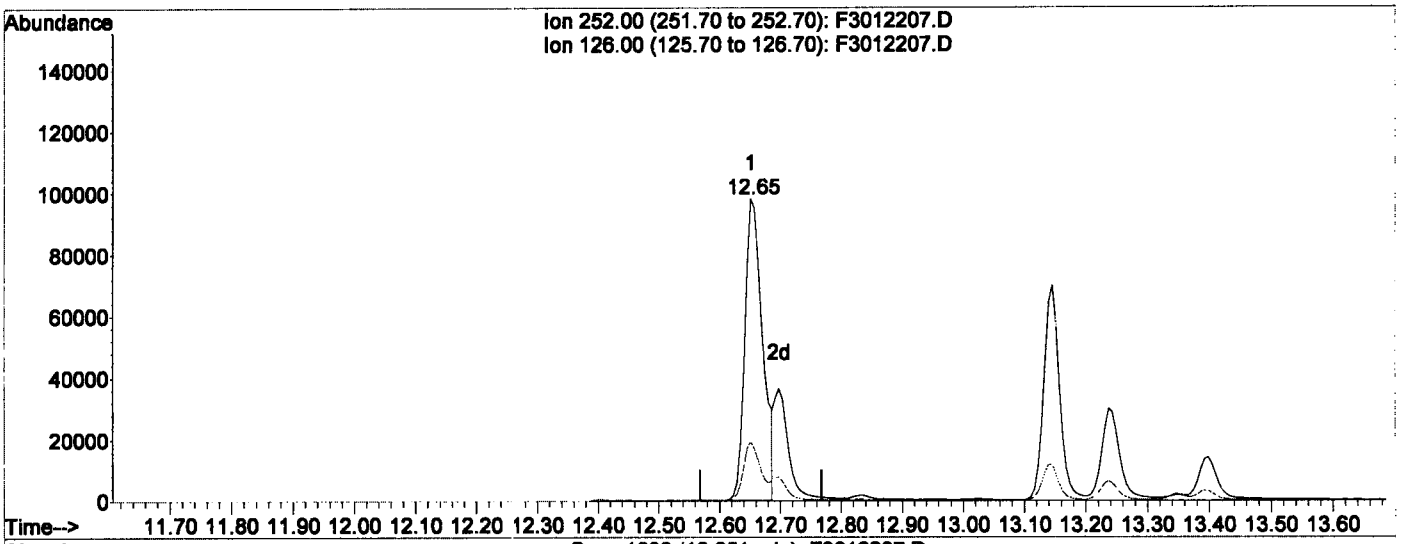
Ion	Exp%	Act%
228.00	100	100
229.00	19.10	19.92
0.00	0.00	0.00
0.00	0.00	0.00

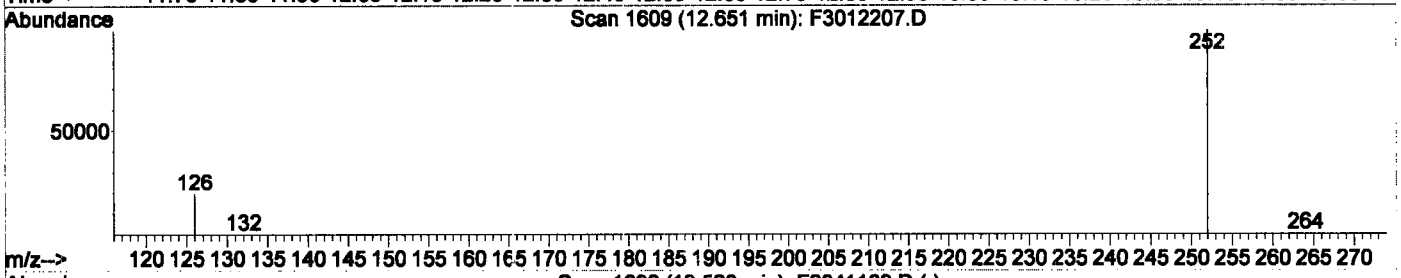
F3012207.D F21227.M Tue Jan 22 12:56:48 2013 VOAGCMS1

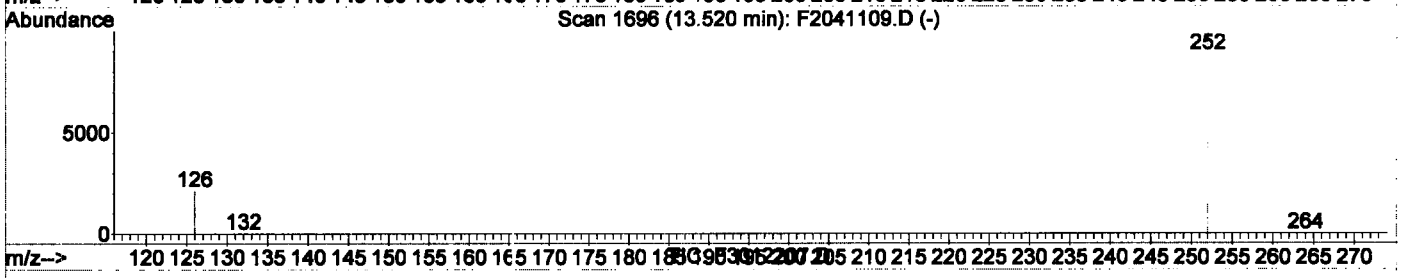
Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012207.D Vial: 7
Acq On : 22 Jan 2013 12:09 pm Operator: bsj
Sample : A13A243-15RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 12.51g/2mL SIM-PAH(24,30,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:56 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.65min 808.36ng/ml

response 199022

Q. 28

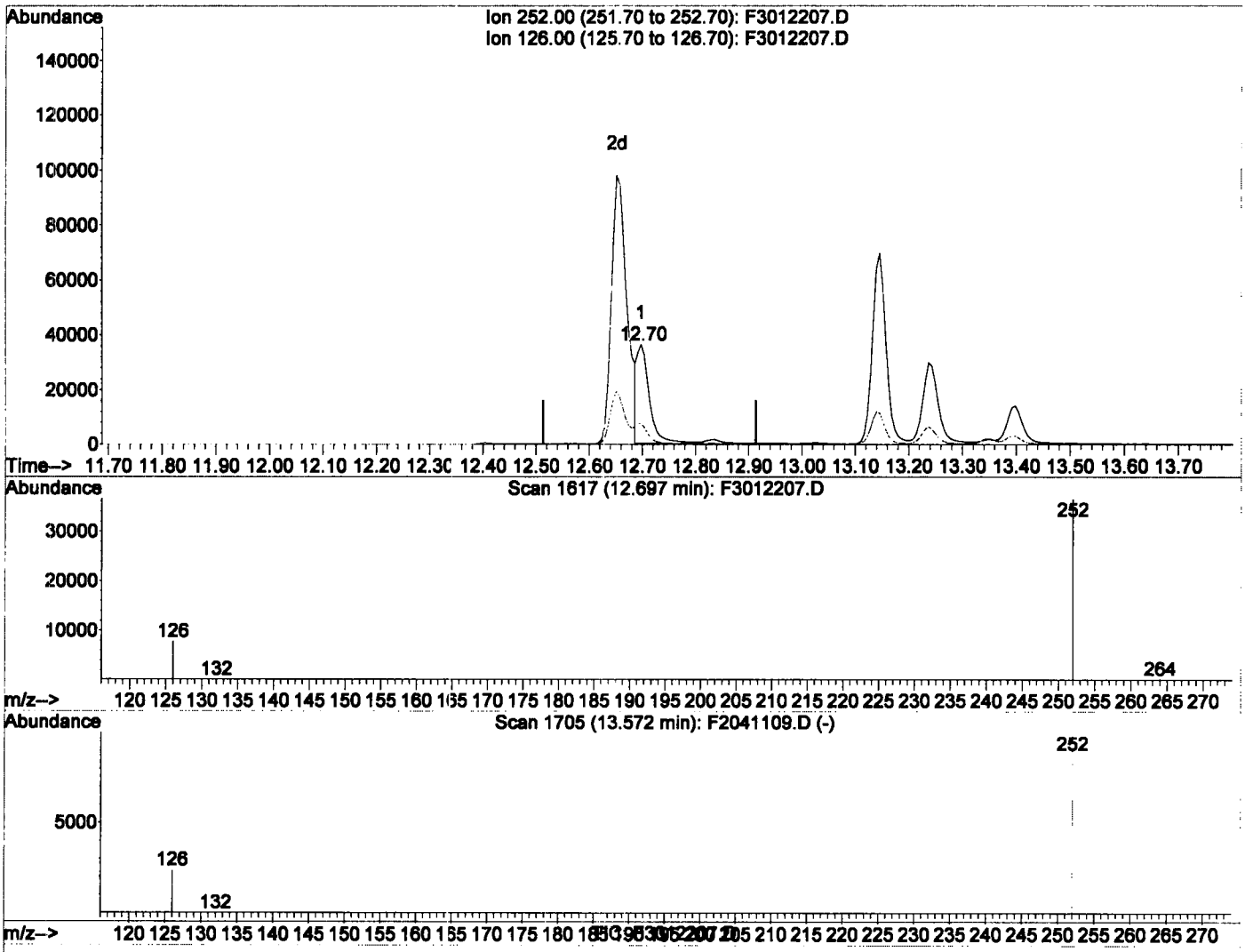
Ion	Exp%	Act%
252.00	100	100
126.00	19.30	18.69
0.00	0.00	0.00
0.00	0.00	0.00

F3012207.D F21227.M Tue Jan 22 12:56:56 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012207.D Vial: 7
Acq On : 22 Jan 2013 12:09 pm Operator: bsj
Sample : A13A243-15RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 12.51g/2mL SIM-PAH(24,30,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:56 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(29) Benzo(k)Fluoranthene (T)

12.70min 217.63ng/ml

response 58050

Q-28

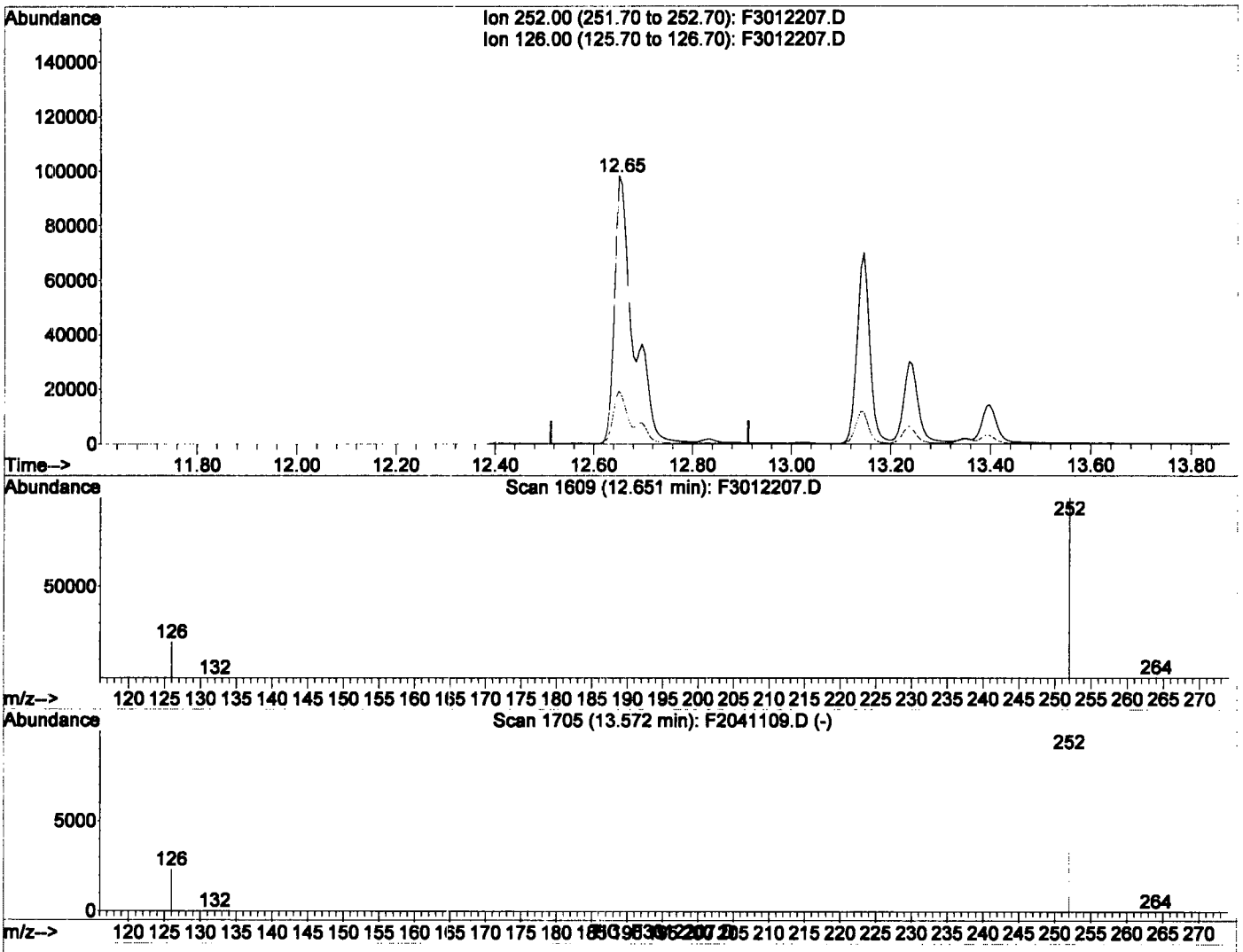
Ion	Exp%	Act%
252.00	100	100
126.00	20.50	23.23
0.00	0.00	0.00
0.00	0.00	0.00

F3012207.D F21227.M Tue Jan 22 12:57:00 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012207.D Vial: 7
Acq On : 22 Jan 2013 12:09 pm Operator: bsj
Sample : A13A243-15RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 12.51g/2mL SIM-PAH(24,30,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:57 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(30) Benzo(b+k)Fluoranthene (T)

12.65min 998.17ng/ml m

response 259698

Ion	Exp%	Act%
252.00	100	100
126.00	20.50	19.81
0.00	0.00	0.00
0.00	0.00	0.00

Q-26
1-22-13 BSJ

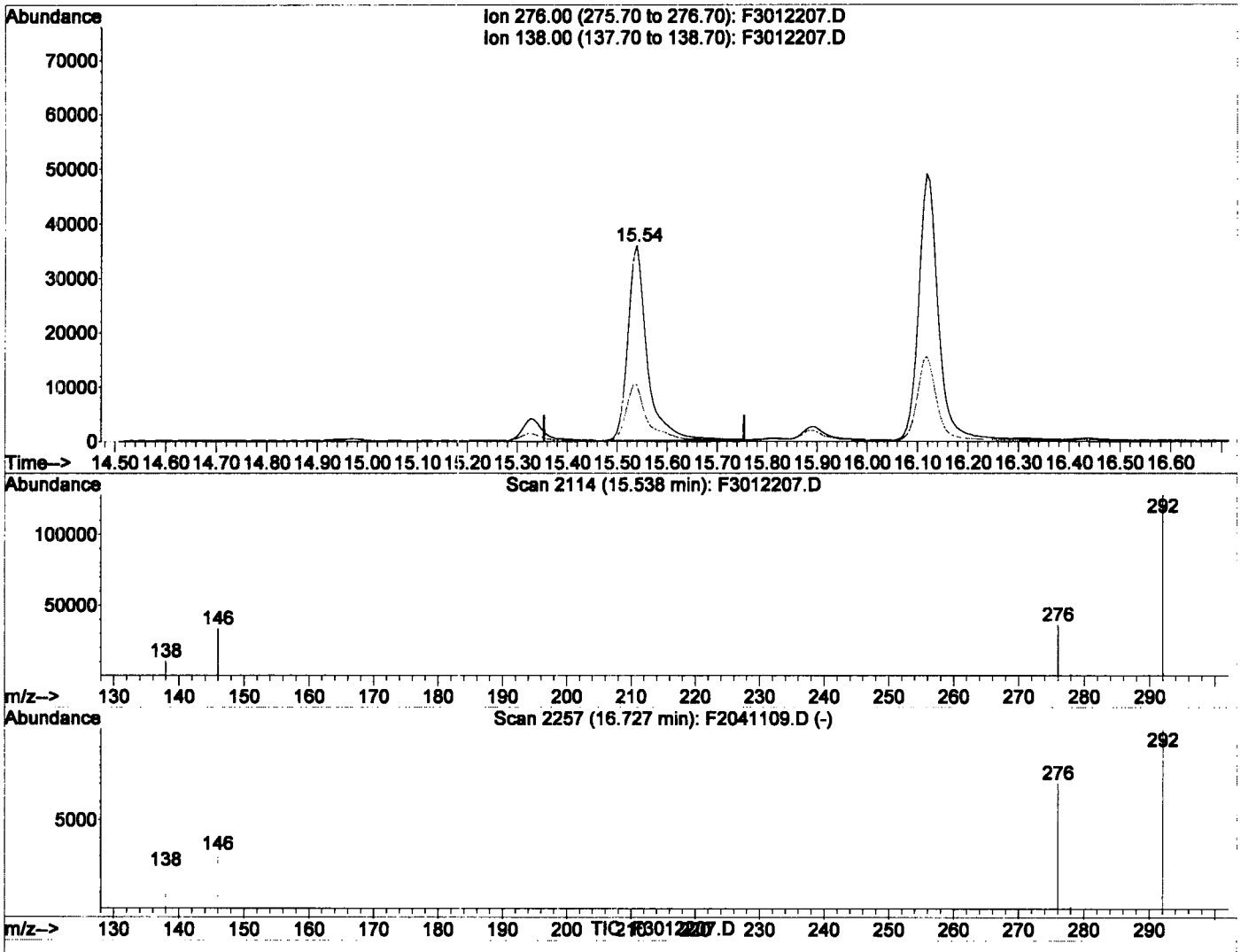
1/23/13 MK

F3012207.D F21227.M Tue Jan 22 12:57:07 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012207.D Vial: 7
Acq On : 22 Jan 2013 12:09 pm Operator: bsj
Sample : A13A243-15RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 12.51g/2mL SIM-PAH(24,30,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:57 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.54min 463.77ng/ml

response 95909

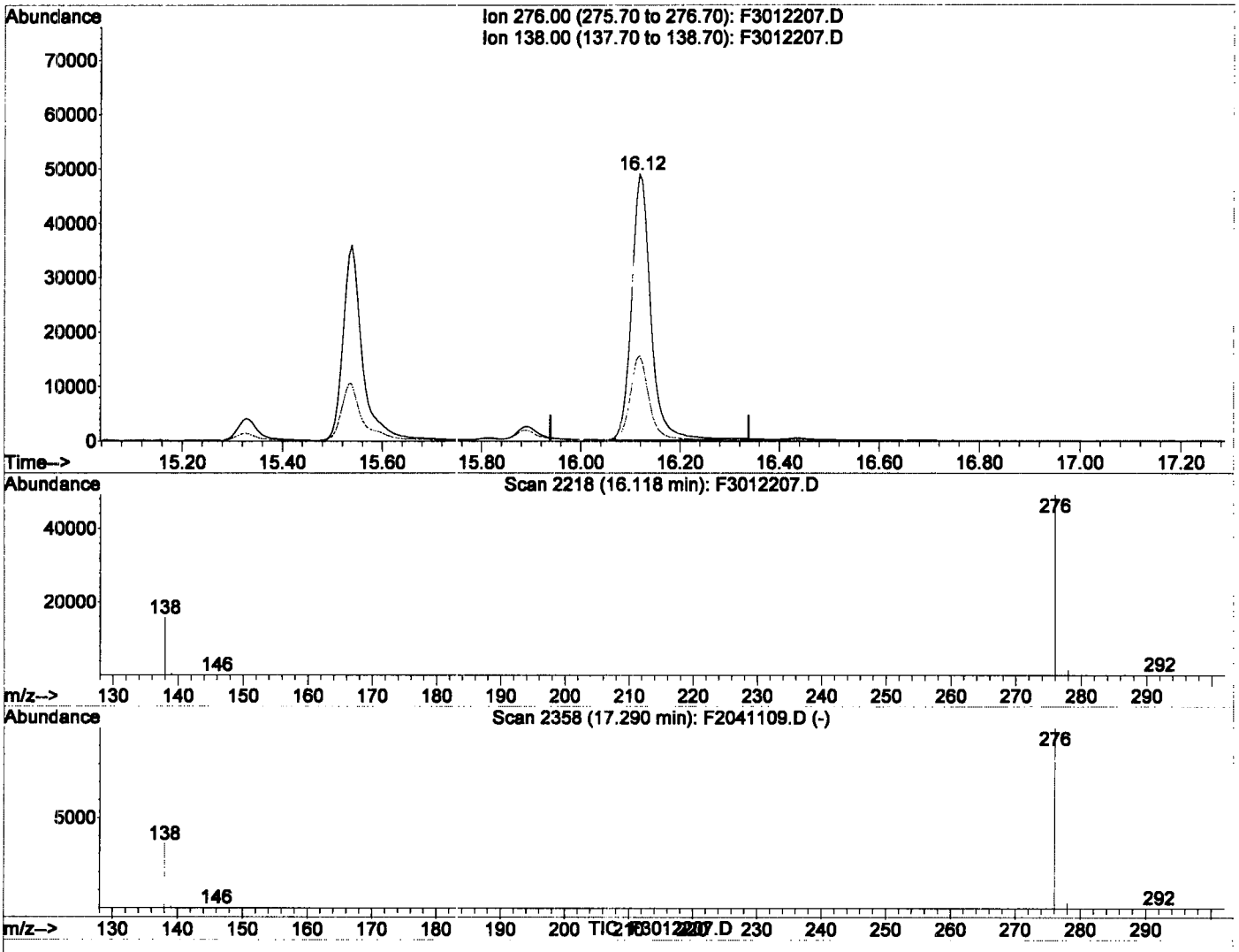
Ion	Exp%	Act%
276.00	100	100
138.00	31.80	31.28
0.00	0.00	0.00
0.00	0.00	0.00

F3012207.D F21227.M Tue Jan 22 12:57:15 2013 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012207.D Vial: 7
Acq On : 22 Jan 2013 12:09 pm Operator: bsj
Sample : A13A243-15RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 12.51g/2mL SIM-PAH(24,30,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:57 2013 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.12min 634.51ng/ml

response 130613

Ion	Exp%	Act%
276.00	100	100
138.00	32.80	31.31
0.00	0.00	0.00
0.00	0.00	0.00

F3012207.D F21227.M Tue Jan 22 12:57:24 2013 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012207.D Vial: 7
Acq On : 22 Jan 2013 12:09 pm Operator: bsj
Sample : A13A243-15RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 12.51g/2mL SIM-PAH(24,30,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:56 2013 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	913707	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.01	164	429428	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.46	188	699140	2000.000	ng/ml	-0.01
20) Chrysene-d12 (ISTD)	11.11	240	583797	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.35	264	500939	2000.000	ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.53	292	375376	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	6025	19.556	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.02	244	5153	21.848	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	375	0.758	ng/ml#	80
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.87	152	440	1.107	ng/ml#	67
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	0.00	168	0	N.D.		
11) Diethylphthalate	0.00	149	0	N.D.		
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	8.48	178	2736	7.417	ng/mL	99
15) Anthracene	8.53	178	1001	2.825	ng/ml#	61
16) Carbazole	8.70	167	429	1.484	ng/ml#	69
17) Di-n-butylphthalate	9.03	149	282	0.638	ng/mL#	89
18) Fluoranthene	9.64	202	21075	60.746	ng/ml	100
19) Pyrene	9.86	202	26719	74.508	ng/ml	99
22) Benzyl Butyl phthalate	0.00	149	0	N.D.		
23) Benz(a)Anthracene	11.09	228	42557	147.014	ng/ml	93
24) Chrysene	11.14	228	252192	904.070	ng/ml	98
25) Bis(2-ethylhexyl)phthalate	11.13	149	976	4.743	ng/mL#	42
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	12.65	252	199022	808.360	ng/ml	99
29) Benzo(k)Fluoranthene	12.70	252	58050	217.628	ng/ml	94
30) Benzo(b+k)Fluoranthene	12.65	252	262273	1008.070	ng/ml	98
31) Benzo (e) Pyrene	13.15	252	123236	493.382	ng/mL	98
32) Benzo(a)Pyrene	13.24	252	56725	247.492	ng/ml	98
33) Perylene	13.40	252	28537	114.710	ng/mL	95
35) Indeno(1,2,3-cd)Pyrene	15.54	276	95909	463.765	ng/ml	99
36) Dibenz(a,h)Anthracene	15.59	278	17387	88.122	ng/ml	89
37) Benzo(g,h,i)Perylene	16.12	276	130613	634.506	ng/ml	97

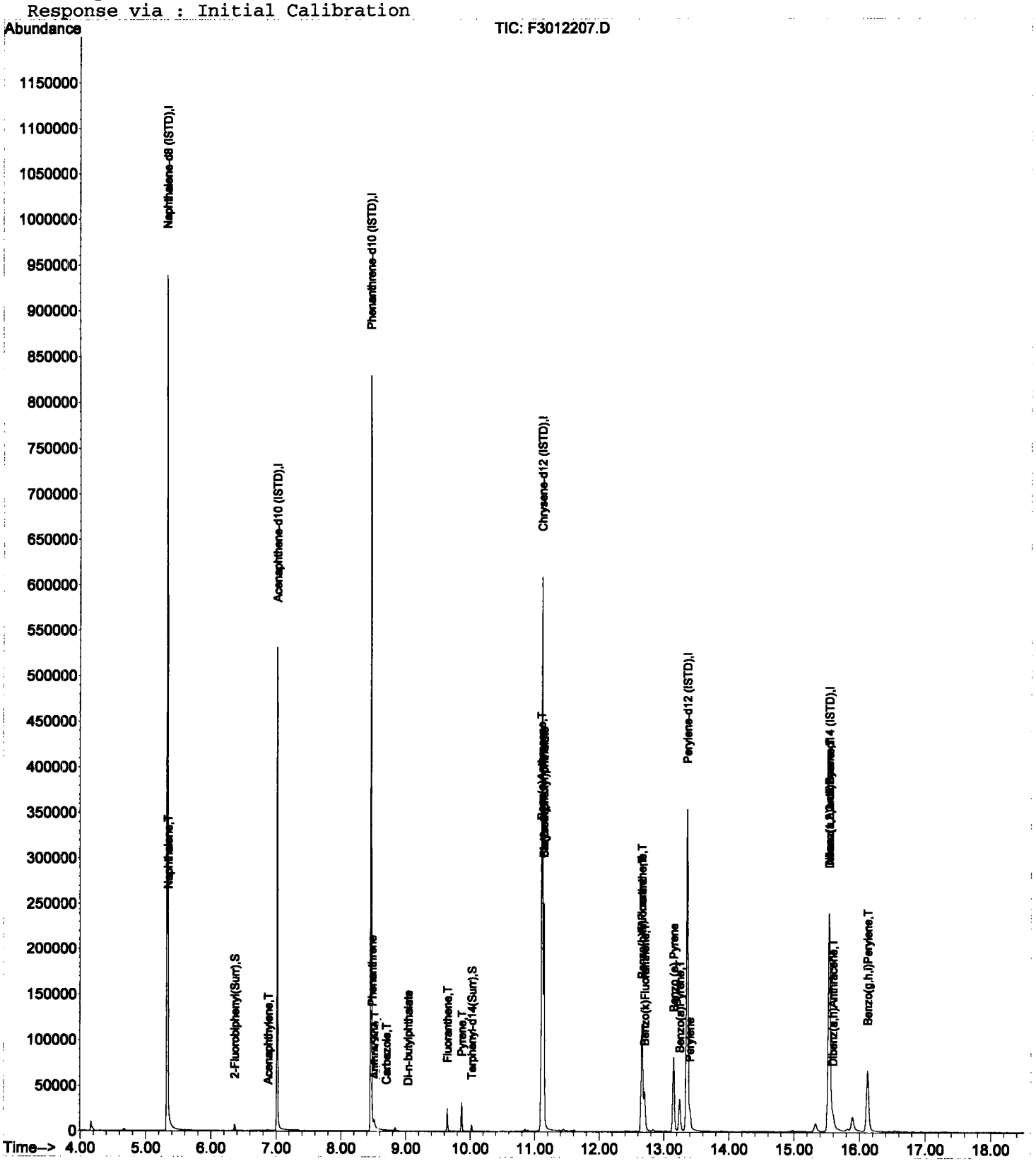
MJ
1-22-13
3SS

(#) = qualifier out of range (m) = manual integration
F3012207.D F21227.M Tue Jan 22 12:56:14 2013 VOAGCMS1 Page 1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2013-01\3A22002\F3012207.D Vial: 7
Acq On : 22 Jan 2013 12:09 pm Operator: bsj
Sample : A13A243-15RE1@100 Inst : SV-GCMS6
Misc : 100x Soil 12.51g/2mL SIM-PAH(24,30,3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 22 12:56 2013 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Benchsheet & Analysis Sequence Data

Batch 1301478

Sequence 3A23005 (A13A243-01RE1,02RE1,06RE1,09RE1,14RE1) SV-GCMS4

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301478 (Soil)

Prep Method: EPA 3546

MW #	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH
	1301478-BLK1		QC	01/22/13 16:04	12	2				100			
	1301478-BS1		QC	01/22/13 16:04	10	2	A13A260		100	100			
	A13A243-01RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	11.58	2				100	AQ-SSA4-24-0-1	Re-extract due to MB contamin	
	1301478-DUP1		QC	01/22/13 16:04	11.76	2		A13A243-01RE1		100			
	A13A243-02RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	10.62	2				100	AQ-SSA4-24-1-2	Re-extract due to MB contamin	
	A13A243-06RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	10.29	2				100	AQ-SSA4-25-1-2	Re-extract due to MB contamin	
	A13A243-09RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	11.29	2				100	AQ-SSA4-26-1-2	Re-extract due to MB contamin	
	A13A243-14RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	11.12	2				100	AQ-SSA4-27-0-1	Re-extract due to MB contamin	
	1301478-MS1		QC	01/22/13 16:04	10.26	2	A13A260	A13A243-14RE1	100	100			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A09L114	12/31/20	Extractions Balance
A12F235	01/01/18	Glass Wool
A12K196	05/27/13	Sodium Sulfate Lot #BF1012
A12L236	06/18/13	DCM CHEM PROD. #12110114

Analyte Spike(s)

Std ID	Exp. Date	Description
A13A260	04/15/13	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A12L188	03/17/13	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion time and temperature achieved?
Initial:

Prepared By: Date

BSJ 1-23-13
Reviewed By: Date

Printed: 1/23/2013 2:55:05PM

2/13/13 A13A243 Anchor Former Reynolds Metals Reduction Plant RI/FS.sed Apex Laboratories Data Package Page 463 of 716

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301478 (Soil)

Prep Method: EPA 3546

MW #	Lab Number		Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH
1	1301478-BLK1		QC	01/22/13 16:04	10 12.00	2				100			
2	1301478-BS1		QC	01/22/13 16:04	10	2	A13A260		100	100			
3	A13A243-01RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	10 11.58	2				100	AQ-SSA4-24-0-1	Re-extract due to MB contamin	
4	1301478-DUP1		QC	01/22/13 16:04	10 11.76	2		A13A243-01RE1		100			
5	A13A243-02RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	10 11.62	2				100	AQ-SSA4-24-1-2	Re-extract due to MB contamin	
6	A13A243-06RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	10 10.29	2				100	AQ-SSA4-25-1-2	Re-extract due to MB contamin	
7	A13A243-09RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	10 11.29	2				100	AQ-SSA4-26-1-2	Re-extract due to MB contamin	
8	A13A243-14RE1	A	8270 SIM PAH (Low I	01/22/13 16:04	10 11.12	2				100	AQ-SSA4-27-0-1	Re-extract due to MB contamin	
9	1301478-MS1		QC	01/22/13 16:04	10 10.26	2	A13A260	A13A243-14RE1	100	100			

Sand Rock

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A09L114	12/31/20	Extractions Balance
A12F235	01/01/18	Glass Wool
A12K196	05/27/13	Sodium Sulfate Lot #BF1012
A12L236	06/18/13	DCM CHEM PROD. #12110114

Analyte Spike(s)

Std ID	Exp. Date	Description
A13A260	04/15/13	8270D PAH+/Phenols (JSCS) Spike @ 80 PPM

Surrogate(s)

Std ID	Exp. Date	Description
A12L188	03/17/13	PAH Soil and Water Surr. (50ppm)

Method 3546 digestion, time and temperature achieved? Yes

Initial:

Witness: 1/22/13

Prepared By: 1/22/13 Date

Reviewed By: 1-22-13 Date

Printed: 1/22/2013 4:05:12PM

2/13/13 A13A243 Anchor Former Reynolds Metals Reduction Plant RI/FS-sed Apex Laboratories Data Package Page 464 of 716

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	3A23005	Instrument:	SV-GCMS4
Date:	01/23/13 00:00	Calibration:	A3A1601

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	3A23005-TUN1	Soil	QC	QC			A12L094	A13A099
2	3A23005-CCV1	Soil	QC	QC			A12L094	A13A203
3	3A23005-CCB1	Soil	QC	QC			A12L094	
4	1301478-BLK1	Soil	QC	QC		1301478	A12L094	
5	1301478-BS1	Soil	QC	QC		1301478	A12L094	
6	A13A243-01RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301478	A12L094	
7	1301478-DUP1	Soil	QC	QC		1301478	A12L094	
8	A13A243-02RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301478	A12L094	
9	A13A243-06RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301478	A12L094	
10	A13A243-09RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301478	A12L094	
11	A13A243-14RE1	Soil	8270 SIM PAH (Low Level	Anchor QEA, LLC Tigard	01/22/13	1301478	A12L094	
12	1301478-MS1	Soil	QC	QC		1301478	A12L094	
13	3A23005-IBL1	Soil	QC	QC			A12L094	

Data Entered By: BST 1-23-13

Data Reviewed By: [illegible] 1/23/13

Comments:

SEQUENCE REVIEW SHEET

SEQUENCE: 3A23005 Seq. Date: 1/23/2013

SEQUENCE LOG

Calibration ID: A3A1601

SampleID	Analysis	Matrix	Batch	Analyzed
3A23005-TUN1	8270 SIM PAH (Low Level)	Soil	3A23005	1/23/2013 9:22:00AM
3A23005-CCV1	8270 SIM PAH (Low Level)	Soil	3A23005	1/23/2013 9:46:00AM
3A23005-CCB1	8270 SIM PAH (Low Level)	Soil	3A23005	1/23/2013 10:12:00AM
1301478-BLK1	8270 SIM PAH (Low Level)	Soil	1301478	1/23/2013 10:38:00AM
1301478-BS1	8270 SIM PAH (Low Level)	Soil	1301478	1/23/2013 11:05:00AM
A13A243-01RE1	8270 SIM PAH (Low Level)	Soil	1301478	1/23/2013 11:31:00AM
1301478-DUP1	8270 SIM PAH (Low Level)	Soil	1301478	1/23/2013 11:57:00AM
A13A243-02RE1	8270 SIM PAH (Low Level)	Soil	1301478	1/23/2013 12:23:00PM
A13A243-06RE1	8270 SIM PAH (Low Level)	Soil	1301478	1/23/2013 12:49:00PM
A13A243-09RE1	8270 SIM PAH (Low Level)	Soil	1301478	1/23/2013 1:15:00PM
A13A243-14RE1	8270 SIM PAH (Low Level)	Soil	1301478	1/23/2013 1:41:00PM
1301478-MS1	8270 SIM PAH (Low Level)	Soil	1301478	1/23/2013 2:08:00PM

MS TUNE SAMPLES

0 Total Failures

CONTINUING CALIBRATION VERIFICATION

0 Total Failures in 1 CCVs

ISTD AREAS

3A23005-CCV1

8270 SIM PAH (Low L	RT	RESP	% Rec (vs. Curve)	Rpt	Qualifier
Naphthalene-d8 (ISTD)	5.3	929742	91		
Acenaphthene-d10 (ISTD)	6.98	413147	93		
Phenanthrene-d10 (ISTD)	8.43	543406	89		
Chrysene-d12 (ISTD)	11.08	348476	78		
Perylene-d12 (ISTD)	13.33	298705	77		
Dibenz(a,h)anthracene-d14 (IST	15.49	204301	72		

EXTRACTION BLANKS

0 Total Failures in 1 Blank(s)

LAB CONTROL SPIKES

1301478-BS1 8270 SIM PAH (Low Level)

	I Result	F Result	Conc	%Rec	LCL	UCL	RPD	RPDL	SpikeID	Pass?	Qualifier
Carbazole	6,580.95	1320	800	165	40	125	----	----	A13A260	FAIL	NR

1 Failure(s)

1 Failures in 1 LCS/LCSDs

SEQUENCE REVIEW SHEET

SEQUENCE: 3A23005 Seq. Date: 1/23/2013

DUPLICATES

No Duplicate Failures

MATRIX SPIKES

1301478-MS1 **8270 SIM PAH (Low** (Source: A13A243-14RE1)

	Result	Spike Amt	Source Res	%Rec	LCL	UCL	P/F	Qualifier
Carbazole	0.00	933	2.92	-0.3	40	125	**FAIL**	NR

SURROGATE RECOVERY

No Surrogate Failures

MISSED HOLD TIMES

No Hold Times Missed

SEQUENCE REVIEW SHEET

SEQUENCE: 3A23005 Seq. Date: 1/23/2013

ANALYTE QUALIFIERS

A13A243-01RE1

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES

1 Reportable Qualifier(s)

1301478-DUP1

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES

1 Reportable Qualifier(s)

A13A243-06RE1

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES

1 Reportable Qualifier(s)

A13A243-09RE1

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES

1 Reportable Qualifier(s)

A13A243-14RE1

Analyte	Qualifier	Text	Rpt?
Benzo(b+k)fluoranthene(s)	Q-26		YES

1 Reportable Qualifier(s)

SAMPLE QUALIFIERS

Analyte	Qualifier	CustomValue

Sequence Name: C:\HPCHEM\1\SEQUENCE\3A23005.S
Comment: EPA 8270 SIM PAH
Operator: bsj
Data Path: C:\HPCHEM\1\DATA\2013-01\3A23005\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	1	D3012301	DFTPP8270	3A23005-TUN1
2	Sample	2	D3012302	DAQ21227	3A23005-CCV1
3	Sample	3	D3012303	DAQ21227	3A23005-CCB1
4	Sample	4	D3012304	DAQ21227	1301478-BLK1
5	Sample	5	D3012305	DAQ21227	1301478-BS1
6	Sample	6	D3012306	DAQ21227	A13A243-01RE1
7	Sample	7	D3012307	DAQ21227	1301478-DUP1
8	Sample	8	D3012308	DAQ21227	A13A243-02RE1
9	Sample	9	D3012309	DAQ21227	A13A243-06RE1
10	Sample	10	D3012310	DAQ21227	A13A243-09RE1
11	Sample	11	D3012311	DAQ21227	A13A243-14RE1
12	Sample	12	D3012312	DAQ21227	1301478-MS1
13	Sample	3	D3012313	DAQ21227	3A23005-IBL1

Injection Log

Directory: C:\HPCHEM\1\DATA\2013-01\3A23005

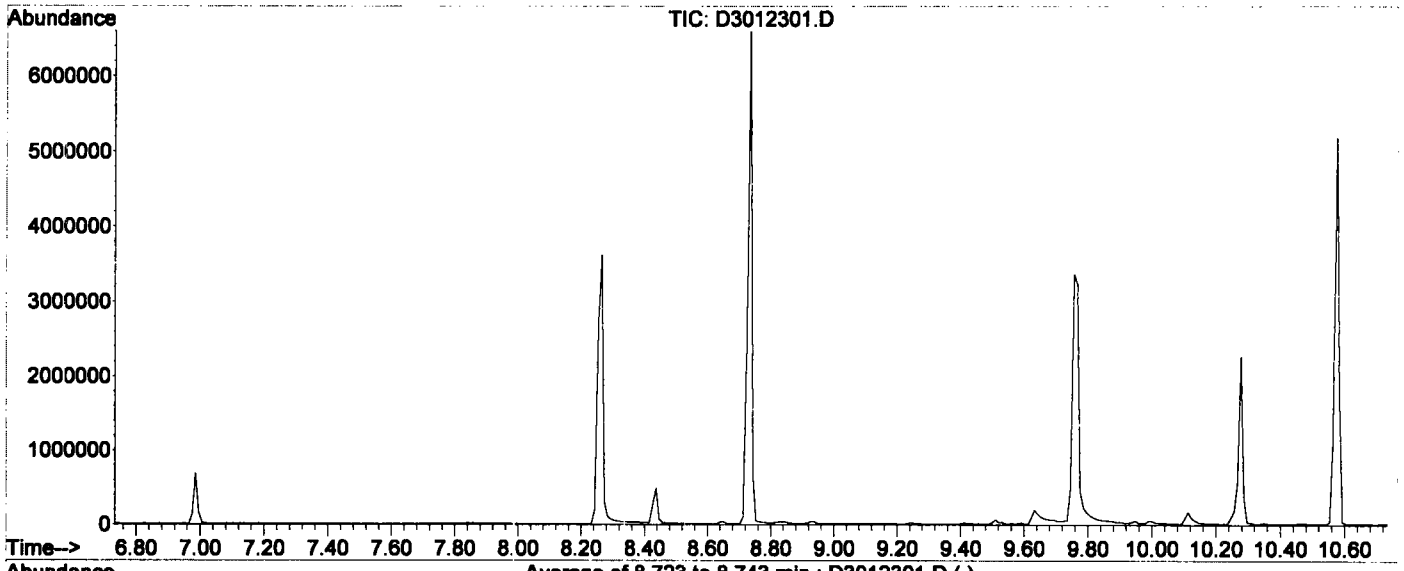
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	D3012301.d	1.	3A23005-TUN1	1x A13A099@50ng ...	23 Jan 2013 09:22
2	2	D3012302.d	1.	3A23005-CCV1	1x A13A203@1000p...	23 Jan 2013 09:46
3	3	D3012303.d	1.	3A23005-CCB1	1x DCM+ISTD	23 Jan 2013 10:12
4	4	D3012304.d	1.	1301478-BLK1	1x Soil 12.00g...	23 Jan 2013 10:38
5	5	D3012305.d	1.	1301478-BS1	1x Soil 10.00g...	23 Jan 2013 11:05
6	6	D3012306.d	1.	A13A243-01RE1	1x Soil 11.58g...	23 Jan 2013 11:31
7	7	D3012307.d	1.	1301478-DUP1	1x Soil 11.76g...	23 Jan 2013 11:57
8	8	D3012308.d	1.	A13A243-02RE1	1x Soil 10.62g...	23 Jan 2013 12:23
9	9	D3012309.d	1.	A13A243-06RE1	1x Soil 10.29g...	23 Jan 2013 12:49
10	10	D3012310.d	1.	A13A243-09RE1	1x Soil 11.29g...	23 Jan 2013 13:15
11	11	D3012311.d	1.	A13A243-14RE1	1x Soil 11.12g...	23 Jan 2013 13:41
12	12	D3012312.d	1.	1301478-MS1	1x Soil 10.26g...	23 Jan 2013 14:08
13	3	D3012313.d	1.	3A23005-IBL1	1x DCM+ISTD	23 Jan 2013 14:34

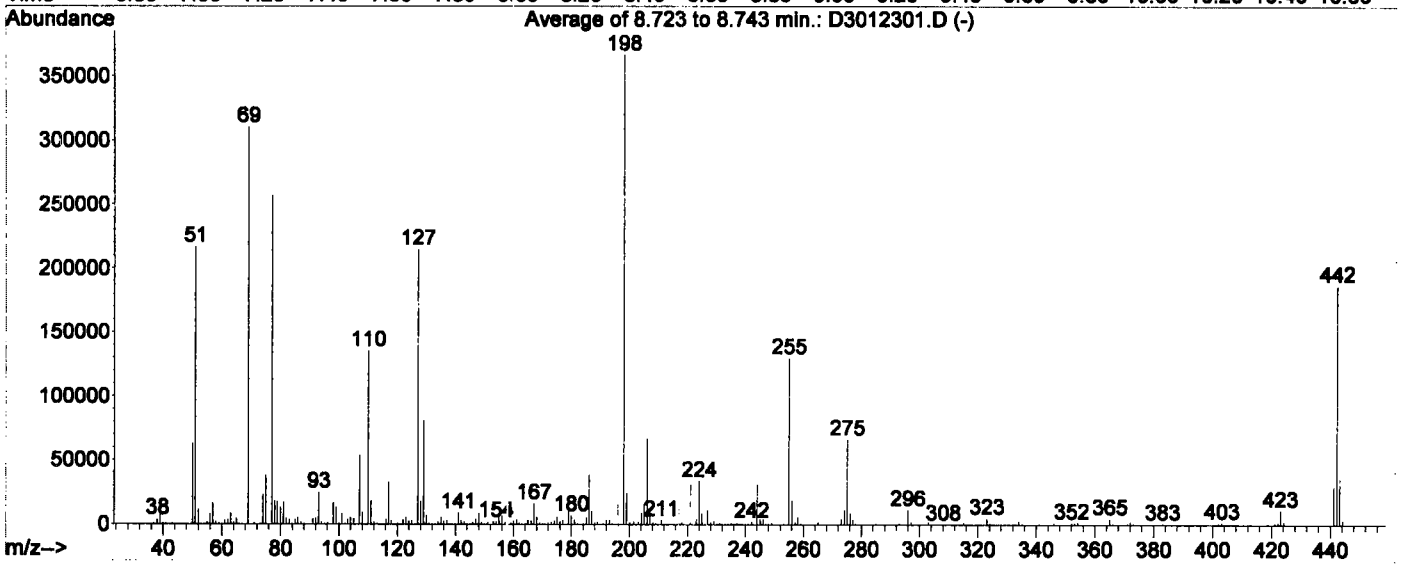
✓

1-23-13

BSJ

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012301.D Vial: 1
Acq On : 23 Jan 2013 9:22 Operator: bsj
Sample : 3A23005-TUN1 Inst : SV-GCMS4
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH





AutoFind: Scans 420, 421, 422; Background Corrected with Scan 417

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	59.1	216655	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	84.6	310455	PASS
70	69	0.00	2	0.0	131	PASS
127	198	10	80	58.5	214649	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	366813	PASS
199	198	5	9	6.7	24535	PASS
275	198	10	60	18.1	66339	PASS
365	198	1	100	1.3	4638	PASS
441	442	0.01	24	15.8	29542	PASS
442	198	50	200	51.0	186960	PASS
443	442	15	24	19.2	35940	PASS

1-23-13
BSJ

D3012301.D DFTP8270.M Wed Jan 23 09:34:25 2013

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012301.D Vial: 1
Acq On : 23 Jan 2013 9:22 Operator: bsj
Sample : 3A23005-TUN1 Inst : SV-GCMS4
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 9:52 2013 Quant Results File: DFTP8270.RES

Quant Method : C:\HPCHEM\1\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Dec 26 17:29:41 2012
Response via : Initial Calibration
DataAcq Meth : DFTP8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.30	136	280557	2000.00	ng/ml	-0.04
2) Acenaphthene-d10	6.98	162	117137	2000.00	ng/ml	-0.05
3) Phenanthrene-d10	8.44	188	167126	2000.00	ng/ml	-0.04
10) Chrysene-d12	11.08	240	122052	2000.00	ng/ml	-0.06
11) Perylene-d12	13.34	264	106920	2000.00	ng/ml	-0.09
12) Dibenz(ah)anthracene-d14	15.51	292	84488	2000.00	ng/mL	-0.38
Target Compounds						Qvalue
4) Pentachlorophenol (PCP)	8.26	266	468237	96.02	ng/mL	93
5) DFTPP	8.73	198	678952	56.77	ng/mL	97
6) Benzidine	9.77	184	1695354	72.63	ng/mL	99
7) DDE	10.28	235	344253	16.00	ng/mL	87
8) DDT	10.57	TIC	4889396	32346.40	ng/mL#	1
9) 4,4-DDD	11.40	TIC	1915	No Calib	#	

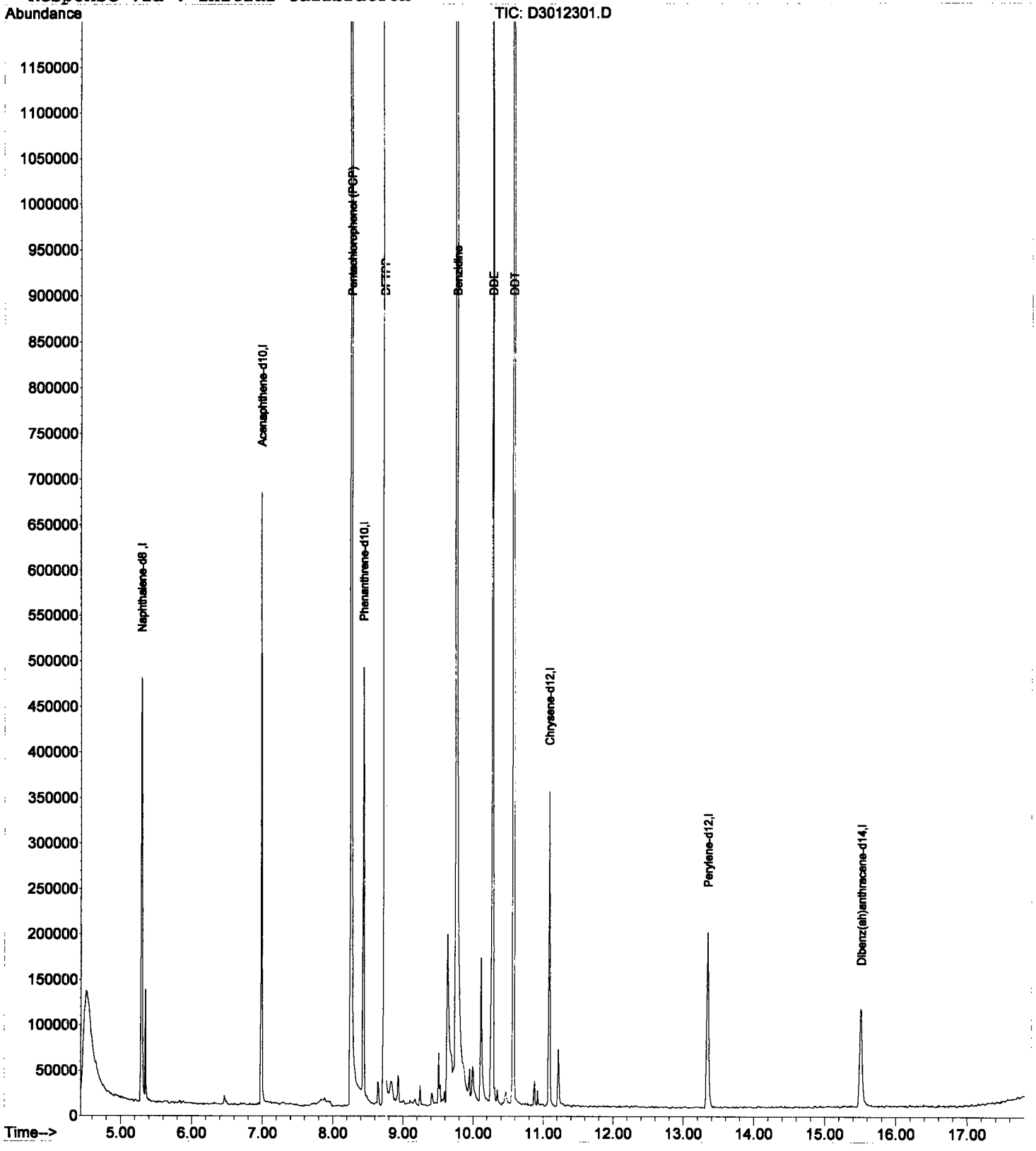
1-23-13 BSS

(#) = qualifier out of range (m) = manual integration
D3012301.D DFTP8270.M Wed Jan 23 09:52:29 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012301.D Vial: 1
Acq On : 23 Jan 2013 9:22 Operator: bsj
Sample : 3A23005-TUN1 Inst : SV-GCMS4
Misc : 1x A13A099@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 9:52 2013 Quant Results File: DFTP8270.RES

Method : C:\HPCHEM\1\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Dec 26 17:29:41 2012
Response via : Initial Calibration



D3012301.D DFTP8270.M Wed Jan 23 09:52:30 2013 Page 2

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012302.D Vial: 2
Acq On : 23 Jan 2013 9:46 Operator: bsj
Sample : 3A23005-CCV1 Inst : SV-GCMS4
Misc : 1x A13A203@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	91	0.00
2	T	Naphthlene	1000.000	1019.769	-2.0	92	0.00
3	T	2-Methylnaphthalene	1000.000	1042.123	-4.2	93	0.00
4	T	1-Methylnaphthalene	1000.000	1040.272	-4.0	92	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	93	0.00
6	S	2-Fluorobiphenyl(Surr)	1000.000	1020.667	-2.1	93	0.00
7		Dimethylphthalate	1000.000	1013.231	-1.3	91	-0.01
8	T	Acenaphthylene	1000.000	1051.003	-5.1	95	0.00
9	T	Acenaphthene	1000.000	1027.272	-2.7	95	0.00
10		Dibenzofuran	1000.000	1011.028	-1.1	92	0.00
11		Diethylphthalate	1000.000	1198.814	-19.9	109	0.00
12	T	Fluorene	1000.000	1031.143	-3.1	93	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	89	0.00
14	T	Phenanthrene	1000.000	1033.386	-3.3	91	0.00
15	T	Anthracene	1000.000	1096.243	-9.6	95	0.00
16		Carbazole	1000.000	1099.203	-9.9	93	0.00
17		Di-n-butylphthalate	1000.000	1087.704	-8.8	92	0.00
18	T	Fluoranthene	1000.000	1054.587	-5.5	91	0.00
19	T	Pyrene	1000.000	1050.364	-5.0	91	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	78	0.00
21	S	Terphenyl-d14(Surr)	1000.000	1103.734	-10.4	85	0.00
22		Benzyl Butyl phthalate	1000.000	1267.885	~~-26.8#~~	96	0.00
23	T	Benz(a)Anthracene	1000.000	1042.694	-4.3	81	0.00
24	T	Chrysene	1000.000	1077.474	-7.7	83	0.00
25		Bis(2-ethylhexyl)phthalate	1000.000	1270.355	~~-27.0#~~	93	0.00
26		Di-n-octyl phthalate	1000.000	1298.119	~~-29.8#~~	98	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	77	-0.01
28	T	Benzo(b)Fluoranthene	1000.000	1086.101	-8.6	80	-0.01
29	T	Benzo(k)Fluoranthene	1000.000	1079.098	-7.9	81	-0.02
30	T	Benzo(b+k)Fluoranthene	2000.000	2160.076	-8.0	80	-0.06
31		Benzo(e)Pyrene	1000.000	1075.754	-7.6	80	-0.02
32	T	Benzo(a)Pyrene	1000.000	1111.676	-11.2	80	-0.02
33		Perylene	1000.000	1062.213	-6.2	80	-0.02
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	72	-0.02
35	T	Indeno(1,2,3-cd)Pyrene	1000.000	1073.671	-7.4	78	-0.03
36	T	Dibenz(a,h)Anthracene	1000.000	1089.450	-8.9	77	-0.02
37	T	Benzo(g,h,i)Perylene	1000.000	1111.091	-11.1	77	-0.03

1-23-13 BSO

(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3012302.D D30116.M Wed Jan 23 10:04:27 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012302.D Vial: 2
Acq On : 23 Jan 2013 9:46 Operator: bsj
Sample : 3A23005-CCV1 Inst : SV-GCMS4
Misc : 1x A13A203@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 10:08 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	929742	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	413147	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	543406	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	348476	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	298705	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	204301	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	287050	1020.67	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	157875	1103.73	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.31	128	518467	1019.77	ng/ml	99
3) 2-Methylnaphthalene	5.98	142	310423	1042.12	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	295161	1040.27	ng/ml	100
7) Dimethylphthalate	6.72	163	277009	1013.23	ng/mL	99
8) Acenaphthylene	6.84	152	431288	1051.00	ng/ml	99
9) Acenaphthene	7.01	153	273785	1027.27	ng/ml	99
10) Dibenzofuran	7.19	168	337960	1011.03	ng/mL	94
11) Diethylphthalate	7.40	149	342159	1198.81	ng/mL	94
12) Fluorene	7.52	166	272900	1031.14	ng/ml	99
14) Phenanthrene	8.45	178	315142	1033.39	ng/ml	100
15) Anthracene	8.50	178	323698	1096.24	ng/ml	100
16) Carbazole	8.66	167	277029	1099.20	ng/mL	97
17) Di-n-butylphthalate	9.01	149	475685	1087.70	ng/mL	98
18) Fluoranthene	9.62	202	283334	1054.59	ng/ml	99
19) Pyrene	9.84	202	285386	1050.36	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	181503	1267.88	ng/mL	99
23) Benz(a)Anthracene	11.07	228	208923	1042.69	ng/ml	100
24) Chrysene	11.11	228	201769	1077.47	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.10	149	265575	1270.36	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	383905	1298.12	ng/mL	97
28) Benzo(b)Fluoranthene	12.63	252	189111	1086.10	ng/ml	91
29) Benzo(k)Fluoranthene	12.68	252	194193	1079.10	ng/ml	84
30) Benzo(b+k)Fluoranthene	12.63	252	384937	2160.08	ng/ml#	45
31) Benzo(e)Pyrene	13.13	252	187543	1075.75	ng/mL	88
32) Benzo(a)Pyrene	13.22	252	171425	1111.68	ng/ml	87
33) Perylene	13.38	252	180647	1062.21	ng/mL	86
35) Indeno(1,2,3-cd)Pyrene	15.50	276	150127	1073.67	ng/ml	80
36) Dibenz(a,h)Anthracene	15.56	278	137359	1089.45	ng/ml	78
37) Benzo(g,h,i)Perylene	16.08	276	159642	1111.09	ng/ml	79

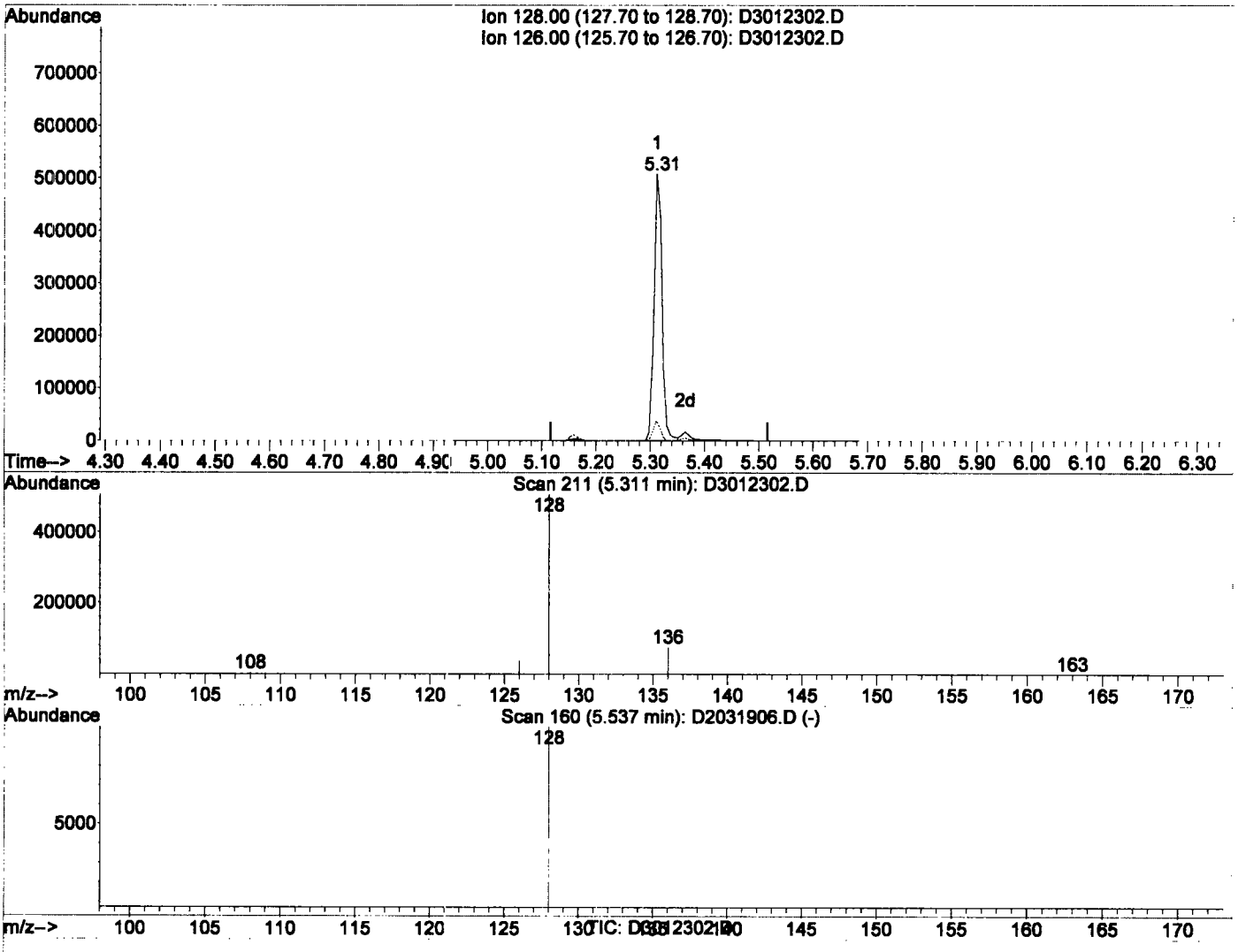
1-23-13 BSJ

(#) = qualifier out of range (m) = manual integration
D3012302.D D30116.M Wed Jan 23 10:08:34 2013 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012302.D Vial: 2
Acq On : 23 Jan 2013 9:46 Operator: bsj
Sample : 3A23005-CCV1 Inst : SV-GCMS4
Misc : 1x A13A203@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 10:08 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(2) Naphthlene (T)

5.31min 1019.77ng/ml

response 518467

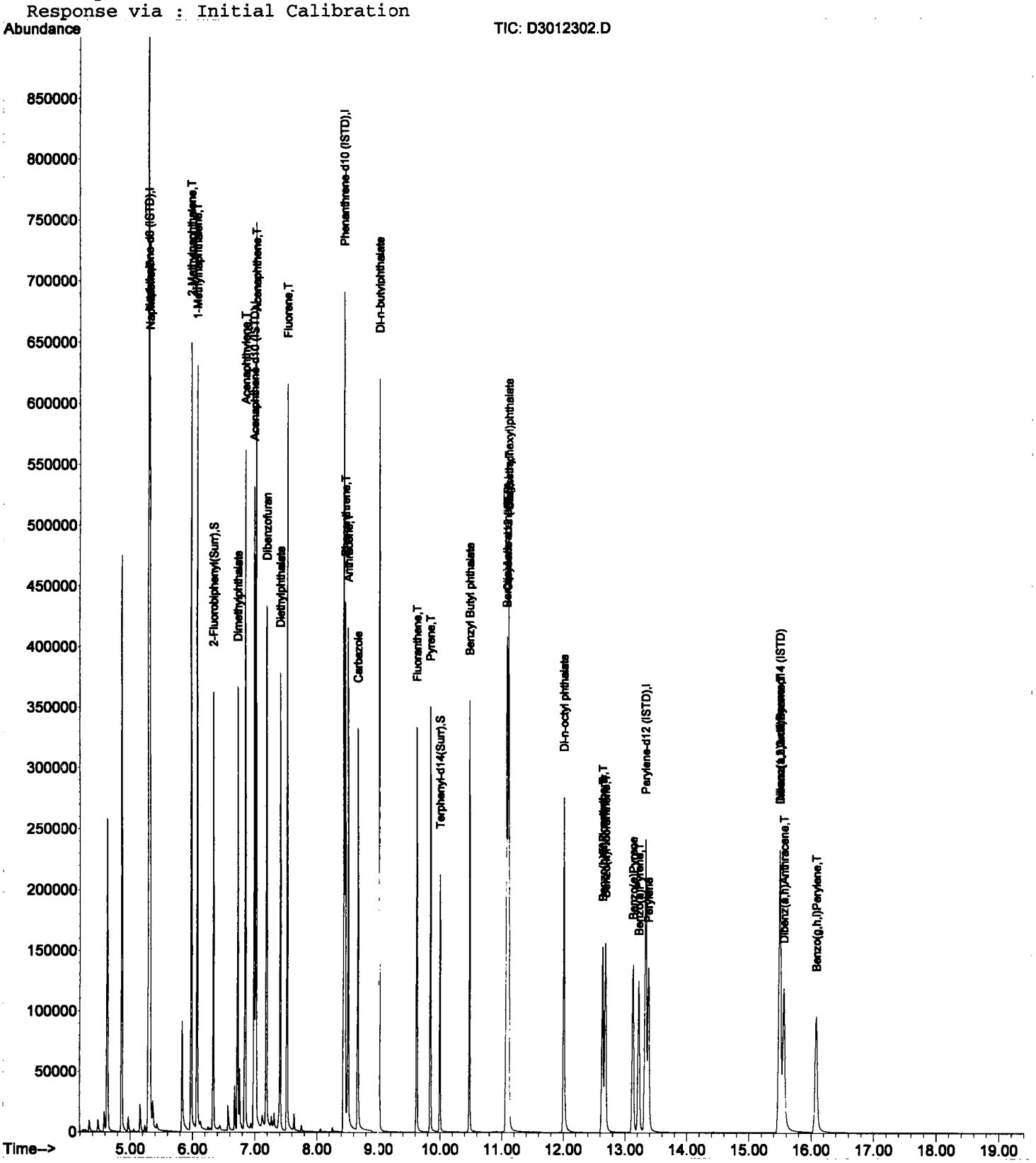
Ion	Exp%	Act%
128.00	100	100
126.00	7.10	6.88
0.00	0.00	0.00
0.00	0.00	0.00

D3012302.D D30116.M Wed Jan 23 10:08:46 2013

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012302.D Vial: 2
Acq On : 23 Jan 2013 9:46 Operator: bsj
Sample : 3A23005-CCV1 Inst : SV-GCMS4
Misc : 1x A13A203@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 10:08 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



D3012302.D D30116.M Wed Jan 23 10:08:35 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012303.D Vial: 3
Acq On : 23 Jan 2013 10:12 Operator: bsj
Sample : 3A23005-CCB1 Inst : SV-GCMS4
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	896155	2000.00 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	394092	2000.00 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	497891	2000.00 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	338370	2000.00 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	286837	2000.00 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	191923	2000.00 ng/mL	-0.02
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	0.00	172	0	0.00 ng/ml	
21) Terphenyl-d14(Surr)	0.00	244	0	0.00 ng/ml	
Target Compounds					Qvalue
2) Naphthlene	0.00	128	0	N.D.	
3) 2-Methylnaphthalene	0.00	142	0	N.D.	
4) 1-Methylnaphthalene	0.00	142	0	N.D.	
7) Dimethylphthalate	0.00	163	0	N.D.	
8) Acenaphthylene	0.00	152	0	N.D.	
9) Acenaphthene	0.00	153	0	N.D.	
10) Dibenzofuran	0.00	168	0	N.D.	
11) Diethylphthalate	7.41	149	623	2.29 ng/mL#	58
12) Fluorene	0.00	166	0	N.D.	
14) Phenanthrene	0.00	178	0	N.D.	
15) Anthracene	0.00	178	0	N.D.	
16) Carbazole	0.00	167	0	N.D.	
17) Di-n-butylphthalate	0.00	149	0	N.D.	
18) Fluoranthene	0.00	202	0	N.D.	
19) Pyrene	0.00	202	0	N.D.	
22) Benzyl Butyl phthalate	10.47	149	437	3.14 ng/mL#	1
23) Benz(a)Anthracene	11.07	228	883	4.54 ng/ml	85
24) Chrysene	11.07	228	883	4.86 ng/ml	85
25) Bis(2-ethylhexyl)phthalate	0.00	149	0	N.D.	
26) Di-n-octyl phthalate	0.00	149	0	N.D.	
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.	
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.	
30) Benzo(b+k)Fluoranthene	0.00	252	0	N.D.	
31) Benzo(e)Pyrene	0.00	252	0	N.D.	
32) Benzo(a)Pyrene	13.33	252	1010	6.82 ng/ml#	1
33) Perylene	13.33	252	1016	6.22 ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	0.00	276	0	N.D.	
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.	
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.	

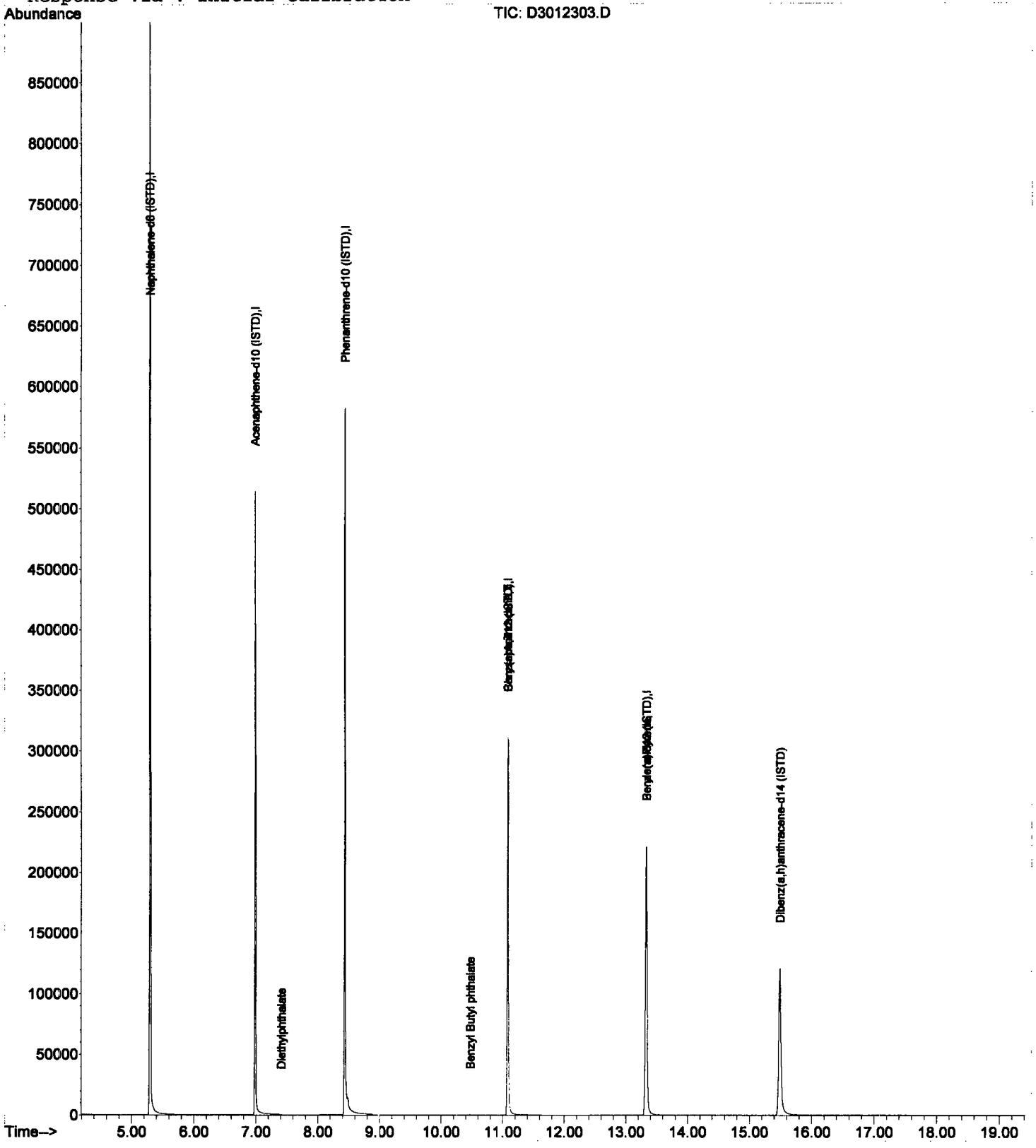
1-23-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3012303.D D30116.M Wed Jan 23 14:35:46 2013

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012303.D Vial: 3
Acq On : 23 Jan 2013 10:12 Operator: bsj
Sample : 3A23005-CCB1 Inst : SV-GCMS4
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012304.D Vial: 4
Acq On : 23 Jan 2013 10:38 Operator: bsj
Sample : 1301478-BLK1 Inst : SV-GCMS4
Misc : 1x Soil 12.00g/5mL SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	901579	2000.00 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	390653	2000.00 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	504340	2000.00 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	312713	2000.00 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	252781	2000.00 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	171178	2000.00 ng/mL	-0.02
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.33	172	644164	2422.35 ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	381973	2975.85 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthlene	5.32	128	1557	3.16 ng/ml#	79
3) 2-Methylnaphthalene	5.98	142	310	1.07 ng/ml	99
4) 1-Methylnaphthalene	5.98	142	310	1.13 ng/ml	100
7) Dimethylphthalate	0.00	163	0	N.D.	
8) Acenaphthylene	0.00	152	0	N.D.	
9) Acenaphthene	0.00	153	0	N.D.	
10) Dibenzofuran	0.00	168	0	N.D.	
11) Diethylphthalate	7.41	149	1317	4.88 ng/mL#	58
12) Fluorene	0.00	166	0	N.D.	
14) Phenanthrene	8.45	178	336	1.19 ng/ml#	58
15) Anthracene	8.45	178	336	1.23 ng/ml#	59
16) Carbazole	0.00	167	0	N.D.	
17) Di-n-butylphthalate	9.01	149	7609	18.75 ng/mL	99
18) Fluoranthene	0.00	202	0	N.D.	
19) Pyrene	0.00	202	0	N.D.	
22) Benzyl Butyl phthalate	10.47	149	4927	38.35 ng/mL	77
23) Benz(a)Anthracene	11.07	228	833	4.63 ng/ml	90
24) Chrysene	11.11	228	240	1.43 ng/ml#	58
25) Bis(2-ethylhexyl)phthalate	11.10	149	7475	39.85 ng/mL	100
26) Di-n-octyl phthalate	0.00	149	0	N.D.	
28) Benzo(b)Fluoranthene	12.63	252	322	2.19 ng/ml#	46
29) Benzo(k)Fluoranthene	12.63	252	322	2.11 ng/ml#	44
30) Benzo(b+k)Fluoranthene	12.63	252	465	3.08 ng/ml	73
31) Benzo(e)Pyrene	13.13	252	234	1.59 ng/mL#	49
32) Benzo(a)Pyrene	13.33	252	898	6.88 ng/ml#	1
33) Perylene	13.33	252	898	6.24 ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	15.49	276	354	3.02 ng/ml#	1
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.	
37) Benzo(g,h,i)Perylene	16.08	276	290	2.41 ng/ml#	32

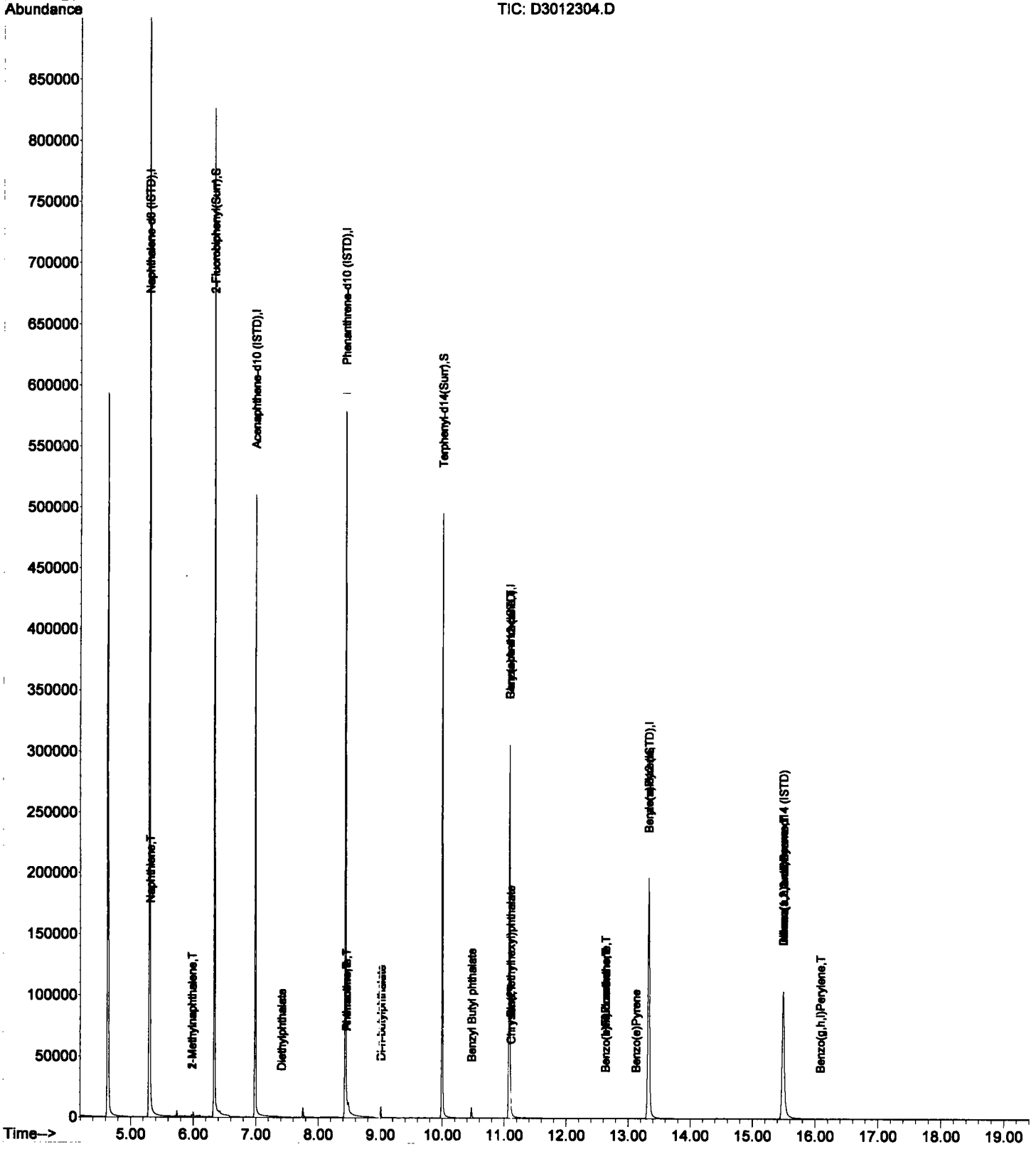
1-23-13
BSO

(#) = qualifier out of range (m) = manual integration
D3012304.D D30116.M Wed Jan 23 14:35:50 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012304.D Vial: 4
Acq On : 23 Jan 2013 10:38 Operator: bsj
Sample : 1301478-BLK1 Inst : SV-GCMS4
Misc : 1x Soil 12.00g/5mL SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



D3012304.D D30116.M Wed Jan 23 14:35:50 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012305.D Vial: 5
Acq On : 23 Jan 2013 11:05 Operator: bsj
Sample : 1301478-BS1 Inst : SV-GCMS4
Misc : 1x Soil 10.00g/5mL SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	864685	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	374765	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	511318	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	359662	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	319465	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.50	292	231030	2000.00	ng/mL	-0.01
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	611037	2395.19	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	381274	2582.66	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	1748737	3698.36	ng/ml	99
3) 2-Methylnaphthalene	5.98	142	1074065	3877.04	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	994691	3769.47	ng/ml	99
7) Dimethylphthalate	6.73	163	982130	3960.31	ng/mL	99
8) Acenaphthylene	6.84	152	1472257	3955.18	ng/ml	99
9) Acenaphthene	7.01	153	923437	3819.70	ng/ml	100
10) Dibenzofuran	7.19	168	1170946	3861.72	ng/mL	93
11) Diethylphthalate	7.41	149	1007807	3892.66	ng/mL	99
12) Fluorene	7.52	166	962561	4009.49	ng/ml	99
14) Phenanthrene	8.45	178	1116306	3890.21	ng/ml	99
15) Anthracene	8.50	178	1154694	4155.92	ng/ml	99
16) Carbazole	8.66	167	940461	6580.95	ng/mL	96
17) Di-n-butylphthalate	9.01	149	1745349	4241.38	ng/mL	97
18) Fluoranthene	9.62	202	1057547	4183.28	ng/ml	99
19) Pyrene	9.84	202	1054007	4122.72	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	694256	4698.88	ng/mL	100
23) Benz(a)Anthracene	11.07	228	828507	4006.31	ng/ml	100
24) Chrysene	11.11	228	790250	4088.79	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	1025261	4751.72	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	1574834	4578.99	ng/mL	98
28) Benzo(b)Fluoranthene	12.64	252	784991	4215.39	ng/ml	89
29) Benzo(k)Fluoranthene	12.68	252	822796	4275.03	ng/ml	89
30) Benzo(b+k)Fluoranthene	12.68	252	1612459	8460.33	ng/ml	89
31) Benzo(e)Pyrene	13.13	252	766294	4109.86	ng/mL	89
32) Benzo(a)Pyrene	13.22	252	732336	4440.52	ng/ml	89
33) Perylene	13.39	252	759670	4176.62	ng/mL	88
35) Indeno(1,2,3-cd)Pyrene	15.50	276	637706	4033.06	ng/ml	84
36) Dibenz(a,h)Anthracene	15.57	278	591202	4146.56	ng/ml	83
37) Benzo(g,h,i)Perylene	16.09	276	660617	4065.88	ng/ml	82

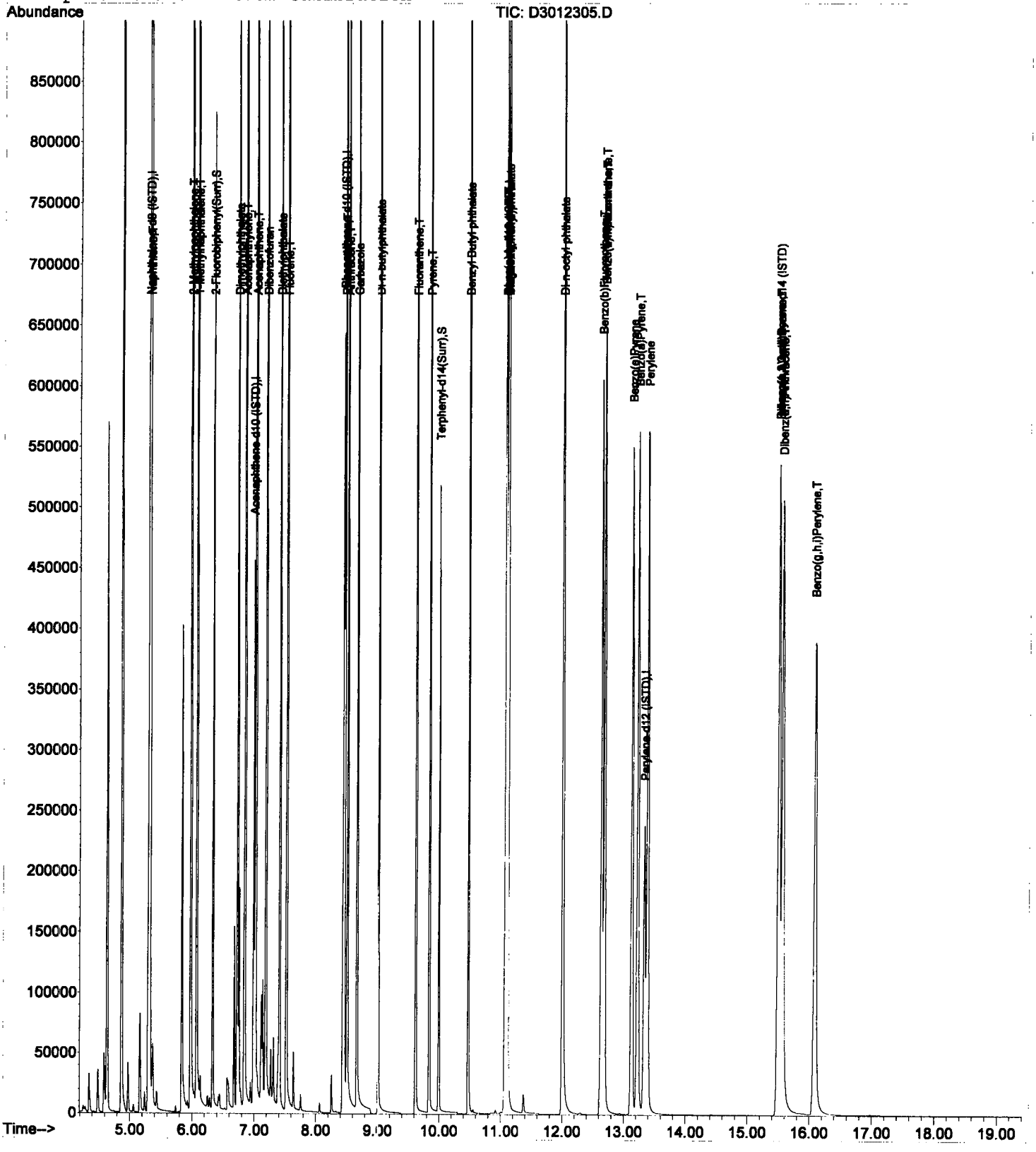
1-23-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3012305.D D30116.M Wed Jan 23 14:35:53 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012305.D Vial: 5
Acq On : 23 Jan 2013 11:05 Operator: bsj
Sample : 1301478-BS1 Inst : SV-GCMS4
Misc : 1x Soil 10.00g/5mL SIM-PAH Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



D3012305.D D30116.M Wed Jan 23 14:35:54 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:37 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Q-28
Q-26

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	851928	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	374518	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	481250	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	333552	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	301713	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	216355	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	532663	2089.35	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	350802	2562.26	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	2815	6.04	ng/ml	99
3) 2-Methylnaphthalene	5.98	142	960	3.52	ng/ml	100
4) 1-Methylnaphthalene	6.07	142	650	2.50	ng/ml	99
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.84	152	612	1.65	ng/ml#	68
9) Acenaphthene	7.01	153	629	2.60	ng/ml	95
10) Dibenzofuran	7.19	168	701	2.31	ng/mL	93
11) Diethylphthalate	7.40	149	1810	7.00	ng/mL#	58
12) Fluorene	7.52	166	531	2.21	ng/ml	78
14) Phenanthrene	8.45	178	6283	23.26	ng/ml	98
15) Anthracene	8.50	178	1401	5.36	ng/ml	99
16) Carbazole	8.67	167	1291	8.49	ng/mL#	66
17) Di-n-butylphthalate	9.01	149	6417	16.57	ng/mL	87
18) Fluoranthene	9.62	202	16155	67.90	ng/ml	100
19) Pyrene	9.84	202	18497	76.87	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	5594	40.83	ng/mL	94
23) Benz(a)Anthracene	11.07	228	8521	44.43	ng/ml	96
24) Chrysene	11.11	228	19542	109.03	ng/ml	94
25) Bis(2-ethylhexyl)phthalate	11.10	149	7479	37.38	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	202	47.59	ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	25329	144.02	ng/ml	94
29) Benzo(k)Fluoranthene	12.68	252	6797	37.39	ng/ml	82
30) Benzo(b+k)Fluoranthene	12.63	252	32248m	179.16	ng/ml	
31) Benzo(e)Pyrene	13.12	252	17989	102.16	ng/mL	90
32) Benzo(a)Pyrene	13.22	252	9161	58.82	ng/ml	90
33) Perylene	13.37	252	4418	25.72	ng/mL	98
35) Indeno(1,2,3-cd)Pyrene	15.49	276	14448	97.57	ng/ml	63
36) Dibenz(a,h)Anthracene	15.55	278	2589	19.39	ng/ml	93
37) Benzo(g,h,i)Perylene	16.08	276	26423	173.66	ng/ml	85

Q-28
Q-26
J

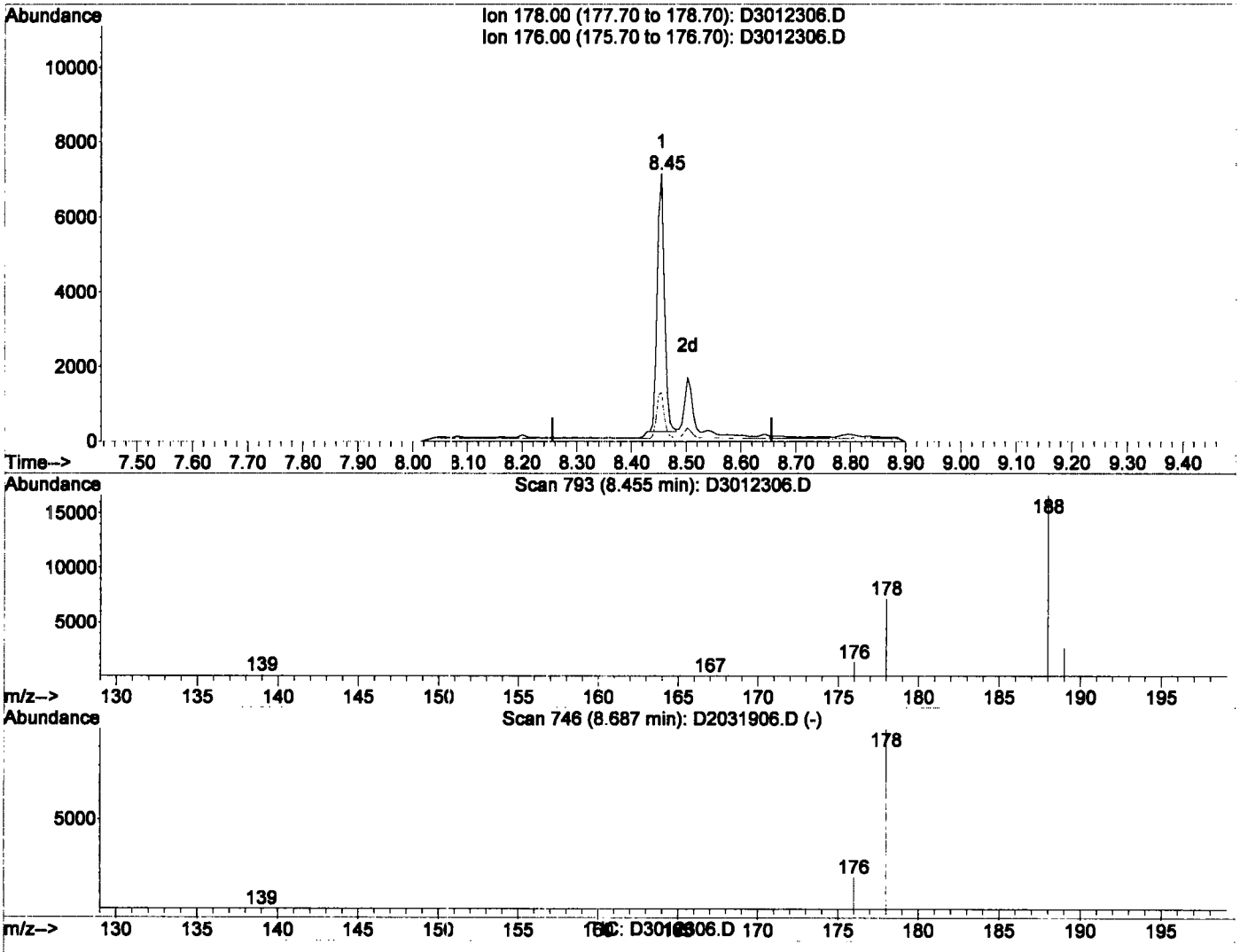
1-23-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3012306.D D30116.M Wed Jan 23 14:38:24 2013 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(14) Phenanthrene (T)

8.45min 23.26ng/ml

response 6283

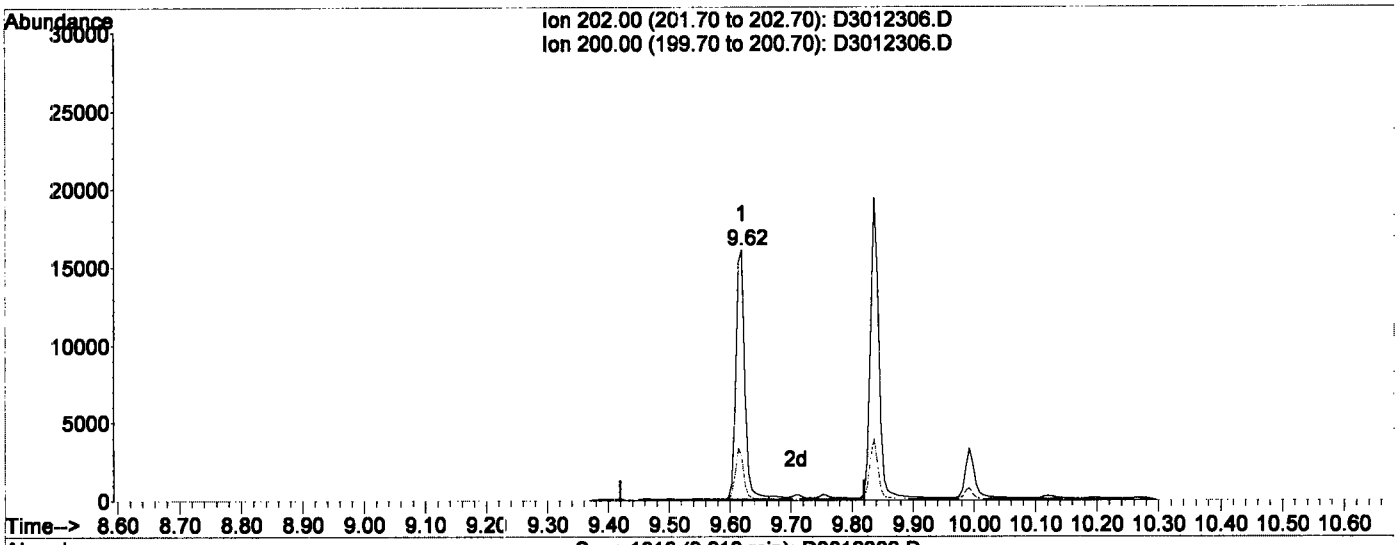
Ion	Exp%	Act%
178.00	100	100
176.00	18.60	19.37
0.00	0.00	0.00
0.00	0.00	0.00

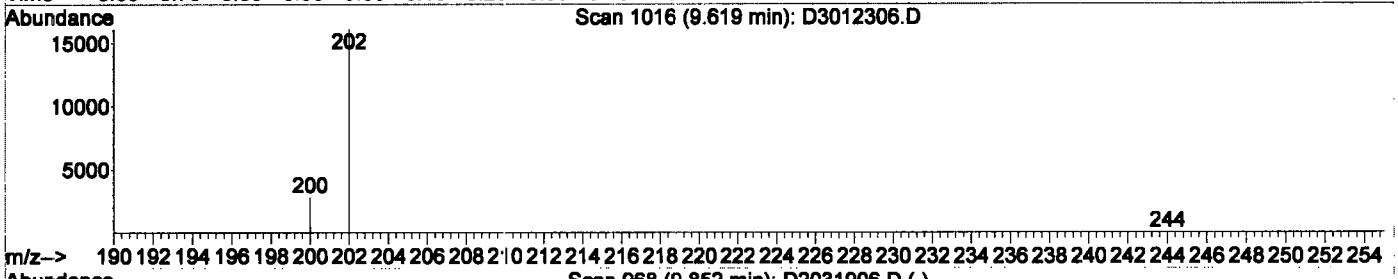
D3012306.D D30116.M Wed Jan 23 14:37:11 2013

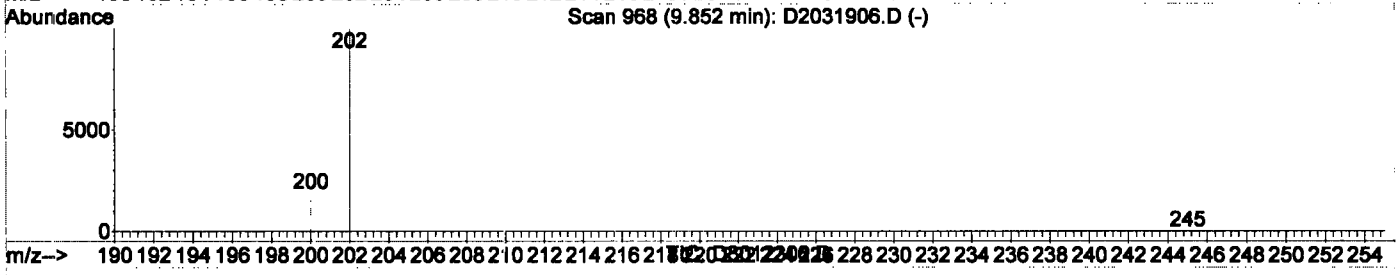
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(18) Fluoranthene (T)

9.62min 67.90ng/ml

response 16155

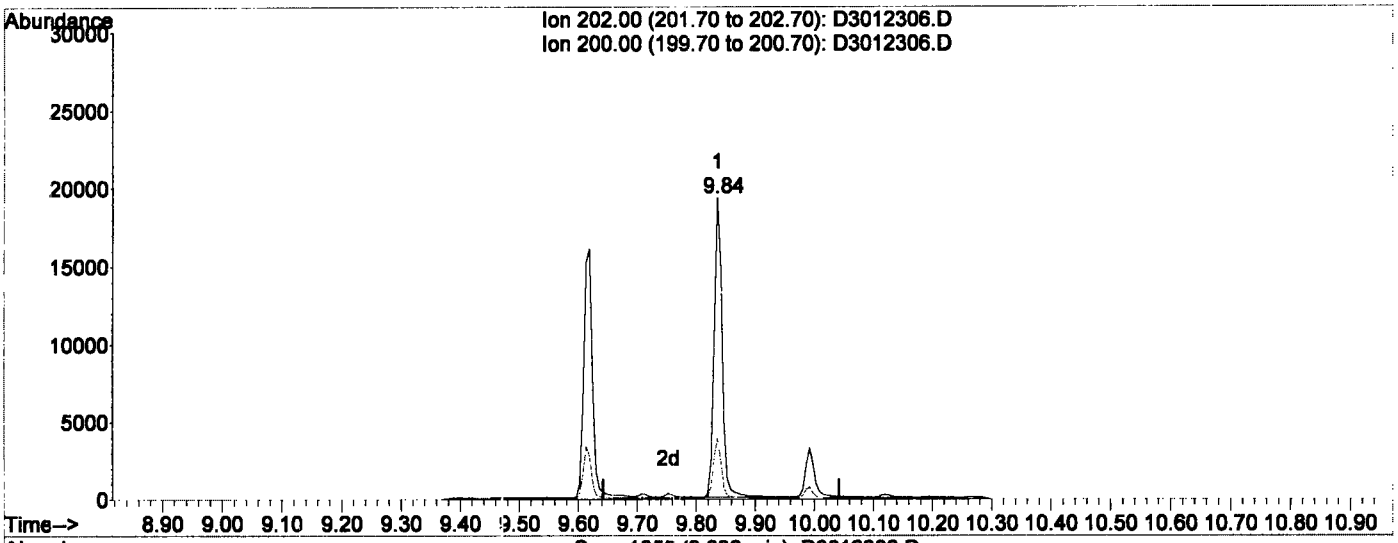
Ion	Exp%	Act%
202.00	100	100
200.00	19.80	19.85
0.00	0.00	0.00
0.00	0.00	0.00

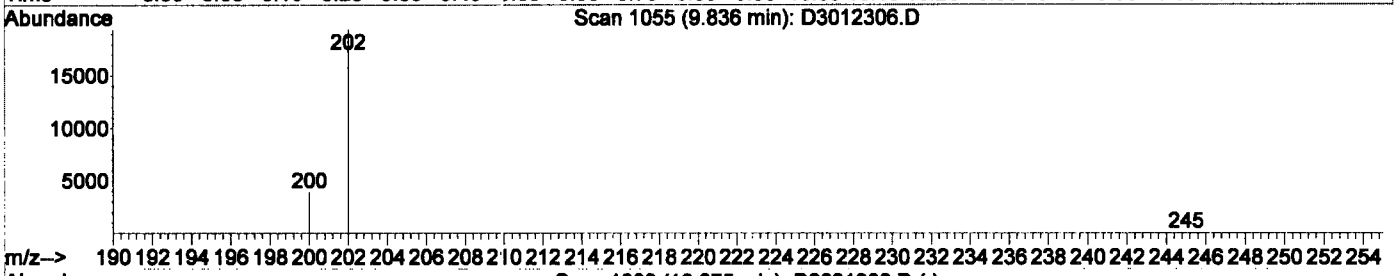
D3012306.D D30116.M Wed Jan 23 14:37:18 2013

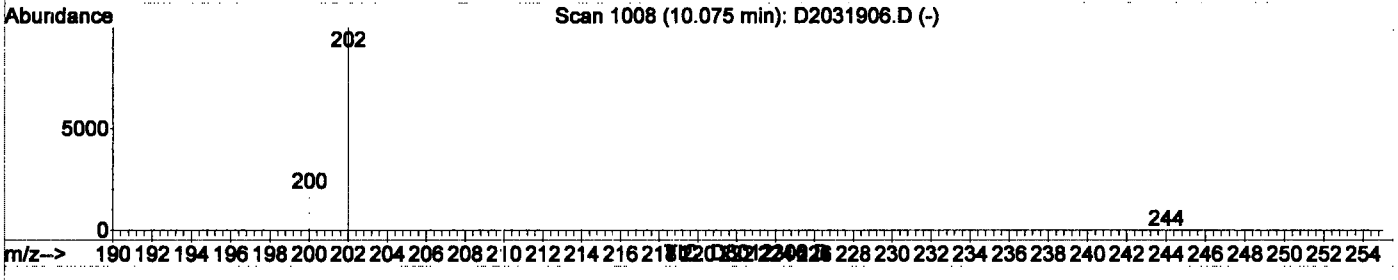
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(19) Pyrene (T)

9.84min 76.87ng/ml

response 18497

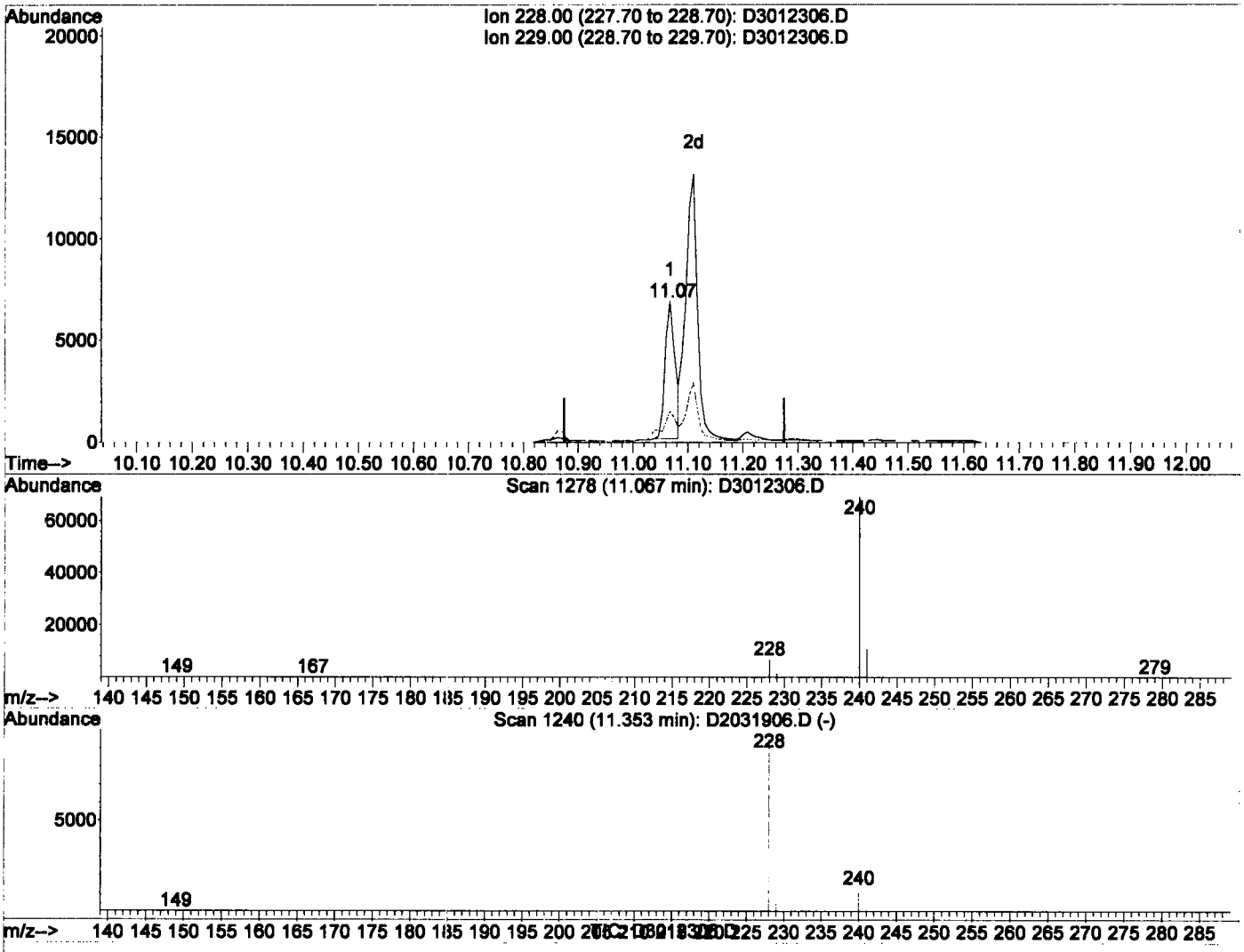
Ion	Exp%	Act%
202.00	100	100
200.00	20.40	19.73
0.00	0.00	0.00
0.00	0.00	0.00

D3012306.D D30116.M Wed Jan 23 14:37:21 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(23) Benz(a)Anthracene (T)

11.07min 44.43ng/ml

response 8521

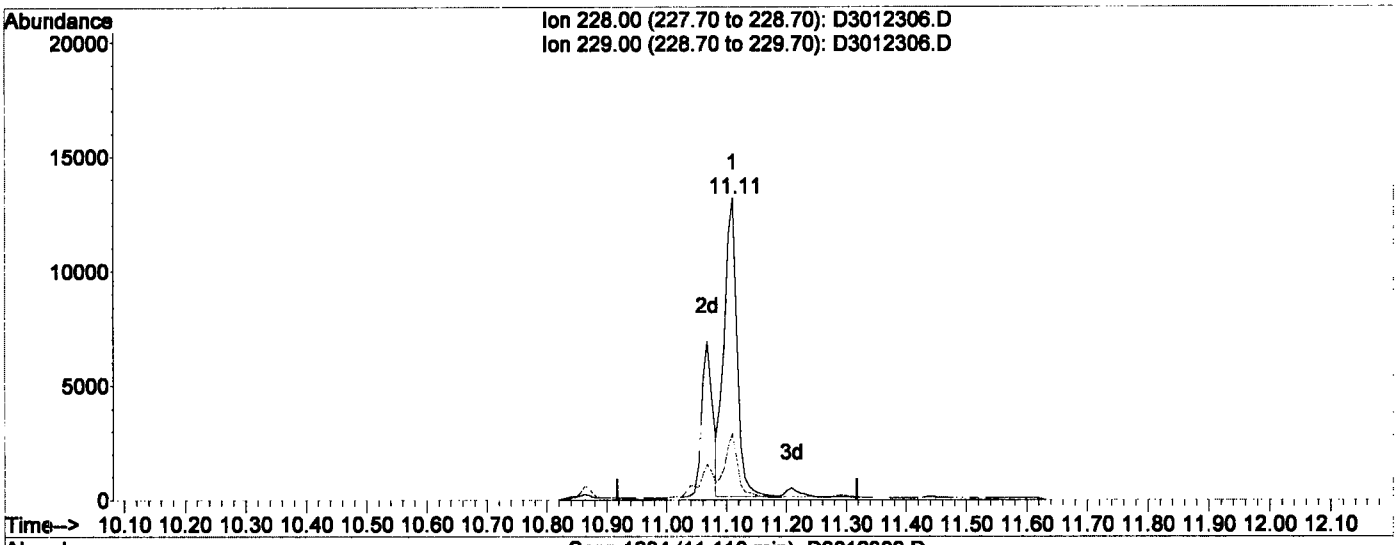
Ion	Exp%	Act%
228.00	100	100
229.00	19.30	21.02
0.00	0.00	0.00
0.00	0.00	0.00

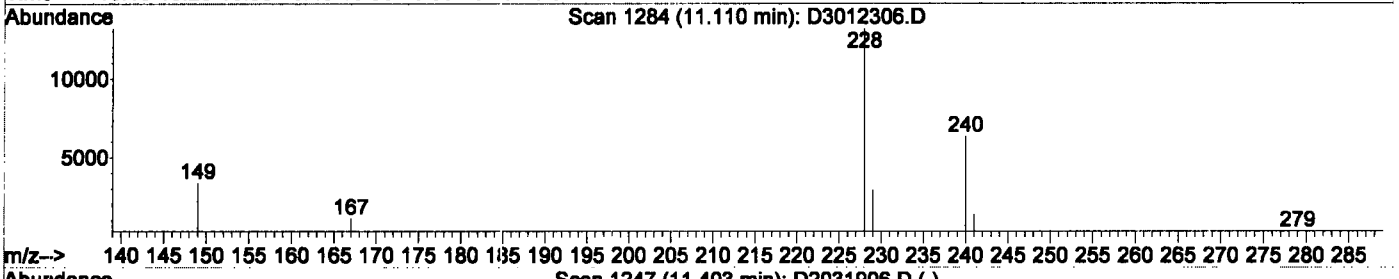
D3012306.D D30116.M Wed Jan 23 14:37:27 2013

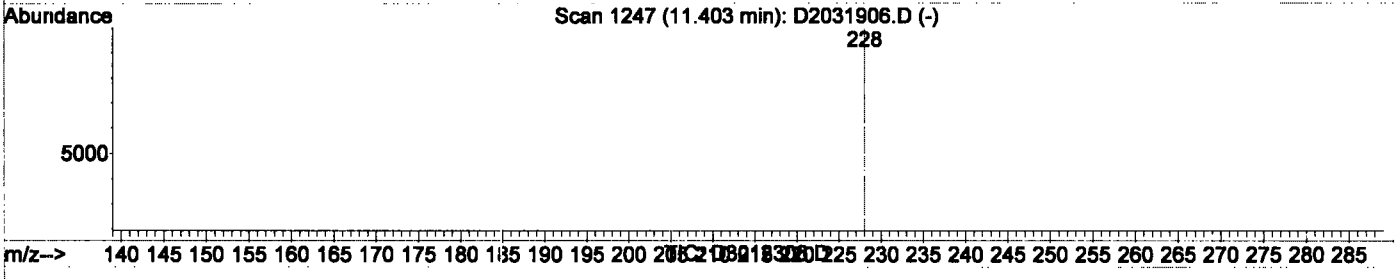
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(24) Chrysene (T)

11.11min 109.03ng/ml

response 19542

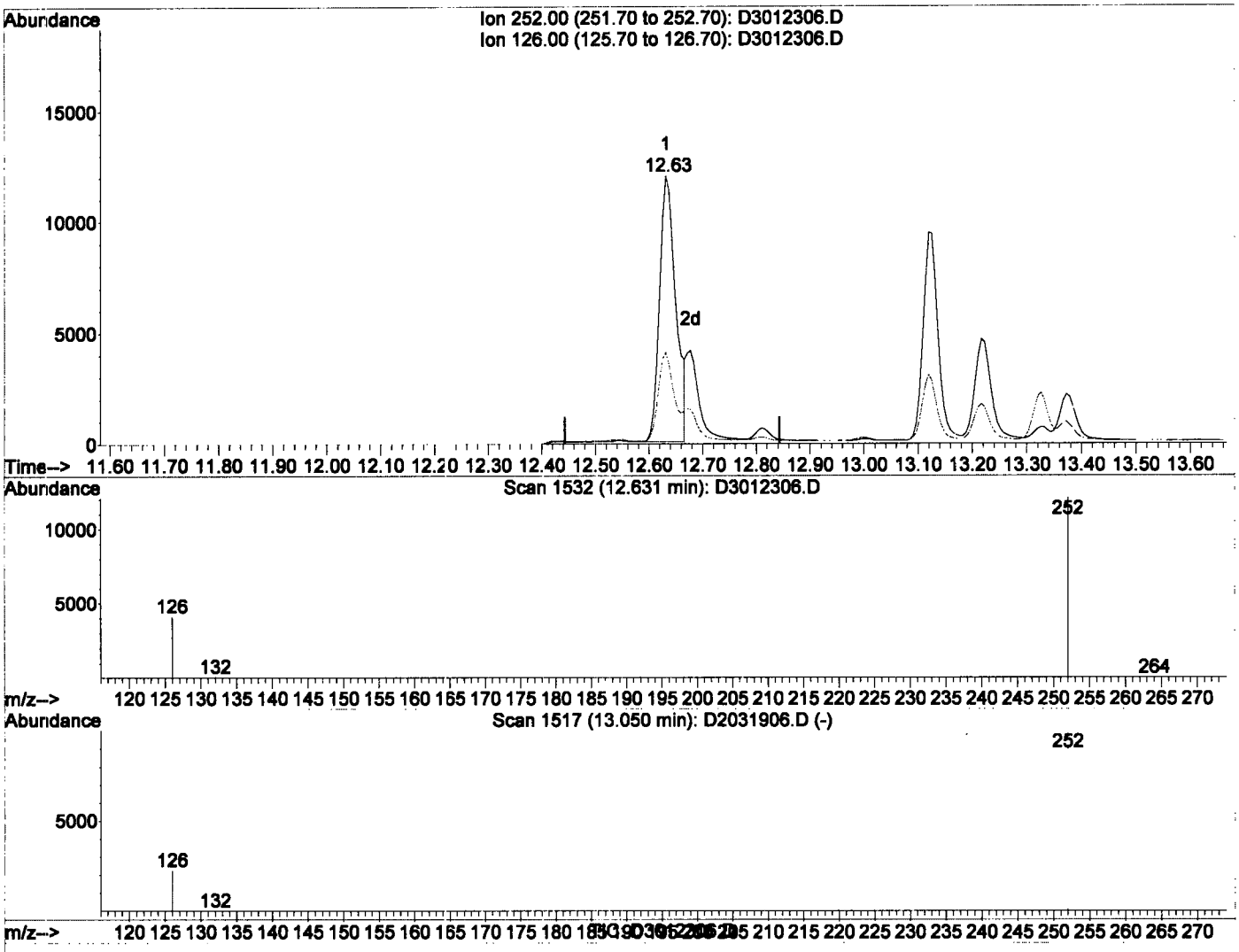
Ion	Exp%	Act%
228.00	100	100
229.00	19.20	21.90
0.00	0.00	0.00
0.00	0.00	0.00

D3012306.D D30116.M Wed Jan 23 14:37:32 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(28) Benzo(b)Fluoranthene (T)

12.63min 144.02ng/ml

response 25329

IQ-28

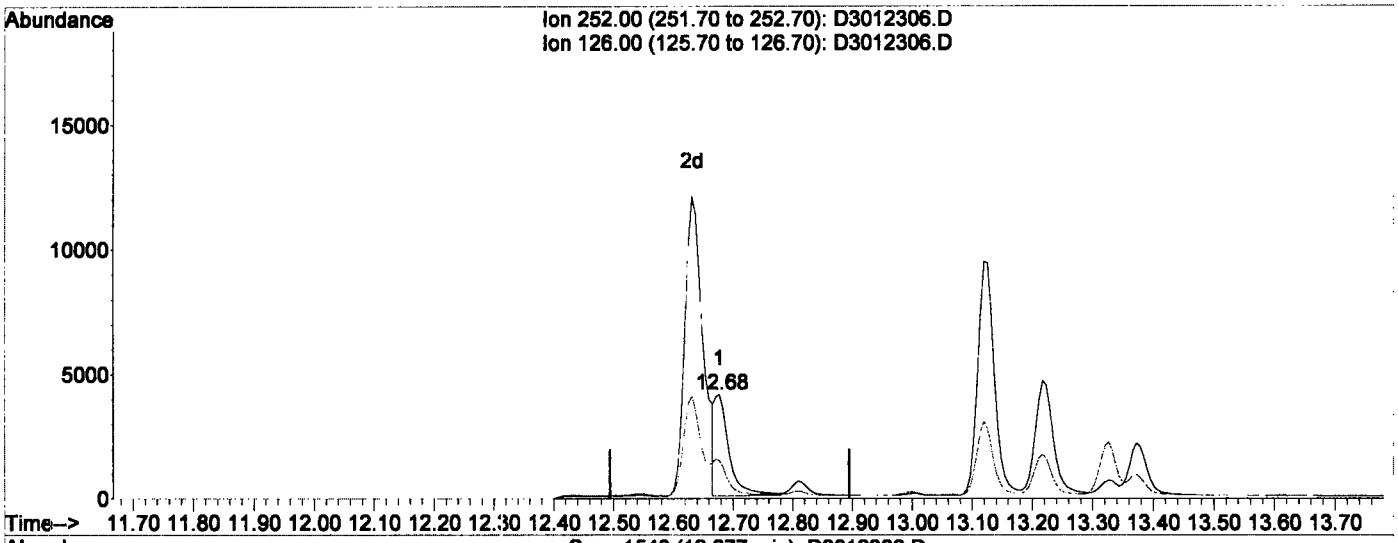
Ion	Exp%	Act%
252.00	100	100
126.00	28.90	32.05
0.00	0.00	0.00
0.00	0.00	0.00

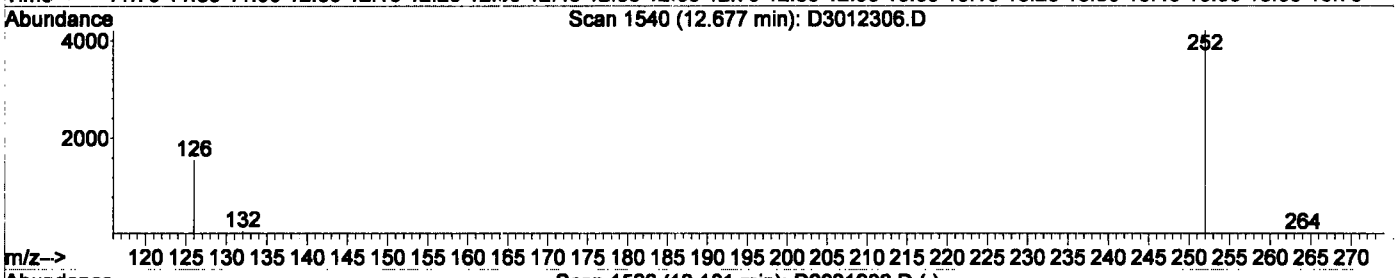
D3012306.D D30116.M Wed Jan 23 14:37:38 2013

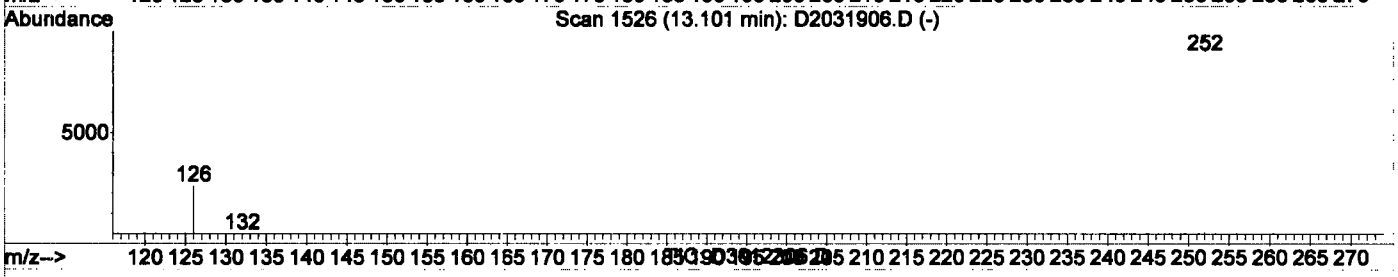
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.68min 37.39ng/ml

response 6797

Q-28

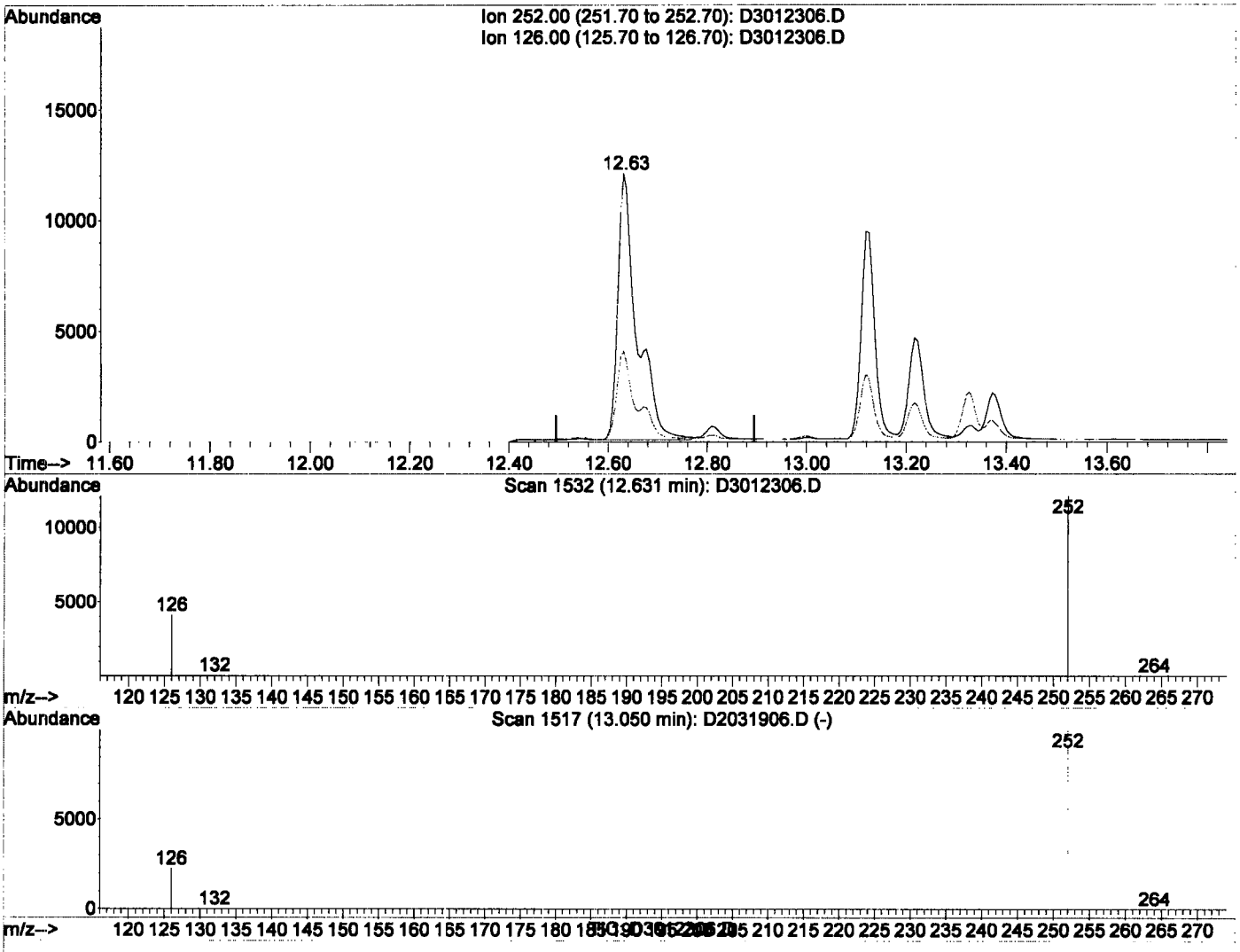
Ion	Exp%	Act%
252.00	100	100
126.00	30.40	40.00
0.00	0.00	0.00
0.00	0.00	0.00

D3012306.D D30116.M Wed Jan 23 14:37:43 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:37 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(30) Benzo(b+k)Fluoranthene (T)

12.63min 179.16ng/ml m

response 32248

Ion	Exp%	Act%
252.00	100	100
126.00	29.70	34.80
0.00	0.00	0.00
0.00	0.00	0.00

Q.26
1-23-13 BSJ

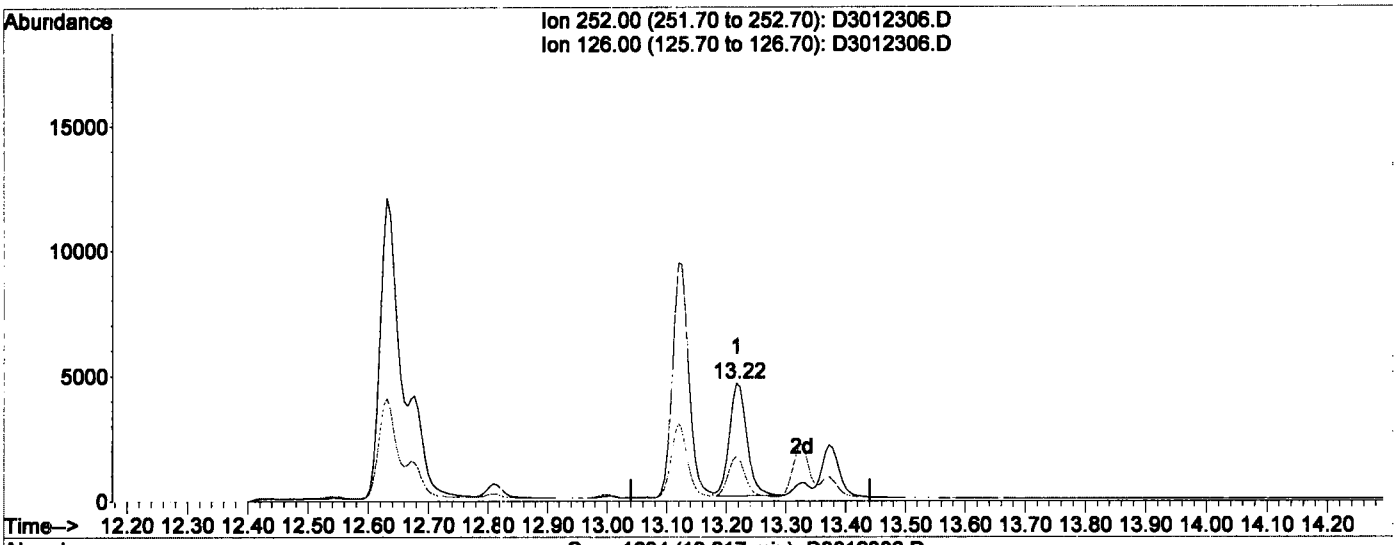
1/23/13

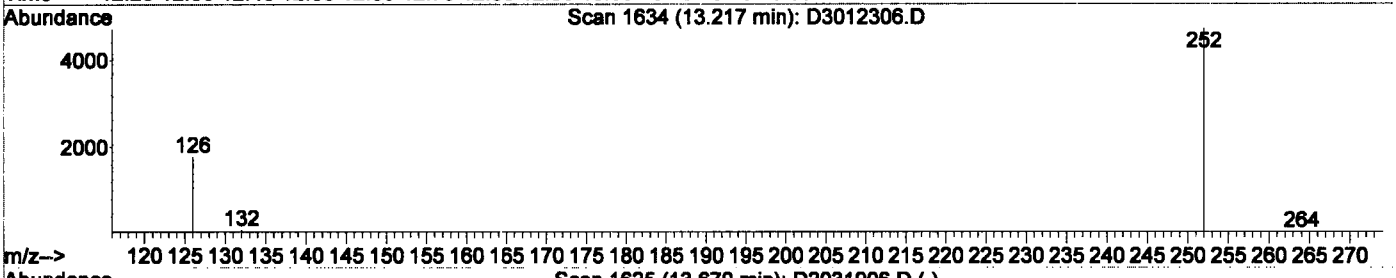
D3012306.D D30116.M Wed Jan 23 14:37:54 2013

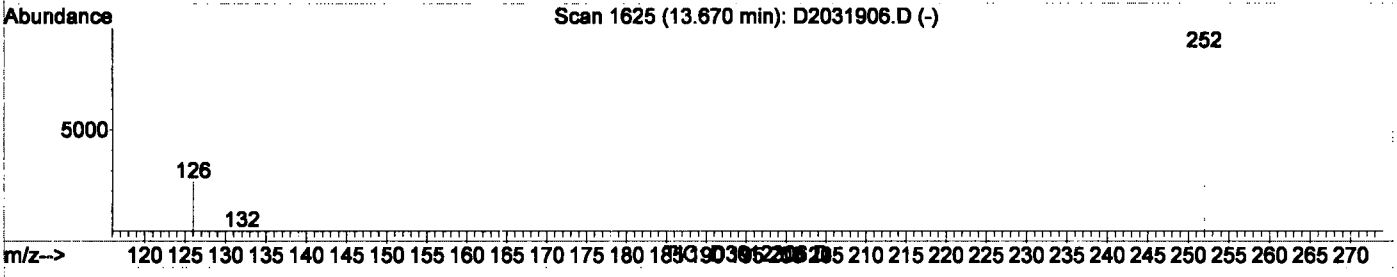
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:37 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(32) Benzo(a)Pyrene (T)

13.22min 58.82ng/ml

response 9161

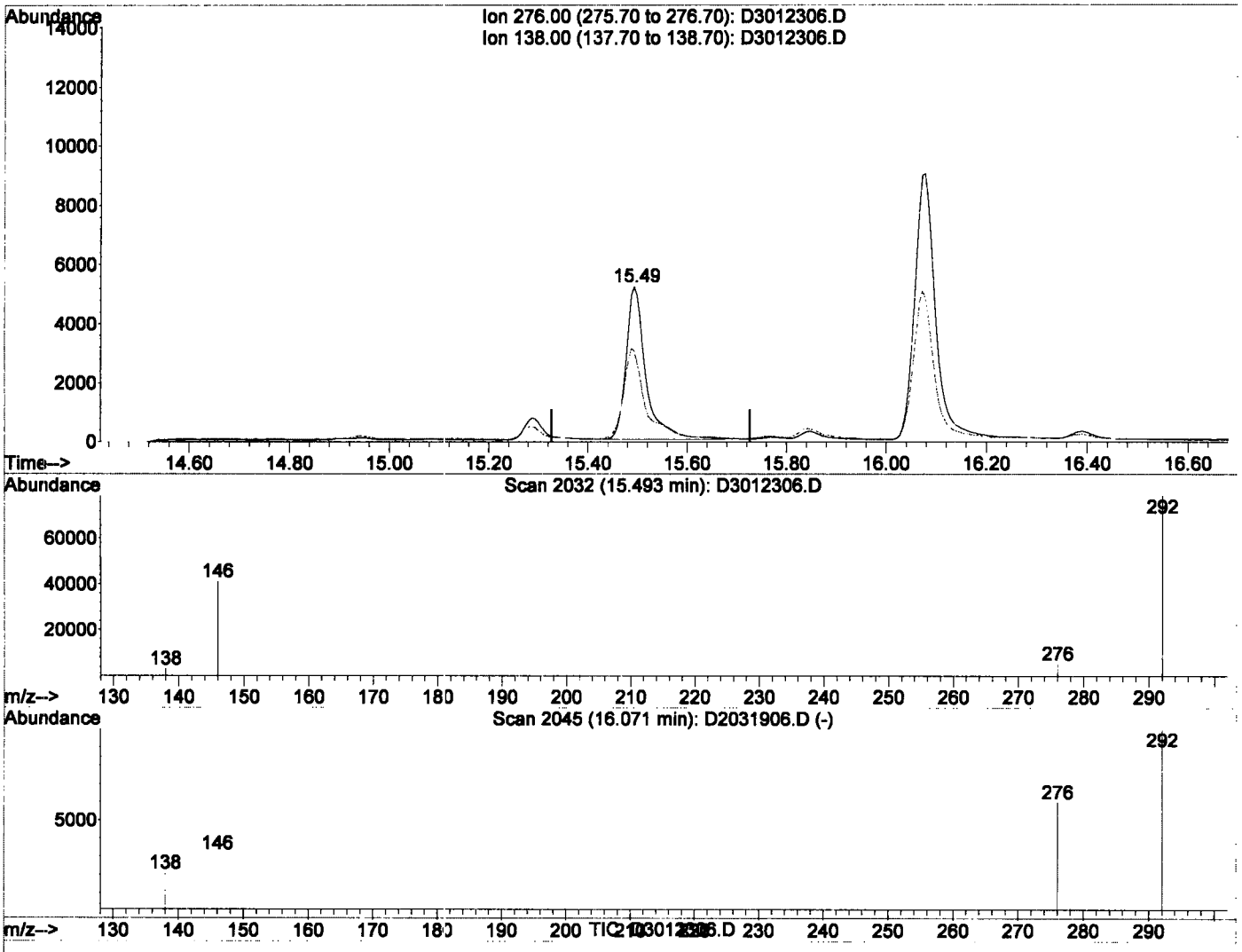
Ion	Exp%	Act%
252.00	100	100
126.00	29.80	35.11
0.00	0.00	0.00
0.00	0.00	0.00

D3012306.D D30116.M Wed Jan 23 14:38:00 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:37 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.49min 97.57ng/ml

response 14448

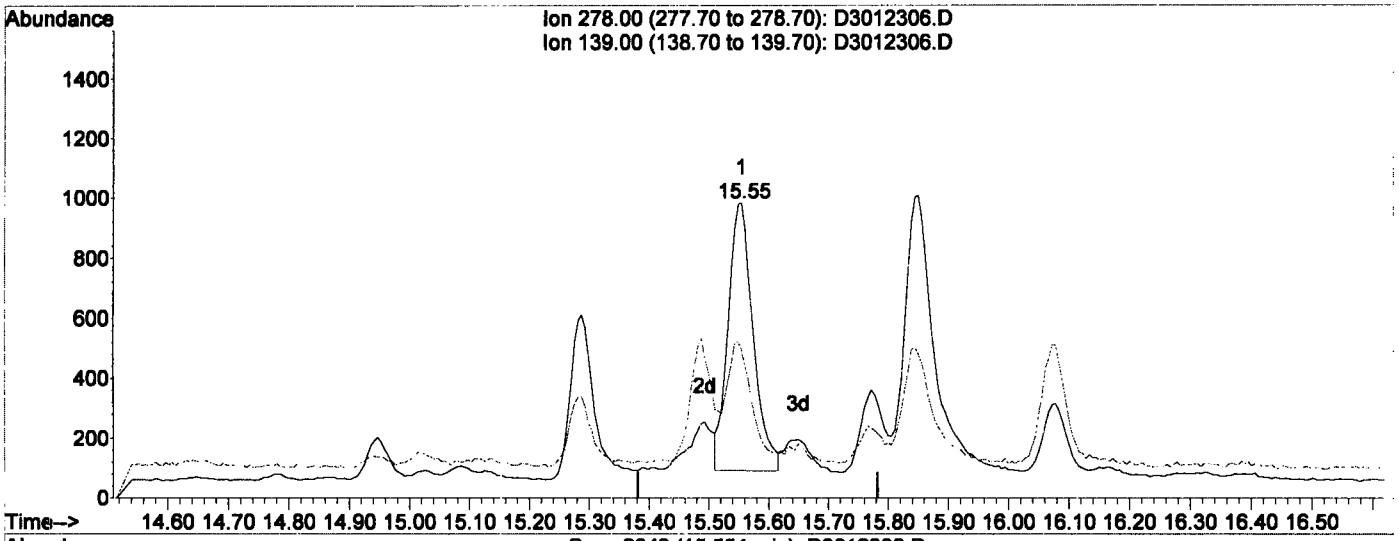
Ion	Exp%	Act%
276.00	100	100
138.00	40.10	62.83
0.00	0.00	0.00
0.00	0.00	0.00

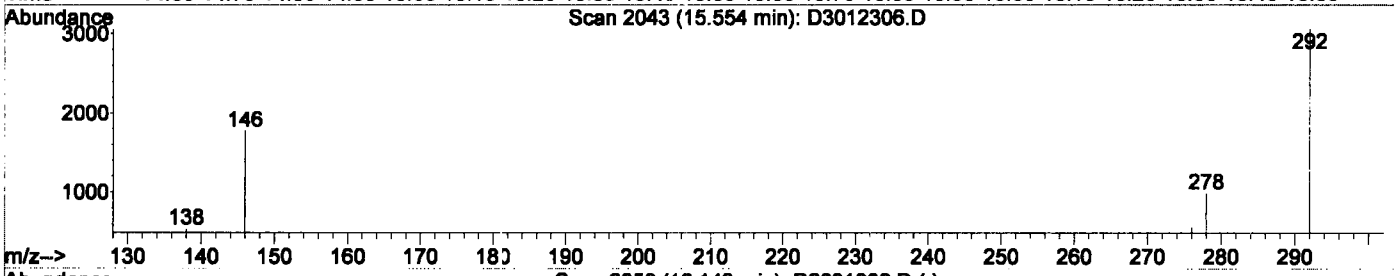
D3012306.D D30116.M Wed Jan 23 14:38:06 2013

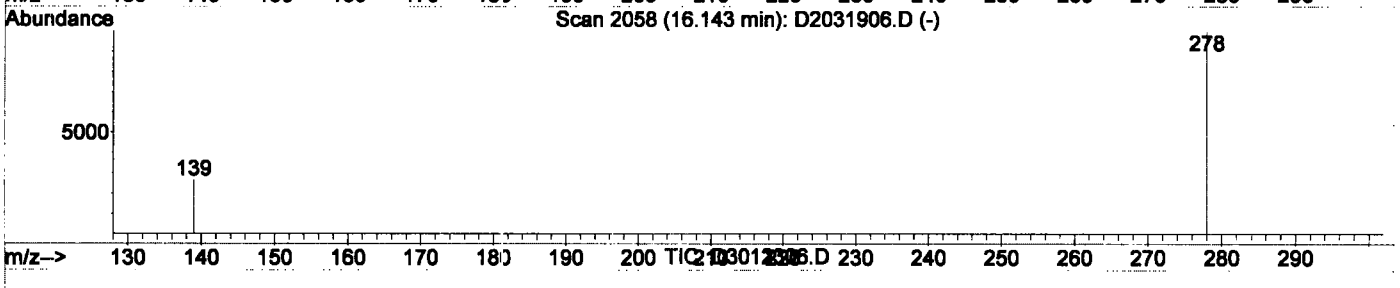
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:37 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(36) Dibenz(a,h)Anthracene (T)

15.55min 19.39ng/ml

response 2589

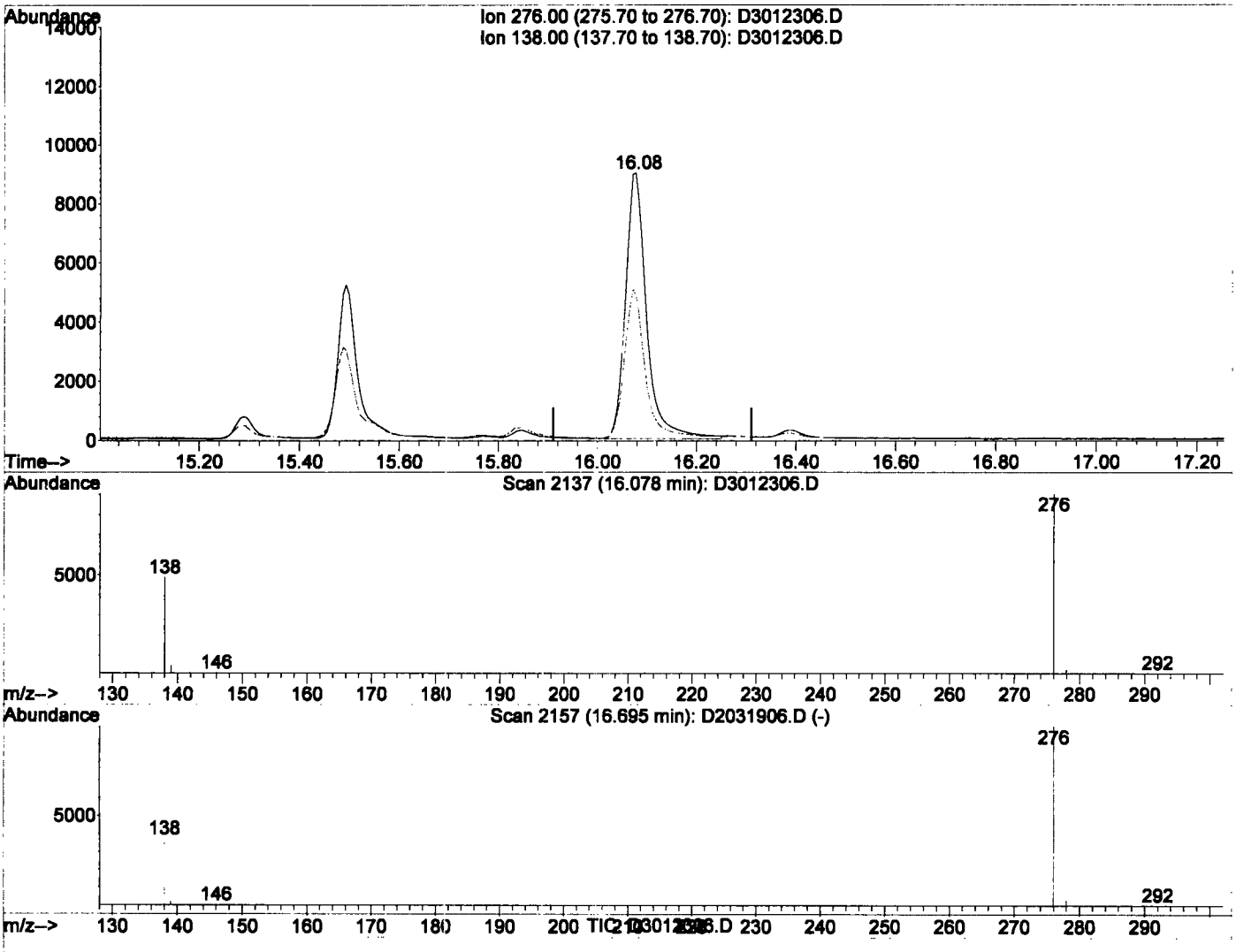
Ion	Exp%	Act%
278.00	100	100
139.00	35.00	38.78
0.00	0.00	0.00
0.00	0.00	0.00

D3012306.D D30116.M Wed Jan 23 14:38:12 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:3[illegible] Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:37 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.08min 173.66ng/ml

response 26423

Ion	Exp%	Act%
276.00	100	100
138.00	44.40	54.41
0.00	0.00	0.00
0.00	0.00	0.00

D3012306.D D30116.M Wed Jan 23 14:38:18 2013

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	851928	2000.00 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	374518	2000.00 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	481250	2000.00 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	333552	2000.00 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	301713	2000.00 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	216355	2000.00 ng/mL	-0.02
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.33	172	532663	2089.35 ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	350802	2562.26 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthlene	5.32	128	2815	6.04 ng/ml	99
3) 2-Methylnaphthalene	5.98	142	960	3.52 ng/ml	100
4) 1-Methylnaphthalene	6.07	142	650	2.50 ng/ml	99
7) Dimethylphthalate	0.00	163	0	N.D.	
8) Acenaphthylene	6.84	152	612	1.65 ng/ml#	68
9) Acenaphthene	7.01	153	629	2.60 ng/ml	95
10) Dibenzofuran	7.19	168	701	2.31 ng/mL	93
11) Diethylphthalate	7.40	149	1810	7.00 ng/mL#	58
12) Fluorene	7.52	166	531	2.21 ng/ml	78
14) Phenanthrene	8.45	178	6283	23.26 ng/ml	98
15) Anthracene	8.50	178	1401	5.36 ng/ml	99
16) Carbazole	8.67	167	1291	8.49 ng/mL#	66
17) Di-n-butylphthalate	9.01	149	6417	16.57 ng/mL	87
18) Fluoranthene	9.62	202	16155	67.90 ng/ml	100
19) Pyrene	9.84	202	18497	76.87 ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	5594	40.83 ng/mL	94
23) Benz(a)Anthracene	11.07	228	8521	44.43 ng/ml	96
24) Chrysene	11.11	228	19542	109.03 ng/ml	94
25) Bis(2-ethylhexyl)phthalate	11.10	149	7479	37.38 ng/mL	98
26) Di-n-octyl phthalate	12.00	149	202	47.59 ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	25329	144.02 ng/ml	94
29) Benzo(k)Fluoranthene	12.68	252	6797	37.39 ng/ml	82
30) Benzo(b+k)Fluoranthene	12.63	252	33525	186.25 ng/ml	93
31) Benzo(e)Pyrene	13.12	252	17989	102.16 ng/mL	90
32) Benzo(a)Pyrene	13.22	252	9161	58.82 ng/ml	90
33) Perylene	13.37	252	4418	25.72 ng/mL	98
35) Indeno(1,2,3-cd)Pyrene	15.49	276	14448	97.57 ng/ml	63
36) Dibenz(a,h)Anthracene	15.55	278	2589	19.39 ng/ml	93
37) Benzo(g,h,i)Perylene	16.08	276	26423	173.66 ng/ml	85

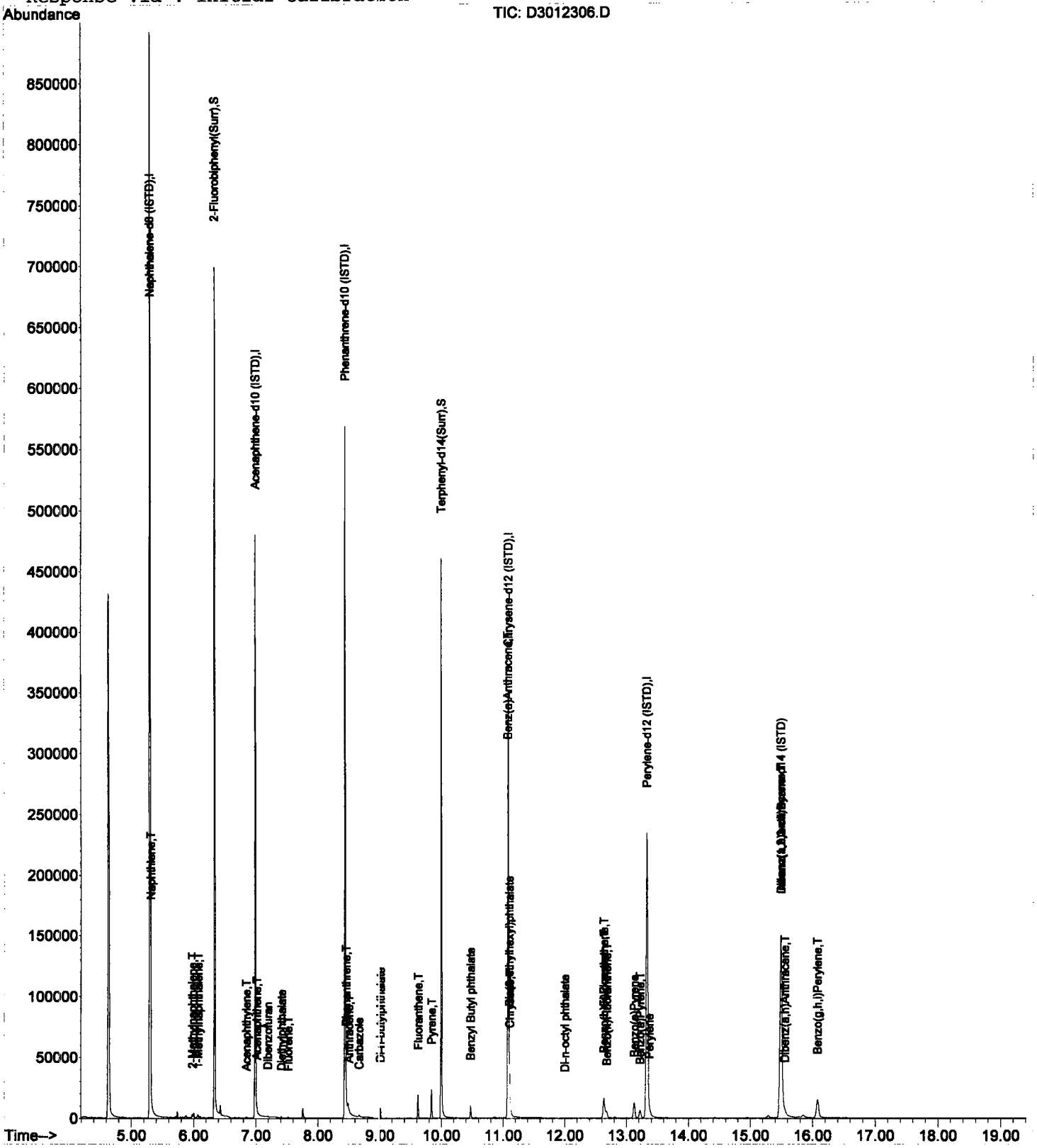
WMJ 1-23-13 BSJ

(#) = qualifier out of range (m) = manual integration
D3012306.D D30116.M Wed Jan 23 14:35:57 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012306.D Vial: 6
Acq On : 23 Jan 2013 11:31 Operator: bsj
Sample : A13A243-01RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.58g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



D3012306.D D30116.M Wed Jan 23 14:35:58 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:39 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Q-28
Q-26

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	875165	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	374368	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	482308	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	343848	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	308755	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	217847	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	545784	2141.67	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	366427	2596.24	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	2492	5.21	ng/ml	97
3) 2-Methylnaphthalene	5.98	142	763	2.72	ng/ml	93
4) 1-Methylnaphthalene	6.07	142	470	1.76	ng/ml	94
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.84	152	391	1.05	ng/ml#	68
9) Acenaphthene	7.01	153	875	3.62	ng/ml	92
10) Dibenzofuran	7.19	168	696	2.30	ng/mL	99
11) Diethylphthalate	7.41	149	1626	6.29	ng/mL#	58
12) Fluorene	7.52	166	577	2.41	ng/ml	81
14) Phenanthrene	8.45	178	7624	28.17	ng/ml	99
15) Anthracene	8.50	178	1698	6.48	ng/ml	95
16) Carbazole	8.67	167	1378	8.84	ng/mL#	66
17) Di-n-butylphthalate	9.01	149	9311	23.99	ng/mL	99
18) Fluoranthene	9.62	202	16497	69.18	ng/ml	99
19) Pyrene	9.84	202	17693	73.37	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	7518	53.22	ng/mL	78
23) Benz(a)Anthracene	11.07	228	8755	44.28	ng/ml	96
24) Chrysene	11.11	228	17971	97.26	ng/ml	94
25) Bis(2-ethylhexyl)phthalate	11.10	149	10525	51.02	ng/mL	99
26) Di-n-octyl phthalate	11.99	149	272	47.81	ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	25874	143.76	ng/ml	91
29) Benzo(k)Fluoranthene	12.67	252	8140	43.76	ng/ml	95
30) Benzo(b+k)Fluoranthene	12.63	252	34134m	185.31	ng/ml	
31) Benzo(e)Pyrene	13.12	252	18426	102.25	ng/mL	90
32) Benzo(a)Pyrene	13.22	252	9746	61.14	ng/ml	90
33) Perylene	13.37	252	5082	28.91	ng/mL	91
35) Indeno(1,2,3-cd)Pyrene	15.49	276	15088	101.20	ng/ml	64
36) Dibenz(a,h)Anthracene	15.55	278	2646	19.68	ng/ml	J 92
37) Benzo(g,h,i)Perylene	16.07	276	27358	178.57	ng/ml	84

Q-28
Q-26

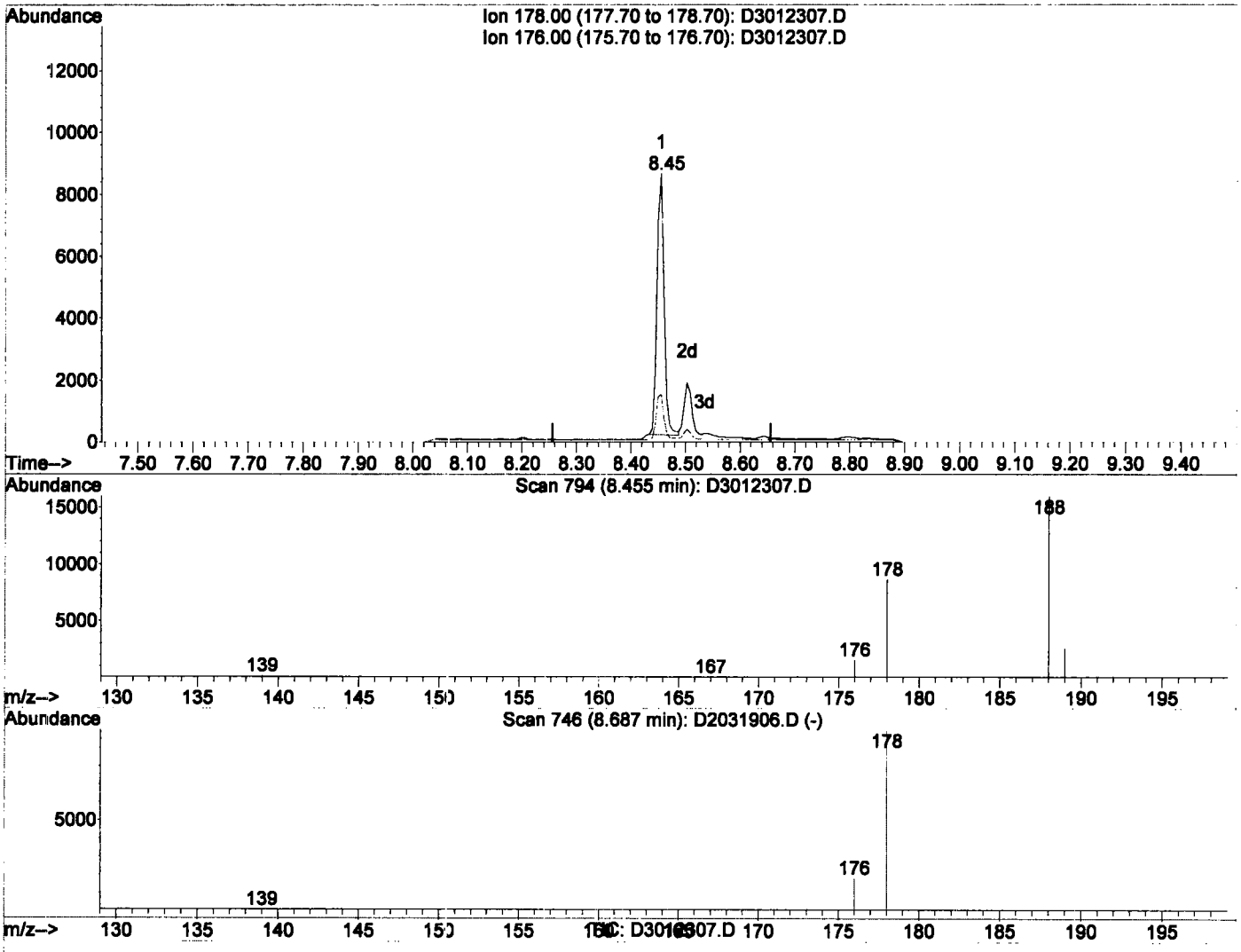
1-23-13 BSJ

(#) = qualifier out of range (m) = manual integration
D3012307.D D30116.M Wed Jan 23 14:40:18 2013 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(14) Phenanthrene (T)

8.45min 28.17ng/ml

response 7624

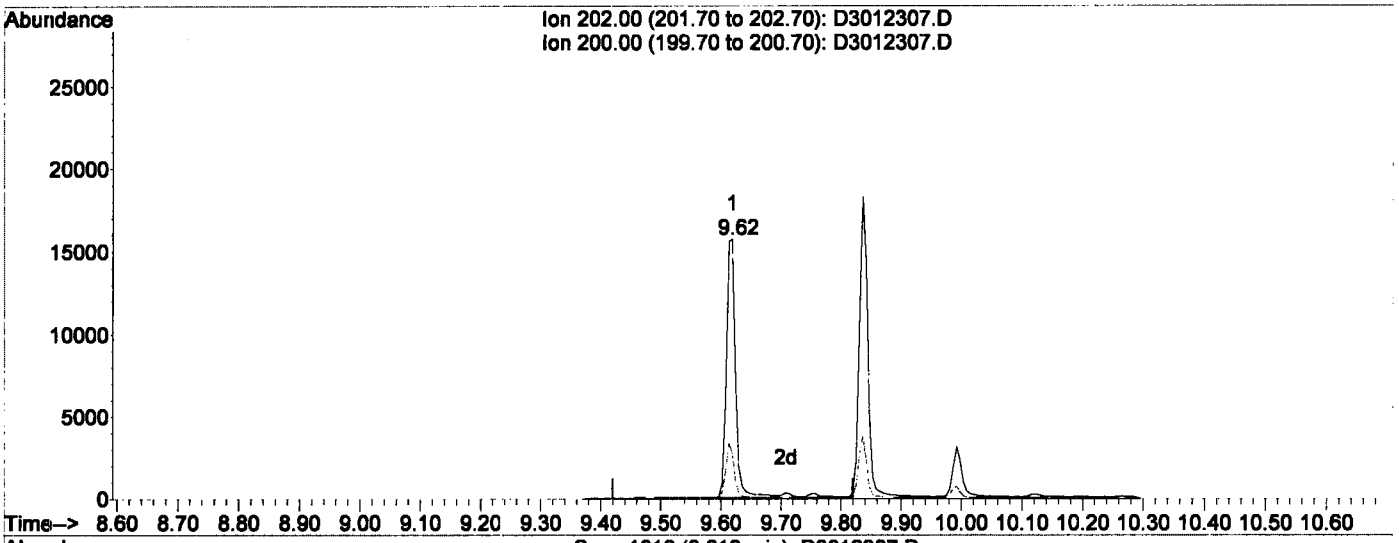
Ion	Exp%	Act%
178.00	100	100
176.00	18.60	18.95
0.00	0.00	0.00
0.00	0.00	0.00

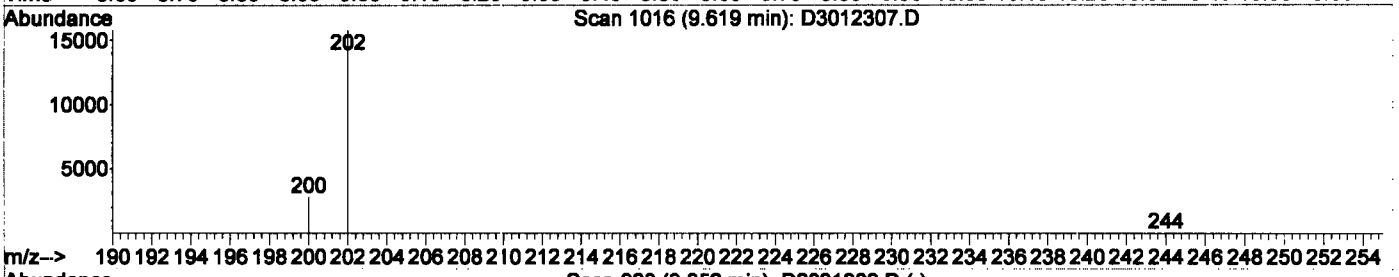
D3012307.D D30116.M Wed Jan 23 14:38:50 2013

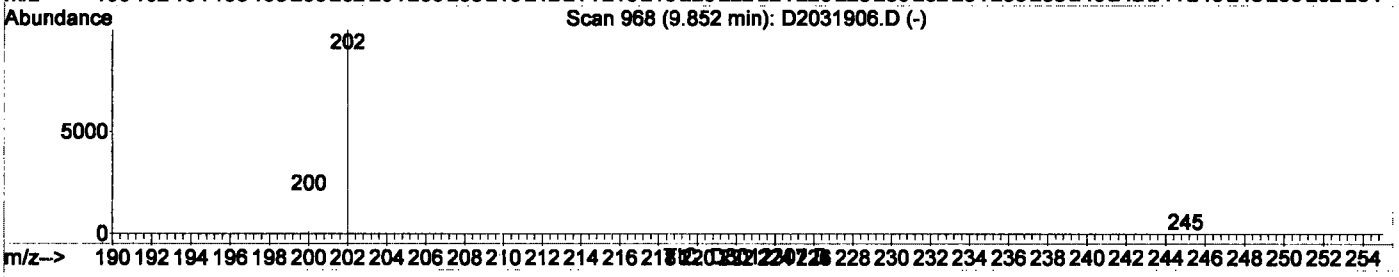
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(18) Fluoranthene (T)

9.62min 69.18ng/ml

response 16497

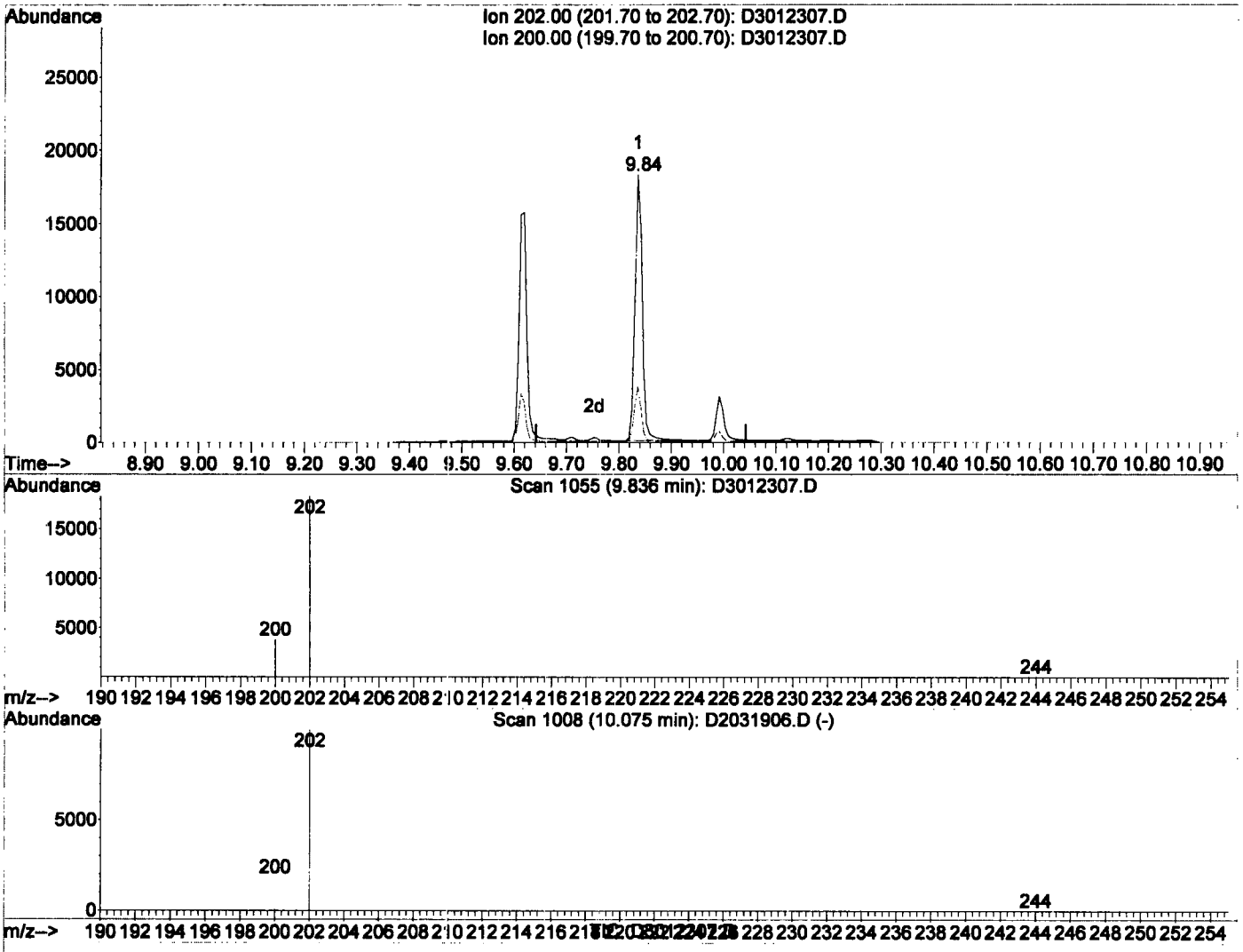
Ion	Exp%	Act%
202.00	100	100
200.00	19.80	19.31
0.00	0.00	0.00
0.00	0.00	0.00

D3012307.D D30116.M Wed Jan 23 14:38:57 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(19) Pyrene (T)

9.84min 73.37ng/ml

response 17693

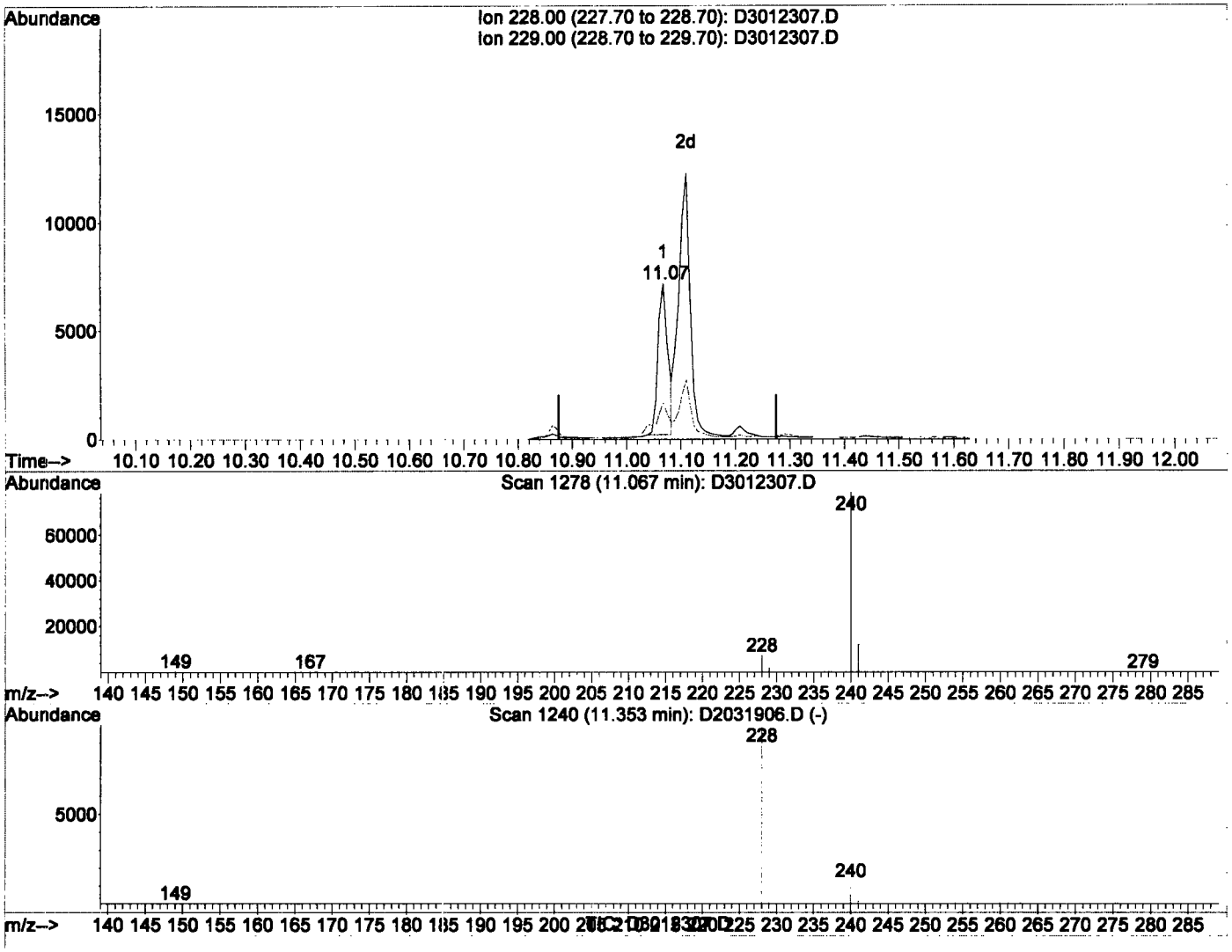
Ion	Exp%	Act%
202.00	100	100
200.00	20.40	19.88
0.00	0.00	0.00
0.00	0.00	0.00

D3012307.D D30116.M Wed Jan 23 14:39:01 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(23) Benz(a)Anthracene (T)

11.07min 44.28ng/ml

response 8755

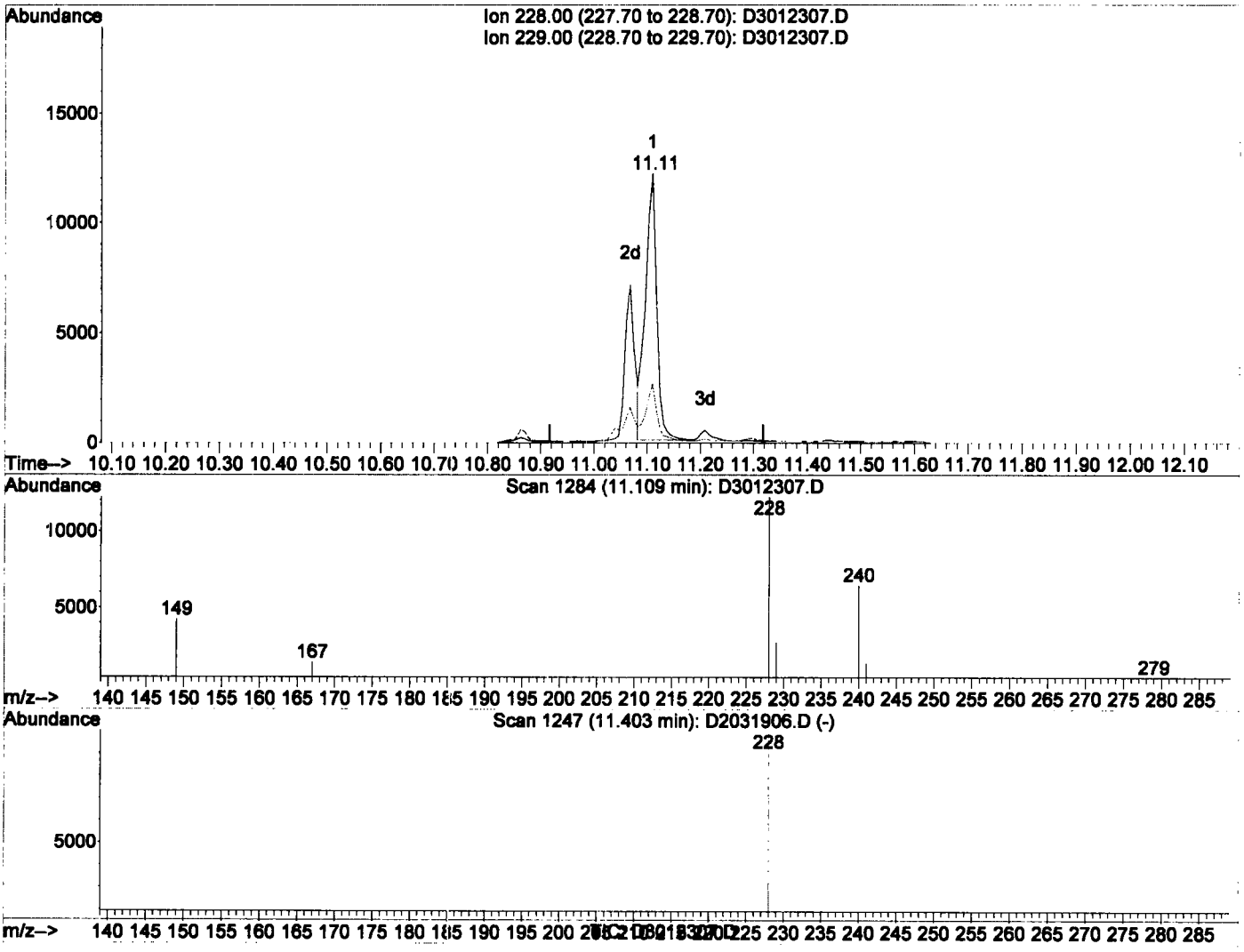
Ion	Exp%	Act%
228.00	100	100
229.00	19.30	21.30
0.00	0.00	0.00
0.00	0.00	0.00

D3012307.D D30116.M Wed Jan 23 14:39:09 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(24) Chrysene (T)

11.11min 97.26ng/ml

response 17971

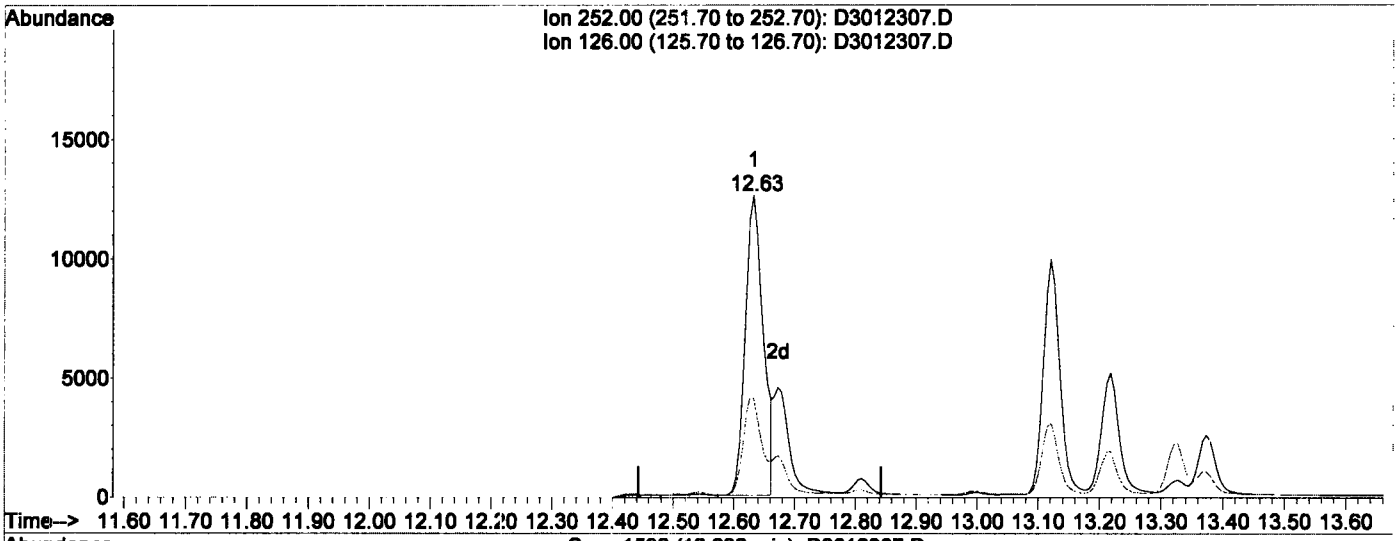
Ion	Exp%	Act%
228.00	100	100
229.00	19.20	22.00
0.00	0.00	0.00
0.00	0.00	0.00

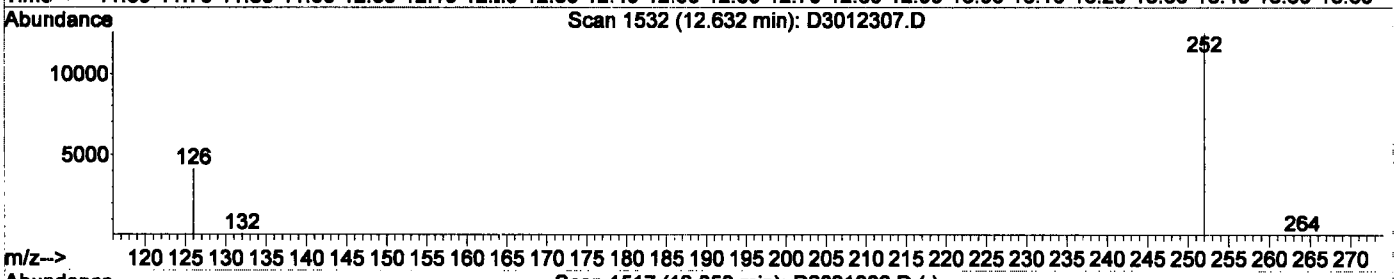
D3012307.D D30116.M Wed Jan 23 14:39:13 2013

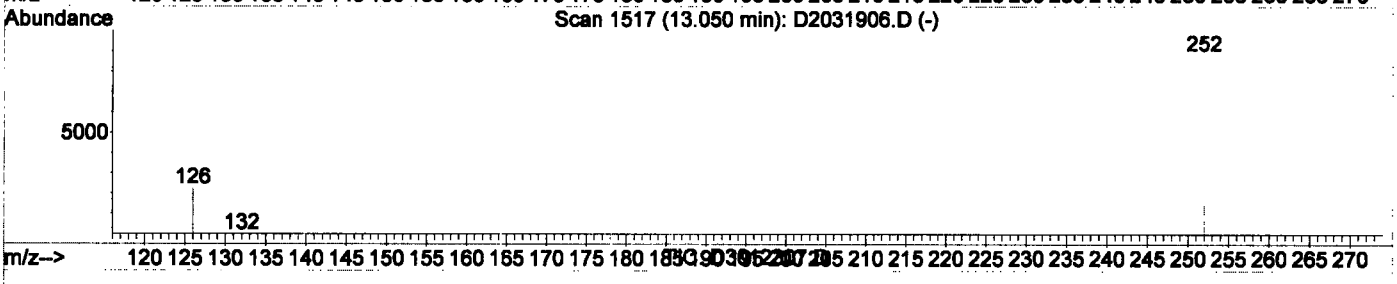
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.63min 143.76ng/ml

response 25874

Q-28

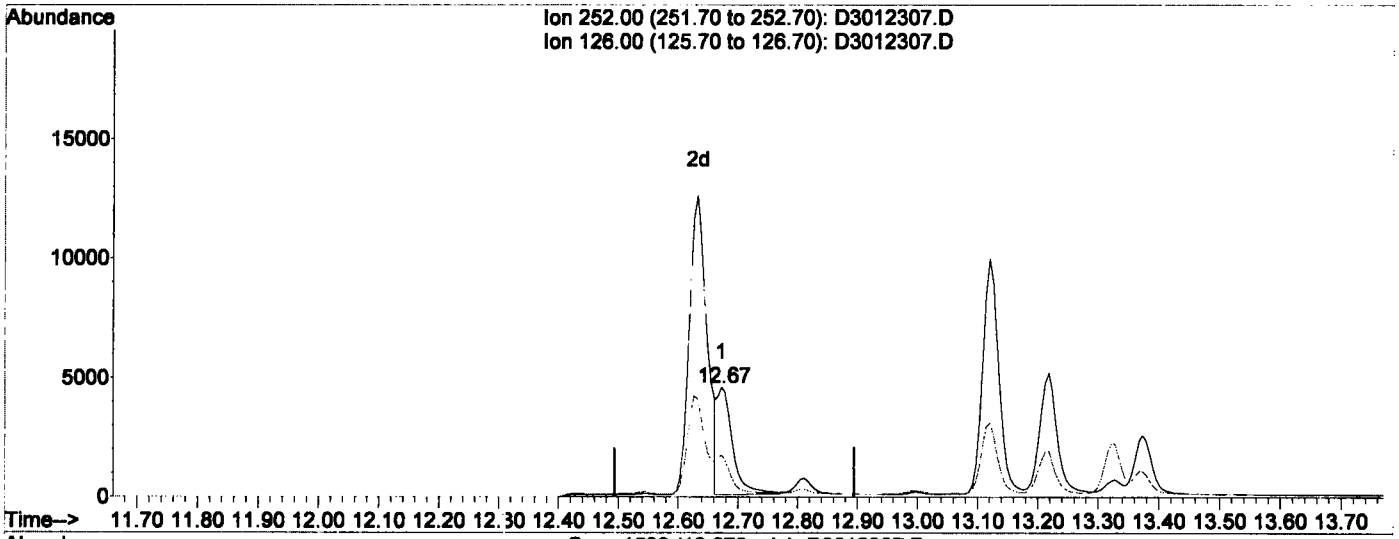
Ion	Exp%	Act%
252.00	100	100
126.00	28.90	33.93
0.00	0.00	0.00
0.00	0.00	0.00

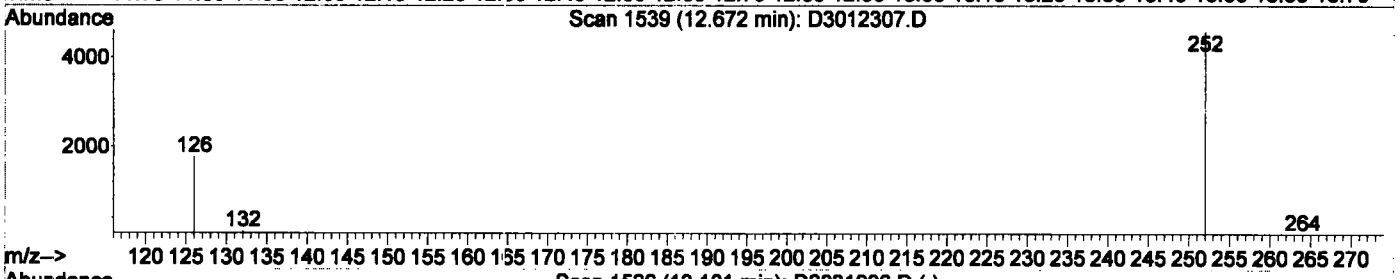
D3012307.D D30116.M Wed Jan 23 14:39:19 2013

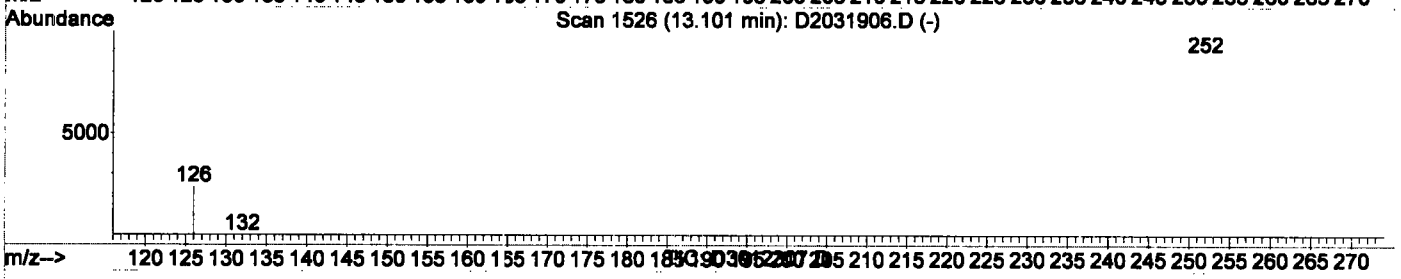
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.67min 43.76ng/ml

response 8140

Q.28

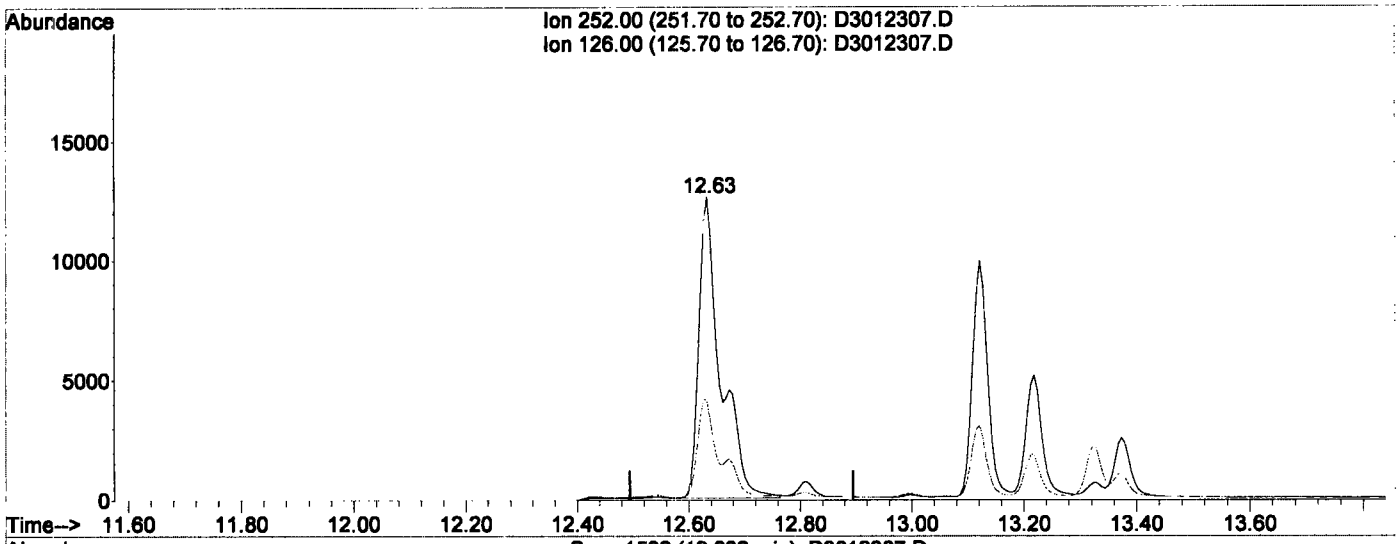
Ion	Exp%	Act%
252.00	100	100
126.00	30.40	33.23
0.00	0.00	0.00
0.00	0.00	0.00

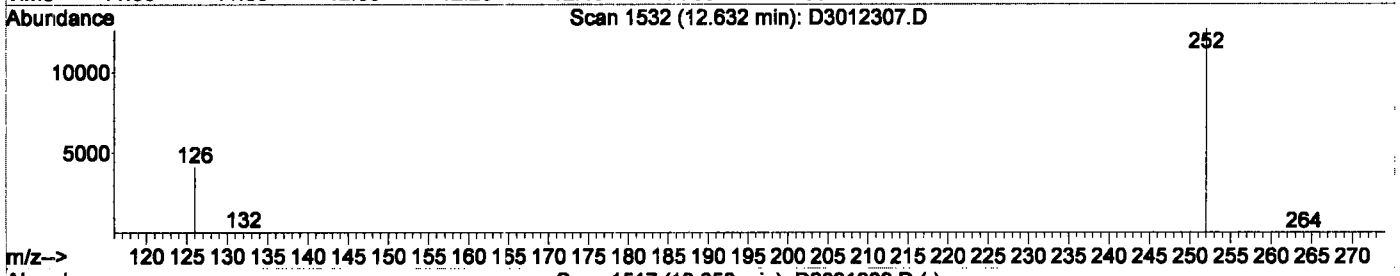
D3012307.D D30116.M Wed Jan 23 14:39:23 2013

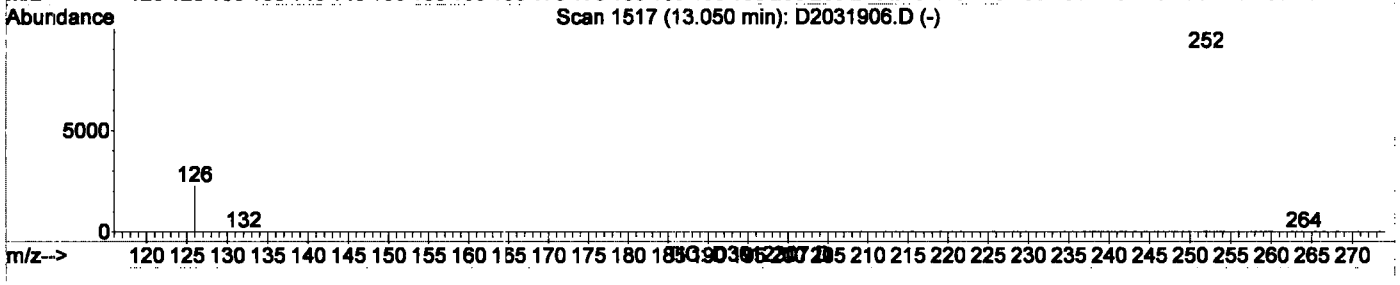
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:39 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.63min 185.31ng/ml m

response 34134

Ion	Exp%	Act%
252.00	100	100
126.00	29.70	35.06
0.00	0.00	0.00
0.00	0.00	0.00

Q-26
1-23-13 BSO

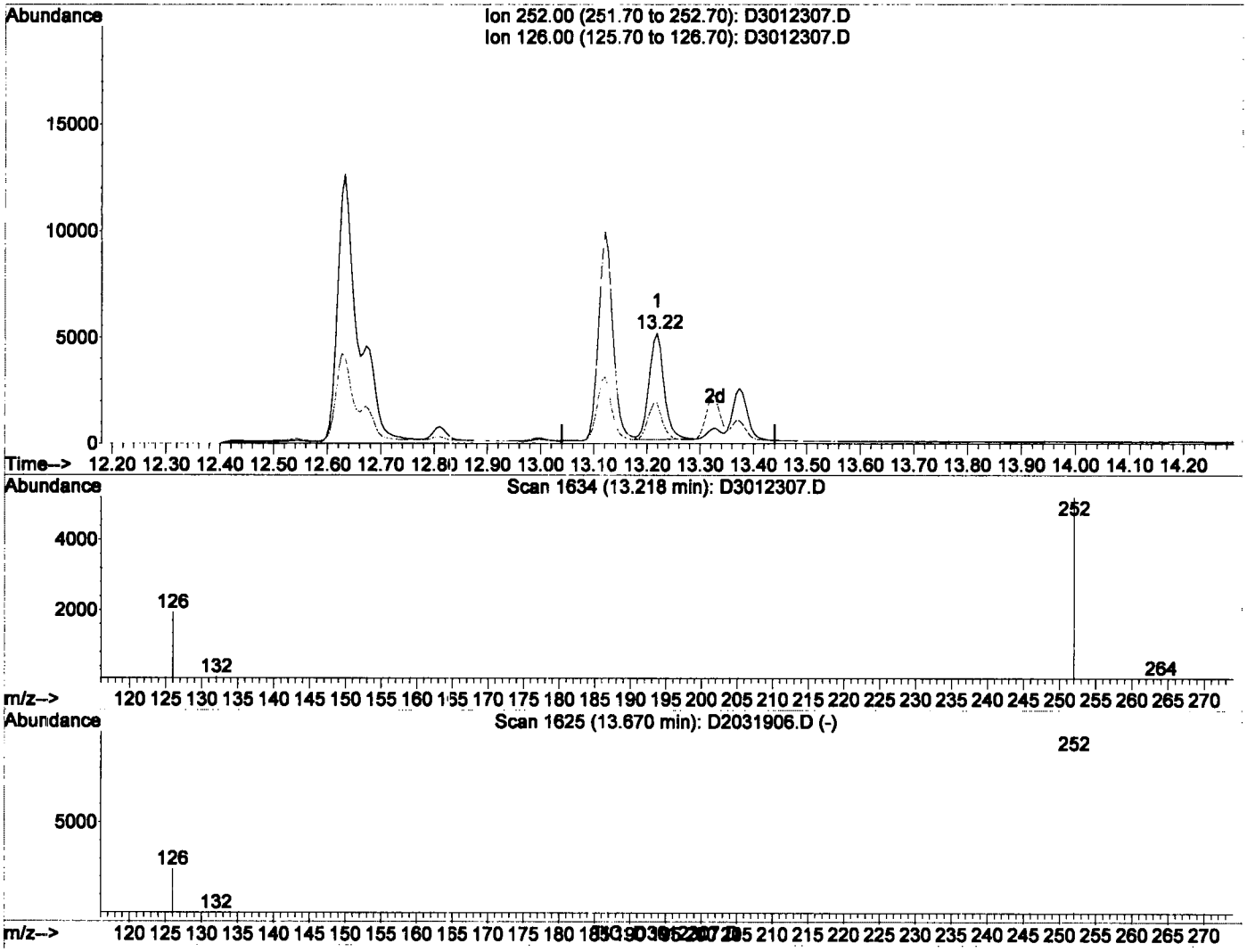
1/23/13

D3012307.D D30116.M Wed Jan 23 14:39:51 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:39 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(32) Benzo(a)Pyrene (T)

13.22min 61.14ng/ml

response 9746

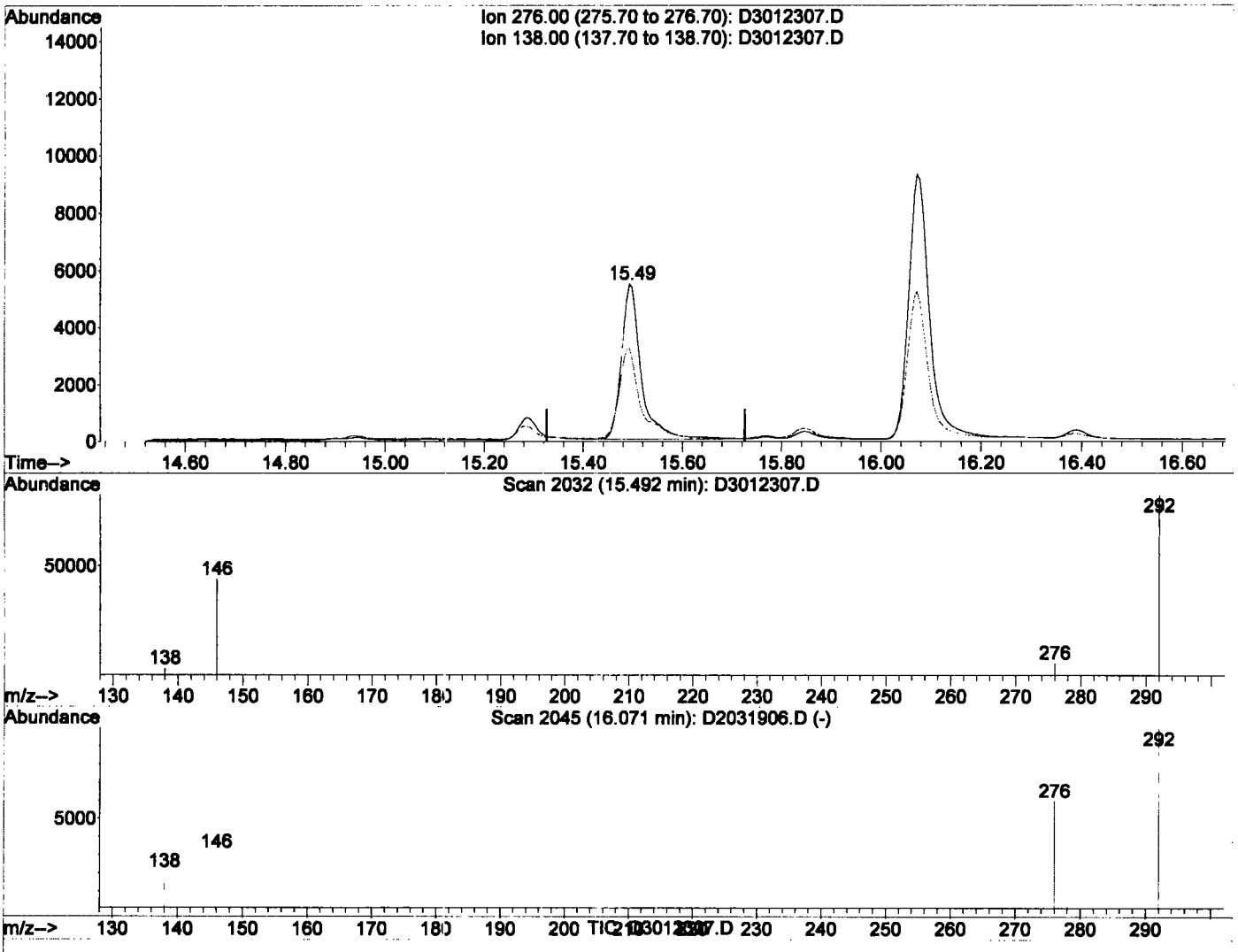
Ion	Exp%	Act%
252.00	100	100
126.00	29.80	35.15
0.00	0.00	0.00
0.00	0.00	0.00

D3012307.D D30116.M Wed Jan 23 14:39:56 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:39 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.49min 101.20ng/ml

response 15088

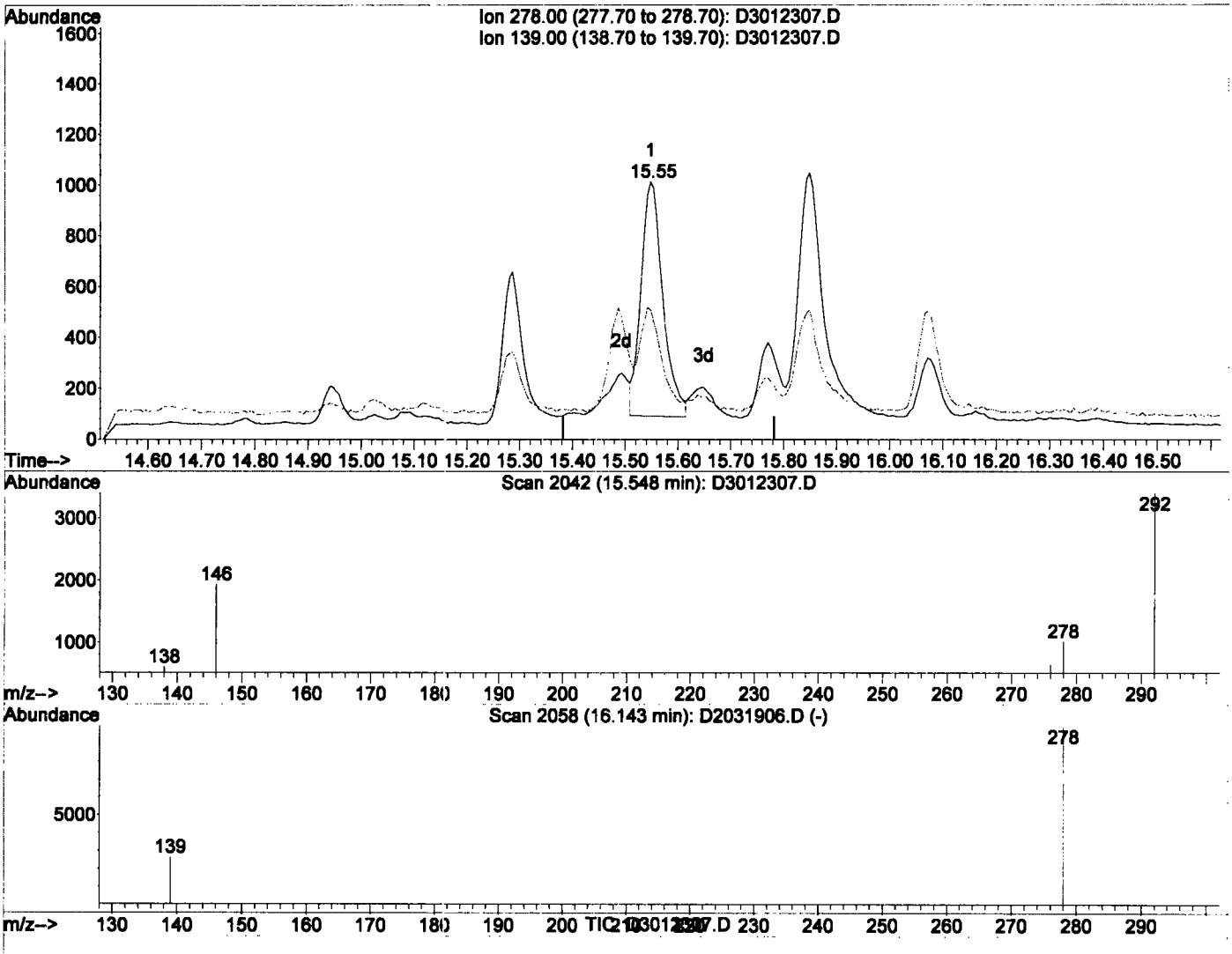
Ion	Exp%	Act%
276.00	100	100
138.00	40.10	62.20
0.00	0.00	0.00
0.00	0.00	0.00

D3012307.D D30116.M Wed Jan 23 14:40:02 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:39 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(36) Dibenz(a,h)Anthracene (T)

15.55min 19.68ng/ml

response 2646

Ion	Exp%	Act%
278.00	100	100
139.00	35.00	39.57
0.00	0.00	0.00
0.00	0.00	0.00

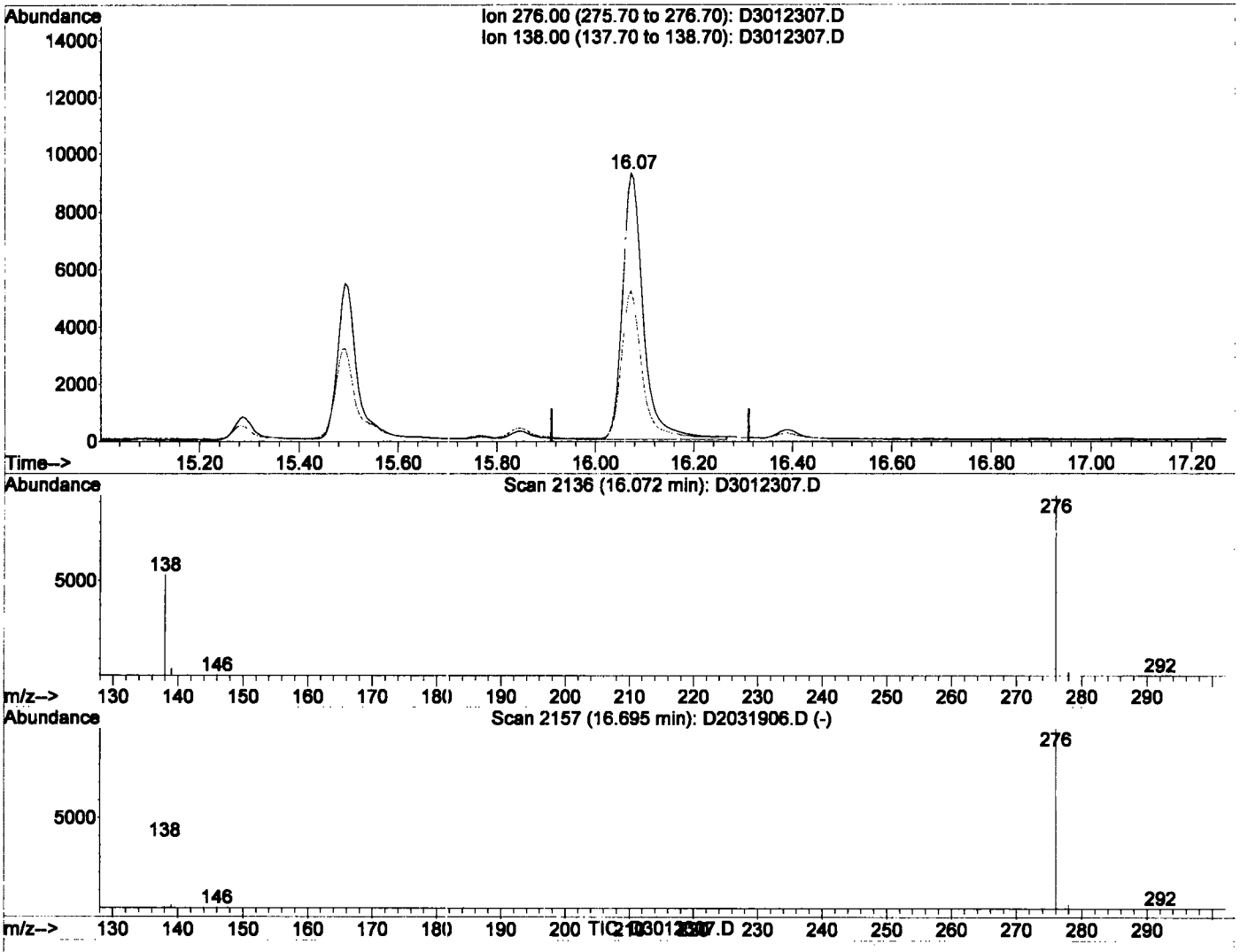
J

D3012307.D D30116.M Wed Jan 23 14:40:06 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:39 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.07min 178.57ng/ml

response 27358

Ion	Exp%	Act%
276.00	100	100
138.00	44.40	54.56
0.00	0.00	0.00
0.00	0.00	0.00

D3012307.D D30116.M Wed Jan 23 14:40:11 2013

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	875165	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	374368	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	482308	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	343848	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	308755	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	217847	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	545784	2141.67	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	366427	2596.24	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	2492	5.21	ng/ml	97
3) 2-Methylnaphthalene	5.98	142	763	2.72	ng/ml	93
4) 1-Methylnaphthalene	6.07	142	470	1.76	ng/ml	94
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	6.84	152	391	1.05	ng/ml#	68
9) Acenaphthene	7.01	153	875	3.62	ng/ml	92
10) Dibenzofuran	7.19	168	696	2.30	ng/mL	99
11) Diethylphthalate	7.41	149	1626	6.29	ng/mL#	58
12) Fluorene	7.52	166	577	2.41	ng/ml	81
14) Phenanthrene	8.45	178	7624	28.17	ng/ml	99
15) Anthracene	8.50	178	1698	6.48	ng/ml	95
16) Carbazole	8.67	167	1378	8.84	ng/mL#	66
17) Di-n-butylphthalate	9.01	149	9311	23.99	ng/mL	99
18) Fluoranthene	9.62	202	16497	69.18	ng/ml	99
19) Pyrene	9.84	202	17693	73.37	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	7518	53.22	ng/mL	78
23) Benz(a)Anthracene	11.07	228	8755	44.28	ng/ml	96
24) Chrysene	11.11	228	17971	97.26	ng/ml	94
25) Bis(2-ethylhexyl)phthalate	11.10	149	10525	51.02	ng/mL	99
26) Di-n-octyl phthalate	11.99	149	272	47.81	ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	25874	143.76	ng/ml	91
29) Benzo(k)Fluoranthene	12.67	252	8140	43.76	ng/ml	95
30) Benzo(b+k)Fluoranthene	12.63	252	35609	193.32	ng/ml	93
31) Benzo(e)Pyrene	13.12	252	18426	102.25	ng/mL	90
32) Benzo(a)Pyrene	13.22	252	9746	61.14	ng/ml	90
33) Perylene	13.37	252	5082	28.91	ng/mL	91
35) Indeno(1,2,3-cd)Pyrene	15.49	276	15088	101.20	ng/ml	64
36) Dibenz(a,h)Anthracene	15.55	278	2646	19.68	ng/ml	92
37) Benzo(g,h,i)Perylene	16.07	276	27358	178.57	ng/ml	84

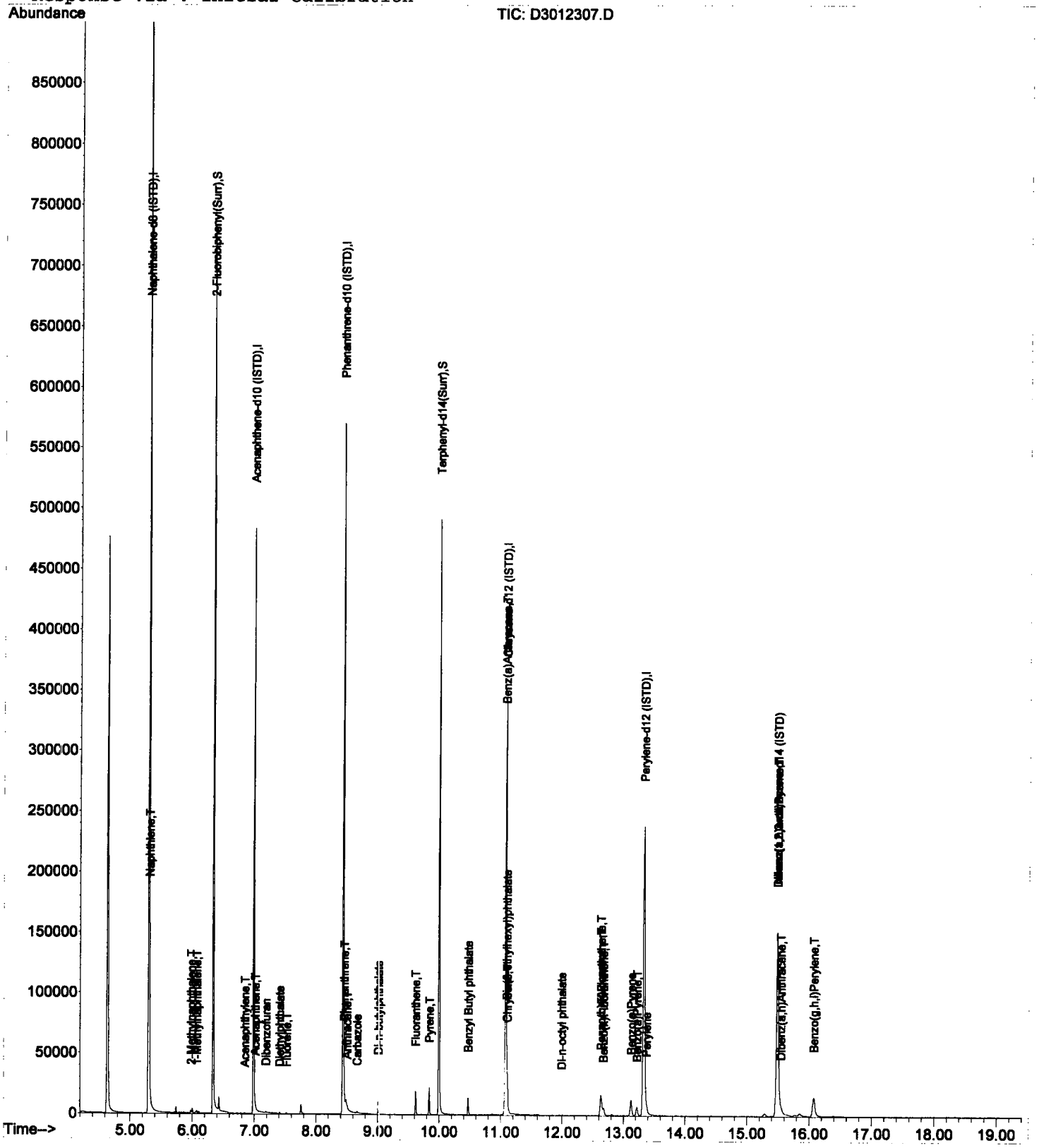
MJ 1-23-13 BSJ

(#) = qualifier out of range (m) = manual integration
D3012307.D D30116.M Wed Jan 23 14:36:01 2013

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012307.D Vial: 7
Acq On : 23 Jan 2013 11:57 Operator: bsj
Sample : 1301478-DUP1 Inst : SV-GCMS4
Misc : 1x Soil 11.76g/5mL SIM-PAH (A243-01 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:35 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



D3012307.D D30116.M Wed Jan 23 14:36:02 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012308.D Vial: 8
Acq On : 23 Jan 2013 12:23 Operator: bsj
Sample : A13A243-02RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.62g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	860842	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	380007	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	495152	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	347288	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	314023	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.49	292	220847	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	540351	2088.89	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	353472	2479.64	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	2211	4.70	ng/ml#	79
3) 2-Methylnaphthalene	5.98	142	522	1.89	ng/ml	98
4) 1-Methylnaphthalene	6.07	142	336	1.28	ng/ml	91
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	7.19	168	216	0.70	ng/mL#	39
11) Diethylphthalate	7.40	149	1568	5.97	ng/mL#	58
12) Fluorene	7.52	166	259	1.06	ng/ml#	54
14) Phenanthrene	8.45	178	927	3.34	ng/ml#	58
15) Anthracene	8.45	178	927	3.45	ng/ml#	59
16) Carbazole	8.67	167	324	4.45	ng/mL#	66
17) Di-n-butylphthalate	9.01	149	8880	22.28	ng/mL	97
18) Fluoranthene	9.62	202	1241	5.07	ng/ml	98
19) Pyrene	9.84	202	1600	6.46	ng/ml	100
22) Benzyl Butyl phthalate	10.47	149	7366	51.63	ng/mL	83
23) Benz(a)Anthracene	11.07	228	1317	6.60	ng/ml	98
24) Chrysene	11.11	228	639	3.42	ng/ml#	58
25) Bis(2-ethylhexyl)phthalate	11.10	149	9881	47.43	ng/mL	100
26) Di-n-octyl phthalate	12.07	149	280	47.83	ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	1806	9.87	ng/ml	92
29) Benzo(k)Fluoranthene	12.68	252	529	2.80	ng/ml#	44
30) Benzo(b+k)Fluoranthene	12.63	252	2493	13.31	ng/ml	92
31) Benzo(e)Pyrene	13.12	252	1838	10.03	ng/mL	91
32) Benzo(a)Pyrene	13.22	252	610	3.76	ng/ml	84
33) Perylene	13.37	252	1150	6.43	ng/mL	99
35) Indeno(1,2,3-cd)Pyrene	15.50	276	2391	(15.82	ng/ml# J	1
36) Dibenz(a,h)Anthracene	15.55	278	302	2.22	ng/ml#	40
37) Benzo(g,h,i)Perylene	16.08	276	5417	34.88	ng/ml	85

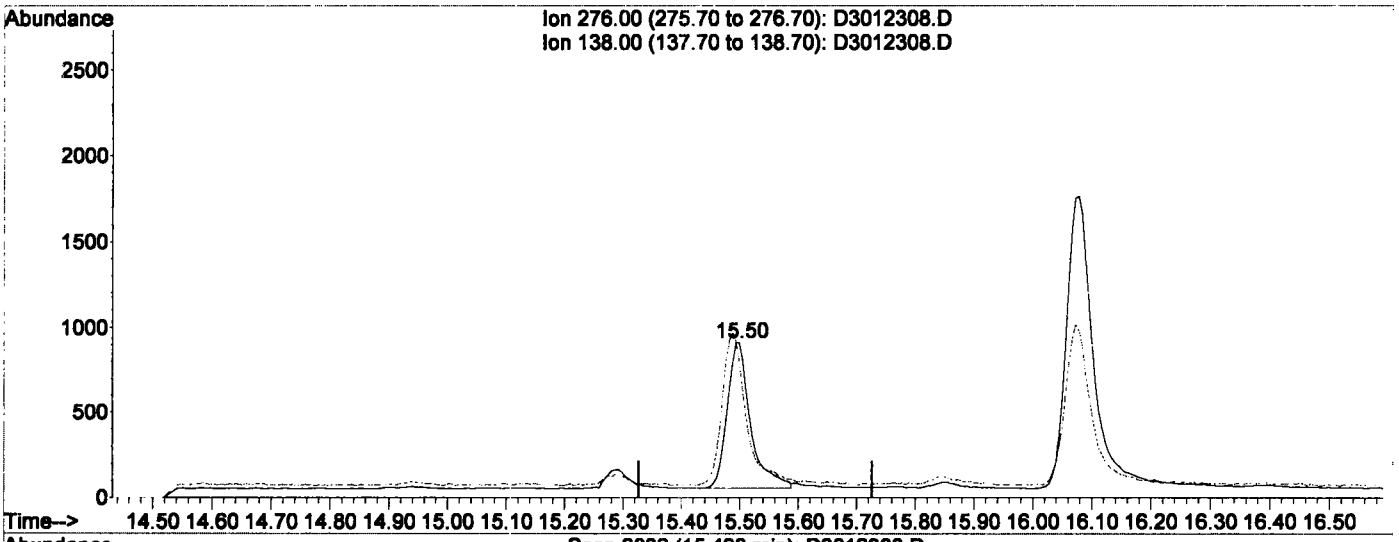
1-23-13 BSJ

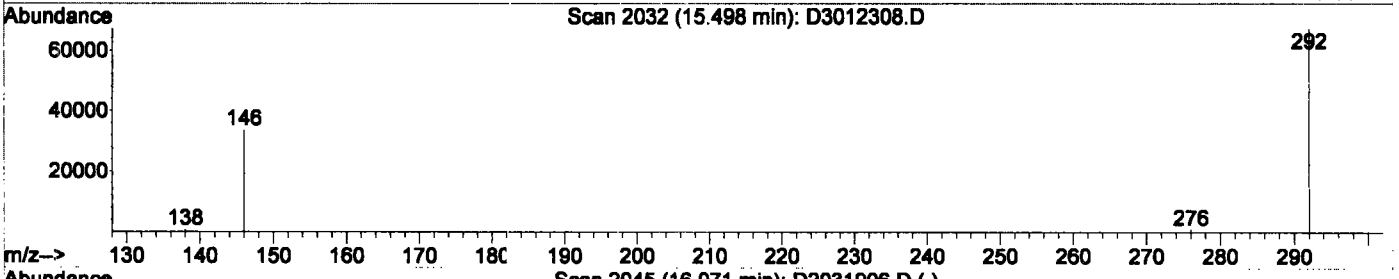
(#) = qualifier out of range (m) = manual integration
D3012308.D D30116.M Wed Jan 23 14:36:05 2013

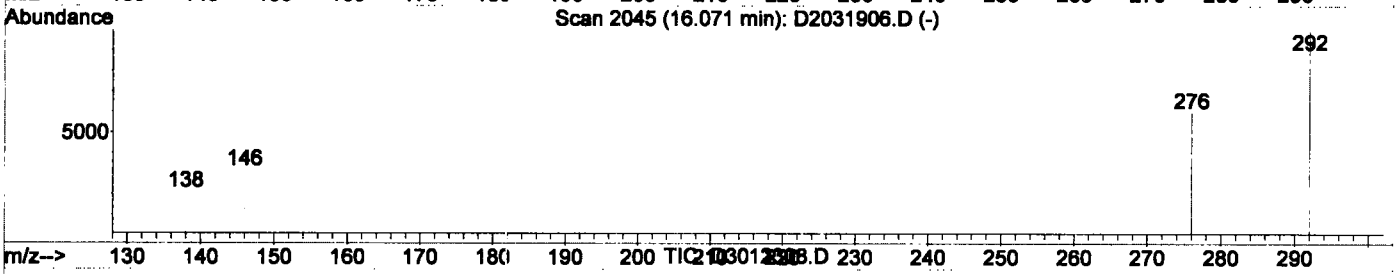
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012308.D Vial: 8
Acq On : 23 Jan 2013 12:23 Operator: bsj
Sample : A13A243-02RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.62g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(35) Indeno(1,2,3-cd)Pyrene (T)

15.50min 15.82ng/ml

response 2391

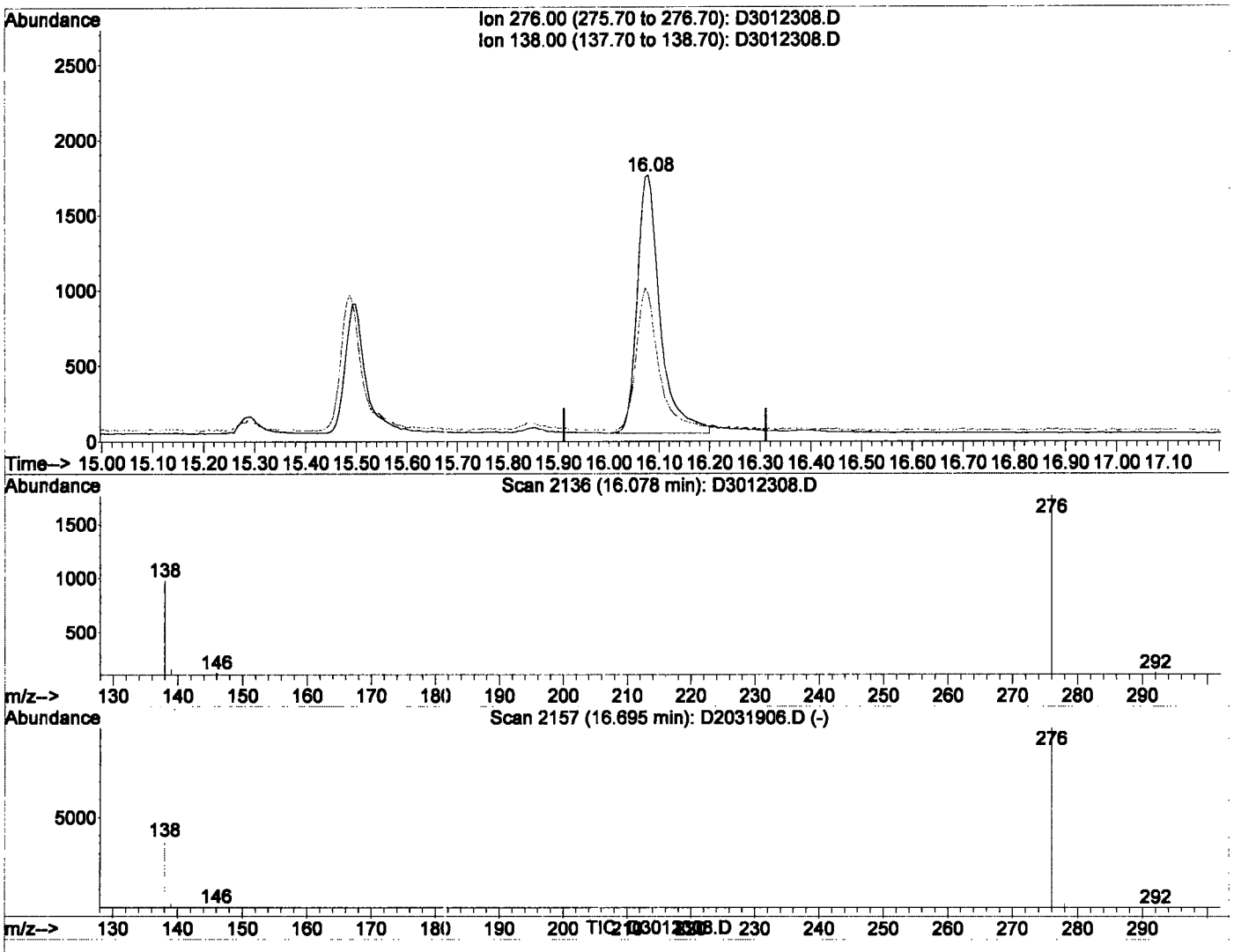
Ion	Exp%	Act%
276.00	100	100
138.00	40.10	110.04#
0.00	0.00	0.00
0.00	0.00	0.00

D3012308.D D30116.M Wed Jan 23 14:41:10 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012308.D Vial: 8
Acq On : 23 Jan 2013 12:23 Operator: bsj
Sample : A13A243-02RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.62g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.08min 34.88ng/ml

response 5417

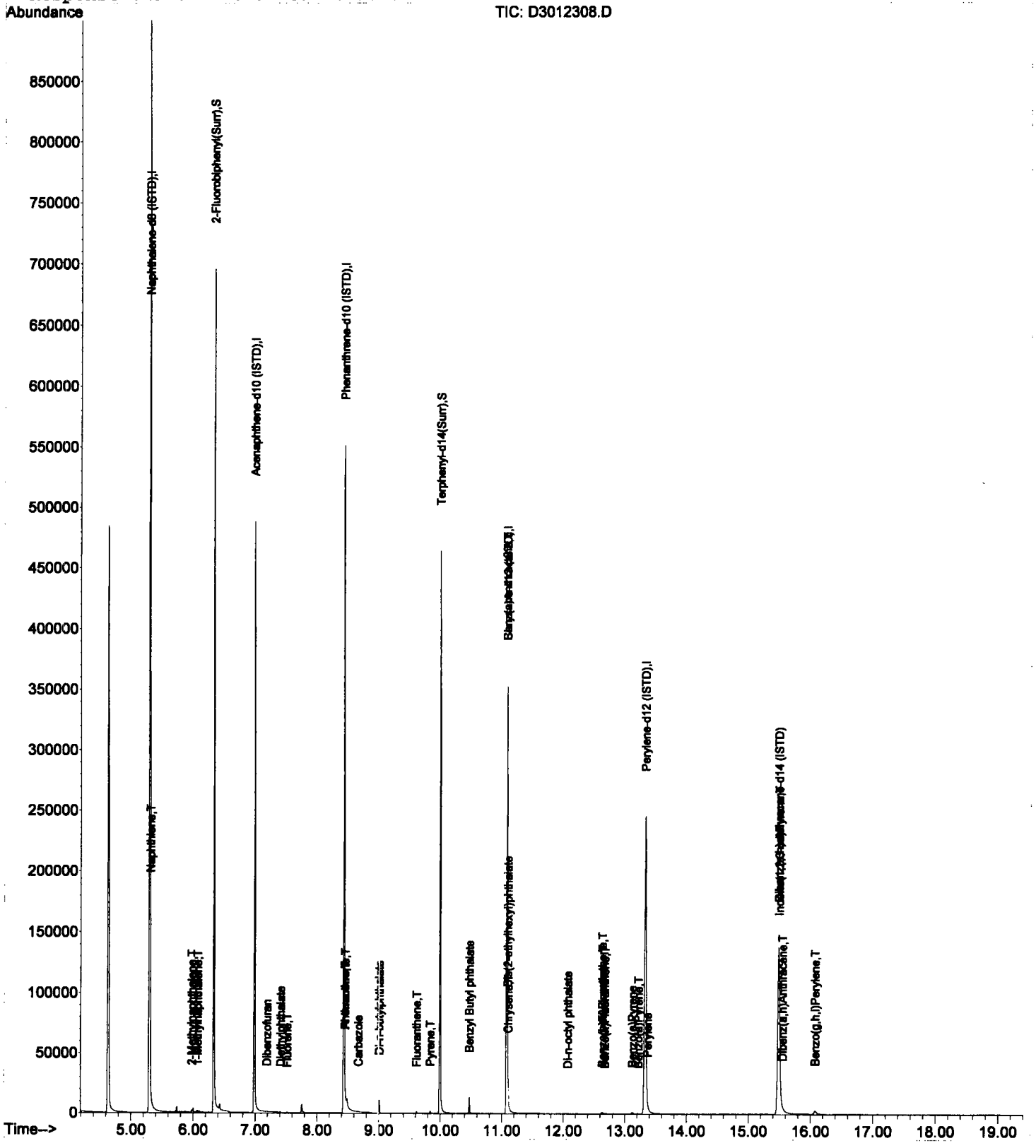
Ion	Exp%	Act%
276.00	100	100
138.00	44.40	54.13
0.00	0.00	0.00
0.00	0.00	0.00

D3012308.D D30116.M Wed Jan 23 14:41:16 2013

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012308.D Vial: 8
Acq On : 23 Jan 2013 12:23 Operator: bsj
Sample : A13A243-02RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.62g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:42 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Q-28
Q-24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	846423	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	373317	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	486376	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	343880	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	311268	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	221943	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	562799	2214.66	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	366666	2597.69	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	3032	6.55	ng/ml	98
3) 2-Methylnaphthalene	5.98	142	912	3.36	ng/ml	96
4) 1-Methylnaphthalene	6.07	142	641	2.48	ng/ml	98
7) Dimethylphthalate	6.72	163	204	0.83	ng/mL#	73
8) Acenaphthylene	6.84	152	552	1.49	ng/ml#	68
9) Acenaphthene	7.02	153	1622	6.74	ng/ml	94
10) Dibenzofuran	7.19	168	765	2.53	ng/mL	93
11) Diethylphthalate	7.41	149	1654	6.41	ng/mL#	58
12) Fluorene	7.52	166	877	3.67	ng/ml	91
14) Phenanthrene	8.45	178	11301	41.40	ng/ml	99
15) Anthracene	8.50	178	3688	13.95	ng/ml J	95
16) Carbazole	8.67	167	1497	9.28	ng/mL#	66
17) Di-n-butylphthalate	9.01	149	5803	14.83	ng/mL	88
18) Fluoranthene	9.61	202	25154	104.60	ng/ml	99
19) Pyrene	9.84	202	24932	102.52	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	6807	48.19	ng/mL	85
23) Benz(a)Anthracene	11.07	228	15334	77.55	ng/ml	89
24) Chrysene	11.11	228	25951	140.43	ng/ml	95
25) Bis(2-ethylhexyl)phthalate	11.10	149	6490	31.46	ng/mL	100
26) Di-n-octyl phthalate	12.07	149	235	47.68	ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	42180	232.47	ng/ml	91
29) Benzo(k)Fluoranthene	12.67	252	13887	74.05	ng/ml Q-28	95
30) Benzo(b+k)Fluoranthene	12.63	252	57097m	307.47	ng/ml Q-24	
31) Benzo(e)Pyrene	13.12	252	27192	149.68	ng/mL	91
32) Benzo(a)Pyrene	13.22	252	18691	116.32	ng/ml	91
33) Perylene	13.37	252	5830	32.90	ng/mL	93
35) Indeno(1,2,3-cd)Pyrene	15.49	276	18646	122.75	ng/ml	66
36) Dibenz(a,h)Anthracene	15.55	278	4151	30.31	ng/ml	88
37) Benzo(g,h,i)Perylene	16.07	276	22438	143.75	ng/ml	86

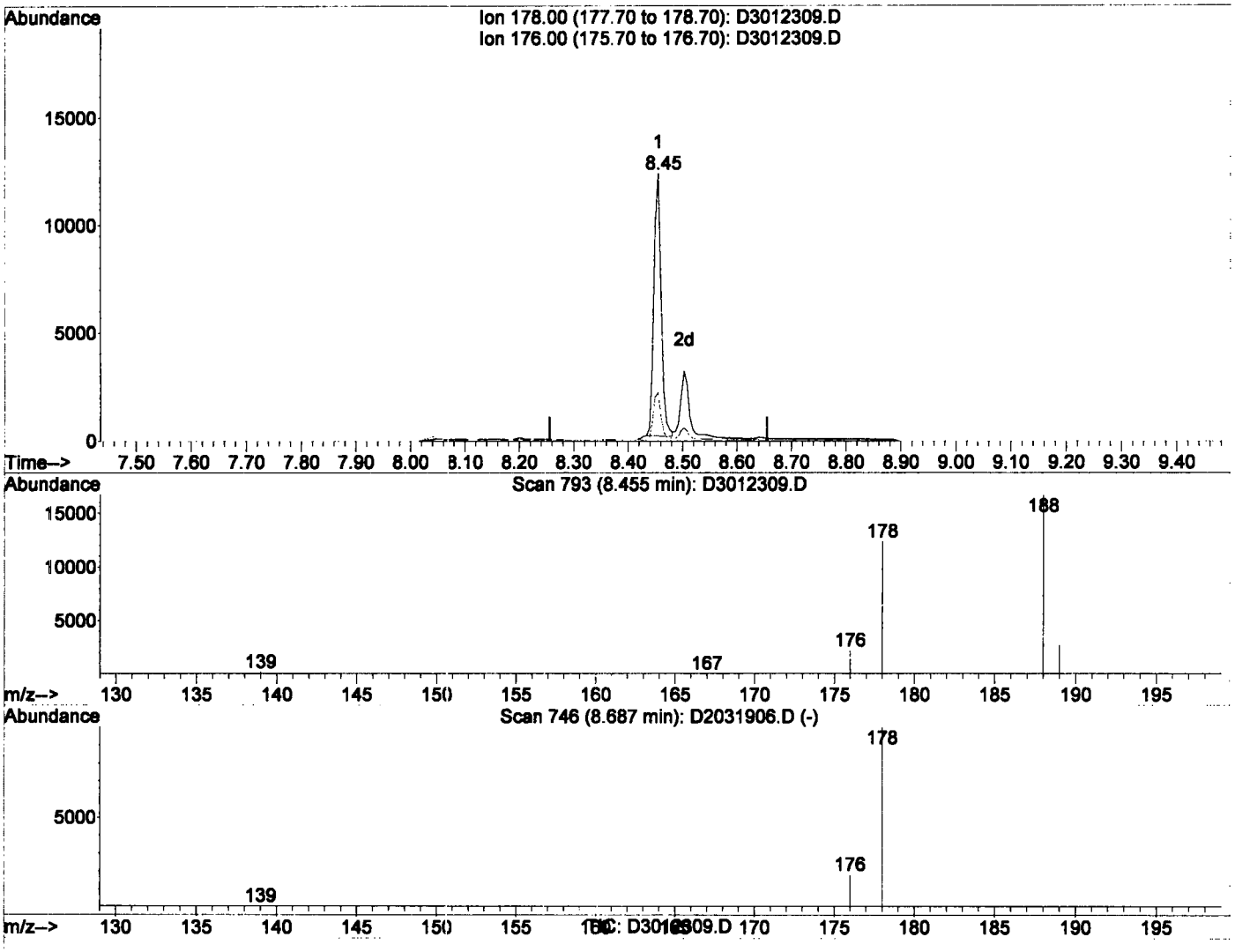
1-29-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3012309.D D30116.M Wed Jan 23 14:42:54 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(14) Phenanthrene (T)

8.45min 41.40ng/ml

response 11301

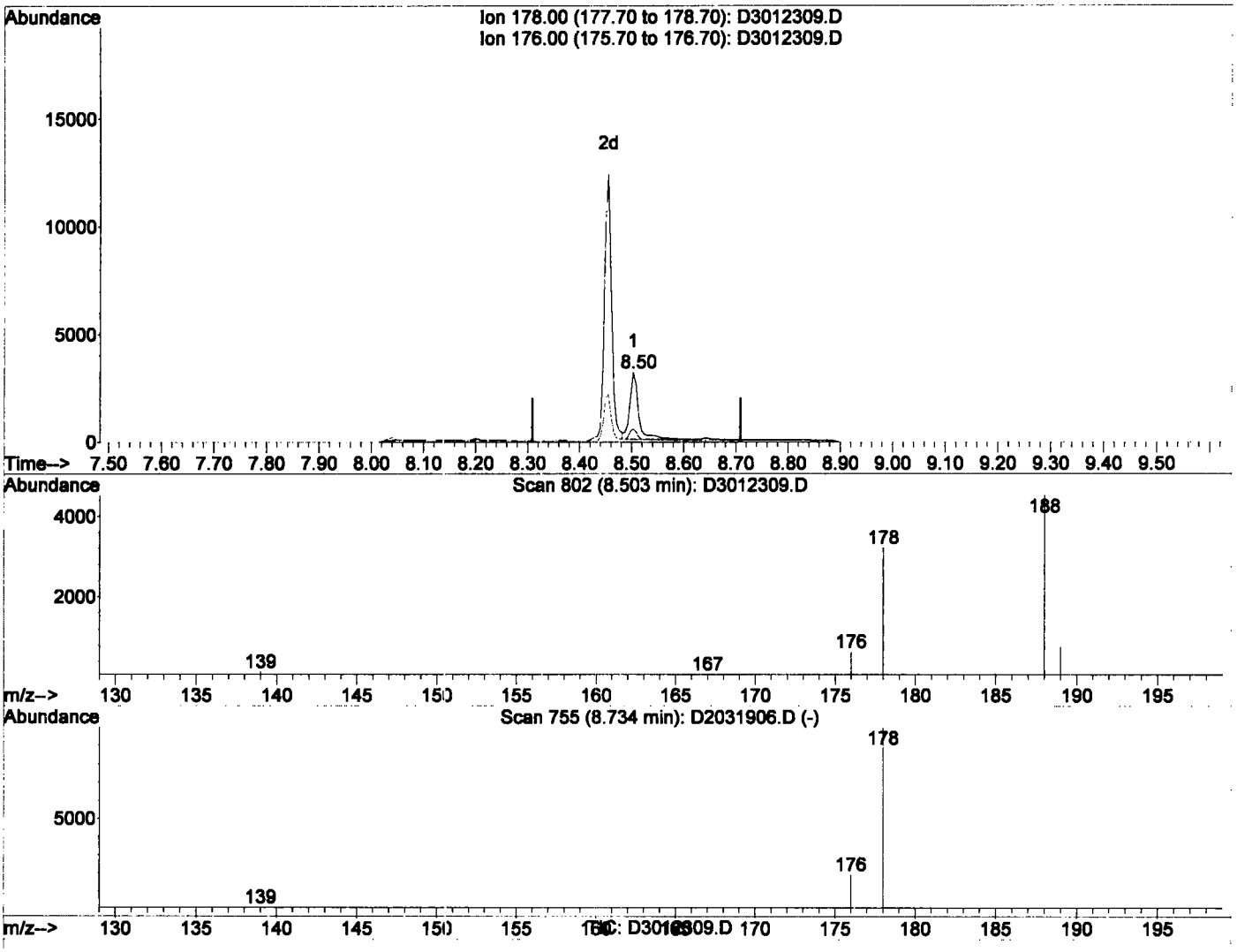
Ion	Exp%	Act%
178.00	100	100
176.00	18.60	19.24
0.00	0.00	0.00
0.00	0.00	0.00

D3012309.D D30116.M Wed Jan 23 14:41:42 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(15) Anthracene (T)

8.50min 13.95ng/ml

response 3688

Ion	Exp%	Act%
178.00	100	100
176.00	18.30	16.02
0.00	0.00	0.00
0.00	0.00	0.00

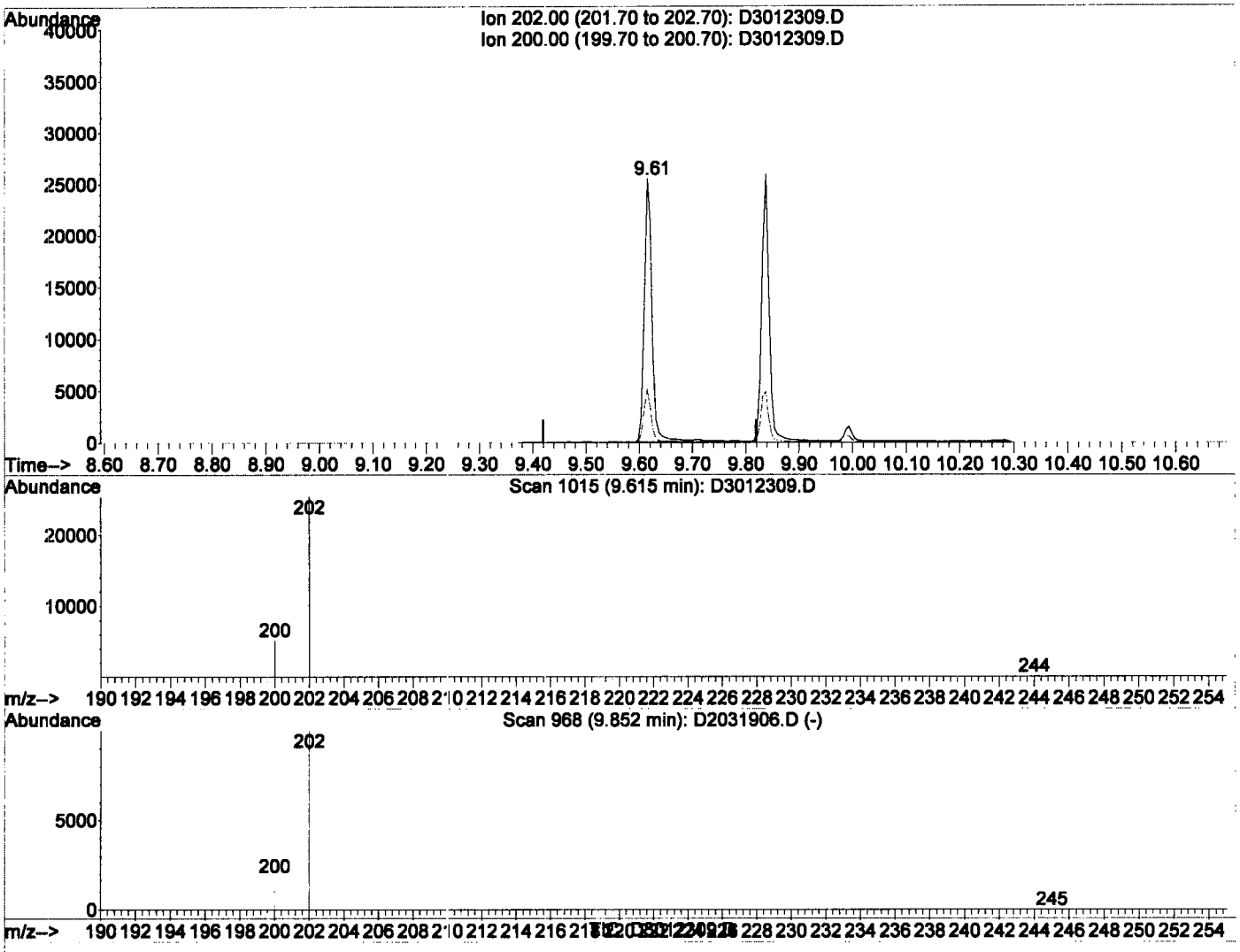
J

D3012309.D D30116.M Wed Jan 23 14:41:46 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(18) Fluoranthene (T)

9.61min 104.60ng/ml

response 25154

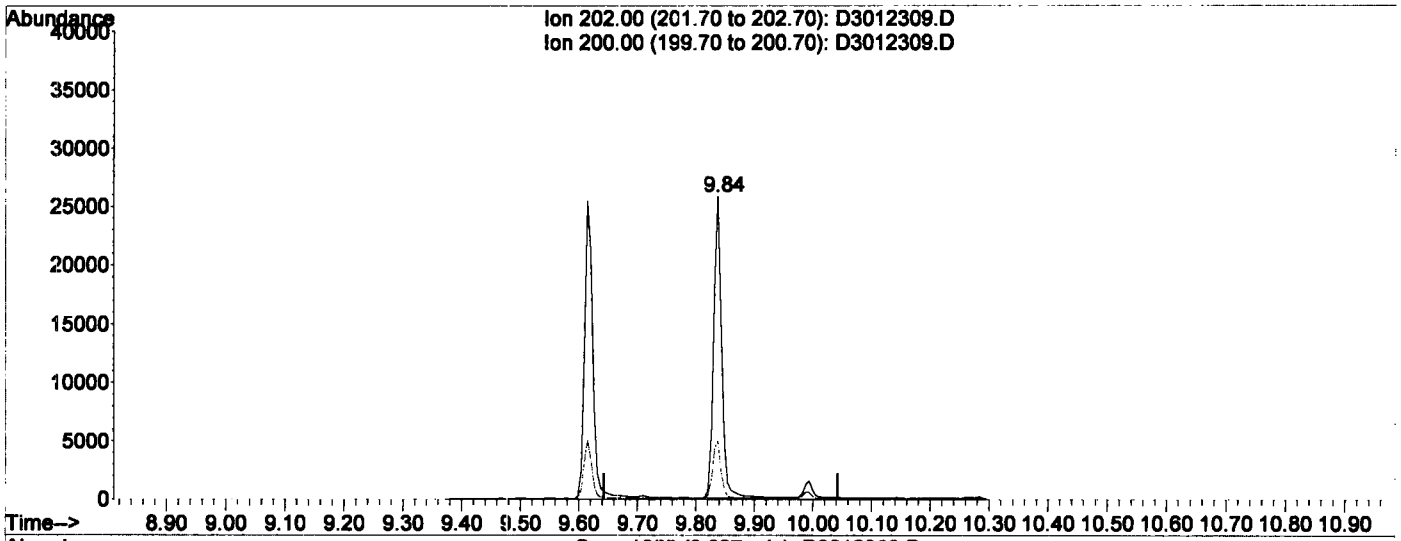
Ion	Exp%	Act%
202.00	100	100
200.00	19.80	19.33
0.00	0.00	0.00
0.00	0.00	0.00

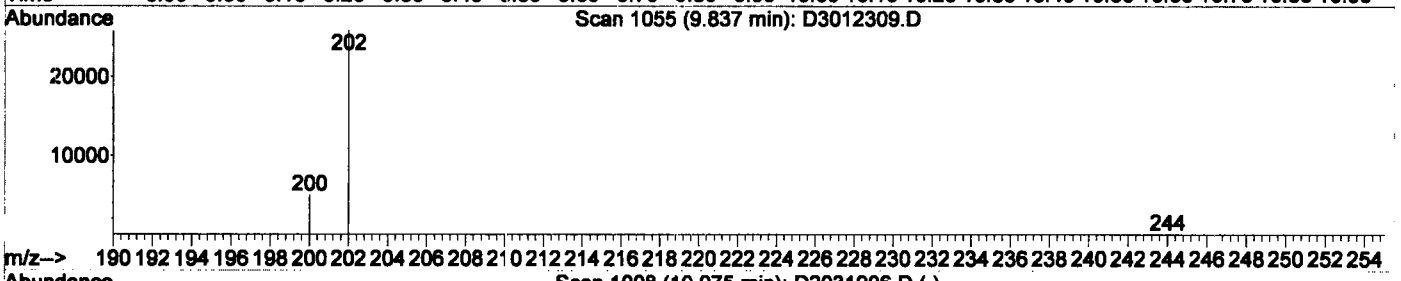
D3012309.D D30116.M Wed Jan 23 14:41:52 2013

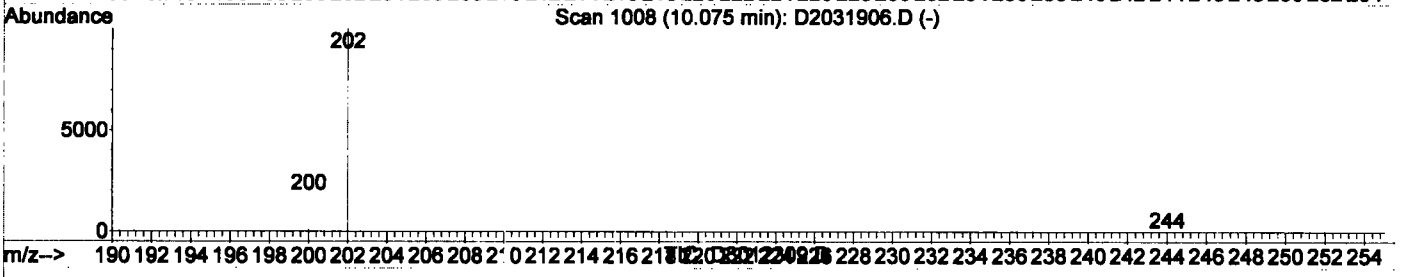
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(19) Pyrene (T)

9.84min 102.52ng/ml

response 24932

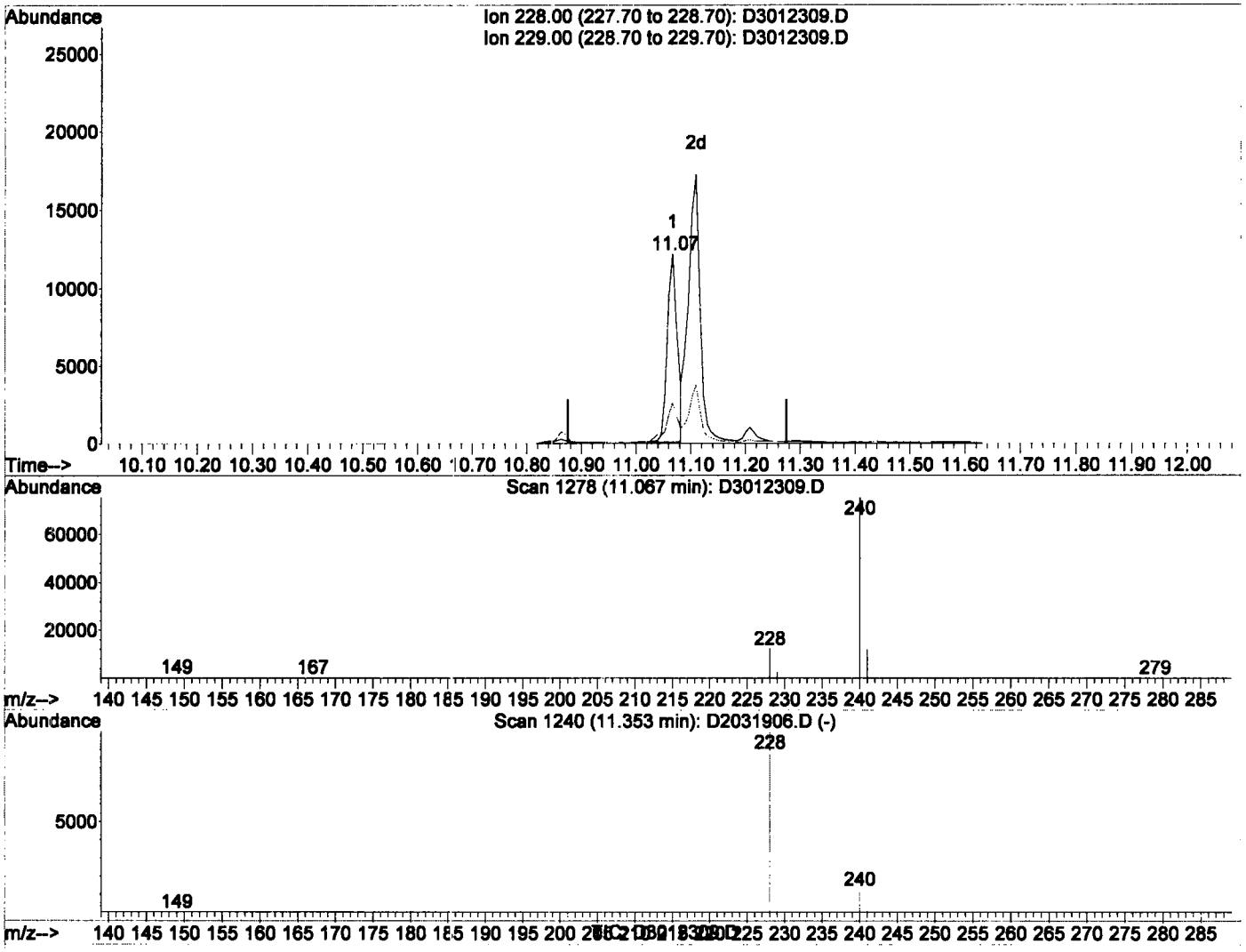
Ion	Exp%	Act%
202.00	100	100
200.00	20.40	20.14
0.00	0.00	0.00
0.00	0.00	0.00

D3012309.D D30116.M Wed Jan 23 14:41:56 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(23) Benz(a)Anthracene (T)

11.07min 77.55ng/ml

response 15334

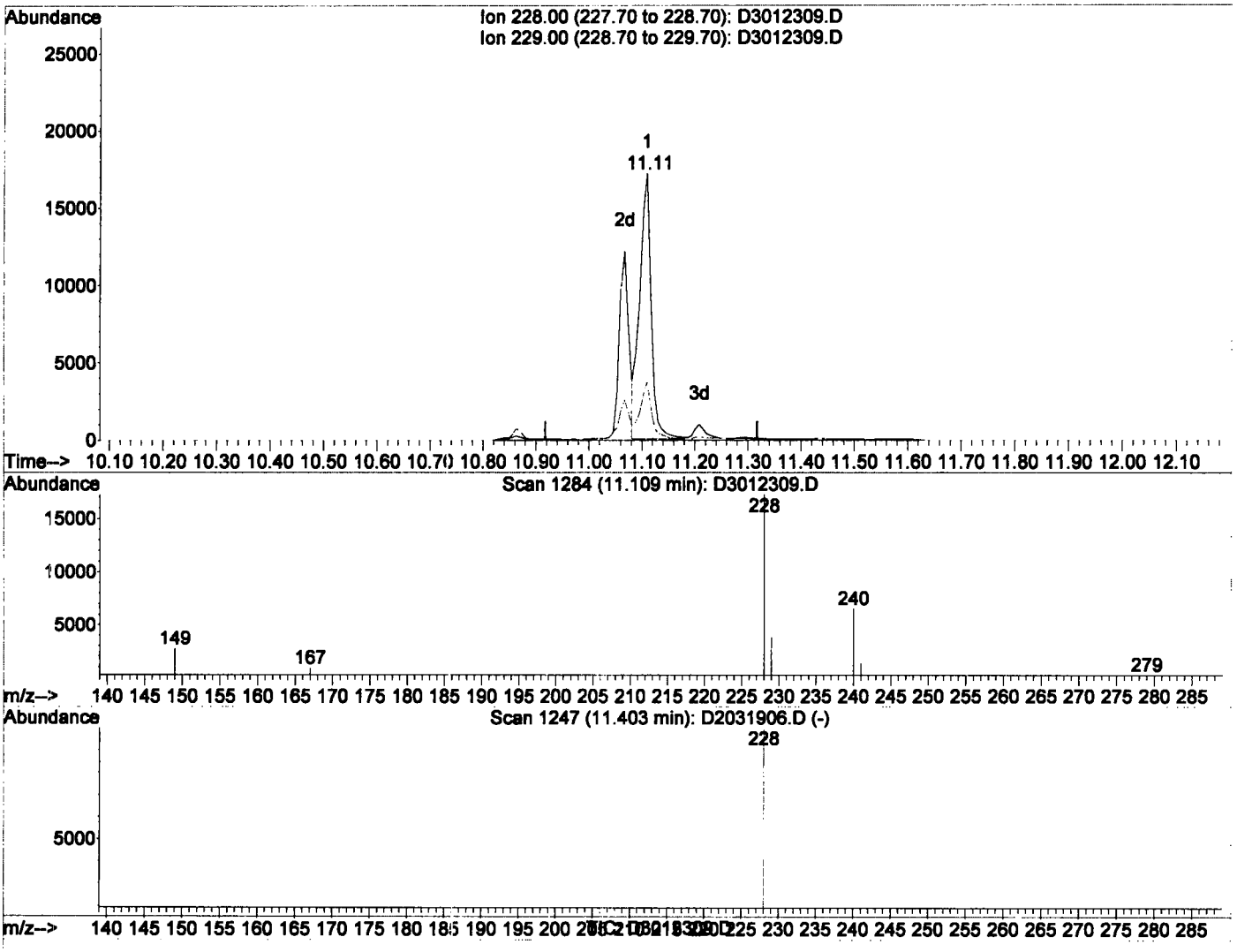
Ion	Exp%	Act%
228.00	100	100
229.00	19.30	24.19
0.00	0.00	0.00
0.00	0.00	0.00

D3012309.D D30116.M Wed Jan 23 14:42:03 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(24) Chrysene (T)

11.11min 140.43ng/ml

response 25951

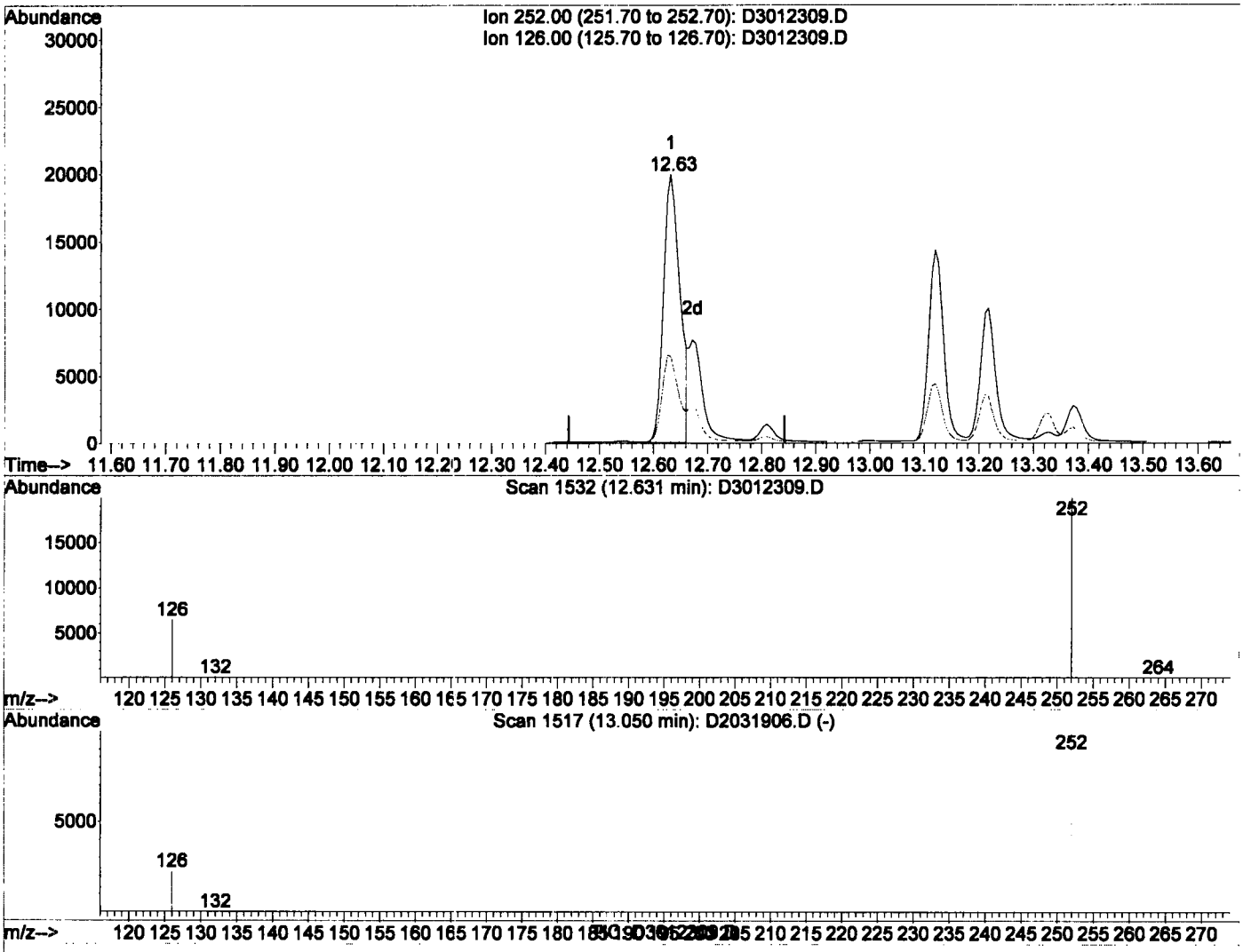
Ion	Exp%	Act%
228.00	100	100
229.00	19.20	21.24
0.00	0.00	0.00
0.00	0.00	0.00

D3012309.D D30116.M Wed Jan 23 14:42:07 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(28) Benzo(b)Fluoranthene (T)

12.63min 232.47ng/ml

response 42180

Q.28

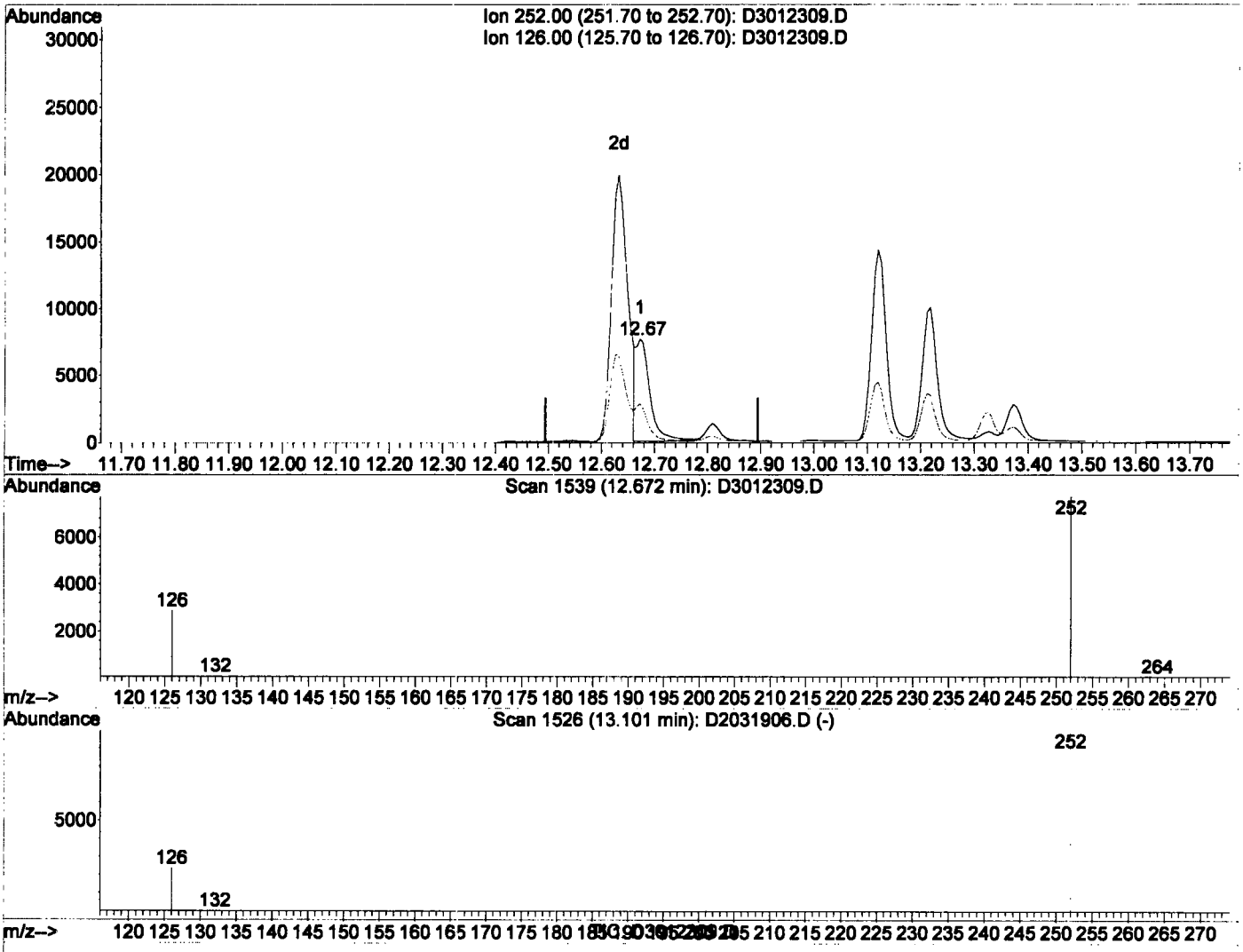
Ion	Exp%	Act%
252.00	100	100
126.00	28.90	33.62
0.00	0.00	0.00
0.00	0.00	0.00

D3012309.D D30116.M Wed Jan 23 14:42:13 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(29) Benzo(k)Fluoranthene (T)

12.67min 74.05ng/ml

response 13887

Q-28

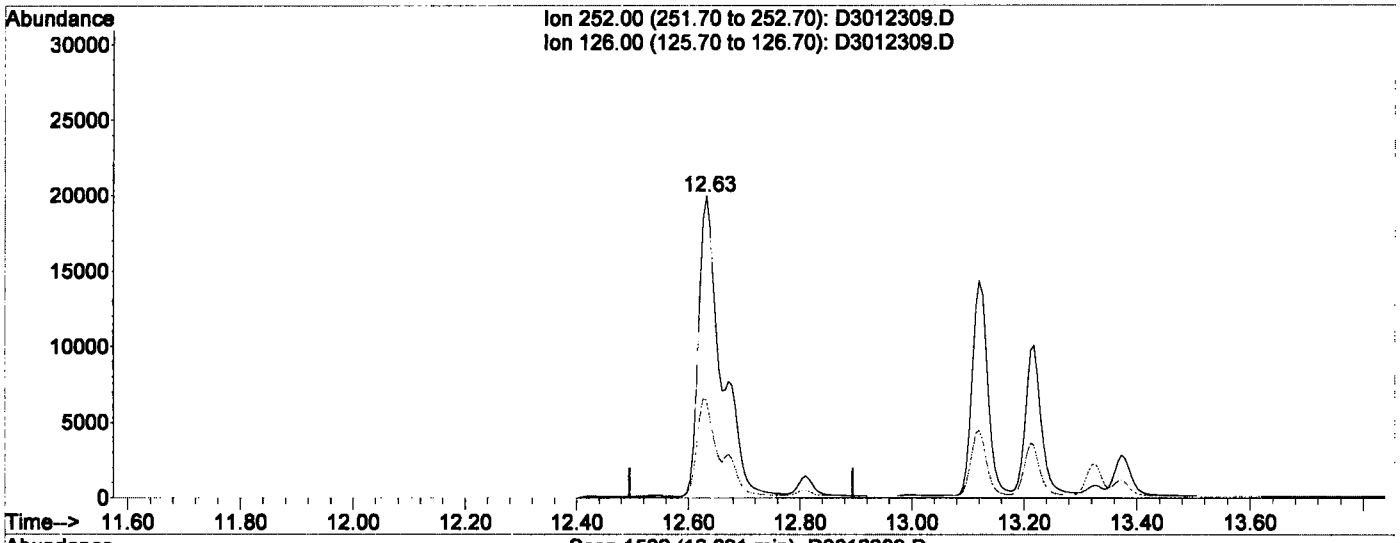
Ion	Exp%	Act%
252.00	100	100
126.00	30.40	33.05
0.00	0.00	0.00
0.00	0.00	0.00

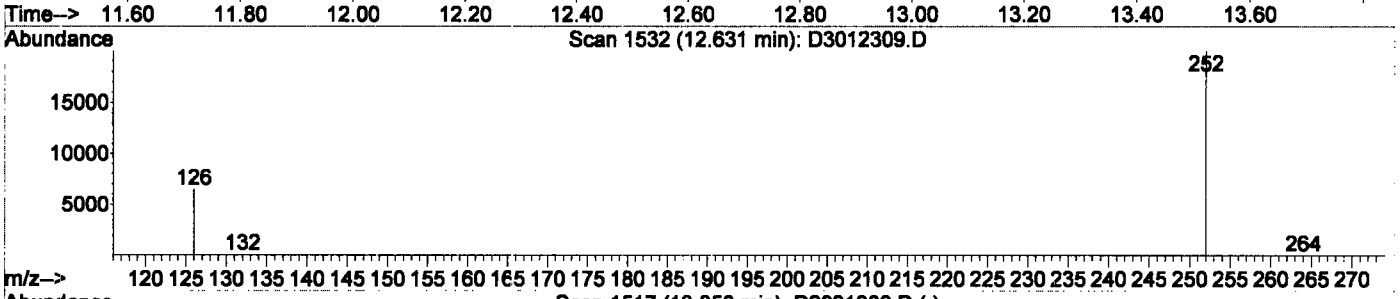
D3012309.D D30116.M Wed Jan 23 14:42:17 2013

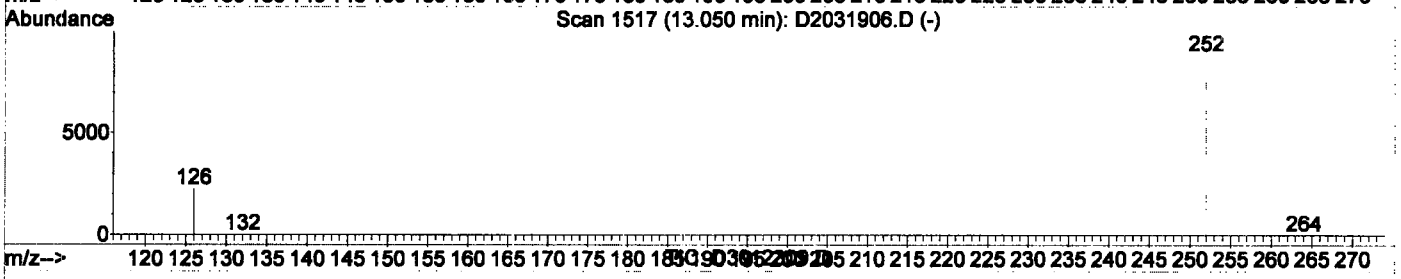
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:42 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.63min 307.47ng/ml m

response 57097

Ion	Exp%	Act%
252.00	100	100
126.00	29.70	34.50
0.00	0.00	0.00
0.00	0.00	0.00

Q-26
1-23-13 BSJ

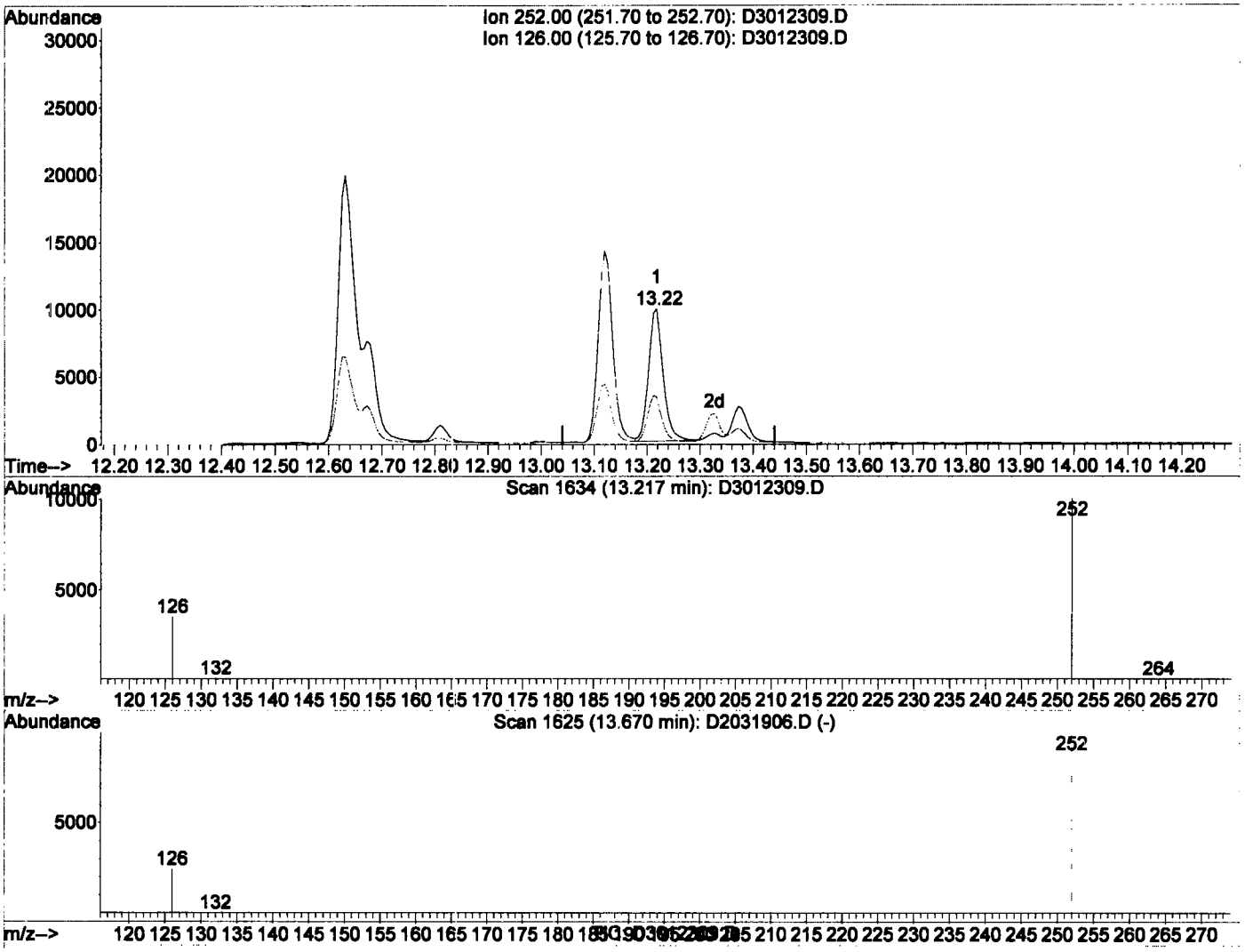
1/23/13 MKP

D3012309.D D30116.M Wed Jan 23 14:42:26 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:42 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(32) Benzo(a)Pyrene (T)

13.22min 116.32ng/ml

response 18691

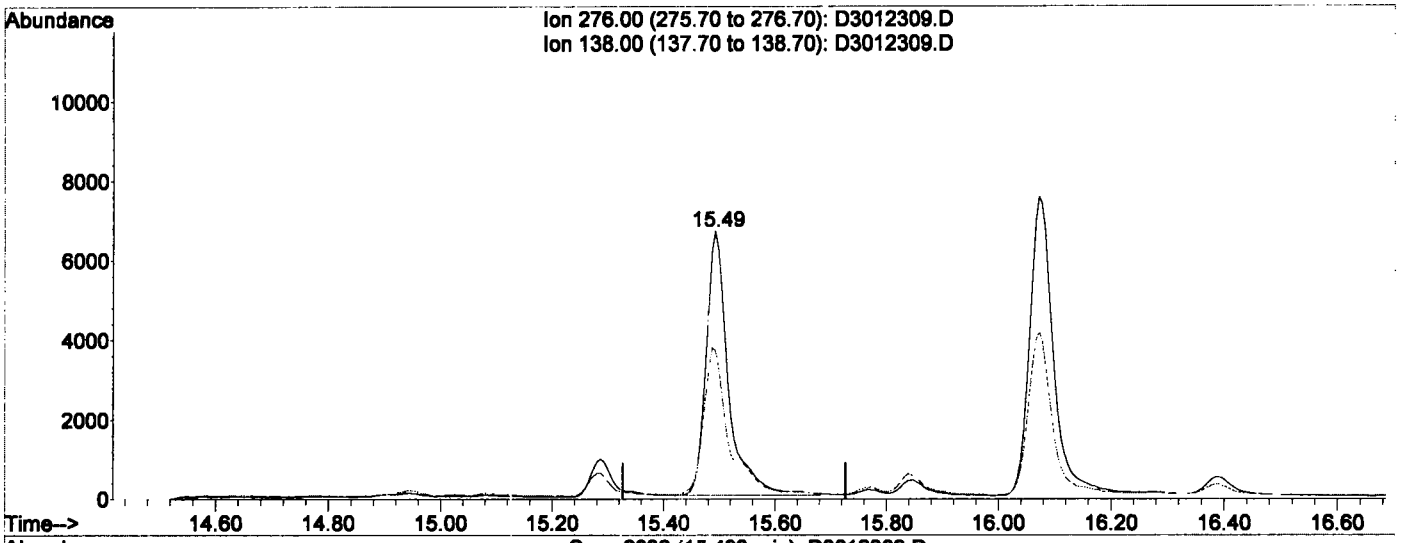
Ion	Exp%	Act%
252.00	100	100
126.00	29.80	34.92
0.00	0.00	0.00
0.00	0.00	0.00

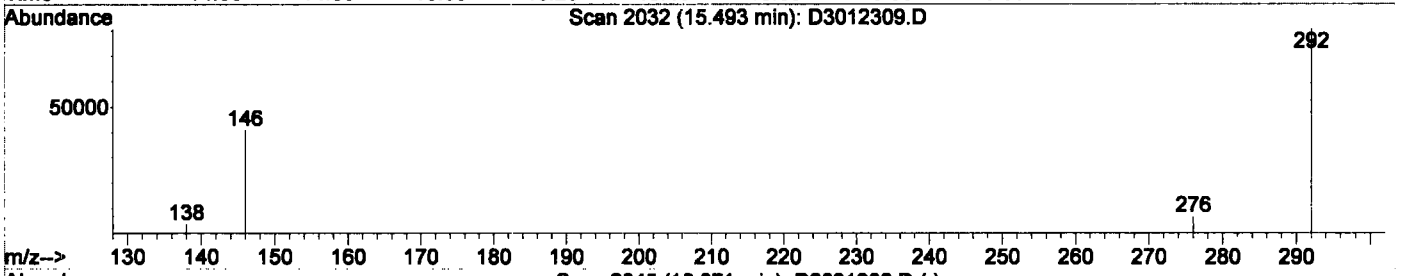
D3012309.D D30116.M Wed Jan 23 14:42:31 2013

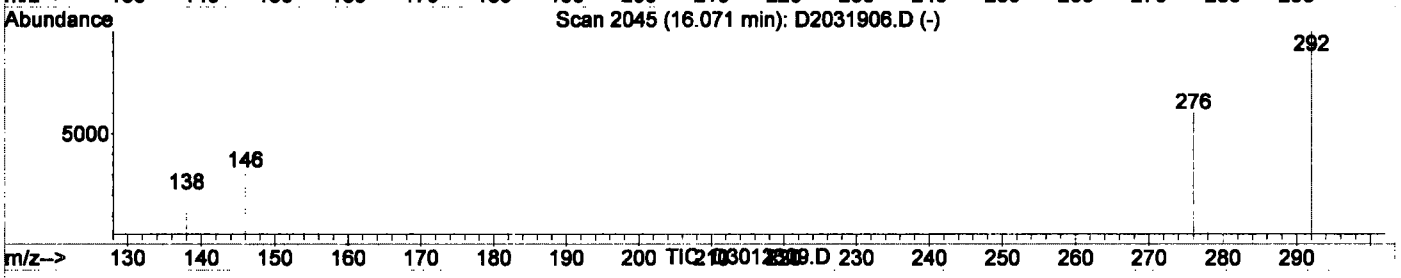
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:42 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(35) Indeno(1,2,3-cd)Pyrene (T)

15.49min 122.75ng/ml

response 18646

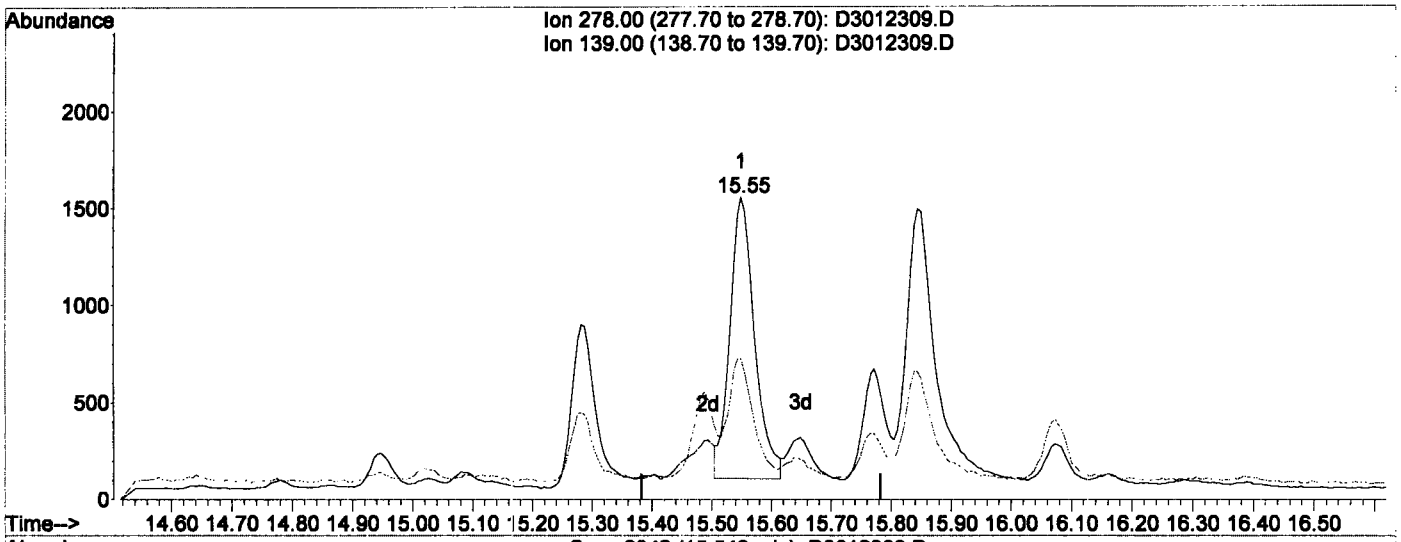
Ion	Exp%	Act%
276.00	100	100
138.00	40.10	61.31
0.00	0.00	0.00
0.00	0.00	0.00

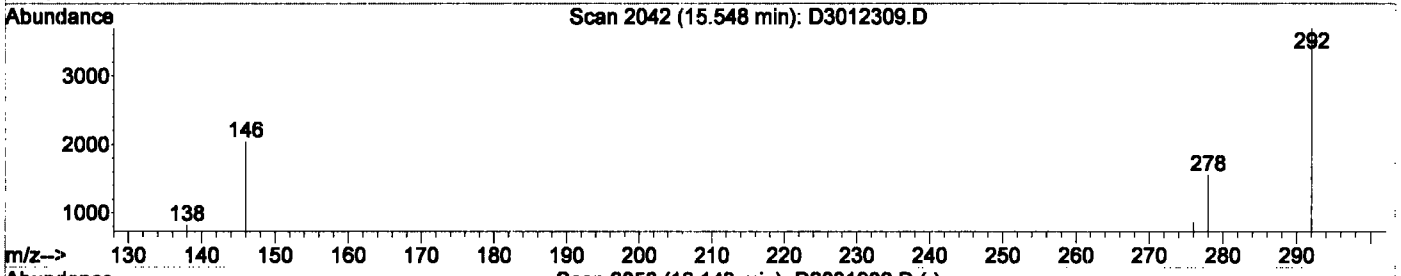
D3012309.D D30116.M Wed Jan 23 14:42:38 2013

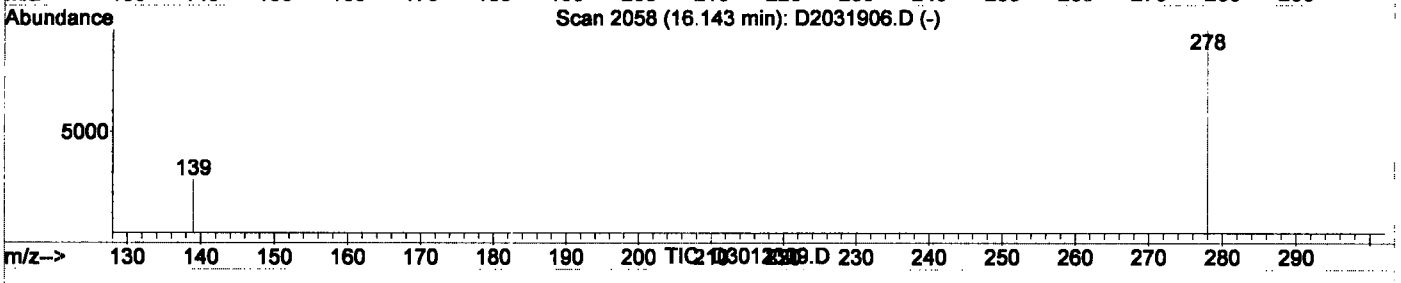
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:42 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(36) Dibenz(a,h)Anthracene (T)

15.55min 30.31ng/ml

response 4151

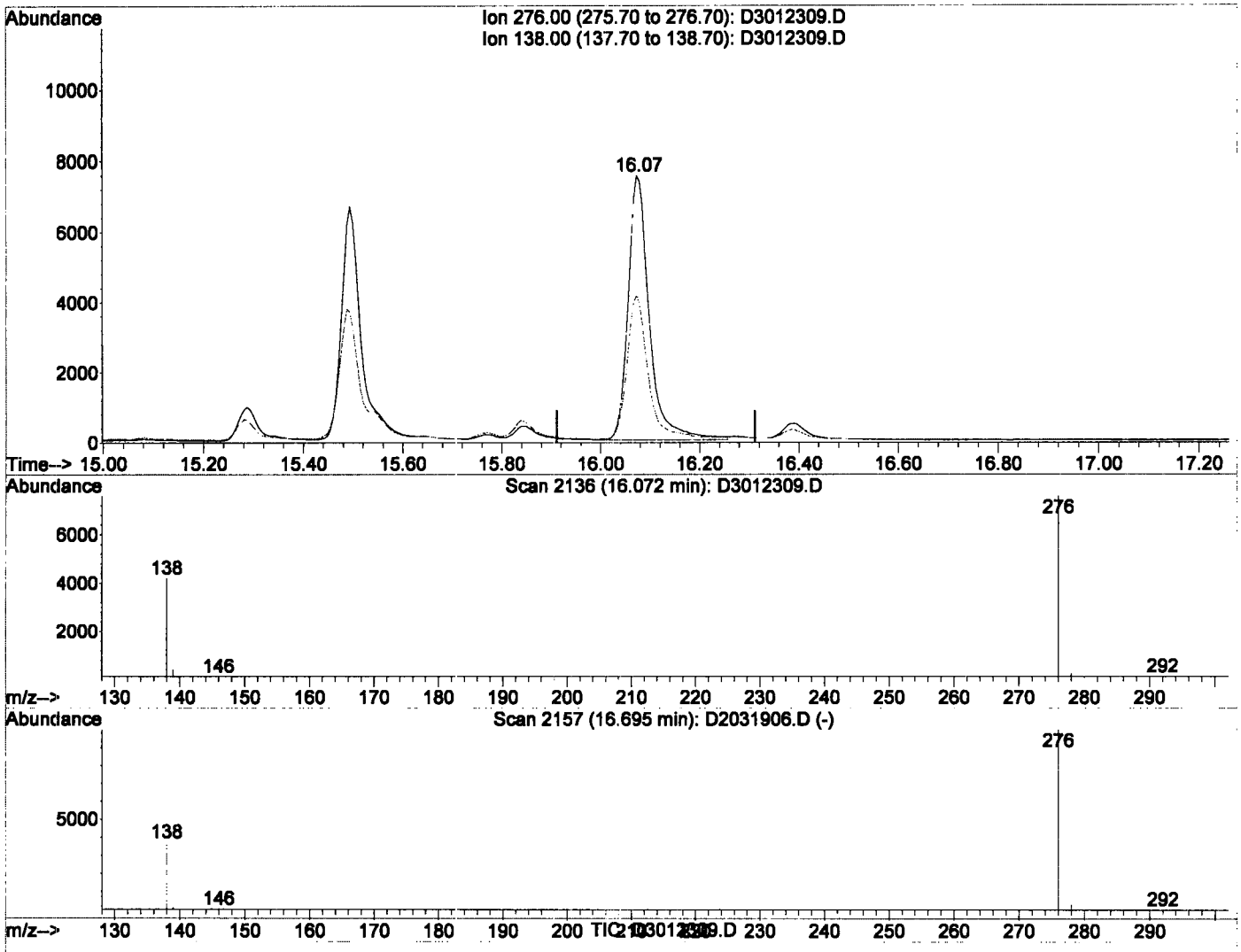
Ion	Exp%	Act%
278.00	100	100
139.00	35.00	41.94
0.00	0.00	0.00
0.00	0.00	0.00

D3012309.D D30116.M Wed Jan 23 14:42:43 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:42 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.07min 143.75ng/ml

response 22438

Ion	Exp%	Act%
276.00	100	100
138.00	44.40	53.55
0.00	0.00	0.00
0.00	0.00	0.00

D3012309.D D30116.M Wed Jan 23 14:42:47 2013

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCB/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	846423	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	373317	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	486376	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	343880	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	311268	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	221943	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	562799	2214.66	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	366666	2597.69	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	3032	6.55	ng/ml	98
3) 2-Methylnaphthalene	5.98	142	912	3.36	ng/ml	96
4) 1-Methylnaphthalene	6.07	142	641	2.48	ng/ml	98
7) Dimethylphthalate	6.72	163	204	0.83	ng/mL#	73
8) Acenaphthylene	6.84	152	552	1.49	ng/ml#	68
9) Acenaphthene	7.02	153	1622	6.74	ng/ml	94
10) Dibenzofuran	7.19	168	765	2.53	ng/mL	93
11) Diethylphthalate	7.41	149	1654	6.41	ng/mL#	58
12) Fluorene	7.52	166	877	3.67	ng/ml	91
14) Phenanthrene	8.45	178	11301	41.40	ng/ml	99
15) Anthracene	8.50	178	3688	13.95	ng/ml	95
16) Carbazole	8.67	167	1497	9.28	ng/mL#	66
17) Di-n-butylphthalate	9.01	149	5803	14.83	ng/mL	88
18) Fluoranthene	9.61	202	25154	104.60	ng/ml	99
19) Pyrene	9.84	202	24932	102.52	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	6807	48.19	ng/mL	85
23) Benz(a)Anthracene	11.07	228	15334	77.55	ng/ml	89
24) Chrysene	11.11	228	25951	140.43	ng/ml	95
25) Bis(2-ethylhexyl)phthalate	11.10	149	6490	31.46	ng/mL	100
26) Di-n-octyl phthalate	12.07	149	235	47.68	ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	42180	232.47	ng/ml	91
29) Benzo(k)Fluoranthene	12.67	252	13887	74.05	ng/ml	95
30) Benzo(b+k)Fluoranthene	12.63	252	58969	317.55	ng/ml	93
31) Benzo(e)Pyrene	13.12	252	27192	149.68	ng/mL	91
32) Benzo(a)Pyrene	13.22	252	18691	116.32	ng/ml	91
33) Perylene	13.37	252	5830	32.90	ng/mL	93
35) Indeno(1,2,3-cd)Pyrene	15.49	276	18646	122.75	ng/ml	66
36) Dibenz(a,h)Anthracene	15.55	278	4151	30.31	ng/ml	88
37) Benzo(g,h,i)Perylene	16.07	276	22438	143.75	ng/ml	86

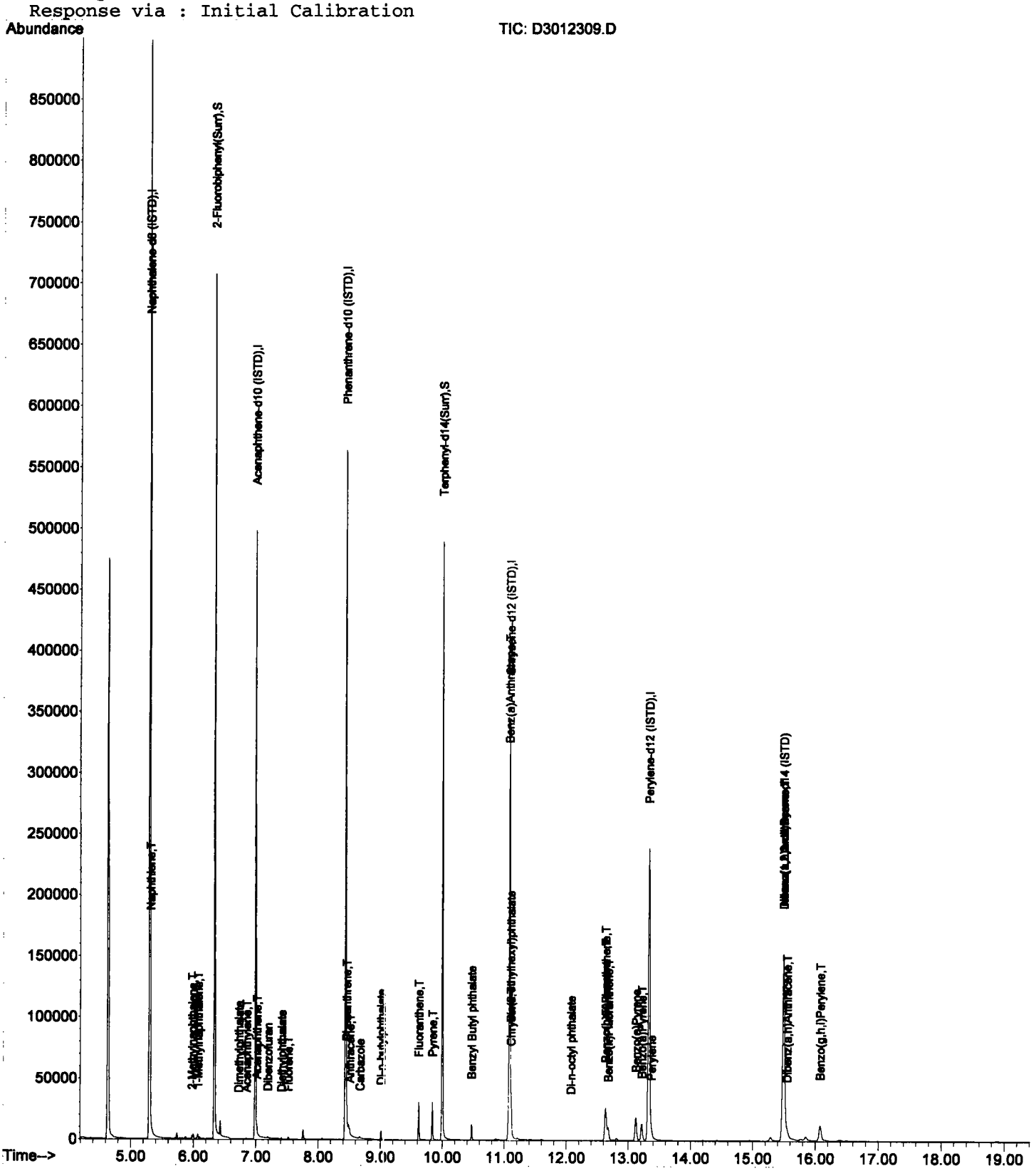
MJ 1-24-13 BSJ

(#) = qualifier out of range (m) = manual integration
D3012309.D D30116.M Wed Jan 23 14:36:08 2013

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012309.D Vial: 9
Acq On : 23 Jan 2013 12:49 Operator: bsj
Sample : A13A243-06RE1 Inst : SV-GCMS4
Misc : 1x Soil 10.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



D3012309.D D30116.M Wed Jan 23 14:36:09 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012310.D Vial: 10
Acq On : 23 Jan 2013 13:15 Operator: bsj
Sample : A13A243-09RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:43 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Q-28
Q-24

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	882251	2000.00 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	390304	2000.00 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	518910	2000.00 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	365783	2000.00 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	319421	2000.00 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.48	292	222301	2000.00 ng/mL	-0.03
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.33	172	525024	1976.09 ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	348546	2321.46 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthlene	5.32	128	2582	5.35 ng/ml	97
3) 2-Methylnaphthalene	5.98	142	648	2.29 ng/ml	94
4) 1-Methylnaphthalene	6.07	142	371	1.38 ng/ml	89
7) Dimethylphthalate	0.00	163	0	N.D.	
8) Acenaphthylene	0.00	152	0	N.D.	
9) Acenaphthene	0.00	153	0	N.D.	
10) Dibenzofuran	7.19	168	217	0.69 ng/mL#	39
11) Diethylphthalate	7.41	149	1640	6.08 ng/mL#	58
12) Fluorene	7.52	166	307	1.23 ng/ml#	61
14) Phenanthrene	8.45	178	1543	5.30 ng/ml	98
15) Anthracene	8.50	178	234	0.83 ng/ml#	59
16) Carbazole	0.00	167	0	N.D.	
17) Di-n-butylphthalate	9.01	149	7594	18.18 ng/mL	84
18) Fluoranthene	9.61	202	1397	5.45 ng/ml	98
19) Pyrene	9.84	202	1747	6.73 ng/ml	100
22) Benzyl Butyl phthalate	10.47	149	5227	34.79 ng/mL	74
23) Benz(a)Anthracene	11.08	228	2012	9.57 ng/ml	98
24) Chrysene	11.10	228	2270	(11.55) ng/ml J	97
25) Bis(2-ethylhexyl)phthalate	11.10	149	6956	31.70 ng/mL	98
26) Di-n-octyl phthalate	0.00	149	0	N.D.	
28) Benzo(b)Fluoranthene	12.63	252	4817	25.87 ng/ml Q-28	94
29) Benzo(k)Fluoranthene	12.67	252	1168	6.07 ng/ml	85
30) Benzo(b+k)Fluoranthene	12.63	252	6088m	(31.95) ng/ml Q-24	
31) Benzo(e)Pyrene	13.12	252	3668	19.68 ng/mL	91
32) Benzo(a)Pyrene	13.22	252	1645	9.98 ng/ml	92
33) Perylene	13.37	252	1156	6.36 ng/mL	95
35) Indeno(1,2,3-cd)Pyrene	15.49	276	3492	22.95 ng/ml#	20
36) Dibenz(a,h)Anthracene	15.55	278	526	3.83 ng/ml	74
37) Benzo(g,h,i)Perylene	16.08	276	5721	36.59 ng/ml	88

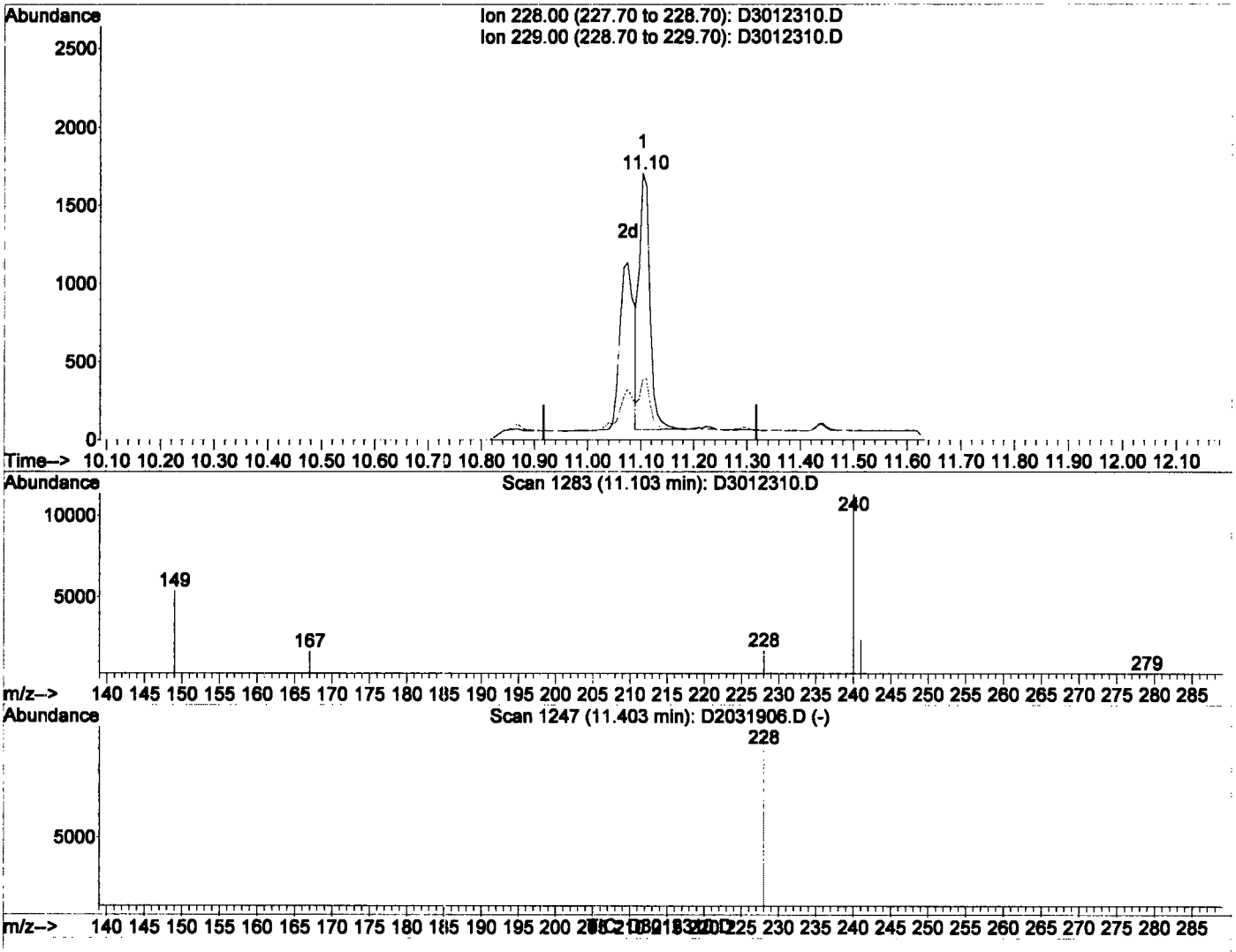
1-23-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3012310.D D30116.M Wed Jan 23 14:44:19 2013 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012310.D Vial: 10
Acq On : 23 Jan 2013 13:15 Operator: bsj
Sample : A13A243-09RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(24) Chrysene (T)

11.10min 11.55ng/ml

response 2270

J

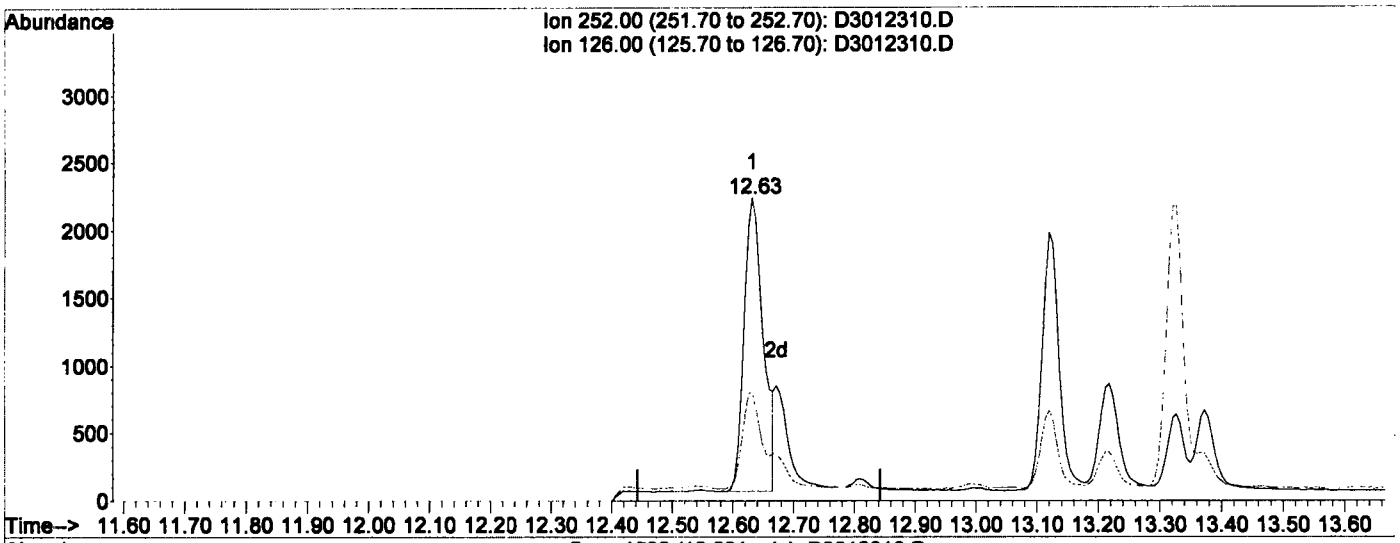
Ion	Exp%	Act%
228.00	100	100
229.00	19.20	20.70
0.00	0.00	0.00
0.00	0.00	0.00

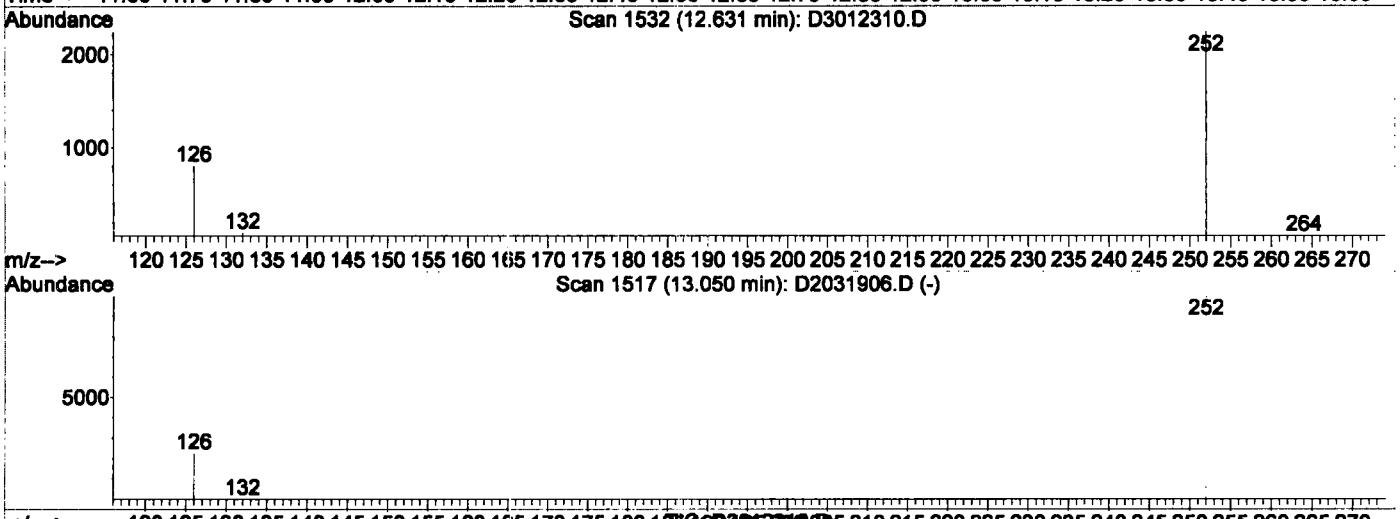
D3012310.D D30116.M Wed Jan 23 14:43:26 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012310.D Vial: 10
Acq On : 23 Jan 2013 13:15 Operator: bsj
Sample : A13A243-09RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration





(28) Benzo(b)Fluoranthene (T)

12.63min 25.87ng/ml

response 4817

Q-28

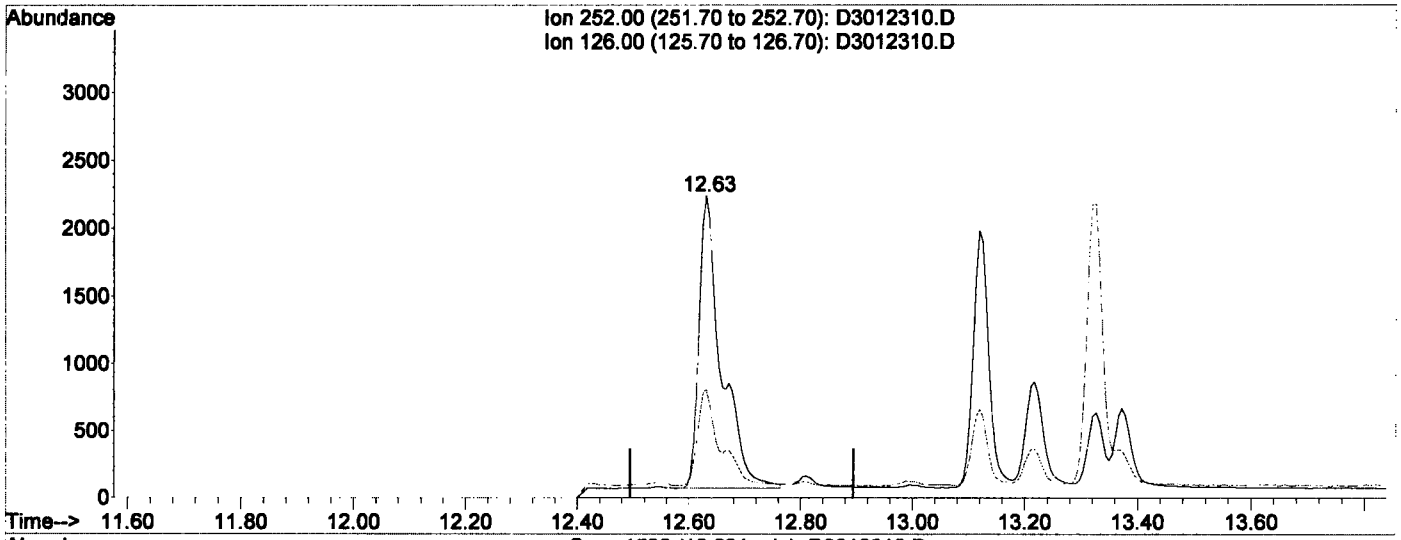
Ion	Exp%	Act%
252.00	100	100
126.00	28.90	32.14
0.00	0.00	0.00
0.00	0.00	0.00

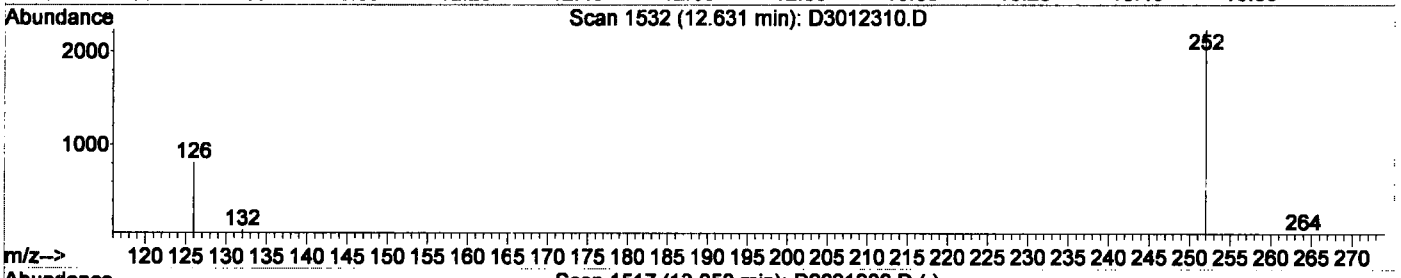
D3012310.D D30116.M Wed Jan 23 14:43:33 2013

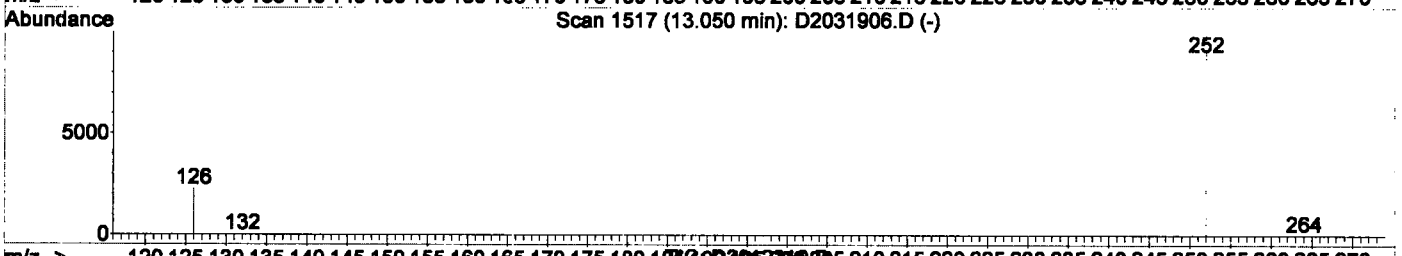
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012310.D Vial: 10
Acq On : 23 Jan 2013 13:15 Operator: bsj
Sample : A13A243-09RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:43 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(30) Benzo(b+k)Fluoranthene (T)

12.63min 31.95ng/ml m

response 6088

Ion	Exp%	Act%
252.00	100	100
126.00	29.70	34.84
0.00	0.00	0.00
0.00	0.00	0.00

Q26
1-23-13 BSx

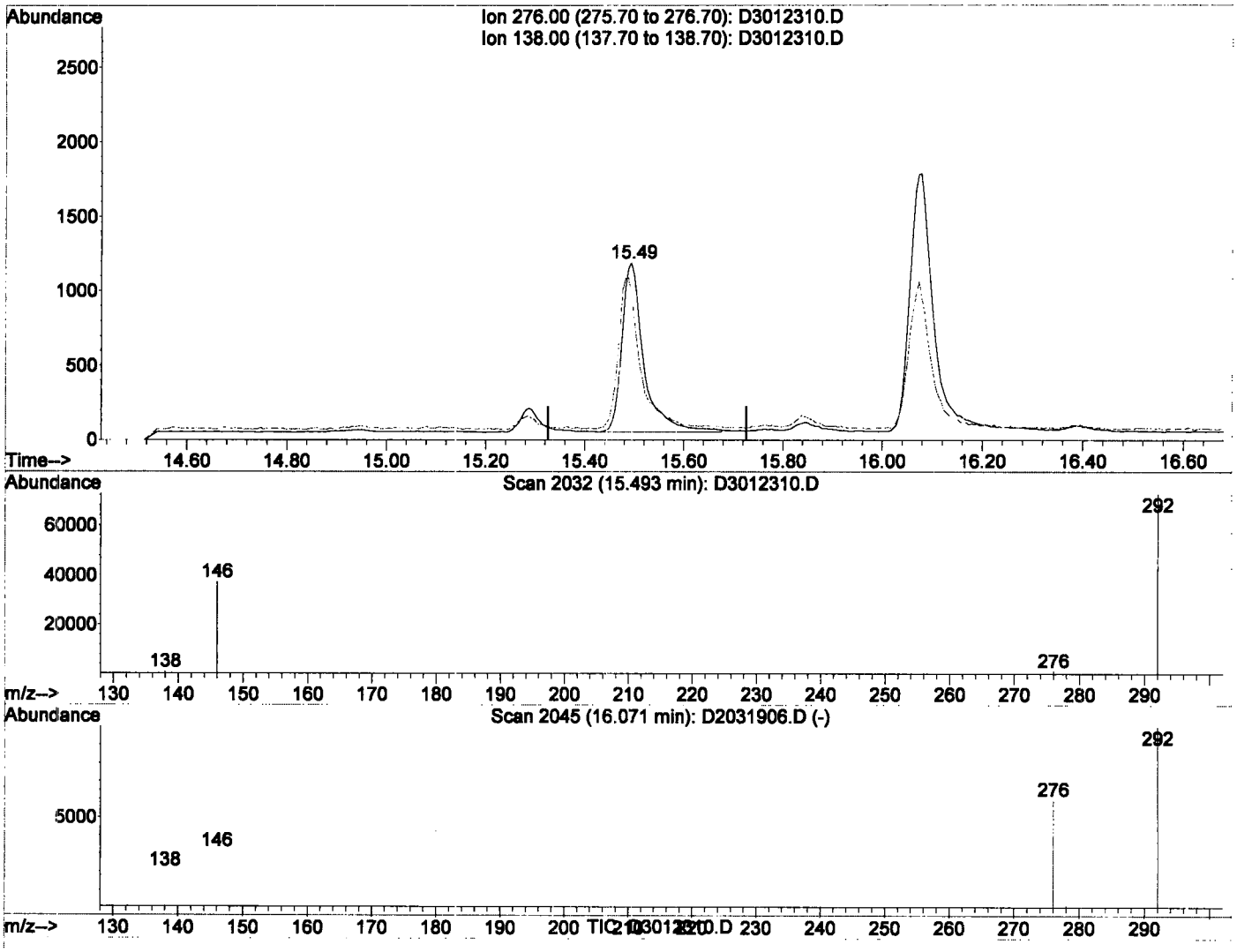
1/23/13 MKP

D3012310.D D30116.M Wed Jan 23 14:43:54 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012310.D Vial: 10
Acq On : 23 Jan 2013 13:15 Operator: bsj
Sample : A13A243-09RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:43 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.49min 22.95ng/ml

response 3492

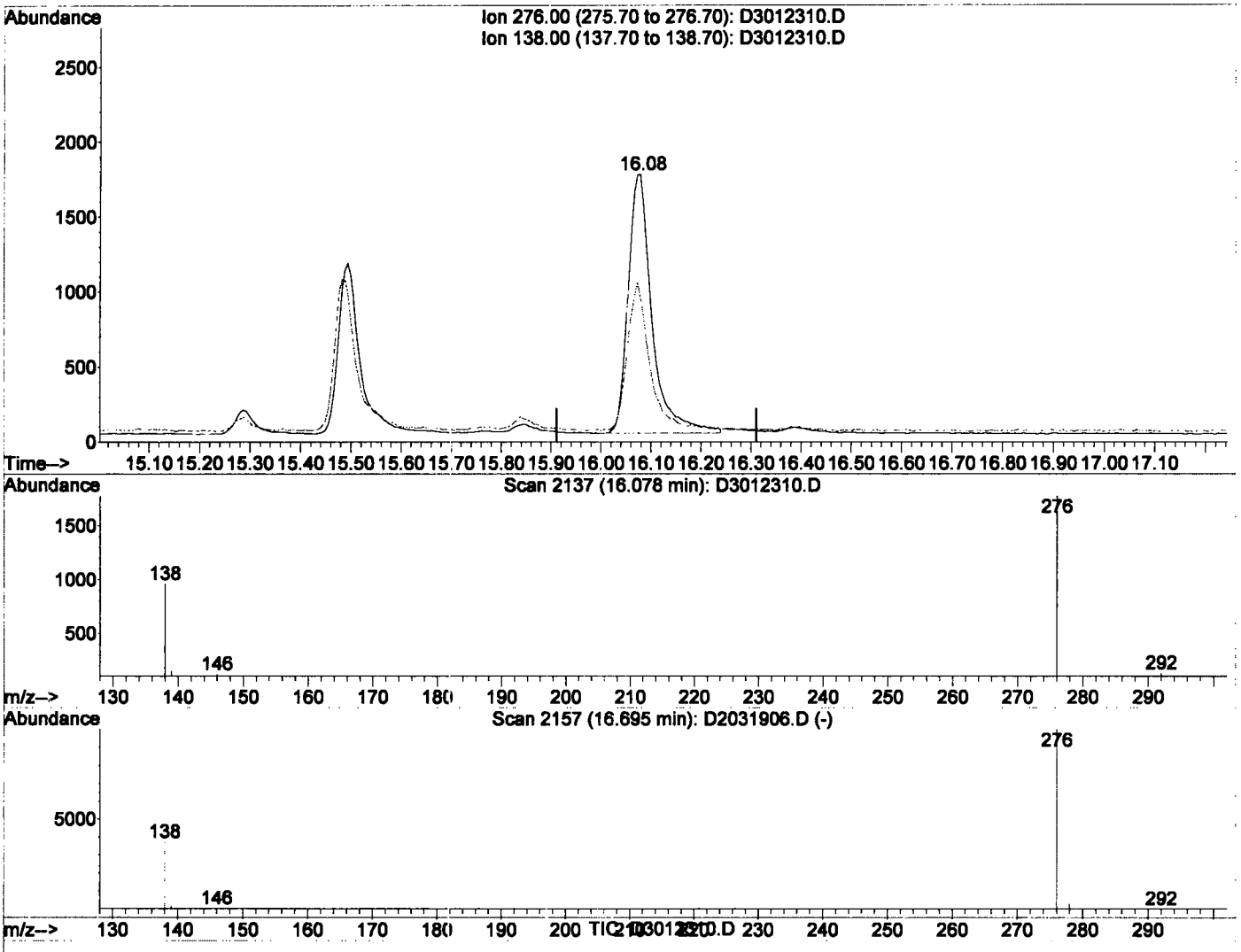
Ion	Exp%	Act%
276.00	100	100
138.00	40.10	89.69#
0.00	0.00	0.00
0.00	0.00	0.00

D3012310.D D30116.M Wed Jan 23 14:44:02 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012310.D Vial: 10
Acq On : 23 Jan 2013 13:15 Operator: bsj
Sample : A13A243-09RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:43 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.08min 36.59ng/ml

response 5721

Ion	Exp%	Act%
276.00	100	100
138.00	44.40	52.42
0.00	0.00	0.00
0.00	0.00	0.00

D3012310.D D30116.M Wed Jan 23 14:44:08 2013

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012310.D Vial: 10
Acq On : 23 Jan 2013 13:15 Operator: bsj
Sample : A13A243-09RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

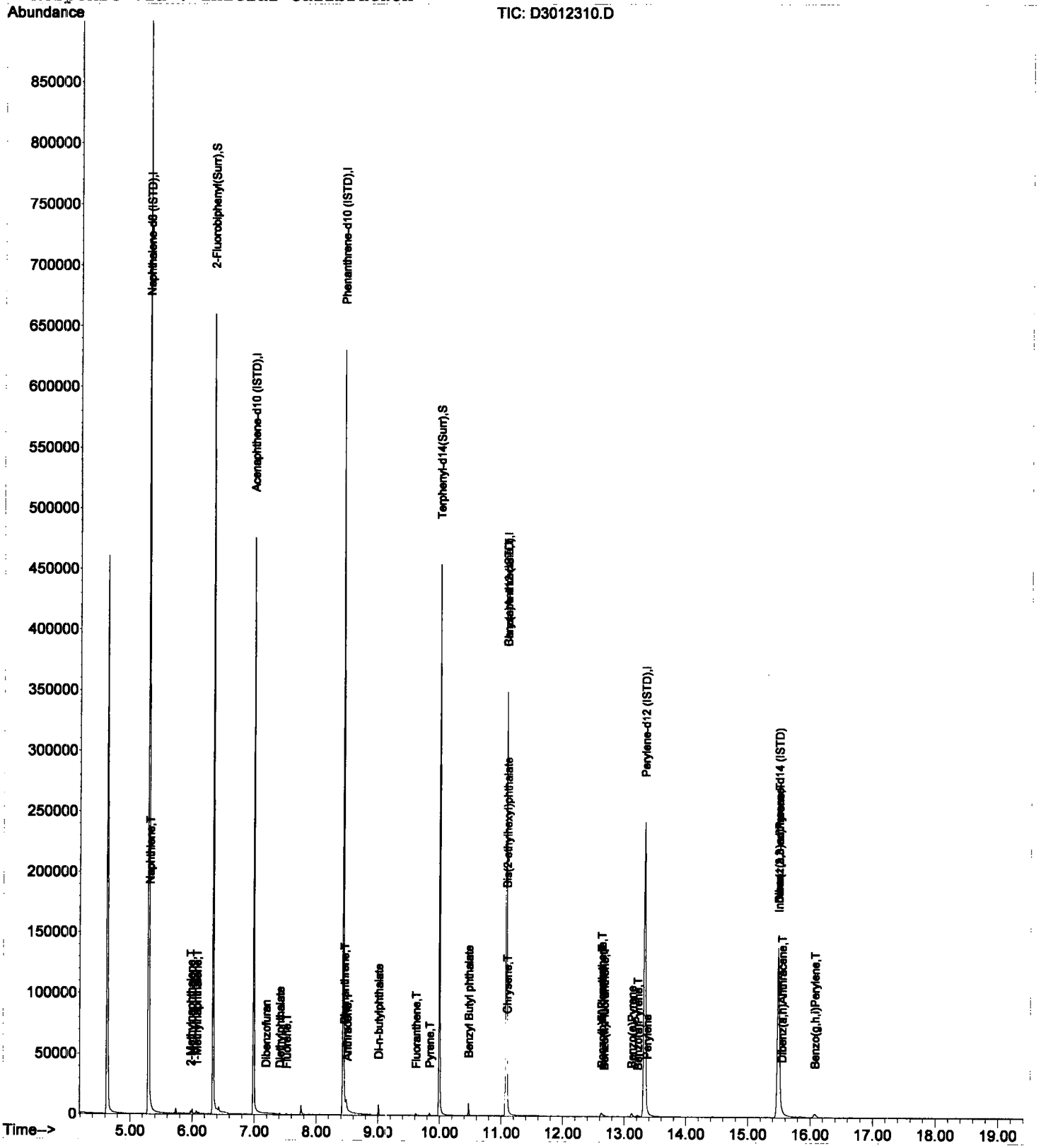
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	882251	2000.00 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	390304	2000.00 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	518910	2000.00 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	365783	2000.00 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	319421	2000.00 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.48	292	222301	2000.00 ng/mL	-0.03
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	6.33	172	525024	1976.09 ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	348546	2321.46 ng/ml	0.00
Target Compounds					Qvalue
2) Naphthlene	5.32	128	2582	5.35 ng/ml	97
3) 2-Methylnaphthalene	5.98	142	648	2.29 ng/ml	94
4) 1-Methylnaphthalene	6.07	142	371	1.38 ng/ml	89
7) Dimethylphthalate	0.00	163	0	N.D.	
8) Acenaphthylene	0.00	152	0	N.D.	
9) Acenaphthene	0.00	153	0	N.D.	
10) Dibenzofuran	7.19	168	217	0.69 ng/mL#	39
11) Diethylphthalate	7.41	149	1640	6.08 ng/mL#	58
12) Fluorene	7.52	166	307	1.23 ng/ml#	61
14) Phenanthrene	8.45	178	1543	5.30 ng/ml	98
15) Anthracene	8.50	178	234	0.83 ng/ml#	59
16) Carbazole	0.00	167	0	N.D.	
17) Di-n-butylphthalate	9.01	149	7594	18.18 ng/mL	84
18) Fluoranthene	9.61	202	1397	5.45 ng/ml	98
19) Pyrene	9.84	202	1747	6.73 ng/ml	100
22) Benzyl Butyl phthalate	10.47	149	5227	34.79 ng/mL	74
23) Benz(a)Anthracene	11.08	228	2012	9.57 ng/ml	98
24) Chrysene	11.10	228	2270	11.55 ng/ml	97
25) Bis(2-ethylhexyl)phthalate	11.10	149	6956	31.70 ng/mL	98
26) Di-n-octyl phthalate	0.00	149	0	N.D.	
28) Benzo(b)Fluoranthene	12.63	252	4817	25.87 ng/ml	94
29) Benzo(k)Fluoranthene	12.67	252	1168	6.07 ng/ml	85
30) Benzo(b+k)Fluoranthene	12.63	252	6340	33.27 ng/ml	93
31) Benzo(e)Pyrene	13.12	252	3668	19.68 ng/mL	91
32) Benzo(a)Pyrene	13.22	252	1645	9.98 ng/ml	92
33) Perylene	13.37	252	1156	6.36 ng/mL	95
35) Indeno(1,2,3-cd)Pyrene	15.49	276	3492	22.95 ng/ml#	20
36) Dibenz(a,h)Anthracene	15.55	278	526	3.83 ng/ml	74
37) Benzo(g,h,i)Perylene	16.08	276	5721	36.59 ng/ml	88

MLT 1-23-13 BSJ

(#) = qualifier out of range (m) = manual integration
D3012310.D D30116.M Wed Jan 23 14:36:12 2013

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012310.D Vial: 10
Acq On : 23 Jan 2013 13:15 Operator: bsj
Sample : A13A243-09RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.29g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



D3012310.D D30116.M Wed Jan 23 14:36:13 2013

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:45 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Q-28
Q-24

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	825651	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	349497	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	445867	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	321496	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	291325	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.49	292	218850	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	5.33	172	513171	2157.00	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	328875	2492.18	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	4126	9.14	ng/ml	93
3) 2-Methylnaphthalene	5.98	142	1464	5.53	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	813	3.23	ng/ml	99
7) Dimethylphthalate	6.72	163	311	1.34	ng/mL#	73
8) Acenaphthylene	6.84	152	1098	3.16	ng/ml#	68
9) Acenaphthene	7.01	153	1488	6.60	ng/ml	96
10) Dibenzofuran	7.19	168	993	3.51	ng/mL	96
11) Diethylphthalate	7.41	149	1684	6.97	ng/mL#	58
12) Fluorene	7.52	166	846	3.78	ng/ml	86
14) Phenanthrene	8.45	178	13750	54.95	ng/ml	99
15) Anthracene	8.50	178	3653	15.08	ng/ml J	99
16) Carbazole	8.67	167	2337	13.59	ng/mL	97
17) Di-n-butylphthalate	9.01	149	6472	18.04	ng/mL	96
18) Fluoranthene	9.61	202	53003	240.44	ng/ml	99
19) Pyrene	9.84	202	59136	265.26	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	5872	44.46	ng/mL	82
23) Benz(a)Anthracene	11.07	228	52462	283.80	ng/ml	96
24) Chrysene	11.11	228	174985	1012.86	ng/ml	97
25) Bis(2-ethylhexyl)phthalate	11.10	149	7422	38.48	ng/mL	91
26) Di-n-octyl phthalate	12.07	149	230	47.72	ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	252354	1486.03	ng/ml	Q-28 95
29) Benzo(k)Fluoranthene	12.67	252	70645	402.51	ng/ml	85
30) Benzo(b+k)Fluoranthene	12.63	252	325232m	1871.27	ng/ml	Q-24
31) Benzo(e)Pyrene	13.12	252	166124	977.03	ng/mL	92
32) Benzo(a)Pyrene	13.21	252	81130	539.45	ng/ml	90
33) Perylene	13.37	252	32044	193.19	ng/mL	91
35) Indeno(1,2,3-cd)Pyrene	15.49	276	137232	916.20	ng/ml	77
36) Dibenz(a,h)Anthracene	15.55	278	28264	209.27	ng/ml	91
37) Benzo(g,h,i)Perylene	16.08	276	187395	1217.54	ng/ml	85

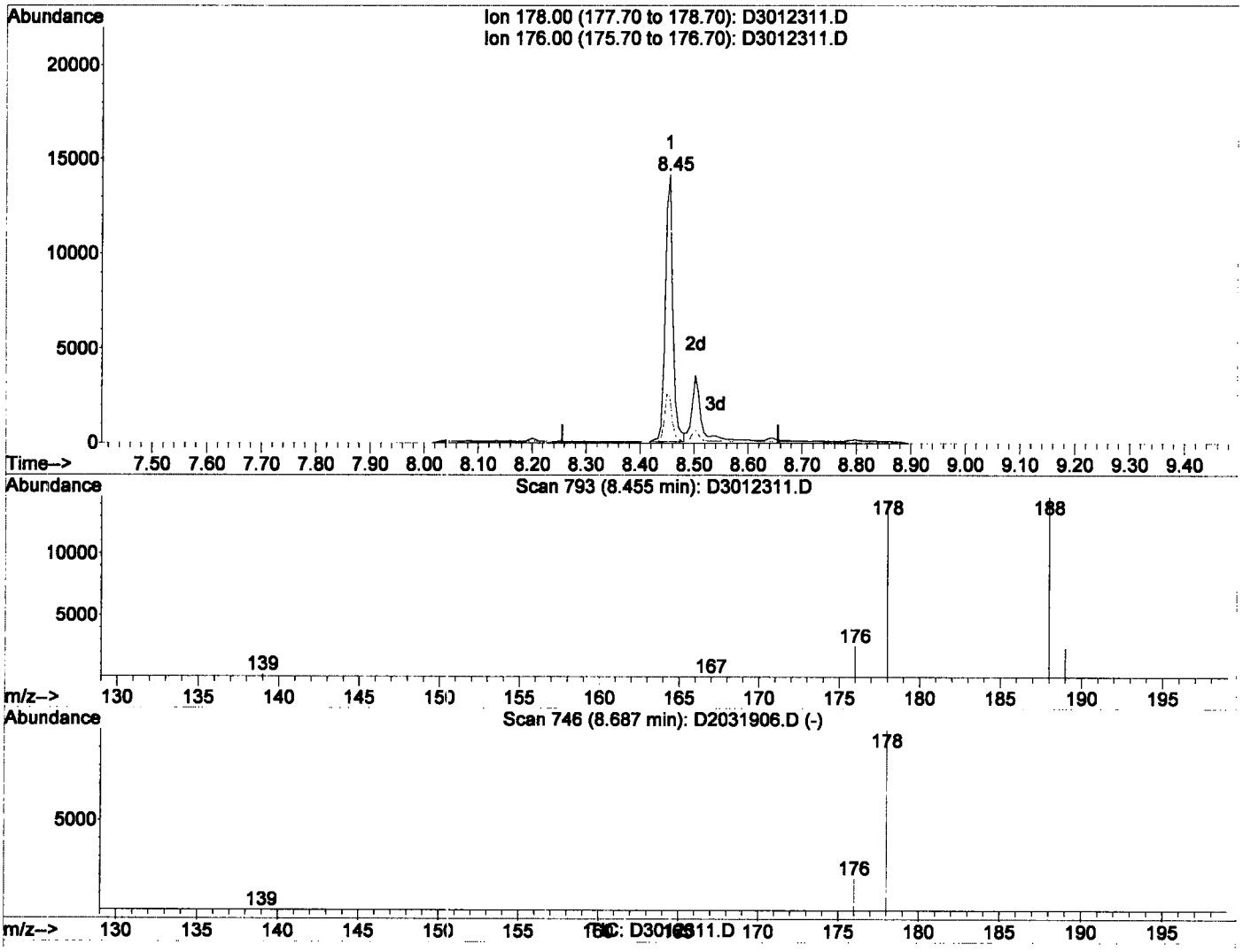
1-23-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3012311.D D30116.M Wed Jan 23 14:45:57 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(14) Phenanthrene (T)

8.45min 54.95ng/ml

response 13750

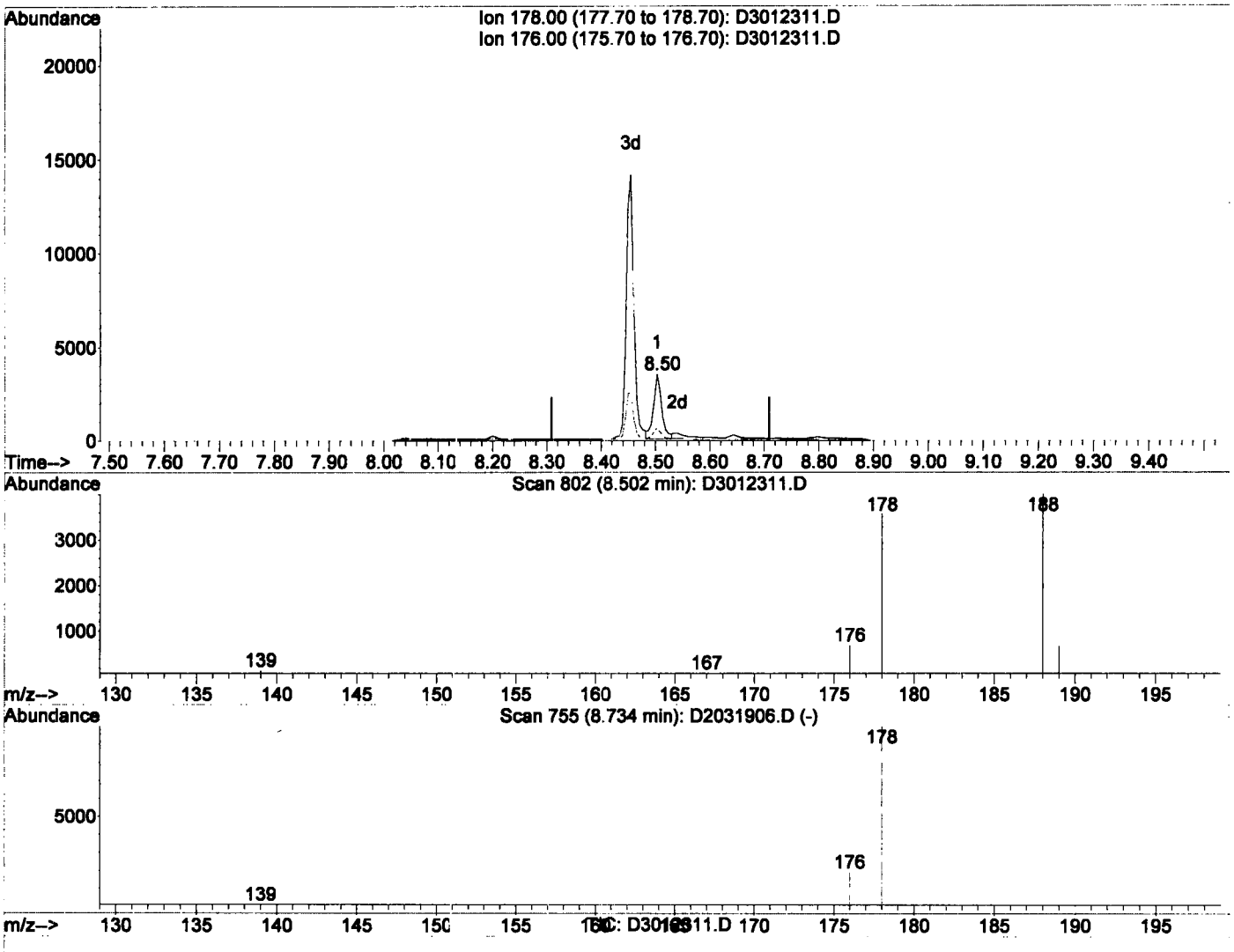
Ion	Exp%	Act%
178.00	100	100
176.00	18.60	18.25
0.00	0.00	0.00
0.00	0.00	0.00

D3012311.D D30116.M Wed Jan 23 14:44:44 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(15) Anthracene (T)

8.50min 15.08ng/ml

response 3653

Ion	Exp%	Act%
178.00	100	100
176.00	18.30	17.77
0.00	0.00	0.00
0.00	0.00	0.00

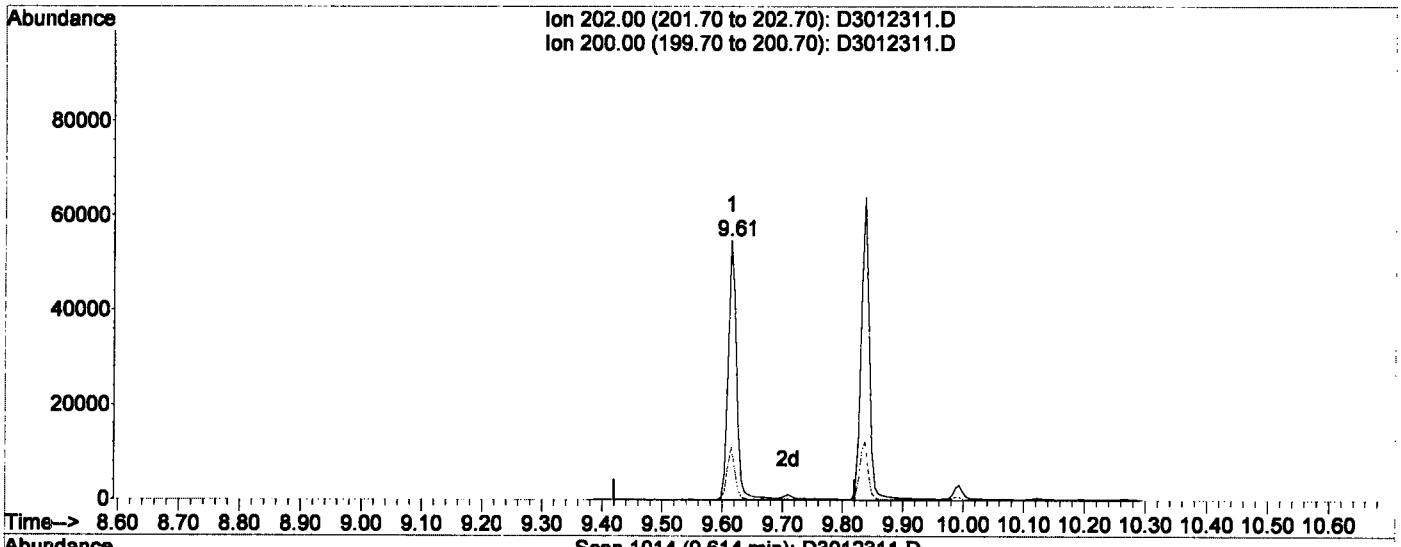
J

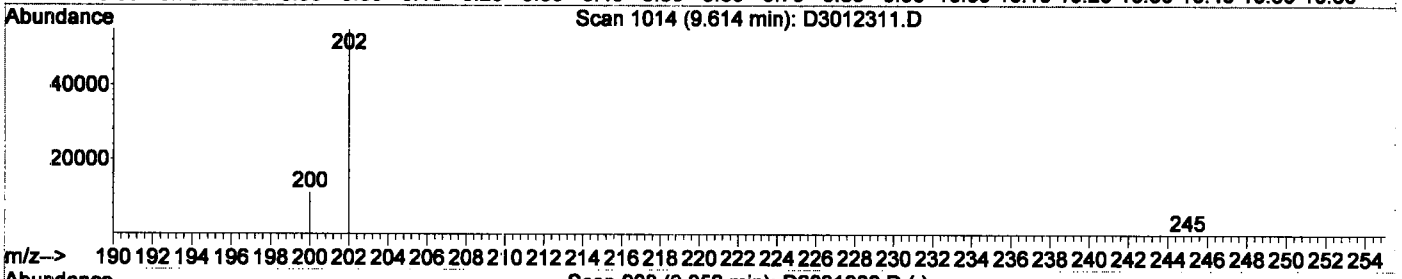
D3012311.D D30116.M Wed Jan 23 14:44:48 2013

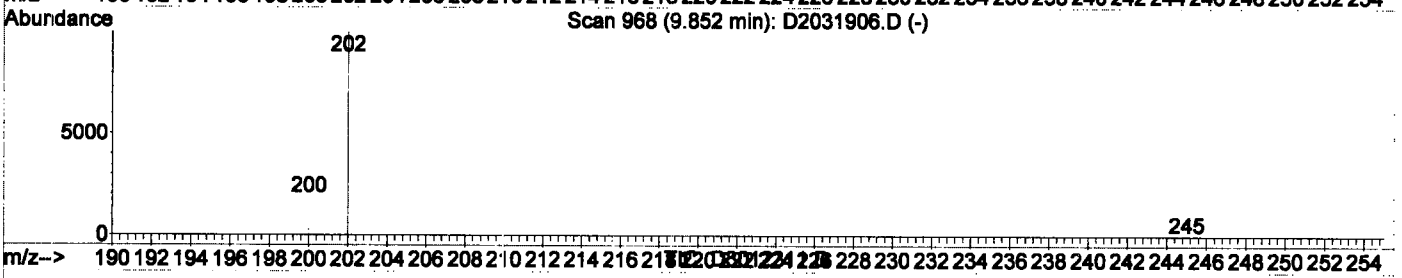
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(18) Fluoranthene (T)

9.61min 240.44ng/ml

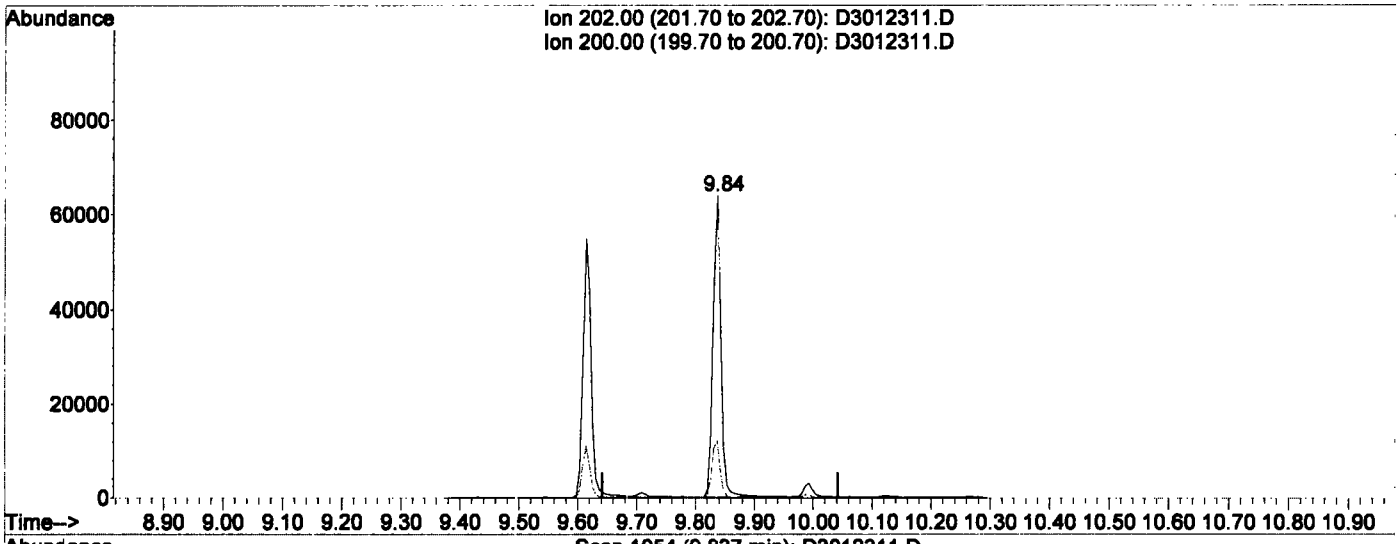
response 53003

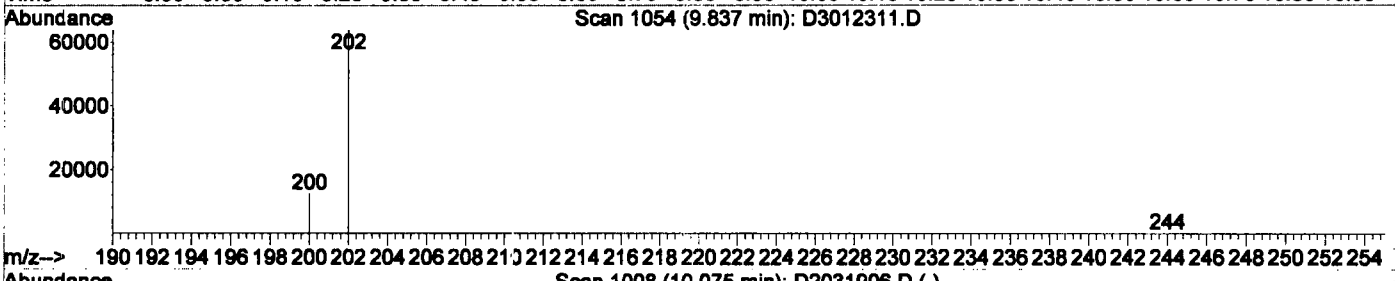
Ion	Exp%	Act%
202.00	100	100
200.00	19.80	19.51
0.00	0.00	0.00
0.00	0.00	0.00

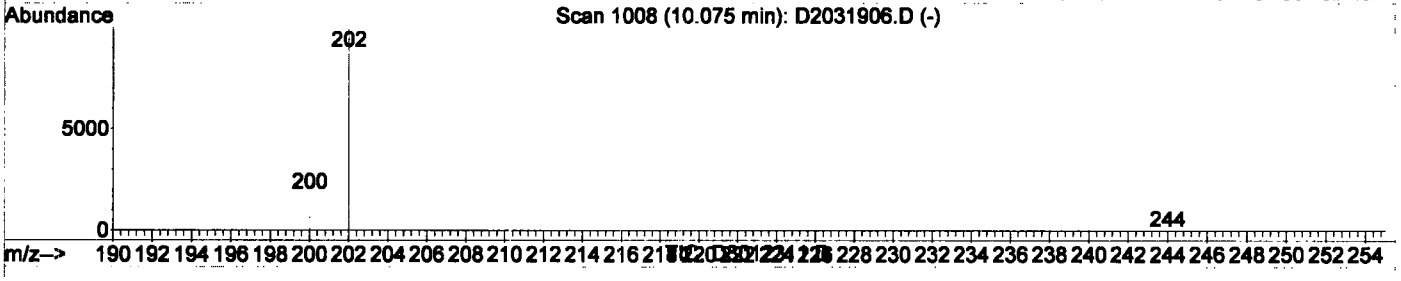
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(19) Pyrene (T)

9.84min 265.26ng/ml

response 59136

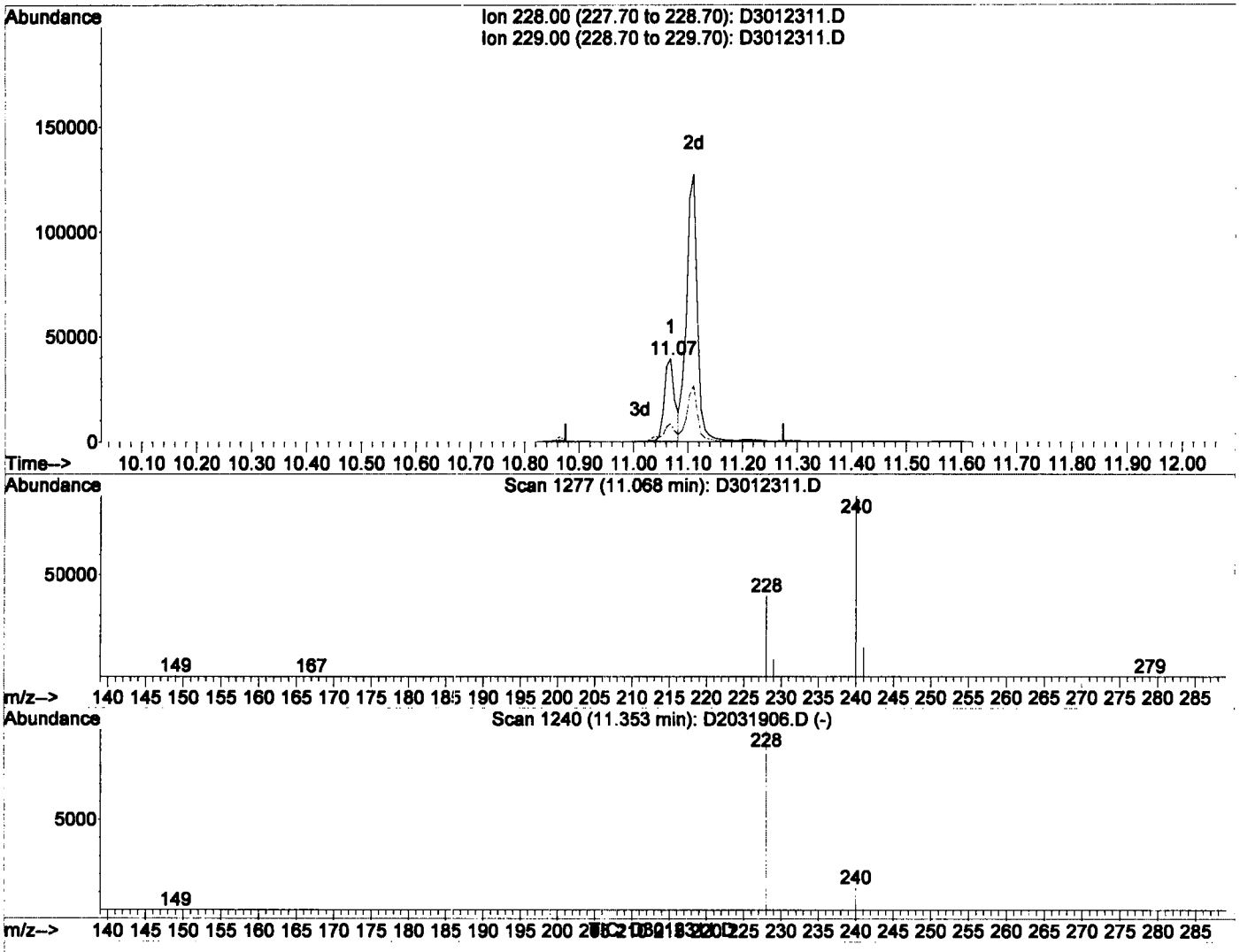
Ion	Exp%	Act%
202.00	100	100
200.00	20.40	20.16
0.00	0.00	0.00
0.00	0.00	0.00

D3012311.D D30116.M Wed Jan 23 14:44:59 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(23) Benz(a)Anthracene (T)

11.07min 283.80ng/ml

response 52462

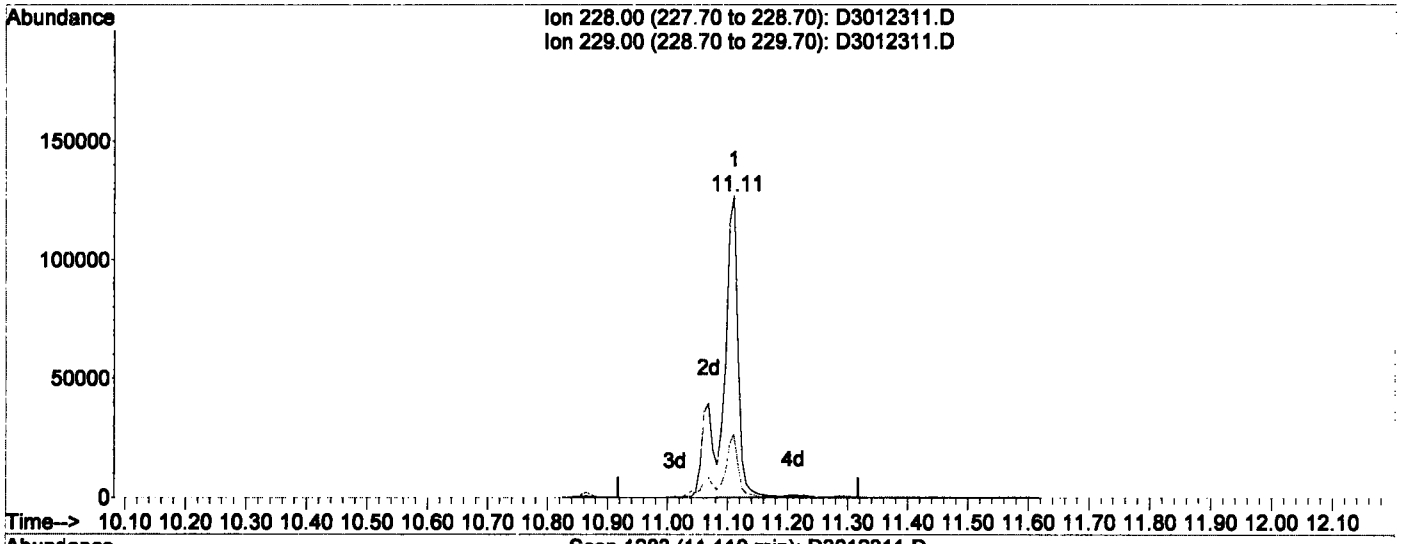
Ion	Exp%	Act%
228.00	100	100
229.00	19.30	21.08
0.00	0.00	0.00
0.00	0.00	0.00

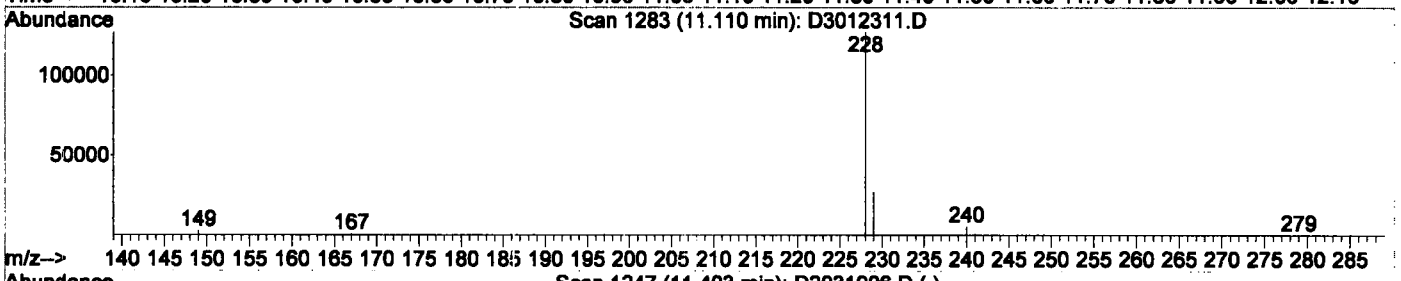
D3012311.D D30116.M Wed Jan 23 14:45:05 2013

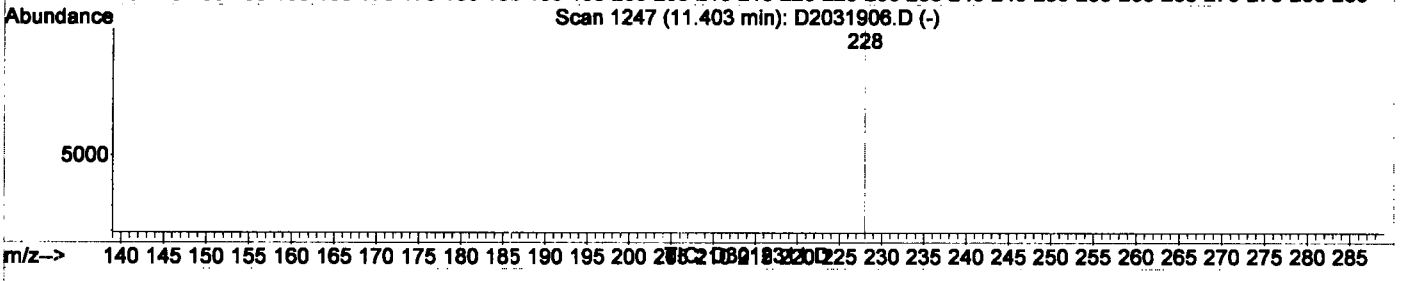
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(24) Chrysene (T)

11.11min 1012.86ng/ml

response 174985

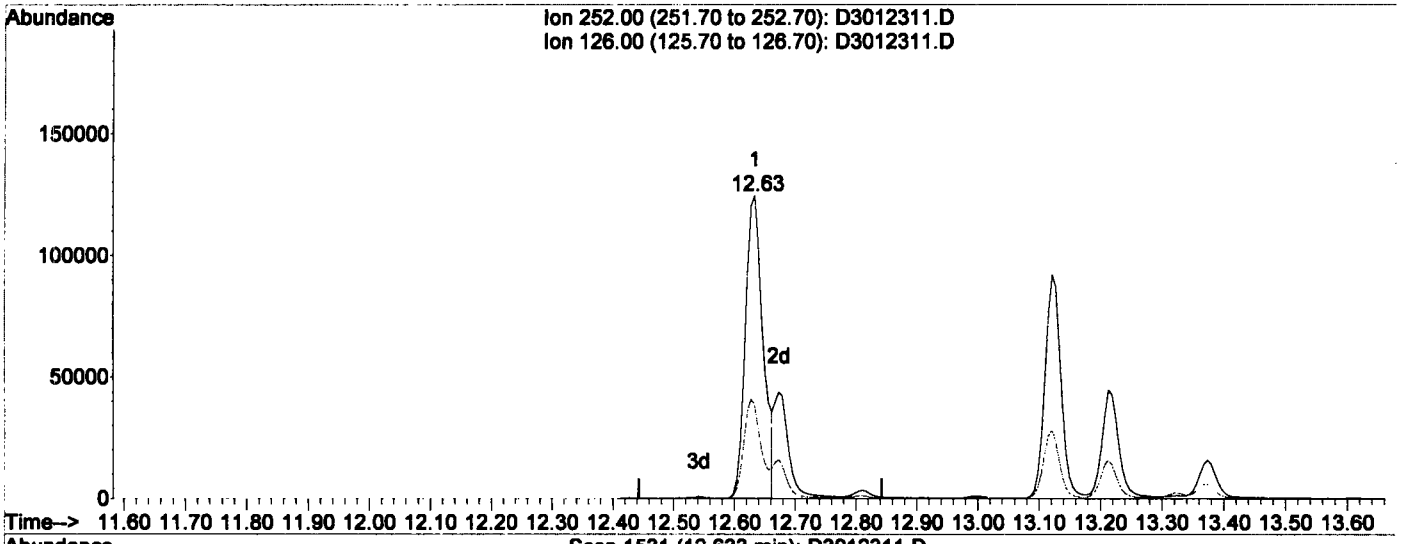
Ion	Exp%	Act%
228.00	100	100
229.00	19.20	20.72
0.00	0.00	0.00
0.00	0.00	0.00

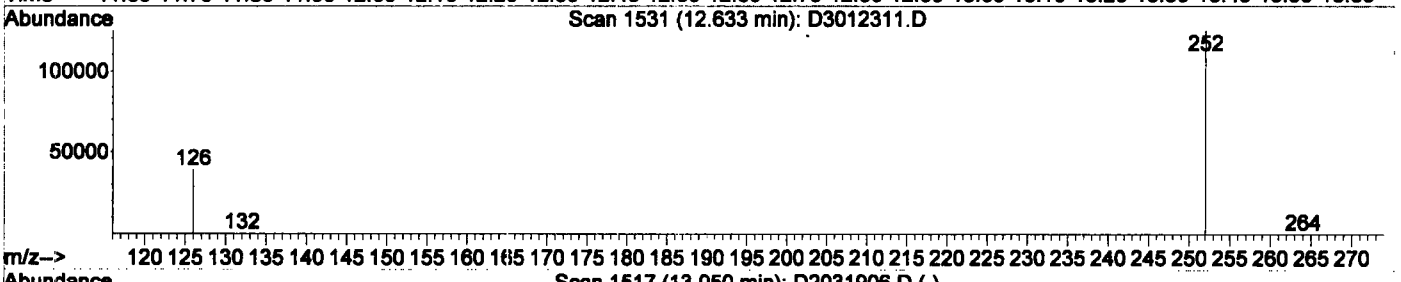
D3012311.D D30116.M Wed Jan 23 14:45:10 2013

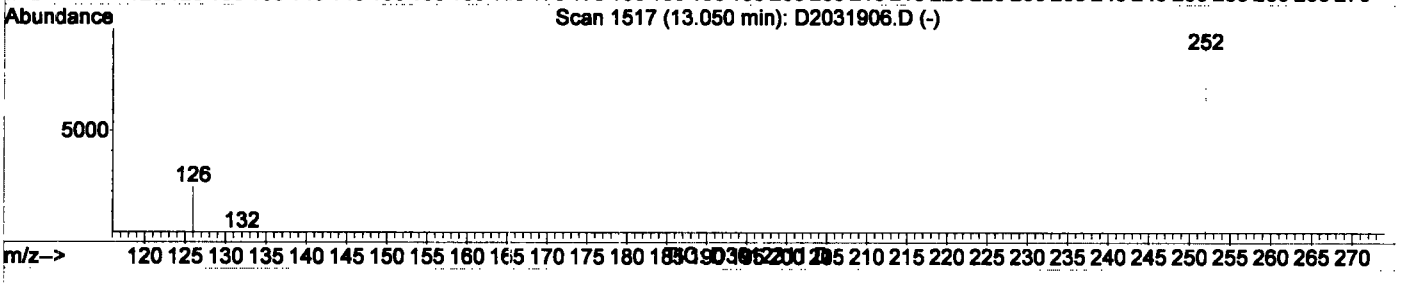
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(28) Benzo(b)Fluoranthene (T)

12.63min 1486.03ng/ml

response 252354

Q-28

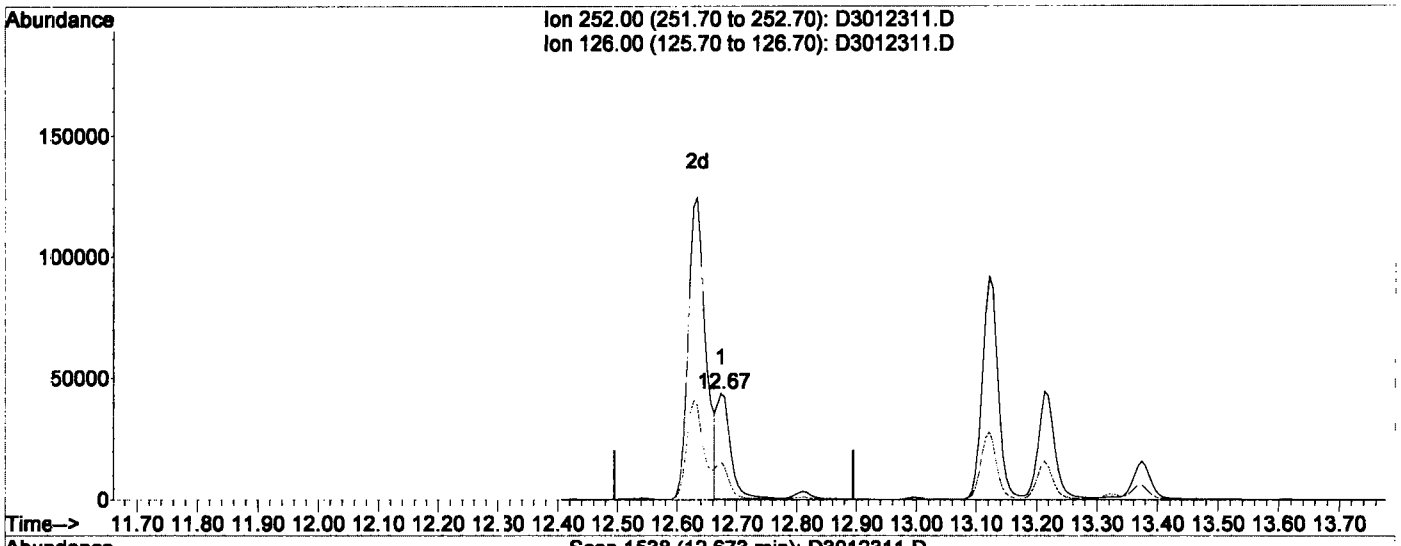
Ion	Exp%	Act%
252.00	100	100
126.00	28.90	31.53
0.00	0.00	0.00
0.00	0.00	0.00

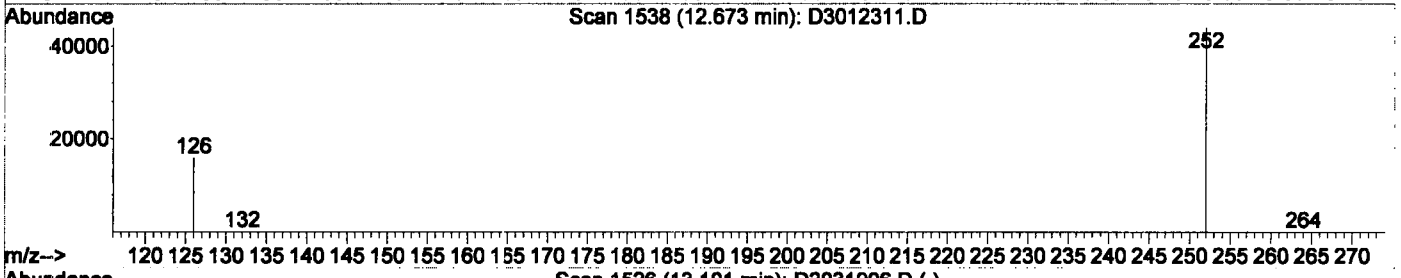
D3012311.D D30116.M Wed Jan 23 14:45:16 2013

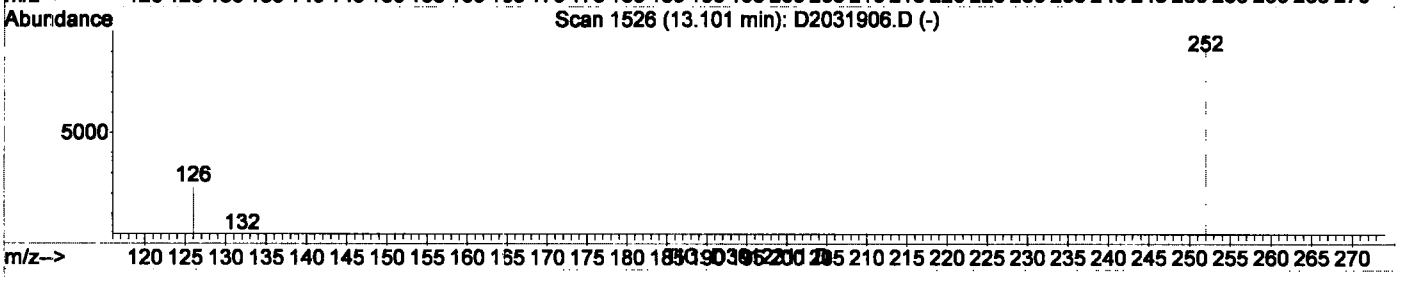
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(29) Benzo(k)Fluoranthene (T)

12.67min 402.51ng/ml

response 70645

Q.28

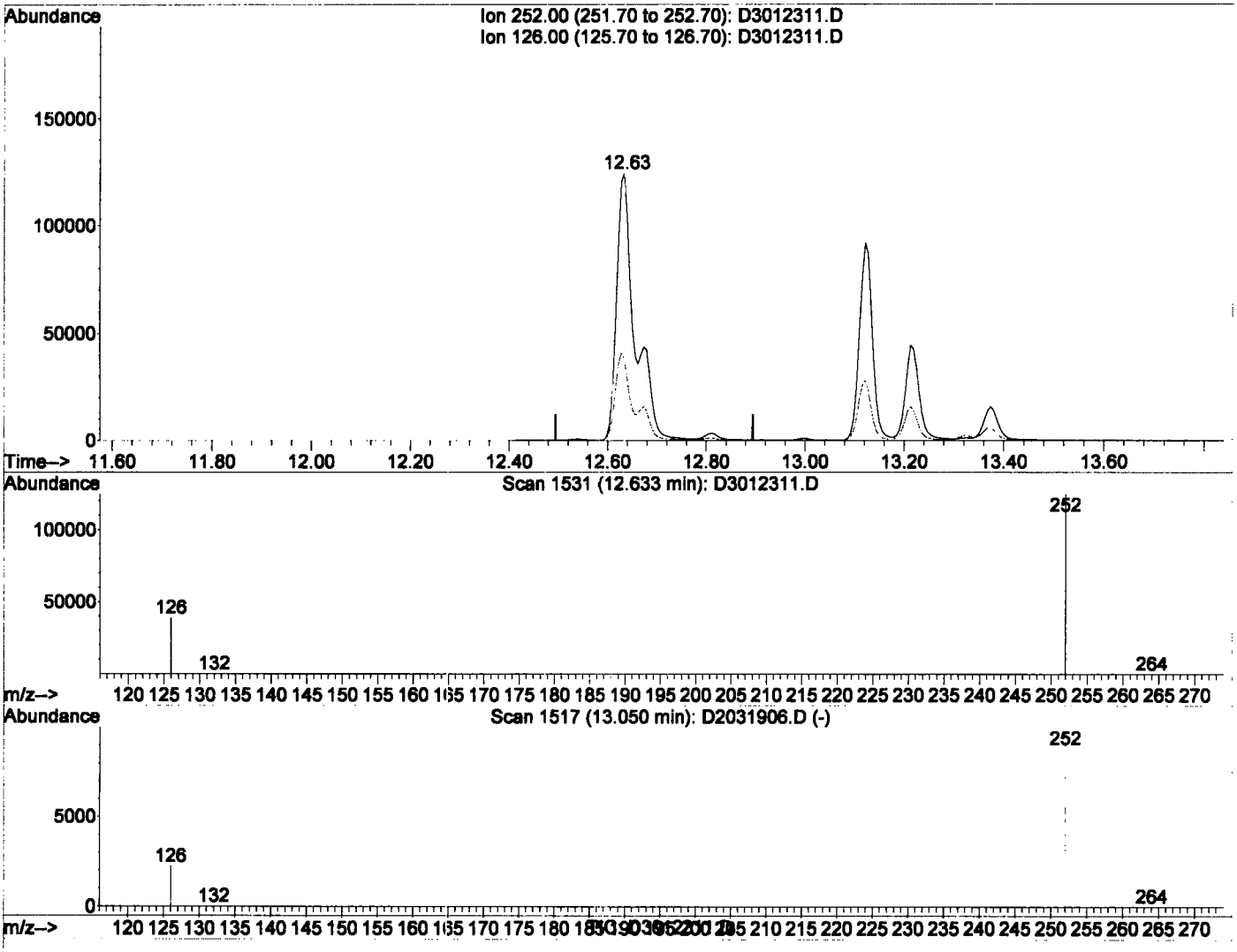
Ion	Exp%	Act%
252.00	100	100
126.00	30.40	38.84
0.00	0.00	0.00
0.00	0.00	0.00

D3012311.D D30116.M Wed Jan 23 14:45:20 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:45 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(30) Benzo(b+k)Fluoranthene (T)

12.63min 1871.27ng/ml m

response 325232

Ion	Exp%	Act%
252.00	100	100
126.00	29.70	33.47
0.00	0.00	0.00
0.00	0.00	0.00

Q-26
1-23-13 BSJ

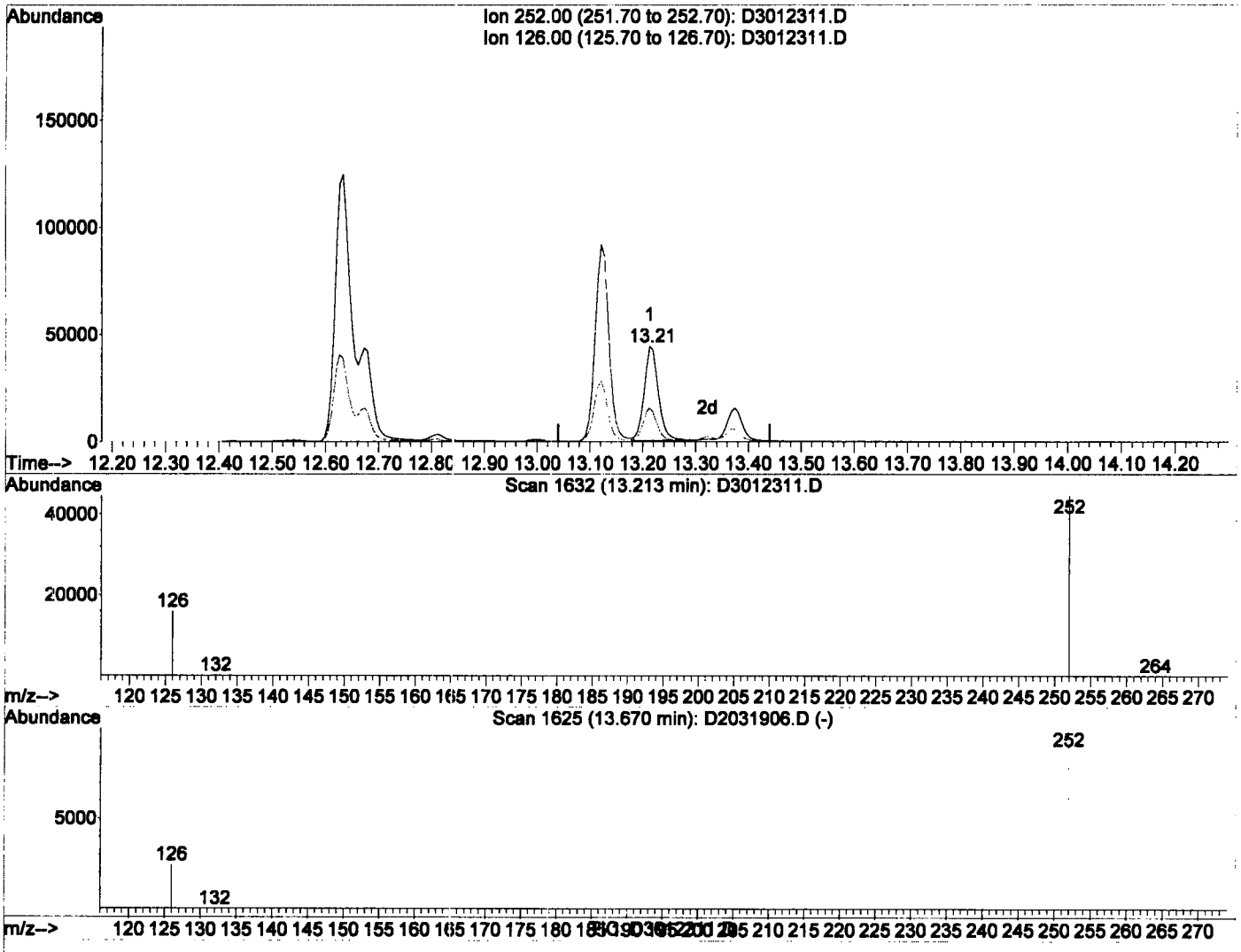
1/23/13
MLL

D3012311.D D30116.M Wed Jan 23 14:45:28 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:45 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(32) Benzo(a)Pyrene (T)

13.21min 539.45ng/ml

response 81130

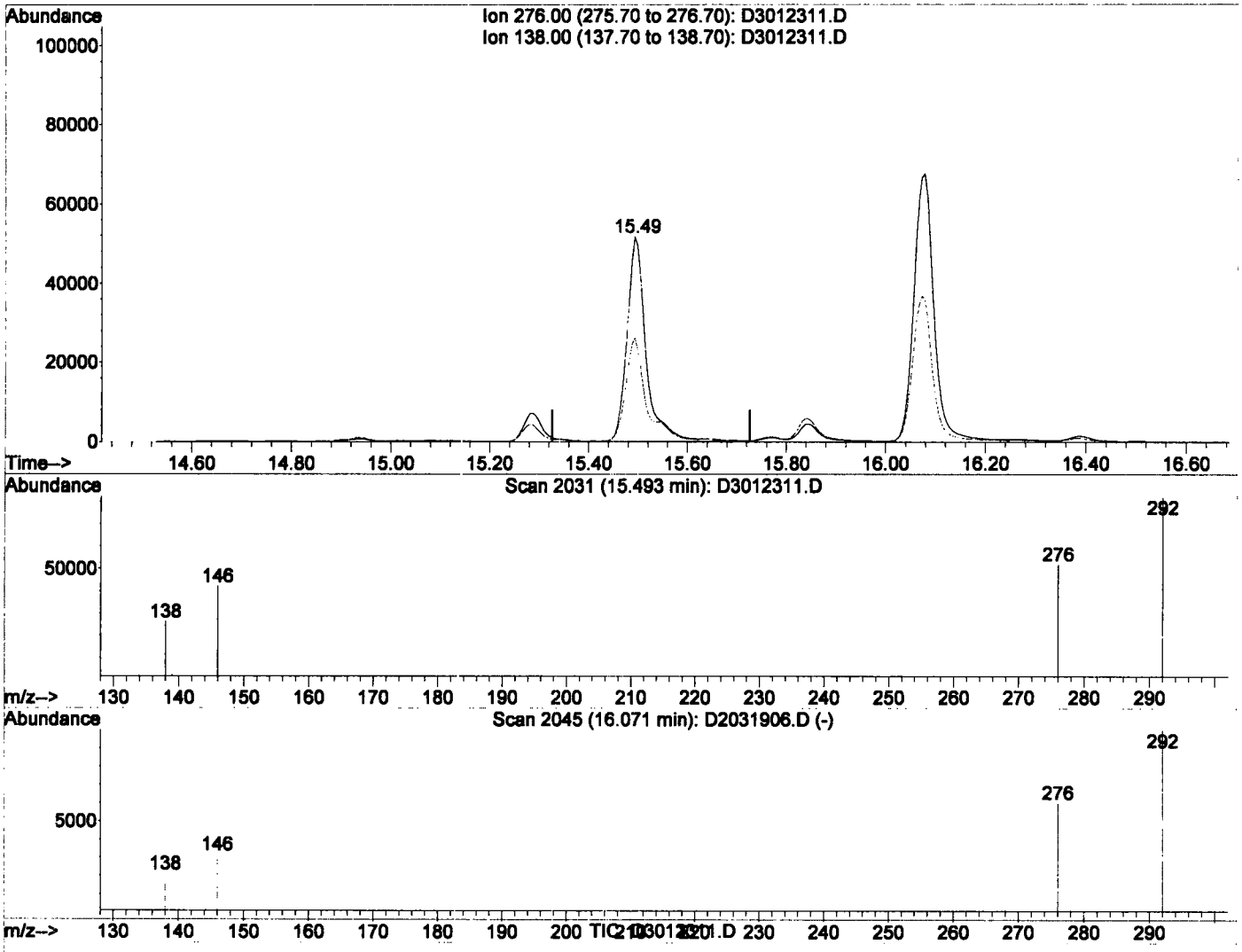
Ion	Exp%	Act%
252.00	100	100
126.00	29.80	35.03
0.00	0.00	0.00
0.00	0.00	0.00

D3012311.D D30116.M Wed Jan 23 14:45:34 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:45 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(35) Indeno(1,2,3-cd)Pyrene (T)

15.49min 916.20ng/ml

response 137232

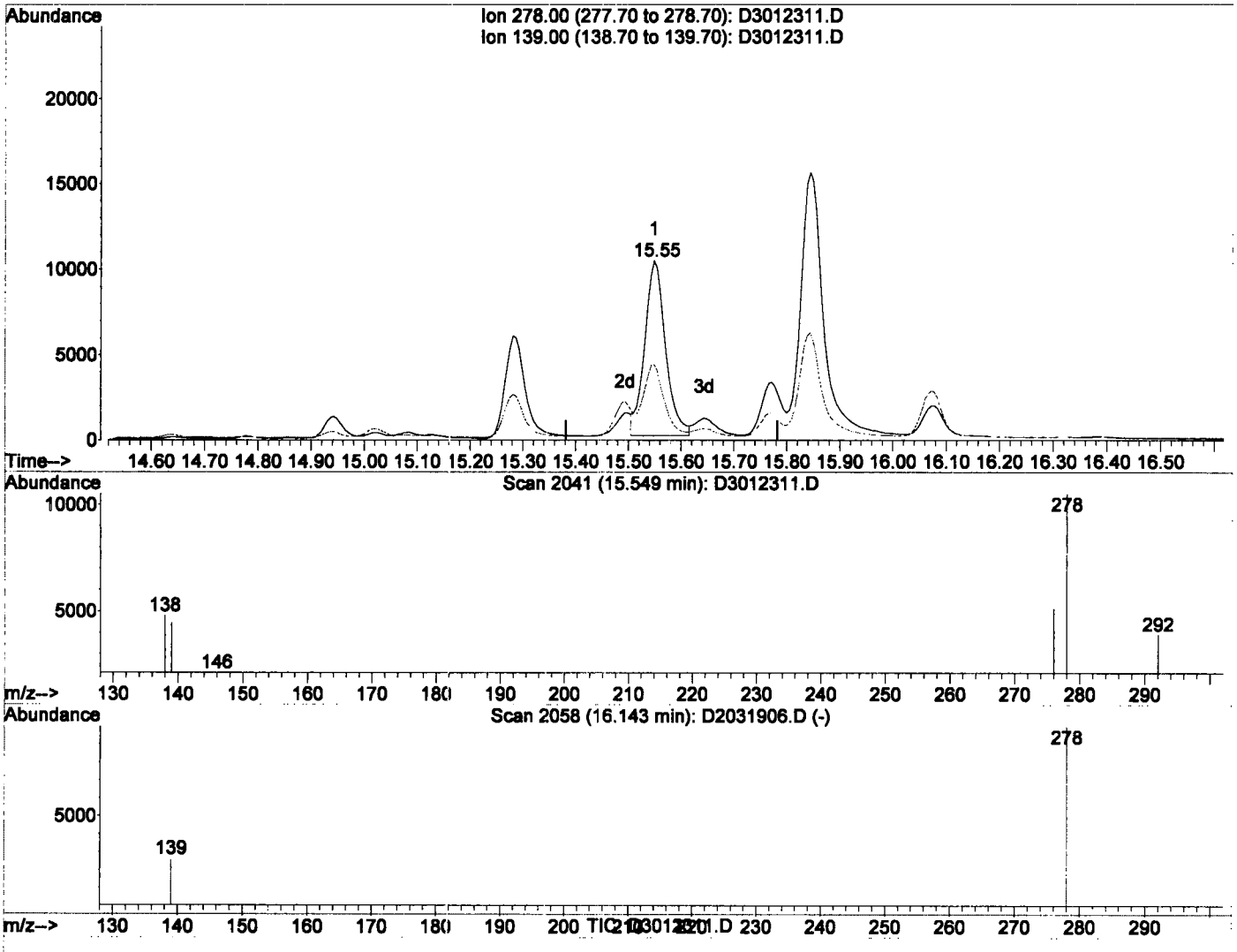
Ion	Exp%	Act%
276.00	100	100
138.00	40.10	54.36
0.00	0.00	0.00
0.00	0.00	0.00

D3012311.D D30116.M Wed Jan 23 14:45:40 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:45 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(36) Dibenz(a,h)Anthracene (T)

15.55min 209.27ng/ml

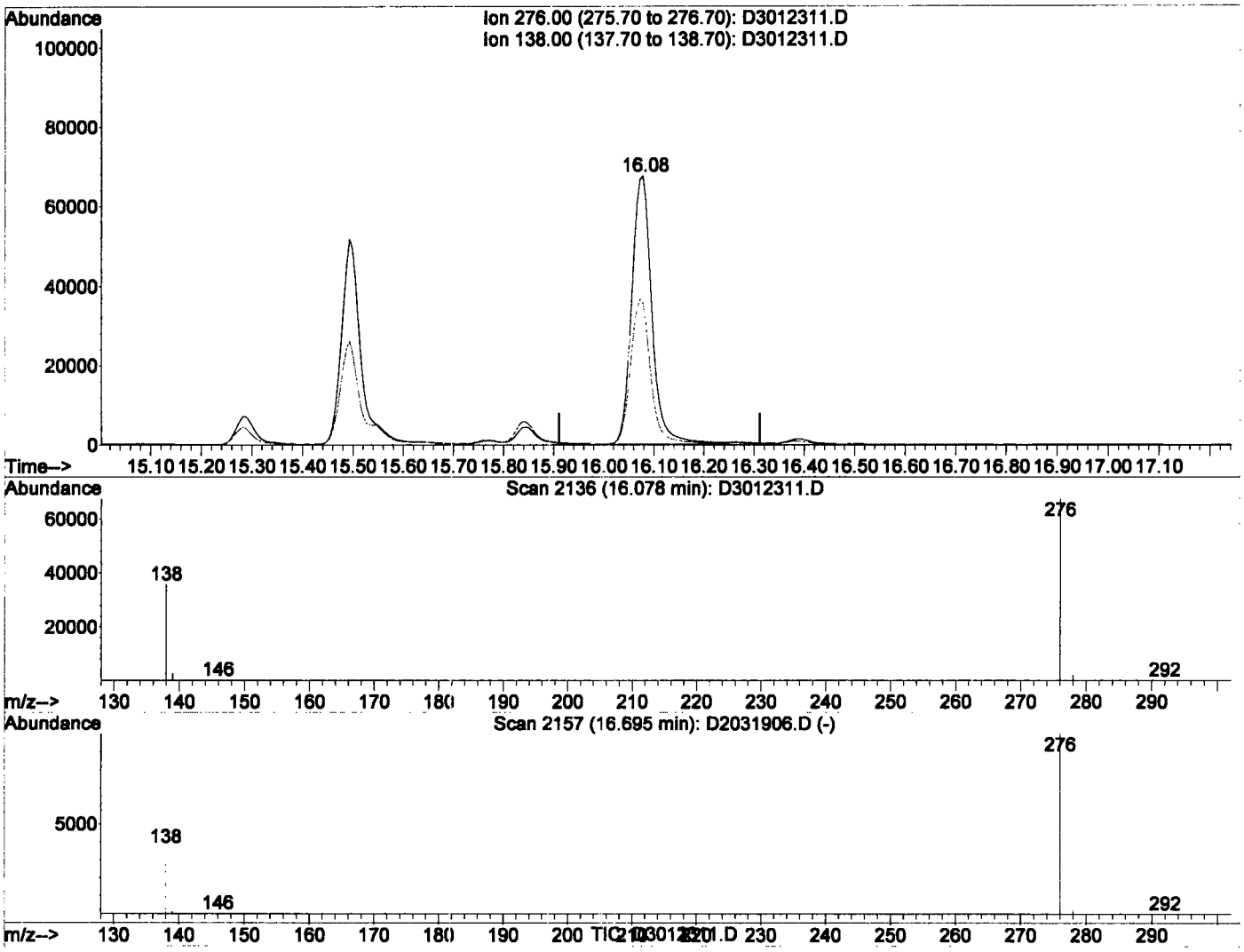
response 28264

Ion	Exp%	Act%
278.00	100	100
139.00	35.00	40.09
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:45 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(37) Benzo(g,h,i)Perylene (T)

16.08min 1217.54ng/ml

response 187395

Ion	Exp%	Act%
276.00	100	100
138.00	44.40	53.99
0.00	0.00	0.00
0.00	0.00	0.00

D3012311.D D30116.M Wed Jan 23 14:45:49 2013

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	825651	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	349497	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	445867	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	321496	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	291325	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.49	292	218850	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	513171	2157.00	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	328875	2492.18	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	4126	9.14	ng/ml	93
3) 2-Methylnaphthalene	5.98	142	1464	5.53	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	813	3.23	ng/ml	99
7) Dimethylphthalate	6.72	163	311	1.34	ng/mL#	73
8) Acenaphthylene	6.84	152	1098	3.16	ng/ml#	68
9) Acenaphthene	7.01	153	1488	6.60	ng/ml	96
10) Dibenzofuran	7.19	168	993	3.51	ng/mL	96
11) Diethylphthalate	7.41	149	1684	6.97	ng/mL#	58
12) Fluorene	7.52	166	846	3.78	ng/ml	86
14) Phenanthrene	8.45	178	13750	54.95	ng/ml	99
15) Anthracene	8.50	178	3653	15.08	ng/ml	99
16) Carbazole	8.67	167	2337	13.59	ng/mL	97
17) Di-n-butylphthalate	9.01	149	6472	18.04	ng/mL	96
18) Fluoranthene	9.61	202	53003	240.44	ng/ml	99
19) Pyrene	9.84	202	59136	265.26	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	5872	44.46	ng/mL	82
23) Benz(a)Anthracene	11.07	228	52462	283.80	ng/ml	96
24) Chrysene	11.11	228	174985	1012.86	ng/ml	97
25) Bis(2-ethylhexyl)phthalate	11.10	149	7422	38.48	ng/mL	91
26) Di-n-octyl phthalate	12.07	149	230	47.72	ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	252354	1486.03	ng/ml	95
29) Benzo(k)Fluoranthene	12.67	252	70645	402.51	ng/ml	85
30) Benzo(b+k)Fluoranthene	12.63	252	330795	1903.28	ng/ml	94
31) Benzo(e)Pyrene	13.12	252	166124	977.03	ng/mL	92
32) Benzo(a)Pyrene	13.21	252	81130	539.45	ng/ml	90
33) Perylene	13.37	252	32044	193.19	ng/mL	91
35) Indeno(1,2,3-cd)Pyrene	15.49	276	137232	916.20	ng/ml	77
36) Dibenz(a,h)Anthracene	15.55	278	28264	209.27	ng/ml	91
37) Benzo(g,h,i)Perylene	16.08	276	187395	1217.54	ng/ml	85

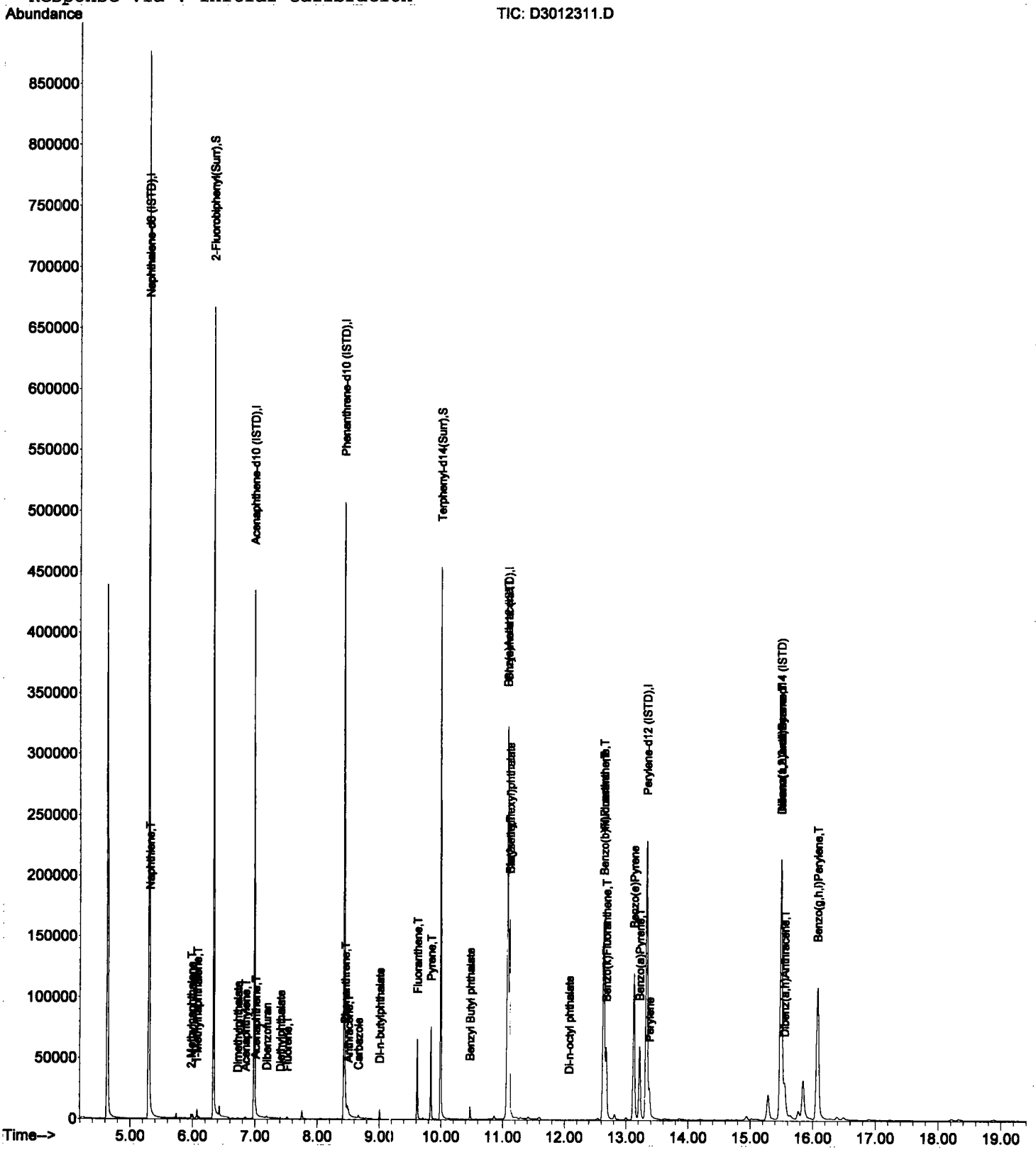
MK 1-25-13 BSJ

(#) = qualifier out of range (m) = manual integration
D3012311.D D30116.M Wed Jan 23 14:36:16 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012311.D Vial: 11
Acq On : 23 Jan 2013 13:41 Operator: bsj
Sample : A13A243-14RE1 Inst : SV-GCMS4
Misc : 1x Soil 11.12g/2mL SIM-PAH(LL) Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



D3012311.D D30116.M Wed Jan 23 14:36:17 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012312.D Vial: 12
Acq On : 23 Jan 2013 14:08 Operator: bsj
Sample : 1301478-MS1 Inst : SV-GCMS4
Misc : 1x Soil 10.26g/5mL SIM-PAH (A243-14 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	776600	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.99	164	314393	-2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	424113	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	321596	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	295279	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.49	292	231186	2000.00	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	467160	2182.85	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	305726	2316.04	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	1462737	3444.39	ng/ml	99
3) 2-Methylnaphthalene	5.97	142	887737	3567.91	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	824241	3477.82	ng/ml	100
7) Dimethylphthalate	6.73	163	782988	3763.58	ng/mL	99
8) Acenaphthylene	6.84	152	1193004	3820.41	ng/ml	100
9) Acenaphthene	7.01	153	733234	3615.35	ng/ml	99
10) Dibenzofuran	7.19	168	948249	3727.80	ng/mL	93
11) Diethylphthalate	7.41	149	798373	3675.88	ng/mL	99
12) Fluorene	7.52	166	763867	3792.84	ng/ml	100
14) Phenanthrene	8.45	178	912578	3834.15	ng/ml	99
15) Anthracene	8.50	178	940375	4080.48	ng/ml	99
16) Carbazole	8.66	167	820299	Below Cal		97
17) Di-n-butylphthalate	9.01	149	1357192	3976.26	ng/mL	97
18) Fluoranthene	9.61	202	884249	4216.98	ng/ml	99
19) Pyrene	9.84	202	896037	4225.48	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	550052	4163.53	ng/mL	100
23) Benz(a)Anthracene	11.07	228	768686	4157.02	ng/ml	99
24) Chrysene	11.11	228	793088	4589.19	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.10	149	800897	4151.23	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	1282980	4216.92	ng/mL	99
28) Benzo(b)Fluoranthene	12.64	252	918728	5337.65	ng/ml	94
29) Benzo(k)Fluoranthene	12.68	252	749509	4213.22	ng/ml	86
30) Benzo(b+k)Fluoranthene	12.64	252	1680073	9537.13	ng/ml#	45
31) Benzo(e)Pyrene	13.13	252	794177	4608.28	ng/mL	84
32) Benzo(a)Pyrene	13.22	252	716437	4699.94	ng/ml	90
33) Perylene	13.38	252	695566	4137.42	ng/mL	89
35) Indeno(1,2,3-cd)Pyrene	15.50	276	693190	4381.00	ng/ml	84
36) Dibenz(a,h)Anthracene	15.56	278	584395	4096.05	ng/ml	87
37) Benzo(g,h,i)Perylene	16.09	276	773507	4757.46	ng/ml	85

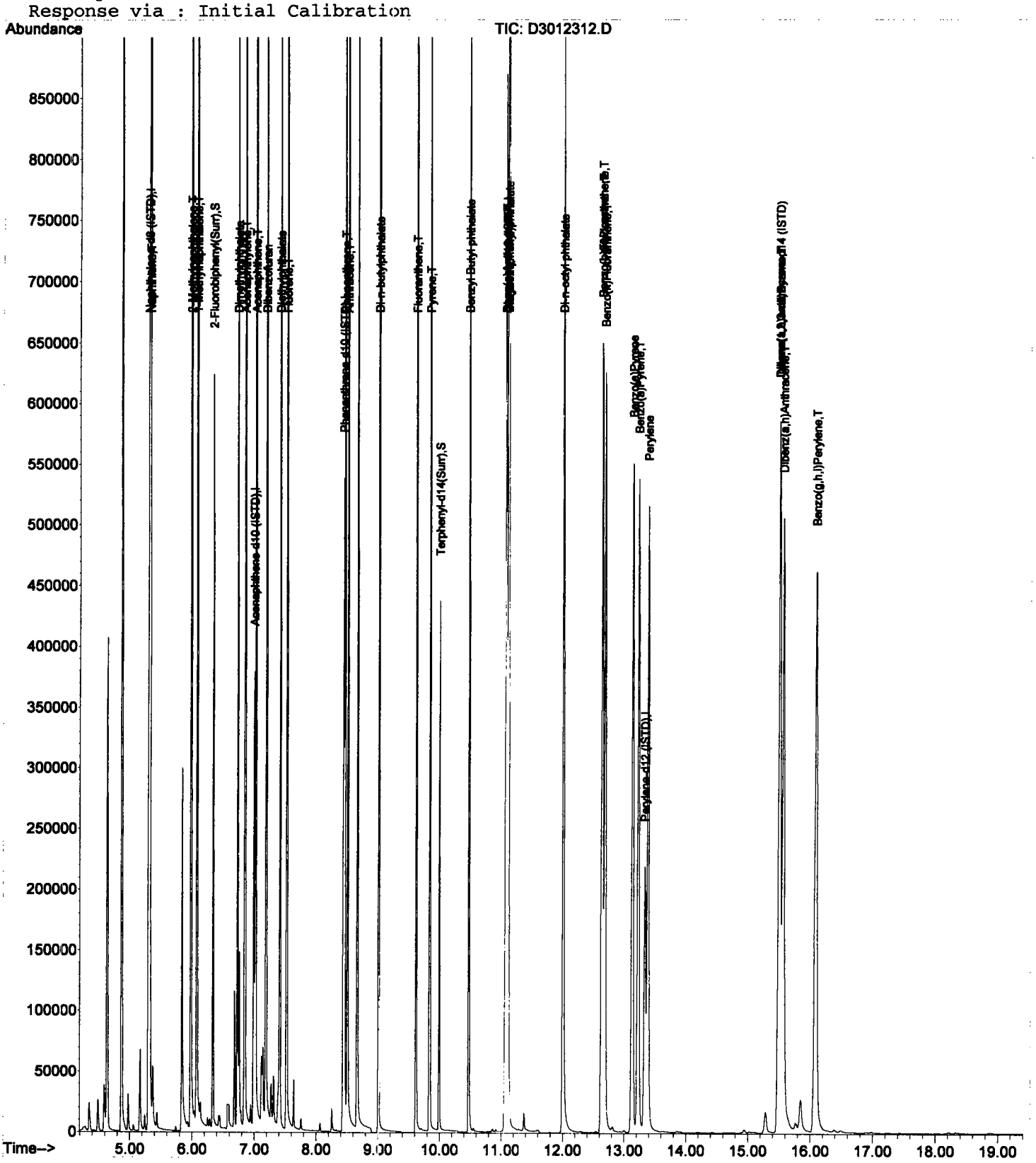
1-23-13 BSJ

(#) = qualifier out of range (m) = manual integration
D3012312.D D30116.M Wed Jan 23 14:36:20 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A23005\D3012312.D Vial: 12
Acq On : 23 Jan 2013 14:08 Operator: bsj
Sample : 1301478-MS1 Inst : SV-GCMS4
Misc : 1x Soil 10.26g/5mL SIM-PAH (A243-14 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 23 14:36 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Calibration Data

Sequence 2L26023 (Cal ID A2L2701) SV-GCMS6

ELEMENT SEQUENCE LOG

Apex Laboratories

✓

Sequence:	2L26023	Instrument:	SV-GCMS6
Date:	12/26/12 00:00	Calibration:	A2L2701

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	2L26023-TUN1	Water	QC	QC			A12L094	A12L216
2	2L26023-ICB1	Water	QC	QC			A12L094	
3	2L26023-CAL1	Water	QC	QC			A12L094	A12K202
4	2L26023-CAL2	Water	QC	QC			A12L094	A12K203
5	2L26023-CAL3	Water	QC	QC			A12L094	A12K204
6	2L26023-CAL4	Water	QC	QC			A12L094	A12K205
7	2L26023-CAL5	Water	QC	QC			A12L094	A12K206
8	2L26023-CAL6	Water	QC	QC			A12L094	A12K207
9	2L26023-CAL7	Water	QC	QC			A12L094	A12K208
10	2L26023-CAL8	Water	QC	QC			A12L094	A12K209
11	2L26023-CAL9	Water	QC	QC			A12L094	A12K210
12	2L26023-CALA	Water	QC	QC			A12L094	A12K211
13	2L26023-IBL1	Water	QC	QC			A12L094	
14	2L26023-ICV1	Water	QC	QC			A12L094	A12K140

Data Entered By: AMS 12/27/12

Data Reviewed By: AMS 12/27/12

Comments:

CALIBRATION SEQUENCE REVIEW SHEET

✓

SEQUENCE: 2L26023

Analysis Included

8270 SIM PAH
8270 SIM PAH (16)
8270 SIM PAH (Low Level)
8270 SIM Phthalates
8270 SIM Naphthalene

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTDID	Analyzed
2L26023-TUN1	MS Tune	Water	A12L216	A12L094	12/26/2012 4:07:00PM
2L26023-ICB1	Initial Cal Blank	Water		A12L094	12/26/2012 4:34:00PM
2L26023-CAL1	Cal Standard	Water	A12K202	A12K202	12/26/2012 5:02:00PM
2L26023-CAL2	Cal Standard	Water	A12K203	A12K203	12/26/2012 5:30:00PM
2L26023-CAL3	Cal Standard	Water	A12K204	A12K204	12/26/2012 5:58:00PM
2L26023-CAL4	Cal Standard	Water	A12K205	A12K205	12/26/2012 6:25:00PM
2L26023-CAL5	Cal Standard	Water	A12K206	A12K206	12/26/2012 6:53:00PM
2L26023-CAL6	Cal Standard	Water	A12K207	A12K207	12/26/2012 7:20:00PM
2L26023-CAL7	Cal Standard	Water	A12K208	A12K208	12/26/2012 7:48:00PM
2L26023-CAL8	Cal Standard	Water	A12K209	A12K209	12/26/2012 8:16:00PM
2L26023-CAL9	Cal Standard	Water	A12K210	A12K210	12/26/2012 8:43:00PM
2L26023-CALA	Cal Standard	Water	A12K211	A12K211	12/26/2012 9:11:00PM
2L26023-ICV1	Initial Cal Check	Water	A12K140	A12K140	12/26/2012 10:06:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: A2L2701 Instrument: SV-GCMS6

8270 SIM PAH Sequence: 2L26023 Matrix: Water

2L26023-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 2L26023

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

Analytes With Quadratic Curve Fits

	Qualifier	MRL	Recalc Value	OK?	Raise MRL to ?
Di-n-octyl phthalate	Q-10	500	439.11	☒	☐ _____

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A2L2701** Instrument: **SV-GCMS6**

8270 SIM PAH (16) Sequence: **2L26023** Matrix: **Water**

2L26023-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

CALIBRATION SEQUENCE REVIEW SHEET

✓

SEQUENCE: 2L26023

Analysis Included

8270 SIM PAH
8270 SIM PAH (16)
8270 SIM PAH (Low Level)
8270 SIM Phthalates
8270 SIM Naphthalene

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTDID	Analyzed
2L26023-TUN1	MS Tune	Soil	A12L216	A12L094	12/26/2012 4:07:00PM
2L26023-ICB1	Initial Cal Blank	Soil		A12L094	12/26/2012 4:34:00PM
2L26023-CAL1	Cal Standard	Soil	A12K202	A12K202	12/26/2012 5:02:00PM
2L26023-CAL2	Cal Standard	Soil	A12K203	A12K203	12/26/2012 5:30:00PM
2L26023-CAL3	Cal Standard	Soil	A12K204	A12K204	12/26/2012 5:58:00PM
2L26023-CAL4	Cal Standard	Soil	A12K205	A12K205	12/26/2012 6:25:00PM
2L26023-CAL5	Cal Standard	Soil	A12K206	A12K206	12/26/2012 6:53:00PM
2L26023-CAL6	Cal Standard	Soil	A12K207	A12K207	12/26/2012 7:20:00PM
2L26023-CAL7	Cal Standard	Soil	A12K208	A12K208	12/26/2012 7:48:00PM
2L26023-CAL8	Cal Standard	Soil	A12K209	A12K209	12/26/2012 8:16:00PM
2L26023-CAL9	Cal Standard	Soil	A12K210	A12K210	12/26/2012 8:43:00PM
2L26023-CALA	Cal Standard	Soil	A12K211	A12K211	12/26/2012 9:11:00PM
2L26023-ICV1	Initial Cal Check	Soil	A12K140	A12K140	12/26/2012 10:06:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: A2L2701 Instrument: SV-GCMS6

8270 SIM PAH Sequence: 2L26023 Matrix: Soil

2L26023-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
2L26023-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 2L26023

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

Analytes With Quadratic Curve Fits

	Qualifier	MRL	Recalc Value	OK?	Raise MRL to ?
Di-n-octyl phthalate	Q-10	200	439.11	☒	☐ _____

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A2L2701** Instrument: **SV-GCMS6**

8270 SIM PAH (16) Sequence: **2L26023** Matrix: **Soil**

2L26023-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

Compound List Report SV-GCMS6

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
Total Cpnds : 37

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID	
1	I	Naphthalene-d8 (ISTD)	136	5.33	1.000	A	1	A	R	
2	T	Naphthalene	128	5.35	1.003	A	1	A	R	
3	T	2-Methylnaphthalene	142	6.01	1.127	A	1	A	R	
4	T	1-Methylnaphthalene	142	6.11	1.145	A	1	A	R	
5	I	Acenaphthene-d10 (ISTD)	164	7.02	1.000	A	1	A	R	
6	S	2-Fluorobiphenyl(Surr)	172	6.37	0.907	A	1	A	R	
7		Dimethylphthalate	163	6.76	0.962	A	1	A	R	
8	T	Acenaphthylene	152	6.88	0.980	A	1	A	R	
9	T	Acenaphthene	153	7.05	1.004	A	1	A	R	
10		Dibenzofuran	168	7.22	1.029	A	1	A	R	
11		Diethylphthalate	149	7.44	1.060	A	1	A	R	
12	T	Fluorene	166	7.56	1.076	A	1	A	R	
13	I	Phenanthrene-d10 (ISTD)	188	8.47	1.000	A	1	A	R	
14		Phenanthrene	178	8.49	1.003	A	1	A	R	
15	T	Anthracene	178	8.54	1.008	A	1	A	R	
16	T	Carbazole	167	8.69	1.027	A	1	A	R	
17		Di-n-butylphthalate	149	9.04	1.068	A	1	A	R	
18	T	Fluoranthene	202	9.65	1.139	A	1	A	R	
19	T	Pyrene	202	9.88	1.166	A	1	A	R	
20	I	Chrysene-d12 (ISTD)	240	11.11	1.000	A	1	A	R	
21	S	Terphenyl-d14(Surr)	244	10.03	0.902	A	1	A	R	
22		Benzyl Butyl phthalate	149	10.51	0.946	A	1	A	R	
23	T	Benz(a)Anthracene	228	11.10	0.999	A	1	A	R	
24	T	Chrysene	228	11.14	1.003	A	1	A	R	
25		Bis(2-ethylhexyl)phthalate	149	11.14	1.002	A	1	A	R	
26		Di-n-octyl phthalate	149	12.04	1.083	Q	1	A	R	✓
27	I	Perylene-d12 (ISTD)	264	13.37	1.000	A	1	A	R	
28	T	Benzo(b)Fluoranthene	252	12.67	0.948	A	1	A	R	
29	T	Benzo(k)Fluoranthene	252	12.71	0.951	A	1	A	R	
30	T	Benzo(b+k)Fluoranthene	252	12.71	0.951	A	1	A	R	
31		Benzo (e) Pyrene	252	13.16	0.985	A	1	A	R	
32	T	Benzo(a)Pyrene	252	13.25	0.991	A	1	A	R	
33		Perylene	252	13.41	1.003	A	1	A	R	
34	I	Dibenz(a,h)anthracene-d14 (IST	292	15.55	1.000	A	1	A	R	
35	T	Indeno(1,2,3-cd)Pyrene	276	15.55	1.000	A	1	A	R	
36	T	Dibenz(a,h)Anthracene	278	15.62	1.005	A	1	A	R	
37	T	Benzo(g,h,i)Perylene	276	16.14	1.038	A	1	A	R	

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

F21227.M Thu Dec 27 10:22:43 2012 VOAGCMS1

Response Factor Report SV-GCMS6

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration

AMS 12/27/12

Calibration Files
20 =F2122603.D 50 =F2122604.D 100 =F2122605.D
200 =F2122606.D 500 =F2122607.D 1000 =F2122608.D

		Compound	20	50	100	200	500	1000	Avg	%RSD
1)	I	Naphthalene-d8 (ISTD)	ISTD						10.18	
2)	T	Naphthalene	1.064	1.089	1.087	1.073	1.112	1.082	1.083	1.39
3)	T	2-Methylnaphthalene	0.599	0.622	0.625	0.628	0.658	0.653	0.644	3.79
4)	T	1-Methylnaphthalene	0.555	0.583	0.581	0.580	0.608	0.604	0.595	3.30
5)	I	Acenaphthene-d10 (IST	ISTD						10.71	
6)	S	2-Fluorobiphenyl(Su	1.352	1.404	1.416	1.415	1.475	1.454	1.435	2.76
7)		Dimethylphthalate	1.204	1.239	1.243	1.263	1.310	1.325	1.300	4.50
8)	T	Acenaphthylene	1.656	1.747	1.752	1.789	1.904	1.908	1.852	5.83
9)	T	Acenaphthene	1.112	1.170	1.166	1.168	1.212	1.189	1.174	2.29
10)		Dibenzofuran	1.554	1.610	1.644	1.631	1.694	1.698	1.660	3.07
11)		Diethylphthalate			1.416	1.305	1.319	1.310	1.333	2.91
12)	T	Fluorene	1.170	1.218	1.227	1.234	1.312	1.332	1.265	4.47
13)	I	Phenanthrene-d10 (IST	ISTD						11.50	
14)		Phenanthrene	0.995	1.030	1.032	1.042	1.090	1.066	1.055	2.87
15)	T	Anthracene	0.898	0.944	0.942	0.960	1.038	1.049	1.014	7.00
16)	T	Carbazole	0.750	0.796	0.809	0.827	0.910	0.910	0.827	8.05
17)		Di-n-butylphthalate			1.100	1.117	1.213	1.239	1.264	9.35
18)	T	Fluoranthene	0.916	0.926	0.903	0.916	0.977	0.980	0.992	8.15
19)	T	Pyrene	0.985	0.944	0.922	0.943	1.020	1.031	1.026	7.48
20)	I	Chrysene-d12 (ISTD)	ISTD						15.15	
21)	S	Terphenyl-d14(Surr)	0.765	0.773	0.789	0.788	0.822	0.813	0.808	3.42
22)		Benzyl Butyl phthal			0.435	0.453	0.497	0.517	0.518	10.31
23)	T	Benz(a)Anthracene	1.081	0.981	0.941	0.933	0.987	0.980	0.992	4.23
24)	T	Chrysene	0.898	0.943	0.944	0.961	0.990	0.970	0.956	2.64
25)		Bis(2-ethylhexyl)ph			0.510	0.580	0.675	0.744	0.705	15.25
26)		Di-n-octyl phthalat			0.541	0.639	0.804	0.973	0.983	30.19
27)	I	Perylene-d12 (ISTD)	ISTD						15.66	
28)	T	Benzo(b)Fluoranthen	0.789	0.815	0.853	0.911	0.994	1.028	0.983	13.63
29)	T	Benzo(k)Fluoranthen	0.906	0.920	0.972	0.987	1.085	1.105	1.065	10.30
30)	T	Benzo(b+k)Fluoranth	0.884	0.894	0.928	0.961	1.062	1.074	1.039	10.84
31)		Benzo (e) Pyrene	0.859	0.876	0.911	0.932	1.021	1.022	0.997	9.63 NR
32)	T	Benzo(a)Pyrene	0.714	0.750	0.768	0.823	0.906	0.954	0.915	15.86
33)		Perylene	0.864	0.926	0.936	0.954	1.025	1.021	0.993	7.02 NR
34)	I	Dibenz(a,h)anthracene	ISTD						18.91	
35)	T	Indeno(1,2,3-cd)Pyr	1.047	1.064	1.058	1.063	1.138	1.107	1.102	3.70
36)	T	Dibenz(a,h)Anthrace	0.839	0.926	0.915	0.990	1.079	1.105	1.051	11.96
37)	T	Benzo(g,h,i)Perylen	0.919	0.931	0.979	1.031	1.149	1.171	1.097	10.81

(#) = Out of Range ### Number of calibration levels exceeded format ###

Calibration Status Report SV-GCMS6

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	20	20	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122603.D
2	50	50	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122604.D
3	100	100	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122605.D
4	200	200	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122606.D
5	500	500	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122607.D
6	1000	1000	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122608.D
7	2000	2000	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122609.D
8	4000	4000	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122610.D
9	6000	6000	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122611.D
10	8000	8000	2000	C:\HPCHEM\2\DATA\2012-12\2L26023\F2122612.D

#	ID	Update Time	Quant Time	Acquisition Time
1	20	Dec 27 10:04 2012	Dec 27 10:01 2012	26 Dec 2012 5:02 pm
2	50	Dec 27 10:04 2012	Dec 27 10:02 2012	26 Dec 2012 5:30 pm
3	100	Dec 27 10:04 2012	Dec 27 10:02 2012	26 Dec 2012 5:58 pm
4	200	Dec 27 10:04 2012	Dec 27 10:03 2012	26 Dec 2012 6:25 pm
5	500	Dec 27 10:04 2012	Dec 27 09:30 2012	26 Dec 2012 6:53 pm
6	1000	Dec 27 10:04 2012	Dec 27 09:30 2012	26 Dec 2012 7:20 pm
7	2000	Dec 27 10:04 2012	Dec 27 09:30 2012	26 Dec 2012 7:48 pm
8	4000	Dec 27 10:04 2012	Dec 27 09:30 2012	26 Dec 2012 8:16 pm
9	6000	Dec 27 10:04 2012	Dec 27 09:30 2012	26 Dec 2012 8:43 pm
10	8000	Dec 27 10:04 2012	Dec 27 09:30 2012	26 Dec 2012 9:11 pm

F21227.M Thu Dec 27 10:22:48 2012 VOAGCMS1

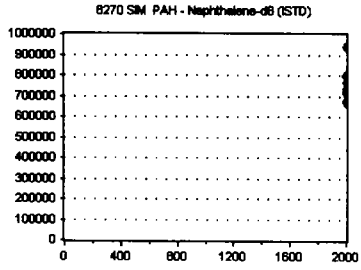
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012**

Analysis: **8270 SIM PAH** Instrument Cal ID: **F21227.M**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**

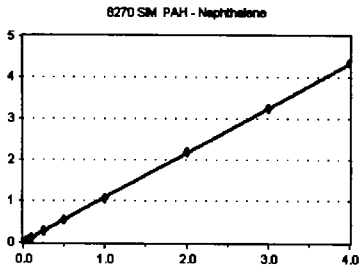


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	2000	765666	382.833	5.34
2L26023-CAL2	2000	725587	362.794	5.33
2L26023-CAL3	2000	674667	337.334	5.34
2L26023-CAL4	2000	792005	396.003	5.34
2L26023-CAL5	2000	671062	335.531	5.33
2L26023-CAL6	2000	938021	469.011	5.33
2L26023-CAL7	2000	733808	366.904	5.33
2L26023-CAL8	2000	711375	355.688	5.33
2L26023-CAL9	2000	797400	398.700	5.33
2L26023-CALA	2000	765316	382.658	5.33

AVE RF **378.745** RF RSD **10.18** AVE RT **5.33**

Naphthalene

Curve Fit: **AVERAGE RF**

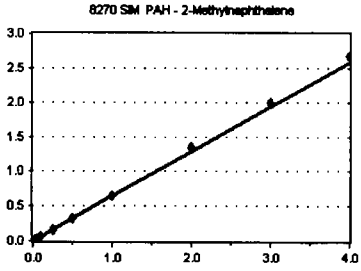


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	8150	1.064	5.35
2L26023-CAL2	50	19761	1.089	5.35
2L26023-CAL3	100	36661	1.087	5.35
2L26023-CAL4	200	84945	1.073	5.35
2L26023-CAL5	500	186488	1.112	5.35
2L26023-CAL6	1000	507274	1.082	5.35
2L26023-CAL7	2000	778107	1.060	5.35
2L26023-CAL8	4000	1557178	1.094	5.35
2L26023-CAL9	6000	2591194	1.083	5.35
2L26023-CALA	8000	3338370	1.091	5.35

AVE RF **1.083** RF RSD **1.39** AVE RT **5.35**

2-Methylnaphthalene

Curve Fit: **AVERAGE RF**

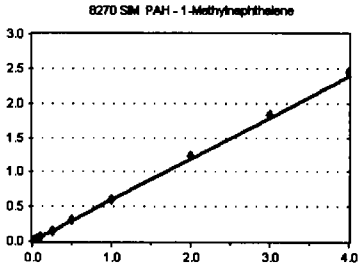


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	4588	0.599	6.01
2L26023-CAL2	50	11283	0.622	6.01
2L26023-CAL3	100	21098	0.625	6.01
2L26023-CAL4	200	49705	0.628	6.01
2L26023-CAL5	500	110365	0.658	6.01
2L26023-CAL6	1000	306110	0.653	6.01
2L26023-CAL7	2000	475941	0.649	6.01
2L26023-CAL8	4000	953972	0.671	6.01
2L26023-CAL9	6000	1596153	0.667	6.01
2L26023-CALA	8000	2053588	0.671	6.01

AVE RF **0.644** RF RSD **3.79** AVE RT **6.01**

1-Methylnaphthalene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	4249	0.555	6.11
2L26023-CAL2	50	10582	0.583	6.11
2L26023-CAL3	100	19599	0.581	6.11
2L26023-CAL4	200	45964	0.580	6.11
2L26023-CAL5	500	102078	0.608	6.11
2L26023-CAL6	1000	283470	0.604	6.11
2L26023-CAL7	2000	438116	0.597	6.11
2L26023-CAL8	4000	874416	0.615	6.11
2L26023-CAL9	6000	1464657	0.612	6.11
2L26023-CALA	8000	1879682	0.614	6.11

AVE RF **0.595** RF RSD **3.30** AVE RT **6.11**

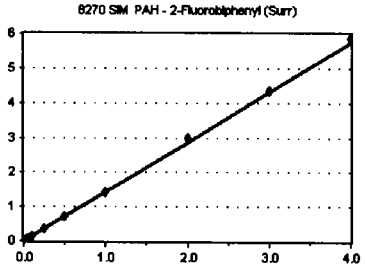
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012** ✓

Analysis: **8270 SIM PAH** Instrument Cal ID: **F21227.M**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

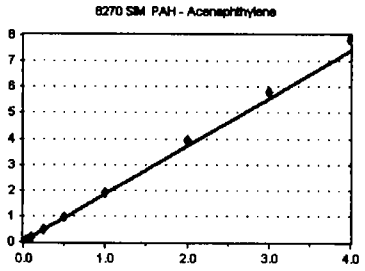


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	4779	1.352	6.36
2L26023-CAL2	50	11635	1.404	6.36
2L26023-CAL3	100	21976	1.416	6.36
2L26023-CAL4	200	51398	1.415	6.36
2L26023-CAL5	500	113962	1.475	6.36
2L26023-CAL6	1000	317202	1.454	6.37
2L26023-CAL7	2000	493690	1.436	6.36
2L26023-CAL8	4000	991625	1.486	6.37
2L26023-CAL9	6000	1664848	1.445	6.37
2L26023-CALA	8000	2150557	1.465	6.37

AVE RF **1.435** RF RSD **2.76** AVE RT **6.36**

Acenaphthylene

Curve Fit: **AVERAGE RF**

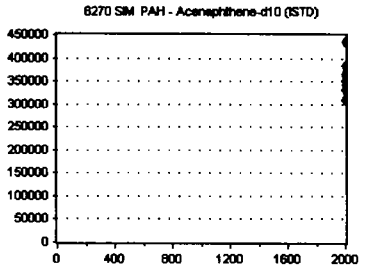


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	5852	1.656	6.88
2L26023-CAL2	50	14481	1.747	6.88
2L26023-CAL3	100	27176	1.752	6.87
2L26023-CAL4	200	64973	1.789	6.87
2L26023-CAL5	500	147083	1.904	6.88
2L26023-CAL6	1000	416178	1.908	6.88
2L26023-CAL7	2000	650223	1.891	6.88
2L26023-CAL8	4000	1319245	1.977	6.88
2L26023-CAL9	6000	2228397	1.934	6.88
2L26023-CALA	8000	2879869	1.961	6.88

AVE RF **1.852** RF RSD **5.83** AVE RT **6.88**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

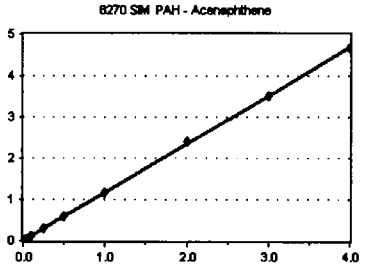


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	2000	353383	176.692	7.02
2L26023-CAL2	2000	331503	165.752	7.02
2L26023-CAL3	2000	310304	155.152	7.02
2L26023-CAL4	2000	363142	181.571	7.02
2L26023-CAL5	2000	308964	154.482	7.02
2L26023-CAL6	2000	436271	218.136	7.02
2L26023-CAL7	2000	343841	171.921	7.02
2L26023-CAL8	2000	333714	166.857	7.02
2L26023-CAL9	2000	384035	192.018	7.02
2L26023-CALA	2000	367063	183.532	7.02

AVE RF **176.611** RF RSD **10.71** AVE RT **7.02**

Acenaphthene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	3928	1.112	7.05
2L26023-CAL2	50	9700	1.170	7.05
2L26023-CAL3	100	18096	1.166	7.05
2L26023-CAL4	200	42433	1.168	7.05
2L26023-CAL5	500	93632	1.212	7.05
2L26023-CAL6	1000	259441	1.189	7.05
2L26023-CAL7	2000	402476	1.171	7.05
2L26023-CAL8	4000	802137	1.202	7.05
2L26023-CAL9	6000	1353067	1.174	7.05
2L26023-CALA	8000	1721130	1.172	7.06

AVE RF **1.174** RF RSD **2.29** AVE RT **7.05**

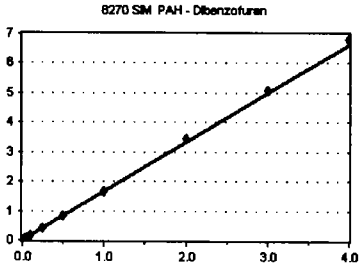
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012** ✓

Analysis: **8270 SIM PAH** Instrument Cal ID: **F21227.M**

Dibenzofuran

Curve Fit: **AVERAGE RF**

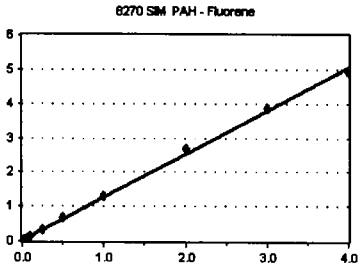


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	5493	1.554	7.22
2L26023-CAL2	50	13346	1.610	7.22
2L26023-CAL3	100	25501	1.644	7.22
2L26023-CAL4	200	59226	1.631	7.22
2L26023-CAL5	500	130883	1.694	7.22
2L26023-CAL6	1000	370372	1.698	7.22
2L26023-CAL7	2000	570278	1.659	7.22
2L26023-CAL8	4000	1148945	1.721	7.22
2L26023-CAL9	6000	1942188	1.686	7.22
2L26023-CALA	8000	2494493	1.699	7.22

AVE RF **1.660** RF RSD **3.07** AVE RT **7.22**

Fluorene

Curve Fit: **AVERAGE RF**

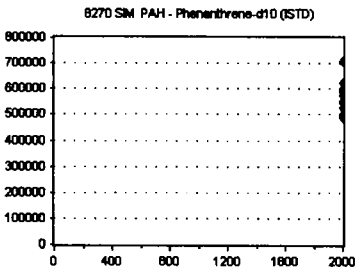


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	4134	1.170	7.55
2L26023-CAL2	50	10098	1.218	7.55
2L26023-CAL3	100	19034	1.227	7.55
2L26023-CAL4	200	44799	1.234	7.55
2L26023-CAL5	500	101367	1.312	7.55
2L26023-CAL6	1000	290641	1.332	7.56
2L26023-CAL7	2000	443460	1.290	7.55
2L26023-CAL8	4000	898470	1.346	7.55
2L26023-CAL9	6000	1478023	1.283	7.55
2L26023-CALA	8000	1814407	1.236	7.55

AVE RF **1.265** RF RSD **4.47** AVE RT **7.55**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

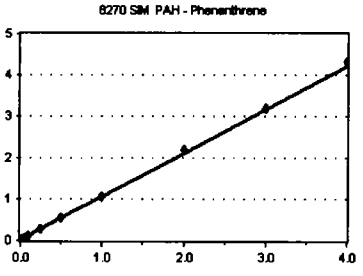


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	2000	575421	287.711	8.47
2L26023-CAL2	2000	525796	262.898	8.47
2L26023-CAL3	2000	495244	247.622	8.47
2L26023-CAL4	2000	586730	293.365	8.47
2L26023-CAL5	2000	486669	243.335	8.47
2L26023-CAL6	2000	708312	354.156	8.47
2L26023-CAL7	2000	552427	276.214	8.47
2L26023-CAL8	2000	544082	272.041	8.47
2L26023-CAL9	2000	623988	311.994	8.47
2L26023-CALA	2000	598844	299.422	8.47

AVE RF **284.876** RF RSD **11.50** AVE RT **8.47**

Phenanthrene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	5723	0.995	8.49
2L26023-CAL2	50	13542	1.030	8.49
2L26023-CAL3	100	25556	1.032	8.49
2L26023-CAL4	200	61112	1.042	8.49
2L26023-CAL5	500	132632	1.090	8.49
2L26023-CAL6	1000	377416	1.066	8.49
2L26023-CAL7	2000	586713	1.062	8.49
2L26023-CAL8	4000	1184458	1.088	8.49
2L26023-CAL9	6000	1998224	1.067	8.49
2L26023-CALA	8000	2587358	1.080	8.49

AVE RF **1.055** RF RSD **2.87** AVE RT **8.49**

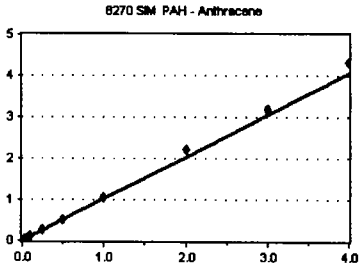
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012**

Analysis: **8270 SIM PAH** Instrument Cal ID: **F21227.M**

Anthracene

Curve Fit: **AVERAGE RF**

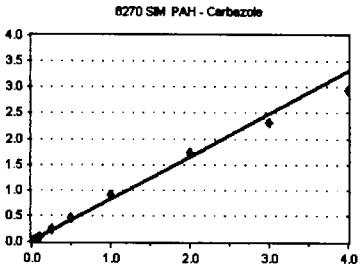


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	5168	0.898	8.54
2L26023-CAL2	50	12405	0.944	8.53
2L26023-CAL3	100	23336	0.942	8.54
2L26023-CAL4	200	56318	0.960	8.54
2L26023-CAL5	500	126345	1.038	8.53
2L26023-CAL6	1000	371377	1.049	8.54
2L26023-CAL7	2000	583065	1.055	8.54
2L26023-CAL8	4000	1206000	1.108	8.54
2L26023-CAL9	6000	1987711	1.062	8.54
2L26023-CALA	8000	2583466	1.079	8.54

AVE RF **1.014** RF RSD **7.00** AVE RT **8.54**

Carbazole

Curve Fit: **AVERAGE RF**

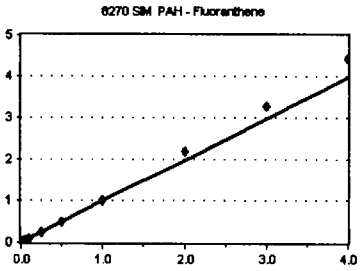


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	4316	0.750	8.69
2L26023-CAL2	50	10461	0.796	8.69
2L26023-CAL3	100	20021	0.809	8.69
2L26023-CAL4	200	48500	0.827	8.70
2L26023-CAL5	500	110718	0.910	8.69
2L26023-CAL6	1000	322337	0.910	8.69
2L26023-CAL7	2000	497395	0.900	8.69
2L26023-CAL8	4000	939666	0.864	8.69
2L26023-CAL9	6000	1441060	0.770	8.70
2L26023-CALA	8000	1755423	0.733	8.71

AVE RF **0.827** RF RSD **8.05** AVE RT **8.69**

Fluoranthene

Curve Fit: **AVERAGE RF**

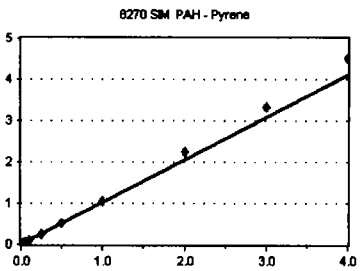


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	5268	0.916	9.65
2L26023-CAL2	50	12166	0.926	9.65
2L26023-CAL3	100	22359	0.903	9.65
2L26023-CAL4	200	53746	0.916	9.65
2L26023-CAL5	500	118915	0.977	9.65
2L26023-CAL6	1000	347167	0.980	9.65
2L26023-CAL7	2000	558693	1.011	9.65
2L26023-CAL8	4000	1194411	1.098	9.65
2L26023-CAL9	6000	2040149	1.090	9.65
2L26023-CALA	8000	2654460	1.108	9.65

AVE RF **0.992** RF RSD **8.15** AVE RT **9.65**

Pyrene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	5670	0.985	9.87
2L26023-CAL2	50	12413	0.944	9.87
2L26023-CAL3	100	22830	0.922	9.87
2L26023-CAL4	200	55344	0.943	9.87
2L26023-CAL5	500	124065	1.020	9.87
2L26023-CAL6	1000	365305	1.031	9.88
2L26023-CAL7	2000	583546	1.056	9.87
2L26023-CAL8	4000	1216201	1.118	9.88
2L26023-CAL9	6000	2076771	1.109	9.88
2L26023-CALA	8000	2704369	1.129	9.88

AVE RF **1.026** RF RSD **7.48** AVE RT **9.87**

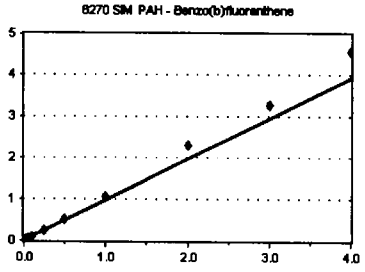
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012** ✓

Analysis: **8270 SIM PAH** Instrument Cal ID: **F21227.M**

Benzo(b)fluoranthene

Curve Fit: **AVERAGE RF**

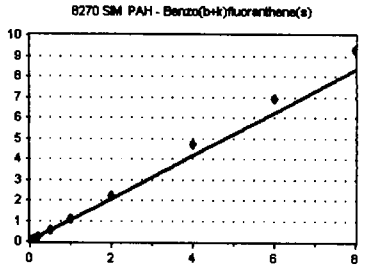


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	3383	0.789	12.67
2L26023-CAL2	50	7869	0.815	12.67
2L26023-CAL3	100	14771	0.853	12.67
2L26023-CAL4	200	38213	0.911	12.67
2L26023-CAL5	500	88632	0.994	12.67
2L26023-CAL6	1000	270362	1.028	12.67
2L26023-CAL7	2000	437582	1.047	12.67
2L26023-CAL8	4000	1022068	1.154	12.67
2L26023-CAL9	6000	1737882	1.094	12.68
2L26023-CALA	8000	2404340	1.144	12.68

AVE RF **0.983** RF RSD **13.63** AVE RT **12.67**

Benzo(b+k)fluoranthene(s)

Curve Fit: **AVERAGE RF**

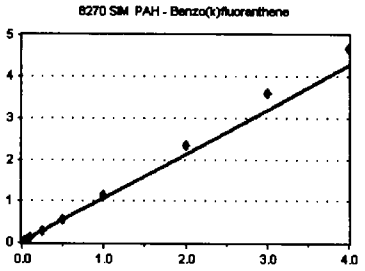


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	40	7583	0.884	12.71
2L26023-CAL2	100	17275	0.894	12.67
2L26023-CAL3	200	32130	0.928	12.71
2L26023-CAL4	400	80643	0.961	12.71
2L26023-CAL5	1000	189302	1.062	12.71
2L26023-CAL6	2000	564769	1.074	12.71
2L26023-CAL7	4000	916510	1.097	12.71
2L26023-CAL8	8000	2076481	1.172	12.72
2L26023-CAL9	12000	3657913	1.152	12.72
2L26023-CALA	16000	4890717	1.164	12.73

AVE RF **1.039** RF RSD **10.84** AVE RT **12.71**

Benzo(k)fluoranthene

Curve Fit: **AVERAGE RF**

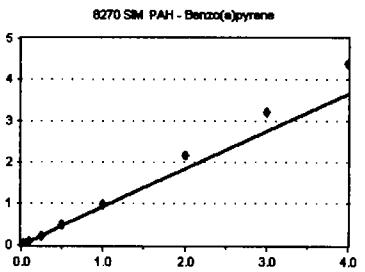


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	3883	0.906	12.71
2L26023-CAL2	50	8889	0.920	12.71
2L26023-CAL3	100	16820	0.972	12.71
2L26023-CAL4	200	41390	0.987	12.71
2L26023-CAL5	500	96753	1.085	12.71
2L26023-CAL6	1000	290613	1.105	12.71
2L26023-CAL7	2000	473188	1.133	12.71
2L26023-CAL8	4000	1042858	1.177	12.72
2L26023-CAL9	6000	1900657	1.197	12.72
2L26023-CALA	8000	2455264	1.168	12.73

AVE RF **1.065** RF RSD **10.30** AVE RT **12.71**

Benzo(a)pyrene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	3061	0.714	13.25
2L26023-CAL2	50	7248	0.750	13.26
2L26023-CAL3	100	13295	0.768	13.26
2L26023-CAL4	200	34509	0.823	13.25
2L26023-CAL5	500	80729	0.906	13.26
2L26023-CAL6	1000	250950	0.954	13.25
2L26023-CAL7	2000	411726	0.986	13.26
2L26023-CAL8	4000	955549	1.079	13.26
2L26023-CAL9	6000	1708524	1.076	13.27
2L26023-CALA	8000	2303375	1.096	13.27

AVE RF **0.915** RF RSD **15.86** AVE RT **13.26**

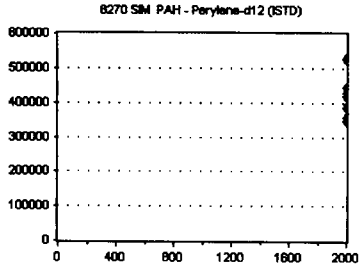
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012**

Analysis: **8270 SIM PAH** Instrument Cal ID: **F21227.M**

Perylene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

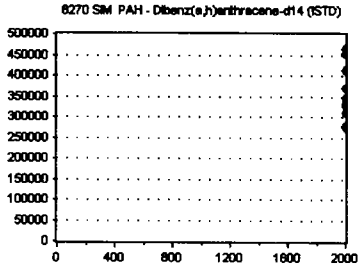


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	2000	428709	214.355	13.37
2L26023-CAL2	2000	386418	193.209	13.37
2L26023-CAL3	2000	346134	173.067	13.37
2L26023-CAL4	2000	419505	209.753	13.37
2L26023-CAL5	2000	356595	178.298	13.37
2L26023-CAL6	2000	525934	262.967	13.37
2L26023-CAL7	2000	417763	208.882	13.37
2L26023-CAL8	2000	442988	221.494	13.37
2L26023-CAL9	2000	529407	264.704	13.37
2L26023-CALA	2000	525398	262.699	13.37

AVE RF **218.943** RF RSD **15.66** AVE RT **13.37**

Dibenz(a,h)anthracene-d14 (ISTD)

Curve Fit: **AVERAGE RF**

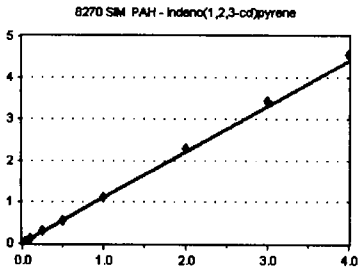


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	2000	345270	172.635	15.55
2L26023-CAL2	2000	309627	154.814	15.55
2L26023-CAL3	2000	274644	137.322	15.55
2L26023-CAL4	2000	328306	164.153	15.55
2L26023-CAL5	2000	278703	139.352	15.55
2L26023-CAL6	2000	413757	206.879	15.55
2L26023-CAL7	2000	332771	166.386	15.55
2L26023-CAL8	2000	370781	185.391	15.56
2L26023-CAL9	2000	453984	226.992	15.56
2L26023-CALA	2000	464425	232.213	15.57

AVE RF **178.613** RF RSD **18.91** AVE RT **15.55**

Indeno(1,2,3-cd)pyrene

Curve Fit: **AVERAGE RF**

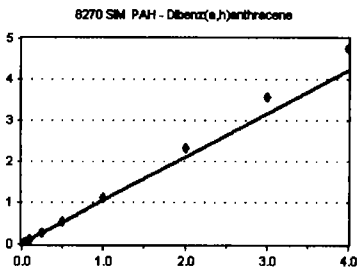


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	3614	1.047	15.55
2L26023-CAL2	50	8234	1.064	15.56
2L26023-CAL3	100	14533	1.058	15.55
2L26023-CAL4	200	34888	1.063	15.55
2L26023-CAL5	500	79315	1.138	15.56
2L26023-CAL6	1000	229086	1.107	15.55
2L26023-CAL7	2000	368430	1.107	15.56
2L26023-CAL8	4000	855112	1.153	15.57
2L26023-CAL9	6000	1554308	1.141	15.58
2L26023-CALA	8000	2117621	1.140	15.58

AVE RF **1.102** RF RSD **3.70** AVE RT **15.56**

Dibenz(a,h)anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	2897	0.839	15.62
2L26023-CAL2	50	7168	0.926	15.62
2L26023-CAL3	100	12568	0.915	15.62
2L26023-CAL4	200	32511	0.990	15.62
2L26023-CAL5	500	75199	1.079	15.62
2L26023-CAL6	1000	228521	1.105	15.62
2L26023-CAL7	2000	369170	1.109	15.62
2L26023-CAL8	4000	866657	1.169	15.63
2L26023-CAL9	6000	1624083	1.192	15.63
2L26023-CALA	8000	2205915	1.187	15.64

AVE RF **1.051** RF RSD **11.96** AVE RT **15.62**

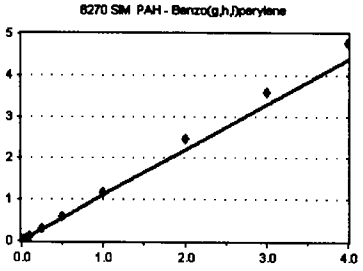
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012**

Analysis: **8270 SIM PAH** Instrument Cal ID: **F21227.M**

Benzo(g,h,i)perylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	3174	0.919	16.14
2L26023-CAL2	50	7209	0.931	16.14
2L26023-CAL3	100	13443	0.979	16.14
2L26023-CAL4	200	33864	1.031	16.14
2L26023-CAL5	500	80032	1.149	16.14
2L26023-CAL6	1000	242216	1.171	16.14
2L26023-CAL7	2000	390190	1.173	16.15
2L26023-CAL8	4000	906982	1.223	16.15
2L26023-CAL9	6000	1631529	1.198	16.16
2L26023-CALA	8000	2217435	1.194	16.17

AVE RF **1.097** RF RSD **10.81** AVE RT **16.15**

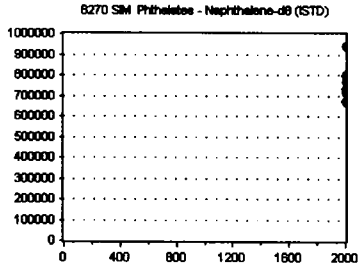
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012** ✓

Analysis: **8270 SIM Phthalates** Instrument Cal ID: **F21227.M**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**

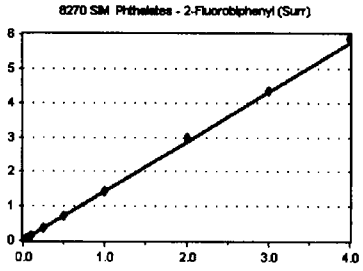


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	2000	765666	382.833	5.34
2L26023-CAL2	2000	725587	362.794	5.33
2L26023-CAL3	2000	674667	337.334	5.34
2L26023-CAL4	2000	792005	396.003	5.34
2L26023-CAL5	2000	671062	335.531	5.33
2L26023-CAL6	2000	938021	469.011	5.33
2L26023-CAL7	2000	733808	366.904	5.33
2L26023-CAL8	2000	711375	355.688	5.33
2L26023-CAL9	2000	797400	398.700	5.33
2L26023-CALA	2000	765316	382.658	5.33

AVE RF **378.745** RF RSD **10.18** AVE RT **5.33**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

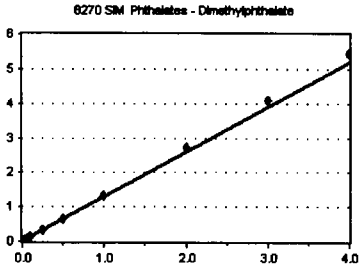


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	4779	1.352	6.36
2L26023-CAL2	50	11635	1.404	6.36
2L26023-CAL3	100	21976	1.416	6.36
2L26023-CAL4	200	51398	1.415	6.36
2L26023-CAL5	500	113962	1.475	6.36
2L26023-CAL6	1000	317202	1.454	6.37
2L26023-CAL7	2000	493690	1.436	6.36
2L26023-CAL8	4000	991625	1.486	6.37
2L26023-CAL9	6000	1664848	1.445	6.37
2L26023-CALA	8000	2150557	1.465	6.37

AVE RF **1.435** RF RSD **2.76** AVE RT **6.36**

Dimethylphthalate

Curve Fit: **AVERAGE RF**

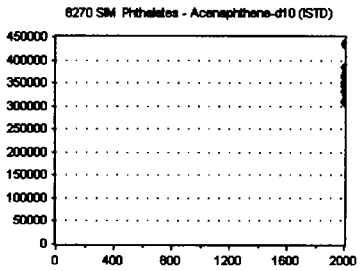


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	4255	1.204	6.75
2L26023-CAL2	50	10272	1.239	6.75
2L26023-CAL3	100	19284	1.243	6.75
2L26023-CAL4	200	45867	1.263	6.75
2L26023-CAL5	500	101208	1.310	6.76
2L26023-CAL6	1000	289133	1.325	6.76
2L26023-CAL7	2000	454216	1.321	6.76
2L26023-CAL8	4000	914377	1.370	6.76
2L26023-CAL9	6000	1567478	1.361	6.76
2L26023-CALA	8000	1996093	1.360	6.76

AVE RF **1.300** RF RSD **4.50** AVE RT **6.76**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	2000	353383	176.692	7.02
2L26023-CAL2	2000	331503	165.752	7.02
2L26023-CAL3	2000	310304	155.152	7.02
2L26023-CAL4	2000	363142	181.571	7.02
2L26023-CAL5	2000	308964	154.482	7.02
2L26023-CAL6	2000	436271	218.136	7.02
2L26023-CAL7	2000	343841	171.921	7.02
2L26023-CAL8	2000	333714	166.857	7.02
2L26023-CAL9	2000	384035	192.018	7.02
2L26023-CALA	2000	367063	183.532	7.02

AVE RF **176.611** RF RSD **10.71** AVE RT **7.02**

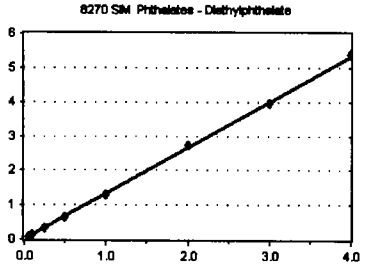
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012** ✓

Analysis: **8270 SIM Phthalates** Instrument Cal ID: **F21227.M**

Diethylphthalate

Curve Fit: **AVERAGE RF**

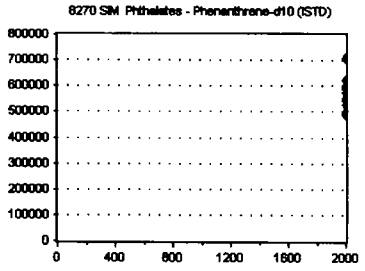


Standard	Concentration	Response	Response Factor	RT
~~2L26023-CAL1~~	~~20~~	~~8468~~	~~2.396~~	~~7.44~~ ✓
~~2L26023-CAL2~~	~~50~~	~~13791~~	~~1.664~~	~~7.44~~ ✓
2L26023-CAL3	100	21968	1.416	7.44
2L26023-CAL4	200	47387	1.305	7.44
2L26023-CAL5	500	101914	1.319	7.44
2L26023-CAL6	1000	285689	1.310	7.44
2L26023-CAL7	2000	445679	1.296	7.44
2L26023-CAL8	4000	904881	1.356	7.44
2L26023-CAL9	6000	1520266	1.320	7.44
2L26023-CALA	8000	1971089	1.342	7.45

AVE RF **1.333** RF RSD **2.91** AVE RT **7.44**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

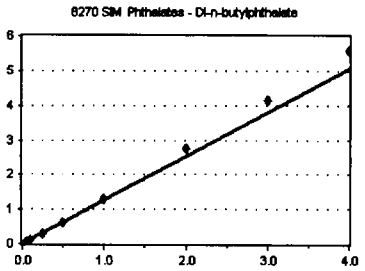


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	2000	575421	287.711	8.47
2L26023-CAL2	2000	525796	262.898	8.47
2L26023-CAL3	2000	495244	247.622	8.47
2L26023-CAL4	2000	586730	293.365	8.47
2L26023-CAL5	2000	486669	243.335	8.47
2L26023-CAL6	2000	708312	354.156	8.47
2L26023-CAL7	2000	552427	276.214	8.47
2L26023-CAL8	2000	544082	272.041	8.47
2L26023-CAL9	2000	623988	311.994	8.47
2L26023-CALA	2000	598844	299.422	8.47

AVE RF **284.876** RF RSD **11.50** AVE RT **8.47**

Di-n-butylphthalate

Curve Fit: **AVERAGE RF**

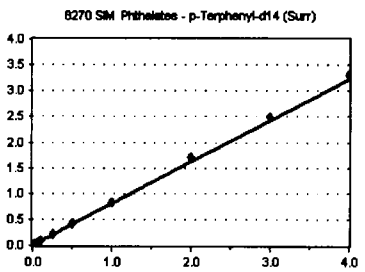


Standard	Concentration	Response	Response Factor	RT
~~2L26023-CAL1~~	~~20~~	~~8705~~	~~1.513~~	~~9.04~~ ✓
~~2L26023-CAL2~~	~~50~~	~~15384~~	~~1.170~~	~~9.04~~ ✓
2L26023-CAL3	100	27233	1.100	9.04
2L26023-CAL4	200	65529	1.117	9.04
2L26023-CAL5	500	147594	1.213	9.04
2L26023-CAL6	1000	438966	1.239	9.04
2L26023-CAL7	2000	709538	1.284	9.04
2L26023-CAL8	4000	1504595	1.383	9.04
2L26023-CAL9	6000	2589316	1.383	9.04
2L26023-CALA	8000	3342210	1.395	9.04

AVE RF **1.264** RF RSD **9.35** AVE RT **9.04**

p-Terphenyl-d14 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	20	3754	0.765	10.03
2L26023-CAL2	50	8656	0.773	10.03
2L26023-CAL3	100	16228	0.789	10.03
2L26023-CAL4	200	39046	0.788	10.03
2L26023-CAL5	500	87270	0.822	10.03
2L26023-CAL6	1000	255817	0.813	10.03
2L26023-CAL7	2000	414139	0.820	10.03
2L26023-CAL8	4000	891566	0.850	10.03
2L26023-CAL9	6000	1524771	0.831	10.03
2L26023-CALA	8000	1996595	0.829	10.03

AVE RF **0.808** RF RSD **3.42** AVE RT **10.03**

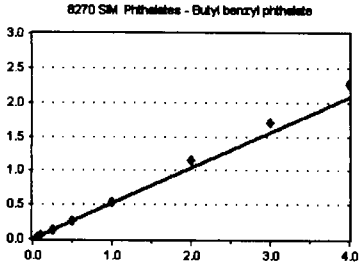
Element Calibration Review Sheet

Calibration ID: **A2L2701** Instrument: **SV-GCMS6** Calibration Date: **12/27/2012**

Analysis: **8270 SIM Phthalates** Instrument Cal ID: **F21227.M**

Butyl benzyl phthalate

Curve Fit: **AVERAGE RF**

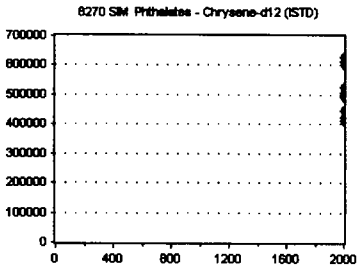


Standard	Concentration	Response	Response Factor	RT
~~2L26023-CAL1~~	~~20~~	~~2171~~	~~0.442~~	~~10.51~~ ✓
~~2L26023-CAL2~~	~~50~~	~~4793~~	~~0.428~~	~~10.51~~ ✓
2L26023-CAL3	100	8939	0.435	10.51
2L26023-CAL4	200	22447	0.453	10.51
2L26023-CAL5	500	52831	0.497	10.51
2L26023-CAL6	1000	162612	0.517	10.51
2L26023-CAL7	2000	269003	0.532	10.51
2L26023-CAL8	4000	601999	0.574	10.51
2L26023-CAL9	6000	1043229	0.569	10.51
2L26023-CALA	8000	1368406	0.568	10.51

AVE RF **0.518** RF RSD **10.31** AVE RT **10.51**

Chrysene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

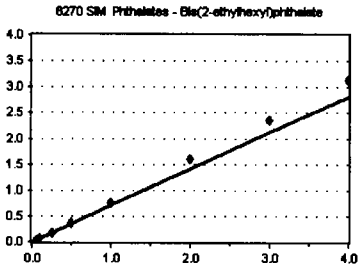


Standard	Concentration	Response	Response Factor	RT
2L26023-CAL1	2000	490661	245.331	11.11
2L26023-CAL2	2000	447651	223.826	11.11
2L26023-CAL3	2000	411194	205.597	11.11
2L26023-CAL4	2000	495476	247.738	11.11
2L26023-CAL5	2000	424838	212.419	11.11
2L26023-CAL6	2000	629591	314.796	11.11
2L26023-CAL7	2000	505302	252.651	11.11
2L26023-CAL8	2000	524268	262.134	11.12
2L26023-CAL9	2000	611404	305.702	11.12
2L26023-CALA	2000	602469	301.235	11.12

AVE RF **257.143** RF RSD **15.15** AVE RT **11.11**

Bis(2-ethylhexyl)phthalate

Curve Fit: **AVERAGE RF**

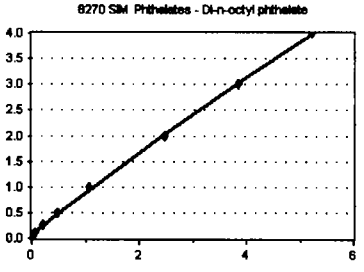


Standard	Concentration	Response	Response Factor	RT
~~2L26023-CAL1~~	~~20~~	~~2662~~	~~0.543~~	~~11.14~~ ✓
~~2L26023-CAL2~~	~~50~~	~~5421~~	~~0.484~~	~~11.14~~ ✓
2L26023-CAL3	100	10487	0.510	11.14
2L26023-CAL4	200	28735	0.580	11.14
2L26023-CAL5	500	71734	0.675	11.14
2L26023-CAL6	1000	234142	0.744	11.14
2L26023-CAL7	2000	385061	0.762	11.14
2L26023-CAL8	4000	839096	0.800	11.14
2L26023-CAL9	6000	1441087	0.786	11.14
2L26023-CALA	8000	1885742	0.783	11.14

AVE RF **0.705** RF RSD **15.25** AVE RT **11.14**

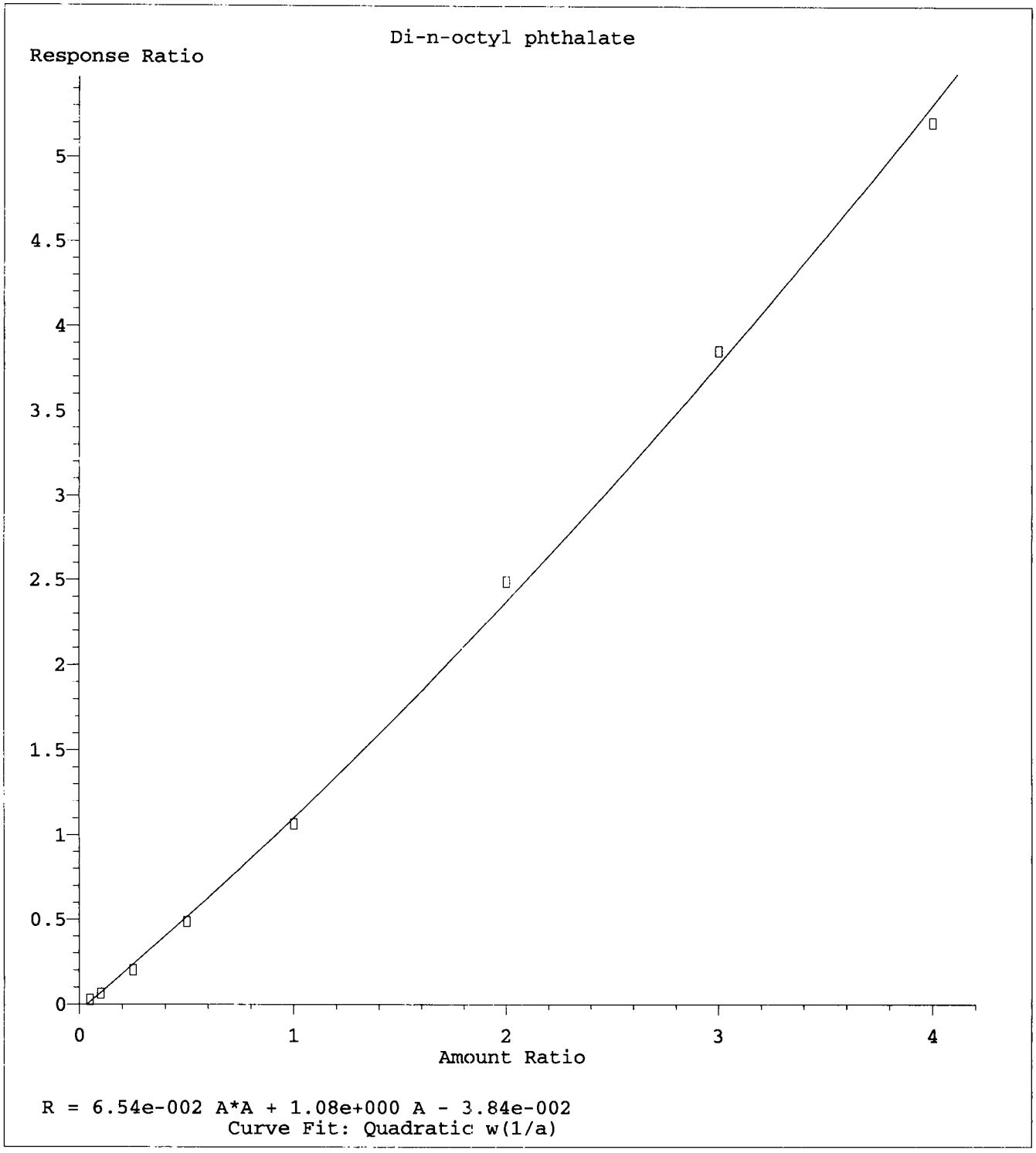
Di-n-octyl phthalate

Curve Fit: **QUADRATIC: Weighting: None___ 1/a ✓ 1/a^2___**



Standard	Concentration	Response	Response Factor	RT
~~2L26023-CAL1~~	~~20~~	~~2343~~	~~0.478~~	~~12.03~~ ✓
~~2L26023-CAL2~~	~~50~~	~~5778~~	~~0.516~~	~~12.04~~ ✓
2L26023-CAL3	100	11131	0.541	12.04
2L26023-CAL4	200	31677	0.639	12.03
2L26023-CAL5	500	85436	0.804	12.04
2L26023-CAL6	1000	306386	0.973	12.04
2L26023-CAL7	2000	539799	1.068	12.03
2L26023-CAL8	4000	1307708	1.247	12.04
2L26023-CAL9	6000	2357994	1.286	12.04
2L26023-CALA	8000	3139812	1.303	12.04

AVE RF **0.983** RF RSD **30.19** AVE RT **12.04**

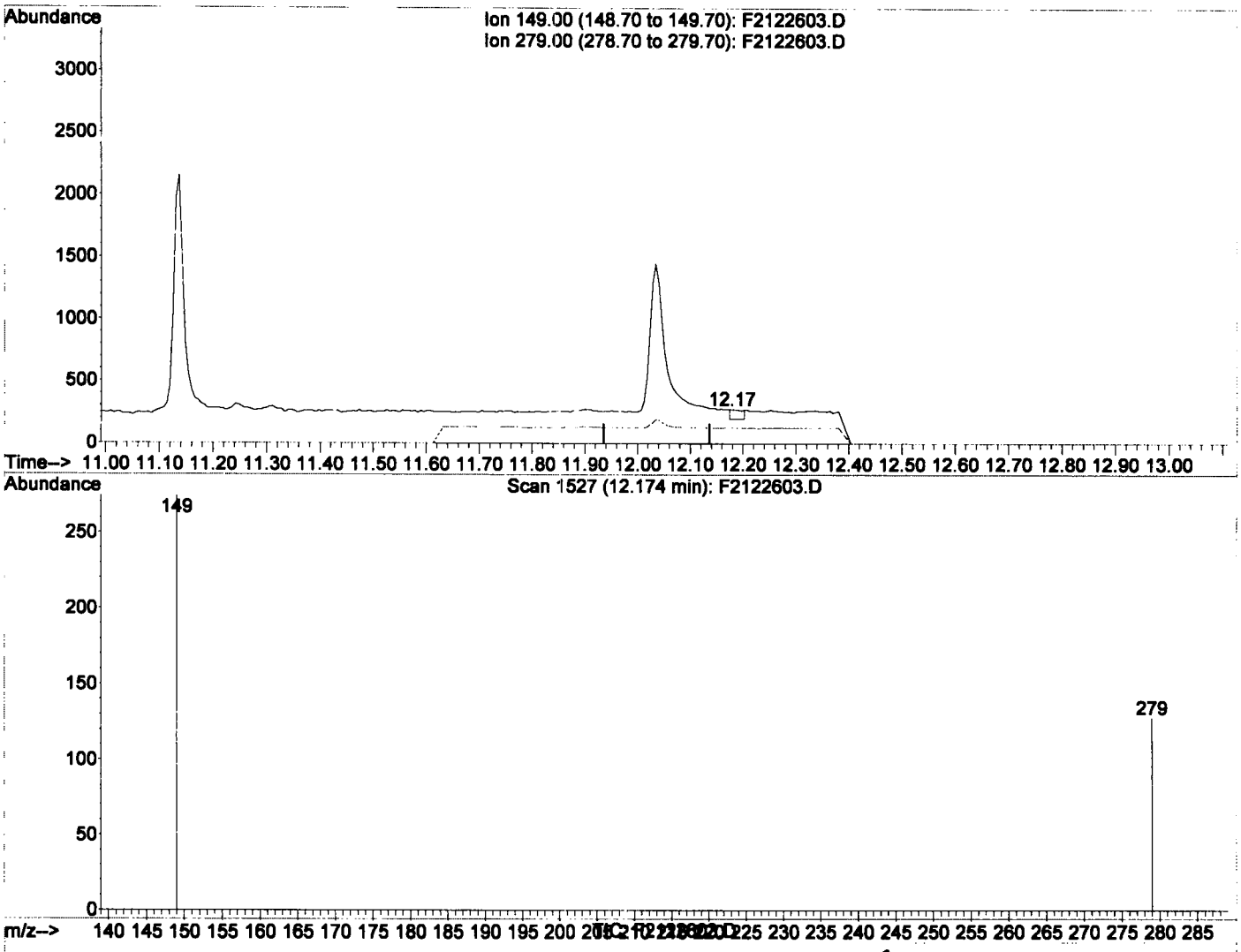


Method Name: C:\HPCHEM\2\METHODS\F21227.M
Calibration Table Last Updated: Thu Dec 27 10:09:10 2012

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122603.D Vial: 3
Acq On : 26 Dec 2012 5:02 pm Operator: bsj
Sample : 2L26023-CAL1 Inst : SV-GCMS6
Misc : 1x A12K202@20ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 10:22 2012 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Single Level Calibration



(26) Di-n-octyl phthalate

12.17min 71.65ng/mL m

response 121

Ion	Exp%	Act%
149.00	100	100
279.00	4.30	0.00
0.00	0.00	0.00
0.00	0.00	0.00

L 1/2 LOQ am 12/27/12

ok am 12/27/12

F2122603.D F21227.M Thu Dec 27 10:22:34 2012 VOAGCMS1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122614.D Vial: 13
Acq On : 26 Dec 2012 10:06 pm Operator: bsj
Sample : 2L26023-ICV1 Inst : SV-GCMS6
Misc : 1x A12K140 1000ng/ml ICV Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 10:18 2012 Quant Results File: F21227.RES

Quant Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

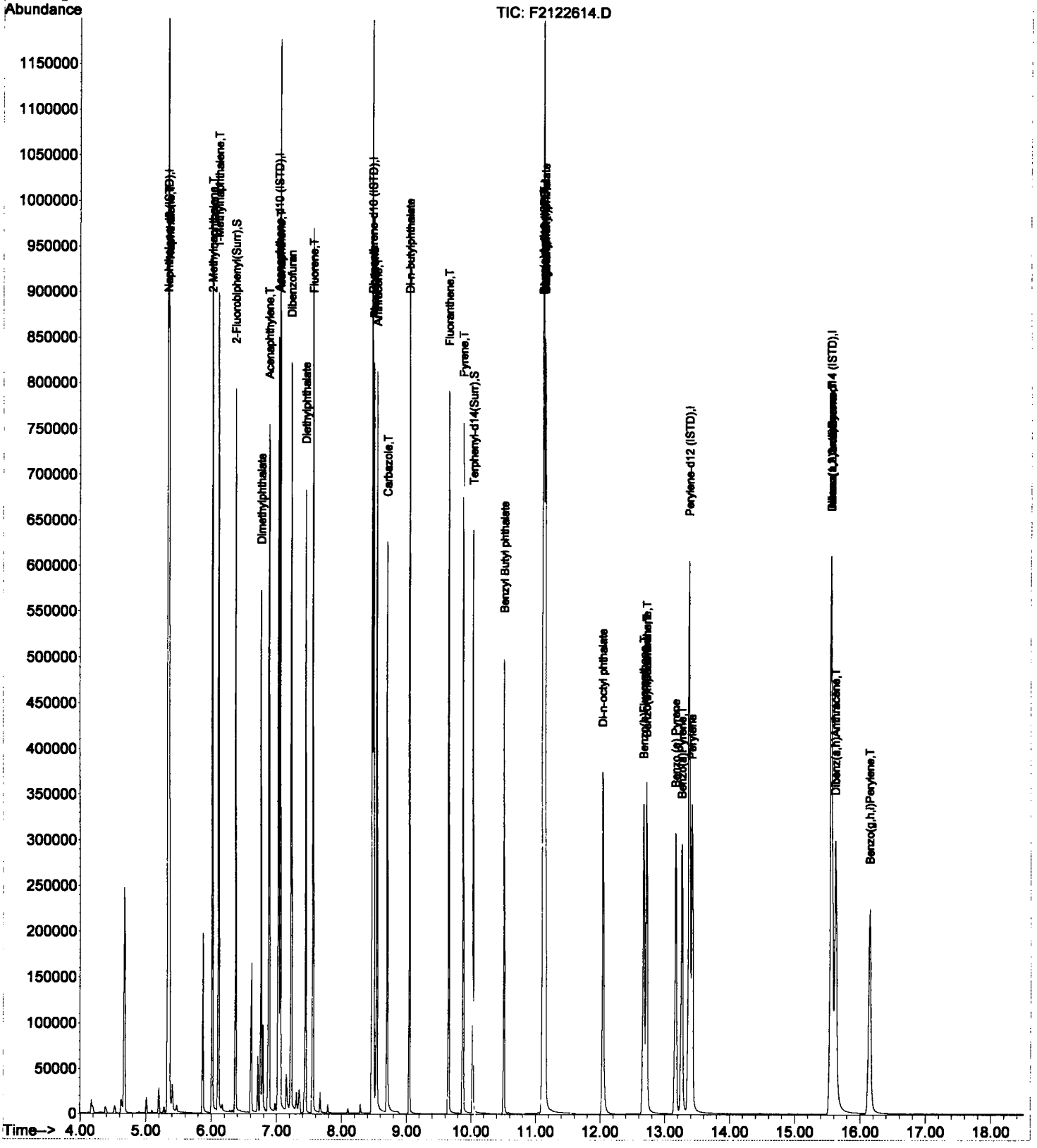
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.34	136	1435721	2000.000	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	7.02	164	680289	2000.000	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.47	188	1121531	2000.000	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.11	240	1050255	2000.000	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.37	264	915983	2000.000	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.55	292	742609	2000.000	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	503879	1032.390	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.03	244	443299	1044.780	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthalene	5.35	128	780867	1003.953	ng/ml	100
3) 2-Methylnaphthalene	6.01	142	477657	1032.904	ng/ml	94
4) 1-Methylnaphthalene	6.11	142	441097	1032.632	ng/ml	99
7) Dimethylphthalate	6.76	163	454090	1027.209	ng/mL	100
8) Acenaphthylene	6.87	152	647329	1027.622	ng/ml	99
9) Acenaphthene	7.05	153	404063	1012.078	ng/ml	97
10) Dibenzofuran	7.22	168	579085	1025.804	ng/mL	92
11) Diethylphthalate	7.44	149	446876	985.592	ng/mL	82
12) Fluorene	7.55	166	453397	1053.885	ng/ml	97
14) Phenanthrene	8.49	178	600078	1014.091	ng/mL	100
15) Anthracene	8.54	178	598513	1053.068	ng/ml	98
16) Carbazole	8.70	167	508612	1097.028	ng/ml	99
17) Di-n-butylphthalate	9.04	149	717308	1011.715	ng/mL	100
18) Fluoranthene	9.65	202	585311	1051.697	ng/ml	99
19) Pyrene	9.87	202	611315	1062.673	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	275699	1013.320	ng/mL	98
23) Benz(a)Anthracene	11.10	228	533060	1023.599	ng/ml	98
24) Chrysene	11.14	228	513999	1024.237	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.14	149	392849	1061.197	ng/mL	99
26) Di-n-octyl phthalate	12.03	149	554185	1020.078	ng/mL	96
28) Benzo(b)Fluoranthene	12.67	252	475044	1055.201	ng/ml	100
29) Benzo(k)Fluoranthene	12.71	252	507958	1041.448	ng/ml	96
30) Benzo(b+k)Fluoranthene	12.71	252	989106	2079.110	ng/ml	99
31) Benzo (e) Pyrene	13.16	252	463895	1015.695	ng/mL	97
32) Benzo(a)Pyrene	13.26	252	445689	1063.448	ng/ml	98
33) Perylene	13.41	252	481134	1057.687	ng/mL	99
35) Indeno(1,2,3-cd)Pyrene	15.56	276	418617	1023.204	ng/ml	94
36) Dibenz(a,h)Anthracene	15.62	278	413979	1060.584	ng/ml	96
37) Benzo(g,h,i)Perylene	16.14	276	429556	1054.814	ng/ml	98

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122614.D Vial: 13
Acq On : 26 Dec 2012 10:06 pm Operator: bsj
Sample : 2L26023-ICV1 Inst : SV-GCMS6
Misc : 1x A12K140 1000ng/ml ICV Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 10:18 2012 Quant Results File: F21227.RES

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122603.D Vial: 3
Acq On : 26 Dec 2012 5:02 pm Operator: bsj
Sample : 2L26023-CAL1 Inst : SV-GCMS6
Misc : 1x A12K202@20ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	20.000	19.679	1.6	100	0.00
3	T	2-Methylnaphthalene	20.000	18.633	6.8	100	0.00
4	T	1-Methylnaphthalene	20.000	18.681	6.6	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	20.000	18.850	5.7	100	0.00
7		Dimethylphthalate	20.000	18.530	7.3	100	0.00
8	T	Acenaphthylene	20.000	17.884	10.6	100	0.00
9	T	Acenaphthene	20.000	18.940	5.3	100	0.00
10		Dibenzofuran	20.000	18.732	6.3	100	0.00
11		Diethylphthalate	-1.000	35.953	0.0	0	0.00
12	T	Fluorene	20.000	18.498	7.5	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	20.000	18.850	5.7	100	0.00
15	T	Anthracene	20.000	17.723	11.4	100	0.00
16	T	Carbazole	20.000	18.144	9.3	100	0.00
17		Di-n-butylphthalate	-1.000	23.930	0.0	100	0.00
18	T	Fluoranthene	20.000	18.449	7.8	100	0.00
19	T	Pyrene	20.000	19.211	3.9	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	20.000	18.948	5.3	100	0.00
22		Benzyl Butyl phthalate	-1.000	17.080	0.0	100	0.00
23	T	Benz(a)Anthracene	20.000	21.801	-9.0	100	0.00
24	T	Chrysene	20.000	18.802	6.0	100	0.00
25		Bis(2-ethylhexyl)phthalate	-1.000	15.392	0.0	100	0.00
26		Di-n-octyl phthalate	-1.000	80.022	0.0	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	20.000	16.073	19.6	100	0.00
29	T	Benzo(k)Fluoranthene	20.000	17.028	14.9	100	0.00
30	T	Benzo(b+k)Fluoranthene	40.000	34.093	14.8	100	0.00
31		Benzo (e) Pyrene	20.000	17.248	13.8	100	0.00
32	T	Benzo(a)Pyrene	20.000	16.219	18.9	104	0.00
33		Perylene	20.000	17.412	12.9	100	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.00
35	T	Indeno(1,2,3-cd)Pyrene	20.000	19.014	4.9	100	0.00
36	T	Dibenz(a,h)Anthracene	20.000	15.976	20.1	100	0.00
37	T	Benzo(g,h,i)Perylene	20.000	16.777	16.1	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F2122603.D F21227.M Thu Dec 27 10:14:13 2012 VOAGCMS1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122604.D Vial: 4
Acq On : 26 Dec 2012 5:30 pm Operator: bsj
Sample : 2L26023-CAL2 Inst : SV-GCMS6
Misc : 1x A12K203@50ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	50.000	50.379	-0.8	100	0.00
3	T	2-Methylnaphthalene	50.000	48.380	3.2	100	0.00
4	T	1-Methylnaphthalene	50.000	49.368	1.3	101	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	50.000	48.920	2.2	100	0.00
7		Dimethylphthalate	50.000	47.685	4.6	100	0.00
8	T	Acenaphthylene	50.000	47.175	5.7	100	0.00
9	T	Acenaphthene	50.000	49.859	0.3	100	0.00
10		Dibenzofuran	50.000	48.515	3.0	100	0.00
11		Diethylphthalate	-1.000	62.418	0.0	0	0.00
12	T	Fluorene	50.000	48.168	3.7	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	50.000	48.814	2.4	100	0.00
15	T	Anthracene	50.000	46.556	6.9	100	0.00
16	T	Carbazole	50.000	48.128	3.7	100	0.00
17		Di-n-butylphthalate	-1.000	46.282	0.0	100	0.00
18	T	Fluoranthene	50.000	46.628	6.7	100	0.00
19	T	Pyrene	50.000	46.112	7.8	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	50.000	47.907	4.2	100	0.00
22		Benzyl Butyl phthalate	-1.000	41.331	0.0	100	0.00
23	T	Benz(a)Anthracene	50.000	49.458	1.1	100	0.00
24	T	Chrysene	50.000	49.341	1.3	100	0.00
25		Bis(2-ethylhexyl)phthalate	-1.000	34.394	0.0	100	0.00
26		Di-n-octyl phthalate	-1.000	95.051	0.0	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	50.000	41.484	17.0	100	0.00
29	T	Benzo(k)Fluoranthene	50.000	43.254	13.5	100	0.00
30	T	Benzo(b+k)Fluoranthene	100.000	86.262	13.7	100	-0.05
31		Benzo (e) Pyrene	50.000	43.952	12.1	100	0.00
32	T	Benzo(a)Pyrene	50.000	40.406	19.2	98	0.00
33		Perylene	50.000	46.680	6.6	100	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.00
35	T	Indeno(1,2,3-cd)Pyrene	50.000	48.270	3.5	100	0.00
36	T	Dibenz(a,h)Anthracene	50.000	44.044	11.9	100	0.00
37	T	Benzo(g,h,i)Perylene	50.000	42.457	15.1	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F2122604.D F21227.M Thu Dec 27 10:14:40 2012 VOAGCMS1 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122605.D Vial: 5
Acq On : 26 Dec 2012 5:58 pm Operator: bsj
Sample : 2L26023-CAL3 Inst : SV-GCMS6
Misc : 1x A12K204@100ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	100.000	99.623	0.4	100	0.00
3	T	2-Methylnaphthalene	100.000	95.935	4.1	100	0.00
4	T	1-Methylnaphthalene	100.000	95.985	4.0	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	100.000	99.346	0.7	100	0.00
7		Dimethylphthalate	100.000	92.869	7.1	100	0.00
8	T	Acenaphthylene	100.000	95.596	4.4	100	0.00
9	T	Acenaphthene	100.000	100.686	-0.7	100	0.00
10		Dibenzofuran	100.000	96.519	3.5	100	0.00
11		Diethylphthalate	100.000	109.326	-9.3	100	0.00
12	T	Fluorene	100.000	96.807	3.2	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	100.000	95.963	4.0	100	0.00
15	T	Anthracene	100.000	93.821	6.2	100	0.00
16	T	Carbazole	100.000	100.443	-0.4	100	0.00
17		Di-n-butylphthalate	100.000	85.064	14.9	100	0.00
18	T	Fluoranthene	100.000	92.690	7.3	100	0.00
19	T	Pyrene	100.000	91.194	8.8	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	100.000	93.902	6.1	100	0.00
22		Benzyl Butyl phthalate	100.000	123.824	-23.8	100	0.00
23	T	Benz(a)Anthracene	100.000	94.654	5.3	100	0.00
24	T	Chrysene	100.000	95.542	4.5	100	0.00
25		Bis(2-ethylhexyl)phthalate	100.000	124.820	-24.8	100	0.00
26		Di-n-octyl phthalate	100.000	145.765	-45.8#	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	100.000	98.426	1.6	100	0.00
29	T	Benzo(k)Fluoranthene	100.000	96.350	3.7	100	0.00
30	T	Benzo(b+k)Fluoranthene	200.000	195.329	2.3	100	0.00
31		Benzo (e) Pyrene	100.000	96.261	3.7	100	0.00
32	T	Benzo(a)Pyrene	100.000	107.255	-7.3	102	0.00
33		Perylene	100.000	96.436	3.6	100	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.00
35	T	Indeno(1,2,3-cd)Pyrene	100.000	103.948	-3.9	100	0.00
36	T	Dibenz(a,h)Anthracene	100.000	92.501	7.5	100	0.00
37	T	Benzo(g,h,i)Perylene	100.000	99.830	0.2	100	0.00

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122606.D Vial: 6
Acq On : 26 Dec 2012 6:25 pm Operator: bsj
Sample : 2L26023-CAL4 Inst : SV-GCMS6
Misc : 1x A12K205@200ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	200.000	198.270	0.9	100	0.00
3	T	2-Methylnaphthalene	200.000	195.131	2.4	100	0.00
4	T	1-Methylnaphthalene	200.000	195.583	2.2	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	200.000	197.279	1.4	100	0.00
7		Dimethylphthalate	200.000	194.372	2.8	100	0.00
8	T	Acenaphthylene	200.000	193.223	3.4	100	0.00
9	T	Acenaphthene	200.000	199.107	0.4	100	0.00
10		Dibenzofuran	200.000	196.540	1.7	100	0.00
11		Diethylphthalate	200.000	195.788	2.1	100	0.00
12	T	Fluorene	200.000	195.074	2.5	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	200.000	197.410	1.3	100	0.00
15	T	Anthracene	200.000	189.410	5.3	100	0.00
16	T	Carbazole	200.000	199.961	0.0	100	0.00
17		Di-n-butylphthalate	200.000	176.730	11.6	100	0.00
18	T	Fluoranthene	200.000	184.596	7.7	100	0.00
19	T	Pyrene	200.000	184.008	8.0	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	200.000	195.390	2.3	100	0.00
22		Benzyl Butyl phthalate	200.000	175.025	12.5	100	0.00
23	T	Benz(a)Anthracene	200.000	188.219	5.9	100	0.00
24	T	Chrysene	200.000	201.349	-0.7	100	0.00
25		Bis(2-ethylhexyl)phthalate	200.000	164.658	17.7	100	0.00
26		Di-n-octyl phthalate	200.000	189.135	5.4	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	200.000	185.531	7.2	100	0.00
29	T	Benzo(k)Fluoranthene	200.000	185.746	7.1	100	0.00
30	T	Benzo(b+k)Fluoranthene	400.000	370.731	7.3	100	0.00
31		Benzo (e) Pyrene	200.000	187.108	6.4	100	0.00
32	T	Benzo(a)Pyrene	200.000	180.480	9.8	100	0.00
33		Perylene	200.000	192.384	3.8	100	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.00
35	T	Indeno(1,2,3-cd)Pyrene	200.000	193.022	3.5	100	0.00
36	T	Dibenz(a,h)Anthracene	200.000	188.838	5.6	100	0.00
37	T	Benzo(g,h,i)Perylene	200.000	188.226	5.9	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F2122606.D F21227.M Thu Dec 27 10:15:47 2012 VOAGCMS1 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122607.D Vial: 7
Acq On : 26 Dec 2012 6:53 pm Operator: bsj
Sample : 2L26023-CAL5 Inst : SV-GCMS6
Misc : 1x A12K206@500ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	500.000	513.156	-2.6	100	0.00
3	T	2-Methylnaphthalene	500.000	510.785	-2.2	100	0.00
4	T	1-Methylnaphthalene	500.000	511.454	-2.3	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	500.000	514.118	-2.8	100	0.00
7		Dimethylphthalate	500.000	504.101	-0.8	100	0.00
8	T	Acenaphthylene	500.000	514.110	-2.8	100	0.00
9	T	Acenaphthene	500.000	516.386	-3.3	100	0.00
10		Dibenzofuran	500.000	510.494	-2.1	100	0.00
11		Diethylphthalate	500.000	494.914	1.0	100	0.00
12	T	Fluorene	500.000	518.796	-3.8	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	500.000	516.529	-3.3	100	0.00
15	T	Anthracene	500.000	512.293	-2.5	100	0.00
16	T	Carbazole	500.000	550.335	-10.1	100	0.00
17		Di-n-butylphthalate	500.000	479.791	4.0	100	0.00
18	T	Fluoranthene	500.000	492.756	1.4	100	0.00
19	T	Pyrene	500.000	497.527	0.5	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	500.000	508.673	-1.7	100	0.00
22		Benzyl Butyl phthalate	500.000	480.034	4.0	100	0.00
23	T	Benz(a)Anthracene	500.000	497.806	0.4	100	0.00
24	T	Chrysene	500.000	517.869	-3.6	100	0.00
25		Bis(2-ethylhexyl)phthalate	500.000	479.001	4.2	100	0.00
26		Di-n-octyl phthalate	500.000	439.111	12.2	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	500.000	506.292	-1.3	100	0.00
29	T	Benzo(k)Fluoranthene	500.000	510.234	-2.0	100	0.00
30	T	Benzo(b+k)Fluoranthene	1000.000	1023.745	-2.4	100	0.00
31		Benzo (e) Pyrene	500.000	512.332	-2.5	100	0.00
32	T	Benzo(a)Pyrene	500.000	495.363	0.9	100	0.00
33		Perylene	500.000	516.783	-3.4	100	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.00
35	T	Indeno(1,2,3-cd)Pyrene	500.000	516.558	-3.3	100	0.00
36	T	Dibenz(a,h)Anthracene	500.000	514.553	-2.9	100	0.00
37	T	Benzo(g,h,i)Perylene	500.000	523.646	-4.7	100	0.00

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122608.D Vial: 8
Acq On : 26 Dec 2012 7:20 pm Operator: bsj
Sample : 2L26023-CAL6 Inst : SV-GCMS6
Misc : 1x A12K207@1000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	1000.000	999.125	0.1	100	0.00
3	T	2-Methylnaphthalene	1000.000	1014.057	-1.4	100	0.00
4	T	1-Methylnaphthalene	1000.000	1017.081	-1.7	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	1000.000	1013.422	-1.3	100	0.00
7		Dimethylphthalate	1000.000	1019.886	-2.0	100	0.00
8	T	Acenaphthylene	1000.000	1030.207	-3.0	100	0.00
9	T	Acenaphthene	1000.000	1013.306	-1.3	100	0.00
10		Dibenzofuran	1000.000	1023.051	-2.3	100	0.00
11		Diethylphthalate	1000.000	982.518	1.7	100	0.00
12	T	Fluorene	1000.000	1054.013	-5.4	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	1000.000	1009.895	-1.0	100	0.00
15	T	Anthracene	1000.000	1034.629	-3.5	100	0.00
16	T	Carbazole	1000.000	1100.850	-10.1	100	0.00
17		Di-n-butylphthalate	1000.000	980.539	1.9	100	0.00
18	T	Fluoranthene	1000.000	988.517	1.1	100	0.00
19	T	Pyrene	1000.000	1006.542	-0.7	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	1000.000	1006.898	-0.7	100	0.00
22		Benzyl Butyl phthalate	1000.000	997.681	0.2	100	0.00
23	T	Benz(a)Anthracene	1000.000	989.059	1.1	100	0.00
24	T	Chrysene	1000.000	1015.559	-1.6	100	0.00
25		Bis(2-ethylhexyl)phthalate	1000.000	1057.624	-5.8	100	0.00
26		Di-n-octyl phthalate	1000.000	948.733	5.1	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	1000.000	1047.014	-4.7	100	0.00
29	T	Benzo(k)Fluoranthene	1000.000	1039.397	-3.9	100	0.00
30	T	Benzo(b+k)Fluoranthene	2000.000	2070.252	-3.5	100	0.00
31		Benzo (e) Pyrene	1000.000	1026.138	-2.6	100	0.00
32	T	Benzo(a)Pyrene	1000.000	1043.944	-4.4	100	0.00
33		Perylene	1000.000	1029.092	-2.9	100	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.00
35	T	Indeno(1,2,3-cd)Pyrene	1000.000	1005.586	-0.6	100	0.00
36	T	Dibenz(a,h)Anthracene	1000.000	1052.974	-5.3	100	0.00
37	T	Benzo(g,h,i)Perylene	1000.000	1068.154	-6.8	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F2122608.D F21227.M Thu Dec 27 10:16:40 2012 VOAGCMS1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122609.D Vial: 9
Acq On : 26 Dec 2012 7:48 pm Operator: bsj
Sample : 2L26023-CAL7 Inst : SV-GCMS6
Misc : 1x A12K208@2000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	2000.000	1958.548	2.1	100	0.00
3	T	2-Methylnaphthalene	2000.000	2014.910	-0.7	100	0.00
4	T	1-Methylnaphthalene	2000.000	2007.979	-0.4	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	2000.000	2001.279	-0.1	100	0.00
7		Dimethylphthalate	2000.000	2032.896	-1.6	100	0.00
8	T	Acenaphthylene	2000.000	2042.238	-2.1	100	0.00
9	T	Acenaphthene	2000.000	1994.531	0.3	100	0.00
10		Dibenzofuran	2000.000	1998.686	0.1	100	0.00
11		Diethylphthalate	2000.000	1944.769	2.8	100	0.00
12	T	Fluorene	2000.000	2039.411	-2.0	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	2000.000	2012.942	-0.6	100	0.00
15	T	Anthracene	2000.000	2082.746	-4.1	100	0.00
16	T	Carbazole	2000.000	2178.056	-8.9	100	0.00
17		Di-n-butylphthalate	2000.000	2031.677	-1.6	100	0.00
18	T	Fluoranthene	2000.000	2039.624	-2.0	100	0.00
19	T	Pyrene	2000.000	2061.049	-3.1	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	2000.000	2029.466	-1.5	100	0.00
22		Benzyl Butyl phthalate	2000.000	2055.003	-2.8	100	0.00
23	T	Benz(a)Anthracene	2000.000	1977.297	1.1	100	0.00
24	T	Chrysene	2000.000	1997.014	0.1	100	0.00
25		Bis(2-ethylhexyl)phthalate	2000.000	2164.971	-8.2	100	0.00
26		Di-n-octyl phthalate	2000.000	1941.560	2.9	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	2000.000	2133.499	-6.7	100	0.00
29	T	Benzo(k)Fluoranthene	2000.000	2130.925	-6.5	100	0.00
30	T	Benzo(b+k)Fluoranthene	4000.000	4229.650	-5.7	100	0.00
31		Benzo (e) Pyrene	2000.000	2086.258	-4.3	100	0.00
32	T	Benzo(a)Pyrene	2000.000	2156.375	-7.8	100	0.00
33		Perylene	2000.000	2059.108	-3.0	100	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.00
35	T	Indeno(1,2,3-cd)Pyrene	2000.000	2010.918	-0.5	100	0.00
36	T	Dibenz(a,h)Anthracene	2000.000	2114.445	-5.7	100	0.00
37	T	Benzo(g,h,i)Perylene	2000.000	2139.568	-7.0	100	0.00

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122610.D Vial: 10
Acq On : 26 Dec 2012 8:16 pm Operator: bsj
Sample : 2L26023-CAL8 Inst : SV-GCMS6
Misc : 1x A12K209@4000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	4000.000	4046.231	-1.2	100	0.00
3	T	2-Methylnaphthalene	4000.000	4169.228	-4.2	100	0.00
4	T	1-Methylnaphthalene	4000.000	4141.735	-3.5	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	4000.000	4141.751	-3.5	100	0.00
7		Dimethylphthalate	4000.000	4216.588	-5.4	100	0.00
8	T	Acenaphthylene	4000.000	4269.262	-6.7	100	0.00
9	T	Acenaphthene	4000.000	4095.741	-2.4	100	0.00
10		Dibenzofuran	4000.000	4148.971	-3.7	100	0.00
11		Diethylphthalate	4000.000	4068.370	-1.7	100	0.00
12	T	Fluorene	4000.000	4257.327	-6.4	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	4000.000	4126.061	-3.2	100	0.00
15	T	Anthracene	4000.000	4373.984	-9.3	100	0.00
16	T	Carbazole	4000.000	4177.838	-4.4	100	0.00
17		Di-n-butylphthalate	4000.000	4374.405	-9.4	100	0.00
18	T	Fluoranthene	4000.000	4426.572	-10.7	100	0.00
19	T	Pyrene	4000.000	4357.998	-8.9	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	4000.000	4211.138	-5.3	100	0.00
22		Benzyl Butyl phthalate	4000.000	4432.500	-10.8	100	0.00
23	T	Benz(a)Anthracene	4000.000	4129.302	-3.2	100	0.00
24	T	Chrysene	4000.000	4113.735	-2.8	100	0.00
25		Bis(2-ethylhexyl)phthalate	4000.000	4544.498	-13.6	100	0.00
26		Di-n-octyl phthalate	4000.000	4175.895	-4.4	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	4000.000	4699.145	-17.5	100	0.00
29	T	Benzo(k)Fluoranthene	4000.000	4428.786	-10.7	100	0.00
30	T	Benzo(b+k)Fluoranthene	8000.000	9036.767	-13.0	100	0.00
31		Benzo (e) Pyrene	4000.000	4454.999	-11.4	100	0.00
32	T	Benzo(a)Pyrene	4000.000	4719.272	-18.0	100	0.00
33		Perylene	4000.000	4361.029	-9.0	100	0.00
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.01
35	T	Indeno(1,2,3-cd)Pyrene	4000.000	4188.621	-4.7	100	0.01
36	T	Dibenz(a,h)Anthracene	4000.000	4452.182	-11.3	100	0.00
37	T	Benzo(g,h,i)Perylene	4000.000	4463.314	-11.6	100	0.01

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122611.D Vial: 11
Acq On : 26 Dec 2012 8:43 pm Operator: bsj
Sample : 2L26023-CAL9 Inst : SV-GCMS6
Misc : 1x A12K210@6000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	6000.000	6000.551	-0.0	100	0.00
3	T	2-Methylnaphthalene	6000.000	6216.892	-3.6	100	0.00
4	T	1-Methylnaphthalene	6000.000	6175.930	-2.9	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	6000.000	6042.472	-0.7	100	0.00
7		Dimethylphthalate	6000.000	6281.176	-4.7	100	0.00
8	T	Acenaphthylene	6000.000	6266.478	-4.4	100	0.00
9	T	Acenaphthene	6000.000	6003.533	-0.1	100	0.00
10		Dibenzofuran	6000.000	6094.472	-1.6	100	0.00
11		Diethylphthalate	6000.000	5939.532	1.0	100	0.00
12	T	Fluorene	6000.000	6085.808	-1.4	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	6000.000	6069.435	-1.2	100	0.00
15	T	Anthracene	6000.000	6285.955	-4.8	100	0.00
16	T	Carbazole	6000.000	5586.609	6.9	100	0.00
17		Di-n-butylphthalate	6000.000	6565.546	-9.4	100	0.00
18	T	Fluoranthene	6000.000	6588.718	-9.8	100	0.00
19	T	Pyrene	6000.000	6488.710	-8.1	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	6000.000	6177.733	-3.0	100	0.00
22		Benzyl Butyl phthalate	6000.000	6591.548	-9.9	100	0.00
23	T	Benz(a)Anthracene	6000.000	6050.359	-0.8	100	0.00
24	T	Chrysene	6000.000	6033.199	-0.6	100	0.00
25		Bis(2-ethylhexyl)phthalate	6000.000	6697.425	-11.6	100	0.00
26		Di-n-octyl phthalate	6000.000	6108.662	-1.8	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	6000.000	6682.428	-11.4	100	0.01
29	T	Benzo(k)Fluoranthene	6000.000	6750.290	-12.5	100	0.01
30	T	Benzo(b+k)Fluoranthene	12000.000	13312.537	-10.9	100	0.01
31		Benzo (e) Pyrene	6000.000	6586.166	-9.8	100	0.01
32	T	Benzo(a)Pyrene	6000.000	7056.966	-17.6	100	0.02
33		Perylene	6000.000	6251.609	-4.2	100	0.01
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.02
35	T	Indeno(1,2,3-cd)Pyrene	6000.000	6217.877	-3.6	100	0.02
36	T	Dibenz(a,h)Anthracene	6000.000	6812.718	-13.5	100	0.01
37	T	Benzo(g,h,i)Perylene	6000.000	6554.771	-9.2	100	0.02

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\REQUANT\F2122612.D Vial: 12
Acq On : 26 Dec 2012 9:11 pm Operator: bsj
Sample : 2L26023-CALA Inst : SV-GCMS6
Misc : 1x A12K211@8000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\2\METHODS\F21227.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Dec 27 10:09:10 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

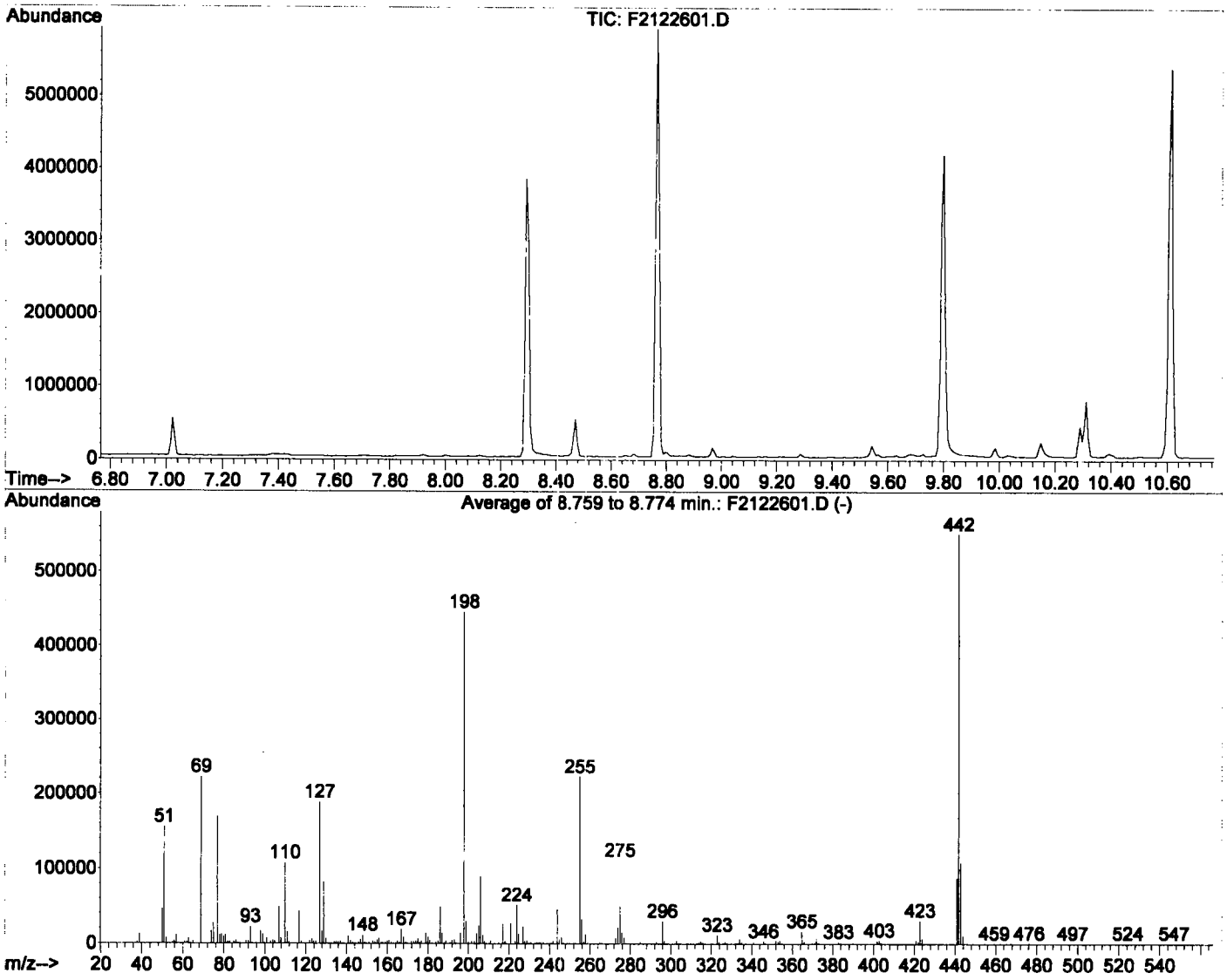
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthalene	8000.000	8058.867	-0.7	100	0.00
3	T	2-Methylnaphthalene	8000.000	8337.972	-4.2	100	0.00
4	T	1-Methylnaphthalene	8000.000	8286.827	-3.6	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	8000.000	8166.223	-2.1	100	0.00
7		Dimethylphthalate	8000.000	8368.555	-4.6	100	0.00
8	T	Acenaphthylene	8000.000	8472.935	-5.9	100	0.00
9	T	Acenaphthene	8000.000	7989.719	0.1	100	0.00
10		Dibenzofuran	8000.000	8189.498	-2.4	100	0.00
11		Diethylphthalate	8000.000	8056.920	-0.7	100	0.00
12	T	Fluorene	8000.000	7816.313	2.3	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14		Phenanthrene	8000.000	8188.855	-2.4	100	0.00
15	T	Anthracene	8000.000	8513.013	-6.4	100	0.00
16	T	Carbazole	8000.000	7091.049	11.4	100	0.01
17		Di-n-butylphthalate	8000.000	8828.436	-10.4	100	0.00
18	T	Fluoranthene	8000.000	8932.597	-11.7	100	0.00
19	T	Pyrene	8000.000	8804.369	-10.1	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	8000.000	8203.106	-2.5	100	0.00
22		Benzyl Butyl phthalate	8000.000	8767.719	-9.6	100	0.00
23	T	Benz(a)Anthracene	8000.000	8149.617	-1.9	100	0.00
24	T	Chrysene	8000.000	7976.101	0.3	100	0.01
25		Bis(2-ethylhexyl)phthalate	8000.000	8887.657	-11.1	100	0.00
26		Di-n-octyl phthalate	8000.000	7871.783	1.6	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	8000.000	9321.819	-16.5	100	0.01
29	T	Benzo(k)Fluoranthene	8000.000	8789.169	-9.9	100	0.02
30	T	Benzo(b+k)Fluoranthene	16000.000	17948.102	-12.2	100	0.02
31		Benzo (e) Pyrene	8000.000	8907.432	-11.3	100	0.01
32	T	Benzo(a)Pyrene	8000.000	9592.954	-19.9	100	0.02
33		Perylene	8000.000	8610.278	-7.6	100	0.02
34	I	Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.02
35	T	Indeno(1,2,3-cd)Pyrene	8000.000	8280.900	-3.5	100	0.02
36	T	Dibenz(a,h)Anthracene	8000.000	9045.147	-13.1	100	0.02
37	T	Benzo(g,h,i)Perylene	8000.000	8709.094	-8.9	100	0.04

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

DFTPP

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122601.D Vial: 1
Acq On : 26 Dec 2012 4:07 pm Operator: bsj
Sample : 2L26023-TUN1 Inst : SV-GCMS6
Misc : 1x A12L216@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH

AMS
12/27/12



AutoFind: Scans 612, 613, 614; Background Corrected with Scan 609

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.9	155976	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.8	222158	PASS
70	69	0.00	2	0.0	0	PASS
127	198	10	80	42.4	189256	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	446443	PASS
199	198	5	9	6.7	29940	PASS
275	198	10	60	24.8	110923	PASS
365	198	1	100	3.7	16404	PASS
441	442	0.01	24	16.0	88459	PASS
442	198	50	200	123.7	552213	PASS
443	442	15	24	19.6	108451	PASS

F2122601.D DFTP8270.M Wed Dec 26 16:38:21 2012 VOAGCMS1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122601.D Vial: 1
Acq On : 26 Dec 2012 4:07 pm Operator: bsj
Sample : 2L26023-TUN1 Inst : SV-GCMS6
Misc : 1x A12L216@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 26 16:38 2012 Quant Results File: DFTP8270.RES

Quant Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Nov 28 16:52:18 2012
Response via : Initial Calibration
DataAcq Meth : DFTP8270

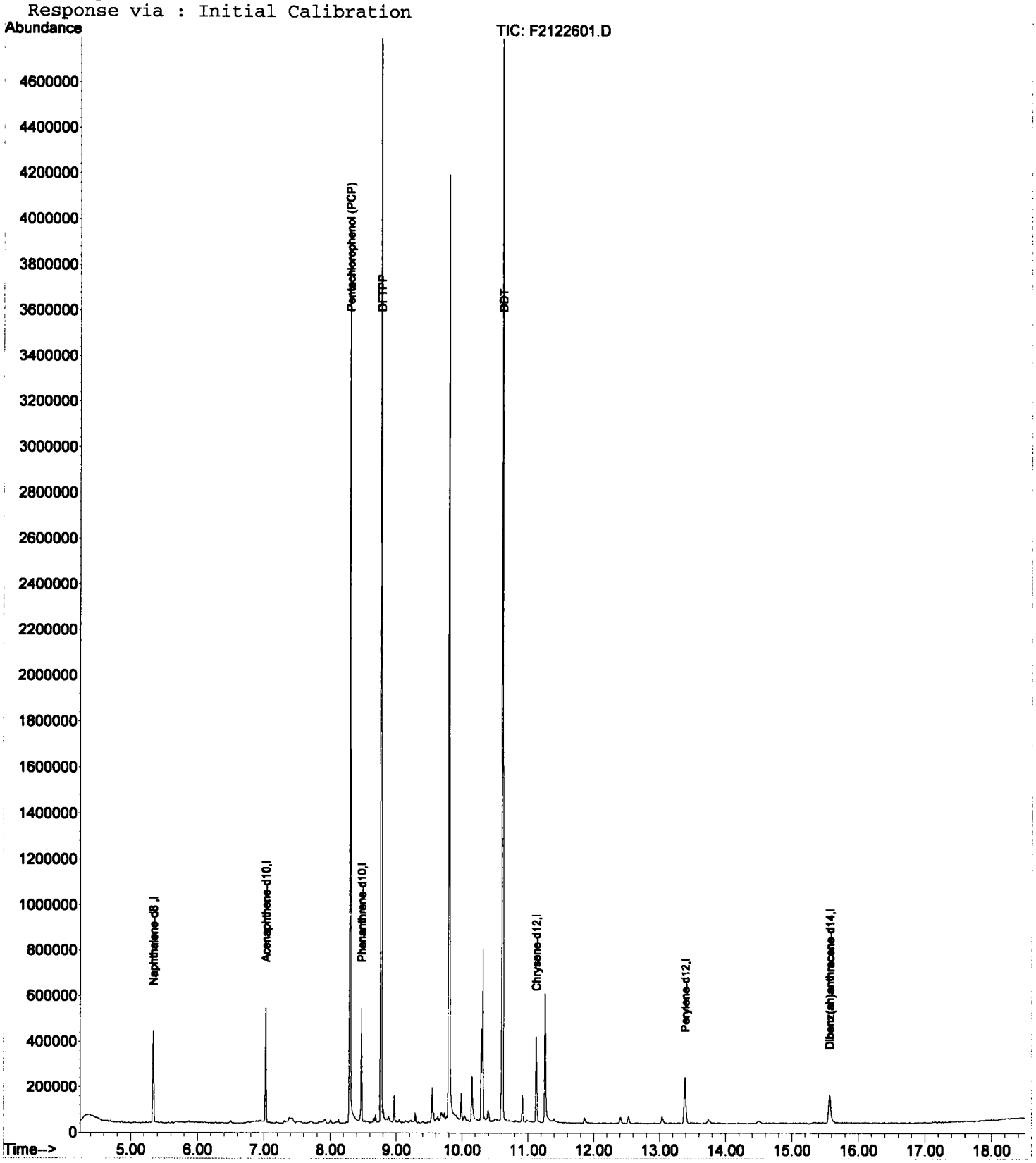
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.34	136	212318	2000.000	ng/ml	-0.01
2) Acenaphthene-d10	7.02	162	92847	2000.000	ng/ml	-0.02
3) Phenanthrene-d10	8.47	188	175129	2000.000	ng/ml	0.00
7) Chrysene-d12	11.12	240	153130	2000.000	ng/ml	-0.03
8) Perylene-d12	13.39	264	137547	2000.000	ng/ml	-0.02
9) Dibenz(ah)anthracene-d14	15.57	292	111847	2000.000	ng/mL	-0.04
Target Compounds						Qvalue
4) Pentachlorophenol (PCP)	8.29	266	543780	91.866	ng/mL	91
5) DFTPP	8.77	198	614060	60.829	ng/mL#	53
6) DDT	10.61	235	1075842	55.507	ng/mL#	100

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122601.D Vial: 1
Acq On : 26 Dec 2012 4:07 pm Operator: bsj
Sample : 2L26023-TUN1 Inst : SV-GCMS6
Misc : 1x A12L216@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 26 16:38 2012 Quant Results File: DFTP8270.RES

Method : C:\HPCHEM\2\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Nov 28 16:52:18 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122602.D Vial: 2
Acq On : 26 Dec 2012 4:34 pm Operator: bsj
Sample : 2L26023-ICB1 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

AMS 12/27/12

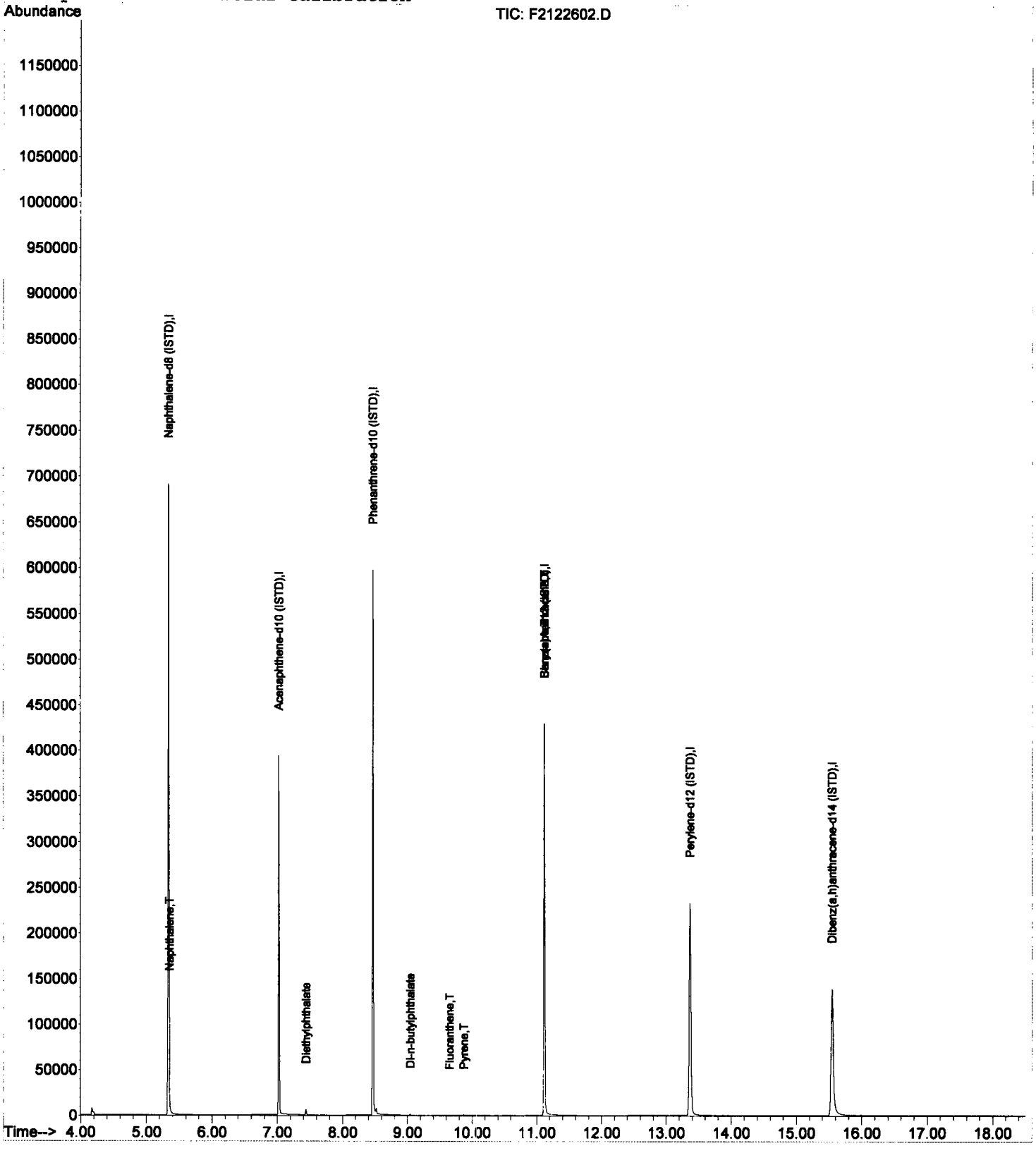
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	664822	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	305451	2000.000	ng/ml	-0.02
13) Phenanthrene-d10 (ISTD)	8.46	188	485319	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.11	240	397734	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	343868	2000.000	ng/ml	-0.04
34) Dibenz(a,h)anthracene-d14	15.55	292	274405	2000.000	ng/mL	-0.04
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	0.00	172	0	0.000	ng/ml	
21) Terphenyl-d14(Surr)	0.00	244	0	0.000	ng/ml	
Target Compounds						Qvalue
2) Naphthalene	5.35	128	290	0.800	ng/ml#	80
3) 2-Methylnaphthalene	0.00	142	0	N.D.		
4) 1-Methylnaphthalene	0.00	142	0	N.D.		
7) Dimethylphthalate	0.00	163	0	N.D.		
8) Acenaphthylene	0.00	152	0	N.D.		
9) Acenaphthene	0.00	153	0	N.D.		
10) Dibenzofuran	0.00	168	0	N.D.		
11) Diethylphthalate	7.44	149	5745	29.045	ng/mL	82
12) Fluorene	0.00	166	0	N.D.		
14) Phenanthrene	0.00	178	0	N.D.		
15) Anthracene	0.00	178	0	N.D.		
16) Carbazole	0.00	167	0	N.D.		
17) Di-n-butylphthalate	9.04	149	1521	4.848	ng/mL#	89
18) Fluoranthene	9.65	202	370	1.565	ng/ml#	58
19) Pyrene	9.87	202	520	2.120	ng/ml#	58
22) Benzyl Butyl phthalate	0.00	149	0	N.D.		
23) Benz(a)Anthracene	11.11	228	873	4.414	ng/ml	85
24) Chrysene	11.11	228	873	4.443	ng/ml	86
25) Bis(2-ethylhexyl)phthalate	0.00	149	0	N.D.		
26) Di-n-octyl phthalate	0.00	149	0	N.D.		
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.		
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.		
30) Benzo(b+k)Fluoranthene	0.00	252	0	N.D.		
31) Benzo (e) Pyrene	0.00	252	0	N.D.		
32) Benzo(a)Pyrene	0.00	252	0	N.D.		
33) Perylene	13.36	252	1022	6.123	ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	0.00	276	0	N.D.		
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.		
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.		

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122602.D Vial: 2
Acq On : 26 Dec 2012 4:34 pm Operator: bsj
Sample : 2L26023-ICB1 Inst : SV-GCMS6
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122603.D Vial: 3
Acq On : 26 Dec 2012 5:02 pm Operator: bsj
Sample : 2L26023-CAL1 Inst : SV-GCMS6
Misc : 1x A12K202@20ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

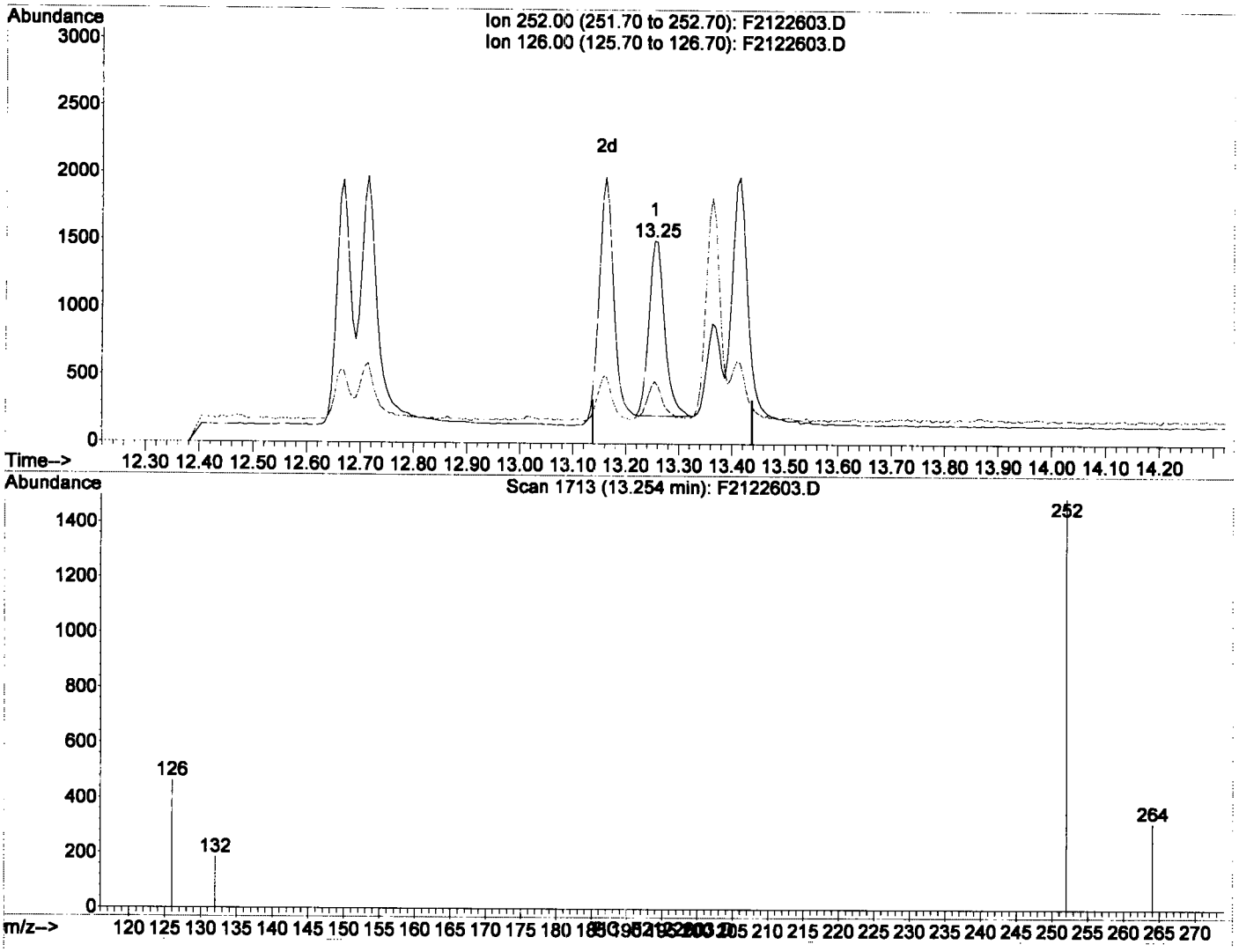
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.34	136	765666	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	353383	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	575421	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.11	240	490661	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	428709	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.55	292	345270	2000.000	ng/mL	-0.04
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	4779	18.971	ng/ml	-0.02
21) Terphenyl-d14(Surr)	10.03	244	3754	18.204	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	8150	19.515	ng/ml	98
3) 2-Methylnaphthalene	6.01	142	4588	18.383	ng/ml	94
4) 1-Methylnaphthalene	6.11	142	4249	18.336	ng/ml	99
7) Dimethylphthalate	6.75	163	4255	17.994	ng/mL	98
8) Acenaphthylene	6.88	152	5852	18.076	ng/ml	100
9) Acenaphthene	7.05	153	3928	19.191	ng/ml	97
10) Dibenzofuran	7.22	168	5493	18.256	ng/mL	95
11) Diethylphthalate	7.44	149	8468	37.005	ng/mL	84
12) Fluorene	7.55	166	4134	18.462	ng/ml	100
14) Phenanthrene	8.49	178	5723	18.496	ng/mL	100
15) Anthracene	8.54	178	5168	17.883	ng/ml	99
16) Carbazole	8.69	167	4316	18.636	ng/ml	98
17) Di-n-butylphthalate	9.04	149	8705	23.402	ng/mL	99
18) Fluoranthene	9.65	202	5268	18.796	ng/ml	100
19) Pyrene	9.87	202	5670	19.493	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	2171	64.645	ng/mL	98
23) Benz(a)Anthracene	11.10	228	5304	21.740	ng/ml	96
24) Chrysene	11.14	228	4408	18.184	ng/ml	98
25) Bis(2-ethylhexyl)phthalate	11.14	149	2662	76.635	ng/mL	90
26) Di-n-octyl phthalate	12.03	149	2343	104.170	ng/mL#	87
28) Benzo(b)Fluoranthene	12.67	252	3383	29.309	ng/ml	99
29) Benzo(k)Fluoranthene	12.71	252	3883	27.451	ng/ml	100
30) Benzo(b+k)Fluoranthene	12.71	252	7583	56.762	ng/ml	97
31) Benzo (e) Pyrene	13.16	252	3683	18.154	ng/mL	96
32) Benzo(a)Pyrene	13.25	252	3061 ~~2692~~	26.007	ng/ml	97
33) Perylene	13.41	252	3703	17.795	ng/mL	86
35) Indeno(1,2,3-cd)Pyrene	15.55	276	3614	20.562	ng/ml	84
36) Dibenz(a,h)Anthracene	15.62	278	2897	16.961	ng/ml	96
37) Benzo(g,h,i)Perylene	16.14	276	3174	29.735	ng/ml	100

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

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122603.D Vial: 3
Acq On : 26 Dec 2012 5:02 pm Operator: bsj
Sample : 2L26023-CAL1 Inst : SV-GCMS6
Misc : 1x A12K202@20ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 10:00 2012 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Multiple Level Calibration



(32) Benzo(a)Pyrene (T)

13.25min 26.01ng/ml

response 2692

Ion	Exp%	Act%
252.00	100	100
126.00	20.10	21.66
0.00	0.00	0.00
0.00	0.00	0.00

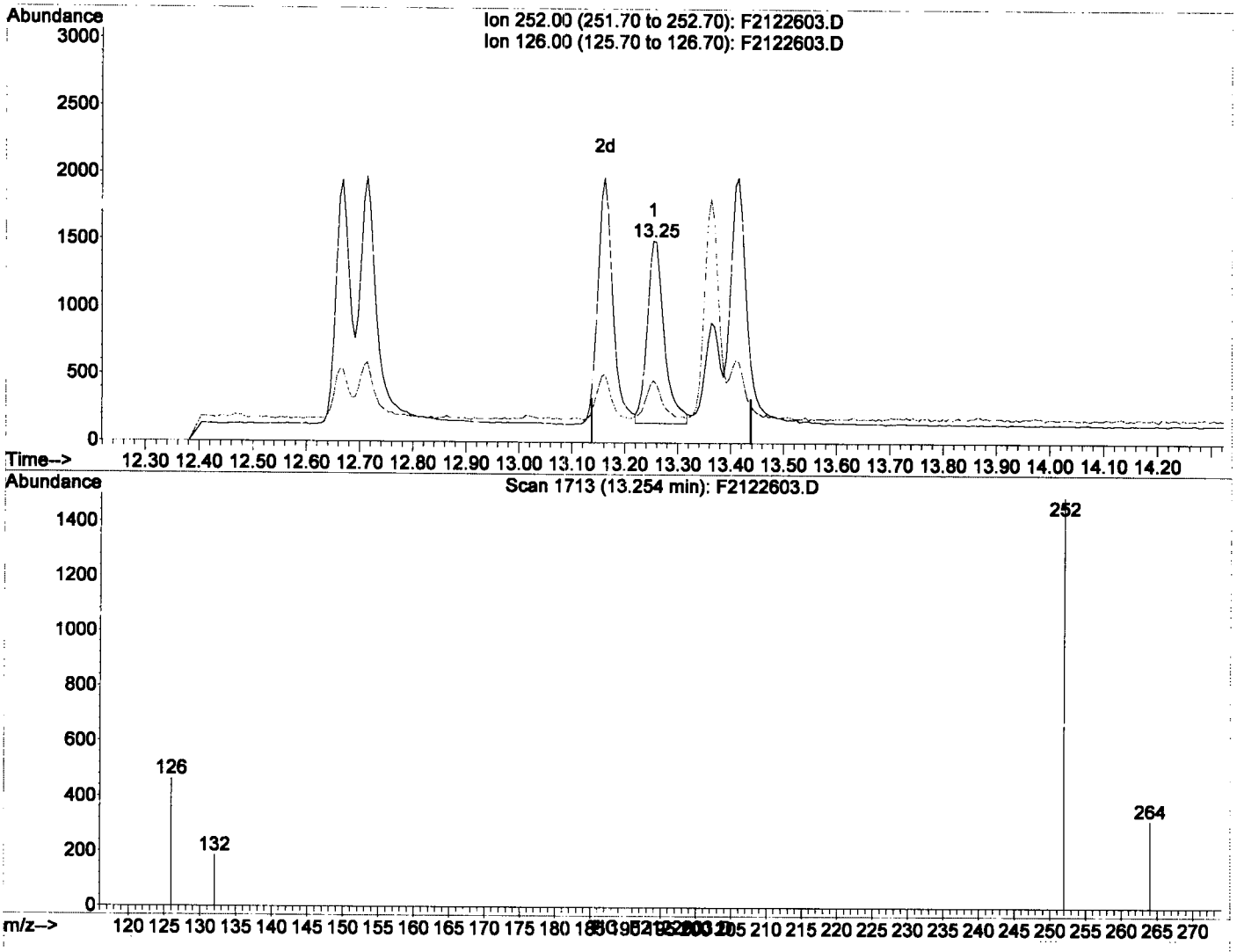
AMS 12/27/12

F2122603.D F21129.M Thu Dec 27 10:01:02 2012 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122603.D Vial: 3
Acq On : 26 Dec 2012 5:02 pm Operator: bsj
Sample : 2L26023-CAL1 Inst : SV-GCMS6
Misc : 1x A12K202@20ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 10:01 2012 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Multiple Level Calibration



(32) Benzo(a)Pyrene (T)

13.25min 28.15ng/ml m

response 3061

Ion	Exp%	Act%
252.00	100	100
126.00	20.10	19.05
0.00	0.00	0.00
0.00	0.00	0.00

AMS 12/27/12

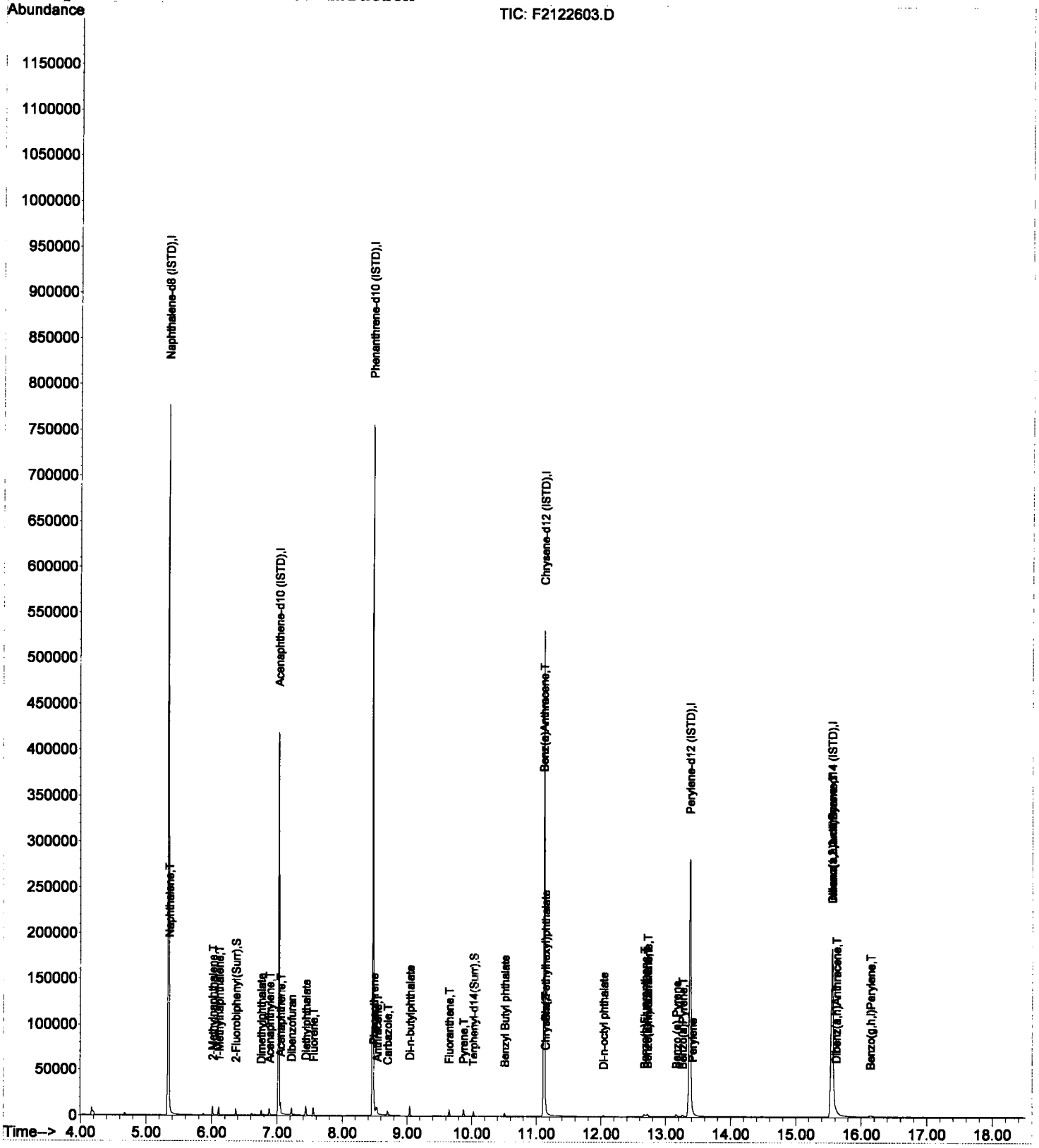
12/27/12

F2122603.D F21129.M Thu Dec 27 10:01:11 2012 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122603.D Vial: 3
Acq On : 26 Dec 2012 5:02 pm Operator: bsj
Sample : 2L26023-CAL1 Inst : SV-GCMS6
Misc : 1x A12K202@20ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122604.D Vial: 4
Acq On : 26 Dec 2012 5:30 pm Operator: bsj
Sample : 2L26023-CAL2 Inst : SV-GCMS6
Misc : 1x A12K203@50ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

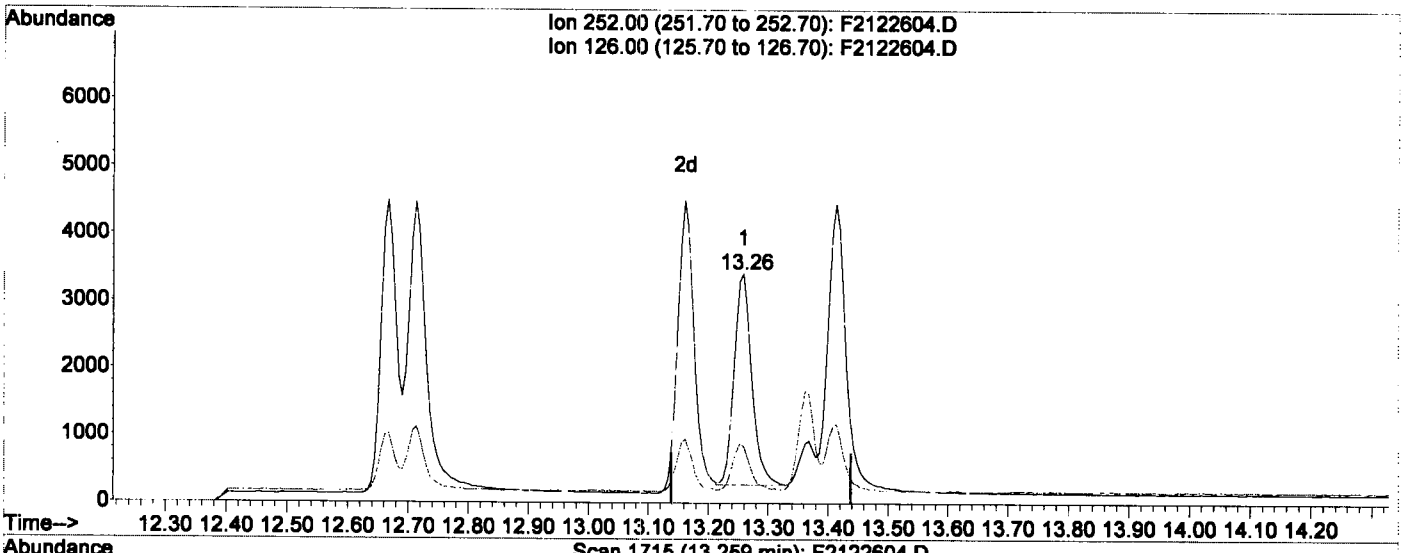
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	725587	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	331503	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	525796	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.11	240	447651	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	386418	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.55	292	309627	2000.000	ng/mL	-0.04
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	11635	49.234	ng/ml	-0.02
21) Terphenyl-d14(Surr)	10.03	244	8656	46.008	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	19761	49.930	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	11283	47.705	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	10582	48.188	ng/ml	98
7) Dimethylphthalate	6.75	163	10272	46.305	ng/mL	100
8) Acenaphthylene	6.88	152	14481	47.682	ng/ml	100
9) Acenaphthene	7.05	153	9700	50.520	ng/ml	98
10) Dibenzofuran	7.22	168	13346	47.283	ng/mL	96
11) Diethylphthalate	7.44	149	13791	64.244	ng/mL	84
12) Fluorene	7.55	166	10098	48.074	ng/ml	98
14) Phenanthrene	8.49	178	13542	47.896	ng/mL	98
15) Anthracene	8.53	178	12405	46.975	ng/ml	98
16) Carbazole	8.69	167	10461	49.432	ng/ml	98
17) Di-n-butylphthalate	9.04	149	15384	45.261	ng/mL	99
18) Fluoranthene	9.65	202	12166	47.504	ng/ml	100
19) Pyrene	9.87	202	12413	46.702	ng/ml	100
22) Benzyl Butyl phthalate	10.51	149	4793	86.129	ng/mL	94
23) Benz(a)Anthracene	11.10	228	10978	49.320	ng/ml	97
24) Chrysene	11.14	228	10554	47.722	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.14	149	5421	92.682	ng/mL	96
26) Di-n-octyl phthalate	12.04	149	5778	119.363	ng/mL	97
28) Benzo(b)Fluoranthene	12.67	252	7869	54.114	ng/ml	97
29) Benzo(k)Fluoranthene	12.71	252	8889	51.755	ng/ml	98
30) Benzo(b+k)Fluoranthene	12.67	252	17275	106.607	ng/ml#	56
31) Benzo (e) Pyrene	13.16	252	8458	46.255	ng/mL	97
32) Benzo(a)Pyrene	13.26	252	7246 ~~6448~~	51.904	ng/ml	97
33) Perylene	13.41	252	8947	47.702	ng/mL	91
35) Indeno(1,2,3-cd)Pyrene	15.56	276	8234	52.240	ng/ml	96
36) Dibenz(a,h)Anthracene	15.62	278	7168	46.796	ng/ml	94
37) Benzo(g,h,i)Perylene	16.14	276	7209	54.581	ng/ml	97

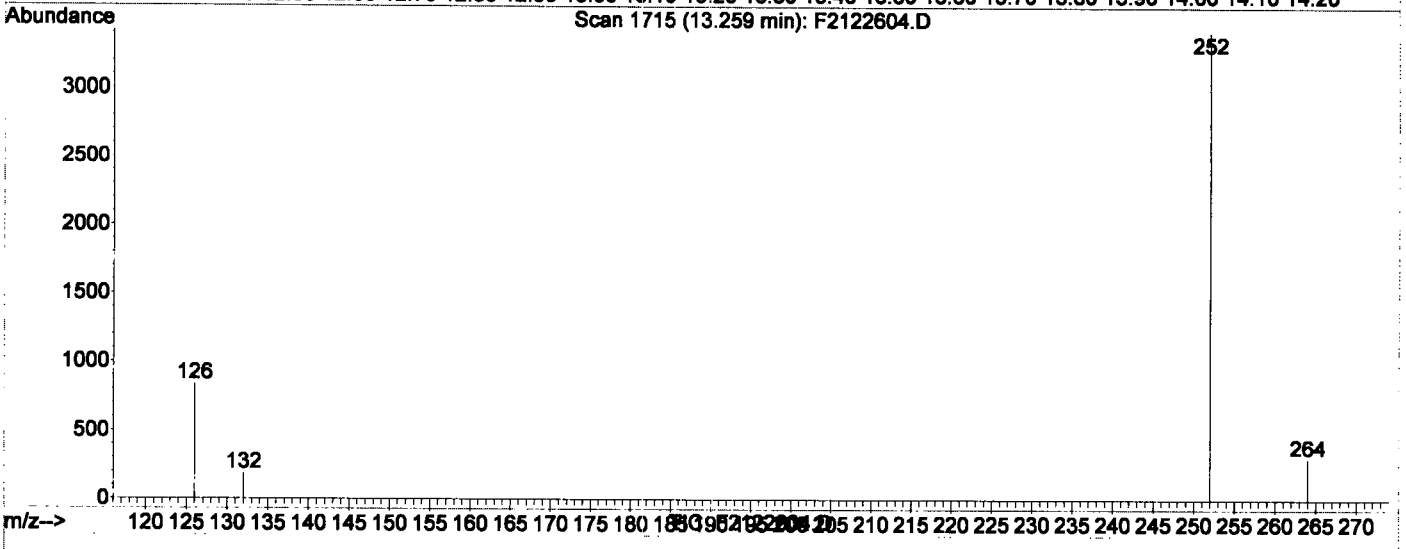
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122604.D Vial: 4
Acq On : 26 Dec 2012 5:30 pm Operator: bsj
Sample : 2L26023-CAL2 Inst : SV-GCMS6
Misc : 1x A12K203@50ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 10:01 2012 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Multiple Level Calibration





(32) Benzo(a)Pyrene (T)

13.26min 51.90ng/ml

response 6448

Ion	Exp%	Act%
252.00	100	100
126.00	20.10	21.59
0.00	0.00	0.00
0.00	0.00	0.00

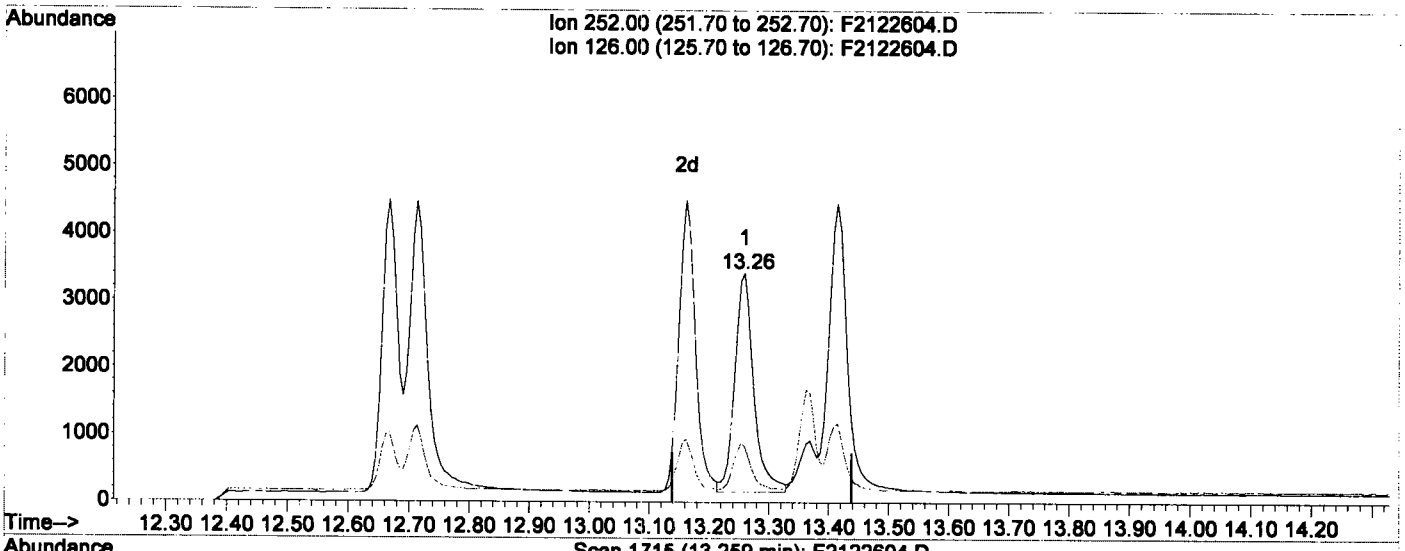
AMS 12/27/12

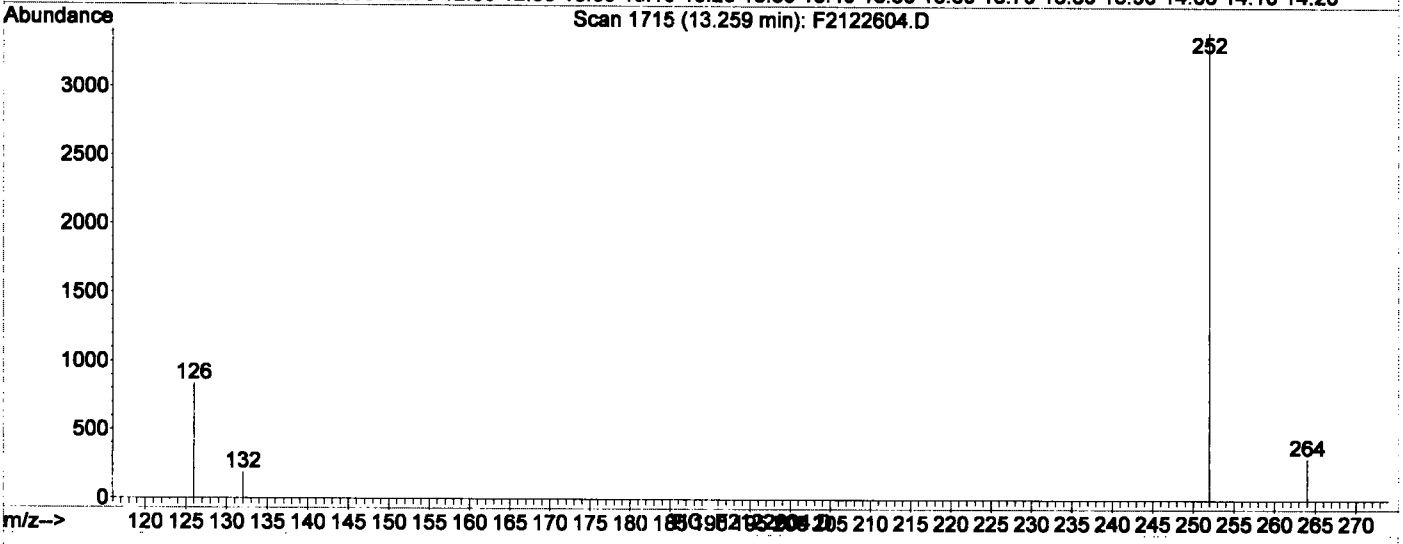
F2122604.D F21129.M Thu Dec 27 10:02:08 2012 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122604.D Vial: 4
Acq On : 26 Dec 2012 5:30 pm Operator: bsj
Sample : 2L26023-CAL2 Inst : SV-GCMS6
Misc : 1x A12K203@50ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 10:02 2012 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Multiple Level Calibration





(32) Benzo(a)Pyrene (T)

13.26min 57.05ng/ml m

response 7248

Ion	Exp%	Act%
252.00	100	100
126.00	20.10	19.21
0.00	0.00	0.00
0.00	0.00	0.00

AMS 12/27/12

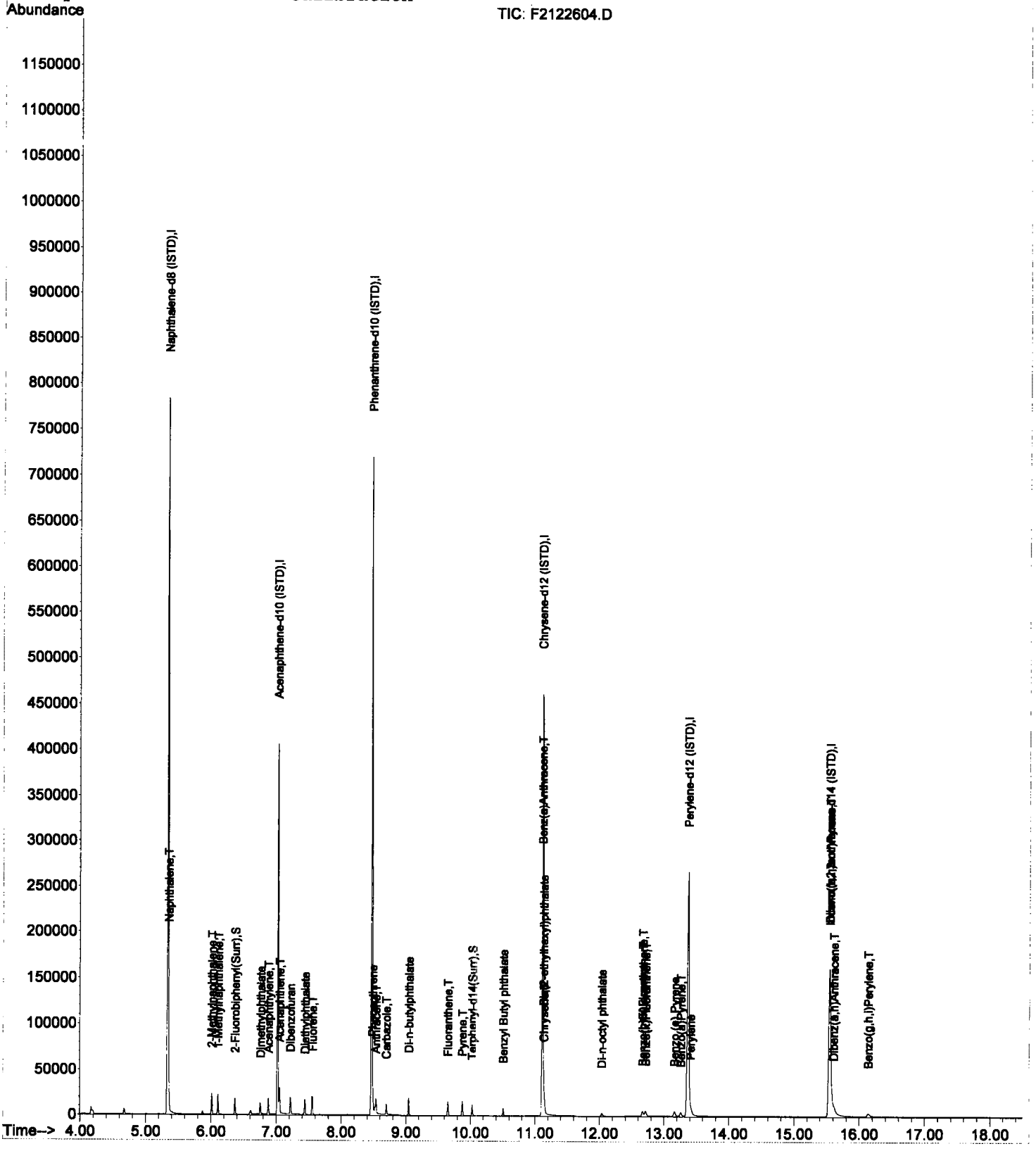
dkam 12/27/12

F2122604.D F21129.M Thu Dec 27 10:02:23 2012 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122604.D Vial: 4
Acq On : 26 Dec 2012 5:30 pm Operator: bsj
Sample : 2L26023-CAL2 Inst : SV-GCMS6
Misc : 1x A12K203@50ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122605.D Vial: 5
Acq On : 26 Dec 2012 5:58 pm Operator: bsj
Sample : 2L26023-CAL3 Inst : SV-GCMS6
Misc : 1x A12K204@100ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

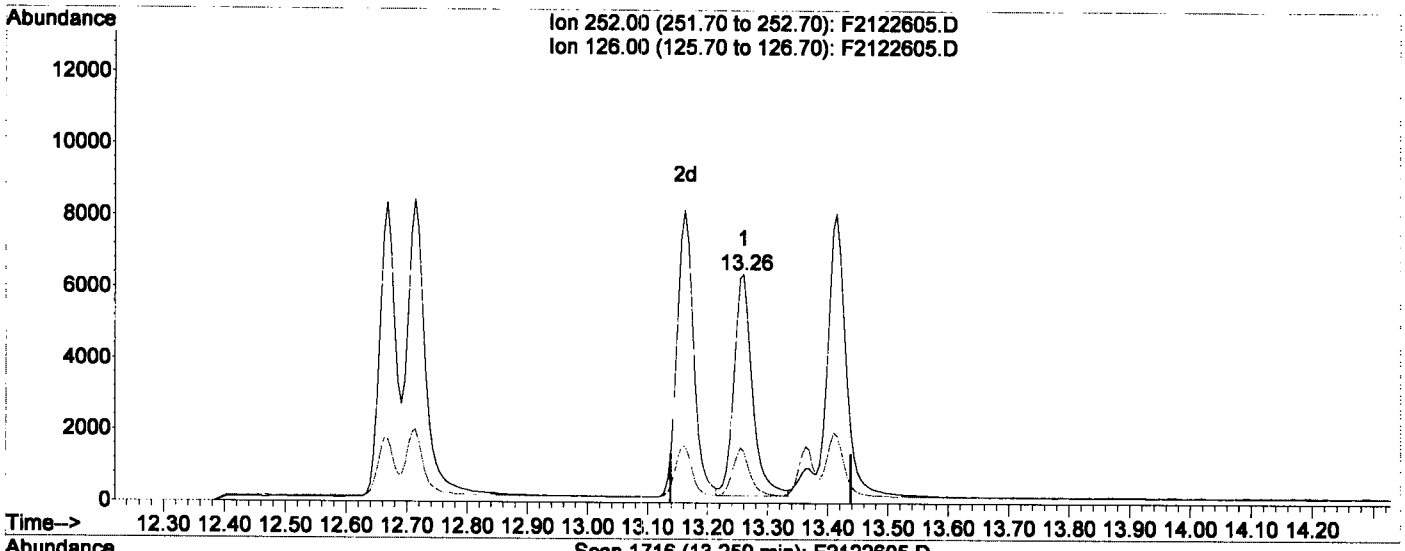
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.34	136	674667	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	310304	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	495244	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.11	240	411194	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	346134	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.55	292	274644	2000.000	ng/mL	-0.04
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	21976	99.346	ng/ml	-0.02
21) Terphenyl-d14(Surr)	10.03	244	16228	93.902	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	36661	99.623	ng/ml	100
3) 2-Methylnaphthalene	6.01	142	21098	95.935	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	19599	95.985	ng/ml	98
7) Dimethylphthalate	6.75	163	19284	92.869	ng/mL	100
8) Acenaphthylene	6.87	152	27176	95.596	ng/ml	100
9) Acenaphthene	7.05	153	18096	100.686	ng/ml	98
10) Dibenzofuran	7.22	168	25501	96.519	ng/mL	96
11) Diethylphthalate	7.44	149	21968	109.326	ng/mL	83
12) Fluorene	7.55	166	19034	96.807	ng/ml	98
14) Phenanthrene	8.49	178	25556	95.963	ng/mL	100
15) Anthracene	8.54	178	23336	93.821	ng/ml	99
16) Carbazole	8.69	167	20021	100.443	ng/ml	99
17) Di-n-butylphthalate	9.04	149	27233	85.064	ng/mL	100
18) Fluoranthene	9.65	202	22359	92.690	ng/ml	99
19) Pyrene	9.87	202	22830	91.194	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	8939	123.824	ng/mL	95
23) Benz(a)Anthracene	11.10	228	19353	94.654	ng/ml	98
24) Chrysene	11.14	228	19409	95.542	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.14	149	10487	124.820	ng/mL	98
26) Di-n-octyl phthalate	12.04	149	11131	145.765	ng/mL	96
28) Benzo(b)Fluoranthene	12.67	252	14771	98.426	ng/ml	96
29) Benzo(k)Fluoranthene	12.71	252	16820	96.350	ng/ml	100
30) Benzo(b+k)Fluoranthene	12.71	252	32130	195.329	ng/ml	98
31) Benzo (e) Pyrene	13.16	252	15767	96.261	ng/mL	97
32) Benzo(a)Pyrene	13.26	252	12232	98.137	ng/ml	98
33) Perylene	13.41	252	16202	96.436	ng/mL	94
35) Indeno(1,2,3-cd)Pyrene	15.55	276	14533	103.948	ng/ml	99
36) Dibenz(a,h)Anthracene	15.62	278	12568	92.501	ng/ml	97
37) Benzo(g,h,i)Perylene	16.14	276	13443	99.830	ng/ml	95

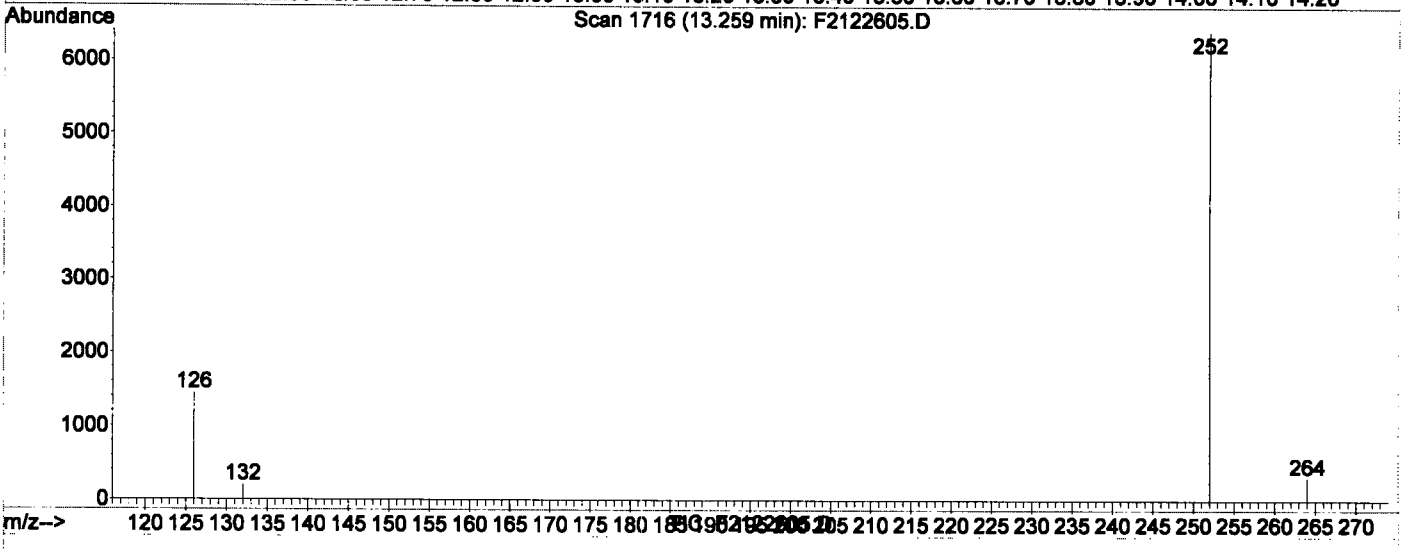
(#) = qualifier out of range (m) = manual integration
F2122605.D F21129.M Thu Dec 27 09:30:10 2012 VOAGCMS1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122605.D Vial: 5
Acq On : 26 Dec 2012 5:58 pm Operator: bsj
Sample : 2L26023-CAL3 Inst : SV-GCMS6
Misc : 1x A12K204@100ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 10:02 2012 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Multiple Level Calibration





(32) Benzo(a)Pyrene (T)

13.26min 105.73ng/ml m

response 13295

Ion	Exp%	Act%
252.00	100	100
126.00	20.10	19.47
0.00	0.00	0.00
0.00	0.00	0.00

AMS 12/27/12

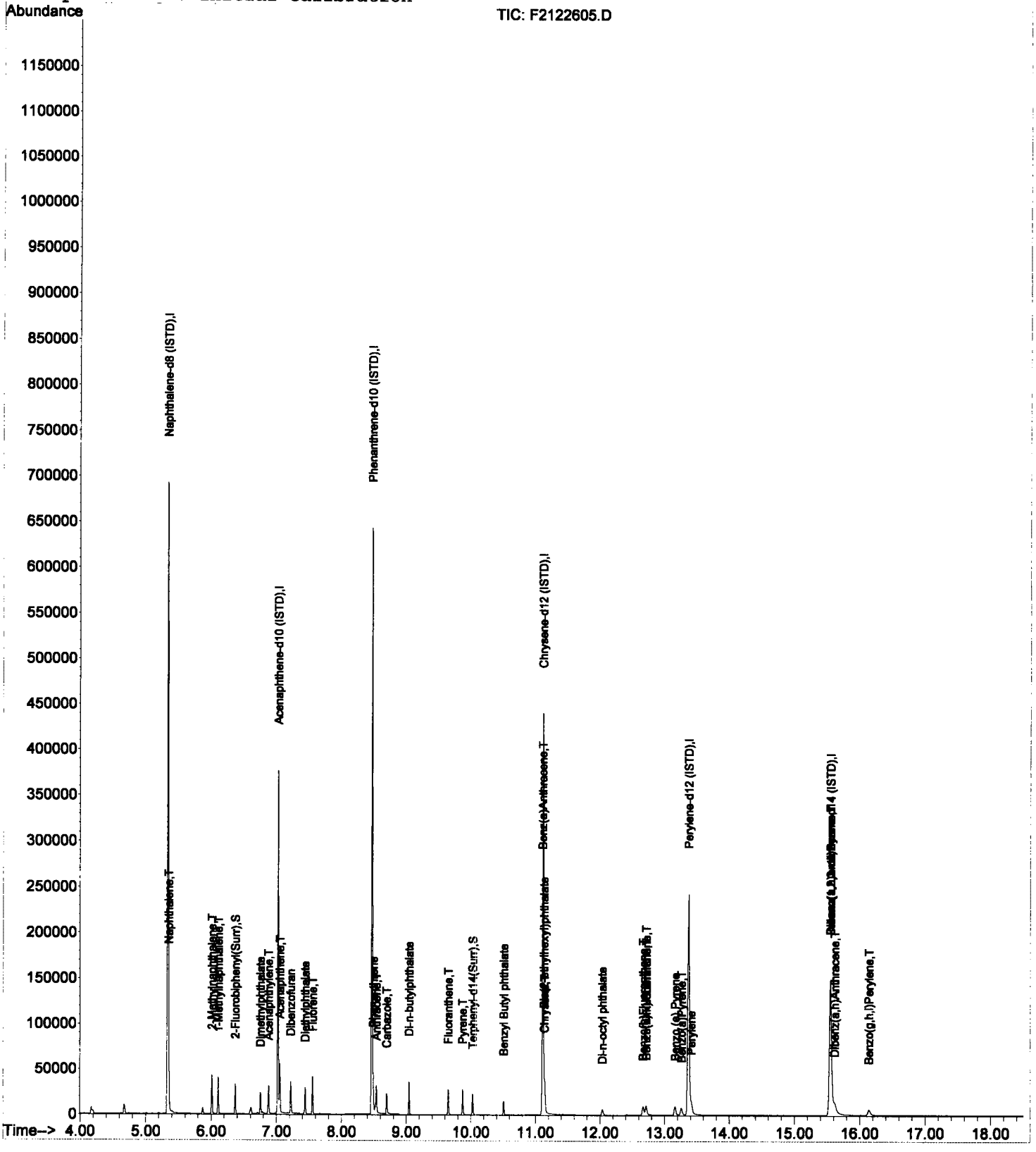
dkarr 12/27/12

F2122605.D F21129.M Thu Dec 27 10:02:54 2012 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122605.D Vial: 5
Acq On : 26 Dec 2012 5:58 pm Operator: bsj
Sample : 2L26023-CAL3 Inst : SV-GCMS6
Misc : 1x A12K204@100ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122606.D Vial: 6
Acq On : 26 Dec 2012 6:25 pm Operator: bsj
Sample : 2L26023-CAL4 Inst : SV-GCMS6
Misc : 1x A12K205@200ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

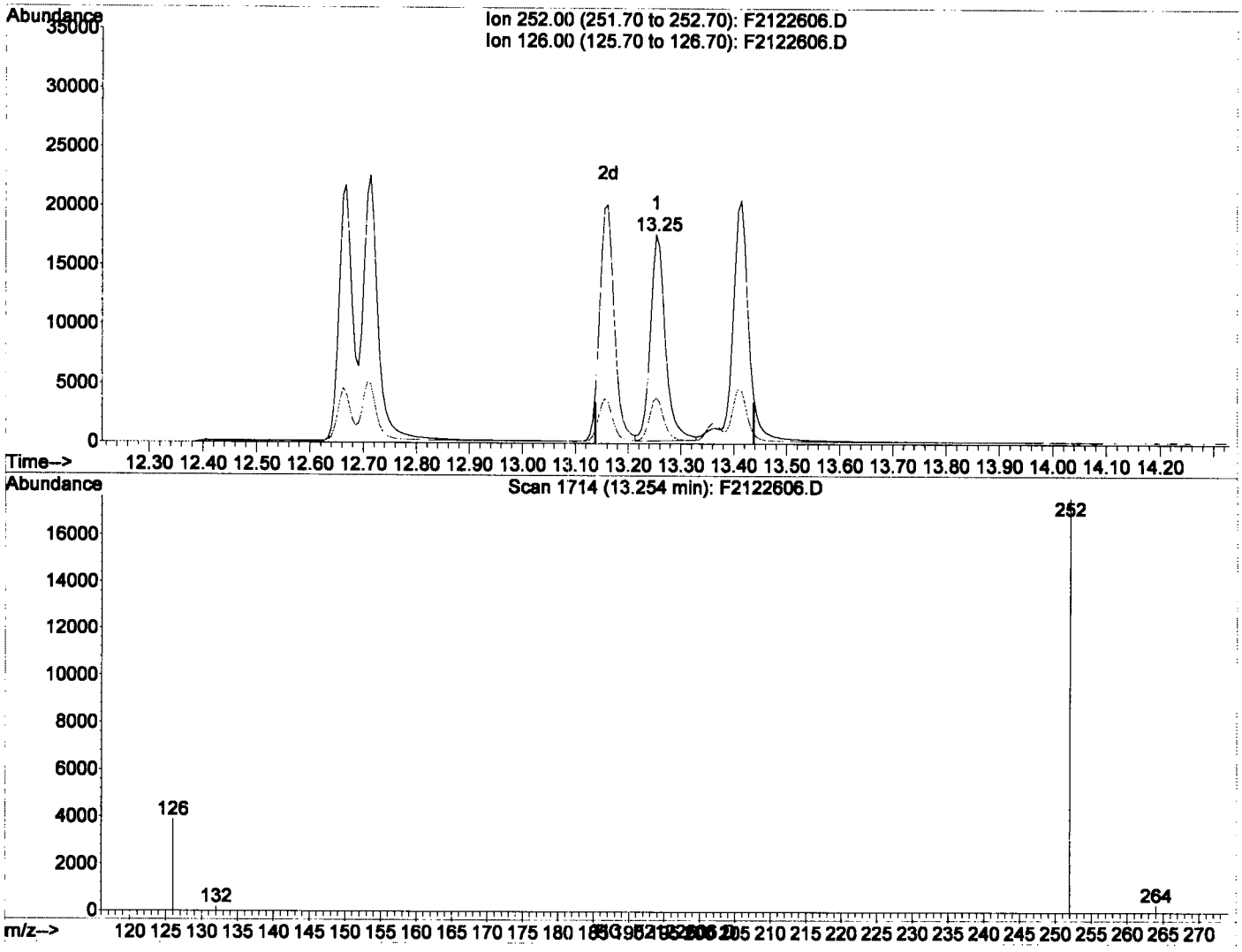
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.34	136	792005 ✓	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	363142 ✓	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	586730 ✓	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.11	240	495476 ✓	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	419505 ✓	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.55	292	328306 ✓	2000.000	ng/mL	-0.04
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	51398	198.544	ng/ml	-0.02
21) Terphenyl-d14(Surr)	10.03	244	39046	187.504	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	84945	196.632	ng/ml	100
3) 2-Methylnaphthalene	6.01	142	49705	192.530	ng/ml	92
4) 1-Methylnaphthalene	6.11	142	45964	191.755	ng/ml	99
7) Dimethylphthalate	6.75	163	45867	188.749	ng/mL	100
8) Acenaphthylene	6.87	152	64973	195.299	ng/ml	99
9) Acenaphthene	7.05	153	42433	201.745	ng/ml	99
10) Dibenzofuran	7.22	168	59226	191.549	ng/mL	94
11) Diethylphthalate	7.44	149	47387	201.513	ng/mL	83
12) Fluorene	7.55	166	44799	194.696	ng/ml	97
14) Phenanthrene	8.49	178	61112	193.695	ng/mL	100
15) Anthracene	8.54	178	56318	191.118	ng/ml	98
16) Carbazole	8.70	167	48500	205.378	ng/ml	99
17) Di-n-butylphthalate	9.04	149	65529	172.768	ng/mL	99
18) Fluoranthene	9.65	202	53746	188.065	ng/ml	99
19) Pyrene	9.87	202	55344	186.599	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	22447	204.206	ng/mL	96
23) Benz(a)Anthracene	11.10	228	46204	187.541	ng/ml	97
24) Chrysene	11.14	228	47630	194.580	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.14	149	28735	202.700	ng/mL	100
26) Di-n-octyl phthalate	12.03	149	31677	214.155	ng/mL	97
28) Benzo(b)Fluoranthene	12.67	252	38213	194.386	ng/ml	99
29) Benzo(k)Fluoranthene	12.71	252	41390	183.593	ng/ml	97
30) Benzo(b+k)Fluoranthene	12.71	252	80643	378.389	ng/ml	98
31) Benzo (e) Pyrene	13.16	252	39097	196.947	ng/mL	96
32) Benzo(a)Pyrene	13.25	252	34150 ✓ ~~32278~~	200.438	ng/ml	98
33) Perylene	13.41	252	40038	196.630	ng/mL	96
35) Indeno(1,2,3-cd)Pyrene	15.55	276	34888	208.752	ng/ml	98
36) Dibenz(a,h)Anthracene	15.62	278	32511	200.171	ng/ml	92
37) Benzo(g,h,i)Perylene	16.14	276	33864	195.374	ng/ml	98

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

Quantitation Report (Qedit)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122606.D Vial: 6
Acq On : 26 Dec 2012 6:25 pm Operator: bsj
Sample : 2L26023-CAL4 Inst : SV-GCMS6
Misc : 1x A12K205@200ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 10:03 2012 Quant Results File: temp.res

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Multiple Level Calibration



(32) Benzo(a)Pyrene (T)

13.25min 213.43ng/ml m

response 34509

Ion	Exp%	Act%
252.00	100	100
126.00	20.10	19.73
0.00	0.00	0.00
0.00	0.00	0.00

AMS 12/27/12

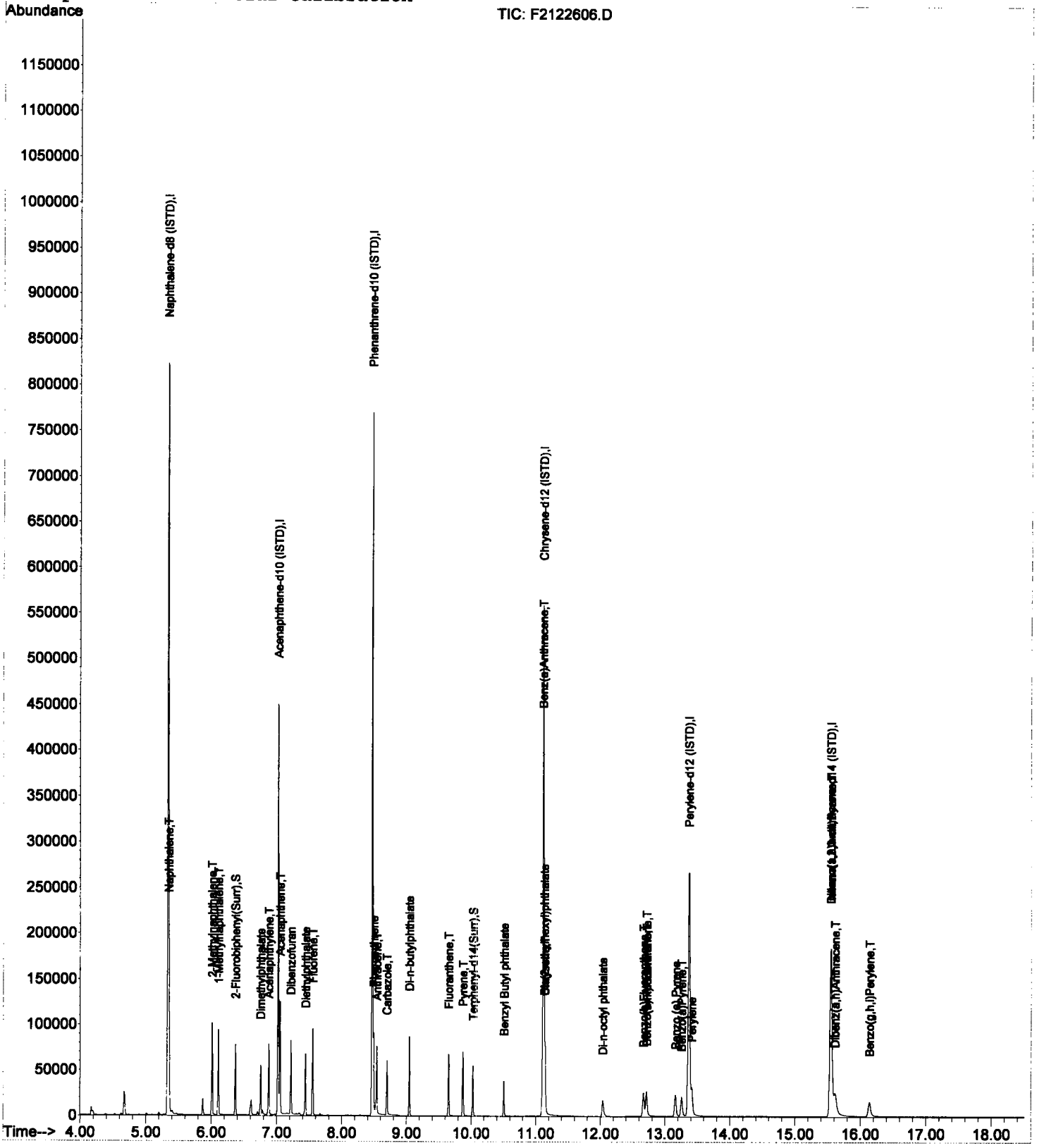
dkam 12/27/12

F2122606.D F21129.M Thu Dec 27 10:03:29 2012 VOAGCMS1

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122606.D Vial: 6
Acq On : 26 Dec 2012 6:25 pm Operator: bsj
Sample : 2L26023-CAL4 Inst : SV-GCMS6
Misc : 1x A12K205@200ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122607.D Vial: 7
Acq On : 26 Dec 2012 6:53 pm Operator: bsj
Sample : 2L26023-CAL5 Inst : SV-GCMS6
Misc : 1x A12K206@500ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

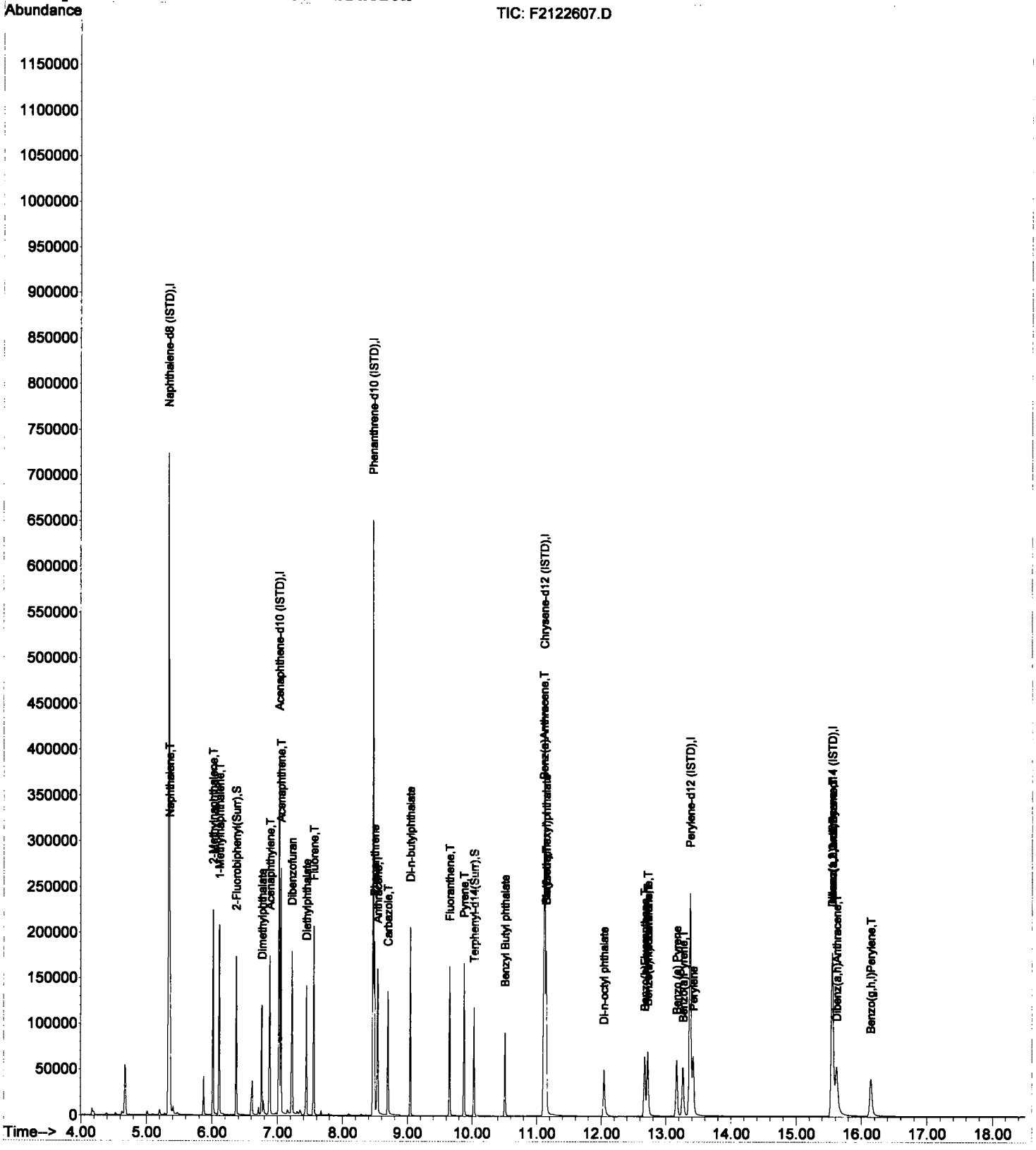
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	671062	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	308964	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	486669	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.11	240	424838	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	356595	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.55	292	278703	2000.000	ng/mL	-0.04
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	113962	517.416	ng/ml	-0.02
21) Terphenyl-d14(Surr)	10.03	244	87270	488.763	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	186488	509.487	ng/ml	100
3) 2-Methylnaphthalene	6.01	142	110365	504.540	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	102078	502.605	ng/ml	99
7) Dimethylphthalate	6.76	163	101208	489.518	ng/mL	100
8) Acenaphthylene	6.88	152	147083	519.634	ng/ml	99
9) Acenaphthene	7.05	153	93632	523.228	ng/ml	98
10) Dibenzofuran	7.22	168	130883	497.529	ng/mL	93
11) Diethylphthalate	7.44	149	101914	509.386	ng/mL	83
12) Fluorene	7.55	166	101367	517.791	ng/ml	97
14) Phenanthrene	8.49	178	132632	506.809	ng/mL	100
15) Anthracene	8.53	178	126345	516.911	ng/ml	98
16) Carbazole	8.69	167	110718	565.244	ng/ml	100
17) Di-n-butylphthalate	9.04	149	147594	469.142	ng/mL	99
18) Fluoranthene	9.65	202	118915	501.653	ng/ml	99
19) Pyrene	9.87	202	124065	504.305	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	52831	472.520	ng/mL	99
23) Benz(a)Anthracene	11.10	228	104866	496.422	ng/ml	98
24) Chrysene	11.14	228	105126	500.872	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.14	149	71734	467.554	ng/mL	99
26) Di-n-octyl phthalate	12.04	149	85436	464.607	ng/mL	97
28) Benzo(b)Fluoranthene	12.67	252	88632	503.894	ng/ml	96
29) Benzo(k)Fluoranthene	12.71	252	96753	484.331	ng/ml	97
30) Benzo(b+k)Fluoranthene	12.71	252	189302	999.708	ng/ml	98
31) Benzo (e) Pyrene	13.16	252	90991	539.221	ng/mL	96
32) Benzo(a)Pyrene	13.26	252	80729	559.035	ng/ml	98
33) Perylene	13.41	252	91413	528.138	ng/mL	98
35) Indeno(1,2,3-cd)Pyrene	15.56	276	79315	559.044	ng/ml	96
36) Dibenz(a,h)Anthracene	15.62	278	75199	545.406	ng/ml	96
37) Benzo(g,h,i)Perylene	16.14	276	80032	519.546	ng/ml	99

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122607.D Vial: 7
Acq On : 26 Dec 2012 6:53 pm Operator: bsj
Sample : 2L26023-CAL5 Inst : SV-GCMS6
Misc : 1x A12K206@500ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122608.D Vial: 8
Acq On : 26 Dec 2012 7:20 pm Operator: bsj
Sample : 2L26023-CAL6 Inst : SV-GCMS6
Misc : 1x A12K207@1000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

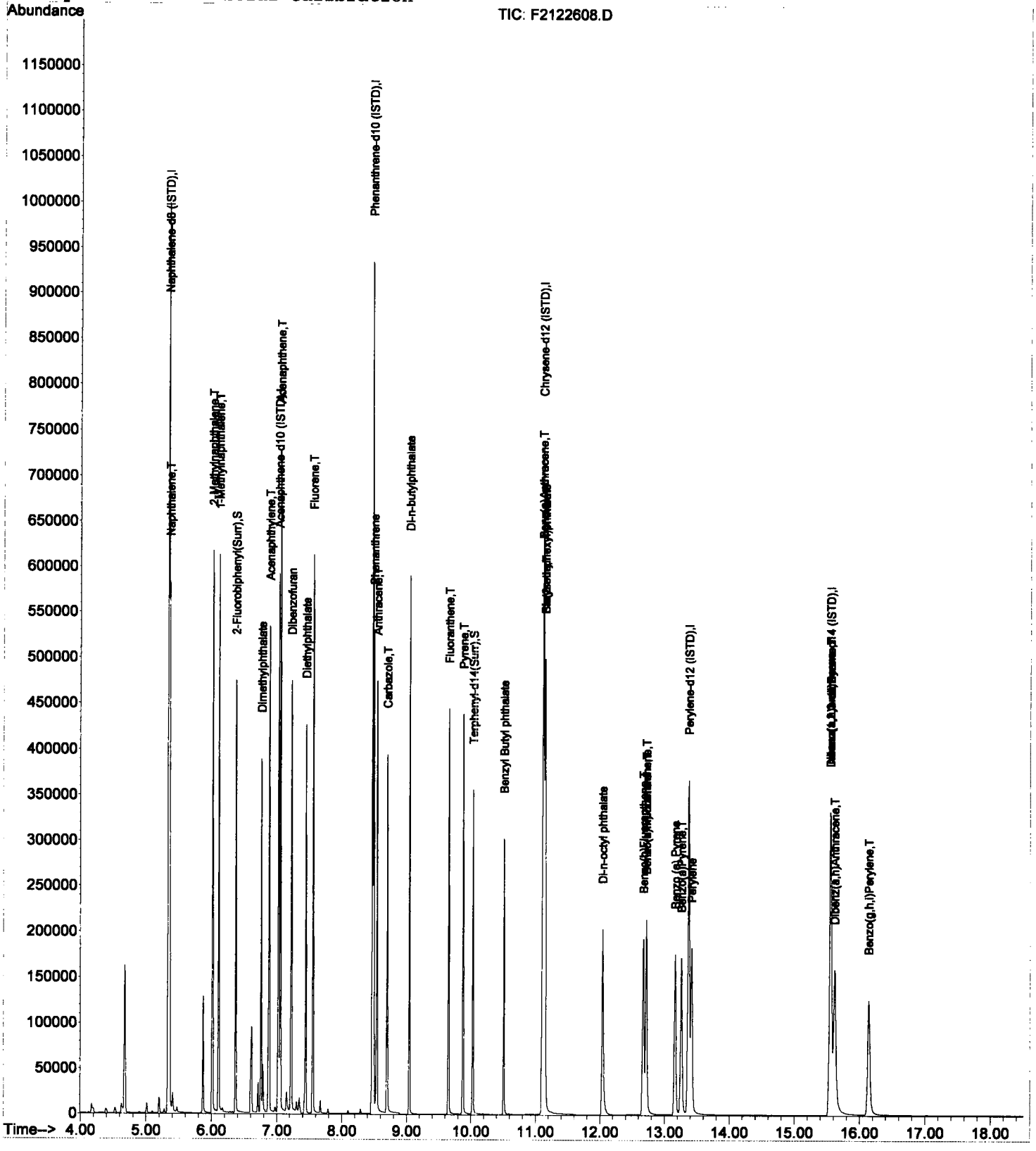
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	938021	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	436271	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	708312	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.11	240	629591	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	525934	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.55	292	413757	2000.000	ng/mL	-0.05
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.37	172	317202	1019.923	ng/ml	-0.01
21) Terphenyl-d14(Surr)	10.03	244	255817	966.781	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	507274	991.460	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	306110	1001.132	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	283470	998.508	ng/ml	99
7) Dimethylphthalate	6.76	163	289133	990.383	ng/mL	100
8) Acenaphthylene	6.88	152	416178	1041.276	ng/ml	99
9) Acenaphthene	7.05	153	259441	1026.732	ng/ml	97
10) Dibenzofuran	7.22	168	370372	997.069	ng/mL	93
11) Diethylphthalate	7.44	149	285689	1011.249	ng/mL	82
12) Fluorene	7.56	166	290641	1051.395	ng/ml	97
14) Phenanthrene	8.49	178	377416	990.890	ng/mL	99
15) Anthracene	8.54	178	371377	1043.956	ng/ml	98
16) Carbazole	8.69	167	322337	1130.673	ng/ml	99
17) Di-n-butylphthalate	9.04	149	438966	958.683	ng/mL	99
18) Fluoranthene	9.65	202	347167	1006.270	ng/ml	99
19) Pyrene	9.88	202	365305	1020.254	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	162612	922.488	ng/mL	99
23) Benz(a)Anthracene	11.10	228	308561	985.648	ng/ml	98
24) Chrysene	11.14	228	305309	981.569	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.14	149	234142	949.264	ng/mL	99
26) Di-n-octyl phthalate	12.04	149	306386	967.142	ng/mL	97
28) Benzo(b)Fluoranthene	12.67	252	270362	1017.971	ng/ml	99
29) Benzo(k)Fluoranthene	12.71	252	290613	973.832	ng/ml	95
30) Benzo(b+k)Fluoranthene	12.71	252	564769	1988.800	ng/ml	98
31) Benzo (e) Pyrene	13.16	252	268817	1080.114	ng/mL	96
32) Benzo(a)Pyrene	13.25	252	250950	1132.718	ng/ml	98
33) Perylene	13.41	252	268508	1051.817	ng/mL	100
35) Indeno(1,2,3-cd)Pyrene	15.55	276	229086	1087.641	ng/ml	96
36) Dibenz(a,h)Anthracene	15.62	278	228521	1116.426	ng/ml	97
37) Benzo(g,h,i)Perylene	16.14	276	242216	1044.320	ng/ml	98

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122608.D Vial: 8
Acq On : 26 Dec 2012 7:20 pm Operator: bsj
Sample : 2L26023-CAL6 Inst : SV-GCMS6
Misc : 1x A12K207@1000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122609.D Vial: 9
Acq On : 26 Dec 2012 7:48 pm Operator: bsj
Sample : 2L26023-CAL7 Inst : SV-GCMS6
Misc : 1x A12K208@2000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

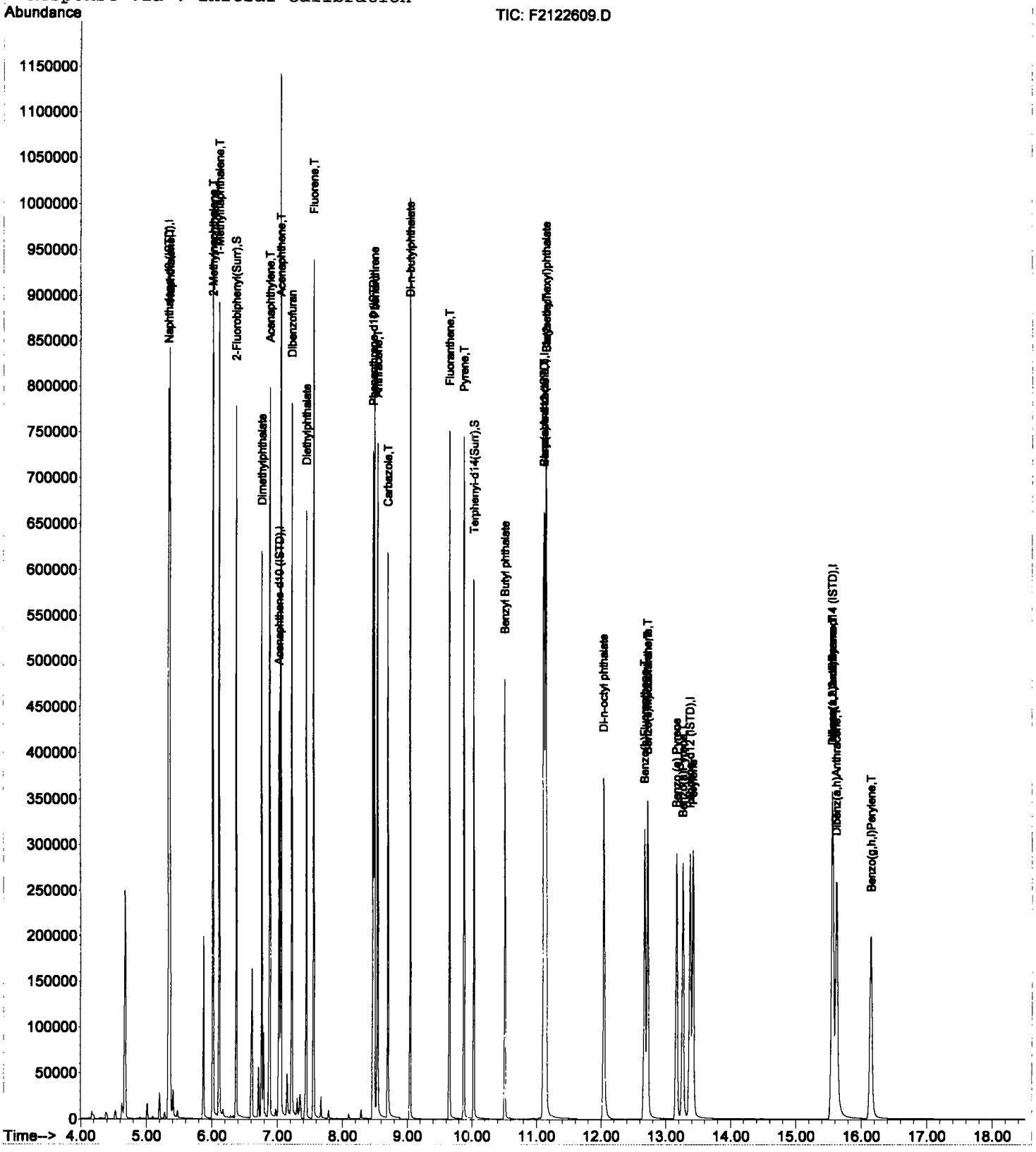
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	733808	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	343841	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	552427	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.11	240	505302	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	417763	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.55	292	332771	2000.000	ng/mL	-0.04
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.36	172	493690	2014.116	ng/ml	-0.02
21) Terphenyl-d14(Surr)	10.03	244	414139	1950.079	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	778107	1944.026	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	475941	1989.744	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	438116	1972.712	ng/ml	99
7) Dimethylphthalate	6.76	163	454216	1974.089	ng/mL	100
8) Acenaphthylene	6.88	152	650223	2064.181	ng/ml	99
9) Acenaphthene	7.05	153	402476	2020.958	ng/ml	98
10) Dibenzofuran	7.22	168	570278	1947.926	ng/mL	93
11) Diethylphthalate	7.44	149	445679	2001.638	ng/mL	82
12) Fluorene	7.55	166	443460	2035.459	ng/ml	96
14) Phenanthrene	8.49	178	586713	1975.061	ng/mL	99
15) Anthracene	8.54	178	583065	2101.521	ng/ml	98
16) Carbazole	8.69	167	497395	2237.062	ng/ml	99
17) Di-n-butylphthalate	9.04	149	709538	1986.871	ng/mL	99
18) Fluoranthene	9.65	202	558693	2076.843	ng/ml	99
19) Pyrene	9.87	202	583546	2089.669	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	269003	1826.114	ng/mL	100
23) Benz(a)Anthracene	11.10	228	495421	1971.800	ng/ml	98
24) Chrysene	11.14	228	482169	1931.470	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.14	149	385061	1862.879	ng/mL	99
26) Di-n-octyl phthalate	12.03	149	539799	1923.844	ng/mL	96
28) Benzo(b)Fluoranthene	12.67	252	437582	2022.651	ng/ml	97
29) Benzo(k)Fluoranthene	12.71	252	473188	1982.105	ng/ml	97
30) Benzo(b+k)Fluoranthene	12.71	252	916510	4001.964	ng/ml	98
31) Benzo (e) Pyrene	13.16	252	434103	2195.871	ng/mL	97
32) Benzo(a)Pyrene	13.26	252	411726	2207.315	ng/ml	97
33) Perylene	13.41	252	426733	2104.459	ng/mL	98
35) Indeno(1,2,3-cd)Pyrene	15.56	276	368430	2174.914	ng/ml	94
36) Dibenz(a,h)Anthracene	15.62	278	369170	2242.488	ng/ml	96
37) Benzo(g,h,i)Perylene	16.15	276	390190	2075.078	ng/ml	98

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122609.D Vial: 9
Acq On : 26 Dec 2012 7:48 pm Operator: bsj
Sample : 2L26023-CAL7 Inst : SV-GCMS6
Misc : 1x A12K208@2000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122610.D Vial: 10
Acq On : 26 Dec 2012 8:16 pm Operator: bsj
Sample : 2L26023-CAL8 Inst : SV-GCMS6
Misc : 1x A12K209@4000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

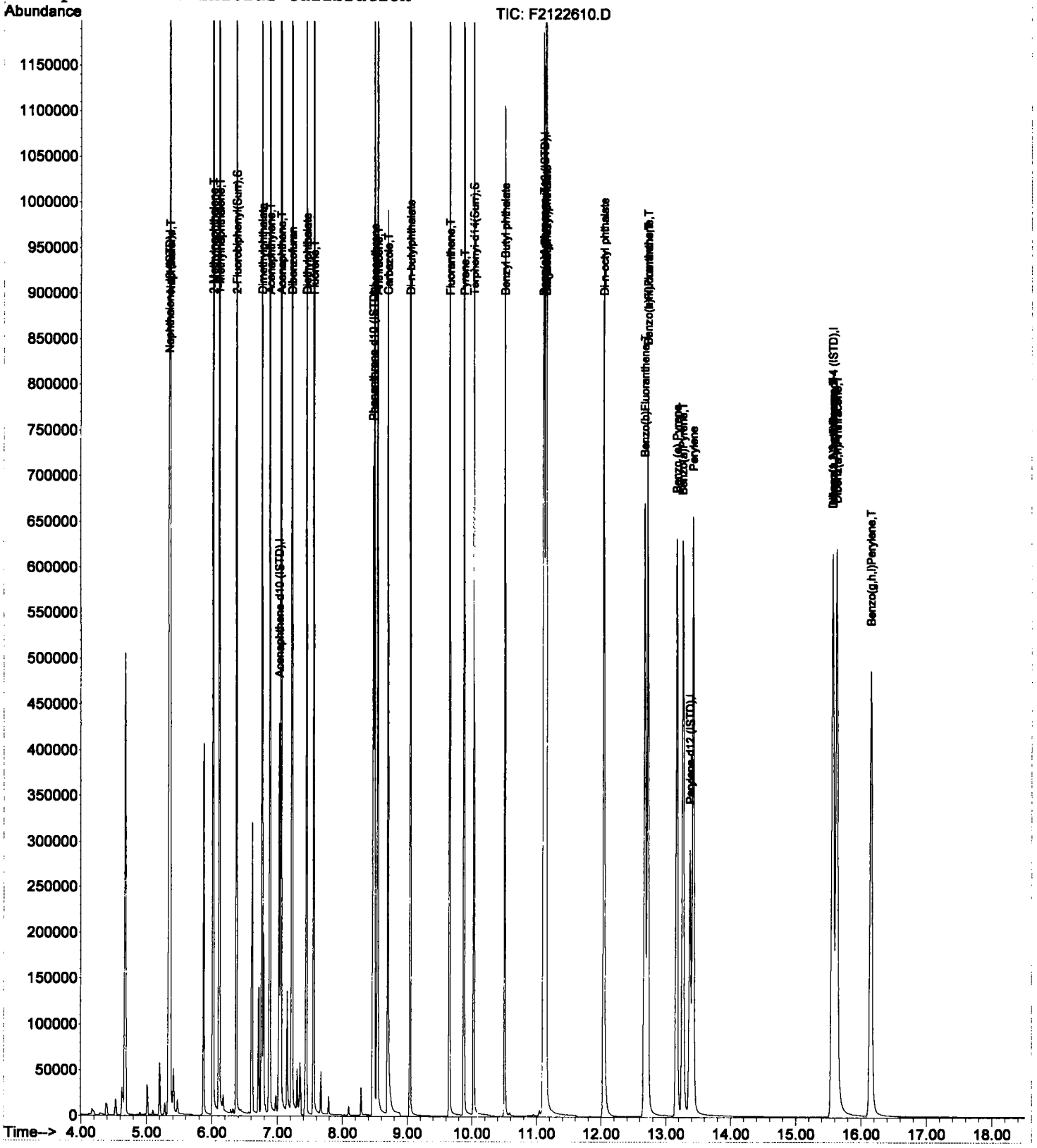
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	711375	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	333714	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	544082	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.12	240	524268	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	442988	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.56	292	370781	2000.000	ng/mL	-0.03
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.37	172	991625	4168.319	ng/ml	-0.01
21) Terphenyl-d14(Surr)	10.03	244	891566	4046.291	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	1557178	4013.146	ng/ml	100
3) 2-Methylnaphthalene	6.01	142	953972	4113.993	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	874416	4061.406	ng/ml	99
7) Dimethylphthalate	6.76	163	914377	4094.612	ng/mL	100
8) Acenaphthylene	6.88	152	1319245	4315.132	ng/ml	99
9) Acenaphthene	7.05	153	802137	4150.009	ng/ml	98
10) Dibenzofuran	7.22	168	1148945	4043.600	ng/mL	93
11) Diethylphthalate	7.44	149	904881	4187.338	ng/mL	82
12) Fluorene	7.55	166	898470	4249.078	ng/ml	98
14) Phenanthrene	8.49	178	1184458	4048.414	ng/mL	100
15) Anthracene	8.54	178	1206000	4413.413	ng/ml	98
16) Carbazole	8.69	167	939666	4291.020	ng/ml	99
17) Di-n-butylphthalate	9.04	149	1504595	4277.836	ng/mL	100
18) Fluoranthene	9.65	202	1194411	4507.027	ng/ml	99
19) Pyrene	9.88	202	1216201	4421.996	ng/ml	98
22) Benzyl Butyl phthalate	10.51	149	601999	3779.579	ng/mL	98
23) Benz(a)Anthracene	11.10	228	1073449	4117.822	ng/ml	98
24) Chrysene	11.15	228	1030521	3978.718	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.14	149	839096	3776.181	ng/mL	99
26) Di-n-octyl phthalate	12.04	149	1307708	3989.766	ng/mL	96
28) Benzo(b)Fluoranthene	12.67	252	1022068	4265.360	ng/ml	99
29) Benzo(k)Fluoranthene	12.72	252	1042858	4098.989	ng/ml	96
30) Benzo(b+k)Fluoranthene	12.72	252	2076481	8361.402	ng/ml	99
31) Benzo (e) Pyrene	13.17	252	983029	4689.411	ng/mL	97
32) Benzo(a)Pyrene	13.26	252	955549	4362.265	ng/ml	98
33) Perylene	13.42	252	958429	4457.407	ng/mL	100
35) Indeno(1,2,3-cd)Pyrene	15.57	276	855112	4530.416	ng/ml	94
36) Dibenz(a,h)Anthracene	15.63	278	866657	4724.751	ng/ml	96
37) Benzo(g,h,i)Perylene	16.15	276	906982	4300.416	ng/ml	98

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122610.D Vial: 10
Acq On : 26 Dec 2012 8:16 pm Operator: bsj
Sample : 2L26023-CAL8 Inst : SV-GCMS6
Misc : 1x A12K209@4000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122611.D Vial: 11
Acq On : 26 Dec 2012 8:43 pm Operator: bsj
Sample : 2L26023-CAL9 Inst : SV-GCMS6
Misc : 1x A12K210@6000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

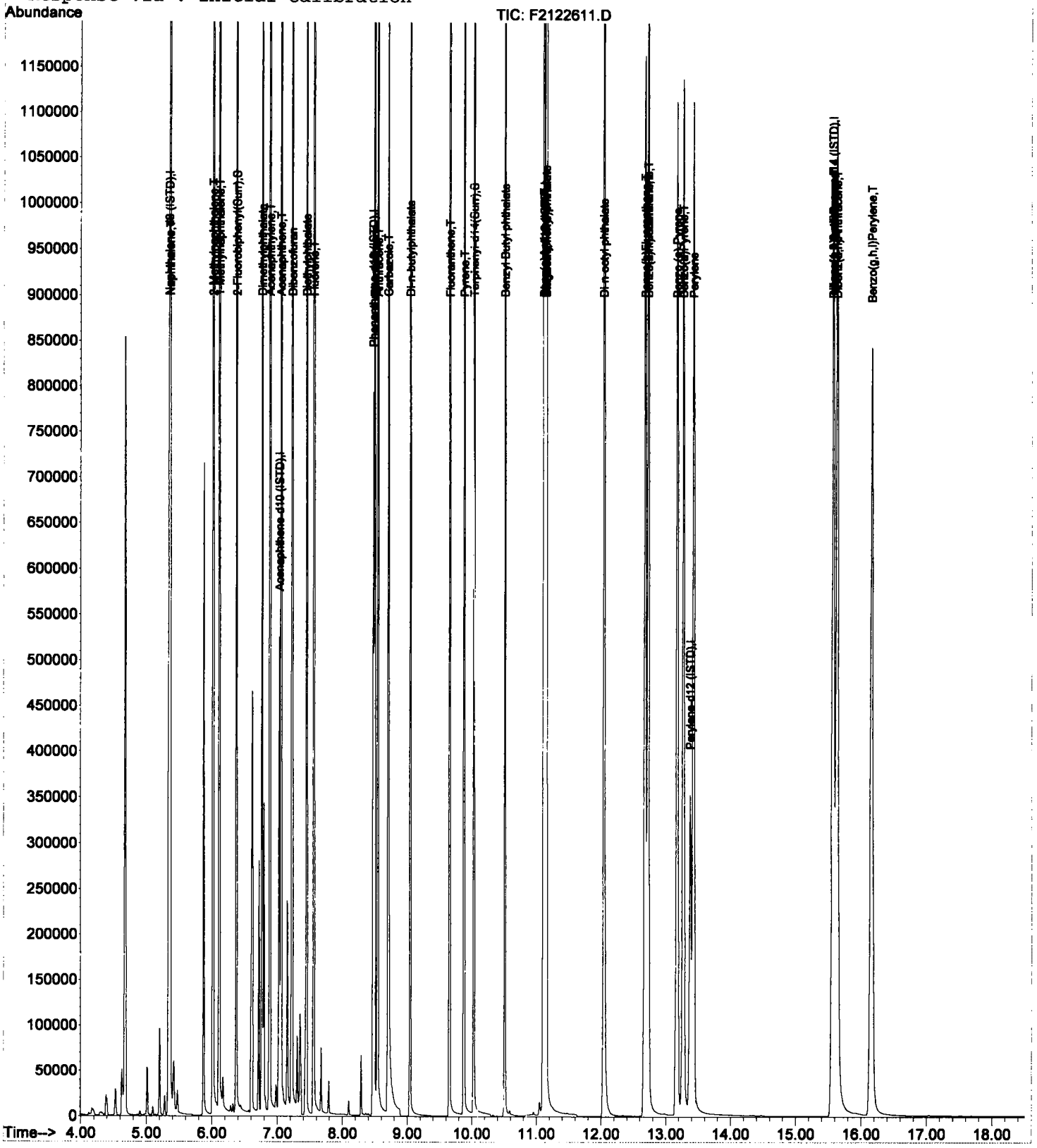
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	797400	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	384035	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	623988	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.12	240	611404	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	529407	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.56	292	453984	2000.000	ng/mL	-0.03
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.37	172	1664848	6081.233	ng/ml	-0.01
21) Terphenyl-d14(Surr)	10.03	244	1524771	5933.806	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	2591194	5957.567	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	1596153	6140.798	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	1464657	6068.993	ng/ml	99
7) Dimethylphthalate	6.76	163	1567478	6099.477	ng/mL	99
8) Acenaphthylene	6.88	152	2228397	6383.807	ng/ml	99
9) Acenaphthene	7.05	153	1353067	6083.079	ng/ml	98
10) Dibenzofuran	7.22	168	1942188	5939.691	ng/mL	93
11) Diethylphthalate	7.44	149	1520266	6113.216	ng/mL	82
12) Fluorene	7.55	166	1478023	6074.016	ng/ml	98
14) Phenanthrene	8.49	178	1998224	5955.216	ng/mL	100
15) Anthracene	8.54	178	1987711	6342.620	ng/ml	97
16) Carbazole	8.70	167	1441060	5737.956	ng/ml	99
17) Di-n-butylphthalate	9.04	149	2589316	6419.153	ng/mL	100
18) Fluoranthene	9.65	202	2040149	6712.533	ng/ml	99
19) Pyrene	9.88	202	2076771	6583.998	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	1043229	5467.702	ng/mL	97
23) Benz(a)Anthracene	11.11	228	1832868	6028.960	ng/ml	98
24) Chrysene	11.15	228	1761219	5830.755	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.14	149	1441087	5448.269	ng/mL	99
26) Di-n-octyl phthalate	12.04	149	2357994	5706.981	ng/mL	95
28) Benzo(b)Fluoranthene	12.68	252	1737882	5895.297	ng/ml	99
29) Benzo(k)Fluoranthene	12.72	252	1900657	6232.678	ng/ml	99
30) Benzo(b+k)Fluoranthene	12.72	252	3657913	12115.245	ng/ml	100
31) Benzo (e) Pyrene	13.17	252	1737707	6936.347	ng/mL	98
32) Benzo(a)Pyrene	13.27	252	1708524	6066.615	ng/ml	100
33) Perylene	13.43	252	1642812	6393.115	ng/mL	98
35) Indeno(1,2,3-cd)Pyrene	15.58	276	1554308	6725.569	ng/ml	93
36) Dibenz(a,h)Anthracene	15.63	278	1624083	7231.308	ng/ml	93
37) Benzo(g,h,i)Perylene	16.16	276	1631529	6293.574	ng/ml	97

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122611.D Vial: 11
Acq On : 26 Dec 2012 8:43 pm Operator: bsj
Sample : 2L26023-CAL9 Inst : SV-GCMS6
Misc : 1x A12K210@6000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122612.D Vial: 12
Acq On : 26 Dec 2012 9:11 pm Operator: bsj
Sample : 2L26023-CALA Inst : SV-GCMS6
Misc : 1x A12K211@8000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

AMS 12/27/12

Quant Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration
DataAcq Meth : FAQ21128

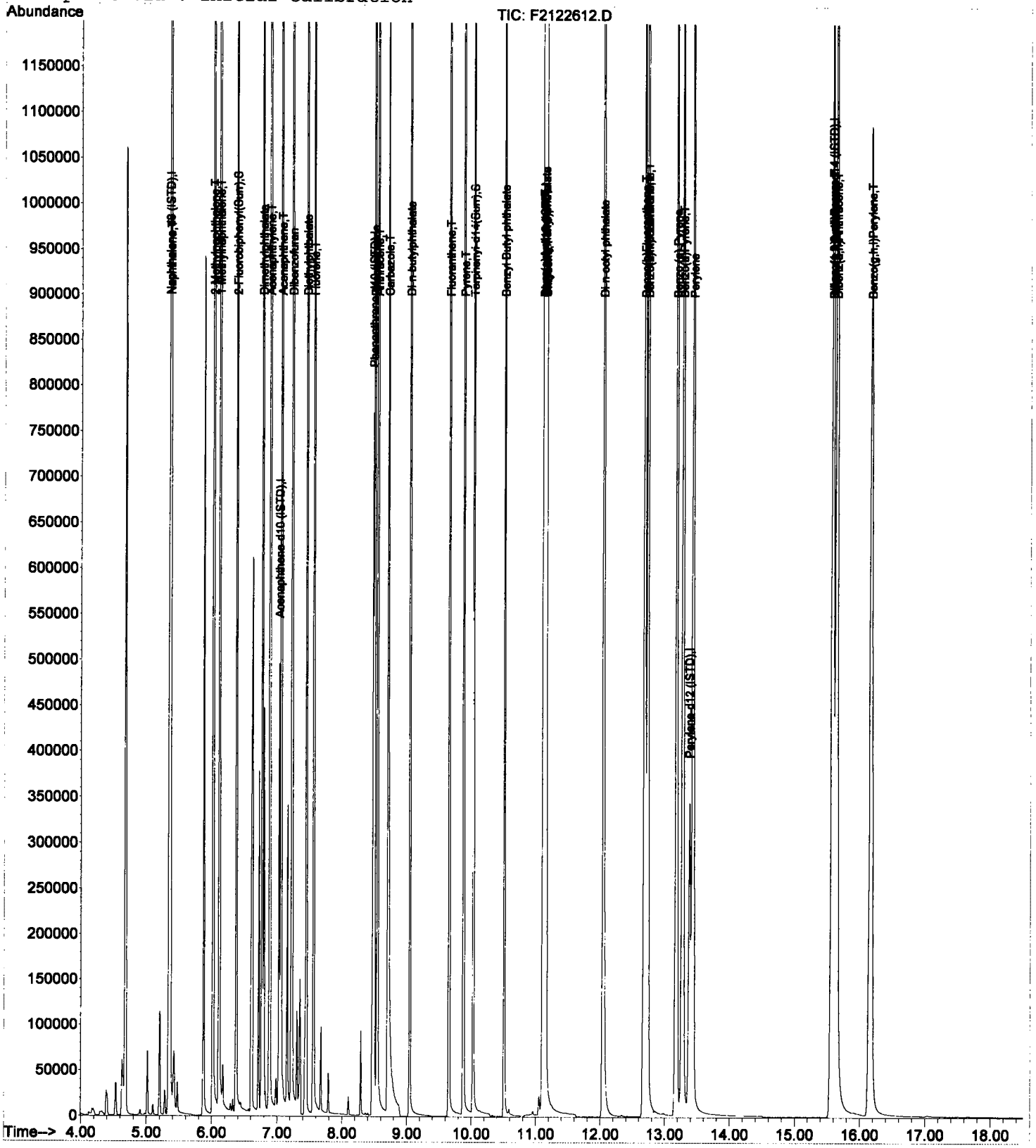
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.33	136	765316	2000.000	ng/ml	-0.02
5) Acenaphthene-d10 (ISTD)	7.02	164	367063	2000.000	ng/ml	-0.01
13) Phenanthrene-d10 (ISTD)	8.47	188	598844	2000.000	ng/ml	-0.02
20) Chrysene-d12 (ISTD)	11.12	240	602469	2000.000	ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.37	264	525398	2000.000	ng/ml	-0.03
34) Dibenz(a,h)anthracene-d14	15.57	292	464425	2000.000	ng/mL	-0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.37	172	2150557	8218.607	ng/ml	-0.01
21) Terphenyl-d14(Surr)	10.03	244	1996595	7885.192	ng/ml	-0.02
Target Compounds						Qvalue
2) Naphthalene	5.35	128	3338370	7997.218	ng/ml	99
3) 2-Methylnaphthalene	6.01	142	2053588	8231.881	ng/ml	93
4) 1-Methylnaphthalene	6.11	142	1879682	8115.224	ng/ml	100
7) Dimethylphthalate	6.76	163	1996093	8126.473	ng/mL	100
8) Acenaphthylene	6.88	152	2879869	8563.972	ng/ml	99
9) Acenaphthene	7.06	153	1721130	8095.581	ng/ml	97
10) Dibenzofuran	7.22	168	2494493	7981.510	ng/mL	92
11) Diethylphthalate	7.45	149	1971089	8292.521	ng/mL	82
12) Fluorene	7.55	166	1814407	7801.168	ng/ml	97
14) Phenanthrene	8.49	178	2587358	8034.751	ng/mL	100
15) Anthracene	8.54	178	2583466	8589.754	ng/ml	98
16) Carbazole	8.71	167	1755423	7283.154	ng/ml	99
17) Di-n-butylphthalate	9.04	149	3342210	8633.540	ng/mL	100
18) Fluoranthene	9.65	202	2654460	9100.458	ng/ml	99
19) Pyrene	9.88	202	2704369	8933.663	ng/ml	99
22) Benzyl Butyl phthalate	10.51	149	1368406	7107.849	ng/mL	96
23) Benz(a)Anthracene	11.11	228	2434576	8126.960	ng/ml	98
24) Chrysene	11.15	228	2296109	7714.817	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.14	149	1885742	7108.419	ng/mL	99
26) Di-n-octyl phthalate	12.04	149	3139812	7243.195	ng/mL	95
28) Benzo(b)Fluoranthene	12.68	252	2404340	7937.704	ng/ml	100
29) Benzo(k)Fluoranthene	12.73	252	2455264	8095.334	ng/ml	100
30) Benzo(b+k)Fluoranthene	12.73	252	4890717	16043.110	ng/ml	99
31) Benzo (e) Pyrene	13.17	252	2330803	9374.781	ng/mL	99
32) Benzo(a)Pyrene	13.27	252	2303375	7716.462	ng/ml	100
33) Perylene	13.43	252	2243998	8799.305	ng/mL	97
35) Indeno(1,2,3-cd)Pyrene	15.58	276	2117621	8957.053	ng/ml	92
36) Dibenz(a,h)Anthracene	15.64	278	2205915	9601.131	ng/ml	94
37) Benzo(g,h,i)Perylene	16.17	276	2217435	8332.438	ng/ml	96

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

Quantitation Report

Data File : C:\HPCHEM\2\DATA\2012-12\2L26023\F2122612.D Vial: 12
Acq On : 26 Dec 2012 9:11 pm Operator: bsj
Sample : 2L26023-CALA Inst : SV-GCMS6
Misc : 1x A12K211@8000ppb Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 27 9:30 2012 Quant Results File: F21129.RES

Method : C:\HPCHEM\2\METHODS\F21129.M (RTE Integrator)
Title : SV-GCMS6: EPA 8270D SIM
Last Update : Thu Nov 29 13:10:56 2012
Response via : Initial Calibration



APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Calibration Data

Sequence 3A15024 (Cal ID A3A1601) SV-GCMS4

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	3A15024	Instrument:	SV-GCMS4
Date:	01/15/13 00:00	Calibration:	A3A1601

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	3A15024-TUN1	Soil	QC	QC			A12L094	A13A099
2	3A15024-CCB1	Soil	QC	QC			A12L094	
3	3A15024-CAL1	Soil	QC	QC			A12L094	A12K202
4	3A15024-CAL2	Soil	QC	QC			A12L094	A12K203
5	3A15024-CAL3	Soil	QC	QC			A12L094	A12K204
6	3A15024-CAL4	Soil	QC	QC			A12L094	A12K205
7	3A15024-CAL5	Soil	QC	QC			A12L094	A12K206
8	3A15024-CAL6	Soil	QC	QC			A12L094	A12K207
9	3A15024-CAL7	Soil	QC	QC			A12L094	A12K208
10	3A15024-CAL8	Soil	QC	QC			A12L094	A12K209
11	3A15024-CAL9	Soil	QC	QC			A12L094	A12K210
12	3A15024-CALA	Soil	QC	QC			A12L094	A12K211
13	3A15024-IBL1	Soil	QC	QC			A12L094	
14	3A15024-ICV1	Soil	QC	QC			A12L094	A12K140
15	3A15024-IBL2	Soil	QC	QC			A12L094	

Data Entered By: BSS 1-16-13

Data Reviewed By: MV 1/21/13

Comments:

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 3A15024

Analysis Included

8270 SIM PAH
8270 SIM PAH (16)
8270 SIM PAH (Low Level)
8270 SIM PAH + Additional
8270 SIM Phthalates
8270 SIM Naphthalene

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTDID	Analyzed
3A15024-TUN1	MS Tune	Soil	A13A099	A12L094	1/15/2013 3:17:00PM
3A15024-CCB1	Calibration Blank	Soil		A12L094	1/15/2013 3:41:00PM
3A15024-CAL1	Cal Standard	Soil	A12K202	A12K202	1/15/2013 4:07:00PM
3A15024-CAL2	Cal Standard	Soil	A12K203	A12K203	1/15/2013 4:33:00PM
3A15024-CAL3	Cal Standard	Soil	A12K204	A12K204	1/15/2013 4:59:00PM
3A15024-CAL4	Cal Standard	Soil	A12K205	A12K205	1/15/2013 5:25:00PM
3A15024-CAL5	Cal Standard	Soil	A12K206	A12K206	1/15/2013 5:51:00PM
3A15024-CAL6	Cal Standard	Soil	A12K207	A12K207	1/15/2013 6:16:00PM
3A15024-CAL7	Cal Standard	Soil	A12K208	A12K208	1/15/2013 6:42:00PM
3A15024-CAL8	Cal Standard	Soil	A12K209	A12K209	1/15/2013 7:08:00PM
3A15024-CAL9	Cal Standard	Soil	A12K210	A12K210	1/15/2013 7:33:00PM
3A15024-CALA	Cal Standard	Soil	A12K211	A12K211	1/15/2013 7:59:00PM
3A15024-ICV1	Initial Cal Check	Soil	A12K140	A12K140	1/15/2013 8:50:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: A3A1601 Instrument: SV-GCMS4

8270 SIM PAH Sequence: 3A15024 Matrix: Soil

3A15024-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
3A15024-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
3A15024-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
3A15024-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
3A15024-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
3A15024-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
3A15024-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
3A15024-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
3A15024-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
3A15024-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 3A15024

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

Analytes With Quadratic Curve Fits

	Qualifier	MRL	Recalc Value	OK?	Raise MRL to ?
Carbazole	Q-10	20.0	20.192	☑	☐ _____
Di-n-octyl phthalate	Q-10	200	183.746	☑	☐ _____

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A3A1601** Instrument: **SV-GCMS4**

8270 SIM PAH (16) Sequence: **3A15024** Matrix: **Soil**

3A15024-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

Calibration Status Report SV-GCMS4

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	20	20	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011503.D
2	50	50	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011504.D
3	100	100	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011505.D
4	200	200	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011506.D
5	500	500	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011507.D
6	1000	1000	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011508.D
7	2000	2000	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011509.D
8	4000	4000	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011510.D
9	6000	6000	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011511.D
10	8000	8000	2000	C:\HPCHEM\1\DATA\2013-01\3A15024\D3011512.D

#	ID	Update Time	Quant Time	Acquisition Time
1	20	Jan 16 09:15 2013	Jan 16 09:04 2013	15 Jan 2013 16:07
2	50	Jan 16 09:17 2013	Jan 16 09:04 2013	15 Jan 2013 16:33
3	100	Jan 16 09:19 2013	Jan 16 09:04 2013	15 Jan 2013 16:59
4	200	Jan 16 09:19 2013	Jan 16 09:05 2013	15 Jan 2013 17:25
5	500	Jan 16 09:21 2013	Jan 16 09:05 2013	15 Jan 2013 17:51
6	1000	Jan 16 09:22 2013	Jan 16 09:05 2013	15 Jan 2013 18:16
7	2000	Jan 16 09:23 2013	Jan 16 09:05 2013	15 Jan 2013 18:42
8	4000	Jan 16 09:23 2013	Jan 16 09:05 2013	15 Jan 2013 19:08
9	6000	Jan 16 09:24 2013	Jan 16 09:05 2013	15 Jan 2013 19:33
10	8000	Jan 16 09:26 2013	Jan 16 09:05 2013	15 Jan 2013 19:59

D30116.M Wed Jan 16 14:07:41 2013

1-16-13 BBO

Compound List Report SV-GCMS4

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
Total Cpnds : 37

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8 (ISTD)	136	5.30	1.000	A	1	A	R
2	T	Naphthlene	128	5.32	1.004	A	1	A	R
3	T	2-Methylnaphthalene	142	5.98	1.129	A	1	A	R
4	T	1-Methylnaphthalene	142	6.07	1.147	A	1	A	R
5	I	Acenaphthene-d10 (ISTD)	164	6.99	1.000	A	1	A	R
6	S	2-Fluorobiphenyl(Surr)	172	6.34	0.906	A	1	A	R
7		Dimethylphthalate	163	6.73	0.963	A	1	A	R
8	T	Acenaphthylene	152	6.85	0.980	A	1	A	R
9	T	Acenaphthene	153	7.02	1.004	A	1	A	R
10		Dibenzofuran	168	7.19	1.029	A	1	A	R
11		Diethylphthalate	149	7.41	1.060	A	1	A	R
12	T	Fluorene	166	7.53	1.077	A	1	A	R
13	I	Phenanthrene-d10 (ISTD)	188	8.43	1.000	A	1	A	R
14	T	Phenanthrene	178	8.46	1.003	A	1	A	R
15	T	Anthracene	178	8.51	1.009	A	1	A	R
16		Carbazole	167	8.67	1.028	Q	1	A	R
17		Di-n-butylphthalate	149	9.01	1.068	A	1	A	R
18	T	Fluoranthene	202	9.62	1.140	A	1	A	R
19	T	Pyrene	202	9.84	1.167	A	1	A	R
20	I	Chrysene-d12 (ISTD)	240	11.09	1.000	A	1	A	R
21	S	Terphenyl-d14(Surr)	244	10.00	0.902	A	1	A	R
22		Benzyl Butyl phthalate	149	10.47	0.945	A	1	A	R
23	T	Benz(a)Anthracene	228	11.07	0.999	A	1	A	R
24	T	Chrysene	228	11.12	1.003	A	1	A	R
25		Bis(2-ethylhexyl)phthalate	149	11.10	1.001	A	1	A	R
26		Di-n-octyl phthalate	149	12.01	1.083	Q	1	A	R
27	I	Perylene-d12 (ISTD)	264	13.34	1.000	A	1	A	R
28	T	Benzo(b)Fluoranthene	252	12.64	0.948	A	1	A	R
29	T	Benzo(k)Fluoranthene	252	12.69	0.952	A	1	A	R
30	T	Benzo(b+k)Fluoranthene	252	12.69	0.952	A	1	A	R
31		Benzo(e)Pyrene	252	13.14	0.985	A	1	A	R
32	T	Benzo(a)Pyrene	252	13.24	0.993	A	1	A	R
33		Perylene	252	13.40	1.004	A	1	A	R
34		Dibenz(a,h)anthracene-d14 (IST	292	15.51	1.000	A	1	A	R
35	T	Indeno(1,2,3-cd)Pyrene	276	15.53	1.001	A	1	A	R
36	T	Dibenz(a,h)Anthracene	278	15.58	1.005	A	1	A	R
37	T	Benzo(g,h,i)Perylene	276	16.11	1.039	A	1	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

D30116.M Wed Jan 16 14:07:14 2013

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Response Factor Report SV-GCMS4

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration

Calibration Files
20 =D3011503.D 50 =D3011504.D 100 =D3011505.D
200 =D3011506.D 500 =D3011507.D 1000 =D3011508.D

		Compound	20	50	100	200	500	1000	Avg	%RSD
1)	I	Naphthalene-d8 (ISTD)	ISTD							
2)	T	Naphthlene	1.098	1.120	1.116	1.094	1.130	1.094	1.094	2.13
3)	T	2-Methylnaphthalene	0.606	0.633	0.631	0.621	0.652	0.651	0.641	2.92
4)	T	1-Methylnaphthalene	0.580	0.604	0.609	0.601	0.626	0.623	0.610	2.29
5)	I	Acenaphthene-d10 (IST	ISTD							
6)	S	2-Fluorobiphenyl(Su	1.315	1.375	1.372	1.386	1.411	1.389	1.361	2.20
7)		Dimethylphthalate	1.220	1.310	1.294	1.303	1.370	1.370	1.323	3.39
8)	T	Acenaphthylene	1.853	1.934	1.926	1.963	2.075	2.052	1.987	3.44
9)	T	Acenaphthene	1.257	1.315	1.320	1.311	1.366	1.303	1.290	2.99
10)		Dibenzofuran	1.573	1.631	1.612	1.614	1.678	1.654	1.618	1.92
11)		Diethylphthalate	1.592	1.311	1.304	1.326	1.399	1.418	1.382	5.96
12)	T	Fluorene	1.214	1.257	1.247	1.245	1.324	1.318	1.281	3.05
13)	I	Phenanthrene-d10 (IST	ISTD							
14)	T	Phenanthrene	1.086	1.119	1.122	1.113	1.167	1.130	1.122	1.87
15)	T	Anthracene	1.026	1.069	1.060	1.064	1.141	1.113	1.087	3.36
16)		Carbazole	0.855	0.935	0.933	0.925	1.026	0.971	0.829	22.05 Q^2
17)		Di-n-butylphthalate	1.638	1.505	1.464	1.506	1.621	1.683	1.610	5.27
18)	T	Fluoranthene	0.924	0.952	0.951	0.942	1.019	1.016	0.989	4.52
19)	T	Pyrene	0.955	0.959	0.953	0.951	1.029	1.027	1.000	4.12
20)	I	Chrysene-d12 (ISTD)	ISTD							
21)	S	Terphenyl-d14(Surr)	0.807	0.825	0.821	0.827	0.860	0.833	0.821	2.23
22)		Benzyl Butyl phthal	0.998	0.677	0.675	0.729	0.800	0.850	0.822	12.48
23)	T	Benz(a)Anthracene	1.279	1.173	1.126	1.107	1.163	1.149	1.150	4.41
24)	T	Chrysene	1.077	1.105	1.088	1.083	1.118	1.089	1.075	2.99
25)		Bis(2-ethylhexyl)ph			0.923	1.047	1.175	1.280	1.200	11.89
26)		Di-n-octyl phthalat			0.979	1.167	1.456	1.760	1.644	24.39 Q^2
27)	I	Perylene-d12 (ISTD)	ISTD							
28)	T	Benzo(b)Fluoranthen	1.030	1.069	1.030	1.075	1.159	1.214	1.166	9.22
29)	T	Benzo(k)Fluoranthen	1.112	1.120	1.169	1.177	1.272	1.238	1.205	4.79
30)	T	Benzo(b+k)Fluoranth	1.089	1.108	1.112	1.135	1.223	1.231	1.193	6.19
31)		Benzo(e)Pyrene	1.084	1.097	1.104	1.125	1.187	1.199	1.167	5.06
32)	T	Benzo(a)Pyrene	0.831	0.874	0.889	0.943	1.060	1.106	1.032	13.08
33)		Perylene	1.100	1.114	1.110	1.124	1.172	1.158	1.139	2.23
34)		Dibenz(a,h)anthracene	ISTD							
35)	T	Indeno(1,2,3-cd)Pyr	1.381	1.393	1.373	1.368	1.388	1.367	1.369	1.34
36)	T	Dibenz(a,h)Anthrace	1.141	1.192	1.181	1.185	1.259	1.256	1.234	4.62
37)	T	Benzo(g,h,i)Perylen	1.352	1.350	1.348	1.387	1.466	1.461	1.407	3.29

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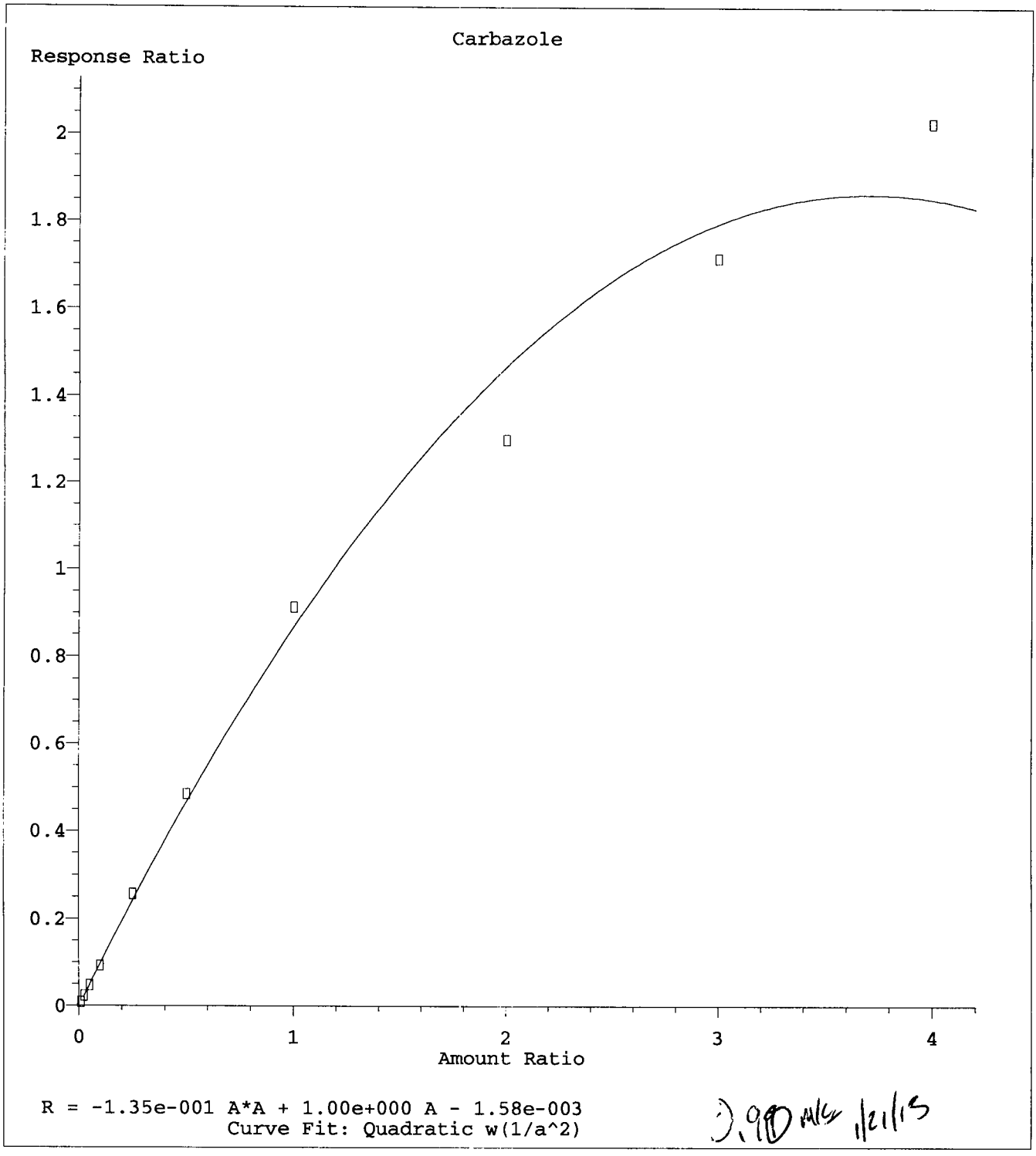
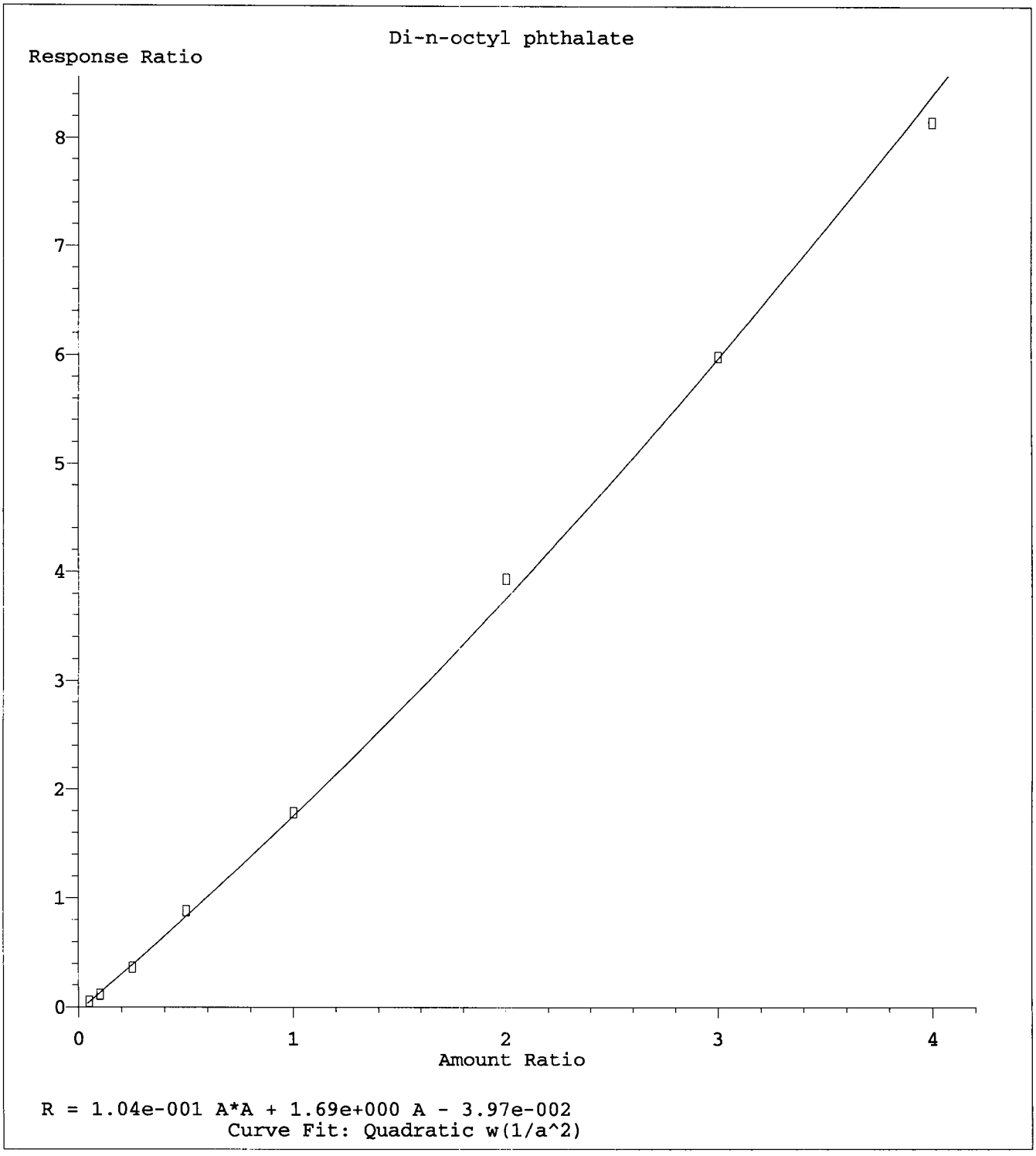
(#) = Out of Range ### Number of calibration levels exceeded format ###
D30116.M Wed Jan 16 14:08:00 2013



0.998 MLG 1/21/13

Method Name: C:\HPCHEM\1\METHODS\D21129D.M
Calibration Table Last Updated: Wed Jan 16 13:58:47 2013

1-16-13



Method Name: C:\HPCHEM\1\METHODS\D21129D.M
Calibration Table Last Updated: Wed Jan 16 14:02:27 2013

1-16-13 BSD

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011503.D Vial: 3
Acq On : 15 Jan 2013 16:07 Operator: bsj
Sample : 3A15024-CAL1 Inst : SV-GCMS4
Misc : 1x A12K202@20ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	20.000	20.091	-0.5	100	0.00
3	T	2-Methylnaphthalene	20.000	18.907	5.5	100	0.00
4	T	1-Methylnaphthalene	20.000	19.009	5.0	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	20.000	19.313	3.4	100	0.00
7		Dimethylphthalate	20.000	18.441	7.8	100	-0.01
8	T	Acenaphthylene	20.000	18.661	6.7	100	0.00
9	T	Acenaphthene	20.000	19.481	2.6	100	0.00
10		Dibenzofuran	20.000	19.440	2.8	100	0.00
11		Diethylphthalate	20.000	22.880	-14.4	99	0.00
12	T	Fluorene	20.000	19.332	3.3	102	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	20.000	19.358	3.2	100	0.00
15	T	Anthracene	20.000	18.874	5.6	100	0.00
16		Carbazole	20.000	20.192	-1.0	100	0.00
17		Di-n-butylphthalate	20.000	20.401	-2.0	100	0.00
18	T	Fluoranthene	20.000	18.688	6.6	100	0.00
19	T	Pyrene	20.000	19.099	4.5	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	20.000	19.660	1.7	100	0.00
22		Benzyl Butyl phthalate	20.000	24.294	-21.5	100	0.00
23	T	Benz(a)Anthracene	20.000	22.246	-11.2	100	0.00
24	T	Chrysene	20.000	20.041	-0.2	100	0.00
25		Bis(2-ethylhexyl)phthalate	-1.000	15.701	0.0	0	0.00
26		Di-n-octyl phthalate	-1.000	56.967	0.0	0	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	-0.01
28	T	Benzo(b)Fluoranthene	20.000	17.670	11.6	100	-0.01
29	T	Benzo(k)Fluoranthene	20.000	18.462	7.7	100	-0.02
30	T	Benzo(b+k)Fluoranthene	40.000	36.399	9.0	100	-0.06
31		Benzo(e)Pyrene	20.000	18.567	7.2	100	-0.02
32	T	Benzo(a)Pyrene	20.000	16.104	19.5	100	-0.02
33		Perylene	20.000	19.319	3.4	100	-0.02
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	-0.02
35	T	Indeno(1,2,3-cd)Pyrene	20.000	20.111	-0.6	100	-0.03
36	T	Dibenz(a,h)Anthracene	20.000	18.218	8.9	99	-0.03
37	T	Benzo(g,h,i)Perylene	20.000	19.164	4.2	100	-0.04

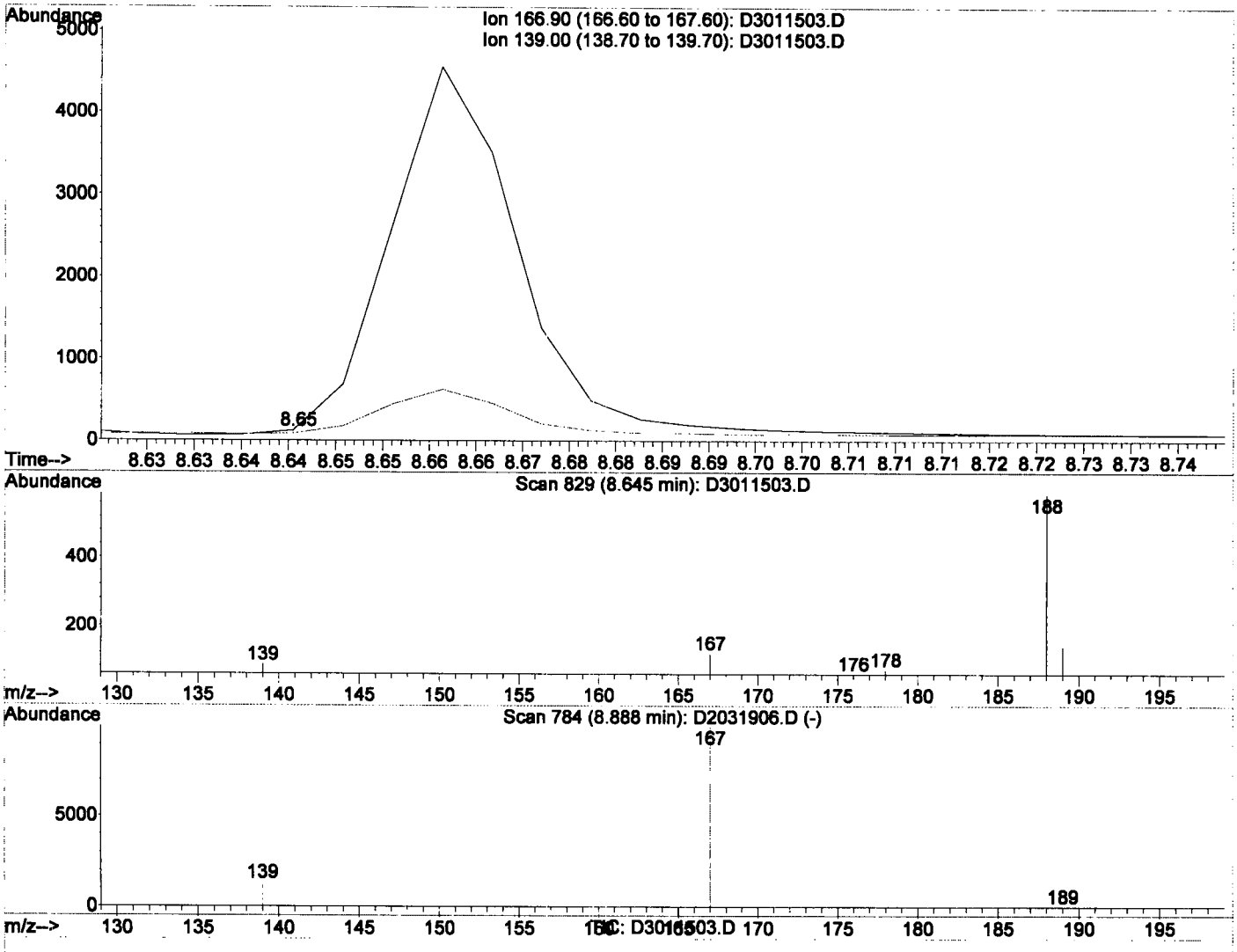
1-16-13
BGS

(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011503.D D30116.M Wed Jan 16 15:42:46 2013 Page 1

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011503.D Vial: 3
Acq On : 15 Jan 2013 16:07 Operator: bsj
Sample : 3A15024-CAL1 Inst : SV-GCMS4
Misc : 1x A12K202@20ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 15:19 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration



(16) Carbazole

8.65min 0.00ng/mL m

response 0

Ion	Exp%	Act%
166.90	100	0.00
139.00	13.60	0.00
0.00	0.00	0.00
0.00	0.00	0.00

1-16-13
BSD

D3011503.D D30116.M Wed Jan 16 15:20:05 2013

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011504.D Vial: 4
Acq On : 15 Jan 2013 16:33 Operator: bsj
Sample : 3A15024-CAL2 Inst : SV-GCMS4
Misc : 1x A12K203@50ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	50.000	51.225	-2.5	100	0.00
3	T	2-Methylnaphthalene	50.000	49.468	1.1	100	0.00
4	T	1-Methylnaphthalene	50.000	49.496	1.0	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	50.000	50.511	-1.0	100	0.00
7		Dimethylphthalate	50.000	49.525	1.0	100	-0.01
8	T	Acenaphthylene	50.000	48.687	2.6	100	0.00
9	T	Acenaphthene	50.000	50.976	-2.0	100	0.00
10		Dibenzofuran	50.000	50.402	-0.8	100	0.00
11		Diethylphthalate	50.000	47.459	5.1	100	0.00
12	T	Fluorene	50.000	49.115	1.8	100	-0.01
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	50.000	49.855	0.3	100	0.00
15	T	Anthracene	50.000	49.174	1.7	100	0.00
16		Carbazole	50.000	49.848	0.3	100	0.00
17		Di-n-butylphthalate	50.000	46.743	6.5	100	0.00
18	T	Fluoranthene	50.000	48.160	3.7	100	0.00
19	T	Pyrene	50.000	47.944	4.1	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	50.000	50.249	-0.5	100	0.00
22		Benzyl Butyl phthalate	50.000	41.180	17.6	100	0.00
23	T	Benz(a)Anthracene	50.000	50.986	-2.0	100	0.00
24	T	Chrysene	50.000	51.393	-2.8	100	0.00
25		Bis(2-ethylhexyl)phthalate	-1.000	37.036	0.0	0	0.00
26		Di-n-octyl phthalate	-1.000	75.030	0.0	0	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	-0.01
28	T	Benzo(b)Fluoranthene	50.000	45.857	8.3	100	-0.02
29	T	Benzo(k)Fluoranthene	50.000	46.609	6.8	100	-0.02
30	T	Benzo(b+k)Fluoranthene	100.000	92.992	7.0	100	-0.02
31		Benzo(e)Pyrene	50.000	46.980	6.0	100	-0.02
32	T	Benzo(a)Pyrene	50.000	42.326	15.3	100	-0.02
33		Perylene	50.000	49.050	1.9	100	-0.02
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	-0.02
35	T	Indeno(1,2,3-cd)Pyrene	50.000	50.748	-1.5	100	-0.03
36	T	Dibenz(a,h)Anthracene	50.000	48.153	3.7	100	-0.03
37	T	Benzo(g,h,i)Perylene	50.000	47.982	4.0	100	-0.04

1-16-13
BSJ

(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011504.D D30116.M Wed Jan 16 15:42:57 2013 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011505.D Vial: 5
Acq On : 15 Jan 2013 16:59 Operator: bsj
Sample : 3A15024-CAL3 Inst : SV-GCMS4
Misc : 1x A12K204@100ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	100.000	102.065	-2.1	100	0.00
3	T	2-Methylnaphthalene	100.000	98.636	1.4	100	0.00
4	T	1-Methylnaphthalene	100.000	99.774	0.2	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	100.000	100.807	-0.8	100	0.00
7		Dimethylphthalate	100.000	97.759	2.2	100	-0.01
8	T	Acenaphthylene	100.000	96.972	3.0	100	0.00
9	T	Acenaphthene	100.000	102.314	-2.3	100	0.00
10		Dibenzofuran	100.000	99.602	0.4	100	0.00
11		Diethylphthalate	100.000	94.393	5.6	100	0.00
12	T	Fluorene	100.000	97.489	2.5	100	-0.01
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	100.000	99.997	0.0	100	0.00
15	T	Anthracene	100.000	97.510	2.5	100	0.00
16		Carbazole	100.000	96.656	3.3	100	0.00
17		Di-n-butylphthalate	100.000	90.962	9.0	100	0.00
18	T	Fluoranthene	100.000	96.191	3.8	100	0.00
19	T	Pyrene	100.000	95.283	4.7	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	100.000	99.971	0.0	100	0.00
22		Benzyl Butyl phthalate	100.000	82.176	17.8	100	0.00
23	T	Benz(a)Anthracene	100.000	97.909	2.1	100	0.00
24	T	Chrysene	100.000	101.219	-1.2	100	0.00
25		Bis(2-ethylhexyl)phthalate	100.000	76.893	23.1	100	0.00
26		Di-n-octyl phthalate	100.000	104.434	-4.4	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	-0.01
28	T	Benzo(b)Fluoranthene	100.000	88.311	11.7	100	-0.02
29	T	Benzo(k)Fluoranthene	100.000	97.330	2.7	100	-0.02
30	T	Benzo(b+k)Fluoranthene	200.000	186.573	6.7	100	-0.07
31		Benzo(e)Pyrene	100.000	94.614	5.4	100	-0.02
32	T	Benzo(a)Pyrene	100.000	86.101	13.9	100	-0.03
33		Perylene	100.000	97.509	2.5	100	-0.02
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	-0.02
35	T	Indeno(1,2,3-cd)Pyrene	100.000	100.007	-0.0	100	-0.03
36	T	Dibenz(a,h)Anthracene	100.000	95.248	4.8	100	-0.03
37	T	Benzo(g,h,i)Perylene	100.000	95.559	4.4	100	-0.04

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(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011505.D D30116.M Wed Jan 16 15:43:15 2013 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011506.D Vial: 6
Acq On : 15 Jan 2013 17:25 Operator: bsj
Sample : 3A15024-CAL4 Inst : SV-GCMS4
Misc : 1x A12K205@200ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	200.000	200.094	-0.0	100	0.00
3	T	2-Methylnaphthalene	200.000	193.853	3.1	100	0.00
4	T	1-Methylnaphthalene	200.000	196.936	1.5	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	200.000	203.601	-1.8	100	0.00
7		Dimethylphthalate	200.000	196.923	1.5	100	-0.01
8	T	Acenaphthylene	200.000	197.626	1.2	100	0.00
9	T	Acenaphthene	200.000	203.201	-1.6	100	0.00
10		Dibenzofuran	200.000	199.535	0.2	100	0.00
11		Diethylphthalate	200.000	191.996	4.0	100	0.00
12	T	Fluorene	200.000	194.346	2.8	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	200.000	198.352	0.8	100	0.00
15	T	Anthracene	200.000	195.771	2.1	100	0.00
16		Carbazole	200.000	189.666	5.2	100	0.00
17		Di-n-butylphthalate	200.000	187.254	6.4	100	0.00
18	T	Fluoranthene	200.000	190.483	4.8	100	0.00
19	T	Pyrene	200.000	190.169	4.9	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	200.000	201.499	-0.7	100	0.00
22		Benzyl Butyl phthalate	200.000	177.427	11.3	100	0.00
23	T	Benz(a)Anthracene	200.000	192.475	3.8	100	0.00
24	T	Chrysene	200.000	201.578	-0.8	100	0.00
25		Bis(2-ethylhexyl)phthalate	200.000	174.556	12.7	100	0.00
26		Di-n-octyl phthalate	200.000	183.746	8.1	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	-0.01
28	T	Benzo(b)Fluoranthene	200.000	184.465	7.8	100	-0.02
29	T	Benzo(k)Fluoranthene	200.000	195.536	2.2	100	-0.02
30	T	Benzo(b+k)Fluoranthene	400.000	380.859	4.8	100	-0.07
31		Benzo(e)Pyrene	200.000	192.782	3.6	100	-0.02
32	T	Benzo(a)Pyrene	200.000	182.603	8.7	100	-0.03
33		Perylene	200.000	197.868	1.1	100	-0.02
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	-0.03
35	T	Indeno(1,2,3-cd)Pyrene	200.000	199.392	0.3	100	-0.04
36	T	Dibenz(a,h)Anthracene	200.000	191.199	4.4	100	-0.03
37	T	Benzo(g,h,i)Perylene	200.000	196.831	1.6	100	-0.04

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BSS

(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011506.D D30116.M Wed Jan 16 15:43:25 2013 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011507.D Vial: 7
Acq On : 15 Jan 2013 17:51 Operator: bsj
Sample : 3A15024-CAL5 Inst : SV-GCMS4
Misc : 1x A12K206@500ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	500.000	516.894	-3.4	100	0.00
3	T	2-Methylnaphthalene	500.000	508.849	-1.8	100	0.00
4	T	1-Methylnaphthalene	500.000	512.959	-2.6	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	500.000	518.338	-3.7	100	0.00
7		Dimethylphthalate	500.000	517.509	-3.5	100	-0.01
8	T	Acenaphthylene	500.000	522.256	-4.5	100	0.00
9	T	Acenaphthene	500.000	529.283	-5.9	100	0.00
10		Dibenzofuran	500.000	518.496	-3.7	100	0.00
11		Diethylphthalate	500.000	506.249	-1.2	100	0.00
12	T	Fluorene	500.000	516.651	-3.3	100	-0.01
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	500.000	520.033	-4.0	100	0.00
15	T	Anthracene	500.000	525.290	-5.1	100	0.00
16		Carbazole	500.000	532.962	-6.6	100	0.00
17		Di-n-butylphthalate	500.000	503.666	-0.7	100	0.00
18	T	Fluoranthene	500.000	515.364	-3.1	100	0.00
19	T	Pyrene	500.000	514.630	-2.9	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	500.000	523.952	-4.8	100	0.00
22		Benzyl Butyl phthalate	500.000	486.804	2.6	100	0.00
23	T	Benz(a)Anthracene	500.000	505.579	-1.1	100	0.00
24	T	Chrysene	500.000	519.645	-3.9	100	0.00
25		Bis(2-ethylhexyl)phthalate	500.000	489.601	2.1	100	0.00
26		Di-n-octyl phthalate	500.000	470.378	5.9	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	-0.01
28	T	Benzo(b)Fluoranthene	500.000	497.183	0.6	100	-0.02
29	T	Benzo(k)Fluoranthene	500.000	528.282	-5.7	100	-0.02
30	T	Benzo(b+k)Fluoranthene	1000.000	1025.097	-2.5	100	-0.02
31		Benzo(e)Pyrene	500.000	508.654	-1.7	100	-0.02
32	T	Benzo(a)Pyrene	500.000	513.281	-2.7	100	-0.03
33		Perylene	500.000	515.903	-3.2	100	-0.02
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	-0.02
35	T	Indeno(1,2,3-cd)Pyrene	500.000	505.669	-1.1	100	-0.04
36	T	Dibenz(a,h)Anthracene	500.000	508.016	-1.6	100	-0.03
37	T	Benzo(g,h,i)Perylene	500.000	520.571	-4.1	100	-0.04

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(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011507.D D30116.M Wed Jan 16 15:43:36 2013 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011508.D Vial: 8
Acq On : 15 Jan 2013 18:16 Operator: bsj
Sample : 3A15024-CAL6 Inst : SV-GCMS4
Misc : 1x A12K207@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	1000.000	1000.286	-0.0	100	0.00
3	T	2-Methylnaphthalene	1000.000	1016.644	-1.7	100	0.00
4	T	1-Methylnaphthalene	1000.000	1021.554	-2.2	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	1000.000	1020.081	-2.0	100	0.00
7		Dimethylphthalate	1000.000	1035.482	-3.5	100	0.00
8	T	Acenaphthylene	1000.000	1033.153	-3.3	100	0.00
9	T	Acenaphthene	1000.000	1009.895	-1.0	100	0.00
10		Dibenzofuran	1000.000	1022.421	-2.2	100	0.00
11		Diethylphthalate	1000.000	1026.070	-2.6	100	0.00
12	T	Fluorene	1000.000	1028.603	-2.9	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	1000.000	1007.078	-0.7	100	0.00
15	T	Anthracene	1000.000	1024.240	-2.4	100	0.00
16		Carbazole	1000.000	1042.503	-4.3	100	0.00
17		Di-n-butylphthalate	1000.000	1045.699	-4.6	100	0.00
18	T	Fluoranthene	1000.000	1027.653	-2.8	100	0.00
19	T	Pyrene	1000.000	1027.116	-2.7	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	1000.000	1014.892	-1.5	100	0.00
22		Benzyl Butyl phthalate	1000.000	1034.125	-3.4	100	0.00
23	T	Benz(a)Anthracene	1000.000	998.768	0.1	100	0.00
24	T	Chrysene	1000.000	1012.312	-1.2	100	0.00
25		Bis(2-ethylhexyl)phthalate	1000.000	1066.802	-6.7	100	0.00
26		Di-n-octyl phthalate	1000.000	1053.179	-5.3	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	1000.000	1041.241	-4.1	100	-0.01
29	T	Benzo(k)Fluoranthene	1000.000	1028.015	-2.8	100	-0.02
30	T	Benzo(b+k)Fluoranthene	2000.000	2063.331	-3.2	100	-0.02
31		Benzo(e)Pyrene	1000.000	1027.183	-2.7	100	-0.02
32	T	Benzo(a)Pyrene	1000.000	1071.286	-7.1	100	-0.02
33		Perylene	1000.000	1018.634	-1.9	100	-0.02
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	-0.02
35	T	Indeno(1,2,3-cd)Pyrene	1000.000	996.918	0.3	100	-0.03
36	T	Dibenz(a,h)Anthracene	1000.000	1014.391	-1.4	100	-0.02
37	T	Benzo(g,h,i)Perylene	1000.000	1037.458	-3.7	100	-0.03

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BSJ

(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011508.D D30116.M Wed Jan 16 15:43:46 2013 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011509.D Vial: 9
Acq On : 15 Jan 2013 18:42 Operator: bsj
Sample : 3A15024-CAL7 Inst : SV-GCMS4
Misc : 1x A12K208@2000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	2000.000	1937.492	3.1	100	0.00
3	T	2-Methylnaphthalene	2000.000	1986.229	0.7	100	0.00
4	T	1-Methylnaphthalene	2000.000	1989.393	0.5	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	2000.000	1981.216	0.9	100	0.00
7		Dimethylphthalate	2000.000	2017.088	-0.9	100	0.00
8	T	Acenaphthylene	2000.000	1999.944	0.0	100	0.00
9	T	Acenaphthene	2000.000	1954.056	2.3	100	0.00
10		Dibenzofuran	2000.000	1979.989	1.0	100	0.00
11		Diethylphthalate	2000.000	1986.712	0.7	100	0.00
12	T	Fluorene	2000.000	1998.412	0.1	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	2000.000	1977.840	1.1	100	0.00
15	T	Anthracene	2000.000	2019.153	-1.0	100	0.00
16		Carbazole	2000.000	2125.404	-6.3	100	0.00
17		Di-n-butylphthalate	2000.000	2045.109	-2.3	100	0.00
18	T	Fluoranthene	2000.000	1974.210	1.3	100	0.00
19	T	Pyrene	2000.000	2009.286	-0.5	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	2000.000	1995.806	0.2	100	0.00
22		Benzyl Butyl phthalate	2000.000	2053.951	-2.7	100	0.00
23	T	Benz(a)Anthracene	2000.000	1937.578	3.1	100	0.00
24	T	Chrysene	2000.000	1976.110	1.2	100	0.00
25		Bis(2-ethylhexyl)phthalate	2000.000	2121.344	-6.1	100	0.00
26		Di-n-octyl phthalate	2000.000	2031.310	-1.6	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	-0.01
28	T	Benzo(b)Fluoranthene	2000.000	2100.704	-5.0	100	-0.01
29	T	Benzo(k)Fluoranthene	2000.000	2035.355	-1.8	100	-0.02
30	T	Benzo(b+k)Fluoranthene	4000.000	4121.500	-3.0	100	-0.02
31		Benzo(e)Pyrene	2000.000	2040.522	-2.0	100	-0.02
32	T	Benzo(a)Pyrene	2000.000	2143.804	-7.2	100	-0.02
33		Perylene	2000.000	2009.162	-0.5	100	-0.02
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	-0.02
35	T	Indeno(1,2,3-cd)Pyrene	2000.000	1952.795	2.4	100	-0.03
36	T	Dibenz(a,h)Anthracene	2000.000	2002.541	-0.1	100	-0.02
37	T	Benzo(g,h,i)Perylene	2000.000	2048.323	-2.4	100	-0.03

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BSJ

(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011509.D D30116.M Wed Jan 16 15:44:07 2013 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011510.D Vial: 10
Acq On : 15 Jan 2013 19:08 Operator: bsj
Sample : 3A15024-CAL8 Inst : SV-GCMS4
Misc : 1x A12K209@4000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	4000.000	3960.366	1.0	100	0.00
3	T	2-Methylnaphthalene	4000.000	4154.067	-3.9	100	0.00
4	T	1-Methylnaphthalene	4000.000	4094.585	-2.4	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	4000.000	3949.062	1.3	100	0.00
7		Dimethylphthalate	4000.000	4080.741	-2.0	100	0.00
8	T	Acenaphthylene	4000.000	4054.030	-1.4	100	0.00
9	T	Acenaphthene	4000.000	3932.187	1.7	100	0.00
10		Dibenzofuran	4000.000	4012.822	-0.3	100	0.00
11		Diethylphthalate	4000.000	3988.090	0.3	100	0.00
12	T	Fluorene	4000.000	4138.380	-3.5	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	4000.000	4056.901	-1.4	100	0.00
15	T	Anthracene	4000.000	4201.706	-5.0	100	0.00
16		Carbazole	4000.000	3337.534	16.6	100	0.00
17		Di-n-butylphthalate	4000.000	4208.612	-5.2	100	0.00
18	T	Fluoranthene	4000.000	4246.239	-6.2	100	0.00
19	T	Pyrene	4000.000	4222.676	-5.6	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	4000.000	3990.789	0.2	100	0.00
22		Benzyl Butyl phthalate	4000.000	4286.959	-7.2	100	0.00
23	T	Benz(a)Anthracene	4000.000	3997.621	0.1	100	0.00
24	T	Chrysene	4000.000	4004.937	-0.1	100	0.00
25		Bis(2-ethylhexyl)phthalate	4000.000	4343.474	-8.6	100	0.00
26		Di-n-octyl phthalate	4000.000	4167.092	-4.2	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	4000.000	4463.847	-11.6	100	0.00
29	T	Benzo(k)Fluoranthene	4000.000	4213.491	-5.3	100	-0.01
30	T	Benzo(b+k)Fluoranthene	8000.000	8637.658	-8.0	100	-0.01
31		Benzo(e)Pyrene	4000.000	4268.424	-6.7	100	-0.01
32	T	Benzo(a)Pyrene	4000.000	4568.782	-14.2	100	-0.01
33		Perylene	4000.000	4112.582	-2.8	100	-0.01
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	-0.01
35	T	Indeno(1,2,3-cd)Pyrene	4000.000	4034.263	-0.9	100	-0.02
36	T	Dibenz(a,h)Anthracene	4000.000	4256.141	-6.4	100	-0.02
37	T	Benzo(g,h,i)Perylene	4000.000	4099.095	-2.5	100	-0.02

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(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011510.D D30116.M Wed Jan 16 15:44:16 2013 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011511.D Vial: 11
Acq On : 15 Jan 2013 19:33 Operator: bsj
Sample : 3A15024-CAL9 Inst : SV-GCMS4
Misc : 1x A12K210@6000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	6000.000	5864.764	2.3	100	0.00
3	T	2-Methylnaphthalene	6000.000	6121.151	-2.0	100	0.00
4	T	1-Methylnaphthalene	6000.000	6001.299	-0.0	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	6000.000	5887.492	1.9	100	0.00
7		Dimethylphthalate	6000.000	6045.986	-0.8	100	0.00
8	T	Acenaphthylene	6000.000	6072.858	-1.2	100	0.00
9	T	Acenaphthene	6000.000	5830.130	2.8	100	0.00
10		Dibenzofuran	6000.000	5877.148	2.0	100	0.00
11		Diethylphthalate	6000.000	5867.587	2.2	100	0.00
12	T	Fluorene	6000.000	6146.511	-2.4	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	6000.000	6001.627	-0.0	100	0.00
15	T	Anthracene	6000.000	5956.962	0.7	100	0.00
16		Carbazole	6000.000	5332.362	11.1	100	0.00
17		Di-n-butylphthalate	6000.000	6222.427	-3.7	100	0.00
18	T	Fluoranthene	6000.000	6257.702	-4.3	100	0.00
19	T	Pyrene	6000.000	6219.528	-3.7	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	6000.000	5860.343	2.3	100	0.00
22		Benzyl Butyl phthalate	6000.000	6374.247	-6.2	100	0.00
23	T	Benz(a)Anthracene	6000.000	5790.343	3.5	100	0.00
24	T	Chrysene	6000.000	5830.190	2.8	100	0.00
25		Bis(2-ethylhexyl)phthalate	6000.000	6451.902	-7.5	100	0.00
26		Di-n-octyl phthalate	6000.000	6011.014	-0.2	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	6000.000	6635.619	-10.6	100	0.00
29	T	Benzo(k)Fluoranthene	6000.000	6069.323	-1.2	100	0.00
30	T	Benzo(b+k)Fluoranthene	12000.000	12640.693	-5.3	100	0.00
31		Benzo(e)Pyrene	6000.000	6275.891	-4.6	100	0.00
32	T	Benzo(a)Pyrene	6000.000	6769.893	-12.8	100	0.00
33		Perylene	6000.000	6047.309	-0.8	100	0.00
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.00
35	T	Indeno(1,2,3-cd)Pyrene	6000.000	5908.360	1.5	100	-0.01
36	T	Dibenz(a,h)Anthracene	6000.000	6238.149	-4.0	100	0.00
37	T	Benzo(g,h,i)Perylene	6000.000	6021.059	-0.4	100	-0.01

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(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011511.D D30116.M Wed Jan 16 15:44:25 2013 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024_REQUANT\D3011512.D Vial: 12
Acq On : 15 Jan 2013 19:59 Operator: bsj
Sample : 3A15024-CALA Inst : SV-GCMS4
Misc : 1x A12K211@8000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	100	0.00
2	T	Naphthlene	8000.000	7861.998	1.7	100	0.00
3	T	2-Methylnaphthalene	8000.000	8230.519	-2.9	100	0.00
4	T	1-Methylnaphthalene	8000.000	8128.003	-1.6	100	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
6	S	2-Fluorobiphenyl(Surr)	8000.000	7857.463	1.8	100	0.00
7		Dimethylphthalate	8000.000	8154.876	-1.9	100	0.00
8	T	Acenaphthylene	8000.000	8256.634	-3.2	100	0.00
9	T	Acenaphthene	8000.000	7738.591	3.3	100	0.00
10		Dibenzofuran	8000.000	7952.879	0.6	100	0.00
11		Diethylphthalate	8000.000	7904.057	1.2	100	0.00
12	T	Fluorene	8000.000	8052.122	-0.7	100	0.00
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	100	0.00
14	T	Phenanthrene	8000.000	7942.260	0.7	100	0.00
15	T	Anthracene	8000.000	7955.872	-0.6	100	0.00
16		Carbazole	8000.000	-2000.000	125.0#	100	0.00
17		Di-n-butylphthalate	8000.000	8302.316	-3.8	100	0.00
18	T	Fluoranthene	8000.000	8310.037	-3.9	100	0.00
19	T	Pyrene	8000.000	8244.141	-3.1	100	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
21	S	Terphenyl-d14(Surr)	8000.000	7740.060	3.2	100	0.00
22		Benzyl Butyl phthalate	8000.000	8654.297	-8.2	100	0.00
23	T	Benz(a)Anthracene	8000.000	7849.301	1.9	100	0.00
24	T	Chrysene	8000.000	7468.727	6.6	100	0.00
25		Bis(2-ethylhexyl)phthalate	8000.000	8700.640	-8.8	100	0.00
26		Di-n-octyl phthalate	8000.000	7805.065	2.4	100	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	100	0.00
28	T	Benzo(b)Fluoranthene	8000.000	8688.457	-8.6	100	0.00
29	T	Benzo(k)Fluoranthene	8000.000	8293.104	-3.7	100	0.00
30	T	Benzo(b+k)Fluoranthene	16000.000	16900.172	-5.6	100	0.00
31		Benzo(e)Pyrene	8000.000	8353.153	-4.4	100	0.00
32	T	Benzo(a)Pyrene	8000.000	9071.984	-13.4	100	0.00
33		Perylene	8000.000	8102.357	-1.3	100	0.00
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	100	0.00
35	T	Indeno(1,2,3-cd)Pyrene	8000.000	7849.198	1.9	100	0.00
36	T	Dibenz(a,h)Anthracene	8000.000	8328.284	-4.1	100	0.00
37	T	Benzo(g,h,i)Perylene	8000.000	7963.677	0.5	100	0.00

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BSJ

(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011512.D D30116.M Wed Jan 16 15:44:34 2013 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011514.D Vial: 13
Acq On : 15 Jan 2013 20:50 Operator: bsj
Sample : 3A15024-ICV1 Inst : SV-GCMS4
Misc : 1x A12K140@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	171	0.00
2	T	Naphthlene	1000.000	1001.639	-0.2	172	0.00
3	T	2-Methylnaphthalene	1000.000	1046.264	-4.6	176	0.00
4	T	1-Methylnaphthalene	1000.000	1035.242	-3.5	174	0.00
5	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	172	0.00
6	S	2-Fluorobiphenyl(Surr)	1000.000	1035.161	-3.5	175	0.00
7		Dimethylphthalate	1000.000	1044.406	-4.4	174	0.00
8	T	Acenaphthylene	1000.000	1059.180	-5.9	176	0.00
9	T	Acenaphthene	1000.000	1039.192	-3.9	177	0.00
10		Dibenzofuran	1000.000	1034.537	-3.5	174	0.00
11		Diethylphthalate	1000.000	1028.631	-2.9	173	0.00
12	T	Fluorene	1000.000	1063.776	-6.4	178	-0.01
13	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	175	0.00
14	T	Phenanthrene	1000.000	1012.373	-1.2	176	0.00
15	T	Anthracene	1000.000	1043.047	-4.3	178	0.00
16		Carbazole	1000.000	929.625	7.0	157	0.00
17		Di-n-butylphthalate	1000.000	1049.267	-4.9	176	0.00
18	T	Fluoranthene	1000.000	1052.109	-5.2	179	0.00
19	T	Pyrene	1000.000	1049.857	-5.0	179	0.00
20	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	174	0.00
21	S	Terphenyl-d14(Surr)	1000.000	1037.806	-3.8	178	0.00
22		Benzyl Butyl phthalate	1000.000	1098.941	-9.9	185	0.00
23	T	Benz(a)Anthracene	1000.000	1023.735	-2.4	179	0.00
24	T	Chrysene	1000.000	1027.664	-2.8	177	0.00
25		Bis(2-ethylhexyl)phthalate	1000.000	1111.402	-11.1	182	0.00
26		Di-n-octyl phthalate	1000.000	1157.938	-15.8	193	0.00
27	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	176	0.00
28	T	Benzo(b)Fluoranthene	1000.000	1079.134	-7.9	182	-0.01
29	T	Benzo(k)Fluoranthene	1000.000	1049.841	-5.0	180	-0.02
30	T	Benzo(b+k)Fluoranthene	2000.000	2121.110	-6.1	181	-0.02
31		Benzo(e)Pyrene	1000.000	1033.312	-3.3	177	-0.02
32	T	Benzo(a)Pyrene	1000.000	1112.104	-11.2	183	-0.02
33		Perylene	1000.000	1068.434	-6.8	185	-0.02
34		Dibenz(a,h)anthracene-d14 (	2000.000	2000.000	0.0	181	-0.01
35	T	Indeno(1,2,3-cd)Pyrene	1000.000	1022.678	-2.3	185	-0.02
36	T	Dibenz(a,h)Anthracene	1000.000	1035.238	-3.5	184	-0.02
37	T	Benzo(g,h,i)Perylene	1000.000	1032.960	-3.3	180	-0.03

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355

(#) = Out of Range SPCC's out = 0 CCC's out = 0
D3011514.D D30116.M Wed Jan 16 14:06:22 2013 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011514.D Vial: 13
Acq On : 15 Jan 2013 20:50 Operator: bsj
Sample : 3A15024-ICV1 Inst : SV-GCMS4
Misc : 1x A12K140@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 14:05 2013 Quant Results File: D30116.RES

Quant Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	1756887	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	764384	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	1075594	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	779804	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	684093	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.50	292	512938	2000.00	ng/mL	-0.01
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	538627	1035.16	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	332183	1037.81	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	962303	1001.64	ng/ml	99
3) 2-Methylnaphthalene	5.97	142	588922	1046.26	ng/ml	100
4) 1-Methylnaphthalene	6.07	142	555054	1035.24	ng/ml	100
7) Dimethylphthalate	6.73	163	528277	1044.41	ng/mL	99
8) Acenaphthylene	6.84	152	804156	1059.18	ng/ml	100
9) Acenaphthene	7.02	153	512421	1039.19	ng/ml	98
10) Dibenzofuran	7.19	168	639816	1034.54	ng/mL	94
11) Diethylphthalate	7.41	149	543179	1028.63	ng/mL	99
12) Fluorene	7.52	166	520885	1063.78	ng/ml	100
14) Phenanthrene	8.46	178	611094	1012.37	ng/ml	100
15) Anthracene	8.50	178	609622	1043.05	ng/ml	100
16) Carbazole	8.66	167	469220	929.62	ng/mL	97
17) Di-n-butylphthalate	9.01	149	908278	1049.27	ng/mL	98
18) Fluoranthene	9.61	202	559501	1052.11	ng/ml	100
19) Pyrene	9.84	202	564608	1049.86	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	352039	1098.94	ng/mL	97
23) Benz(a)Anthracene	11.07	228	459018	1023.74	ng/ml	100
24) Chrysene	11.11	228	430637	1027.66	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	519931	1111.40	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	759668	1157.94	ng/mL	98
28) Benzo(b)Fluoranthene	12.63	252	430323	1079.13	ng/ml	92
29) Benzo(k)Fluoranthene	12.68	252	432682	1049.84	ng/ml	86
30) Benzo(b+k)Fluoranthene	12.68	252	865678	2121.11	ng/ml	89
31) Benzo(e)Pyrene	13.13	252	412565	1033.31	ng/mL	90
32) Benzo(a)Pyrene	13.22	252	392748	1112.10	ng/ml	89
33) Perylene	13.38	252	416140	1068.43	ng/mL	90
35) Indeno(1,2,3-cd)Pyrene	15.50	276	359022	1022.68	ng/ml	82
36) Dibenz(a,h)Anthracene	15.56	278	327706	1035.24	ng/ml	85
37) Benzo(g,h,i)Perylene	16.08	276	372628	1032.96	ng/ml	84

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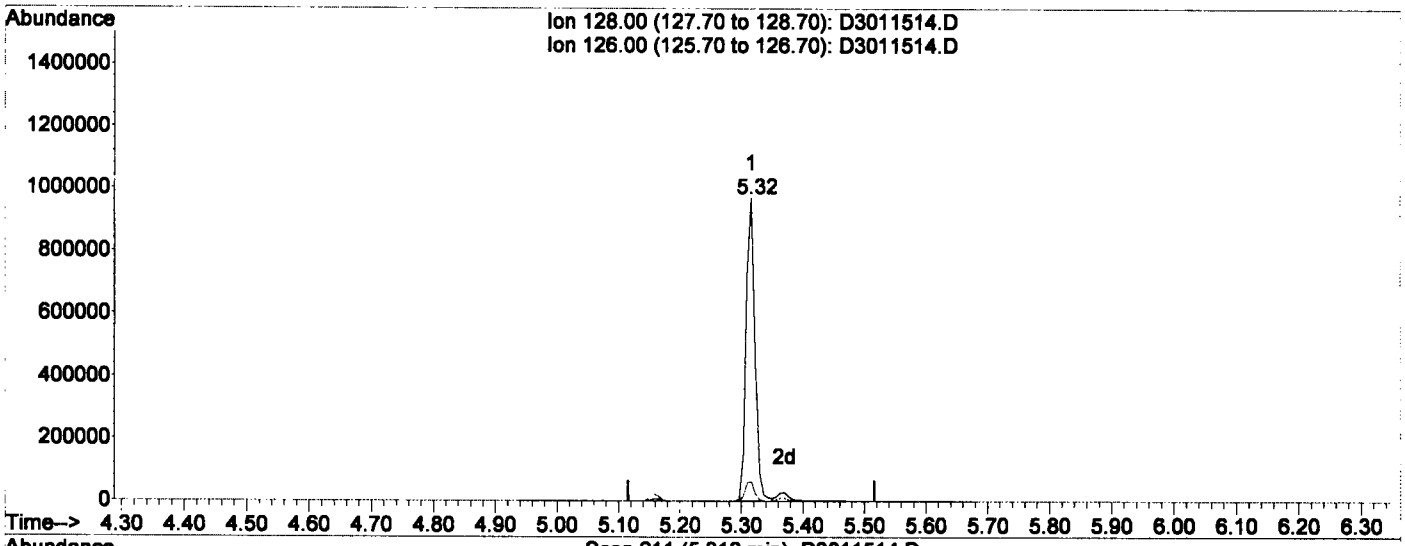
BSD

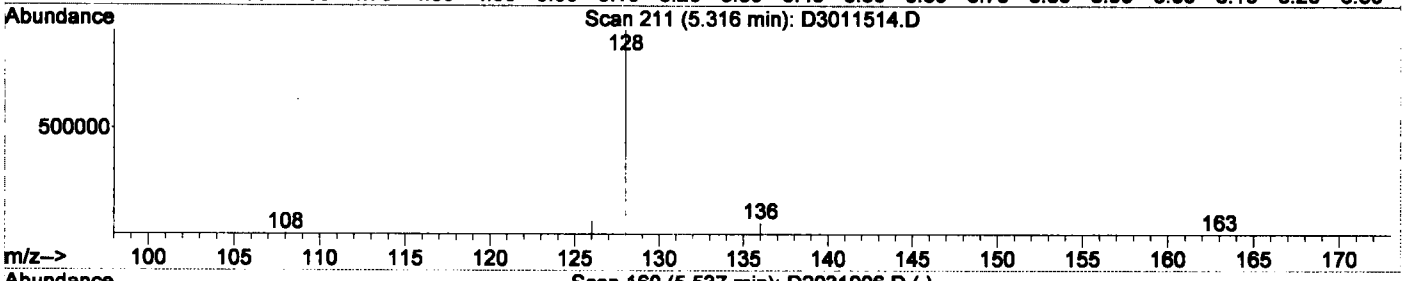
(#) = qualifier out of range (m) = manual integration
D3011514.D D30116.M Wed Jan 16 14:06:00 2013 Page 1

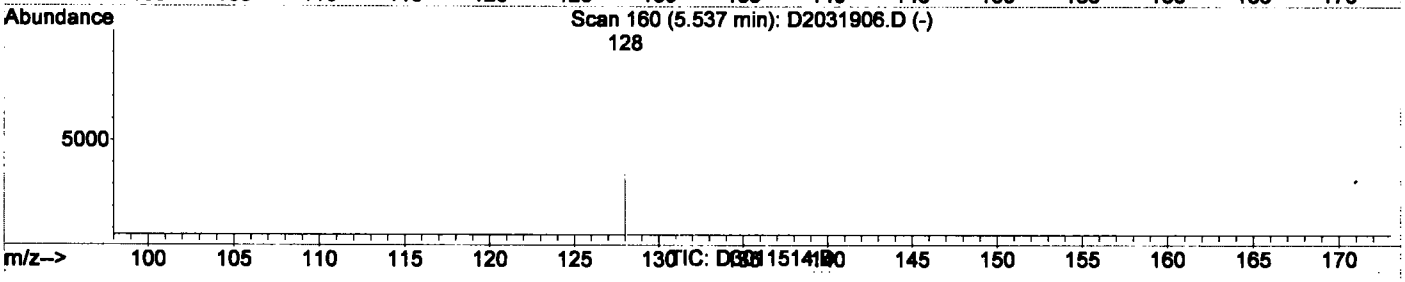
Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011514.D Vial: 13
Acq On : 15 Jan 2013 20:50 Operator: bsj
Sample : 3A15024-ICV1 Inst : SV-GCMS4
Misc : 1x A12K140@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 14:05 2013 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Multiple Level Calibration







(2) Naphthlene (T)

5.32min 1001.64ng/ml

response 962303

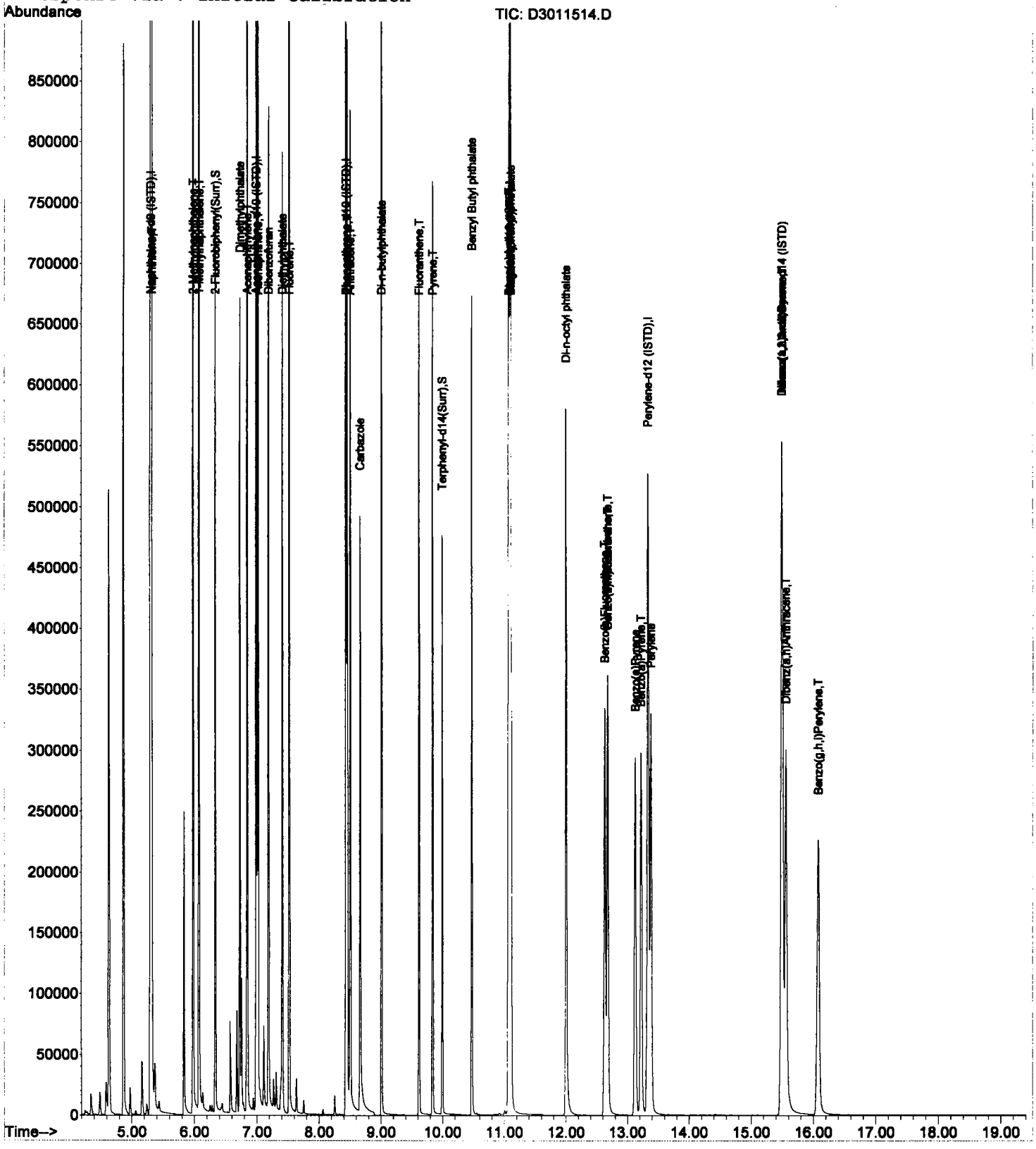
Ion	Exp%	Act%
128.00	100	100
126.00	7.10	6.90
0.00	0.00	0.00
0.00	0.00	0.00

D3011514.D D30116.M Wed Jan 16 14:06:12 2013

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011514.D Vial: 13
Acq On : 15 Jan 2013 20:50 Operator: bsj
Sample : 3A15024-ICV1 Inst : SV-GCMS4
Misc : 1x A12K140@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 14:05 2013 Quant Results File: D30116.RES

Method : C:\HPCHEM\1\METHODS\D30116.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Wed Jan 16 14:03:51 2013
Response via : Initial Calibration



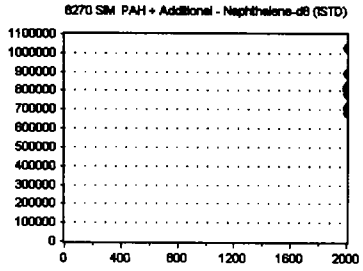
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM PAH + Additional** Instrument Cal ID: **DAQ21227/D30116**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**

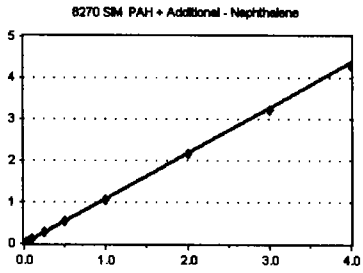


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	889262	444.631	5.30
3A15024-CAL2	2000	825549	412.775	5.30
3A15024-CAL3	2000	682857	341.429	5.30
3A15024-CAL4	2000	801623	400.812	5.30
3A15024-CAL5	2000	716217	358.109	5.30
3A15024-CAL6	2000	1025784	512.892	5.30
3A15024-CAL7	2000	704363	352.182	5.30
3A15024-CAL8	2000	802846	401.423	5.30
3A15024-CAL9	2000	786327	393.164	5.30
3A15024-CALA	2000	812086	406.043	5.30

AVE RF **402.346** RF RSD **12.40** AVE RT **5.30**

Naphthalene

Curve Fit: **AVERAGE RF**

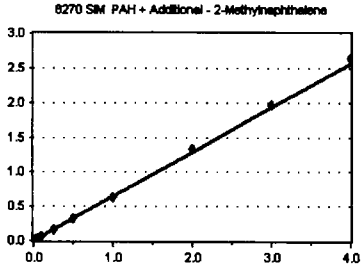


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	9767	1.098	5.32
3A15024-CAL2	50	23116	1.120	5.32
3A15024-CAL3	100	38094	1.116	5.32
3A15024-CAL4	200	87686	1.094	5.32
3A15024-CAL5	500	202401	1.130	5.32
3A15024-CAL6	1000	560941	1.094	5.32
3A15024-CAL7	2000	745905	1.059	5.32
3A15024-CAL8	4000	1738244	1.083	5.32
3A15024-CAL9	6000	2520892	1.069	5.32
3A15024-CALA	8000	3490473	1.075	5.32

AVE RF **1.094** RF RSD **2.13** AVE RT **5.32**

2-Methylnaphthalene

Curve Fit: **AVERAGE RF**

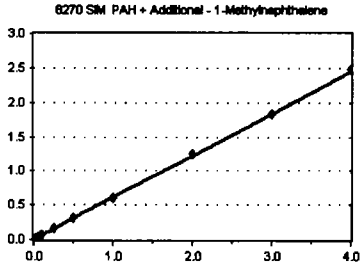


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	5385	0.606	5.98
3A15024-CAL2	50	13071	0.633	5.97
3A15024-CAL3	100	21553	0.631	5.98
3A15024-CAL4	200	49750	0.621	5.98
3A15024-CAL5	500	116711	0.652	5.98
3A15024-CAL6	1000	334024	0.651	5.97
3A15024-CAL7	2000	448011	0.636	5.97
3A15024-CAL8	4000	1068230	0.665	5.98
3A15024-CAL9	6000	1541532	0.653	5.98
3A15024-CALA	8000	2140890	0.659	5.98

AVE RF **0.641** RF RSD **2.92** AVE RT **5.98**

1-Methylnaphthalene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	5157	0.580	6.07
3A15024-CAL2	50	12465	0.604	6.07
3A15024-CAL3	100	20782	0.609	6.07
3A15024-CAL4	200	48163	0.601	6.07
3A15024-CAL5	500	112095	0.626	6.07
3A15024-CAL6	1000	319703	0.623	6.07
3A15024-CAL7	2000	427422	0.607	6.07
3A15024-CAL8	4000	1001465	0.624	6.07
3A15024-CAL9	6000	1439599	0.610	6.07
3A15024-CALA	8000	2013893	0.620	6.07

AVE RF **0.610** RF RSD **2.29** AVE RT **6.07**

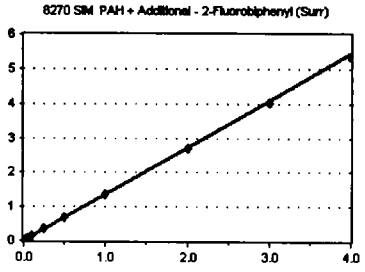
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM PAH + Additional** Instrument Cal ID: **DAQ21227/D30116**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

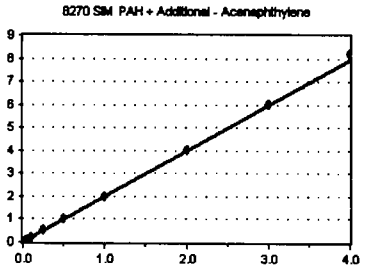


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	4948	1.315	6.33
3A15024-CAL2	50	12263	1.375	6.33
3A15024-CAL3	100	20193	1.372	6.33
3A15024-CAL4	200	46820	1.386	6.33
3A15024-CAL5	500	109324	1.411	6.33
3A15024-CAL6	1000	308446	1.389	6.33
3A15024-CAL7	2000	411419	1.349	6.33
3A15024-CAL8	4000	962612	1.344	6.33
3A15024-CAL9	6000	1397273	1.336	6.34
3A15024-CALA	8000	1953952	1.337	6.34

AVE RF **1.361** RF RSD **2.20** AVE RT **6.33**

Acenaphthylene

Curve Fit: **AVERAGE RF**

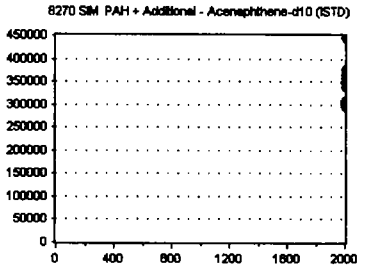


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	6976	1.853	6.84
3A15024-CAL2	50	17247	1.934	6.84
3A15024-CAL3	100	28343	1.926	6.84
3A15024-CAL4	200	66311	1.963	6.84
3A15024-CAL5	500	160722	2.075	6.84
3A15024-CAL6	1000	455826	2.052	6.84
3A15024-CAL7	2000	605983	1.986	6.84
3A15024-CAL8	4000	1441897	2.013	6.85
3A15024-CAL9	6000	2102975	2.011	6.85
3A15024-CALA	8000	2995881	2.050	6.85

AVE RF **1.987** RF RSD **3.44** AVE RT **6.84**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

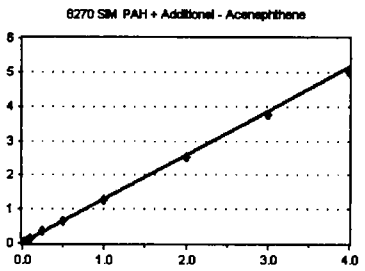


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	376374	188.187	6.98
3A15024-CAL2	2000	356647	178.324	6.98
3A15024-CAL3	2000	294266	147.133	6.98
3A15024-CAL4	2000	337818	168.909	6.98
3A15024-CAL5	2000	309837	154.919	6.98
3A15024-CAL6	2000	444197	222.099	6.98
3A15024-CAL7	2000	305059	152.530	6.98
3A15024-CAL8	2000	358087	179.044	6.99
3A15024-CAL9	2000	348644	174.322	6.99
3A15024-CALA	2000	365311	182.656	6.99

AVE RF **174.812** RF RSD **12.36** AVE RT **6.98**

Acenaphthene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	4730	1.257	7.01
3A15024-CAL2	50	11728	1.315	7.02
3A15024-CAL3	100	19422	1.320	7.01
3A15024-CAL4	200	44282	1.311	7.01
3A15024-CAL5	500	105789	1.366	7.01
3A15024-CAL6	1000	289382	1.303	7.01
3A15024-CAL7	2000	384539	1.261	7.01
3A15024-CAL8	4000	908252	1.268	7.01
3A15024-CAL9	6000	1310959	1.253	7.02
3A15024-CALA	8000	1823661	1.248	7.02

AVE RF **1.290** RF RSD **2.99** AVE RT **7.01**

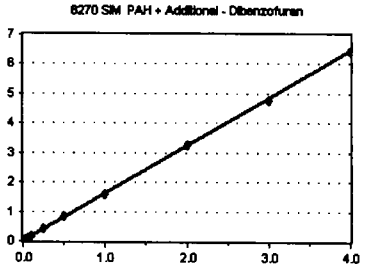
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM PAH + Additional** Instrument Cal ID: **DAQ21227/D30116**

Dibenzofuran

Curve Fit: **AVERAGE RF**

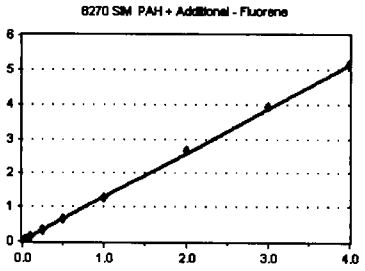


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	5920	1.573	7.19
3A15024-CAL2	50	14544	1.631	7.19
3A15024-CAL3	100	23714	1.612	7.19
3A15024-CAL4	200	54538	1.614	7.19
3A15024-CAL5	500	129980	1.678	7.19
3A15024-CAL6	1000	367454	1.654	7.19
3A15024-CAL7	2000	488702	1.602	7.19
3A15024-CAL8	4000	1162615	1.623	7.19
3A15024-CAL9	6000	1657854	1.585	7.19
3A15024-CALA	8000	2350632	1.609	7.19

AVE RF **1.618** RF RSD **1.92** AVE RT **7.19**

Fluorene

Curve Fit: **AVERAGE RF**

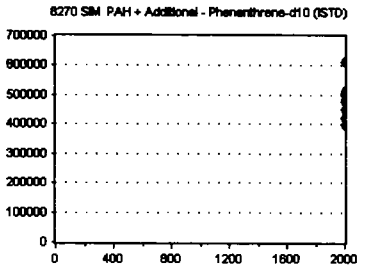


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	4569	1.214	7.52
3A15024-CAL2	50	11210	1.257	7.52
3A15024-CAL3	100	18348	1.247	7.52
3A15024-CAL4	200	42050	1.245	7.52
3A15024-CAL5	500	102523	1.324	7.52
3A15024-CAL6	1000	292659	1.318	7.52
3A15024-CAL7	2000	390525	1.280	7.52
3A15024-CAL8	4000	949290	1.326	7.52
3A15024-CAL9	6000	1372748	1.312	7.52
3A15024-CALA	8000	1884110	1.289	7.53

AVE RF **1.281** RF RSD **3.05** AVE RT **7.52**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

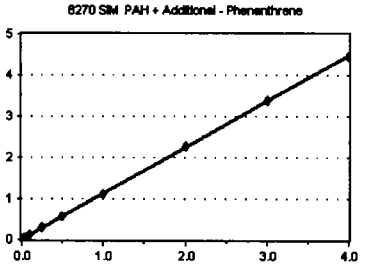


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	506735	253.368	8.43
3A15024-CAL2	2000	478436	239.218	8.43
3A15024-CAL3	2000	397072	198.536	8.43
3A15024-CAL4	2000	450117	225.059	8.43
3A15024-CAL5	2000	421034	210.517	8.43
3A15024-CAL6	2000	613830	306.915	8.43
3A15024-CAL7	2000	423770	211.885	8.43
3A15024-CAL8	2000	502192	251.096	8.43
3A15024-CAL9	2000	484154	242.077	8.43
3A15024-CALA	2000	514523	257.262	8.43

AVE RF **239.593** RF RSD **12.96** AVE RT **8.43**

Phenanthrene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	5505	1.086	8.45
3A15024-CAL2	50	13386	1.119	8.46
3A15024-CAL3	100	22283	1.122	8.45
3A15024-CAL4	200	50102	1.113	8.45
3A15024-CAL5	500	122876	1.167	8.45
3A15024-CAL6	1000	346921	1.130	8.45
3A15024-CAL7	2000	470371	1.110	8.45
3A15024-CAL8	4000	1143361	1.138	8.46
3A15024-CAL9	6000	1630691	1.123	8.45
3A15024-CALA	8000	2293338	1.114	8.46

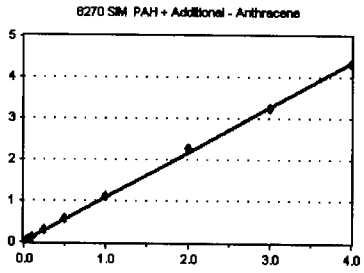
AVE RF **1.122** RF RSD **1.87** AVE RT **8.45**

Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM PAH + Additional** Instrument Cal ID: **DAQ21227/D30116**

Anthracene

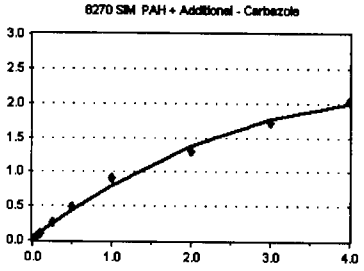


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	5197	1.026	8.50
3A15024-CAL2	50	12784	1.069	8.50
3A15024-CAL3	100	21039	1.060	8.50
3A15024-CAL4	200	47870	1.064	8.50
3A15024-CAL5	500	120067	1.141	8.50
3A15024-CAL6	1000	341549	1.113	8.50
3A15024-CAL7	2000	464535	1.096	8.50
3A15024-CAL8	4000	1145631	1.141	8.50
3A15024-CAL9	6000	1567173	1.079	8.51
3A15024-CALA	8000	2224340	1.081	8.51

AVE RF **1.087** RF RSD **3.36** AVE RT **8.50**

Carbazole

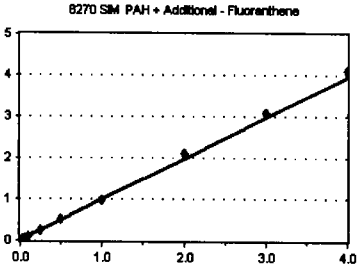


Curve Fit: **QUADRATIC: Weighting: None___ 1/a___ 1/a^2 ✓**

Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	4332	0.855	8.66
3A15024-CAL2	50	11185	0.935	8.66
3A15024-CAL3	100	18529	0.933	8.66
3A15024-CAL4	200	41633	0.925	8.66
3A15024-CAL5	500	108029	1.026	8.66
3A15024-CAL6	1000	297967	0.971	8.66
3A15024-CAL7	2000	387077	0.913	8.66
3A15024-CAL8	4000	652015	0.649	8.67
3A15024-CAL9	6000	830484	0.572	8.67
3A15024-CALA	8000	1043036	0.507	8.67

AVE RF **0.829** RF RSD **22.05** AVE RT **8.66**

Fluoranthene

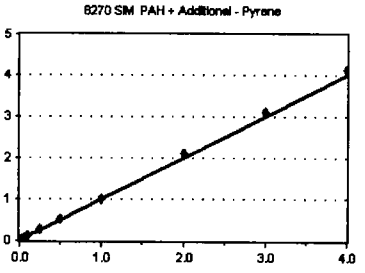


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	4682	0.924	9.62
3A15024-CAL2	50	11392	0.952	9.61
3A15024-CAL3	100	18884	0.951	9.61
3A15024-CAL4	200	42391	0.942	9.62
3A15024-CAL5	500	107248	1.019	9.61
3A15024-CAL6	1000	311775	1.016	9.61
3A15024-CAL7	2000	413633	0.976	9.62
3A15024-CAL8	4000	1054304	1.050	9.62
3A15024-CAL9	6000	1497925	1.031	9.62
3A15024-CALA	8000	2113973	1.027	9.62

AVE RF **0.989** RF RSD **4.52** AVE RT **9.62**

Pyrene



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	4839	0.955	9.84
3A15024-CAL2	50	11469	0.959	9.84
3A15024-CAL3	100	18917	0.953	9.84
3A15024-CAL4	200	42799	0.951	9.84
3A15024-CAL5	500	108301	1.029	9.84
3A15024-CAL6	1000	315114	1.027	9.84
3A15024-CAL7	2000	425531	1.004	9.84
3A15024-CAL8	4000	1060293	1.056	9.84
3A15024-CAL9	6000	1505579	1.037	9.84
3A15024-CALA	8000	2120810	1.030	9.84

AVE RF **1.000** RF RSD **4.12** AVE RT **9.84**

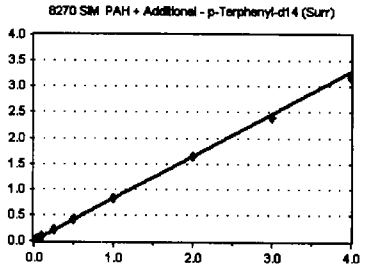
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM PAH + Additional** Instrument Cal ID: **DAQ21227/D30116**

p-Terphenyl-d14 (Surr)

Curve Fit: **AVERAGE RF**

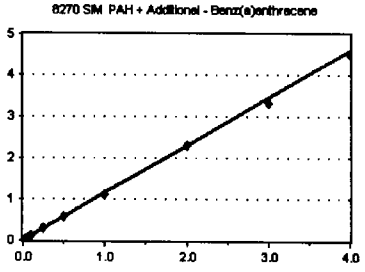


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	2822	0.807	9.99
3A15024-CAL2	50	6835	0.825	9.99
3A15024-CAL3	100	11228	0.821	9.99
3A15024-CAL4	200	25222	0.827	9.99
3A15024-CAL5	500	64343	0.860	9.99
3A15024-CAL6	1000	186206	0.833	9.99
3A15024-CAL7	2000	249938	0.820	9.99
3A15024-CAL8	4000	631915	0.819	9.99
3A15024-CAL9	6000	896483	0.802	9.99
3A15024-CALA	8000	1250206	0.794	10.00

AVE RF **0.821** RF RSD **2.23** AVE RT **9.99**

Benz(a)anthracene

Curve Fit: **AVERAGE RF**

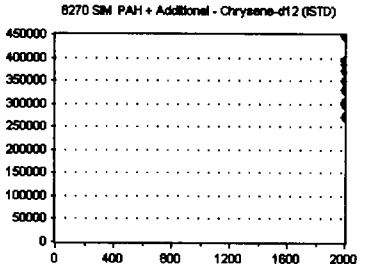


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	4473	1.279	11.07
3A15024-CAL2	50	9715	1.173	11.07
3A15024-CAL3	100	15404	1.126	11.07
3A15024-CAL4	200	33749	1.107	11.07
3A15024-CAL5	500	86972	1.163	11.07
3A15024-CAL6	1000	256696	1.149	11.07
3A15024-CAL7	2000	339902	1.115	11.07
3A15024-CAL8	4000	886711	1.150	11.07
3A15024-CAL9	6000	1240806	1.110	11.07
3A15024-CALA	8000	1776024	1.128	11.07

AVE RF **1.150** RF RSD **4.41** AVE RT **11.07**

Chrysene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

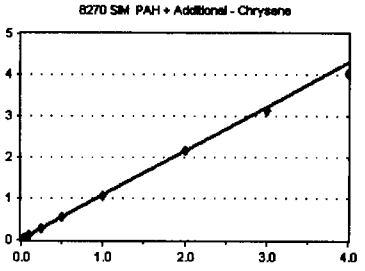


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	349606	174.803	11.08
3A15024-CAL2	2000	331338	165.669	11.08
3A15024-CAL3	2000	273530	136.765	11.08
3A15024-CAL4	2000	304906	152.453	11.08
3A15024-CAL5	2000	299123	149.562	11.08
3A15024-CAL6	2000	446946	223.473	11.08
3A15024-CAL7	2000	304980	152.490	11.08
3A15024-CAL8	2000	385691	192.846	11.08
3A15024-CAL9	2000	372576	186.288	11.08
3A15024-CALA	2000	393469	196.735	11.09

AVE RF **173.108** RF RSD **15.46** AVE RT **11.08**

Chrysene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	3766	1.077	11.11
3A15024-CAL2	50	9152	1.105	11.11
3A15024-CAL3	100	14883	1.088	11.11
3A15024-CAL4	200	33033	1.083	11.11
3A15024-CAL5	500	83571	1.118	11.11
3A15024-CAL6	1000	243284	1.089	11.11
3A15024-CAL7	2000	324042	1.063	11.11
3A15024-CAL8	4000	830471	1.077	11.11
3A15024-CAL9	6000	1167997	1.045	11.12
3A15024-CALA	8000	1579365	1.003	11.12

AVE RF **1.075** RF RSD **2.99** AVE RT **11.11**

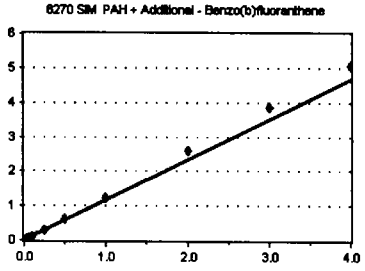
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM PAH + Additional** Instrument Cal ID: **DAQ21227/D30116**

Benzo(b)fluoranthene

Curve Fit: **AVERAGE RF**

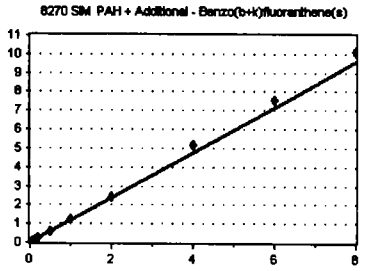


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	3168	1.030	12.63
3A15024-CAL2	50	7646	1.069	12.63
3A15024-CAL3	100	12172	1.030	12.63
3A15024-CAL4	200	28367	1.075	12.63
3A15024-CAL5	500	75775	1.159	12.63
3A15024-CAL6	1000	235924	1.214	12.63
3A15024-CAL7	2000	317497	1.225	12.63
3A15024-CAL8	4000	845347	1.301	12.64
3A15024-CAL9	6000	1214650	1.289	12.64
3A15024-CALA	8000	1671861	1.266	12.64

AVE RF **1.166** RF RSD **9.22** AVE RT **12.63**

Benzo(b+k)fluoranthene(s)

Curve Fit: **AVERAGE RF**

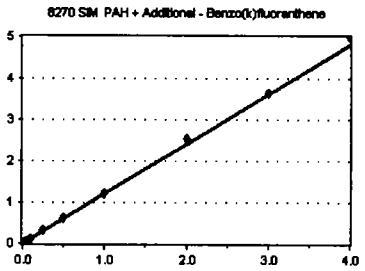


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	40	6701	1.089	12.63
3A15024-CAL2	100	15840	1.108	12.68
3A15024-CAL3	200	26300	1.112	12.63
3A15024-CAL4	400	59899	1.135	12.63
3A15024-CAL5	1000	159845	1.223	12.67
3A15024-CAL6	2000	478356	1.231	12.68
3A15024-CAL7	4000	637424	1.229	12.68
3A15024-CAL8	8000	1673808	1.288	12.68
3A15024-CAL9	12000	2367719	1.257	12.69
3A15024-CALA	16000	3327938	1.260	12.69

AVE RF **1.193** RF RSD **6.19** AVE RT **12.67**

Benzo(k)fluoranthene

Curve Fit: **AVERAGE RF**

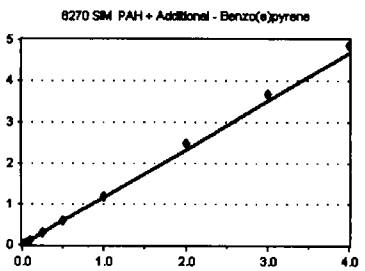


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	3421	1.112	12.68
3A15024-CAL2	50	8010	1.120	12.68
3A15024-CAL3	100	13823	1.169	12.67
3A15024-CAL4	200	31049	1.177	12.67
3A15024-CAL5	500	83140	1.272	12.67
3A15024-CAL6	1000	240576	1.238	12.68
3A15024-CAL7	2000	317679	1.225	12.68
3A15024-CAL8	4000	824370	1.269	12.68
3A15024-CAL9	6000	1147814	1.218	12.69
3A15024-CALA	8000	1648662	1.249	12.69

AVE RF **1.205** RF RSD **4.79** AVE RT **12.68**

Benzo(e)pyrene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	3333	1.084	13.12
3A15024-CAL2	50	7843	1.097	13.12
3A15024-CAL3	100	13057	1.104	13.12
3A15024-CAL4	200	29683	1.125	13.12
3A15024-CAL5	500	77620	1.187	13.12
3A15024-CAL6	1000	233029	1.199	13.13
3A15024-CAL7	2000	308786	1.191	13.12
3A15024-CAL8	4000	809347	1.246	13.13
3A15024-CAL9	6000	1150235	1.221	13.14
3A15024-CALA	8000	1609346	1.219	13.14

AVE RF **1.167** RF RSD **5.06** AVE RT **13.13**

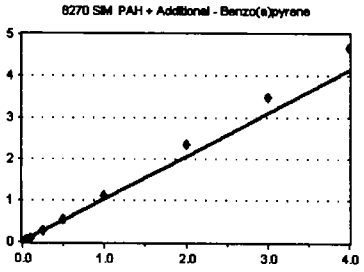
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM PAH + Additional** Instrument Cal ID: **DAQ21227/D30116**

Benzo(a)pyrene

Curve Fit: **AVERAGE RF**

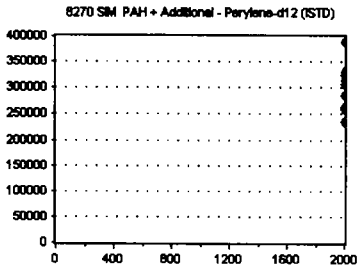


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	2557	0.831	13.22
3A15024-CAL2	50	6250	0.874	13.22
3A15024-CAL3	100	10510	0.889	13.21
3A15024-CAL4	200	24869	0.943	13.21
3A15024-CAL5	500	69281	1.060	13.21
3A15024-CAL6	1000	214969	1.106	13.22
3A15024-CAL7	2000	286952	1.107	13.22
3A15024-CAL8	4000	766259	1.179	13.23
3A15024-CAL9	6000	1097491	1.165	13.23
3A15024-CALA	8000	1545999	1.171	13.24

AVE RF **1.032** RF RSD **13.08** AVE RT **13.22**

Perylene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

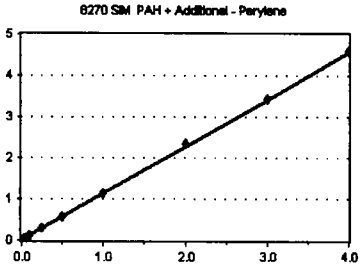


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	307567	153.784	13.33
3A15024-CAL2	2000	286038	143.019	13.33
3A15024-CAL3	2000	236452	118.226	13.33
3A15024-CAL4	2000	263813	131.907	13.33
3A15024-CAL5	2000	261460	130.730	13.33
3A15024-CAL6	2000	388702	194.351	13.33
3A15024-CAL7	2000	259281	129.641	13.33
3A15024-CAL8	2000	324879	162.440	13.33
3A15024-CAL9	2000	314026	157.013	13.34
3A15024-CALA	2000	330106	165.053	13.34

AVE RF **148.616** RF RSD **15.15** AVE RT **13.33**

Perylene

Curve Fit: **AVERAGE RF**

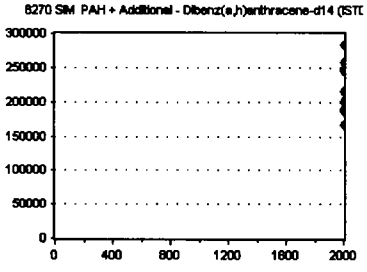


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	3383	1.100	13.37
3A15024-CAL2	50	7964	1.114	13.37
3A15024-CAL3	100	13127	1.110	13.37
3A15024-CAL4	200	29641	1.124	13.37
3A15024-CAL5	500	76616	1.172	13.37
3A15024-CAL6	1000	225070	1.158	13.38
3A15024-CAL7	2000	296078	1.142	13.37
3A15024-CAL8	4000	759600	1.169	13.38
3A15024-CAL9	6000	1079983	1.146	13.39
3A15024-CALA	8000	1520967	1.152	13.40

AVE RF **1.139** RF RSD **2.23** AVE RT **13.38**

Dibenz(a,h)anthracene-d14 (ISTD

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	215919	107.960	15.49
3A15024-CAL2	2000	200839	100.420	15.49
3A15024-CAL3	2000	166328	83.164	15.49
3A15024-CAL4	2000	187174	93.587	15.48
3A15024-CAL5	2000	185795	92.898	15.49
3A15024-CAL6	2000	283222	141.611	15.49
3A15024-CAL7	2000	189915	94.958	15.49
3A15024-CAL8	2000	246571	123.286	15.50
3A15024-CAL9	2000	244775	122.388	15.50
3A15024-CALA	2000	258147	129.074	15.51

AVE RF **108.934** RF RSD **17.54** AVE RT **15.49**

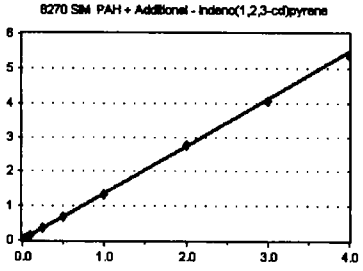
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM PAH + Additional** Instrument Cal ID: **DAQ21227/D30116**

Indeno(1,2,3-cd)pyrene

Curve Fit: **AVERAGE RF**

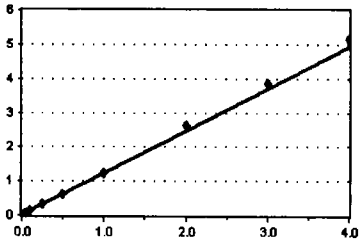


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	2981	1.381	15.49
3A15024-CAL2	50	6994	1.393	15.49
3A15024-CAL3	100	11416	1.373	15.49
3A15024-CAL4	200	25608	1.368	15.49
3A15024-CAL5	500	64463	1.388	15.49
3A15024-CAL6	1000	193634	1.367	15.50
3A15024-CAL7	2000	254415	1.340	15.50
3A15024-CAL8	4000	682126	1.383	15.51
3A15024-CAL9	6000	991588	1.350	15.52
3A15024-CALA	8000	1389274	1.345	15.53

AVE RF **1.369** RF RSD **1.34** AVE RT **15.50**

Dibenz(a,h)anthracene

Curve Fit: **AVERAGE RF**

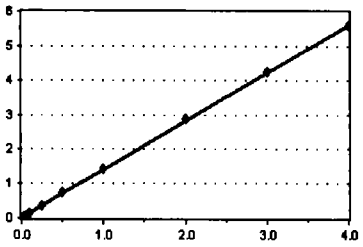


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	2463	1.141	15.55
3A15024-CAL2	50	5984	1.192	15.55
3A15024-CAL3	100	9821	1.181	15.55
3A15024-CAL4	200	22178	1.185	15.55
3A15024-CAL5	500	58461	1.259	15.55
3A15024-CAL6	1000	177878	1.256	15.56
3A15024-CAL7	2000	235383	1.239	15.56
3A15024-CAL8	4000	649189	1.316	15.57
3A15024-CAL9	6000	944404	1.286	15.58
3A15024-CALA	8000	1329681	1.288	15.58

AVE RF **1.234** RF RSD **4.62** AVE RT **15.56**

Benzo(g,h,i)perylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	2919	1.352	16.07
3A15024-CAL2	50	6780	1.350	16.07
3A15024-CAL3	100	11209	1.348	16.07
3A15024-CAL4	200	25954	1.387	16.07
3A15024-CAL5	500	68111	1.466	16.07
3A15024-CAL6	1000	206902	1.461	16.08
3A15024-CAL7	2000	274014	1.443	16.08
3A15024-CAL8	4000	711809	1.443	16.09
3A15024-CAL9	6000	1037797	1.413	16.10
3A15024-CALA	8000	1447643	1.402	16.11

AVE RF **1.407** RF RSD **3.29** AVE RT **16.08**

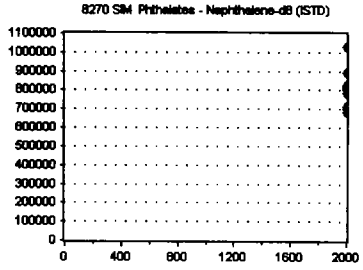
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM Phthalates** Instrument Cal ID: **DAQ21227/D30116**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**

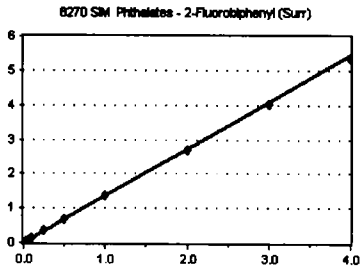


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	889262	444.631	5.30
3A15024-CAL2	2000	825549	412.775	5.30
3A15024-CAL3	2000	682857	341.429	5.30
3A15024-CAL4	2000	801623	400.812	5.30
3A15024-CAL5	2000	716217	358.109	5.30
3A15024-CAL6	2000	1025784	512.892	5.30
3A15024-CAL7	2000	704363	352.182	5.30
3A15024-CAL8	2000	802846	401.423	5.30
3A15024-CAL9	2000	786327	393.164	5.30
3A15024-CALA	2000	812086	406.043	5.30

AVE RF **402.346** RF RSD **12.40** AVE RT **5.30**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

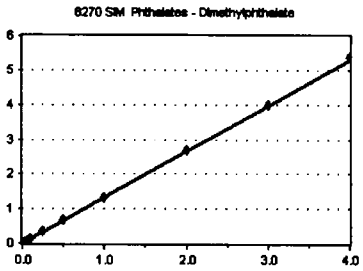


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	4948	1.315	6.33
3A15024-CAL2	50	12263	1.375	6.33
3A15024-CAL3	100	20193	1.372	6.33
3A15024-CAL4	200	46820	1.386	6.33
3A15024-CAL5	500	109324	1.411	6.33
3A15024-CAL6	1000	308446	1.389	6.33
3A15024-CAL7	2000	411419	1.349	6.33
3A15024-CAL8	4000	962612	1.344	6.33
3A15024-CAL9	6000	1397273	1.336	6.34
3A15024-CALA	8000	1953952	1.337	6.34

AVE RF **1.361** RF RSD **2.20** AVE RT **6.33**

Dimethylphthalate

Curve Fit: **AVERAGE RF**

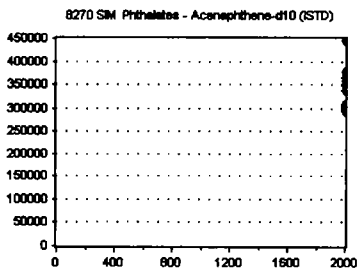


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	4593	1.220	6.72
3A15024-CAL2	50	11676	1.310	6.72
3A15024-CAL3	100	19036	1.294	6.72
3A15024-CAL4	200	44021	1.303	6.72
3A15024-CAL5	500	106104	1.370	6.72
3A15024-CAL6	1000	304368	1.370	6.73
3A15024-CAL7	2000	407183	1.335	6.73
3A15024-CAL8	4000	966960	1.350	6.73
3A15024-CAL9	6000	1394859	1.334	6.73
3A15024-CALA	8000	1971338	1.349	6.73

AVE RF **1.323** RF RSD **3.39** AVE RT **6.73**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	376374	188.187	6.98
3A15024-CAL2	2000	356647	178.324	6.98
3A15024-CAL3	2000	294266	147.133	6.98
3A15024-CAL4	2000	337818	168.909	6.98
3A15024-CAL5	2000	309837	154.919	6.98
3A15024-CAL6	2000	444197	222.099	6.98
3A15024-CAL7	2000	305059	152.530	6.98
3A15024-CAL8	2000	358087	179.044	6.99
3A15024-CAL9	2000	348644	174.322	6.99
3A15024-CALA	2000	365311	182.656	6.99

AVE RF **174.812** RF RSD **12.36** AVE RT **6.98**

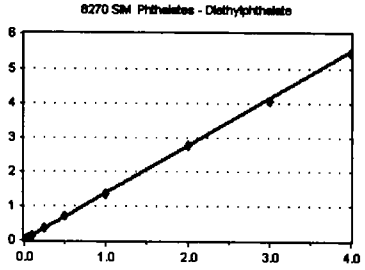
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM Phthalates** Instrument Cal ID: **DAQ21227/D30116**

Diethylphthalate

Curve Fit: **AVERAGE RF**

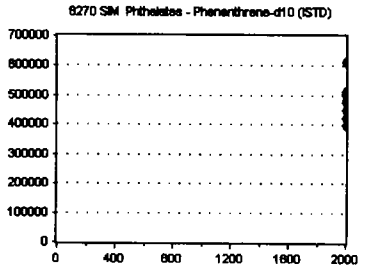


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	5991	1.592	7.41
3A15024-CAL2	50	11693	1.311	7.41
3A15024-CAL3	100	19189	1.304	7.41
3A15024-CAL4	200	44807	1.326	7.41
3A15024-CAL5	500	108360	1.399	7.41
3A15024-CAL6	1000	314854	1.418	7.41
3A15024-CAL7	2000	418688	1.372	7.41
3A15024-CAL8	4000	986564	1.378	7.41
3A15024-CAL9	6000	1413232	1.351	7.41
3A15024-CALA	8000	1994732	1.365	7.41

AVE RF **1.382** RF RSD **5.96** AVE RT **7.41**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

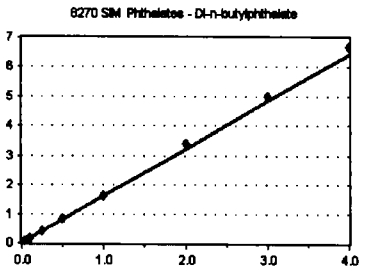


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	506735	253.368	8.43
3A15024-CAL2	2000	478436	239.218	8.43
3A15024-CAL3	2000	397072	198.536	8.43
3A15024-CAL4	2000	450117	225.059	8.43
3A15024-CAL5	2000	421034	210.517	8.43
3A15024-CAL6	2000	613830	306.915	8.43
3A15024-CAL7	2000	423770	211.885	8.43
3A15024-CAL8	2000	502192	251.096	8.43
3A15024-CAL9	2000	484154	242.077	8.43
3A15024-CALA	2000	514523	257.262	8.43

AVE RF **239.593** RF RSD **12.96** AVE RT **8.43**

Di-n-butylphthalate

Curve Fit: **AVERAGE RF**

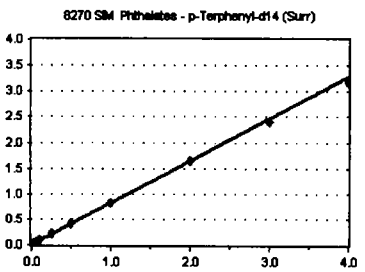


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	8301	1.638	9.01
3A15024-CAL2	50	17996	1.505	9.01
3A15024-CAL3	100	29064	1.464	9.01
3A15024-CAL4	200	67798	1.506	9.01
3A15024-CAL5	500	170652	1.621	9.01
3A15024-CAL6	1000	516529	1.683	9.01
3A15024-CAL7	2000	697348	1.646	9.01
3A15024-CAL8	4000	1700956	1.694	9.01
3A15024-CAL9	6000	2424531	1.669	9.01
3A15024-CALA	8000	3437862	1.670	9.01

AVE RF **1.610** RF RSD **5.27** AVE RT **9.01**

p-Terphenyl-d14 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	2822	0.807	9.99
3A15024-CAL2	50	6835	0.825	9.99
3A15024-CAL3	100	11228	0.821	9.99
3A15024-CAL4	200	25222	0.827	9.99
3A15024-CAL5	500	64343	0.860	9.99
3A15024-CAL6	1000	186206	0.833	9.99
3A15024-CAL7	2000	249938	0.820	9.99
3A15024-CAL8	4000	631915	0.819	9.99
3A15024-CAL9	6000	896483	0.802	9.99
3A15024-CALA	8000	1250206	0.794	10.00

AVE RF **0.821** RF RSD **2.23** AVE RT **9.99**

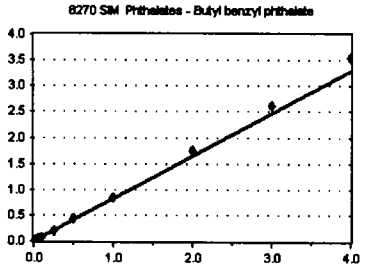
Element Calibration Review Sheet

Calibration ID: **A3A1601** Instrument: **SV-GCMS4** Calibration Date: **01/16/2013**

Analysis: **8270 SIM Phthalates** Instrument Cal ID: **DAQ21227/D30116**

Butyl benzyl phthalate

Curve Fit: **AVERAGE RF**

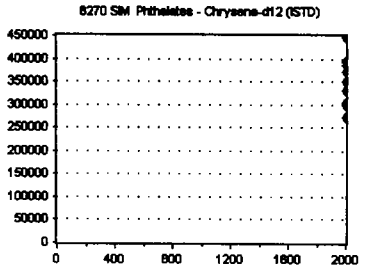


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	20	3490	0.998	10.47
3A15024-CAL2	50	5606	0.677	10.47
3A15024-CAL3	100	9237	0.675	10.47
3A15024-CAL4	200	22227	0.729	10.47
3A15024-CAL5	500	59830	0.800	10.47
3A15024-CAL6	1000	189890	0.850	10.47
3A15024-CAL7	2000	257430	0.844	10.47
3A15024-CAL8	4000	679367	0.881	10.47
3A15024-CAL9	6000	975895	0.873	10.47
3A15024-CALA	8000	1399021	0.889	10.47

AVE RF **0.822** RF RSD **12.48** AVE RT **10.47**

Chrysene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

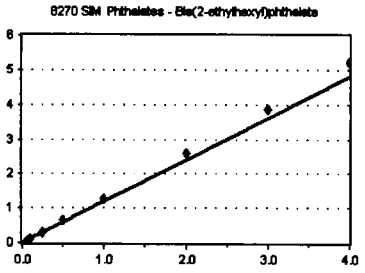


Standard	Concentration	Response	Response Factor	RT
3A15024-CAL1	2000	349606	174.803	11.08
3A15024-CAL2	2000	331338	165.669	11.08
3A15024-CAL3	2000	273530	136.765	11.08
3A15024-CAL4	2000	304906	152.453	11.08
3A15024-CAL5	2000	299123	149.562	11.08
3A15024-CAL6	2000	446946	223.473	11.08
3A15024-CAL7	2000	304980	152.490	11.08
3A15024-CAL8	2000	385691	192.846	11.08
3A15024-CAL9	2000	372576	186.288	11.08
3A15024-CALA	2000	393469	196.735	11.09

AVE RF **173.108** RF RSD **15.46** AVE RT **11.08**

Bis(2-ethylhexyl)phthalate

Curve Fit: **AVERAGE RF**

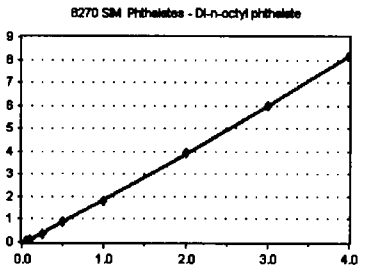


Standard	Concentration	Response	Response Factor	RT
~~3A15024-CAL1~~	~~20~~	~~3294~~	~~0.942~~	~~11.10~~
~~3A15024-CAL2~~	~~50~~	~~7363~~	~~0.889~~	~~11.10~~
3A15024-CAL3	100	12622	0.923	11.10
3A15024-CAL4	200	31934	1.047	11.10
3A15024-CAL5	500	87894	1.175	11.10
3A15024-CAL6	1000	286069	1.280	11.10
3A15024-CAL7	2000	388405	1.274	11.10
3A15024-CAL8	4000	1005408	1.303	11.10
3A15024-CAL9	6000	1442643	1.291	11.10
3A15024-CALA	8000	2054397	1.305	11.10

AVE RF **1.200** RF RSD **11.89** AVE RT **11.10**

Di-n-octyl phthalate

Curve Fit: **QUADRATIC: Weighting: None___ 1/a___ 1/a^2**



Standard	Concentration	Response	Response Factor	RT
~~3A15024-CAL1~~	~~20~~	~~2993~~	~~0.856~~	~~12.00~~
~~3A15024-CAL2~~	~~50~~	~~7928~~	~~0.957~~	~~12.00~~
3A15024-CAL3	100	13386	0.979	12.00
3A15024-CAL4	200	35568	1.167	12.00
3A15024-CAL5	500	108859	1.456	12.00
3A15024-CAL6	1000	393396	1.760	12.00
3A15024-CAL7	2000	545007	1.787	12.00
3A15024-CAL8	4000	1519248	1.970	12.00
3A15024-CAL9	6000	2231561	1.997	12.01
3A15024-CALA	8000	3208062	2.038	12.01

AVE RF **1.644** RF RSD **24.39** AVE RT **12.00**

Sequence Name: C:\HPCHEM\1\SEQUENCE\3A15024.S
Comment: EPA 8270 SIM PAH
Operator: bsj
Data Path: C:\HPCHEM\1\DATA\2013-01\3A15024\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	1	D3011501	DFTP8270	3A15024-TUN1
2	Sample	2	D3011502	DAQ21227	3A15024-CCB1
3	Sample	3	D3011503	DAQ21227	3A15024-CAL1
4	Sample	4	D3011504	DAQ21227	3A15024-CAL2
5	Sample	5	D3011505	DAQ21227	3A15024-CAL3
6	Sample	6	D3011506	DAQ21227	3A15024-CAL4
7	Sample	7	D3011507	DAQ21227	3A15024-CAL5
8	Sample	8	D3011508	DAQ21227	3A15024-CAL6
9	Sample	9	D3011509	DAQ21227	3A15024-CAL7
10	Sample	10	D3011510	DAQ21227	3A15024-CAL8
11	Sample	11	D3011511	DAQ21227	3A15024-CAL9
12	Sample	12	D3011512	DAQ21227	3A15024-CALA
13	Sample	2	D3011513	DAQ21227	3A15024-IBL1
14	Sample	13	D3011514	DAQ21227	3A15024-ICV1
15	Sample	2	D3011515	DAQ21227	3A15024-IBL2

Last Modified: Wed Jan 16 09:03:42 2013 Page: 1

Injection Log

Directory: C:\HPCHEM\1\DATA\2013-01\3A15024

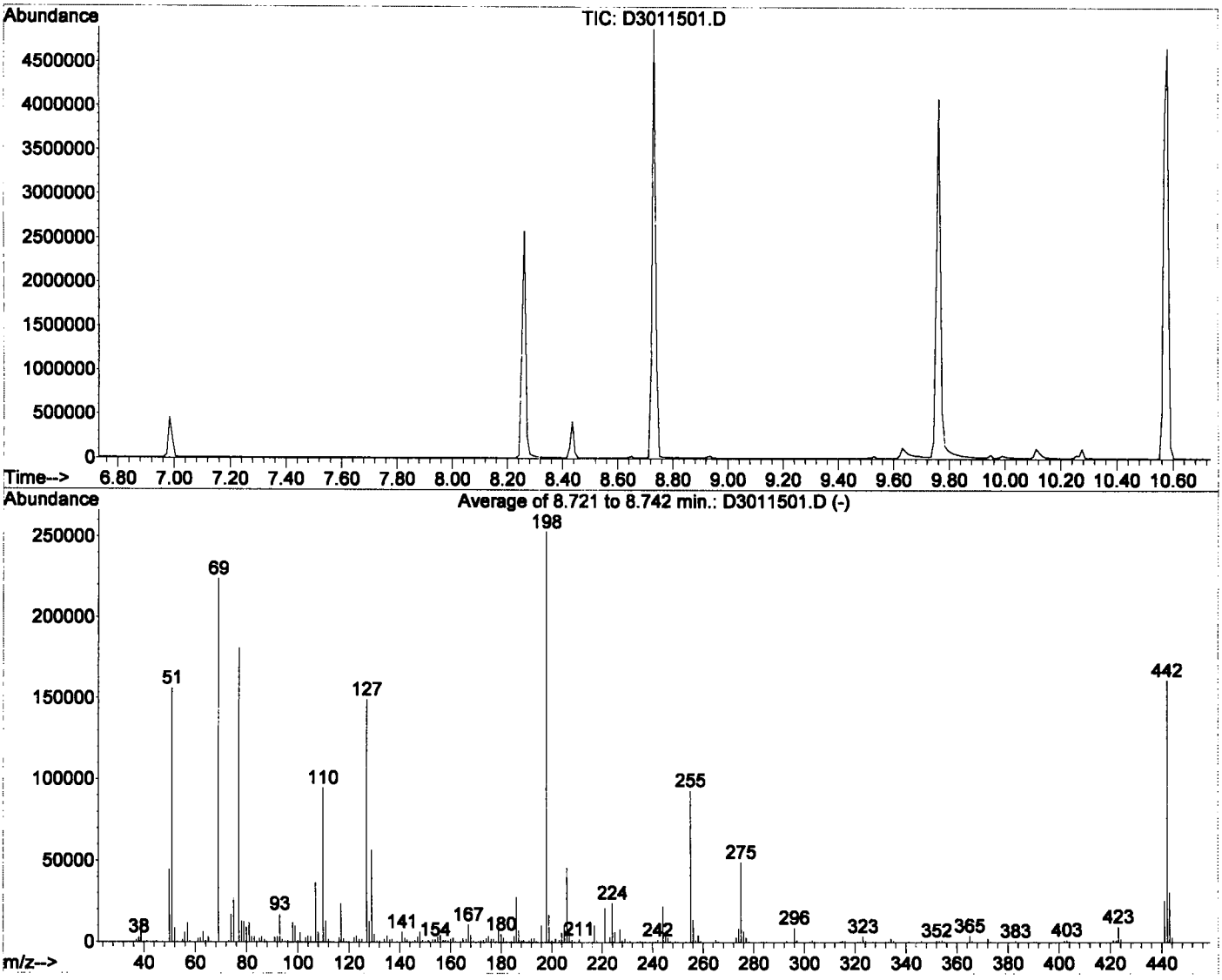
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	D3011501.d	1.	3A15024-TUN1	1x A12K086@50ng ...	15 Jan 2013 15:17
2	2	D3011502.d	1.	3A15024-CCB1	1x DCM+ISTD	15 Jan 2013 15:41
3	3	D3011503.d	1.	3A15024-CAL1	1x A12K202@20ppb...	15 Jan 2013 16:07
4	4	D3011504.d	1.	3A15024-CAL2	1x A12K203@50ppb...	15 Jan 2013 16:33
5	5	D3011505.d	1.	3A15024-CAL3	1x A12K204@100pp...	15 Jan 2013 16:59
6	6	D3011506.d	1.	3A15024-CAL4	1x A12K205@200pp...	15 Jan 2013 17:25
7	7	D3011507.d	1.	3A15024-CAL5	1x A12K206@500pp...	15 Jan 2013 17:51
8	8	D3011508.d	1.	3A15024-CAL6	1x A12K207@1000p...	15 Jan 2013 18:16
9	9	D3011509.d	1.	3A15024-CAL7	1x A12K208@2000p...	15 Jan 2013 18:42
10	10	D3011510.d	1.	3A15024-CAL8	1x A12K209@4000p...	15 Jan 2013 19:08
11	11	D3011511.d	1.	3A15024-CAL9	1x A12K210@6000p...	15 Jan 2013 19:33
12	12	D3011512.d	1.	3A15024-CALA	1x A12K211@8000p...	15 Jan 2013 19:59
13	2	D3011513.d	1.	3A15024-IBL1	1x DCM+ISTD	15 Jan 2013 20:24
14	13	D3011514.d	1.	3A15024-ICV1	1x A12K140@1000p...	15 Jan 2013 20:50
15	2	D3011515.d	1.	3A15024-IBL2	1x DCM+ISTD	15 Jan 2013 21:15

✓

1-16-13

~~BEG~~

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011501.D Vial: 1
Acq On : 15 Jan 2013 15:17 Operator: bsj
Sample : 3A15024-TUN1 Inst : SV-GCMS4
Misc : 1x A12K086@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH



AutoFind: Scans 420, 421, 422; Background Corrected with Scan 417

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	61.6	156238	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	88.4	223973	PASS
70	69	0.00	2	0.0	0	PASS
127	198	10	80	58.9	149323	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	253485	PASS
199	198	5	9	6.7	16943	PASS
275	198	10	60	19.4	49290	PASS
365	198	1	100	1.5	3821	PASS
441	442	0.01	24	15.7	25492	PASS
442	198	50	200	63.9	161922	PASS
443	442	15	24	19.0	30758	PASS

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BSJ

D3011501.D DFTP8270.M Tue Jan 15 15:29:07 2013

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011501.D Vial: 1
Acq On : 15 Jan 2013 15:17 Operator: bsj
Sample : 3A15024-TUN1 Inst : SV-GCMS4
Misc : 1x A12K086@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 15 15:36 2013 Quant Results File: DFTP8270.RES

Quant Method : C:\HPCHEM\1\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Dec 26 17:29:41 2012
Response via : Initial Calibration
DataAcq Meth : DFTP8270

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.30	136	200297	2000.00	ng/ml	-0.04
2) Acenaphthene-d10	6.98	162	85512	2000.00	ng/ml	-0.05
3) Phenanthrene-d10	8.44	188	121816	2000.00	ng/ml	-0.04
10) Chrysene-d12	11.08	240	91751	2000.00	ng/ml	-0.06
11) Perylene-d12	13.34	264	78611	2000.00	ng/ml	-0.09
12) Dibenz(ah)anthracene-d14	15.50	292	61064	2000.00	ng/mL	-0.39
Target Compounds						Qvalue
4) Pentachlorophenol (PCP)	8.26	266	268526	75.55	ng/mL	96
5) DFTPP	8.73	198	469400	53.84	ng/mL	94
6) Benzidine	9.76	184	1544726	90.79	ng/mL	98
7) DDE	10.31	235	1511	0.10	ng/mL	90
8) DDT	10.58	TIC	5625889	51062.45	ng/mL#	1
9) 4,4-DDD	11.38	TIC	796	No Calib	#	

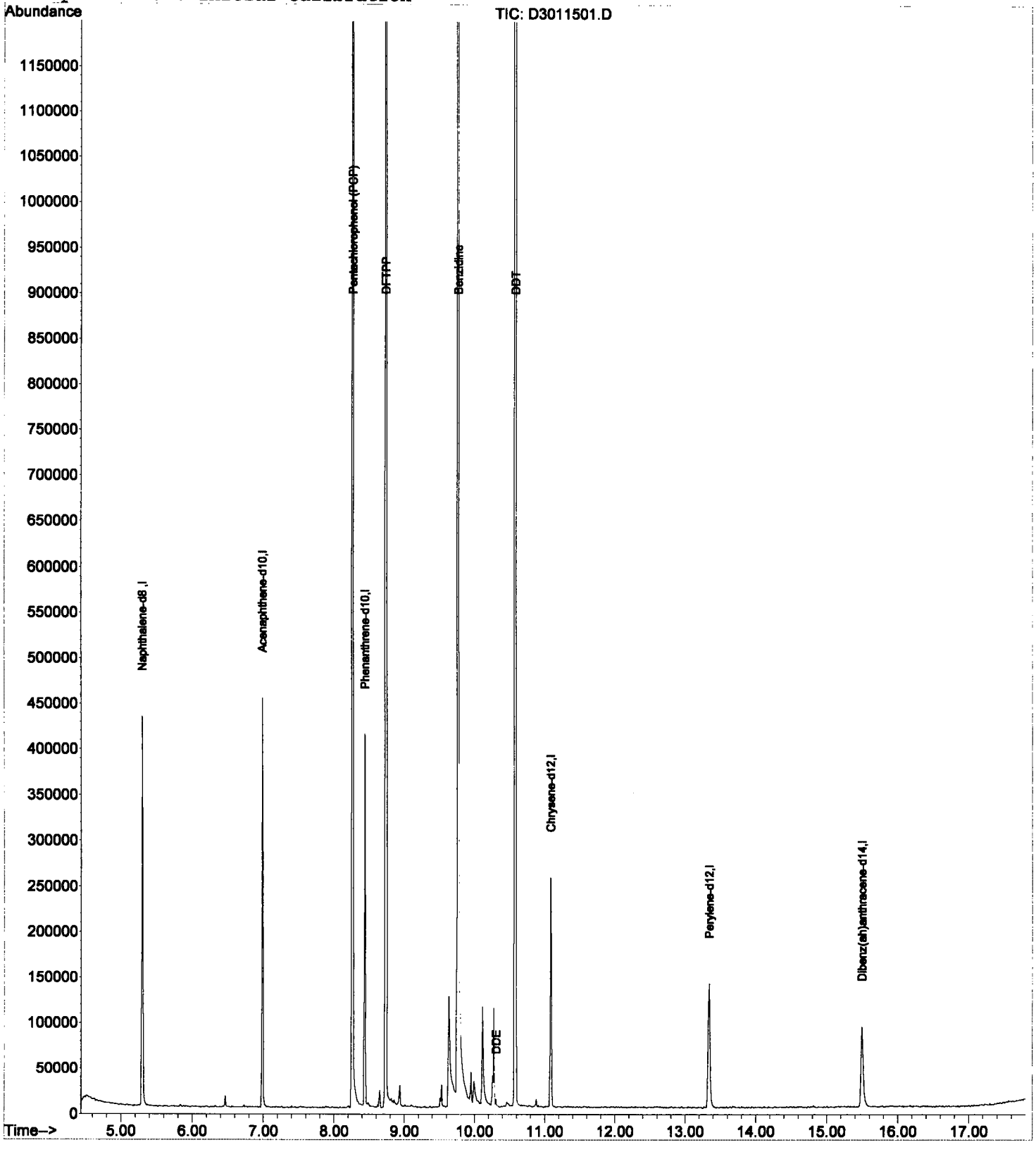
1-15-13
BSS

(#) = qualifier out of range (m) = manual integration
D3011501.D DFTP8270.M Tue Jan 15 15:36:41 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011501.D Vial: 1
Acq On : 15 Jan 2013 15:17 Operator: bsj
Sample : 3A15024-TUN1 Inst : SV-GCMS4
Misc : 1x A12K086@50ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 15 15:36 2013 Quant Results File: DFTP8270.RES

Method : C:\HPCHEM\1\METHODS\DFTP8270.M (RTE Integrator)
Title : EPA 8270 SIM PAH
Last Update : Wed Dec 26 17:29:41 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011502.D Vial: 2
Acq On : 15 Jan 2013 15:41 Operator: bsj
Sample : 3A15024-CCB1 Inst : SV-GCMS4
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:04 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	611927	2000.00 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	257026	2000.00 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	335082	2000.00 ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	209493	2000.00 ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	179386	2000.00 ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	121304	2000.00 ng/mL	0.00
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	0.00	172	0	0.00 ng/ml	
21) Terphenyl-d14(Surr)	0.00	244	0	0.00 ng/ml	
Target Compounds					Qvalue
2) Naphthlene	0.00	128	0	N.D.	
3) 2-Methylnaphthalene	0.00	142	0	N.D.	
4) 1-Methylnaphthalene	0.00	142	0	N.D.	
7) Dimethylphthalate	0.00	163	0	N.D.	
8) Acenaphthylene	0.00	152	0	N.D.	
9) Acenaphthene	0.00	153	0	N.D.	
10) Dibenzofuran	0.00	168	0	N.D.	
11) Diethylphthalate	0.00	149	0	N.D.	
12) Fluorene	0.00	166	0	N.D.	
14) Phenanthrene	0.00	178	0	N.D.	
15) Anthracene	0.00	178	0	N.D.	
16) Carbazole	0.00	167	0	N.D.	
17) Di-n-butylphthalate	0.00	149	0	N.D.	
18) Fluoranthene	0.00	202	0	N.D.	
19) Pyrene	0.00	202	0	N.D.	
22) Benzyl Butyl phthalate	0.00	149	0	N.D.	
23) Benz(a)Anthracene	11.07	228	517	4.18 ng/ml#	57
24) Chrysene	11.07	228	517	4.52 ng/ml#	58
25) Bis(2-ethylhexyl)phthalate	0.00	149	0	N.D.	
26) Di-n-octyl phthalate	0.00	149	0	N.D.	
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.	
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.	
30) Benzo(b+k)Fluoranthene	0.00	252	0	N.D.	
31) Benzo(e)Pyrene	0.00	252	0	N.D.	
32) Benzo(a)Pyrene	0.00	252	0	N.D.	
33) Perylene	13.33	252	627	5.97 ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	0.00	276	0	N.D.	
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.	
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.	

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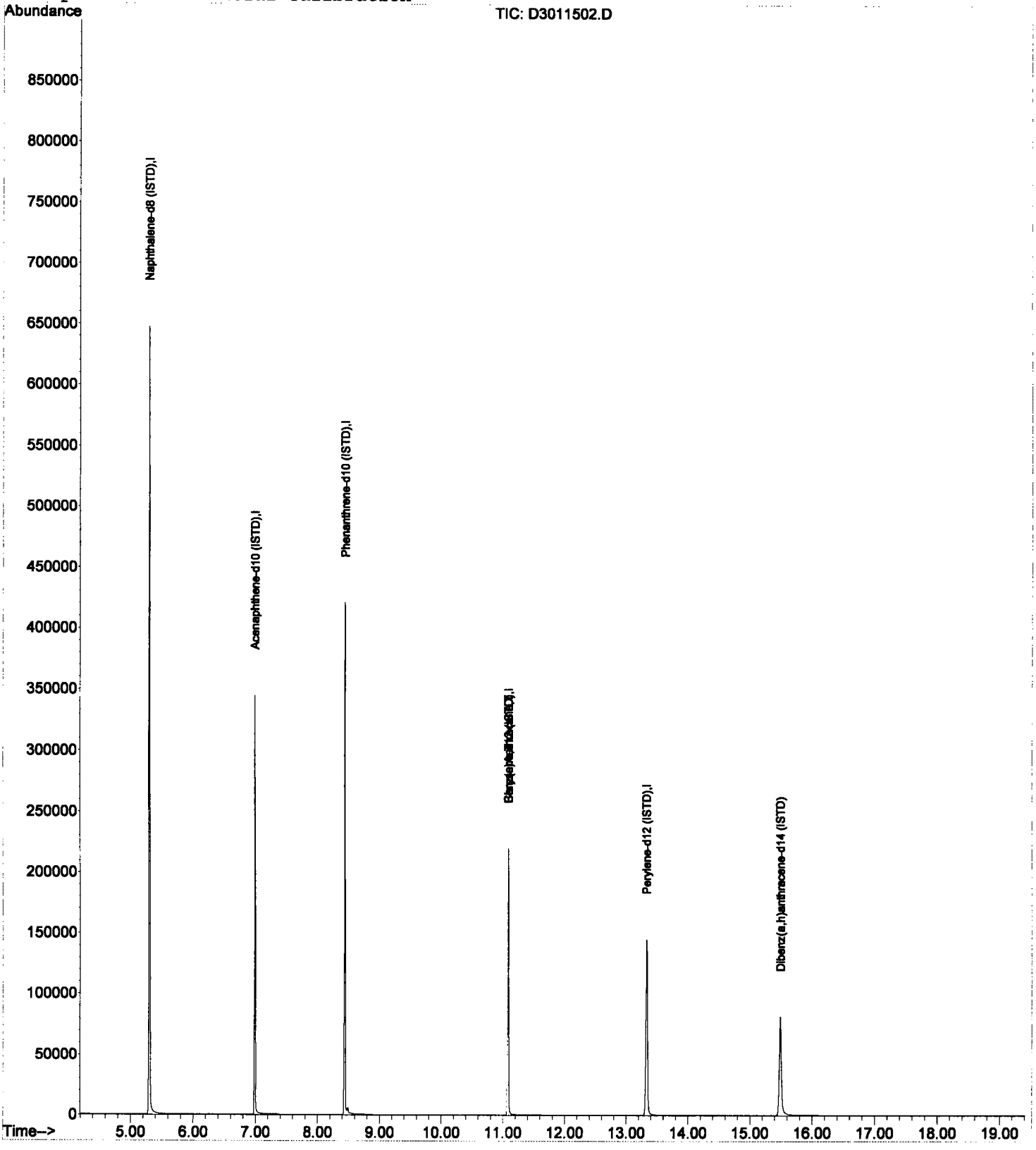
350

(#) = qualifier out of range (m) = manual integration
D3011502.D D21129D.M Wed Jan 16 09:04:49 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011502.D Vial: 2
Acq On : 15 Jan 2013 15:41 Operator: bsj
Sample : 3A15024-CCB1 Inst : SV-GCMS4
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:04 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011503.D Vial: 3
Acq On : 15 Jan 2013 16:07 Operator: bsj
Sample : 3A15024-CAL1 Inst : SV-GCMS4
Misc : 1x A12K202@20ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:04 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	889262	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	376374	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	506735	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	349606	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	307567	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	215919	2000.00	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	4948	18.72	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	2822	19.37	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	9767	19.68	ng/ml	98
3) 2-Methylnaphthalene	5.98	142	5385	18.46	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	5157	18.73	ng/ml	99
7) Dimethylphthalate	6.72	163	4593	17.85	ng/mL	98
8) Acenaphthylene	6.84	152	6976	19.03	ng/ml	99
9) Acenaphthene	7.01	153	4730	19.32	ng/ml	99
10) Dibenzofuran	7.19	168	5920	19.09	ng/mL	96
11) Diethylphthalate	7.41	149	5991	22.14	ng/mL	90
12) Fluorene	7.52	166	4569	19.39	ng/ml	99
14) Phenanthrene	8.45	178	5505	19.13	ng/ml	100
15) Anthracene	8.50	178	5197	17.81	ng/ml	98
16) Carbazole	8.66	167	4332	17.90	ng/mL	96
17) Di-n-butylphthalate	9.01	149	8301	19.03	ng/mL	97
18) Fluoranthene	9.62	202	4682	18.03	ng/ml	100
19) Pyrene	9.84	202	4839	18.56	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	3490	22.81	ng/mL	82
23) Benz(a)Anthracene	11.07	228	4473	21.69	ng/ml	95
24) Chrysene	11.11	228	3766	19.73	ng/ml	97
25) Bis(2-ethylhexyl)phthalate	11.10	149	3294	16.56	ng/mL	94
26) Di-n-octyl phthalate	12.00	149	2993	9.80	ng/mL#	88
28) Benzo(b)Fluoranthene	12.63	252	3168	16.93	ng/ml	94
29) Benzo(k)Fluoranthene	12.68	252	3421	17.72	ng/ml	93
30) Benzo(b+k)Fluoranthene	12.63	252	6701	34.95	ng/ml#	45
31) Benzo(e)Pyrene	13.12	252	3333	17.98	ng/mL	92
32) Benzo(a)Pyrene	13.22	252	2557	15.01	ng/ml	89
33) Perylene	13.37	252	3383	18.80	ng/mL	96
35) Indeno(1,2,3-cd)Pyrene	15.49	276	2981	19.43	ng/ml#	6
36) Dibenz(a,h)Anthracene	15.55	278	2463	18.16	ng/ml	88
37) Benzo(g,h,i)Perylene	16.07	276	2919	18.97	ng/ml	89

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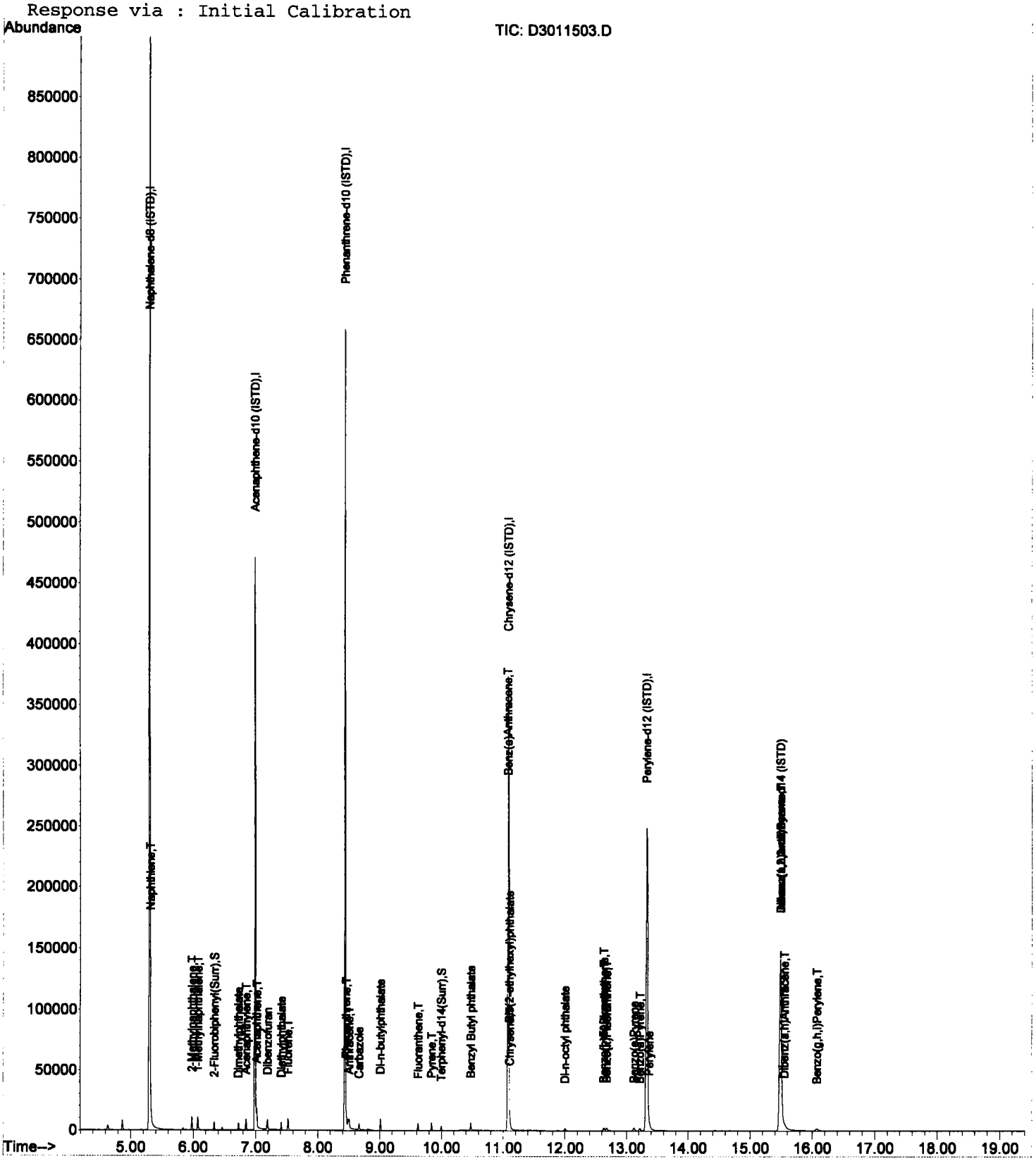
BSS

(#) = qualifier out of range (m) = manual integration
D3011503.D D21129D.M Wed Jan 16 09:04:52 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011503.D Vial: 3
Acq On : 15 Jan 2013 16:07 Operator: bsj
Sample : 3A15024-CAL1 Inst : SV-GCMS4
Misc : 1x A12K202@20ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:04 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011504.D Vial: 4
Acq On : 15 Jan 2013 16:33 Operator: bsj
Sample : 3A15024-CAL2 Inst : SV-GCMS4
Misc : 1x A12K203@50ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:04 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	825549	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	356647	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	478436	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	331338	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	286038	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	200839	2000.00	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	12263	48.96	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	6835	49.49	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	23116	50.17	ng/ml	100
3) 2-Methylnaphthalene	5.97	142	13071	48.27	ng/ml	100
4) 1-Methylnaphthalene	6.07	142	12465	48.78	ng/ml	100
7) Dimethylphthalate	6.72	163	11676	47.88	ng/mL	100
8) Acenaphthylene	6.84	152	17247	49.64	ng/ml	100
9) Acenaphthene	7.02	153	11728	50.55	ng/ml	100
10) Dibenzofuran	7.19	168	14544	49.49	ng/mL	95
11) Diethylphthalate	7.41	149	11693	45.61	ng/mL	100
12) Fluorene	7.52	166	11210	50.21	ng/ml	99
14) Phenanthrene	8.46	178	13386	49.28	ng/ml	99
15) Anthracene	8.50	178	12784	46.40	ng/ml	98
16) Carbazole	8.66	167	11185	48.96	ng/mL	96
17) Di-n-butylphthalate	9.01	149	17996	43.70	ng/mL	97
18) Fluoranthene	9.61	202	11392	46.47	ng/ml	100
19) Pyrene	9.84	202	11469	46.58	ng/ml	100
22) Benzyl Butyl phthalate	10.47	149	5606	38.66	ng/mL	99
23) Benz(a)Anthracene	11.07	228	9715	49.71	ng/ml	100
24) Chrysene	11.11	228	9152	50.59	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	7363	39.06	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	7928	27.89	ng/mL	98
28) Benzo(b)Fluoranthene	12.63	252	7646	43.93	ng/ml	94
29) Benzo(k)Fluoranthene	12.68	252	8010	44.60	ng/ml	88
30) Benzo(b+k)Fluoranthene	12.68	252	15840	88.83	ng/ml	90
31) Benzo(e)Pyrene	13.12	252	7843	45.49	ng/mL	91
32) Benzo(a)Pyrene	13.22	252	6250	39.44	ng/ml	91
33) Perylene	13.37	252	7964	47.58	ng/mL	91
35) Indeno(1,2,3-cd)Pyrene	15.49	276	6994	49.02	ng/ml	53
36) Dibenz(a,h)Anthracene	15.55	278	5984	47.44	ng/ml	93
37) Benzo(g,h,i)Perylene	16.07	276	6780	47.37	ng/ml	87

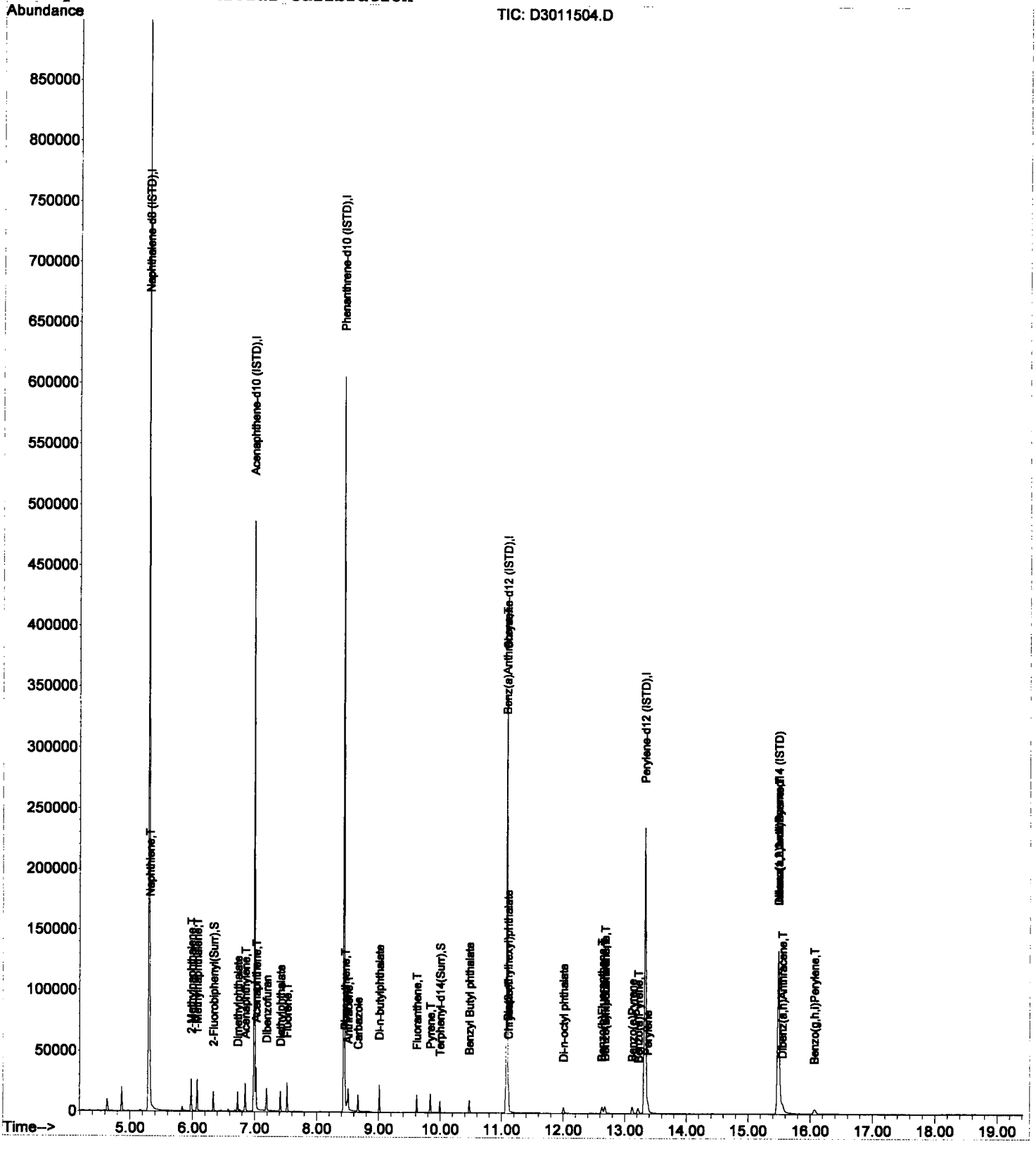
1-16-13
BS

(#) = qualifier out of range (m) = manual integration
D3011504.D D21129D.M Wed Jan 16 09:04:56 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011504.D Vial: 4
Acq On : 15 Jan 2013 16:33 Operator: bsj
Sample : 3A15024-CAL2 Inst : SV-GCMS4
Misc : 1x A12K203@50ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:04 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



D3011504.D D21129D.M Wed Jan 16 09:04:57 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011505.D Vial: 5
Acq On : 15 Jan 2013 16:59 Operator: bsj
Sample : 3A15024-CAL3 Inst : SV-GCMS4
Misc : 1x A12K204@100ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:04 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	682857	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	294266	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	397072	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	273530	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	236452	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	166328	2000.00	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	20193	97.72	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	11228	98.49	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	38094	99.95	ng/ml	100
3) 2-Methylnaphthalene	5.98	142	21553	96.23	ng/ml	100
4) 1-Methylnaphthalene	6.07	142	20782	98.31	ng/ml	98
7) Dimethylphthalate	6.72	163	19036	94.61	ng/mL	99
8) Acenaphthylene	6.84	152	28343	98.88	ng/ml	99
9) Acenaphthene	7.01	153	19422	101.47	ng/ml	96
10) Dibenzofuran	7.19	168	23714	97.80	ng/mL	95
11) Diethylphthalate	7.41	149	19189	90.72	ng/mL	100
12) Fluorene	7.52	166	18348	99.61	ng/ml	100
14) Phenanthrene	8.45	178	22283	98.85	ng/ml	100
15) Anthracene	8.50	178	21039	92.00	ng/ml	99
16) Carbazole	8.66	167	18529	97.72	ng/mL	97
17) Di-n-butylphthalate	9.01	149	29064	85.03	ng/mL	97
18) Fluoranthene	9.61	202	18884	92.81	ng/ml	99
19) Pyrene	9.84	202	18917	92.58	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	9237	77.16	ng/mL	94
23) Benz(a)Anthracene	11.07	228	15404	95.48	ng/ml	100
24) Chrysene	11.11	228	14883	99.66	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	12622	81.12	ng/mL	97
26) Di-n-octyl phthalate	12.00	149	13386	56.02	ng/mL	98
28) Benzo(b)Fluoranthene	12.63	252	12172	84.61	ng/ml	91
29) Benzo(k)Fluoranthene	12.67	252	13823	93.11	ng/ml	92
30) Benzo(b+k)Fluoranthene	12.63	252	26300	178.42	ng/ml#	45
31) Benzo(e)Pyrene	13.12	252	13057	91.61	ng/mL	91
32) Benzo(a)Pyrene	13.21	252	10510	80.24	ng/ml	91
33) Perylene	13.37	252	13127	94.86	ng/mL	90
35) Indeno(1,2,3-cd)Pyrene	15.49	276	11416	96.62	ng/ml	72
36) Dibenz(a,h)Anthracene	15.55	278	9821	94.01	ng/ml	87
37) Benzo(g,h,i)Perylene	16.07	276	11209	94.57	ng/ml	87

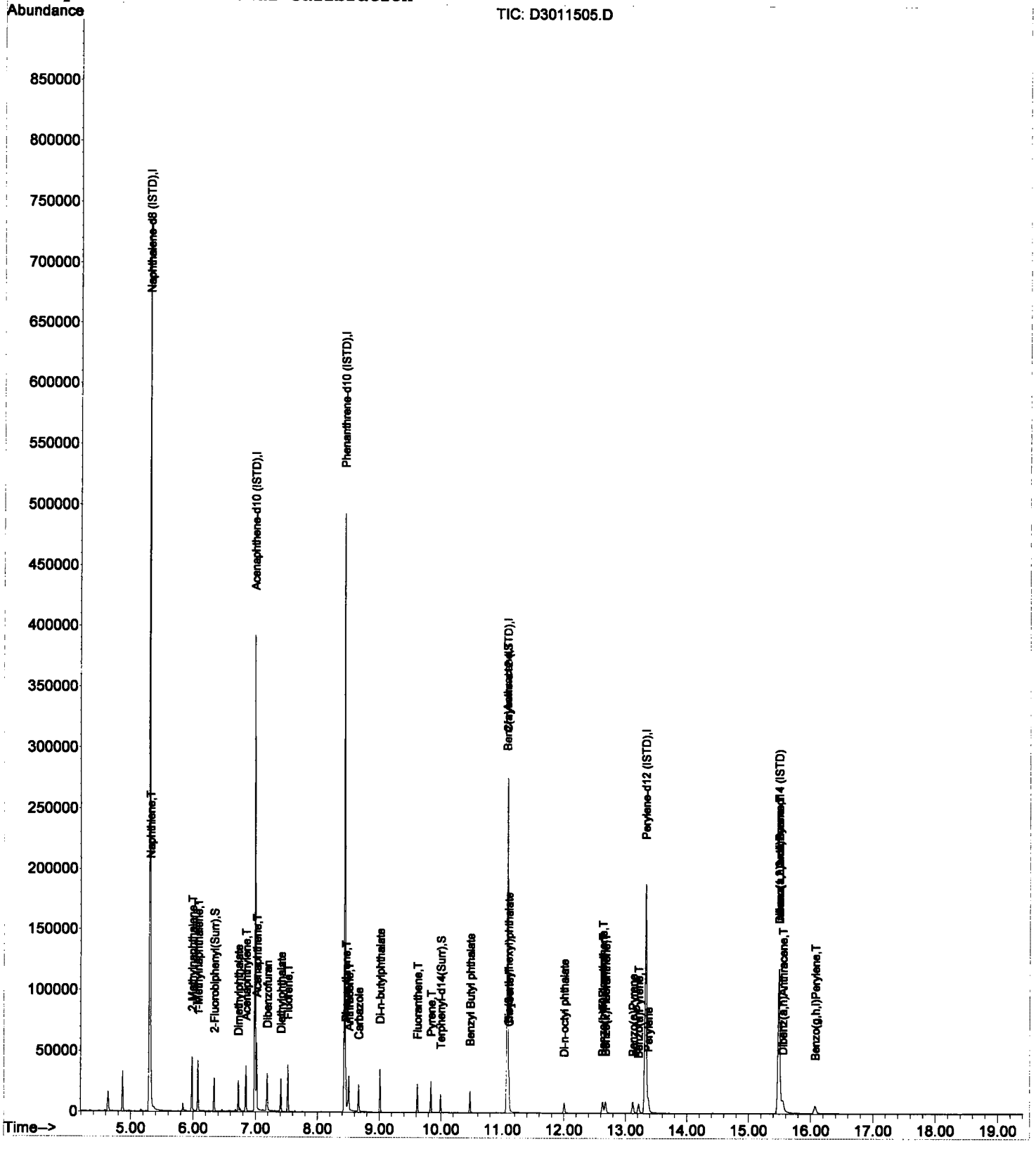
1-16-13
BSD

(#) = qualifier out of range (m) = manual integration
D3011505.D D21129D.M Wed Jan 16 09:05:01 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011505.D Vial: 5
Acq On : 15 Jan 2013 16:59 Operator: bsj
Sample : 3A15024-CAL3 Inst : SV-GCMS4
Misc : 1x A12K204@100ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:04 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011506.D Vial: 6
Acq On : 15 Jan 2013 17:25 Operator: bsj
Sample : 3A15024-CAL4 Inst : SV-GCMS4
Misc : 1x A12K205@200ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	801623	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	337818	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	450117	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	304906	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	263813	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.48	292	187174	2000.00	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	46820	197.36	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	25222	198.47	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	87686	195.98	ng/ml	100
3) 2-Methylnaphthalene	5.98	142	49750	189.22	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	48163	194.09	ng/ml	99
7) Dimethylphthalate	6.72	163	44021	190.58	ng/mL	99
8) Acenaphthylene	6.84	152	66311	201.51	ng/ml	99
9) Acenaphthene	7.01	153	44282	201.52	ng/ml	97
10) Dibenzofuran	7.19	168	54538	195.92	ng/mL	95
11) Diethylphthalate	7.41	149	44807	184.52	ng/mL	100
12) Fluorene	7.52	166	42050	198.85	ng/ml	99
14) Phenanthrene	8.45	178	50102	196.06	ng/ml	100
15) Anthracene	8.50	178	47870	184.66	ng/ml	99
16) Carbazole	8.66	167	41633	193.69	ng/mL	97
17) Di-n-butylphthalate	9.01	149	67798	174.98	ng/mL	97
18) Fluoranthene	9.62	202	42391	183.80	ng/ml	100
19) Pyrene	9.84	202	42799	184.78	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	22227	166.56	ng/mL	97
23) Benz(a)Anthracene	11.07	228	33749	187.66	ng/ml	100
24) Chrysene	11.11	228	33033	198.44	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	31934	184.11	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	35568	133.53	ng/mL	98
28) Benzo(b)Fluoranthene	12.63	252	28367	176.72	ng/ml	91
29) Benzo(k)Fluoranthene	12.67	252	31049	187.46	ng/ml	90
30) Benzo(b+k)Fluoranthene	12.63	252	59899	364.22	ng/ml#	45
31) Benzo(e)Pyrene	13.12	252	29683	186.67	ng/mL	91
32) Benzo(a)Pyrene	13.21	252	24869	170.17	ng/ml	91
33) Perylene	13.37	252	29641	191.99	ng/mL	92
35) Indeno(1,2,3-cd)Pyrene	15.49	276	25608	192.59	ng/ml	80
36) Dibenz(a,h)Anthracene	15.55	278	22178	188.65	ng/ml	86
37) Benzo(g,h,i)Perylene	16.07	276	25954	194.58	ng/ml	85

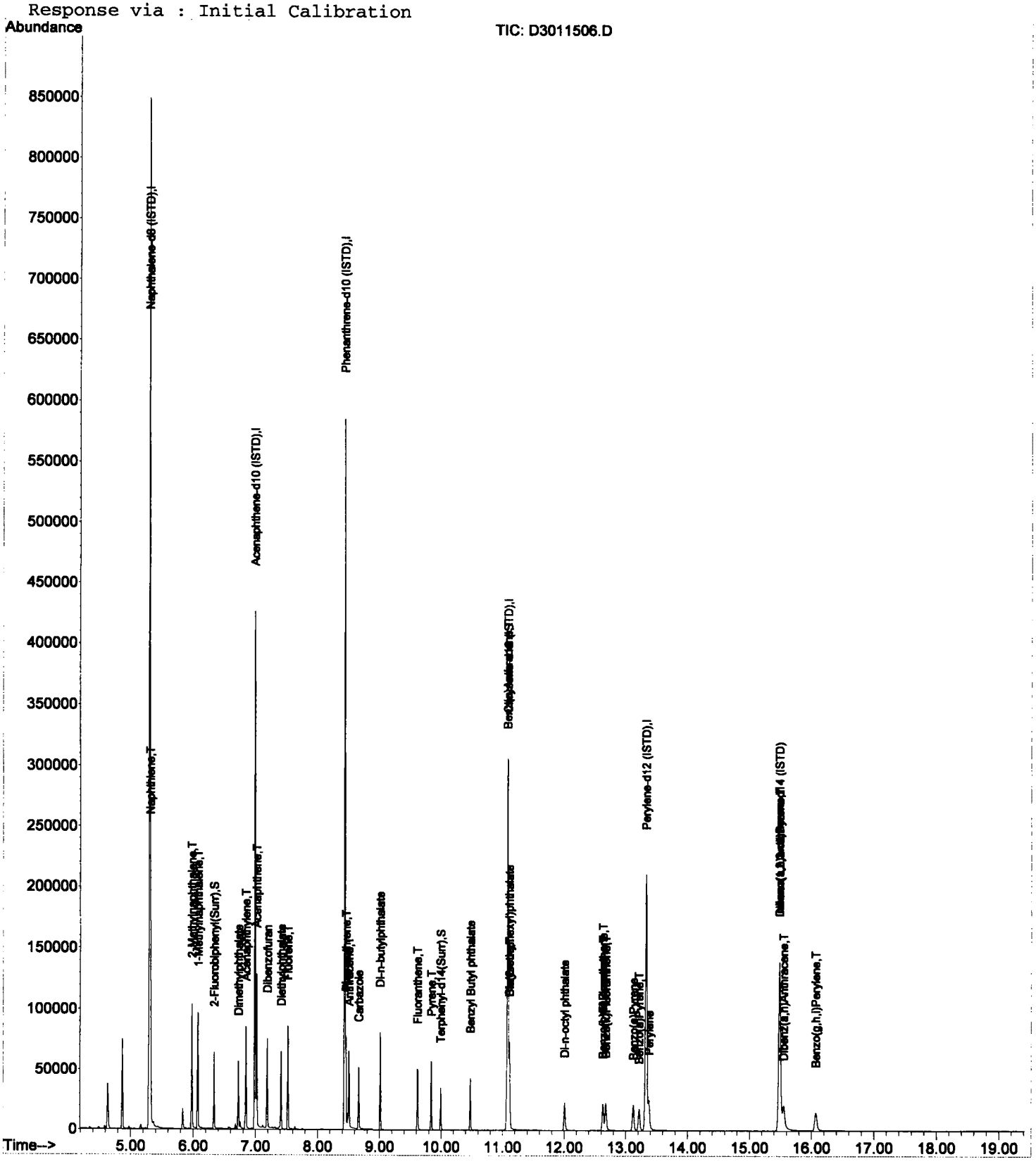
1-16-13
ESS

(#) = qualifier out of range (m) = manual integration
D3011506.D D21129D.M Wed Jan 16 09:05:04 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011506.D Vial: 6
Acq On : 15 Jan 2013 17:25 Operator: bsj
Sample : 3A15024-CAL4 Inst : SV-GCMS4
Misc : 1x A12K205@200ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



D3011506.D D21129D.M Wed Jan 16 09:05:05 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011507.D Vial: 7
Acq On : 15 Jan 2013 17:51 Operator: bsj
Sample : 3A15024-CAL5 Inst : SV-GCMS4
Misc : 1x A12K206@500ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	716217	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	309837	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	421034	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	299123	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	261460	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	185795	2000.00	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	109324	502.46	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	64343	516.10	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	202401	506.32	ng/ml	99
3) 2-Methylnaphthalene	5.98	142	116711	496.83	ng/ml	100
4) 1-Methylnaphthalene	6.07	142	112095	505.59	ng/ml	99
7) Dimethylphthalate	6.72	163	106104	500.85	ng/mL	99
8) Acenaphthylene	6.84	152	160722	532.52	ng/ml	99
9) Acenaphthene	7.01	153	105789	524.89	ng/ml	96
10) Dibenzofuran	7.19	168	129980	509.11	ng/mL	94
11) Diethylphthalate	7.41	149	108360	486.58	ng/mL	100
12) Fluorene	7.52	166	102523	528.61	ng/ml	99
14) Phenanthrene	8.45	178	122876	514.04	ng/ml	100
15) Anthracene	8.50	178	120067	495.16	ng/ml	100
16) Carbazole	8.66	167	108029	537.29	ng/mL	97
17) Di-n-butylphthalate	9.01	149	170652	470.87	ng/mL	98
18) Fluoranthene	9.61	202	107248	497.12	ng/ml	100
19) Pyrene	9.84	202	108301	499.86	ng/ml	100
22) Benzyl Butyl phthalate	10.47	149	59830	457.01	ng/mL	96
23) Benz(a)Anthracene	11.07	228	86972	492.95	ng/ml	100
24) Chrysene	11.11	228	83571	511.73	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	87894	516.52	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	108859	416.57	ng/mL	98
28) Benzo(b)Fluoranthene	12.63	252	75775	476.32	ng/ml	90
29) Benzo(k)Fluoranthene	12.67	252	83140	506.48	ng/ml	90
30) Benzo(b+k)Fluoranthene	12.67	252	159845	980.69	ng/ml	90
31) Benzo(e)Pyrene	13.12	252	77620	492.52	ng/mL	91
32) Benzo(a)Pyrene	13.21	252	69281	478.33	ng/ml	90
33) Perylene	13.37	252	76616	500.72	ng/mL	90
35) Indeno(1,2,3-cd)Pyrene	15.49	276	64463	488.41	ng/ml	82
36) Dibenz(a,h)Anthracene	15.55	278	58461	500.98	ng/ml	85
37) Benzo(g,h,i)Perylene	16.07	276	68111	514.43	ng/ml	85

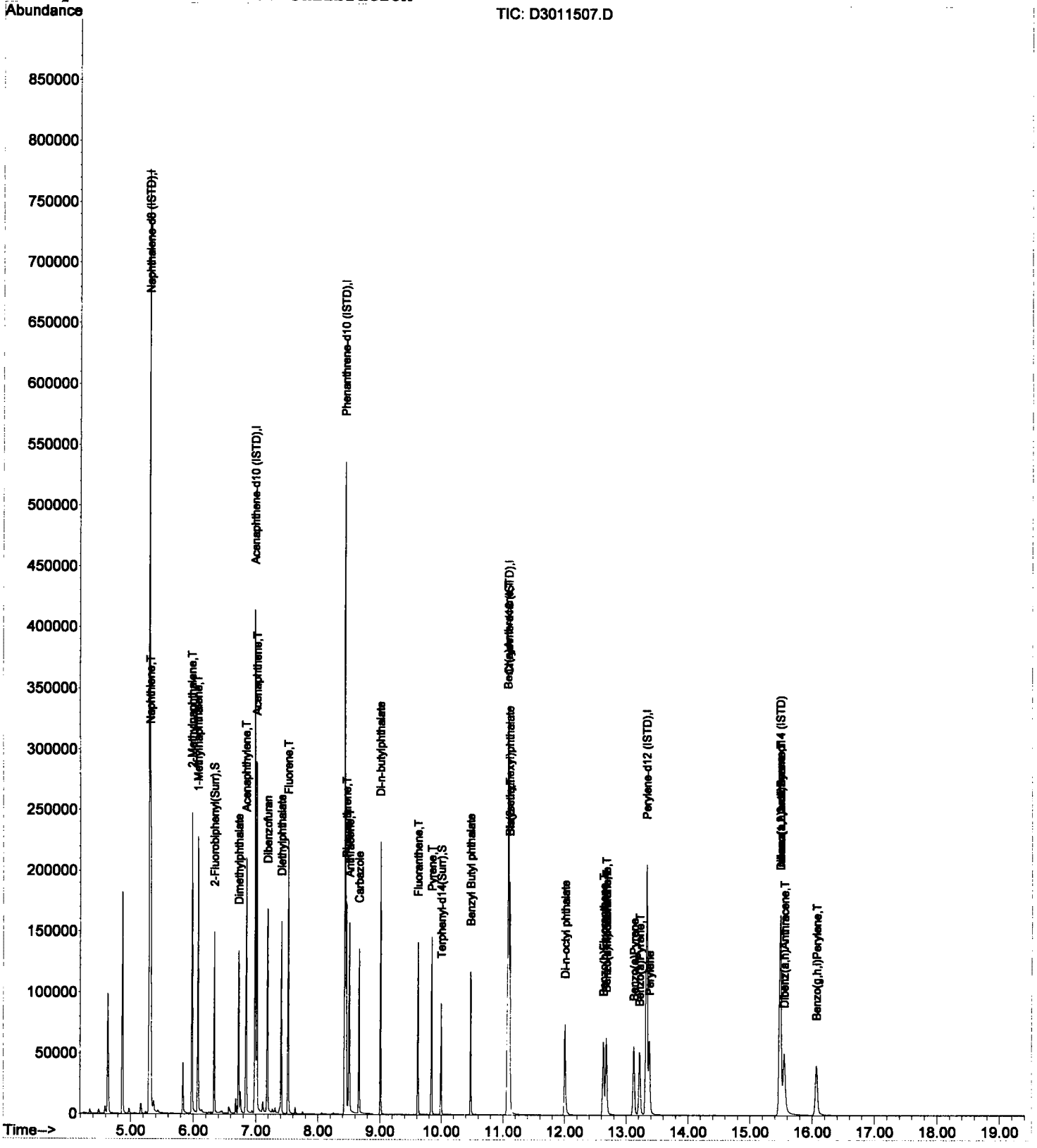
1-14-13
BSD

(#) = qualifier out of range (m) = manual integration
D3011507.D D21129D.M Wed Jan 16 09:05:08 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011507.D Vial: 7
Acq On : 15 Jan 2013 17:51 Operator: bsj
Sample : 3A15024-CAL5 Inst : SV-GCMS4
Misc : 1x A12K206@500ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



D3011507.D D21129D.M Wed Jan 16 09:05:09 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011508.D Vial: 8
Acq On : 15 Jan 2013 18:16 Operator: bsj
Sample : 3A15024-CAL6 Inst : SV-GCMS4
Misc : 1x A12K207@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

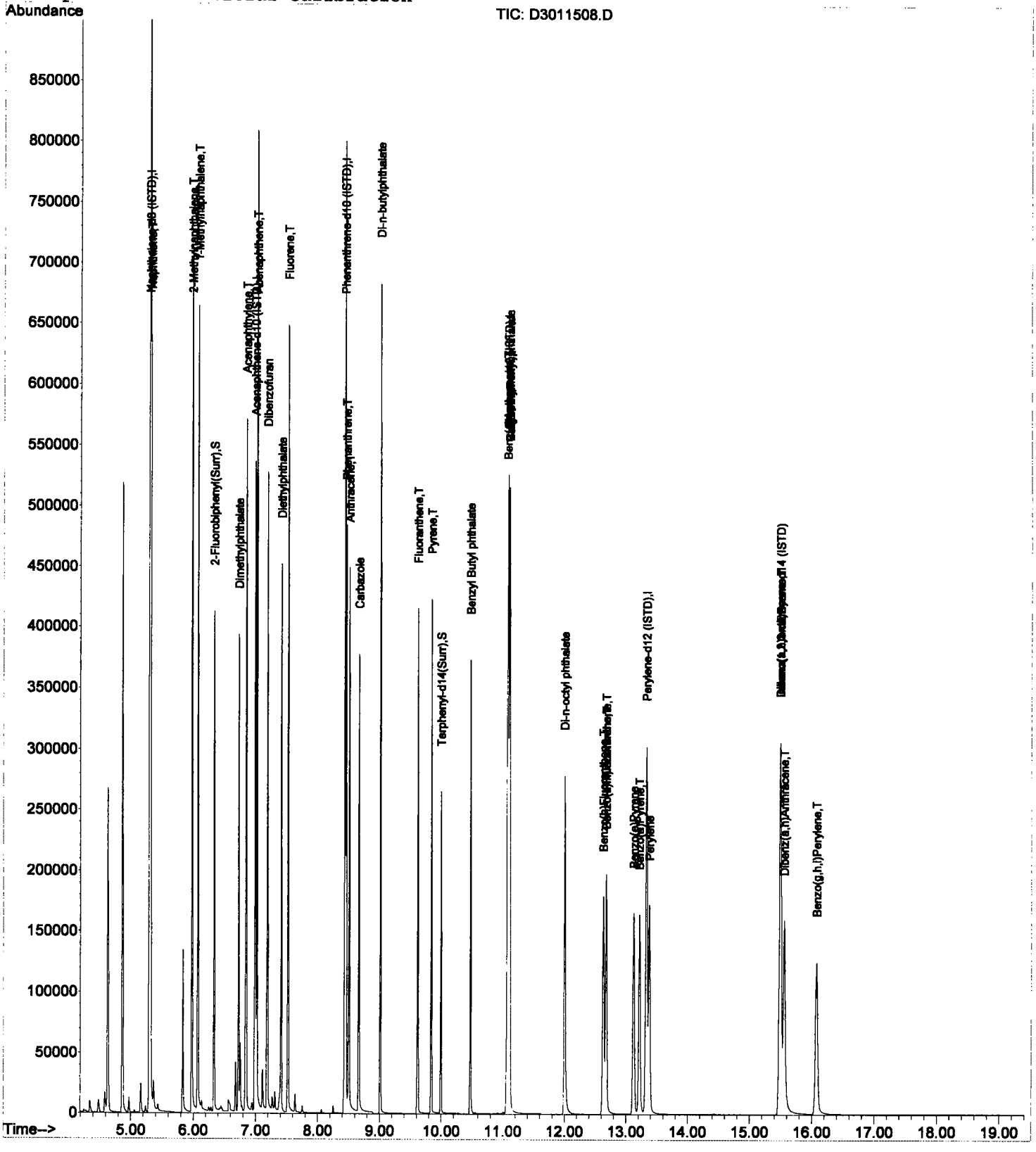
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	1025784	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	444197	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	613830	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	446946	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	388702	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.49	292	283222	2000.00	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	308446	988.83	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	186206	999.60	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	560941	979.75	ng/ml	99
3) 2-Methylnaphthalene	5.97	142	334024	992.79	ng/ml	100
4) 1-Methylnaphthalene	6.07	142	319703	1006.80	ng/ml	100
7) Dimethylphthalate	6.73	163	304368	1002.15	ng/mL	99
8) Acenaphthylene	6.84	152	455826	1053.46	ng/ml	100
9) Acenaphthene	7.01	153	289382	1001.52	ng/ml	100
10) Dibenzofuran	7.19	168	367454	1003.90	ng/mL	94
11) Diethylphthalate	7.41	149	314854	986.08	ng/mL	100
12) Fluorene	7.52	166	292659	1052.52	ng/ml	99
14) Phenanthrene	8.45	178	346921	995.48	ng/ml	100
15) Anthracene	8.50	178	341549	966.14	ng/ml	100
16) Carbazole	8.66	167	297967	1016.50	ng/mL	97
17) Di-n-butylphthalate	9.01	149	516529	977.58	ng/mL	98
18) Fluoranthene	9.61	202	311775	991.24	ng/ml	99
19) Pyrene	9.84	202	315114	997.60	ng/ml	100
22) Benzyl Butyl phthalate	10.47	149	189890	970.74	ng/mL	98
23) Benz(a)Anthracene	11.07	228	256696	973.72	ng/ml	100
24) Chrysene	11.11	228	243284	997.00	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	286069	1125.11	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	393396	1007.52	ng/mL	98
28) Benzo(b)Fluoranthene	12.63	252	235924	997.55	ng/ml	93
29) Benzo(k)Fluoranthene	12.68	252	240576	985.80	ng/ml	87
30) Benzo(b+k)Fluoranthene	12.68	252	478356	1974.12	ng/ml	90
31) Benzo(e)Pyrene	13.13	252	233029	994.61	ng/mL	91
32) Benzo(a)Pyrene	13.22	252	214969	998.34	ng/ml	90
33) Perylene	13.38	252	225070	989.43	ng/mL	89
35) Indeno(1,2,3-cd)Pyrene	15.50	276	193634	962.42	ng/ml	83
36) Dibenz(a,h)Anthracene	15.56	278	177878	999.96	ng/ml	86
37) Benzo(g,h,i)Perylene	16.08	276	206902	1025.14	ng/ml	84

1-14-15 ESS

(#) = qualifier out of range (m) = manual integration
D3011508.D D21129D.M Wed Jan 16 09:05:12 2013 Page 1

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011508.D Vial: 8
Acq On : 15 Jan 2013 18:16 Operator: bsj
Sample : 3A15024-CAL6 Inst : SV-GCMS4
Misc : 1x A12K207@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011509.D Vial: 9
Acq On : 15 Jan 2013 18:42 Operator: bsj
Sample : 3A15024-CAL7 Inst : SV-GCMS4
Misc : 1x A12K208@2000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	704363	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	305059	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	423770	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	304980	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	259281	2000.00	ng/ml	-0.01
34) Dibenz(a,h)anthracene-d14	15.49	292	189915	2000.00	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	411419	1920.52	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	249938	1966.29	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	745905	1897.32	ng/ml	99
3) 2-Methylnaphthalene	5.97	142	448011	1939.23	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	427422	1960.26	ng/ml	99
7) Dimethylphthalate	6.73	163	407183	1952.16	ng/mL	99
8) Acenaphthylene	6.84	152	605983	2039.24	ng/ml	100
9) Acenaphthene	7.01	153	384539	1937.85	ng/ml	99
10) Dibenzofuran	7.19	168	488702	1944.13	ng/mL	94
11) Diethylphthalate	7.41	149	418688	1909.34	ng/mL	100
12) Fluorene	7.52	166	390525	2045.07	ng/ml	100
14) Phenanthrene	8.45	178	470371	1955.07	ng/ml	100
15) Anthracene	8.50	178	464535	1903.38	ng/ml	99
16) Carbazole	8.66	167	387077	1912.73	ng/mL	98
17) Di-n-butylphthalate	9.01	149	697348	1911.73	ng/mL	97
18) Fluoranthene	9.62	202	413633	1904.89	ng/ml	100
19) Pyrene	9.84	202	425531	1951.36	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	257430	1928.60	ng/mL	97
23) Benz(a)Anthracene	11.07	228	339902	1889.52	ng/ml	100
24) Chrysene	11.11	228	324042	1946.11	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.10	149	388405	2238.69	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	545007	2045.54	ng/mL	98
28) Benzo(b)Fluoranthene	12.63	252	317497	2012.56	ng/ml	93
29) Benzo(k)Fluoranthene	12.68	252	317679	1951.52	ng/ml	87
30) Benzo(b+k)Fluoranthene	12.68	252	637424	3948.63	ng/ml	90
31) Benzo(e)Pyrene	13.12	252	308786	1975.81	ng/mL	91
32) Benzo(a)Pyrene	13.22	252	286952	1997.83	ng/ml	90
33) Perylene	13.37	252	296078	1951.28	ng/mL	89
35) Indeno(1,2,3-cd)Pyrene	15.50	276	254415	1885.78	ng/ml	83
36) Dibenz(a,h)Anthracene	15.56	278	235383	1973.34	ng/ml	85
37) Benzo(g,h,i)Perylene	16.08	276	274014	2024.68	ng/ml	84

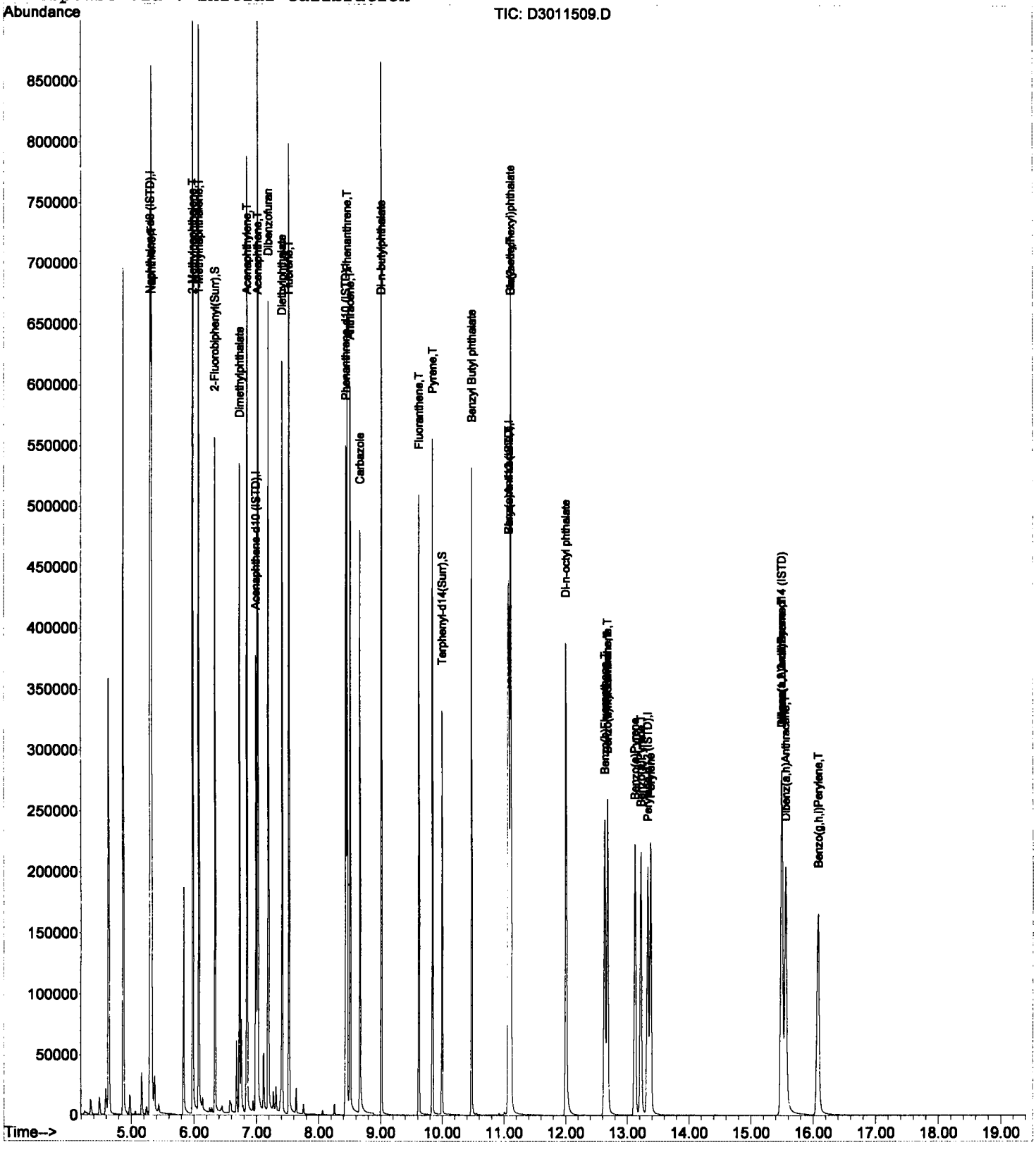
1-16-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3011509.D D21129D.M Wed Jan 16 09:05:16 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011509.D Vial: 9
Acq On : 15 Jan 2013 18:42 Operator: bsj
Sample : 3A15024-CAL7 Inst : SV-GCMS4
Misc : 1x A12K208@2000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011510.D Vial: 10
Acq On : 15 Jan 2013 19:08 Operator: bsj
Sample : 3A15024-CAL8 Inst : SV-GCMS4
Misc : 1x A12K209@4000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	802846	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.99	164	358087	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	502192	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	385691	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	324879	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.50	292	246571	2000.00	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	962612	3828.07	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	631915	3931.02	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	1738244	3879.12	ng/ml	99
3) 2-Methylnaphthalene	5.98	142	1068230	4056.67	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	1001465	4029.55	ng/ml	100
7) Dimethylphthalate	6.73	163	966960	3949.38	ng/mL	99
8) Acenaphthylene	6.85	152	1441897	4133.69	ng/ml	99
9) Acenaphthene	7.01	153	908252	3899.26	ng/ml	99
10) Dibenzofuran	7.19	168	1162615	3940.15	ng/mL	93
11) Diethylphthalate	7.41	149	986564	3832.78	ng/mL	100
12) Fluorene	7.52	166	949290	4235.01	ng/ml	99
14) Phenanthrene	8.46	178	1143361	4010.19	ng/ml	100
15) Anthracene	8.50	178	1145631	3961.06	ng/ml	100
16) Carbazole	8.67	167	652015	2718.79	ng/mL	97
17) Di-n-butylphthalate	9.01	149	1700956	3934.87	ng/mL	97
18) Fluoranthene	9.62	202	1054304	4097.15	ng/ml	100
19) Pyrene	9.84	202	1060293	4102.92	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	679367	4024.57	ng/mL	98
23) Benz(a)Anthracene	11.07	228	886711	3897.73	ng/ml	100
24) Chrysene	11.11	228	830471	3943.87	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	1005408	4582.29	ng/mL	99
26) Di-n-octyl phthalate	12.00	149	1519248	4508.87	ng/mL	98
28) Benzo(b)Fluoranthene	12.64	252	845347	4276.56	ng/ml	92
29) Benzo(k)Fluoranthene	12.68	252	824370	4041.62	ng/ml	86
30) Benzo(b+k)Fluoranthene	12.68	252	1673808	8264.62	ng/ml	89
31) Benzo(e)Pyrene	13.13	252	809347	4133.05	ng/mL	91
32) Benzo(a)Pyrene	13.23	252	766259	4257.69	ng/ml	89
33) Perylene	13.38	252	759600	3995.27	ng/mL	89
35) Indeno(1,2,3-cd)Pyrene	15.51	276	682126	3894.31	ng/ml	85
36) Dibenz(a,h)Anthracene	15.57	278	649189	4191.94	ng/ml	88
37) Benzo(g,h,i)Perylene	16.09	276	711809	4051.03	ng/ml	84

1-16-13

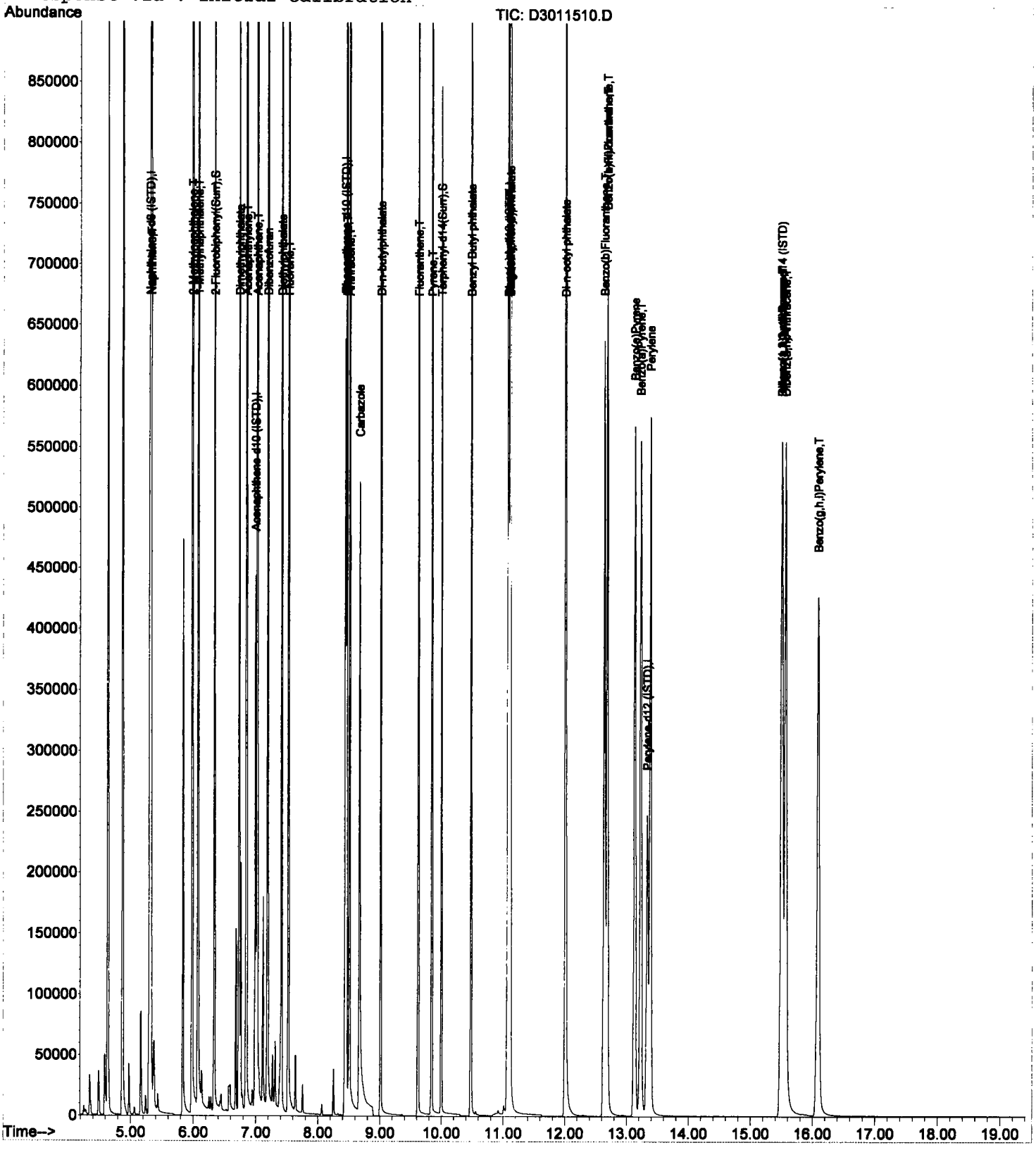
BSS

(#) = qualifier out of range (m) = manual integration
D3011510.D D21129D.M Wed Jan 16 09:05:20 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011510.D Vial: 10
Acq On : 15 Jan 2013 19:08 Operator: bsj
Sample : 3A15024-CAL8 Inst : SV-GCMS4
Misc : 1x A12K209@4000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011511.D Vial: 11
Acq On : 15 Jan 2013 19:33 Operator: bsj
Sample : 3A15024-CAL9 Inst : SV-GCMS4
Misc : 1x A12K210@6000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	786327	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.99	164	348644	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	484154	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	372576	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.34	264	314026	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.50	292	244775	2000.00	ng/mL	0.01
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.34	172	1397273	5707.11	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	896483	5773.15	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	2520892	5743.88	ng/ml	99
3) 2-Methylnaphthalene	5.98	142	1541532	5977.04	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	1439599	5914.14	ng/ml	100
7) Dimethylphthalate	6.73	163	1394859	5851.37	ng/mL	99
8) Acenaphthylene	6.85	152	2102975	6192.19	ng/ml	99
9) Acenaphthene	7.02	153	1310959	5780.57	ng/ml	100
10) Dibenzofuran	7.19	168	1657854	5770.71	ng/mL	93
11) Diethylphthalate	7.41	149	1413232	5639.08	ng/mL	99
12) Fluorene	7.52	166	1372748	6290.03	ng/ml	99
14) Phenanthrene	8.45	178	1630691	5932.52	ng/ml	99
15) Anthracene	8.51	178	1567173	5620.43	ng/ml	99
16) Carbazole	8.67	167	830484	3591.99	ng/mL	97
17) Di-n-butylphthalate	9.01	149	2424531	5817.70	ng/mL	97
18) Fluoranthene	9.62	202	1497925	6037.99	ng/ml	100
19) Pyrene	9.84	202	1505579	6043.06	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	975895	5984.71	ng/mL	98
23) Benz(a)Anthracene	11.07	228	1240806	5646.22	ng/ml	99
24) Chrysene	11.12	228	1167997	5742.01	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	1442643	6806.50	ng/mL	99
26) Di-n-octyl phthalate	12.01	149	2231561	6856.02	ng/mL	98
28) Benzo(b)Fluoranthene	12.64	252	1214650	6357.20	ng/ml	92
29) Benzo(k)Fluoranthene	12.69	252	1147814	5821.85	ng/ml	85
30) Benzo(b+k)Fluoranthene	12.69	252	2367719	12094.93	ng/ml	89
31) Benzo(e)Pyrene	13.14	252	1150235	6076.85	ng/mL	90
32) Benzo(a)Pyrene	13.23	252	1097491	6308.92	ng/ml	89
33) Perylene	13.39	252	1079983	5876.71	ng/mL	87
35) Indeno(1,2,3-cd)Pyrene	15.52	276	991588	5702.59	ng/ml	82
36) Dibenz(a,h)Anthracene	15.58	278	944404	6142.95	ng/ml	88
37) Benzo(g,h,i)Perylene	16.10	276	1037797	5949.62	ng/ml	84

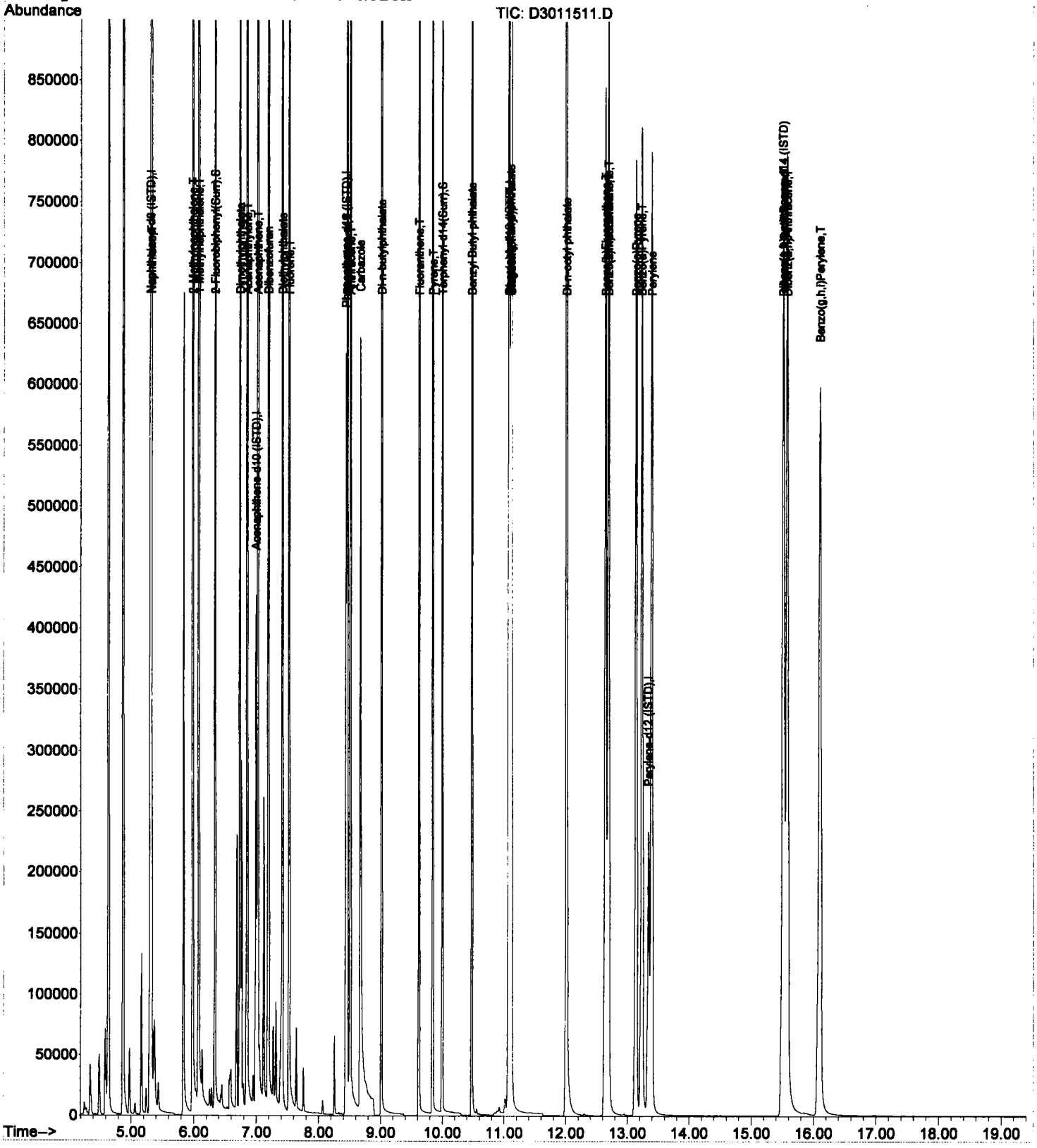
1-16-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3011511.D D21129D.M Wed Jan 16 09:05:24 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011511.D Vial: 11
Acq On : 15 Jan 2013 19:33 Operator: bsj
Sample : 3A15024-CAL9 Inst : SV-GCMS4
Misc : 1x A12K210@6000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011512.D Vial: 12
Acq On : 15 Jan 2013 19:59 Operator: bsj
Sample : 3A15024-CALA Inst : SV-GCMS4
Misc : 1x A12K211@8000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	812086	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.99	164	365311	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	514523	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.09	240	393469	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.34	264	330106	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.51	292	258147	2000.00	ng/mL	0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.34	172	1953952	7616.73	ng/ml	0.00
21) Terphenyl-d14(Surr)	10.00	244	1250206	7623.54	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	3490473	7700.81	ng/ml	99
3) 2-Methylnaphthalene	5.98	142	2140890	8037.65	ng/ml	99
4) 1-Methylnaphthalene	6.07	142	2013893	8011.02	ng/ml	100
7) Dimethylphthalate	6.73	163	1971338	7892.37	ng/mL	99
8) Acenaphthylene	6.85	152	2995881	8418.88	ng/ml	100
9) Acenaphthene	7.02	153	1823661	7674.42	ng/ml	99
10) Dibenzofuran	7.19	168	2350632	7808.85	ng/mL	92
11) Diethylphthalate	7.41	149	1994732	7596.24	ng/mL	99
12) Fluorene	7.53	166	1884110	8239.25	ng/ml	99
14) Phenanthrene	8.46	178	2293338	7850.81	ng/ml	100
15) Anthracene	8.51	178	2224340	7506.41	ng/ml	99
16) Carbazole	8.67	167	1043036	4245.04	ng/mL	97
17) Di-n-butylphthalate	9.01	149	3437862	7762.31	ng/mL	97
18) Fluoranthene	9.62	202	2113973	8018.27	ng/ml	100
19) Pyrene	9.84	202	2120810	8010.03	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	1399021	8123.97	ng/mL	99
23) Benz(a)Anthracene	11.07	228	1776024	7652.57	ng/ml	100
24) Chrysene	11.12	228	1579365	7352.07	ng/ml	99
25) Bis(2-ethylhexyl)phthalate	11.10	149	2054397	9178.12	ng/mL	99
26) Di-n-octyl phthalate	12.01	149	3208062	9332.77	ng/mL	98
28) Benzo(b)Fluoranthene	12.64	252	1671861	8323.90	ng/ml	88
29) Benzo(k)Fluoranthene	12.69	252	1648662	7954.88	ng/ml	88
30) Benzo(b+k)Fluoranthene	12.69	252	3327938	16171.88	ng/ml	88
31) Benzo(e)Pyrene	13.14	252	1609346	8088.23	ng/mL	90
32) Benzo(a)Pyrene	13.24	252	1545999	8454.26	ng/ml	88
33) Perylene	13.40	252	1520967	7873.17	ng/mL	87
35) Indeno(1,2,3-cd)Pyrene	15.53	276	1389274	7575.81	ng/ml	81
36) Dibenz(a,h)Anthracene	15.58	278	1329681	8201.00	ng/ml	80
37) Benzo(g,h,i)Perylene	16.11	276	1447643	7869.34	ng/ml	83

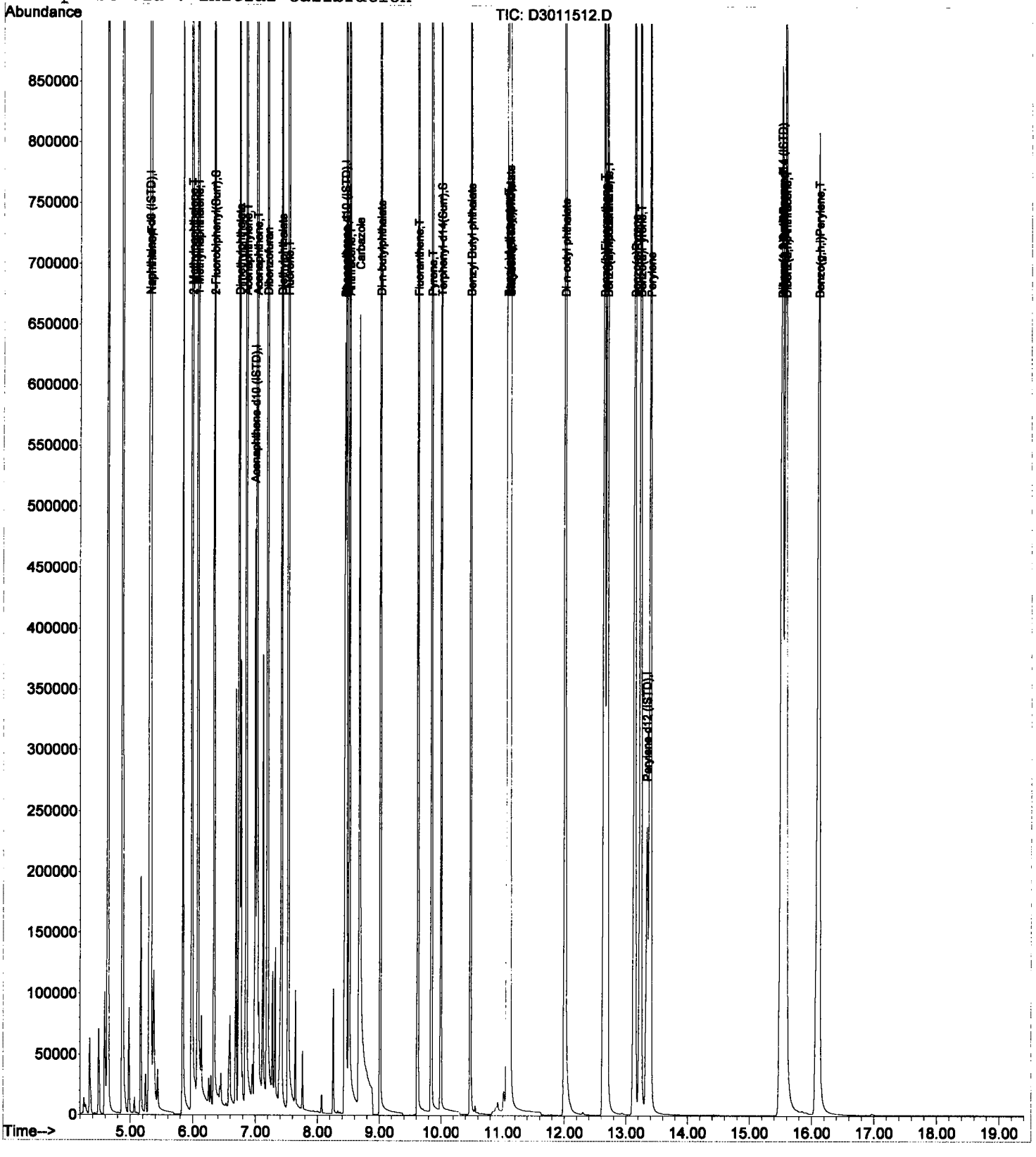
1-16-13
ESS

(#) = qualifier out of range (m) = manual integration
D3011512.D D21129D.M Wed Jan 16 09:05:28 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011512.D Vial: 12
Acq On : 15 Jan 2013 19:59 Operator: bsj
Sample : 3A15024-CALA Inst : SV-GCMS4
Misc : 1x A12K211@8000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011513.D Vial: 2
Acq On : 15 Jan 2013 20:24 Operator: bsj
Sample : 3A15024-IBL1 Inst : SV-GCMS4
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	627250	2000.00 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	266368	2000.00 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	346808	2000.00 ng/ml	-0.01
20) Chrysene-d12 (ISTD)	11.07	240	229486	2000.00 ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.32	264	199410	2000.00 ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.48	292	139481	2000.00 ng/mL	0.00
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	0.00	172	0	0.00 ng/ml	
21) Terphenyl-d14(Surr)	0.00	244	0	0.00 ng/ml	
Target Compounds					Qvalue
2) Naphthlene	5.32	128	230	0.66 ng/ml#	79
3) 2-Methylnaphthalene	0.00	142	0	N.D.	
4) 1-Methylnaphthalene	0.00	142	0	N.D.	
7) Dimethylphthalate	6.66	163	440	2.42 ng/mL#	73
8) Acenaphthylene	0.00	152	0	N.D.	
9) Acenaphthene	0.00	153	0	N.D.	
10) Dibenzofuran	7.19	168	223	1.02 ng/mL#	39
11) Diethylphthalate	7.41	149	780	4.07 ng/mL#	58
12) Fluorene	0.00	166	0	N.D.	
14) Phenanthrene	8.45	178	202	1.03 ng/ml#	58
15) Anthracene	8.50	178	224	1.12 ng/ml#	59
16) Carbazole	8.66	167	242	1.46 ng/mL#	66
17) Di-n-butylphthalate	8.95	149	634	2.12 ng/mL#	85
18) Fluoranthene	0.00	202	0	N.D.	
19) Pyrene	0.00	202	0	N.D.	
22) Benzyl Butyl phthalate	0.00	149	0	N.D.	
23) Benz(a)Anthracene	11.07	228	673	4.97 ng/ml#	57
24) Chrysene	11.07	228	673	5.37 ng/ml#	58
25) Bis(2-ethylhexyl)phthalate	0.00	149	0	N.D.	
26) Di-n-octyl phthalate	0.00	149	0	N.D.	
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.	
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.	
30) Benzo(b+k)Fluoranthene	12.63	252	208	1.67 ng/ml#	45
31) Benzo(e)Pyrene	0.00	252	0	N.D.	
32) Benzo(a)Pyrene	0.00	252	0	N.D.	
33) Perylene	13.32	252	760	6.51 ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	15.48	276	284	2.87 ng/ml#	1
36) Dibenz(a,h)Anthracene	15.55	278	200	2.28 ng/ml#	40
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.	

NK

1-16-13

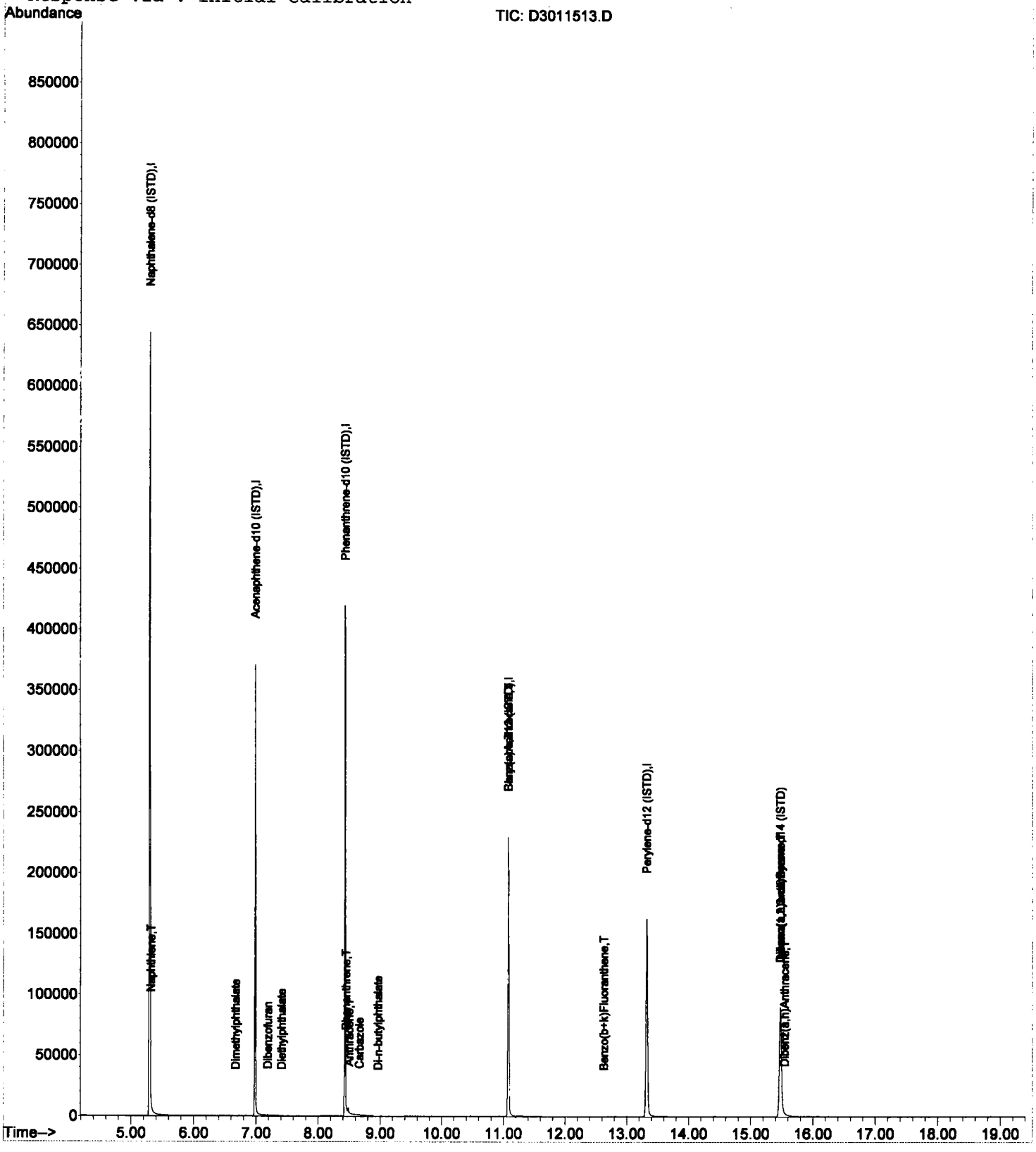
BSJ

(#) = qualifier out of range (m) = manual integration
D3011513.D D21129D.M Wed Jan 16 09:05:32 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011513.D Vial: 2
Acq On : 15 Jan 2013 20:24 Operator: bsj
Sample : 3A15024-IBL1 Inst : SV-GCMS4
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



D3011513.D D21129D.M Wed Jan 16 09:05:33 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011514.D Vial: 13
Acq On : 15 Jan 2013 20:50 Operator: bsj
Sample : 3A15024-ICV1 Inst : SV-GCMS4
Misc : 1x A12K140@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	1757220	2000.00	ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	764384	2000.00	ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	1075594	2000.00	ng/ml	0.00
20) Chrysene-d12 (ISTD)	11.08	240	779654	2000.00	ng/ml	0.00
27) Perylene-d12 (ISTD)	13.33	264	684093	2000.00	ng/ml	0.00
34) Dibenz(a,h)anthracene-d14	15.50	292	512030	2000.00	ng/mL	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl(Surr)	6.33	172	538627	1003.45	ng/ml	0.00
21) Terphenyl-d14(Surr)	9.99	244	332183	1022.26	ng/ml	0.00
Target Compounds						Qvalue
2) Naphthlene	5.32	128	962303	981.16	ng/ml	99
3) 2-Methylnaphthalene	5.97	142	588922	1021.81	ng/ml	100
4) 1-Methylnaphthalene	6.07	142	555054	1020.38	ng/ml	100
7) Dimethylphthalate	6.73	163	528277	1010.79	ng/mL	99
8) Acenaphthylene	6.84	152	804156	1079.99	ng/ml	100
9) Acenaphthene	7.02	153	512421	1030.57	ng/ml	98
10) Dibenzofuran	7.19	168	639816	1015.80	ng/mL	94
11) Diethylphthalate	7.41	149	543179	988.57	ng/mL	99
12) Fluorene	7.52	166	520811	1088.46	ng/ml	100
14) Phenanthrene	8.46	178	611094	1000.72	ng/ml	100
15) Anthracene	8.50	178	609169	983.39	ng/ml	100
16) Carbazole	8.66	167	469220	913.51	ng/mL	97
17) Di-n-butylphthalate	9.01	149	907787	980.49	ng/mL	97
18) Fluoranthene	9.61	202	559501	1015.17	ng/ml	100
19) Pyrene	9.84	202	564519	1019.92	ng/ml	99
22) Benzyl Butyl phthalate	10.47	149	352039	1037.68	ng/mL	97
23) Benz(a)Anthracene	11.07	228	459018	998.15	ng/ml	100
24) Chrysene	11.11	228	430763	1011.98	ng/ml	100
25) Bis(2-ethylhexyl)phthalate	11.10	149	520042	1172.51	ng/mL	98
26) Di-n-octyl phthalate	12.00	149	760045	1115.88	ng/mL	98
28) Benzo(b)Fluoranthene	12.63	252	430323	1033.85	ng/ml	92
29) Benzo(k)Fluoranthene	12.68	252	432479	1006.94	ng/ml	86
30) Benzo(b+k)Fluoranthene	12.68	252	865517	2029.55	ng/ml	89
31) Benzo(e)Pyrene	13.13	252	412565	1000.54	ng/mL	90
32) Benzo(a)Pyrene	13.22	252	392748	1036.38	ng/ml	89
33) Perylene	13.38	252	415449	1037.73	ng/mL	90
35) Indeno(1,2,3-cd)Pyrene	15.50	276	359022	987.04	ng/ml	82
36) Dibenz(a,h)Anthracene	15.56	278	328005	1019.93	ng/ml	85
37) Benzo(g,h,i)Perylene	16.08	276	372402	1020.61	ng/ml	84

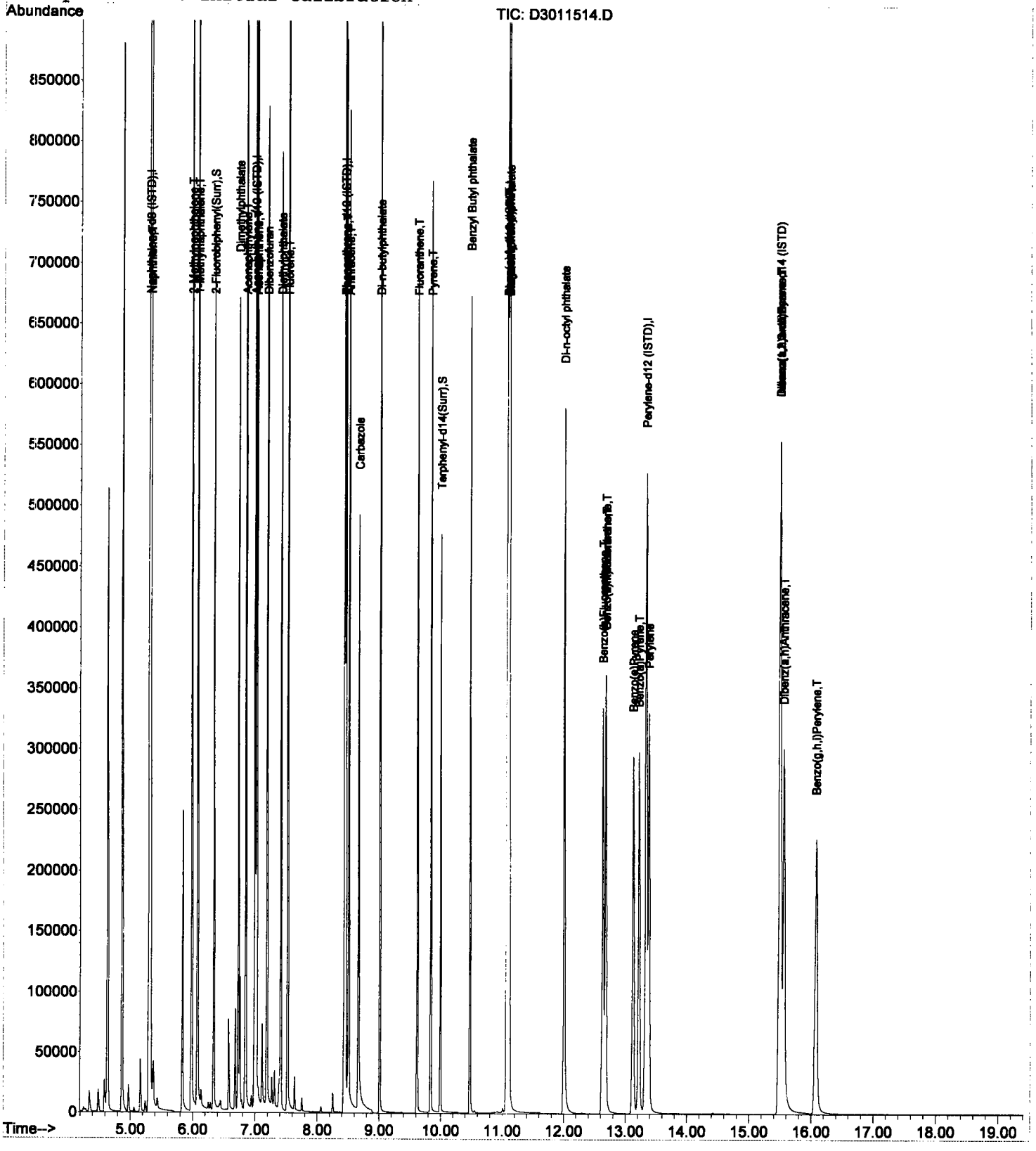
1-16-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3011514.D D21129D.M Wed Jan 16 09:05:36 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011514.D Vial: 13
Acq On : 15 Jan 2013 20:50 Operator: bsj
Sample : 3A15024-ICV1 Inst : SV-GCMS4
Misc : 1x A12K140@1000ppb 8270 PAH SIM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



D3011514.D D21129D.M Wed Jan 16 09:05:37 2013 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011515.D Vial: 2
Acq On : 15 Jan 2013 21:15 Operator: bsj
Sample : 3A15024-IBL2 Inst : SV-GCMS4
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Quant Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration
DataAcq Meth : DAQ21227

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8 (ISTD)	5.30	136	617906	2000.00 ng/ml	0.00
5) Acenaphthene-d10 (ISTD)	6.98	164	269965	2000.00 ng/ml	0.00
13) Phenanthrene-d10 (ISTD)	8.43	188	343333	2000.00 ng/ml	-0.01
20) Chrysene-d12 (ISTD)	11.07	240	228840	2000.00 ng/ml	-0.02
27) Perylene-d12 (ISTD)	13.32	264	193374	2000.00 ng/ml	-0.02
34) Dibenz(a,h)anthracene-d14	15.48	292	131747	2000.00 ng/mL	0.00
System Monitoring Compounds					
6) 2-Fluorobiphenyl(Surr)	0.00	172	0	0.00 ng/ml	
21) Terphenyl-d14(Surr)	0.00	244	0	0.00 ng/ml	
Target Compounds					Qvalue
2) Naphthlene	0.00	128	0	N.D.	
3) 2-Methylnaphthalene	0.00	142	0	N.D.	
4) 1-Methylnaphthalene	0.00	142	0	N.D.	
7) Dimethylphthalate	0.00	163	0	N.D.	
8) Acenaphthylene	0.00	152	0	N.D.	
9) Acenaphthene	0.00	153	0	N.D.	
10) Dibenzofuran	0.00	168	0	N.D.	
11) Diethylphthalate	7.40	149	585	3.01 ng/mL#	58
12) Fluorene	0.00	166	0	N.D.	
14) Phenanthrene	0.00	178	0	N.D.	
15) Anthracene	0.00	178	0	N.D.	
16) Carbazole	0.00	167	0	N.D.	
17) Di-n-butylphthalate	8.96	149	499	1.69 ng/mL#	85
18) Fluoranthene	0.00	202	0	N.D.	
19) Pyrene	0.00	202	0	N.D.	
22) Benzyl Butyl phthalate	0.00	149	0	N.D.	
23) Benz(a)Anthracene	11.07	228	609	4.51 ng/ml#	57
24) Chrysene	11.07	228	609	4.87 ng/ml#	58
25) Bis(2-ethylhexyl)phthalate	0.00	149	0	N.D.	
26) Di-n-octyl phthalate	0.00	149	0	N.D.	
28) Benzo(b)Fluoranthene	0.00	252	0	N.D.	
29) Benzo(k)Fluoranthene	0.00	252	0	N.D.	
30) Benzo(b+k)Fluoranthene	0.00	252	0	N.D.	
31) Benzo(e)Pyrene	0.00	252	0	N.D.	
32) Benzo(a)Pyrene	0.00	252	0	N.D.	
33) Perylene	13.32	252	724	6.40 ng/mL#	1
35) Indeno(1,2,3-cd)Pyrene	0.00	276	0	N.D.	
36) Dibenz(a,h)Anthracene	0.00	278	0	N.D.	
37) Benzo(g,h,i)Perylene	0.00	276	0	N.D.	

NR

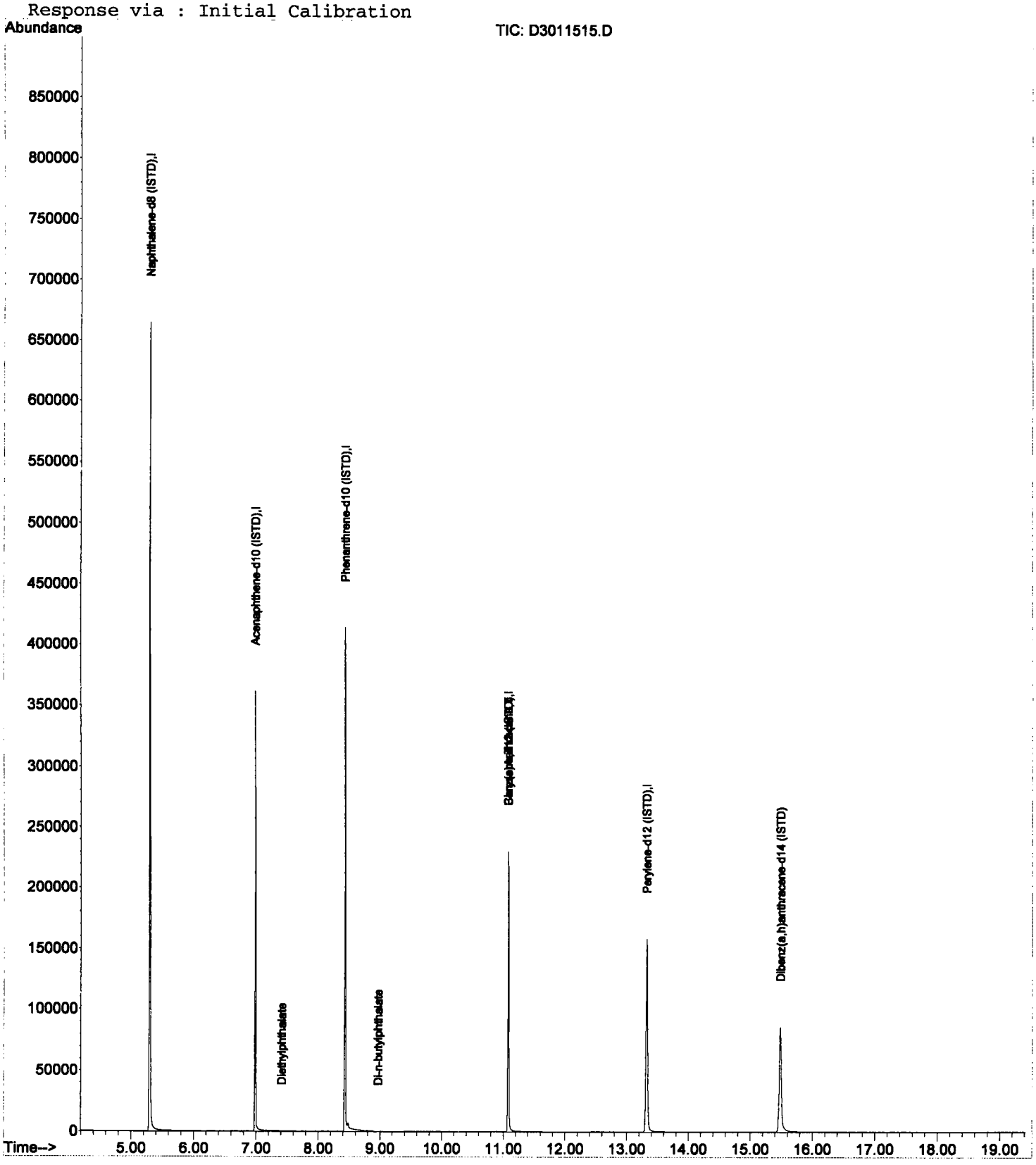
1-16-13
BSJ

(#) = qualifier out of range (m) = manual integration
D3011515.D D21129D.M Wed Jan 16 09:05:40 2013 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\2013-01\3A15024\D3011515.D Vial: 2
Acq On : 15 Jan 2013 21:15 Operator: bsj
Sample : 3A15024-IBL2 Inst : SV-GCMS4
Misc : 1x DCM+ISTD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 16 9:05 2013 Quant Results File: D21129D.RES

Method : C:\HPCHEM\1\METHODS\D21129D.M (RTE Integrator)
Title : EPA 8270 SIM PAH/PCP/PTH
Last Update : Tue Jan 15 16:32:10 2013
Response via : Initial Calibration



D3011515.D D21129D.M Wed Jan 16 09:05:41 2013 Page 2

APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Total Organic Carbon by PSEP/ SM 5310B MOD

Benchsheet & Analysis Sequence Data

Batch 1301280
Sequence 3A16003 (A13A243-01,02,05,06,08,09,11,12,14,15)

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301280 (Soil)

Prep Method: PSEP TOC

MW #	Lab Number		Analysis	Prepared	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH
	1301280-BLK1		QC	01/14/13 15:35	5	5							
	1301280-BS1		QC	01/14/13 15:35	5	5	A12D063						
	A13A243-01	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-24-0-1	MDL--Freeze upon reciept	
	1301280-DUP1		QC	01/14/13 15:35	5	5		A13A243-01					
	A13A243-02	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-24-1-2	MDL--Freeze upon reciept	
	A13A243-05	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-25-0-1	MDL--Freeze upon reciept	
	A13A243-06	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-25-1-2	MDL--Freeze upon reciept	
	A13A243-08	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-26-0-1	MDL--Freeze upon reciept	
	A13A243-09	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-26-1-2	MDL--Freeze upon reciept	
	A13A243-11	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-76-0-1	MDL--Freeze upon reciept	
	A13A243-12	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-76-1-2	MDL--Freeze upon reciept	
	A13A243-14	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-27-0-1	MDL--Freeze upon reciept	
	A13A243-15	A	Total Organic Carbon -	01/14/13 15:35	5	5					AQ-SSA4-27-1-2	MDL--Freeze upon reciept	

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description

Analyte Spike(s)

Std ID	Exp. Date	Description
A12D063	01/29/13	TOC 10k ppm secondary

Surrogate(s)

Std ID	Exp. Date	Description

samples expire 1-25 13

CC 1-14-13
Prepared By: Date

Tom 1/17/13
Reviewed By: Date

Printed: 1/14/2013 3:38:20PM

2/1/2013 A13A243Anchor Former Reynolds Metals Reduction Plant RI/FS\Sed\Apex Laboratories Data Package Page 693 of 716

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**3A16003**	Instrument:	**TOC**
Date:	**01/16/13 00:00**	Calibration:	**A1L0503**

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	3A16003-CCV1	Soil	QC	QC				A12L234
2	3A16003-CCB1	Soil	QC	QC				
3	1301280-BLK1	Soil	QC	QC		1301280		
4	1301280-BS1	Soil	QC	QC		1301280		
5	A13A243-01	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
6	1301280-DUP1	Soil	QC	QC		1301280		
7	A13A243-02	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
8	A13A243-05	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
9	A13A243-06	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
10	A13A243-08	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
11	A13A243-09	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
12	A13A243-11	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
13	3A16003-CCV2	Soil	QC	QC				A12L234
14	3A16003-CCB2	Soil	QC	QC				
15	A13A243-12	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
16	A13A243-14	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
17	A13A243-15	Soil	Total Organic Carbon - Sec	Anchor QEA, LLC Tigard	01/22/13	1301280		
18	3A16003-CCV3	Soil	QC	QC				A12L234
19	3A16003-CCB3	Soil	QC	QC				

Data Entered By: CC 1-16-13

Comments:

Data Reviewed By: 1/17/13

TOC Data

Sample ID	Rep #	Amount (mg or ul)	instrument response (ug C)	Calculated ug C	TOC (mg/kg or mg/l)	Average TOC (mg/kg or mg/l)	Date and Time
3A16003-CCV1	1	20	266.500	181.19	9,059.61	9,160	
	2	20	273.700	185.22	9,261.06		
3A16003-CCB1	1	20	0.01	-0.17	-8.63	-9	
	2	20	0	-0.19	-9.69		
1301280-BLK	1	178.3	3.803	5.48	30.72	25	
	2	162.1	2.241	3.17	19.54		
	3	192.1	2.027	2.85	14.83		
1301280-BS	1	20.0	280.2	189.06	9,453.18	9,620	
	2	20	286.2	192.8	9,639.88		
	3	20	290.1	195.33	9,766.37		
A13A243-01	1	54.0	32.51	43.27	801.30	591	
	2	59.1	25.56	34.9	590.46		
	3	58.6	15.77	22.28	380.18		
1301280-BS1	1	60.5	60.28	72.32	1,195.37	1,102	
	2	79.3	52.22	64.57	814.30		
	3	94.1	131.5	121.89	1,295.30		
A13A243-02	1	124.4	24.93	34.11	274.22	257	
	2	102.3	16.71	23.53	230.04		
	3	105.9	20.39	28.36	267.76		
A13A243-05	1	89.4	407.2	326.55	3,652.65	3,179	
	2	88.9	348.4	245.2	2,758.13		
	3	64.8	300.7	202.64	3,127.19		
A13A243-06	1	71.6	27.61	37.42	522.56	515	
	2	54.2	16.47	23.21	428.30		
	3	68.8	30.45	40.84	593.56		

Sample ID	Rep #	Amount (mg or ul)	instrument response (ug C)	Calculated ug C	TOC (mg/kg or mg/l)	Average TOC (mg/kg or mg/l)	Date and Time
A13A243-08	1	60.6	139.8	126.02	2,079.59	2,252	
	2	61.0	191.1	147.9	2,424.65		
	3	87.9	287.9	193.89	2,205.80		
A13A243-09	1	100.1	23.11	31.83	317.98	297	
	2	93.9	18.77	26.25	279.55		
	3	99.4	20.95	29.08	292.52		
A13A243-11	1	58.7	55.05	67.35	1,147.43	1,364	
	2	66.8	111.8	110.98	1,661.35		
	3	63.8	71.02	81.85	1,282.87		
3A16003-CCV2	1	20	279.2	188.46	9,422.96	9,552	
	2	20	287.5	193.63	9,681.58		
3A16003-CCB2	1	20	0.18	0.08	3.92	-3	
	2	20	0	-0.19	-9.69		
A13A243-12	1	114	29.34	39.51	346.57	329	
	2	106	24.03	32.99	311.21		
	3	97.3	25.91	35.33	363.09		
A13A243-14	1	95.9	62.33	74.21	773.79	864	
	2	97.0	88.06	95.27	982.12		
	3	76.8	51.84	64.2	835.88		
A13A243-15	1	52.6	341.2	237.62	4,517.44	4,584	
	2	48.7	342.5	238.95	4,906.62		
	3	49.6	316.2	214.61	4,326.87		
3A16003-CCV3	1	20.0	290.1	195.33	9,766.37	9,910	
	2	20.0	298.5	201.07	10,053.44		
3A16003-CCB3	1	20.0	0.11	-0.03	-1.67	-6	
	2	20.0	0	-0.19	-9.69		
				-0.19	#DIV/0!		

Sequence 3A 16003
Batch 1301280

TOC Soil data log

Date/Time 1-16-13
Analyst CC

Sample ID	Wt1(mg or ul)** / Wt2(mg or ul)** / Wt3(mg or ul)**	raw TOC (ug) / raw TOC (ug) / raw TOC (ug)	Comments
CCV	20	266.5	start 835 A12D062
	20	273.7 timeout	
CCB	20	0.014	
	20	0	
	Ø		
BIK	111.6	9.709 Kouthier notused CC 1-16-13	192.1 - 2.027
	178.3 ~~117.7~~ CC 1-16-13	3.803	
	162.1	2.241	
BS	20	280.2	
	20	286.2	A12D063 ← timeout
	20	290.1	
243-01	54.0	32.51	
	59.1	25.56	
	58.6	15.77	
D-243-01	60.5	60.28	
	79.3	52.22	
	94.1	131.5	
243-02	124.4	24.93	
	102.3	16.71	
	105.9	20.39	
243-05	89.4	407.2	← timeout
	88.9	348.4	
	64.8	300.7	

Sample ID	Wt1(mg or ul)** / Wt2(mg or ul)** / Wt3(mg or ul)**	raw TOC (ug) / raw TOC (ug) / raw TOC (ug)	Comments
243-6	71.6	27.61	
	54.2	16.47	
	68.8	30.45	
243-8	60.6	139.8	
	61.0	191.1	
	87.9	287.9	
243-9	100.1	23.11	
	93.9	18.77	
	99.4	20.95	
243-11	58.7	55.05	
	66.8	111.8	
	63.8	71.02	
CCV	20	279.2	
	20	287.5	- timeout
CCB	20	0.18	
	20	0	
243-12	114.0	29.34	
	106.0	24.03	
	97.3	25.91	
243-14	95.9	62.33	
	97.0	88.06	
	76.8	51.84	

**Sample mass input into instrument as 1000 mg to output actual ug C

Sequence 3A 160003
Batch 1301280

TOC Soil data log

Date/Time 1-16-13
Analyst CC

Sample ID	Wt1(mg or ul)**	raw TOC (ug)	Comments
	Wt2(mg or ul)**	raw TOC (ug)	
	Wt3(mg or ul)**	raw TOC (ug)	
243-15	52.6	341.2	
	48.7	342.5	
	49.6	316.2	
CCV	20	290.1	
	20	298.5	
CCB	20	0.106	end 16000
	20	0	

Sample ID	Wt1(mg or ul)**	raw TOC (ug)	Comments
	Wt2(mg or ul)**	raw TOC (ug)	
	Wt3(mg or ul)**	raw TOC (ug)	

**Sample mass input into instrument as 1000 mg to output actual ug C

Batch 1301280 TOC PSEP preweigh Analyst CC

Date/Time:	~~CC 1-14-13~~ CC 1-15-13 1635	1-15-13 @			Effervesces?	Comments
T(°C) IN / OUT:	71 / 73	72 / 72	/	/		
Sample ID	Wt 1(g)	Wt 2(g)	Wt 3(g)	Wt 4(g)	(yes/no)	
1301280-BLK1	8.1042	8.1002				
~~1301280-BS1~~						Liquid spike used CC 1-15-13
1301280-DUP1	7.6175	7.6154			no	
A13A243-01	12.2171	12.2105				removed rocks
A13A243-02	10.7579	10.7558				
A13A243-05	14.3177	14.3151				
A13A243-06	13.1786	13.1769				removed rock
A13A243-08	13.5179	13.5141				
A13A243-09	11.3864	11.3824				
A13A243-11	13.4436	13.4401				
A13A243-12	14.0637	14.0007				
A13A243-14	13.4104	13.4068				
A13A243-15	12.4341	12.4354				

Pre-drying sample aliquot > 10g. Constant wt = change of < 0.005g

APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Total Organic Carbon by PSEP/ SM 5310B MOD

Calibration Data

Sequence 0H31010 (Cal ID A1L0503)

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**0H31010**	Instrument:	**TOC**
Date:	**08/31/10 00:00**	Calibration:	**UNASSIGNED**

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	0H31010-CAL1	Sediment	QC	QC				A10H21
2	0H31010-CAL2	Sediment	QC	QC				A10H21
3	0H31010-CAL3	Sediment	QC	QC				A10H21
4	0H31010-CAL4	Sediment	QC	QC				A10H21
5	0H31010-CAL5	Sediment	QC	QC				A10H21
6	0H31010-CAL6	Sediment	QC	QC				A10H21
7	0H31010-CAL7	Sediment	QC	QC				A10H21
8	0H31010-CAL8	Sediment	QC	QC				A10H21
9	0H31010-CAL9	Sediment	QC	QC				A10H21
10	0H31010-CALA	Sediment	QC	QC				A10H21
11	0H31010-CALB	Sediment	QC	QC				A10H21

Calibration was done for absolute ug of carbon, not concentration. So different volumes of a single standard were analyzed to define the relationship of instrument response to True Value of ug C added. This data resulted in a third order curve which was plotted on a Texas Instruments graphing calculator (see next page). During analysis, the interpolated value of ug C is divided by the amount (mg) of sample used to obtain the concentration. Element cal ID is AIL0503. JCS 12/6/11

Data Entered By: N/A - JCS 12/6/11 Comments:

Data Reviewed By: DES 12/8/11

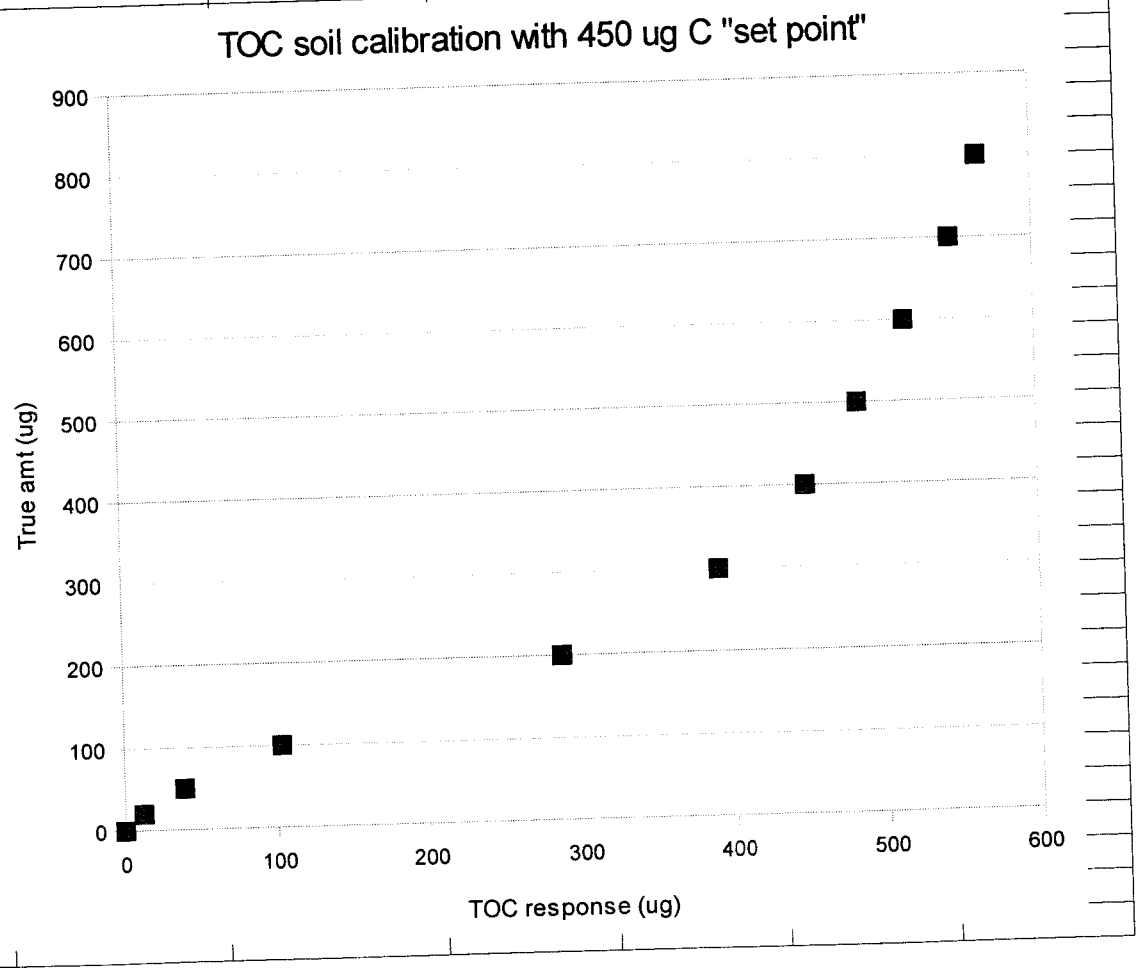
450 ug curve

TOC resp ug C	True ug C
565	800
546	700
515	600
483	500
448	400
390	300
287	200
103	100
39	50
12	20
0	0

$y = (9.796\ E\text{-}6)\ x^3 + (-5.734\ E\text{-}3\ )\ x^2 + (1.513\ )\ x + (-0.1938)$

$R^2 = 0.9995$

TOC resp ug C	Requant	% recovery
565	791.04	98.88
546	711.02	101.57
515	596.25	99.37
483	496.71	99.34
448	407.6	101.9
390	298.82	99.61
287	193.31	96.65
103	105.52	105.52
39	50.67	101.35
12	17.15	85.77
0	-0.19	N/A



ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **0I13007** Instrument: **TOC**

Date: **09/10/10 00:00** Calibration: **UNASSIGNED**

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	0I13007-ICV1	Sediment	QC	QC				A10H21
2	0I13007-ICV2	Sediment	QC	QC				A10H21
3	1009114-BLK1	Soil	QC	QC		1009114		
4	1009114-BS1	Soil	QC	QC		1009114		
5	A10H438-01	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
6	1009114-DUP1	Soil	QC	QC		1009114		
7	0I13007-CCV1	Sediment	QC	QC				A10H21
8	0I13007-CCB1	Sediment	QC	QC				
9	A10H438-02	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
10	A10H438-03	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
11	A10H438-04	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
12	A10H438-05	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
13	A10H438-06	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
14	0I13007-CCV2	Sediment	QC	QC				A10H21
15	0I13007-CCB2	Sediment	QC	QC				
16	0I13007-CCV3	Sediment	QC	QC				A10H21
17	0I13007-CCB3	Sediment	QC	QC				
18	A10H438-07	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
19	A10H438-15	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
20	A10I058-01	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
21	1009176-DUP1	Soil	QC	QC		1009176		
22	1009176-BLK1	Soil	QC	QC		1009176		
23	1009176-BS1	Soil	QC	QC		1009176		
24	A10I058-03	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
25	A10I058-06	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
26	A10I058-08	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
27	A10I058-10	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
28	A10I058-14	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
29	A10I058-16	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
30	0I13007-CCV4	Sediment	QC	QC				A10H21
31	0I13007-CCB4	Sediment	QC	QC				
32	0I13007-ICV3	Sediment	QC	QC				A10H21
33	0I13007-ICB1	Sediment	QC	QC				
34	A10H438-07RE1	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
35	0I13007-CCV5	Sediment	QC	QC				A10H21
36	0I13007-CCB5	Sediment	QC	QC				

Data Entered By: JCS 9/13/10 Comments:

Data Reviewed By: EIT 9-14-10

Low Range Data

used curve @ w/ 100 mg set point _ JCS

Sample ID	Rep #	Amount (mg or ul)	instrument response (ug C)	Calculated ug C	TOC (mg/kg or mg/l)	Average TOC (mg/kg or mg/l)	Date and Time
0I02010-ICV1	1	5	32.35	48.62	9723.89	9919.36	09/10/10 01:10 PM
	2	5	34.22	50.57	10114.82		
0I02010-ICV2	1	20	287.5	214.78	10739.13	10703.45	09/10/10 01:10 PM
	2	20	286.3	213.36	10667.76		
1009042-BLK1	1	99.8	0	8.44	84.6	84.6	09/10/10 01:10 PM
	2	99.8	0	8.44	84.6		
1009114-BS1	1	18.7	105.9	103.34	5526.07	5673.9	09/10/10 01:10 PM
	2	21.3	152.2	124	5821.73		
A10H438-01	1	82.9	69.98 GH 1-14	81.589	984.0421	941.3743	09/10/10 01:10 PM
	2	122.9	114.3	107.5	874.67		
	3	111.1	113.8	107.26	965.41		
	4	83.4	626.5	1861.54	22320.62	<=outlier	
1009114-DUP1	1	124.3	232.3	164.13	1320.43	1151.9	09/10/10 01:10 PM
	2	97.2	110	105.4	1084.37		
	3	102.2	114.1	107.4	1050.89		
0I02010-CCV1	1	10	91.27	95.36	9535.97	9585.05	09/10/10 01:10 PM
	2	10	92.97	96.34	9634.14		

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **0I13007** Instrument: **TOC**

Date: **09/10/10 00:00** Calibration: **UNASSIGNED**

Order	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	0I13007-ICV1	Sediment	QC	QC				A10H21
2	0I13007-ICV2	Sediment	QC	QC				A10H21
3	1009114-BLK1	Soil	QC	QC		1009114		
4	1009114-BS1	Soil	QC	QC		1009114		
5	A10H438-01	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
6	1009114-DUP1	Soil	QC	QC		1009114		
7	0I13007-CCV1	Sediment	QC	QC				A10H21
8	0I13007-CCB1	Sediment	QC	QC				
9	A10H438-02	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
10	A10H438-03	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
11	A10H438-04	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
12	A10H438-05	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
13	A10H438-06	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
14	0I13007-CCV2	Sediment	QC	QC				A10H21
15	0I13007-CCB2	Sediment	QC	QC				
16	0I13007-CCV3	Sediment	QC	QC				A10H21
17	0I13007-CCB3	Sediment	QC	QC				
18	A10H438-07	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
19	A10H438-15	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
20	A10I058-01	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
21	1009176-DUP1	Soil	QC	QC		1009176		
22	1009176-BLK1	Soil	QC	QC		1009176		
23	1009176-BS1	Soil	QC	QC		1009176		
24	A10I058-03	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
25	A10I058-06	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
26	A10I058-08	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
27	A10I058-10	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
28	A10I058-14	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
29	A10I058-16	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009176		
30	0I13007-CCV4	Sediment	QC	QC				A10H21
31	0I13007-CCB4	Sediment	QC	QC				
32	0I13007-ICV3	Sediment	QC	QC				A10H21
33	0I13007-ICB1	Sediment	QC	QC				
34	A10H438-07RE1	Soil	Total Organic Carbon - PSI	Anchor Environmental, LLC Seattle	09/13/10	1009114		
35	0I13007-CCV5	Sediment	QC	QC				A10H21
36	0I13007-CCB5	Sediment	QC	QC				

Data Entered By: JCS 9/13/10 Comments:

Data Reviewed By: EIT 9-14-10

Low Range Data

used curve @ w/ 100 mg set point _ JCS

Sample ID	Rep #	Amount (mg or ul)	instrument response (ug C)	Calculated ug C	TOC (mg/kg or mg/l)	Average TOC (mg/kg or mg/l)	Date and Time
0I02010-ICV1	1	5	32.35	48.62	9723.89	9919.36	09/10/10 01:10 PM
	2	5	34.22	50.57	10114.82		
0I02010-ICV2	1	20	287.5	214.78	10739.13	10703.45	09/10/10 01:10 PM
	2	20	286.3	213.36	10667.76		
1009042-BLK1	1	99.8	0	8.44	84.6	84.6	09/10/10 01:10 PM
	2	99.8	0	8.44	84.6		
1009114-BS1	1	18.7	105.9	103.34	5526.07	5673.9	09/10/10 01:10 PM
	2	21.3	152.2	124	5821.73		
A10H438-01	1	82.9	69.98 GH 1-14	81.589	984.0421	941.3743	09/10/10 01:10 PM
	2	122.9	114.3	107.5	874.67		
	3	111.1	113.8	107.26	965.41		
	4	83.4	626.5	1861.54	22320.62	<=outlier	
1009114-DUP1	1	124.3	232.3	164.13	1320.43	1151.9	09/10/10 01:10 PM
	2	97.2	110	105.4	1084.37		
	3	102.2	114.1	107.4	1050.89		
0I02010-CCV1	1	10	91.27	95.36	9535.97	9585.05	09/10/10 01:10 PM
	2	10	92.97	96.34	9634.14		

APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Total Solids by SM2540G and Dry Weight

Benchsheet

Batch 1301260 (A13A243-01,02,05,06,08,09,11,12,14,15)

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 1301260 (Matrix: Sediment)

Percent Solids - APEX Dry Weight

Lab Number	QC Source ID	Prepared (Time In)	Weighed (Time Out)	Tare Wt (g)	Sample Wt. (+Tare) (g)	Dry Weight (+Tare) (g)	% Solids (Calc)	Client / Sample
A13A229-01		01/14/13 10:35		1.2848	27.4755	20.2624	72.5	MBTL12-SS-11-10
1301260-DUP1	A13A229-01	01/14/13 10:35		1.2849	24.8880	18.4056	72.5	
A13A229-02		01/14/13 10:35		1.2883	26.2601	20.8123	78.2	MBTL12-SS-12-10
A13A229-03		01/14/13 10:35		1.2949	24.1756	17.8515	72.4	MBTL12-SS-13-10
A13A229-04		01/14/13 10:35		1.3188	18.9351	11.5537	58.1	MBTL12-SS-03-10
A13A229-05		01/14/13 10:35		1.3140	25.7888	18.3617	69.7	MBTL12-SS-09-10
A13A229-06		01/14/13 10:35		1.2963	32.3702	24.8026	75.6	MBTL12-SS-10-10
A13A243-01		01/14/13 10:35		1.2947	21.8116	18.3533	83.1	AQ-SSA4-24-0-1
1301260-DUP2	A13A243-01	01/14/13 10:35		1.2987	21.6220	18.2886	83.6	
A13A243-02		01/14/13 10:35		1.2854	24.1015	19.8653	81.4	AQ-SSA4-24-1-2
A13A243-05		01/14/13 10:35		1.2848	21.9106	19.4157	87.9	AQ-SSA4-25-0-1
A13A243-06		01/14/13 10:35		1.3019	17.5341	14.6967	82.5	AQ-SSA4-25-1-2
A13A243-08		01/14/13 10:35		1.2872	20.8660	18.0279	85.5	AQ-SSA4-26-0-1
A13A243-09		01/14/13 10:35		1.2845	19.2434	15.9832	81.8	AQ-SSA4-26-1-2
A13A243-11		01/14/13 10:35		1.3041	20.8113	18.1151	86.2	AQ-SSA4-76-0-1
A13A243-12		01/14/13 10:35		1.3061	24.3154	20.0154	81.3	AQ-SSA4-76-1-2
A13A243-14		01/14/13 10:35		1.2920	24.2899	20.5188	83.6	AQ-SSA4-27-0-1
A13A243-15		01/14/13 10:35		1.3068	22.6839	19.8923	86.9	AQ-SSA4-27-1-2

CC 1-15-13
Prepared By: Date

1/15/13
Reviewed By: Date

Printed: 1/15/2013 1:12:28PM

2/13/13# A13A243 Anchor Former Reynolds Metals Reduction Plant RI/FS-sed Apex Laboratories Data Package Page 708 of 716

Total Solids Worksheet

Analyst: CC Date: 1-14-13 Batch: 1301260

Sample ID	Vessel ID	Tare Weight (g)	Wet+ Tare Weight (g)	Dry Weight (g) 1st weighing	Dry Weight (g) 2nd weighing	Comments
1301260-DUP1		1.2849	24.8880	18.4056	18.4134	A13A229-01
1301260-DUP2	1.2987	CC 1-14-13 ~~1.2987~~ 1.2848	21.6220 ~~21.8116~~	18.2886	18.2996	A13A243-01
A13A229-01		1.2848	27.4755	20.2624	20.2742	samples were decanted & no
A13A229-02		1.2883	26.2601	20.8123	20.8174	other bottles were available
A13A229-03		1.2949	24.1756	17.8515	17.8617	
A13A229-04		1.3188	18.9351	11.5537	11.5787	
A13A229-05		1.3140	25.7888	18.3617	18.3713	
A13A229-06		1.2963	32.3702	24.8026	24.8209	
A13A243-01		1.2947 CC 1-14-13 ~~1.2987~~	21.8116 ~~21.6220~~	18.3533	18.3657	
A13A243-02		1.2854	24.1015	19.8653	19.8725	
A13A243-05		1.2848	21.9106	19.4157	19.4237	
A13A243-06		1.3019	17.5341	14.6967	14.6997	
A13A243-08		1.2872	20.8660	18.0279	18.0342	
A13A243-09		1.2845	19.2434	15.9832	15.9865	
A13A243-11		1.3041	20.8113	18.1151	18.1197	
A13A243-12		1.3061	24.3154	20.0154	20.0191	
A13A243-14		1.2920	24.2899	20.5189	20.5188	
A13A243-15		1.3068	22.6839	19.8923	19.8980	

Oven Temp at Sample Introduction	104.4	103.7
Oven Temp at sample removal	103.2	104.4
Time/date	11:20	1300

*Constant weight = +/- 50 mg.

Start 1-14-13 @ 1035

APEX LABORATORIES, LLC
12232 SW Garden Place Tigard OR 97223
phone 503-718-2323
fax 503-718-0333

Balance Checksheets

Extractions January 2013
Dry Weight January 2013
WET Chem January 2013

Balance Challenge Log

Extractions
AND FX-2000
ID# 5210177

Weight ID	weight (g)	acceptance range (g)	
	</= 1g	± 5%	
	>1g	± 0.05%	
10077	0.5g	0.47	0.53
10077	50g	49.97	50.03

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Alternate Weight/ID used:

Date Range:

Month: January
Year: 2013

Day/Time	Initials	Weight One	Observed	Weight Two	Observed
1					
2	8:15		0.50		50.01
3	8:00		0.50		50.01
4	0740		0.50		50.00
5					
6					
7	8:20		0.51		50.01
8	8:25		0.51		50.01
9					
10	3:40PM		0.51		50.00
11	8:10		0.50		50.00
12					
13					
14	825		0.49		50.00
15	12:40		0.50		50.00
16	820	0.50g	0.50	50.00g	50.00
17	900		0.50		50.01
18	0735 0735 1/15/13		0.50		50.00
19					
20					
21	0735		0.51		50.01
22	0835		0.50		50.00
23	0820		0.50		50.00
24	0740		0.50		50.01
25	18:55		0.50		49.99
26					
27					
28	8:00		0.51		50.00
29	12:25		0.51		50.00
30	8:30		0.50		50.01
31	8:10		0.50		50.00

Balance Challenge Log

Metals Prep Balance 3
Mettler PE 360
ID# D47890

Weight ID	weight (g)	acceptance range (g)	
	</=1g	± 1%	
	>1g	± 0.05%	
10077	0.5g	0.495	0.505
10077	50g	49.975	50.025

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Alternate Weight/ID used:

Date Range:

Month: Jan
Year: 2013

Day/Time	Initials	Weight One	Observed	Weight Two	Observed
1					
2 7:40	AO		0.499		50.000
3 7:45	[illegible]		0.500		49.999
4 8:05	JK		0.500		50.000
5					
6					
7 8:05	JK		0.501		49.998
8 8:25	[illegible]		0.499		50.000
9 8:00	[illegible]		0.499		49.999
10 8:10	[illegible]		0.499		50.000
11 8:10	[illegible]		0.500		50.000
12					
13					
14 805	MK		0.500		50.000
15 810	MK		0.503		50.000
16 805	MK	0.500g	0.501	50.000g	50.000
17 900	MK		0.501		50.000
18 845	MK		0.501		50.001
19					
20 [illegible]					
21 820	MK		0.500		50.000
22 830	MK		0.500		50.000
23 815	MK		0.500		50.000
24 9:50	AO		0.500		50.000
25 815	MK		0.500		50.000
26 ~~800~~	~~[illegible]~~ JJK 1/28/13				
27					
28 8:00	[illegible]		0.500		49.998
29 7:55	[illegible]		0.500		49.999
30 8:05	JK		0.499		49.997
31 8:10	JK		0.500		49.999

Balance Challenge Log

Wet Chem
Ohaus Adventurer Pro
ID# 8C30461093

Weight ID	weight (g)	acceptance range (g)	
	<0.100g	± 5%	
	<1g to 0.100g	± 0.5%	
	>/=1g	± 0.05%	
1000015949	0.005g	0.0048	0.0053
66067	0.100g	0.0995	0.1005
66067	100g	99.9500	100.0500

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: January
Year: 2013

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1							-
2 1150	CC		99.9978		0.0999		0.0050
3 09:30	JI		99.9983		0.1004		0.0051
4							
5							
6							
7 1040	RP		99.9978		0.0999		0.0050
8 1110	RP		99.9981	1/8/13	~~0~~ 0.1000		0.0050
9 835	RP		99.9983		0.1001		0.0050
10 1155	RP		99.9982		0.0999		0.0051
11 630	RP		99.9979		0.0999		0.0050
12							
13							
14 940	CC		99.9974		0.1001		0.0050
15 925	RP		99.9971		0.1006		0.0052
16 805	CC	100.0000g	99.9973	0.1000g	0.1000	.0050g	0.0051
17 09:30	JI		99.9974		0.1002	1/17/13 JI	~~0.005~~ 0.0048
18 905	CC		99.9971		0.1001		0.0050
19							
20							
21 09:20	JI		99.9967		0.0999		0.0050
22 0830	CC		99.9964		0.0999		0.0049
23							
24 09:42	JI		99.9960		0.1000		0.0050
25 952	CC		99.9970		0.1000		0.0049
26							
27							
28 931	RP		99.9976		0.1000		0.0050
29 09:37	JI		99.9977		0.1000		0.0050
30 451	CC		99.9977		0.0999		0.0049
31 751	RP		99.9979		0.1000		0.0049

APEX LABORATORIES, LLC
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fax 503-718-0333

Freezer Log

Apex Laboratories

_Frozen Sample Log

01/12/13 10:43

Wrk	Sx	SampleName	ID	Relogged	Location	Frozen1	Thawed1	Frozen2	Thawed2	Container
A13A243	01	AQ-SSA4-24-0-1	A		Organics Fridge					8 oz Glass Jar
A13A243	01	AQ-SSA4-24-0-1	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	02	AQ-SSA4-24-1-2	A		Organics Fridge					8 oz Glass Jar
A13A243	02	AQ-SSA4-24-1-2	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	03	AQ-SSA4-24-2-3	A		Freezer - DTH					8 oz Glass Jar
A13A243	03	AQ-SSA4-24-2-3	B		Freezer - DTH					8 oz Glass Jar
A13A243	04	AQ-SSA4-24-3-4	A		Freezer - DTH					8 oz Glass Jar
A13A243	04	AQ-SSA4-24-3-4	B		Freezer - DTH					8 oz Glass Jar
A13A243	05	AQ-SSA4-25-0-1	A		Organics Fridge					8 oz Glass Jar
A13A243	05	AQ-SSA4-25-0-1	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	06	AQ-SSA4-25-1-2	A		Organics Fridge					8 oz Glass Jar
A13A243	06	AQ-SSA4-25-1-2	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	07	AQ-SSA4-25-2-3	A		Freezer - DTH					8 oz Glass Jar
A13A243	07	AQ-SSA4-25-2-3	B		Freezer - DTH					8 oz Glass Jar
A13A243	08	AQ-SSA4-26-0-1	A		Organics Fridge					8 oz Glass Jar
A13A243	08	AQ-SSA4-26-0-1	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	09	AQ-SSA4-26-1-2	A		Organics Fridge					8 oz Glass Jar
A13A243	09	AQ-SSA4-26-1-2	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	10	AQ-SSA4-26-2-3	A		Freezer - DTH					8 oz Glass Jar
A13A243	10	AQ-SSA4-26-2-3	B		Freezer - DTH					8 oz Glass Jar
A13A243	11	AQ-SSA4-76-0-1	A		Organics Fridge					8 oz Glass Jar
A13A243	11	AQ-SSA4-76-0-1	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	12	AQ-SSA4-76-1-2	A		Organics Fridge					8 oz Glass Jar
A13A243	12	AQ-SSA4-76-1-2	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	13	AQ-SSA4-76-2-3	A		Freezer - DTH					8 oz Glass Jar
A13A243	13	AQ-SSA4-76-2-3	B		Freezer - DTH					8 oz Glass Jar
A13A243	14	AQ-SSA4-27-0-1	A		Organics Fridge					8 oz Glass Jar
A13A243	14	AQ-SSA4-27-0-1	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	15	AQ-SSA4-27-1-2	A		Organics Fridge					8 oz Glass Jar
A13A243	15	AQ-SSA4-27-1-2	B		Freezer - DTH	ES 1/12/13				8 oz Glass Jar
A13A243	16	AQ-SSA4-27-2-3	A		Freezer - DTH					8 oz Glass Jar
A13A243	16	AQ-SSA4-27-2-3	B		Freezer - DTH					8 oz Glass Jar
A13A243	17	AQ-SSA4-27-3-4	A		Freezer - DTH					8 oz Glass Jar
A13A243	17	AQ-SSA4-27-3-4	B		Freezer - DTH					8 oz Glass Jar

Apex Laboratories

_Frozen Sample Log

01/12/13 10:43

Wrk	Sx	SampleName	ID	Relogged	Location	Frozen1	Thawed1	Frozen2	Thawed2	Container
A13A243	18	AQ-SSA4-RB-0111	A3		Organics Fridge					Other
A13A243	18	AQ-SSA4-RB-0111	B3		Organics Fridge					Other
A13A243	18	AQ-SSA4-RB-0111	C3		Organics Fridge					Other
A13A243	18	AQ-SSA4-RB-0111	D3		Organics Fridge					Other

14 December 2012

Cindy Fields
ANCHOR QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

Ph.: 206-903-3394
Email: cfields@anchorqea.com

Subject: Certificate of Results

Dear Cindy;

Attached to this narrative are the analytical results you requested on the samples submitted for the determination of polychlorinated biphenyl congeners. The insert below summarizes the relevant information pertaining to your project. In particular, QC annotations bring to your attention specific analytical observations and assessments made during the sample handling and data interpretation phases. Results reported relate only to the items tested.

Project Information Summary	When applicable, see QC Annotations for details
Client Project No.	110730-02.01
AP Project #	**A4908**
Analytical Protocol	Method 1668A
No. Samples Submitted	2
No. Samples Analyzed	2
No. Laboratory Method Blanks	1
No. OPRs / Batch CS3	1
No. Outstanding Samples	0
Date Received	20-Nov-2012
Condition Received	good
Temperature upon Receipt (C)	0.2
Extraction within Holding Time	yes
Analysis within Holding Time	yes
Data meet QA/QC Requirements	yes
Exceptions	none
Analytical Difficulties	none

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QC Annotations:

Please see Appendix A & B attached for data qualifier/attribute and lab identifier descriptions which may be contained in the project.

Analytical Perspectives Certification IDs:

SOUTH CAROLINA	99054
ARKANSAS	88-0628
NEW JERSEY-NELAP SECONDARY	NC005
FLORIDA-NELAP PRIMARY	E87608
LOUISIANA	4024
NORTH CAROLINA	37783
WASHINGTON	C2027
NEW YORK	11988
VIRGINIA	460180
MINNESOTA	037-999-448
OREGON	pending
TEXAS	T104704484-10-1
PENNSYLVANIA-NELAP SECONDARY	68-01849

SGS Analytical Perspectives remains committed to serving you in the most effective manner. Should you have any questions or need additional information and technical support, please do not hesitate to contact us.

The management and staff of SGS Analytical Perspectives welcomes customer feedback, both positive and negative, as we continually improve our services. Please visit our web site at www.ultratrace.com and click on the 'Leave Your Feedback Here!' link on the Home Page. Thank you for choosing SGS Analytical Perspectives.

Sincerely,



Heather Steele, Ph.D.
Project Scientist

APPENDIX A: DATA QUALIFIERS / DATA ATTRIBUTES	
>	Indicates high recoveries. Shown with the numeric value at the top of the range.[1]
B	The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
C	Two or more congeners co-elute. In EDDs C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
E	The reported concentration exceeds the calibration range (upper point of the calibration curve).
EMPC	Represents an Estimated Maximum Possible Concentration. EMPC's arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
ETH	Indicates the presence of a diphenyl ether that appears to interfere with the quantitation of a furan. The reported concentration is the maximum.
H/h	If the standard recovery is below the method or SOP specified value "H" is assigned. If the obtained value is less than half the specified value "h" is assigned.[1]
J	Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve).
ND	Indicates a non-detect.
NR	Indicates a value that is not reportable.
PR	Due to interference, the associated congener is poorly resolved.
QI	Indicates the presence of a quantitative interference.
SI	Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.[1]
U	The analyte was not detected. The estimated detection limit (EDL) may be reported for this analyte.
V	The labeled standard recovery was found to be outside of the method control limits.
X	Indicates results reported from reinjection, refractionation, or repeat analyses.
APPENDIX B: LAB ID IDENTIFIERS	
AR	Indicates use of the archived portion of the sample extract.
CU	Indicates a sample that required additional clean-up prior to MS injection/processing.
D	Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
DE	Indicates a dilution performed with the addition of ES (extraction standard) solution.
DUP	Designation for a duplicate sample.
MS	Designation for a matrix spike.
MSD	Designation for a matrix spike duplicate.
RJ	Indicates a reinjection of the sample extract.
S	Indicates a sample split. The number that follows the "S" indicates the split factor.

[1]Denotes data qualifiers/attributes whose use will be phased out over time

Sample ID: Method Blank

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Aqueous	Project No.:	A4908	Date Received:	n/a
Project ID:	110730-02.01	Weight/Volume:	0.93 L	Sample ID:	MB1_10420_PCB_TLX	Date Extracted:	10-Dec-2012
Date Collected:	n/a	pH	5	QC Batch No.:	10420	Date Analyzed:	13-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	0.966			ES PCB-1	101
PCB-81 344'5-TeCB	ND	0.974			ES PCB-3	95.9
PCB-105 233'44'-PeCB	ND	1.23			ES PCB-4	122
PCB-114 2344'5-PeCB	ND	1.23			ES PCB-15	93.3
PCB-118 23'44'5-PeCB	ND	1.2			ES PCB-19	98.2
PCB-123 23'44'5'-PeCB	ND	1.21			ES PCB-37	93.4
PCB-126 33'44'5-PeCB	ND	1.03			ES PCB-54	95.8
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	1.31		C	ES PCB-77	92.4
PCB-167 23'44'55'-HxCB	ND	0.972			ES PCB-81	91.3
PCB-169 33'44'55'-HxCB	ND	1.14			ES PCB-104	114
PCB-189 233'44'55'-HpCB	ND	1.01			ES PCB-105	95.8
					ES PCB-114	91.7
TEQs (WHO M/H)					ES PCB-118	94.1
					ES PCB-123	92.8
ND = 0	0		0		ES PCB-126	104
ND = 0.5 x DL	0.069		0.069		ES PCB-153	93.9
					ES PCB-155	94.5
					ES PCB-156/157	91.8
					ES PCB-167	92.4
					ES PCB-169	88.7
					ES PCB-170	102
					ES PCB-180	99.3
					ES PCB-188	95.8
					ES PCB-189	99.8
					ES PCB-202	101
					ES PCB-205	95
					ES PCB-206	99.7
					ES PCB-208	99.7
					ES PCB-209	103
					CS PCB-28	100
					CS PCB-111	104
					CS PCB-178	110

Checkcode: 495-318-DNB

SGS AP PCB 2012 Rev. 1.5

Report Created: 14-Dec-2012 11:14 Analyst: LB

SGS ANALYTICAL PERSPECTIVES

2714 Exchange Drive
Wilmington
North Carolina 28405
USA

T: 910 794-1613
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Sample ID: AQ-SE-FB

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Aqueous	Project No.:	A4908	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	0.99 L	Sample ID:	A4908_10420_PCB_001	Date Extracted:	10-Dec-2012
Date Collected:	13-Nov-2012	pH	5	QC Batch No.:	10420	Date Analyzed:	13-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	1.17			ES PCB-1	45.2
PCB-81 344'5-TeCB	ND	1.21			ES PCB-3	52.1
PCB-105 233'44'-PeCB	ND	1.22			ES PCB-4	67.4
PCB-114 2344'5-PeCB	ND	1.04			ES PCB-15	76.6
PCB-118 23'44'5-PeCB	ND	1.13			ES PCB-19	66.8
PCB-123 23'44'5'-PeCB	ND	1.15			ES PCB-37	86.9
PCB-126 33'44'5-PeCB	ND	1.1			ES PCB-54	78.9
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	1.43		C	ES PCB-77	87.9
PCB-167 23'44'55'-HxCB	ND	1.02			ES PCB-81	86.4
PCB-169 33'44'55'-HxCB	ND	1.28			ES PCB-104	107
PCB-189 233'44'55'-HpCB	ND	1.13			ES PCB-105	98.5
					ES PCB-114	98.7
TEQs (WHO M/H)					ES PCB-118	99
					ES PCB-123	97.9
ND = 0	0		0		ES PCB-126	110
ND = 0.5 x DL	0.0743		0.0743		ES PCB-153	96.6
					ES PCB-155	92.3
					ES PCB-156/157	92.5
					ES PCB-167	93.4
					ES PCB-169	89.2
					ES PCB-170	103
					ES PCB-180	100
					ES PCB-188	100
					ES PCB-189	103
					ES PCB-202	103
					ES PCB-205	96.9
					ES PCB-206	103
					ES PCB-208	102
					ES PCB-209	110
					CS PCB-28	99.9
					CS PCB-111	103
					CS PCB-178	101

Checkcode: 155-480-MMX

SGS AP PCB 2012 Rev. 1.5

Report Created: 14-Dec-2012 11:14 Analyst: LB

SGS ANALYTICAL PERSPECTIVES

2714 Exchange Drive
Wilmington
North Carolina 28405
USA

T: 910 794-1613
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Sample ID: AQ-SE-RB

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Aqueous	Project No.:	A4908	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	0.93 L	Sample ID:	A4908_10420_PCB_002	Date Extracted:	10-Dec-2012
Date Collected:	13-Nov-2012	pH	5	QC Batch No.:	10420	Date Analyzed:	13-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	1.11			ES PCB-1	37.9
PCB-81 344'5-TeCB	ND	1.24			ES PCB-3	43.9
PCB-105 233'44'-PeCB	1.4			J	ES PCB-4	56.8
PCB-114 2344'5-PeCB	ND	1.16			ES PCB-15	65.9
PCB-118 23'44'5-PeCB	2.32			J	ES PCB-19	55.8
PCB-123 23'44'5'-PeCB	ND	1.16			ES PCB-37	84.5
PCB-126 33'44'5-PeCB	ND	1.32			ES PCB-54	67
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	1.32		C	ES PCB-77	89
PCB-167 23'44'55'-HxCB	ND	0.983			ES PCB-81	86.8
PCB-169 33'44'55'-HxCB	ND	1.14			ES PCB-104	90.1
PCB-189 233'44'55'-HpCB	ND	1.22			ES PCB-105	97.4
					ES PCB-114	96.9
TEQs (WHO M/H)					ES PCB-118	97.5
					ES PCB-123	96
ND = 0	0.000112		0.000112		ES PCB-126	108
ND = 0.5 x DL	0.0836		0.0836		ES PCB-153	94.4
					ES PCB-155	84.1
					ES PCB-156/157	91.8
					ES PCB-167	93.6
					ES PCB-169	90.5
					ES PCB-170	100
					ES PCB-180	97.6
					ES PCB-188	98.9
					ES PCB-189	100
					ES PCB-202	102
					ES PCB-205	95.8
					ES PCB-206	104
					ES PCB-208	101
					ES PCB-209	106
					CS PCB-28	96.7
					CS PCB-111	99.1
					CS PCB-178	102

Checkcode: 560-818-LTL SGS AP PCB 2012 Rev. 1.5 Report Created: 14-Dec-2012 11:15 Analyst: LB

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Project Initiation Form

Project Number: A4908
Initiation Date: 21-Nov-12

Client Name: Anchor QEA
Analysis Method: 1668 PCB
Sample Matrix: Aqueous
TAT: 30 days
Project Manager: Heather

Special Instructions

1668A - OPR

Reporting Instructions

1668A - WHO list/coplanars only
Anchor - Equis EDD
Full report from 2714/Inv from 2714

PM Initials: akornegay Date: 21-Nov-2012

Sample Path

AP Project No.: A4908
Protocol: 1668A Water

Sample Processing

- **Extraction**
  - ☑ *1 or 2 L*
  - ☑ *Continuous Liquid-Liquid by TALEX*
  - ☑ *Extraction Standards ($^{13}C_{12}$ - PCBs) " ES "*
- **Fractionation**
  - ☑ *Cleanup Standard " CS "*
  - ☑ *Multi-Column Cleanup (Fraction A ASECS)*
  - ☑ *Final Extract*
- **Analysis**
  - ☑ *Injection Standards " JS "*
  - ☑ *HRGC / HRMS*
  - ☑ *12-H Performance Checks*
- **Interpretation**
  - ☑ *ID Criteria*
  - ☑ *Detection Limits*
  - ☑ *Recoveries*

Spike Profile

Ax (1668):	1 ng (20 µL; 0.05 ng/µL)	
ES (1668):	2 ng (20 µL; 0.1 ng/µL)	Final Vol. = 20 µL
CS (1668):	2 ng (20 µL; 0.1 ng/µL)	
JS (1668):	2 ng (10 µL; 0.2 ng/µL)	

SOPs

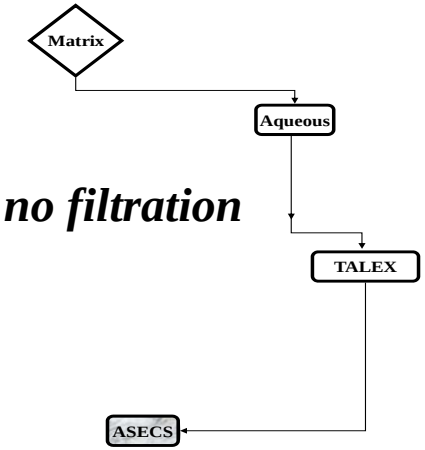
See AP-Cm-7.1

Extraction:	AP-SP-E3
Fractionation:	AP-SP-CU
Analyses:	AP-SP-A
Concentration:	AP-SP-N
Fortification:	AP-SP-F
Data Validation:	AP-SP-R

QC Profile

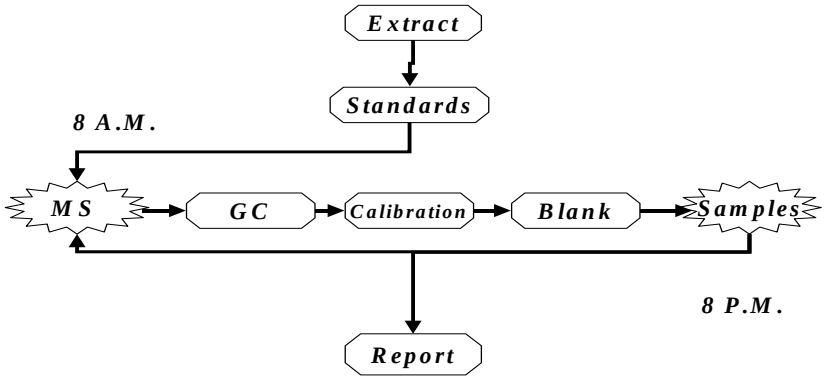
LMB:	always required
OPR (1668):	Always Required
BCS_3 (AP):	Required if no OPR

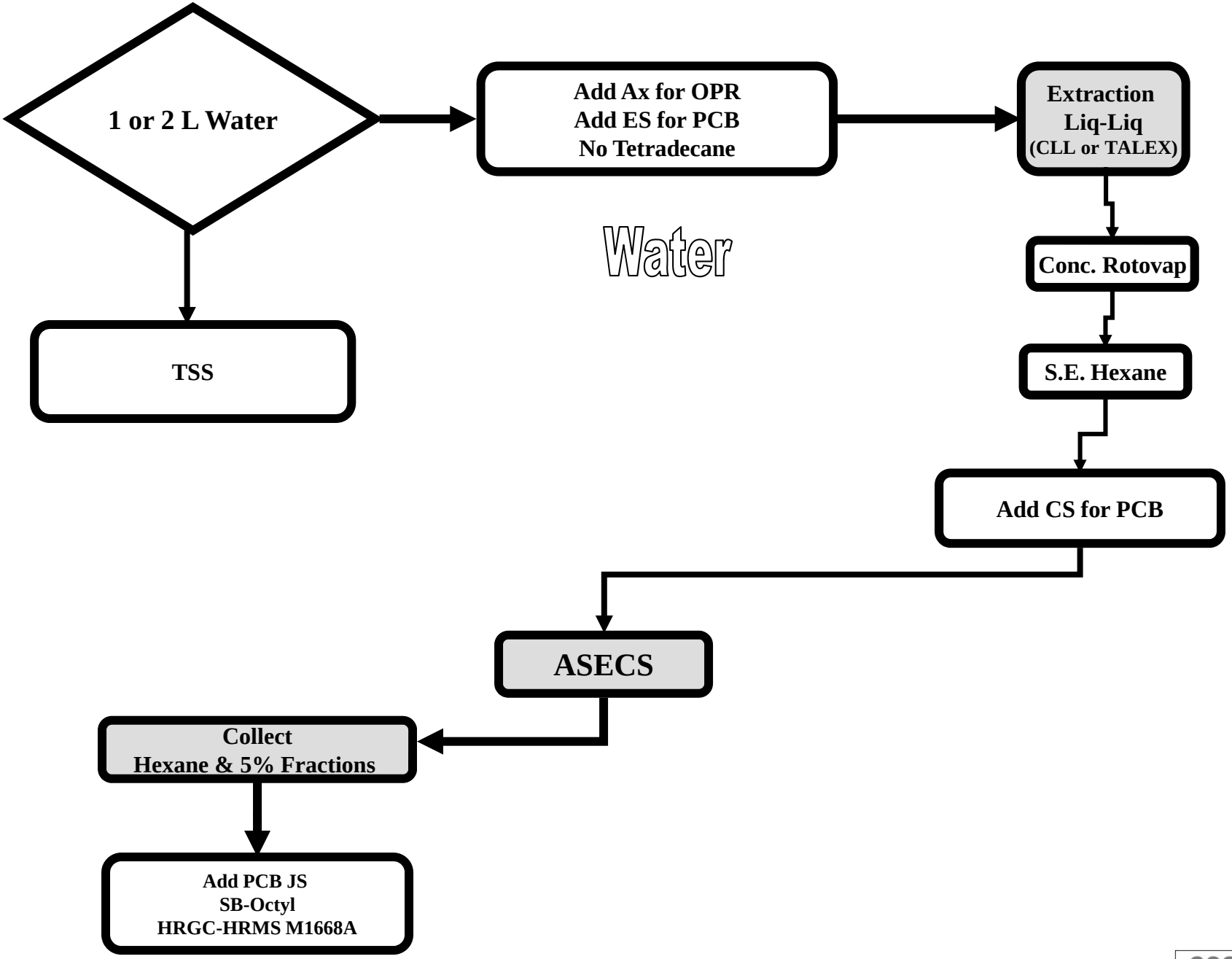
Sample Extraction



Extract 'as is' – no filtration

Sample Analyses




1 or 2 L Water
Add Ax for OPR
Add ES for PCB
No Tetradecane
Extraction
Liq-Liq
(CLL or TALEX)
Water
Conc. Rotovap
TSS
S.E. Hexane
Add CS for PCB
ASECS
Collect
Hexane & 5% Fractions
Add PCB JS
SB-Octyl
HRGC-HRMS M1668A

TRANSFER: MA 12/11/12

RECEIVED: CW 12/11/12

SGS

1668 PCB

VS 12-7-12 RL: Acid

Water

Project #	A4908	Batch #	10420	Extract Init/Date: ~~MA 12/10/12~~ RR MA 12/10/12	~~ASECS~~ Init/Date: MA 12/10/12	Transfer Init/Date: MA 12/10/12

AP Sample ID	Client Sample ID	Volume (mL)	Talex.#	SDS #	RV #	RV Initials	(Td)	Clean-up	Observations
A4908_10420_001	AQ-SE-FB	990	3	—	3	MS	—	MA	CLEAR, COLORLESS W/PM
A4908_10420_002	AQ-SE-RB	930	4	—	4	MS	—	MA	CLEAR, COLORLESS W/PM
MB1_10420	Method Blank	2000	1	—	1	MS	—	MA	TALEX DI 11282012
OPR1_10420	0_10420_OPR001	2000	2	—	2	MS	—	MA	TALEX DI 11282012
						12/10/12		12/10/12	

Special Instructions:

Horizon Method: I-1668-W

M1668A DRBC, OPR

2714 spikes and reporting

INV via Horizon

Cycle Time

Start: 11:10

Stop: 3:30 PM

Start:

Stop:

Supply IDs

Toluene	—	Acid Silica	12102012
CH_2CL_2	—	Base Silica	—
Sand	—	HydroMatrix	—
Florisil	—	Tetradecane	—
Hexane	MX-199	H_2SO_4	—
Silica	—	$MgSO_4$ ~~K Silicate~~	11122012

SGS ANALYTICAL PERSPECTIVES

1668 PCB

Aqueous

Project # A4908 Batch # 10420

Inter-Department Communication Sheet

Special Instructions

Horizon Method: I-1668-W

M1668A DRBC, OPR

2714 spikes and reporting

SGS ANALYTICAL PERSPECTIVES

M1668 PCB Spike Profile

Analyte	Cleanup Standards Amount Spiked (ng)
$^{13}C_{12}$-2,4,4'-TrCB (PCB-28)	2
$^{13}C_{12}$- 2,3,3',5,5'-PeCB (PCB-111)	2
$^{13}C_{12}$- 2,2',3,3',5,5',6-HpCB (PCB-178)	2

Compound	Injection Standards Amount Spiked ng
$^{13}C_{12}$– 2,5-DiCB (PCB-9)	2
$^{13}C_{12}$- 2,2',5,5'-TeCB (PCB-52)	2
$^{13}C_{12}$- 2,2',4,5,5'-PeCB (PCB-101)	2
$^{13}C_{12}$-2,2',3,4,4',5'-HxCB (PCB-138)	2
$^{13}C_{12}$-2,2',3,3',4,4',5,5'-OcCB (PCB-194)	2

$^{13}C_{12}$-PCB-153, -170 & -180 (NOAA) also included @ same levels

Not applicable to DRBC

Compound	Extraction Standards Amount Spiked ng
$^{13}C_{12}$ - 2-MoCB (PCB-1)	2
$^{13}C_{12}$ - 4-MoCB (PCB-3)	2
$^{13}C_{12}$ - 2,2'-DiCB (PCB-4)	2
$^{13}C_{12}$ - 4,4'-DiCB (PCB-15)	2
$^{13}C_{12}$ - 2,2',6-TrCB (PCB-19)	2
$^{13}C_{12}$ - 3,4,4'-TrCB (PCB-37)	2
$^{13}C_{12}$ - 2,2',6,6'-TeCB (PCB-54)	2
$^{13}C_{12}$ - 3,4,4',5-TeCB (PCB-81)	2
$^{13}C_{12}$ - 3,3',4,4'-TeCB (PCB-77)	2
$^{13}C_{12}$ - 2,2',4,6,6'-PeCB (PCB-104)	2
$^{13}C_{12}$ - 2',3,4,4',5-PeCB (PCB-123)	2
$^{13}C_{12}$ - 2,3',4,4',5-PeCB (PCB-118)	2
$^{13}C_{12}$ - 2,3,4,4',5-PeCB (PCB-114)	2
$^{13}C_{12}$ - 2,3,3',4,4'-PeCB (PCB-105)	2
$^{13}C_{12}$ - 3,3',4,4',5-PeCB (PCB-126)	2
$^{13}C_{12}$ - 2,2',4,4',6,6'-HxCB (PCB-155)	2
$^{13}C_{12}$ - 2,3',4,4',5,5'-HxCB (PCB-167)	2
$^{13}C_{12}$ - 2,3,3',4,4',5-/2,3,3',4,4',5'-HxCB(PCB-156/157)	4
$^{13}C_{12}$ - 3,3',4,4',5,5'-HxCB (PCB-169)	2
$^{13}C_{12}$ - 2,2',3,4',5,6,6'-HpCB (PCB-188)	2
$^{13}C_{12}$ - 2,2',3,4,4',5,5'-HpCB (PCB-180)	2
$^{13}C_{12}$ - 2,2',3,3',4,4',5-HpCB (PCB-170)	2
$^{13}C_{12}$ - 2,3,3',4,4',5,5'-HpCB (PCB-189)	2
$^{13}C_{12}$ - 2,2',3,3',5,5',6,6'-OcCB (PCB-202)	2
$^{13}C_{12}$ - 2,3,3',4,4',5,5',6-OcCB (PCB-205)	2
$^{13}C_{12}$ - 2,2',3,3',4,5,5',6,6'-NoCB (PCB-208)	2
$^{13}C_{12}$ - 2,2',3,3',4,4',5,5',6-NoCB (PCB-206)	2
$^{13}C_{12}$ - 2,2',3,3',4,4',5,5',6,6'-DeCB (PCB-209)	2

1668 ICAL (NOAA)

units: pg / µL

Individual Standard IUPAC	CS-0	CS-1	CS-2	CS-3 VER	CS-4	CS-5
1	0.5	1	5	50	400	2000
3	0.5	1	5	50	400	2000
4	0.5	1	5	50	400	2000
15	0.5	1	5	50	400	2000
19	0.5	1	5	50	400	2000
37	0.5	1	5	50	400	2000
54	0.5	1	5	50	400	2000
77	0.5	1	5	50	400	2000
81	0.5	1	5	50	400	2000
104	0.5	1	5	50	400	2000
105	0.5	1	5	50	400	2000
114	0.5	1	5	50	400	2000
118	0.5	1	5	50	400	2000
123	0.5	1	5	50	400	2000
126	0.5	1	5	50	400	2000
153 (BCS_3)				50		
155	0.5	1	5	50	400	2000
156	0.5	1	5	50	400	2000
157	0.5	1	5	50	400	2000
167	0.5	1	5	50	400	2000
169	0.5	1	5	50	400	2000
170 (BCS_3)				50		
180 (BCS_3)				50		
188	0.5	1	5	50	400	2000
189	0.5	1	5	50	400	2000
202	0.5	1	5	50	400	2000
205	0.5	1	5	50	400	2000
206	0.5	1	5	50	400	2000
208	0.5	1	5	50	400	2000
209	0.5	1	5	50	400	2000

Extraction Standards	CS-0	CS-1	CS-2	CS-3	CS-4	CS-5
1 L	100	100	100	100	100	100
3 L	100	100	100	100	100	100
4 L	100	100	100	100	100	100
15 L	100	100	100	100	100	100
19 L	100	100	100	100	100	100
37 L	100	100	100	100	100	100
54 L	100	100	100	100	100	100
77 L	100	100	100	100	100	100
81 L	100	100	100	100	100	100
104 L	100	100	100	100	100	100
105 L	100	100	100	100	100	100
114 L	100	100	100	100	100	100
118 L	100	100	100	100	100	100
123 L	100	100	100	100	100	100
126 L	100	100	100	100	100	100
153 L (BCS_3)				100		
155 L	100	100	100	100	100	100
156 L	100	100	100	100	100	100
157 L	100	100	100	100	100	100
167 L	100	100	100	100	100	100
169 L	100	100	100	100	100	100
170 L (BCS_3)				100		
180 L (BCS_3)				100		
188 L	100	100	100	100	100	100
189 L	100	100	100	100	100	100
202 L	100	100	100	100	100	100
205 L	100	100	100	100	100	100
206 L	100	100	100	100	100	100
208 L	100	100	100	100	100	100
209 L	100	100	100	100	100	100
Cleanup/Sampling Standards						
28 L	100	100	100	100	100	100
111 L	100	100	100	100	100	100
178 L	100	100	100	100	100	100
Injection Standards						
9 L	100	100	100	100	100	100
52 L	100	100	100	100	100	100
101 L	100	100	100	100	100	100
138 L	100	100	100	100	100	100
194 L	100	100	100	100	100	100

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ANALYTICAL PERSPECTIVES

Revised 23 FEB 06

% TSS Determination WorkSheet

SGS ANALYTICAL PERSPECTIVES

Procedures:

Tare Balance
Add boat & 0.45 µm filter and weigh. Record "Boat Wt."
Place filter in glass filling funnel
Filter 10 mL of aqueous sample through filter into a waste jar
Rinse filter with 20 mL of DI water
Dry in oven overnight @ 107 C.
Return dish to toploader and record "Dry Wt."

Project: A4908 Chemist: JS

Batch: 10420 Prep Date: 12/7/12

AP Sample ID	Boat WT.	Dry WT.	% TSS	Init/Date	pH Cl	Comments
A4908_10420_001	1.78	1.78	0	MA	5.0	
A4908_10420_002	1.79	1.79	0	MA 12/10/12	5.0	

SGS ANALYTICAL PERSPECTIVES

1668 PCB | **Water**

Project # A4908 Batch # 10420

SPIKE PROFILE PCBs

Analyte	Spike Compounds	Spiked Amount	Spiked Volume	Solution Conc.	Split Factor	Final Volume	Final Solvent
PCB	CS	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane
	JS	2 ng	10 uL	200 pg/uL	1	20 uL	Nonane
	AAP68A Batch CS3	1 ng	20 uL	50 pg/uL	1	20 uL	Nonane
	ES	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane

Spiker Initials/Date: MM 12-7-12 | MA 12/10/12 | MA 12/10/12 | MM 12-7-12

AP Sample ID	Client Sample ID	PCB ES Amount: 20 µL Observer Initials	PCB AAP68A Amount: Observer Initials	PCB Ax-NOAA Amount: Observer Initials	PCB CS Amount: 20-1 Observer Initials	PCB JS Amount: 10-1 Observer Initials	PCB 209 Ax 20 µL
A4908_10420_001	AQ-SE-FB	VS	—	—	MM	TM	-
A4908_10420_002	AQ-SE-RB	VS	—	—	MM	TM	-
MB1_10420	Method Blank	VS	—	—	MM	TM	-
OPR1_10420	0_10420_OPR001	VS	—	—	MM	TM	-
					12-10-12	~~12/10/12~~ EE TM 12/10/12	VS

Standard Information

Std. Type	PCB d-6	PCB ES	AAP68A	NOAA	PCB CS	PCB JS	Ax
Spike ID		071320128			071320128	071320128A	071020128A
SIL #		12-73-1			12-76-1	12-73-3	12-3-1
Concentration	100	100	50	50	4	200	50
Units	pg/µL	pg/µL	pg/µL	pg/µL		pg/µL	pg/µL
Exp. Date		8-3-13				8/3/13	1-10-13
Spike amount (µL)	20	20	20	20		10	20

MA 12/10/12 MA 12/10/12 EE MA 12/10/12

PCB CS 071320128 12-73-2A 100 pg/µL 8/3/13 20

Sample Receipt Notification

2714 Exchange Drive
Wilmington, NC 28405 USA
Tel: 910 794-1613
Toll Free: 866 846-8290
Fax: 910 794-3919

Project Manager:	*Amy Boehm*
Receipt Date & Time:	*20-Nov-12 at 14:10*
AP Project name:	*A4908*
Requested TAT:	*30 days*
Projected due date:	*20-Dec-12*
Matrix:	*Aqueous*
Phone#:	*910-794-1613*
Email Address:	*Amy.Boehm@sgs.com*

Company Contact:	*Cindy Fields*
Company:	*Anchor QEA*
Project Name & Site:	*110730-02.01*
Project PO#:	*N/A*
QAAP/Contract #:	*N/A*
Requested Analysis:	*method 1668A*
Phone#:	*206-903-3394*
Email Address:	*labdata@anchorqea.com*

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Sampling Date	Sampling Time	Received Temp	Container #	Shipping #
AQ-SE-FB	A4908_001	WATER	1	13-Nov-12	11:45	0.2	1	1Z X47 20R 13 9386 2282
AQ-SE-RB	A4908_002	WATER	1	13-Nov-12	11:37	0.2	1	1Z X47 20R 13 9386 2282

Preservation Type: Ice - Good Condition **Sample Seals:** No

Notes/Comments:

Samples received intact.

Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.

Received by: Nancy Musselwhite *Logged in by: Nancy Musselwhite* *QC'ed by:* AK 21 Nov 12

A4908 A11dK407SUB

SGS North America Inc. COPY

CHAIN OF CUSTODY RECORD

Locations Nationwide
- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Indiana
- West Virginia
- Kentucky

www.us.sgs.com

(1)
CLIENT: Anchor QEA
CONTACT: Cindy Fields PHONE NO: (206) 903-3394
PROJECT NAME: Former Reynolds Metals Reduction Plant RI/FS PROJECT/ PWSID/ PERMIT#: 110730-02.01
REPORTS TO: Nik Bacher EMAIL: labdata@anchorqea.com
INVOICE TO: Cindy Fields QUOTE #: P.O. #:

SGS Reference #:

page 1 of 1

(2)

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used: 4°C; Analysis Required (3): PCB Congeners	REMARKS/ LOC ID
	AQ-SE-03-10	11/12/2012	1113	SE	1	G	X	
	AQ-SE-04-10		1200		1	G	X	
	AQ-SE-05-10		1241		1	G	X	
	AQ-SE-06-10		1326		1	G	X	
	AQ-SE-07-10		1351		1	G	X	
	AQ-SE-08-10		1430		1	G	X	
	AQ-SE-01-10	11/13/2012	0915	SE	1	G	X	Time 0915
	AQ-SE-02-10		0937		1	G	X	
*	AQ-SE-RB	11/13/2012	1137	Water	1	—	X	
*	AQ-SE-FB		1145	Water	1	—	X	

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
Amy Hiatt	11/13/2012	1250	Brian Cone
Relinquished By: (2) Brian Cone	11-13-12	1437	Ryan Russell
Relinquished By: (3)	11/19/12	1440	Received By:
Relinquished By: (4)	11/20/12	10:03	Received For Laboratory By: SGS

(4)

DOD Project? YES NO

Cooler ID _____

Data Deliverable Requirements:

Requested Turnaround Time and-or Special Instructions:

Temperature Blank °C: _____

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms-and-conditions.htm

White - Retained by Lab
Pink - Retained by Client

*Samples in this Project → Processed/rec'd 2110 PM 11/20/12

ANALYTICAL PERSPECTIVES

SAMPLE LOG-IN FORM

Client Project / Job ID: 110730-02.01

PO #:

AP Project ID: A4908

Date Samples Arrived: 20 Nov 12 Initials: NM

Time / Date logged in: 10:03 20 Nov 12 Refrigerator: F2 Initials: NM

Samples Arrived By: (circle one) FedEx (UPS) Airborne Express DHL Emery

Freezer Truck Company Courier Other_____

Shipping Preservation: (circle) (Ice) / Blue Ice / Dry Ice / None Temp °C 0.2°

Shipping Documentation Present? (circle one) Shipping Label or (Airbill)

# of boxes: ____ # of coolers: 1 Tracking #s: 1Z X47 20R13 9386 2282

Shipping Container(s) intact? yes If no, describe condition:

Container Custody Seals Present & Intact? NA If not intact, describe condition:

Sample Custody Seals Present & Intact? NA If not intact, describe condition:

# of Seals: Ø or Seal #: Ø

Sample Container Intact? yes If no, indicate sample condition:

Chain of Custody (COC) / Sample Documentation Present? yes Exceptions?_____

If not, complete COC Anomaly Form

Shipping Container: (circle) Client or (AP)..... Return (Retain) Dispose

Container and/or Bottles Requested? NO

Sample Control Log In/Out Completed? yes

Drinking Water Sample? NO If yes, Acceptable preservation?_____

CHAIN OF CUSTODY ANOMALY FORM

The following items were omited from the COC

Project ID and/or PO#:

Sampler:

Relinquished By:

Date:

Time:

Sample ID:

Sample Date:

Sample Collection Times:

Sample Description:

Analysis Requested:

Container Qty.:

Container Type:

Other:

FILL BELOW IF APPLICABLE

Have all the samples arrived? yes If no, complete the following.

Shipment #:_____ Date of Arrival:_____ Condition:_____ Temp°C_____

Delivered by:_____ Tracking #s_____

COC Present?_____ Acceptable?_____ If no, document on COC Anomaly Form additional shipment comments.

Container Intact?_____ Samples Intact?_____ If no, describe:

Do we expect another shipment?_____ If yes, start a new log-in sheet. ☺

COMMENTS

Apex Labs
12232 SW Garden Pl.

WILMINGTON NC 28405

NC 284 0-01

UPS NEXT DAY AIR SAVER 1P

1ZA720W1390862282

#53

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

CLIENT Anchor QEA

PROJECT Former Reynolds R/F

SAMPLE ID AQ-SE-RB

DATE 11/13/2012 TIME 1151

UNPRESERVED


DATA 16
DATA 17
CLIENT Anchor QEA
PROJECT Former Reynolds RIP
SAMPLE ID AQ-SE-FB
DATE 11/19/2012
UNPRESERVED
AQ-SE-FB
WATER
A4908 001
CLIENT Anchor QEA
PROJECT Former Reynolds RIP
SAMPLE ID AQ-SE-RB
DATE 11/19/2012
UNPRESERVED
AQ-SE-RB
WATER
A4908 002

CLIENT Anchor QEA

PROJECT Former Reynolds R/I/S

SAMPLE ID AQ-SE-FB

DATE 11/13/2012 TIME 1145

UNPRESERVED


PHONE 16
PHONE 17
DATA 16
DATA 17
CLIENT Anchor QEA
PROJECT Former Reynolds RI/FS
SAMPLE ID AQ-SE-FB
DATE 11/18/2012
TIME 1145
UNPRESERVED
CLIENT Anchor QEA
PROJECT Former Reynolds RI/FS
SAMPLE ID AQ-SE-RF
DATE 11/18/2012
TIME 1171
UNPRESERVED
SAMPLE

SGS Analytical Perspectives — Run Log **Project: A4908_10420_PCB**

Instrument: MM7 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_a

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
4	121213X04	Tray1:04	CS3_121213_PCB_XC	1.00	SIL 12-65-3	LKB	224-305	13-Dec-2012	16:06:21
5	121213X05	Tray1:29	OPR1_10420_PCB	1.00	0_10420_OPR001	LKB	176-130	13-Dec-2012	17:03:35
6	121213X06	Tray1:02	SBS_121213_PCB_XB	1.00	SIL 9-41-1	LKB	951-021	13-Dec-2012	17:54:48
7	121213X07 ✓	Tray1:30	MB1_10420_PCB_TLX	2.00	Method Blank	LKB	495-318	13-Dec-2012	18:48:43
8	121213X08	Tray1:31	A4908_10420_PCB_001	0.99	AQ-SE-FB	LKB	155-480	13-Dec-2012	19:42:46
9	121213X09 ✓	Tray1:32	A4908_10420_PCB_002	0.93	AQ-SE-RB	LKB	560-818	13-Dec-2012	20:36:48

✓ = manual calculation

REVIEWED
By Laura Boivin at 11:43 am, Dec 14, 2012

REVIEWED
By Heather Steele at 12:29 pm, Dec 14, 2012

Datafile: 121213X07 **Client ID: Method Blank** **Wt/Vol: 0.93 L** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121213_PCB_XC**

Acquired: 13 Dec 2012 18:48:43 **Lab ID: MB1_10420_PCB_TLX** **J-level: 10.8 pg/L** **Nominal ES spike: 2000 pg**

MB1_10420_PCB_TLX Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.28E+03	0.966
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.28E+03	0.974
PCB-105 233'44'-PeCB	NotFnd		1.0007	-		0.00E+00		1.09	ND	1.26E+03	1.23
PCB-114 2344'5-PeCB	NotFnd		1.0007	-		0.00E+00		1.16	ND	1.26E+03	1.23
PCB-118 23'44'5-PeCB	NotFnd		1.0007	-		0.00E+00		1.11	ND	1.26E+03	1.2
PCB-123 23'44'5'-PeCB	NotFnd		1.0006	-		0.00E+00		1.19	ND	1.26E+03	1.21
PCB-126 33'44'5-PeCB	NotFnd		1.0005	-		0.00E+00		1.06	ND	1.07E+03	1.03
PCB-156/157 ...-HxCB	NotFnd	C	1.0005	-		0.00E+00		1.11	ND	1.05E+03	1.31
PCB-167 23'44'55'-HxCB	NotFnd		1.0005	-		0.00E+00		1.14	ND	1.05E+03	0.972
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	1.05E+03	1.14
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.06	ND	9.08E+02	1.01
									Recv.		
ES PCB-77	30.51		1.3599	1.3609	+1.8	2.72E+07	0.77	1.35	92.4 %	25%	150%
ES PCB-81	30.04		1.3390	1.3399	+1.6	2.56E+07	0.80	1.29	91.3 %	25%	150%
ES PCB-105	33.44		1.1826	1.1830	+0.8	2.08E+07	1.61	1.23	95.8 %	25%	150%
ES PCB-114	32.91		1.1639	1.1642	+0.6	2.01E+07	1.61	1.25	91.7 %	25%	150%
ES PCB-118	32.46		1.1481	1.1484	+0.6	2.12E+07	1.61	1.28	94.1 %	25%	150%
ES PCB-123	32.18		1.1383	1.1385	+0.4	1.99E+07	1.60	1.22	92.8 %	25%	150%
ES PCB-126	36.05		1.2746	1.2753	+1.5	2.20E+07	1.52	1.20	104 %	25%	150%
ES PCB-156/157	38.57		1.0994	1.0999	+1.2	4.19E+07	1.34	1.45	91.8 %	25%	150%
ES PCB-167	37.61		1.0720	1.0725	+1.1	2.16E+07	1.30	1.49	92.4 %	25%	150%
ES PCB-169	41.30		1.1769	1.1775	+1.5	1.95E+07	1.33	1.40	88.7 %	25%	150%
ES PCB-189	43.41		0.9611	0.9612	+0.3	1.97E+07	1.05	1.49	99.8 %	25%	150%
SS PCB-28	20.86		0.9298	0.9303	+0.6	3.85E+07	1.10	1.07	107 %	30%	135%
SS PCB-111	30.55		1.0805	1.0807	+0.4	2.24E+07	1.61	1.01	112 %	30%	135%
SS PCB-178	35.46		1.0108	1.0110	+0.4	1.27E+07	1.07	0.63	114 %	30%	135%
CS PCB-28	20.86		0.9298	0.9303	+0.6	3.85E+07	1.10	1.76	100 %	30%	135%
CS PCB-111	30.55		1.0805	1.0807	+0.4	2.24E+07	1.61	1.23	104 %	30%	135%
CS PCB-178	35.46		1.0108	1.0110	+0.4	1.27E+07	1.07	0.74	110 %	30%	135%
JS PCB-9	14.73					3.74E+07	1.57				
JS PCB-52	22.42					2.18E+07	0.77				
JS PCB-101	28.27					1.76E+07	1.54				
JS PCB-138	35.07					1.57E+07	1.27				
JS PCB-194	45.16					1.33E+07	0.91				

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 495-318 *PKD: n/a Printed: 14-Dec-2012 11:39 Page 1 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

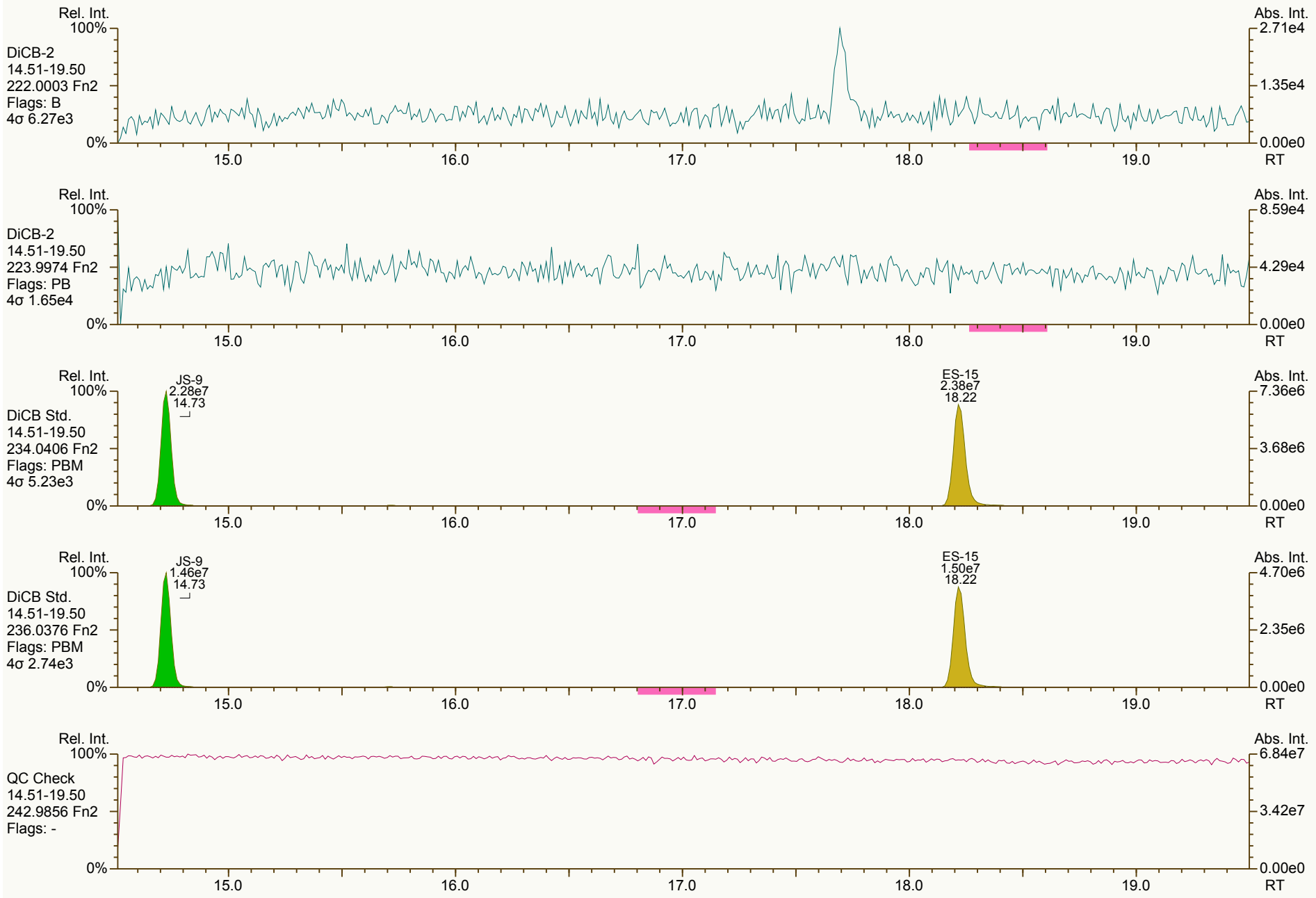
SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

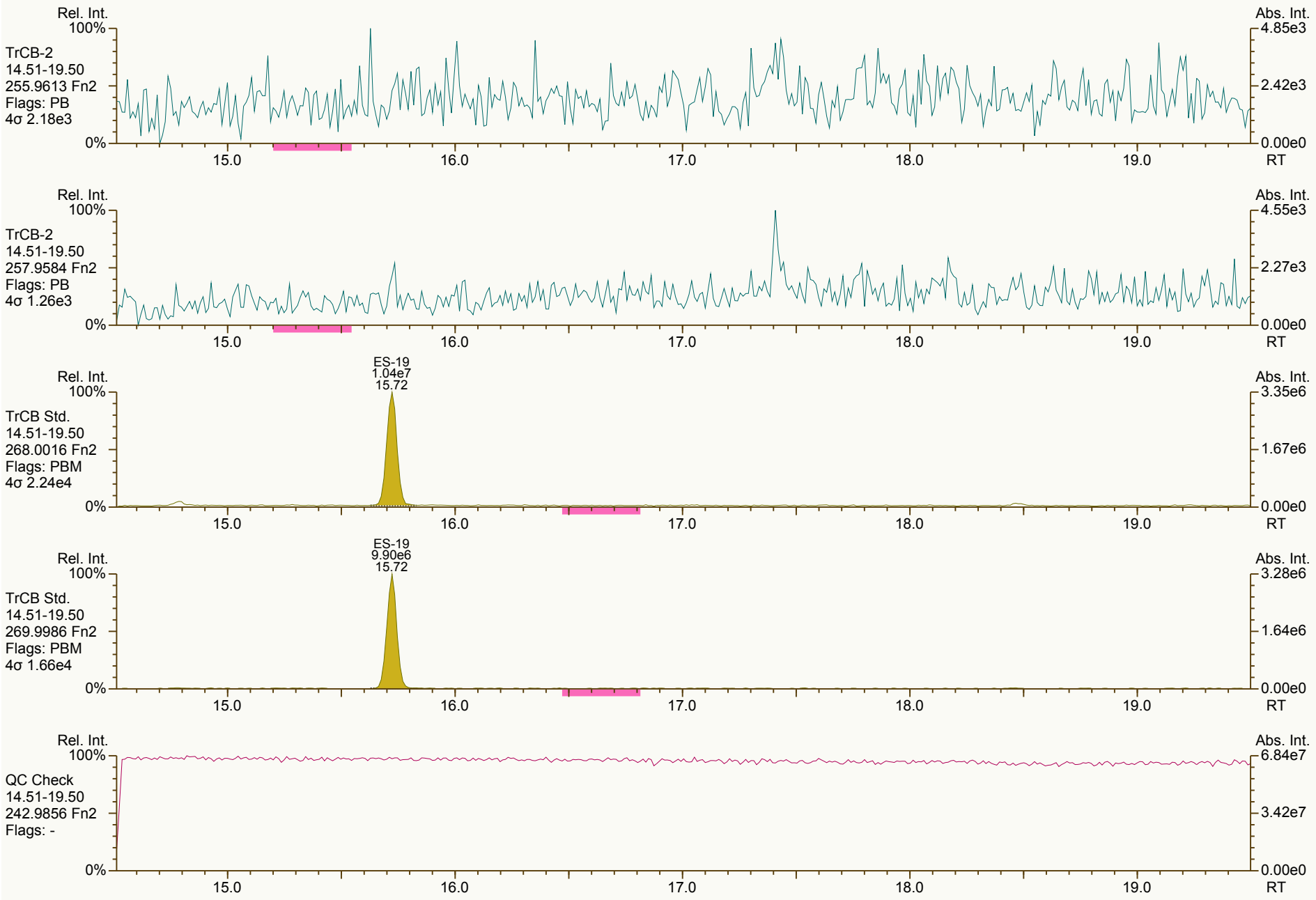
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7113, 6064 scc: 495-318 *Revised: 14-Dec-2012 10:09 (LKB) Printed: 14-Dec-2012 11:39 Page 3 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2775, 2149 scc: 495-318 *PKD: 14-Dec-2012 10:08 Printed: 14-Dec-2012 11:40 Page 5 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



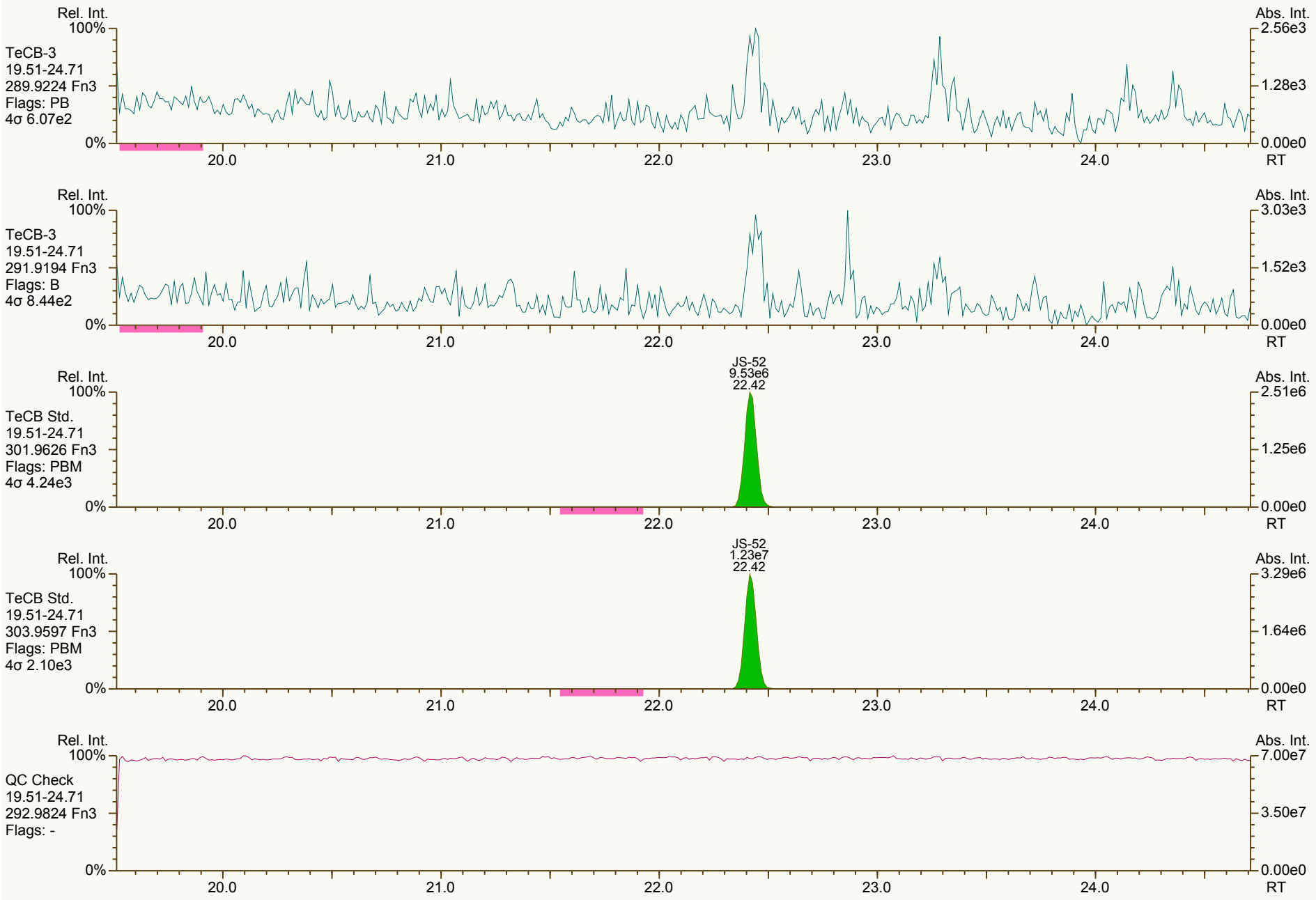
Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8122, 3207 scc: 495-318 *PKD: 14-Dec-2012 10:08 Printed: 14-Dec-2012 11:40 Page 6 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4279, 7244 scc: 495-318 *Revised: 14-Dec-2012 10:06 (LKB) Printed: 14-Dec-2012 11:40 Page 7 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9454, 8048 scc: 495-318 *PKD: 14-Dec-2012 10:08 Printed: 14-Dec-2012 11:40 Page 8 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8329, 0697 scc: 495-318 *Revised: 14-Dec-2012 10:57 (LKB) Printed: 14-Dec-2012 11:40 Page 10 of 22*

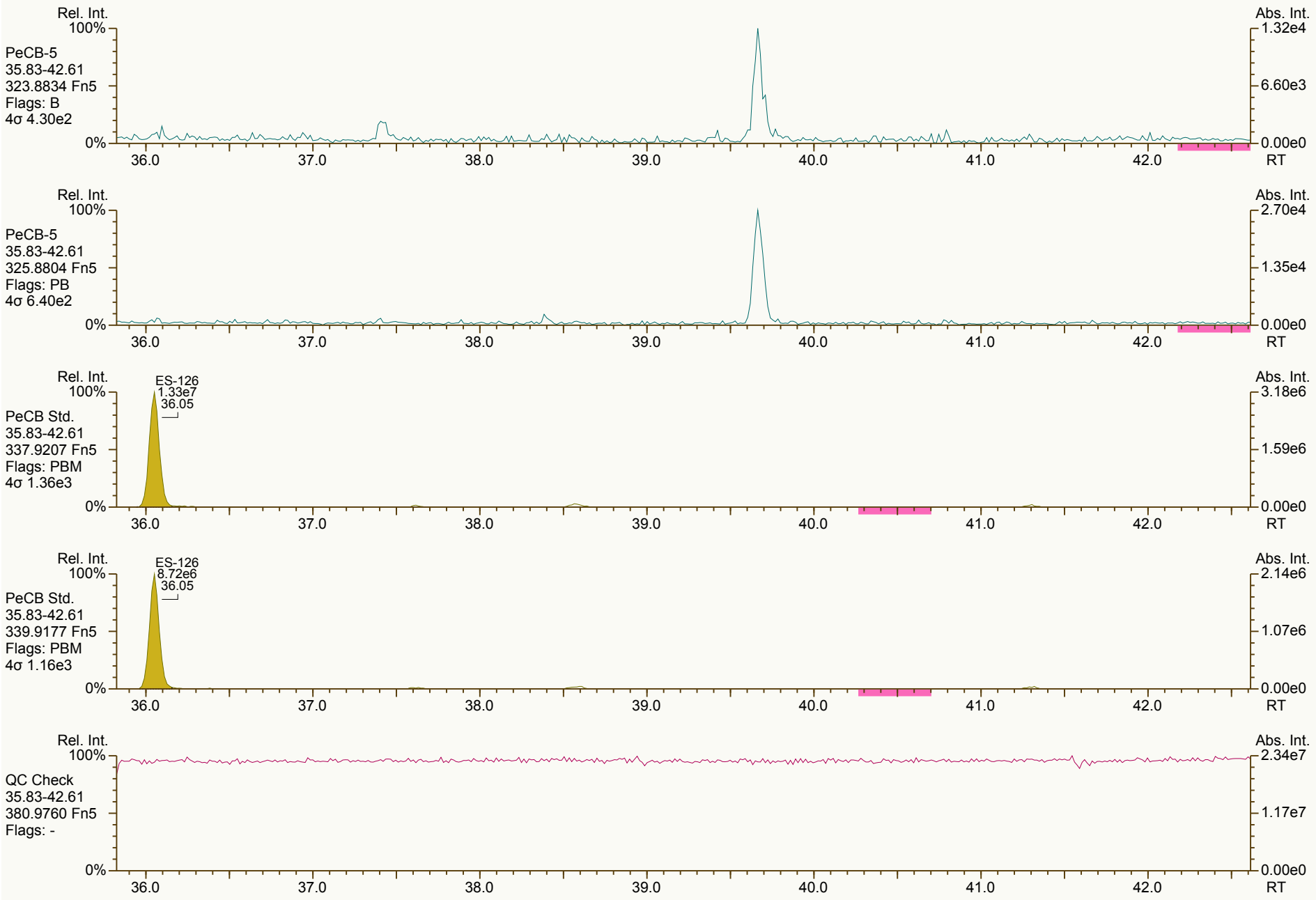
SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7149, 3000 scc: 495-318 *Revised: 14-Dec-2012 10:52 (LKB) Printed: 14-Dec-2012 11:40 Page 11 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8986, 4588 scc: 495-318 *Revised: 14-Dec-2012 10:53 (LKB) Printed: 14-Dec-2012 11:40 Page 12 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6934, 9131 scc: 495-318 *Revised: 14-Dec-2012 10:53 (LKB) Printed: 14-Dec-2012 11:40 Page 13 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1327, 2301 scc: 495-318 *PKD: 14-Dec-2012 10:08 Printed: 14-Dec-2012 11:40 Page 14 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7679, 0972 scc: 495-318 *Revised: 14-Dec-2012 10:10 (LKB) Printed: 14-Dec-2012 11:40 Page 15 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6145, 1215 scc: 495-318 *PKD: 14-Dec-2012 10:08 Printed: 14-Dec-2012 11:40 Page 16 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1468, 9609 scc: 495-318 *PKD: 14-Dec-2012 10:08 Printed: 14-Dec-2012 11:40 Page 17 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9721, 7601 scc: 495-318 *Revised: 14-Dec-2012 10:57 (LKB) Printed: 14-Dec-2012 11:40 Page 18 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7661, 0912 scc: 495-318 *Revised: 14-Dec-2012 10:10 (LKB) Printed: 14-Dec-2012 11:40 Page 20 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\MB1_10420_PCB_TLX.utp_res, saved 14-Dec-2012 11:24 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7738, 0956 scc: 495-318 *Revised: 14-Dec-2012 10:57 (LKB) Printed: 14-Dec-2012 11:40 Page 21 of 22*

SGS-AP ID: MB1_10420_PCB_TLX **Sample ID: Method Blank** **Acq: 13-Dec-2012 18:48:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 30** **User: LKB Datafile: 121213X07**



Datafile: 121213X08 **Client ID: AQ-SE-FB** **Wt/Vol: 0.99 L** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121213_PCB_XC**

Acquired: 13 Dec 2012 19:42:46 **Lab ID: A4908_10420_PCB_001** **J-level: 10.1 pg/L** **Nominal ES spike: 2000 pg**

A4908_10420_PCB_001 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.45E+03	1.17
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.45E+03	1.21
PCB-105 233'44'-PeCB	NotFnd		1.0007	-		0.00E+00		1.09	ND	1.15E+03	1.22
PCB-114 2344'5-PeCB	NotFnd		1.0007	-		0.00E+00		1.16	ND	1.15E+03	1.04
PCB-118 23'44'5-PeCB	NotFnd		1.0007	-		0.00E+00		1.11	ND	1.15E+03	1.13
PCB-123 23'44'5'-PeCB	NotFnd		1.0006	-		0.00E+00		1.19	ND	1.15E+03	1.15
PCB-126 33'44'5-PeCB	NotFnd		1.0005	-		0.00E+00		1.06	ND	1.10E+03	1.1
PCB-156/157 ...-HxCB	NotFnd	C	1.0005	-		0.00E+00		1.11	ND	1.14E+03	1.43
PCB-167 23'44'55'-HxCB	NotFnd		1.0005	-		0.00E+00		1.14	ND	1.14E+03	1.02
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	1.14E+03	1.28
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.06	ND	1.08E+03	1.13
									Recv.		
ES PCB-77	30.51		1.3599	1.3608	+1.6	2.41E+07	0.80	1.35	87.9 %	25%	150%
ES PCB-81	30.05		1.3390	1.3398	+1.4	2.26E+07	0.77	1.29	86.4 %	25%	150%
ES PCB-105	33.45		1.1826	1.1830	+0.8	1.86E+07	1.58	1.23	98.5 %	25%	150%
ES PCB-114	32.91		1.1639	1.1642	+0.6	1.89E+07	1.59	1.25	98.7 %	25%	150%
ES PCB-118	32.47		1.1481	1.1483	+0.4	1.94E+07	1.59	1.28	99 %	25%	150%
ES PCB-123	32.19		1.1383	1.1385	+0.4	1.82E+07	1.61	1.22	97.9 %	25%	150%
ES PCB-126	36.06		1.2746	1.2753	+1.5	2.02E+07	1.58	1.20	110 %	25%	150%
ES PCB-156/157	38.58		1.0994	1.0999	+1.2	3.87E+07	1.32	1.45	92.5 %	25%	150%
ES PCB-167	37.62		1.0720	1.0725	+1.1	2.00E+07	1.29	1.49	93.4 %	25%	150%
ES PCB-169	41.30		1.1769	1.1775	+1.5	1.80E+07	1.30	1.40	89.2 %	25%	150%
ES PCB-189	43.41		0.9611	0.9612	+0.3	1.85E+07	1.02	1.49	103 %	25%	150%
SS PCB-28	20.86		0.9298	0.9303	+0.6	3.57E+07	1.09	1.07	115 %	30%	135%
SS PCB-111	30.55		1.0805	1.0807	+0.4	1.92E+07	1.60	1.01	105 %	30%	135%
SS PCB-178	35.46		1.0108	1.0110	+0.4	1.08E+07	1.03	0.63	101 %	30%	135%
CS PCB-28	20.86		0.9298	0.9303	+0.6	3.57E+07	1.09	1.76	99.9 %	30%	135%
CS PCB-111	30.55		1.0805	1.0807	+0.4	1.92E+07	1.60	1.23	103 %	30%	135%
CS PCB-178	35.46		1.0108	1.0110	+0.4	1.08E+07	1.03	0.74	101 %	30%	135%
JS PCB-9	14.73					3.58E+07	1.59				
JS PCB-52	22.42					2.03E+07	0.78				
JS PCB-101	28.27					1.53E+07	1.61				
JS PCB-138	35.07					1.44E+07	1.30				
JS PCB-194	45.16					1.21E+07	0.90				

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 155-480 *PKD: n/a Printed: 14-Dec-2012 11:40 Page 1 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0357, 5363 scc: 155-480 *PKD: 14-Dec-2012 10:59 Printed: 14-Dec-2012 11:40 Page 2 of 22*

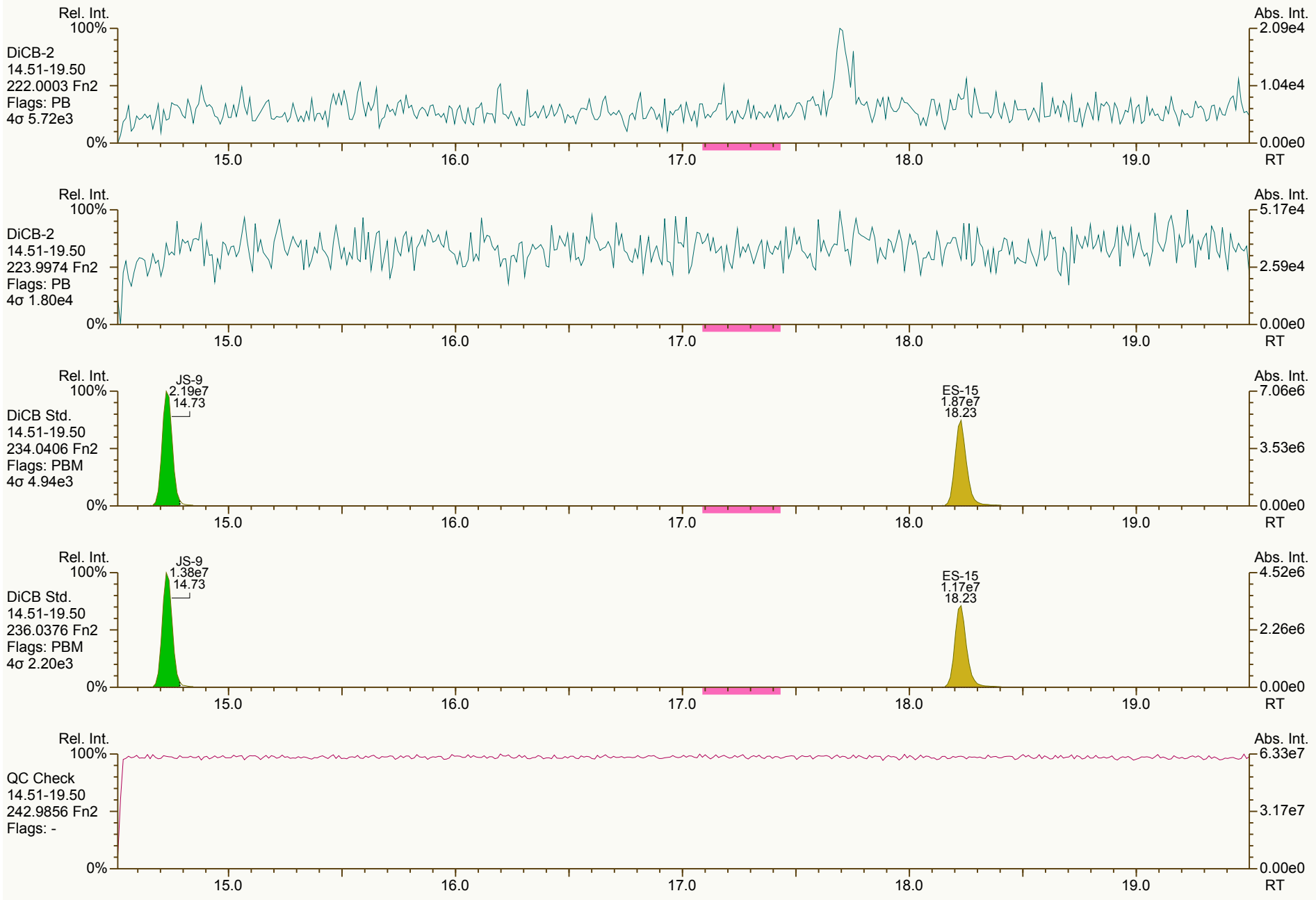
SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8970, 0390 scc: 155-480 *Revised: 14-Dec-2012 10:58 (LKB) Printed: 14-Dec-2012 11:40 Page 3 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4308, 0140 scc: 155-480 *PKD: 14-Dec-2012 10:59 Printed: 14-Dec-2012 11:40 Page 4 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8032, 6964 scc: 155-480 *PKD: 14-Dec-2012 10:59 Printed: 14-Dec-2012 11:40 Page 5 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1848, 7332 scc: 155-480 *PKD: 14-Dec-2012 10:59 Printed: 14-Dec-2012 11:40 Page 6 of 22*

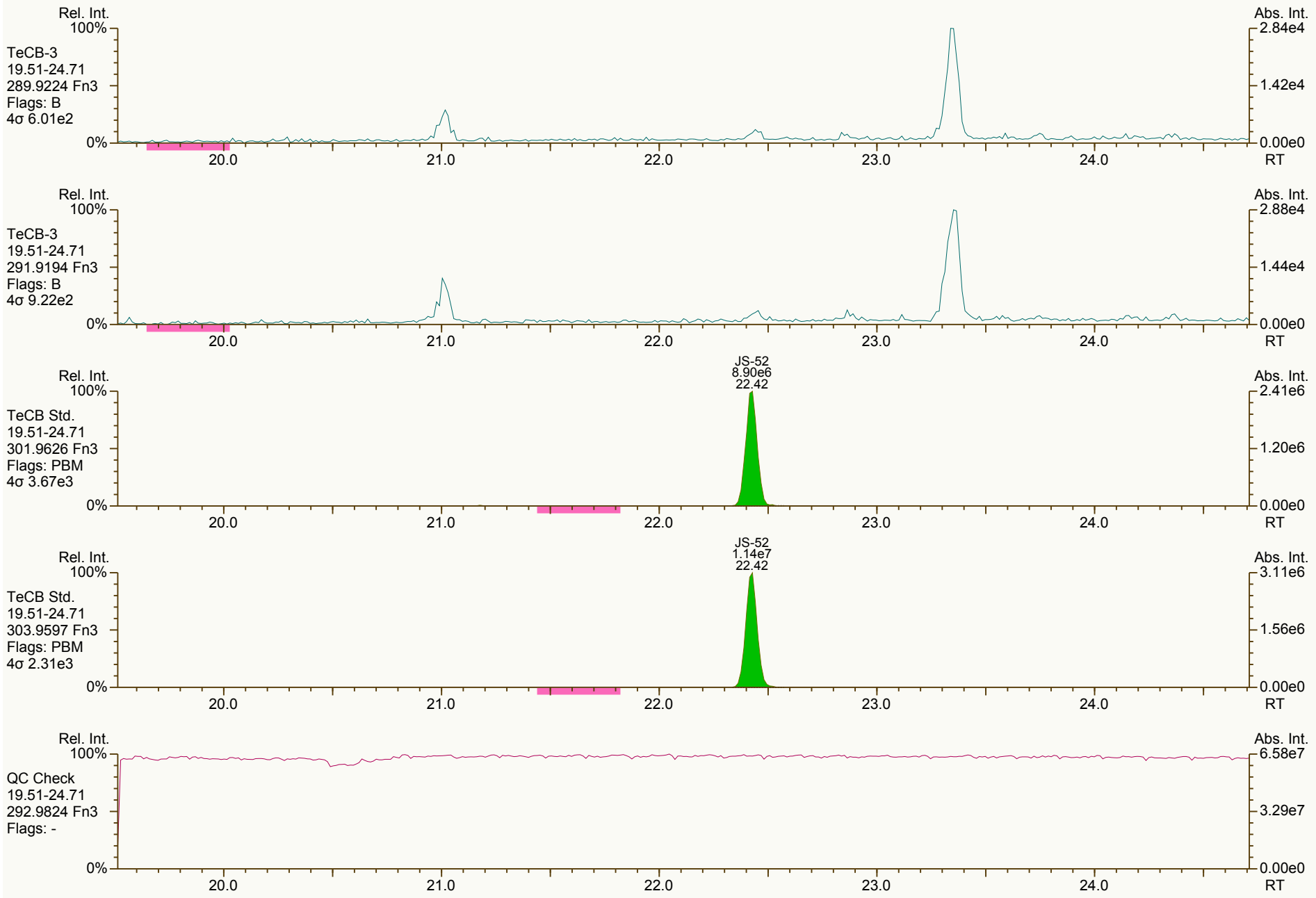
SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5077, 7057 scc: 155-480 *Revised: 14-Dec-2012 10:58 (LKB) Printed: 14-Dec-2012 11:40 Page 7 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2659, 0435 scc: 155-480 *Revised: 14-Dec-2012 10:59 (LKB) Printed: 14-Dec-2012 11:40 Page 8 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5216, 7644 scc: 155-480 *Revised: 14-Dec-2012 10:58 (LKB) Printed: 14-Dec-2012 11:40 Page 10 of 22*

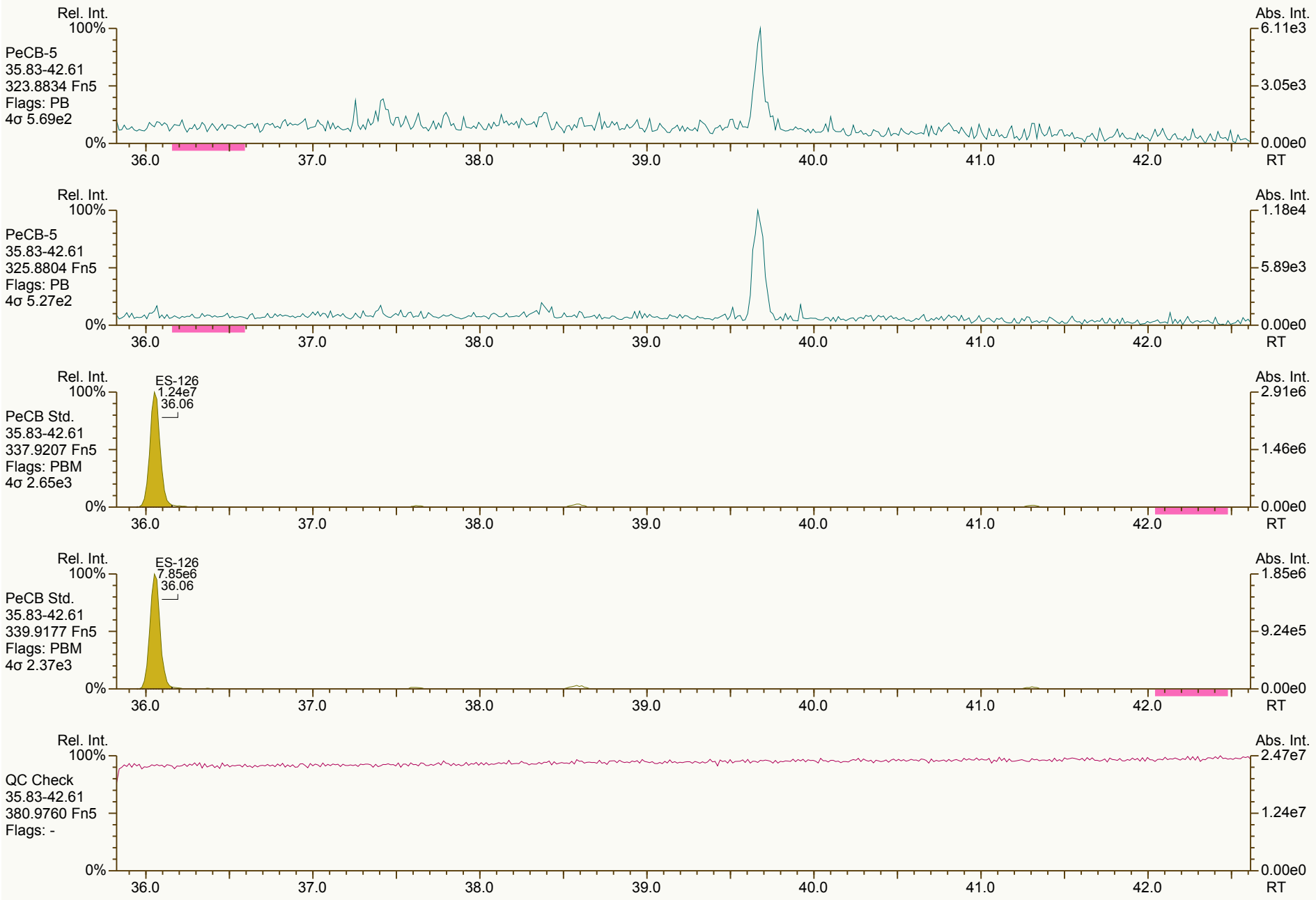
SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2823, 0998 scc: 155-480 *Revised: 14-Dec-2012 10:59 (LKB) Printed: 14-Dec-2012 11:40 Page 11 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9165, 2545 scc: 155-480 *Revised: 14-Dec-2012 11:01 (LKB) Printed: 14-Dec-2012 11:40 Page 12 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5818, 9182 scc: 155-480 *Revised: 14-Dec-2012 11:01 (LKB) Printed: 14-Dec-2012 11:40 Page 13 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8930, 0116 scc: 155-480 *PKD: 14-Dec-2012 11:02 Printed: 14-Dec-2012 11:40 Page 14 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6034, 4183 scc: 155-480 *PKD: 14-Dec-2012 10:59 Printed: 14-Dec-2012 11:40 Page 16 of 22*

SGS-AP ID: A4908_10420_PCB_001 | Sample ID: AQ-SE-FB | Acq: 13-Dec-2012 19:42:46
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31 | User: LKB Datafile: 121213X08



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0910, 8565 scc: 155-480 *Revised: 14-Dec-2012 11:02 (LKB) Printed: 14-Dec-2012 11:40 Page 17 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9196, 9141 scc: 155-480 *PKD: 14-Dec-2012 10:59 Printed: 14-Dec-2012 11:40 Page 18 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



SGS-AP ID: A4908_10420_PCB_001 Sample ID: AQ-SE-FB Acq: 13-Dec-2012 19:42:46
Instr: AutoSpec-Premier MM7 VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31 User: LKB Datafile: 121213X08



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2664, 8250 scc: 155-480 *PKD: 14-Dec-2012 11:02 Printed: 14-Dec-2012 11:40 Page 20 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_001.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6175, 7378 scc: 155-480 *Revised: 14-Dec-2012 11:02 (LKB) Printed: 14-Dec-2012 11:40 Page 21 of 22*

SGS-AP ID: A4908_10420_PCB_001 **Sample ID: AQ-SE-FB** **Acq: 13-Dec-2012 19:42:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 31** **User: LKB Datafile: 121213X08**



Datafile: 121213X09 **Client ID: AQ-SE-RB** **Wt/Vol: 0.93 L** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121213_PCB_XC**

Acquired: 13 Dec 2012 20:36:48 **Lab ID: A4908_10420_PCB_002** **J-level: 10.8 pg/L** **Nominal ES spike: 2000 pg**

A4908_10420_PCB_002 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.37E+03	1.11
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.37E+03	1.24
PCB-105 233'44'-PeCB	33.47	J	1.0007	1.0007	0	1.35E+04	0.66	1.09	1.4	1.15E+03	1.26
PCB-114 2344'5-PeCB	NotFnd		1.0007	-		0.00E+00		1.16	ND	1.15E+03	1.16
PCB-118 23'44'5-PeCB	32.49	J	1.0007	1.0007	0	2.34E+04	0.57	1.11	2.32	1.15E+03	1.2
PCB-123 23'44'5'-PeCB	NotFnd		1.0006	-		0.00E+00		1.19	ND	1.15E+03	1.16
PCB-126 33'44'5-PeCB	NotFnd		1.0005	-		0.00E+00		1.06	ND	1.22E+03	1.32
PCB-156/157 ...-HxCB	NotFnd	C	1.0005	-		0.00E+00		1.11	ND	9.76E+02	1.32
PCB-167 23'44'55'-HxCB	NotFnd		1.0005	-		0.00E+00		1.14	ND	9.76E+02	0.983
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	9.76E+02	1.14
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.06	ND	1.04E+03	1.22
									Recv.		
ES PCB-77	30.51		1.3599	1.3607	+1.5	2.44E+07	0.78	1.35	89 %	25%	150%
ES PCB-81	30.04		1.3390	1.3399	+1.6	2.27E+07	0.78	1.29	86.8 %	25%	150%
ES PCB-105	33.44		1.1826	1.1830	+0.8	1.89E+07	1.59	1.23	97.4 %	25%	150%
ES PCB-114	32.91		1.1639	1.1642	+0.6	1.90E+07	1.57	1.25	96.9 %	25%	150%
ES PCB-118	32.46		1.1481	1.1484	+0.6	1.96E+07	1.60	1.28	97.5 %	25%	150%
ES PCB-123	32.19		1.1383	1.1385	+0.4	1.84E+07	1.63	1.22	96 %	25%	150%
ES PCB-126	36.05		1.2746	1.2753	+1.5	2.03E+07	1.54	1.20	108 %	25%	150%
ES PCB-156/157	38.57		1.0994	1.0998	+0.9	3.84E+07	1.31	1.45	91.8 %	25%	150%
ES PCB-167	37.61		1.0720	1.0724	+0.9	2.01E+07	1.30	1.49	93.6 %	25%	150%
ES PCB-169	41.30		1.1769	1.1775	+1.5	1.83E+07	1.31	1.40	90.5 %	25%	150%
ES PCB-189	43.41		0.9611	0.9612	+0.3	1.86E+07	1.04	1.49	100 %	25%	150%
SS PCB-28	20.86		0.9298	0.9303	+0.6	3.46E+07	1.11	1.07	114 %	30%	135%
SS PCB-111	30.55		1.0805	1.0807	+0.4	1.91E+07	1.62	1.01	103 %	30%	135%
SS PCB-178	35.46		1.0108	1.0110	+0.4	1.09E+07	1.05	0.63	103 %	30%	135%
CS PCB-28	20.86		0.9298	0.9303	+0.6	3.46E+07	1.11	1.76	96.7 %	30%	135%
CS PCB-111	30.55		1.0805	1.0807	+0.4	1.91E+07	1.62	1.23	99.1 %	30%	135%
CS PCB-178	35.46		1.0108	1.0110	+0.4	1.09E+07	1.05	0.74	102 %	30%	135%
JS PCB-9	14.73					3.44E+07	1.56				
JS PCB-52	22.42					2.04E+07	0.79				
JS PCB-101	28.27					1.57E+07	1.64				
JS PCB-138	35.07					1.44E+07	1.24				
JS PCB-194	45.16					1.25E+07	0.88				

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 560-818 *PKD: n/a Printed: 14-Dec-2012 11:40 Page 1 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**

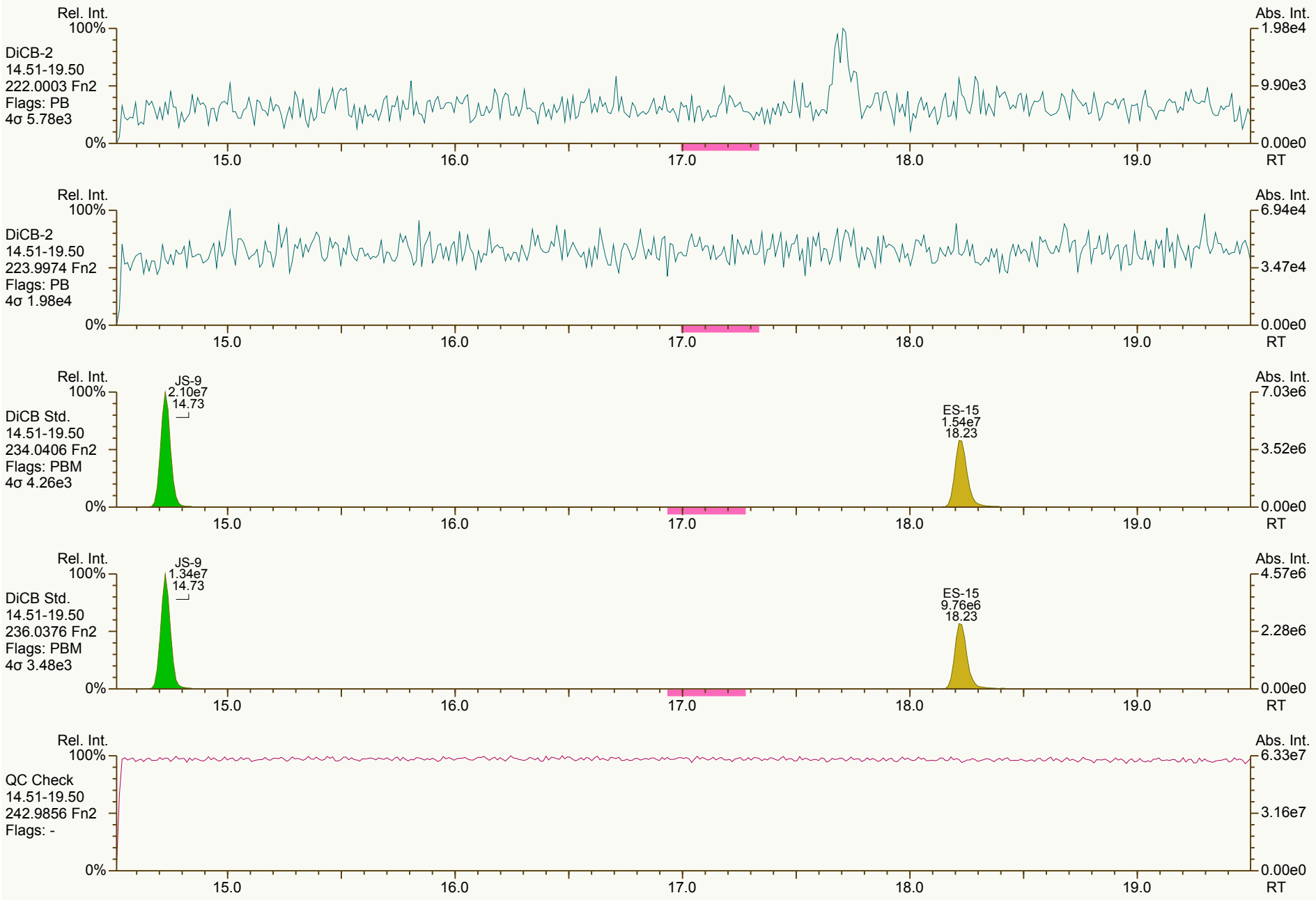


Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1587, 5820 scc: 560-818 *PKD: 14-Dec-2012 11:09 Printed: 14-Dec-2012 11:40 Page 5 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

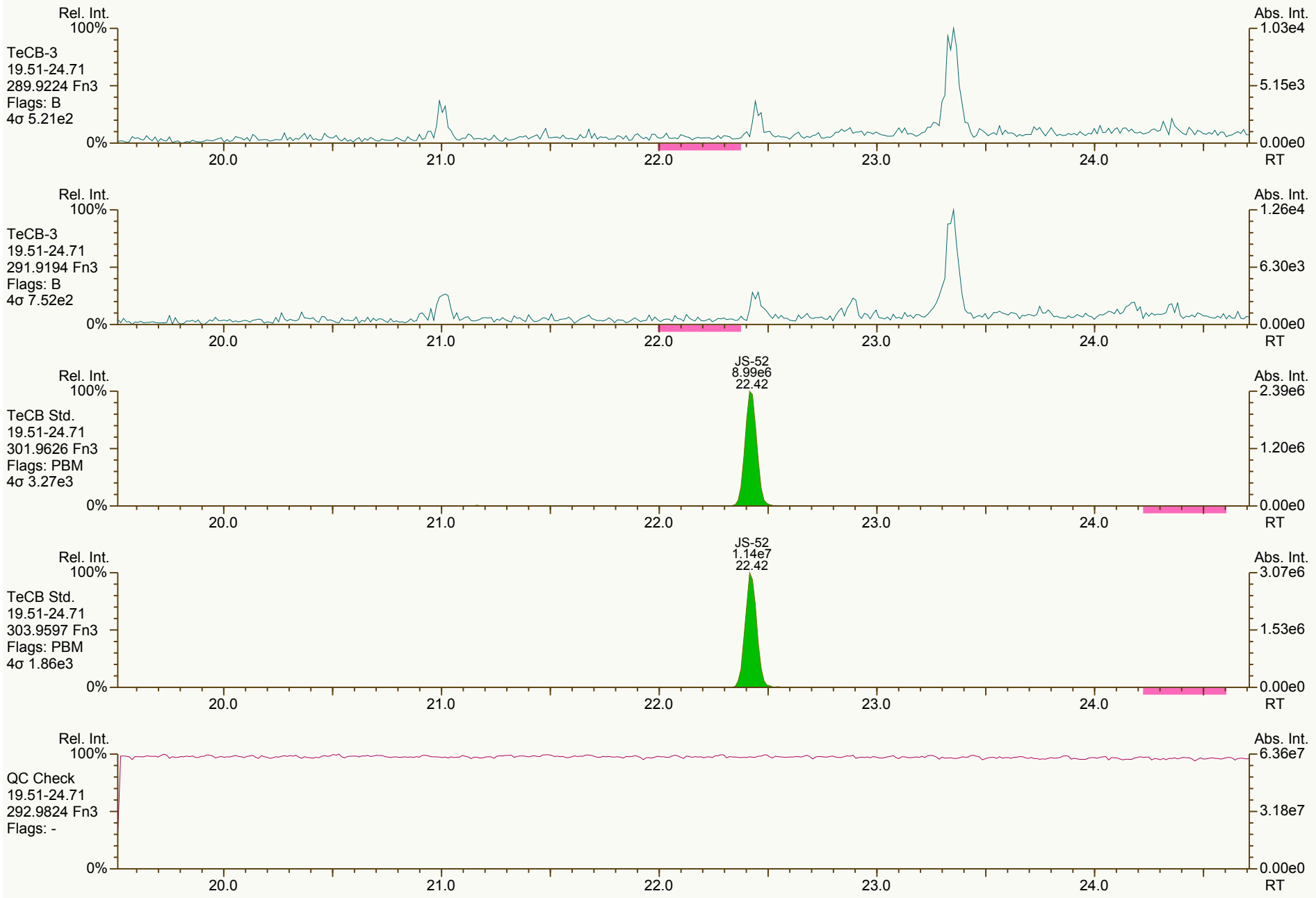
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4718, 4775 scc: 560-818 *Revised: 14-Dec-2012 11:05 (LKB) Printed: 14-Dec-2012 11:40 Page 6 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6842, 6917 scc: 560-818 *PKD: 14-Dec-2012 11:05 Printed: 14-Dec-2012 11:40 Page 7 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



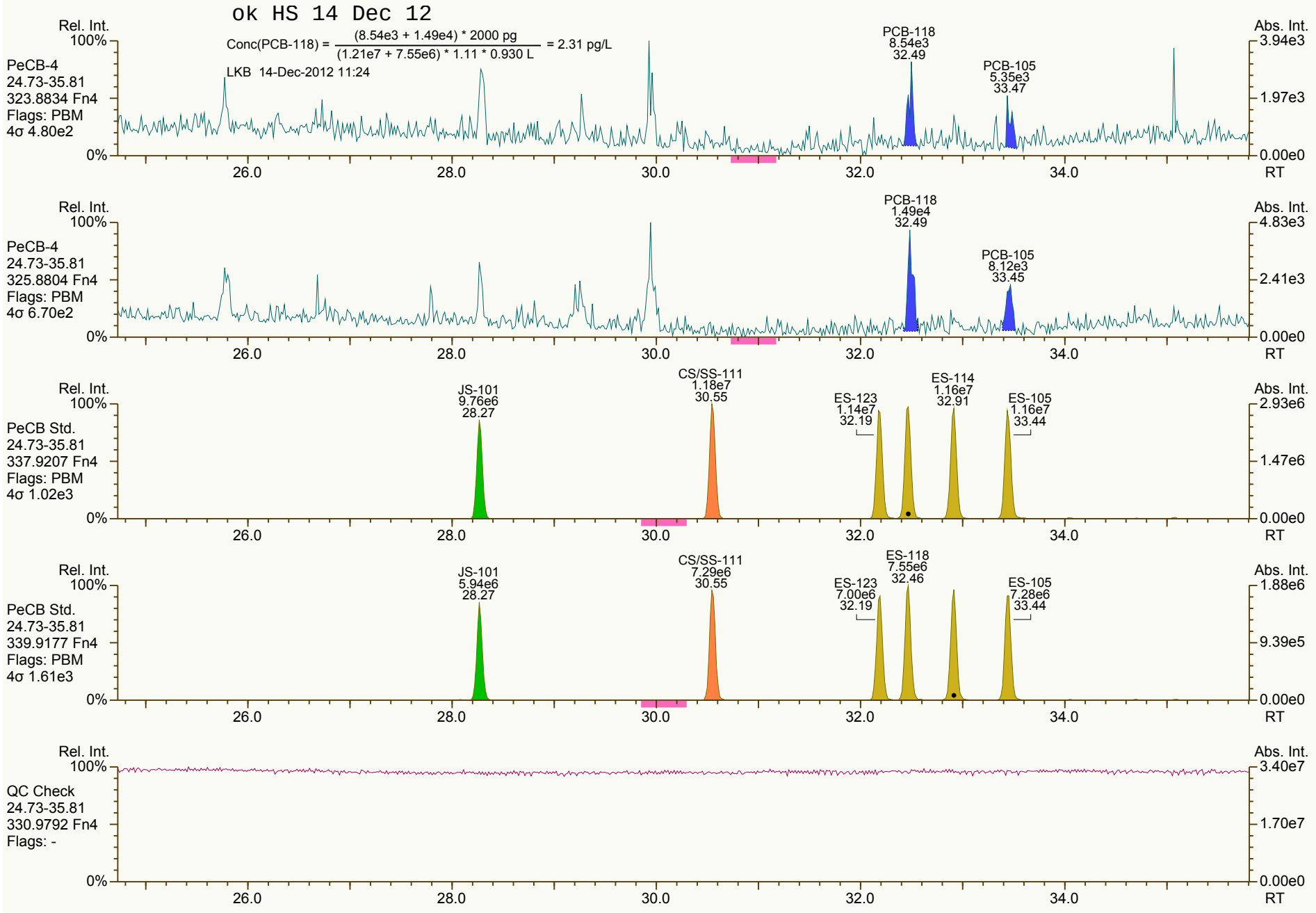
Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2205, 4497 scc: 560-818 *PKD: 14-Dec-2012 11:09 Printed: 14-Dec-2012 11:41 Page 9 of 22*

SGS-AP ID: A4908_10420_PCB_002 | Sample ID: AQ-SE-RB | Acq: 13-Dec-2012 20:36:48
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32 | User: LKB Datafile: 121213X09



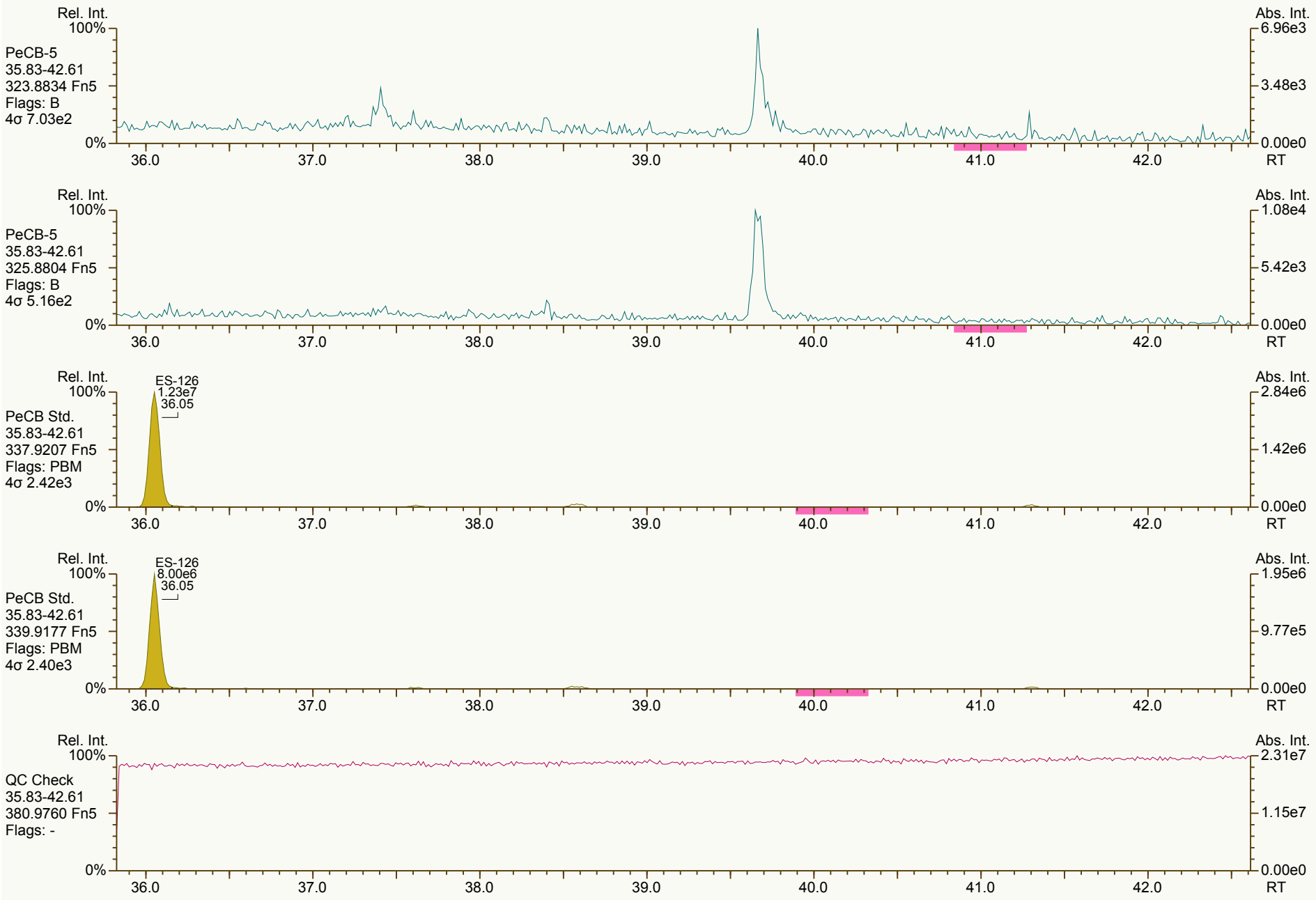
Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4827, 3758 scc: 560-818 *Revised: 14-Dec-2012 11:10 (LKB) Printed: 14-Dec-2012 11:41 Page 11 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9706, 8912 scc: 560-818 *Revised: 14-Dec-2012 11:10 (LKB) Printed: 14-Dec-2012 11:41 Page 12 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2108, 4270 scc: 560-818 *Revised: 14-Dec-2012 11:10 (LKB) Printed: 14-Dec-2012 11:41 Page 13 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



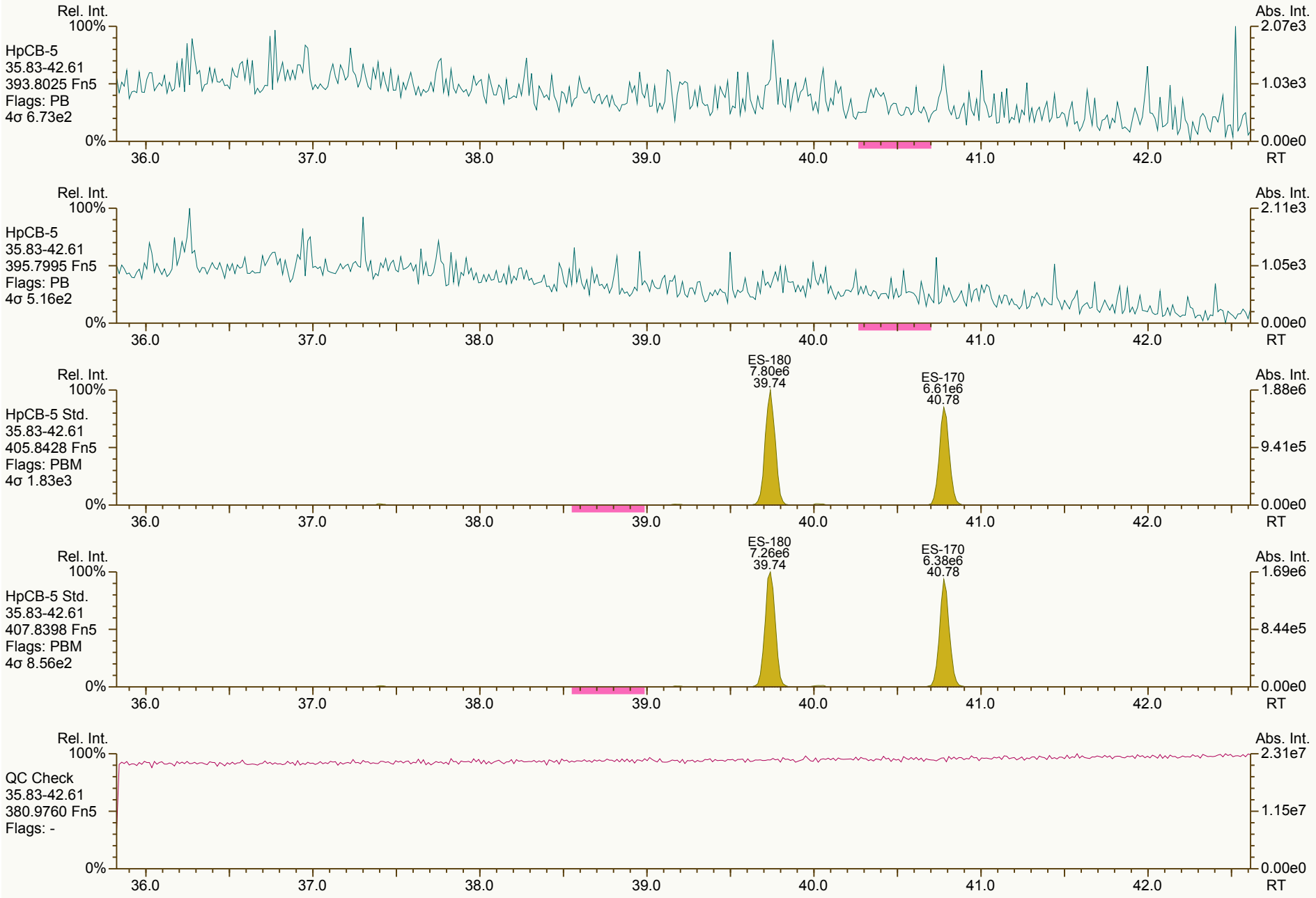
Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2279, 5764 scc: 560-818 *PKD: 14-Dec-2012 11:05 Printed: 14-Dec-2012 11:41 Page 16 of 22*

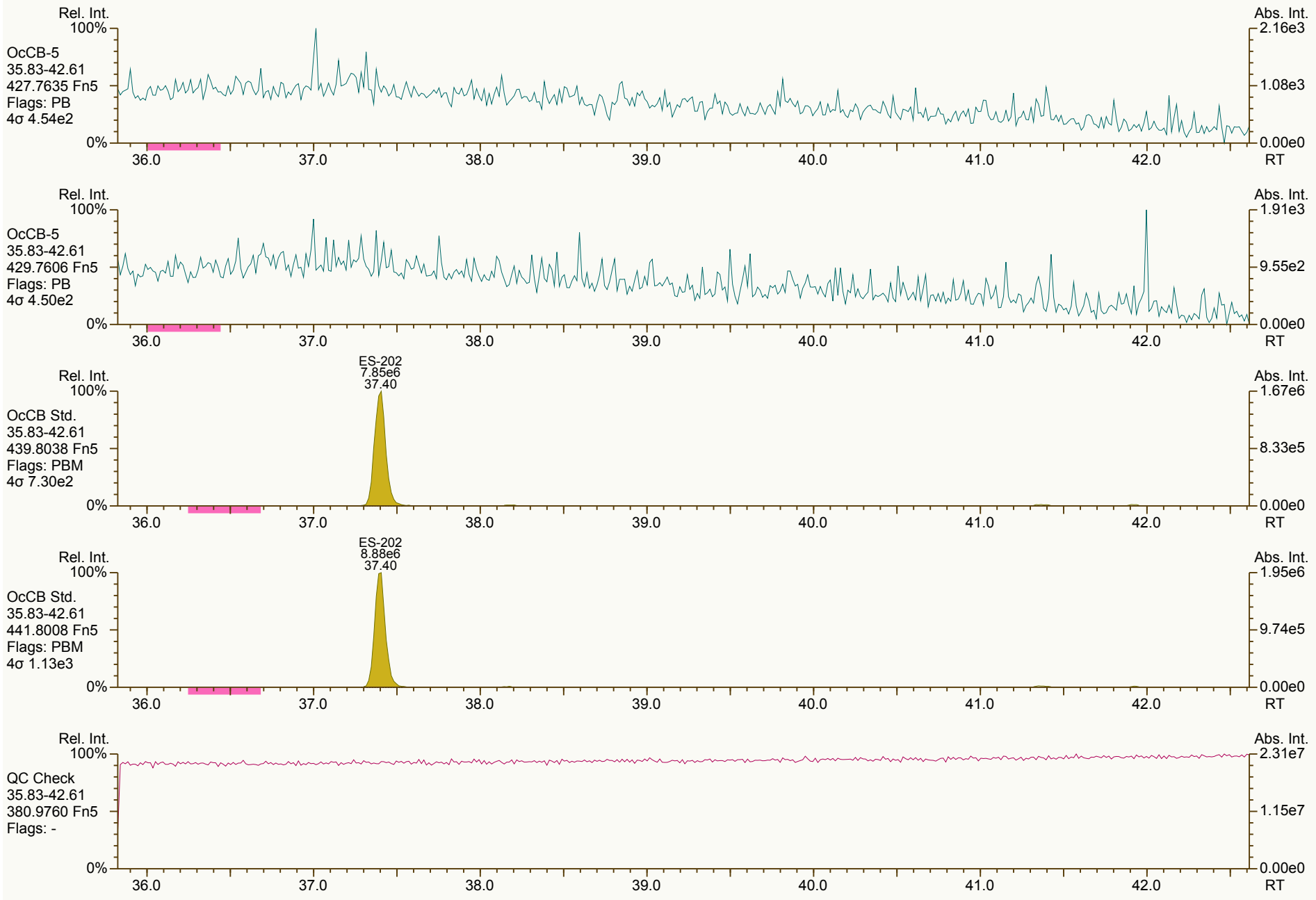
SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1293, 7028 scc: 560-818 *Revised: 14-Dec-2012 11:08 (LKB) Printed: 14-Dec-2012 11:41 Page 17 of 22*

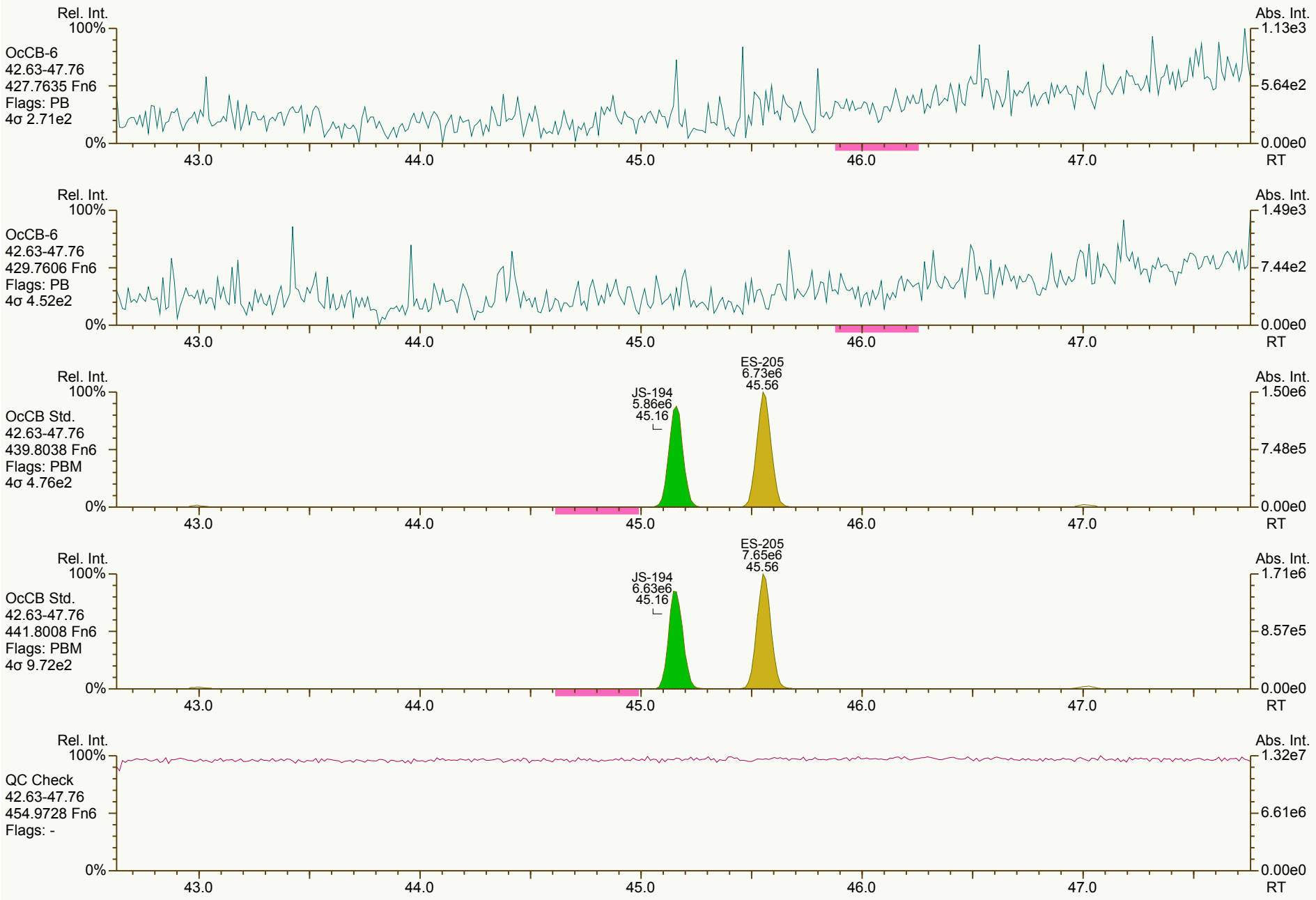
SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0089, 9638 scc: 560-818 *Revised: 14-Dec-2012 11:08 (LKB) Printed: 14-Dec-2012 11:41 Page 18 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4908_10420_PCB_002 | Sample ID: AQ-SE-RB | Acq: 13-Dec-2012 20:36:48
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32 | User: LKB Datafile: 121213X09



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4488, 5693 scc: 560-818 *Revised: 14-Dec-2012 11:10 (LKB) Printed: 14-Dec-2012 11:41 Page 20 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1122, 1213 scc: 560-818 *Revised: 14-Dec-2012 11:09 (LKB) Printed: 14-Dec-2012 11:41 Page 21 of 22*

SGS-AP ID: A4908_10420_PCB_002 **Sample ID: AQ-SE-RB** **Acq: 13-Dec-2012 20:36:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 32** **User: LKB Datafile: 121213X09**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\A4908_10420_PCB_002.utp_res, saved 14-Dec-2012 11:25 (LKB) *Peak annotation: Areas, Centroids*

SGS Analytical Perspectives — Run Log **Project: A4908_10420_PCB**

Instrument: MM7 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_a

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
4	121213X04	Tray1:04	CS3_121213_PCB_XC	1.00	SIL 12-65-3	LKB	224-305	13-Dec-2012	16:06:21
5	121213X05	Tray1:29	OPR1_10420_PCB	1.00	0_10420_OPR001	LKB	176-130	13-Dec-2012	17:03:35
6	121213X06	Tray1:02	SBS_121213_PCB_XB	1.00	SIL 9-41-1	LKB	951-021	13-Dec-2012	17:54:48
7	121213X07 ✓	Tray1:30	MB1_10420_PCB_TLX	2.00	Method Blank	LKB	495-318	13-Dec-2012	18:48:43
8	121213X08	Tray1:31	A4908_10420_PCB_001	0.99	AQ-SE-FB	LKB	155-480	13-Dec-2012	19:42:46
9	121213X09 ✓	Tray1:32	A4908_10420_PCB_002	0.93	AQ-SE-RB	LKB	560-818	13-Dec-2012	20:36:48

✓ = manual calculation

REVIEWED
By Laura Boivin at 11:43 am, Dec 14, 2012

REVIEWED
By Heather Steele at 12:22 pm, Dec 14, 2012

PCB QC Summary	SGS Analytical Perspectives				Processed: 14-Dec-2012 11:12
Lab ID:	**CS3_121213_PCB_XC**				
Acquired:	**13-DEC-2012 16:06**			**ICAL: MM7_PCB_07132012_25JUL12**	
Datafile:	**121213X04**				
Name	**RT**	**Response**	**RA**	**ICAL**	**RRF**	**Dev'n**
PCB-77 33'44'-TeCB	30.53	1.84E+07	0.79 Y	1.13	1.19	5.1%
PCB-81 344'5-TeCB	30.06	1.77E+07	0.79 Y	1.13	1.19	5.4%
PCB-105 233'44'-PeCB	33.47	1.47E+07	0.61 Y	1.09	1.19	8.7%
PCB-114 2344'5-PeCB	32.94	1.59E+07	0.61 Y	1.16	1.27	9.8%
PCB-118 23'44'5-PeCB	32.49	1.55E+07	0.62 Y	1.11	1.23	11.3%
PCB-123 23'44'5'-PeCB	32.21	1.60E+07	0.61 Y	1.19	1.33	12.0%
PCB-126 33'44'5-PeCB	36.08	1.50E+07	0.62 Y	1.06	1.16	8.8%
PCB-156/157 ...-HxCB	38.60	2.72E+07	1.20 Y	1.11	1.08	-2.0%
PCB-167 23'44'55'-HxCB	37.64	1.46E+07	1.19 Y	1.14	1.14	0.3%
PCB-169 33'44'55'-HxCB	41.32	1.29E+07	1.21 Y	1.11	1.09	-1.6%
PCB-189 233'44'55'-HpCB	43.43	1.31E+07	1.04 Y	1.06	1.08	1.9%
PCB-209 DeCB	48.37	1.02E+07	1.19 Y	1.07	1.09	1.5%
ES PCB-1	10.65	5.25E+07	3.19 Y	1.08	1.20	11.0%
ES PCB-3	12.70	4.96E+07	3.25 Y	1.08	1.13	4.8%
ES PCB-4	12.91	2.72E+07	1.62 Y	0.49	0.62	27.4%
ES PCB-15	18.23	4.63E+07	1.59 Y	1.11	1.06	-4.6%
ES PCB-19	15.73	2.38E+07	1.03 Y	0.55	0.54	-1.7%
ES PCB-37	24.31	3.72E+07	1.09 Y	1.64	1.50	-8.0%
ES PCB-54	18.46	2.48E+07	0.74 Y	0.94	1.00	6.6%
ES PCB-77	30.52	3.09E+07	0.79 Y	1.35	1.25	-7.2%
ES PCB-81	30.05	2.98E+07	0.78 Y	1.29	1.20	-6.5%
ES PCB-104	23.24	2.44E+07	1.57 Y	0.99	1.22	22.8%
ES PCB-105	33.45	2.47E+07	1.58 Y	1.23	1.23	-0.1%
ES PCB-114	32.92	2.49E+07	1.64 Y	1.25	1.24	-0.3%
ES PCB-118	32.47	2.52E+07	1.65 Y	1.28	1.26	-1.9%
ES PCB-123	32.19	2.40E+07	1.62 Y	1.22	1.20	-1.8%
ES PCB-126	36.06	2.60E+07	1.61 Y	1.20	1.30	8.2%
ES PCB-153	34.04	2.11E+07	1.29 Y	1.14	1.16	1.7%
ES PCB-155	28.10	2.85E+07	1.26 Y	1.50	1.56	4.5%
ES PCB-156/157	38.58	5.01E+07	1.31 Y	1.45	1.38	-5.5%
ES PCB-167	37.62	2.56E+07	1.31 Y	1.49	1.41	-5.9%
ES PCB-169	41.30	2.36E+07	1.31 Y	1.40	1.30	-7.6%
ES PCB-170	40.79	1.67E+07	1.02 Y	1.00	1.04	3.5%
ES PCB-180	39.74	2.00E+07	1.07 Y	1.16	1.24	6.7%
ES PCB-188	32.91	2.27E+07	1.04 Y	1.18	1.25	5.9%
ES PCB-189	43.41	2.43E+07	1.04 Y	1.49	1.51	1.3%
ES PCB-202	37.41	2.23E+07	0.89 Y	1.14	1.23	7.8%
ES PCB-205	45.56	1.95E+07	0.89 Y	1.20	1.21	0.7%
ES PCB-206	47.01	1.54E+07	0.78 Y	0.87	0.95	9.7%
ES PCB-208	43.00	2.02E+07	0.79 Y	1.19	1.25	4.9%
ES PCB-209	48.35	1.88E+07	1.15 Y	1.00	1.16	16.2%

PCB QC Summary	SGS Analytical Perspectives				Processed: 14-Dec-2012 11:12	
Lab ID:	**CS3_121213_PCB_XC**			**ICAL: MM7_PCB_07132012_25JUL12**		
Acquired:	**13-DEC-2012 16:06**					
Datafile:	**121213X04**					
Name	**RT**	**Response**	**RA**	**ICAL**	**RRF**	**Dev'n**
SS PCB-28	20.87	4.12E+07	1.11 Y	1.07	1.11	3.2%
SS PCB-111	30.56	2.42E+07	1.61 Y	1.01	1.01	0.2%
SS PCB-178	35.46	1.40E+07	1.06 Y	0.63	0.62	-1.9%
CS PCB-28	20.87	4.12E+07	1.11 Y	1.76	1.67	-5.1%
CS PCB-111	30.56	2.42E+07	1.61 Y	1.23	1.21	-1.6%
CS PCB-178	35.46	1.40E+07	1.06 Y	0.74	0.77	3.9%
JS PCB-9	14.74	4.37E+07	1.59 Y		-	-
JS PCB-52	22.43	2.47E+07	0.79 Y		-	-
JS PCB-101	28.28	2.00E+07	1.59 Y		-	-
JS PCB-138	35.08	1.82E+07	1.31 Y		-	-
JS PCB-194	45.16	1.62E+07	0.91 Y		-	-
PCB-1 2-MoCB	10.66	2.76E+07	3.23 Y	1.03	1.05	1.8%
PCB-3 4-MoCB	12.71	2.70E+07	3.23 Y	1.04	1.09	4.5%
PCB-4 22'-DiCB	12.92	1.50E+07	1.56 Y	1.17	1.11	-5.5%
PCB-15 44'-DiCB	18.25	2.58E+07	1.59 Y	1.08	1.11	3.1%
PCB-19 22'6-TrCB	15.75	1.30E+07	1.11 Y	1.09	1.09	-0.3%
PCB-37 344'-TrCB	24.33	2.16E+07	1.05 Y	1.10	1.16	5.1%
PCB-54 22'66'-TeCB	18.48	1.55E+07	0.79 Y	1.21	1.25	3.4%
PCB-104 22'466'-PeCB	23.26	1.56E+07	0.63 Y	1.25	1.28	1.8%
PCB-155 22'44'66'-HxCB	28.12	1.58E+07	1.25 Y	1.09	1.11	2.0%
PCB-188 22'34'566'-HpCB	32.93	1.22E+07	1.06 Y	1.03	1.07	3.7%
PCB-202 22'33'55'66'-OcCB	37.43	1.05E+07	0.91 Y	0.91	0.94	3.0%
PCB-205 233'44'55'6-OcCB	45.58	1.07E+07	0.94 Y	1.09	1.09	0.3%
PCB-208 22'33'455'66'-NoCB	43.02	9.91E+06	0.75 Y	1.02	0.98	-3.3%
PCB-206 22'33'44'55'6-NoCB	47.03	7.19E+06	0.76 Y	0.98	0.93	-4.6%

PCB QC Summary - Ax2 Detail

Processed: 14-Dec-2012 11:12

Lab ID: CS3_121213_PCB_XC
Acquired: 13-DEC-2012 16:06
Datafile: 121213X04
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA		RRF	
PCB-1 2-MoCB	10.66	2.76E+07	3.23 Y	1.03	-	-
PCB-2 3-MoCB	12.55	2.69E+07	3.24 Y	1.04	1.09	4.2%
PCB-3 4-MoCB	12.71	2.70E+07	3.23 Y	1.04	-	-
PCB-4 22'-DiCB	12.92	1.50E+07	1.56 Y	1.17	-	-
PCB-10 26-DiCB	13.09	2.37E+07	1.56 Y	1.83	1.74	-4.8%
PCB-9 25-DiCB	14.75	2.25E+07	1.61 Y	0.89	0.97	8.5%
PCB-7 24-DiCB	14.90	2.59E+07	1.58 Y	1.02	1.12	9.2%
PCB-6 23'-DiCB	15.11	2.42E+07	1.59 Y	0.95	1.05	10.4%
PCB-5 23-DiCB	15.38	2.42E+07	1.60 Y	0.97	1.05	7.5%
PCB-8 24'-DiCB	15.50	2.53E+07	1.59 Y	0.98	1.09	11.2%
PCB-14 35-DiCB	16.97	2.85E+07	1.61 Y	1.16	1.23	6.4%
PCB-11 33'-DiCB	17.70	2.43E+07	1.56 Y	1.00	1.05	5.2%
PCB-13/12 34'/34-DiCB	17.97	5.01E+07	1.58 Y	1.02	1.08	6.3%
PCB-15 44'-DiCB	18.25	2.58E+07	1.59 Y	1.08	-	-
PCB-19 22'6-TrCB	15.75	1.30E+07	1.11 Y	1.09	-	-
PCB-30/18 246/22'5-TrCB	17.41	3.51E+07	1.13 Y	1.46	1.48	1.0%
PCB-17 22'4-TrCB	17.79	1.50E+07	1.14 Y	1.25	1.26	0.7%
PCB-27 23'6-TrCB	17.97	2.04E+07	1.12 Y	1.69	1.72	1.5%
PCB-24 236-TrCB	18.10	1.99E+07	1.12 Y	1.63	1.67	2.2%
PCB-16 22'3-TrCB	18.18	1.09E+07	1.13 Y	0.95	0.92	-3.6%
PCB-32 24'6-TrCB	18.64	2.15E+07	1.11 Y	1.79	1.81	1.2%
PCB-34 23'5'-TrCB	19.76	2.16E+07	1.03 Y	1.05	1.16	11.0%
PCB-23 235-TrCB	19.90	2.23E+07	1.05 Y	1.06	1.20	13.7%
PCB-26/29 23'5/245-TrCB	20.17	4.53E+07	1.03 Y	1.09	1.22	12.1%
PCB-25 23'4-TrCB	20.36	2.26E+07	1.04 Y	1.07	1.21	13.0%
PCB-31 24'5-TrCB	20.63	2.30E+07	1.03 Y	1.11	1.24	11.4%
PCB-28/20 244'/233'-TrCB	20.89	4.44E+07	1.05 Y	1.07	1.19	11.9%
PCB-21/33 234/23'4'-TrCB	21.06	4.51E+07	1.04 Y	1.09	1.21	10.9%
PCB-22 234'-TrCB	21.42	2.09E+07	1.04 Y	1.02	1.12	10.4%
PCB-36 33'5-TrCB	22.79	2.27E+07	1.05 Y	1.13	1.22	8.2%
PCB-39 34'5-TrCB	23.09	2.34E+07	1.06 Y	1.17	1.26	8.2%
PCB-38 345-TrCB	23.59	2.12E+07	1.04 Y	1.03	1.14	10.2%
PCB-35 33'4-TrCB	23.98	2.15E+07	1.02 Y	1.04	1.16	11.0%
PCB-37 344'-TrCB	24.33	2.16E+07	1.05 Y	1.10	-	-
PCB-54 22'66'-TeCB	18.48	1.55E+07	0.79 Y	1.21	-	-
PCB-50/53 22'46/22'56'-TeCB	20.39	2.65E+07	0.81 Y	0.86	0.89	3.8%
PCB-45 22'36-TeCB	20.94	1.13E+07	0.81 Y	0.73	0.76	4.2%
PCB-51 22'46'-TeCB	21.02	1.34E+07	0.82 Y	0.88	0.90	2.2%
PCB-46 22'36'-TeCB	21.21	1.06E+07	0.81 Y	0.70	0.71	2.8%
PCB-52 22'55'-TeCB	22.45	1.27E+07	0.79 Y	0.84	0.86	1.6%
PCB-73 23'5'6-TeCB	22.58	1.77E+07	0.80 Y	1.09	1.19	9.4%

Lab ID: - Ax2 Detail **Processed: 14-Dec-2012 11:12**

Lab ID: CS3_121213_PCB_XC
Acquired: 13-DEC-2012 16:06
Datafile: 121213X04
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA		RRF	
PCB-43 22'35-TeCB	22.66	1.04E+07	0.82 Y	0.72	0.70	-3.5%
PCB-69/49 23'46/22'45'-TeCB	22.86	3.14E+07	0.82 Y	1.01	1.05	4.1%
PCB-48 22'45-TeCB	23.12	1.27E+07	0.80 Y	0.85	0.86	0.7%
PCB-44/47/65 ...-TeCB	23.33	4.10E+07	0.81 Y	0.89	0.92	3.3%
PCB-59/62/75 ...-TeCB	23.60	5.37E+07	0.81 Y	1.14	1.20	5.5%
PCB-42 22'34'-TeCB	23.75	1.19E+07	0.80 Y	0.77	0.80	3.9%
PCB-41 22'34-TeCB	24.07	1.04E+07	0.80 Y	0.73	0.70	-3.8%
PCB-71/40 23'4'6/22'33'-TeCB	24.16	2.70E+07	0.81 Y	0.87	0.91	4.9%
PCB-64 234'6-TeCB	24.37	1.91E+07	0.80 Y	1.24	1.28	3.9%
PCB-72 23'55'-TeCB	25.10	1.84E+07	0.80 Y	1.14	1.23	7.9%
PCB-68 23'45'-TeCB	25.35	1.92E+07	0.79 Y	1.21	1.29	6.8%
PCB-57 233'5-TeCB	25.70	1.75E+07	0.78 Y	1.11	1.18	6.6%
PCB-58 233'5'-TeCB	25.89	1.79E+07	0.78 Y	1.10	1.20	9.2%
PCB-67 23'45-TeCB	26.05	1.83E+07	0.77 Y	1.16	1.23	5.8%
PCB-63 234'5-TeCB	26.27	1.87E+07	0.77 Y	1.22	1.26	3.4%
PCB-61/70/74/76 ...-TeCB	26.55	7.36E+07	0.78 Y	1.13	1.24	9.3%
PCB-66 23'44'-TeCB	26.83	1.72E+07	0.77 Y	1.08	1.16	7.5%
PCB-55 233'4-TeCB	26.96	1.74E+07	0.78 Y	1.10	1.17	6.5%
PCB-56 233'4'-TeCB	27.39	1.71E+07	0.78 Y	1.06	1.15	8.8%
PCB-60 2344'-TeCB	27.57	1.78E+07	0.78 Y	1.11	1.20	7.9%
PCB-80 33'55'-TeCB	27.94	2.03E+07	0.78 Y	1.25	1.36	8.8%
PCB-79 33'45'-TeCB	29.23	2.03E+07	0.79 Y	1.23	1.36	10.5%
PCB-78 33'45-TeCB	29.69	1.72E+07	0.78 Y	1.08	1.16	7.0%
PCB-104 22'466'-PeCB	23.26	1.56E+07	0.63 Y	1.25	-	-
PCB-96 22'366'-PeCB	23.56	1.34E+07	0.64 Y	1.08	1.10	2.2%
PCB-103 22'45'6-PeCB	25.24	1.17E+07	0.62 Y	0.90	0.97	7.9%
PCB-94 22'356'-PeCB	25.42	1.01E+07	0.61 Y	0.78	0.85	8.9%
PCB-95 22'35'6-PeCB	25.79	1.11E+07	0.61 Y	0.83	0.92	11.6%
PCB-100/93 22'44'6/22'356-PeC	26.00	2.17E+07	0.61 Y	0.84	0.91	7.3%
PCB-102 22'456'-PeCB	26.10	1.23E+07	0.62 Y	0.90	1.02	13.7%
PCB-98 22'34'6'-PeCB	26.17	9.11E+06	0.63 Y	0.77	0.76	-1.9%
PCB-88 22'346-PeCB	26.45	8.74E+06	0.60 Y	0.79	0.73	-8.2%
PCB-91 22'34'6-PeCB	26.52	1.35E+07	0.62 Y	0.88	1.12	27.4%
PCB-84 22'33'6-PeCB	26.70	9.46E+06	0.62 Y	0.71	0.79	11.0%
PCB-89 22'346'-PeCB	27.11	1.01E+07	0.62 Y	0.76	0.84	10.2%
PCB-121 23'45'6-PeCB	27.50	1.54E+07	0.61 Y	1.14	1.29	12.5%
PCB-92 22'355'-PeCB	27.80	1.06E+07	0.62 Y	0.80	0.89	10.9%
PCB-113/90/101 ...-PeCB	28.27	3.80E+07	0.63 Y	0.93	1.06	13.0%
PCB-83 22'33'5-PeCB	28.69	9.23E+06	0.60 Y	0.71	0.77	7.9%

Lab ID: - Ax2 Detail **Processed: 14-Dec-2012 11:12**

Lab ID: CS3_121213_PCB_XC ICAL: MM7_PCB_07132012_25JUL12
Acquired: 13-DEC-2012 16:06
Datafile: 121213X04

Name	RT	Response	RA		RRF	
PCB-99 22'44'5-PeCB	28.79	1.14E+07	0.61 Y	0.87	0.95	9.1%
PCB-112 233'56-PeCB	28.89	1.55E+07	0.61 Y	1.13	1.29	14.9%
PCB-108/119/86/97/125...-PeCB	29.22	7.73E+07	0.62 Y	0.95	1.07	13.0%
PCB-117 234'56-PeCB	29.75	1.25E+07	0.61 Y	1.04	1.04	0.3%
PCB-116/85 23456/22'344'-PeCl	29.82	2.74E+07	0.63 Y	0.97	1.14	17.5%
PCB-110 233'4'6-PeCB	29.95	1.36E+07	0.61 Y	1.02	1.13	10.7%
PCB-115 2344'6-PeCB	30.04	1.55E+07	0.62 Y	1.16	1.29	11.9%
PCB-82 22'33'4-PeCB	30.22	9.17E+06	0.61 Y	0.69	0.76	10.6%
PCB-111 233'55'-PeCB	30.58	1.54E+07	0.61 Y	1.15	1.29	11.5%
PCB-120 23'455'-PeCB	30.97	1.57E+07	0.62 Y	1.16	1.30	12.4%
PCB-107/124 ...-PeCB	31.91	2.82E+07	0.62 Y	1.07	1.18	9.4%
PCB-109 233'46-PeCB	32.11	1.46E+07	0.60 Y	1.14	1.22	6.4%
PCB-106 233'45-PeCB	32.32	1.43E+07	0.61 Y	1.07	1.19	11.5%
PCB-122 233'4'5'-PeCB	32.77	1.35E+07	0.61 Y	1.00	1.08	8.4%
PCB-127 33'455'-PeCB	34.73	1.45E+07	0.61 Y	1.10	1.17	6.8%
PCB-155 22'44'66'-HxCB	28.12	1.58E+07	1.25 Y	1.09	-	-
PCB-152 22'3566'-HxCB	28.25	1.47E+07	1.28 Y	1.01	1.03	2.2%
PCB-150 22'34'66'-HxCB	28.40	1.49E+07	1.27 Y	1.00	1.05	4.4%
PCB-136 22'33'66'-HxCB	28.69	1.37E+07	1.27 Y	0.95	0.96	0.9%
PCB-145 22'3466'-HxCB	28.96	1.41E+07	1.26 Y	0.96	0.99	3.2%
PCB-148 22'34'56'-HxCB	30.25	1.06E+07	1.26 Y	0.97	1.01	3.7%
PCB-151/135 ...-HxCB	30.75	2.06E+07	1.26 Y	0.96	0.98	1.2%
PCB-154 22'44'56'-HxCB	30.97	1.18E+07	1.28 Y	1.09	1.12	2.4%
PCB-144 22'345'6-HxCB	31.22	1.06E+07	1.26 Y	0.98	1.00	2.3%
PCB-147/149 ...-HxCB	31.51	2.13E+07	1.28 Y	0.99	1.01	2.4%
PCB-134 22'33'56-HxCB	31.68	8.58E+06	1.24 Y	0.80	0.81	1.4%
PCB-143 22'3456'-HxCB	31.75	1.02E+07	1.25 Y	0.95	0.97	1.1%
PCB-139/140 ...-HxCB	32.02	2.15E+07	1.25 Y	1.00	1.02	1.9%
PCB-131 22'33'46-HxCB	32.18	9.21E+06	1.25 Y	0.85	0.87	2.5%
PCB-142 22'3456-HxCB	32.32	9.40E+06	1.26 Y	0.87	0.89	1.8%
PCB-132 22'33'46'-HxCB	32.56	9.55E+06	1.26 Y	0.89	0.90	1.6%
PCB-133 22'33'55'-HxCB	33.00	9.99E+06	1.27 Y	0.91	0.95	3.4%
PCB-165 233'55'6-HxCB	33.34	1.24E+07	1.24 Y	1.13	1.17	3.3%
PCB-146 22'34'55'-HxCB	33.55	1.08E+07	1.25 Y	1.01	1.02	1.8%
PCB-161 233'45'6-HxCB	33.66	1.39E+07	1.29 Y	1.25	1.31	4.7%
PCB-153/168 ...-HxCB	34.08	2.62E+07	1.28 Y	1.22	1.24	1.7%
PCB-141 22'3455'-HxCB	34.22	1.04E+07	1.28 Y	0.93	0.99	6.5%
PCB-130 22'33'45'-HxCB	34.56	8.95E+06	1.26 Y	0.85	0.85	-0.1%
PCB-137 22'344'5-HxCB	34.75	1.09E+07	1.25 Y	1.04	1.03	-1.1%
PCB-164 233'4'5'6-HxCB	34.84	1.36E+07	1.28 Y	1.22	1.29	5.2%
PCB-163/138/129 ...-HxCB	35.12	3.28E+07	1.26 Y	1.02	1.03	1.0%

Lab ID: - Ax2 Detail **Processed: 14-Dec-2012 11:12**

Lab ID: CS3_121213_PCB_XC **ICAL:** MM7_PCB_07132012_25JUL12
Acquired: 13-DEC-2012 16:06
Datafile: 121213X04

Name	RT	Response	RA		RRF	
PCB-160 233'456-HxCB	35.25	1.33E+07	1.25 Y	1.21	1.26	4.5%
PCB-158 233'44'6-HxCB	35.44	1.45E+07	1.25 Y	1.34	1.37	2.4%
PCB-128/166 ...-HxCB	36.15	2.28E+07	1.21 Y	0.90	0.89	-0.9%
PCB-159 233'455'-HxCB	37.00	1.37E+07	1.20 Y	1.06	1.07	0.6%
PCB-162 233'4'55'-HxCB	37.24	1.41E+07	1.20 Y	1.08	1.10	2.2%
PCB-188 22'34'566'-HpCB	32.93	1.22E+07	1.06 Y	1.03	-	-
PCB-179 22'33'566'-HpCB	33.19	1.12E+07	1.06 Y	0.97	0.99	1.7%
PCB-184 22'344'66'-HpCB	33.66	1.11E+07	1.07 Y	0.93	0.97	4.3%
PCB-176 22'33'466'-HpCB	33.94	1.22E+07	1.05 Y	1.05	1.08	2.8%
PCB-186 22'34566'-HpCB	34.32	1.15E+07	1.08 Y	0.98	1.01	3.0%
PCB-178 22'33'55'6-HpCB	35.48	8.47E+06	1.05 Y	0.74	0.75	1.3%
PCB-175 22'33'45'6-HpCB	36.02	1.01E+07	1.05 Y	1.01	1.01	0.1%
PCB-187 22'34'55'6-HpCB	36.25	1.08E+07	1.04 Y	1.06	1.08	1.7%
PCB-182 22'344'56'-HpCB	36.42	1.11E+07	1.04 Y	1.11	1.11	0.4%
PCB-183 22'344'5'6-HpCB	36.76	1.14E+07	1.04 Y	1.13	1.14	0.9%
PCB-185 22'3455'6-HpCB	36.84	1.01E+07	1.04 Y	1.02	1.01	-0.6%
PCB-174 22'33'456'-HpCB	36.94	9.22E+06	1.06 Y	0.93	0.92	-0.4%
PCB-177 22'33'45'6'-HpCB	37.32	9.01E+06	1.04 Y	0.91	0.90	-0.3%
PCB-181 22'344'56-HpCB	37.66	1.02E+07	1.04 Y	1.06	1.02	-3.6%
PCB-171/173 ...-HpCB	37.83	1.83E+07	1.05 Y	0.93	0.92	-1.2%
PCB-172 22'33'455'-HpCB	39.21	9.30E+06	1.06 Y	0.95	0.93	-2.5%
PCB-192 233'455'6-HpCB	39.46	1.23E+07	1.05 Y	1.24	1.23	-0.8%
PCB-180/193 ...-HpCB	39.73	2.36E+07	1.05 Y	1.16	1.18	1.8%
PCB-191 233'44'5'6-HpCB	40.06	1.30E+07	1.05 Y	1.30	1.30	0.0%
PCB-170 22'33'44'5-HpCB	40.81	9.14E+06	1.04 Y	1.07	1.09	1.7%
PCB-190 233'44'56-HpCB	41.26	1.27E+07	1.04 Y	1.45	1.52	4.9%
PCB-202 22'33'55'66'-OcCB	37.43	1.05E+07	0.91 Y	0.91	-	-
PCB-201 22'33'45'66'-OcCB	38.20	1.17E+07	0.91 Y	1.02	1.05	2.7%
PCB-204 22'344'566'-OcCB	38.78	1.11E+07	0.91 Y	0.98	1.00	2.2%
PCB-197 22'33'44'66'-OcCB	38.96	1.19E+07	0.91 Y	1.06	1.07	0.5%
PCB-200 22'33'4566'-OcCB	39.04	1.13E+07	0.91 Y	0.96	1.01	5.4%
PCB-198/199 ...-OcCB	41.38	1.63E+07	0.91 Y	0.72	0.73	2.3%
PCB-196 22'33'44'56'-OcCB	41.95	8.44E+06	0.91 Y	0.73	0.76	3.6%
PCB-203 22'344'55'6-OcCB	42.12	8.95E+06	0.92 Y	0.76	0.80	5.0%
PCB-195 22'33'44'56-OcCB	43.22	7.56E+06	0.92 Y	0.80	0.77	-3.2%
PCB-194 22'33'44'55'-OcCB	45.18	8.41E+06	0.94 Y	0.87	0.86	-1.6%
PCB-205 233'44'55'6-OcCB	45.58	1.07E+07	0.94 Y	1.09	-	-
PCB-208 22'33'455'66'-NoCB	43.02	9.91E+06	0.75 Y	1.02	-	-
PCB-207 22'33'44'566'-NoCB	43.80	1.03E+07	0.77 Y	1.06	1.02	-3.4%
PCB-206 22'33'44'55'6-NoCB	47.03	7.19E+06	0.76 Y	0.98	-	-

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**



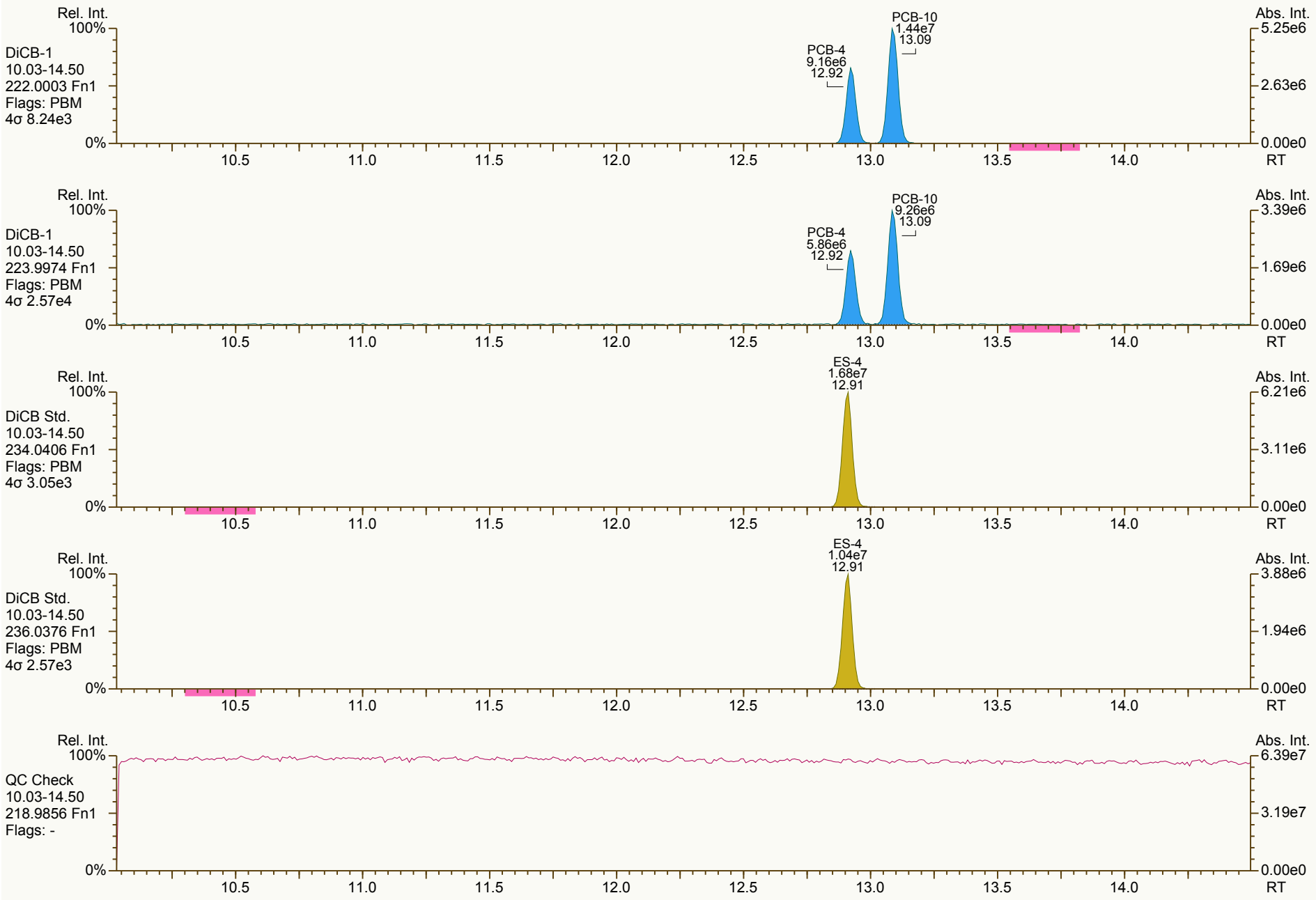
Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\CS3_121213_PCB_XC.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\CS3_121213_PCB_XC.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**



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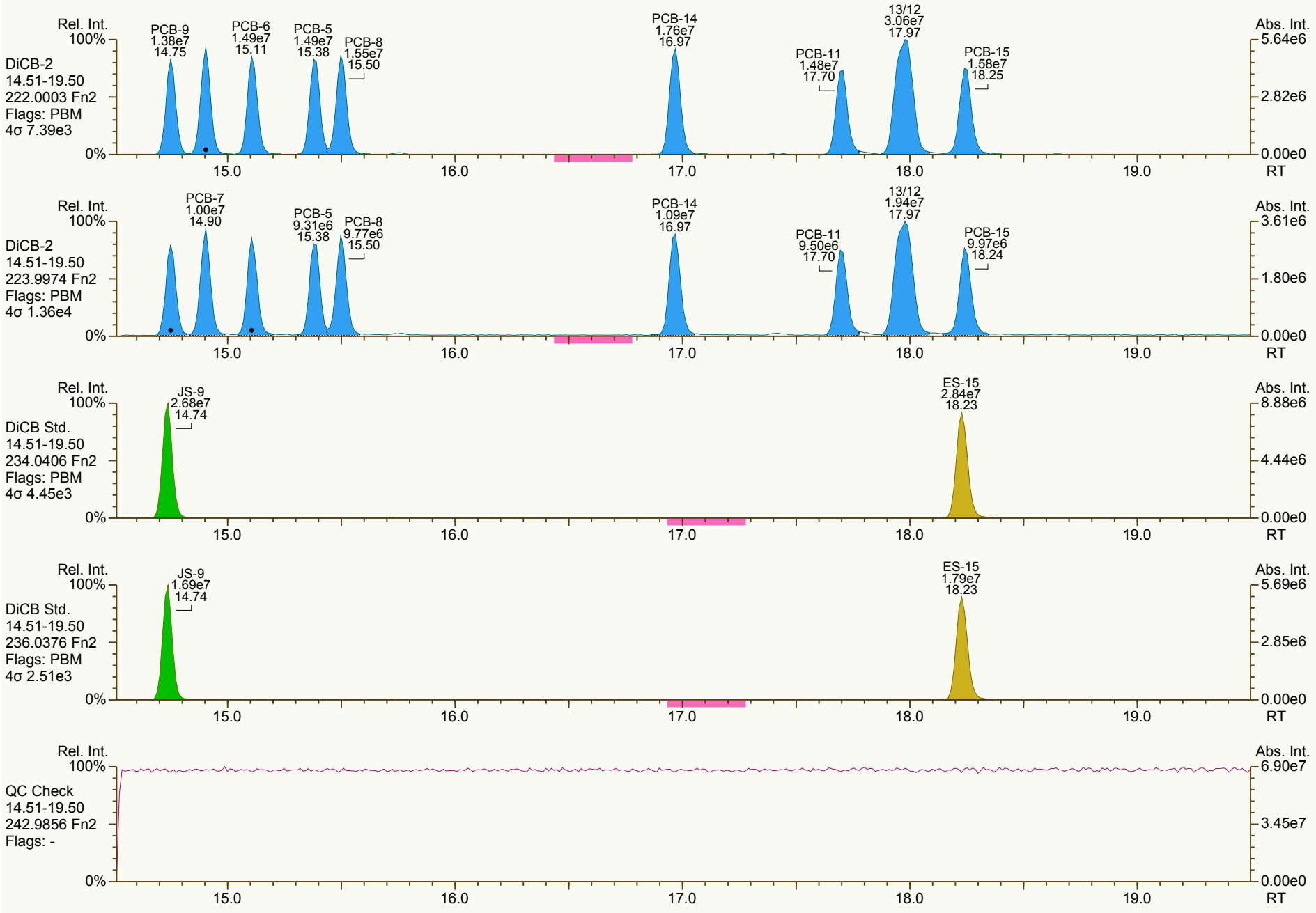
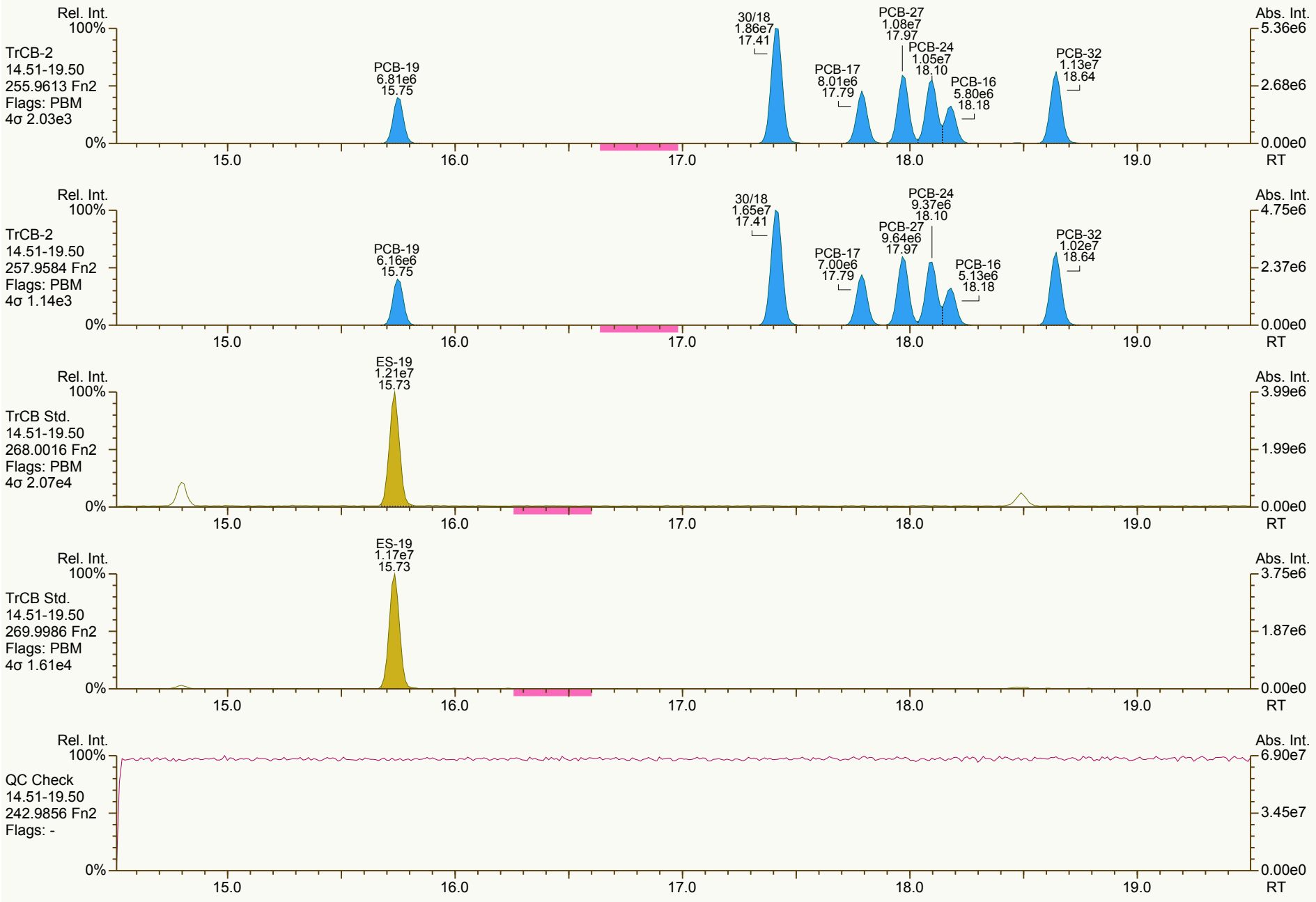
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3216, 1714 scc: 224-305 *PKD: 13-Dec-2012 17:01 Printed: 14-Dec-2012 11:25 Page 3 of 22*

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\CS3_121213_PCB_XC.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9826, 9263 scc: 224-305 *PKD: 13-Dec-2012 17:01 Printed: 14-Dec-2012 11:25 Page 4 of 22*

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**



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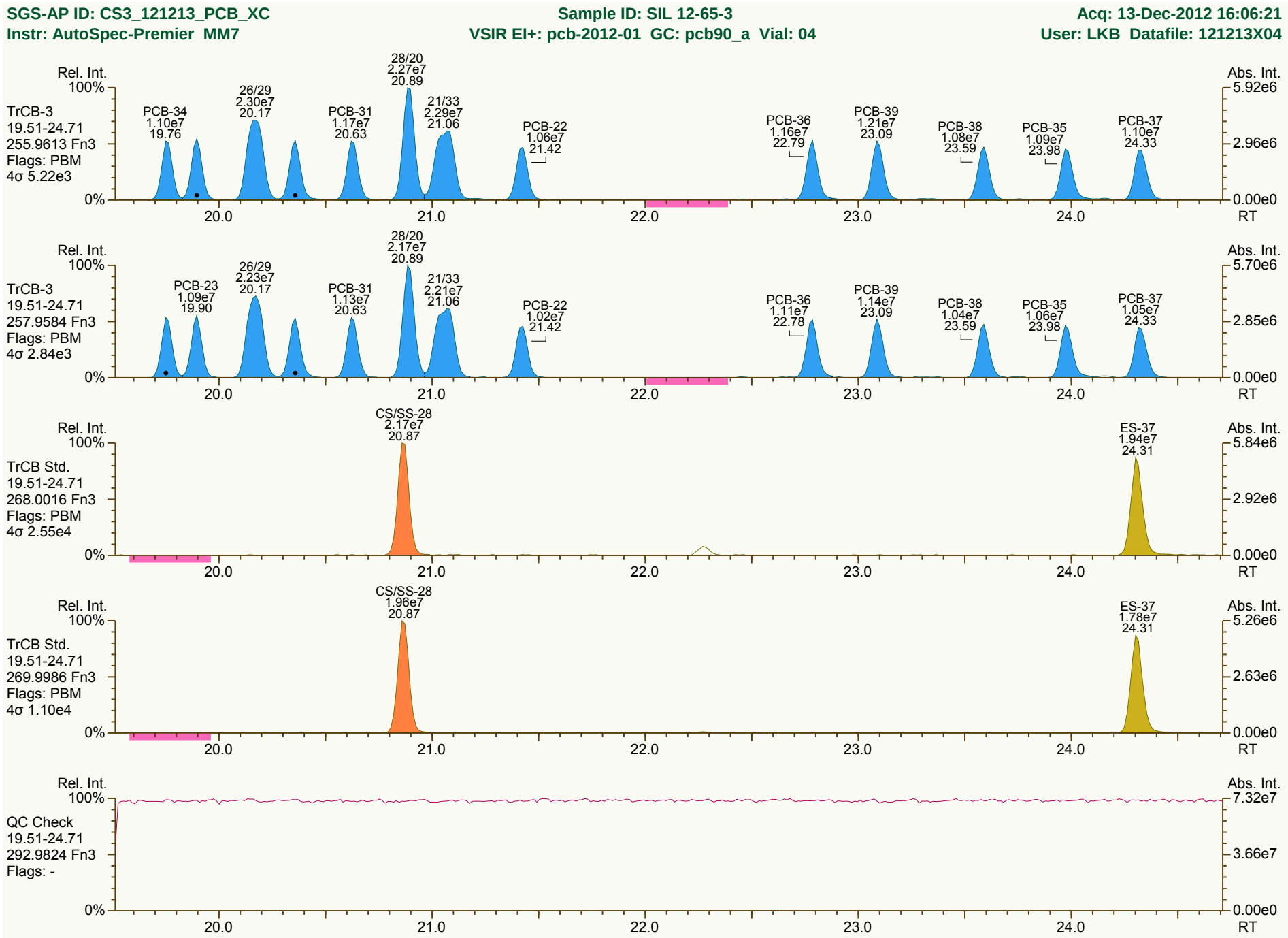
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Sample ID: SIL 12-65-3
Acq: 13-Dec-2012 16:06:21
Instr: AutoSpec-Premier MM7
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04
User: LKB Datafile: 121213X04
Rel. Int.
Abs. Int.
TrCB-3
19.51-24.71
255.9613 Fn3
Flags: PBM
4σ 5.22e3
PCB-34 1.10e7 19.76
26/29 2.30e7 20.17
PCB-31 1.17e7 20.63
28/20 2.27e7 20.89
21/33 2.29e7 21.06
PCB-22 1.06e7 21.42
PCB-36 1.16e7 22.79
PCB-39 1.21e7 23.09
PCB-38 1.08e7 23.59
PCB-35 1.09e7 23.98
PCB-37 1.10e7 24.33
TrCB-3
19.51-24.71
257.9584 Fn3
Flags: PBM
4σ 2.84e3
PCB-23 1.09e7 19.90
26/29 2.23e7 20.17
PCB-31 1.13e7 20.63
28/20 2.17e7 20.89
21/33 2.21e7 21.06
PCB-22 1.02e7 21.42
PCB-36 1.11e7 22.78
PCB-39 1.14e7 23.09
PCB-38 1.04e7 23.59
PCB-35 1.06e7 23.98
PCB-37 1.05e7 24.33
TrCB Std.
19.51-24.71
268.0016 Fn3
Flags: PBM
4σ 2.55e4
CS/SS-28 2.17e7 20.87
ES-37 1.94e7 24.31
TrCB Std.
19.51-24.71
269.9986 Fn3
Flags: PBM
4σ 1.10e4
CS/SS-28 1.96e7 20.87
ES-37 1.78e7 24.31
QC Check
19.51-24.71
292.9824 Fn3
Flags: -
RT

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**

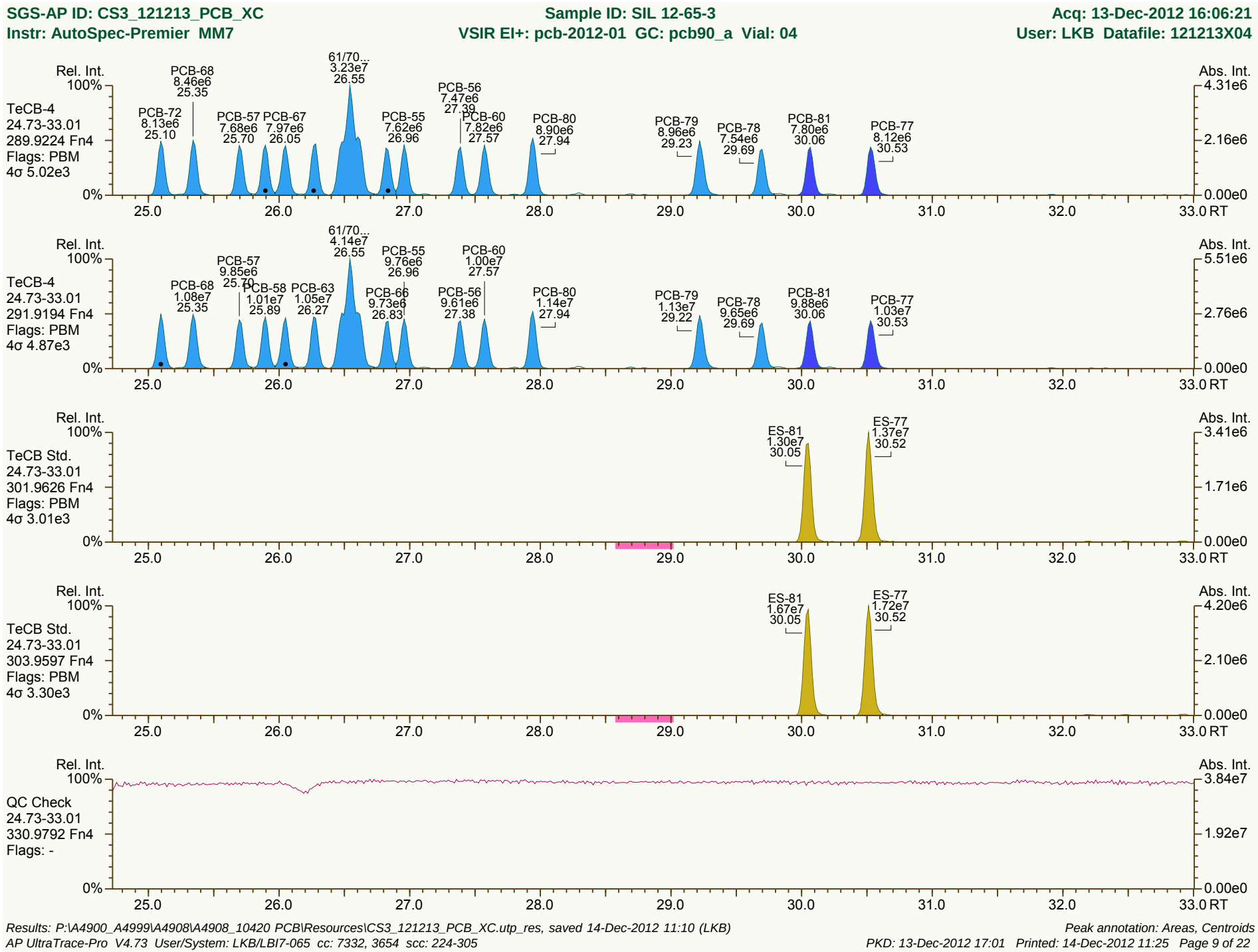


Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\CS3_121213_PCB_XC.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121213_PCB_XC | Sample ID: SIL 12-65-3 | Acq: 13-Dec-2012 16:06:21
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04 | User: LKB Datafile: 121213X04



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\CS3_121213_PCB_XC.utp_res, saved 14-Dec-2012 11:10 (LKB)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3655, 7119 scc: 224-305
PKD: 13-Dec-2012 17:01 Printed: 14-Dec-2012 11:25 Page 8 of 22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Sample ID: SIL 12-65-3
Acq: 13-Dec-2012 16:06:21
Instr: AutoSpec-Premier MM7
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04
User: LKB Datafile: 121213X04
Rel. Int.
Abs. Int.
TeCB-4
24.73-33.01
289.9224 Fn4
Flags: PBM
4σ 5.02e3
PCB-72 8.13e6 25.10
PCB-68 8.46e6 25.35
PCB-57 7.68e6 25.70
PCB-67 7.97e6 26.05
61/70... 3.23e7 26.55
PCB-55 7.62e6 26.96
PCB-56 7.47e6 27.39
PCB-60 7.82e6 27.57
PCB-80 8.90e6 27.94
PCB-79 8.96e6 29.23
PCB-78 7.54e6 29.69
PCB-81 7.80e6 30.06
PCB-77 8.12e6 30.53
TeCB-4
24.73-33.01
291.9194 Fn4
Flags: PBM
4σ 4.87e3
PCB-68 1.08e7 25.35
PCB-57 9.85e6 25.70
PCB-58 1.01e7 25.89
PCB-63 1.05e7 26.27
61/70... 4.14e7 26.55
PCB-55 9.76e6 26.96
PCB-66 9.73e6 26.83
PCB-56 9.61e6 27.38
PCB-60 1.00e7 27.57
PCB-80 1.14e7 27.94
PCB-79 1.13e7 29.22
PCB-78 9.65e6 29.69
PCB-81 9.88e6 30.06
PCB-77 1.03e7 30.53
TeCB Std.
24.73-33.01
301.9626 Fn4
Flags: PBM
4σ 3.01e3
ES-81 1.30e7 30.05
ES-77 1.37e7 30.52
TeCB Std.
24.73-33.01
303.9597 Fn4
Flags: PBM
4σ 3.30e3
ES-81 1.67e7 30.05
ES-77 1.72e7 30.52
QC Check
24.73-33.01
330.9792 Fn4
Flags: -
100%
0%
25.0
26.0
27.0
28.0
29.0
30.0
31.0
32.0
33.0 RT
4.31e6
2.16e6
0.00e0
5.51e6
2.76e6
3.41e6
1.71e6
4.20e6
2.10e6
3.84e7
1.92e7

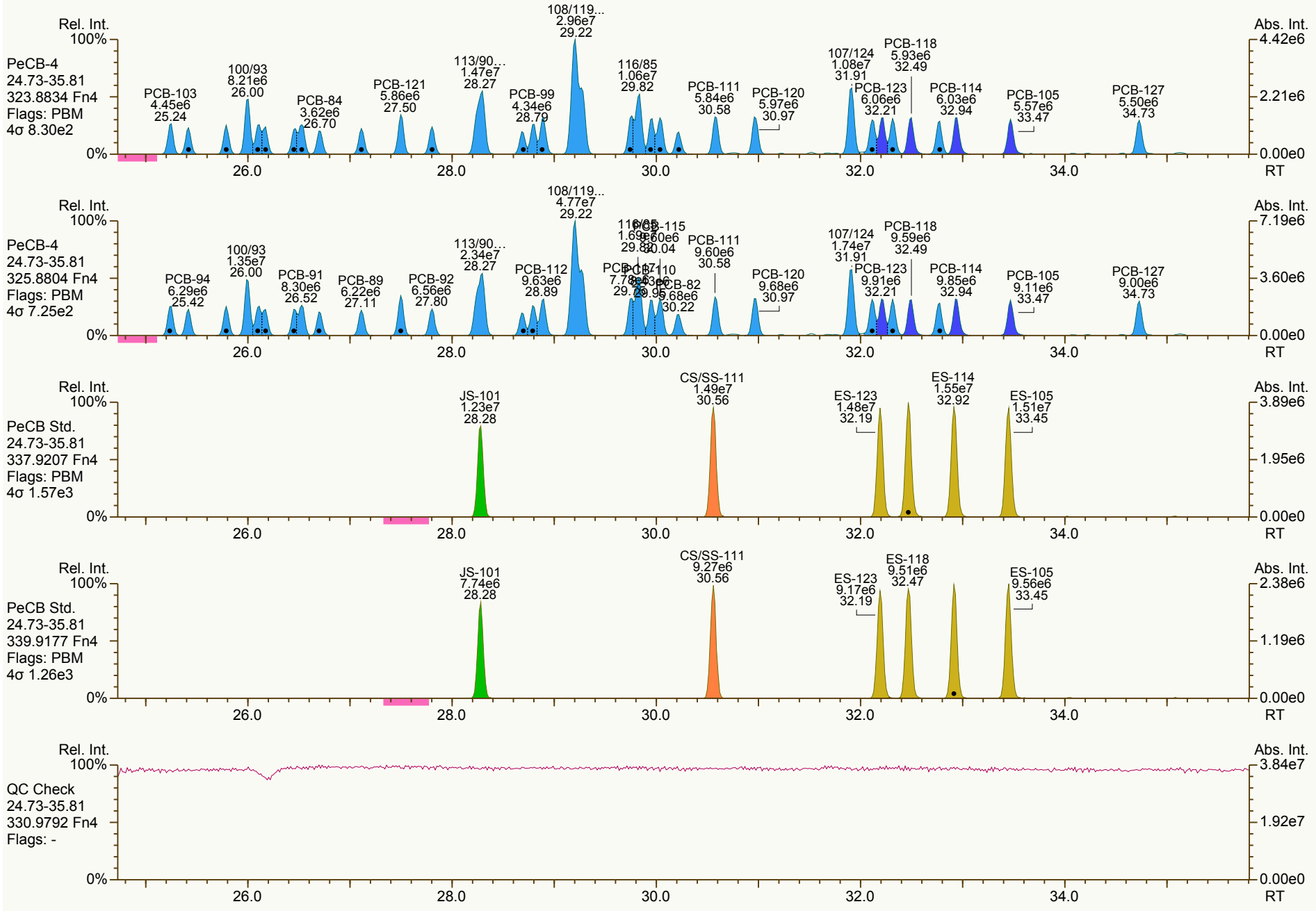
SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\CS3_121213_PCB_XC.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2899, 2755 scc: 224-305 *PKD: 13-Dec-2012 17:02 Printed: 14-Dec-2012 11:25 Page 10 of 22*

SGS-AP ID: CS3_121213_PCB_XC | Sample ID: SIL 12-65-3 | Acq: 13-Dec-2012 16:06:21
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04 | User: LKB Datafile: 121213X04



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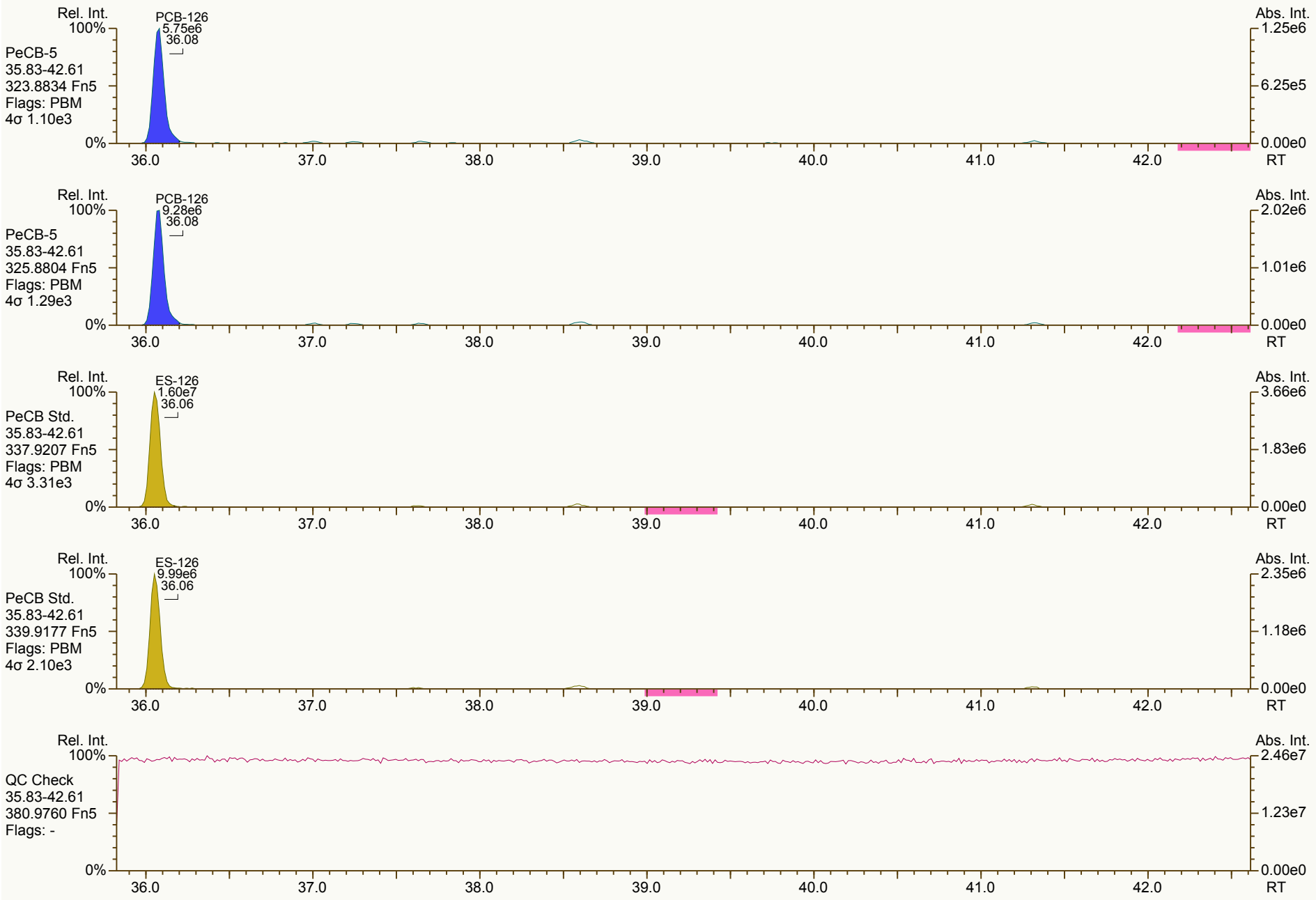
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0256, 5197 scc: 224-305
PKD: 13-Dec-2012 17:02 Printed: 14-Dec-2012 11:25 Page 11 of 22

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**



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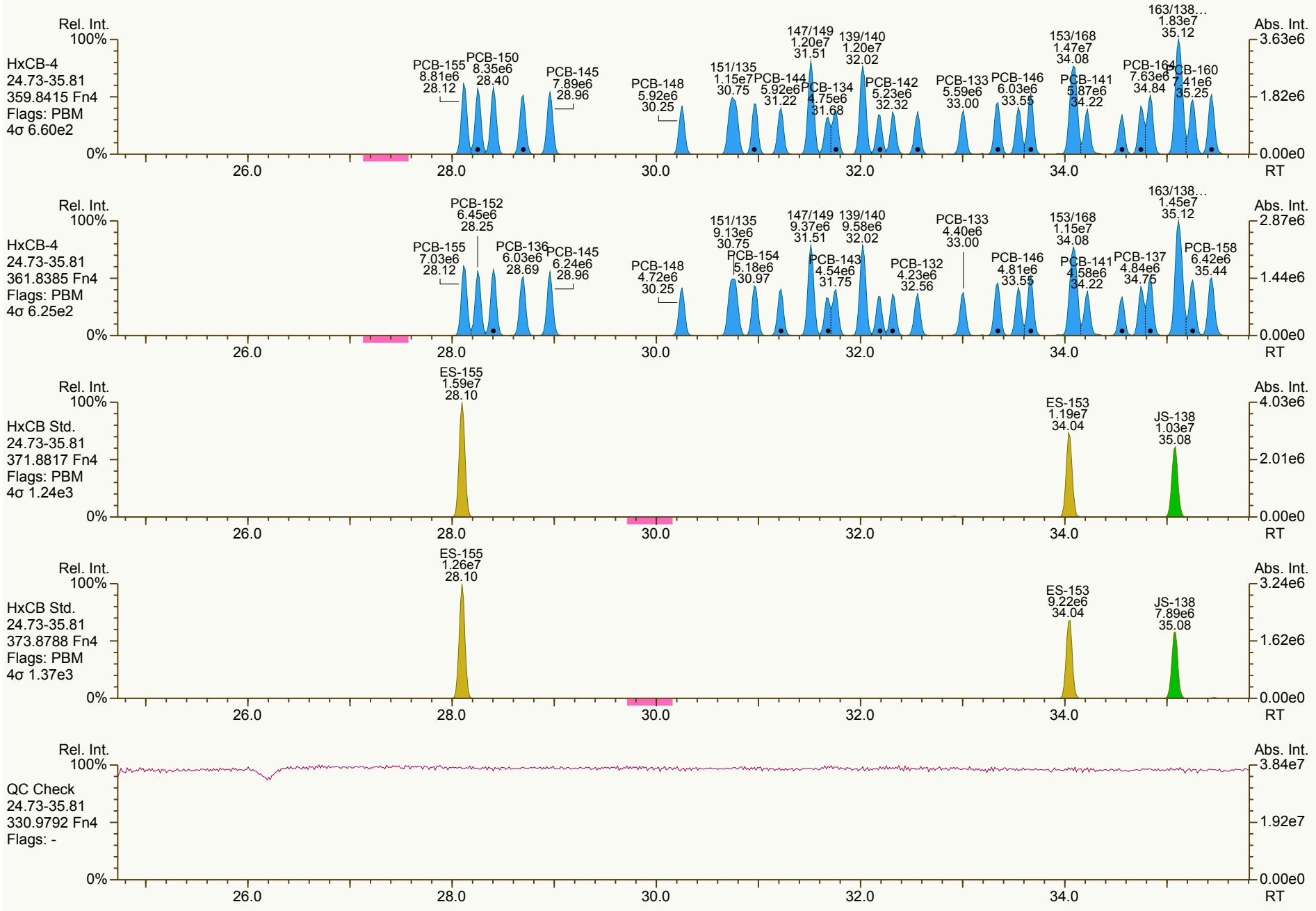
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5200, 7900 scc: 224-305 *PKD: 13-Dec-2012 17:02 Printed: 14-Dec-2012 11:25 Page 12 of 22*

SGS-AP ID: CS3_121213_PCB_XC Sample ID: SIL 12-65-3 Acq: 13-Dec-2012 16:06:21
Instr: AutoSpec-Premier MM7 VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04 User: LKB Datafile: 121213X04



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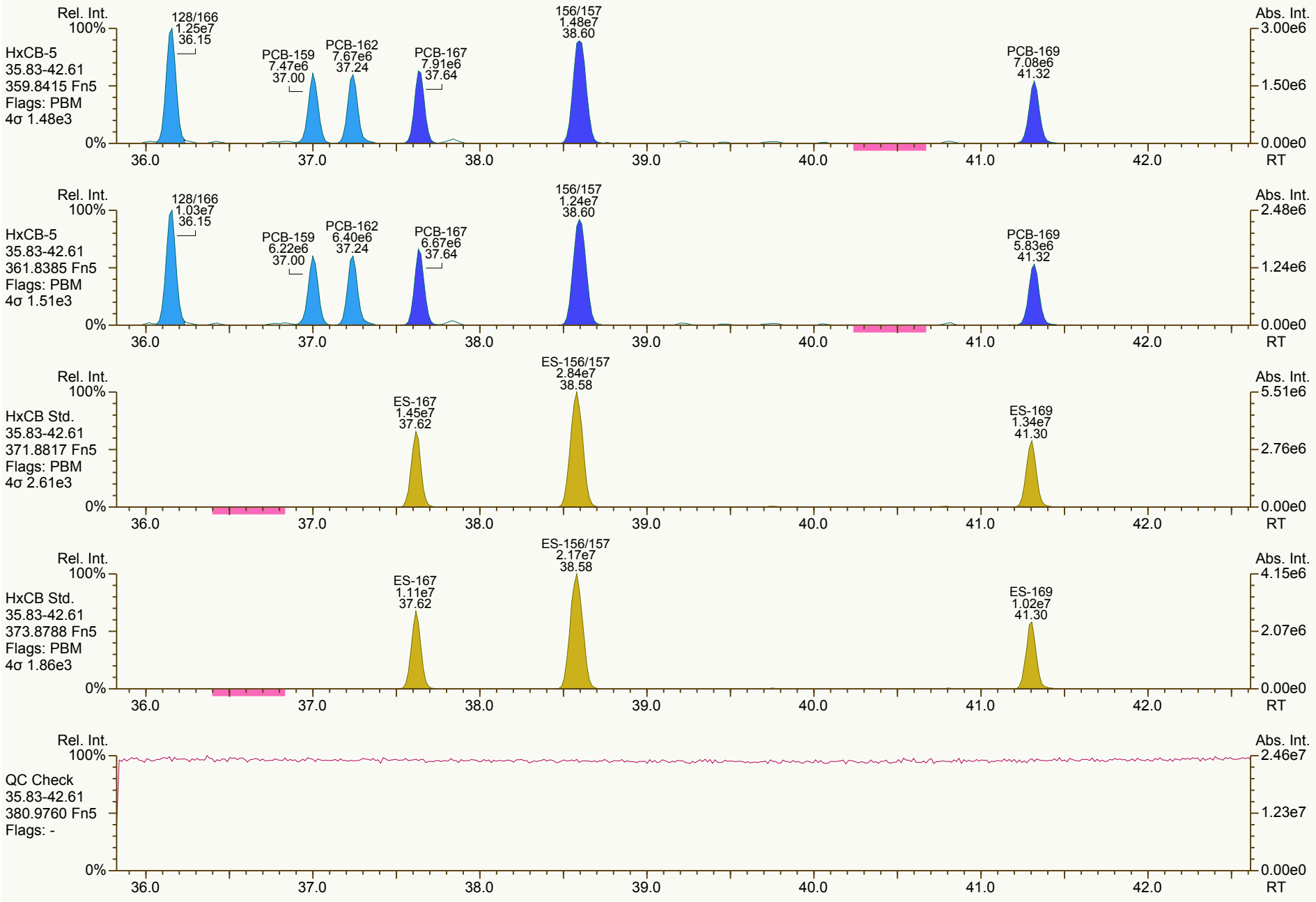
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7509, 6680 scc: 224-305
PKD: 13-Dec-2012 17:02 Printed: 14-Dec-2012 11:25 Page 13 of 22

SGS-AP ID: CS3_121213_PCB_XC | Sample ID: SIL 12-65-3 | Acq: 13-Dec-2012 16:06:21
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04 | User: LKB Datafile: 121213X04



SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
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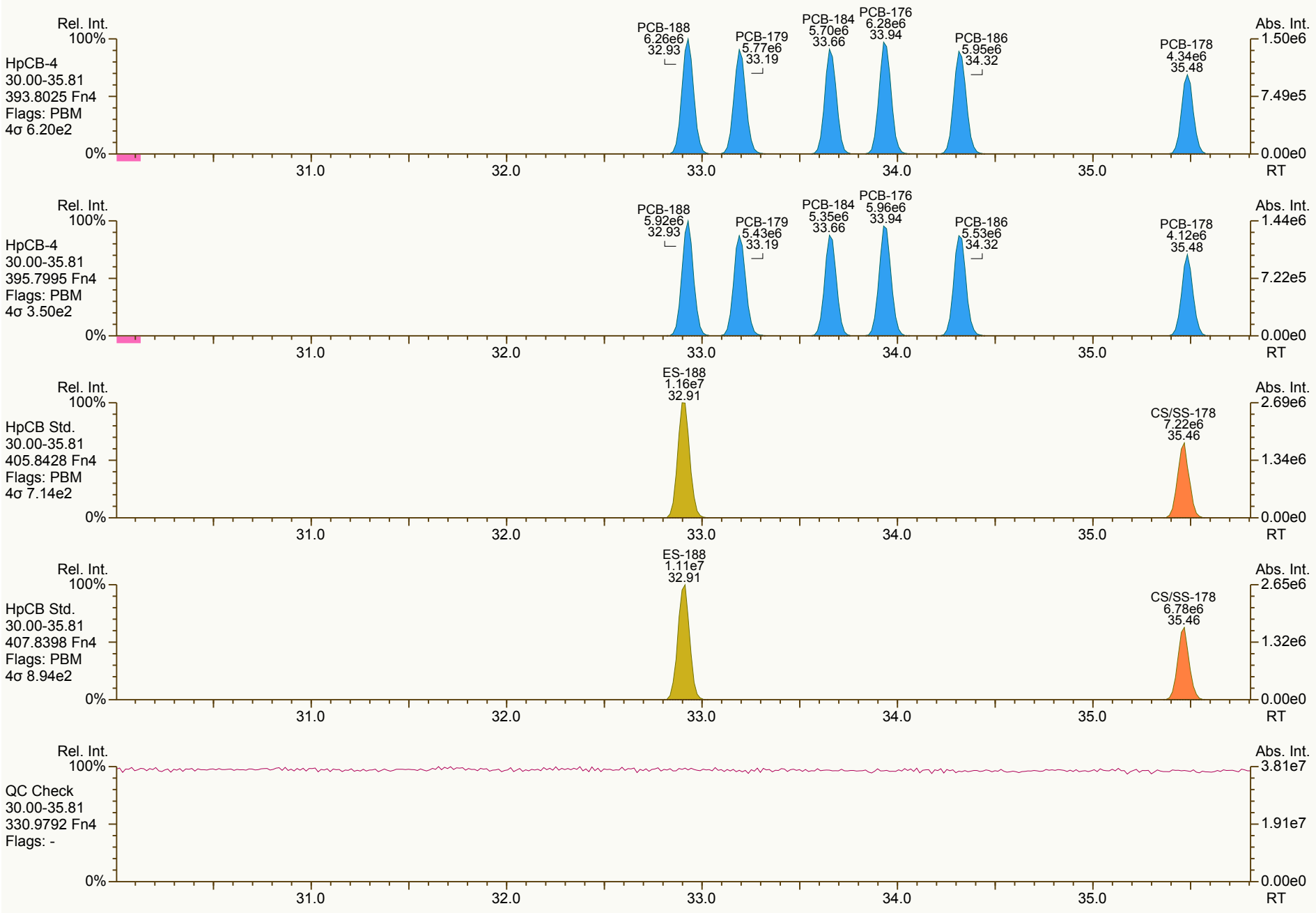

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
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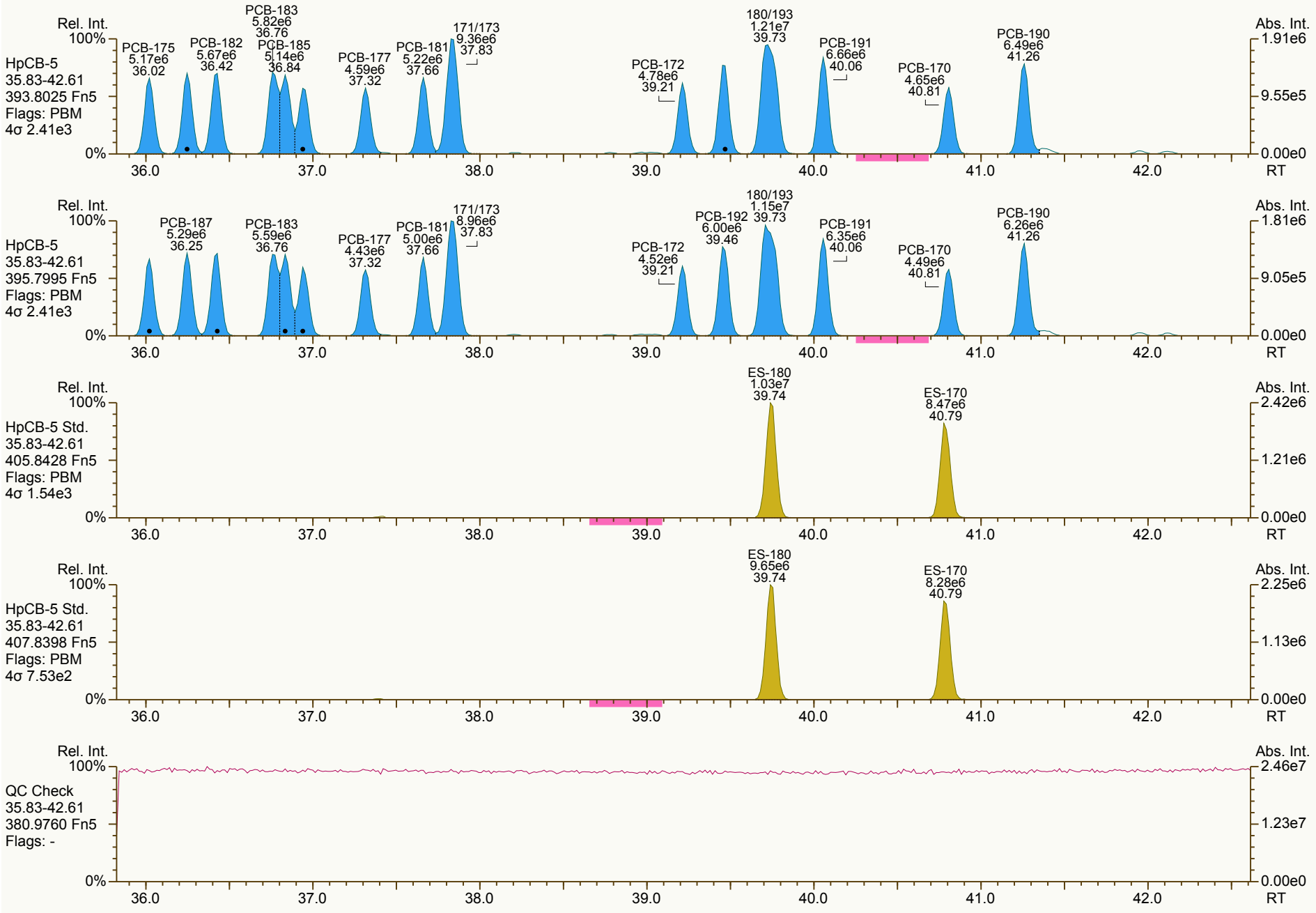

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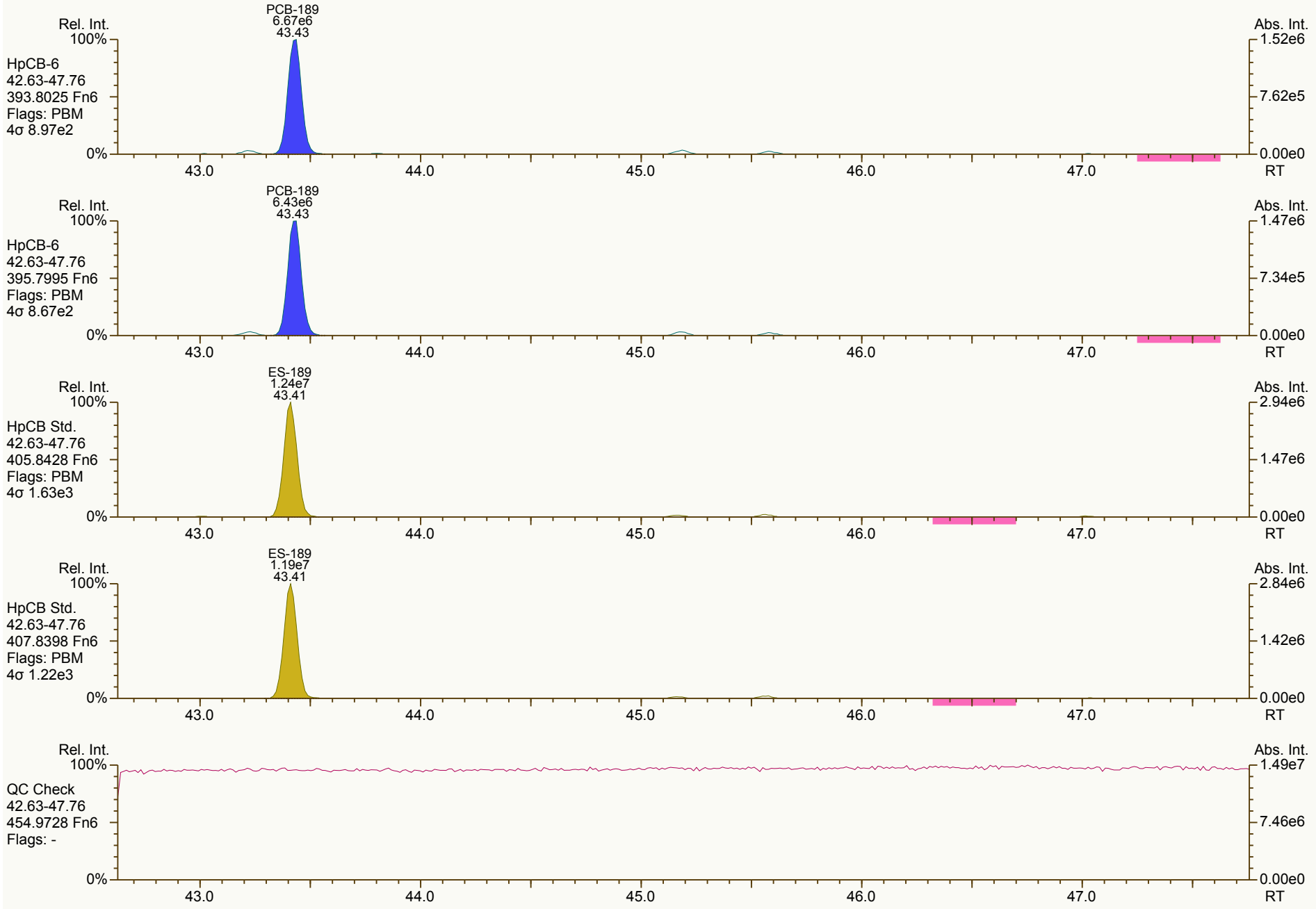
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7451, 2492 scc: 224-305 *PKD: 13-Dec-2012 17:02 Printed: 14-Dec-2012 11:25 Page 16 of 22*

SGS-AP ID: CS3_121213_PCB_XC | Sample ID: SIL 12-65-3 | Acq: 13-Dec-2012 16:06:21
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04 | User: LKB Datafile: 121213X04



SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
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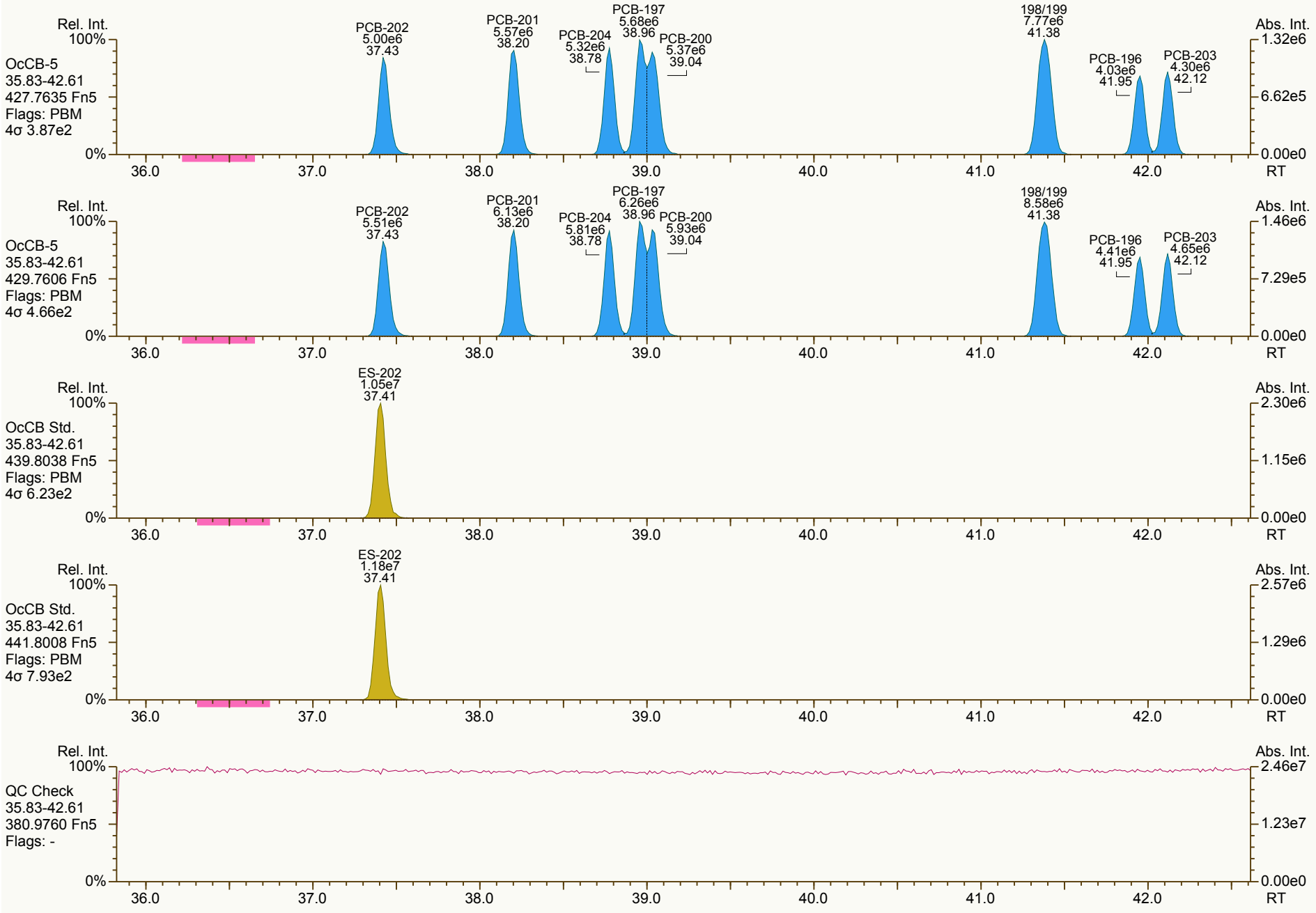

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
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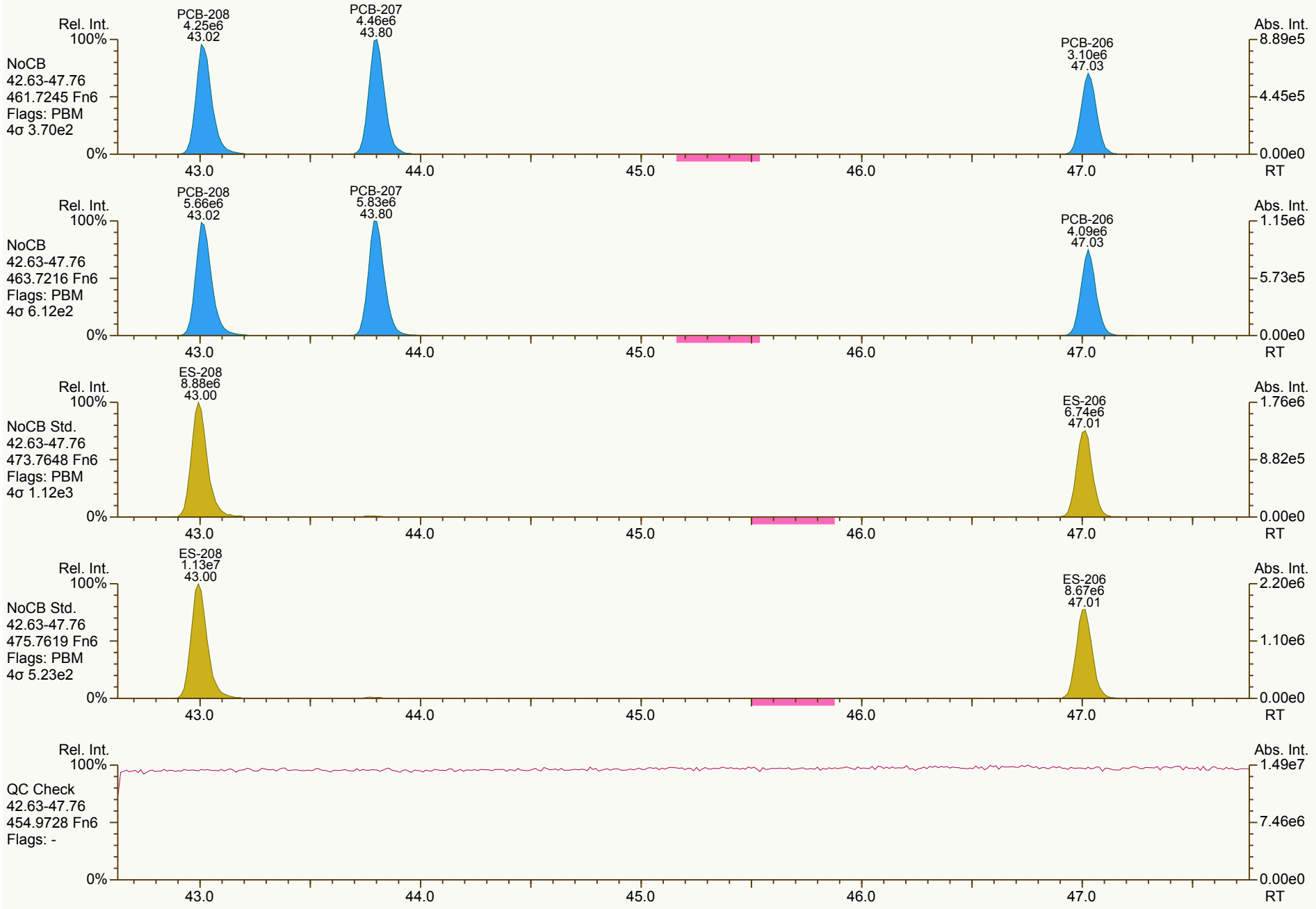
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9616, 0105 scc: 224-305 *PKD: 13-Dec-2012 17:02 Printed: 14-Dec-2012 11:26 Page 19 of 22*

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**



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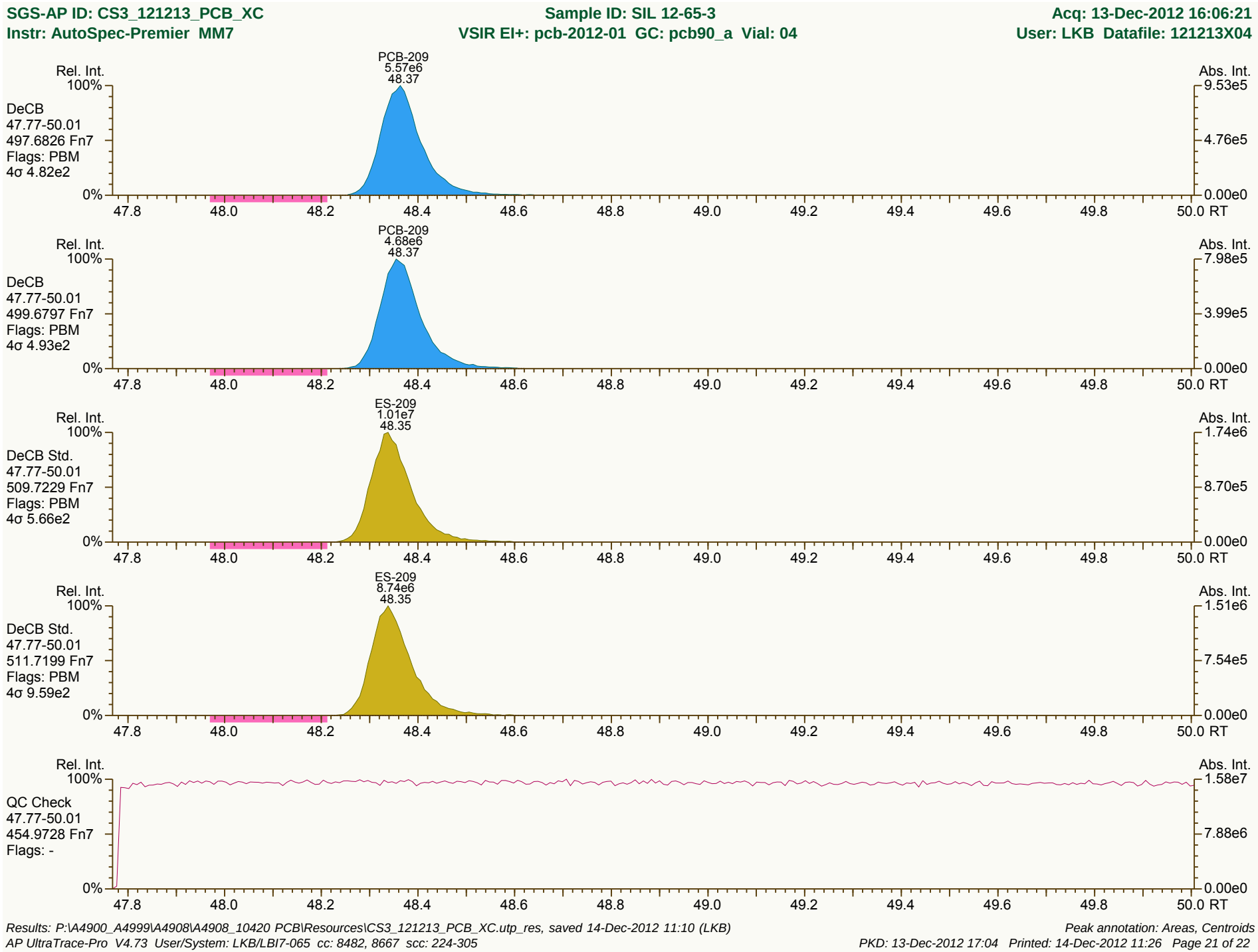
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4549, 2402 scc: 224-305 *PKD: 13-Dec-2012 17:02 Printed: 14-Dec-2012 11:26 Page 20 of 22*



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8482, 8667 scc: 224-305
PKD: 13-Dec-2012 17:04 Printed: 14-Dec-2012 11:26 Page 21 of 22

SGS-AP ID: CS3_121213_PCB_XC **Sample ID: SIL 12-65-3** **Acq: 13-Dec-2012 16:06:21**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121213X04**



SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



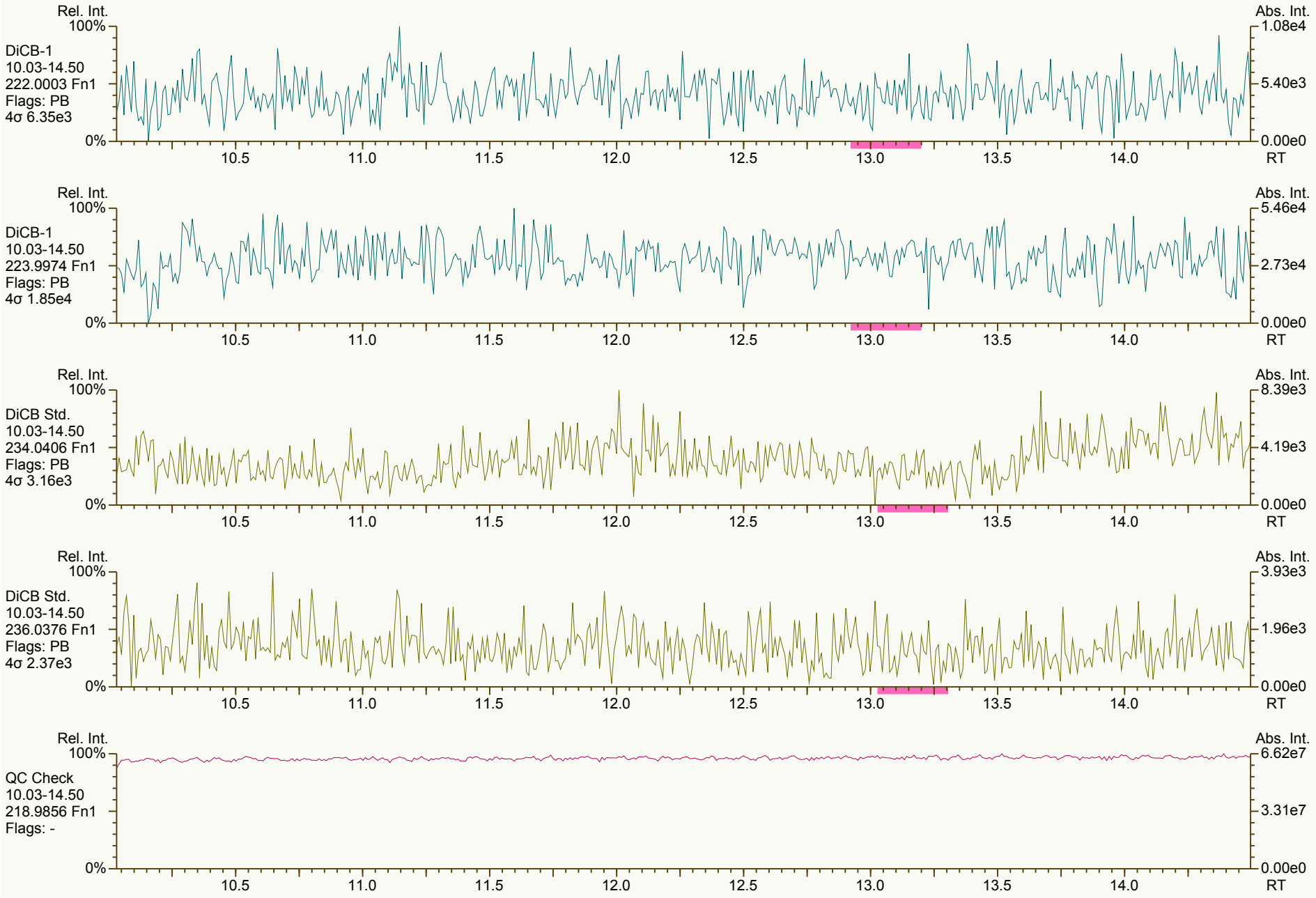
Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 951-021 *PKD: n/a Printed: 14-Dec-2012 11:26 Page 1 of 22*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



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SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*

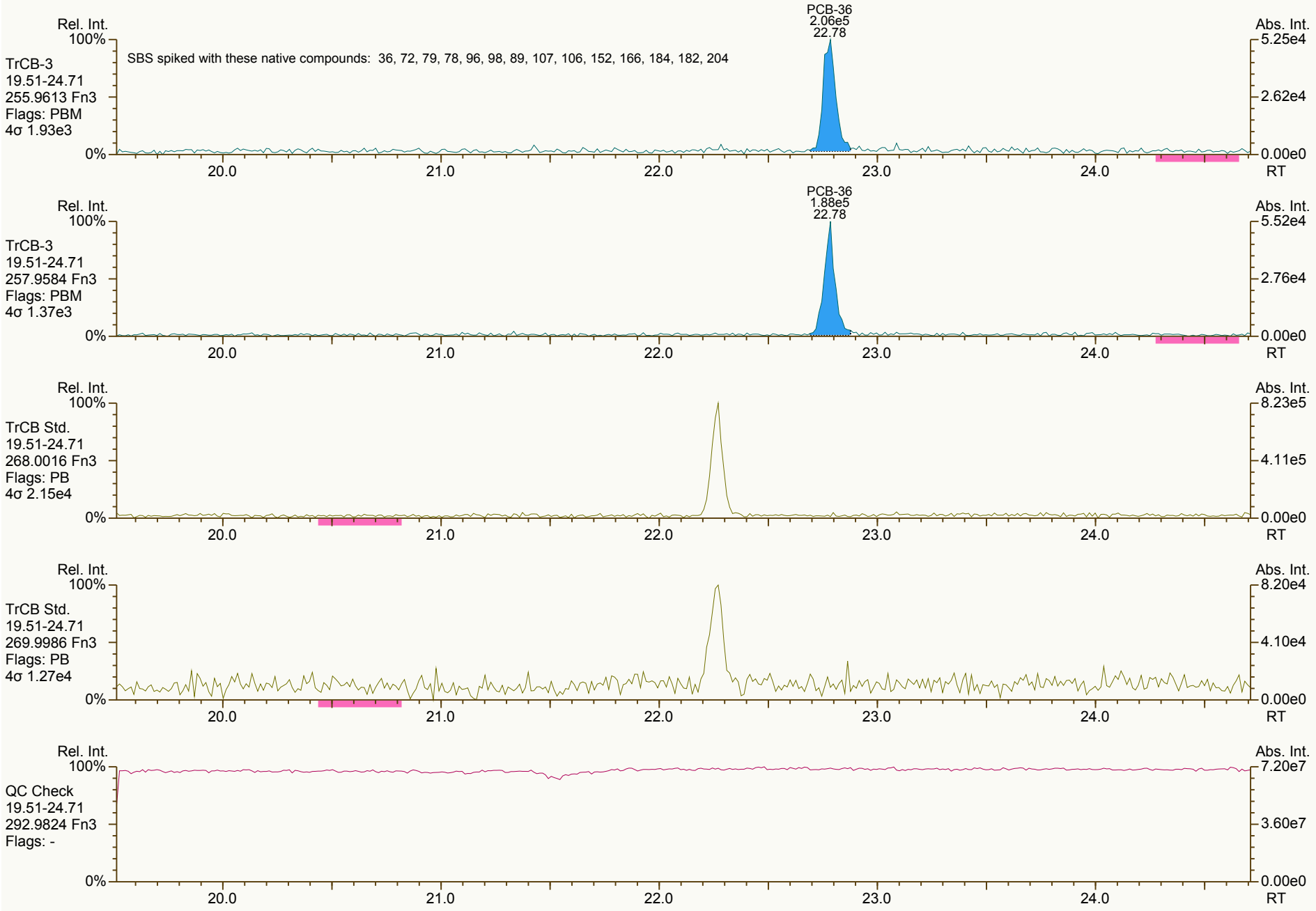
SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5696, 0944 scc: 951-021 *PKD: 14-Dec-2012 10:44 Printed: 14-Dec-2012 11:26 Page 5 of 22*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
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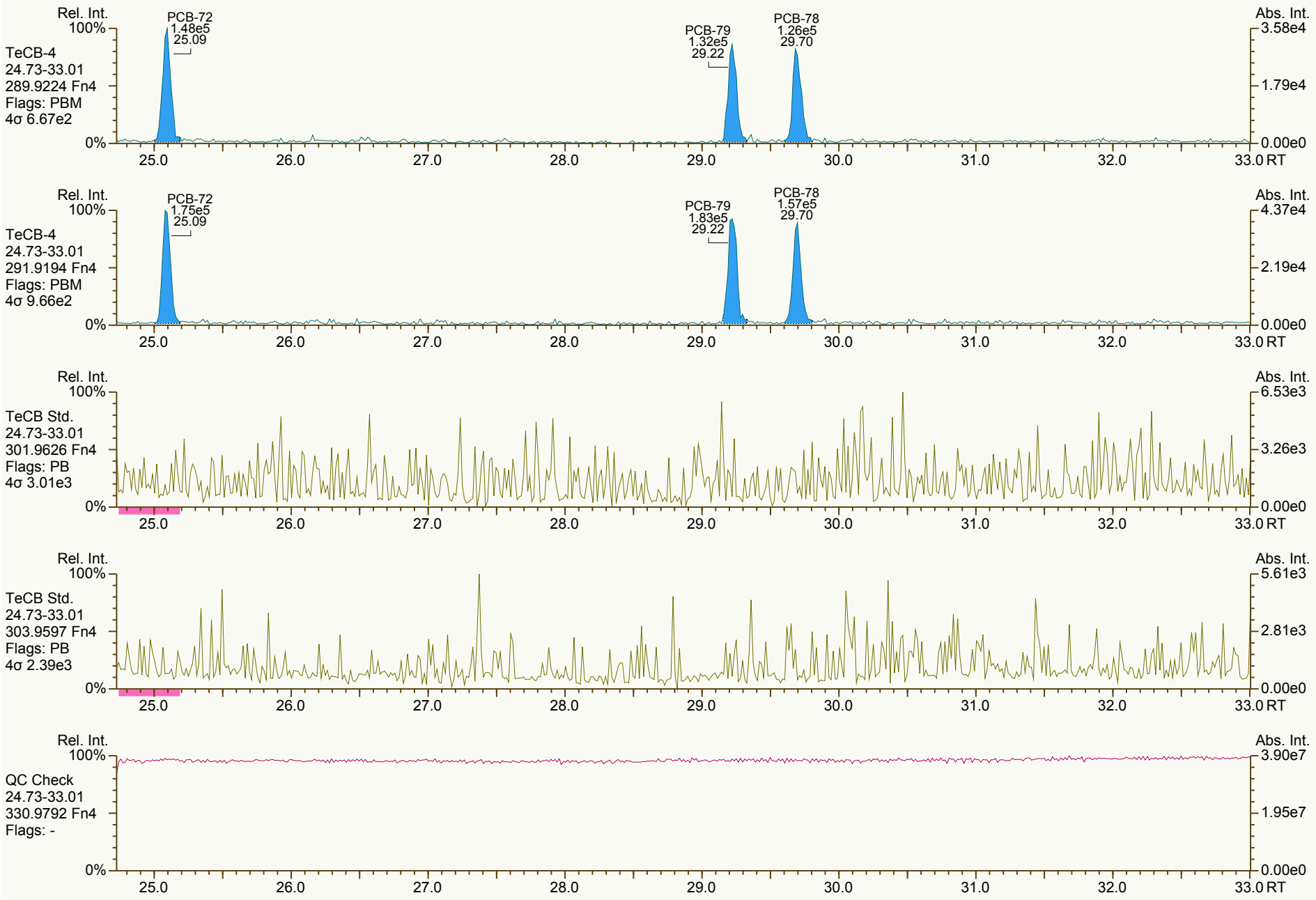
SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



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SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7295, 0481 scc: 951-021 *Revised: 14-Dec-2012 10:43 (LKB) Printed: 14-Dec-2012 11:26 Page 10 of 22*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8289, 9188 scc: 951-021 *Revised: 14-Dec-2012 10:42 (LKB) Printed: 14-Dec-2012 11:26 Page 12 of 22*

SGS-AP ID: SBS_121213_PCB_XB | Sample ID: SIL 9-41-1 | Acq: 13-Dec-2012 17:54:48
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02 | User: LKB Datafile: 121213X06



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



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SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
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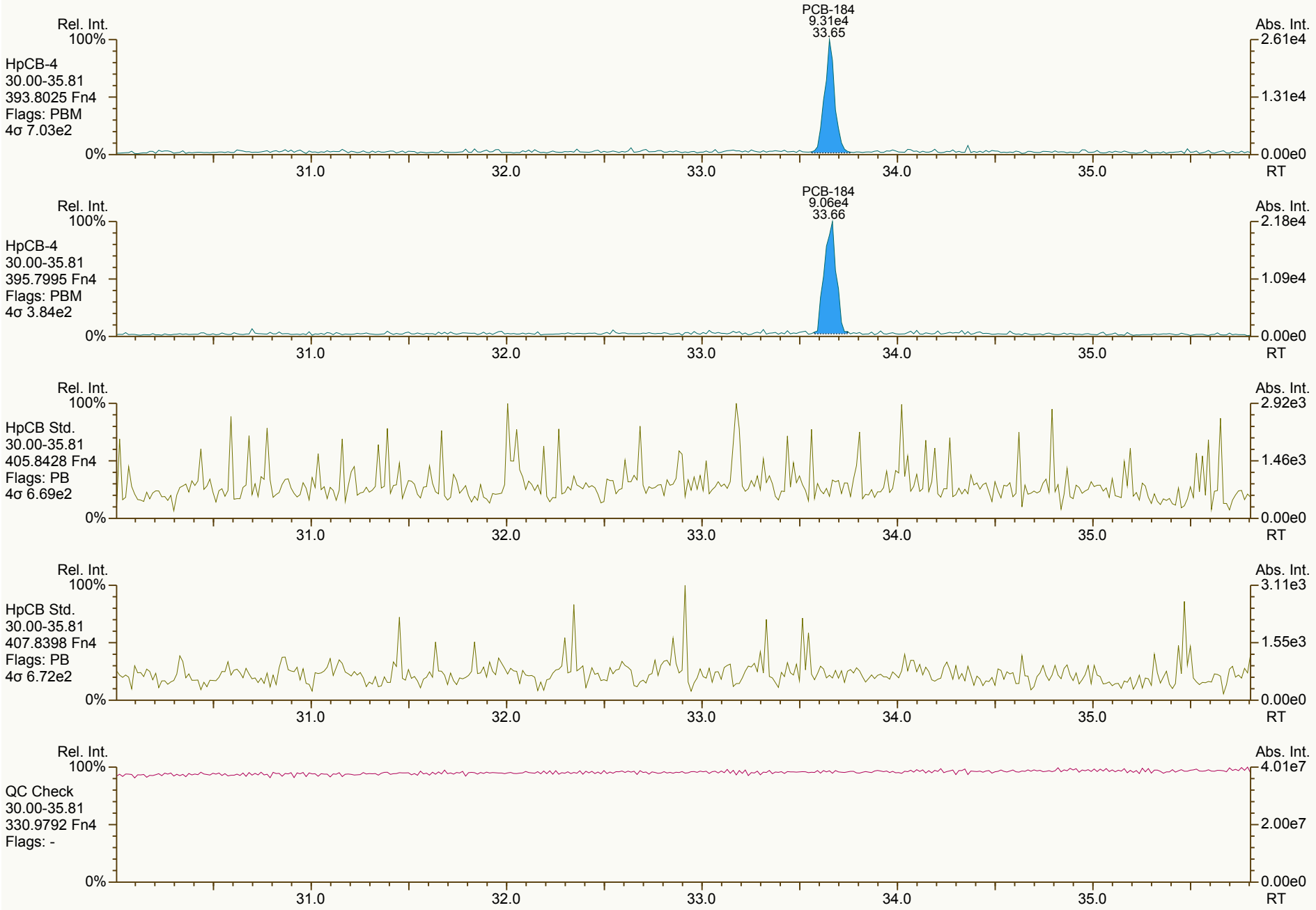

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6535, 5590 scc: 951-021 *Revised: 14-Dec-2012 10:51 (LKB) Printed: 14-Dec-2012 11:26 Page 15 of 22*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
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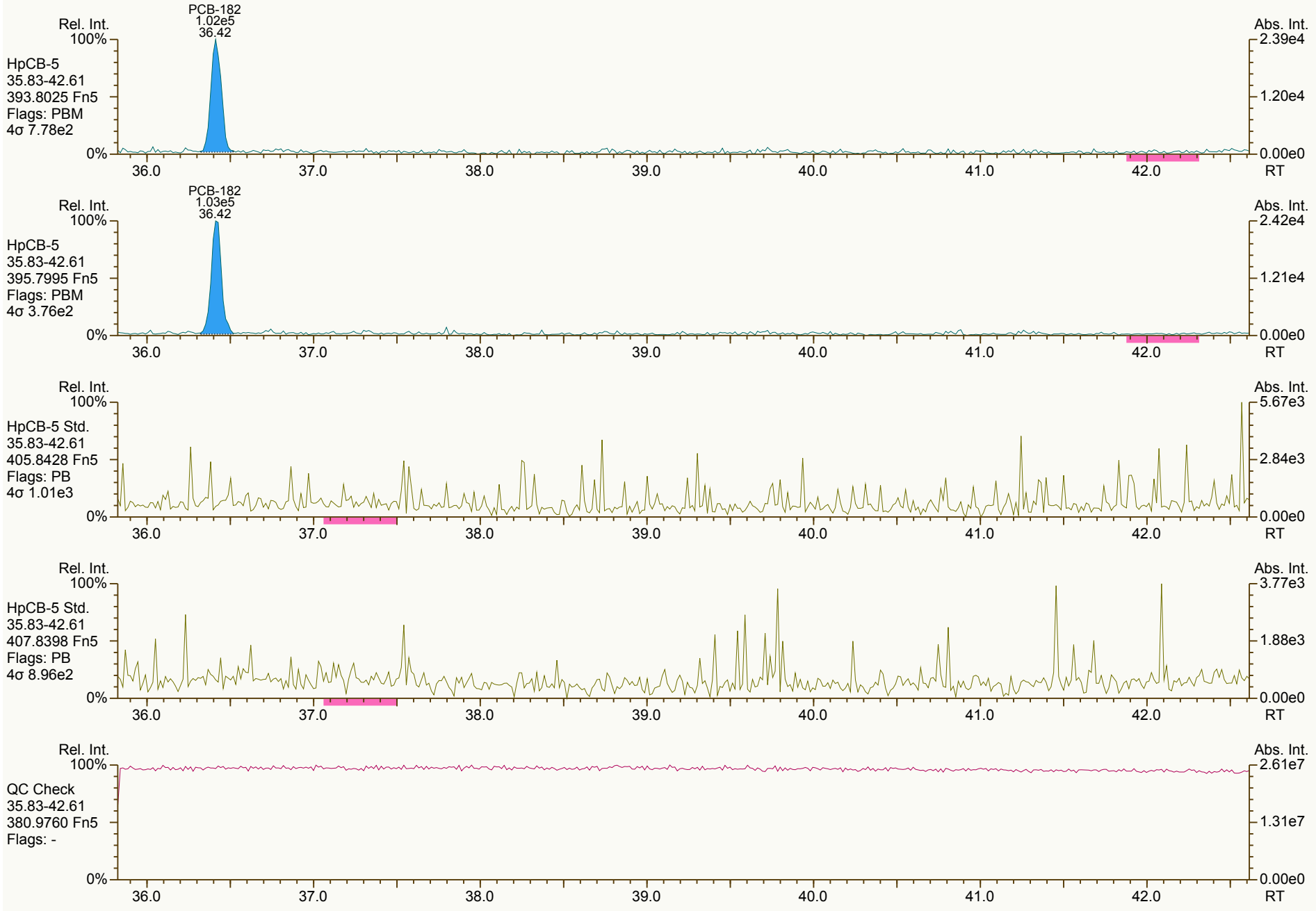

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SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*
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SGS-AP ID: SBS_121213_PCB_XB | Sample ID: SIL 9-41-1 | Acq: 13-Dec-2012 17:54:48
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02 | User: LKB Datafile: 121213X06



SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2206, 4881 scc: 951-021 *Revised: 14-Dec-2012 10:42 (LKB) Printed: 14-Dec-2012 11:26 Page 19 of 22*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\SBS_121213_PCB_XB.utp_res, saved 14-Dec-2012 10:52 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
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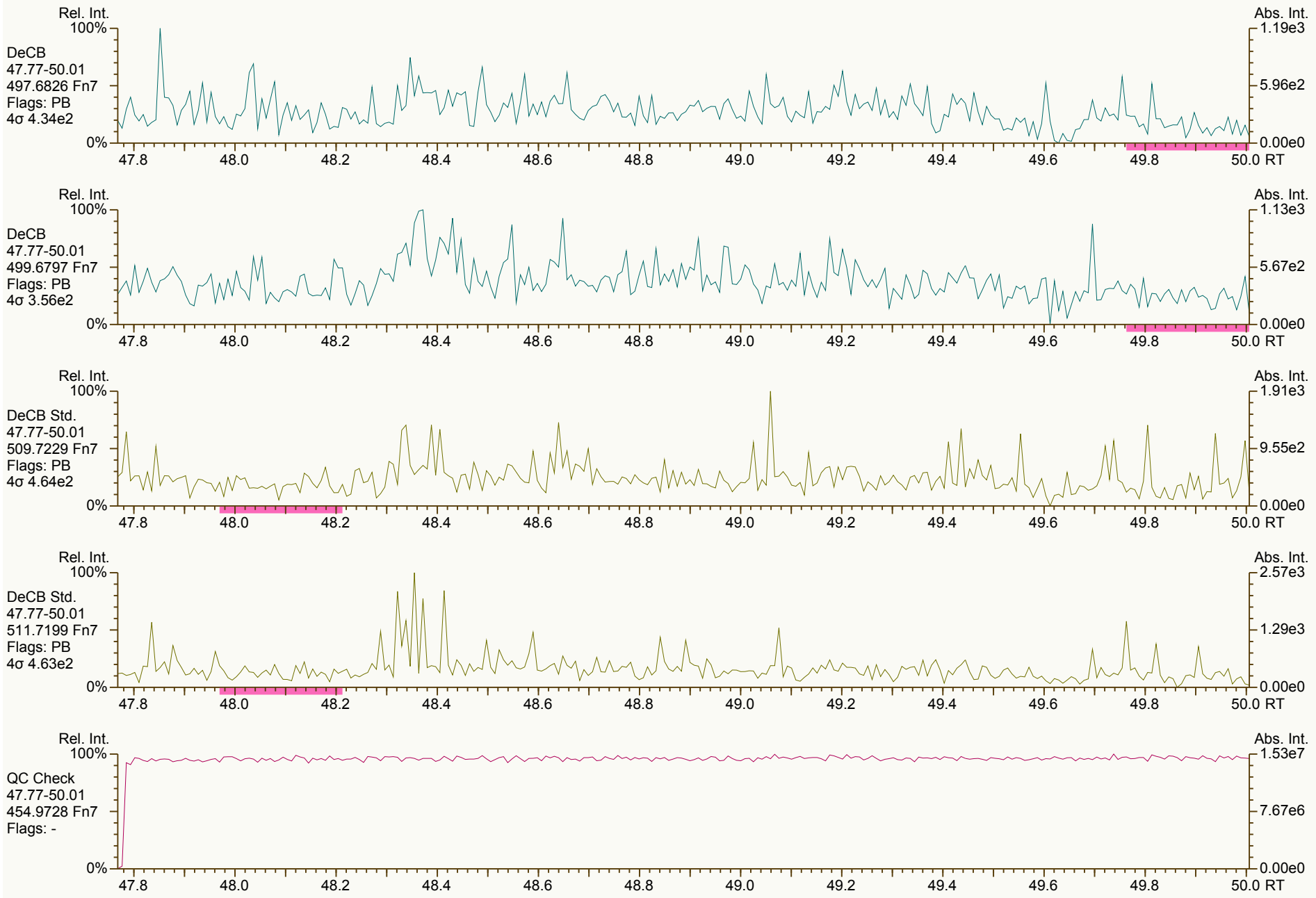

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6553, 1200 scc: 951-021 *Revised: 14-Dec-2012 10:42 (LKB) Printed: 14-Dec-2012 11:26 Page 21 of 22*

SGS-AP ID: SBS_121213_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 13-Dec-2012 17:54:48**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121213X06**



Resolution Check Report **MassLynx 4.1 SCN 881**

Printed: Thursday, December 13, 2012 16:06:15 Eastern Standard Time

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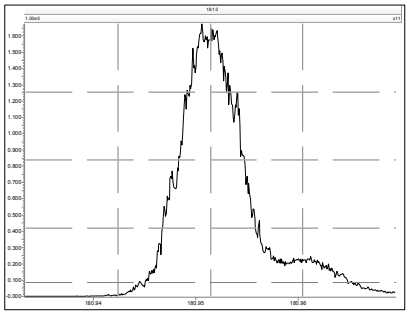

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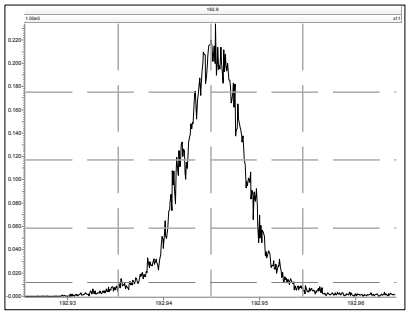

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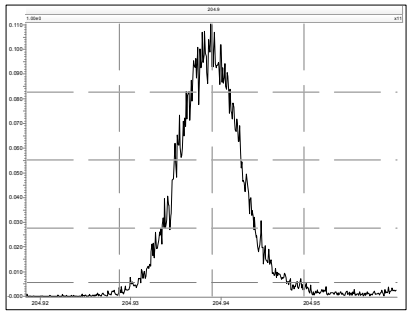

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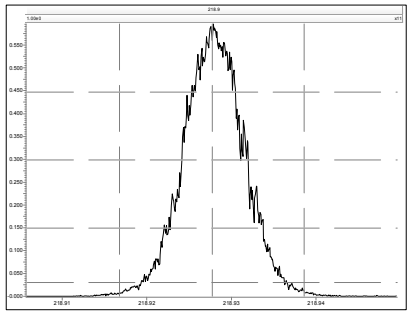

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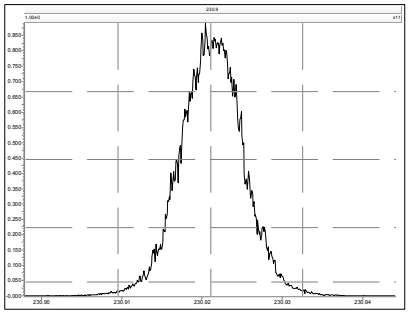

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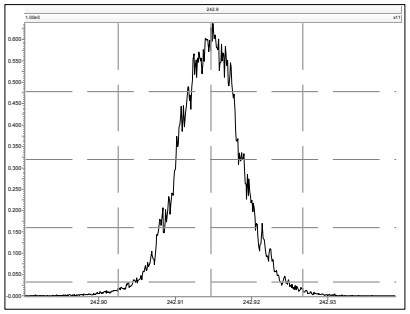

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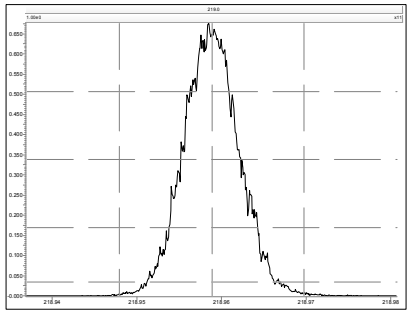

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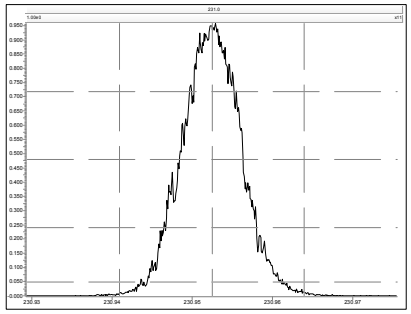

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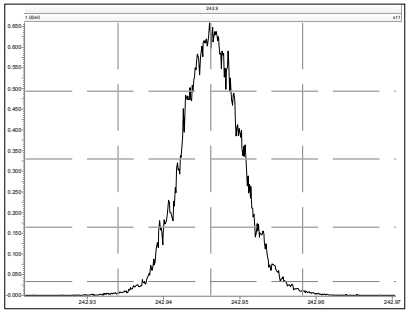

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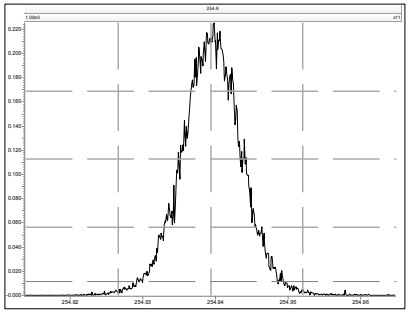

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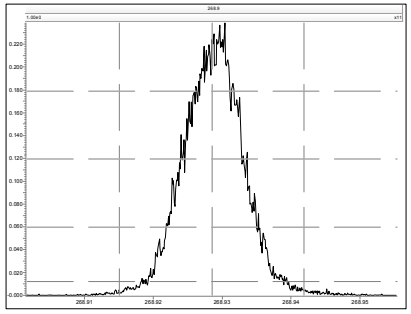

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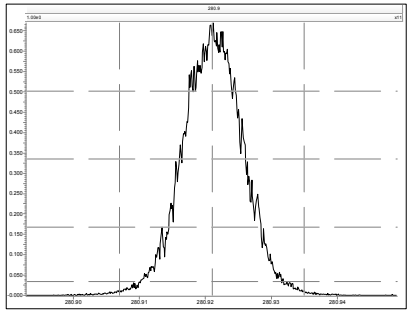

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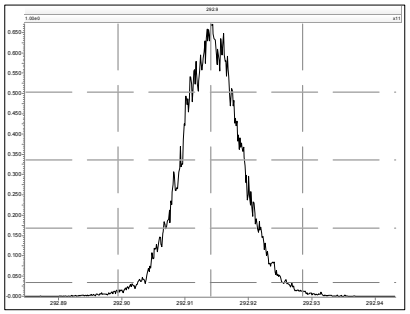

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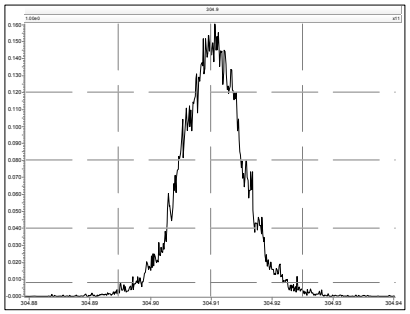

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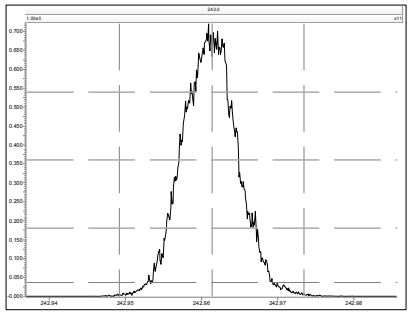

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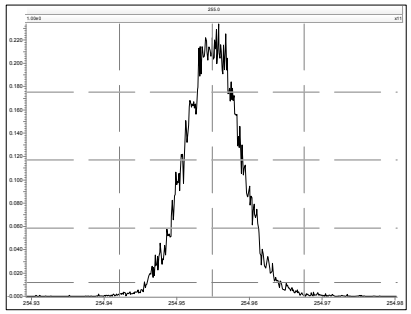

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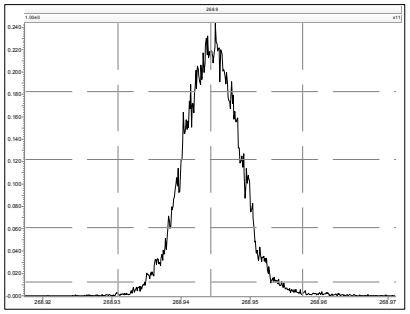

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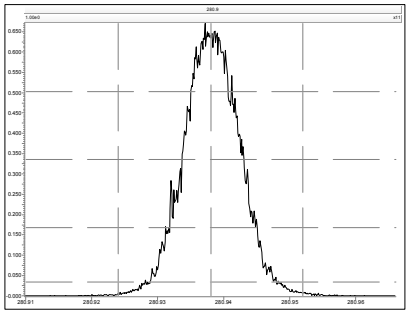

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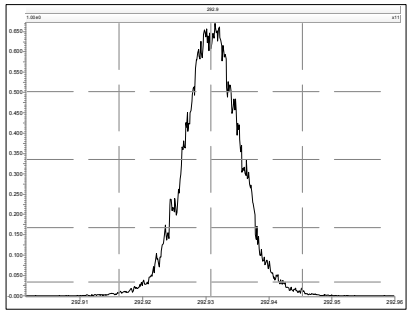

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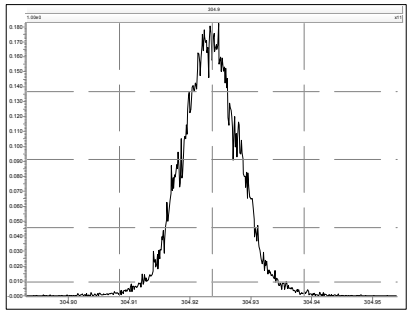

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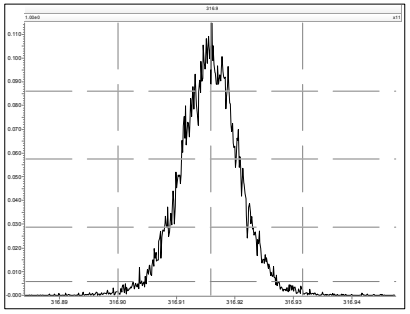

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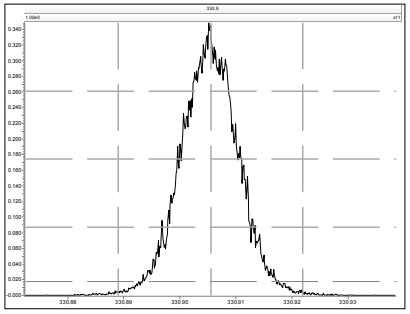

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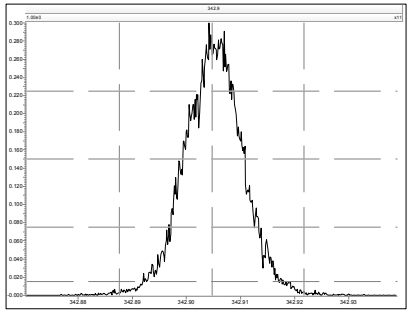

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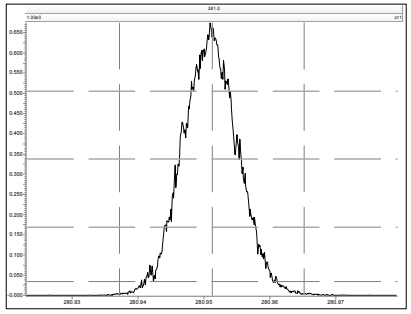

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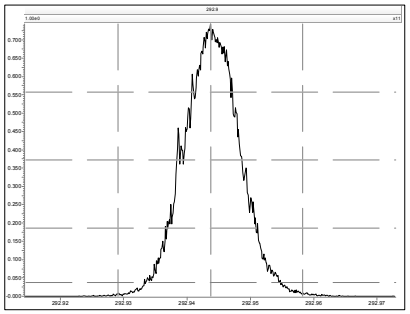

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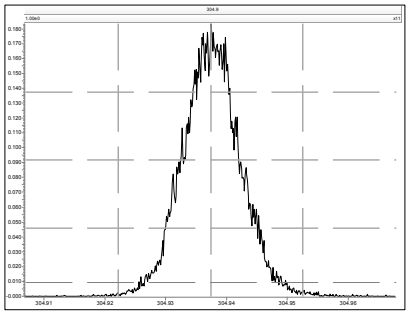

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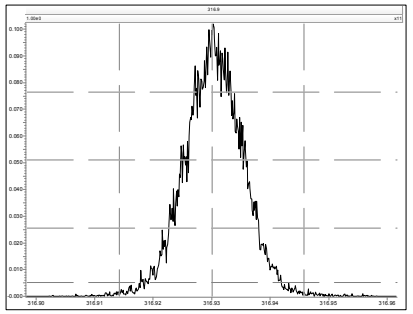

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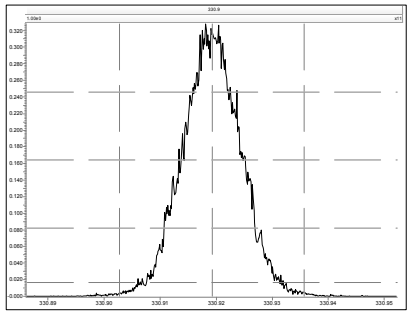

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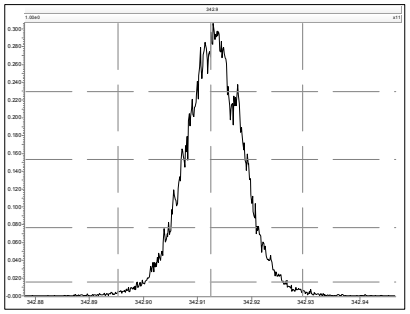

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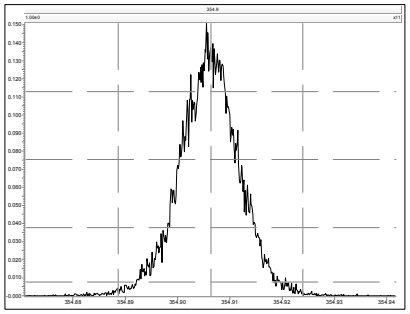

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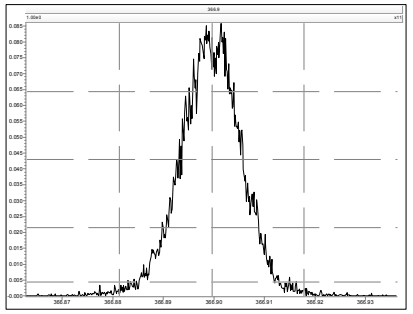

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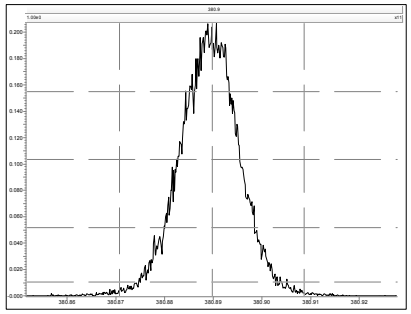

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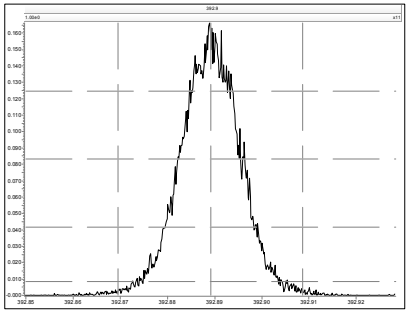

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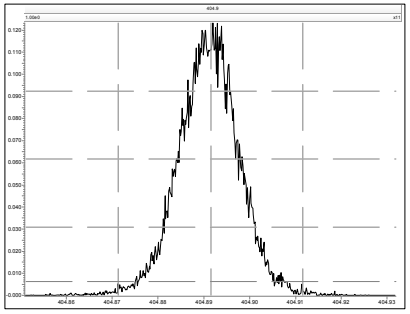

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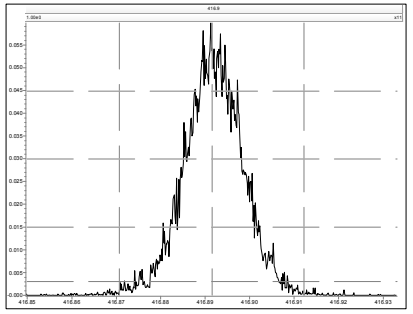

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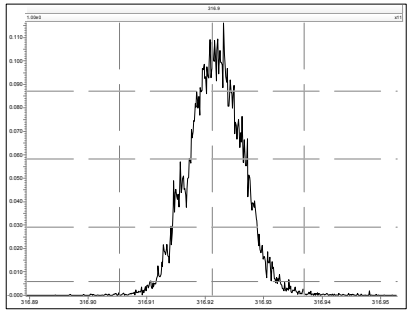

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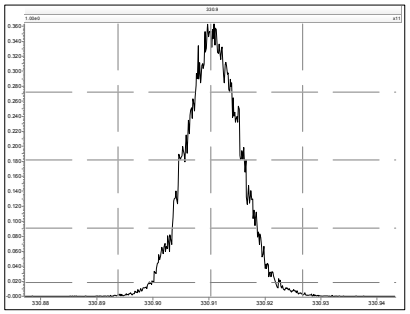

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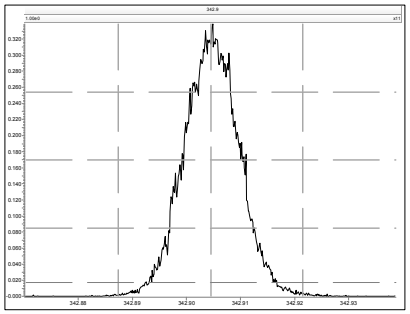

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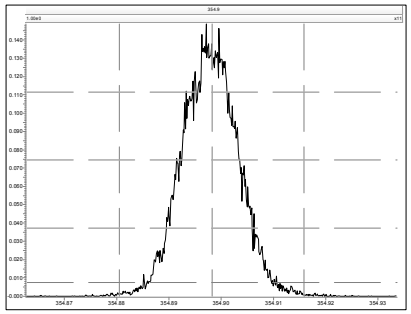

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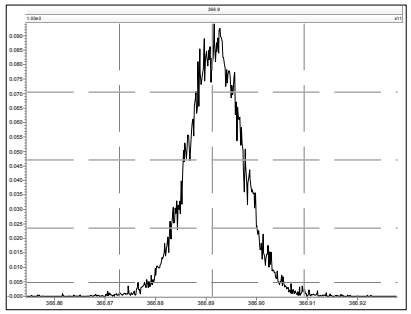
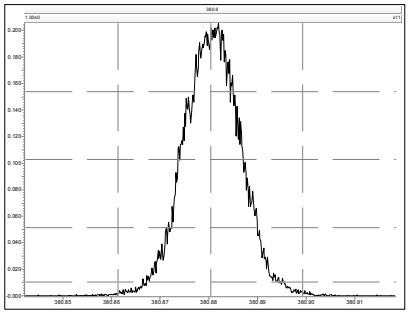


M 380.9760 R 14051



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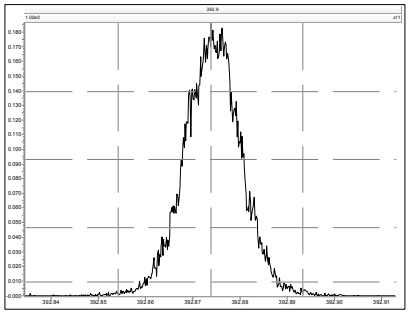

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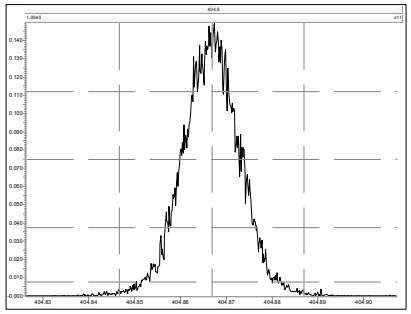

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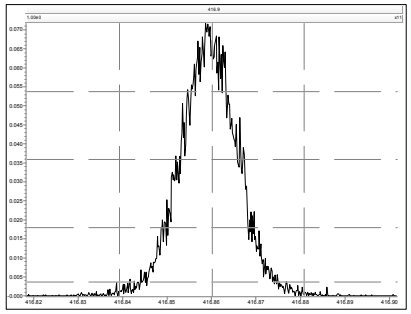

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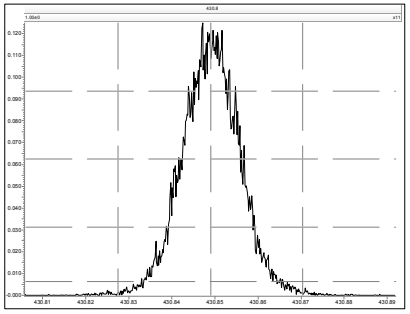
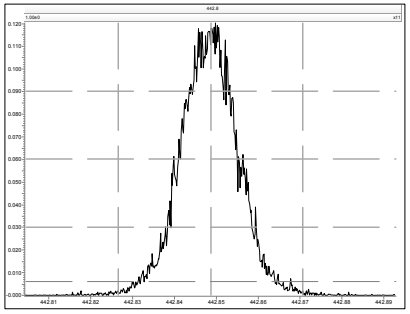
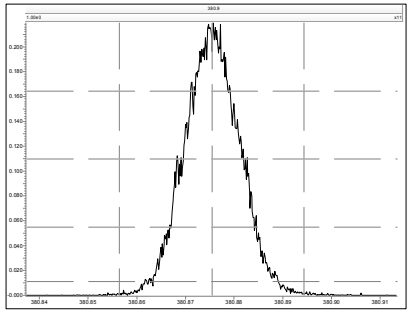


M 442.9728 R 13928



M 380.9760 R 14495



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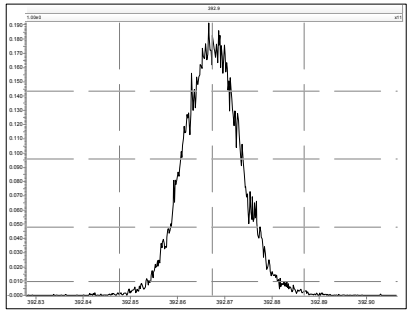

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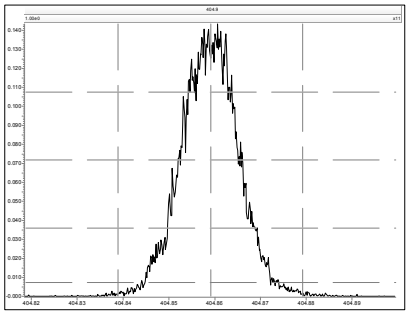

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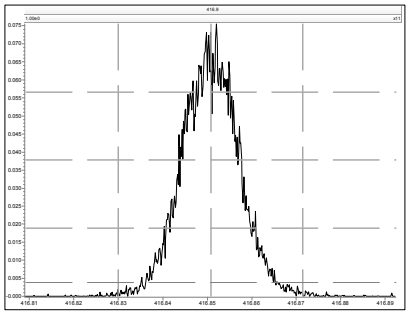

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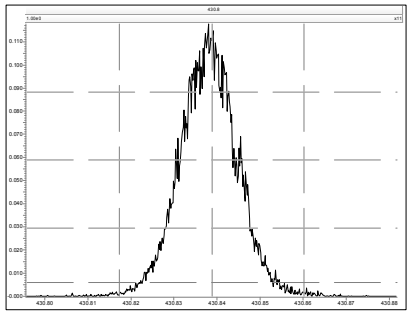

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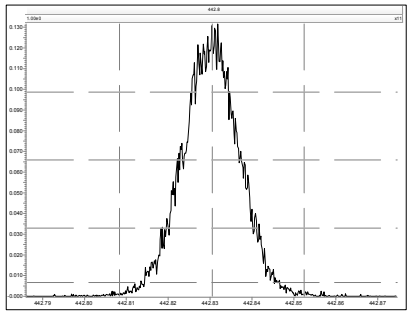

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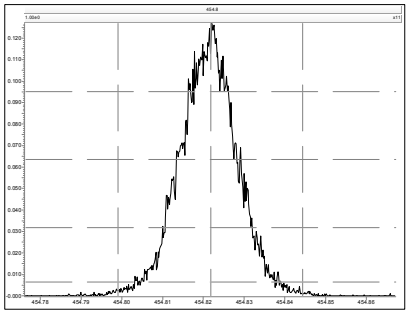

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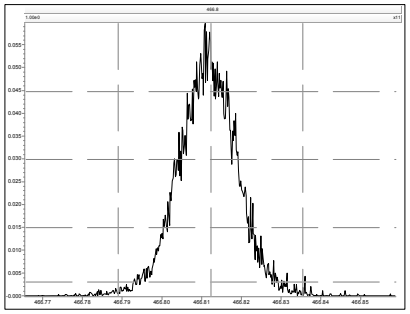

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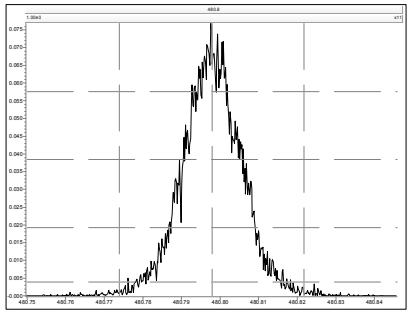

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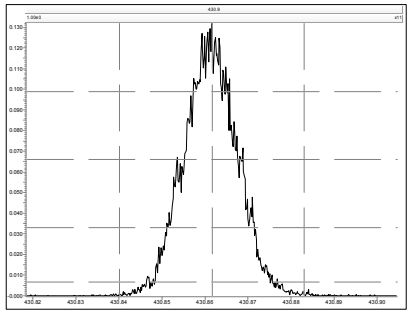

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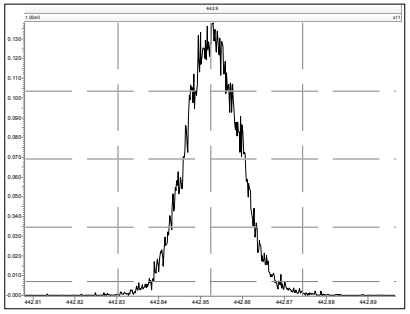

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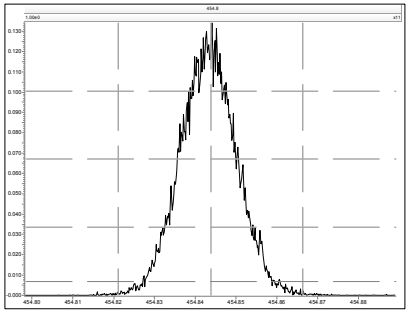

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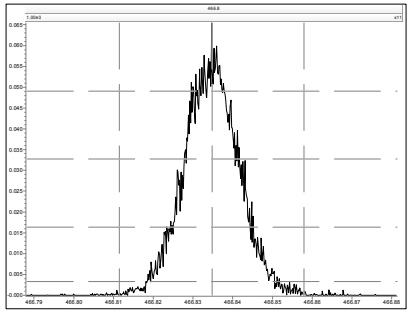

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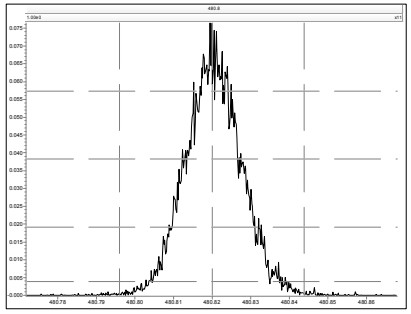

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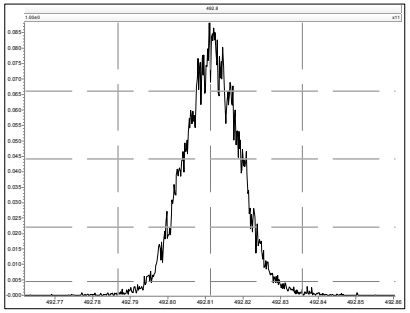

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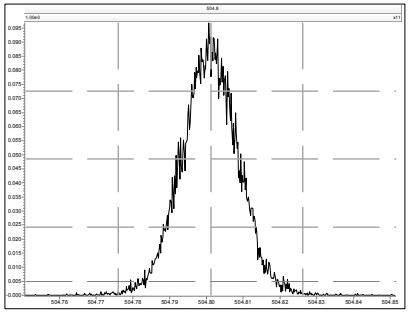

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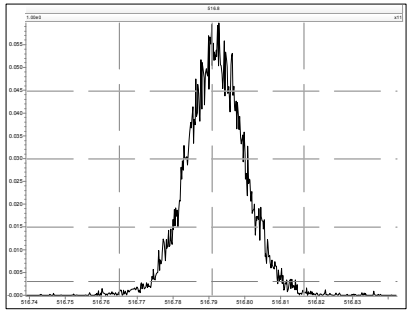

Resolution Check Report **MassLynx 4.1 SCN 881**

Printed: Friday, December 14, 2012 03:07:19 Eastern Standard Time

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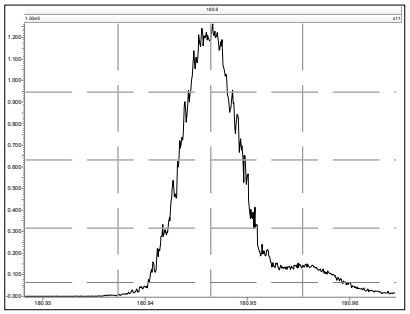

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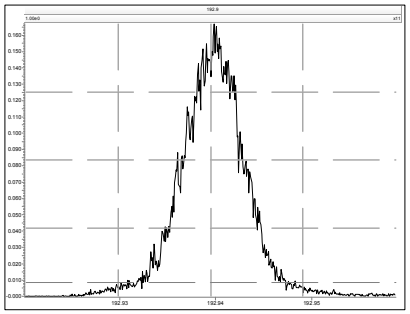

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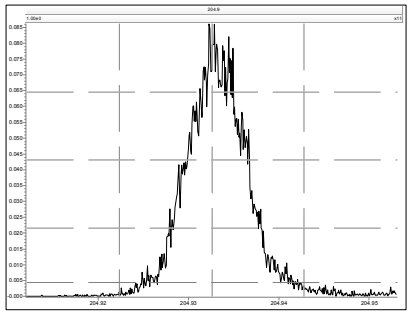

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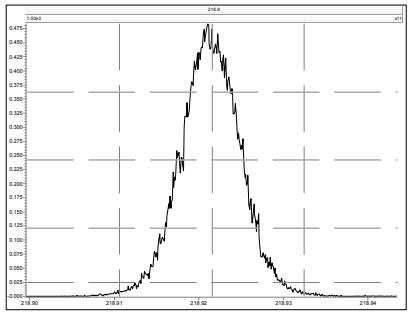

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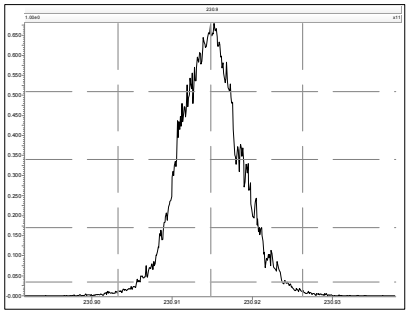

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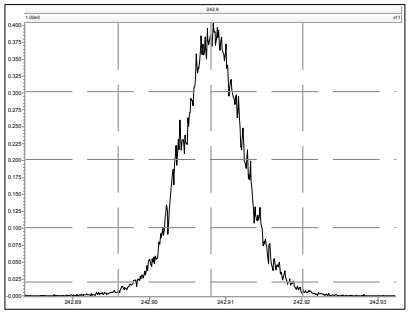

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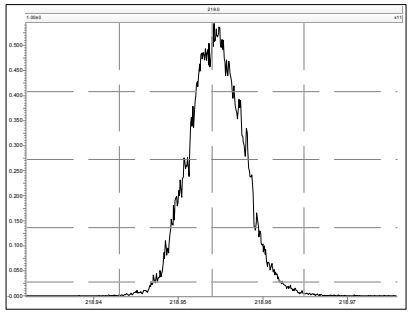

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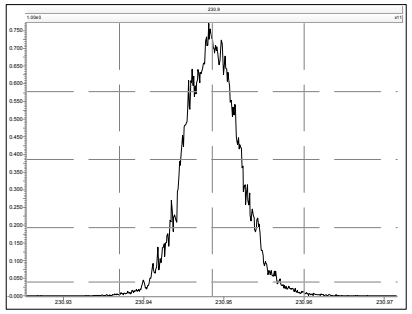

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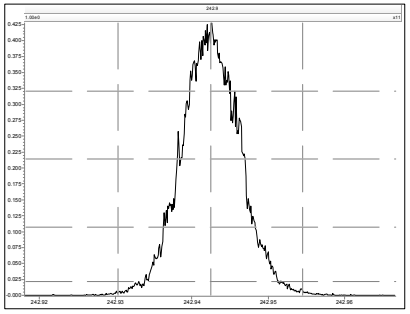

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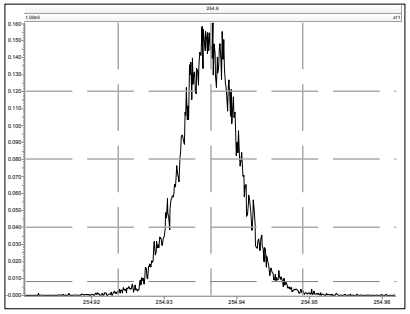

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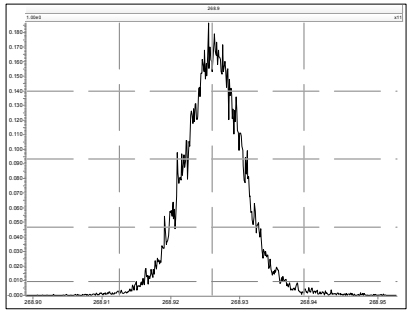

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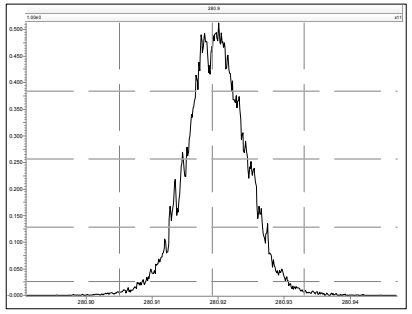

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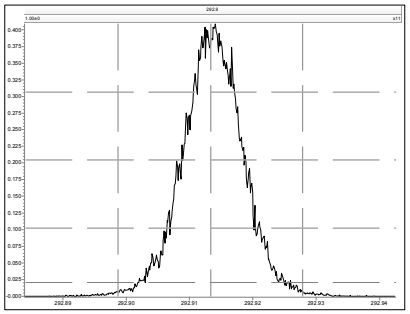

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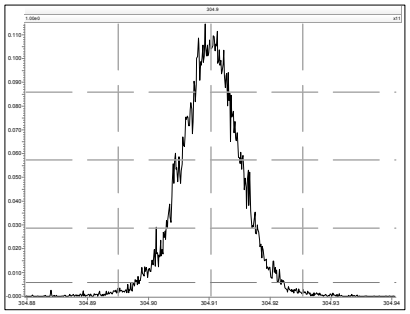

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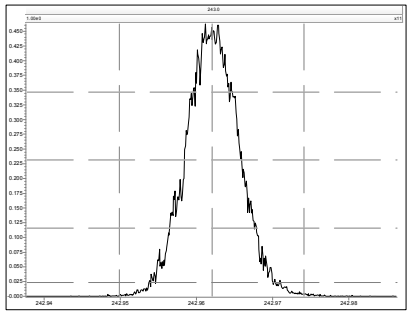

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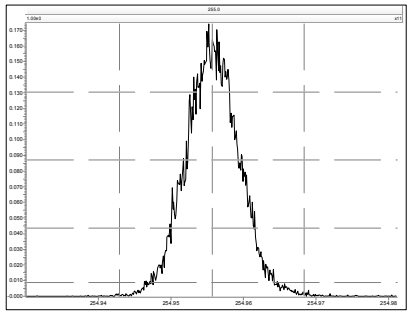

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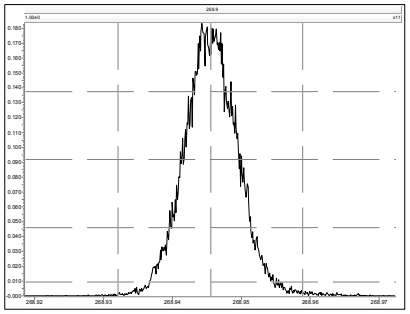

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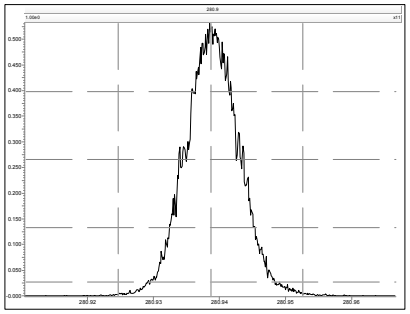

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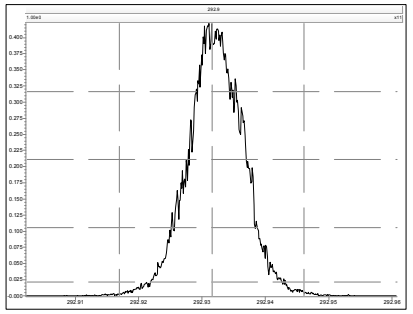

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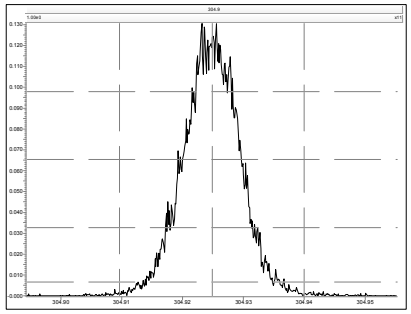

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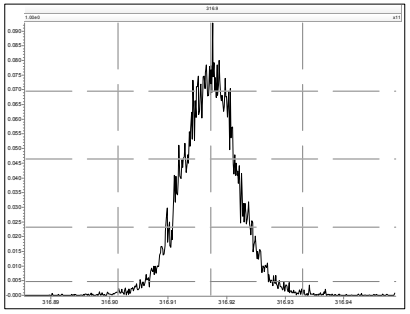

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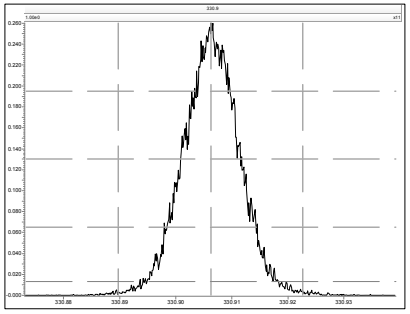

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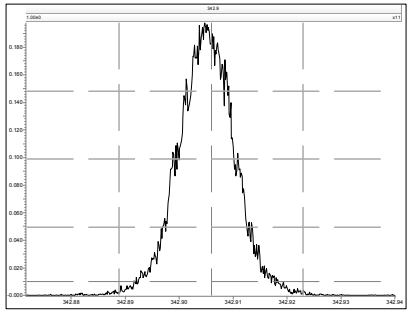

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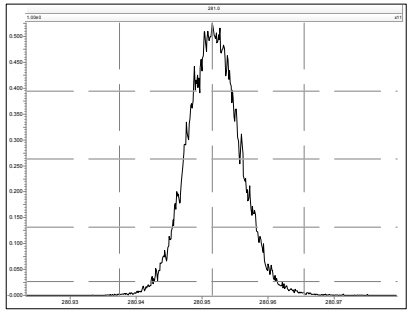

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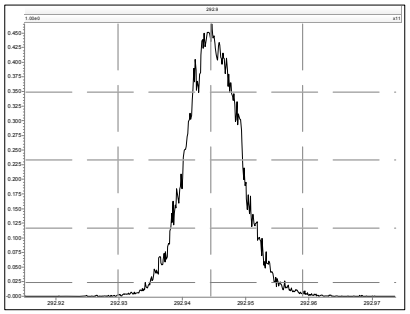

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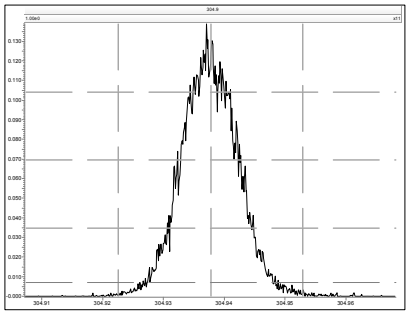

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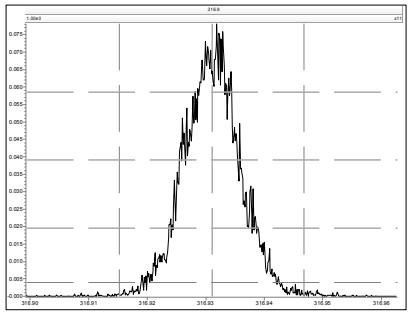

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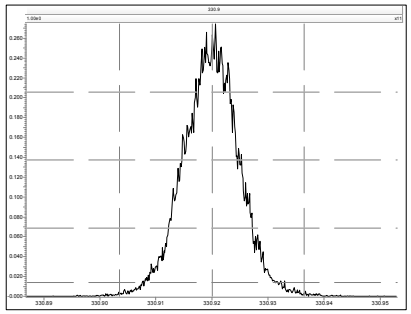

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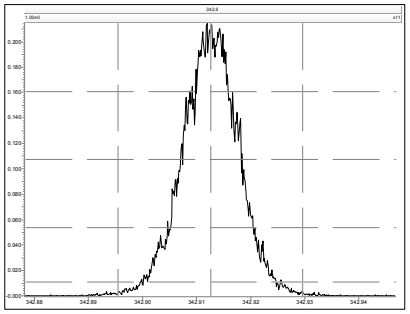

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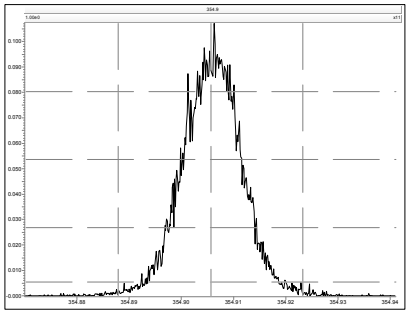
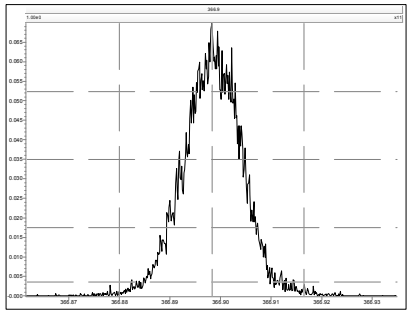
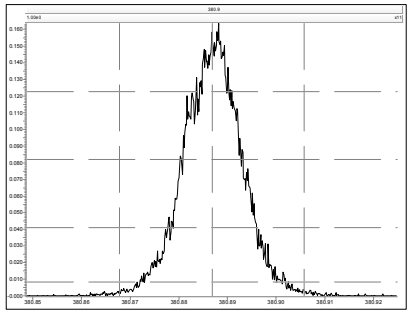


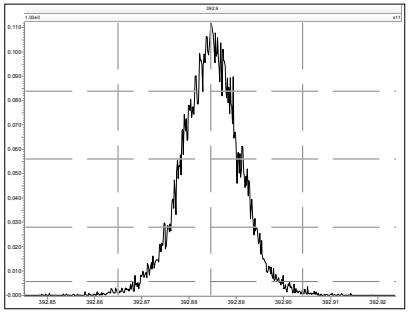
M 366.9792 R 14215



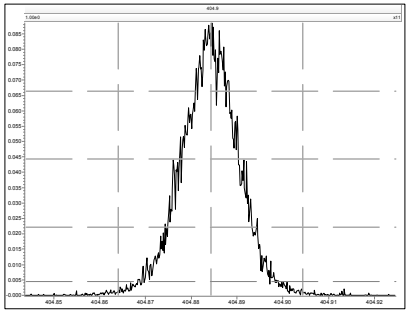
M 380.9760 R 13303



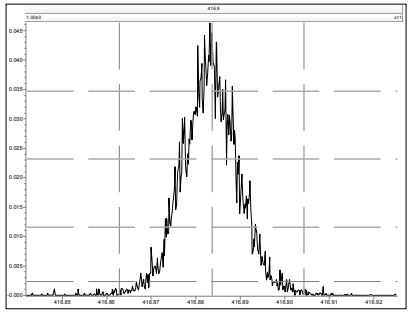
M 392.9760 R 13514



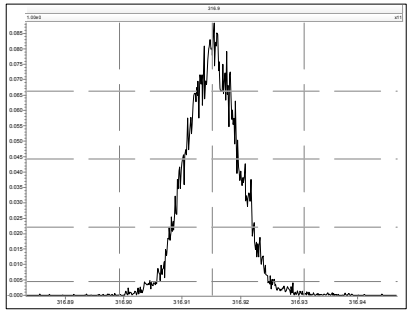
M 404.9760 R 14707



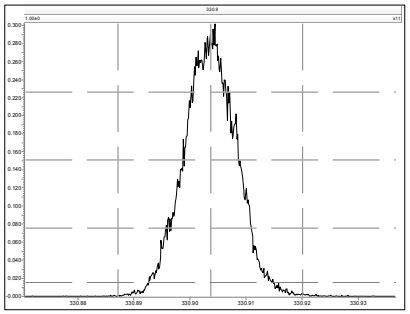
M 416.9760 R 15198



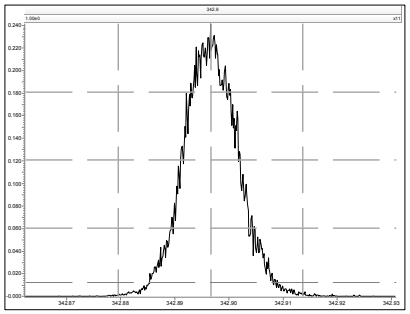
M 316.9824 R 16134



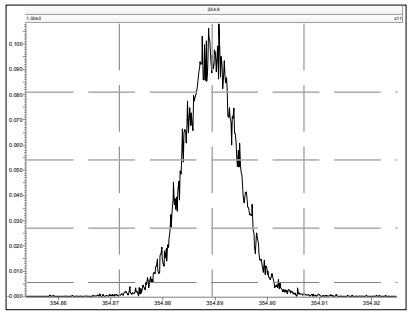
M 330.9792 R 14662



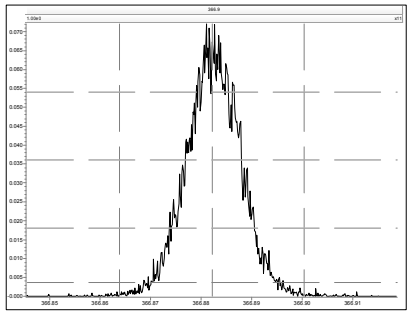
M 342.9792 R 14672



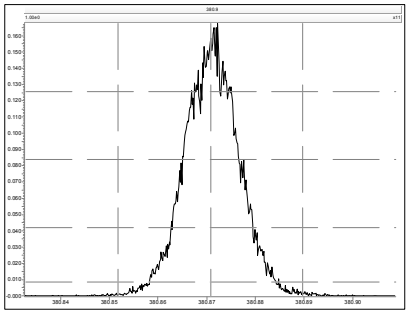
M 354.9792 R 15512



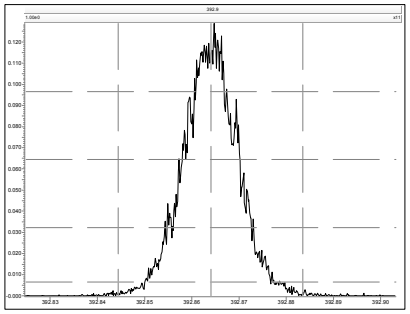
M 366.9792 R 14794



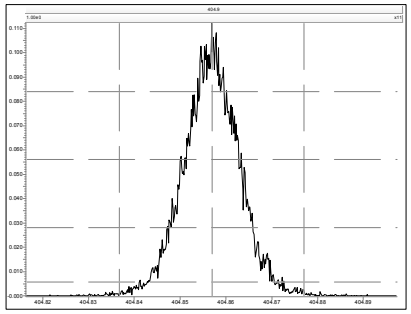
M 380.9760 R 14705



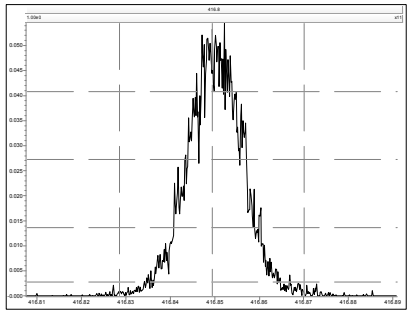
M 392.9760 R 14285



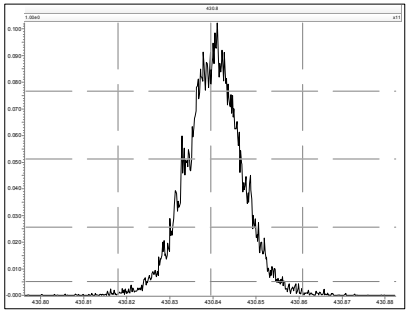
M 404.9760 R 14534



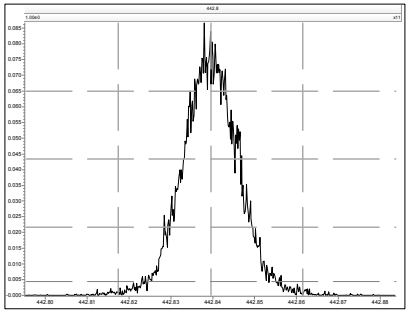
M 416.9760 R 14552



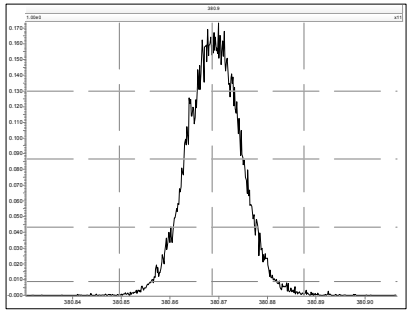
M 430.9728 R 14660



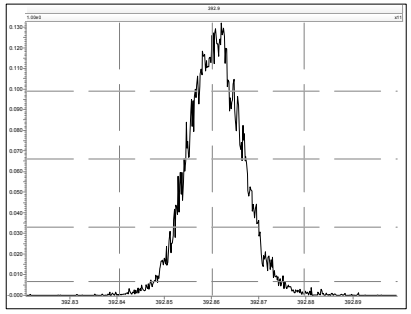
M 442.9728 R 14577



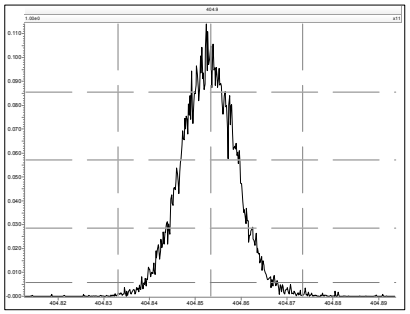
M 380.9760 R 15975



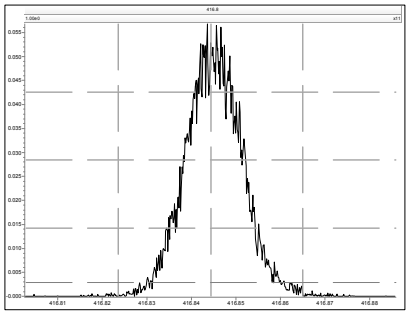
M 392.9760 R 14836



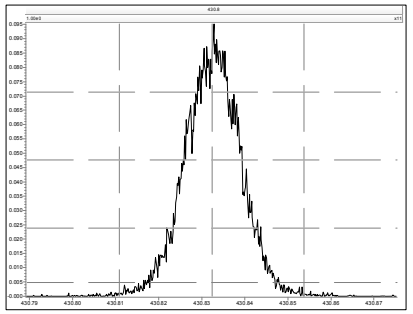
M 404.9760 R 15061



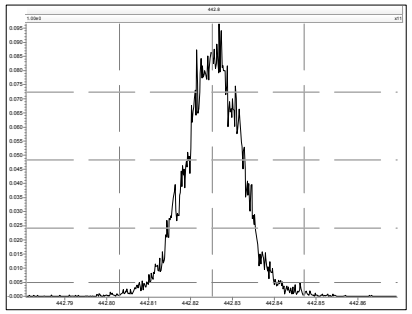
M 416.9760 R 14005



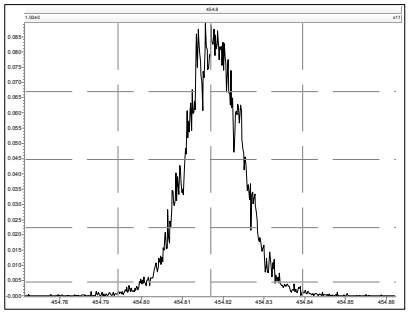
M 430.9728 R 15017



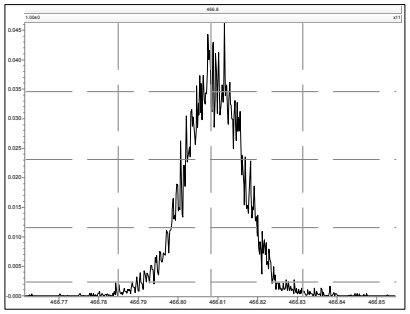
M 442.9728 R 14718



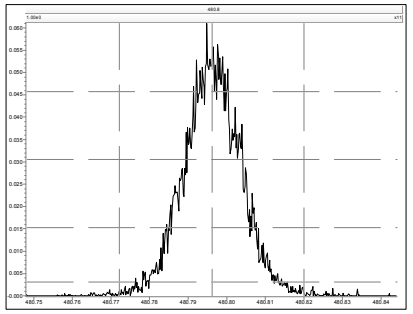
M 454.9728 R 14086



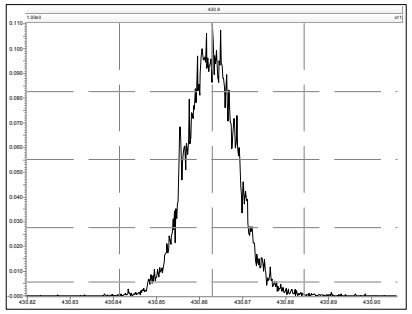
M 466.9728 R 14247



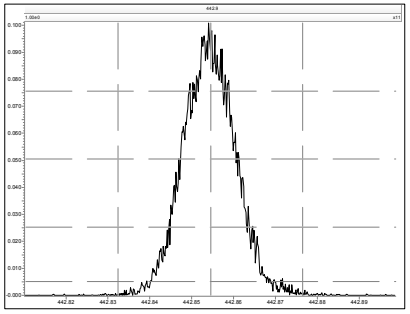
M 480.9696 R 14632



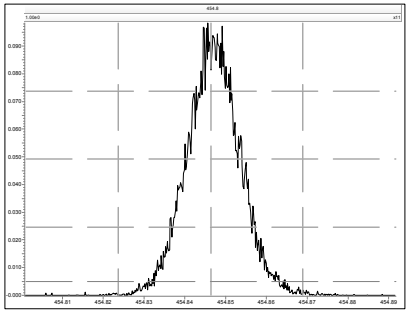
M 430.9728 R 15674



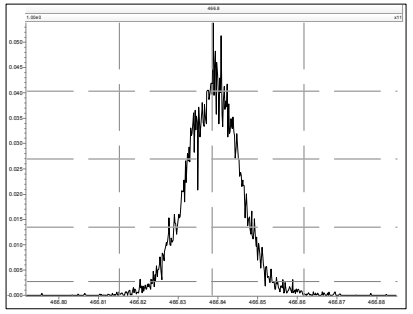
M 442.9728 R 15773



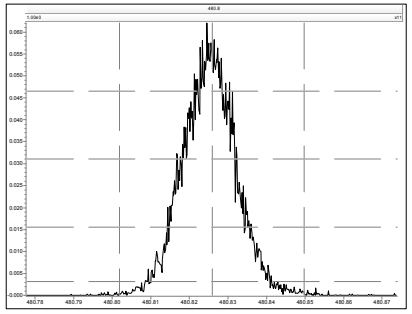
M 454.9728 R 14970



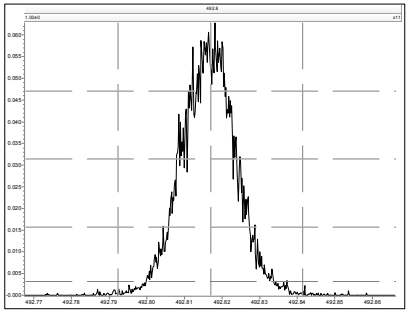
M 466.9728 R 16401



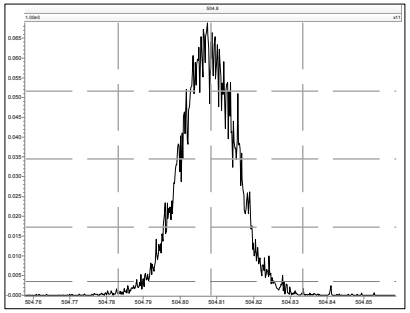
M 480.9696 R 14935



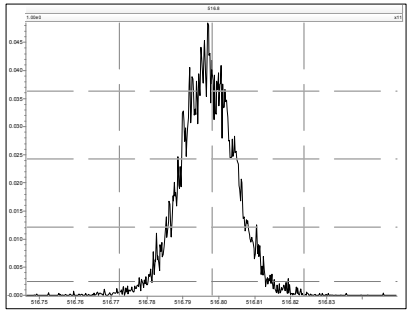
M 492.9696 R 14408



M 504.9696 R 14411



M 516.9697 R 15654



PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 28 Jul 2012 10:09**

ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26 Jul 2012
Date Processed: 27 Jul 2012 17:07

Name	Mean	% RSD	120725X15 0.5 CS0	120725X15 1 CS1	120725X16 5 CS2	120725X17 50 CS3	120725X18 400 CS4	120725X19 2000 CS5
PCB-77 33'44'-TeCB	1.13	4.9%	1.12	1.06	1.09	1.16	1.20	1.18
PCB-81 344'5-TeCB	1.13	5.9%	1.09	1.03	1.09	1.17	1.20	1.18
PCB-105 233'44'-PeCB	1.09	5.3%	1.07	1.01	1.06	1.14	1.16	1.13
PCB-114 2344'5-PeCB	1.16	5.1%	1.10	1.10	1.13	1.22	1.22	1.20
PCB-118 23'44'5-PeCB	1.11	4.7%	1.13	1.05	1.03	1.13	1.17	1.12
PCB-123 2'344'5-PeCB	1.19	4.4%	1.18	1.12	1.19	1.16	1.26	1.23
PCB-126 33'44'5-PeCB	1.06	5.0%	1.04	0.98	1.04	1.08	1.11	1.12
PCB-156/157 233'44'5/233'44'5'	1.11	3.2%	1.09	1.07	1.07	1.13	1.16	1.12
PCB-167 23'44'55'-HxCB	1.14	4.5%	1.08	1.07	1.11	1.18	1.19	1.17
PCB-169 33'44'55'-HxCB	1.11	4.1%	1.07	1.05	1.10	1.15	1.16	1.14
PCB-189 233'44'55'-HpCB	1.06	4.3%	1.03	1.00	1.02	1.08	1.11	1.10
PCB-209 DeCB	1.07	2.5%	1.10	1.06	1.03	1.09	1.10	1.07
ES PCB-1	1.08	1.0%	1.09	1.09	1.07	1.08	1.06	1.09
ES PCB-3	1.08	1.1%	1.08	1.09	1.07	1.08	1.07	1.10
ES PCB-4	0.49	0.9%	0.49	0.49	0.49	0.49	0.48	0.49
ES PCB-15	1.11	1.1%	1.10	1.11	1.10	1.11	1.13	1.12
ES PCB-19	0.55	1.3%	0.56	0.56	0.56	0.56	0.55	0.54
ES PCB-37	1.64	1.3%	1.63	1.62	1.62	1.63	1.65	1.67
ES PCB-54	0.94	2.0%	0.94	0.95	0.97	0.94	0.91	0.93
ES PCB-77	1.35	1.1%	1.34	1.35	1.35	1.33	1.37	1.34
ES PCB-81	1.29	1.3%	1.27	1.29	1.28	1.27	1.32	1.29
ES PCB-104	0.99	1.1%	0.98	1.01	1.00	0.99	0.98	1.00
ES PCB-105	1.23	1.0%	1.23	1.25	1.24	1.22	1.23	1.23
ES PCB-114	1.25	1.4%	1.25	1.26	1.26	1.23	1.26	1.22
ES PCB-118	1.28	0.6%	1.28	1.29	1.29	1.27	1.28	1.28
ES PCB-123	1.22	1.3%	1.21	1.24	1.21	1.20	1.24	1.22
ES PCB-126	1.20	0.7%	1.21	1.19	1.20	1.19	1.20	1.21
ES PCB-153	1.14	1.0%	1.14	1.15	1.15	1.14	1.12	1.15
ES PCB-155	1.50	1.3%	1.49	1.49	1.50	1.53	1.46	1.50
ES PCB-156/157	1.45	1.2%	1.48	1.45	1.44	1.45	1.44	1.48
ES PCB-167	1.49	1.2%	1.52	1.50	1.48	1.48	1.48	1.50
ES PCB-169	1.40	1.2%	1.42	1.40	1.38	1.39	1.41	1.42
ES PCB-170	1.00	0.8%	1.01	0.99	0.99	1.01	1.01	1.00
ES PCB-180	1.16	1.6%	1.15	1.14	1.14	1.18	1.16	1.18
ES PCB-188	1.18	0.9%	1.19	1.17	1.17	1.19	1.17	1.18
ES PCB-189	1.49	1.6%	1.48	1.46	1.46	1.50	1.50	1.52
ES PCB-202	1.14	0.7%	1.15	1.14	1.13	1.13	1.13	1.14
ES PCB-205	1.20	0.9%	1.20	1.19	1.19	1.20	1.21	1.22
ES PCB-206	0.87	1.1%	0.88	0.85	0.86	0.87	0.88	0.87

CS0 PCB-1 near saturation. Approved by Yves Tondeur, +0.8% Dev., Peak shape of native mirrors ES, RES = 4.9%

PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 28 Jul 2012 10:09**

ICAL: MM7_PCB_07132012_25JUL12

Acquired: 26 Jul 2012

Name	Mean	% RSD	120725X15 **0.5** **CS0**	120725X15 **1** **CS1**	120725X16 **5** **CS2**	120725X17 **50** **CS3**	120725X18 **400** **CS4**	120725X19 **2000** **CS5**
ES PCB-208	1.19	0.9%	1.19	1.17	1.18	1.20	1.20	1.19
ES PCB-209	1.00	0.8%	1.01	0.99	1.00	1.01	1.01	1.00
SS PCB-28	1.07	0.9%	1.07	1.09	1.08	1.08	1.07	1.06
SS PCB-111	1.01	0.9%	1.01	0.99	1.01	1.00	1.00	1.01
SS PCB-178	0.63	1.3%	0.62	0.63	0.64	0.62	0.63	0.63
CS PCB-28	1.76	0.6%	1.74	1.76	1.75	1.76	1.77	1.77
CS PCB-111	1.23	0.8%	1.22	1.23	1.23	1.21	1.23	1.23
CS PCB-178	0.74	0.8%	0.73	0.74	0.75	0.74	0.73	0.74
PCB-1 2-MoCB	1.03	7.6%	0.93	0.95	1.01	1.08	1.12	1.10
PCB-3 4-MoCB	1.04	7.6%	0.95	0.96	1.01	1.09	1.12	1.13
PCB-4 22'-DiCB	1.17	5.4%	1.12	1.09	1.13	1.22	1.24	1.21
PCB-15 44'-DiCB	1.08	4.1%	1.03	1.05	1.04	1.10	1.14	1.12
PCB-19 22'6-TrCB	1.09	5.8%	1.06	1.01	1.04	1.14	1.17	1.14
PCB-37 344'-TrCB	1.10	3.7%	1.10	1.05	1.06	1.14	1.15	1.12
PCB-54 22'66'-TeCB	1.21	6.2%	1.13	1.13	1.17	1.27	1.30	1.25
PCB-104 22'466'-PeCB	1.25	4.7%	1.25	1.15	1.23	1.32	1.31	1.27
PCB-153 22'44'55' -HxCB	1.22	5.7%	1.21	1.13	1.15	1.28	1.30	1.25
PCB-155 22'44'66'-HxCB	1.09	4.7%	1.03	1.06	1.04	1.13	1.15	1.13
PCB-170 22'33'44'5-HpCB	1.07	5.7%	1.03	0.99	1.04	1.12	1.13	1.13
PCB-180 22'344'55'-HpCB	1.16	5.1%	1.14	1.06	1.14	1.19	1.22	1.20
PCB-188 22'34'566'-HpCB	1.03	6.0%	0.93	0.99	1.02	1.08	1.10	1.07
PCB-202 22'33'55'66'-OcCB	0.91	4.7%	0.90	0.85	0.89	0.95	0.96	0.94
PCB-205 233'44'55'6-OcCB	1.09	4.2%	1.09	1.02	1.04	1.11	1.14	1.12
PCB-208 22'33'455'66'-NoCB	1.02	5.3%	0.97	0.96	0.98	1.06	1.08	1.06
PCB-206 22'33'44'55'6-NoCB	0.98	5.5%	0.95	0.90	0.95	1.01	1.04	1.02

PCB ICAL Summary - Ax2 Detail | **SGS Analytical Perspectives** | **Printed: 28 Jul 2012 10:09**

ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26 Jul 2012

Name	Mean	% RSD	0.5 CS0	1 CS1	5 CS2	50 CS3	400 CS4	2000 CS5
PCB-1 2-MoCB	1.03	7.6%	0.93	0.95	1.01	1.08	1.12	1.10
PCB-2 3-MoCB	1.04	8.7%	0.94	0.93	1.02	1.09	1.14	1.13
PCB-3 4-MoCB	1.04	7.6%	0.95	0.96	1.01	1.09	1.12	1.13
PCB-4 22'-DiCB	1.17	5.4%	1.12	1.09	1.13	1.22	1.24	1.21
PCB-10 26-DiCB	1.83	5.6%	1.82	1.66	1.79	1.91	1.93	1.89
PCB-9 25-DiCB	0.89	6.8%	0.81	0.84	0.88	0.95	0.95	0.95
PCB-7 24-DiCB	1.02	6.7%	0.92	0.97	1.01	1.08	1.08	1.08
PCB-6 23'-DiCB	0.95	7.7%	0.86	0.87	0.93	1.01	1.01	1.01
PCB-5 23-DiCB	0.97	5.9%	0.93	0.89	0.94	1.03	1.02	1.02
PCB-8 24'-DiCB	0.98	7.5%	0.88	0.91	0.98	1.04	1.05	1.04
PCB-14 35-DiCB	1.16	6.1%	1.07	1.09	1.13	1.21	1.23	1.22
PCB-11 33'-DiCB	1.00	7.8%	0.88	0.95	0.98	1.05	1.07	1.07
PCB-13/12 34'-/34-DiCB	1.02	6.5%	0.96	0.93	0.99	1.07	1.09	1.07
PCB-15 44'-DiCB	1.08	4.1%	1.03	1.05	1.04	1.10	1.14	1.12
PCB-19 22'6-TrCB	1.09	5.8%	1.06	1.01	1.04	1.14	1.17	1.14
PCB-30/18 246-/22'5-TrCB	1.46	6.7%	1.35	1.35	1.43	1.53	1.58	1.52
PCB-17 22'4-TrCB	1.25	7.6%	1.14	1.16	1.20	1.32	1.36	1.33
PCB-27 23'6-TrCB	1.69	6.2%	1.64	1.57	1.60	1.75	1.84	1.75
PCB-24 236-TrCB	1.63	5.7%	1.55	1.51	1.61	1.68	1.72	1.74
PCB-16 22'3-TrCB	0.95	9.5%	0.90	0.85	0.89	1.03	1.08	0.98
PCB-32 24'6-TrCB	1.79	5.7%	1.70	1.67	1.72	1.86	1.91	1.87
PCB-34 2'35-TrCB	1.05	5.4%	1.01	0.96	1.03	1.10	1.10	1.08
PCB-23 235-TrCB	1.06	5.5%	1.00	0.99	1.03	1.11	1.11	1.10
PCB-26/29 23'5-/245-TrCB	1.09	4.8%	1.03	1.02	1.07	1.14	1.14	1.11
PCB-25 23'4-TrCB	1.07	5.5%	1.03	1.00	1.04	1.14	1.14	1.10
PCB-31 24'5-TrCB	1.11	5.6%	1.05	1.04	1.08	1.17	1.17	1.16
PCB-28/20 244'-/233'-TrCB	1.07	4.5%	1.03	1.01	1.04	1.12	1.12	1.09
PCB-21/33 234-/2'34-TrCB	1.09	5.2%	1.06	1.02	1.06	1.15	1.16	1.11
PCB-22 234'-TrCB	1.02	4.8%	0.97	0.96	0.98	1.07	1.07	1.05
PCB-36 33'5-TrCB	1.13	4.3%	1.09	1.08	1.08	1.17	1.18	1.16
PCB-39 34'5-TrCB	1.17	5.5%	1.10	1.09	1.14	1.22	1.24	1.21
PCB-38 345-TrCB	1.03	5.9%	1.00	0.96	1.02	1.09	1.12	1.02
PCB-35 33'4-TrCB	1.04	4.3%	1.03	0.98	1.00	1.07	1.09	1.07
PCB-37 344'-TrCB	1.10	3.7%	1.10	1.05	1.06	1.14	1.15	1.12
PCB-54 22'66'-TeCB	1.21	6.2%	1.13	1.13	1.17	1.27	1.30	1.25
PCB-50/53 22'46-/22'56'TeCB	0.86	5.4%	0.80	0.82	0.83	0.91	0.89	0.89
PCB-45 22'36-TeCB	0.73	11.3%	0.64	0.64	0.70	0.79	0.77	0.84
PCB-51 22'46'-TeCB	0.88	4.5%	0.87	0.84	0.87	0.92	0.93	0.84
PCB-46 22'36'-TeCB	0.70	6.2%	0.64	0.66	0.67	0.74	0.73	0.73
PCB-52 22'55'-TeCB	0.84	4.7%	0.81	0.79	0.83	0.89	0.87	0.87

PCB-73 23'5'6TeCB	1.09	6.3%	1.06	1.04	1.00	1.14	1.11	1.19
PCB-43 22'35-TeCB	0.72	7.1%	0.68	0.65	0.73	0.78	0.78	0.72
PCB-69/49 23'46-/22'45'TeCB	1.01	6.0%	0.95	0.94	0.99	1.08	1.06	1.06
PCB-48 22'45-TeCB	0.85	5.7%	0.82	0.79	0.82	0.90	0.89	0.89
PCB-44/47/65 22'35'-/22'44'-	0.89	5.9%	0.85	0.82	0.87	0.95	0.94	0.92
PCB-59/62/75 233'6-/2346-/24	1.14	6.2%	1.08	1.05	1.13	1.22	1.22	1.14
PCB-42 22'34'-TeCB	0.77	6.6%	0.70	0.72	0.76	0.82	0.81	0.82
PCB-41 22'34-TeCB	0.73	5.7%	0.75	0.70	0.66	0.75	0.73	0.78
PCB-71/40 23'4'6/22'33'-TeCB	0.87	6.0%	0.83	0.79	0.85	0.92	0.92	0.88
PCB-64 234'6-TeCB	1.24	4.3%	1.20	1.17	1.20	1.29	1.28	1.27
PCB-72 23'55'-TeCB	1.14	6.7%	1.07	1.06	1.09	1.21	1.21	1.22
PCB-68 23'45'-TeCB	1.21	7.0%	1.14	1.10	1.16	1.27	1.29	1.30
PCB-57 233'5-TeCB	1.11	6.3%	1.07	1.01	1.05	1.18	1.16	1.16
PCB-58 233'5-TeCB	1.10	7.4%	1.01	1.01	1.07	1.17	1.17	1.18
PCB-67 23'45-TeCB	1.16	5.4%	1.09	1.10	1.12	1.21	1.23	1.20
PCB-63 234'5-TeCB	1.22	6.7%	1.13	1.13	1.17	1.29	1.29	1.29
PCB-61/70/74/76 2345-/23'4'5	1.13	6.7%	1.05	1.04	1.11	1.20	1.21	1.18
PCB-66 23'44'-TeCB	1.08	5.8%	1.03	0.99	1.04	1.13	1.13	1.13
PCB-55 233'4-TeCB	1.10	6.1%	1.02	1.03	1.06	1.15	1.16	1.16
PCB-56 233'4'-TeCB	1.06	6.5%	1.01	0.97	1.00	1.12	1.12	1.12
PCB-60 2344'-TeCB	1.11	6.5%	1.06	1.02	1.06	1.16	1.18	1.18
PCB-80 33'55'-TeCB	1.25	6.6%	1.16	1.16	1.22	1.32	1.33	1.33
PCB-79 33'45'-TeCB	1.23	7.2%	1.15	1.16	1.16	1.31	1.36	1.26
PCB-78 33'45-TeCB	1.08	5.3%	1.06	1.01	1.02	1.12	1.14	1.13
PCB-104 22'466'-PeCB	1.25	4.7%	1.25	1.15	1.23	1.32	1.31	1.27
PCB-96 22'366'-PeCB	1.08	4.8%	1.04	1.04	1.04	1.14	1.14	1.06
PCB-103 22'45'6-PeCB	0.90	5.0%	0.87	0.85	0.86	0.95	0.93	0.95
PCB-94 22'356'-PeCB	0.78	6.6%	0.73	0.72	0.74	0.83	0.81	0.83
PCB-95 22'35'6-PeCB	0.83	7.3%	0.77	0.74	0.82	0.88	0.86	0.88
PCB-100/93 22'44'6-/22'356-P	0.84	5.7%	0.80	0.78	0.84	0.92	0.86	0.87
PCB-102 22'456'-PeCB	0.90	8.4%	0.98	0.79	0.85	0.93	0.98	0.88
PCB-98 22'3'46-PeCB	0.77	12.7%	0.59	0.78	0.76	0.82	0.80	0.88
PCB-88 22'346-PeCB	0.79	6.5%	0.84	0.71	0.77	0.84	0.83	0.77
PCB-91 22'34'6-PeCB	0.88	8.8%	0.76	0.84	0.86	0.93	0.92	0.97
PCB-84 22'33'6-PeCB	0.71	6.1%	0.67	0.65	0.69	0.75	0.74	0.75
PCB-89 22'346'-PeCB	0.76	5.5%	0.72	0.71	0.75	0.81	0.79	0.80
PCB-121 23'45'6-PeCB	1.14	5.1%	1.10	1.07	1.11	1.20	1.18	1.20
PCB-92 22'355'-PeCB	0.80	5.9%	0.75	0.74	0.78	0.85	0.84	0.84
PCB-113/90/101 233'5'6-/22'3	0.93	4.5%	0.90	0.88	0.92	0.99	0.97	0.95
PCB-83 22'33'5-PeCB	0.71	4.1%	0.69	0.68	0.71	0.76	0.71	0.74
PCB-99 22'44'5-PeCB	0.87	8.4%	0.85	0.75	0.85	0.92	0.96	0.90
PCB-112 233'56-PeCB	1.13	3.6%	1.08	1.11	1.08	1.16	1.13	1.19
PCB-108/119/86/97/125/87 233	0.95	4.6%	0.92	0.88	0.94	1.00	0.99	0.95
PCB-117 234'56-PeCB	1.04	5.1%	1.10	1.09	0.98	1.04	1.06	0.97
PCB-116/85 23456-/22'344'-Pe	0.97	7.9%	0.90	0.86	0.97	1.03	1.02	1.05
PCB-110 233'4'6-PeCB	1.02	5.9%	1.01	0.92	1.01	1.07	1.08	1.05
PCB-115 2344'6-PeCB	1.16	4.0%	1.17	1.11	1.10	1.19	1.17	1.21

PCB-82 22'33'4-PeCB	0.69	5.6%	0.65	0.65	0.67	0.72	0.73	0.73
PCB-111 233'55'-PeCB	1.15	5.4%	1.08	1.08	1.13	1.21	1.21	1.22
PCB-120 23'455'-PeCB	1.16	4.9%	1.11	1.08	1.15	1.20	1.21	1.21
PCB-107/124 233'4'5-/2'3455'	1.07	5.5%	1.02	1.00	1.06	1.13	1.12	1.12
PCB-109 233'46-PeCB	1.14	6.6%	1.11	1.08	1.04	1.23	1.19	1.20
PCB-106 233'45-PeCB	1.07	6.1%	1.04	0.97	1.08	1.14	1.13	1.07
PCB-122 2'33'45-PeCB	1.00	4.8%	0.94	0.98	0.96	1.04	1.04	1.05
PCB-127 33'455'-PeCB	1.10	5.0%	1.04	1.04	1.07	1.14	1.17	1.13
PCB-155 22'44'66'-HxCB	1.09	4.7%	1.03	1.06	1.04	1.13	1.15	1.13
PCB-152 22'3566'-HxCB	1.01	5.2%	0.98	0.94	0.98	1.05	1.08	1.05
PCB-150 22'34'66'-HxCB	1.00	8.2%	0.90	0.92	0.98	1.07	1.09	1.07
PCB-136 22'33'66'-HxCB	0.95	5.5%	0.89	0.90	0.92	0.99	1.01	1.00
PCB-145 22'3466'HxCB	0.96	6.9%	0.86	0.91	0.94	1.00	1.03	1.02
PCB-148 22'34'56'-HxCB	0.97	7.6%	0.91	0.88	0.92	1.02	1.05	1.04
PCB-151/135 22'355'6-/22'33'	0.96	5.1%	0.93	0.91	0.92	1.00	1.02	1.00
PCB-154 22'44'5'6-HxCB	1.09	5.8%	1.03	1.02	1.06	1.14	1.16	1.14
PCB-144 22'345'6-HxCB	0.98	6.3%	0.94	0.90	0.95	1.03	1.04	1.04
PCB-147/149 22'34'56-/22'34'	0.99	5.9%	0.94	0.91	0.95	1.03	1.05	1.03
PCB-134 22'33'56-HxCB	0.80	5.7%	0.74	0.83	0.76	0.82	0.86	0.80
PCB-143 22'3456'-HxCB	0.95	9.3%	1.01	0.80	0.90	0.99	1.00	1.03
PCB-139/140 22'344'6-/22'344'	1.00	6.3%	0.94	0.92	0.97	1.05	1.07	1.05
PCB-131 22'33'46-HxCB	0.85	7.1%	0.77	0.79	0.83	0.89	0.92	0.89
PCB-142 22'3456-HxCB	0.87	6.1%	0.83	0.81	0.84	0.91	0.93	0.92
PCB-132 22'33'46'-HxCB	0.89	6.5%	0.86	0.80	0.86	0.93	0.95	0.93
PCB-133 22'33'55'-HxCB	0.91	7.2%	0.83	0.87	0.88	0.96	0.99	0.97
PCB-165 233'55'6-HxCB	1.13	6.0%	1.07	1.06	1.08	1.18	1.21	1.19
PCB-146 22'34'55'-HxCB	1.01	5.9%	1.01	0.92	0.95	1.03	1.06	1.07
PCB-161 233'45'6-HxCB	1.25	6.3%	1.17	1.18	1.20	1.33	1.35	1.28
PCB-153/168 22'44'55'-/23'44'	1.22	5.7%	1.21	1.13	1.15	1.28	1.30	1.25
PCB-141 22'3455'-HxCB	0.93	5.6%	0.89	0.86	0.89	0.96	0.98	0.98
PCB-130 22'33'45'-HxCB	0.85	5.1%	0.85	0.78	0.81	0.87	0.89	0.88
PCB-137 22'344'5-HxCB	1.04	5.8%	0.95	1.01	1.05	1.11	1.03	1.10
PCB-164 233'4'5'6-HxCB	1.22	7.7%	1.19	1.16	1.12	1.23	1.38	1.26
PCB-163/138/129 233'4'56-/22'	1.02	5.4%	0.98	0.96	1.00	1.07	1.10	1.04
PCB-160 233'456-HxCB	1.21	4.4%	1.20	1.17	1.13	1.24	1.26	1.26
PCB-158 233'44'6-HxCB	1.34	4.3%	1.29	1.27	1.30	1.38	1.41	1.38
PCB-128/166 22'33'44'-/2344'5	0.90	4.4%	0.86	0.86	0.87	0.93	0.94	0.93
PCB-159 233'455'-HxCB	1.06	5.4%	1.03	0.99	1.02	1.11	1.13	1.11
PCB-162 233'4'55'-HxCB	1.08	5.5%	1.05	0.98	1.05	1.12	1.14	1.12
PCB-188 22'34'566'-HpCB	1.03	6.0%	0.93	0.99	1.02	1.08	1.10	1.07
PCB-179 22'33'566'-HpCB	0.97	4.7%	0.92	0.91	0.94	1.01	1.02	1.00
PCB-184 22'344'66'-HpCB	0.93	5.9%	0.87	0.88	0.90	0.97	1.00	0.97
PCB-176 22'33'466'-HpCB	1.05	5.3%	0.98	0.99	1.04	1.09	1.10	1.09
PCB-186 22'34566'-HpCB	0.98	5.1%	0.93	0.92	0.97	1.02	1.03	1.02
PCB-178 22'33'55'6-HpCB	0.74	3.9%	0.71	0.70	0.72	0.75	0.77	0.76
PCB-175 22'33'45'6-HpCB	1.01	7.2%	0.93	0.92	0.99	1.06	1.08	1.07
PCB-187 22'34'55'6-HpCB	1.06	6.6%	0.97	0.99	1.06	1.12	1.13	1.11

PCB-182 22'344'56'-HpCB	1.11	3.6%	1.07	1.09	1.07	1.14	1.15	1.14
PCB-183 22'344'5'6-HpCB	1.13	9.3%	0.99	1.03	1.15	1.19	1.26	1.18
PCB-185 22'3455'6-HpCB	1.02	3.7%	1.00	1.01	0.96	1.04	1.03	1.07
PCB-174 22'33'456'-HpCB	0.93	3.6%	0.89	0.90	0.91	0.95	0.96	0.96
PCB-177 22'33'4'56-HpCB	0.91	5.5%	0.85	0.85	0.89	0.94	0.96	0.95
PCB-181 22'344'56-HpCB	1.06	3.7%	1.05	1.02	1.02	1.08	1.11	1.10
PCB-171/173 22'33'44'6-/22'3	0.93	4.2%	0.90	0.87	0.90	0.95	0.97	0.96
PCB-172 22'33'455'-HpCB	0.95	3.9%	0.94	0.91	0.92	0.97	1.00	0.98
PCB-192 233'455'6-HpCB	1.24	4.6%	1.22	1.15	1.21	1.27	1.30	1.29
PCB-180/193 22'344'55'-/233'	1.16	5.1%	1.14	1.06	1.14	1.19	1.22	1.20
PCB-191 233'44'5'6-HpCB	1.30	4.1%	1.33	1.22	1.25	1.32	1.36	1.34
PCB-170 22'33'44'5-HpCB	1.07	5.7%	1.03	0.99	1.04	1.12	1.13	1.13
PCB-190 233'44'56-HpCB	1.45	5.6%	1.36	1.37	1.41	1.49	1.54	1.54
PCB-202 22'33'55'66'-OcCB	0.91	4.7%	0.90	0.85	0.89	0.95	0.96	0.94
PCB-201 22'33'45'66'-OcCB	1.02	4.5%	0.97	0.97	1.00	1.06	1.07	1.05
PCB-204 22'344'566'-OcCB	0.98	4.6%	1.01	0.90	0.95	1.00	1.01	0.99
PCB-197 22'33'44'66'-OcCB	1.06	2.7%	1.06	1.07	1.03	1.06	1.12	1.05
PCB-200 22'33'4566'-OcCB	0.96	8.8%	0.93	0.81	0.95	1.03	1.01	1.03
PCB-198/199 22'33'455'6-/22'	0.72	4.6%	0.71	0.67	0.69	0.74	0.76	0.73
PCB-196 22'33'44'56'-OcCB	0.73	6.5%	0.66	0.69	0.72	0.76	0.79	0.76
PCB-203 22'344'55'6-OcCB	0.76	5.9%	0.72	0.72	0.74	0.80	0.82	0.80
PCB-195 22'33'44'56-OcCB	0.80	6.2%	0.78	0.73	0.76	0.84	0.85	0.84
PCB-194 22'33'44'55'-OcCB	0.87	3.4%	0.86	0.84	0.84	0.90	0.91	0.89
PCB-205 233'44'55'6-OcCB	1.09	4.2%	1.09	1.02	1.04	1.11	1.14	1.12
PCB-208 22'33'455'66'-NoCB	1.02	5.3%	0.97	0.96	0.98	1.06	1.08	1.06
PCB-207 22'33'44'566'-NoCB	1.06	5.4%	1.00	1.00	1.02	1.10	1.12	1.10
PCB-206 22'33'44'55'6-NoCB	0.98	5.5%	0.95	0.90	0.95	1.01	1.04	1.02

1668A/B ICALs

Ax	RSD	Mean	sd	MM4_PCB_01102012_25JUL12	MM4_PCB_07132012_25JUL12	RSD	Mean	sd	PD from Mean
77	7.6	1.04	0.08	1.11	1.13	1.2	1.12	0.01	0.9%
81	9.8	1.09	0.11	1.13	1.13	0.0	1.13	0.00	0.0%
105	8.6	0.98	0.08	1.11	1.09	0.8	1.10	0.01	-0.6%
114	8.5	0.97	0.08	1.18	1.16	1.0	1.17	0.01	-0.7%
118	7.2	0.98	0.07	1.11	1.11	0.4	1.11	0.00	-0.3%
123	6.4	0.97	0.06	1.08	1.19	6.7	1.13	0.08	4.7%
126	8.2	0.98	0.08	1.07	1.06	0.3	1.06	0.00	-0.2%
156/157	4.6	0.97	0.05	1.09	1.11	1.0	1.10	0.01	0.7%
167	5.2	0.96	0.05	1.14	1.14	0.5	1.14	0.01	-0.4%
169	4.6	0.93	0.04	1.09	1.11	1.1	1.10	0.01	0.8%
189	9.8	0.93	0.09	1.07	1.06	0.8	1.06	0.01	-0.6%
1	10.9	1.18	0.13	1.02	1.03	0.7	1.03	0.01	0.5%
3	9.5	1.18	0.11	0.98	1.04	4.7	1.01	0.05	3.3%
4	10.4	0.97	0.10	1.11	1.17	3.6	1.14	0.04	2.5%
15	7.2	0.99	0.07	0.99	1.08	6.4	1.03	0.07	4.5%
19	5.3	1.04	0.06	1.10	1.09	0.7	1.10	0.01	-0.5%
37	8.1	1.05	0.08	1.00	1.10	7.0	1.05	0.07	4.9%
54	9.1	1.02	0.09	1.18	1.21	1.7	1.19	0.02	1.2%
104	9.0	1.00	0.09	1.11	1.25	8.4	1.18	0.10	5.9%
153				1.19	1.22				
155	5.1	1.02	0.05	1.08	1.09	0.6	1.09	0.01	0.4%
170				1.06	1.07				
180				1.08	1.16				
188	6.5	1.06	0.07	1.03	1.03	0.1	1.03	0.00	0.1%
202	7.6	0.87	0.07	0.93	0.91	0.8	0.92	0.01	-0.6%
205	5.8	1.02	0.06	1.07	1.09	1.0	1.08	0.01	0.7%
208	4.5	0.94	0.04	1.02	1.02	0.1	1.02	0.00	-0.1%
206	7.1	0.98	0.07	0.99	0.98	1.0	0.99	0.01	-0.7%
209	6.4	0.94	0.06	1.07	1.07	0.2	1.07	0.00	#REF!
						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
ES						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1	10.8	0.98	0.11	1.08	1.08				
3	10.3	0.98	0.10	1.14	1.08				
4	8.3	0.71	0.06	0.50	0.49				
15	6.3	1.05	0.07	1.18	1.11	4.4	1.15	0.05	-3.1%
19	8.4	0.58	0.05	0.53	0.55	2.7	0.54	0.01	1.9%
37	7.8	1.40	0.11	1.64	1.64	0.2	1.64	0.00	-0.2%
54	13.1	1.35	0.18	0.87	0.94	5.7	0.90	0.05	4.0%
77	7.9	1.20	0.10	1.26	1.35	4.5	1.31	0.06	3.2%
81	7.0	1.17	0.08	1.20	1.29	5.1	1.24	0.06	3.6%
104	12.1	1.48	0.18	1.08	0.99	6.2	1.04	0.06	-4.3%
105	5.1	1.18	0.06	1.22	1.23	1.0	1.23	0.01	0.7%
114	4.2	1.23	0.05	1.24	1.25	0.2	1.25	0.00	0.1%
118	5.2	1.24	0.07	1.28	1.28	0.3	1.28	0.00	0.2%
123	5.4	1.20	0.06	1.35	1.22	7.4	1.29	0.09	-5.2%
126	8.5	1.29	0.11	1.22	1.20	1.2	1.21	0.01	-0.8%
153				1.10	1.14				
155	5.0	1.51	0.08	1.41	1.50	4.0	1.45	0.06	2.9%
156/157	15.9	1.15	0.18	1.41	1.45	2.4	1.43	0.03	1.7%
167	14.1	1.18	0.17	1.43	1.49	3.3	1.46	0.05	2.4%
169	19.8	1.10	0.22	1.37	1.40	1.8	1.39	0.03	1.3%
170				1.04	1.00				
180				1.28	1.16				
188	12.9	1.39	0.18	1.12	1.18	3.5	1.15	0.04	2.5%
189	9.1	1.70	0.15	1.53	1.49	1.9	1.51	0.03	-1.4%
202	9.7	1.32	0.13	1.07	1.14	4.6	1.10	0.05	3.2%

205	4.3	1.26	0.05	1.26	1.20	3.1	1.23	0.04	-2.2%
206	7.4	0.94	0.07	0.90	0.87	2.4	0.89	0.02	-1.7%
208	8.5	1.31	0.11	1.22	1.19	1.8	1.21	0.02	-1.2%
209	6.3	1.21	0.08	1.06	1.00	4.1	1.03	0.04	-2.9%
						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
SS						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
28	7.1	1.11	0.08	0.98	1.07	6.5	1.03	0.07	4.6%
111	6.3	1.07	0.07	0.90	1.01	7.8	0.95	0.07	5.5%
178	4.6	0.68	0.03	0.62	0.63	0.9	0.62	0.01	0.6%

Additional Ax			RSD	Mean	sd	PD from Historical Mean
PCB-1 2-MoCB	1.02	1.03	0.7	1.03	0.01	0.5%
PCB-2 3-MoCB	0.97	1.04	4.7	1.01	0.05	3.4%
PCB-3 4-MoCB	0.98	1.04	4.7	1.01	0.05	3.3%
PCB-4 22'-DiCB	1.11	1.17	3.6	1.14	0.04	2.5%
PCB-10 26-DiCB	1.71	1.83	4.8	1.77	0.08	3.4%
PCB-9 25-DiCB	0.83	0.89	5.6	0.86	0.05	4.0%
PCB-7 24-DiCB	0.95	1.02	5.4	0.99	0.05	3.8%
PCB-6 23'-DiCB	0.89	0.95	4.3	0.92	0.04	3.0%
PCB-5 23-DiCB	0.89	0.97	5.9	0.93	0.06	4.2%
PCB-8 24'-DiCB	0.93	0.98	4.0	0.96	0.04	2.8%
PCB-14 35-DiCB	1.07	1.16	5.5	1.11	0.06	3.9%
PCB-11 33'-DiCB	0.94	1.00	4.6	0.97	0.04	3.3%
PCB-13/12 34'-/34-DiCB	0.95	1.02	4.9	0.98	0.05	3.5%
PCB-15 44'-DiCB	0.99	1.08	6.4	1.03	0.07	4.5%
PCB-19 22'6-TrCB	1.10	1.09	0.7	1.10	0.01	-0.5%
PCB-30/18 246-/22'5-TrCB	1.48	1.46	1.1	1.47	0.02	-0.8%
PCB-17 22'4-TrCB	1.28	1.25	1.7	1.27	0.02	-1.2%
PCB-27 23'6-TrCB	1.70	1.69	0.3	1.70	0.01	-0.2%
PCB-24 236-TrCB	1.63	1.63	0.2	1.63	0.00	0.2%
PCB-16 22'3-TrCB	0.97	0.95	1.3	0.96	0.01	-0.9%
PCB-32 24'6-TrCB	1.81	1.79	0.9	1.80	0.02	-0.7%
PCB-34 2'35-TrCB	0.98	1.05	5.1	1.01	0.05	3.6%
PCB-23 235-TrCB	0.98	1.06	5.3	1.02	0.05	3.7%
PCB-26/29 23'5-/245-TrCB	1.00	1.09	5.6	1.04	0.06	4.0%
PCB-25 23'4-TrCB	0.99	1.07	5.9	1.03	0.06	4.1%
PCB-31 24'5-TrCB	1.03	1.11	5.2	1.07	0.06	3.7%
PCB-28/20 244'-/233'-TrCB	0.98	1.07	5.7	1.03	0.06	4.1%
PCB-21/33 234-/2'34-TrCB	1.01	1.09	5.5	1.05	0.06	3.9%
PCB-22 234'-TrCB	0.93	1.02	6.0	0.97	0.06	4.3%
PCB-36 33'5-TrCB	1.03	1.13	6.5	1.08	0.07	4.6%
PCB-39 34'5-TrCB	1.10	1.17	4.0	1.13	0.05	2.8%
PCB-38 345-TrCB	0.95	1.03	5.7	0.99	0.06	4.1%
PCB-35 33'4-TrCB	0.96	1.04	6.0	1.00	0.06	4.2%
PCB-37 344'-TrCB	1.00	1.10	7.0	1.05	0.07	4.9%
PCB-54 22'66'-TeCB	1.18	1.21	1.7	1.19	0.02	1.2%
PCB-50/53 22'46-/22'56'TeCB	0.85	0.86	0.8	0.85	0.01	0.6%
PCB-45 22'36-TeCB	0.75	0.73	1.7	0.74	0.01	-1.2%
PCB-51 22'46'-TeCB	0.85	0.88	2.7	0.86	0.02	1.9%
PCB-46 22'36'-TeCB	0.68	0.70	1.2	0.69	0.01	0.9%
PCB-52 22'55'-TeCB	0.82	0.84	2.0	0.83	0.02	1.4%
PCB-73 23'5'6TeCB	1.10	1.09	0.6	1.09	0.01	-0.4%
PCB-43 22'35-TeCB	0.66	0.72	7.0	0.69	0.05	4.9%
PCB-69/49 23'46-/22'45'TeCB	1.00	1.01	0.8	1.01	0.01	0.6%
PCB-48 22'45-TeCB	0.83	0.85	1.5	0.84	0.01	1.1%
PCB-44/47/65 22'35'-/22'44'-	0.88	0.89	0.5	0.89	0.00	0.4%
PCB-59/62/75 233'6-/2346-/24	1.12	1.14	1.1	1.13	0.01	0.8%
PCB-42 22'34'-TeCB	0.77	0.77	0.1	0.77	0.00	0.1%
PCB-41 22'34-TeCB	0.72	0.73	1.0	0.72	0.01	0.7%

PCB-71/40 23'4'6/22'33'-TeCB	0.85	0.87	1.2	0.86	0.01	0.9%
PCB-64 234'6-TeCB	1.21	1.24	1.6	1.22	0.02	1.1%
PCB-72 23'55'-TeCB	1.13	1.14	0.7	1.14	0.01	0.5%
PCB-68 23'45'-TeCB	1.21	1.21	0.1	1.21	0.00	-0.1%
PCB-57 233'5-TeCB	1.10	1.11	0.1	1.10	0.00	0.0%
PCB-58 233'5-TeCB	1.11	1.10	0.7	1.11	0.01	-0.5%
PCB-67 23'45-TeCB	1.15	1.16	0.7	1.15	0.01	0.5%
PCB-63 234'5-TeCB	1.22	1.22	0.4	1.22	0.01	-0.3%
PCB-61/70/74/76 2345-/23'4'5	1.13	1.13	0.1	1.13	0.00	-0.1%
PCB-66 23'44'-TeCB	1.06	1.08	0.7	1.07	0.01	0.5%
PCB-55 233'4-TeCB	1.09	1.10	0.6	1.09	0.01	0.4%
PCB-56 233'4'-TeCB	1.05	1.06	0.1	1.05	0.00	0.1%
PCB-60 2344'-TeCB	1.12	1.11	0.4	1.11	0.00	-0.2%
PCB-80 33'55'-TeCB	1.26	1.25	0.2	1.25	0.00	-0.2%
PCB-79 33'45'-TeCB	1.26	1.23	1.4	1.25	0.02	-1.0%
PCB-78 33'45-TeCB	1.09	1.08	0.5	1.08	0.01	-0.4%
PCB-104 22'466'-PeCB	1.11	1.25	8.4	1.18	0.10	5.9%
PCB-96 22'366'-PeCB	0.98	1.08	6.6	1.03	0.07	4.7%
PCB-103 22'45'6-PeCB	0.80	0.90	8.1	0.85	0.07	5.7%
PCB-94 22'356'-PeCB	0.70	0.78	7.3	0.74	0.05	5.2%
PCB-95 22'35'6-PeCB	0.75	0.83	7.1	0.79	0.06	5.1%
PCB-100/93 22'44'6-/22'356-P	0.76	0.84	7.1	0.80	0.06	5.0%
PCB-102 22'456'-PeCB	0.82	0.90	6.6	0.86	0.06	4.7%
PCB-98 22'3'46-PeCB	0.69	0.77	7.8	0.73	0.06	5.5%
PCB-88 22'346-PeCB	0.67	0.79	11.7	0.73	0.09	8.3%
PCB-91 22'34'6-PeCB	0.84	0.88	3.2	0.86	0.03	2.3%
PCB-84 22'33'6-PeCB	0.65	0.71	6.7	0.68	0.05	4.7%
PCB-89 22'346'-PeCB	0.68	0.76	7.7	0.72	0.06	5.5%
PCB-121 23'45'6-PeCB	1.02	1.14	8.0	1.08	0.09	5.6%
PCB-92 22'355'-PeCB	0.73	0.80	6.4	0.77	0.05	4.5%
PCB-113/90/101 233'5'6-/22'3	0.85	0.93	6.5	0.89	0.06	4.6%
PCB-83 22'33'5-PeCB	0.63	0.71	8.3	0.67	0.06	5.9%
PCB-99 22'44'5-PeCB	0.82	0.87	4.5	0.84	0.04	3.2%
PCB-112 233'56-PeCB	1.01	1.13	7.6	1.07	0.08	5.4%
PCB-108/119/86/97/125/87 233	0.87	0.95	6.5	0.91	0.06	4.6%
PCB-117 234'56-PeCB	0.96	1.04	5.9	1.00	0.06	4.2%
PCB-116/85 23456-/22'344'-Pe	0.87	0.97	8.1	0.92	0.07	5.7%
PCB-110 233'4'6-PeCB	0.95	1.02	5.4	0.98	0.05	3.8%
PCB-115 2344'6-PeCB	1.02	1.16	8.7	1.09	0.09	6.1%
PCB-82 22'33'4-PeCB	0.63	0.69	6.5	0.66	0.04	4.6%
PCB-111 233'55'-PeCB	1.05	1.15	7.0	1.10	0.08	4.9%
PCB-120 23'455'-PeCB	1.05	1.16	6.7	1.11	0.07	4.8%
PCB-107/124 233'4'5-/2'3455'	0.99	1.07	6.1	1.03	0.06	4.3%
PCB-109 233'46-PeCB	1.05	1.14	5.7	1.10	0.06	4.0%
PCB-106 233'45-PeCB	0.98	1.07	5.9	1.03	0.06	4.2%
PCB-122 2'33'45-PeCB	1.01	1.00	0.8	1.01	0.01	-0.6%
PCB-127 33'455'-PeCB	1.12	1.10	1.3	1.11	0.01	-0.9%
PCB-155 22'44'66'-HxCB	1.08	1.09	0.6	1.09	0.01	0.4%
PCB-152 22'3566'-HxCB	1.00	1.01	0.7	1.01	0.01	0.5%
PCB-150 22'34'66'-HxCB	1.03	1.00	2.0	1.02	0.02	-1.4%
PCB-136 22'33'66'-HxCB	0.95	0.95	0.3	0.95	0.00	0.2%
PCB-145 22'3466'HxCB	0.98	0.96	1.0	0.97	0.01	-0.7%
PCB-148 22'34'56'-HxCB	0.96	0.97	1.0	0.96	0.01	0.7%
PCB-151/135 22'355'6-/22'33'	0.94	0.96	1.8	0.95	0.02	1.3%
PCB-154 22'44'5'6-HxCB	1.05	1.09	2.7	1.07	0.03	1.9%
PCB-144 22'345'6-HxCB	0.96	0.98	1.3	0.97	0.01	0.9%
PCB-147/149 22'34'56-/22'34'	0.96	0.99	1.6	0.97	0.02	1.1%
PCB-134 22'33'56-HxCB	0.78	0.80	1.6	0.79	0.01	1.1%
PCB-143 22'3456'-HxCB	0.92	0.95	2.6	0.94	0.02	1.8%
PCB-139/140 22'344'6-/22'344'	0.99	1.00	0.9	0.99	0.01	0.6%
PCB-131 22'33'46-HxCB	0.84	0.85	1.0	0.84	0.01	0.7%
PCB-142 22'3456-HxCB	0.86	0.87	1.0	0.87	0.01	0.7%
PCB-132 22'33'46'-HxCB	0.87	0.89	1.4	0.88	0.01	1.0%
PCB-133 22'33'55'-HxCB	0.92	0.91	0.7	0.92	0.01	-0.5%

PCB-165 233'55'6-HxCB	1.12	1.13		0.8	1.13	0.01	0.6%
PCB-146 22'34'55'-HxCB	0.99	1.01		1.5	1.00	0.01	1.1%
PCB-161 233'45'6-HxCB	1.24	1.25		0.5	1.25	0.01	0.4%
PCB-153/168 22'44'55'-/23'44'	1.19	1.22		1.8	1.20	0.02	1.3%
PCB-141 22'3455'-HxCB	0.92	0.93		0.5	0.92	0.00	0.4%
PCB-130 22'33'45'-HxCB	0.82	0.85		2.0	0.84	0.02	1.4%
PCB-137 22'344'5-HxCB	1.00	1.04		2.9	1.02	0.03	2.1%
PCB-164 233'4'5'6-HxCB	1.21	1.22		0.8	1.22	0.01	0.6%
PCB-163/138/129 233'4'56-/22'	1.01	1.02		1.0	1.02	0.01	0.7%
PCB-160 233'456-HxCB	1.18	1.21		1.7	1.19	0.02	1.2%
PCB-158 233'44'6-HxCB	1.30	1.34		2.1	1.32	0.03	1.5%
PCB-128/166 22'33'44'-/2344'5	0.91	0.90		1.1	0.91	0.01	-0.8%
PCB-159 233'455'-HxCB	1.07	1.06		0.8	1.07	0.01	-0.5%
PCB-162 233'4'55'-HxCB	1.09	1.08		1.2	1.08	0.01	-0.8%
PCB-188 22'34'566'-HpCB	1.03	1.03		0.1	1.03	0.00	0.1%
PCB-179 22'33'566'-HpCB	0.95	0.97		1.6	0.96	0.02	1.2%
PCB-184 22'344'66'-HpCB	0.94	0.93		0.9	0.94	0.01	-0.6%
PCB-176 22'33'466'-HpCB	1.05	1.05		0.3	1.05	0.00	-0.2%
PCB-186 22'34566'-HpCB	0.98	0.98		0.1	0.98	0.00	0.1%
PCB-178 22'33'55'6-HpCB	0.73	0.74		0.2	0.73	0.00	0.2%
PCB-175 22'33'45'6-HpCB	0.95	1.01		4.2	0.98	0.04	3.0%
PCB-187 22'34'55'6-HpCB	0.99	1.06		5.1	1.03	0.05	3.6%
PCB-182 22'344'56'-HpCB	1.02	1.11		6.0	1.07	0.06	4.2%
PCB-183 22'344'5'6-HpCB	1.06	1.13		4.9	1.10	0.05	3.5%
PCB-185 22'3455'6-HpCB	0.95	1.02		5.1	0.98	0.05	3.6%
PCB-174 22'33'456'-HpCB	0.83	0.93		7.8	0.88	0.07	5.5%
PCB-177 22'33'4'56-HpCB	0.85	0.91		4.6	0.88	0.04	3.3%
PCB-181 22'344'56-HpCB	0.98	1.06		5.4	1.02	0.06	3.8%
PCB-171/173 22'33'44'6-/22'3	0.85	0.93		6.1	0.89	0.05	4.3%
PCB-172 22'33'455'-HpCB	0.88	0.95		6.0	0.92	0.05	4.2%
PCB-192 233'455'6-HpCB	1.12	1.24		7.1	1.18	0.08	5.0%
PCB-180/193 22'344'55'-/233'	1.08	1.16		5.1	1.12	0.06	3.6%
PCB-191 233'44'5'6-HpCB	1.20	1.30		5.9	1.25	0.07	4.2%
PCB-170 22'33'44'5-HpCB	1.06	1.07		1.1	1.07	0.01	0.8%
PCB-190 233'44'56-HpCB	1.42	1.45		1.7	1.43	0.02	1.2%
PCB-202 22'33'55'66'-OcCB	0.93	0.91		0.8	0.92	0.01	-0.6%
PCB-201 22'33'45'66'-OcCB	1.04	1.02		1.2	1.03	0.01	-0.9%
PCB-204 22'344'566'-OcCB	0.99	0.98		1.0	0.98	0.01	-0.7%
PCB-197 22'33'44'66'-OcCB	1.03	1.06		2.0	1.05	0.02	1.4%
PCB-200 22'33'4566'-OcCB	1.02	0.96		4.1	0.99	0.04	-2.9%
PCB-198/199 22'33'455'6-/22'	0.74	0.72		2.1	0.73	0.01	-1.5%
PCB-196 22'33'44'56'-OcCB	0.77	0.73		3.7	0.75	0.03	-2.6%
PCB-203 22'344'55'6-OcCB	0.80	0.76		3.0	0.78	0.02	-2.1%
PCB-195 22'33'44'56-OcCB	0.79	0.80		0.8	0.80	0.01	0.6%
PCB-194 22'33'44'55'-OcCB	0.87	0.87		0.4	0.87	0.00	0.2%
PCB-205 233'44'55'6-OcCB	1.07	1.09		1.0	1.08	0.01	0.7%
PCB-208 22'33'455'66'-NoCB	1.02	1.02		0.1	1.02	0.00	-0.1%
PCB-207 22'33'44'566'-NoCB	1.07	1.06		0.7	1.06	0.01	-0.5%
PCB-206 22'33'44'55'6-NoCB	0.99	0.98		0.7	0.99	0.01	-0.5%

Analytical Perspectives — Run Log **Project: MM7_PCB_07132012_25JUL12**

Instrument: MM7 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_a

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
15	120725X15	Tray1:50	CS0_120725_PCB_XC	0.03	SIL 12-65-6	LKB	094-961	26-Jul-2012	02:56:49
16	120725X16	Tray1:51	CS1_120725_PCB_XB	0.03	SIL 12-65-5	LKB	824-792	26-Jul-2012	03:50:43
17	120725X17	Tray1:52	CS2_120725_PCB_XB	0.03	SIL 12-65-4	LKB	175-178	26-Jul-2012	04:44:38
18	120725X18	Tray1:53	CS3_120725_PCB_XB	0.03	SIL 12-65-3	LKB	426-138	26-Jul-2012	05:38:32
19	120725X19	Tray1:54	CS4_120725_PCB_XB	0.03	SIL 12-65-2	LKB	276-589	26-Jul-2012	06:32:28
20	120725X20	Tray1:55	CS5_120725_PCB_XB	0.03	SIL 12-65-1	LKB	951-239	26-Jul-2012	07:26:23
21	120725X21	Tray1:02	SBS_120725_PCB_XH	0.03	SIL 9-41-1	LKB	476-201	26-Jul-2012	08:33:09
22	120725X22	Tray1:02	SBS_120725_PCB_XI	0.03	SIL 9-41-1	LKB	961-294	26-Jul-2012	09:25:22

REVIEWED

By Laura Boivin at 11:26 am, Jul 28, 2012

OK JK 8/1/12

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:10
Lab ID:	**CS0_120725_PCB_XC**			**ICAL: MM7_PCB_07132012_25JUL12**	
Acquired:	**26-JUL-2012 02:56**				
Datafile:	**120725X15**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.54	4.40E+05	0.84 Y	1.13	1.12	-1.0%
PCB-81 344'5-TeCB	30.07	4.09E+05	0.74 Y	1.13	1.09	-3.0%
PCB-105 233'44'-PeCB	33.49	3.57E+05	0.63 Y	1.09	1.07	-2.0%
PCB-114 2344'5-PeCB	32.96	3.71E+05	0.58 Y	1.16	1.10	-5.3%
PCB-118 23'44'5-PeCB	32.51	3.93E+05	0.61 Y	1.11	1.13	2.3%
PCB-123 2'344'5-PeCB	32.23	3.85E+05	0.61 Y	1.19	1.18	-0.6%
PCB-126 33'44'5-PeCB	36.08	3.40E+05	0.62 Y	1.06	1.04	-1.9%
PCB-156/157 233'44'5/233'44'5'	38.61	7.14E+05	1.28 Y	1.11	1.09	-2.0%
PCB-167 23'44'55'-HxCB	37.65	3.68E+05	1.22 Y	1.14	1.08	-4.5%
PCB-169 33'44'55'-HxCB	41.31	3.38E+05	1.15 Y	1.11	1.07	-4.1%
PCB-189 233'44'55'-HpCB	43.43	3.13E+05	1.11 Y	1.06	1.03	-2.6%
PCB-209 DeCB	48.38	2.29E+05	1.17 Y	1.07	1.10	2.3%
ES PCB-1	10.64	1.17E+08	3.14 Y	1.08	1.09	0.4%
ES PCB-3	12.70	1.16E+08	3.23 Y	1.08	1.08	-0.7%
ES PCB-4	12.92	5.31E+07	1.59 Y	0.49	0.49	0.6%
ES PCB-15	18.24	1.19E+08	1.59 Y	1.11	1.10	-0.6%
ES PCB-19	15.75	6.04E+07	1.05 Y	0.55	0.56	0.7%
ES PCB-37	24.32	9.54E+07	1.06 Y	1.64	1.63	-0.6%
ES PCB-54	18.49	5.54E+07	0.77 Y	0.94	0.94	0.4%
ES PCB-77	30.52	7.84E+07	0.80 Y	1.35	1.34	-0.9%
ES PCB-81	30.05	7.47E+07	0.79 Y	1.29	1.27	-1.1%
ES PCB-104	23.28	5.31E+07	1.58 Y	0.99	0.98	-1.1%
ES PCB-105	33.46	6.66E+07	1.64 Y	1.23	1.23	-0.1%
ES PCB-114	32.93	6.76E+07	1.62 Y	1.25	1.25	0.2%
ES PCB-118	32.49	6.94E+07	1.61 Y	1.28	1.28	0.2%
ES PCB-123	32.21	6.52E+07	1.58 Y	1.22	1.21	-1.0%
ES PCB-126	36.06	6.53E+07	1.59 Y	1.20	1.21	0.7%
ES PCB-153	34.06	5.07E+07	1.30 Y	1.14	1.14	-0.2%
ES PCB-155	28.13	6.64E+07	1.26 Y	1.50	1.49	-0.2%
ES PCB-156/157	38.59	1.32E+08	1.29 Y	1.45	1.48	1.6%
ES PCB-167	37.63	6.78E+07	1.27 Y	1.49	1.52	1.9%
ES PCB-169	41.29	6.34E+07	1.28 Y	1.40	1.42	1.3%
ES PCB-170	40.80	4.16E+07	1.06 Y	1.00	1.01	0.9%
ES PCB-180	39.76	4.71E+07	1.05 Y	1.16	1.15	-1.1%
ES PCB-188	32.94	5.30E+07	1.07 Y	1.18	1.19	1.0%
ES PCB-189	43.41	6.08E+07	1.04 Y	1.49	1.48	-0.6%
ES PCB-202	37.43	5.12E+07	0.90 Y	1.14	1.15	1.1%
ES PCB-205	45.56	4.94E+07	0.89 Y	1.20	1.20	-0.1%
ES PCB-206	47.01	3.61E+07	0.79 Y	0.87	0.88	1.0%
ES PCB-208	43.02	4.91E+07	0.79 Y	1.19	1.19	0.3%
ES PCB-209	48.36	4.17E+07	1.19 Y	1.00	1.01	1.0%

PCB QC Summary	SGS Analytical Perspectives	Printed: 28-Jul-2012 10:10

Lab ID: CS0_120725_PCB_XC ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 02:56
Datafile: 120725X15

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.88	1.02E+08	1.06 Y	1.07	1.07	-0.3%
SS PCB-111	30.57	6.61E+07	1.60 Y	1.01	1.01	0.9%
SS PCB-178	35.49	3.27E+07	1.06 Y	0.63	0.62	-1.8%
CS PCB-28	20.88	1.02E+08	1.06 Y	1.76	1.74	-1.0%
CS PCB-111	30.57	6.61E+07	1.60 Y	1.23	1.22	-0.1%
CS PCB-178	35.49	3.27E+07	1.06 Y	0.74	0.73	-0.8%
JS PCB-9	14.74	1.08E+08	1.60 Y	-	-	-
JS PCB-52	22.45	5.87E+07	0.79 Y	-	-	-
JS PCB-101	28.30	5.40E+07	1.59 Y	-	-	-
JS PCB-138	35.10	4.45E+07	1.27 Y	-	-	-
JS PCB-194	45.16	4.11E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	10.65	5.46E+05	3.25 Y	1.03	0.93	-9.9%
PCB-3 4-MoCB	12.71	5.56E+05	2.99 Y	1.04	0.95	-8.5%
PCB-4 22'-DiCB	12.93	2.97E+05	0.00 S	1.17	1.12	-4.4%
PCB-15 44'-DiCB	18.25	6.16E+05	1.51 Y	1.08	1.03	-4.6%
PCB-19 22'6-TrCB	15.77	3.20E+05	1.01 Y	1.09	1.06	-3.2%
PCB-37 344'-TrCB	24.34	5.24E+05	1.03 Y	1.10	1.10	-0.5%
PCB-54 22'66'-TeCB	18.50	3.13E+05	0.83 Y	1.21	1.13	-6.5%
PCB-104 22'466'-PeCB	23.30	3.32E+05	0.63 Y	1.25	1.25	-0.4%
PCB-153 22'44'55' -HxCB	34.11	6.14E+05	1.27 Y	1.22	1.21	-0.6%
PCB-155 22'44'66'-HxCB	28.15	3.43E+05	1.29 Y	1.09	1.03	-5.4%
PCB-170 22'33'44'5-HpCB	40.82	2.15E+05	0.99 Y	1.07	1.03	-3.7%
PCB-180 22'344'55'-HpCB	39.75	5.38E+05	1.02 Y	1.16	1.14	-1.4%
PCB-188 22'34'566'-HpCB	32.96	2.48E+05	1.05 Y	1.03	0.93	-9.6%
PCB-202 22'33'55'66'-OcCB	37.45	2.31E+05	0.91 Y	0.91	0.90	-1.2%
PCB-205 233'44'55'6-OcCB	45.58	2.69E+05	0.88 Y	1.09	1.09	0.2%
PCB-208 22'33'455'66'-NoCB	43.04	2.38E+05	0.77 Y	1.02	0.97	-4.5%
PCB-206 22'33'44'55'6-NoCB	47.03	1.71E+05	0.79 Y	0.98	0.95	-2.9%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:10

Lab ID: CS0_120725_PCB_XC ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 02:56
Datafile: 120725X15

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.65	5.46E+05	3.25 Y	1.03	0.93	-9.9%
PCB-2 3-MoCB	12.54	5.48E+05	3.16 Y	1.04	0.94	-9.6%
PCB-3 4-MoCB	12.71	5.56E+05	2.99 Y	1.04	0.95	-8.5%
PCB-4 22'-DiCB	12.93	2.97E+05	0.00 S	1.17	1.12	-4.4%
PCB-10 26-DiCB	13.10	4.83E+05	0.00 S	1.83	1.82	-0.9%
PCB-9 25-DiCB	14.76	4.85E+05	1.49 Y	0.89	0.81	-9.3%
PCB-7 24-DiCB	14.91	5.52E+05	1.64 Y	1.02	0.92	-9.8%
PCB-6 23'-DiCB	15.12	5.14E+05	1.60 Y	0.95	0.86	-9.3%
PCB-5 23-DiCB	15.40	5.58E+05	1.39 Y	0.97	0.93	-3.9%
PCB-8 24'-DiCB	15.51	5.26E+05	1.64 Y	0.98	0.88	-10.3%
PCB-14 35-DiCB	16.98	6.40E+05	1.64 Y	1.16	1.07	-7.4%
PCB-11 33'-DiCB	17.71	5.23E+05	1.67 Y	1.00	0.88	-12.3%
PCB-13/12 34'-/34-DiCB	17.98	1.14E+06	1.52 Y	1.02	0.96	-5.9%
PCB-15 44'-DiCB	18.25	6.16E+05	1.51 Y	1.08	1.03	-4.6%
PCB-19 22'6-TrCB	15.77	3.20E+05	1.01 Y	1.09	1.06	-3.2%
PCB-30/18 246-/22'5-TrCB	17.43	8.15E+05	1.05 Y	1.46	1.35	-7.5%
PCB-17 22'4-TrCB	17.81	3.45E+05	1.13 Y	1.25	1.14	-8.8%
PCB-27 23'6-TrCB	17.99	4.96E+05	1.12 Y	1.69	1.64	-2.9%
PCB-24 236-TrCB	18.12	4.67E+05	1.08 Y	1.63	1.55	-5.5%
PCB-16 22'3-TrCB	18.20	2.70E+05	1.04 Y	0.95	0.90	-6.2%
PCB-32 24'6-TrCB	18.66	5.12E+05	1.06 Y	1.79	1.70	-5.1%
PCB-34 2'35-TrCB	19.77	4.82E+05	0.93 Y	1.05	1.01	-3.6%
PCB-23 235-TrCB	19.91	4.78E+05	1.09 Y	1.06	1.00	-5.3%
PCB-26/29 23'5-/245-TrCB	20.19	9.87E+05	1.01 Y	1.09	1.03	-4.8%
PCB-25 23'4-TrCB	20.37	4.91E+05	0.98 Y	1.07	1.03	-4.2%
PCB-31 24'5-TrCB	20.64	4.99E+05	1.05 Y	1.11	1.05	-5.9%
PCB-28/20 244'-/233'-TrCB	20.91	9.80E+05	1.07 Y	1.07	1.03	-3.9%
PCB-21/33 234-/2'34-TrCB	21.08	1.01E+06	1.02 Y	1.09	1.06	-2.8%
PCB-22 234'-TrCB	21.44	4.65E+05	1.01 Y	1.02	0.97	-4.1%
PCB-36 33'5-TrCB	22.80	5.20E+05	1.00 Y	1.13	1.09	-3.4%
PCB-39 34'5-TrCB	23.10	5.24E+05	0.96 Y	1.17	1.10	-5.7%
PCB-38 345-TrCB	23.60	4.75E+05	1.06 Y	1.03	1.00	-3.6%
PCB-35 33'4-TrCB	23.99	4.90E+05	1.02 Y	1.04	1.03	-1.2%
PCB-37 344'-TrCB	24.34	5.24E+05	1.03 Y	1.10	1.10	-0.5%
PCB-54 22'66'-TeCB	18.50	3.13E+05	0.83 Y	1.21	1.13	-6.5%
PCB-50/53 22'46-/22'56'TeCB	20.42	5.97E+05	0.79 Y	0.86	0.80	-6.7%
PCB-45 22'36-TeCB	20.97	2.41E+05	0.77 Y	0.73	0.64	-11.8%
PCB-51 22'46'-TeCB	21.04	3.24E+05	0.81 Y	0.88	0.87	-1.5%
PCB-46 22'36'-TeCB	21.24	2.40E+05	0.80 Y	0.70	0.64	-7.5%
PCB-52 22'55'-TeCB	22.47	3.04E+05	0.85 Y	0.84	0.81	-3.6%
PCB-73 23'5'6TeCB	22.60	3.96E+05	0.76 Y	1.09	1.06	-2.8%
PCB-43 22'35-TeCB	22.68	2.53E+05	0.83 Y	0.72	0.68	-6.3%
PCB-69/49 23'46-/22'45'TeCB	22.88	7.07E+05	0.83 Y	1.01	0.95	-6.6%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:10

Lab ID: CS0_120725_PCB_XC
Acquired: 26-JUL-2012 02:56
Datafile: 120725X15
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.14	3.06E+05	0.80 Y	0.85	0.82	-3.9%
PCB-44/47/65 22'35'-/22'44'-	23.36	9.57E+05	0.78 Y	0.89	0.85	-4.1%
PCB-59/62/75 233'6-/2346-/24	23.62	1.21E+06	0.81 Y	1.14	1.08	-5.2%
PCB-42 22'34'-TeCB	23.78	2.63E+05	0.83 Y	0.77	0.70	-8.9%
PCB-41 22'34-TeCB	24.10	2.78E+05	0.78 Y	0.73	0.75	2.5%
PCB-71/40 23'4'6/22'33'-TeCB	24.19	6.22E+05	0.79 Y	0.87	0.83	-3.9%
PCB-64 234'6-TeCB	24.39	4.50E+05	0.75 Y	1.24	1.20	-2.6%
PCB-72 23'55'-TeCB	25.11	4.01E+05	0.79 Y	1.14	1.07	-6.1%
PCB-68 23'45'-TeCB	25.36	4.27E+05	0.85 Y	1.21	1.14	-5.6%
PCB-57 233'5-TeCB	25.72	4.00E+05	0.81 Y	1.11	1.07	-3.3%
PCB-58 233'5-TeCB	25.92	3.76E+05	0.80 Y	1.10	1.01	-8.5%
PCB-67 23'45-TeCB	26.07	4.09E+05	0.83 Y	1.16	1.09	-5.8%
PCB-63 234'5-TeCB	26.29	4.21E+05	0.75 Y	1.22	1.13	-7.4%
PCB-61/70/74/76 2345-/23'4'5	26.57	1.57E+06	0.78 Y	1.13	1.05	-7.2%
PCB-66 23'44'-TeCB	26.85	3.86E+05	0.83 Y	1.08	1.03	-4.0%
PCB-55 233'4-TeCB	26.98	3.82E+05	0.78 Y	1.10	1.02	-6.9%
PCB-56 233'4'-TeCB	27.41	3.76E+05	0.83 Y	1.06	1.01	-4.7%
PCB-60 2344'-TeCB	27.59	3.95E+05	0.80 Y	1.11	1.06	-4.8%
PCB-80 33'55'-TeCB	27.95	4.34E+05	0.85 Y	1.25	1.16	-7.4%
PCB-79 33'45'-TeCB	29.23	4.30E+05	0.80 Y	1.23	1.15	-6.7%
PCB-78 33'45-TeCB	29.70	3.97E+05	0.74 Y	1.08	1.06	-1.6%
PCB-104 22'466'-PeCB	23.30	3.32E+05	0.63 Y	1.25	1.25	-0.4%
PCB-96 22'366'-PeCB	23.60	2.76E+05	0.65 Y	1.08	1.04	-3.4%
PCB-103 22'45'6-PeCB	25.27	2.84E+05	0.58 Y	0.90	0.87	-3.3%
PCB-94 22'356'-PeCB	25.45	2.38E+05	0.55 Y	0.78	0.73	-5.8%
PCB-95 22'35'6-PeCB	25.82	2.51E+05	0.67 Y	0.83	0.77	-6.9%
PCB-100/93 22'44'6-/22'356-P	26.03	5.21E+05	0.62 Y	0.84	0.80	-5.2%
PCB-102 22'456'-PeCB	26.14	3.18E+05	0.57 Y	0.90	0.98	8.5%
PCB-98 22'3'46-PeCB	26.21	1.93E+05	0.61 Y	0.77	0.59	-23.2%
PCB-88 22'346-PeCB	26.49	2.74E+05	0.68 Y	0.79	0.84	5.8%
PCB-91 22'34'6-PeCB	26.56	2.46E+05	0.57 Y	0.88	0.76	-14.0%
PCB-84 22'33'6-PeCB	26.74	2.19E+05	0.67 Y	0.71	0.67	-5.3%
PCB-89 22'346'-PeCB	27.15	2.33E+05	0.58 Y	0.76	0.72	-6.0%
PCB-121 23'45'6-PeCB	27.52	3.57E+05	0.61 Y	1.14	1.10	-4.2%
PCB-92 22'355'-PeCB	27.82	2.46E+05	0.62 Y	0.80	0.75	-5.8%
PCB-113/90/101 233'5'6-/22'3	28.30	8.78E+05	0.65 Y	0.93	0.90	-4.0%
PCB-83 22'33'5-PeCB	28.72	2.23E+05	0.62 Y	0.71	0.69	-3.8%
PCB-99 22'44'5-PeCB	28.82	2.76E+05	0.55 Y	0.87	0.85	-2.7%
PCB-112 233'56-PeCB	28.91	3.53E+05	0.62 Y	1.13	1.08	-3.8%
PCB-108/119/86/97/125/87 233	29.25	1.81E+06	0.65 Y	0.95	0.92	-2.6%
PCB-117 234'56-PeCB	29.78	3.57E+05	0.60 Y	1.04	1.10	5.4%
PCB-116/85 23456-/22'344'-Pe	29.85	5.87E+05	0.60 Y	0.97	0.90	-7.4%
PCB-110 233'4'6-PeCB	29.97	3.28E+05	0.61 Y	1.02	1.01	-1.4%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:10

Lab ID: CS0_120725_PCB_XC ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 02:56
Datafile: 120725X15

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.06	3.81E+05	0.58 Y	1.16	1.17	1.0%
PCB-82 22'33'4-PeCB	30.24	2.13E+05	0.58 Y	0.69	0.65	-5.3%
PCB-111 233'55'-PeCB	30.59	3.53E+05	0.61 Y	1.15	1.08	-6.1%
PCB-120 23'455'-PeCB	30.98	3.61E+05	0.65 Y	1.16	1.11	-4.5%
PCB-107/124 233'4'5-/2'3455'	31.92	6.64E+05	0.62 Y	1.07	1.02	-5.2%
PCB-109 233'46-PeCB	32.13	3.63E+05	0.67 Y	1.14	1.11	-2.5%
PCB-106 233'45-PeCB	32.34	3.38E+05	0.59 Y	1.07	1.04	-3.2%
PCB-122 2'33'45-PeCB	32.79	3.17E+05	0.61 Y	1.00	0.94	-6.2%
PCB-127 33'455'-PeCB	34.73	3.47E+05	0.59 Y	1.10	1.04	-5.4%
PCB-155 22'44'66'-HxCB	28.15	3.43E+05	1.29 Y	1.09	1.03	-5.4%
PCB-152 22'3566'-HxCB	28.29	3.24E+05	1.38 Y	1.01	0.98	-3.5%
PCB-150 22'34'66'-HxCB	28.44	2.98E+05	1.43 Y	1.00	0.90	-10.6%
PCB-136 22'33'66'-HxCB	28.73	2.97E+05	1.28 Y	0.95	0.89	-6.1%
PCB-145 22'3466'HxCB	28.99	2.86E+05	1.34 Y	0.96	0.86	-10.5%
PCB-148 22'34'56'-HxCB	30.28	2.31E+05	1.31 Y	0.97	0.91	-5.9%
PCB-151/135 22'355'6-/22'33'	30.78	4.71E+05	1.35 Y	0.96	0.93	-3.6%
PCB-154 22'44'5'6-HxCB	30.99	2.60E+05	1.25 Y	1.09	1.03	-5.8%
PCB-144 22'345'6-HxCB	31.25	2.39E+05	1.31 Y	0.98	0.94	-4.0%
PCB-147/149 22'34'56-/22'34'	31.54	4.78E+05	1.23 Y	0.99	0.94	-4.2%
PCB-134 22'33'56-HxCB	31.70	1.87E+05	1.22 Y	0.80	0.74	-7.6%
PCB-143 22'3456'-HxCB	31.78	2.57E+05	1.25 Y	0.95	1.01	6.1%
PCB-139/140 22'344'6-/22'344'	32.05	4.78E+05	1.29 Y	1.00	0.94	-5.6%
PCB-131 22'33'46-HxCB	32.21	1.96E+05	1.27 Y	0.85	0.77	-9.2%
PCB-142 22'3456-HxCB	32.34	2.10E+05	1.32 Y	0.87	0.83	-5.3%
PCB-132 22'33'46'-HxCB	32.59	2.19E+05	1.39 Y	0.89	0.86	-2.8%
PCB-133 22'33'55'-HxCB	33.02	2.09E+05	1.37 Y	0.91	0.83	-9.7%
PCB-165 233'55'6-HxCB	33.36	2.71E+05	1.23 Y	1.13	1.07	-5.7%
PCB-146 22'34'55'-HxCB	33.57	2.56E+05	1.31 Y	1.01	1.01	0.4%
PCB-161 233'45'6-HxCB	33.68	2.98E+05	1.18 Y	1.25	1.17	-6.3%
PCB-153/168 22'44'55'-/23'44'	34.11	6.14E+05	1.27 Y	1.22	1.21	-0.6%
PCB-141 22'3455'-HxCB	34.24	2.25E+05	1.29 Y	0.93	0.89	-4.1%
PCB-130 22'33'45'-HxCB	34.58	2.15E+05	1.27 Y	0.85	0.85	0.0%
PCB-137 22'344'5-HxCB	34.77	2.40E+05	1.22 Y	1.04	0.95	-9.1%
PCB-164 233'4'5'6-HxCB	34.86	3.03E+05	1.16 Y	1.22	1.19	-2.4%
PCB-163/138/129 233'4'56-/22'	35.14	7.45E+05	1.17 Y	1.02	0.98	-4.3%
PCB-160 233'456-HxCB	35.27	3.03E+05	1.28 Y	1.21	1.20	-1.0%
PCB-158 233'44'6-HxCB	35.46	3.27E+05	1.31 Y	1.34	1.29	-3.4%
PCB-128/166 22'33'44'-/2344'5	36.17	5.81E+05	1.25 Y	0.90	0.86	-4.6%
PCB-159 233'455'-HxCB	37.01	3.50E+05	1.21 Y	1.06	1.03	-2.8%
PCB-162 233'4'55'-HxCB	37.25	3.55E+05	1.25 Y	1.08	1.05	-2.6%
PCB-188 22'34'566'-HpCB	32.96	2.48E+05	1.05 Y	1.03	0.93	-9.6%
PCB-179 22'33'566'-HpCB	33.22	2.45E+05	1.04 Y	0.97	0.92	-4.5%
PCB-184 22'344'66'-HpCB	33.69	2.30E+05	0.99 Y	0.93	0.87	-6.9%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:10

Lab ID: CS0_120725_PCB_XC
Acquired: 26-JUL-2012 02:56
Datafile: 120725X15
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.97	2.59E+05	1.07 Y	1.05	0.98	-6.9%
PCB-186 22'34566'-HpCB	34.35	2.47E+05	1.17 Y	0.98	0.93	-5.0%
PCB-178 22'33'55'6-HpCB	35.51	1.89E+05	0.96 Y	0.74	0.71	-3.1%
PCB-175 22'33'45'6-HpCB	36.05	2.19E+05	0.93 Y	1.01	0.93	-7.9%
PCB-187 22'34'55'6-HpCB	36.27	2.28E+05	1.11 Y	1.06	0.97	-9.0%
PCB-182 22'344'56'-HpCB	36.45	2.51E+05	0.94 Y	1.11	1.07	-4.0%
PCB-183 22'344'5'6-HpCB	36.79	2.32E+05	0.93 Y	1.13	0.99	-12.9%
PCB-185 22'3455'6-HpCB	36.86	2.34E+05	1.12 Y	1.02	1.00	-2.3%
PCB-174 22'33'456'-HpCB	36.97	2.09E+05	1.22 N	0.93	0.89	-4.2%
PCB-177 22'33'4'56-HpCB	37.34	2.01E+05	1.01 Y	0.91	0.85	-5.9%
PCB-181 22'344'56-HpCB	37.68	2.47E+05	1.02 Y	1.06	1.05	-1.1%
PCB-171/173 22'33'44'6-/22'3	37.86	4.26E+05	1.10 Y	0.93	0.90	-2.5%
PCB-172 22'33'455'-HpCB	39.23	2.22E+05	1.00 Y	0.95	0.94	-1.3%
PCB-192 233'455'6-HpCB	39.47	2.87E+05	1.06 Y	1.24	1.22	-1.7%
PCB-180/193 22'344'55'-/233'	39.75	5.38E+05	1.02 Y	1.16	1.14	-1.4%
PCB-191 233'44'5'6-HpCB	40.07	3.12E+05	0.97 Y	1.30	1.33	1.7%
PCB-170 22'33'44'5-HpCB	40.82	2.15E+05	0.99 Y	1.07	1.03	-3.7%
PCB-190 233'44'56-HpCB	41.27	2.83E+05	1.05 Y	1.45	1.36	-6.2%
PCB-202 22'33'55'66'-OcCB	37.45	2.31E+05	0.91 Y	0.91	0.90	-1.2%
PCB-201 22'33'45'66'-OcCB	38.23	2.49E+05	0.94 Y	1.02	0.97	-4.5%
PCB-204 22'344'566'-OcCB	38.80	2.58E+05	0.91 Y	0.98	1.01	3.2%
PCB-197 22'33'44'66'-OcCB	38.99	2.71E+05	0.76 Y	1.06	1.06	-0.5%
PCB-200 22'33'4566'-OcCB	39.07	2.37E+05	0.89 Y	0.96	0.93	-3.4%
PCB-198/199 22'33'455'6-/22'	41.40	3.63E+05	0.93 Y	0.72	0.71	-0.8%
PCB-196 22'33'44'56'-OcCB	41.97	1.69E+05	0.95 Y	0.73	0.66	-9.7%
PCB-203 22'344'55'6-OcCB	42.13	1.84E+05	0.93 Y	0.76	0.72	-6.0%
PCB-195 22'33'44'56-OcCB	43.23	1.93E+05	1.01 Y	0.80	0.78	-2.2%
PCB-194 22'33'44'55'-OcCB	45.18	2.13E+05	1.00 Y	0.87	0.86	-1.6%
PCB-205 233'44'55'6-OcCB	45.58	2.69E+05	0.88 Y	1.09	1.09	0.2%
PCB-208 22'33'455'66'-NoCB	43.04	2.38E+05	0.77 Y	1.02	0.97	-4.5%
PCB-207 22'33'44'566'-NoCB	43.82	2.45E+05	0.80 Y	1.06	1.00	-5.7%
PCB-206 22'33'44'55'6-NoCB	47.03	1.71E+05	0.79 Y	0.98	0.95	-2.9%

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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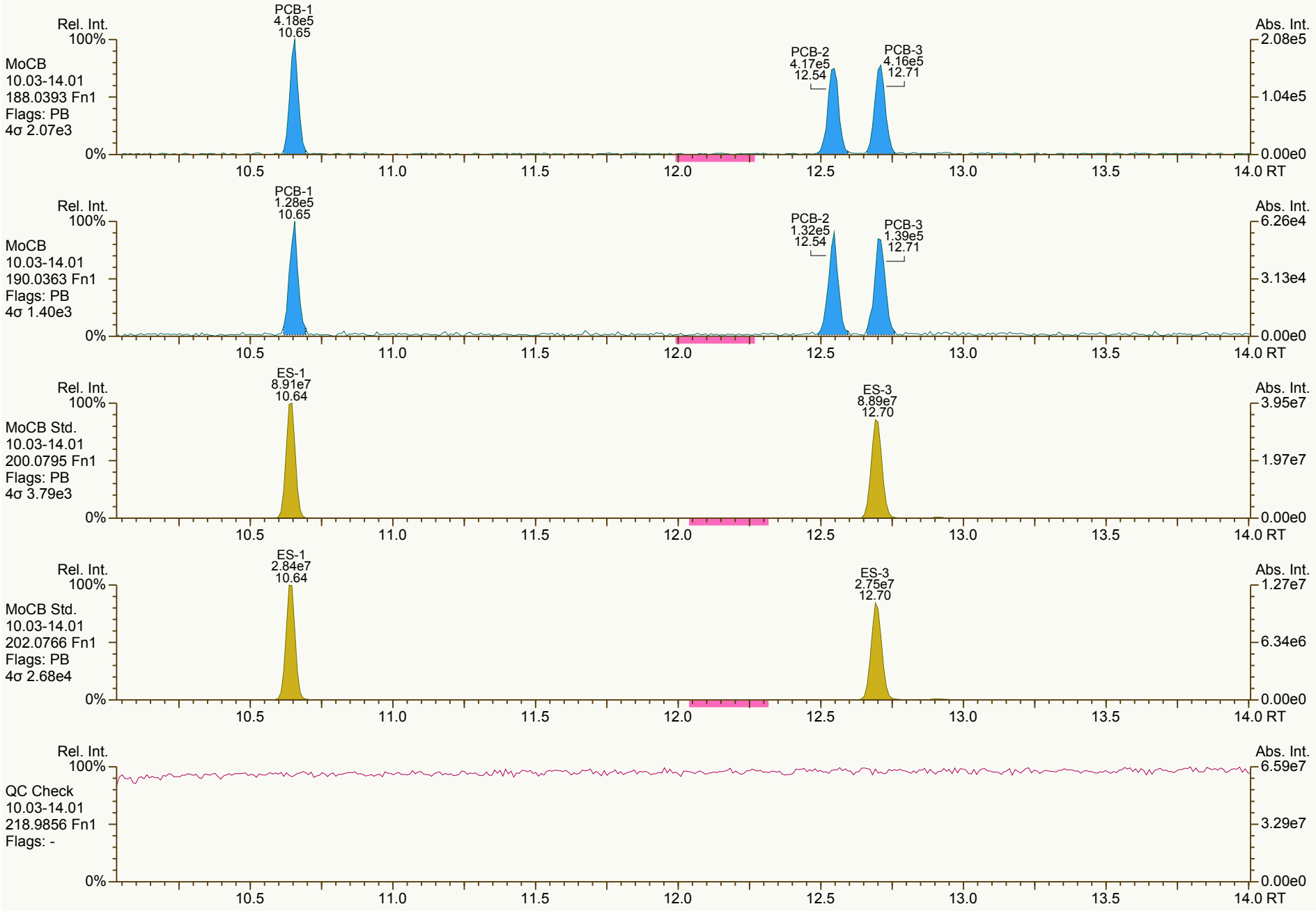

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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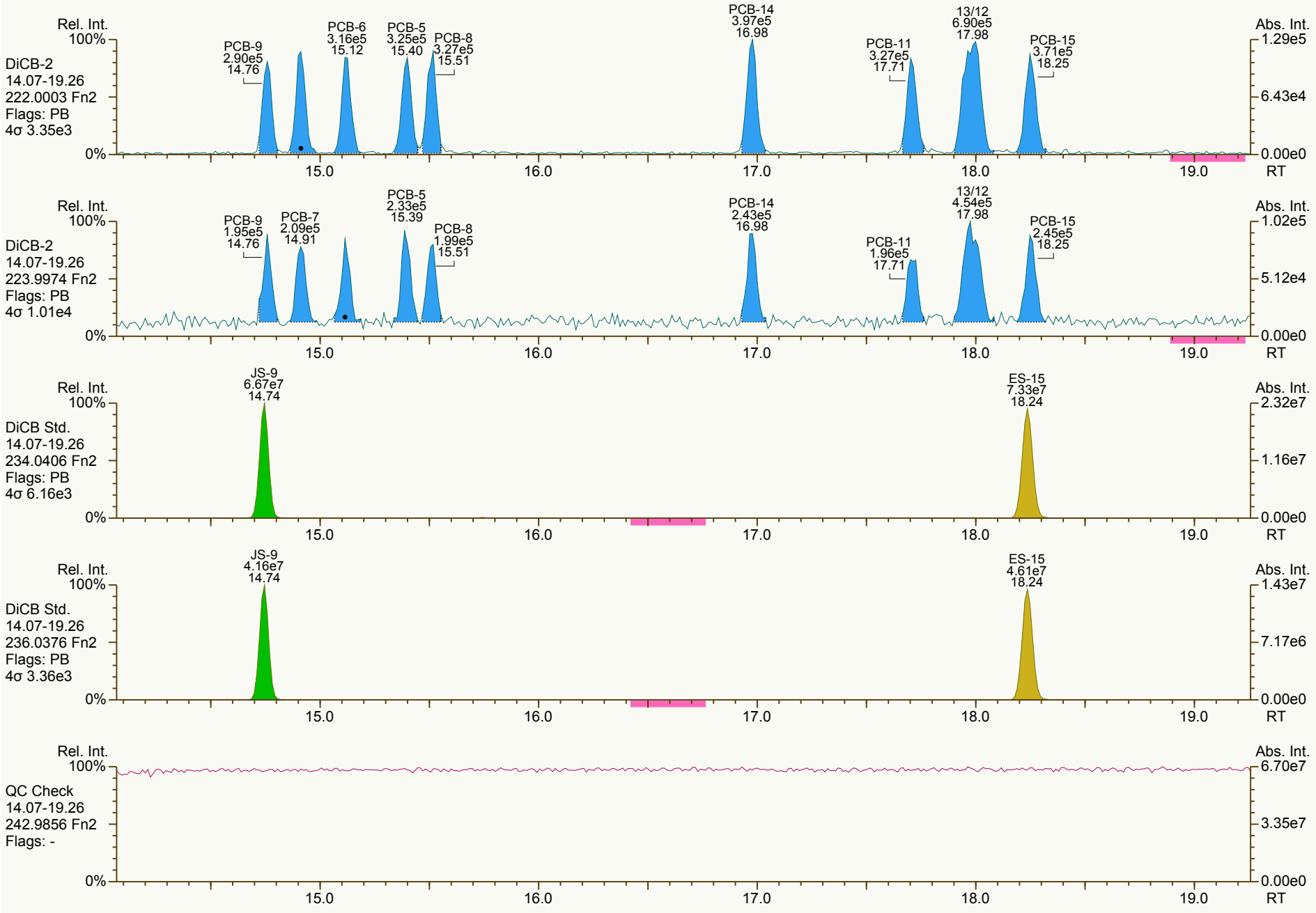

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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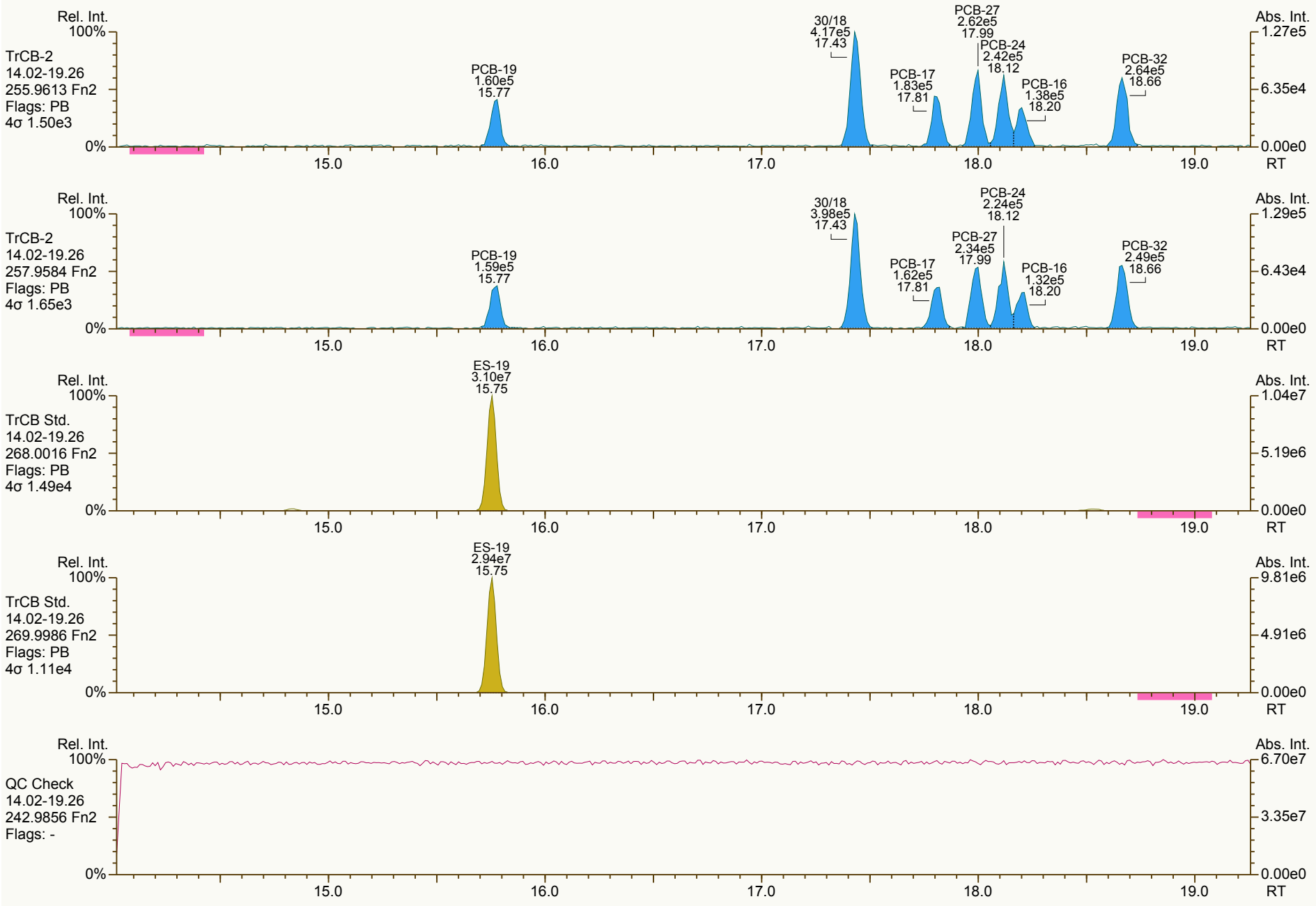

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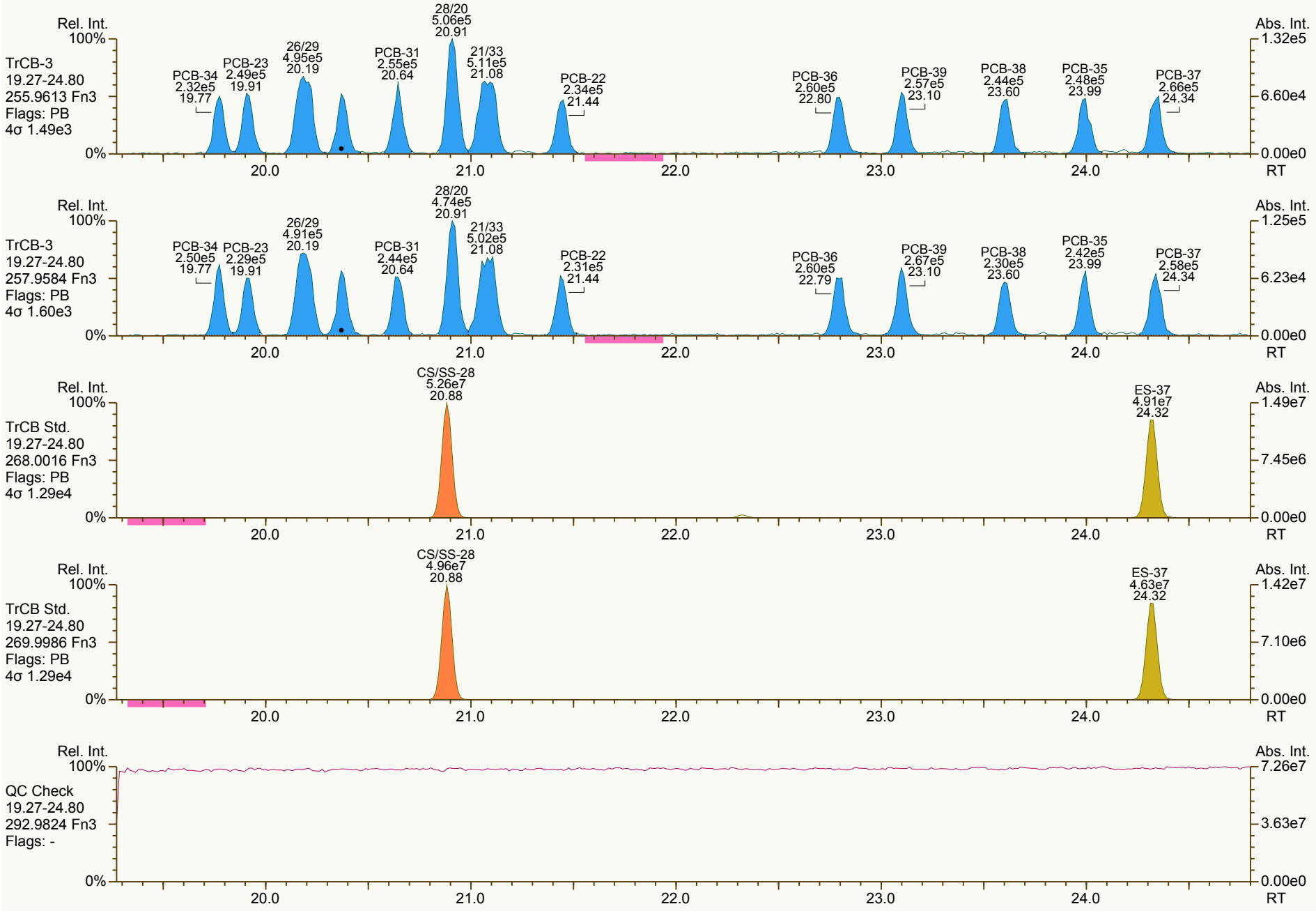

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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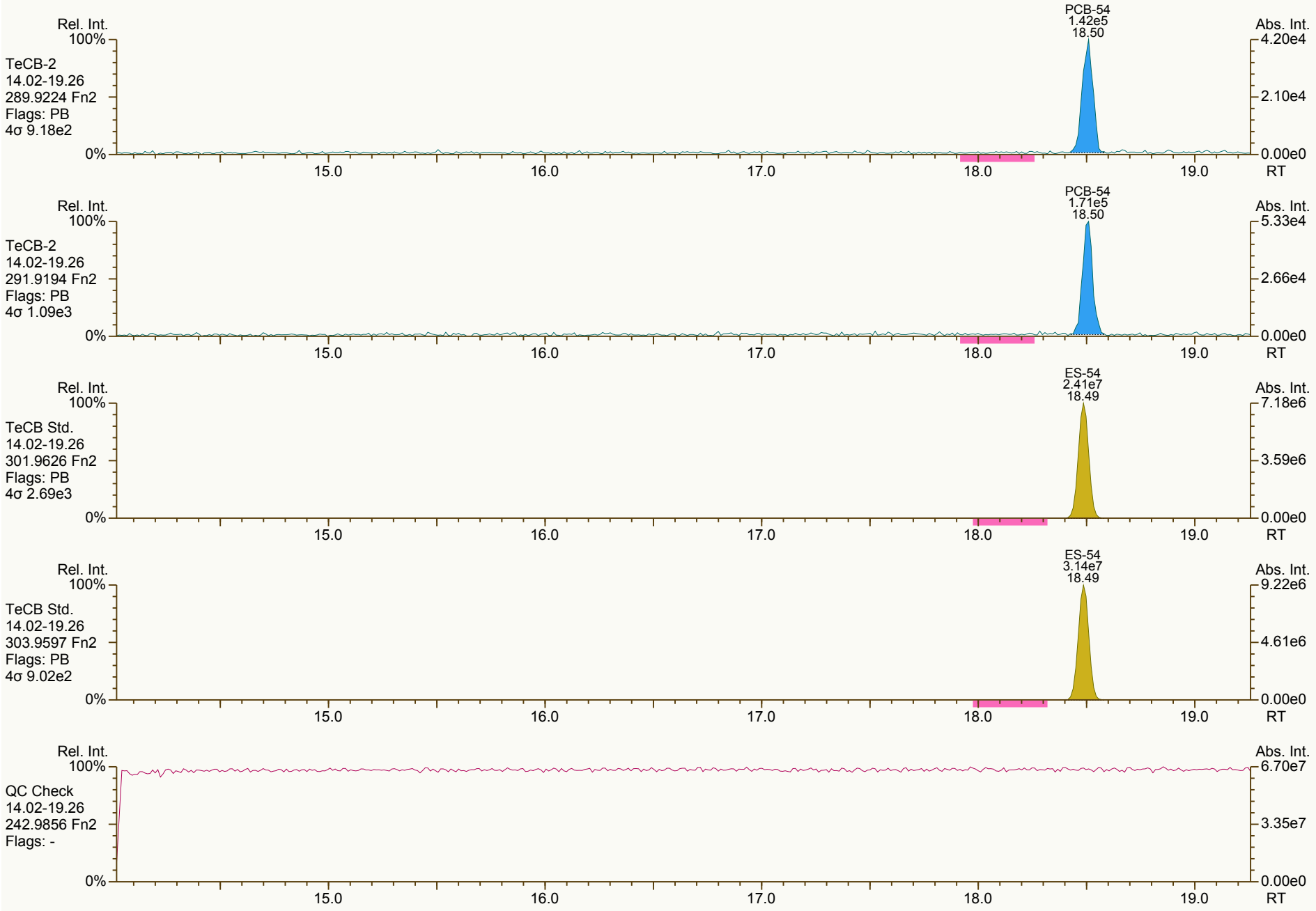

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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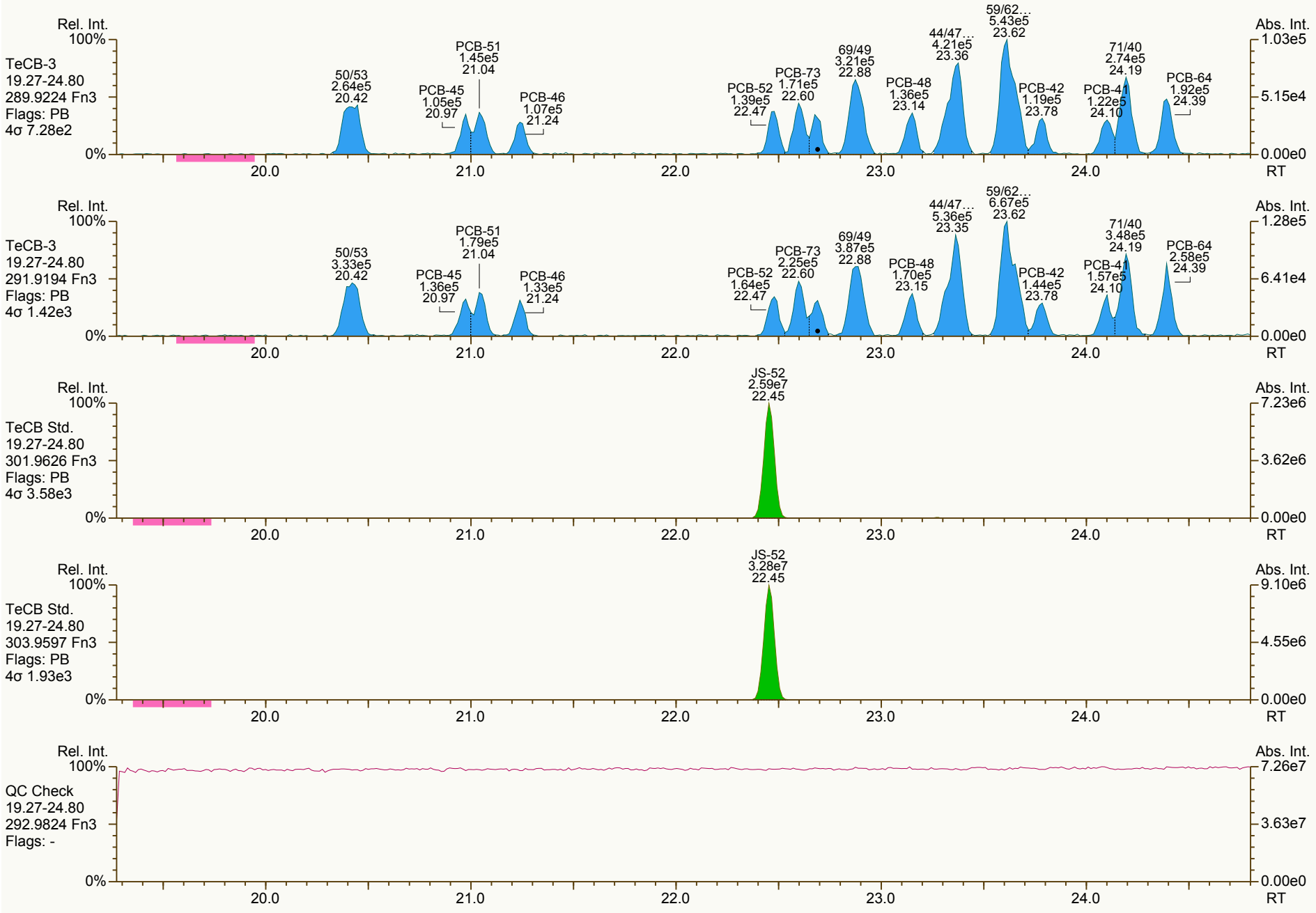

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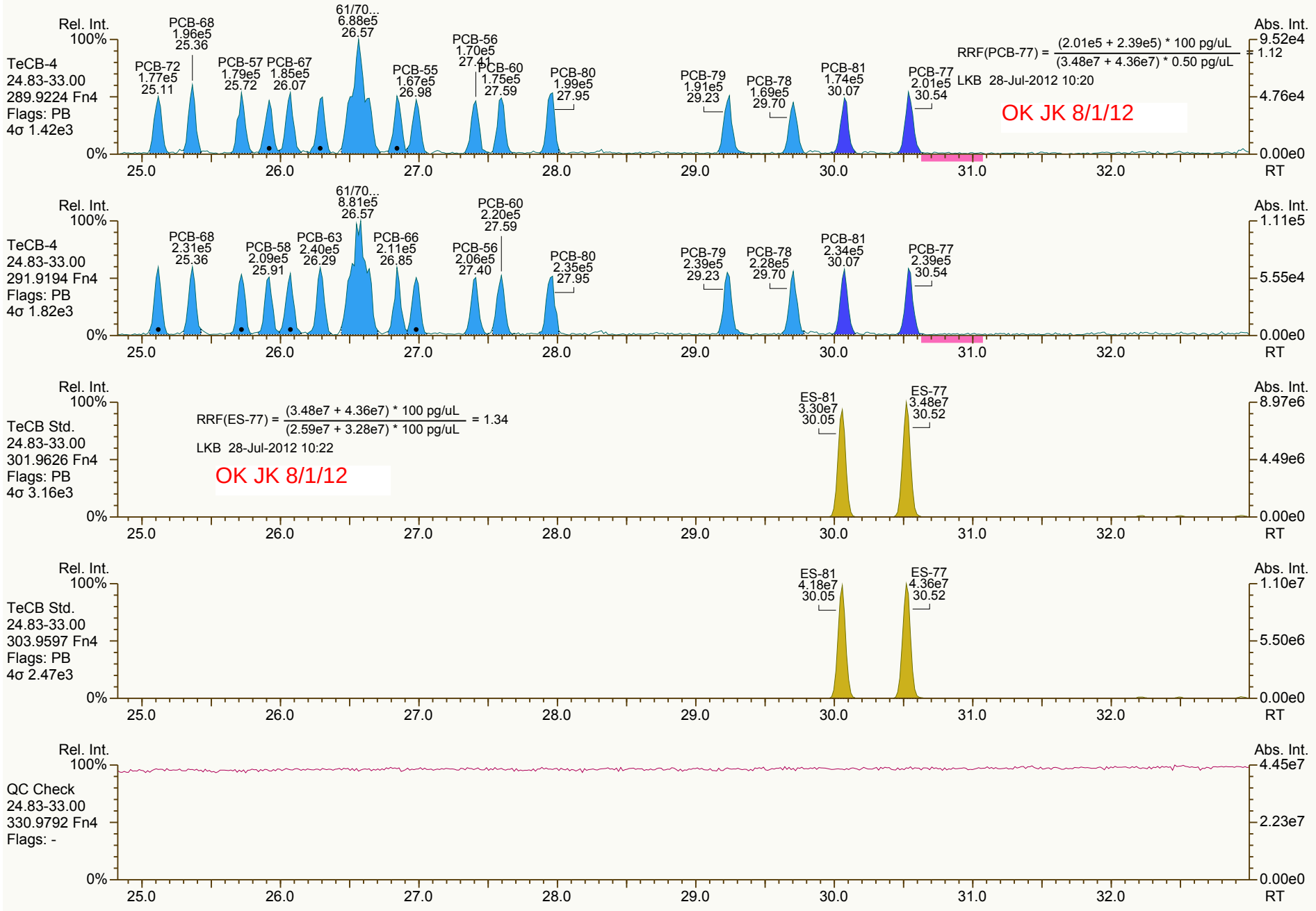

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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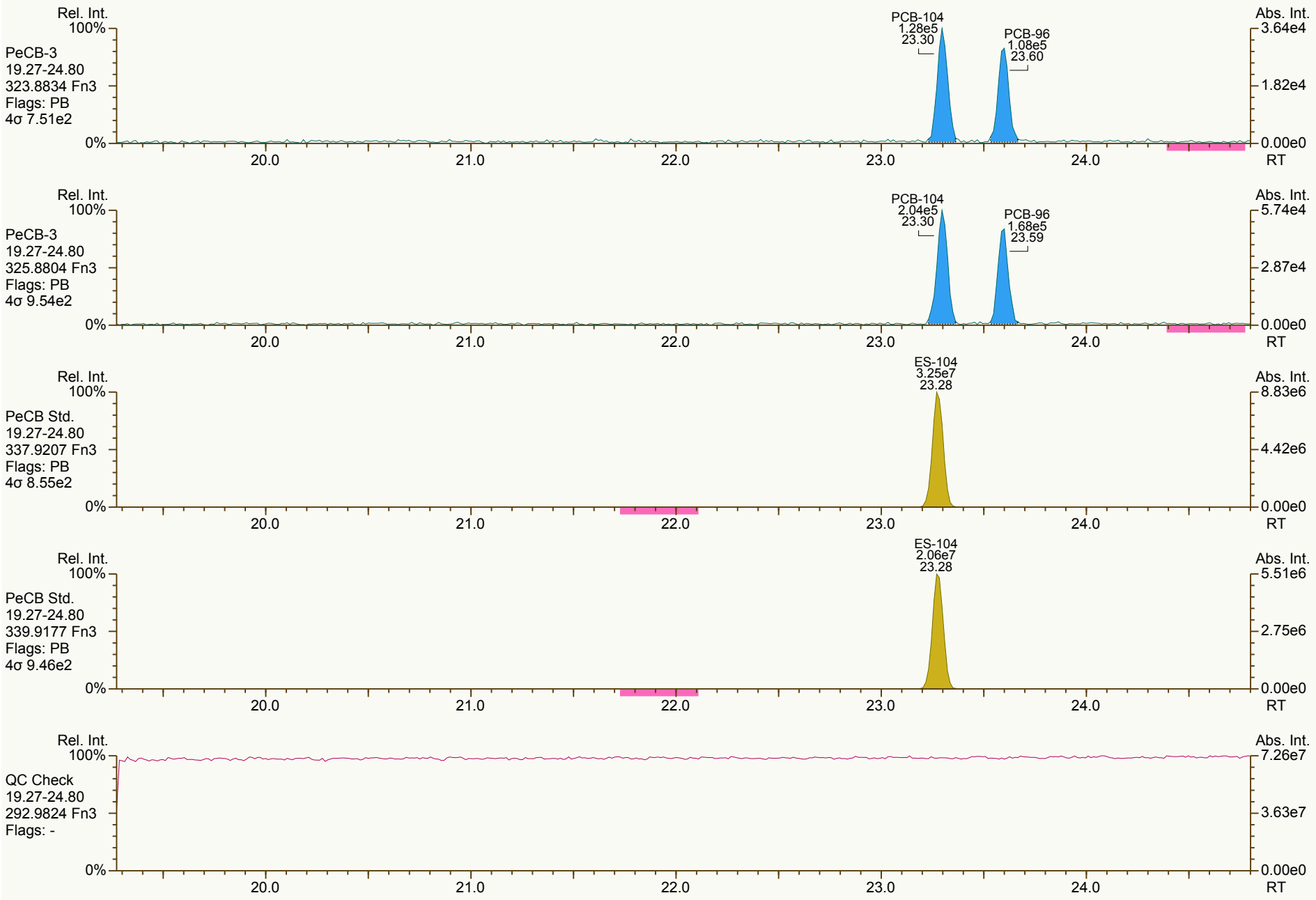

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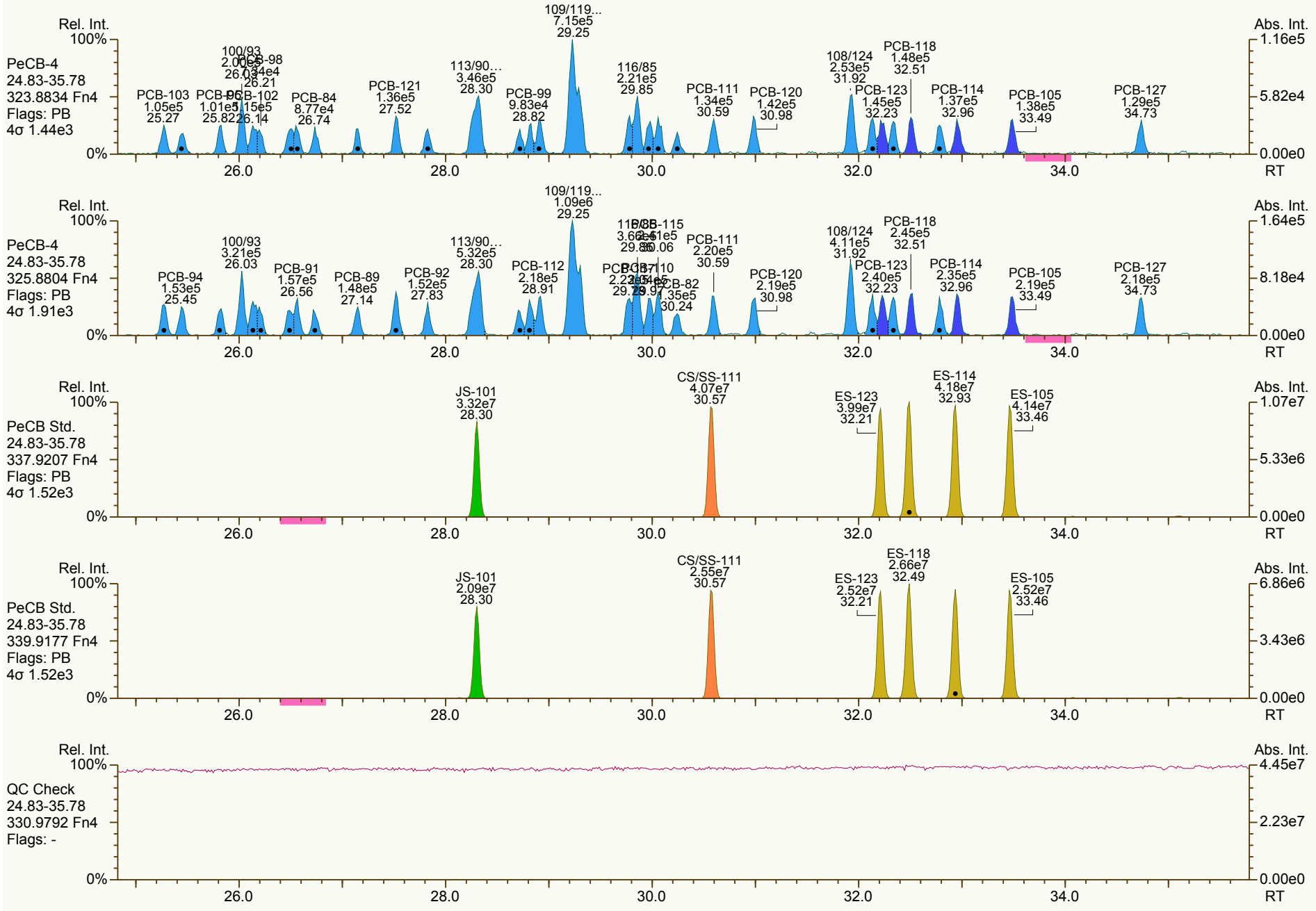

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 5230, 7929 scc: 094-961 *Revised: 27-Jul-2012 10:31 (LKB) Printed: 28-Jul-2012 13:21 Page 13 of 21*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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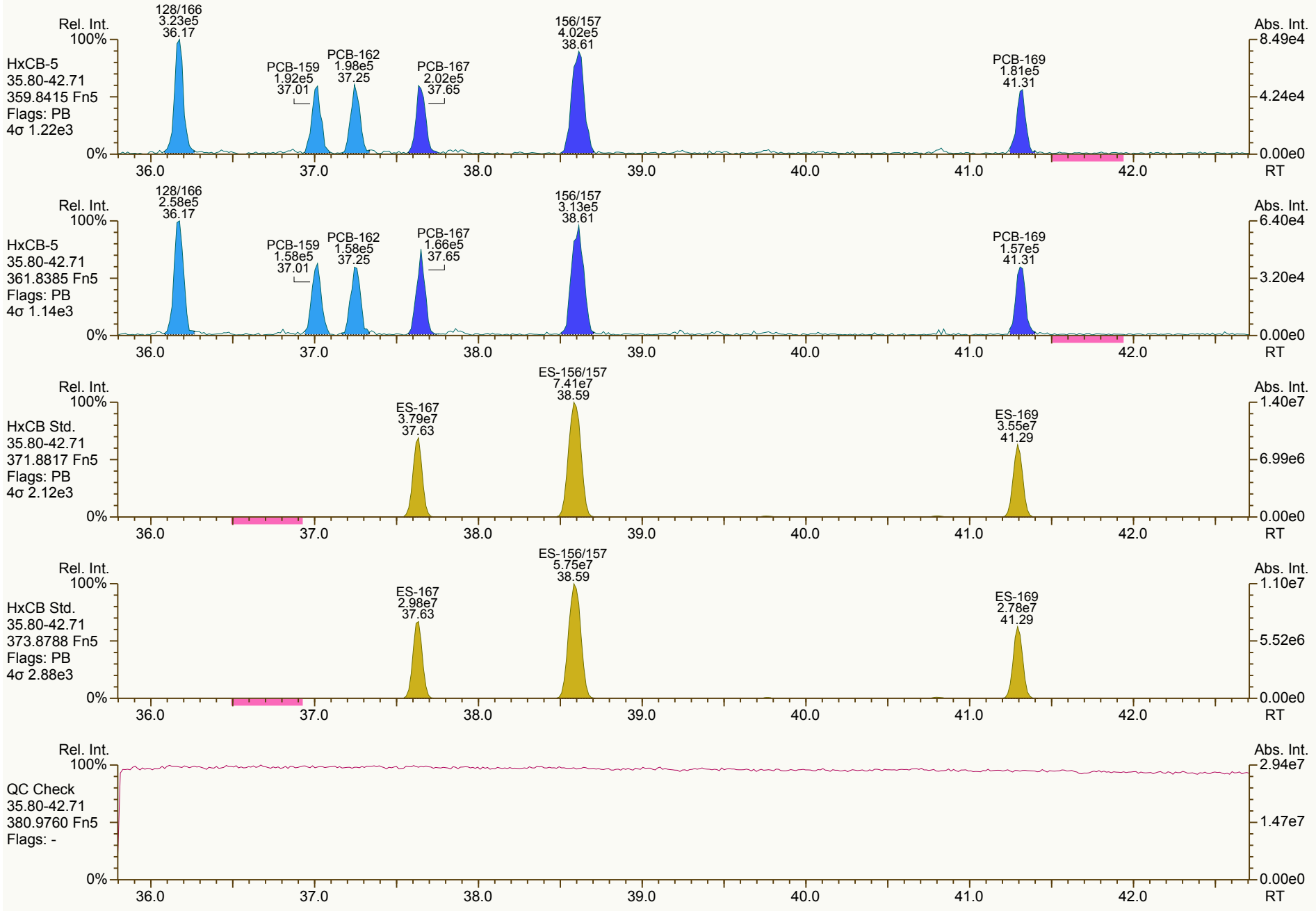

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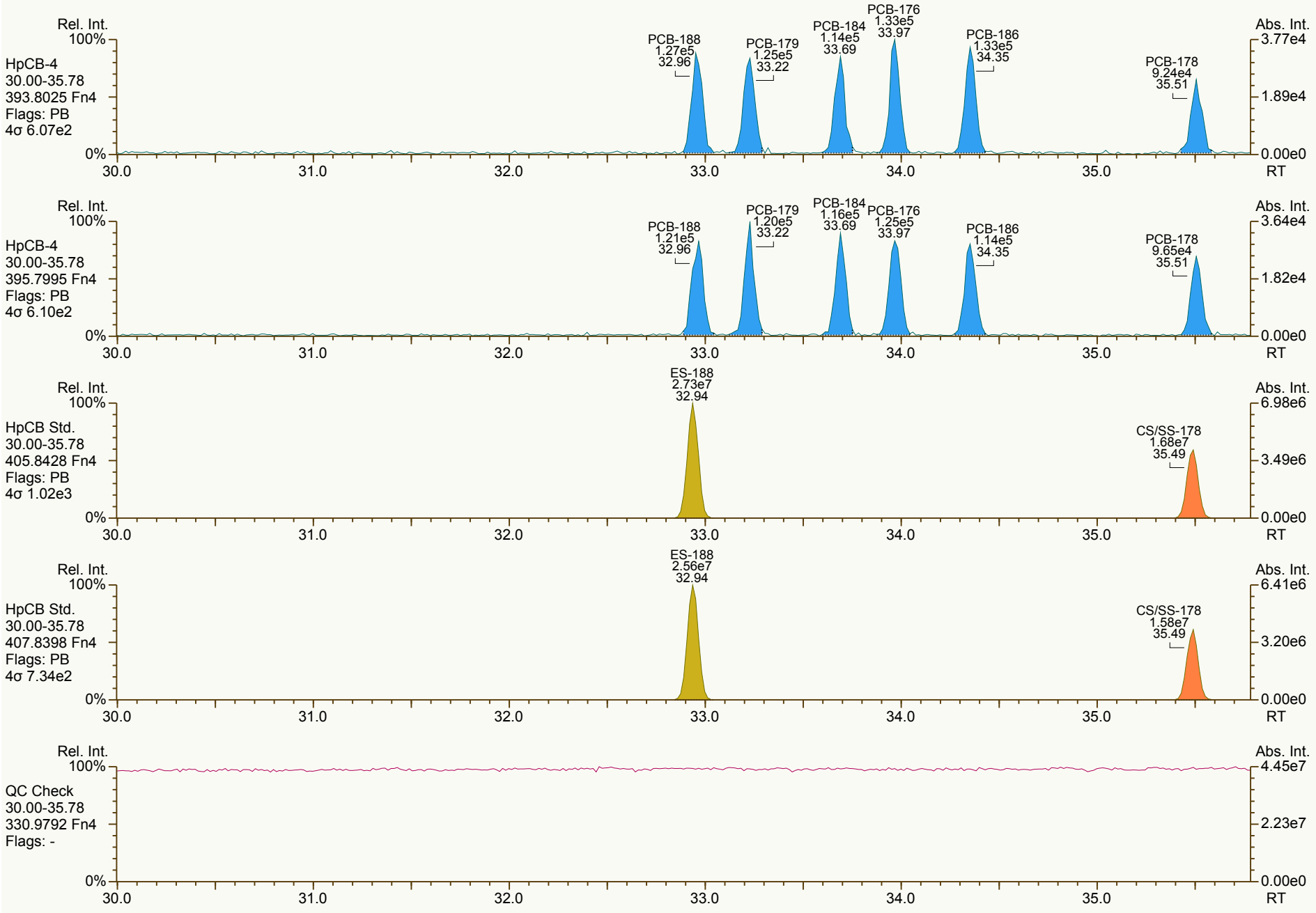

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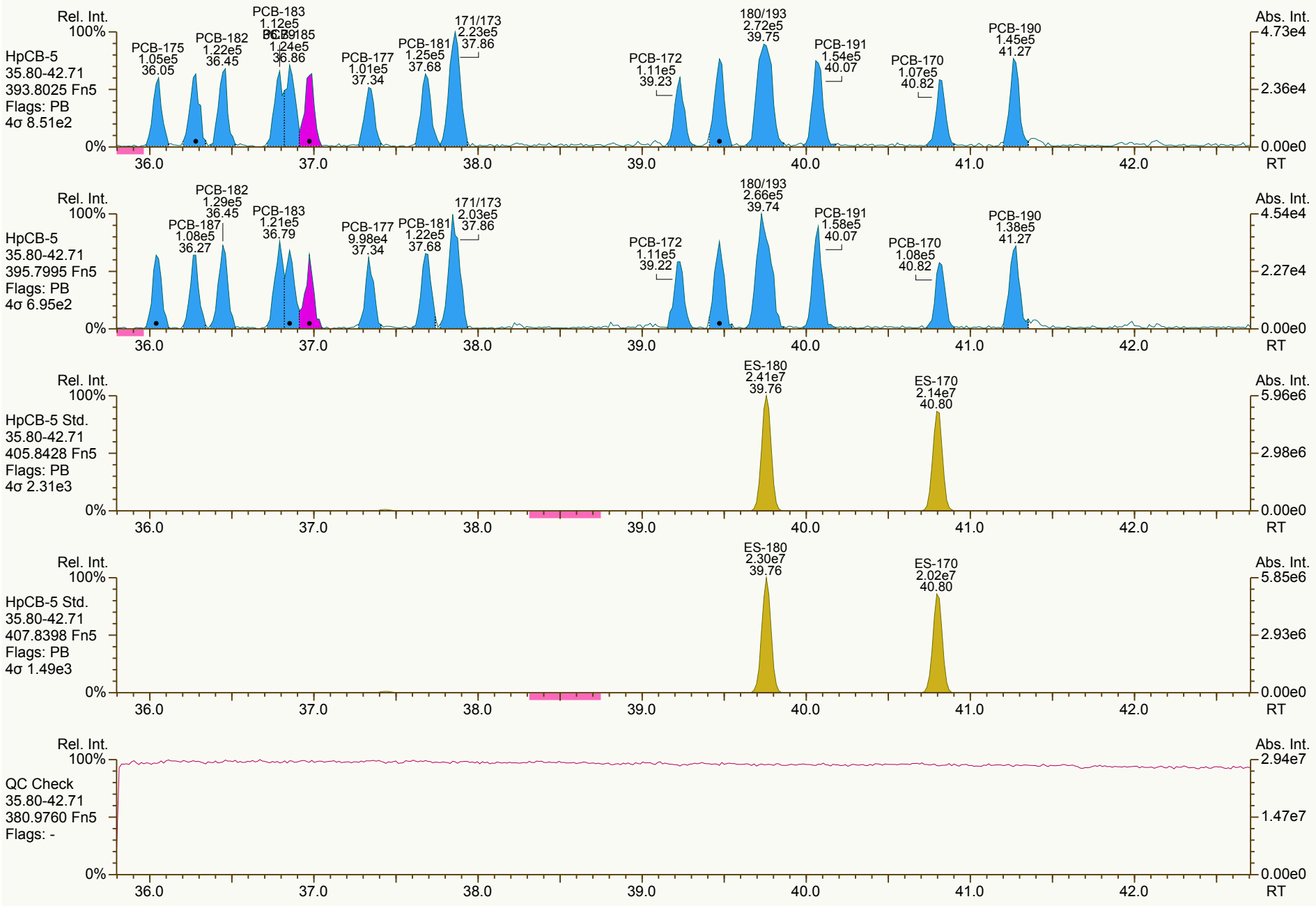

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 3940, 4002 scc: 094-961 *PKD: 27-Jul-2012 15:07 Printed: 28-Jul-2012 13:21 Page 16 of 21*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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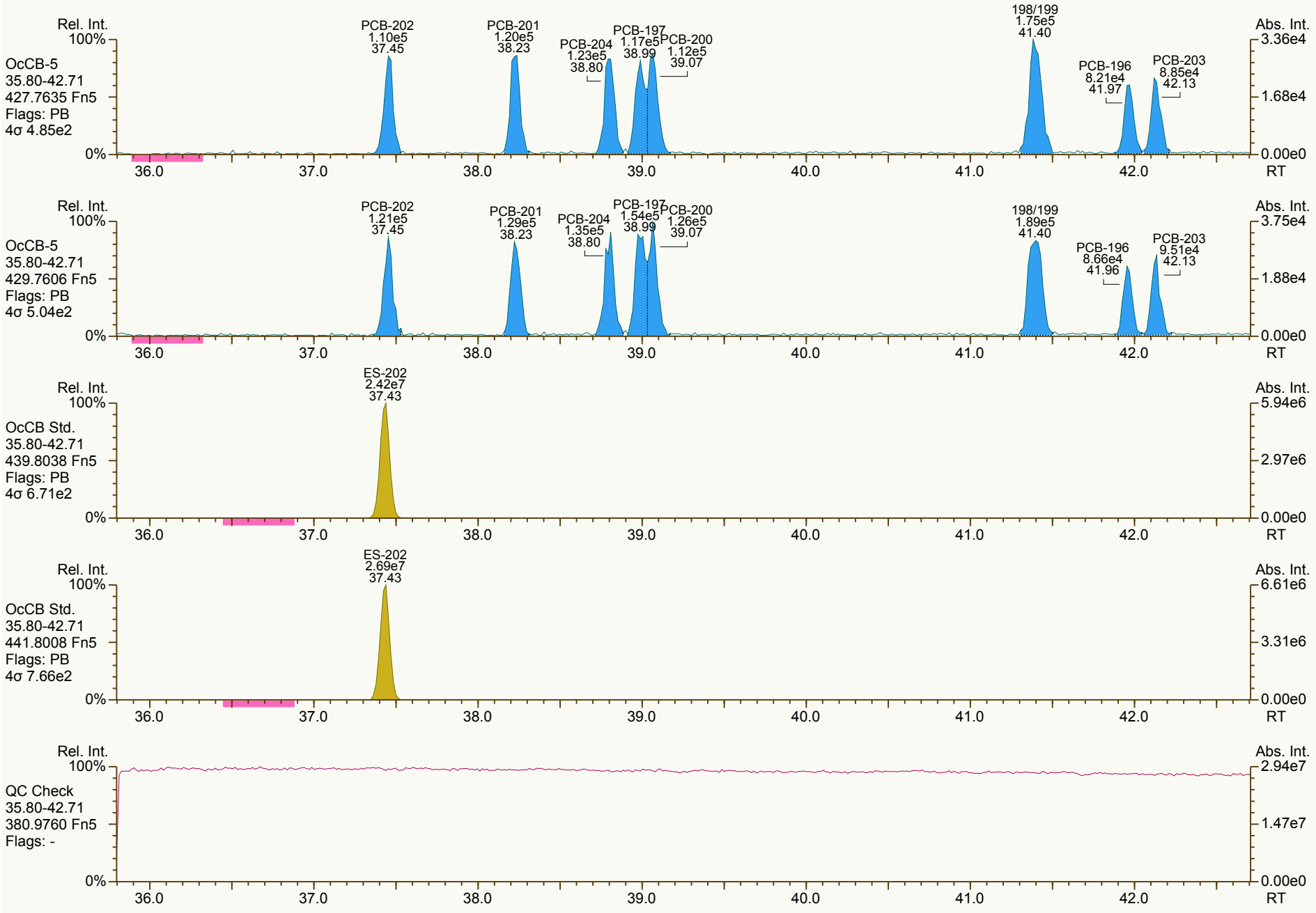

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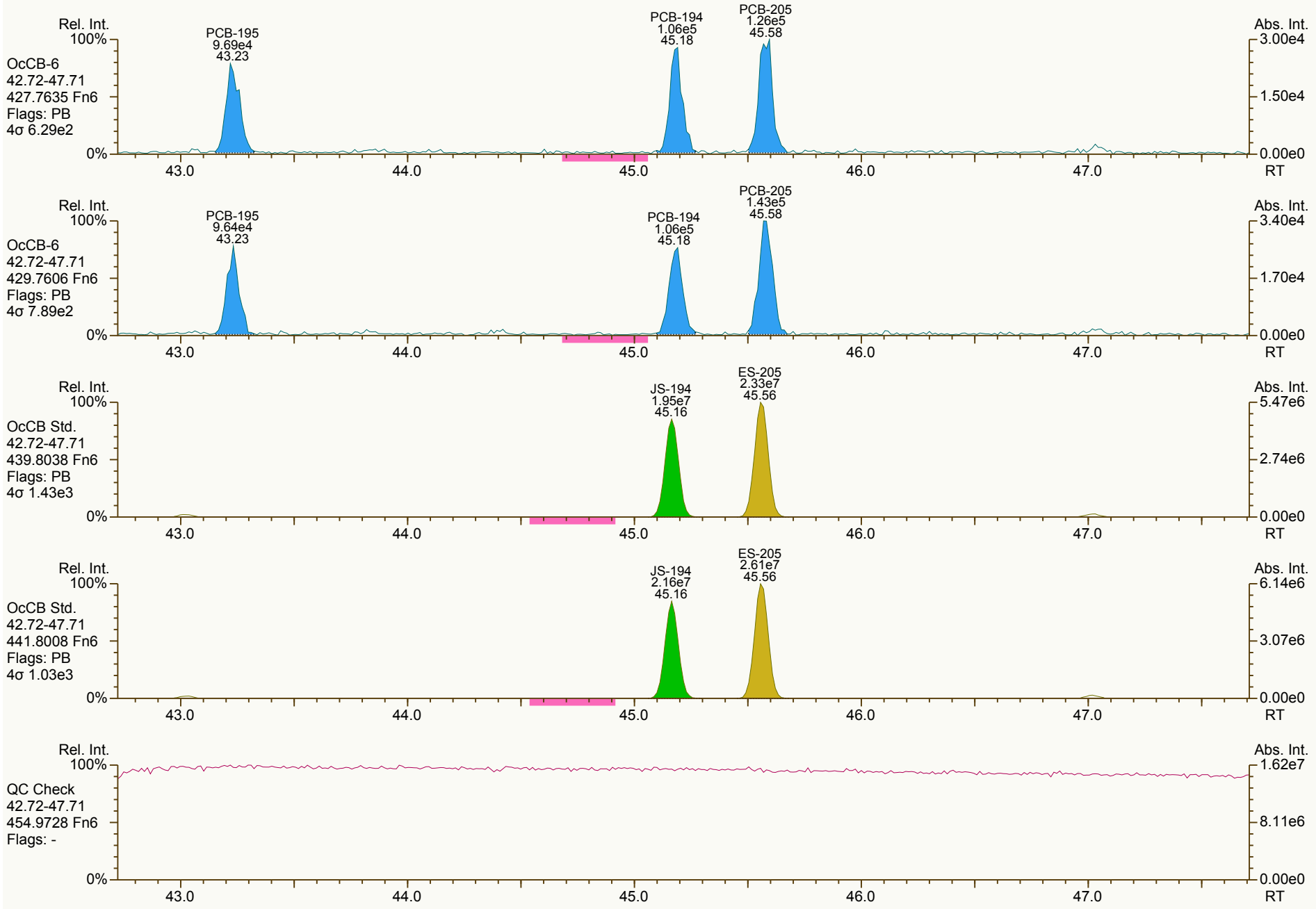
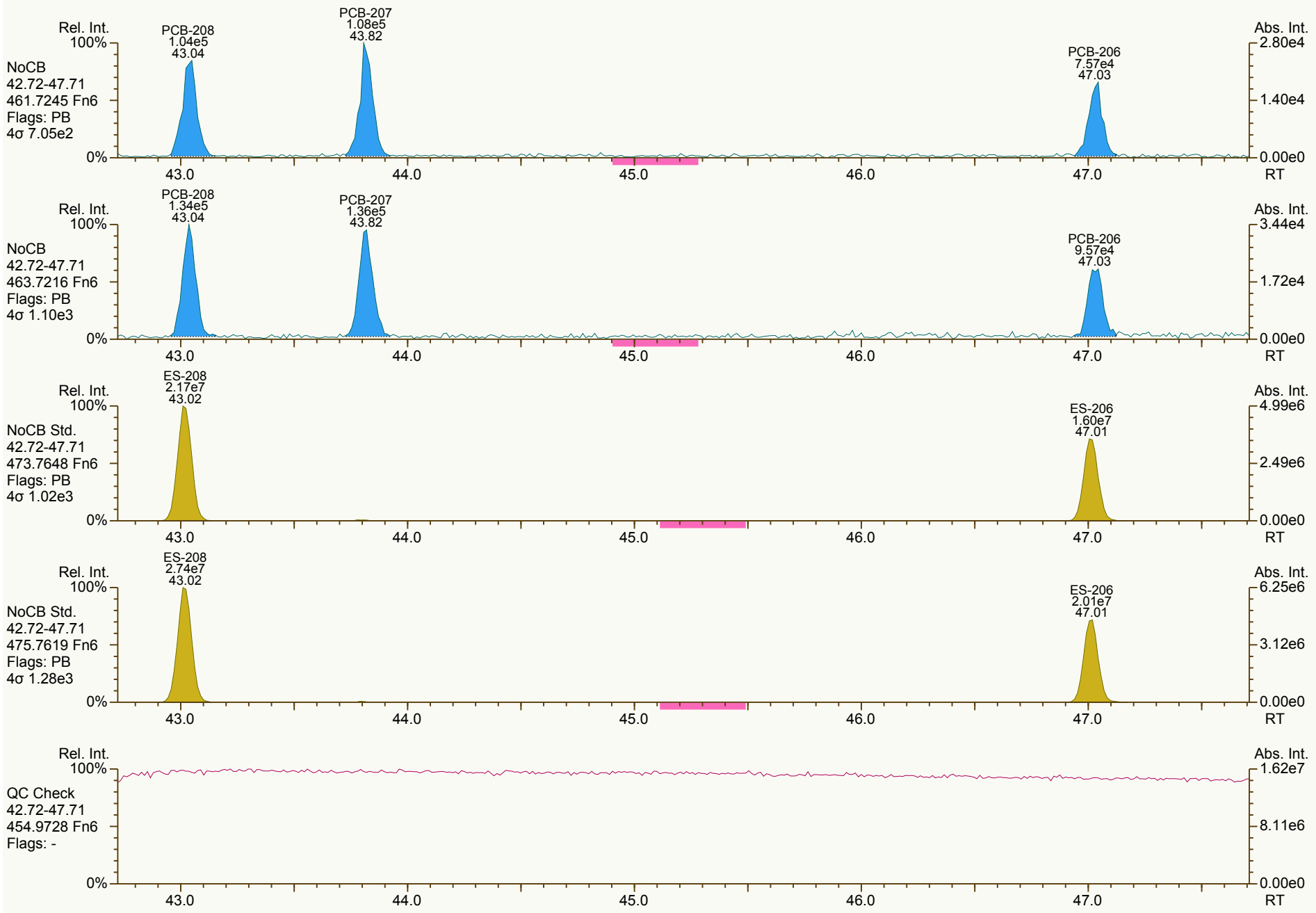
AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

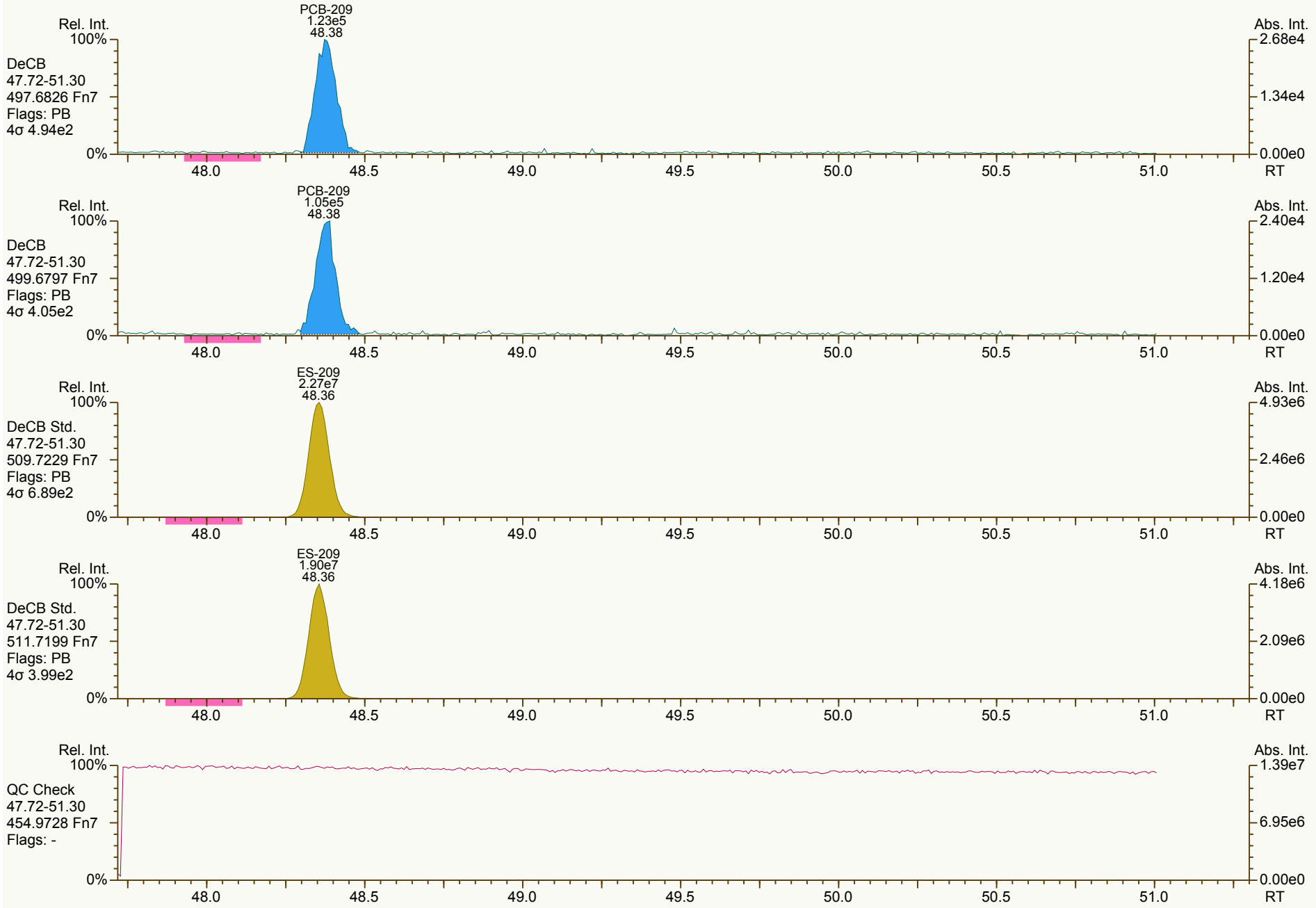
AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 0330, 3304 scc: 094-961 *PKD: 27-Jul-2012 09:41 Printed: 28-Jul-2012 13:21 Page 20 of 21*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:12
Lab ID:	**CS1_120725_PCB_XB**			**ICAL: MM7_PCB_07132012_25JUL12**	
Acquired:	**26-JUL-2012 03:50**				
Datafile:	**120725X16**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.54	8.27E+05	0.81 Y	1.13	1.06	-6.8%
PCB-81 344'5-TeCB	30.07	7.70E+05	0.76 Y	1.13	1.03	-8.6%
PCB-105 233'44'-PeCB	33.49	6.67E+05	0.63 Y	1.09	1.01	-8.1%
PCB-114 2344'5-PeCB	32.96	7.33E+05	0.62 Y	1.16	1.10	-5.6%
PCB-118 23'44'5-PeCB	32.51	7.22E+05	0.63 Y	1.11	1.05	-4.7%
PCB-123 2'344'5-PeCB	32.23	7.33E+05	0.62 Y	1.19	1.12	-6.0%
PCB-126 33'44'5-PeCB	36.08	6.20E+05	0.60 Y	1.06	0.98	-7.7%
PCB-156/157 233'44'5/233'44'5'	38.61	1.37E+06	1.22 Y	1.11	1.07	-3.1%
PCB-167 23'44'55'-HxCB	37.65	7.15E+05	1.16 Y	1.14	1.07	-5.4%
PCB-169 33'44'55'-HxCB	41.31	6.50E+05	1.24 Y	1.11	1.05	-5.4%
PCB-189 233'44'55'-HpCB	43.42	5.97E+05	1.08 Y	1.06	1.00	-5.3%
PCB-209 DeCB	48.37	4.29E+05	1.17 Y	1.07	1.06	-1.3%
ES PCB-1	10.64	1.16E+08	3.19 Y	1.08	1.09	1.0%
ES PCB-3	12.70	1.17E+08	3.25 Y	1.08	1.09	1.1%
ES PCB-4	12.92	5.24E+07	1.62 Y	0.49	0.49	0.7%
ES PCB-15	18.24	1.18E+08	1.59 Y	1.11	1.11	-0.3%
ES PCB-19	15.75	5.95E+07	1.05 Y	0.55	0.56	0.8%
ES PCB-37	24.32	9.40E+07	1.06 Y	1.64	1.62	-1.2%
ES PCB-54	18.49	5.51E+07	0.76 Y	0.94	0.95	0.8%
ES PCB-77	30.52	7.83E+07	0.78 Y	1.35	1.35	0.0%
ES PCB-81	30.05	7.48E+07	0.79 Y	1.29	1.29	-0.1%
ES PCB-104	23.28	5.35E+07	1.57 Y	0.99	1.01	1.5%
ES PCB-105	33.46	6.63E+07	1.62 Y	1.23	1.25	1.3%
ES PCB-114	32.93	6.70E+07	1.60 Y	1.25	1.26	1.1%
ES PCB-118	32.49	6.85E+07	1.62 Y	1.28	1.29	0.7%
ES PCB-123	32.21	6.57E+07	1.60 Y	1.22	1.24	1.6%
ES PCB-126	36.06	6.33E+07	1.55 Y	1.20	1.19	-0.6%
ES PCB-153	34.06	5.10E+07	1.28 Y	1.14	1.15	1.0%
ES PCB-155	28.13	6.59E+07	1.30 Y	1.50	1.49	-0.3%
ES PCB-156/157	38.59	1.28E+08	1.28 Y	1.45	1.45	-0.5%
ES PCB-167	37.63	6.65E+07	1.28 Y	1.49	1.50	0.7%
ES PCB-169	41.29	6.18E+07	1.28 Y	1.40	1.40	-0.5%
ES PCB-170	40.80	4.04E+07	1.06 Y	1.00	0.99	-1.1%
ES PCB-180	39.76	4.65E+07	1.06 Y	1.16	1.14	-1.7%
ES PCB-188	32.94	5.19E+07	1.07 Y	1.18	1.17	-0.3%
ES PCB-189	43.41	5.97E+07	1.04 Y	1.49	1.46	-1.6%
ES PCB-202	37.43	5.04E+07	0.89 Y	1.14	1.14	0.3%
ES PCB-205	45.56	4.86E+07	0.90 Y	1.20	1.19	-0.9%
ES PCB-206	47.01	3.49E+07	0.78 Y	0.87	0.85	-1.7%
ES PCB-208	43.01	4.79E+07	0.80 Y	1.19	1.17	-1.4%
ES PCB-209	48.35	4.05E+07	1.18 Y	1.00	0.99	-1.0%

PCB QC Summary	SGS Analytical Perspectives	Printed: 28-Jul-2012 10:12

Lab ID: CS1_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 03:50
Datafile: 120725X16

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.88	1.02E+08	1.06 Y	1.07	1.09	1.3%
SS PCB-111	30.57	6.52E+07	1.59 Y	1.01	0.99	-1.2%
SS PCB-178	35.49	3.28E+07	1.07 Y	0.63	0.63	0.5%
CS PCB-28	20.88	1.02E+08	1.06 Y	1.76	1.76	0.1%
CS PCB-111	30.57	6.52E+07	1.59 Y	1.23	1.23	0.3%
CS PCB-178	35.49	3.28E+07	1.07 Y	0.74	0.74	0.2%
JS PCB-9	14.74	1.07E+08	1.59 Y	-	-	-
JS PCB-52	22.45	5.82E+07	0.79 Y	-	-	-
JS PCB-101	28.30	5.31E+07	1.57 Y	-	-	-
JS PCB-138	35.10	4.42E+07	1.29 Y	-	-	-
JS PCB-194	45.16	4.08E+07	0.92 Y	-	-	-
PCB-1 2-MoCB	10.65	1.11E+06	3.37 Y	1.03	0.95	-7.7%
PCB-3 4-MoCB	12.71	1.12E+06	3.18 Y	1.04	0.96	-7.9%
PCB-4 22'-DiCB	12.93	5.71E+05	0.00 S	1.17	1.09	-6.7%
PCB-15 44'-DiCB	18.25	1.24E+06	1.58 Y	1.08	1.05	-2.6%
PCB-19 22'6-TrCB	15.77	6.03E+05	1.08 Y	1.09	1.01	-7.2%
PCB-37 344'-TrCB	24.34	9.91E+05	1.03 Y	1.10	1.05	-4.5%
PCB-54 22'66'-TeCB	18.51	6.22E+05	0.82 Y	1.21	1.13	-6.6%
PCB-104 22'466'-PeCB	23.30	6.18E+05	0.67 Y	1.25	1.15	-8.0%
PCB-153 22'44'55' -HxCB	34.11	1.15E+06	1.29 Y	1.22	1.13	-7.3%
PCB-155 22'44'66'-HxCB	28.15	6.98E+05	1.23 Y	1.09	1.06	-2.9%
PCB-170 22'33'44'5-HpCB	40.82	3.98E+05	1.08 Y	1.07	0.99	-8.2%
PCB-180 22'344'55'-HpCB	39.74	9.84E+05	1.05 Y	1.16	1.06	-8.6%
PCB-188 22'34'566'-HpCB	32.96	5.17E+05	1.08 Y	1.03	0.99	-3.8%
PCB-202 22'33'55'66'-OcCB	37.45	4.27E+05	0.84 Y	0.91	0.85	-7.5%
PCB-205 233'44'55'6-OcCB	45.58	4.98E+05	0.88 Y	1.09	1.02	-6.0%
PCB-208 22'33'455'66'-NoCB	43.04	4.58E+05	0.80 Y	1.02	0.96	-6.0%
PCB-206 22'33'44'55'6-NoCB	47.03	3.13E+05	0.74 Y	0.98	0.90	-8.3%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:12

Lab ID: CS1_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 03:50
Datafile: 120725X16

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.65	1.11E+06	3.37 Y	1.03	0.95	-7.7%
PCB-2 3-MoCB	12.54	1.09E+06	3.11 Y	1.04	0.93	-10.5%
PCB-3 4-MoCB	12.71	1.12E+06	3.18 Y	1.04	0.96	-7.9%
PCB-4 22'-DiCB	12.93	5.71E+05	0.00 S	1.17	1.09	-6.7%
PCB-10 26-DiCB	13.10	8.68E+05	1.66 Y	1.83	1.66	-9.5%
PCB-9 25-DiCB	14.76	9.88E+05	1.58 Y	0.89	0.84	-6.4%
PCB-7 24-DiCB	14.91	1.14E+06	1.45 Y	1.02	0.97	-5.2%
PCB-6 23'-DiCB	15.12	1.02E+06	1.62 Y	0.95	0.87	-8.5%
PCB-5 23-DiCB	15.40	1.05E+06	1.58 Y	0.97	0.89	-8.3%
PCB-8 24'-DiCB	15.51	1.07E+06	1.55 Y	0.98	0.91	-7.9%
PCB-14 35-DiCB	16.98	1.28E+06	1.65 Y	1.16	1.09	-6.1%
PCB-11 33'-DiCB	17.71	1.12E+06	1.57 Y	1.00	0.95	-4.7%
PCB-13/12 34'-/34-DiCB	17.98	2.20E+06	1.58 Y	1.02	0.93	-8.2%
PCB-15 44'-DiCB	18.25	1.24E+06	1.58 Y	1.08	1.05	-2.6%
PCB-19 22'6-TrCB	15.77	6.03E+05	1.08 Y	1.09	1.01	-7.2%
PCB-30/18 246-/22'5-TrCB	17.43	1.61E+06	1.13 Y	1.46	1.35	-7.3%
PCB-17 22'4-TrCB	17.81	6.92E+05	1.12 Y	1.25	1.16	-7.0%
PCB-27 23'6-TrCB	17.99	9.34E+05	1.10 Y	1.69	1.57	-7.2%
PCB-24 236-TrCB	18.12	9.00E+05	1.03 Y	1.63	1.51	-7.4%
PCB-16 22'3-TrCB	18.20	5.04E+05	1.13 Y	0.95	0.85	-11.1%
PCB-32 24'6-TrCB	18.66	9.95E+05	1.03 Y	1.79	1.67	-6.4%
PCB-34 2'35-TrCB	19.77	9.06E+05	1.07 Y	1.05	0.96	-8.0%
PCB-23 235-TrCB	19.91	9.26E+05	1.03 Y	1.06	0.99	-6.8%
PCB-26/29 23'5-/245-TrCB	20.19	1.92E+06	1.04 Y	1.09	1.02	-6.1%
PCB-25 23'4-TrCB	20.37	9.37E+05	1.10 Y	1.07	1.00	-7.2%
PCB-31 24'5-TrCB	20.64	9.80E+05	1.09 Y	1.11	1.04	-6.1%
PCB-28/20 244'-/233'-TrCB	20.91	1.90E+06	1.04 Y	1.07	1.01	-5.5%
PCB-21/33 234-/2'34-TrCB	21.08	1.91E+06	1.08 Y	1.09	1.02	-7.0%
PCB-22 234'-TrCB	21.44	9.06E+05	1.05 Y	1.02	0.96	-5.1%
PCB-36 33'5-TrCB	22.79	1.02E+06	1.01 Y	1.13	1.08	-3.8%
PCB-39 34'5-TrCB	23.10	1.03E+06	1.00 Y	1.17	1.09	-6.3%
PCB-38 345-TrCB	23.60	8.98E+05	1.05 Y	1.03	0.96	-7.4%
PCB-35 33'4-TrCB	23.99	9.20E+05	1.04 Y	1.04	0.98	-5.9%
PCB-37 344'-TrCB	24.34	9.91E+05	1.03 Y	1.10	1.05	-4.5%
PCB-54 22'66'-TeCB	18.51	6.22E+05	0.82 Y	1.21	1.13	-6.6%
PCB-50/53 22'46-/22'56'TeCB	20.42	1.22E+06	0.78 Y	0.86	0.82	-4.4%
PCB-45 22'36-TeCB	20.97	4.79E+05	0.80 Y	0.73	0.64	-12.4%
PCB-51 22'46'-TeCB	21.04	6.28E+05	0.80 Y	0.88	0.84	-4.5%
PCB-46 22'36'-TeCB	21.24	4.90E+05	0.84 Y	0.70	0.66	-5.8%
PCB-52 22'55'-TeCB	22.48	5.89E+05	0.79 Y	0.84	0.79	-6.5%
PCB-73 23'5'6TeCB	22.60	7.75E+05	0.78 Y	1.09	1.04	-5.0%
PCB-43 22'35-TeCB	22.69	4.90E+05	0.82 Y	0.72	0.65	-9.5%
PCB-69/49 23'46-/22'45'TeCB	22.88	1.41E+06	0.82 Y	1.01	0.94	-6.8%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:12

Lab ID: CS1_120725_PCB_XB
Acquired: 26-JUL-2012 03:50
Datafile: 120725X16
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.15	5.88E+05	0.77 Y	0.85	0.79	-7.6%
PCB-44/47/65 22'35'-/22'44'-	23.35	1.83E+06	0.79 Y	0.89	0.82	-8.2%
PCB-59/62/75 233'6-/2346-/24	23.62	2.35E+06	0.80 Y	1.14	1.05	-8.1%
PCB-42 22'34'-TeCB	23.78	5.42E+05	0.79 Y	0.77	0.72	-6.1%
PCB-41 22'34-TeCB	24.10	5.22E+05	0.77 Y	0.73	0.70	-4.0%
PCB-71/40 23'4'6/22'33'-TeCB	24.19	1.18E+06	0.80 Y	0.87	0.79	-8.8%
PCB-64 234'6-TeCB	24.39	8.72E+05	0.78 Y	1.24	1.17	-5.7%
PCB-72 23'55'-TeCB	25.12	7.90E+05	0.75 Y	1.14	1.06	-7.6%
PCB-68 23'45'-TeCB	25.36	8.26E+05	0.79 Y	1.21	1.10	-8.7%
PCB-57 233'5-TeCB	25.72	7.56E+05	0.74 Y	1.11	1.01	-8.6%
PCB-58 233'5-TeCB	25.91	7.56E+05	0.78 Y	1.10	1.01	-8.1%
PCB-67 23'45-TeCB	26.07	8.25E+05	0.83 Y	1.16	1.10	-5.0%
PCB-63 234'5-TeCB	26.29	8.45E+05	0.76 Y	1.22	1.13	-7.1%
PCB-61/70/74/76 2345-/23'4'5	26.57	3.11E+06	0.79 Y	1.13	1.04	-8.2%
PCB-66 23'44'-TeCB	26.85	7.41E+05	0.82 Y	1.08	0.99	-7.8%
PCB-55 233'4-TeCB	26.98	7.70E+05	0.74 Y	1.10	1.03	-6.2%
PCB-56 233'4'-TeCB	27.40	7.27E+05	0.74 Y	1.06	0.97	-8.0%
PCB-60 2344'-TeCB	27.59	7.66E+05	0.74 Y	1.11	1.02	-7.9%
PCB-80 33'55'-TeCB	27.95	8.69E+05	0.77 Y	1.25	1.16	-7.3%
PCB-79 33'45'-TeCB	29.23	8.68E+05	0.81 Y	1.23	1.16	-5.9%
PCB-78 33'45-TeCB	29.70	7.54E+05	0.72 Y	1.08	1.01	-6.7%
PCB-104 22'466'-PeCB	23.30	6.18E+05	0.67 Y	1.25	1.15	-8.0%
PCB-96 22'366'-PeCB	23.60	5.55E+05	0.66 Y	1.08	1.04	-3.6%
PCB-103 22'45'6-PeCB	25.27	5.59E+05	0.64 Y	0.90	0.85	-5.6%
PCB-94 22'356'-PeCB	25.45	4.73E+05	0.62 Y	0.78	0.72	-7.2%
PCB-95 22'35'6-PeCB	25.82	4.87E+05	0.62 Y	0.83	0.74	-10.3%
PCB-100/93 22'44'6-/22'356-P	26.03	1.03E+06	0.61 Y	0.84	0.78	-7.0%
PCB-102 22'456'-PeCB	26.13	5.18E+05	0.58 Y	0.90	0.79	-12.4%
PCB-98 22'3'46-PeCB	26.20	5.12E+05	0.59 Y	0.77	0.78	0.9%
PCB-88 22'346-PeCB	26.49	4.69E+05	0.65 Y	0.79	0.71	-10.0%
PCB-91 22'34'6-PeCB	26.56	5.55E+05	0.63 Y	0.88	0.84	-4.0%
PCB-84 22'33'6-PeCB	26.74	4.30E+05	0.60 Y	0.71	0.65	-7.9%
PCB-89 22'346'-PeCB	27.14	4.69E+05	0.64 Y	0.76	0.71	-6.1%
PCB-121 23'45'6-PeCB	27.52	7.02E+05	0.66 Y	1.14	1.07	-6.5%
PCB-92 22'355'-PeCB	27.83	4.88E+05	0.63 Y	0.80	0.74	-7.0%
PCB-113/90/101 233'5'6-/22'3	28.30	1.74E+06	0.63 Y	0.93	0.88	-5.6%
PCB-83 22'33'5-PeCB	28.71	4.47E+05	0.59 Y	0.71	0.68	-4.6%
PCB-99 22'44'5-PeCB	28.82	4.93E+05	0.65 Y	0.87	0.75	-13.9%
PCB-112 233'56-PeCB	28.91	7.32E+05	0.58 Y	1.13	1.11	-1.0%
PCB-108/119/86/97/125/87 233	29.25	3.48E+06	0.61 Y	0.95	0.88	-6.9%
PCB-117 234'56-PeCB	29.78	7.14E+05	0.58 Y	1.04	1.09	4.6%
PCB-116/85 23456-/22'344'-Pe	29.85	1.13E+06	0.63 Y	0.97	0.86	-11.2%
PCB-110 233'4'6-PeCB	29.97	6.02E+05	0.60 Y	1.02	0.92	-10.4%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:12

Lab ID: CS1_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 03:50
Datafile: 120725X16

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.06	7.27E+05	0.57 Y	1.16	1.11	-4.4%
PCB-82 22'33'4-PeCB	30.24	4.25E+05	0.61 Y	0.69	0.65	-6.3%
PCB-111 233'55'-PeCB	30.59	7.11E+05	0.61 Y	1.15	1.08	-6.2%
PCB-120 23'455'-PeCB	30.98	7.11E+05	0.59 Y	1.16	1.08	-6.7%
PCB-107/124 233'4'5-/2'3455'	31.92	1.31E+06	0.60 Y	1.07	1.00	-7.3%
PCB-109 233'46-PeCB	32.13	7.10E+05	0.61 Y	1.14	1.08	-5.3%
PCB-106 233'45-PeCB	32.33	6.34E+05	0.64 Y	1.07	0.97	-9.8%
PCB-122 2'33'45-PeCB	32.79	6.54E+05	0.62 Y	1.00	0.98	-2.4%
PCB-127 33'455'-PeCB	34.73	6.91E+05	0.59 Y	1.10	1.04	-5.2%
PCB-155 22'44'66'-HxCB	28.15	6.98E+05	1.23 Y	1.09	1.06	-2.9%
PCB-152 22'3566'-HxCB	28.29	6.22E+05	1.37 Y	1.01	0.94	-6.8%
PCB-150 22'34'66'-HxCB	28.44	6.07E+05	1.27 Y	1.00	0.92	-8.4%
PCB-136 22'33'66'-HxCB	28.72	5.96E+05	1.28 Y	0.95	0.90	-5.1%
PCB-145 22'3466'HxCB	28.99	6.02E+05	1.30 Y	0.96	0.91	-5.1%
PCB-148 22'34'56'-HxCB	30.28	4.49E+05	1.27 Y	0.97	0.88	-9.2%
PCB-151/135 22'355'6-/22'33'	30.78	9.24E+05	1.29 Y	0.96	0.91	-5.9%
PCB-154 22'44'5'6-HxCB	30.99	5.18E+05	1.28 Y	1.09	1.02	-6.7%
PCB-144 22'345'6-HxCB	31.24	4.58E+05	1.23 Y	0.98	0.90	-8.6%
PCB-147/149 22'34'56-/22'34'	31.54	9.24E+05	1.24 Y	0.99	0.91	-8.0%
PCB-134 22'33'56-HxCB	31.71	4.24E+05	1.30 Y	0.80	0.83	3.8%
PCB-143 22'3456'-HxCB	31.79	4.08E+05	1.31 Y	0.95	0.80	-16.2%
PCB-139/140 22'344'6-/22'344'	32.05	9.39E+05	1.25 Y	1.00	0.92	-7.8%
PCB-131 22'33'46-HxCB	32.21	4.05E+05	1.29 Y	0.85	0.79	-6.5%
PCB-142 22'3456-HxCB	32.35	4.13E+05	1.35 Y	0.87	0.81	-7.2%
PCB-132 22'33'46'-HxCB	32.58	4.09E+05	1.21 Y	0.89	0.80	-9.7%
PCB-133 22'33'55'-HxCB	33.02	4.41E+05	1.33 Y	0.91	0.87	-5.3%
PCB-165 233'55'6-HxCB	33.36	5.42E+05	1.34 Y	1.13	1.06	-6.2%
PCB-146 22'34'55'-HxCB	33.57	4.70E+05	1.32 Y	1.01	0.92	-8.3%
PCB-161 233'45'6-HxCB	33.68	6.01E+05	1.19 Y	1.25	1.18	-5.9%
PCB-153/168 22'44'55'-/23'44'	34.11	1.15E+06	1.29 Y	1.22	1.13	-7.3%
PCB-141 22'3455'-HxCB	34.24	4.40E+05	1.19 Y	0.93	0.86	-6.9%
PCB-130 22'33'45'-HxCB	34.58	3.98E+05	1.17 Y	0.85	0.78	-7.9%
PCB-137 22'344'5-HxCB	34.77	5.17E+05	1.12 Y	1.04	1.01	-2.7%
PCB-164 233'4'5'6-HxCB	34.86	5.92E+05	1.18 Y	1.22	1.16	-5.1%
PCB-163/138/129 233'4'56-/22'	35.14	1.46E+06	1.31 Y	1.02	0.96	-6.4%
PCB-160 233'456-HxCB	35.27	5.94E+05	1.22 Y	1.21	1.17	-3.5%
PCB-158 233'44'6-HxCB	35.45	6.47E+05	1.37 Y	1.34	1.27	-5.1%
PCB-128/166 22'33'44'-/2344'5	36.17	1.14E+06	1.26 Y	0.90	0.86	-4.2%
PCB-159 233'455'-HxCB	37.01	6.56E+05	1.26 Y	1.06	0.99	-7.2%
PCB-162 233'4'55'-HxCB	37.25	6.53E+05	1.22 Y	1.08	0.98	-8.7%
PCB-188 22'34'566'-HpCB	32.96	5.17E+05	1.08 Y	1.03	0.99	-3.8%
PCB-179 22'33'566'-HpCB	33.23	4.75E+05	1.13 Y	0.97	0.91	-5.5%
PCB-184 22'344'66'-HpCB	33.69	4.58E+05	0.97 Y	0.93	0.88	-5.5%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:12

Lab ID: CS1_120725_PCB_XB
Acquired: 26-JUL-2012 03:50
Datafile: 120725X16
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.97	5.13E+05	1.05 Y	1.05	0.99	-5.7%
PCB-186 22'34566'-HpCB	34.35	4.76E+05	1.12 Y	0.98	0.92	-6.6%
PCB-178 22'33'55'6-HpCB	35.51	3.64E+05	1.17 Y	0.74	0.70	-4.7%
PCB-175 22'33'45'6-HpCB	36.04	4.27E+05	1.00 Y	1.01	0.92	-8.8%
PCB-187 22'34'55'6-HpCB	36.27	4.59E+05	1.10 Y	1.06	0.99	-6.9%
PCB-182 22'344'56'-HpCB	36.45	5.07E+05	0.98 Y	1.11	1.09	-1.7%
PCB-183 22'344'5'6-HpCB	36.78	4.76E+05	1.01 Y	1.13	1.03	-9.5%
PCB-185 22'3455'6-HpCB	36.86	4.69E+05	1.04 Y	1.02	1.01	-0.8%
PCB-174 22'33'456'-HpCB	36.97	4.17E+05	1.00 Y	0.93	0.90	-3.1%
PCB-177 22'33'4'56-HpCB	37.34	3.93E+05	1.08 Y	0.91	0.85	-6.5%
PCB-181 22'344'56-HpCB	37.68	4.75E+05	1.08 Y	1.06	1.02	-3.8%
PCB-171/173 22'33'44'6-/22'3	37.86	8.13E+05	1.11 Y	0.93	0.87	-5.7%
PCB-172 22'33'455'-HpCB	39.23	4.21E+05	1.04 Y	0.95	0.91	-5.0%
PCB-192 233'455'6-HpCB	39.47	5.36E+05	1.10 Y	1.24	1.15	-7.0%
PCB-180/193 22'344'55'-/233'	39.74	9.84E+05	1.05 Y	1.16	1.06	-8.6%
PCB-191 233'44'5'6-HpCB	40.07	5.67E+05	1.14 Y	1.30	1.22	-6.3%
PCB-170 22'33'44'5-HpCB	40.82	3.98E+05	1.08 Y	1.07	0.99	-8.2%
PCB-190 233'44'56-HpCB	41.26	5.55E+05	1.06 Y	1.45	1.37	-5.4%
PCB-202 22'33'55'66'-OcCB	37.45	4.27E+05	0.84 Y	0.91	0.85	-7.5%
PCB-201 22'33'45'66'-OcCB	38.23	4.87E+05	0.88 Y	1.02	0.97	-5.4%
PCB-204 22'344'566'-OcCB	38.80	4.51E+05	0.97 Y	0.98	0.90	-8.3%
PCB-197 22'33'44'66'-OcCB	38.99	5.40E+05	0.94 Y	1.06	1.07	0.6%
PCB-200 22'33'4566'-OcCB	39.07	4.09E+05	0.98 Y	0.96	0.81	-15.6%
PCB-198/199 22'33'455'6-/22'	41.39	6.71E+05	0.90 Y	0.72	0.67	-7.0%
PCB-196 22'33'44'56'-OcCB	41.96	3.50E+05	0.92 Y	0.73	0.69	-5.0%
PCB-203 22'344'55'6-OcCB	42.13	3.62E+05	0.90 Y	0.76	0.72	-6.1%
PCB-195 22'33'44'56-OcCB	43.23	3.54E+05	0.94 Y	0.80	0.73	-9.0%
PCB-194 22'33'44'55'-OcCB	45.18	4.10E+05	0.94 Y	0.87	0.84	-3.6%
PCB-205 233'44'55'6-OcCB	45.58	4.98E+05	0.88 Y	1.09	1.02	-6.0%
PCB-208 22'33'455'66'-NoCB	43.04	4.58E+05	0.80 Y	1.02	0.96	-6.0%
PCB-207 22'33'44'566'-NoCB	43.82	4.79E+05	0.79 Y	1.06	1.00	-5.3%
PCB-206 22'33'44'55'6-NoCB	47.03	3.13E+05	0.74 Y	0.98	0.90	-8.3%

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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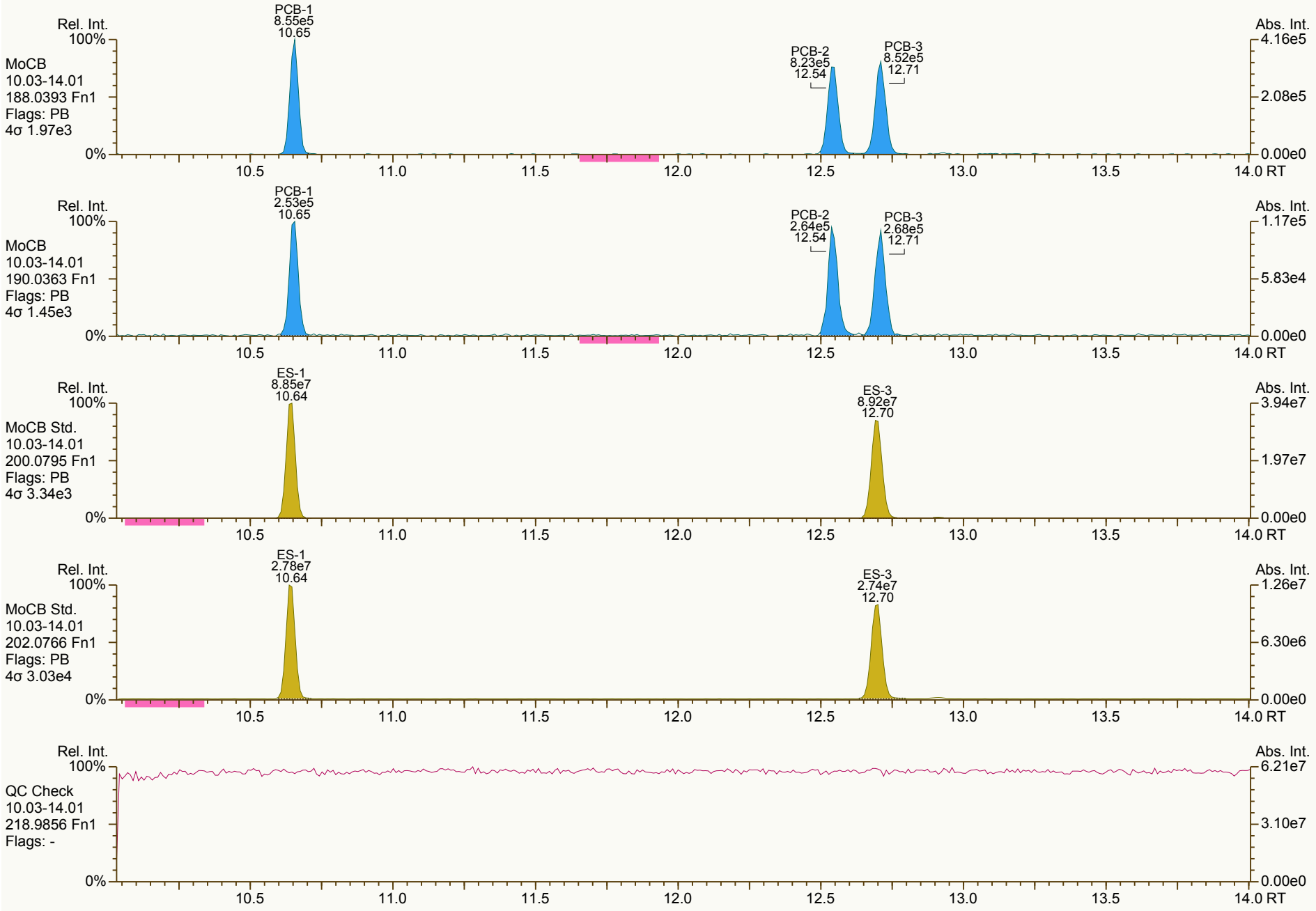

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 4802, 8602 scc: 824-792 *Revised: 27-Jul-2012 15:07 (LKB) Printed: 28-Jul-2012 11:14 Page 2 of 21*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



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AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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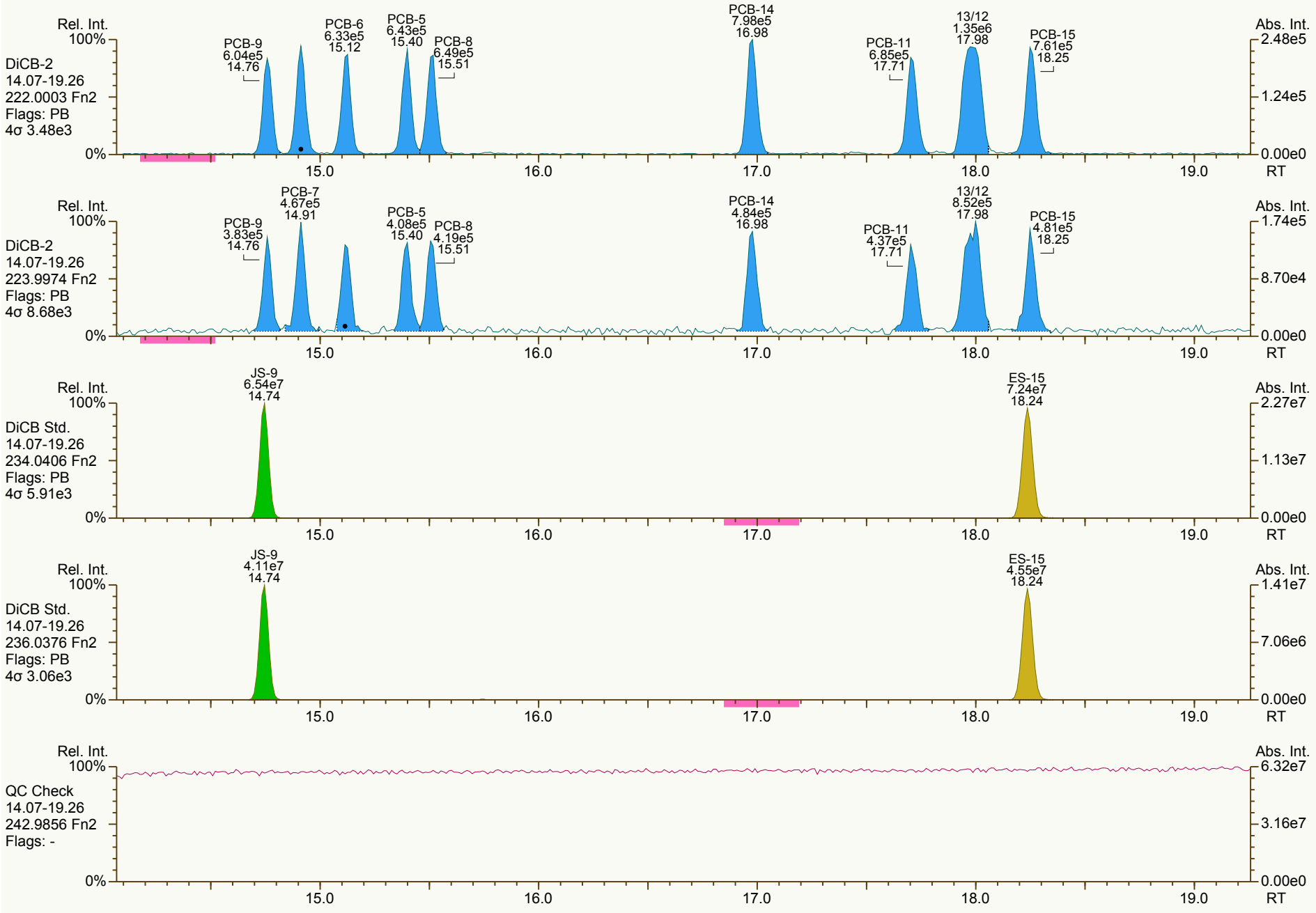

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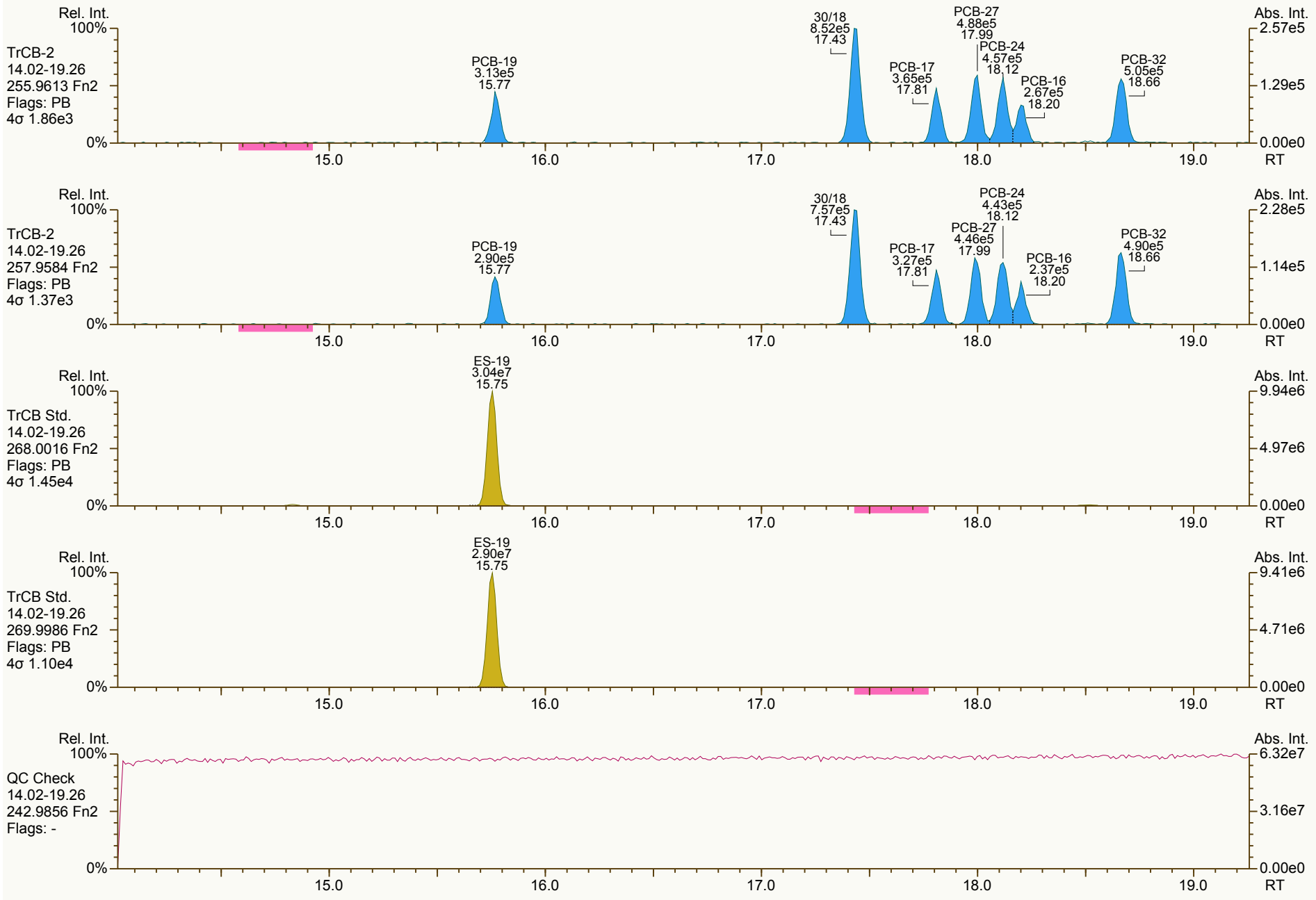

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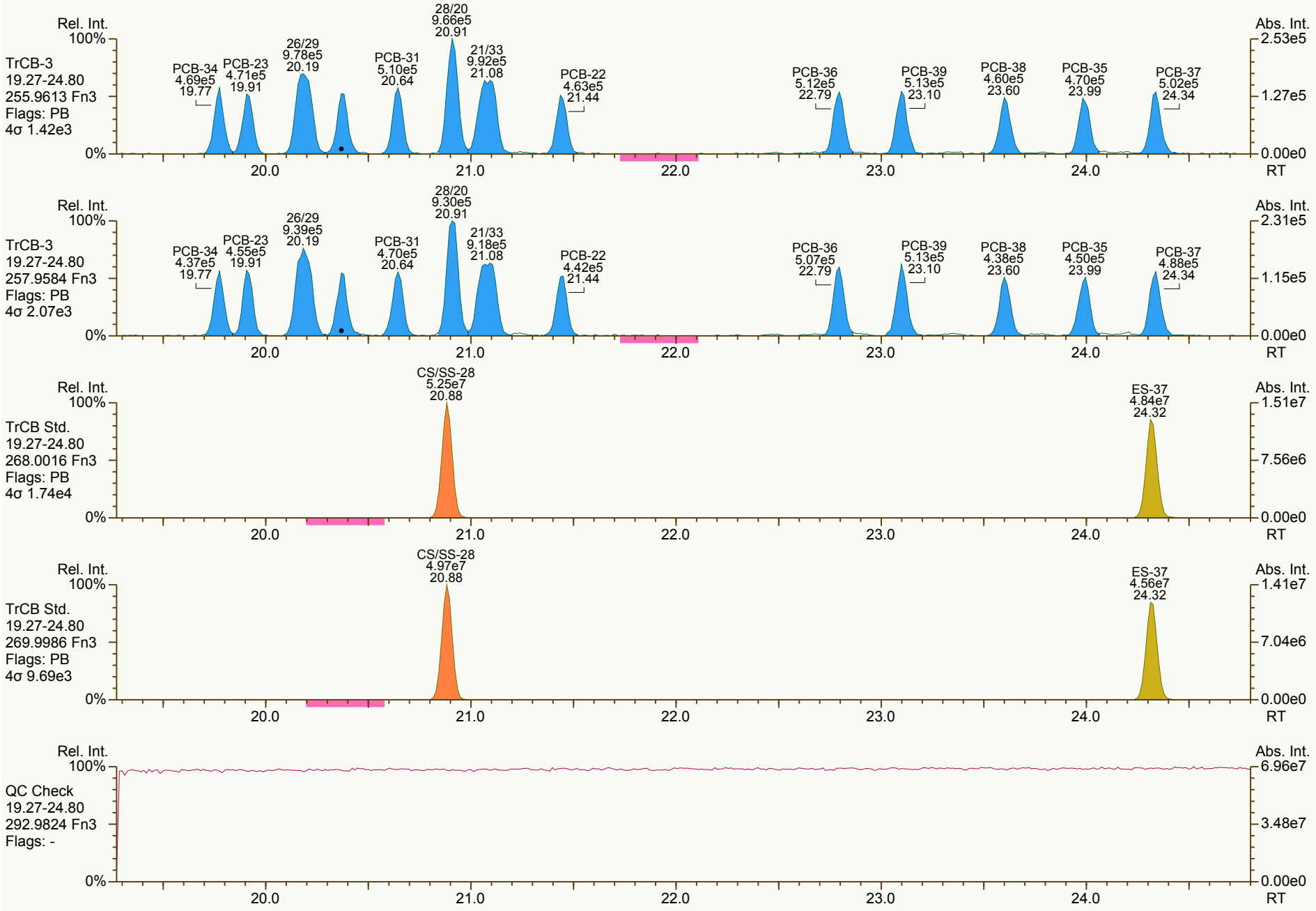
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7635, 5619 scc: 824-792 *PKD: 27-Jul-2012 09:48 Printed: 28-Jul-2012 11:14 Page 5 of 21*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



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AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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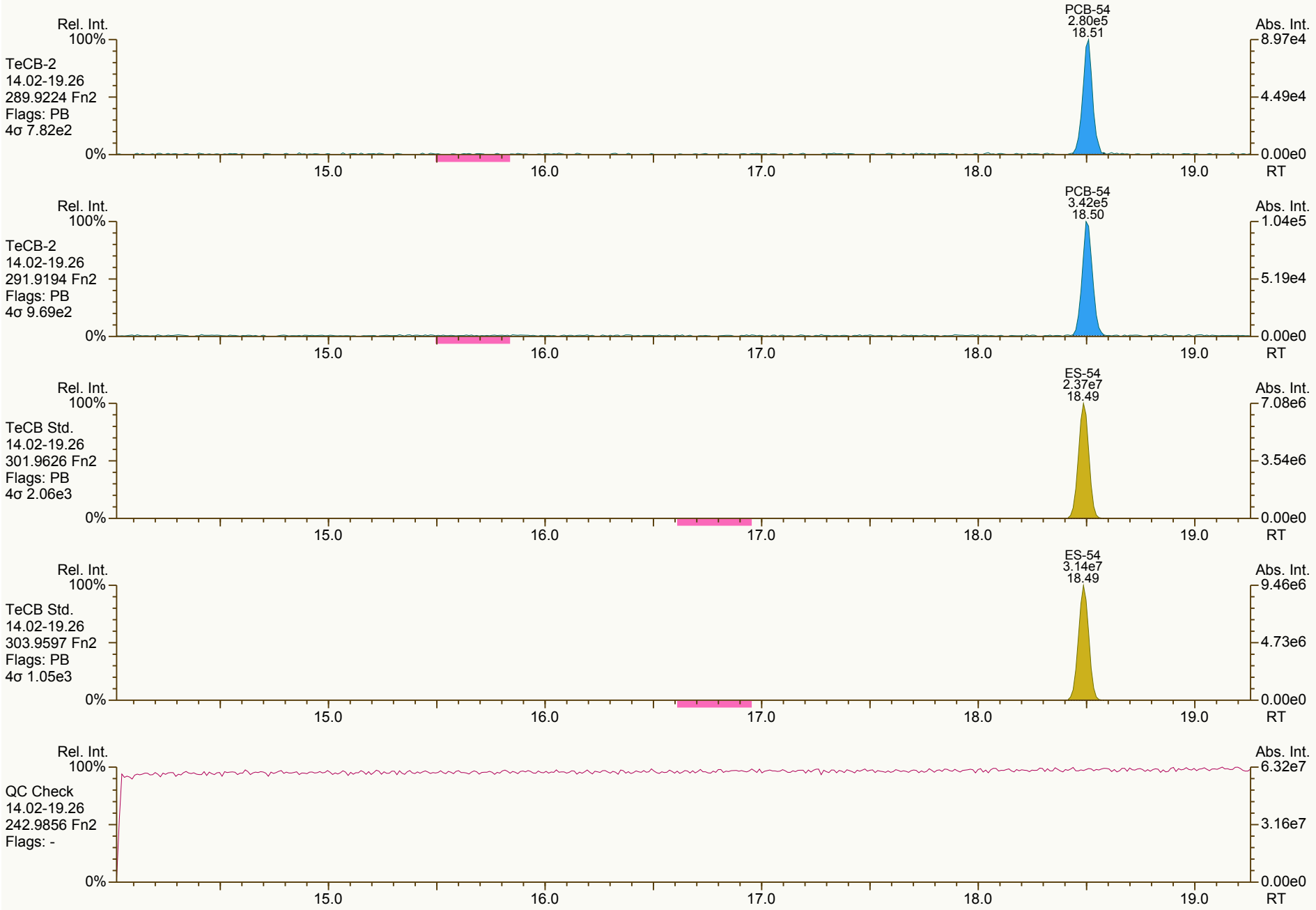

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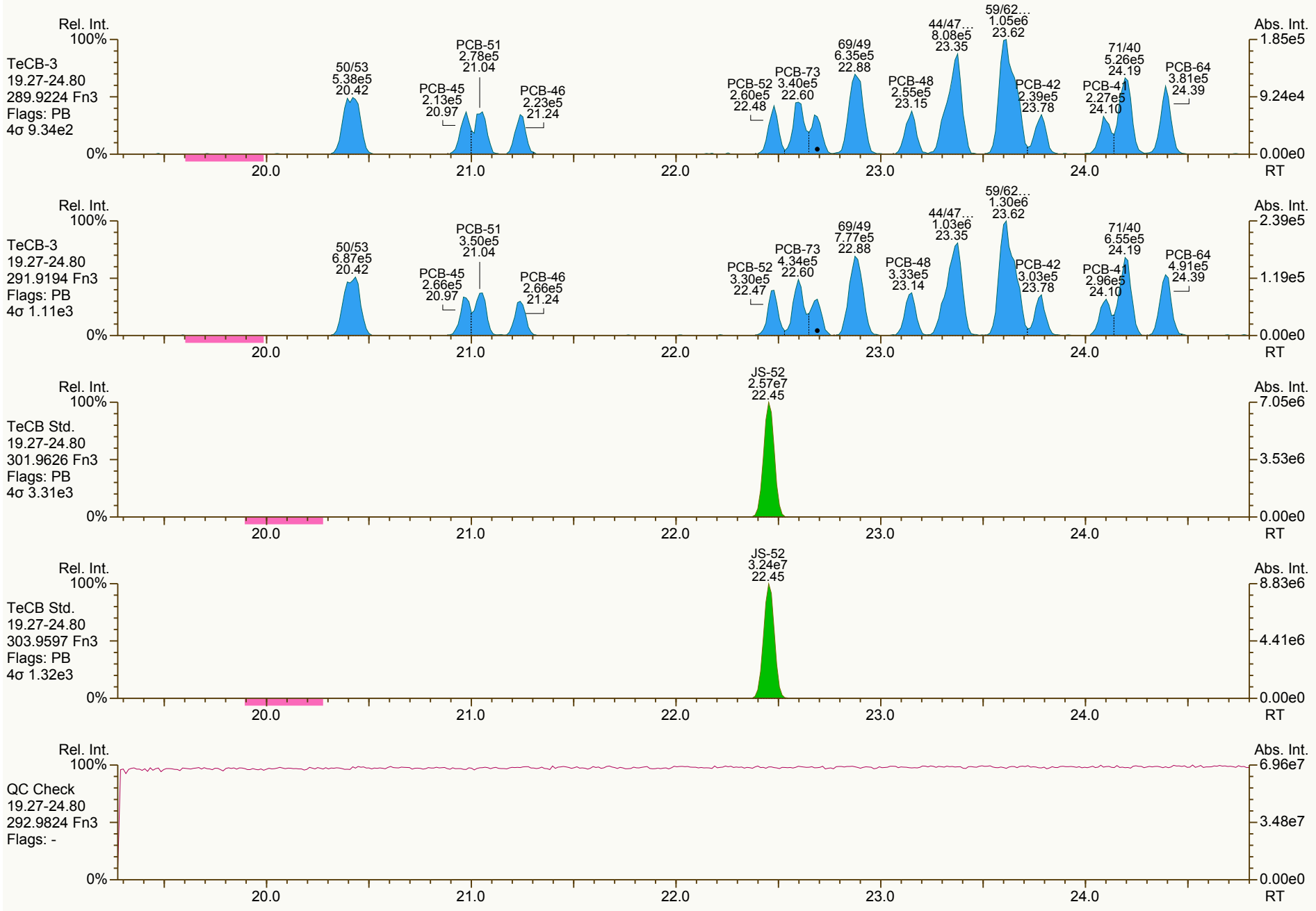

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 2070, 2152 scc: 824-792 *PKD: 27-Jul-2012 09:48 Printed: 28-Jul-2012 11:14 Page 8 of 21*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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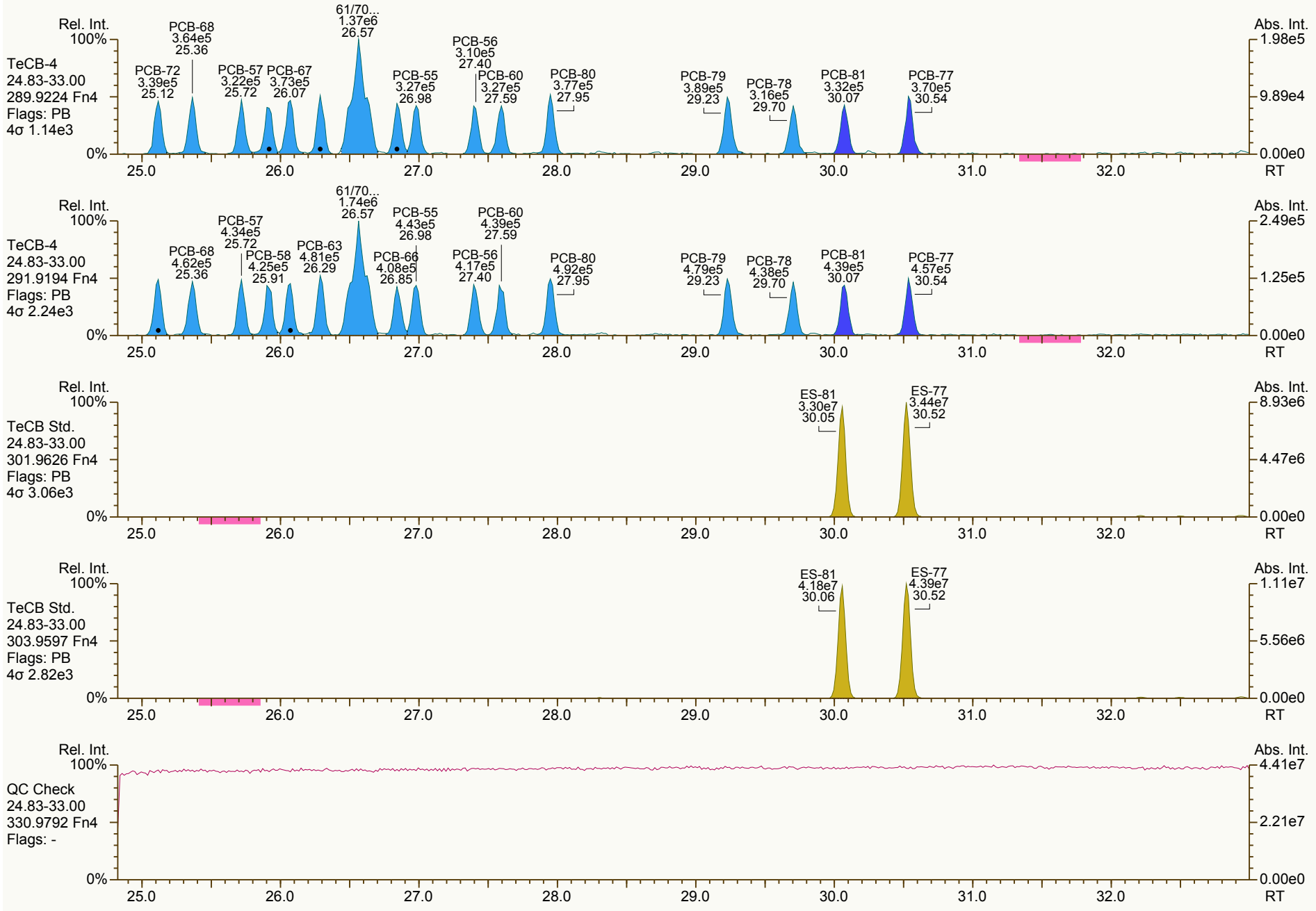

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AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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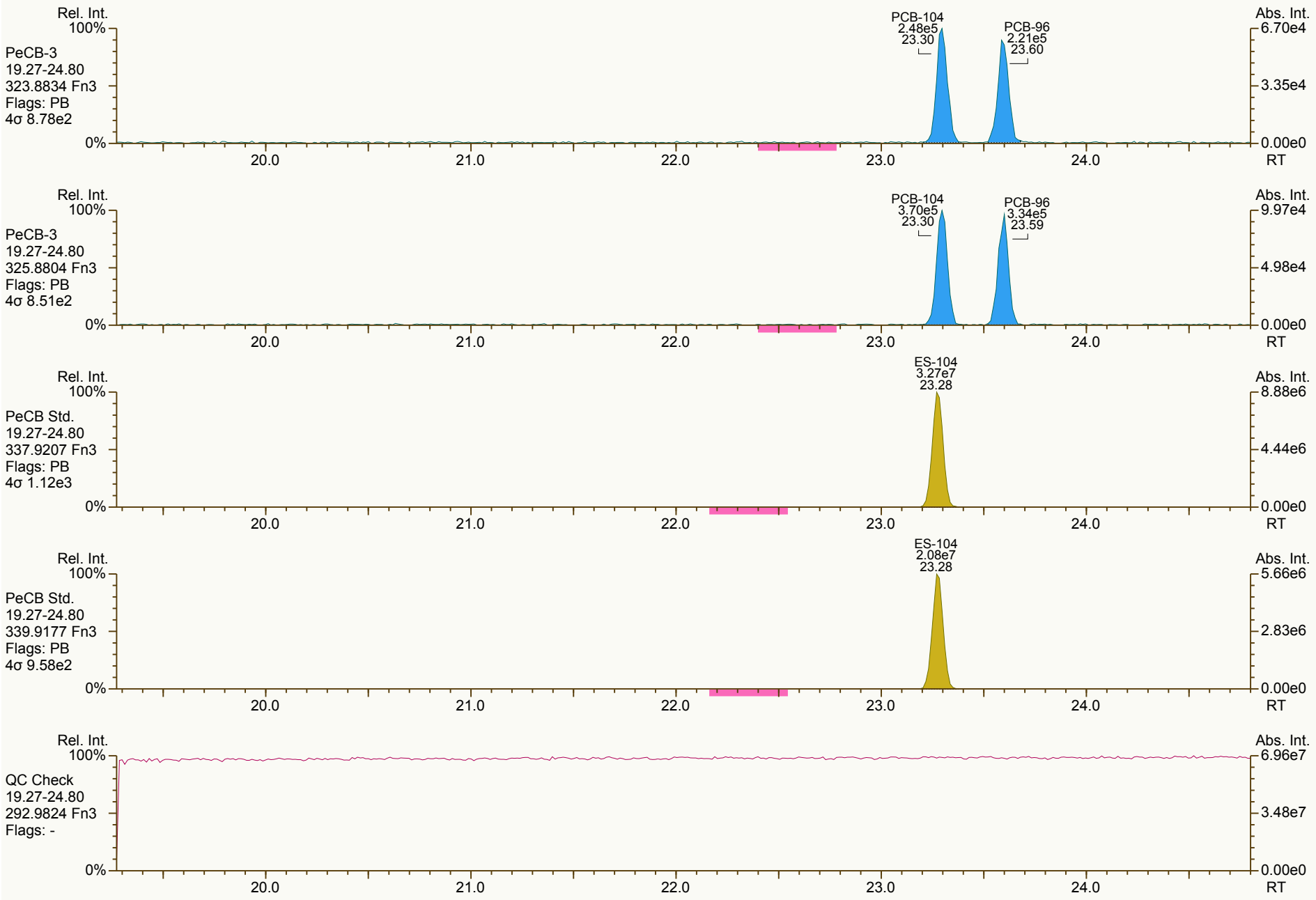

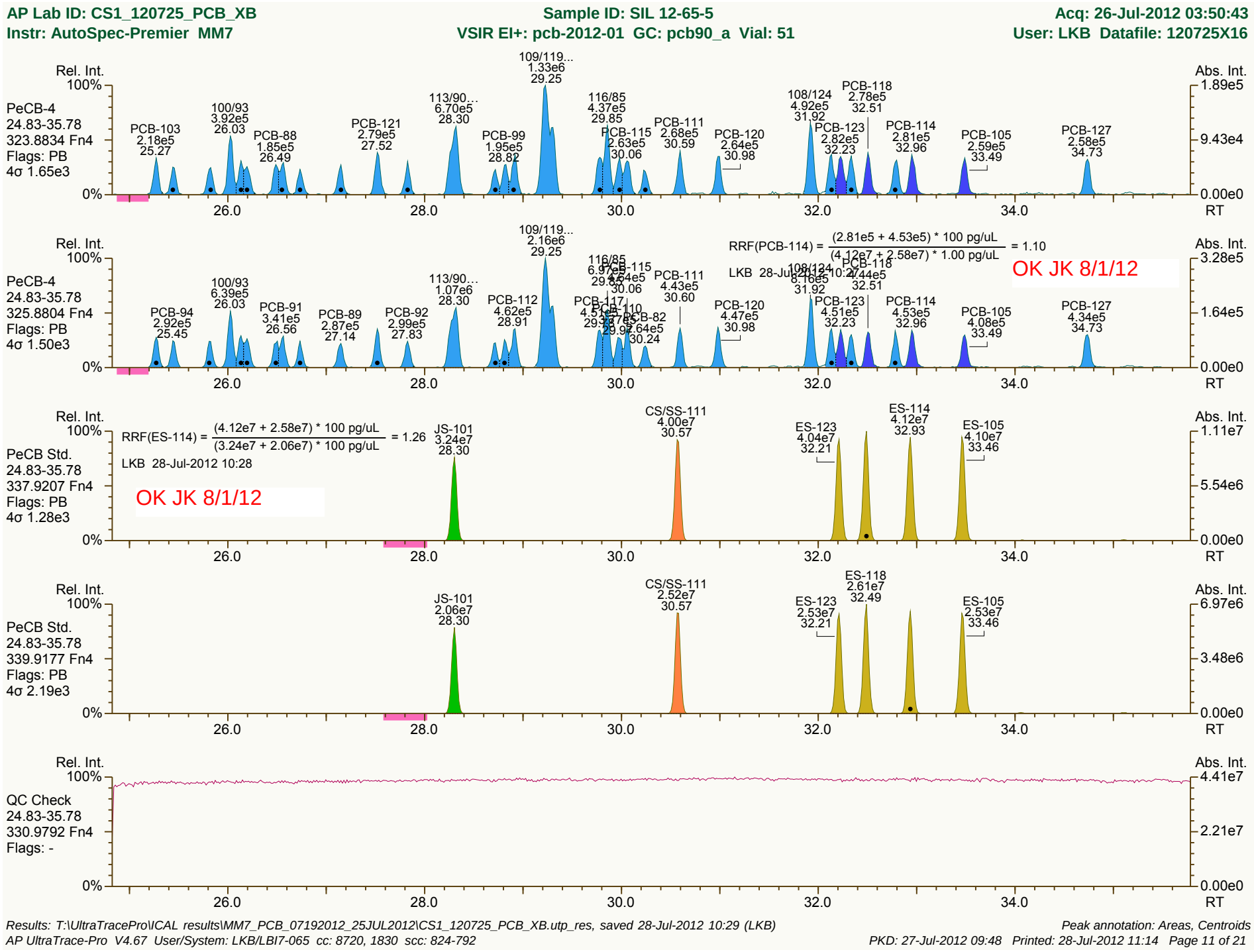
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Instr: AutoSpec-Premier MM7
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51
User: LKB Datafile: 120725X16
PeCB-4
24.83-35.78
323.8834 Fn4
Flags: PB
4σ 1.65e3
PCB-103 2.18e5 25.27
100/93 3.92e5 26.03
PCB-88 1.85e5 26.49
PCB-121 2.79e5 27.52
113/90... 6.70e5 28.30
PCB-99 1.95e5 28.82
109/119... 1.33e6 29.25
116/85 4.37e5 29.85
PCB-115 2.63e5 30.06
PCB-111 2.68e5 30.59
PCB-120 2.64e5 30.98
108/124 4.92e5 31.92
PCB-118 2.78e5 32.51
PCB-123 2.82e5 32.23
PCB-114 2.81e5 32.96
PCB-105 2.59e5 33.49
PCB-127 2.58e5 34.73
PeCB-4
24.83-35.78
325.8804 Fn4
Flags: PB
4σ 1.50e3
PCB-94 2.92e5 25.45
100/93 6.39e5 26.03
PCB-91 3.41e5 26.56
PCB-89 2.87e5 27.14
PCB-92 2.99e5 27.83
113/90... 1.07e6 28.30
PCB-112 4.62e5 28.91
109/119... 2.16e6 29.25
PCB-111 4.43e5 30.60
PCB-120 4.47e5 30.98
PCB-118 4.44e5 32.51
PCB-123 4.51e5 32.23
PCB-114 4.53e5 32.96
PCB-105 4.08e5 33.49
PCB-127 4.34e5 34.73
RRF(PCB-114) = (2.81e5 + 4.53e5) * 100 pg/uL / (4.12e7 + 2.58e7) * 1.00 pg/uL = 1.10
OK JK 8/1/12
PeCB Std.
24.83-35.78
337.9207 Fn4
Flags: PB
4σ 1.28e3
RRF(ES-114) = (4.12e7 + 2.58e7) * 100 pg/uL / (3.24e7 + 2.06e7) * 100 pg/uL = 1.26
LKB 28-Jul-2012 10:28
JS-101 3.24e7 28.30
CS/SS-111 4.00e7 30.57
ES-123 4.04e7 32.21
ES-114 4.12e7 32.93
ES-105 4.10e7 33.46
OK JK 8/1/12
PeCB Std.
24.83-35.78
339.9177 Fn4
Flags: PB
4σ 2.19e3
JS-101 2.06e7 28.30
CS/SS-111 2.52e7 30.57
ES-123 2.53e7 32.21
ES-118 2.61e7 32.49
ES-105 2.53e7 33.46
QC Check
24.83-35.78
330.9792 Fn4
Flags: -
Rel. Int.
Abs. Int.
RT
26.0
28.0
30.0
32.0
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Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 8720, 1830 scc: 824-792
PKD: 27-Jul-2012 09:48 Printed: 28-Jul-2012 11:14 Page 11 of 21

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



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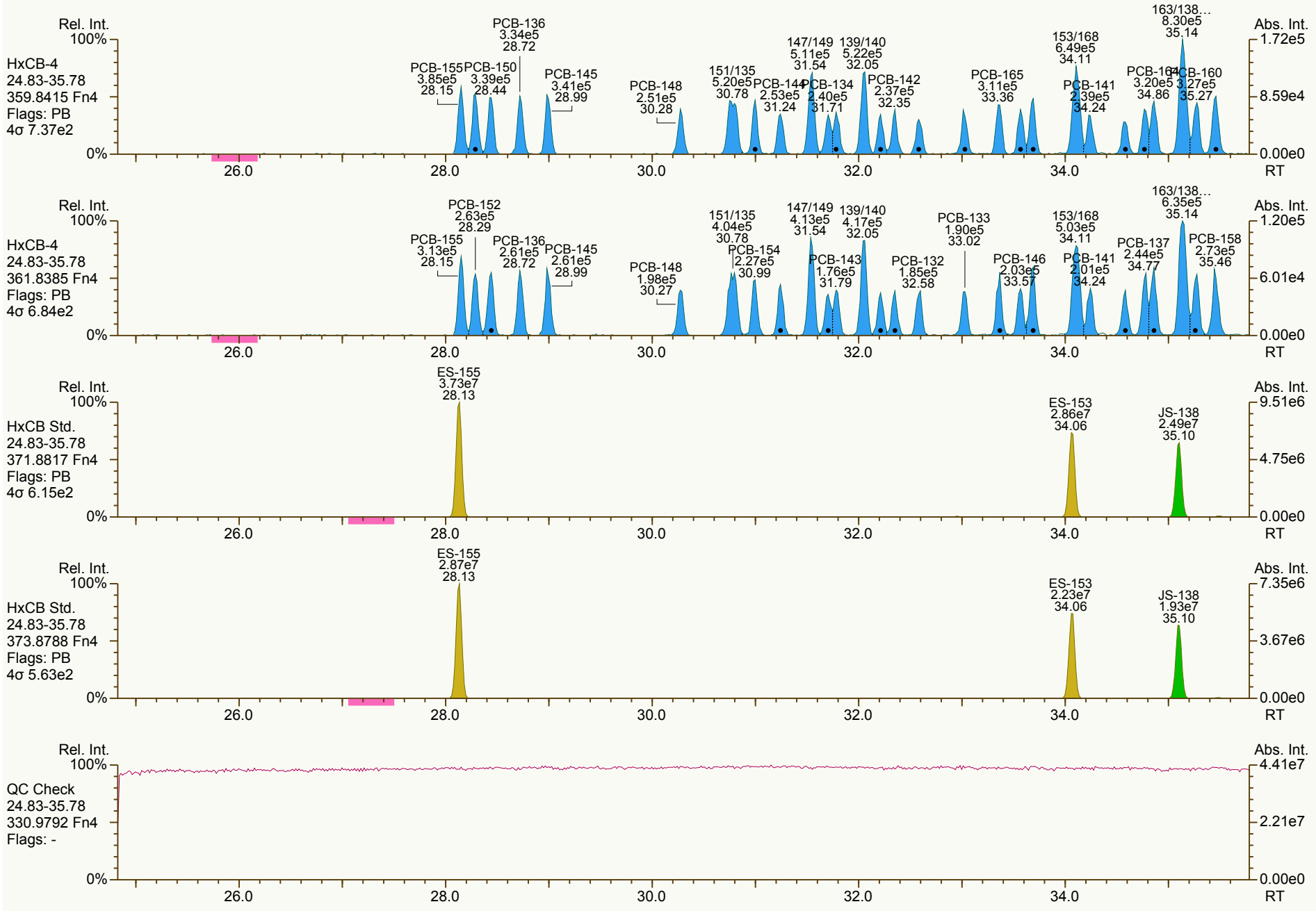

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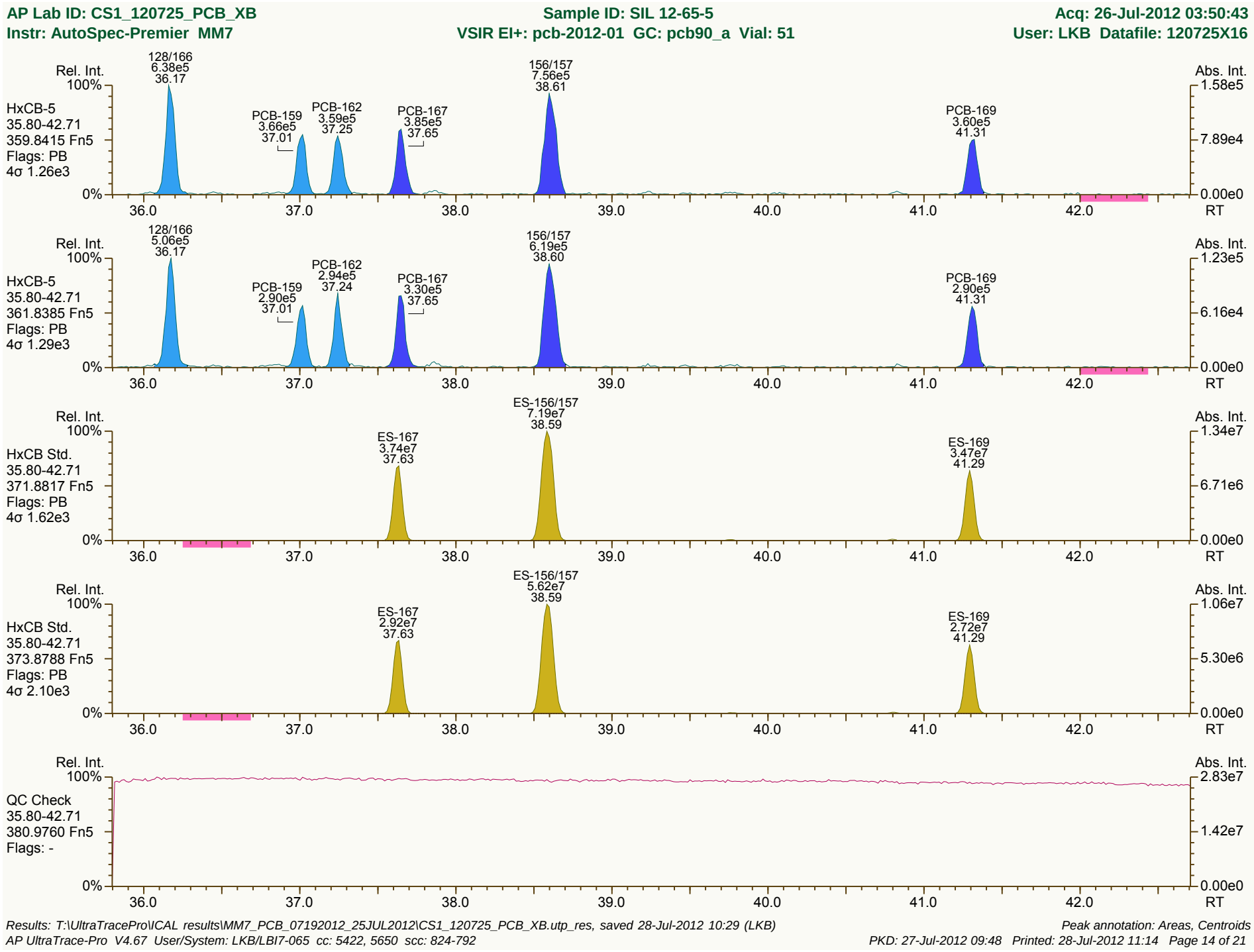
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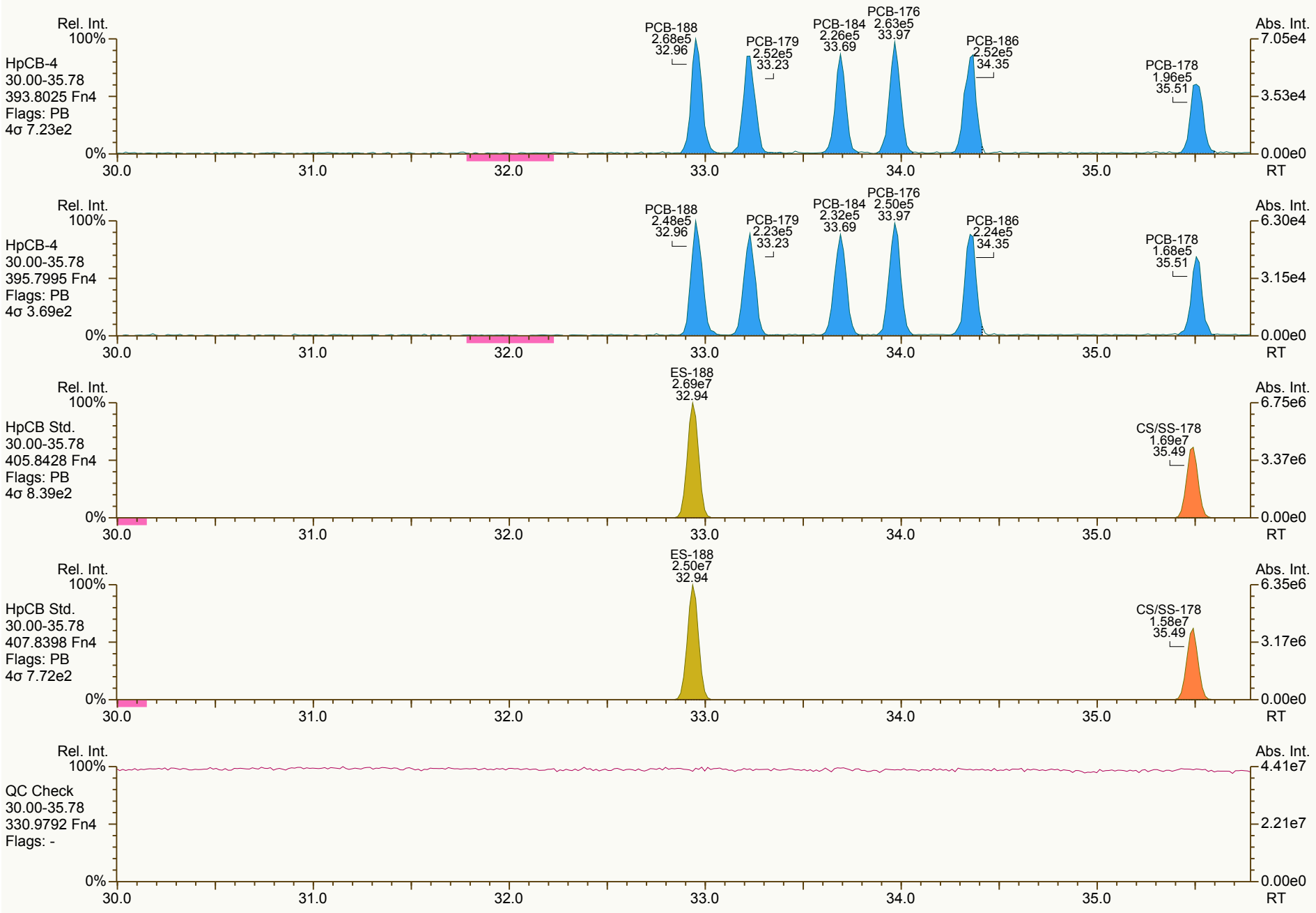
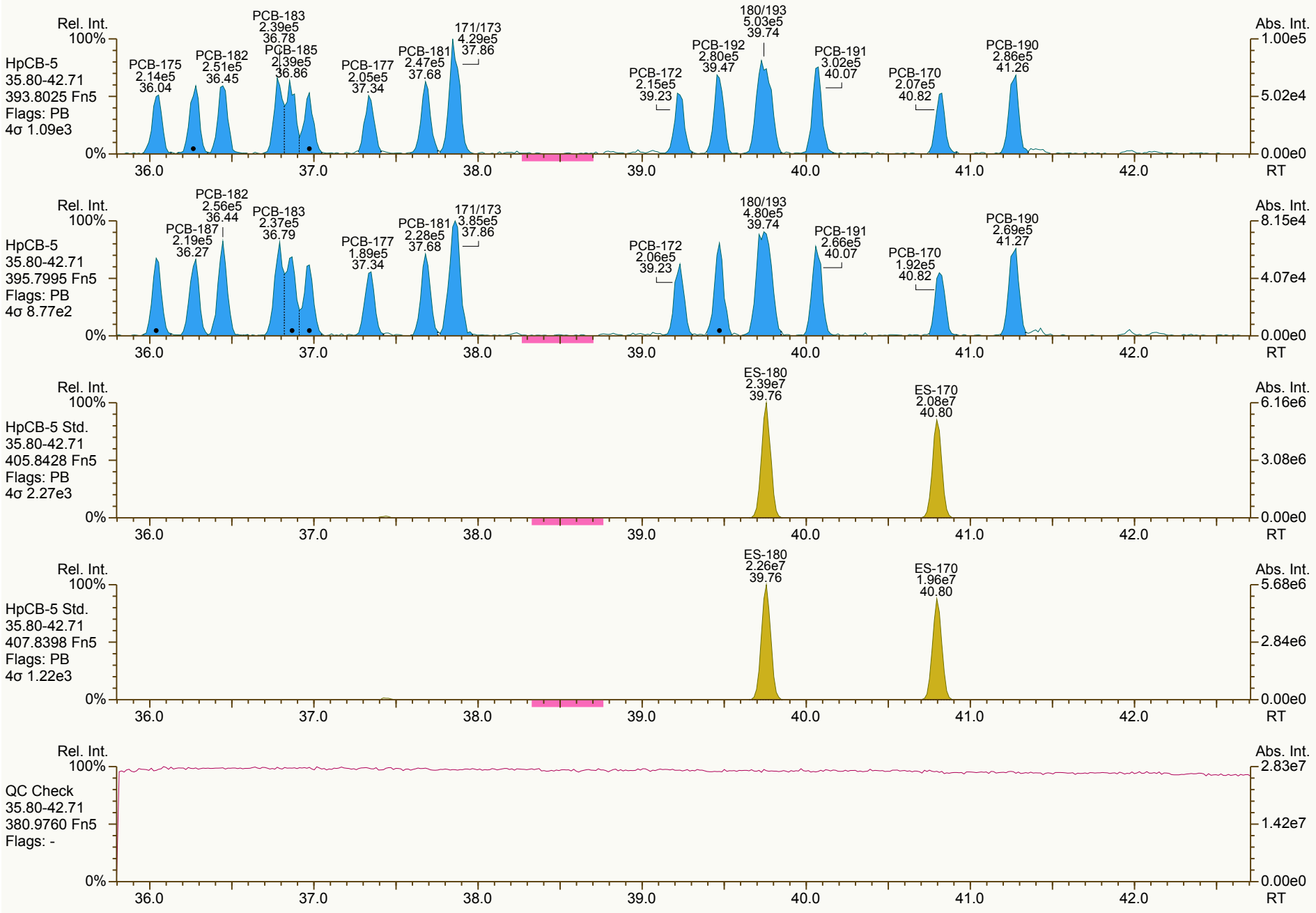
Rel. Int.
Abs. Int.
HxCB-5
35.80-42.71
359.8415 Fn5
Flags: PB
4σ 1.26e3
128/166 6.38e5 36.17
PCB-159 3.66e5 37.01
PCB-162 3.59e5 37.25
PCB-167 3.85e5 37.65
156/157 7.56e5 38.61
PCB-169 3.60e5 41.31
1.58e5
7.89e4
0.00e0
HxCB-5
35.80-42.71
361.8385 Fn5
Flags: PB
4σ 1.29e3
128/166 5.06e5 36.17
PCB-159 2.90e5 37.01
PCB-162 2.94e5 37.24
PCB-167 3.30e5 37.65
156/157 6.19e5 38.60
PCB-169 2.90e5 41.31
1.23e5
6.16e4
0.00e0
HxCB Std.
35.80-42.71
371.8817 Fn5
Flags: PB
4σ 1.62e3
ES-167 3.74e7 37.63
ES-156/157 7.19e7 38.59
ES-169 3.47e7 41.29
1.34e7
6.71e6
0.00e0
HxCB Std.
35.80-42.71
373.8788 Fn5
Flags: PB
4σ 2.10e3
ES-167 2.92e7 37.63
ES-156/157 5.62e7 38.59
ES-169 2.72e7 41.29
1.06e7
5.30e6
0.00e0
QC Check
35.80-42.71
380.9760 Fn5
Flags: -
2.83e7
1.42e7
0.00e0
100%
0%
36.0
37.0
38.0
39.0
40.0
41.0
42.0
RT

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



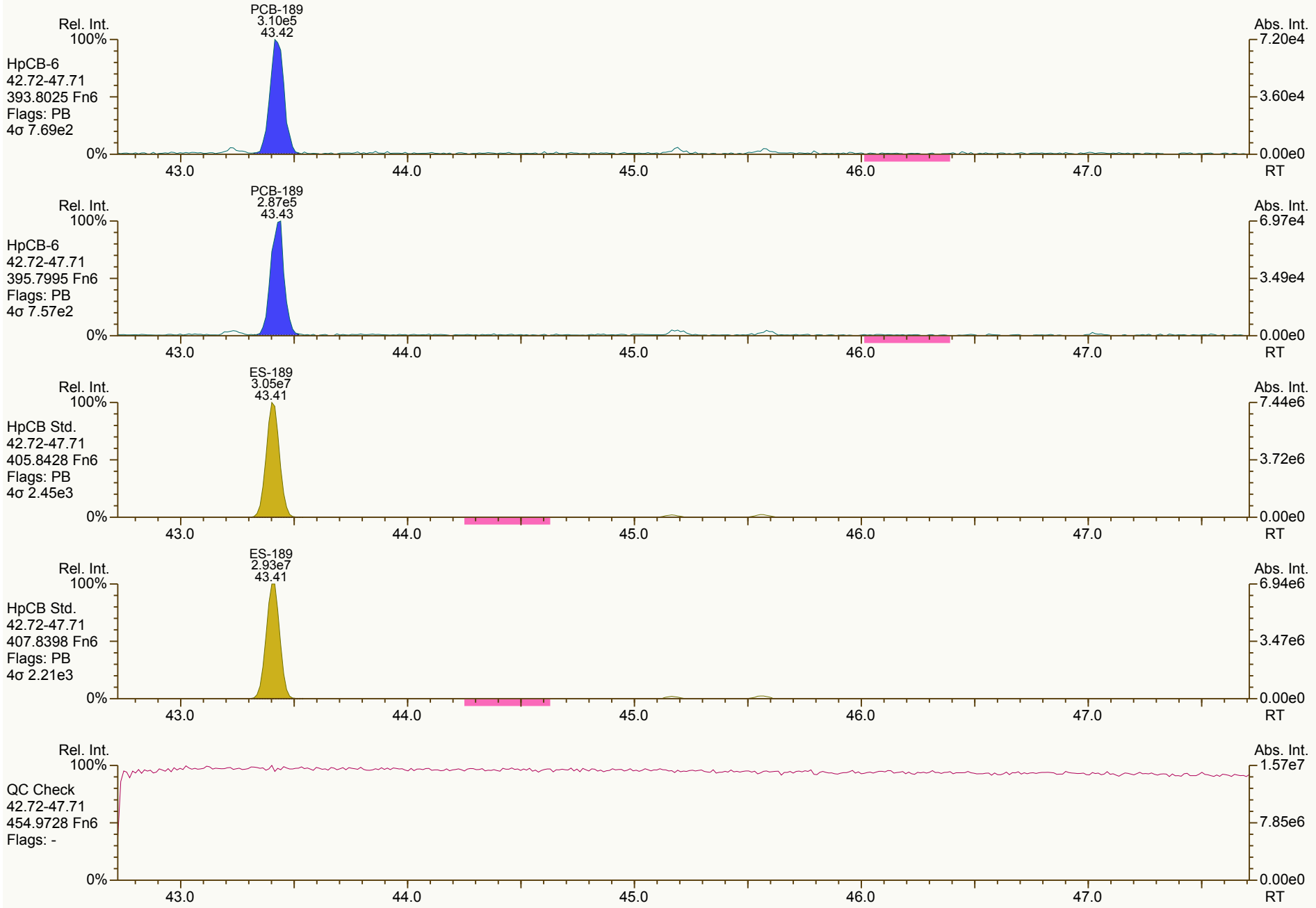
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



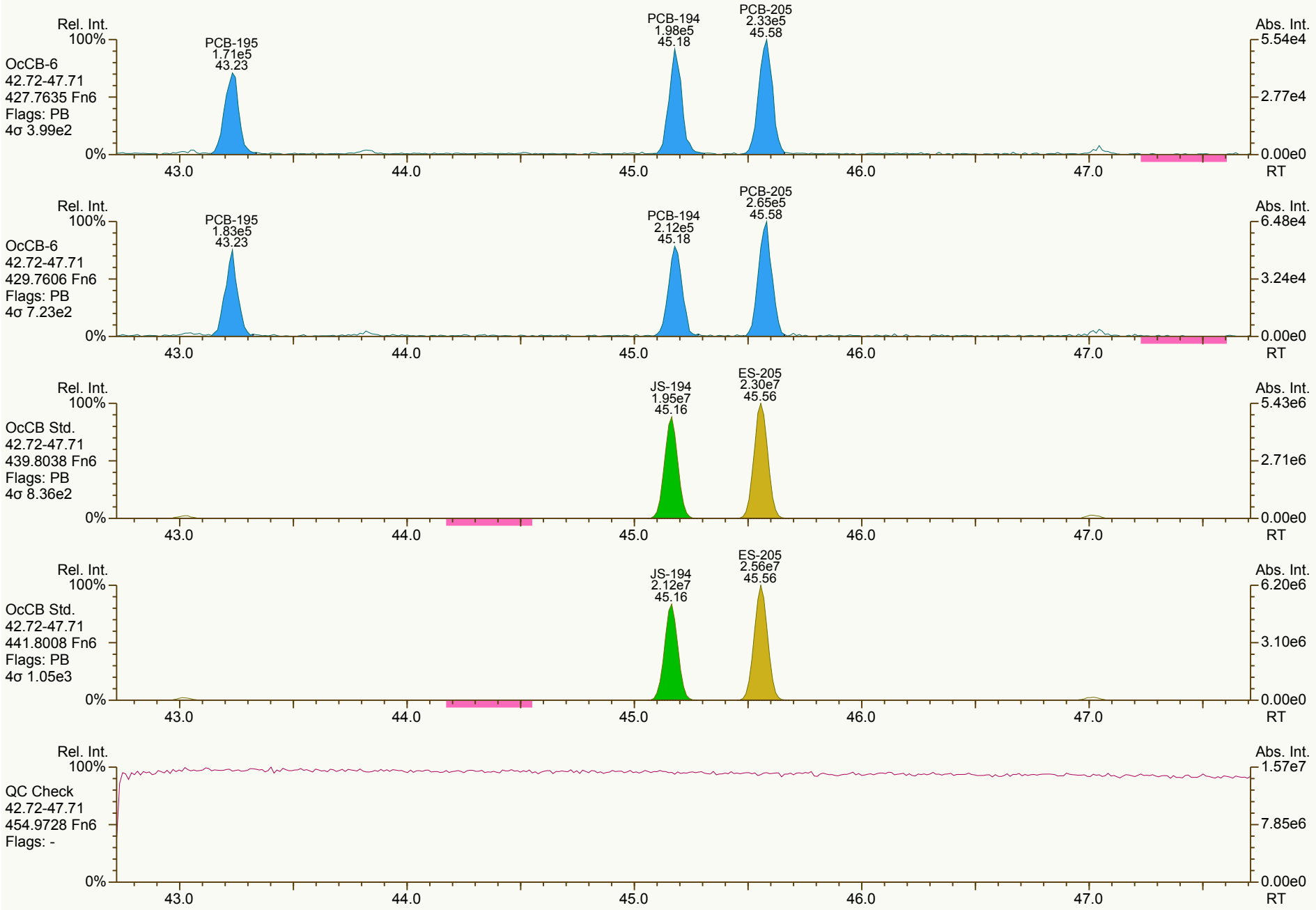
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

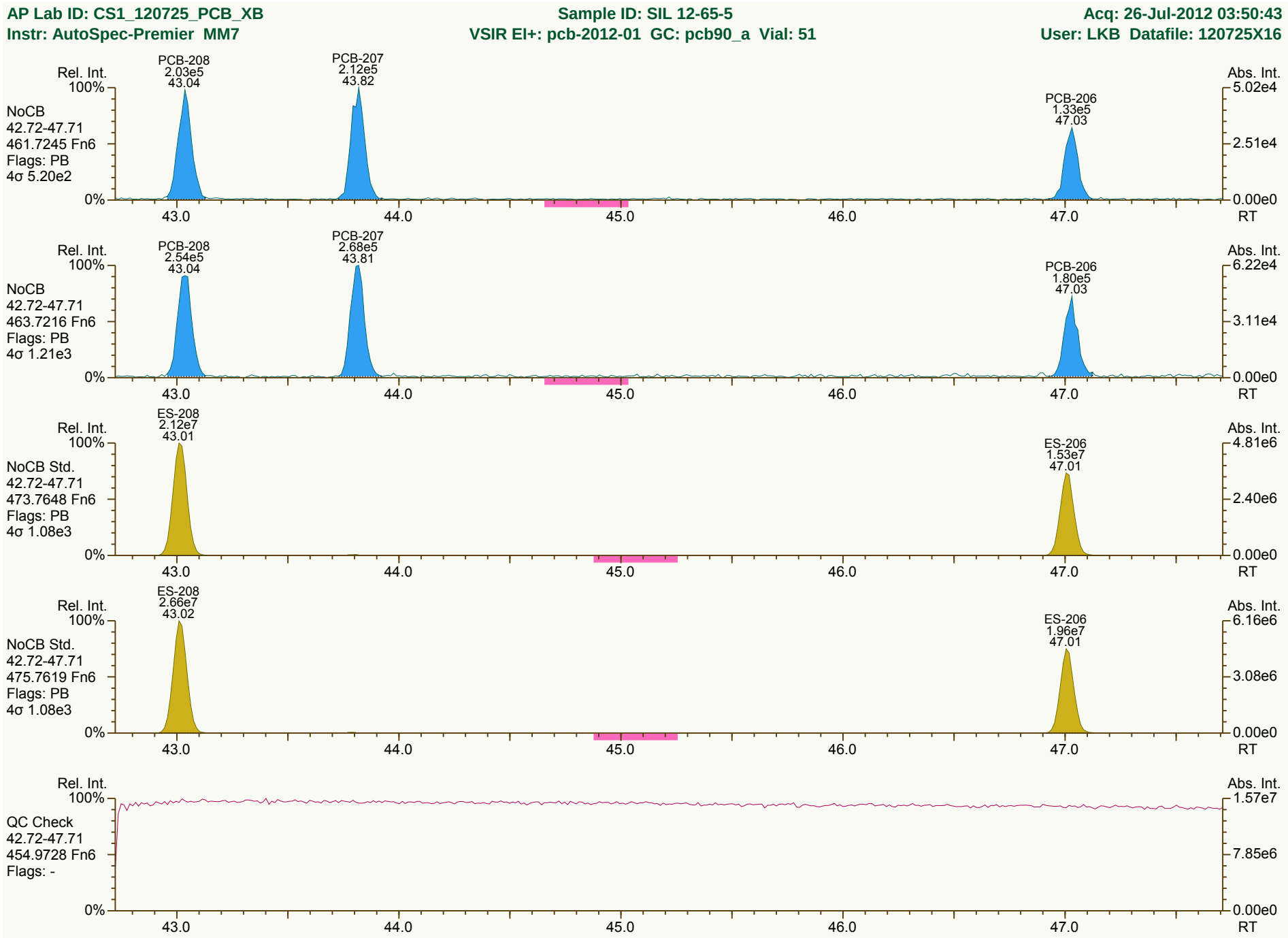
AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

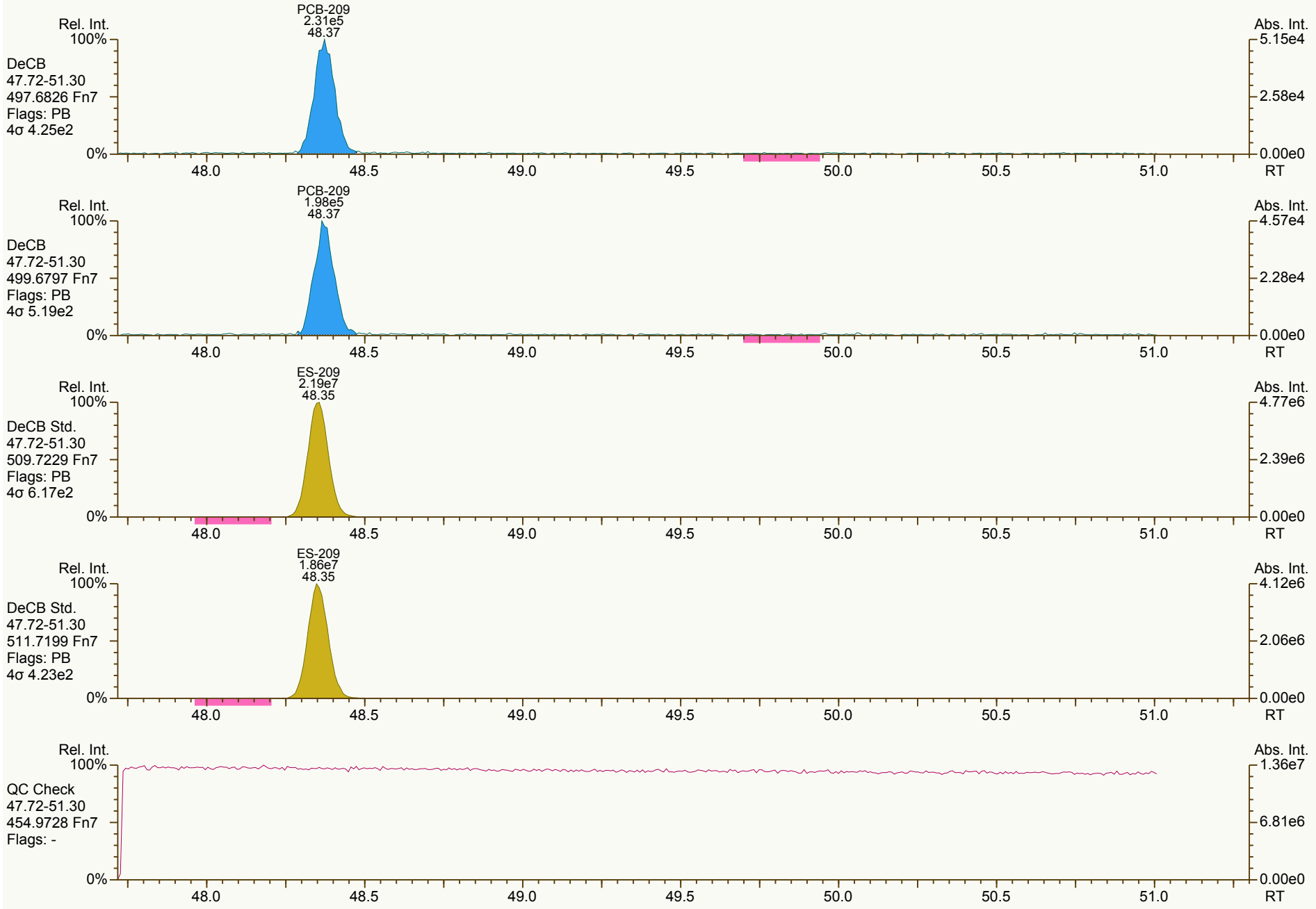
AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**





Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB)
Peak annotation: Areas, Centroids

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:13
Lab ID:	**CS2_120725_PCB_XB**			**ICAL: MM7_PCB_07132012_25JUL12**	
Acquired:	**26-JUL-2012 04:44**				
Datafile:	**120725X17**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.55	4.14E+06	0.79 Y	1.13	1.09	-4.2%
PCB-81 344'5-TeCB	30.08	3.94E+06	0.78 Y	1.13	1.09	-3.5%
PCB-105 233'44'-PeCB	33.50	3.47E+06	0.61 Y	1.09	1.06	-3.1%
PCB-114 2344'5-PeCB	32.97	3.76E+06	0.61 Y	1.16	1.13	-2.5%
PCB-118 23'44'5-PeCB	32.52	3.50E+06	0.62 Y	1.11	1.03	-6.6%
PCB-123 2'344'5-PeCB	32.24	3.79E+06	0.61 Y	1.19	1.19	-0.1%
PCB-126 33'44'5-PeCB	36.09	3.28E+06	0.64 Y	1.06	1.04	-2.3%
PCB-156/157 233'44'5/233'44'5'	38.61	6.77E+06	1.26 Y	1.11	1.07	-3.0%
PCB-167 23'44'55'-HxCB	37.66	3.61E+06	1.27 Y	1.14	1.11	-2.0%
PCB-169 33'44'55'-HxCB	41.32	3.32E+06	1.26 Y	1.11	1.10	-1.0%
PCB-189 233'44'55'-HpCB	43.44	2.96E+06	1.10 Y	1.06	1.02	-3.5%
PCB-209 DeCB	48.38	2.04E+06	1.17 Y	1.07	1.03	-4.2%
ES PCB-1	10.65	1.12E+08	3.14 Y	1.08	1.07	-0.6%
ES PCB-3	12.71	1.12E+08	3.20 Y	1.08	1.07	-1.1%
ES PCB-4	12.93	5.11E+07	1.58 Y	0.49	0.49	0.5%
ES PCB-15	18.25	1.14E+08	1.58 Y	1.11	1.10	-1.3%
ES PCB-19	15.76	5.84E+07	1.07 Y	0.55	0.56	1.2%
ES PCB-37	24.33	9.15E+07	1.06 Y	1.64	1.62	-0.9%
ES PCB-54	18.50	5.45E+07	0.77 Y	0.94	0.97	2.7%
ES PCB-77	30.53	7.63E+07	0.79 Y	1.35	1.35	0.4%
ES PCB-81	30.06	7.24E+07	0.79 Y	1.29	1.28	-0.3%
ES PCB-104	23.29	5.25E+07	1.56 Y	0.99	1.00	0.5%
ES PCB-105	33.47	6.54E+07	1.59 Y	1.23	1.24	0.8%
ES PCB-114	32.94	6.65E+07	1.60 Y	1.25	1.26	1.3%
ES PCB-118	32.49	6.77E+07	1.61 Y	1.28	1.29	0.4%
ES PCB-123	32.22	6.38E+07	1.58 Y	1.22	1.21	-0.4%
ES PCB-126	36.07	6.33E+07	1.61 Y	1.20	1.20	0.3%
ES PCB-153	34.07	5.02E+07	1.26 Y	1.14	1.15	0.5%
ES PCB-155	28.14	6.54E+07	1.29 Y	1.50	1.50	0.0%
ES PCB-156/157	38.60	1.26E+08	1.28 Y	1.45	1.44	-0.9%
ES PCB-167	37.64	6.48E+07	1.26 Y	1.49	1.48	-0.8%
ES PCB-169	41.30	6.05E+07	1.26 Y	1.40	1.38	-1.6%
ES PCB-170	40.81	3.95E+07	1.05 Y	1.00	0.99	-0.8%
ES PCB-180	39.76	4.54E+07	1.06 Y	1.16	1.14	-1.3%
ES PCB-188	32.95	5.11E+07	1.07 Y	1.18	1.17	-0.8%
ES PCB-189	43.42	5.81E+07	1.02 Y	1.49	1.46	-1.7%
ES PCB-202	37.44	4.95E+07	0.90 Y	1.14	1.13	-0.4%
ES PCB-205	45.57	4.72E+07	0.90 Y	1.20	1.19	-1.0%
ES PCB-206	47.02	3.42E+07	0.79 Y	0.87	0.86	-0.9%
ES PCB-208	43.02	4.70E+07	0.80 Y	1.19	1.18	-0.6%
ES PCB-209	48.36	3.96E+07	1.19 Y	1.00	1.00	-0.5%

PCB QC Summary	SGS Analytical Perspectives	Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.89	9.87E+07	1.05 Y	1.07	1.08	0.4%
SS PCB-111	30.58	6.46E+07	1.61 Y	1.01	1.01	0.6%
SS PCB-178	35.50	3.27E+07	1.07 Y	0.63	0.64	1.9%
CS PCB-28	20.89	9.87E+07	1.05 Y	1.76	1.75	-0.5%
CS PCB-111	30.58	6.46E+07	1.61 Y	1.23	1.23	0.2%
CS PCB-178	35.50	3.27E+07	1.07 Y	0.74	0.75	1.1%
JS PCB-9	14.75	1.04E+08	1.58 Y	-	-	-
JS PCB-52	22.46	5.64E+07	0.80 Y	-	-	-
JS PCB-101	28.31	5.26E+07	1.57 Y	-	-	-
JS PCB-138	35.11	4.37E+07	1.27 Y	-	-	-
JS PCB-194	45.17	3.97E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	10.66	5.68E+06	3.23 Y	1.03	1.01	-1.7%
PCB-3 4-MoCB	12.72	5.62E+06	3.25 Y	1.04	1.01	-3.4%
PCB-4 22'-DiCB	12.94	2.89E+06	1.56 Y	1.17	1.13	-3.3%
PCB-15 44'-DiCB	18.26	5.95E+06	1.63 Y	1.08	1.04	-3.7%
PCB-19 22'6-TrCB	15.78	3.04E+06	1.06 Y	1.09	1.04	-4.9%
PCB-37 344'-TrCB	24.35	4.85E+06	1.05 Y	1.10	1.06	-4.1%
PCB-54 22'66'-TeCB	18.52	3.18E+06	0.78 Y	1.21	1.17	-3.4%
PCB-104 22'466'-PeCB	23.31	3.23E+06	0.63 Y	1.25	1.23	-1.9%
PCB-153 22'44'55' -HxCB	34.12	5.75E+06	1.25 Y	1.22	1.15	-6.0%
PCB-155 22'44'66'-HxCB	28.16	3.41E+06	1.29 Y	1.09	1.04	-4.4%
PCB-170 22'33'44'5-HpCB	40.83	2.06E+06	1.09 Y	1.07	1.04	-2.8%
PCB-180 22'344'55'-HpCB	39.75	5.17E+06	1.04 Y	1.16	1.14	-1.6%
PCB-188 22'34'566'-HpCB	32.97	2.62E+06	1.10 Y	1.03	1.02	-0.9%
PCB-202 22'33'55'66'-OcCB	37.46	2.20E+06	0.92 Y	0.91	0.89	-2.7%
PCB-205 233'44'55'6-OcCB	45.59	2.46E+06	0.91 Y	1.09	1.04	-4.2%
PCB-208 22'33'455'66'-NoCB	43.05	2.30E+06	0.75 Y	1.02	0.98	-3.8%
PCB-206 22'33'44'55'6-NoCB	47.04	1.63E+06	0.75 Y	0.98	0.95	-2.8%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB
ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.66	5.68E+06	3.23 Y	1.03	1.01	-1.7%
PCB-2 3-MoCB	12.55	5.71E+06	3.28 Y	1.04	1.02	-1.8%
PCB-3 4-MoCB	12.72	5.62E+06	3.25 Y	1.04	1.01	-3.4%
PCB-4 22'-DiCB	12.94	2.89E+06	1.56 Y	1.17	1.13	-3.3%
PCB-10 26-DiCB	13.11	4.57E+06	1.56 Y	1.83	1.79	-2.5%
PCB-9 25-DiCB	14.77	5.02E+06	1.62 Y	0.89	0.88	-1.7%
PCB-7 24-DiCB	14.92	5.75E+06	1.59 Y	1.02	1.01	-1.8%
PCB-6 23'-DiCB	15.13	5.30E+06	1.65 Y	0.95	0.93	-2.2%
PCB-5 23-DiCB	15.41	5.38E+06	1.62 Y	0.97	0.94	-3.2%
PCB-8 24'-DiCB	15.52	5.61E+06	1.62 Y	0.98	0.98	-0.1%
PCB-14 35-DiCB	16.99	6.45E+06	1.64 Y	1.16	1.13	-2.4%
PCB-11 33'-DiCB	17.72	5.59E+06	1.59 Y	1.00	0.98	-2.0%
PCB-13/12 34'-/34-DiCB	17.99	1.13E+07	1.57 Y	1.02	0.99	-2.9%
PCB-15 44'-DiCB	18.26	5.95E+06	1.63 Y	1.08	1.04	-3.7%
PCB-19 22'6-TrCB	15.78	3.04E+06	1.06 Y	1.09	1.04	-4.9%
PCB-30/18 246-/22'5-TrCB	17.44	8.35E+06	1.09 Y	1.46	1.43	-2.1%
PCB-17 22'4-TrCB	17.82	3.50E+06	1.09 Y	1.25	1.20	-4.3%
PCB-27 23'6-TrCB	18.00	4.67E+06	1.09 Y	1.69	1.60	-5.5%
PCB-24 236-TrCB	18.13	4.70E+06	1.09 Y	1.63	1.61	-1.5%
PCB-16 22'3-TrCB	18.21	2.60E+06	1.07 Y	0.95	0.89	-6.6%
PCB-32 24'6-TrCB	18.67	5.03E+06	1.06 Y	1.79	1.72	-3.7%
PCB-34 2'35-TrCB	19.78	4.70E+06	1.07 Y	1.05	1.03	-1.9%
PCB-23 235-TrCB	19.92	4.72E+06	1.02 Y	1.06	1.03	-2.5%
PCB-26/29 23'5-/245-TrCB	20.20	9.79E+06	1.05 Y	1.09	1.07	-1.4%
PCB-25 23'4-TrCB	20.38	4.78E+06	1.05 Y	1.07	1.04	-2.8%
PCB-31 24'5-TrCB	20.65	4.93E+06	1.03 Y	1.11	1.08	-3.0%
PCB-28/20 244'-/233'-TrCB	20.92	9.53E+06	1.05 Y	1.07	1.04	-2.4%
PCB-21/33 234-/2'34-TrCB	21.09	9.67E+06	1.03 Y	1.09	1.06	-3.2%
PCB-22 234'-TrCB	21.45	4.48E+06	1.05 Y	1.02	0.98	-3.6%
PCB-36 33'5-TrCB	22.80	4.93E+06	1.05 Y	1.13	1.08	-4.3%
PCB-39 34'5-TrCB	23.11	5.20E+06	1.08 Y	1.17	1.14	-2.5%
PCB-38 345-TrCB	23.61	4.65E+06	1.04 Y	1.03	1.02	-1.5%
PCB-35 33'4-TrCB	24.00	4.58E+06	1.02 Y	1.04	1.00	-3.7%
PCB-37 344'-TrCB	24.35	4.85E+06	1.05 Y	1.10	1.06	-4.1%
PCB-54 22'66'-TeCB	18.52	3.18E+06	0.78 Y	1.21	1.17	-3.4%
PCB-50/53 22'46-/22'56'TeCB	20.43	5.99E+06	0.79 Y	0.86	0.83	-3.3%
PCB-45 22'36-TeCB	20.98	2.52E+06	0.77 Y	0.73	0.70	-4.5%
PCB-51 22'46'-TeCB	21.05	3.15E+06	0.78 Y	0.88	0.87	-1.0%
PCB-46 22'36'-TeCB	21.25	2.43E+06	0.78 Y	0.70	0.67	-3.3%
PCB-52 22'55'-TeCB	22.49	2.99E+06	0.80 Y	0.84	0.83	-1.9%
PCB-73 23'5'6TeCB	22.61	3.63E+06	0.78 Y	1.09	1.00	-7.8%
PCB-43 22'35-TeCB	22.69	2.63E+06	0.80 Y	0.72	0.73	0.6%
PCB-69/49 23'46-/22'45'TeCB	22.89	7.17E+06	0.79 Y	1.01	0.99	-2.2%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.16	2.96E+06	0.79 Y	0.85	0.82	-3.7%
PCB-44/47/65 22'35'-/22'44'-	23.37	9.40E+06	0.79 Y	0.89	0.87	-2.7%
PCB-59/62/75 233'6-/2346-/24	23.63	1.22E+07	0.79 Y	1.14	1.13	-1.0%
PCB-42 22'34'-TeCB	23.79	2.74E+06	0.79 Y	0.77	0.76	-2.0%
PCB-41 22'34-TeCB	24.10	2.40E+06	0.80 Y	0.73	0.66	-8.7%
PCB-71/40 23'4'6/22'33'-TeCB	24.20	6.18E+06	0.80 Y	0.87	0.85	-1.3%
PCB-64 234'6-TeCB	24.40	4.34E+06	0.78 Y	1.24	1.20	-3.0%
PCB-72 23'55'-TeCB	25.13	3.96E+06	0.80 Y	1.14	1.09	-4.3%
PCB-68 23'45'-TeCB	25.37	4.20E+06	0.77 Y	1.21	1.16	-4.1%
PCB-57 233'5-TeCB	25.73	3.81E+06	0.79 Y	1.11	1.05	-4.8%
PCB-58 233'5-TeCB	25.92	3.87E+06	0.78 Y	1.10	1.07	-2.8%
PCB-67 23'45-TeCB	26.08	4.04E+06	0.78 Y	1.16	1.12	-3.8%
PCB-63 234'5-TeCB	26.30	4.24E+06	0.80 Y	1.22	1.17	-3.6%
PCB-61/70/74/76 2345-/23'4'5	26.58	1.61E+07	0.78 Y	1.13	1.11	-1.7%
PCB-66 23'44'-TeCB	26.86	3.76E+06	0.78 Y	1.08	1.04	-3.5%
PCB-55 233'4-TeCB	26.99	3.84E+06	0.78 Y	1.10	1.06	-3.3%
PCB-56 233'4'-TeCB	27.42	3.63E+06	0.76 Y	1.06	1.00	-5.0%
PCB-60 2344'-TeCB	27.60	3.83E+06	0.78 Y	1.11	1.06	-4.7%
PCB-80 33'55'-TeCB	27.96	4.40E+06	0.75 Y	1.25	1.22	-2.9%
PCB-79 33'45'-TeCB	29.24	4.20E+06	0.77 Y	1.23	1.16	-5.9%
PCB-78 33'45-TeCB	29.71	3.70E+06	0.78 Y	1.08	1.02	-5.3%
PCB-104 22'466'-PeCB	23.31	3.23E+06	0.63 Y	1.25	1.23	-1.9%
PCB-96 22'366'-PeCB	23.61	2.72E+06	0.62 Y	1.08	1.04	-3.5%
PCB-103 22'45'6-PeCB	25.28	2.75E+06	0.64 Y	0.90	0.86	-4.4%
PCB-94 22'356'-PeCB	25.46	2.36E+06	0.62 Y	0.78	0.74	-4.8%
PCB-95 22'35'6-PeCB	25.83	2.61E+06	0.62 Y	0.83	0.82	-1.0%
PCB-100/93 22'44'6-/22'356-P	26.04	5.34E+06	0.62 Y	0.84	0.84	-0.8%
PCB-102 22'456'-PeCB	26.15	2.71E+06	0.61 Y	0.90	0.85	-5.7%
PCB-98 22'3'46-PeCB	26.21	2.41E+06	0.62 Y	0.77	0.76	-2.2%
PCB-88 22'346-PeCB	26.50	2.46E+06	0.59 Y	0.79	0.77	-2.9%
PCB-91 22'34'6-PeCB	26.57	2.73E+06	0.62 Y	0.88	0.86	-2.8%
PCB-84 22'33'6-PeCB	26.75	2.20E+06	0.60 Y	0.71	0.69	-2.9%
PCB-89 22'346'-PeCB	27.15	2.38E+06	0.63 Y	0.76	0.75	-2.1%
PCB-121 23'45'6-PeCB	27.53	3.55E+06	0.60 Y	1.14	1.11	-2.9%
PCB-92 22'355'-PeCB	27.83	2.48E+06	0.60 Y	0.80	0.78	-2.8%
PCB-113/90/101 233'5'6-/22'3	28.31	8.79E+06	0.60 Y	0.93	0.92	-1.8%
PCB-83 22'33'5-PeCB	28.73	2.26E+06	0.63 Y	0.71	0.71	-0.4%
PCB-99 22'44'5-PeCB	28.83	2.72E+06	0.61 Y	0.87	0.85	-2.3%
PCB-112 233'56-PeCB	28.92	3.46E+06	0.64 Y	1.13	1.08	-3.8%
PCB-108/119/86/97/125/87 233	29.26	1.81E+07	0.61 Y	0.95	0.94	-0.5%
PCB-117 234'56-PeCB	29.78	3.13E+06	0.62 Y	1.04	0.98	-5.6%
PCB-116/85 23456-/22'344'-Pe	29.86	6.16E+06	0.62 Y	0.97	0.97	-0.8%
PCB-110 233'4'6-PeCB	29.99	3.21E+06	0.63 Y	1.02	1.01	-1.5%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.07	3.50E+06	0.62 Y	1.16	1.10	-5.3%
PCB-82 22'33'4-PeCB	30.25	2.13E+06	0.63 Y	0.69	0.67	-3.4%
PCB-111 233'55'-PeCB	30.60	3.61E+06	0.62 Y	1.15	1.13	-2.0%
PCB-120 23'455'-PeCB	30.99	3.66E+06	0.61 Y	1.16	1.15	-1.2%
PCB-107/124 233'4'5-/2'3455'	31.93	6.75E+06	0.62 Y	1.07	1.06	-1.6%
PCB-109 233'46-PeCB	32.14	3.32E+06	0.61 Y	1.14	1.04	-8.9%
PCB-106 233'45-PeCB	32.34	3.43E+06	0.62 Y	1.07	1.08	0.5%
PCB-122 2'33'45-PeCB	32.80	3.19E+06	0.61 Y	1.00	0.96	-4.2%
PCB-127 33'455'-PeCB	34.74	3.51E+06	0.61 Y	1.10	1.07	-2.4%
PCB-155 22'44'66'-HxCB	28.16	3.41E+06	1.29 Y	1.09	1.04	-4.4%
PCB-152 22'3566'-HxCB	28.30	3.21E+06	1.28 Y	1.01	0.98	-3.1%
PCB-150 22'34'66'-HxCB	28.45	3.21E+06	1.25 Y	1.00	0.98	-2.2%
PCB-136 22'33'66'-HxCB	28.73	3.01E+06	1.22 Y	0.95	0.92	-3.5%
PCB-145 22'3466'HxCB	29.00	3.09E+06	1.27 Y	0.96	0.94	-1.8%
PCB-148 22'34'56'-HxCB	30.29	2.30E+06	1.26 Y	0.97	0.92	-5.4%
PCB-151/135 22'355'6-/22'33'	30.79	4.63E+06	1.23 Y	0.96	0.92	-4.1%
PCB-154 22'44'5'6-HxCB	31.00	2.65E+06	1.31 Y	1.09	1.06	-2.9%
PCB-144 22'345'6-HxCB	31.25	2.37E+06	1.29 Y	0.98	0.95	-3.8%
PCB-147/149 22'34'56-/22'34'	31.55	4.78E+06	1.28 Y	0.99	0.95	-3.3%
PCB-134 22'33'56-HxCB	31.71	1.90E+06	1.24 Y	0.80	0.76	-5.6%
PCB-143 22'3456'-HxCB	31.79	2.25E+06	1.26 Y	0.95	0.90	-6.0%
PCB-139/140 22'344'6-/22'344'	32.06	4.86E+06	1.25 Y	1.00	0.97	-3.1%
PCB-131 22'33'46-HxCB	32.22	2.08E+06	1.32 Y	0.85	0.83	-2.6%
PCB-142 22'3456-HxCB	32.36	2.11E+06	1.30 Y	0.87	0.84	-3.7%
PCB-132 22'33'46'-HxCB	32.60	2.15E+06	1.26 Y	0.89	0.86	-3.8%
PCB-133 22'33'55'-HxCB	33.03	2.21E+06	1.25 Y	0.91	0.88	-3.6%
PCB-165 233'55'6-HxCB	33.37	2.72E+06	1.27 Y	1.13	1.08	-4.3%
PCB-146 22'34'55'-HxCB	33.58	2.38E+06	1.23 Y	1.01	0.95	-5.8%
PCB-161 233'45'6-HxCB	33.69	3.02E+06	1.26 Y	1.25	1.20	-3.9%
PCB-153/168 22'44'55'-/23'44'	34.12	5.75E+06	1.25 Y	1.22	1.15	-6.0%
PCB-141 22'3455'-HxCB	34.25	2.23E+06	1.26 Y	0.93	0.89	-4.1%
PCB-130 22'33'45'-HxCB	34.59	2.04E+06	1.30 Y	0.85	0.81	-4.0%
PCB-137 22'344'5-HxCB	34.78	2.64E+06	1.31 Y	1.04	1.05	1.0%
PCB-164 233'4'5'6-HxCB	34.87	2.80E+06	1.27 Y	1.22	1.12	-8.9%
PCB-163/138/129 233'4'56-/22'	35.15	7.49E+06	1.28 Y	1.02	1.00	-2.8%
PCB-160 233'456-HxCB	35.28	2.83E+06	1.29 Y	1.21	1.13	-6.6%
PCB-158 233'44'6-HxCB	35.46	3.25E+06	1.26 Y	1.34	1.30	-3.0%
PCB-128/166 22'33'44'-/2344'5	36.18	5.65E+06	1.27 Y	0.90	0.87	-2.9%
PCB-159 233'455'-HxCB	37.02	3.30E+06	1.23 Y	1.06	1.02	-4.1%
PCB-162 233'4'55'-HxCB	37.26	3.40E+06	1.24 Y	1.08	1.05	-2.4%
PCB-188 22'34'566'-HpCB	32.97	2.62E+06	1.10 Y	1.03	1.02	-0.9%
PCB-179 22'33'566'-HpCB	33.23	2.41E+06	1.06 Y	0.97	0.94	-2.5%
PCB-184 22'344'66'-HpCB	33.70	2.30E+06	1.03 Y	0.93	0.90	-3.4%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17
ICAL: MM7_PCB_07132012_25JUL12

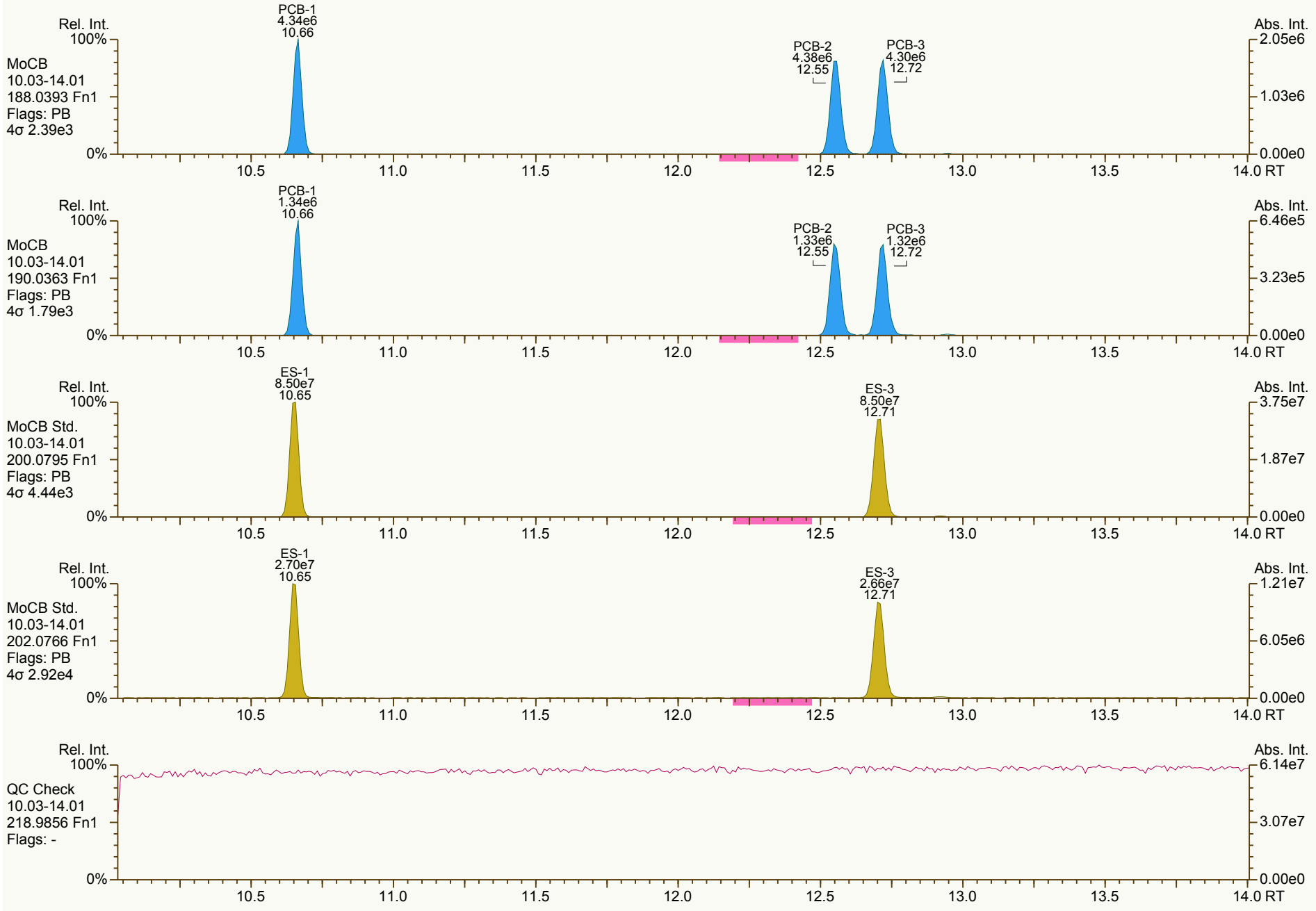
Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.98	2.66E+06	1.09 Y	1.05	1.04	-0.7%
PCB-186 22'34566'-HpCB	34.36	2.47E+06	1.07 Y	0.98	0.97	-1.6%
PCB-178 22'33'55'6-HpCB	35.52	1.83E+06	1.09 Y	0.74	0.72	-2.4%
PCB-175 22'33'45'6-HpCB	36.05	2.25E+06	1.09 Y	1.01	0.99	-1.7%
PCB-187 22'34'55'6-HpCB	36.28	2.40E+06	1.02 Y	1.06	1.06	-0.4%
PCB-182 22'344'56'-HpCB	36.45	2.42E+06	1.07 Y	1.11	1.07	-3.8%
PCB-183 22'344'5'6-HpCB	36.80	2.61E+06	1.06 Y	1.13	1.15	1.7%
PCB-185 22'3455'6-HpCB	36.87	2.18E+06	1.09 Y	1.02	0.96	-5.5%
PCB-174 22'33'456'-HpCB	36.98	2.06E+06	1.07 Y	0.93	0.91	-2.2%
PCB-177 22'33'4'56-HpCB	37.35	2.01E+06	1.02 Y	0.91	0.89	-2.0%
PCB-181 22'344'56-HpCB	37.69	2.30E+06	1.06 Y	1.06	1.02	-4.4%
PCB-171/173 22'33'44'6-/22'3	37.87	4.10E+06	1.04 Y	0.93	0.90	-2.6%
PCB-172 22'33'455'-HpCB	39.23	2.09E+06	1.09 Y	0.95	0.92	-3.5%
PCB-192 233'455'6-HpCB	39.48	2.74E+06	1.07 Y	1.24	1.21	-2.7%
PCB-180/193 22'344'55'-/233'	39.75	5.17E+06	1.04 Y	1.16	1.14	-1.6%
PCB-191 233'44'5'6-HpCB	40.08	2.85E+06	1.05 Y	1.30	1.25	-3.7%
PCB-170 22'33'44'5-HpCB	40.83	2.06E+06	1.09 Y	1.07	1.04	-2.8%
PCB-190 233'44'56-HpCB	41.27	2.77E+06	1.06 Y	1.45	1.41	-3.1%
PCB-202 22'33'55'66'-OcCB	37.46	2.20E+06	0.92 Y	0.91	0.89	-2.7%
PCB-201 22'33'45'66'-OcCB	38.24	2.49E+06	0.92 Y	1.02	1.00	-1.7%
PCB-204 22'344'566'-OcCB	38.81	2.36E+06	0.89 Y	0.98	0.95	-2.4%
PCB-197 22'33'44'66'-OcCB	38.99	2.55E+06	0.94 Y	1.06	1.03	-3.2%
PCB-200 22'33'4566'-OcCB	39.07	2.36E+06	0.93 Y	0.96	0.95	-1.0%
PCB-198/199 22'33'455'6-/22'	41.40	3.43E+06	0.91 Y	0.72	0.69	-3.3%
PCB-196 22'33'44'56'-OcCB	41.97	1.79E+06	0.87 Y	0.73	0.72	-1.1%
PCB-203 22'344'55'6-OcCB	42.14	1.82E+06	0.92 Y	0.76	0.74	-3.6%
PCB-195 22'33'44'56-OcCB	43.24	1.80E+06	0.88 Y	0.80	0.76	-4.7%
PCB-194 22'33'44'55'-OcCB	45.19	1.99E+06	0.92 Y	0.87	0.84	-3.7%
PCB-205 233'44'55'6-OcCB	45.59	2.46E+06	0.91 Y	1.09	1.04	-4.2%
PCB-208 22'33'455'66'-NoCB	43.05	2.30E+06	0.75 Y	1.02	0.98	-3.8%
PCB-207 22'33'44'566'-NoCB	43.83	2.40E+06	0.77 Y	1.06	1.02	-3.4%
PCB-206 22'33'44'55'6-NoCB	47.04	1.63E+06	0.75 Y	0.98	0.95	-2.8%

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



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AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
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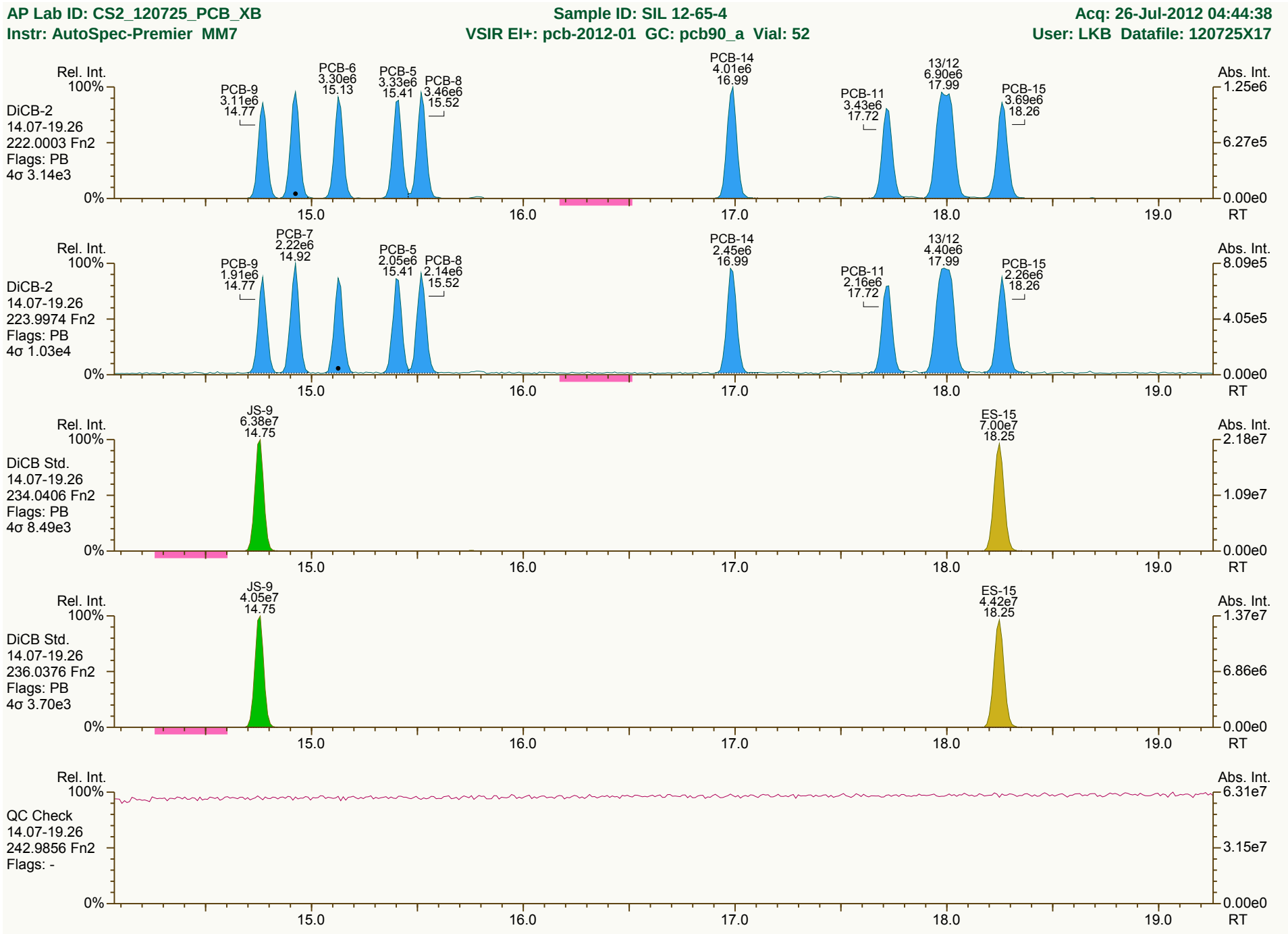
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 3306, 6439 scc: 175-178 *Revised: 27-Jul-2012 09:49 (LKB) Printed: 28-Jul-2012 11:14 Page 3 of 21*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Sample ID: SIL 12-65-4
Acq: 26-Jul-2012 04:44:38
Instr: AutoSpec-Premier MM7
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52
User: LKB Datafile: 120725X17
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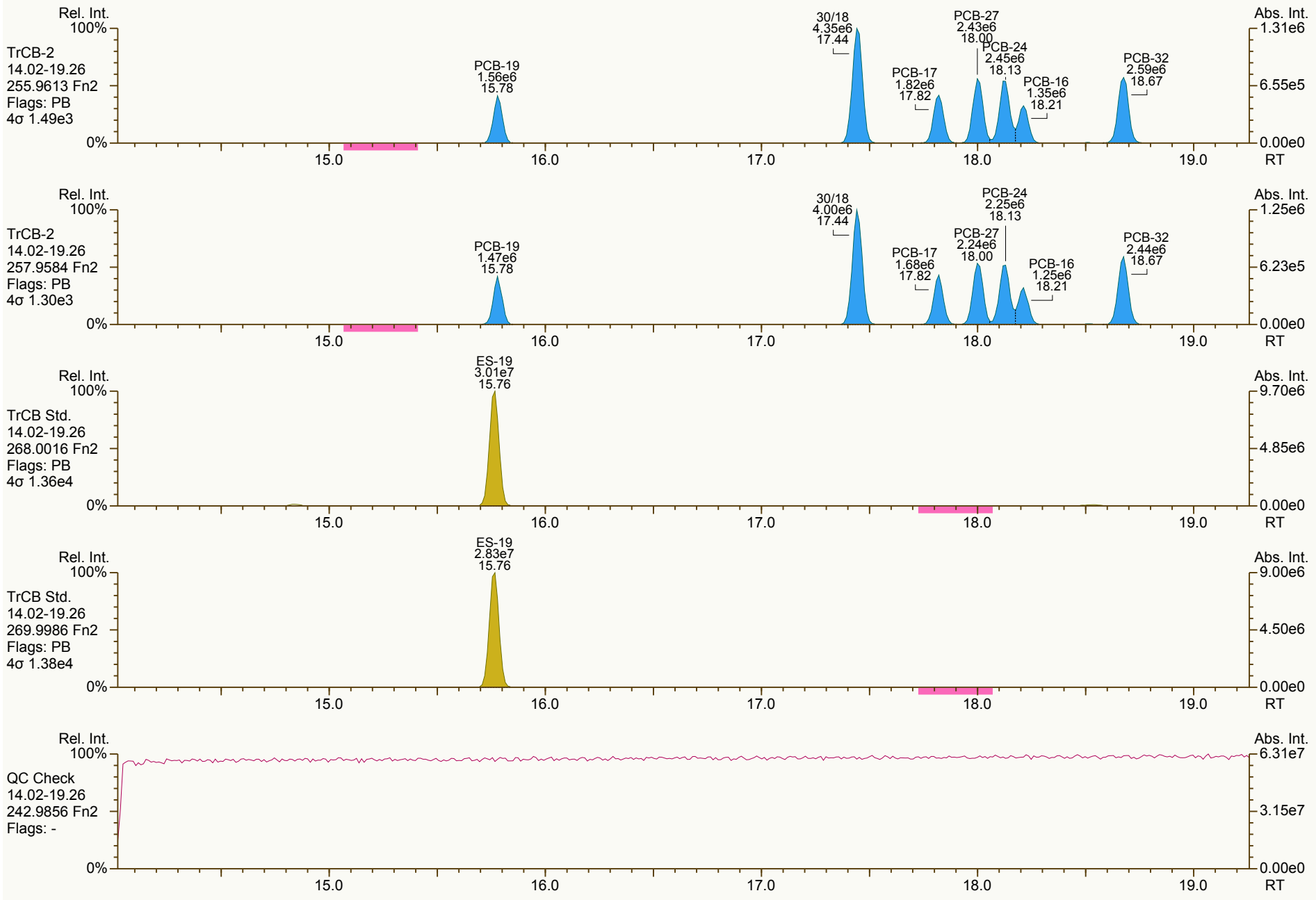
Abs. Int.
DiCB-2
14.07-19.26
222.0003 Fn2
Flags: PB
4σ 3.14e3
PCB-9 3.11e6 14.77
PCB-6 3.30e6 15.13
PCB-5 3.33e6 15.41
PCB-8 3.46e6 15.52
PCB-14 4.01e6 16.99
PCB-11 3.43e6 17.72
13/12 6.90e6 17.99
PCB-15 3.69e6 18.26
DiCB-2
14.07-19.26
223.9974 Fn2
Flags: PB
4σ 1.03e4
PCB-9 1.91e6 14.77
PCB-7 2.22e6 14.92
PCB-5 2.05e6 15.41
PCB-8 2.14e6 15.52
PCB-14 2.45e6 16.99
PCB-11 2.16e6 17.72
13/12 4.40e6 17.99
PCB-15 2.26e6 18.26
DiCB Std.
14.07-19.26
234.0406 Fn2
Flags: PB
4σ 8.49e3
JS-9 6.38e7 14.75
ES-15 7.00e7 18.25
DiCB Std.
14.07-19.26
236.0376 Fn2
Flags: PB
4σ 3.70e3
JS-9 4.05e7 14.75
ES-15 4.42e7 18.25
QC Check
14.07-19.26
242.9856 Fn2
Flags: -
RT

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



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AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
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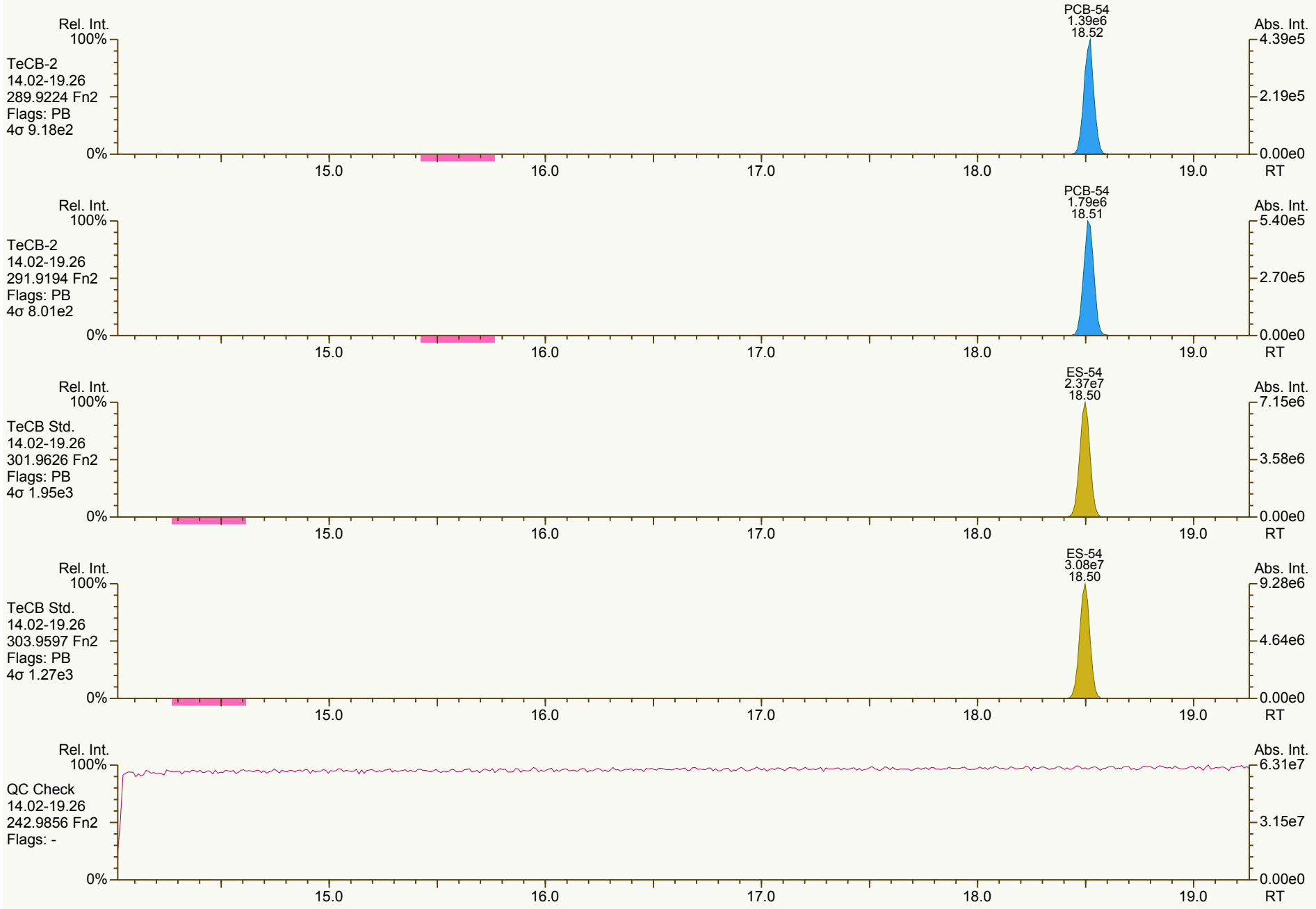

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AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
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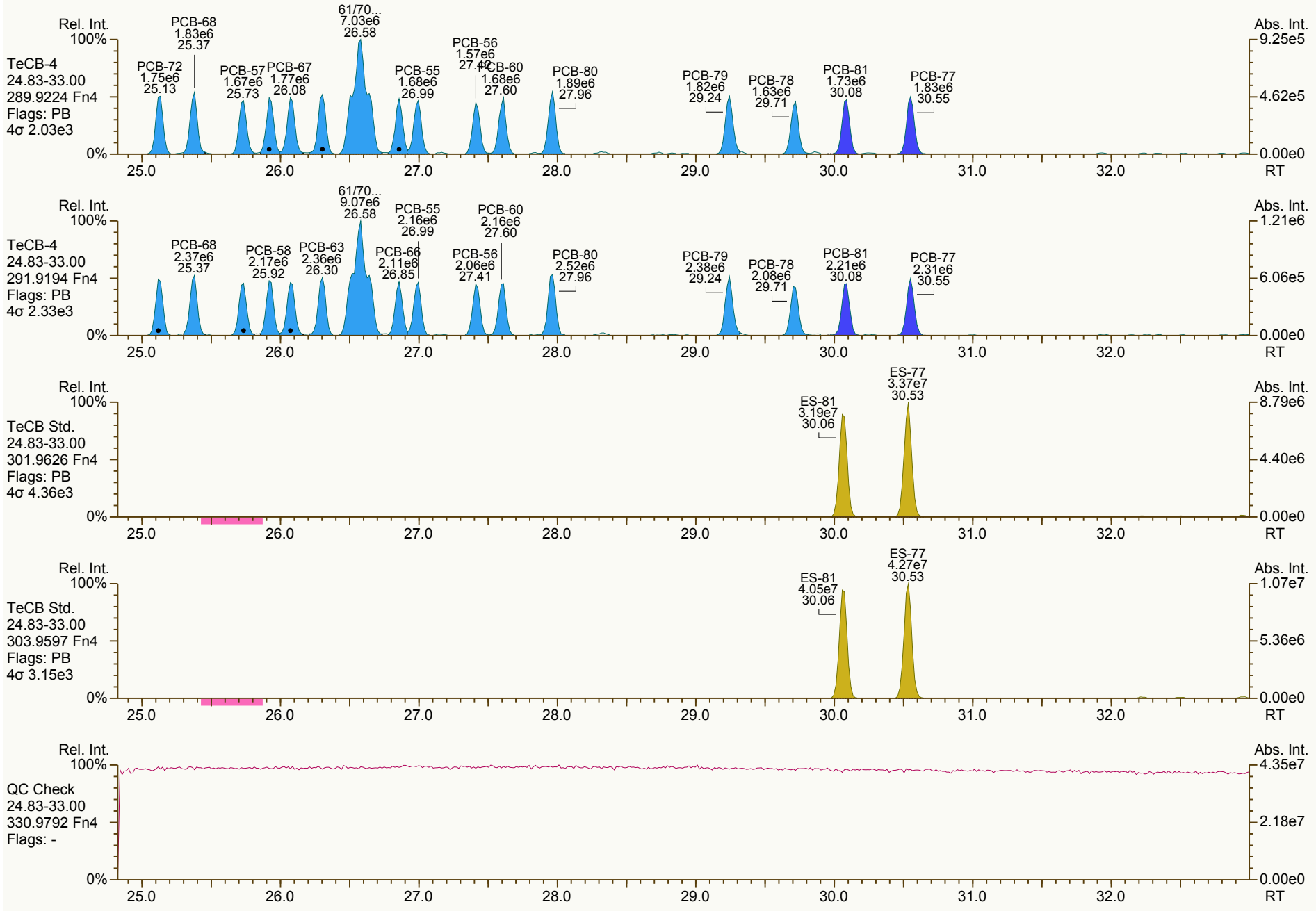
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



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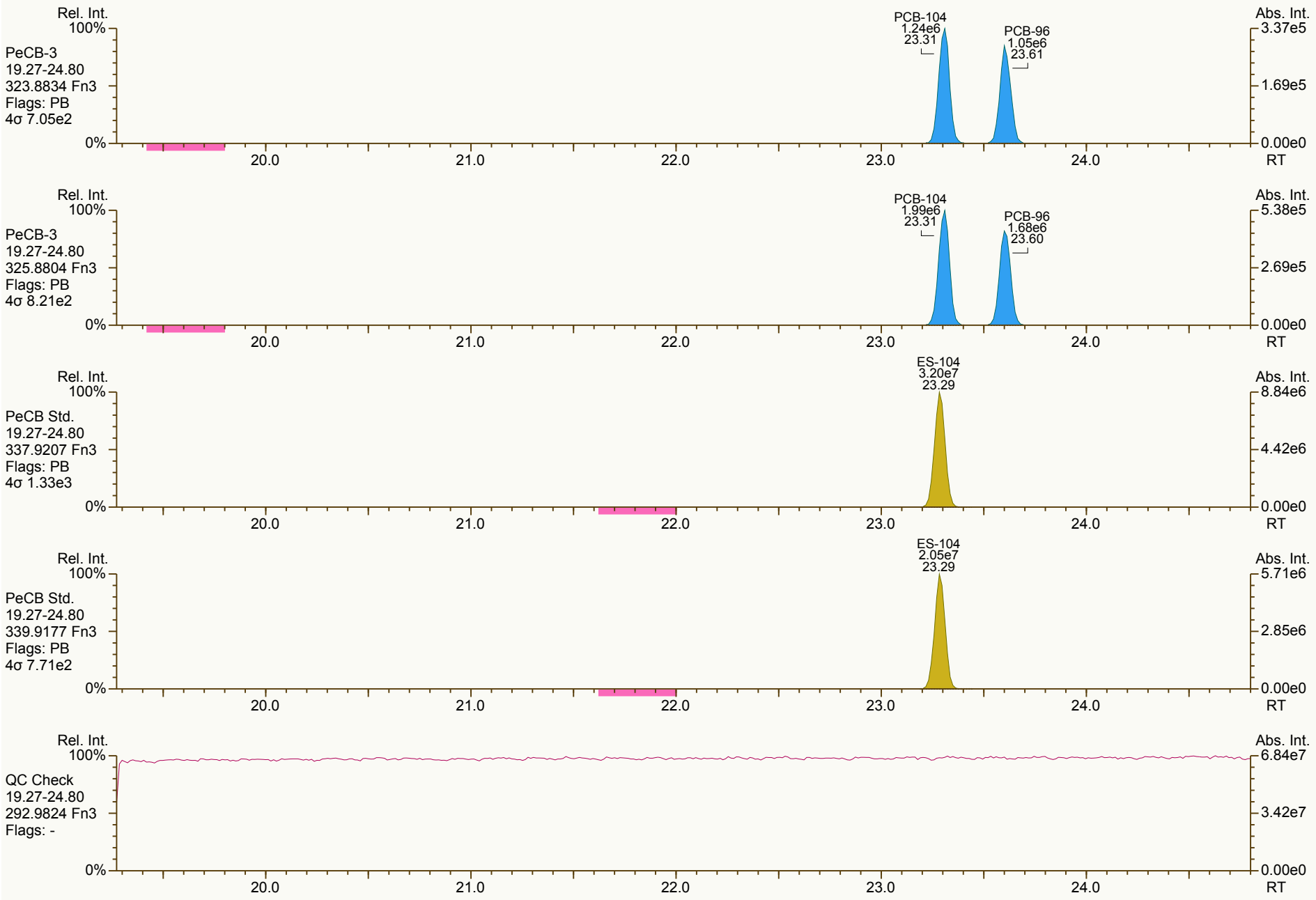
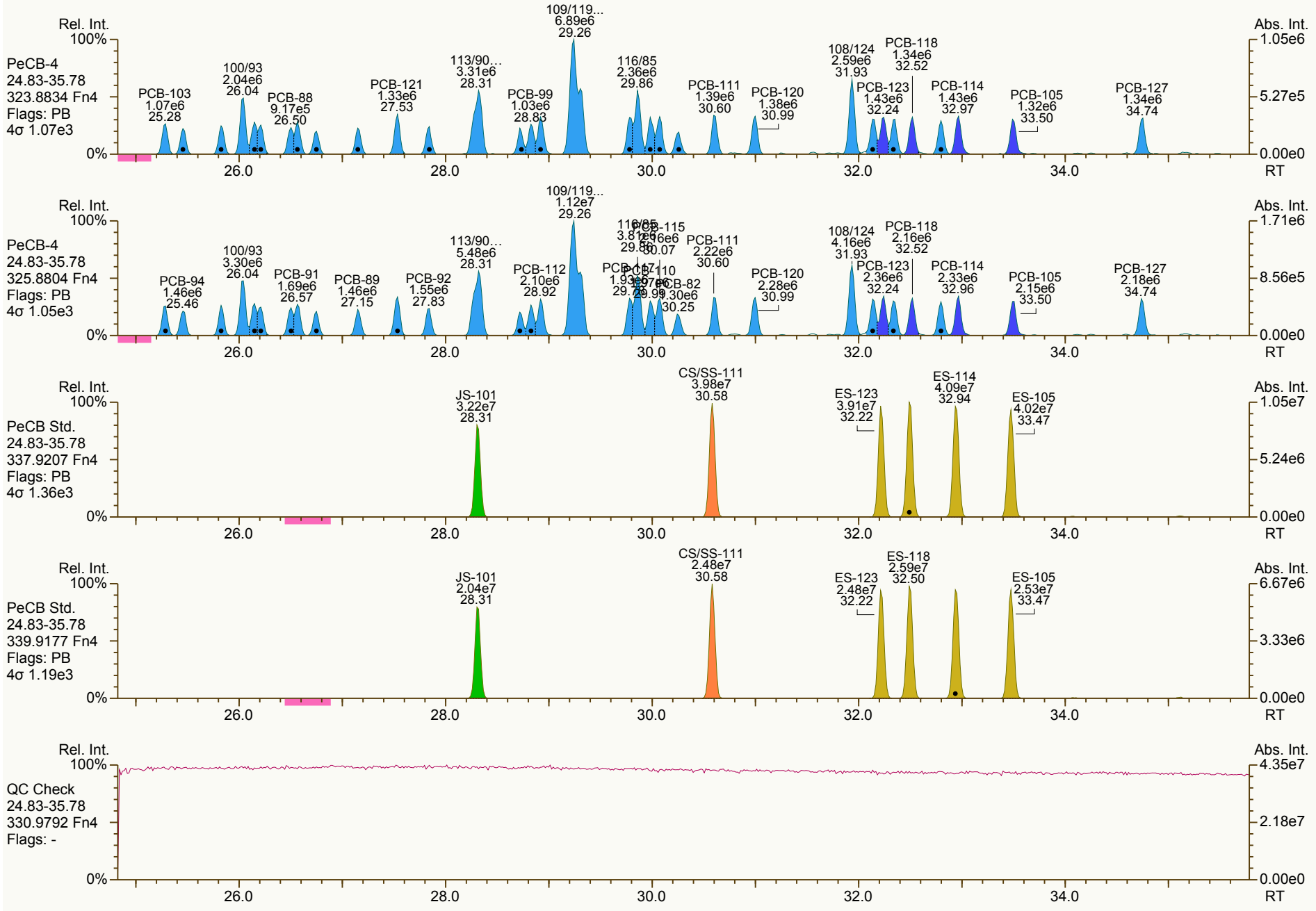
AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



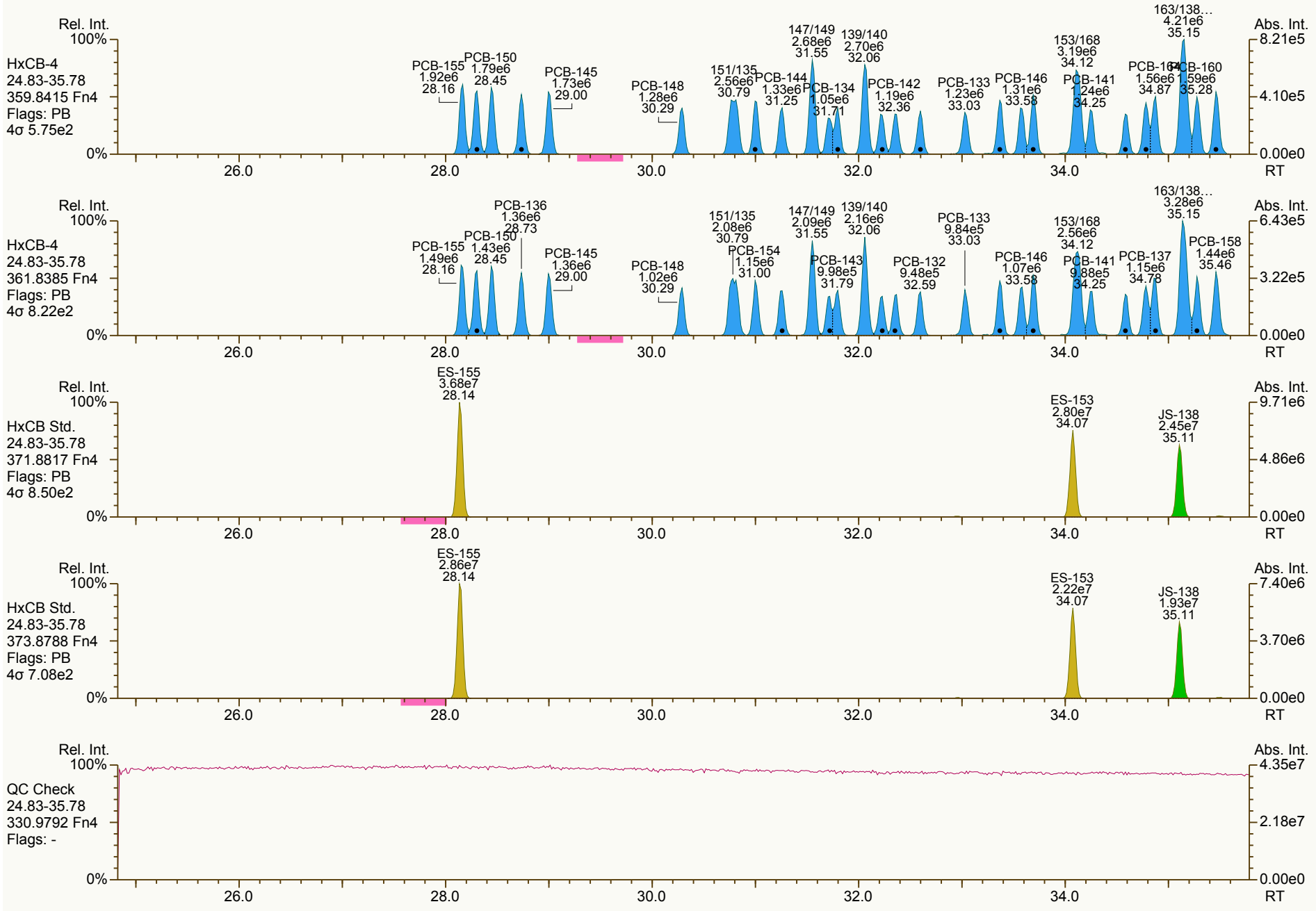
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

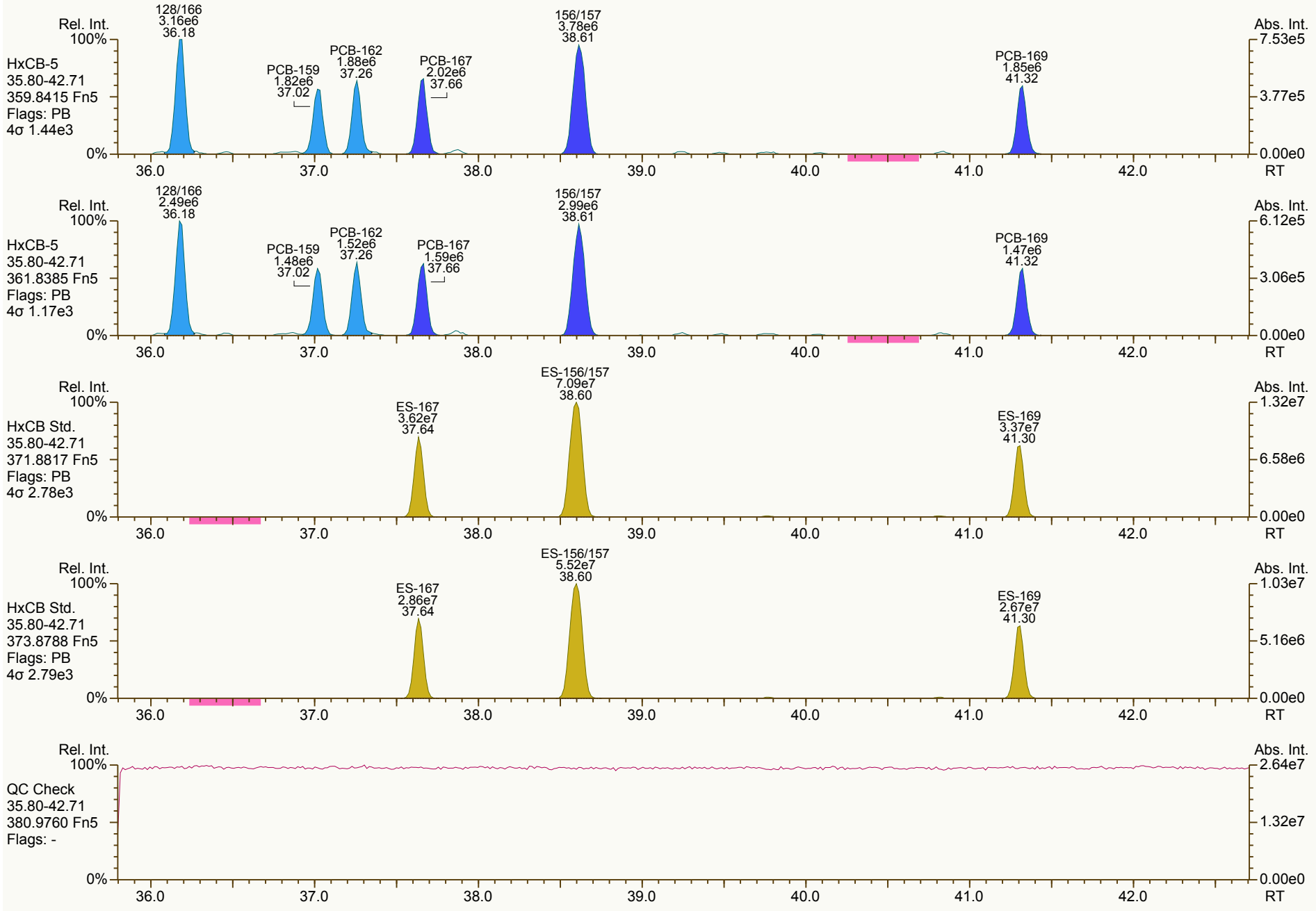
AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 5963, 4424 scc: 175-178 *Revised: 27-Jul-2012 15:46 (LKB) Printed: 28-Jul-2012 11:14 Page 13 of 21*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



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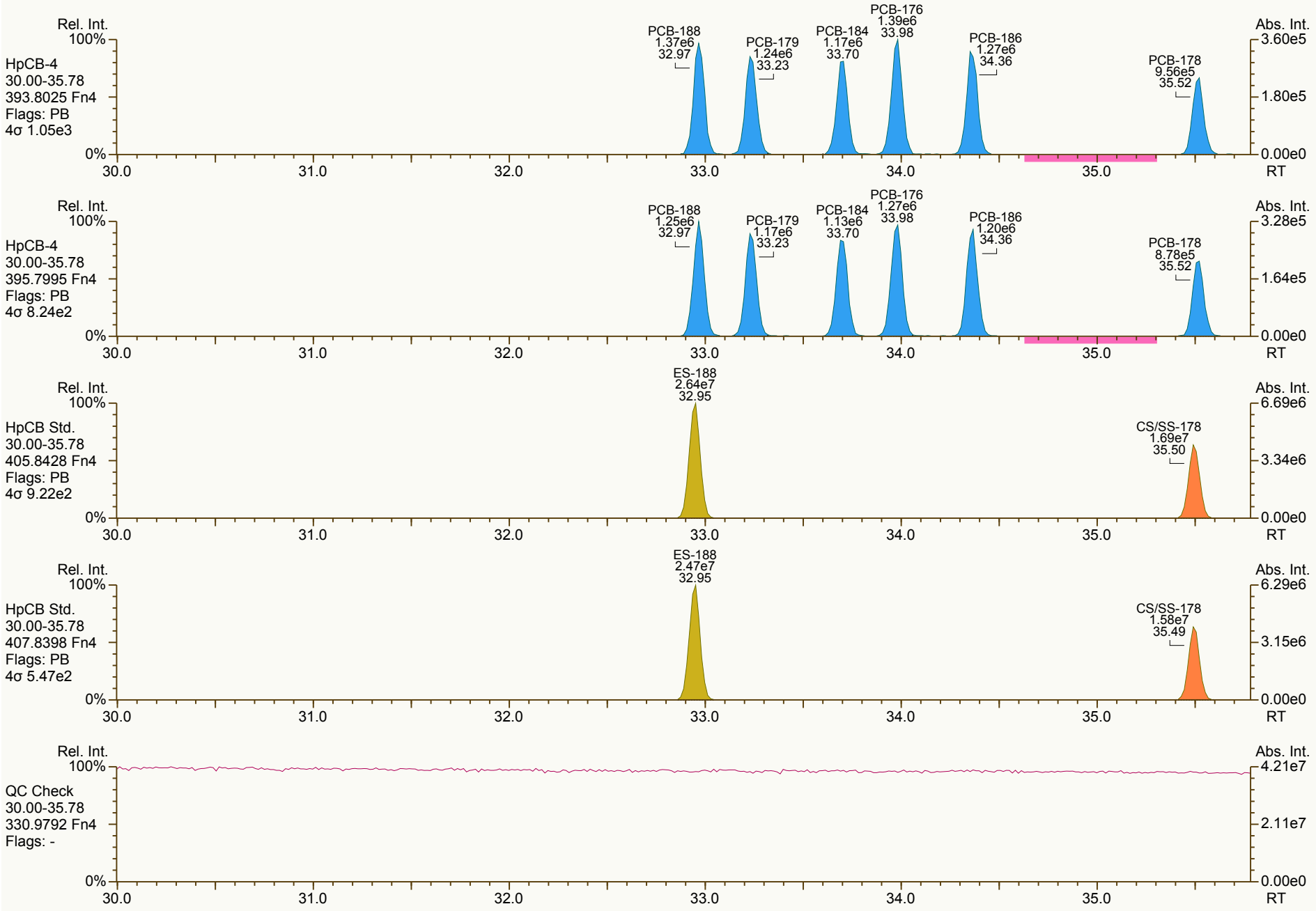
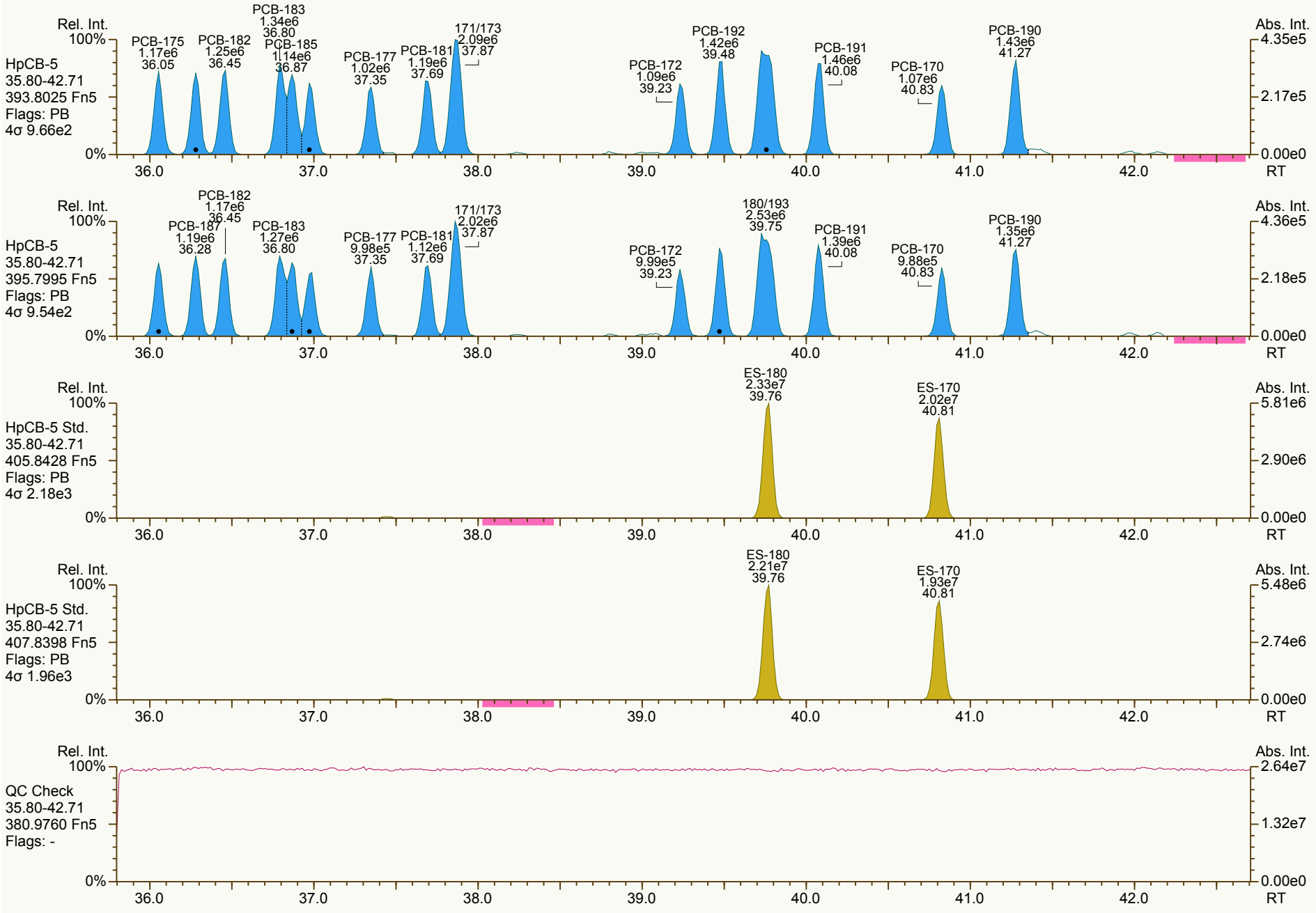
AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 1437, 5463 scc: 175-178 *PKD: 27-Jul-2012 15:48 Printed: 28-Jul-2012 11:14 Page 15 of 21*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

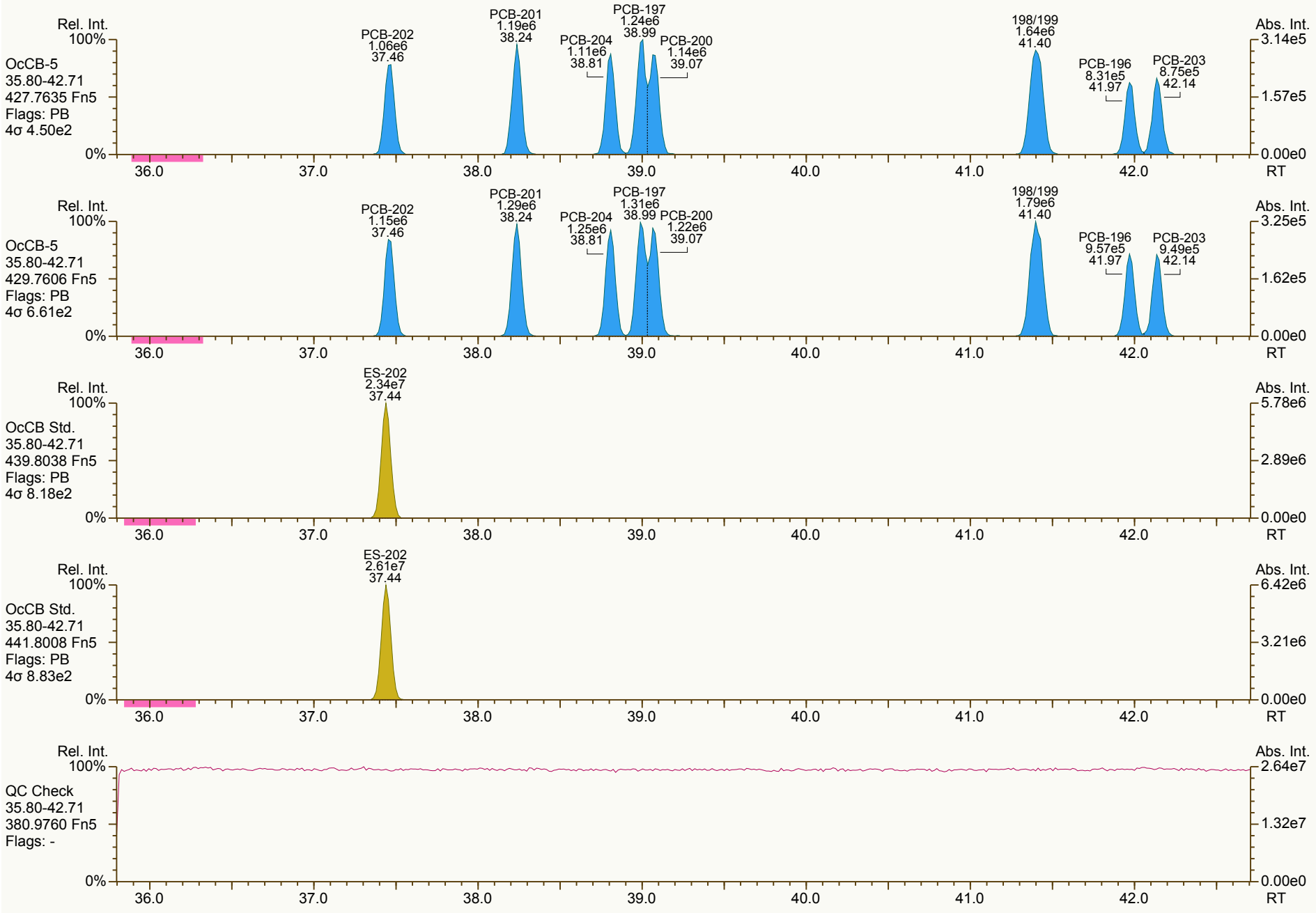
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 8047, 0012 scc: 175-178 *PKD: 27-Jul-2012 15:48 Printed: 28-Jul-2012 11:14 Page 16 of 21*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



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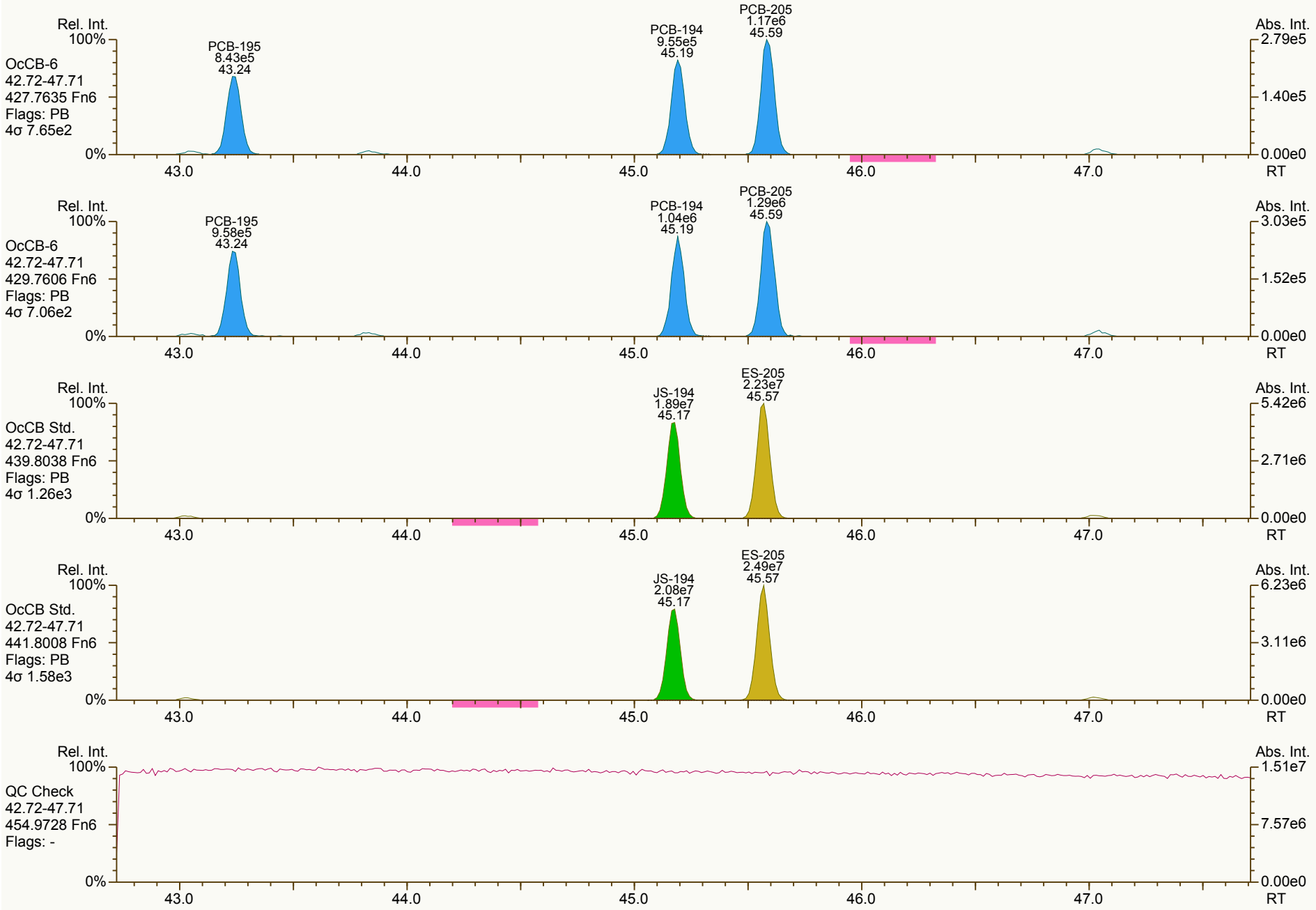
AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



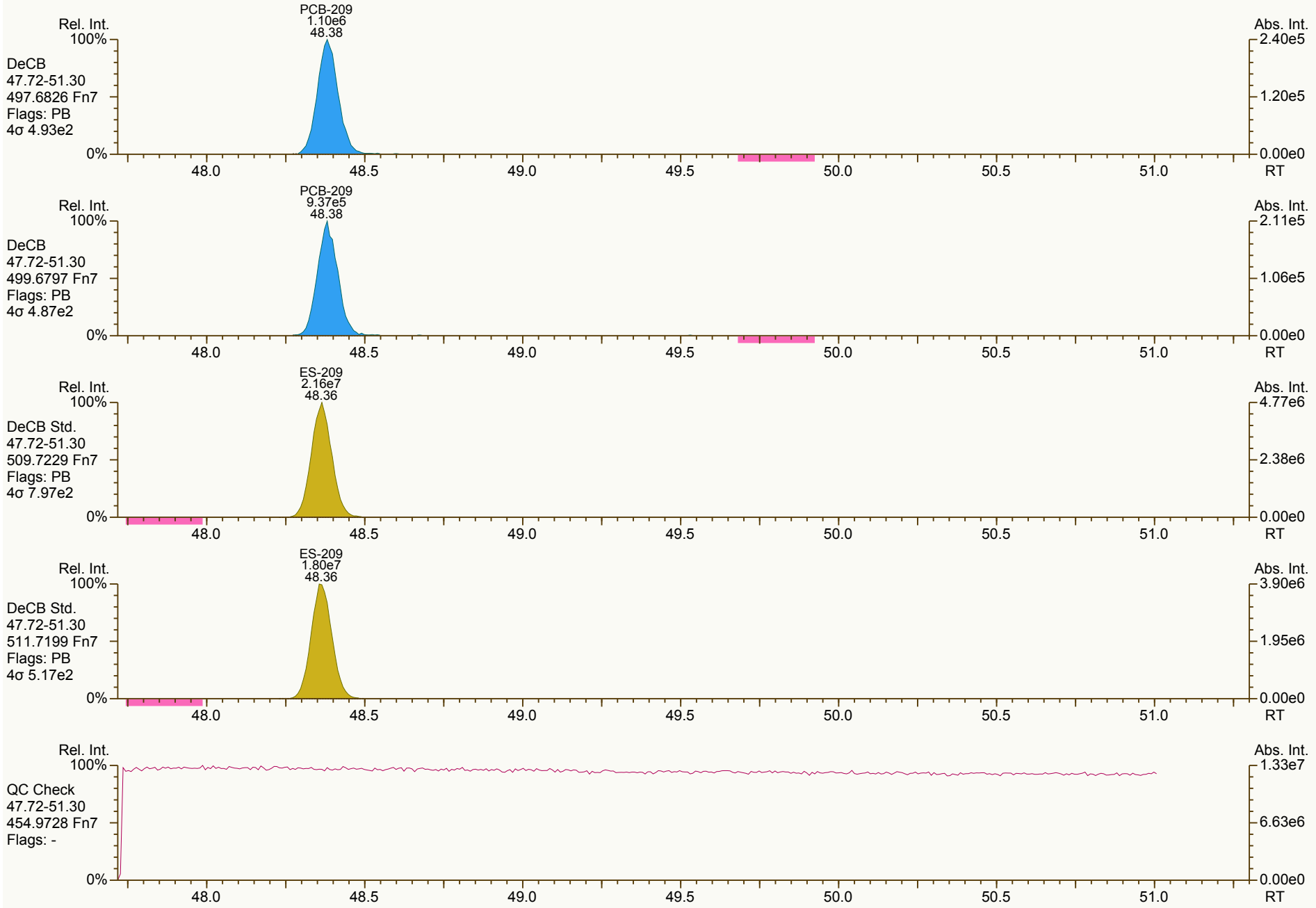
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:13
Lab ID:	**CS3_120725_PCB_XB**		**ICAL: MM7_PCB_07132012_25JUL12**		
Acquired:	**26-JUL-2012 05:38**				
Datafile:	**120725X18**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.54	4.63E+07	0.78 Y	1.13	1.16	2.5%
PCB-81 344'5-TeCB	30.07	4.46E+07	0.77 Y	1.13	1.17	3.8%
PCB-105 233'44'-PeCB	33.48	3.82E+07	0.62 Y	1.09	1.14	4.0%
PCB-114 2344'5-PeCB	32.95	4.13E+07	0.62 Y	1.16	1.22	4.9%
PCB-118 23'44'5-PeCB	32.50	3.95E+07	0.62 Y	1.11	1.13	1.9%
PCB-123 2'344'5-PeCB	32.23	3.83E+07	0.62 Y	1.19	1.16	-2.8%
PCB-126 33'44'5-PeCB	36.07	3.52E+07	0.62 Y	1.06	1.08	1.4%
PCB-156/157 233'44'5/233'44'5'	38.60	7.30E+07	1.25 Y	1.11	1.13	2.5%
PCB-167 23'44'55'-HxCB	37.64	3.89E+07	1.25 Y	1.14	1.18	4.2%
PCB-169 33'44'55'-HxCB	41.31	3.54E+07	1.25 Y	1.11	1.15	3.2%
PCB-189 233'44'55'-HpCB	43.42	3.22E+07	1.05 Y	1.06	1.08	2.5%
PCB-209 DeCB	48.37	2.17E+07	1.19 Y	1.07	1.09	1.3%
ES PCB-1	10.64	1.20E+08	3.16 Y	1.08	1.08	0.1%
ES PCB-3	12.69	1.20E+08	3.25 Y	1.08	1.08	0.1%
ES PCB-4	12.91	5.40E+07	1.61 Y	0.49	0.49	0.2%
ES PCB-15	18.23	1.22E+08	1.59 Y	1.11	1.11	-0.4%
ES PCB-19	15.75	6.15E+07	1.05 Y	0.55	0.56	0.5%
ES PCB-37	24.31	9.76E+07	1.07 Y	1.64	1.63	-0.4%
ES PCB-54	18.48	5.65E+07	0.77 Y	0.94	0.94	0.3%
ES PCB-77	30.52	7.97E+07	0.80 Y	1.35	1.33	-1.2%
ES PCB-81	30.05	7.63E+07	0.79 Y	1.29	1.27	-1.1%
ES PCB-104	23.27	5.46E+07	1.56 Y	0.99	0.99	-0.5%
ES PCB-105	33.46	6.72E+07	1.62 Y	1.23	1.22	-1.4%
ES PCB-114	32.93	6.79E+07	1.60 Y	1.25	1.23	-1.4%
ES PCB-118	32.48	7.00E+07	1.61 Y	1.28	1.27	-1.1%
ES PCB-123	32.20	6.64E+07	1.62 Y	1.22	1.20	-1.4%
ES PCB-126	36.06	6.54E+07	1.58 Y	1.20	1.19	-1.2%
ES PCB-153	34.06	5.09E+07	1.27 Y	1.14	1.14	0.3%
ES PCB-155	28.12	6.79E+07	1.28 Y	1.50	1.53	2.1%
ES PCB-156/157	38.58	1.29E+08	1.26 Y	1.45	1.45	-0.6%
ES PCB-167	37.62	6.58E+07	1.27 Y	1.49	1.48	-1.0%
ES PCB-169	41.29	6.18E+07	1.26 Y	1.40	1.39	-1.0%
ES PCB-170	40.79	4.01E+07	1.06 Y	1.00	1.01	0.8%
ES PCB-180	39.75	4.70E+07	1.06 Y	1.16	1.18	2.0%
ES PCB-188	32.93	5.30E+07	1.07 Y	1.18	1.19	1.1%
ES PCB-189	43.40	5.95E+07	1.06 Y	1.49	1.50	0.7%
ES PCB-202	37.43	5.04E+07	0.91 Y	1.14	1.13	-0.4%
ES PCB-205	45.55	4.77E+07	0.90 Y	1.20	1.20	-0.2%
ES PCB-206	47.01	3.46E+07	0.78 Y	0.87	0.87	0.2%
ES PCB-208	43.01	4.78E+07	0.80 Y	1.19	1.20	1.1%
ES PCB-209	48.35	4.00E+07	1.19 Y	1.00	1.01	0.4%

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:13
Lab ID:	**CS3_120725_PCB_XB**			**ICAL: MM7_PCB_07132012_25JUL12**	
Acquired:	**26-JUL-2012 05:38**				
Datafile:	**120725X18**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.88	1.05E+08	1.06 Y	1.07	1.08	0.5%
SS PCB-111	30.57	6.66E+07	1.59 Y	1.01	1.00	-0.1%
SS PCB-178	35.48	3.28E+07	1.04 Y	0.63	0.62	-1.3%
CS PCB-28	20.88	1.05E+08	1.06 Y	1.76	1.76	0.2%
CS PCB-111	30.57	6.66E+07	1.59 Y	1.23	1.21	-1.5%
CS PCB-178	35.48	3.28E+07	1.04 Y	0.74	0.74	-0.2%
JS PCB-9	14.74	1.10E+08	1.58 Y	-	-	-
JS PCB-52	22.45	5.99E+07	0.82 Y	-	-	-
JS PCB-101	28.30	5.52E+07	1.58 Y	-	-	-
JS PCB-138	35.09	4.45E+07	1.27 Y	-	-	-
JS PCB-194	45.16	3.97E+07	0.90 Y	-	-	-
PCB-1 2-MoCB	10.65	6.48E+07	3.19 Y	1.03	1.08	5.0%
PCB-3 4-MoCB	12.70	6.51E+07	3.18 Y	1.04	1.09	4.3%
PCB-4 22'-DiCB	12.93	3.30E+07	1.62 Y	1.17	1.22	4.3%
PCB-15 44'-DiCB	18.25	6.74E+07	1.58 Y	1.08	1.10	2.1%
PCB-19 22'6-TrCB	15.76	3.50E+07	1.07 Y	1.09	1.14	4.3%
PCB-37 344'-TrCB	24.33	5.55E+07	1.04 Y	1.10	1.14	2.9%
PCB-54 22'66'-TeCB	18.50	3.58E+07	0.79 Y	1.21	1.27	4.8%
PCB-104 22'466'-PeCB	23.29	3.59E+07	0.63 Y	1.25	1.32	5.0%
PCB-153 22'44'55' -HxCB	34.10	6.50E+07	1.27 Y	1.22	1.28	4.7%
PCB-155 22'44'66'-HxCB	28.14	3.83E+07	1.27 Y	1.09	1.13	3.3%
PCB-170 22'33'44'5-HpCB	40.81	2.24E+07	1.03 Y	1.07	1.12	4.0%
PCB-180 22'344'55'-HpCB	39.74	5.59E+07	1.05 Y	1.16	1.19	2.8%
PCB-188 22'34'566'-HpCB	32.95	2.85E+07	1.06 Y	1.03	1.08	4.1%
PCB-202 22'33'55'66'-OcCB	37.45	2.39E+07	0.90 Y	0.91	0.95	3.9%
PCB-205 233'44'55'6-OcCB	45.57	2.66E+07	0.89 Y	1.09	1.11	2.4%
PCB-208 22'33'455'66'-NoCB	43.03	2.52E+07	0.78 Y	1.02	1.06	3.8%
PCB-206 22'33'44'55'6-NoCB	47.03	1.75E+07	0.77 Y	0.98	1.01	3.6%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS3_120725_PCB_XB
ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 05:38
Datafile: 120725X18

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.65	6.48E+07	3.19 Y	1.03	1.08	5.0%
PCB-2 3-MoCB	12.54	6.51E+07	3.23 Y	1.04	1.09	4.4%
PCB-3 4-MoCB	12.70	6.51E+07	3.18 Y	1.04	1.09	4.3%
PCB-4 22'-DiCB	12.93	3.30E+07	1.62 Y	1.17	1.22	4.3%
PCB-10 26-DiCB	13.09	5.16E+07	1.60 Y	1.83	1.91	4.4%
PCB-9 25-DiCB	14.75	5.79E+07	1.60 Y	0.89	0.95	6.0%
PCB-7 24-DiCB	14.91	6.59E+07	1.60 Y	1.02	1.08	5.3%
PCB-6 23'-DiCB	15.11	6.19E+07	1.61 Y	0.95	1.01	6.9%
PCB-5 23-DiCB	15.39	6.27E+07	1.58 Y	0.97	1.03	5.6%
PCB-8 24'-DiCB	15.50	6.34E+07	1.58 Y	0.98	1.04	5.6%
PCB-14 35-DiCB	16.97	7.41E+07	1.58 Y	1.16	1.21	4.8%
PCB-11 33'-DiCB	17.70	6.40E+07	1.59 Y	1.00	1.05	5.0%
PCB-13/12 34'-/34-DiCB	17.98	1.31E+08	1.58 Y	1.02	1.07	5.1%
PCB-15 44'-DiCB	18.25	6.74E+07	1.58 Y	1.08	1.10	2.1%
PCB-19 22'6-TrCB	15.76	3.50E+07	1.07 Y	1.09	1.14	4.3%
PCB-30/18 246-/22'5-TrCB	17.43	9.40E+07	1.07 Y	1.46	1.53	4.7%
PCB-17 22'4-TrCB	17.80	4.05E+07	1.07 Y	1.25	1.32	5.3%
PCB-27 23'6-TrCB	17.99	5.38E+07	1.06 Y	1.69	1.75	3.4%
PCB-24 236-TrCB	18.11	5.16E+07	1.06 Y	1.63	1.68	2.8%
PCB-16 22'3-TrCB	18.19	3.16E+07	1.07 Y	0.95	1.03	7.9%
PCB-32 24'6-TrCB	18.66	5.72E+07	1.06 Y	1.79	1.86	4.1%
PCB-34 2'35-TrCB	19.77	5.37E+07	1.04 Y	1.05	1.10	5.1%
PCB-23 235-TrCB	19.91	5.44E+07	1.04 Y	1.06	1.11	5.4%
PCB-26/29 23'5-/245-TrCB	20.18	1.11E+08	1.04 Y	1.09	1.14	4.8%
PCB-25 23'4-TrCB	20.37	5.54E+07	1.04 Y	1.07	1.14	5.6%
PCB-31 24'5-TrCB	20.64	5.71E+07	1.05 Y	1.11	1.17	5.3%
PCB-28/20 244'-/233'-TrCB	20.90	1.09E+08	1.04 Y	1.07	1.12	4.5%
PCB-21/33 234-/2'34-TrCB	21.07	1.12E+08	1.04 Y	1.09	1.15	5.0%
PCB-22 234'-TrCB	21.44	5.20E+07	1.05 Y	1.02	1.07	5.0%
PCB-36 33'5-TrCB	22.79	5.71E+07	1.05 Y	1.13	1.17	3.7%
PCB-39 34'5-TrCB	23.10	5.96E+07	1.04 Y	1.17	1.22	4.8%
PCB-38 345-TrCB	23.60	5.33E+07	1.05 Y	1.03	1.09	5.8%
PCB-35 33'4-TrCB	23.98	5.24E+07	1.03 Y	1.04	1.07	3.3%
PCB-37 344'-TrCB	24.33	5.55E+07	1.04 Y	1.10	1.14	2.9%
PCB-54 22'66'-TeCB	18.50	3.58E+07	0.79 Y	1.21	1.27	4.8%
PCB-50/53 22'46-/22'56'TeCB	20.41	6.93E+07	0.79 Y	0.86	0.91	6.1%
PCB-45 22'36-TeCB	20.97	3.01E+07	0.79 Y	0.73	0.79	7.9%
PCB-51 22'46'-TeCB	21.04	3.52E+07	0.80 Y	0.88	0.92	5.1%
PCB-46 22'36'-TeCB	21.23	2.82E+07	0.78 Y	0.70	0.74	6.5%
PCB-52 22'55'-TeCB	22.47	3.39E+07	0.78 Y	0.84	0.89	5.6%
PCB-73 23'5'6TeCB	22.59	4.36E+07	0.79 Y	1.09	1.14	4.8%
PCB-43 22'35-TeCB	22.68	2.98E+07	0.79 Y	0.72	0.78	8.0%
PCB-69/49 23'46-/22'45'TeCB	22.87	8.21E+07	0.79 Y	1.01	1.08	6.2%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS3_120725_PCB_XB
Acquired: 26-JUL-2012 05:38
Datafile: 120725X18
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.14	3.42E+07	0.79 Y	0.85	0.90	5.4%
PCB-44/47/65 22'35'-/22'44'-	23.35	1.08E+08	0.79 Y	0.89	0.95	6.4%
PCB-59/62/75 233'6-/2346-/24	23.62	1.40E+08	0.80 Y	1.14	1.22	7.3%
PCB-42 22'34'-TeCB	23.77	3.12E+07	0.79 Y	0.77	0.82	5.9%
PCB-41 22'34-TeCB	24.09	2.84E+07	0.79 Y	0.73	0.75	2.6%
PCB-71/40 23'4'6/22'33'-TeCB	24.19	7.05E+07	0.79 Y	0.87	0.92	6.7%
PCB-64 234'6-TeCB	24.39	4.94E+07	0.79 Y	1.24	1.29	4.7%
PCB-72 23'55'-TeCB	25.11	4.61E+07	0.78 Y	1.14	1.21	5.7%
PCB-68 23'45'-TeCB	25.36	4.83E+07	0.79 Y	1.21	1.27	4.6%
PCB-57 233'5-TeCB	25.71	4.48E+07	0.79 Y	1.11	1.18	6.4%
PCB-58 233'5-TeCB	25.91	4.45E+07	0.79 Y	1.10	1.17	6.1%
PCB-67 23'45-TeCB	26.06	4.63E+07	0.77 Y	1.16	1.21	4.5%
PCB-63 234'5-TeCB	26.28	4.93E+07	0.78 Y	1.22	1.29	6.4%
PCB-61/70/74/76 2345-/23'4'5	26.56	1.83E+08	0.78 Y	1.13	1.20	5.9%
PCB-66 23'44'-TeCB	26.84	4.32E+07	0.78 Y	1.08	1.13	5.4%
PCB-55 233'4-TeCB	26.97	4.39E+07	0.78 Y	1.10	1.15	5.0%
PCB-56 233'4'-TeCB	27.40	4.26E+07	0.78 Y	1.06	1.12	5.8%
PCB-60 2344'-TeCB	27.59	4.44E+07	0.78 Y	1.11	1.16	4.7%
PCB-80 33'55'-TeCB	27.94	5.03E+07	0.79 Y	1.25	1.32	5.3%
PCB-79 33'45'-TeCB	29.23	5.00E+07	0.78 Y	1.23	1.31	6.3%
PCB-78 33'45-TeCB	29.70	4.27E+07	0.78 Y	1.08	1.12	3.7%
PCB-104 22'466'-PeCB	23.29	3.59E+07	0.63 Y	1.25	1.32	5.0%
PCB-96 22'366'-PeCB	23.59	3.10E+07	0.64 Y	1.08	1.14	5.7%
PCB-103 22'45'6-PeCB	25.27	3.14E+07	0.63 Y	0.90	0.95	5.0%
PCB-94 22'356'-PeCB	25.44	2.75E+07	0.62 Y	0.78	0.83	6.8%
PCB-95 22'35'6-PeCB	25.81	2.93E+07	0.62 Y	0.83	0.88	7.1%
PCB-100/93 22'44'6-/22'356-P	26.02	6.08E+07	0.62 Y	0.84	0.92	8.6%
PCB-102 22'456'-PeCB	26.13	3.09E+07	0.62 Y	0.90	0.93	3.4%
PCB-98 22'3'46-PeCB	26.19	2.73E+07	0.62 Y	0.77	0.82	6.4%
PCB-88 22'346-PeCB	26.48	2.77E+07	0.61 Y	0.79	0.84	5.4%
PCB-91 22'34'6-PeCB	26.55	3.08E+07	0.63 Y	0.88	0.93	5.4%
PCB-84 22'33'6-PeCB	26.73	2.50E+07	0.63 Y	0.71	0.75	6.3%
PCB-89 22'346'-PeCB	27.14	2.67E+07	0.62 Y	0.76	0.81	5.9%
PCB-121 23'45'6-PeCB	27.52	3.99E+07	0.62 Y	1.14	1.20	5.1%
PCB-92 22'355'-PeCB	27.82	2.81E+07	0.62 Y	0.80	0.85	5.7%
PCB-113/90/101 233'5'6-/22'3	28.29	9.82E+07	0.62 Y	0.93	0.99	5.5%
PCB-83 22'33'5-PeCB	28.71	2.51E+07	0.61 Y	0.71	0.76	6.1%
PCB-99 22'44'5-PeCB	28.81	3.04E+07	0.62 Y	0.87	0.92	5.0%
PCB-112 233'56-PeCB	28.91	3.83E+07	0.63 Y	1.13	1.16	2.6%
PCB-108/119/86/97/125/87 233	29.24	1.99E+08	0.62 Y	0.95	1.00	5.5%
PCB-117 234'56-PeCB	29.77	3.45E+07	0.62 Y	1.04	1.04	0.1%
PCB-116/85 23456-/22'344'-Pe	29.85	6.84E+07	0.63 Y	0.97	1.03	6.0%
PCB-110 233'4'6-PeCB	29.97	3.56E+07	0.62 Y	1.02	1.07	4.9%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS3_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 05:38
Datafile: 120725X18

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.05	3.95E+07	0.63 Y	1.16	1.19	2.8%
PCB-82 22'33'4-PeCB	30.24	2.40E+07	0.62 Y	0.69	0.72	4.9%
PCB-111 233'55'-PeCB	30.59	4.00E+07	0.62 Y	1.15	1.21	4.5%
PCB-120 23'455'-PeCB	30.98	4.00E+07	0.62 Y	1.16	1.20	3.8%
PCB-107/124 233'4'5-/2'3455'	31.92	7.50E+07	0.62 Y	1.07	1.13	5.3%
PCB-109 233'46-PeCB	32.13	4.08E+07	0.62 Y	1.14	1.23	7.6%
PCB-106 233'45-PeCB	32.33	3.79E+07	0.62 Y	1.07	1.14	6.7%
PCB-122 2'33'45-PeCB	32.78	3.53E+07	0.62 Y	1.00	1.04	3.8%
PCB-127 33'455'-PeCB	34.73	3.83E+07	0.63 Y	1.10	1.14	3.7%
PCB-155 22'44'66'-HxCB	28.14	3.83E+07	1.27 Y	1.09	1.13	3.3%
PCB-152 22'3566'-HxCB	28.28	3.56E+07	1.25 Y	1.01	1.05	3.4%
PCB-150 22'34'66'-HxCB	28.43	3.62E+07	1.26 Y	1.00	1.07	6.1%
PCB-136 22'33'66'-HxCB	28.72	3.36E+07	1.29 Y	0.95	0.99	3.7%
PCB-145 22'3466'HxCB	28.99	3.41E+07	1.28 Y	0.96	1.00	4.4%
PCB-148 22'34'56'-HxCB	30.27	2.59E+07	1.26 Y	0.97	1.02	5.0%
PCB-151/135 22'355'6-/22'33'	30.77	5.08E+07	1.26 Y	0.96	1.00	3.6%
PCB-154 22'44'5'6-HxCB	30.99	2.89E+07	1.24 Y	1.09	1.14	4.3%
PCB-144 22'345'6-HxCB	31.24	2.61E+07	1.29 Y	0.98	1.03	4.6%
PCB-147/149 22'34'56-/22'34'	31.54	5.27E+07	1.27 Y	0.99	1.03	5.0%
PCB-134 22'33'56-HxCB	31.70	2.09E+07	1.26 Y	0.80	0.82	2.8%
PCB-143 22'3456'-HxCB	31.78	2.52E+07	1.27 Y	0.95	0.99	3.6%
PCB-139/140 22'344'6-/22'344'	32.05	5.33E+07	1.27 Y	1.00	1.05	4.8%
PCB-131 22'33'46-HxCB	32.21	2.26E+07	1.27 Y	0.85	0.89	4.7%
PCB-142 22'3456-HxCB	32.34	2.31E+07	1.28 Y	0.87	0.91	3.8%
PCB-132 22'33'46'-HxCB	32.58	2.37E+07	1.26 Y	0.89	0.93	4.7%
PCB-133 22'33'55'-HxCB	33.02	2.44E+07	1.25 Y	0.91	0.96	4.9%
PCB-165 233'55'6-HxCB	33.35	3.01E+07	1.27 Y	1.13	1.18	4.4%
PCB-146 22'34'55'-HxCB	33.56	2.62E+07	1.23 Y	1.01	1.03	2.1%
PCB-161 233'45'6-HxCB	33.68	3.40E+07	1.30 Y	1.25	1.33	6.5%
PCB-153/168 22'44'55'-/23'44'	34.10	6.50E+07	1.27 Y	1.22	1.28	4.7%
PCB-141 22'3455'-HxCB	34.24	2.45E+07	1.26 Y	0.93	0.96	3.9%
PCB-130 22'33'45'-HxCB	34.57	2.22E+07	1.25 Y	0.85	0.87	2.9%
PCB-137 22'344'5-HxCB	34.77	2.82E+07	1.26 Y	1.04	1.11	6.4%
PCB-164 233'4'5'6-HxCB	34.85	3.12E+07	1.27 Y	1.22	1.23	0.4%
PCB-163/138/129 233'4'56-/22'	35.14	8.17E+07	1.27 Y	1.02	1.07	4.6%
PCB-160 233'456-HxCB	35.26	3.15E+07	1.26 Y	1.21	1.24	2.6%
PCB-158 233'44'6-HxCB	35.45	3.50E+07	1.27 Y	1.34	1.38	3.0%
PCB-128/166 22'33'44'-/2344'5	36.17	6.11E+07	1.26 Y	0.90	0.93	3.4%
PCB-159 233'455'-HxCB	37.01	3.64E+07	1.25 Y	1.06	1.11	4.1%
PCB-162 233'4'55'-HxCB	37.24	3.67E+07	1.24 Y	1.08	1.12	3.9%
PCB-188 22'34'566'-HpCB	32.95	2.85E+07	1.06 Y	1.03	1.08	4.1%
PCB-179 22'33'566'-HpCB	33.22	2.67E+07	1.05 Y	0.97	1.01	4.1%
PCB-184 22'344'66'-HpCB	33.68	2.58E+07	1.05 Y	0.93	0.97	4.5%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS3_120725_PCB_XB
Acquired: 26-JUL-2012 05:38
Datafile: 120725X18
ICAL: MM7_PCB_07132012_25JUL12

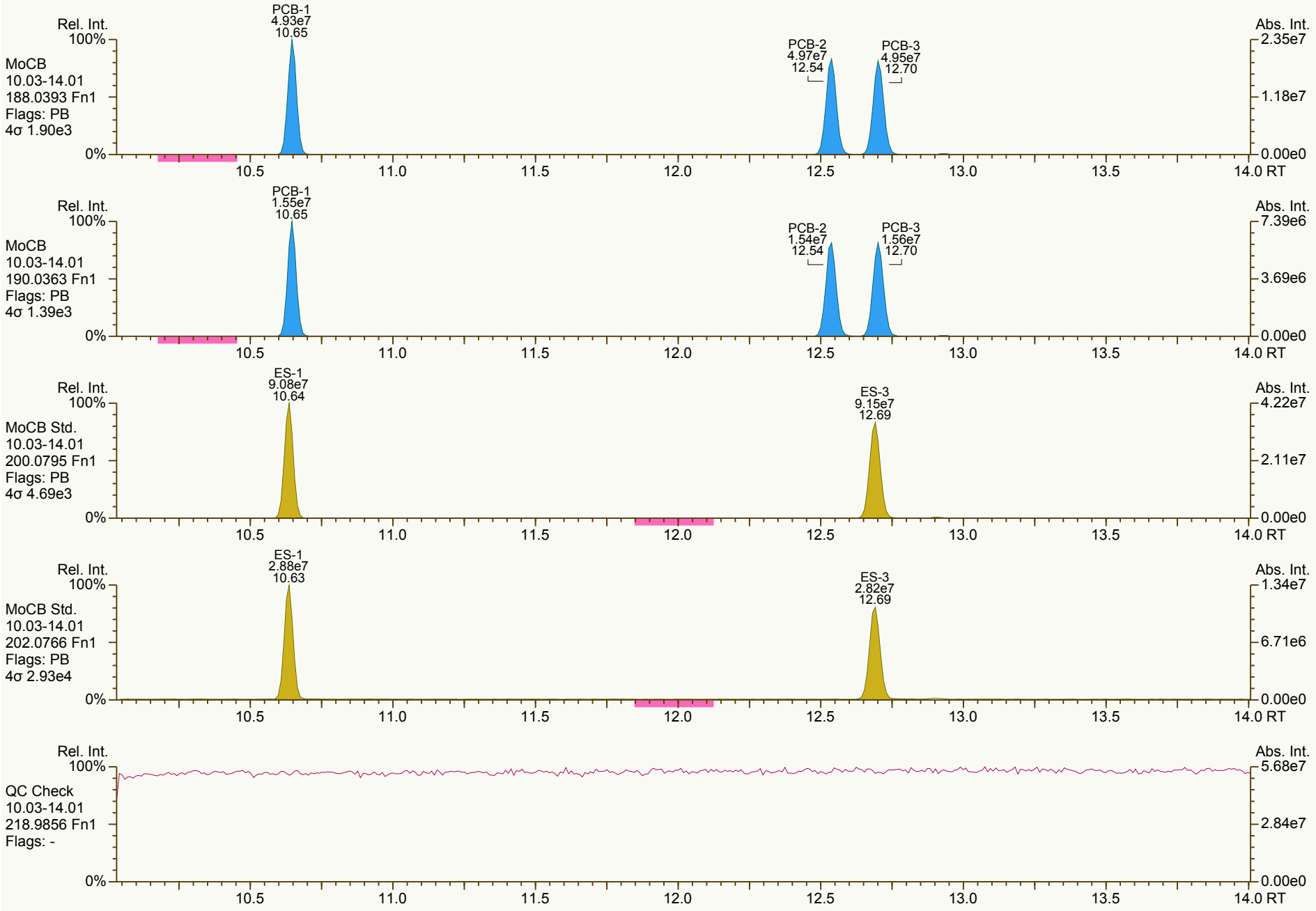
Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.96	2.89E+07	1.07 Y	1.05	1.09	4.0%
PCB-186 22'34566'-HpCB	34.35	2.69E+07	1.05 Y	0.98	1.02	3.6%
PCB-178 22'33'55'6-HpCB	35.50	1.99E+07	1.06 Y	0.74	0.75	2.3%
PCB-175 22'33'45'6-HpCB	36.04	2.50E+07	1.07 Y	1.01	1.06	5.6%
PCB-187 22'34'55'6-HpCB	36.27	2.62E+07	1.07 Y	1.06	1.12	5.0%
PCB-182 22'344'56'-HpCB	36.44	2.67E+07	1.05 Y	1.11	1.14	2.4%
PCB-183 22'344'5'6-HpCB	36.78	2.80E+07	1.04 Y	1.13	1.19	5.4%
PCB-185 22'3455'6-HpCB	36.86	2.44E+07	1.06 Y	1.02	1.04	2.1%
PCB-174 22'33'456'-HpCB	36.96	2.22E+07	1.06 Y	0.93	0.95	2.2%
PCB-177 22'33'4'56-HpCB	37.33	2.20E+07	1.06 Y	0.91	0.94	3.6%
PCB-181 22'344'56-HpCB	37.68	2.53E+07	1.04 Y	1.06	1.08	1.4%
PCB-171/173 22'33'44'6-/22'3	37.85	4.48E+07	1.05 Y	0.93	0.95	2.7%
PCB-172 22'33'455'-HpCB	39.22	2.28E+07	1.06 Y	0.95	0.97	1.9%
PCB-192 233'455'6-HpCB	39.46	2.98E+07	1.07 Y	1.24	1.27	2.3%
PCB-180/193 22'344'55'-/233'	39.74	5.59E+07	1.05 Y	1.16	1.19	2.8%
PCB-191 233'44'5'6-HpCB	40.06	3.10E+07	1.05 Y	1.30	1.32	1.4%
PCB-170 22'33'44'5-HpCB	40.81	2.24E+07	1.03 Y	1.07	1.12	4.0%
PCB-190 233'44'56-HpCB	41.26	2.99E+07	1.05 Y	1.45	1.49	2.6%
PCB-202 22'33'55'66'-OcCB	37.45	2.39E+07	0.90 Y	0.91	0.95	3.9%
PCB-201 22'33'45'66'-OcCB	38.22	2.68E+07	0.89 Y	1.02	1.06	4.0%
PCB-204 22'344'566'-OcCB	38.79	2.52E+07	0.91 Y	0.98	1.00	2.7%
PCB-197 22'33'44'66'-OcCB	38.98	2.68E+07	0.91 Y	1.06	1.06	-0.1%
PCB-200 22'33'4566'-OcCB	39.06	2.60E+07	0.92 Y	0.96	1.03	7.6%
PCB-198/199 22'33'455'6-/22'	41.39	3.72E+07	0.90 Y	0.72	0.74	3.1%
PCB-196 22'33'44'56'-OcCB	41.96	1.92E+07	0.91 Y	0.73	0.76	4.3%
PCB-203 22'344'55'6-OcCB	42.13	2.02E+07	0.90 Y	0.76	0.80	4.9%
PCB-195 22'33'44'56-OcCB	43.23	2.00E+07	0.89 Y	0.80	0.84	5.0%
PCB-194 22'33'44'55'-OcCB	45.18	2.15E+07	0.89 Y	0.87	0.90	3.0%
PCB-205 233'44'55'6-OcCB	45.57	2.66E+07	0.89 Y	1.09	1.11	2.4%
PCB-208 22'33'455'66'-NoCB	43.03	2.52E+07	0.78 Y	1.02	1.06	3.8%
PCB-207 22'33'44'566'-NoCB	43.81	2.64E+07	0.78 Y	1.06	1.10	4.3%
PCB-206 22'33'44'55'6-NoCB	47.03	1.75E+07	0.77 Y	0.98	1.01	3.6%

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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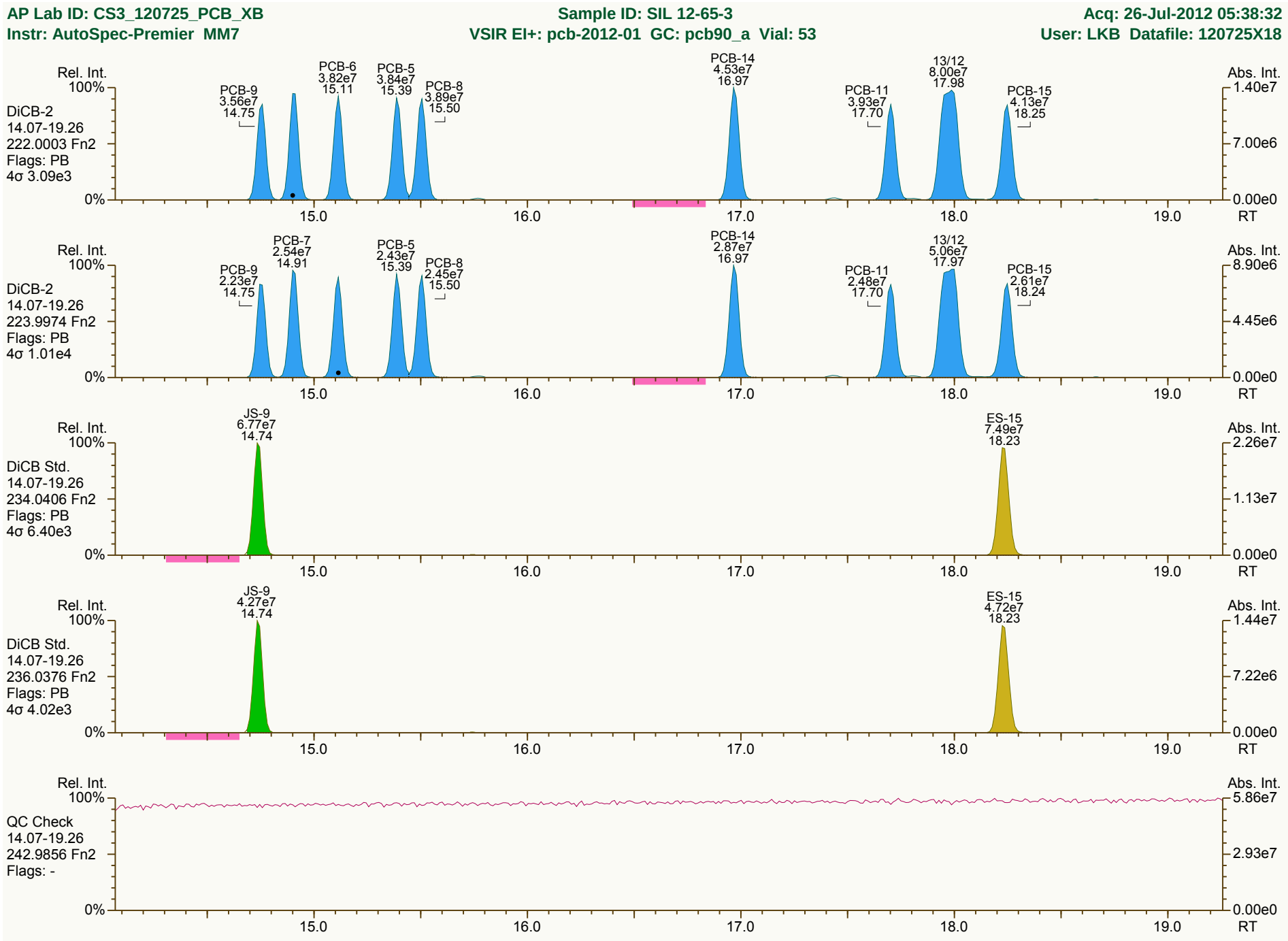
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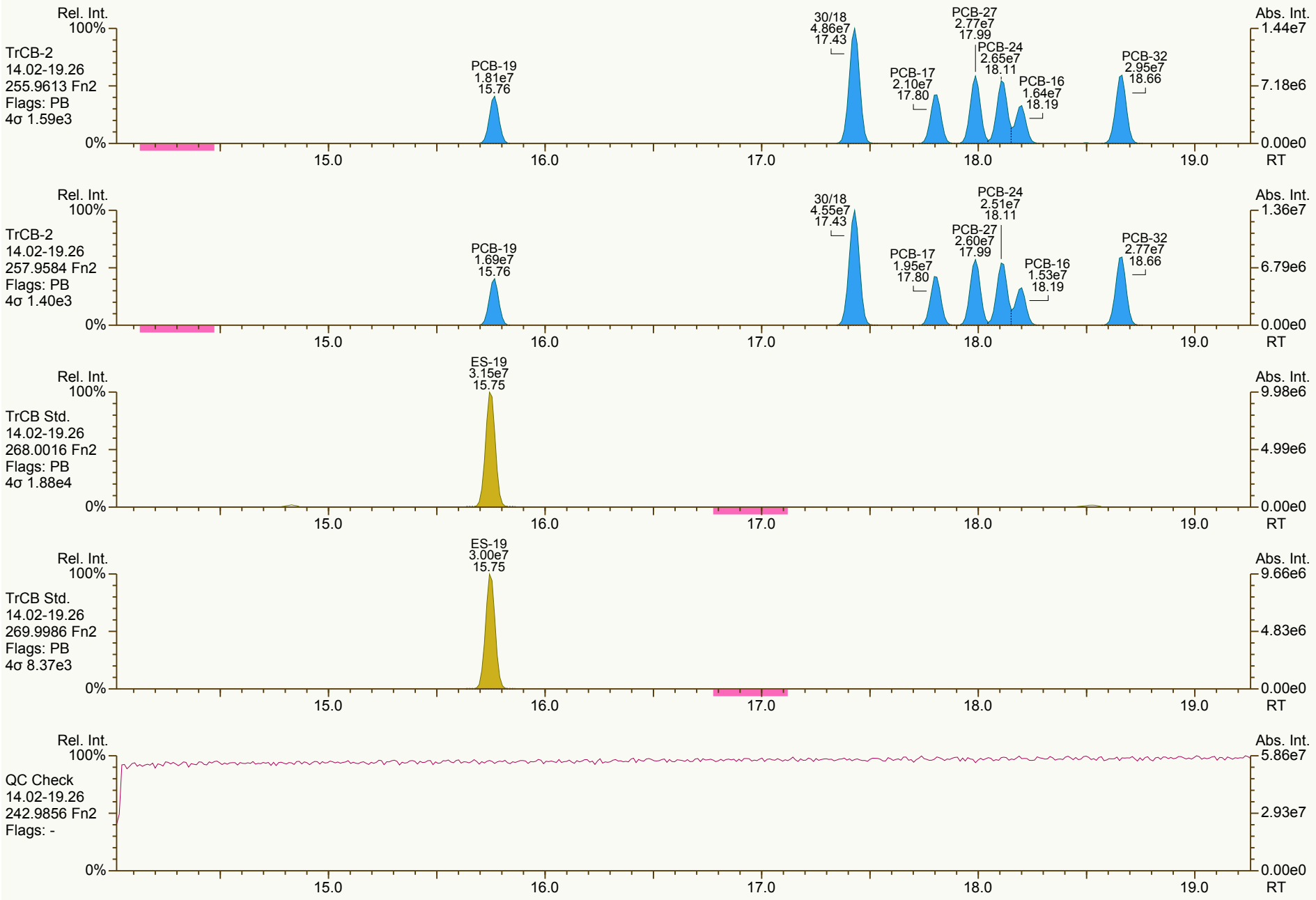
Sample ID: SIL 12-65-3
Acq: 26-Jul-2012 05:38:32
Instr: AutoSpec-Premier MM7
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53
User: LKB Datafile: 120725X18
Rel. Int.
Abs. Int.
DiCB-2
14.07-19.26
222.0003 Fn2
Flags: PB
4σ 3.09e3
PCB-9 3.56e7 14.75
PCB-6 3.82e7 15.11
PCB-5 3.84e7 15.39
PCB-8 3.89e7 15.50
PCB-14 4.53e7 16.97
PCB-11 3.93e7 17.70
13/12 8.00e7 17.98
PCB-15 4.13e7 18.25
DiCB-2
14.07-19.26
223.9974 Fn2
Flags: PB
4σ 1.01e4
PCB-9 2.23e7 14.75
PCB-7 2.54e7 14.91
PCB-5 2.43e7 15.39
PCB-8 2.45e7 15.50
PCB-14 2.87e7 16.97
PCB-11 2.48e7 17.70
13/12 5.06e7 17.97
PCB-15 2.61e7 18.24
DiCB Std.
14.07-19.26
234.0406 Fn2
Flags: PB
4σ 6.40e3
JS-9 6.77e7 14.74
ES-15 7.49e7 18.23
DiCB Std.
14.07-19.26
236.0376 Fn2
Flags: PB
4σ 4.02e3
JS-9 4.27e7 14.74
ES-15 4.72e7 18.23
QC Check
14.07-19.26
242.9856 Fn2
Flags: -
RT

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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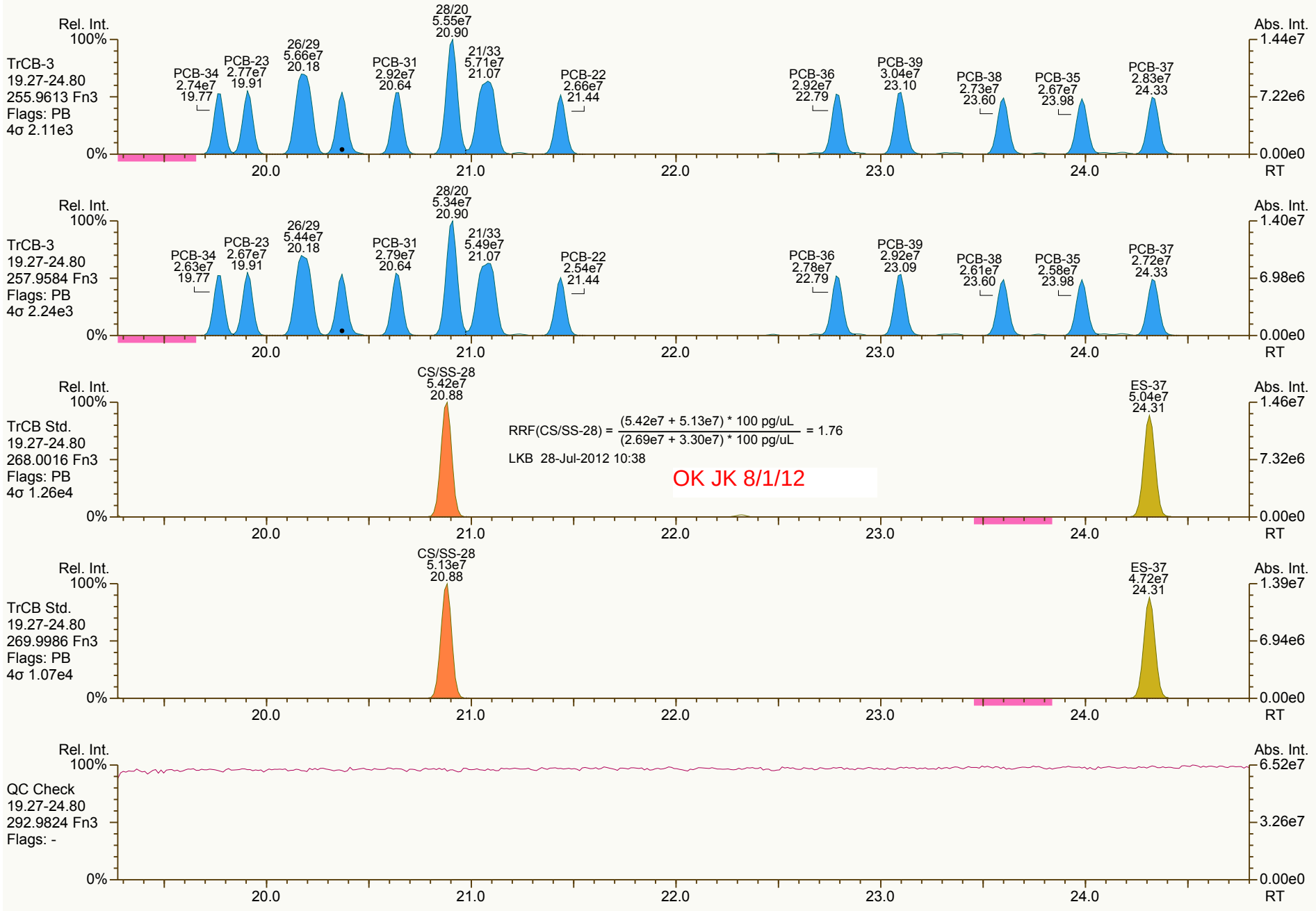

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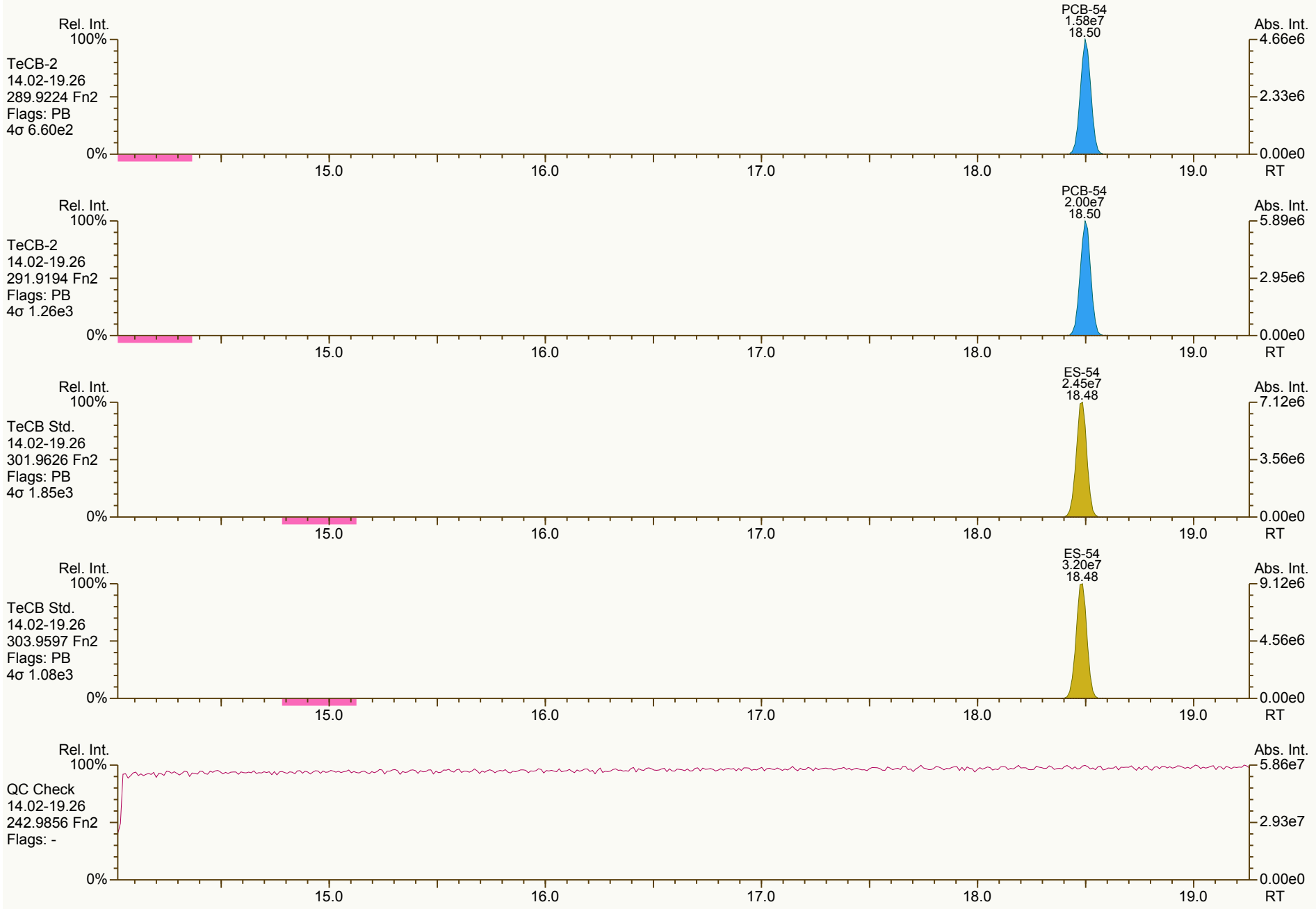

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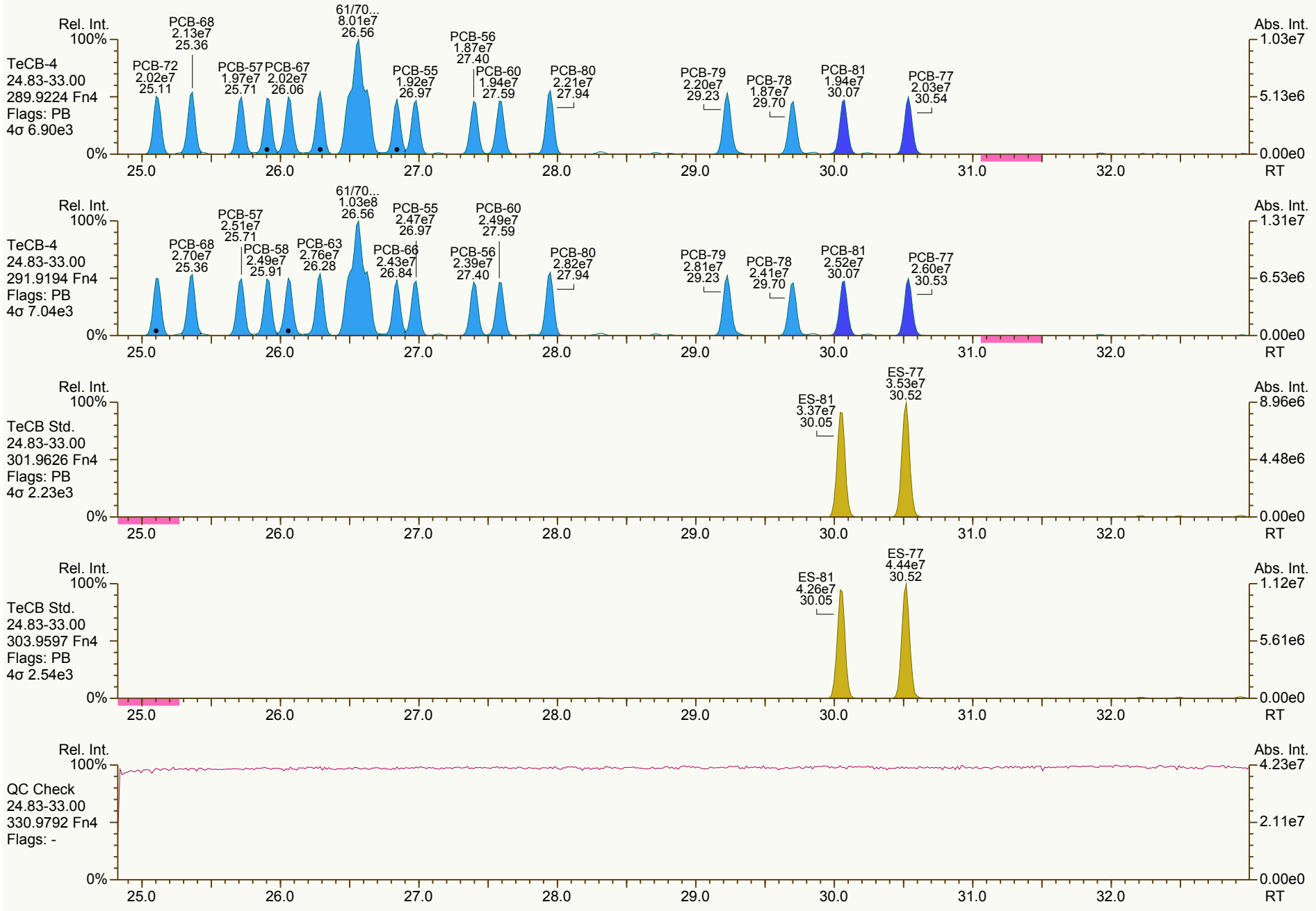
AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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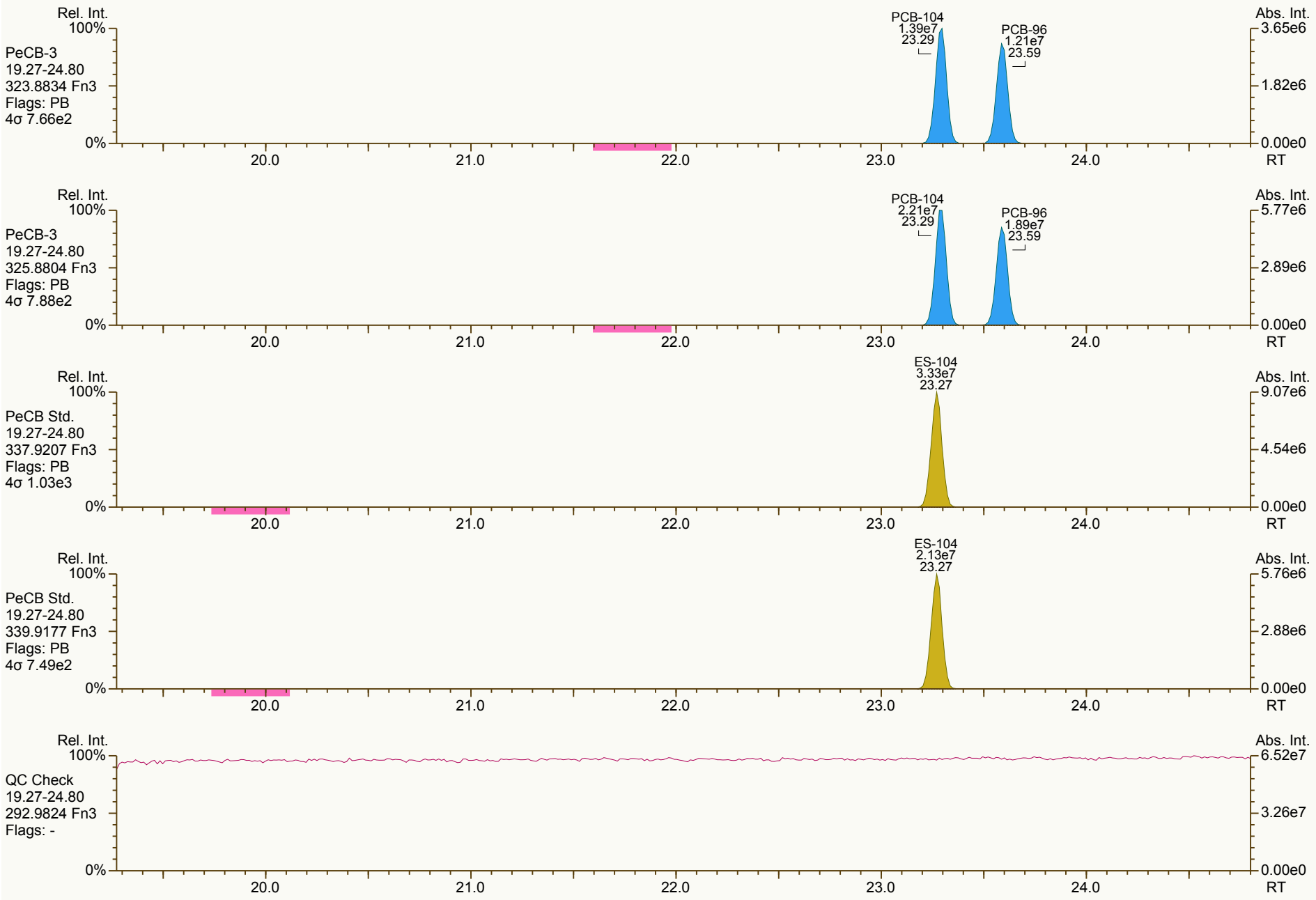
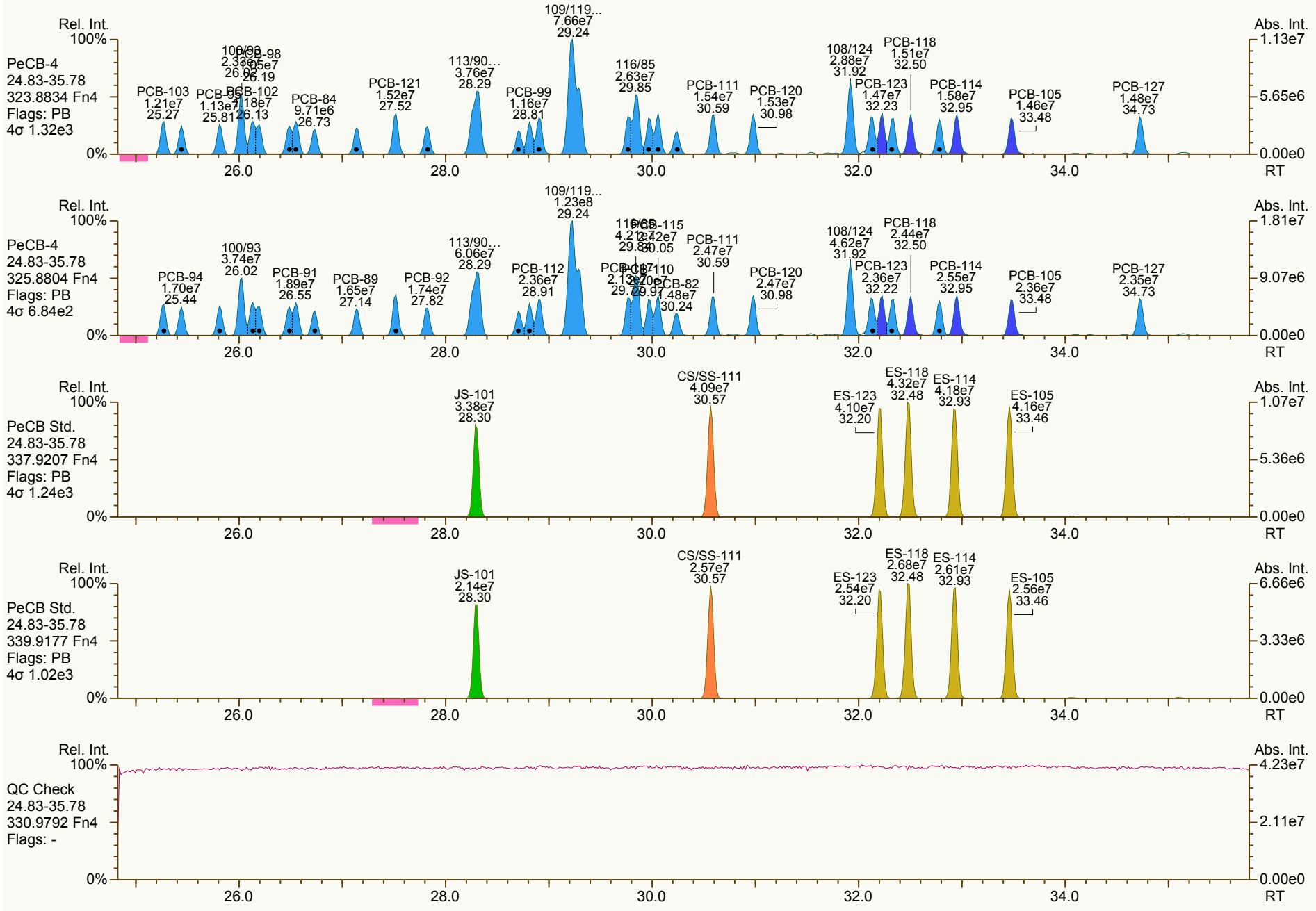
AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



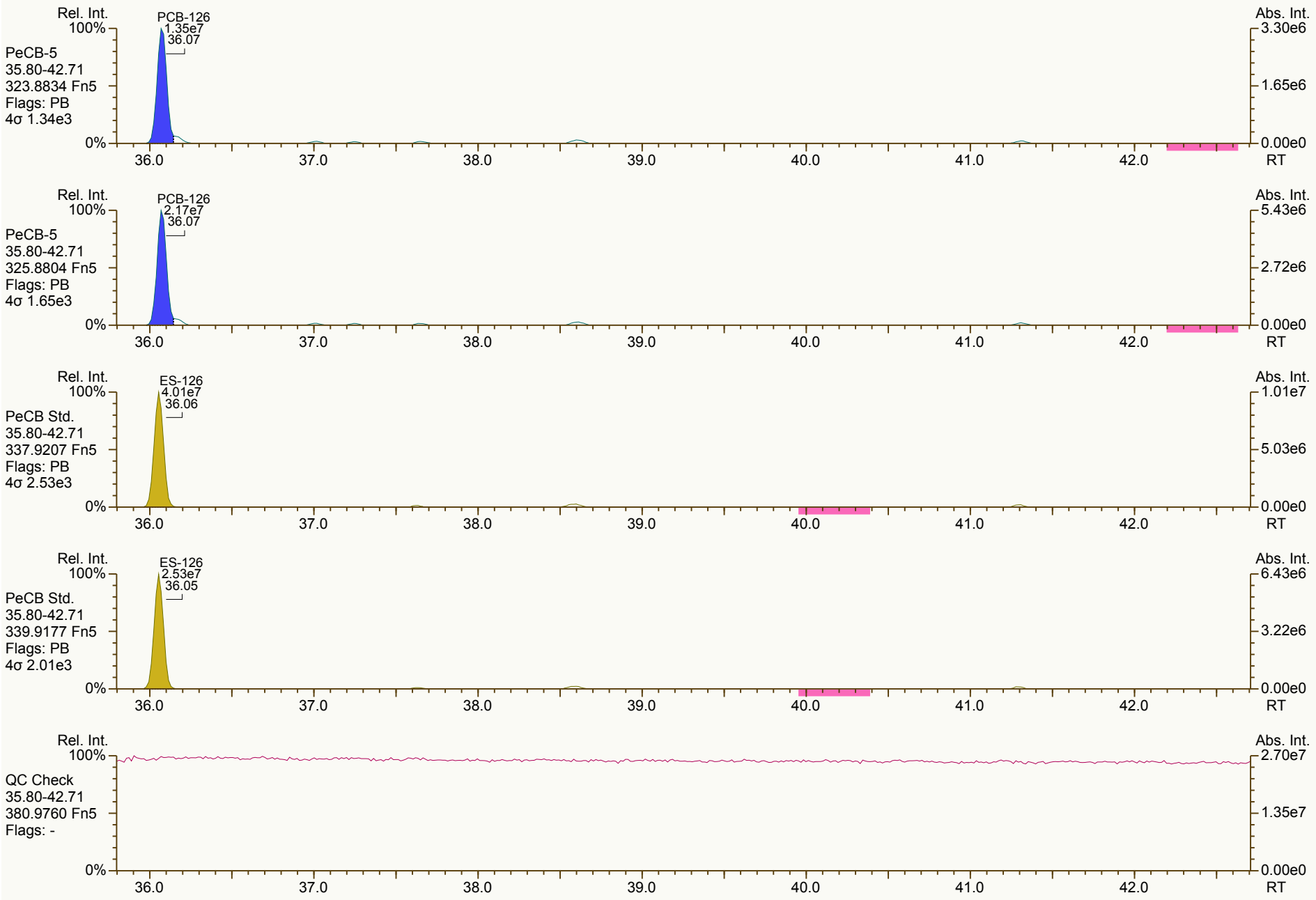
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



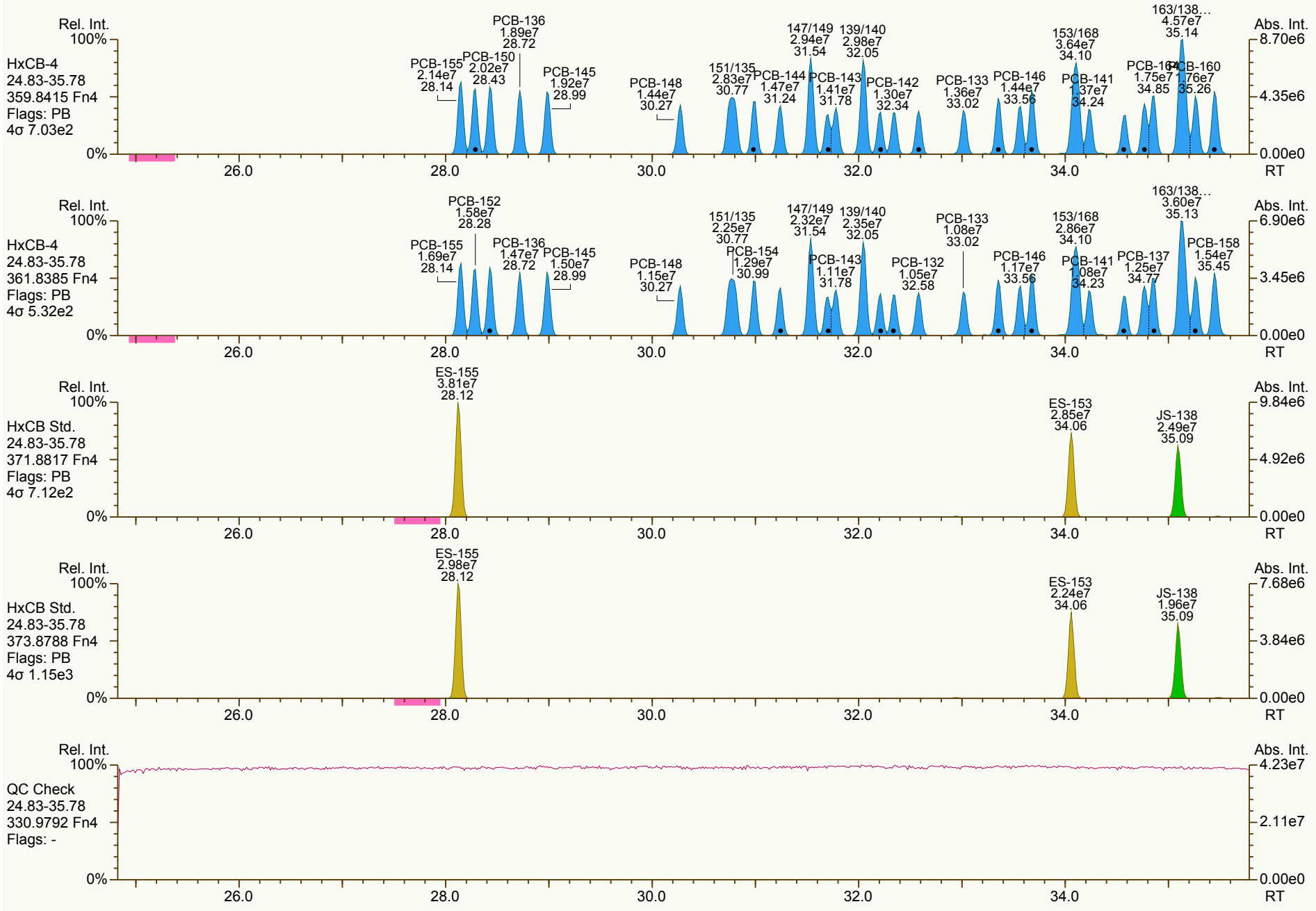
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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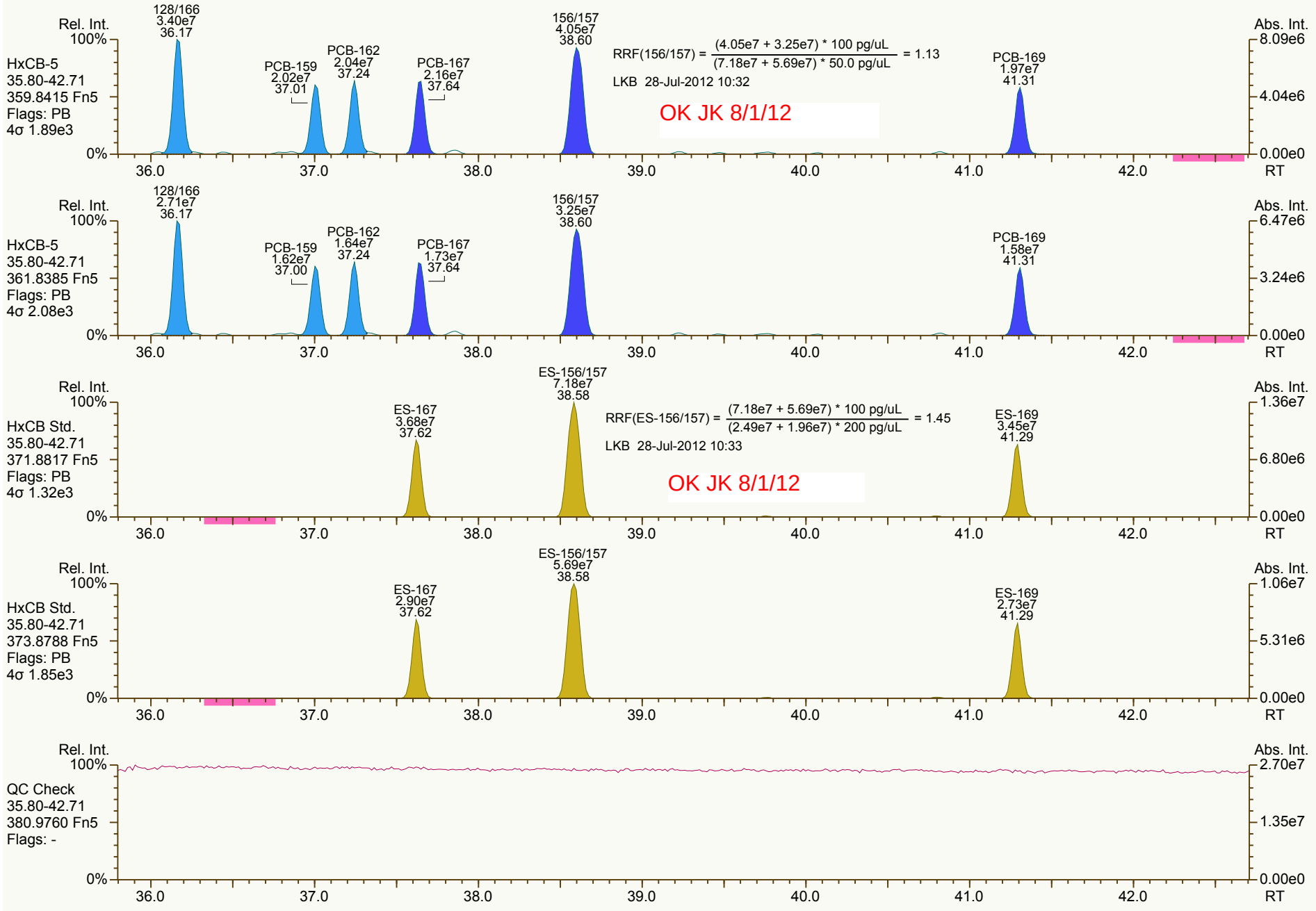
AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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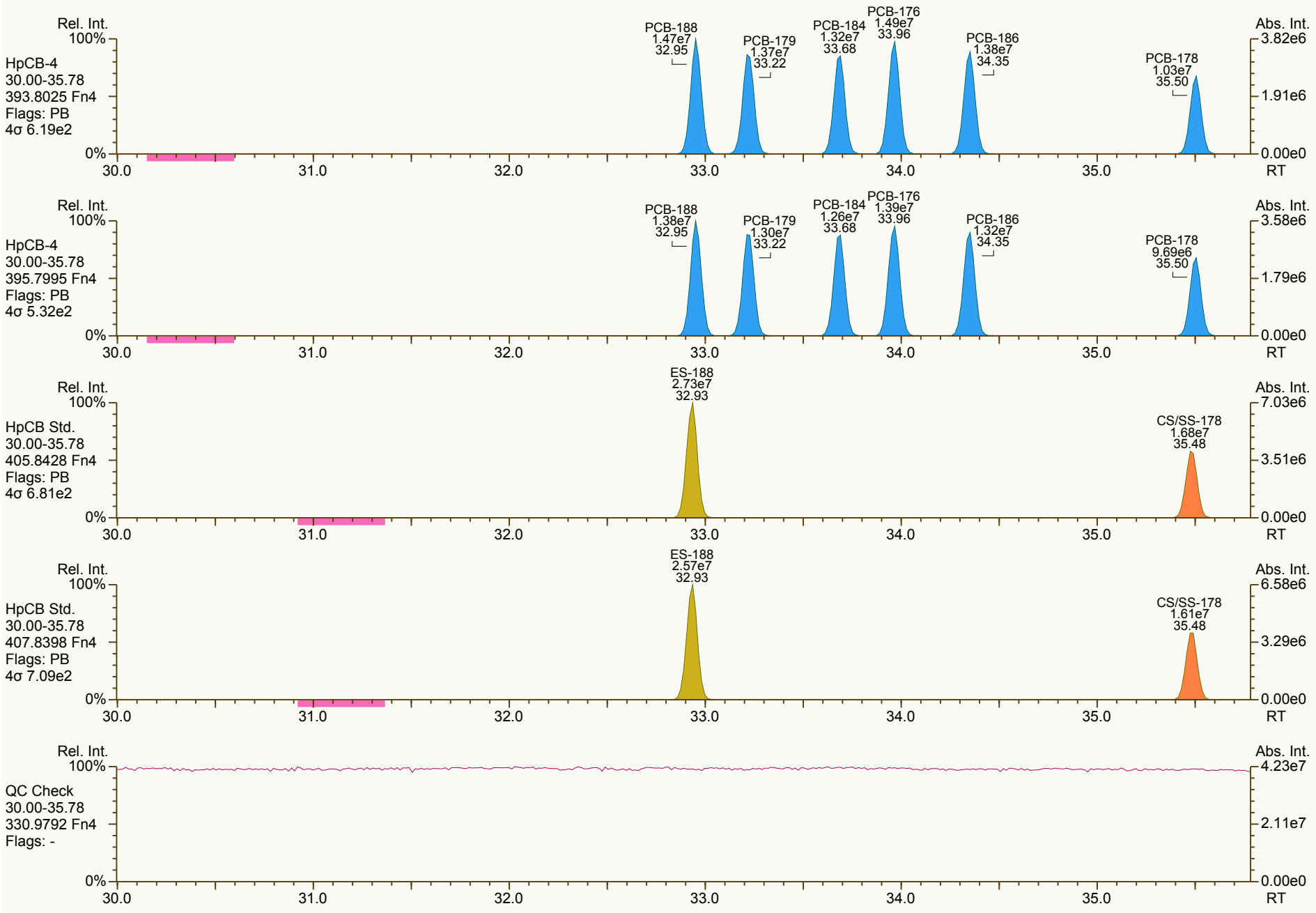
AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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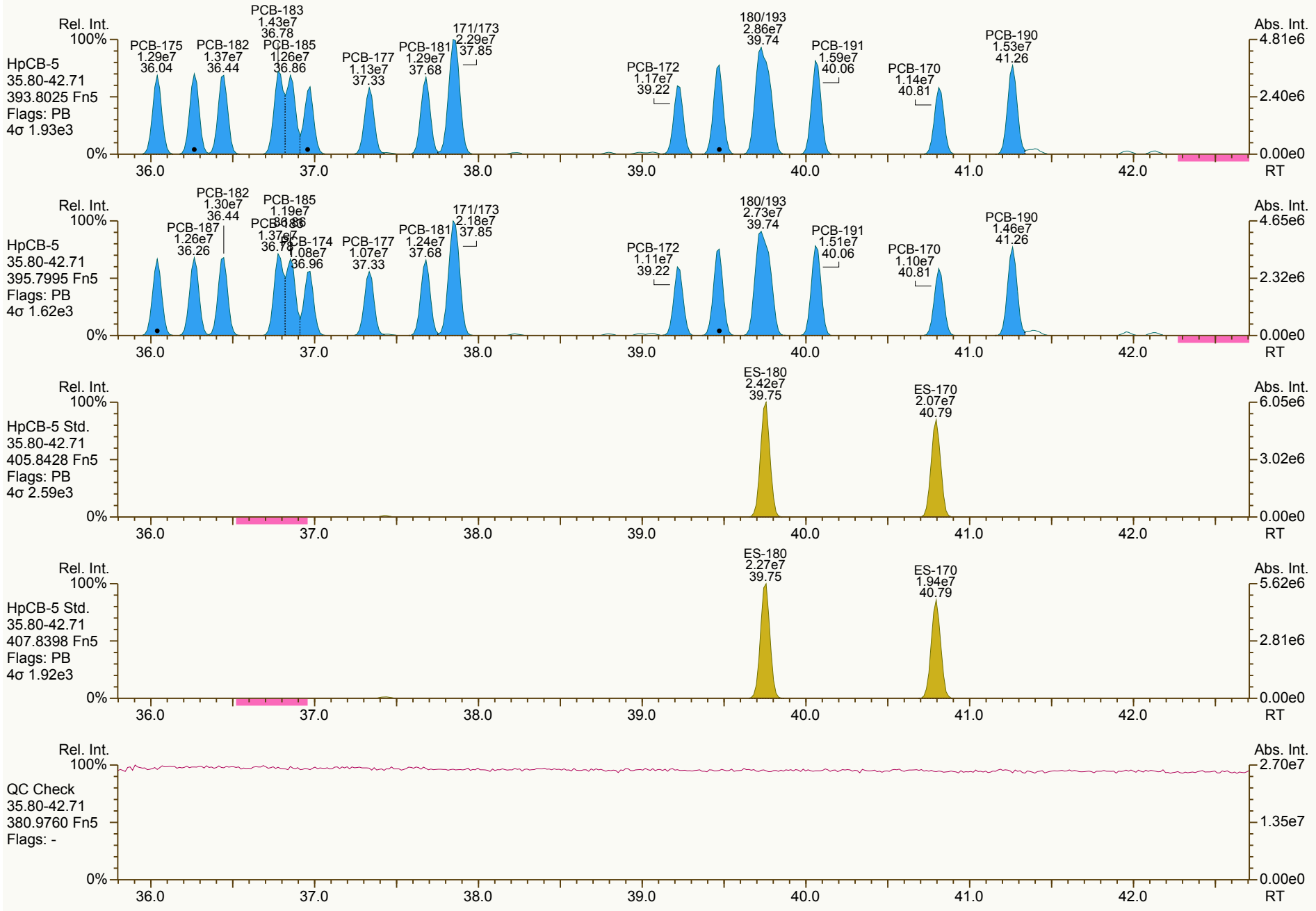
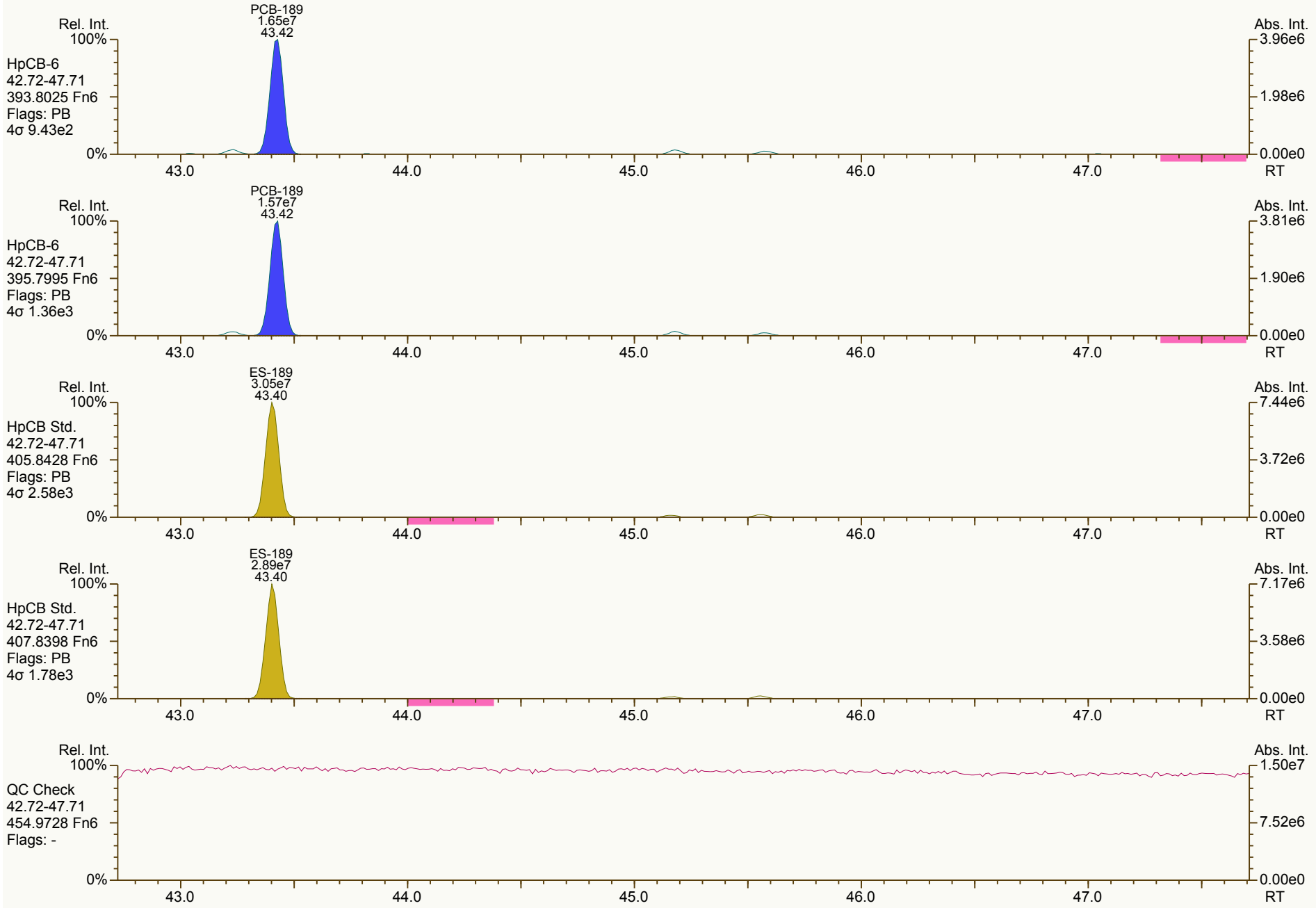
AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



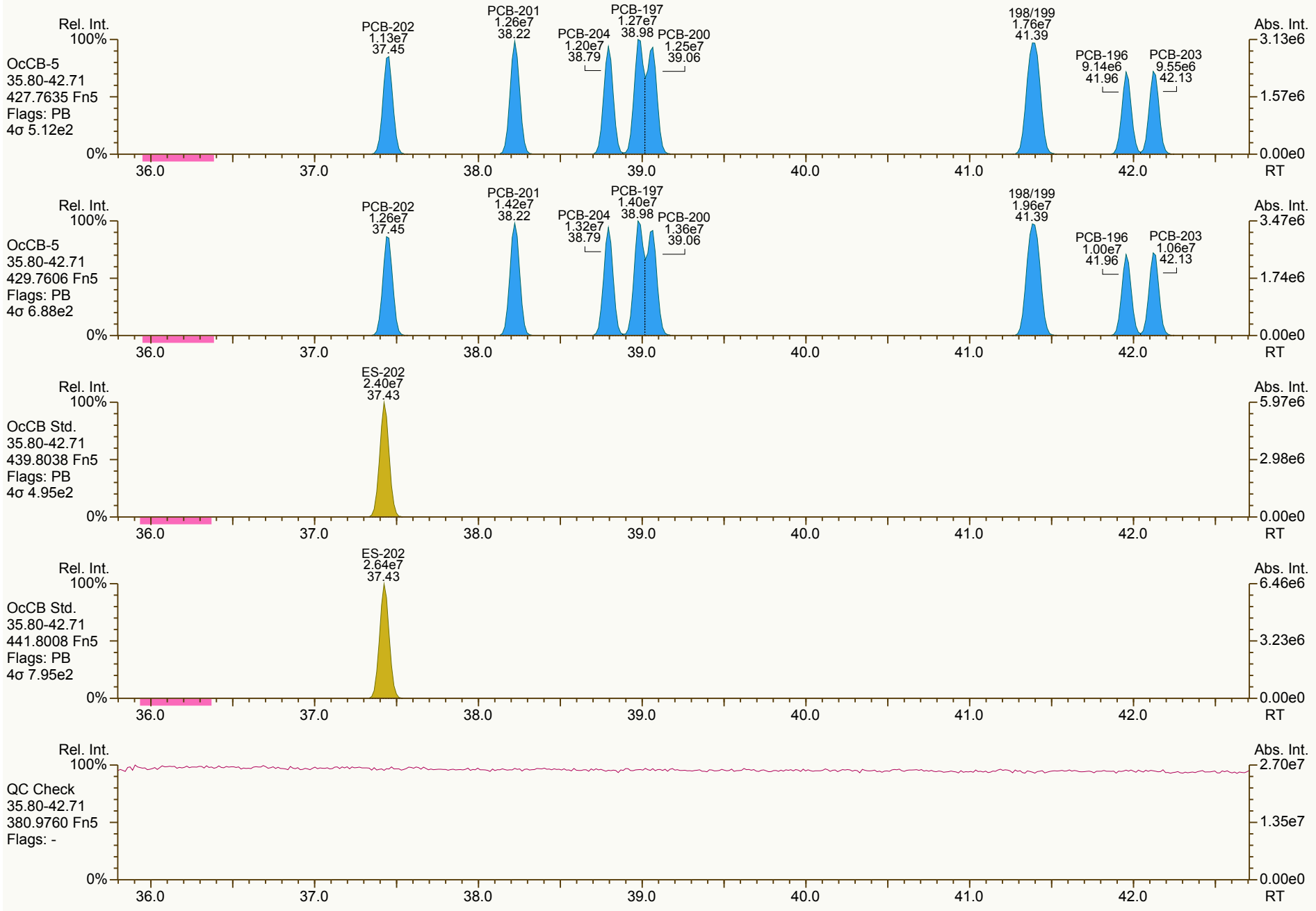
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



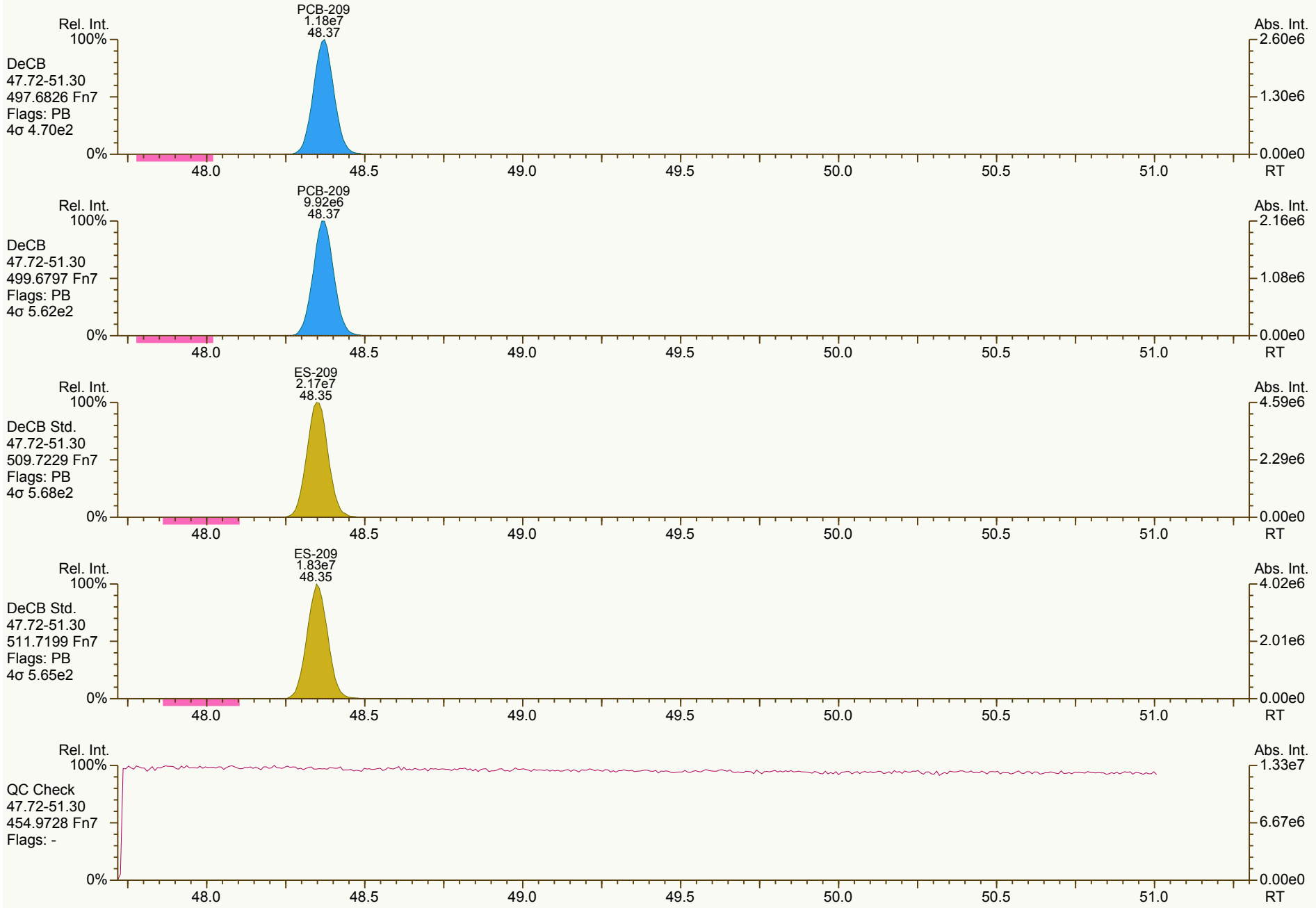
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 1260, 0976 scc: 426-138 *PKD: 27-Jul-2012 09:55 Printed: 28-Jul-2012 13:21 Page 21 of 21*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:14
Lab ID:	**CS4_120725_PCB_XB**		**ICAL: MM7_PCB_07132012_25JUL12**		
Acquired:	**26-JUL-2012 06:32**				
Datafile:	**120725X19**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.55	4.04E+08	0.79 Y	1.13	1.20	5.6%
PCB-81 344'5-TeCB	30.08	3.90E+08	0.77 Y	1.13	1.20	6.8%
PCB-105 233'44'-PeCB	33.50	3.31E+08	0.62 Y	1.09	1.16	6.2%
PCB-114 2344'5-PeCB	32.96	3.56E+08	0.63 Y	1.16	1.22	5.3%
PCB-118 23'44'5-PeCB	32.52	3.48E+08	0.63 Y	1.11	1.17	5.8%
PCB-123 2'344'5-PeCB	32.24	3.62E+08	0.63 Y	1.19	1.26	6.2%
PCB-126 33'44'5-PeCB	36.09	3.10E+08	0.63 Y	1.06	1.11	4.7%
PCB-156/157 233'44'5/233'44'5'	38.61	6.44E+08	1.25 Y	1.11	1.16	4.6%
PCB-167 23'44'55'-HxCB	37.65	3.40E+08	1.24 Y	1.14	1.19	4.9%
PCB-169 33'44'55'-HxCB	41.32	3.17E+08	1.26 Y	1.11	1.16	4.6%
PCB-189 233'44'55'-HpCB	43.43	2.89E+08	1.05 Y	1.06	1.11	5.2%
PCB-209 DeCB	48.38	1.92E+08	1.18 Y	1.07	1.10	2.2%
ES PCB-1	10.65	1.18E+08	3.19 Y	1.08	1.06	-1.7%
ES PCB-3	12.70	1.20E+08	3.24 Y	1.08	1.07	-0.9%
ES PCB-4	12.93	5.34E+07	1.62 Y	0.49	0.48	-1.8%
ES PCB-15	18.24	1.26E+08	1.57 Y	1.11	1.13	1.8%
ES PCB-19	15.76	6.09E+07	1.07 Y	0.55	0.55	-1.3%
ES PCB-37	24.33	1.01E+08	1.06 Y	1.64	1.65	0.9%
ES PCB-54	18.49	5.58E+07	0.77 Y	0.94	0.91	-3.4%
ES PCB-77	30.53	8.44E+07	0.78 Y	1.35	1.37	2.0%
ES PCB-81	30.06	8.10E+07	0.79 Y	1.29	1.32	2.5%
ES PCB-104	23.29	5.68E+07	1.54 Y	0.99	0.98	-1.2%
ES PCB-105	33.47	7.12E+07	1.58 Y	1.23	1.23	-0.4%
ES PCB-114	32.94	7.28E+07	1.61 Y	1.25	1.26	0.8%
ES PCB-118	32.49	7.43E+07	1.60 Y	1.28	1.28	0.1%
ES PCB-123	32.22	7.17E+07	1.60 Y	1.22	1.24	1.5%
ES PCB-126	36.07	6.96E+07	1.58 Y	1.20	1.20	0.2%
ES PCB-153	34.07	5.40E+07	1.29 Y	1.14	1.12	-2.0%
ES PCB-155	28.14	7.08E+07	1.27 Y	1.50	1.46	-2.1%
ES PCB-156/157	38.59	1.39E+08	1.28 Y	1.45	1.44	-1.1%
ES PCB-167	37.63	7.14E+07	1.27 Y	1.49	1.48	-1.0%
ES PCB-169	41.30	6.83E+07	1.27 Y	1.40	1.41	0.6%
ES PCB-170	40.80	4.36E+07	1.06 Y	1.00	1.01	0.4%
ES PCB-180	39.76	5.04E+07	1.07 Y	1.16	1.16	0.3%
ES PCB-188	32.94	5.63E+07	1.07 Y	1.18	1.17	-1.0%
ES PCB-189	43.42	6.51E+07	1.03 Y	1.49	1.50	1.0%
ES PCB-202	37.44	5.45E+07	0.90 Y	1.14	1.13	-0.7%
ES PCB-205	45.56	5.25E+07	0.90 Y	1.20	1.21	0.7%
ES PCB-206	47.02	3.81E+07	0.79 Y	0.87	0.88	1.0%
ES PCB-208	43.02	5.18E+07	0.79 Y	1.19	1.20	0.4%
ES PCB-209	48.36	4.37E+07	1.20 Y	1.00	1.01	0.5%

PCB QC Summary	SGS Analytical Perspectives	Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.89	1.08E+08	1.06 Y	1.07	1.07	-0.5%
SS PCB-111	30.58	7.13E+07	1.59 Y	1.01	1.00	-1.0%
SS PCB-178	35.49	3.54E+07	1.06 Y	0.63	0.63	0.0%
CS PCB-28	20.89	1.08E+08	1.06 Y	1.76	1.77	0.5%
CS PCB-111	30.58	7.13E+07	1.59 Y	1.23	1.23	0.5%
CS PCB-178	35.49	3.54E+07	1.06 Y	0.74	0.73	-1.1%
JS PCB-9	14.75	1.11E+08	1.58 Y	-	-	-
JS PCB-52	22.46	6.14E+07	0.80 Y	-	-	-
JS PCB-101	28.31	5.79E+07	1.61 Y	-	-	-
JS PCB-138	35.11	4.83E+07	1.28 Y	-	-	-
JS PCB-194	45.17	4.34E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	10.66	5.29E+08	3.21 Y	1.03	1.12	8.1%
PCB-3 4-MoCB	12.72	5.38E+08	3.18 Y	1.04	1.12	7.7%
PCB-4 22'-DiCB	12.94	2.66E+08	1.60 Y	1.17	1.24	6.2%
PCB-15 44'-DiCB	18.26	5.72E+08	1.58 Y	1.08	1.14	5.0%
PCB-19 22'6-TrCB	15.78	2.85E+08	1.06 Y	1.09	1.17	6.8%
PCB-37 344'-TrCB	24.35	4.68E+08	1.05 Y	1.10	1.15	4.4%
PCB-54 22'66'-TeCB	18.51	2.91E+08	0.79 Y	1.21	1.30	7.8%
PCB-104 22'466'-PeCB	23.31	2.98E+08	0.63 Y	1.25	1.31	4.5%
PCB-153 22'44'55' -HxCB	34.12	5.61E+08	1.27 Y	1.22	1.30	6.5%
PCB-155 22'44'66'-HxCB	28.16	3.26E+08	1.27 Y	1.09	1.15	5.6%
PCB-170 22'33'44'5-HpCB	40.82	1.97E+08	1.05 Y	1.07	1.13	5.3%
PCB-180 22'344'55'-HpCB	39.75	4.93E+08	1.06 Y	1.16	1.22	5.5%
PCB-188 22'34'566'-HpCB	32.97	2.48E+08	1.05 Y	1.03	1.10	6.3%
PCB-202 22'33'55'66'-OcCB	37.46	2.09E+08	0.90 Y	0.91	0.96	4.8%
PCB-205 233'44'55'6-OcCB	45.58	2.39E+08	0.90 Y	1.09	1.14	4.7%
PCB-208 22'33'455'66'-NoCB	43.04	2.24E+08	0.78 Y	1.02	1.08	6.2%
PCB-206 22'33'44'55'6-NoCB	47.04	1.58E+08	0.78 Y	0.98	1.04	6.1%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.66	5.29E+08	3.21 Y	1.03	1.12	8.1%
PCB-2 3-MoCB	12.55	5.43E+08	3.21 Y	1.04	1.14	8.9%
PCB-3 4-MoCB	12.72	5.38E+08	3.18 Y	1.04	1.12	7.7%
PCB-4 22'-DiCB	12.94	2.66E+08	1.60 Y	1.17	1.24	6.2%
PCB-10 26-DiCB	13.11	4.13E+08	1.61 Y	1.83	1.93	5.5%
PCB-9 25-DiCB	14.77	4.76E+08	1.58 Y	0.89	0.95	5.6%
PCB-7 24-DiCB	14.92	5.47E+08	1.60 Y	1.02	1.08	5.9%
PCB-6 23'-DiCB	15.13	5.09E+08	1.59 Y	0.95	1.01	6.5%
PCB-5 23-DiCB	15.40	5.14E+08	1.59 Y	0.97	1.02	4.8%
PCB-8 24'-DiCB	15.52	5.29E+08	1.58 Y	0.98	1.05	6.8%
PCB-14 35-DiCB	16.98	6.18E+08	1.59 Y	1.16	1.23	5.8%
PCB-11 33'-DiCB	17.71	5.37E+08	1.60 Y	1.00	1.07	6.7%
PCB-13/12 34'-/34-DiCB	17.99	1.10E+09	1.59 Y	1.02	1.09	7.0%
PCB-15 44'-DiCB	18.26	5.72E+08	1.58 Y	1.08	1.14	5.0%
PCB-19 22'6-TrCB	15.78	2.85E+08	1.06 Y	1.09	1.17	6.8%
PCB-30/18 246-/22'5-TrCB	17.44	7.70E+08	1.06 Y	1.46	1.58	8.2%
PCB-17 22'4-TrCB	17.82	3.31E+08	1.06 Y	1.25	1.36	8.5%
PCB-27 23'6-TrCB	18.00	4.49E+08	1.06 Y	1.69	1.84	9.0%
PCB-24 236-TrCB	18.12	4.19E+08	1.06 Y	1.63	1.72	5.1%
PCB-16 22'3-TrCB	18.21	2.64E+08	1.06 Y	0.95	1.08	13.4%
PCB-32 24'6-TrCB	18.67	4.65E+08	1.06 Y	1.79	1.91	6.7%
PCB-34 2'35-TrCB	19.78	4.47E+08	1.05 Y	1.05	1.10	5.2%
PCB-23 235-TrCB	19.92	4.52E+08	1.04 Y	1.06	1.11	5.4%
PCB-26/29 23'5-/245-TrCB	20.19	9.23E+08	1.05 Y	1.09	1.14	4.9%
PCB-25 23'4-TrCB	20.38	4.61E+08	1.05 Y	1.07	1.14	5.9%
PCB-31 24'5-TrCB	20.65	4.76E+08	1.04 Y	1.11	1.17	5.7%
PCB-28/20 244'-/233'-TrCB	20.92	9.09E+08	1.04 Y	1.07	1.12	5.0%
PCB-21/33 234-/2'34-TrCB	21.09	9.43E+08	1.05 Y	1.09	1.16	6.4%
PCB-22 234'-TrCB	21.45	4.32E+08	1.04 Y	1.02	1.07	4.9%
PCB-36 33'5-TrCB	22.80	4.80E+08	1.05 Y	1.13	1.18	5.0%
PCB-39 34'5-TrCB	23.11	5.02E+08	1.04 Y	1.17	1.24	6.3%
PCB-38 345-TrCB	23.61	4.53E+08	1.04 Y	1.03	1.12	8.1%
PCB-35 33'4-TrCB	24.00	4.42E+08	1.05 Y	1.04	1.09	4.9%
PCB-37 344'-TrCB	24.35	4.68E+08	1.05 Y	1.10	1.15	4.4%
PCB-54 22'66'-TeCB	18.51	2.91E+08	0.79 Y	1.21	1.30	7.8%
PCB-50/53 22'46-/22'56'TeCB	20.42	5.79E+08	0.79 Y	0.86	0.89	4.3%
PCB-45 22'36-TeCB	20.98	2.51E+08	0.78 Y	0.73	0.77	5.8%
PCB-51 22'46'-TeCB	21.05	3.01E+08	0.80 Y	0.88	0.93	5.8%
PCB-46 22'36'-TeCB	21.25	2.37E+08	0.79 Y	0.70	0.73	5.4%
PCB-52 22'55'-TeCB	22.48	2.81E+08	0.79 Y	0.84	0.87	3.0%
PCB-73 23'5'6TeCB	22.61	3.60E+08	0.79 Y	1.09	1.11	1.9%
PCB-43 22'35-TeCB	22.69	2.52E+08	0.80 Y	0.72	0.78	7.4%
PCB-69/49 23'46-/22'45'TeCB	22.89	6.89E+08	0.79 Y	1.01	1.06	5.0%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB
ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.15	2.89E+08	0.79 Y	0.85	0.89	5.0%
PCB-44/47/65 22'35'-/22'44'-	23.36	9.15E+08	0.79 Y	0.89	0.94	5.7%
PCB-59/62/75 233'6-/2346-/24	23.63	1.18E+09	0.79 Y	1.14	1.22	6.7%
PCB-42 22'34'-TeCB	23.79	2.64E+08	0.80 Y	0.77	0.81	5.5%
PCB-41 22'34-TeCB	24.10	2.36E+08	0.78 Y	0.73	0.73	0.2%
PCB-71/40 23'4'6/22'33'-TeCB	24.20	5.96E+08	0.79 Y	0.87	0.92	6.2%
PCB-64 234'6-TeCB	24.40	4.16E+08	0.79 Y	1.24	1.28	3.8%
PCB-72 23'55'-TeCB	25.12	3.93E+08	0.79 Y	1.14	1.21	6.0%
PCB-68 23'45'-TeCB	25.37	4.18E+08	0.79 Y	1.21	1.29	6.6%
PCB-57 233'5-TeCB	25.73	3.76E+08	0.78 Y	1.11	1.16	5.1%
PCB-58 233'5-TeCB	25.92	3.78E+08	0.79 Y	1.10	1.17	6.1%
PCB-67 23'45-TeCB	26.07	4.00E+08	0.78 Y	1.16	1.23	6.4%
PCB-63 234'5-TeCB	26.30	4.17E+08	0.78 Y	1.22	1.29	6.0%
PCB-61/70/74/76 2345-/23'4'5	26.58	1.57E+09	0.78 Y	1.13	1.21	7.3%
PCB-66 23'44'-TeCB	26.85	3.66E+08	0.78 Y	1.08	1.13	5.1%
PCB-55 233'4-TeCB	26.99	3.77E+08	0.78 Y	1.10	1.16	6.0%
PCB-56 233'4'-TeCB	27.41	3.62E+08	0.78 Y	1.06	1.12	5.9%
PCB-60 2344'-TeCB	27.60	3.84E+08	0.79 Y	1.11	1.18	6.6%
PCB-80 33'55'-TeCB	27.96	4.32E+08	0.79 Y	1.25	1.33	6.4%
PCB-79 33'45'-TeCB	29.24	4.39E+08	0.78 Y	1.23	1.36	9.9%
PCB-78 33'45-TeCB	29.71	3.70E+08	0.77 Y	1.08	1.14	5.7%
PCB-104 22'466'-PeCB	23.31	2.98E+08	0.63 Y	1.25	1.31	4.5%
PCB-96 22'366'-PeCB	23.60	2.60E+08	0.63 Y	1.08	1.14	6.5%
PCB-103 22'45'6-PeCB	25.28	2.65E+08	0.63 Y	0.90	0.93	2.7%
PCB-94 22'356'-PeCB	25.46	2.32E+08	0.62 Y	0.78	0.81	4.2%
PCB-95 22'35'6-PeCB	25.83	2.47E+08	0.63 Y	0.83	0.86	4.4%
PCB-100/93 22'44'6-/22'356-P	26.04	4.92E+08	0.63 Y	0.84	0.86	1.7%
PCB-102 22'456'-PeCB	26.14	2.81E+08	0.63 Y	0.90	0.98	8.9%
PCB-98 22'3'46-PeCB	26.21	2.30E+08	0.63 Y	0.77	0.80	3.9%
PCB-88 22'346-PeCB	26.50	2.39E+08	0.63 Y	0.79	0.83	5.2%
PCB-91 22'34'6-PeCB	26.57	2.64E+08	0.63 Y	0.88	0.92	4.7%
PCB-84 22'33'6-PeCB	26.74	2.13E+08	0.62 Y	0.71	0.74	4.5%
PCB-89 22'346'-PeCB	27.15	2.26E+08	0.63 Y	0.76	0.79	3.6%
PCB-121 23'45'6-PeCB	27.53	3.39E+08	0.63 Y	1.14	1.18	3.3%
PCB-92 22'355'-PeCB	27.83	2.39E+08	0.63 Y	0.80	0.84	4.4%
PCB-113/90/101 233'5'6-/22'3	28.31	8.36E+08	0.63 Y	0.93	0.97	4.0%
PCB-83 22'33'5-PeCB	28.72	2.03E+08	0.62 Y	0.71	0.71	-0.5%
PCB-99 22'44'5-PeCB	28.83	2.76E+08	0.63 Y	0.87	0.96	10.6%
PCB-112 233'56-PeCB	28.92	3.25E+08	0.63 Y	1.13	1.13	0.7%
PCB-108/119/86/97/125/87 233	29.26	1.71E+09	0.63 Y	0.95	0.99	4.5%
PCB-117 234'56-PeCB	29.78	3.04E+08	0.62 Y	1.04	1.06	2.2%
PCB-116/85 23456-/22'344'-Pe	29.86	5.85E+08	0.63 Y	0.97	1.02	5.0%
PCB-110 233'4'6-PeCB	29.99	3.09E+08	0.63 Y	1.02	1.08	5.5%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.07	3.35E+08	0.63 Y	1.16	1.17	1.0%
PCB-82 22'33'4-PeCB	30.25	2.08E+08	0.63 Y	0.69	0.73	5.1%
PCB-111 233'55'-PeCB	30.60	3.45E+08	0.63 Y	1.15	1.21	4.4%
PCB-120 23'455'-PeCB	30.99	3.48E+08	0.63 Y	1.16	1.21	4.6%
PCB-107/124 233'4'5-/2'3455'	31.93	6.43E+08	0.63 Y	1.07	1.12	4.4%
PCB-109 233'46-PeCB	32.13	3.41E+08	0.63 Y	1.14	1.19	4.3%
PCB-106 233'45-PeCB	32.34	3.24E+08	0.63 Y	1.07	1.13	5.7%
PCB-122 2'33'45-PeCB	32.79	3.03E+08	0.63 Y	1.00	1.04	3.9%
PCB-127 33'455'-PeCB	34.74	3.33E+08	0.63 Y	1.10	1.17	6.4%
PCB-155 22'44'66'-HxCB	28.16	3.26E+08	1.27 Y	1.09	1.15	5.6%
PCB-152 22'3566'-HxCB	28.30	3.05E+08	1.26 Y	1.01	1.08	6.5%
PCB-150 22'34'66'-HxCB	28.45	3.08E+08	1.27 Y	1.00	1.09	8.2%
PCB-136 22'33'66'-HxCB	28.73	2.87E+08	1.26 Y	0.95	1.01	6.3%
PCB-145 22'3466'HxCB	29.00	2.91E+08	1.25 Y	0.96	1.03	6.7%
PCB-148 22'34'56'-HxCB	30.28	2.27E+08	1.27 Y	0.97	1.05	8.2%
PCB-151/135 22'355'6-/22'33'	30.79	4.40E+08	1.26 Y	0.96	1.02	5.6%
PCB-154 22'44'5'6-HxCB	31.00	2.51E+08	1.25 Y	1.09	1.16	6.5%
PCB-144 22'345'6-HxCB	31.25	2.25E+08	1.26 Y	0.98	1.04	6.0%
PCB-147/149 22'34'56-/22'34'	31.55	4.53E+08	1.26 Y	0.99	1.05	6.4%
PCB-134 22'33'56-HxCB	31.71	1.85E+08	1.26 Y	0.80	0.86	7.0%
PCB-143 22'3456'-HxCB	31.79	2.15E+08	1.27 Y	0.95	1.00	4.4%
PCB-139/140 22'344'6-/22'344'	32.06	4.63E+08	1.26 Y	1.00	1.07	7.2%
PCB-131 22'33'46-HxCB	32.22	1.99E+08	1.26 Y	0.85	0.92	8.5%
PCB-142 22'3456-HxCB	32.36	2.02E+08	1.27 Y	0.87	0.93	7.0%
PCB-132 22'33'46'-HxCB	32.59	2.05E+08	1.26 Y	0.89	0.95	6.8%
PCB-133 22'33'55'-HxCB	33.03	2.13E+08	1.27 Y	0.91	0.99	8.0%
PCB-165 233'55'6-HxCB	33.37	2.61E+08	1.25 Y	1.13	1.21	6.6%
PCB-146 22'34'55'-HxCB	33.57	2.29E+08	1.26 Y	1.01	1.06	5.1%
PCB-161 233'45'6-HxCB	33.69	2.92E+08	1.27 Y	1.25	1.35	7.8%
PCB-153/168 22'44'55'-/23'44'	34.12	5.61E+08	1.27 Y	1.22	1.30	6.5%
PCB-141 22'3455'-HxCB	34.25	2.12E+08	1.27 Y	0.93	0.98	5.7%
PCB-130 22'33'45'-HxCB	34.59	1.93E+08	1.26 Y	0.85	0.89	5.6%
PCB-137 22'344'5-HxCB	34.78	2.23E+08	1.25 Y	1.04	1.03	-1.2%
PCB-164 233'4'5'6-HxCB	34.86	2.99E+08	1.27 Y	1.22	1.38	13.2%
PCB-163/138/129 233'4'56-/22'	35.15	7.12E+08	1.26 Y	1.02	1.10	7.3%
PCB-160 233'456-HxCB	35.28	2.72E+08	1.27 Y	1.21	1.26	4.2%
PCB-158 233'44'6-HxCB	35.46	3.05E+08	1.26 Y	1.34	1.41	5.5%
PCB-128/166 22'33'44'-/2344'5	36.18	5.38E+08	1.25 Y	0.90	0.94	4.8%
PCB-159 233'455'-HxCB	37.02	3.22E+08	1.25 Y	1.06	1.13	5.9%
PCB-162 233'4'55'-HxCB	37.25	3.25E+08	1.25 Y	1.08	1.14	5.7%
PCB-188 22'34'566'-HpCB	32.97	2.48E+08	1.05 Y	1.03	1.10	6.3%
PCB-179 22'33'566'-HpCB	33.23	2.29E+08	1.06 Y	0.97	1.02	5.0%
PCB-184 22'344'66'-HpCB	33.70	2.25E+08	1.05 Y	0.93	1.00	7.0%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19
ICAL: MM7_PCB_07132012_25JUL12

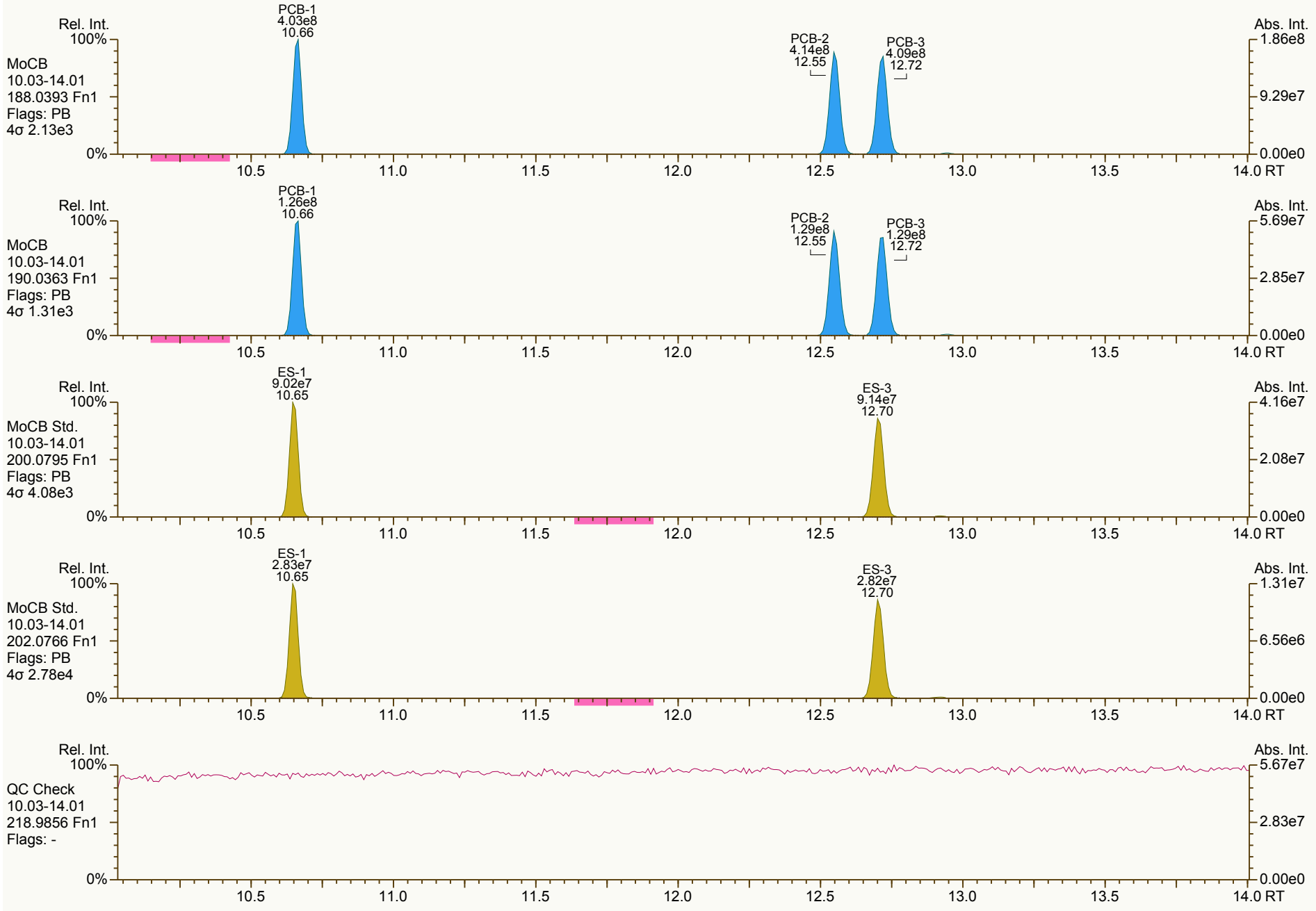
Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.98	2.48E+08	1.05 Y	1.05	1.10	5.1%
PCB-186 22'34566'-HpCB	34.36	2.33E+08	1.05 Y	0.98	1.03	5.4%
PCB-178 22'33'55'6-HpCB	35.51	1.74E+08	1.06 Y	0.74	0.77	4.8%
PCB-175 22'33'45'6-HpCB	36.05	2.17E+08	1.06 Y	1.01	1.08	6.8%
PCB-187 22'34'55'6-HpCB	36.28	2.28E+08	1.05 Y	1.06	1.13	6.4%
PCB-182 22'344'56'-HpCB	36.45	2.33E+08	1.05 Y	1.11	1.15	3.9%
PCB-183 22'344'5'6-HpCB	36.80	2.54E+08	1.05 Y	1.13	1.26	11.0%
PCB-185 22'3455'6-HpCB	36.87	2.08E+08	1.06 Y	1.02	1.03	1.3%
PCB-174 22'33'456'-HpCB	36.98	1.93E+08	1.06 Y	0.93	0.96	3.3%
PCB-177 22'33'4'56-HpCB	37.35	1.93E+08	1.05 Y	0.91	0.96	5.8%
PCB-181 22'344'56-HpCB	37.69	2.24E+08	1.05 Y	1.06	1.11	4.4%
PCB-171/173 22'33'44'6-/22'3	37.86	3.92E+08	1.05 Y	0.93	0.97	4.8%
PCB-172 22'33'455'-HpCB	39.23	2.02E+08	1.05 Y	0.95	1.00	4.8%
PCB-192 233'455'6-HpCB	39.48	2.62E+08	1.05 Y	1.24	1.30	4.8%
PCB-180/193 22'344'55'-/233'	39.75	4.93E+08	1.06 Y	1.16	1.22	5.5%
PCB-191 233'44'5'6-HpCB	40.07	2.73E+08	1.05 Y	1.30	1.36	4.1%
PCB-170 22'33'44'5-HpCB	40.82	1.97E+08	1.05 Y	1.07	1.13	5.3%
PCB-190 233'44'56-HpCB	41.27	2.68E+08	1.05 Y	1.45	1.54	6.1%
PCB-202 22'33'55'66'-OcCB	37.46	2.09E+08	0.90 Y	0.91	0.96	4.8%
PCB-201 22'33'45'66'-OcCB	38.23	2.34E+08	0.90 Y	1.02	1.07	5.1%
PCB-204 22'344'566'-OcCB	38.81	2.20E+08	0.91 Y	0.98	1.01	3.5%
PCB-197 22'33'44'66'-OcCB	38.99	2.43E+08	0.89 Y	1.06	1.12	4.9%
PCB-200 22'33'4566'-OcCB	39.07	2.20E+08	0.90 Y	0.96	1.01	5.2%
PCB-198/199 22'33'455'6-/22'	41.40	3.30E+08	0.90 Y	0.72	0.76	5.6%
PCB-196 22'33'44'56'-OcCB	41.97	1.71E+08	0.90 Y	0.73	0.79	7.5%
PCB-203 22'344'55'6-OcCB	42.14	1.78E+08	0.91 Y	0.76	0.82	6.7%
PCB-195 22'33'44'56-OcCB	43.24	1.78E+08	0.89 Y	0.80	0.85	6.2%
PCB-194 22'33'44'55'-OcCB	45.19	1.91E+08	0.90 Y	0.87	0.91	4.1%
PCB-205 233'44'55'6-OcCB	45.58	2.39E+08	0.90 Y	1.09	1.14	4.7%
PCB-208 22'33'455'66'-NoCB	43.04	2.24E+08	0.78 Y	1.02	1.08	6.2%
PCB-207 22'33'44'566'-NoCB	43.82	2.33E+08	0.78 Y	1.06	1.12	6.3%
PCB-206 22'33'44'55'6-NoCB	47.04	1.58E+08	0.78 Y	0.98	1.04	6.1%

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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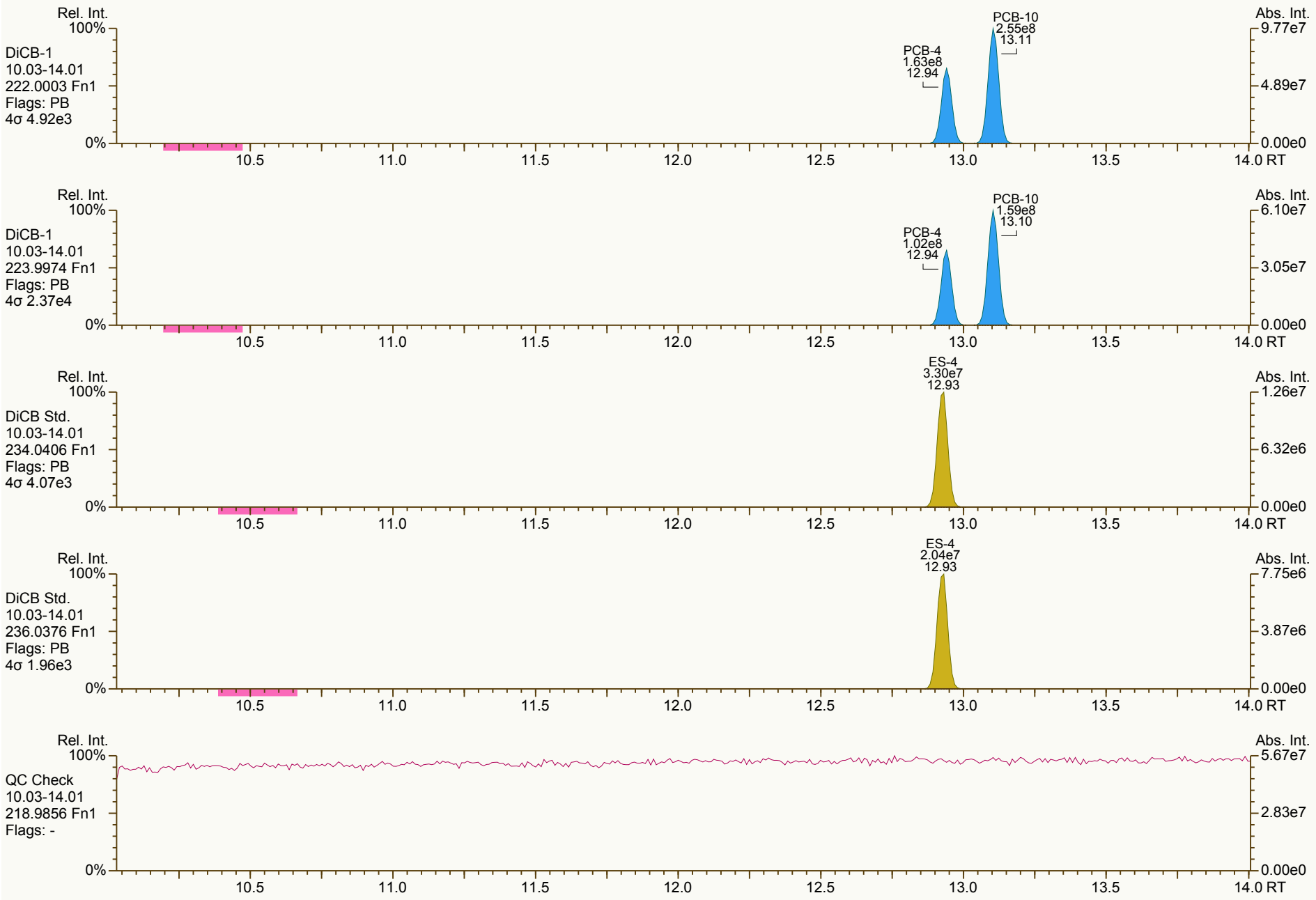
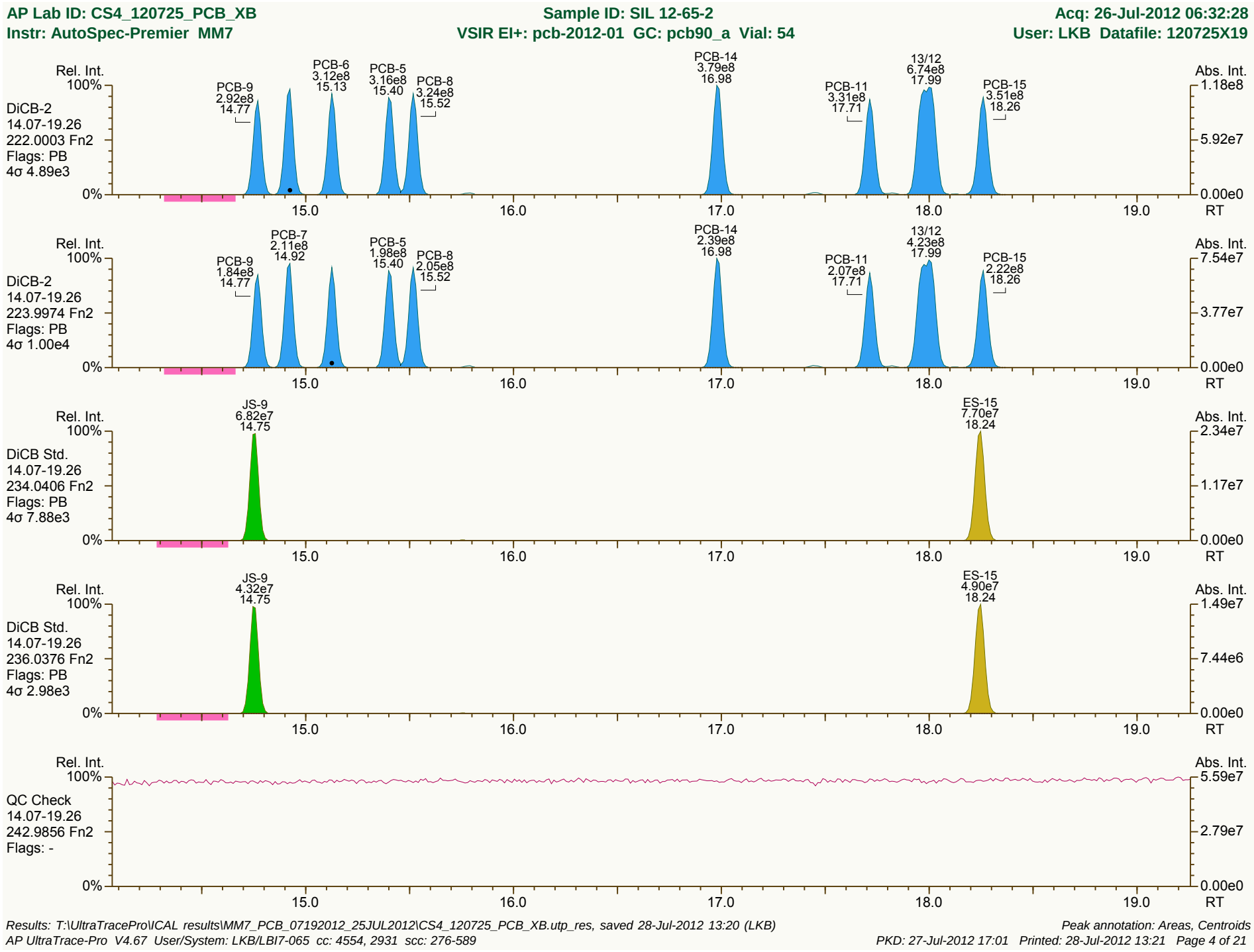
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 1853, 1225 scc: 276-589 *PKD: 27-Jul-2012 09:57 Printed: 28-Jul-2012 13:21 Page 2 of 21*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**





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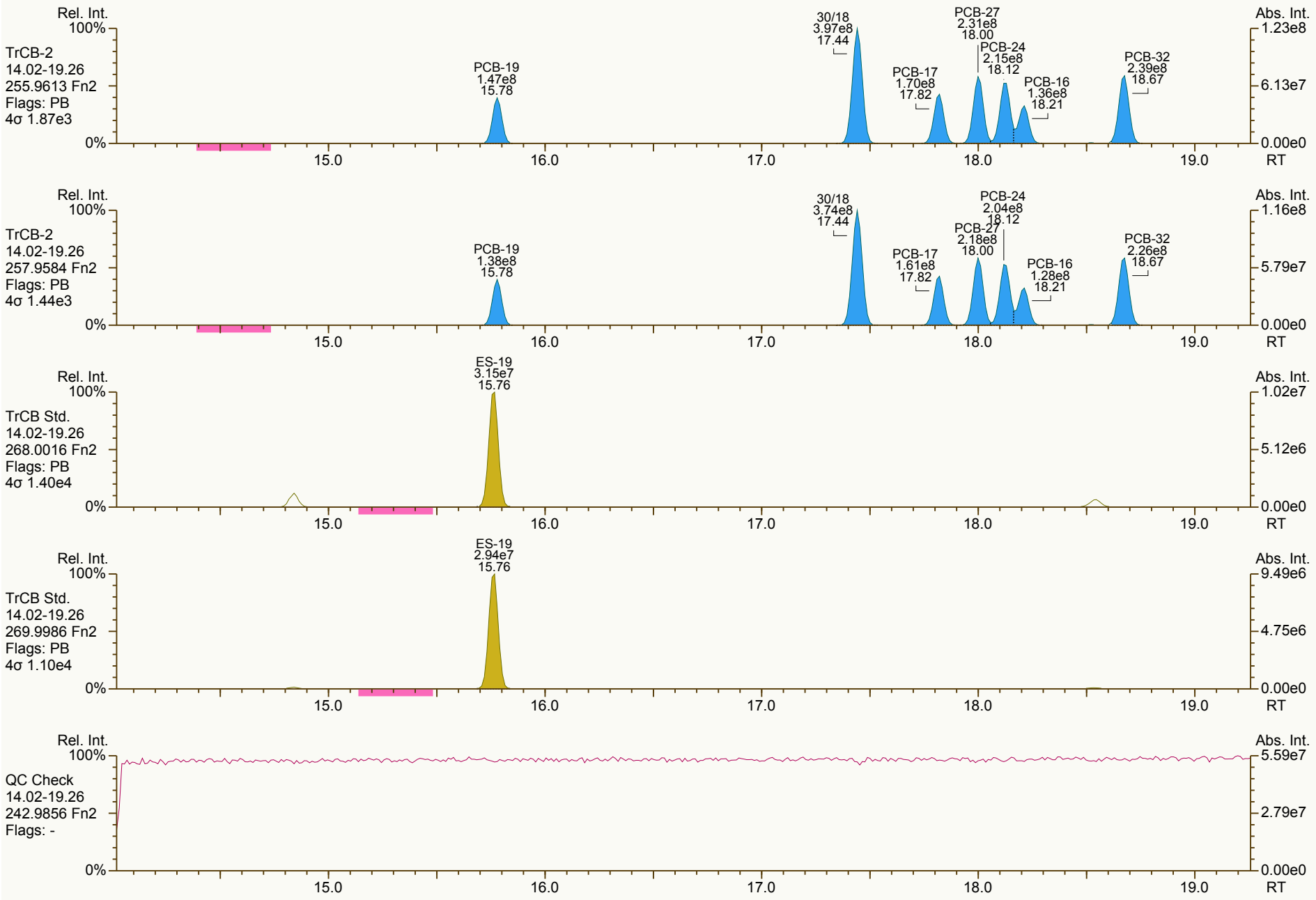
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 4554, 2931 scc: 276-589
PKD: 27-Jul-2012 17:01 Printed: 28-Jul-2012 13:21 Page 4 of 21

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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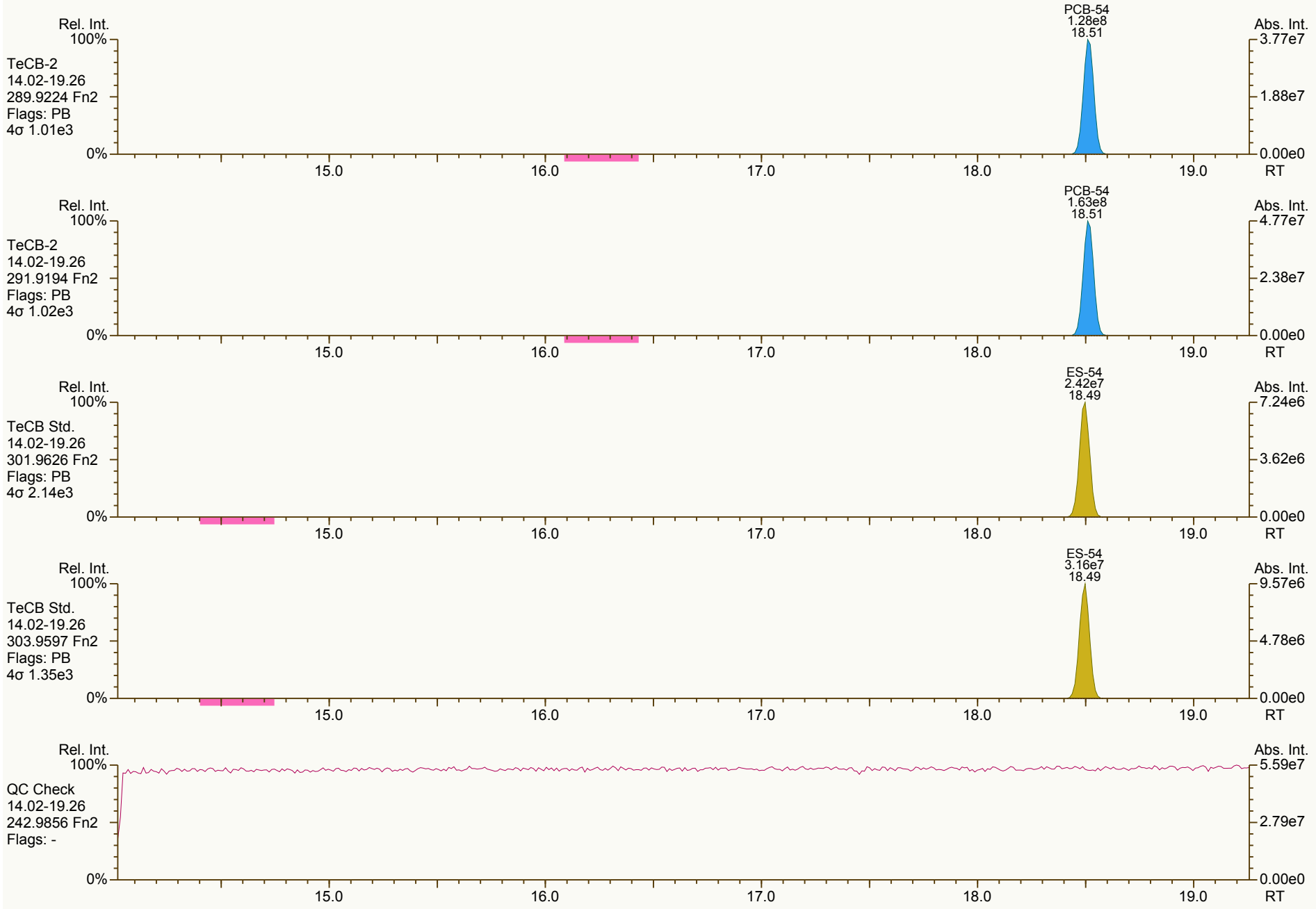
AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
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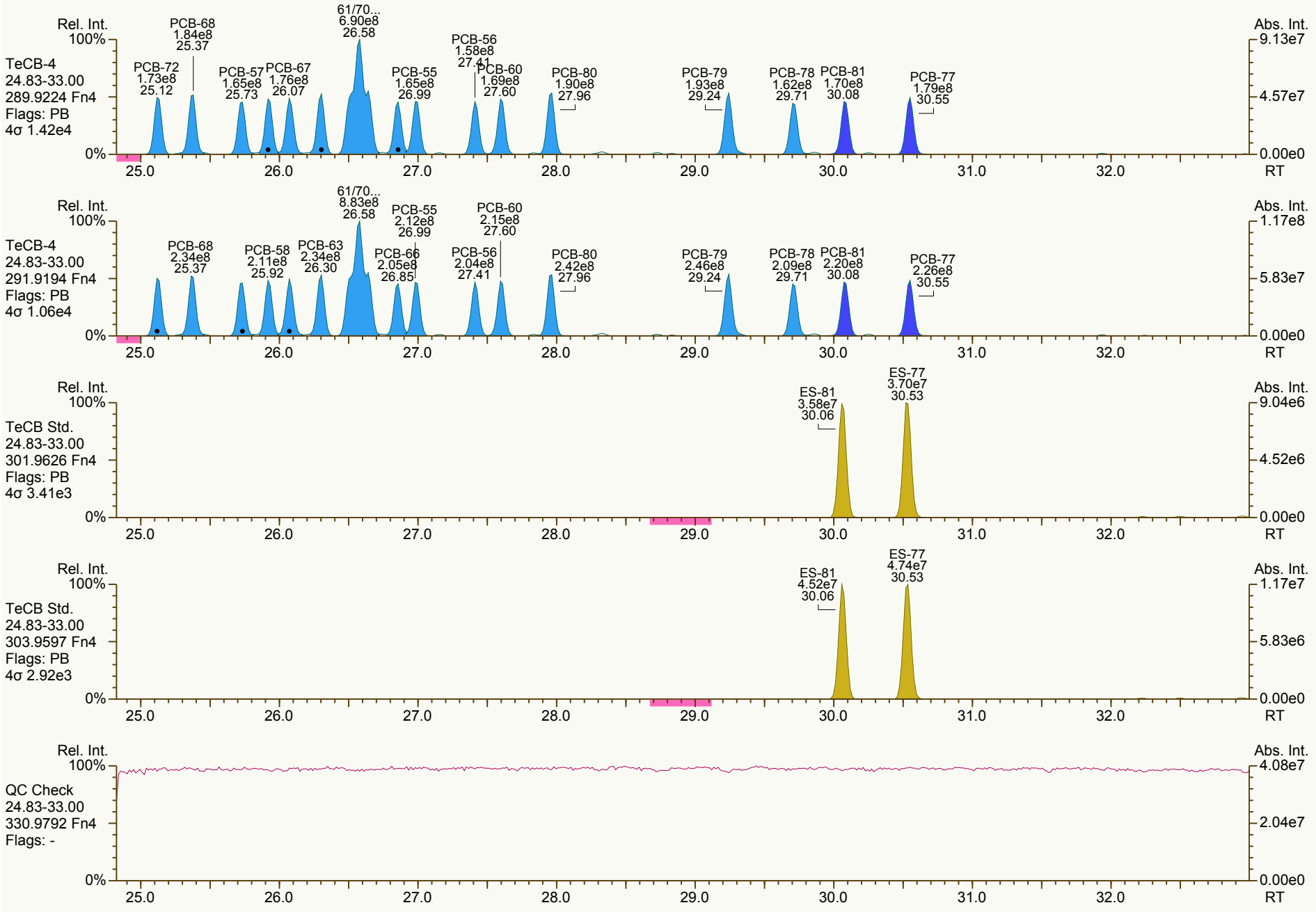
AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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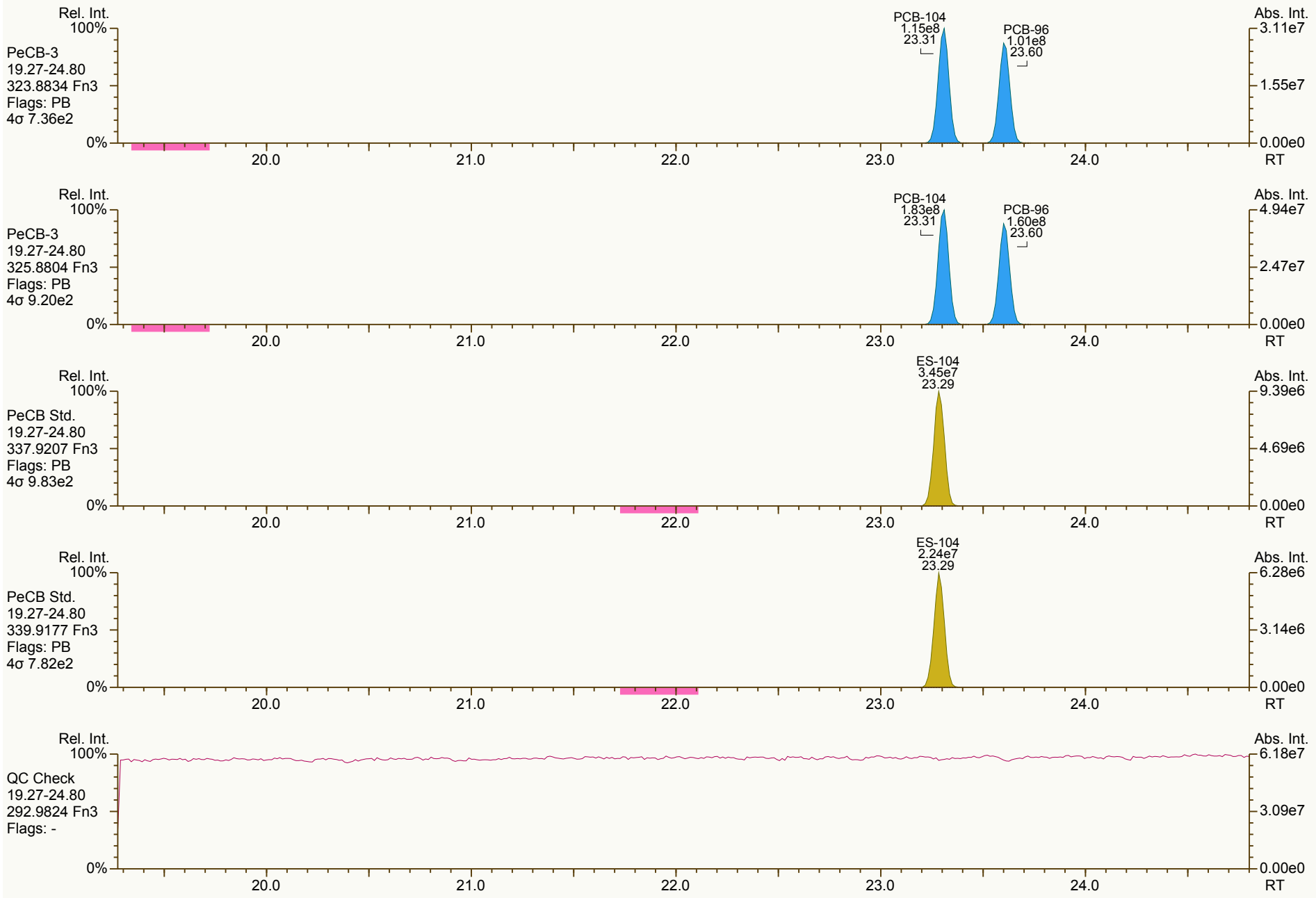
AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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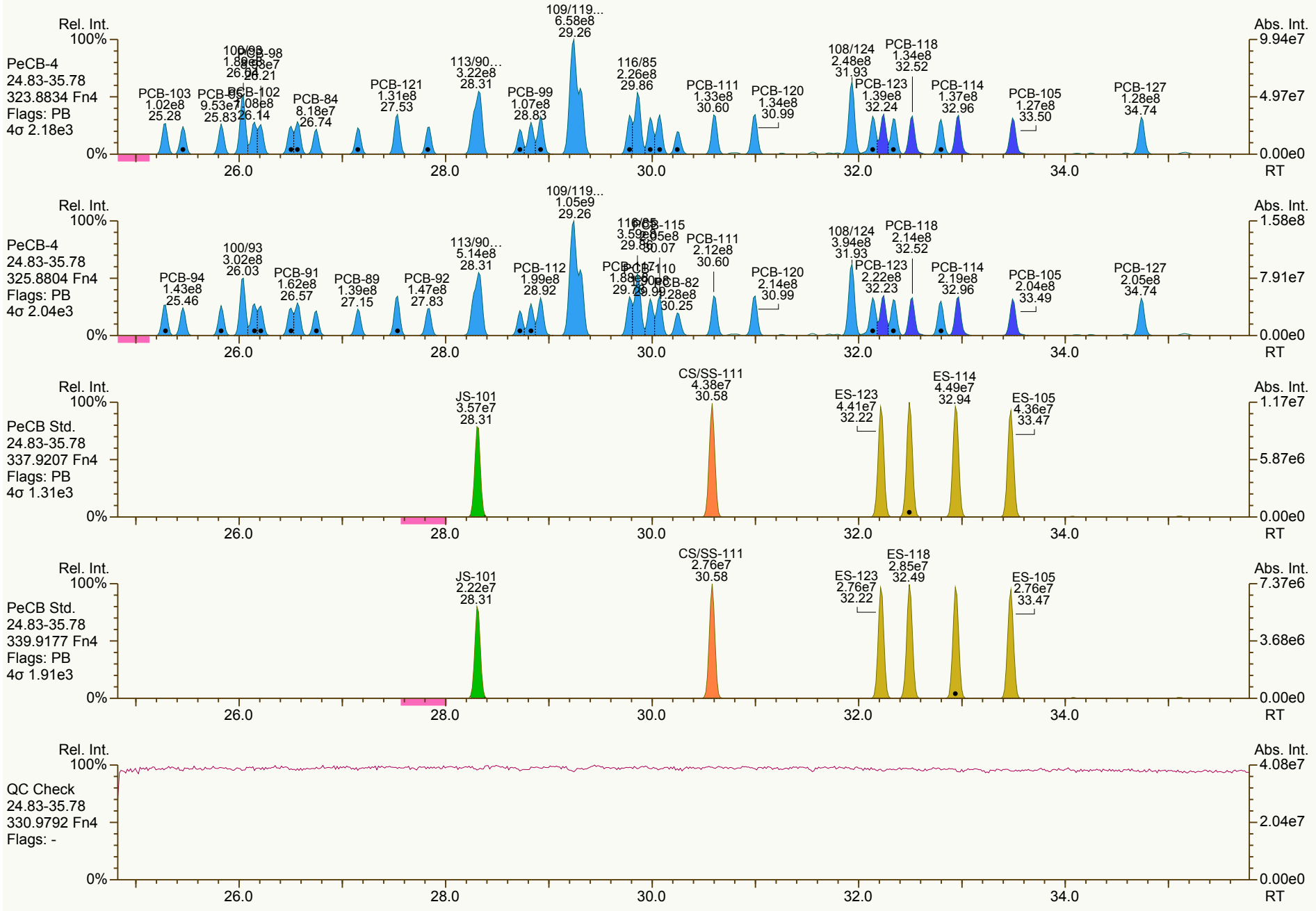
AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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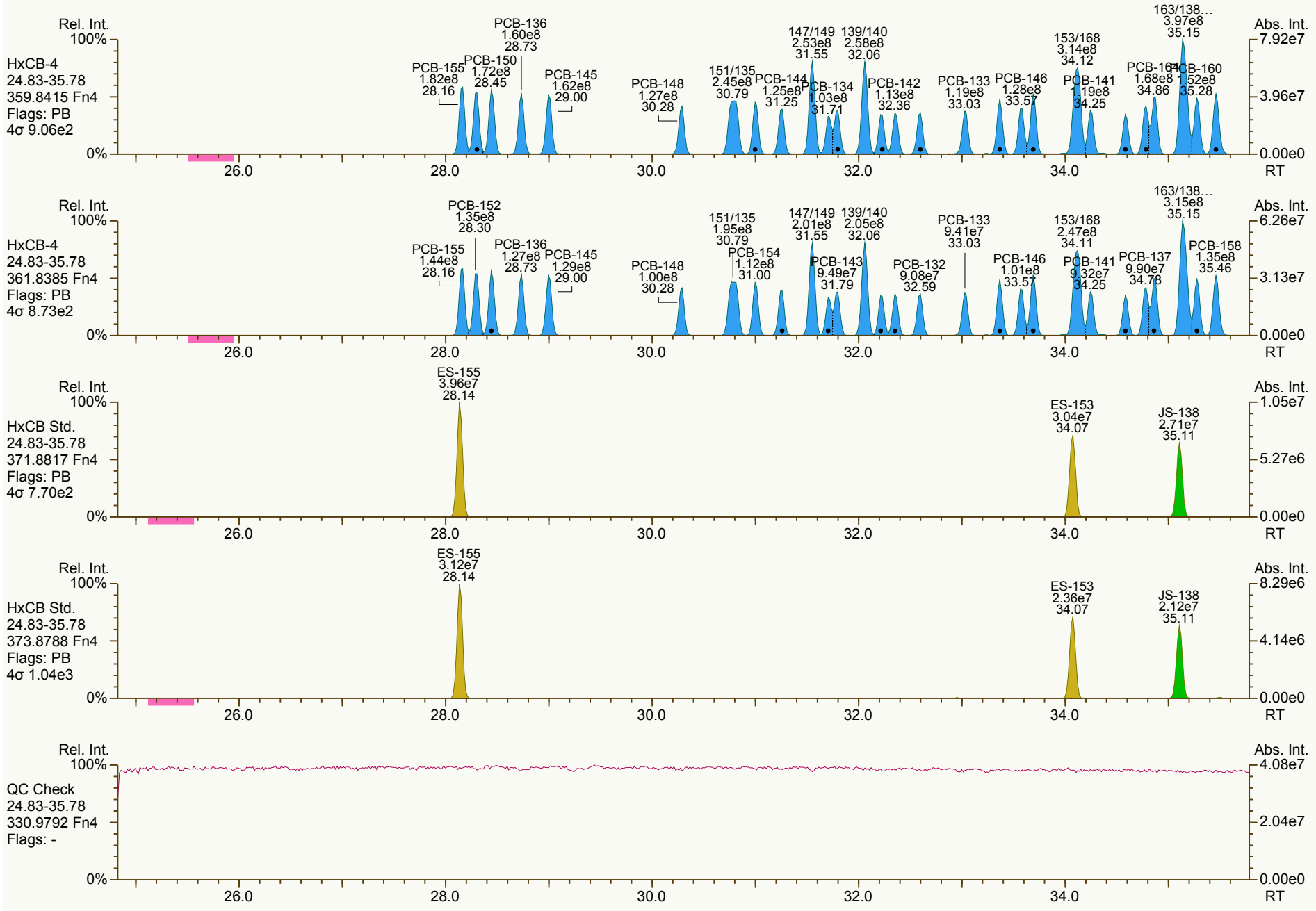
AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



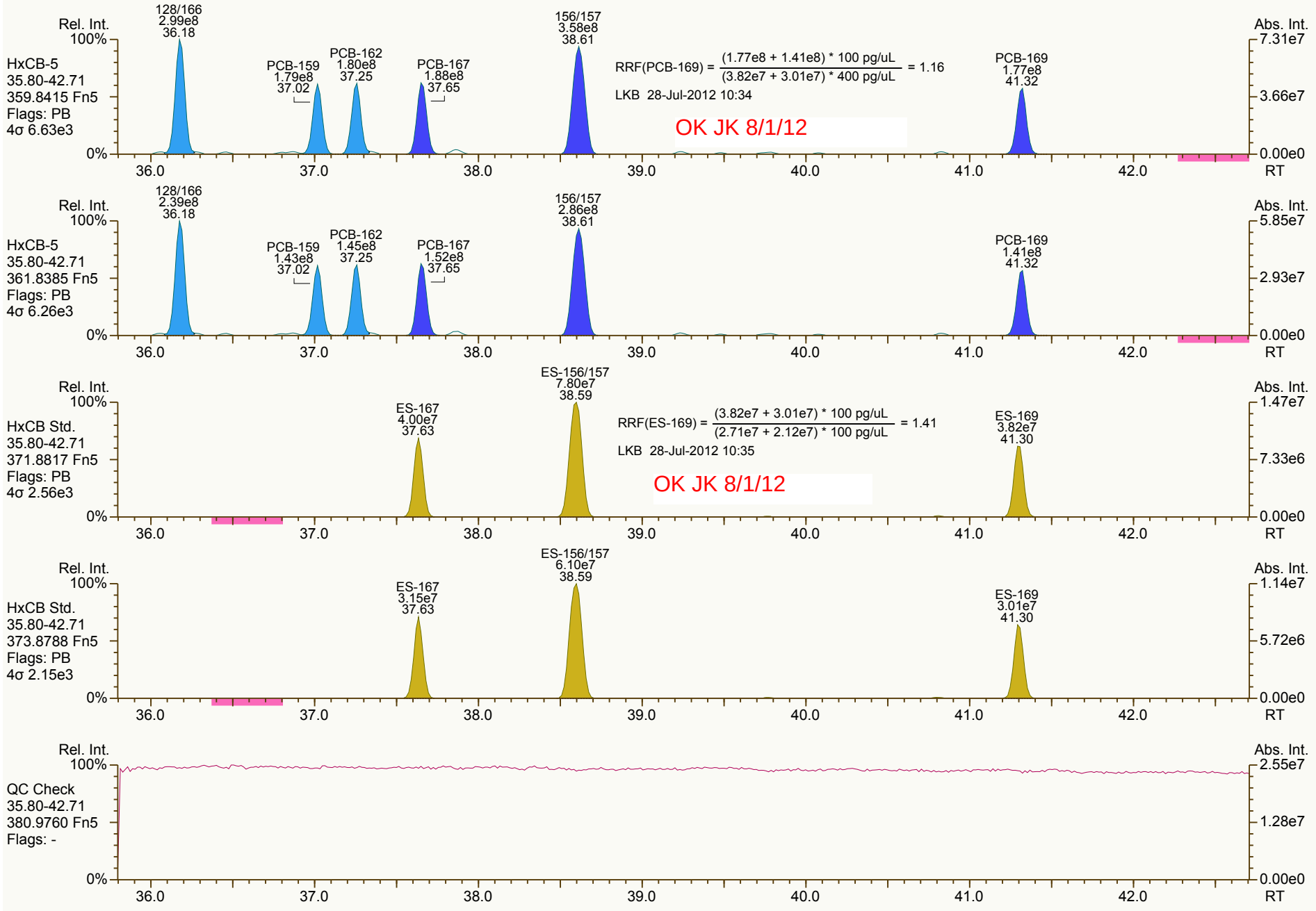
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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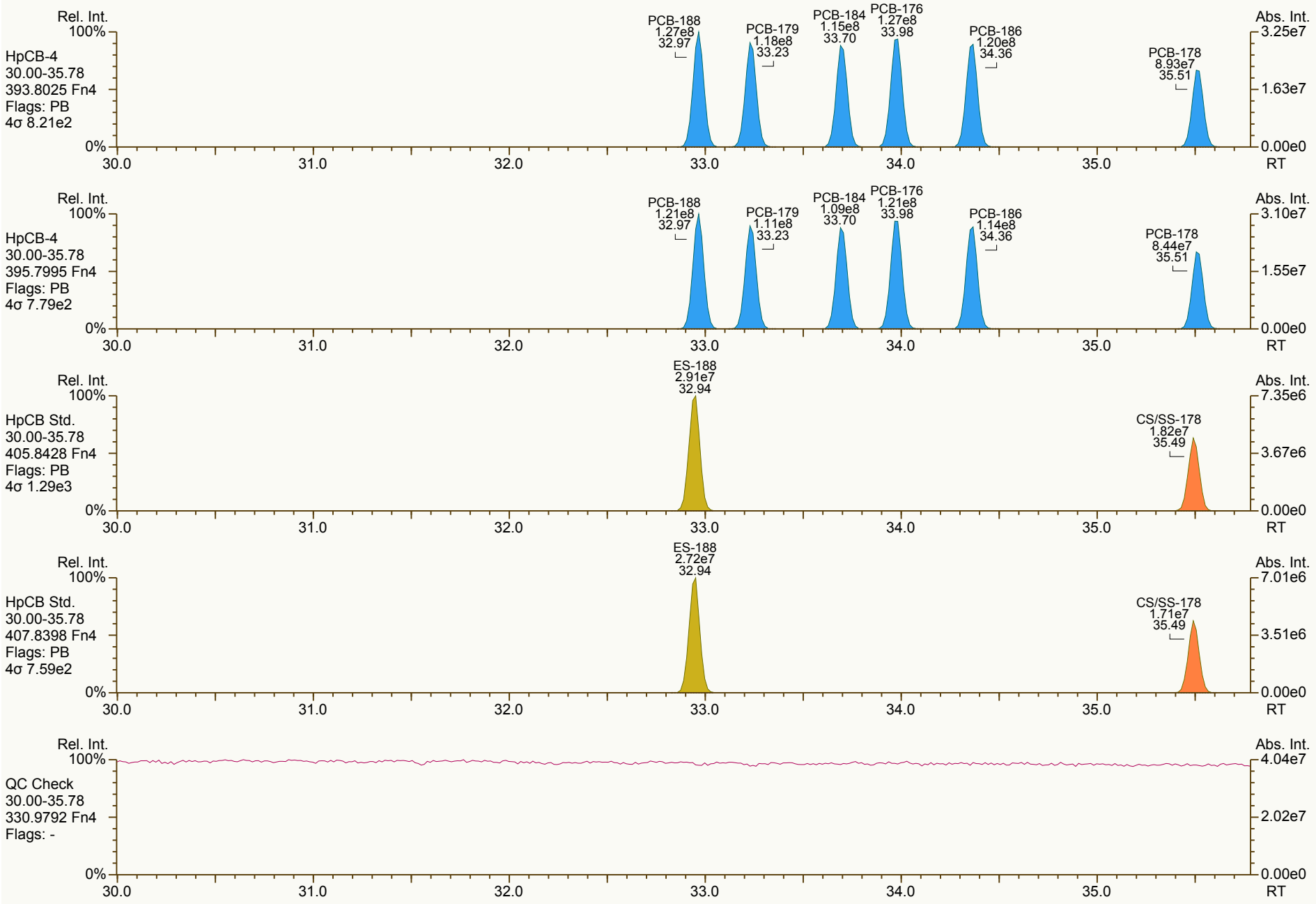
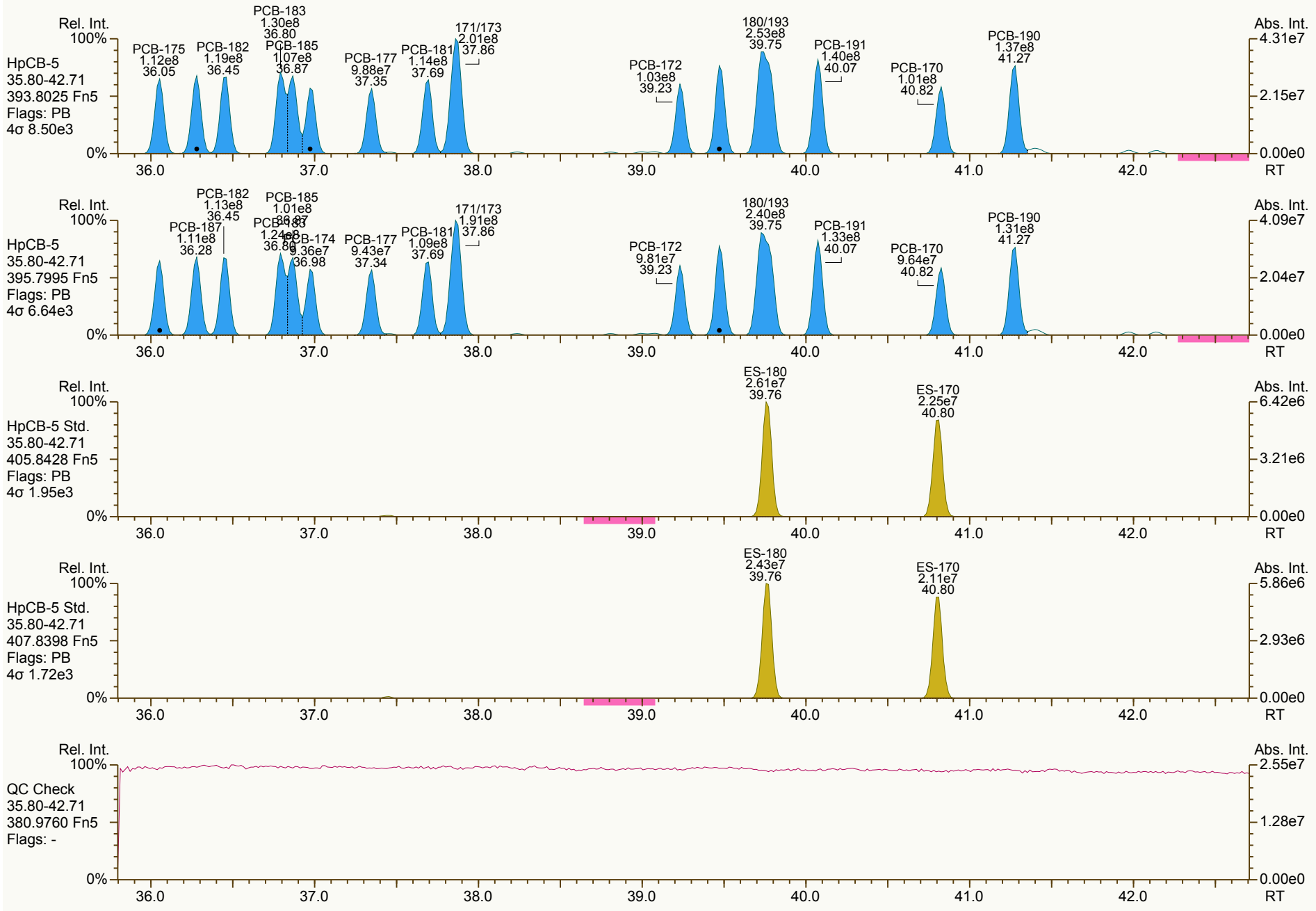
AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 6278, 4933 scc: 276-589 *PKD: 27-Jul-2012 17:01 Printed: 28-Jul-2012 13:21 Page 15 of 21*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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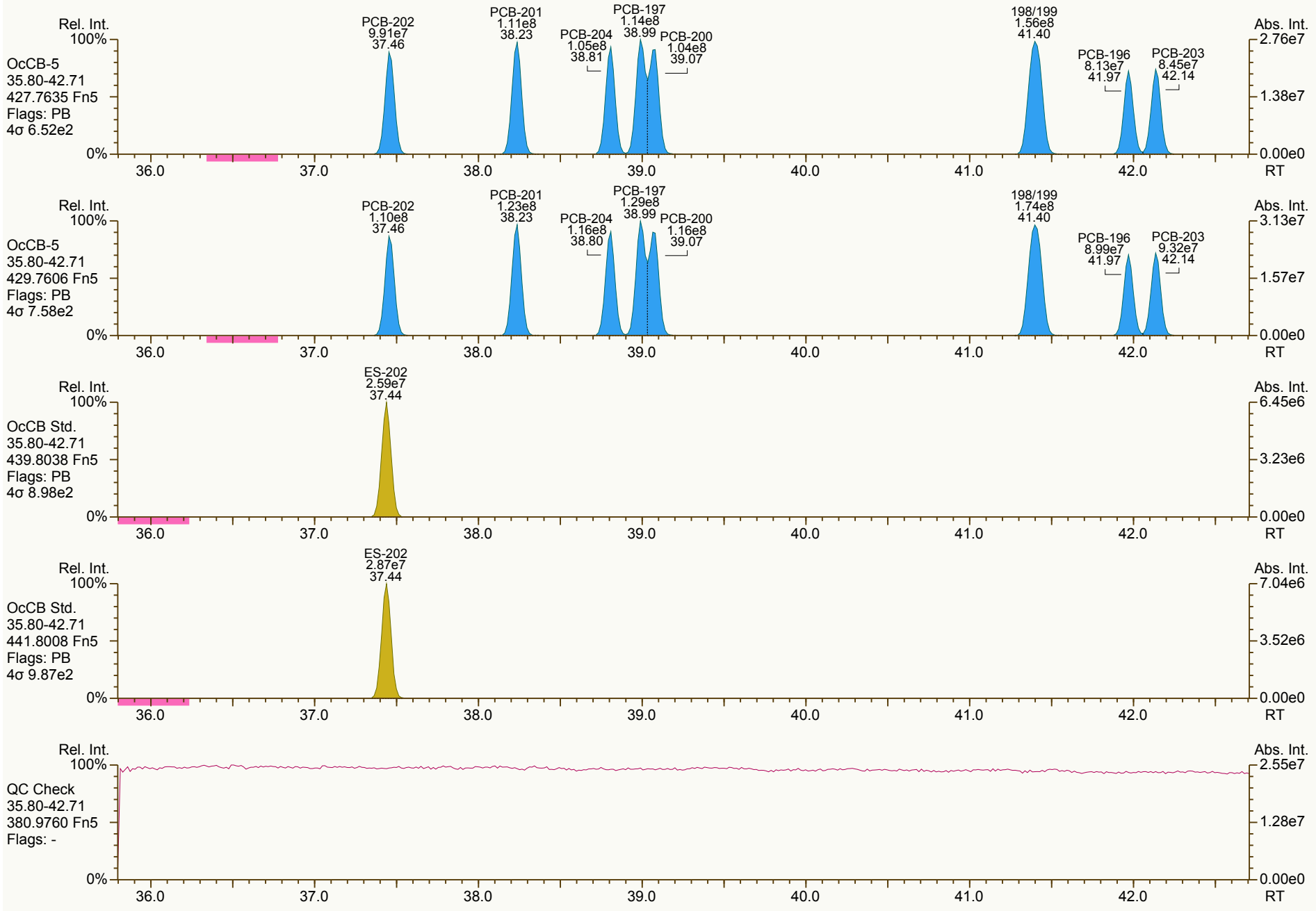
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7057, 6859 scc: 276-589 *PKD: 27-Jul-2012 17:01 Printed: 28-Jul-2012 13:21 Page 16 of 21*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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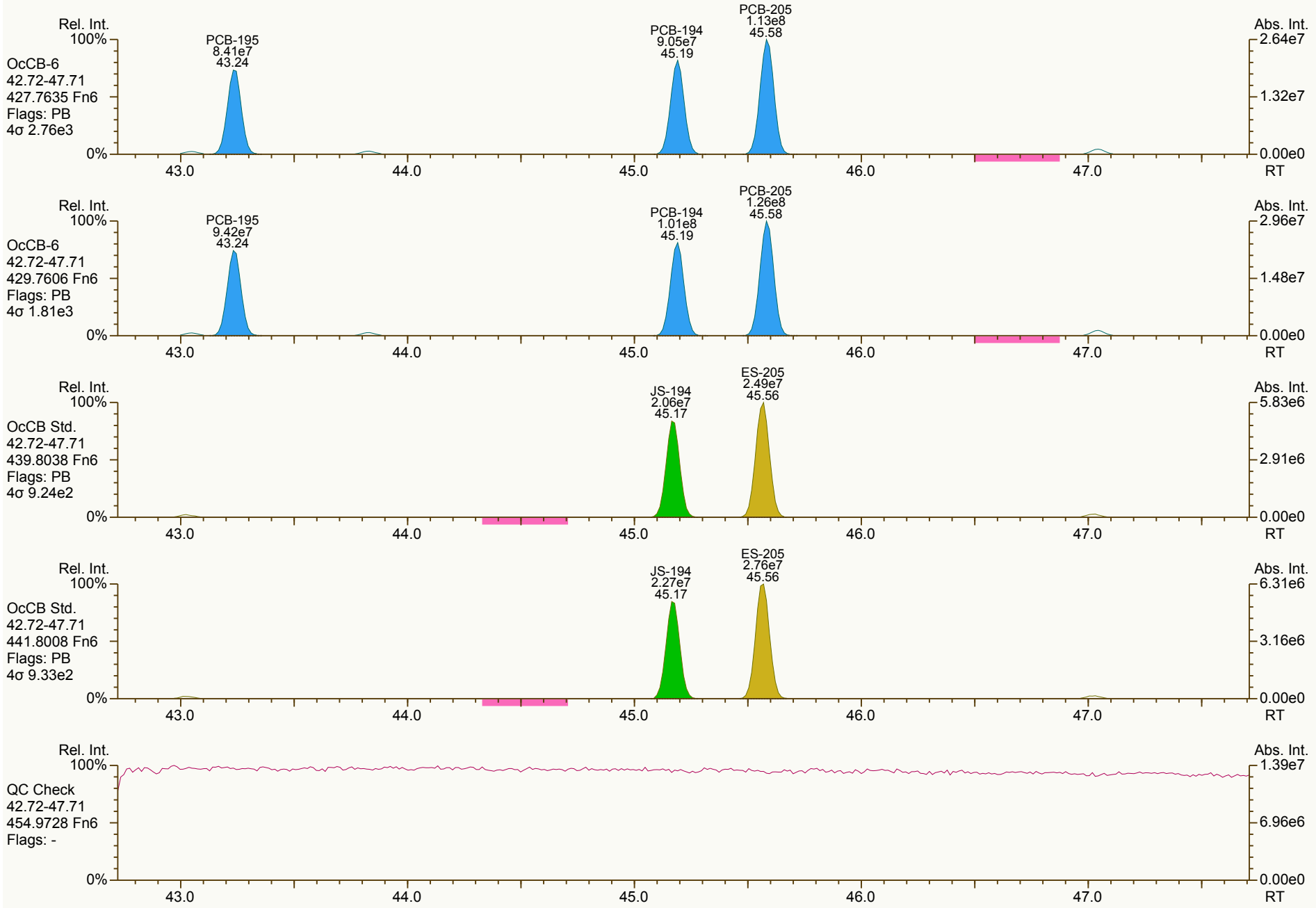
AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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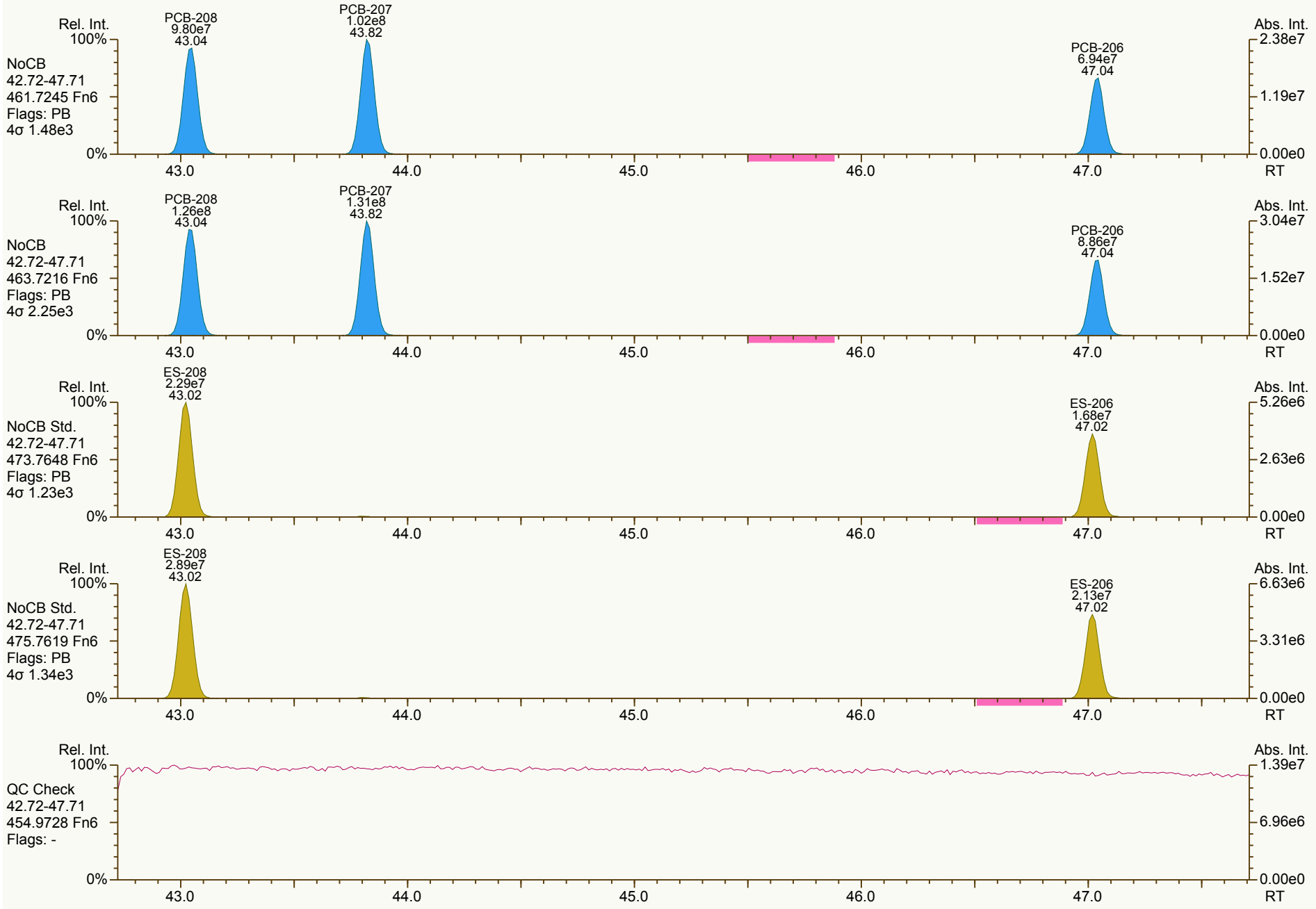
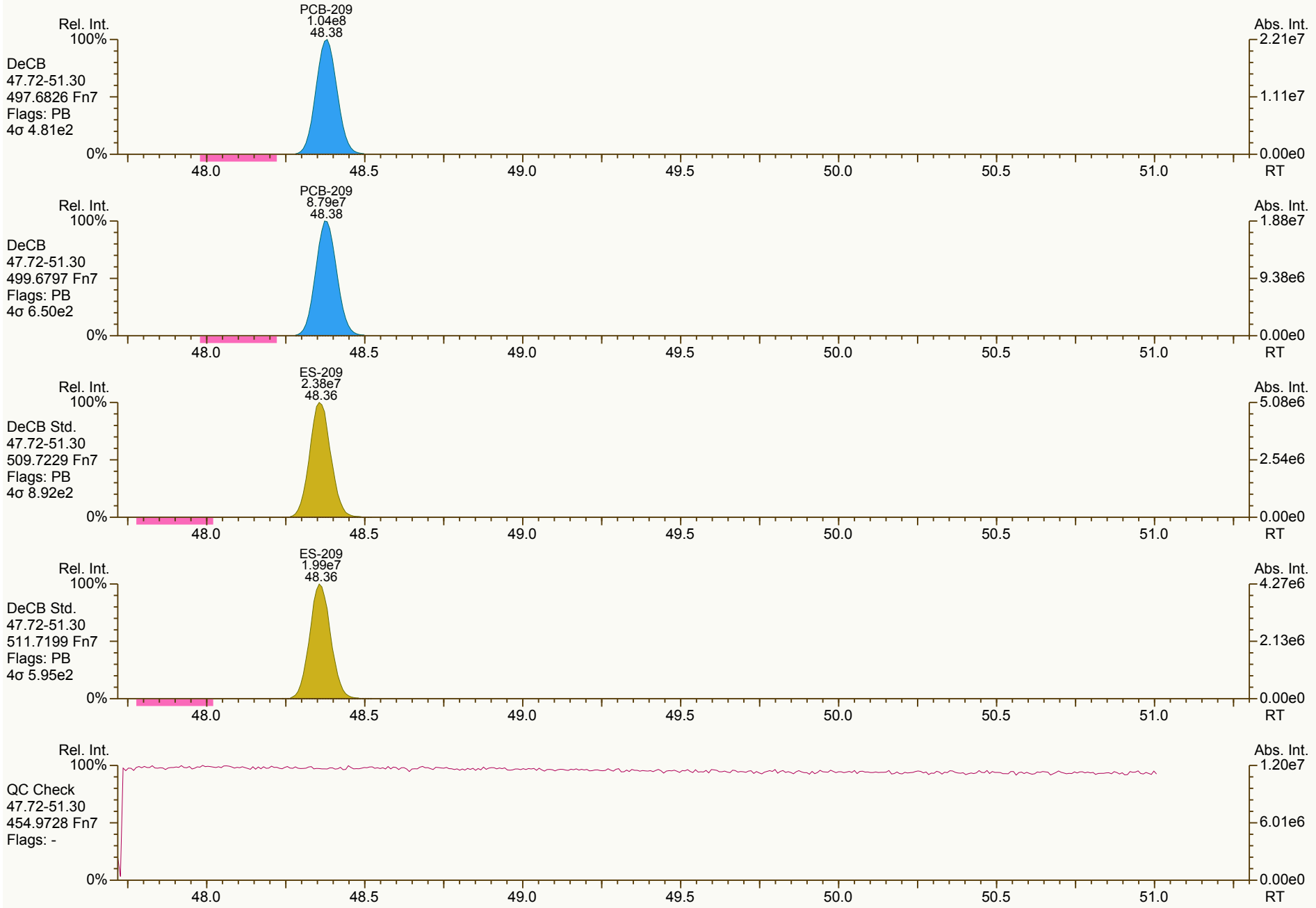
AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7479, 3335 scc: 276-589 *PKD: 27-Jul-2012 09:57 Printed: 28-Jul-2012 13:21 Page 21 of 21*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:15
Lab ID:	**CS5_120725_PCB_XB**		**ICAL: MM7_PCB_07132012_25JUL12**		
Acquired:	**26-JUL-2012 07:26**				
Datafile:	**120725X20**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.54	2.29E+09	0.79 Y	1.13	1.18	3.9%
PCB-81 344'5-TeCB	30.07	2.20E+09	0.79 Y	1.13	1.18	4.6%
PCB-105 233'44'-PeCB	33.48	1.80E+09	0.63 Y	1.09	1.13	3.0%
PCB-114 2344'5-PeCB	32.95	1.90E+09	0.63 Y	1.16	1.20	3.1%
PCB-118 23'44'5-PeCB	32.51	1.86E+09	0.63 Y	1.11	1.12	1.3%
PCB-123 2'344'5-PeCB	32.23	1.94E+09	0.63 Y	1.19	1.23	3.4%
PCB-126 33'44'5-PeCB	36.08	1.76E+09	0.63 Y	1.06	1.12	5.8%
PCB-156/157 233'44'5/233'44'5'	38.60	3.47E+09	1.25 Y	1.11	1.12	1.0%
PCB-167 23'44'55'-HxCB	37.65	1.84E+09	1.25 Y	1.14	1.17	2.8%
PCB-169 33'44'55'-HxCB	41.31	1.70E+09	1.26 Y	1.11	1.14	2.7%
PCB-189 233'44'55'-HpCB	43.42	1.56E+09	1.05 Y	1.06	1.10	3.7%
PCB-209 DeCB	48.37	9.96E+08	1.18 Y	1.07	1.07	-0.3%
ES PCB-1	10.63	1.48E+08	3.19 Y	1.08	1.09	0.9%
ES PCB-3	12.69	1.49E+08	3.21 Y	1.08	1.10	1.4%
ES PCB-4	12.91	6.61E+07	1.61 Y	0.49	0.49	-0.3%
ES PCB-15	18.23	1.52E+08	1.59 Y	1.11	1.12	0.7%
ES PCB-19	15.75	7.38E+07	1.06 Y	0.55	0.54	-1.9%
ES PCB-37	24.32	1.21E+08	1.07 Y	1.64	1.67	2.1%
ES PCB-54	18.48	6.74E+07	0.79 Y	0.94	0.93	-0.9%
ES PCB-77	30.52	9.71E+07	0.79 Y	1.35	1.34	-0.3%
ES PCB-81	30.05	9.32E+07	0.80 Y	1.29	1.29	0.1%
ES PCB-104	23.28	6.50E+07	1.56 Y	0.99	1.00	0.7%
ES PCB-105	33.46	7.99E+07	1.59 Y	1.23	1.23	-0.3%
ES PCB-114	32.93	7.95E+07	1.59 Y	1.25	1.22	-2.0%
ES PCB-118	32.48	8.30E+07	1.62 Y	1.28	1.28	-0.3%
ES PCB-123	32.21	7.90E+07	1.59 Y	1.22	1.22	-0.2%
ES PCB-126	36.06	7.84E+07	1.58 Y	1.20	1.21	0.6%
ES PCB-153	34.06	6.01E+07	1.25 Y	1.14	1.15	0.4%
ES PCB-155	28.13	7.88E+07	1.27 Y	1.50	1.50	0.4%
ES PCB-156/157	38.58	1.55E+08	1.29 Y	1.45	1.48	1.5%
ES PCB-167	37.62	7.86E+07	1.28 Y	1.49	1.50	0.3%
ES PCB-169	41.29	7.46E+07	1.27 Y	1.40	1.42	1.2%
ES PCB-170	40.79	4.67E+07	1.05 Y	1.00	1.00	-0.2%
ES PCB-180	39.75	5.51E+07	1.05 Y	1.16	1.18	1.8%
ES PCB-188	32.93	6.18E+07	1.06 Y	1.18	1.18	0.0%
ES PCB-189	43.40	7.11E+07	1.04 Y	1.49	1.52	2.3%
ES PCB-202	37.43	5.96E+07	0.89 Y	1.14	1.14	0.0%
ES PCB-205	45.55	5.70E+07	0.90 Y	1.20	1.22	1.4%
ES PCB-206	47.01	4.08E+07	0.78 Y	0.87	0.87	0.4%
ES PCB-208	43.01	5.57E+07	0.79 Y	1.19	1.19	0.2%
ES PCB-209	48.35	4.66E+07	1.18 Y	1.00	1.00	-0.5%

PCB QC Summary	SGS Analytical Perspectives	Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.88	1.28E+08	1.06 Y	1.07	1.06	-1.3%
SS PCB-111	30.57	8.01E+07	1.60 Y	1.01	1.01	0.8%
SS PCB-178	35.48	3.91E+07	1.07 Y	0.63	0.63	0.7%
CS PCB-28	20.88	1.28E+08	1.06 Y	1.76	1.77	0.8%
CS PCB-111	30.57	8.01E+07	1.60 Y	1.23	1.23	0.6%
CS PCB-178	35.48	3.91E+07	1.07 Y	0.74	0.74	0.7%
JS PCB-9	14.74	1.36E+08	1.58 Y	-	-	-
JS PCB-52	22.45	7.23E+07	0.79 Y	-	-	-
JS PCB-101	28.30	6.50E+07	1.60 Y	-	-	-
JS PCB-138	35.10	5.25E+07	1.26 Y	-	-	-
JS PCB-194	45.16	4.67E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	10.64	3.25E+09	3.15 Y	1.03	1.10	6.3%
PCB-3 4-MoCB	12.70	3.36E+09	3.20 Y	1.04	1.13	7.8%
PCB-4 22'-DiCB	12.93	1.61E+09	1.59 Y	1.17	1.21	3.8%
PCB-15 44'-DiCB	18.25	3.41E+09	1.58 Y	1.08	1.12	3.7%
PCB-19 22'6-TrCB	15.77	1.68E+09	1.06 Y	1.09	1.14	4.2%
PCB-37 344'-TrCB	24.34	2.72E+09	1.05 Y	1.10	1.12	1.8%
PCB-54 22'66'-TeCB	18.50	1.69E+09	0.80 Y	1.21	1.25	3.7%
PCB-104 22'466'-PeCB	23.30	1.65E+09	0.63 Y	1.25	1.27	0.9%
PCB-153 22'44'55' -HxCB	34.10	3.01E+09	1.27 Y	1.22	1.25	2.8%
PCB-155 22'44'66'-HxCB	28.15	1.78E+09	1.26 Y	1.09	1.13	3.8%
PCB-170 22'33'44'5-HpCB	40.81	1.06E+09	1.05 Y	1.07	1.13	5.4%
PCB-180 22'344'55'-HpCB	39.74	2.64E+09	1.05 Y	1.16	1.20	3.4%
PCB-188 22'34'566'-HpCB	32.96	1.33E+09	1.05 Y	1.03	1.07	3.7%
PCB-202 22'33'55'66'-OcCB	37.45	1.12E+09	0.89 Y	0.91	0.94	2.7%
PCB-205 233'44'55'6-OcCB	45.57	1.28E+09	0.90 Y	1.09	1.12	2.8%
PCB-208 22'33'455'66'-NoCB	43.03	1.18E+09	0.78 Y	1.02	1.06	4.3%
PCB-206 22'33'44'55'6-NoCB	47.03	8.31E+08	0.78 Y	0.98	1.02	4.2%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.64	3.25E+09	3.15 Y	1.03	1.10	6.3%
PCB-2 3-MoCB	12.53	3.38E+09	3.21 Y	1.04	1.13	8.7%
PCB-3 4-MoCB	12.70	3.36E+09	3.20 Y	1.04	1.13	7.8%
PCB-4 22'-DiCB	12.93	1.61E+09	1.59 Y	1.17	1.21	3.8%
PCB-10 26-DiCB	13.09	2.50E+09	1.60 Y	1.83	1.89	3.0%
PCB-9 25-DiCB	14.75	2.87E+09	1.59 Y	0.89	0.95	5.7%
PCB-7 24-DiCB	14.91	3.29E+09	1.58 Y	1.02	1.08	5.6%
PCB-6 23'-DiCB	15.11	3.07E+09	1.59 Y	0.95	1.01	6.6%
PCB-5 23-DiCB	15.39	3.11E+09	1.59 Y	0.97	1.02	5.1%
PCB-8 24'-DiCB	15.51	3.17E+09	1.58 Y	0.98	1.04	5.9%
PCB-14 35-DiCB	16.97	3.71E+09	1.58 Y	1.16	1.22	5.3%
PCB-11 33'-DiCB	17.70	3.26E+09	1.59 Y	1.00	1.07	7.3%
PCB-13/12 34'-/34-DiCB	17.98	6.49E+09	1.58 Y	1.02	1.07	4.9%
PCB-15 44'-DiCB	18.25	3.41E+09	1.58 Y	1.08	1.12	3.7%
PCB-19 22'6-TrCB	15.77	1.68E+09	1.06 Y	1.09	1.14	4.2%
PCB-30/18 246-/22'5-TrCB	17.43	4.49E+09	1.06 Y	1.46	1.52	4.0%
PCB-17 22'4-TrCB	17.81	1.97E+09	1.06 Y	1.25	1.33	6.4%
PCB-27 23'6-TrCB	17.99	2.58E+09	1.06 Y	1.69	1.75	3.3%
PCB-24 236-TrCB	18.12	2.57E+09	1.05 Y	1.63	1.74	6.5%
PCB-16 22'3-TrCB	18.20	1.44E+09	1.06 Y	0.95	0.98	2.5%
PCB-32 24'6-TrCB	18.66	2.76E+09	1.05 Y	1.79	1.87	4.4%
PCB-34 2'35-TrCB	19.77	2.61E+09	1.06 Y	1.05	1.08	3.3%
PCB-23 235-TrCB	19.91	2.65E+09	1.05 Y	1.06	1.10	3.7%
PCB-26/29 23'5-/245-TrCB	20.19	5.38E+09	1.05 Y	1.09	1.11	2.7%
PCB-25 23'4-TrCB	20.37	2.67E+09	1.05 Y	1.07	1.10	2.7%
PCB-31 24'5-TrCB	20.64	2.79E+09	1.05 Y	1.11	1.16	4.0%
PCB-28/20 244'-/233'-TrCB	20.91	5.27E+09	1.06 Y	1.07	1.09	2.2%
PCB-21/33 234-/2'34-TrCB	21.08	5.36E+09	1.05 Y	1.09	1.11	1.5%
PCB-22 234'-TrCB	21.44	2.52E+09	1.05 Y	1.02	1.05	2.9%
PCB-36 33'5-TrCB	22.79	2.80E+09	1.05 Y	1.13	1.16	2.7%
PCB-39 34'5-TrCB	23.10	2.91E+09	1.05 Y	1.17	1.21	3.5%
PCB-38 345-TrCB	23.60	2.46E+09	1.06 Y	1.03	1.02	-1.4%
PCB-35 33'4-TrCB	23.99	2.58E+09	1.05 Y	1.04	1.07	2.7%
PCB-37 344'-TrCB	24.34	2.72E+09	1.05 Y	1.10	1.12	1.8%
PCB-54 22'66'-TeCB	18.50	1.69E+09	0.80 Y	1.21	1.25	3.7%
PCB-50/53 22'46-/22'56'TeCB	20.42	3.32E+09	0.79 Y	0.86	0.89	4.0%
PCB-45 22'36-TeCB	20.97	1.56E+09	0.79 Y	0.73	0.84	15.0%
PCB-51 22'46'-TeCB	21.05	1.57E+09	0.80 Y	0.88	0.84	-3.9%
PCB-46 22'36'-TeCB	21.24	1.36E+09	0.79 Y	0.70	0.73	4.8%
PCB-52 22'55'-TeCB	22.47	1.62E+09	0.79 Y	0.84	0.87	3.4%
PCB-73 23'5'6TeCB	22.60	2.21E+09	0.79 Y	1.09	1.19	8.9%
PCB-43 22'35-TeCB	22.68	1.35E+09	0.80 Y	0.72	0.72	-0.2%
PCB-69/49 23'46-/22'45'TeCB	22.88	3.94E+09	0.79 Y	1.01	1.06	4.4%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.15	1.66E+09	0.79 Y	0.85	0.89	4.7%
PCB-44/47/65 22'35'-/22'44'-	23.36	5.12E+09	0.79 Y	0.89	0.92	2.9%
PCB-59/62/75 233'6-/2346-/24	23.62	6.39E+09	0.79 Y	1.14	1.14	0.4%
PCB-42 22'34'-TeCB	23.78	1.52E+09	0.79 Y	0.77	0.82	5.6%
PCB-41 22'34-TeCB	24.10	1.46E+09	0.79 Y	0.73	0.78	7.5%
PCB-71/40 23'4'6/22'33'-TeCB	24.19	3.26E+09	0.79 Y	0.87	0.88	1.2%
PCB-64 234'6-TeCB	24.39	2.37E+09	0.79 Y	1.24	1.27	2.8%
PCB-72 23'55'-TeCB	25.11	2.26E+09	0.79 Y	1.14	1.22	6.3%
PCB-68 23'45'-TeCB	25.36	2.42E+09	0.79 Y	1.21	1.30	7.3%
PCB-57 233'5-TeCB	25.72	2.17E+09	0.79 Y	1.11	1.16	5.2%
PCB-58 233'5-TeCB	25.91	2.20E+09	0.79 Y	1.10	1.18	7.3%
PCB-67 23'45-TeCB	26.07	2.24E+09	0.78 Y	1.16	1.20	3.7%
PCB-63 234'5-TeCB	26.29	2.39E+09	0.79 Y	1.22	1.29	5.7%
PCB-61/70/74/76 2345-/23'4'5	26.57	8.77E+09	0.79 Y	1.13	1.18	4.0%
PCB-66 23'44'-TeCB	26.84	2.10E+09	0.79 Y	1.08	1.13	4.8%
PCB-55 233'4-TeCB	26.98	2.15E+09	0.79 Y	1.10	1.16	5.4%
PCB-56 233'4'-TeCB	27.40	2.08E+09	0.79 Y	1.06	1.12	5.9%
PCB-60 2344'-TeCB	27.59	2.20E+09	0.79 Y	1.11	1.18	6.1%
PCB-80 33'55'-TeCB	27.95	2.47E+09	0.79 Y	1.25	1.33	5.8%
PCB-79 33'45'-TeCB	29.23	2.35E+09	0.79 Y	1.23	1.26	2.3%
PCB-78 33'45-TeCB	29.70	2.10E+09	0.79 Y	1.08	1.13	4.2%
PCB-104 22'466'-PeCB	23.30	1.65E+09	0.63 Y	1.25	1.27	0.9%
PCB-96 22'366'-PeCB	23.60	1.37E+09	0.63 Y	1.08	1.06	-1.7%
PCB-103 22'45'6-PeCB	25.27	1.50E+09	0.63 Y	0.90	0.95	5.6%
PCB-94 22'356'-PeCB	25.45	1.31E+09	0.63 Y	0.78	0.83	6.7%
PCB-95 22'35'6-PeCB	25.82	1.39E+09	0.63 Y	0.83	0.88	6.7%
PCB-100/93 22'44'6-/22'356-P	26.03	2.74E+09	0.63 Y	0.84	0.87	2.7%
PCB-102 22'456'-PeCB	26.13	1.38E+09	0.63 Y	0.90	0.88	-2.7%
PCB-98 22'3'46-PeCB	26.20	1.40E+09	0.64 Y	0.77	0.88	14.2%
PCB-88 22'346-PeCB	26.49	1.21E+09	0.62 Y	0.79	0.77	-3.5%
PCB-91 22'34'6-PeCB	26.56	1.54E+09	0.64 Y	0.88	0.97	10.7%
PCB-84 22'33'6-PeCB	26.74	1.18E+09	0.63 Y	0.71	0.75	5.4%
PCB-89 22'346'-PeCB	27.14	1.26E+09	0.63 Y	0.76	0.80	4.8%
PCB-121 23'45'6-PeCB	27.52	1.90E+09	0.63 Y	1.14	1.20	5.1%
PCB-92 22'355'-PeCB	27.82	1.33E+09	0.63 Y	0.80	0.84	5.5%
PCB-113/90/101 233'5'6-/22'3	28.30	4.51E+09	0.63 Y	0.93	0.95	1.8%
PCB-83 22'33'5-PeCB	28.71	1.16E+09	0.63 Y	0.71	0.74	3.2%
PCB-99 22'44'5-PeCB	28.82	1.42E+09	0.63 Y	0.87	0.90	3.2%
PCB-112 233'56-PeCB	28.91	1.87E+09	0.63 Y	1.13	1.19	5.3%
PCB-108/119/86/97/125/87 233	29.25	9.01E+09	0.63 Y	0.95	0.95	0.1%
PCB-117 234'56-PeCB	29.77	1.53E+09	0.62 Y	1.04	0.97	-6.6%
PCB-116/85 23456-/22'344'-Pe	29.85	3.33E+09	0.63 Y	0.97	1.05	8.3%
PCB-110 233'4'6-PeCB	29.97	1.66E+09	0.63 Y	1.02	1.05	2.9%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.06	1.92E+09	0.63 Y	1.16	1.21	4.9%
PCB-82 22'33'4-PeCB	30.24	1.15E+09	0.63 Y	0.69	0.73	5.2%
PCB-111 233'55'-PeCB	30.59	1.92E+09	0.63 Y	1.15	1.22	5.3%
PCB-120 23'455'-PeCB	30.98	1.91E+09	0.63 Y	1.16	1.21	4.0%
PCB-107/124 233'4'5-/2'3455'	31.92	3.55E+09	0.63 Y	1.07	1.12	4.4%
PCB-109 233'46-PeCB	32.13	1.89E+09	0.63 Y	1.14	1.20	4.9%
PCB-106 233'45-PeCB	32.33	1.69E+09	0.63 Y	1.07	1.07	-0.1%
PCB-122 2'33'45-PeCB	32.78	1.67E+09	0.63 Y	1.00	1.05	5.0%
PCB-127 33'455'-PeCB	34.73	1.81E+09	0.63 Y	1.10	1.13	2.9%
PCB-155 22'44'66'-HxCB	28.15	1.78E+09	1.26 Y	1.09	1.13	3.8%
PCB-152 22'3566'-HxCB	28.29	1.65E+09	1.27 Y	1.01	1.05	3.5%
PCB-150 22'34'66'-HxCB	28.44	1.69E+09	1.26 Y	1.00	1.07	6.8%
PCB-136 22'33'66'-HxCB	28.72	1.57E+09	1.27 Y	0.95	1.00	4.7%
PCB-145 22'3466'HxCB	28.99	1.61E+09	1.27 Y	0.96	1.02	6.2%
PCB-148 22'34'56'-HxCB	30.27	1.25E+09	1.26 Y	0.97	1.04	7.3%
PCB-151/135 22'355'6-/22'33'	30.78	2.41E+09	1.27 Y	0.96	1.00	4.3%
PCB-154 22'44'5'6-HxCB	30.99	1.37E+09	1.26 Y	1.09	1.14	4.6%
PCB-144 22'345'6-HxCB	31.24	1.25E+09	1.26 Y	0.98	1.04	5.8%
PCB-147/149 22'34'56-/22'34'	31.54	2.47E+09	1.26 Y	0.99	1.03	4.1%
PCB-134 22'33'56-HxCB	31.70	9.58E+08	1.26 Y	0.80	0.80	-0.4%
PCB-143 22'3456'-HxCB	31.78	1.24E+09	1.27 Y	0.95	1.03	8.1%
PCB-139/140 22'344'6-/22'344'	32.05	2.51E+09	1.26 Y	1.00	1.05	4.6%
PCB-131 22'33'46-HxCB	32.21	1.07E+09	1.27 Y	0.85	0.89	5.0%
PCB-142 22'3456-HxCB	32.35	1.11E+09	1.27 Y	0.87	0.92	5.5%
PCB-132 22'33'46'-HxCB	32.58	1.12E+09	1.26 Y	0.89	0.93	4.8%
PCB-133 22'33'55'-HxCB	33.02	1.16E+09	1.26 Y	0.91	0.97	5.8%
PCB-165 233'55'6-HxCB	33.36	1.43E+09	1.26 Y	1.13	1.19	5.3%
PCB-146 22'34'55'-HxCB	33.57	1.29E+09	1.26 Y	1.01	1.07	6.5%
PCB-161 233'45'6-HxCB	33.68	1.53E+09	1.27 Y	1.25	1.28	1.8%
PCB-153/168 22'44'55'-/23'44'	34.10	3.01E+09	1.27 Y	1.22	1.25	2.8%
PCB-141 22'3455'-HxCB	34.24	1.18E+09	1.27 Y	0.93	0.98	5.6%
PCB-130 22'33'45'-HxCB	34.57	1.05E+09	1.26 Y	0.85	0.88	3.4%
PCB-137 22'344'5-HxCB	34.77	1.32E+09	1.25 Y	1.04	1.10	5.6%
PCB-164 233'4'5'6-HxCB	34.86	1.51E+09	1.27 Y	1.22	1.26	2.8%
PCB-163/138/129 233'4'56-/22'	35.14	3.75E+09	1.27 Y	1.02	1.04	1.7%
PCB-160 233'456-HxCB	35.27	1.51E+09	1.26 Y	1.21	1.26	4.2%
PCB-158 233'44'6-HxCB	35.45	1.65E+09	1.26 Y	1.34	1.38	2.9%
PCB-128/166 22'33'44'-/2344'5	36.17	2.93E+09	1.25 Y	0.90	0.93	3.6%
PCB-159 233'455'-HxCB	37.01	1.74E+09	1.25 Y	1.06	1.11	4.2%
PCB-162 233'4'55'-HxCB	37.24	1.76E+09	1.25 Y	1.08	1.12	4.1%
PCB-188 22'34'566'-HpCB	32.96	1.33E+09	1.05 Y	1.03	1.07	3.7%
PCB-179 22'33'566'-HpCB	33.22	1.24E+09	1.05 Y	0.97	1.00	3.4%
PCB-184 22'344'66'-HpCB	33.69	1.20E+09	1.06 Y	0.93	0.97	4.3%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.97	1.35E+09	1.06 Y	1.05	1.09	4.1%
PCB-186 22'34566'-HpCB	34.35	1.26E+09	1.05 Y	0.98	1.02	4.2%
PCB-178 22'33'55'6-HpCB	35.50	9.37E+08	1.05 Y	0.74	0.76	3.1%
PCB-175 22'33'45'6-HpCB	36.04	1.18E+09	1.05 Y	1.01	1.07	5.9%
PCB-187 22'34'55'6-HpCB	36.27	1.23E+09	1.05 Y	1.06	1.11	4.9%
PCB-182 22'344'56'-HpCB	36.44	1.26E+09	1.05 Y	1.11	1.14	3.1%
PCB-183 22'344'5'6-HpCB	36.78	1.30E+09	1.04 Y	1.13	1.18	4.3%
PCB-185 22'3455'6-HpCB	36.86	1.18E+09	1.06 Y	1.02	1.07	5.2%
PCB-174 22'33'456'-HpCB	36.97	1.06E+09	1.05 Y	0.93	0.96	4.0%
PCB-177 22'33'4'56-HpCB	37.33	1.05E+09	1.05 Y	0.91	0.95	5.0%
PCB-181 22'344'56-HpCB	37.68	1.21E+09	1.05 Y	1.06	1.10	3.4%
PCB-171/173 22'33'44'6-/22'3	37.85	2.11E+09	1.05 Y	0.93	0.96	3.3%
PCB-172 22'33'455'-HpCB	39.22	1.08E+09	1.05 Y	0.95	0.98	3.1%
PCB-192 233'455'6-HpCB	39.46	1.42E+09	1.05 Y	1.24	1.29	4.2%
PCB-180/193 22'344'55'-/233'	39.74	2.64E+09	1.05 Y	1.16	1.20	3.4%
PCB-191 233'44'5'6-HpCB	40.06	1.47E+09	1.06 Y	1.30	1.34	2.8%
PCB-170 22'33'44'5-HpCB	40.81	1.06E+09	1.05 Y	1.07	1.13	5.4%
PCB-190 233'44'56-HpCB	41.26	1.44E+09	1.05 Y	1.45	1.54	6.0%
PCB-202 22'33'55'66'-OcCB	37.45	1.12E+09	0.89 Y	0.91	0.94	2.7%
PCB-201 22'33'45'66'-OcCB	38.22	1.25E+09	0.90 Y	1.02	1.05	2.5%
PCB-204 22'344'566'-OcCB	38.79	1.18E+09	0.91 Y	0.98	0.99	1.2%
PCB-197 22'33'44'66'-OcCB	38.98	1.25E+09	0.90 Y	1.06	1.05	-1.6%
PCB-200 22'33'4566'-OcCB	39.06	1.23E+09	0.91 Y	0.96	1.03	7.1%
PCB-198/199 22'33'455'6-/22'	41.39	1.75E+09	0.90 Y	0.72	0.73	2.3%
PCB-196 22'33'44'56'-OcCB	41.96	9.05E+08	0.90 Y	0.73	0.76	3.9%
PCB-203 22'344'55'6-OcCB	42.12	9.48E+08	0.90 Y	0.76	0.80	4.1%
PCB-195 22'33'44'56-OcCB	43.22	9.53E+08	0.90 Y	0.80	0.84	4.6%
PCB-194 22'33'44'55'-OcCB	45.18	1.01E+09	0.89 Y	0.87	0.89	1.8%
PCB-205 233'44'55'6-OcCB	45.57	1.28E+09	0.90 Y	1.09	1.12	2.8%
PCB-208 22'33'455'66'-NoCB	43.03	1.18E+09	0.78 Y	1.02	1.06	4.3%
PCB-207 22'33'44'566'-NoCB	43.81	1.22E+09	0.78 Y	1.06	1.10	3.8%
PCB-206 22'33'44'55'6-NoCB	47.03	8.31E+08	0.78 Y	0.98	1.02	4.2%

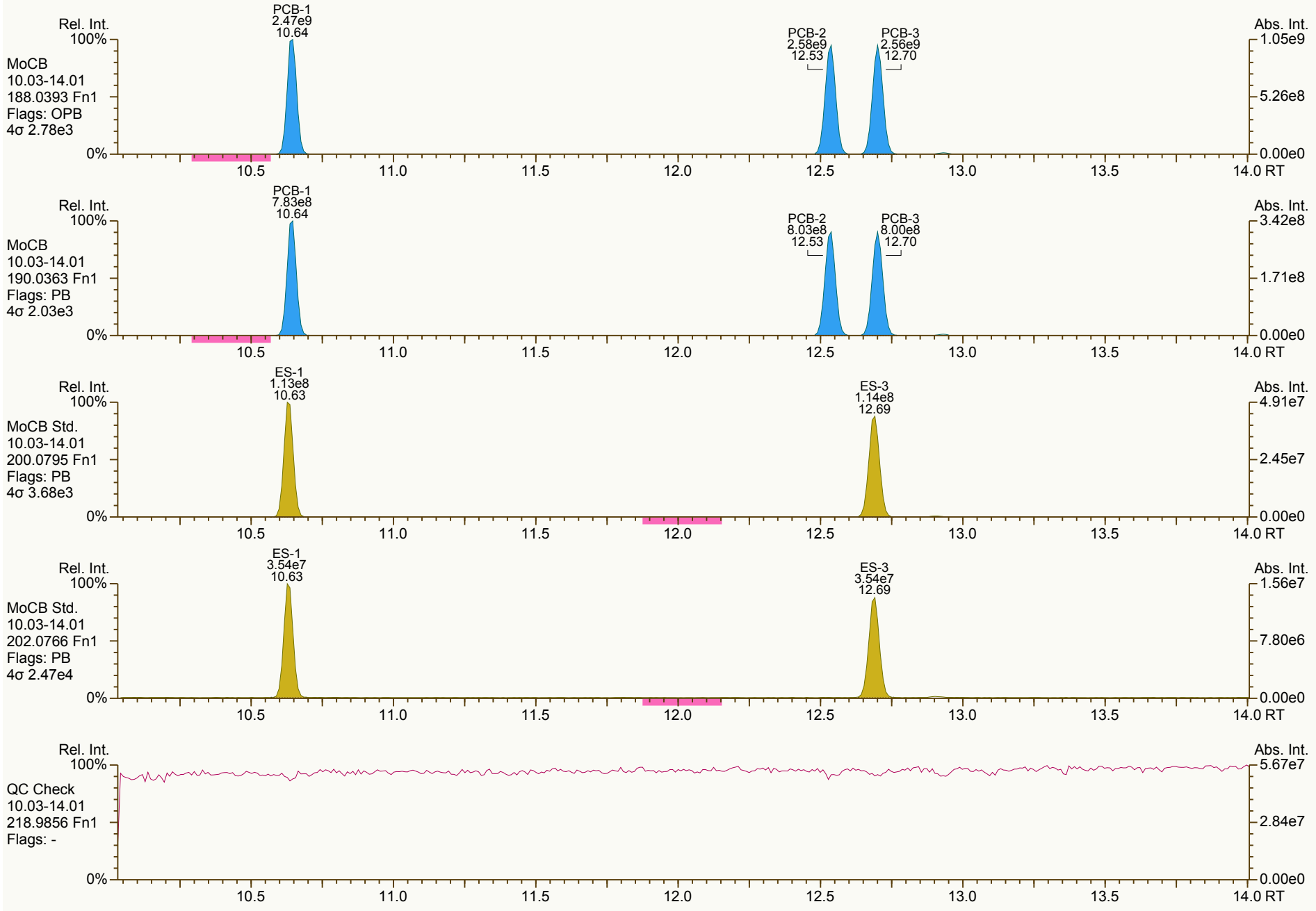
AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS5_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:37 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 scc: 951-239 *PKD: n/a Printed: 28-Jul-2012 11:15 Page 1 of 21*

AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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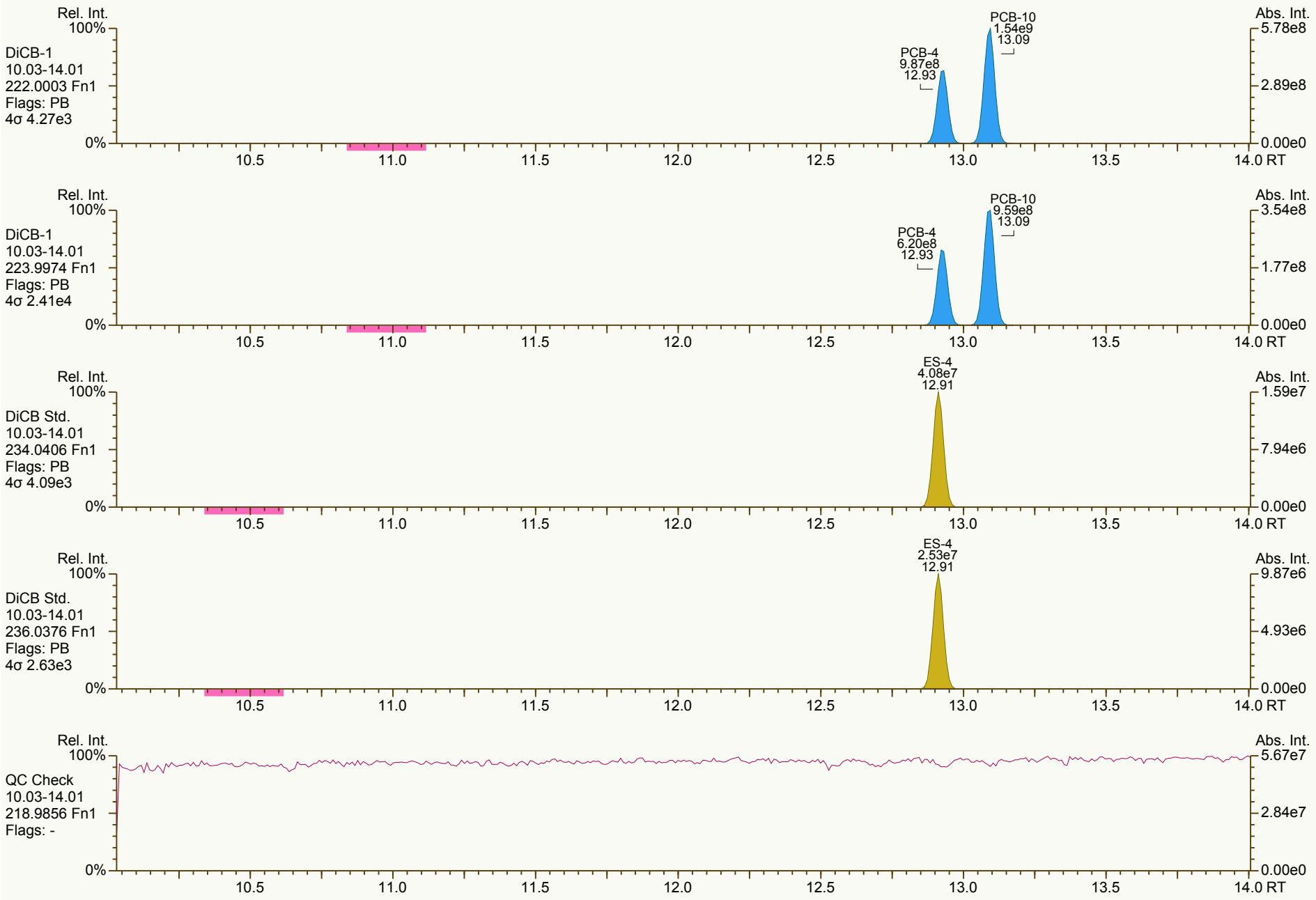
AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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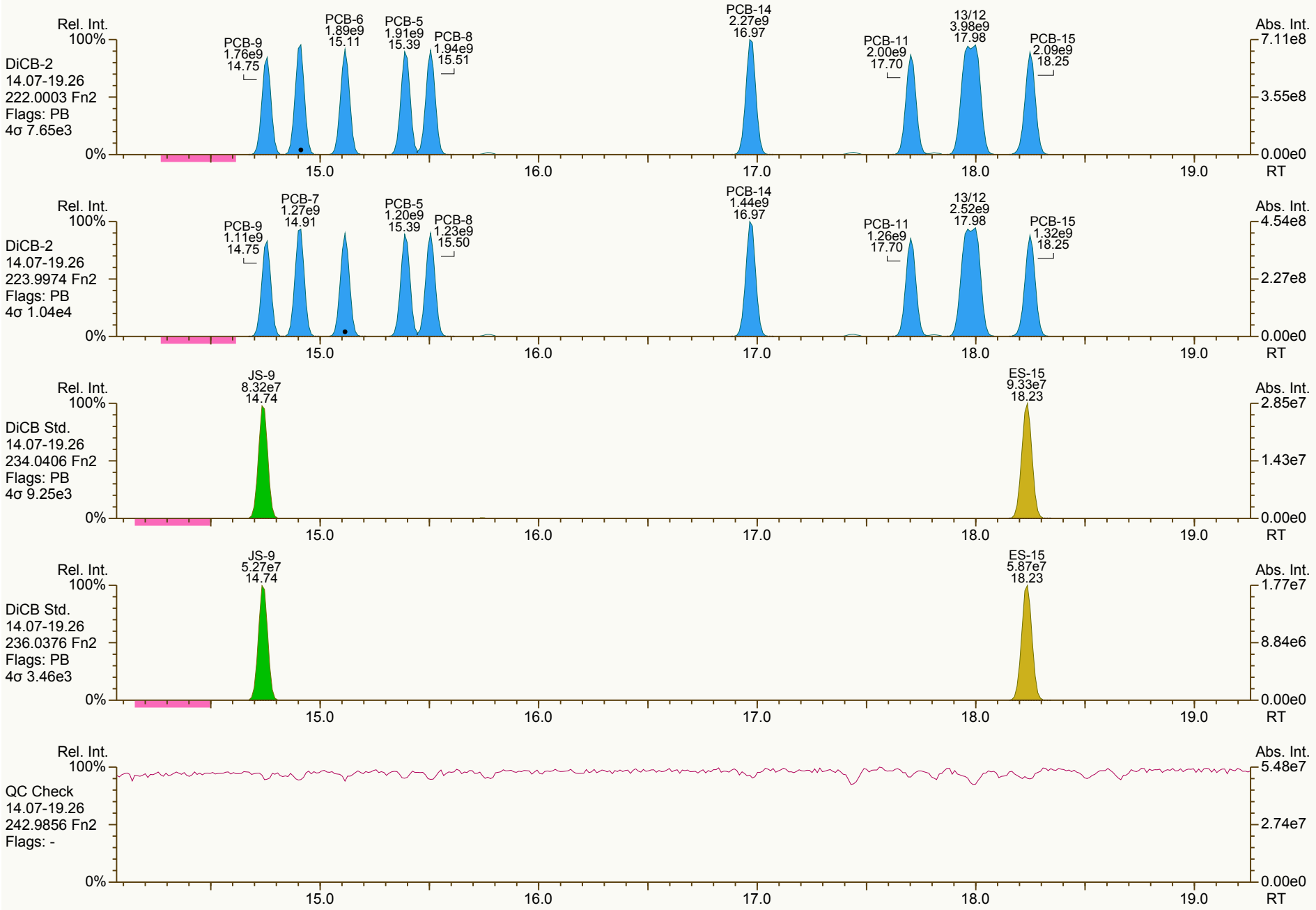
AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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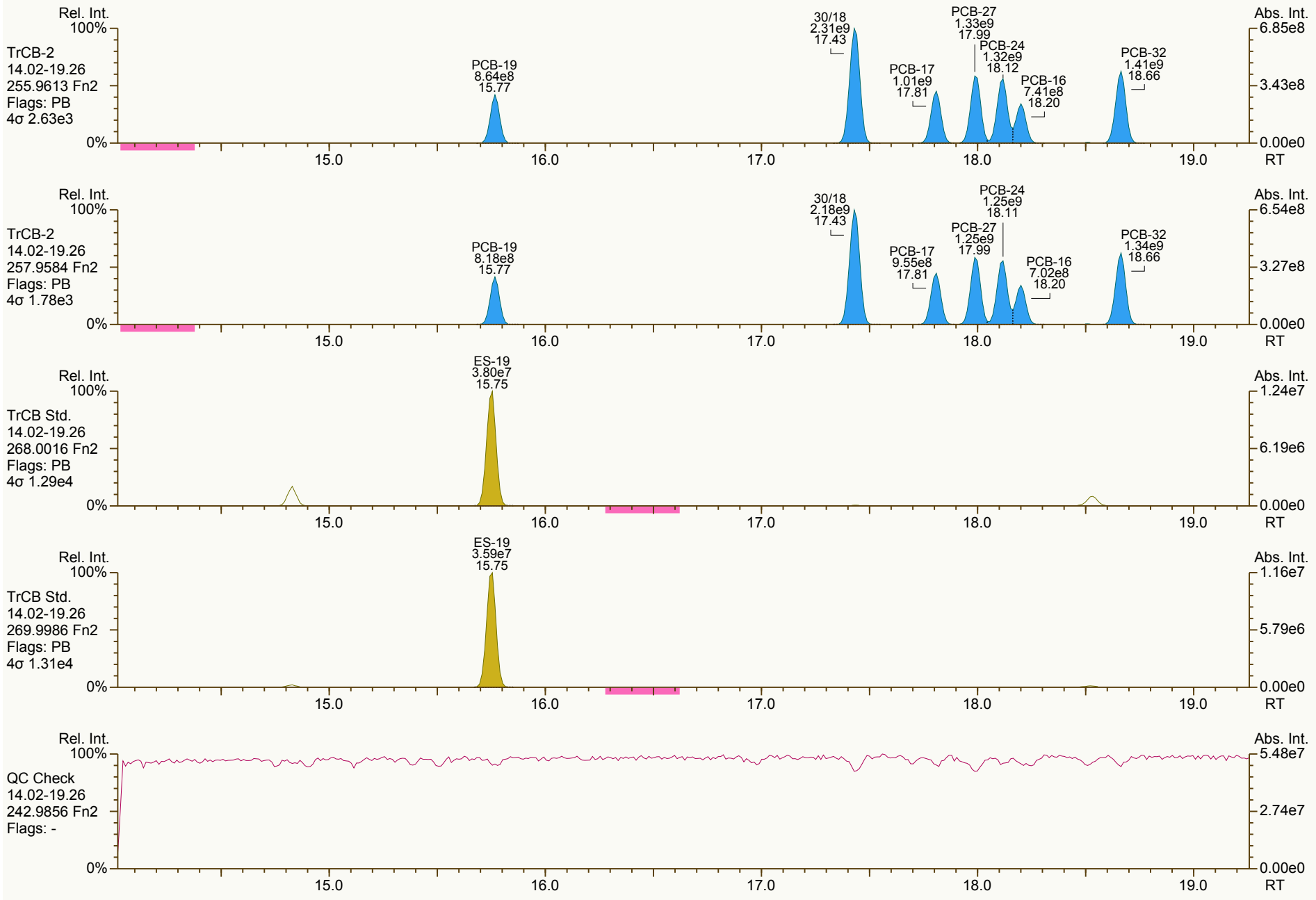
AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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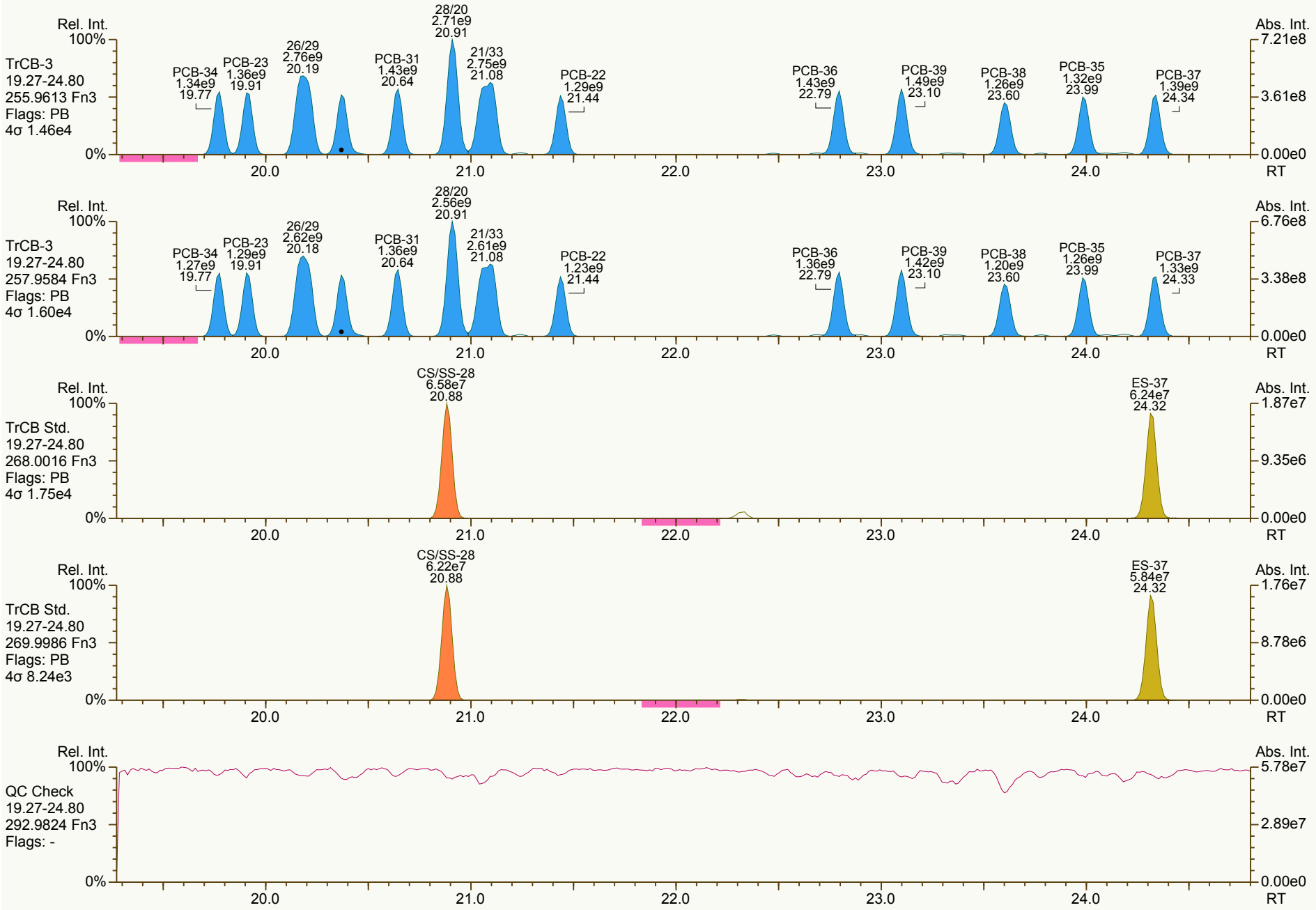
AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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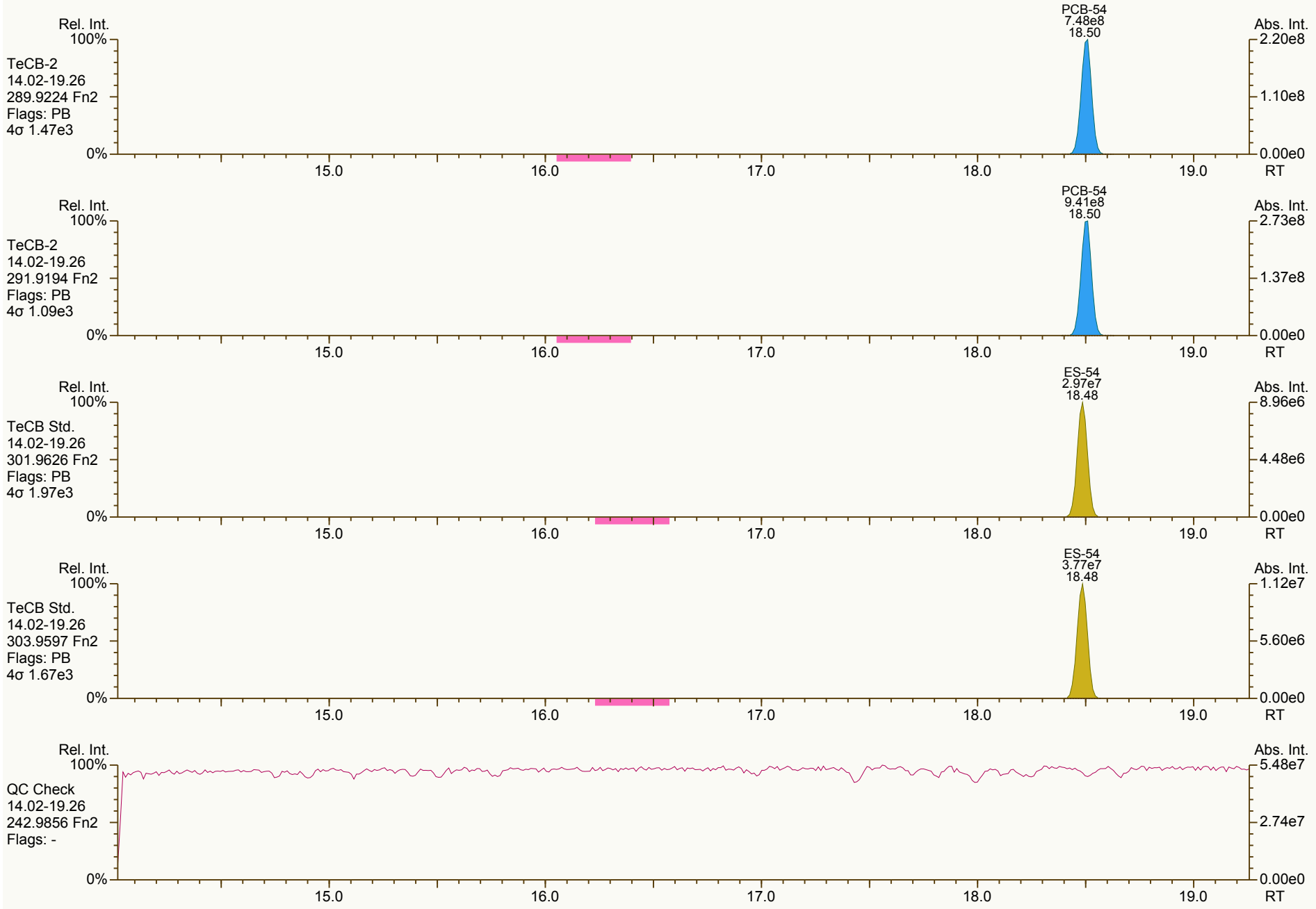
AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**

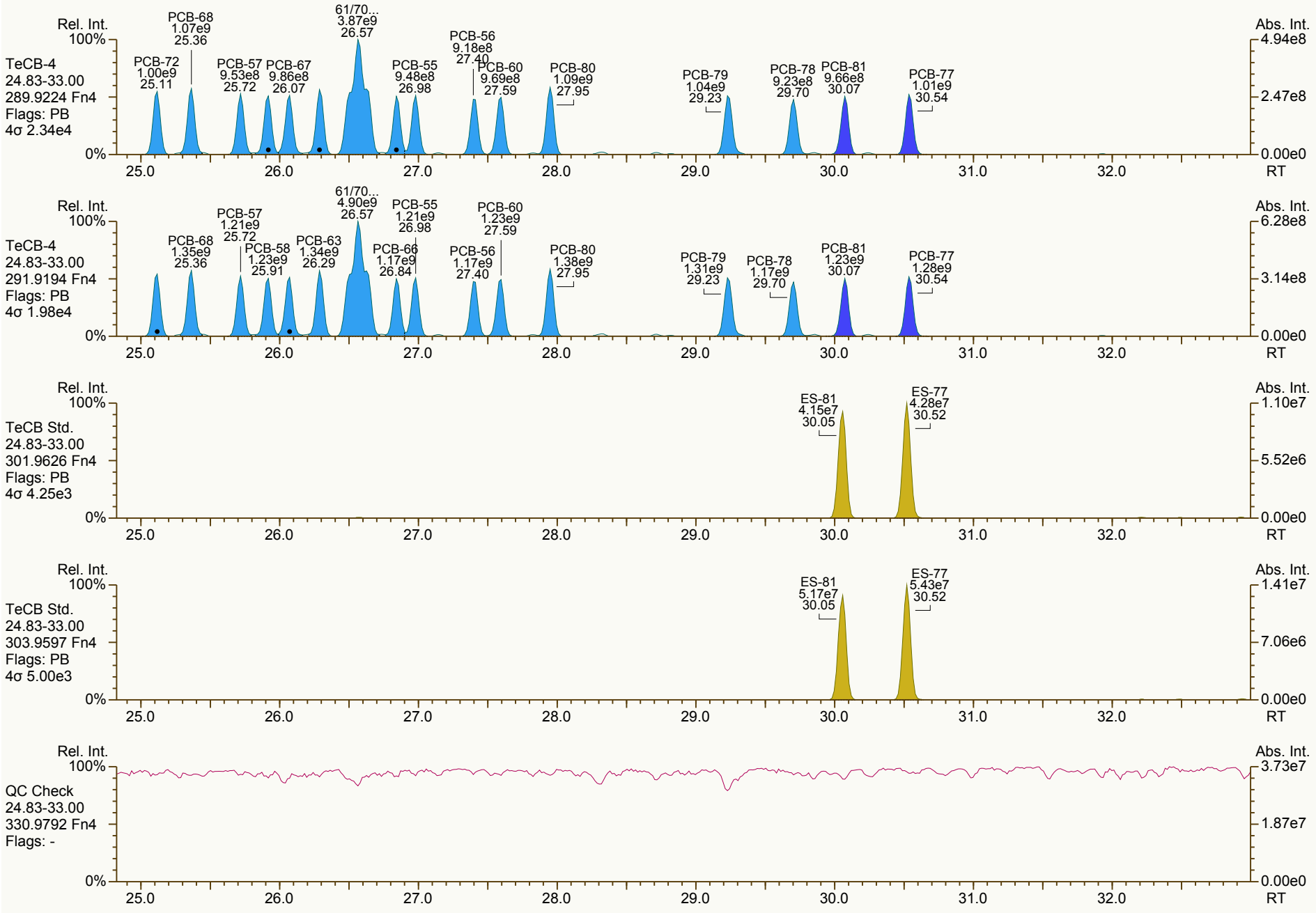


AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS5_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:37 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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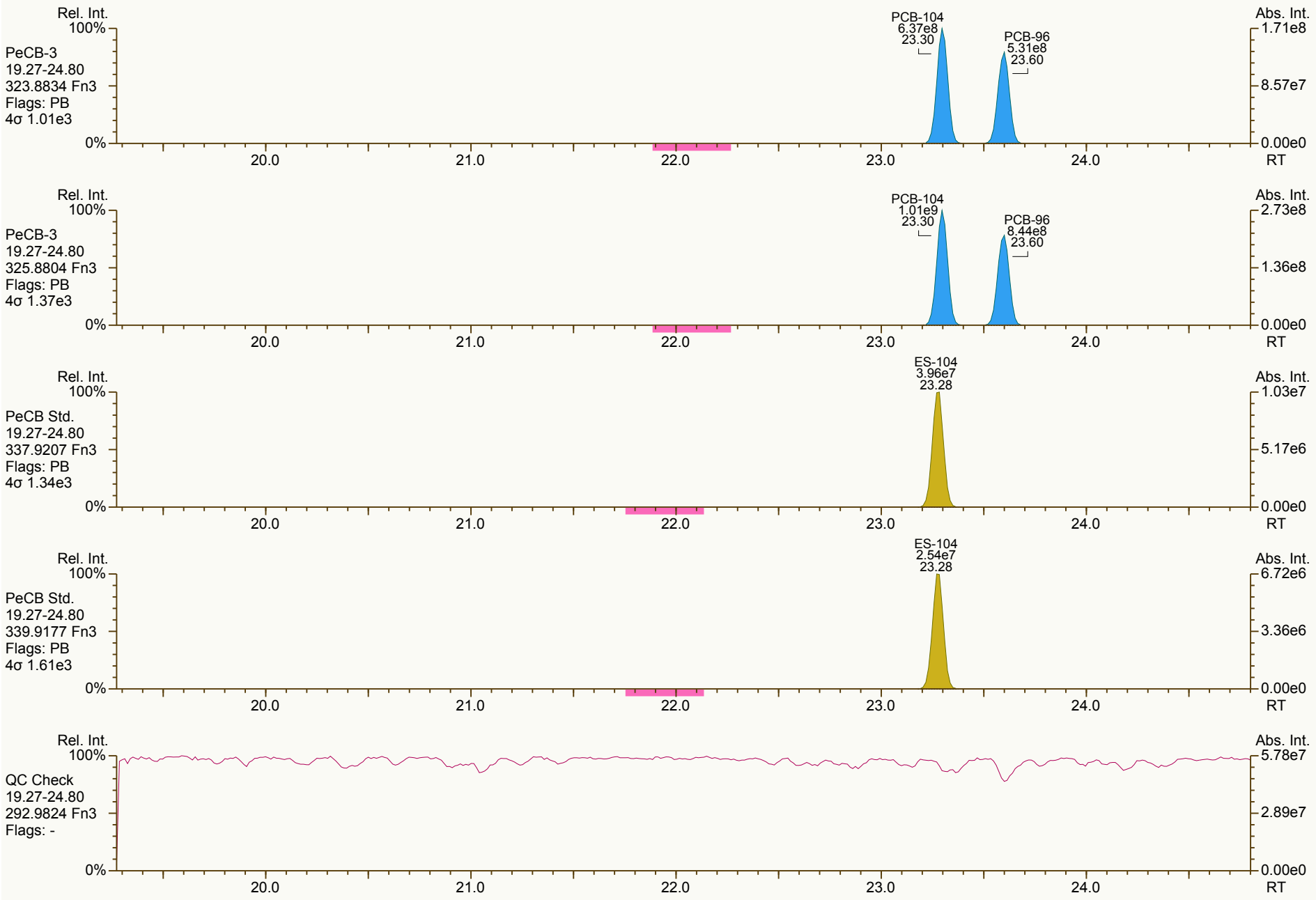
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 6169, 3760 scc: 951-239 *PKD: 27-Jul-2012 17:06 Printed: 28-Jul-2012 11:15 Page 9 of 21*

AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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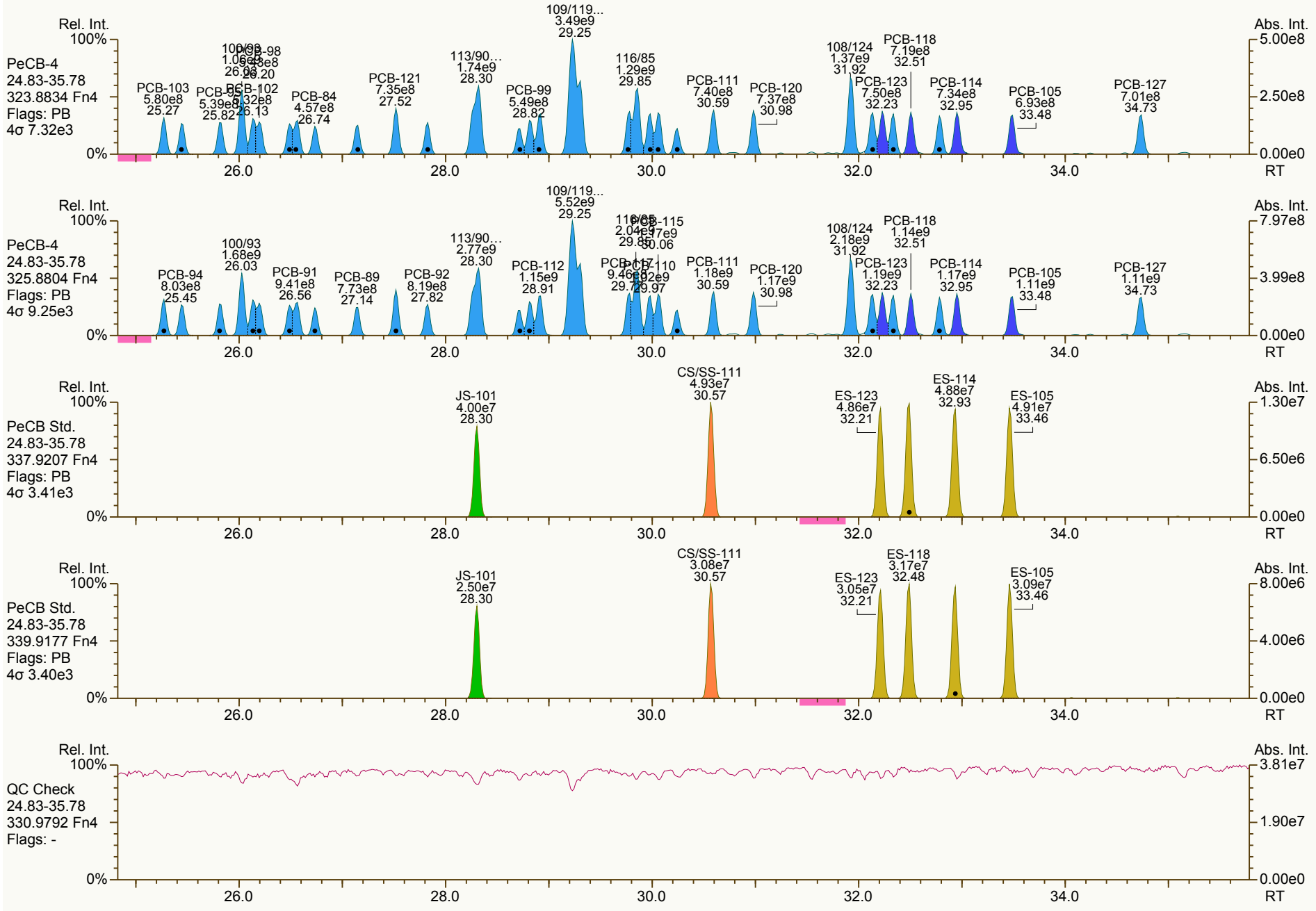
AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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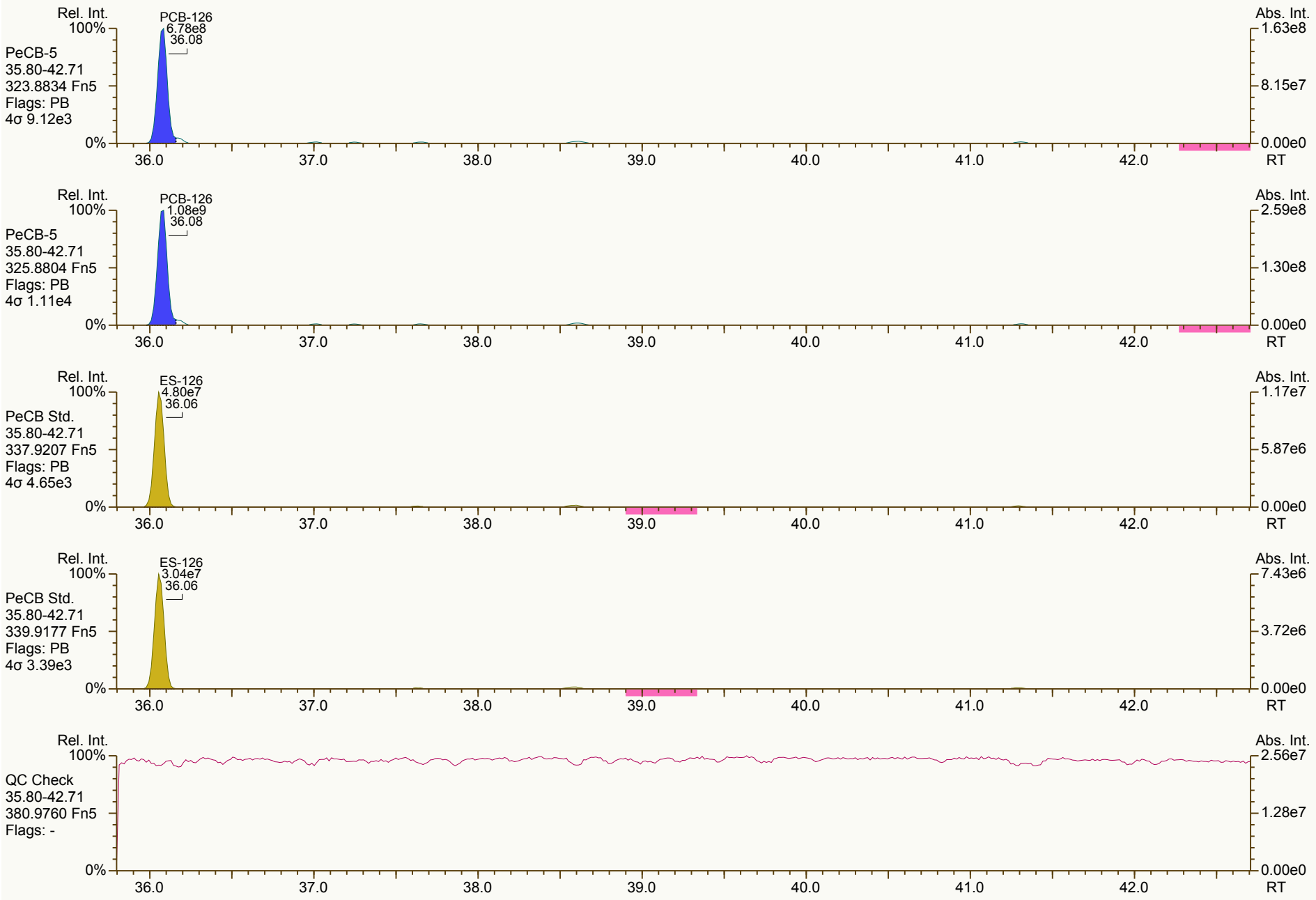

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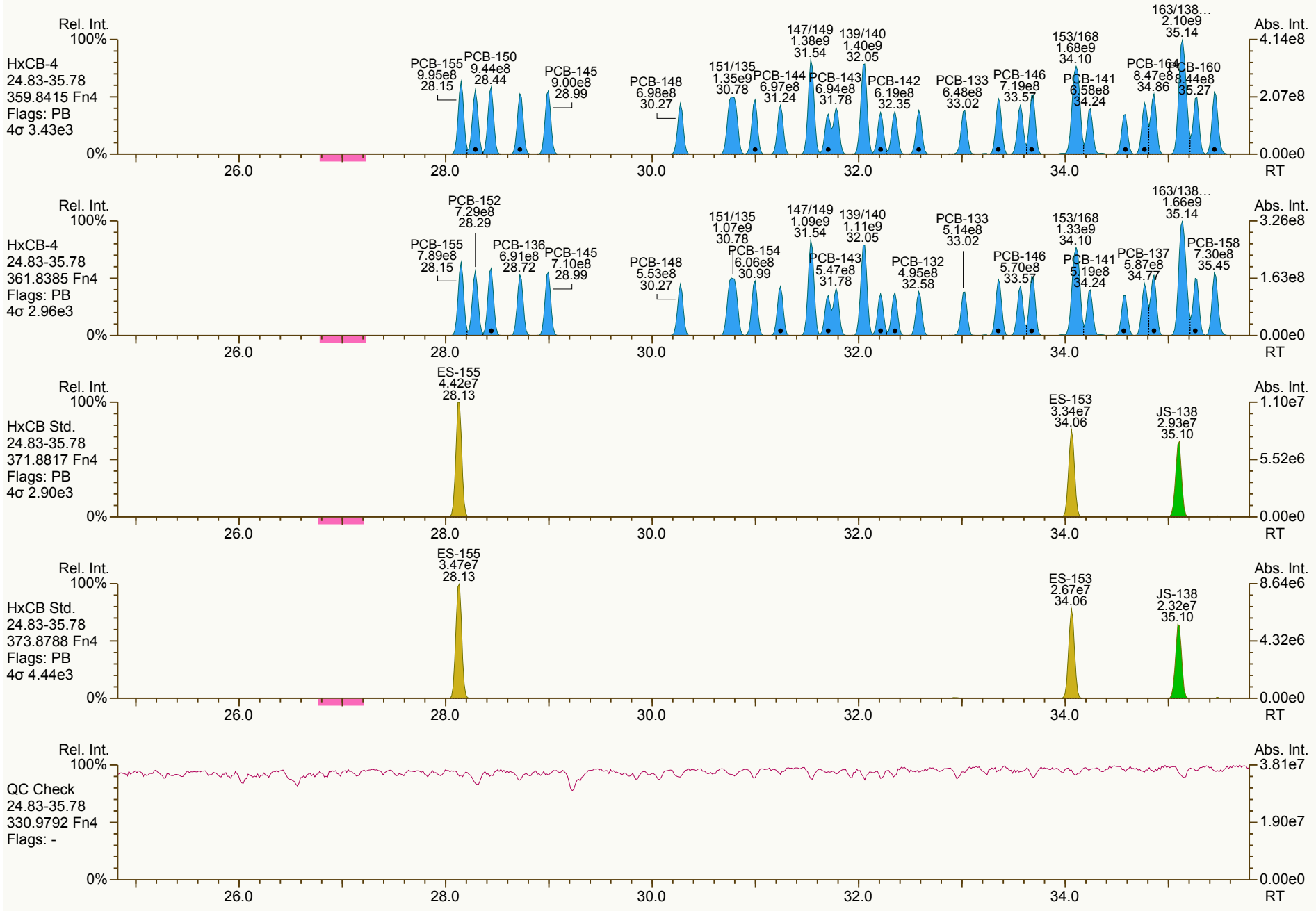

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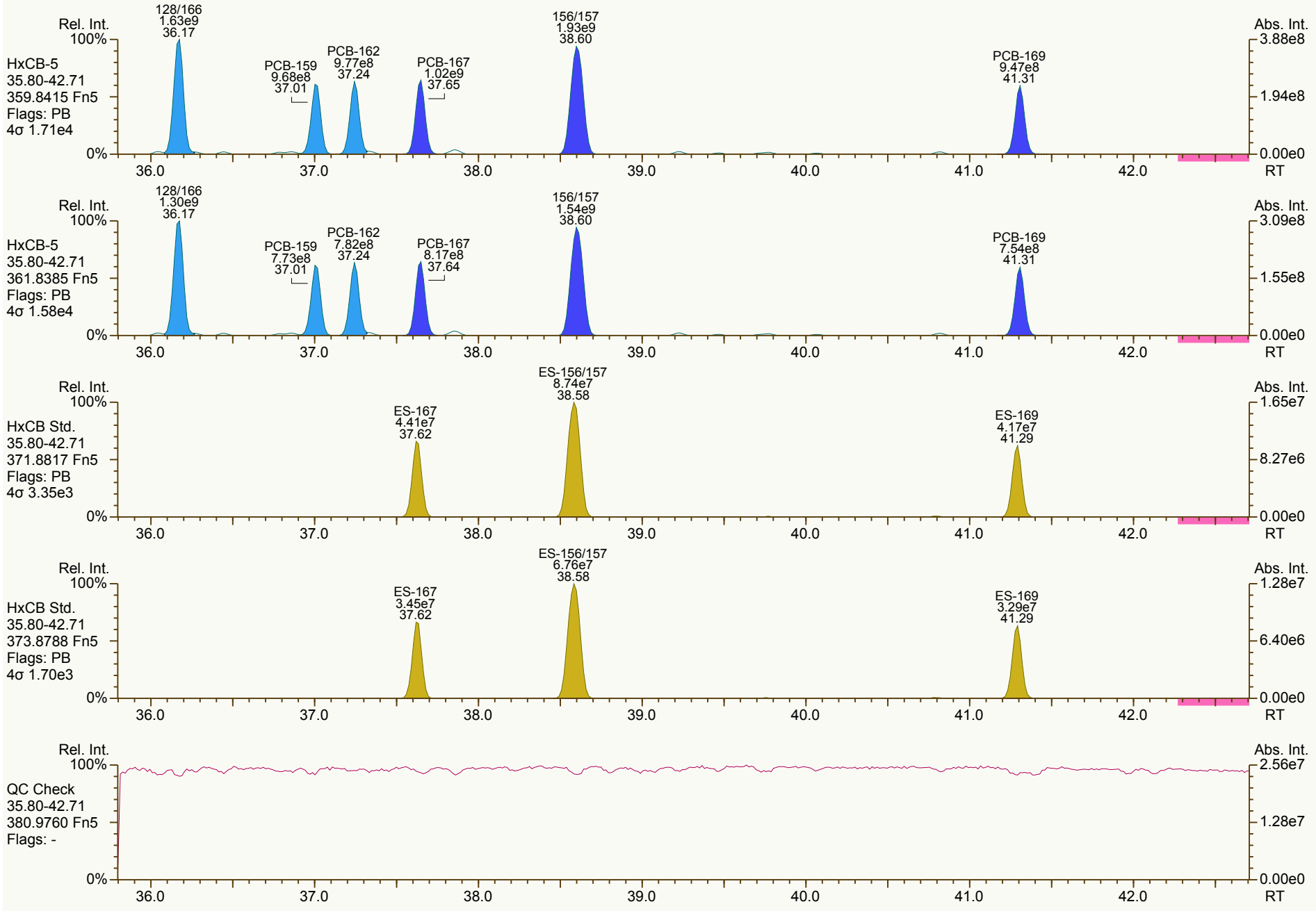

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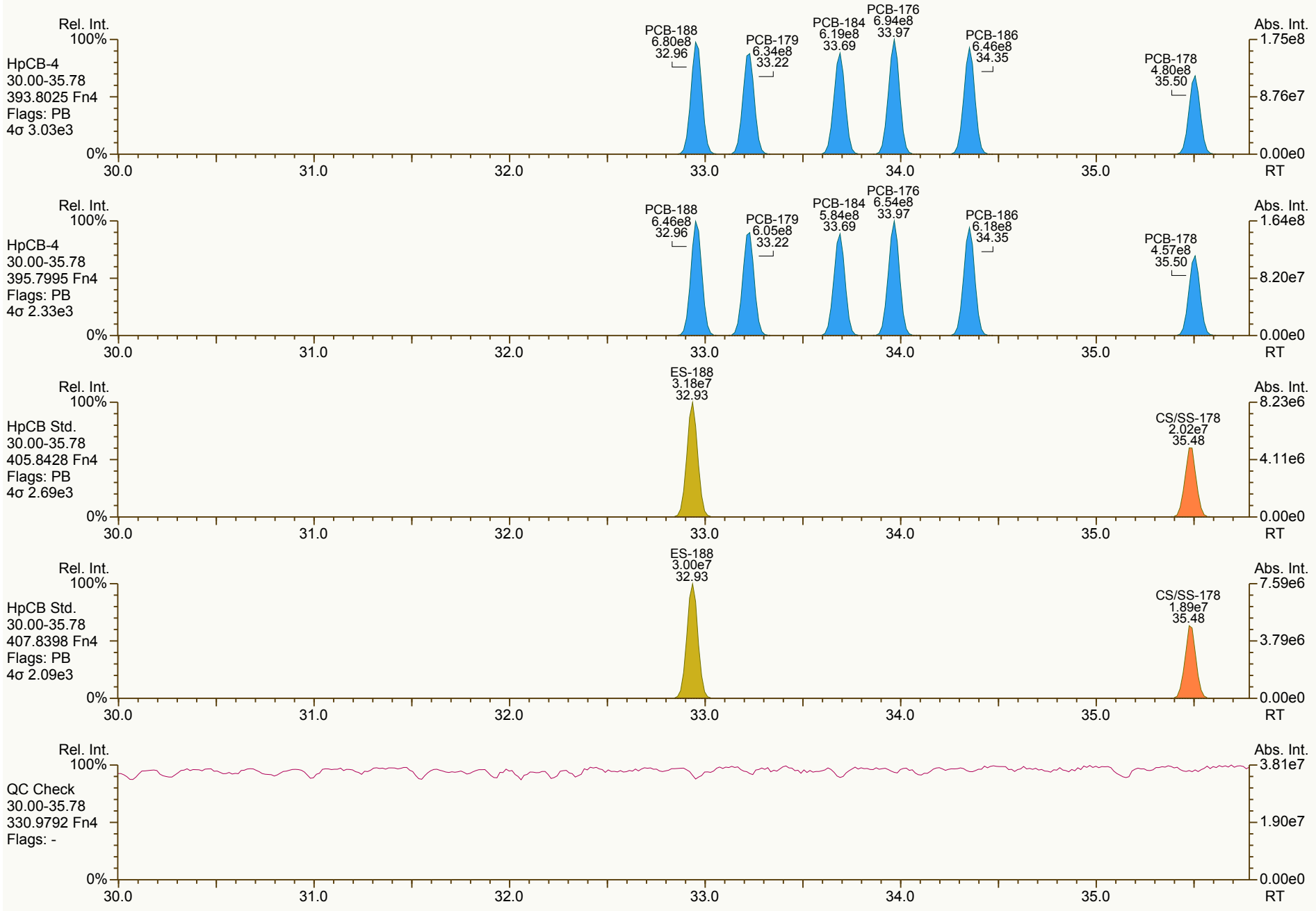

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7446, 9235 scc: 951-239 *PKD: 27-Jul-2012 17:06 Printed: 28-Jul-2012 11:15 Page 15 of 21*

AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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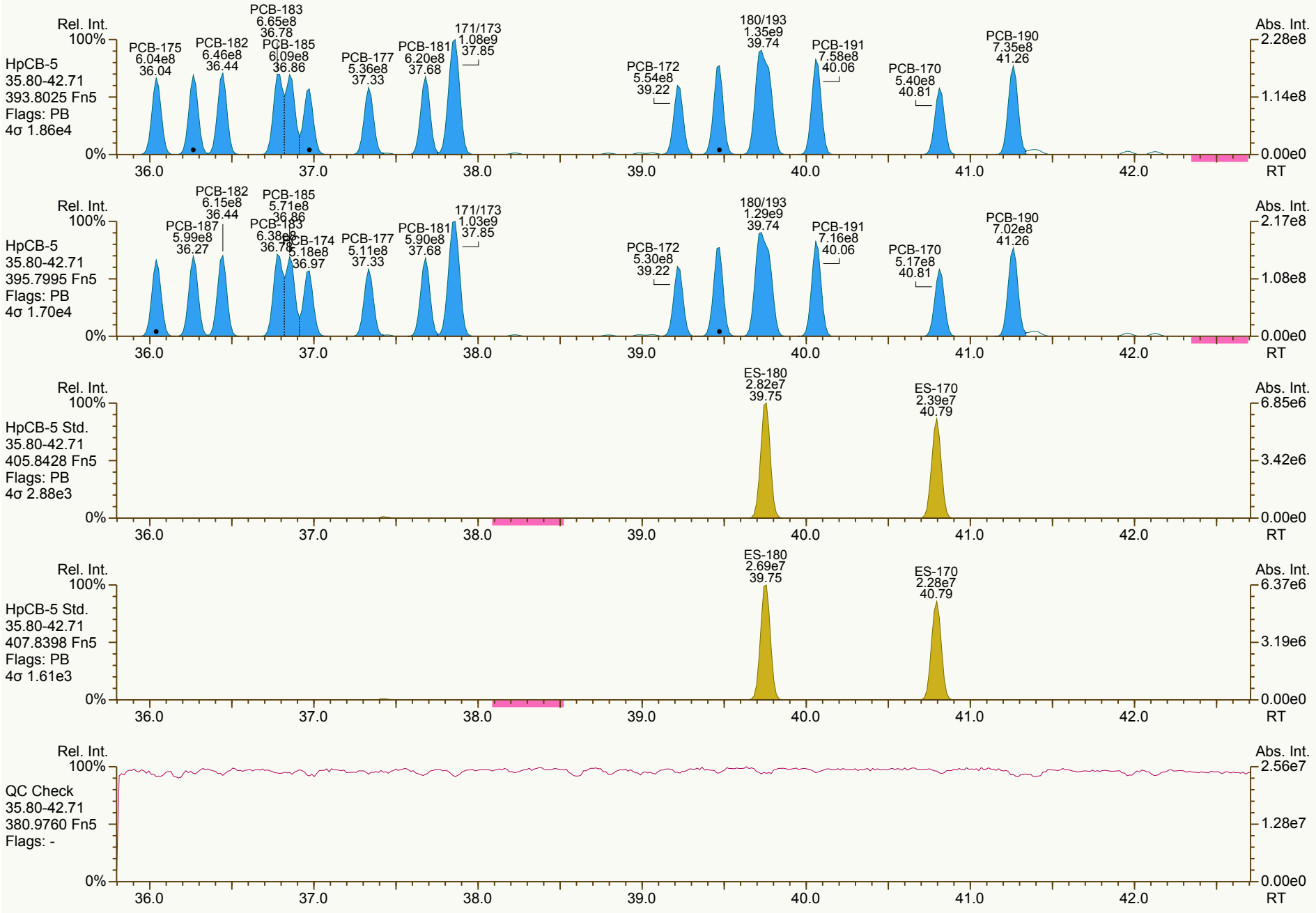

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 9407, 1852 scc: 951-239 *PKD: 27-Jul-2012 17:06 Printed: 28-Jul-2012 11:15 Page 16 of 21*

AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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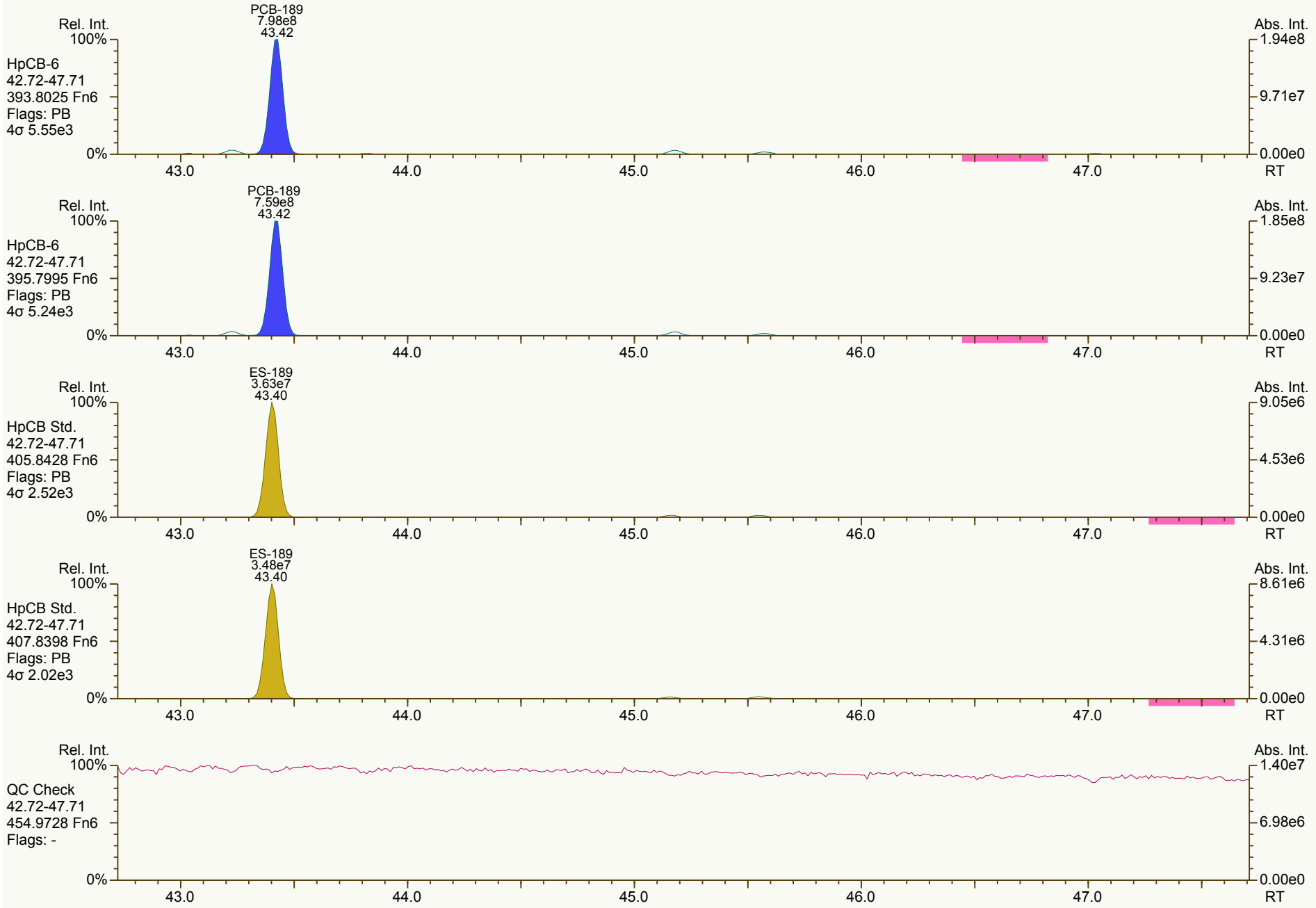

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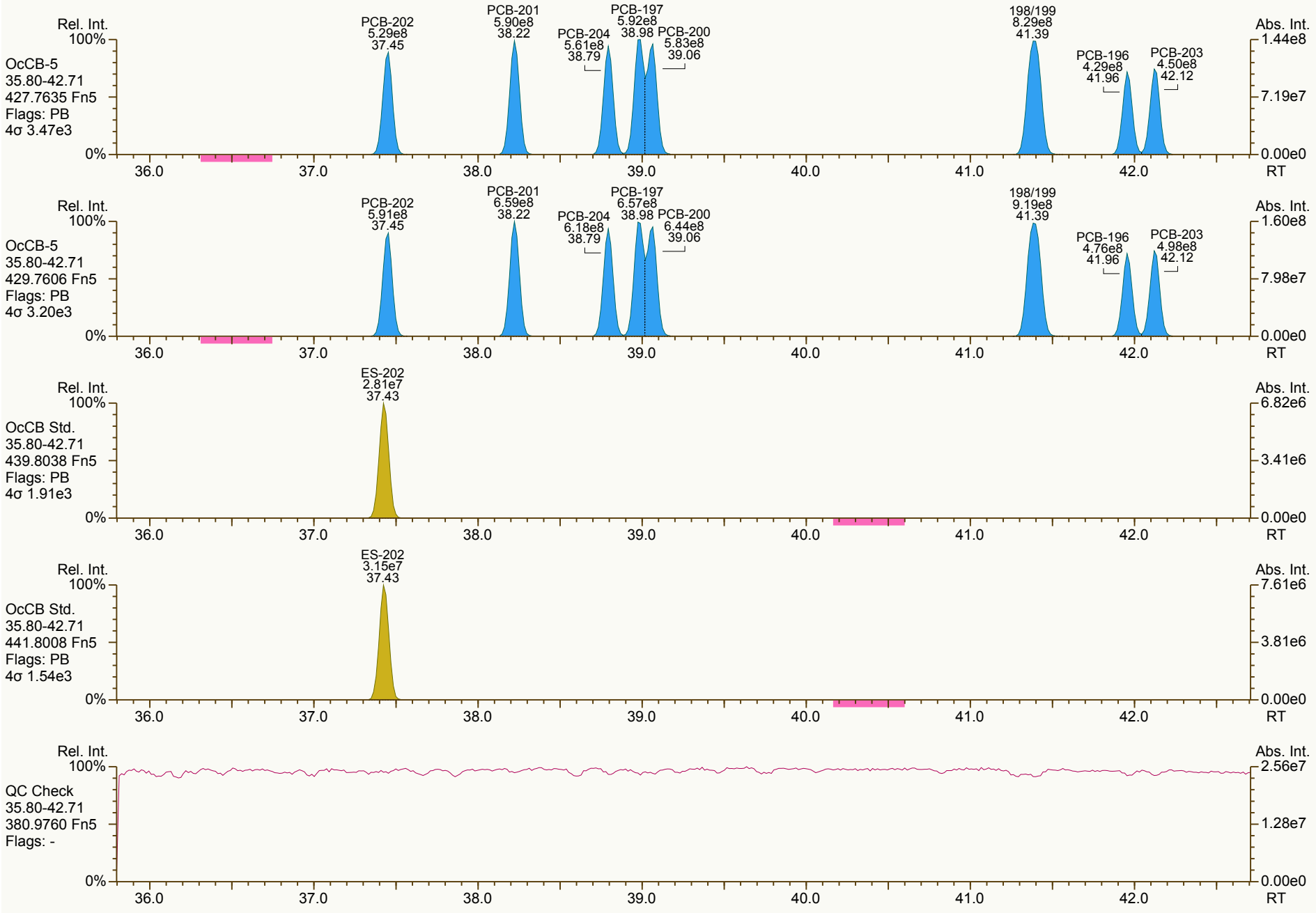

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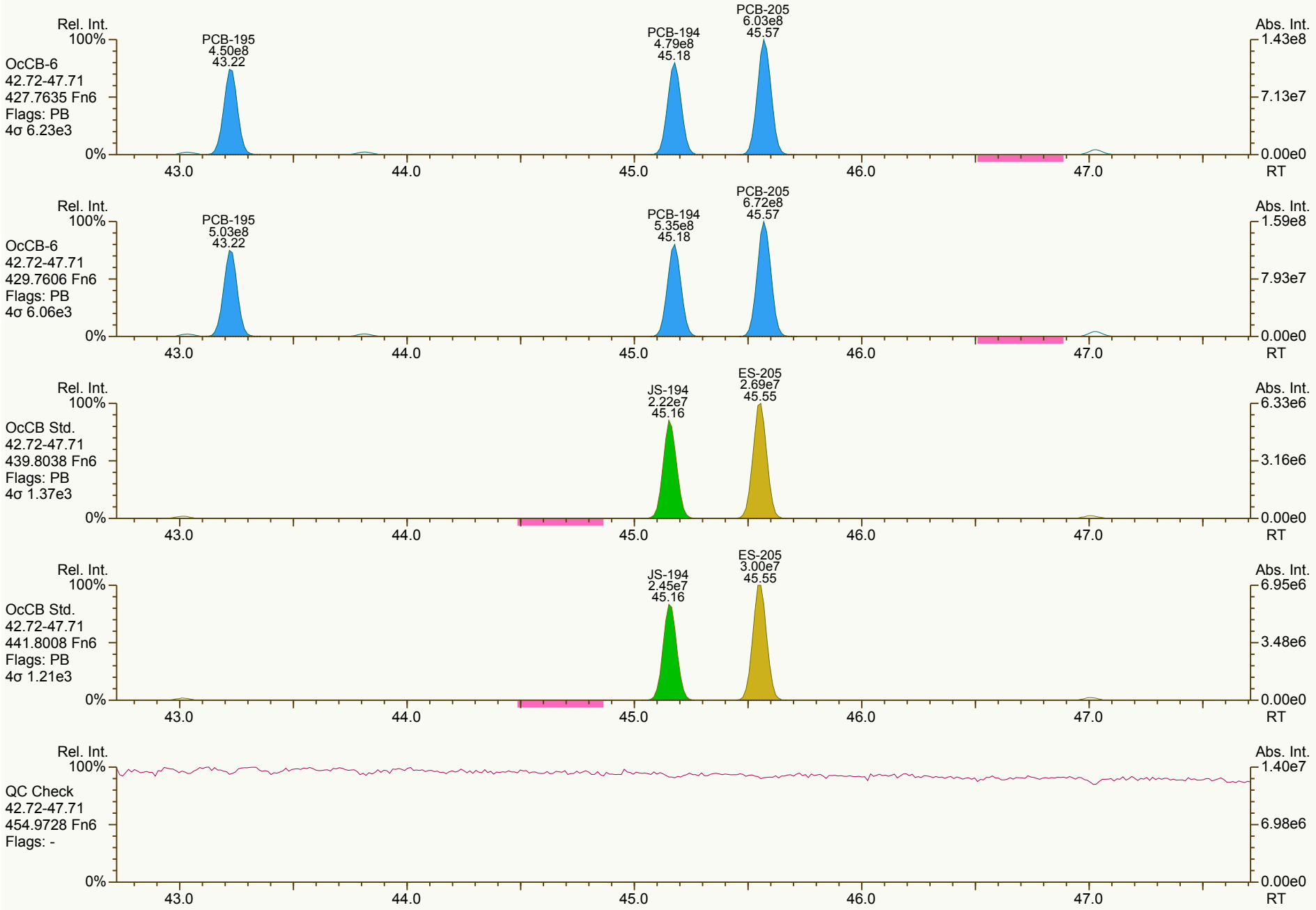

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AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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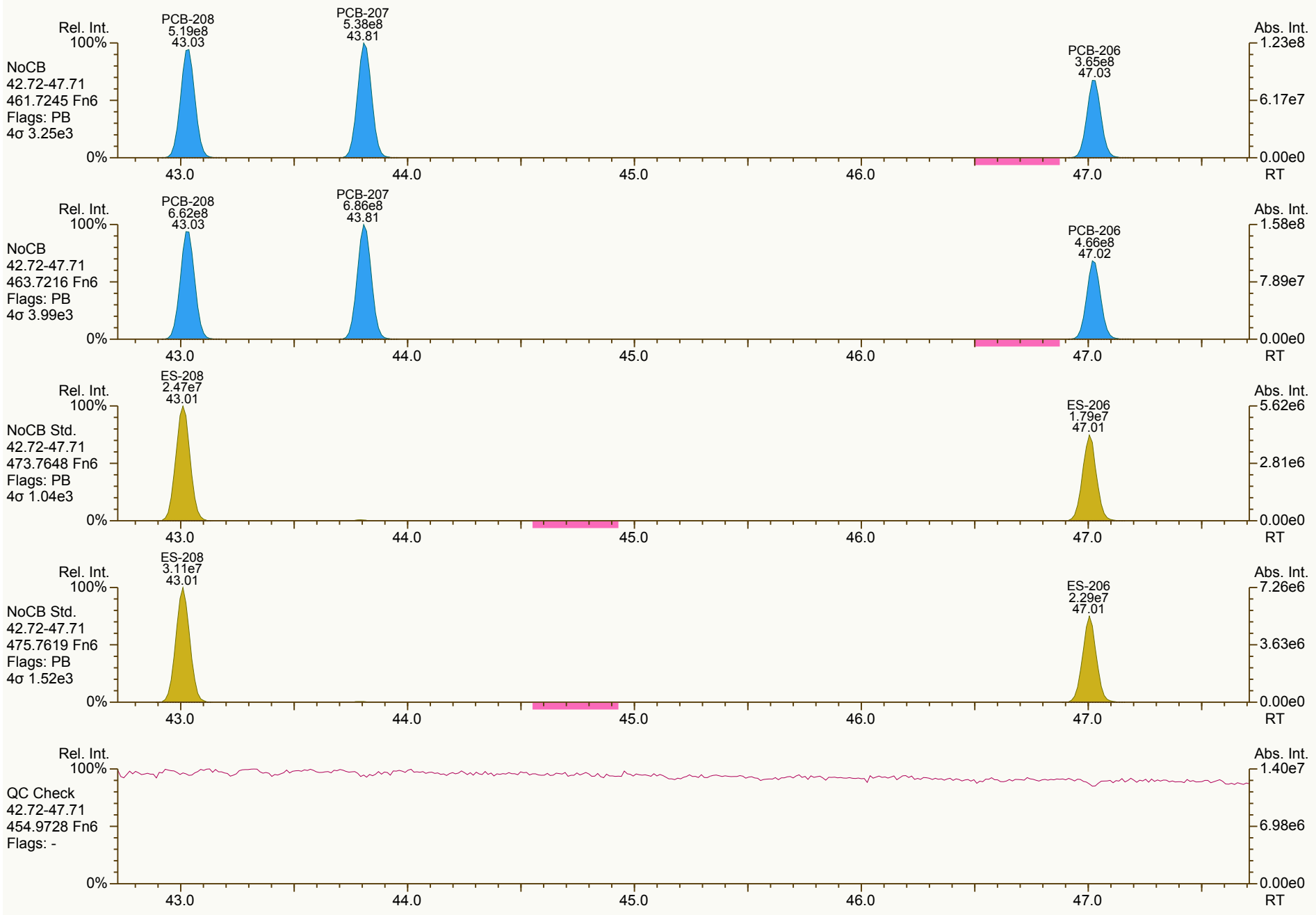

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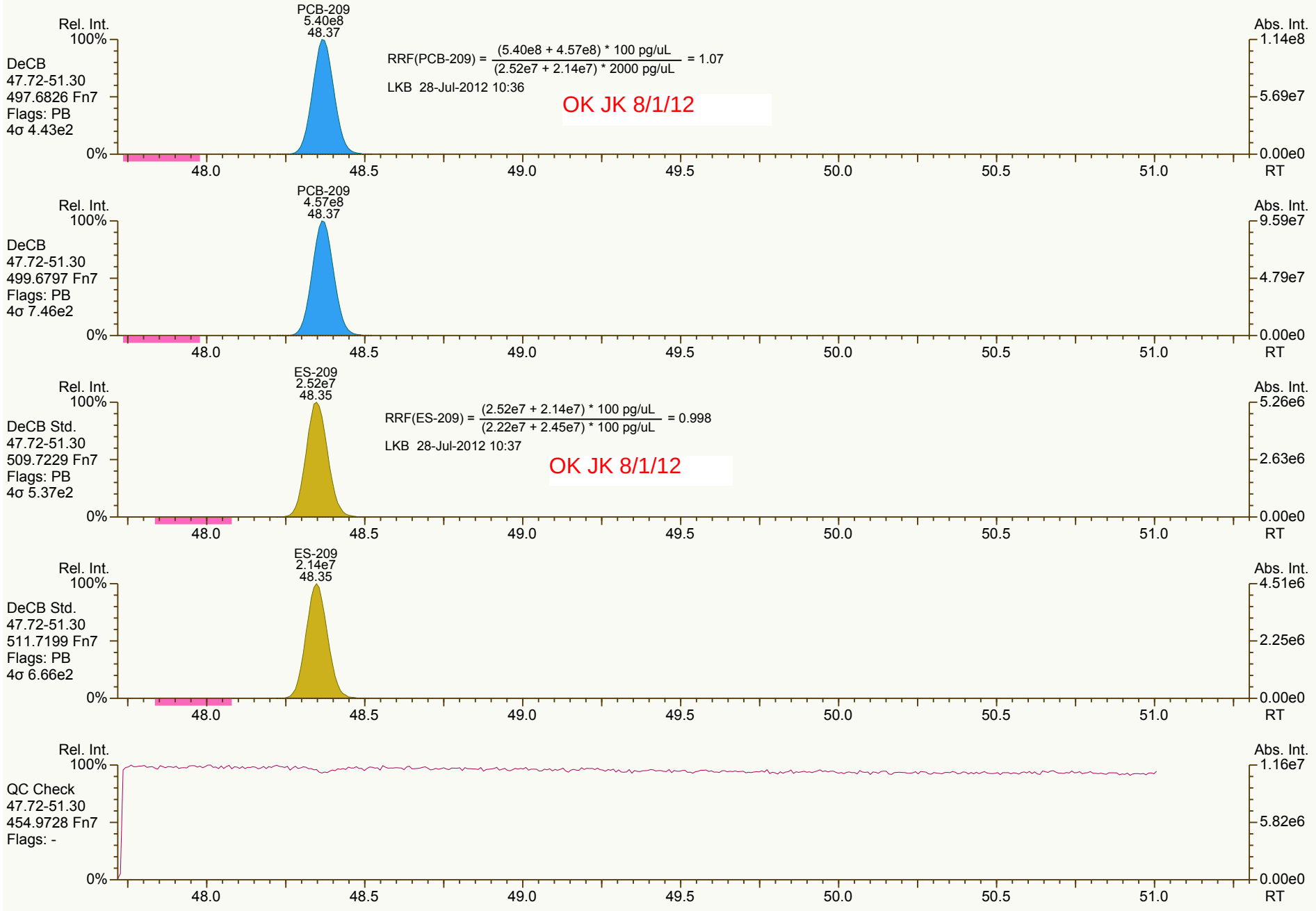

Resolution Check Report **MassLynx 4.1 SCN 881**

Printed: Wednesday, July 25, 2012 22:29:00 Eastern Daylight Time

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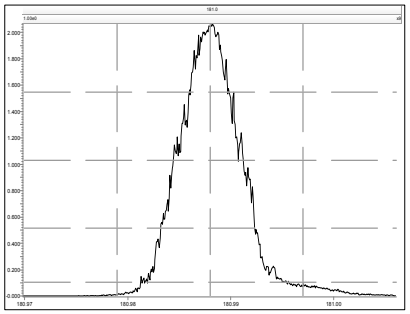

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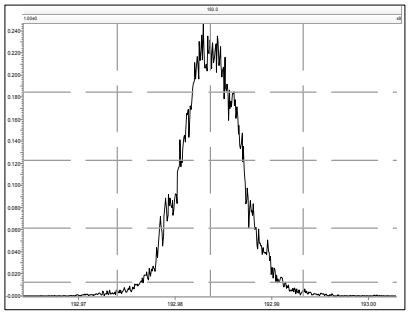

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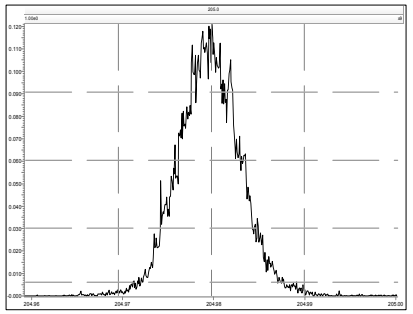

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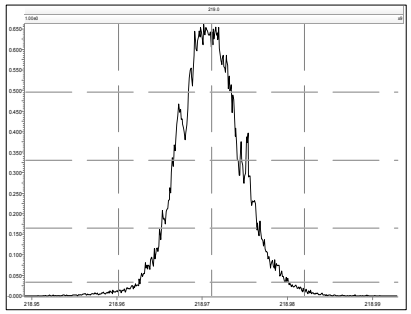

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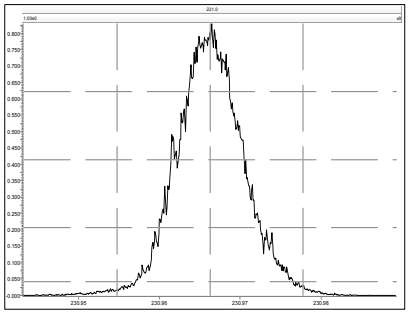

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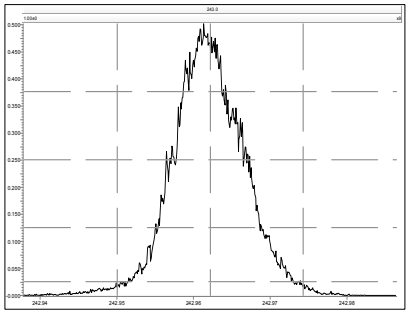

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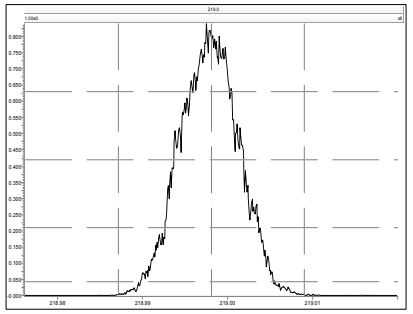

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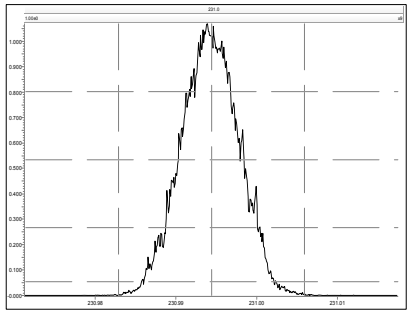

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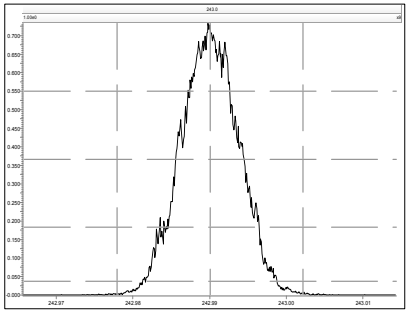

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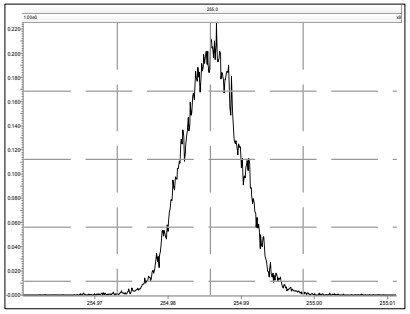

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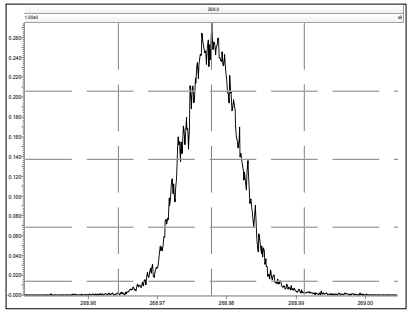

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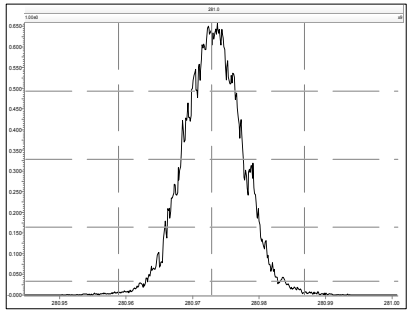

Resolution Check Report **MassLynx 4.1 SCN 881**

Printed: Wednesday, July 25, 2012 22:29:00 Eastern Daylight Time

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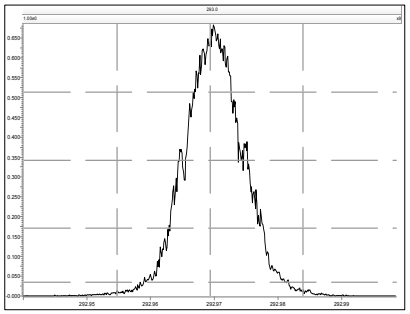

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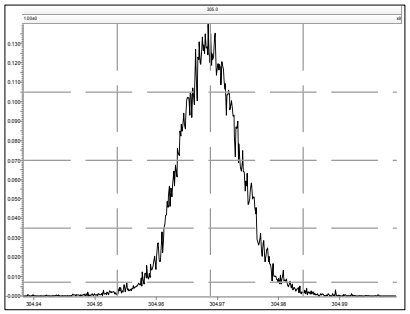

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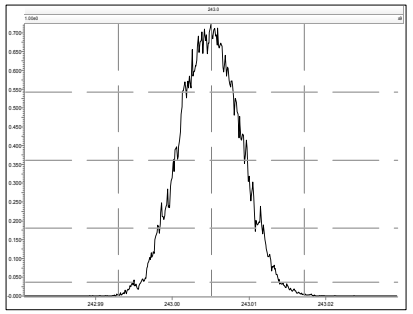

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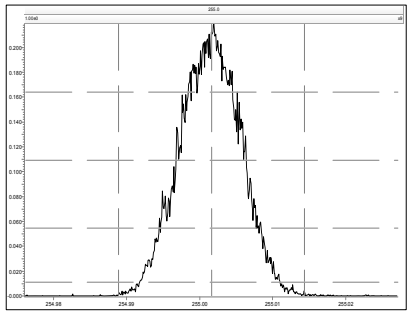

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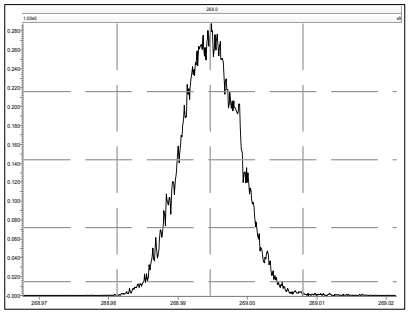

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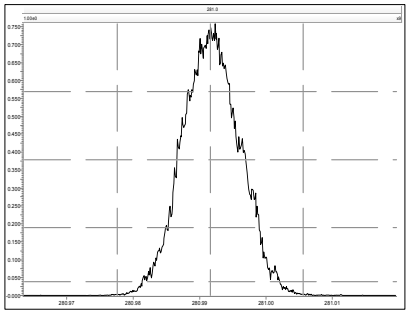

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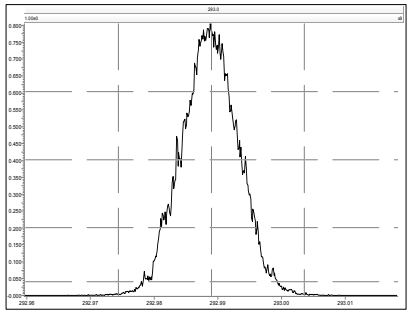

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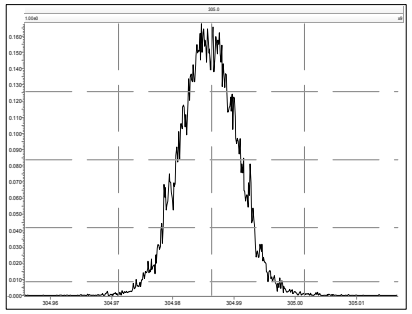

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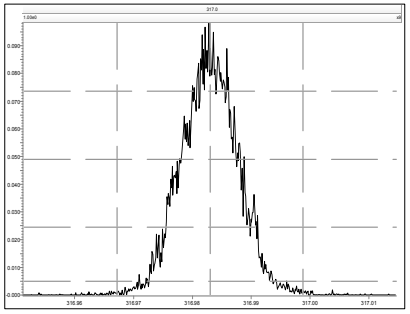

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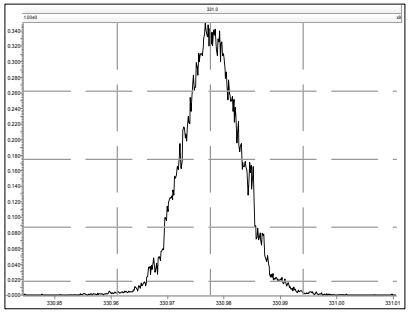

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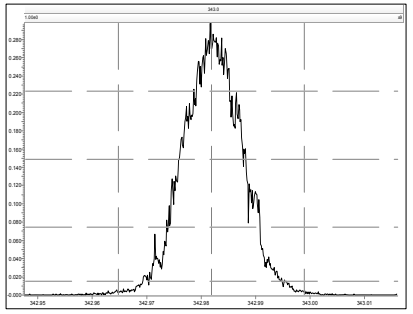

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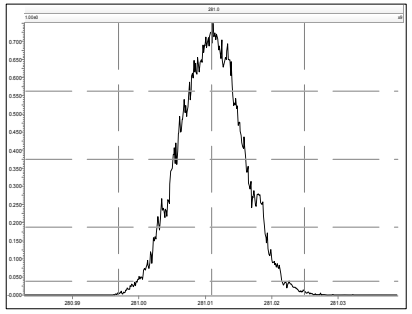

Resolution Check Report **MassLynx 4.1 SCN 881**

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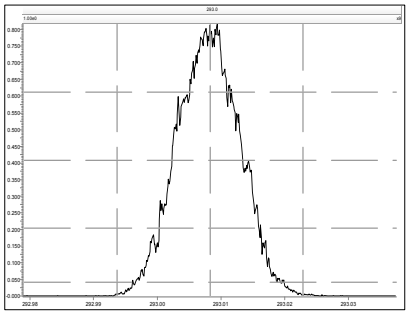

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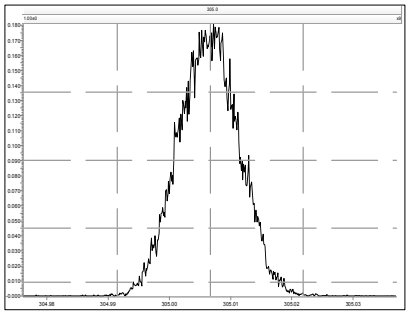

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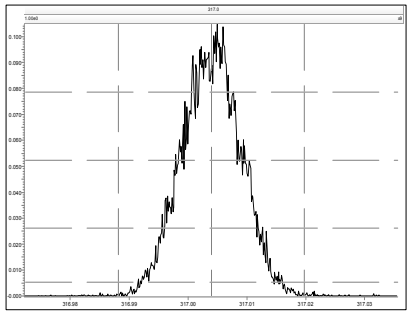

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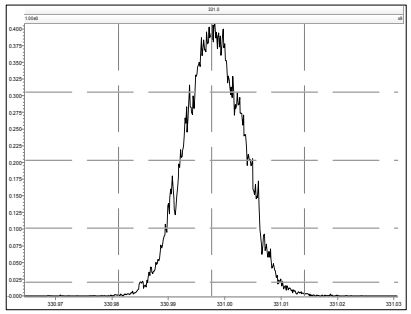

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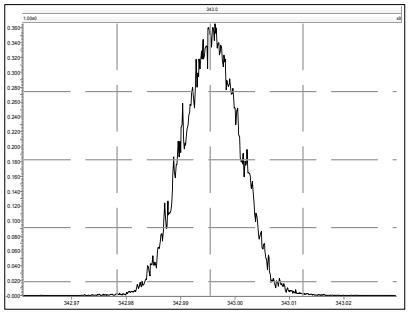

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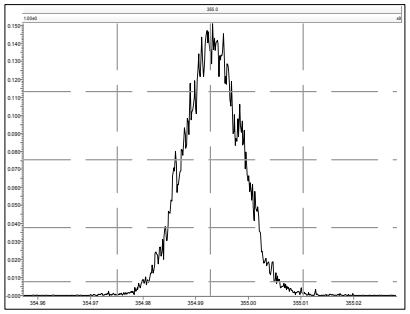

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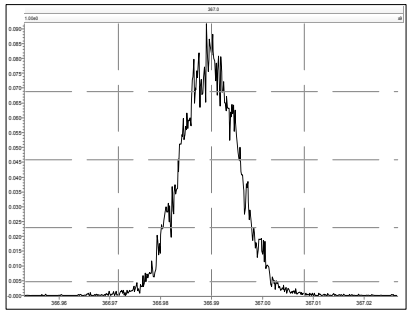

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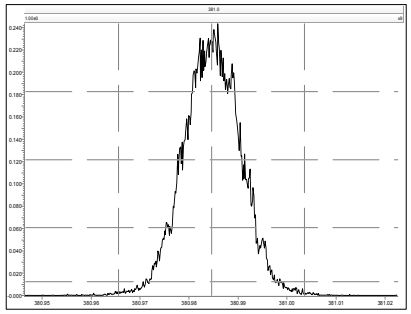

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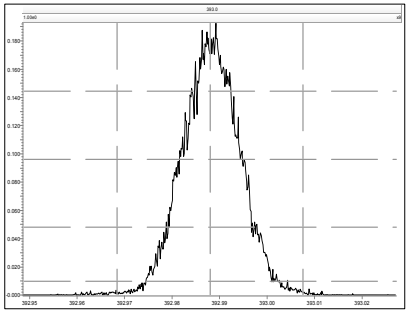

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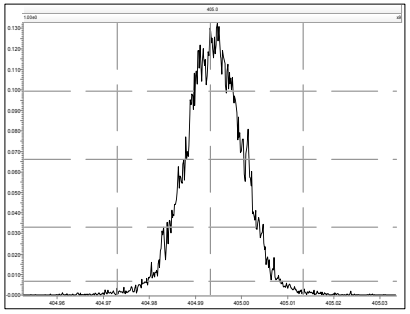
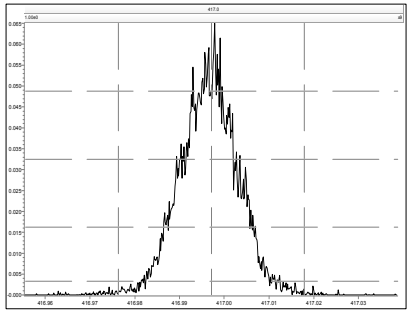
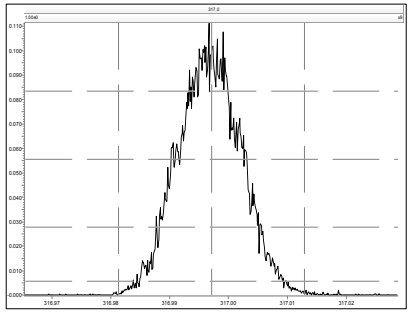


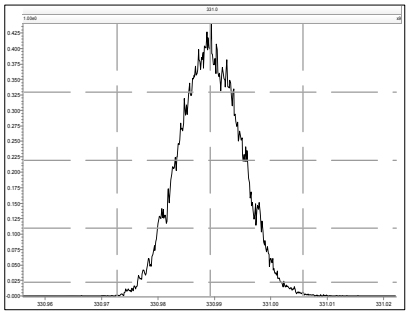
M 416.9760 R 14398



M 316.9824 R 13619



M 330.9792 R 12567



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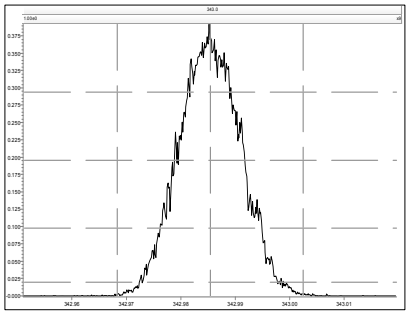

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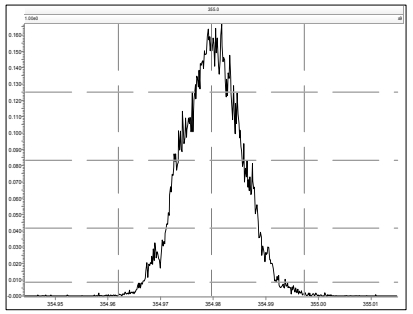

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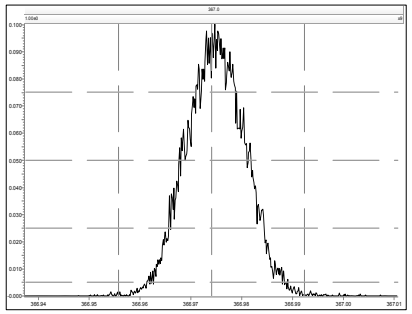

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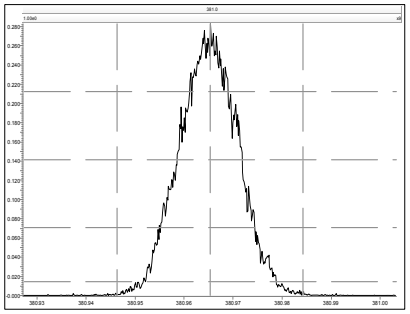

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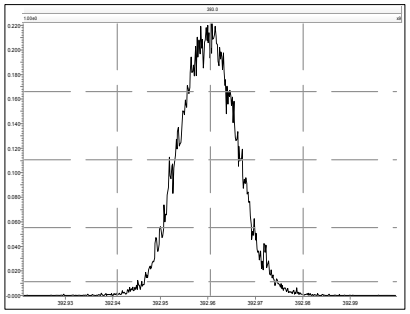

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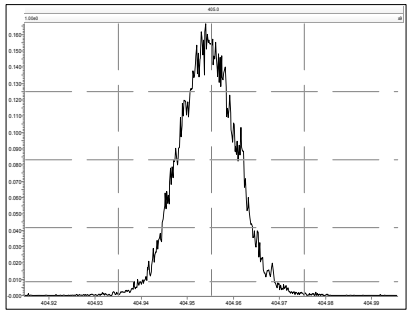

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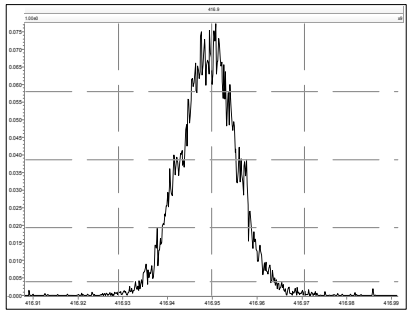
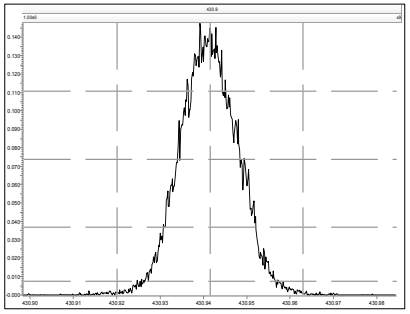
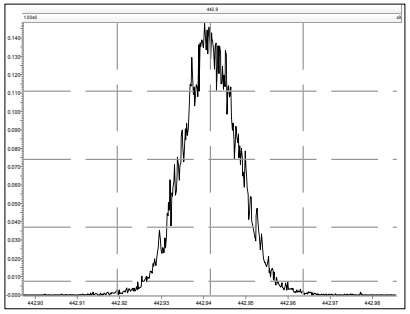


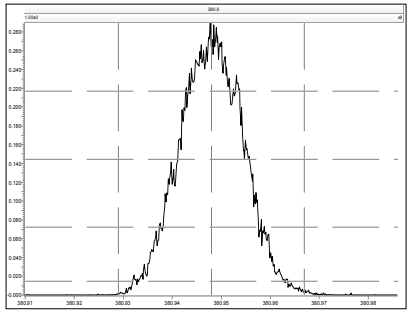
M 430.9728 R 14044



M 442.9728 R 13888



M 380.9760 R 12598



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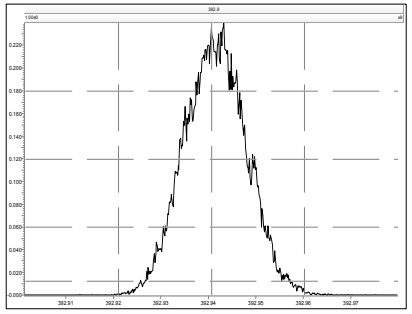
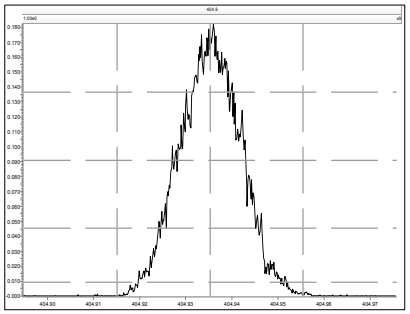


M 404.9760 R 13228



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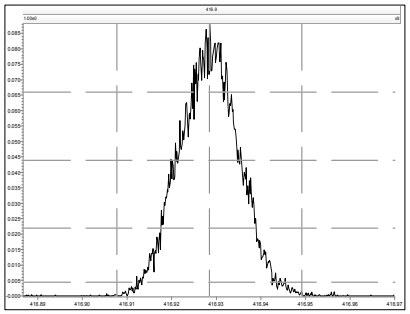

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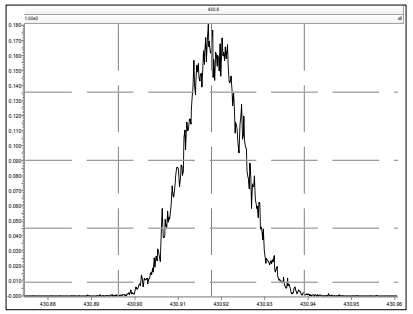

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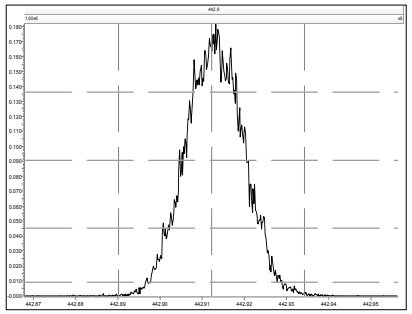

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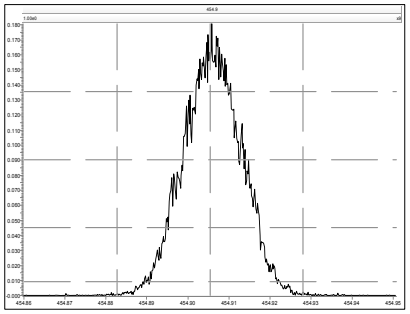
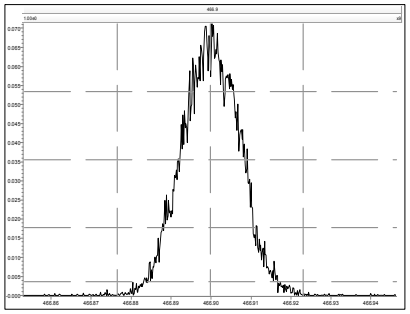
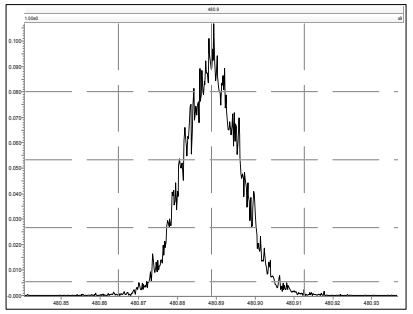


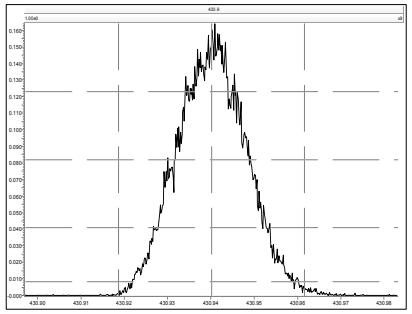
M 466.9728 R 14215



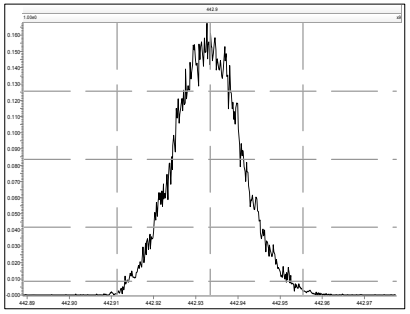
M 480.9696 R 14250



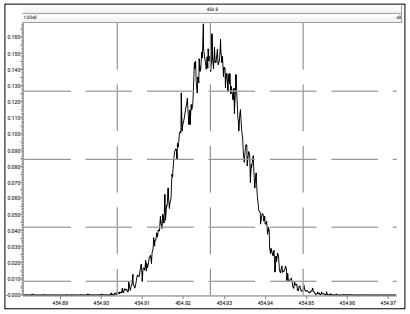
M 430.9728 R 11390



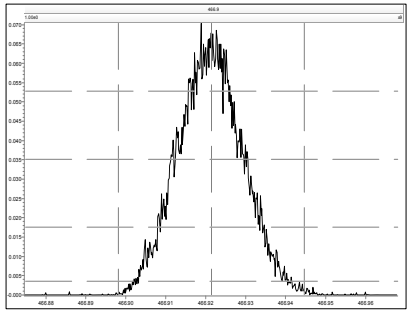
M 442.9728 R 11765



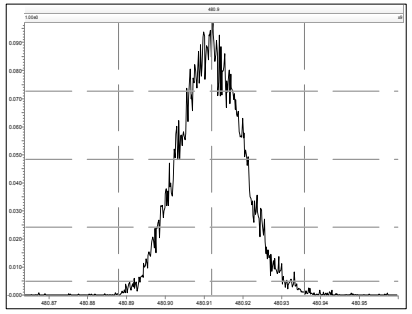
M 454.9728 R 12019



M 466.9728 R 12348



M 480.9696 R 12789



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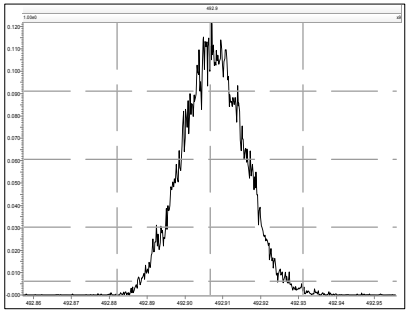

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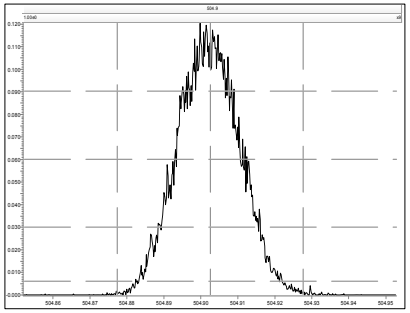

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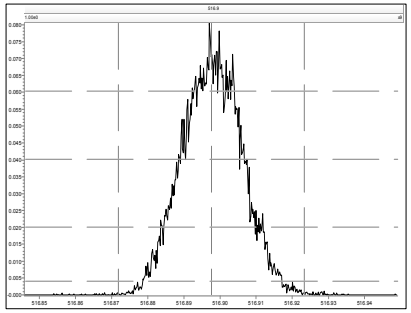

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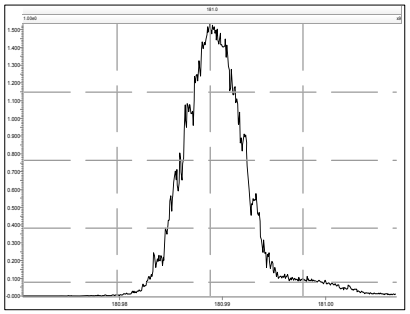
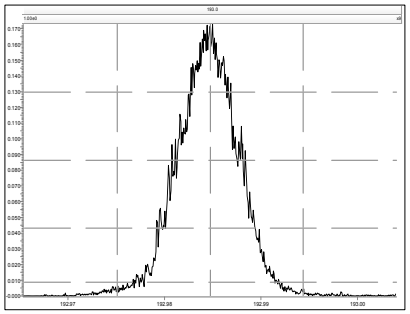
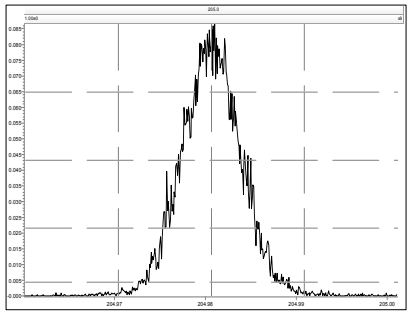
M 180.9888 R 10376



M 192.9888 R 14045



M 204.9888 R 13737



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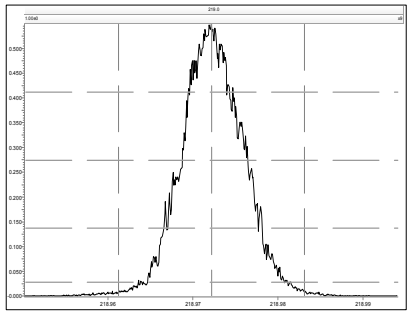
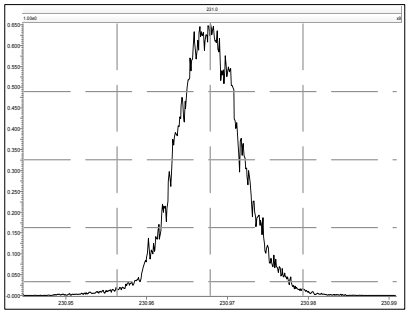
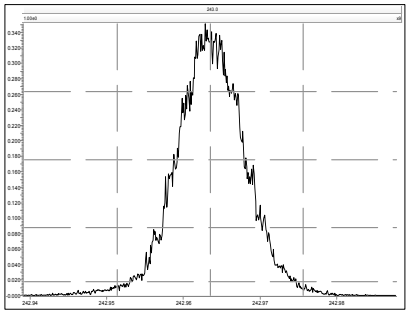


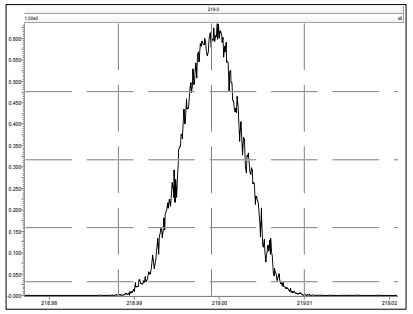
M 230.9856 R 12136



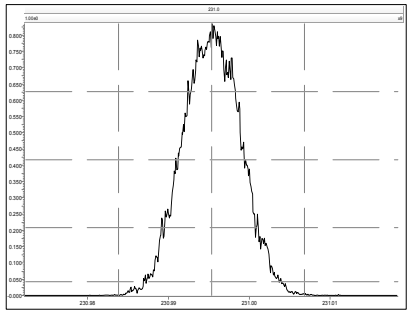
M 242.9856 R 11476



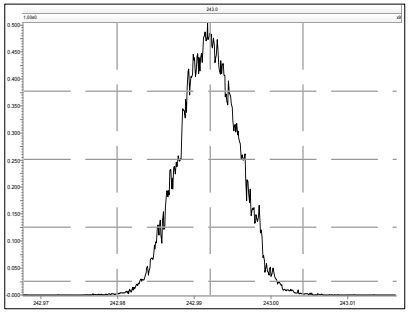
M 218.9856 R 13623



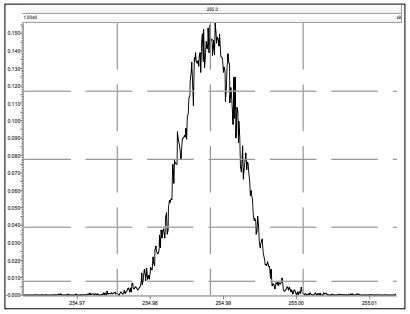
M 230.9856 R 13700



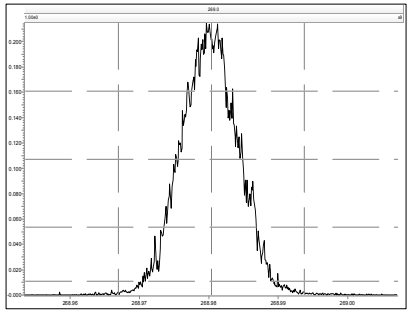
M 242.9856 R 13699



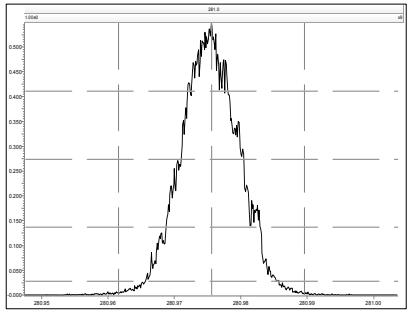
M 254.9856 R 14247



M 268.9824 R 14411



M 280.9824 R 14253



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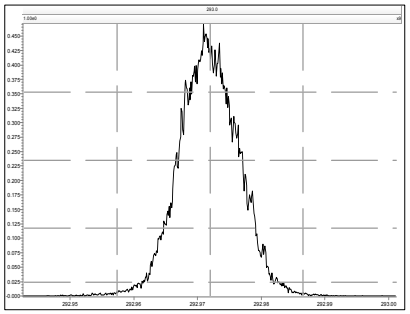

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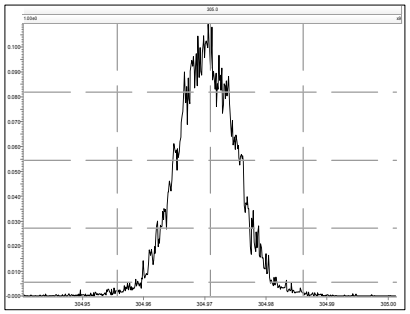
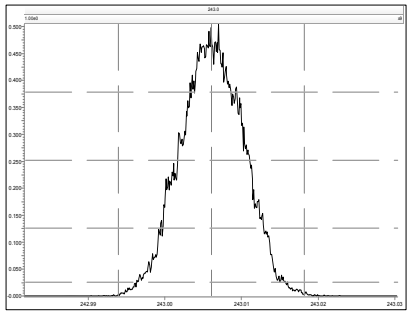
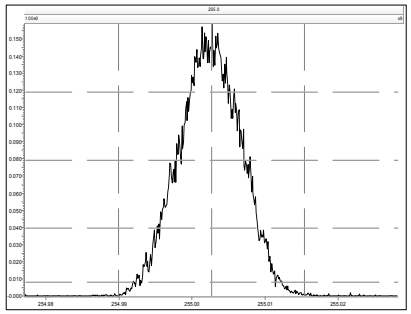


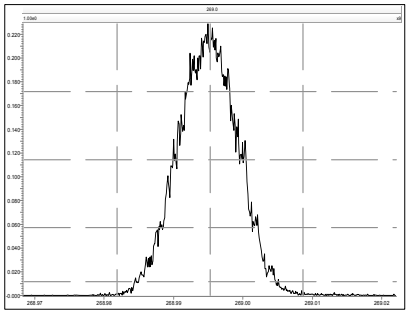
M 242.9856 R 12530



M 254.9856 R 13554



M 268.9824 R 13513



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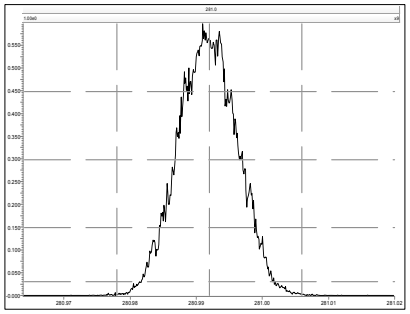

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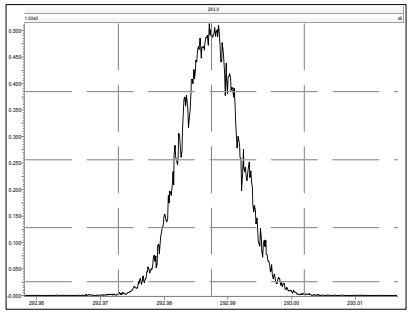
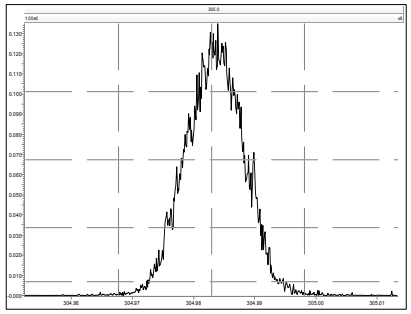


M 304.9824 R 14579



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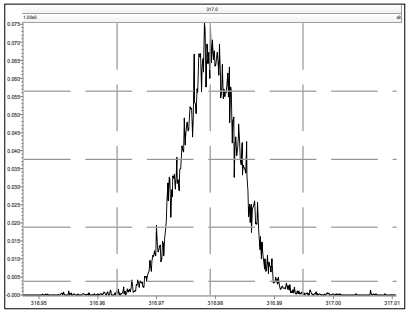

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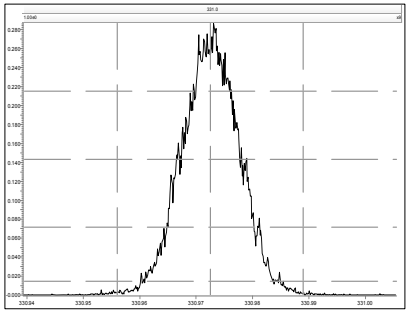

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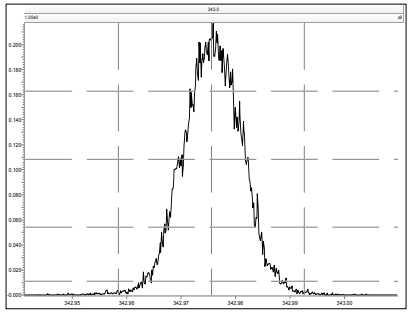

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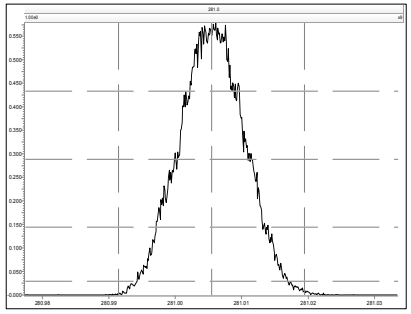

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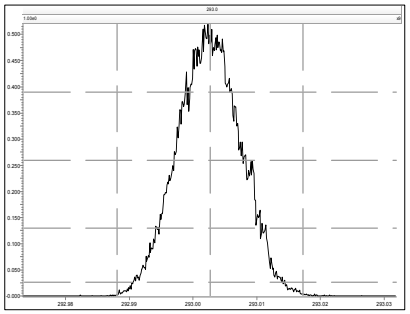

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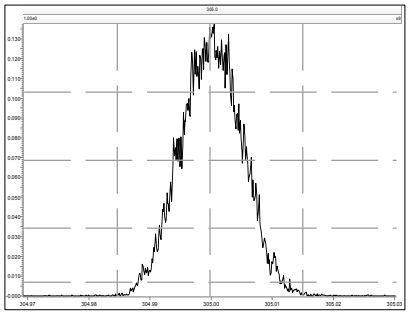

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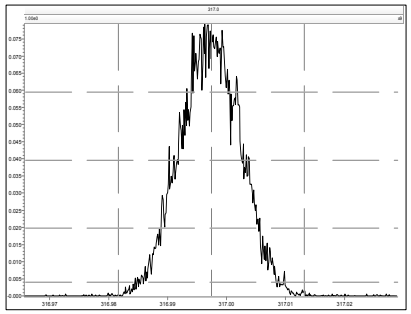

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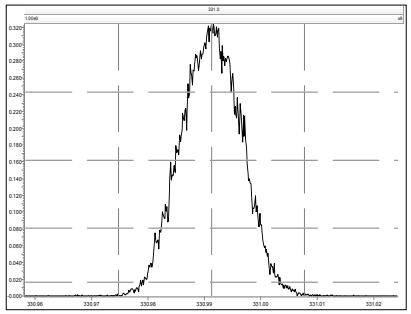

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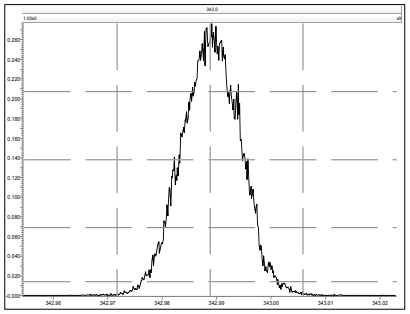

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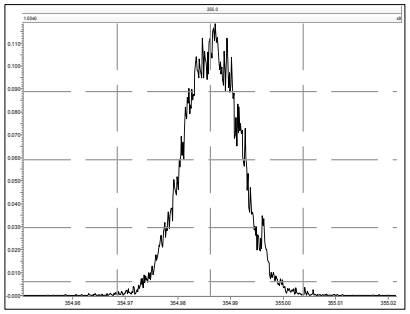

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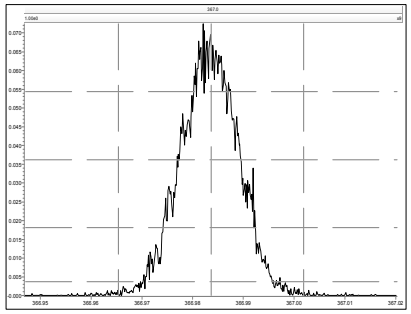

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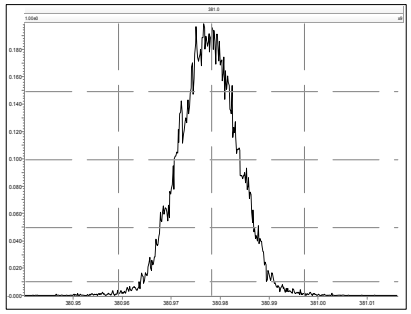

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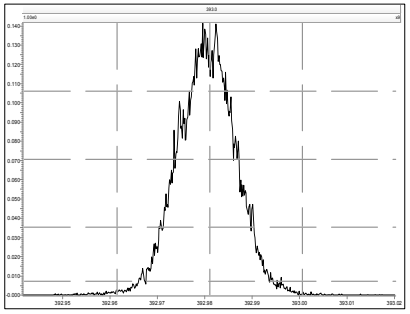

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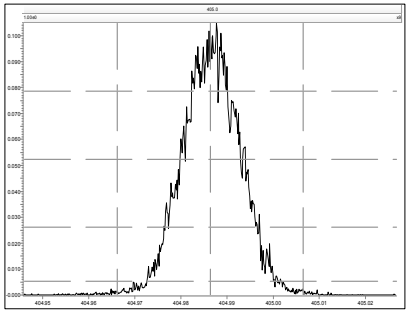

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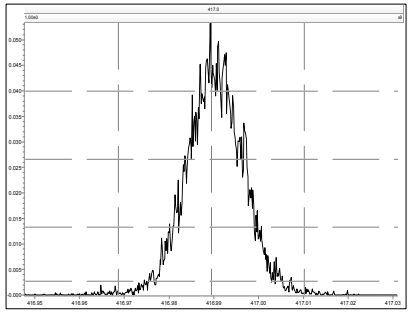

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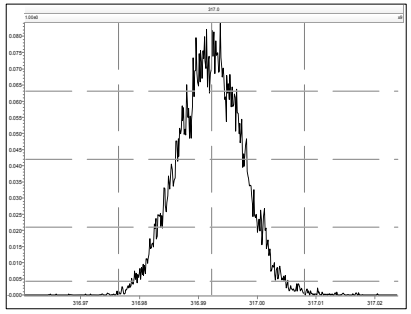

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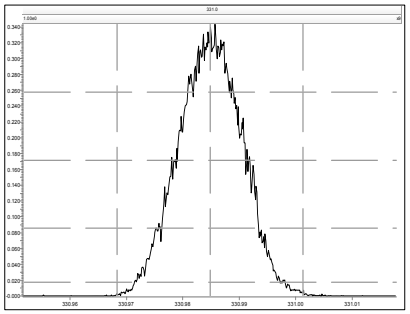

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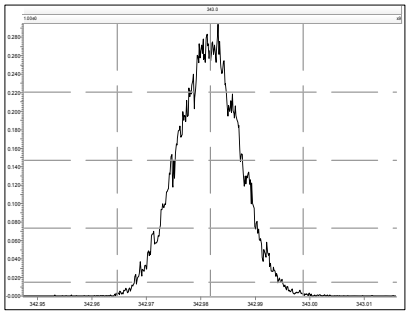

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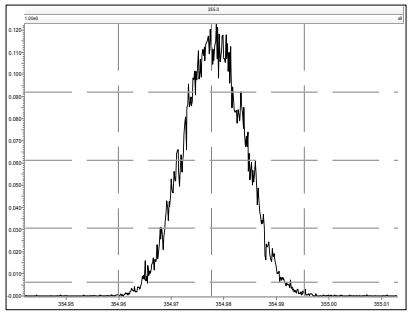

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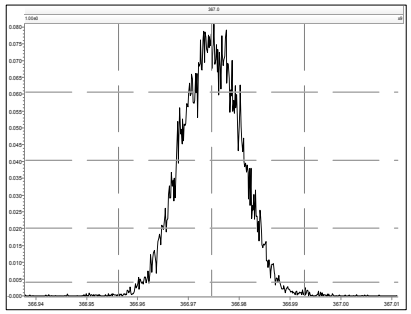

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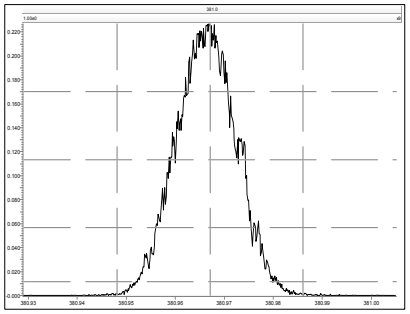

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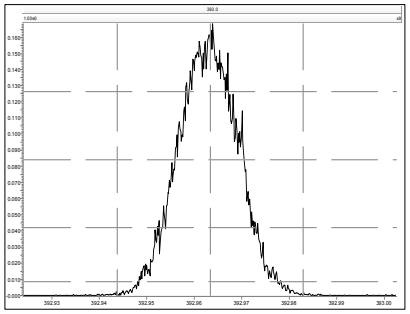

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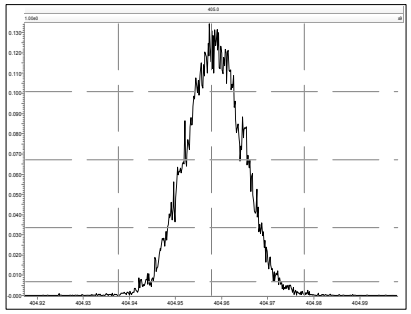

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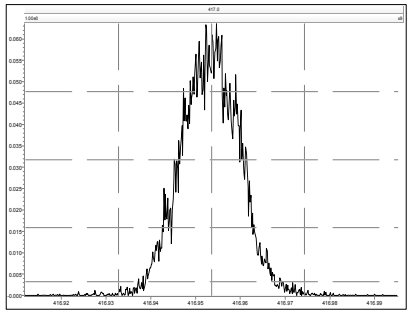

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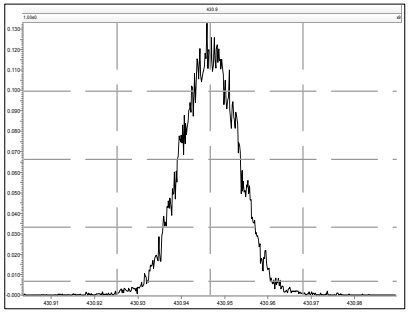

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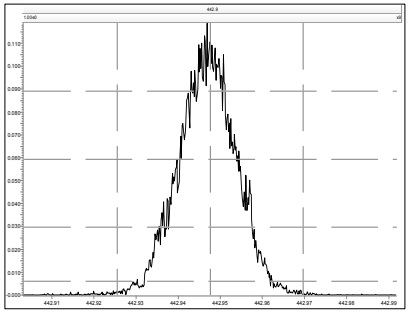

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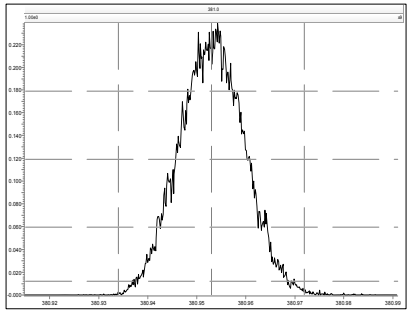

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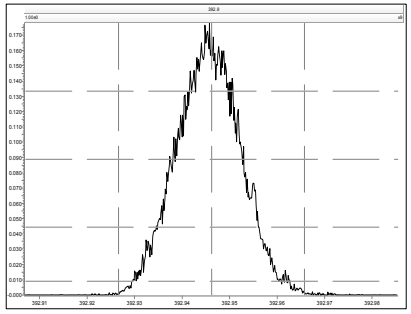

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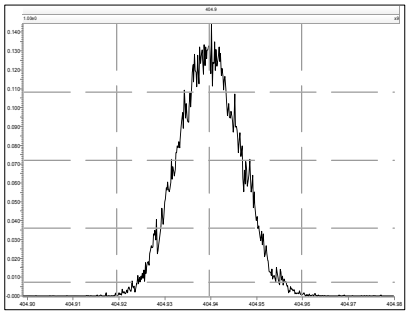

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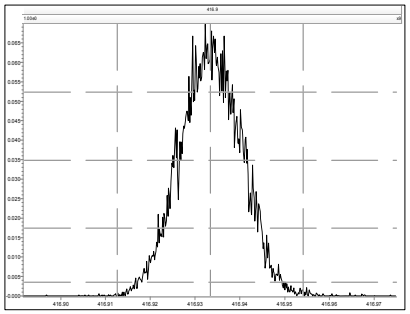

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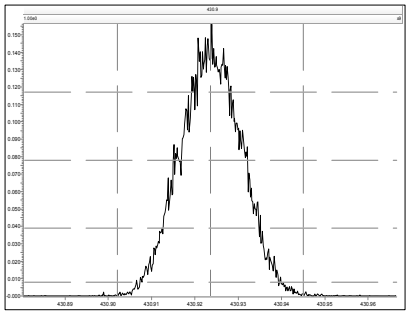

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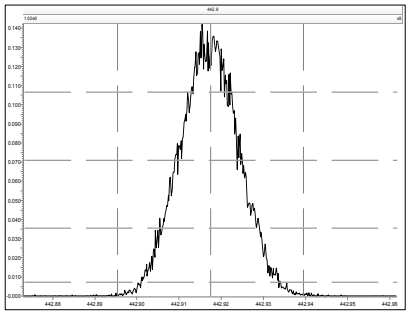

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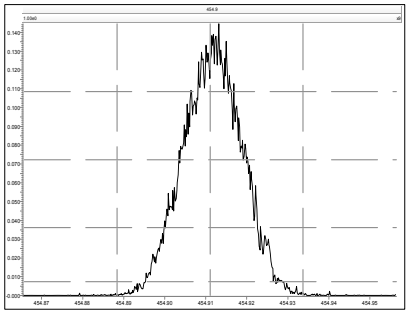

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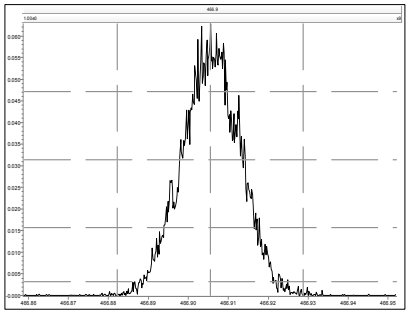

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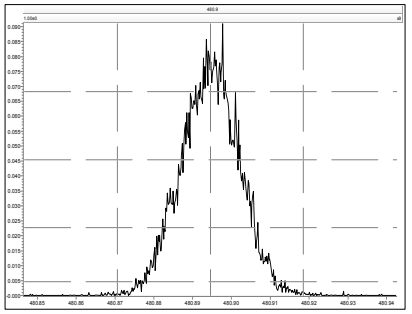

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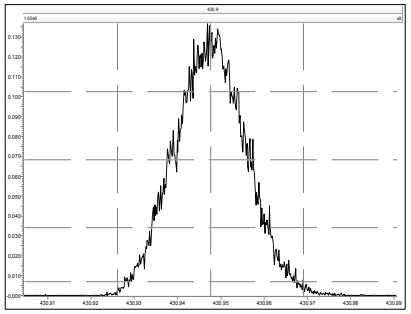

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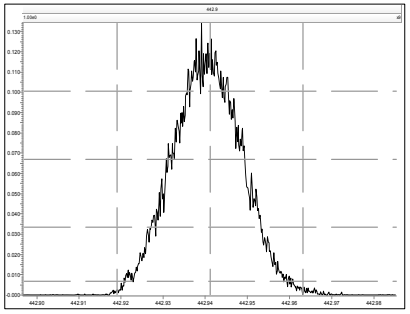

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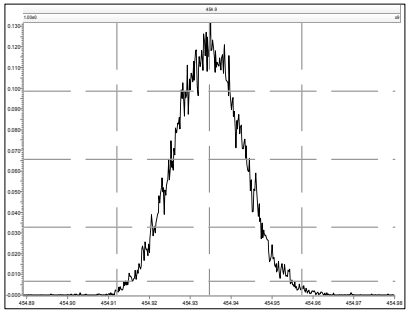

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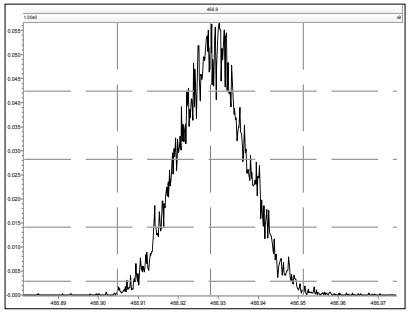

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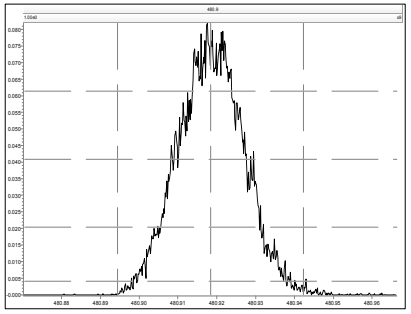

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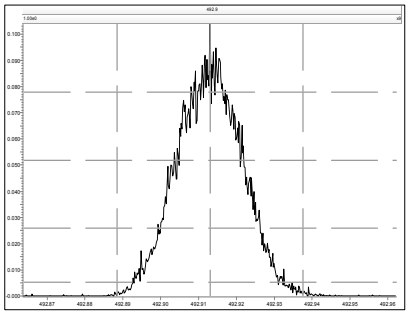

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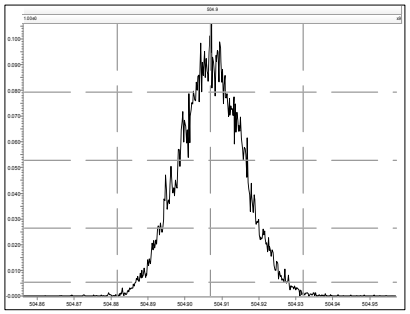

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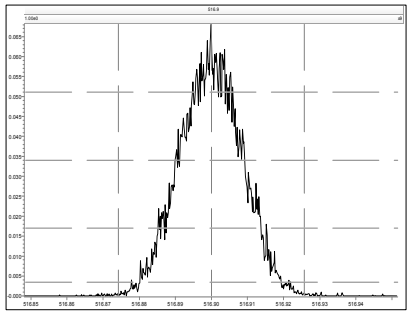

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X21**



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AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 1753, 1027 scc: 476-201 *PKD: 27-Jul-2012 15:02 Printed: 28-Jul-2012 10:40 Page 6 of 21*

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 4941, 7535 scc: 476-201 *Revised: 27-Jul-2012 14:17 (LKB) Printed: 28-Jul-2012 10:40 Page 7 of 21*

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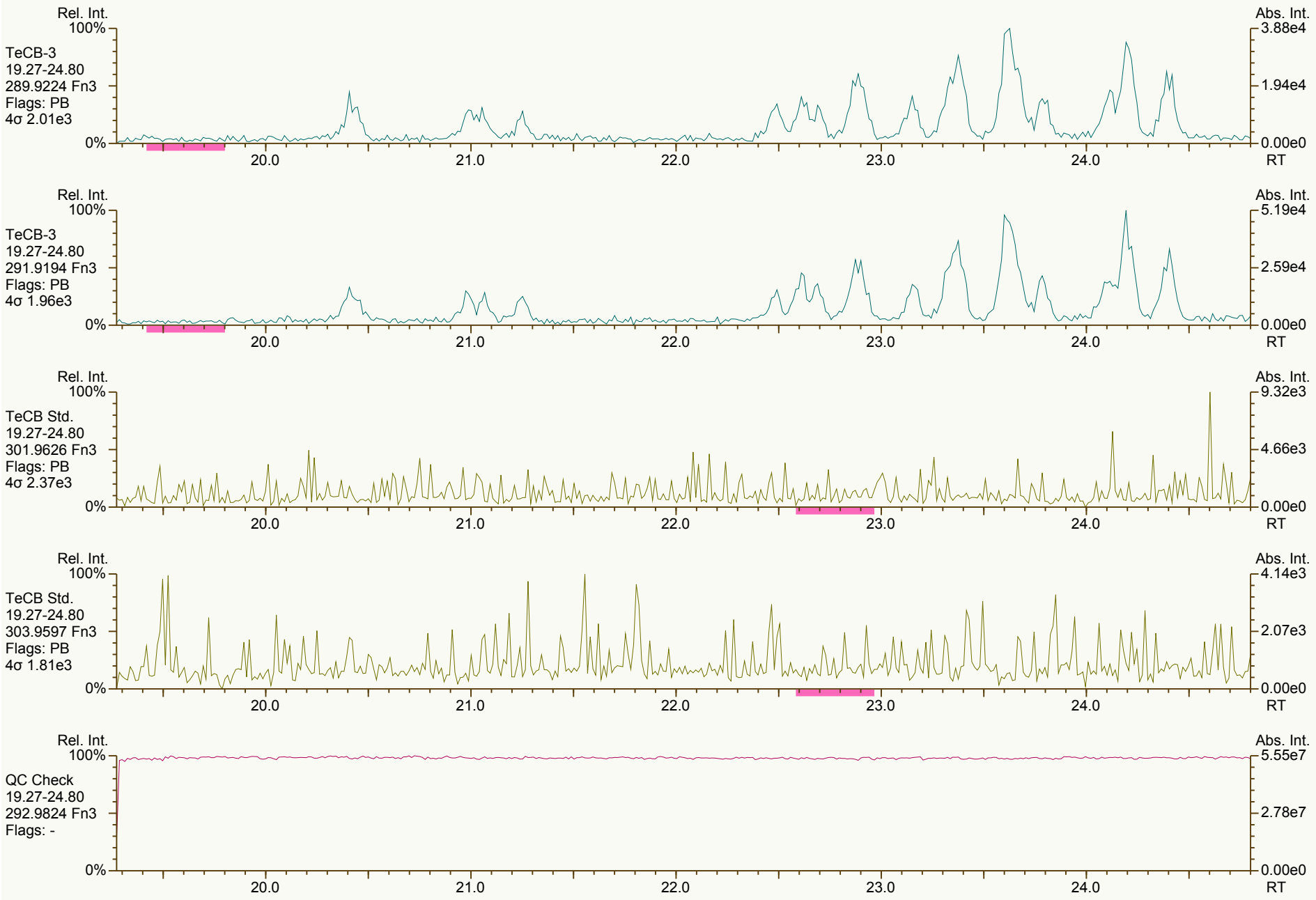

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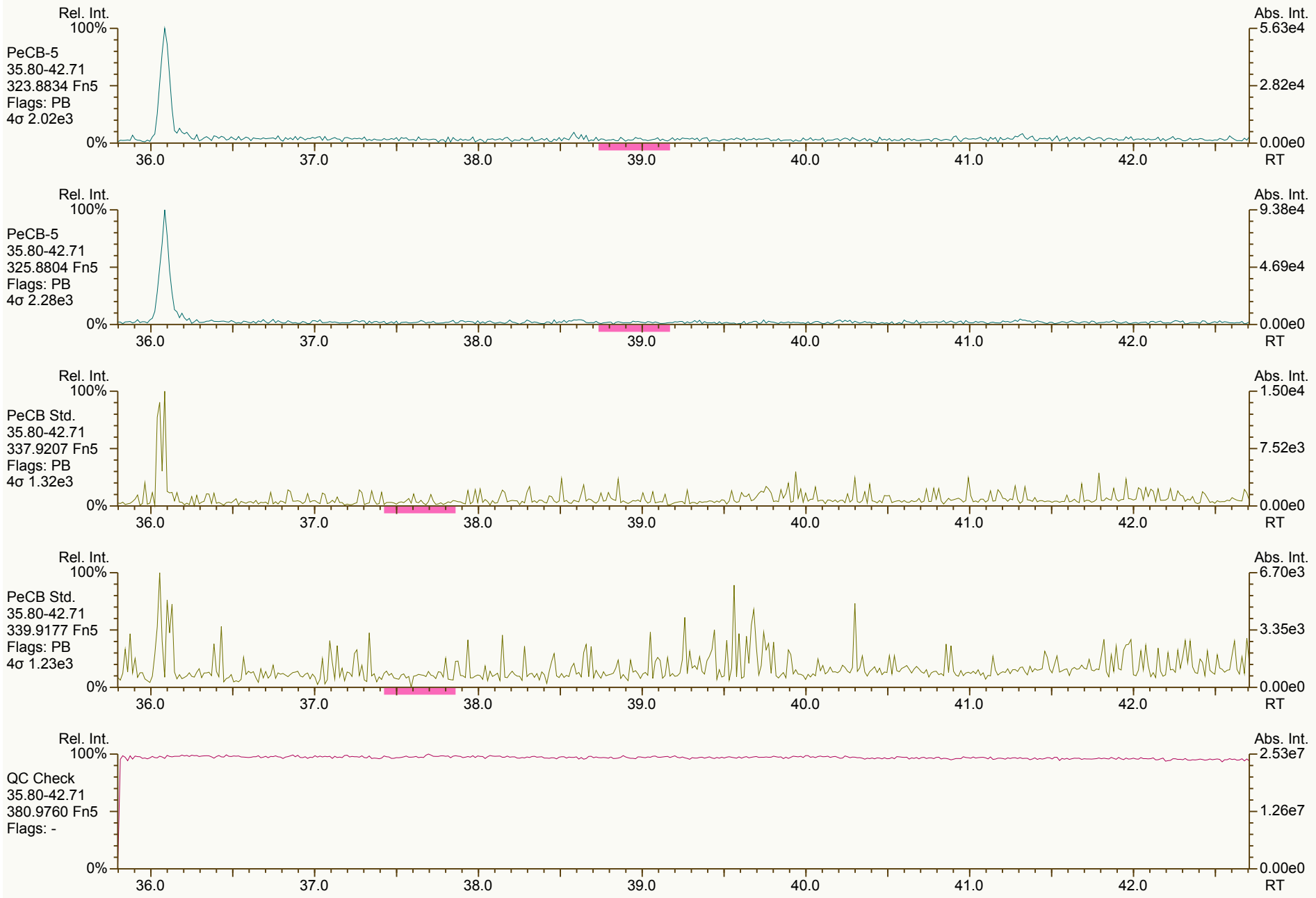
AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X21**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XH.utp_res, saved 27-Jul-2012 15:03 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7710, 9337 scc: 476-201 *PKD: 27-Jul-2012 15:02 Printed: 28-Jul-2012 10:40 Page 12 of 21*

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
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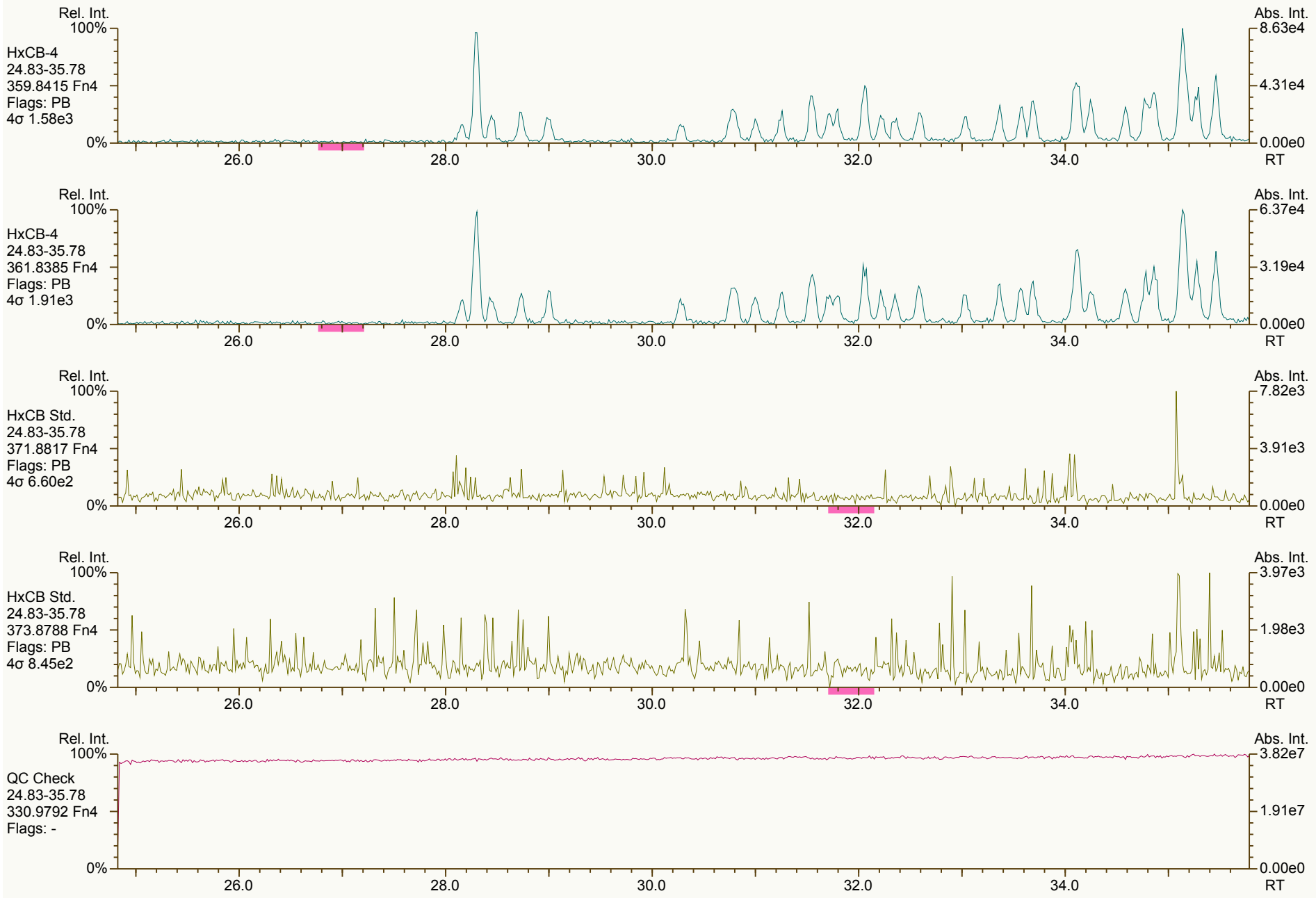

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7487, 7337 scc: 476-201 *PKD: 27-Jul-2012 15:02 Printed: 28-Jul-2012 10:40 Page 13 of 21*

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
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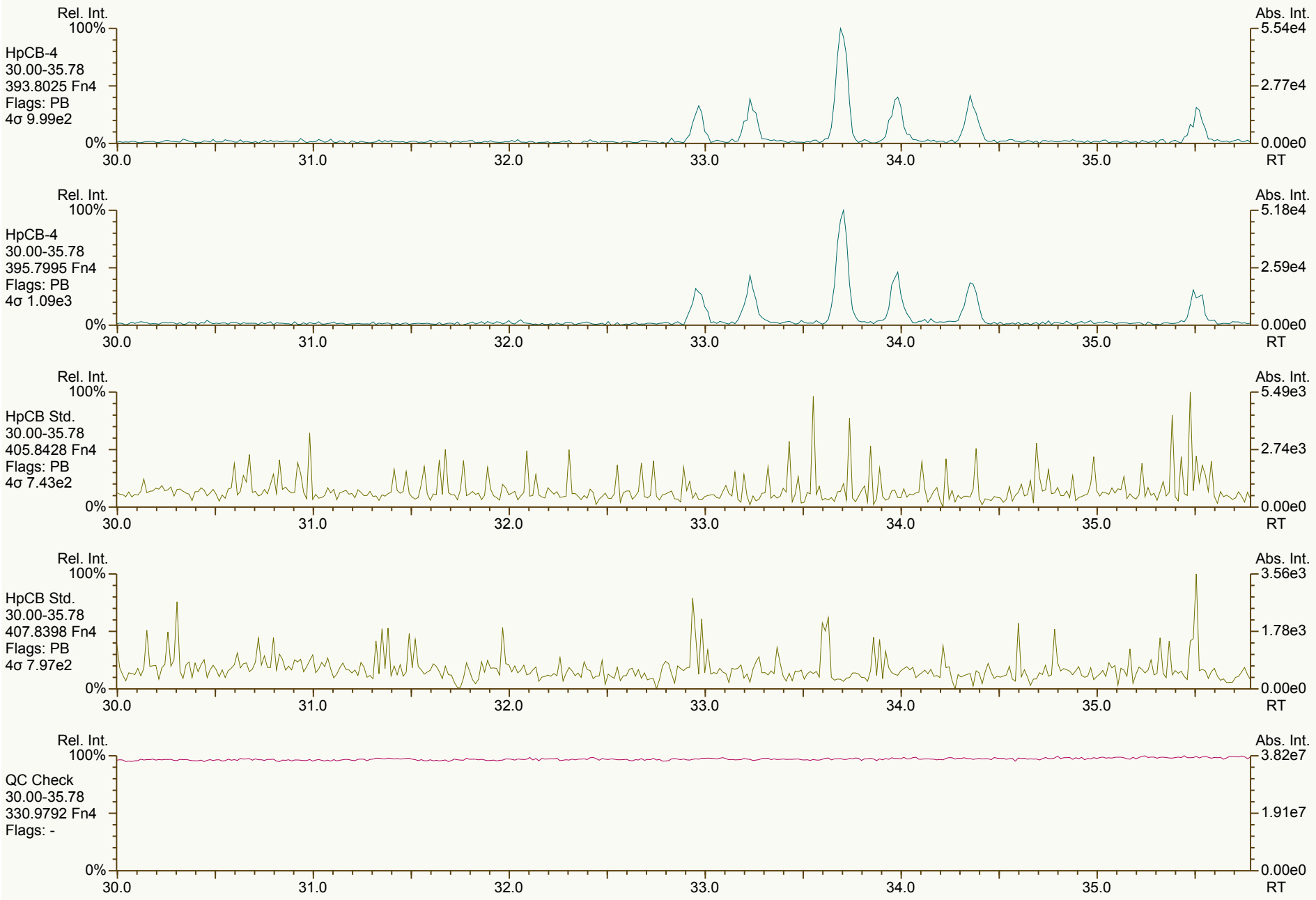

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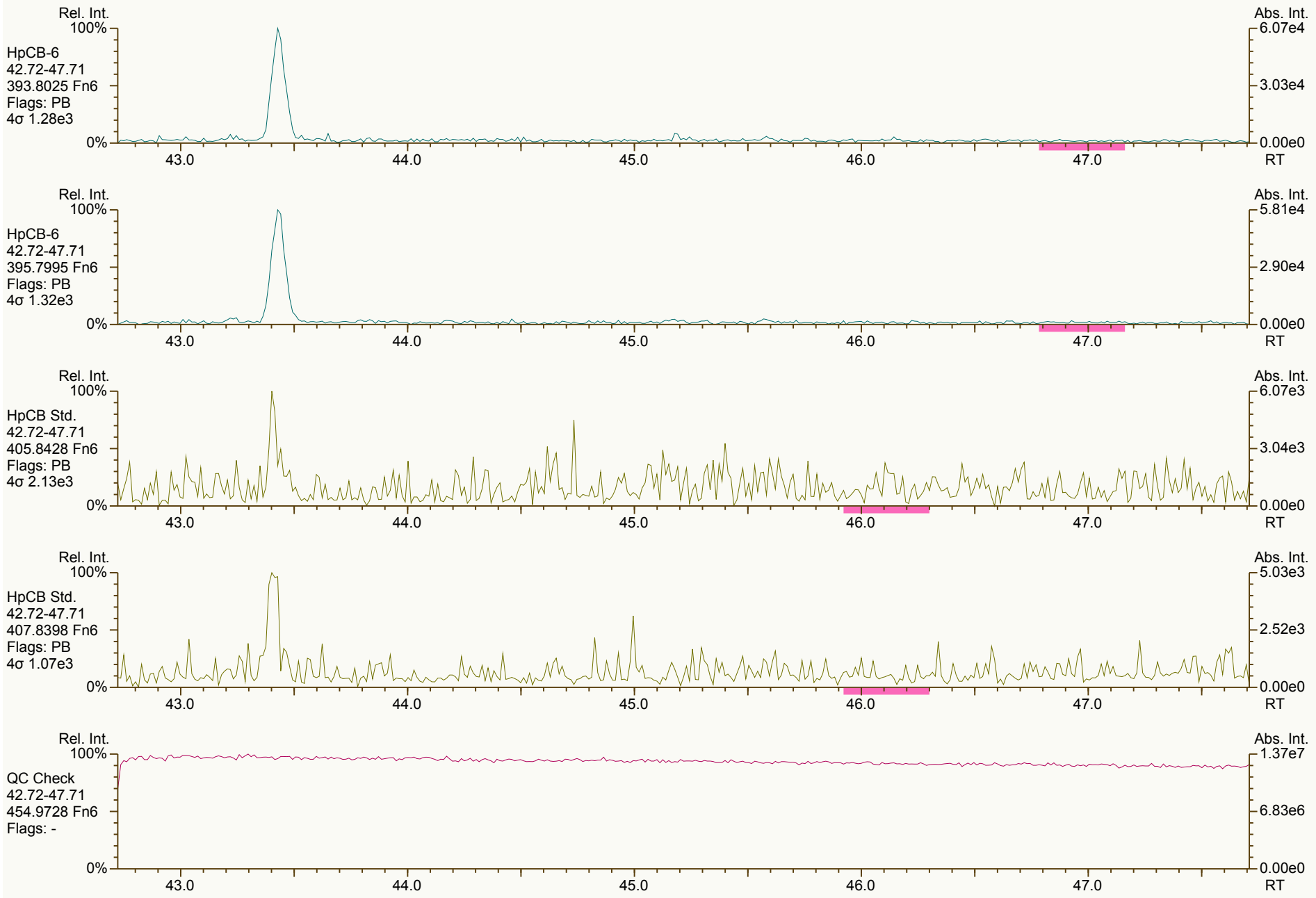

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 1970, 7765 scc: 476-201 *PKD: 27-Jul-2012 15:02 Printed: 28-Jul-2012 10:40 Page 21 of 21*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7093, 7139 scc: 961-294 *Revised: 27-Jul-2012 14:17 (LKB) Printed: 28-Jul-2012 10:40 Page 3 of 21*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
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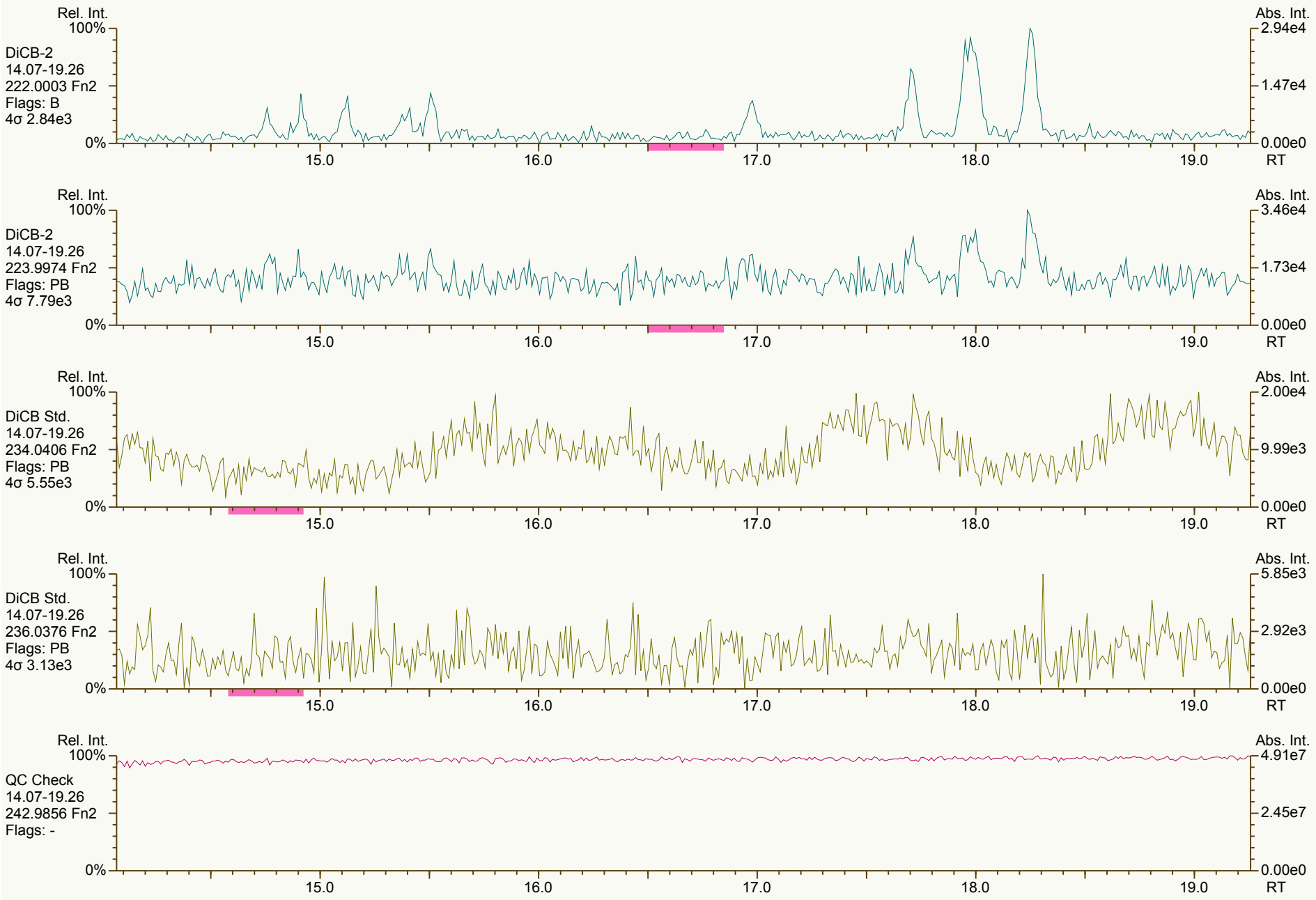

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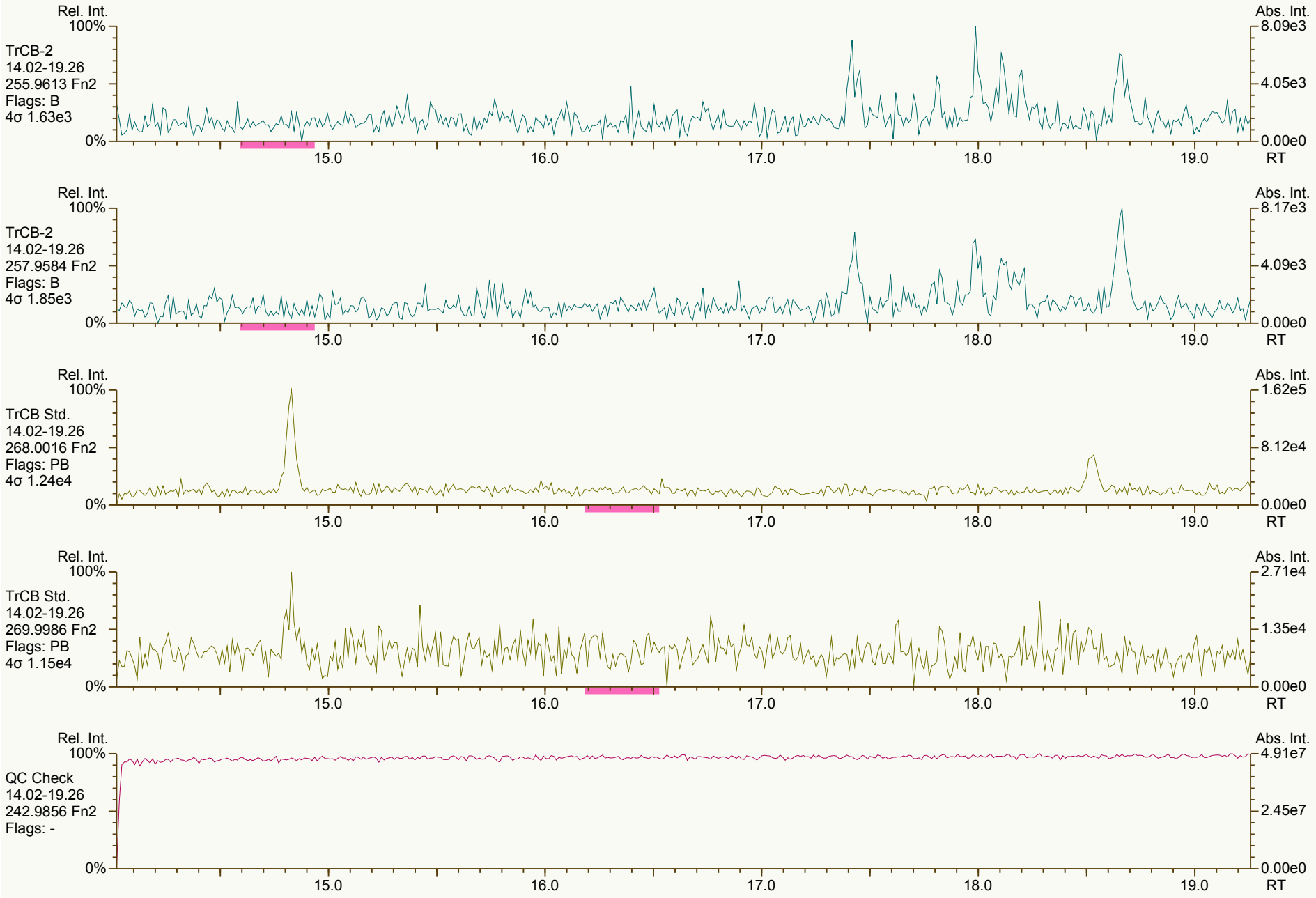

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7579, 6580 scc: 961-294 *PKD: 27-Jul-2012 14:22 Printed: 28-Jul-2012 10:41 Page 5 of 21*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 2439, 4454 scc: 961-294 *Revised: 27-Jul-2012 14:17 (LKB) Printed: 28-Jul-2012 10:41 Page 7 of 21*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
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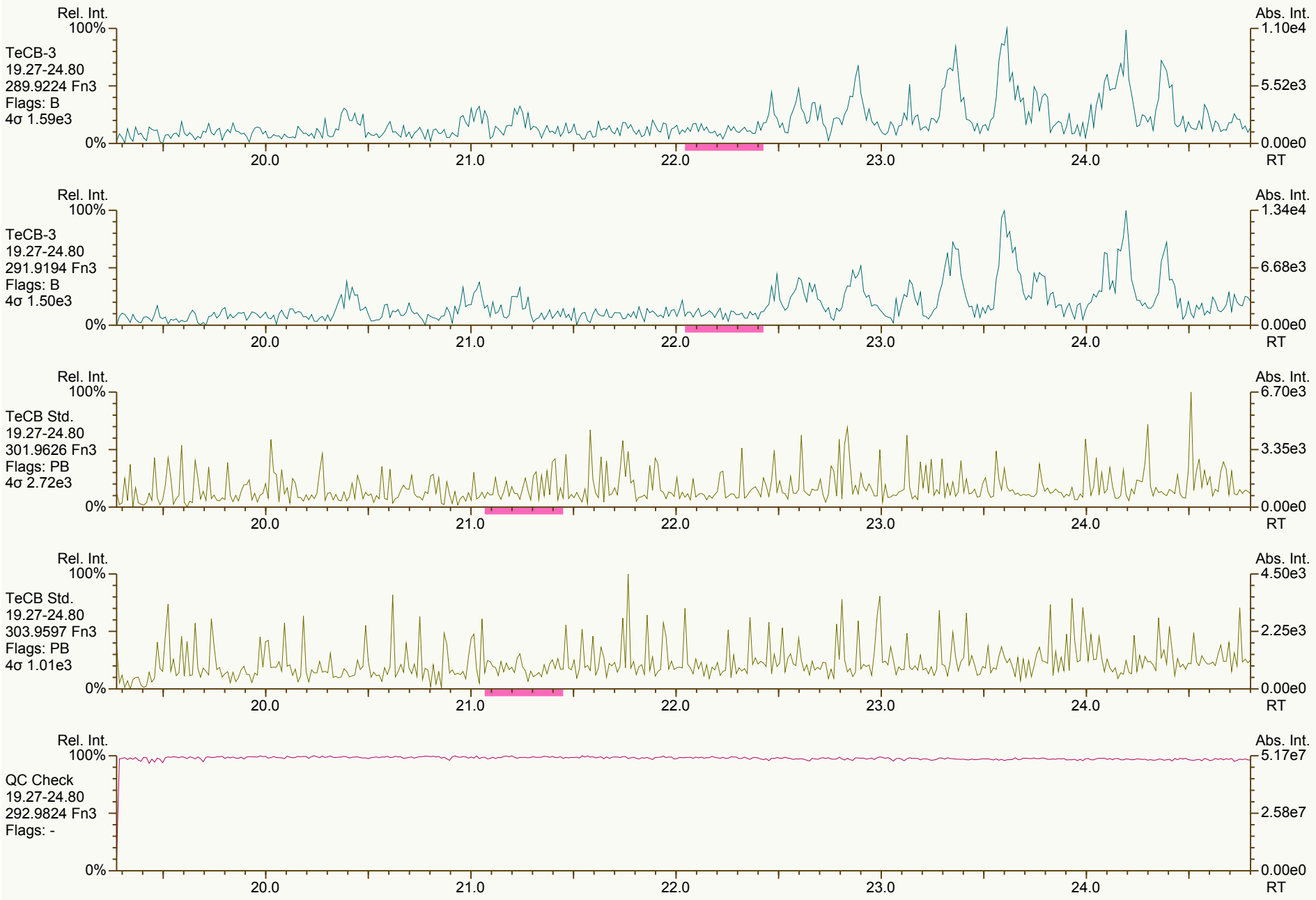

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AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
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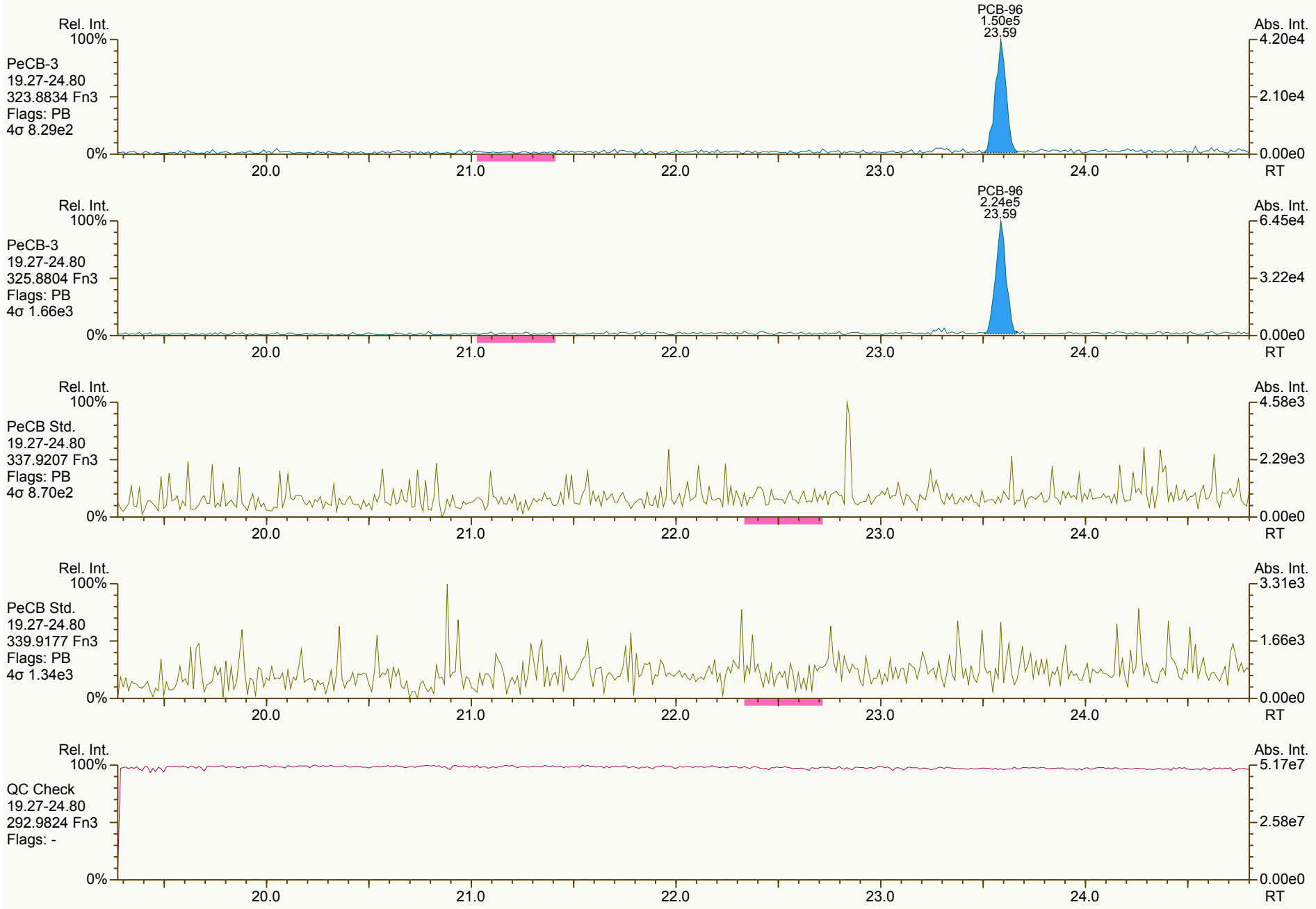

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7026, 8398 scc: 961-294 *PKD: 27-Jul-2012 14:22 Printed: 28-Jul-2012 10:41 Page 12 of 21*

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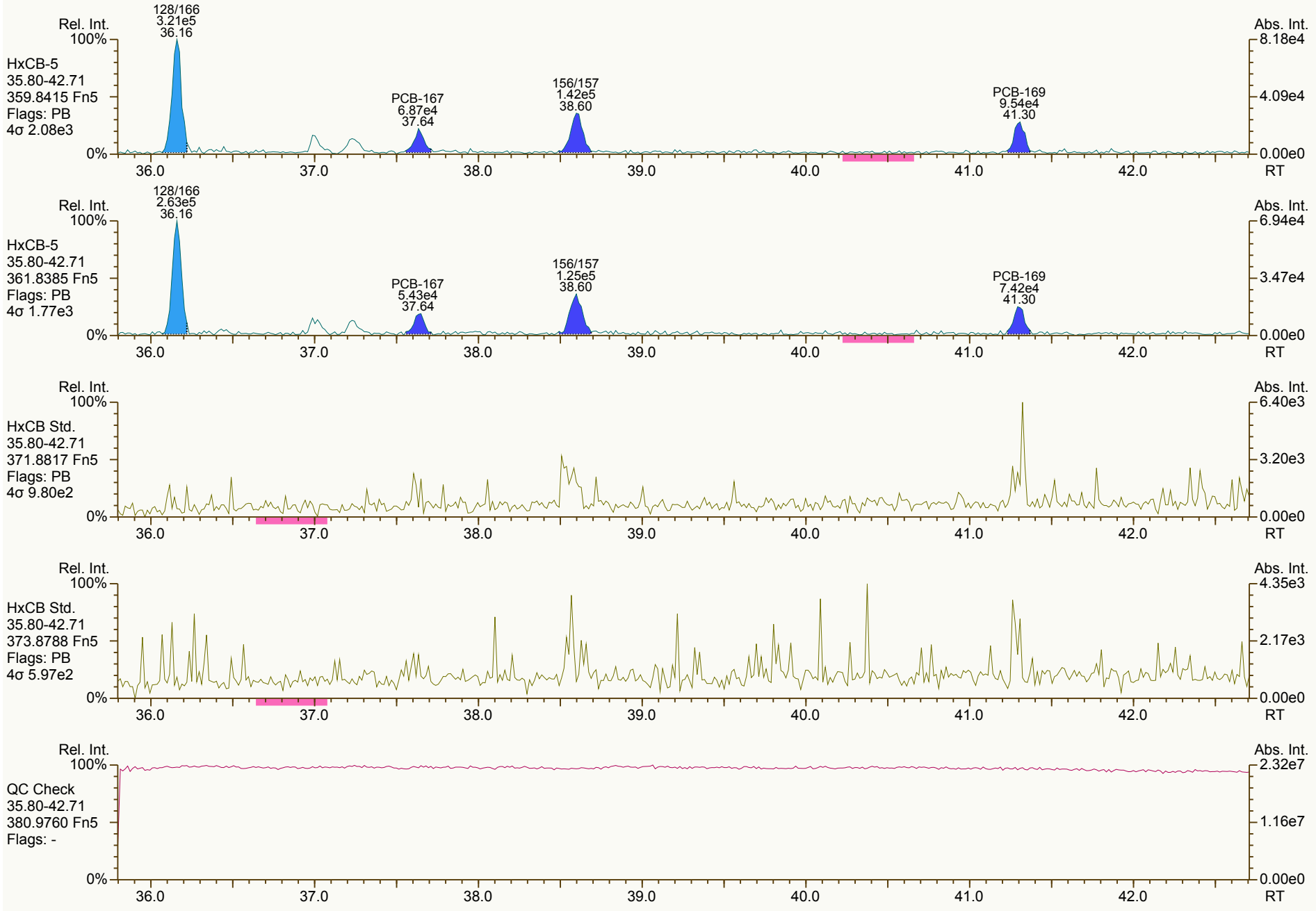

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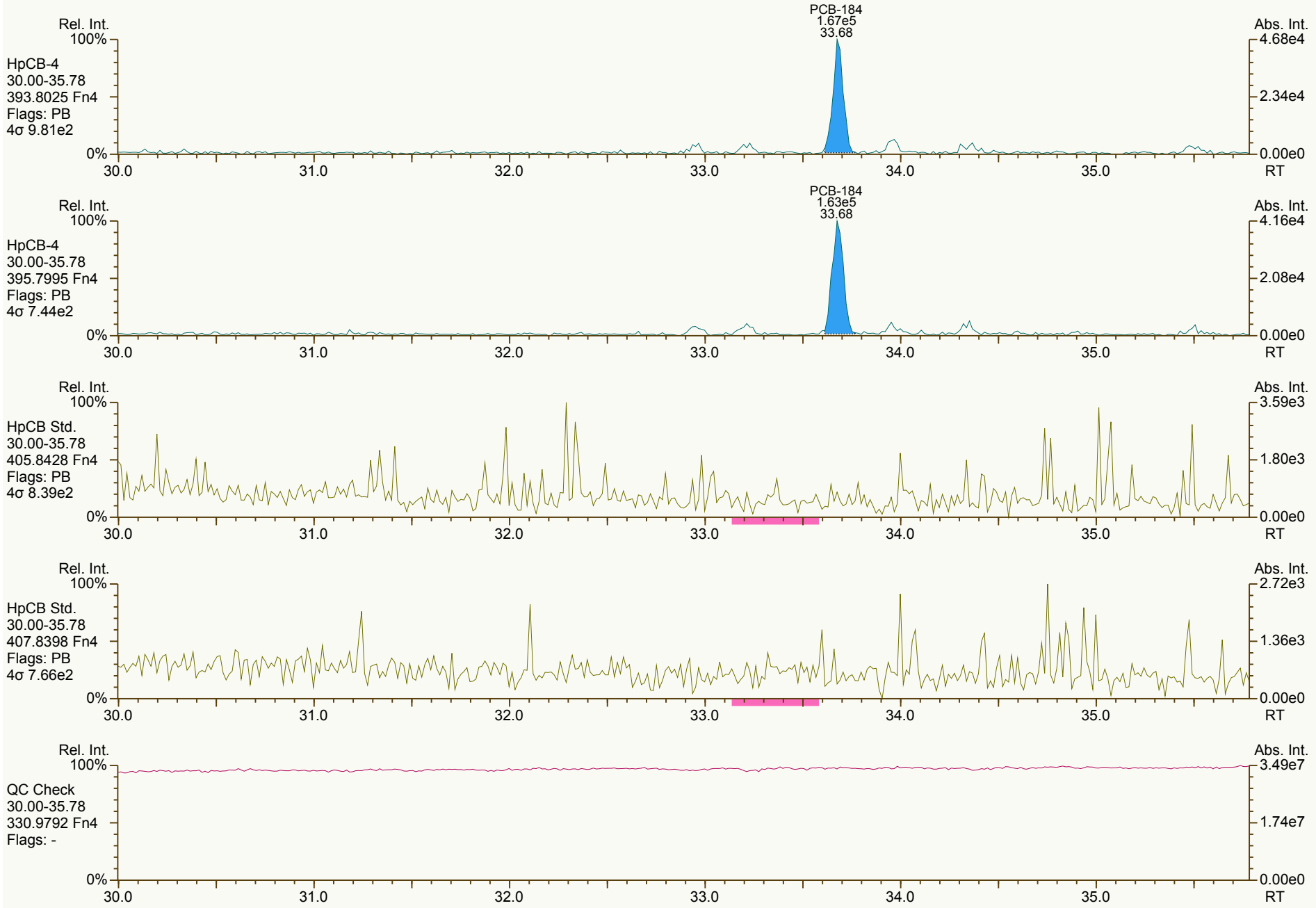

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 2859, 5936 scc: 961-294 *Revised: 27-Jul-2012 14:21 (LKB) Printed: 28-Jul-2012 10:41 Page 15 of 21*

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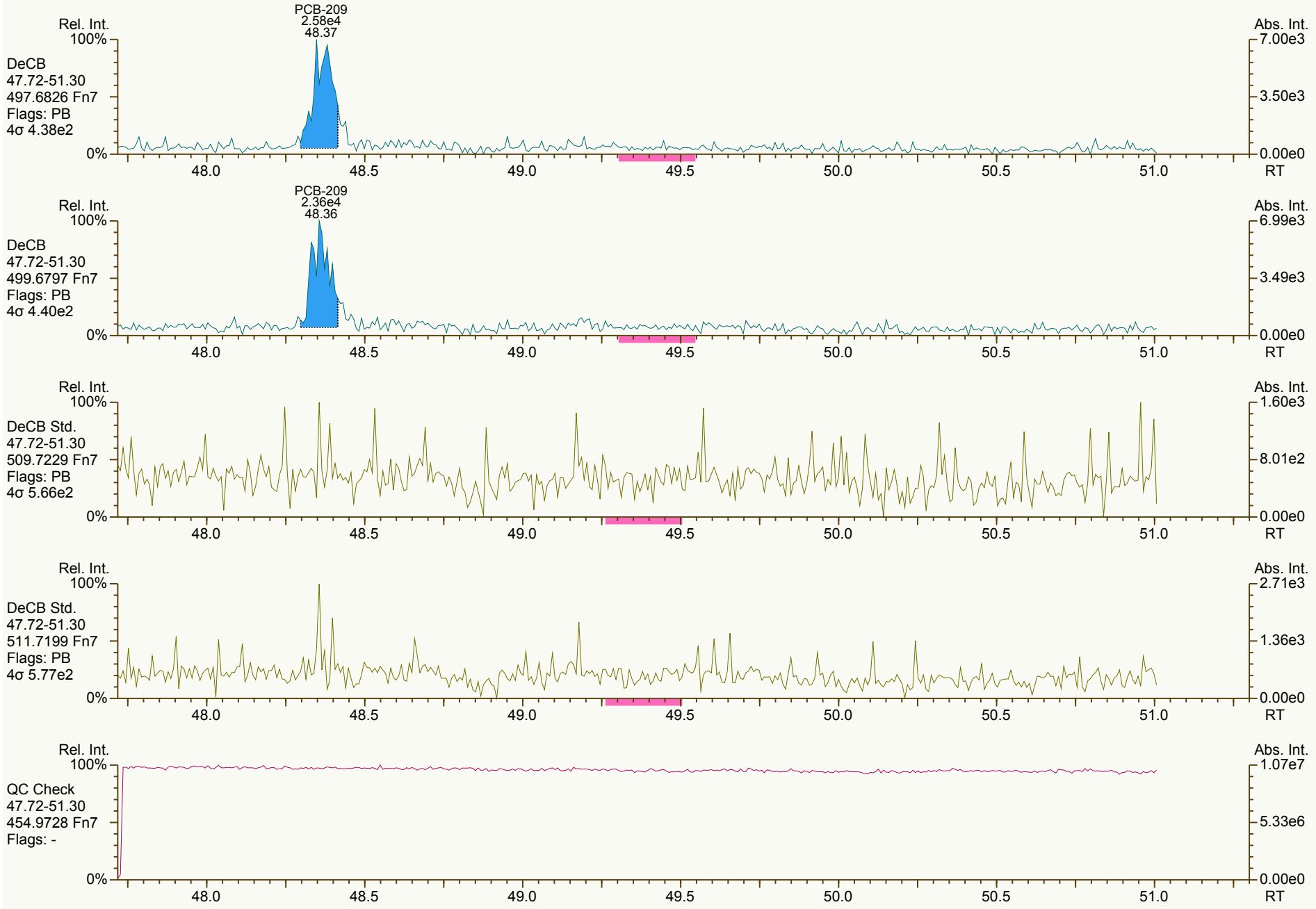
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 4285, 8285 scc: 961-294 *Revised: 27-Jul-2012 14:18 (LKB) Printed: 28-Jul-2012 10:41 Page 21 of 21*

Datafile: 121213X05 **Client ID: 0_10420_OPR001** **Wt/Vol: 1 µL** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121213_PCB_XC**

Acquired: 13 Dec 2012 17:03:35 **Lab ID: OPR1_10420_PCB** **J-level: 10 pg/uL** **Nominal ES spike: 100 pg**

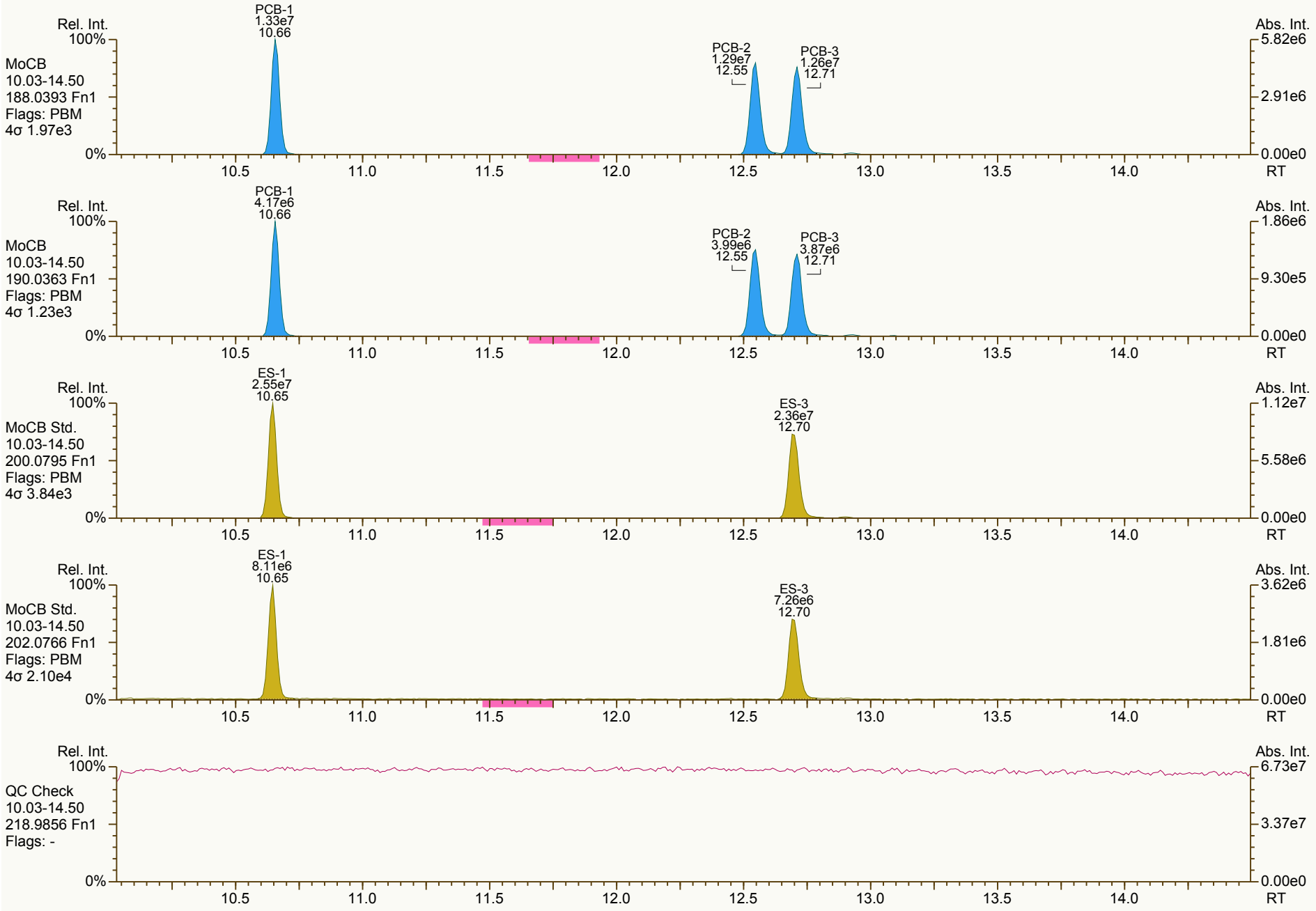
OPR1_10420_PCB Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.53		1.0006	1.0006	0	1.26E+07	0.78	1.13	52.9	6.92E+03	0.282
PCB-81 344'5-TeCB	30.06		1.0006	1.0006	0	1.21E+07	0.76	1.13	52.6	6.92E+03	0.321
PCB-105 233'44'-PeCB	33.47		1.0007	1.0007	0	1.02E+07	0.61	1.09	54.5	1.96E+03	0.109
PCB-114 2344'5-PeCB	32.94		1.0007	1.0007	0	1.09E+07	0.61	1.16	55	1.96E+03	0.1
PCB-118 23'44'5-PeCB	32.49		1.0007	1.0007	0	1.05E+07	0.62	1.11	54.5	1.96E+03	0.102
PCB-123 23'44'5'-PeCB	32.21		1.0006	1.0006	0	1.10E+07	0.61	1.19	55.7	1.96E+03	0.0987
PCB-126 33'44'5-PeCB	36.08		1.0005	1.0005	0	9.58E+06	0.63	1.06	52	2.10E+03	0.121
PCB-156/157 ...-HxCB	38.60	C	1.0005	1.0005	0	1.81E+07	1.21	1.11	97.2	2.56E+03	0.187
PCB-167 23'44'55'-HxCB	37.64		1.0005	1.0006	+0.2	9.65E+06	1.19	1.14	49	2.56E+03	0.133
PCB-169 33'44'55'-HxCB	41.32		1.0004	1.0004	0	8.50E+06	1.20	1.11	48.3	2.56E+03	0.161
PCB-189 233'44'55'-HpCB	43.43		1.0004	1.0004	0	8.62E+06	1.03	1.06	51.6	1.39E+03	0.0874
									Recv.		
ES PCB-77	30.52		1.3599	1.3606	+1.3	2.09E+07	0.81	1.35	91.8 %	30%	140%
ES PCB-81	30.05		1.3390	1.3397	+1.3	2.04E+07	0.79	1.29	93.5 %	30%	140%
ES PCB-105	33.45		1.1826	1.1829	+0.6	1.71E+07	1.62	1.23	100 %	30%	140%
ES PCB-114	32.92		1.1639	1.1641	+0.4	1.71E+07	1.63	1.25	99.2 %	30%	140%
ES PCB-118	32.47		1.1481	1.1483	+0.4	1.75E+07	1.56	1.28	98.6 %	30%	140%
ES PCB-123	32.19		1.1383	1.1385	+0.4	1.66E+07	1.59	1.22	98.6 %	30%	140%
ES PCB-126	36.06		1.2746	1.2752	+1.3	1.73E+07	1.61	1.20	104 %	30%	140%
ES PCB-156/157	38.58		1.0994	1.0998	+0.9	3.35E+07	1.32	1.45	89.8 %	30%	140%
ES PCB-167	37.62		1.0720	1.0725	+1.1	1.73E+07	1.29	1.49	90.4 %	30%	140%
ES PCB-169	41.30		1.1769	1.1774	+1.2	1.58E+07	1.30	1.40	87.7 %	30%	140%
ES PCB-189	43.41		0.9611	0.9612	+0.3	1.58E+07	1.03	1.49	99.9 %	30%	140%
SS PCB-28	20.87		0.9298	0.9303	+0.6	2.90E+07	1.12	1.07	105 %	40%	125%
SS PCB-111	30.56		1.0805	1.0807	+0.4	1.68E+07	1.61	1.01	101 %	40%	125%
SS PCB-178	35.46		1.0108	1.0110	+0.4	9.75E+06	1.05	0.63	98.8 %	40%	125%
CS PCB-28	20.87		0.9298	0.9303	+0.6	2.90E+07	1.12	1.76	97.3 %	40%	125%
CS PCB-111	30.56		1.0805	1.0807	+0.4	1.68E+07	1.61	1.23	99.2 %	40%	125%
CS PCB-178	35.46		1.0108	1.0110	+0.4	9.75E+06	1.05	0.74	103 %	40%	125%
JS PCB-9	14.74					2.84E+07	1.58				
JS PCB-52	22.43					1.69E+07	0.79				
JS PCB-101	28.28					1.38E+07	1.65				
JS PCB-138	35.08					1.28E+07	1.26				
JS PCB-194	45.16					1.06E+07	0.92				

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\OPR1_10420_PCB.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 176-130 *PKD: n/a Printed: 14-Dec-2012 11:39 Page 1 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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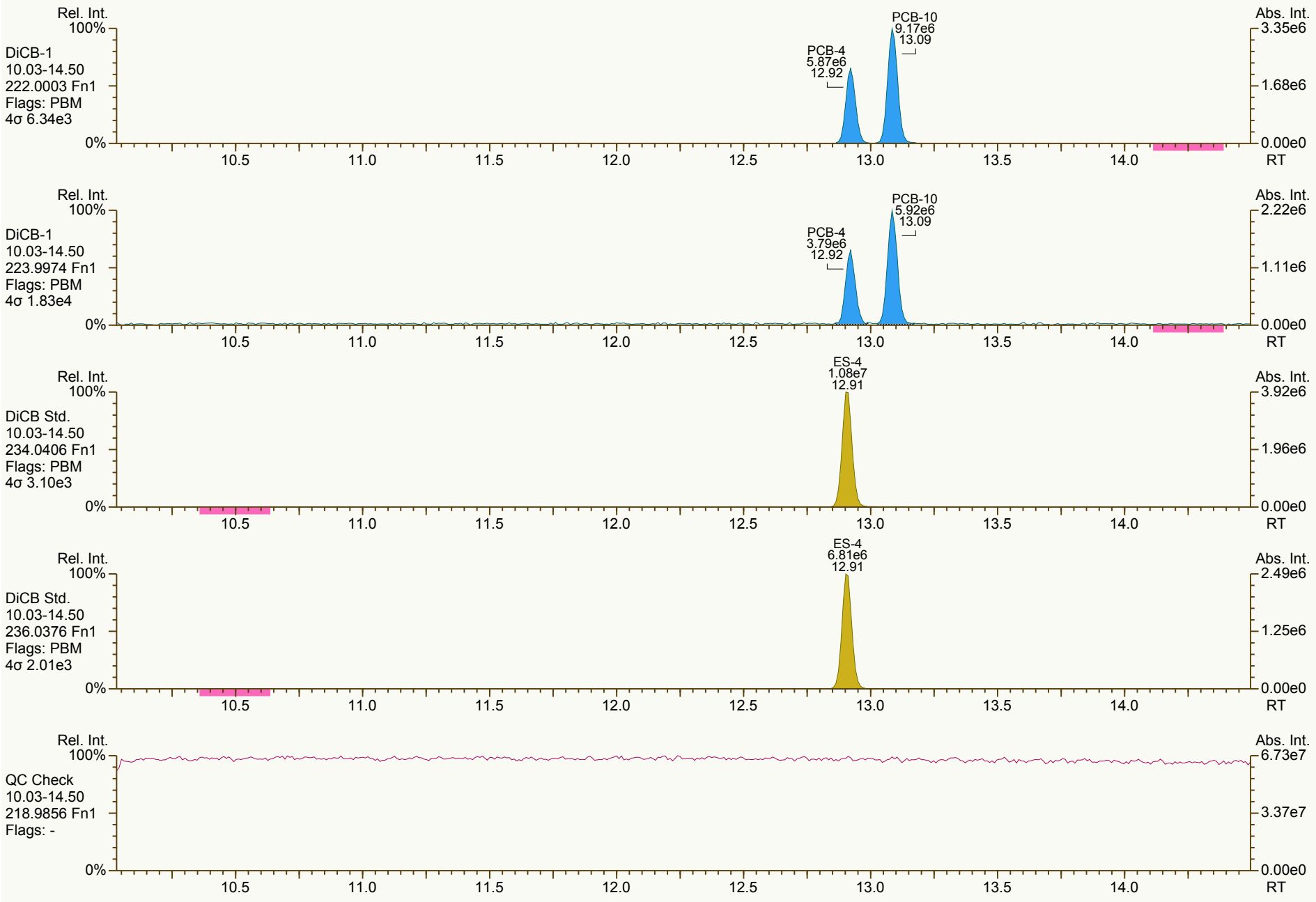
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4553, 9208 scc: 176-130 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:39 Page 2 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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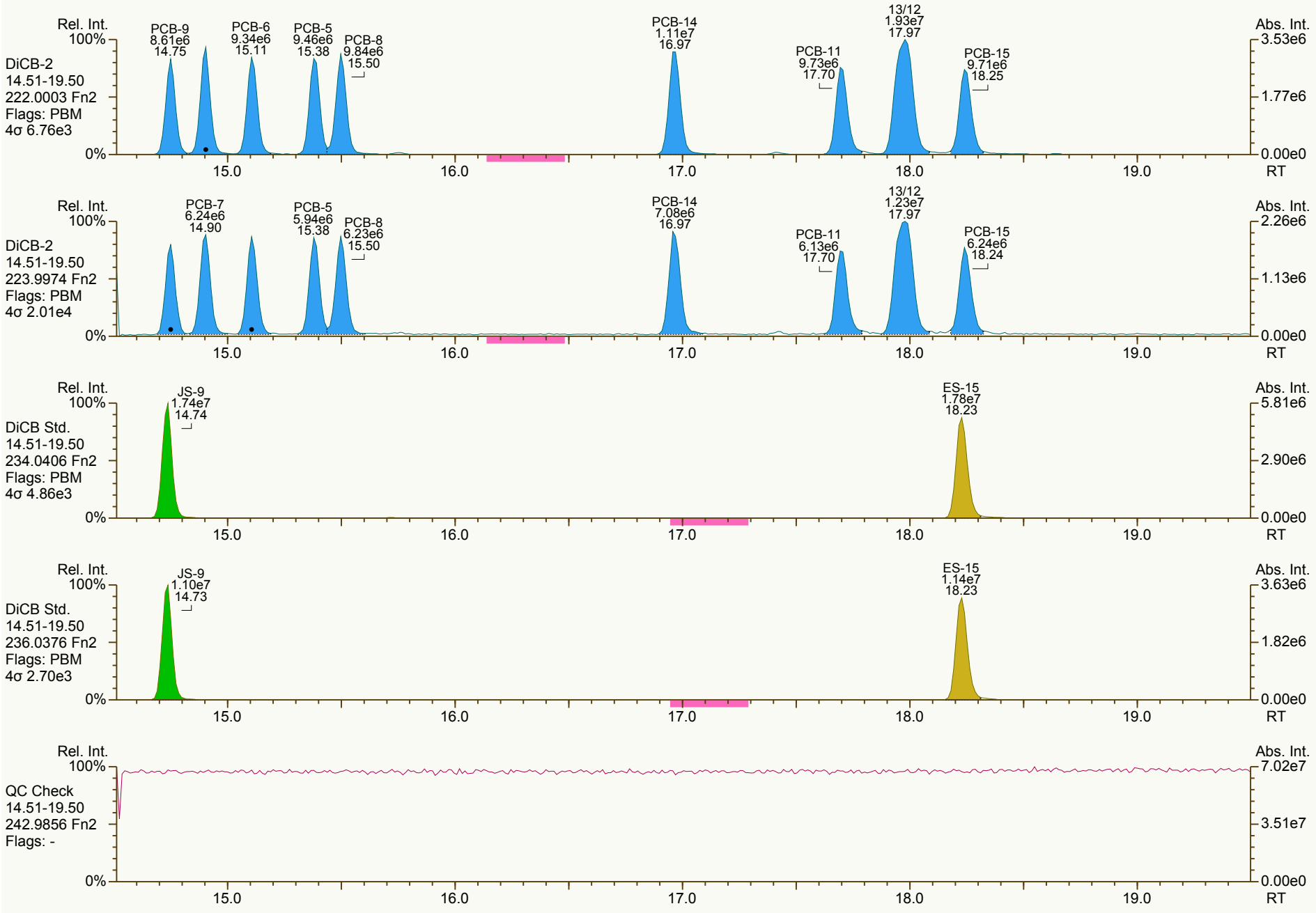
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8481, 9826 scc: 176-130 *Revised: 14-Dec-2012 09:54 (LKB) Printed: 14-Dec-2012 11:39 Page 3 of 22*

SGS-AP ID: OPR1_10420_PCB | **Sample ID: 0_10420_OPR001** | **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 | **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** | **User: LKB Datafile: 121213X05**



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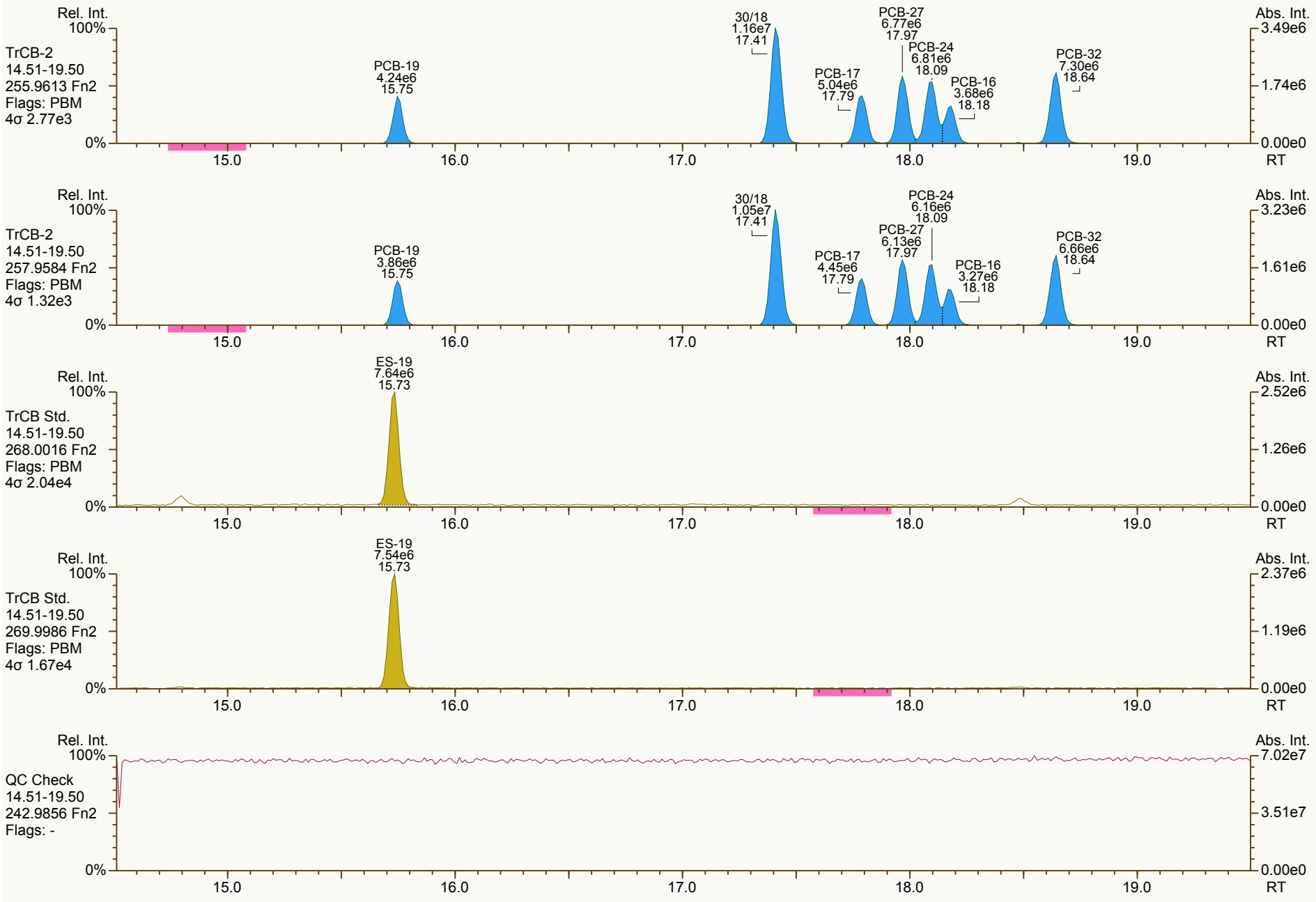
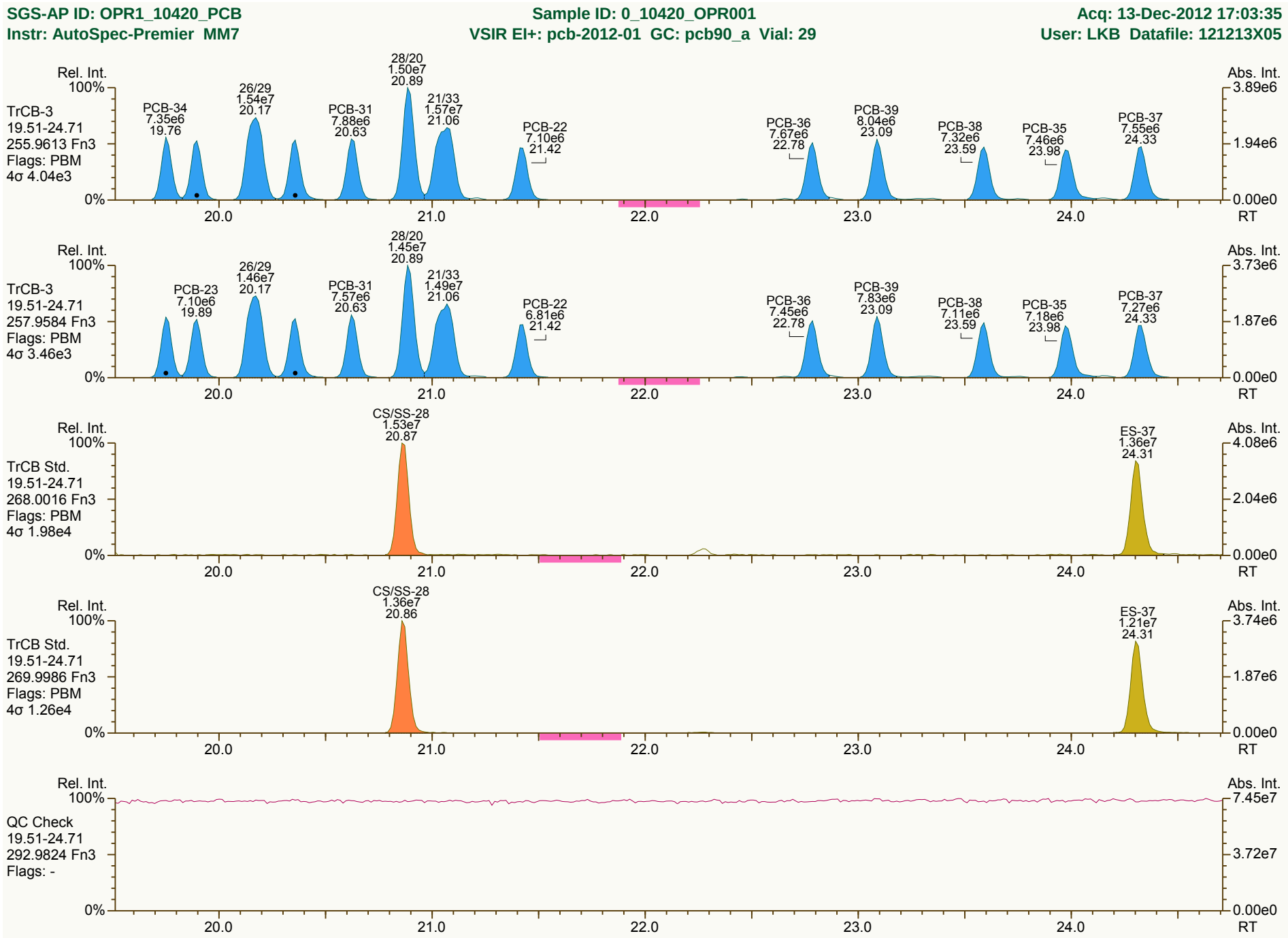
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3083, 1098 scc: 176-130 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:39 Page 4 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\OPR1_10420_PCB.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9651, 9107 scc: 176-130 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:39 Page 5 of 22*


SGS-AP ID: OPR1_10420_PCB
Sample ID: 0_10420_OPR001
Acq: 13-Dec-2012 17:03:35
Instr: AutoSpec-Premier MM7
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29
User: LKB Datafile: 121213X05
Rel. Int.
Abs. Int.
TrCB-3
19.51-24.71
255.9613 Fn3
Flags: PBM
4σ 4.04e3
PCB-34 7.35e6 19.76
26/29 1.54e7 20.17
PCB-31 7.88e6 20.63
28/20 1.50e7 20.89
21/33 1.57e7 21.06
PCB-22 7.10e6 21.42
PCB-36 7.67e6 22.78
PCB-39 8.04e6 23.09
PCB-38 7.32e6 23.59
PCB-35 7.46e6 23.98
PCB-37 7.55e6 24.33
TrCB-3
19.51-24.71
257.9584 Fn3
Flags: PBM
4σ 3.46e3
PCB-23 7.10e6 19.89
26/29 1.46e7 20.17
PCB-31 7.57e6 20.63
28/20 1.45e7 20.89
21/33 1.49e7 21.06
PCB-22 6.81e6 21.42
PCB-36 7.45e6 22.78
PCB-39 7.83e6 23.09
PCB-38 7.11e6 23.59
PCB-35 7.18e6 23.98
PCB-37 7.27e6 24.33
TrCB Std.
19.51-24.71
268.0016 Fn3
Flags: PBM
4σ 1.98e4
CS/SS-28 1.53e7 20.87
ES-37 1.36e7 24.31
TrCB Std.
19.51-24.71
269.9986 Fn3
Flags: PBM
4σ 1.26e4
CS/SS-28 1.36e7 20.86
ES-37 1.21e7 24.31
QC Check
19.51-24.71
292.9824 Fn3
Flags: -
100%
0%
20.0
21.0
22.0
23.0
24.0
RT
Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\OPR1_10420_PCB.utp_res, saved 14-Dec-2012 11:10 (LKB)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2972, 6713 scc: 176-130
Revised: 14-Dec-2012 10:04 (LKB) Printed: 14-Dec-2012 11:39 Page 6 of 22

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



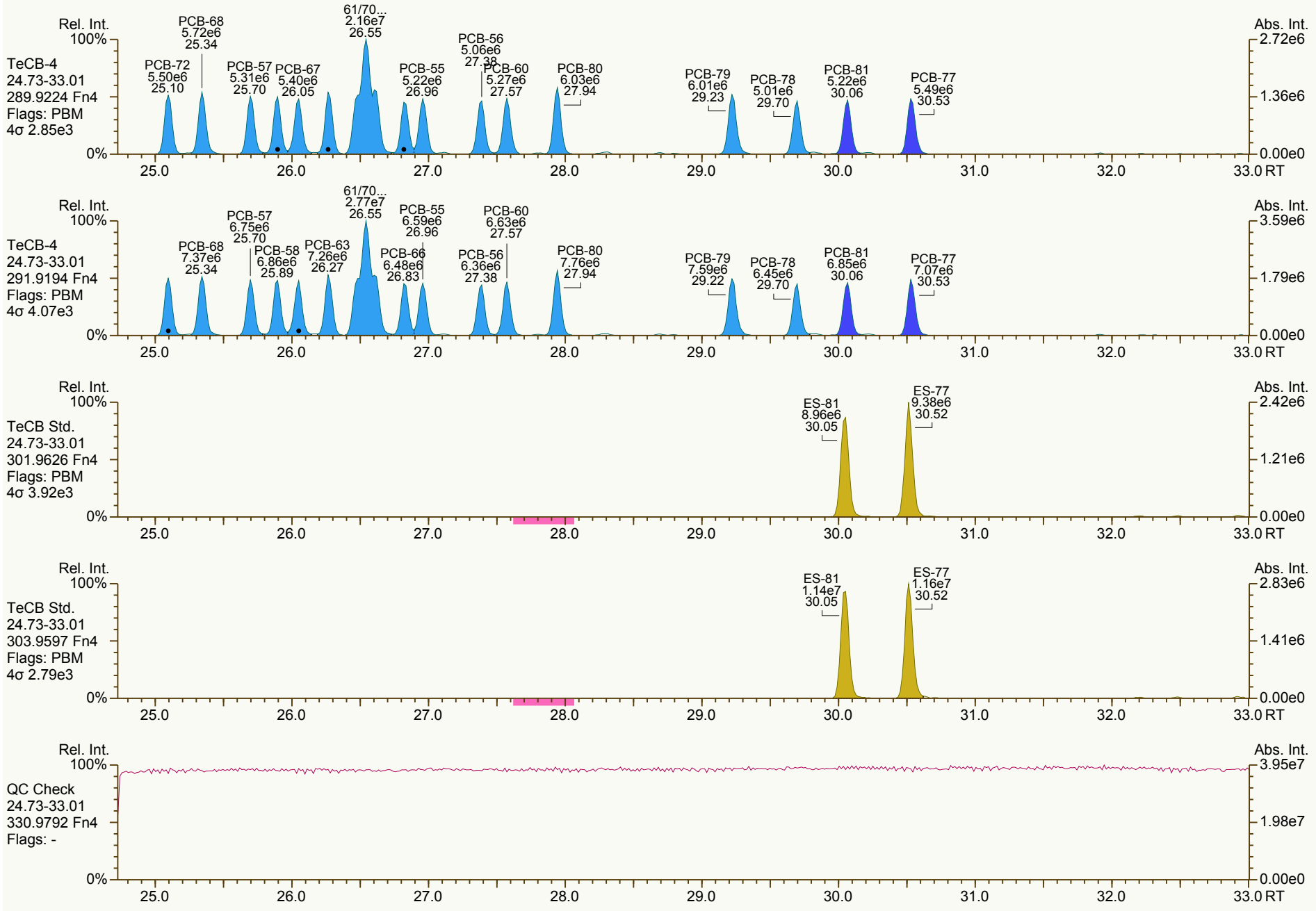
SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\OPR1_10420_PCB.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4934, 9608 scc: 176-130 *Revised: 14-Dec-2012 10:04 (LKB) Printed: 14-Dec-2012 11:39 Page 8 of 22*

SGS-AP ID: OPR1_10420_PCB | **Sample ID: 0_10420_OPR001** | **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 | **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** | **User: LKB Datafile: 121213X05**



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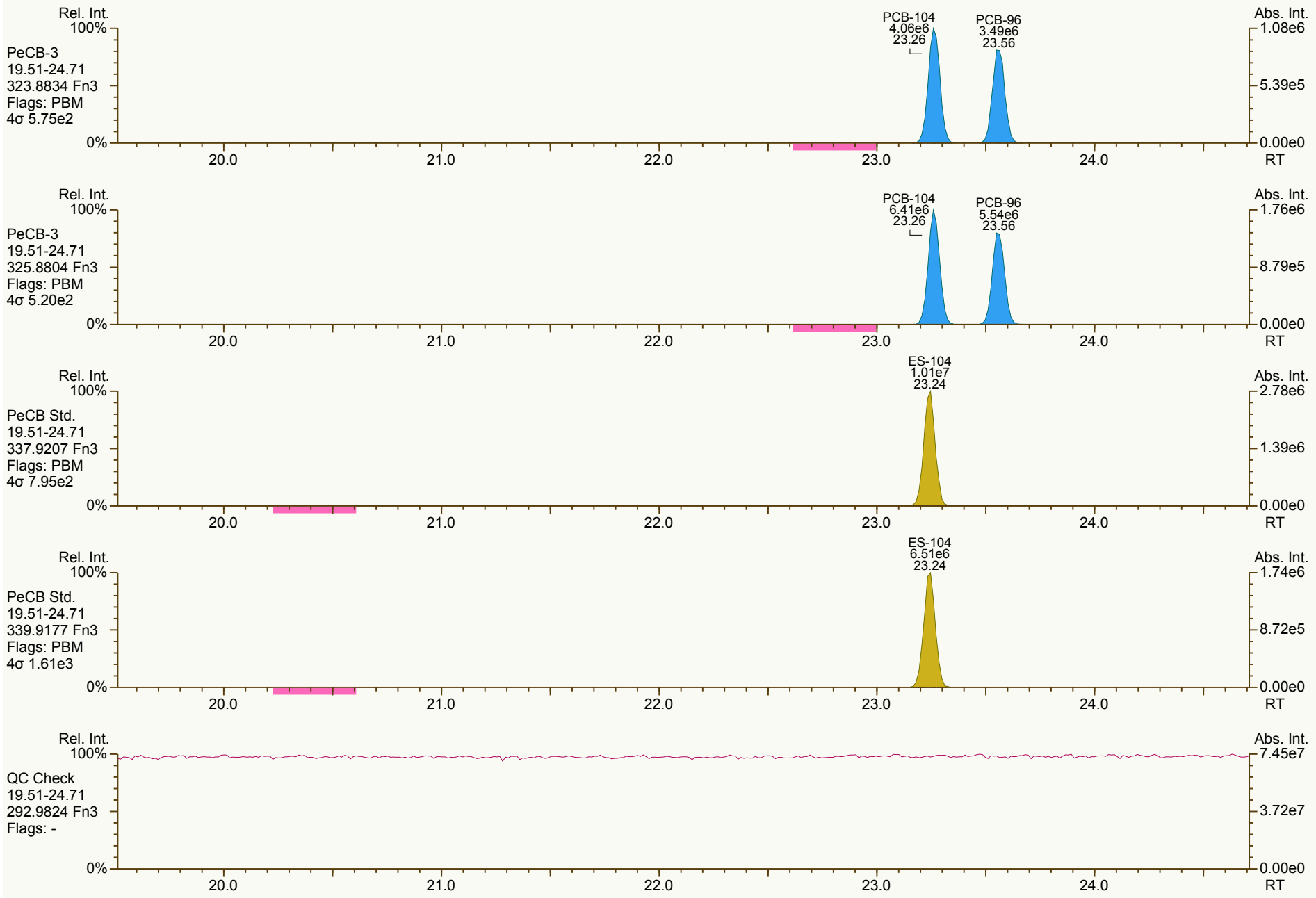
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0438, 4612 scc: 176-130 *Revised: 14-Dec-2012 10:05 (LKB) Printed: 14-Dec-2012 11:39 Page 9 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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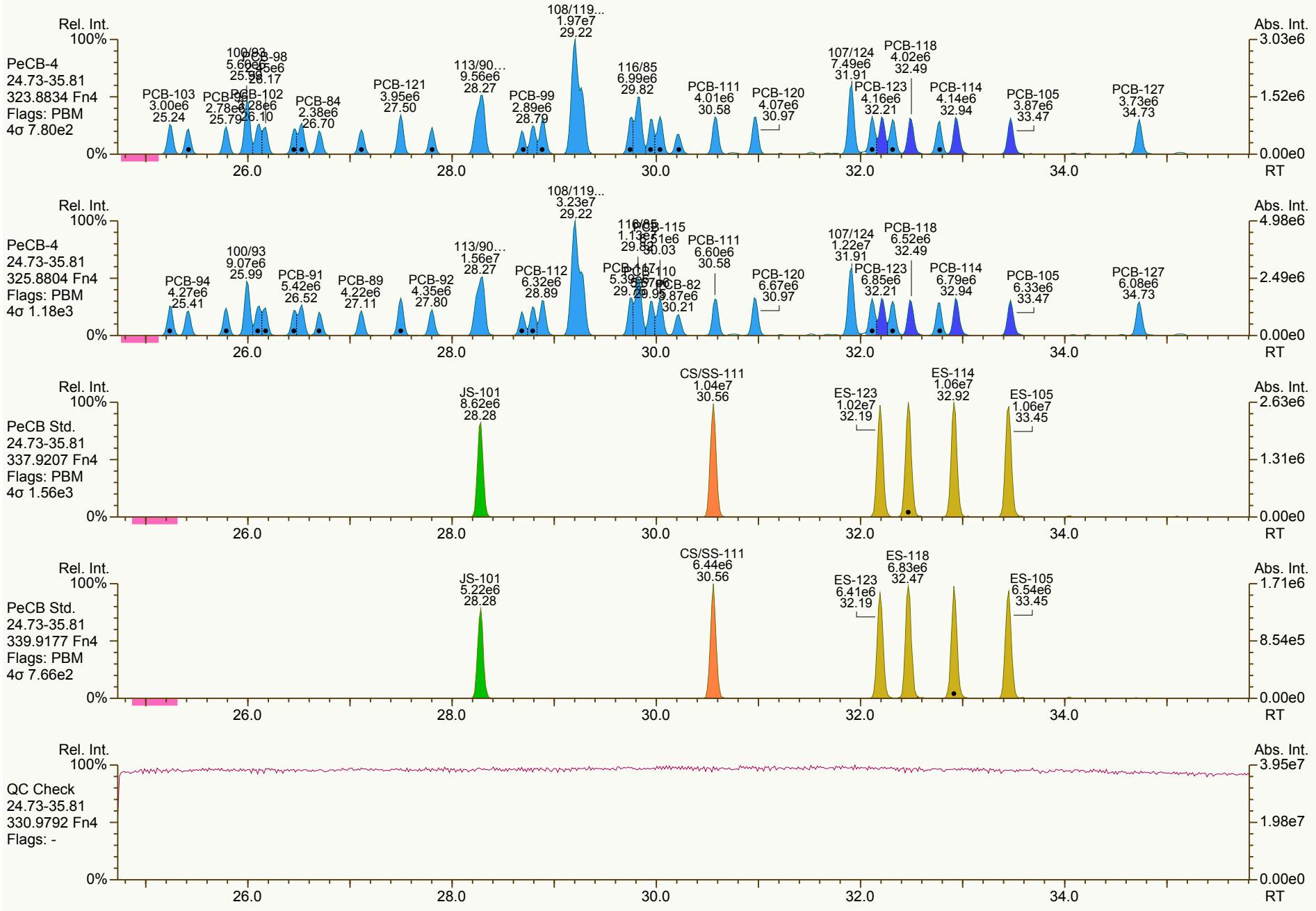
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3494, 0945 scc: 176-130 *Revised: 14-Dec-2012 10:05 (LKB) Printed: 14-Dec-2012 11:39 Page 10 of 22*

SGS-AP ID: OPR1_10420_PCB | **Sample ID: 0_10420_OPR001** | **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 | **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** | **User: LKB Datafile: 121213X05**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8535, 2795 scc: 176-130 *Revised: 14-Dec-2012 10:05 (LKB) Printed: 14-Dec-2012 11:39 Page 11 of 22*

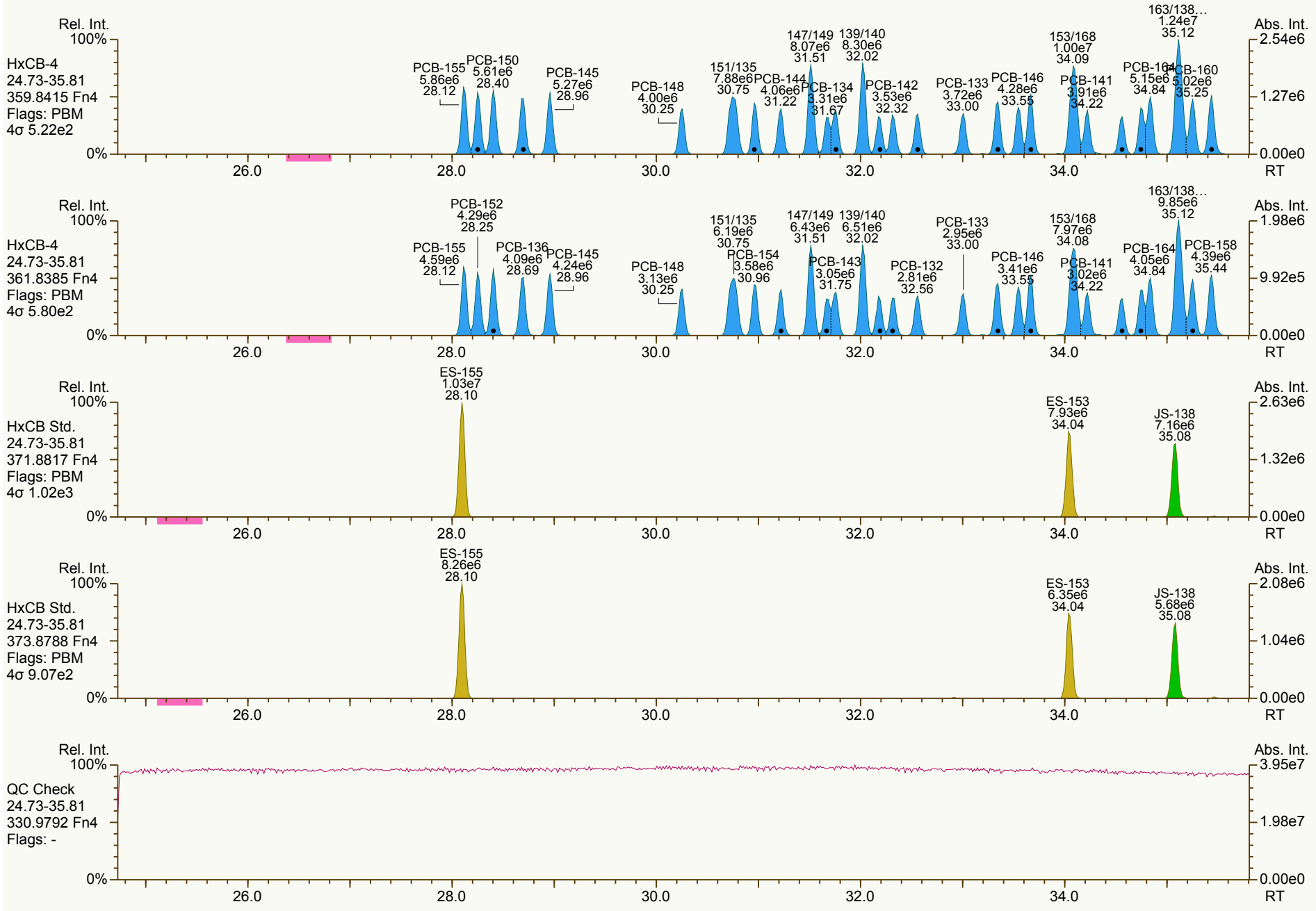
SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\OPR1_10420_PCB.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0151, 8751 scc: 176-130 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:39 Page 12 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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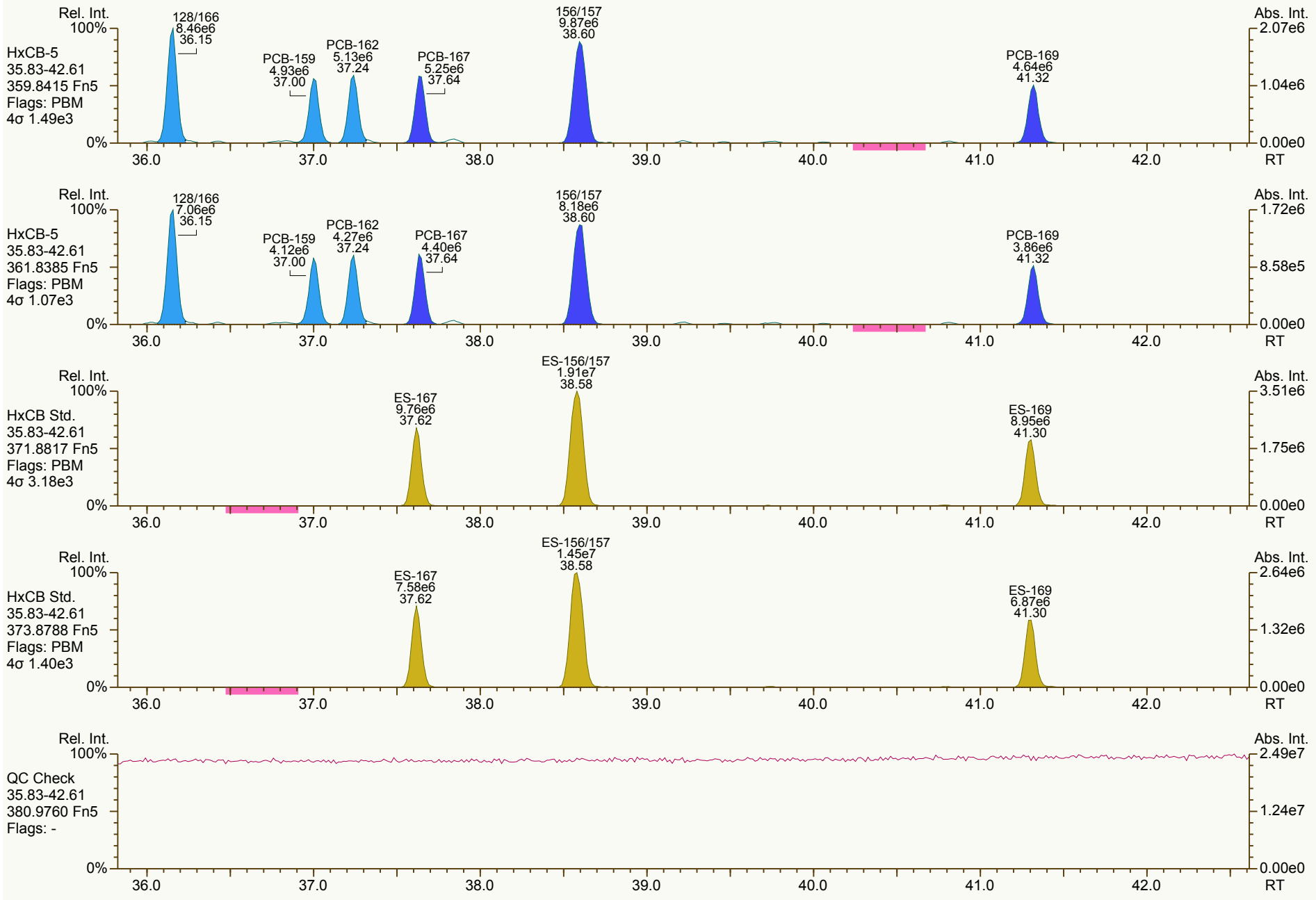
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5529, 9099 scc: 176-130 *Revised: 14-Dec-2012 10:05 (LKB) Printed: 14-Dec-2012 11:39 Page 13 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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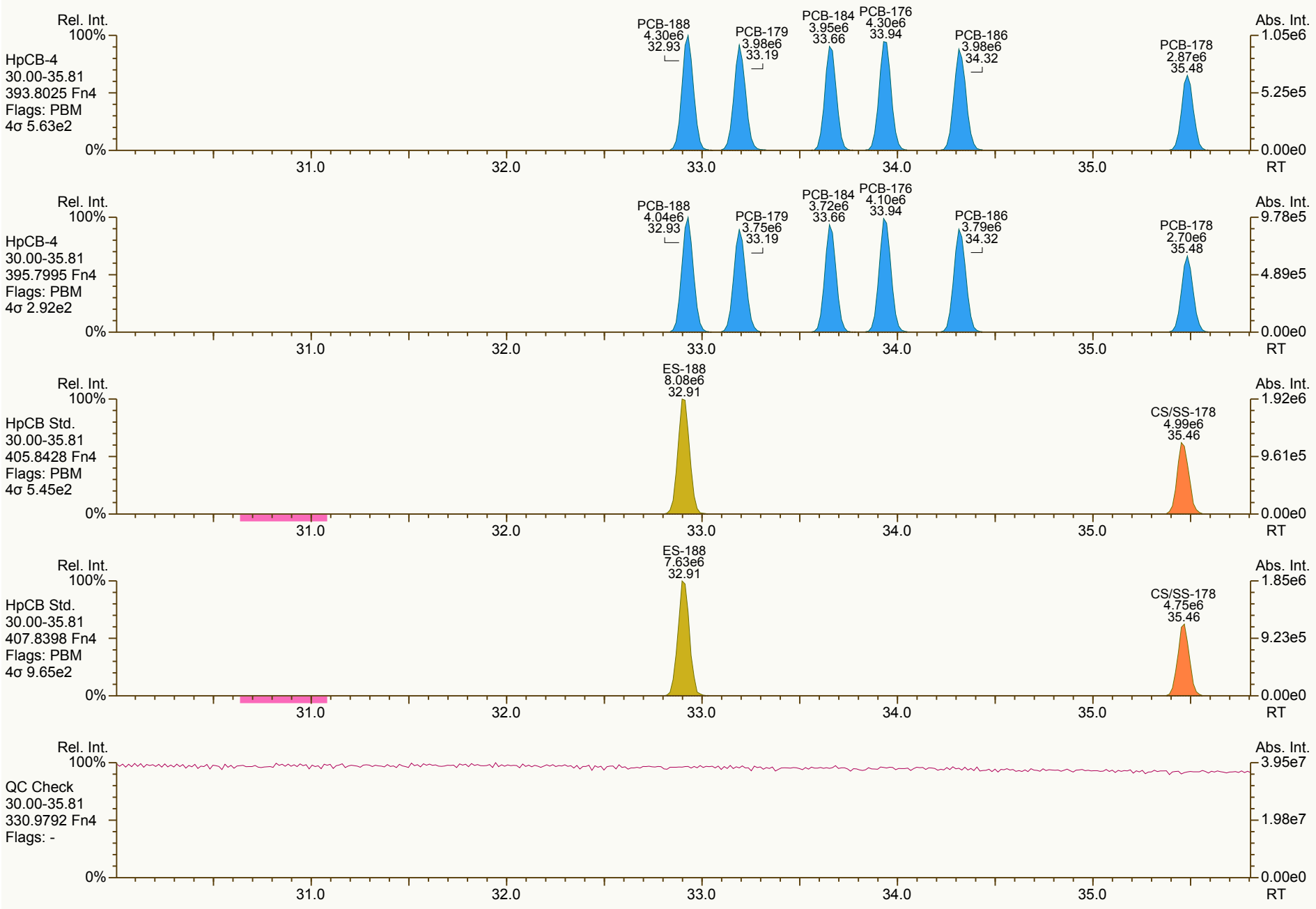
SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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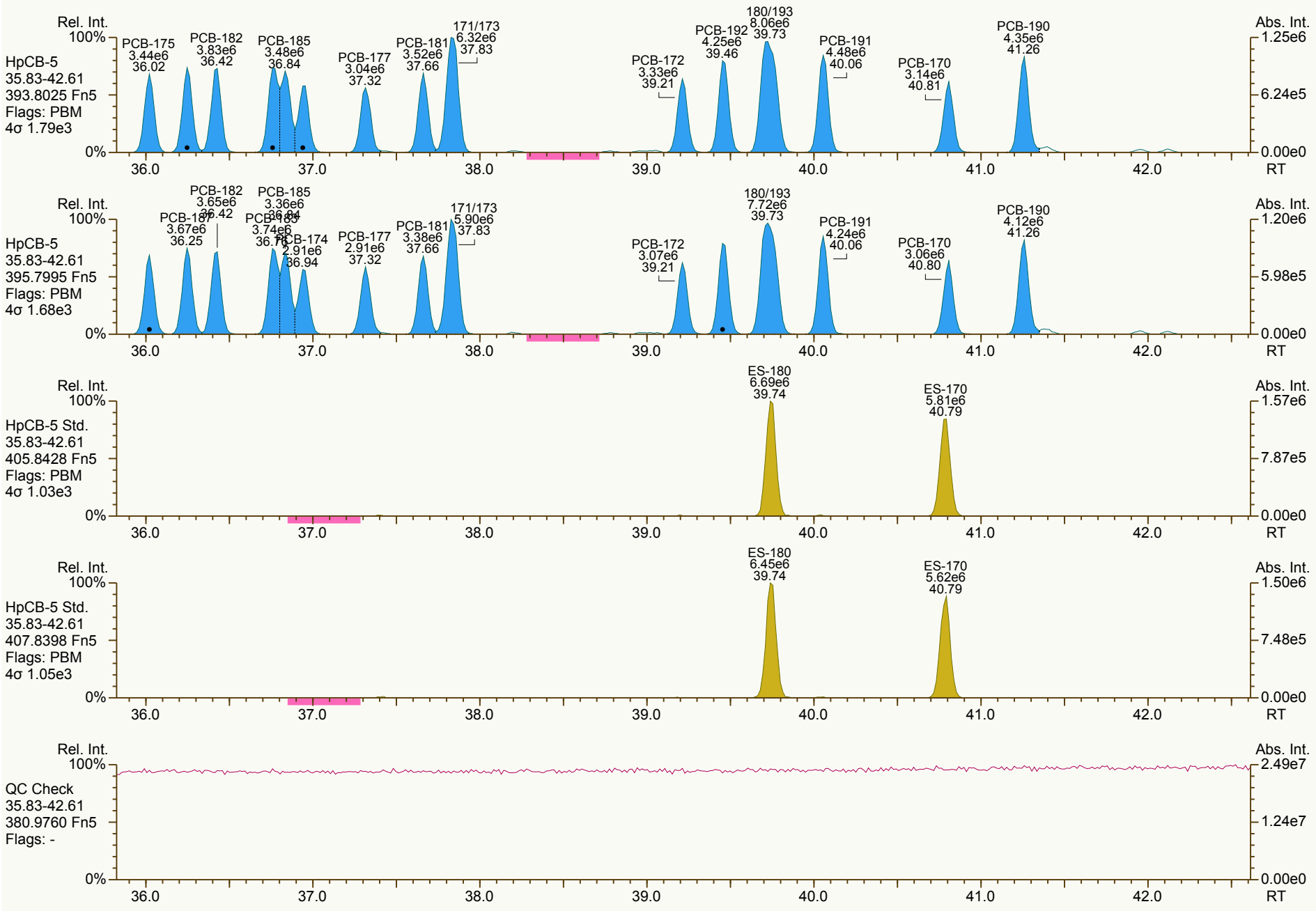
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9393, 0858 scc: 176-130 *Revised: 14-Dec-2012 10:02 (LKB) Printed: 14-Dec-2012 11:39 Page 15 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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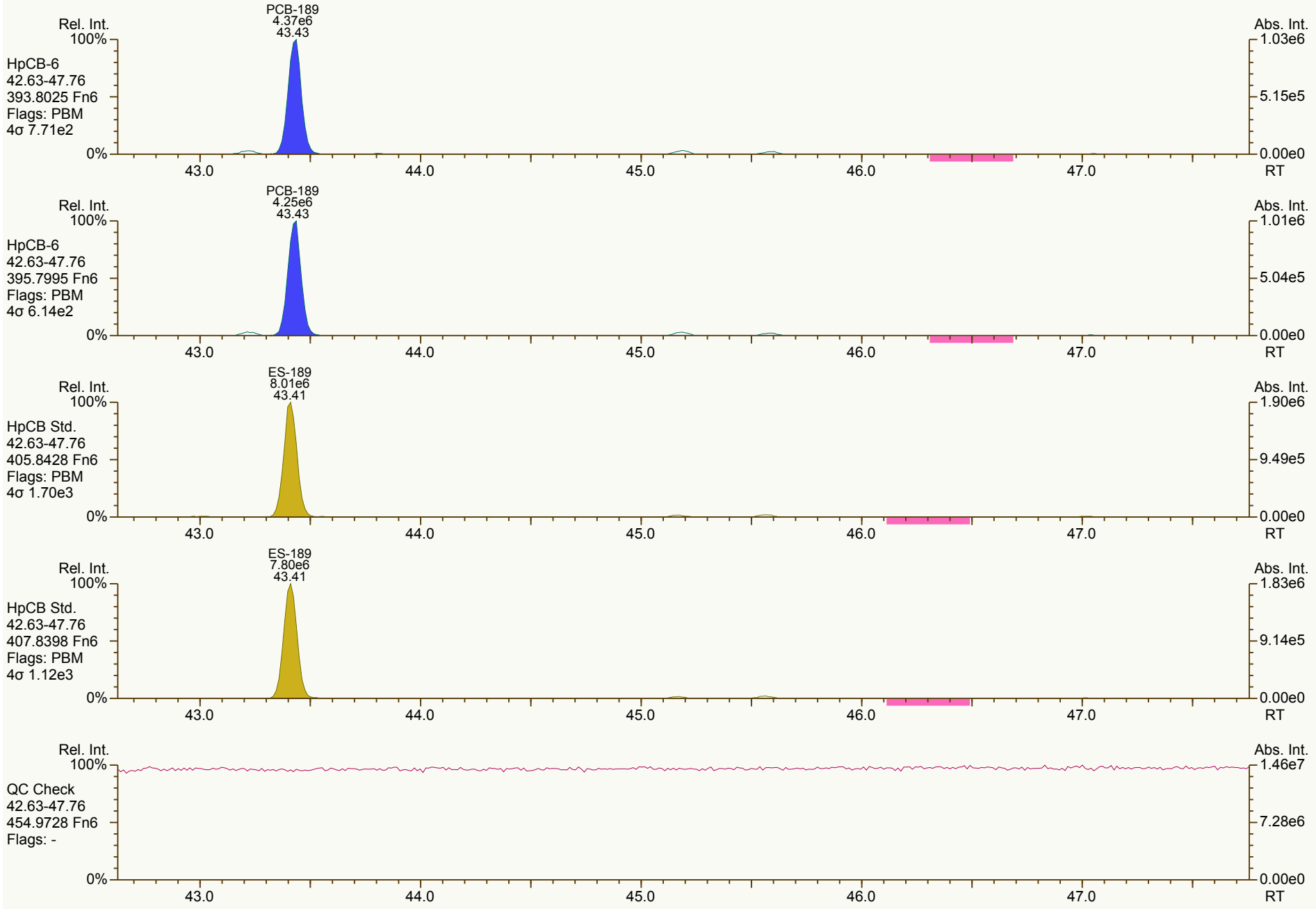
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0665, 6947 scc: 176-130 *PKD: 14-Dec-2012 10:03 Printed: 14-Dec-2012 11:39 Page 16 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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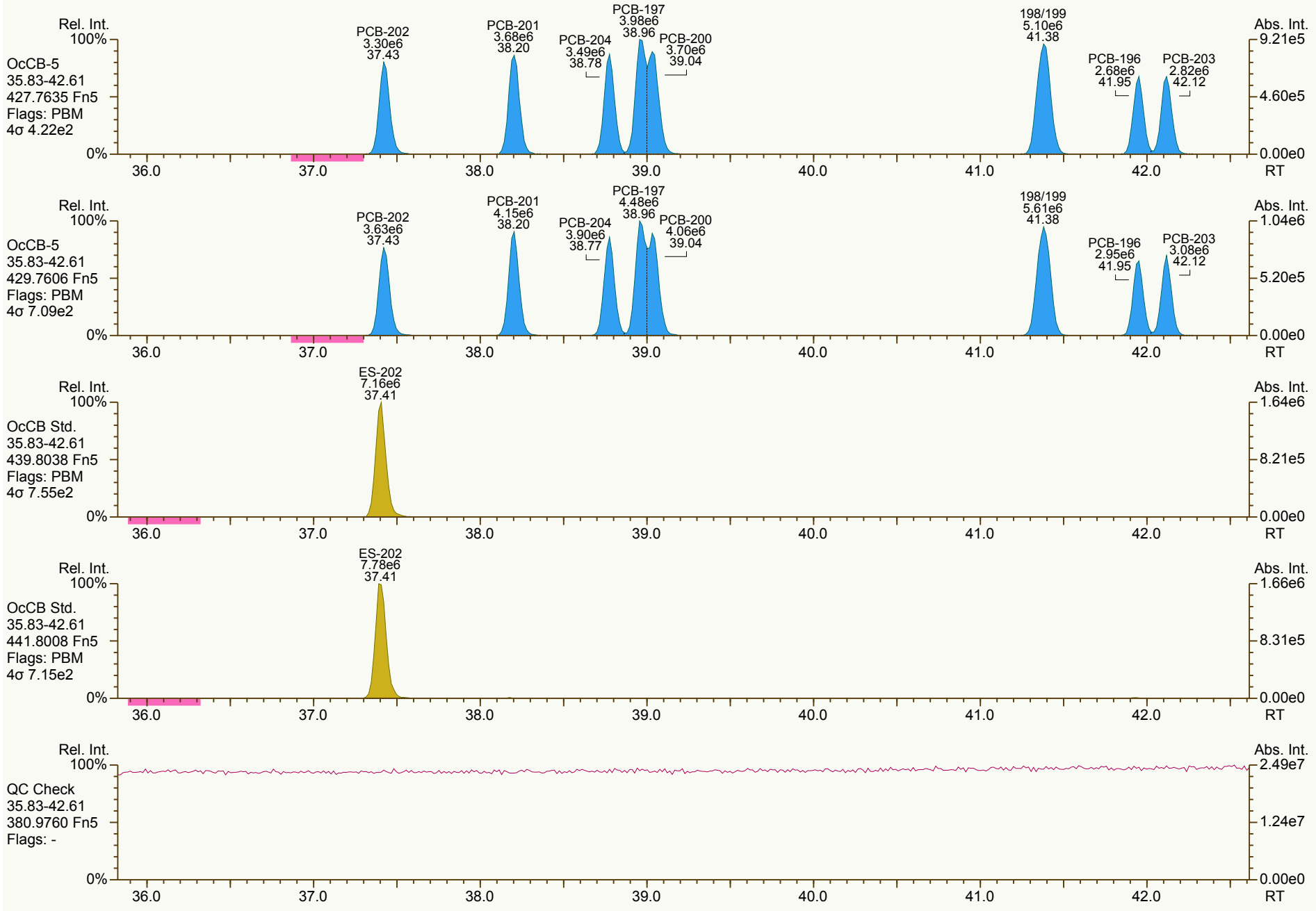
SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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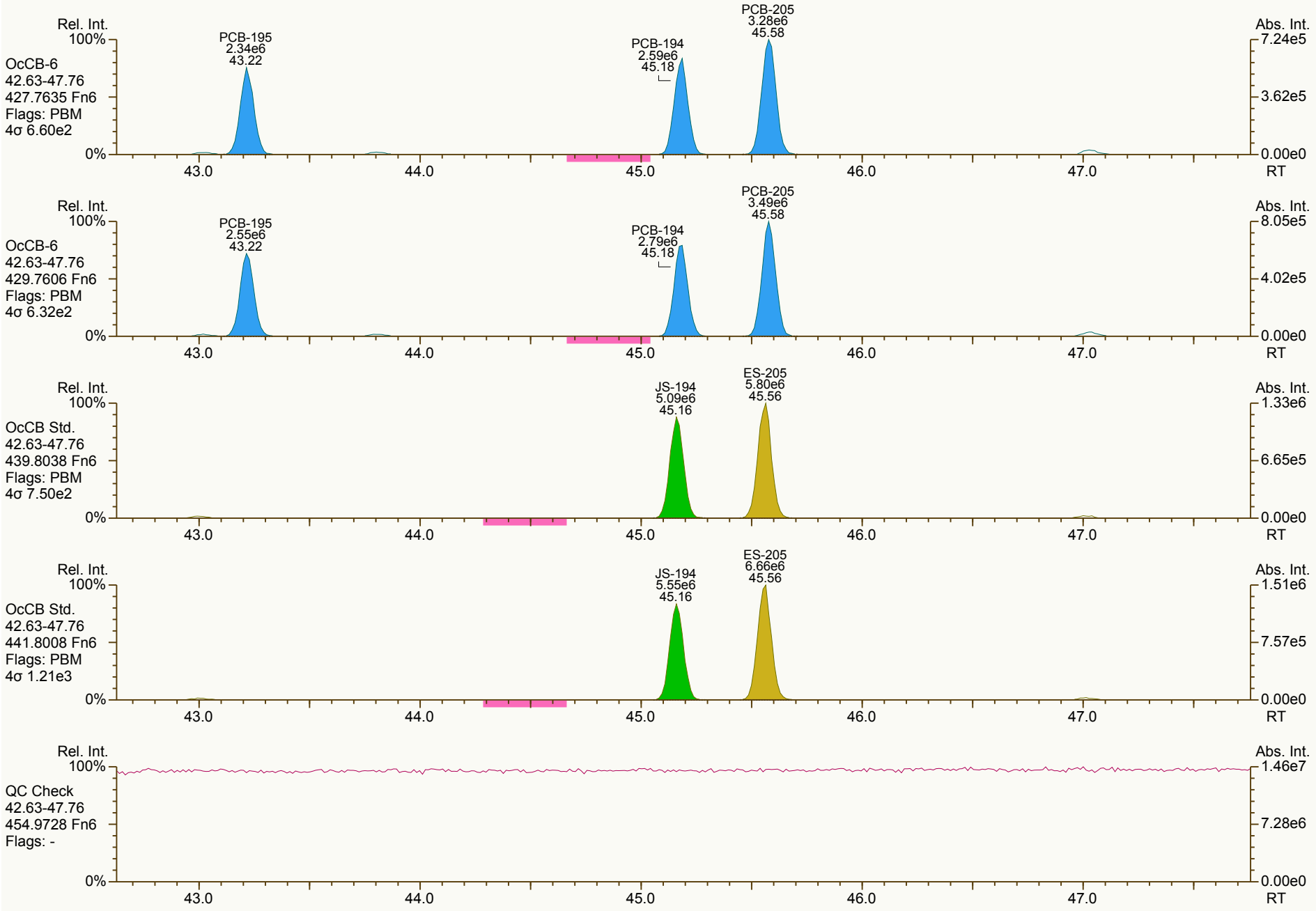
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2975, 4621 scc: 176-130 *PKD: 14-Dec-2012 10:03 Printed: 14-Dec-2012 11:39 Page 18 of 22*

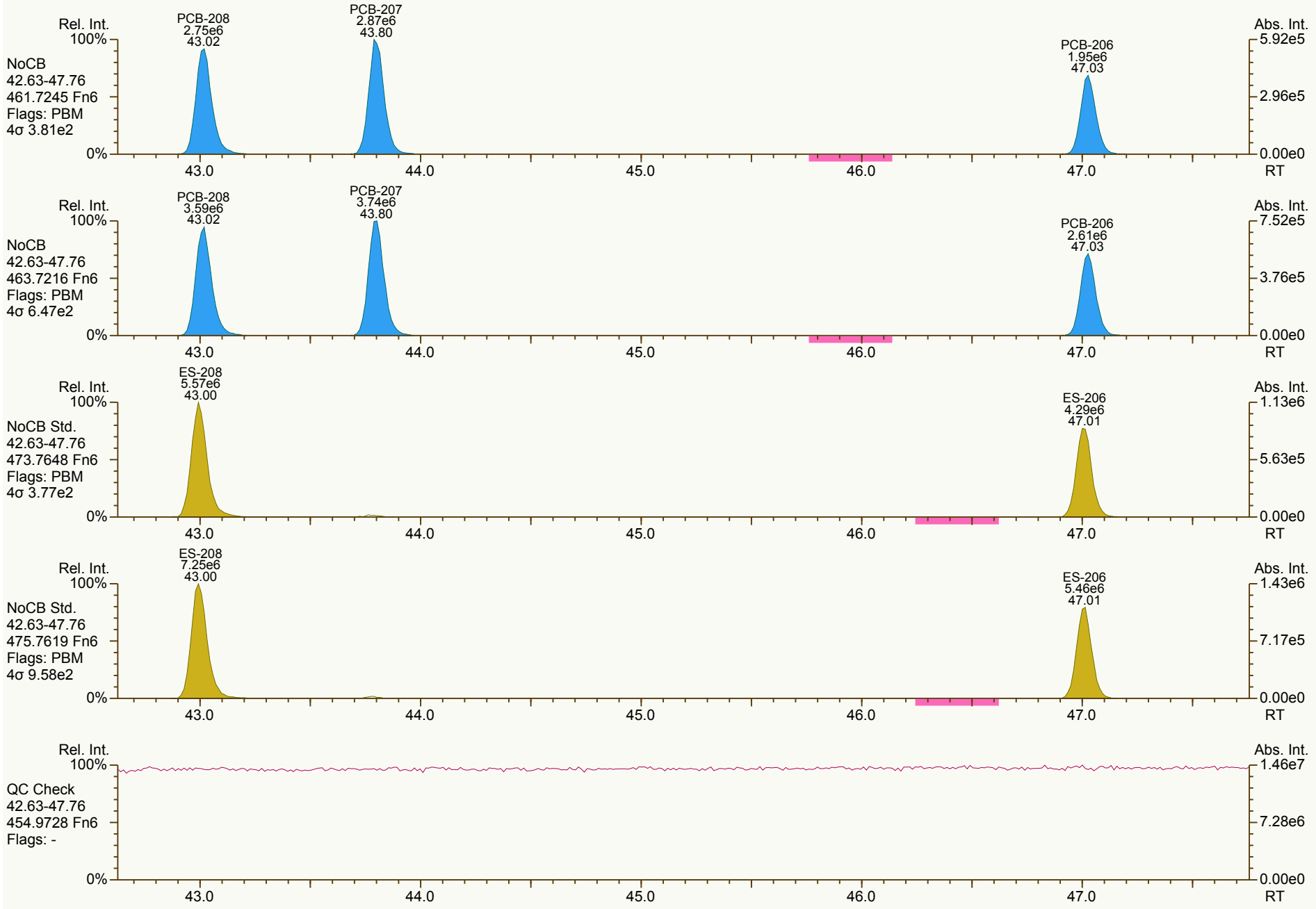
SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\OPR1_10420_PCB.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4522, 4153 scc: 176-130 *PKD: 14-Dec-2012 10:03 Printed: 14-Dec-2012 11:39 Page 19 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



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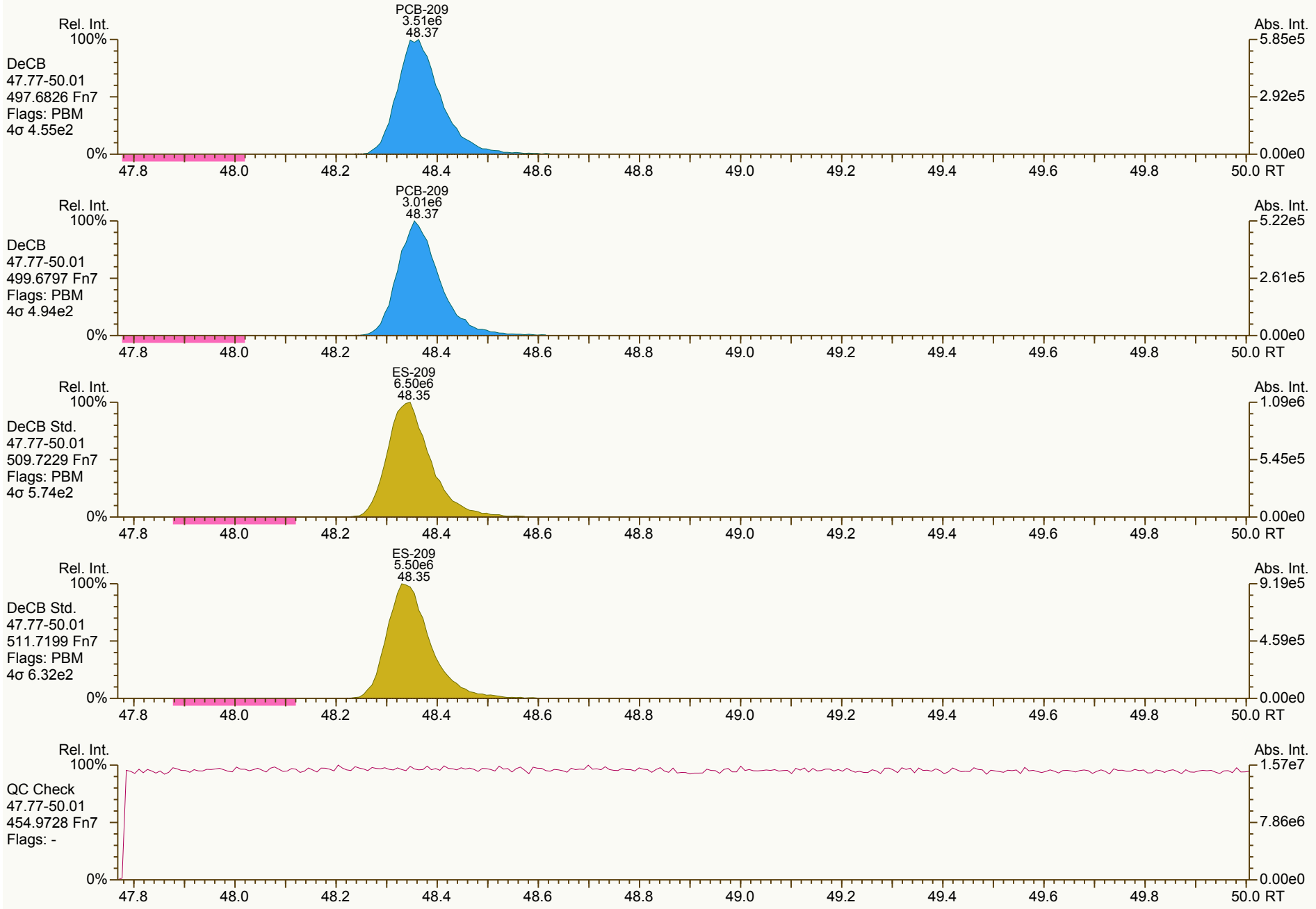
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1394, 6068 scc: 176-130 *PKD: 14-Dec-2012 10:03 Printed: 14-Dec-2012 11:39 Page 20 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



Results: P:\A4900_A4999\A4908\A4908_10420 PCB\Resources\OPR1_10420_PCB.utp_res, saved 14-Dec-2012 11:10 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5280, 0852 scc: 176-130 *Revised: 14-Dec-2012 10:04 (LKB) Printed: 14-Dec-2012 11:39 Page 21 of 22*

SGS-AP ID: OPR1_10420_PCB **Sample ID: 0_10420_OPR001** **Acq: 13-Dec-2012 17:03:35**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 29** **User: LKB Datafile: 121213X05**



17 December 2012

Cindy Fields
ANCHOR QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

Ph.: 206-903-3394
Email: cfields@anchorqea.com

Subject: Certificate of Results

Dear Cindy;

Attached to this narrative are the analytical results you requested on the samples submitted for the determination of polychlorinated biphenyl congeners. The insert below summarizes the relevant information pertaining to your project. In particular, QC annotations bring to your attention specific analytical observations and assessments made during the sample handling and data interpretation phases. Results reported relate only to the items tested.

Project Information Summary	When applicable, see QC Annotations for details
Client Project No.	110730-02.01
AP Project #	**A4909**
Analytical Protocol	Method 1668A
No. Samples Submitted	9
No. Samples Analyzed	9
No. Laboratory Method Blanks	1
No. OPRs / Batch CS3	1
No. Outstanding Samples	0
Date Received	20-Nov-2012
Condition Received	good
Temperature upon Receipt (C)	0.2
Extraction within Holding Time	yes
Analysis within Holding Time	yes
Data meet QA/QC Requirements	yes
Exceptions	none
Analytical Difficulties	none

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QC Annotations:

Please see Appendix A & B attached for data qualifier/attribute and lab identifier descriptions which may be contained in the project.

Analytical Perspectives Certification IDs:

SOUTH CAROLINA	99054
ARKANSAS	88-0628
NEW JERSEY-NELAP SECONDARY	NC005
FLORIDA-NELAP PRIMARY	E87608
LOUISIANA	4024
NORTH CAROLINA	37783
WASHINGTON	C2027
NEW YORK	11988
VIRGINIA	460180
MINNESOTA	037-999-448
OREGON	pending
TEXAS	T104704484-10-1
PENNSYLVANIA-NELAP SECONDARY	68-01849

SGS Analytical Perspectives remains committed to serving you in the most effective manner. Should you have any questions or need additional information and technical support, please do not hesitate to contact us.

The management and staff of SGS Analytical Perspectives welcomes customer feedback, both positive and negative, as we continually improve our services. Please visit our web site at www.ultratrace.com and click on the 'Leave Your Feedback Here!' link on the Home Page. Thank you for choosing SGS Analytical Perspectives.

Sincerely,



Heather Steele, Ph.D.
Project Scientist

APPENDIX A: DATA QUALIFIERS / DATA ATTRIBUTES	
>	Indicates high recoveries. Shown with the numeric value at the top of the range.[1]
B	The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
C	Two or more congeners co-elute. In EDDs C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
E	The reported concentration exceeds the calibration range (upper point of the calibration curve).
EMPC	Represents an Estimated Maximum Possible Concentration. EMPC's arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
ETH	Indicates the presence of a diphenyl ether that appears to interfere with the quantitation of a furan. The reported concentration is the maximum.
H/h	If the standard recovery is below the method or SOP specified value "H" is assigned. If the obtained value is less than half the specified value "h" is assigned.[1]
J	Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve).
ND	Indicates a non-detect.
NR	Indicates a value that is not reportable.
PR	Due to interference, the associated congener is poorly resolved.
QI	Indicates the presence of a quantitative interference.
SI	Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.[1]
U	The analyte was not detected. The estimated detection limit (EDL) may be reported for this analyte.
V	The labeled standard recovery was found to be outside of the method control limits.
X	Indicates results reported from reinjection, refractionation, or repeat analyses.
APPENDIX B: LAB ID IDENTIFIERS	
AR	Indicates use of the archived portion of the sample extract.
CU	Indicates a sample that required additional clean-up prior to MS injection/processing.
D	Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
DE	Indicates a dilution performed with the addition of ES (extraction standard) solution.
DUP	Designation for a duplicate sample.
MS	Designation for a matrix spike.
MSD	Designation for a matrix spike duplicate.
RJ	Indicates a reinjection of the sample extract.
S	Indicates a sample split. The number that follows the "S" indicates the split factor.

[1]Denotes data qualifiers/attributes whose use will be phased out over time

Sample ID: Method Blank

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	n/a
Project ID:	110730-02.01	Weight/Volume:	10.00 g	Sample ID:	MB1_10429_PCB_SDS	Date Extracted:	10-Dec-2012
Date Collected:	n/a	% Solids	n/a	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	ND	0.0907			ES PCB-1	71.3
PCB-81 344'5-TeCB	ND	0.0946			ES PCB-3	81.4
PCB-105 233'44'-PeCB	ND	0.0896			ES PCB-4	109
PCB-114 2344'5-PeCB	ND	0.082			ES PCB-15	88.3
PCB-118 23'44'5-PeCB	0.328			J	ES PCB-19	90.8
PCB-123 23'44'5'-PeCB	ND	0.084			ES PCB-37	91.6
PCB-126 33'44'5-PeCB	ND	0.133			ES PCB-54	97.8
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	0.125		C	ES PCB-77	92.1
PCB-167 23'44'55'-HxCB	ND	0.0973			ES PCB-81	90.4
PCB-169 33'44'55'-HxCB	ND	0.111			ES PCB-104	119
PCB-189 233'44'55'-HpCB	ND	0.0916			ES PCB-105	96.3
					ES PCB-114	95.6
TEQs (WHO M/H)					ES PCB-118	96.7
					ES PCB-123	96.8
ND = 0	0.00000983		0.00000983		ES PCB-126	105
ND = 0.5 x DL	0.00833		0.00833		ES PCB-153	99.3
					ES PCB-155	103
					ES PCB-156/157	93.9
					ES PCB-167	94
					ES PCB-169	90.2
					ES PCB-170	97
					ES PCB-180	98.1
					ES PCB-188	102
					ES PCB-189	103
					ES PCB-202	102
					ES PCB-205	101
					ES PCB-206	106
					ES PCB-208	103
					ES PCB-209	115
					CS PCB-28	102
					CS PCB-111	100
					CS PCB-178	104

Checkcode: 150-762-LSD SGS AP PCB 2012 Rev. 1.5 Report Created: 16-Dec-2012 13:36 Analyst: LB

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Sample ID: AQ-SE-03-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	12.30 g	Sample ID:	A4909_10429_PCB_001	Date Extracted:	10-Dec-2012
Date Collected:	12-Nov-2012	% Solids	72.1 %	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	20.2				ES PCB-1	89.8
PCB-81 344'5-TeCB	0.806			J	ES PCB-3	91.9
PCB-105 233'44'-PeCB	47.5				ES PCB-4	115
PCB-114 2344'5-PeCB	2.51				ES PCB-15	95.8
PCB-118 23'44'5-PeCB	89.5				ES PCB-19	92.2
PCB-123 23'44'5'-PeCB	3				ES PCB-37	94.4
PCB-126 33'44'5-PeCB	0.399			J	ES PCB-54	99.9
PCB-156/157 233'44'5/233'44'5'-HxCB	7.38			C	ES PCB-77	96.1
PCB-167 23'44'55'-HxCB	2.78				ES PCB-81	94.5
PCB-169 33'44'55'-HxCB	ND	0.109			ES PCB-104	117
PCB-189 233'44'55'-HpCB	1.52				ES PCB-105	102
					ES PCB-114	101
TEQs (WHO M/H)					ES PCB-118	101
					ES PCB-123	101
ND = 0	0.0468		0.0468		ES PCB-126	112
ND = 0.5 x DL	0.0485		0.0485		ES PCB-153	101
					ES PCB-155	97
					ES PCB-156/157	93.3
					ES PCB-167	95.9
					ES PCB-169	92.5
					ES PCB-170	102
					ES PCB-180	102
					ES PCB-188	103
					ES PCB-189	104
					ES PCB-202	104
					ES PCB-205	95
					ES PCB-206	98.1
					ES PCB-208	103
					ES PCB-209	97.2
					CS PCB-28	108
					CS PCB-111	111
					CS PCB-178	111

Checkcode: 751-947-DBR

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Report Created: 16-Dec-2012 13:37 Analyst: LB

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Sample ID: AQ-SE-04-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	11.08 g	Sample ID:	A4909_10429_PCB_002	Date Extracted:	10-Dec-2012
Date Collected:	12-Nov-2012	% Solids	62.2 %	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	39.3				ES PCB-1	90
PCB-81 344'5-TeCB	1.15				ES PCB-3	92.2
PCB-105 233'44'-PeCB	82.1				ES PCB-4	112
PCB-114 2344'5-PeCB	5.02				ES PCB-15	94.8
PCB-118 23'44'5-PeCB	181				ES PCB-19	89.1
PCB-123 23'44'5'-PeCB	3.67				ES PCB-37	98.1
PCB-126 33'44'5-PeCB	0.737			J	ES PCB-54	92.2
PCB-156/157 233'44'5/233'44'5'-HxCB	8.4			C	ES PCB-77	101
PCB-167 23'44'55'-HxCB	2.7				ES PCB-81	98.5
PCB-169 33'44'55'-HxCB	ND	0.124			ES PCB-104	116
PCB-189 233'44'55'-HpCB	0.747			J	ES PCB-105	103
					ES PCB-114	105
TEQs (WHO M/H)					ES PCB-118	106
					ES PCB-123	105
ND = 0	0.0864		0.0864		ES PCB-126	118
ND = 0.5 x DL	0.0883		0.0883		ES PCB-153	102
					ES PCB-155	98.7
					ES PCB-156/157	96.2
					ES PCB-167	99.2
					ES PCB-169	95.3
					ES PCB-170	104
					ES PCB-180	98.8
					ES PCB-188	104
					ES PCB-189	110
					ES PCB-202	109
					ES PCB-205	97.9
					ES PCB-206	99.4
					ES PCB-208	106
					ES PCB-209	100
					CS PCB-28	94.8
					CS PCB-111	103
					CS PCB-178	103

Checkcode: 109-009-XHJ SGS AP PCB 2012 Rev. 1.5 Report Created: 16-Dec-2012 13:38 Analyst: LB

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Sample ID: AQ-SE-05-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	11.44 g	Sample ID:	A4909_10429_PCB_003	Date Extracted:	10-Dec-2012
Date Collected:	12-Nov-2012	% Solids	68.1 %	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	61.6				ES PCB-1	81.3
PCB-81 344'5-TeCB	2.04				ES PCB-3	87.7
PCB-105 233'44'-PeCB	144				ES PCB-4	117
PCB-114 2344'5-PeCB	8.39				ES PCB-15	95.5
PCB-118 23'44'5-PeCB	290				ES PCB-19	93.2
PCB-123 23'44'5'-PeCB	6.74				ES PCB-37	97.3
PCB-126 33'44'5-PeCB	1.36				ES PCB-54	96.7
PCB-156/157 233'44'5/233'44'5'-HxCB	19.4			C	ES PCB-77	93.4
PCB-167 23'44'55'-HxCB	6.02				ES PCB-81	93.3
PCB-169 33'44'55'-HxCB	ND	0.162			ES PCB-104	119
PCB-189 233'44'55'-HpCB	2.35				ES PCB-105	102
					ES PCB-114	103
TEQs (WHO M/H)					ES PCB-118	103
					ES PCB-123	104
ND = 0	0.157		0.157		ES PCB-126	114
ND = 0.5 x DL	0.159		0.159		ES PCB-153	97.9
					ES PCB-155	93.4
					ES PCB-156/157	94.1
					ES PCB-167	94.8
					ES PCB-169	91.4
					ES PCB-170	105
					ES PCB-180	103
					ES PCB-188	99.2
					ES PCB-189	106
					ES PCB-202	103
					ES PCB-205	94.2
					ES PCB-206	97.5
					ES PCB-208	104
					ES PCB-209	98.2
					CS PCB-28	99.3
					CS PCB-111	104
					CS PCB-178	103

Checkcode: 490-654-DWC SGS AP PCB 2012 Rev. 1.5 Report Created: 16-Dec-2012 13:38 Analyst: LB

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Sample ID: AQ-SE-06-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	11.98 g	Sample ID:	A4909_10429_PCB_004	Date Extracted:	10-Dec-2012
Date Collected:	12-Nov-2012	% Solids	66.1 %	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	2.38				ES PCB-1	77.4
PCB-81 344'5-TeCB	ND	0.131			ES PCB-3	83.3
PCB-105 233'44'-PeCB	14				ES PCB-4	108
PCB-114 2344'5-PeCB	EMPC		0.807	J	ES PCB-15	90.7
PCB-118 23'44'5-PeCB	31.5				ES PCB-19	89.6
PCB-123 23'44'5'-PeCB	0.682			J	ES PCB-37	94.3
PCB-126 33'44'5-PeCB	EMPC		0.111	J	ES PCB-54	96.7
PCB-156/157 233'44'5/233'44'5'-HxCB	4.13			C	ES PCB-77	96.8
PCB-167 23'44'55'-HxCB	1.23				ES PCB-81	94.9
PCB-169 33'44'55'-HxCB	ND	0.0815			ES PCB-104	118
PCB-189 233'44'55'-HpCB	0.224			J	ES PCB-105	102
					ES PCB-114	104
TEQs (WHO M/H)					ES PCB-118	102
					ES PCB-123	101
ND = 0	0.00179		0.0129		ES PCB-126	113
ND = 0.5 x DL	0.00801		0.0142		ES PCB-153	97.4
					ES PCB-155	97.7
					ES PCB-156/157	91.9
					ES PCB-167	93.8
					ES PCB-169	90.6
					ES PCB-170	102
					ES PCB-180	98.8
					ES PCB-188	100
					ES PCB-189	107
					ES PCB-202	103
					ES PCB-205	96
					ES PCB-206	100
					ES PCB-208	105
					ES PCB-209	98
					CS PCB-28	101
					CS PCB-111	107
					CS PCB-178	106

Checkcode: 908-715-HLH

SGS AP PCB 2012 Rev. 1.5

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Sample ID: AQ-SE-07-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	12.32 g	Sample ID:	A4909_10429_PCB_005	Date Extracted:	10-Dec-2012
Date Collected:	12-Nov-2012	% Solids	65.8 %	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	1.31				ES PCB-1	92.5
PCB-81 344'5-TeCB	ND	0.0882			ES PCB-3	93.7
PCB-105 233'44'-PeCB	5.83				ES PCB-4	126
PCB-114 2344'5-PeCB	0.327			J	ES PCB-15	99.1
PCB-118 23'44'5-PeCB	12.9				ES PCB-19	101
PCB-123 23'44'5'-PeCB	0.364			J	ES PCB-37	97.7
PCB-126 33'44'5-PeCB	ND	0.0961			ES PCB-54	94.9
PCB-156/157 233'44'5/233'44'5'-HxCB	1.69			C	ES PCB-77	103
PCB-167 23'44'55'-HxCB	0.55			J	ES PCB-81	102
PCB-169 33'44'55'-HxCB	ND	0.0792			ES PCB-104	127
PCB-189 233'44'55'-HpCB	0.183			J	ES PCB-105	115
					ES PCB-114	112
TEQs (WHO M/H)					ES PCB-118	112
					ES PCB-123	111
ND = 0	0.000787		0.000787		ES PCB-126	124
ND = 0.5 x DL	0.00679		0.00679		ES PCB-153	101
					ES PCB-155	96.8
					ES PCB-156/157	98.5
					ES PCB-167	98.4
					ES PCB-169	91.1
					ES PCB-170	105
					ES PCB-180	110
					ES PCB-188	107
					ES PCB-189	109
					ES PCB-202	110
					ES PCB-205	100
					ES PCB-206	105
					ES PCB-208	109
					ES PCB-209	105
					CS PCB-28	99.8
					CS PCB-111	116
					CS PCB-178	110

Checkcode: 120-587-VSS SGS AP PCB 2012 Rev. 1.5 Report Created: 16-Dec-2012 13:40 Analyst: LB

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Sample ID: AQ-SE-08-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	11.88 g	Sample ID:	A4909_10429_PCB_006	Date Extracted:	10-Dec-2012
Date Collected:	12-Nov-2012	% Solids	65.9 %	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	1.12				ES PCB-1	88.6
PCB-81 344'5-TeCB	ND	0.0738			ES PCB-3	92.1
PCB-105 233'44'-PeCB	4.49				ES PCB-4	118
PCB-114 2344'5-PeCB	0.212			J	ES PCB-15	90
PCB-118 23'44'5-PeCB	10.9				ES PCB-19	91.9
PCB-123 23'44'5'-PeCB	0.211			J	ES PCB-37	92.7
PCB-126 33'44'5-PeCB	ND	0.0696			ES PCB-54	97.7
PCB-156/157 233'44'5/233'44'5'-HxCB	1.25			J C	ES PCB-77	91.6
PCB-167 23'44'55'-HxCB	EMPC		0.356	J	ES PCB-81	91.4
PCB-169 33'44'55'-HxCB	ND	0.0682			ES PCB-104	119
PCB-189 233'44'55'-HpCB	EMPC		0.115	J	ES PCB-105	103
					ES PCB-114	102
TEQs (WHO M/H)					ES PCB-118	101
					ES PCB-123	101
ND = 0	0.000625		0.000639		ES PCB-126	109
ND = 0.5 x DL	0.00514		0.00515		ES PCB-153	96
					ES PCB-155	94.2
					ES PCB-156/157	83.5
					ES PCB-167	90.1
					ES PCB-169	86.9
					ES PCB-170	97.5
					ES PCB-180	101
					ES PCB-188	100
					ES PCB-189	102
					ES PCB-202	98.7
					ES PCB-205	93.5
					ES PCB-206	99.4
					ES PCB-208	102
					ES PCB-209	98.8
					CS PCB-28	94.3
					CS PCB-111	104
					CS PCB-178	104

Checkcode: 695-708-YBC

SGS AP PCB 2012 Rev. 1.5

Report Created: 16-Dec-2012 13:40 Analyst: LB

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Sample ID: AQ-SE-01-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	10.89 g	Sample ID:	A4909_10429_PCB_007	Date Extracted:	10-Dec-2012
Date Collected:	13-Nov-2012	% Solids	80.4 %	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	87.5				ES PCB-1	42.5
PCB-81 344'5-TeCB	3.43				ES PCB-3	71
PCB-105 233'44'-PeCB	517				ES PCB-4	116
PCB-114 2344'5-PeCB	33.2				ES PCB-15	76.9
PCB-118 23'44'5-PeCB	1,180				ES PCB-19	83
PCB-123 23'44'5'-PeCB	28.2				ES PCB-37	87.7
PCB-126 33'44'5-PeCB	3.52				ES PCB-54	106
PCB-156/157 233'44'5/233'44'5'-HxCB	172			C	ES PCB-77	87
PCB-167 23'44'55'-HxCB	53.1				ES PCB-81	80.8
PCB-169 33'44'55'-HxCB	ND	0.353			ES PCB-104	123
PCB-189 233'44'55'-HpCB	9.24				ES PCB-105	85.9
					ES PCB-114	90.8
TEQs (WHO M/H)					ES PCB-118	89.8
					ES PCB-123	94
ND = 0	0.421		0.421		ES PCB-126	97.2
ND = 0.5 x DL	0.426		0.426		ES PCB-153	97.1
					ES PCB-155	113
					ES PCB-156/157	75.6
					ES PCB-167	91.2
					ES PCB-169	71.9
					ES PCB-170	112
					ES PCB-180	117
					ES PCB-188	101
					ES PCB-189	110
					ES PCB-202	96.3
					ES PCB-205	95.1
					ES PCB-206	97.8
					ES PCB-208	110
					ES PCB-209	90.5
					CS PCB-28	96.2
					CS PCB-111	105
					CS PCB-178	104

Checkcode: 407-178-XKT

SGS AP PCB 2012 Rev. 1.5

Report Created: 16-Dec-2012 13:40 Analyst: LB

SGS ANALYTICAL PERSPECTIVES

2714 Exchange Drive
Wilmington
North Carolina 28405
USA

T: 910 794-1613
F: 910 794-3919
www.us.sgs.com

Sample ID: AQ-SE-02-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	11.37 g	Sample ID:	A4909_10429_PCB_008	Date Extracted:	10-Dec-2012
Date Collected:	13-Nov-2012	% Solids	69.4 %	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	20.6				ES PCB-1	94
PCB-81 344'5-TeCB	0.735			J	ES PCB-3	97.2
PCB-105 233'44'-PeCB	50.6				ES PCB-4	124
PCB-114 2344'5-PeCB	3.15				ES PCB-15	93.5
PCB-118 23'44'5-PeCB	109				ES PCB-19	94.8
PCB-123 23'44'5'-PeCB	2.62				ES PCB-37	96.5
PCB-126 33'44'5-PeCB	0.495			J	ES PCB-54	103
PCB-156/157 233'44'5/233'44'5'-HxCB	61.9			C	ES PCB-77	92.3
PCB-167 23'44'55'-HxCB	16.3				ES PCB-81	93.3
PCB-169 33'44'55'-HxCB	ND	0.113			ES PCB-104	121
PCB-189 233'44'55'-HpCB	4.37				ES PCB-105	89.1
					ES PCB-114	97.3
TEQs (WHO M/H)					ES PCB-118	98.2
					ES PCB-123	101
ND = 0	0.0592		0.0592		ES PCB-126	97.5
ND = 0.5 x DL	0.0609		0.0609		ES PCB-153	103
					ES PCB-155	112
					ES PCB-156/157	63.5
					ES PCB-167	92.4
					ES PCB-169	81.6
					ES PCB-170	117
					ES PCB-180	118
					ES PCB-188	109
					ES PCB-189	113
					ES PCB-202	103
					ES PCB-205	104
					ES PCB-206	93
					ES PCB-208	115
					ES PCB-209	108
					CS PCB-28	101
					CS PCB-111	103
					CS PCB-178	95.5

Checkcode: 877-682-WMW

SGS AP PCB 2012 Rev. 1.5

Report Created: 16-Dec-2012 13:41 Analyst: LB

SGS ANALYTICAL PERSPECTIVES

2714 Exchange Drive
Wilmington
North Carolina 28405
USA

T: 910 794-1613
F: 910 794-3919
www.us.sgs.com

Sample ID: AQ-SE-57-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Anchor QEA	Matrix:	Solid	Project No.:	A4909	Date Received:	20-Nov-2012
Project ID:	110730-02.01	Weight/Volume:	12.37 g	Sample ID:	A4909_10429_PCB_009	Date Extracted:	10-Dec-2012
Date Collected:	12-Nov-2012	% Solids	66.8 %	QC Batch No.:	10429	Date Analyzed:	14-Dec-2012

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	1.79				ES PCB-1	91.5
PCB-81 344'5-TeCB	ND	0.0853			ES PCB-3	96.4
PCB-105 233'44'-PeCB	36.8				ES PCB-4	123
PCB-114 2344'5-PeCB	2.31				ES PCB-15	99.3
PCB-118 23'44'5-PeCB	92.1				ES PCB-19	97.3
PCB-123 23'44'5'-PeCB	1.38				ES PCB-37	96.7
PCB-126 33'44'5-PeCB	0.124			J	ES PCB-54	93.2
PCB-156/157 233'44'5/233'44'5'-HxCB	14.2			C	ES PCB-77	97.1
PCB-167 23'44'55'-HxCB	4.06				ES PCB-81	97.1
PCB-169 33'44'55'-HxCB	ND	0.101			ES PCB-104	123
PCB-189 233'44'55'-HpCB	0.576			J	ES PCB-105	102
					ES PCB-114	105
TEQs (WHO M/H)					ES PCB-118	105
					ES PCB-123	104
ND = 0	0.0172		0.0172		ES PCB-126	117
ND = 0.5 x DL	0.0187		0.0187		ES PCB-153	95.3
					ES PCB-155	94.2
					ES PCB-156/157	81.5
					ES PCB-167	91.5
					ES PCB-169	86.7
					ES PCB-170	106
					ES PCB-180	113
					ES PCB-188	100
					ES PCB-189	110
					ES PCB-202	96.4
					ES PCB-205	95.3
					ES PCB-206	98.2
					ES PCB-208	111
					ES PCB-209	94.2
					CS PCB-28	100
					CS PCB-111	109
					CS PCB-178	107

Checkcode: 940-191-DMM SGS AP PCB 2012 Rev. 1.5 Report Created: 16-Dec-2012 13:41 Analyst: LB

SGS ANALYTICAL PERSPECTIVES
2714 Exchange Drive
Wilmington
North Carolina 28405
USA
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F: 910 794-3919
www.us.sgs.com

Project Initiation Form

Project Number:	A4909	Initiation Date:	21-Nov-12
Client Name:	Anchor QEA	Sample Matrix:	Sediment
Analysis Method:	1668 PCB	TAT:	30 days
		Project Manager:	Amy

Special Instructions

1668A - OPR

Reporting Instructions

1668A - WHO list/coplanars only
Anchor - Equis EDD
Full report from 2714/Inv from 2714

PM Initials: akornegay Date: 21-Nov-2012

Sample Path

AP Project No.: A4909
Protocol: 1668A Water

Sample Processing

- **Extraction**
  - ☑ *1 or 2 L*
  - ☑ *Continuous Liquid-Liquid by TALEX*
  - ☑ *Extraction Standards ($^{13}C_{12}$ - PCBs) " ES "*
- **Fractionation**
  - ☑ *Cleanup Standard " CS "*
  - ☑ *Multi-Column Cleanup (Fraction A ASECS)*
  - ☑ *Final Extract*
- **Analysis**
  - ☑ *Injection Standards " JS "*
  - ☑ *HRGC / HRMS*
  - ☑ *12-H Performance Checks*
- **Interpretation**
  - ☑ *ID Criteria*
  - ☑ *Detection Limits*
  - ☑ *Recoveries*

Spike Profile

Ax (1668):	1 ng (20 µL; 0.05 ng/µL)	
ES (1668):	2 ng (20 µL; 0.1 ng/µL)	Final Vol. = 20 µL
CS (1668):	2 ng (20 µL; 0.1 ng/µL)	
JS (1668):	2 ng (10 µL; 0.2 ng/µL)	

SOPs

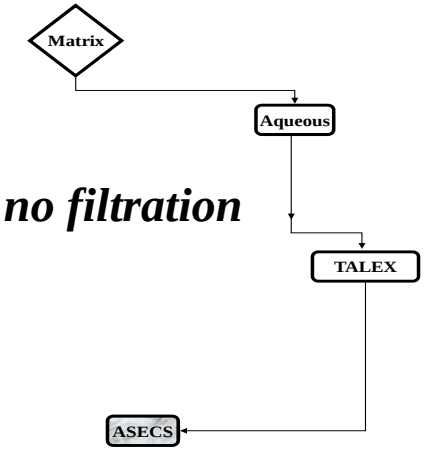
See AP-Cm-7.1

Extraction:	AP-SP-E3
Fractionation:	AP-SP-CU
Analyses:	AP-SP-A
Concentration:	AP-SP-N
Fortification:	AP-SP-F
Data Validation:	AP-SP-R

QC Profile

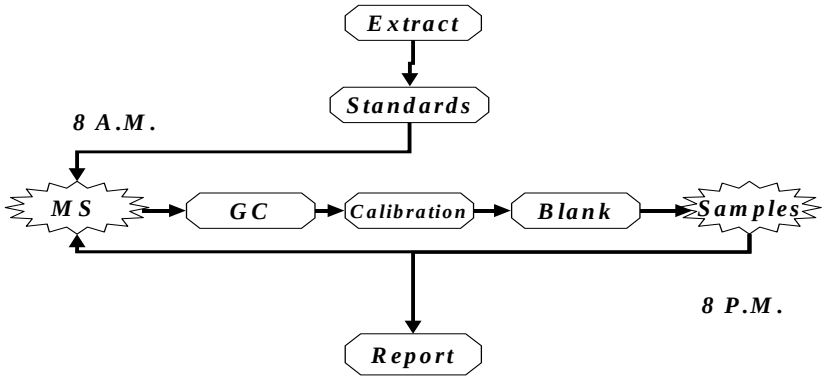
LMB:	always required
OPR (1668):	Always Required
BCS_3 (AP):	Required if no OPR

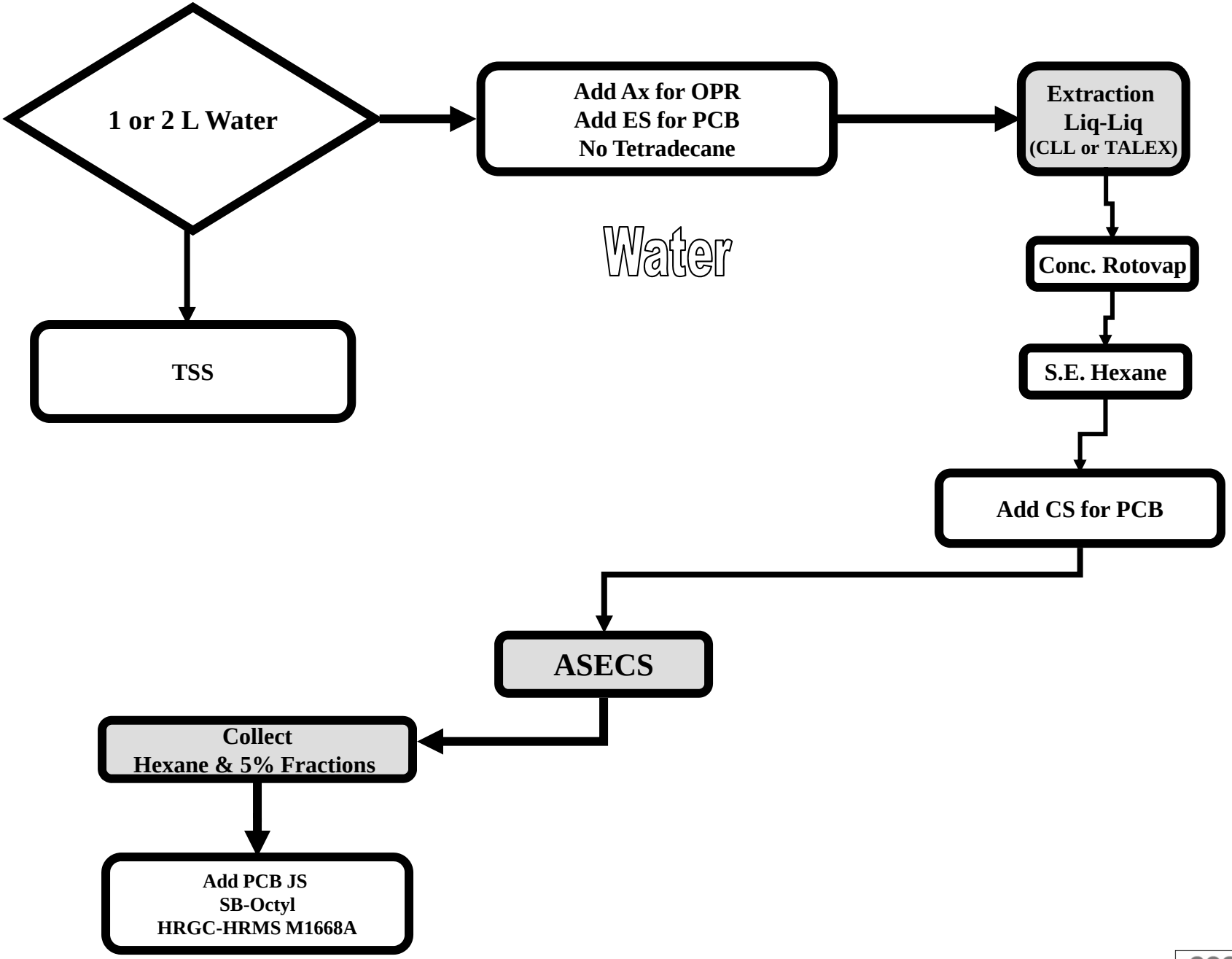
Sample Extraction



Extract 'as is' – no filtration

Sample Analyses




1 or 2 L Water
Add Ax for OPR
Add ES for PCB
No Tetradecane
Extraction
Liq-Liq
(CLL or TALEX)
Water
Conc. Rotovap
TSS
S.E. Hexane
Add CS for PCB
ASECS
Collect
Hexane & 5% Fractions
Add PCB JS
SB-Octyl
HRGC-HRMS M1668A

TRANSFER: M 12/13 47 of 651

RECEIVED: 13 DEC 2012

SGS ANALYTICAL PERSPECTIVES

1668 PCB

Solids

Project # A4909 | Batch # 10429 | Extract Init/Date: mn 12-10-12 | ASECS Init/Date: TAM 12/13/12 | Transfer Init/Date: M 12/13/12

AP Sample ID	Client Sample ID	Extract WT (g)	SDS #	RV Initials	RV #	(Td)	ASECS #	Observations
A4909_10429_001	AQ-SE-03-10	17.06	22	MN	3	—	3	Brown wet Sand
A4909_10429_002	AQ-SE-04-10	17.83	23	MN	1	—	4	see 001
A4909_10429_003	AQ-SE-05-10	16.80	24	MN	2	—	5	Gray sticky Mud
A4909_10429_004	AQ-SE-06-10	18.13	25	MN	3	—	6	see 001
A4909_10429_005	AQ-SE-07-10	18.72	26	MN	1	—	7	see 001
A4909_10429_006	AQ-SE-08-10	18.01	27	MN	3	—	8	see 001
A4909_10429_007	AQ-SE-01-10	13.54	28	MN	2	—	16	wet Rocky Soil gray
A4909_10429_008	AQ-SE-02-10	16.39	29	MN	1	—	15	see 001
A4909_10429_009	AQ-SE-57-10	18.52	30	MN	3	—	14	see 001
MB1_10429	Method Blank	10.50	20	MN	1	—	1	Na_2SO_4 11-12-12
OPR1_10429	0_10429_OPR001	10.40	21	MN	2	—	2	Na_2SO_4 11-12-12
				12/12/12			TAM 12/13/12	

Special Instructions

1668A - OPR

Cycle Time

Wet
Start 5:15pm
Stop 10:30am

Dry
Start 3300m
Stop 1030m

Supply IDs

Toluene	DH252	Acid Silica	12/1/2012
CH_2Cl_2	Q6836	Base Silica	12/1/2012
Sand	—	HydroMatrix	—
Florisil	12082012	Tetradecane	10252011
Hexane	DH199	Na_2SO_4 ~~H_2SO_4~~	12052012
Silica	12072012	$AgNO_3$ K-Silicate	12122012

SGS ANALYTICAL PERSPECTIVES

1668 PCB

Solid

Project # A4909 Batch # 10429

Inter-Department Communication Sheet

ee AO 18DEC12

Special Instructions

1668A - OPR

SGS ANALYTICAL PERSPECTIVES

M1668 PCB Spike Profile

Analyte	Cleanup Standards Amount Spiked (ng)
$^{13}C_{12}$-2,4,4'-TrCB (PCB-28)	2
$^{13}C_{12}$- 2,3,3',5,5'-PeCB (PCB-111)	2
$^{13}C_{12}$- 2,2',3,3',5,5',6-HpCB (PCB-178)	2

Compound	Injection Standards Amount Spiked ng
$^{13}C_{12}$– 2,5-DiCB (PCB-9)	2
$^{13}C_{12}$- 2,2',5,5'-TeCB (PCB-52)	2
$^{13}C_{12}$- 2,2',4,5,5'-PeCB (PCB-101)	2
$^{13}C_{12}$-2,2',3,4,4',5'-HxCB (PCB-138)	2
$^{13}C_{12}$-2,2',3,3',4,4',5,5'-OcCB (PCB-194)	2

$^{13}C_{12}$-PCB-153, -170 & -180 (NOAA) also included @ same levels

Not applicable to DRBC

Compound	Extraction Standards Amount Spiked ng
$^{13}C_{12}$ - 2-MoCB (PCB-1)	2
$^{13}C_{12}$ - 4-MoCB (PCB-3)	2
$^{13}C_{12}$ - 2,2'-DiCB (PCB-4)	2
$^{13}C_{12}$ - 4,4'-DiCB (PCB-15)	2
$^{13}C_{12}$ - 2,2',6-TrCB (PCB-19)	2
$^{13}C_{12}$ - 3,4,4'-TrCB (PCB-37)	2
$^{13}C_{12}$ - 2,2',6,6'-TeCB (PCB-54)	2
$^{13}C_{12}$ - 3,4,4',5-TeCB (PCB-81)	2
$^{13}C_{12}$ - 3,3',4,4'-TeCB (PCB-77)	2
$^{13}C_{12}$ - 2,2',4,6,6'-PeCB (PCB-104)	2
$^{13}C_{12}$ - 2',3,4,4',5-PeCB (PCB-123)	2
$^{13}C_{12}$ - 2,3',4,4',5-PeCB (PCB-118)	2
$^{13}C_{12}$ - 2,3,4,4',5-PeCB (PCB-114)	2
$^{13}C_{12}$ - 2,3,3',4,4'-PeCB (PCB-105)	2
$^{13}C_{12}$ - 3,3',4,4',5-PeCB (PCB-126)	2
$^{13}C_{12}$ - 2,2',4,4',6,6'-HxCB (PCB-155)	2
$^{13}C_{12}$ - 2,3',4,4',5,5'-HxCB (PCB-167)	2
$^{13}C_{12}$ - 2,3,3',4,4',5-/2,3,3',4,4',5'-HxCB(PCB-156/157)	4
$^{13}C_{12}$ - 3,3',4,4',5,5'-HxCB (PCB-169)	2
$^{13}C_{12}$ - 2,2',3,4',5,6,6'-HpCB (PCB-188)	2
$^{13}C_{12}$ - 2,2',3,4,4',5,5'-HpCB (PCB-180)	2
$^{13}C_{12}$ - 2,2',3,3',4,4',5-HpCB (PCB-170)	2
$^{13}C_{12}$ - 2,3,3',4,4',5,5'-HpCB (PCB-189)	2
$^{13}C_{12}$ - 2,2',3,3',5,5',6,6'-OcCB (PCB-202)	2
$^{13}C_{12}$ - 2,3,3',4,4',5,5',6-OcCB (PCB-205)	2
$^{13}C_{12}$ - 2,2',3,3',4,5,5',6,6'-NoCB (PCB-208)	2
$^{13}C_{12}$ - 2,2',3,3',4,4',5,5',6-NoCB (PCB-206)	2
$^{13}C_{12}$ - 2,2',3,3',4,4',5,5',6,6'-DeCB (PCB-209)	2

1668 ICAL (NOAA)

units: pg / µL

Individual Standard IUPAC	CS-0	CS-1	CS-2	CS-3 VER	CS-4	CS-5
1	0.5	1	5	50	400	2000
3	0.5	1	5	50	400	2000
4	0.5	1	5	50	400	2000
15	0.5	1	5	50	400	2000
19	0.5	1	5	50	400	2000
37	0.5	1	5	50	400	2000
54	0.5	1	5	50	400	2000
77	0.5	1	5	50	400	2000
81	0.5	1	5	50	400	2000
104	0.5	1	5	50	400	2000
105	0.5	1	5	50	400	2000
114	0.5	1	5	50	400	2000
118	0.5	1	5	50	400	2000
123	0.5	1	5	50	400	2000
126	0.5	1	5	50	400	2000
153 (BCS_3)				50		
155	0.5	1	5	50	400	2000
156	0.5	1	5	50	400	2000
157	0.5	1	5	50	400	2000
167	0.5	1	5	50	400	2000
169	0.5	1	5	50	400	2000
170 (BCS_3)				50		
180 (BCS_3)				50		
188	0.5	1	5	50	400	2000
189	0.5	1	5	50	400	2000
202	0.5	1	5	50	400	2000
205	0.5	1	5	50	400	2000
206	0.5	1	5	50	400	2000
208	0.5	1	5	50	400	2000
209	0.5	1	5	50	400	2000

Extraction Standards	CS-0	CS-1	CS-2	CS-3	CS-4	CS-5
1 L	100	100	100	100	100	100
3 L	100	100	100	100	100	100
4 L	100	100	100	100	100	100
15 L	100	100	100	100	100	100
19 L	100	100	100	100	100	100
37 L	100	100	100	100	100	100
54 L	100	100	100	100	100	100
77 L	100	100	100	100	100	100
81 L	100	100	100	100	100	100
104 L	100	100	100	100	100	100
105 L	100	100	100	100	100	100
114 L	100	100	100	100	100	100
118 L	100	100	100	100	100	100
123 L	100	100	100	100	100	100
126 L	100	100	100	100	100	100
153 L (BCS_3)				100		
155 L	100	100	100	100	100	100
156 L	100	100	100	100	100	100
157 L	100	100	100	100	100	100
167 L	100	100	100	100	100	100
169 L	100	100	100	100	100	100
170 L (BCS_3)				100		
180 L (BCS_3)				100		
188 L	100	100	100	100	100	100
189 L	100	100	100	100	100	100
202 L	100	100	100	100	100	100
205 L	100	100	100	100	100	100
206 L	100	100	100	100	100	100
208 L	100	100	100	100	100	100
209 L	100	100	100	100	100	100
Cleanup/Sampling Standards						
28 L	100	100	100	100	100	100
111 L	100	100	100	100	100	100
178 L	100	100	100	100	100	100
Injection Standards						
9 L	100	100	100	100	100	100
52 L	100	100	100	100	100	100
101 L	100	100	100	100	100	100
138 L	100	100	100	100	100	100
194 L	100	100	100	100	100	100

SGS

ANALYTICAL PERSPECTIVES

Revised 23 FEB 06

% Solids

ANALYTICAL PERSPECTIVES

Project: A4909

Chemist: MNL

Batch #: 10429

Date: 11-28-12

Procedure:
Tare Balance.
Add boat and weigh. Record "Boat Wt."
Add the sample (2-10 g) to the boat and record "Wet Wt. + Boat Wt." (total).
Dry in oven overnight @ 107° C.
Tare Balance
Return dish to toploader and record "Residue + Boat Wt."

AP Sample ID	Boat Wt.	Wet Wt. + Boat Wt.	Chem/Date	Residue + Boat Wt.	Chem/Date	Comments
A4909 001A	1.29	4.34	MNL	4.93	MM	\
001B	1.30	7.93	MNL	6.05	MM	13.87
001C	1.36	7.77	MNL	6.00	MM	/
002A	1.29	6.09	MNL	4.32	MM	\
002B	1.28	7.11	MNL	4.92	MM	16.69
002C	1.31	6.89	MNL	4.71	MM	/
003A	1.28	8.24	MNL	6.04	MM	\
003B	1.28	9.85	MNL	7.17	MM	14.69
003C	1.29	10.38	MNL	7.39	MM	/
004A	1.30	6.78	MNL	4.89	MM	\
004B	1.31	10.20	MNL	7.25	MM	15.14
004C	1.30	10.17	MNL	7.14	MM	/
005A	1.36	6.77	MNL	4.85	MM	\
005B	1.31	7.08	MNL	5.09	MM	15.19
005C	1.30	8.58	MNL	6.18	MM	/
006A	1.29	8.39	MNL	5.95	MM	\
006B	1.30	8.63	MNL	6.13	MM	15.16
006C	1.30	10.65	MNL	7.60	MM	/
			11-28-12		11-29-12	

% Solids

ANALYTICAL PERSPECTIVES

Project: A4909

Chemist: MM

Batch #: 10429

Date: 11-28-12

11-28-12 MM

Procedure:
Tare Balance.
Add boat and weigh. Record "Boat Wt."
Add the sample (2-10 g) to the boat and record "Wet Wt. + Boat Wt." (total).
Dry in oven overnight @ 107° C.
Tare Balance
Return dish to toploader and record "Residue + Boat Wt."

AP Sample ID	Boat Wt.	Wet Wt. + Boat Wt.	Chem/Date	Residue + Boat Wt.	Chem/Date	Comments
007A	~~007~~ 1.31	8.23	MM 11-28-12	6.63	MM 11-29-12	✓ 12.44
007B	1.29	9.69	MM	7.93	MM	
007C	1.30	12.84	MM	11.14	MM	✓
008A	1.29	7.80	MM	5.79	MM	✓ 14.42
008B	1.31	7.84	MM	5.90	MM	
008C	1.30	8.06	MM	5.94	MM	✓
009A	1.29	6.24	MM	4.60	MM	✓ 14.91
009B	1.29	9.23	MM	6.89	MM	
009C	1.29	12.68	MM	8.90	MM	✓

SGS ANALYTICAL PERSPECTIVES

Wt. Volume Results for Extraction Batch
10429

Batch Project #'s: A4909

Comments:

AP Sample ID	Boat WT.	Wet Wt. + Boat Wt.	Residue+ Boat Wt.	% Solid	Average % Solid	RSD	Qtest Ratio (if Applicable)	Dry Wt. Equiv.	Extracted Wt.	Final Wt.
A4909_001	1.29	6.34	4.93	72.08%	72.12%	0.69%		13.87	17.06	12.3
A4909_001	1.3	7.93	6.05	71.64%	72.12%	0.69%		13.87	17.06	12.3
A4909_001	1.3	7.77	6	72.64%	72.12%	0.69%		13.87	17.06	12.3
A4909_002	1.29	6.09	4.32	63.13%	62.17%	1.81%		16.09	17.83	11.08
A4909_002	1.28	7.11	4.92	62.44%	62.17%	1.81%		16.09	17.83	11.08
A4909_002	1.31	6.89	4.71	60.93%	62.17%	1.81%		16.09	17.83	11.08
A4909_003	1.28	8.24	6.04	68.39%	68.08%	1.25%		14.69	16.8	11.44
A4909_003	1.28	9.85	7.17	68.73%	68.08%	1.25%		14.69	16.8	11.44
A4909_003	1.29	10.38	7.39	67.11%	68.08%	1.25%		14.69	16.8	11.44
A4909_004	1.3	6.78	4.89	65.51%	66.06%	1.03%		15.14	18.13	11.98
A4909_004	1.31	10.2	7.25	66.82%	66.06%	1.03%		15.14	18.13	11.98
A4909_004	1.3	10.17	7.14	65.84%	66.06%	1.03%		15.14	18.13	11.98

SGS ANALYTICAL PERSPECTIVES

Wt. Volume Results for Extraction Batch
10429

Batch Project #'s: _____

_____

_____

Comments:

AP Sample ID	Boat WT.	Wet Wt. + Boat Wt.	Residue+ Boat Wt.	% Solid	Average % Solid	RSD	Qtest Ratio (if Applicable)	Dry Wt. Equiv.	Extracted Wt.	Final Wt.
A4909_005	1.3	6.77	4.85	64.90%	65.81%	1.67%		15.19	18.72	12.32
A4909_005	1.31	7.08	5.09	65.51%	65.81%	1.67%		15.19	18.72	12.32
A4909_005	1.3	8.58	6.18	67.03%	65.81%	1.67%		15.19	18.72	12.32
A4909_006	1.29	8.39	5.95	65.63%	65.94%	0.52%		15.16	18.01	11.88
A4909_006	1.3	8.63	6.13	65.89%	65.94%	0.52%		15.16	18.01	11.88
A4909_006	1.3	10.65	7.5	66.31%	65.94%	0.52%		15.16	18.01	11.88
A4909_007	1.31	8.23	6.63	76.88%	80.40%	5.42%		12.44	13.54	10.89
A4909_007	1.29	9.69	7.93	79.05%	80.40%	5.42%		12.44	13.54	10.89
A4909_007	1.3	12.84	11.14	85.27%	80.40%	5.42%		12.44	13.54	10.89
A4909_008	1.29	7.8	5.79	69.12%	69.35%	1.22%		14.42	16.39	11.37
A4909_008	1.31	7.84	5.9	70.29%	69.35%	1.22%		14.42	16.39	11.37
A4909_008	1.3	8.06	5.94	68.64%	69.35%	1.22%		14.42	16.39	11.37

SGS ANALYTICAL PERSPECTIVES

Wt. Volume Results for Extraction Batch
10429

Batch Project #'s: _____
_____
_____

Comments:

AP Sample ID	Boat WT.	Wet Wt. + Boat Wt.	Residue+ Boat Wt.	% Solid	Average % Solid	RSD	Qtest Ratio (if Applicable)	Dry Wt. Equiv.	Extracted Wt.	Final Wt.
A4909_009	1.29	6.24	4.6	66.87%	66.81%	0.09%		14.97	18.52	12.37
A4909_009	1.29	9.23	6.59	66.75%	66.81%	0.09%		14.97	18.52	12.37
A4909_009	1.29	12.68	8.9	66.81%	66.81%	0.09%		14.97	18.52	12.37

SGS

1668 PCB

Solids

Project # A4909 Batch # 10429

SPIKE PROFILE PCBs

Analyte	Spike Compounds	Spiked Amount	Spiked Volume	Solution Conc.	Split Factor	Final Volume	Final Solvent
PCB	ES	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane
	CS	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane
	JS	2 ng	10 uL	200 pg/uL	1	20 uL	Nonane
	AAP68A Batch CS3	1 ng	20 uL	50 pg/uL	1	20 uL	Nonane
	AAP68A	1 ng	20 uL	50 pg/uL	1	20 uL	Nonane

Spiker Initials/Date: mn 12-10-12 mn 12-10-12 mn 12-10-12 mn 12-12-12 NA 12/13/12

AP Sample ID	Client Sample ID	PCB ES Amount: 20uL Observer Initials	PCB AX-NOAA Amount: 20uL Observer Initials	PCB AAP68A Amount: 20uL Observer Initials	PCB CS/SS Amount: 20ul Observer Initials	PCB JS Amount: 10ul Observer Initials	
A4909_10429_001	AQ-SE-03-10	JK	—	—	TM	mn1	
A4909_10429_002	AQ-SE-04-10	JK	—	—	TM	mn1	
A4909_10429_003	AQ-SE-05-10	JK	—	—	TM	mn1	
A4909_10429_004	AQ-SE-06-10	JK	—	—	TM	mn1	
A4909_10429_005	AQ-SE-07-10	JK	—	—	TM	mn1	
A4909_10429_006	AQ-SE-08-10	JK	—	—	TM	mn1	
A4909_10429_007	AQ-SE-01-10	JK	—	—	TM	mn1	
A4909_10429_008	AQ-SE-02-10	JK	—	—	TM	mn1	
A4909_10429_009	AQ-SE-57-10	JK	—	—	TM	mn1	
MB1_10429	Method Blank	JK	—	—	TM	mn1	
OPR1_10429	0_10429_OPR001	JK	JK	JK	TM	mn1	
		12/10/12	12/10/12	12/10/12	12/12/12	12-13-12	

Standard Information

Std. Type	PCB d-6	PCB ES	AAP68A	NOAA	PCB CS/SS	PCB JS	
Spike ID		07132012B	07132012A	01102012A	07132012C	07132012B	
SIL #		12-73-1	12-69-1	12-28-4	12-101-2	12-73-3	
Concentration	100	100	50	50	100	200	
Units	pg /µL	pg /µL	pg /µL	pg /µL	pg/ul	pg /µL	
Exp. Date		8-3-13	7-17-13	4-4-13	~~12~~ 11/19/13	8/3/13	
Spike amount (µL)	20	20	20	20	20 ul	10	

NA 12/13/12

12/12/12

Sample Receipt Notification

2714 Exchange Drive
Wilmington, NC 28405 USA
Tel: 910 794-1613
Toll Free: 866 846-8290
Fax: 910 794-3919

Project Manager:	*Amy Boehm*
Receipt Date & Time:	*20-Nov-12 at 10:03*
AP Project name:	*A4909*
Requested TAT:	*30 days*
Projected due date:	*20-Dec-12*
Matrix:	*Sediment*
Phone#:	*910-794-1613*
Email Address:	*Amy.Boehm@sgs.com*

Company Contact:	*Cindy Fields*
Company:	*Anchor QEA*
Project Name & Site:	*110730-02.01*
Project PO#:	*N/A*
QAAP/Contract #:	*N/A*
Requested Analysis:	*method 1668A*
Phone#:	*206-287-9130*
Email Address:	*cfields@anchorqea.com*

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Sampling Date	Sampling Time	Received Temp	Container #	Shipping #
AQ-SE-03-10	A4909_001	SEDIMENT	1	12-Nov-12	11:13	0.2	1	1Z X47 20R 13 9386 2282
AQ-SE-04-10	A4909_002	SEDIMENT	1	12-Nov-12	12:00	0.2	1	1Z X47 20R 13 9386 2282
AQ-SE-05-10	A4909_003	SEDIMENT	1	12-Nov-12	12:41	0.2	1	1Z X47 20R 13 9386 2282
AQ-SE-06-10	A4909_004	SEDIMENT	1	12-Nov-12	13:26	0.2	1	1Z X47 20R 13 9386 2282
AQ-SE-07-10	A4909_005	SEDIMENT	1	12-Nov-12	13:51	0.2	1	1Z X47 20R 13 9386 2282
AQ-SE-08-10	A4909_006	SEDIMENT	1	12-Nov-12	14:30	0.2	1	1Z X47 20R 13 9386 2282
AQ-SE-01-10	A4909_007	SEDIMENT	1	13-Nov-12	09:15	0.2	1	1Z X47 20R 13 9386 2282
AQ-SE-02-10	A4909_008	SEDIMENT	1	13-Nov-12	09:37	0.2	1	1Z X47 20R 13 9386 2282
AQ-SE-57-10	A4909_009	SEDIMENT	1	12-Nov-12	13:51	0.2	1	1Z X47 20R 13 9386 2282

Preservation Type: Ice - Good Condition **Sample Seals:** No

Notes/Comments:

Samples received intact.
Rec'd aq-se-57-10 not listed on COC.

Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.

Received by: Nancy Musselwhite *Logged in by: Nancy Musselwhite* *QC'ed by:* AK 21 Nov 12

A4909 A12K308

28 of 651

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

Locations Nationwide
- Alaska
- New Jersey
- North Carolina
- West Virginia
- Maryland
- New York
- Indiana
- Kentucky

www.us.sgs.com

(1)

CLIENT: Anchor QEA

CONTACT: Cindy Fields PHONE NO: (206)903-3394

PROJECT NAME: Former Reynolds Metals Reduction Plant RI/FS PROJECT/PWSID/PERMIT#: 110730-02.01

REPORTS TO: Nik Bacher EMAIL: labdata@anchorqea.com

INVOICE TO: Cindy Fields QUOTE #: P.O. #:

SGS Reference #:

page 1 of 1

Preservatives Used: 4°C

Analysis Required (3): PCB Congeners

(2)

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	PCB Congeners	REMARKS/LOC ID
*	AQ-SE-03-10	11/12/2012	1113	SE	1	G	X	
*	AQ-SE-04-10	↓	1200	↓	1	G	X	
*	AQ-SE-05-10		1241		1	G	X	
*	AQ-SE-06-10		1326		1	G	X	
*	AQ-SE-07-10		1351		1	G	X	
*	AQ-SE-08-10	↓	1430	↓	1	G	X	
*	AQ-SE-01-10	11/13/2012	0915	SE	1	G	X	Time 0915
*	AQ-SE-02-10	↓	0937	↓	1	G	X	
	AQ-SE-RB	11/13/2012	1137	Water	1	—	X	
	AQ-SE-FB	↓	1145	Water	1	—	X	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
Amy Thatcher	11/13/2012	1250	Brian Cone
Relinquished By: (2) Brian Cone	11-13-12	1437	Ryan Russell
Relinquished By: (3) [signature]	11/19/12	1440	Received By:
Relinquished By: (4)	11/20/12 11/20/12	10:03 2:10pm	Received For Laboratory By: SGS [signature]

(4)

DOD Project? YES NO

Cooler ID _____

Data Deliverable Requirements:

Requested Turnaround Time and-or Special Instructions:

Temperature Blank °C: _____

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

☐ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms and conditions.htm

White - Retained by Lab
Pink - Retained by Client

*Samples in this Project

FW: Former Reynolds Metal Reduction Plant - extra sample

Boehm, Amy (Wilmington)

Sent: Wednesday, November 21, 2012 12:58 PM

To: Kornegay, Amber (Wilmington)

Hi Amber
Please see below
Thanks
Tam

From: Cindy Fields [mailto:cfields@anchorqea.com]
Sent: Wednesday, November 21, 2012 12:53 PM
To: Morgan, Tamara E (Wilmington)
Cc: Boehm, Amy (Wilmington)
Subject: Former Reynolds Metal Reduction Plant - extra sample

Hi Tamara,
Sorry I didn't get back to you yesterday – I was away from my desk for the day.

Please analyze the sample that was not on the COC (AQ-SE57-10) with the other samples.

Let me know if you have any further questions.

Have a great holiday!!
~Cindy

Cindy Fields
Scientist

ANCHOR QEA, LLC
cfields@anchorqea.com
720 Olive Way, Suite 1900
Seattle, WA 98101
T 206.287.9130
D 206.903.3394
F 206.287.9131

ANCHOR QEA, LLC
www.anchorqea.com
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ANALYTICAL PERSPECTIVES

SAMPLE LOG-IN FORM

COPY

Client Project / Job ID: 110730-02 .01

PO #:

AP Project ID: A4909

Date Samples Arrived: 20 Nov 12 Initials: DM

Time / Date logged in: 10:03 20 Nov 12 Refrigerator: F2 Initials: DM

Samples Arrived By: (circle one) FedEx (UPS) Airborne Express DHL Emery

Freezer Truck Company Courier Other_____

Shipping Preservation: (circle) (Ice) / Blue Ice / Dry Ice / None Temp °C 0.2°

Shipping Documentation Present? (circle one) Shipping Label or (Airbill)

# of boxes: _____ # of coolers: 1 Tracking #s: 1Z X47 20R13 9386 2282

Shipping Container(s) intact? yes If no, describe condition:

Container Custody Seals Present & Intact? NA If not intact, describe condition:

Sample Custody Seals Present & Intact? NA If not intact, describe condition:

# of Seals: Ø or Seal #: Ø

Sample Container Intact? yes If no, indicate sample condition:

Chain of Custody (COC) / Sample Documentation Present? yes Exceptions?_____

If not, complete COC Anomaly Form

Shipping Container: (circle) Client or (AP)..... Return (Retain) Dispose

Container and/or Bottles Requested? NO

Sample Control Log In/Out Completed? yes

Drinking Water Sample? NO If yes, Acceptable preservation?_____

CHAIN OF CUSTODY ANOMALY FORM

The following items were omited from the COC

Project ID and/or PO#:

Sampler:

Relinquished By:

Date:

Time:

Sample ID:

Sample Date:

Sample Collection Times:

Sample Description:

Analysis Requested:

Container Qty.:

Container Type:

Other:

FILL BELOW IF APPLICABLE

Have all the samples arrived? yes If no, complete the following.

Shipment #:_____ Date of Arrival:_____ Condition:_____ Temp°C_____

Delivered by:_____ Tracking #s_____

COC Present?_____ Acceptable?_____ If no, document on COC Anomaly Form additional shipment comments.

Container Intact?_____ Samples Intact?_____ If no, describe:

Do we expect another shipment?_____ If yes, start a new log-in sheet.

☺

COMMENTS

Rec'd AQ-SE-57-10
not listed on COC
11/12/12 1351


Apex Labs
12232 SW Garden Pl.
WILMINGTON NC 28405
NC 284 0-01
UPS NEXT DAY AIR SAVER
1P
1ZA720W1390862282

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD



or QEA, LLC Seattle, WA (206)

ct Name: Former Reynolds Metals Reduction Pla

ct No: 110730-02.01

Time: 11

11/12 /2012

le Name: AQ-SE-03-10

sis: TS/TOC

rative: Cool/4 C

Sampler:

-9130
t RI/FS
: 13
DG, NB, AT

thor QEA, LLC Seattle, WA
ject Name: Former Reynolds Metals Reduc
Time
ject No: 110730-02.01
te: 11/12/2012
mple Name: AQ-SE-04-10
alysis: SMS Metals
servative: Cool/4 C
Sampl

9130
RI/FS
G, NB, AT

Anchor QEA, LLC Seattle, WA

Project Name: Former Reynolds Metals Reductio

Project No: 110730-02.01

Time:

Date: 11/12/2012

Sample Name: AQ-SE-05-10

Analysis: SMS Metals

Preservative: Cool/4 C

Sam

206) 287-91
tion Plant R/F
ne: 12:47

Sampler: DG, NB

Anchor QEA, LLC Seattle, WA
Project Name: Former Reynolds Metals
Project No: 110730-02.01

Date: 11/12/2012
Sample Name: AQ-SE-06-10

Analysis: SMS Metals
Preservative: Cool/4 C

QEA, LLC Seattle, WA

Name: Former Reynolds Metals Reduction

No: 110730-02.01

11/2/2012

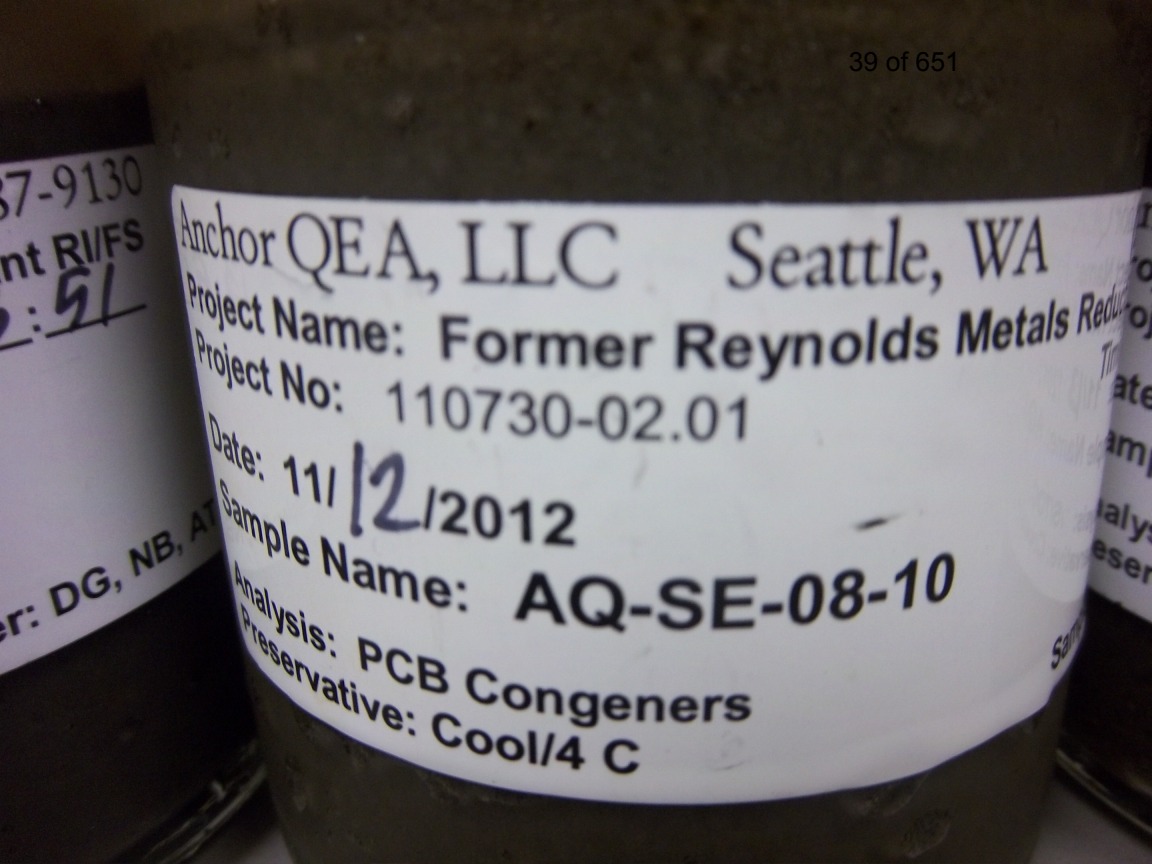
Name: AQ-SE-07-10

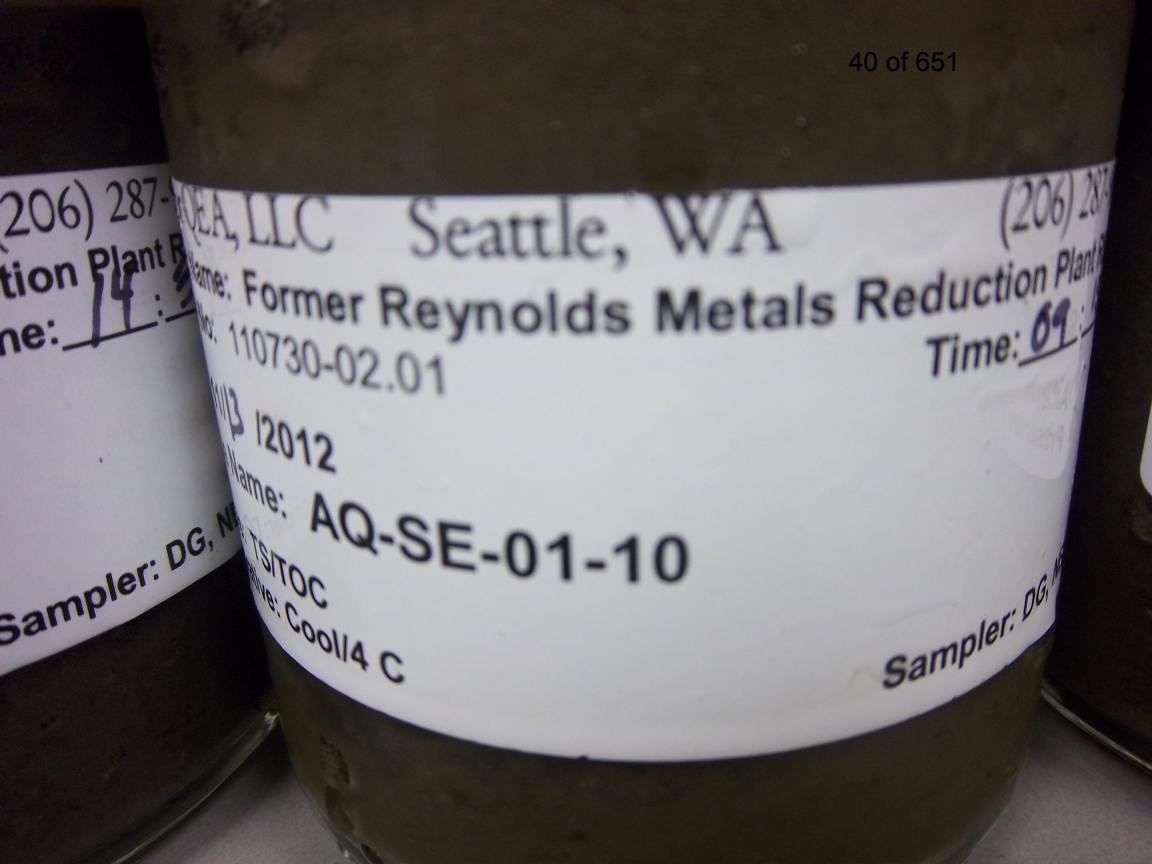
: TS/TOC

ative: Cool/4 C

Time:

Sampler:


Anchor QEA, LLC Seattle, WA
Project Name: Former Reynolds Metals Reduc
Project No: 110730-02.01
Date: 11/12/2012
Sample Name: AQ-SE-08-10
Analysis: PCB Congeners
Preservative: Cool/4 C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Sampler: DG, N
QEA, LLC Seattle, WA
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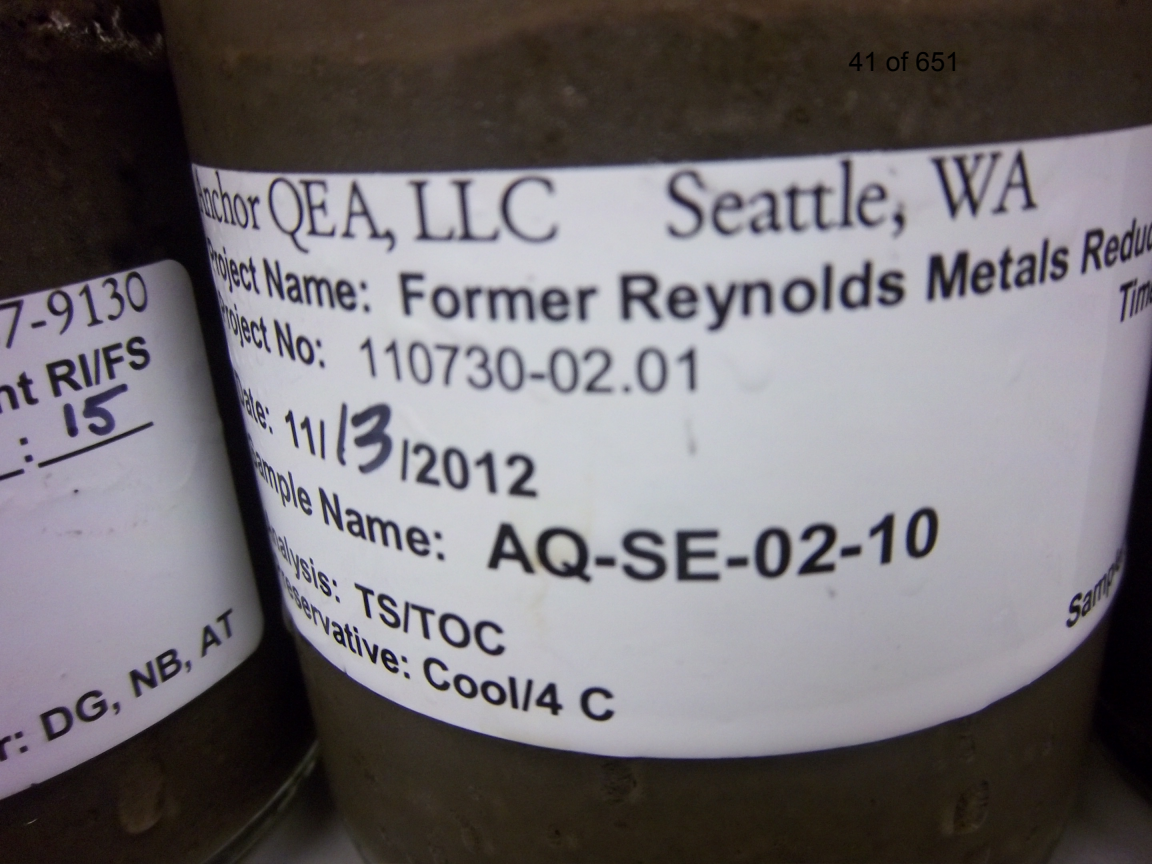
Sampler: DG,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nalysis: TS/TOC
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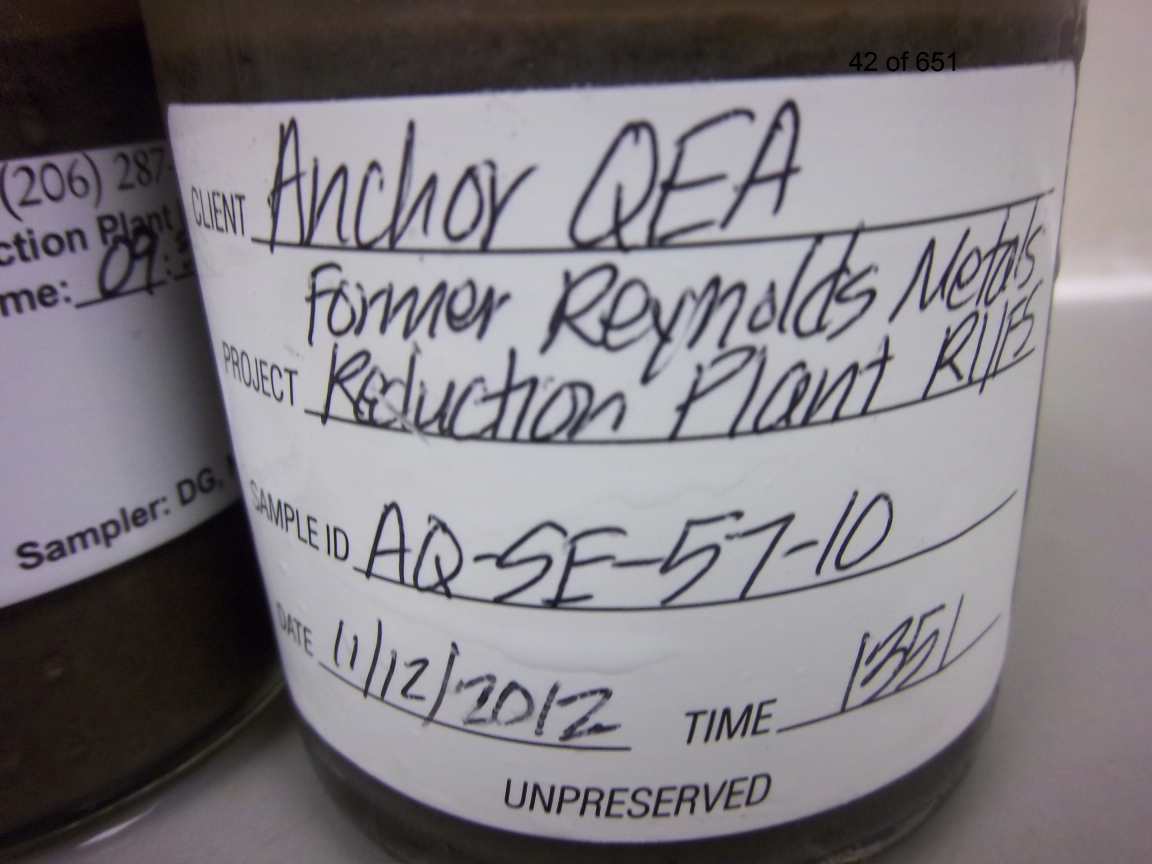
r: DG, NB, AT


(206) 287
ction Plant
me: 09:
Sampler: DG,
CLIENT Anchor QEA
Former Reynolds Metals
PROJECT Reduction Plant RI/FS
SAMPLE ID AQ-SE-57-10
DATE 1/12/2012 TIME 1351
UNPRESERVED



SGS Analytical Perspectives — Run Log **Project: A4909_10429_PCB**

Instrument: MM7 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_a

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
1	121214X01	Tray1:04	CS3_121214_PCB_XA	1.00	SIL 12-65-3	LKB	773-102	14-Dec-2012	03:58:34
2	121214X02	Tray1:59	OPR1_10429_PCB	1.00	0_10429_OPR001	LKB	397-803	14-Dec-2012	04:52:37
3	121214X03	Tray1:02	SBS_121214_PCB_XA	1.00	SIL 9-41-1	LKB	529-276	14-Dec-2012	05:46:41
4	121214X04	Tray1:60	MB1_10429_PCB_SDS	10.50	Method Blank	LKB	150-762	14-Dec-2012	06:40:43
5	121214X05	Tray1:61	A4909_10429_PCB_001	12.30	AQ-SE-03-10	LKB	751-947	14-Dec-2012	07:34:46
6	121214X06	Tray1:62	A4909_10429_PCB_002	11.08	AQ-SE-04-10	LKB	109-009	14-Dec-2012	08:28:49
7	121214X07	Tray1:63	A4909_10429_PCB_003	11.44	AQ-SE-05-10	LKB	490-654	14-Dec-2012	09:22:44
8	121214X08	Tray1:64	A4909_10429_PCB_004	11.98	AQ-SE-06-10	LKB	908-715	14-Dec-2012	10:16:39
9	121214X09	Tray1:02	SBS_121214_PCB_XB	1.00	SIL 9-41-1	LKB	529-766	14-Dec-2012	11:58:15
10	121214X10	Tray1:04	CS3_121214_PCB_XB	1.00	SIL 12-65-3	LKB	549-357	14-Dec-2012	13:02:29
11	121214X11	Tray1:02	SBS_121214_PCB_XC	1.00	SIL 9-41-1	LKB	494-161	14-Dec-2012	13:53:42
12	121214X12	Tray1:65	A4909_10429_PCB_005	12.32	AQ-SE-07-10	LKB	120-587	14-Dec-2012	14:52:57
13	121214X13	Tray1:66	A4909_10429_PCB_006	11.88	AQ-SE-08-10	LKB	695-708	14-Dec-2012	15:46:10
14	121214X14	Tray1:67	A4909_10429_PCB_007	10.89	AQ-SE-01-10	LKB	407-178	14-Dec-2012	16:41:08
15	121214X15	Tray1:68	A4909_10429_PCB_008	11.37	AQ-SE-02-10	LKB	877-682	14-Dec-2012	17:36:06
16	121214X16	Tray1:69	A4909_10429_PCB_009	12.37	AQ-SE-57-10	LKB	940-191	14-Dec-2012	18:31:06

= manual calculation

REVIEWED
By Laura Boivin at 3:03 pm, Dec 16, 2012

RECEIVED
By Heather Steele at 10:49 am, Dec 17, 2012

Datafile: 121214X04 **Client ID: Method Blank** **Wt/Vol: 10.00 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XA**

Acquired: 14 Dec 2012 06:40:43 **Lab ID: MB1_10429_PCB_SDS** **J-level: 1 pg/g** **Nominal ES spike: 2000 pg**

MB1_10429_PCB_SDS Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.06E+03	0.0907
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.06E+03	0.0946
PCB-105 233'44'-PeCB	NotFnd		1.0007	-		0.00E+00		1.09	ND	7.92E+02	0.0896
PCB-114 2344'5-PeCB	NotFnd		1.0007	-		0.00E+00		1.16	ND	7.92E+02	0.082
PCB-118 23'44'5-PeCB	32.48	J	1.0007	1.0007	0	3.17E+04	0.58	1.11	0.328	7.92E+02	0.087
PCB-123 23'44'5'-PeCB	NotFnd		1.0006	-		0.00E+00		1.19	ND	7.92E+02	0.084
PCB-126 33'44'5-PeCB	NotFnd		1.0005	-		0.00E+00		1.06	ND	1.23E+03	0.133
PCB-156/157 ...-HxCB	NotFnd	C	1.0005	-		0.00E+00		1.11	ND	9.08E+02	0.125
PCB-167 23'44'55'-HxCB	NotFnd		1.0005	-		0.00E+00		1.14	ND	9.08E+02	0.0973
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	9.08E+02	0.111
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.06	ND	7.50E+02	0.0916
									Recv.		
ES PCB-77	30.51		1.3599	1.3609	+1.8	2.19E+07	0.77	1.35	92.1 %	25%	150%
ES PCB-81	30.04		1.3390	1.3400	+1.8	2.06E+07	0.80	1.29	90.4 %	25%	150%
ES PCB-105	33.44		1.1826	1.1830	+0.8	1.68E+07	1.62	1.23	96.3 %	25%	150%
ES PCB-114	32.91		1.1639	1.1642	+0.6	1.69E+07	1.57	1.25	95.6 %	25%	150%
ES PCB-118	32.46		1.1481	1.1484	+0.6	1.75E+07	1.59	1.28	96.7 %	25%	150%
ES PCB-123	32.18		1.1383	1.1385	+0.4	1.67E+07	1.62	1.22	96.8 %	25%	150%
ES PCB-126	36.05		1.2746	1.2754	+1.7	1.78E+07	1.59	1.20	105 %	25%	150%
ES PCB-156/157	38.57		1.0994	1.0999	+1.2	3.43E+07	1.30	1.45	93.9 %	25%	150%
ES PCB-167	37.61		1.0720	1.0725	+1.1	1.76E+07	1.32	1.49	94 %	25%	150%
ES PCB-169	41.29		1.1769	1.1775	+1.5	1.59E+07	1.33	1.40	90.2 %	25%	150%
ES PCB-189	43.40		0.9611	0.9612	+0.3	1.63E+07	1.03	1.49	103 %	25%	150%
SS PCB-28	20.86		0.9298	0.9303	+0.6	3.17E+07	1.12	1.07	111 %	30%	135%
SS PCB-111	30.55		1.0805	1.0807	+0.4	1.73E+07	1.55	1.01	104 %	30%	135%
SS PCB-178	35.45		1.0108	1.0110	+0.4	9.61E+06	1.07	0.63	101 %	30%	135%
CS PCB-28	20.86		0.9298	0.9303	+0.6	3.17E+07	1.12	1.76	102 %	30%	135%
CS PCB-111	30.55		1.0805	1.0807	+0.4	1.73E+07	1.55	1.23	100 %	30%	135%
CS PCB-178	35.45		1.0108	1.0110	+0.4	9.61E+06	1.07	0.74	104 %	30%	135%
JS PCB-9	14.73					3.29E+07	1.59				
JS PCB-52	22.42					1.77E+07	0.80				
JS PCB-101	28.27					1.41E+07	1.60				
JS PCB-138	35.07					1.25E+07	1.30				
JS PCB-194	45.15					1.06E+07	0.92				

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 150-762 *PKD: n/a Printed: 16-Dec-2012 14:45 Page 1 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0821, 1919 scc: 150-762 *Revised: 14-Dec-2012 10:15 (LKB) Printed: 16-Dec-2012 14:45 Page 2 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3589, 5575 scc: 150-762 *PKD: 14-Dec-2012 10:14 Printed: 16-Dec-2012 14:45 Page 6 of 21*

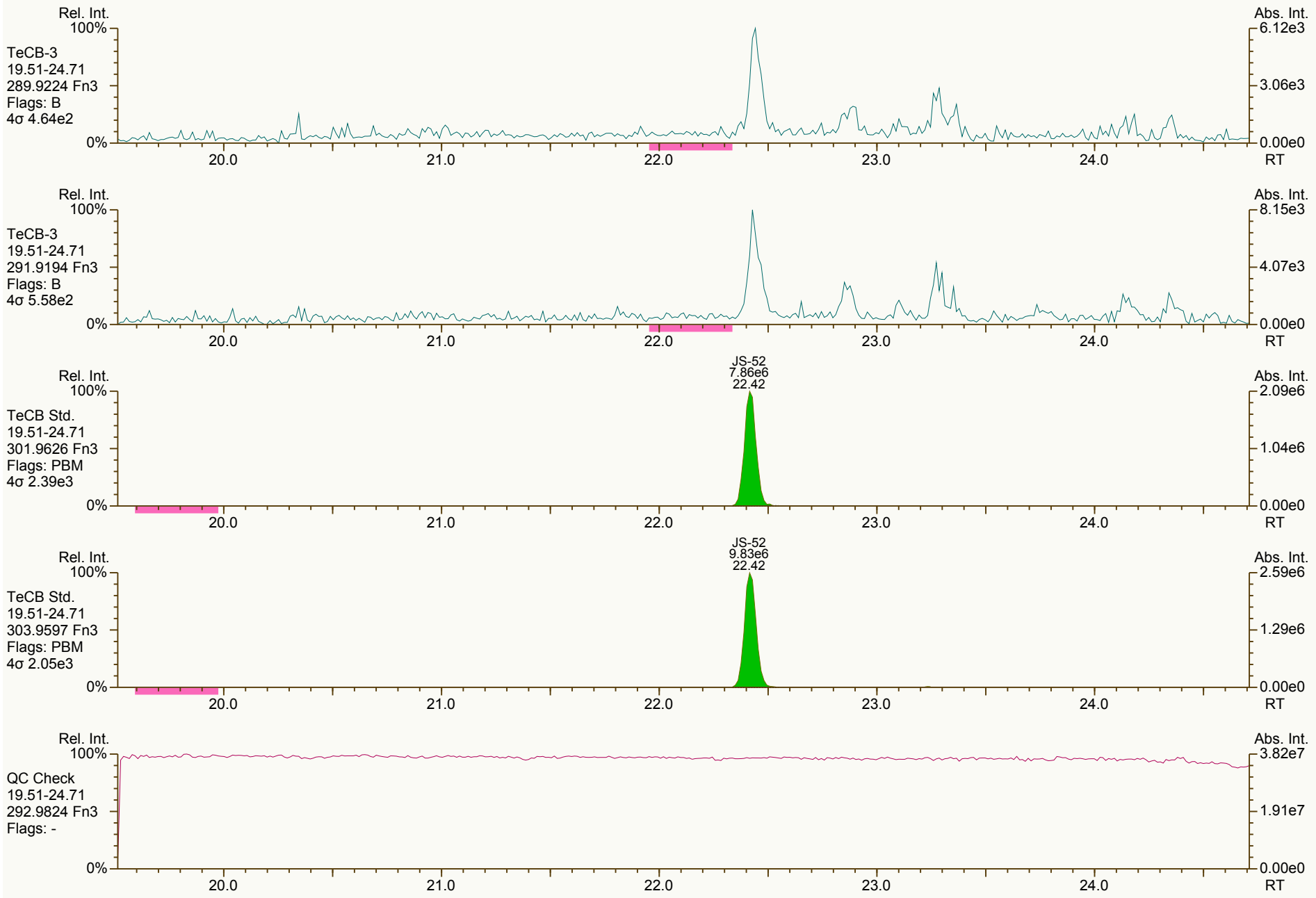
SGS-AP ID: MB1_10429_PCB_SDS | Sample ID: Method Blank | Acq: 14-Dec-2012 06:40:43
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60 | User: LKB Datafile: 121214X04



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

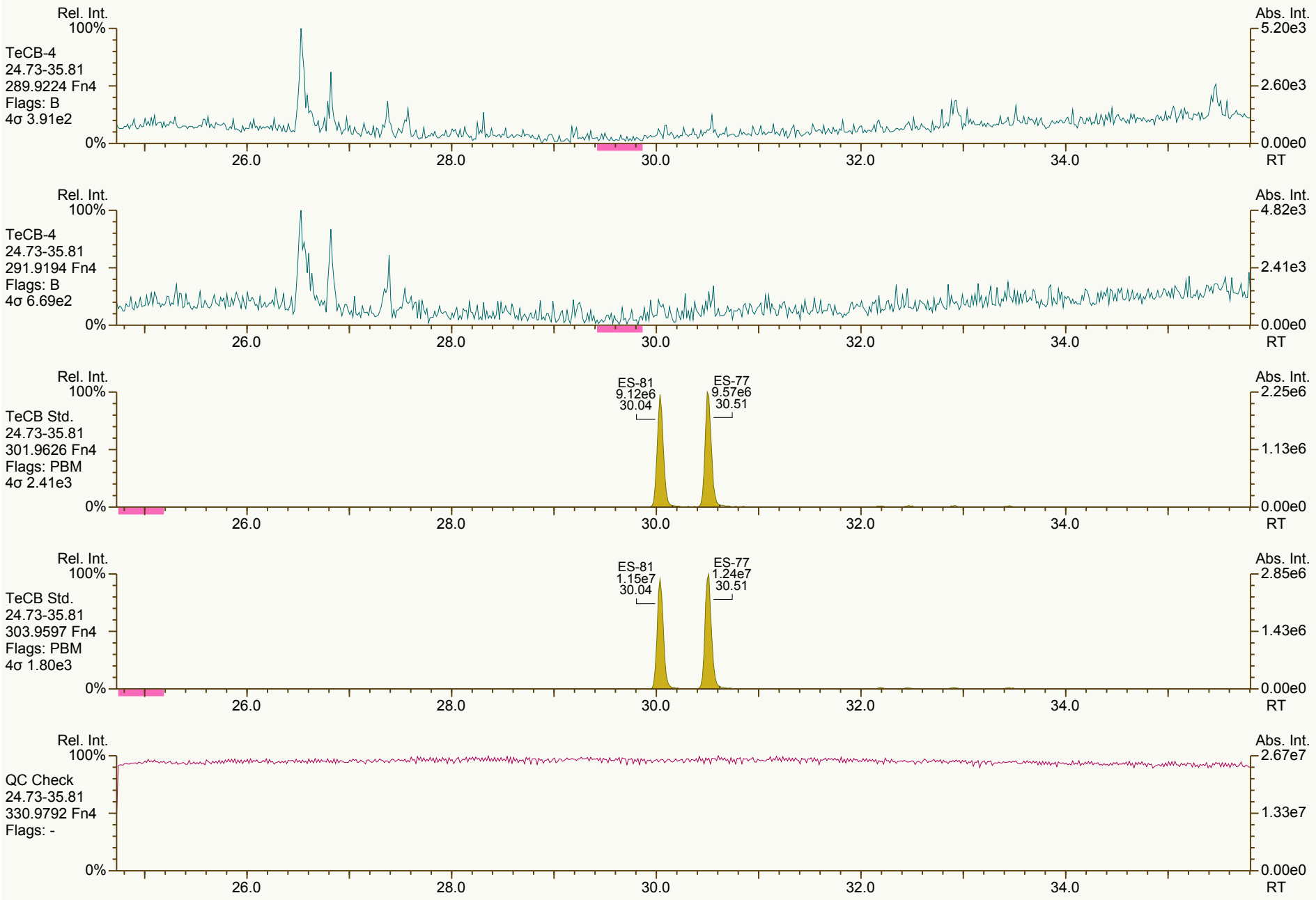
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4531, 6994 scc: 150-762 *Revised: 14-Dec-2012 10:12 (LKB) Printed: 16-Dec-2012 14:45 Page 7 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9070, 9095 scc: 150-762 *PKD: 14-Dec-2012 10:14 Printed: 16-Dec-2012 14:45 Page 8 of 21*

SGS-AP ID: MB1_10429_PCB_SDS | **Sample ID: Method Blank** | **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 | **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** | **User: LKB Datafile: 121214X04**

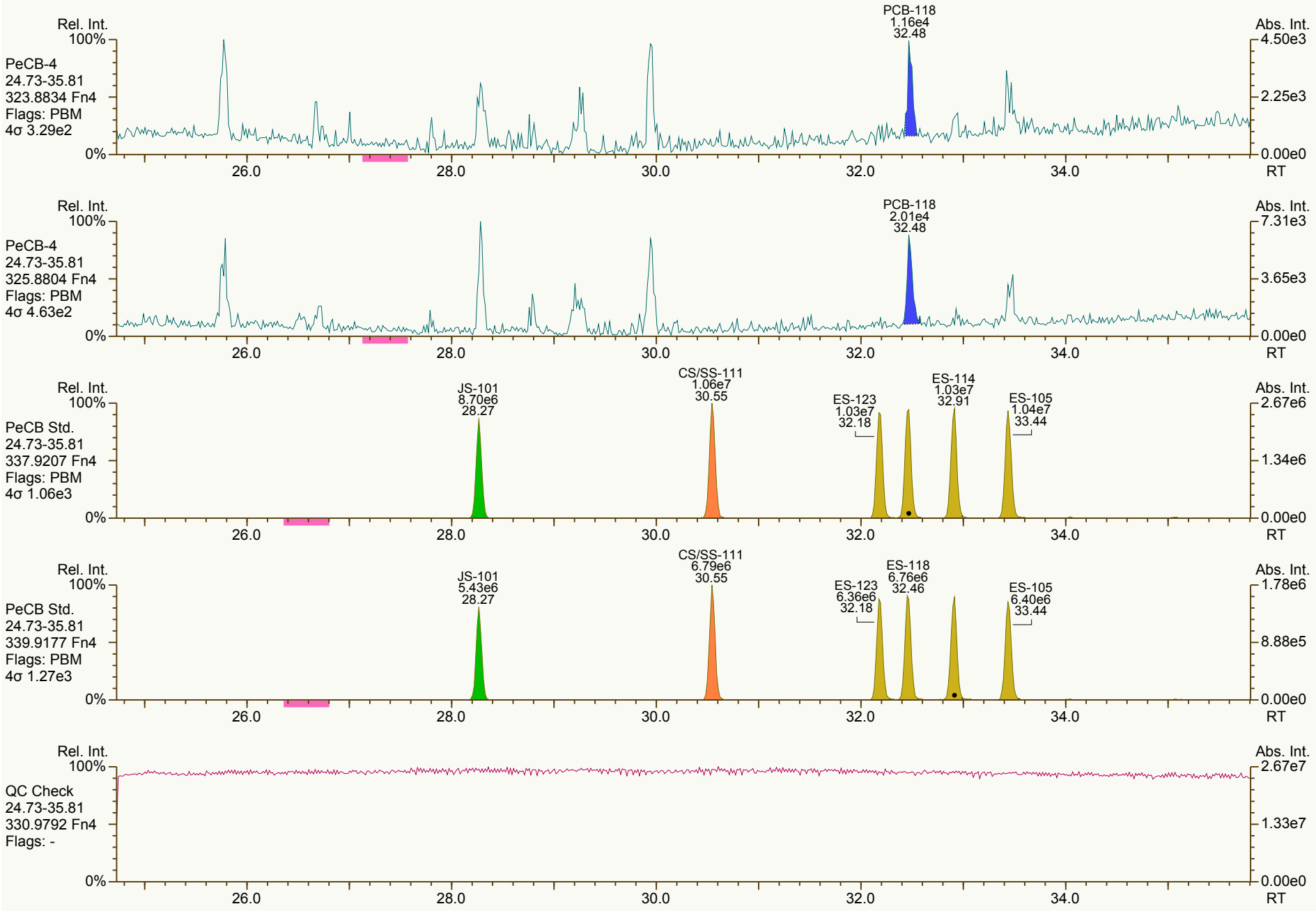


SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4398, 4518 scc: 150-762 *Revised: 14-Dec-2012 10:15 (LKB) Printed: 16-Dec-2012 14:46 Page 10 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6565, 0827 scc: 150-762 *Revised: 14-Dec-2012 10:15 (LKB) Printed: 16-Dec-2012 14:46 Page 12 of 21*

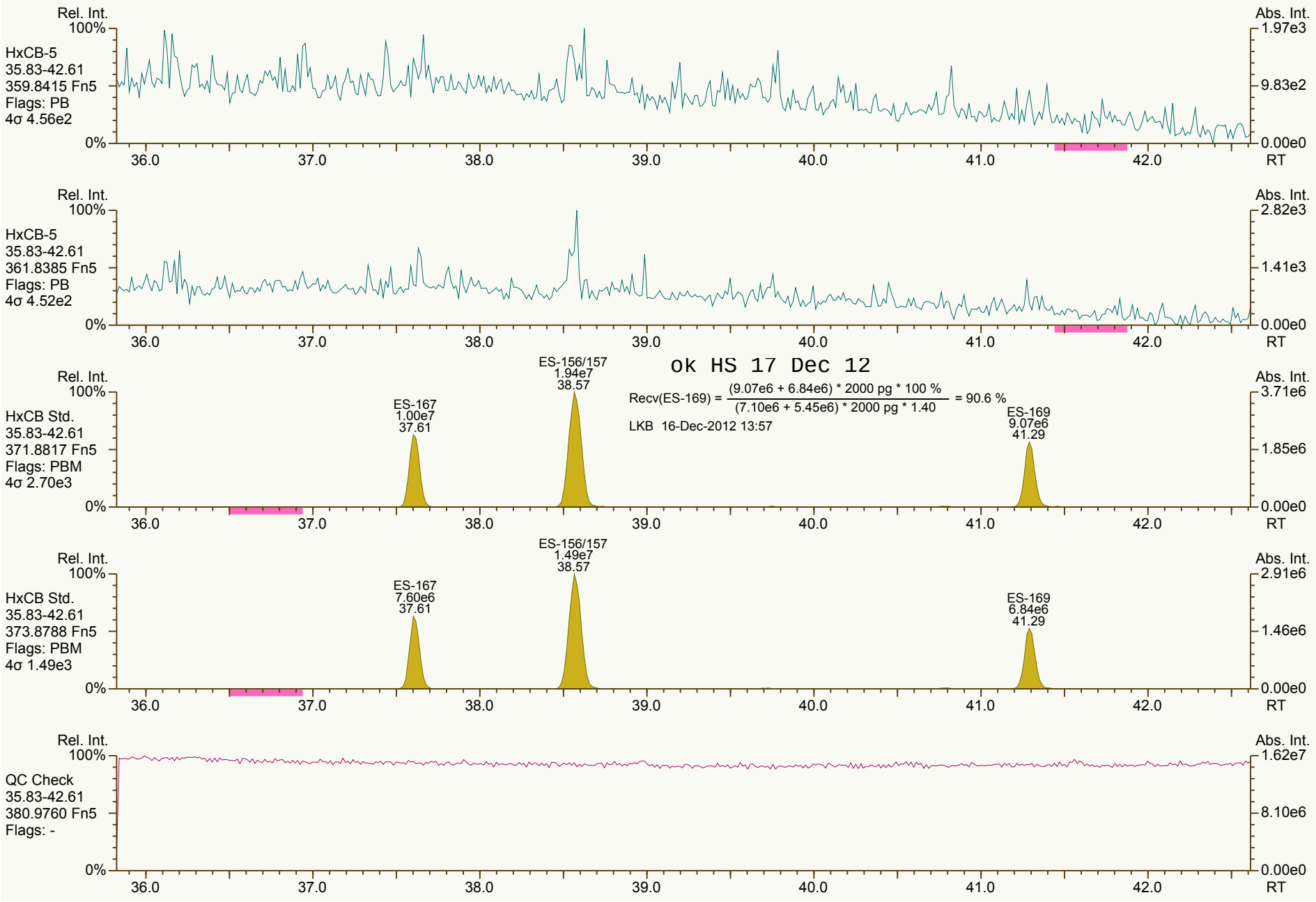
SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5977, 2132 scc: 150-762 *Revised: 14-Dec-2012 10:16 (LKB) Printed: 16-Dec-2012 14:46 Page 13 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0027, 8833 scc: 150-762 *PKD: 14-Dec-2012 10:16 Printed: 16-Dec-2012 14:46 Page 14 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



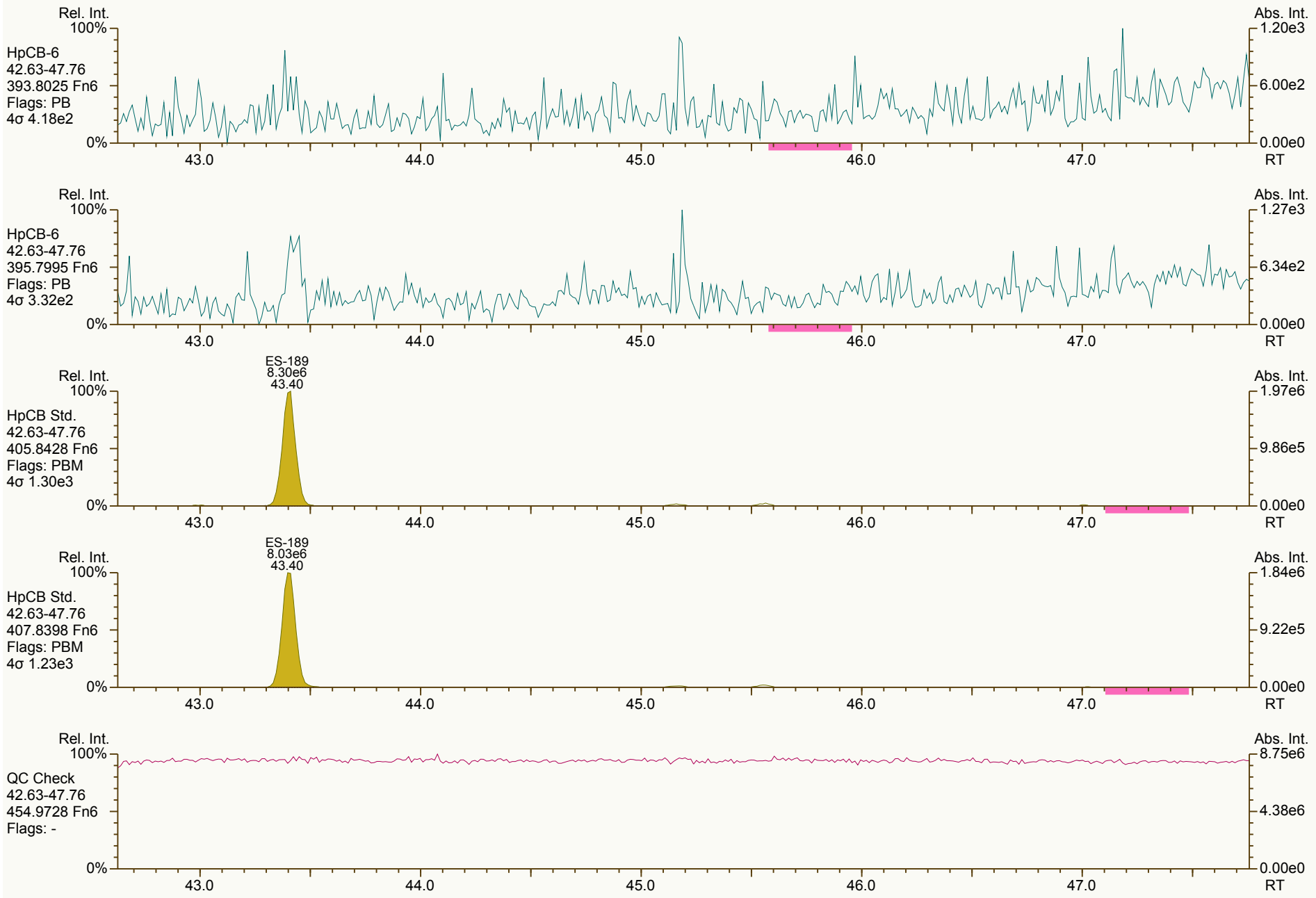
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7647, 0008 scc: 150-762 *Revised: 14-Dec-2012 10:14 (LKB) Printed: 16-Dec-2012 14:46 Page 16 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7969, 5779 scc: 150-762 *PKD: 14-Dec-2012 10:16 Printed: 16-Dec-2012 14:46 Page 17 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8081, 1948 scc: 150-762 *PKD: 14-Dec-2012 10:16 Printed: 16-Dec-2012 14:46 Page 18 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7047, 7533 scc: 150-762 *Revised: 14-Dec-2012 10:14 (LKB) Printed: 16-Dec-2012 14:46 Page 19 of 21*

SGS-AP ID: MB1_10429_PCB_SDS | **Sample ID: Method Blank** | **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 | **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** | **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2394, 4188 scc: 150-762 *PKD: 14-Dec-2012 10:16 Printed: 16-Dec-2012 14:46 Page 20 of 21*

SGS-AP ID: MB1_10429_PCB_SDS **Sample ID: Method Blank** **Acq: 14-Dec-2012 06:40:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 60** **User: LKB Datafile: 121214X04**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\MB1_10429_PCB_SDS.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8020, 0140 scc: 150-762 *Revised: 14-Dec-2012 10:15 (LKB) Printed: 16-Dec-2012 14:46 Page 21 of 21*

Datafile: 121214X05 **Client ID: AQ-SE-03-10** **Wt/Vol: 12.30 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XA**

Acquired: 14 Dec 2012 07:34:46 **Lab ID: A4909_10429_PCB_001** **J-level: 0.813 pg/g** **Nominal ES spike: 2000 pg**

A4909_10429_PCB_001 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.53		1.0006	1.0006	0	4.26E+06	0.78	1.13	20.2	2.13E+03	0.107
PCB-81 344'5-TeCB	30.05	J	1.0006	1.0004	-0.4	1.59E+05	0.72	1.13	0.806	2.13E+03	0.114
PCB-105 233'44'-PeCB	33.46		1.0007	1.0007	0	7.52E+06	0.63	1.09	47.5	1.79E+03	0.119
PCB-114 2344'5-PeCB	32.93		1.0007	1.0006	-0.2	4.20E+05	0.62	1.16	2.51	1.79E+03	0.108
PCB-118 23'44'5-PeCB	32.49		1.0007	1.0007	0	1.48E+07	0.61	1.11	89.5	1.79E+03	0.115
PCB-123 23'44'5'-PeCB	32.20		1.0006	1.0006	0	5.03E+05	0.62	1.19	3	1.79E+03	0.114
PCB-126 33'44'5-PeCB	36.07	J	1.0005	1.0003	-0.4	6.55E+04	0.60	1.06	0.399	1.59E+03	0.104
PCB-156/157 ...-HxCB	38.58	C	1.0005	1.0002	-0.7	1.17E+06	1.17	1.11	7.38	1.60E+03	0.137
PCB-167 23'44'55'-HxCB	37.64		1.0005	1.0005	0	4.77E+05	1.20	1.14	2.78	1.60E+03	0.0957
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	1.60E+03	0.109
PCB-189 233'44'55'-HpCB	43.43		1.0004	1.0005	+0.3	2.19E+05	1.06	1.06	1.52	1.17E+03	0.0825
									Recv.		
ES PCB-77	30.51		1.3599	1.3609	+1.8	3.02E+07	0.76	1.35	96.1 %	25%	150%
ES PCB-81	30.04		1.3390	1.3400	+1.8	2.84E+07	0.78	1.29	94.5 %	25%	150%
ES PCB-105	33.44		1.1826	1.1830	+0.8	2.35E+07	1.62	1.23	102 %	25%	150%
ES PCB-114	32.91		1.1639	1.1642	+0.6	2.35E+07	1.64	1.25	101 %	25%	150%
ES PCB-118	32.46		1.1481	1.1484	+0.6	2.42E+07	1.61	1.28	101 %	25%	150%
ES PCB-123	32.18		1.1383	1.1386	+0.6	2.30E+07	1.61	1.22	101 %	25%	150%
ES PCB-126	36.05		1.2746	1.2755	+1.9	2.51E+07	1.55	1.20	112 %	25%	150%
ES PCB-156/157	38.58		1.0994	1.0999	+1.2	4.65E+07	1.31	1.45	93.3 %	25%	150%
ES PCB-167	37.62		1.0720	1.0725	+1.1	2.45E+07	1.32	1.49	95.9 %	25%	150%
ES PCB-169	41.30		1.1769	1.1777	+2.0	2.23E+07	1.35	1.40	92.5 %	25%	150%
ES PCB-189	43.41		0.9611	0.9612	+0.3	2.22E+07	1.05	1.49	104 %	25%	150%
SS PCB-28	20.85		0.9298	0.9302	+0.5	4.43E+07	1.11	1.07	114 %	30%	135%
SS PCB-111	30.55		1.0805	1.0807	+0.4	2.54E+07	1.61	1.01	110 %	30%	135%
SS PCB-178	35.46		1.0108	1.0110	+0.4	1.40E+07	1.06	0.63	108 %	30%	135%
CS PCB-28	20.85		0.9298	0.9302	+0.5	4.43E+07	1.11	1.76	108 %	30%	135%
CS PCB-111	30.55		1.0805	1.0807	+0.4	2.54E+07	1.61	1.23	111 %	30%	135%
CS PCB-178	35.46		1.0108	1.0110	+0.4	1.40E+07	1.06	0.74	111 %	30%	135%
JS PCB-9	14.73					4.19E+07	1.57				
JS PCB-52	22.42					2.34E+07	0.81				
JS PCB-101	28.27					1.86E+07	1.65				
JS PCB-138	35.07					1.71E+07	1.28				
JS PCB-194	45.17					1.44E+07	0.89				

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_001.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 751-947 *PKD: n/a Printed: 16-Dec-2012 14:46 Page 1 of 21*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_001.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4608, 7889 scc: 751-947 *Revised: 14-Dec-2012 09:16 (LKB) Printed: 16-Dec-2012 14:46 Page 2 of 21*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**

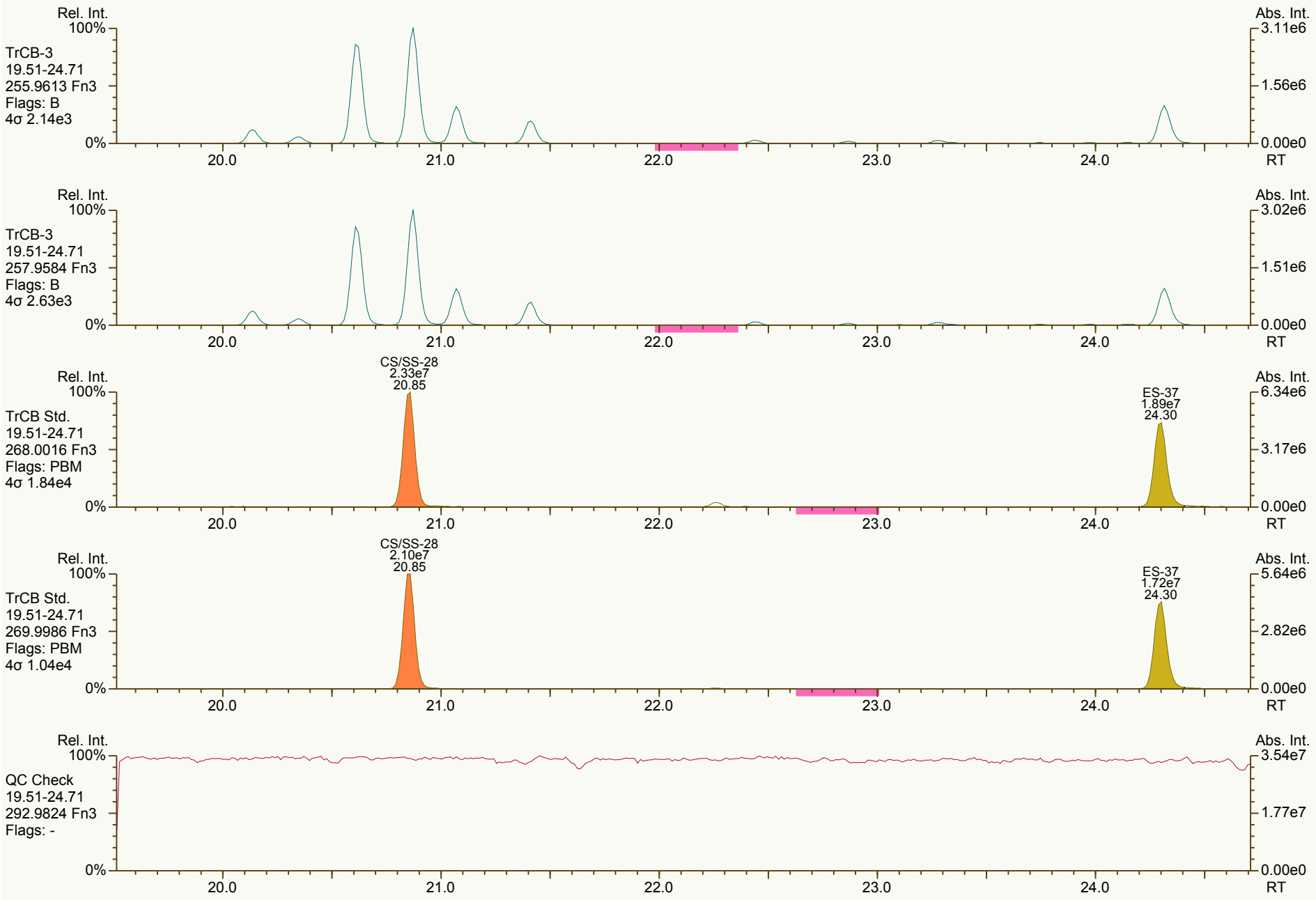


Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_001.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



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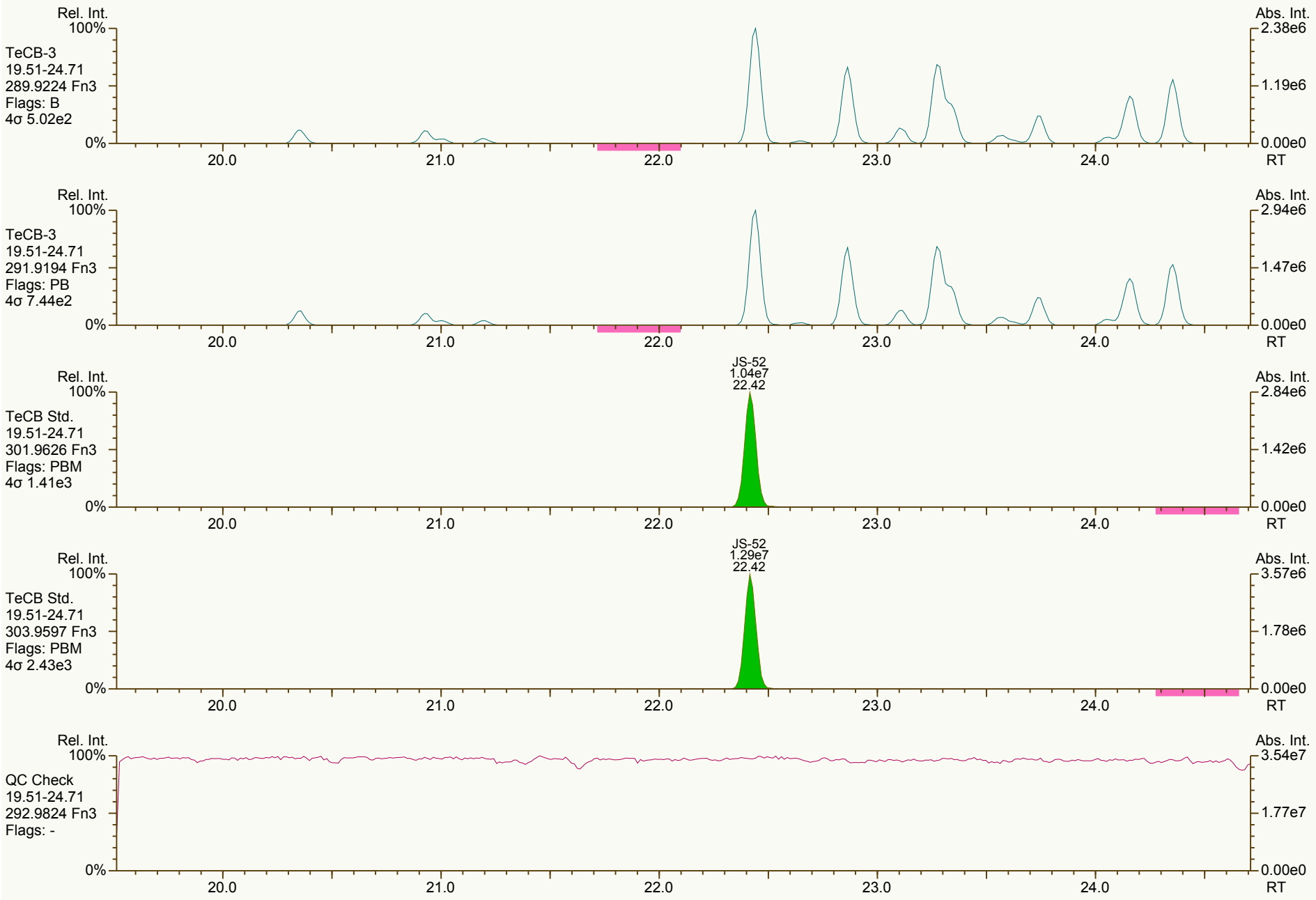
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5557, 9610 scc: 751-947 *Revised: 14-Dec-2012 09:16 (LKB) Printed: 16-Dec-2012 14:46 Page 6 of 21*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_001.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4865, 0365 scc: 751-947 *Revised: 14-Dec-2012 09:16 (LKB) Printed: 16-Dec-2012 14:46 Page 7 of 21*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
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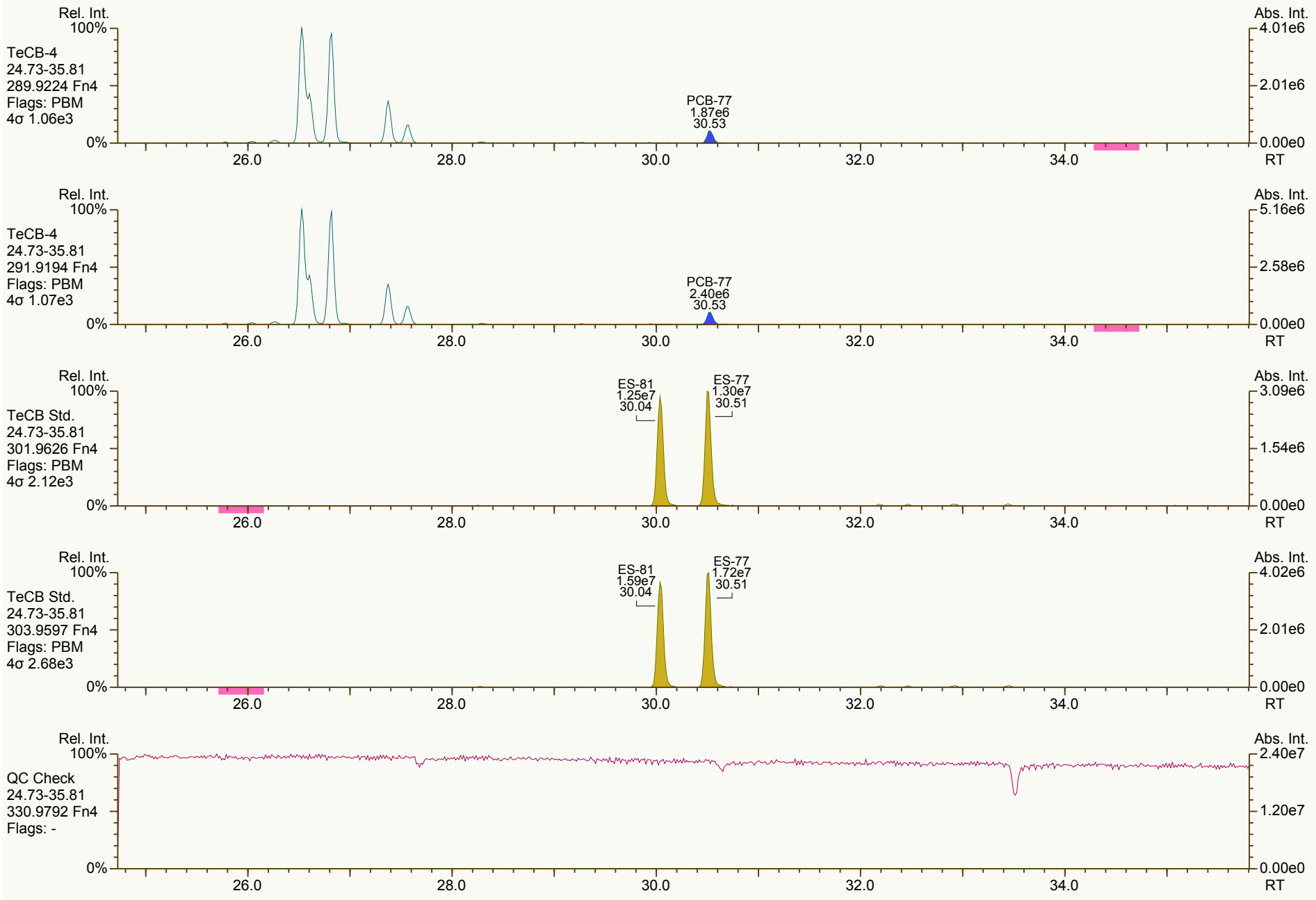

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SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
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Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_001.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

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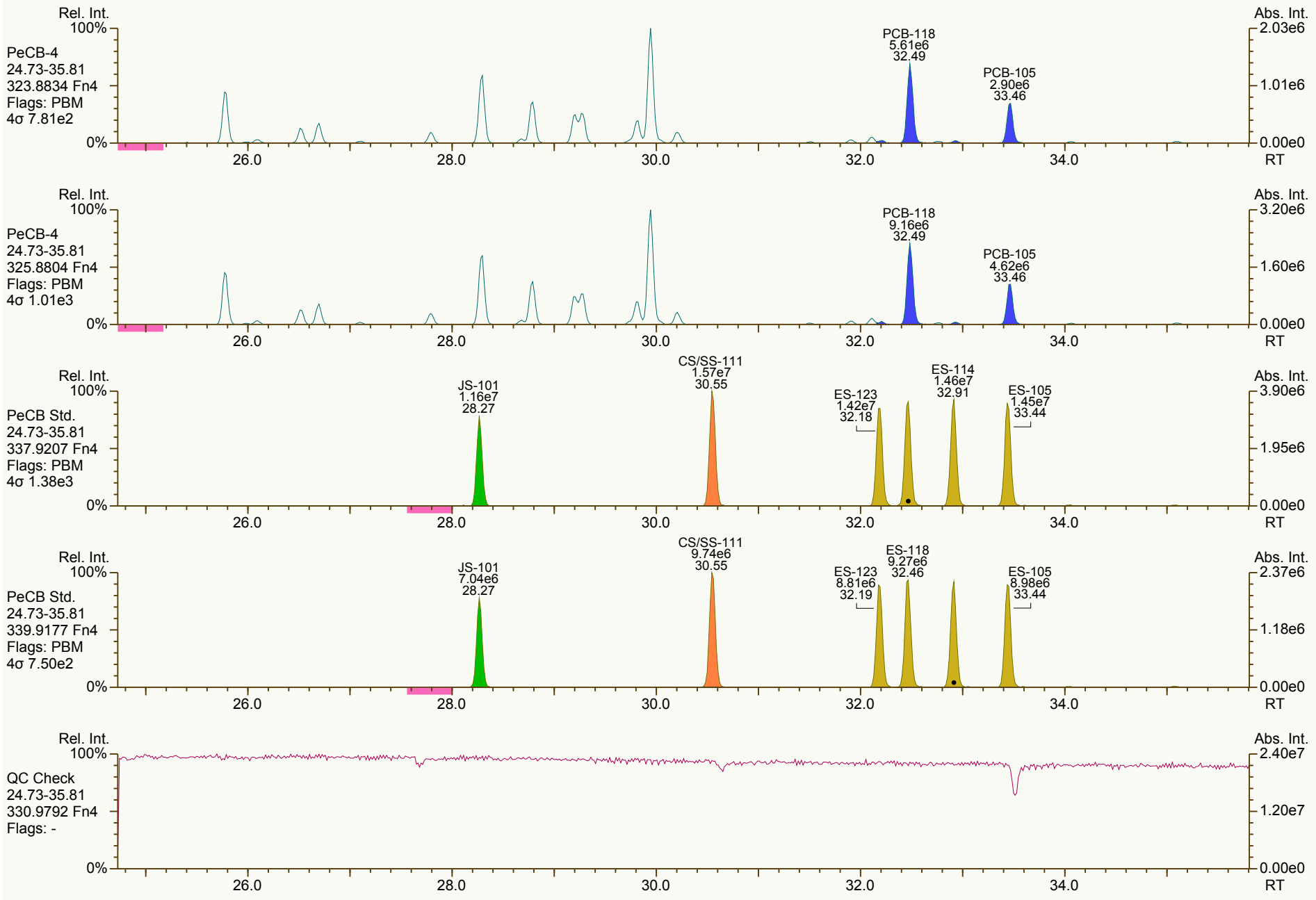
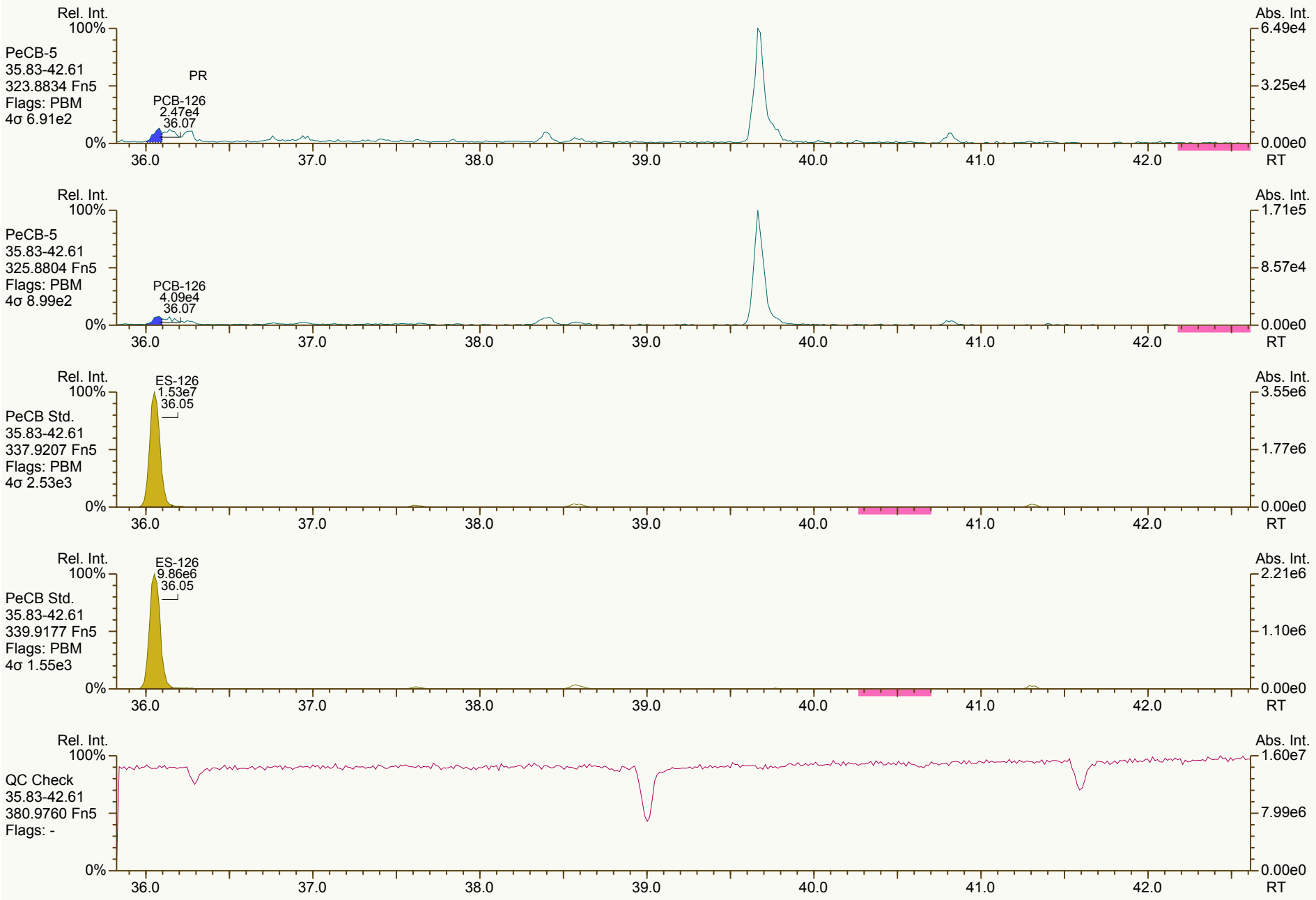


SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6508, 8731 scc: 751-947 *Revised: 14-Dec-2012 10:38 (LKB) Printed: 16-Dec-2012 14:46 Page 12 of 21*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



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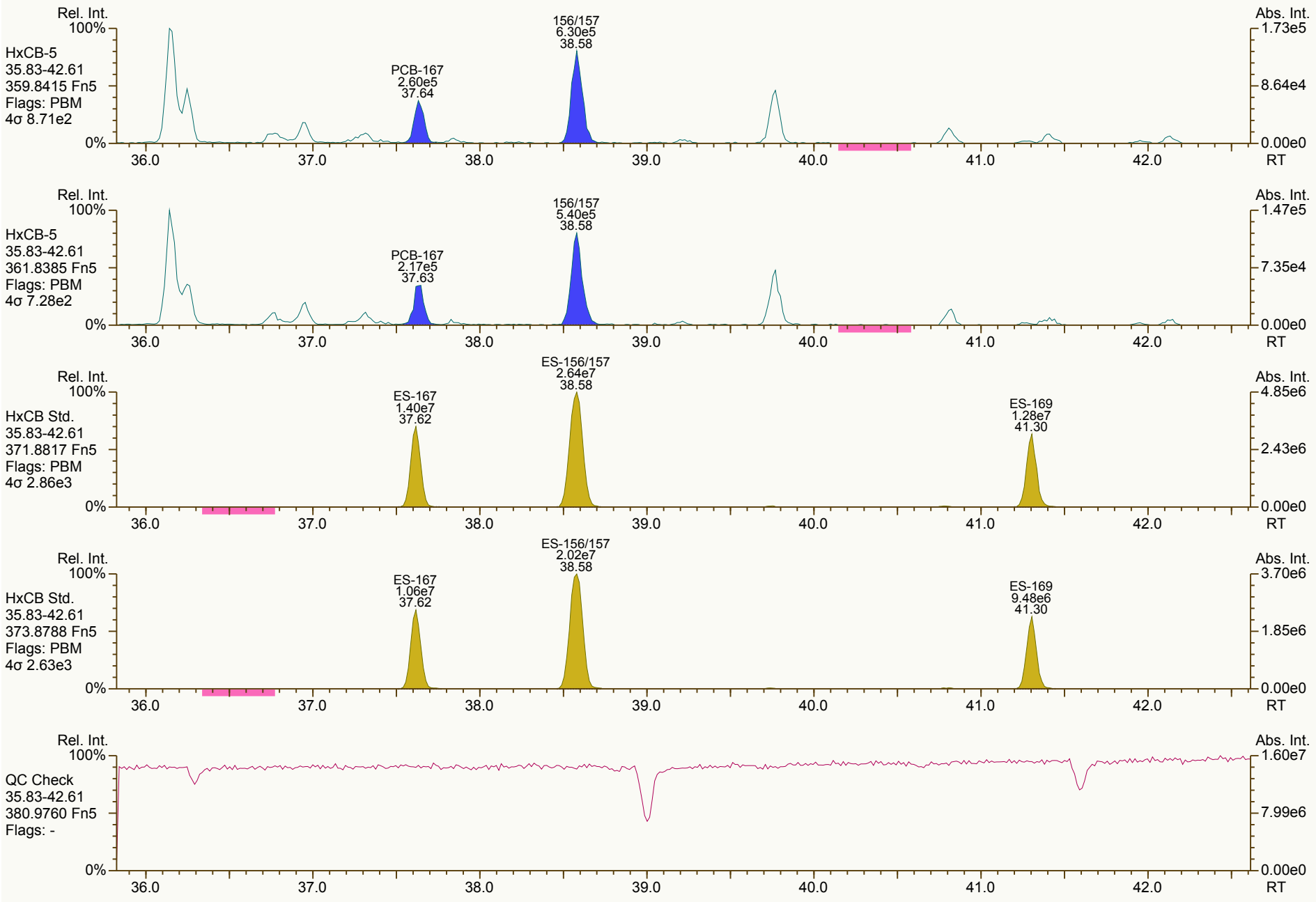
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0479, 1137 scc: 751-947 *Revised: 14-Dec-2012 09:17 (LKB) Printed: 16-Dec-2012 14:46 Page 13 of 21*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



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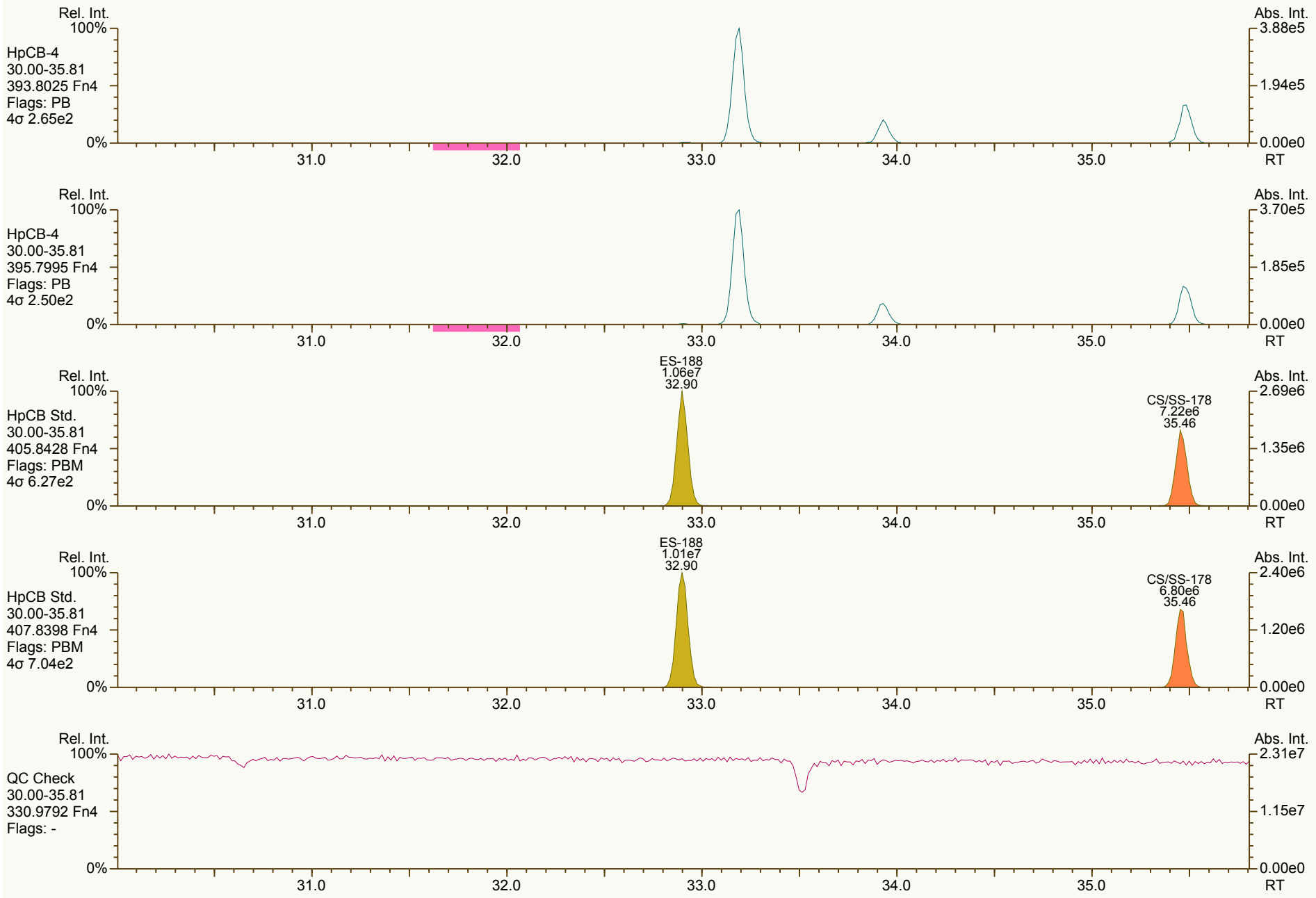
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6745, 5911 scc: 751-947 *Revised: 14-Dec-2012 09:14 (LKB) Printed: 16-Dec-2012 14:46 Page 14 of 21*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



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SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_001.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4342, 5532 scc: 751-947 *PKD: 14-Dec-2012 09:16 Printed: 16-Dec-2012 14:46 Page 16 of 21*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
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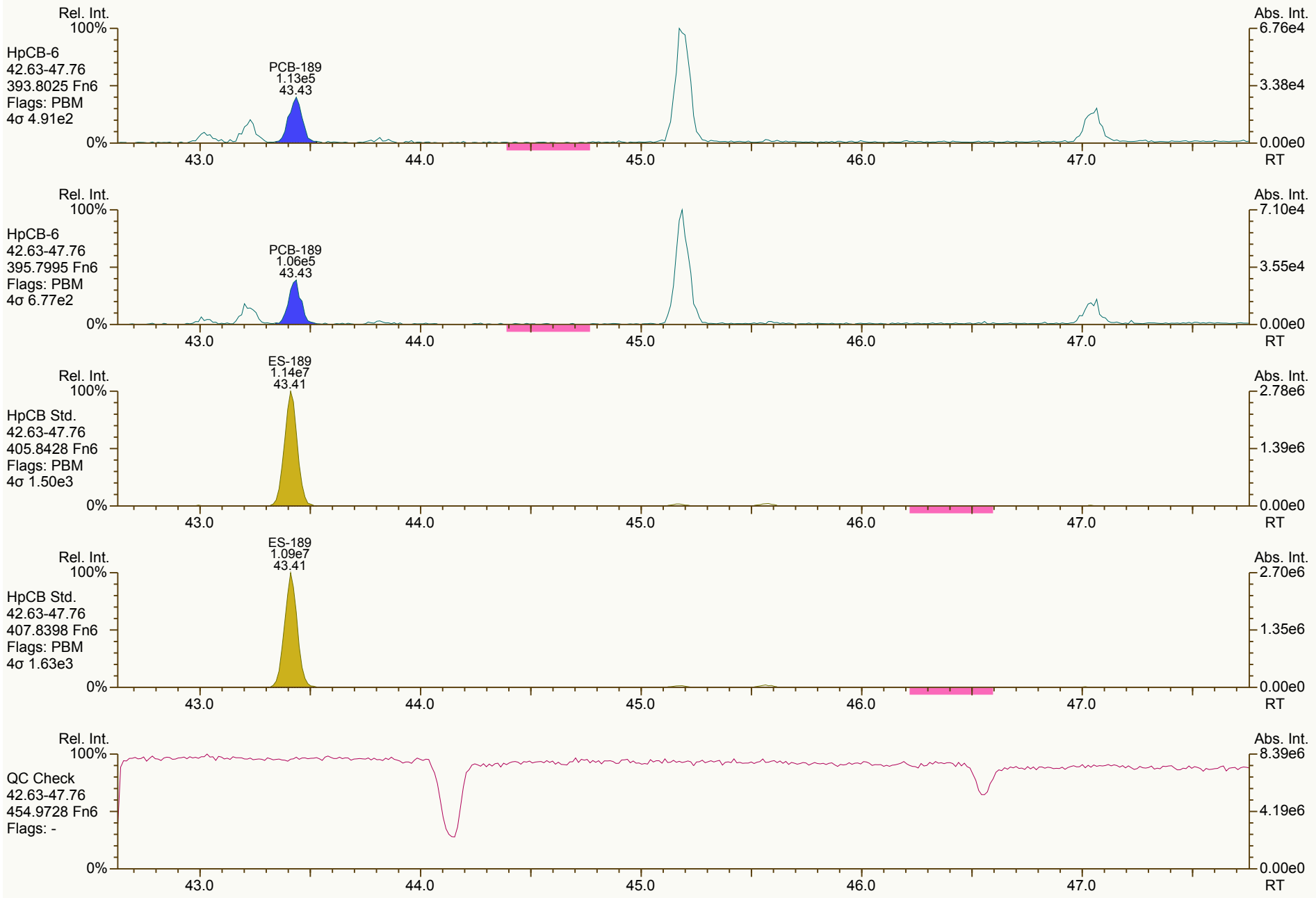

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3062, 2845 scc: 751-947 *Revised: 14-Dec-2012 09:18 (LKB) Printed: 16-Dec-2012 14:46 Page 17 of 21*

SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_001.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5813, 7555 scc: 751-947 *PKD: 14-Dec-2012 09:16 Printed: 16-Dec-2012 14:46 Page 18 of 21*

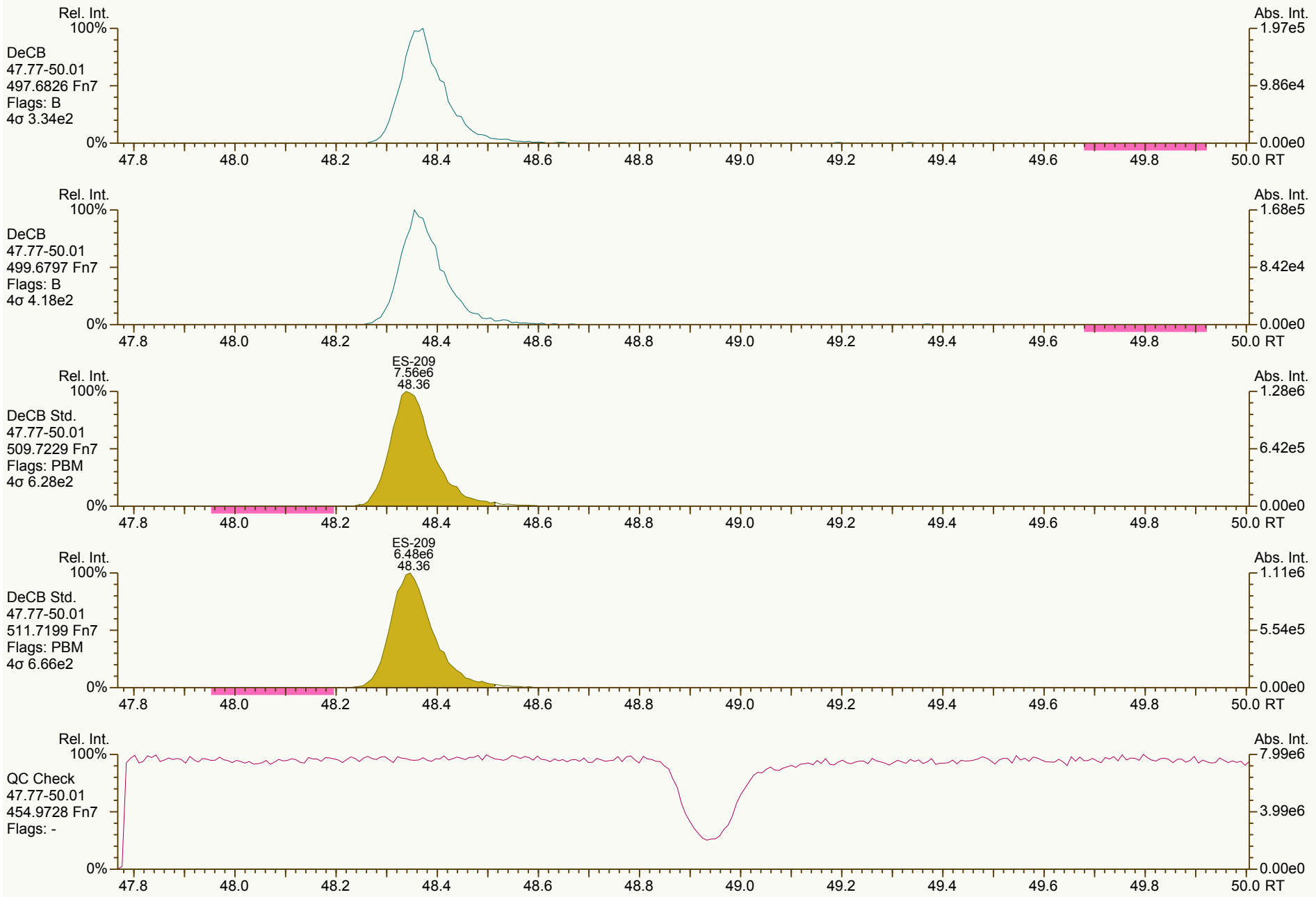
SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



SGS-AP ID: A4909_10429_PCB_001 **Sample ID: AQ-SE-03-10** **Acq: 14-Dec-2012 07:34:46**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 61** **User: LKB Datafile: 121214X05**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7839, 9275 scc: 751-947 *PKD: 14-Dec-2012 09:16 Printed: 16-Dec-2012 14:46 Page 21 of 21*

Datafile: 121214X06 **Client ID: AQ-SE-04-10** **Wt/Vol: 11.08 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XA**

Acquired: 14 Dec 2012 08:28:49 **Lab ID: A4909_10429_PCB_002** **J-level: 0.903 pg/g** **Nominal ES spike: 2000 pg**

A4909_10429_PCB_002 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.52		1.0006	1.0006	0	6.36E+06	0.77	1.13	39.3	2.42E+03	0.163
PCB-81 344'5-TeCB	30.06		1.0006	1.0006	0	1.72E+05	0.77	1.13	1.15	2.42E+03	0.155
PCB-105 233'44'-PeCB	33.46		1.0007	1.0006	-0.2	9.43E+06	0.62	1.09	82.1	2.71E+03	0.242
PCB-114 2344'5-PeCB	32.93		1.0007	1.0007	0	6.34E+05	0.61	1.16	5.02	2.71E+03	0.218
PCB-118 23'44'5-PeCB	32.48		1.0007	1.0007	0	2.26E+07	0.61	1.11	181	2.71E+03	0.218
PCB-123 23'44'5'-PeCB	32.21		1.0006	1.0008	+0.4	4.61E+05	0.65	1.19	3.67	2.71E+03	0.218
PCB-126 33'44'5-PeCB	36.07	J	1.0005	1.0004	-0.2	9.16E+04	0.61	1.06	0.737	1.68E+03	0.154
PCB-156/157 ...-HxCB	38.58	C	1.0005	1.0002	-0.7	1.02E+06	1.24	1.11	8.4	1.32E+03	0.143
PCB-167 23'44'55'-HxCB	37.63		1.0005	1.0005	0	3.56E+05	1.21	1.14	2.7	1.32E+03	0.105
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	1.32E+03	0.124
PCB-189 233'44'55'-HpCB	43.43	J	1.0004	1.0004	0	8.34E+04	1.09	1.06	0.747	9.97E+02	0.0954
									Recv.		
ES PCB-77	30.51		1.3599	1.3609	+1.8	2.58E+07	0.80	1.35	101 %	25%	150%
ES PCB-81	30.04		1.3390	1.3400	+1.8	2.40E+07	0.78	1.29	98.5 %	25%	150%
ES PCB-105	33.44		1.1826	1.1830	+0.8	1.89E+07	1.60	1.23	103 %	25%	150%
ES PCB-114	32.91		1.1639	1.1642	+0.6	1.97E+07	1.62	1.25	105 %	25%	150%
ES PCB-118	32.46		1.1481	1.1484	+0.6	2.04E+07	1.61	1.28	106 %	25%	150%
ES PCB-123	32.18		1.1383	1.1386	+0.6	1.91E+07	1.60	1.22	105 %	25%	150%
ES PCB-126	36.05		1.2746	1.2755	+1.9	2.11E+07	1.56	1.20	118 %	25%	150%
ES PCB-156/157	38.58		1.0994	1.1000	+1.4	3.96E+07	1.30	1.45	96.2 %	25%	150%
ES PCB-167	37.61		1.0720	1.0725	+1.1	2.10E+07	1.32	1.49	99.2 %	25%	150%
ES PCB-169	41.31		1.1769	1.1778	+2.2	1.89E+07	1.31	1.40	95.3 %	25%	150%
ES PCB-189	43.41		0.9611	0.9612	+0.3	1.91E+07	1.04	1.49	110 %	25%	150%
SS PCB-28	20.85		0.9298	0.9301	+0.4	3.15E+07	1.09	1.07	96.6 %	30%	135%
SS PCB-111	30.55		1.0805	1.0807	+0.4	1.89E+07	1.57	1.01	98.6 %	30%	135%
SS PCB-178	35.46		1.0108	1.0110	+0.4	1.08E+07	1.05	0.63	98.7 %	30%	135%
CS PCB-28	20.85		0.9298	0.9301	+0.4	3.15E+07	1.09	1.76	94.8 %	30%	135%
CS PCB-111	30.55		1.0805	1.0807	+0.4	1.89E+07	1.57	1.23	103 %	30%	135%
CS PCB-178	35.46		1.0108	1.0110	+0.4	1.08E+07	1.05	0.74	103 %	30%	135%
JS PCB-9	14.72					3.21E+07	1.56				
JS PCB-52	22.42					1.89E+07	0.78				
JS PCB-101	28.27					1.50E+07	1.58				
JS PCB-138	35.07					1.42E+07	1.26				
JS PCB-194	45.17					1.17E+07	0.88				

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
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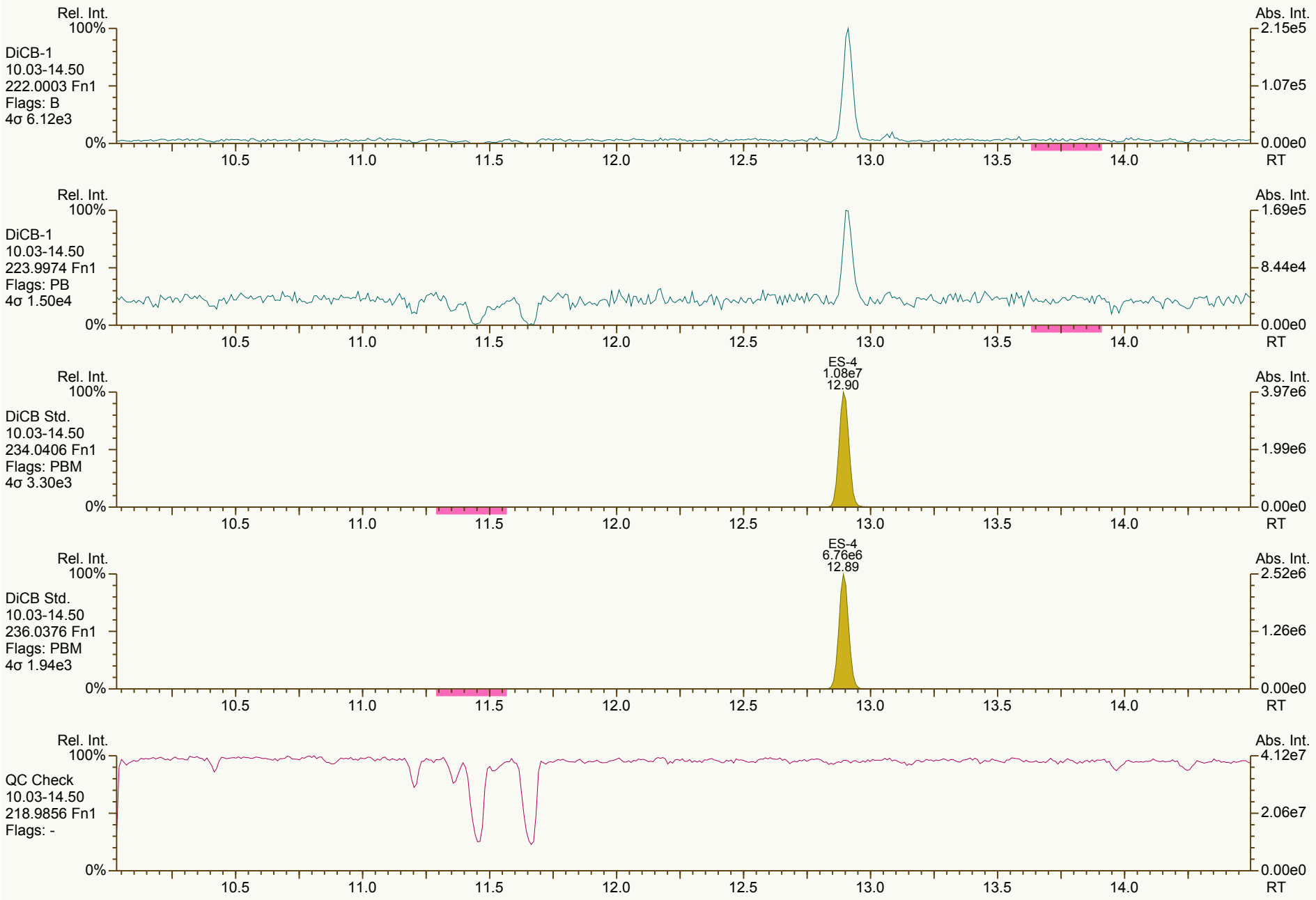
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 109-009 *PKD: n/a Printed: 16-Dec-2012 14:46 Page 1 of 21*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9541, 1315 scc: 109-009 *PKD: 14-Dec-2012 10:32 Printed: 16-Dec-2012 14:46 Page 2 of 21*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



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SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



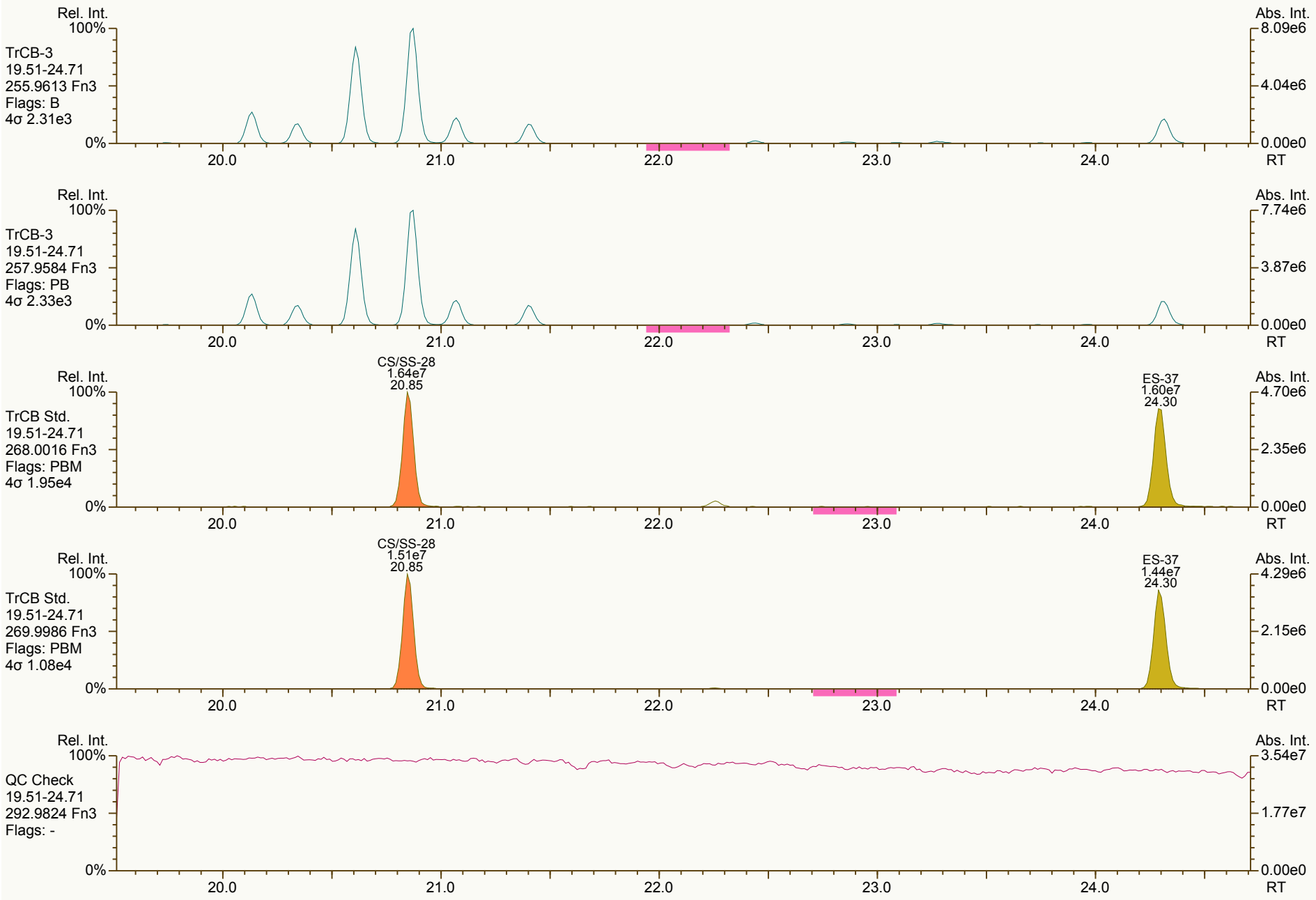
SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1281, 4656 scc: 109-009 *PKD: 14-Dec-2012 10:27 Printed: 16-Dec-2012 14:46 Page 5 of 21*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



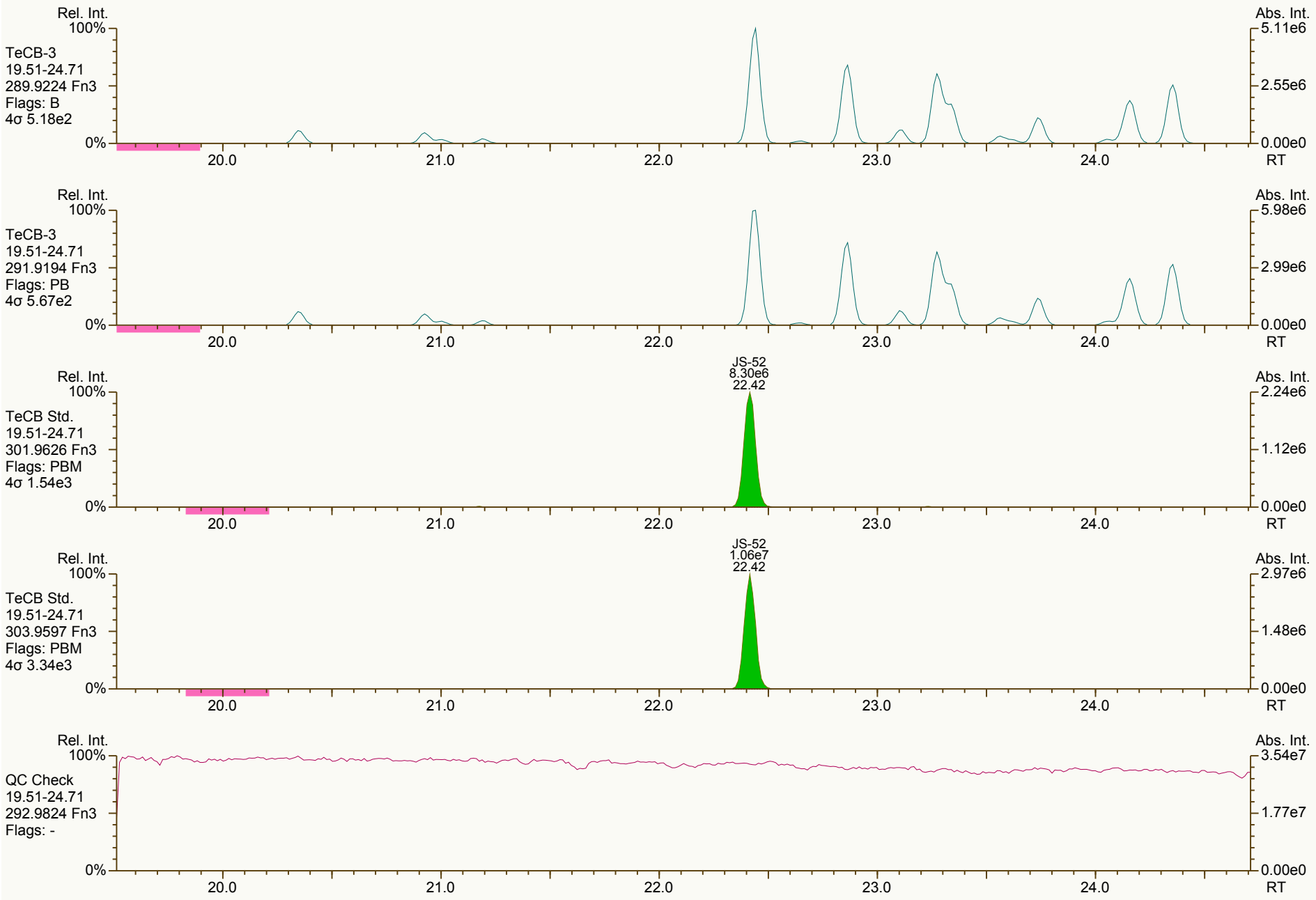
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



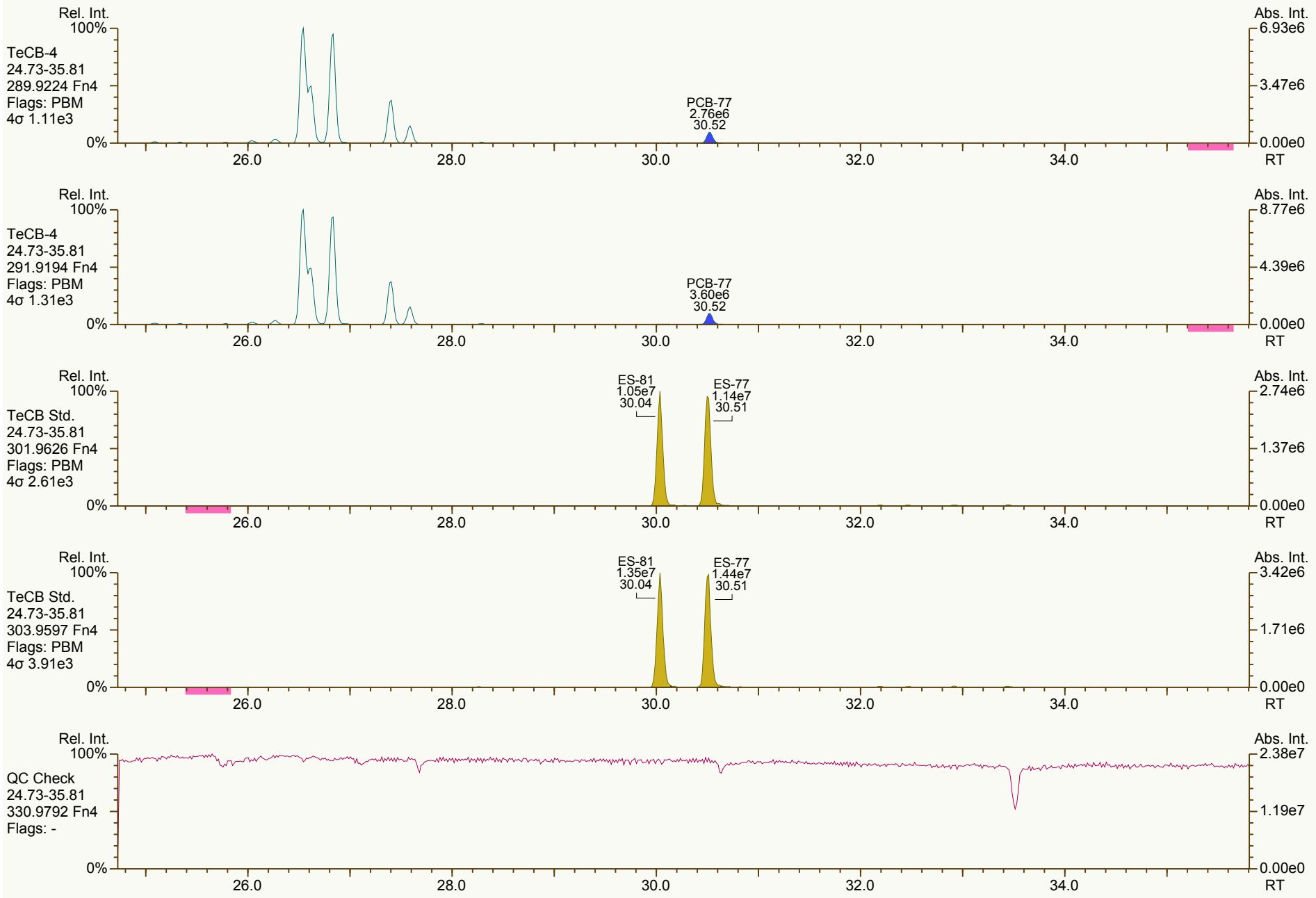
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3108, 2412 scc: 109-009 *PKD: 14-Dec-2012 10:27 Printed: 16-Dec-2012 14:46 Page 7 of 21*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5677, 7997 scc: 109-009 *Revised: 14-Dec-2012 10:31 (LKB) Printed: 16-Dec-2012 14:46 Page 8 of 21*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



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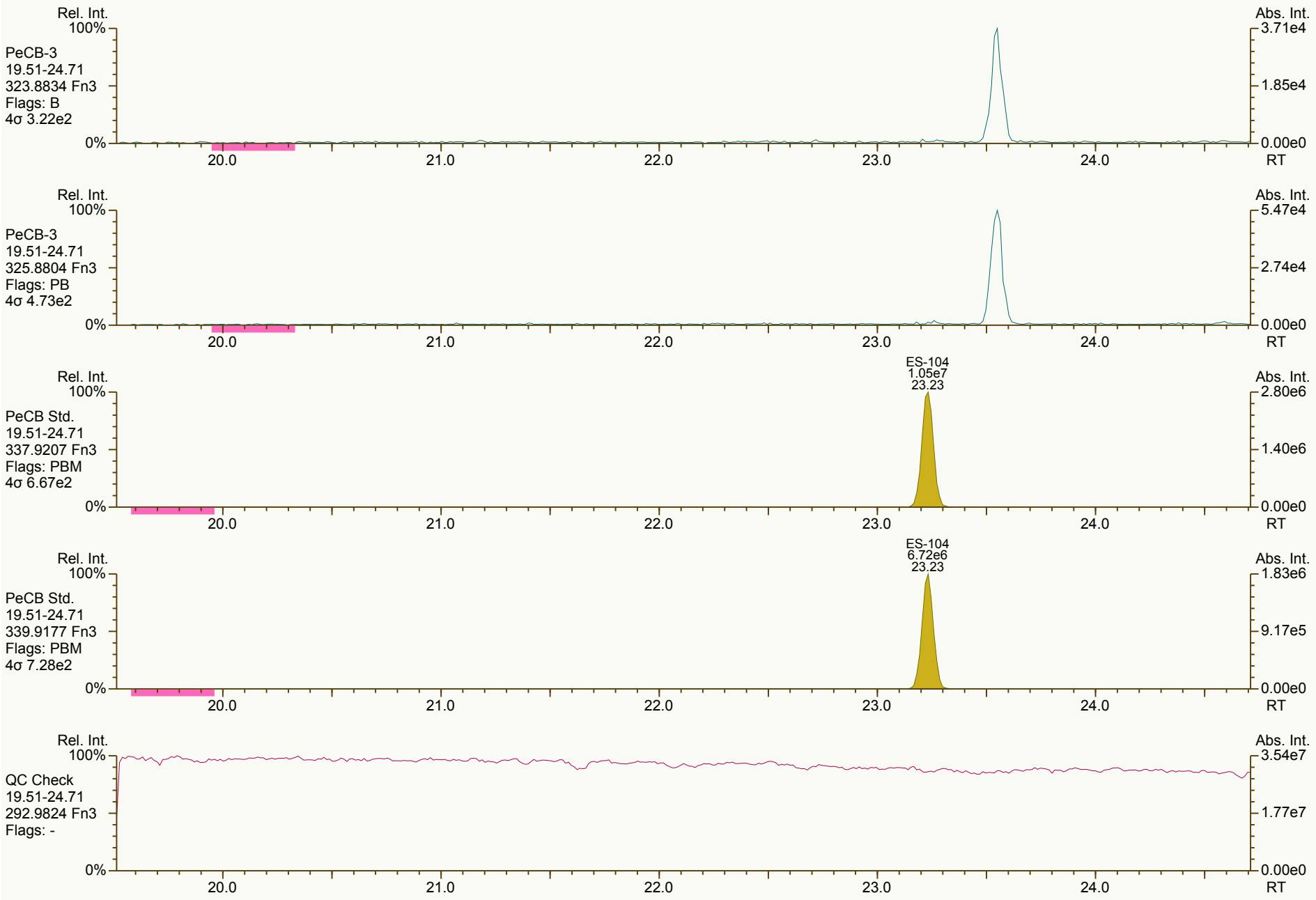
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2981, 4369 scc: 109-009 *PKD: 14-Dec-2012 10:30 Printed: 16-Dec-2012 14:46 Page 9 of 21*

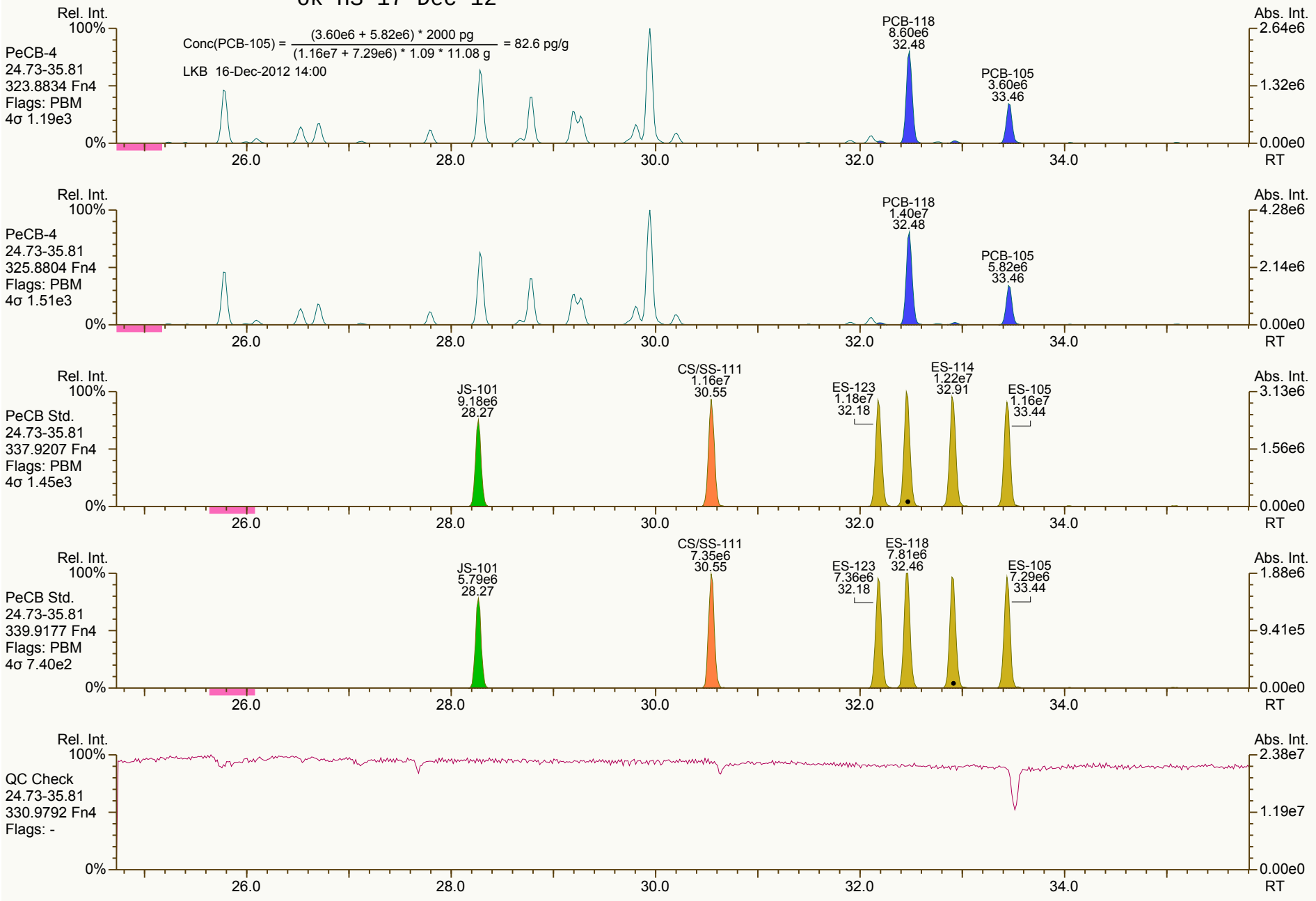
SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8132, 6747 scc: 109-009 *Revised: 14-Dec-2012 10:31 (LKB) Printed: 16-Dec-2012 14:46 Page 10 of 21*

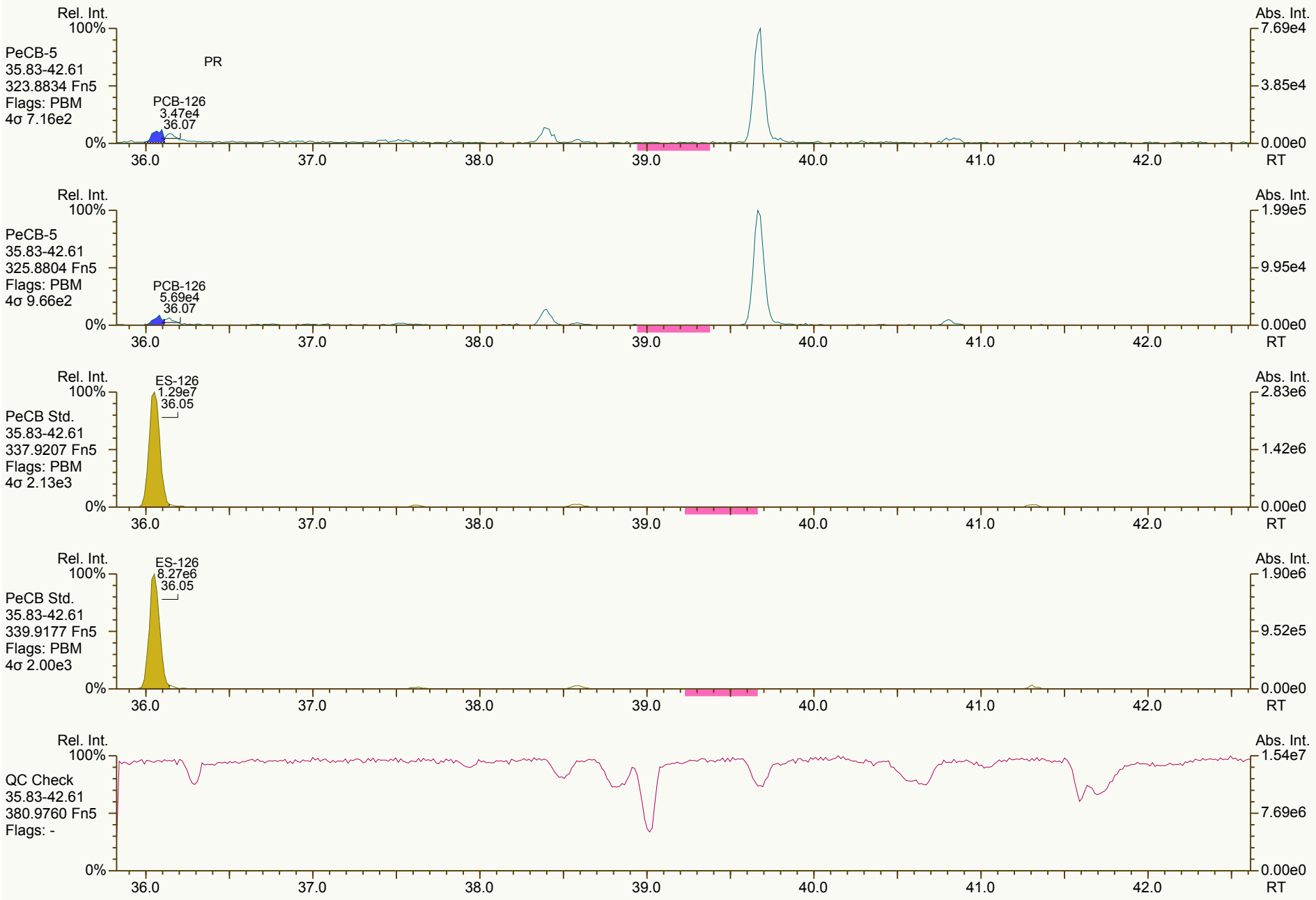
SGS-AP ID: A4909_10429_PCB_002 Sample ID: AQ-SE-04-10 Acq: 14-Dec-2012 08:28:49
Instr: AutoSpec-Premier MM7 VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62 User: LKB Datafile: 121214X06

ok HS 17 Dec 12



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9774, 8939 scc: 109-009
Revised: 14-Dec-2012 10:31 (LKB) Printed: 16-Dec-2012 14:46 Page 11 of 21

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5040, 4869 scc: 109-009 *Revised: 14-Dec-2012 10:31 (LKB) Printed: 16-Dec-2012 14:46 Page 12 of 21*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2555, 2878 scc: 109-009 *Revised: 14-Dec-2012 10:32 (LKB) Printed: 16-Dec-2012 14:46 Page 13 of 21*

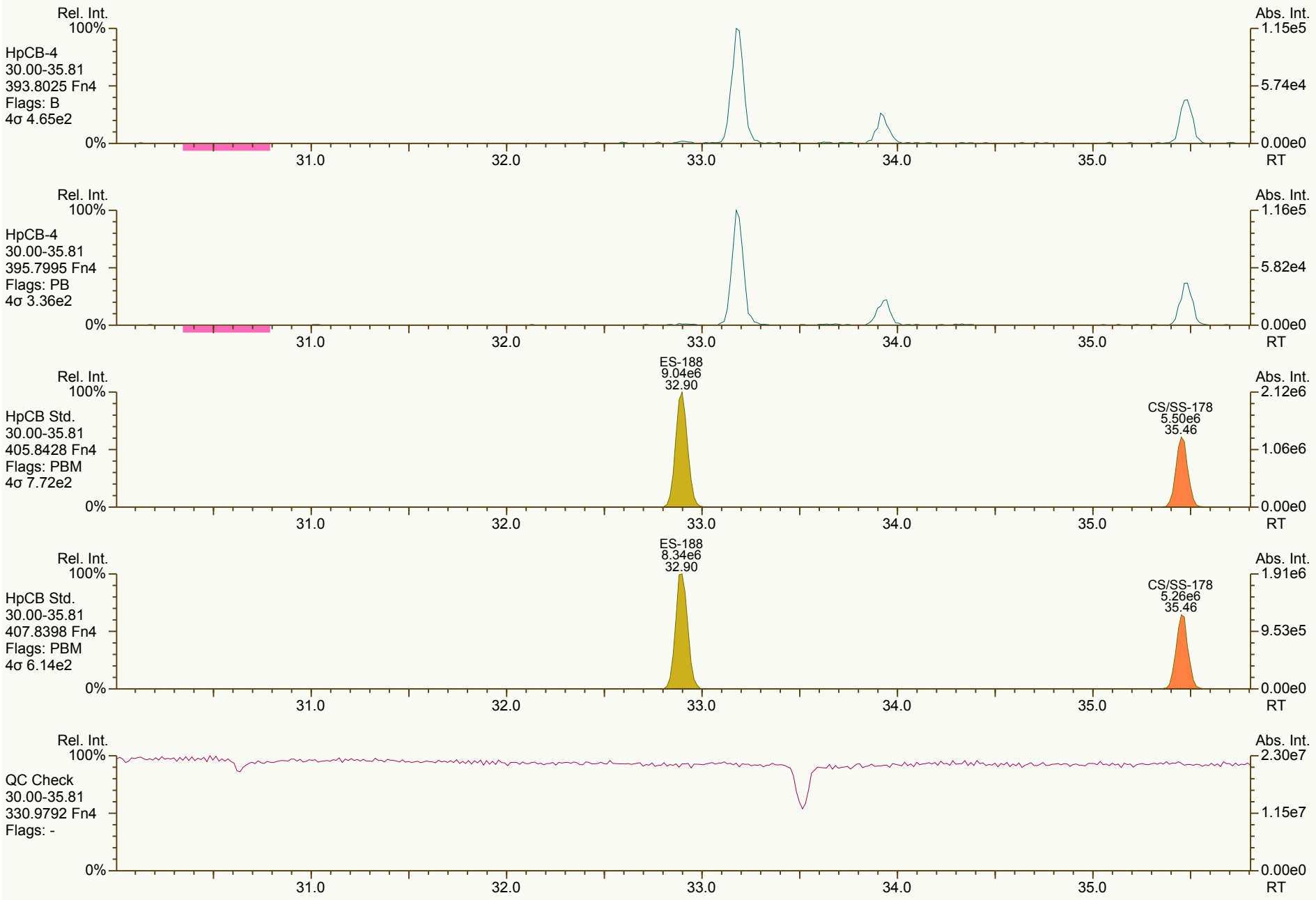
SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9858, 3031 scc: 109-009 *PKD: 14-Dec-2012 10:30 Printed: 16-Dec-2012 14:46 Page 14 of 21*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**

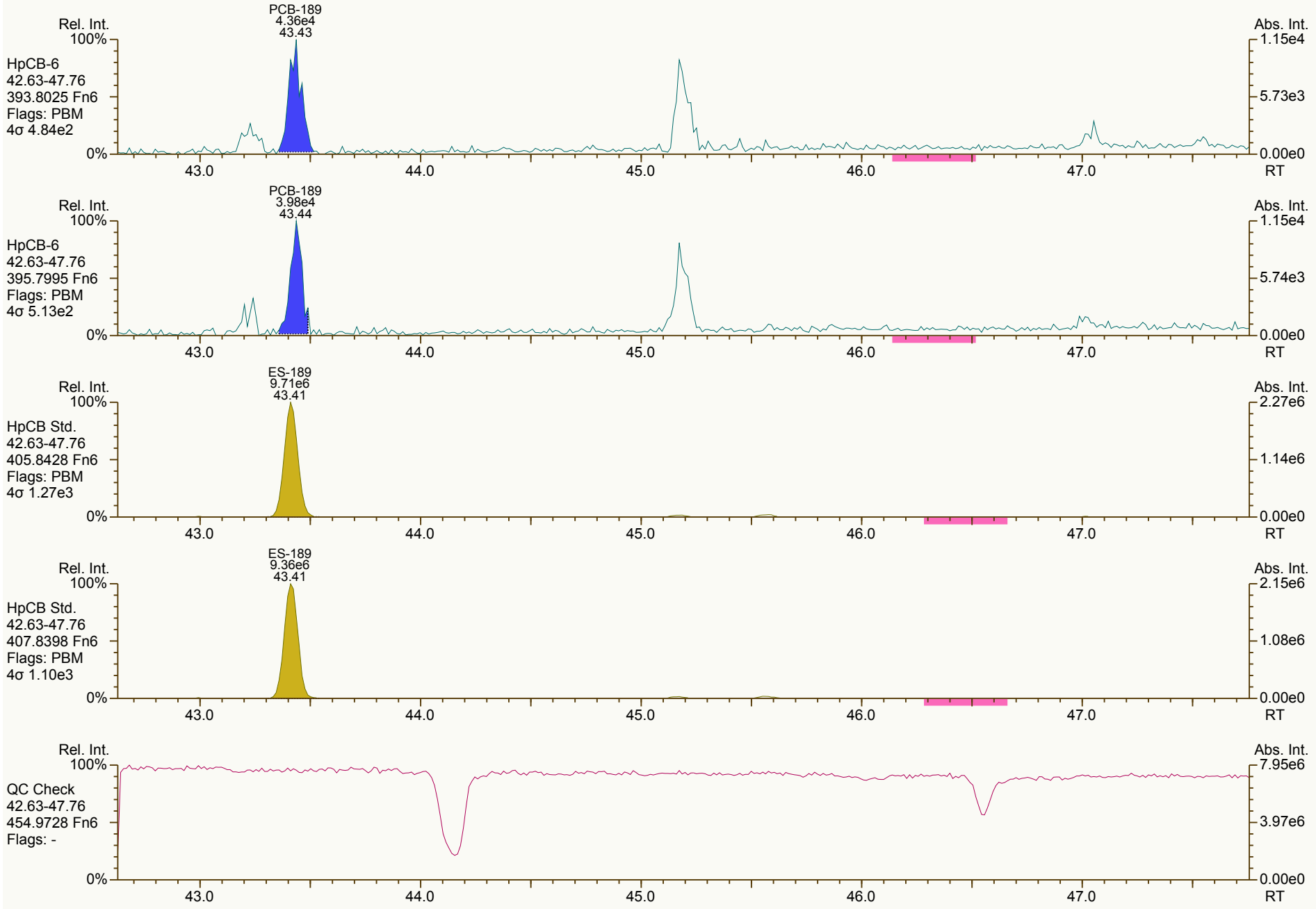


SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



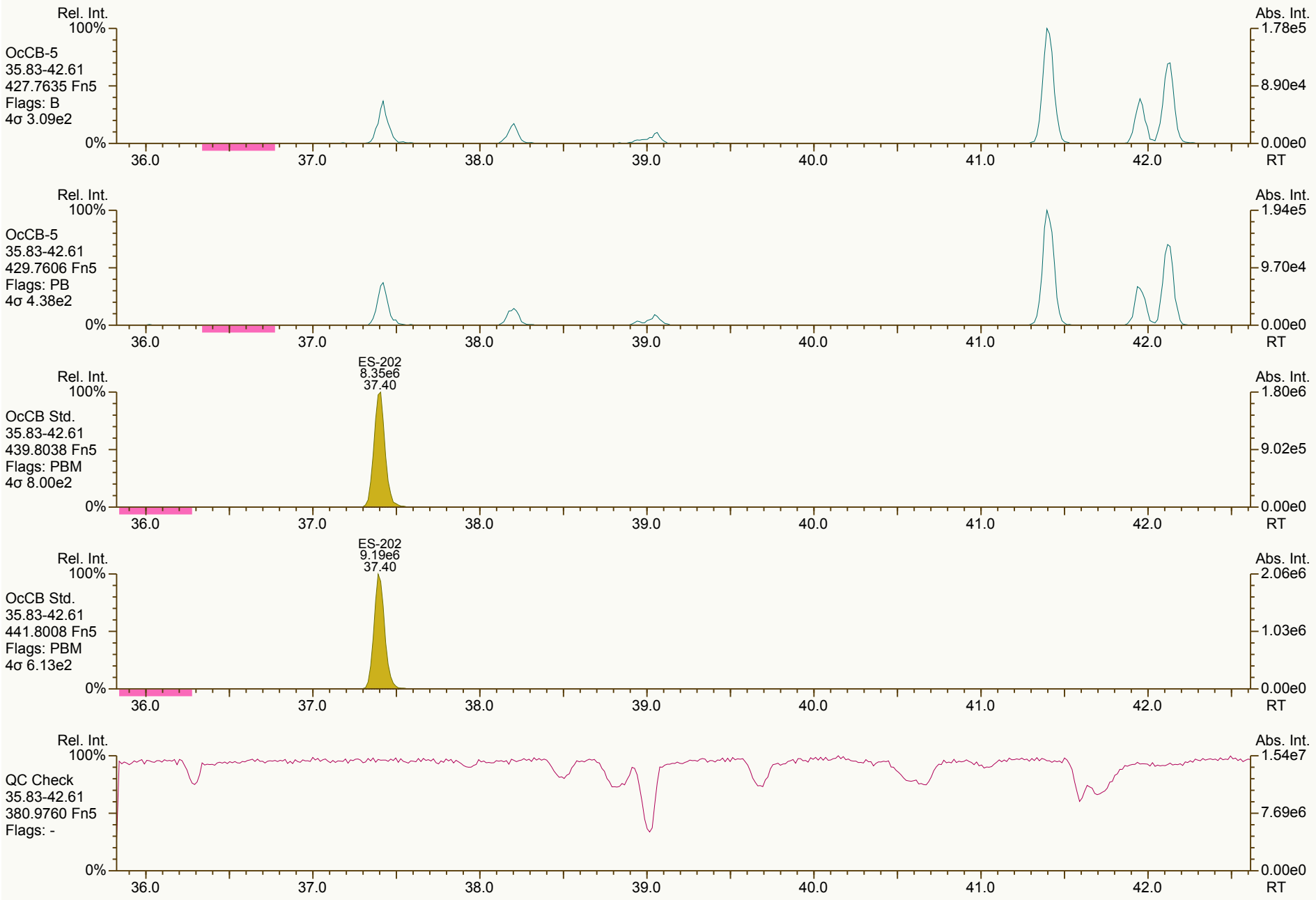
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6367, 8215 scc: 109-009 *PKD: 14-Dec-2012 10:30 Printed: 16-Dec-2012 14:46 Page 16 of 21*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7181, 5103 scc: 109-009 *PKD: 14-Dec-2012 10:30 Printed: 16-Dec-2012 14:46 Page 18 of 21*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



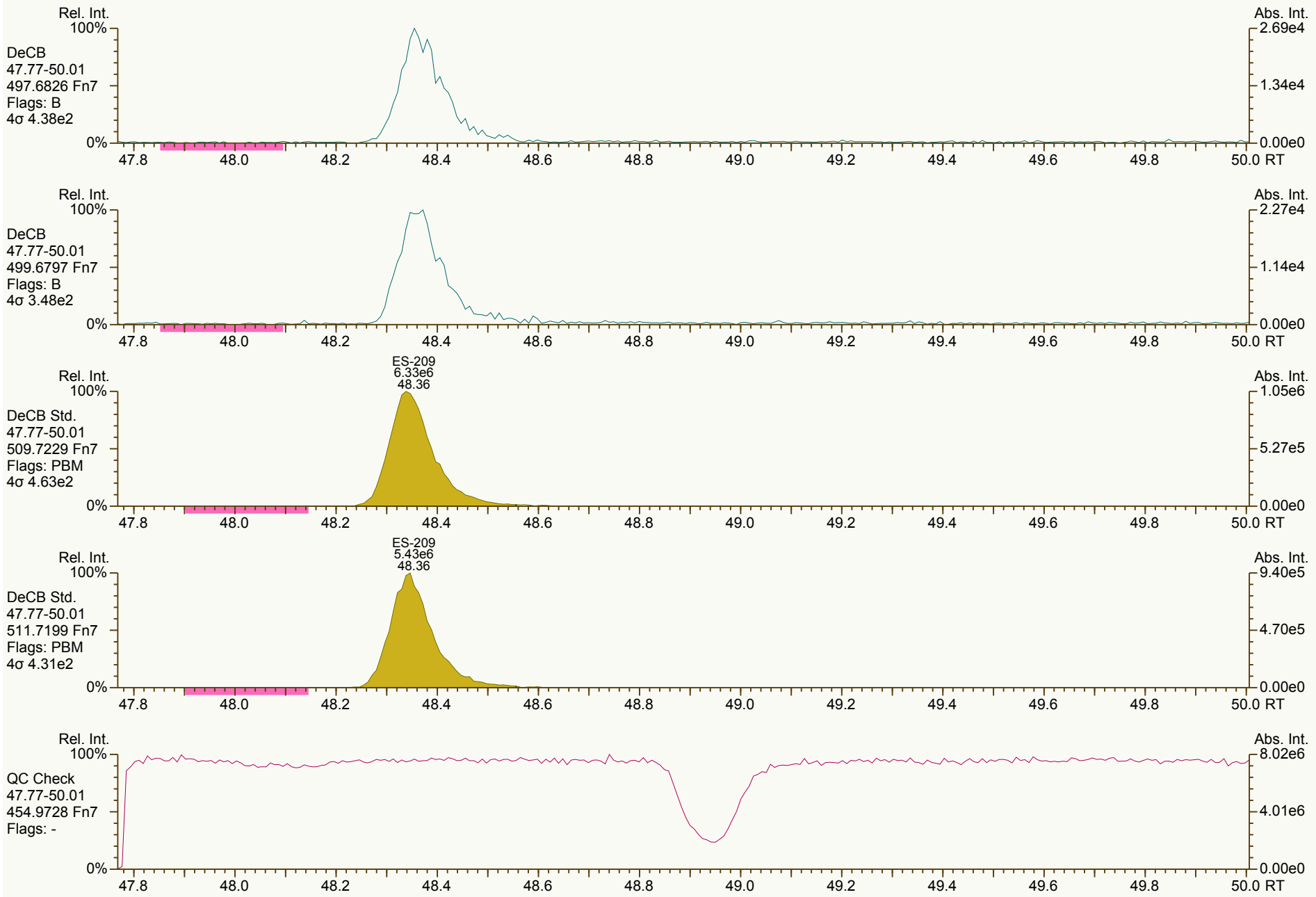
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_002 **Sample ID: AQ-SE-04-10** **Acq: 14-Dec-2012 08:28:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 62** **User: LKB Datafile: 121214X06**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_002.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0185, 8289 scc: 109-009 *Revised: 14-Dec-2012 10:30 (LKB) Printed: 16-Dec-2012 14:46 Page 21 of 21*

Datafile: 121214X07 **Client ID: AQ-SE-05-10** **Wt/Vol: 11.44 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XA**

Acquired: 14 Dec 2012 09:22:44 **Lab ID: A4909_10429_PCB_003** **J-level: 0.874 pg/g** **Nominal ES spike: 2000 pg**

A4909_10429_PCB_003 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.53		1.0006	1.0006	0	9.87E+06	0.78	1.13	61.6	2.82E+03	0.183
PCB-81 344'5-TeCB	30.06		1.0006	1.0005	-0.2	3.10E+05	0.75	1.13	2.04	2.82E+03	0.193
PCB-105 233'44'-PeCB	33.46		1.0007	1.0006	-0.2	1.71E+07	0.62	1.09	144	5.30E+03	0.456
PCB-114 2344'5-PeCB	32.93		1.0007	1.0006	-0.2	1.08E+06	0.64	1.16	8.39	5.30E+03	0.427
PCB-118 23'44'5-PeCB	32.49		1.0007	1.0007	0	3.65E+07	0.62	1.11	290	5.30E+03	0.418
PCB-123 23'44'5'-PeCB	32.21		1.0006	1.0008	+0.4	8.78E+05	0.61	1.19	6.74	5.30E+03	0.41
PCB-126 33'44'5-PeCB	36.08		1.0005	1.0007	+0.4	1.70E+05	0.70	1.06	1.36	1.75E+03	0.152
PCB-156/157 ...-HxCB	38.58	C	1.0005	1.0002	-0.7	2.44E+06	1.18	1.11	19.4	1.70E+03	0.185
PCB-167 23'44'55'-HxCB	37.64		1.0005	1.0005	0	8.03E+05	1.18	1.14	6.02	1.70E+03	0.125
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	1.70E+03	0.162
PCB-189 233'44'55'-HpCB	43.43		1.0004	1.0004	0	2.65E+05	1.03	1.06	2.35	1.07E+03	0.0974
									Recv.		
ES PCB-77	30.51		1.3599	1.3609	+1.8	2.47E+07	0.76	1.35	93.4 %	25%	150%
ES PCB-81	30.04		1.3390	1.3400	+1.8	2.36E+07	0.79	1.29	93.3 %	25%	150%
ES PCB-105	33.44		1.1826	1.1830	+0.8	1.90E+07	1.62	1.23	102 %	25%	150%
ES PCB-114	32.91		1.1639	1.1642	+0.6	1.94E+07	1.60	1.25	103 %	25%	150%
ES PCB-118	32.46		1.1481	1.1484	+0.6	1.99E+07	1.59	1.28	103 %	25%	150%
ES PCB-123	32.19		1.1383	1.1386	+0.6	1.92E+07	1.58	1.22	104 %	25%	150%
ES PCB-126	36.06		1.2746	1.2755	+1.9	2.06E+07	1.56	1.20	114 %	25%	150%
ES PCB-156/157	38.58		1.0994	1.0999	+1.2	3.97E+07	1.31	1.45	94.1 %	25%	150%
ES PCB-167	37.62		1.0720	1.0725	+1.1	2.05E+07	1.35	1.49	94.8 %	25%	150%
ES PCB-169	41.30		1.1769	1.1776	+1.7	1.86E+07	1.32	1.40	91.4 %	25%	150%
ES PCB-189	43.41		0.9611	0.9612	+0.3	1.87E+07	1.03	1.49	106 %	25%	150%
SS PCB-28	20.85		0.9298	0.9301	+0.4	3.43E+07	1.12	1.07	102 %	30%	135%
SS PCB-111	30.55		1.0805	1.0807	+0.4	1.92E+07	1.62	1.01	99.8 %	30%	135%
SS PCB-178	35.46		1.0108	1.0110	+0.4	1.10E+07	1.07	0.63	103 %	30%	135%
CS PCB-28	20.85		0.9298	0.9301	+0.4	3.43E+07	1.12	1.76	99.3 %	30%	135%
CS PCB-111	30.55		1.0805	1.0807	+0.4	1.92E+07	1.62	1.23	104 %	30%	135%
CS PCB-178	35.46		1.0108	1.0110	+0.4	1.10E+07	1.07	0.74	103 %	30%	135%
JS PCB-9	14.72					3.44E+07	1.60				
JS PCB-52	22.42					1.96E+07	0.78				
JS PCB-101	28.27					1.51E+07	1.63				
JS PCB-138	35.07					1.45E+07	1.26				
JS PCB-194	45.17					1.19E+07	0.90				

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



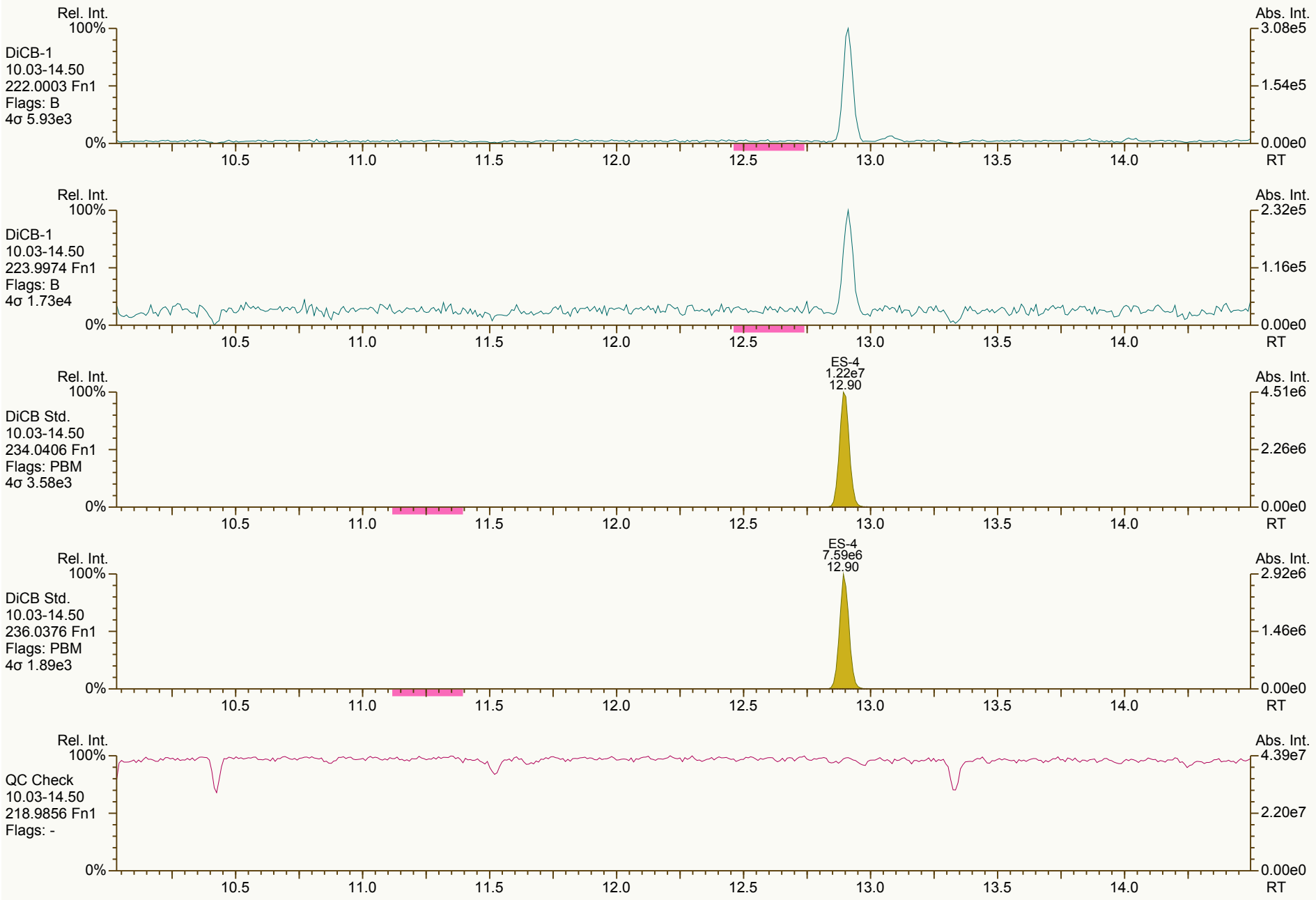
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_003.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 490-654 *PKD: n/a Printed: 16-Dec-2012 14:46 Page 1 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_003.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_003.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

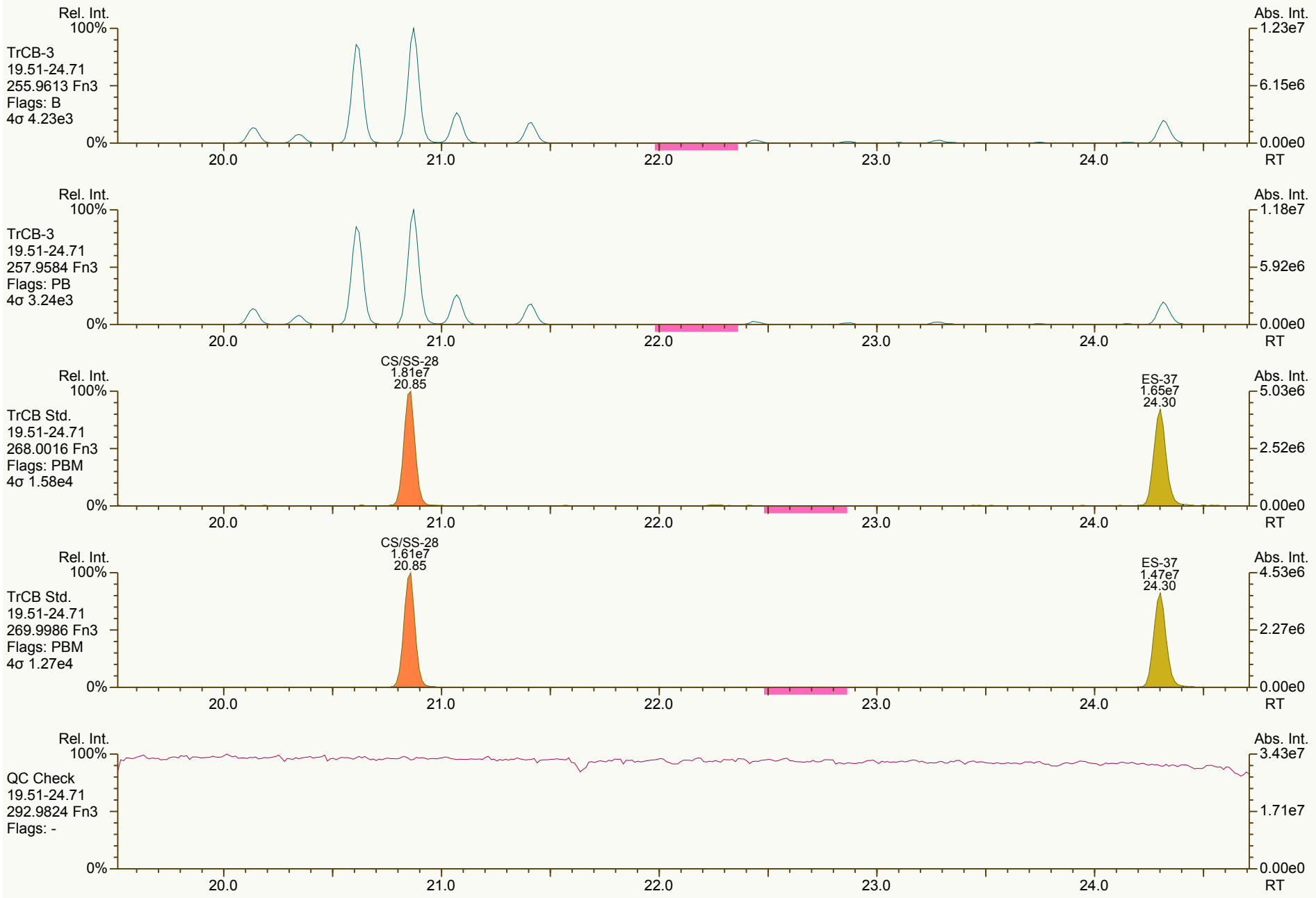
SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_003.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5580, 0439 scc: 490-654 *PKD: 14-Dec-2012 10:34 Printed: 16-Dec-2012 14:46 Page 5 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



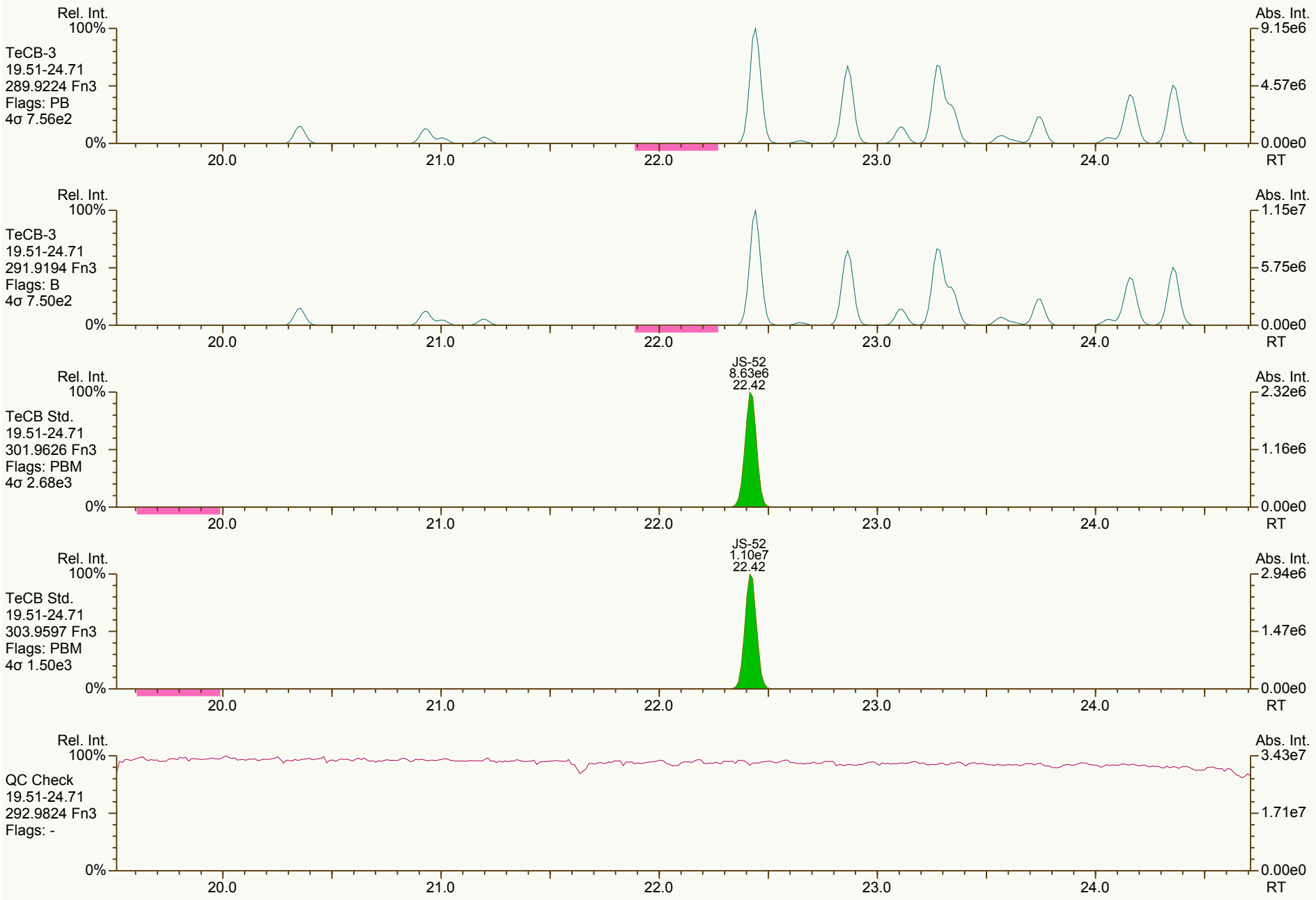
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_003.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5647, 2887 scc: 490-654 *PKD: 14-Dec-2012 10:34 Printed: 16-Dec-2012 14:46 Page 6 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_003.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9882, 7994 scc: 490-654 *PKD: 14-Dec-2012 10:34 Printed: 16-Dec-2012 14:46 Page 7 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5621, 7460 scc: 490-654 *PKD: 14-Dec-2012 10:34 Printed: 16-Dec-2012 14:46 Page 8 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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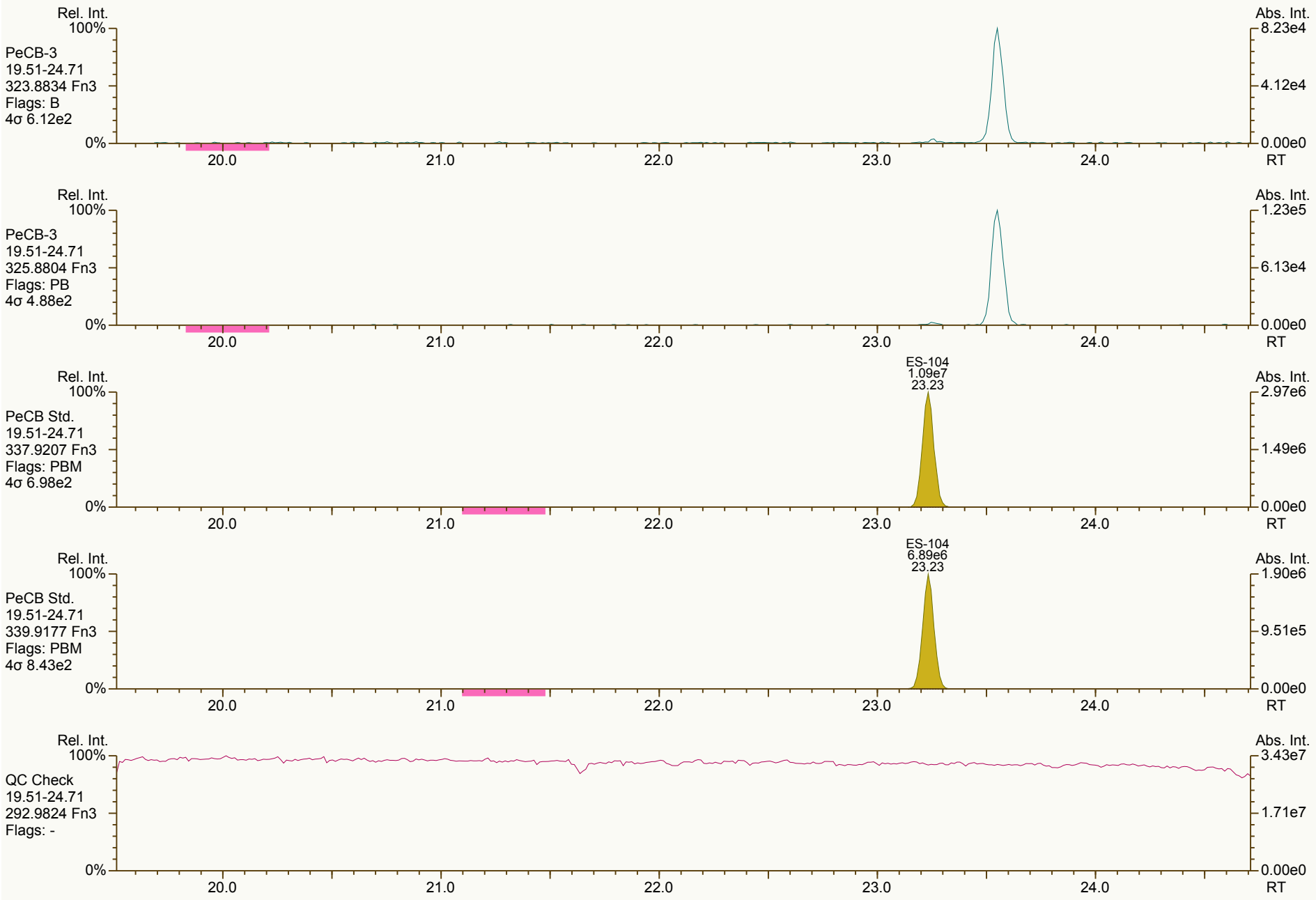
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1783, 7470 scc: 490-654 *PKD: 14-Dec-2012 10:34 Printed: 16-Dec-2012 14:47 Page 9 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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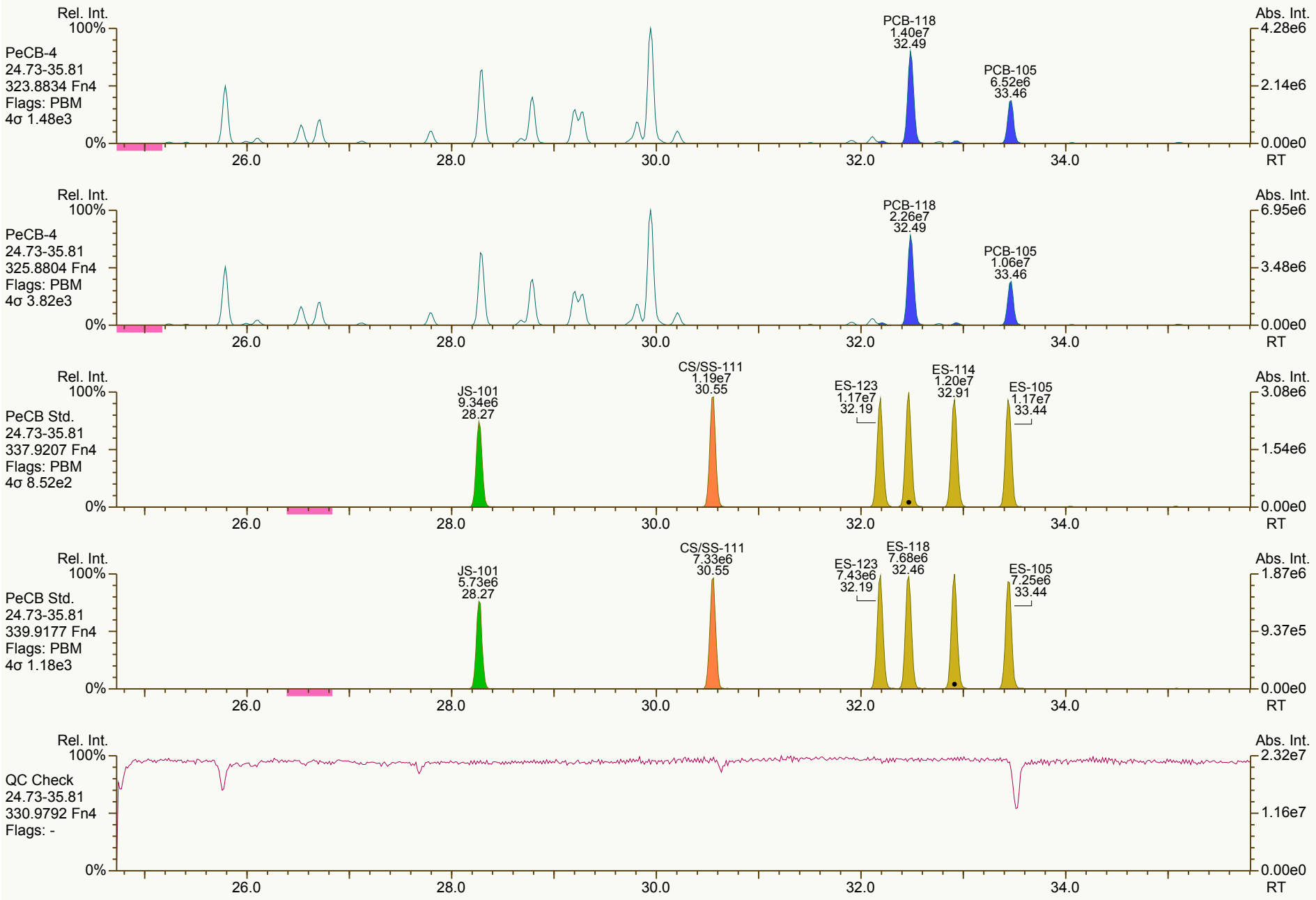
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5655, 2912 scc: 490-654 *PKD: 14-Dec-2012 10:37 Printed: 16-Dec-2012 14:47 Page 10 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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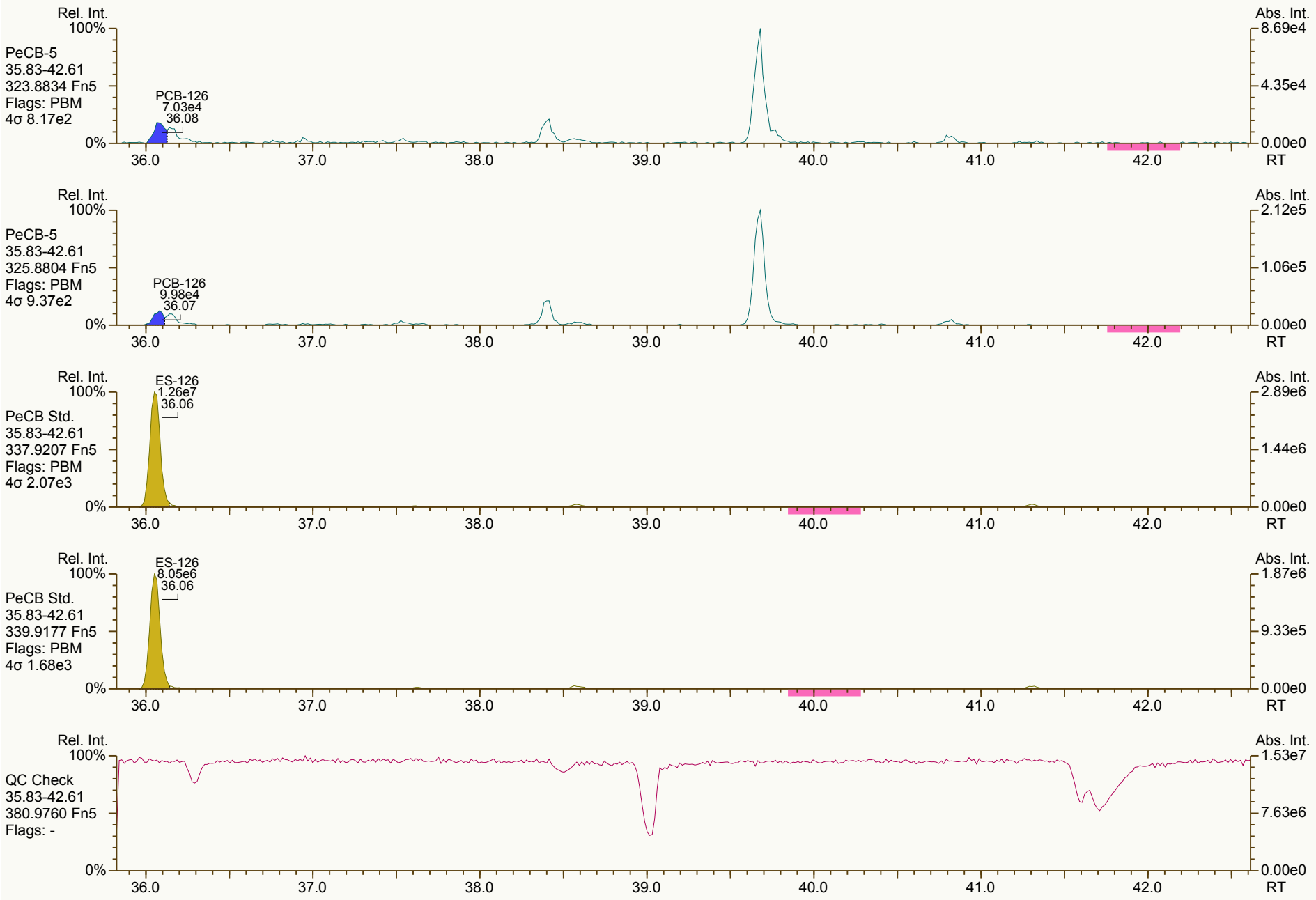
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8922, 5647 scc: 490-654 *PKD: 14-Dec-2012 10:37 Printed: 16-Dec-2012 14:47 Page 11 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0030, 0075 scc: 490-654 *PKD: 14-Dec-2012 10:37 Printed: 16-Dec-2012 14:47 Page 12 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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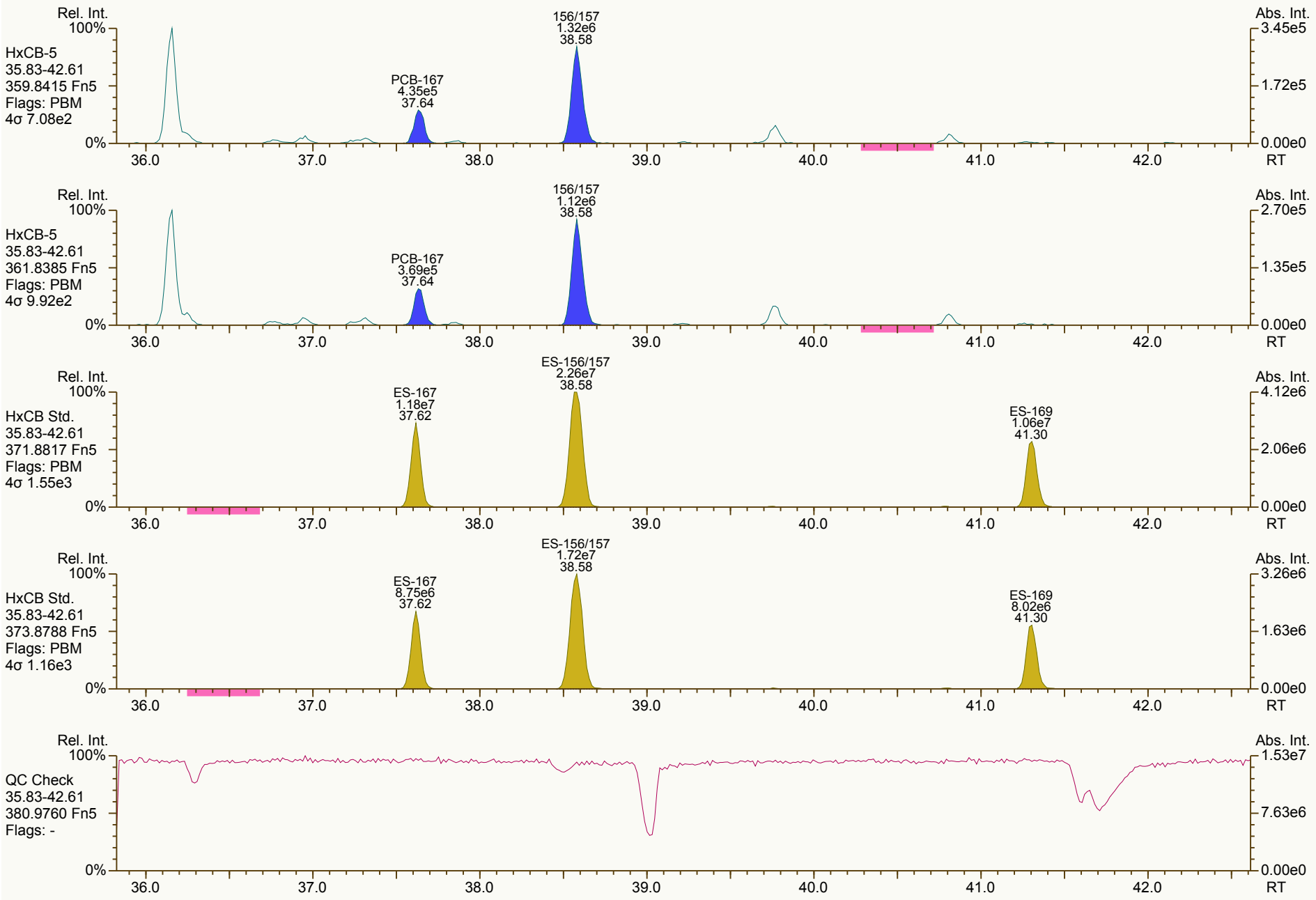
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4791, 6969 scc: 490-654 *PKD: 14-Dec-2012 10:37 Printed: 16-Dec-2012 14:47 Page 13 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
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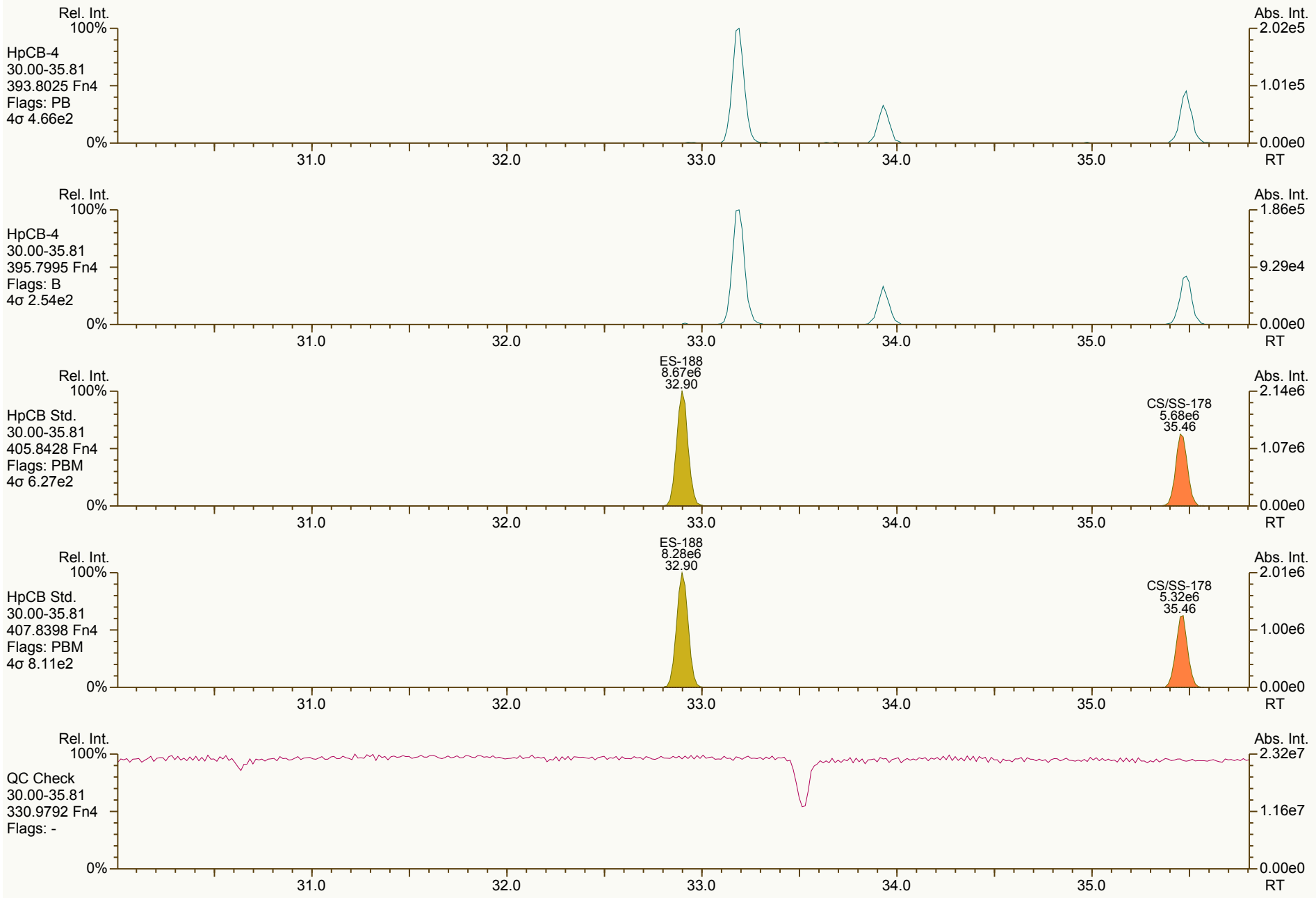

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SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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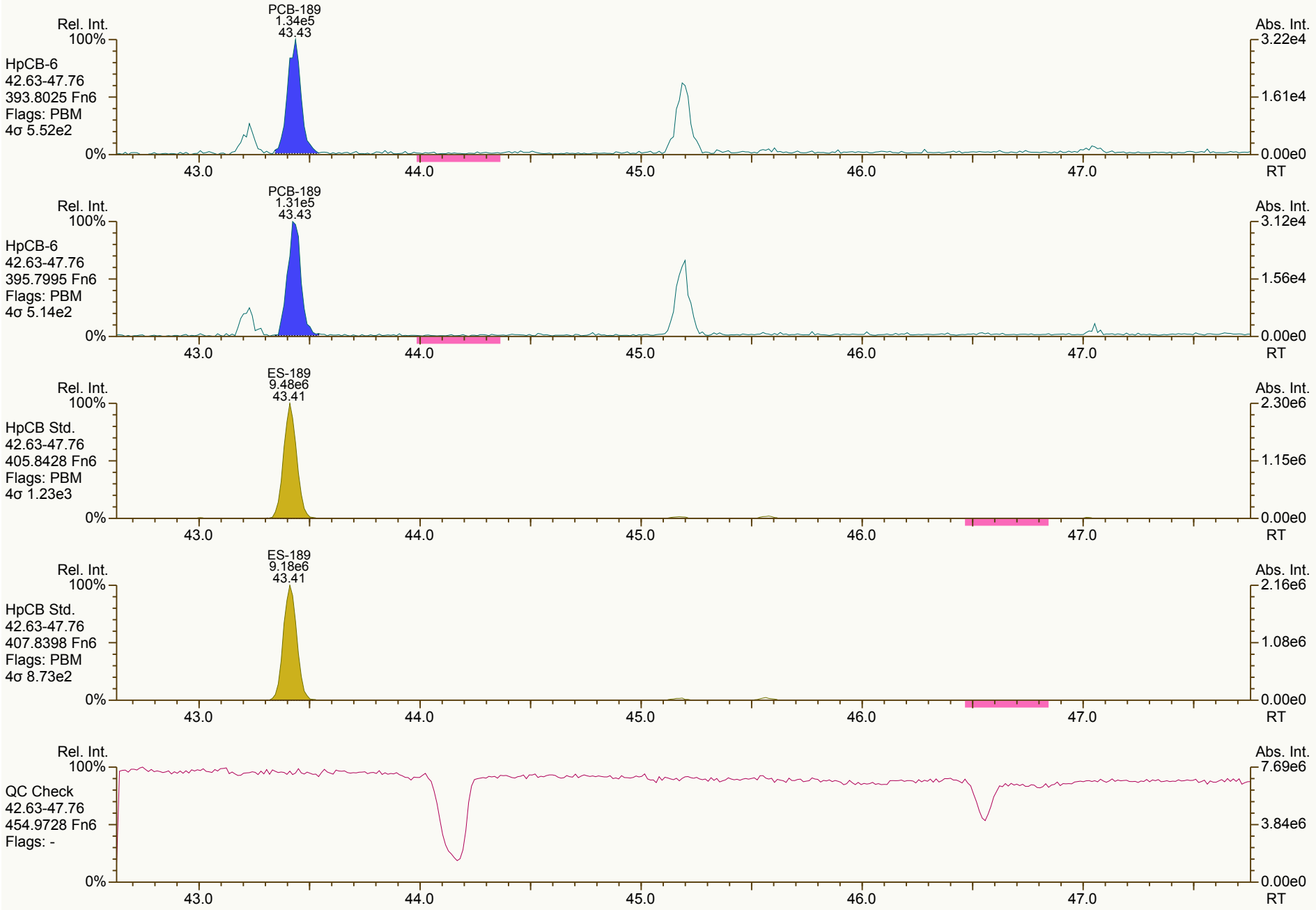
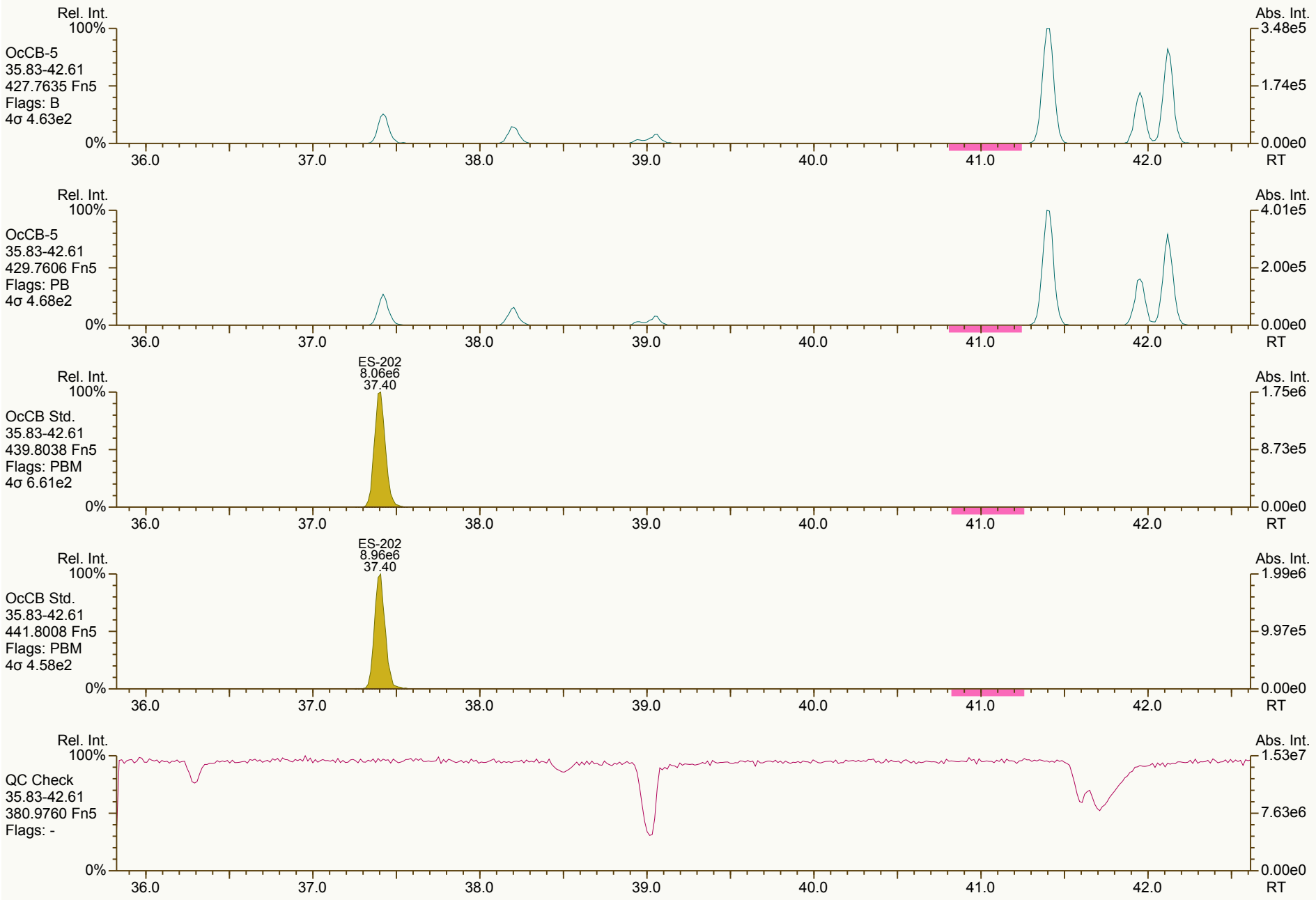
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5437, 7324 scc: 490-654 *PKD: 14-Dec-2012 10:37 Printed: 16-Dec-2012 14:47 Page 16 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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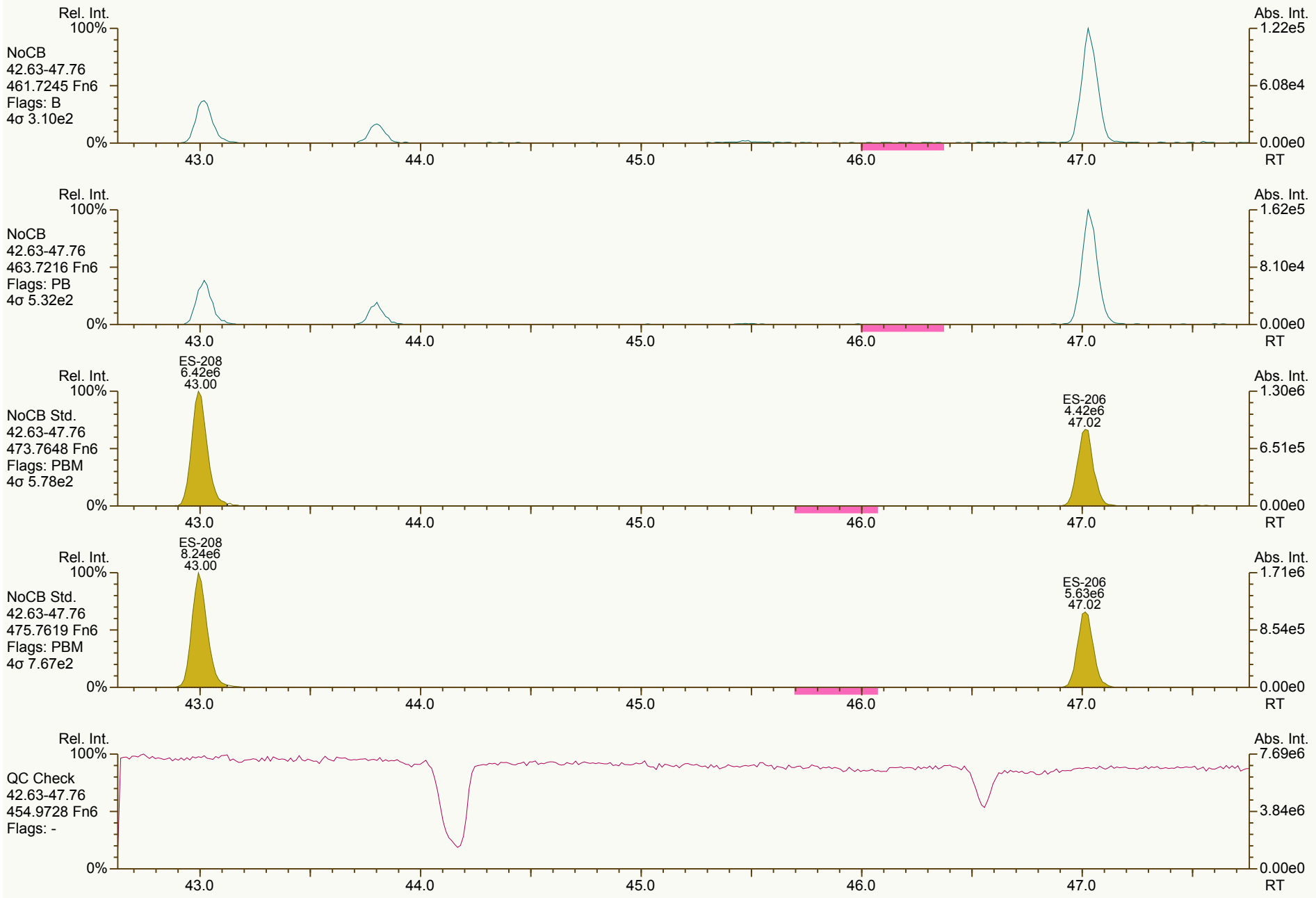
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6940, 1520 scc: 490-654 *PKD: 14-Dec-2012 10:37 Printed: 16-Dec-2012 14:47 Page 18 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_003.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0375, 7060 scc: 490-654 *PKD: 14-Dec-2012 10:37 Printed: 16-Dec-2012 14:47 Page 19 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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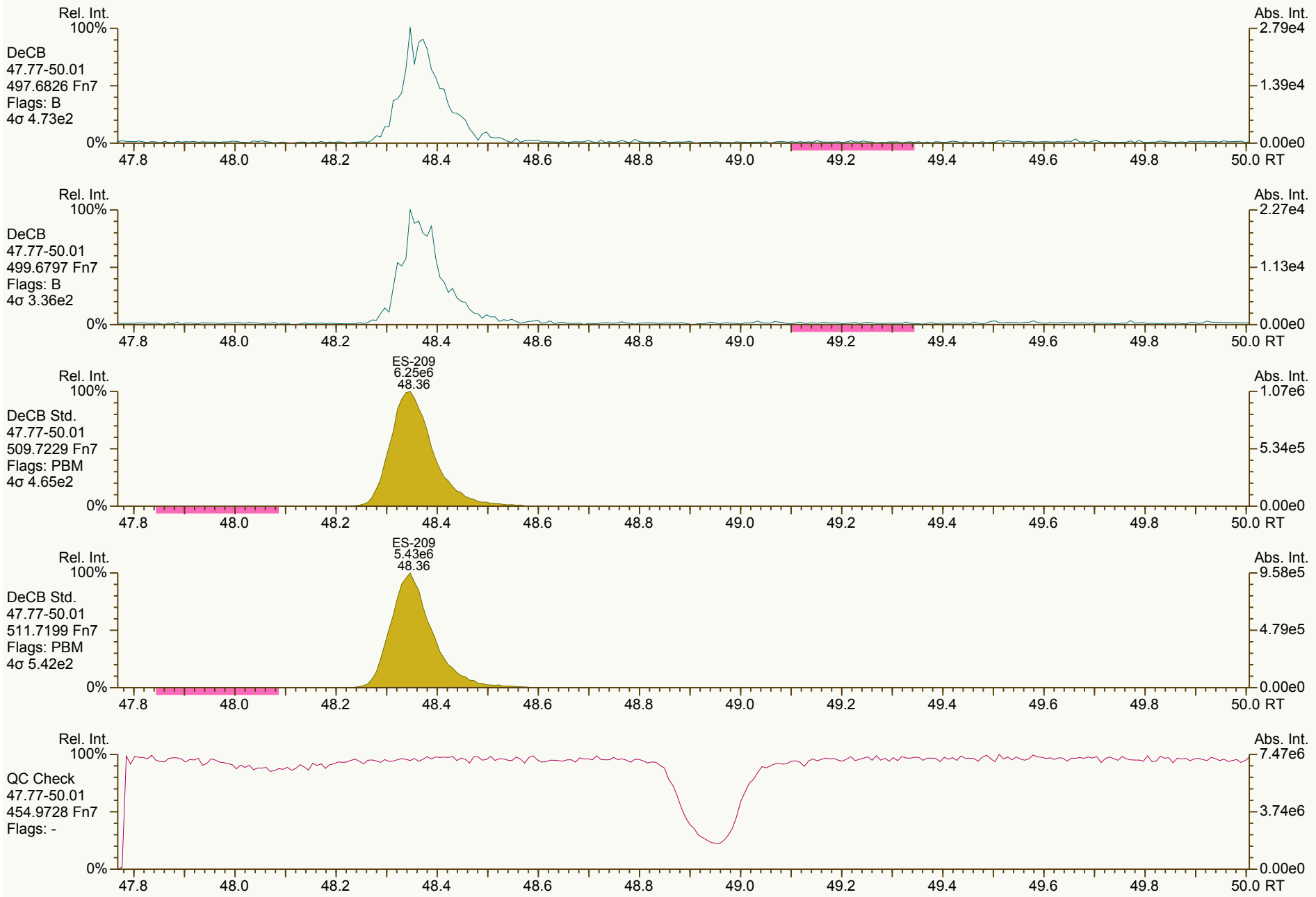
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6912, 2484 scc: 490-654 *PKD: 14-Dec-2012 10:37 Printed: 16-Dec-2012 14:47 Page 20 of 21*

SGS-AP ID: A4909_10429_PCB_003 **Sample ID: AQ-SE-05-10** **Acq: 14-Dec-2012 09:22:44**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 63** **User: LKB Datafile: 121214X07**



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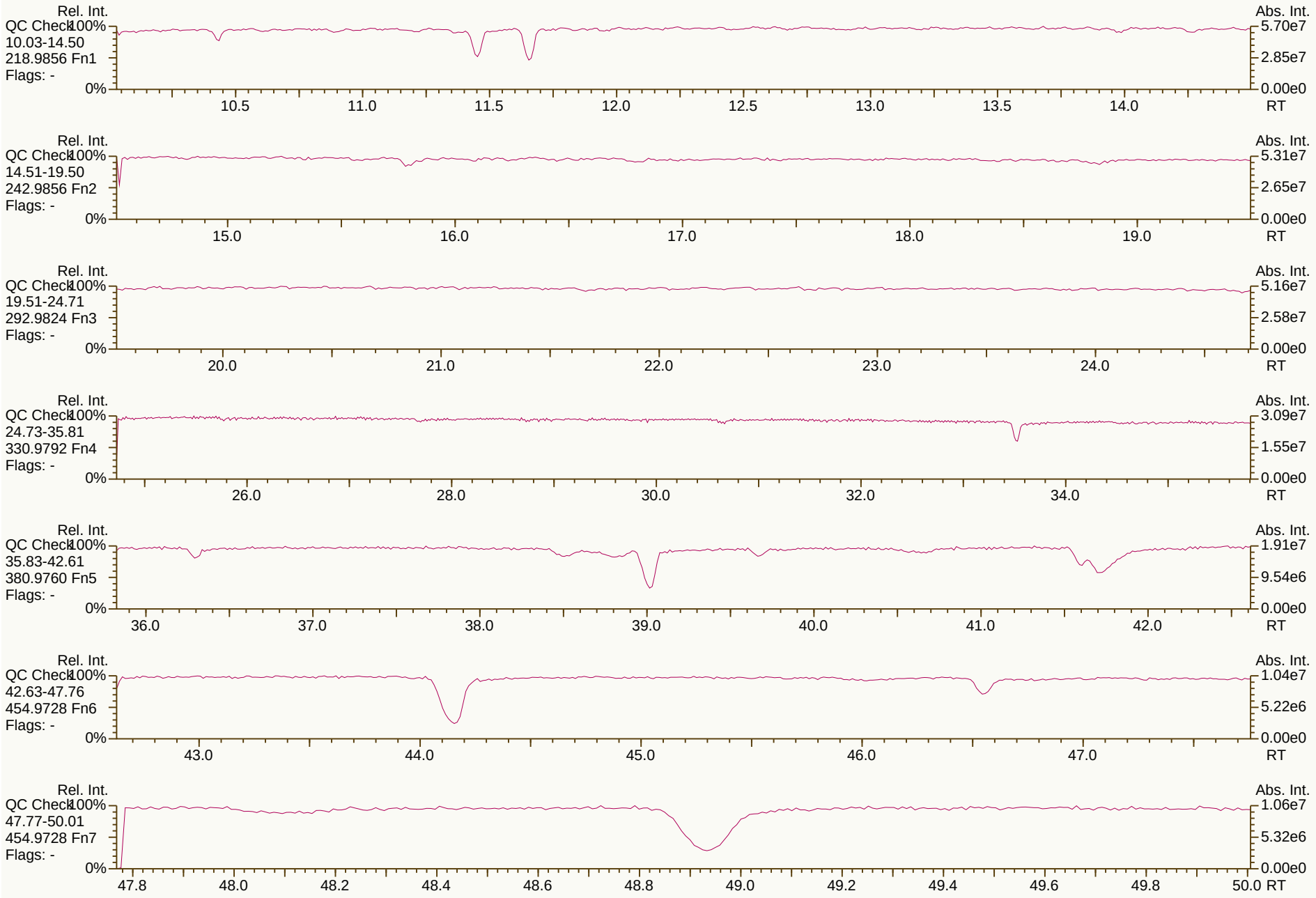
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9245, 0940 scc: 490-654 *Revised: 14-Dec-2012 10:36 (LKB) Printed: 16-Dec-2012 14:47 Page 21 of 21*

Datafile: 121214X08 **Client ID: AQ-SE-06-10** **Wt/Vol: 11.98 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XA**

Acquired: 14 Dec 2012 10:16:39 **Lab ID: A4909_10429_PCB_004** **J-level: 0.835 pg/g** **Nominal ES spike: 2000 pg**

A4909_10429_PCB_004 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.53		1.0006	1.0006	0	4.39E+05	0.76	1.13	2.38	2.08E+03	0.122
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	2.08E+03	0.131
PCB-105 233'44'-PeCB	33.47		1.0007	1.0006	-0.2	1.90E+06	0.62	1.09	14	1.66E+03	0.126
PCB-114 2344'5-PeCB	32.94	J EMPC	1.0007	1.0006	-0.2	1.20E+05	0.75	1.16	0.807	1.66E+03	0.112
PCB-118 23'44'5-PeCB	32.49		1.0007	1.0007	0	4.51E+06	0.60	1.11	31.5	1.66E+03	0.113
PCB-123 23'44'5'-PeCB	32.21	J	1.0006	1.0007	+0.2	9.87E+04	0.57	1.19	0.682	1.66E+03	0.111
PCB-126 33'44'5-PeCB	36.08	J EMPC	1.0005	1.0006	+0.2	1.58E+04	0.50	1.06	0.111	1.29E+03	0.0995
PCB-156/157 ...-HxCB	38.59	C	1.0005	1.0002	-0.7	5.74E+05	1.11	1.11	4.13	9.94E+02	0.0941
PCB-167 23'44'55'-HxCB	37.64		1.0005	1.0005	0	1.84E+05	1.10	1.14	1.23	9.94E+02	0.0692
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	9.94E+02	0.0815
PCB-189 233'44'55'-HpCB	43.43	J	1.0004	1.0003	-0.3	2.93E+04	0.94	1.06	0.224	1.16E+03	0.0964
									Recv.		
ES PCB-77	30.52		1.3599	1.3608	+1.6	2.72E+07	0.79	1.35	96.8 %	25%	150%
ES PCB-81	30.05		1.3390	1.3399	+1.6	2.54E+07	0.78	1.29	94.9 %	25%	150%
ES PCB-105	33.45		1.1826	1.1830	+0.8	2.07E+07	1.61	1.23	102 %	25%	150%
ES PCB-114	32.92		1.1639	1.1642	+0.6	2.14E+07	1.58	1.25	104 %	25%	150%
ES PCB-118	32.47		1.1481	1.1484	+0.6	2.16E+07	1.65	1.28	102 %	25%	150%
ES PCB-123	32.19		1.1383	1.1386	+0.6	2.03E+07	1.63	1.22	101 %	25%	150%
ES PCB-126	36.06		1.2746	1.2755	+1.9	2.24E+07	1.56	1.20	113 %	25%	150%
ES PCB-156/157	38.58		1.0994	1.0999	+1.2	4.19E+07	1.32	1.45	91.9 %	25%	150%
ES PCB-167	37.62		1.0720	1.0725	+1.1	2.20E+07	1.31	1.49	93.8 %	25%	150%
ES PCB-169	41.31		1.1769	1.1776	+1.7	2.00E+07	1.34	1.40	90.6 %	25%	150%
ES PCB-189	43.42		0.9611	0.9612	+0.3	2.07E+07	1.05	1.49	107 %	25%	150%
SS PCB-28	20.86		0.9298	0.9303	+0.6	3.70E+07	1.12	1.07	107 %	30%	135%
SS PCB-111	30.56		1.0805	1.0807	+0.4	2.16E+07	1.66	1.01	106 %	30%	135%
SS PCB-178	35.46		1.0108	1.0110	+0.4	1.23E+07	1.05	0.63	105 %	30%	135%
CS PCB-28	20.86		0.9298	0.9303	+0.6	3.70E+07	1.12	1.76	101 %	30%	135%
CS PCB-111	30.56		1.0805	1.0807	+0.4	2.16E+07	1.66	1.23	107 %	30%	135%
CS PCB-178	35.46		1.0108	1.0110	+0.4	1.23E+07	1.05	0.74	106 %	30%	135%
JS PCB-9	14.73					3.80E+07	1.57				
JS PCB-52	22.43					2.08E+07	0.78				
JS PCB-101	28.27					1.65E+07	1.61				
JS PCB-138	35.08					1.57E+07	1.30				
JS PCB-194	45.17					1.30E+07	0.90				

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 908-715 *PKD: n/a Printed: 16-Dec-2012 14:47 Page 1 of 21*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
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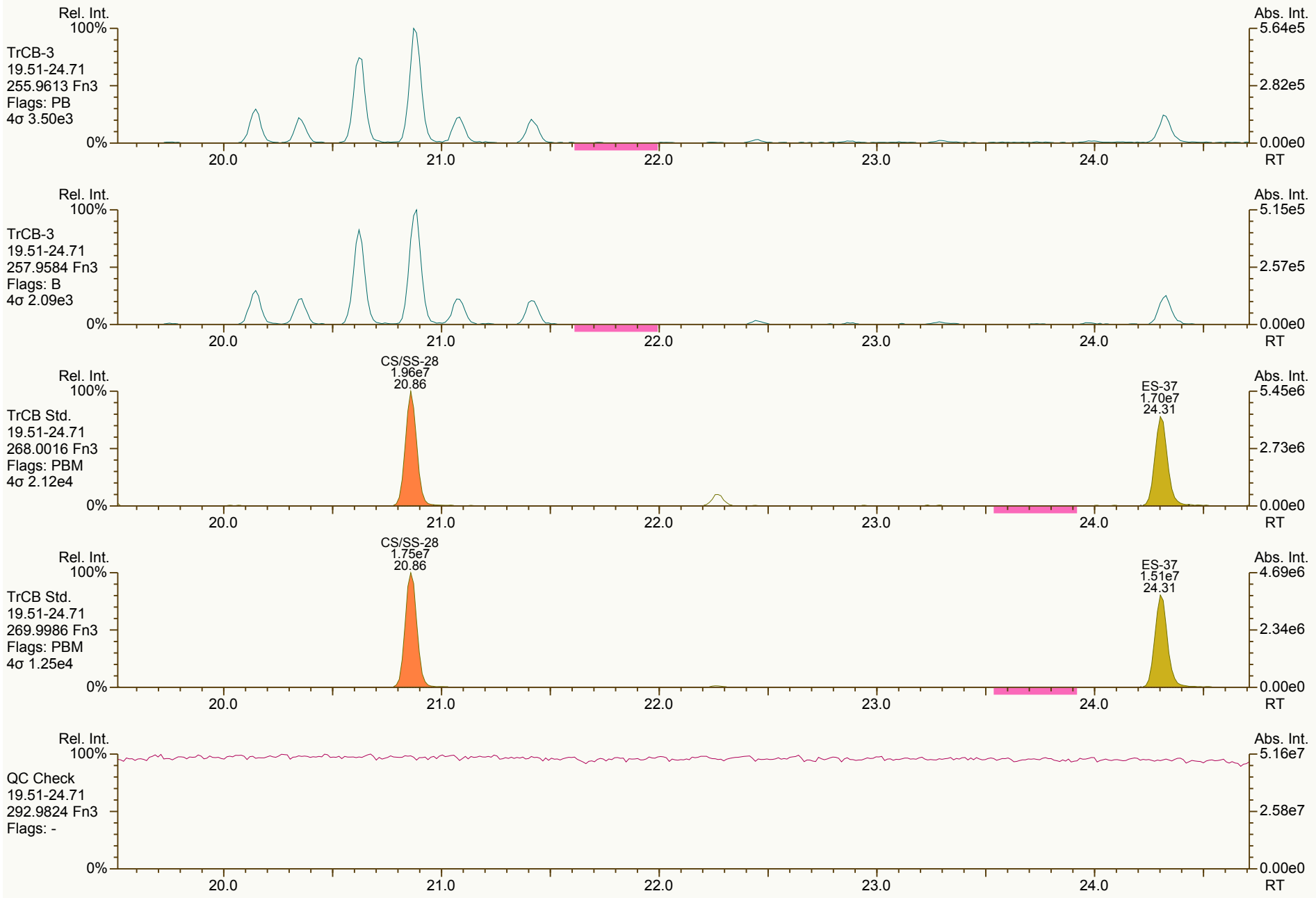
SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7986, 0524 scc: 908-715 *PKD: 14-Dec-2012 11:17 Printed: 16-Dec-2012 14:47 Page 6 of 21*

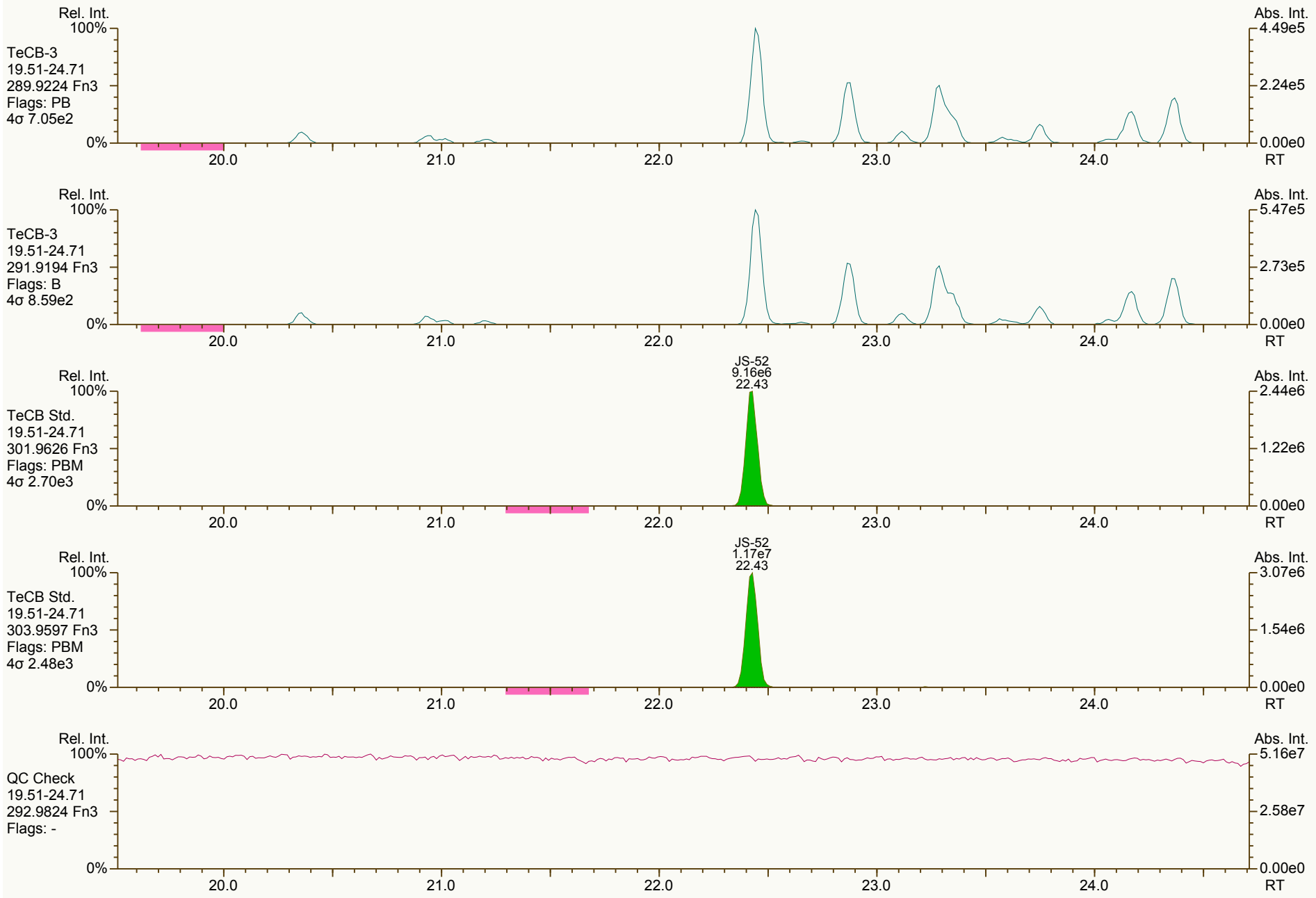
SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3222, 4745 scc: 908-715 *Revised: 14-Dec-2012 11:16 (LKB) Printed: 16-Dec-2012 14:47 Page 7 of 21*

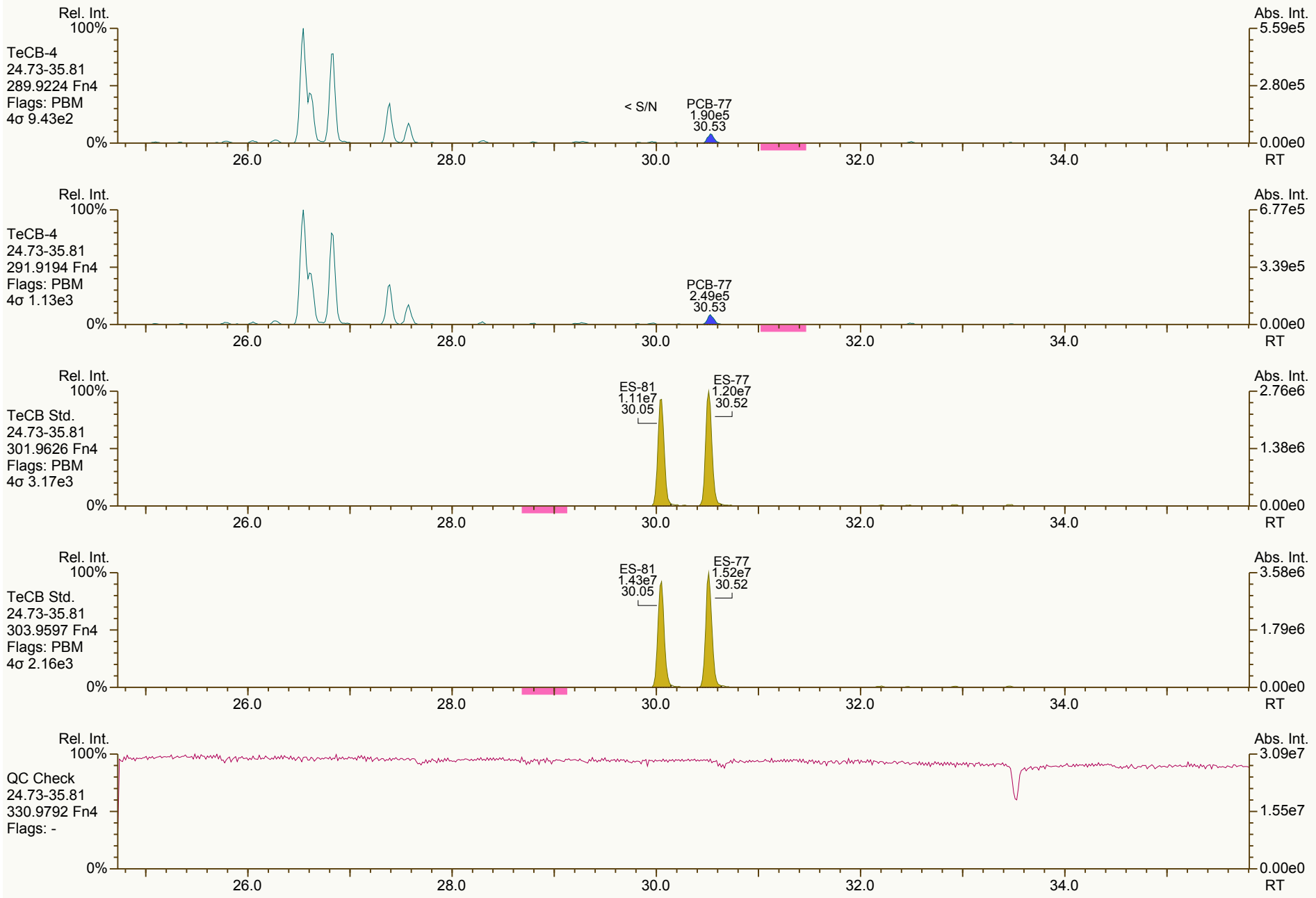
SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4840, 4137 scc: 908-715 *PKD: 14-Dec-2012 11:17 Printed: 16-Dec-2012 14:47 Page 8 of 21*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



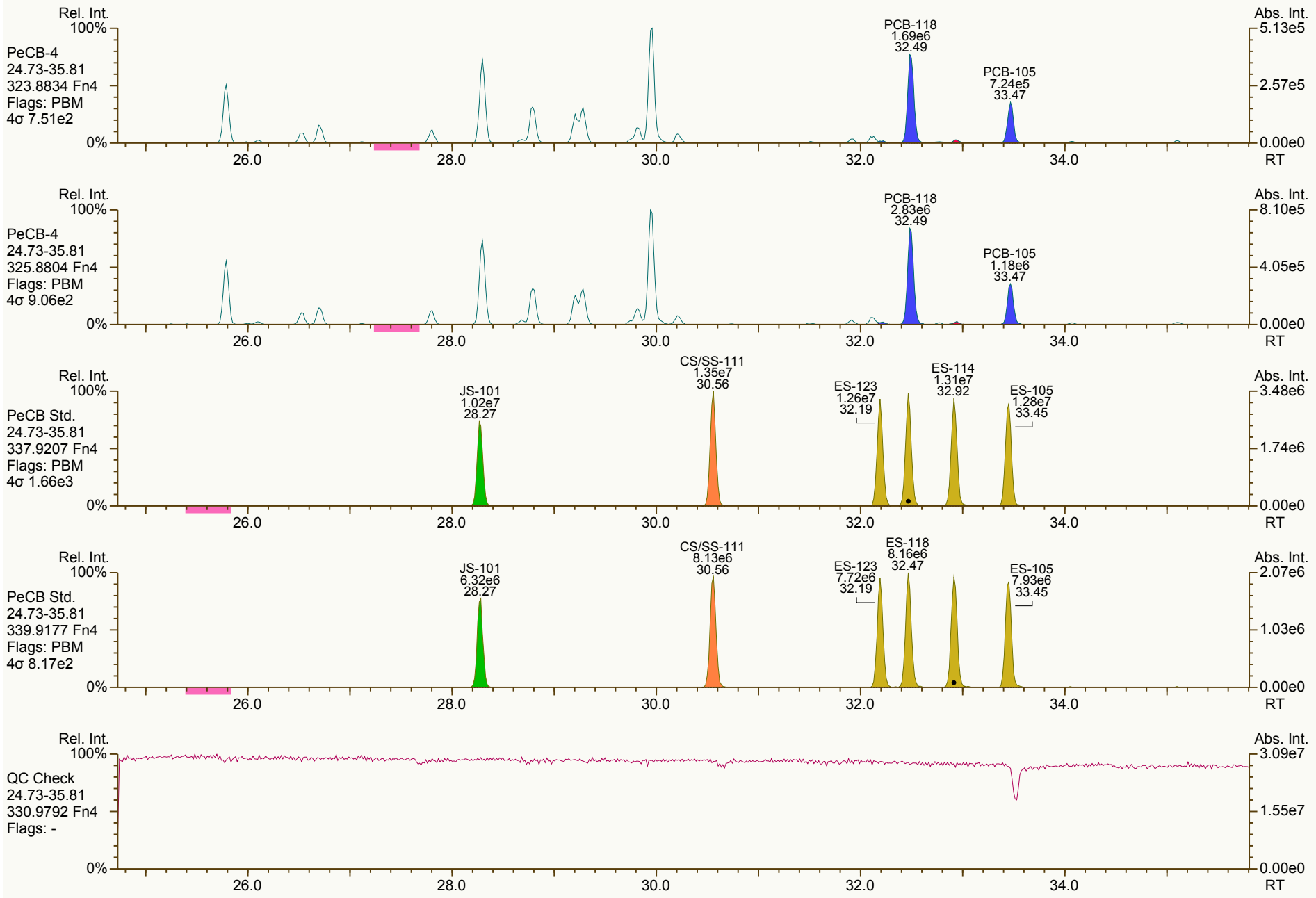
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5662, 1788 scc: 908-715 *Revised: 14-Dec-2012 11:17 (LKB) Printed: 16-Dec-2012 14:47 Page 10 of 21*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



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SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**

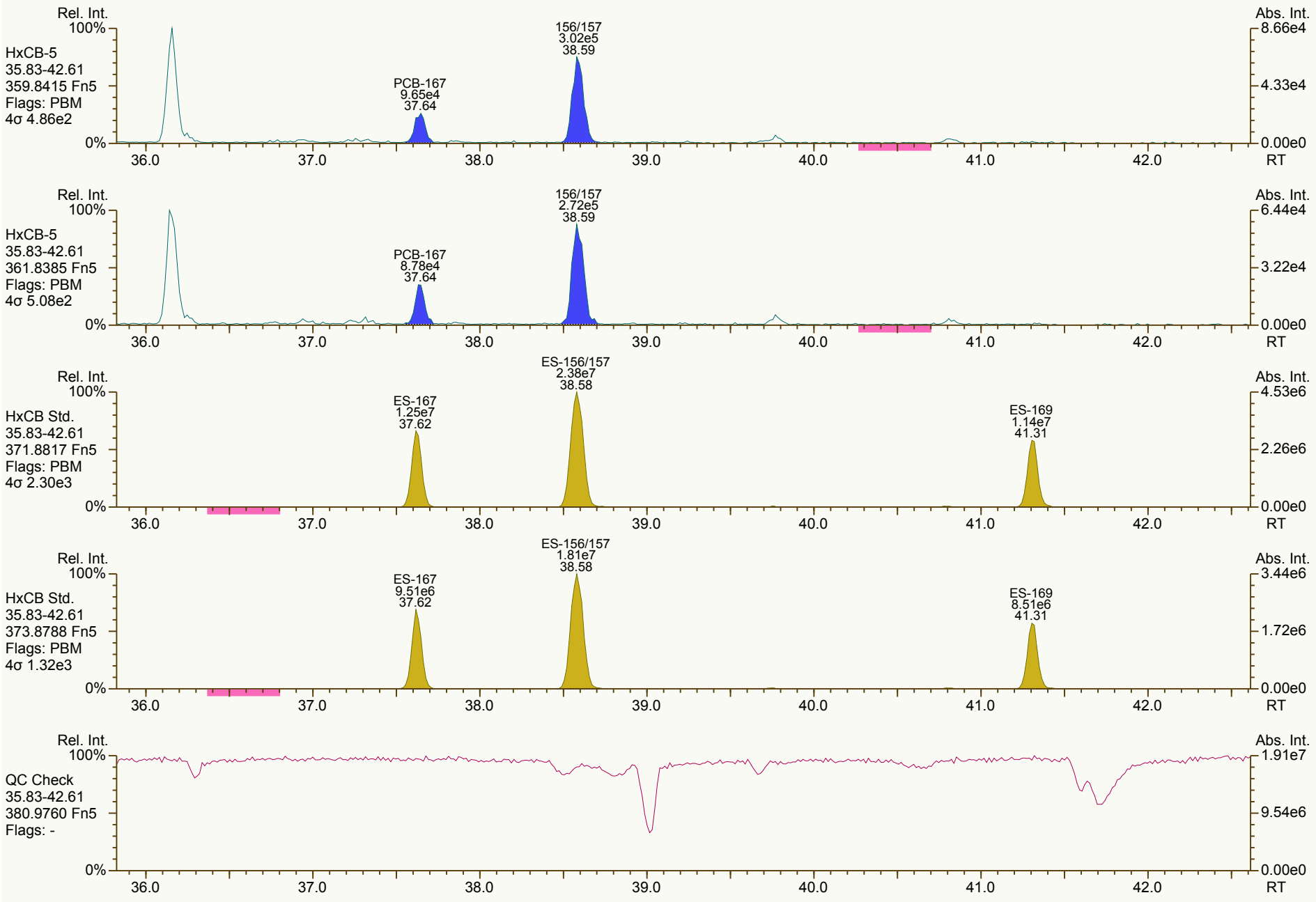


SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5721, 8130 scc: 908-715 *Revised: 14-Dec-2012 11:19 (LKB) Printed: 16-Dec-2012 14:47 Page 13 of 21*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



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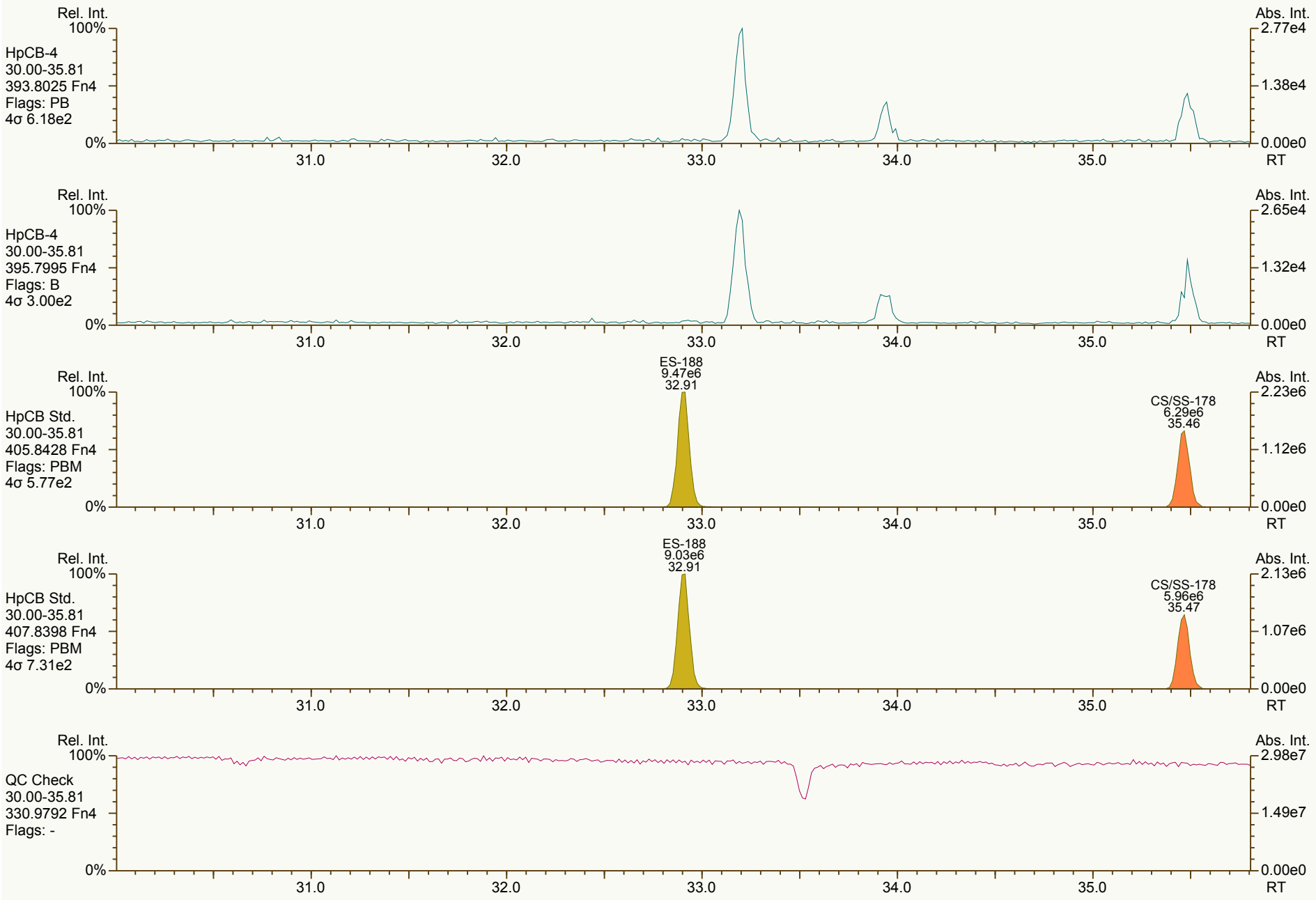
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6750, 8744 scc: 908-715 *Revised: 14-Dec-2012 11:21 (LKB) Printed: 16-Dec-2012 14:47 Page 14 of 21*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



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SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3035, 6488 scc: 908-715 *PKD: 14-Dec-2012 11:20 Printed: 16-Dec-2012 14:47 Page 16 of 21*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4120, 9931 scc: 908-715 *PKD: 14-Dec-2012 11:20 Printed: 16-Dec-2012 14:47 Page 18 of 21*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3212, 9420 scc: 908-715 *PKD: 14-Dec-2012 11:20 Printed: 16-Dec-2012 14:47 Page 19 of 21*

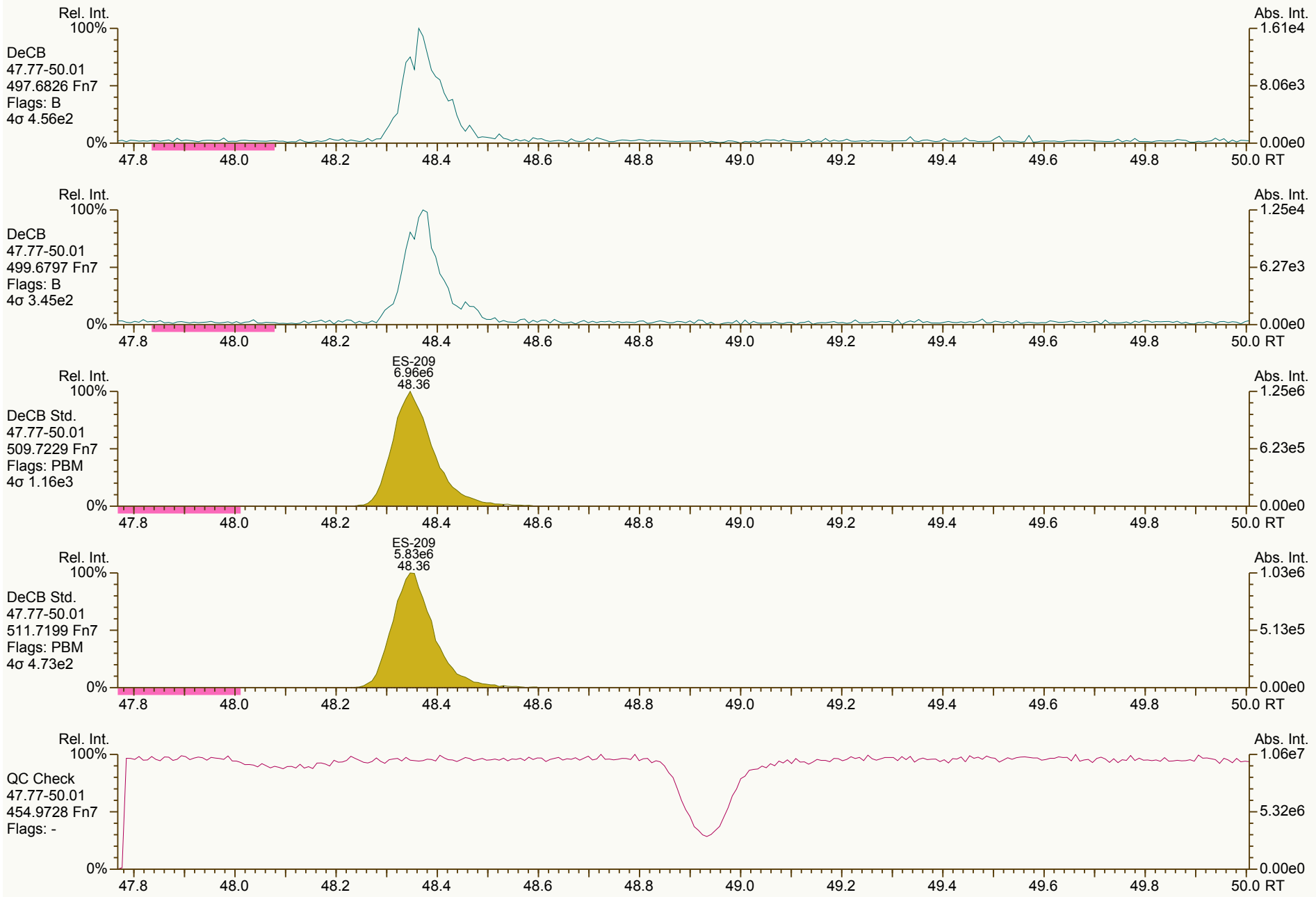
SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6759, 3937 scc: 908-715 *PKD: 14-Dec-2012 11:20 Printed: 16-Dec-2012 14:47 Page 20 of 21*

SGS-AP ID: A4909_10429_PCB_004 **Sample ID: AQ-SE-06-10** **Acq: 14-Dec-2012 10:16:39**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 64** **User: LKB Datafile: 121214X08**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_004.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0055, 7480 scc: 908-715 *PKD: 14-Dec-2012 11:20 Printed: 16-Dec-2012 14:47 Page 21 of 21*

Datafile: 121214X12 **Client ID: AQ-SE-07-10** **Wt/Vol: 12.32 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XB**

Acquired: 14 Dec 2012 14:52:57 **Lab ID: A4909_10429_PCB_005** **J-level: 0.812 pg/g** **Nominal ES spike: 2000 pg**

A4909_10429_PCB_005 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.53		1.0006	1.0006	0	2.70E+05	0.72	1.13	1.31	1.65E+03	0.0859
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.65E+03	0.0882
PCB-105 233'44'-PeCB	33.47		1.0007	1.0007	0	9.18E+05	0.62	1.09	5.83	1.42E+03	0.0911
PCB-114 2344'5-PeCB	32.93	J	1.0007	1.0006	-0.2	5.39E+04	0.65	1.16	0.327	1.42E+03	0.086
PCB-118 23'44'5-PeCB	32.49		1.0007	1.0007	0	2.08E+06	0.63	1.11	12.9	1.42E+03	0.0895
PCB-123 23'44'5'-PeCB	32.20	J	1.0006	1.0004	-0.4	5.96E+04	0.54	1.19	0.364	1.42E+03	0.0872
PCB-126 33'44'5-PeCB	NotFnd		1.0005	-		0.00E+00		1.06	ND	1.40E+03	0.0961
PCB-156/157 ...-HxCB	38.58	C	1.0005	1.0002	-0.7	2.71E+05	1.37	1.11	1.69	1.05E+03	0.0905
PCB-167 23'44'55'-HxCB	37.63	J	1.0005	1.0005	0	9.31E+04	1.33	1.14	0.55	1.05E+03	0.0627
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	1.05E+03	0.0792
PCB-189 233'44'55'-HpCB	43.42	J	1.0004	1.0003	-0.3	2.53E+04	1.10	1.06	0.183	5.64E+02	0.0427
									Recv.		
ES PCB-77	30.51		1.3599	1.3608	+1.6	2.95E+07	0.79	1.35	103 %	25%	150%
ES PCB-81	30.05		1.3390	1.3399	+1.6	2.78E+07	0.77	1.29	102 %	25%	150%
ES PCB-105	33.44		1.1826	1.1826	0	2.34E+07	1.62	1.23	115 %	25%	150%
ES PCB-114	32.91		1.1639	1.1639	0	2.31E+07	1.63	1.25	112 %	25%	150%
ES PCB-118	32.46		1.1481	1.1480	-0.2	2.36E+07	1.62	1.28	112 %	25%	150%
ES PCB-123	32.19		1.1383	1.1382	-0.2	2.24E+07	1.61	1.22	111 %	25%	150%
ES PCB-126	36.05		1.2746	1.2750	+0.9	2.46E+07	1.63	1.20	124 %	25%	150%
ES PCB-156/157	38.57		1.0994	1.0998	+0.9	4.71E+07	1.34	1.45	98.5 %	25%	150%
ES PCB-167	37.61		1.0720	1.0725	+1.1	2.42E+07	1.28	1.49	98.4 %	25%	150%
ES PCB-169	41.30		1.1769	1.1776	+1.7	2.10E+07	1.32	1.40	91.1 %	25%	150%
ES PCB-189	43.41		0.9611	0.9612	+0.3	2.13E+07	1.05	1.49	109 %	25%	150%
SS PCB-28	20.86		0.9298	0.9302	+0.5	3.74E+07	1.12	1.07	102 %	30%	135%
SS PCB-111	30.55		1.0805	1.0804	-0.2	2.36E+07	1.63	1.01	105 %	30%	135%
SS PCB-178	35.46		1.0108	1.0110	+0.4	1.34E+07	1.05	0.63	103 %	30%	135%
CS PCB-28	20.86		0.9298	0.9302	+0.5	3.74E+07	1.12	1.76	99.8 %	30%	135%
CS PCB-111	30.55		1.0805	1.0804	-0.2	2.36E+07	1.63	1.23	116 %	30%	135%
CS PCB-178	35.46		1.0108	1.0110	+0.4	1.34E+07	1.05	0.74	110 %	30%	135%
JS PCB-9	14.73					3.45E+07	1.57				
JS PCB-52	22.42					2.13E+07	0.78				
JS PCB-101	28.28					1.65E+07	1.63				
JS PCB-138	35.07					1.64E+07	1.26				
JS PCB-194	45.16					1.32E+07	0.91				

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_005.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 120-587 *PKD: n/a Printed: 16-Dec-2012 14:48 Page 1 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4971, 0993 scc: 120-587 *PKD: 14-Dec-2012 16:18 Printed: 16-Dec-2012 14:48 Page 3 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



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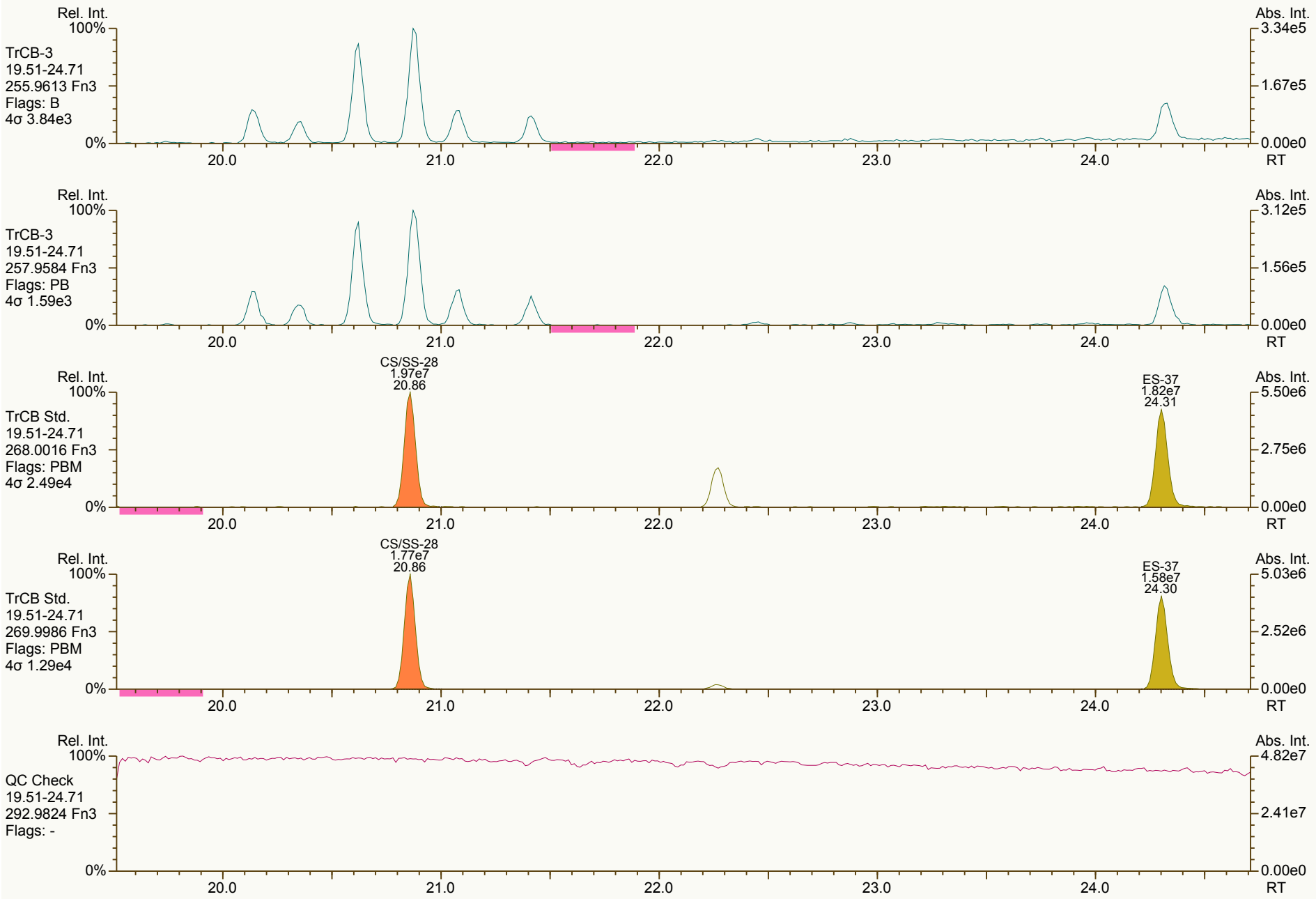
SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_005.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0930, 1971 scc: 120-587 *PKD: 14-Dec-2012 16:18 Printed: 16-Dec-2012 14:48 Page 5 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



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SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



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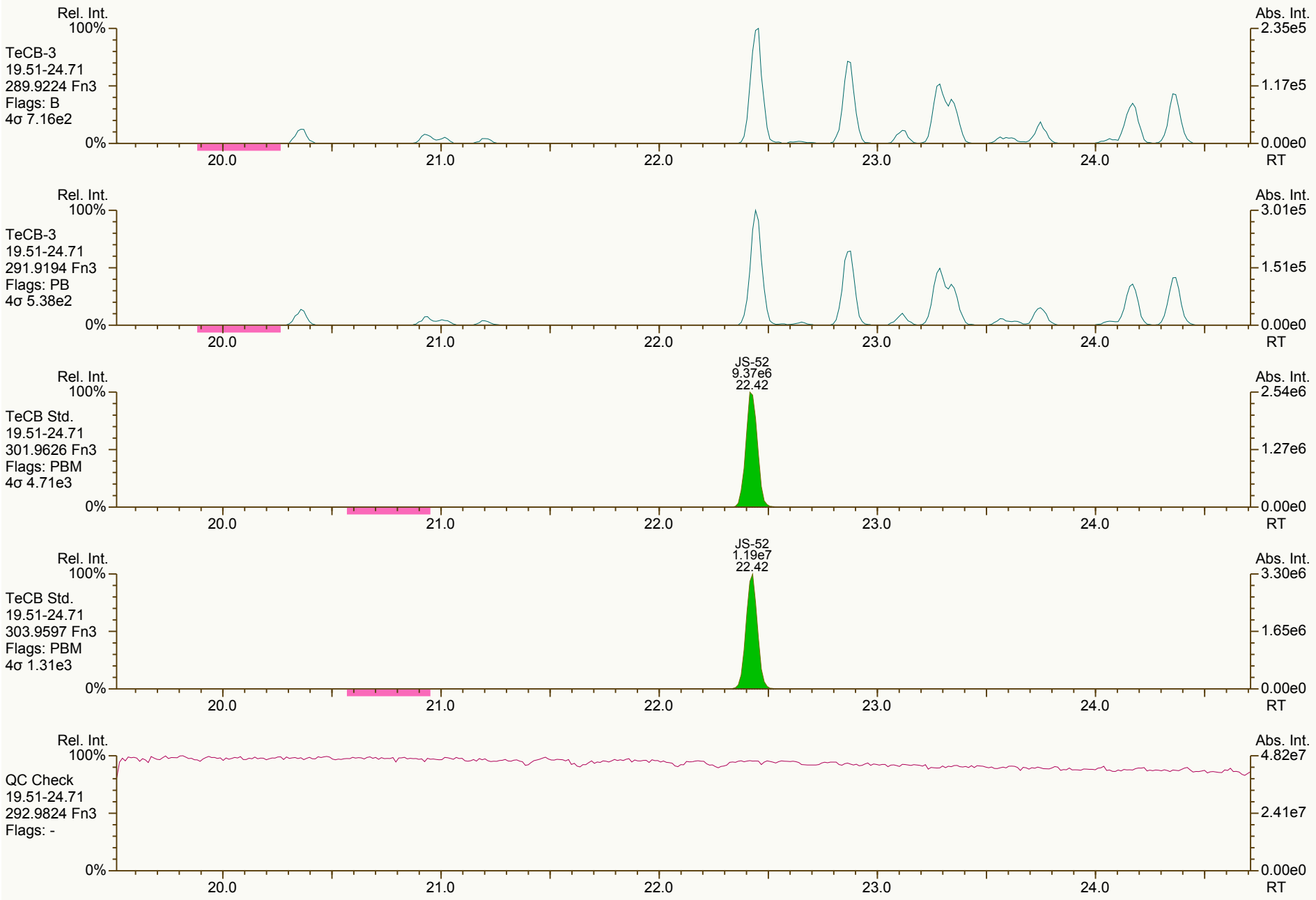
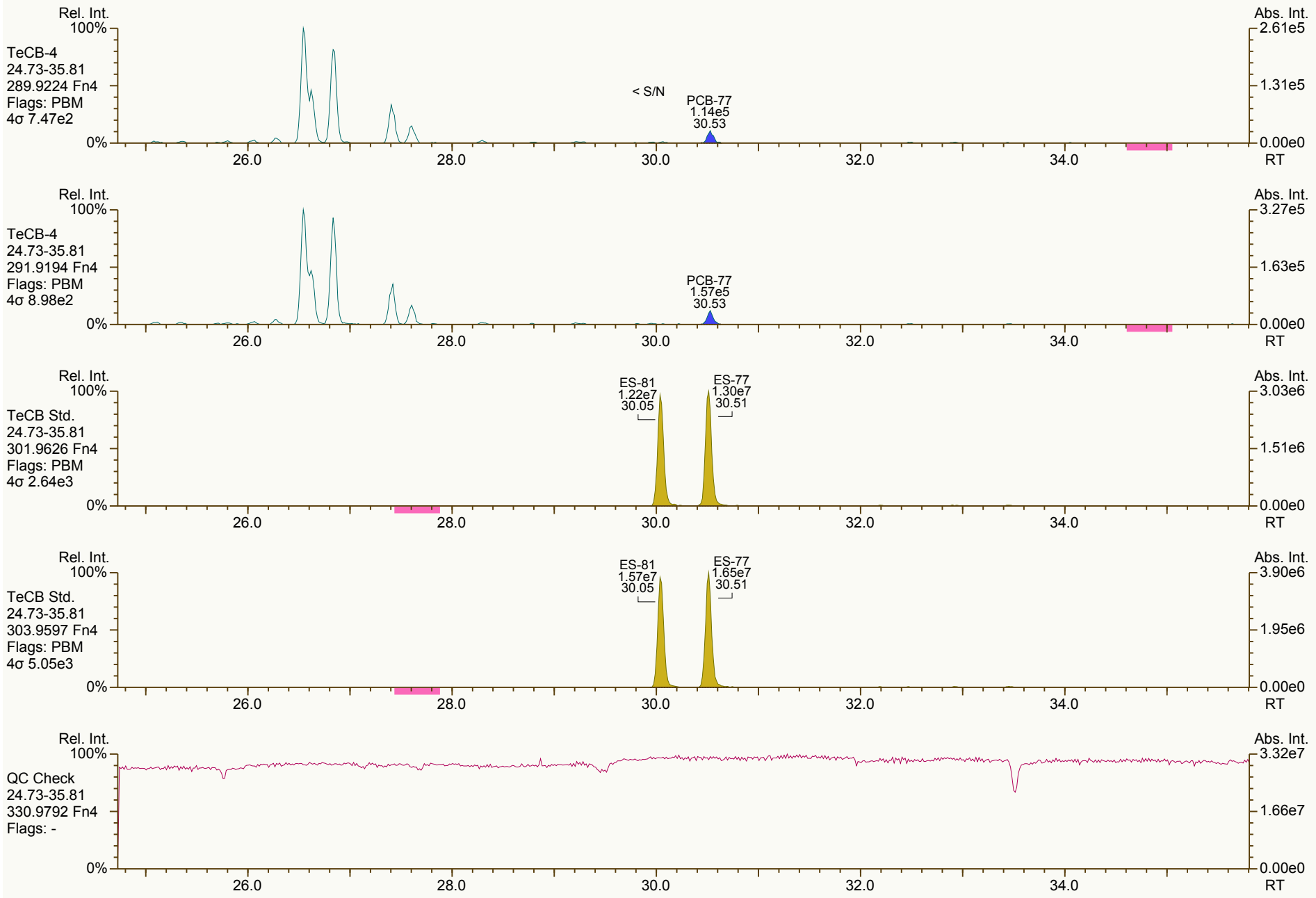
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0608, 5831 scc: 120-587 *PKD: 14-Dec-2012 16:18 Printed: 16-Dec-2012 14:48 Page 7 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



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SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
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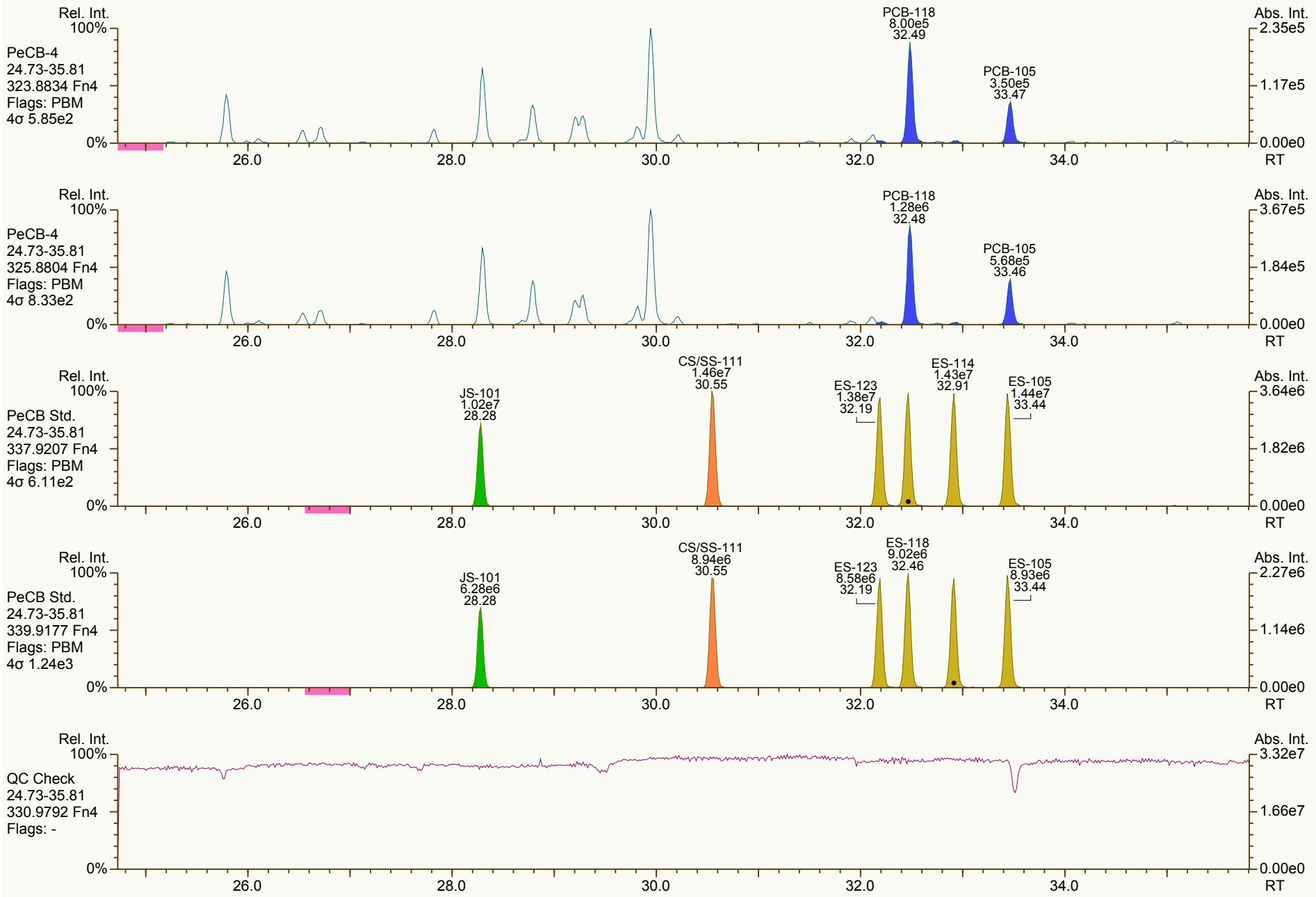

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SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



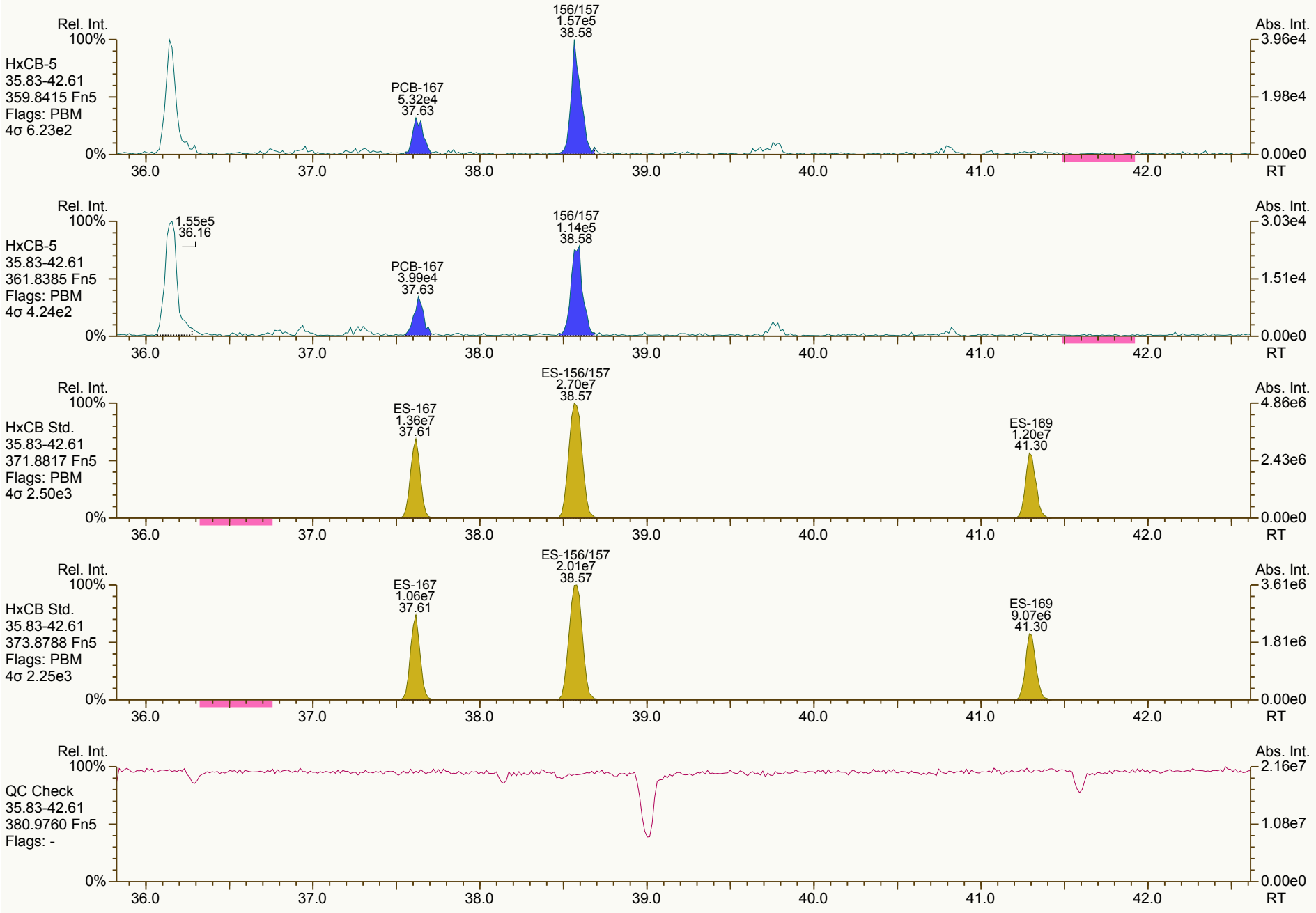
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_005.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2813, 4347 scc: 120-587 *PKD: 14-Dec-2012 16:18 Printed: 16-Dec-2012 14:48 Page 12 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_005.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5436, 4415 scc: 120-587 *PKD: 14-Dec-2012 16:18 Printed: 16-Dec-2012 14:48 Page 13 of 21*

SGS-AP ID: A4909_10429_PCB_005 Sample ID: AQ-SE-07-10 Acq: 14-Dec-2012 14:52:57
Instr: AutoSpec-Premier MM7 VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65 User: LKB Datafile: 121214X12



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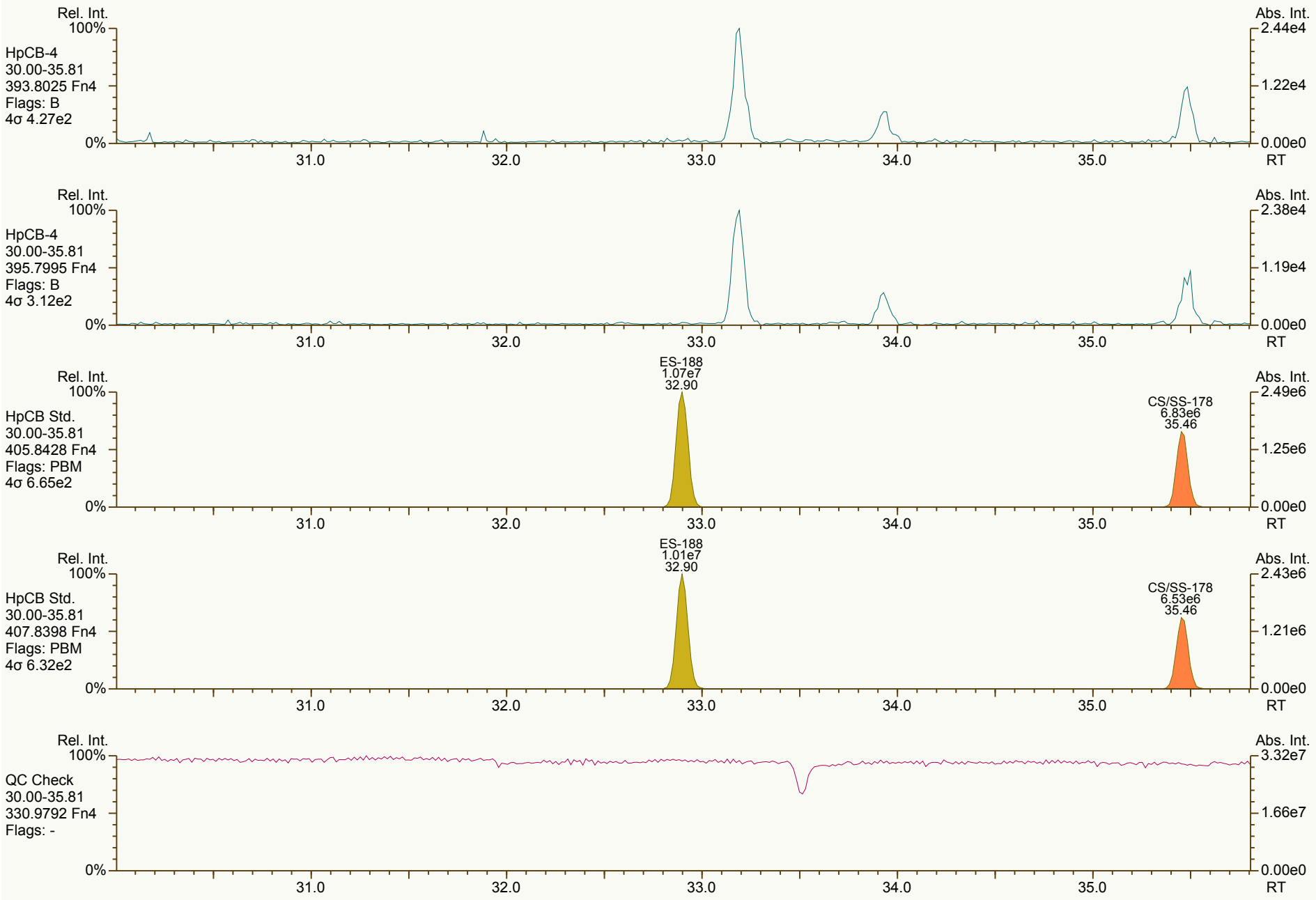
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2393, 4903 scc: 120-587 *Revised: 14-Dec-2012 16:18 (LKB) Printed: 16-Dec-2012 14:48 Page 14 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



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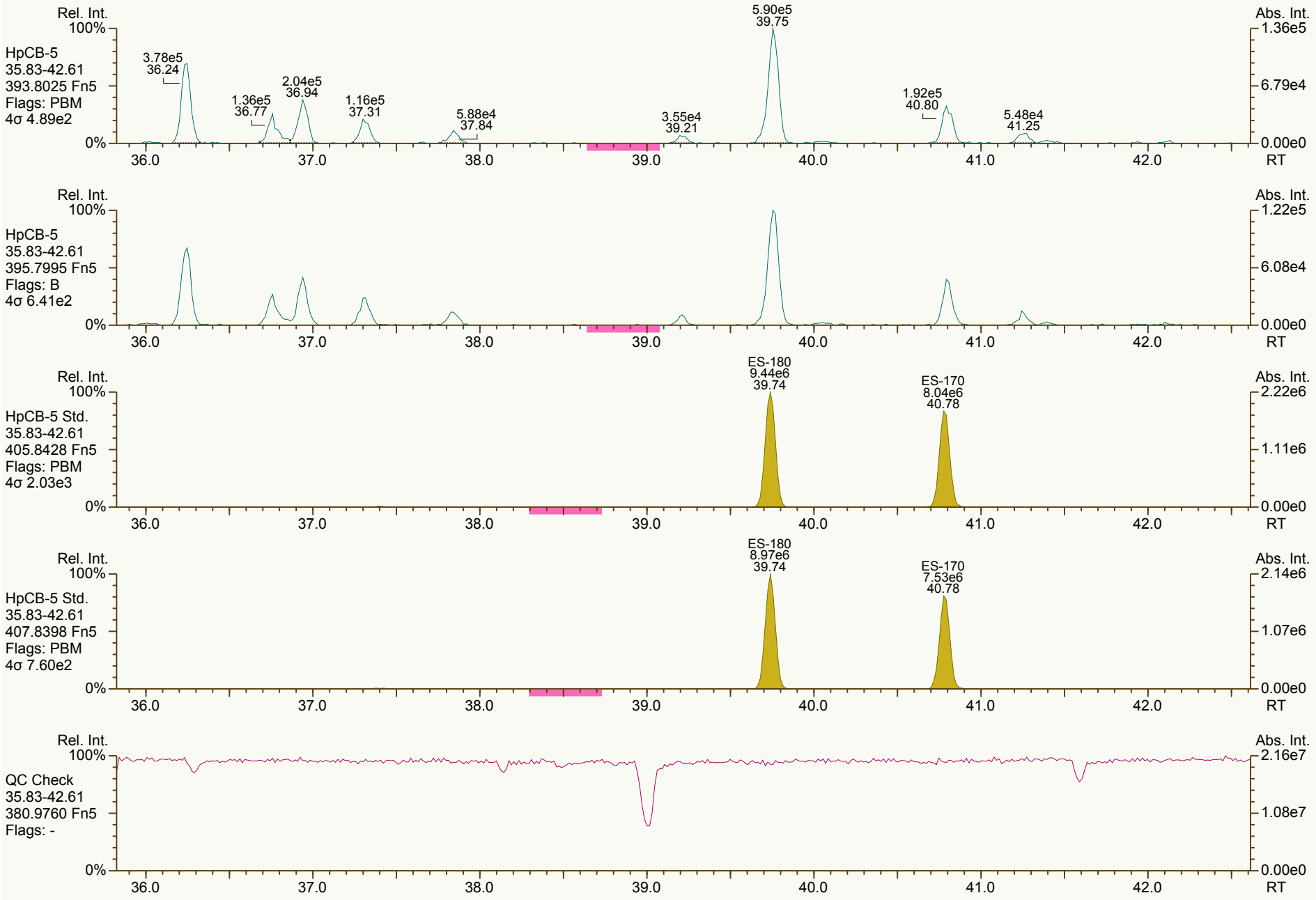
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9082, 1797 scc: 120-587 *Revised: 14-Dec-2012 16:18 (LKB) Printed: 16-Dec-2012 14:48 Page 15 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_005.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

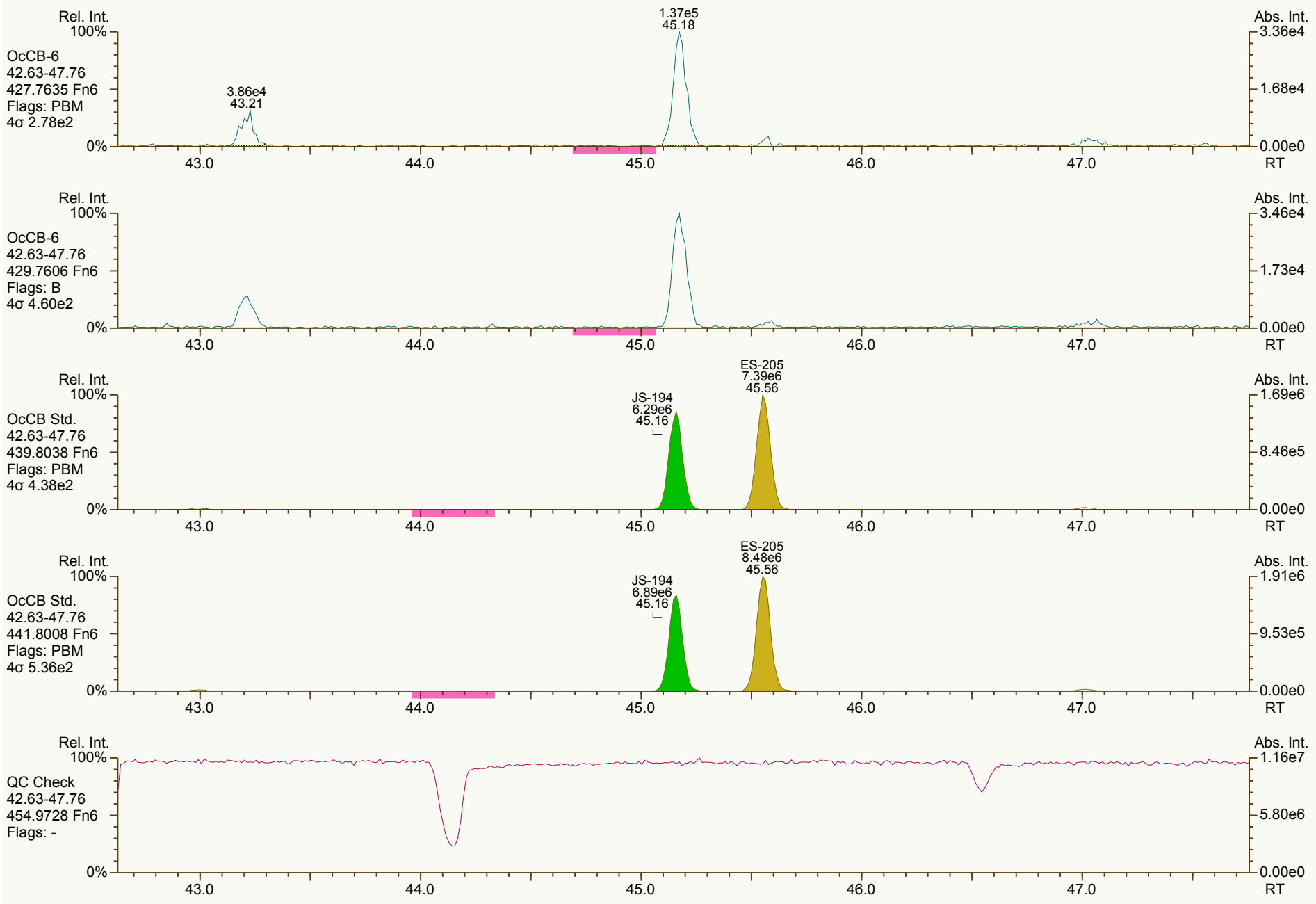
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1322, 1114 scc: 120-587 *Revised: 14-Dec-2012 16:19 (LKB) Printed: 16-Dec-2012 14:48 Page 17 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_005.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8036, 0370 scc: 120-587 *Revised: 14-Dec-2012 16:19 (LKB) Printed: 16-Dec-2012 14:48 Page 18 of 21*

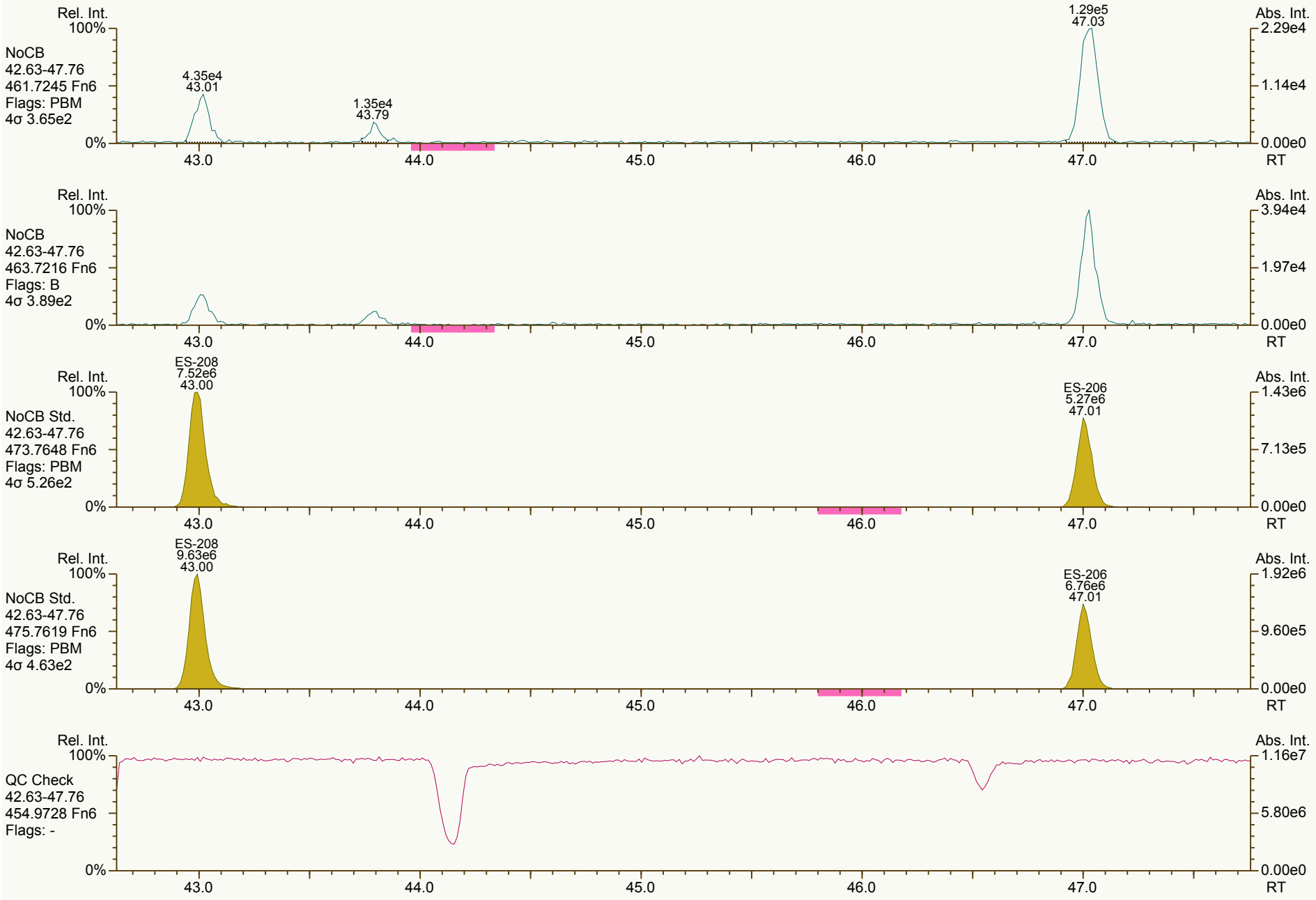
SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_005.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5550, 9925 scc: 120-587 *Revised: 14-Dec-2012 16:19 (LKB) Printed: 16-Dec-2012 14:48 Page 19 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2405, 8732 scc: 120-587 *Revised: 14-Dec-2012 16:19 (LKB) Printed: 16-Dec-2012 14:48 Page 20 of 21*

SGS-AP ID: A4909_10429_PCB_005 **Sample ID: AQ-SE-07-10** **Acq: 14-Dec-2012 14:52:57**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 65** **User: LKB Datafile: 121214X12**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_005.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5381, 9924 scc: 120-587 *Revised: 14-Dec-2012 16:19 (LKB) Printed: 16-Dec-2012 14:48 Page 21 of 21*

Datafile: 121214X13 **Client ID: AQ-SE-08-10** **Wt/Vol: 11.88 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XB**

Acquired: 14 Dec 2012 15:46:10 **Lab ID: A4909_10429_PCB_006** **J-level: 0.842 pg/g** **Nominal ES spike: 2000 pg**

A4909_10429_PCB_006 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.53		1.0006	1.0005	-0.2	3.14E+05	0.78	1.13	1.12	1.85E+03	0.0705
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	1.85E+03	0.0738
PCB-105 233'44'-PeCB	33.47		1.0007	1.0006	-0.2	9.60E+05	0.65	1.09	4.49	1.90E+03	0.0948
PCB-114 2344'5-PeCB	32.93	J	1.0007	1.0006	-0.2	4.84E+04	0.66	1.16	0.212	1.90E+03	0.0849
PCB-118 23'44'5-PeCB	32.49		1.0007	1.0007	0	2.42E+06	0.61	1.11	10.9	1.90E+03	0.0874
PCB-123 23'44'5'-PeCB	32.21	J	1.0006	1.0007	+0.2	4.76E+04	0.61	1.19	0.211	1.90E+03	0.088
PCB-126 33'44'5-PeCB	NotFnd		1.0005	-		0.00E+00		1.06	ND	1.38E+03	0.0696
PCB-156/157 ...-HxCB	38.59	J C	1.0005	1.0002	-0.7	2.46E+05	1.20	1.11	1.25	1.26E+03	0.0824
PCB-167 23'44'55'-HxCB	37.64	J EMPC	1.0005	1.0006	+0.2	8.00E+04	1.05	1.14	0.356	1.26E+03	0.0569
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	1.26E+03	0.0682
PCB-189 233'44'55'-HpCB	43.43	J EMPC	1.0004	1.0005	+0.3	2.12E+04	1.41	1.06	0.115	1.03E+03	0.0597
									Recv.		
ES PCB-77	30.51		1.3599	1.3610	+2.0	4.17E+07	0.80	1.35	91.6 %	25%	150%
ES PCB-81	30.04		1.3390	1.3401	+2.0	3.97E+07	0.80	1.29	91.4 %	25%	150%
ES PCB-105	33.44		1.1826	1.1831	+1.0	3.29E+07	1.64	1.23	103 %	25%	150%
ES PCB-114	32.91		1.1639	1.1643	+0.8	3.32E+07	1.59	1.25	102 %	25%	150%
ES PCB-118	32.47		1.1481	1.1485	+0.8	3.36E+07	1.63	1.28	101 %	25%	150%
ES PCB-123	32.19		1.1383	1.1386	+0.6	3.20E+07	1.61	1.22	101 %	25%	150%
ES PCB-126	36.06		1.2746	1.2755	+1.9	3.40E+07	1.58	1.20	109 %	25%	150%
ES PCB-156/157	38.58		1.0994	1.0998	+0.9	6.01E+07	1.33	1.45	83.5 %	25%	150%
ES PCB-167	37.62		1.0720	1.0725	+1.1	3.33E+07	1.34	1.49	90.1 %	25%	150%
ES PCB-169	41.31		1.1769	1.1776	+1.7	3.02E+07	1.32	1.40	86.9 %	25%	150%
ES PCB-189	43.41		0.9611	0.9612	+0.3	2.93E+07	1.04	1.49	102 %	25%	150%
SS PCB-28	20.85		0.9298	0.9302	+0.5	5.60E+07	1.12	1.07	102 %	30%	135%
SS PCB-111	30.55		1.0805	1.0808	+0.5	3.30E+07	1.58	1.01	103 %	30%	135%
SS PCB-178	35.46		1.0108	1.0110	+0.4	1.90E+07	1.00	0.63	103 %	30%	135%
CS PCB-28	20.85		0.9298	0.9302	+0.5	5.60E+07	1.12	1.76	94.3 %	30%	135%
CS PCB-111	30.55		1.0805	1.0808	+0.5	3.30E+07	1.58	1.23	104 %	30%	135%
CS PCB-178	35.46		1.0108	1.0110	+0.4	1.90E+07	1.00	0.74	104 %	30%	135%
JS PCB-9	14.72					6.15E+07	1.57				
JS PCB-52	22.42					3.38E+07	0.81				
JS PCB-101	28.27					2.60E+07	1.63				
JS PCB-138	35.08					2.48E+07	1.29				
JS PCB-194	45.17					1.93E+07	0.93				

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 695-708 *PKD: n/a Printed: 16-Dec-2012 14:49 Page 1 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



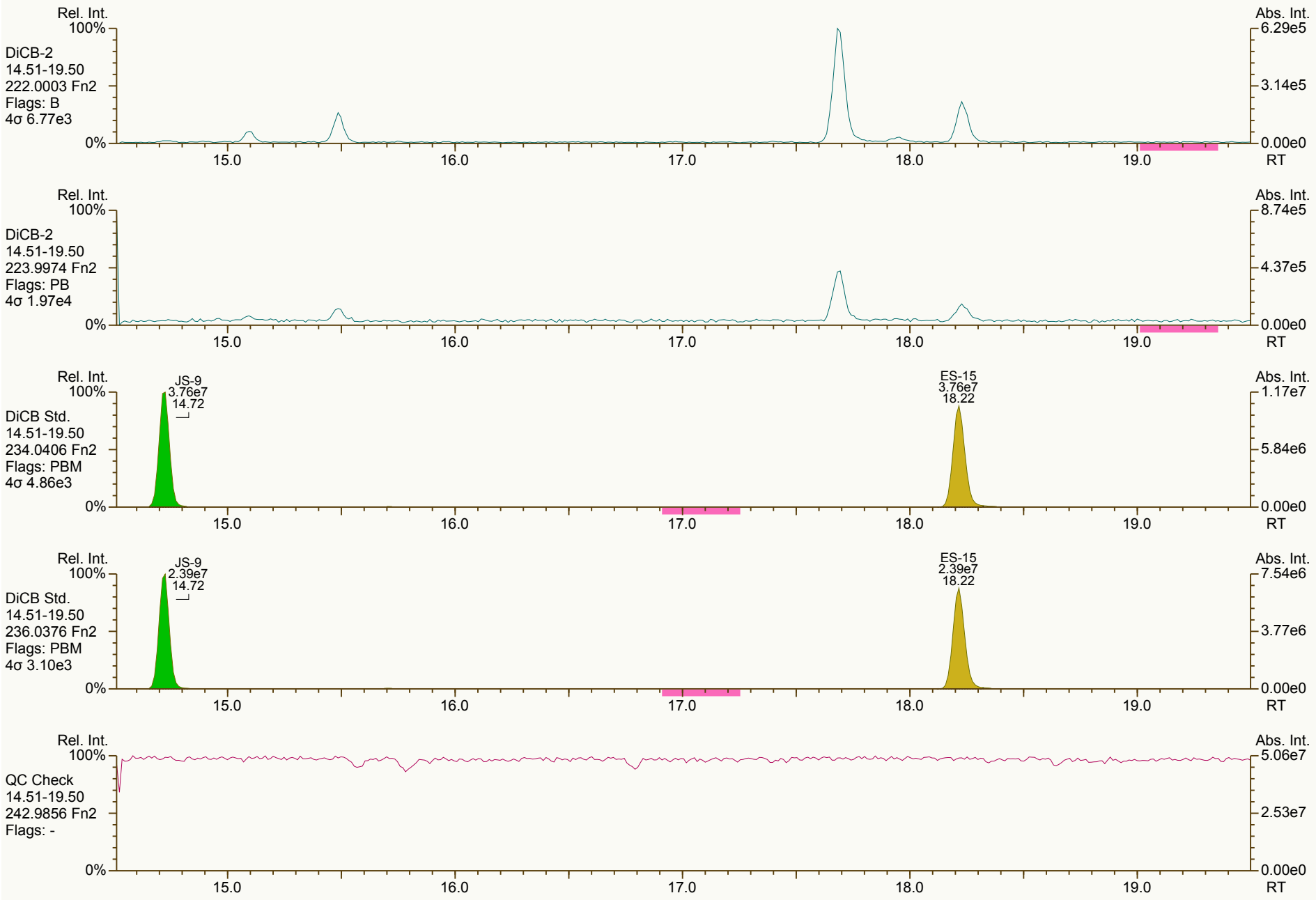
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6100, 6154 scc: 695-708 *PKD: 14-Dec-2012 16:49 Printed: 16-Dec-2012 14:49 Page 2 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



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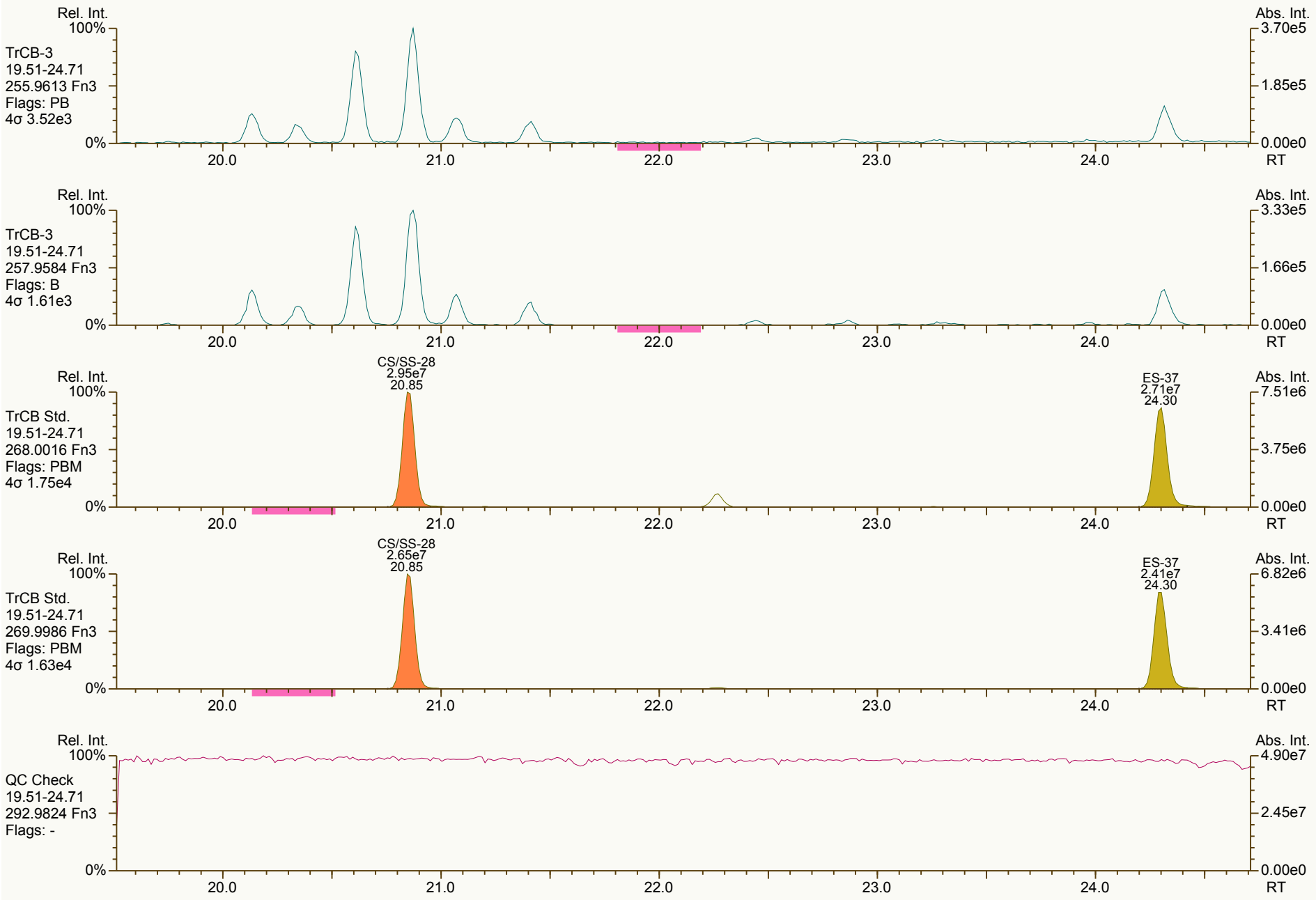
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6660, 7132 scc: 695-708 *PKD: 14-Dec-2012 16:49 Printed: 16-Dec-2012 14:49 Page 4 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



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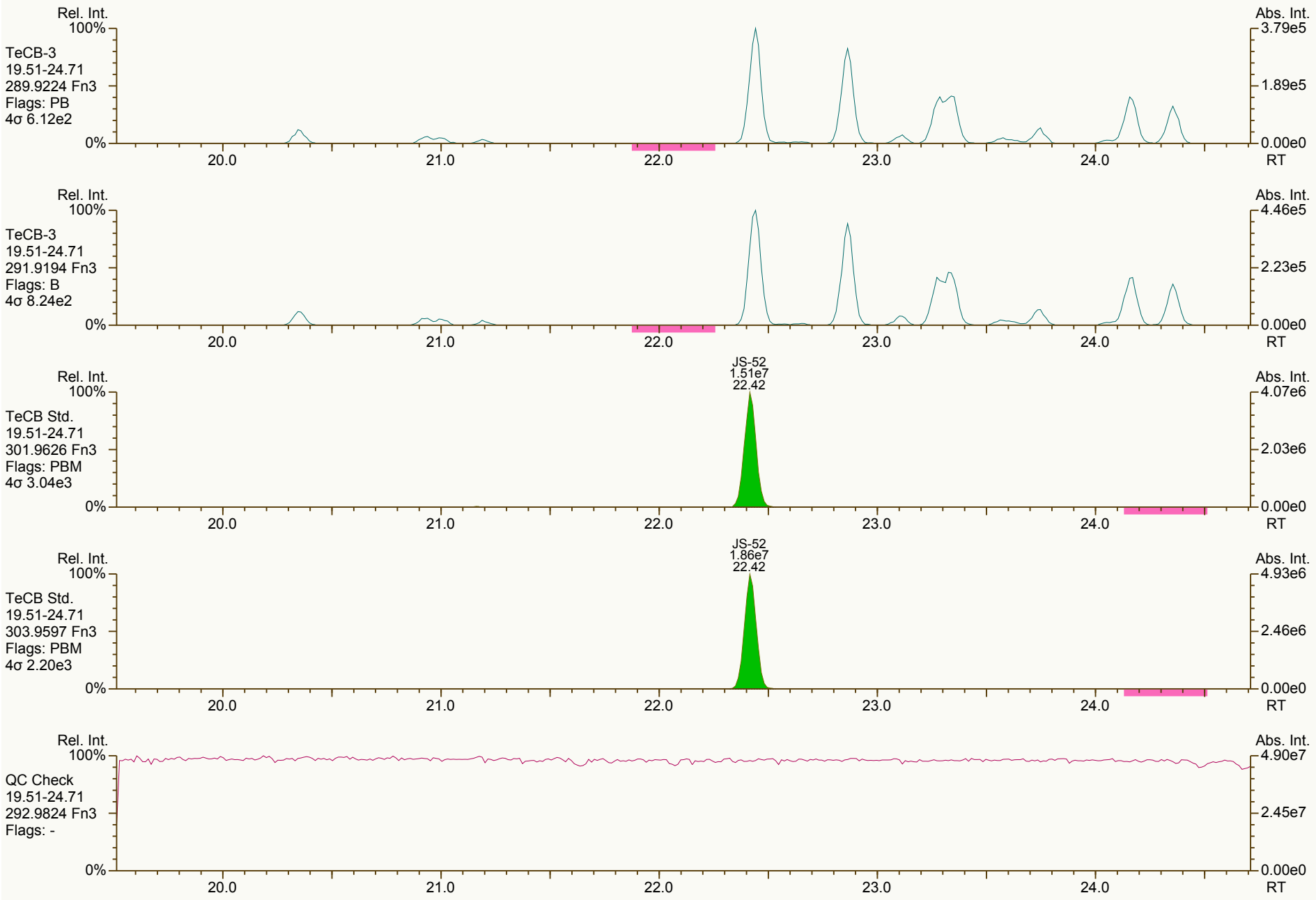
SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3216, 0748 scc: 695-708 *Revised: 14-Dec-2012 16:50 (LKB) Printed: 16-Dec-2012 14:49 Page 7 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**

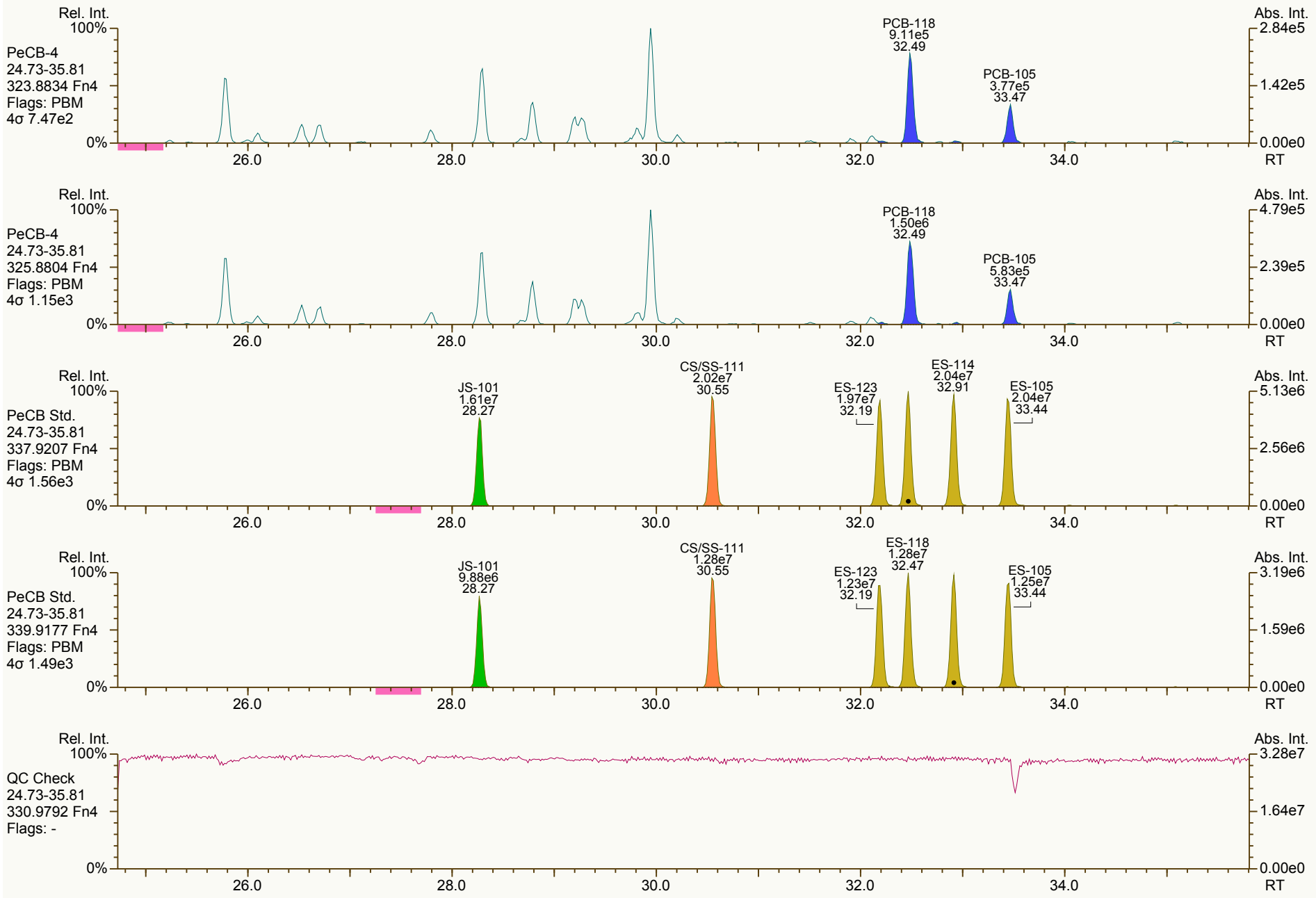


SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8500, 1340 scc: 695-708 *PKD: 14-Dec-2012 16:49 Printed: 16-Dec-2012 14:49 Page 10 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0389, 4029 scc: 695-708 *Revised: 14-Dec-2012 16:50 (LKB) Printed: 16-Dec-2012 14:49 Page 11 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**

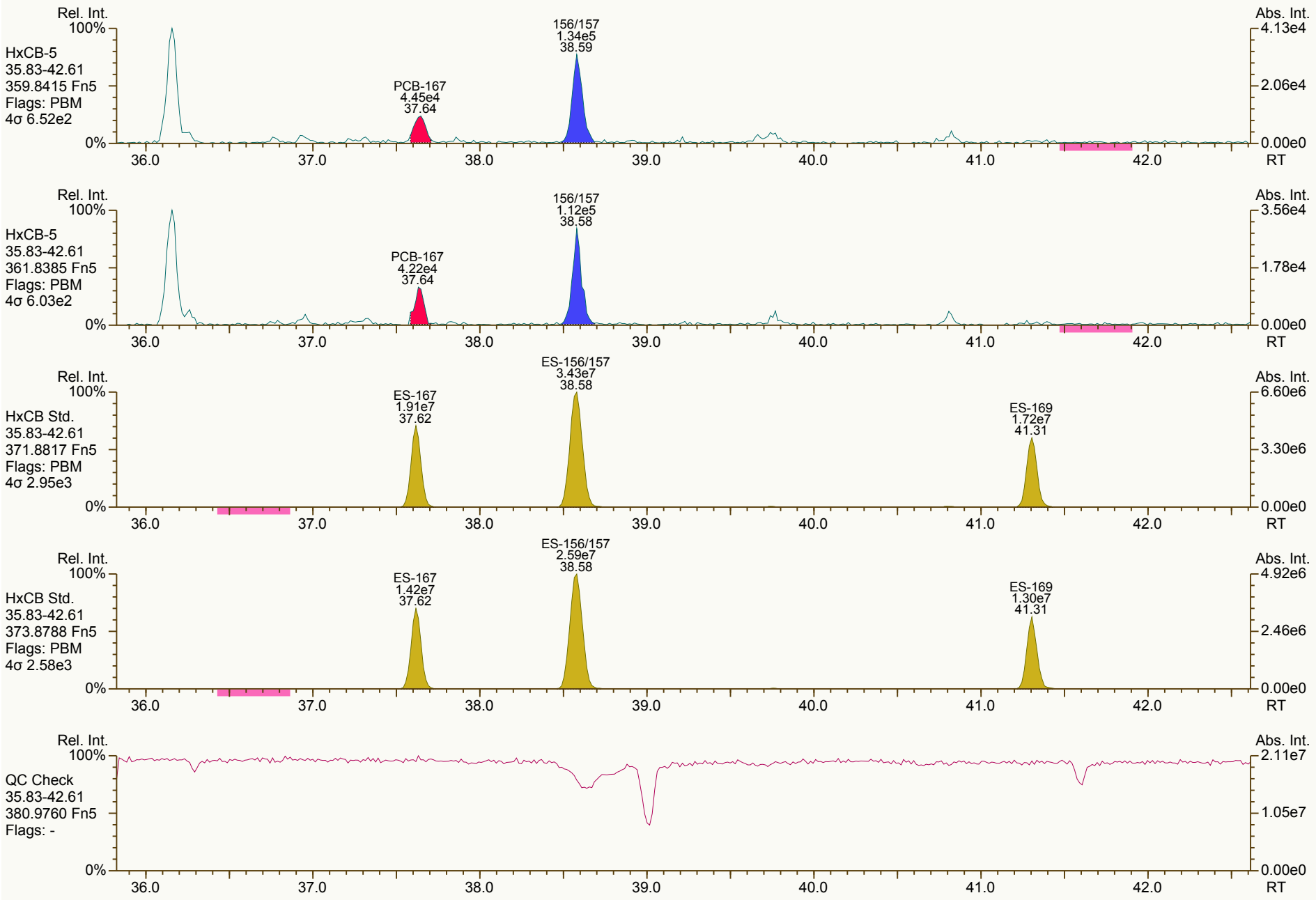


Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3150, 4785 scc: 695-708 *Revised: 14-Dec-2012 16:50 (LKB) Printed: 16-Dec-2012 14:49 Page 12 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3071, 0995 scc: 695-708 *PKD: 14-Dec-2012 16:49 Printed: 16-Dec-2012 14:49 Page 14 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_006 Sample ID: AQ-SE-08-10 Acq: 14-Dec-2012 15:46:10
Instr: AutoSpec-Premier MM7 VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66 User: LKB Datafile: 121214X13



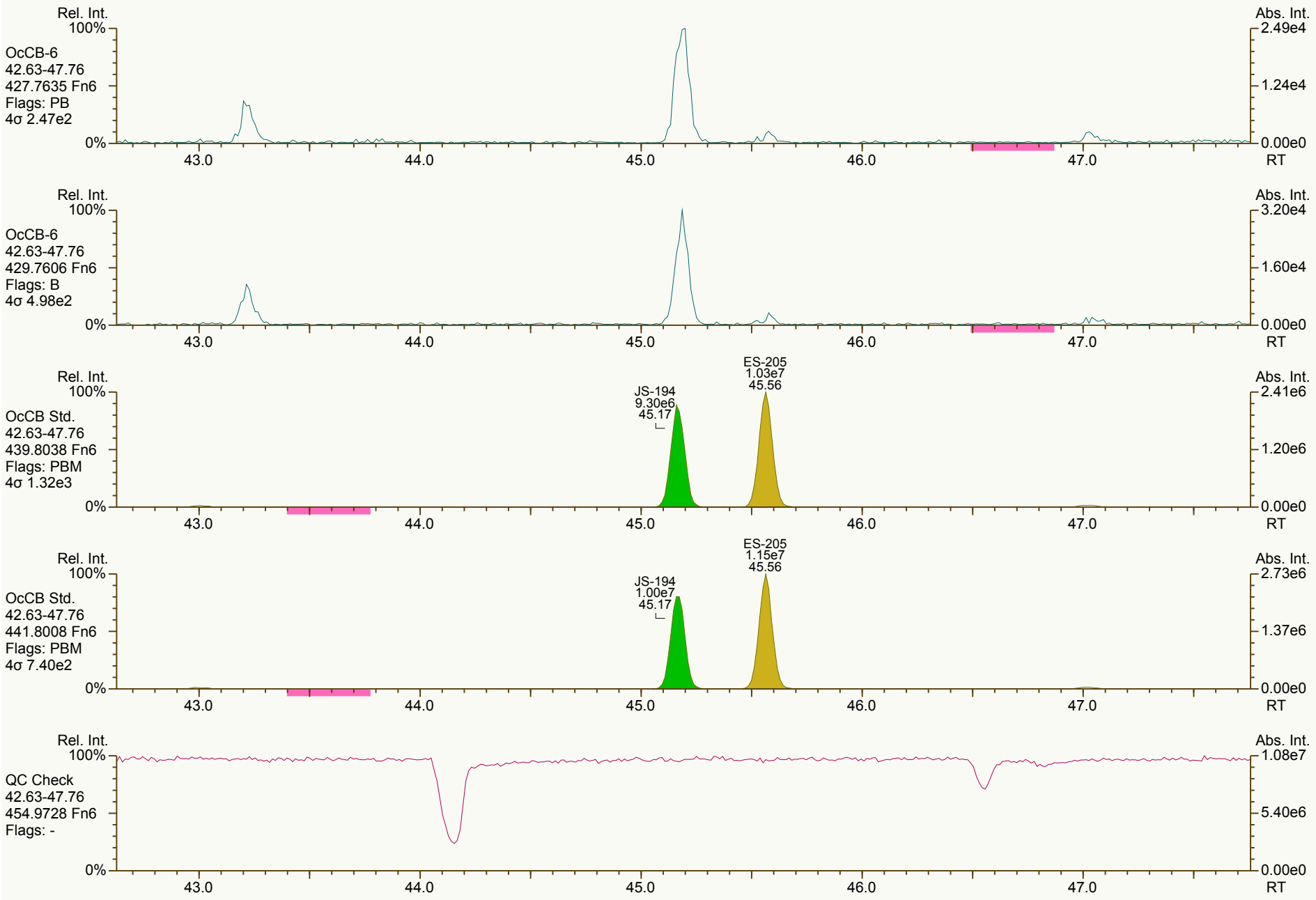
SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8978, 2196 scc: 695-708 *PKD: 14-Dec-2012 16:51 Printed: 16-Dec-2012 14:49 Page 18 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



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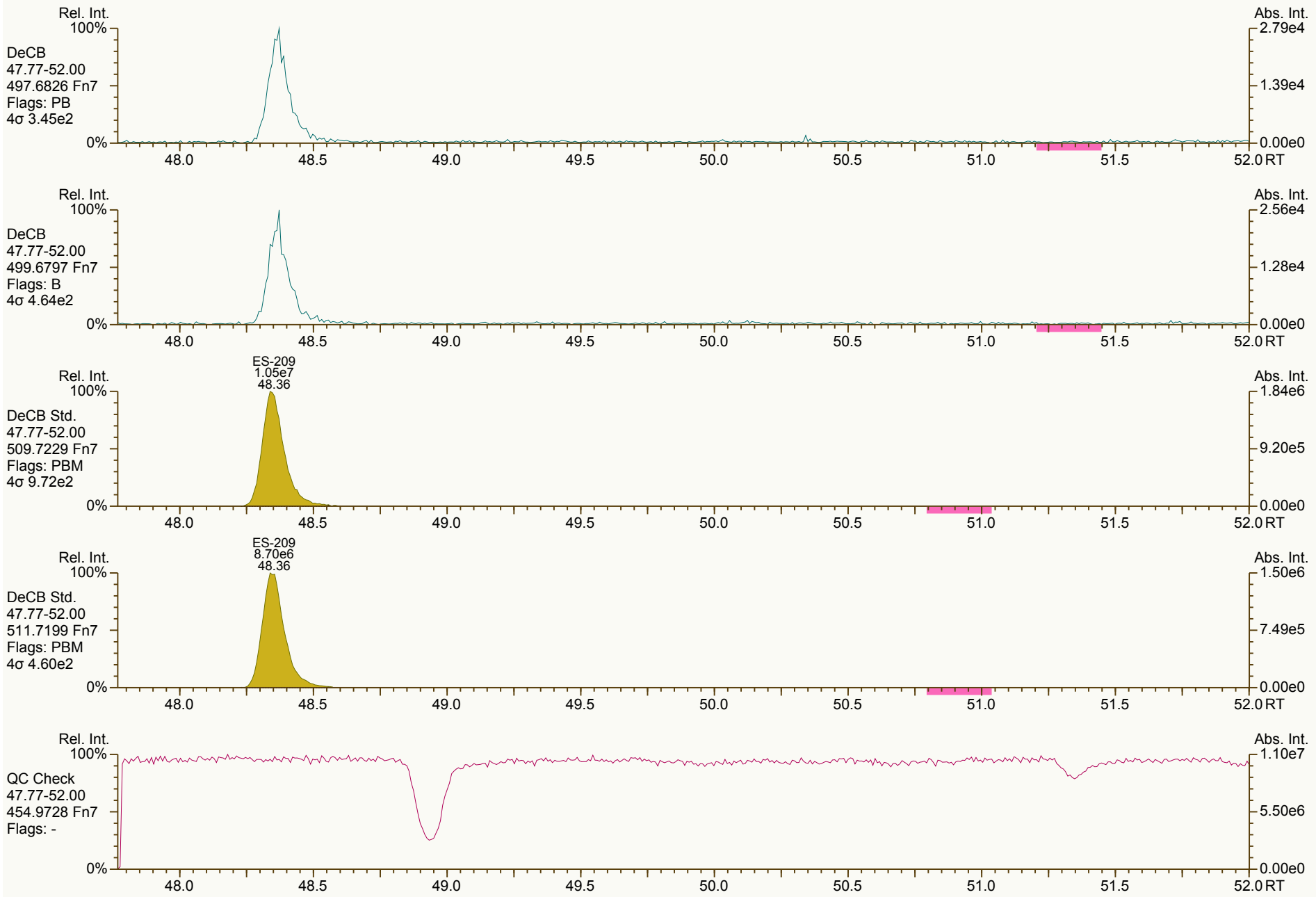
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2768, 5116 scc: 695-708 *PKD: 14-Dec-2012 16:49 Printed: 16-Dec-2012 14:49 Page 19 of 21*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_006.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_006 **Sample ID: AQ-SE-08-10** **Acq: 14-Dec-2012 15:46:10**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 66** **User: LKB Datafile: 121214X13**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6300, 2030 scc: 695-708 *PKD: 14-Dec-2012 16:49 Printed: 16-Dec-2012 14:49 Page 21 of 21*

Datafile: 121214X14 **Client ID: AQ-SE-01-10** **Wt/Vol: 10.89 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XB**

Acquired: 14 Dec 2012 16:41:08 **Lab ID: A4909_10429_PCB_007** **J-level: 0.918 pg/g** **Nominal ES spike: 2000 pg**

A4909_10429_PCB_007 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.61		1.0006	1.0006	0	1.64E+07	0.78	1.13	87.5	8.14E+03	0.49
PCB-81 344'5-TeCB	30.14		1.0006	1.0005	-0.2	5.67E+05	0.81	1.13	3.43	8.14E+03	0.546
PCB-105 233'44'-PeCB	33.55		1.0007	1.0006	-0.2	5.97E+07	0.62	1.09	517	1.18E+03	0.107
PCB-114 2344'5-PeCB	33.02		1.0007	1.0006	-0.2	4.35E+06	0.61	1.16	33.2	1.18E+03	0.0975
PCB-118 23'44'5-PeCB	32.58		1.0007	1.0007	0	1.50E+08	0.62	1.11	1,180	1.18E+03	0.104
PCB-123 23'44'5'-PeCB	32.30		1.0006	1.0008	+0.4	3.82E+06	0.63	1.19	28.2	1.18E+03	0.0958
PCB-126 33'44'5-PeCB	36.17		1.0005	1.0006	+0.2	4.34E+05	0.63	1.06	3.52	2.69E+03	0.244
PCB-156/157 ...-HxCB	38.68	C	1.0005	1.0002	-0.7	1.74E+07	1.22	1.11	172	2.79E+03	0.381
PCB-167 23'44'55'-HxCB	37.74		1.0005	1.0005	0	6.83E+06	1.19	1.14	53.1	2.79E+03	0.237
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	2.79E+03	0.353
PCB-189 233'44'55'-HpCB	43.54		1.0004	1.0004	0	8.65E+05	1.00	1.06	9.24	1.67E+03	0.207
									Recv.		
ES PCB-77	30.59		1.3599	1.3610	+2.0	3.03E+07	0.83	1.35	87 %	25%	150%
ES PCB-81	30.12		1.3390	1.3403	+2.3	2.69E+07	0.79	1.29	80.8 %	25%	150%
ES PCB-105	33.53		1.1826	1.1828	+0.4	1.94E+07	1.58	1.23	85.9 %	25%	150%
ES PCB-114	33.00		1.1639	1.1643	+0.8	2.08E+07	1.65	1.25	90.8 %	25%	150%
ES PCB-118	32.56		1.1481	1.1486	+1.0	2.11E+07	1.66	1.28	89.8 %	25%	150%
ES PCB-123	32.27		1.1383	1.1386	+0.6	2.10E+07	1.62	1.22	94 %	25%	150%
ES PCB-126	36.15		1.2746	1.2755	+2.0	2.13E+07	1.59	1.20	97.2 %	25%	150%
ES PCB-156/157	38.68		1.0994	1.0999	+1.2	3.36E+07	1.33	1.45	75.6 %	25%	150%
ES PCB-167	37.72		1.0720	1.0726	+1.4	2.08E+07	1.34	1.49	91.2 %	25%	150%
ES PCB-169	41.41		1.1769	1.1778	+2.2	1.54E+07	1.34	1.40	71.9 %	25%	150%
ES PCB-189	43.53		0.9611	0.9612	+0.3	1.63E+07	1.08	1.49	110 %	25%	150%
SS PCB-28	20.90		0.9298	0.9299	+0.1	4.37E+07	1.12	1.07	110 %	30%	135%
SS PCB-111	30.63		1.0805	1.0808	+0.6	2.35E+07	1.63	1.01	111 %	30%	135%
SS PCB-178	35.55		1.0108	1.0110	+0.4	1.18E+07	1.11	0.63	103 %	30%	135%
CS PCB-28	20.90		0.9298	0.9299	+0.1	4.37E+07	1.12	1.76	96.2 %	30%	135%
CS PCB-111	30.63		1.0805	1.0808	+0.6	2.35E+07	1.63	1.23	105 %	30%	135%
CS PCB-178	35.55		1.0108	1.0110	+0.4	1.18E+07	1.11	0.74	104 %	30%	135%
JS PCB-9	14.74					6.11E+07	1.59				
JS PCB-52	22.47					2.59E+07	0.78				
JS PCB-101	28.34					1.83E+07	1.65				
JS PCB-138	35.16					1.53E+07	1.24				
JS PCB-194	45.28					9.93E+06	0.88				

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_007.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 407-178 *PKD: n/a Printed: 16-Dec-2012 14:49 Page 1 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**

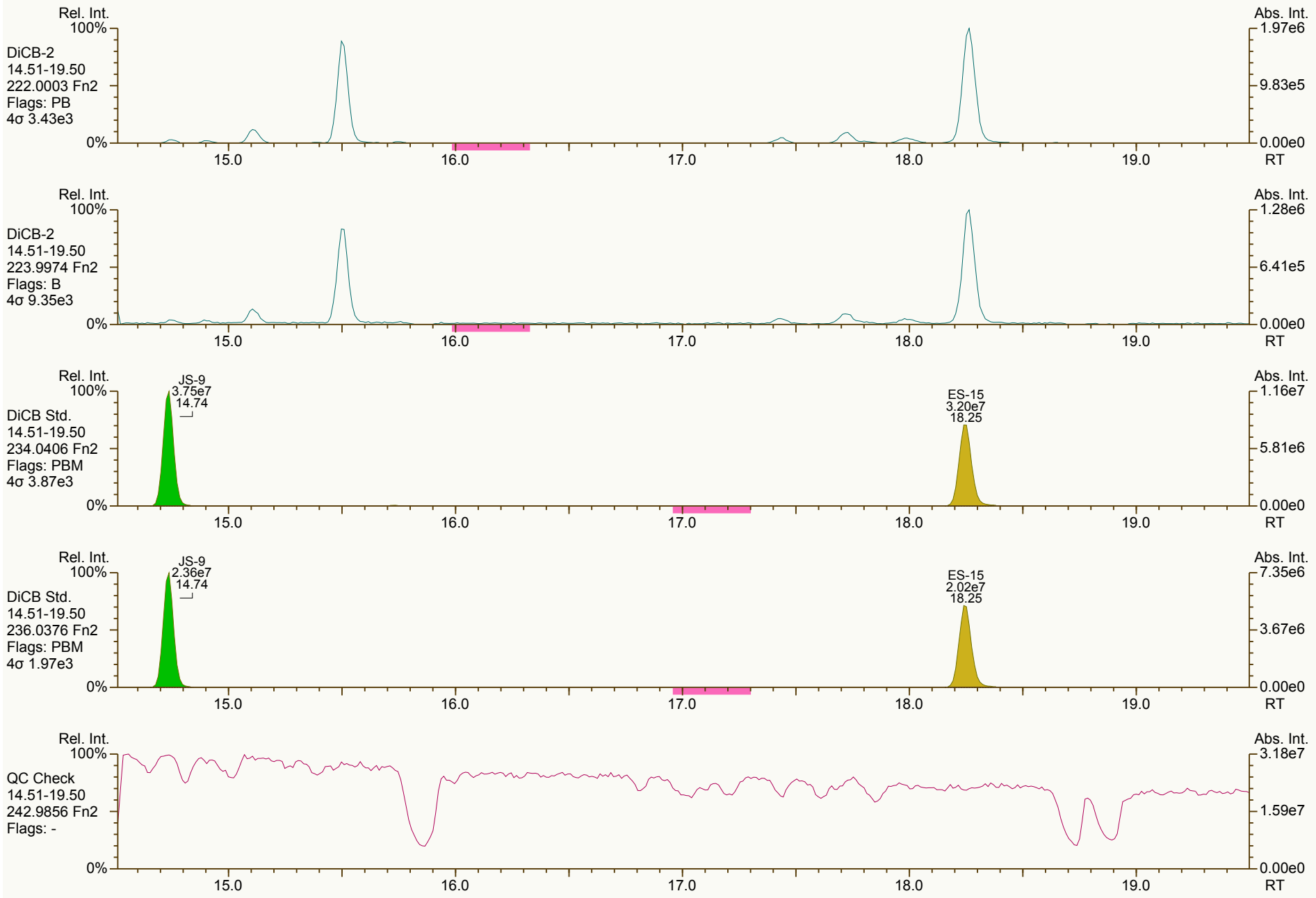


Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_007.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6659, 2409 scc: 407-178 *PKD: 16-Dec-2012 13:09 Printed: 16-Dec-2012 14:49 Page 2 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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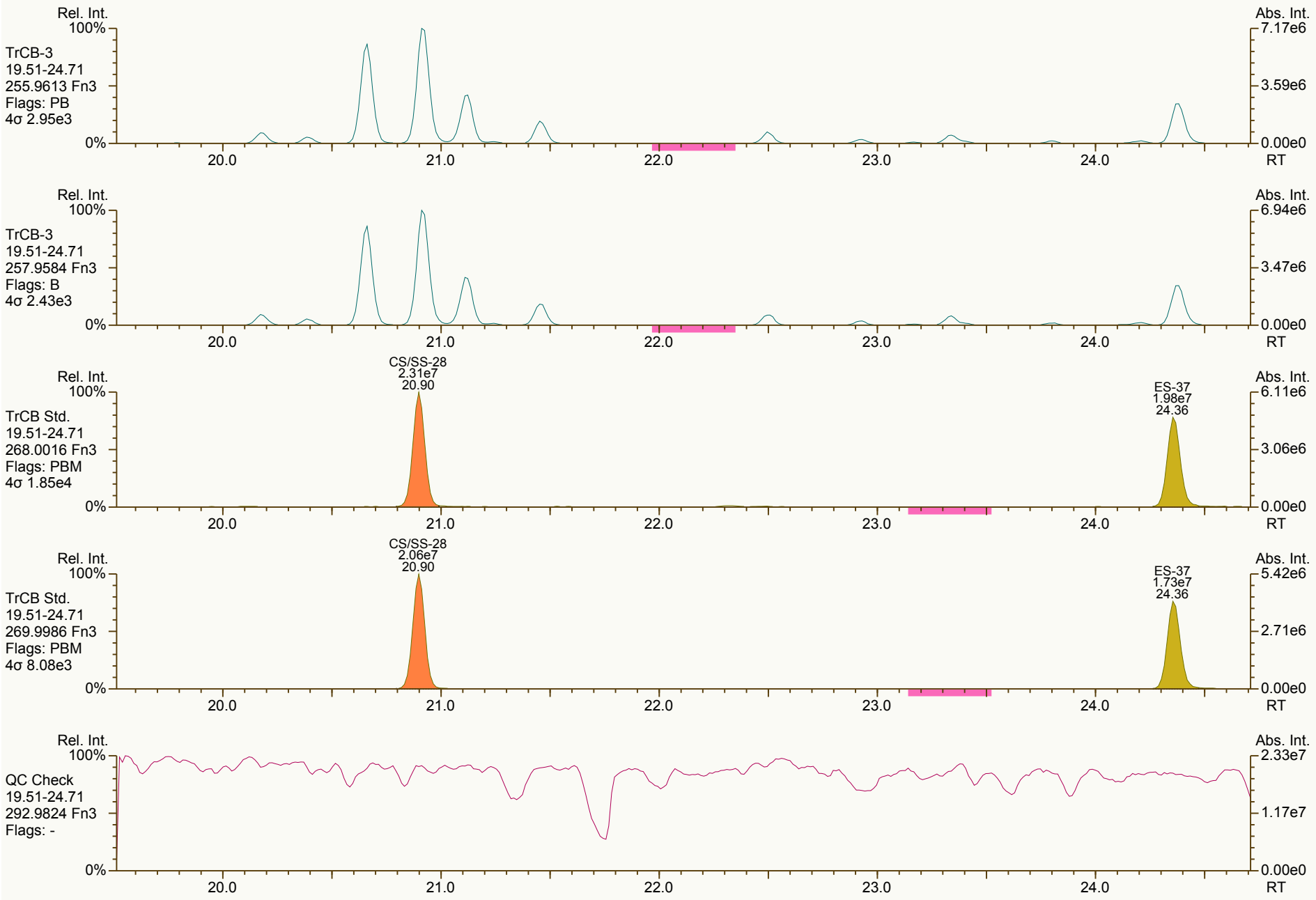
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7609, 1961 scc: 407-178 *PKD: 16-Dec-2012 12:44 Printed: 16-Dec-2012 14:49 Page 4 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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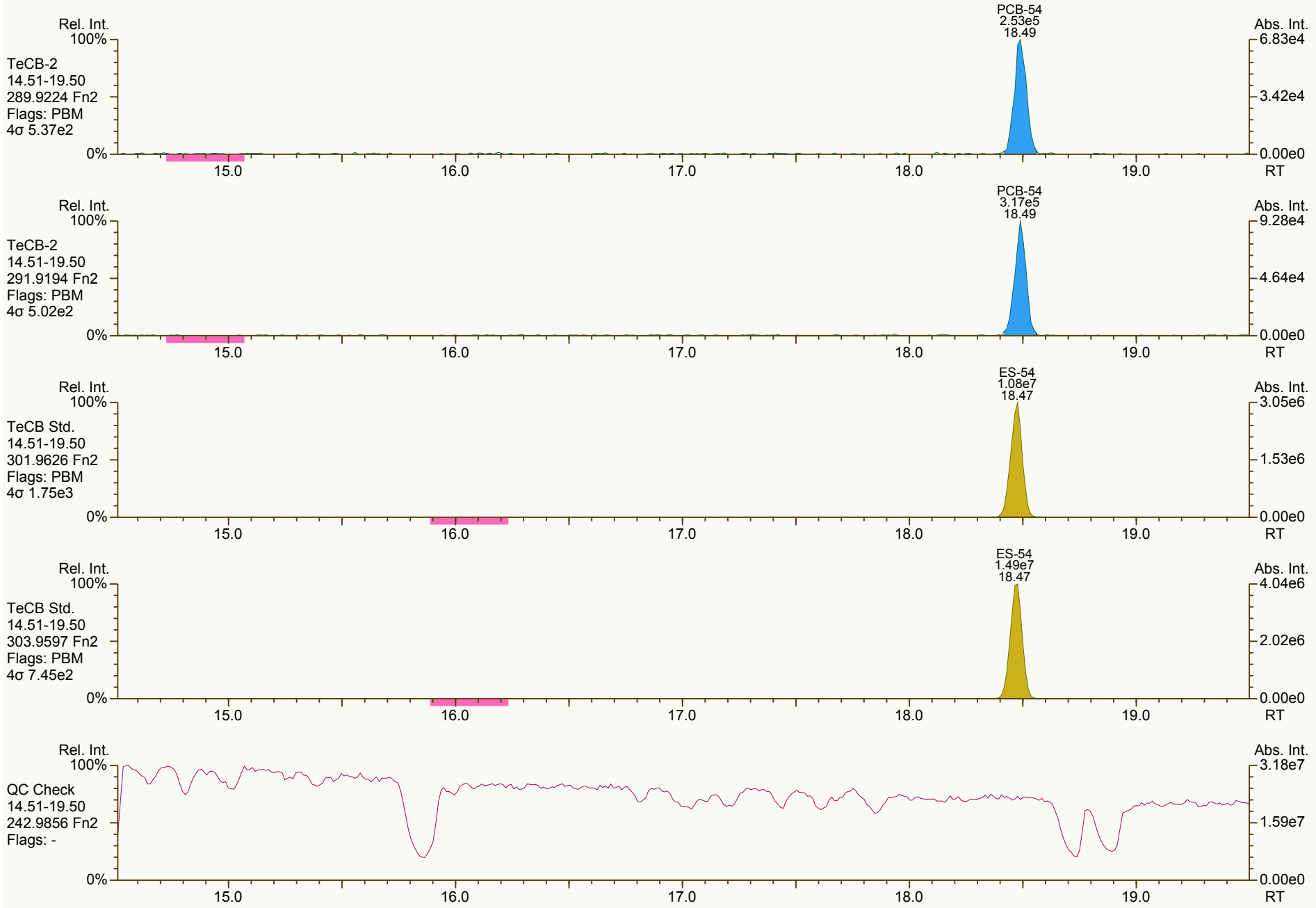
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6836, 2341 scc: 407-178 *PKD: 16-Dec-2012 12:44 Printed: 16-Dec-2012 14:49 Page 6 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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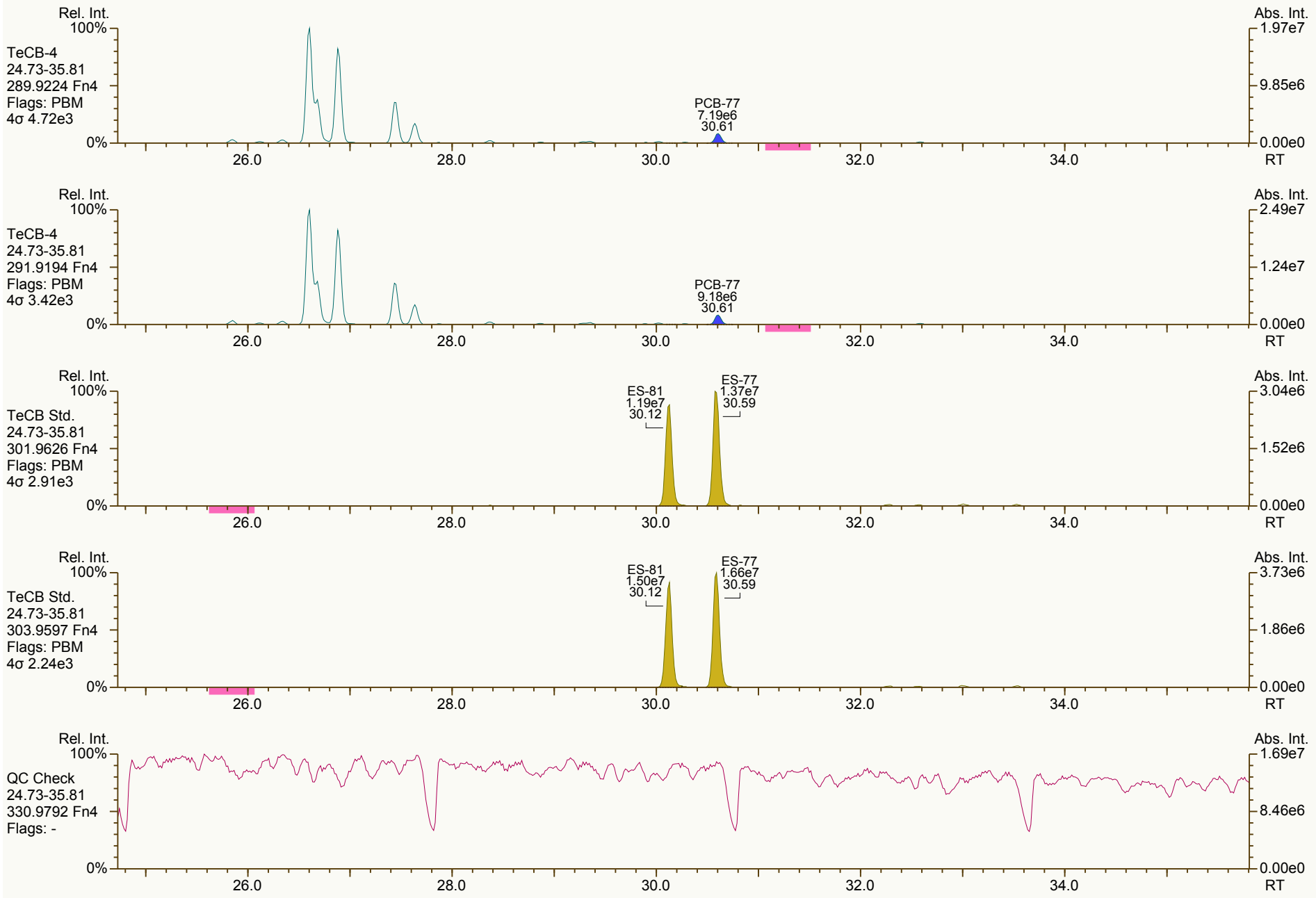
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_007.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6097, 2689 scc: 407-178 *PKD: 16-Dec-2012 12:44 Printed: 16-Dec-2012 14:49 Page 8 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_007.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9136, 0938 scc: 407-178 *PKD: 16-Dec-2012 13:09 Printed: 16-Dec-2012 14:49 Page 10 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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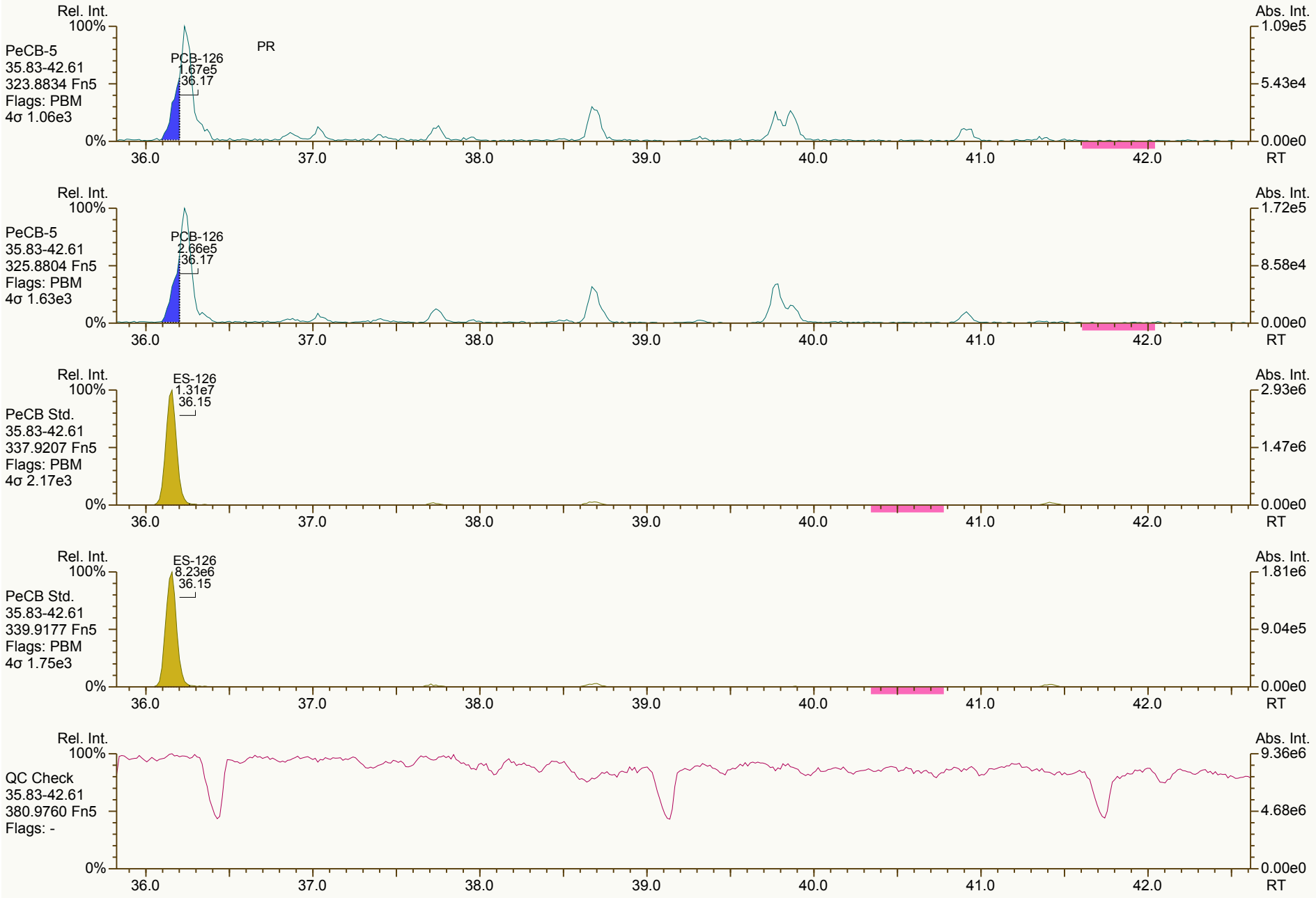
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0101, 8155 scc: 407-178 *Revised: 16-Dec-2012 13:10 (LKB) Printed: 16-Dec-2012 14:49 Page 11 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5797, 8801 scc: 407-178 *Revised: 16-Dec-2012 12:47 (LKB) Printed: 16-Dec-2012 14:49 Page 12 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_007.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8730, 3748 scc: 407-178 *Revised: 16-Dec-2012 13:10 (LKB) Printed: 16-Dec-2012 14:49 Page 13 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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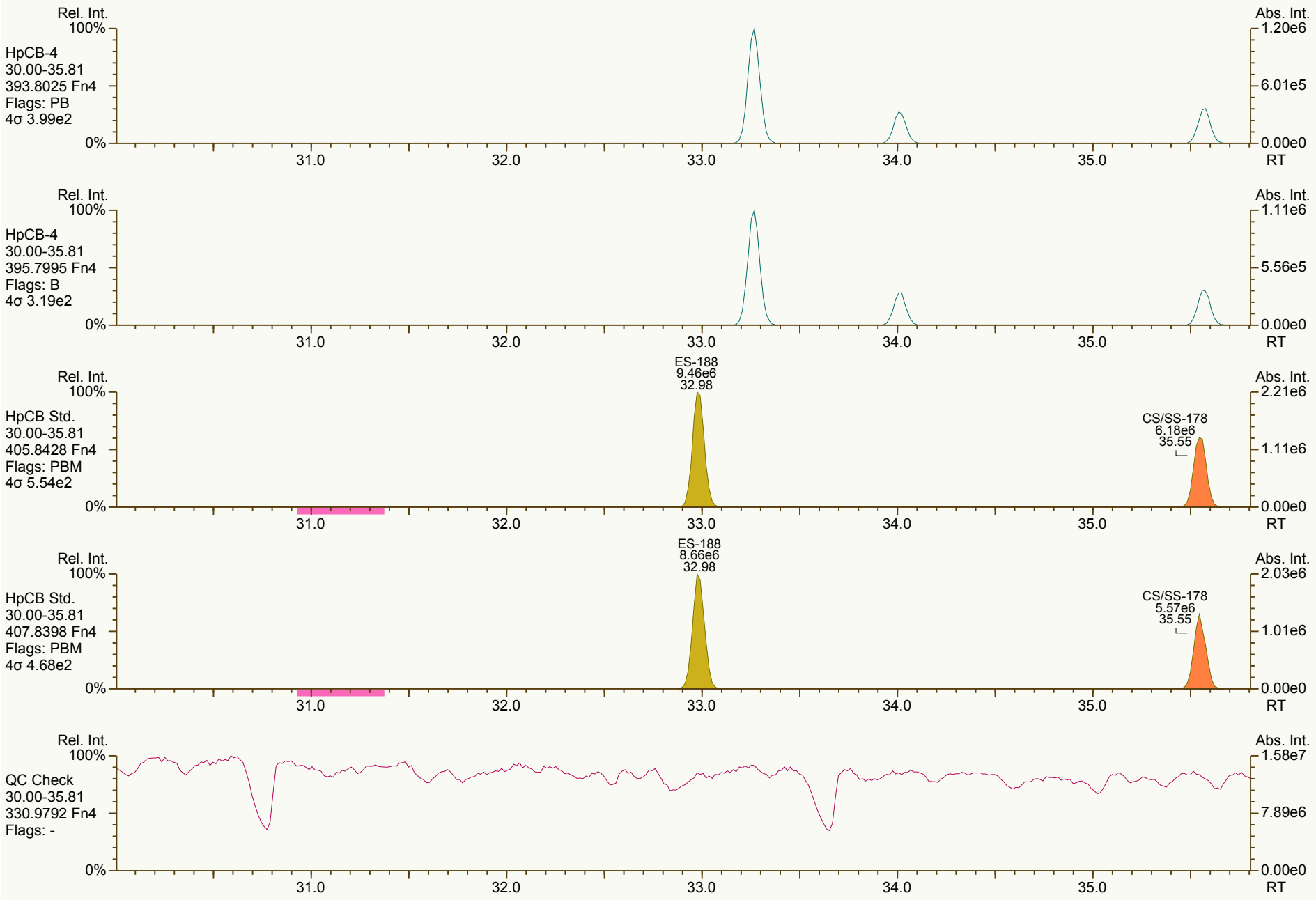
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8218, 5506 scc: 407-178 *PKD: 16-Dec-2012 13:09 Printed: 16-Dec-2012 14:49 Page 14 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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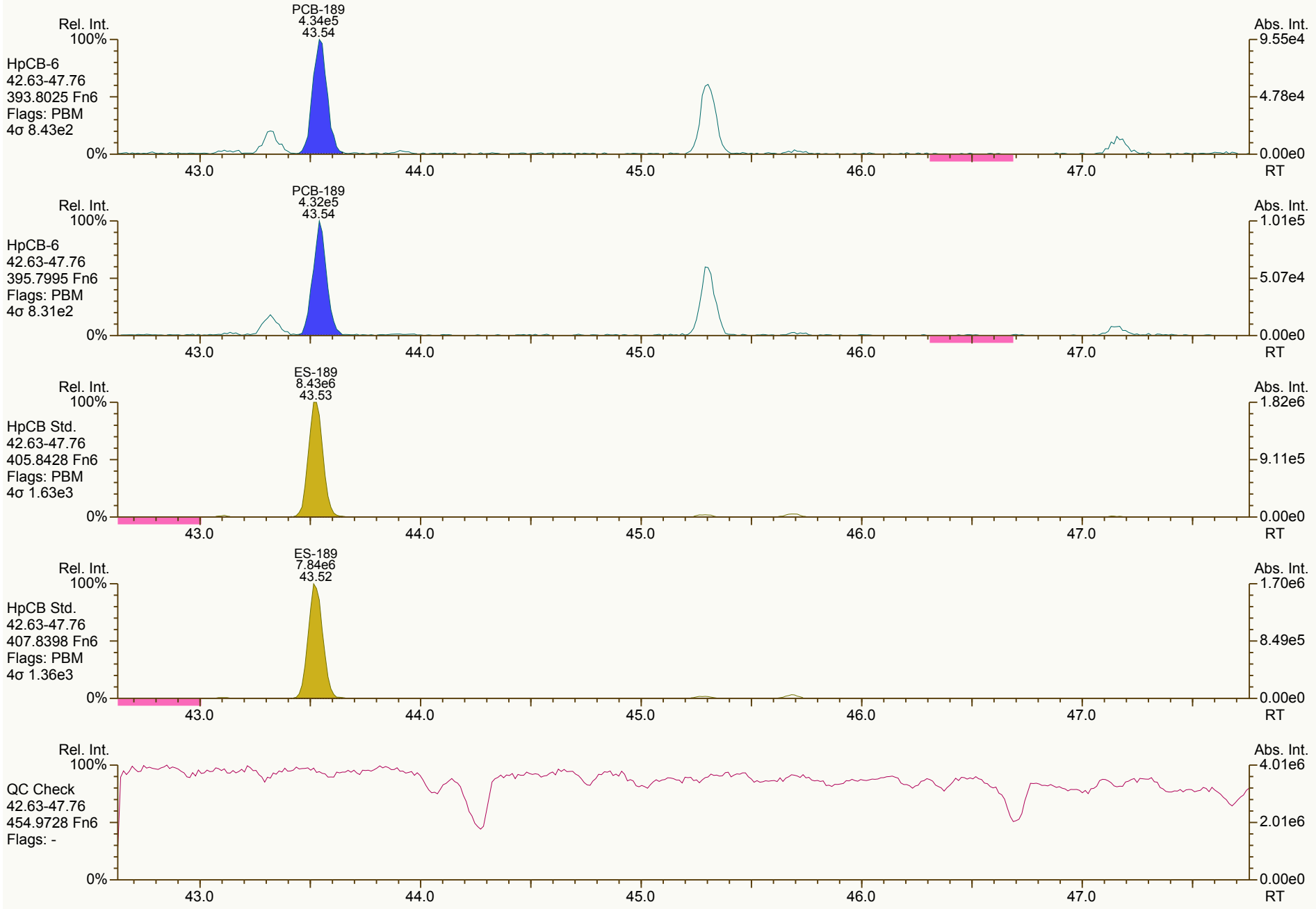
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6098, 8670 scc: 407-178 *PKD: 16-Dec-2012 13:09 Printed: 16-Dec-2012 14:49 Page 16 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**

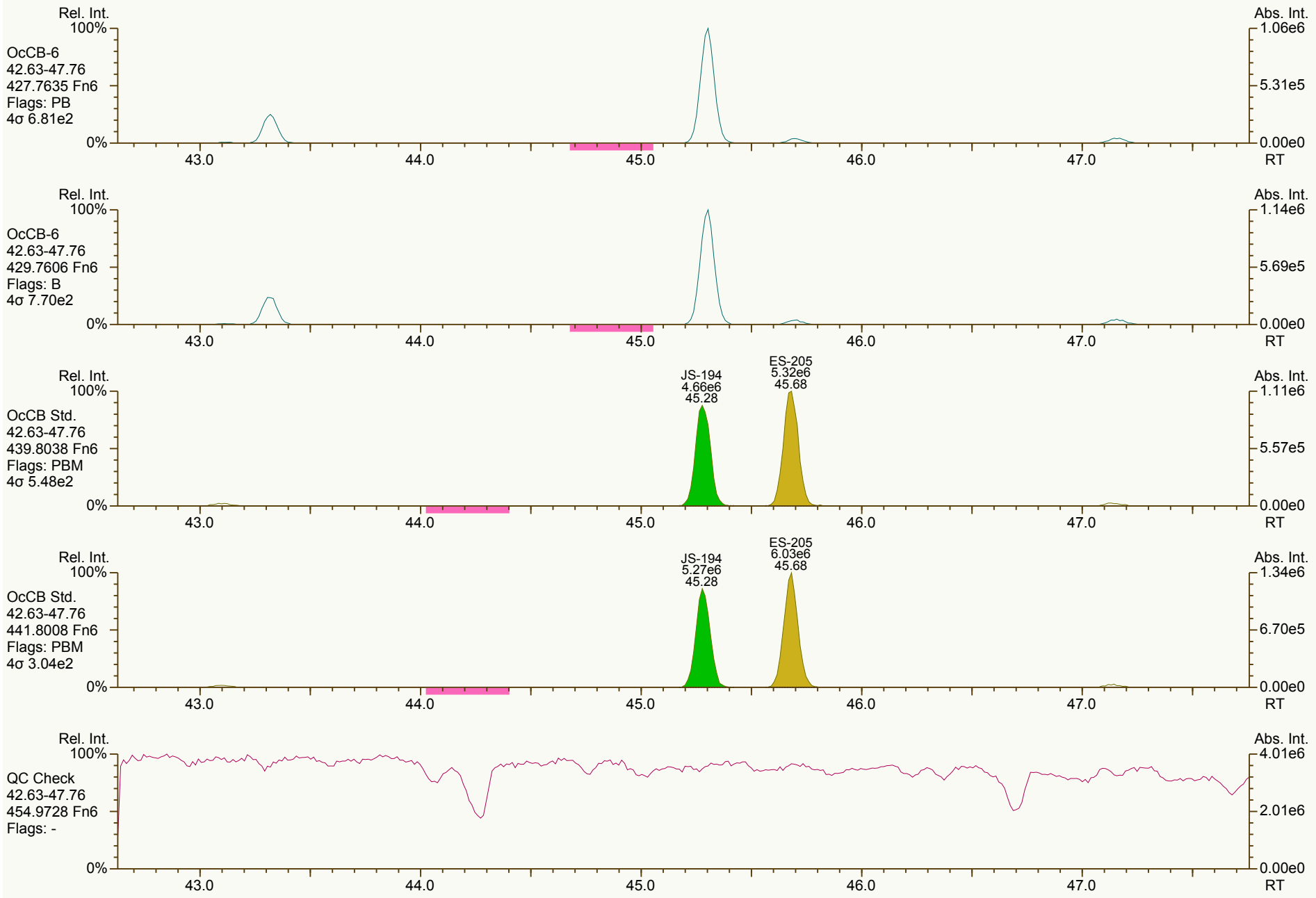


SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_007.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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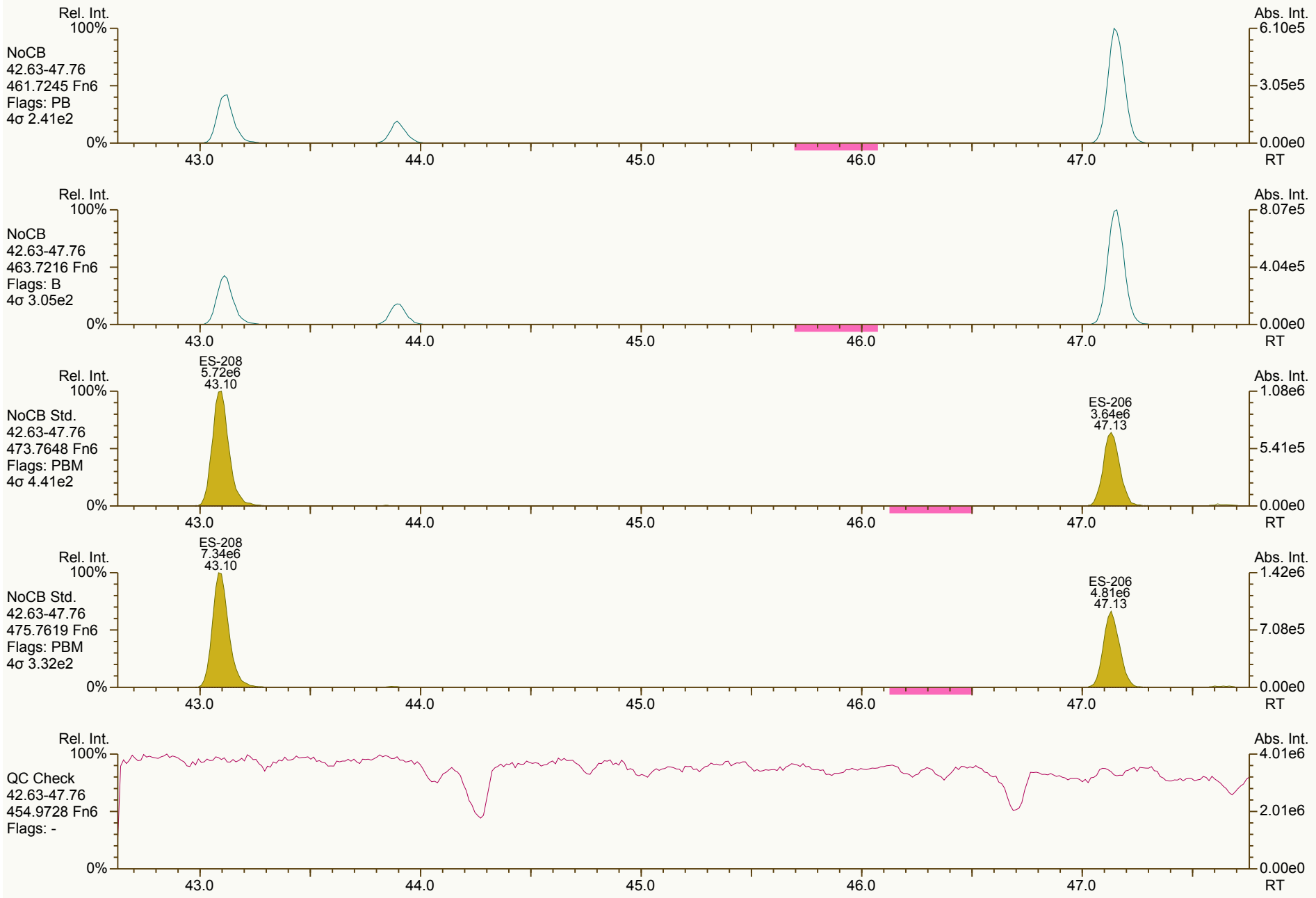
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0417, 7950 scc: 407-178 *PKD: 16-Dec-2012 13:09 Printed: 16-Dec-2012 14:49 Page 19 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



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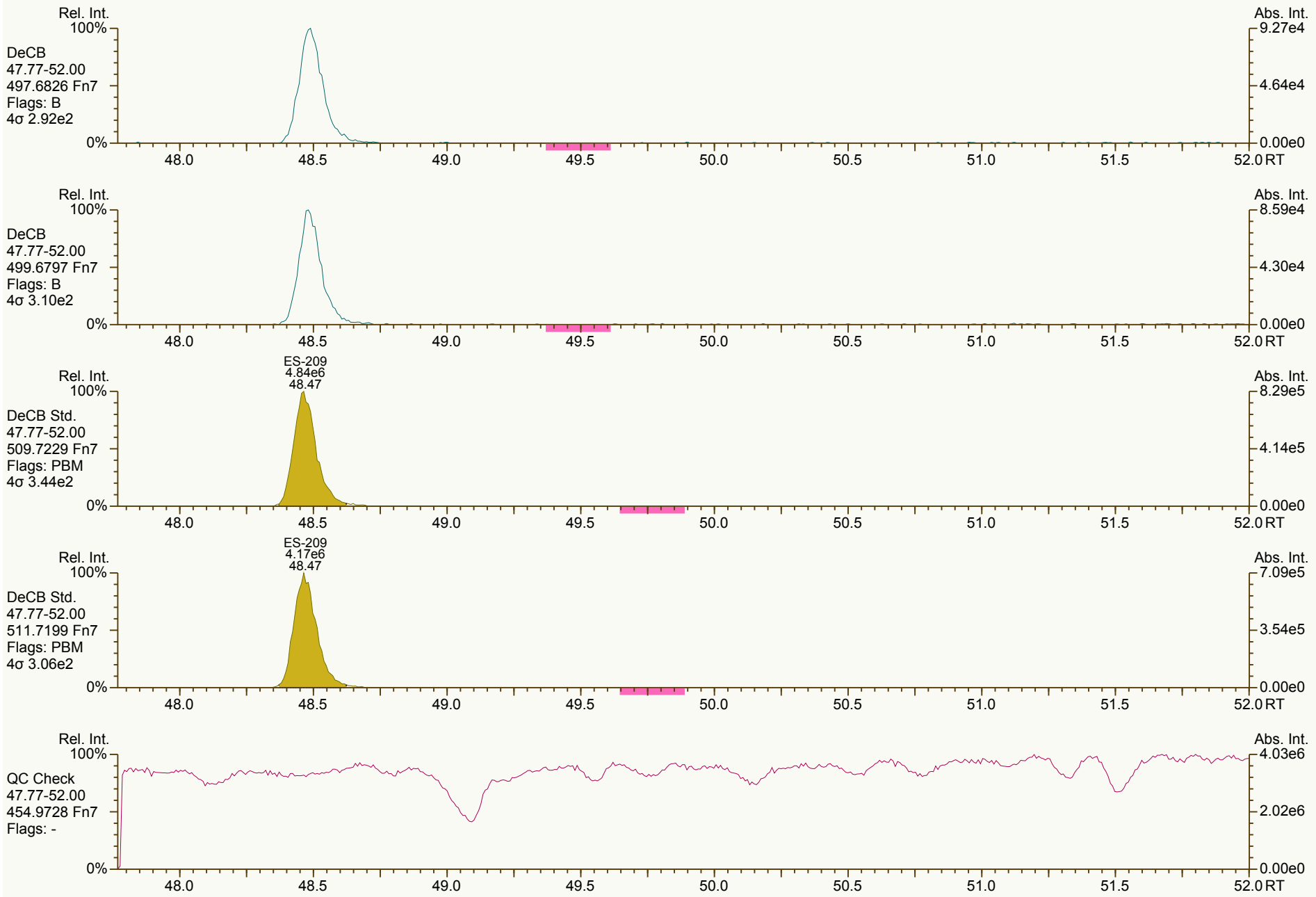
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5675, 4529 scc: 407-178 *Revised: 16-Dec-2012 13:11 (LKB) Printed: 16-Dec-2012 14:49 Page 20 of 21*

SGS-AP ID: A4909_10429_PCB_007 **Sample ID: AQ-SE-01-10** **Acq: 14-Dec-2012 16:41:08**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 67** **User: LKB Datafile: 121214X14**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_007.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8480, 0935 scc: 407-178 *Revised: 16-Dec-2012 13:08 (LKB) Printed: 16-Dec-2012 14:49 Page 21 of 21*

Datafile: 121214X15 **Client ID: AQ-SE-02-10** **Wt/Vol: 11.37 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XB**

Acquired: 14 Dec 2012 17:36:06 **Lab ID: A4909_10429_PCB_008** **J-level: 0.88 pg/g** **Nominal ES spike: 2000 pg**

A4909_10429_PCB_008 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.54		1.0006	1.0006	0	7.00E+06	0.79	1.13	20.6	3.85E+03	0.127
PCB-81 344'5-TeCB	30.07	J	1.0006	1.0006	0	2.40E+05	0.77	1.13	0.735	3.85E+03	0.132
PCB-105 233'44'-PeCB	33.48		1.0007	1.0007	0	1.13E+07	0.61	1.09	50.6	1.92E+03	0.0875
PCB-114 2344'5-PeCB	32.95		1.0007	1.0007	0	8.24E+05	0.61	1.16	3.15	1.92E+03	0.0782
PCB-118 23'44'5-PeCB	32.50		1.0007	1.0007	0	2.82E+07	0.61	1.11	109	1.92E+03	0.0795
PCB-123 23'44'5'-PeCB	32.22		1.0006	1.0008	+0.4	7.09E+05	0.58	1.19	2.62	1.92E+03	0.0757
PCB-126 33'44'5-PeCB	36.09	J	1.0005	1.0007	+0.4	1.14E+05	0.58	1.06	0.495	2.09E+03	0.0987
PCB-156/157 ...-HxCB	38.60	C	1.0005	1.0002	-0.7	9.81E+06	1.20	1.11	61.9	2.14E+03	0.174
PCB-167 23'44'55'-HxCB	37.65		1.0005	1.0005	0	3.95E+06	1.22	1.14	16.3	2.14E+03	0.0931
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	2.14E+03	0.113
PCB-189 233'44'55'-HpCB	43.44		1.0004	1.0004	0	7.69E+05	1.02	1.06	4.37	1.46E+03	0.0875
									Recv.		
ES PCB-77	30.52		1.3599	1.3612	+2.4	5.27E+07	0.79	1.35	92.3 %	25%	150%
ES PCB-81	30.05		1.3390	1.3403	+2.3	5.09E+07	0.78	1.29	93.3 %	25%	150%
ES PCB-105	33.45		1.1826	1.1830	+0.8	3.59E+07	1.65	1.23	89.1 %	25%	150%
ES PCB-114	32.92		1.1639	1.1643	+0.8	3.96E+07	1.62	1.25	97.3 %	25%	150%
ES PCB-118	32.48		1.1481	1.1485	+0.8	4.11E+07	1.61	1.28	98.2 %	25%	150%
ES PCB-123	32.20		1.1383	1.1386	+0.6	4.01E+07	1.59	1.22	101 %	25%	150%
ES PCB-126	36.07		1.2746	1.2755	+1.9	3.82E+07	1.56	1.20	97.5 %	25%	150%
ES PCB-156/157	38.59		1.0994	1.0999	+1.2	5.03E+07	1.34	1.45	63.5 %	25%	150%
ES PCB-167	37.63		1.0720	1.0725	+1.1	3.76E+07	1.32	1.49	92.4 %	25%	150%
ES PCB-169	41.32		1.1769	1.1776	+1.7	3.12E+07	1.32	1.40	81.6 %	25%	150%
ES PCB-189	43.42		0.9611	0.9612	+0.3	2.93E+07	1.06	1.49	113 %	25%	150%
SS PCB-28	20.86		0.9298	0.9301	+0.4	7.50E+07	1.13	1.07	104 %	30%	135%
SS PCB-111	30.56		1.0805	1.0808	+0.6	4.14E+07	1.62	1.01	103 %	30%	135%
SS PCB-178	35.47		1.0108	1.0110	+0.4	1.92E+07	1.04	0.63	87.9 %	30%	135%
CS PCB-28	20.86		0.9298	0.9301	+0.4	7.50E+07	1.13	1.76	101 %	30%	135%
CS PCB-111	30.56		1.0805	1.0808	+0.6	4.14E+07	1.62	1.23	103 %	30%	135%
CS PCB-178	35.47		1.0108	1.0110	+0.4	1.92E+07	1.04	0.74	95.5 %	30%	135%
JS PCB-9	14.73					7.88E+07	1.59				
JS PCB-52	22.42					4.24E+07	0.79				
JS PCB-101	28.28					3.27E+07	1.59				
JS PCB-138	35.09					2.72E+07	1.28				
JS PCB-194	45.18					1.75E+07	0.90				

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 877-682 *PKD: n/a Printed: 16-Dec-2012 14:49 Page 1 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



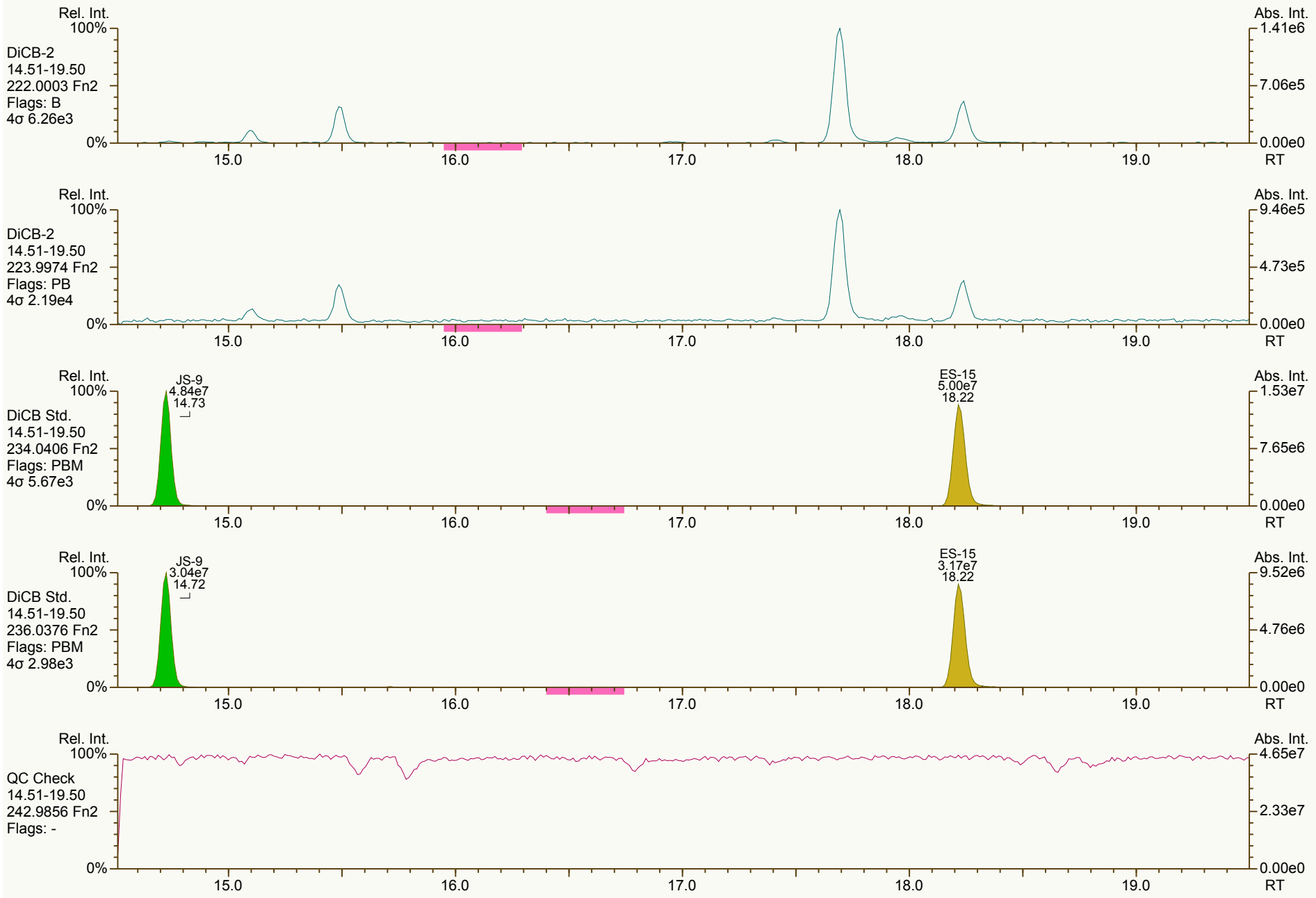
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4751, 0842 scc: 877-682 *PKD: 16-Dec-2012 13:17 Printed: 16-Dec-2012 14:49 Page 2 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1746, 4573 scc: 877-682 *Revised: 16-Dec-2012 13:16 (LKB) Printed: 16-Dec-2012 14:49 Page 3 of 21*

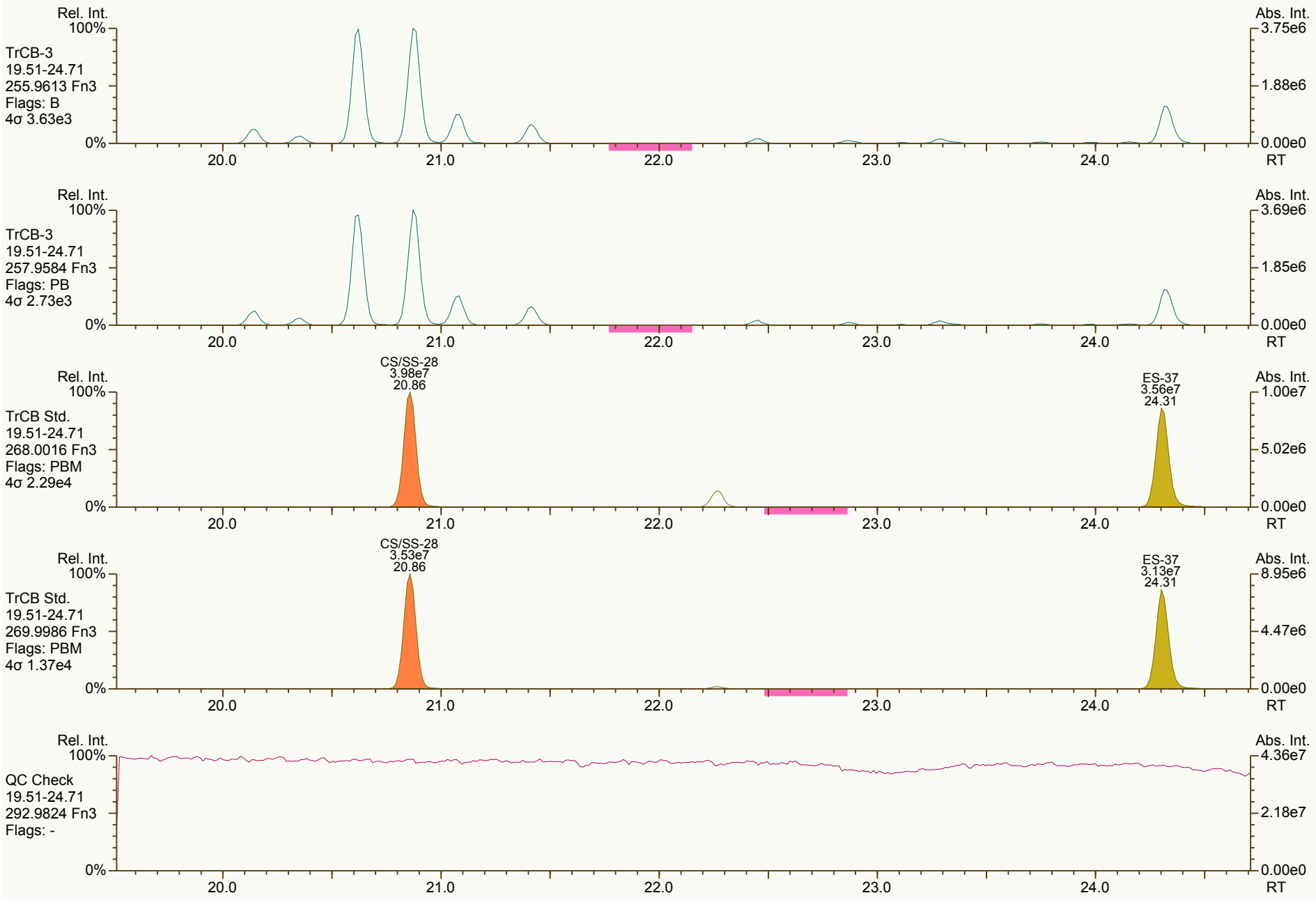
SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



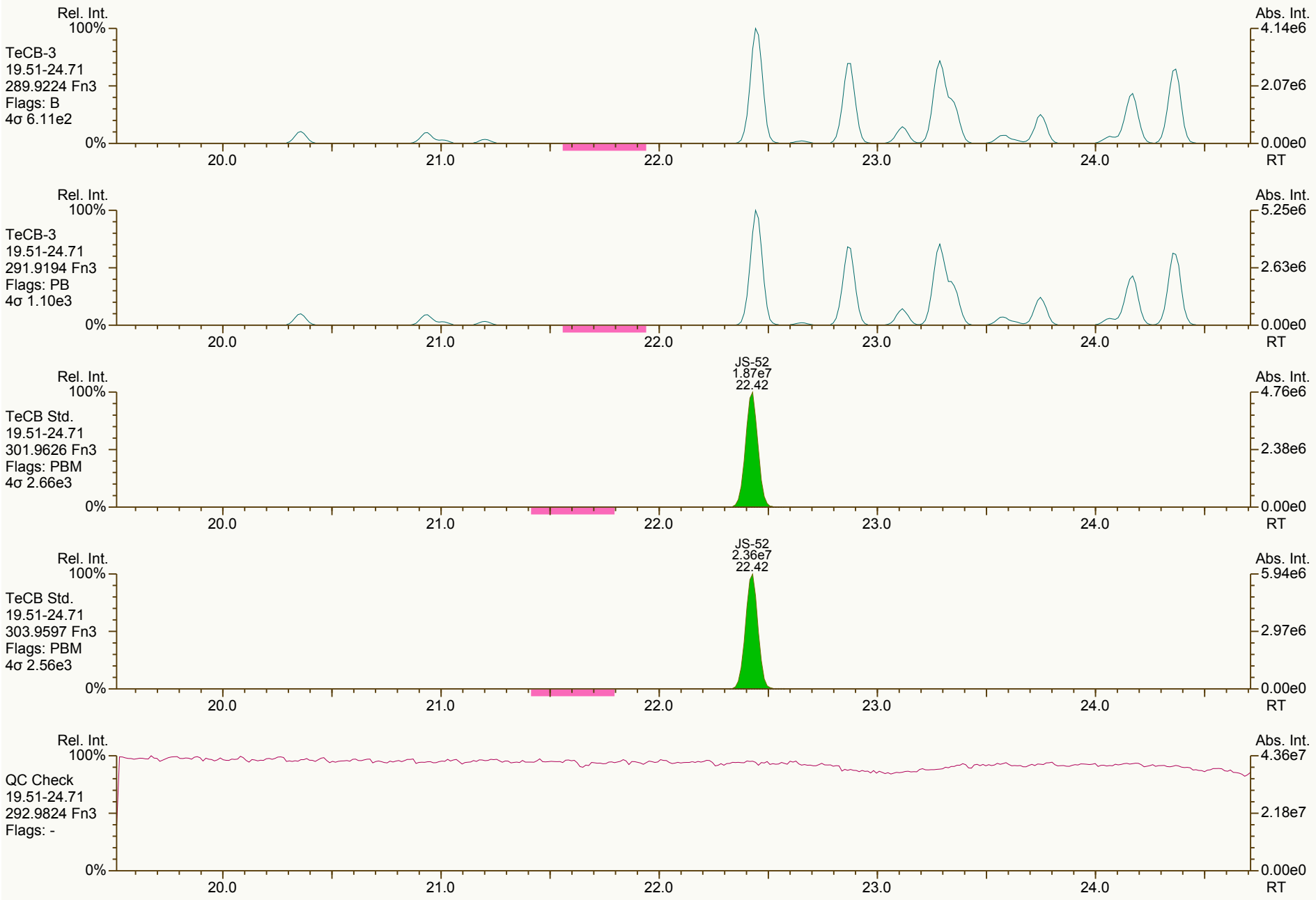
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6157, 1839 scc: 877-682 *PKD: 16-Dec-2012 13:17 Printed: 16-Dec-2012 14:49 Page 6 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9457, 4182 scc: 877-682 *PKD: 16-Dec-2012 13:15 Printed: 16-Dec-2012 14:49 Page 7 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1882, 9996 scc: 877-682 *PKD: 16-Dec-2012 13:15 Printed: 16-Dec-2012 14:49 Page 8 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



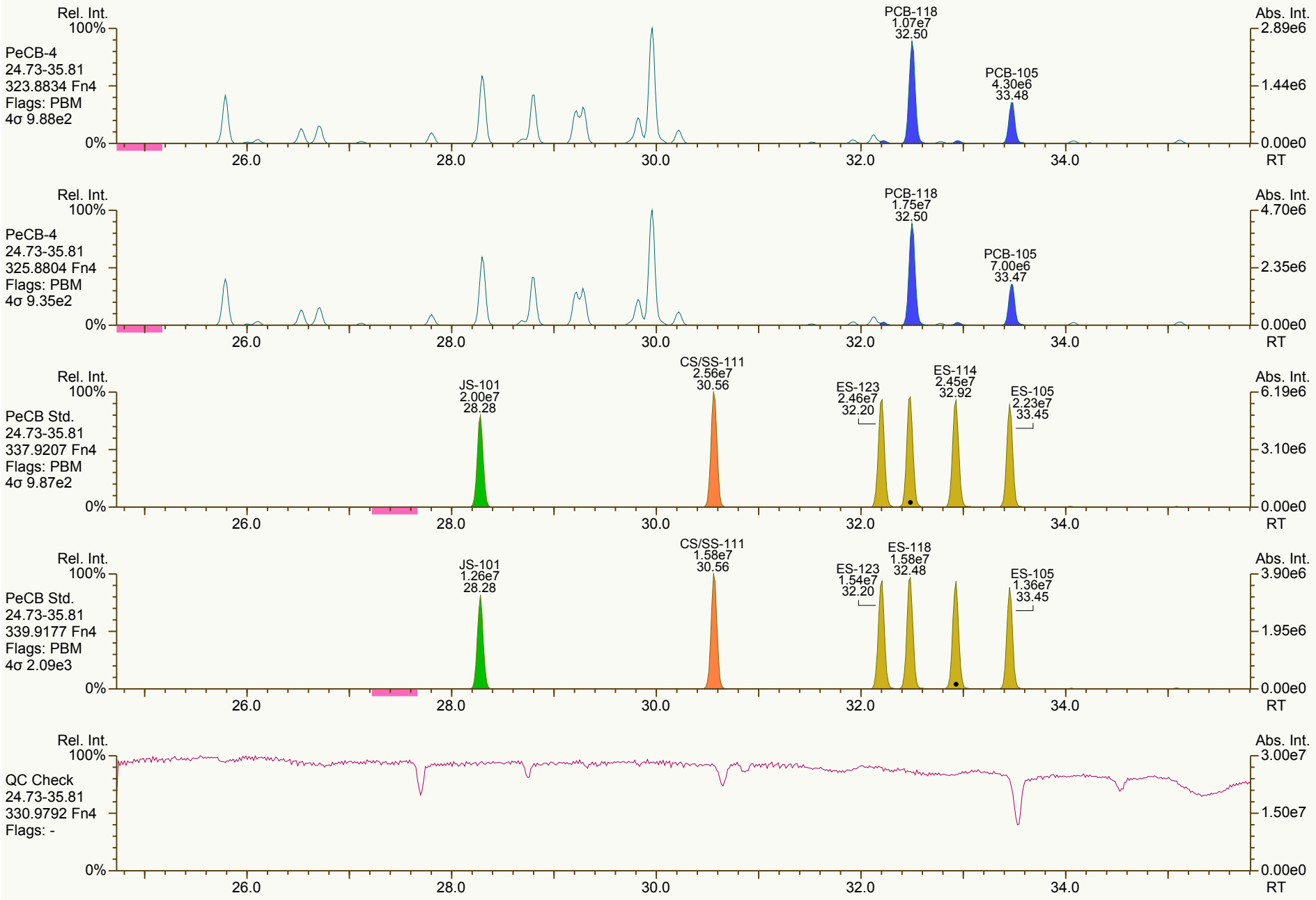
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9172, 0799 scc: 877-682 *PKD: 16-Dec-2012 13:17 Printed: 16-Dec-2012 14:49 Page 9 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4964, 9750 scc: 877-682 *PKD: 16-Dec-2012 13:15 Printed: 16-Dec-2012 14:49 Page 10 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



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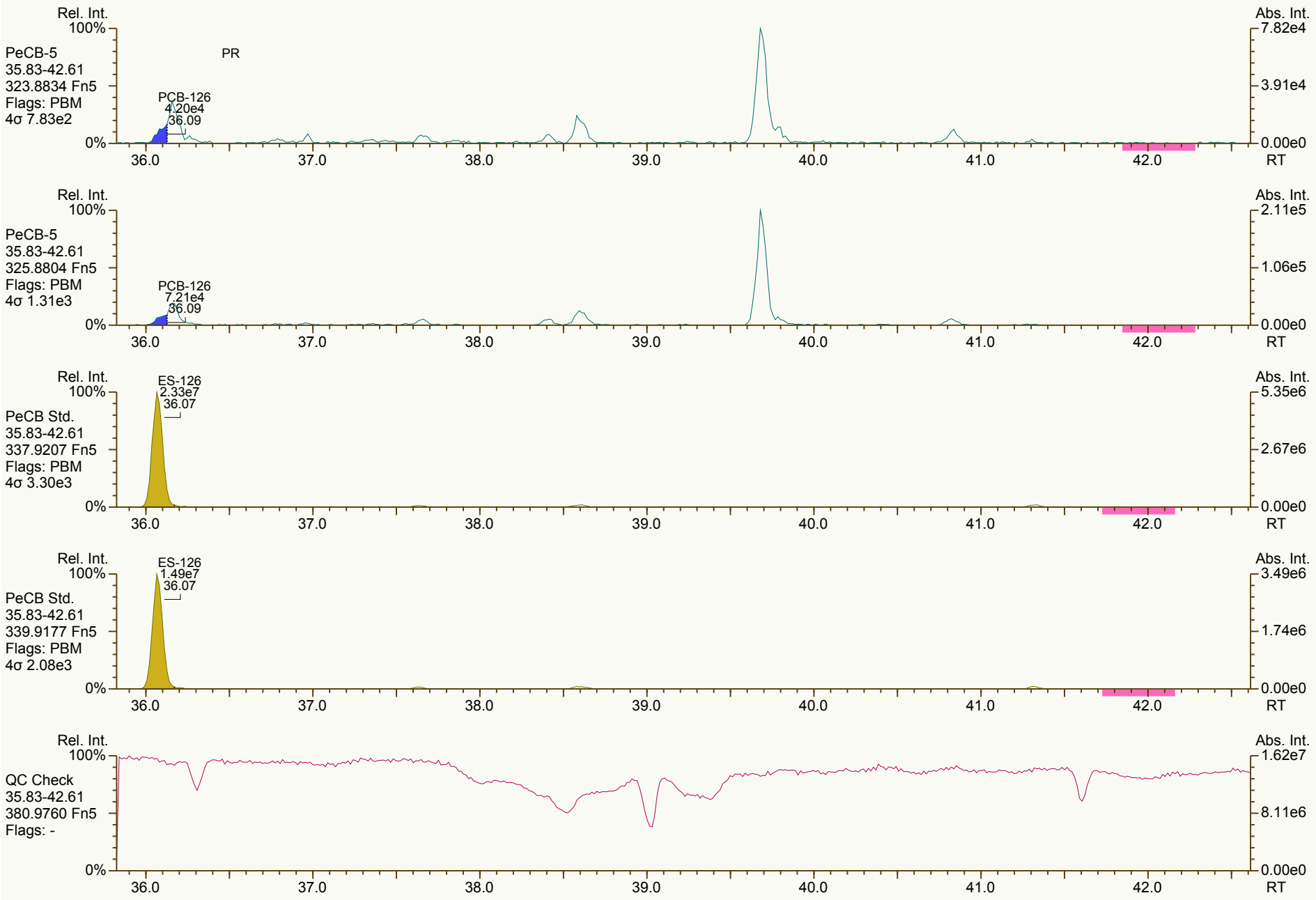
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2754, 1232 scc: 877-682 *PKD: 16-Dec-2012 13:20 Printed: 16-Dec-2012 14:49 Page 11 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



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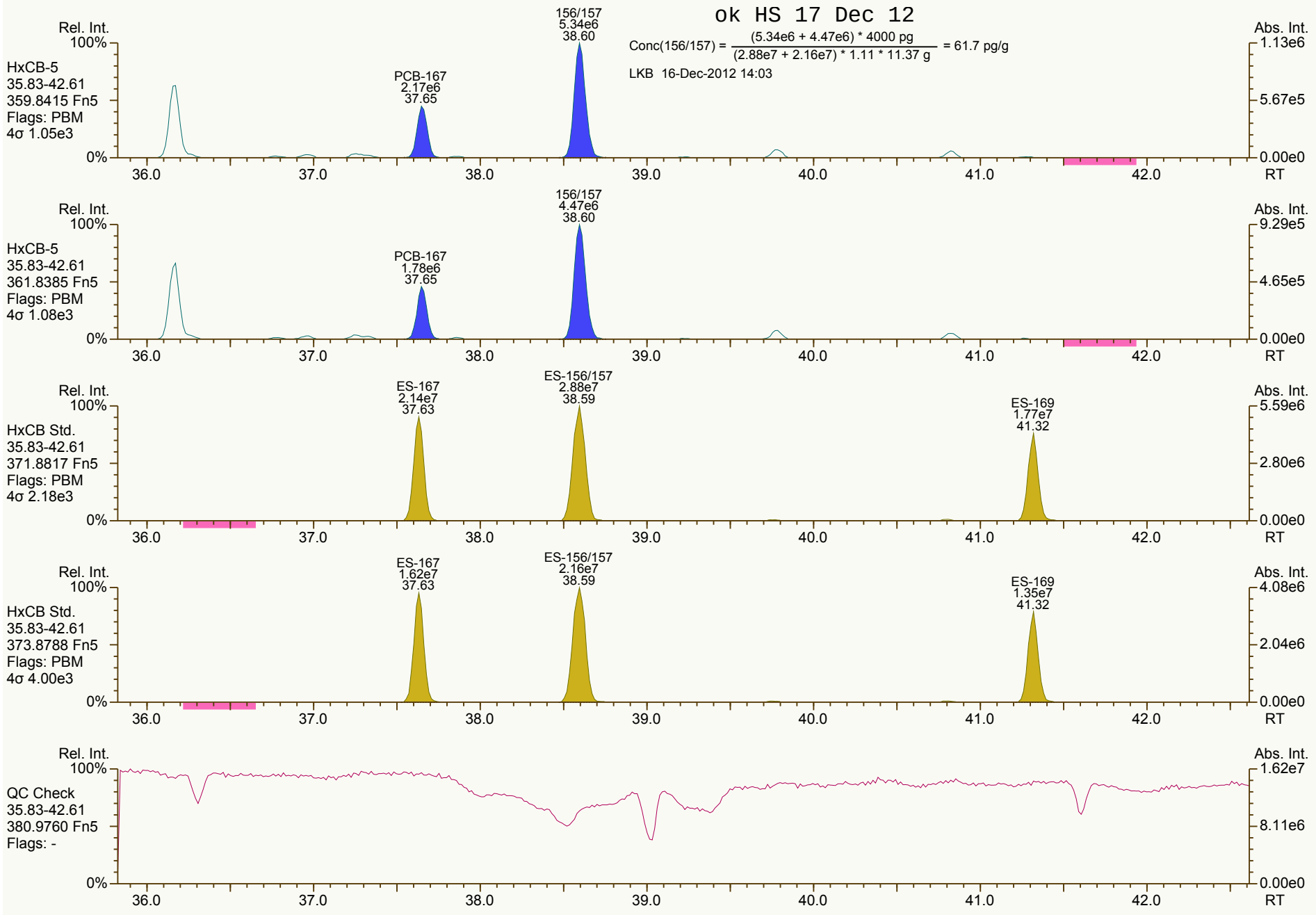
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4909, 5786 scc: 877-682 *PKD: 16-Dec-2012 13:15 Printed: 16-Dec-2012 14:49 Page 12 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7332, 9109 scc: 877-682 *Revised: 16-Dec-2012 13:18 (LKB) Printed: 16-Dec-2012 14:49 Page 13 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



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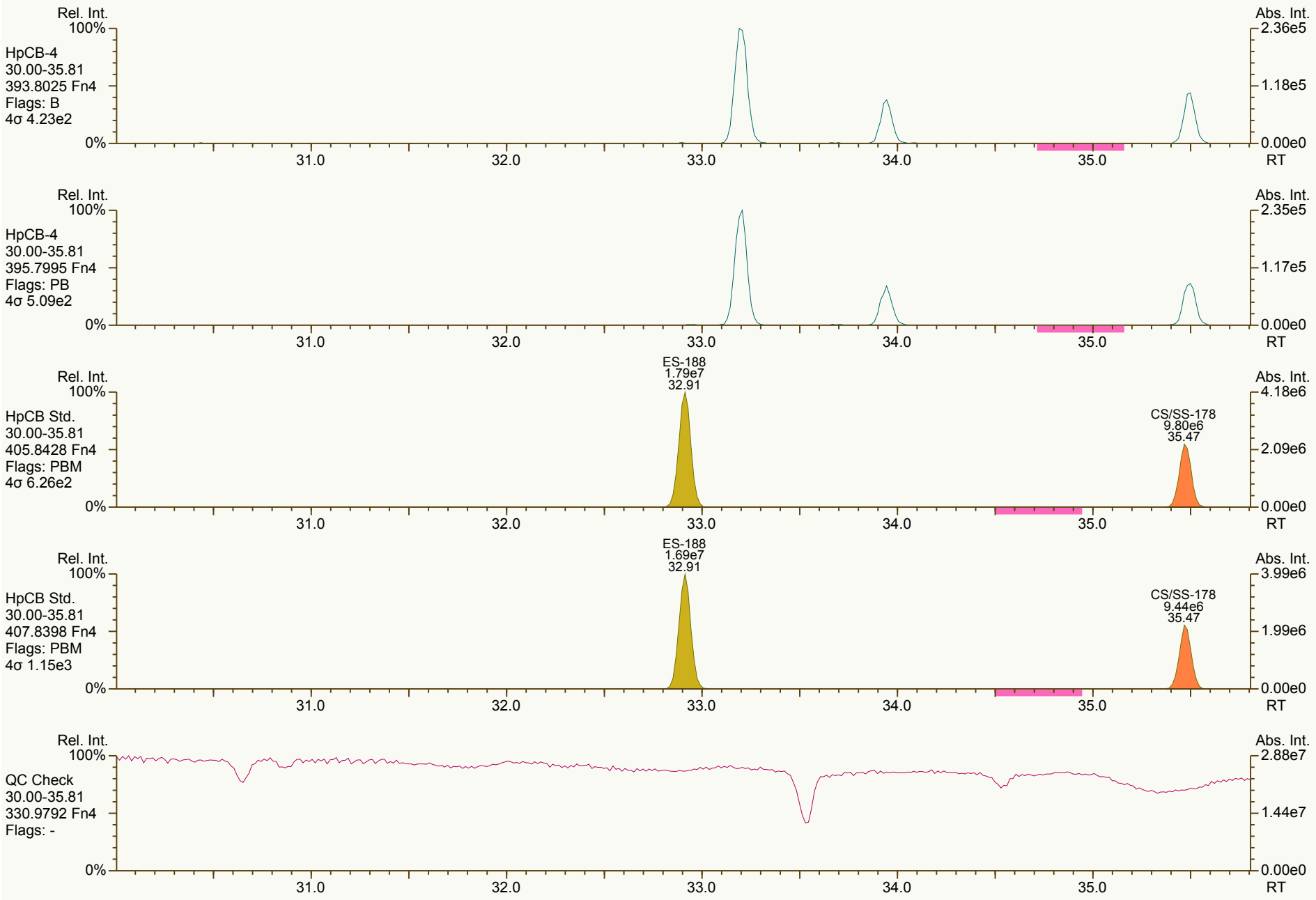
SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



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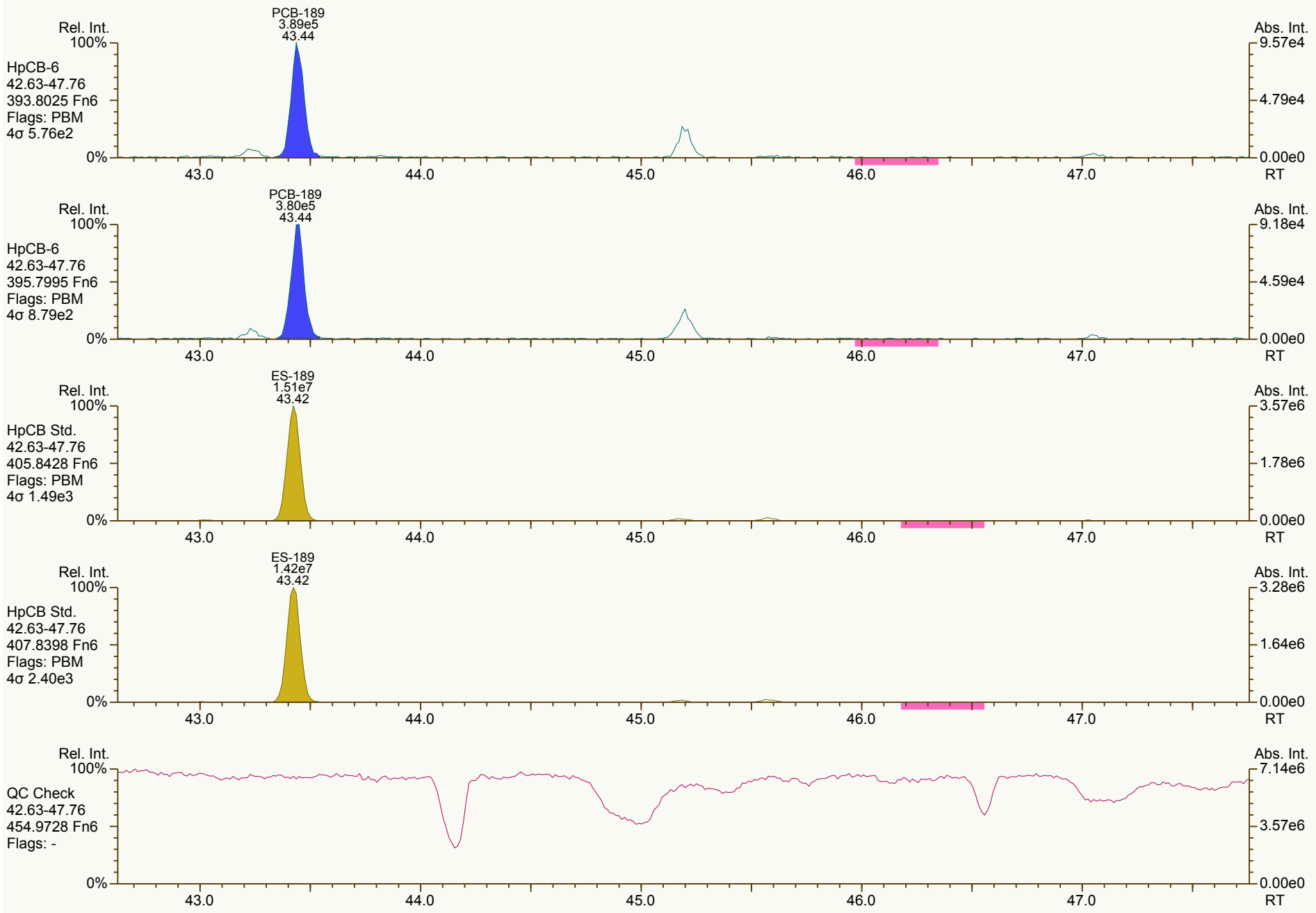
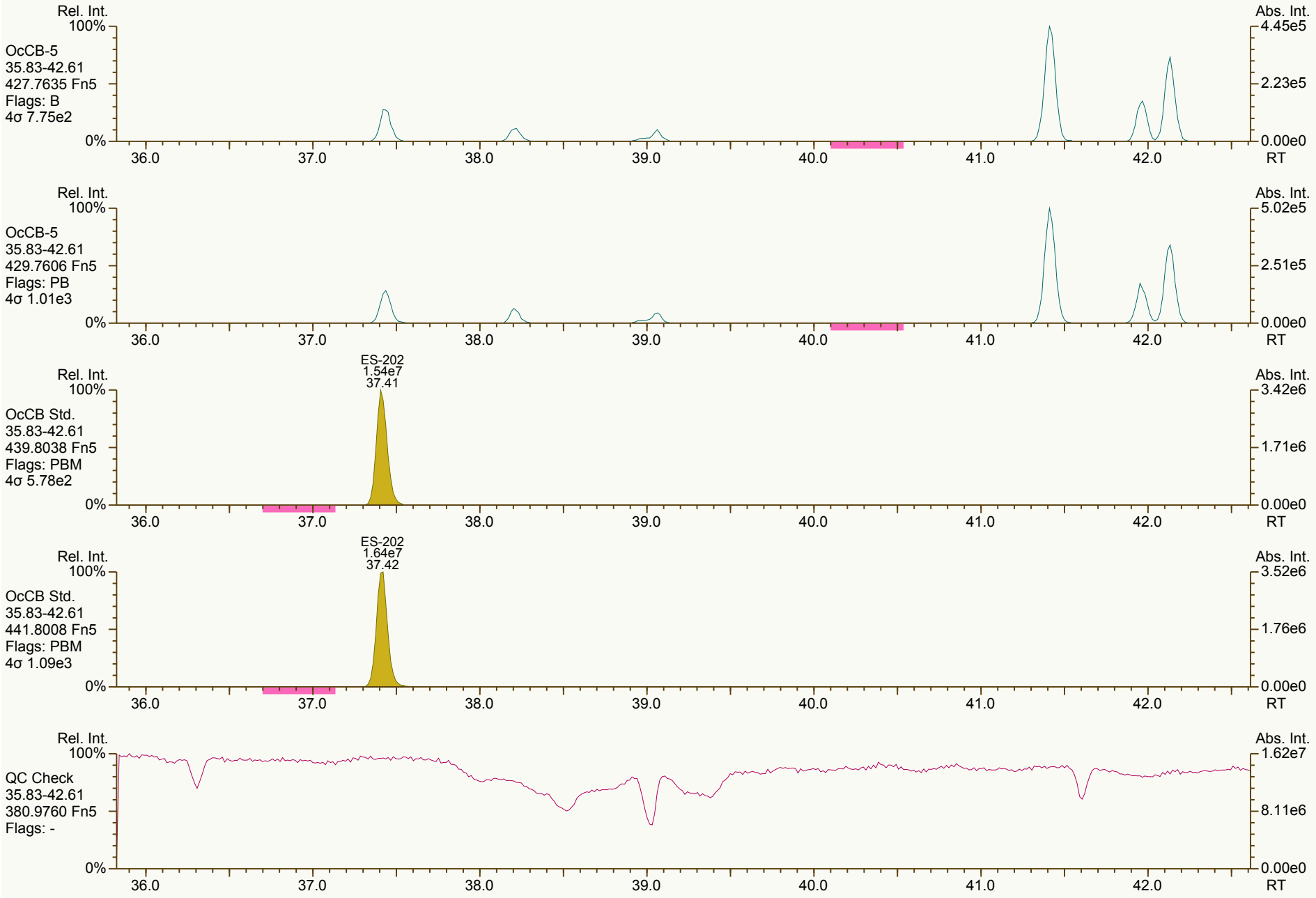
SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1764, 7831 scc: 877-682 *PKD: 16-Dec-2012 13:20 Printed: 16-Dec-2012 14:49 Page 18 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1919, 4879 scc: 877-682 *PKD: 16-Dec-2012 13:20 Printed: 16-Dec-2012 14:49 Page 19 of 21*

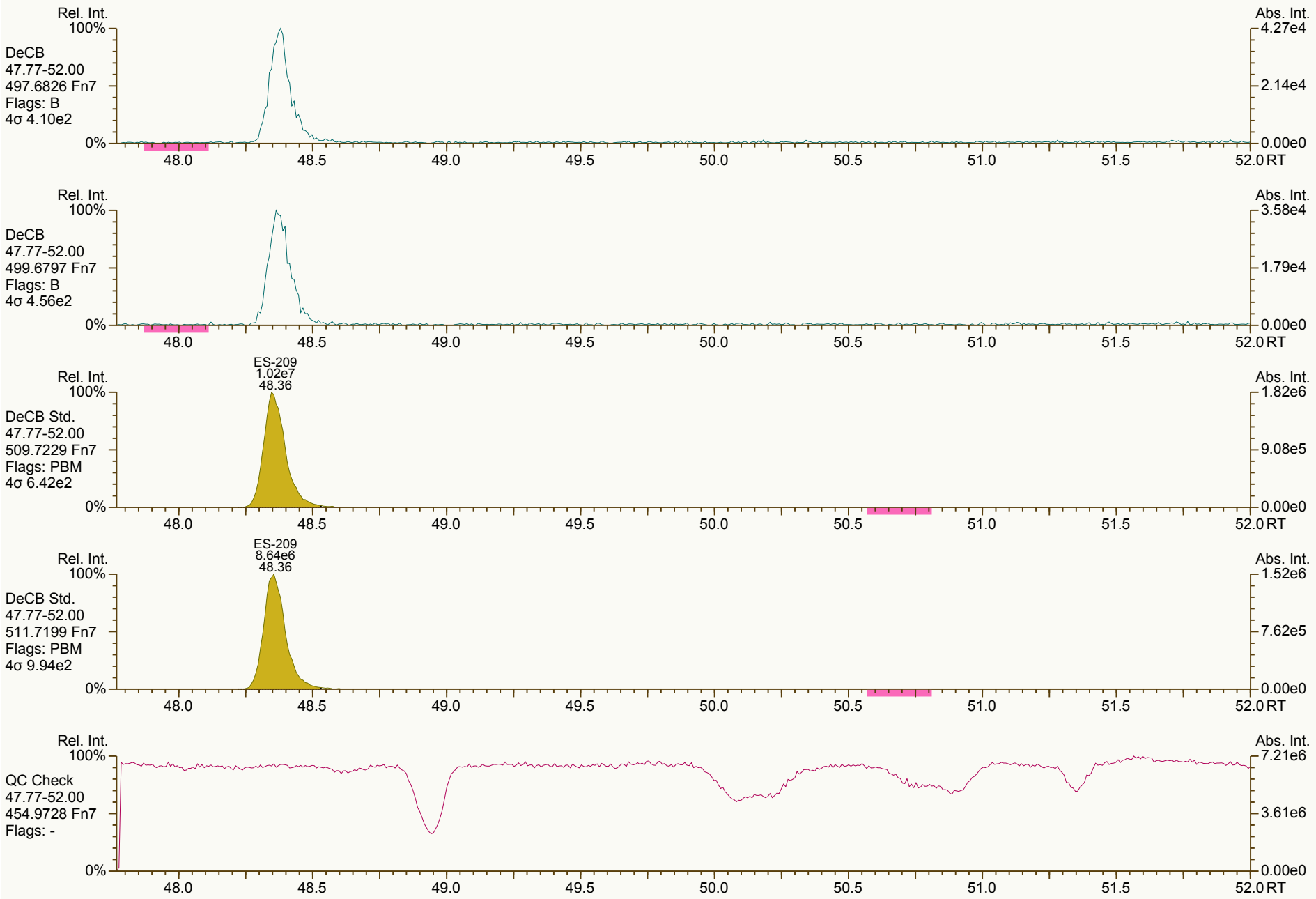
SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_008.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9809, 9138 scc: 877-682 *PKD: 16-Dec-2012 13:20 Printed: 16-Dec-2012 14:49 Page 20 of 21*

SGS-AP ID: A4909_10429_PCB_008 **Sample ID: AQ-SE-02-10** **Acq: 14-Dec-2012 17:36:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 68** **User: LKB Datafile: 121214X15**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8138, 9860 scc: 877-682 *Revised: 16-Dec-2012 13:12 (LKB) Printed: 16-Dec-2012 14:50 Page 21 of 21*

Datafile: 121214X16 **Client ID: AQ-SE-57-10** **Wt/Vol: 12.37 g** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XB**

Acquired: 14 Dec 2012 18:31:06 **Lab ID: A4909_10429_PCB_009** **J-level: 0.808 pg/g** **Nominal ES spike: 2000 pg**

A4909_10429_PCB_009 Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.56		1.0006	1.0006	0	5.71E+05	0.79	1.13	1.79	2.43E+03	0.0812
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.13	ND	2.43E+03	0.0853
PCB-105 233'44'-PeCB	33.47		1.0007	1.0007	0	8.55E+06	0.61	1.09	36.8	1.91E+03	0.0825
PCB-114 2344'5-PeCB	32.95		1.0007	1.0007	0	5.93E+05	0.64	1.16	2.31	1.91E+03	0.0801
PCB-118 23'44'5-PeCB	32.50		1.0007	1.0007	0	2.31E+07	0.61	1.11	92.1	1.91E+03	0.0798
PCB-123 23'44'5'-PeCB	32.22		1.0006	1.0007	+0.2	3.51E+05	0.67	1.19	1.38	1.91E+03	0.0791
PCB-126 33'44'5-PeCB	36.07	J	1.0005	1.0002	-0.6	3.13E+04	0.68	1.06	0.124	1.77E+03	0.0784
PCB-156/157 ...-HxCB	38.59	C	1.0005	1.0002	-0.7	3.09E+06	1.20	1.11	14.2	2.05E+03	0.123
PCB-167 23'44'55'-HxCB	37.64		1.0005	1.0005	0	1.05E+06	1.20	1.14	4.06	2.05E+03	0.0837
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	2.05E+03	0.101
PCB-189 233'44'55'-HpCB	43.44	J	1.0004	1.0005	+0.3	1.18E+05	1.11	1.06	0.576	1.22E+03	0.0635
									Recv.		
ES PCB-77	30.54		1.3599	1.3617	+3.3	4.55E+07	0.79	1.35	97.1 %	25%	150%
ES PCB-81	30.07		1.3390	1.3410	+3.6	4.34E+07	0.78	1.29	97.1 %	25%	150%
ES PCB-105	33.45		1.1826	1.1804	-4.4	3.43E+07	1.59	1.23	102 %	25%	150%
ES PCB-114	32.92		1.1639	1.1617	-4.3	3.58E+07	1.62	1.25	105 %	25%	150%
ES PCB-118	32.48		1.1481	1.1460	-4.1	3.66E+07	1.63	1.28	105 %	25%	150%
ES PCB-123	32.20		1.1383	1.1362	-4.1	3.45E+07	1.58	1.22	104 %	25%	150%
ES PCB-126	36.06		1.2746	1.2726	-4.3	3.83E+07	1.61	1.20	117 %	25%	150%
ES PCB-156/157	38.58		1.0994	1.0998	+0.9	6.36E+07	1.36	1.45	81.5 %	25%	150%
ES PCB-167	37.62		1.0720	1.0725	+1.1	3.67E+07	1.32	1.49	91.5 %	25%	150%
ES PCB-169	41.31		1.1769	1.1776	+1.7	3.27E+07	1.30	1.40	86.7 %	25%	150%
ES PCB-189	43.41		0.9611	0.9612	+0.3	3.14E+07	1.06	1.49	110 %	25%	150%
SS PCB-28	20.85		0.9298	0.9299	+0.1	6.11E+07	1.11	1.07	103 %	30%	135%
SS PCB-111	30.57		1.0805	1.0789	-2.9	3.66E+07	1.61	1.01	106 %	30%	135%
SS PCB-178	35.47		1.0108	1.0110	+0.4	2.13E+07	1.06	0.63	107 %	30%	135%
CS PCB-28	20.85		0.9298	0.9299	+0.1	6.11E+07	1.11	1.76	100 %	30%	135%
CS PCB-111	30.57		1.0805	1.0789	-2.9	3.66E+07	1.61	1.23	109 %	30%	135%
CS PCB-178	35.47		1.0108	1.0110	+0.4	2.13E+07	1.06	0.74	107 %	30%	135%
JS PCB-9	14.71					5.61E+07	1.56				
JS PCB-52	22.42					3.47E+07	0.79				
JS PCB-101	28.34					2.73E+07	1.62				
JS PCB-138	35.08					2.68E+07	1.28				
JS PCB-194	45.17					1.91E+07	0.89				

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 940-191 *PKD: n/a Printed: 16-Dec-2012 14:50 Page 1 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7770, 6219 scc: 940-191 *PKD: 16-Dec-2012 13:23 Printed: 16-Dec-2012 14:50 Page 2 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3941, 0748 scc: 940-191 *Revised: 16-Dec-2012 13:27 (LKB) Printed: 16-Dec-2012 14:50 Page 3 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**

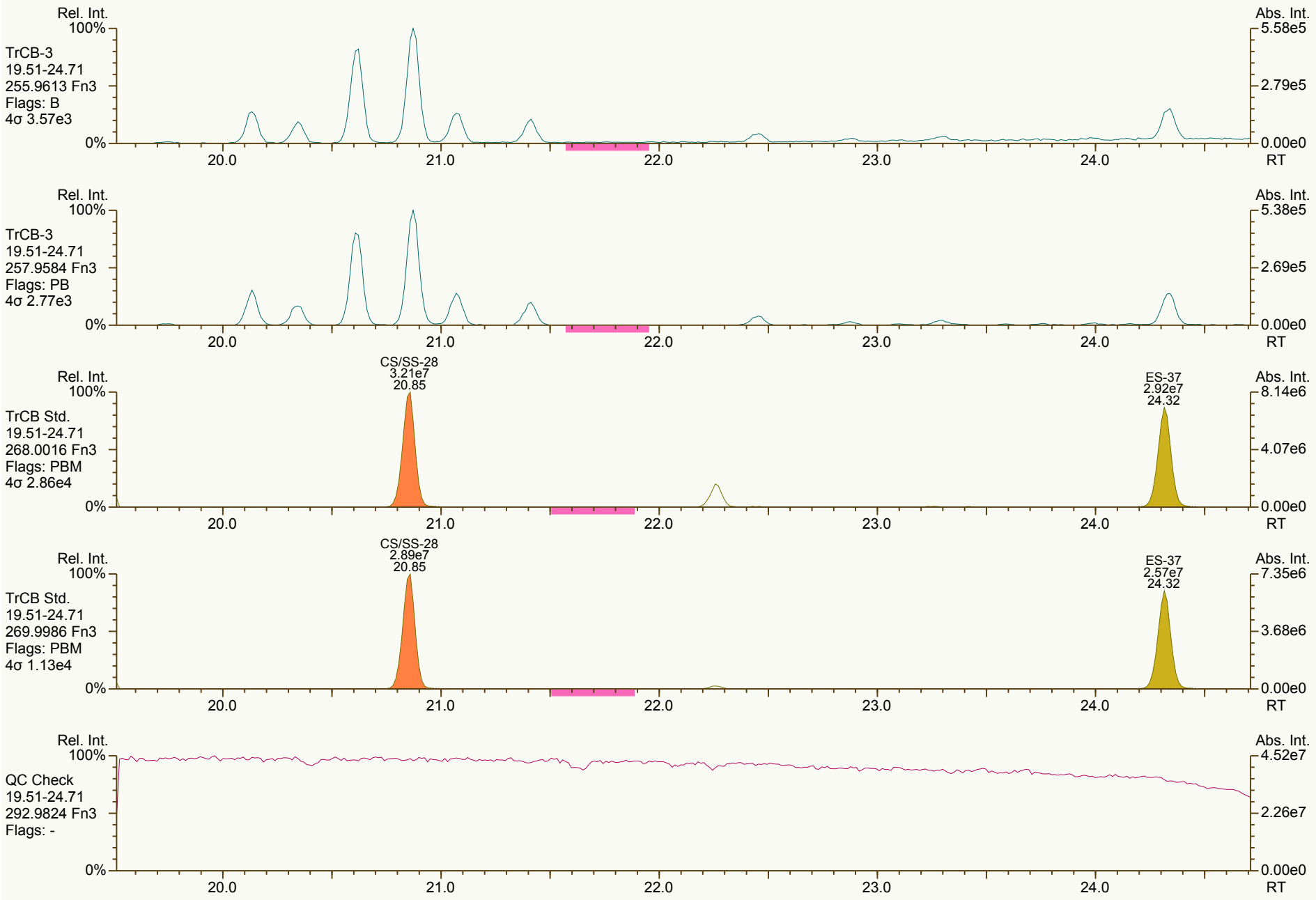


Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4994, 4834 scc: 940-191 *PKD: 16-Dec-2012 13:23 Printed: 16-Dec-2012 14:50 Page 4 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



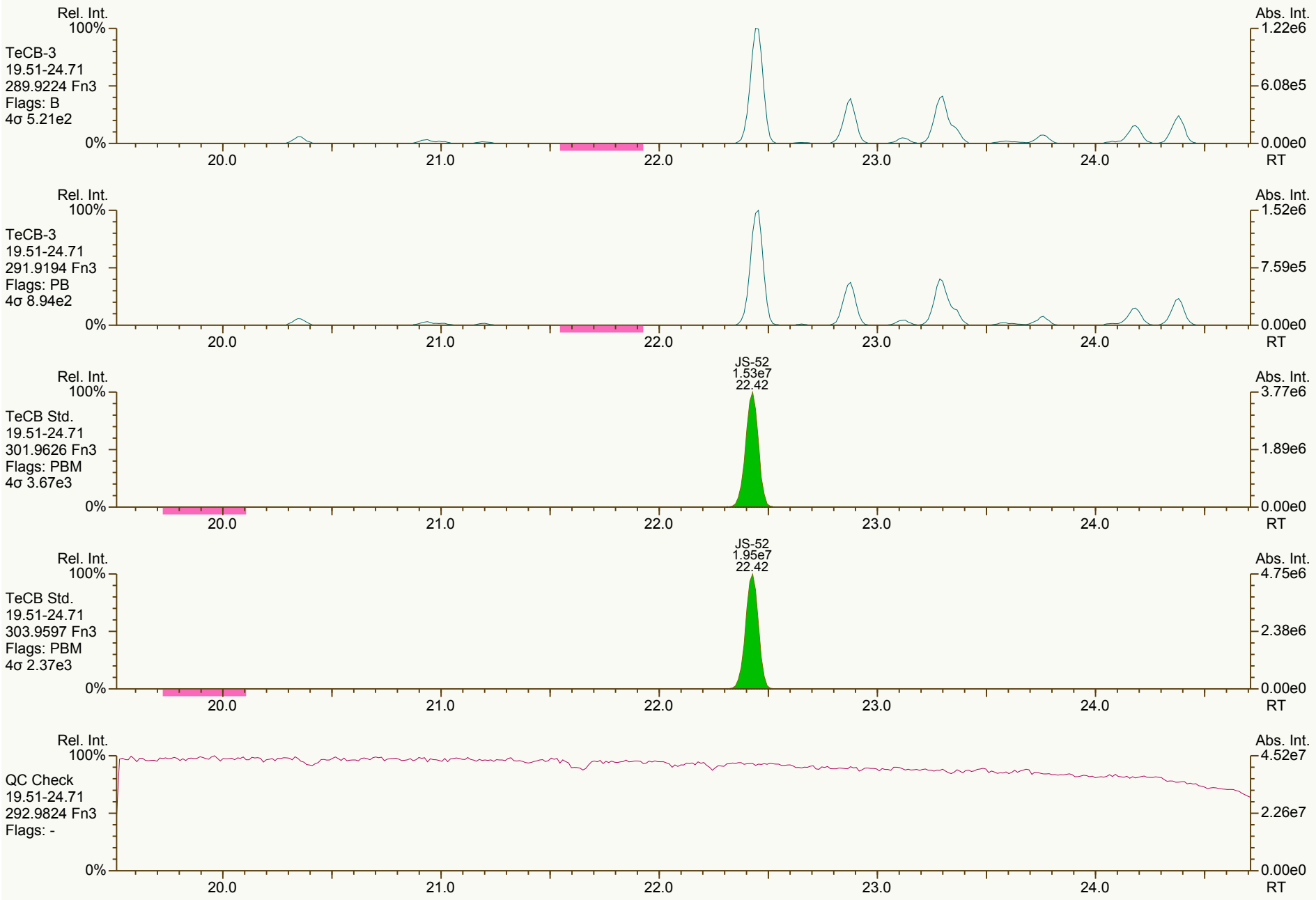
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7069, 3325 scc: 940-191 *PKD: 16-Dec-2012 13:23 Printed: 16-Dec-2012 14:50 Page 6 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



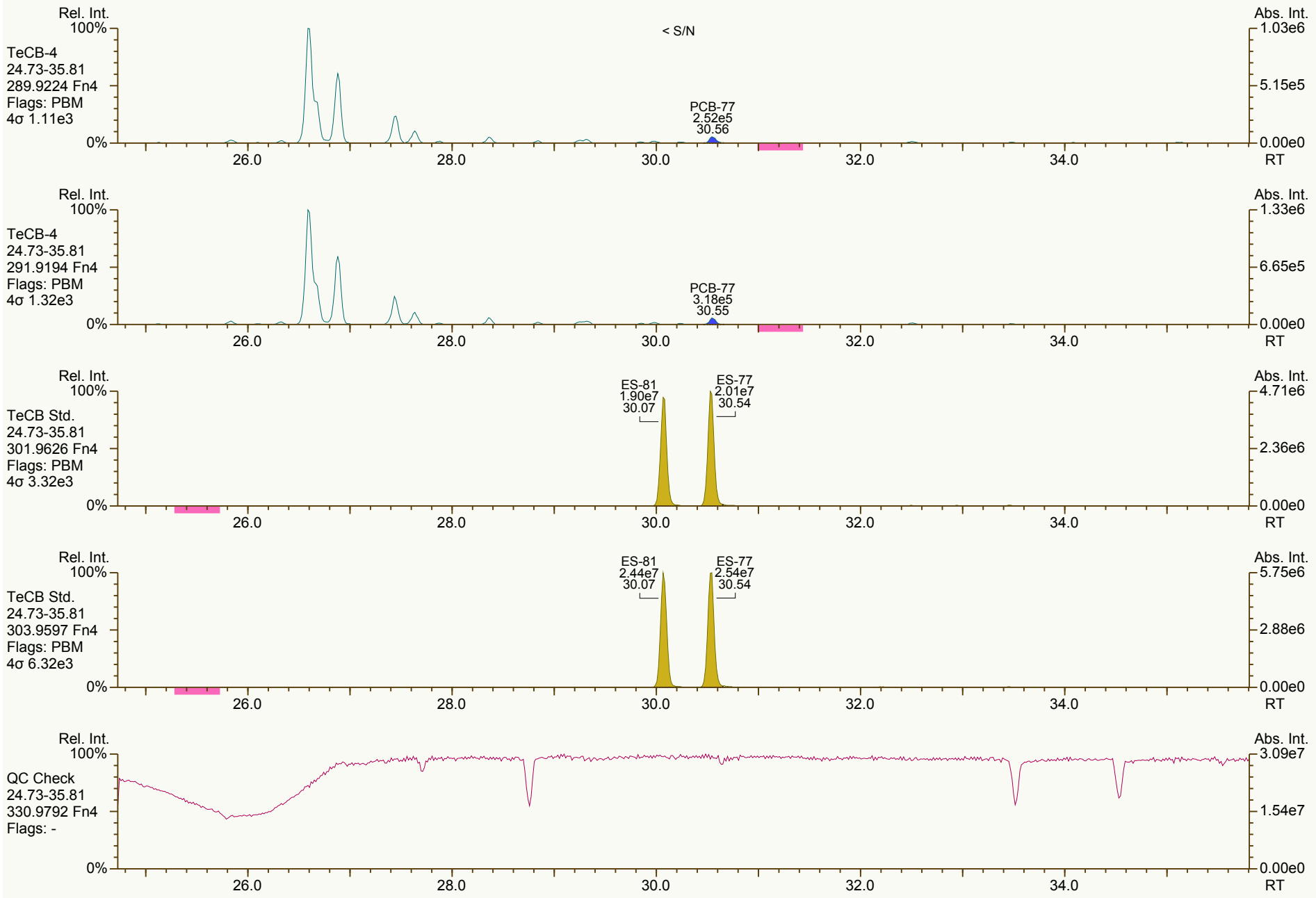
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9690, 3461 scc: 940-191 *PKD: 16-Dec-2012 13:23 Printed: 16-Dec-2012 14:50 Page 7 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8832, 5750 scc: 940-191 *PKD: 16-Dec-2012 13:23 Printed: 16-Dec-2012 14:50 Page 8 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



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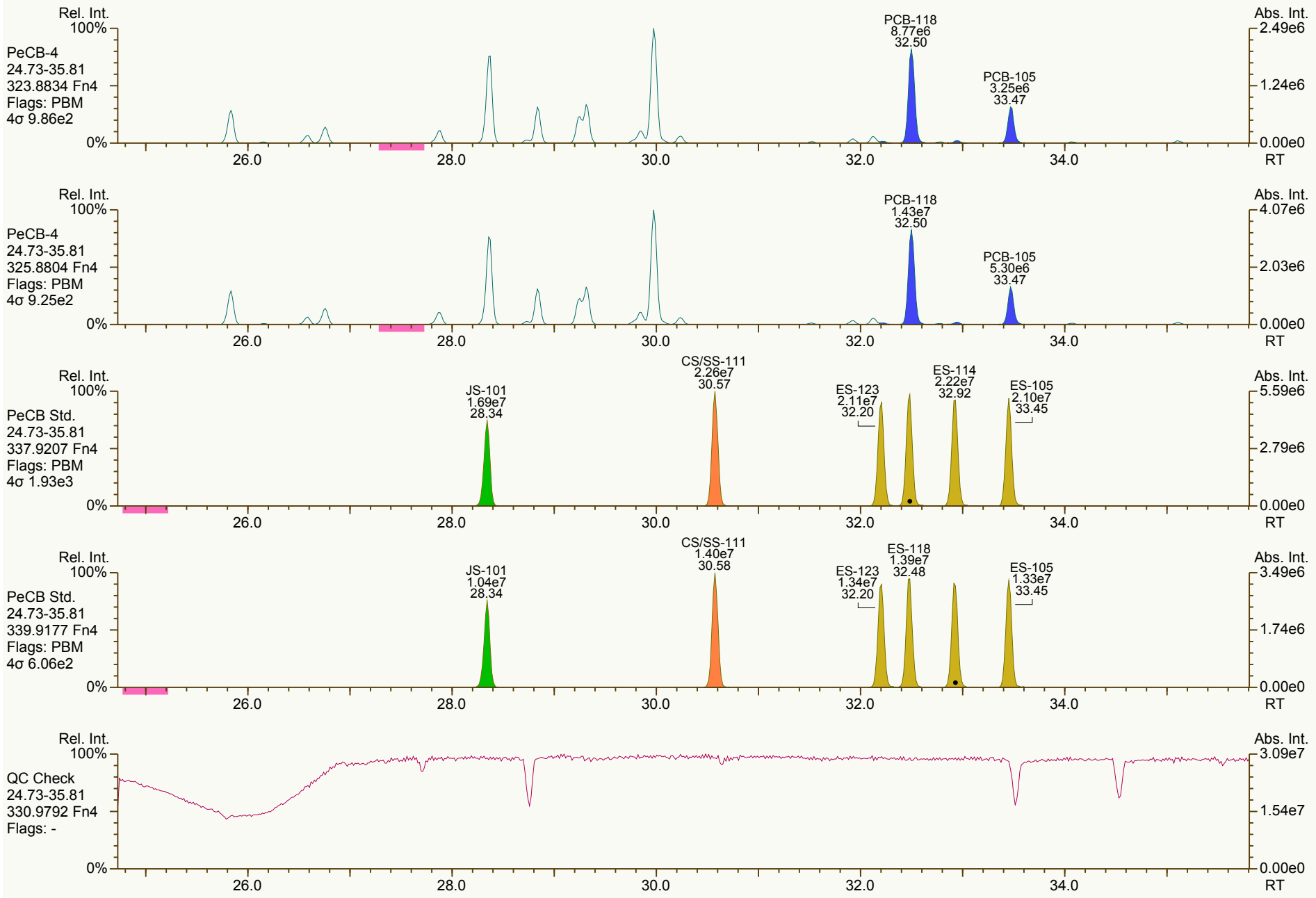
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7337, 7387 scc: 940-191 *PKD: 16-Dec-2012 13:23 Printed: 16-Dec-2012 14:50 Page 9 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1623, 8825 scc: 940-191 *PKD: 16-Dec-2012 13:23 Printed: 16-Dec-2012 14:50 Page 10 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



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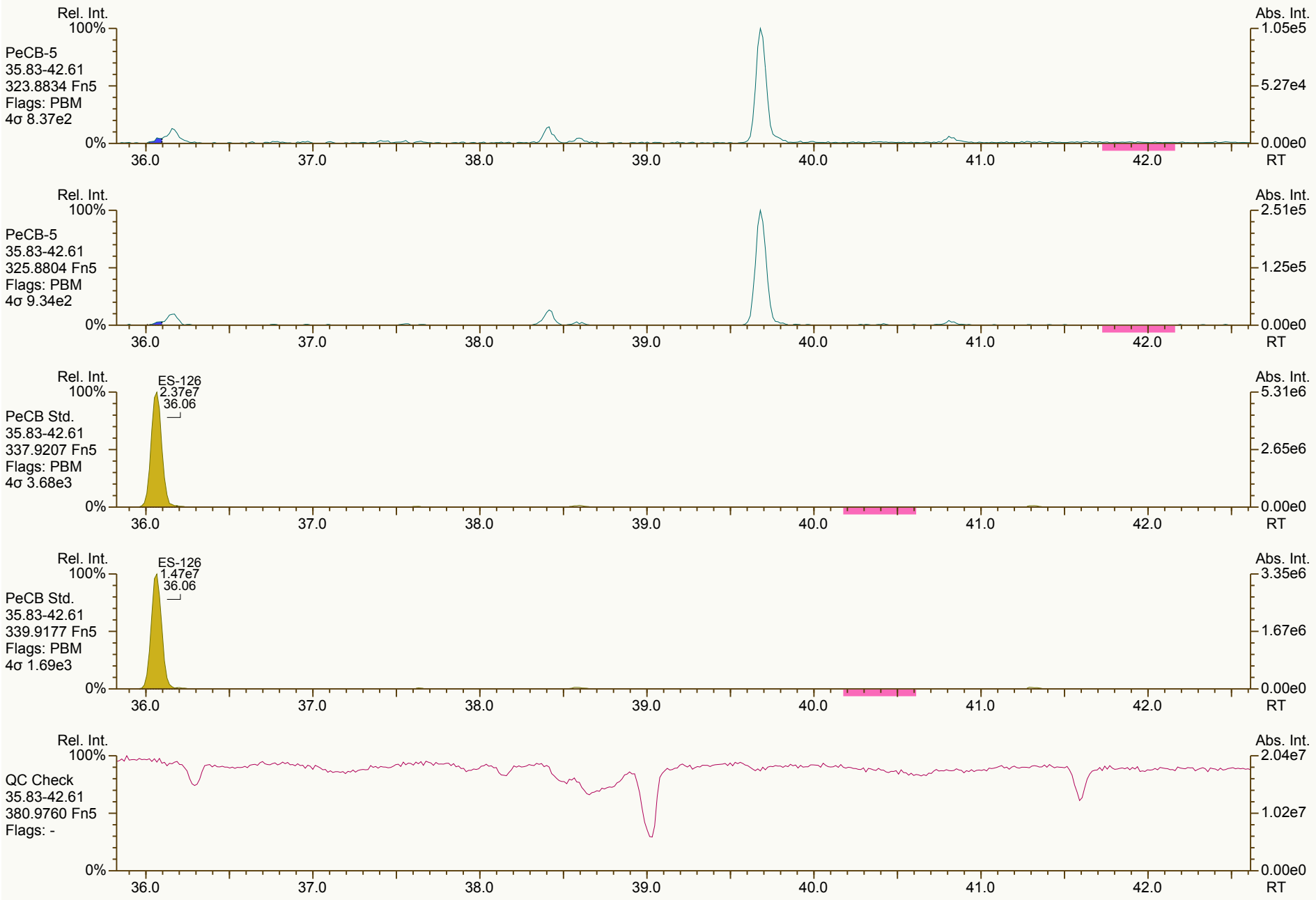
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5210, 1570 scc: 940-191 *Revised: 16-Dec-2012 13:23 (LKB) Printed: 16-Dec-2012 14:50 Page 11 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



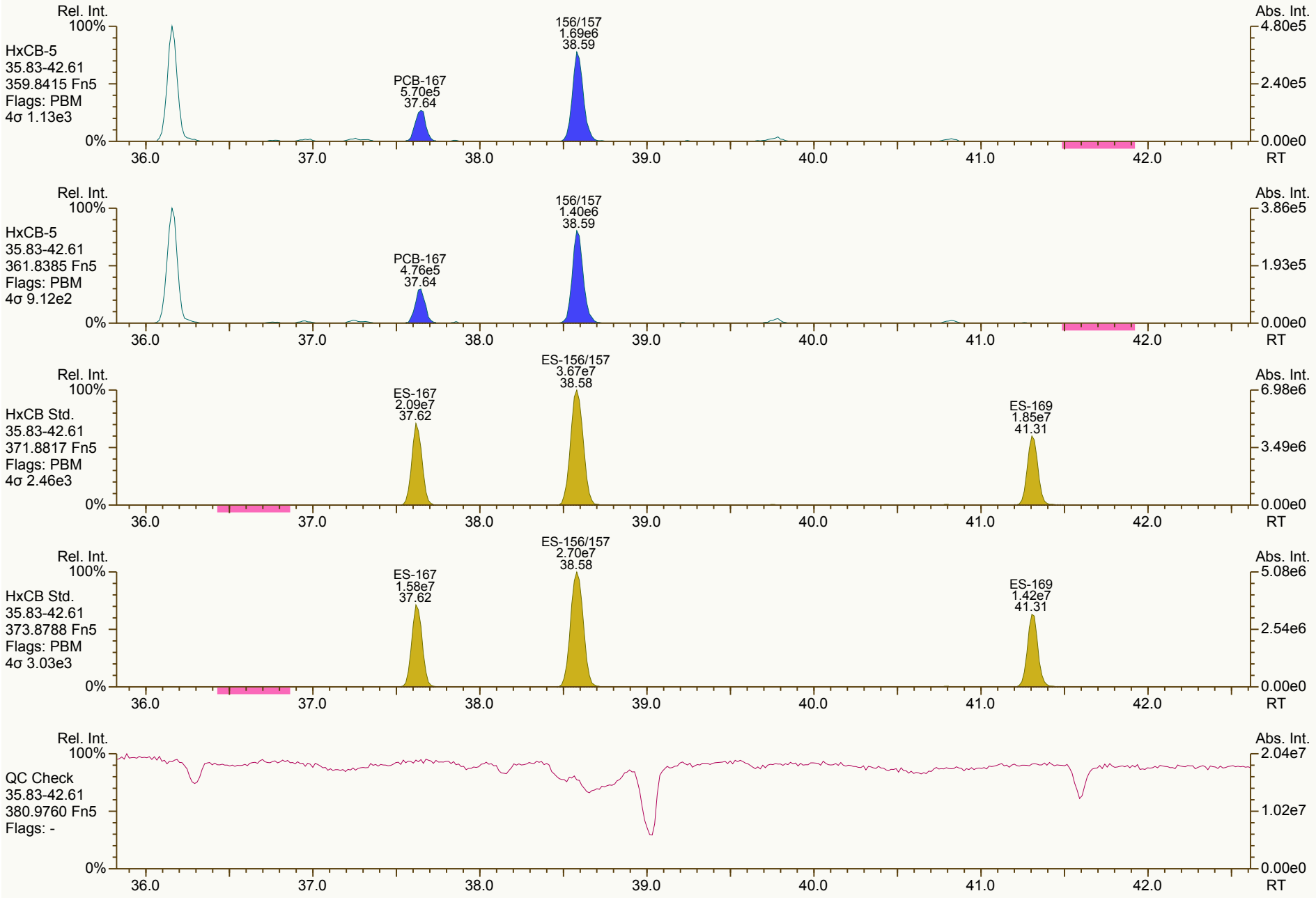
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5824, 7791 scc: 940-191 *Revised: 16-Dec-2012 13:24 (LKB) Printed: 16-Dec-2012 14:50 Page 12 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



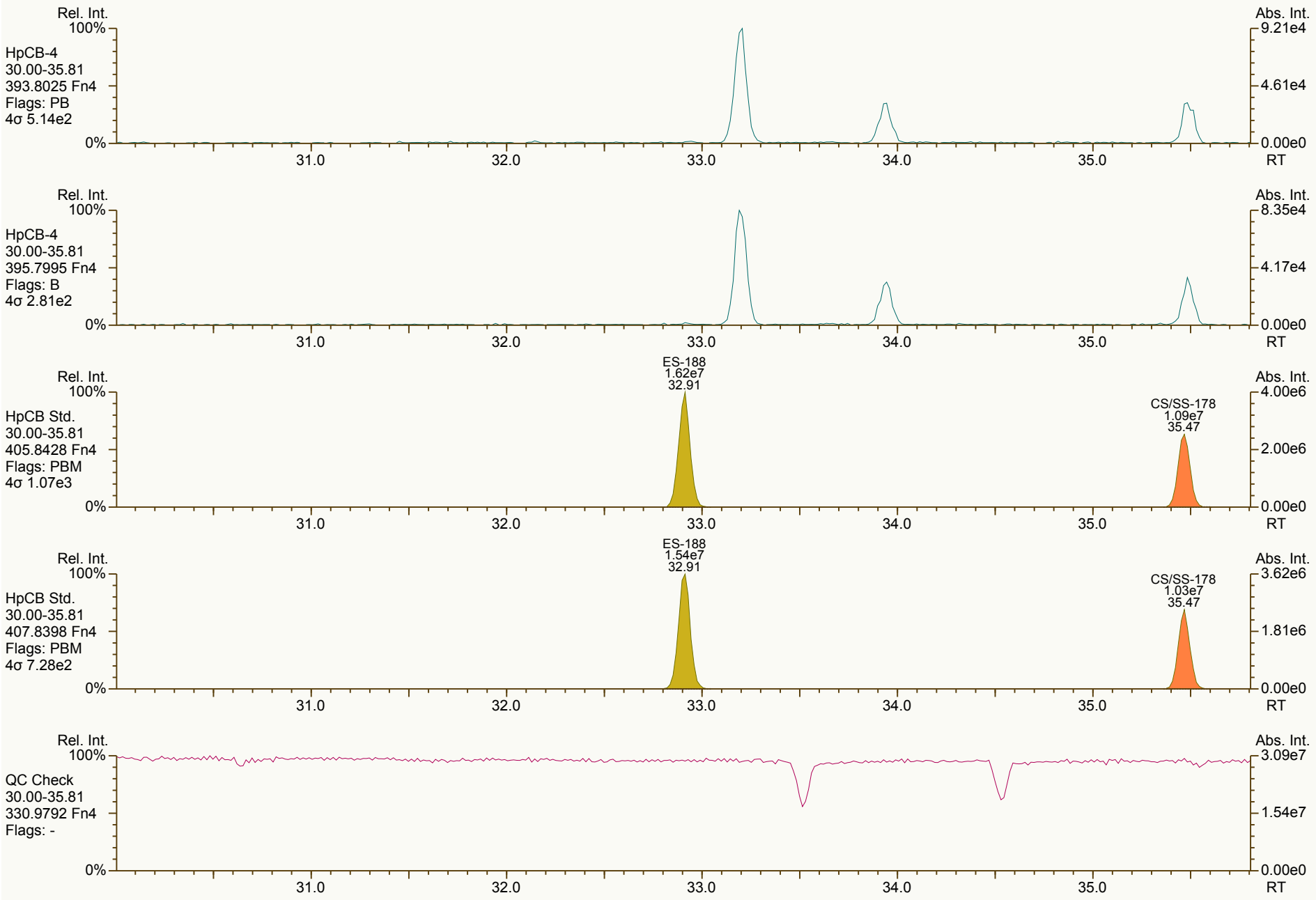
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0271, 2405 scc: 940-191 *Revised: 16-Dec-2012 13:27 (LKB) Printed: 16-Dec-2012 14:50 Page 13 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1041, 7020 scc: 940-191 *Revised: 16-Dec-2012 13:28 (LKB) Printed: 16-Dec-2012 14:50 Page 14 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



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SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



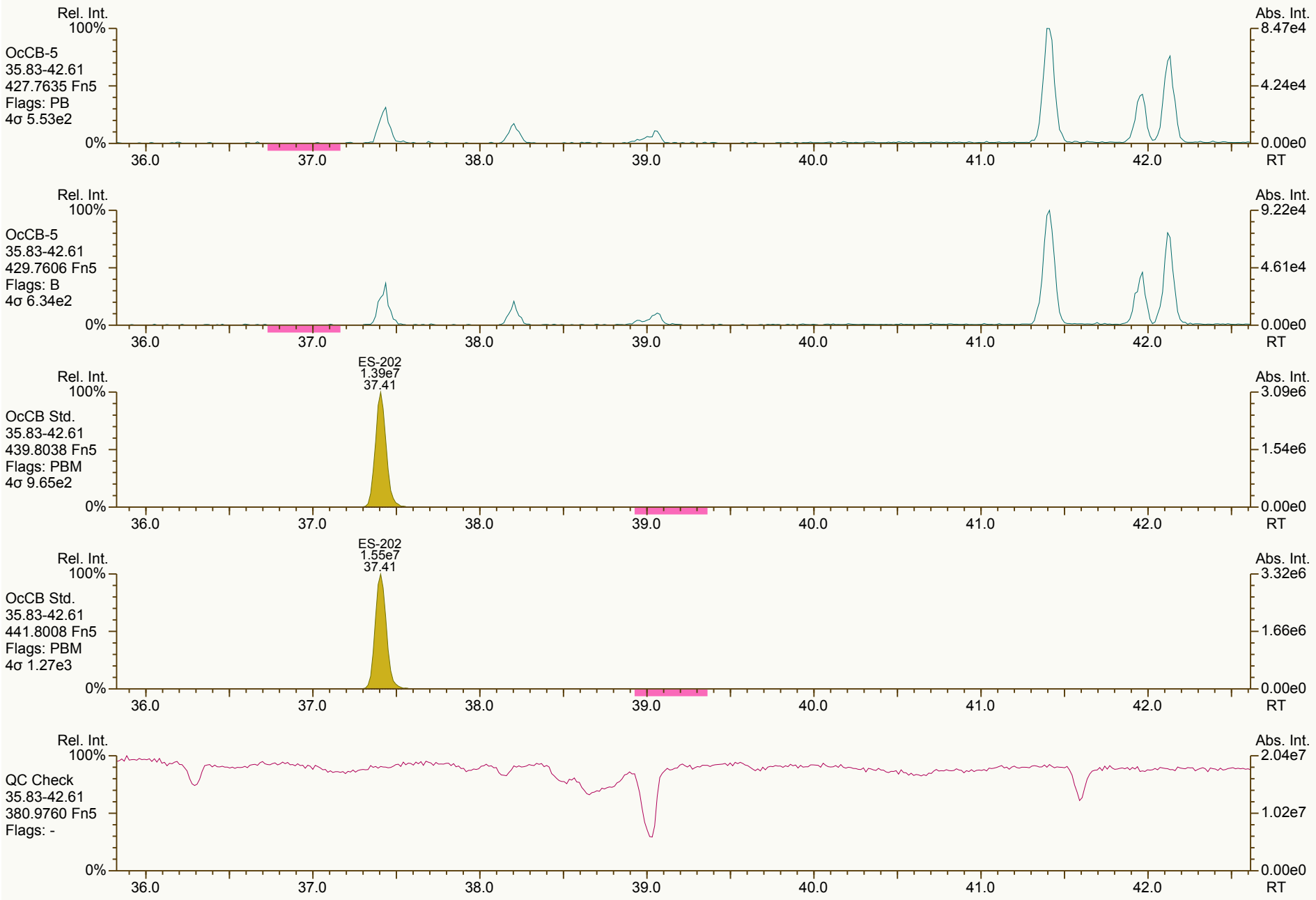
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4540, 1696 scc: 940-191 *Revised: 16-Dec-2012 13:29 (LKB) Printed: 16-Dec-2012 14:50 Page 16 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3470, 6433 scc: 940-191 *PKD: 16-Dec-2012 13:26 Printed: 16-Dec-2012 14:50 Page 18 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9683, 4848 scc: 940-191 *PKD: 16-Dec-2012 13:26 Printed: 16-Dec-2012 14:50 Page 19 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0861, 8694 scc: 940-191 *PKD: 16-Dec-2012 13:26 Printed: 16-Dec-2012 14:50 Page 20 of 21*

SGS-AP ID: A4909_10429_PCB_009 **Sample ID: AQ-SE-57-10** **Acq: 14-Dec-2012 18:31:06**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 69** **User: LKB Datafile: 121214X16**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\A4909_10429_PCB_009.utp_res, saved 16-Dec-2012 14:44 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7578, 5994 scc: 940-191 *PKD: 16-Dec-2012 13:26 Printed: 16-Dec-2012 14:50 Page 21 of 21*

SGS Analytical Perspectives — Run Log **Project: A4909_10429_PCB**

Instrument: MM7 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_a

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
1	121214X01	Tray1:04	CS3_121214_PCB_XA	1.00	SIL 12-65-3	LKB	773-102	14-Dec-2012	03:58:34
2	121214X02	Tray1:59	OPR1_10429_PCB	1.00	0_10429_OPR001	LKB	397-803	14-Dec-2012	04:52:37
3	121214X03	Tray1:02	SBS_121214_PCB_XA	1.00	SIL 9-41-1	LKB	529-276	14-Dec-2012	05:46:41
4	121214X04	Tray1:60	MB1_10429_PCB_SDS	10.50	Method Blank	LKB	150-762	14-Dec-2012	06:40:43
5	121214X05	Tray1:61	A4909_10429_PCB_001	12.30	AQ-SE-03-10	LKB	751-947	14-Dec-2012	07:34:46
6	121214X06	Tray1:62	A4909_10429_PCB_002	11.08	AQ-SE-04-10	LKB	109-009	14-Dec-2012	08:28:49
7	121214X07	Tray1:63	A4909_10429_PCB_003	11.44	AQ-SE-05-10	LKB	490-654	14-Dec-2012	09:22:44
8	121214X08	Tray1:64	A4909_10429_PCB_004	11.98	AQ-SE-06-10	LKB	908-715	14-Dec-2012	10:16:39
9	121214X09	Tray1:02	SBS_121214_PCB_XB	1.00	SIL 9-41-1	LKB	529-766	14-Dec-2012	11:58:15
10	121214X10	Tray1:04	CS3_121214_PCB_XB	1.00	SIL 12-65-3	LKB	549-357	14-Dec-2012	13:02:29
11	121214X11	Tray1:02	SBS_121214_PCB_XC	1.00	SIL 9-41-1	LKB	494-161	14-Dec-2012	13:53:42
12	121214X12	Tray1:65	A4909_10429_PCB_005	12.32	AQ-SE-07-10	LKB	120-587	14-Dec-2012	14:52:57
13	121214X13	Tray1:66	A4909_10429_PCB_006	11.88	AQ-SE-08-10	LKB	695-708	14-Dec-2012	15:46:10
14	121214X14	Tray1:67	A4909_10429_PCB_007	10.89	AQ-SE-01-10	LKB	407-178	14-Dec-2012	16:41:08
15	121214X15	Tray1:68	A4909_10429_PCB_008	11.37	AQ-SE-02-10	LKB	877-682	14-Dec-2012	17:36:06
16	121214X16	Tray1:69	A4909_10429_PCB_009	12.37	AQ-SE-57-10	LKB	940-191	14-Dec-2012	18:31:06

= manual calculation

REVIEWED
By Laura Boivin at 3:03 pm, Dec 16, 2012

REVIEWED
By Heather Steele at 9:58 am, Dec 17, 2012

PCB QC Summary	SGS Analytical Perspectives			Processed: 16-Dec-2012 13:34		
Lab ID:	**CS3_121214_PCB_XA**					
Acquired:	**14-DEC-2012 03:58**			**ICAL: MM7_PCB_07132012_25JUL12**		
Datafile:	**121214X01**					
Name	**RT**	**Response**	**RA**	**ICAL**	**RRF**	**Dev'n**
PCB-77 33'44'-TeCB	30.52	1.63E+07	0.78 Y	1.13	1.21	6.3%
PCB-81 344'5-TeCB	30.05	1.56E+07	0.77 Y	1.13	1.22	8.3%
PCB-105 233'44'-PeCB	33.45	1.22E+07	0.61 Y	1.09	1.17	6.6%
PCB-114 2344'5-PeCB	32.92	1.38E+07	0.62 Y	1.16	1.30	12.4%
PCB-118 23'44'5-PeCB	32.48	1.34E+07	0.61 Y	1.11	1.24	11.8%
PCB-123 23'44'5'-PeCB	32.19	1.29E+07	0.62 Y	1.19	1.24	4.7%
PCB-126 33'44'5-PeCB	36.06	1.30E+07	0.63 Y	1.06	1.13	6.6%
PCB-156/157 ...-HxCB	38.58	2.44E+07	1.21 Y	1.11	1.12	1.0%
PCB-167 23'44'55'-HxCB	37.62	1.29E+07	1.23 Y	1.14	1.16	1.8%
PCB-169 33'44'55'-HxCB	41.30	1.16E+07	1.22 Y	1.11	1.10	-0.6%
PCB-189 233'44'55'-HpCB	43.41	1.14E+07	1.05 Y	1.06	1.09	2.8%
PCB-209 DeCB	48.36	8.63E+06	1.17 Y	1.07	1.10	2.8%
ES PCB-1	10.63	4.81E+07	3.17 Y	1.08	1.19	10.1%
ES PCB-3	12.68	4.57E+07	3.27 Y	1.08	1.13	4.4%
ES PCB-4	12.89	2.43E+07	1.62 Y	0.49	0.60	23.2%
ES PCB-15	18.21	4.29E+07	1.58 Y	1.11	1.06	-4.4%
ES PCB-19	15.71	2.16E+07	1.02 Y	0.55	0.53	-3.6%
ES PCB-37	24.29	3.36E+07	1.13 Y	1.64	1.57	-3.7%
ES PCB-54	18.44	2.17E+07	0.75 Y	0.94	1.02	8.1%
ES PCB-77	30.50	2.70E+07	0.80 Y	1.35	1.27	-5.9%
ES PCB-81	30.03	2.56E+07	0.80 Y	1.29	1.20	-6.8%
ES PCB-104	23.22	2.10E+07	1.58 Y	0.99	1.21	21.6%
ES PCB-105	33.43	2.10E+07	1.55 Y	1.23	1.20	-2.4%
ES PCB-114	32.90	2.12E+07	1.61 Y	1.25	1.22	-2.6%
ES PCB-118	32.45	2.17E+07	1.58 Y	1.28	1.24	-2.9%
ES PCB-123	32.17	2.07E+07	1.56 Y	1.22	1.19	-2.6%
ES PCB-126	36.04	2.30E+07	1.59 Y	1.20	1.32	10.0%
ES PCB-153	34.03	1.77E+07	1.31 Y	1.14	1.14	0.1%
ES PCB-155	28.08	2.41E+07	1.25 Y	1.50	1.56	4.3%
ES PCB-156/157	38.56	4.36E+07	1.32 Y	1.45	1.41	-3.2%
ES PCB-167	37.60	2.23E+07	1.29 Y	1.49	1.44	-3.5%
ES PCB-169	41.28	2.10E+07	1.28 Y	1.40	1.36	-3.5%
ES PCB-170	40.77	1.45E+07	1.07 Y	1.00	1.08	7.4%
ES PCB-180	39.73	1.69E+07	1.06 Y	1.16	1.25	8.3%
ES PCB-188	32.89	1.88E+07	1.05 Y	1.18	1.21	3.0%
ES PCB-189	43.40	2.10E+07	1.05 Y	1.49	1.55	4.4%
ES PCB-202	37.39	1.92E+07	0.91 Y	1.14	1.24	9.1%
ES PCB-205	45.54	1.64E+07	0.89 Y	1.20	1.21	0.8%
ES PCB-206	47.00	1.24E+07	0.78 Y	0.87	0.92	5.6%
ES PCB-208	42.99	1.67E+07	0.79 Y	1.19	1.24	3.9%
ES PCB-209	48.34	1.56E+07	1.18 Y	1.00	1.16	15.7%

PCB QC Summary	SGS Analytical Perspectives				Processed: 16-Dec-2012 13:34
Lab ID:	**CS3_121214_PCB_XA**			**ICAL: MM7_PCB_07132012_25JUL12**	
Acquired:	**14-DEC-2012 03:58**				
Datafile:	**121214X01**				
Name	**RT**	**Response**	**RA**	**ICAL**	**RRF**	**Dev'n**
SS PCB-28	20.85	3.67E+07	1.10 Y	1.07	1.09	1.7%
SS PCB-111	30.54	2.09E+07	1.61 Y	1.01	1.01	0.7%
SS PCB-178	35.45	1.16E+07	1.09 Y	0.63	0.62	-1.4%
CS PCB-28	20.85	3.67E+07	1.10 Y	1.76	1.72	-2.1%
CS PCB-111	30.54	2.09E+07	1.61 Y	1.23	1.20	-1.9%
CS PCB-178	35.45	1.16E+07	1.09 Y	0.74	0.75	1.6%
JS PCB-9	14.72	4.04E+07	1.58 Y		-	-
JS PCB-52	22.41	2.13E+07	0.78 Y		-	-
JS PCB-101	28.26	1.74E+07	1.60 Y		-	-
JS PCB-138	35.06	1.55E+07	1.28 Y		-	-
JS PCB-194	45.15	1.35E+07	0.88 Y		-	-
PCB-1 2-MoCB	10.64	2.55E+07	3.18 Y	1.03	1.06	2.8%
PCB-3 4-MoCB	12.70	2.53E+07	3.20 Y	1.04	1.11	6.4%
PCB-4 22'-DiCB	12.91	1.37E+07	1.56 Y	1.17	1.13	-3.5%
PCB-15 44'-DiCB	18.23	2.40E+07	1.58 Y	1.08	1.12	3.6%
PCB-19 22'6-TrCB	15.73	1.18E+07	1.09 Y	1.09	1.09	-0.1%
PCB-37 344'-TrCB	24.31	1.95E+07	1.05 Y	1.10	1.16	5.1%
PCB-54 22'66'-TeCB	18.46	1.38E+07	0.78 Y	1.21	1.27	5.3%
PCB-104 22'466'-PeCB	23.24	1.37E+07	0.63 Y	1.25	1.30	4.0%
PCB-155 22'44'66'-HxCB	28.10	1.35E+07	1.25 Y	1.09	1.12	2.5%
PCB-188 22'34'566'-HpCB	32.91	1.02E+07	1.06 Y	1.03	1.08	4.9%
PCB-202 22'33'55'66'-OcCB	37.41	9.04E+06	0.90 Y	0.91	0.94	3.1%
PCB-205 233'44'55'6-OcCB	45.56	8.88E+06	0.94 Y	1.09	1.09	-0.2%
PCB-208 22'33'455'66'-NoCB	43.01	8.21E+06	0.76 Y	1.02	0.98	-3.2%
PCB-206 22'33'44'55'6-NoCB	47.02	5.84E+06	0.75 Y	0.98	0.94	-3.6%

PCB QC Summary - Ax2 Detail

Processed: 16-Dec-2012 13:34

Lab ID: CS3_121214_PCB_XA
Acquired: 14-DEC-2012 03:58
Datafile: 121214X01
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA		RRF	
PCB-1 2-MoCB	10.64	2.55E+07	3.18 Y	1.03	-	-
PCB-2 3-MoCB	12.53	2.50E+07	3.24 Y	1.04	1.09	5.0%
PCB-3 4-MoCB	12.70	2.53E+07	3.20 Y	1.04	-	-
PCB-4 22'-DiCB	12.91	1.37E+07	1.56 Y	1.17	-	-
PCB-10 26-DiCB	13.07	2.19E+07	1.55 Y	1.83	1.80	-1.6%
PCB-9 25-DiCB	14.73	2.11E+07	1.61 Y	0.89	0.98	9.9%
PCB-7 24-DiCB	14.89	2.41E+07	1.59 Y	1.02	1.13	9.9%
PCB-6 23'-DiCB	15.09	2.27E+07	1.58 Y	0.95	1.06	11.5%
PCB-5 23-DiCB	15.37	2.27E+07	1.59 Y	0.97	1.06	9.0%
PCB-8 24'-DiCB	15.48	2.33E+07	1.59 Y	0.98	1.09	10.6%
PCB-14 35-DiCB	16.95	2.68E+07	1.60 Y	1.16	1.25	8.0%
PCB-11 33'-DiCB	17.69	2.28E+07	1.59 Y	1.00	1.06	6.4%
PCB-13/12 34'/34-DiCB	17.96	4.68E+07	1.58 Y	1.02	1.09	7.3%
PCB-15 44'-DiCB	18.23	2.40E+07	1.58 Y	1.08	-	-
PCB-19 22'6-TrCB	15.73	1.18E+07	1.09 Y	1.09	-	-
PCB-30/18 246/22'5-TrCB	17.39	3.18E+07	1.10 Y	1.46	1.48	1.1%
PCB-17 22'4-TrCB	17.77	1.35E+07	1.10 Y	1.25	1.25	-0.2%
PCB-27 23'6-TrCB	17.95	1.85E+07	1.11 Y	1.69	1.72	1.6%
PCB-24 236-TrCB	18.07	1.75E+07	1.11 Y	1.63	1.62	-0.8%
PCB-16 22'3-TrCB	18.16	1.04E+07	1.13 Y	0.95	0.96	0.7%
PCB-32 24'6-TrCB	18.62	1.94E+07	1.09 Y	1.79	1.80	0.8%
PCB-34 23'5'-TrCB	19.74	1.94E+07	1.05 Y	1.05	1.16	10.4%
PCB-23 235-TrCB	19.88	2.03E+07	1.02 Y	1.06	1.21	14.2%
PCB-26/29 23'5/245-TrCB	20.15	4.09E+07	1.03 Y	1.09	1.22	12.3%
PCB-25 23'4-TrCB	20.34	2.04E+07	1.04 Y	1.07	1.21	13.0%
PCB-31 24'5-TrCB	20.61	2.11E+07	1.03 Y	1.11	1.26	13.2%
PCB-28/20 244'/233'-TrCB	20.87	3.99E+07	1.04 Y	1.07	1.19	11.2%
PCB-21/33 234/23'4'-TrCB	21.04	4.11E+07	1.04 Y	1.09	1.22	12.0%
PCB-22 234'-TrCB	21.40	1.89E+07	1.05 Y	1.02	1.12	10.6%
PCB-36 33'5-TrCB	22.77	2.04E+07	1.04 Y	1.13	1.22	7.9%
PCB-39 34'5-TrCB	23.07	2.16E+07	1.04 Y	1.17	1.29	10.5%
PCB-38 345-TrCB	23.57	1.90E+07	1.06 Y	1.03	1.13	9.8%
PCB-35 33'4-TrCB	23.96	1.86E+07	1.04 Y	1.04	1.11	6.4%
PCB-37 344'-TrCB	24.31	1.95E+07	1.05 Y	1.10	-	-
PCB-54 22'66'-TeCB	18.46	1.38E+07	0.78 Y	1.21	-	-
PCB-50/53 22'46/22'56'-TeCB	20.37	2.38E+07	0.80 Y	0.86	0.93	8.7%
PCB-45 22'36-TeCB	20.92	9.55E+06	0.80 Y	0.73	0.75	2.2%
PCB-51 22'46'-TeCB	20.99	1.26E+07	0.81 Y	0.88	0.98	12.0%
PCB-46 22'36'-TeCB	21.19	9.55E+06	0.80 Y	0.70	0.75	7.4%
PCB-52 22'55'-TeCB	22.43	1.14E+07	0.81 Y	0.84	0.89	5.5%
PCB-73 23'5'6-TeCB	22.55	1.49E+07	0.82 Y	1.09	1.17	6.9%

Lab ID: - Ax2 Detail **Processed: 16-Dec-2012 13:34**

Lab ID: CS3_121214_PCB_XA
Acquired: 14-DEC-2012 03:58
Datafile: 121214X01
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA		RRF	
PCB-43 22'35-TeCB	22.64	9.83E+06	0.82 Y	0.72	0.77	6.2%
PCB-69/49 23'46/22'45'-TeCB	22.84	2.80E+07	0.81 Y	1.01	1.10	8.2%
PCB-48 22'45-TeCB	23.10	1.16E+07	0.81 Y	0.85	0.91	6.6%
PCB-44/47/65 ...-TeCB	23.31	3.68E+07	0.81 Y	0.89	0.96	7.6%
PCB-59/62/75 ...-TeCB	23.58	4.79E+07	0.80 Y	1.14	1.25	9.6%
PCB-42 22'34'-TeCB	23.73	1.04E+07	0.82 Y	0.77	0.81	5.0%
PCB-41 22'34-TeCB	24.05	9.87E+06	0.79 Y	0.73	0.77	6.1%
PCB-71/40 23'4'6/22'33'-TeCB	24.15	2.32E+07	0.82 Y	0.87	0.91	4.5%
PCB-64 234'6-TeCB	24.35	1.69E+07	0.81 Y	1.24	1.32	6.7%
PCB-72 23'55'-TeCB	25.08	1.64E+07	0.79 Y	1.14	1.29	12.5%
PCB-68 23'45'-TeCB	25.33	1.75E+07	0.77 Y	1.21	1.36	12.8%
PCB-57 233'5-TeCB	25.68	1.59E+07	0.77 Y	1.11	1.24	12.5%
PCB-58 233'5'-TeCB	25.87	1.62E+07	0.78 Y	1.10	1.27	15.0%
PCB-67 23'45-TeCB	26.03	1.67E+07	0.78 Y	1.16	1.30	12.1%
PCB-63 234'5-TeCB	26.25	1.74E+07	0.78 Y	1.22	1.36	12.0%
PCB-61/70/74/76 ...-TeCB	26.53	6.54E+07	0.79 Y	1.13	1.28	13.1%
PCB-66 23'44'-TeCB	26.81	1.54E+07	0.77 Y	1.08	1.20	11.7%
PCB-55 233'4-TeCB	26.94	1.56E+07	0.79 Y	1.10	1.22	10.8%
PCB-56 233'4'-TeCB	27.37	1.52E+07	0.79 Y	1.06	1.19	12.4%
PCB-60 2344'-TeCB	27.56	1.54E+07	0.78 Y	1.11	1.21	8.6%
PCB-80 33'55'-TeCB	27.92	1.78E+07	0.78 Y	1.25	1.39	11.2%
PCB-79 33'45'-TeCB	29.21	1.80E+07	0.79 Y	1.23	1.41	14.2%
PCB-78 33'45-TeCB	29.68	1.51E+07	0.78 Y	1.08	1.18	9.2%
PCB-104 22'466'-PeCB	23.24	1.37E+07	0.63 Y	1.25	-	-
PCB-96 22'366'-PeCB	23.54	1.18E+07	0.63 Y	1.08	1.12	4.1%
PCB-103 22'45'6-PeCB	25.22	1.03E+07	0.62 Y	0.90	1.00	11.0%
PCB-94 22'356'-PeCB	25.40	8.88E+06	0.62 Y	0.78	0.86	10.7%
PCB-95 22'35'6-PeCB	25.77	9.63E+06	0.62 Y	0.83	0.93	12.9%
PCB-100/93 22'44'6/22'356-PeC	25.98	1.94E+07	0.62 Y	0.84	0.94	11.4%
PCB-102 22'456'-PeCB	26.08	9.44E+06	0.61 Y	0.90	0.91	1.5%
PCB-98 22'34'6'-PeCB	26.15	7.87E+06	0.61 Y	0.77	0.76	-1.5%
PCB-88 22'346-PeCB	26.43	8.21E+06	0.61 Y	0.79	0.80	0.2%
PCB-91 22'34'6-PeCB	26.50	1.12E+07	0.61 Y	0.88	1.08	22.8%
PCB-84 22'33'6-PeCB	26.68	8.12E+06	0.61 Y	0.71	0.79	10.7%
PCB-89 22'346'-PeCB	27.09	8.64E+06	0.62 Y	0.76	0.84	9.9%
PCB-121 23'45'6-PeCB	27.48	1.33E+07	0.60 Y	1.14	1.28	12.2%
PCB-92 22'355'-PeCB	27.78	9.02E+06	0.62 Y	0.80	0.87	9.1%
PCB-113/90/101 ...-PeCB	28.26	3.32E+07	0.62 Y	0.93	1.07	14.6%
PCB-83 22'33'5-PeCB	28.67	7.48E+06	0.61 Y	0.71	0.72	1.6%

Lab ID: - Ax2 Detail **Processed: 16-Dec-2012 13:34**

Lab ID: CS3_121214_PCB_XA
Acquired: 14-DEC-2012 03:58
Datafile: 121214X01
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA		RRF	
PCB-99 22'44'5-PeCB	28.77	1.05E+07	0.61 Y	0.87	1.01	16.2%
PCB-112 233'56-PeCB	28.87	1.30E+07	0.62 Y	1.13	1.25	11.4%
PCB-108/119/86/97/125...-PeCB	29.21	6.72E+07	0.62 Y	0.95	1.08	14.1%
PCB-117 234'56-PeCB	29.73	1.14E+07	0.62 Y	1.04	1.10	5.8%
PCB-116/85 23456/22'344'-PeCl	29.81	2.30E+07	0.63 Y	0.97	1.11	14.5%
PCB-110 233'4'6-PeCB	29.93	1.18E+07	0.62 Y	1.02	1.14	12.0%
PCB-115 2344'6-PeCB	30.02	1.33E+07	0.62 Y	1.16	1.28	11.0%
PCB-82 22'33'4-PeCB	30.20	7.85E+06	0.62 Y	0.69	0.76	9.9%
PCB-111 233'55'-PeCB	30.56	1.33E+07	0.62 Y	1.15	1.29	11.9%
PCB-120 23'455'-PeCB	30.95	1.36E+07	0.61 Y	1.16	1.31	13.1%
PCB-107/124 ...-PeCB	31.89	2.46E+07	0.62 Y	1.07	1.19	11.0%
PCB-109 233'46-PeCB	32.10	1.26E+07	0.62 Y	1.14	1.22	6.6%
PCB-106 233'45-PeCB	32.29	1.32E+07	0.62 Y	1.07	1.28	19.6%
PCB-122 233'4'5'-PeCB	32.75	1.18E+07	0.62 Y	1.00	1.11	11.3%
PCB-127 33'455'-PeCB	34.71	1.25E+07	0.61 Y	1.10	1.20	8.7%
PCB-155 22'44'66'-HxCB	28.10	1.35E+07	1.25 Y	1.09	-	-
PCB-152 22'3566'-HxCB	28.24	1.26E+07	1.26 Y	1.01	1.04	3.0%
PCB-150 22'34'66'-HxCB	28.39	1.26E+07	1.26 Y	1.00	1.04	3.8%
PCB-136 22'33'66'-HxCB	28.67	1.16E+07	1.27 Y	0.95	0.96	1.1%
PCB-145 22'3466'-HxCB	28.94	1.20E+07	1.27 Y	0.96	0.99	3.3%
PCB-148 22'34'56'-HxCB	30.23	9.03E+06	1.24 Y	0.97	1.02	5.4%
PCB-151/135 ...-HxCB	30.73	1.76E+07	1.28 Y	0.96	1.00	3.6%
PCB-154 22'44'56'-HxCB	30.95	1.02E+07	1.28 Y	1.09	1.16	6.3%
PCB-144 22'345'6-HxCB	31.20	9.05E+06	1.28 Y	0.98	1.03	4.3%
PCB-147/149 ...-HxCB	31.50	1.79E+07	1.26 Y	0.99	1.02	3.1%
PCB-134 22'33'56-HxCB	31.66	7.61E+06	1.29 Y	0.80	0.86	7.6%
PCB-143 22'3456'-HxCB	31.74	8.50E+06	1.25 Y	0.95	0.96	0.8%
PCB-139/140 ...-HxCB	32.00	1.85E+07	1.27 Y	1.00	1.05	4.8%
PCB-131 22'33'46-HxCB	32.16	7.94E+06	1.26 Y	0.85	0.90	5.9%
PCB-142 22'3456-HxCB	32.30	7.83E+06	1.26 Y	0.87	0.89	1.6%
PCB-132 22'33'46'-HxCB	32.54	8.12E+06	1.24 Y	0.89	0.92	3.4%
PCB-133 22'33'55'-HxCB	32.99	8.33E+06	1.27 Y	0.91	0.94	3.2%
PCB-165 233'55'6-HxCB	33.32	1.06E+07	1.27 Y	1.13	1.21	6.4%
PCB-146 22'34'55'-HxCB	33.53	9.28E+06	1.26 Y	1.01	1.05	4.4%
PCB-161 233'45'6-HxCB	33.65	1.15E+07	1.28 Y	1.25	1.30	3.5%
PCB-153/168 ...-HxCB	34.07	2.23E+07	1.25 Y	1.22	1.26	3.5%
PCB-141 22'3455'-HxCB	34.20	8.78E+06	1.25 Y	0.93	1.00	7.3%
PCB-130 22'33'45'-HxCB	34.54	7.52E+06	1.27 Y	0.85	0.85	0.5%
PCB-137 22'344'5-HxCB	34.73	9.48E+06	1.27 Y	1.04	1.07	3.0%
PCB-164 233'4'5'6-HxCB	34.82	1.14E+07	1.25 Y	1.22	1.29	5.6%
PCB-163/138/129 ...-HxCB	35.10	2.84E+07	1.25 Y	1.02	1.07	4.5%

Lab ID: - Ax2 Detail **Processed: 16-Dec-2012 13:34**

Lab ID: CS3_121214_PCB_XA ICAL: MM7_PCB_07132012_25JUL12
Acquired: 14-DEC-2012 03:58
Datafile: 121214X01

Name	RT	Response	RA		RRF	
PCB-160 233'456-HxCB	35.23	1.12E+07	1.27 Y	1.21	1.27	5.1%
PCB-158 233'44'6-HxCB	35.42	1.22E+07	1.28 Y	1.34	1.39	3.7%
PCB-128/166 ...-HxCB	36.13	2.03E+07	1.21 Y	0.90	0.91	1.1%
PCB-159 233'455'-HxCB	36.99	1.21E+07	1.19 Y	1.06	1.08	1.7%
PCB-162 233'4'55'-HxCB	37.22	1.25E+07	1.21 Y	1.08	1.13	4.6%
PCB-188 22'34'566'-HpCB	32.91	1.02E+07	1.06 Y	1.03	-	-
PCB-179 22'33'566'-HpCB	33.18	9.42E+06	1.04 Y	0.97	1.00	3.7%
PCB-184 22'344'66'-HpCB	33.64	9.14E+06	1.05 Y	0.93	0.98	4.5%
PCB-176 22'33'466'-HpCB	33.92	9.99E+06	1.08 Y	1.05	1.06	1.6%
PCB-186 22'34566'-HpCB	34.30	9.55E+06	1.04 Y	0.98	1.02	3.7%
PCB-178 22'33'55'6-HpCB	35.47	6.94E+06	1.03 Y	0.74	0.74	0.6%
PCB-175 22'33'45'6-HpCB	36.00	8.99E+06	1.05 Y	1.01	1.06	5.3%
PCB-187 22'34'55'6-HpCB	36.23	9.62E+06	1.04 Y	1.06	1.14	7.0%
PCB-182 22'344'56'-HpCB	36.40	9.69E+06	1.06 Y	1.11	1.14	3.1%
PCB-183 22'344'5'6-HpCB	36.75	1.01E+07	1.05 Y	1.13	1.20	5.6%
PCB-185 22'3455'6-HpCB	36.82	8.89E+06	1.05 Y	1.02	1.05	3.1%
PCB-174 22'33'456'-HpCB	36.93	7.98E+06	1.05 Y	0.93	0.94	1.6%
PCB-177 22'33'45'6'-HpCB	37.30	7.84E+06	1.04 Y	0.91	0.93	2.3%
PCB-181 22'344'56-HpCB	37.64	9.08E+06	1.05 Y	1.06	1.07	1.0%
PCB-171/173 ...-HpCB	37.82	1.61E+07	1.06 Y	0.93	0.95	2.2%
PCB-172 22'33'455'-HpCB	39.20	8.16E+06	1.07 Y	0.95	0.96	0.9%
PCB-192 233'455'6-HpCB	39.44	1.08E+07	1.05 Y	1.24	1.28	2.8%
PCB-180/193 ...-HpCB	39.71	2.04E+07	1.05 Y	1.16	1.20	4.0%
PCB-191 233'44'5'6-HpCB	40.04	1.13E+07	1.06 Y	1.30	1.33	2.2%
PCB-170 22'33'44'5-HpCB	40.79	7.97E+06	1.06 Y	1.07	1.10	2.2%
PCB-190 233'44'56-HpCB	41.24	1.10E+07	1.05 Y	1.45	1.51	4.2%
PCB-202 22'33'55'66'-OcCB	37.41	9.04E+06	0.90 Y	0.91	-	-
PCB-201 22'33'45'66'-OcCB	38.19	1.01E+07	0.91 Y	1.02	1.05	3.2%
PCB-204 22'344'566'-OcCB	38.76	9.61E+06	0.88 Y	0.98	1.00	2.7%
PCB-197 22'33'44'66'-OcCB	38.95	1.05E+07	0.91 Y	1.06	1.10	3.3%
PCB-200 22'33'4566'-OcCB	39.03	9.56E+06	0.91 Y	0.96	1.00	3.9%
PCB-198/199 ...-OcCB	41.37	1.36E+07	0.89 Y	0.72	0.71	-0.8%
PCB-196 22'33'44'56'-OcCB	41.93	7.17E+06	0.89 Y	0.73	0.75	2.5%
PCB-203 22'344'55'6-OcCB	42.10	7.53E+06	0.92 Y	0.76	0.79	2.9%
PCB-195 22'33'44'56-OcCB	43.20	6.29E+06	0.93 Y	0.80	0.77	-3.8%
PCB-194 22'33'44'55'-OcCB	45.17	7.04E+06	0.92 Y	0.87	0.86	-1.6%
PCB-205 233'44'55'6-OcCB	45.56	8.88E+06	0.94 Y	1.09	-	-
PCB-208 22'33'455'66'-NoCB	43.01	8.21E+06	0.76 Y	1.02	-	-
PCB-207 22'33'44'566'-NoCB	43.79	8.51E+06	0.76 Y	1.06	1.02	-3.5%
PCB-206 22'33'44'55'6-NoCB	47.02	5.84E+06	0.75 Y	0.98	-	-

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X01**



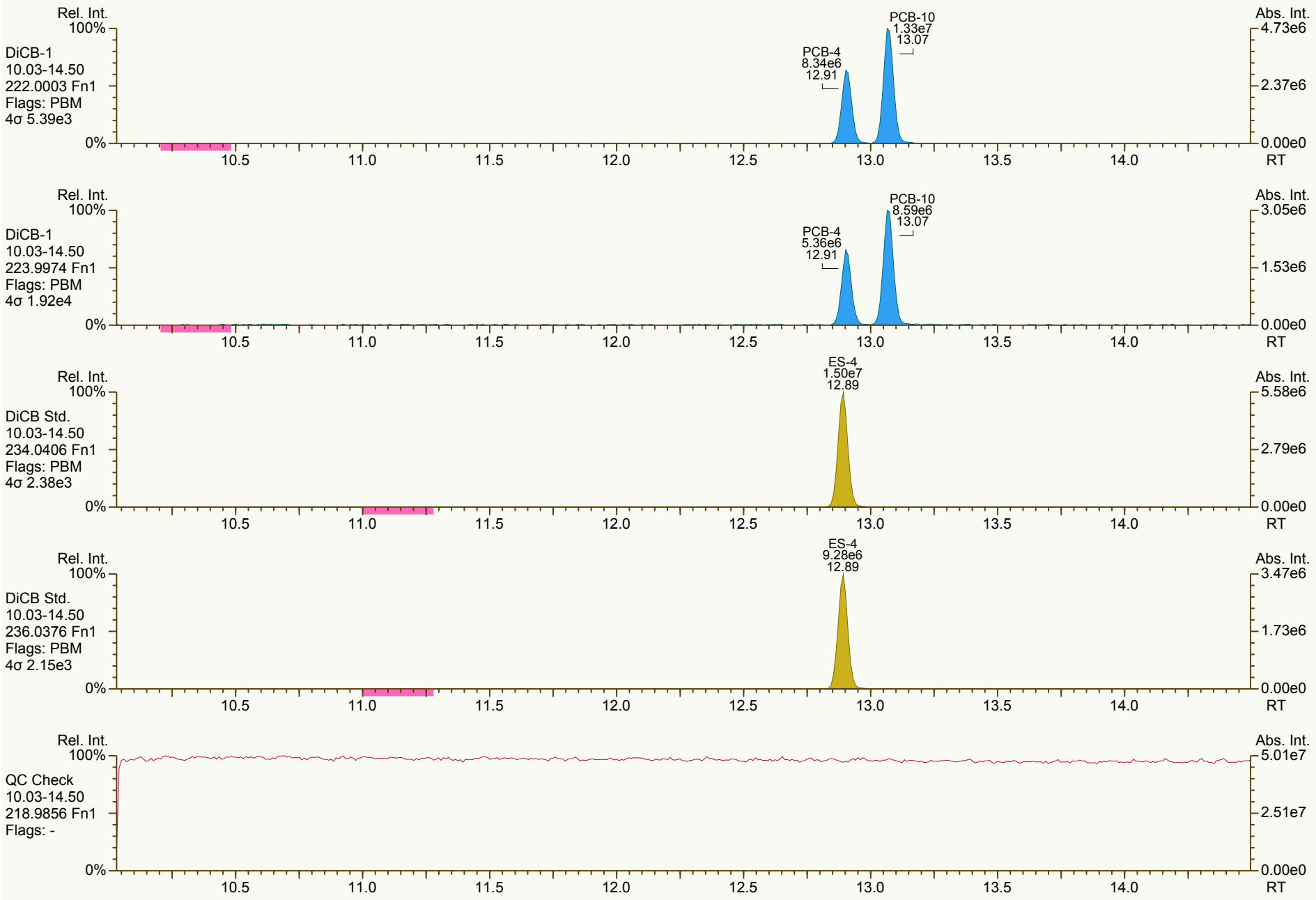
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\CS3_121214_PCB_XA.utp_res, saved 16-Dec-2012 14:41 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 773-102 *PKD: n/a Printed: 16-Dec-2012 14:44 Page 1 of 21*

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X01**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\CS3_121214_PCB_XA.utp_res, saved 16-Dec-2012 14:41 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7029, 0807 scc: 773-102 *PKD: 14-Dec-2012 09:05 Printed: 16-Dec-2012 14:44 Page 2 of 21*

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X01**



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SGS-AP ID: CS3_121214_PCB_XA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 03:58:34
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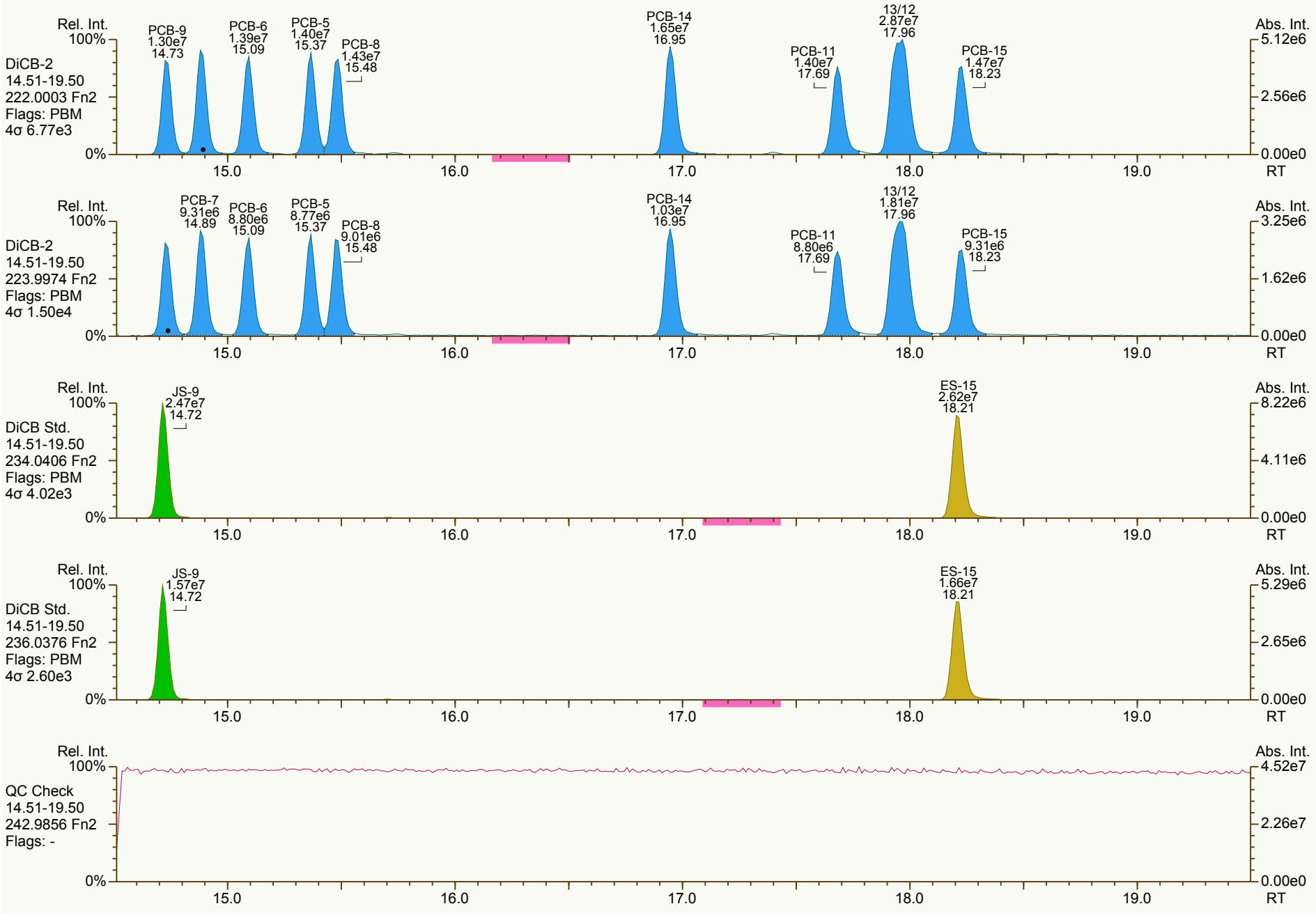

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SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
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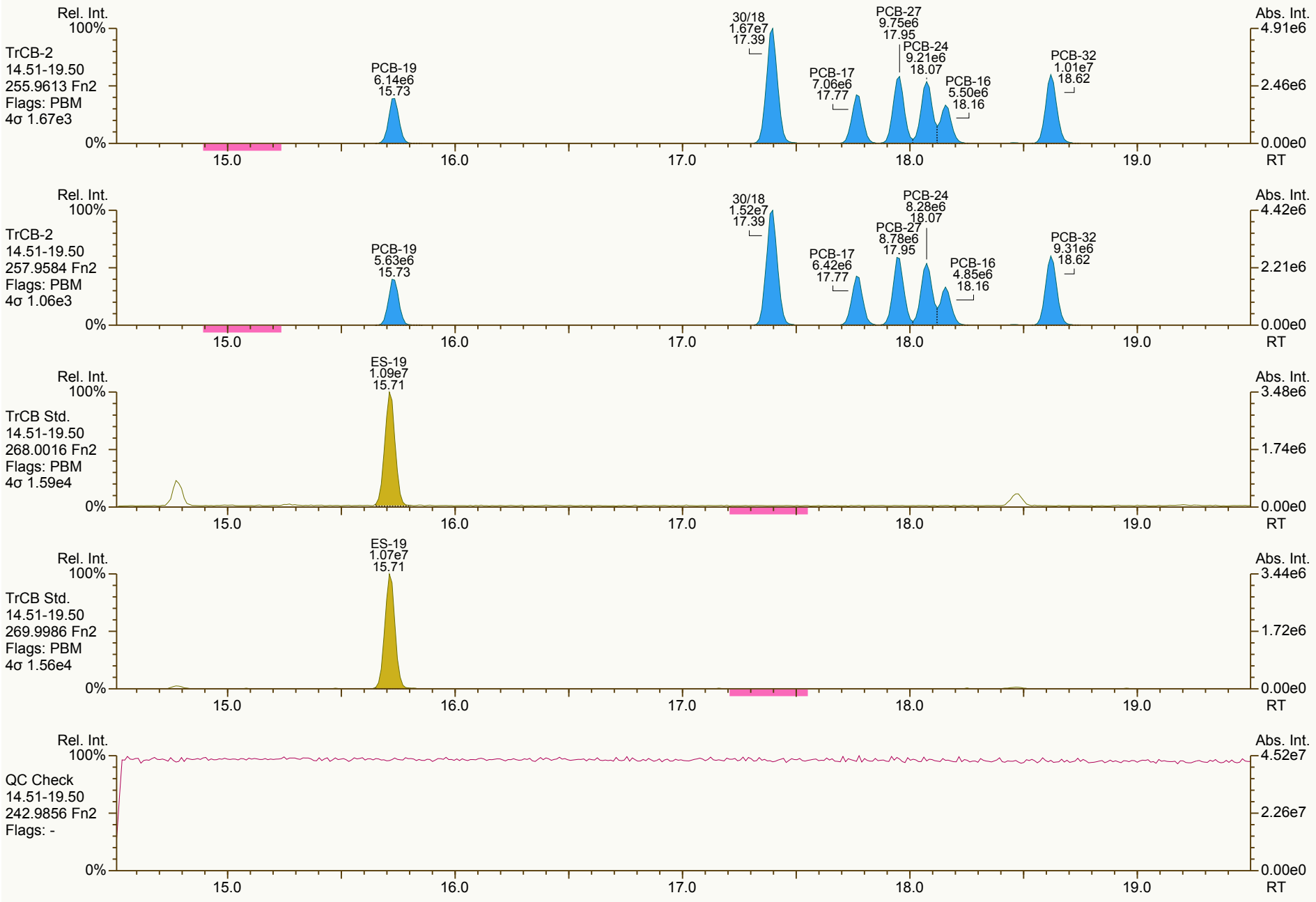

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SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X01**



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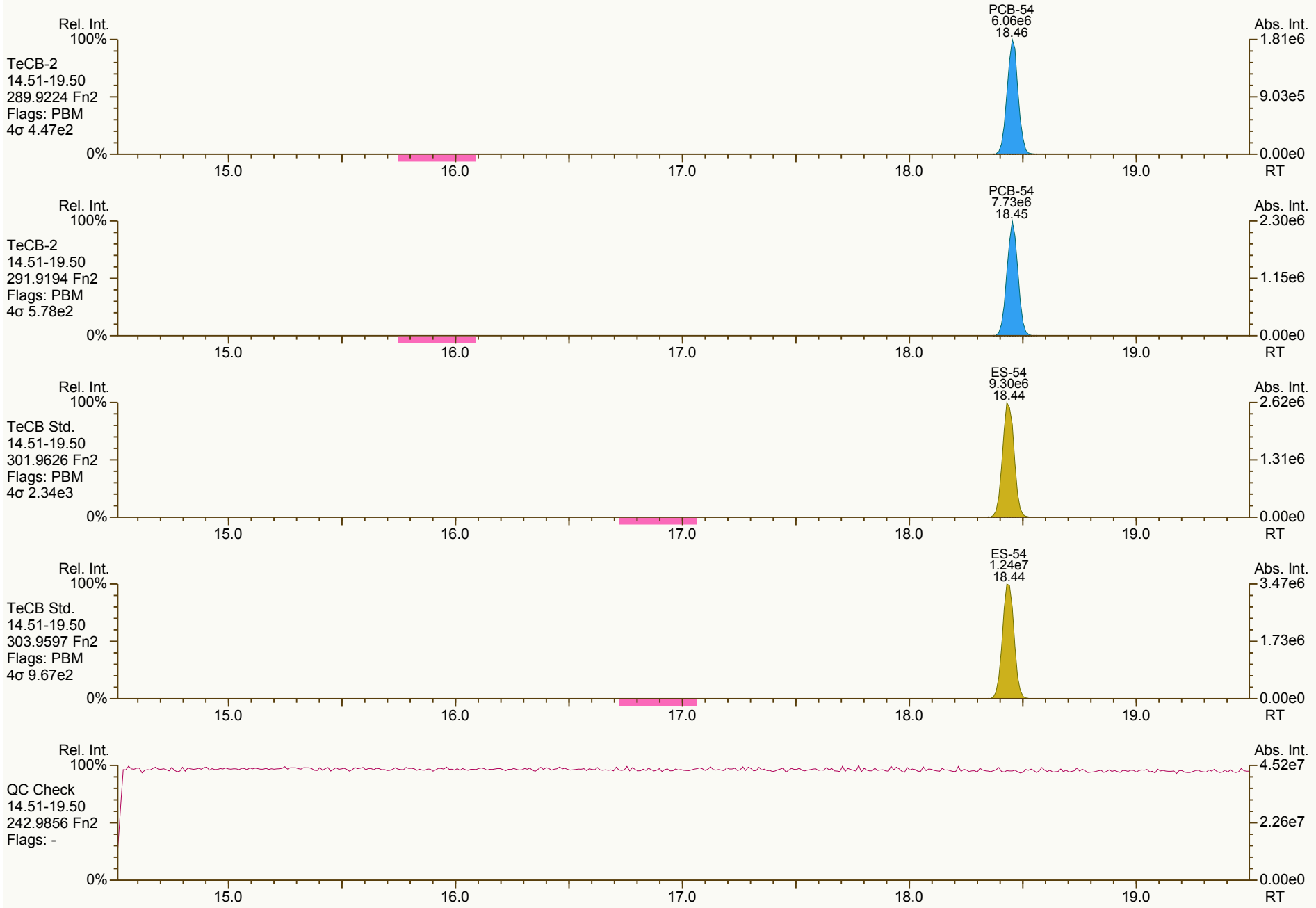
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9344, 9133 scc: 773-102 *PKD: 14-Dec-2012 09:05 Printed: 16-Dec-2012 14:44 Page 6 of 21*

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X01**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6906, 6585 scc: 773-102 *PKD: 14-Dec-2012 09:05 Printed: 16-Dec-2012 14:44 Page 7 of 21*

SGS-AP ID: CS3_121214_PCB_XA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 03:58:34
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04 | User: LKB Datafile: 121214X01



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\CS3_121214_PCB_XA.utp_res, saved 16-Dec-2012 14:41 (LKB)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2939, 6945 scc: 773-102
PKD: 14-Dec-2012 09:05 Printed: 16-Dec-2012 14:44 Page 8 of 21

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
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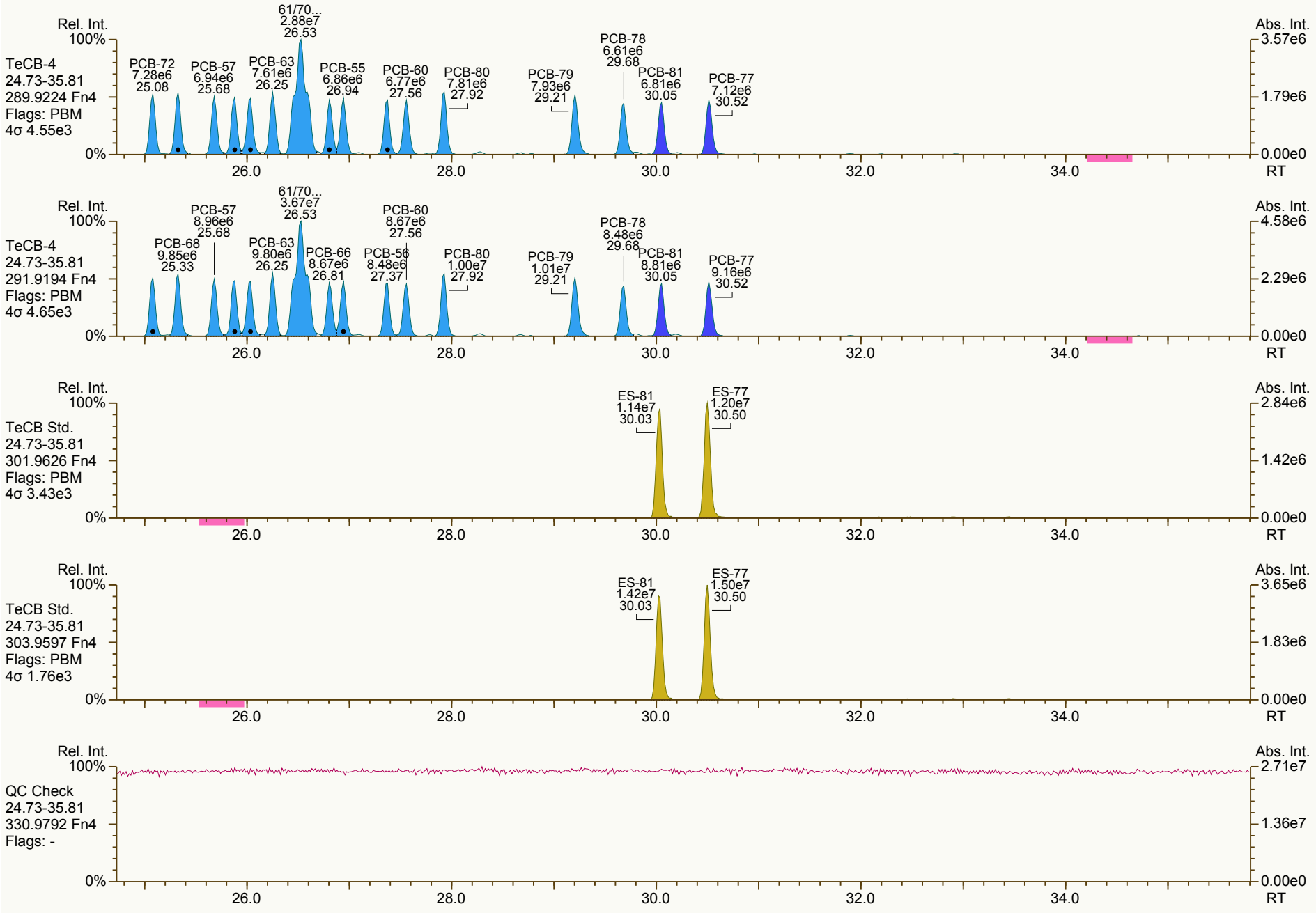

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SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
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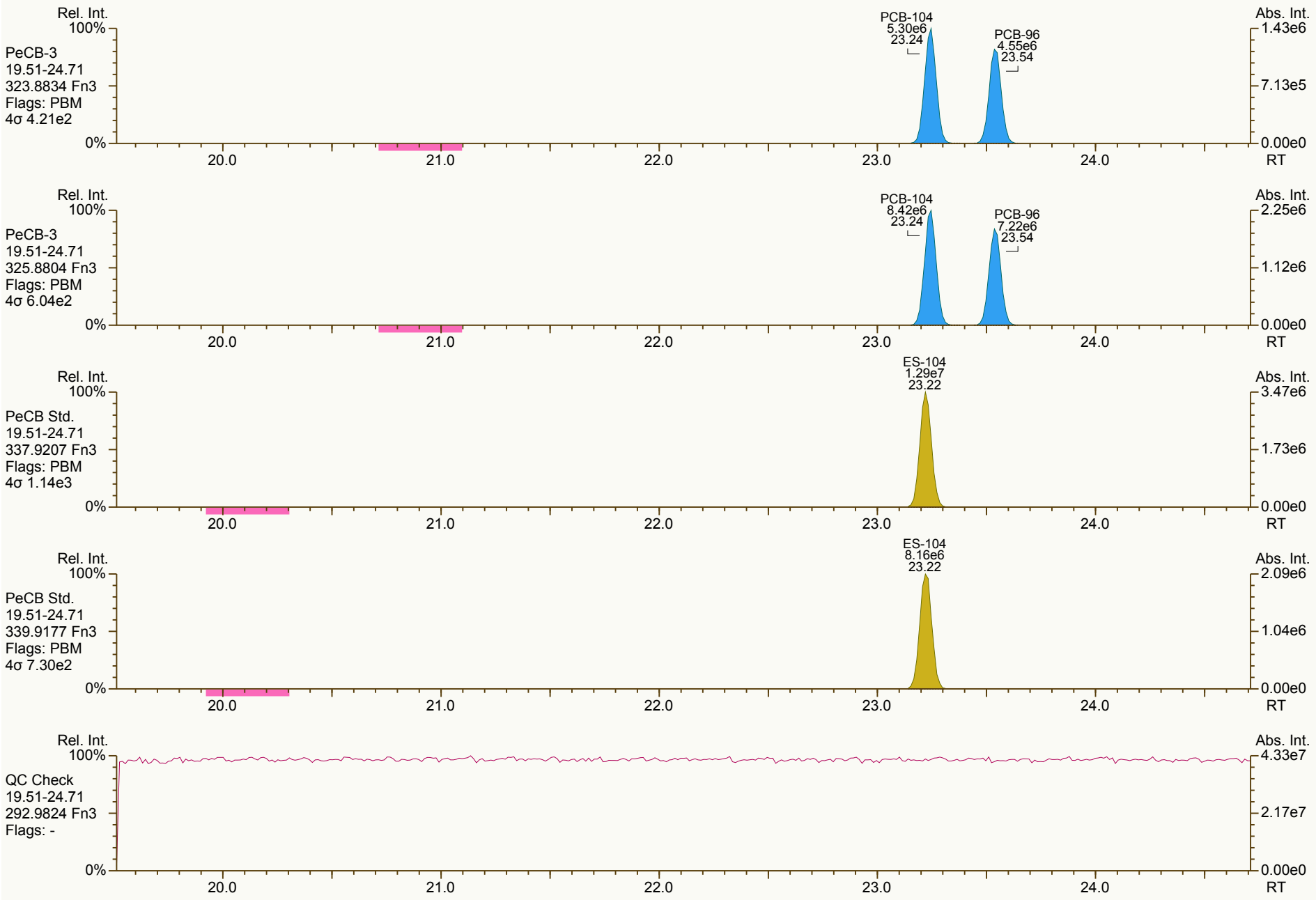

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SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
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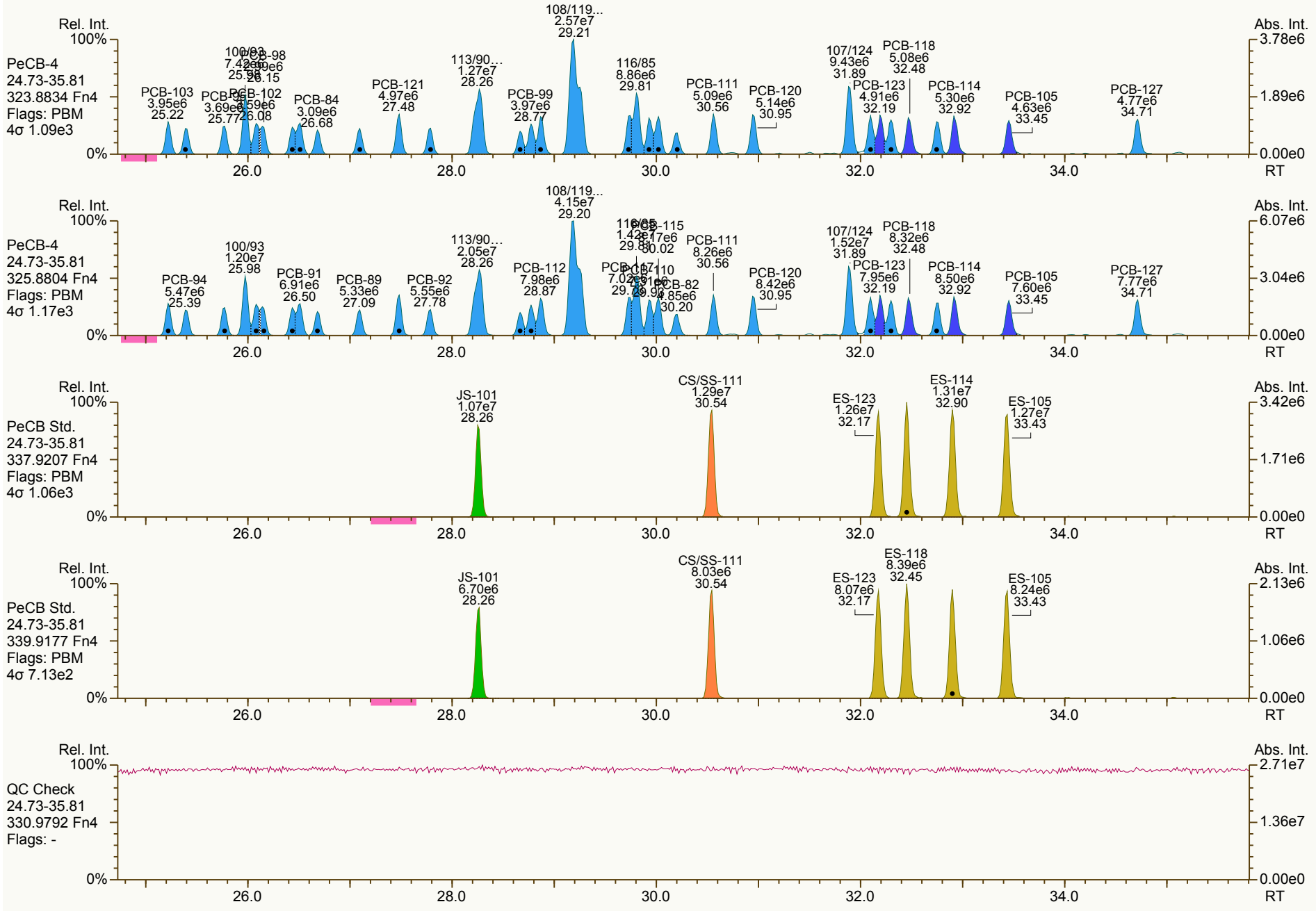

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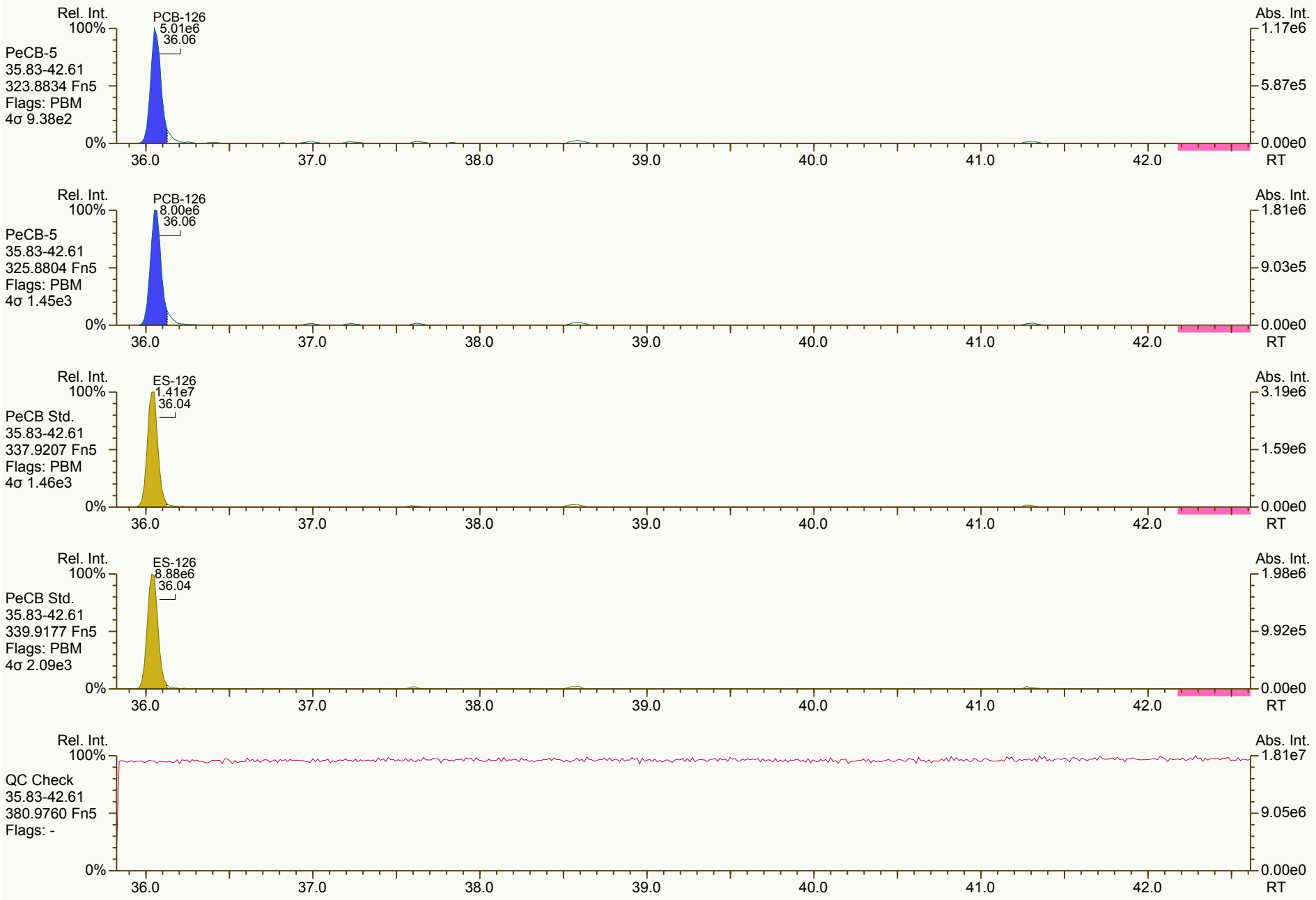
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5851, 7651 scc: 773-102 *PKD: 14-Dec-2012 09:07 Printed: 16-Dec-2012 14:44 Page 11 of 21*

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X01**



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SGS-AP ID: CS3_121214_PCB_XA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 03:58:34
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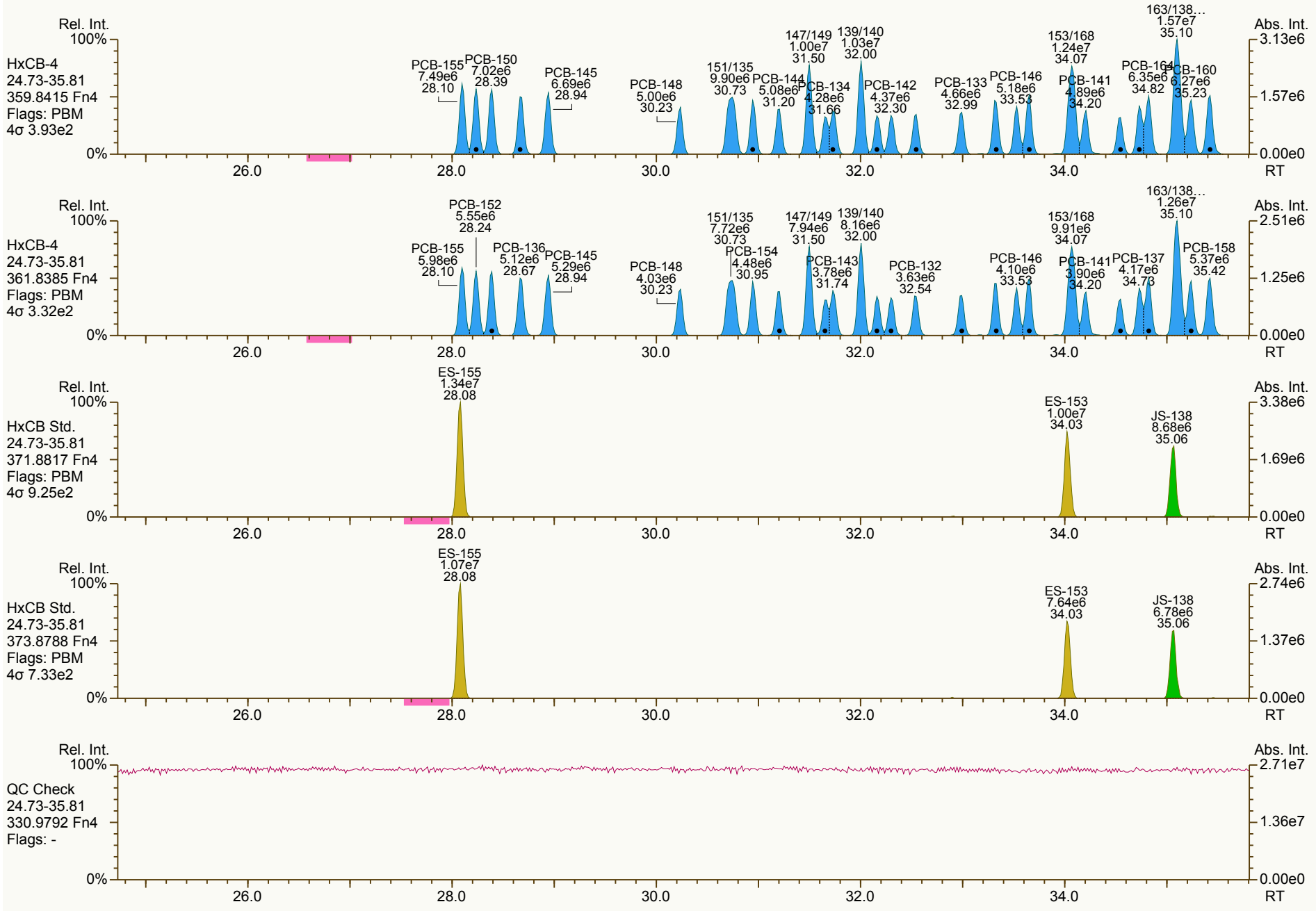

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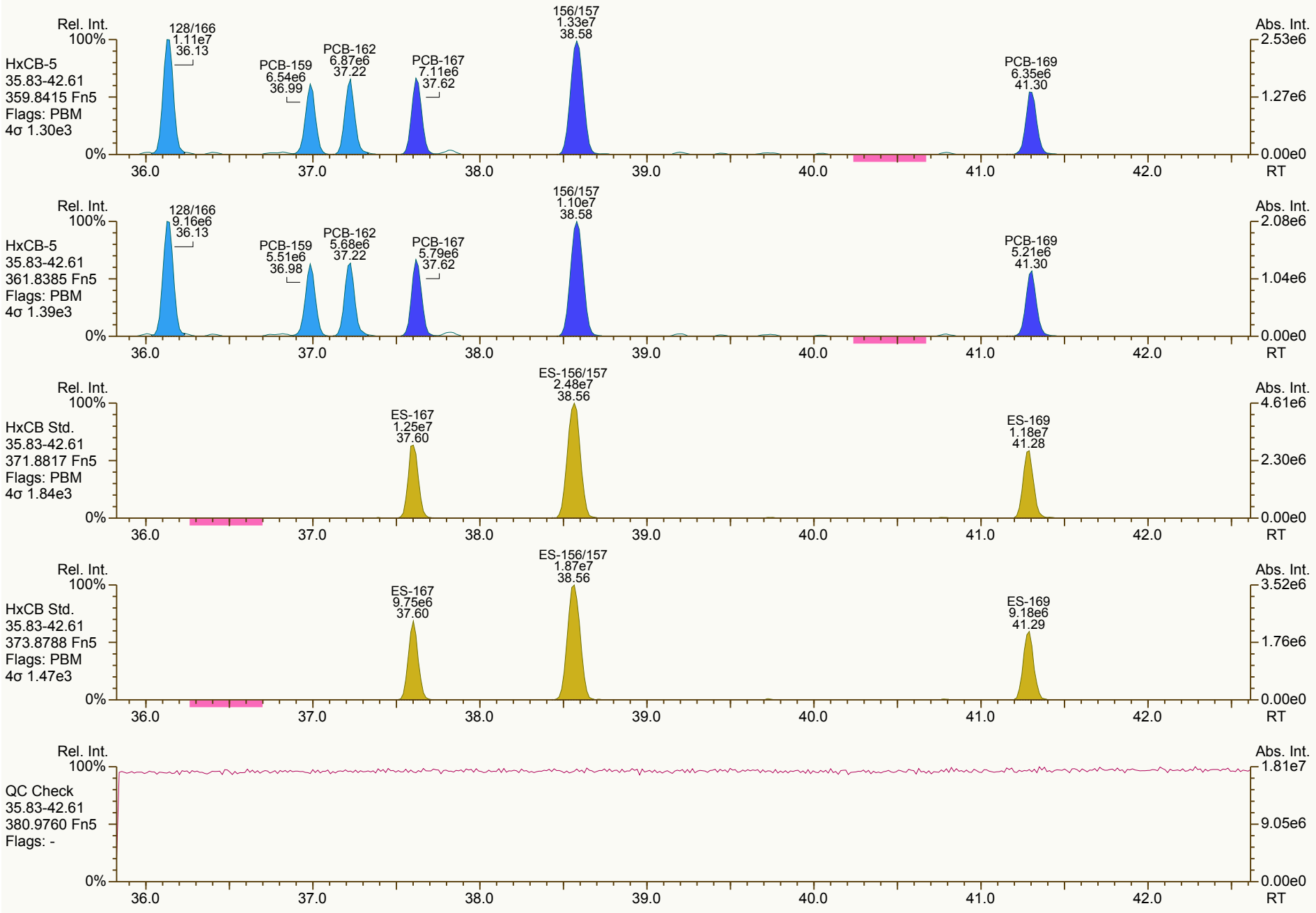
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8456, 1116 scc: 773-102
PKD: 14-Dec-2012 09:05 Printed: 16-Dec-2012 14:45 Page 13 of 21

SGS-AP ID: CS3_121214_PCB_XA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 03:58:34
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04 | User: LKB Datafile: 121214X01



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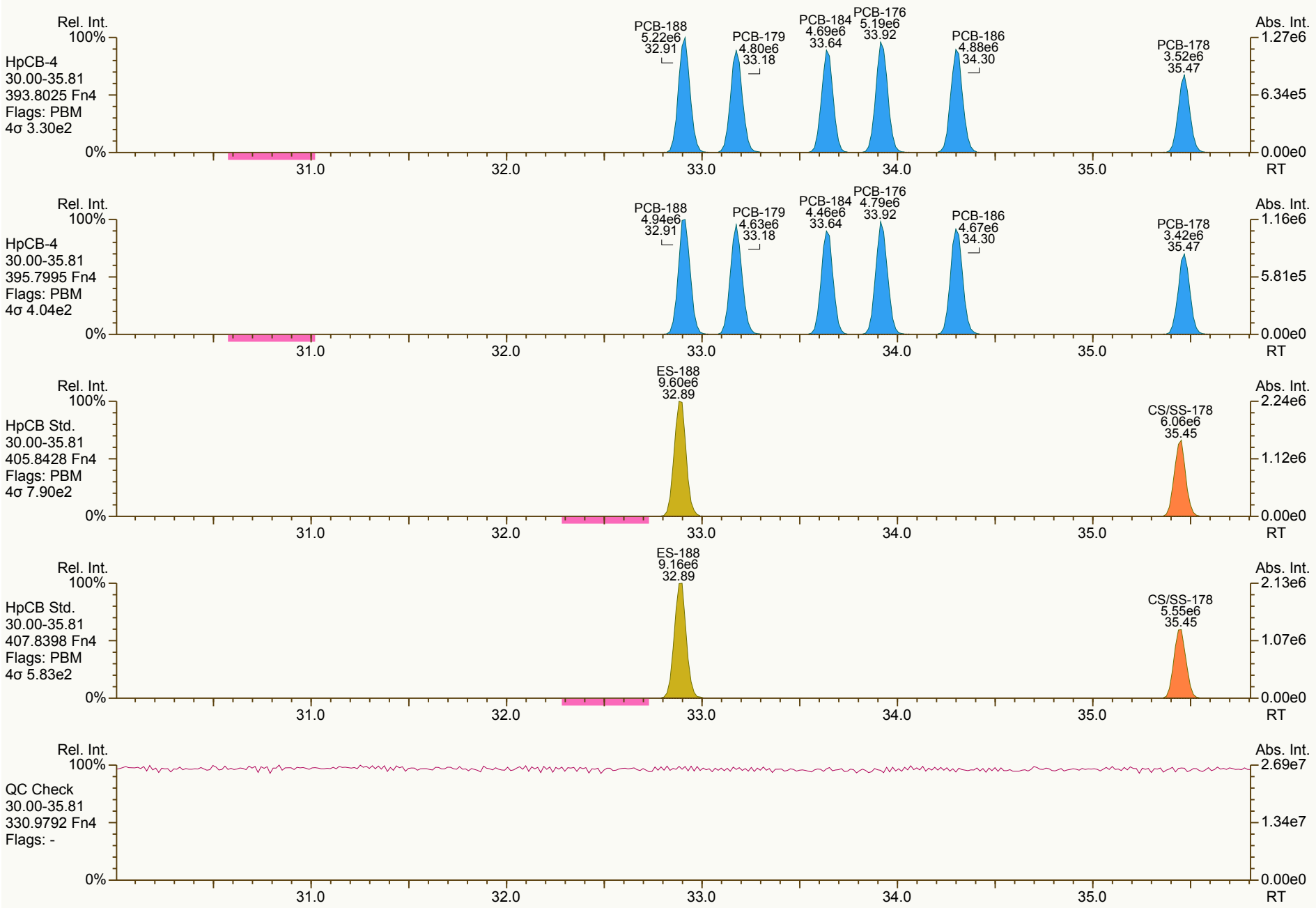
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2483, 7403 scc: 773-102 *PKD: 14-Dec-2012 09:05 Printed: 16-Dec-2012 14:45 Page 14 of 21*

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X01**



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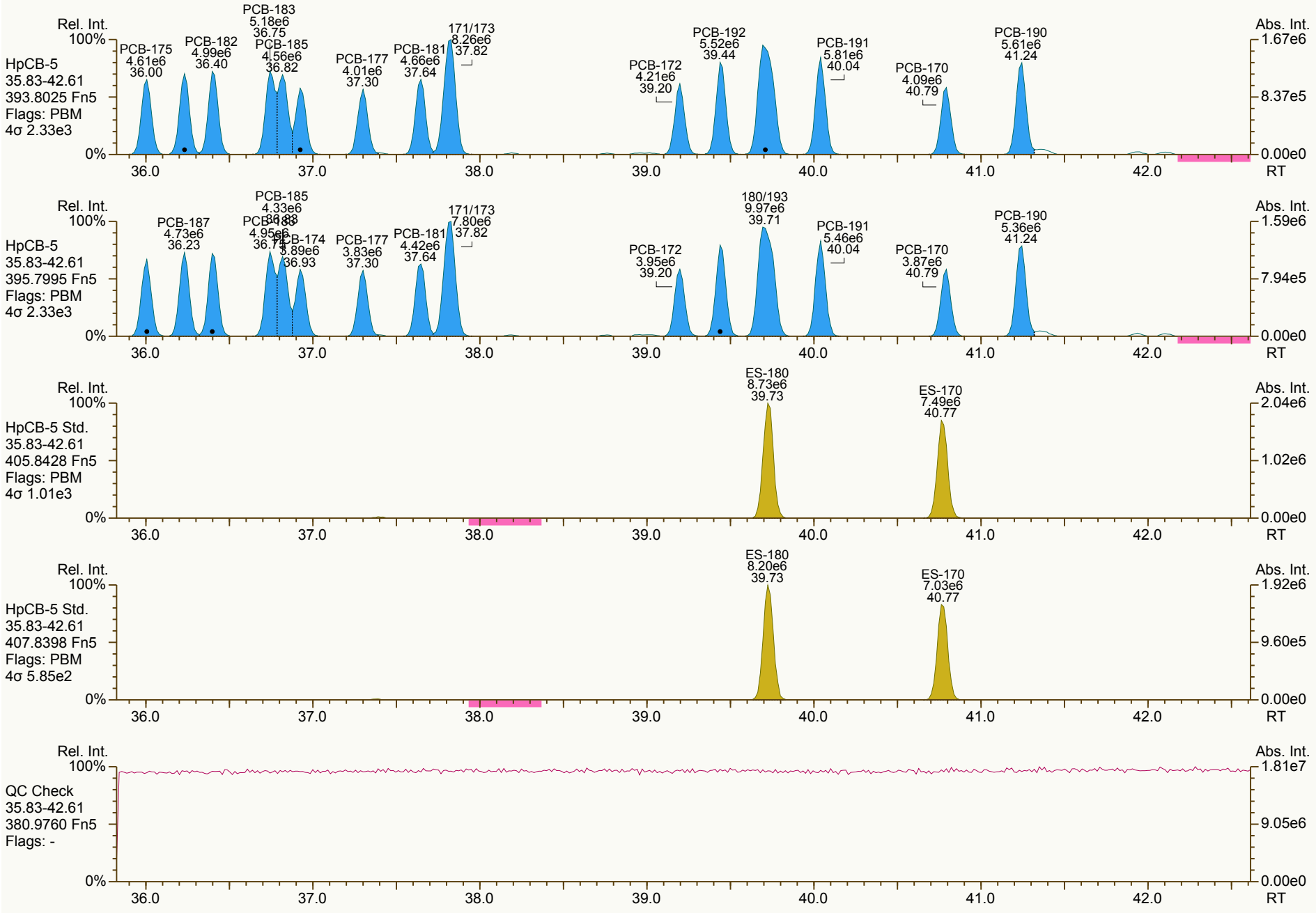
SGS-AP ID: CS3_121214_PCB_XA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 03:58:34
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04 | User: LKB Datafile: 121214X01



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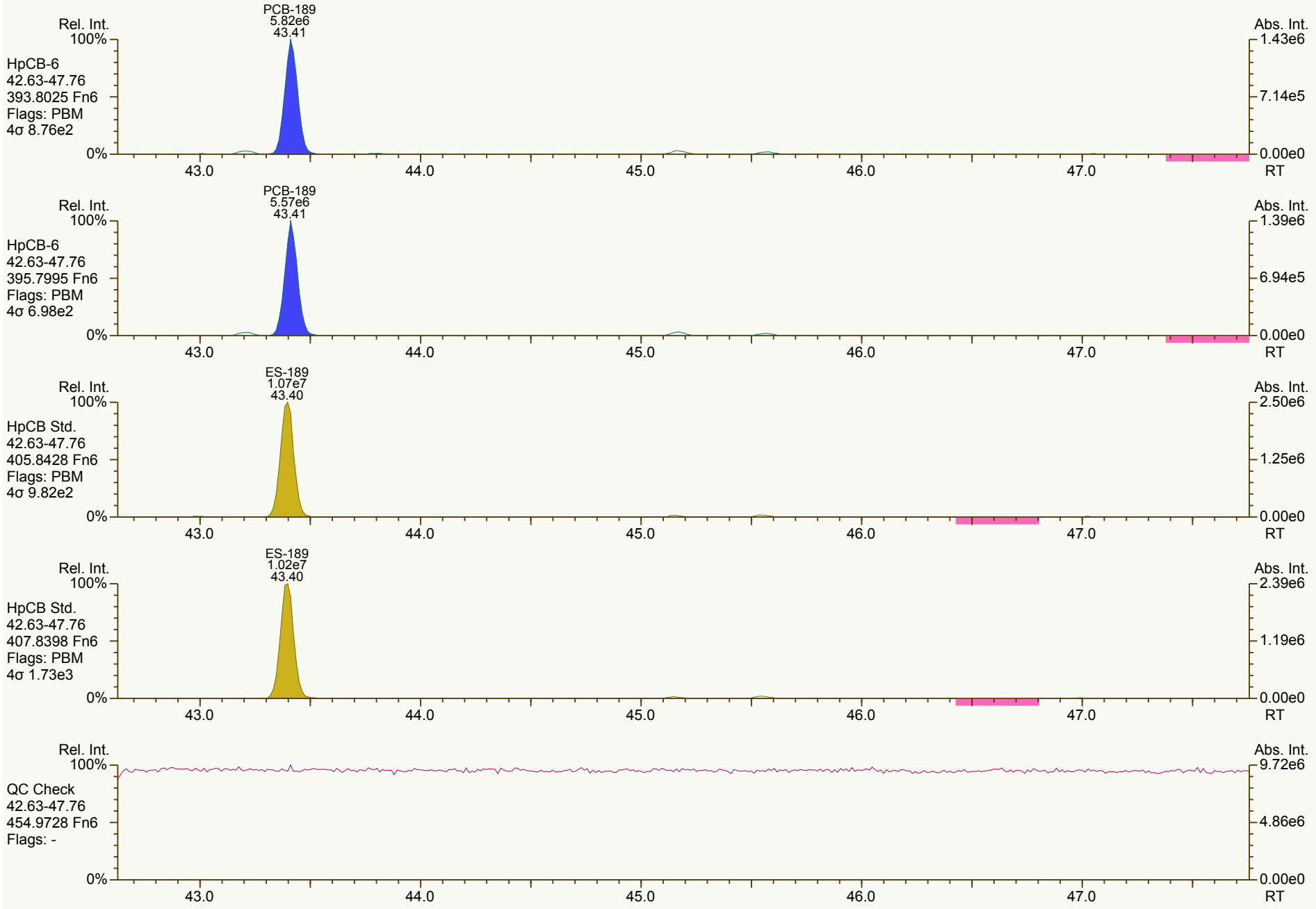
SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X01**



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SGS-AP ID: CS3_121214_PCB_XA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 03:58:34
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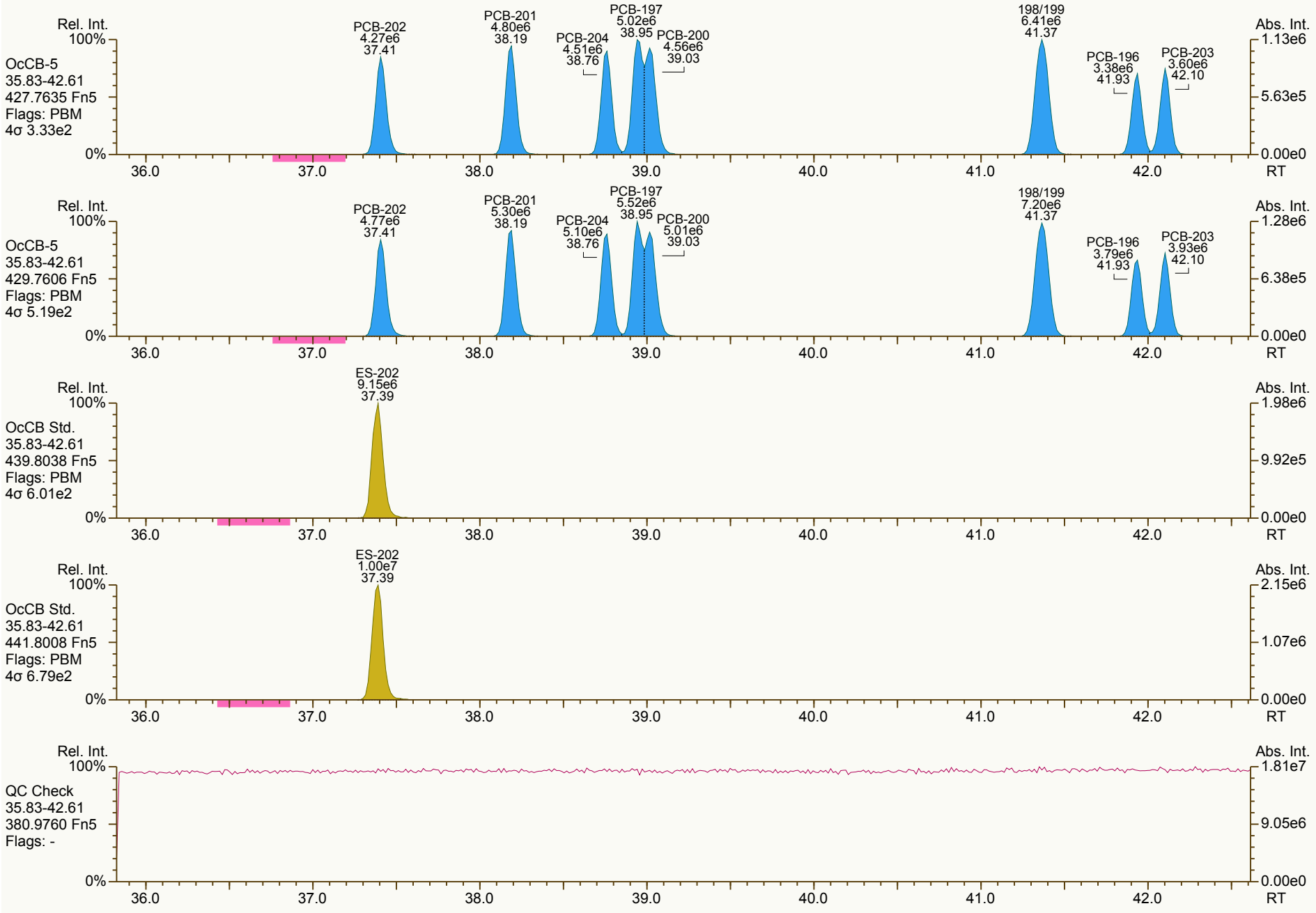

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Peak annotation: Areas, Centroids

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
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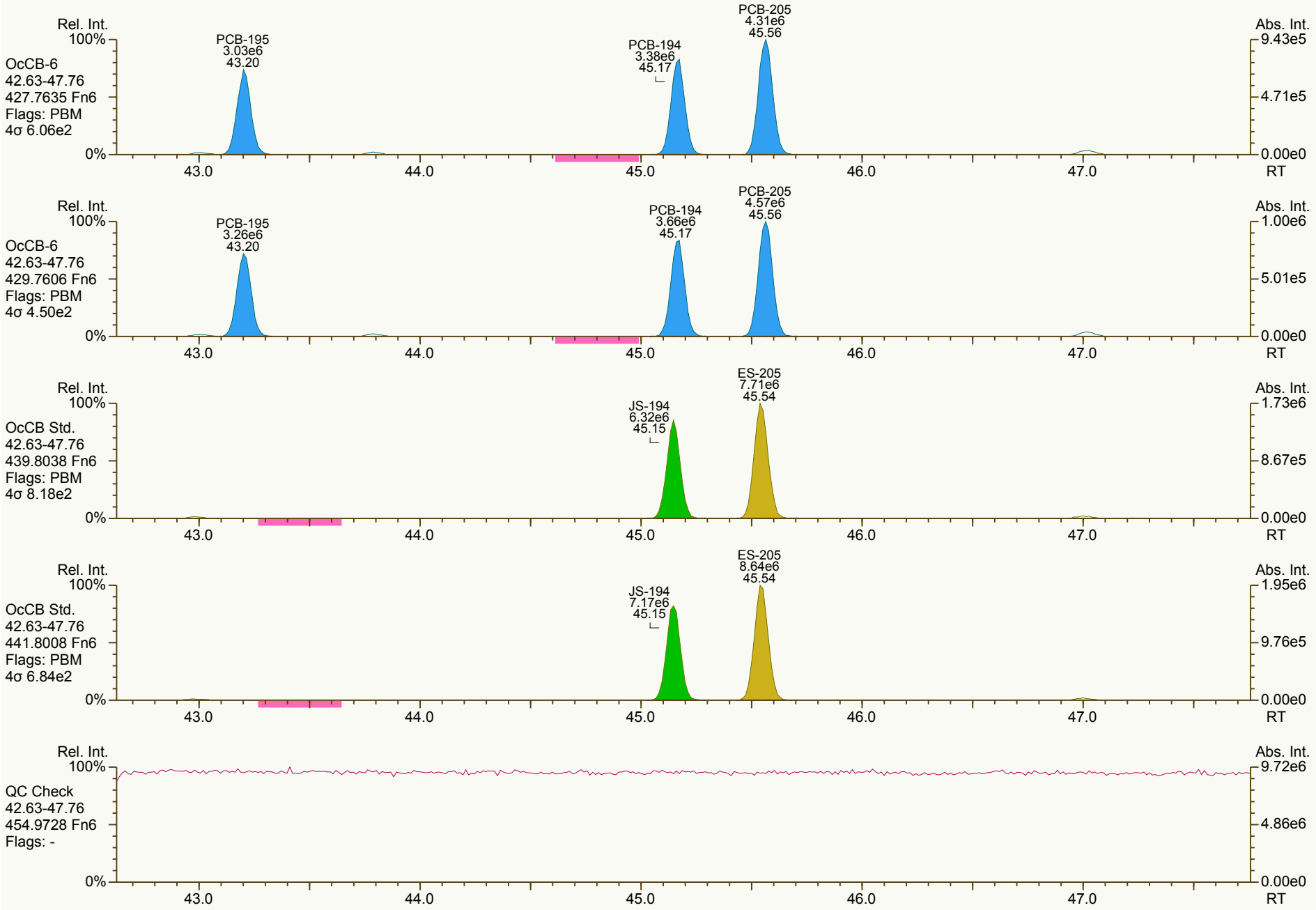

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5678, 0755 scc: 773-102 *PKD: 14-Dec-2012 09:05 Printed: 16-Dec-2012 14:45 Page 19 of 21*

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
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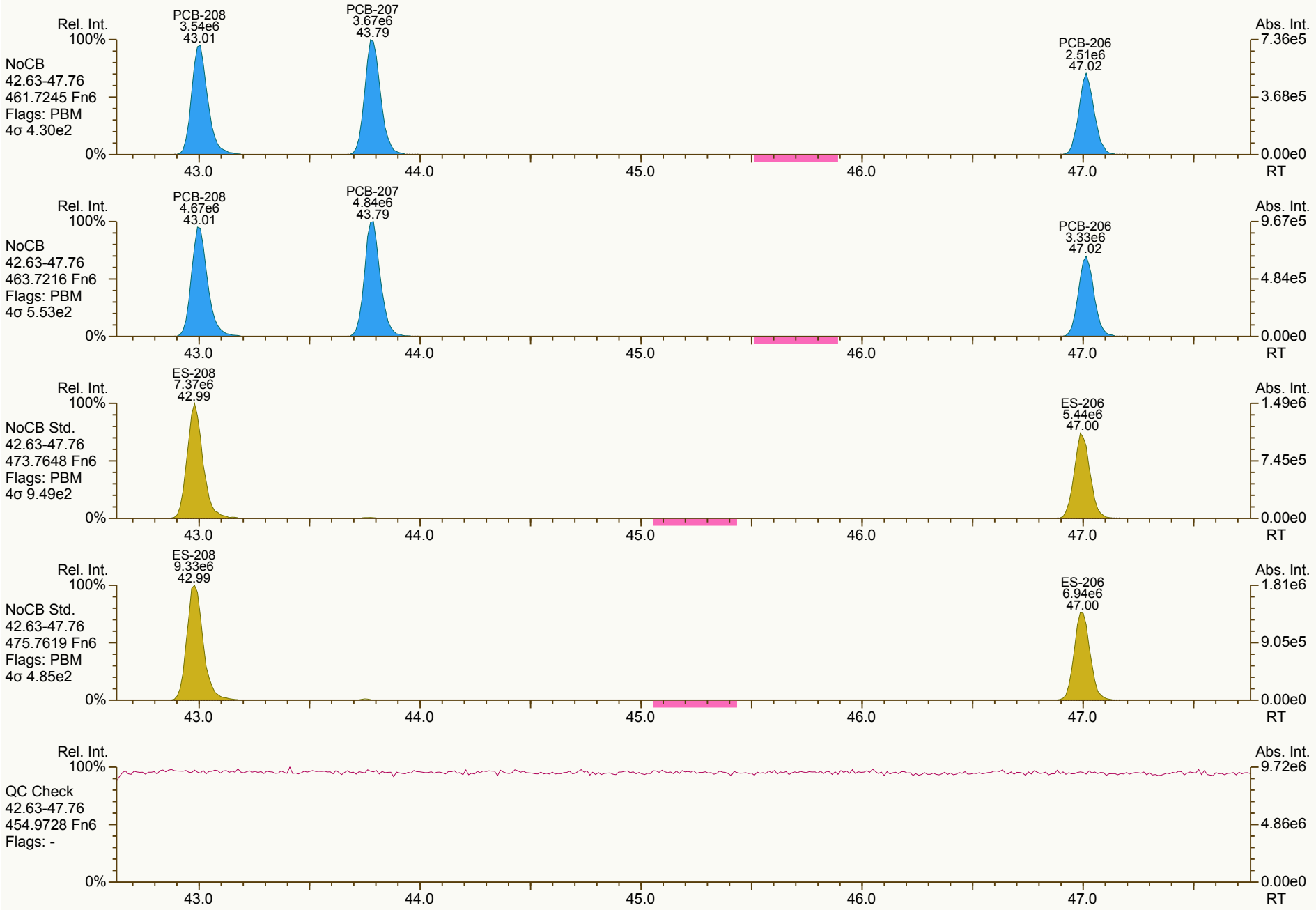

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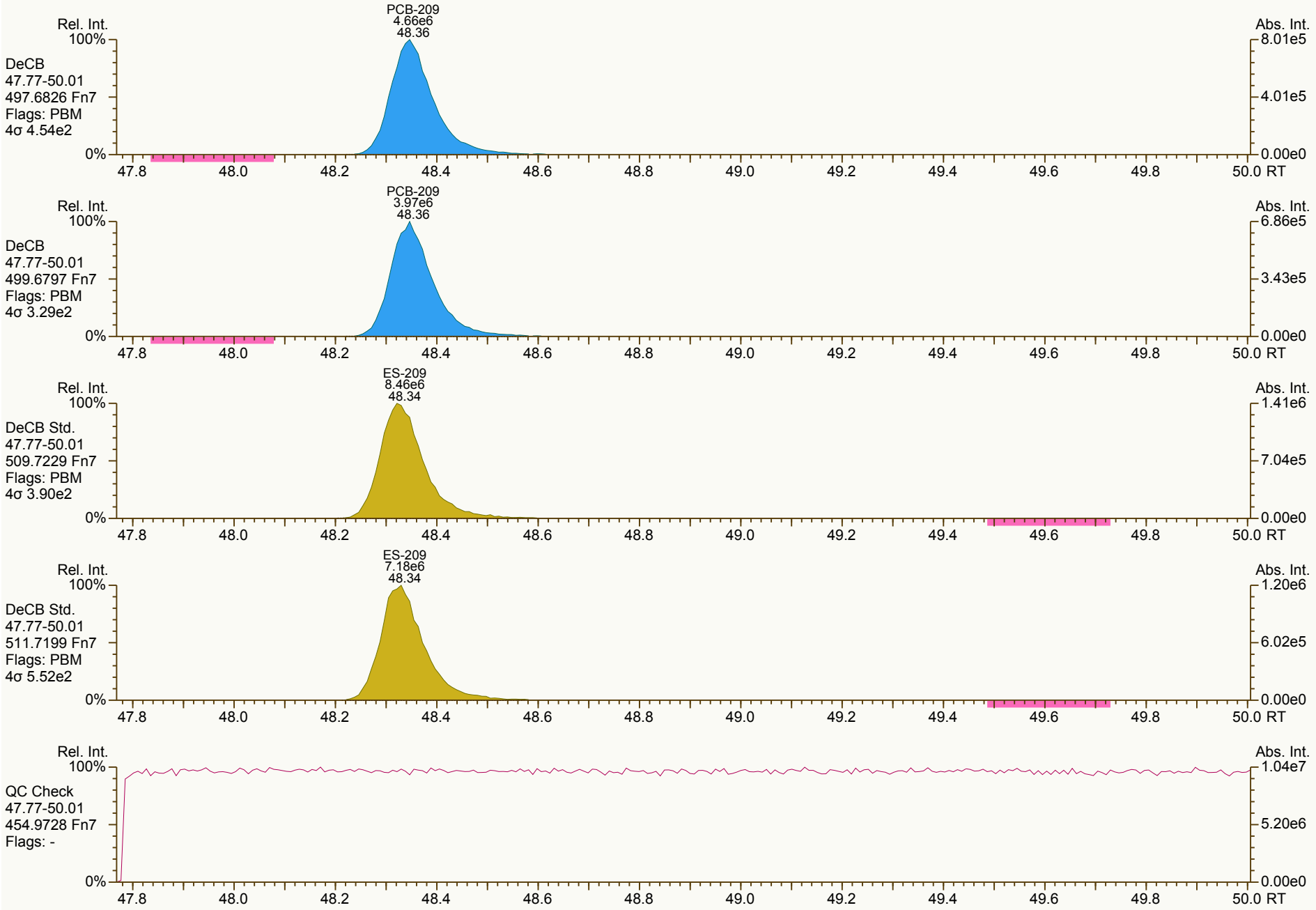
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2326, 4072 scc: 773-102 *PKD: 14-Dec-2012 09:05 Printed: 16-Dec-2012 14:45 Page 20 of 21*

SGS-AP ID: CS3_121214_PCB_XA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 03:58:34**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X01**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4168, 2726 scc: 773-102 *Revised: 14-Dec-2012 09:05 (LKB) Printed: 16-Dec-2012 14:45 Page 21 of 21*

PCB QC Summary	SGS Analytical Perspectives			Processed: 16-Dec-2012 13:39		
Lab ID:	**CS3_121214_PCB_XB**					
Acquired:	**14-DEC-2012 13:02**			**ICAL: MM7_PCB_07132012_25JUL12**		
Datafile:	**121214X10**					
Name	**RT**	**Response**	**RA**	**ICAL**	**RRF**	**Dev'n**
PCB-77 33'44'-TeCB	30.53	1.36E+07	0.79 Y	1.13	1.20	5.7%
PCB-81 344'5-TeCB	30.06	1.29E+07	0.77 Y	1.13	1.19	6.0%
PCB-105 233'44'-PeCB	33.46	1.06E+07	0.60 Y	1.09	1.19	8.6%
PCB-114 2344'5-PeCB	32.93	1.16E+07	0.61 Y	1.16	1.27	9.2%
PCB-118 23'44'5-PeCB	32.48	1.13E+07	0.62 Y	1.11	1.22	10.6%
PCB-123 23'44'5'-PeCB	32.20	1.07E+07	0.62 Y	1.19	1.21	1.8%
PCB-126 33'44'5-PeCB	36.07	1.05E+07	0.63 Y	1.06	1.12	5.1%
PCB-156/157 ...-HxCB	38.59	2.15E+07	1.21 Y	1.11	1.09	-2.0%
PCB-167 23'44'55'-HxCB	37.63	1.14E+07	1.19 Y	1.14	1.10	-3.1%
PCB-169 33'44'55'-HxCB	41.31	9.74E+06	1.25 Y	1.11	1.08	-2.4%
PCB-189 233'44'55'-HpCB	43.42	9.86E+06	1.05 Y	1.06	1.08	2.1%
PCB-209 DeCB	48.36	6.84E+06	1.17 Y	1.07	1.09	1.4%
ES PCB-1	10.63	4.14E+07	3.15 Y	1.08	1.22	12.5%
ES PCB-3	12.69	3.80E+07	3.23 Y	1.08	1.12	3.0%
ES PCB-4	12.90	2.08E+07	1.59 Y	0.49	0.61	25.1%
ES PCB-15	18.23	3.52E+07	1.57 Y	1.11	1.03	-6.9%
ES PCB-19	15.72	1.87E+07	1.05 Y	0.55	0.55	-0.6%
ES PCB-37	24.30	2.75E+07	1.11 Y	1.64	1.45	-11.5%
ES PCB-54	18.45	1.87E+07	0.73 Y	0.94	0.99	4.7%
ES PCB-77	30.51	2.26E+07	0.78 Y	1.35	1.19	-11.5%
ES PCB-81	30.04	2.16E+07	0.78 Y	1.29	1.14	-11.4%
ES PCB-104	23.23	1.80E+07	1.59 Y	0.99	1.24	25.0%
ES PCB-105	33.44	1.79E+07	1.60 Y	1.23	1.24	0.1%
ES PCB-114	32.91	1.83E+07	1.60 Y	1.25	1.26	1.2%
ES PCB-118	32.46	1.84E+07	1.59 Y	1.28	1.27	-0.7%
ES PCB-123	32.18	1.76E+07	1.56 Y	1.22	1.22	-0.1%
ES PCB-126	36.05	1.89E+07	1.60 Y	1.20	1.30	8.8%
ES PCB-153	34.03	1.56E+07	1.27 Y	1.14	1.16	1.9%
ES PCB-155	28.09	2.10E+07	1.25 Y	1.50	1.57	4.7%
ES PCB-156/157	38.57	3.96E+07	1.30 Y	1.45	1.48	1.4%
ES PCB-167	37.61	2.07E+07	1.34 Y	1.49	1.54	3.2%
ES PCB-169	41.29	1.80E+07	1.35 Y	1.40	1.34	-4.6%
ES PCB-170	40.78	1.34E+07	1.01 Y	1.00	1.13	12.7%
ES PCB-180	39.73	1.51E+07	1.07 Y	1.16	1.27	10.0%
ES PCB-188	32.90	1.64E+07	1.06 Y	1.18	1.22	3.8%
ES PCB-189	43.40	1.83E+07	1.05 Y	1.49	1.54	3.8%
ES PCB-202	37.40	1.72E+07	0.91 Y	1.14	1.28	13.0%
ES PCB-205	45.55	1.36E+07	0.88 Y	1.20	1.14	-4.8%
ES PCB-206	47.00	1.05E+07	0.79 Y	0.87	0.89	1.8%
ES PCB-208	42.99	1.46E+07	0.80 Y	1.19	1.23	3.4%
ES PCB-209	48.34	1.26E+07	1.20 Y	1.00	1.06	5.8%

PCB QC Summary	SGS Analytical Perspectives				Processed: 16-Dec-2012 13:39
Lab ID:	**CS3_121214_PCB_XB**			**ICAL: MM7_PCB_07132012_25JUL12**	
Acquired:	**14-DEC-2012 13:02**				
Datafile:	**121214X10**				
Name	**RT**	**Response**	**RA**	**ICAL**	**RRF**	**Dev'n**
SS PCB-28	20.86	3.16E+07	1.10 Y	1.07	1.15	7.1%
SS PCB-111	30.55	1.79E+07	1.65 Y	1.01	1.02	1.0%
SS PCB-178	35.45	1.02E+07	1.04 Y	0.63	0.62	-1.1%
CS PCB-28	20.86	3.16E+07	1.10 Y	1.76	1.67	-5.3%
CS PCB-111	30.55	1.79E+07	1.65 Y	1.23	1.24	1.0%
CS PCB-178	35.45	1.02E+07	1.04 Y	0.74	0.76	2.7%
JS PCB-9	14.73	3.40E+07	1.57 Y		-	-
JS PCB-52	22.42	1.90E+07	0.78 Y		-	-
JS PCB-101	28.27	1.45E+07	1.60 Y		-	-
JS PCB-138	35.07	1.34E+07	1.26 Y		-	-
JS PCB-194	45.15	1.18E+07	0.90 Y		-	-
PCB-1 2-MoCB	10.64	2.20E+07	3.26 Y	1.03	1.06	2.7%
PCB-3 4-MoCB	12.70	2.07E+07	3.25 Y	1.04	1.09	4.7%
PCB-4 22'-DiCB	12.91	1.16E+07	1.56 Y	1.17	1.12	-4.6%
PCB-15 44'-DiCB	18.24	1.98E+07	1.57 Y	1.08	1.13	4.1%
PCB-19 22'6-TrCB	15.74	1.01E+07	1.10 Y	1.09	1.08	-1.5%
PCB-37 344'-TrCB	24.32	1.62E+07	1.05 Y	1.10	1.18	7.2%
PCB-54 22'66'-TeCB	18.47	1.18E+07	0.78 Y	1.21	1.26	4.1%
PCB-104 22'466'-PeCB	23.26	1.16E+07	0.62 Y	1.25	1.29	2.6%
PCB-155 22'44'66'-HxCB	28.11	1.14E+07	1.27 Y	1.09	1.08	-0.5%
PCB-188 22'34'566'-HpCB	32.92	8.77E+06	1.07 Y	1.03	1.07	3.4%
PCB-202 22'33'55'66'-OcCB	37.42	8.05E+06	0.90 Y	0.91	0.93	2.1%
PCB-205 233'44'55'6-OcCB	45.57	7.33E+06	0.93 Y	1.09	1.08	-0.6%
PCB-208 22'33'455'66'-NoCB	43.01	7.23E+06	0.76 Y	1.02	0.99	-2.5%
PCB-206 22'33'44'55'6-NoCB	47.02	4.86E+06	0.75 Y	0.98	0.93	-5.2%

PCB QC Summary - Ax2 Detail

Processed: 16-Dec-2012 13:39

Lab ID: CS3_121214_PCB_XB
Acquired: 14-DEC-2012 13:02
Datafile: 121214X10
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA		RRF	
PCB-1 2-MoCB	10.64	2.20E+07	3.26 Y	1.03	-	-
PCB-2 3-MoCB	12.54	2.05E+07	3.23 Y	1.04	1.08	3.9%
PCB-3 4-MoCB	12.70	2.07E+07	3.25 Y	1.04	-	-
PCB-4 22'-DiCB	12.91	1.16E+07	1.56 Y	1.17	-	-
PCB-10 26-DiCB	13.08	1.85E+07	1.57 Y	1.83	1.78	-3.0%
PCB-9 25-DiCB	14.74	1.75E+07	1.59 Y	0.89	1.00	11.3%
PCB-7 24-DiCB	14.90	2.03E+07	1.58 Y	1.02	1.15	12.5%
PCB-6 23'-DiCB	15.10	1.90E+07	1.59 Y	0.95	1.08	13.8%
PCB-5 23-DiCB	15.38	1.90E+07	1.61 Y	0.97	1.08	11.2%
PCB-8 24'-DiCB	15.49	1.97E+07	1.63 Y	0.98	1.12	14.0%
PCB-14 35-DiCB	16.96	2.22E+07	1.57 Y	1.16	1.26	9.2%
PCB-11 33'-DiCB	17.70	1.93E+07	1.59 Y	1.00	1.10	9.7%
PCB-13/12 34'/34-DiCB	17.97	3.87E+07	1.57 Y	1.02	1.10	8.1%
PCB-15 44'-DiCB	18.24	1.98E+07	1.57 Y	1.08	-	-
PCB-19 22'6-TrCB	15.74	1.01E+07	1.10 Y	1.09	-	-
PCB-30/18 246/22'5-TrCB	17.41	2.75E+07	1.10 Y	1.46	1.47	0.4%
PCB-17 22'4-TrCB	17.78	1.14E+07	1.11 Y	1.25	1.22	-2.9%
PCB-27 23'6-TrCB	17.96	1.57E+07	1.11 Y	1.69	1.67	-1.0%
PCB-24 236-TrCB	18.09	1.52E+07	1.10 Y	1.63	1.62	-0.8%
PCB-16 22'3-TrCB	18.17	8.80E+06	1.12 Y	0.95	0.94	-1.5%
PCB-32 24'6-TrCB	18.63	1.67E+07	1.09 Y	1.79	1.79	-0.2%
PCB-34 23'5'-TrCB	19.75	1.62E+07	1.03 Y	1.05	1.18	12.8%
PCB-23 235-TrCB	19.89	1.72E+07	1.04 Y	1.06	1.25	18.5%
PCB-26/29 23'5/245-TrCB	20.16	3.42E+07	1.03 Y	1.09	1.25	14.7%
PCB-25 23'4-TrCB	20.35	1.71E+07	1.02 Y	1.07	1.25	16.0%
PCB-31 24'5-TrCB	20.62	1.77E+07	1.04 Y	1.11	1.29	16.3%
PCB-28/20 244'/233'-TrCB	20.88	3.37E+07	1.03 Y	1.07	1.23	15.2%
PCB-21/33 234/23'4'-TrCB	21.05	3.48E+07	1.05 Y	1.09	1.27	15.9%
PCB-22 234'-TrCB	21.42	1.59E+07	1.04 Y	1.02	1.16	14.0%
PCB-36 33'5-TrCB	22.78	1.74E+07	1.04 Y	1.13	1.27	12.3%
PCB-39 34'5-TrCB	23.09	1.76E+07	1.04 Y	1.17	1.28	10.2%
PCB-38 345-TrCB	23.58	1.58E+07	1.05 Y	1.03	1.15	11.8%
PCB-35 33'4-TrCB	23.98	1.57E+07	1.07 Y	1.04	1.14	9.7%
PCB-37 344'-TrCB	24.32	1.62E+07	1.05 Y	1.10	-	-
PCB-54 22'66'-TeCB	18.47	1.18E+07	0.78 Y	1.21	-	-
PCB-50/53 22'46/22'56'-TeCB	20.38	2.02E+07	0.80 Y	0.86	0.93	9.2%
PCB-45 22'36-TeCB	20.93	8.24E+06	0.78 Y	0.73	0.76	4.3%
PCB-51 22'46'-TeCB	21.01	1.07E+07	0.81 Y	0.88	0.99	12.5%
PCB-46 22'36'-TeCB	21.20	8.06E+06	0.81 Y	0.70	0.74	7.1%
PCB-52 22'55'-TeCB	22.44	9.69E+06	0.81 Y	0.84	0.90	6.3%
PCB-73 23'5'6-TeCB	22.57	1.29E+07	0.81 Y	1.09	1.20	9.7%

Lab ID: - Ax2 Detail **Processed: 16-Dec-2012 13:39**

Lab ID: CS3_121214_PCB_XB
Acquired: 14-DEC-2012 13:02
Datafile: 121214X10
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA		RRF	
PCB-43 22'35-TeCB	22.65	8.21E+06	0.82 Y	0.72	0.76	4.8%
PCB-69/49 23'46/22'45'-TeCB	22.85	2.39E+07	0.80 Y	1.01	1.10	8.9%
PCB-48 22'45-TeCB	23.11	9.64E+06	0.81 Y	0.85	0.89	4.8%
PCB-44/47/65 ...-TeCB	23.32	3.10E+07	0.81 Y	0.89	0.95	7.2%
PCB-59/62/75 ...-TeCB	23.59	4.03E+07	0.81 Y	1.14	1.24	9.1%
PCB-42 22'34'-TeCB	23.74	9.29E+06	0.81 Y	0.77	0.86	11.3%
PCB-41 22'34-TeCB	24.06	8.35E+06	0.80 Y	0.73	0.77	6.2%
PCB-71/40 23'4'6/22'33'-TeCB	24.16	1.97E+07	0.82 Y	0.87	0.91	5.0%
PCB-64 234'6-TeCB	24.36	1.43E+07	0.80 Y	1.24	1.32	7.0%
PCB-72 23'55'-TeCB	25.09	1.36E+07	0.78 Y	1.14	1.26	10.2%
PCB-68 23'45'-TeCB	25.34	1.46E+07	0.79 Y	1.21	1.35	11.9%
PCB-57 233'5-TeCB	25.69	1.32E+07	0.78 Y	1.11	1.22	10.5%
PCB-58 233'5'-TeCB	25.89	1.35E+07	0.78 Y	1.10	1.25	13.3%
PCB-67 23'45-TeCB	26.04	1.38E+07	0.78 Y	1.16	1.27	9.6%
PCB-63 234'5-TeCB	26.26	1.44E+07	0.78 Y	1.22	1.33	9.4%
PCB-61/70/74/76 ...-TeCB	26.54	5.50E+07	0.78 Y	1.13	1.27	12.3%
PCB-66 23'44'-TeCB	26.82	1.26E+07	0.78 Y	1.08	1.16	8.3%
PCB-55 233'4-TeCB	26.95	1.34E+07	0.77 Y	1.10	1.23	12.5%
PCB-56 233'4'-TeCB	27.38	1.26E+07	0.78 Y	1.06	1.17	10.4%
PCB-60 2344'-TeCB	27.57	1.30E+07	0.78 Y	1.11	1.20	7.9%
PCB-80 33'55'-TeCB	27.94	1.52E+07	0.78 Y	1.25	1.40	11.9%
PCB-79 33'45'-TeCB	29.22	1.44E+07	0.77 Y	1.23	1.33	7.7%
PCB-78 33'45-TeCB	29.69	1.26E+07	0.78 Y	1.08	1.16	7.6%
PCB-104 22'466'-PeCB	23.26	1.16E+07	0.62 Y	1.25	-	-
PCB-96 22'366'-PeCB	23.55	1.00E+07	0.63 Y	1.08	1.12	3.7%
PCB-103 22'45'6-PeCB	25.23	8.66E+06	0.61 Y	0.90	0.98	8.9%
PCB-94 22'356'-PeCB	25.41	7.49E+06	0.62 Y	0.78	0.85	9.5%
PCB-95 22'35'6-PeCB	25.78	7.89E+06	0.63 Y	0.83	0.89	8.3%
PCB-100/93 22'44'6/22'356-PeC	25.99	1.64E+07	0.61 Y	0.84	0.93	10.4%
PCB-102 22'456'-PeCB	26.09	8.11E+06	0.61 Y	0.90	0.92	2.2%
PCB-98 22'34'6'-PeCB	26.16	7.89E+06	0.64 Y	0.77	0.89	15.7%
PCB-88 22'346-PeCB	26.45	7.21E+06	0.60 Y	0.79	0.82	3.0%
PCB-91 22'34'6-PeCB	26.52	8.95E+06	0.61 Y	0.88	1.02	15.4%
PCB-84 22'33'6-PeCB	26.70	6.90E+06	0.61 Y	0.71	0.78	10.1%
PCB-89 22'346'-PeCB	27.10	7.16E+06	0.61 Y	0.76	0.81	6.7%
PCB-121 23'45'6-PeCB	27.49	1.12E+07	0.61 Y	1.14	1.27	10.7%
PCB-92 22'355'-PeCB	27.79	7.80E+06	0.61 Y	0.80	0.88	10.5%
PCB-113/90/101 ...-PeCB	28.27	2.74E+07	0.61 Y	0.93	1.03	10.7%
PCB-83 22'33'5-PeCB	28.68	6.46E+06	0.62 Y	0.71	0.73	2.9%

Lab ID: - Ax2 Detail **Processed: 16-Dec-2012 13:39**

Lab ID: CS3_121214_PCB_XB
Acquired: 14-DEC-2012 13:02
Datafile: 121214X10
ICAL: MM7_PCB_07132012_25JUL12

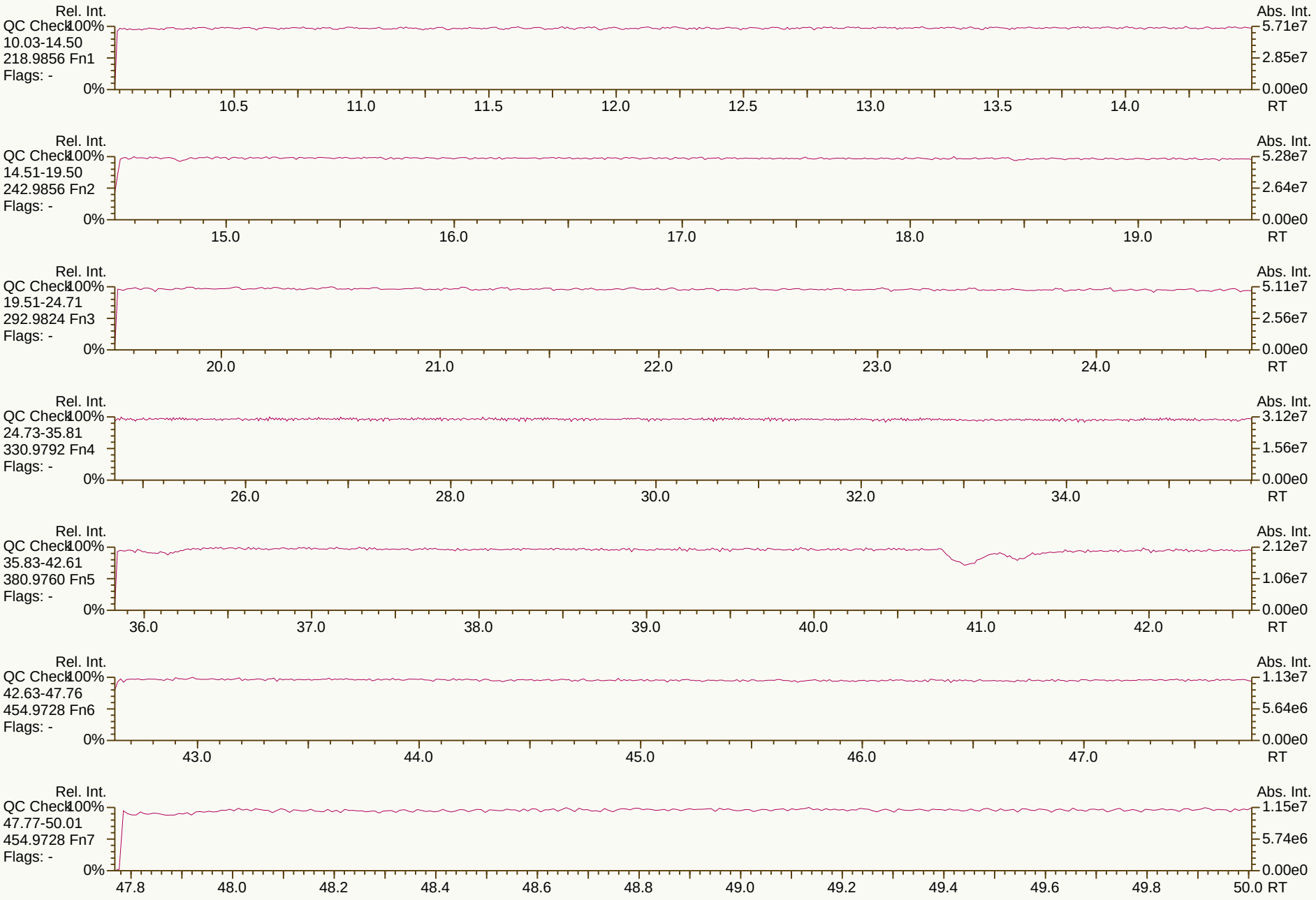
Name	RT	Response	RA		RRF	
PCB-99 22'44'5-PeCB	28.79	8.84E+06	0.61 Y	0.87	1.00	15.1%
PCB-112 233'56-PeCB	28.88	1.09E+07	0.63 Y	1.13	1.24	10.3%
PCB-108/119/86/97/125...-PeCB	29.22	5.58E+07	0.61 Y	0.95	1.06	11.1%
PCB-117 234'56-PeCB	29.74	1.03E+07	0.61 Y	1.04	1.17	12.6%
PCB-116/85 23456/22'344'-PeCl	29.82	1.85E+07	0.63 Y	0.97	1.05	8.0%
PCB-110 233'4'6-PeCB	29.94	1.09E+07	0.62 Y	1.02	1.23	20.4%
PCB-115 2344'6-PeCB	30.03	1.09E+07	0.63 Y	1.16	1.23	6.6%
PCB-82 22'33'4-PeCB	30.21	6.57E+06	0.63 Y	0.69	0.75	7.9%
PCB-111 233'55'-PeCB	30.57	1.13E+07	0.62 Y	1.15	1.28	11.2%
PCB-120 23'455'-PeCB	30.96	1.15E+07	0.61 Y	1.16	1.30	12.1%
PCB-107/124 ...-PeCB	31.90	2.13E+07	0.63 Y	1.07	1.21	12.3%
PCB-109 233'46-PeCB	32.11	1.12E+07	0.62 Y	1.14	1.28	11.7%
PCB-106 233'45-PeCB	32.31	1.09E+07	0.61 Y	1.07	1.23	15.3%
PCB-122 233'4'5'-PeCB	32.76	1.01E+07	0.62 Y	1.00	1.10	10.3%
PCB-127 33'455'-PeCB	34.72	1.07E+07	0.61 Y	1.10	1.19	8.5%
PCB-155 22'44'66'-HxCB	28.11	1.14E+07	1.27 Y	1.09	-	-
PCB-152 22'3566'-HxCB	28.25	1.06E+07	1.24 Y	1.01	1.01	-0.4%
PCB-150 22'34'66'-HxCB	28.40	1.07E+07	1.29 Y	1.00	1.02	1.4%
PCB-136 22'33'66'-HxCB	28.68	9.99E+06	1.27 Y	0.95	0.95	-0.2%
PCB-145 22'3466'-HxCB	28.95	1.02E+07	1.26 Y	0.96	0.97	0.4%
PCB-148 22'34'56'-HxCB	30.24	7.70E+06	1.26 Y	0.97	0.99	1.6%
PCB-151/135 ...-HxCB	30.74	1.49E+07	1.27 Y	0.96	0.96	-0.6%
PCB-154 22'44'56'-HxCB	30.96	8.42E+06	1.24 Y	1.09	1.08	-0.9%
PCB-144 22'345'6-HxCB	31.21	7.72E+06	1.26 Y	0.98	0.99	0.7%
PCB-147/149 ...-HxCB	31.51	1.56E+07	1.25 Y	0.99	1.00	1.4%
PCB-134 22'33'56-HxCB	31.66	5.73E+06	1.27 Y	0.80	0.73	-8.3%
PCB-143 22'3456'-HxCB	31.74	7.92E+06	1.26 Y	0.95	1.01	6.3%
PCB-139/140 ...-HxCB	32.01	1.58E+07	1.26 Y	1.00	1.01	1.2%
PCB-131 22'33'46-HxCB	32.17	6.75E+06	1.26 Y	0.85	0.87	1.8%
PCB-142 22'3456-HxCB	32.31	6.86E+06	1.24 Y	0.87	0.88	0.7%
PCB-132 22'33'46'-HxCB	32.55	6.96E+06	1.26 Y	0.89	0.89	0.2%
PCB-133 22'33'55'-HxCB	32.99	7.15E+06	1.27 Y	0.91	0.92	0.2%
PCB-165 233'55'6-HxCB	33.33	9.11E+06	1.24 Y	1.13	1.17	3.1%
PCB-146 22'34'55'-HxCB	33.54	7.81E+06	1.24 Y	1.01	1.00	-0.7%
PCB-161 233'45'6-HxCB	33.65	1.03E+07	1.28 Y	1.25	1.32	5.1%
PCB-153/168 ...-HxCB	34.08	1.95E+07	1.26 Y	1.22	1.25	2.2%
PCB-141 22'3455'-HxCB	34.21	7.39E+06	1.25 Y	0.93	0.95	2.2%
PCB-130 22'33'45'-HxCB	34.55	6.49E+06	1.29 Y	0.85	0.83	-1.9%
PCB-137 22'344'5-HxCB	34.74	7.41E+06	1.27 Y	1.04	0.95	-9.0%
PCB-164 233'4'5'6-HxCB	34.82	1.06E+07	1.27 Y	1.22	1.35	10.6%
PCB-163/138/129 ...-HxCB	35.11	2.48E+07	1.27 Y	1.02	1.06	3.5%

Lab ID: - Ax2 Detail **Processed: 16-Dec-2012 13:39**

Lab ID: CS3_121214_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 14-DEC-2012 13:02
Datafile: 121214X10

Name	RT	Response	RA		RRF	
PCB-160 233'456-HxCB	35.24	9.57E+06	1.28 Y	1.21	1.23	1.6%
PCB-158 233'44'6-HxCB	35.43	1.08E+07	1.25 Y	1.34	1.38	3.4%
PCB-128/166 ...-HxCB	36.14	1.64E+07	1.19 Y	0.90	0.79	-11.6%
PCB-159 233'455'-HxCB	36.99	1.06E+07	1.22 Y	1.06	1.02	-3.7%
PCB-162 233'4'55'-HxCB	37.23	1.11E+07	1.20 Y	1.08	1.07	-0.2%
PCB-188 22'34'566'-HpCB	32.92	8.77E+06	1.07 Y	1.03	-	-
PCB-179 22'33'566'-HpCB	33.19	8.11E+06	1.06 Y	0.97	0.99	2.0%
PCB-184 22'344'66'-HpCB	33.65	7.81E+06	1.07 Y	0.93	0.95	2.1%
PCB-176 22'33'466'-HpCB	33.93	8.74E+06	1.09 Y	1.05	1.06	1.6%
PCB-186 22'34566'-HpCB	34.31	8.33E+06	1.05 Y	0.98	1.02	3.4%
PCB-178 22'33'55'6-HpCB	35.48	5.95E+06	1.05 Y	0.74	0.73	-1.4%
PCB-175 22'33'45'6-HpCB	36.01	7.43E+06	1.03 Y	1.01	0.98	-2.5%
PCB-187 22'34'55'6-HpCB	36.24	7.96E+06	1.06 Y	1.06	1.05	-0.8%
PCB-182 22'344'56'-HpCB	36.41	8.56E+06	1.05 Y	1.11	1.13	2.1%
PCB-183 22'344'5'6-HpCB	36.75	8.17E+06	1.05 Y	1.13	1.08	-4.6%
PCB-185 22'3455'6-HpCB	36.83	8.35E+06	1.07 Y	1.02	1.11	8.5%
PCB-174 22'33'456'-HpCB	36.93	7.36E+06	1.04 Y	0.93	0.97	5.2%
PCB-177 22'33'45'6'-HpCB	37.31	6.97E+06	1.06 Y	0.91	0.92	2.0%
PCB-181 22'344'56-HpCB	37.65	8.30E+06	1.05 Y	1.06	1.10	3.5%
PCB-171/173 ...-HpCB	37.83	1.47E+07	1.06 Y	0.93	0.97	4.8%
PCB-172 22'33'455'-HpCB	39.21	7.28E+06	1.04 Y	0.95	0.96	1.0%
PCB-192 233'455'6-HpCB	39.45	9.55E+06	1.03 Y	1.24	1.27	2.0%
PCB-180/193 ...-HpCB	39.72	1.82E+07	1.04 Y	1.16	1.21	4.1%
PCB-191 233'44'5'6-HpCB	40.05	9.99E+06	1.06 Y	1.30	1.32	1.5%
PCB-170 22'33'44'5-HpCB	40.80	7.09E+06	1.03 Y	1.07	1.06	-1.3%
PCB-190 233'44'56-HpCB	41.25	9.27E+06	1.03 Y	1.45	1.39	-4.5%
PCB-202 22'33'55'66'-OcCB	37.42	8.05E+06	0.90 Y	0.91	-	-
PCB-201 22'33'45'66'-OcCB	38.20	9.03E+06	0.90 Y	1.02	1.05	2.7%
PCB-204 22'344'566'-OcCB	38.77	8.53E+06	0.88 Y	0.98	0.99	1.5%
PCB-197 22'33'44'66'-OcCB	38.95	8.62E+06	0.89 Y	1.06	1.00	-6.0%
PCB-200 22'33'4566'-OcCB	39.03	9.19E+06	0.91 Y	0.96	1.07	11.1%
PCB-198/199 ...-OcCB	41.37	1.21E+07	0.89 Y	0.72	0.70	-1.9%
PCB-196 22'33'44'56'-OcCB	41.94	6.37E+06	0.89 Y	0.73	0.74	1.3%
PCB-203 22'344'55'6-OcCB	42.11	6.58E+06	0.90 Y	0.76	0.76	-0.1%
PCB-195 22'33'44'56-OcCB	43.21	5.58E+06	0.94 Y	0.80	0.82	2.9%
PCB-194 22'33'44'55'-OcCB	45.17	6.11E+06	0.93 Y	0.87	0.90	3.0%
PCB-205 233'44'55'6-OcCB	45.57	7.33E+06	0.93 Y	1.09	-	-
PCB-208 22'33'455'66'-NoCB	43.01	7.23E+06	0.76 Y	1.02	-	-
PCB-207 22'33'44'566'-NoCB	43.79	7.34E+06	0.74 Y	1.06	1.01	-4.7%
PCB-206 22'33'44'55'6-NoCB	47.02	4.86E+06	0.75 Y	0.98	-	-

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X10**



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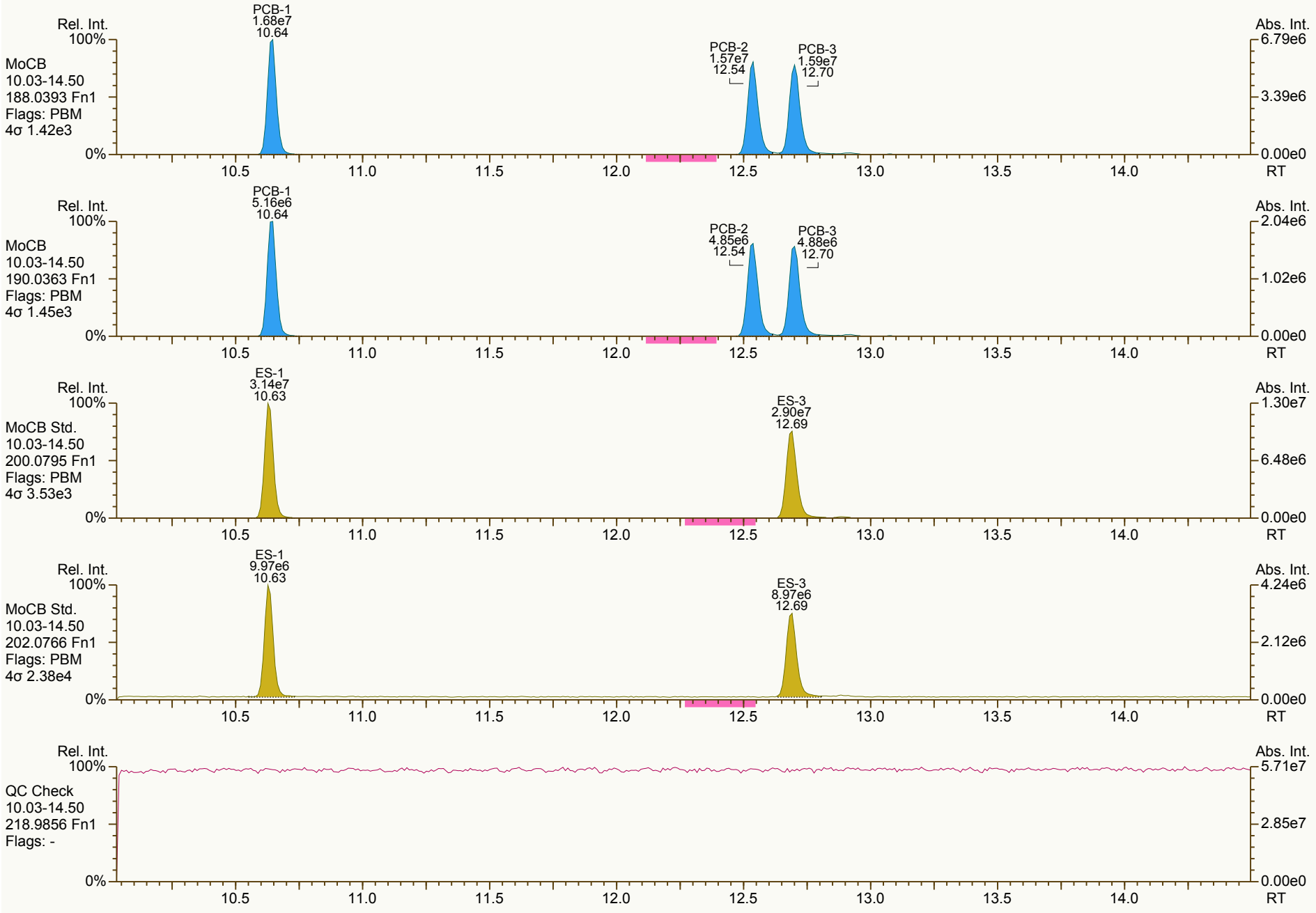

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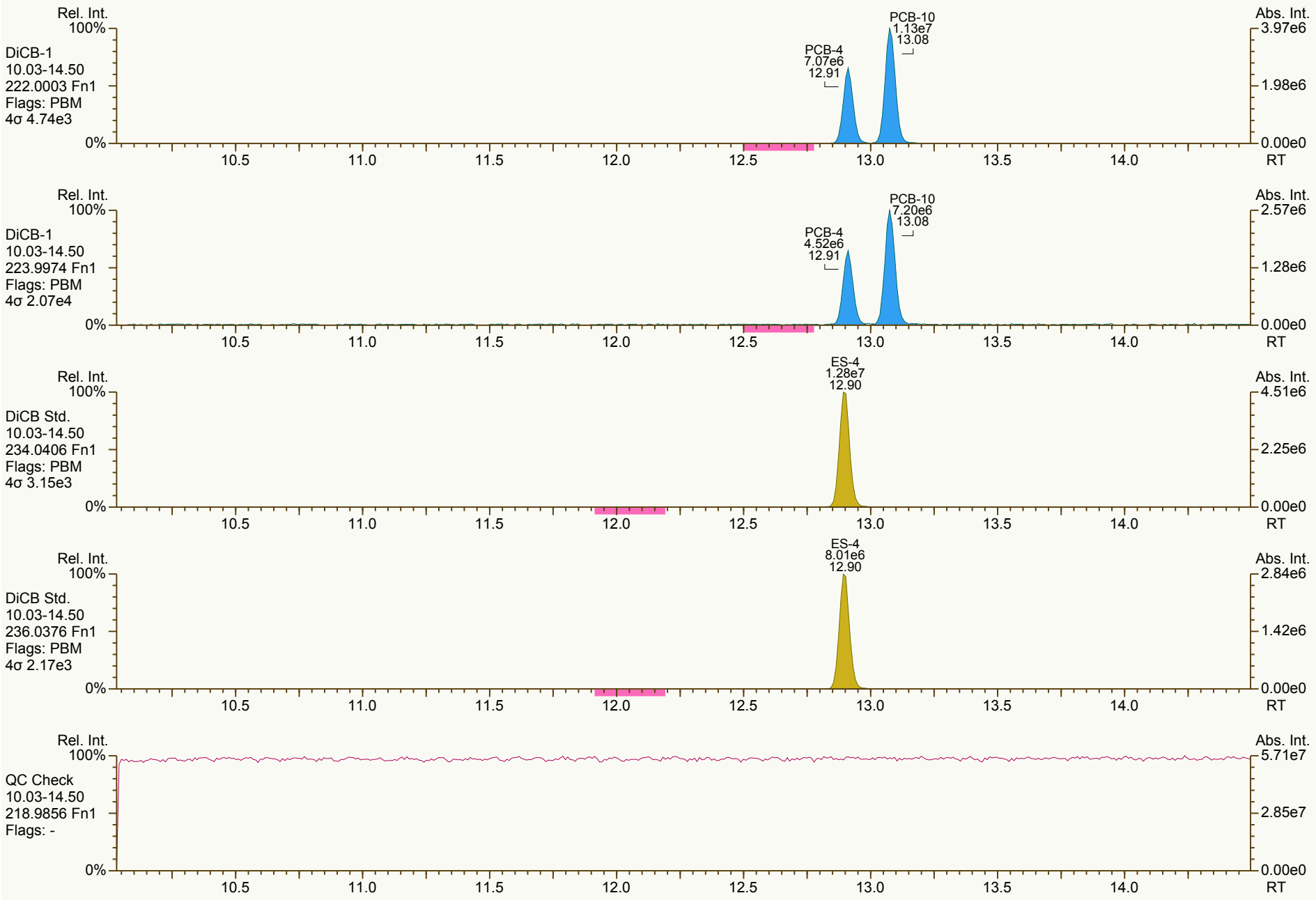
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8257, 0048 scc: 549-357 *PKD: 14-Dec-2012 13:59 Printed: 16-Dec-2012 14:47 Page 2 of 21*

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X10**



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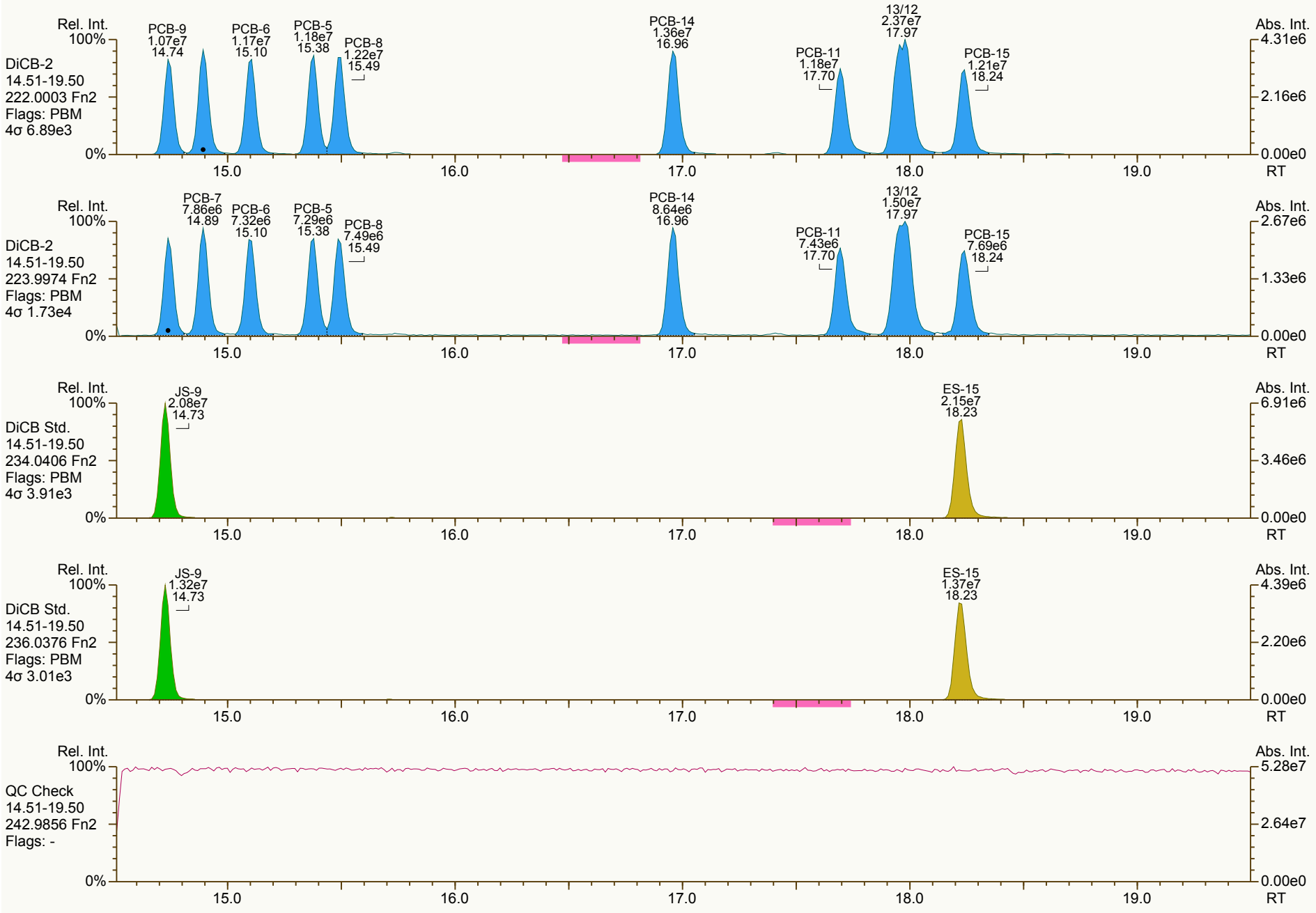
SGS-AP ID: CS3_121214_PCB_XB
Instr: AutoSpec-Premier MM7
Sample ID: SIL 12-65-3
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04
Acq: 14-Dec-2012 13:02:29
User: LKB Datafile: 121214X10



SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
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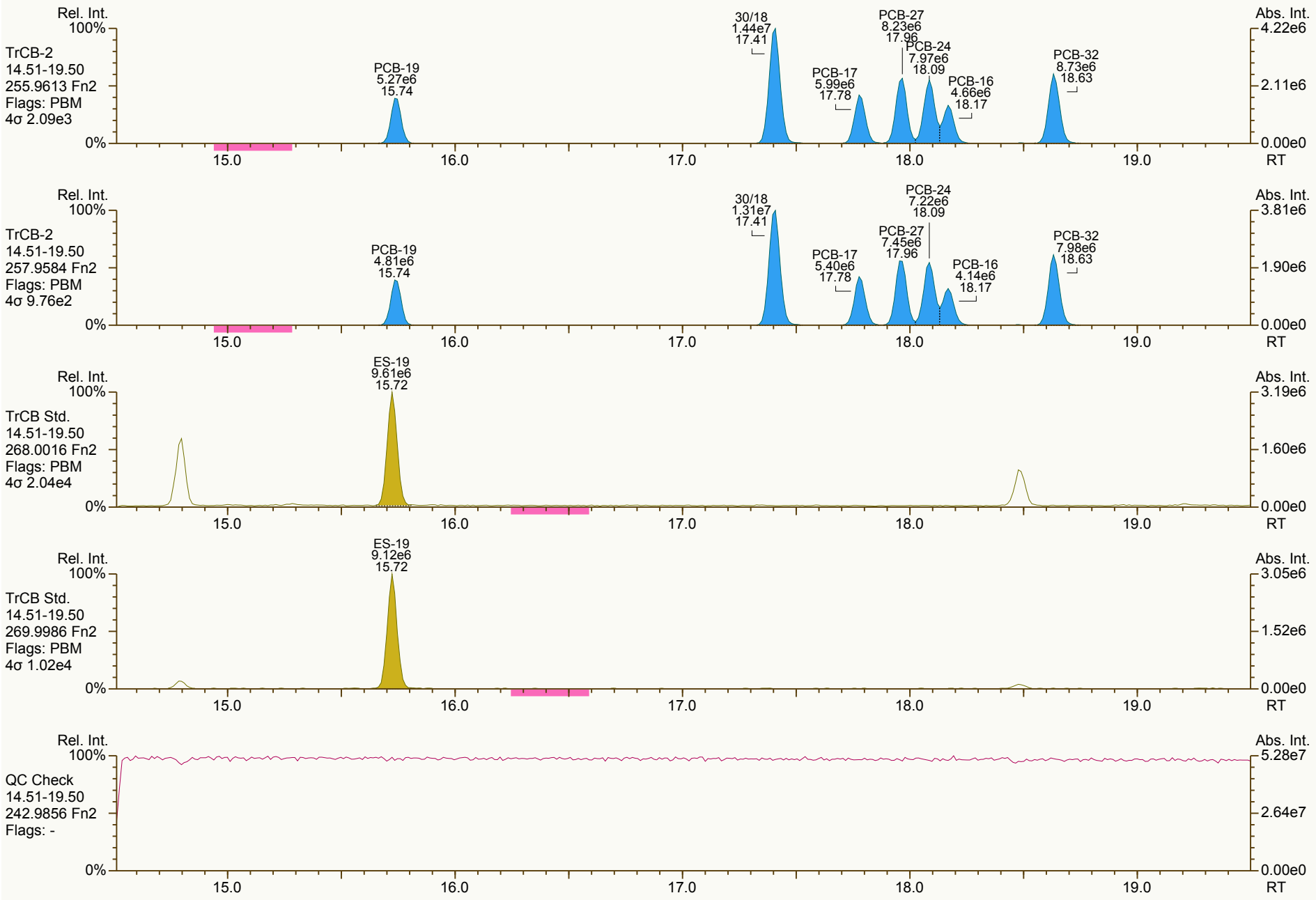

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5382, 3419 scc: 549-357 *PKD: 14-Dec-2012 13:59 Printed: 16-Dec-2012 14:47 Page 5 of 21*

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X10**



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SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X10**



SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
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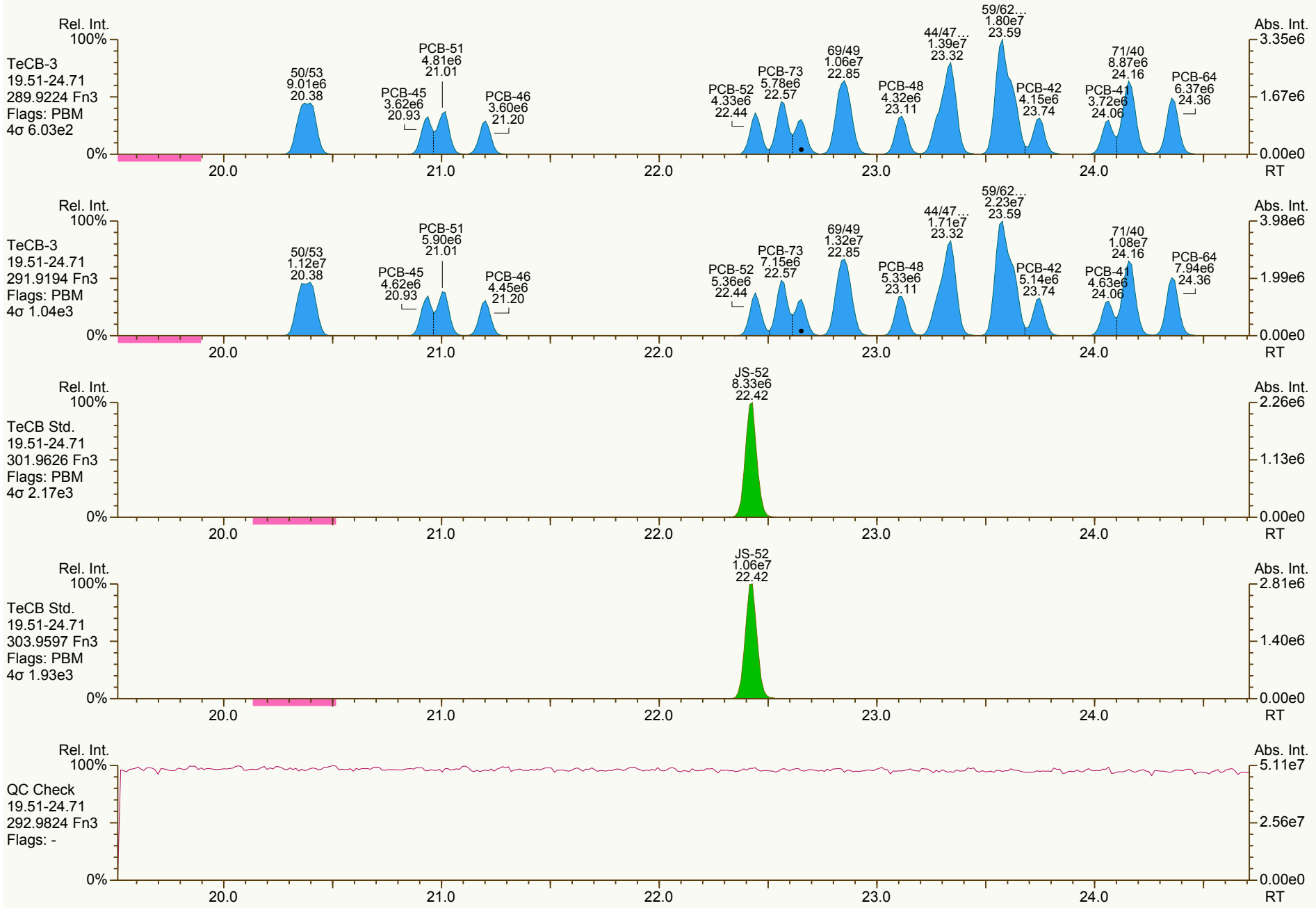

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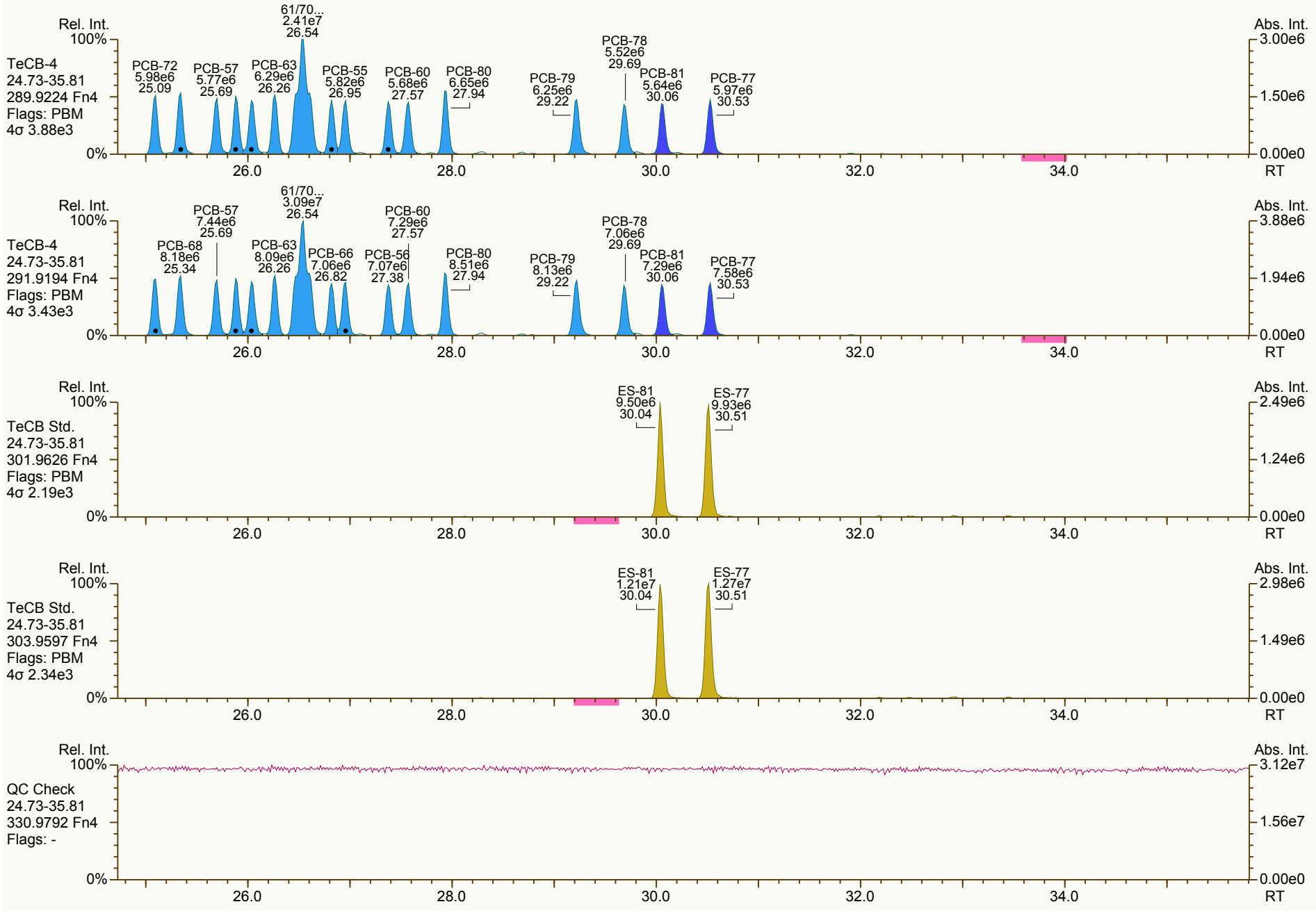
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8709, 9341 scc: 549-357 *PKD: 14-Dec-2012 13:59 Printed: 16-Dec-2012 14:48 Page 8 of 21*

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X10**



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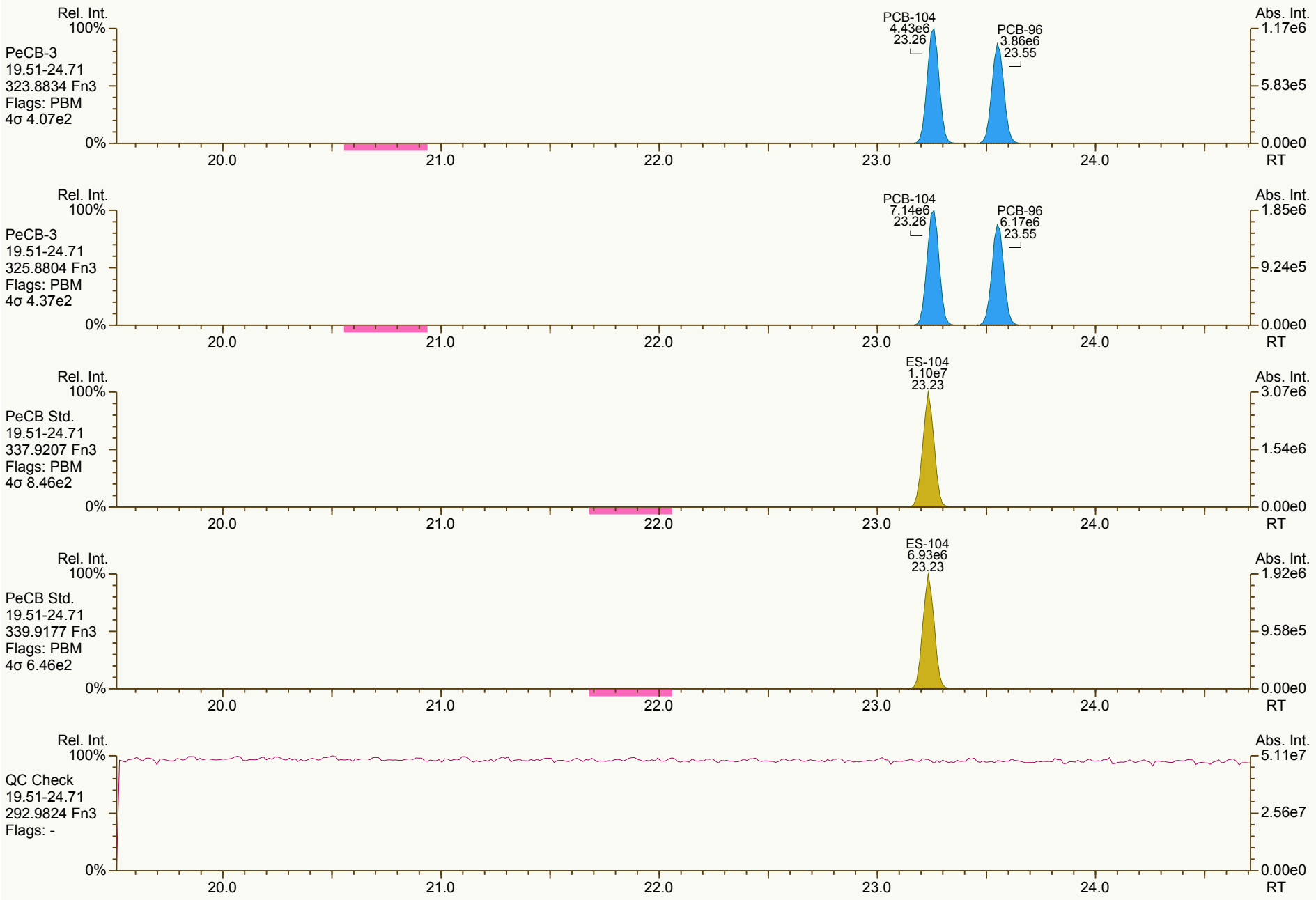
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0465, 0387 scc: 549-357 *PKD: 14-Dec-2012 13:59 Printed: 16-Dec-2012 14:48 Page 9 of 21*

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X10**



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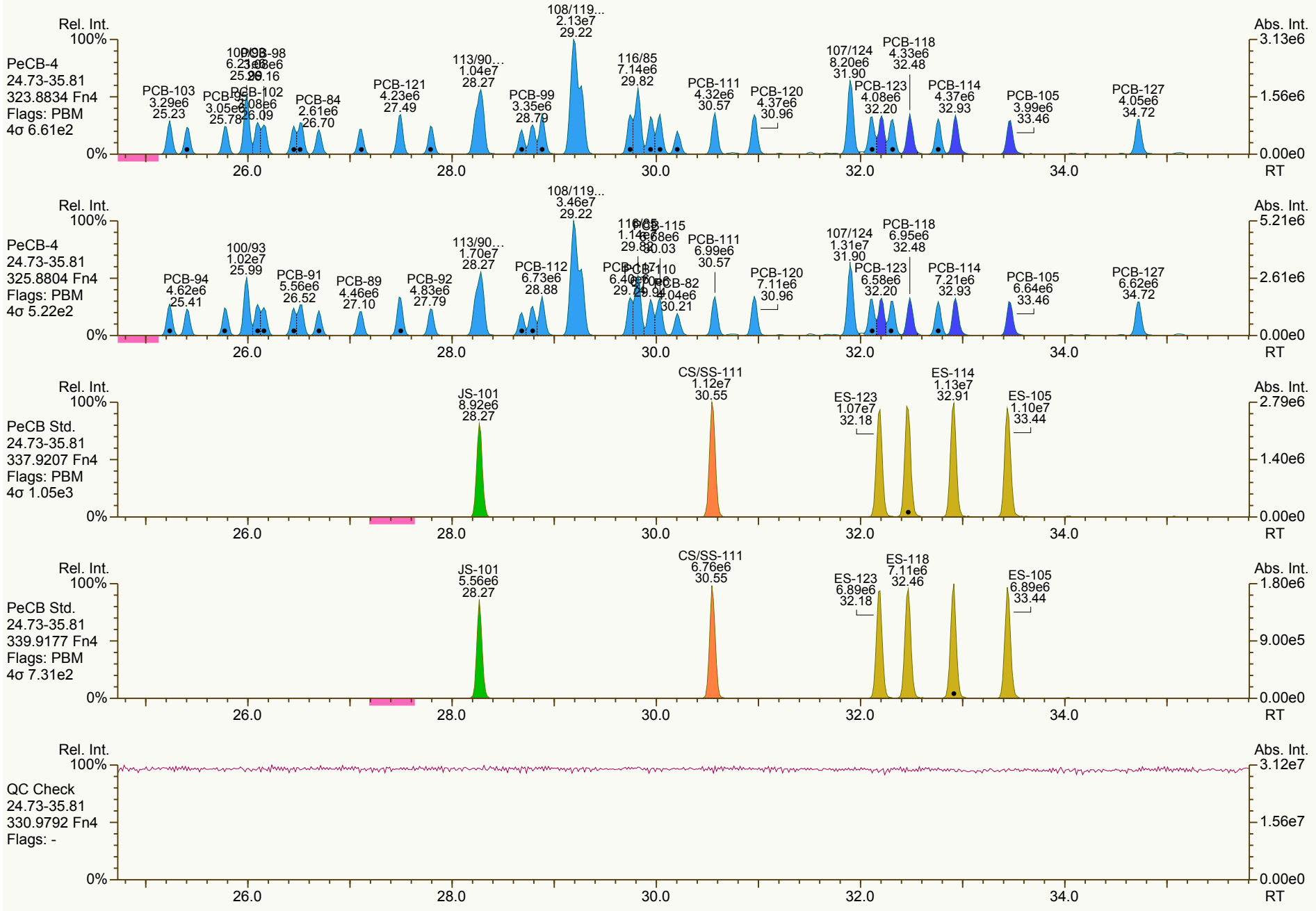

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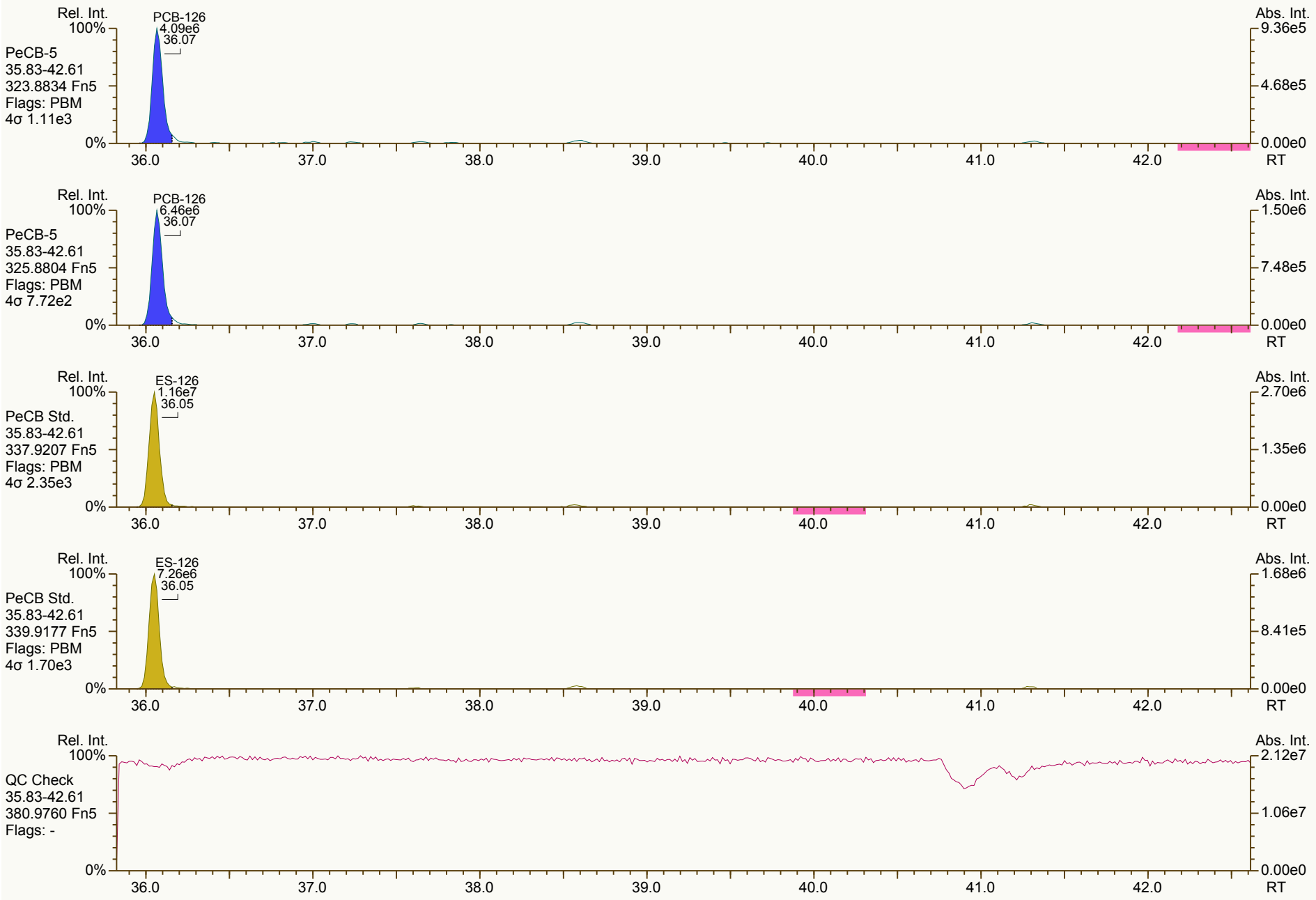
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9312, 1211 scc: 549-357 *Revised: 14-Dec-2012 14:03 (LKB) Printed: 16-Dec-2012 14:48 Page 11 of 21*

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X10**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0036, 5856 scc: 549-357 *PKD: 14-Dec-2012 14:02 Printed: 16-Dec-2012 14:48 Page 12 of 21*

SGS-AP ID: CS3_121214_PCB_XB | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 13:02:29
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04 | User: LKB Datafile: 121214X10



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Peak annotation: Areas, Centroids

SGS-AP ID: CS3_121214_PCB_XB | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 13:02:29
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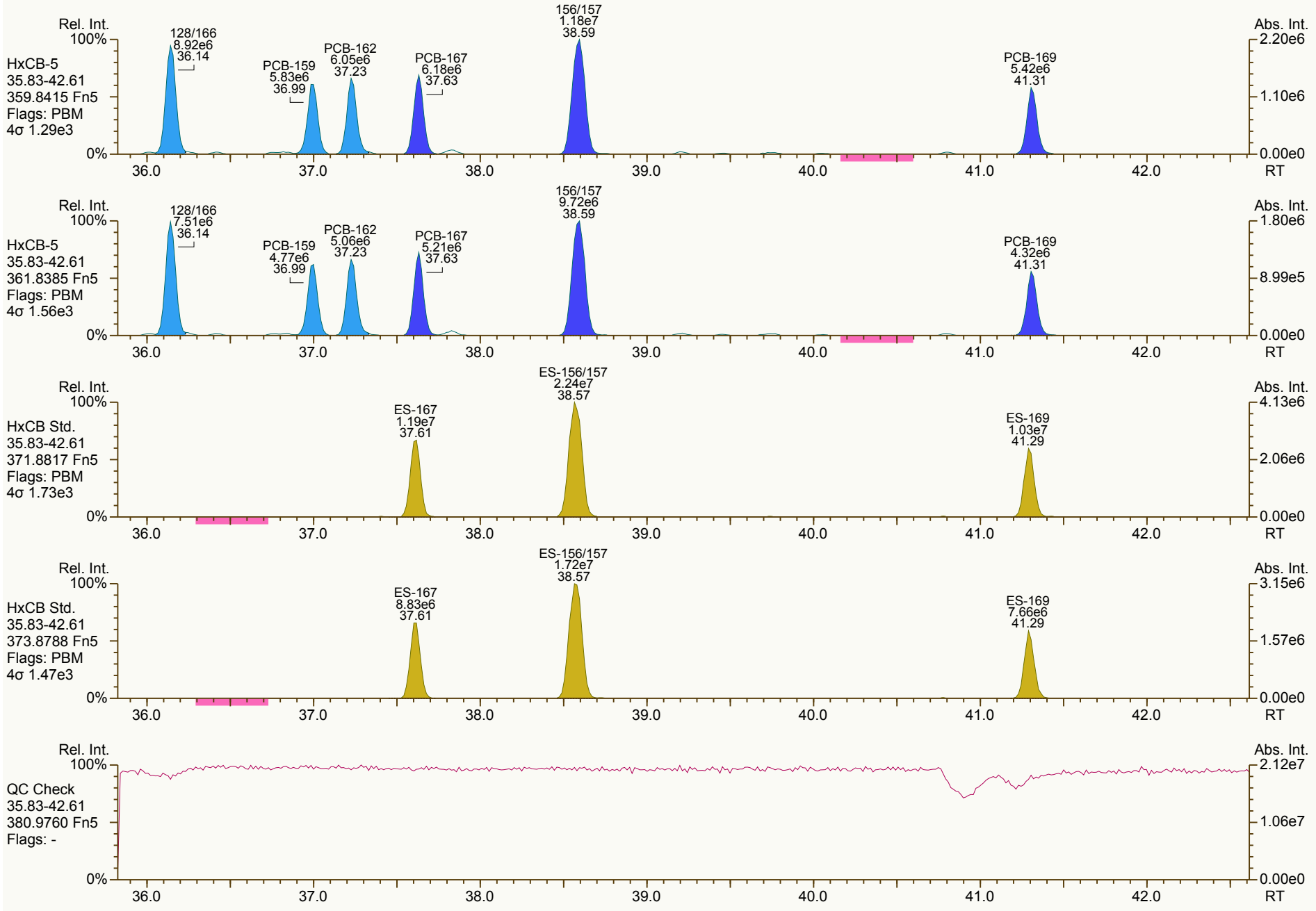

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Peak annotation: Areas, Centroids

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
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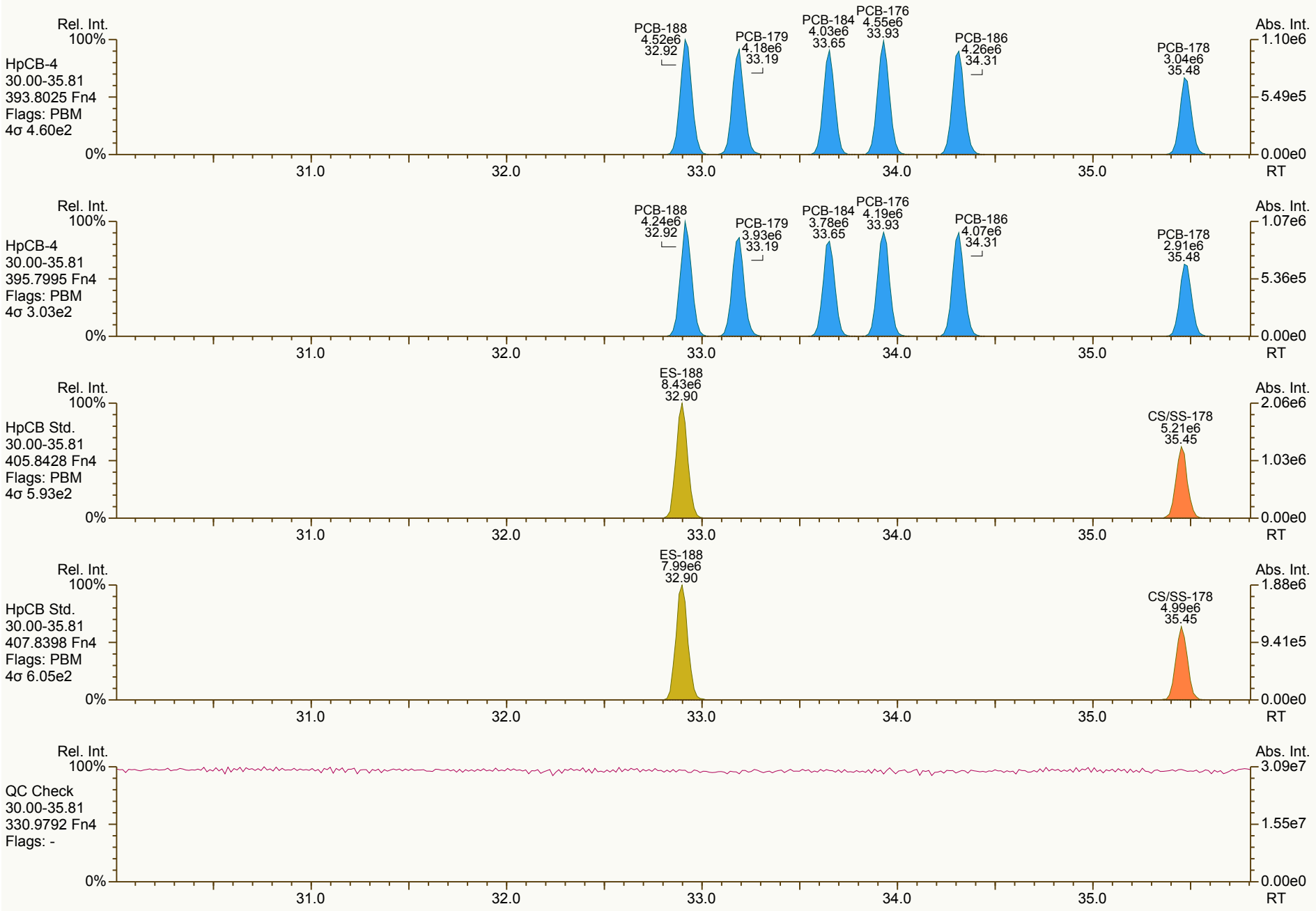

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SGS-AP ID: CS3_121214_PCB_XB | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 13:02:29
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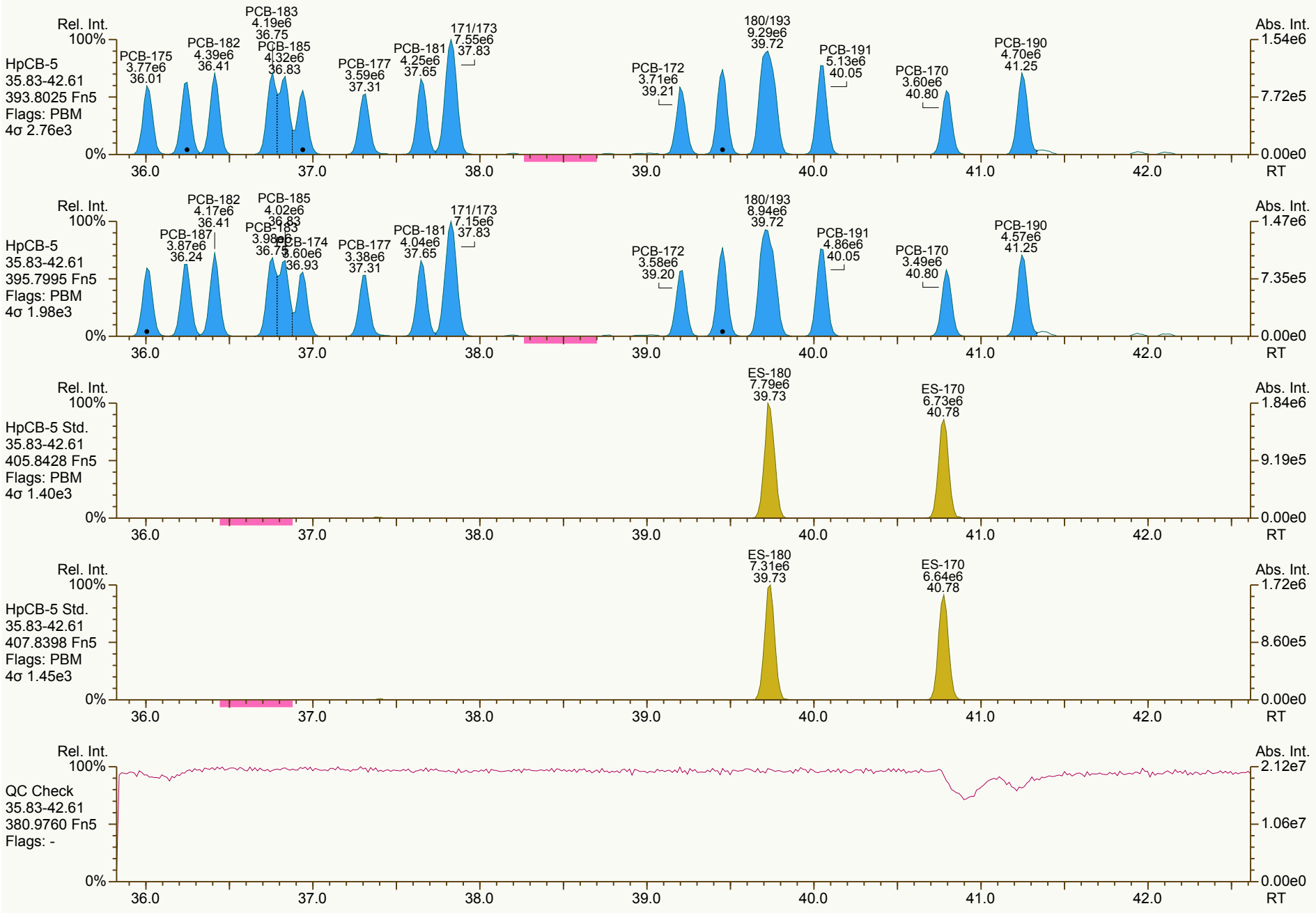

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Peak annotation: Areas, Centroids

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
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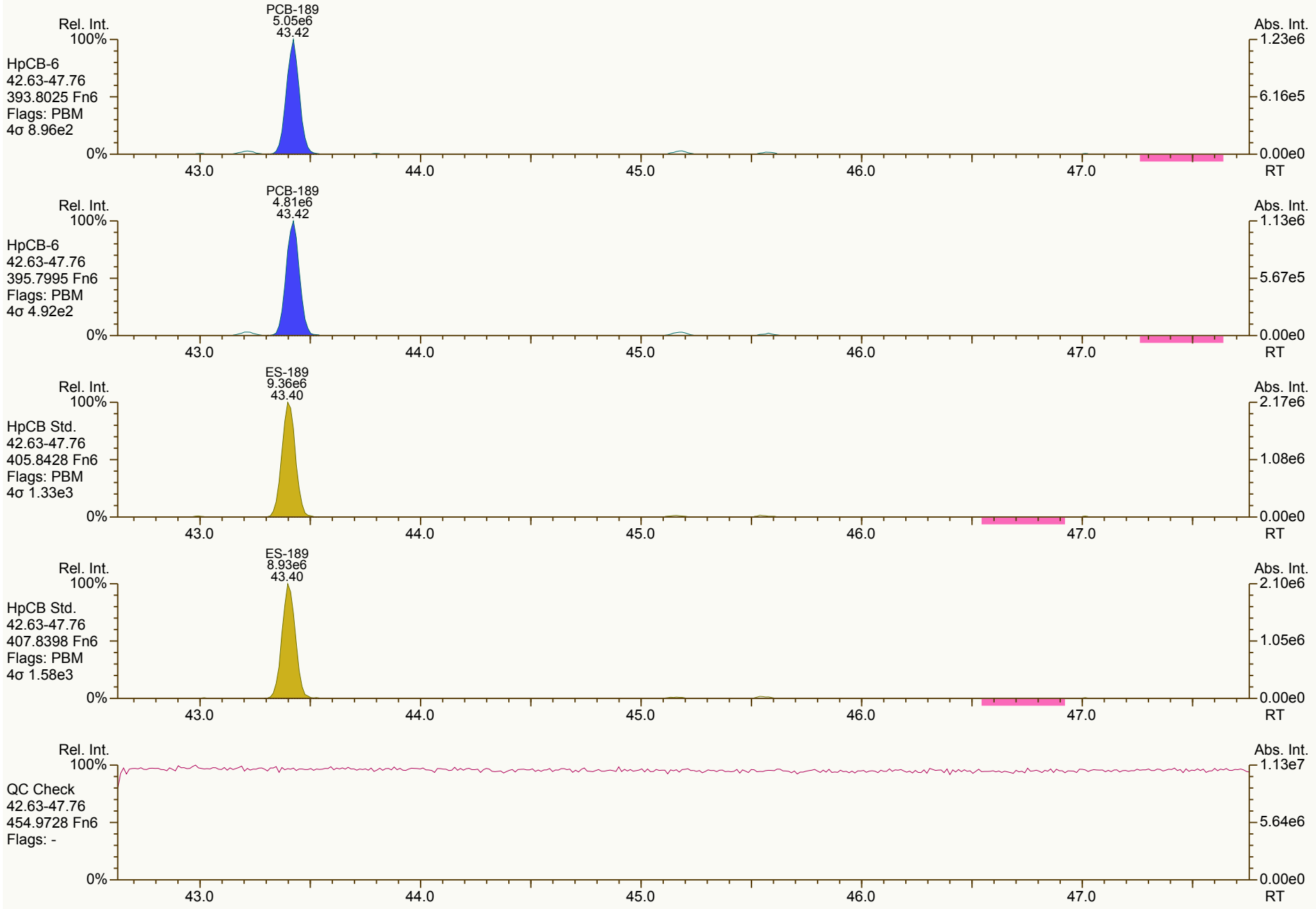

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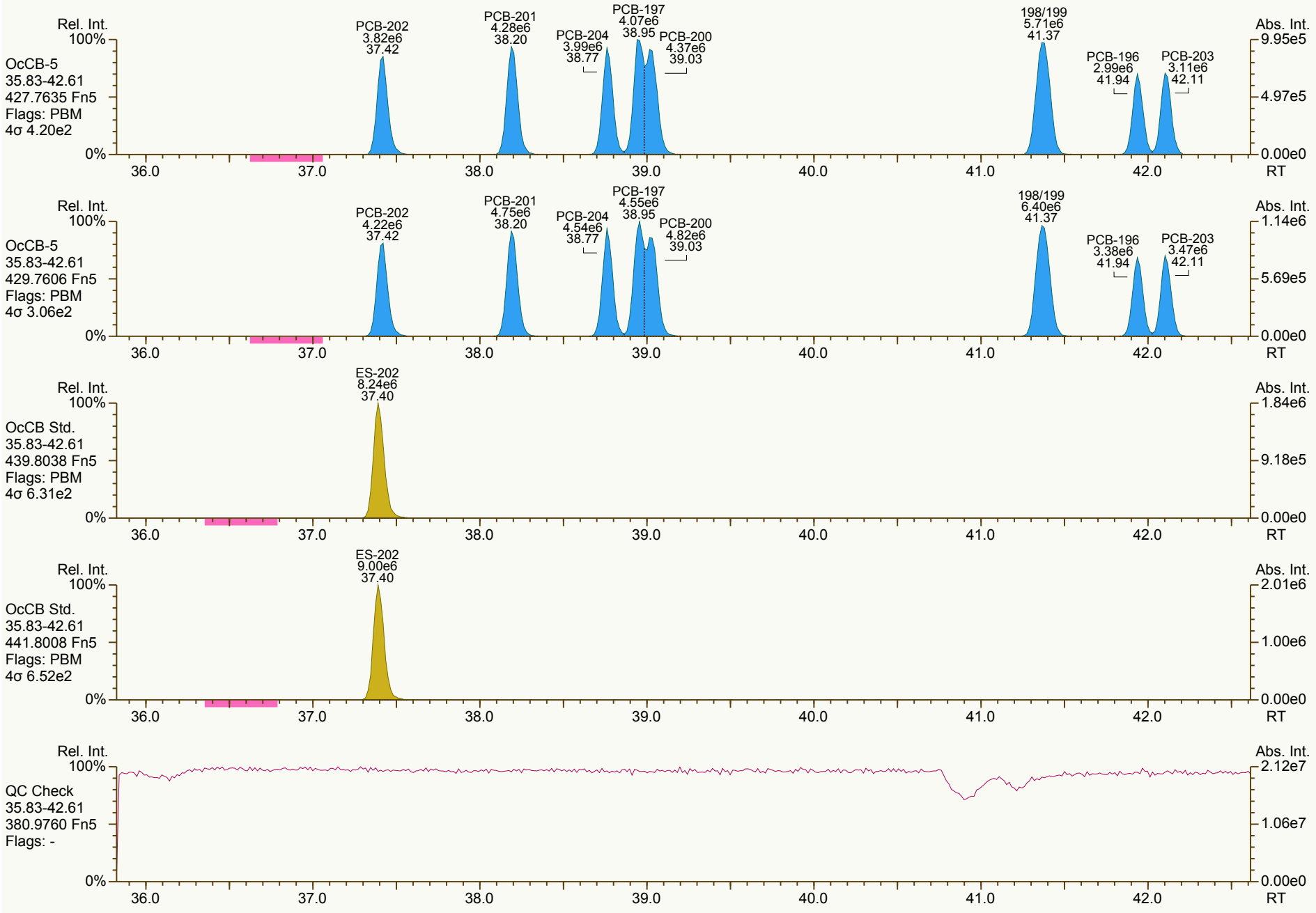

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Peak annotation: Areas, Centroids

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
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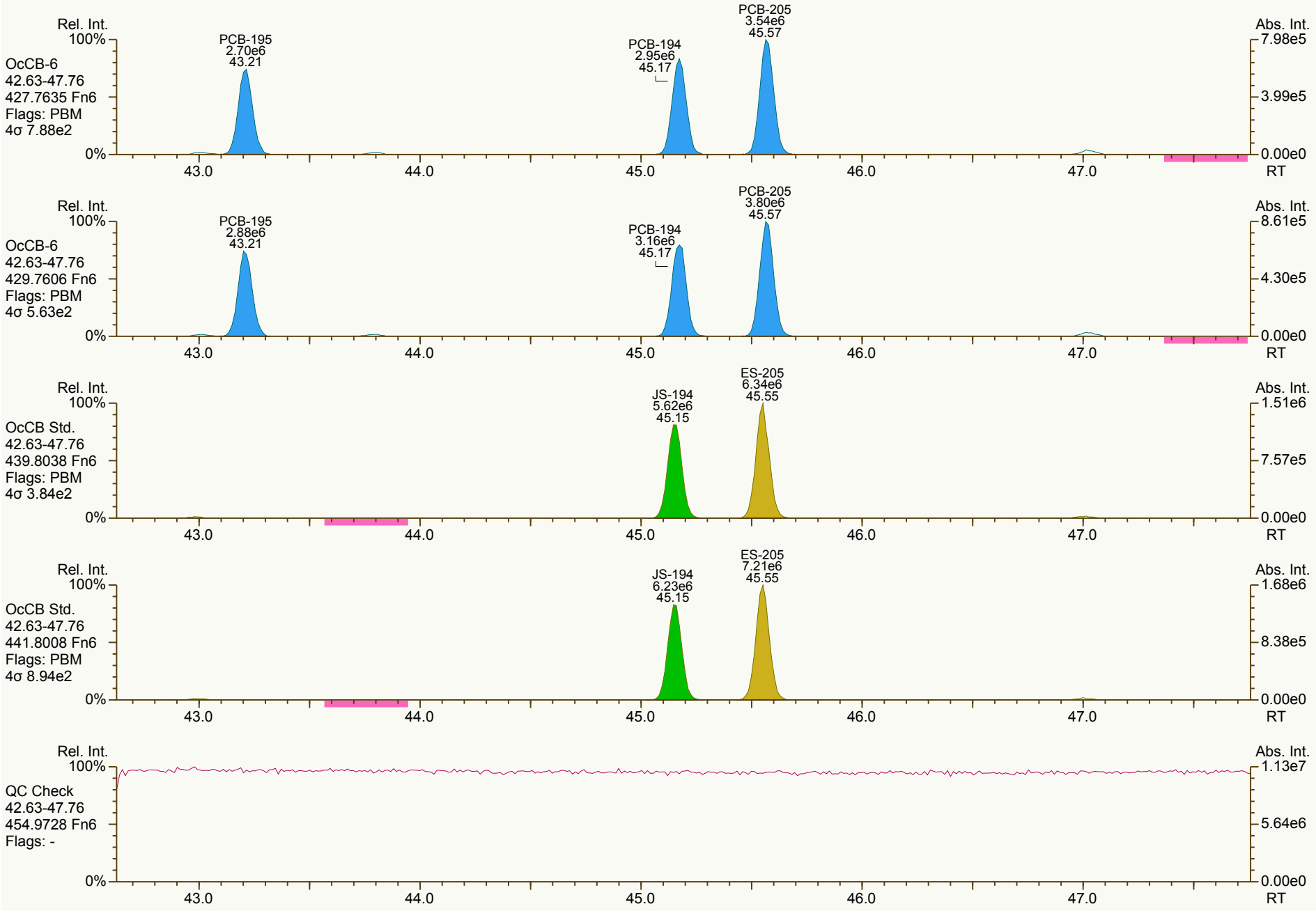

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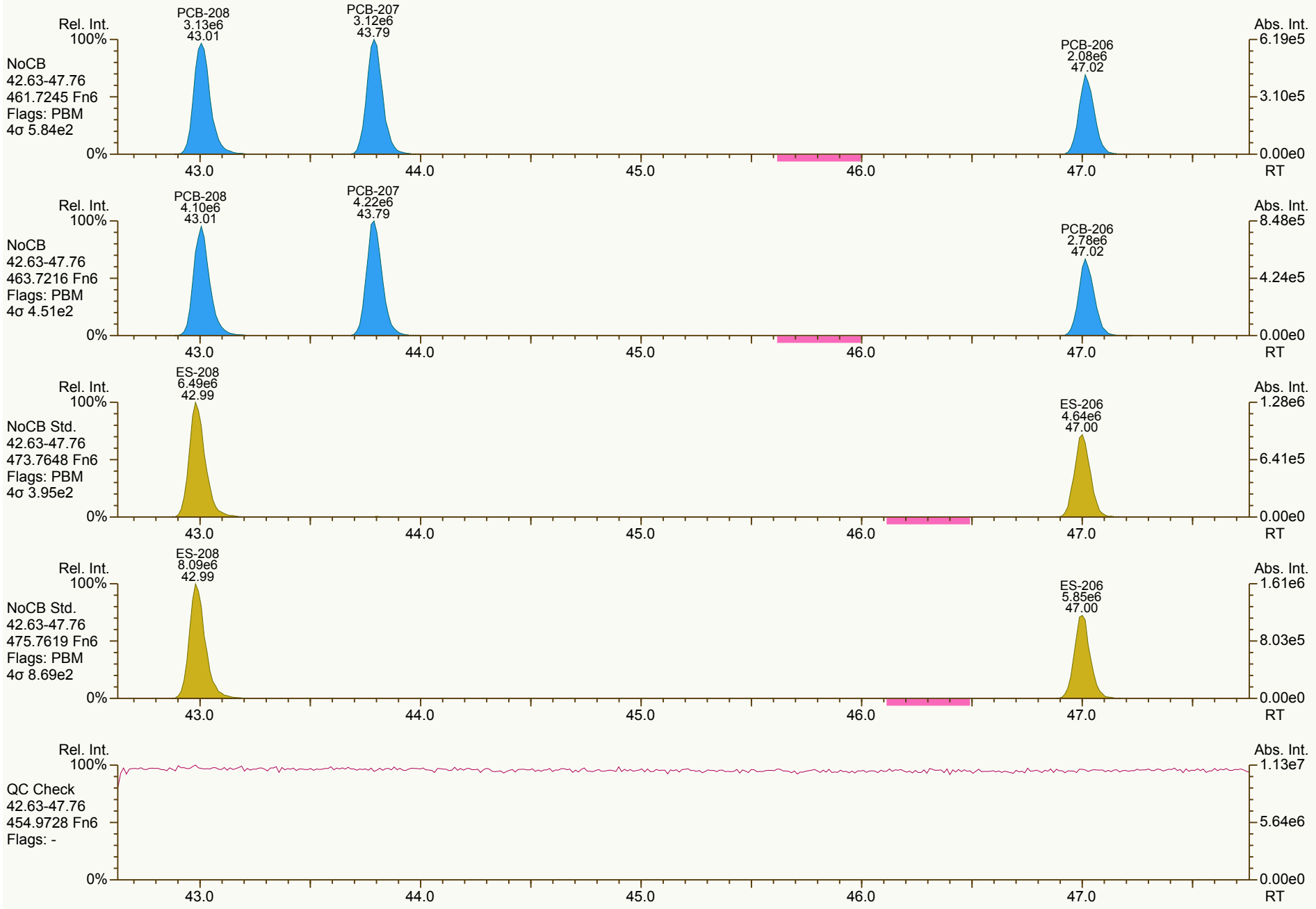
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3628, 3597 scc: 549-357 *PKD: 14-Dec-2012 14:02 Printed: 16-Dec-2012 14:48 Page 19 of 21*

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X10**



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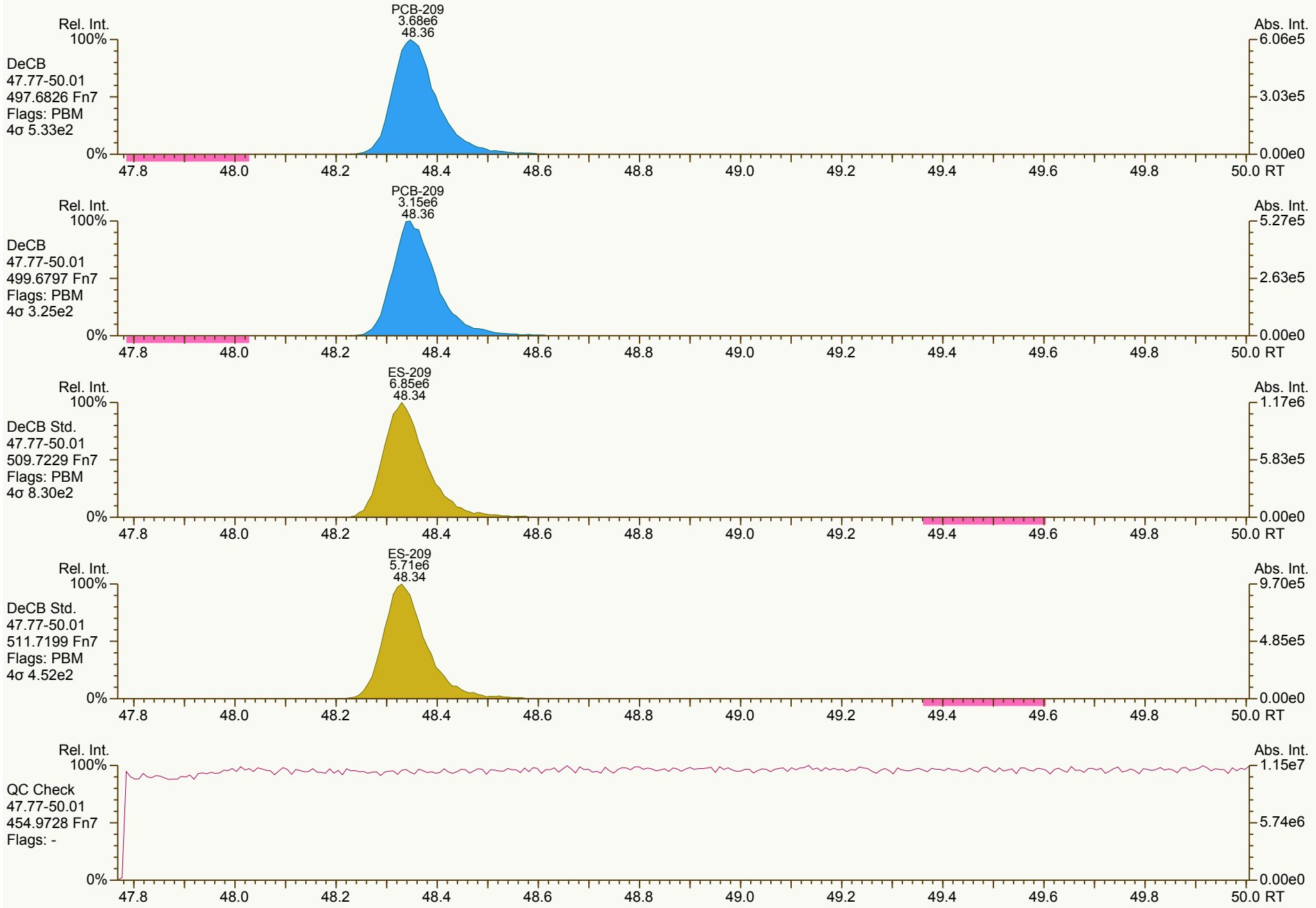
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9595, 1908 scc: 549-357 *PKD: 14-Dec-2012 14:02 Printed: 16-Dec-2012 14:48 Page 20 of 21*

SGS-AP ID: CS3_121214_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 13:02:29**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 04** **User: LKB Datafile: 121214X10**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8928, 1418 scc: 549-357 *Revised: 14-Dec-2012 14:02 (LKB) Printed: 16-Dec-2012 14:48 Page 21 of 21*

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\SBS_121214_PCB_XA.utp_res, saved 16-Dec-2012 14:42 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



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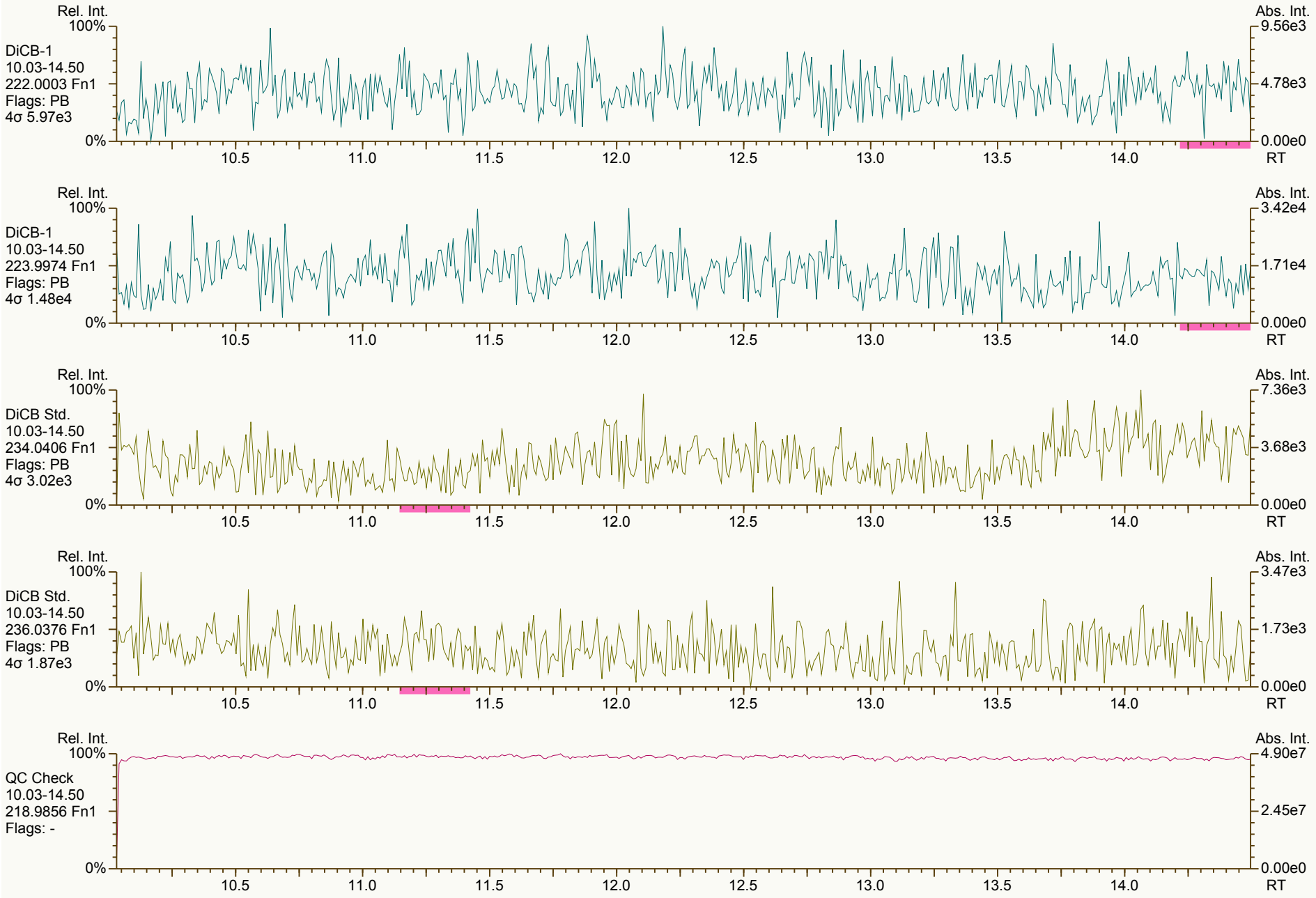
SGS-AP ID: SBS_121214_PCB_XA | Sample ID: SIL 9-41-1 | Acq: 14-Dec-2012 05:46:41
Instr: AutoSpec-Premier MM7 | VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02 | User: LKB Datafile: 121214X03



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SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



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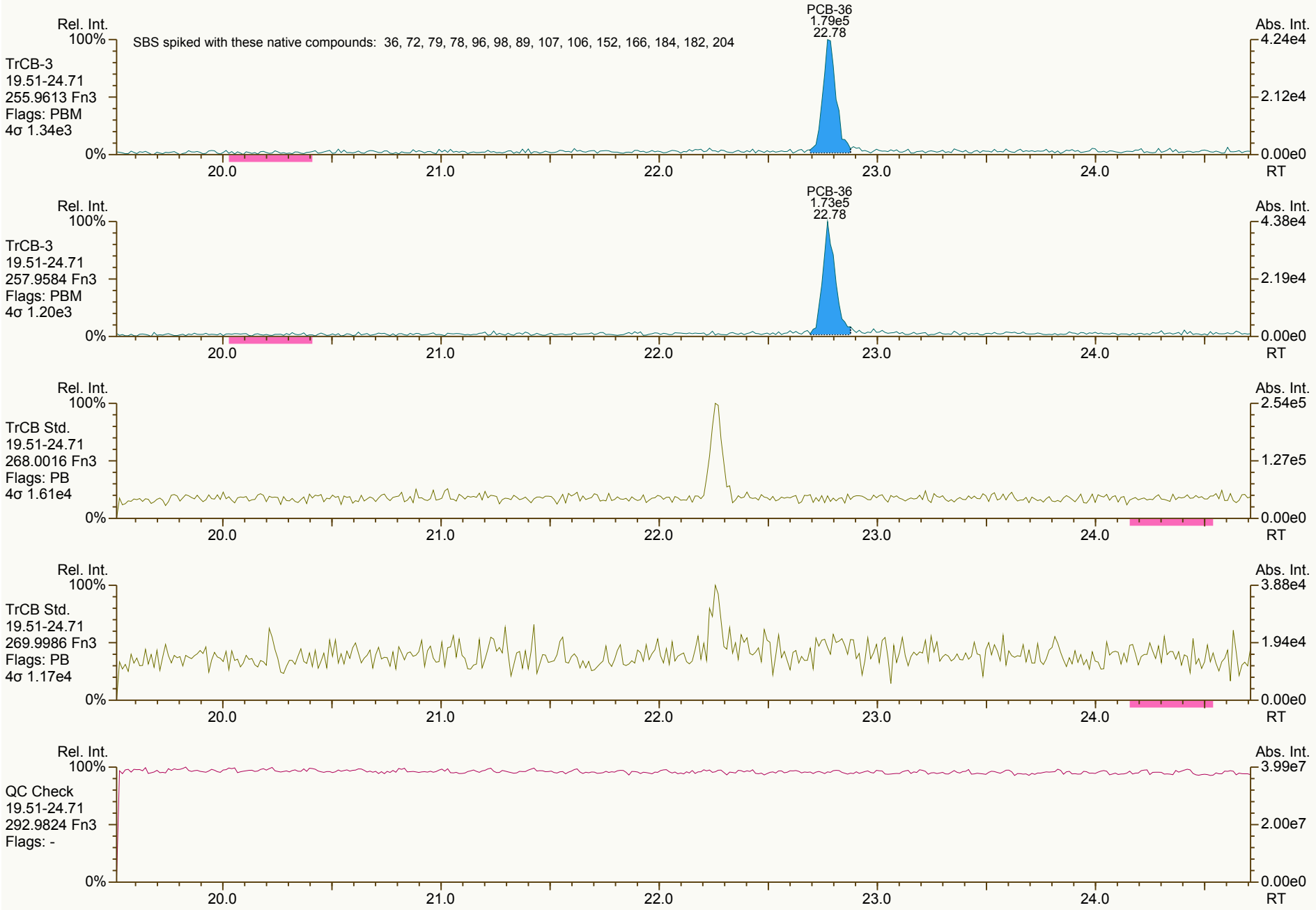
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3152, 2325 scc: 529-276 *PKD: 14-Dec-2012 10:40 Printed: 16-Dec-2012 14:45 Page 5 of 21*

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5366, 6572 scc: 529-276 *Revised: 14-Dec-2012 10:39 (LKB) Printed: 16-Dec-2012 14:45 Page 8 of 21*

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



SGS-AP ID: SBS_121214_PCB_XA
Instr: AutoSpec-Premier MM7
Sample ID: SIL 9-41-1
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02
Acq: 14-Dec-2012 05:46:41
User: LKB Datafile: 121214X03



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Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2470, 4628 scc: 529-276
Revised: 14-Dec-2012 10:39 (LKB) Printed: 16-Dec-2012 14:45 Page 10 of 21

SGS-AP ID: SBS_121214_PCB_XA
Instr: AutoSpec-Premier MM7

Sample ID: SIL 9-41-1
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02

Acq: 14-Dec-2012 05:46:41
User: LKB Datafile: 121214X03



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\SBS_121214_PCB_XA.utp_res, saved 16-Dec-2012 14:42 (LKB)

Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4931, 2096 scc: 529-276

Revised: 14-Dec-2012 10:40 (LKB) Printed: 16-Dec-2012 14:45 Page 11 of 21

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



SGS-AP ID: SBS_121214_PCB_XA
Instr: AutoSpec-Premier MM7

Sample ID: SIL 9-41-1
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02

Acq: 14-Dec-2012 05:46:41
User: LKB Datafile: 121214X03



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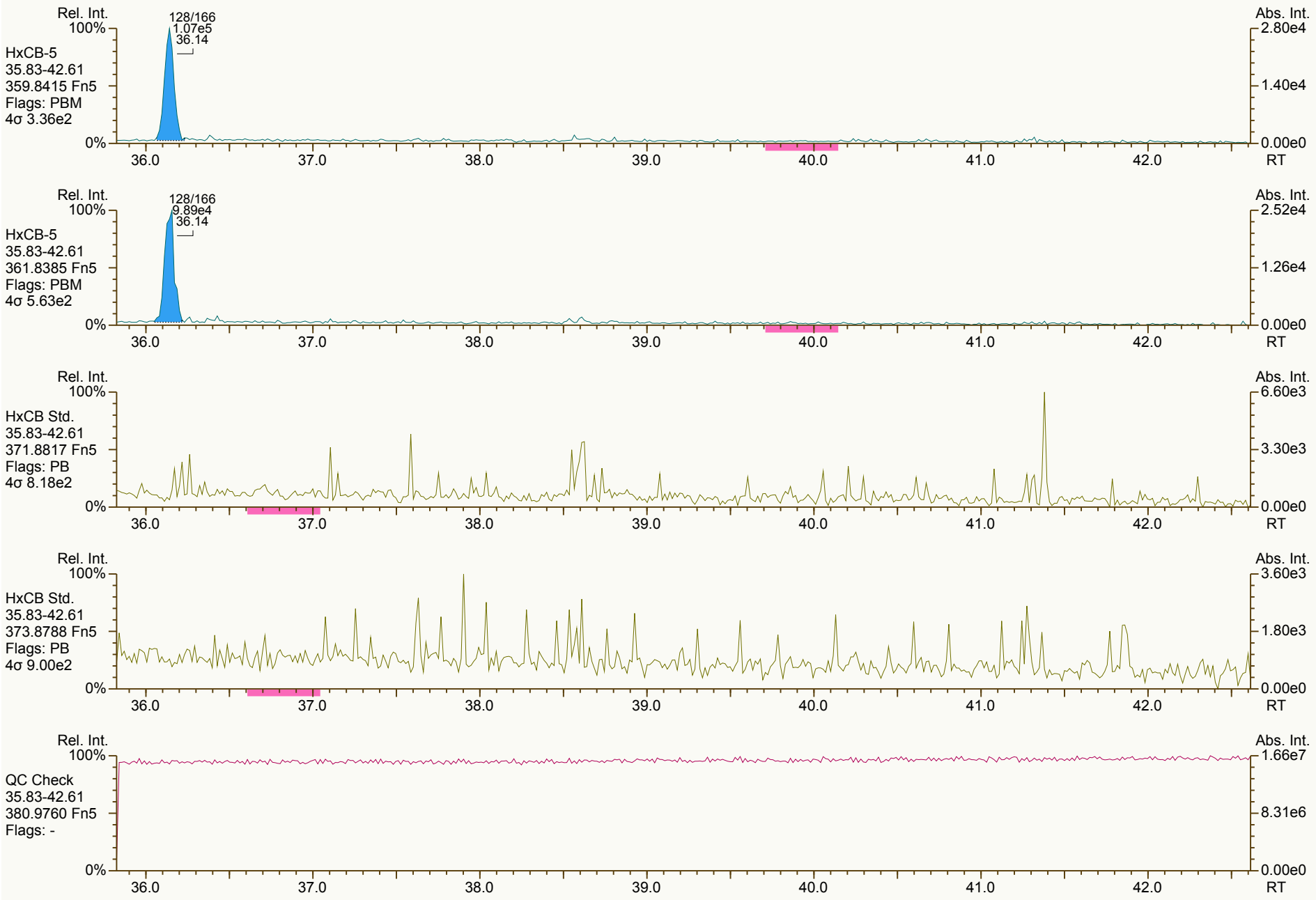
Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2433, 1738 scc: 529-276

Revised: 14-Dec-2012 10:40 (LKB) Printed: 16-Dec-2012 14:45 Page 13 of 21

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2466, 2130 scc: 529-276 *Revised: 14-Dec-2012 10:40 (LKB) Printed: 16-Dec-2012 14:45 Page 14 of 21*

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



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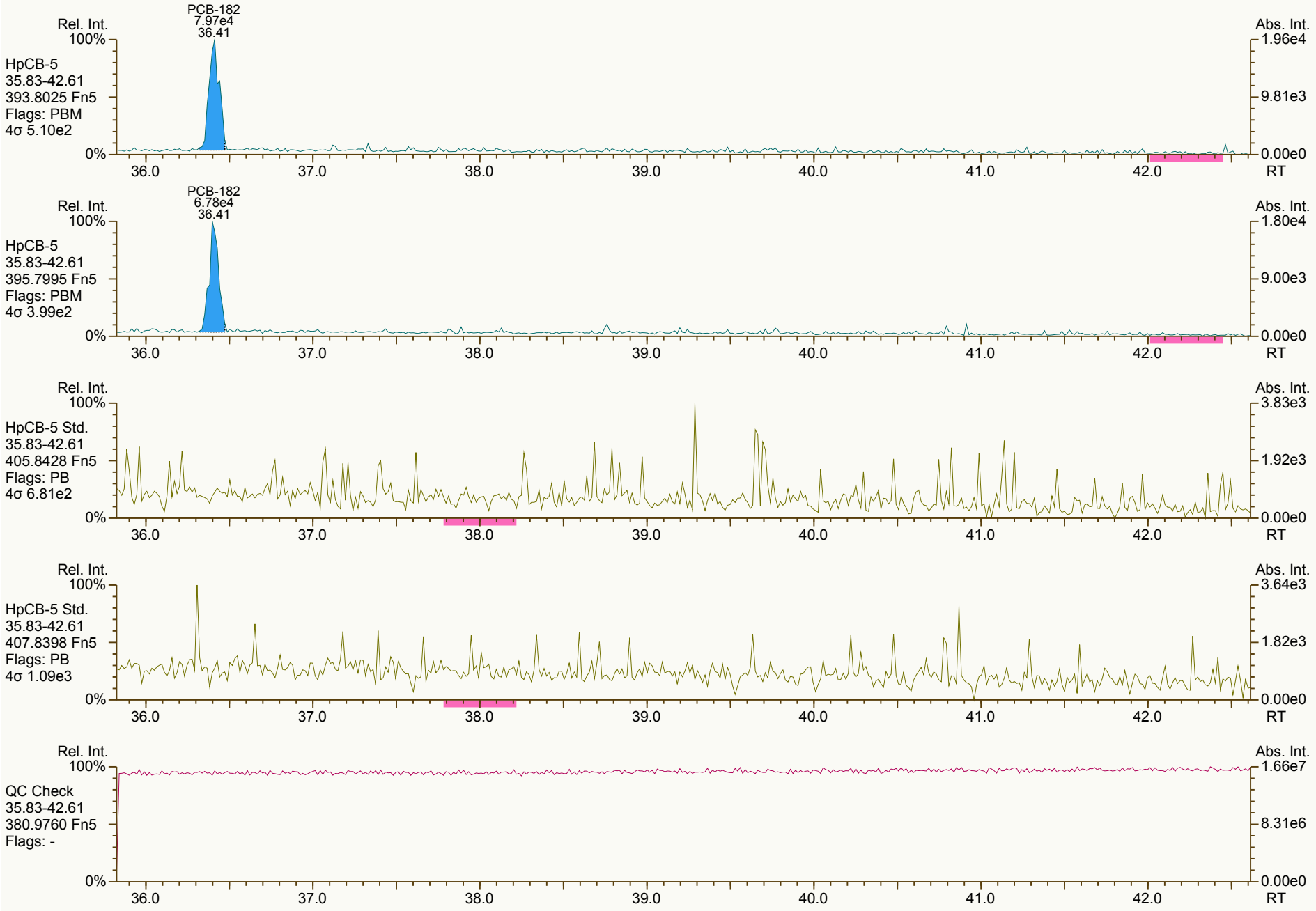
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5359, 0301 scc: 529-276 *Revised: 14-Dec-2012 10:40 (LKB) Printed: 16-Dec-2012 14:45 Page 15 of 21*

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



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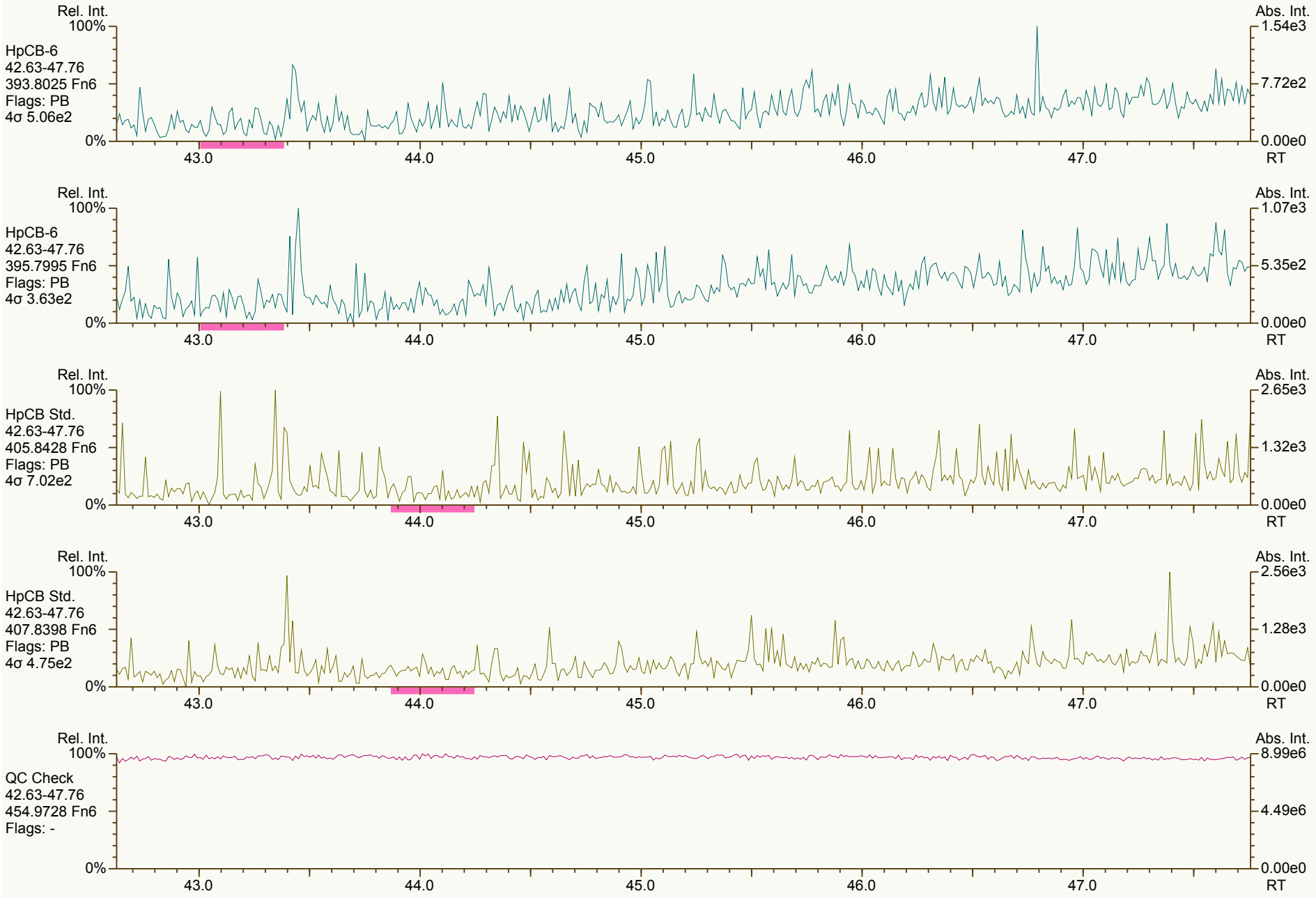

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4975, 1426 scc: 529-276 *Revised: 14-Dec-2012 10:39 (LKB) Printed: 16-Dec-2012 14:45 Page 17 of 21*

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1402, 3243 scc: 529-276 *Revised: 14-Dec-2012 10:39 (LKB) Printed: 16-Dec-2012 14:45 Page 18 of 21*

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4709, 9751 scc: 529-276 *Revised: 14-Dec-2012 10:39 (LKB) Printed: 16-Dec-2012 14:45 Page 19 of 21*

SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X03**



SGS-AP ID: SBS_121214_PCB_XA **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 05:46:41**
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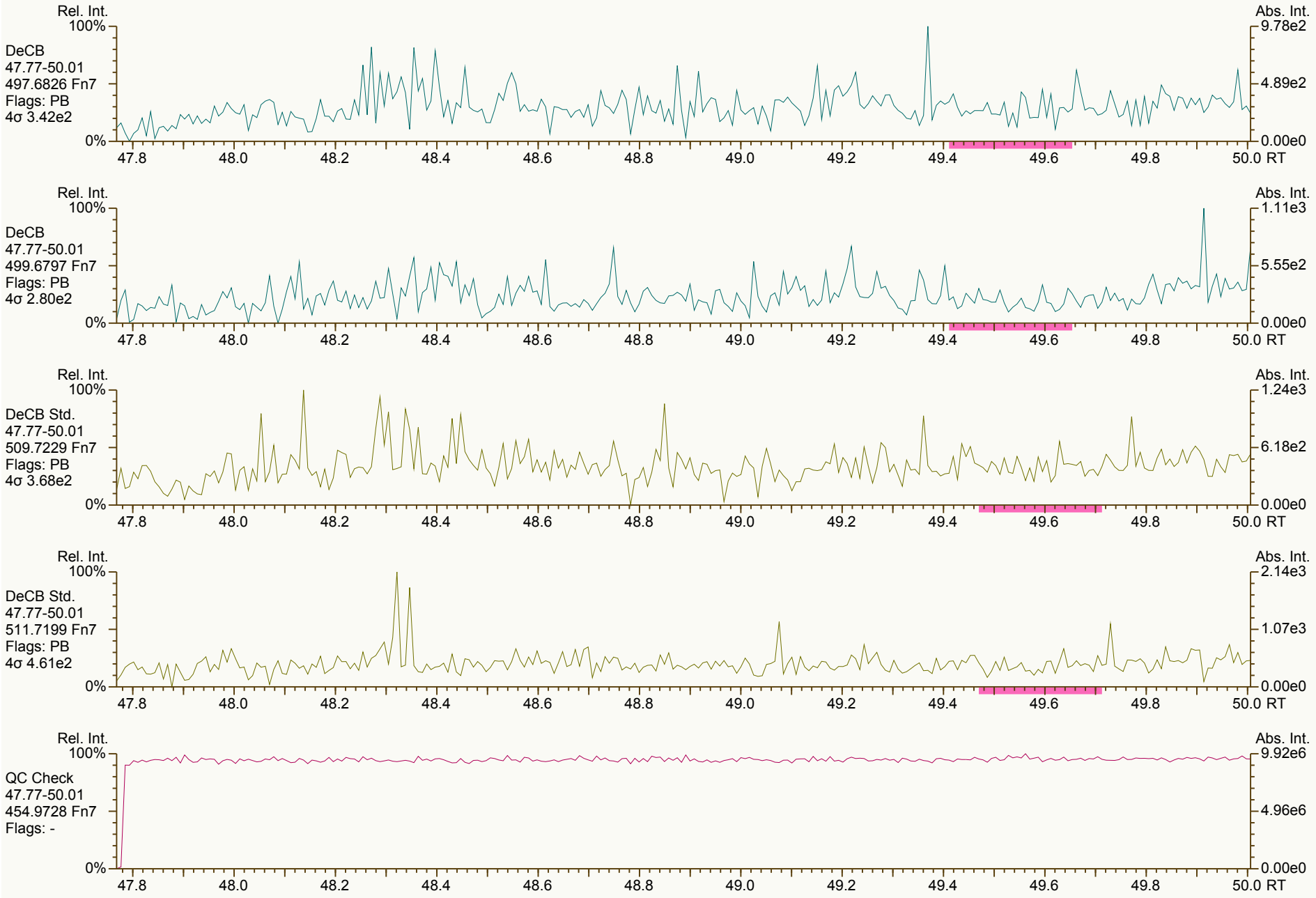

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0340, 6558 scc: 529-276 *Revised: 14-Dec-2012 10:39 (LKB) Printed: 16-Dec-2012 14:45 Page 21 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
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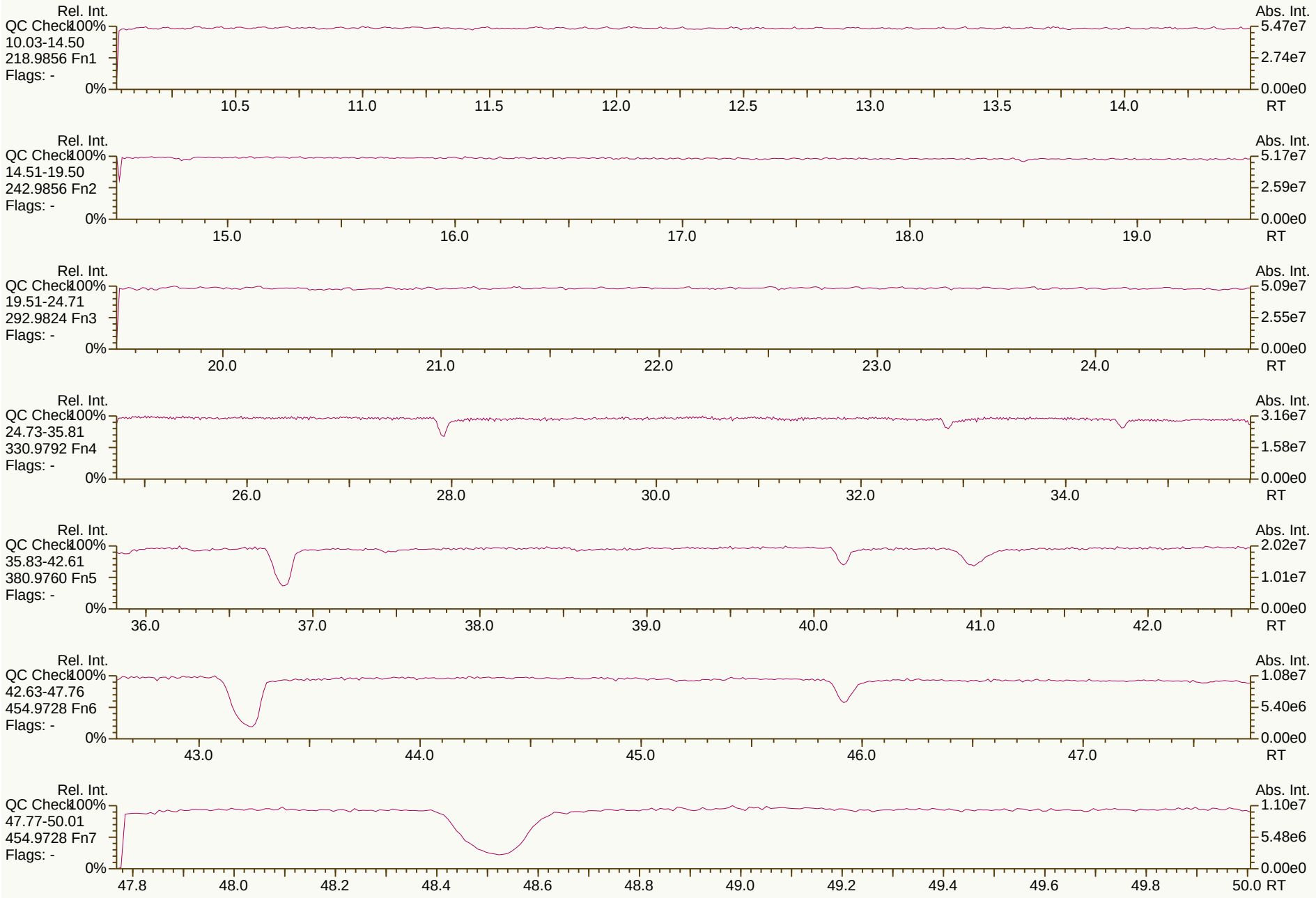

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 529-766 *PKD: n/a Printed: 16-Dec-2012 14:47 Page 1 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6738, 0718 scc: 529-766 *Revised: 14-Dec-2012 13:30 (LKB) Printed: 16-Dec-2012 14:47 Page 2 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4414, 5048 scc: 529-766 *PKD: 14-Dec-2012 13:36 Printed: 16-Dec-2012 14:47 Page 5 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
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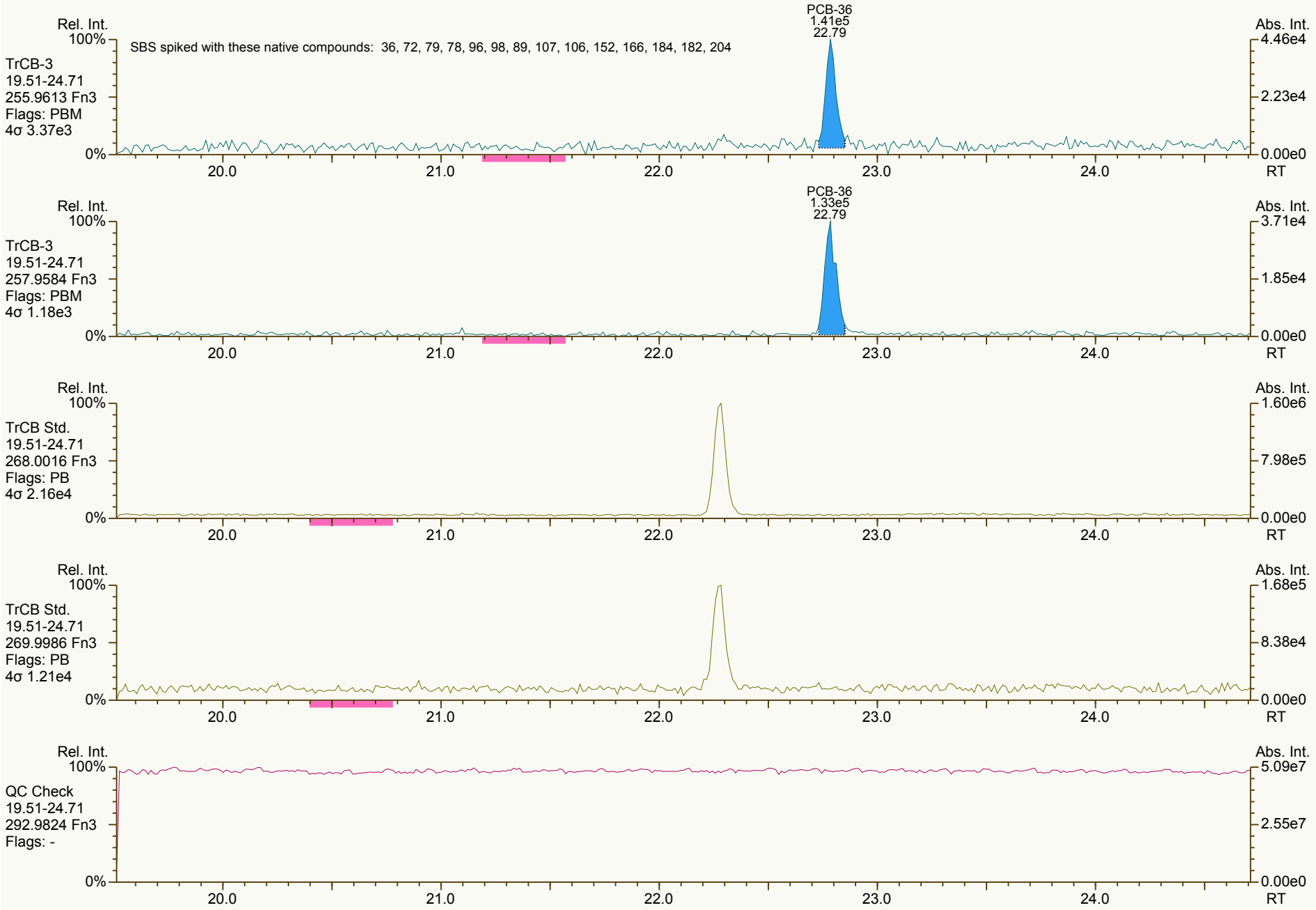

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SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
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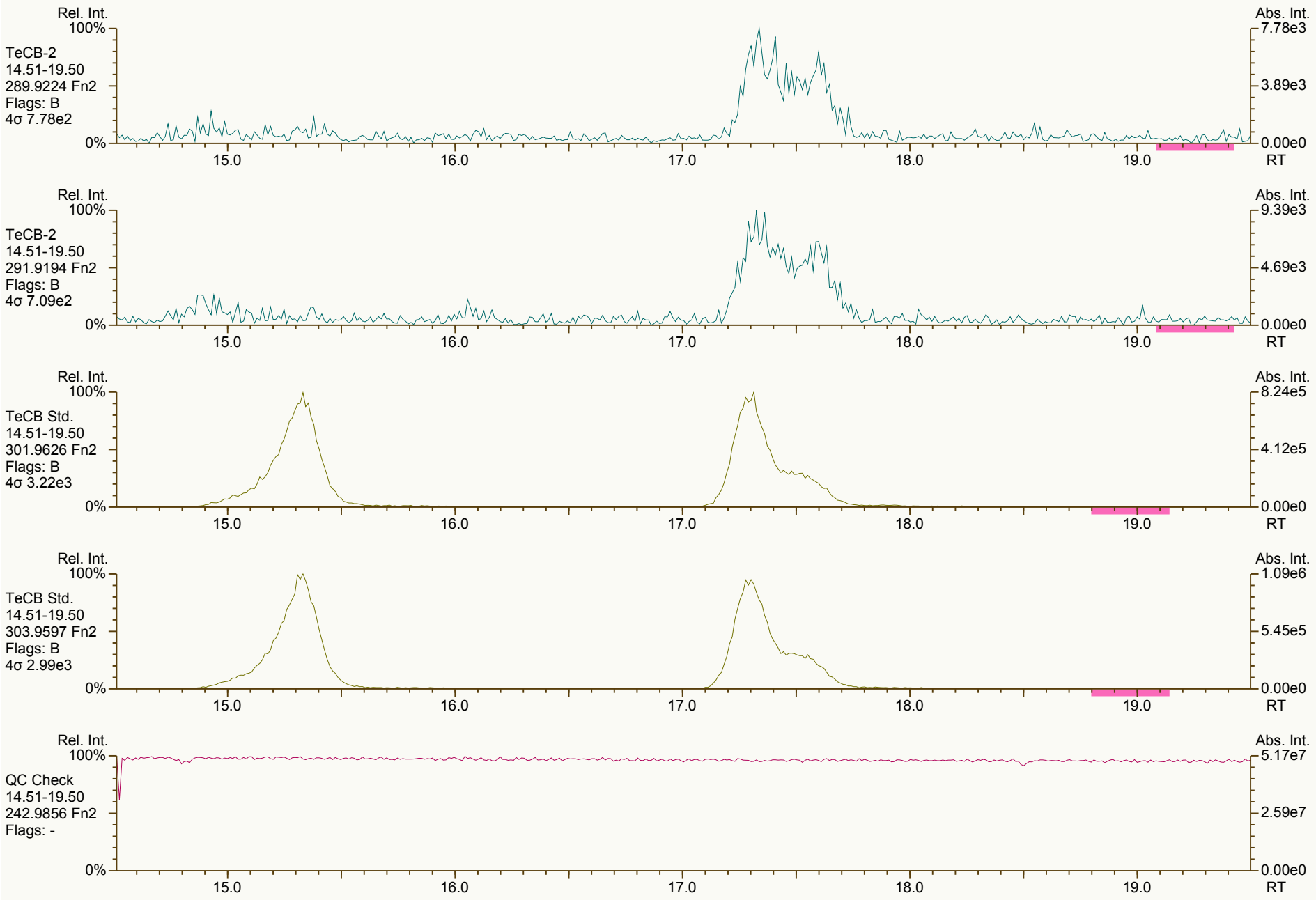

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9912, 5607 scc: 529-766 *Revised: 14-Dec-2012 13:31 (LKB) Printed: 16-Dec-2012 14:47 Page 7 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9404, 9645 scc: 529-766 *PKD: 14-Dec-2012 13:36 Printed: 16-Dec-2012 14:47 Page 8 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
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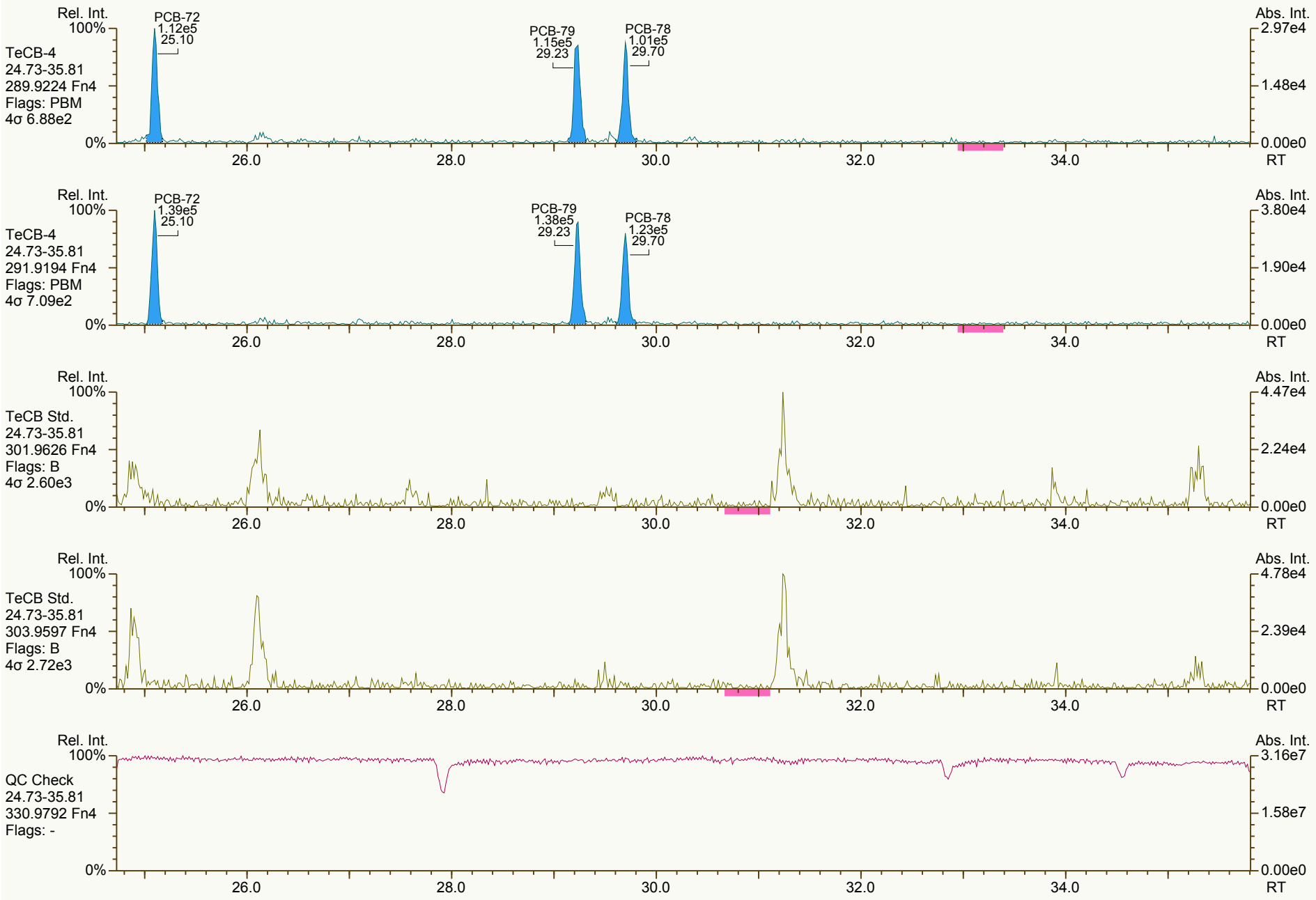

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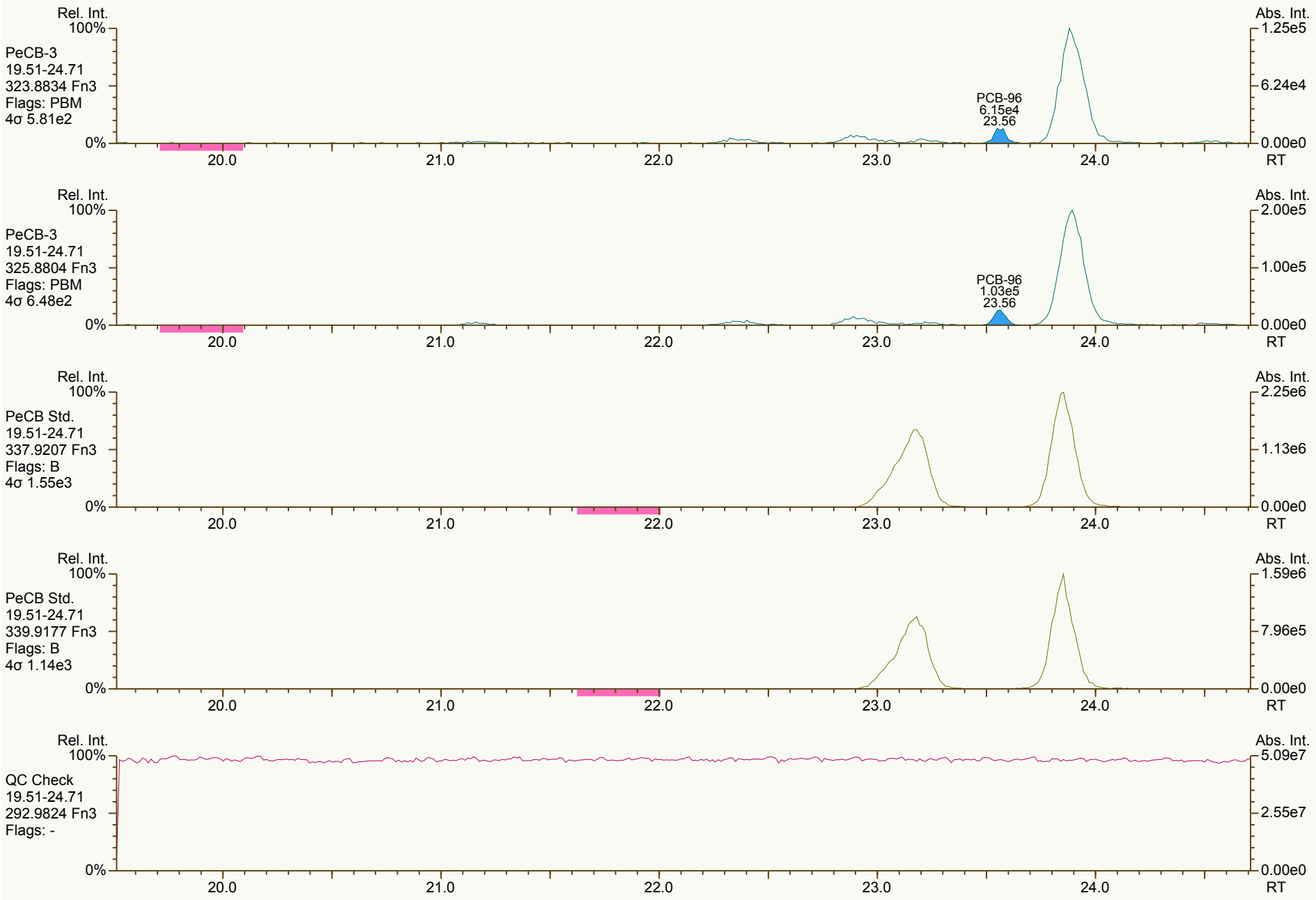
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 7091, 0104 scc: 529-766 *Revised: 14-Dec-2012 13:31 (LKB) Printed: 16-Dec-2012 14:47 Page 9 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



SGS-AP ID: SBS_121214_PCB_XB | Sample ID: SIL 9-41-1 | Acq: 14-Dec-2012 11:58:15
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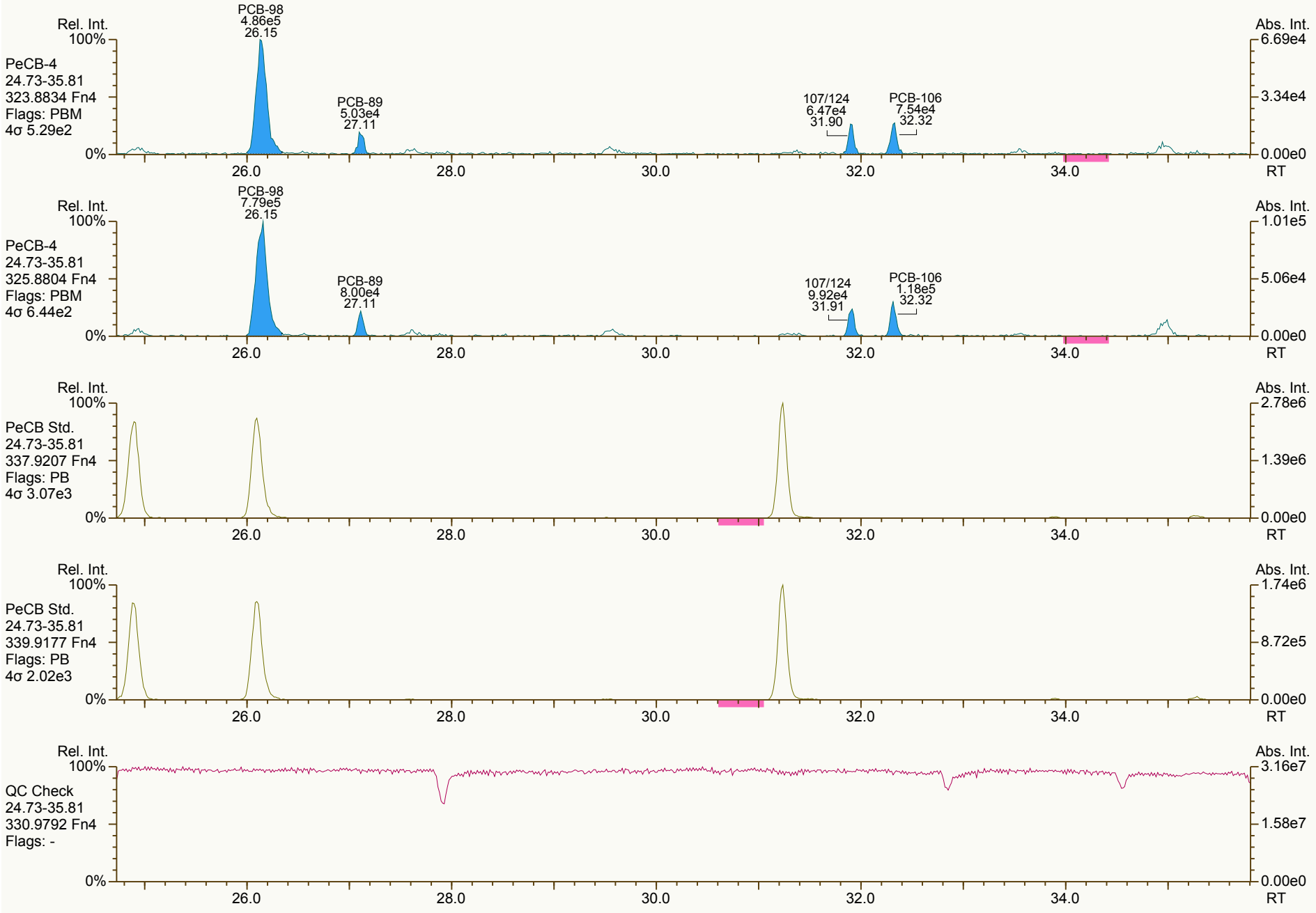

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Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3258, 9420 scc: 529-766
PKD: 14-Dec-2012 13:36 Printed: 16-Dec-2012 14:47 Page 11 of 21

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5575, 9291 scc: 529-766 *PKD: 14-Dec-2012 13:36 Printed: 16-Dec-2012 14:47 Page 12 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



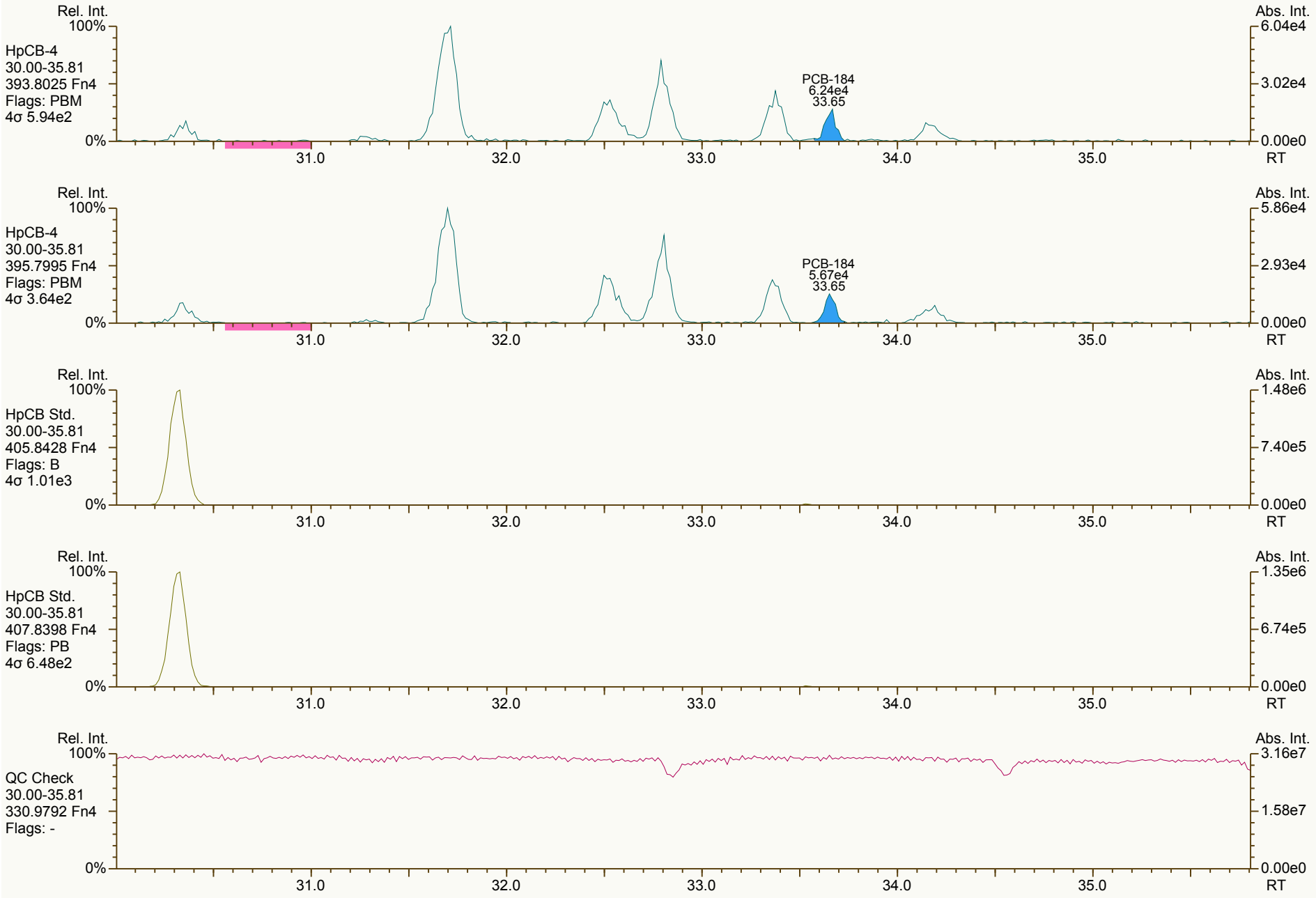
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\SBS_121214_PCB_XB.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8570, 9166 scc: 529-766 *PKD: 14-Dec-2012 13:36 Printed: 16-Dec-2012 14:47 Page 13 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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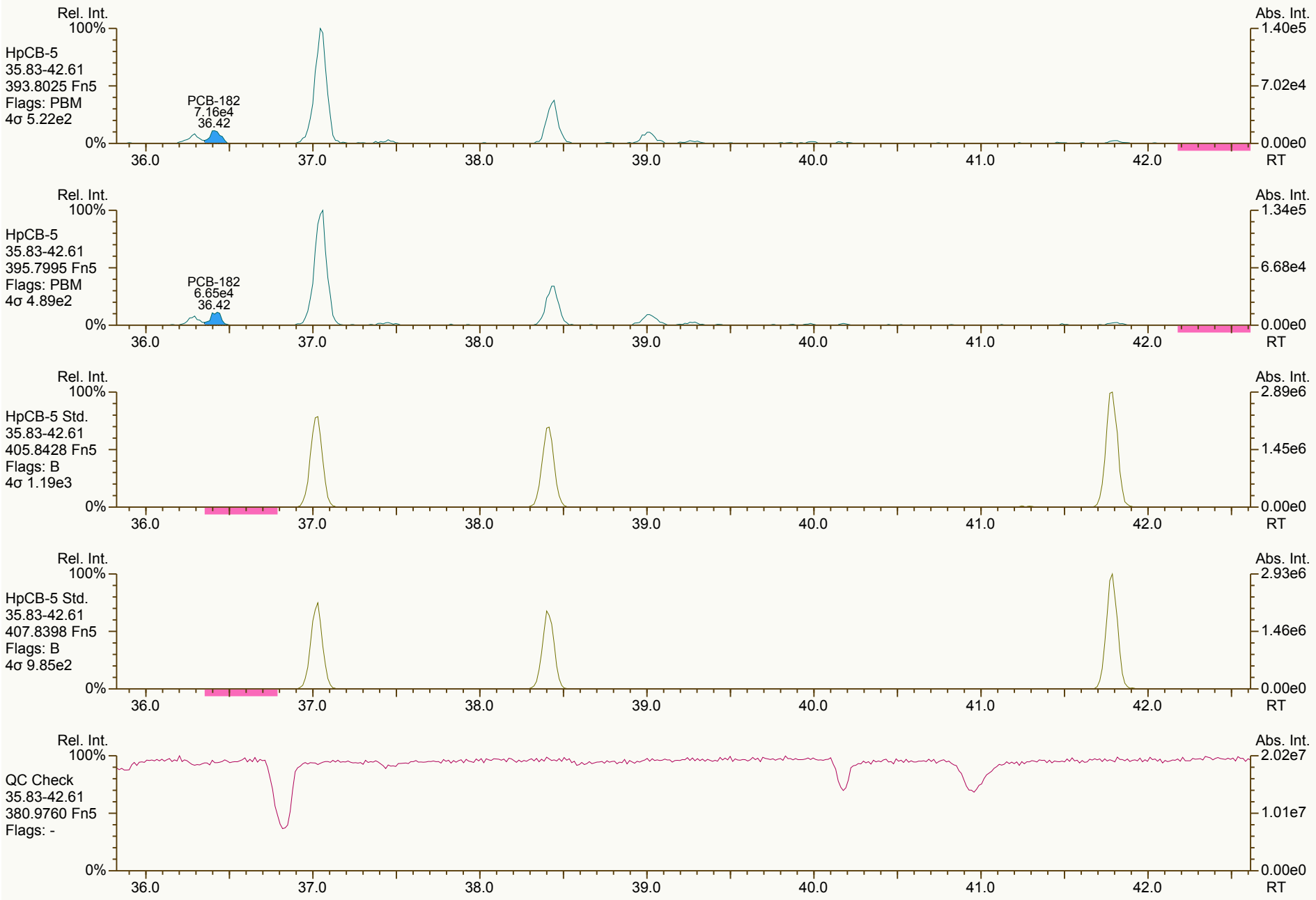
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9322, 1414 scc: 529-766 *PKD: 14-Dec-2012 13:36 Printed: 16-Dec-2012 14:47 Page 15 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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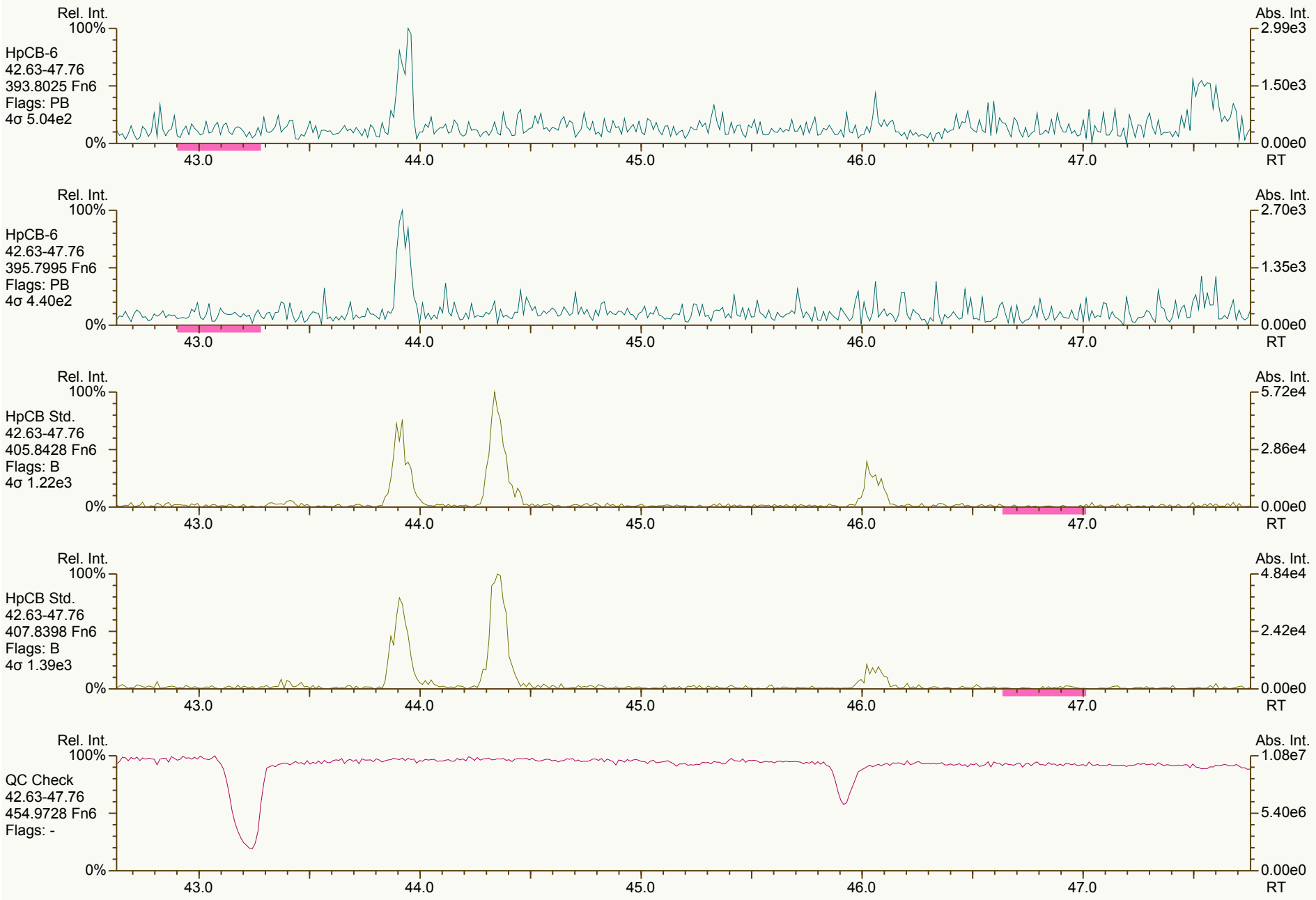
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4028, 0875 scc: 529-766 *PKD: 14-Dec-2012 13:36 Printed: 16-Dec-2012 14:47 Page 16 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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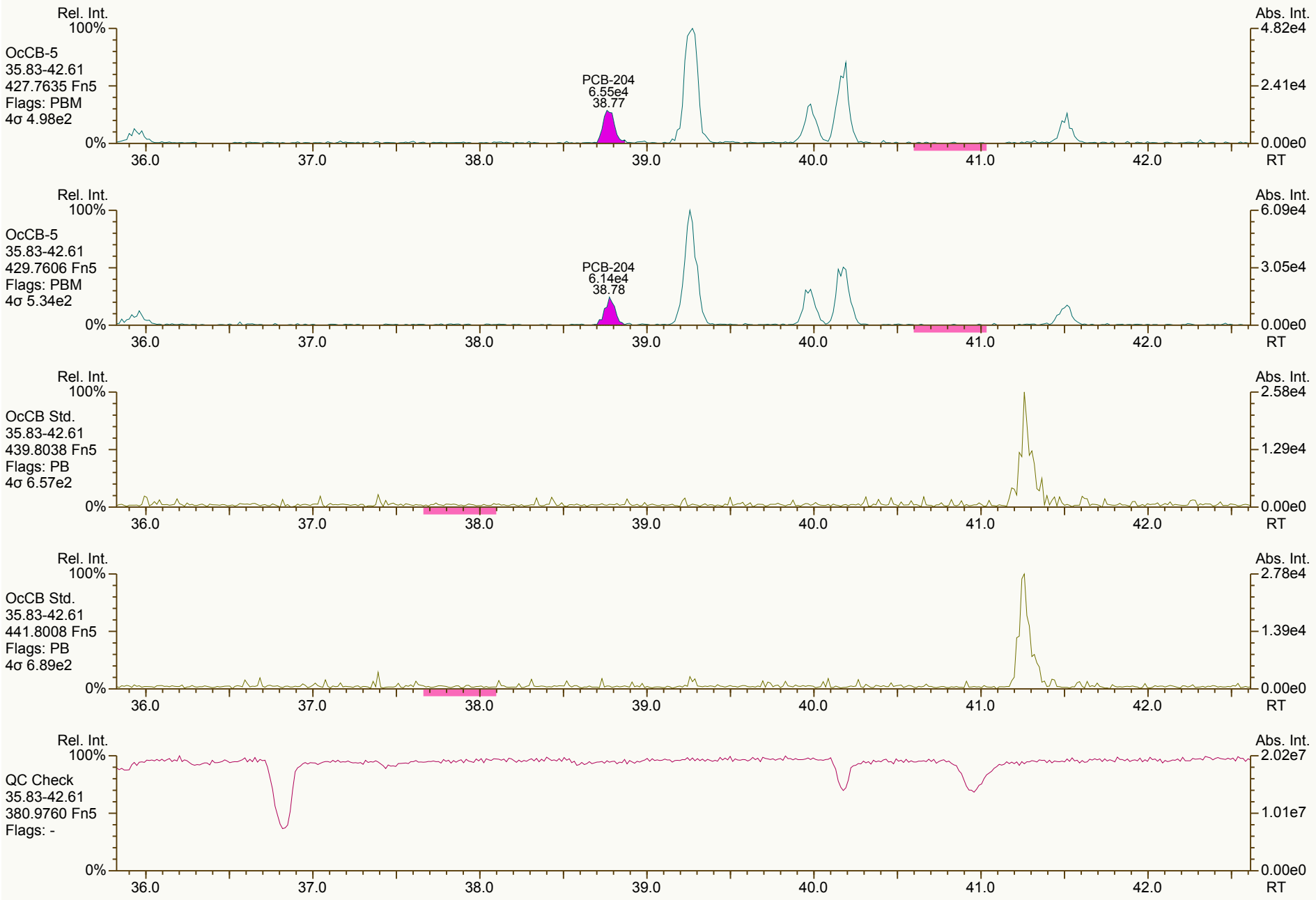
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9732, 5864 scc: 529-766 *PKD: 14-Dec-2012 13:36 Printed: 16-Dec-2012 14:47 Page 17 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1992, 3774 scc: 529-766 *PKD: 14-Dec-2012 13:36 Printed: 16-Dec-2012 14:47 Page 18 of 21*

SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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SGS-AP ID: SBS_121214_PCB_XB **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 11:58:15**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X09**



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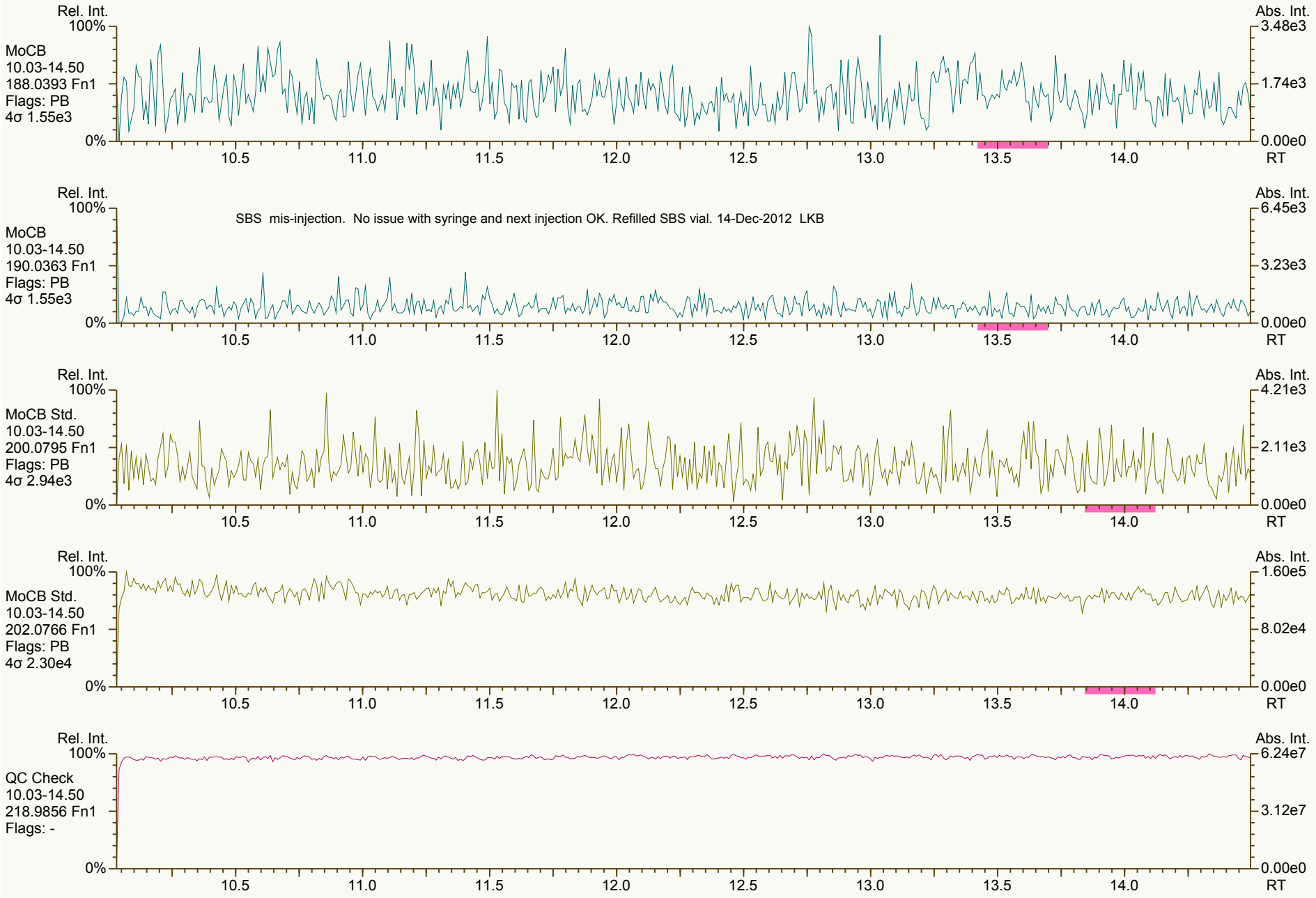
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4972, 0976 scc: 529-766 *Revised: 14-Dec-2012 13:30 (LKB) Printed: 16-Dec-2012 14:47 Page 21 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\SBS_121214_PCB_XC.utp_res, saved 16-Dec-2012 14:43 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 scc: 494-161 *PKD: n/a Printed: 16-Dec-2012 14:48 Page 1 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



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SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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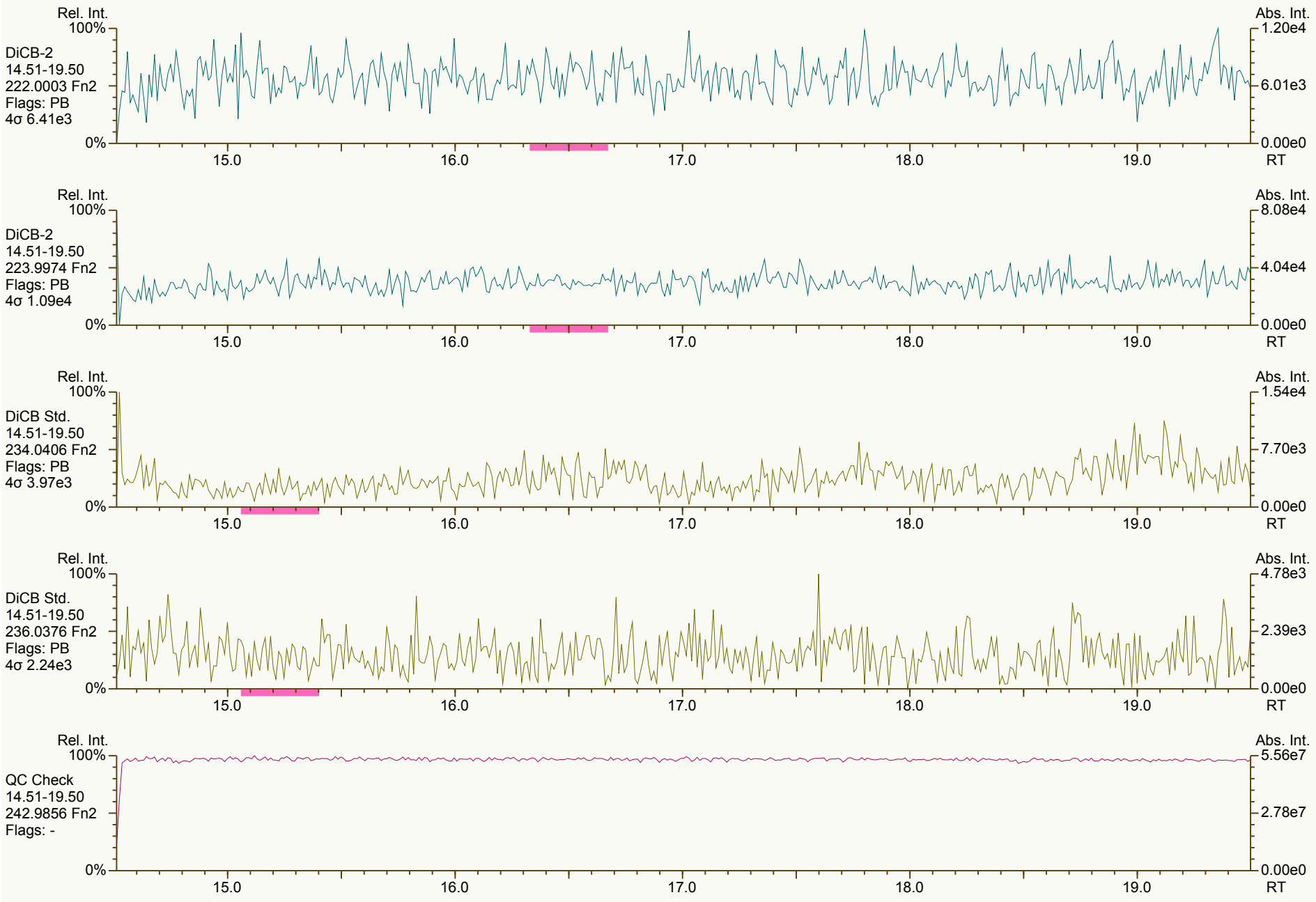

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SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4030, 5340 scc: 494-161 *PKD: 14-Dec-2012 15:44 Printed: 16-Dec-2012 14:48 Page 5 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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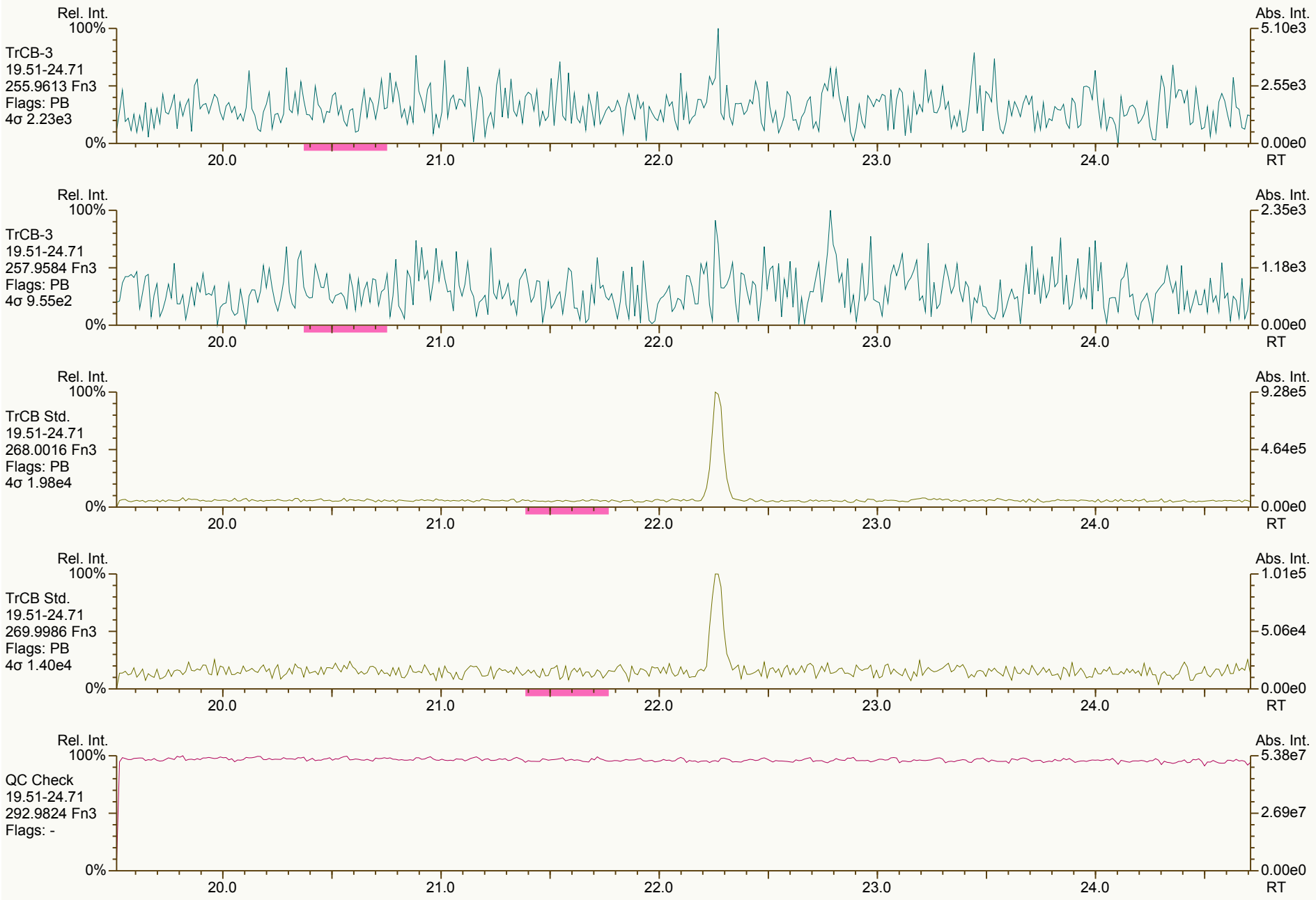

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5695, 6079 scc: 494-161 *PKD: 14-Dec-2012 15:44 Printed: 16-Dec-2012 14:48 Page 6 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8091, 7823 scc: 494-161 *Revised: 14-Dec-2012 15:17 (LKB) Printed: 16-Dec-2012 14:48 Page 7 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0026, 1526 scc: 494-161 *Revised: 14-Dec-2012 15:17 (LKB) Printed: 16-Dec-2012 14:48 Page 8 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9158, 5426 scc: 494-161 *Revised: 14-Dec-2012 15:17 (LKB) Printed: 16-Dec-2012 14:48 Page 10 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 5408, 4292 scc: 494-161 *PKD: 14-Dec-2012 15:44 Printed: 16-Dec-2012 14:48 Page 11 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1817, 2682 scc: 494-161 *Revised: 14-Dec-2012 15:17 (LKB) Printed: 16-Dec-2012 14:48 Page 12 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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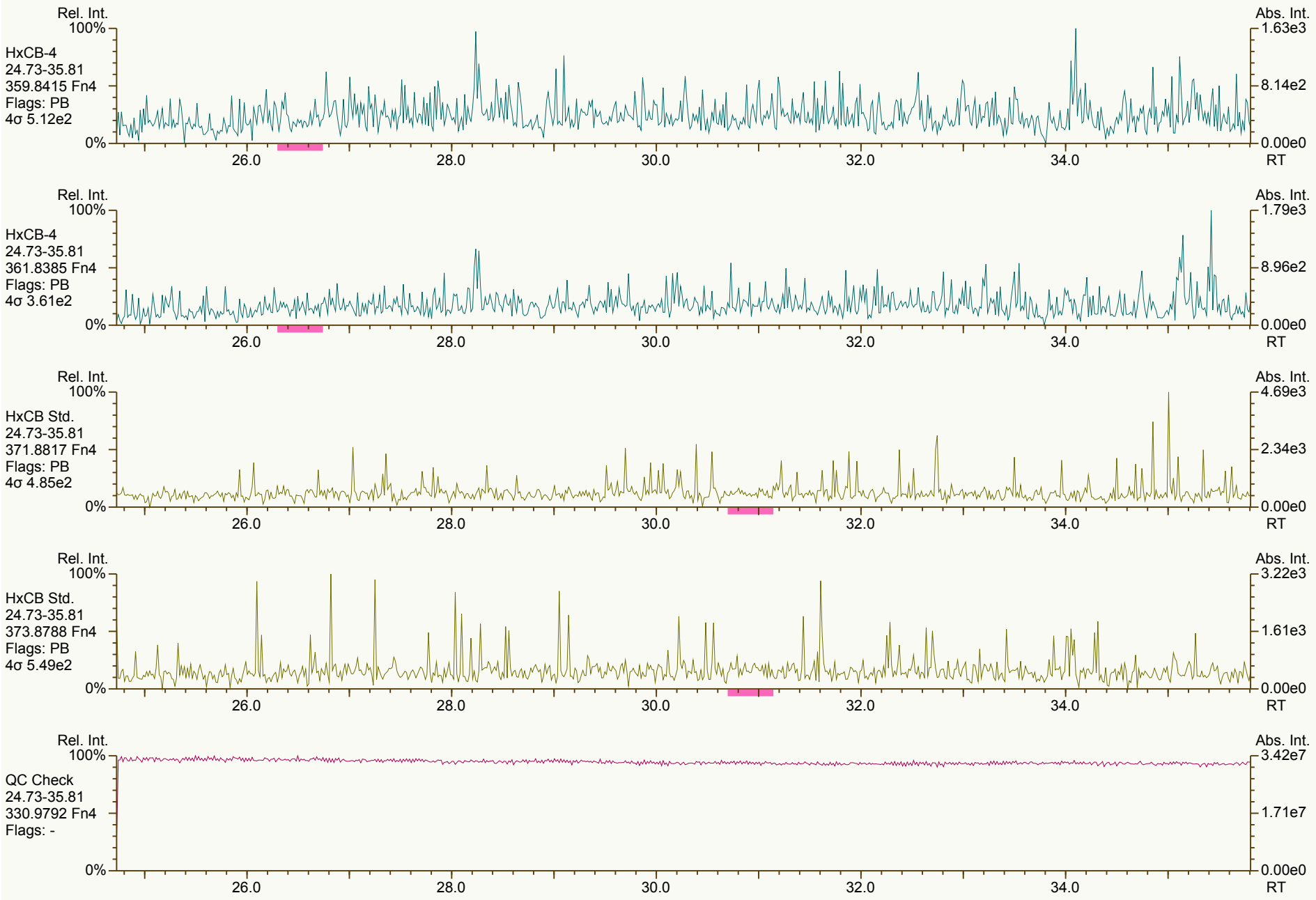

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SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6549, 6618 scc: 494-161 *PKD: 14-Dec-2012 15:44 Printed: 16-Dec-2012 14:48 Page 14 of 21*

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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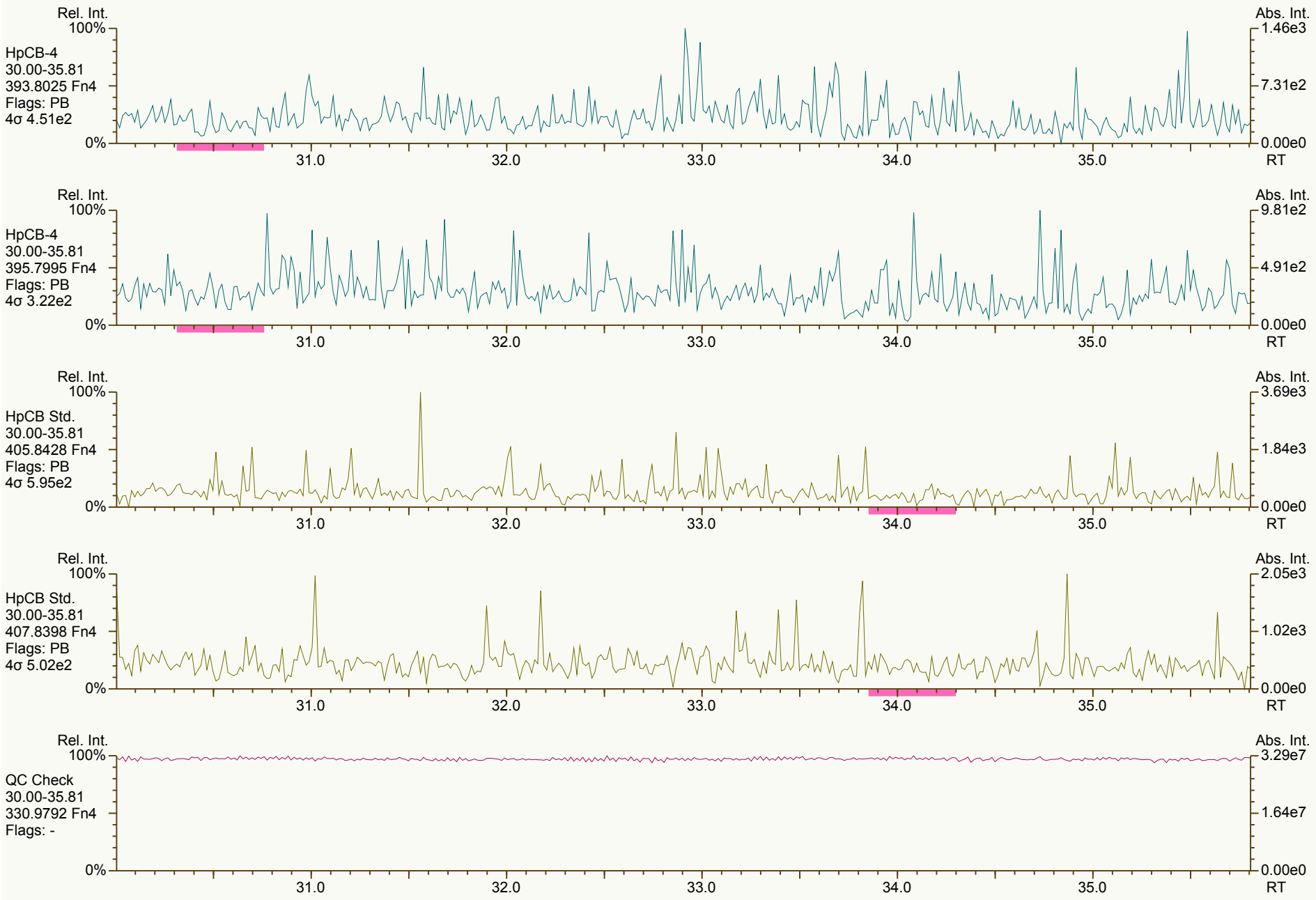

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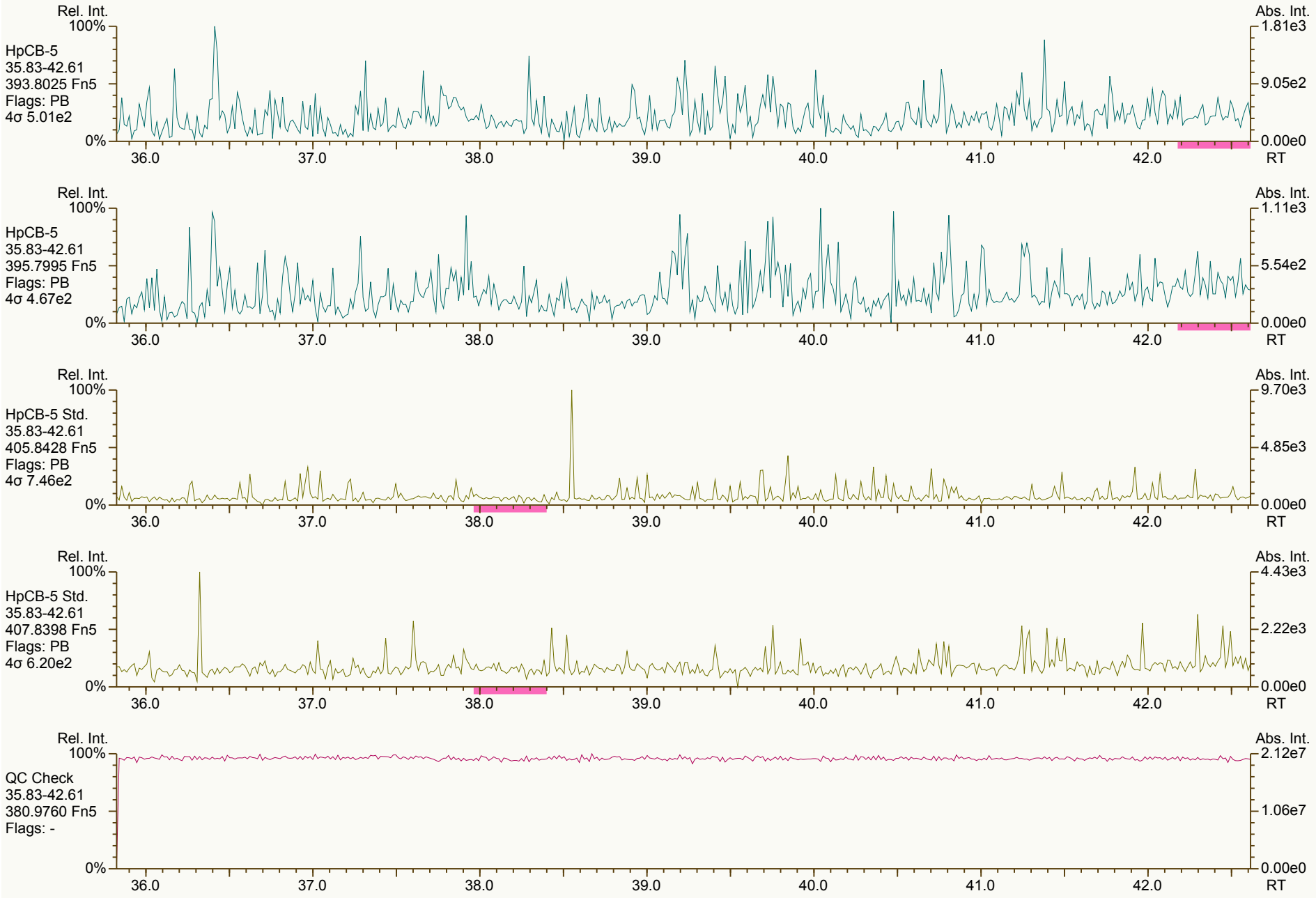
SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



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SGS-AP ID: SBS_121214_PCB_XC
Instr: AutoSpec-Premier MM7

Sample ID: SIL 9-41-1
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02

Acq: 14-Dec-2012 13:53:42
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Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8545, 6118 scc: 494-161
Revised: 14-Dec-2012 15:17 (LKB) Printed: 16-Dec-2012 14:48 Page 17 of 21

SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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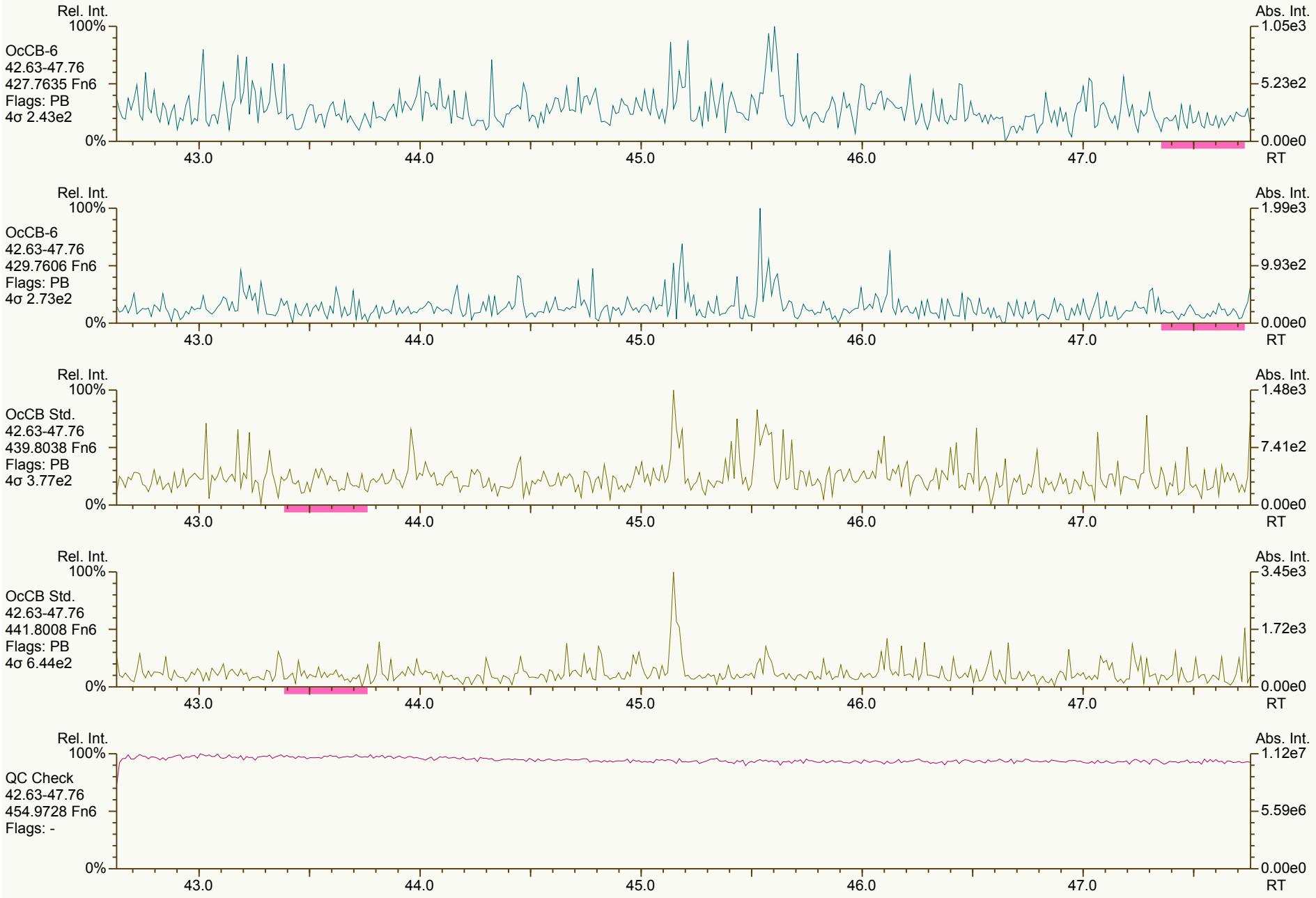

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SGS-AP ID: SBS_121214_PCB_XC **Sample ID: SIL 9-41-1** **Acq: 14-Dec-2012 13:53:42**
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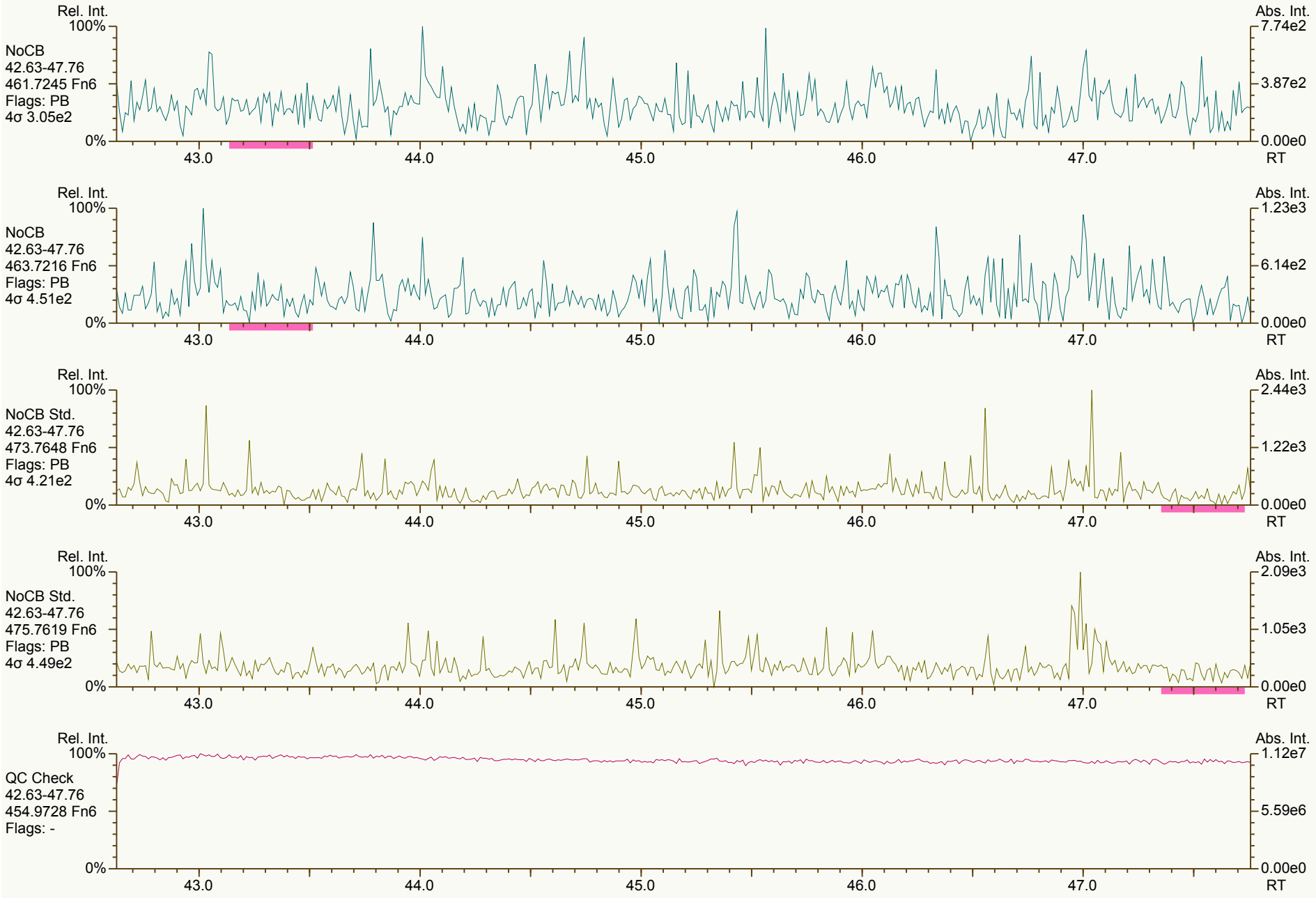

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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4405, 4075 scc: 494-161 *Revised: 14-Dec-2012 15:17 (LKB) Printed: 16-Dec-2012 14:48 Page 20 of 21*

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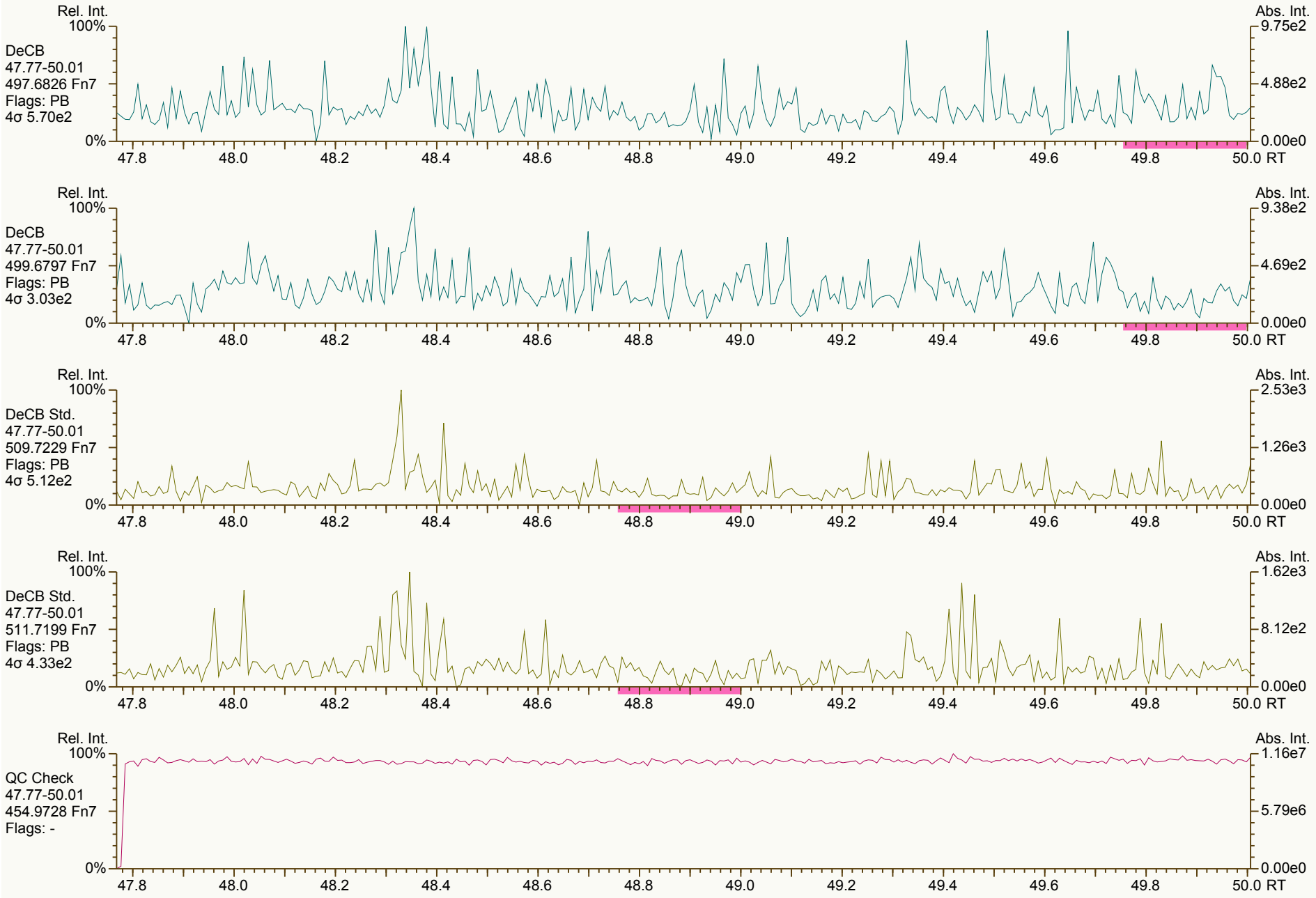
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 121214X11**



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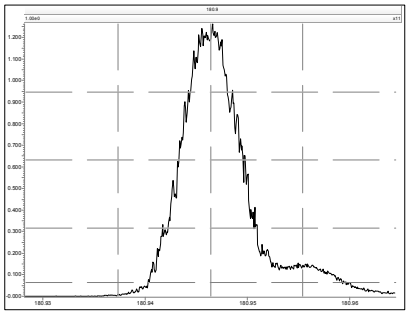
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6270, 2262 scc: 494-161 *Revised: 14-Dec-2012 15:17 (LKB) Printed: 16-Dec-2012 14:48 Page 21 of 21*

Resolution Check Report **MassLynx 4.1 SCN 881**

Printed: Friday, December 14, 2012 03:07:19 Eastern Standard Time

M 180.9888 R 9417



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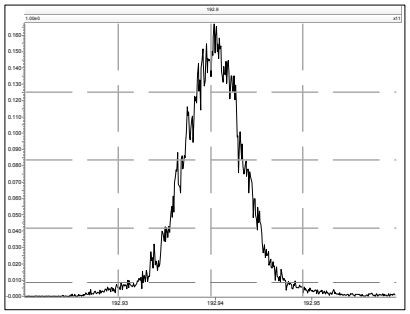

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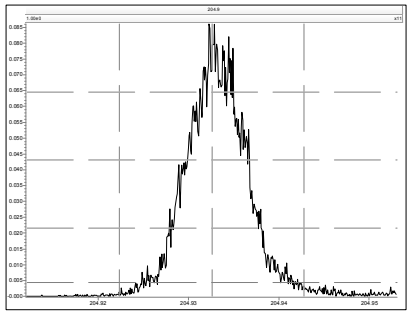
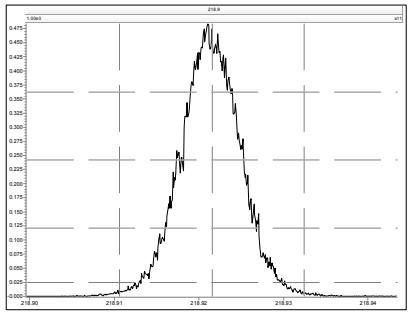
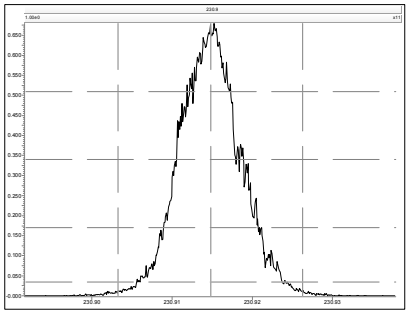


M 218.9856 R 13091



M 230.9856 R 12594



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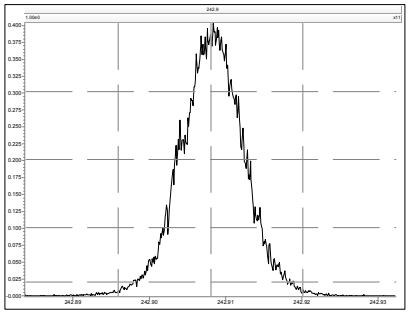

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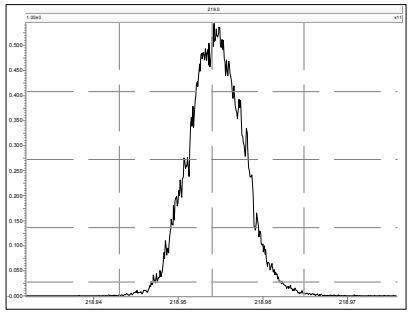

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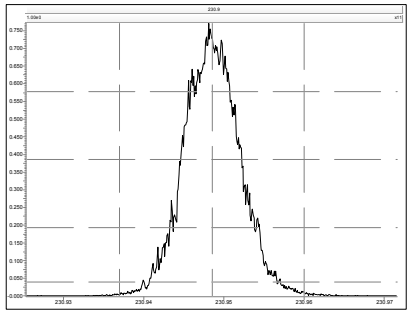

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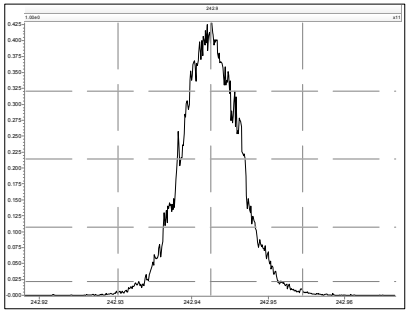
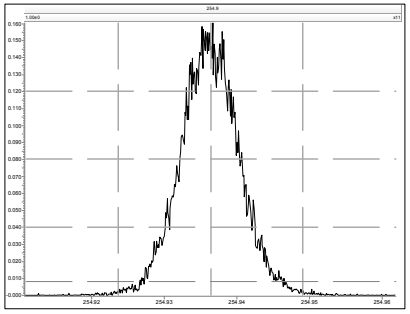
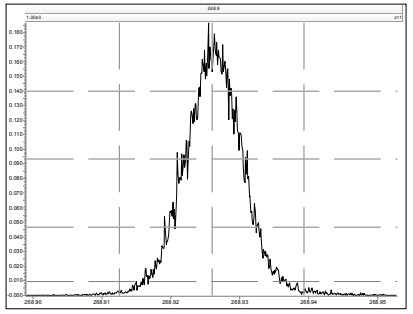


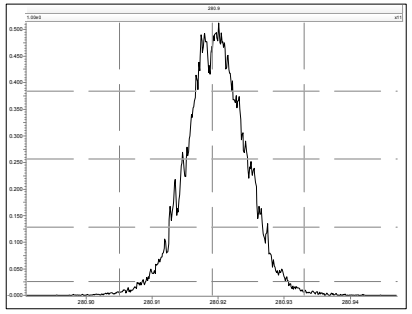
M 254.9856 R 13515



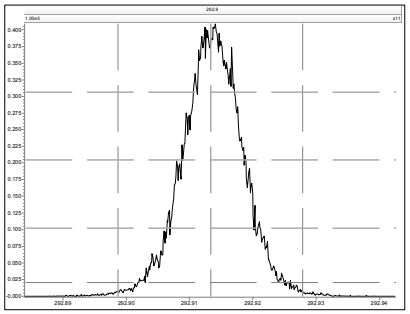
M 268.9824 R 13550



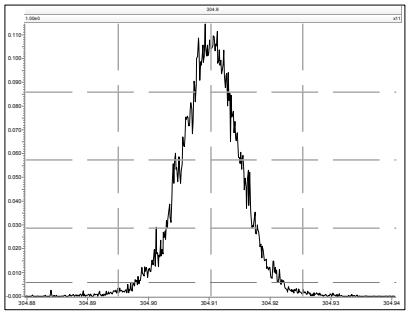
M 280.9824 R 12987



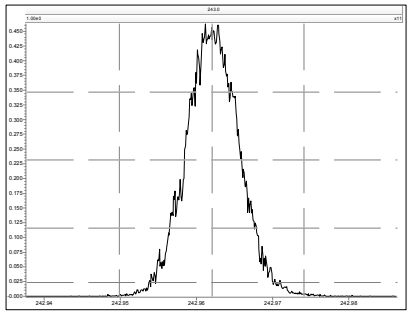
M 292.9824 R 12961



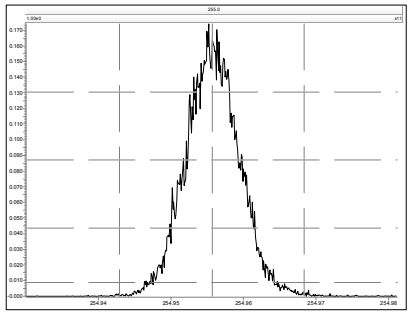
M 304.9824 R 12953



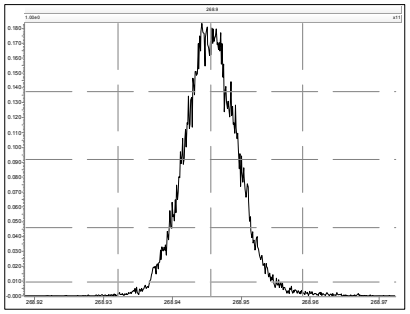
M 242.9856 R 15486



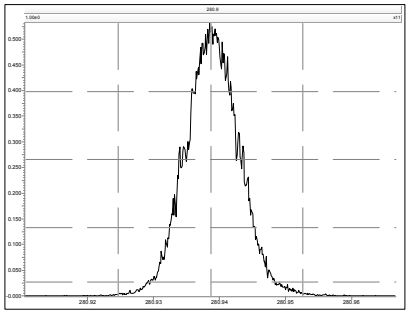
M 254.9856 R 15198



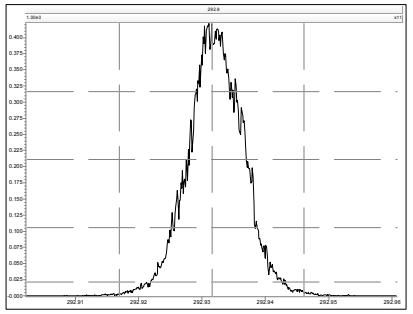
M 268.9824 R 14792



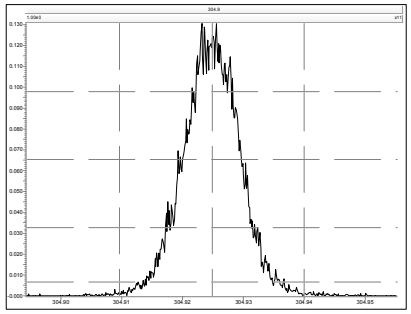
M 280.9824 R 14792



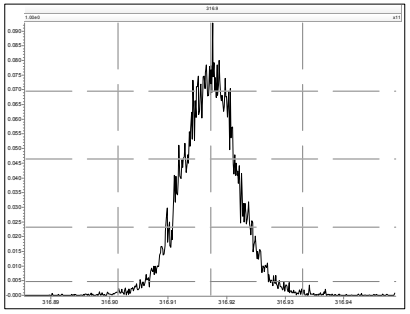
M 292.9824 R 13966



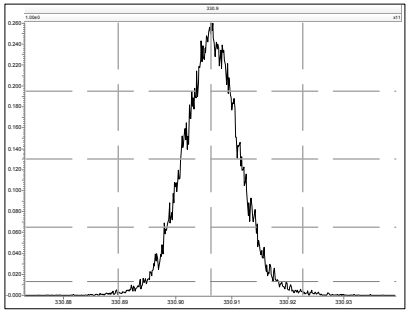
M 304.9824 R 14411



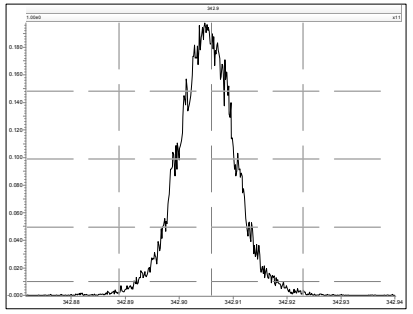
M 316.9824 R 14970



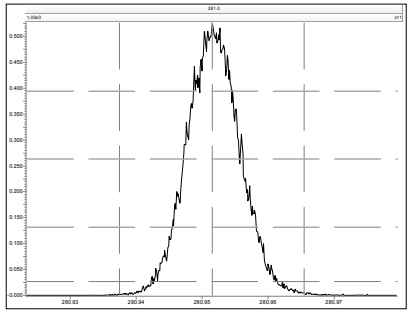
M 330.9792 R 14124



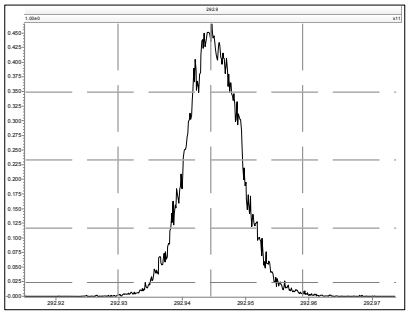
M 342.9792 R 14169



M 280.9824 R 14880



M 292.9824 R 14536



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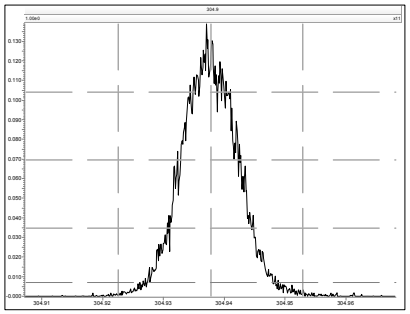

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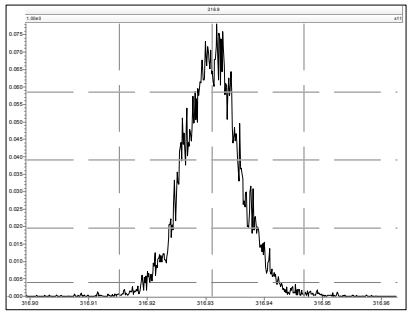
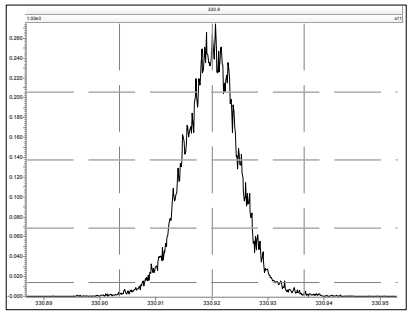
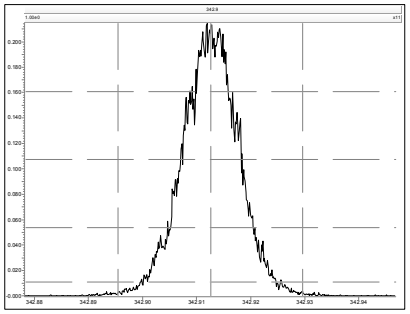


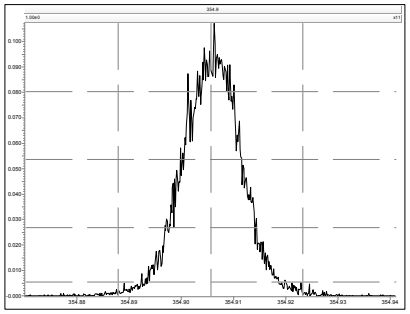
M 330.9792 R 13774



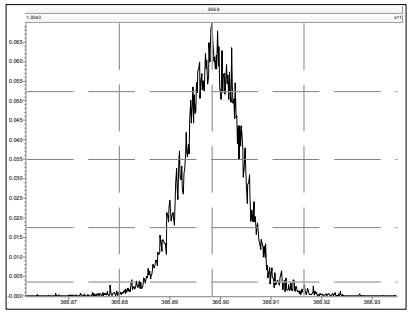
M 342.9792 R 13966



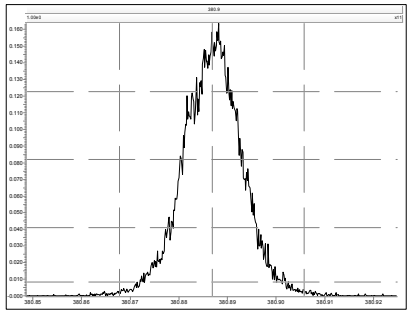
M 354.9792 R 13230



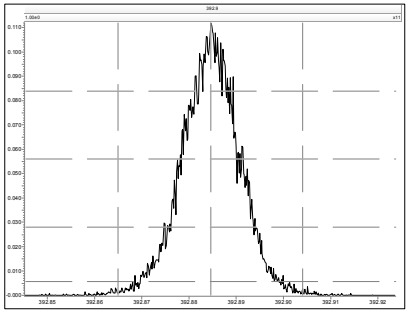
M 366.9792 R 14215



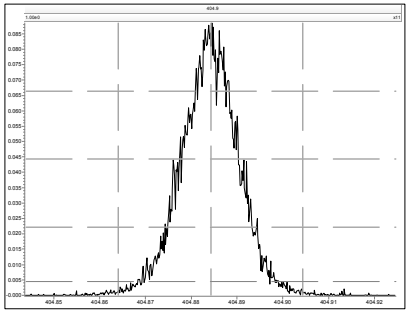
M 380.9760 R 13303



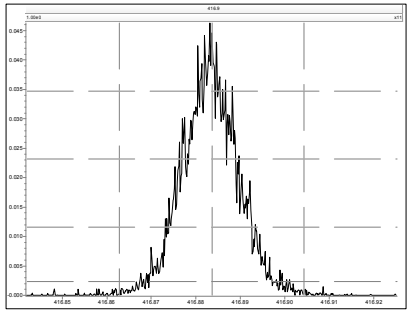
M 392.9760 R 13514



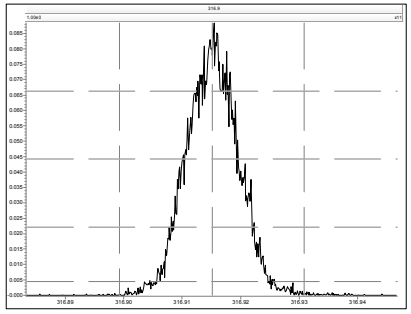
M 404.9760 R 14707



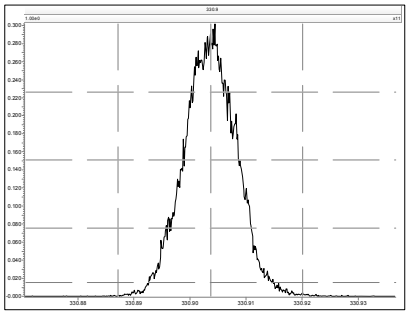
M 416.9760 R 15198



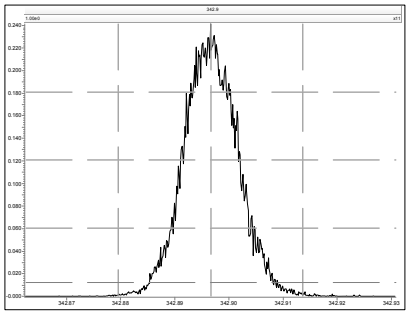
M 316.9824 R 16134



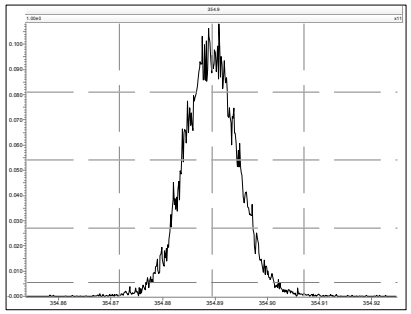
M 330.9792 R 14662



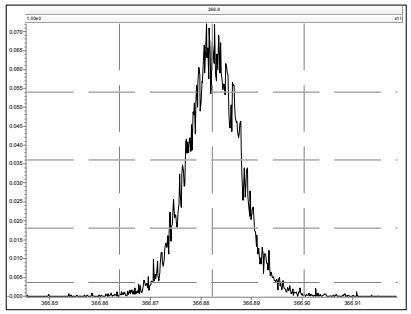
M 342.9792 R 14672



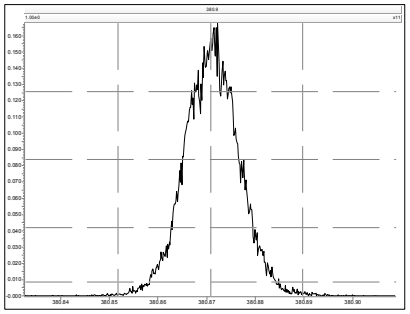
M 354.9792 R 15512



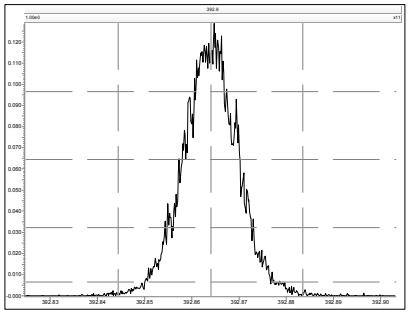
M 366.9792 R 14794



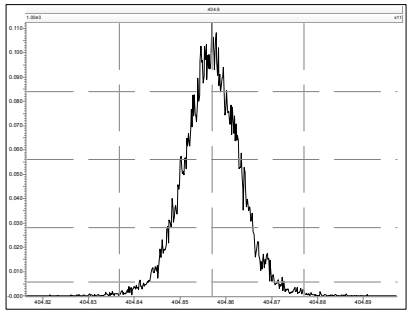
M 380.9760 R 14705



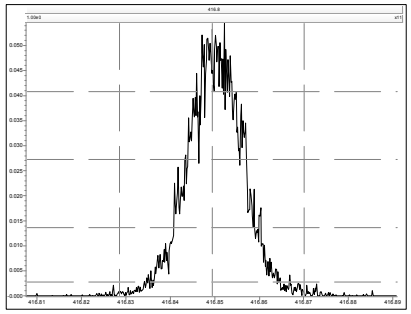
M 392.9760 R 14285



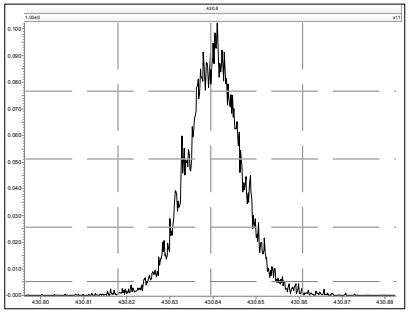
M 404.9760 R 14534



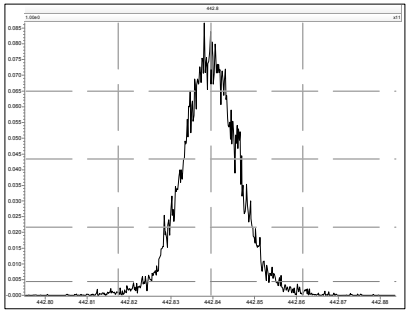
M 416.9760 R 14552



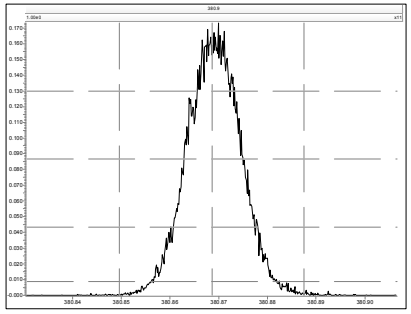
M 430.9728 R 14660



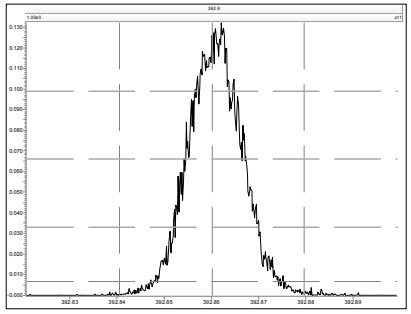
M 442.9728 R 14577



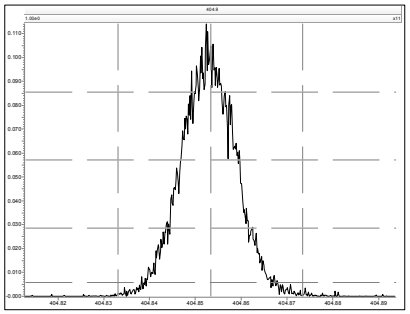
M 380.9760 R 15975



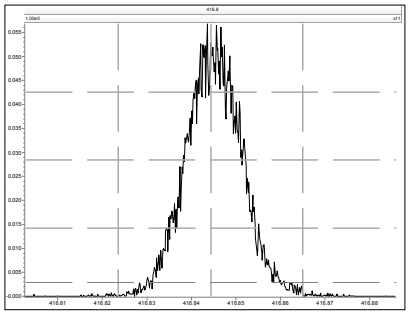
M 392.9760 R 14836



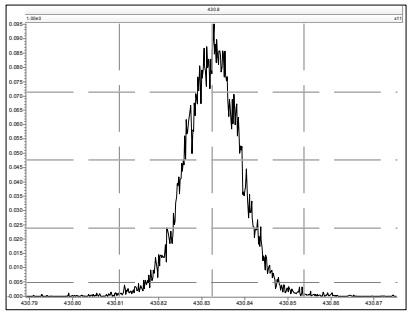
M 404.9760 R 15061



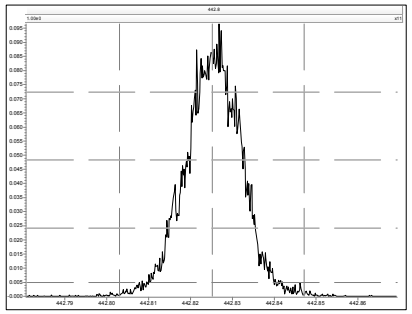
M 416.9760 R 14005



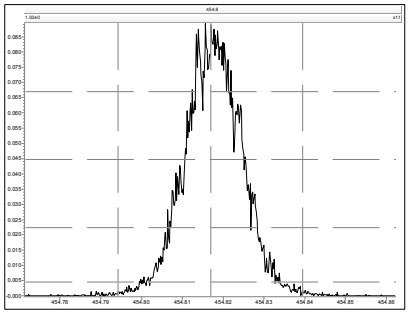
M 430.9728 R 15017



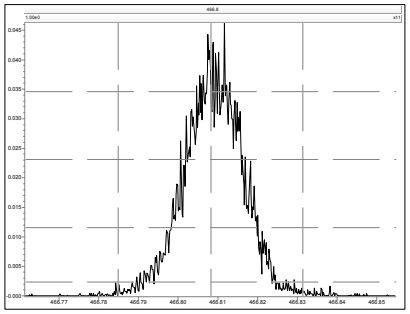
M 442.9728 R 14718



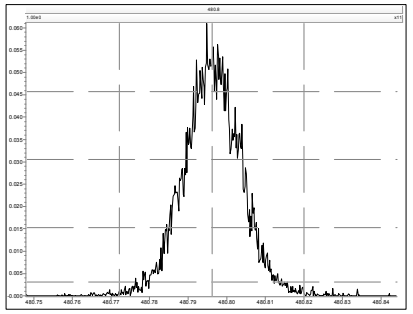
M 454.9728 R 14086



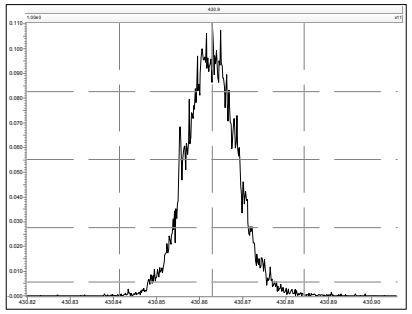
M 466.9728 R 14247



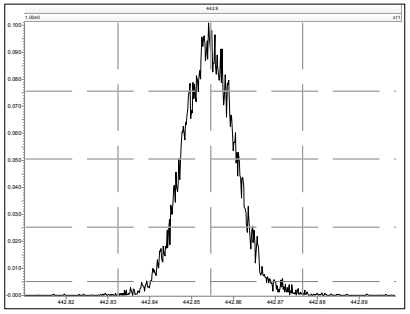
M 480.9696 R 14632



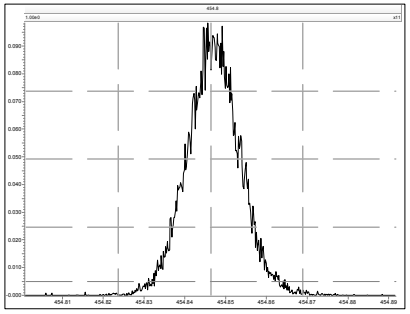
M 430.9728 R 15674



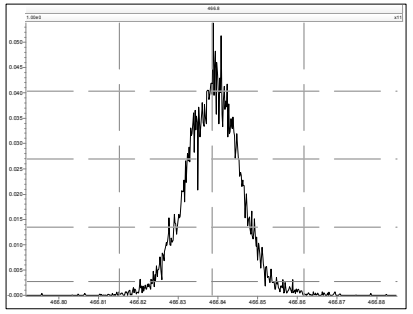
M 442.9728 R 15773



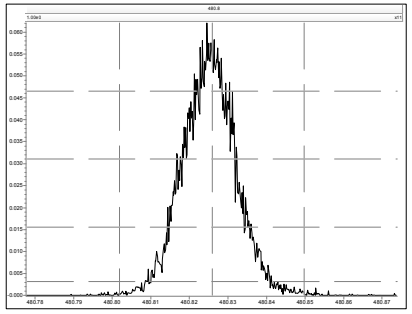
M 454.9728 R 14970



M 466.9728 R 16401



M 480.9696 R 14935



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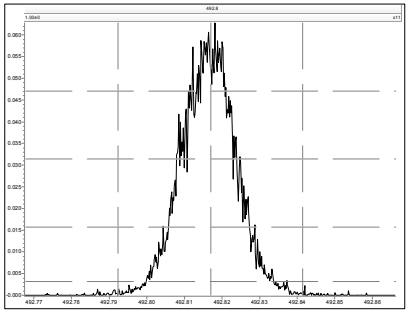
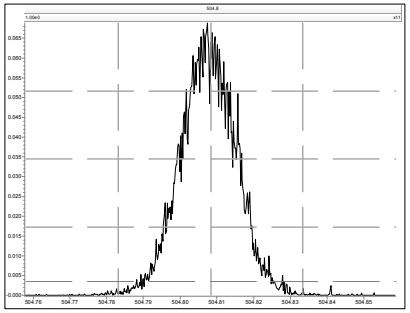
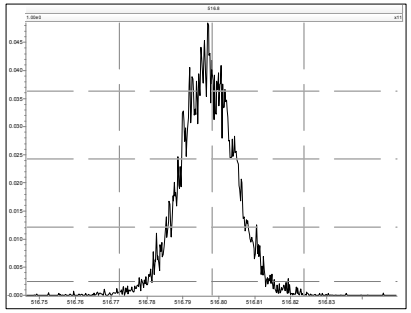


M 504.9696 R 14411



M 516.9697 R 15654



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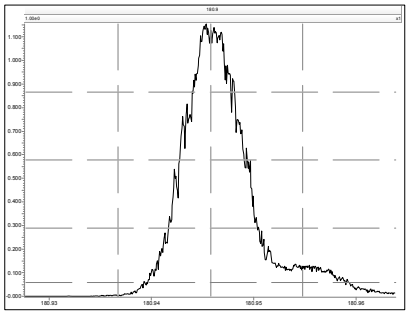
Printed: Friday, December 14, 2012 13:02:23 Eastern Standard Time

M 180.9888 R 9363



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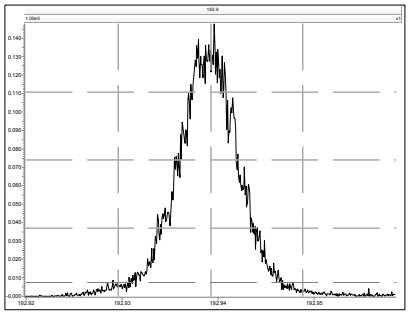

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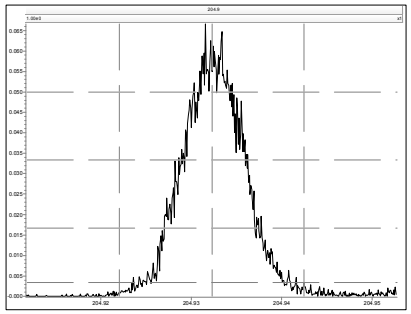

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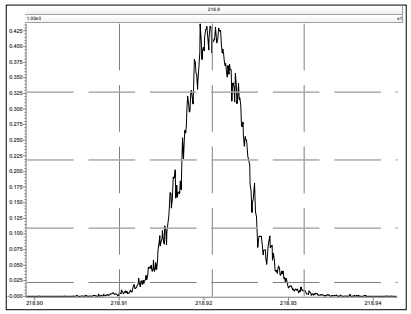

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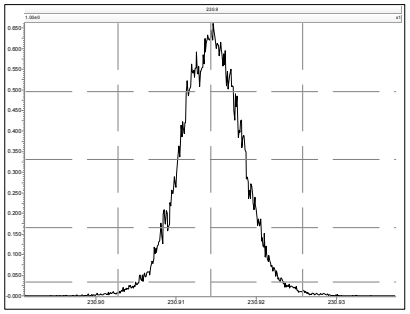
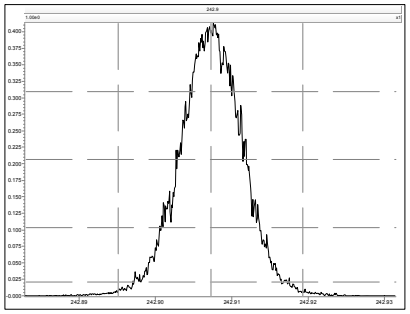


M 242.9856 R 12691



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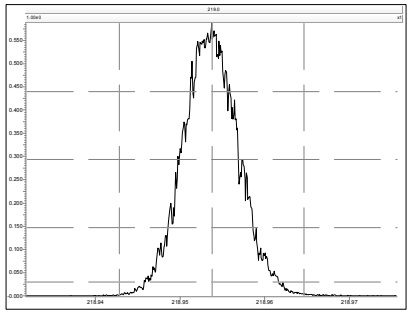
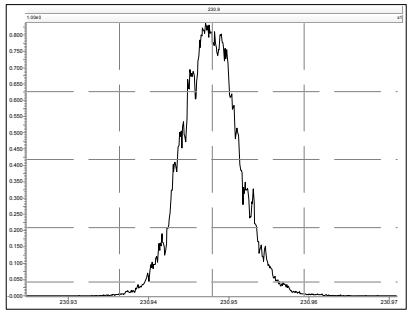


M 230.9856 R 13889



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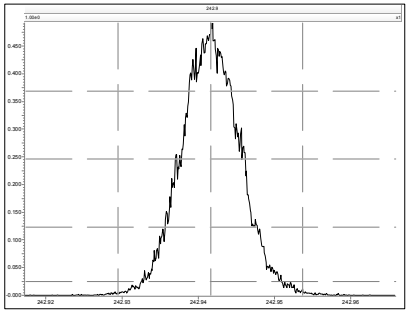

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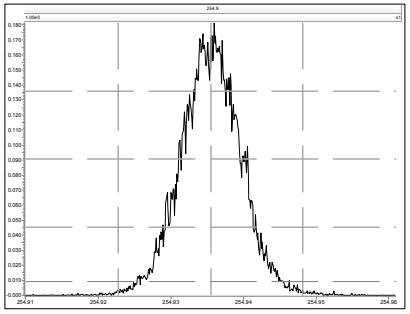
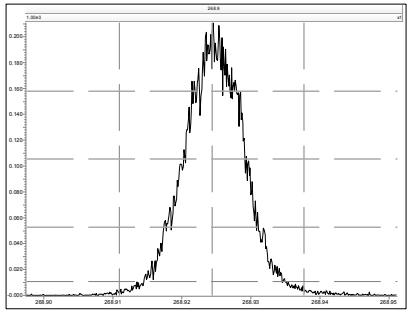
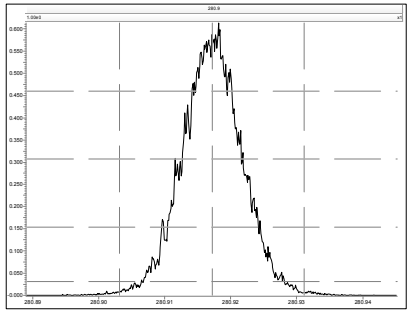


M 268.9824 R 13163



M 280.9824 R 12953



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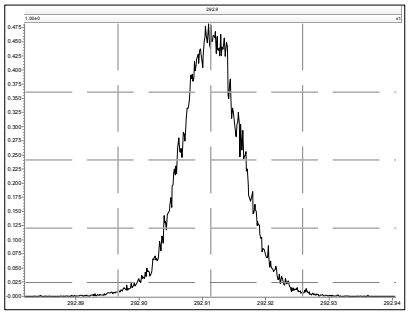

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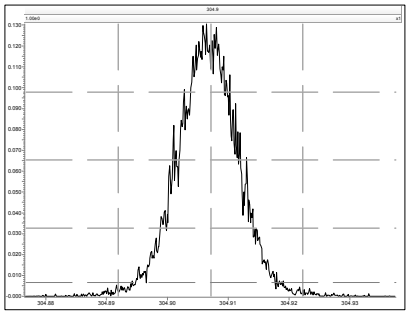

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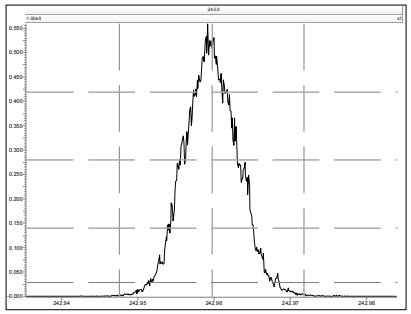
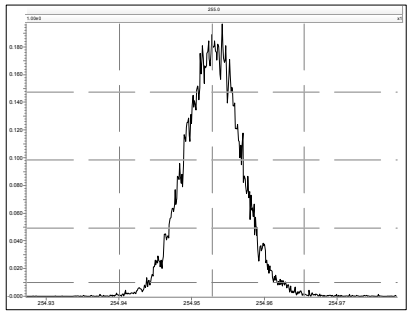
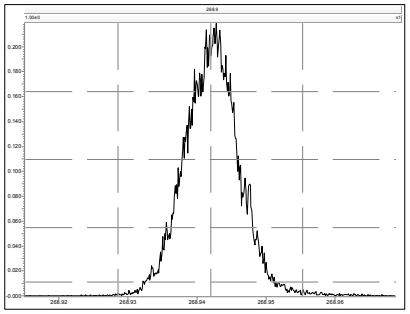


M 254.9856 R 14369



M 268.9824 R 14244



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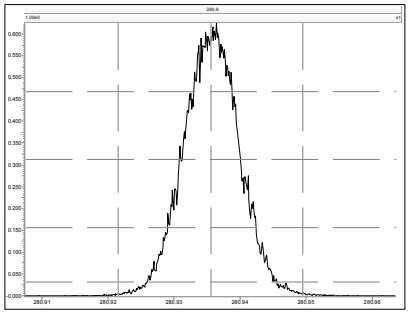

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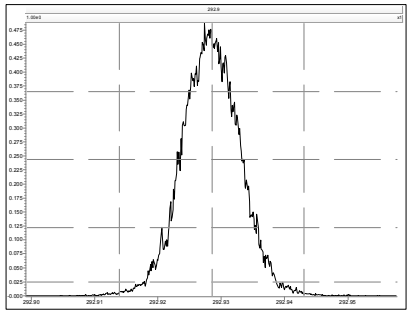

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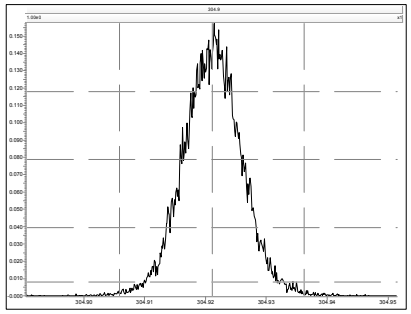

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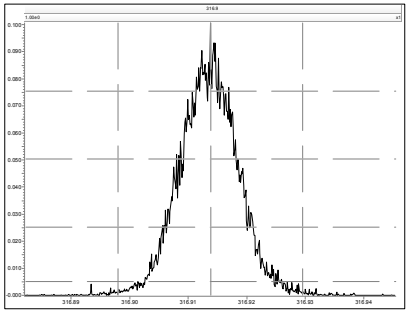
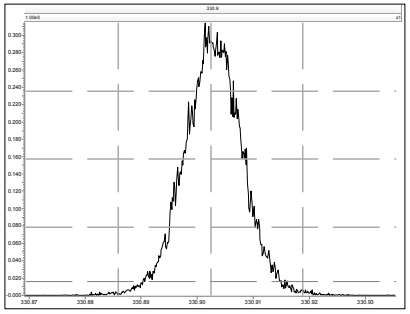


M 330.9792 R 13826



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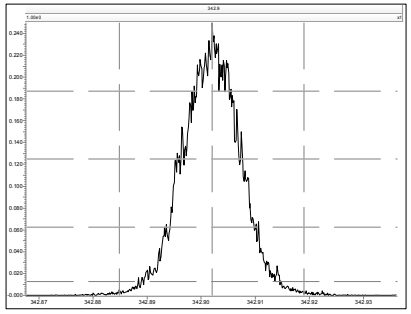

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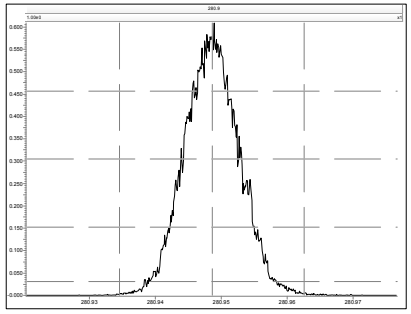

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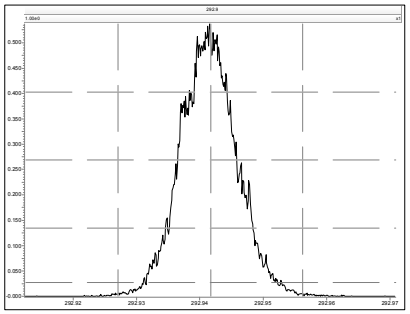

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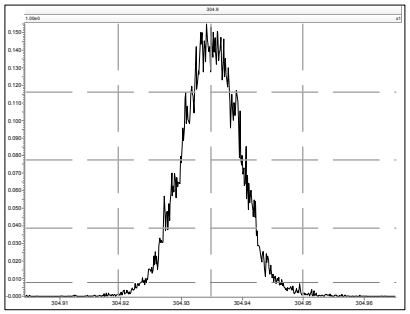
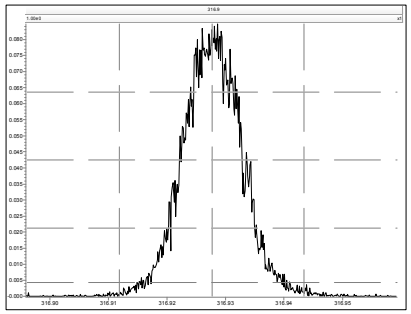


M 316.9824 R 14454



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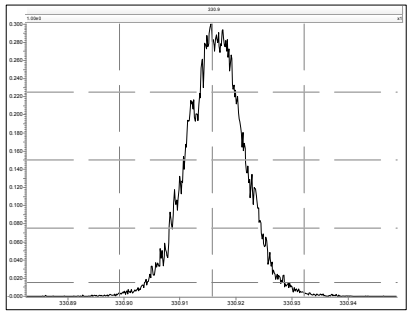

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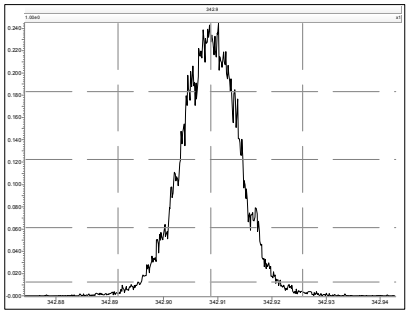

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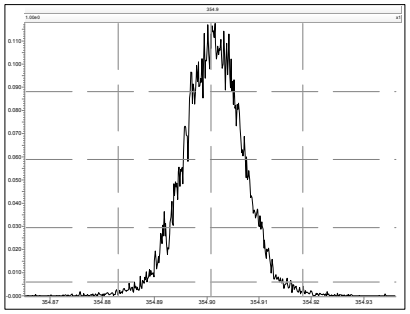

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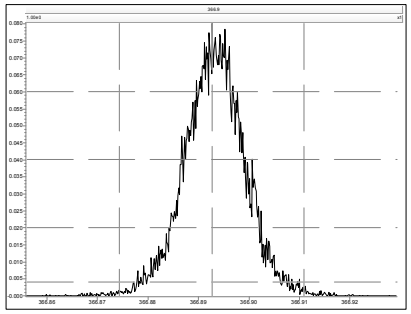
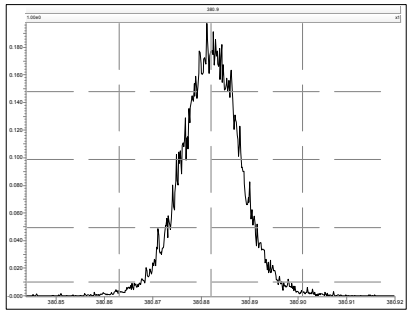


M 380.9760 R 13101



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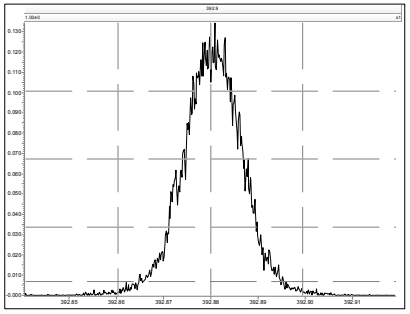

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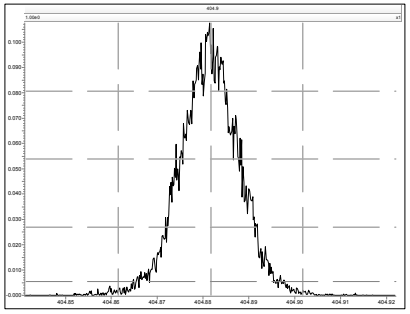

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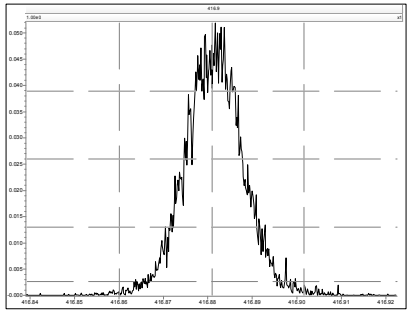

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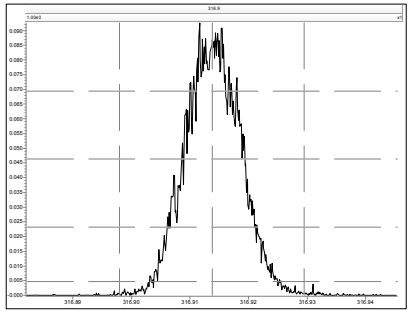

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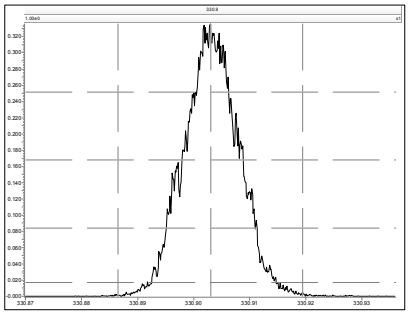

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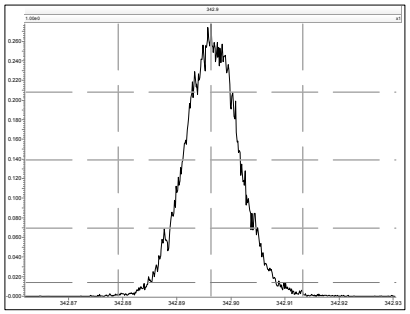

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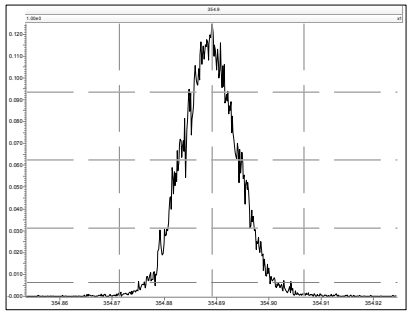

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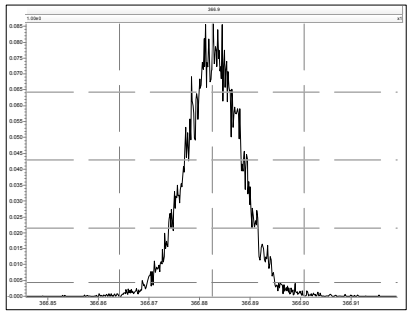

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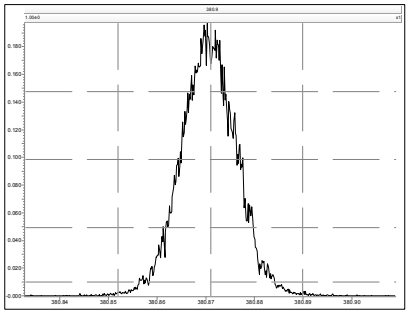

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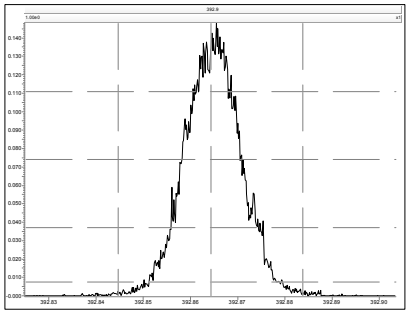

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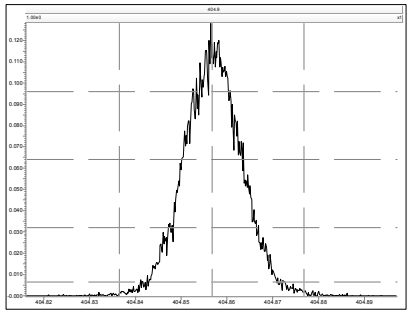

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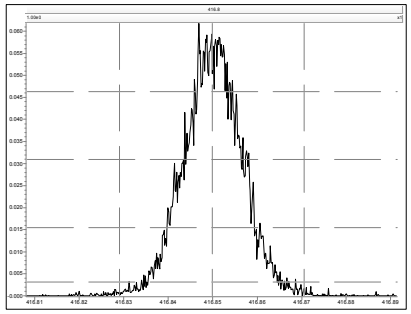
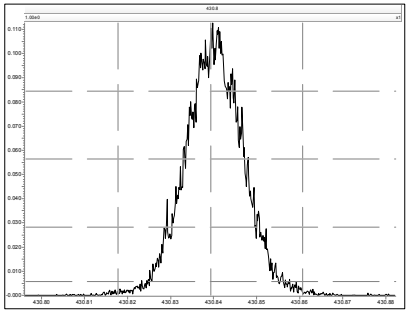


M 430.9728 R 13968



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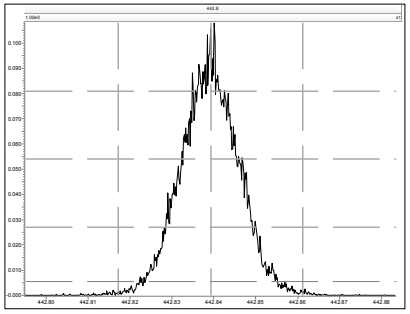
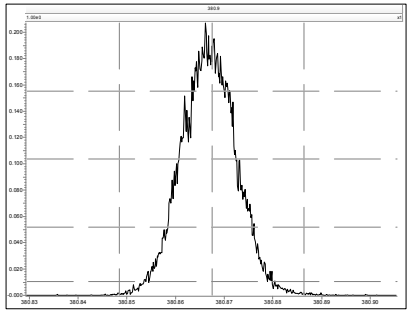


M 380.9760 R 14839



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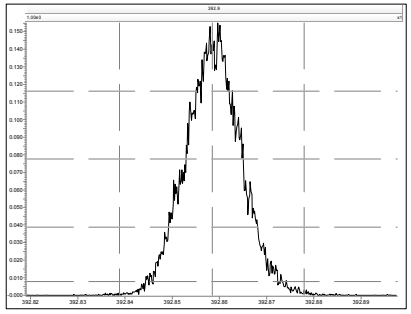

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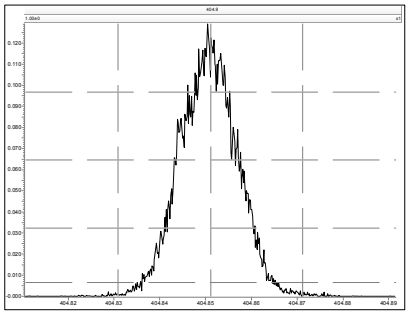

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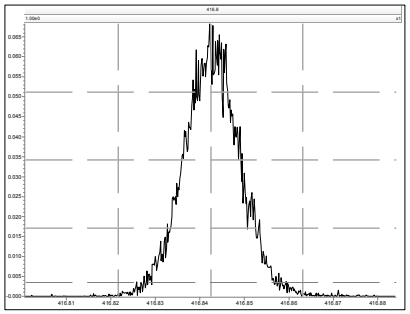

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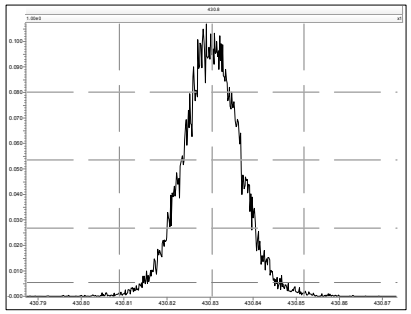

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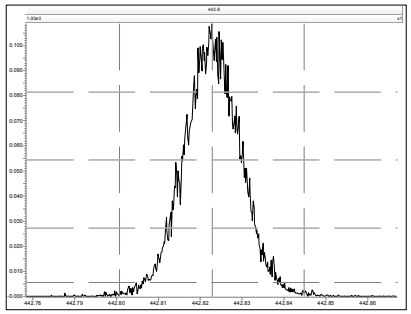

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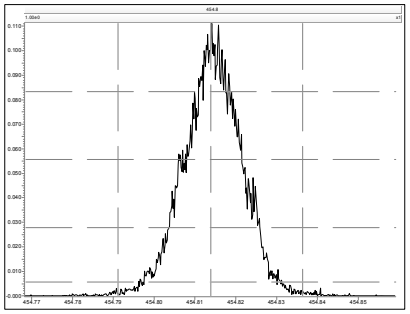

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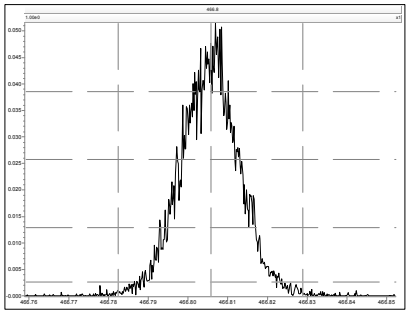

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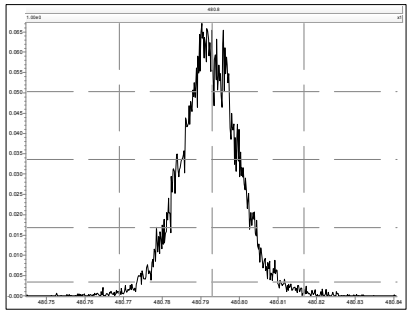
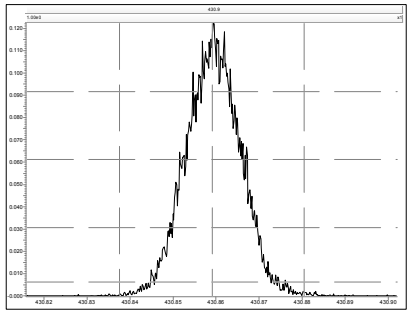


M 430.9728 R 15228



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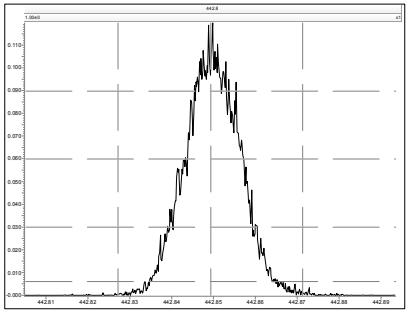
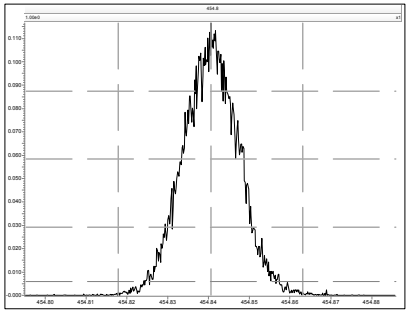


M 454.9728 R 14369



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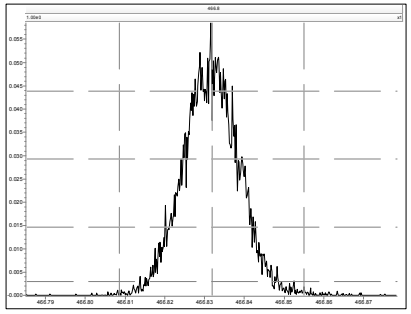

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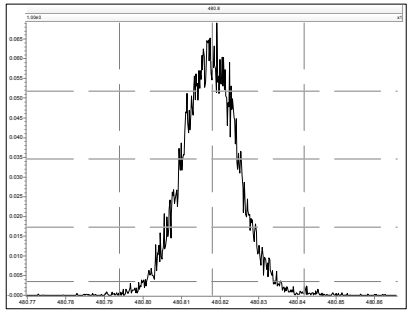

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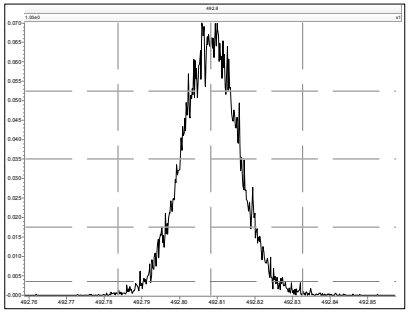
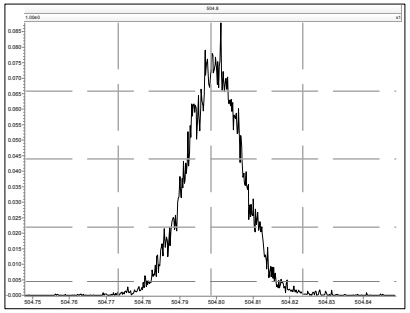


M 504.9696 R 14621



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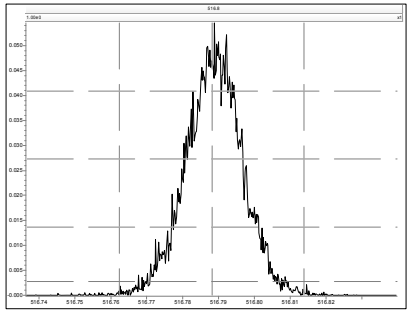

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Printed: Friday, December 14, 2012 20:33:52 Eastern Standard Time

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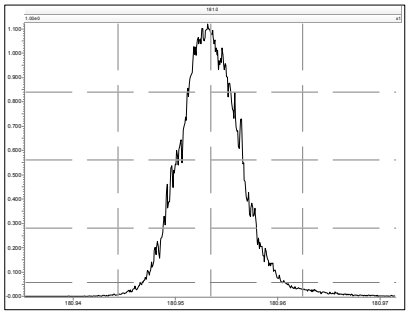

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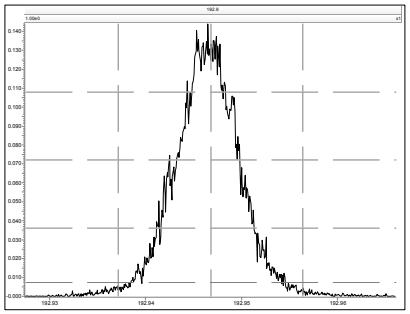

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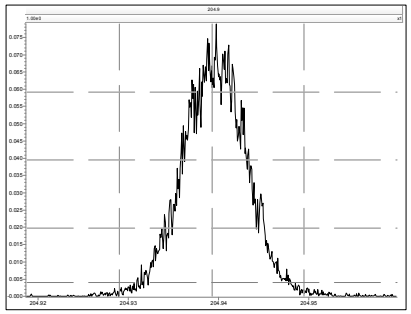

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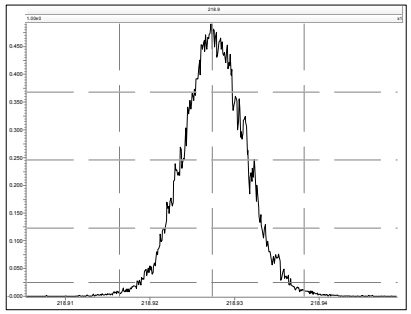

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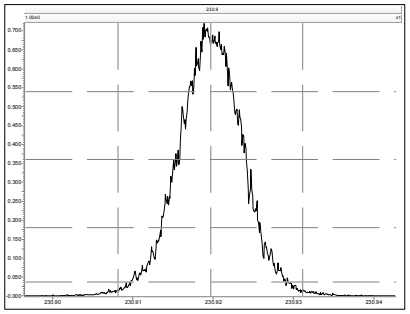

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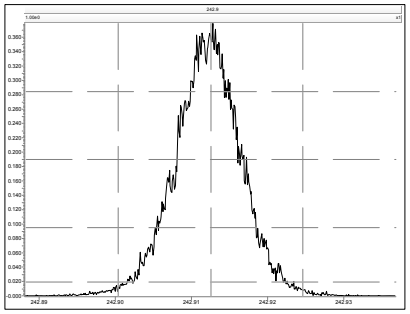

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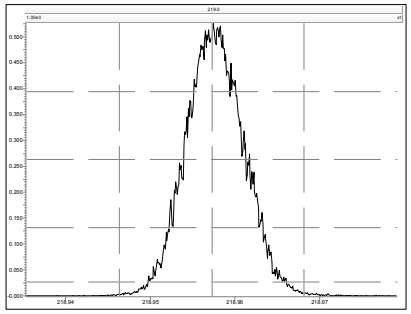

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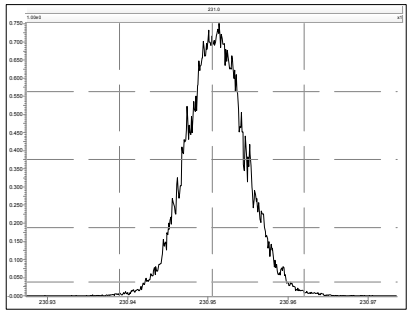

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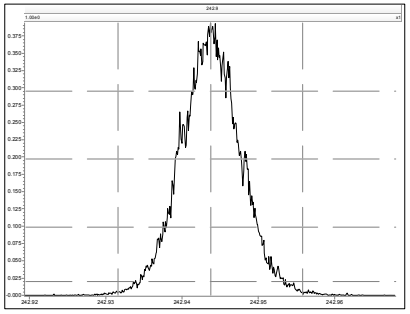

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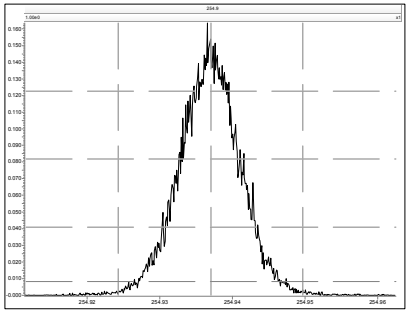

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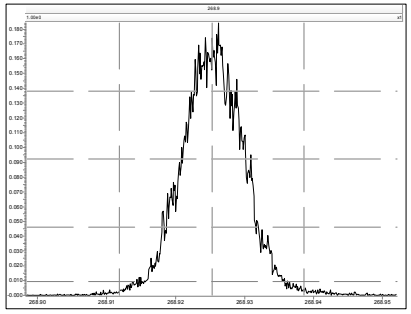

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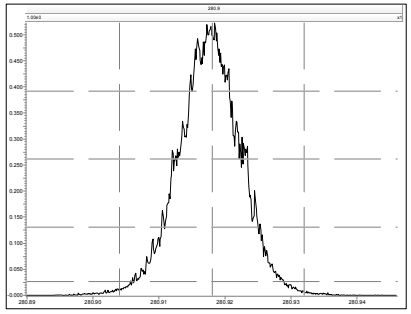

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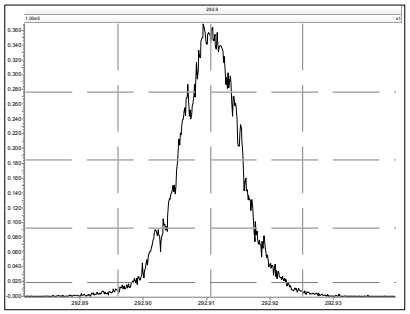

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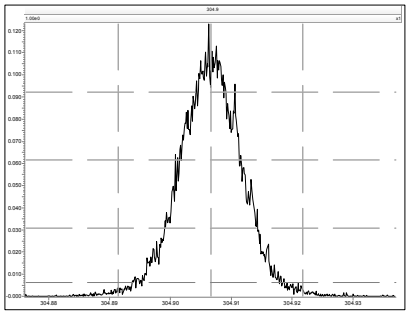
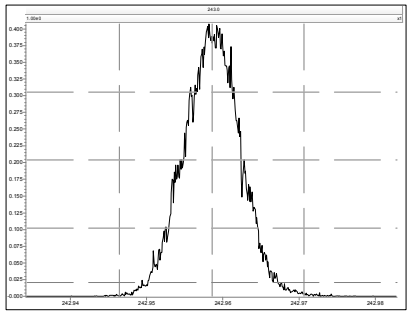
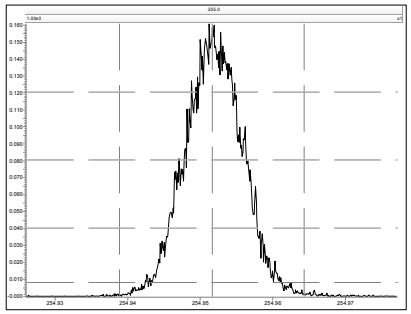


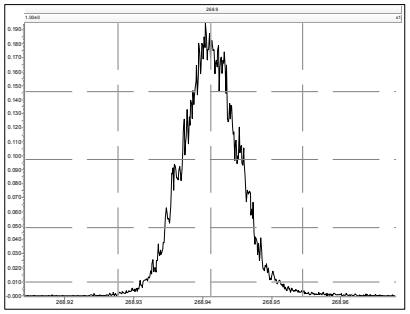
M 242.9856 R 14085



M 254.9856 R 14369



M 268.9824 R 13626



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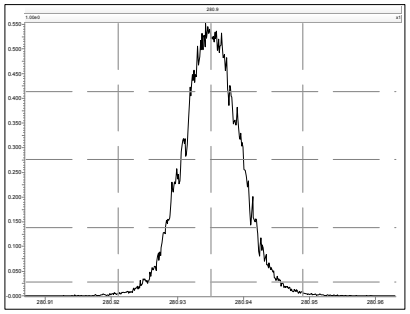

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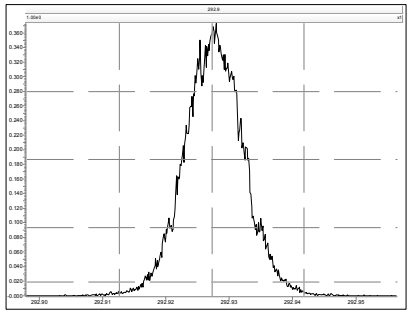

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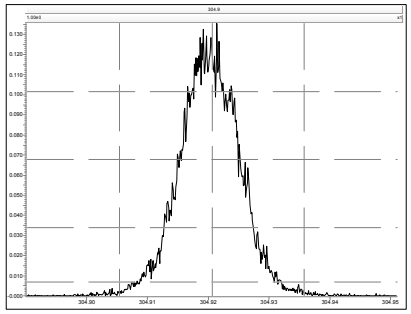
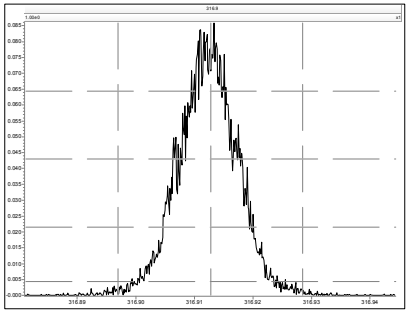
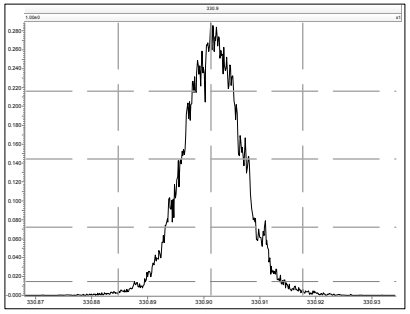


M 316.9824 R 13662



M 330.9792 R 13698



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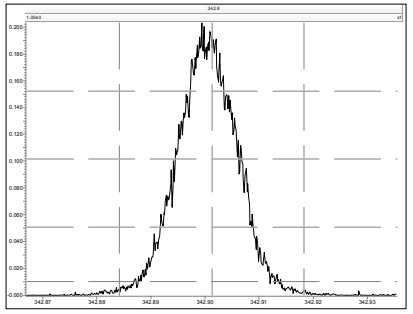
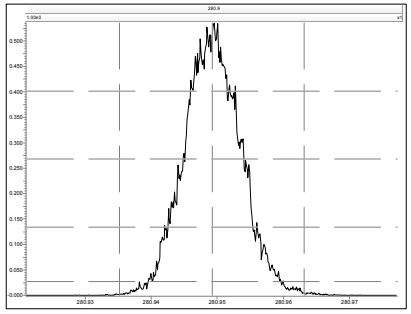


M 280.9824 R 13850



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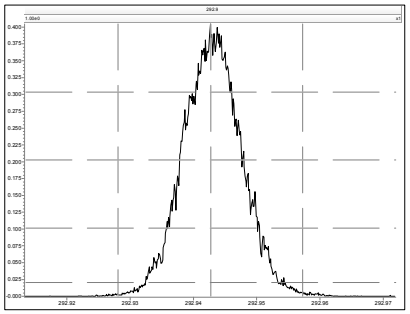

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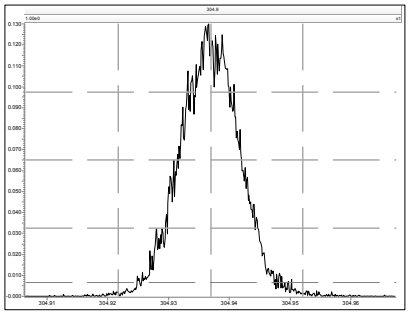

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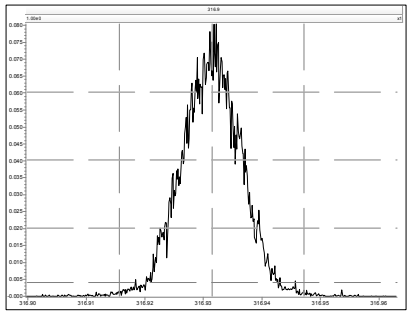

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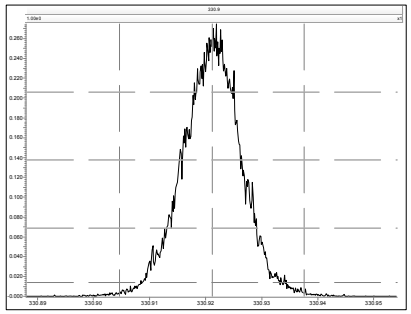

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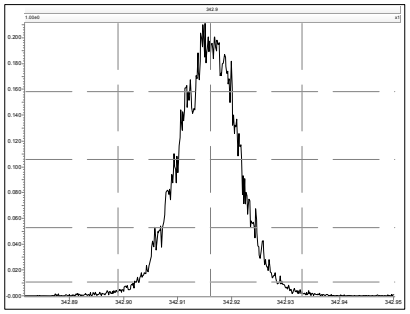

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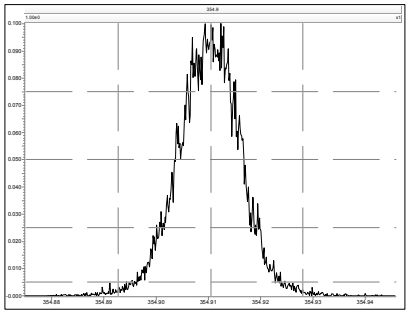

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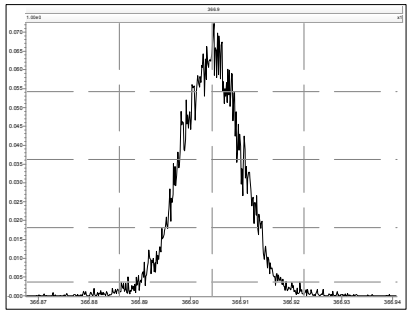

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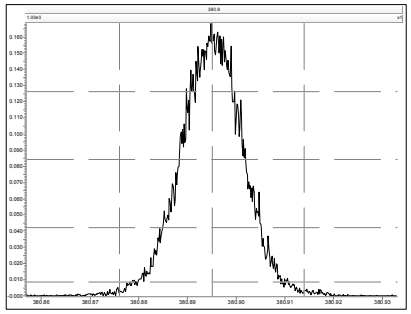

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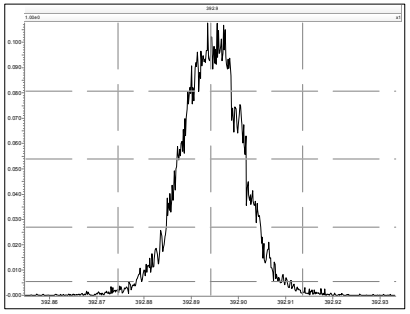

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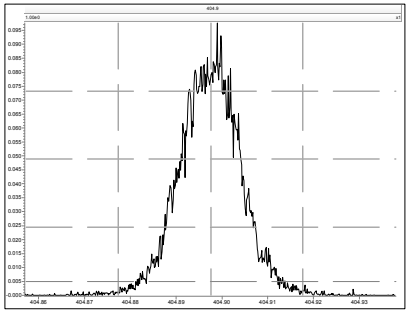

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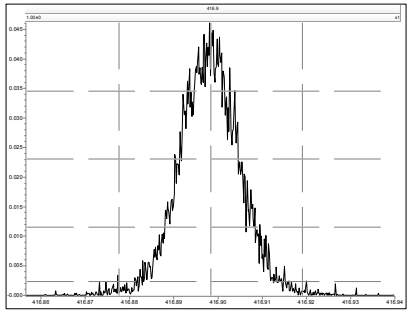

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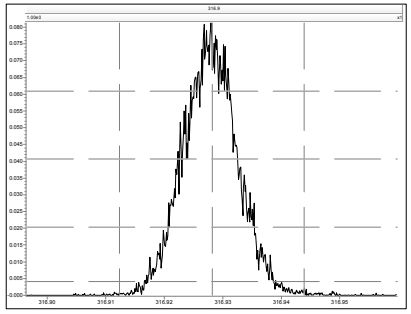

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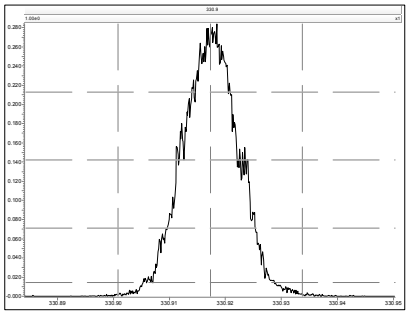
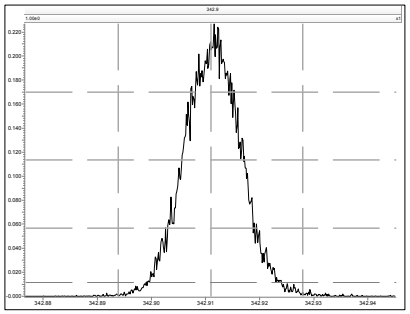
Printed: Friday, December 14, 2012 20:33:52 Eastern Standard Time

M 330.9792 R 14164



M 342.9792 R 14177



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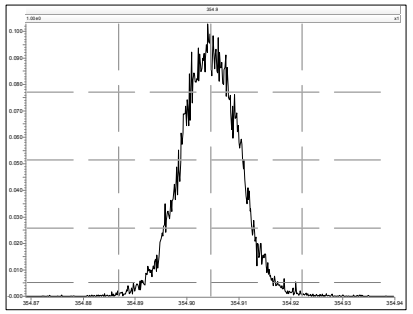
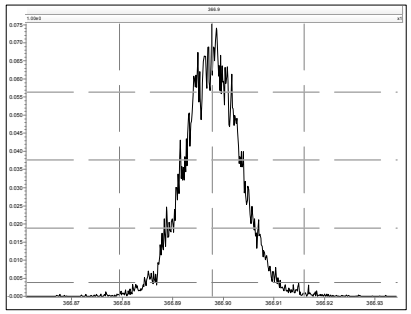
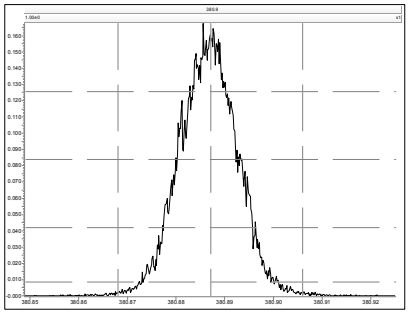


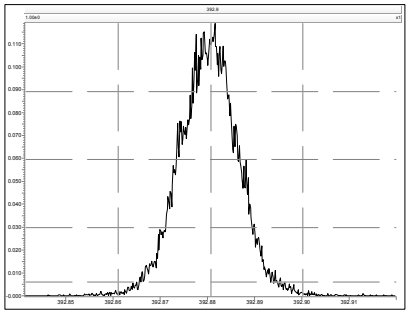
M 366.9792 R 14983



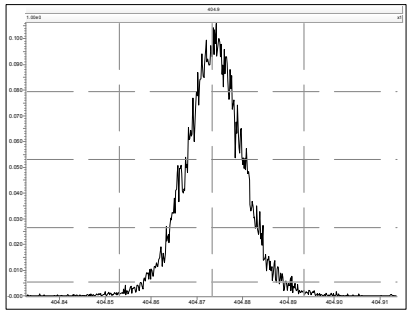
M 380.9760 R 13596



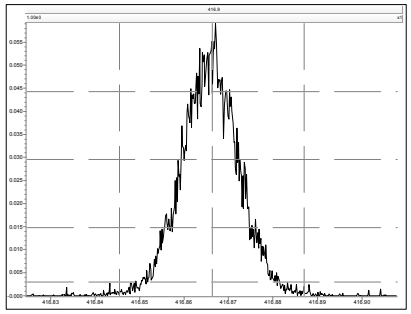
M 392.9760 R 13867



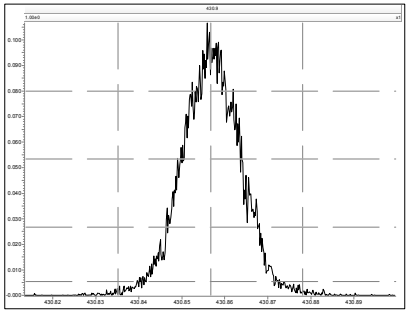
M 404.9760 R 13596



M 416.9760 R 13736



M 430.9728 R 13973



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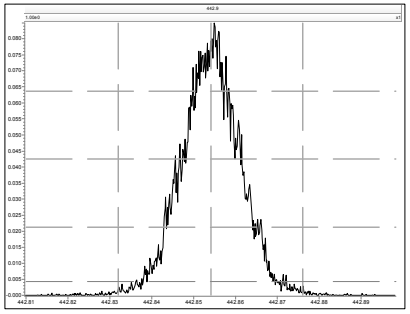
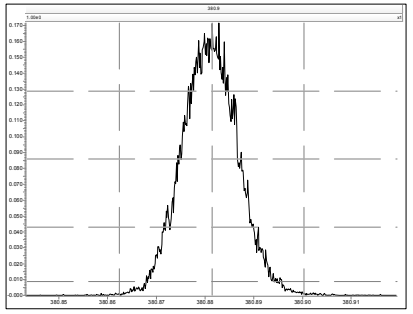
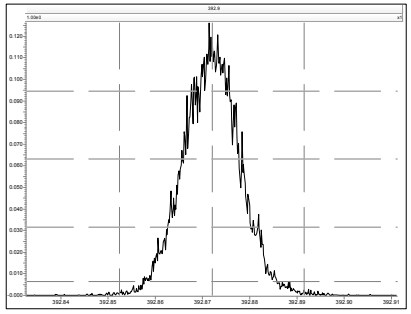


M 380.9760 R 13855



M 392.9760 R 13631



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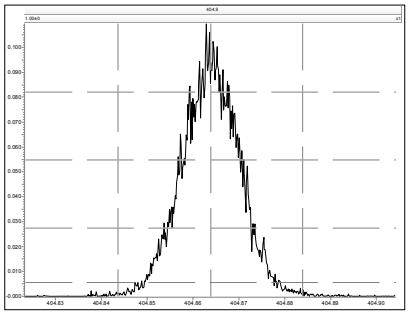
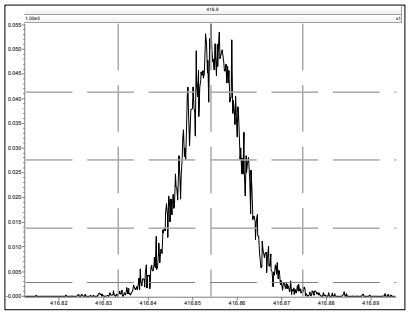
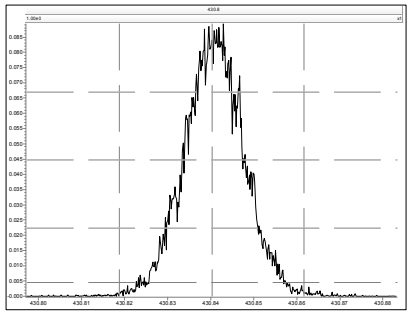


M 416.9760 R 14718



M 430.9728 R 13850



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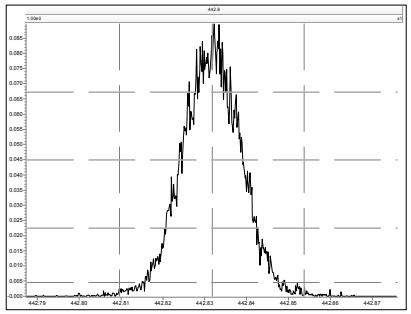
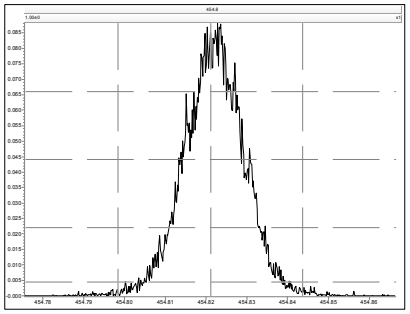
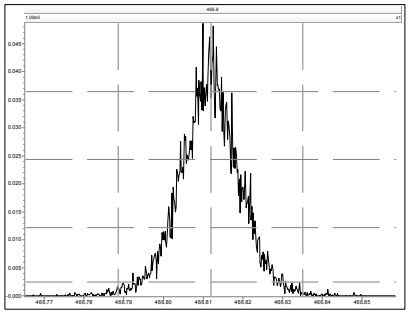


M 454.9728 R 13262



M 466.9728 R 13742



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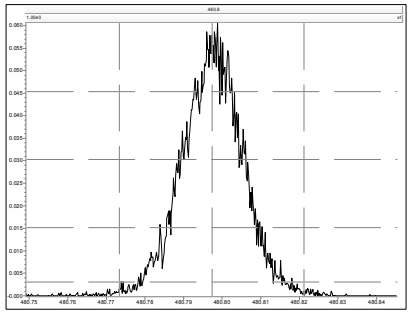
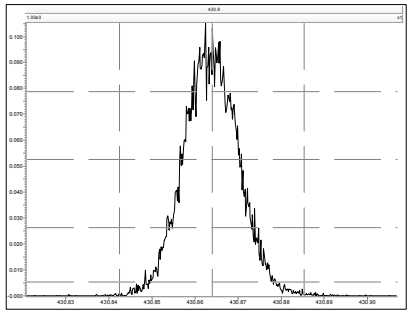


M 430.9728 R 14792



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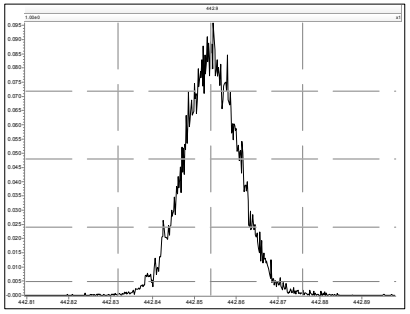

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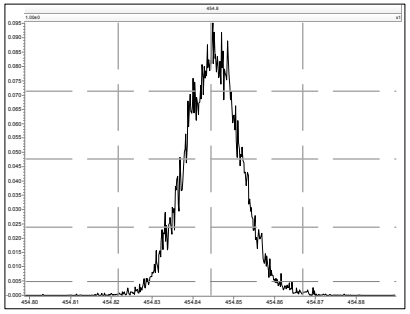
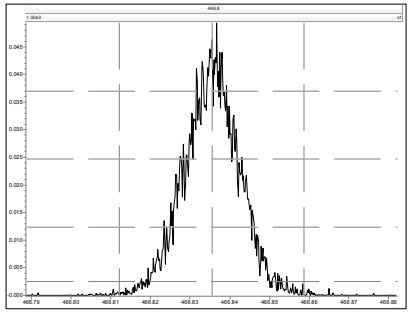
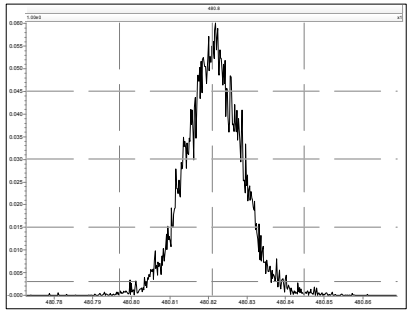


M 466.9728 R 14983



M 480.9696 R 14865



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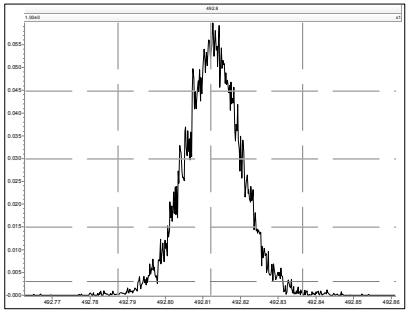

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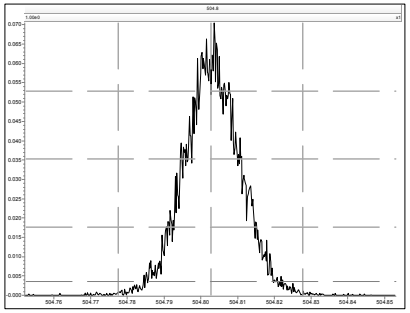

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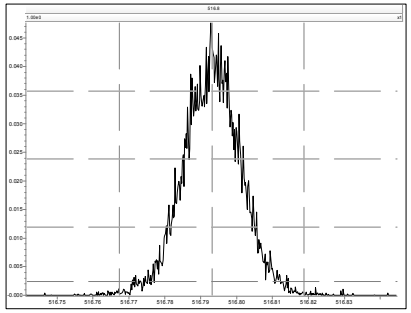


PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 28 Jul 2012 10:09**

ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26 Jul 2012
Date Processed: 27 Jul 2012 17:07

Name	Mean	% RSD	120725X15 0.5 CS0	120725X15 1 CS1	120725X16 5 CS2	120725X17 50 CS3	120725X18 400 CS4	120725X19 2000 CS5
PCB-77 33'44'-TeCB	1.13	4.9%	1.12	1.06	1.09	1.16	1.20	1.18
PCB-81 344'5-TeCB	1.13	5.9%	1.09	1.03	1.09	1.17	1.20	1.18
PCB-105 233'44'-PeCB	1.09	5.3%	1.07	1.01	1.06	1.14	1.16	1.13
PCB-114 2344'5-PeCB	1.16	5.1%	1.10	1.10	1.13	1.22	1.22	1.20
PCB-118 23'44'5-PeCB	1.11	4.7%	1.13	1.05	1.03	1.13	1.17	1.12
PCB-123 2'344'5-PeCB	1.19	4.4%	1.18	1.12	1.19	1.16	1.26	1.23
PCB-126 33'44'5-PeCB	1.06	5.0%	1.04	0.98	1.04	1.08	1.11	1.12
PCB-156/157 233'44'5/233'44'5'	1.11	3.2%	1.09	1.07	1.07	1.13	1.16	1.12
PCB-167 23'44'55'-HxCB	1.14	4.5%	1.08	1.07	1.11	1.18	1.19	1.17
PCB-169 33'44'55'-HxCB	1.11	4.1%	1.07	1.05	1.10	1.15	1.16	1.14
PCB-189 233'44'55'-HpCB	1.06	4.3%	1.03	1.00	1.02	1.08	1.11	1.10
PCB-209 DeCB	1.07	2.5%	1.10	1.06	1.03	1.09	1.10	1.07
ES PCB-1	1.08	1.0%	1.09	1.09	1.07	1.08	1.06	1.09
ES PCB-3	1.08	1.1%	1.08	1.09	1.07	1.08	1.07	1.10
ES PCB-4	0.49	0.9%	0.49	0.49	0.49	0.49	0.48	0.49
ES PCB-15	1.11	1.1%	1.10	1.11	1.10	1.11	1.13	1.12
ES PCB-19	0.55	1.3%	0.56	0.56	0.56	0.56	0.55	0.54
ES PCB-37	1.64	1.3%	1.63	1.62	1.62	1.63	1.65	1.67
ES PCB-54	0.94	2.0%	0.94	0.95	0.97	0.94	0.91	0.93
ES PCB-77	1.35	1.1%	1.34	1.35	1.35	1.33	1.37	1.34
ES PCB-81	1.29	1.3%	1.27	1.29	1.28	1.27	1.32	1.29
ES PCB-104	0.99	1.1%	0.98	1.01	1.00	0.99	0.98	1.00
ES PCB-105	1.23	1.0%	1.23	1.25	1.24	1.22	1.23	1.23
ES PCB-114	1.25	1.4%	1.25	1.26	1.26	1.23	1.26	1.22
ES PCB-118	1.28	0.6%	1.28	1.29	1.29	1.27	1.28	1.28
ES PCB-123	1.22	1.3%	1.21	1.24	1.21	1.20	1.24	1.22
ES PCB-126	1.20	0.7%	1.21	1.19	1.20	1.19	1.20	1.21
ES PCB-153	1.14	1.0%	1.14	1.15	1.15	1.14	1.12	1.15
ES PCB-155	1.50	1.3%	1.49	1.49	1.50	1.53	1.46	1.50
ES PCB-156/157	1.45	1.2%	1.48	1.45	1.44	1.45	1.44	1.48
ES PCB-167	1.49	1.2%	1.52	1.50	1.48	1.48	1.48	1.50
ES PCB-169	1.40	1.2%	1.42	1.40	1.38	1.39	1.41	1.42
ES PCB-170	1.00	0.8%	1.01	0.99	0.99	1.01	1.01	1.00
ES PCB-180	1.16	1.6%	1.15	1.14	1.14	1.18	1.16	1.18
ES PCB-188	1.18	0.9%	1.19	1.17	1.17	1.19	1.17	1.18
ES PCB-189	1.49	1.6%	1.48	1.46	1.46	1.50	1.50	1.52
ES PCB-202	1.14	0.7%	1.15	1.14	1.13	1.13	1.13	1.14
ES PCB-205	1.20	0.9%	1.20	1.19	1.19	1.20	1.21	1.22
ES PCB-206	0.87	1.1%	0.88	0.85	0.86	0.87	0.88	0.87

CS0 PCB-1 near saturation. Approved by Yves Tondeur, +0.8% Dev., Peak shape of native mirrors ES, RES = 4.9%

PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 28 Jul 2012 10:09**

ICAL: MM7_PCB_07132012_25JUL12

Acquired: 26 Jul 2012

Name	Mean	% RSD	120725X15 **0.5** **CS0**	120725X15 **1** **CS1**	120725X16 **5** **CS2**	120725X17 **50** **CS3**	120725X18 **400** **CS4**	120725X19 **2000** **CS5**
ES PCB-208	1.19	0.9%	1.19	1.17	1.18	1.20	1.20	1.19
ES PCB-209	1.00	0.8%	1.01	0.99	1.00	1.01	1.01	1.00
SS PCB-28	1.07	0.9%	1.07	1.09	1.08	1.08	1.07	1.06
SS PCB-111	1.01	0.9%	1.01	0.99	1.01	1.00	1.00	1.01
SS PCB-178	0.63	1.3%	0.62	0.63	0.64	0.62	0.63	0.63
CS PCB-28	1.76	0.6%	1.74	1.76	1.75	1.76	1.77	1.77
CS PCB-111	1.23	0.8%	1.22	1.23	1.23	1.21	1.23	1.23
CS PCB-178	0.74	0.8%	0.73	0.74	0.75	0.74	0.73	0.74
PCB-1 2-MoCB	1.03	7.6%	0.93	0.95	1.01	1.08	1.12	1.10
PCB-3 4-MoCB	1.04	7.6%	0.95	0.96	1.01	1.09	1.12	1.13
PCB-4 22'-DiCB	1.17	5.4%	1.12	1.09	1.13	1.22	1.24	1.21
PCB-15 44'-DiCB	1.08	4.1%	1.03	1.05	1.04	1.10	1.14	1.12
PCB-19 22'6-TrCB	1.09	5.8%	1.06	1.01	1.04	1.14	1.17	1.14
PCB-37 344'-TrCB	1.10	3.7%	1.10	1.05	1.06	1.14	1.15	1.12
PCB-54 22'66'-TeCB	1.21	6.2%	1.13	1.13	1.17	1.27	1.30	1.25
PCB-104 22'466'-PeCB	1.25	4.7%	1.25	1.15	1.23	1.32	1.31	1.27
PCB-153 22'44'55' -HxCB	1.22	5.7%	1.21	1.13	1.15	1.28	1.30	1.25
PCB-155 22'44'66'-HxCB	1.09	4.7%	1.03	1.06	1.04	1.13	1.15	1.13
PCB-170 22'33'44'5-HpCB	1.07	5.7%	1.03	0.99	1.04	1.12	1.13	1.13
PCB-180 22'344'55'-HpCB	1.16	5.1%	1.14	1.06	1.14	1.19	1.22	1.20
PCB-188 22'34'566'-HpCB	1.03	6.0%	0.93	0.99	1.02	1.08	1.10	1.07
PCB-202 22'33'55'66'-OcCB	0.91	4.7%	0.90	0.85	0.89	0.95	0.96	0.94
PCB-205 233'44'55'6-OcCB	1.09	4.2%	1.09	1.02	1.04	1.11	1.14	1.12
PCB-208 22'33'455'66'-NoCB	1.02	5.3%	0.97	0.96	0.98	1.06	1.08	1.06
PCB-206 22'33'44'55'6-NoCB	0.98	5.5%	0.95	0.90	0.95	1.01	1.04	1.02

PCB ICAL Summary - Ax2 Detail | **SGS Analytical Perspectives** | **Printed: 28 Jul 2012 10:09**

ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26 Jul 2012

Name	Mean	% RSD	0.5 CS0	1 CS1	5 CS2	50 CS3	400 CS4	2000 CS5
PCB-1 2-MoCB	1.03	7.6%	0.93	0.95	1.01	1.08	1.12	1.10
PCB-2 3-MoCB	1.04	8.7%	0.94	0.93	1.02	1.09	1.14	1.13
PCB-3 4-MoCB	1.04	7.6%	0.95	0.96	1.01	1.09	1.12	1.13
PCB-4 22'-DiCB	1.17	5.4%	1.12	1.09	1.13	1.22	1.24	1.21
PCB-10 26-DiCB	1.83	5.6%	1.82	1.66	1.79	1.91	1.93	1.89
PCB-9 25-DiCB	0.89	6.8%	0.81	0.84	0.88	0.95	0.95	0.95
PCB-7 24-DiCB	1.02	6.7%	0.92	0.97	1.01	1.08	1.08	1.08
PCB-6 23'-DiCB	0.95	7.7%	0.86	0.87	0.93	1.01	1.01	1.01
PCB-5 23-DiCB	0.97	5.9%	0.93	0.89	0.94	1.03	1.02	1.02
PCB-8 24'-DiCB	0.98	7.5%	0.88	0.91	0.98	1.04	1.05	1.04
PCB-14 35-DiCB	1.16	6.1%	1.07	1.09	1.13	1.21	1.23	1.22
PCB-11 33'-DiCB	1.00	7.8%	0.88	0.95	0.98	1.05	1.07	1.07
PCB-13/12 34'-/34-DiCB	1.02	6.5%	0.96	0.93	0.99	1.07	1.09	1.07
PCB-15 44'-DiCB	1.08	4.1%	1.03	1.05	1.04	1.10	1.14	1.12
PCB-19 22'6-TrCB	1.09	5.8%	1.06	1.01	1.04	1.14	1.17	1.14
PCB-30/18 246-/22'5-TrCB	1.46	6.7%	1.35	1.35	1.43	1.53	1.58	1.52
PCB-17 22'4-TrCB	1.25	7.6%	1.14	1.16	1.20	1.32	1.36	1.33
PCB-27 23'6-TrCB	1.69	6.2%	1.64	1.57	1.60	1.75	1.84	1.75
PCB-24 236-TrCB	1.63	5.7%	1.55	1.51	1.61	1.68	1.72	1.74
PCB-16 22'3-TrCB	0.95	9.5%	0.90	0.85	0.89	1.03	1.08	0.98
PCB-32 24'6-TrCB	1.79	5.7%	1.70	1.67	1.72	1.86	1.91	1.87
PCB-34 2'35-TrCB	1.05	5.4%	1.01	0.96	1.03	1.10	1.10	1.08
PCB-23 235-TrCB	1.06	5.5%	1.00	0.99	1.03	1.11	1.11	1.10
PCB-26/29 23'5-/245-TrCB	1.09	4.8%	1.03	1.02	1.07	1.14	1.14	1.11
PCB-25 23'4-TrCB	1.07	5.5%	1.03	1.00	1.04	1.14	1.14	1.10
PCB-31 24'5-TrCB	1.11	5.6%	1.05	1.04	1.08	1.17	1.17	1.16
PCB-28/20 244'-/233'-TrCB	1.07	4.5%	1.03	1.01	1.04	1.12	1.12	1.09
PCB-21/33 234-/2'34-TrCB	1.09	5.2%	1.06	1.02	1.06	1.15	1.16	1.11
PCB-22 234'-TrCB	1.02	4.8%	0.97	0.96	0.98	1.07	1.07	1.05
PCB-36 33'5-TrCB	1.13	4.3%	1.09	1.08	1.08	1.17	1.18	1.16
PCB-39 34'5-TrCB	1.17	5.5%	1.10	1.09	1.14	1.22	1.24	1.21
PCB-38 345-TrCB	1.03	5.9%	1.00	0.96	1.02	1.09	1.12	1.02
PCB-35 33'4-TrCB	1.04	4.3%	1.03	0.98	1.00	1.07	1.09	1.07
PCB-37 344'-TrCB	1.10	3.7%	1.10	1.05	1.06	1.14	1.15	1.12
PCB-54 22'66'-TeCB	1.21	6.2%	1.13	1.13	1.17	1.27	1.30	1.25
PCB-50/53 22'46-/22'56'TeCB	0.86	5.4%	0.80	0.82	0.83	0.91	0.89	0.89
PCB-45 22'36-TeCB	0.73	11.3%	0.64	0.64	0.70	0.79	0.77	0.84
PCB-51 22'46'-TeCB	0.88	4.5%	0.87	0.84	0.87	0.92	0.93	0.84
PCB-46 22'36'-TeCB	0.70	6.2%	0.64	0.66	0.67	0.74	0.73	0.73
PCB-52 22'55'-TeCB	0.84	4.7%	0.81	0.79	0.83	0.89	0.87	0.87

PCB-73 23'5'6TeCB	1.09	6.3%	1.06	1.04	1.00	1.14	1.11	1.19
PCB-43 22'35-TeCB	0.72	7.1%	0.68	0.65	0.73	0.78	0.78	0.72
PCB-69/49 23'46-/22'45'TeCB	1.01	6.0%	0.95	0.94	0.99	1.08	1.06	1.06
PCB-48 22'45-TeCB	0.85	5.7%	0.82	0.79	0.82	0.90	0.89	0.89
PCB-44/47/65 22'35'-/22'44'-	0.89	5.9%	0.85	0.82	0.87	0.95	0.94	0.92
PCB-59/62/75 233'6-/2346-/24	1.14	6.2%	1.08	1.05	1.13	1.22	1.22	1.14
PCB-42 22'34'-TeCB	0.77	6.6%	0.70	0.72	0.76	0.82	0.81	0.82
PCB-41 22'34-TeCB	0.73	5.7%	0.75	0.70	0.66	0.75	0.73	0.78
PCB-71/40 23'4'6/22'33'-TeCB	0.87	6.0%	0.83	0.79	0.85	0.92	0.92	0.88
PCB-64 234'6-TeCB	1.24	4.3%	1.20	1.17	1.20	1.29	1.28	1.27
PCB-72 23'55'-TeCB	1.14	6.7%	1.07	1.06	1.09	1.21	1.21	1.22
PCB-68 23'45'-TeCB	1.21	7.0%	1.14	1.10	1.16	1.27	1.29	1.30
PCB-57 233'5-TeCB	1.11	6.3%	1.07	1.01	1.05	1.18	1.16	1.16
PCB-58 233'5-TeCB	1.10	7.4%	1.01	1.01	1.07	1.17	1.17	1.18
PCB-67 23'45-TeCB	1.16	5.4%	1.09	1.10	1.12	1.21	1.23	1.20
PCB-63 234'5-TeCB	1.22	6.7%	1.13	1.13	1.17	1.29	1.29	1.29
PCB-61/70/74/76 2345-/23'4'5	1.13	6.7%	1.05	1.04	1.11	1.20	1.21	1.18
PCB-66 23'44'-TeCB	1.08	5.8%	1.03	0.99	1.04	1.13	1.13	1.13
PCB-55 233'4-TeCB	1.10	6.1%	1.02	1.03	1.06	1.15	1.16	1.16
PCB-56 233'4'-TeCB	1.06	6.5%	1.01	0.97	1.00	1.12	1.12	1.12
PCB-60 2344'-TeCB	1.11	6.5%	1.06	1.02	1.06	1.16	1.18	1.18
PCB-80 33'55'-TeCB	1.25	6.6%	1.16	1.16	1.22	1.32	1.33	1.33
PCB-79 33'45'-TeCB	1.23	7.2%	1.15	1.16	1.16	1.31	1.36	1.26
PCB-78 33'45-TeCB	1.08	5.3%	1.06	1.01	1.02	1.12	1.14	1.13
PCB-104 22'466'-PeCB	1.25	4.7%	1.25	1.15	1.23	1.32	1.31	1.27
PCB-96 22'366'-PeCB	1.08	4.8%	1.04	1.04	1.04	1.14	1.14	1.06
PCB-103 22'45'6-PeCB	0.90	5.0%	0.87	0.85	0.86	0.95	0.93	0.95
PCB-94 22'356'-PeCB	0.78	6.6%	0.73	0.72	0.74	0.83	0.81	0.83
PCB-95 22'35'6-PeCB	0.83	7.3%	0.77	0.74	0.82	0.88	0.86	0.88
PCB-100/93 22'44'6-/22'356-P	0.84	5.7%	0.80	0.78	0.84	0.92	0.86	0.87
PCB-102 22'456'-PeCB	0.90	8.4%	0.98	0.79	0.85	0.93	0.98	0.88
PCB-98 22'3'46-PeCB	0.77	12.7%	0.59	0.78	0.76	0.82	0.80	0.88
PCB-88 22'346-PeCB	0.79	6.5%	0.84	0.71	0.77	0.84	0.83	0.77
PCB-91 22'34'6-PeCB	0.88	8.8%	0.76	0.84	0.86	0.93	0.92	0.97
PCB-84 22'33'6-PeCB	0.71	6.1%	0.67	0.65	0.69	0.75	0.74	0.75
PCB-89 22'346'-PeCB	0.76	5.5%	0.72	0.71	0.75	0.81	0.79	0.80
PCB-121 23'45'6-PeCB	1.14	5.1%	1.10	1.07	1.11	1.20	1.18	1.20
PCB-92 22'355'-PeCB	0.80	5.9%	0.75	0.74	0.78	0.85	0.84	0.84
PCB-113/90/101 233'5'6-/22'3	0.93	4.5%	0.90	0.88	0.92	0.99	0.97	0.95
PCB-83 22'33'5-PeCB	0.71	4.1%	0.69	0.68	0.71	0.76	0.71	0.74
PCB-99 22'44'5-PeCB	0.87	8.4%	0.85	0.75	0.85	0.92	0.96	0.90
PCB-112 233'56-PeCB	1.13	3.6%	1.08	1.11	1.08	1.16	1.13	1.19
PCB-108/119/86/97/125/87 233	0.95	4.6%	0.92	0.88	0.94	1.00	0.99	0.95
PCB-117 234'56-PeCB	1.04	5.1%	1.10	1.09	0.98	1.04	1.06	0.97
PCB-116/85 23456-/22'344'-Pe	0.97	7.9%	0.90	0.86	0.97	1.03	1.02	1.05
PCB-110 233'4'6-PeCB	1.02	5.9%	1.01	0.92	1.01	1.07	1.08	1.05
PCB-115 2344'6-PeCB	1.16	4.0%	1.17	1.11	1.10	1.19	1.17	1.21

PCB-82 22'33'4-PeCB	0.69	5.6%	0.65	0.65	0.67	0.72	0.73	0.73
PCB-111 233'55'-PeCB	1.15	5.4%	1.08	1.08	1.13	1.21	1.21	1.22
PCB-120 23'455'-PeCB	1.16	4.9%	1.11	1.08	1.15	1.20	1.21	1.21
PCB-107/124 233'4'5-/2'3455'	1.07	5.5%	1.02	1.00	1.06	1.13	1.12	1.12
PCB-109 233'46-PeCB	1.14	6.6%	1.11	1.08	1.04	1.23	1.19	1.20
PCB-106 233'45-PeCB	1.07	6.1%	1.04	0.97	1.08	1.14	1.13	1.07
PCB-122 2'33'45-PeCB	1.00	4.8%	0.94	0.98	0.96	1.04	1.04	1.05
PCB-127 33'455'-PeCB	1.10	5.0%	1.04	1.04	1.07	1.14	1.17	1.13
PCB-155 22'44'66'-HxCB	1.09	4.7%	1.03	1.06	1.04	1.13	1.15	1.13
PCB-152 22'3566'-HxCB	1.01	5.2%	0.98	0.94	0.98	1.05	1.08	1.05
PCB-150 22'34'66'-HxCB	1.00	8.2%	0.90	0.92	0.98	1.07	1.09	1.07
PCB-136 22'33'66'-HxCB	0.95	5.5%	0.89	0.90	0.92	0.99	1.01	1.00
PCB-145 22'3466'HxCB	0.96	6.9%	0.86	0.91	0.94	1.00	1.03	1.02
PCB-148 22'34'56'-HxCB	0.97	7.6%	0.91	0.88	0.92	1.02	1.05	1.04
PCB-151/135 22'355'6-/22'33'	0.96	5.1%	0.93	0.91	0.92	1.00	1.02	1.00
PCB-154 22'44'5'6-HxCB	1.09	5.8%	1.03	1.02	1.06	1.14	1.16	1.14
PCB-144 22'345'6-HxCB	0.98	6.3%	0.94	0.90	0.95	1.03	1.04	1.04
PCB-147/149 22'34'56-/22'34'	0.99	5.9%	0.94	0.91	0.95	1.03	1.05	1.03
PCB-134 22'33'56-HxCB	0.80	5.7%	0.74	0.83	0.76	0.82	0.86	0.80
PCB-143 22'3456'-HxCB	0.95	9.3%	1.01	0.80	0.90	0.99	1.00	1.03
PCB-139/140 22'344'6-/22'344'	1.00	6.3%	0.94	0.92	0.97	1.05	1.07	1.05
PCB-131 22'33'46-HxCB	0.85	7.1%	0.77	0.79	0.83	0.89	0.92	0.89
PCB-142 22'3456-HxCB	0.87	6.1%	0.83	0.81	0.84	0.91	0.93	0.92
PCB-132 22'33'46'-HxCB	0.89	6.5%	0.86	0.80	0.86	0.93	0.95	0.93
PCB-133 22'33'55'-HxCB	0.91	7.2%	0.83	0.87	0.88	0.96	0.99	0.97
PCB-165 233'55'6-HxCB	1.13	6.0%	1.07	1.06	1.08	1.18	1.21	1.19
PCB-146 22'34'55'-HxCB	1.01	5.9%	1.01	0.92	0.95	1.03	1.06	1.07
PCB-161 233'45'6-HxCB	1.25	6.3%	1.17	1.18	1.20	1.33	1.35	1.28
PCB-153/168 22'44'55'-/23'44'	1.22	5.7%	1.21	1.13	1.15	1.28	1.30	1.25
PCB-141 22'3455'-HxCB	0.93	5.6%	0.89	0.86	0.89	0.96	0.98	0.98
PCB-130 22'33'45'-HxCB	0.85	5.1%	0.85	0.78	0.81	0.87	0.89	0.88
PCB-137 22'344'5-HxCB	1.04	5.8%	0.95	1.01	1.05	1.11	1.03	1.10
PCB-164 233'4'5'6-HxCB	1.22	7.7%	1.19	1.16	1.12	1.23	1.38	1.26
PCB-163/138/129 233'4'56-/22'	1.02	5.4%	0.98	0.96	1.00	1.07	1.10	1.04
PCB-160 233'456-HxCB	1.21	4.4%	1.20	1.17	1.13	1.24	1.26	1.26
PCB-158 233'44'6-HxCB	1.34	4.3%	1.29	1.27	1.30	1.38	1.41	1.38
PCB-128/166 22'33'44'-/2344'5	0.90	4.4%	0.86	0.86	0.87	0.93	0.94	0.93
PCB-159 233'455'-HxCB	1.06	5.4%	1.03	0.99	1.02	1.11	1.13	1.11
PCB-162 233'4'55'-HxCB	1.08	5.5%	1.05	0.98	1.05	1.12	1.14	1.12
PCB-188 22'34'566'-HpCB	1.03	6.0%	0.93	0.99	1.02	1.08	1.10	1.07
PCB-179 22'33'566'-HpCB	0.97	4.7%	0.92	0.91	0.94	1.01	1.02	1.00
PCB-184 22'344'66'-HpCB	0.93	5.9%	0.87	0.88	0.90	0.97	1.00	0.97
PCB-176 22'33'466'-HpCB	1.05	5.3%	0.98	0.99	1.04	1.09	1.10	1.09
PCB-186 22'34566'-HpCB	0.98	5.1%	0.93	0.92	0.97	1.02	1.03	1.02
PCB-178 22'33'55'6-HpCB	0.74	3.9%	0.71	0.70	0.72	0.75	0.77	0.76
PCB-175 22'33'45'6-HpCB	1.01	7.2%	0.93	0.92	0.99	1.06	1.08	1.07
PCB-187 22'34'55'6-HpCB	1.06	6.6%	0.97	0.99	1.06	1.12	1.13	1.11

PCB-182 22'344'56'-HpCB	1.11	3.6%	1.07	1.09	1.07	1.14	1.15	1.14
PCB-183 22'344'5'6-HpCB	1.13	9.3%	0.99	1.03	1.15	1.19	1.26	1.18
PCB-185 22'3455'6-HpCB	1.02	3.7%	1.00	1.01	0.96	1.04	1.03	1.07
PCB-174 22'33'456'-HpCB	0.93	3.6%	0.89	0.90	0.91	0.95	0.96	0.96
PCB-177 22'33'4'56-HpCB	0.91	5.5%	0.85	0.85	0.89	0.94	0.96	0.95
PCB-181 22'344'56-HpCB	1.06	3.7%	1.05	1.02	1.02	1.08	1.11	1.10
PCB-171/173 22'33'44'6-/22'3	0.93	4.2%	0.90	0.87	0.90	0.95	0.97	0.96
PCB-172 22'33'455'-HpCB	0.95	3.9%	0.94	0.91	0.92	0.97	1.00	0.98
PCB-192 233'455'6-HpCB	1.24	4.6%	1.22	1.15	1.21	1.27	1.30	1.29
PCB-180/193 22'344'55'-/233'	1.16	5.1%	1.14	1.06	1.14	1.19	1.22	1.20
PCB-191 233'44'5'6-HpCB	1.30	4.1%	1.33	1.22	1.25	1.32	1.36	1.34
PCB-170 22'33'44'5-HpCB	1.07	5.7%	1.03	0.99	1.04	1.12	1.13	1.13
PCB-190 233'44'56-HpCB	1.45	5.6%	1.36	1.37	1.41	1.49	1.54	1.54
PCB-202 22'33'55'66'-OcCB	0.91	4.7%	0.90	0.85	0.89	0.95	0.96	0.94
PCB-201 22'33'45'66'-OcCB	1.02	4.5%	0.97	0.97	1.00	1.06	1.07	1.05
PCB-204 22'344'566'-OcCB	0.98	4.6%	1.01	0.90	0.95	1.00	1.01	0.99
PCB-197 22'33'44'66'-OcCB	1.06	2.7%	1.06	1.07	1.03	1.06	1.12	1.05
PCB-200 22'33'4566'-OcCB	0.96	8.8%	0.93	0.81	0.95	1.03	1.01	1.03
PCB-198/199 22'33'455'6-/22'	0.72	4.6%	0.71	0.67	0.69	0.74	0.76	0.73
PCB-196 22'33'44'56'-OcCB	0.73	6.5%	0.66	0.69	0.72	0.76	0.79	0.76
PCB-203 22'344'55'6-OcCB	0.76	5.9%	0.72	0.72	0.74	0.80	0.82	0.80
PCB-195 22'33'44'56-OcCB	0.80	6.2%	0.78	0.73	0.76	0.84	0.85	0.84
PCB-194 22'33'44'55'-OcCB	0.87	3.4%	0.86	0.84	0.84	0.90	0.91	0.89
PCB-205 233'44'55'6-OcCB	1.09	4.2%	1.09	1.02	1.04	1.11	1.14	1.12
PCB-208 22'33'455'66'-NoCB	1.02	5.3%	0.97	0.96	0.98	1.06	1.08	1.06
PCB-207 22'33'44'566'-NoCB	1.06	5.4%	1.00	1.00	1.02	1.10	1.12	1.10
PCB-206 22'33'44'55'6-NoCB	0.98	5.5%	0.95	0.90	0.95	1.01	1.04	1.02

1668A/B ICALs

Ax	RSD	Mean	sd	MM4_PCB_01102012_25JUL12	MM4_PCB_07132012_25JUL12	RSD	Mean	sd	PD from Mean
77	7.6	1.04	0.08	1.11	1.13	1.2	1.12	0.01	0.9%
81	9.8	1.09	0.11	1.13	1.13	0.0	1.13	0.00	0.0%
105	8.6	0.98	0.08	1.11	1.09	0.8	1.10	0.01	-0.6%
114	8.5	0.97	0.08	1.18	1.16	1.0	1.17	0.01	-0.7%
118	7.2	0.98	0.07	1.11	1.11	0.4	1.11	0.00	-0.3%
123	6.4	0.97	0.06	1.08	1.19	6.7	1.13	0.08	4.7%
126	8.2	0.98	0.08	1.07	1.06	0.3	1.06	0.00	-0.2%
156/157	4.6	0.97	0.05	1.09	1.11	1.0	1.10	0.01	0.7%
167	5.2	0.96	0.05	1.14	1.14	0.5	1.14	0.01	-0.4%
169	4.6	0.93	0.04	1.09	1.11	1.1	1.10	0.01	0.8%
189	9.8	0.93	0.09	1.07	1.06	0.8	1.06	0.01	-0.6%
1	10.9	1.18	0.13	1.02	1.03	0.7	1.03	0.01	0.5%
3	9.5	1.18	0.11	0.98	1.04	4.7	1.01	0.05	3.3%
4	10.4	0.97	0.10	1.11	1.17	3.6	1.14	0.04	2.5%
15	7.2	0.99	0.07	0.99	1.08	6.4	1.03	0.07	4.5%
19	5.3	1.04	0.06	1.10	1.09	0.7	1.10	0.01	-0.5%
37	8.1	1.05	0.08	1.00	1.10	7.0	1.05	0.07	4.9%
54	9.1	1.02	0.09	1.18	1.21	1.7	1.19	0.02	1.2%
104	9.0	1.00	0.09	1.11	1.25	8.4	1.18	0.10	5.9%
153				1.19	1.22				
155	5.1	1.02	0.05	1.08	1.09	0.6	1.09	0.01	0.4%
170				1.06	1.07				
180				1.08	1.16				
188	6.5	1.06	0.07	1.03	1.03	0.1	1.03	0.00	0.1%
202	7.6	0.87	0.07	0.93	0.91	0.8	0.92	0.01	-0.6%
205	5.8	1.02	0.06	1.07	1.09	1.0	1.08	0.01	0.7%
208	4.5	0.94	0.04	1.02	1.02	0.1	1.02	0.00	-0.1%
206	7.1	0.98	0.07	0.99	0.98	1.0	0.99	0.01	-0.7%
209	6.4	0.94	0.06	1.07	1.07	0.2	1.07	0.00	#REF!
						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
ES						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1	10.8	0.98	0.11	1.08	1.08				
3	10.3	0.98	0.10	1.14	1.08				
4	8.3	0.71	0.06	0.50	0.49				
15	6.3	1.05	0.07	1.18	1.11	4.4	1.15	0.05	-3.1%
19	8.4	0.58	0.05	0.53	0.55	2.7	0.54	0.01	1.9%
37	7.8	1.40	0.11	1.64	1.64	0.2	1.64	0.00	-0.2%
54	13.1	1.35	0.18	0.87	0.94	5.7	0.90	0.05	4.0%
77	7.9	1.20	0.10	1.26	1.35	4.5	1.31	0.06	3.2%
81	7.0	1.17	0.08	1.20	1.29	5.1	1.24	0.06	3.6%
104	12.1	1.48	0.18	1.08	0.99	6.2	1.04	0.06	-4.3%
105	5.1	1.18	0.06	1.22	1.23	1.0	1.23	0.01	0.7%
114	4.2	1.23	0.05	1.24	1.25	0.2	1.25	0.00	0.1%
118	5.2	1.24	0.07	1.28	1.28	0.3	1.28	0.00	0.2%
123	5.4	1.20	0.06	1.35	1.22	7.4	1.29	0.09	-5.2%
126	8.5	1.29	0.11	1.22	1.20	1.2	1.21	0.01	-0.8%
153				1.10	1.14				
155	5.0	1.51	0.08	1.41	1.50	4.0	1.45	0.06	2.9%
156/157	15.9	1.15	0.18	1.41	1.45	2.4	1.43	0.03	1.7%
167	14.1	1.18	0.17	1.43	1.49	3.3	1.46	0.05	2.4%
169	19.8	1.10	0.22	1.37	1.40	1.8	1.39	0.03	1.3%
170				1.04	1.00				
180				1.28	1.16				
188	12.9	1.39	0.18	1.12	1.18	3.5	1.15	0.04	2.5%
189	9.1	1.70	0.15	1.53	1.49	1.9	1.51	0.03	-1.4%
202	9.7	1.32	0.13	1.07	1.14	4.6	1.10	0.05	3.2%

205	4.3	1.26	0.05	1.26	1.20	3.1	1.23	0.04	-2.2%
206	7.4	0.94	0.07	0.90	0.87	2.4	0.89	0.02	-1.7%
208	8.5	1.31	0.11	1.22	1.19	1.8	1.21	0.02	-1.2%
209	6.3	1.21	0.08	1.06	1.00	4.1	1.03	0.04	-2.9%
						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
SS						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
28	7.1	1.11	0.08	0.98	1.07	6.5	1.03	0.07	4.6%
111	6.3	1.07	0.07	0.90	1.01	7.8	0.95	0.07	5.5%
178	4.6	0.68	0.03	0.62	0.63	0.9	0.62	0.01	0.6%

Additional Ax			RSD	Mean	sd	PD from Historical Mean
PCB-1 2-MoCB	1.02	1.03	0.7	1.03	0.01	0.5%
PCB-2 3-MoCB	0.97	1.04	4.7	1.01	0.05	3.4%
PCB-3 4-MoCB	0.98	1.04	4.7	1.01	0.05	3.3%
PCB-4 22'-DiCB	1.11	1.17	3.6	1.14	0.04	2.5%
PCB-10 26-DiCB	1.71	1.83	4.8	1.77	0.08	3.4%
PCB-9 25-DiCB	0.83	0.89	5.6	0.86	0.05	4.0%
PCB-7 24-DiCB	0.95	1.02	5.4	0.99	0.05	3.8%
PCB-6 23'-DiCB	0.89	0.95	4.3	0.92	0.04	3.0%
PCB-5 23-DiCB	0.89	0.97	5.9	0.93	0.06	4.2%
PCB-8 24'-DiCB	0.93	0.98	4.0	0.96	0.04	2.8%
PCB-14 35-DiCB	1.07	1.16	5.5	1.11	0.06	3.9%
PCB-11 33'-DiCB	0.94	1.00	4.6	0.97	0.04	3.3%
PCB-13/12 34'-/34-DiCB	0.95	1.02	4.9	0.98	0.05	3.5%
PCB-15 44'-DiCB	0.99	1.08	6.4	1.03	0.07	4.5%
PCB-19 22'6-TrCB	1.10	1.09	0.7	1.10	0.01	-0.5%
PCB-30/18 246-/22'5-TrCB	1.48	1.46	1.1	1.47	0.02	-0.8%
PCB-17 22'4-TrCB	1.28	1.25	1.7	1.27	0.02	-1.2%
PCB-27 23'6-TrCB	1.70	1.69	0.3	1.70	0.01	-0.2%
PCB-24 236-TrCB	1.63	1.63	0.2	1.63	0.00	0.2%
PCB-16 22'3-TrCB	0.97	0.95	1.3	0.96	0.01	-0.9%
PCB-32 24'6-TrCB	1.81	1.79	0.9	1.80	0.02	-0.7%
PCB-34 2'35-TrCB	0.98	1.05	5.1	1.01	0.05	3.6%
PCB-23 235-TrCB	0.98	1.06	5.3	1.02	0.05	3.7%
PCB-26/29 23'5-/245-TrCB	1.00	1.09	5.6	1.04	0.06	4.0%
PCB-25 23'4-TrCB	0.99	1.07	5.9	1.03	0.06	4.1%
PCB-31 24'5-TrCB	1.03	1.11	5.2	1.07	0.06	3.7%
PCB-28/20 244'-/233'-TrCB	0.98	1.07	5.7	1.03	0.06	4.1%
PCB-21/33 234-/2'34-TrCB	1.01	1.09	5.5	1.05	0.06	3.9%
PCB-22 234'-TrCB	0.93	1.02	6.0	0.97	0.06	4.3%
PCB-36 33'5-TrCB	1.03	1.13	6.5	1.08	0.07	4.6%
PCB-39 34'5-TrCB	1.10	1.17	4.0	1.13	0.05	2.8%
PCB-38 345-TrCB	0.95	1.03	5.7	0.99	0.06	4.1%
PCB-35 33'4-TrCB	0.96	1.04	6.0	1.00	0.06	4.2%
PCB-37 344'-TrCB	1.00	1.10	7.0	1.05	0.07	4.9%
PCB-54 22'66'-TeCB	1.18	1.21	1.7	1.19	0.02	1.2%
PCB-50/53 22'46-/22'56'TeCB	0.85	0.86	0.8	0.85	0.01	0.6%
PCB-45 22'36-TeCB	0.75	0.73	1.7	0.74	0.01	-1.2%
PCB-51 22'46'-TeCB	0.85	0.88	2.7	0.86	0.02	1.9%
PCB-46 22'36'-TeCB	0.68	0.70	1.2	0.69	0.01	0.9%
PCB-52 22'55'-TeCB	0.82	0.84	2.0	0.83	0.02	1.4%
PCB-73 23'5'6TeCB	1.10	1.09	0.6	1.09	0.01	-0.4%
PCB-43 22'35-TeCB	0.66	0.72	7.0	0.69	0.05	4.9%
PCB-69/49 23'46-/22'45'TeCB	1.00	1.01	0.8	1.01	0.01	0.6%
PCB-48 22'45-TeCB	0.83	0.85	1.5	0.84	0.01	1.1%
PCB-44/47/65 22'35'-/22'44'-	0.88	0.89	0.5	0.89	0.00	0.4%
PCB-59/62/75 233'6-/2346-/24	1.12	1.14	1.1	1.13	0.01	0.8%
PCB-42 22'34'-TeCB	0.77	0.77	0.1	0.77	0.00	0.1%
PCB-41 22'34-TeCB	0.72	0.73	1.0	0.72	0.01	0.7%

PCB-71/40 23'4'6/22'33'-TeCB	0.85	0.87	1.2	0.86	0.01	0.9%
PCB-64 234'6-TeCB	1.21	1.24	1.6	1.22	0.02	1.1%
PCB-72 23'55'-TeCB	1.13	1.14	0.7	1.14	0.01	0.5%
PCB-68 23'45'-TeCB	1.21	1.21	0.1	1.21	0.00	-0.1%
PCB-57 233'5-TeCB	1.10	1.11	0.1	1.10	0.00	0.0%
PCB-58 233'5-TeCB	1.11	1.10	0.7	1.11	0.01	-0.5%
PCB-67 23'45-TeCB	1.15	1.16	0.7	1.15	0.01	0.5%
PCB-63 234'5-TeCB	1.22	1.22	0.4	1.22	0.01	-0.3%
PCB-61/70/74/76 2345-/23'4'5	1.13	1.13	0.1	1.13	0.00	-0.1%
PCB-66 23'44'-TeCB	1.06	1.08	0.7	1.07	0.01	0.5%
PCB-55 233'4-TeCB	1.09	1.10	0.6	1.09	0.01	0.4%
PCB-56 233'4'-TeCB	1.05	1.06	0.1	1.05	0.00	0.1%
PCB-60 2344'-TeCB	1.12	1.11	0.4	1.11	0.00	-0.2%
PCB-80 33'55'-TeCB	1.26	1.25	0.2	1.25	0.00	-0.2%
PCB-79 33'45'-TeCB	1.26	1.23	1.4	1.25	0.02	-1.0%
PCB-78 33'45-TeCB	1.09	1.08	0.5	1.08	0.01	-0.4%
PCB-104 22'466'-PeCB	1.11	1.25	8.4	1.18	0.10	5.9%
PCB-96 22'366'-PeCB	0.98	1.08	6.6	1.03	0.07	4.7%
PCB-103 22'45'6-PeCB	0.80	0.90	8.1	0.85	0.07	5.7%
PCB-94 22'356'-PeCB	0.70	0.78	7.3	0.74	0.05	5.2%
PCB-95 22'35'6-PeCB	0.75	0.83	7.1	0.79	0.06	5.1%
PCB-100/93 22'44'6-/22'356-P	0.76	0.84	7.1	0.80	0.06	5.0%
PCB-102 22'456'-PeCB	0.82	0.90	6.6	0.86	0.06	4.7%
PCB-98 22'3'46-PeCB	0.69	0.77	7.8	0.73	0.06	5.5%
PCB-88 22'346-PeCB	0.67	0.79	11.7	0.73	0.09	8.3%
PCB-91 22'34'6-PeCB	0.84	0.88	3.2	0.86	0.03	2.3%
PCB-84 22'33'6-PeCB	0.65	0.71	6.7	0.68	0.05	4.7%
PCB-89 22'346'-PeCB	0.68	0.76	7.7	0.72	0.06	5.5%
PCB-121 23'45'6-PeCB	1.02	1.14	8.0	1.08	0.09	5.6%
PCB-92 22'355'-PeCB	0.73	0.80	6.4	0.77	0.05	4.5%
PCB-113/90/101 233'5'6-/22'3	0.85	0.93	6.5	0.89	0.06	4.6%
PCB-83 22'33'5-PeCB	0.63	0.71	8.3	0.67	0.06	5.9%
PCB-99 22'44'5-PeCB	0.82	0.87	4.5	0.84	0.04	3.2%
PCB-112 233'56-PeCB	1.01	1.13	7.6	1.07	0.08	5.4%
PCB-108/119/86/97/125/87 233	0.87	0.95	6.5	0.91	0.06	4.6%
PCB-117 234'56-PeCB	0.96	1.04	5.9	1.00	0.06	4.2%
PCB-116/85 23456-/22'344'-Pe	0.87	0.97	8.1	0.92	0.07	5.7%
PCB-110 233'4'6-PeCB	0.95	1.02	5.4	0.98	0.05	3.8%
PCB-115 2344'6-PeCB	1.02	1.16	8.7	1.09	0.09	6.1%
PCB-82 22'33'4-PeCB	0.63	0.69	6.5	0.66	0.04	4.6%
PCB-111 233'55'-PeCB	1.05	1.15	7.0	1.10	0.08	4.9%
PCB-120 23'455'-PeCB	1.05	1.16	6.7	1.11	0.07	4.8%
PCB-107/124 233'4'5-/2'3455'	0.99	1.07	6.1	1.03	0.06	4.3%
PCB-109 233'46-PeCB	1.05	1.14	5.7	1.10	0.06	4.0%
PCB-106 233'45-PeCB	0.98	1.07	5.9	1.03	0.06	4.2%
PCB-122 2'33'45-PeCB	1.01	1.00	0.8	1.01	0.01	-0.6%
PCB-127 33'455'-PeCB	1.12	1.10	1.3	1.11	0.01	-0.9%
PCB-155 22'44'66'-HxCB	1.08	1.09	0.6	1.09	0.01	0.4%
PCB-152 22'3566'-HxCB	1.00	1.01	0.7	1.01	0.01	0.5%
PCB-150 22'34'66'-HxCB	1.03	1.00	2.0	1.02	0.02	-1.4%
PCB-136 22'33'66'-HxCB	0.95	0.95	0.3	0.95	0.00	0.2%
PCB-145 22'3466'HxCB	0.98	0.96	1.0	0.97	0.01	-0.7%
PCB-148 22'34'56'-HxCB	0.96	0.97	1.0	0.96	0.01	0.7%
PCB-151/135 22'355'6-/22'33'	0.94	0.96	1.8	0.95	0.02	1.3%
PCB-154 22'44'5'6-HxCB	1.05	1.09	2.7	1.07	0.03	1.9%
PCB-144 22'345'6-HxCB	0.96	0.98	1.3	0.97	0.01	0.9%
PCB-147/149 22'34'56-/22'34'	0.96	0.99	1.6	0.97	0.02	1.1%
PCB-134 22'33'56-HxCB	0.78	0.80	1.6	0.79	0.01	1.1%
PCB-143 22'3456'-HxCB	0.92	0.95	2.6	0.94	0.02	1.8%
PCB-139/140 22'344'6-/22'344'	0.99	1.00	0.9	0.99	0.01	0.6%
PCB-131 22'33'46-HxCB	0.84	0.85	1.0	0.84	0.01	0.7%
PCB-142 22'3456-HxCB	0.86	0.87	1.0	0.87	0.01	0.7%
PCB-132 22'33'46'-HxCB	0.87	0.89	1.4	0.88	0.01	1.0%
PCB-133 22'33'55'-HxCB	0.92	0.91	0.7	0.92	0.01	-0.5%

PCB-165 233'55'6-HxCB	1.12	1.13		0.8	1.13	0.01	0.6%
PCB-146 22'34'55'-HxCB	0.99	1.01		1.5	1.00	0.01	1.1%
PCB-161 233'45'6-HxCB	1.24	1.25		0.5	1.25	0.01	0.4%
PCB-153/168 22'44'55'-/23'44'	1.19	1.22		1.8	1.20	0.02	1.3%
PCB-141 22'3455'-HxCB	0.92	0.93		0.5	0.92	0.00	0.4%
PCB-130 22'33'45'-HxCB	0.82	0.85		2.0	0.84	0.02	1.4%
PCB-137 22'344'5-HxCB	1.00	1.04		2.9	1.02	0.03	2.1%
PCB-164 233'4'5'6-HxCB	1.21	1.22		0.8	1.22	0.01	0.6%
PCB-163/138/129 233'4'56-/22'	1.01	1.02		1.0	1.02	0.01	0.7%
PCB-160 233'456-HxCB	1.18	1.21		1.7	1.19	0.02	1.2%
PCB-158 233'44'6-HxCB	1.30	1.34		2.1	1.32	0.03	1.5%
PCB-128/166 22'33'44'-/2344'5	0.91	0.90		1.1	0.91	0.01	-0.8%
PCB-159 233'455'-HxCB	1.07	1.06		0.8	1.07	0.01	-0.5%
PCB-162 233'4'55'-HxCB	1.09	1.08		1.2	1.08	0.01	-0.8%
PCB-188 22'34'566'-HpCB	1.03	1.03		0.1	1.03	0.00	0.1%
PCB-179 22'33'566'-HpCB	0.95	0.97		1.6	0.96	0.02	1.2%
PCB-184 22'344'66'-HpCB	0.94	0.93		0.9	0.94	0.01	-0.6%
PCB-176 22'33'466'-HpCB	1.05	1.05		0.3	1.05	0.00	-0.2%
PCB-186 22'34566'-HpCB	0.98	0.98		0.1	0.98	0.00	0.1%
PCB-178 22'33'55'6-HpCB	0.73	0.74		0.2	0.73	0.00	0.2%
PCB-175 22'33'45'6-HpCB	0.95	1.01		4.2	0.98	0.04	3.0%
PCB-187 22'34'55'6-HpCB	0.99	1.06		5.1	1.03	0.05	3.6%
PCB-182 22'344'56'-HpCB	1.02	1.11		6.0	1.07	0.06	4.2%
PCB-183 22'344'5'6-HpCB	1.06	1.13		4.9	1.10	0.05	3.5%
PCB-185 22'3455'6-HpCB	0.95	1.02		5.1	0.98	0.05	3.6%
PCB-174 22'33'456'-HpCB	0.83	0.93		7.8	0.88	0.07	5.5%
PCB-177 22'33'4'56-HpCB	0.85	0.91		4.6	0.88	0.04	3.3%
PCB-181 22'344'56-HpCB	0.98	1.06		5.4	1.02	0.06	3.8%
PCB-171/173 22'33'44'6-/22'3	0.85	0.93		6.1	0.89	0.05	4.3%
PCB-172 22'33'455'-HpCB	0.88	0.95		6.0	0.92	0.05	4.2%
PCB-192 233'455'6-HpCB	1.12	1.24		7.1	1.18	0.08	5.0%
PCB-180/193 22'344'55'-/233'	1.08	1.16		5.1	1.12	0.06	3.6%
PCB-191 233'44'5'6-HpCB	1.20	1.30		5.9	1.25	0.07	4.2%
PCB-170 22'33'44'5-HpCB	1.06	1.07		1.1	1.07	0.01	0.8%
PCB-190 233'44'56-HpCB	1.42	1.45		1.7	1.43	0.02	1.2%
PCB-202 22'33'55'66'-OcCB	0.93	0.91		0.8	0.92	0.01	-0.6%
PCB-201 22'33'45'66'-OcCB	1.04	1.02		1.2	1.03	0.01	-0.9%
PCB-204 22'344'566'-OcCB	0.99	0.98		1.0	0.98	0.01	-0.7%
PCB-197 22'33'44'66'-OcCB	1.03	1.06		2.0	1.05	0.02	1.4%
PCB-200 22'33'4566'-OcCB	1.02	0.96		4.1	0.99	0.04	-2.9%
PCB-198/199 22'33'455'6-/22'	0.74	0.72		2.1	0.73	0.01	-1.5%
PCB-196 22'33'44'56'-OcCB	0.77	0.73		3.7	0.75	0.03	-2.6%
PCB-203 22'344'55'6-OcCB	0.80	0.76		3.0	0.78	0.02	-2.1%
PCB-195 22'33'44'56-OcCB	0.79	0.80		0.8	0.80	0.01	0.6%
PCB-194 22'33'44'55'-OcCB	0.87	0.87		0.4	0.87	0.00	0.2%
PCB-205 233'44'55'6-OcCB	1.07	1.09		1.0	1.08	0.01	0.7%
PCB-208 22'33'455'66'-NoCB	1.02	1.02		0.1	1.02	0.00	-0.1%
PCB-207 22'33'44'566'-NoCB	1.07	1.06		0.7	1.06	0.01	-0.5%
PCB-206 22'33'44'55'6-NoCB	0.99	0.98		0.7	0.99	0.01	-0.5%

Analytical Perspectives — Run Log **Project: MM7_PCB_07132012_25JUL12**

Instrument: MM7 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_a

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
15	120725X15	Tray1:50	CS0_120725_PCB_XC	0.03	SIL 12-65-6	LKB	094-961	26-Jul-2012	02:56:49
16	120725X16	Tray1:51	CS1_120725_PCB_XB	0.03	SIL 12-65-5	LKB	824-792	26-Jul-2012	03:50:43
17	120725X17	Tray1:52	CS2_120725_PCB_XB	0.03	SIL 12-65-4	LKB	175-178	26-Jul-2012	04:44:38
18	120725X18	Tray1:53	CS3_120725_PCB_XB	0.03	SIL 12-65-3	LKB	426-138	26-Jul-2012	05:38:32
19	120725X19	Tray1:54	CS4_120725_PCB_XB	0.03	SIL 12-65-2	LKB	276-589	26-Jul-2012	06:32:28
20	120725X20	Tray1:55	CS5_120725_PCB_XB	0.03	SIL 12-65-1	LKB	951-239	26-Jul-2012	07:26:23
21	120725X21	Tray1:02	SBS_120725_PCB_XH	0.03	SIL 9-41-1	LKB	476-201	26-Jul-2012	08:33:09
22	120725X22	Tray1:02	SBS_120725_PCB_XI	0.03	SIL 9-41-1	LKB	961-294	26-Jul-2012	09:25:22

REVIEWED

By Laura Boivin at 11:26 am, Jul 28, 2012

OK JK 8/1/12

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:10
Lab ID:	**CS0_120725_PCB_XC**			**ICAL: MM7_PCB_07132012_25JUL12**	
Acquired:	**26-JUL-2012 02:56**				
Datafile:	**120725X15**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.54	4.40E+05	0.84 Y	1.13	1.12	-1.0%
PCB-81 344'5-TeCB	30.07	4.09E+05	0.74 Y	1.13	1.09	-3.0%
PCB-105 233'44'-PeCB	33.49	3.57E+05	0.63 Y	1.09	1.07	-2.0%
PCB-114 2344'5-PeCB	32.96	3.71E+05	0.58 Y	1.16	1.10	-5.3%
PCB-118 23'44'5-PeCB	32.51	3.93E+05	0.61 Y	1.11	1.13	2.3%
PCB-123 2'344'5-PeCB	32.23	3.85E+05	0.61 Y	1.19	1.18	-0.6%
PCB-126 33'44'5-PeCB	36.08	3.40E+05	0.62 Y	1.06	1.04	-1.9%
PCB-156/157 233'44'5/233'44'5'	38.61	7.14E+05	1.28 Y	1.11	1.09	-2.0%
PCB-167 23'44'55'-HxCB	37.65	3.68E+05	1.22 Y	1.14	1.08	-4.5%
PCB-169 33'44'55'-HxCB	41.31	3.38E+05	1.15 Y	1.11	1.07	-4.1%
PCB-189 233'44'55'-HpCB	43.43	3.13E+05	1.11 Y	1.06	1.03	-2.6%
PCB-209 DeCB	48.38	2.29E+05	1.17 Y	1.07	1.10	2.3%
ES PCB-1	10.64	1.17E+08	3.14 Y	1.08	1.09	0.4%
ES PCB-3	12.70	1.16E+08	3.23 Y	1.08	1.08	-0.7%
ES PCB-4	12.92	5.31E+07	1.59 Y	0.49	0.49	0.6%
ES PCB-15	18.24	1.19E+08	1.59 Y	1.11	1.10	-0.6%
ES PCB-19	15.75	6.04E+07	1.05 Y	0.55	0.56	0.7%
ES PCB-37	24.32	9.54E+07	1.06 Y	1.64	1.63	-0.6%
ES PCB-54	18.49	5.54E+07	0.77 Y	0.94	0.94	0.4%
ES PCB-77	30.52	7.84E+07	0.80 Y	1.35	1.34	-0.9%
ES PCB-81	30.05	7.47E+07	0.79 Y	1.29	1.27	-1.1%
ES PCB-104	23.28	5.31E+07	1.58 Y	0.99	0.98	-1.1%
ES PCB-105	33.46	6.66E+07	1.64 Y	1.23	1.23	-0.1%
ES PCB-114	32.93	6.76E+07	1.62 Y	1.25	1.25	0.2%
ES PCB-118	32.49	6.94E+07	1.61 Y	1.28	1.28	0.2%
ES PCB-123	32.21	6.52E+07	1.58 Y	1.22	1.21	-1.0%
ES PCB-126	36.06	6.53E+07	1.59 Y	1.20	1.21	0.7%
ES PCB-153	34.06	5.07E+07	1.30 Y	1.14	1.14	-0.2%
ES PCB-155	28.13	6.64E+07	1.26 Y	1.50	1.49	-0.2%
ES PCB-156/157	38.59	1.32E+08	1.29 Y	1.45	1.48	1.6%
ES PCB-167	37.63	6.78E+07	1.27 Y	1.49	1.52	1.9%
ES PCB-169	41.29	6.34E+07	1.28 Y	1.40	1.42	1.3%
ES PCB-170	40.80	4.16E+07	1.06 Y	1.00	1.01	0.9%
ES PCB-180	39.76	4.71E+07	1.05 Y	1.16	1.15	-1.1%
ES PCB-188	32.94	5.30E+07	1.07 Y	1.18	1.19	1.0%
ES PCB-189	43.41	6.08E+07	1.04 Y	1.49	1.48	-0.6%
ES PCB-202	37.43	5.12E+07	0.90 Y	1.14	1.15	1.1%
ES PCB-205	45.56	4.94E+07	0.89 Y	1.20	1.20	-0.1%
ES PCB-206	47.01	3.61E+07	0.79 Y	0.87	0.88	1.0%
ES PCB-208	43.02	4.91E+07	0.79 Y	1.19	1.19	0.3%
ES PCB-209	48.36	4.17E+07	1.19 Y	1.00	1.01	1.0%

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:10
Lab ID:	**CS0_120725_PCB_XC**		**ICAL: MM7_PCB_07132012_25JUL12**		
Acquired:	**26-JUL-2012 02:56**				
Datafile:	**120725X15**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.88	1.02E+08	1.06 Y	1.07	1.07	-0.3%
SS PCB-111	30.57	6.61E+07	1.60 Y	1.01	1.01	0.9%
SS PCB-178	35.49	3.27E+07	1.06 Y	0.63	0.62	-1.8%
CS PCB-28	20.88	1.02E+08	1.06 Y	1.76	1.74	-1.0%
CS PCB-111	30.57	6.61E+07	1.60 Y	1.23	1.22	-0.1%
CS PCB-178	35.49	3.27E+07	1.06 Y	0.74	0.73	-0.8%
JS PCB-9	14.74	1.08E+08	1.60 Y	-	-	-
JS PCB-52	22.45	5.87E+07	0.79 Y	-	-	-
JS PCB-101	28.30	5.40E+07	1.59 Y	-	-	-
JS PCB-138	35.10	4.45E+07	1.27 Y	-	-	-
JS PCB-194	45.16	4.11E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	10.65	5.46E+05	3.25 Y	1.03	0.93	-9.9%
PCB-3 4-MoCB	12.71	5.56E+05	2.99 Y	1.04	0.95	-8.5%
PCB-4 22'-DiCB	12.93	2.97E+05	0.00 S	1.17	1.12	-4.4%
PCB-15 44'-DiCB	18.25	6.16E+05	1.51 Y	1.08	1.03	-4.6%
PCB-19 22'6-TrCB	15.77	3.20E+05	1.01 Y	1.09	1.06	-3.2%
PCB-37 344'-TrCB	24.34	5.24E+05	1.03 Y	1.10	1.10	-0.5%
PCB-54 22'66'-TeCB	18.50	3.13E+05	0.83 Y	1.21	1.13	-6.5%
PCB-104 22'466'-PeCB	23.30	3.32E+05	0.63 Y	1.25	1.25	-0.4%
PCB-153 22'44'55' -HxCB	34.11	6.14E+05	1.27 Y	1.22	1.21	-0.6%
PCB-155 22'44'66'-HxCB	28.15	3.43E+05	1.29 Y	1.09	1.03	-5.4%
PCB-170 22'33'44'5-HpCB	40.82	2.15E+05	0.99 Y	1.07	1.03	-3.7%
PCB-180 22'344'55'-HpCB	39.75	5.38E+05	1.02 Y	1.16	1.14	-1.4%
PCB-188 22'34'566'-HpCB	32.96	2.48E+05	1.05 Y	1.03	0.93	-9.6%
PCB-202 22'33'55'66'-OcCB	37.45	2.31E+05	0.91 Y	0.91	0.90	-1.2%
PCB-205 233'44'55'6-OcCB	45.58	2.69E+05	0.88 Y	1.09	1.09	0.2%
PCB-208 22'33'455'66'-NoCB	43.04	2.38E+05	0.77 Y	1.02	0.97	-4.5%
PCB-206 22'33'44'55'6-NoCB	47.03	1.71E+05	0.79 Y	0.98	0.95	-2.9%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:10

Lab ID: CS0_120725_PCB_XC ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 02:56
Datafile: 120725X15

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.65	5.46E+05	3.25 Y	1.03	0.93	-9.9%
PCB-2 3-MoCB	12.54	5.48E+05	3.16 Y	1.04	0.94	-9.6%
PCB-3 4-MoCB	12.71	5.56E+05	2.99 Y	1.04	0.95	-8.5%
PCB-4 22'-DiCB	12.93	2.97E+05	0.00 S	1.17	1.12	-4.4%
PCB-10 26-DiCB	13.10	4.83E+05	0.00 S	1.83	1.82	-0.9%
PCB-9 25-DiCB	14.76	4.85E+05	1.49 Y	0.89	0.81	-9.3%
PCB-7 24-DiCB	14.91	5.52E+05	1.64 Y	1.02	0.92	-9.8%
PCB-6 23'-DiCB	15.12	5.14E+05	1.60 Y	0.95	0.86	-9.3%
PCB-5 23-DiCB	15.40	5.58E+05	1.39 Y	0.97	0.93	-3.9%
PCB-8 24'-DiCB	15.51	5.26E+05	1.64 Y	0.98	0.88	-10.3%
PCB-14 35-DiCB	16.98	6.40E+05	1.64 Y	1.16	1.07	-7.4%
PCB-11 33'-DiCB	17.71	5.23E+05	1.67 Y	1.00	0.88	-12.3%
PCB-13/12 34'-/34-DiCB	17.98	1.14E+06	1.52 Y	1.02	0.96	-5.9%
PCB-15 44'-DiCB	18.25	6.16E+05	1.51 Y	1.08	1.03	-4.6%
PCB-19 22'6-TrCB	15.77	3.20E+05	1.01 Y	1.09	1.06	-3.2%
PCB-30/18 246-/22'5-TrCB	17.43	8.15E+05	1.05 Y	1.46	1.35	-7.5%
PCB-17 22'4-TrCB	17.81	3.45E+05	1.13 Y	1.25	1.14	-8.8%
PCB-27 23'6-TrCB	17.99	4.96E+05	1.12 Y	1.69	1.64	-2.9%
PCB-24 236-TrCB	18.12	4.67E+05	1.08 Y	1.63	1.55	-5.5%
PCB-16 22'3-TrCB	18.20	2.70E+05	1.04 Y	0.95	0.90	-6.2%
PCB-32 24'6-TrCB	18.66	5.12E+05	1.06 Y	1.79	1.70	-5.1%
PCB-34 2'35-TrCB	19.77	4.82E+05	0.93 Y	1.05	1.01	-3.6%
PCB-23 235-TrCB	19.91	4.78E+05	1.09 Y	1.06	1.00	-5.3%
PCB-26/29 23'5-/245-TrCB	20.19	9.87E+05	1.01 Y	1.09	1.03	-4.8%
PCB-25 23'4-TrCB	20.37	4.91E+05	0.98 Y	1.07	1.03	-4.2%
PCB-31 24'5-TrCB	20.64	4.99E+05	1.05 Y	1.11	1.05	-5.9%
PCB-28/20 244'-/233'-TrCB	20.91	9.80E+05	1.07 Y	1.07	1.03	-3.9%
PCB-21/33 234-/2'34-TrCB	21.08	1.01E+06	1.02 Y	1.09	1.06	-2.8%
PCB-22 234'-TrCB	21.44	4.65E+05	1.01 Y	1.02	0.97	-4.1%
PCB-36 33'5-TrCB	22.80	5.20E+05	1.00 Y	1.13	1.09	-3.4%
PCB-39 34'5-TrCB	23.10	5.24E+05	0.96 Y	1.17	1.10	-5.7%
PCB-38 345-TrCB	23.60	4.75E+05	1.06 Y	1.03	1.00	-3.6%
PCB-35 33'4-TrCB	23.99	4.90E+05	1.02 Y	1.04	1.03	-1.2%
PCB-37 344'-TrCB	24.34	5.24E+05	1.03 Y	1.10	1.10	-0.5%
PCB-54 22'66'-TeCB	18.50	3.13E+05	0.83 Y	1.21	1.13	-6.5%
PCB-50/53 22'46-/22'56'TeCB	20.42	5.97E+05	0.79 Y	0.86	0.80	-6.7%
PCB-45 22'36-TeCB	20.97	2.41E+05	0.77 Y	0.73	0.64	-11.8%
PCB-51 22'46'-TeCB	21.04	3.24E+05	0.81 Y	0.88	0.87	-1.5%
PCB-46 22'36'-TeCB	21.24	2.40E+05	0.80 Y	0.70	0.64	-7.5%
PCB-52 22'55'-TeCB	22.47	3.04E+05	0.85 Y	0.84	0.81	-3.6%
PCB-73 23'5'6TeCB	22.60	3.96E+05	0.76 Y	1.09	1.06	-2.8%
PCB-43 22'35-TeCB	22.68	2.53E+05	0.83 Y	0.72	0.68	-6.3%
PCB-69/49 23'46-/22'45'TeCB	22.88	7.07E+05	0.83 Y	1.01	0.95	-6.6%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:10

Lab ID: CS0_120725_PCB_XC
Acquired: 26-JUL-2012 02:56
Datafile: 120725X15
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.14	3.06E+05	0.80 Y	0.85	0.82	-3.9%
PCB-44/47/65 22'35'-/22'44'-	23.36	9.57E+05	0.78 Y	0.89	0.85	-4.1%
PCB-59/62/75 233'6-/2346-/24	23.62	1.21E+06	0.81 Y	1.14	1.08	-5.2%
PCB-42 22'34'-TeCB	23.78	2.63E+05	0.83 Y	0.77	0.70	-8.9%
PCB-41 22'34-TeCB	24.10	2.78E+05	0.78 Y	0.73	0.75	2.5%
PCB-71/40 23'4'6/22'33'-TeCB	24.19	6.22E+05	0.79 Y	0.87	0.83	-3.9%
PCB-64 234'6-TeCB	24.39	4.50E+05	0.75 Y	1.24	1.20	-2.6%
PCB-72 23'55'-TeCB	25.11	4.01E+05	0.79 Y	1.14	1.07	-6.1%
PCB-68 23'45'-TeCB	25.36	4.27E+05	0.85 Y	1.21	1.14	-5.6%
PCB-57 233'5-TeCB	25.72	4.00E+05	0.81 Y	1.11	1.07	-3.3%
PCB-58 233'5-TeCB	25.92	3.76E+05	0.80 Y	1.10	1.01	-8.5%
PCB-67 23'45-TeCB	26.07	4.09E+05	0.83 Y	1.16	1.09	-5.8%
PCB-63 234'5-TeCB	26.29	4.21E+05	0.75 Y	1.22	1.13	-7.4%
PCB-61/70/74/76 2345-/23'4'5	26.57	1.57E+06	0.78 Y	1.13	1.05	-7.2%
PCB-66 23'44'-TeCB	26.85	3.86E+05	0.83 Y	1.08	1.03	-4.0%
PCB-55 233'4-TeCB	26.98	3.82E+05	0.78 Y	1.10	1.02	-6.9%
PCB-56 233'4'-TeCB	27.41	3.76E+05	0.83 Y	1.06	1.01	-4.7%
PCB-60 2344'-TeCB	27.59	3.95E+05	0.80 Y	1.11	1.06	-4.8%
PCB-80 33'55'-TeCB	27.95	4.34E+05	0.85 Y	1.25	1.16	-7.4%
PCB-79 33'45'-TeCB	29.23	4.30E+05	0.80 Y	1.23	1.15	-6.7%
PCB-78 33'45-TeCB	29.70	3.97E+05	0.74 Y	1.08	1.06	-1.6%
PCB-104 22'466'-PeCB	23.30	3.32E+05	0.63 Y	1.25	1.25	-0.4%
PCB-96 22'366'-PeCB	23.60	2.76E+05	0.65 Y	1.08	1.04	-3.4%
PCB-103 22'45'6-PeCB	25.27	2.84E+05	0.58 Y	0.90	0.87	-3.3%
PCB-94 22'356'-PeCB	25.45	2.38E+05	0.55 Y	0.78	0.73	-5.8%
PCB-95 22'35'6-PeCB	25.82	2.51E+05	0.67 Y	0.83	0.77	-6.9%
PCB-100/93 22'44'6-/22'356-P	26.03	5.21E+05	0.62 Y	0.84	0.80	-5.2%
PCB-102 22'456'-PeCB	26.14	3.18E+05	0.57 Y	0.90	0.98	8.5%
PCB-98 22'3'46-PeCB	26.21	1.93E+05	0.61 Y	0.77	0.59	-23.2%
PCB-88 22'346-PeCB	26.49	2.74E+05	0.68 Y	0.79	0.84	5.8%
PCB-91 22'34'6-PeCB	26.56	2.46E+05	0.57 Y	0.88	0.76	-14.0%
PCB-84 22'33'6-PeCB	26.74	2.19E+05	0.67 Y	0.71	0.67	-5.3%
PCB-89 22'346'-PeCB	27.15	2.33E+05	0.58 Y	0.76	0.72	-6.0%
PCB-121 23'45'6-PeCB	27.52	3.57E+05	0.61 Y	1.14	1.10	-4.2%
PCB-92 22'355'-PeCB	27.82	2.46E+05	0.62 Y	0.80	0.75	-5.8%
PCB-113/90/101 233'5'6-/22'3	28.30	8.78E+05	0.65 Y	0.93	0.90	-4.0%
PCB-83 22'33'5-PeCB	28.72	2.23E+05	0.62 Y	0.71	0.69	-3.8%
PCB-99 22'44'5-PeCB	28.82	2.76E+05	0.55 Y	0.87	0.85	-2.7%
PCB-112 233'56-PeCB	28.91	3.53E+05	0.62 Y	1.13	1.08	-3.8%
PCB-108/119/86/97/125/87 233	29.25	1.81E+06	0.65 Y	0.95	0.92	-2.6%
PCB-117 234'56-PeCB	29.78	3.57E+05	0.60 Y	1.04	1.10	5.4%
PCB-116/85 23456-/22'344'-Pe	29.85	5.87E+05	0.60 Y	0.97	0.90	-7.4%
PCB-110 233'4'6-PeCB	29.97	3.28E+05	0.61 Y	1.02	1.01	-1.4%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:10

Lab ID: CS0_120725_PCB_XC
Acquired: 26-JUL-2012 02:56
Datafile: 120725X15
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.06	3.81E+05	0.58 Y	1.16	1.17	1.0%
PCB-82 22'33'4-PeCB	30.24	2.13E+05	0.58 Y	0.69	0.65	-5.3%
PCB-111 233'55'-PeCB	30.59	3.53E+05	0.61 Y	1.15	1.08	-6.1%
PCB-120 23'455'-PeCB	30.98	3.61E+05	0.65 Y	1.16	1.11	-4.5%
PCB-107/124 233'4'5-/2'3455'	31.92	6.64E+05	0.62 Y	1.07	1.02	-5.2%
PCB-109 233'46-PeCB	32.13	3.63E+05	0.67 Y	1.14	1.11	-2.5%
PCB-106 233'45-PeCB	32.34	3.38E+05	0.59 Y	1.07	1.04	-3.2%
PCB-122 2'33'45-PeCB	32.79	3.17E+05	0.61 Y	1.00	0.94	-6.2%
PCB-127 33'455'-PeCB	34.73	3.47E+05	0.59 Y	1.10	1.04	-5.4%
PCB-155 22'44'66'-HxCB	28.15	3.43E+05	1.29 Y	1.09	1.03	-5.4%
PCB-152 22'3566'-HxCB	28.29	3.24E+05	1.38 Y	1.01	0.98	-3.5%
PCB-150 22'34'66'-HxCB	28.44	2.98E+05	1.43 Y	1.00	0.90	-10.6%
PCB-136 22'33'66'-HxCB	28.73	2.97E+05	1.28 Y	0.95	0.89	-6.1%
PCB-145 22'3466'HxCB	28.99	2.86E+05	1.34 Y	0.96	0.86	-10.5%
PCB-148 22'34'56'-HxCB	30.28	2.31E+05	1.31 Y	0.97	0.91	-5.9%
PCB-151/135 22'355'6-/22'33'	30.78	4.71E+05	1.35 Y	0.96	0.93	-3.6%
PCB-154 22'44'5'6-HxCB	30.99	2.60E+05	1.25 Y	1.09	1.03	-5.8%
PCB-144 22'345'6-HxCB	31.25	2.39E+05	1.31 Y	0.98	0.94	-4.0%
PCB-147/149 22'34'56-/22'34'	31.54	4.78E+05	1.23 Y	0.99	0.94	-4.2%
PCB-134 22'33'56-HxCB	31.70	1.87E+05	1.22 Y	0.80	0.74	-7.6%
PCB-143 22'3456'-HxCB	31.78	2.57E+05	1.25 Y	0.95	1.01	6.1%
PCB-139/140 22'344'6-/22'344'	32.05	4.78E+05	1.29 Y	1.00	0.94	-5.6%
PCB-131 22'33'46-HxCB	32.21	1.96E+05	1.27 Y	0.85	0.77	-9.2%
PCB-142 22'3456-HxCB	32.34	2.10E+05	1.32 Y	0.87	0.83	-5.3%
PCB-132 22'33'46'-HxCB	32.59	2.19E+05	1.39 Y	0.89	0.86	-2.8%
PCB-133 22'33'55'-HxCB	33.02	2.09E+05	1.37 Y	0.91	0.83	-9.7%
PCB-165 233'55'6-HxCB	33.36	2.71E+05	1.23 Y	1.13	1.07	-5.7%
PCB-146 22'34'55'-HxCB	33.57	2.56E+05	1.31 Y	1.01	1.01	0.4%
PCB-161 233'45'6-HxCB	33.68	2.98E+05	1.18 Y	1.25	1.17	-6.3%
PCB-153/168 22'44'55'-/23'44'	34.11	6.14E+05	1.27 Y	1.22	1.21	-0.6%
PCB-141 22'3455'-HxCB	34.24	2.25E+05	1.29 Y	0.93	0.89	-4.1%
PCB-130 22'33'45'-HxCB	34.58	2.15E+05	1.27 Y	0.85	0.85	0.0%
PCB-137 22'344'5-HxCB	34.77	2.40E+05	1.22 Y	1.04	0.95	-9.1%
PCB-164 233'4'5'6-HxCB	34.86	3.03E+05	1.16 Y	1.22	1.19	-2.4%
PCB-163/138/129 233'4'56-/22'	35.14	7.45E+05	1.17 Y	1.02	0.98	-4.3%
PCB-160 233'456-HxCB	35.27	3.03E+05	1.28 Y	1.21	1.20	-1.0%
PCB-158 233'44'6-HxCB	35.46	3.27E+05	1.31 Y	1.34	1.29	-3.4%
PCB-128/166 22'33'44'-/2344'5	36.17	5.81E+05	1.25 Y	0.90	0.86	-4.6%
PCB-159 233'455'-HxCB	37.01	3.50E+05	1.21 Y	1.06	1.03	-2.8%
PCB-162 233'4'55'-HxCB	37.25	3.55E+05	1.25 Y	1.08	1.05	-2.6%
PCB-188 22'34'566'-HpCB	32.96	2.48E+05	1.05 Y	1.03	0.93	-9.6%
PCB-179 22'33'566'-HpCB	33.22	2.45E+05	1.04 Y	0.97	0.92	-4.5%
PCB-184 22'344'66'-HpCB	33.69	2.30E+05	0.99 Y	0.93	0.87	-6.9%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:10

Lab ID: CS0_120725_PCB_XC
Acquired: 26-JUL-2012 02:56
Datafile: 120725X15
ICAL: MM7_PCB_07132012_25JUL12

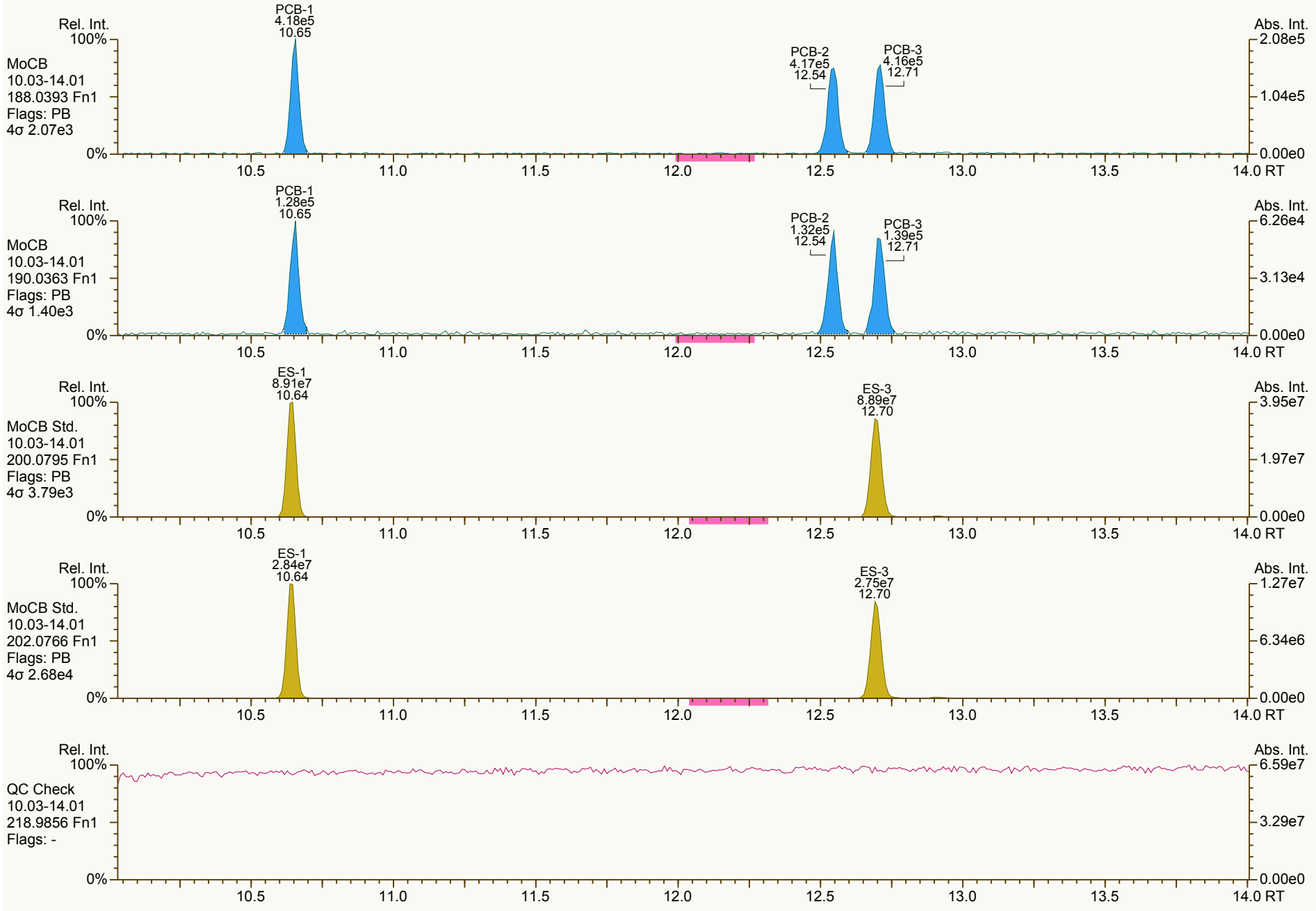
Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.97	2.59E+05	1.07 Y	1.05	0.98	-6.9%
PCB-186 22'34566'-HpCB	34.35	2.47E+05	1.17 Y	0.98	0.93	-5.0%
PCB-178 22'33'55'6-HpCB	35.51	1.89E+05	0.96 Y	0.74	0.71	-3.1%
PCB-175 22'33'45'6-HpCB	36.05	2.19E+05	0.93 Y	1.01	0.93	-7.9%
PCB-187 22'34'55'6-HpCB	36.27	2.28E+05	1.11 Y	1.06	0.97	-9.0%
PCB-182 22'344'56'-HpCB	36.45	2.51E+05	0.94 Y	1.11	1.07	-4.0%
PCB-183 22'344'5'6-HpCB	36.79	2.32E+05	0.93 Y	1.13	0.99	-12.9%
PCB-185 22'3455'6-HpCB	36.86	2.34E+05	1.12 Y	1.02	1.00	-2.3%
PCB-174 22'33'456'-HpCB	36.97	2.09E+05	1.22 N	0.93	0.89	-4.2%
PCB-177 22'33'4'56-HpCB	37.34	2.01E+05	1.01 Y	0.91	0.85	-5.9%
PCB-181 22'344'56-HpCB	37.68	2.47E+05	1.02 Y	1.06	1.05	-1.1%
PCB-171/173 22'33'44'6-/22'3	37.86	4.26E+05	1.10 Y	0.93	0.90	-2.5%
PCB-172 22'33'455'-HpCB	39.23	2.22E+05	1.00 Y	0.95	0.94	-1.3%
PCB-192 233'455'6-HpCB	39.47	2.87E+05	1.06 Y	1.24	1.22	-1.7%
PCB-180/193 22'344'55'-/233'	39.75	5.38E+05	1.02 Y	1.16	1.14	-1.4%
PCB-191 233'44'5'6-HpCB	40.07	3.12E+05	0.97 Y	1.30	1.33	1.7%
PCB-170 22'33'44'5-HpCB	40.82	2.15E+05	0.99 Y	1.07	1.03	-3.7%
PCB-190 233'44'56-HpCB	41.27	2.83E+05	1.05 Y	1.45	1.36	-6.2%
PCB-202 22'33'55'66'-OcCB	37.45	2.31E+05	0.91 Y	0.91	0.90	-1.2%
PCB-201 22'33'45'66'-OcCB	38.23	2.49E+05	0.94 Y	1.02	0.97	-4.5%
PCB-204 22'344'566'-OcCB	38.80	2.58E+05	0.91 Y	0.98	1.01	3.2%
PCB-197 22'33'44'66'-OcCB	38.99	2.71E+05	0.76 Y	1.06	1.06	-0.5%
PCB-200 22'33'4566'-OcCB	39.07	2.37E+05	0.89 Y	0.96	0.93	-3.4%
PCB-198/199 22'33'455'6-/22'	41.40	3.63E+05	0.93 Y	0.72	0.71	-0.8%
PCB-196 22'33'44'56'-OcCB	41.97	1.69E+05	0.95 Y	0.73	0.66	-9.7%
PCB-203 22'344'55'6-OcCB	42.13	1.84E+05	0.93 Y	0.76	0.72	-6.0%
PCB-195 22'33'44'56-OcCB	43.23	1.93E+05	1.01 Y	0.80	0.78	-2.2%
PCB-194 22'33'44'55'-OcCB	45.18	2.13E+05	1.00 Y	0.87	0.86	-1.6%
PCB-205 233'44'55'6-OcCB	45.58	2.69E+05	0.88 Y	1.09	1.09	0.2%
PCB-208 22'33'455'66'-NoCB	43.04	2.38E+05	0.77 Y	1.02	0.97	-4.5%
PCB-207 22'33'44'566'-NoCB	43.82	2.45E+05	0.80 Y	1.06	1.00	-5.7%
PCB-206 22'33'44'55'6-NoCB	47.03	1.71E+05	0.79 Y	0.98	0.95	-2.9%

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



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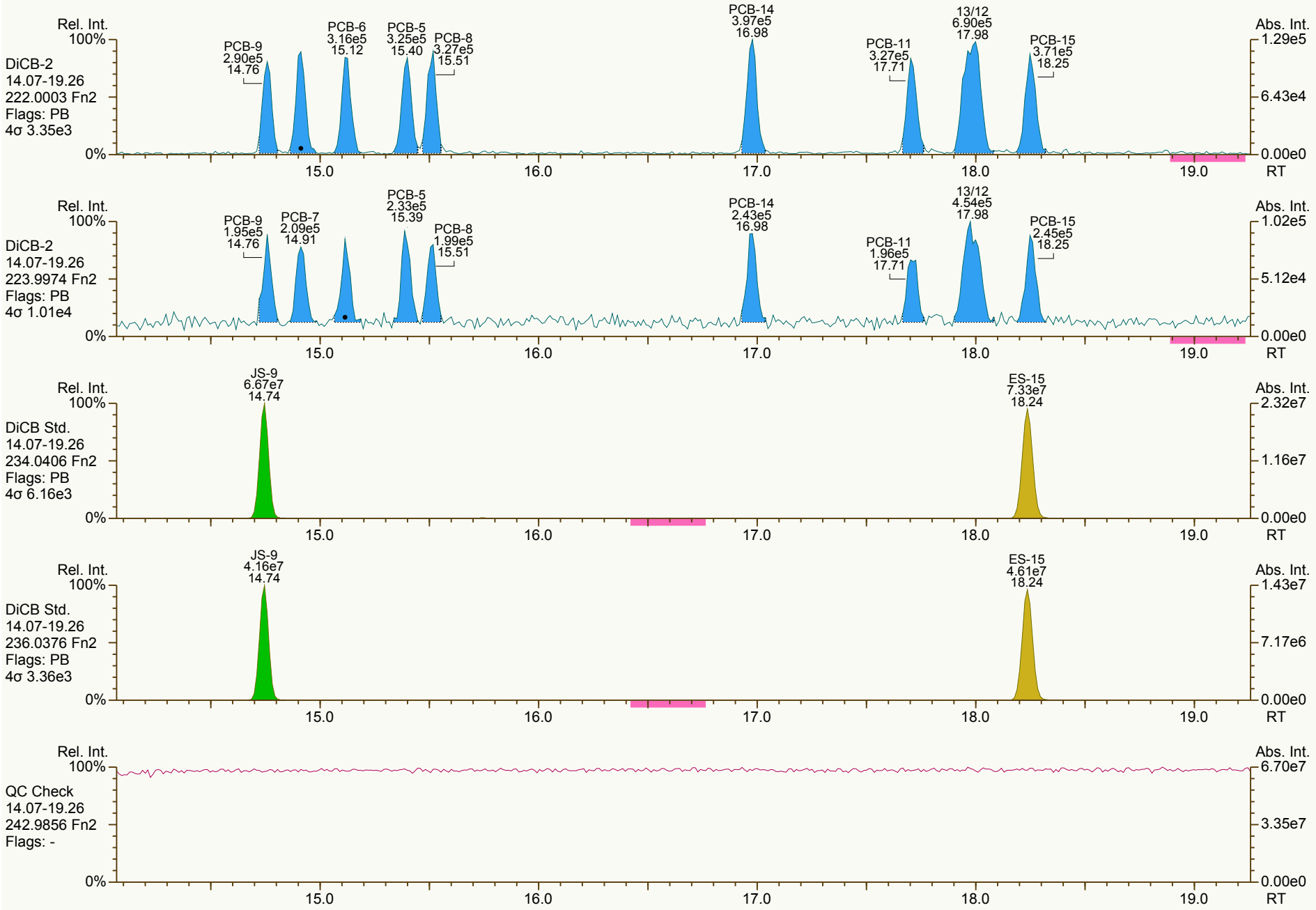
AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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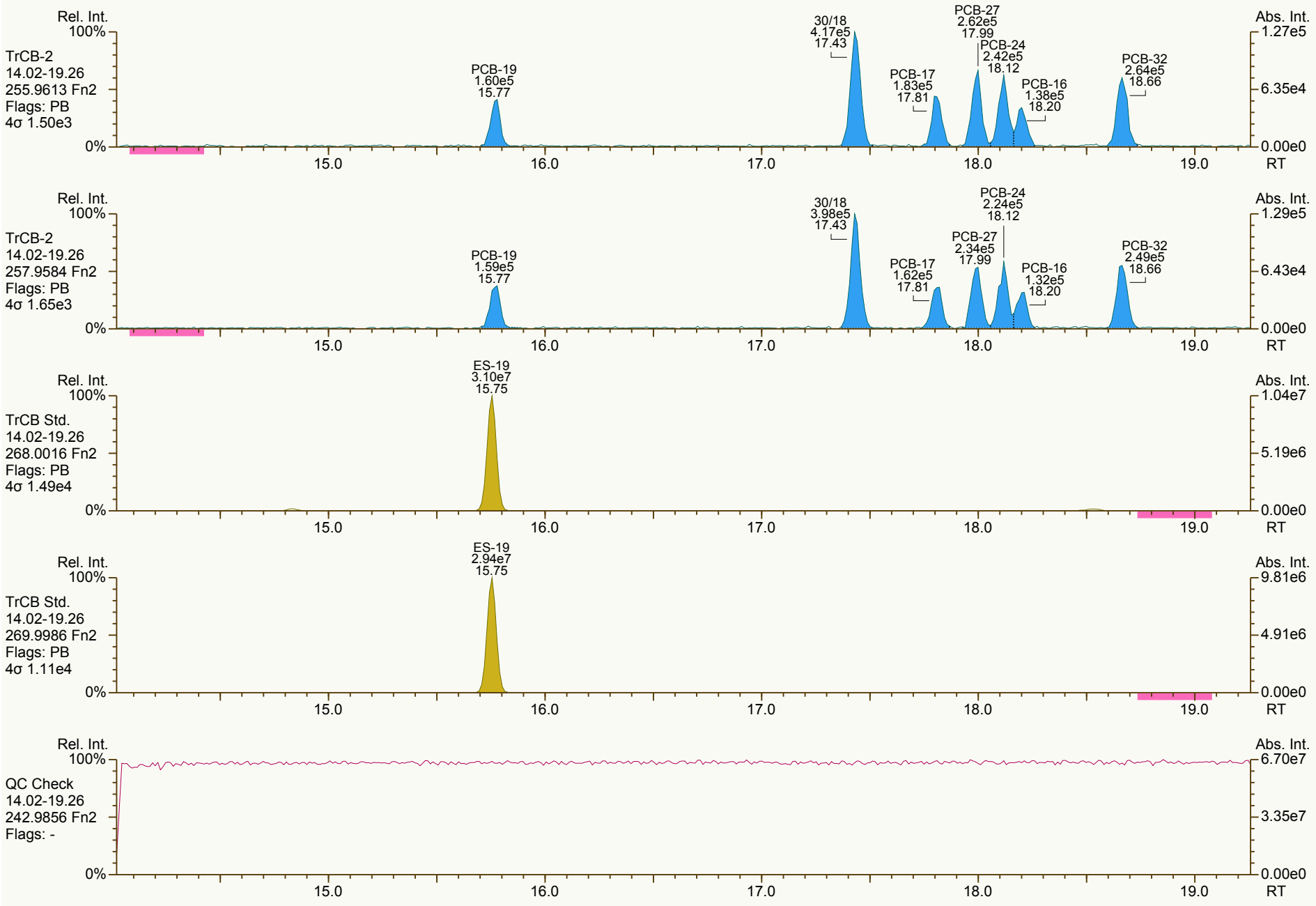

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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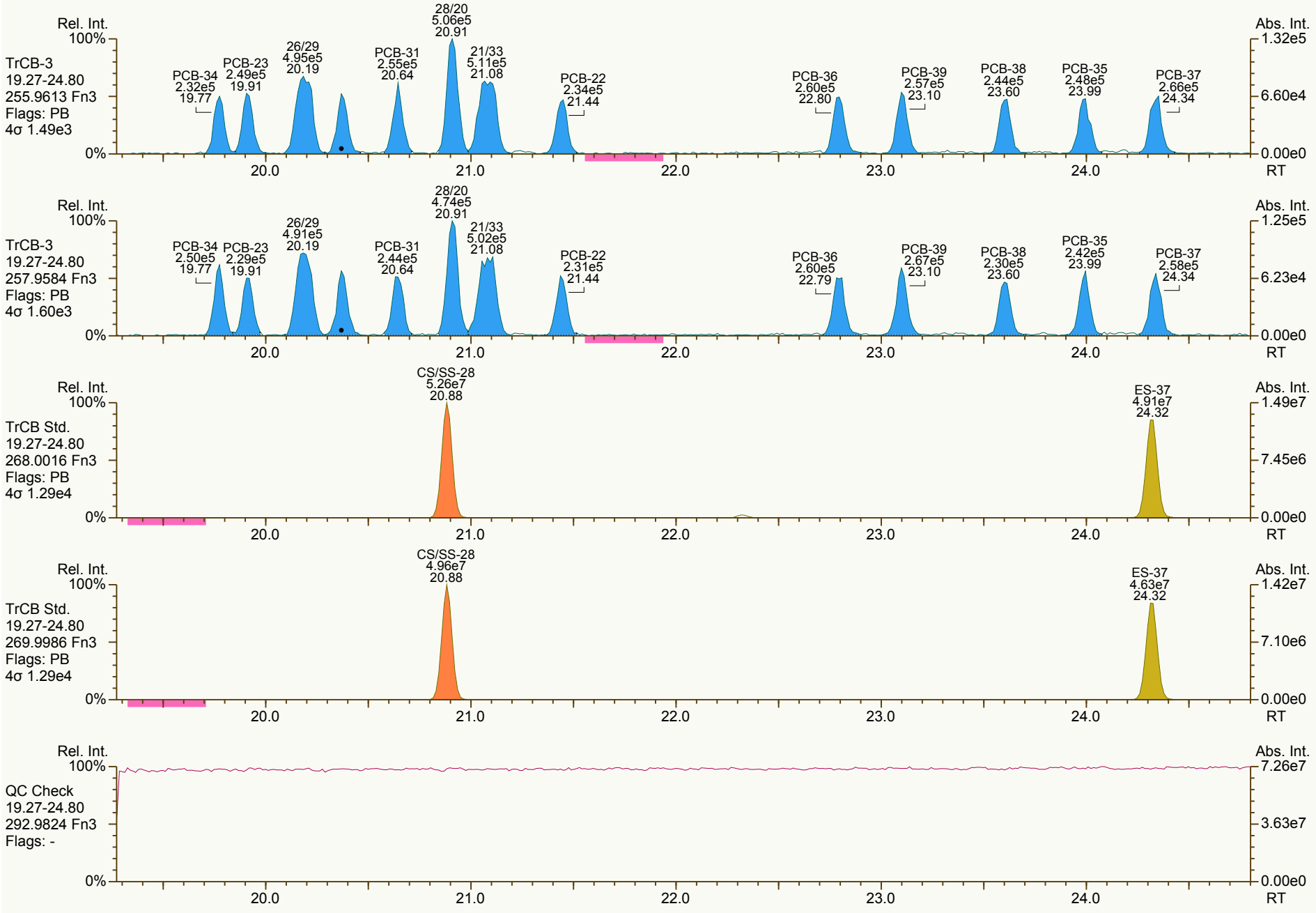

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



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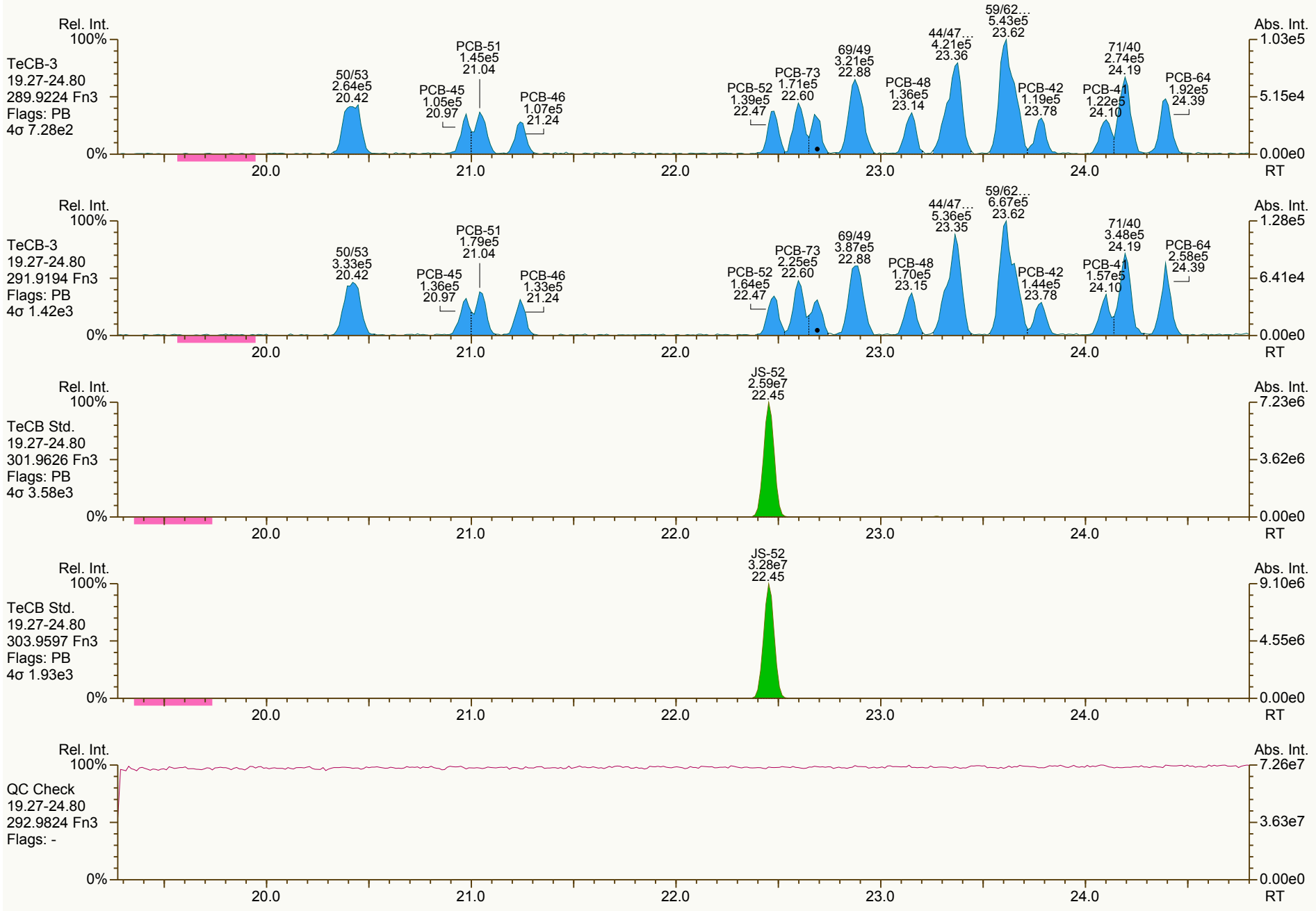
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 9061, 6370 scc: 094-961 *Revised: 27-Jul-2012 09:36 (LKB) Printed: 28-Jul-2012 13:20 Page 7 of 21*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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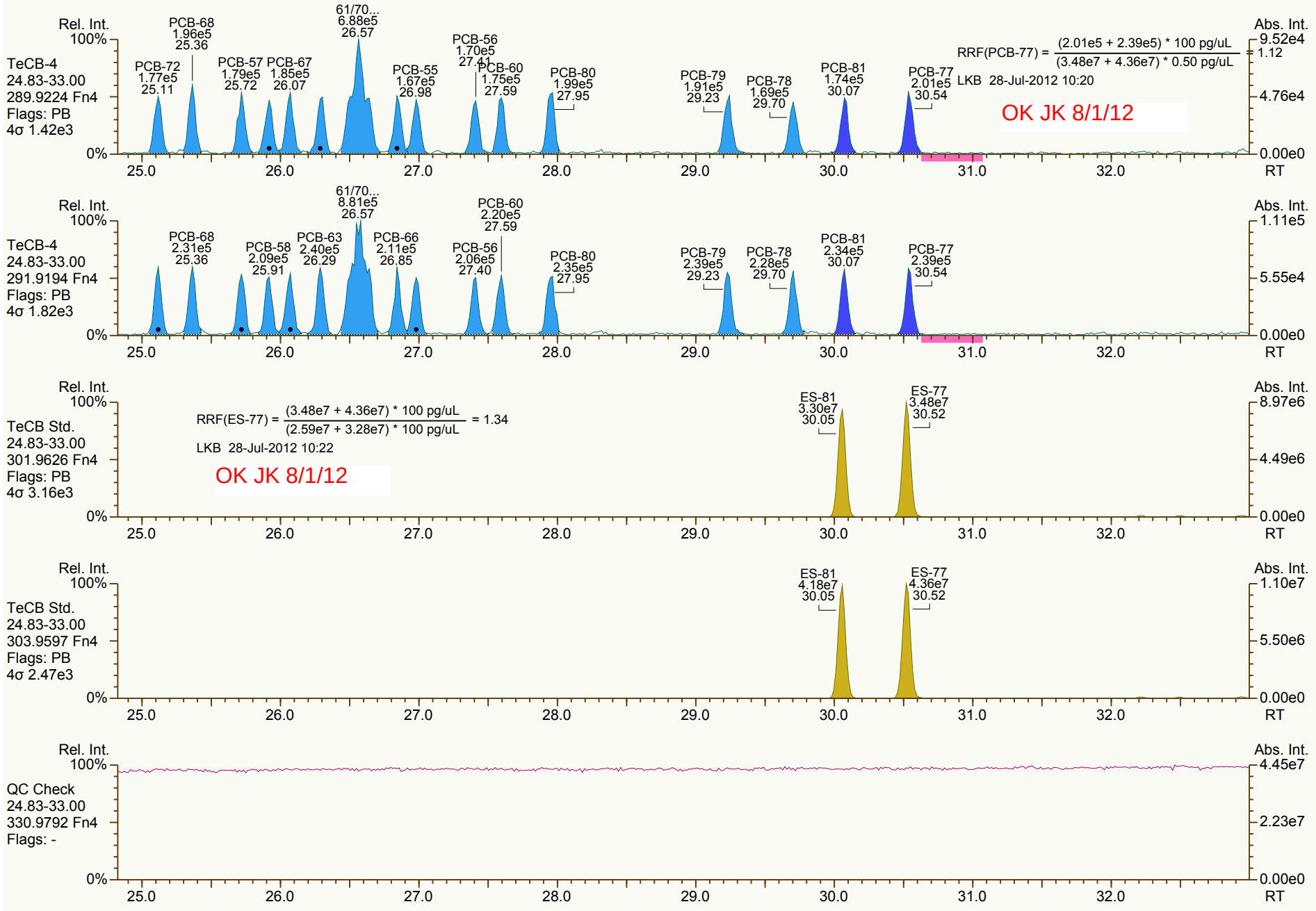

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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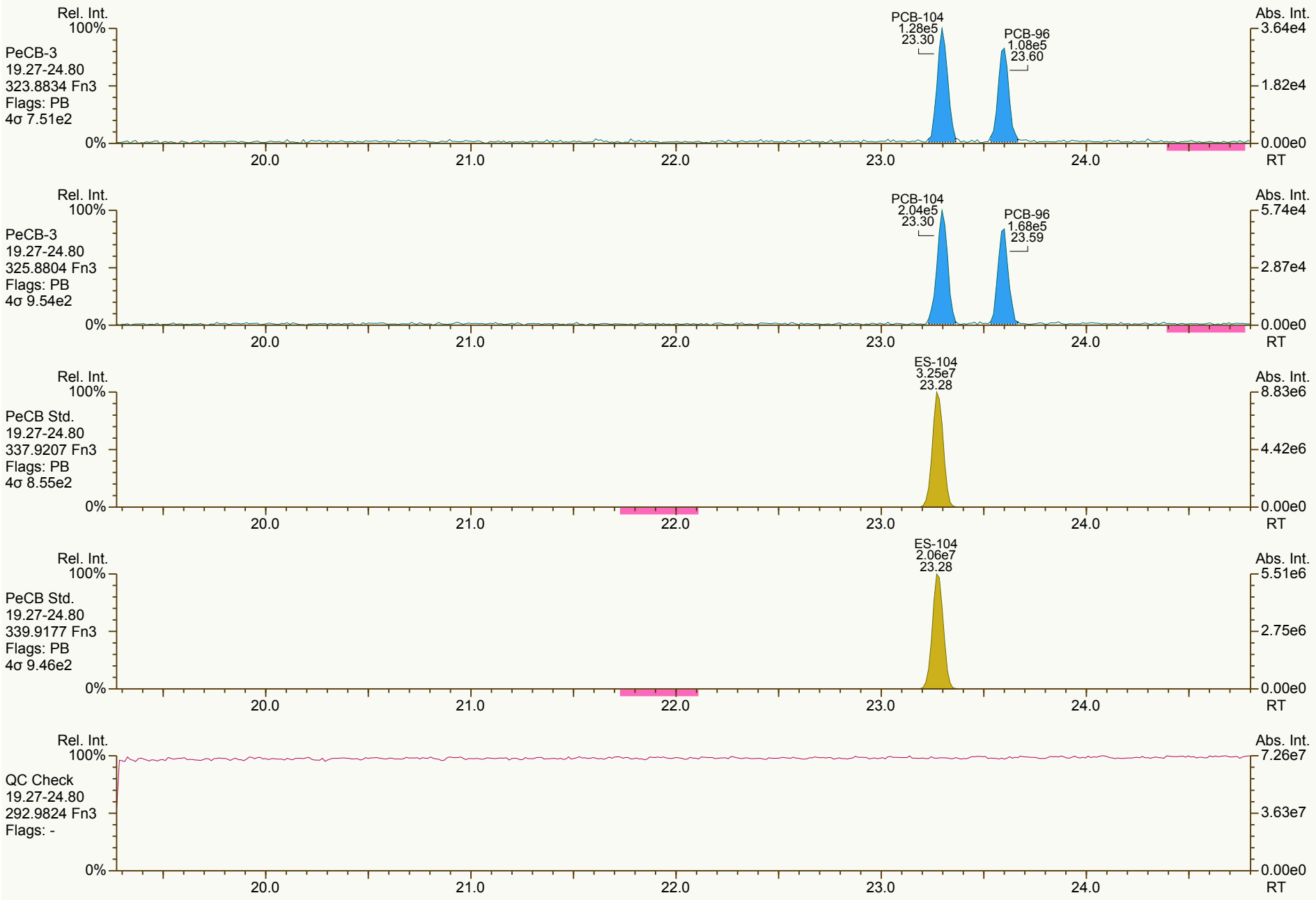

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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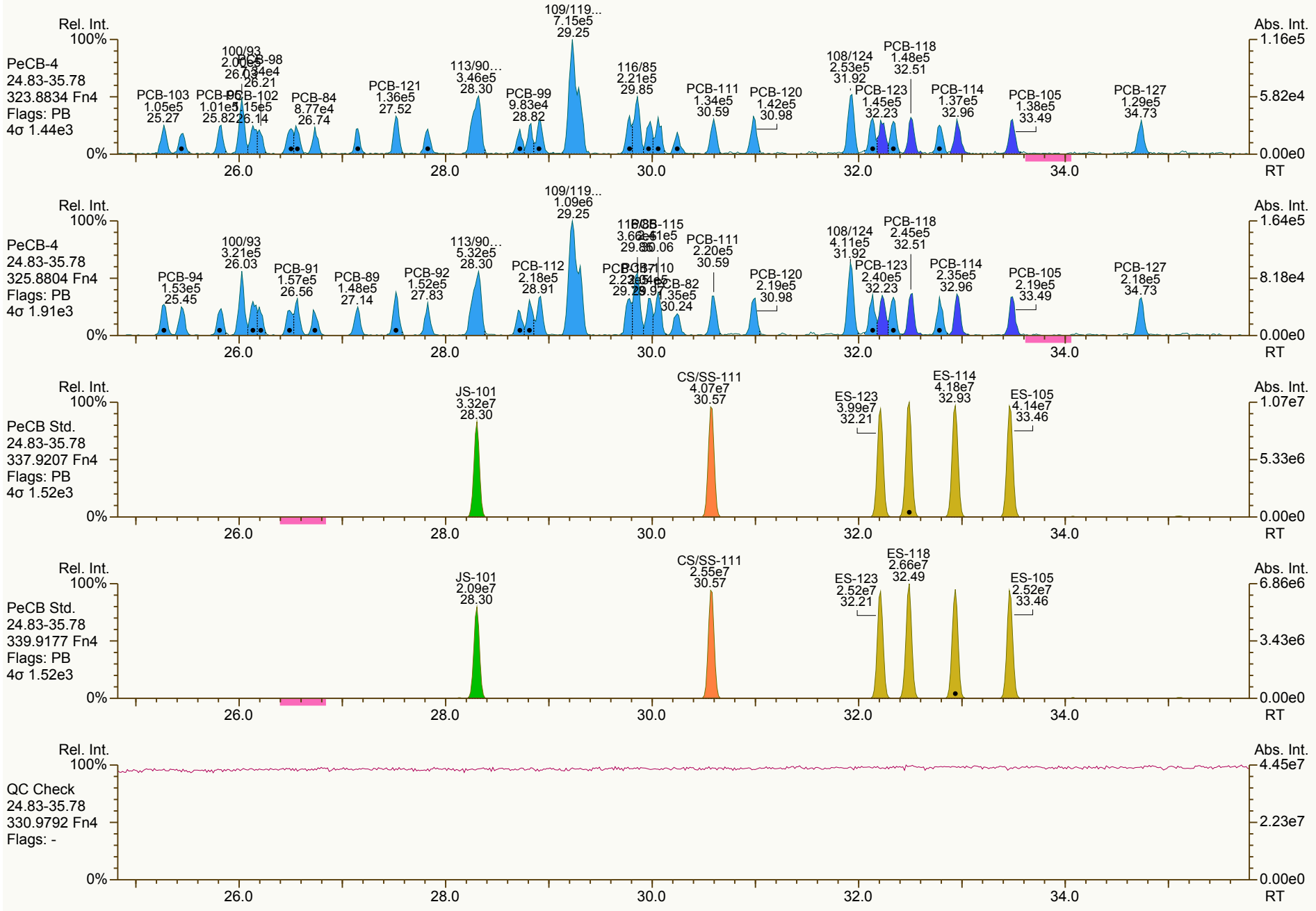

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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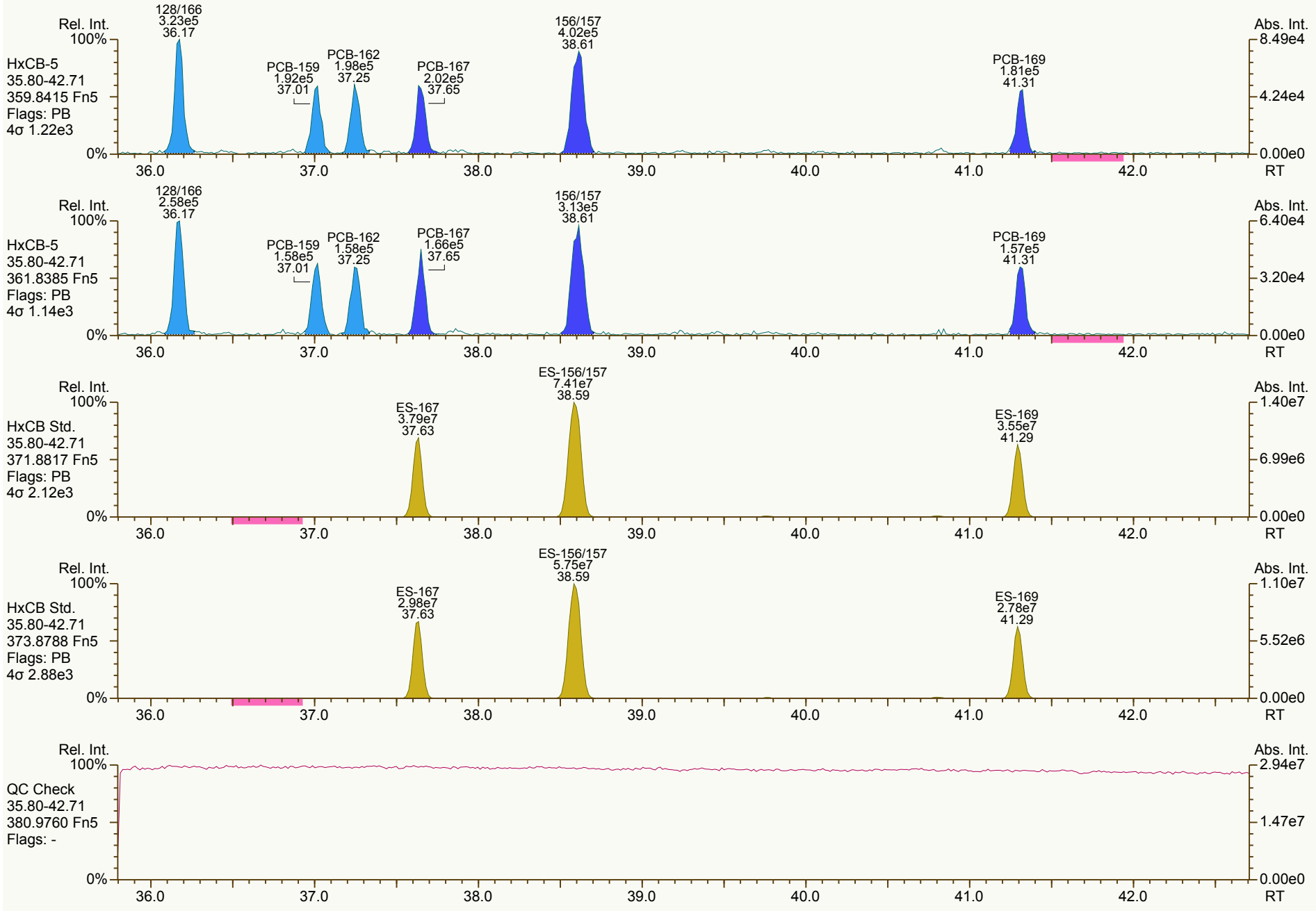

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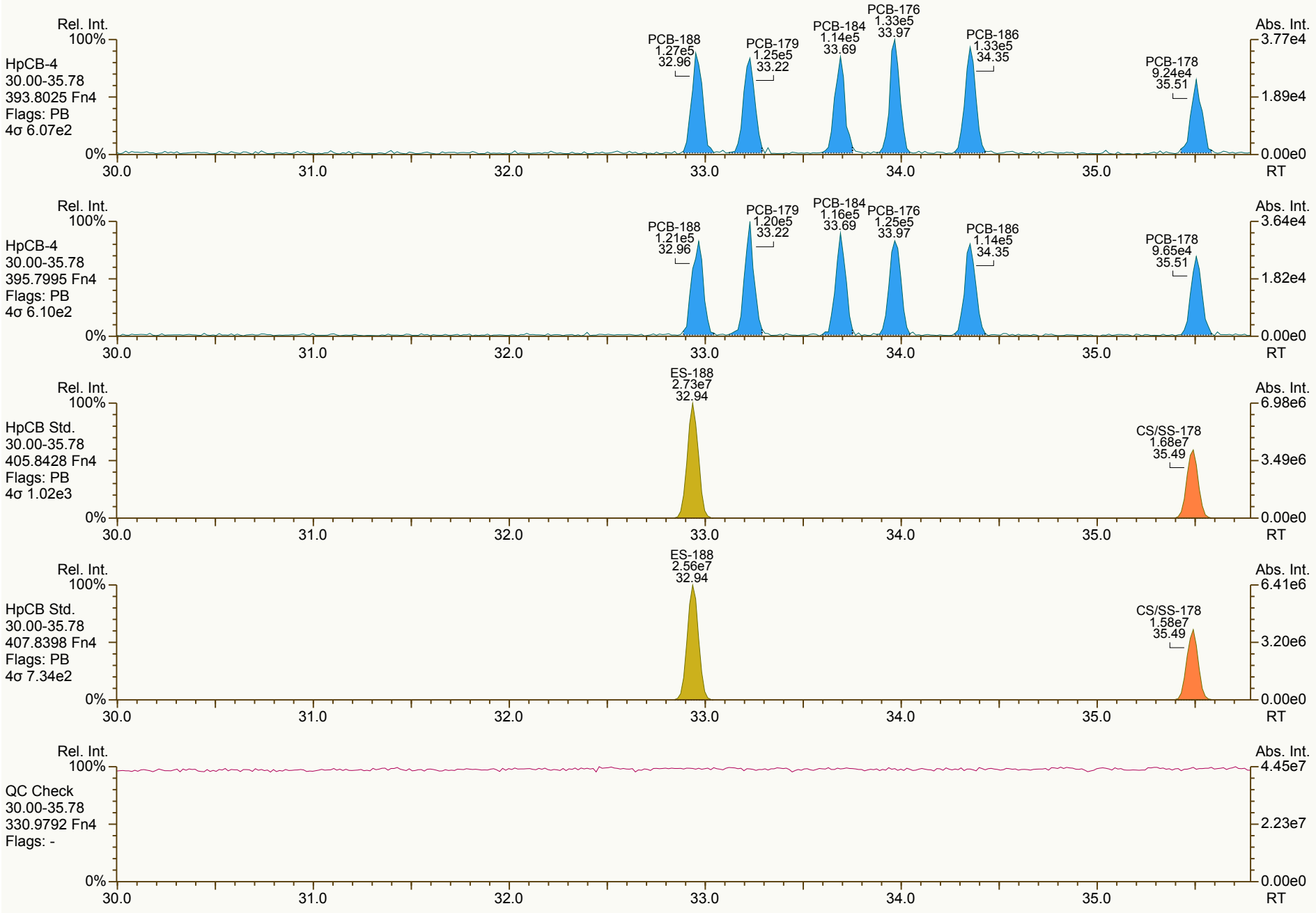

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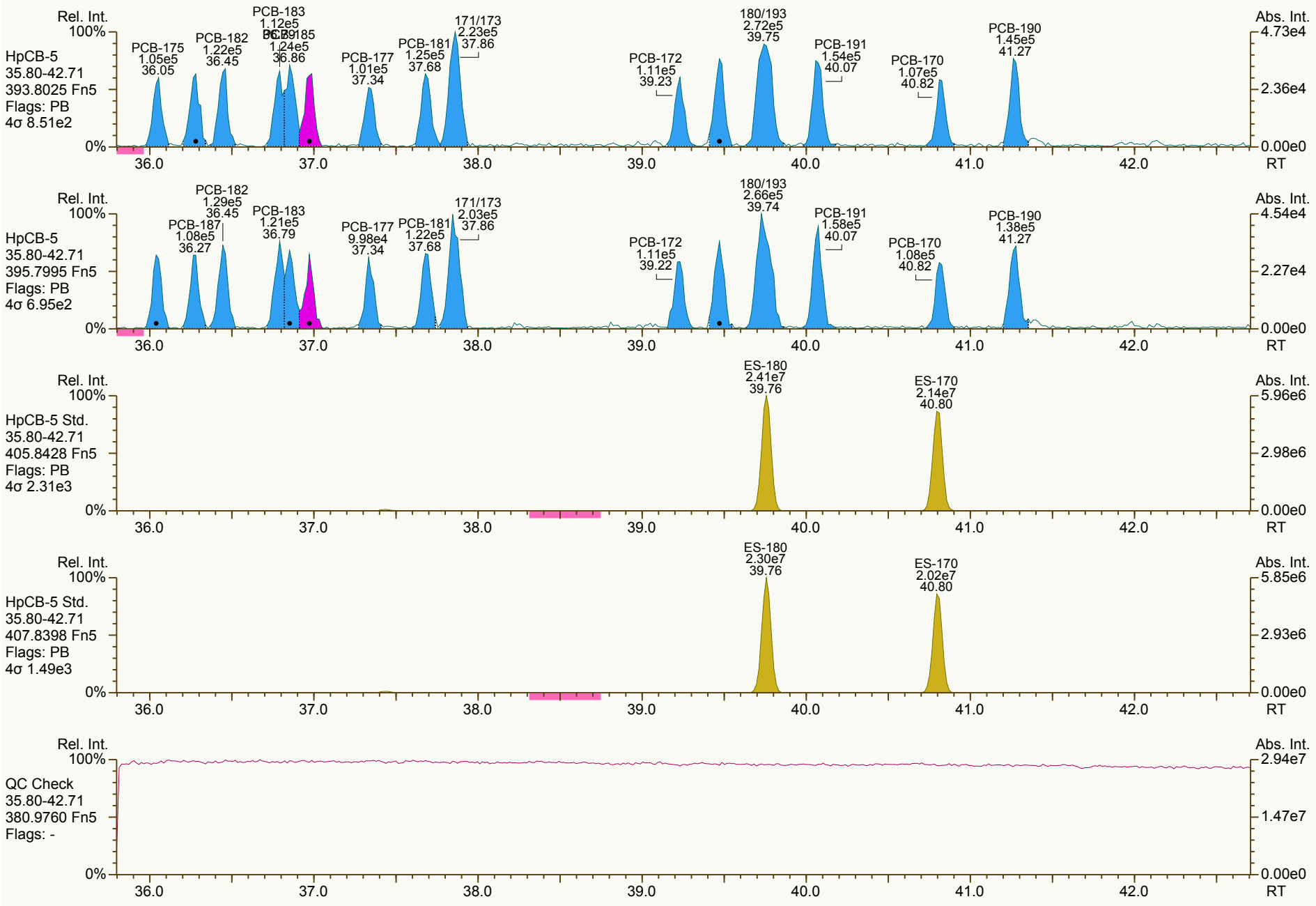
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 0146, 9534 scc: 094-961 *Revised: 27-Jul-2012 09:36 (LKB) Printed: 28-Jul-2012 13:21 Page 15 of 21*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



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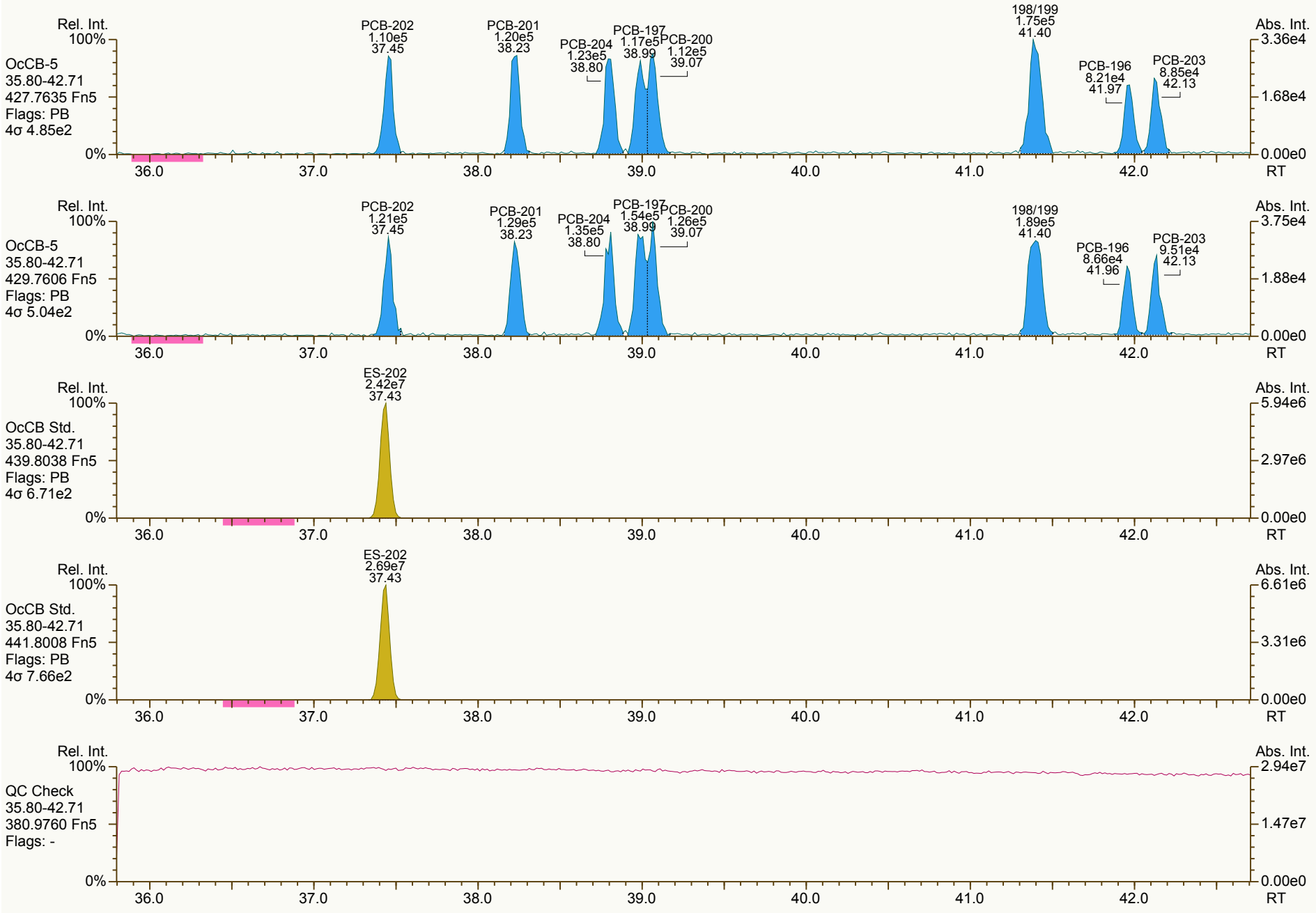
AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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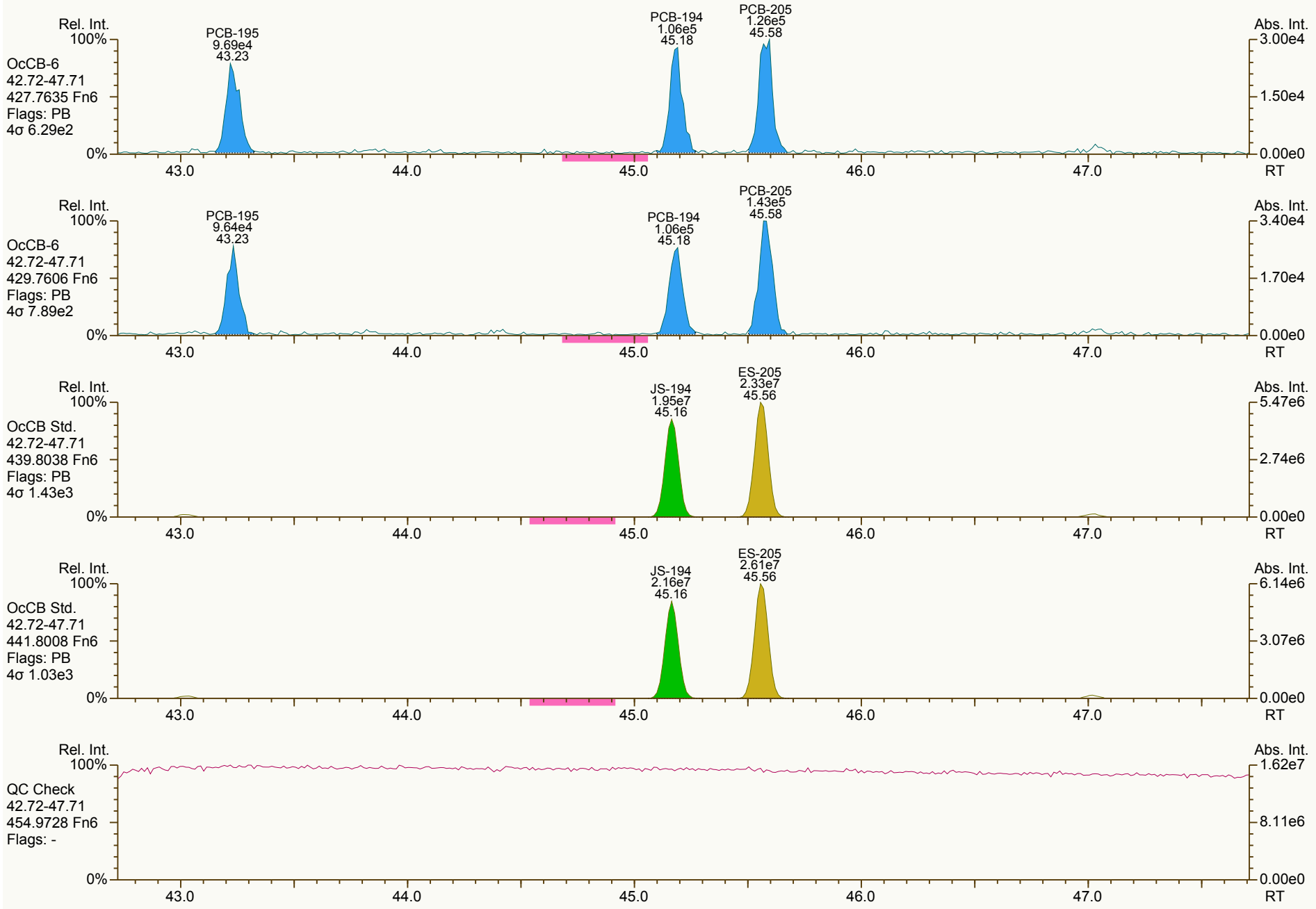

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AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
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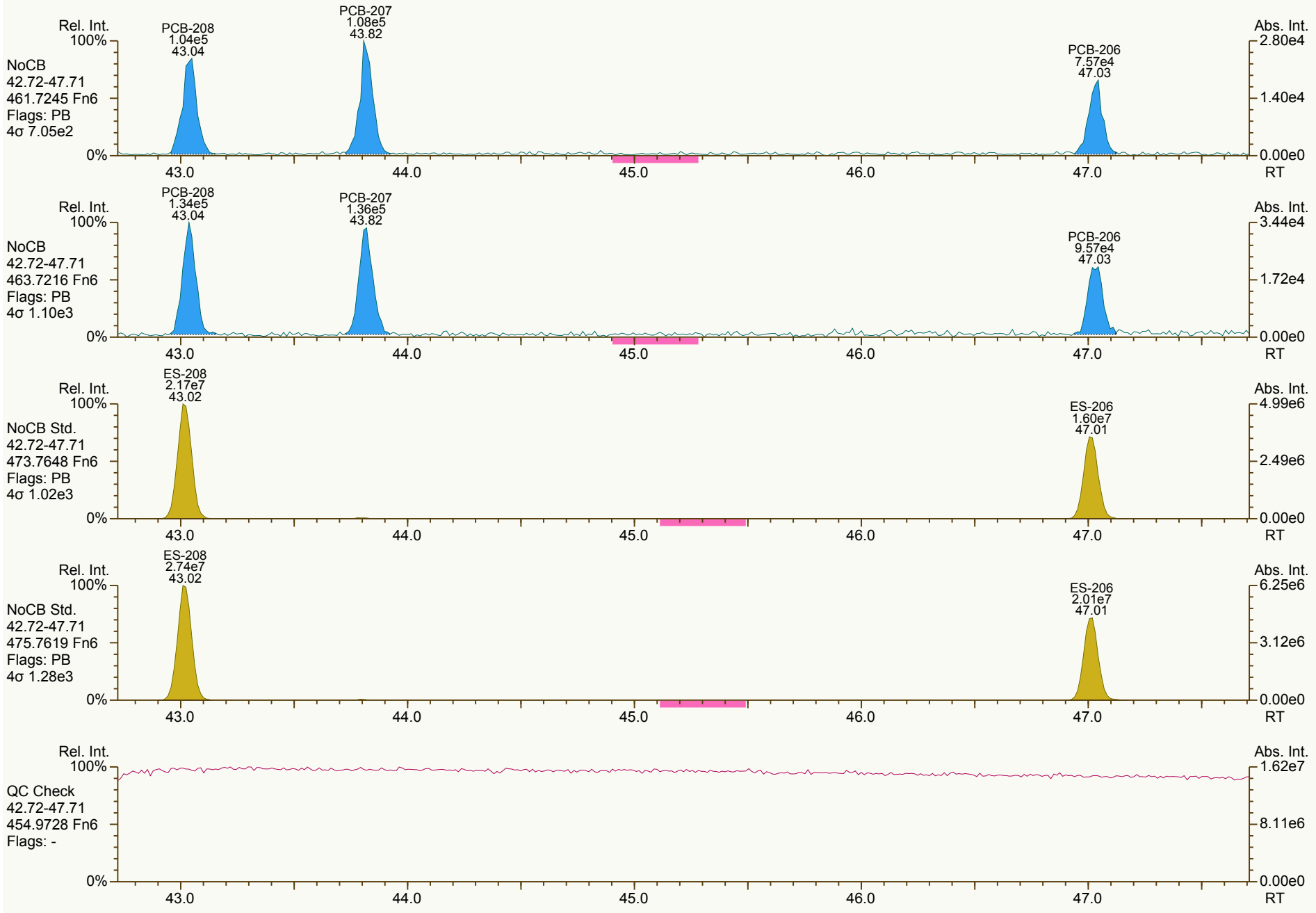

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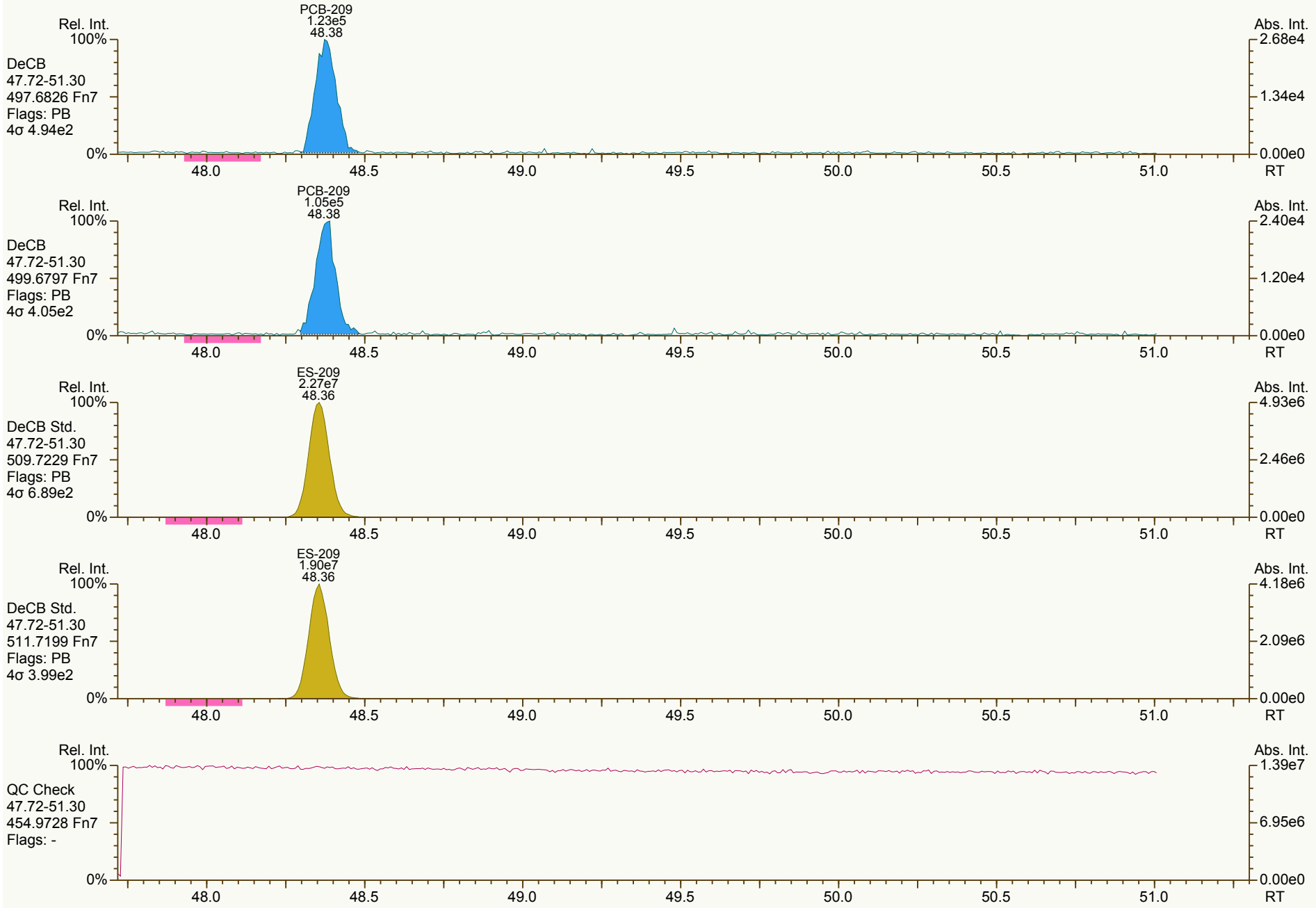
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 0330, 3304 scc: 094-961 *PKD: 27-Jul-2012 09:41 Printed: 28-Jul-2012 13:21 Page 20 of 21*

AP Lab ID: CS0_120725_PCB_XC **Sample ID: SIL 12-65-6** **Acq: 26-Jul-2012 02:56:49**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 50** **User: LKB Datafile: 120725X15**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS0_120725_PCB_XC.utp_res, saved 28-Jul-2012 13:18 (LKB) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:12
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Acquired:	**26-JUL-2012 03:50**				
Datafile:	**120725X16**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.54	8.27E+05	0.81 Y	1.13	1.06	-6.8%
PCB-81 344'5-TeCB	30.07	7.70E+05	0.76 Y	1.13	1.03	-8.6%
PCB-105 233'44'-PeCB	33.49	6.67E+05	0.63 Y	1.09	1.01	-8.1%
PCB-114 2344'5-PeCB	32.96	7.33E+05	0.62 Y	1.16	1.10	-5.6%
PCB-118 23'44'5-PeCB	32.51	7.22E+05	0.63 Y	1.11	1.05	-4.7%
PCB-123 2'344'5-PeCB	32.23	7.33E+05	0.62 Y	1.19	1.12	-6.0%
PCB-126 33'44'5-PeCB	36.08	6.20E+05	0.60 Y	1.06	0.98	-7.7%
PCB-156/157 233'44'5/233'44'5'	38.61	1.37E+06	1.22 Y	1.11	1.07	-3.1%
PCB-167 23'44'55'-HxCB	37.65	7.15E+05	1.16 Y	1.14	1.07	-5.4%
PCB-169 33'44'55'-HxCB	41.31	6.50E+05	1.24 Y	1.11	1.05	-5.4%
PCB-189 233'44'55'-HpCB	43.42	5.97E+05	1.08 Y	1.06	1.00	-5.3%
PCB-209 DeCB	48.37	4.29E+05	1.17 Y	1.07	1.06	-1.3%
ES PCB-1	10.64	1.16E+08	3.19 Y	1.08	1.09	1.0%
ES PCB-3	12.70	1.17E+08	3.25 Y	1.08	1.09	1.1%
ES PCB-4	12.92	5.24E+07	1.62 Y	0.49	0.49	0.7%
ES PCB-15	18.24	1.18E+08	1.59 Y	1.11	1.11	-0.3%
ES PCB-19	15.75	5.95E+07	1.05 Y	0.55	0.56	0.8%
ES PCB-37	24.32	9.40E+07	1.06 Y	1.64	1.62	-1.2%
ES PCB-54	18.49	5.51E+07	0.76 Y	0.94	0.95	0.8%
ES PCB-77	30.52	7.83E+07	0.78 Y	1.35	1.35	0.0%
ES PCB-81	30.05	7.48E+07	0.79 Y	1.29	1.29	-0.1%
ES PCB-104	23.28	5.35E+07	1.57 Y	0.99	1.01	1.5%
ES PCB-105	33.46	6.63E+07	1.62 Y	1.23	1.25	1.3%
ES PCB-114	32.93	6.70E+07	1.60 Y	1.25	1.26	1.1%
ES PCB-118	32.49	6.85E+07	1.62 Y	1.28	1.29	0.7%
ES PCB-123	32.21	6.57E+07	1.60 Y	1.22	1.24	1.6%
ES PCB-126	36.06	6.33E+07	1.55 Y	1.20	1.19	-0.6%
ES PCB-153	34.06	5.10E+07	1.28 Y	1.14	1.15	1.0%
ES PCB-155	28.13	6.59E+07	1.30 Y	1.50	1.49	-0.3%
ES PCB-156/157	38.59	1.28E+08	1.28 Y	1.45	1.45	-0.5%
ES PCB-167	37.63	6.65E+07	1.28 Y	1.49	1.50	0.7%
ES PCB-169	41.29	6.18E+07	1.28 Y	1.40	1.40	-0.5%
ES PCB-170	40.80	4.04E+07	1.06 Y	1.00	0.99	-1.1%
ES PCB-180	39.76	4.65E+07	1.06 Y	1.16	1.14	-1.7%
ES PCB-188	32.94	5.19E+07	1.07 Y	1.18	1.17	-0.3%
ES PCB-189	43.41	5.97E+07	1.04 Y	1.49	1.46	-1.6%
ES PCB-202	37.43	5.04E+07	0.89 Y	1.14	1.14	0.3%
ES PCB-205	45.56	4.86E+07	0.90 Y	1.20	1.19	-0.9%
ES PCB-206	47.01	3.49E+07	0.78 Y	0.87	0.85	-1.7%
ES PCB-208	43.01	4.79E+07	0.80 Y	1.19	1.17	-1.4%
ES PCB-209	48.35	4.05E+07	1.18 Y	1.00	0.99	-1.0%

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:12
Lab ID:	**CS1_120725_PCB_XB**		**ICAL: MM7_PCB_07132012_25JUL12**		
Acquired:	**26-JUL-2012 03:50**				
Datafile:	**120725X16**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.88	1.02E+08	1.06 Y	1.07	1.09	1.3%
SS PCB-111	30.57	6.52E+07	1.59 Y	1.01	0.99	-1.2%
SS PCB-178	35.49	3.28E+07	1.07 Y	0.63	0.63	0.5%
CS PCB-28	20.88	1.02E+08	1.06 Y	1.76	1.76	0.1%
CS PCB-111	30.57	6.52E+07	1.59 Y	1.23	1.23	0.3%
CS PCB-178	35.49	3.28E+07	1.07 Y	0.74	0.74	0.2%
JS PCB-9	14.74	1.07E+08	1.59 Y	-	-	-
JS PCB-52	22.45	5.82E+07	0.79 Y	-	-	-
JS PCB-101	28.30	5.31E+07	1.57 Y	-	-	-
JS PCB-138	35.10	4.42E+07	1.29 Y	-	-	-
JS PCB-194	45.16	4.08E+07	0.92 Y	-	-	-
PCB-1 2-MoCB	10.65	1.11E+06	3.37 Y	1.03	0.95	-7.7%
PCB-3 4-MoCB	12.71	1.12E+06	3.18 Y	1.04	0.96	-7.9%
PCB-4 22'-DiCB	12.93	5.71E+05	0.00 S	1.17	1.09	-6.7%
PCB-15 44'-DiCB	18.25	1.24E+06	1.58 Y	1.08	1.05	-2.6%
PCB-19 22'6-TrCB	15.77	6.03E+05	1.08 Y	1.09	1.01	-7.2%
PCB-37 344'-TrCB	24.34	9.91E+05	1.03 Y	1.10	1.05	-4.5%
PCB-54 22'66'-TeCB	18.51	6.22E+05	0.82 Y	1.21	1.13	-6.6%
PCB-104 22'466'-PeCB	23.30	6.18E+05	0.67 Y	1.25	1.15	-8.0%
PCB-153 22'44'55' -HxCB	34.11	1.15E+06	1.29 Y	1.22	1.13	-7.3%
PCB-155 22'44'66'-HxCB	28.15	6.98E+05	1.23 Y	1.09	1.06	-2.9%
PCB-170 22'33'44'5-HpCB	40.82	3.98E+05	1.08 Y	1.07	0.99	-8.2%
PCB-180 22'344'55'-HpCB	39.74	9.84E+05	1.05 Y	1.16	1.06	-8.6%
PCB-188 22'34'566'-HpCB	32.96	5.17E+05	1.08 Y	1.03	0.99	-3.8%
PCB-202 22'33'55'66'-OcCB	37.45	4.27E+05	0.84 Y	0.91	0.85	-7.5%
PCB-205 233'44'55'6-OcCB	45.58	4.98E+05	0.88 Y	1.09	1.02	-6.0%
PCB-208 22'33'455'66'-NoCB	43.04	4.58E+05	0.80 Y	1.02	0.96	-6.0%
PCB-206 22'33'44'55'6-NoCB	47.03	3.13E+05	0.74 Y	0.98	0.90	-8.3%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:12

Lab ID: CS1_120725_PCB_XB
Acquired: 26-JUL-2012 03:50
Datafile: 120725X16
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.65	1.11E+06	3.37 Y	1.03	0.95	-7.7%
PCB-2 3-MoCB	12.54	1.09E+06	3.11 Y	1.04	0.93	-10.5%
PCB-3 4-MoCB	12.71	1.12E+06	3.18 Y	1.04	0.96	-7.9%
PCB-4 22'-DiCB	12.93	5.71E+05	0.00 S	1.17	1.09	-6.7%
PCB-10 26-DiCB	13.10	8.68E+05	1.66 Y	1.83	1.66	-9.5%
PCB-9 25-DiCB	14.76	9.88E+05	1.58 Y	0.89	0.84	-6.4%
PCB-7 24-DiCB	14.91	1.14E+06	1.45 Y	1.02	0.97	-5.2%
PCB-6 23'-DiCB	15.12	1.02E+06	1.62 Y	0.95	0.87	-8.5%
PCB-5 23-DiCB	15.40	1.05E+06	1.58 Y	0.97	0.89	-8.3%
PCB-8 24'-DiCB	15.51	1.07E+06	1.55 Y	0.98	0.91	-7.9%
PCB-14 35-DiCB	16.98	1.28E+06	1.65 Y	1.16	1.09	-6.1%
PCB-11 33'-DiCB	17.71	1.12E+06	1.57 Y	1.00	0.95	-4.7%
PCB-13/12 34'-/34-DiCB	17.98	2.20E+06	1.58 Y	1.02	0.93	-8.2%
PCB-15 44'-DiCB	18.25	1.24E+06	1.58 Y	1.08	1.05	-2.6%
PCB-19 22'6-TrCB	15.77	6.03E+05	1.08 Y	1.09	1.01	-7.2%
PCB-30/18 246-/22'5-TrCB	17.43	1.61E+06	1.13 Y	1.46	1.35	-7.3%
PCB-17 22'4-TrCB	17.81	6.92E+05	1.12 Y	1.25	1.16	-7.0%
PCB-27 23'6-TrCB	17.99	9.34E+05	1.10 Y	1.69	1.57	-7.2%
PCB-24 236-TrCB	18.12	9.00E+05	1.03 Y	1.63	1.51	-7.4%
PCB-16 22'3-TrCB	18.20	5.04E+05	1.13 Y	0.95	0.85	-11.1%
PCB-32 24'6-TrCB	18.66	9.95E+05	1.03 Y	1.79	1.67	-6.4%
PCB-34 2'35-TrCB	19.77	9.06E+05	1.07 Y	1.05	0.96	-8.0%
PCB-23 235-TrCB	19.91	9.26E+05	1.03 Y	1.06	0.99	-6.8%
PCB-26/29 23'5-/245-TrCB	20.19	1.92E+06	1.04 Y	1.09	1.02	-6.1%
PCB-25 23'4-TrCB	20.37	9.37E+05	1.10 Y	1.07	1.00	-7.2%
PCB-31 24'5-TrCB	20.64	9.80E+05	1.09 Y	1.11	1.04	-6.1%
PCB-28/20 244'-/233'-TrCB	20.91	1.90E+06	1.04 Y	1.07	1.01	-5.5%
PCB-21/33 234-/2'34-TrCB	21.08	1.91E+06	1.08 Y	1.09	1.02	-7.0%
PCB-22 234'-TrCB	21.44	9.06E+05	1.05 Y	1.02	0.96	-5.1%
PCB-36 33'5-TrCB	22.79	1.02E+06	1.01 Y	1.13	1.08	-3.8%
PCB-39 34'5-TrCB	23.10	1.03E+06	1.00 Y	1.17	1.09	-6.3%
PCB-38 345-TrCB	23.60	8.98E+05	1.05 Y	1.03	0.96	-7.4%
PCB-35 33'4-TrCB	23.99	9.20E+05	1.04 Y	1.04	0.98	-5.9%
PCB-37 344'-TrCB	24.34	9.91E+05	1.03 Y	1.10	1.05	-4.5%
PCB-54 22'66'-TeCB	18.51	6.22E+05	0.82 Y	1.21	1.13	-6.6%
PCB-50/53 22'46-/22'56'TeCB	20.42	1.22E+06	0.78 Y	0.86	0.82	-4.4%
PCB-45 22'36-TeCB	20.97	4.79E+05	0.80 Y	0.73	0.64	-12.4%
PCB-51 22'46'-TeCB	21.04	6.28E+05	0.80 Y	0.88	0.84	-4.5%
PCB-46 22'36'-TeCB	21.24	4.90E+05	0.84 Y	0.70	0.66	-5.8%
PCB-52 22'55'-TeCB	22.48	5.89E+05	0.79 Y	0.84	0.79	-6.5%
PCB-73 23'5'6TeCB	22.60	7.75E+05	0.78 Y	1.09	1.04	-5.0%
PCB-43 22'35-TeCB	22.69	4.90E+05	0.82 Y	0.72	0.65	-9.5%
PCB-69/49 23'46-/22'45'TeCB	22.88	1.41E+06	0.82 Y	1.01	0.94	-6.8%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:12

Lab ID: CS1_120725_PCB_XB
Acquired: 26-JUL-2012 03:50
Datafile: 120725X16
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.15	5.88E+05	0.77 Y	0.85	0.79	-7.6%
PCB-44/47/65 22'35'-/22'44'-	23.35	1.83E+06	0.79 Y	0.89	0.82	-8.2%
PCB-59/62/75 233'6-/2346-/24	23.62	2.35E+06	0.80 Y	1.14	1.05	-8.1%
PCB-42 22'34'-TeCB	23.78	5.42E+05	0.79 Y	0.77	0.72	-6.1%
PCB-41 22'34-TeCB	24.10	5.22E+05	0.77 Y	0.73	0.70	-4.0%
PCB-71/40 23'4'6/22'33'-TeCB	24.19	1.18E+06	0.80 Y	0.87	0.79	-8.8%
PCB-64 234'6-TeCB	24.39	8.72E+05	0.78 Y	1.24	1.17	-5.7%
PCB-72 23'55'-TeCB	25.12	7.90E+05	0.75 Y	1.14	1.06	-7.6%
PCB-68 23'45'-TeCB	25.36	8.26E+05	0.79 Y	1.21	1.10	-8.7%
PCB-57 233'5-TeCB	25.72	7.56E+05	0.74 Y	1.11	1.01	-8.6%
PCB-58 233'5-TeCB	25.91	7.56E+05	0.78 Y	1.10	1.01	-8.1%
PCB-67 23'45-TeCB	26.07	8.25E+05	0.83 Y	1.16	1.10	-5.0%
PCB-63 234'5-TeCB	26.29	8.45E+05	0.76 Y	1.22	1.13	-7.1%
PCB-61/70/74/76 2345-/23'4'5	26.57	3.11E+06	0.79 Y	1.13	1.04	-8.2%
PCB-66 23'44'-TeCB	26.85	7.41E+05	0.82 Y	1.08	0.99	-7.8%
PCB-55 233'4-TeCB	26.98	7.70E+05	0.74 Y	1.10	1.03	-6.2%
PCB-56 233'4'-TeCB	27.40	7.27E+05	0.74 Y	1.06	0.97	-8.0%
PCB-60 2344'-TeCB	27.59	7.66E+05	0.74 Y	1.11	1.02	-7.9%
PCB-80 33'55'-TeCB	27.95	8.69E+05	0.77 Y	1.25	1.16	-7.3%
PCB-79 33'45'-TeCB	29.23	8.68E+05	0.81 Y	1.23	1.16	-5.9%
PCB-78 33'45-TeCB	29.70	7.54E+05	0.72 Y	1.08	1.01	-6.7%
PCB-104 22'466'-PeCB	23.30	6.18E+05	0.67 Y	1.25	1.15	-8.0%
PCB-96 22'366'-PeCB	23.60	5.55E+05	0.66 Y	1.08	1.04	-3.6%
PCB-103 22'45'6-PeCB	25.27	5.59E+05	0.64 Y	0.90	0.85	-5.6%
PCB-94 22'356'-PeCB	25.45	4.73E+05	0.62 Y	0.78	0.72	-7.2%
PCB-95 22'35'6-PeCB	25.82	4.87E+05	0.62 Y	0.83	0.74	-10.3%
PCB-100/93 22'44'6-/22'356-P	26.03	1.03E+06	0.61 Y	0.84	0.78	-7.0%
PCB-102 22'456'-PeCB	26.13	5.18E+05	0.58 Y	0.90	0.79	-12.4%
PCB-98 22'3'46-PeCB	26.20	5.12E+05	0.59 Y	0.77	0.78	0.9%
PCB-88 22'346-PeCB	26.49	4.69E+05	0.65 Y	0.79	0.71	-10.0%
PCB-91 22'34'6-PeCB	26.56	5.55E+05	0.63 Y	0.88	0.84	-4.0%
PCB-84 22'33'6-PeCB	26.74	4.30E+05	0.60 Y	0.71	0.65	-7.9%
PCB-89 22'346'-PeCB	27.14	4.69E+05	0.64 Y	0.76	0.71	-6.1%
PCB-121 23'45'6-PeCB	27.52	7.02E+05	0.66 Y	1.14	1.07	-6.5%
PCB-92 22'355'-PeCB	27.83	4.88E+05	0.63 Y	0.80	0.74	-7.0%
PCB-113/90/101 233'5'6-/22'3	28.30	1.74E+06	0.63 Y	0.93	0.88	-5.6%
PCB-83 22'33'5-PeCB	28.71	4.47E+05	0.59 Y	0.71	0.68	-4.6%
PCB-99 22'44'5-PeCB	28.82	4.93E+05	0.65 Y	0.87	0.75	-13.9%
PCB-112 233'56-PeCB	28.91	7.32E+05	0.58 Y	1.13	1.11	-1.0%
PCB-108/119/86/97/125/87 233	29.25	3.48E+06	0.61 Y	0.95	0.88	-6.9%
PCB-117 234'56-PeCB	29.78	7.14E+05	0.58 Y	1.04	1.09	4.6%
PCB-116/85 23456-/22'344'-Pe	29.85	1.13E+06	0.63 Y	0.97	0.86	-11.2%
PCB-110 233'4'6-PeCB	29.97	6.02E+05	0.60 Y	1.02	0.92	-10.4%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:12

Lab ID: CS1_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 03:50
Datafile: 120725X16

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.06	7.27E+05	0.57 Y	1.16	1.11	-4.4%
PCB-82 22'33'4-PeCB	30.24	4.25E+05	0.61 Y	0.69	0.65	-6.3%
PCB-111 233'55'-PeCB	30.59	7.11E+05	0.61 Y	1.15	1.08	-6.2%
PCB-120 23'455'-PeCB	30.98	7.11E+05	0.59 Y	1.16	1.08	-6.7%
PCB-107/124 233'4'5-/2'3455'	31.92	1.31E+06	0.60 Y	1.07	1.00	-7.3%
PCB-109 233'46-PeCB	32.13	7.10E+05	0.61 Y	1.14	1.08	-5.3%
PCB-106 233'45-PeCB	32.33	6.34E+05	0.64 Y	1.07	0.97	-9.8%
PCB-122 2'33'45-PeCB	32.79	6.54E+05	0.62 Y	1.00	0.98	-2.4%
PCB-127 33'455'-PeCB	34.73	6.91E+05	0.59 Y	1.10	1.04	-5.2%
PCB-155 22'44'66'-HxCB	28.15	6.98E+05	1.23 Y	1.09	1.06	-2.9%
PCB-152 22'3566'-HxCB	28.29	6.22E+05	1.37 Y	1.01	0.94	-6.8%
PCB-150 22'34'66'-HxCB	28.44	6.07E+05	1.27 Y	1.00	0.92	-8.4%
PCB-136 22'33'66'-HxCB	28.72	5.96E+05	1.28 Y	0.95	0.90	-5.1%
PCB-145 22'3466'HxCB	28.99	6.02E+05	1.30 Y	0.96	0.91	-5.1%
PCB-148 22'34'56'-HxCB	30.28	4.49E+05	1.27 Y	0.97	0.88	-9.2%
PCB-151/135 22'355'6-/22'33'	30.78	9.24E+05	1.29 Y	0.96	0.91	-5.9%
PCB-154 22'44'5'6-HxCB	30.99	5.18E+05	1.28 Y	1.09	1.02	-6.7%
PCB-144 22'345'6-HxCB	31.24	4.58E+05	1.23 Y	0.98	0.90	-8.6%
PCB-147/149 22'34'56-/22'34'	31.54	9.24E+05	1.24 Y	0.99	0.91	-8.0%
PCB-134 22'33'56-HxCB	31.71	4.24E+05	1.30 Y	0.80	0.83	3.8%
PCB-143 22'3456'-HxCB	31.79	4.08E+05	1.31 Y	0.95	0.80	-16.2%
PCB-139/140 22'344'6-/22'344'	32.05	9.39E+05	1.25 Y	1.00	0.92	-7.8%
PCB-131 22'33'46-HxCB	32.21	4.05E+05	1.29 Y	0.85	0.79	-6.5%
PCB-142 22'3456-HxCB	32.35	4.13E+05	1.35 Y	0.87	0.81	-7.2%
PCB-132 22'33'46'-HxCB	32.58	4.09E+05	1.21 Y	0.89	0.80	-9.7%
PCB-133 22'33'55'-HxCB	33.02	4.41E+05	1.33 Y	0.91	0.87	-5.3%
PCB-165 233'55'6-HxCB	33.36	5.42E+05	1.34 Y	1.13	1.06	-6.2%
PCB-146 22'34'55'-HxCB	33.57	4.70E+05	1.32 Y	1.01	0.92	-8.3%
PCB-161 233'45'6-HxCB	33.68	6.01E+05	1.19 Y	1.25	1.18	-5.9%
PCB-153/168 22'44'55'-/23'44'	34.11	1.15E+06	1.29 Y	1.22	1.13	-7.3%
PCB-141 22'3455'-HxCB	34.24	4.40E+05	1.19 Y	0.93	0.86	-6.9%
PCB-130 22'33'45'-HxCB	34.58	3.98E+05	1.17 Y	0.85	0.78	-7.9%
PCB-137 22'344'5-HxCB	34.77	5.17E+05	1.12 Y	1.04	1.01	-2.7%
PCB-164 233'4'5'6-HxCB	34.86	5.92E+05	1.18 Y	1.22	1.16	-5.1%
PCB-163/138/129 233'4'56-/22'	35.14	1.46E+06	1.31 Y	1.02	0.96	-6.4%
PCB-160 233'456-HxCB	35.27	5.94E+05	1.22 Y	1.21	1.17	-3.5%
PCB-158 233'44'6-HxCB	35.45	6.47E+05	1.37 Y	1.34	1.27	-5.1%
PCB-128/166 22'33'44'-/2344'5	36.17	1.14E+06	1.26 Y	0.90	0.86	-4.2%
PCB-159 233'455'-HxCB	37.01	6.56E+05	1.26 Y	1.06	0.99	-7.2%
PCB-162 233'4'55'-HxCB	37.25	6.53E+05	1.22 Y	1.08	0.98	-8.7%
PCB-188 22'34'566'-HpCB	32.96	5.17E+05	1.08 Y	1.03	0.99	-3.8%
PCB-179 22'33'566'-HpCB	33.23	4.75E+05	1.13 Y	0.97	0.91	-5.5%
PCB-184 22'344'66'-HpCB	33.69	4.58E+05	0.97 Y	0.93	0.88	-5.5%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:12

Lab ID: CS1_120725_PCB_XB
Acquired: 26-JUL-2012 03:50
Datafile: 120725X16
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.97	5.13E+05	1.05 Y	1.05	0.99	-5.7%
PCB-186 22'34566'-HpCB	34.35	4.76E+05	1.12 Y	0.98	0.92	-6.6%
PCB-178 22'33'55'6-HpCB	35.51	3.64E+05	1.17 Y	0.74	0.70	-4.7%
PCB-175 22'33'45'6-HpCB	36.04	4.27E+05	1.00 Y	1.01	0.92	-8.8%
PCB-187 22'34'55'6-HpCB	36.27	4.59E+05	1.10 Y	1.06	0.99	-6.9%
PCB-182 22'344'56'-HpCB	36.45	5.07E+05	0.98 Y	1.11	1.09	-1.7%
PCB-183 22'344'5'6-HpCB	36.78	4.76E+05	1.01 Y	1.13	1.03	-9.5%
PCB-185 22'3455'6-HpCB	36.86	4.69E+05	1.04 Y	1.02	1.01	-0.8%
PCB-174 22'33'456'-HpCB	36.97	4.17E+05	1.00 Y	0.93	0.90	-3.1%
PCB-177 22'33'4'56-HpCB	37.34	3.93E+05	1.08 Y	0.91	0.85	-6.5%
PCB-181 22'344'56-HpCB	37.68	4.75E+05	1.08 Y	1.06	1.02	-3.8%
PCB-171/173 22'33'44'6-/22'3	37.86	8.13E+05	1.11 Y	0.93	0.87	-5.7%
PCB-172 22'33'455'-HpCB	39.23	4.21E+05	1.04 Y	0.95	0.91	-5.0%
PCB-192 233'455'6-HpCB	39.47	5.36E+05	1.10 Y	1.24	1.15	-7.0%
PCB-180/193 22'344'55'-/233'	39.74	9.84E+05	1.05 Y	1.16	1.06	-8.6%
PCB-191 233'44'5'6-HpCB	40.07	5.67E+05	1.14 Y	1.30	1.22	-6.3%
PCB-170 22'33'44'5-HpCB	40.82	3.98E+05	1.08 Y	1.07	0.99	-8.2%
PCB-190 233'44'56-HpCB	41.26	5.55E+05	1.06 Y	1.45	1.37	-5.4%
PCB-202 22'33'55'66'-OcCB	37.45	4.27E+05	0.84 Y	0.91	0.85	-7.5%
PCB-201 22'33'45'66'-OcCB	38.23	4.87E+05	0.88 Y	1.02	0.97	-5.4%
PCB-204 22'344'566'-OcCB	38.80	4.51E+05	0.97 Y	0.98	0.90	-8.3%
PCB-197 22'33'44'66'-OcCB	38.99	5.40E+05	0.94 Y	1.06	1.07	0.6%
PCB-200 22'33'4566'-OcCB	39.07	4.09E+05	0.98 Y	0.96	0.81	-15.6%
PCB-198/199 22'33'455'6-/22'	41.39	6.71E+05	0.90 Y	0.72	0.67	-7.0%
PCB-196 22'33'44'56'-OcCB	41.96	3.50E+05	0.92 Y	0.73	0.69	-5.0%
PCB-203 22'344'55'6-OcCB	42.13	3.62E+05	0.90 Y	0.76	0.72	-6.1%
PCB-195 22'33'44'56-OcCB	43.23	3.54E+05	0.94 Y	0.80	0.73	-9.0%
PCB-194 22'33'44'55'-OcCB	45.18	4.10E+05	0.94 Y	0.87	0.84	-3.6%
PCB-205 233'44'55'6-OcCB	45.58	4.98E+05	0.88 Y	1.09	1.02	-6.0%
PCB-208 22'33'455'66'-NoCB	43.04	4.58E+05	0.80 Y	1.02	0.96	-6.0%
PCB-207 22'33'44'566'-NoCB	43.82	4.79E+05	0.79 Y	1.06	1.00	-5.3%
PCB-206 22'33'44'55'6-NoCB	47.03	3.13E+05	0.74 Y	0.98	0.90	-8.3%

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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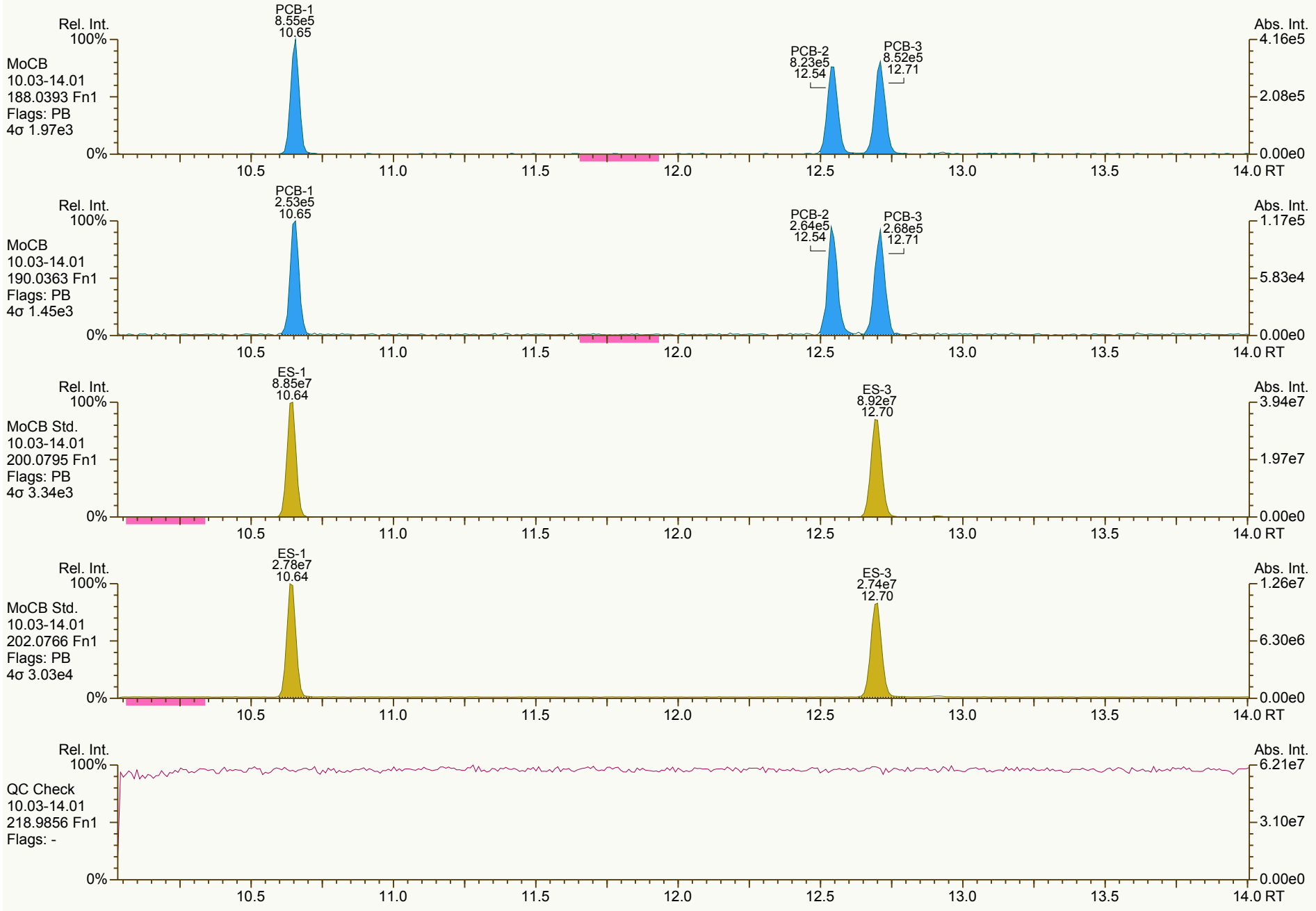

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 4802, 8602 scc: 824-792 *Revised: 27-Jul-2012 15:07 (LKB) Printed: 28-Jul-2012 11:14 Page 2 of 21*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



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AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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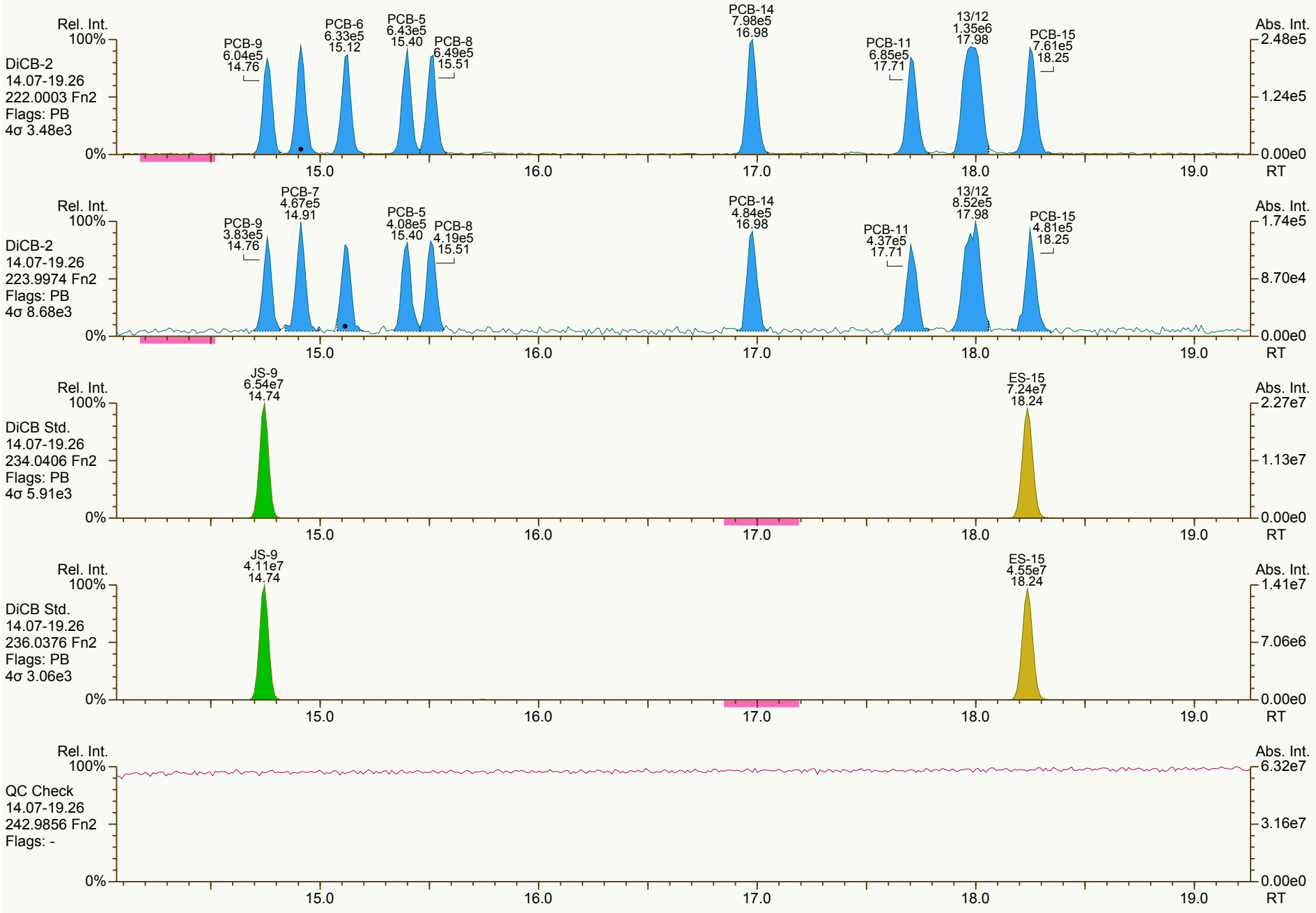

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AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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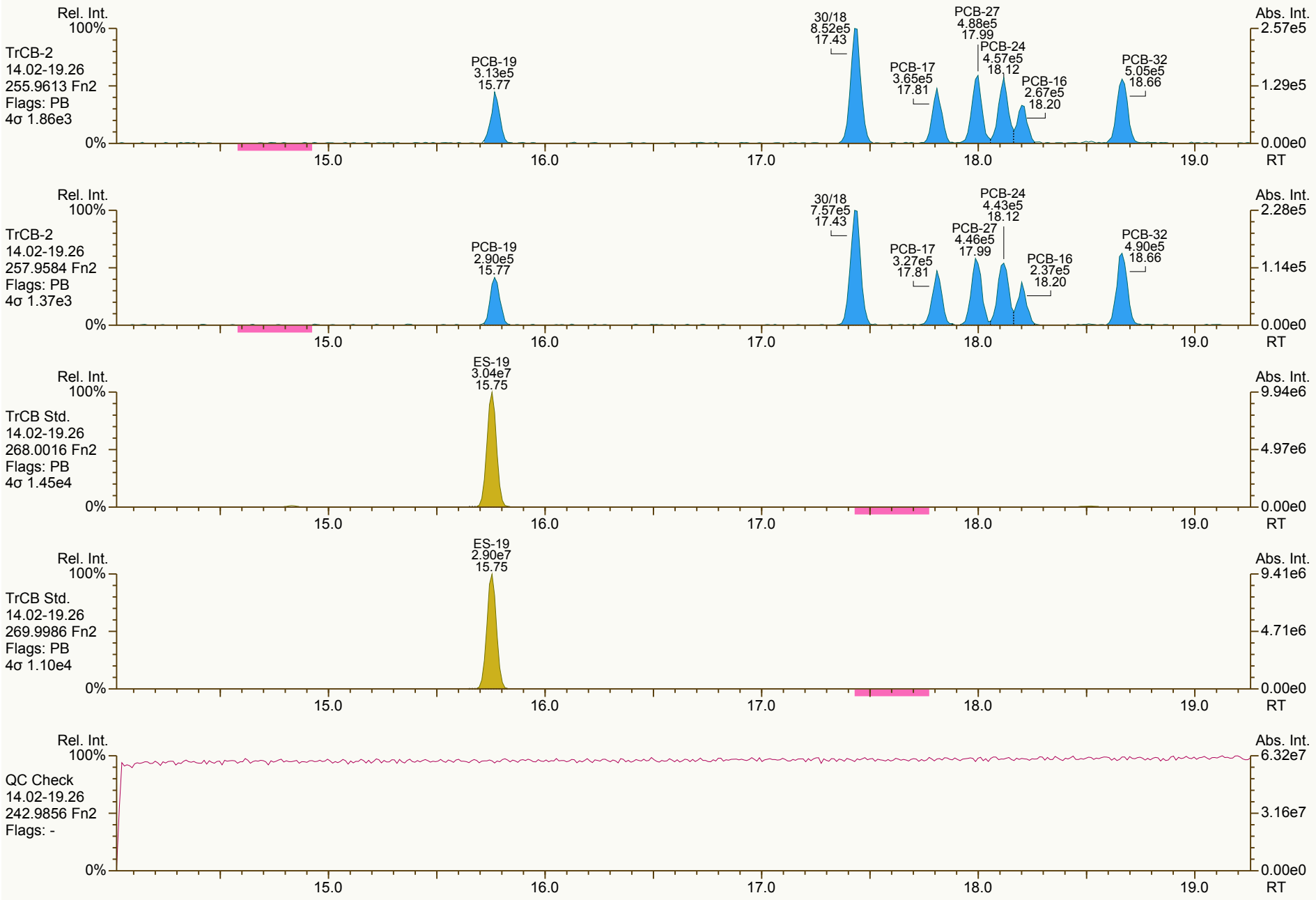

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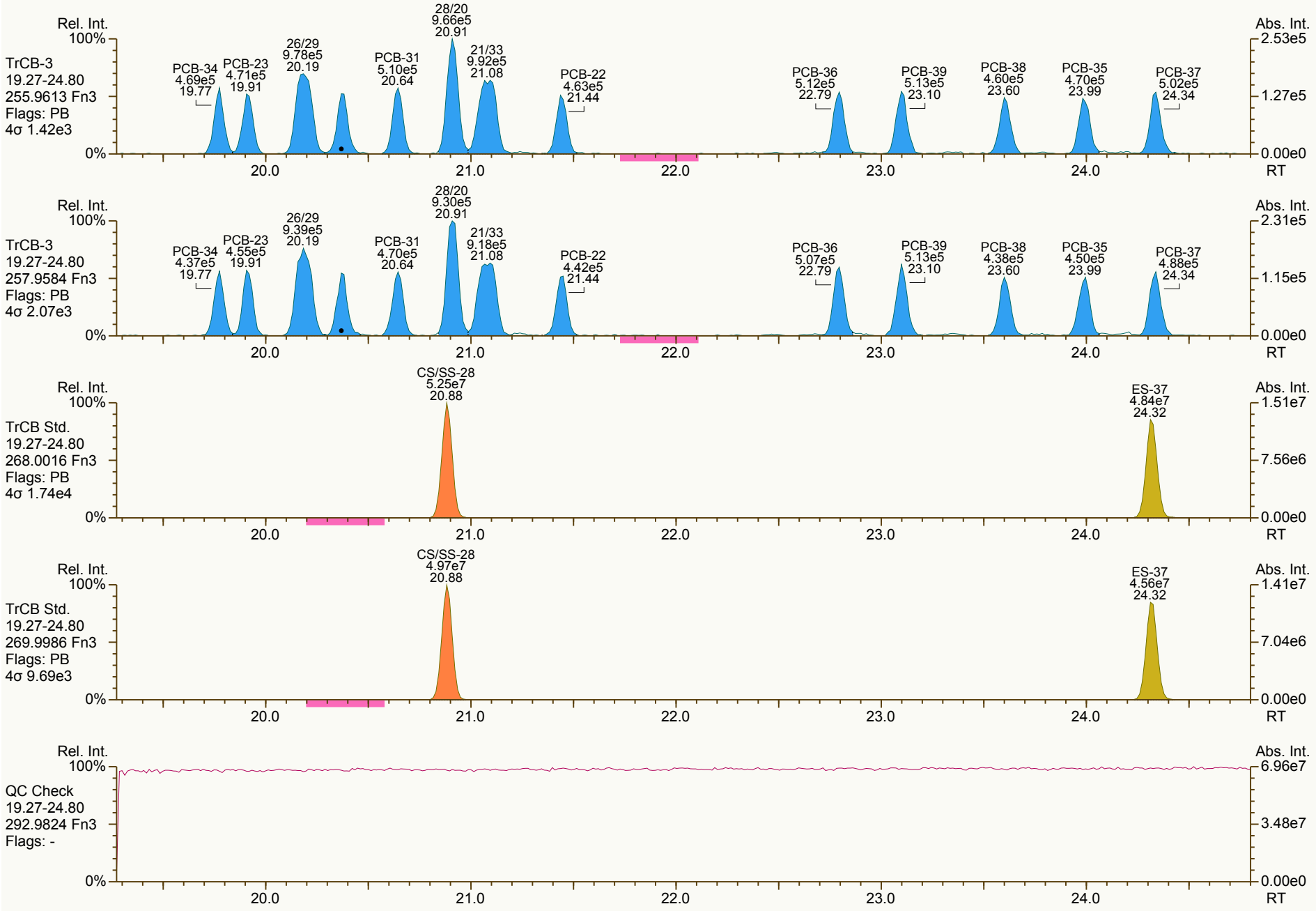

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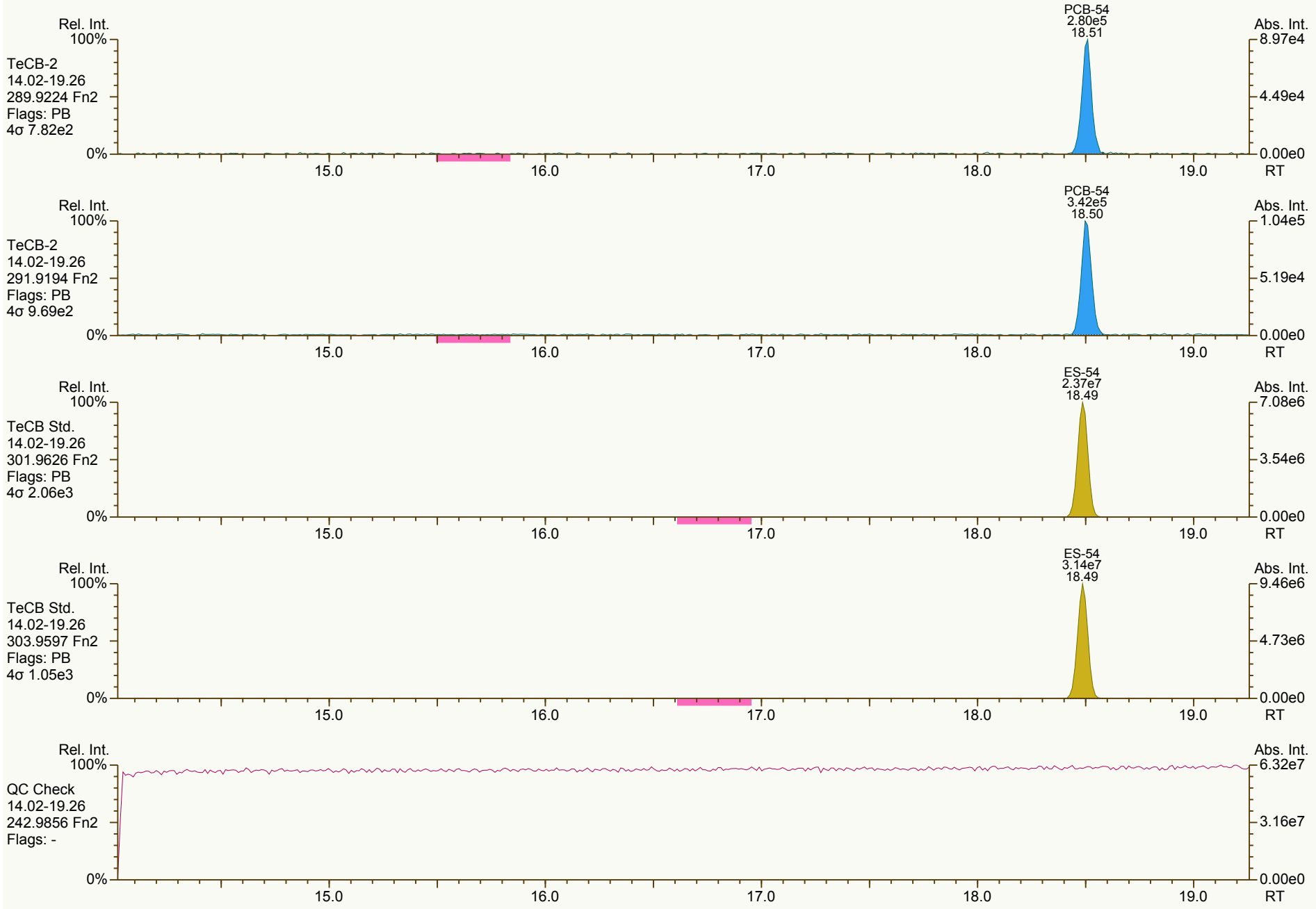

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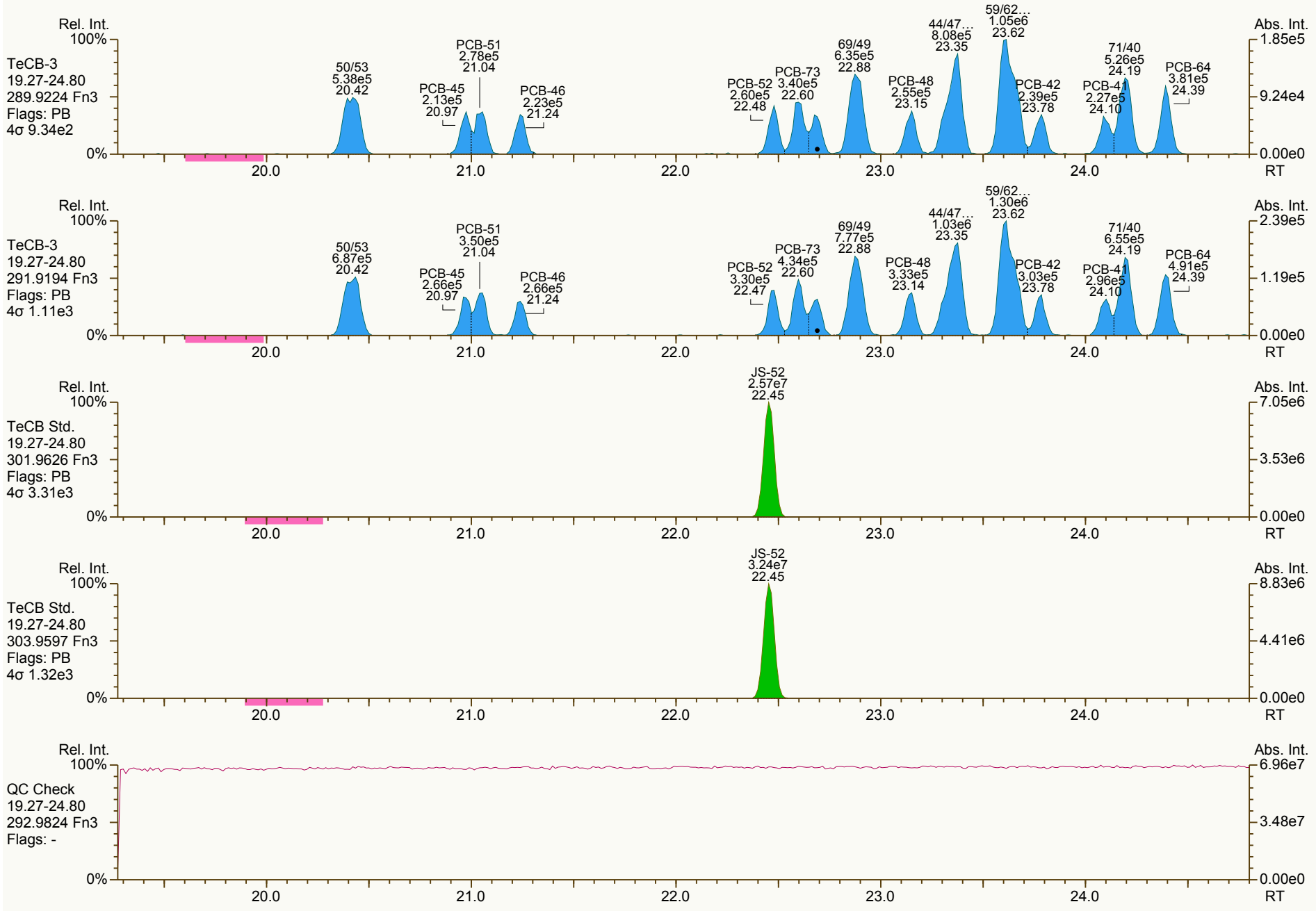

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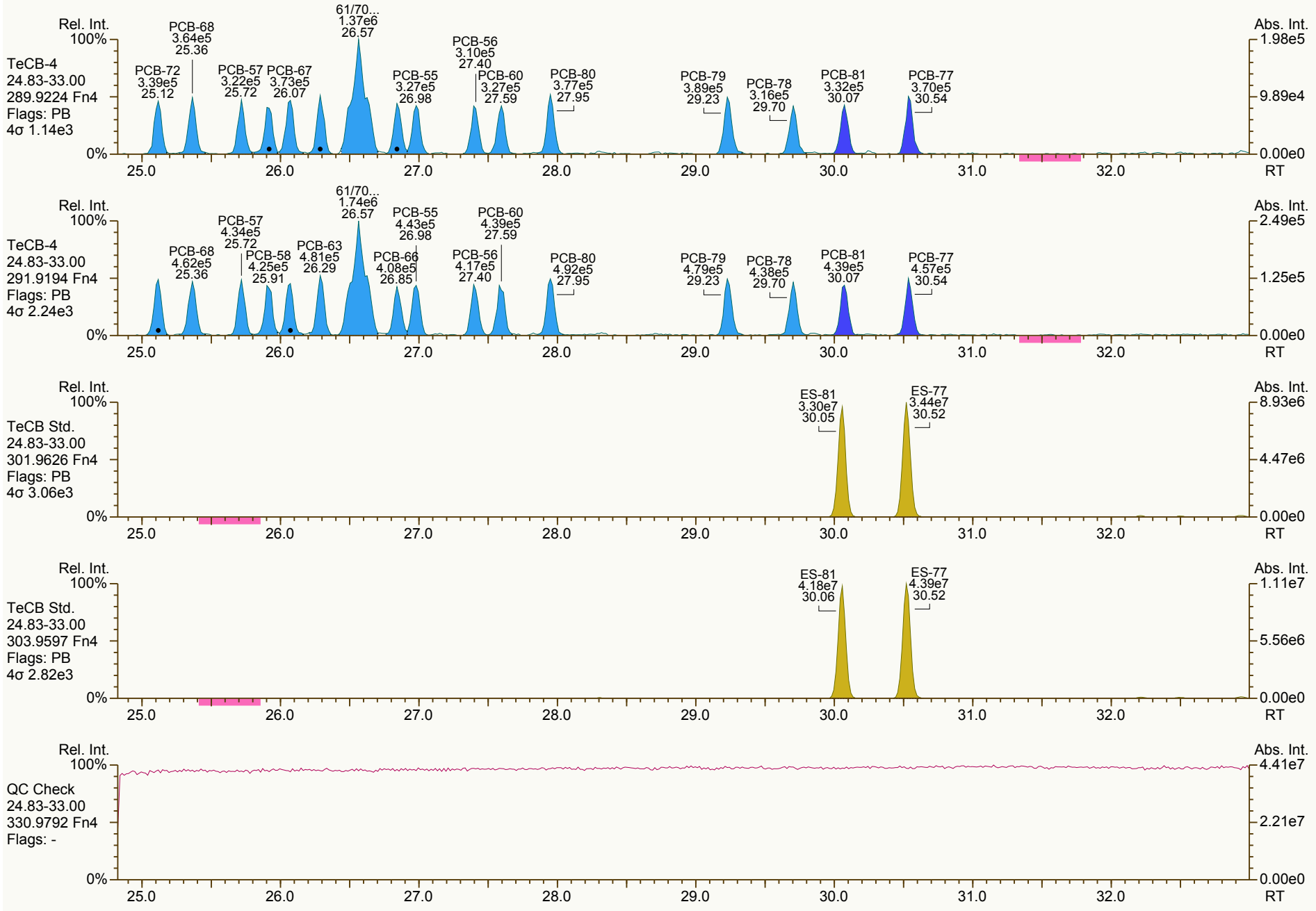

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AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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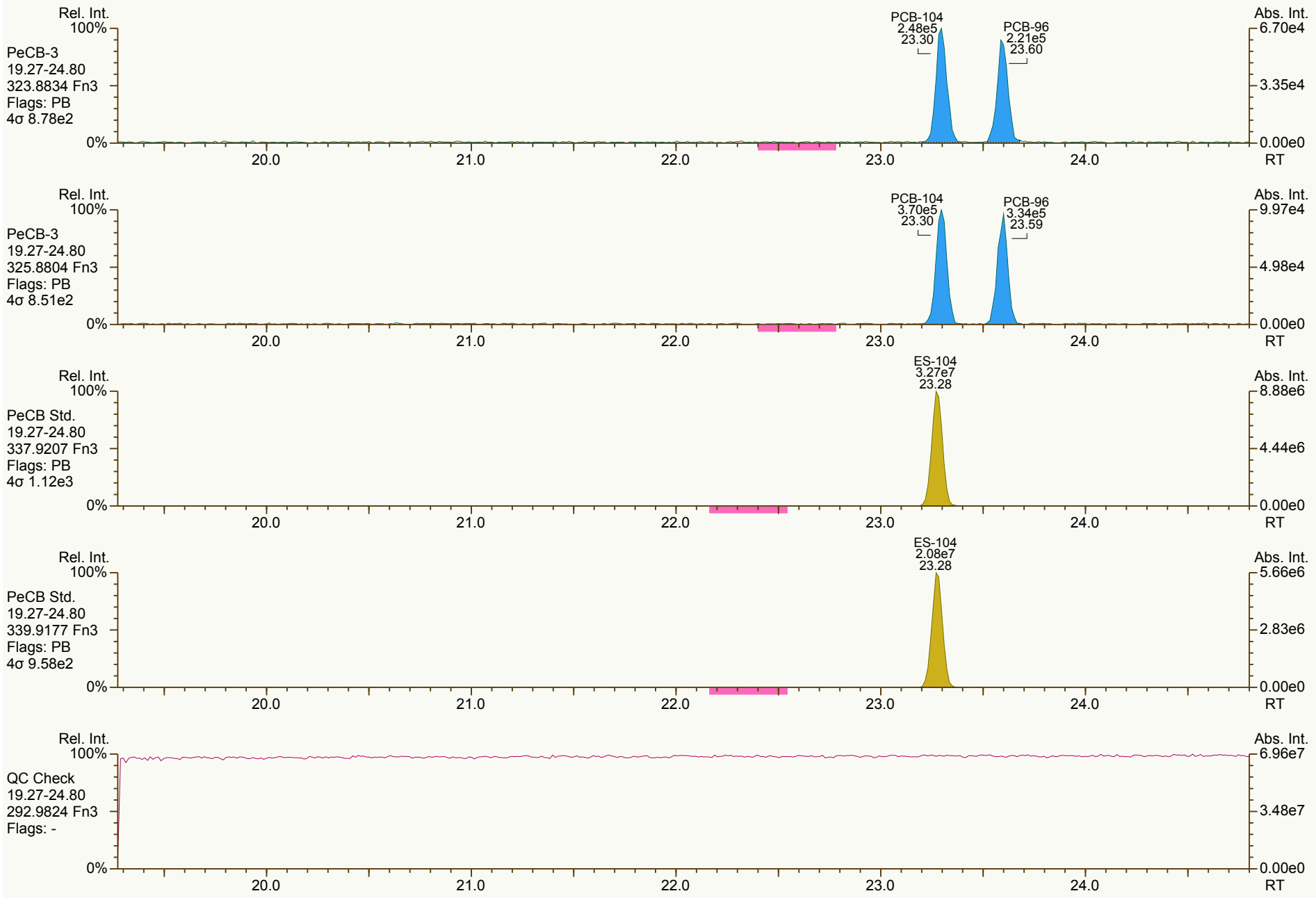

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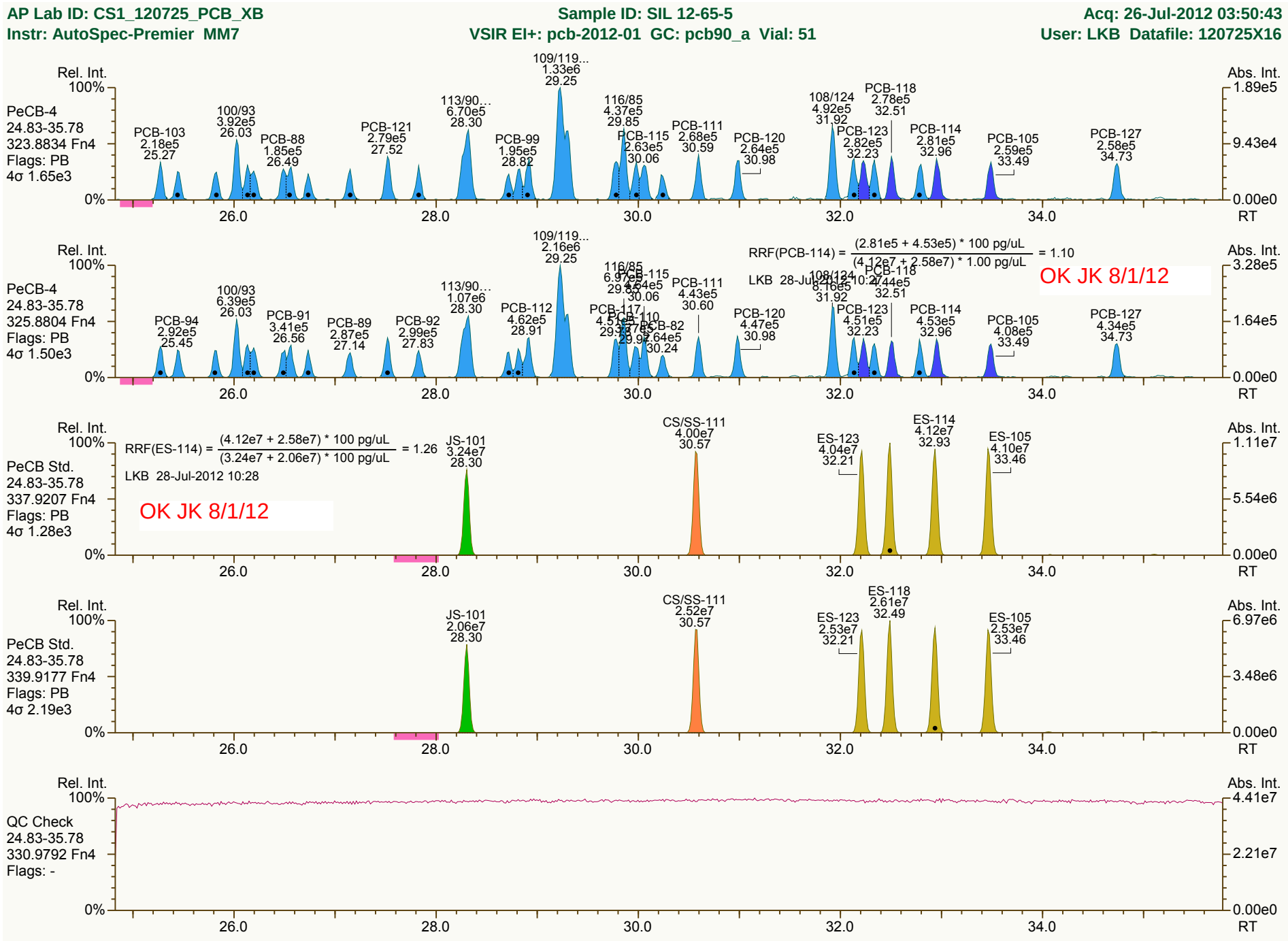
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Sample ID: SIL 12-65-5
Acq: 26-Jul-2012 03:50:43
Instr: AutoSpec-Premier MM7
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51
User: LKB Datafile: 120725X16
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24.83-35.78
323.8834 Fn4
Flags: PB
4σ 1.65e3
PCB-103 2.18e5 25.27
100/93 3.92e5 26.03
PCB-88 1.85e5 26.49
PCB-121 2.79e5 27.52
113/90... 6.70e5 28.30
PCB-99 1.95e5 28.82
109/119... 1.33e6 29.25
116/85 4.37e5 29.85
PCB-115 2.63e5 30.06
PCB-111 2.68e5 30.59
PCB-120 2.64e5 30.98
108/124 4.92e5 31.92
PCB-118 2.78e5 32.51
PCB-123 2.82e5 32.23
PCB-114 2.81e5 32.96
PCB-105 2.59e5 33.49
PCB-127 2.58e5 34.73
PeCB-4
24.83-35.78
325.8804 Fn4
Flags: PB
4σ 1.50e3
PCB-94 2.92e5 25.45
100/93 6.39e5 26.03
PCB-91 3.41e5 26.56
PCB-89 2.87e5 27.14
PCB-92 2.99e5 27.83
113/90... 1.07e6 28.30
PCB-112 4.62e5 28.91
109/119... 2.16e6 29.25
PCB-111 4.43e5 30.60
PCB-120 4.47e5 30.98
PCB-118 4.44e5 32.51
PCB-123 4.51e5 32.23
PCB-114 4.53e5 32.96
PCB-105 4.08e5 33.49
PCB-127 4.34e5 34.73
RRF(PCB-114) = (2.81e5 + 4.53e5) * 100 pg/uL / (4.12e7 + 2.58e7) * 1.00 pg/uL = 1.10
OK JK 8/1/12
PeCB Std.
24.83-35.78
337.9207 Fn4
Flags: PB
4σ 1.28e3
RRF(ES-114) = (4.12e7 + 2.58e7) * 100 pg/uL / (3.24e7 + 2.06e7) * 100 pg/uL = 1.26
LKB 28-Jul-2012 10:28
OK JK 8/1/12
JS-101 3.24e7 28.30
CS/SS-111 4.00e7 30.57
ES-123 4.04e7 32.21
ES-114 4.12e7 32.93
ES-105 4.10e7 33.46
PeCB Std.
24.83-35.78
339.9177 Fn4
Flags: PB
4σ 2.19e3
JS-101 2.06e7 28.30
CS/SS-111 2.52e7 30.57
ES-123 2.53e7 32.21
ES-118 2.61e7 32.49
ES-105 2.53e7 33.46
QC Check
24.83-35.78
330.9792 Fn4
Flags: -
Rel. Int.
Abs. Int.
RT
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Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 8720, 1830 scc: 824-792
PKD: 27-Jul-2012 09:48 Printed: 28-Jul-2012 11:14 Page 11 of 21

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



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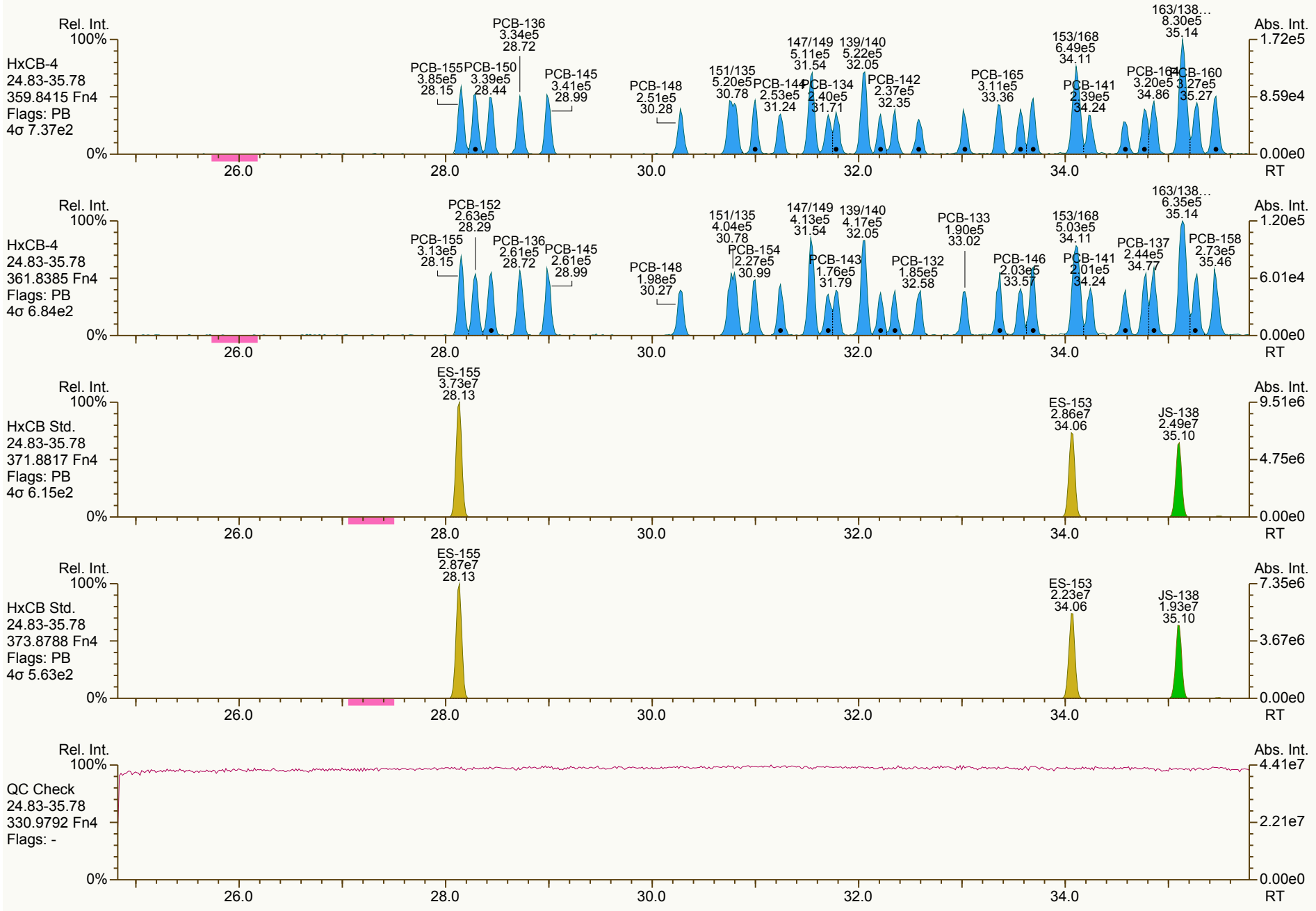

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AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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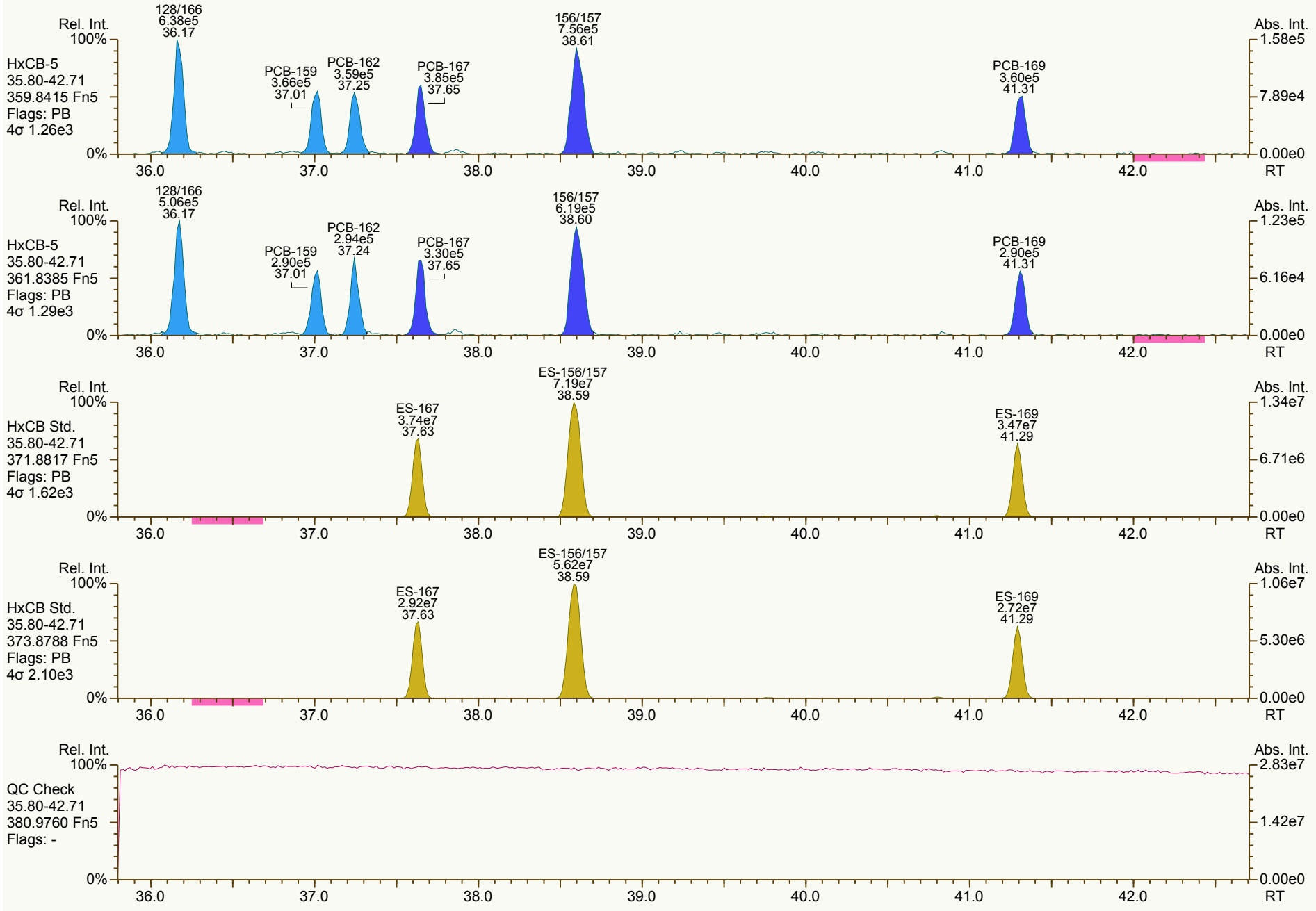

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AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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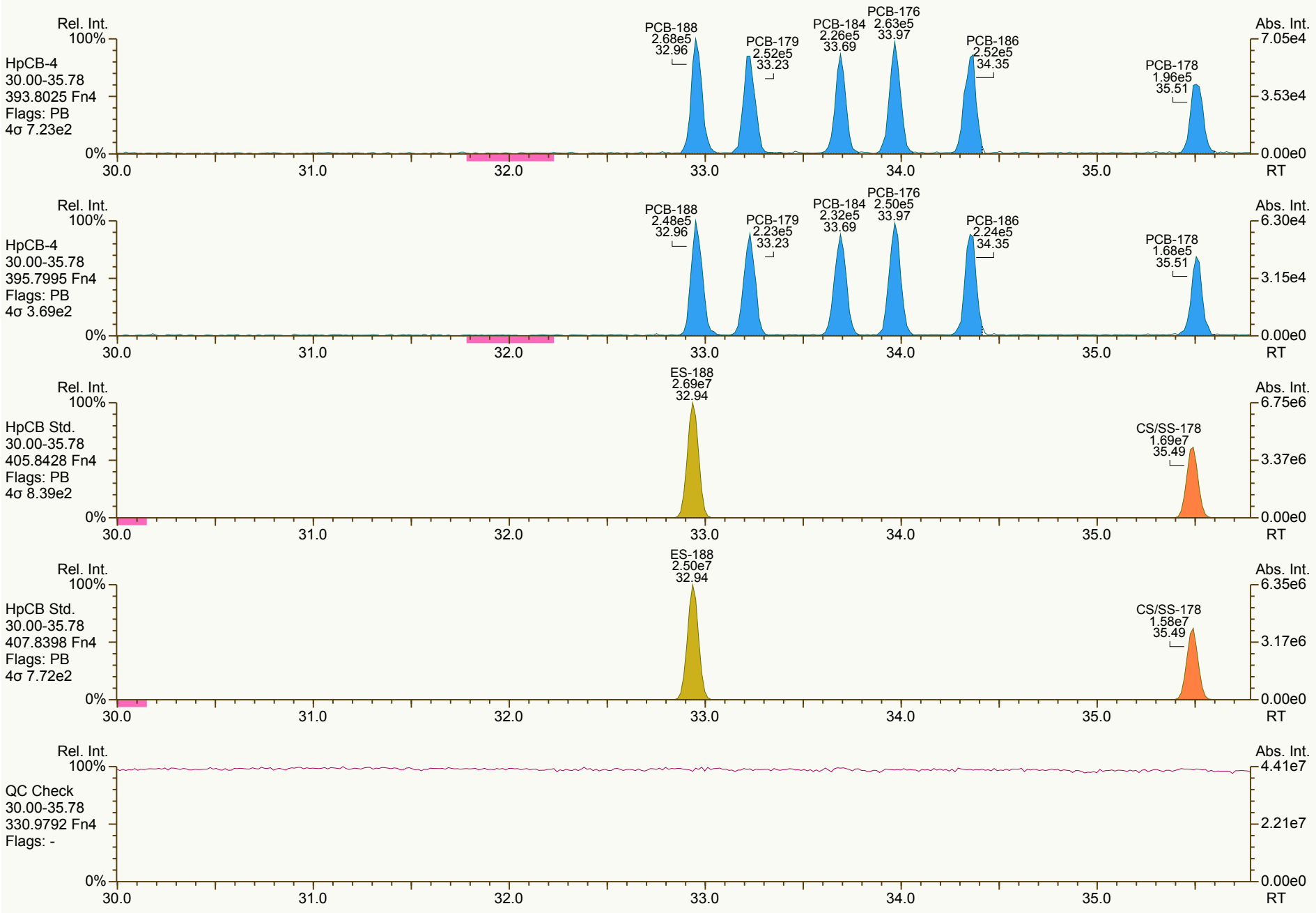

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AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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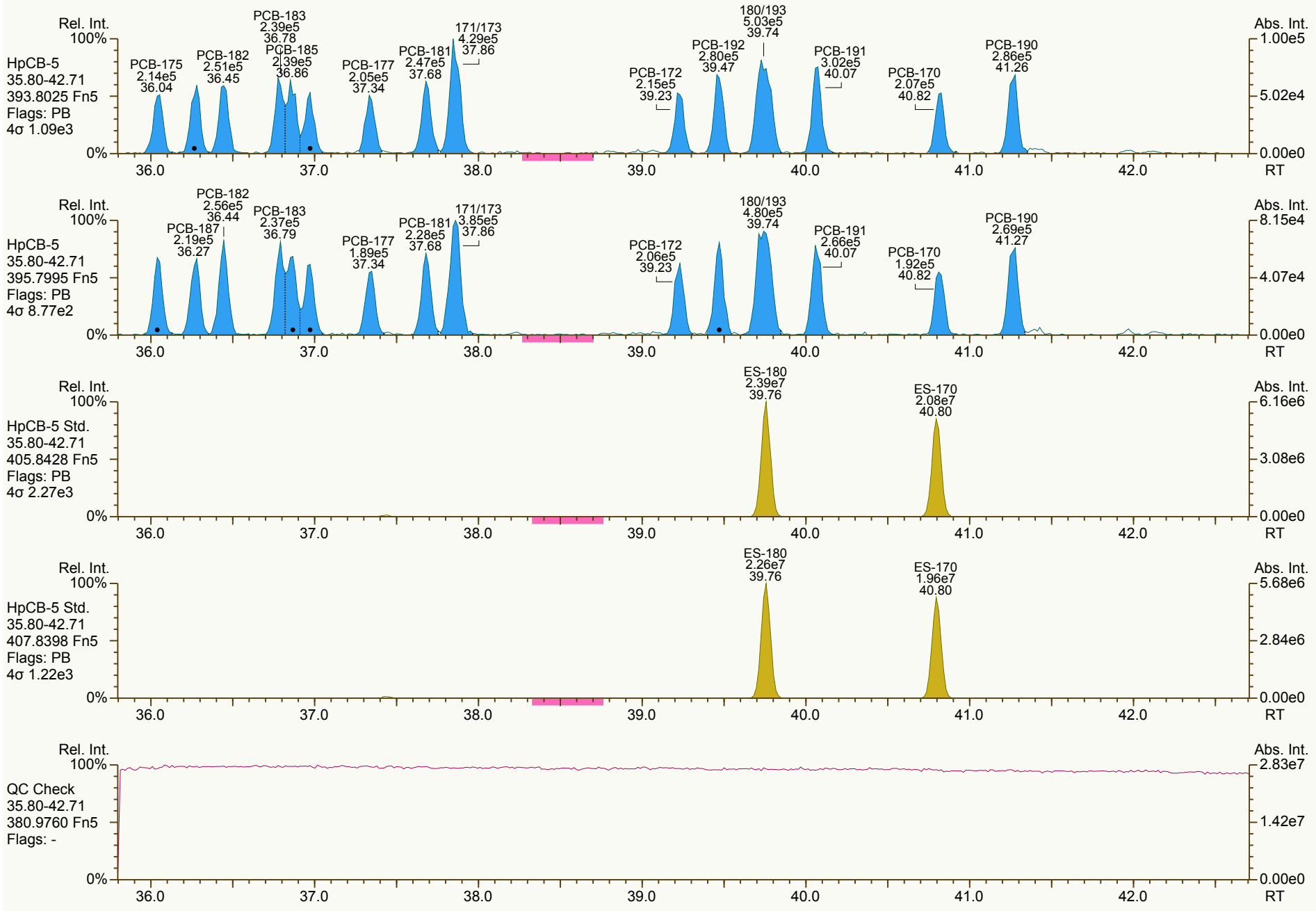

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7079, 6301 scc: 824-792 *PKD: 27-Jul-2012 09:48 Printed: 28-Jul-2012 11:14 Page 16 of 21*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
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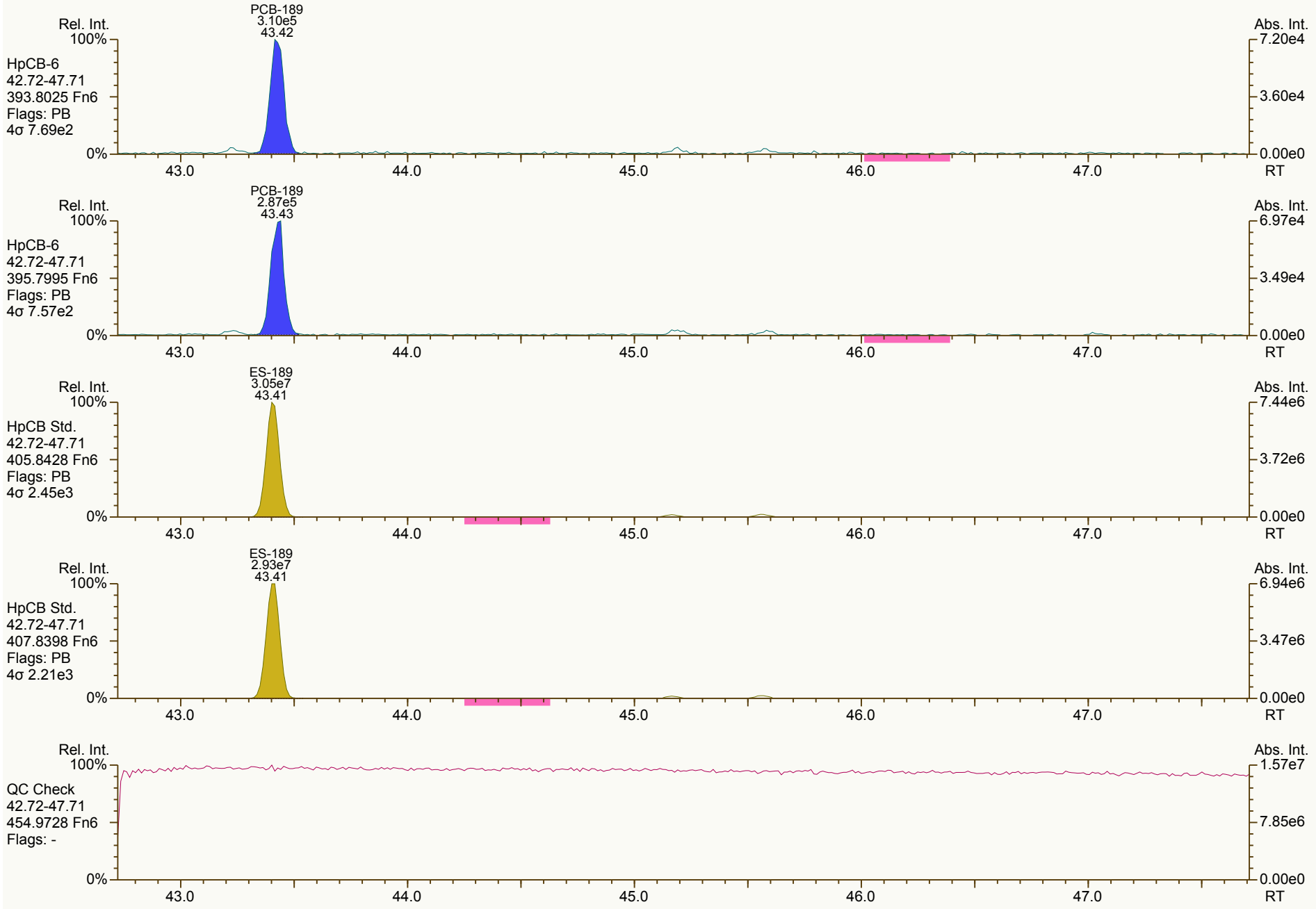

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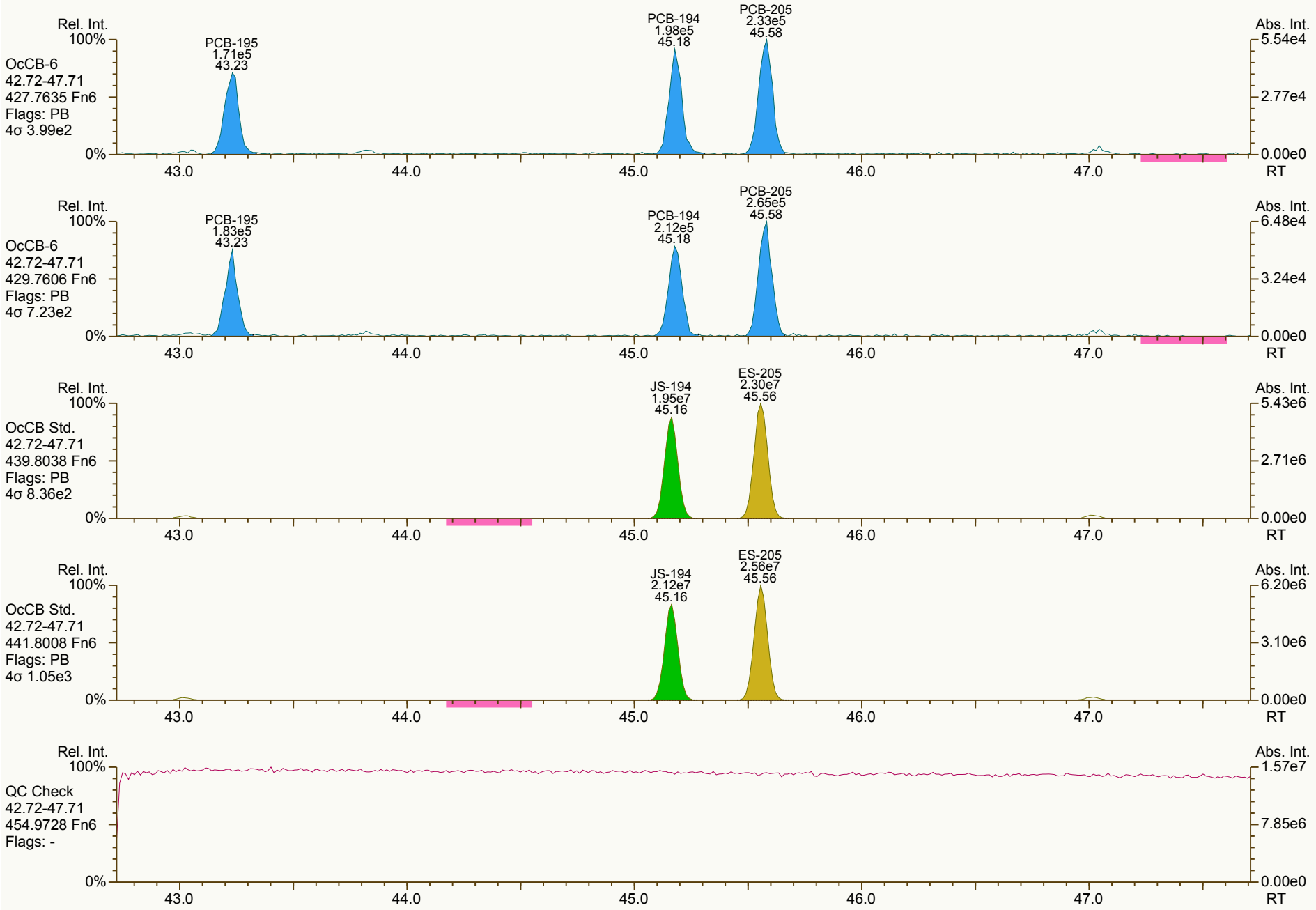
AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**

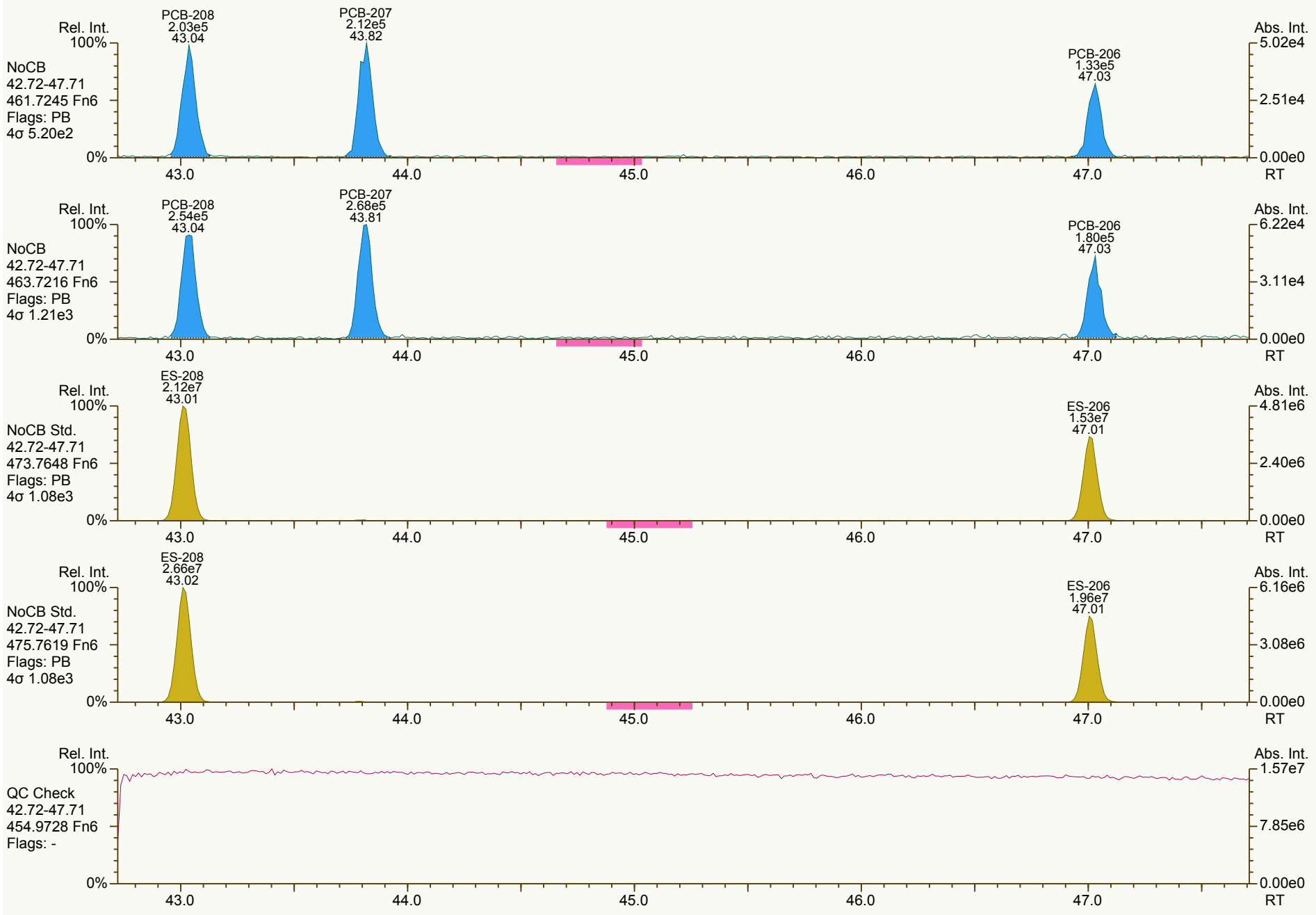


Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**

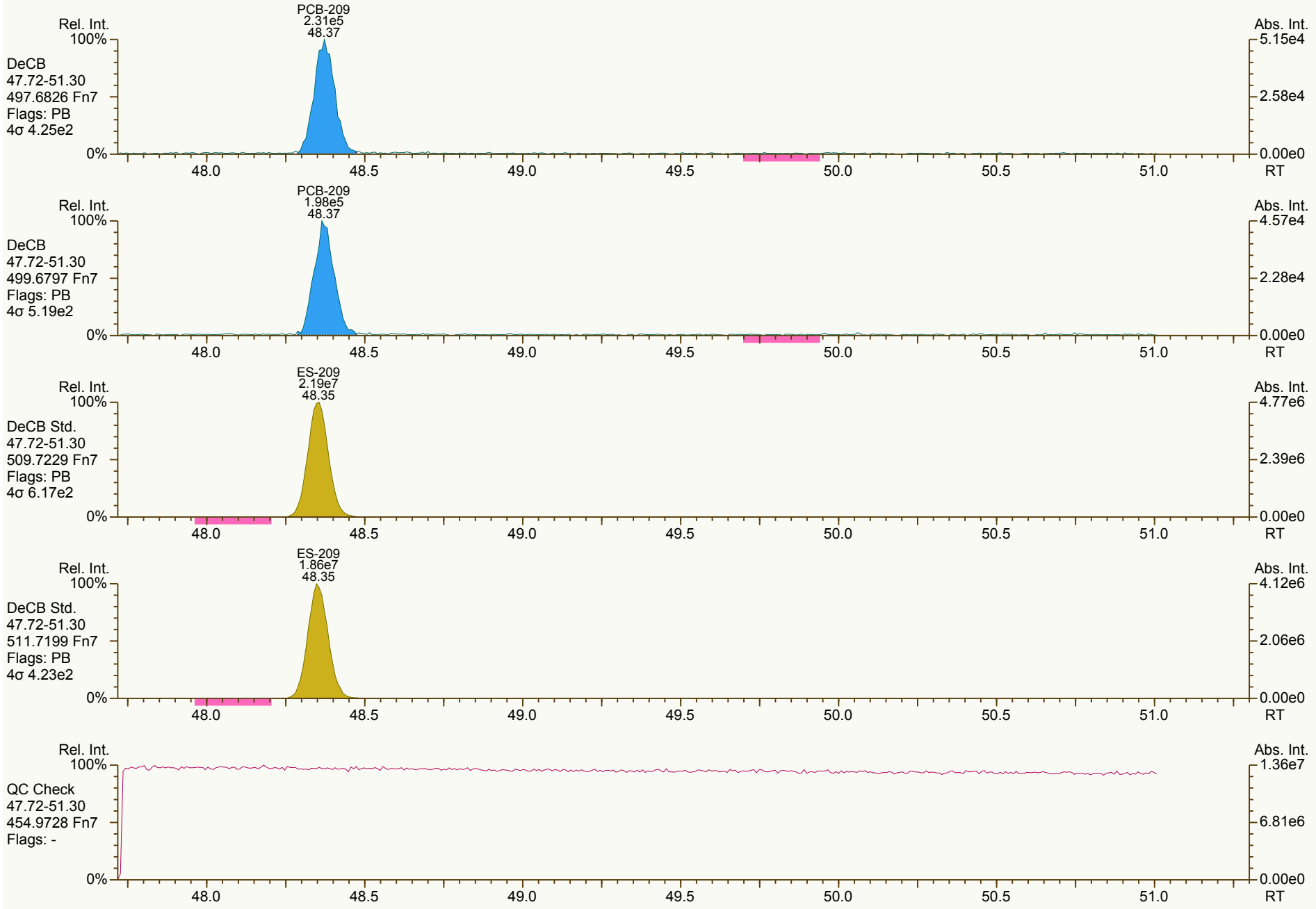


AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS1_120725_PCB_XB **Sample ID: SIL 12-65-5** **Acq: 26-Jul-2012 03:50:43**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 51** **User: LKB Datafile: 120725X16**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS1_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:29 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 9199, 8954 scc: 824-792 *Revised: 27-Jul-2012 09:42 (LKB) Printed: 28-Jul-2012 11:14 Page 21 of 21*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:13
Lab ID:	**CS2_120725_PCB_XB**			**ICAL: MM7_PCB_07132012_25JUL12**	
Acquired:	**26-JUL-2012 04:44**				
Datafile:	**120725X17**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.55	4.14E+06	0.79 Y	1.13	1.09	-4.2%
PCB-81 344'5-TeCB	30.08	3.94E+06	0.78 Y	1.13	1.09	-3.5%
PCB-105 233'44'-PeCB	33.50	3.47E+06	0.61 Y	1.09	1.06	-3.1%
PCB-114 2344'5-PeCB	32.97	3.76E+06	0.61 Y	1.16	1.13	-2.5%
PCB-118 23'44'5-PeCB	32.52	3.50E+06	0.62 Y	1.11	1.03	-6.6%
PCB-123 2'344'5-PeCB	32.24	3.79E+06	0.61 Y	1.19	1.19	-0.1%
PCB-126 33'44'5-PeCB	36.09	3.28E+06	0.64 Y	1.06	1.04	-2.3%
PCB-156/157 233'44'5/233'44'5'	38.61	6.77E+06	1.26 Y	1.11	1.07	-3.0%
PCB-167 23'44'55'-HxCB	37.66	3.61E+06	1.27 Y	1.14	1.11	-2.0%
PCB-169 33'44'55'-HxCB	41.32	3.32E+06	1.26 Y	1.11	1.10	-1.0%
PCB-189 233'44'55'-HpCB	43.44	2.96E+06	1.10 Y	1.06	1.02	-3.5%
PCB-209 DeCB	48.38	2.04E+06	1.17 Y	1.07	1.03	-4.2%
ES PCB-1	10.65	1.12E+08	3.14 Y	1.08	1.07	-0.6%
ES PCB-3	12.71	1.12E+08	3.20 Y	1.08	1.07	-1.1%
ES PCB-4	12.93	5.11E+07	1.58 Y	0.49	0.49	0.5%
ES PCB-15	18.25	1.14E+08	1.58 Y	1.11	1.10	-1.3%
ES PCB-19	15.76	5.84E+07	1.07 Y	0.55	0.56	1.2%
ES PCB-37	24.33	9.15E+07	1.06 Y	1.64	1.62	-0.9%
ES PCB-54	18.50	5.45E+07	0.77 Y	0.94	0.97	2.7%
ES PCB-77	30.53	7.63E+07	0.79 Y	1.35	1.35	0.4%
ES PCB-81	30.06	7.24E+07	0.79 Y	1.29	1.28	-0.3%
ES PCB-104	23.29	5.25E+07	1.56 Y	0.99	1.00	0.5%
ES PCB-105	33.47	6.54E+07	1.59 Y	1.23	1.24	0.8%
ES PCB-114	32.94	6.65E+07	1.60 Y	1.25	1.26	1.3%
ES PCB-118	32.49	6.77E+07	1.61 Y	1.28	1.29	0.4%
ES PCB-123	32.22	6.38E+07	1.58 Y	1.22	1.21	-0.4%
ES PCB-126	36.07	6.33E+07	1.61 Y	1.20	1.20	0.3%
ES PCB-153	34.07	5.02E+07	1.26 Y	1.14	1.15	0.5%
ES PCB-155	28.14	6.54E+07	1.29 Y	1.50	1.50	0.0%
ES PCB-156/157	38.60	1.26E+08	1.28 Y	1.45	1.44	-0.9%
ES PCB-167	37.64	6.48E+07	1.26 Y	1.49	1.48	-0.8%
ES PCB-169	41.30	6.05E+07	1.26 Y	1.40	1.38	-1.6%
ES PCB-170	40.81	3.95E+07	1.05 Y	1.00	0.99	-0.8%
ES PCB-180	39.76	4.54E+07	1.06 Y	1.16	1.14	-1.3%
ES PCB-188	32.95	5.11E+07	1.07 Y	1.18	1.17	-0.8%
ES PCB-189	43.42	5.81E+07	1.02 Y	1.49	1.46	-1.7%
ES PCB-202	37.44	4.95E+07	0.90 Y	1.14	1.13	-0.4%
ES PCB-205	45.57	4.72E+07	0.90 Y	1.20	1.19	-1.0%
ES PCB-206	47.02	3.42E+07	0.79 Y	0.87	0.86	-0.9%
ES PCB-208	43.02	4.70E+07	0.80 Y	1.19	1.18	-0.6%
ES PCB-209	48.36	3.96E+07	1.19 Y	1.00	1.00	-0.5%

PCB QC Summary	SGS Analytical Perspectives	Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.89	9.87E+07	1.05 Y	1.07	1.08	0.4%
SS PCB-111	30.58	6.46E+07	1.61 Y	1.01	1.01	0.6%
SS PCB-178	35.50	3.27E+07	1.07 Y	0.63	0.64	1.9%
CS PCB-28	20.89	9.87E+07	1.05 Y	1.76	1.75	-0.5%
CS PCB-111	30.58	6.46E+07	1.61 Y	1.23	1.23	0.2%
CS PCB-178	35.50	3.27E+07	1.07 Y	0.74	0.75	1.1%
JS PCB-9	14.75	1.04E+08	1.58 Y	-	-	-
JS PCB-52	22.46	5.64E+07	0.80 Y	-	-	-
JS PCB-101	28.31	5.26E+07	1.57 Y	-	-	-
JS PCB-138	35.11	4.37E+07	1.27 Y	-	-	-
JS PCB-194	45.17	3.97E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	10.66	5.68E+06	3.23 Y	1.03	1.01	-1.7%
PCB-3 4-MoCB	12.72	5.62E+06	3.25 Y	1.04	1.01	-3.4%
PCB-4 22'-DiCB	12.94	2.89E+06	1.56 Y	1.17	1.13	-3.3%
PCB-15 44'-DiCB	18.26	5.95E+06	1.63 Y	1.08	1.04	-3.7%
PCB-19 22'6-TrCB	15.78	3.04E+06	1.06 Y	1.09	1.04	-4.9%
PCB-37 344'-TrCB	24.35	4.85E+06	1.05 Y	1.10	1.06	-4.1%
PCB-54 22'66'-TeCB	18.52	3.18E+06	0.78 Y	1.21	1.17	-3.4%
PCB-104 22'466'-PeCB	23.31	3.23E+06	0.63 Y	1.25	1.23	-1.9%
PCB-153 22'44'55' -HxCB	34.12	5.75E+06	1.25 Y	1.22	1.15	-6.0%
PCB-155 22'44'66'-HxCB	28.16	3.41E+06	1.29 Y	1.09	1.04	-4.4%
PCB-170 22'33'44'5-HpCB	40.83	2.06E+06	1.09 Y	1.07	1.04	-2.8%
PCB-180 22'344'55'-HpCB	39.75	5.17E+06	1.04 Y	1.16	1.14	-1.6%
PCB-188 22'34'566'-HpCB	32.97	2.62E+06	1.10 Y	1.03	1.02	-0.9%
PCB-202 22'33'55'66'-OcCB	37.46	2.20E+06	0.92 Y	0.91	0.89	-2.7%
PCB-205 233'44'55'6-OcCB	45.59	2.46E+06	0.91 Y	1.09	1.04	-4.2%
PCB-208 22'33'455'66'-NoCB	43.05	2.30E+06	0.75 Y	1.02	0.98	-3.8%
PCB-206 22'33'44'55'6-NoCB	47.04	1.63E+06	0.75 Y	0.98	0.95	-2.8%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.66	5.68E+06	3.23 Y	1.03	1.01	-1.7%
PCB-2 3-MoCB	12.55	5.71E+06	3.28 Y	1.04	1.02	-1.8%
PCB-3 4-MoCB	12.72	5.62E+06	3.25 Y	1.04	1.01	-3.4%
PCB-4 22'-DiCB	12.94	2.89E+06	1.56 Y	1.17	1.13	-3.3%
PCB-10 26-DiCB	13.11	4.57E+06	1.56 Y	1.83	1.79	-2.5%
PCB-9 25-DiCB	14.77	5.02E+06	1.62 Y	0.89	0.88	-1.7%
PCB-7 24-DiCB	14.92	5.75E+06	1.59 Y	1.02	1.01	-1.8%
PCB-6 23'-DiCB	15.13	5.30E+06	1.65 Y	0.95	0.93	-2.2%
PCB-5 23-DiCB	15.41	5.38E+06	1.62 Y	0.97	0.94	-3.2%
PCB-8 24'-DiCB	15.52	5.61E+06	1.62 Y	0.98	0.98	-0.1%
PCB-14 35-DiCB	16.99	6.45E+06	1.64 Y	1.16	1.13	-2.4%
PCB-11 33'-DiCB	17.72	5.59E+06	1.59 Y	1.00	0.98	-2.0%
PCB-13/12 34'-/34-DiCB	17.99	1.13E+07	1.57 Y	1.02	0.99	-2.9%
PCB-15 44'-DiCB	18.26	5.95E+06	1.63 Y	1.08	1.04	-3.7%
PCB-19 22'6-TrCB	15.78	3.04E+06	1.06 Y	1.09	1.04	-4.9%
PCB-30/18 246-/22'5-TrCB	17.44	8.35E+06	1.09 Y	1.46	1.43	-2.1%
PCB-17 22'4-TrCB	17.82	3.50E+06	1.09 Y	1.25	1.20	-4.3%
PCB-27 23'6-TrCB	18.00	4.67E+06	1.09 Y	1.69	1.60	-5.5%
PCB-24 236-TrCB	18.13	4.70E+06	1.09 Y	1.63	1.61	-1.5%
PCB-16 22'3-TrCB	18.21	2.60E+06	1.07 Y	0.95	0.89	-6.6%
PCB-32 24'6-TrCB	18.67	5.03E+06	1.06 Y	1.79	1.72	-3.7%
PCB-34 2'35-TrCB	19.78	4.70E+06	1.07 Y	1.05	1.03	-1.9%
PCB-23 235-TrCB	19.92	4.72E+06	1.02 Y	1.06	1.03	-2.5%
PCB-26/29 23'5-/245-TrCB	20.20	9.79E+06	1.05 Y	1.09	1.07	-1.4%
PCB-25 23'4-TrCB	20.38	4.78E+06	1.05 Y	1.07	1.04	-2.8%
PCB-31 24'5-TrCB	20.65	4.93E+06	1.03 Y	1.11	1.08	-3.0%
PCB-28/20 244'-/233'-TrCB	20.92	9.53E+06	1.05 Y	1.07	1.04	-2.4%
PCB-21/33 234-/2'34-TrCB	21.09	9.67E+06	1.03 Y	1.09	1.06	-3.2%
PCB-22 234'-TrCB	21.45	4.48E+06	1.05 Y	1.02	0.98	-3.6%
PCB-36 33'5-TrCB	22.80	4.93E+06	1.05 Y	1.13	1.08	-4.3%
PCB-39 34'5-TrCB	23.11	5.20E+06	1.08 Y	1.17	1.14	-2.5%
PCB-38 345-TrCB	23.61	4.65E+06	1.04 Y	1.03	1.02	-1.5%
PCB-35 33'4-TrCB	24.00	4.58E+06	1.02 Y	1.04	1.00	-3.7%
PCB-37 344'-TrCB	24.35	4.85E+06	1.05 Y	1.10	1.06	-4.1%
PCB-54 22'66'-TeCB	18.52	3.18E+06	0.78 Y	1.21	1.17	-3.4%
PCB-50/53 22'46-/22'56'TeCB	20.43	5.99E+06	0.79 Y	0.86	0.83	-3.3%
PCB-45 22'36-TeCB	20.98	2.52E+06	0.77 Y	0.73	0.70	-4.5%
PCB-51 22'46'-TeCB	21.05	3.15E+06	0.78 Y	0.88	0.87	-1.0%
PCB-46 22'36'-TeCB	21.25	2.43E+06	0.78 Y	0.70	0.67	-3.3%
PCB-52 22'55'-TeCB	22.49	2.99E+06	0.80 Y	0.84	0.83	-1.9%
PCB-73 23'5'6TeCB	22.61	3.63E+06	0.78 Y	1.09	1.00	-7.8%
PCB-43 22'35-TeCB	22.69	2.63E+06	0.80 Y	0.72	0.73	0.6%
PCB-69/49 23'46-/22'45'TeCB	22.89	7.17E+06	0.79 Y	1.01	0.99	-2.2%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.16	2.96E+06	0.79 Y	0.85	0.82	-3.7%
PCB-44/47/65 22'35'-/22'44'-	23.37	9.40E+06	0.79 Y	0.89	0.87	-2.7%
PCB-59/62/75 233'6-/2346-/24	23.63	1.22E+07	0.79 Y	1.14	1.13	-1.0%
PCB-42 22'34'-TeCB	23.79	2.74E+06	0.79 Y	0.77	0.76	-2.0%
PCB-41 22'34-TeCB	24.10	2.40E+06	0.80 Y	0.73	0.66	-8.7%
PCB-71/40 23'4'6/22'33'-TeCB	24.20	6.18E+06	0.80 Y	0.87	0.85	-1.3%
PCB-64 234'6-TeCB	24.40	4.34E+06	0.78 Y	1.24	1.20	-3.0%
PCB-72 23'55'-TeCB	25.13	3.96E+06	0.80 Y	1.14	1.09	-4.3%
PCB-68 23'45'-TeCB	25.37	4.20E+06	0.77 Y	1.21	1.16	-4.1%
PCB-57 233'5-TeCB	25.73	3.81E+06	0.79 Y	1.11	1.05	-4.8%
PCB-58 233'5-TeCB	25.92	3.87E+06	0.78 Y	1.10	1.07	-2.8%
PCB-67 23'45-TeCB	26.08	4.04E+06	0.78 Y	1.16	1.12	-3.8%
PCB-63 234'5-TeCB	26.30	4.24E+06	0.80 Y	1.22	1.17	-3.6%
PCB-61/70/74/76 2345-/23'4'5	26.58	1.61E+07	0.78 Y	1.13	1.11	-1.7%
PCB-66 23'44'-TeCB	26.86	3.76E+06	0.78 Y	1.08	1.04	-3.5%
PCB-55 233'4-TeCB	26.99	3.84E+06	0.78 Y	1.10	1.06	-3.3%
PCB-56 233'4'-TeCB	27.42	3.63E+06	0.76 Y	1.06	1.00	-5.0%
PCB-60 2344'-TeCB	27.60	3.83E+06	0.78 Y	1.11	1.06	-4.7%
PCB-80 33'55'-TeCB	27.96	4.40E+06	0.75 Y	1.25	1.22	-2.9%
PCB-79 33'45'-TeCB	29.24	4.20E+06	0.77 Y	1.23	1.16	-5.9%
PCB-78 33'45-TeCB	29.71	3.70E+06	0.78 Y	1.08	1.02	-5.3%
PCB-104 22'466'-PeCB	23.31	3.23E+06	0.63 Y	1.25	1.23	-1.9%
PCB-96 22'366'-PeCB	23.61	2.72E+06	0.62 Y	1.08	1.04	-3.5%
PCB-103 22'45'6-PeCB	25.28	2.75E+06	0.64 Y	0.90	0.86	-4.4%
PCB-94 22'356'-PeCB	25.46	2.36E+06	0.62 Y	0.78	0.74	-4.8%
PCB-95 22'35'6-PeCB	25.83	2.61E+06	0.62 Y	0.83	0.82	-1.0%
PCB-100/93 22'44'6-/22'356-P	26.04	5.34E+06	0.62 Y	0.84	0.84	-0.8%
PCB-102 22'456'-PeCB	26.15	2.71E+06	0.61 Y	0.90	0.85	-5.7%
PCB-98 22'3'46-PeCB	26.21	2.41E+06	0.62 Y	0.77	0.76	-2.2%
PCB-88 22'346-PeCB	26.50	2.46E+06	0.59 Y	0.79	0.77	-2.9%
PCB-91 22'34'6-PeCB	26.57	2.73E+06	0.62 Y	0.88	0.86	-2.8%
PCB-84 22'33'6-PeCB	26.75	2.20E+06	0.60 Y	0.71	0.69	-2.9%
PCB-89 22'346'-PeCB	27.15	2.38E+06	0.63 Y	0.76	0.75	-2.1%
PCB-121 23'45'6-PeCB	27.53	3.55E+06	0.60 Y	1.14	1.11	-2.9%
PCB-92 22'355'-PeCB	27.83	2.48E+06	0.60 Y	0.80	0.78	-2.8%
PCB-113/90/101 233'5'6-/22'3	28.31	8.79E+06	0.60 Y	0.93	0.92	-1.8%
PCB-83 22'33'5-PeCB	28.73	2.26E+06	0.63 Y	0.71	0.71	-0.4%
PCB-99 22'44'5-PeCB	28.83	2.72E+06	0.61 Y	0.87	0.85	-2.3%
PCB-112 233'56-PeCB	28.92	3.46E+06	0.64 Y	1.13	1.08	-3.8%
PCB-108/119/86/97/125/87 233	29.26	1.81E+07	0.61 Y	0.95	0.94	-0.5%
PCB-117 234'56-PeCB	29.78	3.13E+06	0.62 Y	1.04	0.98	-5.6%
PCB-116/85 23456-/22'344'-Pe	29.86	6.16E+06	0.62 Y	0.97	0.97	-0.8%
PCB-110 233'4'6-PeCB	29.99	3.21E+06	0.63 Y	1.02	1.01	-1.5%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.07	3.50E+06	0.62 Y	1.16	1.10	-5.3%
PCB-82 22'33'4-PeCB	30.25	2.13E+06	0.63 Y	0.69	0.67	-3.4%
PCB-111 233'55'-PeCB	30.60	3.61E+06	0.62 Y	1.15	1.13	-2.0%
PCB-120 23'455'-PeCB	30.99	3.66E+06	0.61 Y	1.16	1.15	-1.2%
PCB-107/124 233'4'5-/2'3455'	31.93	6.75E+06	0.62 Y	1.07	1.06	-1.6%
PCB-109 233'46-PeCB	32.14	3.32E+06	0.61 Y	1.14	1.04	-8.9%
PCB-106 233'45-PeCB	32.34	3.43E+06	0.62 Y	1.07	1.08	0.5%
PCB-122 2'33'45-PeCB	32.80	3.19E+06	0.61 Y	1.00	0.96	-4.2%
PCB-127 33'455'-PeCB	34.74	3.51E+06	0.61 Y	1.10	1.07	-2.4%
PCB-155 22'44'66'-HxCB	28.16	3.41E+06	1.29 Y	1.09	1.04	-4.4%
PCB-152 22'3566'-HxCB	28.30	3.21E+06	1.28 Y	1.01	0.98	-3.1%
PCB-150 22'34'66'-HxCB	28.45	3.21E+06	1.25 Y	1.00	0.98	-2.2%
PCB-136 22'33'66'-HxCB	28.73	3.01E+06	1.22 Y	0.95	0.92	-3.5%
PCB-145 22'3466'HxCB	29.00	3.09E+06	1.27 Y	0.96	0.94	-1.8%
PCB-148 22'34'56'-HxCB	30.29	2.30E+06	1.26 Y	0.97	0.92	-5.4%
PCB-151/135 22'355'6-/22'33'	30.79	4.63E+06	1.23 Y	0.96	0.92	-4.1%
PCB-154 22'44'5'6-HxCB	31.00	2.65E+06	1.31 Y	1.09	1.06	-2.9%
PCB-144 22'345'6-HxCB	31.25	2.37E+06	1.29 Y	0.98	0.95	-3.8%
PCB-147/149 22'34'56-/22'34'	31.55	4.78E+06	1.28 Y	0.99	0.95	-3.3%
PCB-134 22'33'56-HxCB	31.71	1.90E+06	1.24 Y	0.80	0.76	-5.6%
PCB-143 22'3456'-HxCB	31.79	2.25E+06	1.26 Y	0.95	0.90	-6.0%
PCB-139/140 22'344'6-/22'344'	32.06	4.86E+06	1.25 Y	1.00	0.97	-3.1%
PCB-131 22'33'46-HxCB	32.22	2.08E+06	1.32 Y	0.85	0.83	-2.6%
PCB-142 22'3456-HxCB	32.36	2.11E+06	1.30 Y	0.87	0.84	-3.7%
PCB-132 22'33'46'-HxCB	32.60	2.15E+06	1.26 Y	0.89	0.86	-3.8%
PCB-133 22'33'55'-HxCB	33.03	2.21E+06	1.25 Y	0.91	0.88	-3.6%
PCB-165 233'55'6-HxCB	33.37	2.72E+06	1.27 Y	1.13	1.08	-4.3%
PCB-146 22'34'55'-HxCB	33.58	2.38E+06	1.23 Y	1.01	0.95	-5.8%
PCB-161 233'45'6-HxCB	33.69	3.02E+06	1.26 Y	1.25	1.20	-3.9%
PCB-153/168 22'44'55'-/23'44'	34.12	5.75E+06	1.25 Y	1.22	1.15	-6.0%
PCB-141 22'3455'-HxCB	34.25	2.23E+06	1.26 Y	0.93	0.89	-4.1%
PCB-130 22'33'45'-HxCB	34.59	2.04E+06	1.30 Y	0.85	0.81	-4.0%
PCB-137 22'344'5-HxCB	34.78	2.64E+06	1.31 Y	1.04	1.05	1.0%
PCB-164 233'4'5'6-HxCB	34.87	2.80E+06	1.27 Y	1.22	1.12	-8.9%
PCB-163/138/129 233'4'56-/22'	35.15	7.49E+06	1.28 Y	1.02	1.00	-2.8%
PCB-160 233'456-HxCB	35.28	2.83E+06	1.29 Y	1.21	1.13	-6.6%
PCB-158 233'44'6-HxCB	35.46	3.25E+06	1.26 Y	1.34	1.30	-3.0%
PCB-128/166 22'33'44'-/2344'5	36.18	5.65E+06	1.27 Y	0.90	0.87	-2.9%
PCB-159 233'455'-HxCB	37.02	3.30E+06	1.23 Y	1.06	1.02	-4.1%
PCB-162 233'4'55'-HxCB	37.26	3.40E+06	1.24 Y	1.08	1.05	-2.4%
PCB-188 22'34'566'-HpCB	32.97	2.62E+06	1.10 Y	1.03	1.02	-0.9%
PCB-179 22'33'566'-HpCB	33.23	2.41E+06	1.06 Y	0.97	0.94	-2.5%
PCB-184 22'344'66'-HpCB	33.70	2.30E+06	1.03 Y	0.93	0.90	-3.4%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS2_120725_PCB_XB
Acquired: 26-JUL-2012 04:44
Datafile: 120725X17
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.98	2.66E+06	1.09 Y	1.05	1.04	-0.7%
PCB-186 22'34566'-HpCB	34.36	2.47E+06	1.07 Y	0.98	0.97	-1.6%
PCB-178 22'33'55'6-HpCB	35.52	1.83E+06	1.09 Y	0.74	0.72	-2.4%
PCB-175 22'33'45'6-HpCB	36.05	2.25E+06	1.09 Y	1.01	0.99	-1.7%
PCB-187 22'34'55'6-HpCB	36.28	2.40E+06	1.02 Y	1.06	1.06	-0.4%
PCB-182 22'344'56'-HpCB	36.45	2.42E+06	1.07 Y	1.11	1.07	-3.8%
PCB-183 22'344'5'6-HpCB	36.80	2.61E+06	1.06 Y	1.13	1.15	1.7%
PCB-185 22'3455'6-HpCB	36.87	2.18E+06	1.09 Y	1.02	0.96	-5.5%
PCB-174 22'33'456'-HpCB	36.98	2.06E+06	1.07 Y	0.93	0.91	-2.2%
PCB-177 22'33'4'56-HpCB	37.35	2.01E+06	1.02 Y	0.91	0.89	-2.0%
PCB-181 22'344'56-HpCB	37.69	2.30E+06	1.06 Y	1.06	1.02	-4.4%
PCB-171/173 22'33'44'6-/22'3	37.87	4.10E+06	1.04 Y	0.93	0.90	-2.6%
PCB-172 22'33'455'-HpCB	39.23	2.09E+06	1.09 Y	0.95	0.92	-3.5%
PCB-192 233'455'6-HpCB	39.48	2.74E+06	1.07 Y	1.24	1.21	-2.7%
PCB-180/193 22'344'55'-/233'	39.75	5.17E+06	1.04 Y	1.16	1.14	-1.6%
PCB-191 233'44'5'6-HpCB	40.08	2.85E+06	1.05 Y	1.30	1.25	-3.7%
PCB-170 22'33'44'5-HpCB	40.83	2.06E+06	1.09 Y	1.07	1.04	-2.8%
PCB-190 233'44'56-HpCB	41.27	2.77E+06	1.06 Y	1.45	1.41	-3.1%
PCB-202 22'33'55'66'-OcCB	37.46	2.20E+06	0.92 Y	0.91	0.89	-2.7%
PCB-201 22'33'45'66'-OcCB	38.24	2.49E+06	0.92 Y	1.02	1.00	-1.7%
PCB-204 22'344'566'-OcCB	38.81	2.36E+06	0.89 Y	0.98	0.95	-2.4%
PCB-197 22'33'44'66'-OcCB	38.99	2.55E+06	0.94 Y	1.06	1.03	-3.2%
PCB-200 22'33'4566'-OcCB	39.07	2.36E+06	0.93 Y	0.96	0.95	-1.0%
PCB-198/199 22'33'455'6-/22'	41.40	3.43E+06	0.91 Y	0.72	0.69	-3.3%
PCB-196 22'33'44'56'-OcCB	41.97	1.79E+06	0.87 Y	0.73	0.72	-1.1%
PCB-203 22'344'55'6-OcCB	42.14	1.82E+06	0.92 Y	0.76	0.74	-3.6%
PCB-195 22'33'44'56-OcCB	43.24	1.80E+06	0.88 Y	0.80	0.76	-4.7%
PCB-194 22'33'44'55'-OcCB	45.19	1.99E+06	0.92 Y	0.87	0.84	-3.7%
PCB-205 233'44'55'6-OcCB	45.59	2.46E+06	0.91 Y	1.09	1.04	-4.2%
PCB-208 22'33'455'66'-NoCB	43.05	2.30E+06	0.75 Y	1.02	0.98	-3.8%
PCB-207 22'33'44'566'-NoCB	43.83	2.40E+06	0.77 Y	1.06	1.02	-3.4%
PCB-206 22'33'44'55'6-NoCB	47.04	1.63E+06	0.75 Y	0.98	0.95	-2.8%

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
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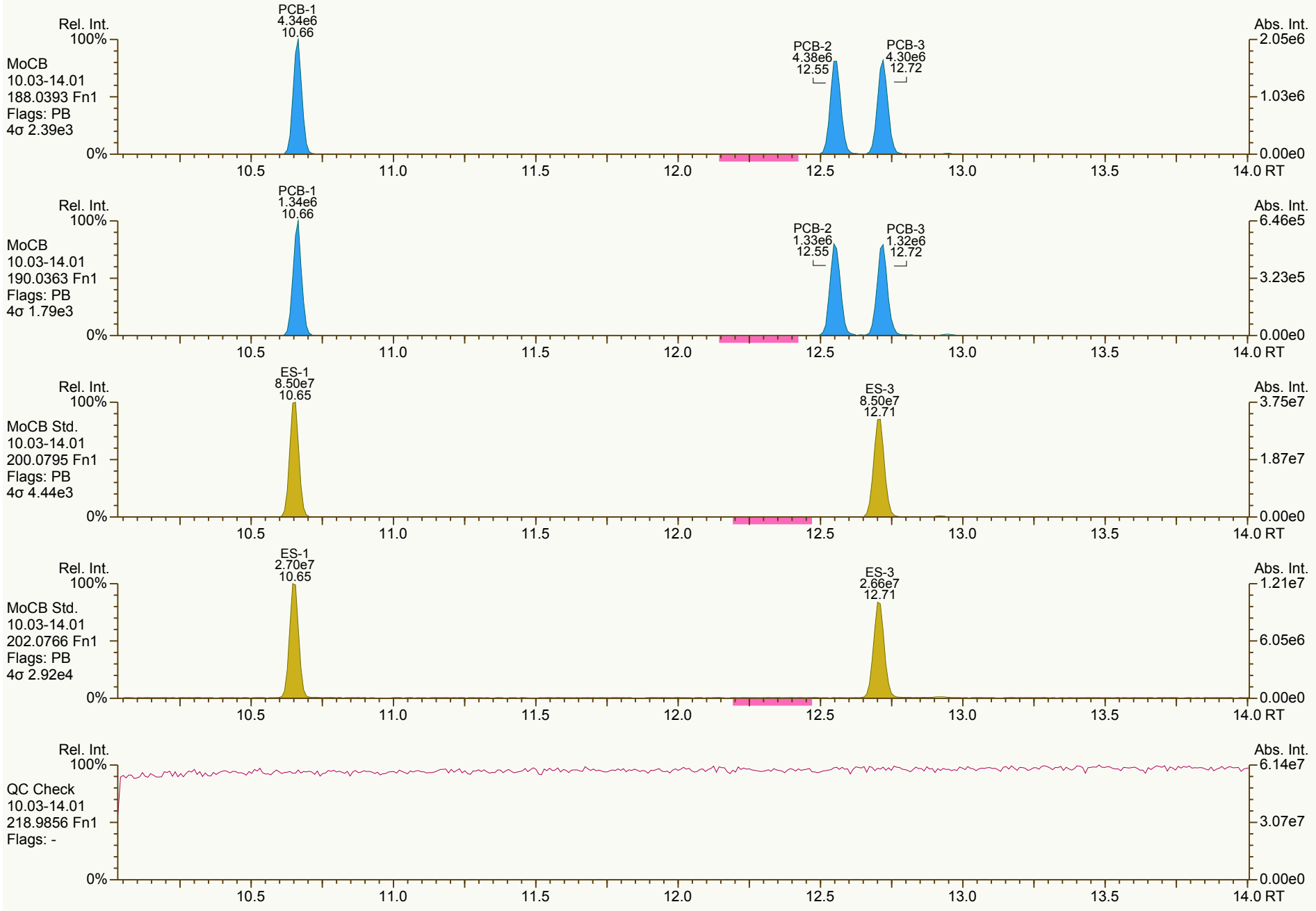

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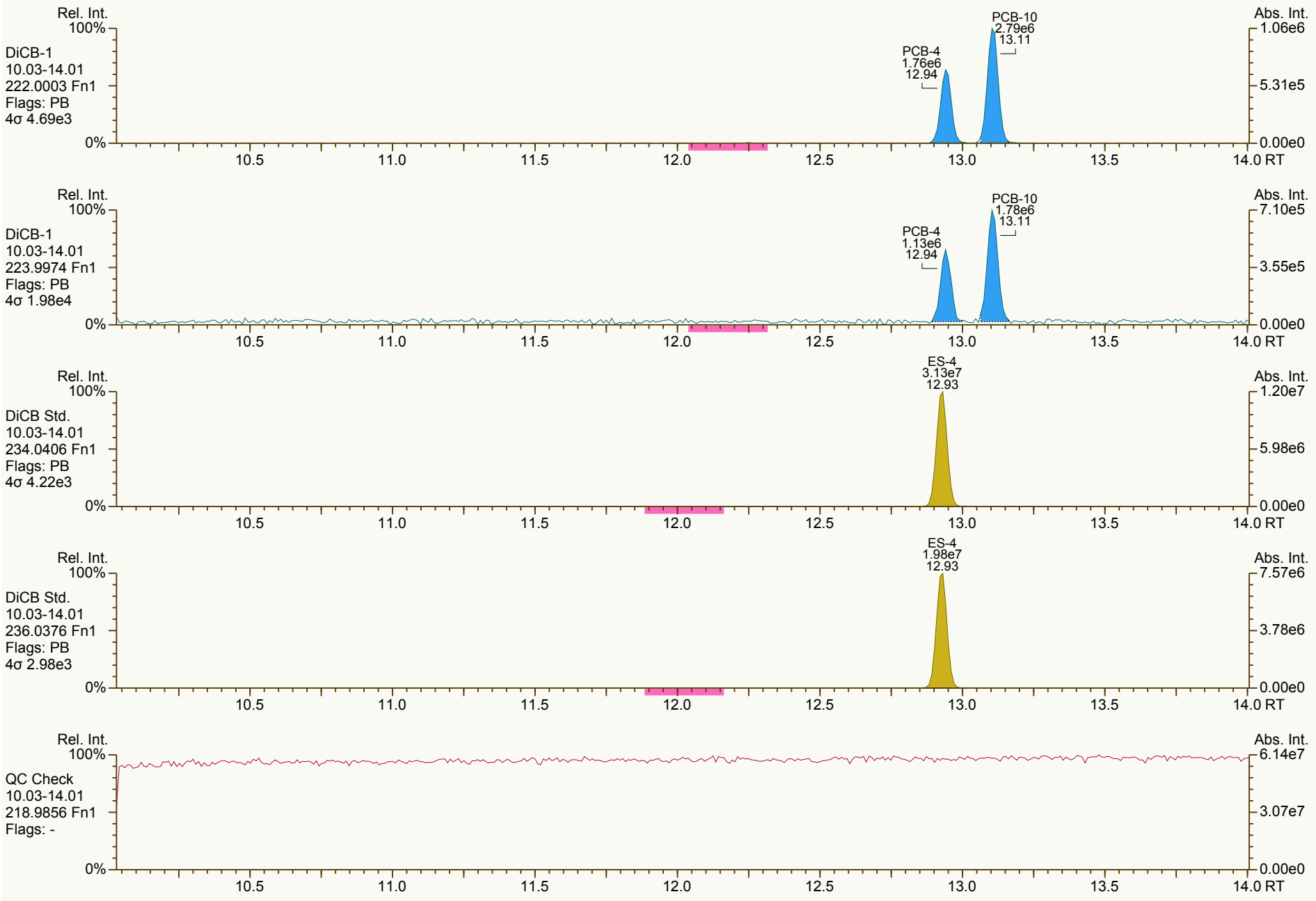

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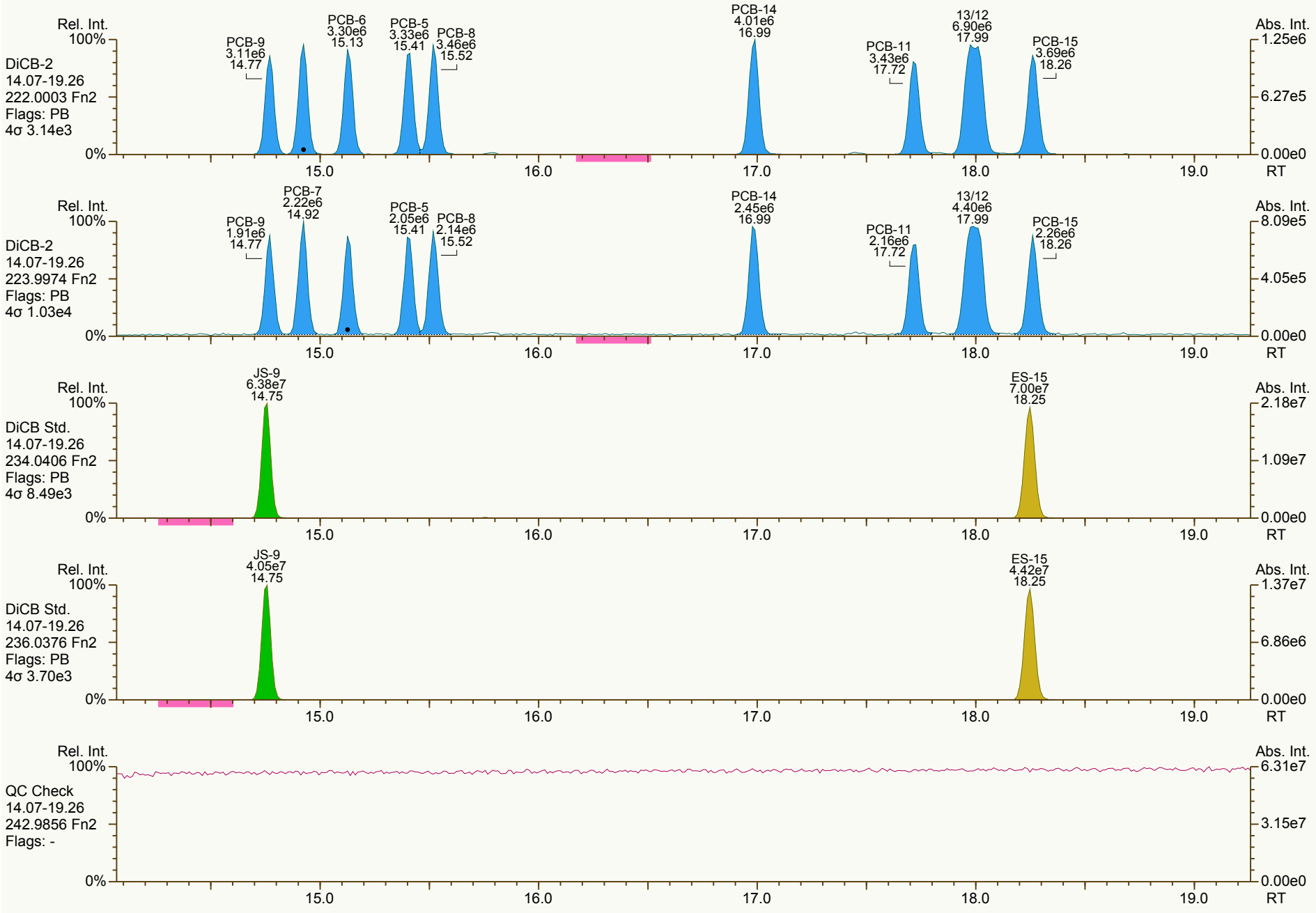

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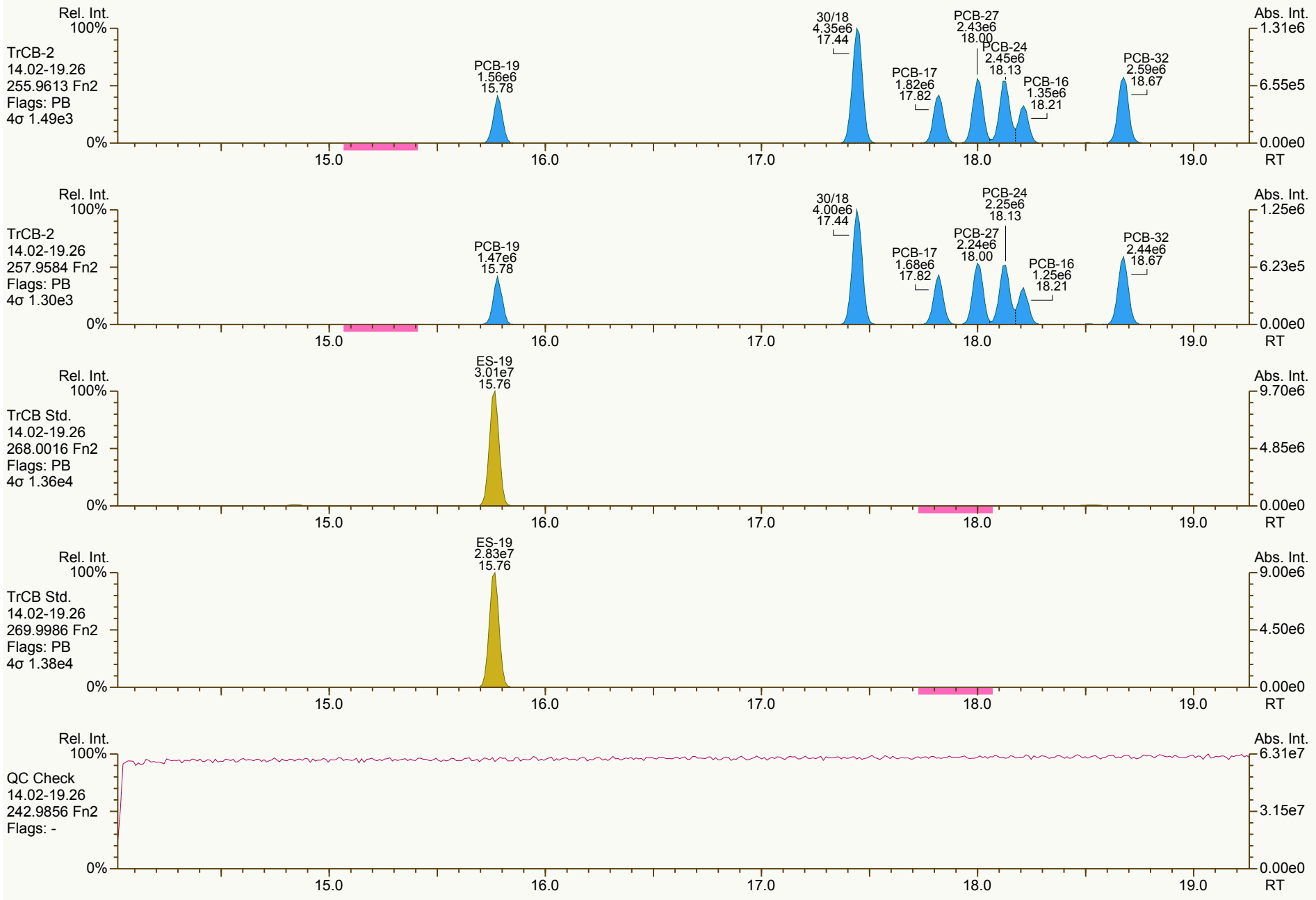

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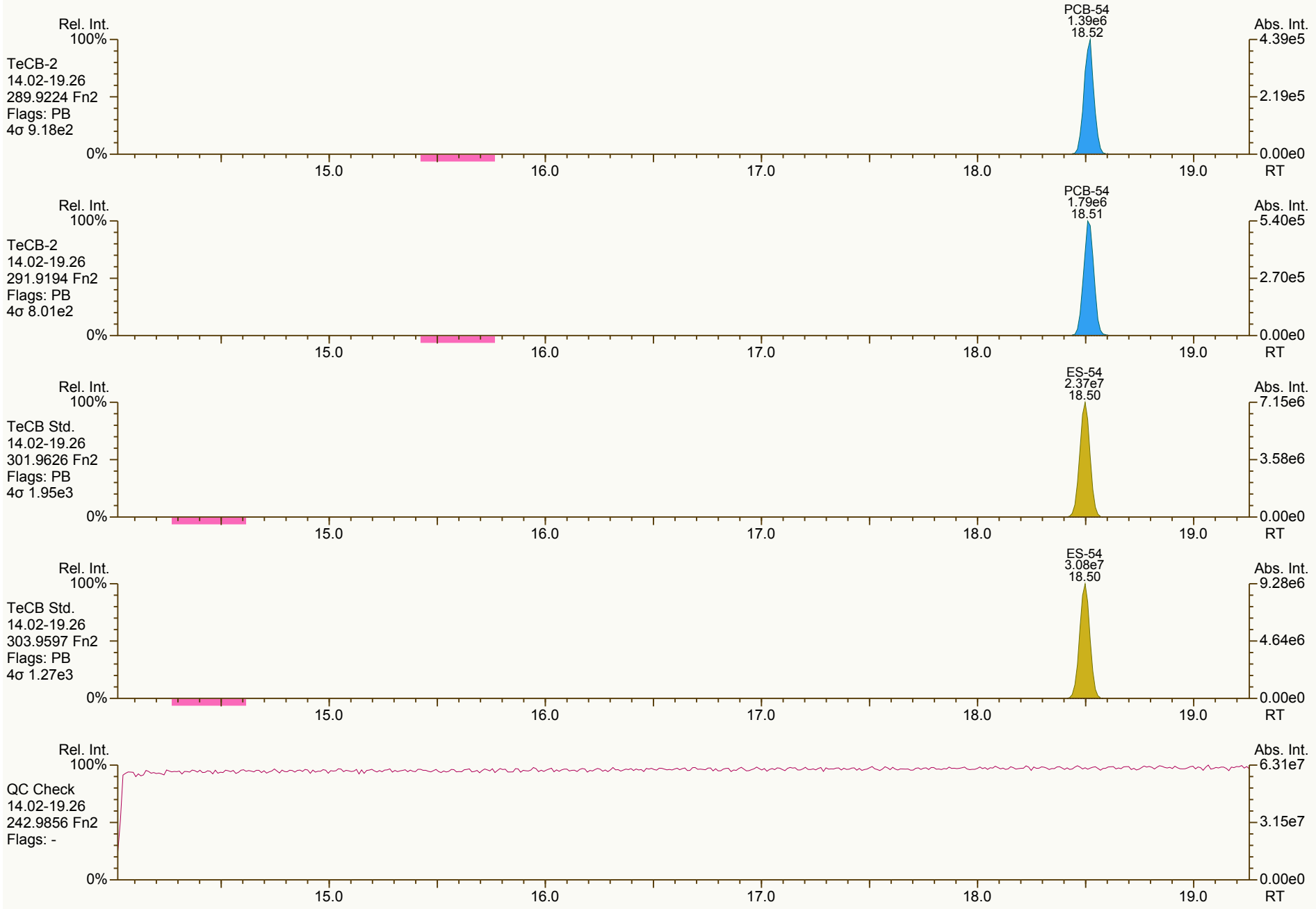

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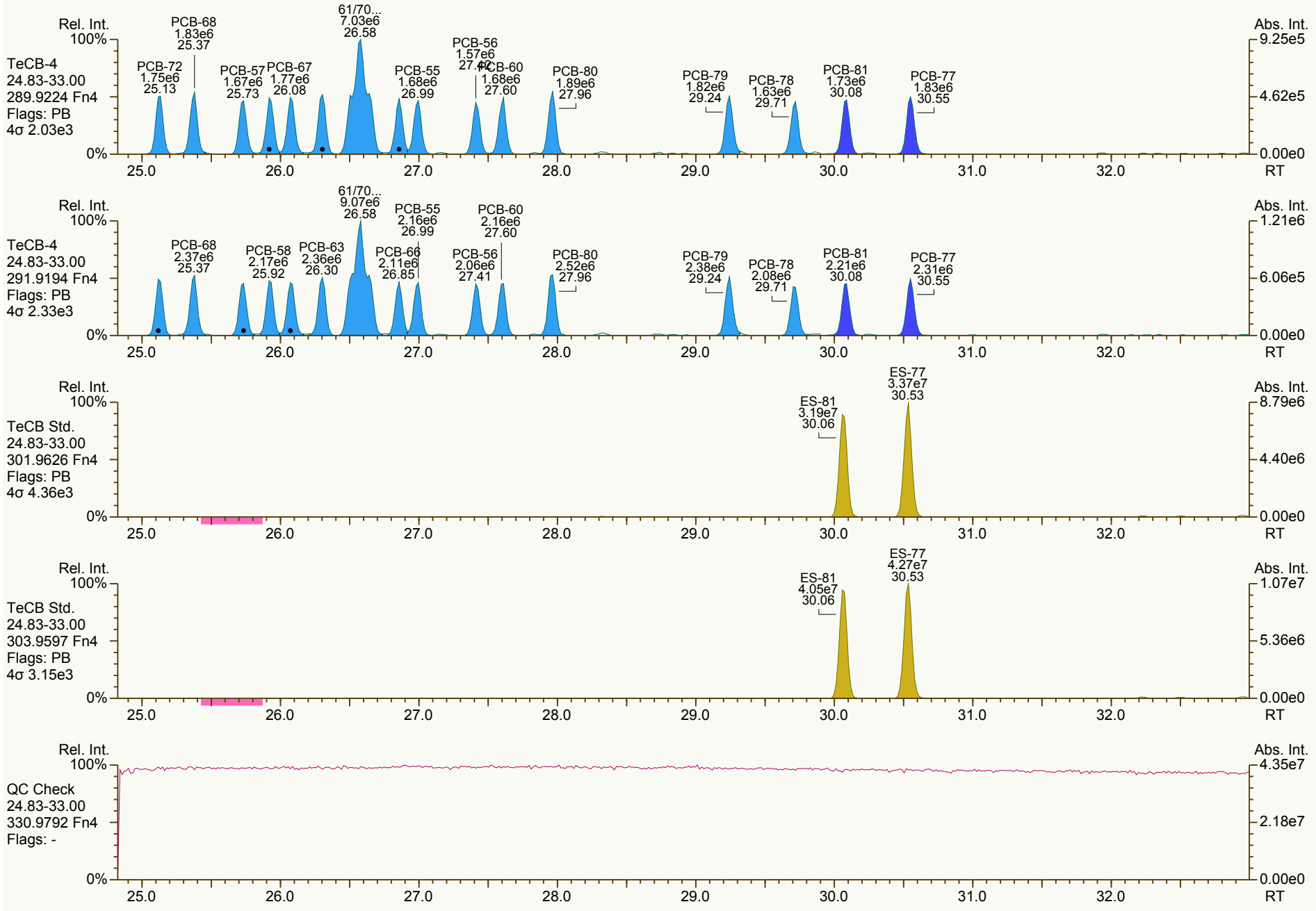

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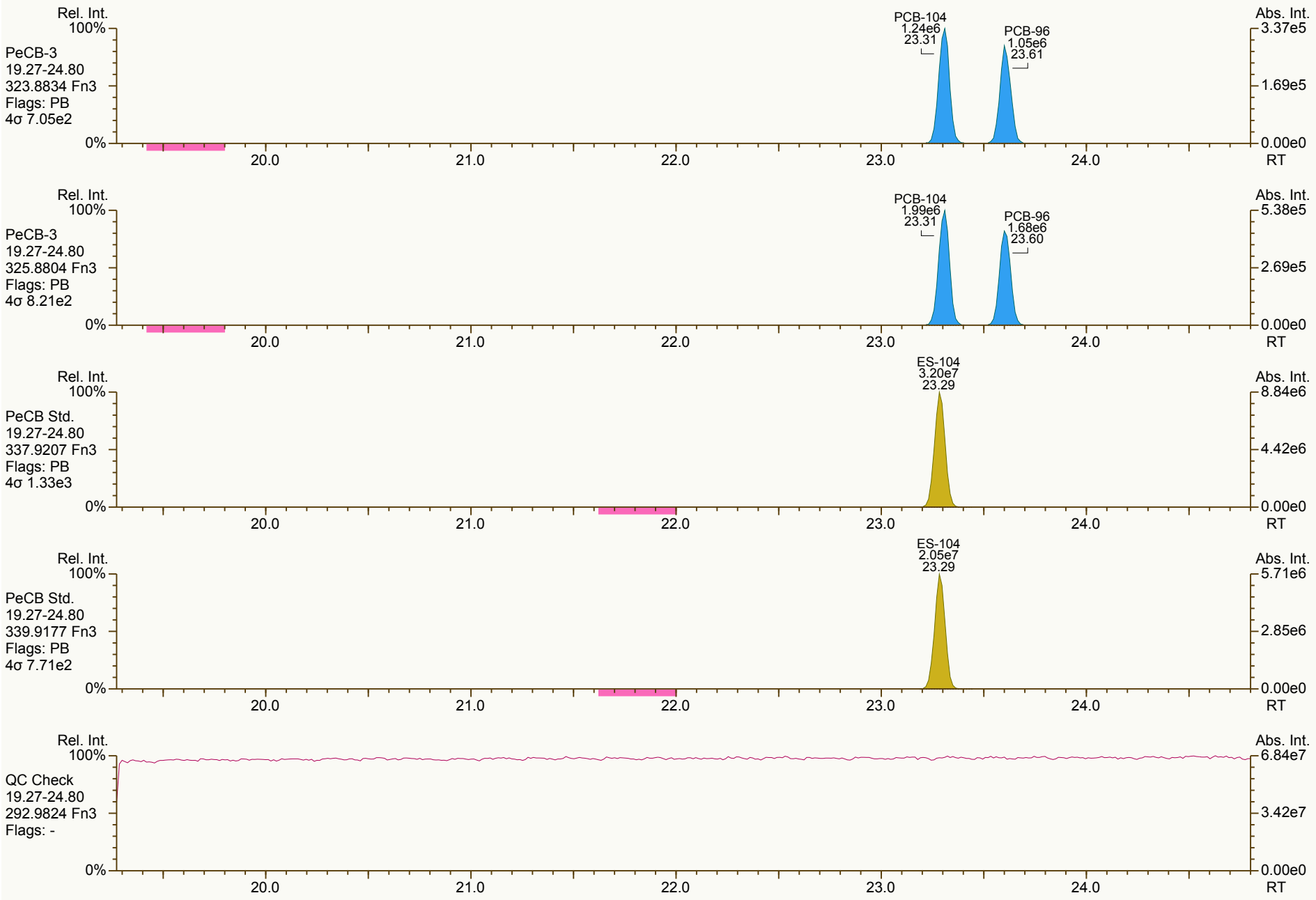

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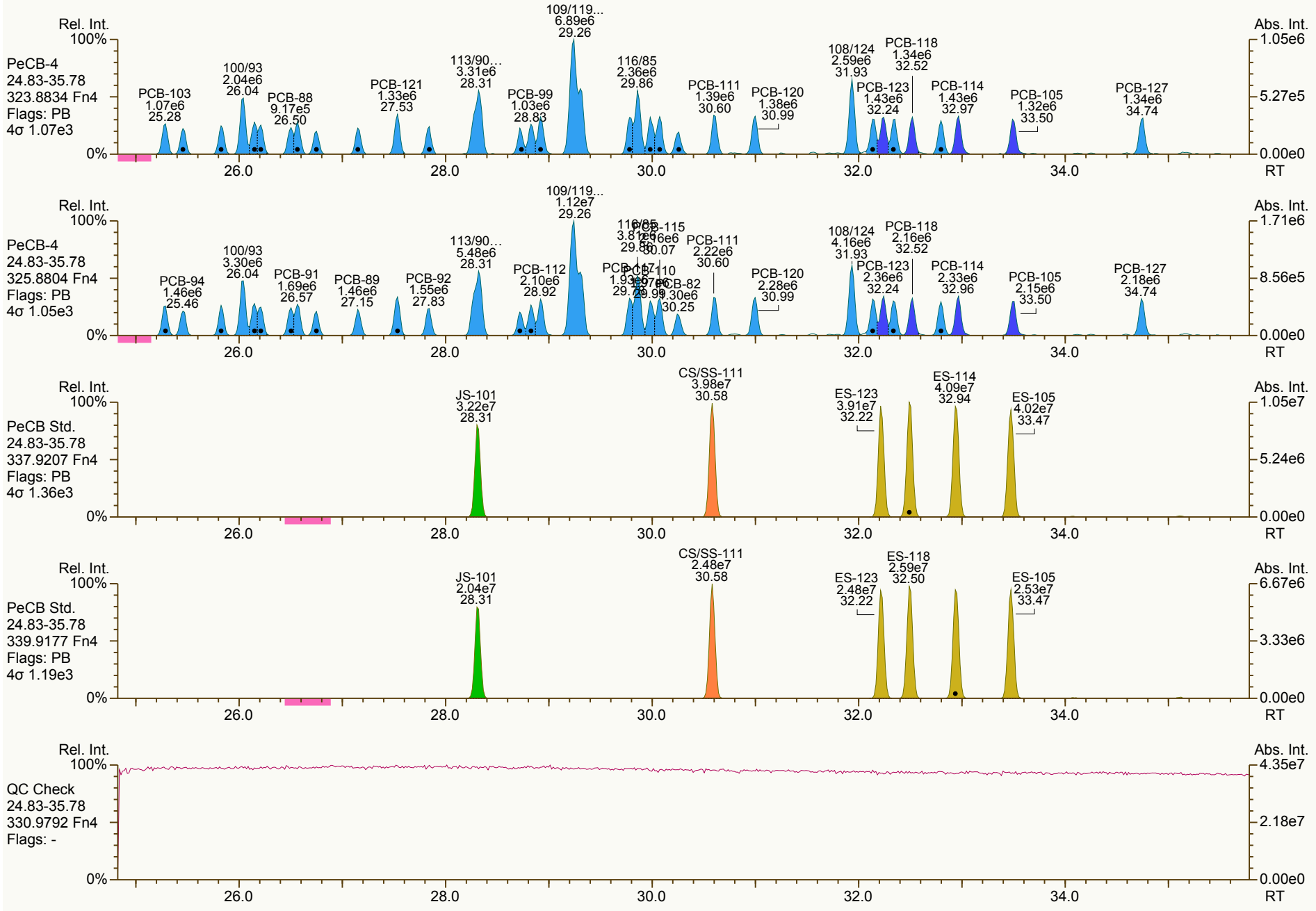

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Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

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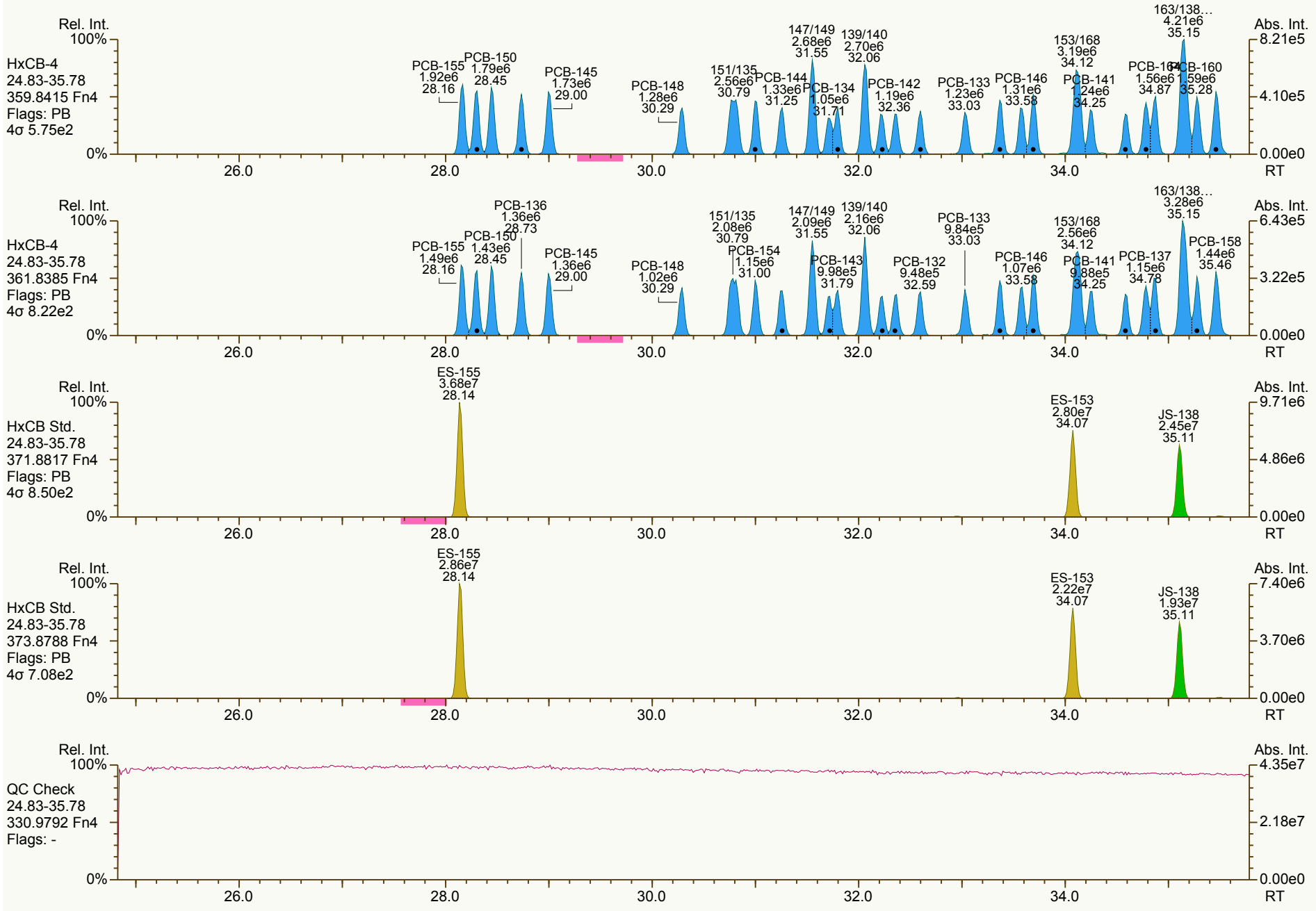

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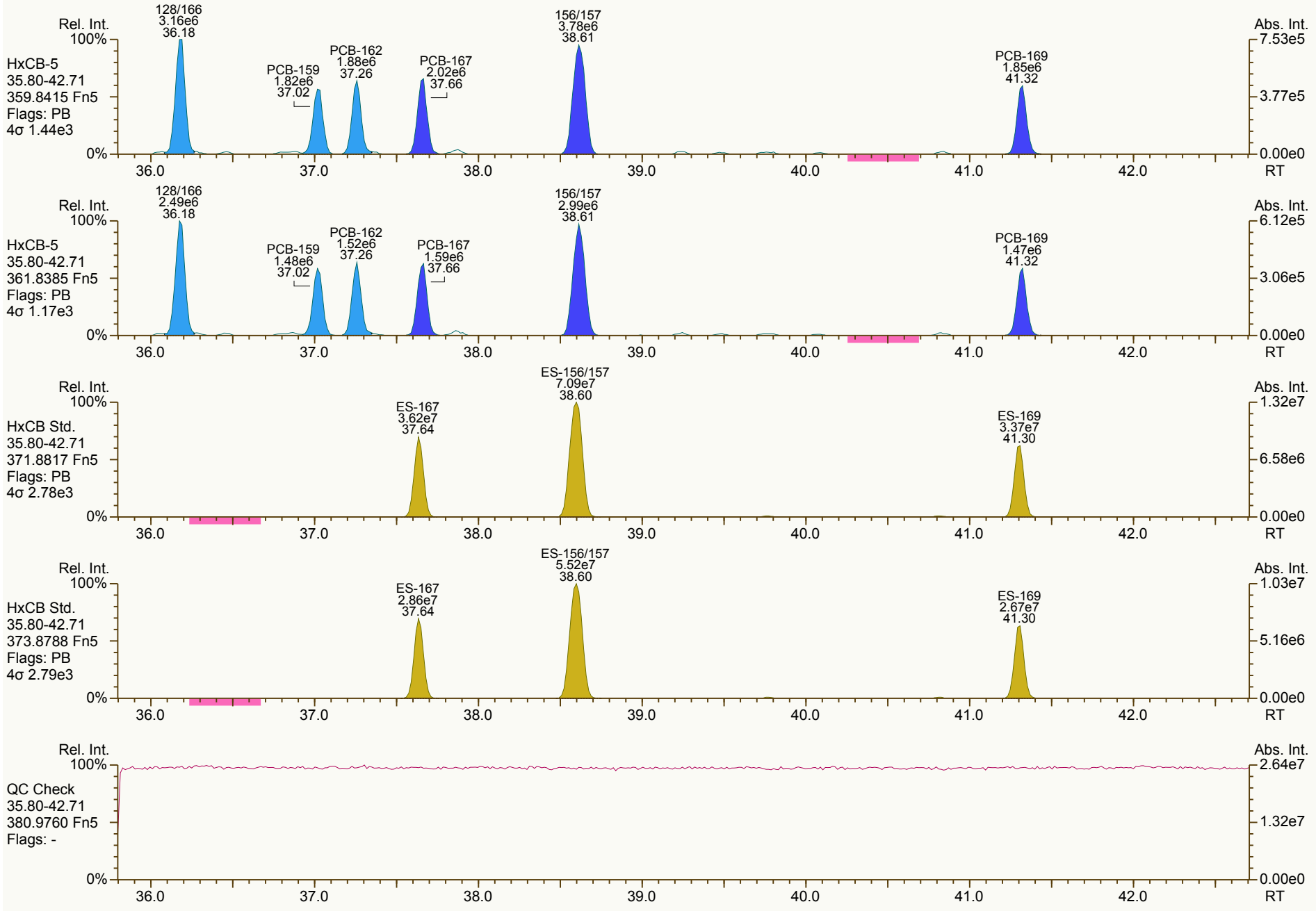

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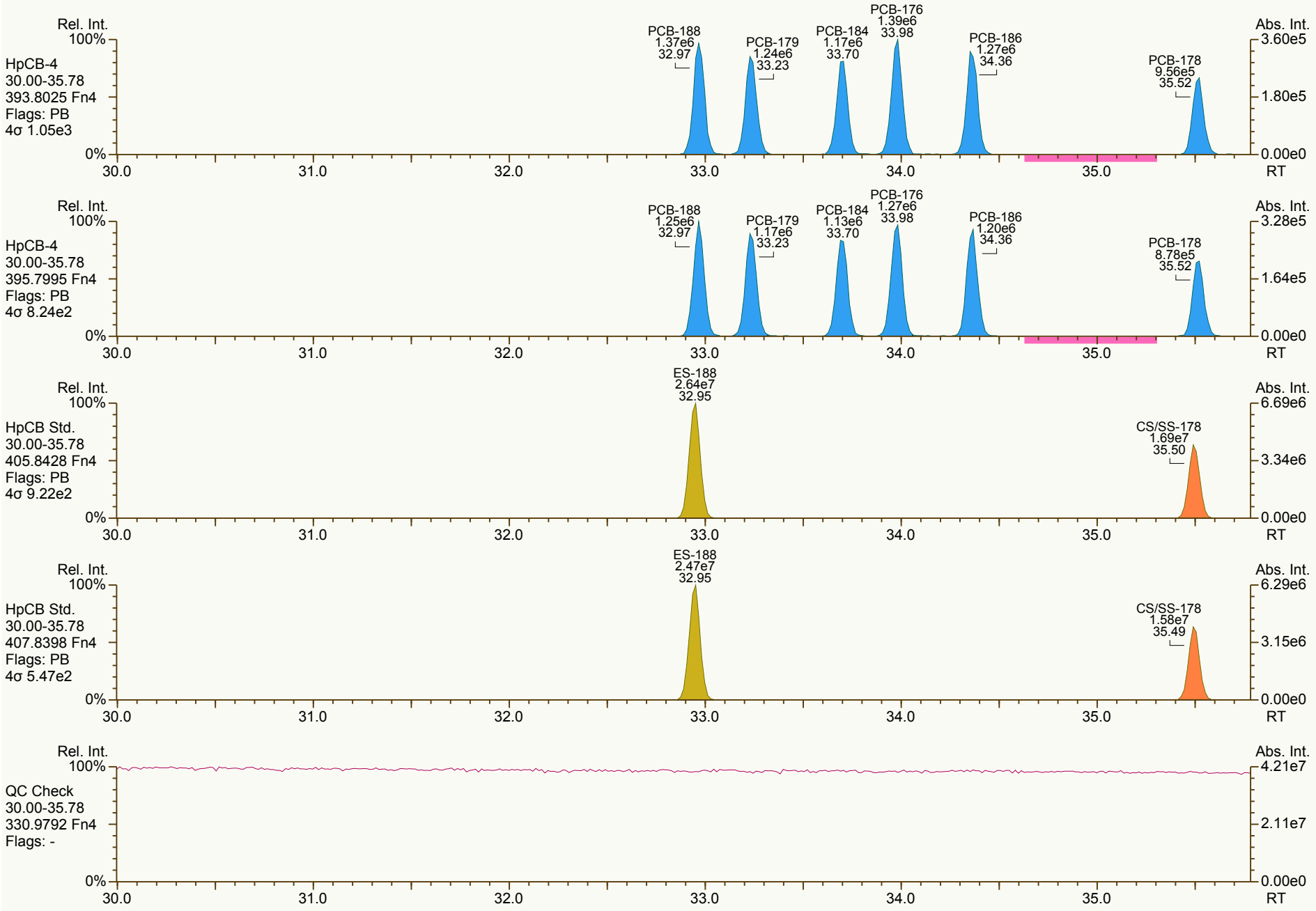
AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



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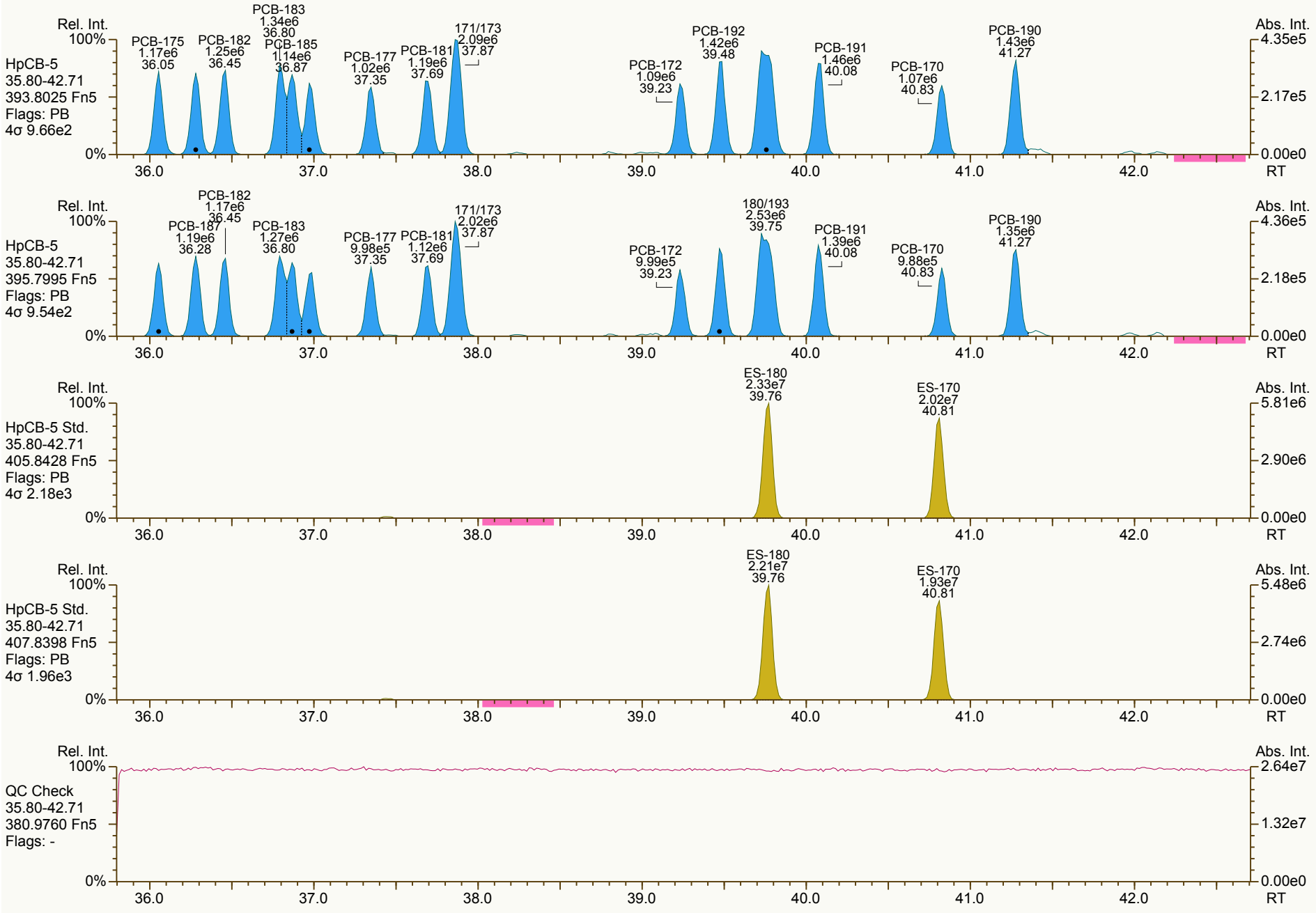
AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 8047, 0012 scc: 175-178 *PKD: 27-Jul-2012 15:48 Printed: 28-Jul-2012 11:14 Page 16 of 21*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

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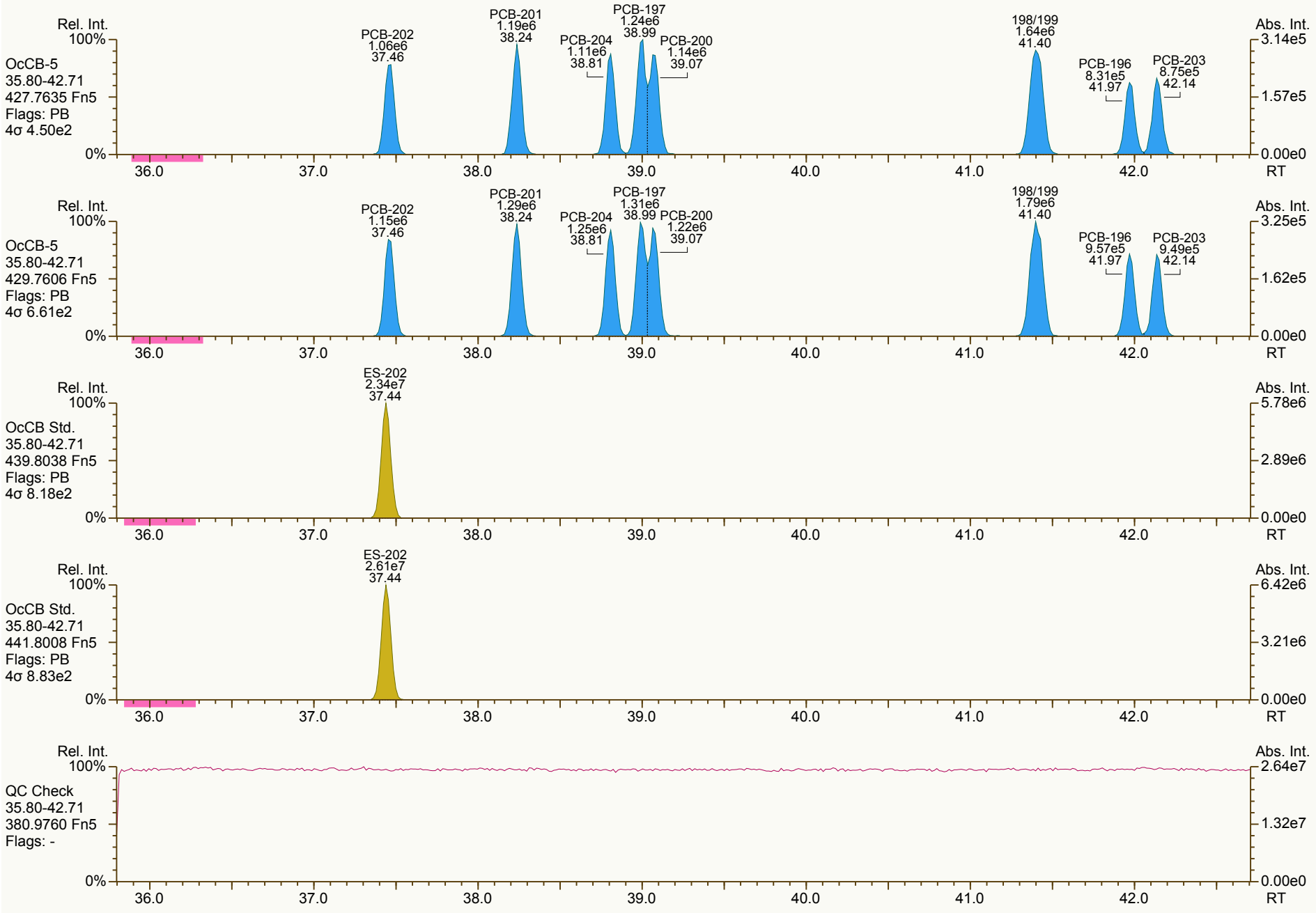
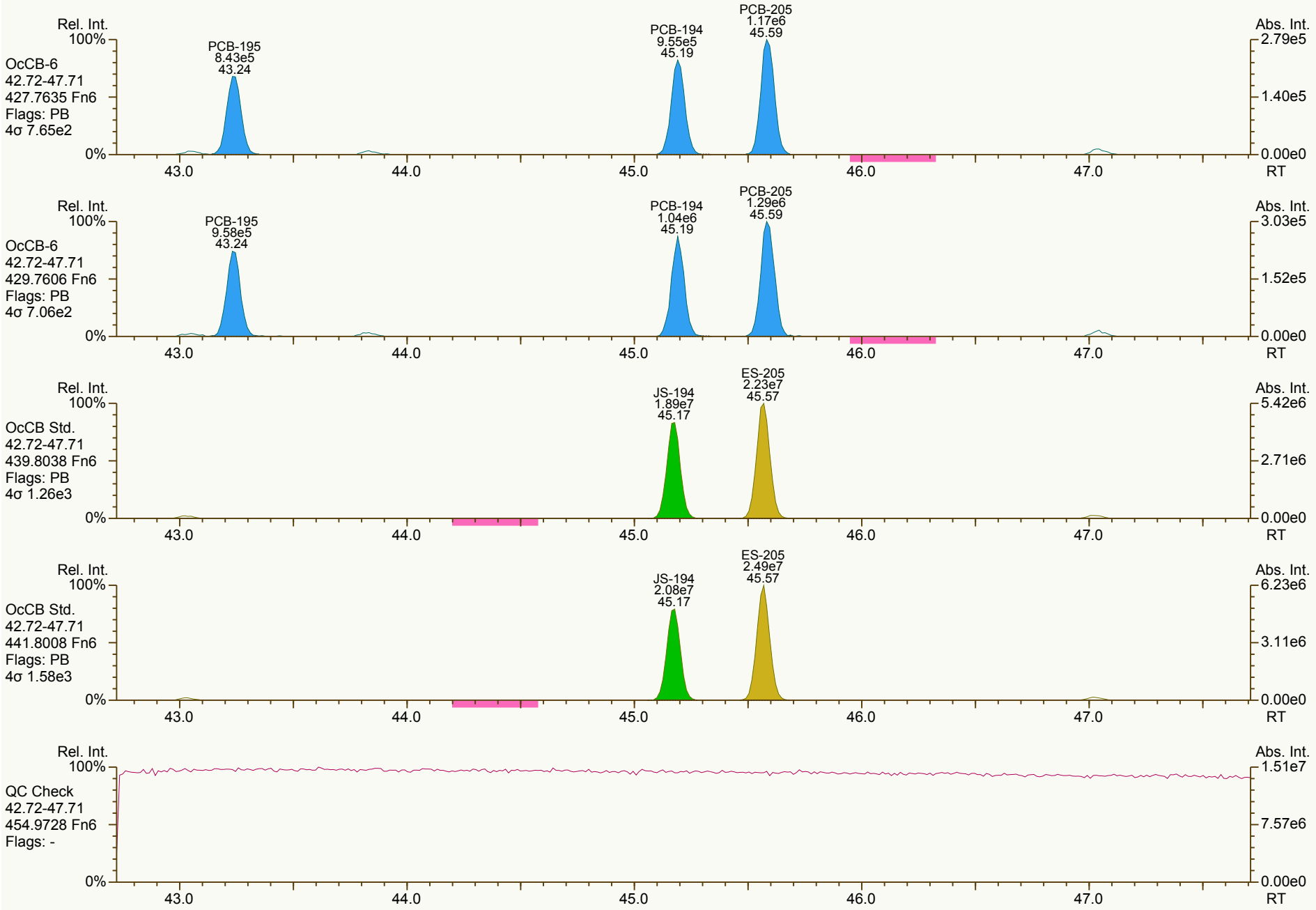
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



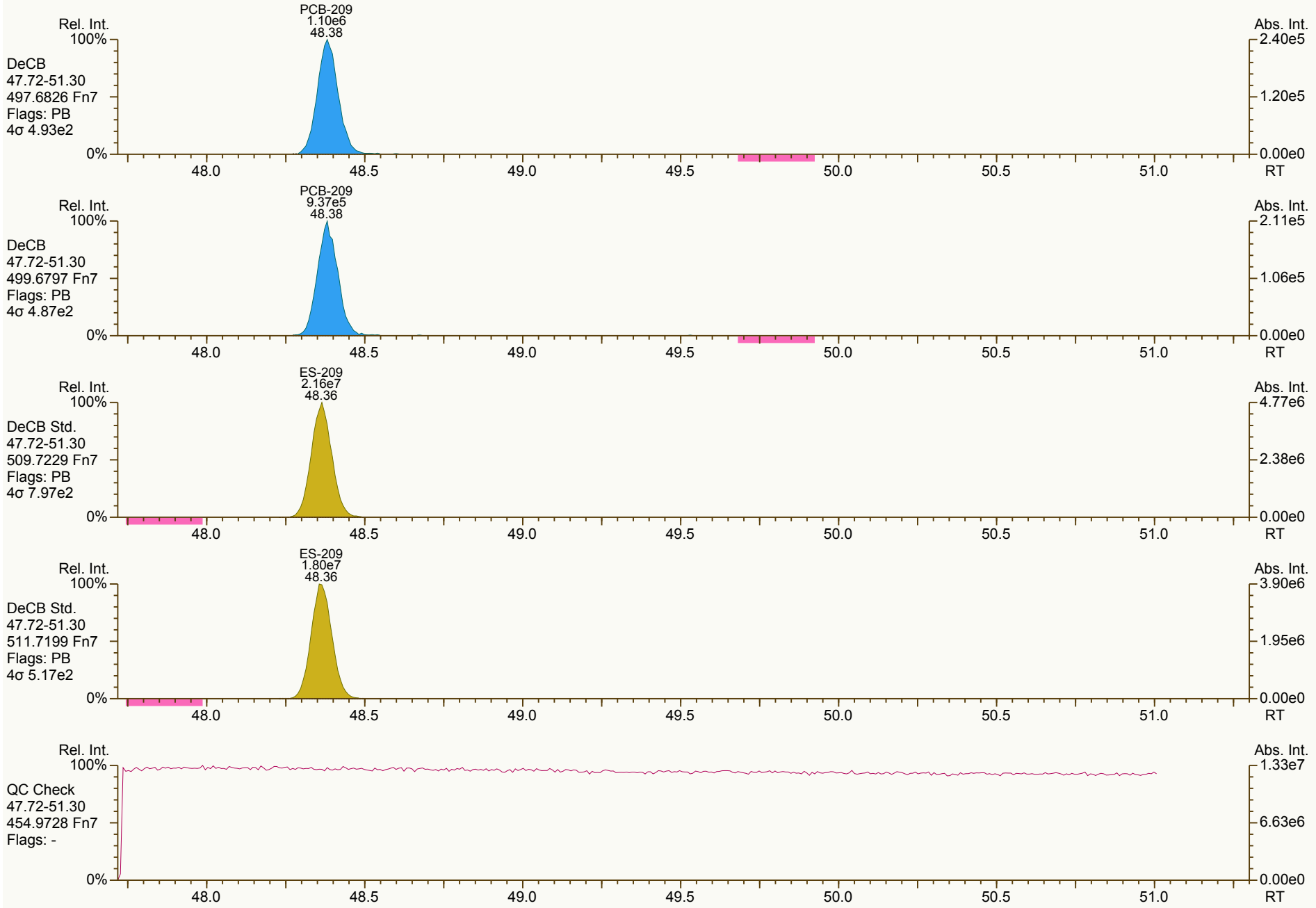
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS2_120725_PCB_XB **Sample ID: SIL 12-65-4** **Acq: 26-Jul-2012 04:44:38**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 52** **User: LKB Datafile: 120725X17**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS2_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:30 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 6469, 9712 scc: 175-178 *PKD: 27-Jul-2012 09:51 Printed: 28-Jul-2012 11:15 Page 21 of 21*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:13
Lab ID:	**CS3_120725_PCB_XB**		**ICAL: MM7_PCB_07132012_25JUL12**		
Acquired:	**26-JUL-2012 05:38**				
Datafile:	**120725X18**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.54	4.63E+07	0.78 Y	1.13	1.16	2.5%
PCB-81 344'5-TeCB	30.07	4.46E+07	0.77 Y	1.13	1.17	3.8%
PCB-105 233'44'-PeCB	33.48	3.82E+07	0.62 Y	1.09	1.14	4.0%
PCB-114 2344'5-PeCB	32.95	4.13E+07	0.62 Y	1.16	1.22	4.9%
PCB-118 23'44'5-PeCB	32.50	3.95E+07	0.62 Y	1.11	1.13	1.9%
PCB-123 2'344'5-PeCB	32.23	3.83E+07	0.62 Y	1.19	1.16	-2.8%
PCB-126 33'44'5-PeCB	36.07	3.52E+07	0.62 Y	1.06	1.08	1.4%
PCB-156/157 233'44'5/233'44'5'	38.60	7.30E+07	1.25 Y	1.11	1.13	2.5%
PCB-167 23'44'55'-HxCB	37.64	3.89E+07	1.25 Y	1.14	1.18	4.2%
PCB-169 33'44'55'-HxCB	41.31	3.54E+07	1.25 Y	1.11	1.15	3.2%
PCB-189 233'44'55'-HpCB	43.42	3.22E+07	1.05 Y	1.06	1.08	2.5%
PCB-209 DeCB	48.37	2.17E+07	1.19 Y	1.07	1.09	1.3%
ES PCB-1	10.64	1.20E+08	3.16 Y	1.08	1.08	0.1%
ES PCB-3	12.69	1.20E+08	3.25 Y	1.08	1.08	0.1%
ES PCB-4	12.91	5.40E+07	1.61 Y	0.49	0.49	0.2%
ES PCB-15	18.23	1.22E+08	1.59 Y	1.11	1.11	-0.4%
ES PCB-19	15.75	6.15E+07	1.05 Y	0.55	0.56	0.5%
ES PCB-37	24.31	9.76E+07	1.07 Y	1.64	1.63	-0.4%
ES PCB-54	18.48	5.65E+07	0.77 Y	0.94	0.94	0.3%
ES PCB-77	30.52	7.97E+07	0.80 Y	1.35	1.33	-1.2%
ES PCB-81	30.05	7.63E+07	0.79 Y	1.29	1.27	-1.1%
ES PCB-104	23.27	5.46E+07	1.56 Y	0.99	0.99	-0.5%
ES PCB-105	33.46	6.72E+07	1.62 Y	1.23	1.22	-1.4%
ES PCB-114	32.93	6.79E+07	1.60 Y	1.25	1.23	-1.4%
ES PCB-118	32.48	7.00E+07	1.61 Y	1.28	1.27	-1.1%
ES PCB-123	32.20	6.64E+07	1.62 Y	1.22	1.20	-1.4%
ES PCB-126	36.06	6.54E+07	1.58 Y	1.20	1.19	-1.2%
ES PCB-153	34.06	5.09E+07	1.27 Y	1.14	1.14	0.3%
ES PCB-155	28.12	6.79E+07	1.28 Y	1.50	1.53	2.1%
ES PCB-156/157	38.58	1.29E+08	1.26 Y	1.45	1.45	-0.6%
ES PCB-167	37.62	6.58E+07	1.27 Y	1.49	1.48	-1.0%
ES PCB-169	41.29	6.18E+07	1.26 Y	1.40	1.39	-1.0%
ES PCB-170	40.79	4.01E+07	1.06 Y	1.00	1.01	0.8%
ES PCB-180	39.75	4.70E+07	1.06 Y	1.16	1.18	2.0%
ES PCB-188	32.93	5.30E+07	1.07 Y	1.18	1.19	1.1%
ES PCB-189	43.40	5.95E+07	1.06 Y	1.49	1.50	0.7%
ES PCB-202	37.43	5.04E+07	0.91 Y	1.14	1.13	-0.4%
ES PCB-205	45.55	4.77E+07	0.90 Y	1.20	1.20	-0.2%
ES PCB-206	47.01	3.46E+07	0.78 Y	0.87	0.87	0.2%
ES PCB-208	43.01	4.78E+07	0.80 Y	1.19	1.20	1.1%
ES PCB-209	48.35	4.00E+07	1.19 Y	1.00	1.01	0.4%

PCB QC Summary	SGS Analytical Perspectives	Printed: 28-Jul-2012 10:13

Lab ID: CS3_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 05:38
Datafile: 120725X18

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.88	1.05E+08	1.06 Y	1.07	1.08	0.5%
SS PCB-111	30.57	6.66E+07	1.59 Y	1.01	1.00	-0.1%
SS PCB-178	35.48	3.28E+07	1.04 Y	0.63	0.62	-1.3%
CS PCB-28	20.88	1.05E+08	1.06 Y	1.76	1.76	0.2%
CS PCB-111	30.57	6.66E+07	1.59 Y	1.23	1.21	-1.5%
CS PCB-178	35.48	3.28E+07	1.04 Y	0.74	0.74	-0.2%
JS PCB-9	14.74	1.10E+08	1.58 Y	-	-	-
JS PCB-52	22.45	5.99E+07	0.82 Y	-	-	-
JS PCB-101	28.30	5.52E+07	1.58 Y	-	-	-
JS PCB-138	35.09	4.45E+07	1.27 Y	-	-	-
JS PCB-194	45.16	3.97E+07	0.90 Y	-	-	-
PCB-1 2-MoCB	10.65	6.48E+07	3.19 Y	1.03	1.08	5.0%
PCB-3 4-MoCB	12.70	6.51E+07	3.18 Y	1.04	1.09	4.3%
PCB-4 22'-DiCB	12.93	3.30E+07	1.62 Y	1.17	1.22	4.3%
PCB-15 44'-DiCB	18.25	6.74E+07	1.58 Y	1.08	1.10	2.1%
PCB-19 22'6-TrCB	15.76	3.50E+07	1.07 Y	1.09	1.14	4.3%
PCB-37 344'-TrCB	24.33	5.55E+07	1.04 Y	1.10	1.14	2.9%
PCB-54 22'66'-TeCB	18.50	3.58E+07	0.79 Y	1.21	1.27	4.8%
PCB-104 22'466'-PeCB	23.29	3.59E+07	0.63 Y	1.25	1.32	5.0%
PCB-153 22'44'55' -HxCB	34.10	6.50E+07	1.27 Y	1.22	1.28	4.7%
PCB-155 22'44'66'-HxCB	28.14	3.83E+07	1.27 Y	1.09	1.13	3.3%
PCB-170 22'33'44'5-HpCB	40.81	2.24E+07	1.03 Y	1.07	1.12	4.0%
PCB-180 22'344'55'-HpCB	39.74	5.59E+07	1.05 Y	1.16	1.19	2.8%
PCB-188 22'34'566'-HpCB	32.95	2.85E+07	1.06 Y	1.03	1.08	4.1%
PCB-202 22'33'55'66'-OcCB	37.45	2.39E+07	0.90 Y	0.91	0.95	3.9%
PCB-205 233'44'55'6-OcCB	45.57	2.66E+07	0.89 Y	1.09	1.11	2.4%
PCB-208 22'33'455'66'-NoCB	43.03	2.52E+07	0.78 Y	1.02	1.06	3.8%
PCB-206 22'33'44'55'6-NoCB	47.03	1.75E+07	0.77 Y	0.98	1.01	3.6%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS3_120725_PCB_XB
Acquired: 26-JUL-2012 05:38
Datafile: 120725X18
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.65	6.48E+07	3.19 Y	1.03	1.08	5.0%
PCB-2 3-MoCB	12.54	6.51E+07	3.23 Y	1.04	1.09	4.4%
PCB-3 4-MoCB	12.70	6.51E+07	3.18 Y	1.04	1.09	4.3%
PCB-4 22'-DiCB	12.93	3.30E+07	1.62 Y	1.17	1.22	4.3%
PCB-10 26-DiCB	13.09	5.16E+07	1.60 Y	1.83	1.91	4.4%
PCB-9 25-DiCB	14.75	5.79E+07	1.60 Y	0.89	0.95	6.0%
PCB-7 24-DiCB	14.91	6.59E+07	1.60 Y	1.02	1.08	5.3%
PCB-6 23'-DiCB	15.11	6.19E+07	1.61 Y	0.95	1.01	6.9%
PCB-5 23-DiCB	15.39	6.27E+07	1.58 Y	0.97	1.03	5.6%
PCB-8 24'-DiCB	15.50	6.34E+07	1.58 Y	0.98	1.04	5.6%
PCB-14 35-DiCB	16.97	7.41E+07	1.58 Y	1.16	1.21	4.8%
PCB-11 33'-DiCB	17.70	6.40E+07	1.59 Y	1.00	1.05	5.0%
PCB-13/12 34'-/34-DiCB	17.98	1.31E+08	1.58 Y	1.02	1.07	5.1%
PCB-15 44'-DiCB	18.25	6.74E+07	1.58 Y	1.08	1.10	2.1%
PCB-19 22'6-TrCB	15.76	3.50E+07	1.07 Y	1.09	1.14	4.3%
PCB-30/18 246-/22'5-TrCB	17.43	9.40E+07	1.07 Y	1.46	1.53	4.7%
PCB-17 22'4-TrCB	17.80	4.05E+07	1.07 Y	1.25	1.32	5.3%
PCB-27 23'6-TrCB	17.99	5.38E+07	1.06 Y	1.69	1.75	3.4%
PCB-24 236-TrCB	18.11	5.16E+07	1.06 Y	1.63	1.68	2.8%
PCB-16 22'3-TrCB	18.19	3.16E+07	1.07 Y	0.95	1.03	7.9%
PCB-32 24'6-TrCB	18.66	5.72E+07	1.06 Y	1.79	1.86	4.1%
PCB-34 2'35-TrCB	19.77	5.37E+07	1.04 Y	1.05	1.10	5.1%
PCB-23 235-TrCB	19.91	5.44E+07	1.04 Y	1.06	1.11	5.4%
PCB-26/29 23'5-/245-TrCB	20.18	1.11E+08	1.04 Y	1.09	1.14	4.8%
PCB-25 23'4-TrCB	20.37	5.54E+07	1.04 Y	1.07	1.14	5.6%
PCB-31 24'5-TrCB	20.64	5.71E+07	1.05 Y	1.11	1.17	5.3%
PCB-28/20 244'-/233'-TrCB	20.90	1.09E+08	1.04 Y	1.07	1.12	4.5%
PCB-21/33 234-/2'34-TrCB	21.07	1.12E+08	1.04 Y	1.09	1.15	5.0%
PCB-22 234'-TrCB	21.44	5.20E+07	1.05 Y	1.02	1.07	5.0%
PCB-36 33'5-TrCB	22.79	5.71E+07	1.05 Y	1.13	1.17	3.7%
PCB-39 34'5-TrCB	23.10	5.96E+07	1.04 Y	1.17	1.22	4.8%
PCB-38 345-TrCB	23.60	5.33E+07	1.05 Y	1.03	1.09	5.8%
PCB-35 33'4-TrCB	23.98	5.24E+07	1.03 Y	1.04	1.07	3.3%
PCB-37 344'-TrCB	24.33	5.55E+07	1.04 Y	1.10	1.14	2.9%
PCB-54 22'66'-TeCB	18.50	3.58E+07	0.79 Y	1.21	1.27	4.8%
PCB-50/53 22'46-/22'56'TeCB	20.41	6.93E+07	0.79 Y	0.86	0.91	6.1%
PCB-45 22'36-TeCB	20.97	3.01E+07	0.79 Y	0.73	0.79	7.9%
PCB-51 22'46'-TeCB	21.04	3.52E+07	0.80 Y	0.88	0.92	5.1%
PCB-46 22'36'-TeCB	21.23	2.82E+07	0.78 Y	0.70	0.74	6.5%
PCB-52 22'55'-TeCB	22.47	3.39E+07	0.78 Y	0.84	0.89	5.6%
PCB-73 23'5'6TeCB	22.59	4.36E+07	0.79 Y	1.09	1.14	4.8%
PCB-43 22'35-TeCB	22.68	2.98E+07	0.79 Y	0.72	0.78	8.0%
PCB-69/49 23'46-/22'45'TeCB	22.87	8.21E+07	0.79 Y	1.01	1.08	6.2%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS3_120725_PCB_XB
Acquired: 26-JUL-2012 05:38
Datafile: 120725X18
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.14	3.42E+07	0.79 Y	0.85	0.90	5.4%
PCB-44/47/65 22'35'-/22'44'-	23.35	1.08E+08	0.79 Y	0.89	0.95	6.4%
PCB-59/62/75 233'6-/2346-/24	23.62	1.40E+08	0.80 Y	1.14	1.22	7.3%
PCB-42 22'34'-TeCB	23.77	3.12E+07	0.79 Y	0.77	0.82	5.9%
PCB-41 22'34-TeCB	24.09	2.84E+07	0.79 Y	0.73	0.75	2.6%
PCB-71/40 23'4'6/22'33'-TeCB	24.19	7.05E+07	0.79 Y	0.87	0.92	6.7%
PCB-64 234'6-TeCB	24.39	4.94E+07	0.79 Y	1.24	1.29	4.7%
PCB-72 23'55'-TeCB	25.11	4.61E+07	0.78 Y	1.14	1.21	5.7%
PCB-68 23'45'-TeCB	25.36	4.83E+07	0.79 Y	1.21	1.27	4.6%
PCB-57 233'5-TeCB	25.71	4.48E+07	0.79 Y	1.11	1.18	6.4%
PCB-58 233'5-TeCB	25.91	4.45E+07	0.79 Y	1.10	1.17	6.1%
PCB-67 23'45-TeCB	26.06	4.63E+07	0.77 Y	1.16	1.21	4.5%
PCB-63 234'5-TeCB	26.28	4.93E+07	0.78 Y	1.22	1.29	6.4%
PCB-61/70/74/76 2345-/23'4'5	26.56	1.83E+08	0.78 Y	1.13	1.20	5.9%
PCB-66 23'44'-TeCB	26.84	4.32E+07	0.78 Y	1.08	1.13	5.4%
PCB-55 233'4-TeCB	26.97	4.39E+07	0.78 Y	1.10	1.15	5.0%
PCB-56 233'4'-TeCB	27.40	4.26E+07	0.78 Y	1.06	1.12	5.8%
PCB-60 2344'-TeCB	27.59	4.44E+07	0.78 Y	1.11	1.16	4.7%
PCB-80 33'55'-TeCB	27.94	5.03E+07	0.79 Y	1.25	1.32	5.3%
PCB-79 33'45'-TeCB	29.23	5.00E+07	0.78 Y	1.23	1.31	6.3%
PCB-78 33'45-TeCB	29.70	4.27E+07	0.78 Y	1.08	1.12	3.7%
PCB-104 22'466'-PeCB	23.29	3.59E+07	0.63 Y	1.25	1.32	5.0%
PCB-96 22'366'-PeCB	23.59	3.10E+07	0.64 Y	1.08	1.14	5.7%
PCB-103 22'45'6-PeCB	25.27	3.14E+07	0.63 Y	0.90	0.95	5.0%
PCB-94 22'356'-PeCB	25.44	2.75E+07	0.62 Y	0.78	0.83	6.8%
PCB-95 22'35'6-PeCB	25.81	2.93E+07	0.62 Y	0.83	0.88	7.1%
PCB-100/93 22'44'6-/22'356-P	26.02	6.08E+07	0.62 Y	0.84	0.92	8.6%
PCB-102 22'456'-PeCB	26.13	3.09E+07	0.62 Y	0.90	0.93	3.4%
PCB-98 22'3'46-PeCB	26.19	2.73E+07	0.62 Y	0.77	0.82	6.4%
PCB-88 22'346-PeCB	26.48	2.77E+07	0.61 Y	0.79	0.84	5.4%
PCB-91 22'34'6-PeCB	26.55	3.08E+07	0.63 Y	0.88	0.93	5.4%
PCB-84 22'33'6-PeCB	26.73	2.50E+07	0.63 Y	0.71	0.75	6.3%
PCB-89 22'346'-PeCB	27.14	2.67E+07	0.62 Y	0.76	0.81	5.9%
PCB-121 23'45'6-PeCB	27.52	3.99E+07	0.62 Y	1.14	1.20	5.1%
PCB-92 22'355'-PeCB	27.82	2.81E+07	0.62 Y	0.80	0.85	5.7%
PCB-113/90/101 233'5'6-/22'3	28.29	9.82E+07	0.62 Y	0.93	0.99	5.5%
PCB-83 22'33'5-PeCB	28.71	2.51E+07	0.61 Y	0.71	0.76	6.1%
PCB-99 22'44'5-PeCB	28.81	3.04E+07	0.62 Y	0.87	0.92	5.0%
PCB-112 233'56-PeCB	28.91	3.83E+07	0.63 Y	1.13	1.16	2.6%
PCB-108/119/86/97/125/87 233	29.24	1.99E+08	0.62 Y	0.95	1.00	5.5%
PCB-117 234'56-PeCB	29.77	3.45E+07	0.62 Y	1.04	1.04	0.1%
PCB-116/85 23456-/22'344'-Pe	29.85	6.84E+07	0.63 Y	0.97	1.03	6.0%
PCB-110 233'4'6-PeCB	29.97	3.56E+07	0.62 Y	1.02	1.07	4.9%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS3_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 05:38
Datafile: 120725X18

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.05	3.95E+07	0.63 Y	1.16	1.19	2.8%
PCB-82 22'33'4-PeCB	30.24	2.40E+07	0.62 Y	0.69	0.72	4.9%
PCB-111 233'55'-PeCB	30.59	4.00E+07	0.62 Y	1.15	1.21	4.5%
PCB-120 23'455'-PeCB	30.98	4.00E+07	0.62 Y	1.16	1.20	3.8%
PCB-107/124 233'4'5-/2'3455'	31.92	7.50E+07	0.62 Y	1.07	1.13	5.3%
PCB-109 233'46-PeCB	32.13	4.08E+07	0.62 Y	1.14	1.23	7.6%
PCB-106 233'45-PeCB	32.33	3.79E+07	0.62 Y	1.07	1.14	6.7%
PCB-122 2'33'45-PeCB	32.78	3.53E+07	0.62 Y	1.00	1.04	3.8%
PCB-127 33'455'-PeCB	34.73	3.83E+07	0.63 Y	1.10	1.14	3.7%
PCB-155 22'44'66'-HxCB	28.14	3.83E+07	1.27 Y	1.09	1.13	3.3%
PCB-152 22'3566'-HxCB	28.28	3.56E+07	1.25 Y	1.01	1.05	3.4%
PCB-150 22'34'66'-HxCB	28.43	3.62E+07	1.26 Y	1.00	1.07	6.1%
PCB-136 22'33'66'-HxCB	28.72	3.36E+07	1.29 Y	0.95	0.99	3.7%
PCB-145 22'3466'HxCB	28.99	3.41E+07	1.28 Y	0.96	1.00	4.4%
PCB-148 22'34'56'-HxCB	30.27	2.59E+07	1.26 Y	0.97	1.02	5.0%
PCB-151/135 22'355'6-/22'33'	30.77	5.08E+07	1.26 Y	0.96	1.00	3.6%
PCB-154 22'44'5'6-HxCB	30.99	2.89E+07	1.24 Y	1.09	1.14	4.3%
PCB-144 22'345'6-HxCB	31.24	2.61E+07	1.29 Y	0.98	1.03	4.6%
PCB-147/149 22'34'56-/22'34'	31.54	5.27E+07	1.27 Y	0.99	1.03	5.0%
PCB-134 22'33'56-HxCB	31.70	2.09E+07	1.26 Y	0.80	0.82	2.8%
PCB-143 22'3456'-HxCB	31.78	2.52E+07	1.27 Y	0.95	0.99	3.6%
PCB-139/140 22'344'6-/22'344'	32.05	5.33E+07	1.27 Y	1.00	1.05	4.8%
PCB-131 22'33'46-HxCB	32.21	2.26E+07	1.27 Y	0.85	0.89	4.7%
PCB-142 22'3456-HxCB	32.34	2.31E+07	1.28 Y	0.87	0.91	3.8%
PCB-132 22'33'46'-HxCB	32.58	2.37E+07	1.26 Y	0.89	0.93	4.7%
PCB-133 22'33'55'-HxCB	33.02	2.44E+07	1.25 Y	0.91	0.96	4.9%
PCB-165 233'55'6-HxCB	33.35	3.01E+07	1.27 Y	1.13	1.18	4.4%
PCB-146 22'34'55'-HxCB	33.56	2.62E+07	1.23 Y	1.01	1.03	2.1%
PCB-161 233'45'6-HxCB	33.68	3.40E+07	1.30 Y	1.25	1.33	6.5%
PCB-153/168 22'44'55'-/23'44'	34.10	6.50E+07	1.27 Y	1.22	1.28	4.7%
PCB-141 22'3455'-HxCB	34.24	2.45E+07	1.26 Y	0.93	0.96	3.9%
PCB-130 22'33'45'-HxCB	34.57	2.22E+07	1.25 Y	0.85	0.87	2.9%
PCB-137 22'344'5-HxCB	34.77	2.82E+07	1.26 Y	1.04	1.11	6.4%
PCB-164 233'4'5'6-HxCB	34.85	3.12E+07	1.27 Y	1.22	1.23	0.4%
PCB-163/138/129 233'4'56-/22'	35.14	8.17E+07	1.27 Y	1.02	1.07	4.6%
PCB-160 233'456-HxCB	35.26	3.15E+07	1.26 Y	1.21	1.24	2.6%
PCB-158 233'44'6-HxCB	35.45	3.50E+07	1.27 Y	1.34	1.38	3.0%
PCB-128/166 22'33'44'-/2344'5	36.17	6.11E+07	1.26 Y	0.90	0.93	3.4%
PCB-159 233'455'-HxCB	37.01	3.64E+07	1.25 Y	1.06	1.11	4.1%
PCB-162 233'4'55'-HxCB	37.24	3.67E+07	1.24 Y	1.08	1.12	3.9%
PCB-188 22'34'566'-HpCB	32.95	2.85E+07	1.06 Y	1.03	1.08	4.1%
PCB-179 22'33'566'-HpCB	33.22	2.67E+07	1.05 Y	0.97	1.01	4.1%
PCB-184 22'344'66'-HpCB	33.68	2.58E+07	1.05 Y	0.93	0.97	4.5%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:13

Lab ID: CS3_120725_PCB_XB
Acquired: 26-JUL-2012 05:38
Datafile: 120725X18
ICAL: MM7_PCB_07132012_25JUL12

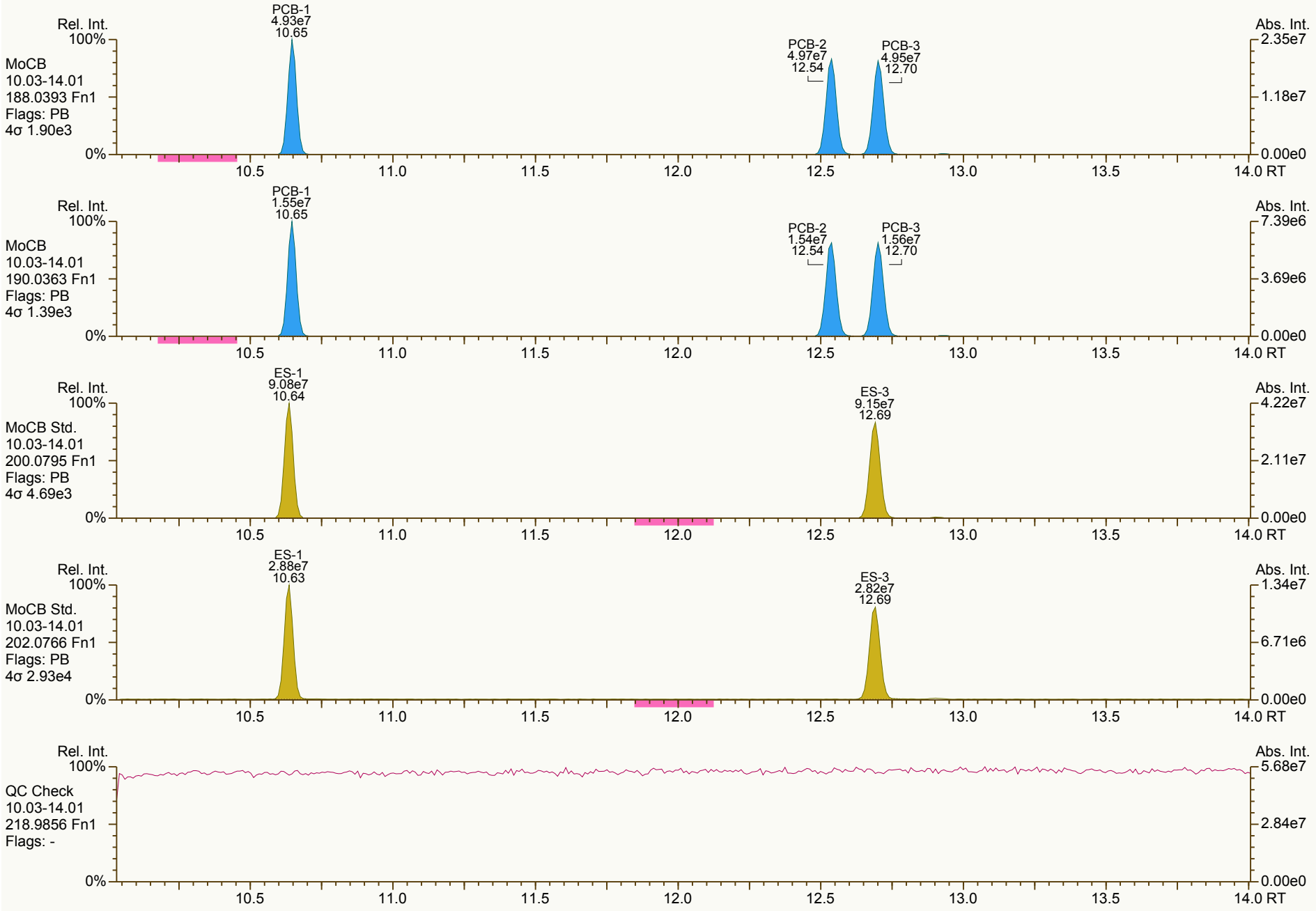
Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.96	2.89E+07	1.07 Y	1.05	1.09	4.0%
PCB-186 22'34566'-HpCB	34.35	2.69E+07	1.05 Y	0.98	1.02	3.6%
PCB-178 22'33'55'6-HpCB	35.50	1.99E+07	1.06 Y	0.74	0.75	2.3%
PCB-175 22'33'45'6-HpCB	36.04	2.50E+07	1.07 Y	1.01	1.06	5.6%
PCB-187 22'34'55'6-HpCB	36.27	2.62E+07	1.07 Y	1.06	1.12	5.0%
PCB-182 22'344'56'-HpCB	36.44	2.67E+07	1.05 Y	1.11	1.14	2.4%
PCB-183 22'344'5'6-HpCB	36.78	2.80E+07	1.04 Y	1.13	1.19	5.4%
PCB-185 22'3455'6-HpCB	36.86	2.44E+07	1.06 Y	1.02	1.04	2.1%
PCB-174 22'33'456'-HpCB	36.96	2.22E+07	1.06 Y	0.93	0.95	2.2%
PCB-177 22'33'4'56-HpCB	37.33	2.20E+07	1.06 Y	0.91	0.94	3.6%
PCB-181 22'344'56-HpCB	37.68	2.53E+07	1.04 Y	1.06	1.08	1.4%
PCB-171/173 22'33'44'6-/22'3	37.85	4.48E+07	1.05 Y	0.93	0.95	2.7%
PCB-172 22'33'455'-HpCB	39.22	2.28E+07	1.06 Y	0.95	0.97	1.9%
PCB-192 233'455'6-HpCB	39.46	2.98E+07	1.07 Y	1.24	1.27	2.3%
PCB-180/193 22'344'55'-/233'	39.74	5.59E+07	1.05 Y	1.16	1.19	2.8%
PCB-191 233'44'5'6-HpCB	40.06	3.10E+07	1.05 Y	1.30	1.32	1.4%
PCB-170 22'33'44'5-HpCB	40.81	2.24E+07	1.03 Y	1.07	1.12	4.0%
PCB-190 233'44'56-HpCB	41.26	2.99E+07	1.05 Y	1.45	1.49	2.6%
PCB-202 22'33'55'66'-OcCB	37.45	2.39E+07	0.90 Y	0.91	0.95	3.9%
PCB-201 22'33'45'66'-OcCB	38.22	2.68E+07	0.89 Y	1.02	1.06	4.0%
PCB-204 22'344'566'-OcCB	38.79	2.52E+07	0.91 Y	0.98	1.00	2.7%
PCB-197 22'33'44'66'-OcCB	38.98	2.68E+07	0.91 Y	1.06	1.06	-0.1%
PCB-200 22'33'4566'-OcCB	39.06	2.60E+07	0.92 Y	0.96	1.03	7.6%
PCB-198/199 22'33'455'6-/22'	41.39	3.72E+07	0.90 Y	0.72	0.74	3.1%
PCB-196 22'33'44'56'-OcCB	41.96	1.92E+07	0.91 Y	0.73	0.76	4.3%
PCB-203 22'344'55'6-OcCB	42.13	2.02E+07	0.90 Y	0.76	0.80	4.9%
PCB-195 22'33'44'56-OcCB	43.23	2.00E+07	0.89 Y	0.80	0.84	5.0%
PCB-194 22'33'44'55'-OcCB	45.18	2.15E+07	0.89 Y	0.87	0.90	3.0%
PCB-205 233'44'55'6-OcCB	45.57	2.66E+07	0.89 Y	1.09	1.11	2.4%
PCB-208 22'33'455'66'-NoCB	43.03	2.52E+07	0.78 Y	1.02	1.06	3.8%
PCB-207 22'33'44'566'-NoCB	43.81	2.64E+07	0.78 Y	1.06	1.10	4.3%
PCB-206 22'33'44'55'6-NoCB	47.03	1.75E+07	0.77 Y	0.98	1.01	3.6%

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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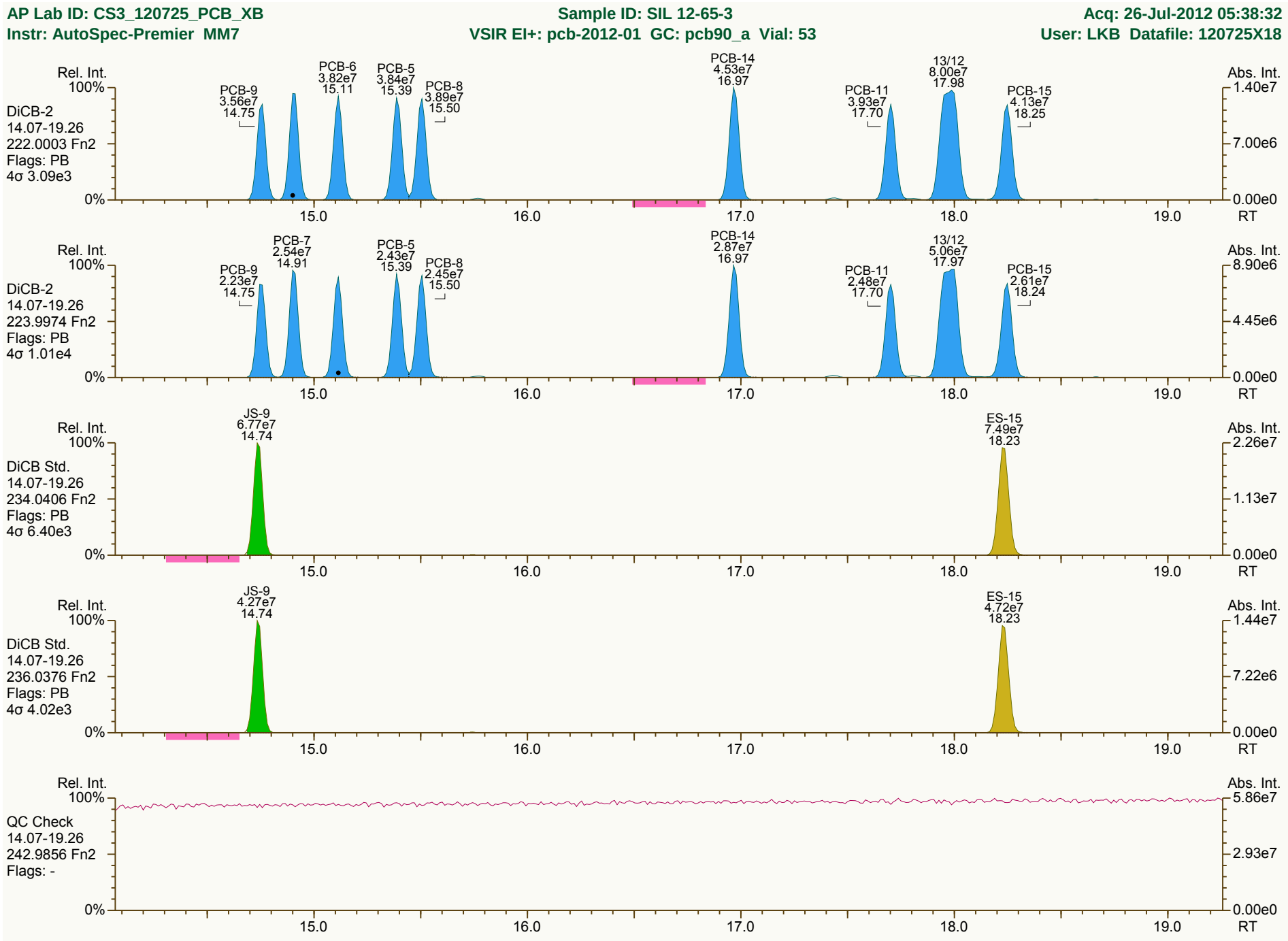
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Sample ID: SIL 12-65-3
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Instr: AutoSpec-Premier MM7
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53
User: LKB Datafile: 120725X18
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Abs. Int.
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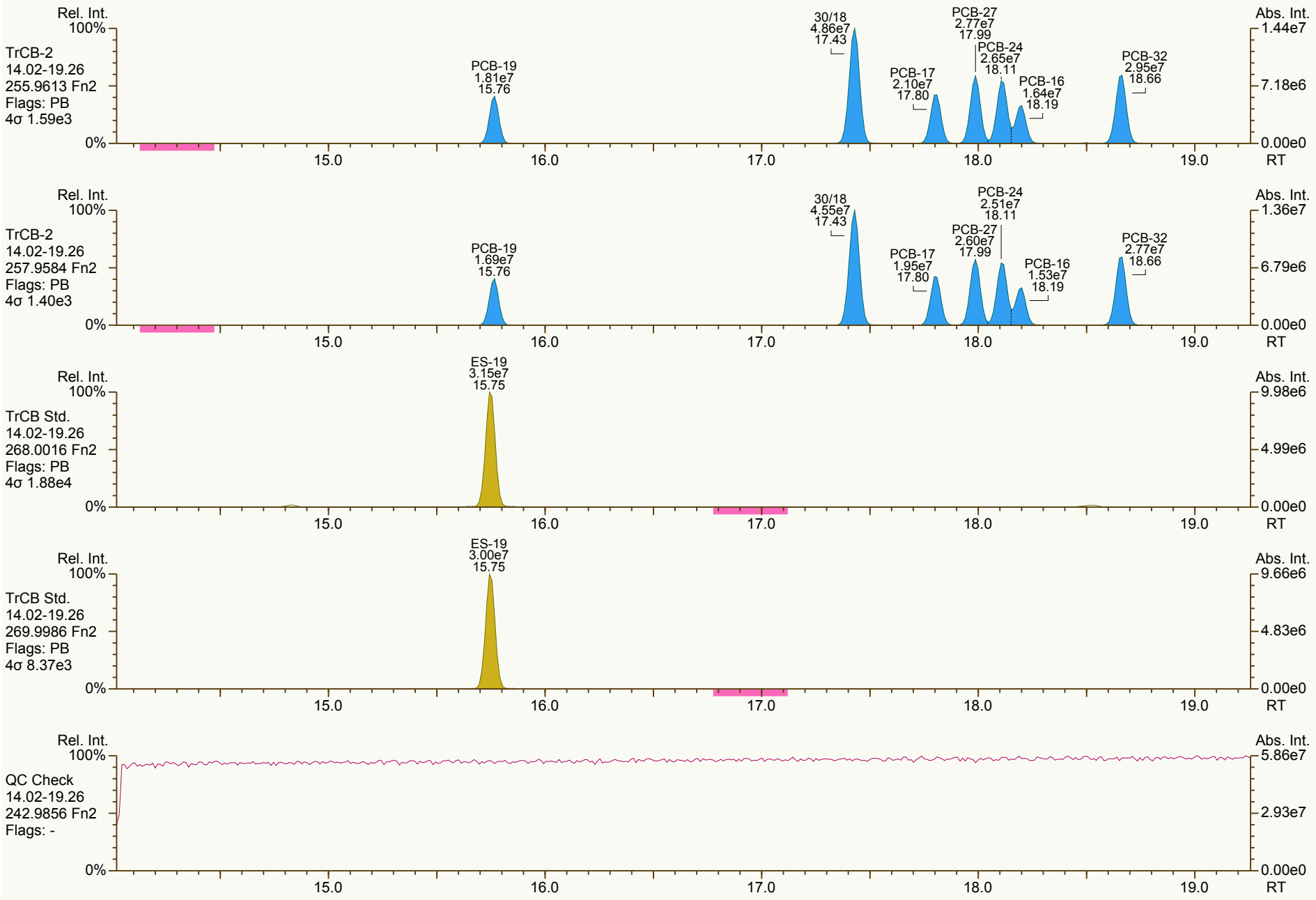
222.0003 Fn2
Flags: PB
4σ 3.09e3
PCB-9 3.56e7 14.75
PCB-6 3.82e7 15.11
PCB-5 3.84e7 15.39
PCB-8 3.89e7 15.50
PCB-14 4.53e7 16.97
PCB-11 3.93e7 17.70
13/12 8.00e7 17.98
PCB-15 4.13e7 18.25
DiCB-2
14.07-19.26
223.9974 Fn2
Flags: PB
4σ 1.01e4
PCB-9 2.23e7 14.75
PCB-7 2.54e7 14.91
PCB-5 2.43e7 15.39
PCB-8 2.45e7 15.50
PCB-14 2.87e7 16.97
PCB-11 2.48e7 17.70
13/12 5.06e7 17.97
PCB-15 2.61e7 18.24
DiCB Std.
14.07-19.26
234.0406 Fn2
Flags: PB
4σ 6.40e3
JS-9 6.77e7 14.74
ES-15 7.49e7 18.23
DiCB Std.
14.07-19.26
236.0376 Fn2
Flags: PB
4σ 4.02e3
JS-9 4.27e7 14.74
ES-15 4.72e7 18.23
QC Check
14.07-19.26
242.9856 Fn2
Flags: -
RT

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
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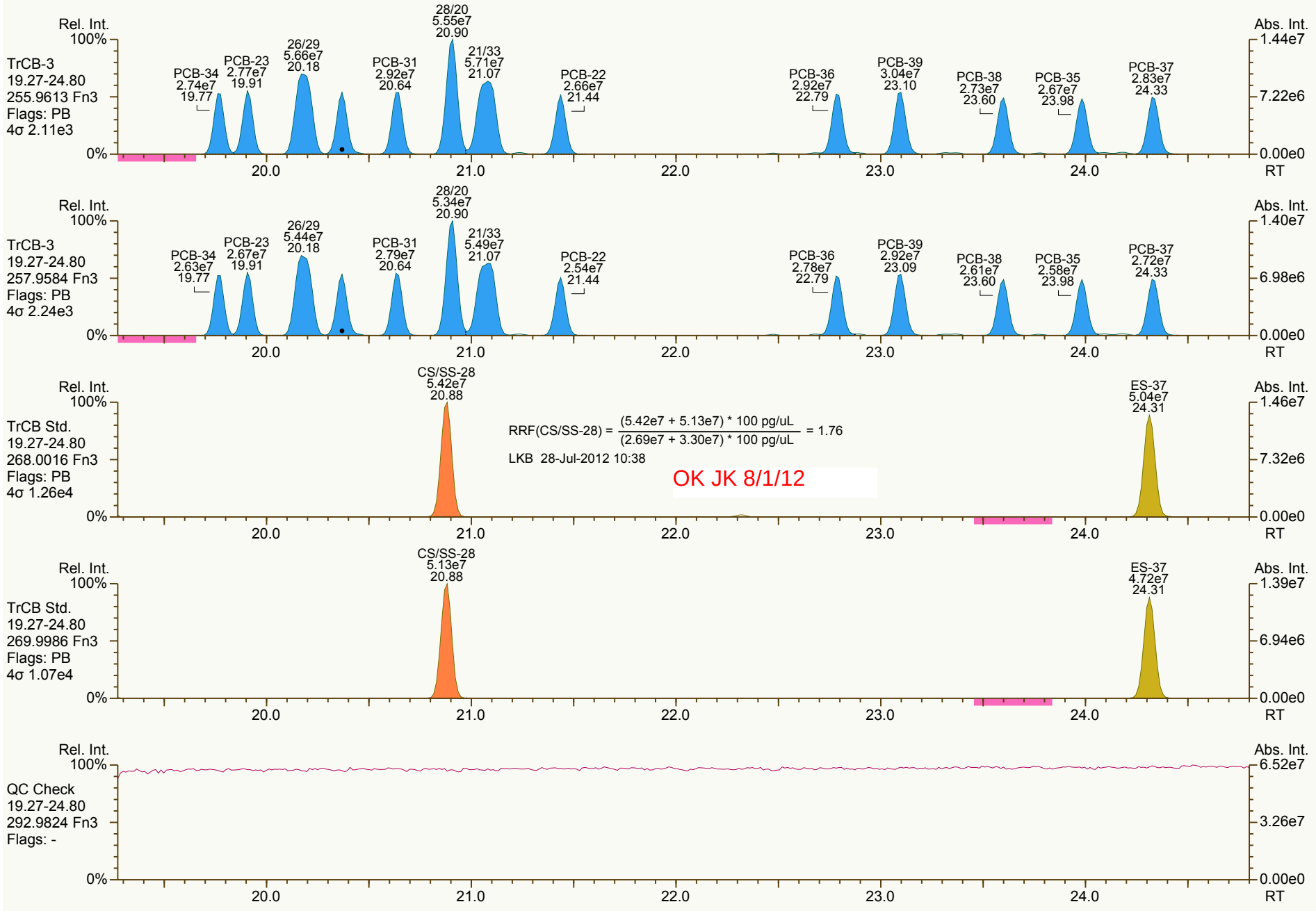

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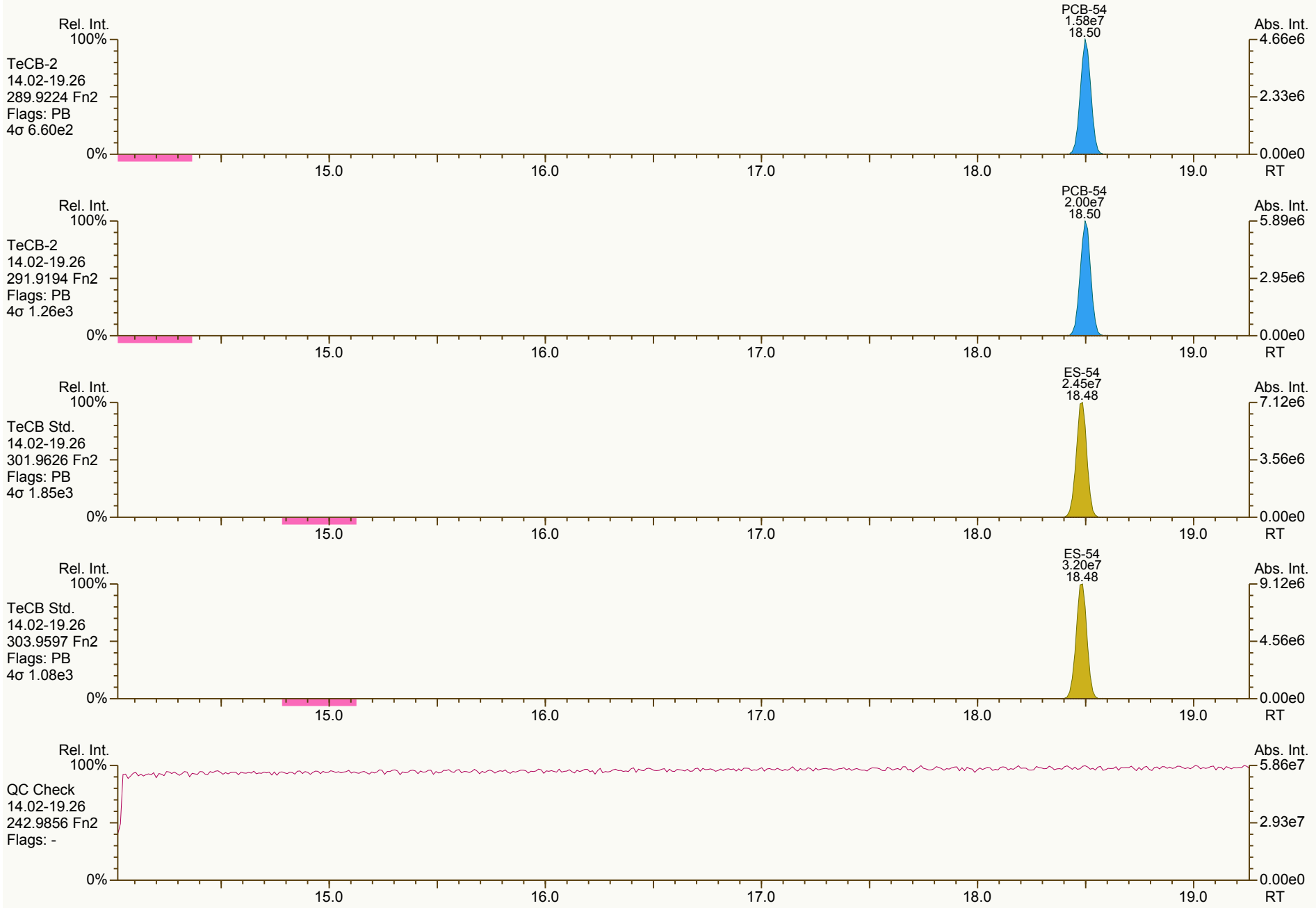

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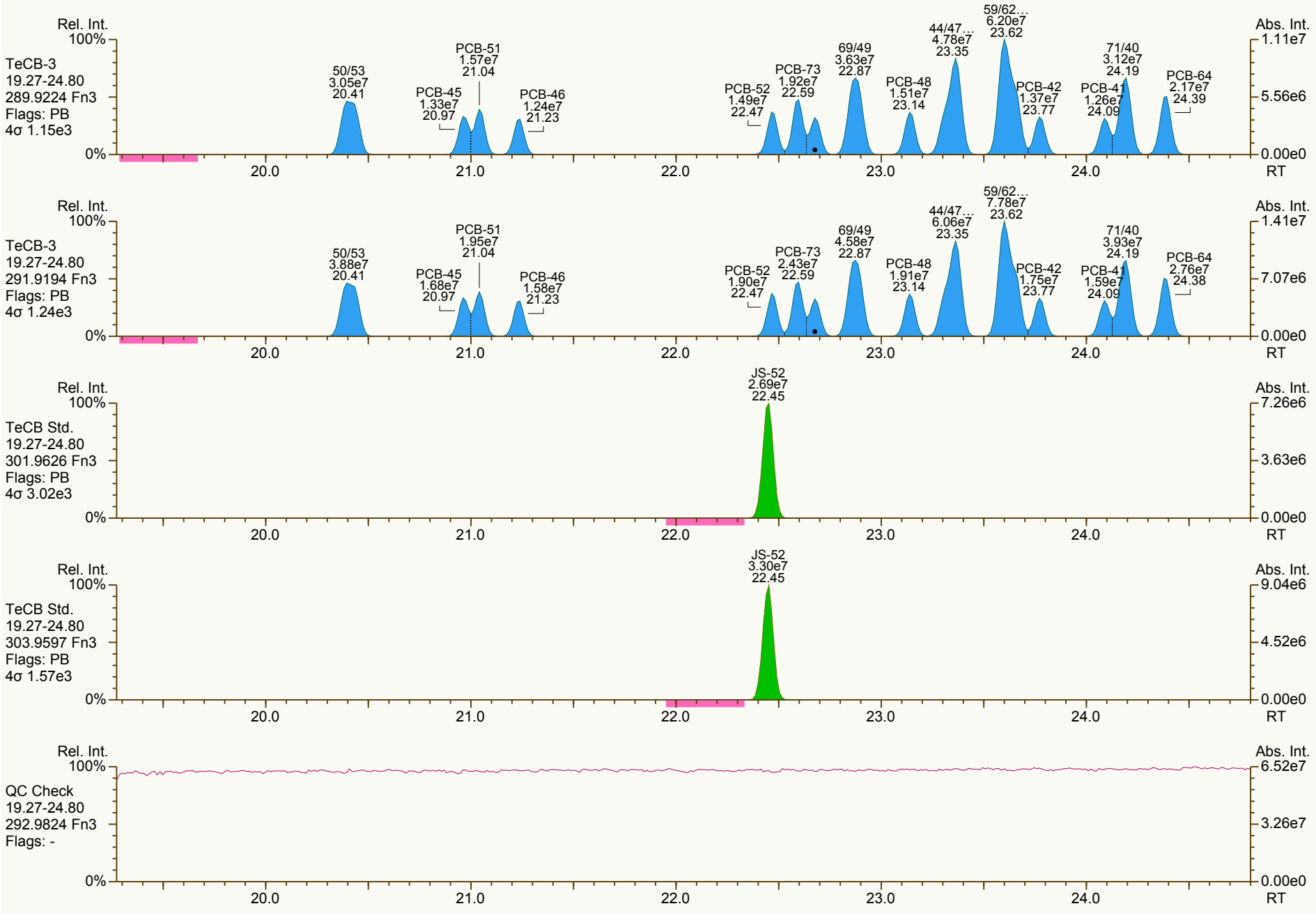

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AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
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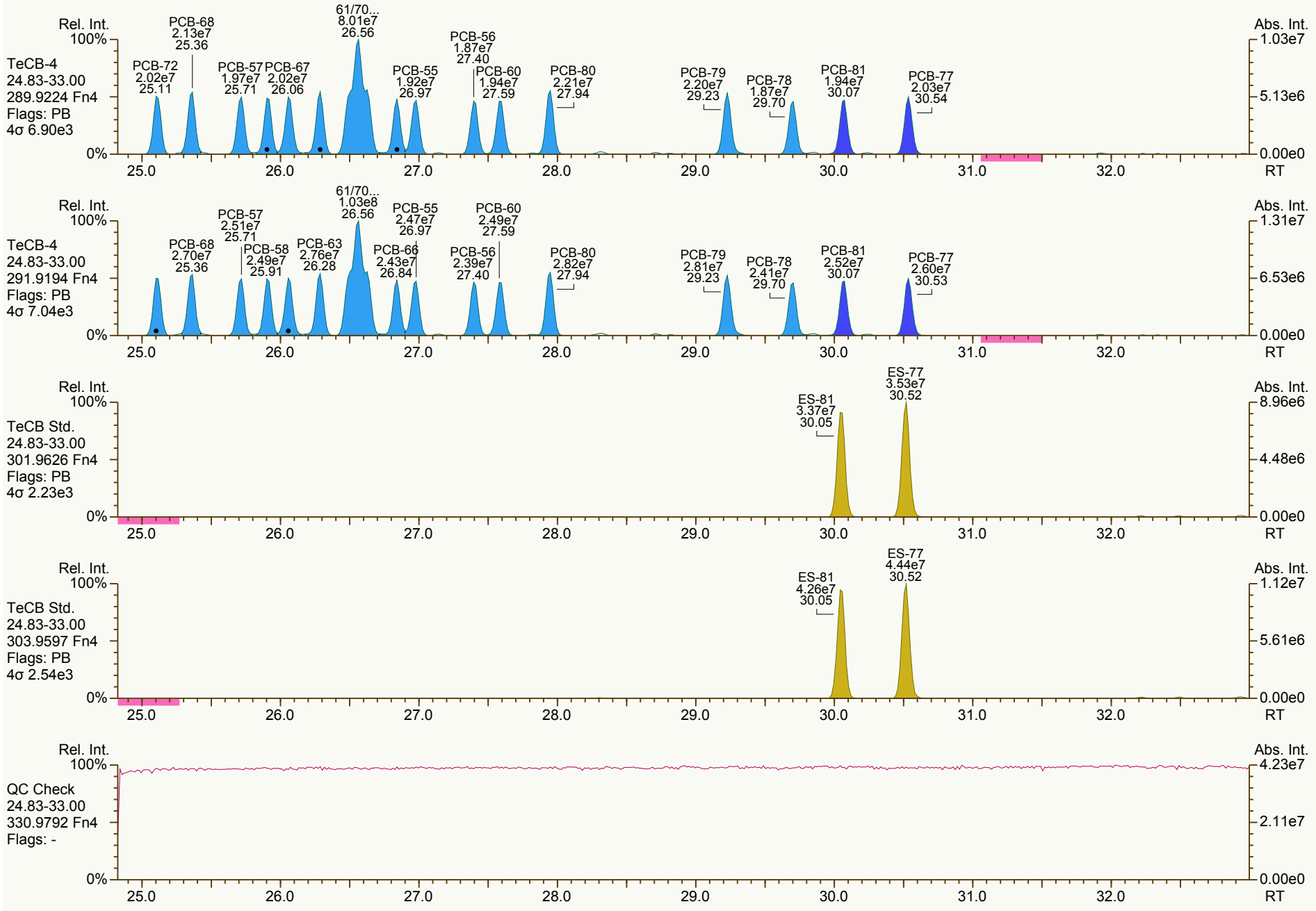

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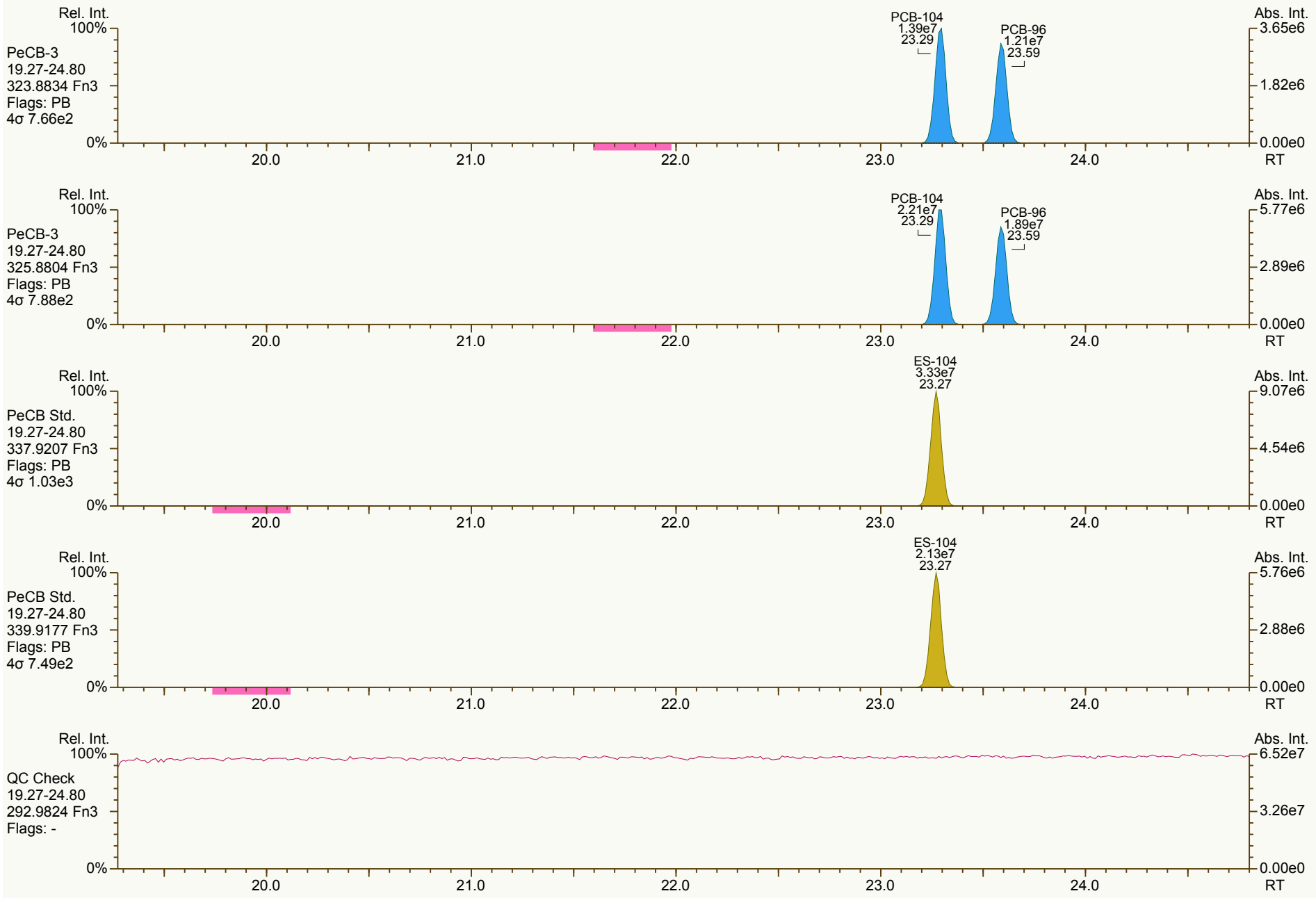
AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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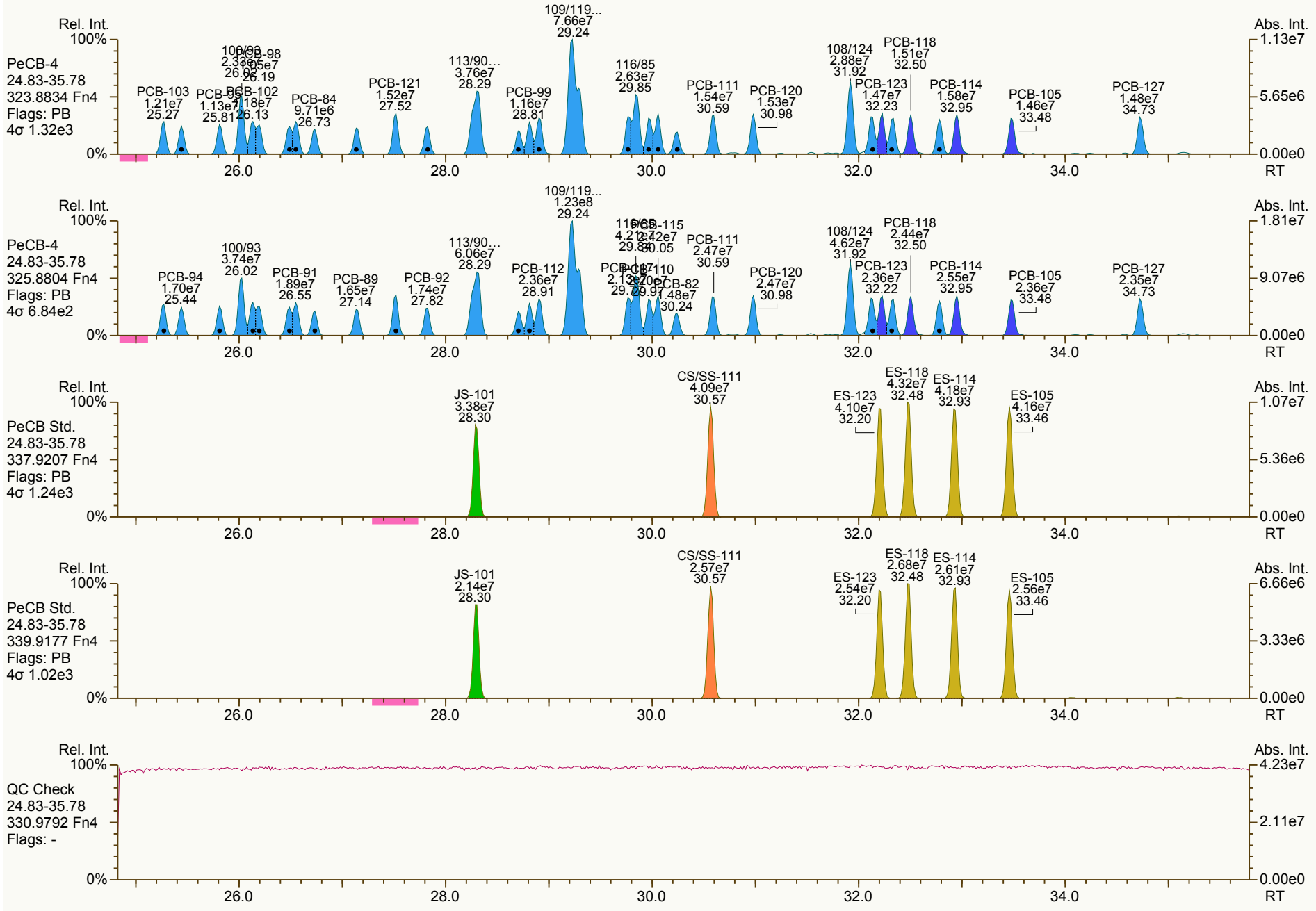

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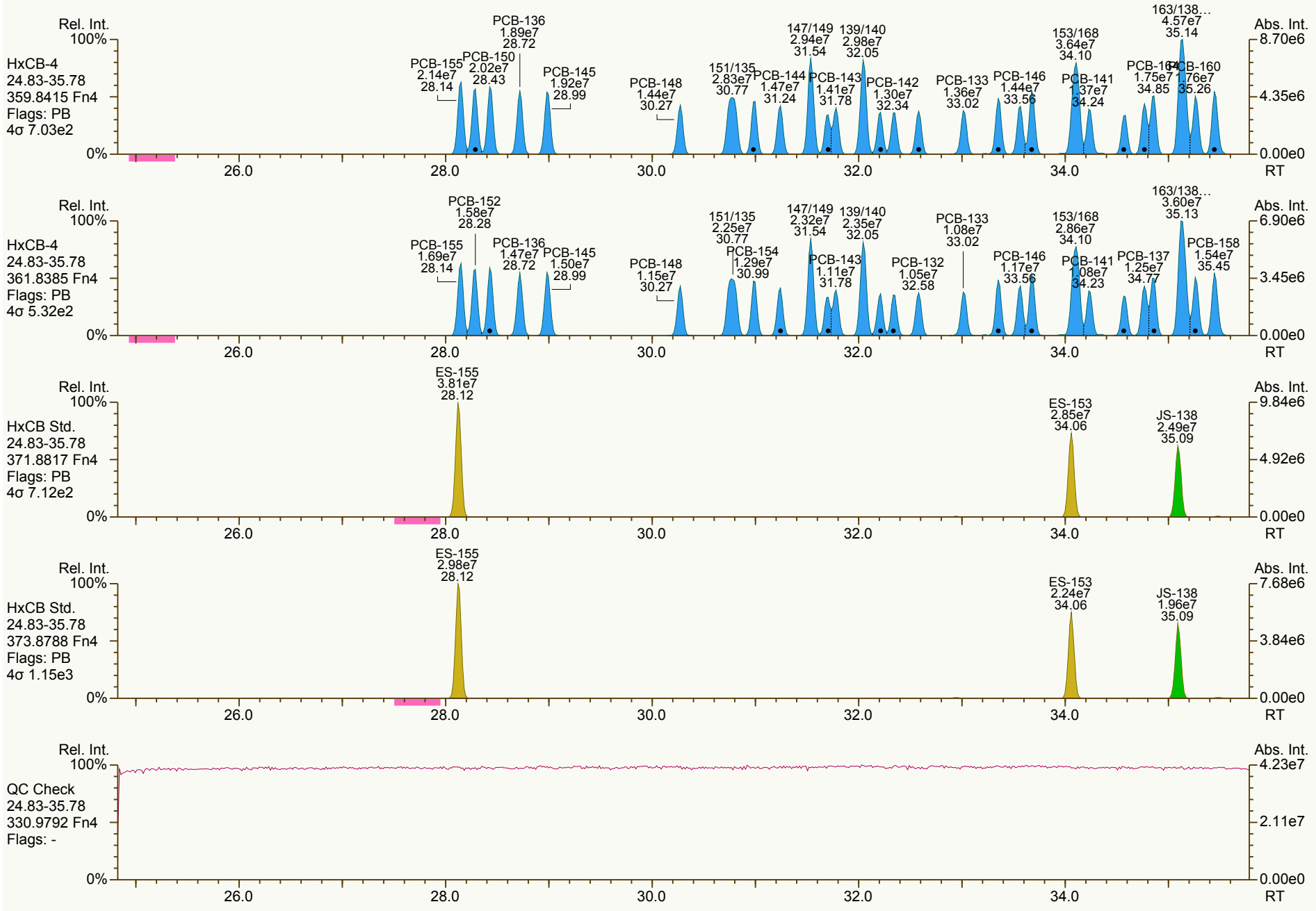

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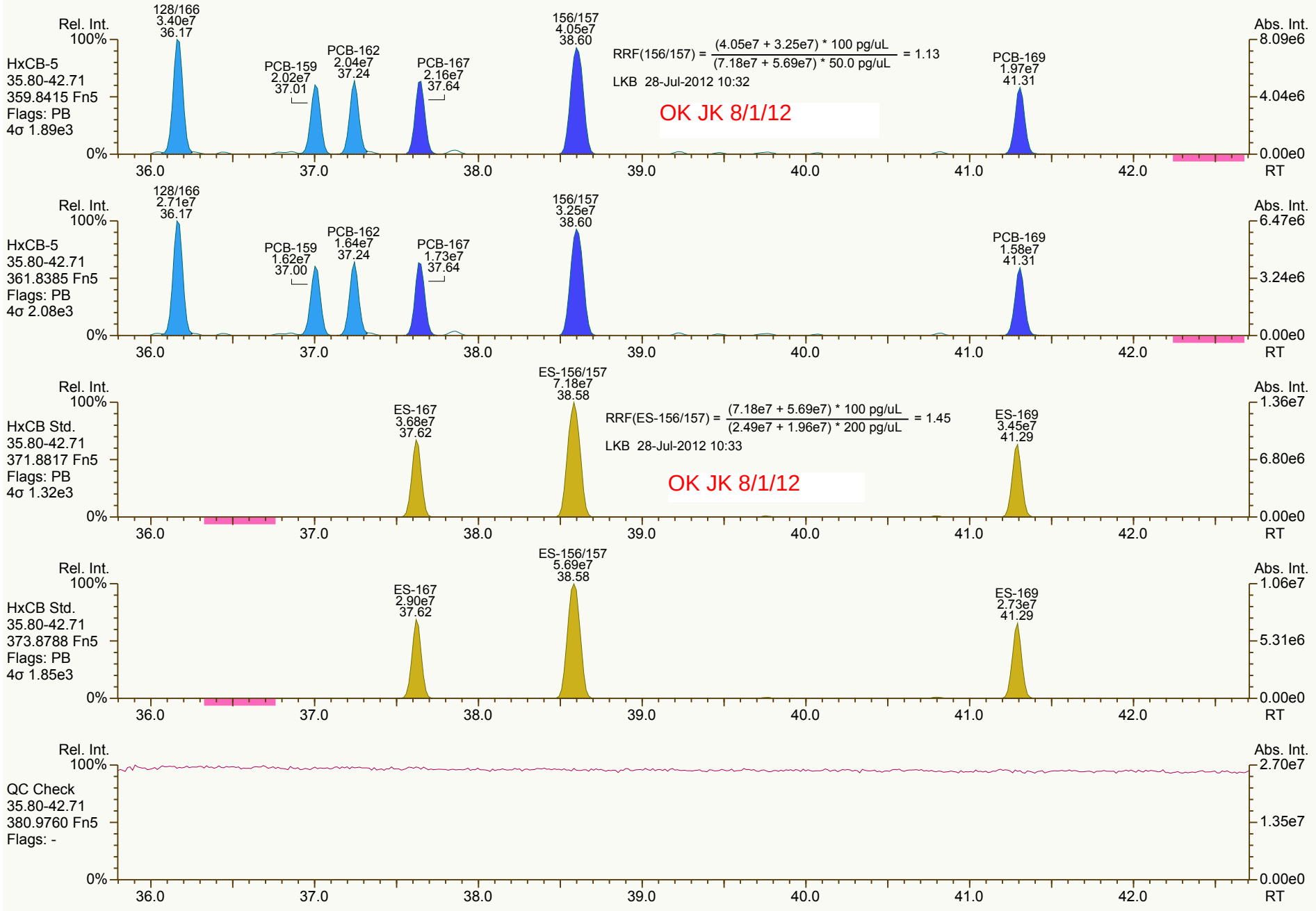

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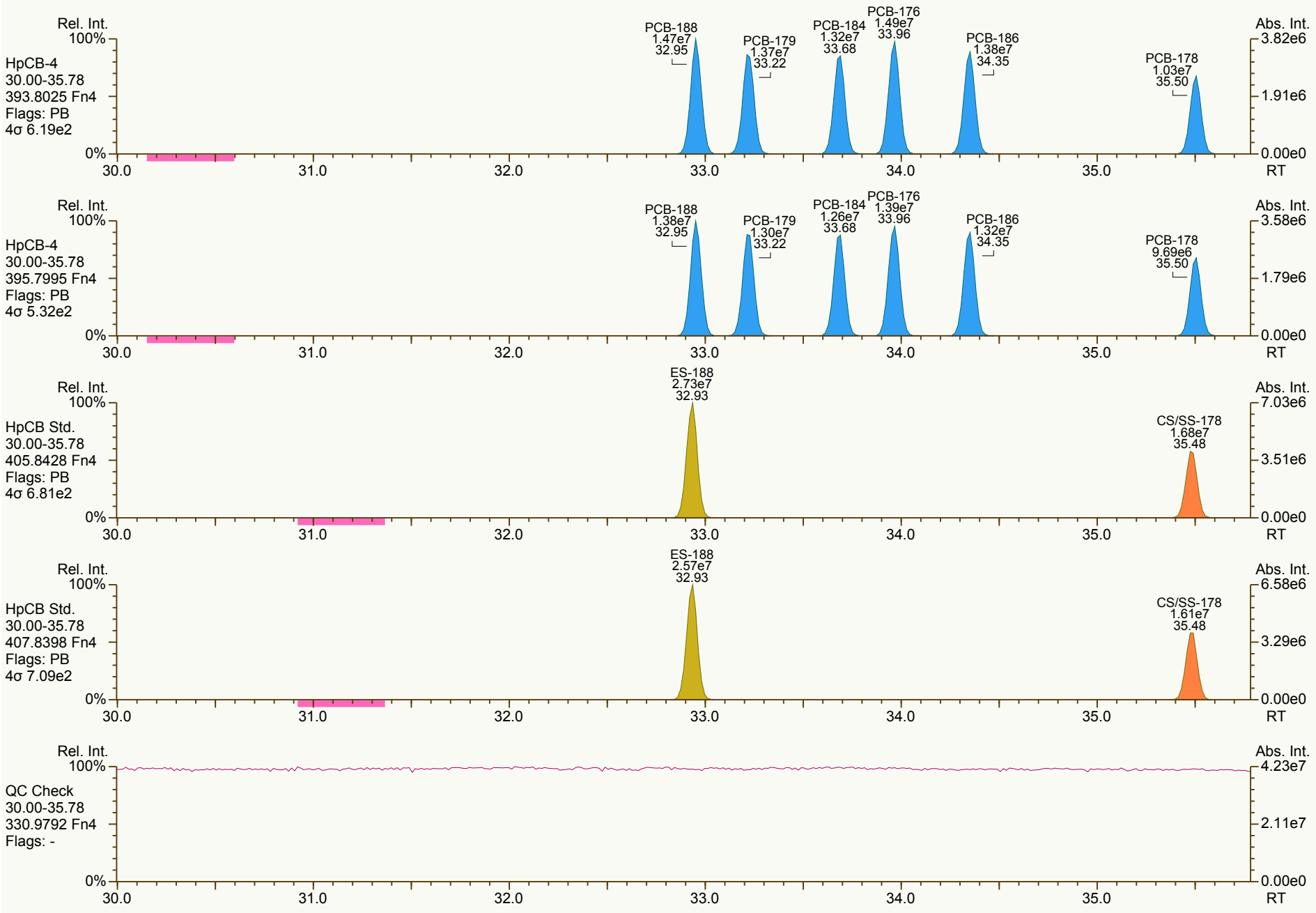

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AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
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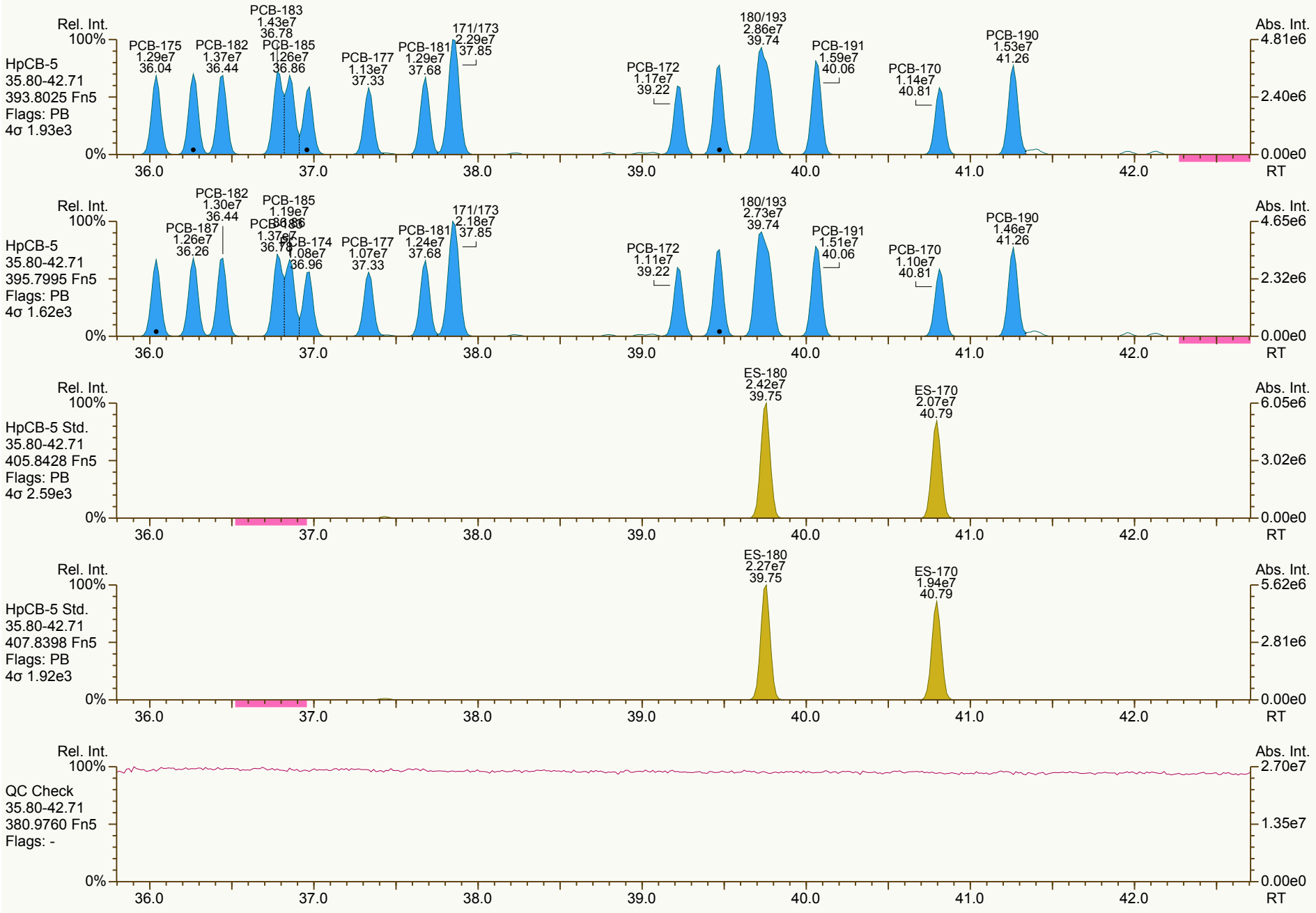

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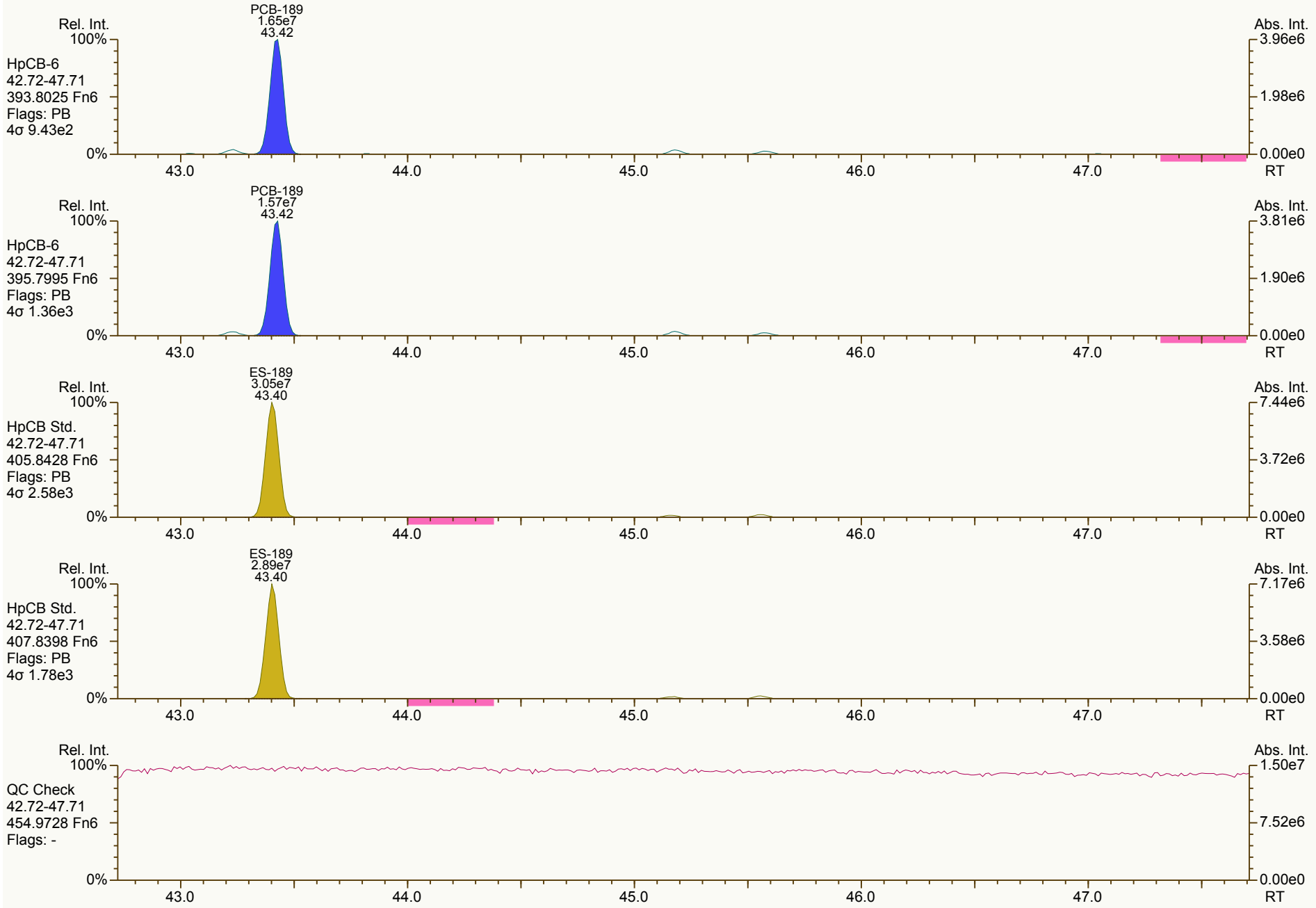
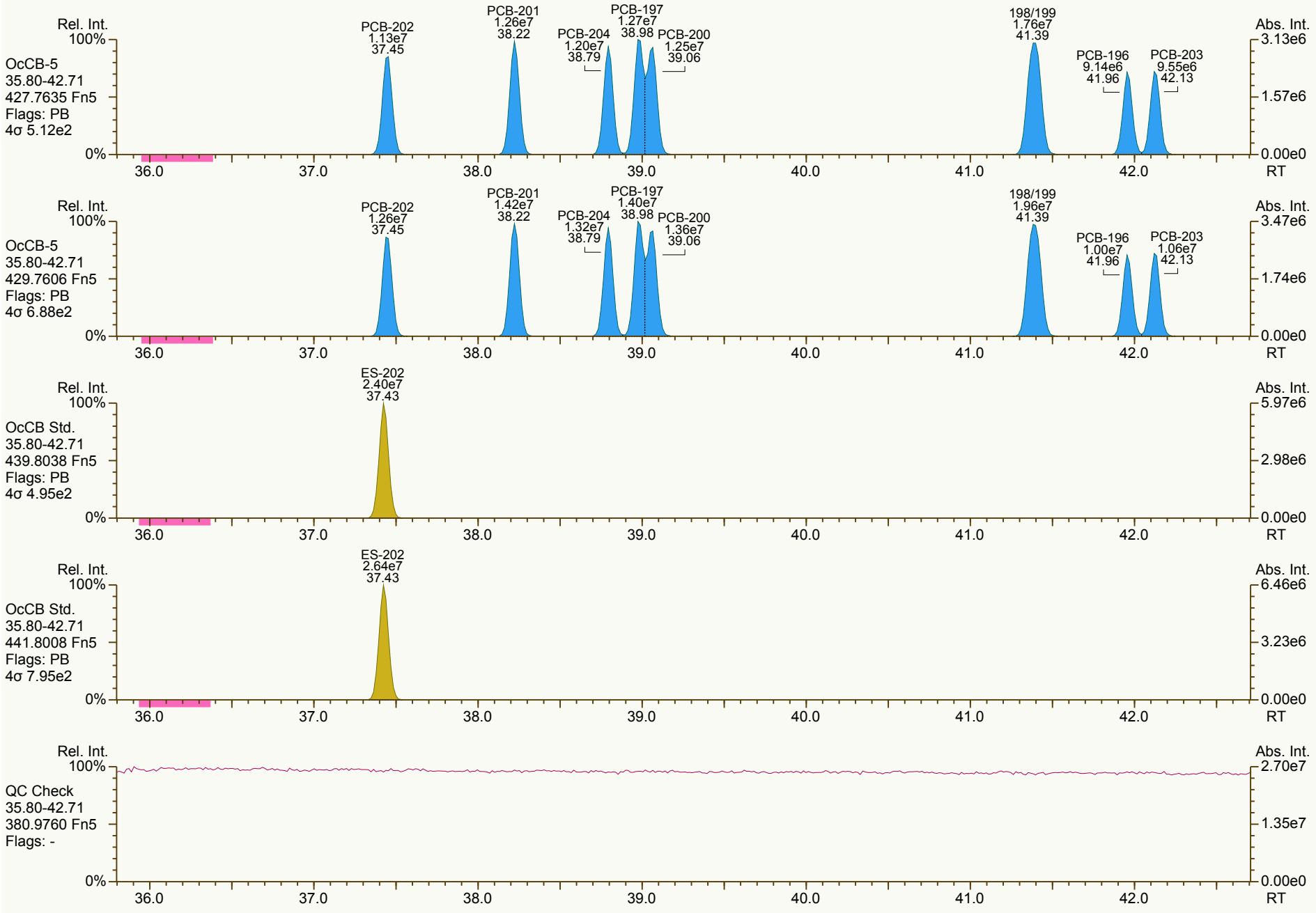
AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



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AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



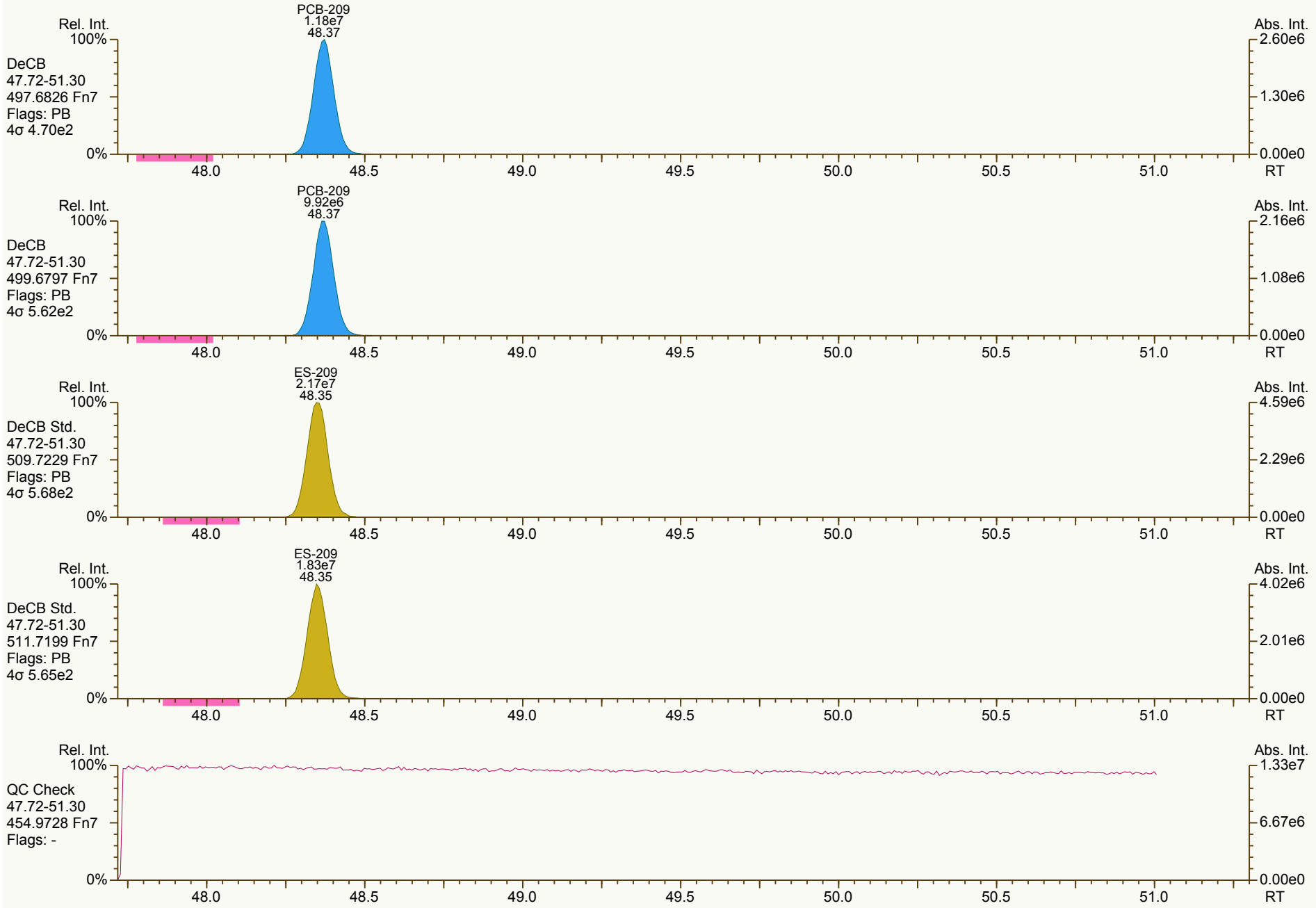
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS3_120725_PCB_XB **Sample ID: SIL 12-65-3** **Acq: 26-Jul-2012 05:38:32**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 53** **User: LKB Datafile: 120725X18**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS3_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:19 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 1260, 0976 scc: 426-138 *PKD: 27-Jul-2012 09:55 Printed: 28-Jul-2012 13:21 Page 21 of 21*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:14
Lab ID:	**CS4_120725_PCB_XB**		**ICAL: MM7_PCB_07132012_25JUL12**		
Acquired:	**26-JUL-2012 06:32**				
Datafile:	**120725X19**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.55	4.04E+08	0.79 Y	1.13	1.20	5.6%
PCB-81 344'5-TeCB	30.08	3.90E+08	0.77 Y	1.13	1.20	6.8%
PCB-105 233'44'-PeCB	33.50	3.31E+08	0.62 Y	1.09	1.16	6.2%
PCB-114 2344'5-PeCB	32.96	3.56E+08	0.63 Y	1.16	1.22	5.3%
PCB-118 23'44'5-PeCB	32.52	3.48E+08	0.63 Y	1.11	1.17	5.8%
PCB-123 2'344'5-PeCB	32.24	3.62E+08	0.63 Y	1.19	1.26	6.2%
PCB-126 33'44'5-PeCB	36.09	3.10E+08	0.63 Y	1.06	1.11	4.7%
PCB-156/157 233'44'5/233'44'5'	38.61	6.44E+08	1.25 Y	1.11	1.16	4.6%
PCB-167 23'44'55'-HxCB	37.65	3.40E+08	1.24 Y	1.14	1.19	4.9%
PCB-169 33'44'55'-HxCB	41.32	3.17E+08	1.26 Y	1.11	1.16	4.6%
PCB-189 233'44'55'-HpCB	43.43	2.89E+08	1.05 Y	1.06	1.11	5.2%
PCB-209 DeCB	48.38	1.92E+08	1.18 Y	1.07	1.10	2.2%
ES PCB-1	10.65	1.18E+08	3.19 Y	1.08	1.06	-1.7%
ES PCB-3	12.70	1.20E+08	3.24 Y	1.08	1.07	-0.9%
ES PCB-4	12.93	5.34E+07	1.62 Y	0.49	0.48	-1.8%
ES PCB-15	18.24	1.26E+08	1.57 Y	1.11	1.13	1.8%
ES PCB-19	15.76	6.09E+07	1.07 Y	0.55	0.55	-1.3%
ES PCB-37	24.33	1.01E+08	1.06 Y	1.64	1.65	0.9%
ES PCB-54	18.49	5.58E+07	0.77 Y	0.94	0.91	-3.4%
ES PCB-77	30.53	8.44E+07	0.78 Y	1.35	1.37	2.0%
ES PCB-81	30.06	8.10E+07	0.79 Y	1.29	1.32	2.5%
ES PCB-104	23.29	5.68E+07	1.54 Y	0.99	0.98	-1.2%
ES PCB-105	33.47	7.12E+07	1.58 Y	1.23	1.23	-0.4%
ES PCB-114	32.94	7.28E+07	1.61 Y	1.25	1.26	0.8%
ES PCB-118	32.49	7.43E+07	1.60 Y	1.28	1.28	0.1%
ES PCB-123	32.22	7.17E+07	1.60 Y	1.22	1.24	1.5%
ES PCB-126	36.07	6.96E+07	1.58 Y	1.20	1.20	0.2%
ES PCB-153	34.07	5.40E+07	1.29 Y	1.14	1.12	-2.0%
ES PCB-155	28.14	7.08E+07	1.27 Y	1.50	1.46	-2.1%
ES PCB-156/157	38.59	1.39E+08	1.28 Y	1.45	1.44	-1.1%
ES PCB-167	37.63	7.14E+07	1.27 Y	1.49	1.48	-1.0%
ES PCB-169	41.30	6.83E+07	1.27 Y	1.40	1.41	0.6%
ES PCB-170	40.80	4.36E+07	1.06 Y	1.00	1.01	0.4%
ES PCB-180	39.76	5.04E+07	1.07 Y	1.16	1.16	0.3%
ES PCB-188	32.94	5.63E+07	1.07 Y	1.18	1.17	-1.0%
ES PCB-189	43.42	6.51E+07	1.03 Y	1.49	1.50	1.0%
ES PCB-202	37.44	5.45E+07	0.90 Y	1.14	1.13	-0.7%
ES PCB-205	45.56	5.25E+07	0.90 Y	1.20	1.21	0.7%
ES PCB-206	47.02	3.81E+07	0.79 Y	0.87	0.88	1.0%
ES PCB-208	43.02	5.18E+07	0.79 Y	1.19	1.20	0.4%
ES PCB-209	48.36	4.37E+07	1.20 Y	1.00	1.01	0.5%

PCB QC Summary	SGS Analytical Perspectives	Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.89	1.08E+08	1.06 Y	1.07	1.07	-0.5%
SS PCB-111	30.58	7.13E+07	1.59 Y	1.01	1.00	-1.0%
SS PCB-178	35.49	3.54E+07	1.06 Y	0.63	0.63	0.0%
CS PCB-28	20.89	1.08E+08	1.06 Y	1.76	1.77	0.5%
CS PCB-111	30.58	7.13E+07	1.59 Y	1.23	1.23	0.5%
CS PCB-178	35.49	3.54E+07	1.06 Y	0.74	0.73	-1.1%
JS PCB-9	14.75	1.11E+08	1.58 Y	-	-	-
JS PCB-52	22.46	6.14E+07	0.80 Y	-	-	-
JS PCB-101	28.31	5.79E+07	1.61 Y	-	-	-
JS PCB-138	35.11	4.83E+07	1.28 Y	-	-	-
JS PCB-194	45.17	4.34E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	10.66	5.29E+08	3.21 Y	1.03	1.12	8.1%
PCB-3 4-MoCB	12.72	5.38E+08	3.18 Y	1.04	1.12	7.7%
PCB-4 22'-DiCB	12.94	2.66E+08	1.60 Y	1.17	1.24	6.2%
PCB-15 44'-DiCB	18.26	5.72E+08	1.58 Y	1.08	1.14	5.0%
PCB-19 22'6-TrCB	15.78	2.85E+08	1.06 Y	1.09	1.17	6.8%
PCB-37 344'-TrCB	24.35	4.68E+08	1.05 Y	1.10	1.15	4.4%
PCB-54 22'66'-TeCB	18.51	2.91E+08	0.79 Y	1.21	1.30	7.8%
PCB-104 22'466'-PeCB	23.31	2.98E+08	0.63 Y	1.25	1.31	4.5%
PCB-153 22'44'55' -HxCB	34.12	5.61E+08	1.27 Y	1.22	1.30	6.5%
PCB-155 22'44'66'-HxCB	28.16	3.26E+08	1.27 Y	1.09	1.15	5.6%
PCB-170 22'33'44'5-HpCB	40.82	1.97E+08	1.05 Y	1.07	1.13	5.3%
PCB-180 22'344'55'-HpCB	39.75	4.93E+08	1.06 Y	1.16	1.22	5.5%
PCB-188 22'34'566'-HpCB	32.97	2.48E+08	1.05 Y	1.03	1.10	6.3%
PCB-202 22'33'55'66'-OcCB	37.46	2.09E+08	0.90 Y	0.91	0.96	4.8%
PCB-205 233'44'55'6-OcCB	45.58	2.39E+08	0.90 Y	1.09	1.14	4.7%
PCB-208 22'33'455'66'-NoCB	43.04	2.24E+08	0.78 Y	1.02	1.08	6.2%
PCB-206 22'33'44'55'6-NoCB	47.04	1.58E+08	0.78 Y	0.98	1.04	6.1%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB
ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.66	5.29E+08	3.21 Y	1.03	1.12	8.1%
PCB-2 3-MoCB	12.55	5.43E+08	3.21 Y	1.04	1.14	8.9%
PCB-3 4-MoCB	12.72	5.38E+08	3.18 Y	1.04	1.12	7.7%
PCB-4 22'-DiCB	12.94	2.66E+08	1.60 Y	1.17	1.24	6.2%
PCB-10 26-DiCB	13.11	4.13E+08	1.61 Y	1.83	1.93	5.5%
PCB-9 25-DiCB	14.77	4.76E+08	1.58 Y	0.89	0.95	5.6%
PCB-7 24-DiCB	14.92	5.47E+08	1.60 Y	1.02	1.08	5.9%
PCB-6 23'-DiCB	15.13	5.09E+08	1.59 Y	0.95	1.01	6.5%
PCB-5 23-DiCB	15.40	5.14E+08	1.59 Y	0.97	1.02	4.8%
PCB-8 24'-DiCB	15.52	5.29E+08	1.58 Y	0.98	1.05	6.8%
PCB-14 35-DiCB	16.98	6.18E+08	1.59 Y	1.16	1.23	5.8%
PCB-11 33'-DiCB	17.71	5.37E+08	1.60 Y	1.00	1.07	6.7%
PCB-13/12 34'-/34-DiCB	17.99	1.10E+09	1.59 Y	1.02	1.09	7.0%
PCB-15 44'-DiCB	18.26	5.72E+08	1.58 Y	1.08	1.14	5.0%
PCB-19 22'6-TrCB	15.78	2.85E+08	1.06 Y	1.09	1.17	6.8%
PCB-30/18 246-/22'5-TrCB	17.44	7.70E+08	1.06 Y	1.46	1.58	8.2%
PCB-17 22'4-TrCB	17.82	3.31E+08	1.06 Y	1.25	1.36	8.5%
PCB-27 23'6-TrCB	18.00	4.49E+08	1.06 Y	1.69	1.84	9.0%
PCB-24 236-TrCB	18.12	4.19E+08	1.06 Y	1.63	1.72	5.1%
PCB-16 22'3-TrCB	18.21	2.64E+08	1.06 Y	0.95	1.08	13.4%
PCB-32 24'6-TrCB	18.67	4.65E+08	1.06 Y	1.79	1.91	6.7%
PCB-34 2'35-TrCB	19.78	4.47E+08	1.05 Y	1.05	1.10	5.2%
PCB-23 235-TrCB	19.92	4.52E+08	1.04 Y	1.06	1.11	5.4%
PCB-26/29 23'5-/245-TrCB	20.19	9.23E+08	1.05 Y	1.09	1.14	4.9%
PCB-25 23'4-TrCB	20.38	4.61E+08	1.05 Y	1.07	1.14	5.9%
PCB-31 24'5-TrCB	20.65	4.76E+08	1.04 Y	1.11	1.17	5.7%
PCB-28/20 244'-/233'-TrCB	20.92	9.09E+08	1.04 Y	1.07	1.12	5.0%
PCB-21/33 234-/2'34-TrCB	21.09	9.43E+08	1.05 Y	1.09	1.16	6.4%
PCB-22 234'-TrCB	21.45	4.32E+08	1.04 Y	1.02	1.07	4.9%
PCB-36 33'5-TrCB	22.80	4.80E+08	1.05 Y	1.13	1.18	5.0%
PCB-39 34'5-TrCB	23.11	5.02E+08	1.04 Y	1.17	1.24	6.3%
PCB-38 345-TrCB	23.61	4.53E+08	1.04 Y	1.03	1.12	8.1%
PCB-35 33'4-TrCB	24.00	4.42E+08	1.05 Y	1.04	1.09	4.9%
PCB-37 344'-TrCB	24.35	4.68E+08	1.05 Y	1.10	1.15	4.4%
PCB-54 22'66'-TeCB	18.51	2.91E+08	0.79 Y	1.21	1.30	7.8%
PCB-50/53 22'46-/22'56'TeCB	20.42	5.79E+08	0.79 Y	0.86	0.89	4.3%
PCB-45 22'36-TeCB	20.98	2.51E+08	0.78 Y	0.73	0.77	5.8%
PCB-51 22'46'-TeCB	21.05	3.01E+08	0.80 Y	0.88	0.93	5.8%
PCB-46 22'36'-TeCB	21.25	2.37E+08	0.79 Y	0.70	0.73	5.4%
PCB-52 22'55'-TeCB	22.48	2.81E+08	0.79 Y	0.84	0.87	3.0%
PCB-73 23'5'6TeCB	22.61	3.60E+08	0.79 Y	1.09	1.11	1.9%
PCB-43 22'35-TeCB	22.69	2.52E+08	0.80 Y	0.72	0.78	7.4%
PCB-69/49 23'46-/22'45'TeCB	22.89	6.89E+08	0.79 Y	1.01	1.06	5.0%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.15	2.89E+08	0.79 Y	0.85	0.89	5.0%
PCB-44/47/65 22'35'-/22'44'-	23.36	9.15E+08	0.79 Y	0.89	0.94	5.7%
PCB-59/62/75 233'6-/2346-/24	23.63	1.18E+09	0.79 Y	1.14	1.22	6.7%
PCB-42 22'34'-TeCB	23.79	2.64E+08	0.80 Y	0.77	0.81	5.5%
PCB-41 22'34-TeCB	24.10	2.36E+08	0.78 Y	0.73	0.73	0.2%
PCB-71/40 23'4'6/22'33'-TeCB	24.20	5.96E+08	0.79 Y	0.87	0.92	6.2%
PCB-64 234'6-TeCB	24.40	4.16E+08	0.79 Y	1.24	1.28	3.8%
PCB-72 23'55'-TeCB	25.12	3.93E+08	0.79 Y	1.14	1.21	6.0%
PCB-68 23'45'-TeCB	25.37	4.18E+08	0.79 Y	1.21	1.29	6.6%
PCB-57 233'5-TeCB	25.73	3.76E+08	0.78 Y	1.11	1.16	5.1%
PCB-58 233'5-TeCB	25.92	3.78E+08	0.79 Y	1.10	1.17	6.1%
PCB-67 23'45-TeCB	26.07	4.00E+08	0.78 Y	1.16	1.23	6.4%
PCB-63 234'5-TeCB	26.30	4.17E+08	0.78 Y	1.22	1.29	6.0%
PCB-61/70/74/76 2345-/23'4'5	26.58	1.57E+09	0.78 Y	1.13	1.21	7.3%
PCB-66 23'44'-TeCB	26.85	3.66E+08	0.78 Y	1.08	1.13	5.1%
PCB-55 233'4-TeCB	26.99	3.77E+08	0.78 Y	1.10	1.16	6.0%
PCB-56 233'4'-TeCB	27.41	3.62E+08	0.78 Y	1.06	1.12	5.9%
PCB-60 2344'-TeCB	27.60	3.84E+08	0.79 Y	1.11	1.18	6.6%
PCB-80 33'55'-TeCB	27.96	4.32E+08	0.79 Y	1.25	1.33	6.4%
PCB-79 33'45'-TeCB	29.24	4.39E+08	0.78 Y	1.23	1.36	9.9%
PCB-78 33'45-TeCB	29.71	3.70E+08	0.77 Y	1.08	1.14	5.7%
PCB-104 22'466'-PeCB	23.31	2.98E+08	0.63 Y	1.25	1.31	4.5%
PCB-96 22'366'-PeCB	23.60	2.60E+08	0.63 Y	1.08	1.14	6.5%
PCB-103 22'45'6-PeCB	25.28	2.65E+08	0.63 Y	0.90	0.93	2.7%
PCB-94 22'356'-PeCB	25.46	2.32E+08	0.62 Y	0.78	0.81	4.2%
PCB-95 22'35'6-PeCB	25.83	2.47E+08	0.63 Y	0.83	0.86	4.4%
PCB-100/93 22'44'6-/22'356-P	26.04	4.92E+08	0.63 Y	0.84	0.86	1.7%
PCB-102 22'456'-PeCB	26.14	2.81E+08	0.63 Y	0.90	0.98	8.9%
PCB-98 22'3'46-PeCB	26.21	2.30E+08	0.63 Y	0.77	0.80	3.9%
PCB-88 22'346-PeCB	26.50	2.39E+08	0.63 Y	0.79	0.83	5.2%
PCB-91 22'34'6-PeCB	26.57	2.64E+08	0.63 Y	0.88	0.92	4.7%
PCB-84 22'33'6-PeCB	26.74	2.13E+08	0.62 Y	0.71	0.74	4.5%
PCB-89 22'346'-PeCB	27.15	2.26E+08	0.63 Y	0.76	0.79	3.6%
PCB-121 23'45'6-PeCB	27.53	3.39E+08	0.63 Y	1.14	1.18	3.3%
PCB-92 22'355'-PeCB	27.83	2.39E+08	0.63 Y	0.80	0.84	4.4%
PCB-113/90/101 233'5'6-/22'3	28.31	8.36E+08	0.63 Y	0.93	0.97	4.0%
PCB-83 22'33'5-PeCB	28.72	2.03E+08	0.62 Y	0.71	0.71	-0.5%
PCB-99 22'44'5-PeCB	28.83	2.76E+08	0.63 Y	0.87	0.96	10.6%
PCB-112 233'56-PeCB	28.92	3.25E+08	0.63 Y	1.13	1.13	0.7%
PCB-108/119/86/97/125/87 233	29.26	1.71E+09	0.63 Y	0.95	0.99	4.5%
PCB-117 234'56-PeCB	29.78	3.04E+08	0.62 Y	1.04	1.06	2.2%
PCB-116/85 23456-/22'344'-Pe	29.86	5.85E+08	0.63 Y	0.97	1.02	5.0%
PCB-110 233'4'6-PeCB	29.99	3.09E+08	0.63 Y	1.02	1.08	5.5%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.07	3.35E+08	0.63 Y	1.16	1.17	1.0%
PCB-82 22'33'4-PeCB	30.25	2.08E+08	0.63 Y	0.69	0.73	5.1%
PCB-111 233'55'-PeCB	30.60	3.45E+08	0.63 Y	1.15	1.21	4.4%
PCB-120 23'455'-PeCB	30.99	3.48E+08	0.63 Y	1.16	1.21	4.6%
PCB-107/124 233'4'5-/2'3455'	31.93	6.43E+08	0.63 Y	1.07	1.12	4.4%
PCB-109 233'46-PeCB	32.13	3.41E+08	0.63 Y	1.14	1.19	4.3%
PCB-106 233'45-PeCB	32.34	3.24E+08	0.63 Y	1.07	1.13	5.7%
PCB-122 2'33'45-PeCB	32.79	3.03E+08	0.63 Y	1.00	1.04	3.9%
PCB-127 33'455'-PeCB	34.74	3.33E+08	0.63 Y	1.10	1.17	6.4%
PCB-155 22'44'66'-HxCB	28.16	3.26E+08	1.27 Y	1.09	1.15	5.6%
PCB-152 22'3566'-HxCB	28.30	3.05E+08	1.26 Y	1.01	1.08	6.5%
PCB-150 22'34'66'-HxCB	28.45	3.08E+08	1.27 Y	1.00	1.09	8.2%
PCB-136 22'33'66'-HxCB	28.73	2.87E+08	1.26 Y	0.95	1.01	6.3%
PCB-145 22'3466'HxCB	29.00	2.91E+08	1.25 Y	0.96	1.03	6.7%
PCB-148 22'34'56'-HxCB	30.28	2.27E+08	1.27 Y	0.97	1.05	8.2%
PCB-151/135 22'355'6-/22'33'	30.79	4.40E+08	1.26 Y	0.96	1.02	5.6%
PCB-154 22'44'5'6-HxCB	31.00	2.51E+08	1.25 Y	1.09	1.16	6.5%
PCB-144 22'345'6-HxCB	31.25	2.25E+08	1.26 Y	0.98	1.04	6.0%
PCB-147/149 22'34'56-/22'34'	31.55	4.53E+08	1.26 Y	0.99	1.05	6.4%
PCB-134 22'33'56-HxCB	31.71	1.85E+08	1.26 Y	0.80	0.86	7.0%
PCB-143 22'3456'-HxCB	31.79	2.15E+08	1.27 Y	0.95	1.00	4.4%
PCB-139/140 22'344'6-/22'344'	32.06	4.63E+08	1.26 Y	1.00	1.07	7.2%
PCB-131 22'33'46-HxCB	32.22	1.99E+08	1.26 Y	0.85	0.92	8.5%
PCB-142 22'3456-HxCB	32.36	2.02E+08	1.27 Y	0.87	0.93	7.0%
PCB-132 22'33'46'-HxCB	32.59	2.05E+08	1.26 Y	0.89	0.95	6.8%
PCB-133 22'33'55'-HxCB	33.03	2.13E+08	1.27 Y	0.91	0.99	8.0%
PCB-165 233'55'6-HxCB	33.37	2.61E+08	1.25 Y	1.13	1.21	6.6%
PCB-146 22'34'55'-HxCB	33.57	2.29E+08	1.26 Y	1.01	1.06	5.1%
PCB-161 233'45'6-HxCB	33.69	2.92E+08	1.27 Y	1.25	1.35	7.8%
PCB-153/168 22'44'55'-/23'44'	34.12	5.61E+08	1.27 Y	1.22	1.30	6.5%
PCB-141 22'3455'-HxCB	34.25	2.12E+08	1.27 Y	0.93	0.98	5.7%
PCB-130 22'33'45'-HxCB	34.59	1.93E+08	1.26 Y	0.85	0.89	5.6%
PCB-137 22'344'5-HxCB	34.78	2.23E+08	1.25 Y	1.04	1.03	-1.2%
PCB-164 233'4'5'6-HxCB	34.86	2.99E+08	1.27 Y	1.22	1.38	13.2%
PCB-163/138/129 233'4'56-/22'	35.15	7.12E+08	1.26 Y	1.02	1.10	7.3%
PCB-160 233'456-HxCB	35.28	2.72E+08	1.27 Y	1.21	1.26	4.2%
PCB-158 233'44'6-HxCB	35.46	3.05E+08	1.26 Y	1.34	1.41	5.5%
PCB-128/166 22'33'44'-/2344'5	36.18	5.38E+08	1.25 Y	0.90	0.94	4.8%
PCB-159 233'455'-HxCB	37.02	3.22E+08	1.25 Y	1.06	1.13	5.9%
PCB-162 233'4'55'-HxCB	37.25	3.25E+08	1.25 Y	1.08	1.14	5.7%
PCB-188 22'34'566'-HpCB	32.97	2.48E+08	1.05 Y	1.03	1.10	6.3%
PCB-179 22'33'566'-HpCB	33.23	2.29E+08	1.06 Y	0.97	1.02	5.0%
PCB-184 22'344'66'-HpCB	33.70	2.25E+08	1.05 Y	0.93	1.00	7.0%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:14

Lab ID: CS4_120725_PCB_XB
Acquired: 26-JUL-2012 06:32
Datafile: 120725X19
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.98	2.48E+08	1.05 Y	1.05	1.10	5.1%
PCB-186 22'34566'-HpCB	34.36	2.33E+08	1.05 Y	0.98	1.03	5.4%
PCB-178 22'33'55'6-HpCB	35.51	1.74E+08	1.06 Y	0.74	0.77	4.8%
PCB-175 22'33'45'6-HpCB	36.05	2.17E+08	1.06 Y	1.01	1.08	6.8%
PCB-187 22'34'55'6-HpCB	36.28	2.28E+08	1.05 Y	1.06	1.13	6.4%
PCB-182 22'344'56'-HpCB	36.45	2.33E+08	1.05 Y	1.11	1.15	3.9%
PCB-183 22'344'5'6-HpCB	36.80	2.54E+08	1.05 Y	1.13	1.26	11.0%
PCB-185 22'3455'6-HpCB	36.87	2.08E+08	1.06 Y	1.02	1.03	1.3%
PCB-174 22'33'456'-HpCB	36.98	1.93E+08	1.06 Y	0.93	0.96	3.3%
PCB-177 22'33'4'56-HpCB	37.35	1.93E+08	1.05 Y	0.91	0.96	5.8%
PCB-181 22'344'56-HpCB	37.69	2.24E+08	1.05 Y	1.06	1.11	4.4%
PCB-171/173 22'33'44'6-/22'3	37.86	3.92E+08	1.05 Y	0.93	0.97	4.8%
PCB-172 22'33'455'-HpCB	39.23	2.02E+08	1.05 Y	0.95	1.00	4.8%
PCB-192 233'455'6-HpCB	39.48	2.62E+08	1.05 Y	1.24	1.30	4.8%
PCB-180/193 22'344'55'-/233'	39.75	4.93E+08	1.06 Y	1.16	1.22	5.5%
PCB-191 233'44'5'6-HpCB	40.07	2.73E+08	1.05 Y	1.30	1.36	4.1%
PCB-170 22'33'44'5-HpCB	40.82	1.97E+08	1.05 Y	1.07	1.13	5.3%
PCB-190 233'44'56-HpCB	41.27	2.68E+08	1.05 Y	1.45	1.54	6.1%
PCB-202 22'33'55'66'-OcCB	37.46	2.09E+08	0.90 Y	0.91	0.96	4.8%
PCB-201 22'33'45'66'-OcCB	38.23	2.34E+08	0.90 Y	1.02	1.07	5.1%
PCB-204 22'344'566'-OcCB	38.81	2.20E+08	0.91 Y	0.98	1.01	3.5%
PCB-197 22'33'44'66'-OcCB	38.99	2.43E+08	0.89 Y	1.06	1.12	4.9%
PCB-200 22'33'4566'-OcCB	39.07	2.20E+08	0.90 Y	0.96	1.01	5.2%
PCB-198/199 22'33'455'6-/22'	41.40	3.30E+08	0.90 Y	0.72	0.76	5.6%
PCB-196 22'33'44'56'-OcCB	41.97	1.71E+08	0.90 Y	0.73	0.79	7.5%
PCB-203 22'344'55'6-OcCB	42.14	1.78E+08	0.91 Y	0.76	0.82	6.7%
PCB-195 22'33'44'56-OcCB	43.24	1.78E+08	0.89 Y	0.80	0.85	6.2%
PCB-194 22'33'44'55'-OcCB	45.19	1.91E+08	0.90 Y	0.87	0.91	4.1%
PCB-205 233'44'55'6-OcCB	45.58	2.39E+08	0.90 Y	1.09	1.14	4.7%
PCB-208 22'33'455'66'-NoCB	43.04	2.24E+08	0.78 Y	1.02	1.08	6.2%
PCB-207 22'33'44'566'-NoCB	43.82	2.33E+08	0.78 Y	1.06	1.12	6.3%
PCB-206 22'33'44'55'6-NoCB	47.04	1.58E+08	0.78 Y	0.98	1.04	6.1%

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 scc: 276-589 *PKD: n/a Printed: 28-Jul-2012 13:21 Page 1 of 21*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
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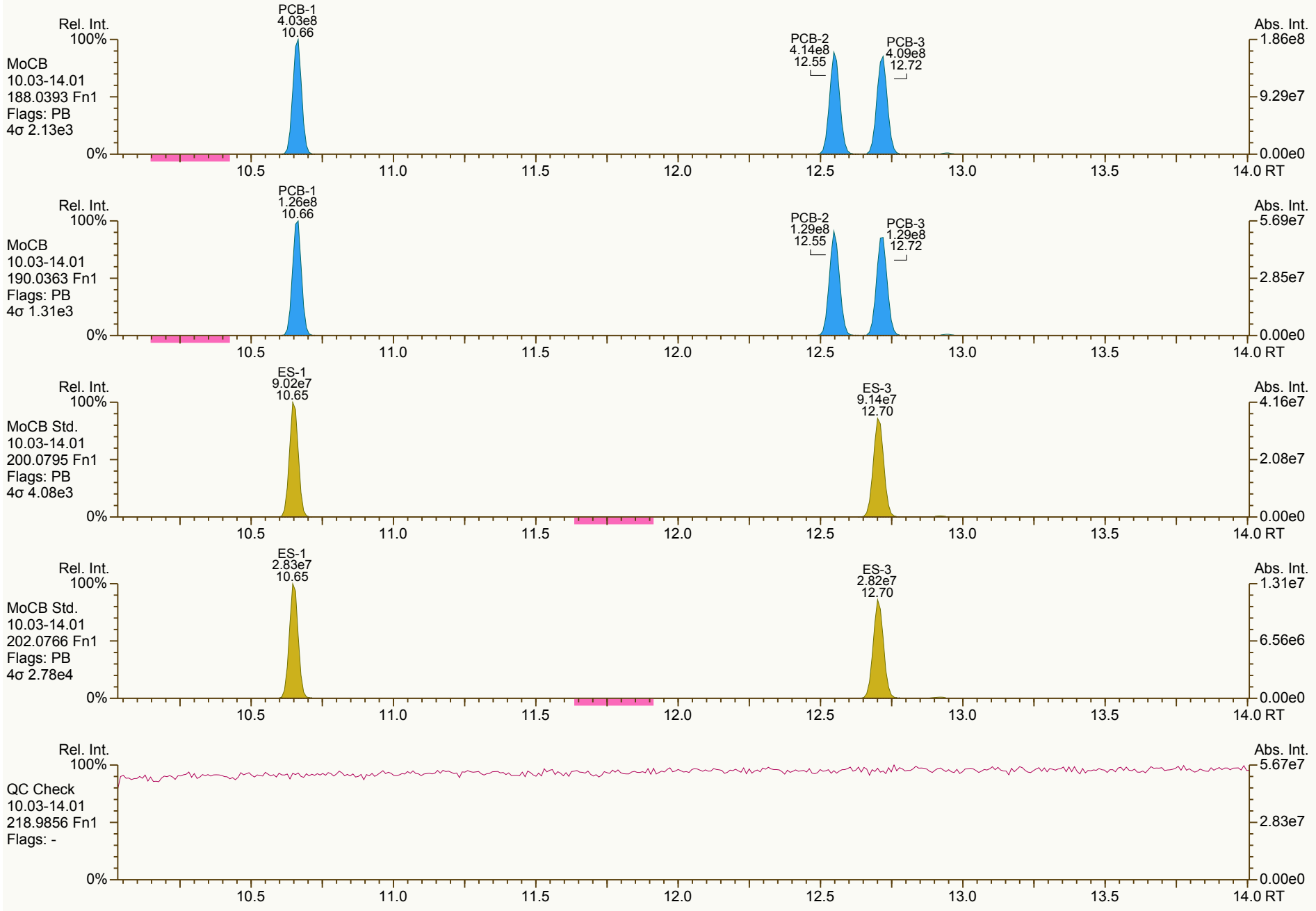

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AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
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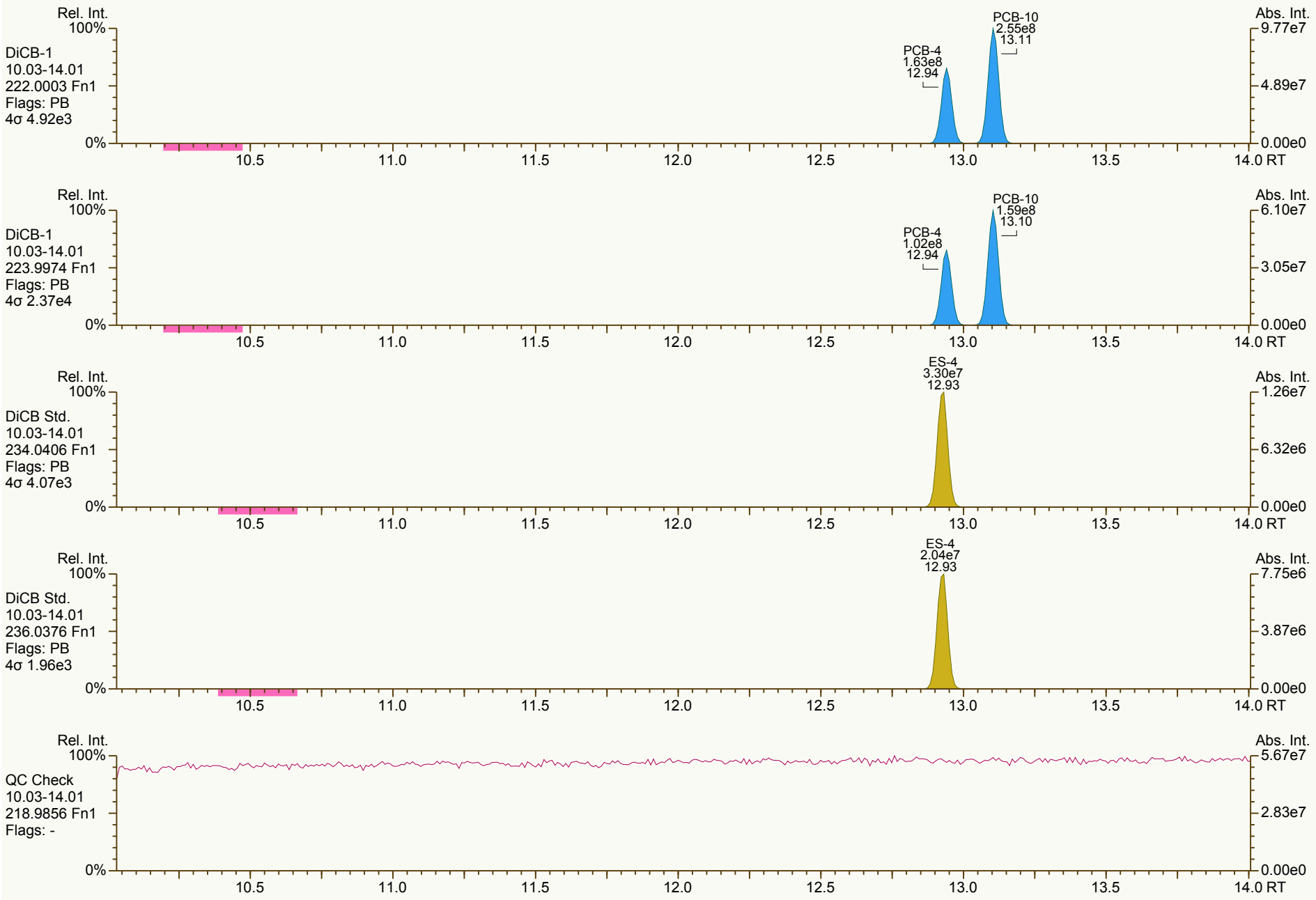

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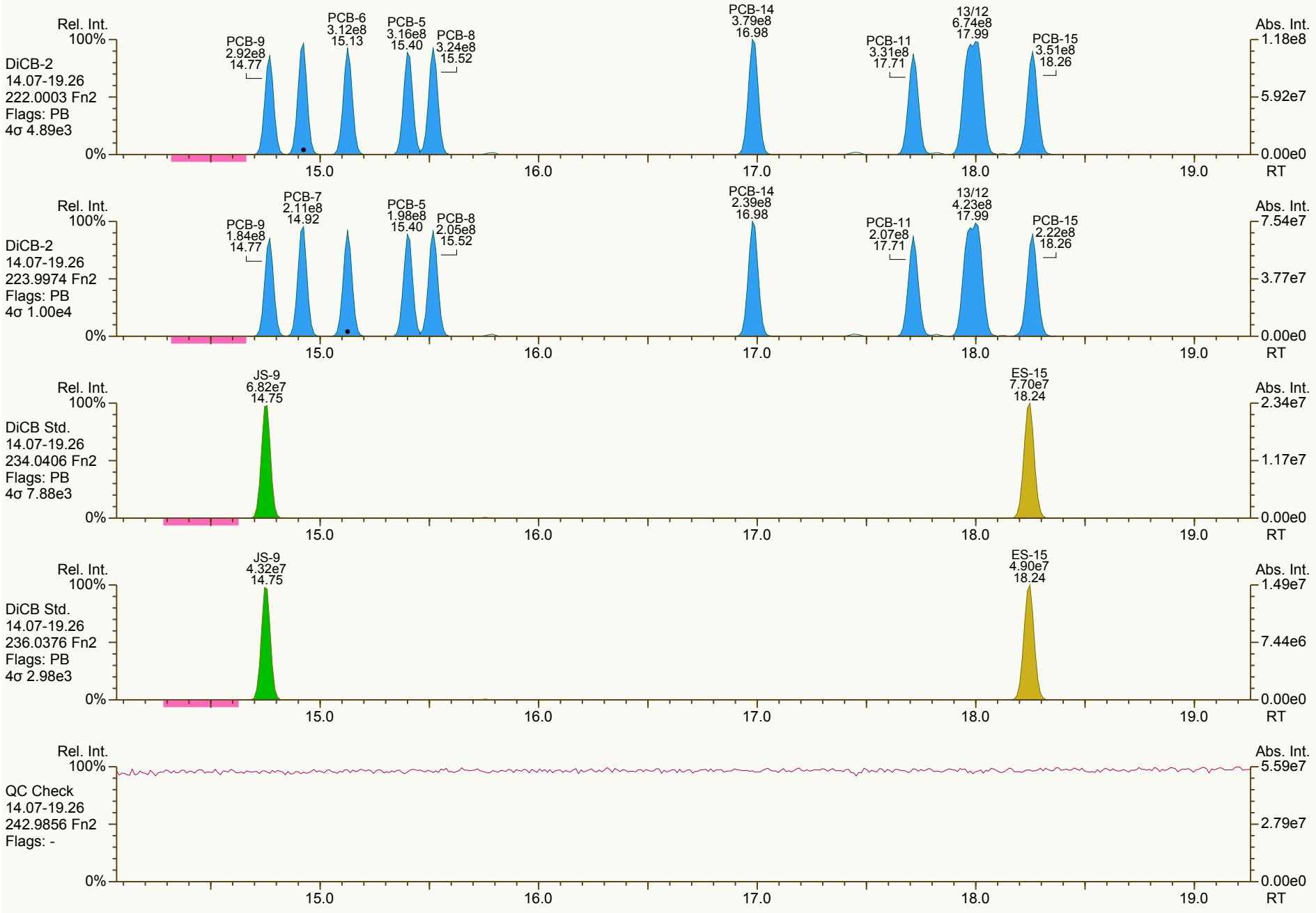
AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
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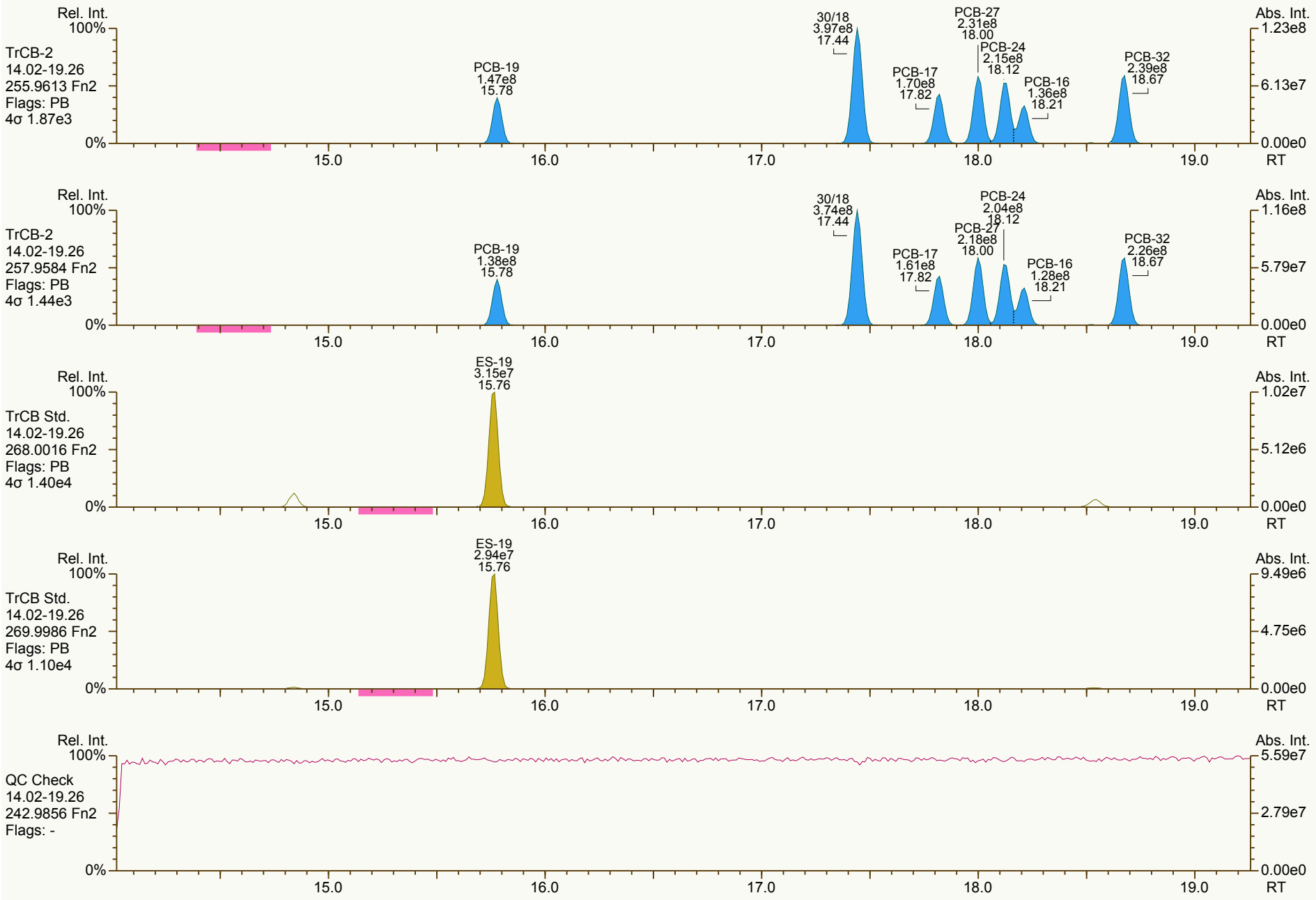

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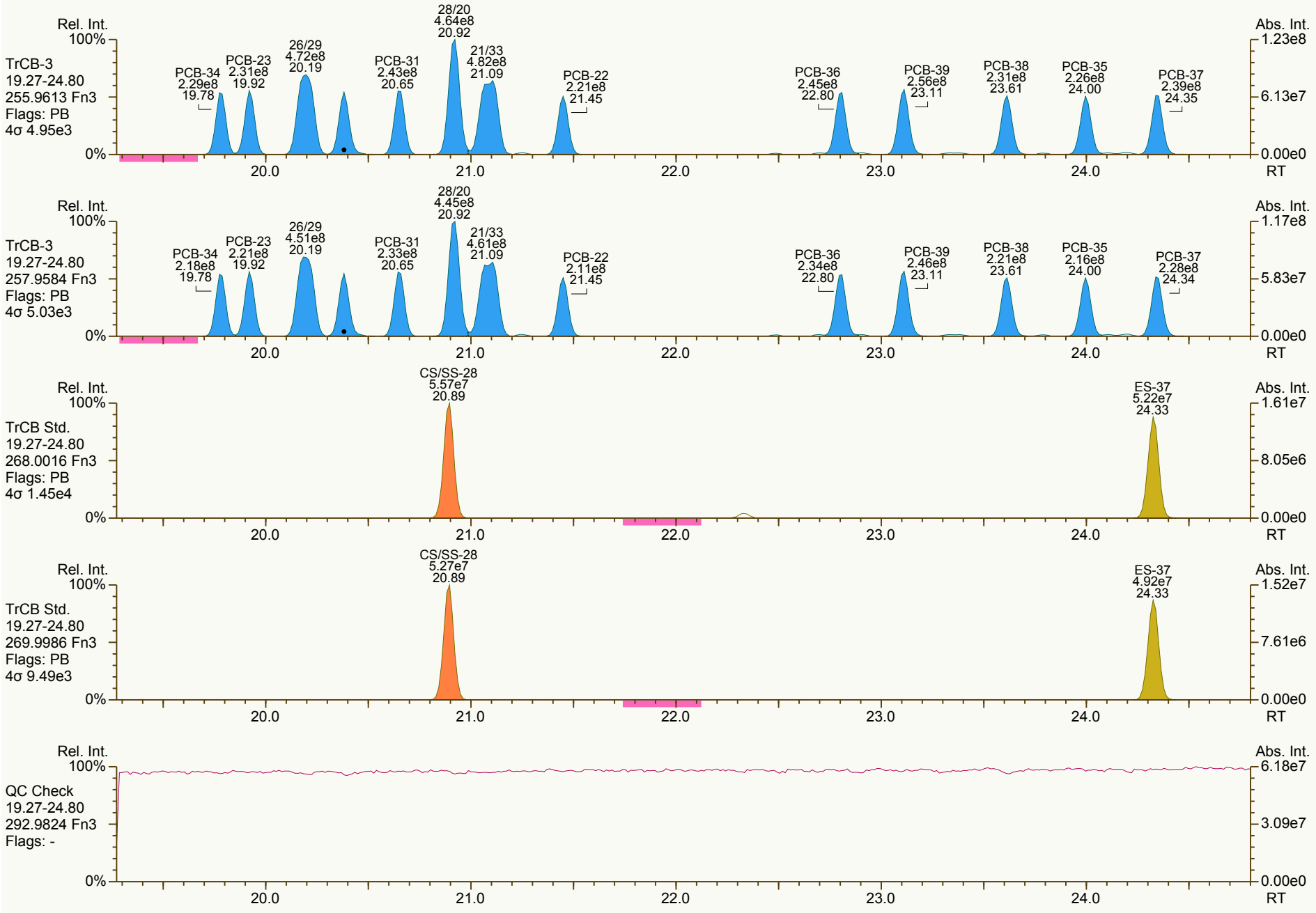

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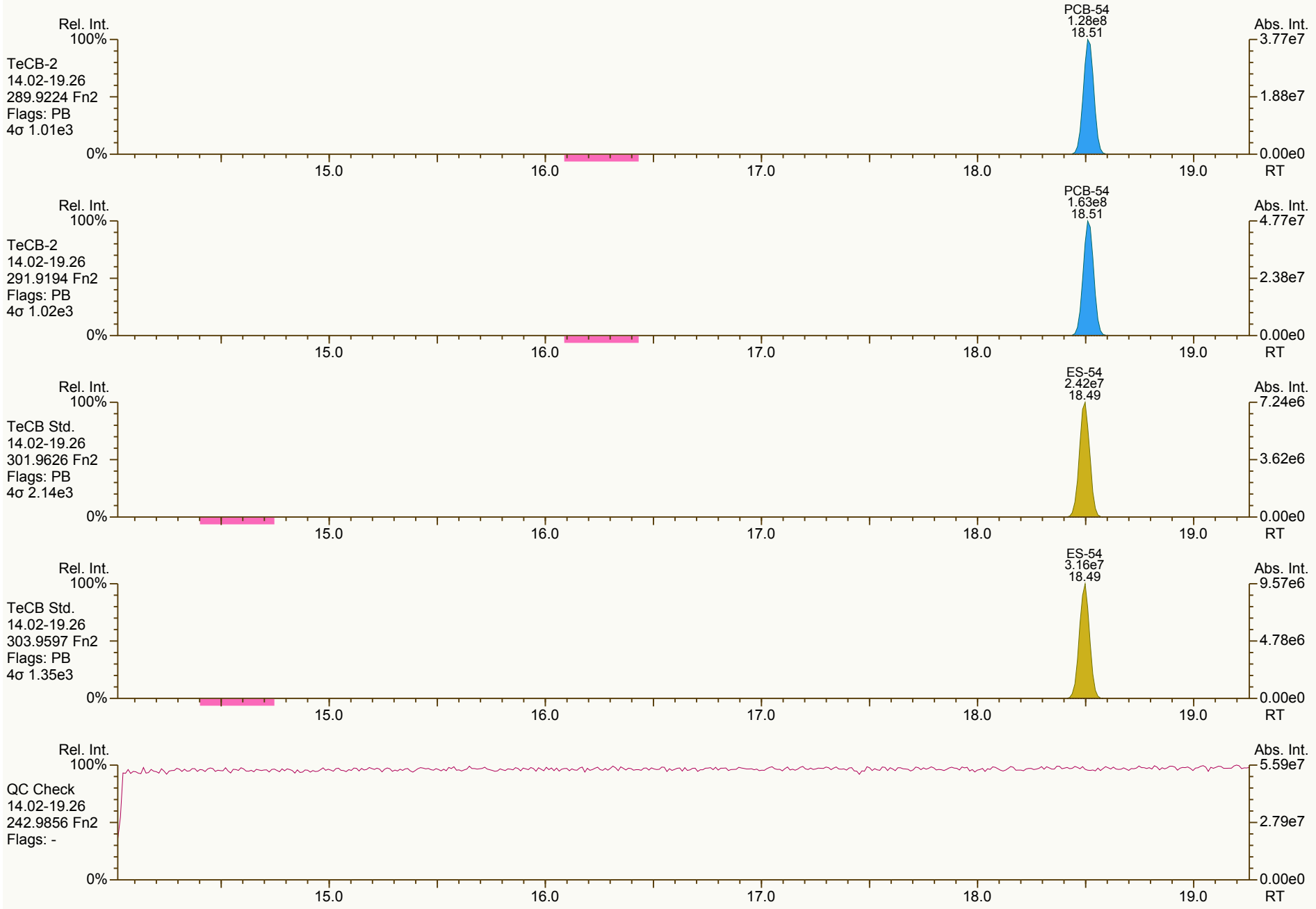

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AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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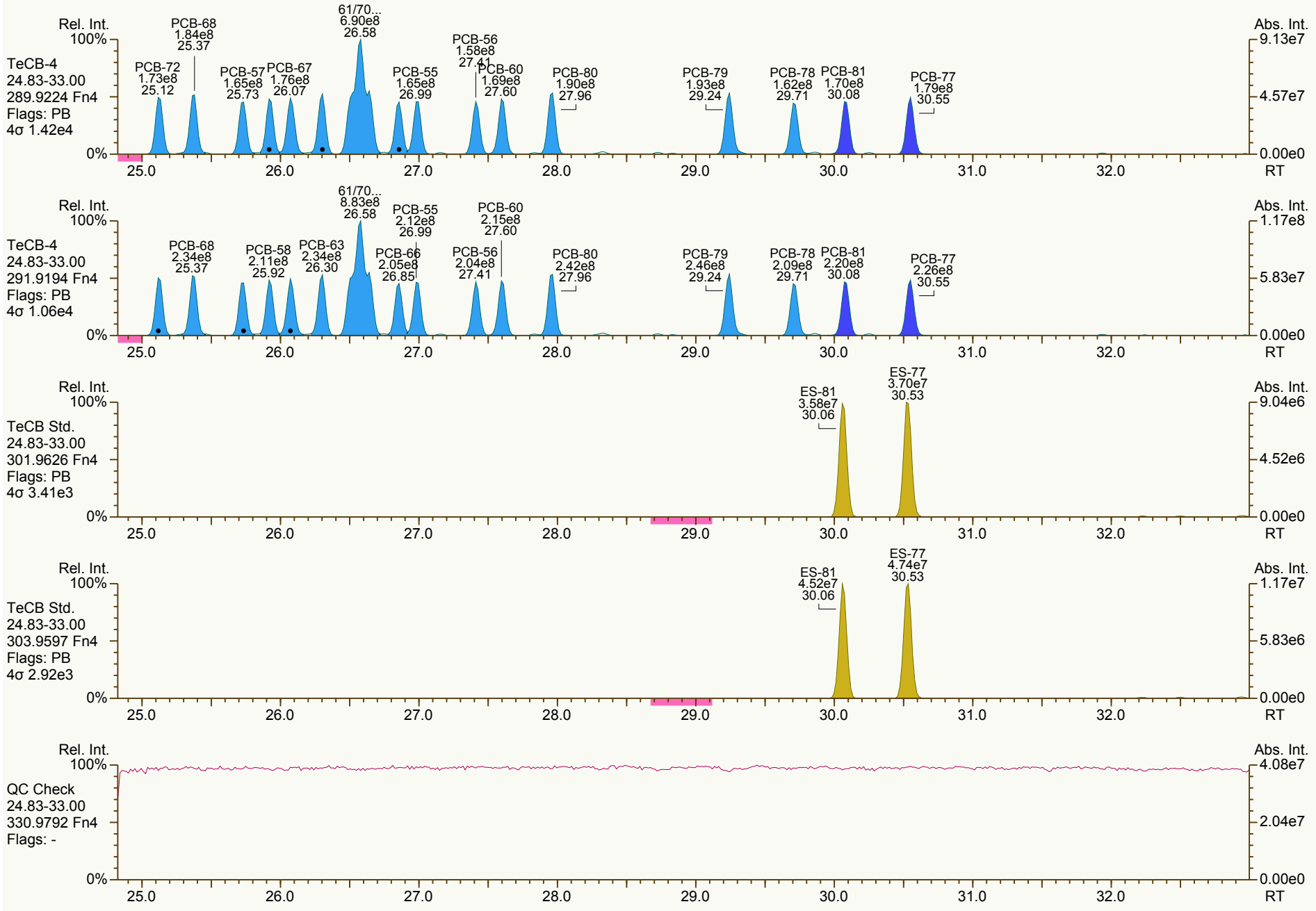

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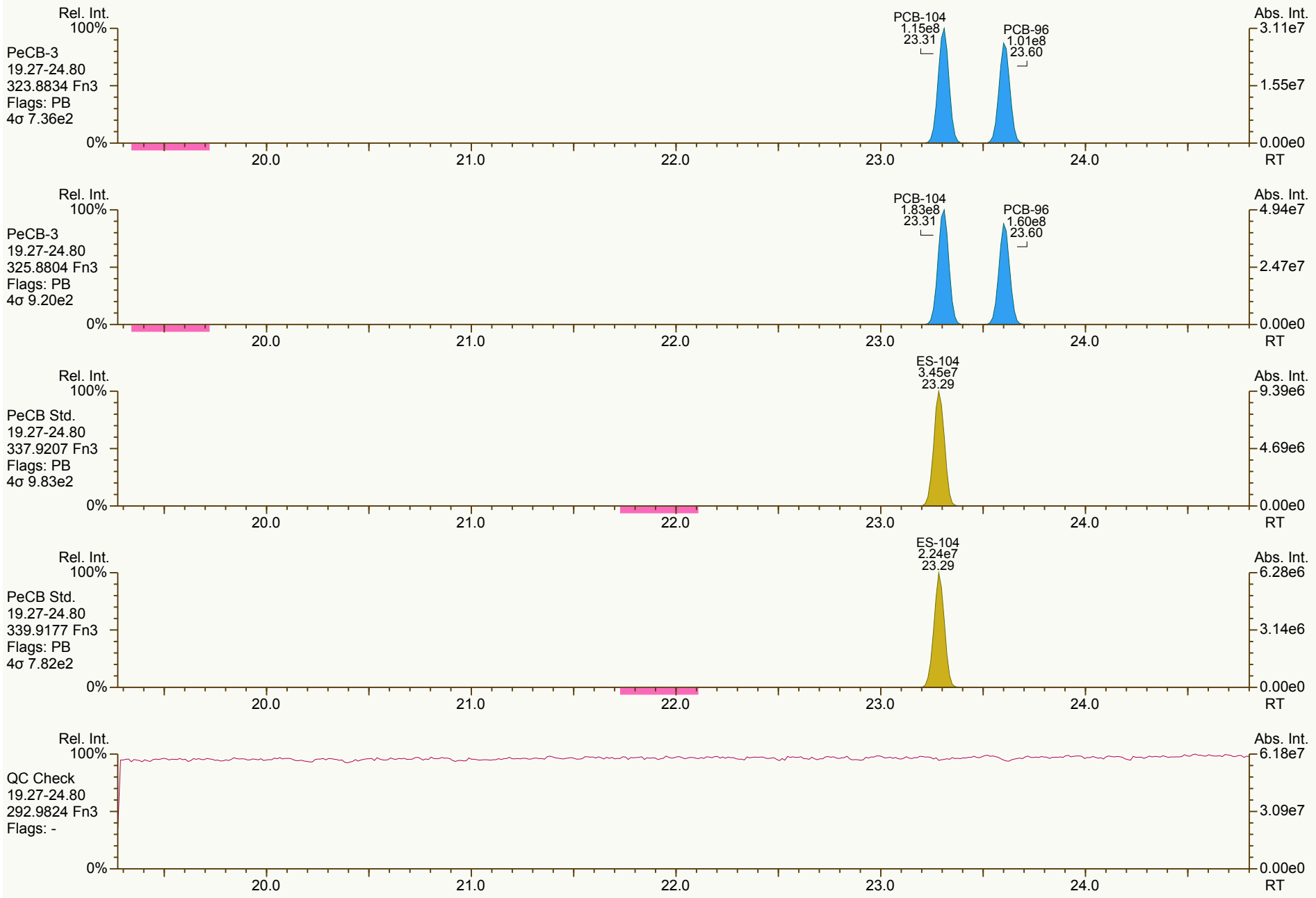

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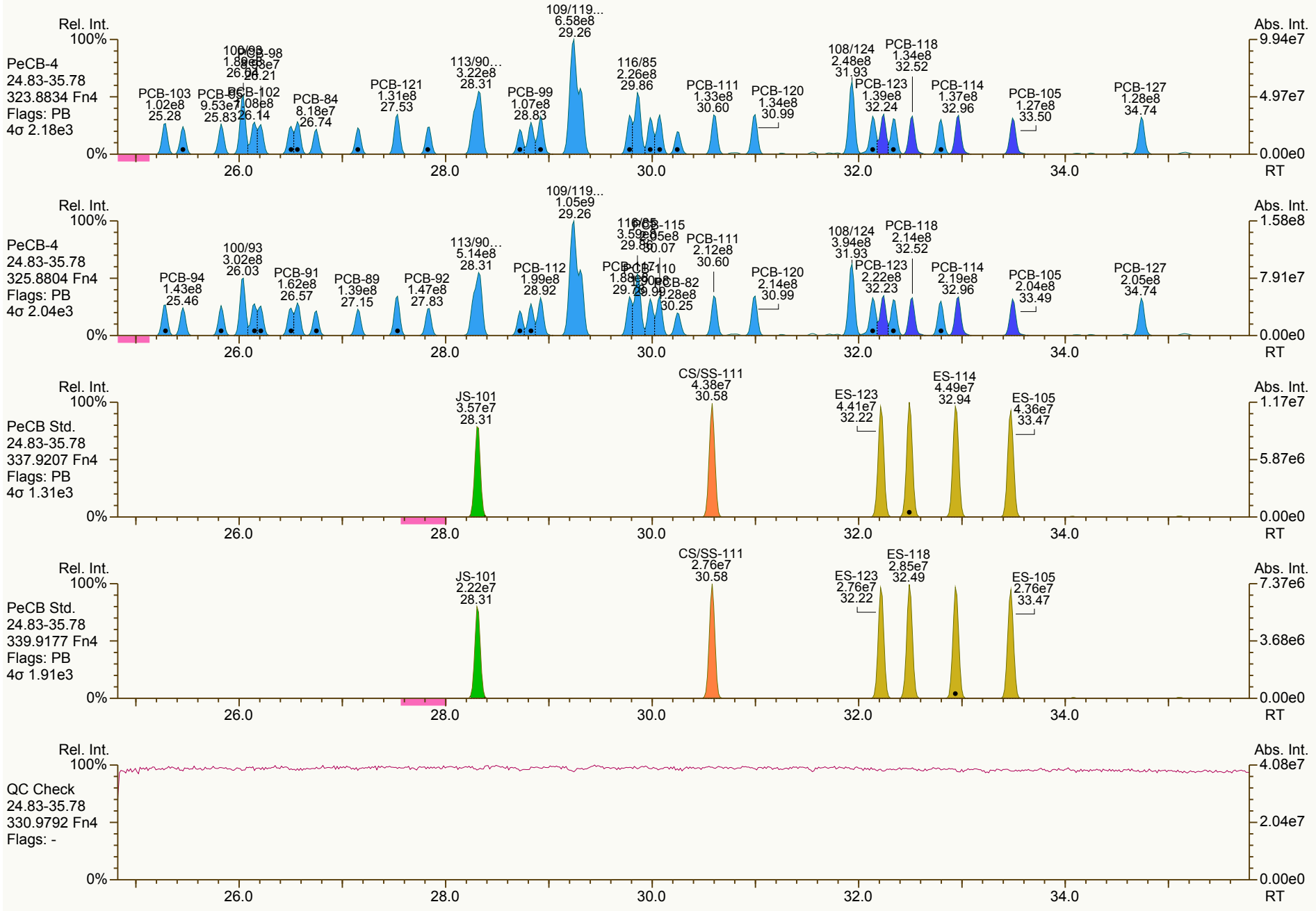
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



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AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
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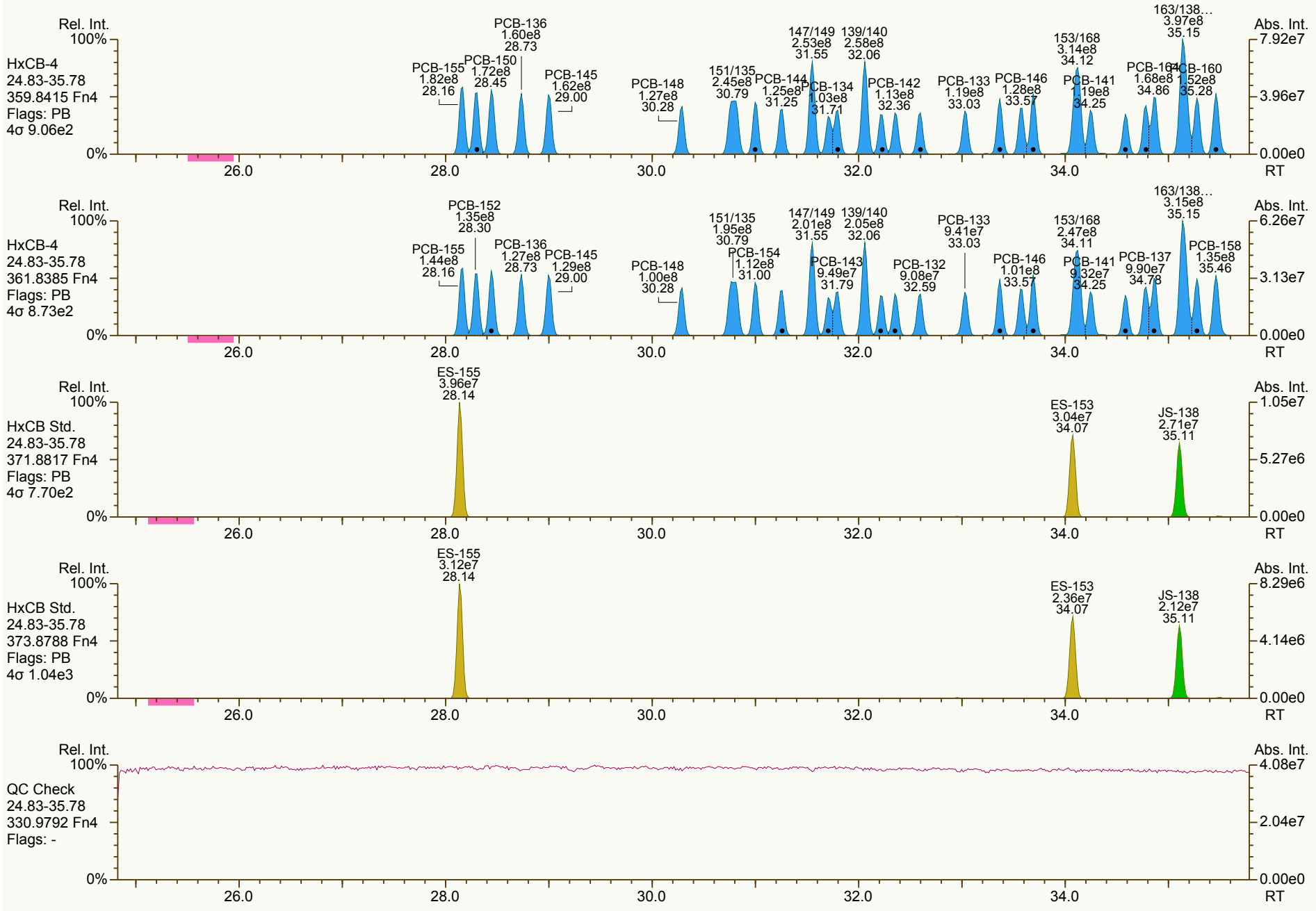

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 8489, 4807 scc: 276-589 *PKD: 27-Jul-2012 17:01 Printed: 28-Jul-2012 13:21 Page 13 of 21*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
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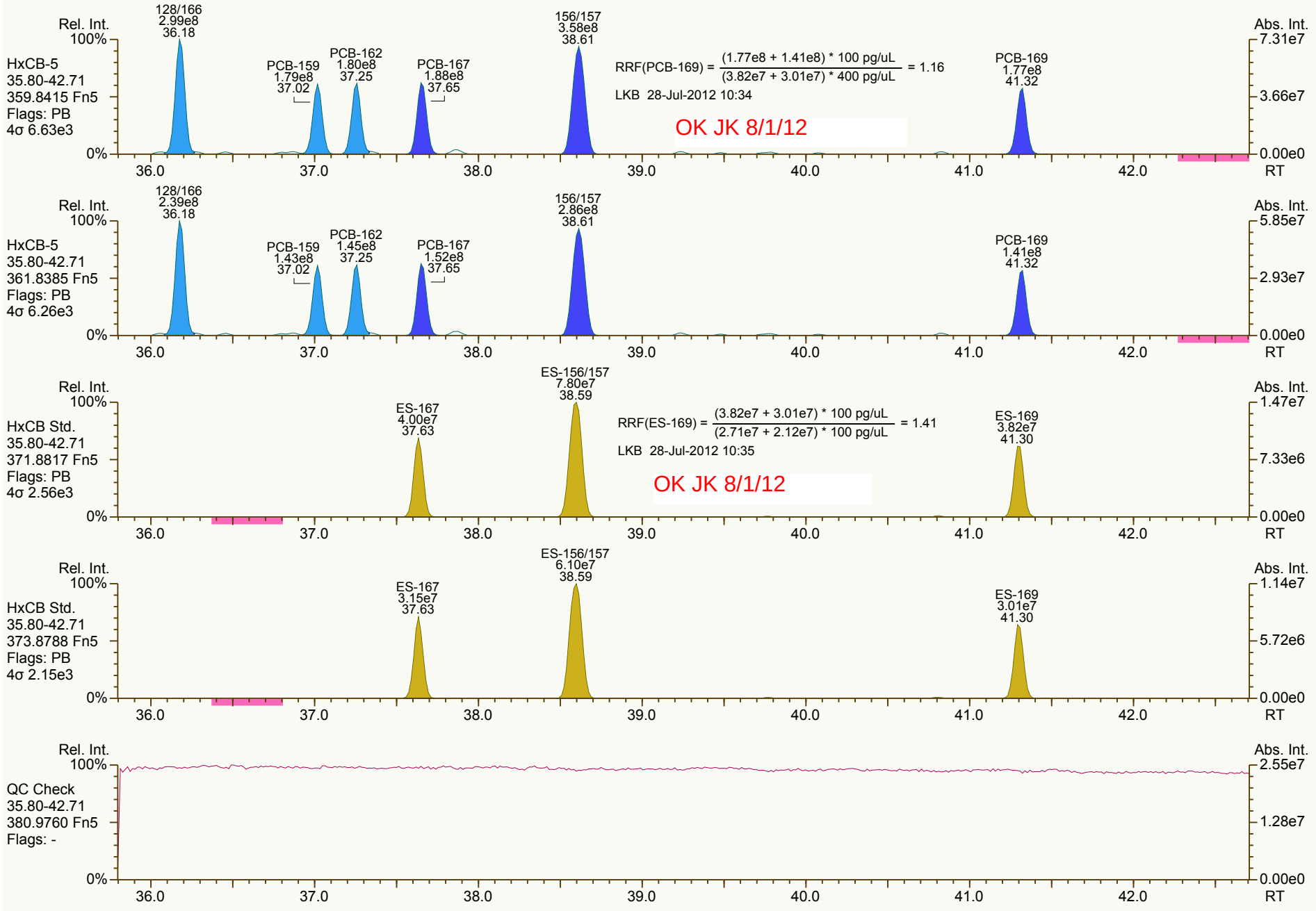

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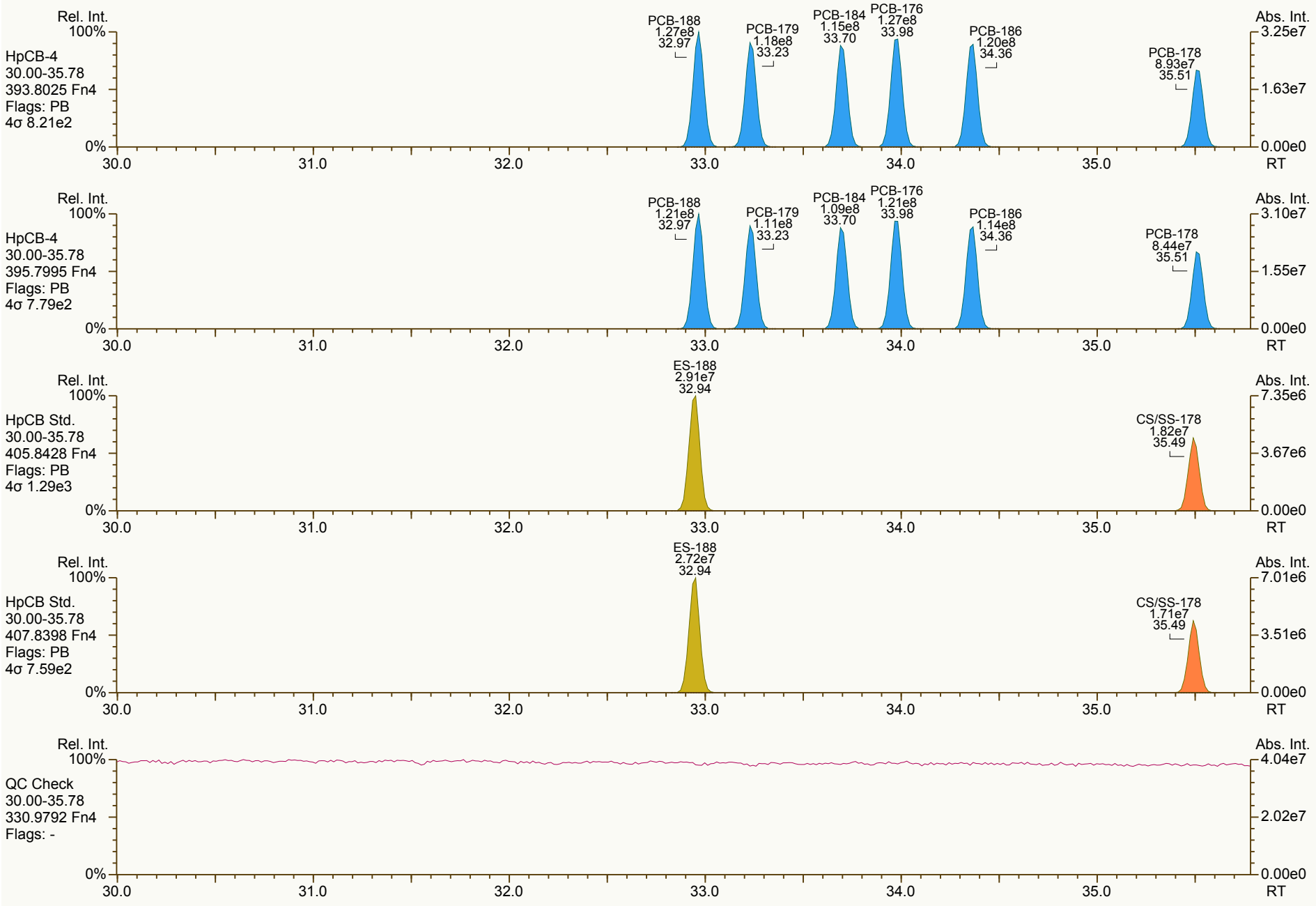

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AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
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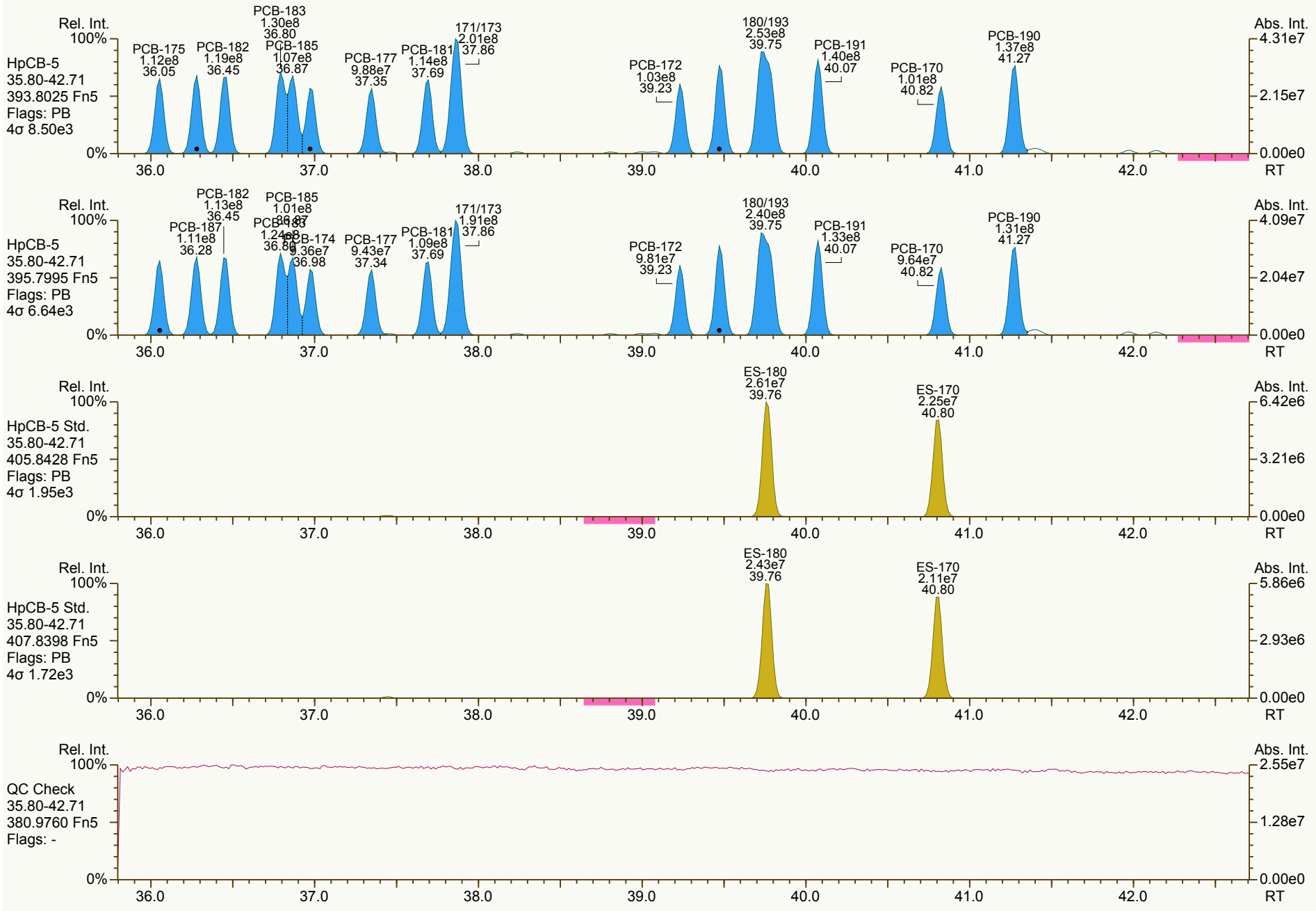

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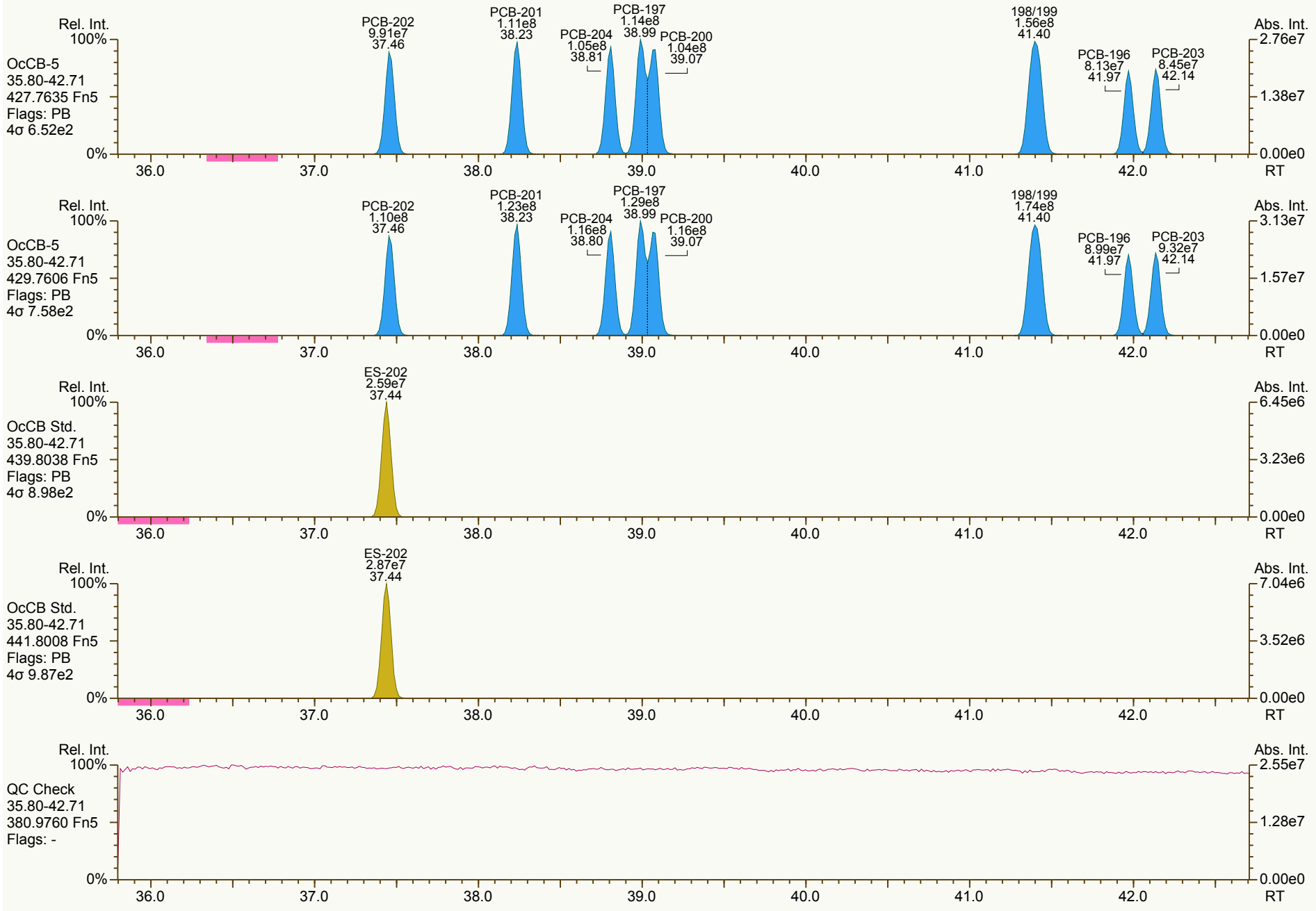
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7057, 6859 scc: 276-589 *PKD: 27-Jul-2012 17:01 Printed: 28-Jul-2012 13:21 Page 16 of 21*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



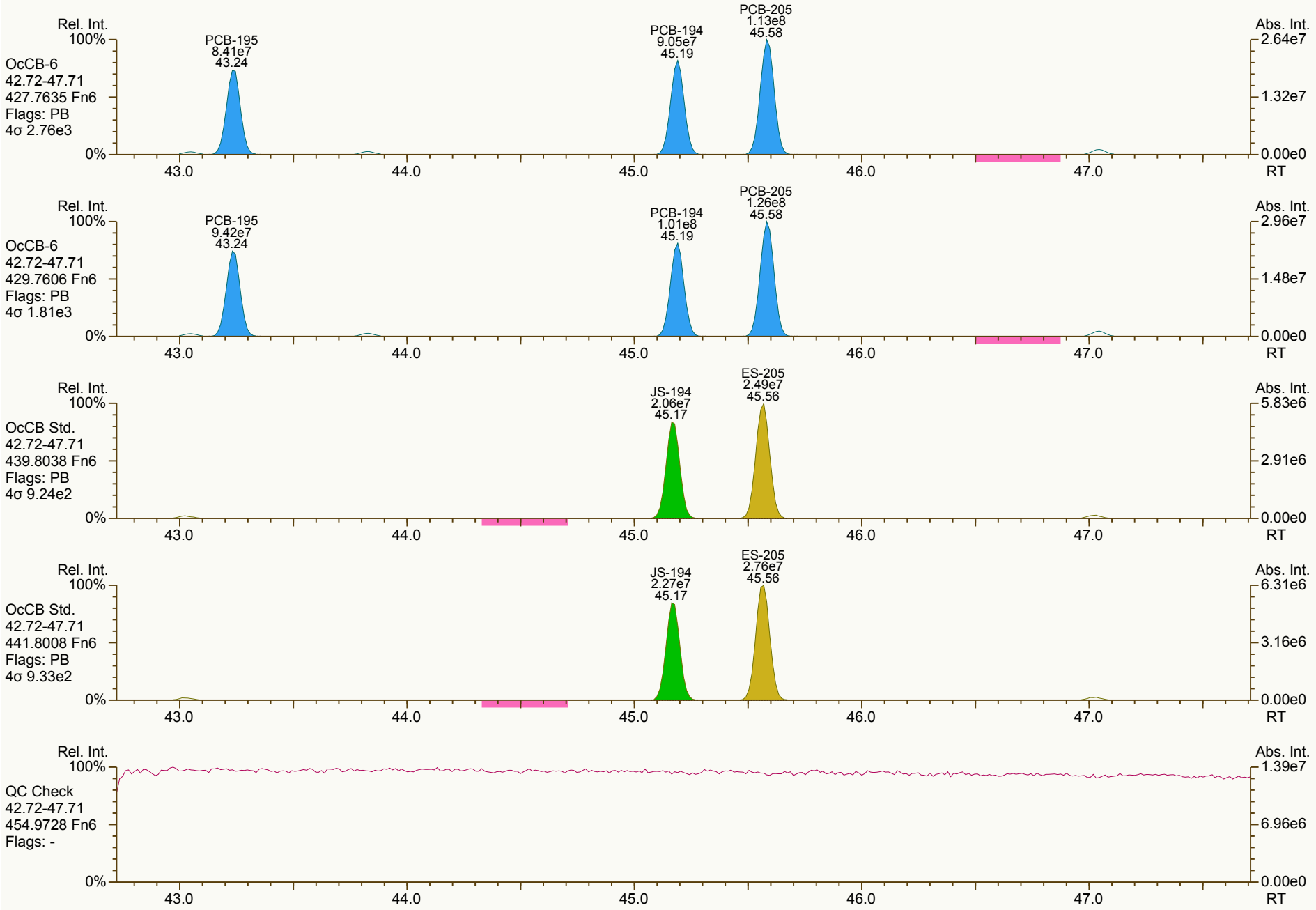
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



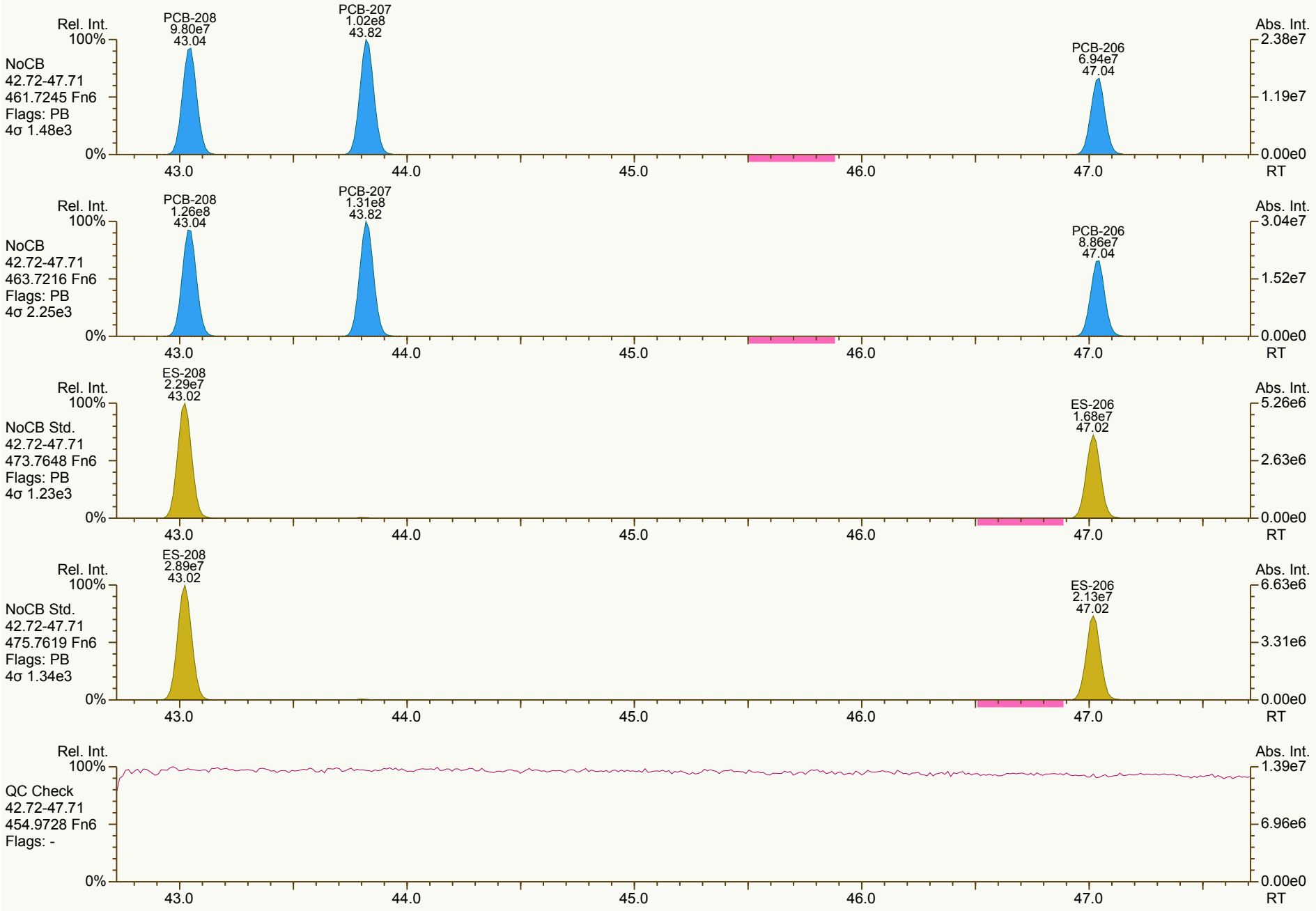
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



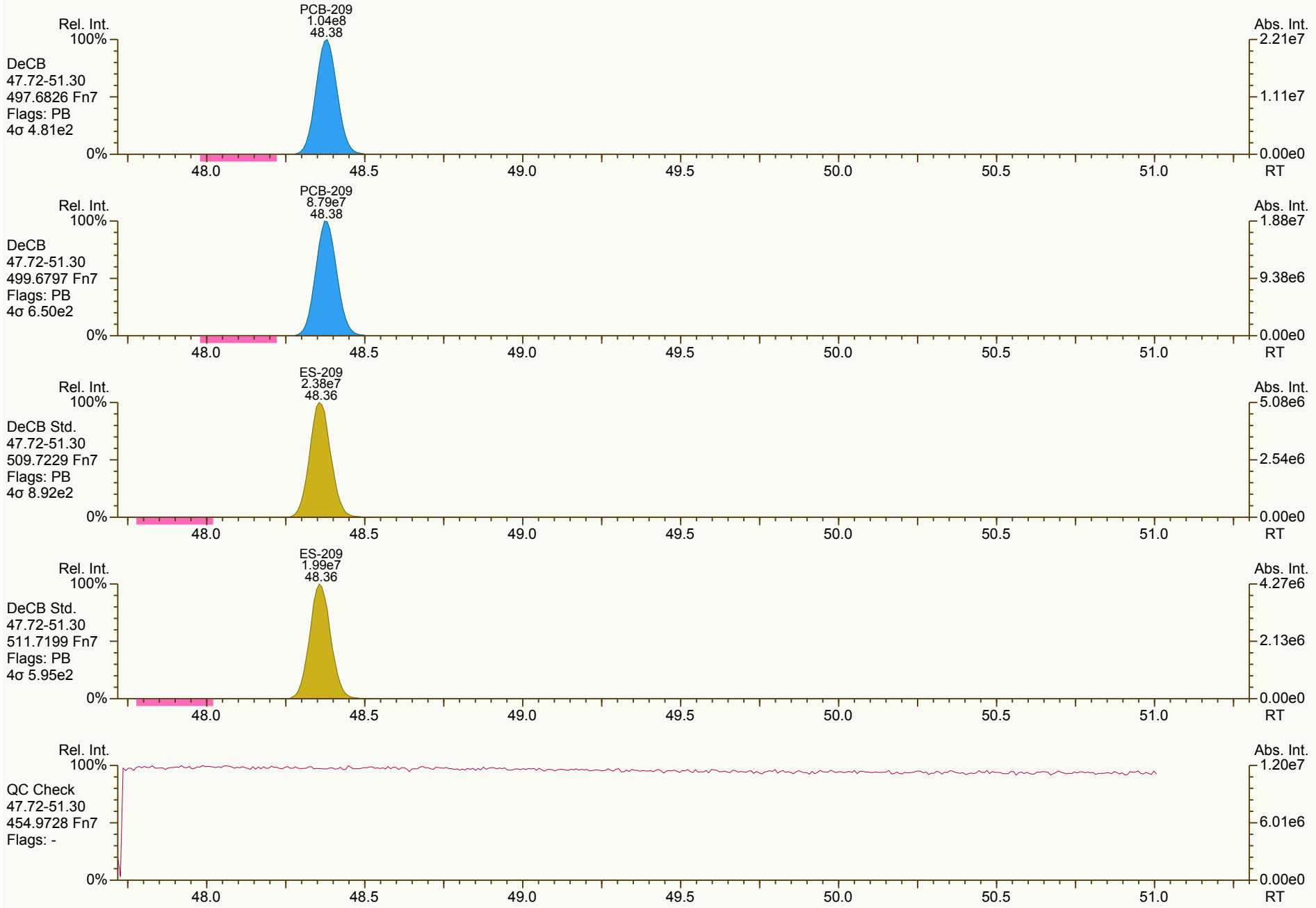
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: CS4_120725_PCB_XB **Sample ID: SIL 12-65-2** **Acq: 26-Jul-2012 06:32:28**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 54** **User: LKB Datafile: 120725X19**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS4_120725_PCB_XB.utp_res, saved 28-Jul-2012 13:20 (LKB) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 28-Jul-2012 10:15
Lab ID:	**CS5_120725_PCB_XB**		**ICAL: MM7_PCB_07132012_25JUL12**		
Acquired:	**26-JUL-2012 07:26**				
Datafile:	**120725X20**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	30.54	2.29E+09	0.79 Y	1.13	1.18	3.9%
PCB-81 344'5-TeCB	30.07	2.20E+09	0.79 Y	1.13	1.18	4.6%
PCB-105 233'44'-PeCB	33.48	1.80E+09	0.63 Y	1.09	1.13	3.0%
PCB-114 2344'5-PeCB	32.95	1.90E+09	0.63 Y	1.16	1.20	3.1%
PCB-118 23'44'5-PeCB	32.51	1.86E+09	0.63 Y	1.11	1.12	1.3%
PCB-123 2'344'5-PeCB	32.23	1.94E+09	0.63 Y	1.19	1.23	3.4%
PCB-126 33'44'5-PeCB	36.08	1.76E+09	0.63 Y	1.06	1.12	5.8%
PCB-156/157 233'44'5/233'44'5'	38.60	3.47E+09	1.25 Y	1.11	1.12	1.0%
PCB-167 23'44'55'-HxCB	37.65	1.84E+09	1.25 Y	1.14	1.17	2.8%
PCB-169 33'44'55'-HxCB	41.31	1.70E+09	1.26 Y	1.11	1.14	2.7%
PCB-189 233'44'55'-HpCB	43.42	1.56E+09	1.05 Y	1.06	1.10	3.7%
PCB-209 DeCB	48.37	9.96E+08	1.18 Y	1.07	1.07	-0.3%
ES PCB-1	10.63	1.48E+08	3.19 Y	1.08	1.09	0.9%
ES PCB-3	12.69	1.49E+08	3.21 Y	1.08	1.10	1.4%
ES PCB-4	12.91	6.61E+07	1.61 Y	0.49	0.49	-0.3%
ES PCB-15	18.23	1.52E+08	1.59 Y	1.11	1.12	0.7%
ES PCB-19	15.75	7.38E+07	1.06 Y	0.55	0.54	-1.9%
ES PCB-37	24.32	1.21E+08	1.07 Y	1.64	1.67	2.1%
ES PCB-54	18.48	6.74E+07	0.79 Y	0.94	0.93	-0.9%
ES PCB-77	30.52	9.71E+07	0.79 Y	1.35	1.34	-0.3%
ES PCB-81	30.05	9.32E+07	0.80 Y	1.29	1.29	0.1%
ES PCB-104	23.28	6.50E+07	1.56 Y	0.99	1.00	0.7%
ES PCB-105	33.46	7.99E+07	1.59 Y	1.23	1.23	-0.3%
ES PCB-114	32.93	7.95E+07	1.59 Y	1.25	1.22	-2.0%
ES PCB-118	32.48	8.30E+07	1.62 Y	1.28	1.28	-0.3%
ES PCB-123	32.21	7.90E+07	1.59 Y	1.22	1.22	-0.2%
ES PCB-126	36.06	7.84E+07	1.58 Y	1.20	1.21	0.6%
ES PCB-153	34.06	6.01E+07	1.25 Y	1.14	1.15	0.4%
ES PCB-155	28.13	7.88E+07	1.27 Y	1.50	1.50	0.4%
ES PCB-156/157	38.58	1.55E+08	1.29 Y	1.45	1.48	1.5%
ES PCB-167	37.62	7.86E+07	1.28 Y	1.49	1.50	0.3%
ES PCB-169	41.29	7.46E+07	1.27 Y	1.40	1.42	1.2%
ES PCB-170	40.79	4.67E+07	1.05 Y	1.00	1.00	-0.2%
ES PCB-180	39.75	5.51E+07	1.05 Y	1.16	1.18	1.8%
ES PCB-188	32.93	6.18E+07	1.06 Y	1.18	1.18	0.0%
ES PCB-189	43.40	7.11E+07	1.04 Y	1.49	1.52	2.3%
ES PCB-202	37.43	5.96E+07	0.89 Y	1.14	1.14	0.0%
ES PCB-205	45.55	5.70E+07	0.90 Y	1.20	1.22	1.4%
ES PCB-206	47.01	4.08E+07	0.78 Y	0.87	0.87	0.4%
ES PCB-208	43.01	5.57E+07	0.79 Y	1.19	1.19	0.2%
ES PCB-209	48.35	4.66E+07	1.18 Y	1.00	1.00	-0.5%

PCB QC Summary	SGS Analytical Perspectives	Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	20.88	1.28E+08	1.06 Y	1.07	1.06	-1.3%
SS PCB-111	30.57	8.01E+07	1.60 Y	1.01	1.01	0.8%
SS PCB-178	35.48	3.91E+07	1.07 Y	0.63	0.63	0.7%
CS PCB-28	20.88	1.28E+08	1.06 Y	1.76	1.77	0.8%
CS PCB-111	30.57	8.01E+07	1.60 Y	1.23	1.23	0.6%
CS PCB-178	35.48	3.91E+07	1.07 Y	0.74	0.74	0.7%
JS PCB-9	14.74	1.36E+08	1.58 Y	-	-	-
JS PCB-52	22.45	7.23E+07	0.79 Y	-	-	-
JS PCB-101	28.30	6.50E+07	1.60 Y	-	-	-
JS PCB-138	35.10	5.25E+07	1.26 Y	-	-	-
JS PCB-194	45.16	4.67E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	10.64	3.25E+09	3.15 Y	1.03	1.10	6.3%
PCB-3 4-MoCB	12.70	3.36E+09	3.20 Y	1.04	1.13	7.8%
PCB-4 22'-DiCB	12.93	1.61E+09	1.59 Y	1.17	1.21	3.8%
PCB-15 44'-DiCB	18.25	3.41E+09	1.58 Y	1.08	1.12	3.7%
PCB-19 22'6-TrCB	15.77	1.68E+09	1.06 Y	1.09	1.14	4.2%
PCB-37 344'-TrCB	24.34	2.72E+09	1.05 Y	1.10	1.12	1.8%
PCB-54 22'66'-TeCB	18.50	1.69E+09	0.80 Y	1.21	1.25	3.7%
PCB-104 22'466'-PeCB	23.30	1.65E+09	0.63 Y	1.25	1.27	0.9%
PCB-153 22'44'55' -HxCB	34.10	3.01E+09	1.27 Y	1.22	1.25	2.8%
PCB-155 22'44'66'-HxCB	28.15	1.78E+09	1.26 Y	1.09	1.13	3.8%
PCB-170 22'33'44'5-HpCB	40.81	1.06E+09	1.05 Y	1.07	1.13	5.4%
PCB-180 22'344'55'-HpCB	39.74	2.64E+09	1.05 Y	1.16	1.20	3.4%
PCB-188 22'34'566'-HpCB	32.96	1.33E+09	1.05 Y	1.03	1.07	3.7%
PCB-202 22'33'55'66'-OcCB	37.45	1.12E+09	0.89 Y	0.91	0.94	2.7%
PCB-205 233'44'55'6-OcCB	45.57	1.28E+09	0.90 Y	1.09	1.12	2.8%
PCB-208 22'33'455'66'-NoCB	43.03	1.18E+09	0.78 Y	1.02	1.06	4.3%
PCB-206 22'33'44'55'6-NoCB	47.03	8.31E+08	0.78 Y	0.98	1.02	4.2%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	10.64	3.25E+09	3.15 Y	1.03	1.10	6.3%
PCB-2 3-MoCB	12.53	3.38E+09	3.21 Y	1.04	1.13	8.7%
PCB-3 4-MoCB	12.70	3.36E+09	3.20 Y	1.04	1.13	7.8%
PCB-4 22'-DiCB	12.93	1.61E+09	1.59 Y	1.17	1.21	3.8%
PCB-10 26-DiCB	13.09	2.50E+09	1.60 Y	1.83	1.89	3.0%
PCB-9 25-DiCB	14.75	2.87E+09	1.59 Y	0.89	0.95	5.7%
PCB-7 24-DiCB	14.91	3.29E+09	1.58 Y	1.02	1.08	5.6%
PCB-6 23'-DiCB	15.11	3.07E+09	1.59 Y	0.95	1.01	6.6%
PCB-5 23-DiCB	15.39	3.11E+09	1.59 Y	0.97	1.02	5.1%
PCB-8 24'-DiCB	15.51	3.17E+09	1.58 Y	0.98	1.04	5.9%
PCB-14 35-DiCB	16.97	3.71E+09	1.58 Y	1.16	1.22	5.3%
PCB-11 33'-DiCB	17.70	3.26E+09	1.59 Y	1.00	1.07	7.3%
PCB-13/12 34'-/34-DiCB	17.98	6.49E+09	1.58 Y	1.02	1.07	4.9%
PCB-15 44'-DiCB	18.25	3.41E+09	1.58 Y	1.08	1.12	3.7%
PCB-19 22'6-TrCB	15.77	1.68E+09	1.06 Y	1.09	1.14	4.2%
PCB-30/18 246-/22'5-TrCB	17.43	4.49E+09	1.06 Y	1.46	1.52	4.0%
PCB-17 22'4-TrCB	17.81	1.97E+09	1.06 Y	1.25	1.33	6.4%
PCB-27 23'6-TrCB	17.99	2.58E+09	1.06 Y	1.69	1.75	3.3%
PCB-24 236-TrCB	18.12	2.57E+09	1.05 Y	1.63	1.74	6.5%
PCB-16 22'3-TrCB	18.20	1.44E+09	1.06 Y	0.95	0.98	2.5%
PCB-32 24'6-TrCB	18.66	2.76E+09	1.05 Y	1.79	1.87	4.4%
PCB-34 2'35-TrCB	19.77	2.61E+09	1.06 Y	1.05	1.08	3.3%
PCB-23 235-TrCB	19.91	2.65E+09	1.05 Y	1.06	1.10	3.7%
PCB-26/29 23'5-/245-TrCB	20.19	5.38E+09	1.05 Y	1.09	1.11	2.7%
PCB-25 23'4-TrCB	20.37	2.67E+09	1.05 Y	1.07	1.10	2.7%
PCB-31 24'5-TrCB	20.64	2.79E+09	1.05 Y	1.11	1.16	4.0%
PCB-28/20 244'-/233'-TrCB	20.91	5.27E+09	1.06 Y	1.07	1.09	2.2%
PCB-21/33 234-/2'34-TrCB	21.08	5.36E+09	1.05 Y	1.09	1.11	1.5%
PCB-22 234'-TrCB	21.44	2.52E+09	1.05 Y	1.02	1.05	2.9%
PCB-36 33'5-TrCB	22.79	2.80E+09	1.05 Y	1.13	1.16	2.7%
PCB-39 34'5-TrCB	23.10	2.91E+09	1.05 Y	1.17	1.21	3.5%
PCB-38 345-TrCB	23.60	2.46E+09	1.06 Y	1.03	1.02	-1.4%
PCB-35 33'4-TrCB	23.99	2.58E+09	1.05 Y	1.04	1.07	2.7%
PCB-37 344'-TrCB	24.34	2.72E+09	1.05 Y	1.10	1.12	1.8%
PCB-54 22'66'-TeCB	18.50	1.69E+09	0.80 Y	1.21	1.25	3.7%
PCB-50/53 22'46-/22'56'TeCB	20.42	3.32E+09	0.79 Y	0.86	0.89	4.0%
PCB-45 22'36-TeCB	20.97	1.56E+09	0.79 Y	0.73	0.84	15.0%
PCB-51 22'46'-TeCB	21.05	1.57E+09	0.80 Y	0.88	0.84	-3.9%
PCB-46 22'36'-TeCB	21.24	1.36E+09	0.79 Y	0.70	0.73	4.8%
PCB-52 22'55'-TeCB	22.47	1.62E+09	0.79 Y	0.84	0.87	3.4%
PCB-73 23'5'6TeCB	22.60	2.21E+09	0.79 Y	1.09	1.19	8.9%
PCB-43 22'35-TeCB	22.68	1.35E+09	0.80 Y	0.72	0.72	-0.2%
PCB-69/49 23'46-/22'45'TeCB	22.88	3.94E+09	0.79 Y	1.01	1.06	4.4%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB
ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	23.15	1.66E+09	0.79 Y	0.85	0.89	4.7%
PCB-44/47/65 22'35'-/22'44'-	23.36	5.12E+09	0.79 Y	0.89	0.92	2.9%
PCB-59/62/75 233'6-/2346-/24	23.62	6.39E+09	0.79 Y	1.14	1.14	0.4%
PCB-42 22'34'-TeCB	23.78	1.52E+09	0.79 Y	0.77	0.82	5.6%
PCB-41 22'34-TeCB	24.10	1.46E+09	0.79 Y	0.73	0.78	7.5%
PCB-71/40 23'4'6/22'33'-TeCB	24.19	3.26E+09	0.79 Y	0.87	0.88	1.2%
PCB-64 234'6-TeCB	24.39	2.37E+09	0.79 Y	1.24	1.27	2.8%
PCB-72 23'55'-TeCB	25.11	2.26E+09	0.79 Y	1.14	1.22	6.3%
PCB-68 23'45'-TeCB	25.36	2.42E+09	0.79 Y	1.21	1.30	7.3%
PCB-57 233'5-TeCB	25.72	2.17E+09	0.79 Y	1.11	1.16	5.2%
PCB-58 233'5-TeCB	25.91	2.20E+09	0.79 Y	1.10	1.18	7.3%
PCB-67 23'45-TeCB	26.07	2.24E+09	0.78 Y	1.16	1.20	3.7%
PCB-63 234'5-TeCB	26.29	2.39E+09	0.79 Y	1.22	1.29	5.7%
PCB-61/70/74/76 2345-/23'4'5	26.57	8.77E+09	0.79 Y	1.13	1.18	4.0%
PCB-66 23'44'-TeCB	26.84	2.10E+09	0.79 Y	1.08	1.13	4.8%
PCB-55 233'4-TeCB	26.98	2.15E+09	0.79 Y	1.10	1.16	5.4%
PCB-56 233'4'-TeCB	27.40	2.08E+09	0.79 Y	1.06	1.12	5.9%
PCB-60 2344'-TeCB	27.59	2.20E+09	0.79 Y	1.11	1.18	6.1%
PCB-80 33'55'-TeCB	27.95	2.47E+09	0.79 Y	1.25	1.33	5.8%
PCB-79 33'45'-TeCB	29.23	2.35E+09	0.79 Y	1.23	1.26	2.3%
PCB-78 33'45-TeCB	29.70	2.10E+09	0.79 Y	1.08	1.13	4.2%
PCB-104 22'466'-PeCB	23.30	1.65E+09	0.63 Y	1.25	1.27	0.9%
PCB-96 22'366'-PeCB	23.60	1.37E+09	0.63 Y	1.08	1.06	-1.7%
PCB-103 22'45'6-PeCB	25.27	1.50E+09	0.63 Y	0.90	0.95	5.6%
PCB-94 22'356'-PeCB	25.45	1.31E+09	0.63 Y	0.78	0.83	6.7%
PCB-95 22'35'6-PeCB	25.82	1.39E+09	0.63 Y	0.83	0.88	6.7%
PCB-100/93 22'44'6-/22'356-P	26.03	2.74E+09	0.63 Y	0.84	0.87	2.7%
PCB-102 22'456'-PeCB	26.13	1.38E+09	0.63 Y	0.90	0.88	-2.7%
PCB-98 22'3'46-PeCB	26.20	1.40E+09	0.64 Y	0.77	0.88	14.2%
PCB-88 22'346-PeCB	26.49	1.21E+09	0.62 Y	0.79	0.77	-3.5%
PCB-91 22'34'6-PeCB	26.56	1.54E+09	0.64 Y	0.88	0.97	10.7%
PCB-84 22'33'6-PeCB	26.74	1.18E+09	0.63 Y	0.71	0.75	5.4%
PCB-89 22'346'-PeCB	27.14	1.26E+09	0.63 Y	0.76	0.80	4.8%
PCB-121 23'45'6-PeCB	27.52	1.90E+09	0.63 Y	1.14	1.20	5.1%
PCB-92 22'355'-PeCB	27.82	1.33E+09	0.63 Y	0.80	0.84	5.5%
PCB-113/90/101 233'5'6-/22'3	28.30	4.51E+09	0.63 Y	0.93	0.95	1.8%
PCB-83 22'33'5-PeCB	28.71	1.16E+09	0.63 Y	0.71	0.74	3.2%
PCB-99 22'44'5-PeCB	28.82	1.42E+09	0.63 Y	0.87	0.90	3.2%
PCB-112 233'56-PeCB	28.91	1.87E+09	0.63 Y	1.13	1.19	5.3%
PCB-108/119/86/97/125/87 233	29.25	9.01E+09	0.63 Y	0.95	0.95	0.1%
PCB-117 234'56-PeCB	29.77	1.53E+09	0.62 Y	1.04	0.97	-6.6%
PCB-116/85 23456-/22'344'-Pe	29.85	3.33E+09	0.63 Y	0.97	1.05	8.3%
PCB-110 233'4'6-PeCB	29.97	1.66E+09	0.63 Y	1.02	1.05	2.9%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB
ICAL: MM7_PCB_07132012_25JUL12
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	30.06	1.92E+09	0.63 Y	1.16	1.21	4.9%
PCB-82 22'33'4-PeCB	30.24	1.15E+09	0.63 Y	0.69	0.73	5.2%
PCB-111 233'55'-PeCB	30.59	1.92E+09	0.63 Y	1.15	1.22	5.3%
PCB-120 23'455'-PeCB	30.98	1.91E+09	0.63 Y	1.16	1.21	4.0%
PCB-107/124 233'4'5-/2'3455'	31.92	3.55E+09	0.63 Y	1.07	1.12	4.4%
PCB-109 233'46-PeCB	32.13	1.89E+09	0.63 Y	1.14	1.20	4.9%
PCB-106 233'45-PeCB	32.33	1.69E+09	0.63 Y	1.07	1.07	-0.1%
PCB-122 2'33'45-PeCB	32.78	1.67E+09	0.63 Y	1.00	1.05	5.0%
PCB-127 33'455'-PeCB	34.73	1.81E+09	0.63 Y	1.10	1.13	2.9%
PCB-155 22'44'66'-HxCB	28.15	1.78E+09	1.26 Y	1.09	1.13	3.8%
PCB-152 22'3566'-HxCB	28.29	1.65E+09	1.27 Y	1.01	1.05	3.5%
PCB-150 22'34'66'-HxCB	28.44	1.69E+09	1.26 Y	1.00	1.07	6.8%
PCB-136 22'33'66'-HxCB	28.72	1.57E+09	1.27 Y	0.95	1.00	4.7%
PCB-145 22'3466'HxCB	28.99	1.61E+09	1.27 Y	0.96	1.02	6.2%
PCB-148 22'34'56'-HxCB	30.27	1.25E+09	1.26 Y	0.97	1.04	7.3%
PCB-151/135 22'355'6-/22'33'	30.78	2.41E+09	1.27 Y	0.96	1.00	4.3%
PCB-154 22'44'5'6-HxCB	30.99	1.37E+09	1.26 Y	1.09	1.14	4.6%
PCB-144 22'345'6-HxCB	31.24	1.25E+09	1.26 Y	0.98	1.04	5.8%
PCB-147/149 22'34'56-/22'34'	31.54	2.47E+09	1.26 Y	0.99	1.03	4.1%
PCB-134 22'33'56-HxCB	31.70	9.58E+08	1.26 Y	0.80	0.80	-0.4%
PCB-143 22'3456'-HxCB	31.78	1.24E+09	1.27 Y	0.95	1.03	8.1%
PCB-139/140 22'344'6-/22'344'	32.05	2.51E+09	1.26 Y	1.00	1.05	4.6%
PCB-131 22'33'46-HxCB	32.21	1.07E+09	1.27 Y	0.85	0.89	5.0%
PCB-142 22'3456-HxCB	32.35	1.11E+09	1.27 Y	0.87	0.92	5.5%
PCB-132 22'33'46'-HxCB	32.58	1.12E+09	1.26 Y	0.89	0.93	4.8%
PCB-133 22'33'55'-HxCB	33.02	1.16E+09	1.26 Y	0.91	0.97	5.8%
PCB-165 233'55'6-HxCB	33.36	1.43E+09	1.26 Y	1.13	1.19	5.3%
PCB-146 22'34'55'-HxCB	33.57	1.29E+09	1.26 Y	1.01	1.07	6.5%
PCB-161 233'45'6-HxCB	33.68	1.53E+09	1.27 Y	1.25	1.28	1.8%
PCB-153/168 22'44'55'-/23'44'	34.10	3.01E+09	1.27 Y	1.22	1.25	2.8%
PCB-141 22'3455'-HxCB	34.24	1.18E+09	1.27 Y	0.93	0.98	5.6%
PCB-130 22'33'45'-HxCB	34.57	1.05E+09	1.26 Y	0.85	0.88	3.4%
PCB-137 22'344'5-HxCB	34.77	1.32E+09	1.25 Y	1.04	1.10	5.6%
PCB-164 233'4'5'6-HxCB	34.86	1.51E+09	1.27 Y	1.22	1.26	2.8%
PCB-163/138/129 233'4'56-/22'	35.14	3.75E+09	1.27 Y	1.02	1.04	1.7%
PCB-160 233'456-HxCB	35.27	1.51E+09	1.26 Y	1.21	1.26	4.2%
PCB-158 233'44'6-HxCB	35.45	1.65E+09	1.26 Y	1.34	1.38	2.9%
PCB-128/166 22'33'44'-/2344'5	36.17	2.93E+09	1.25 Y	0.90	0.93	3.6%
PCB-159 233'455'-HxCB	37.01	1.74E+09	1.25 Y	1.06	1.11	4.2%
PCB-162 233'4'55'-HxCB	37.24	1.76E+09	1.25 Y	1.08	1.12	4.1%
PCB-188 22'34'566'-HpCB	32.96	1.33E+09	1.05 Y	1.03	1.07	3.7%
PCB-179 22'33'566'-HpCB	33.22	1.24E+09	1.05 Y	0.97	1.00	3.4%
PCB-184 22'344'66'-HpCB	33.69	1.20E+09	1.06 Y	0.93	0.97	4.3%

PCB QC Summary - Ax2 Detail

Printed: 28-Jul-2012 10:15

Lab ID: CS5_120725_PCB_XB
Acquired: 26-JUL-2012 07:26
Datafile: 120725X20
ICAL: MM7_PCB_07132012_25JUL12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	33.97	1.35E+09	1.06 Y	1.05	1.09	4.1%
PCB-186 22'34566'-HpCB	34.35	1.26E+09	1.05 Y	0.98	1.02	4.2%
PCB-178 22'33'55'6-HpCB	35.50	9.37E+08	1.05 Y	0.74	0.76	3.1%
PCB-175 22'33'45'6-HpCB	36.04	1.18E+09	1.05 Y	1.01	1.07	5.9%
PCB-187 22'34'55'6-HpCB	36.27	1.23E+09	1.05 Y	1.06	1.11	4.9%
PCB-182 22'344'56'-HpCB	36.44	1.26E+09	1.05 Y	1.11	1.14	3.1%
PCB-183 22'344'5'6-HpCB	36.78	1.30E+09	1.04 Y	1.13	1.18	4.3%
PCB-185 22'3455'6-HpCB	36.86	1.18E+09	1.06 Y	1.02	1.07	5.2%
PCB-174 22'33'456'-HpCB	36.97	1.06E+09	1.05 Y	0.93	0.96	4.0%
PCB-177 22'33'4'56-HpCB	37.33	1.05E+09	1.05 Y	0.91	0.95	5.0%
PCB-181 22'344'56-HpCB	37.68	1.21E+09	1.05 Y	1.06	1.10	3.4%
PCB-171/173 22'33'44'6-/22'3	37.85	2.11E+09	1.05 Y	0.93	0.96	3.3%
PCB-172 22'33'455'-HpCB	39.22	1.08E+09	1.05 Y	0.95	0.98	3.1%
PCB-192 233'455'6-HpCB	39.46	1.42E+09	1.05 Y	1.24	1.29	4.2%
PCB-180/193 22'344'55'-/233'	39.74	2.64E+09	1.05 Y	1.16	1.20	3.4%
PCB-191 233'44'5'6-HpCB	40.06	1.47E+09	1.06 Y	1.30	1.34	2.8%
PCB-170 22'33'44'5-HpCB	40.81	1.06E+09	1.05 Y	1.07	1.13	5.4%
PCB-190 233'44'56-HpCB	41.26	1.44E+09	1.05 Y	1.45	1.54	6.0%
PCB-202 22'33'55'66'-OcCB	37.45	1.12E+09	0.89 Y	0.91	0.94	2.7%
PCB-201 22'33'45'66'-OcCB	38.22	1.25E+09	0.90 Y	1.02	1.05	2.5%
PCB-204 22'344'566'-OcCB	38.79	1.18E+09	0.91 Y	0.98	0.99	1.2%
PCB-197 22'33'44'66'-OcCB	38.98	1.25E+09	0.90 Y	1.06	1.05	-1.6%
PCB-200 22'33'4566'-OcCB	39.06	1.23E+09	0.91 Y	0.96	1.03	7.1%
PCB-198/199 22'33'455'6-/22'	41.39	1.75E+09	0.90 Y	0.72	0.73	2.3%
PCB-196 22'33'44'56'-OcCB	41.96	9.05E+08	0.90 Y	0.73	0.76	3.9%
PCB-203 22'344'55'6-OcCB	42.12	9.48E+08	0.90 Y	0.76	0.80	4.1%
PCB-195 22'33'44'56-OcCB	43.22	9.53E+08	0.90 Y	0.80	0.84	4.6%
PCB-194 22'33'44'55'-OcCB	45.18	1.01E+09	0.89 Y	0.87	0.89	1.8%
PCB-205 233'44'55'6-OcCB	45.57	1.28E+09	0.90 Y	1.09	1.12	2.8%
PCB-208 22'33'455'66'-NoCB	43.03	1.18E+09	0.78 Y	1.02	1.06	4.3%
PCB-207 22'33'44'566'-NoCB	43.81	1.22E+09	0.78 Y	1.06	1.10	3.8%
PCB-206 22'33'44'55'6-NoCB	47.03	8.31E+08	0.78 Y	0.98	1.02	4.2%

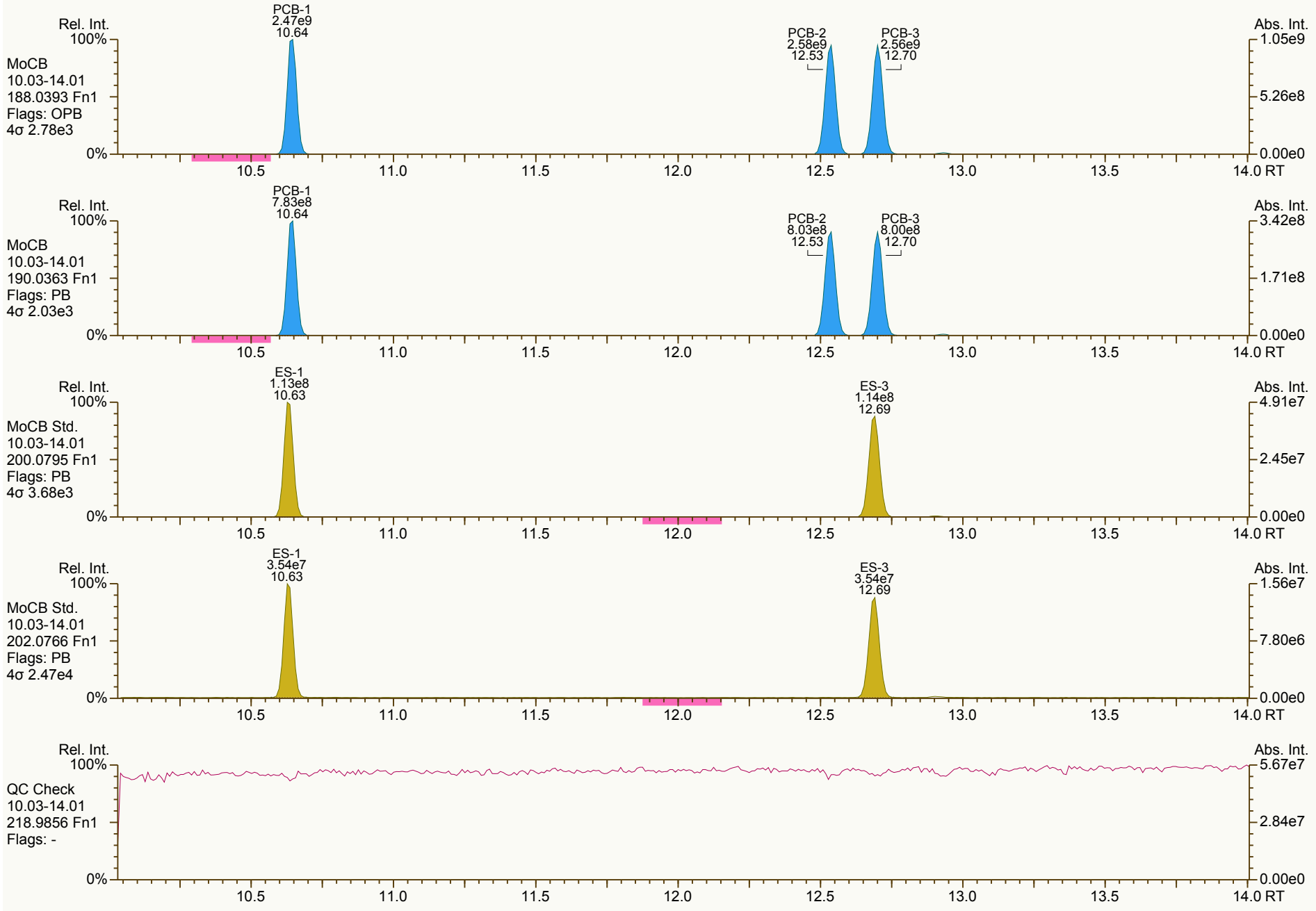
AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\CS5_120725_PCB_XB.utp_res, saved 28-Jul-2012 10:37 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 scc: 951-239 *PKD: n/a Printed: 28-Jul-2012 11:15 Page 1 of 21*

AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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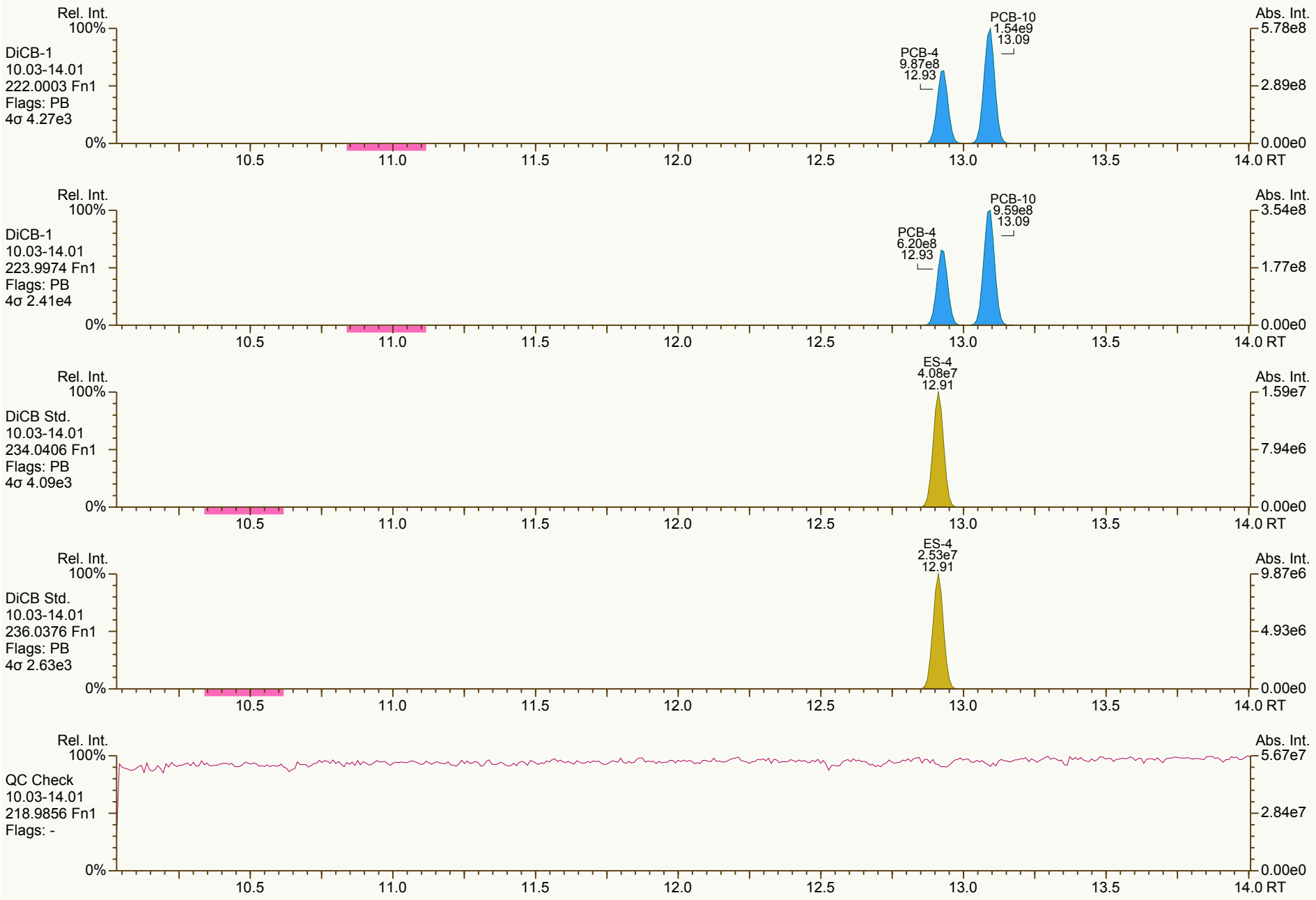

AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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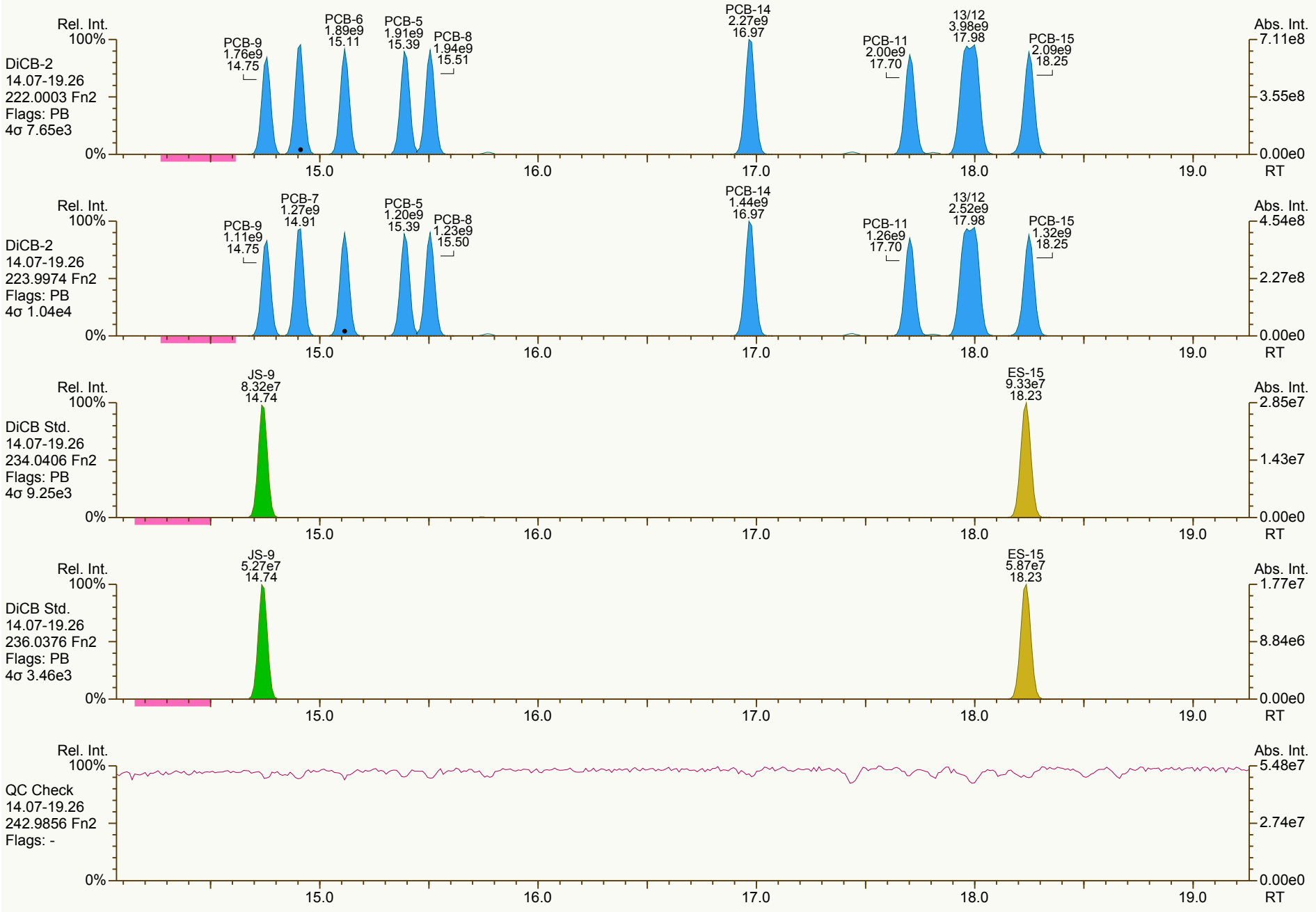

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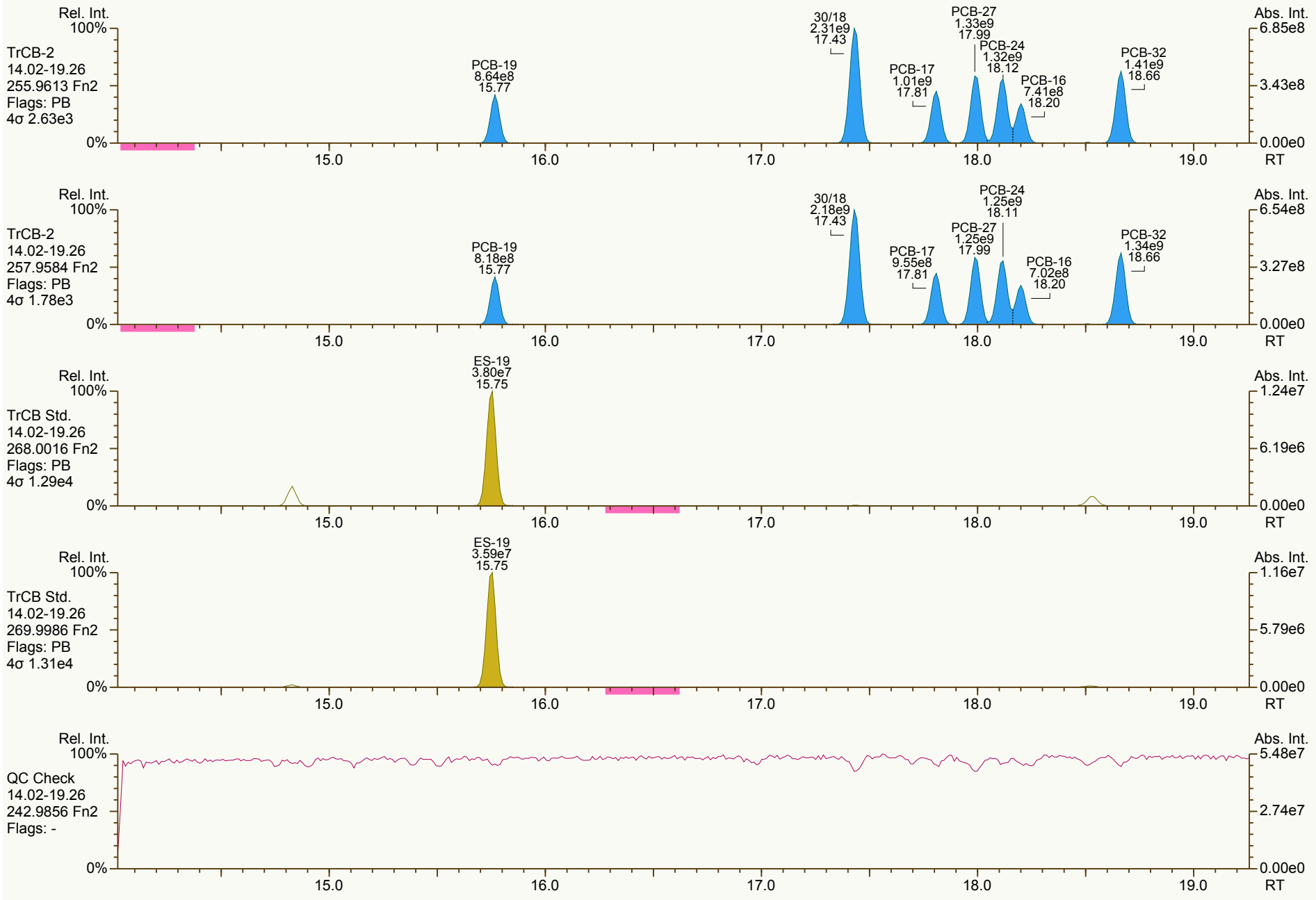

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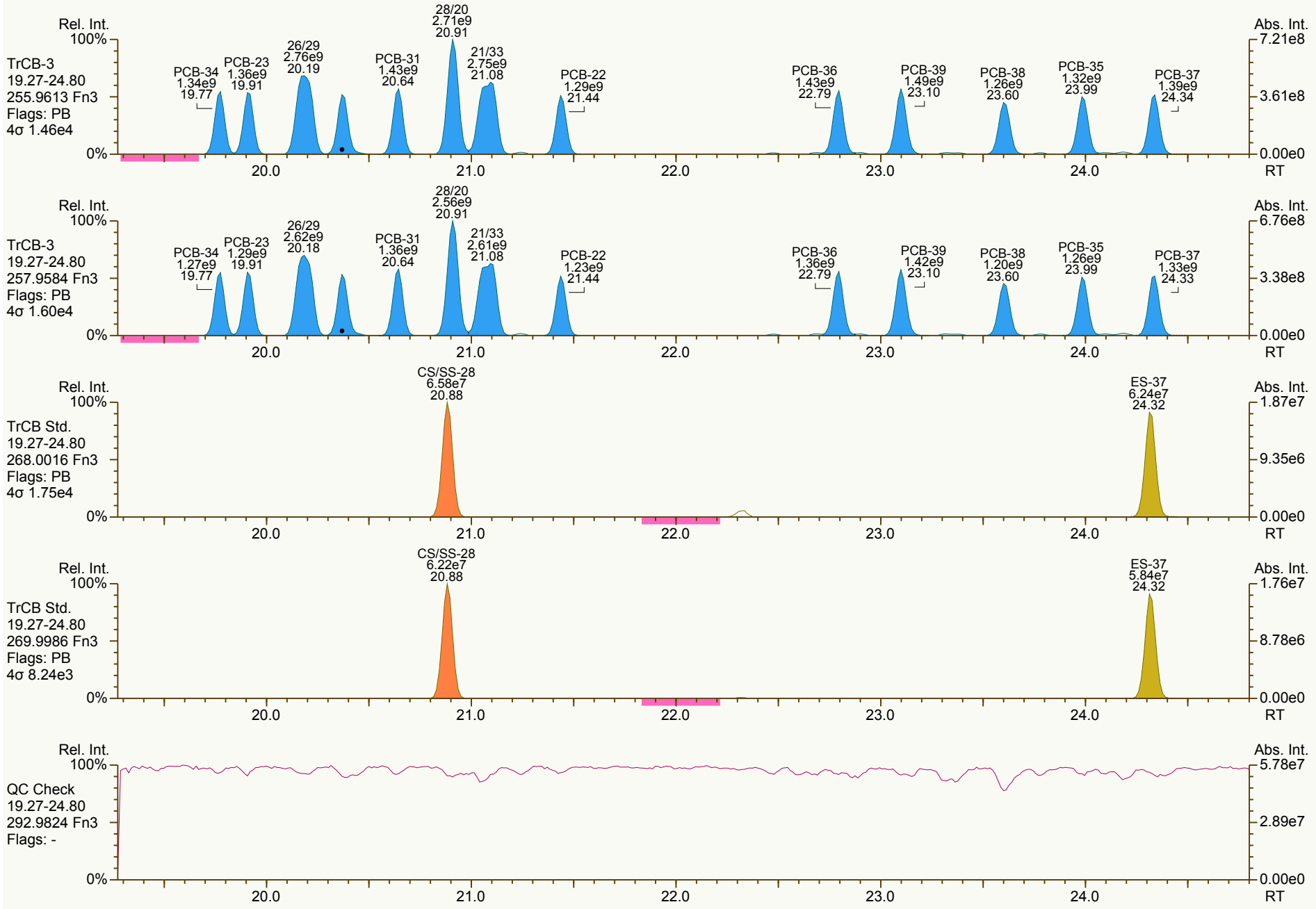

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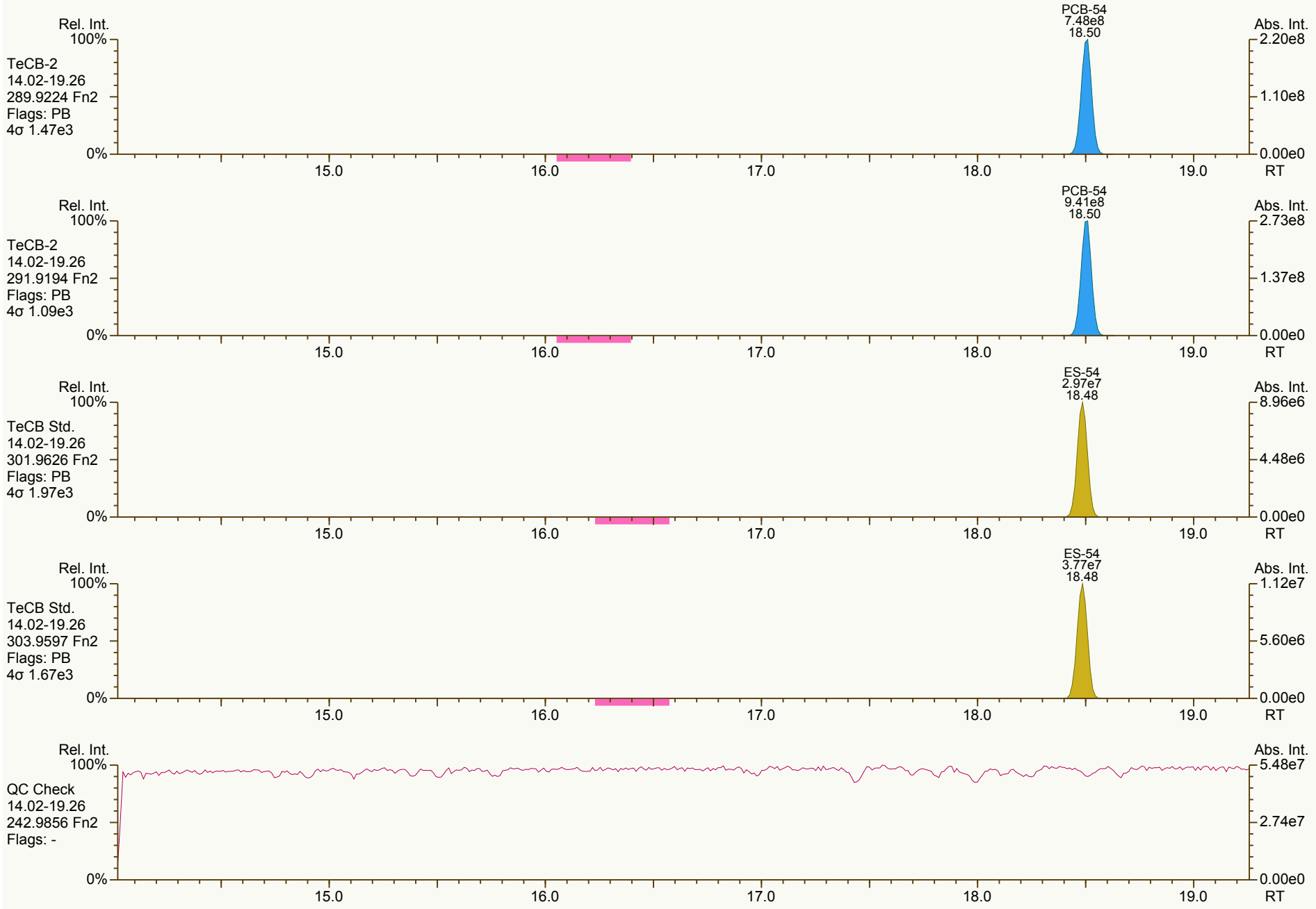

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AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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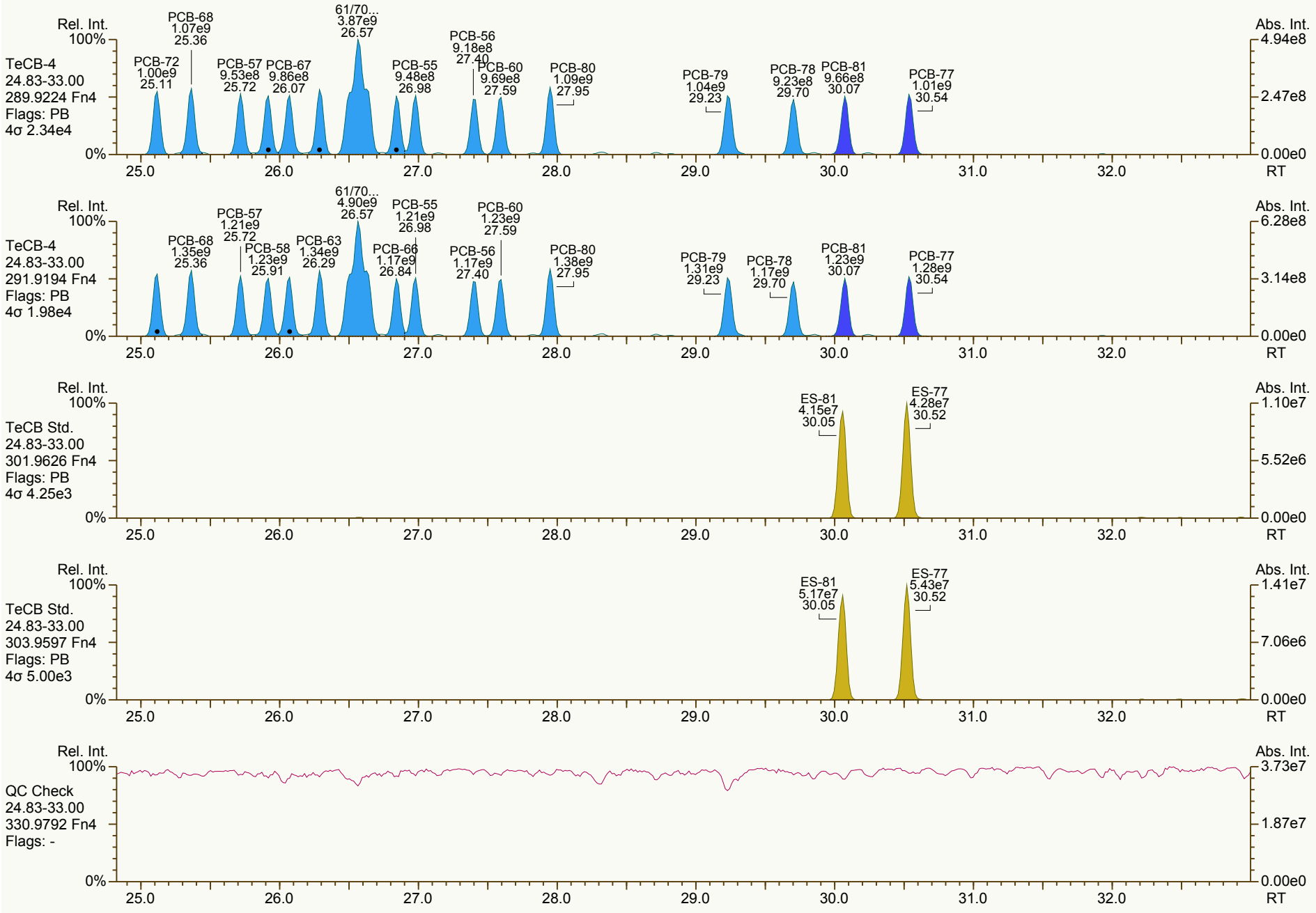

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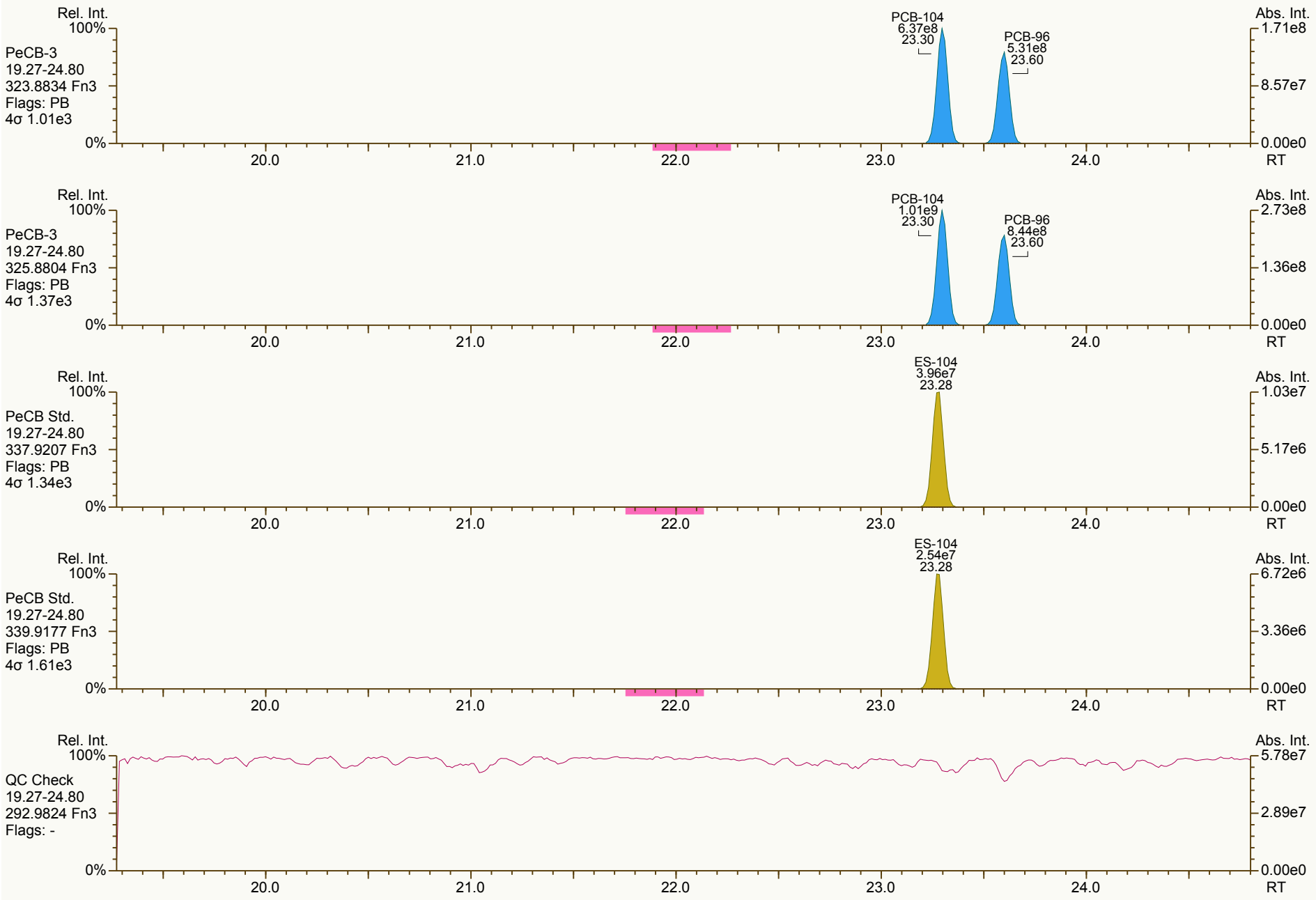

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AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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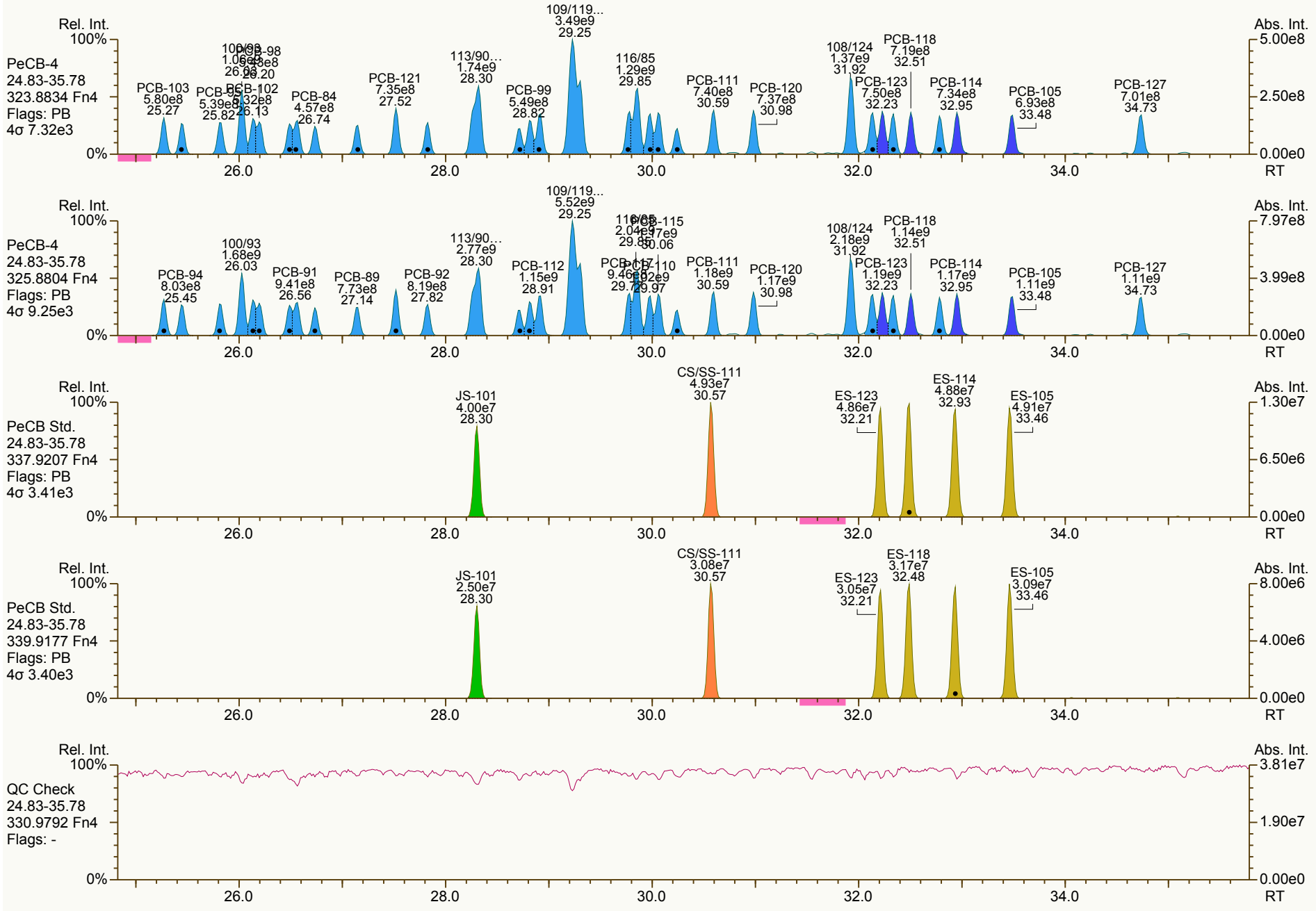

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AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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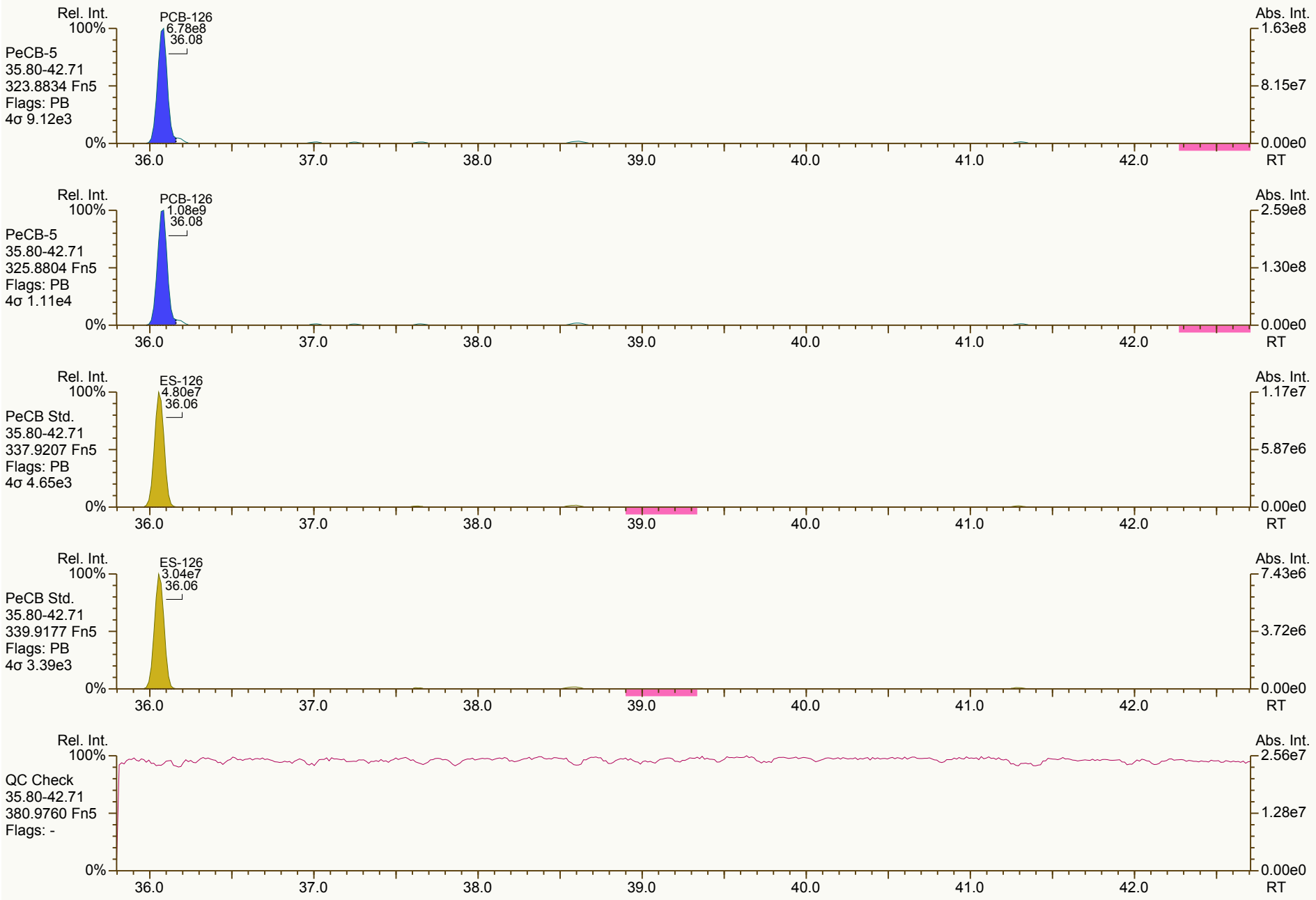

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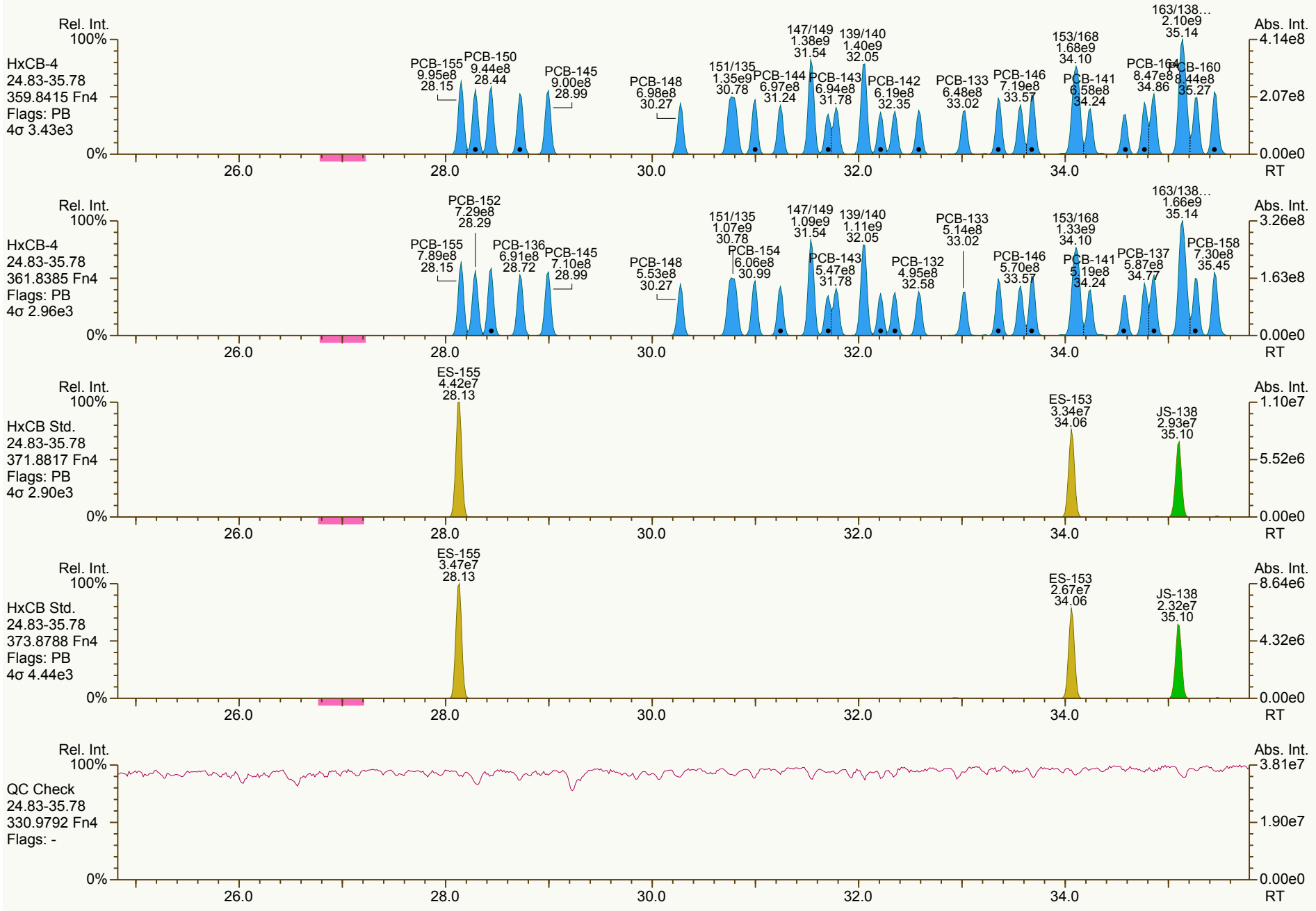

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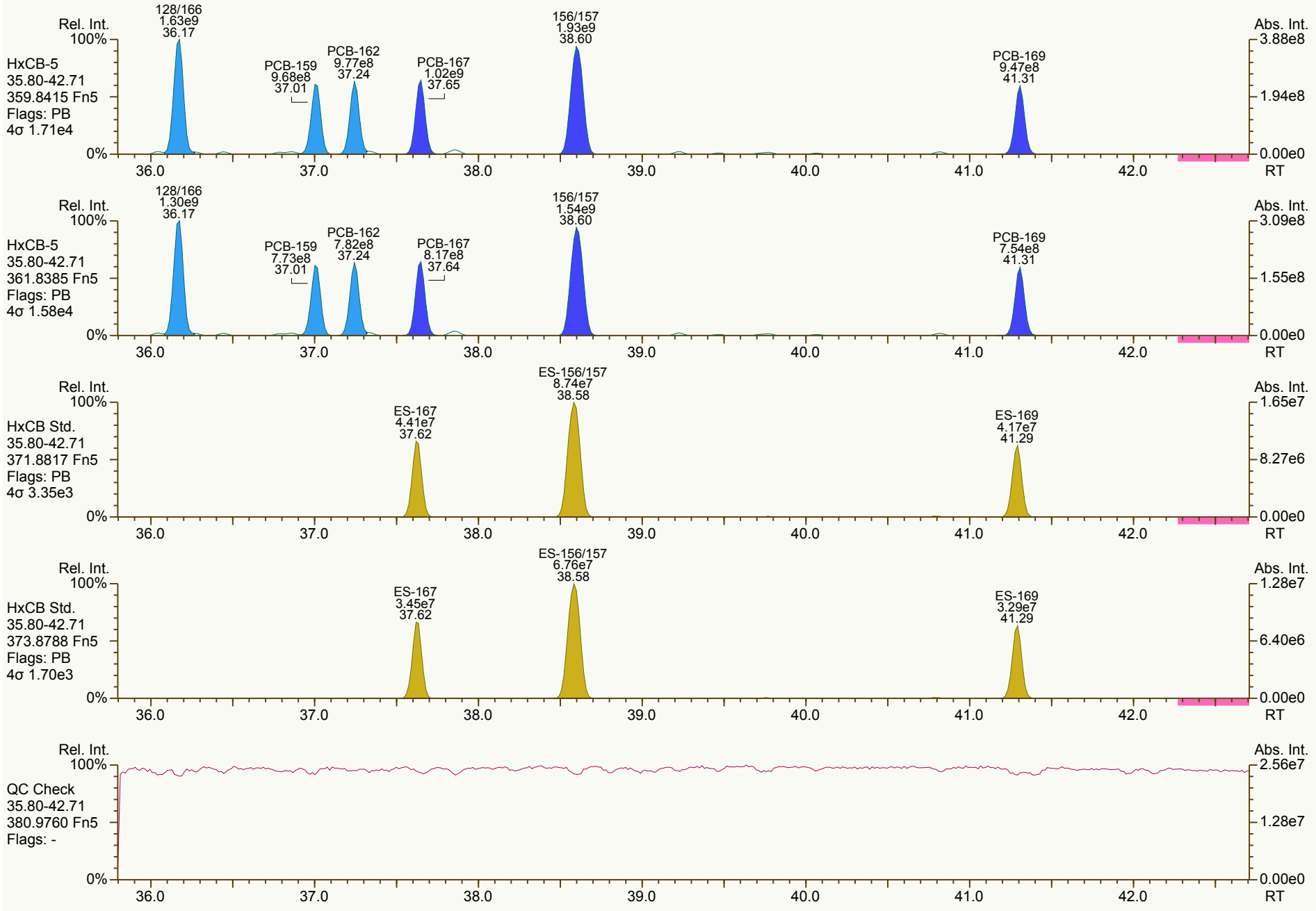

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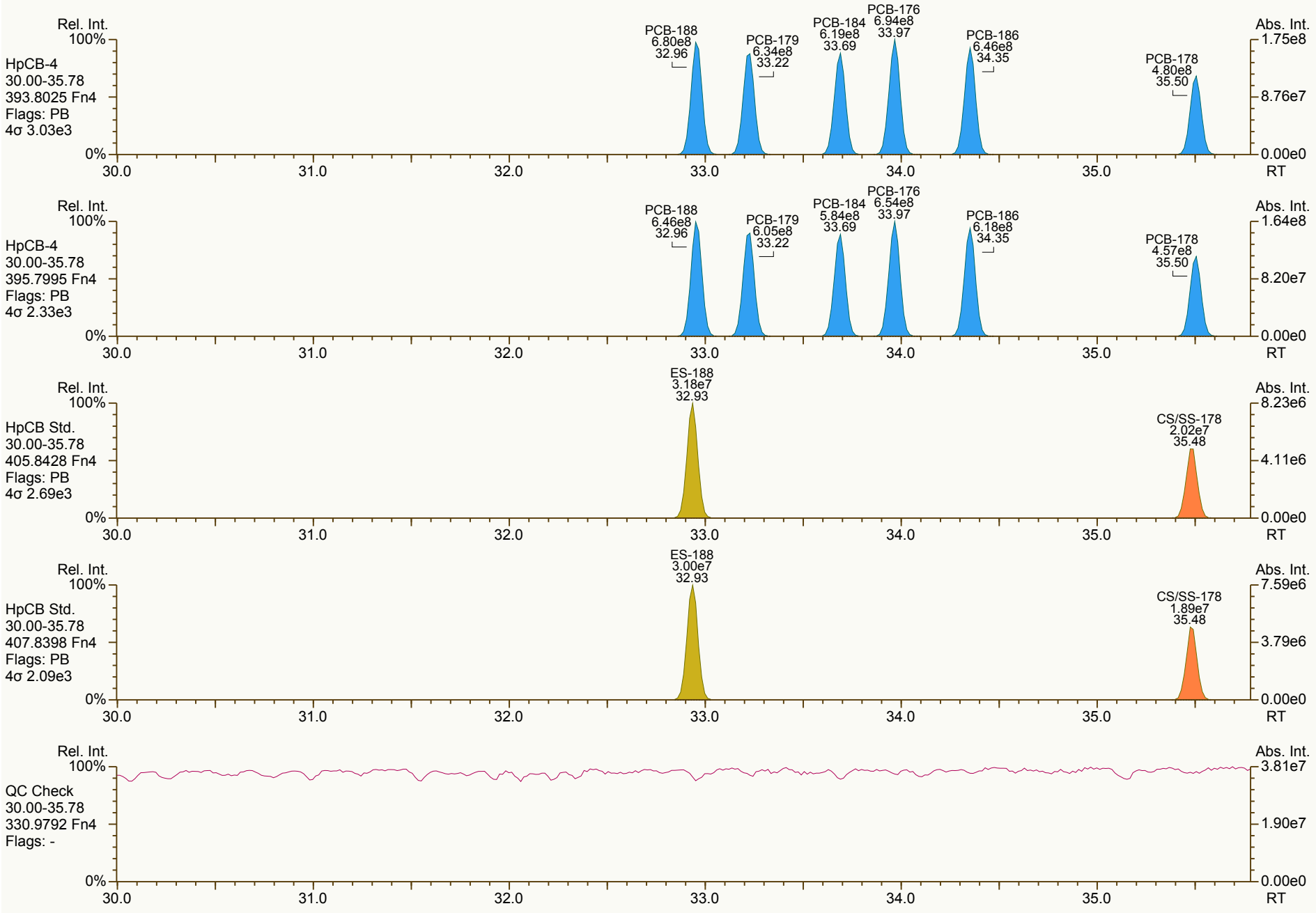
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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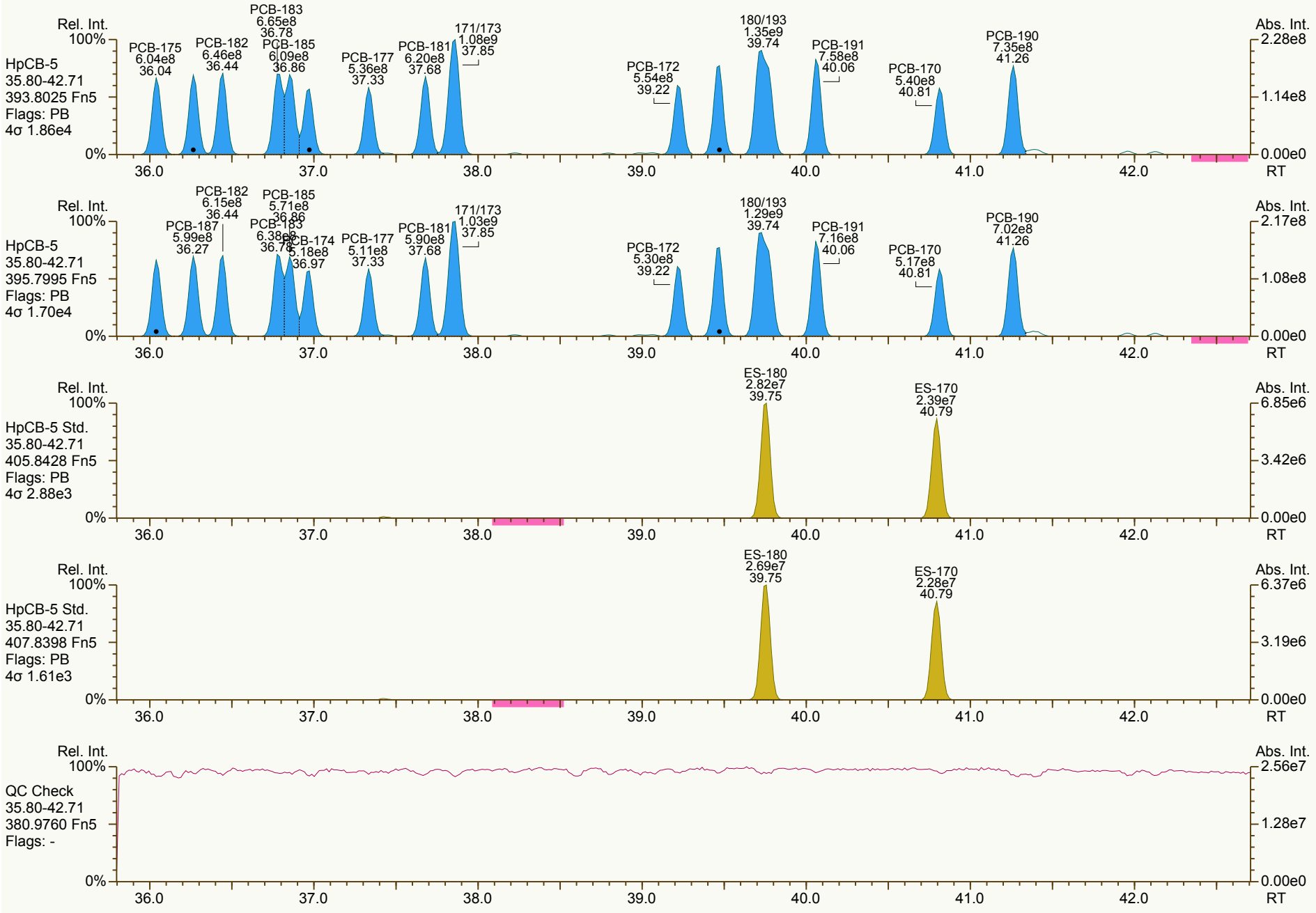
AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7446, 9235 scc: 951-239 *PKD: 27-Jul-2012 17:06 Printed: 28-Jul-2012 11:15 Page 15 of 21*

AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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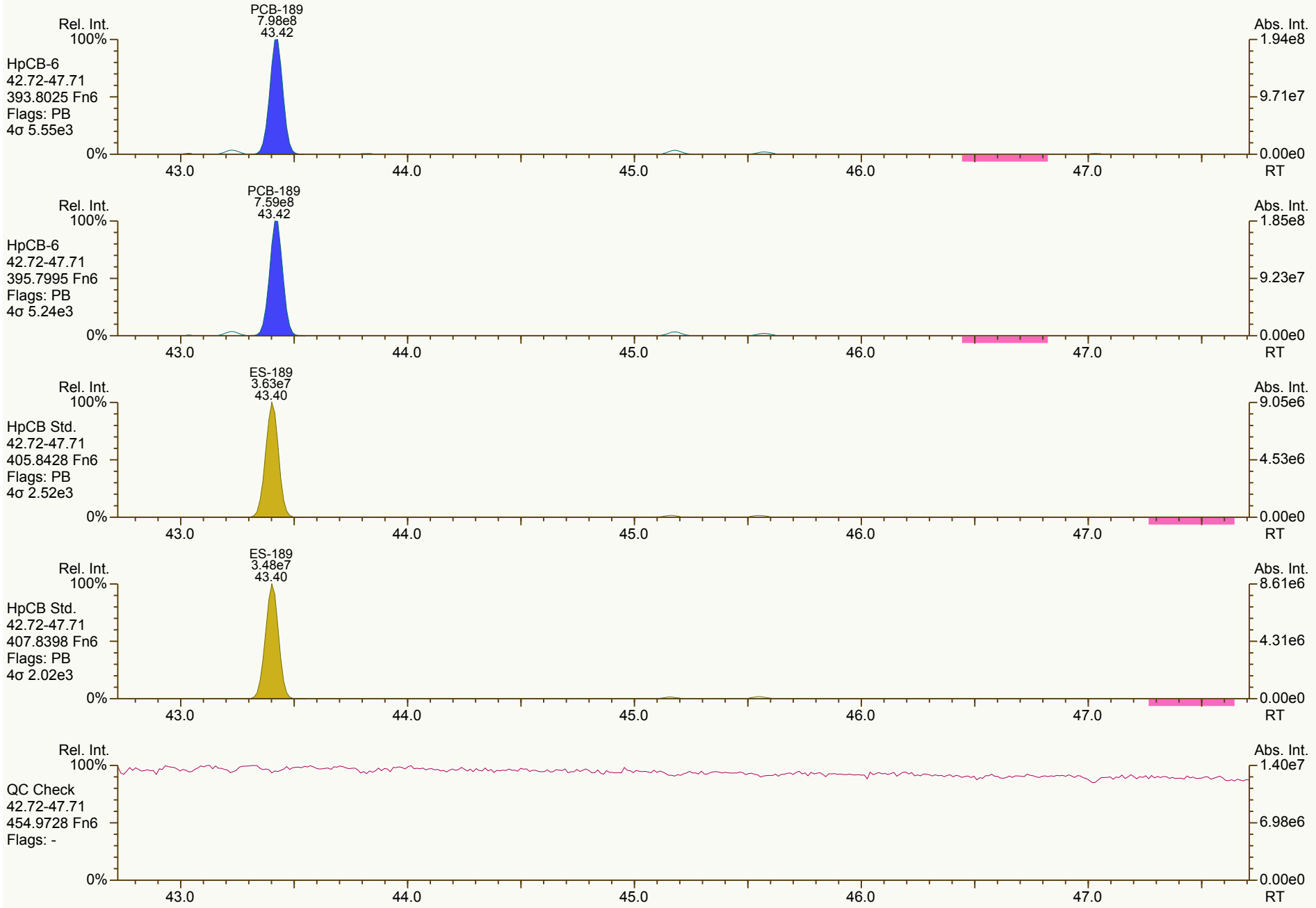
AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 55** **User: LKB Datafile: 120725X20**



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AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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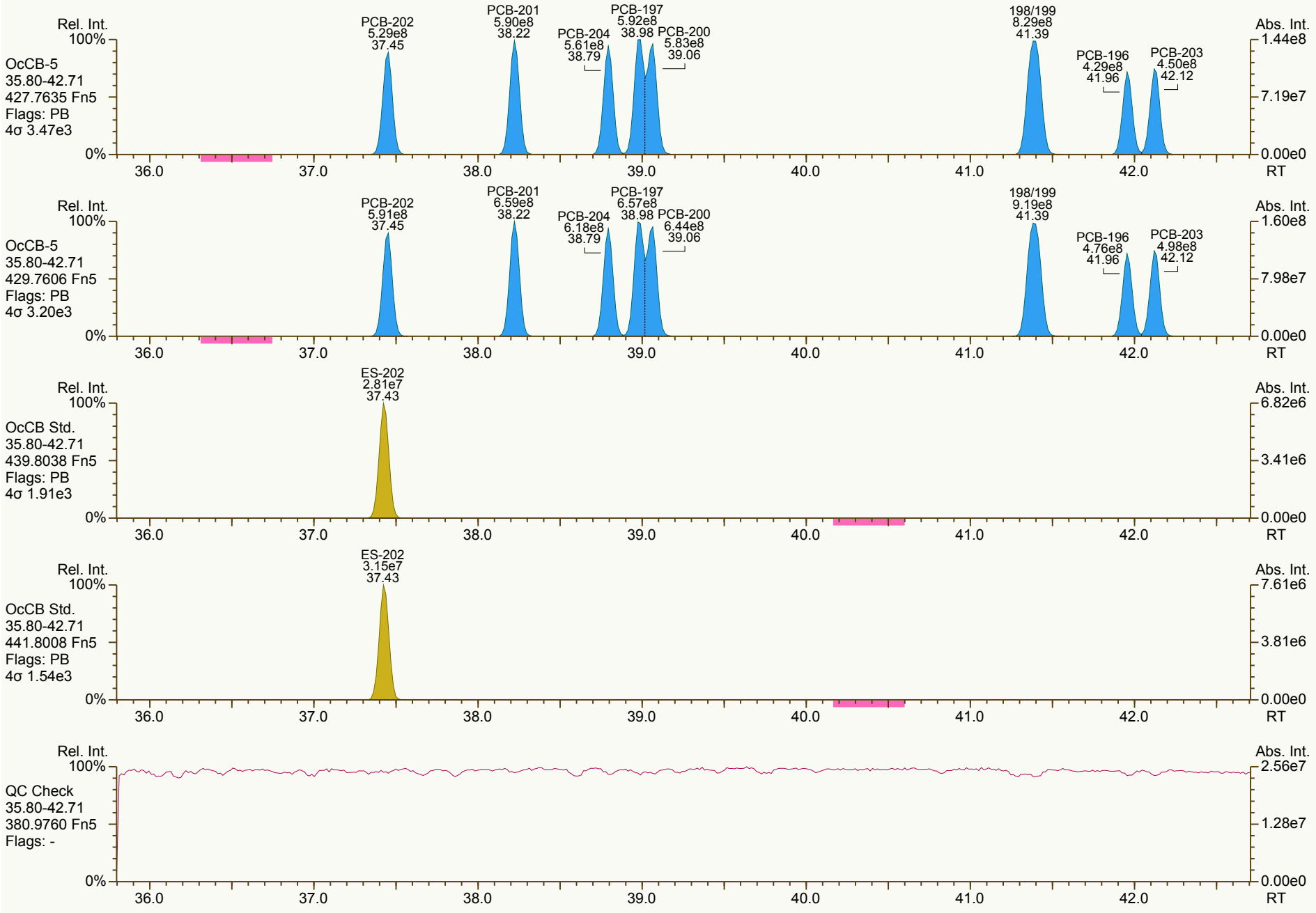

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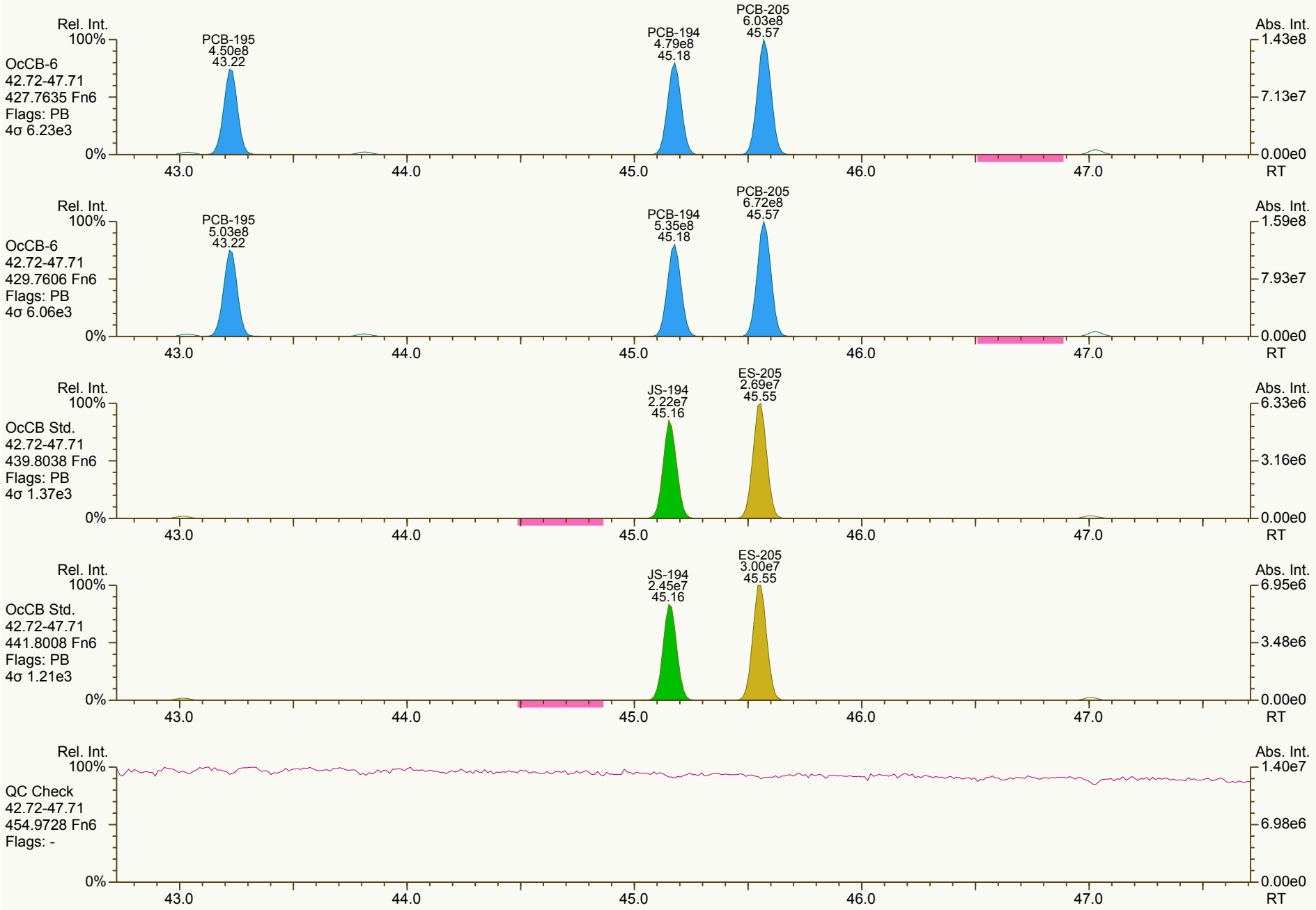

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AP Lab ID: CS5_120725_PCB_XB **Sample ID: SIL 12-65-1** **Acq: 26-Jul-2012 07:26:23**
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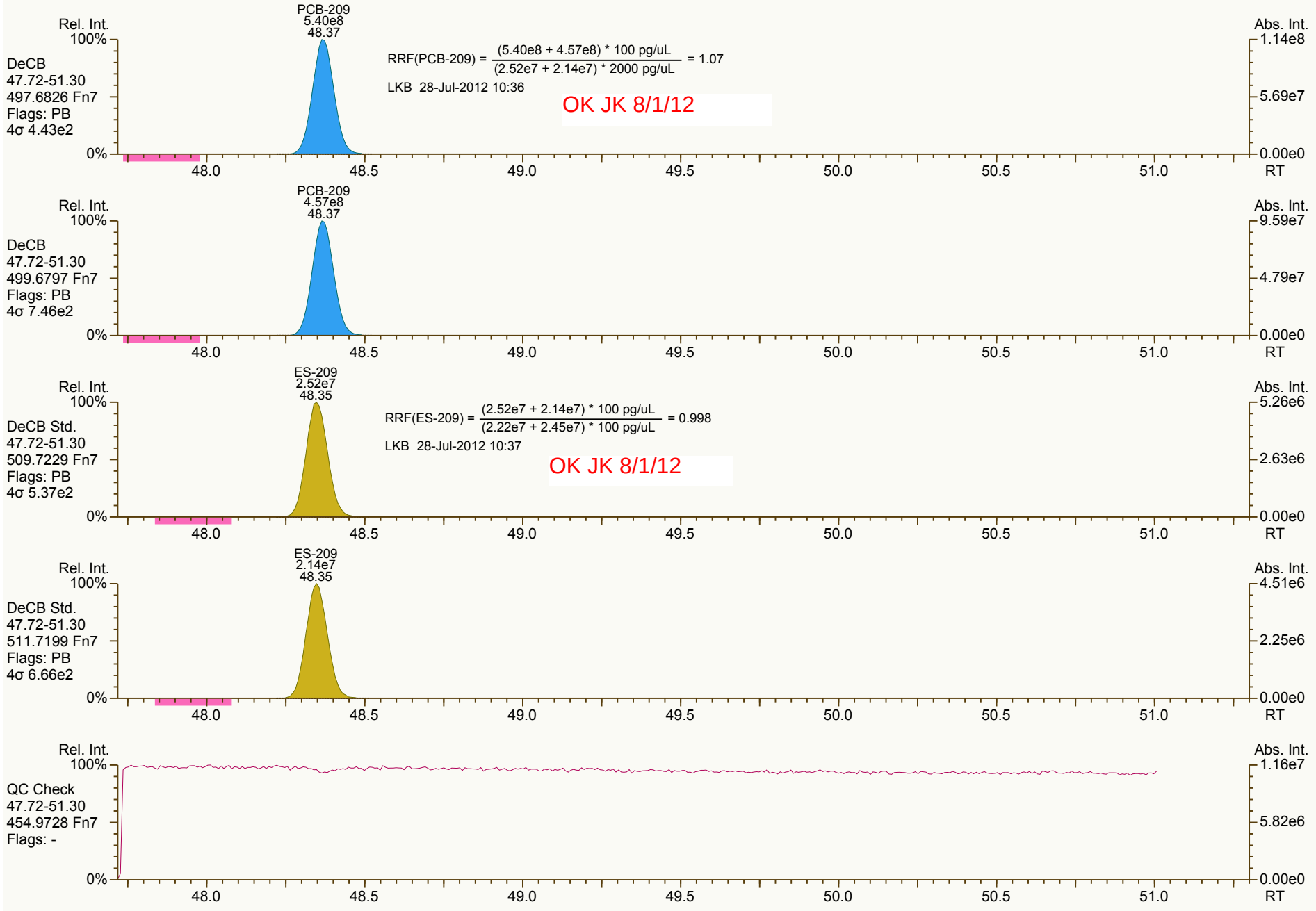

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Resolution Check Report **MassLynx 4.1 SCN 881**

Printed: Wednesday, July 25, 2012 22:29:00 Eastern Daylight Time

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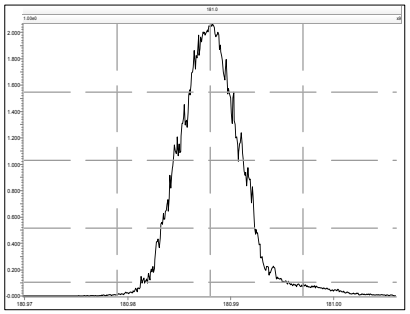

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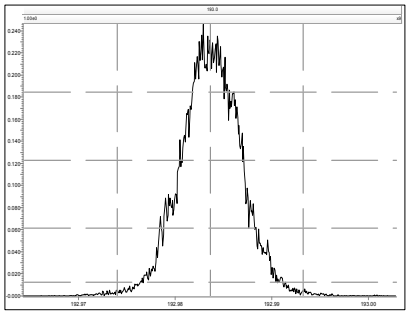

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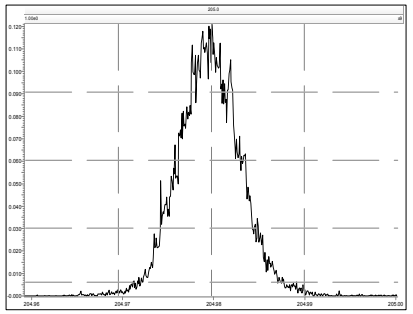

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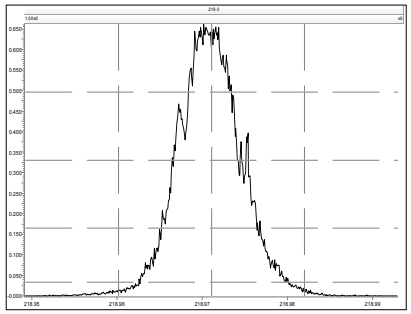

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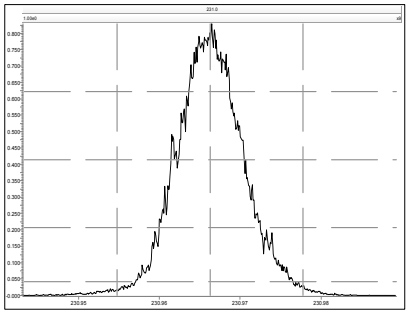

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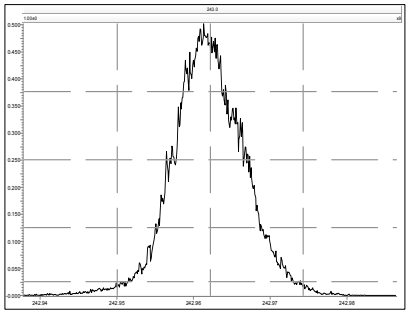

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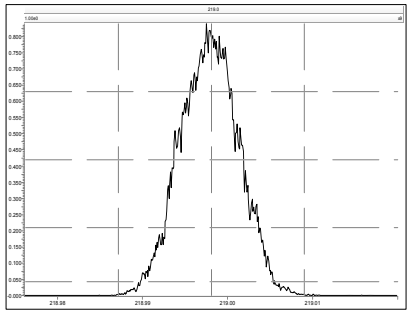

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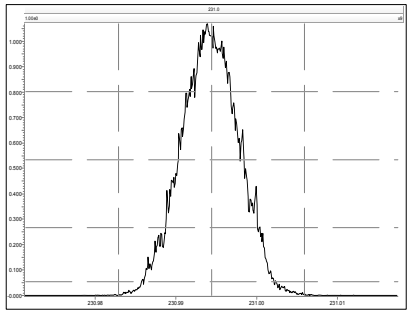

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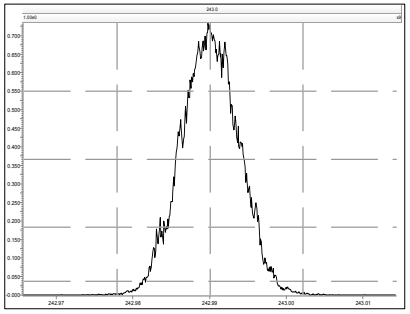

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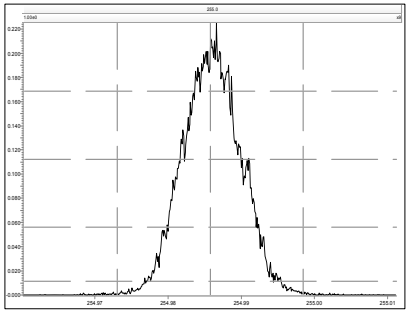

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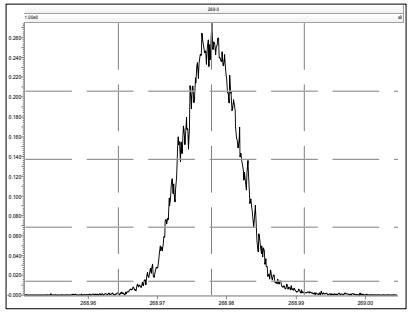

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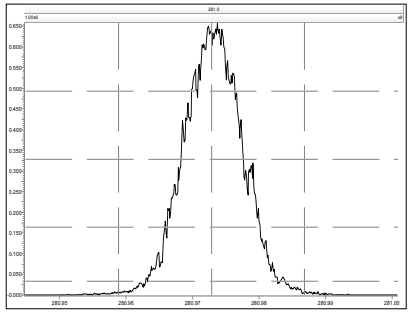

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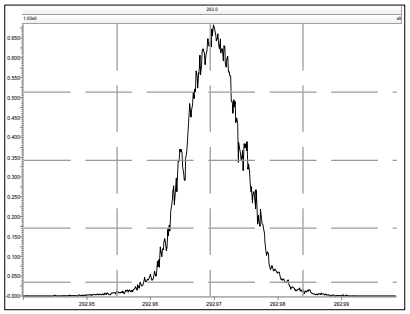

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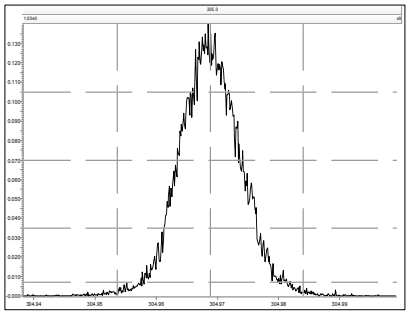

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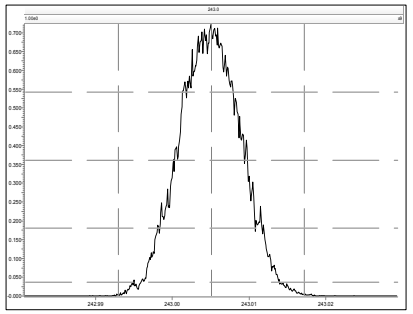

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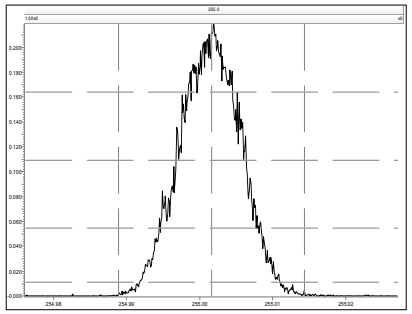

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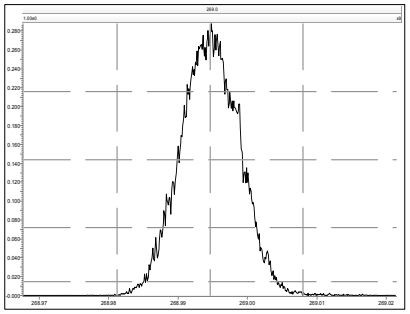

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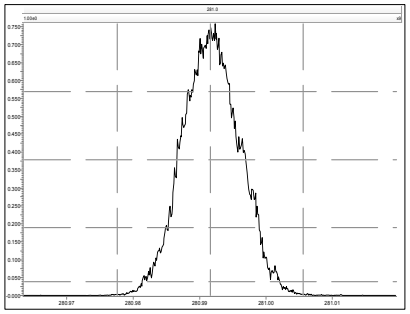

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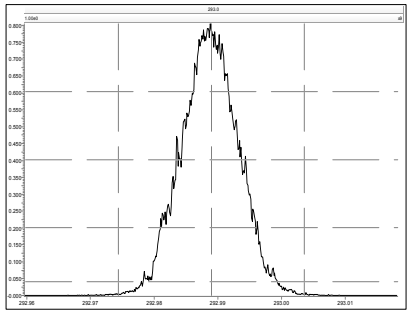

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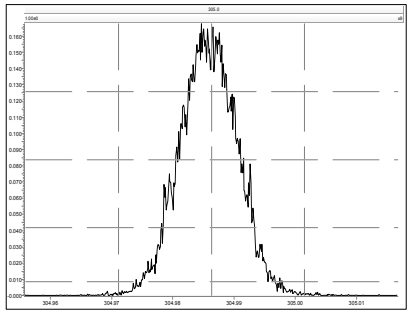

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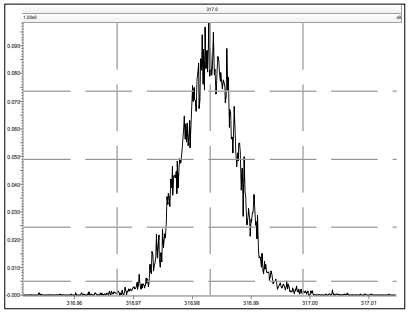

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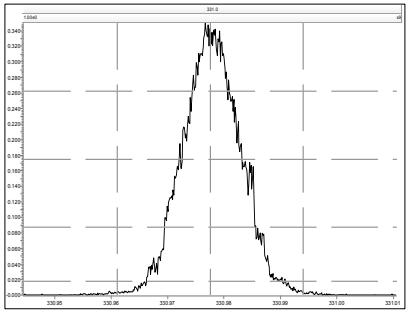

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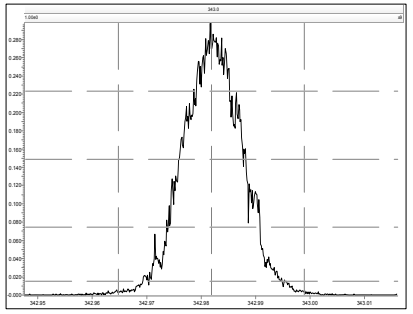

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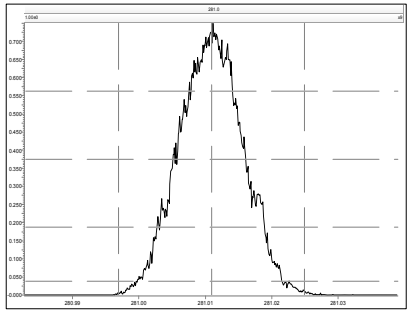

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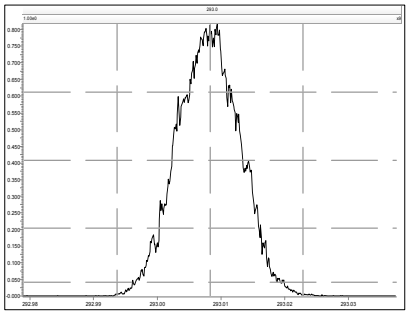

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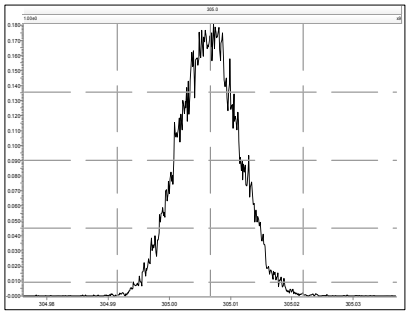

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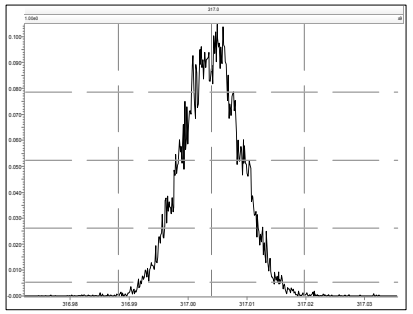

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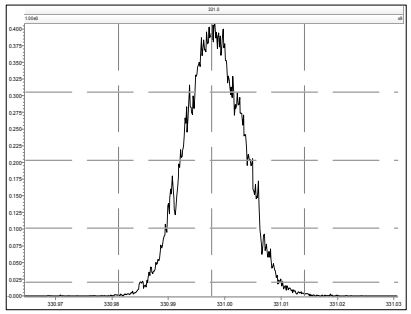

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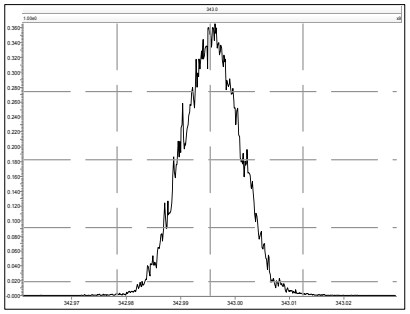

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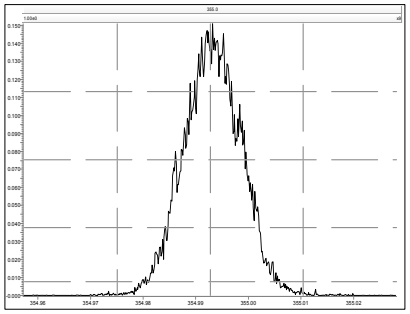

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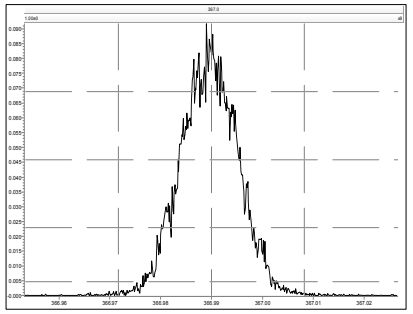

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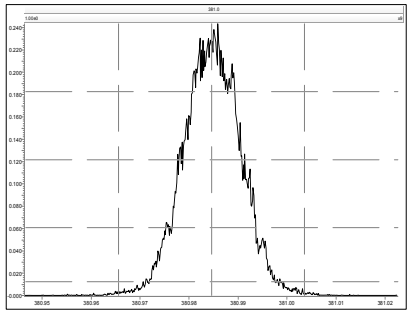

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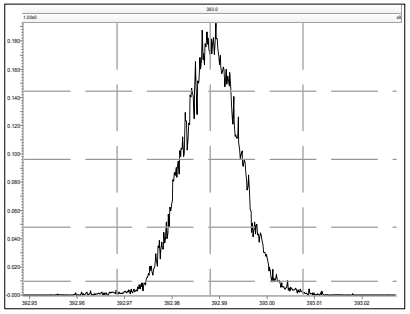

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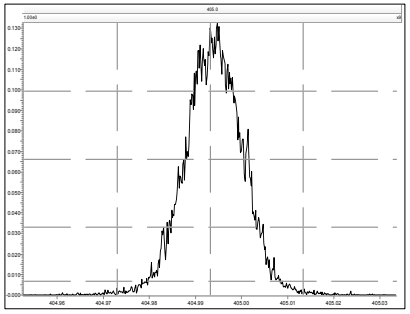

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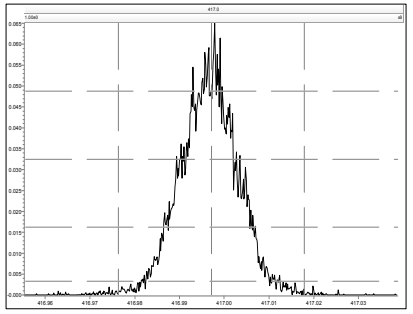

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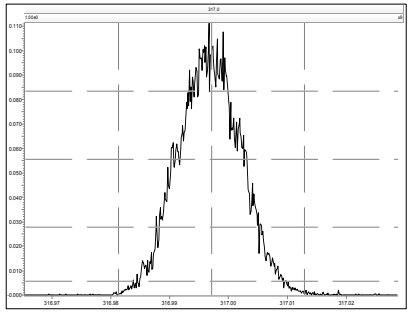

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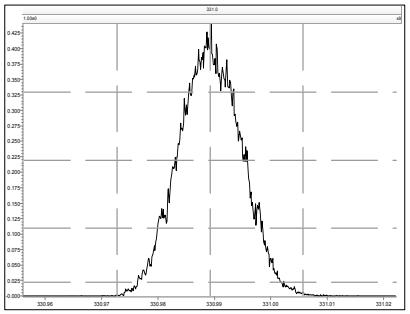

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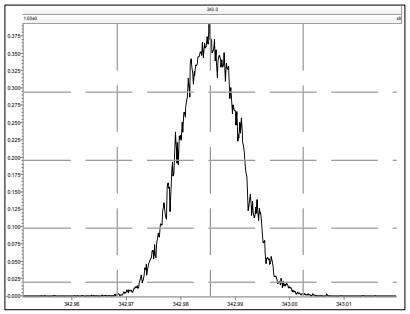

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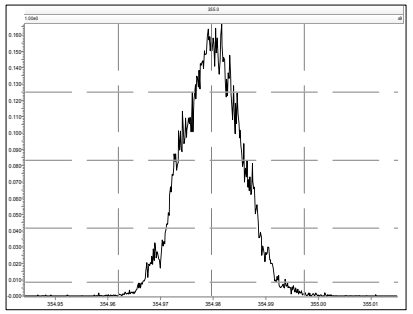

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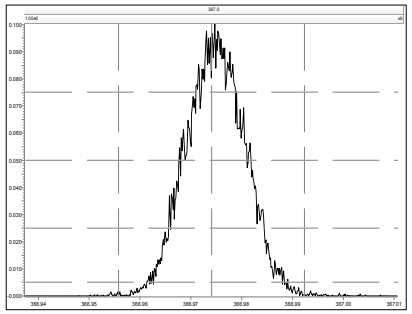

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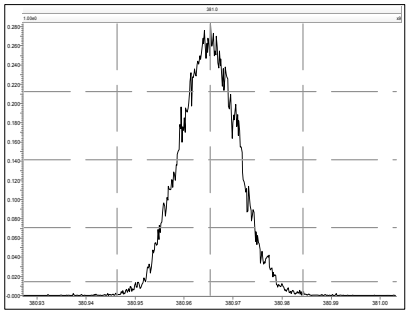

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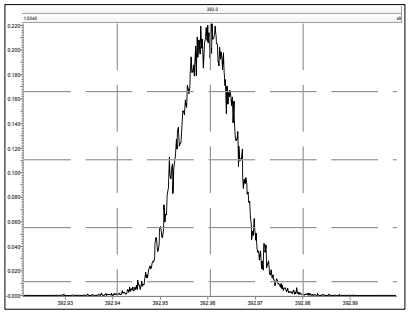

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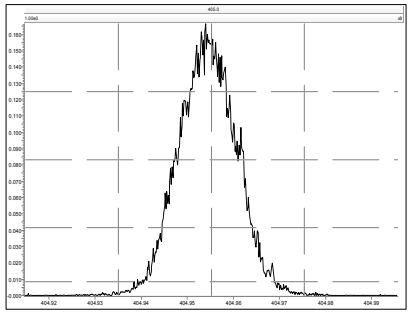

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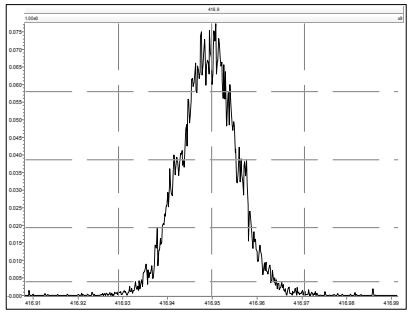

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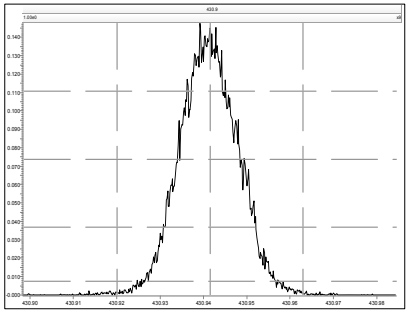

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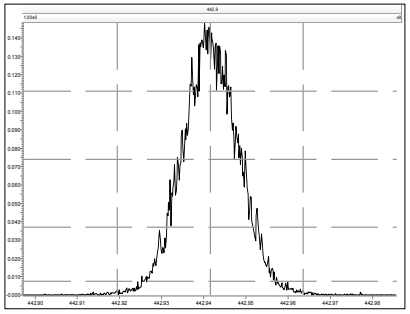

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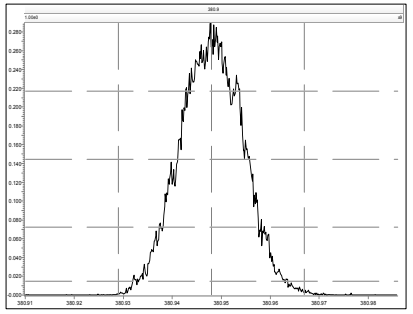

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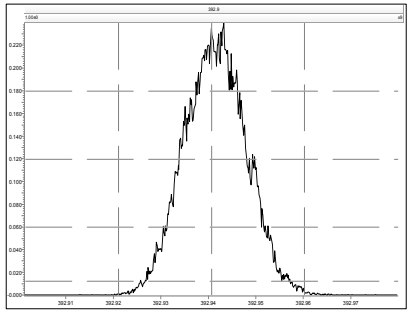

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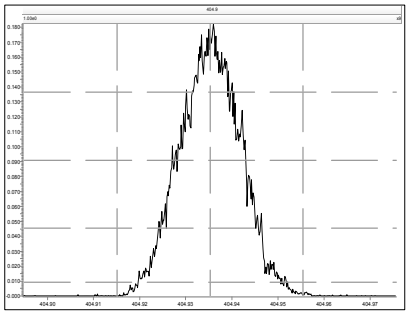

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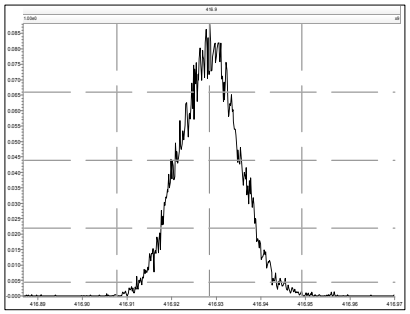

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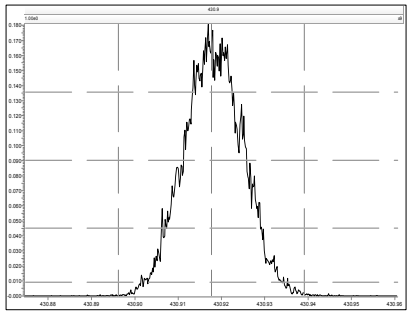

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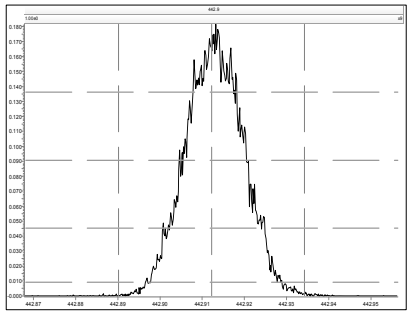

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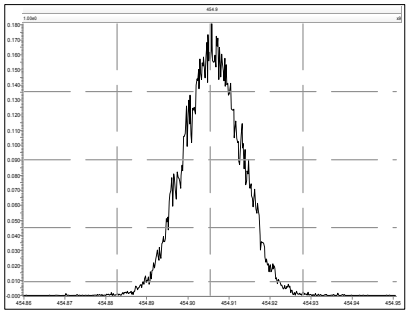

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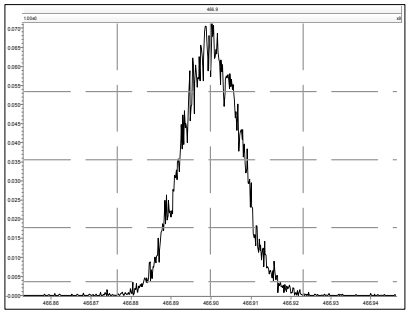

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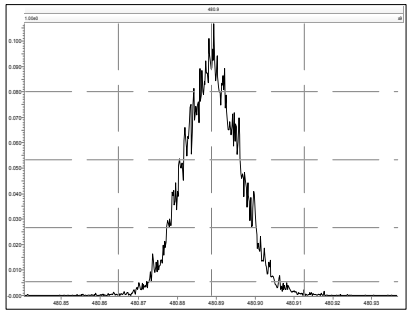

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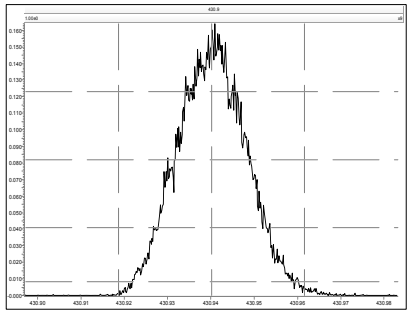

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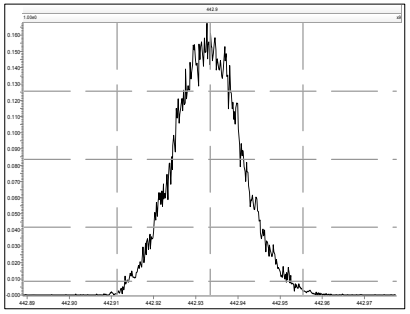

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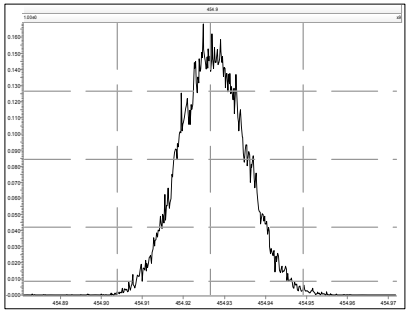

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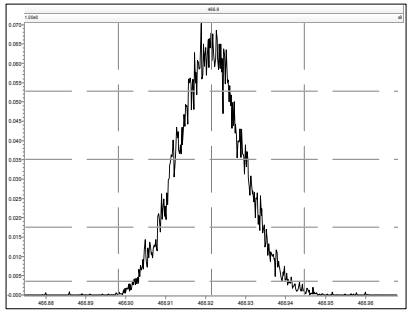

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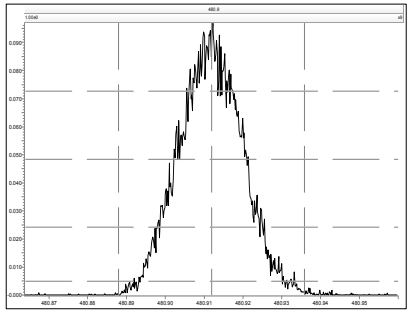

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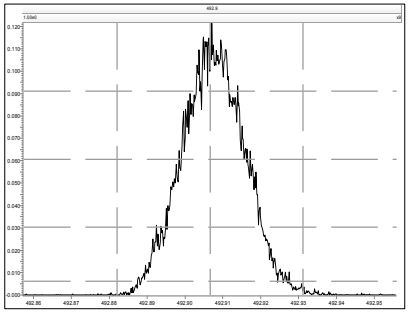

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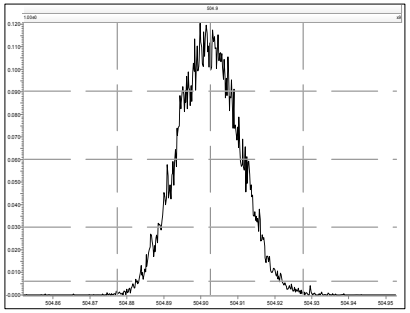

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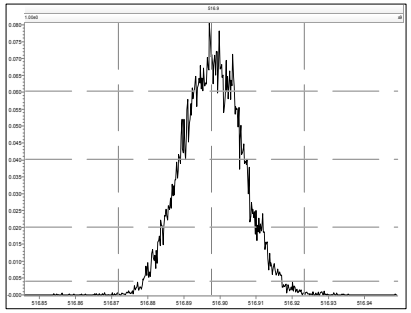

Resolution Check Report **MassLynx 4.1 SCN 881**

Printed: Thursday, July 26, 2012 08:33:07 Eastern Daylight Time

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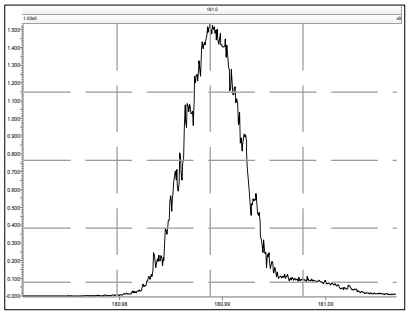

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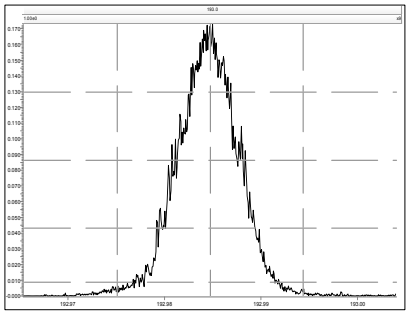

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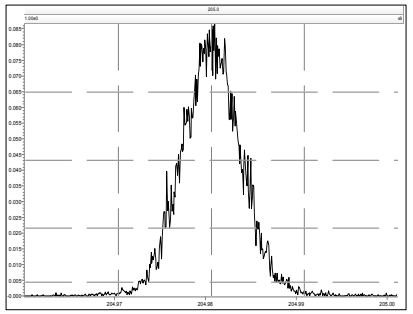

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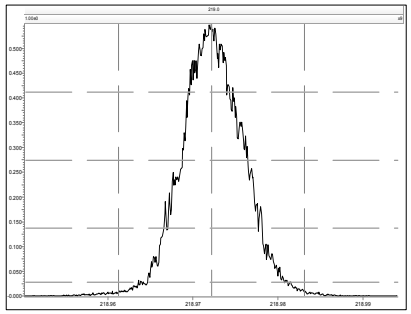

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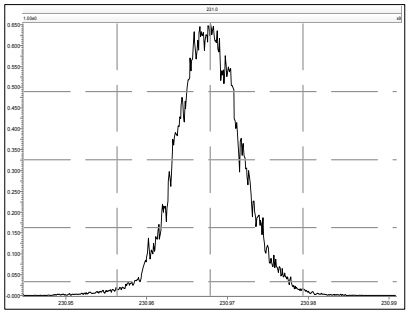

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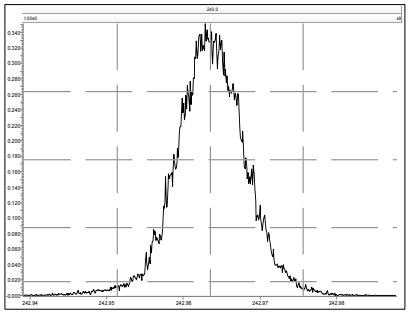

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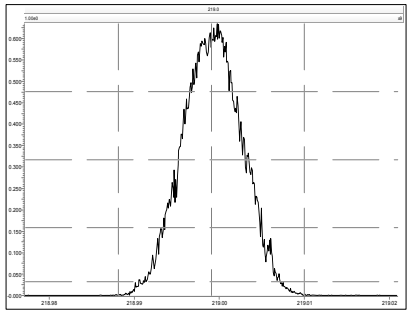

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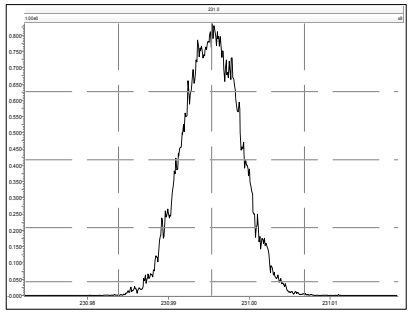

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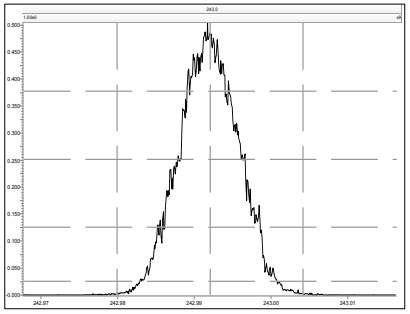

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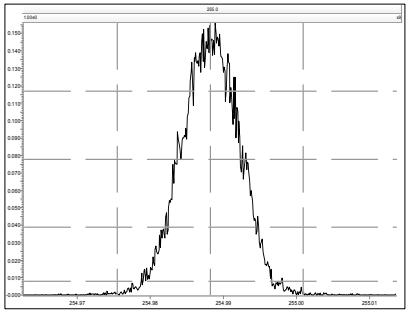

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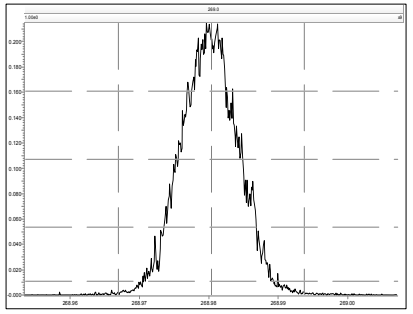

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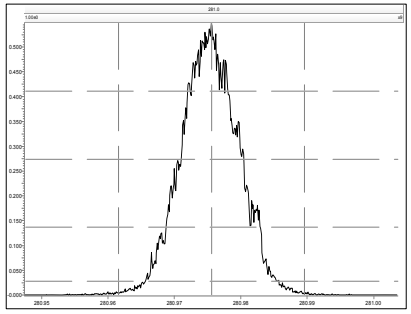

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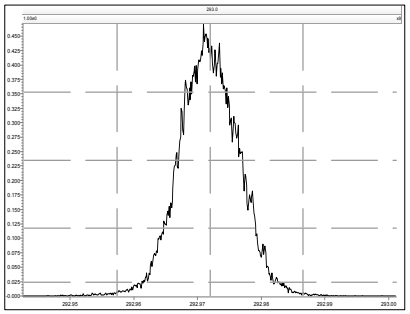

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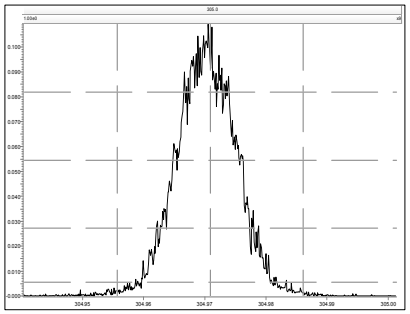

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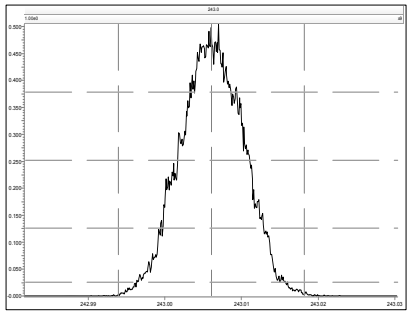

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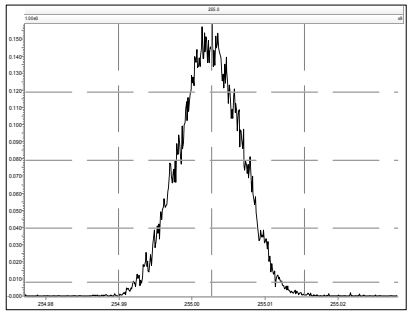

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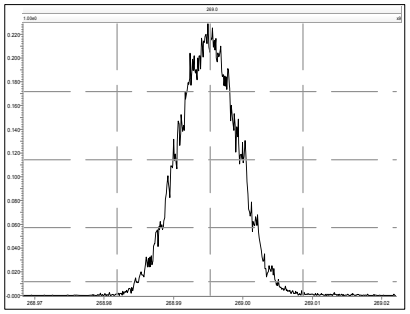

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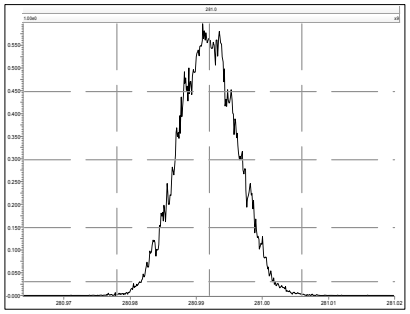

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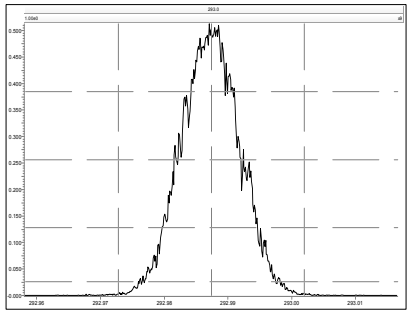

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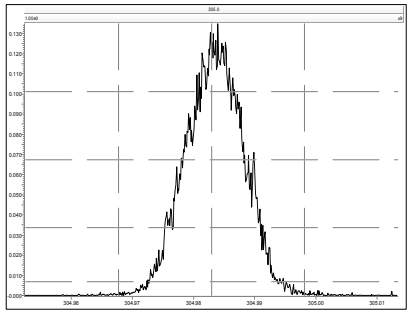

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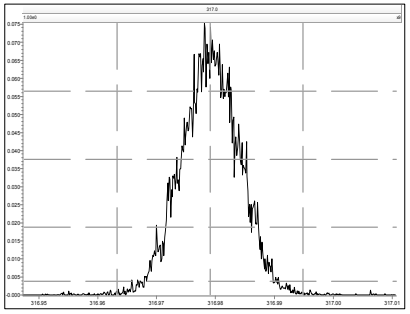

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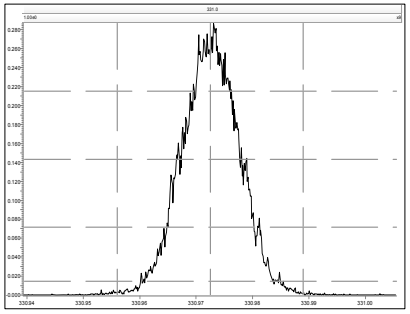

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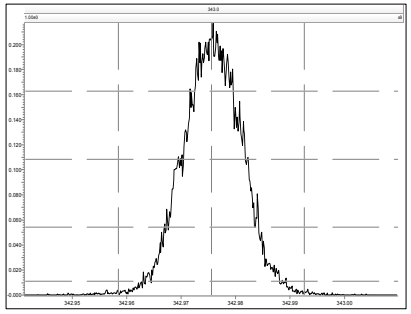

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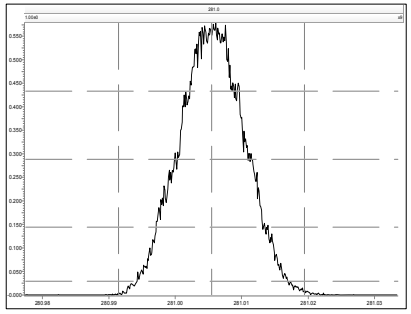

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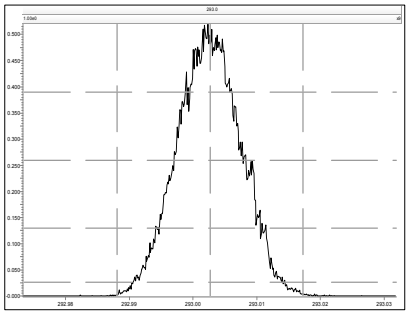

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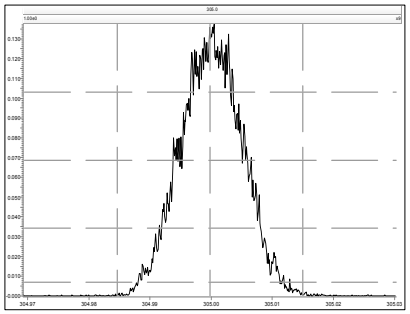

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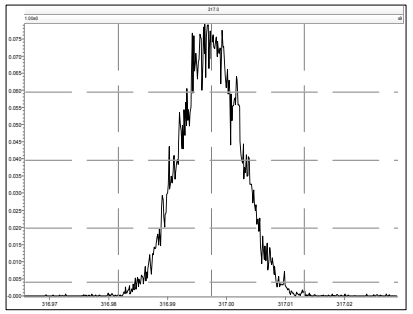

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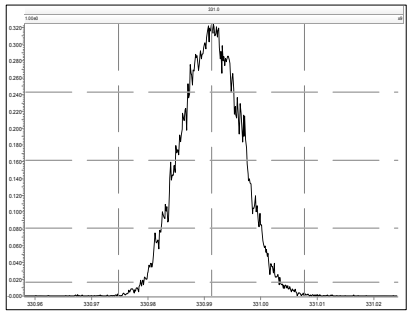

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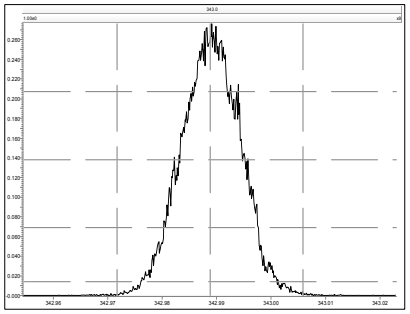

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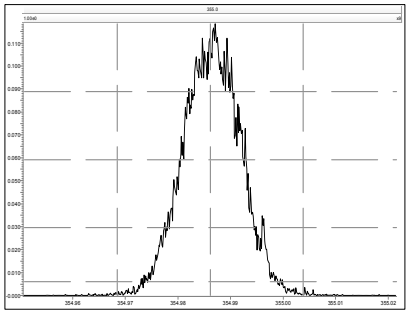

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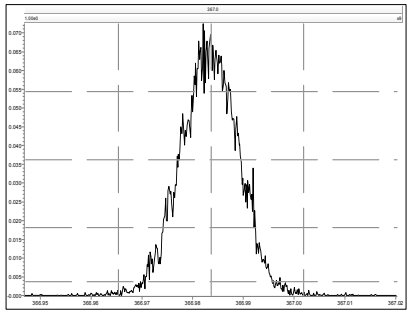

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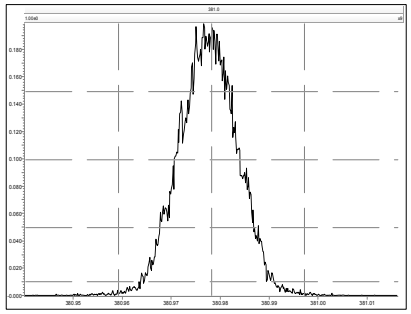

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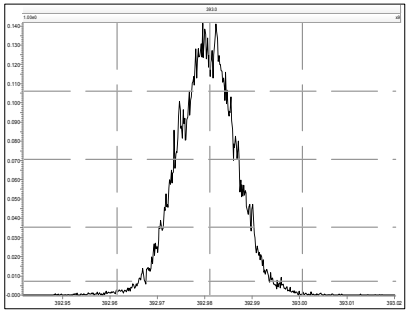

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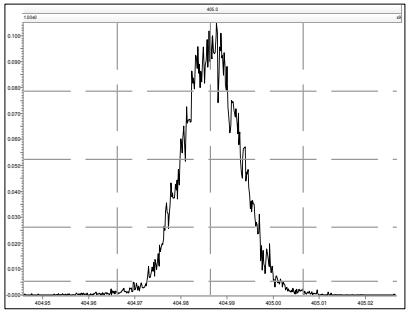

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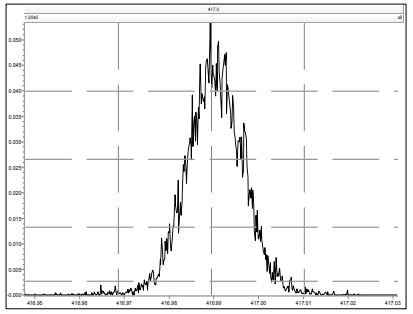

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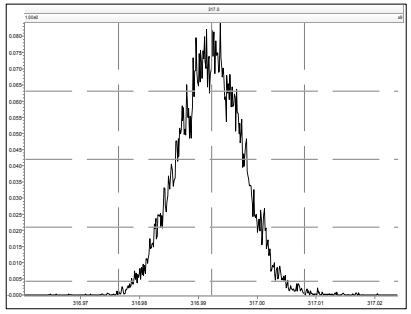

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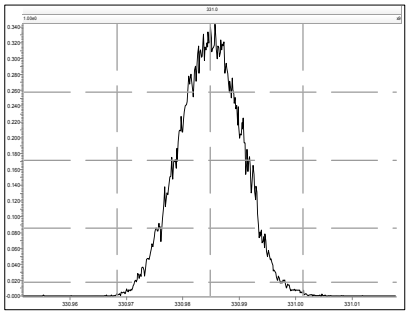

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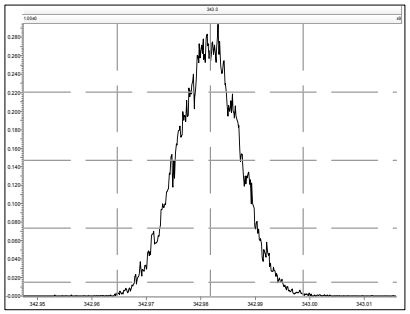

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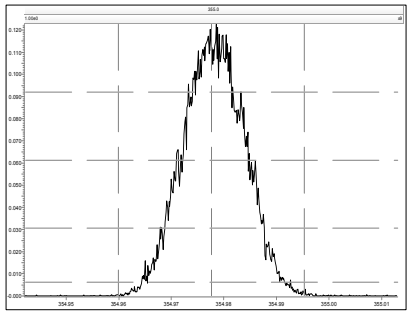

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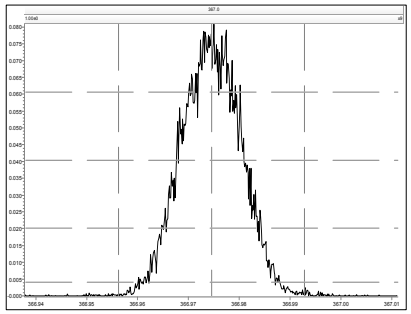

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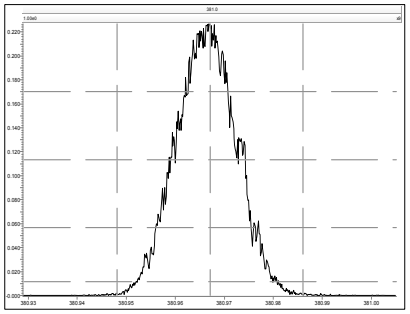

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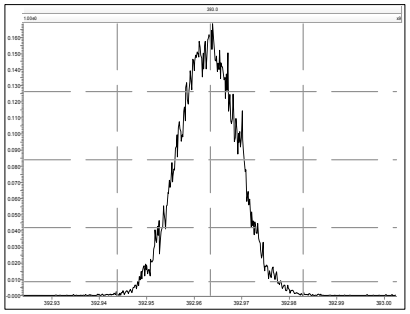

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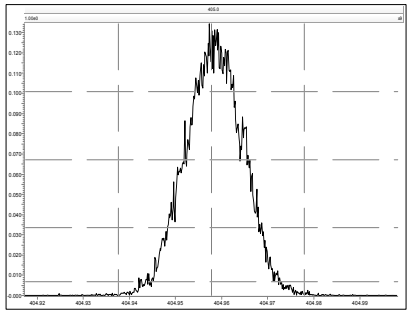

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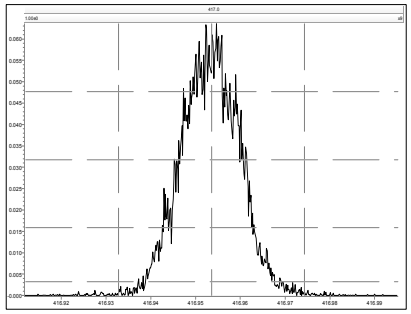

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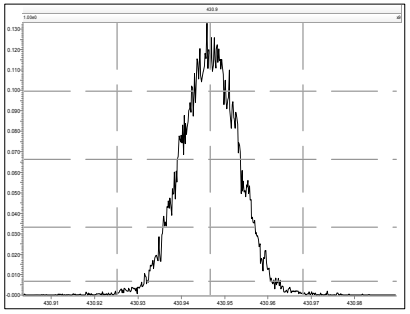

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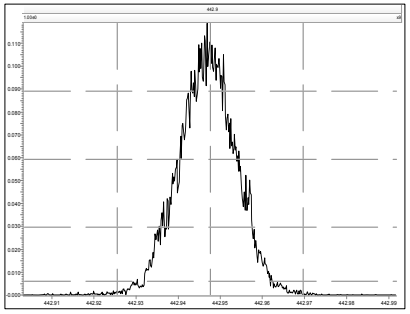

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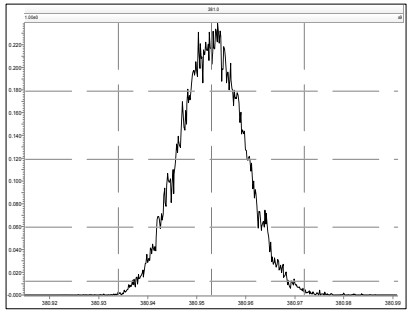

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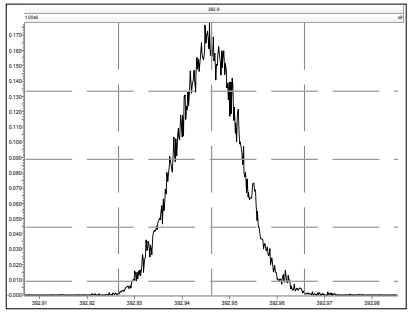

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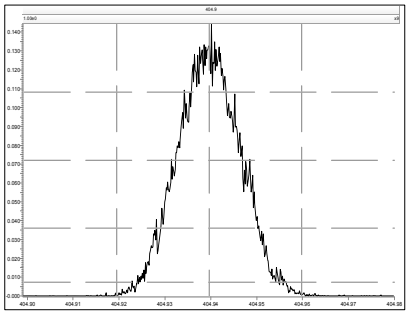

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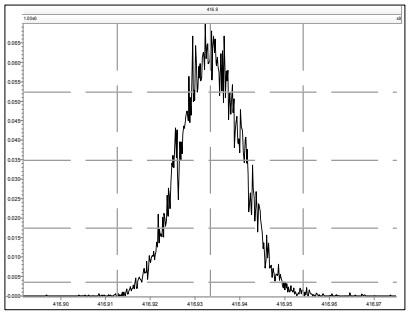

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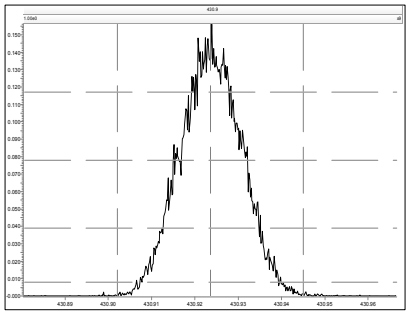
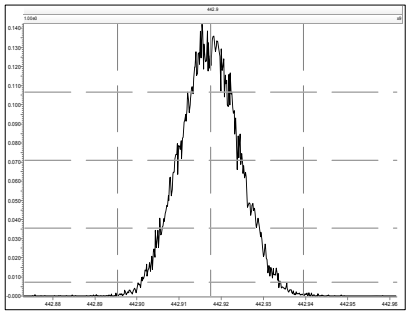
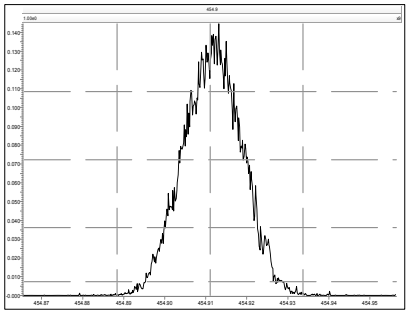


M 442.9728 R 13476



M 454.9728 R 13930



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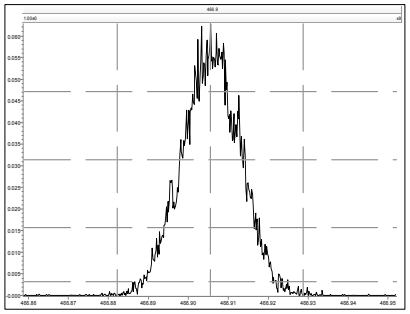

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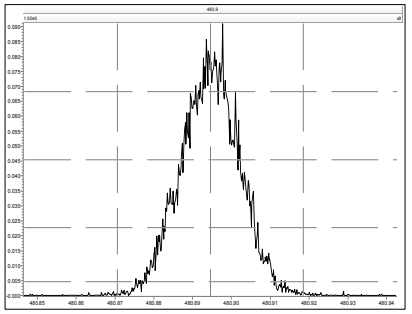

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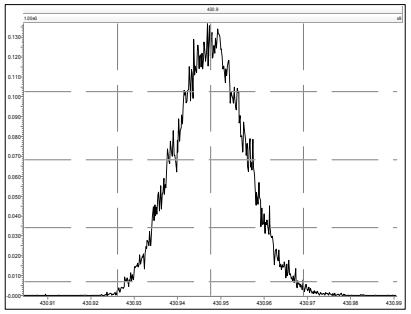

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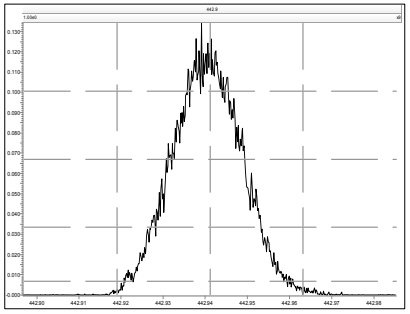

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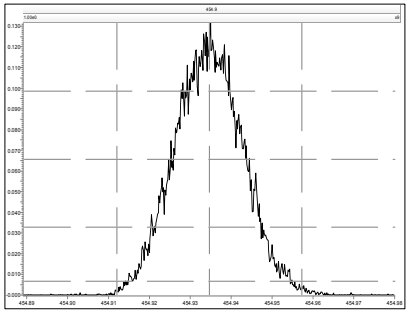

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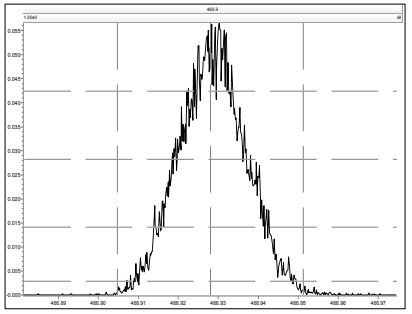

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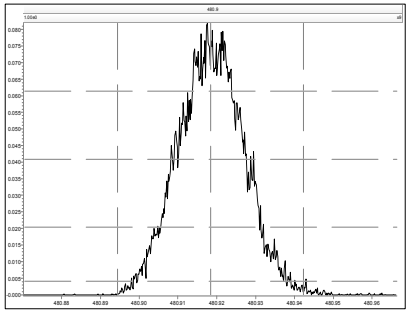

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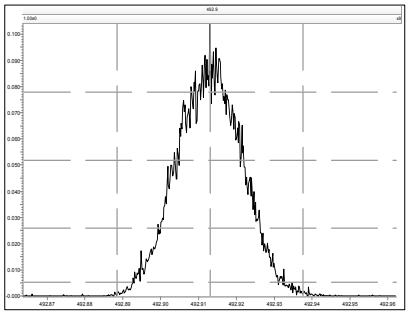

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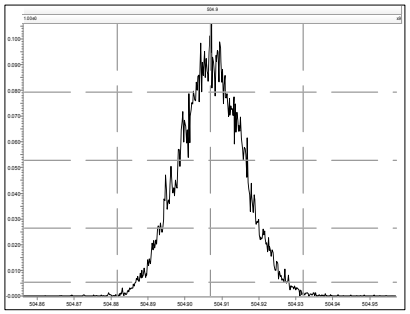

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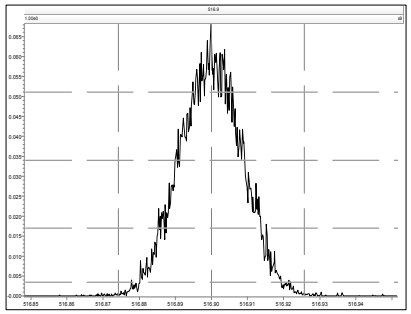

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X21**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XH.utp_res, saved 27-Jul-2012 15:03 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 1753, 1027 scc: 476-201 *PKD: 27-Jul-2012 15:02 Printed: 28-Jul-2012 10:40 Page 6 of 21*

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 4941, 7535 scc: 476-201 *Revised: 27-Jul-2012 14:17 (LKB) Printed: 28-Jul-2012 10:40 Page 7 of 21*

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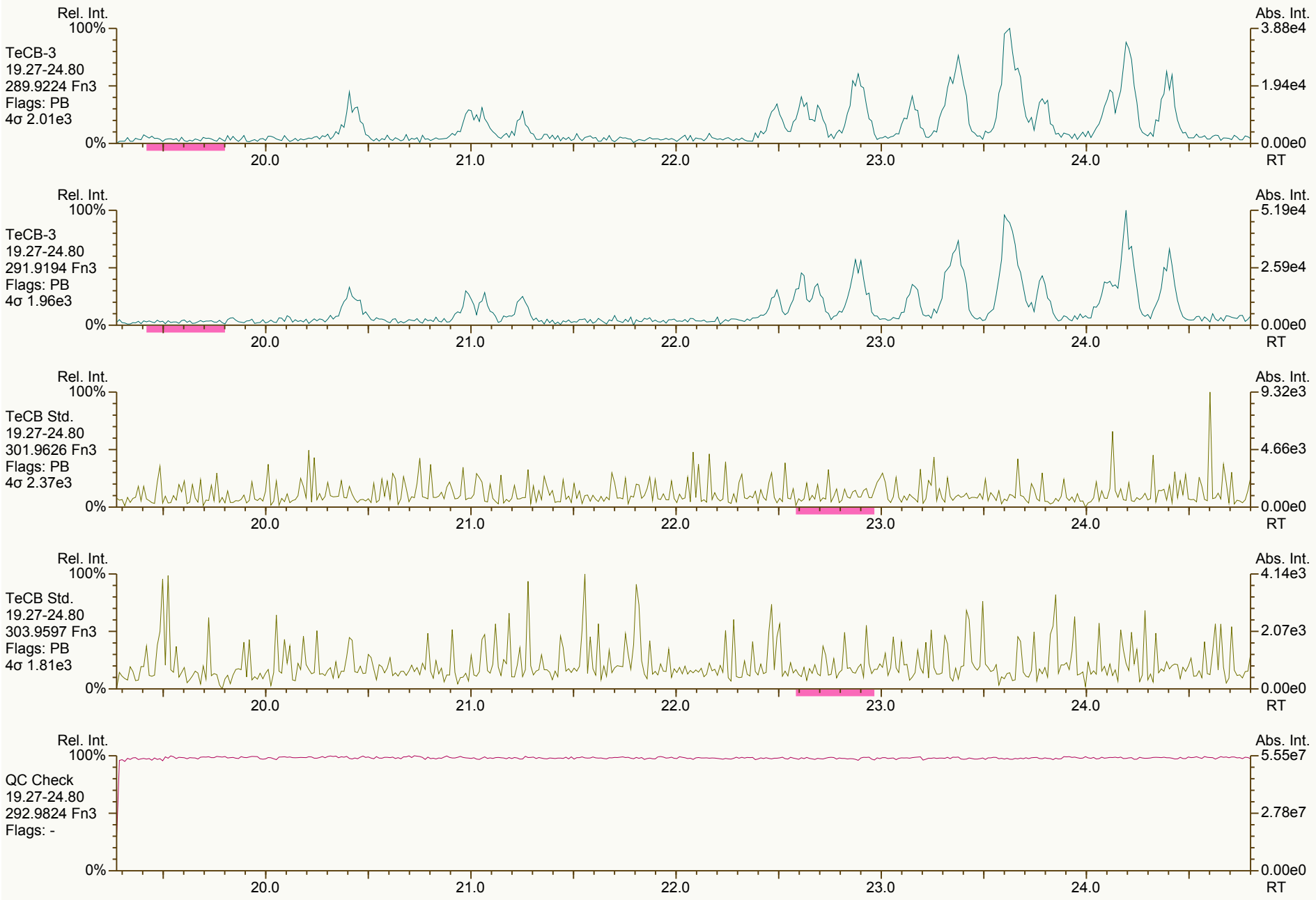

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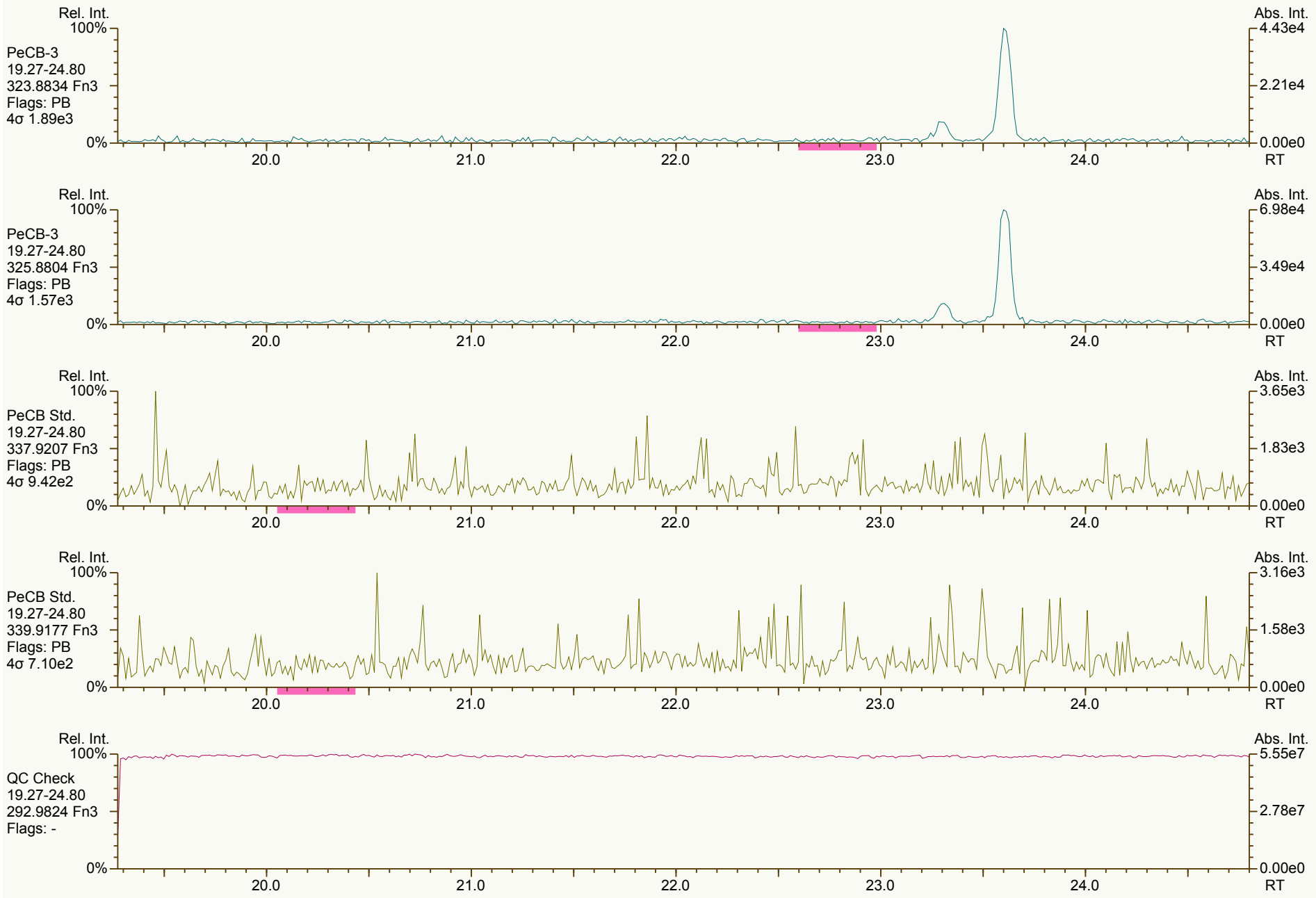

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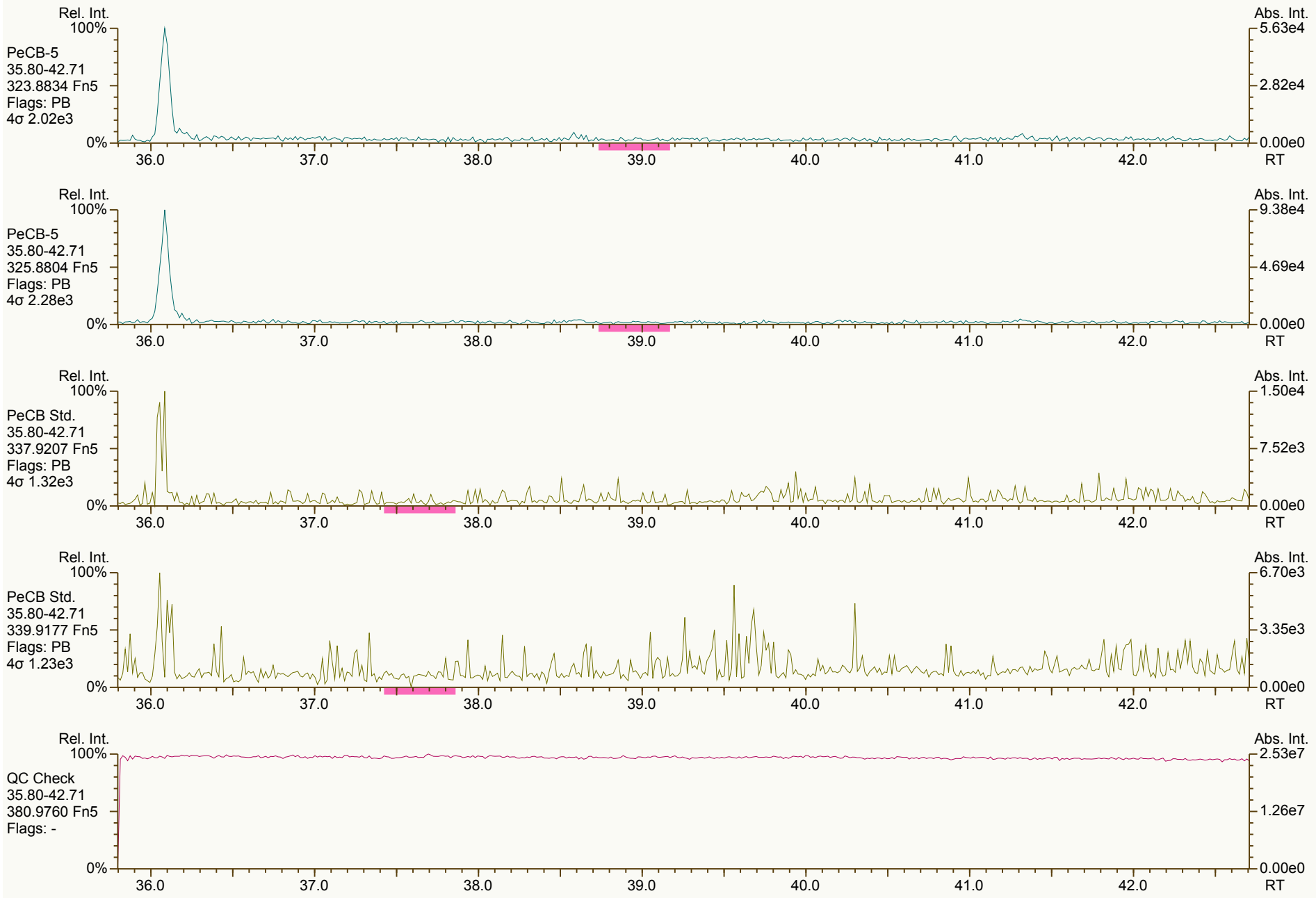

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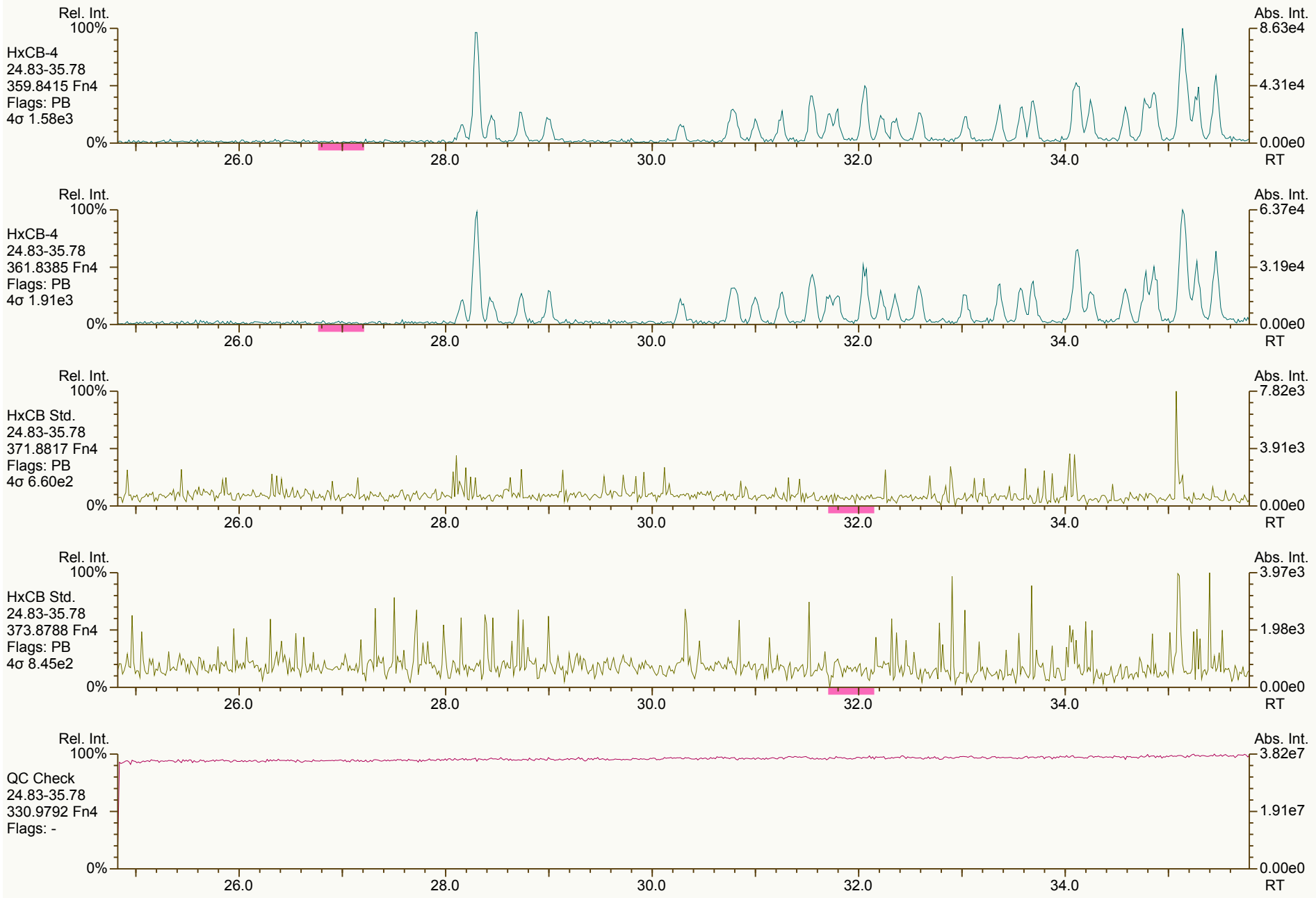

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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7487, 7337 scc: 476-201 *PKD: 27-Jul-2012 15:02 Printed: 28-Jul-2012 10:40 Page 13 of 21*

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 6455, 2544 scc: 476-201 *PKD: 27-Jul-2012 15:02 Printed: 28-Jul-2012 10:40 Page 14 of 21*

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
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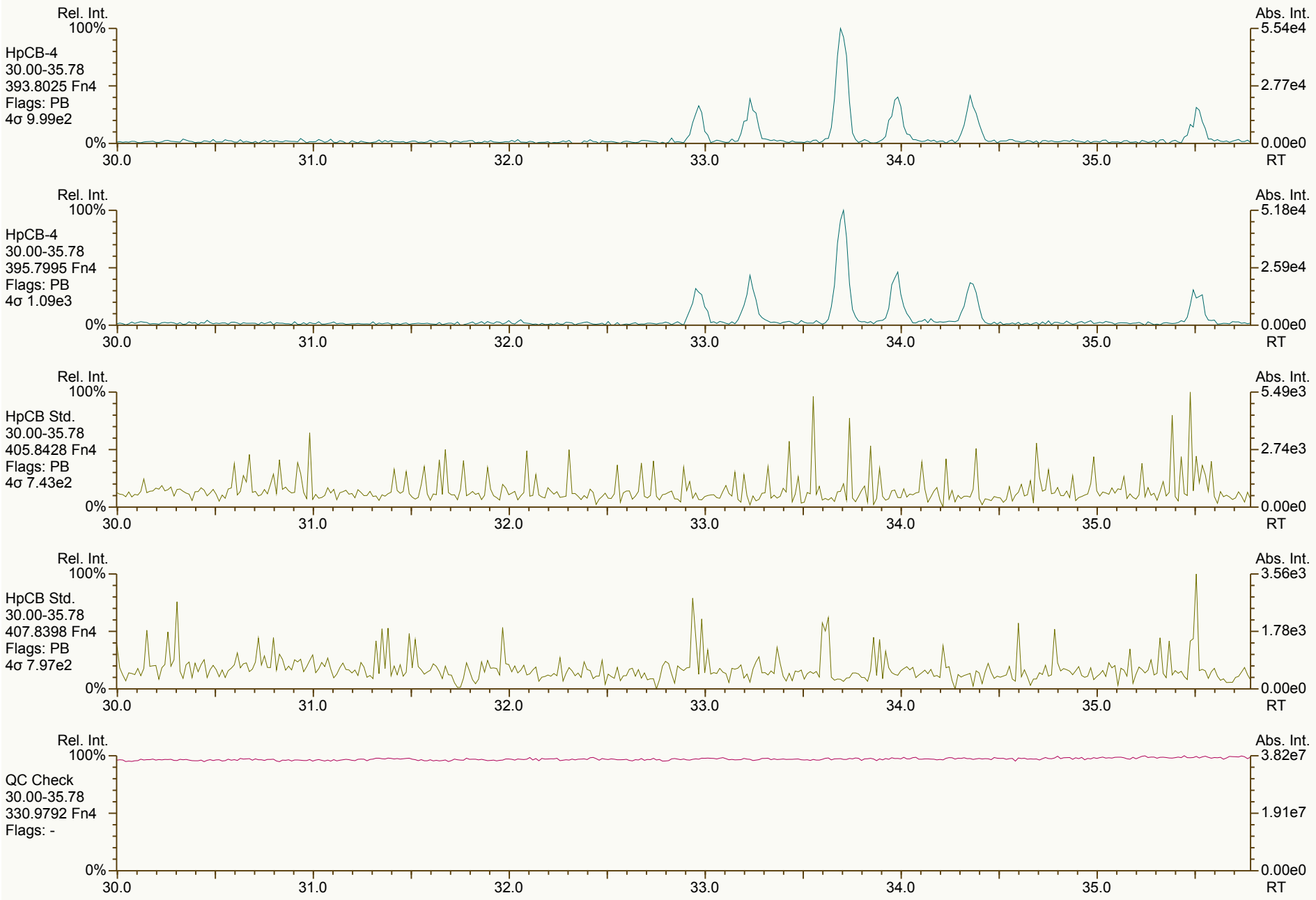

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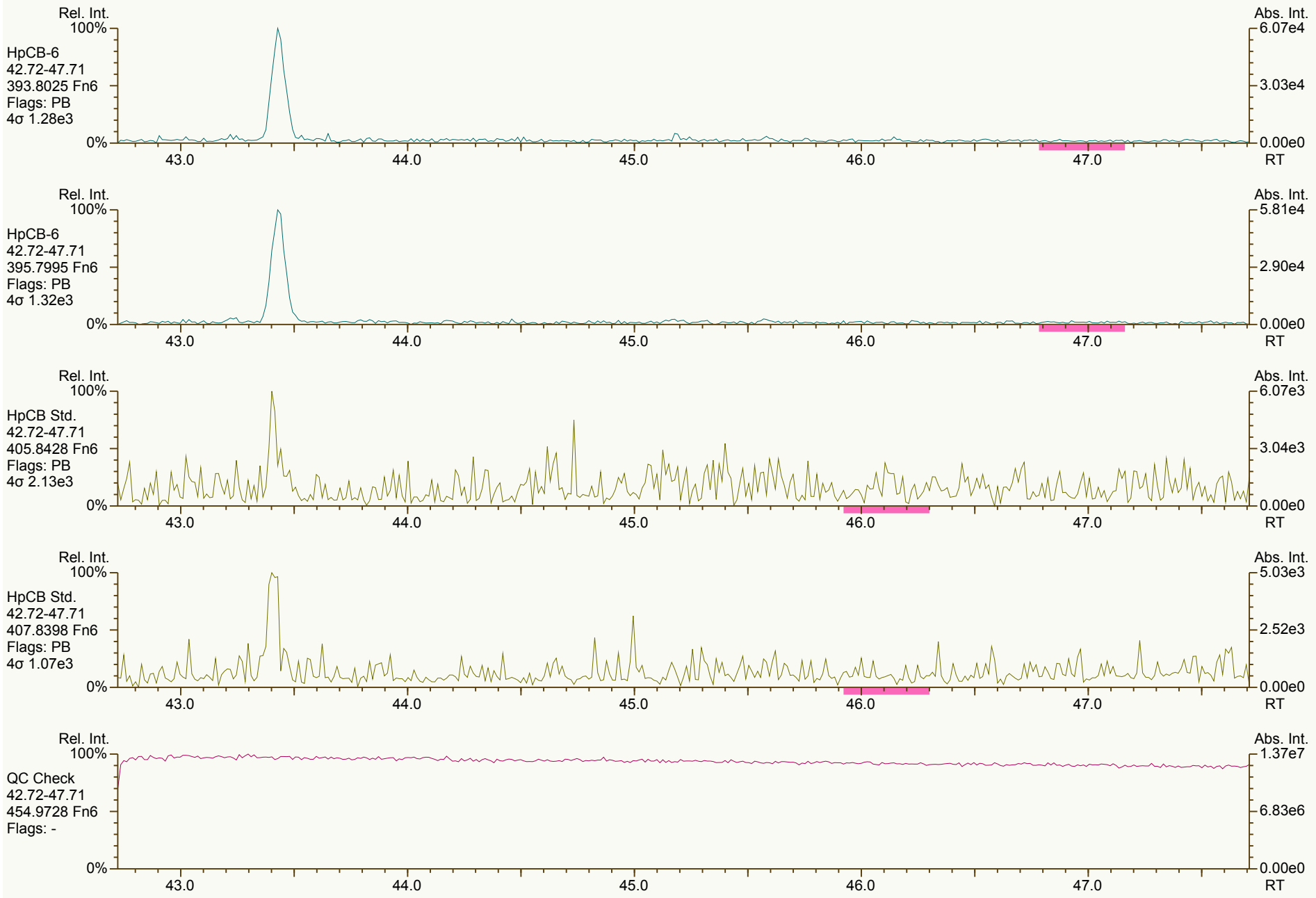

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AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
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AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 3950, 2132 scc: 476-201 *PKD: 27-Jul-2012 15:02 Printed: 28-Jul-2012 10:40 Page 19 of 21*

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X21**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XH.utp_res, saved 27-Jul-2012 15:03 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XH **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 08:33:09**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X21**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XH.utp_res, saved 27-Jul-2012 15:03 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 1970, 7765 scc: 476-201 *PKD: 27-Jul-2012 15:02 Printed: 28-Jul-2012 10:40 Page 21 of 21*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



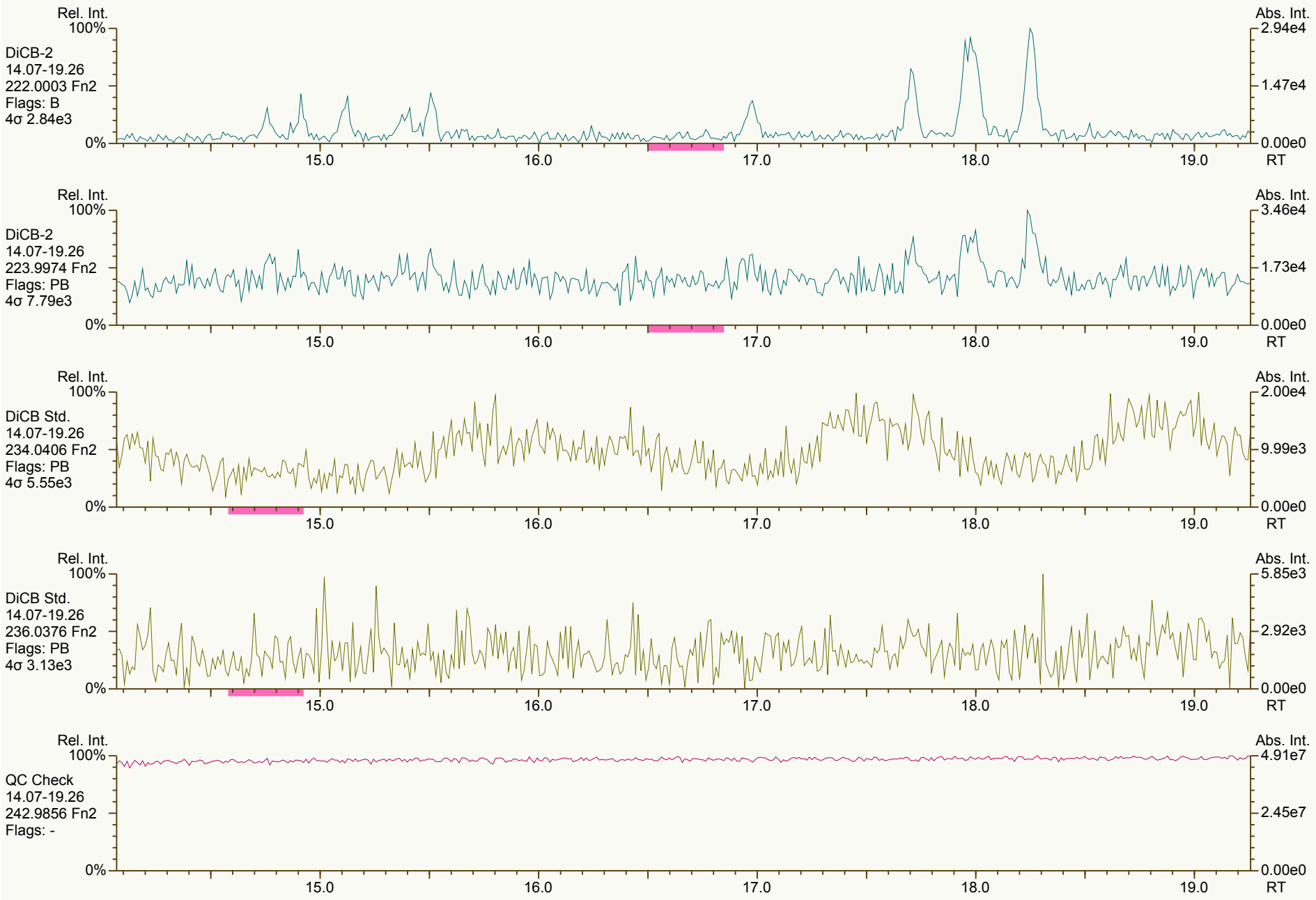
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**

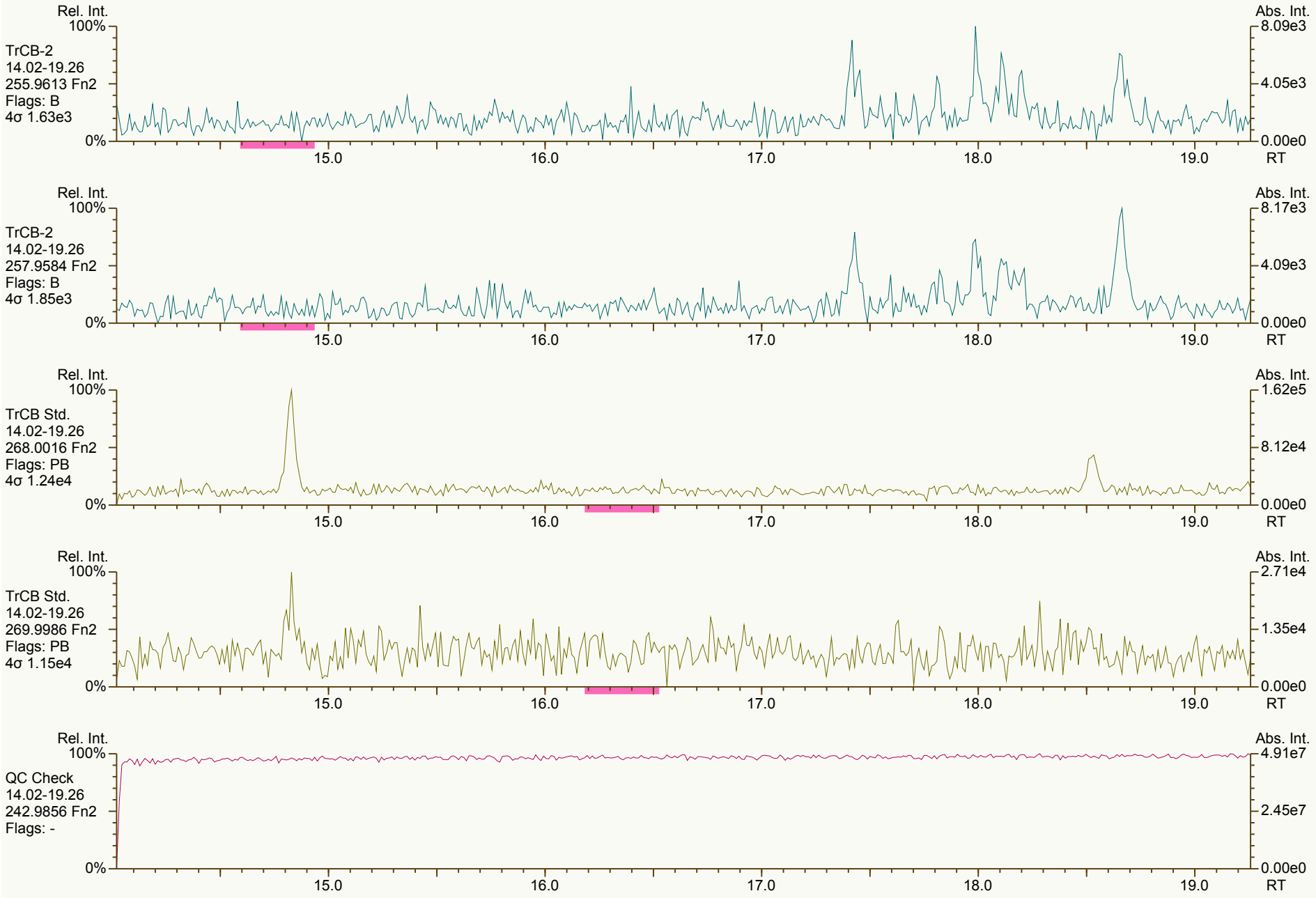


Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



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AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



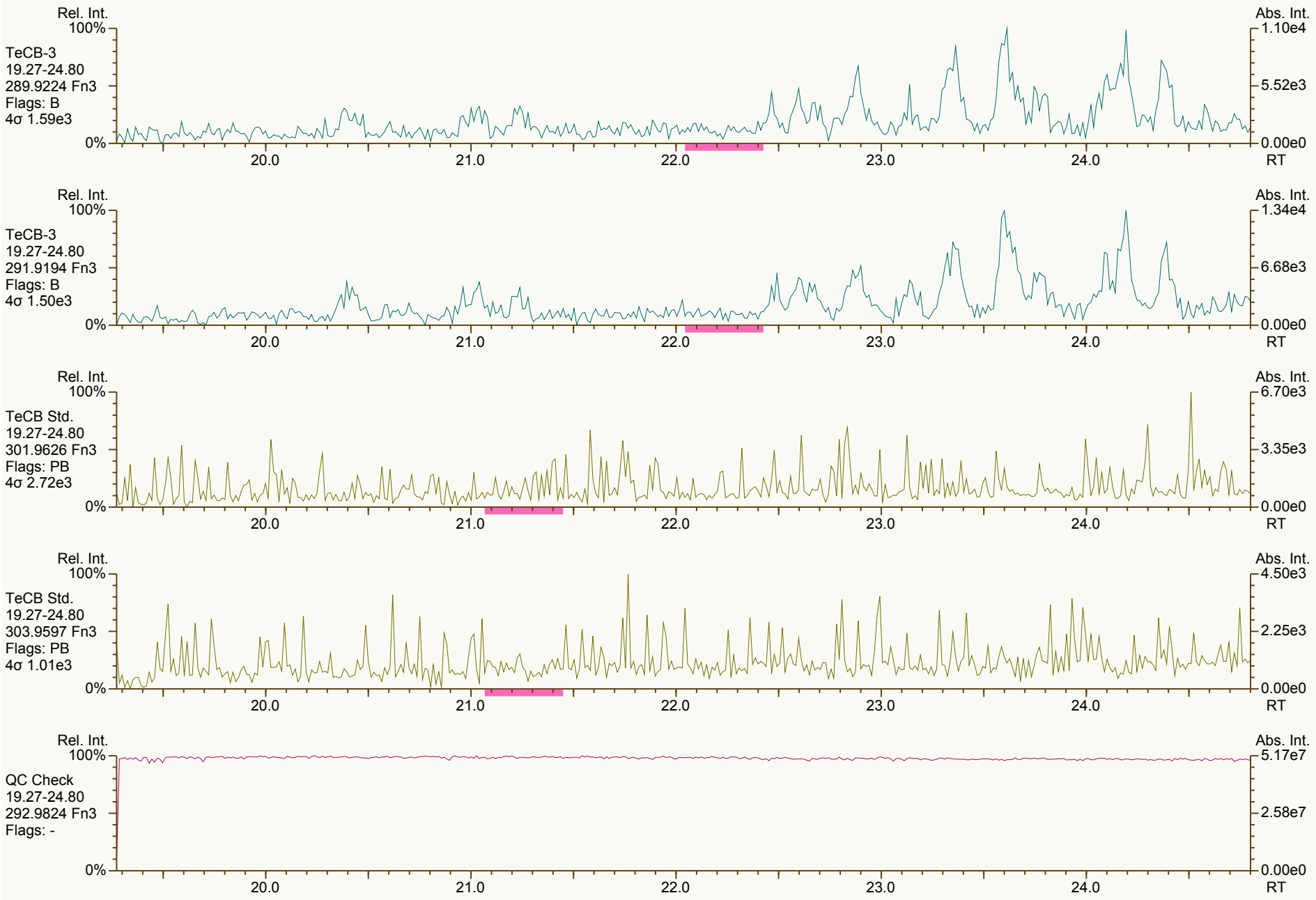
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



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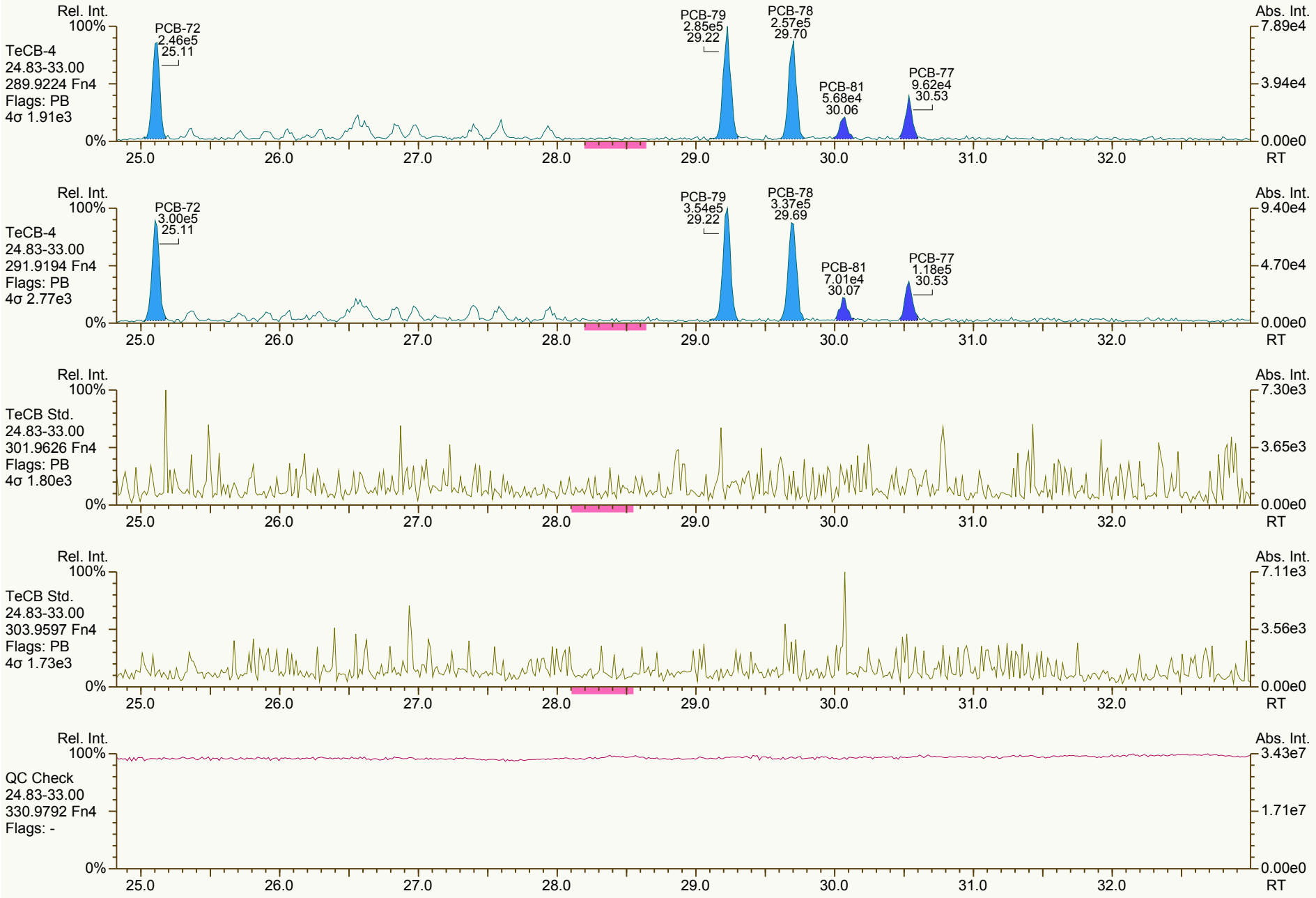
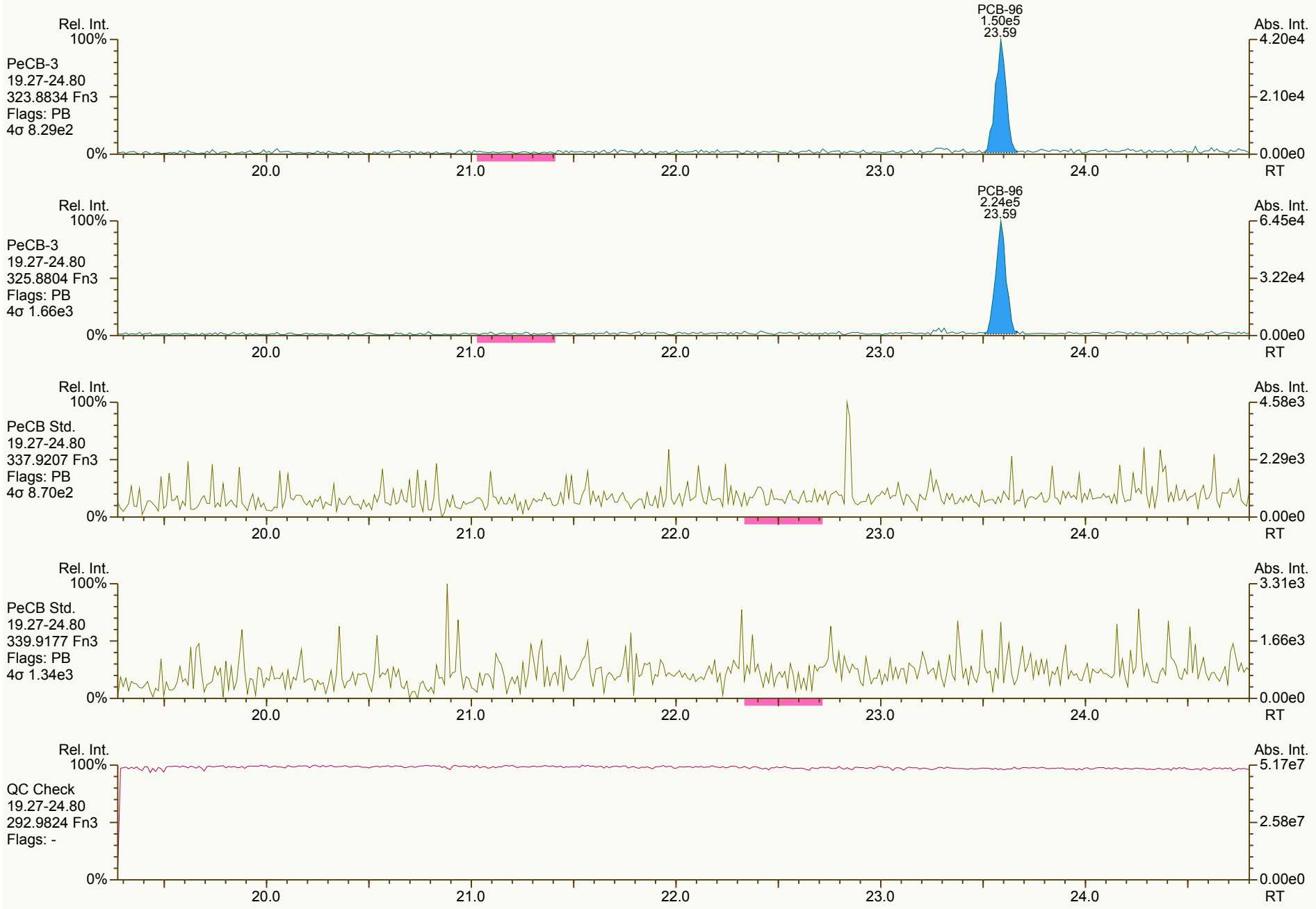
AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



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Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 7026, 8398 scc: 961-294 *PKD: 27-Jul-2012 14:22 Printed: 28-Jul-2012 10:41 Page 12 of 21*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



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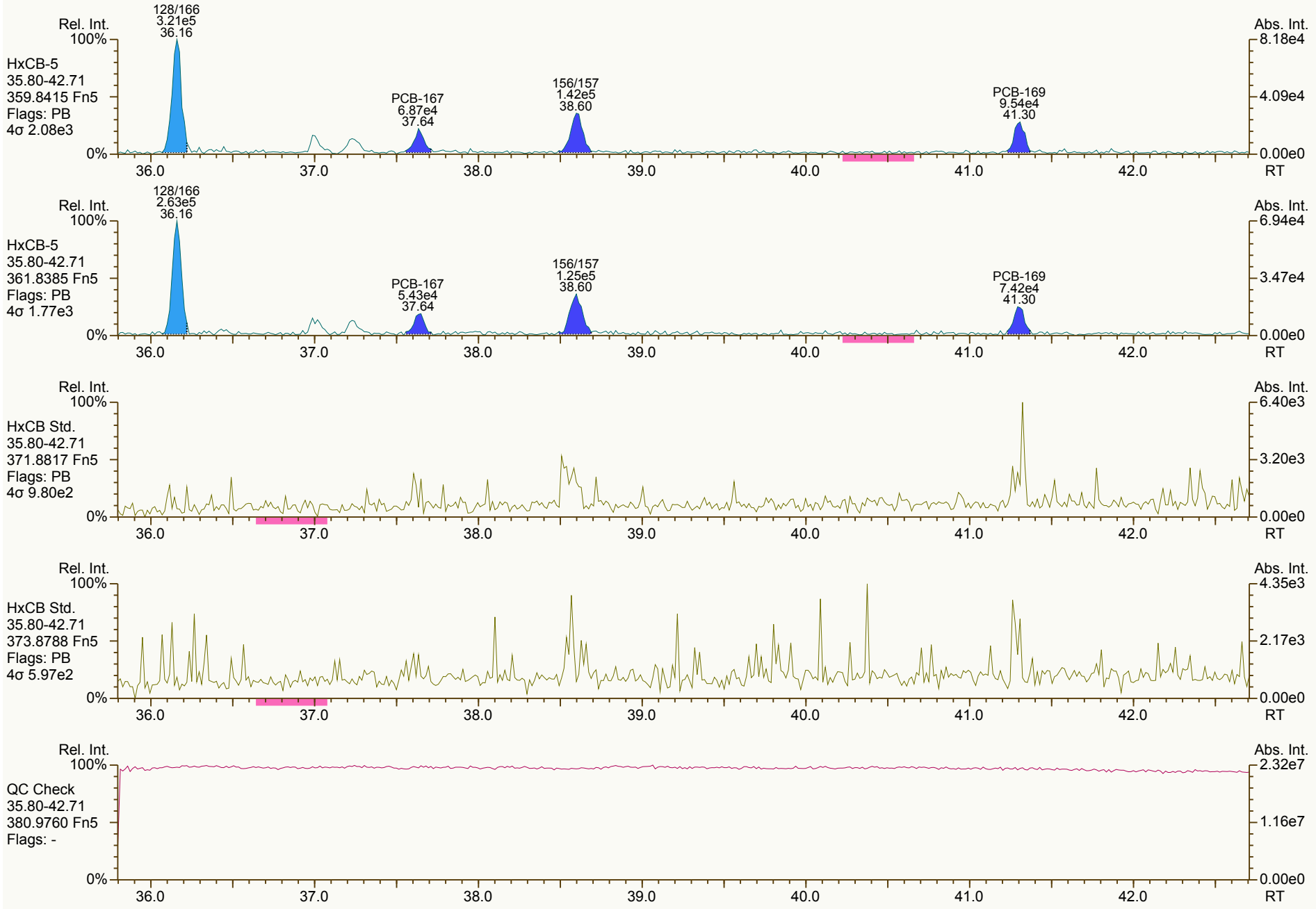
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



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AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
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AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



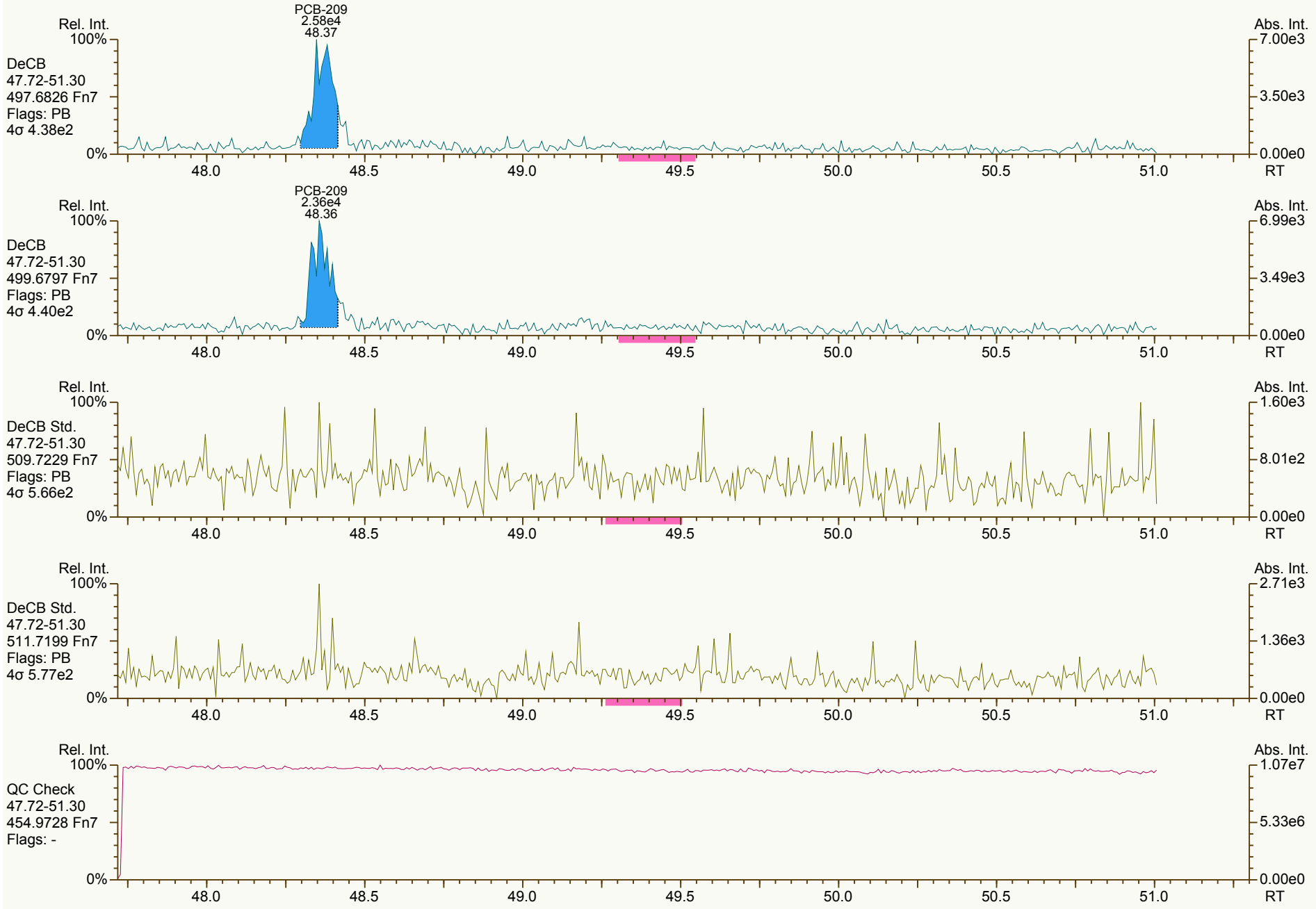
Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP Lab ID: SBS_120725_PCB_XI **Sample ID: SIL 9-41-1** **Acq: 26-Jul-2012 09:25:22**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 02** **User: LKB Datafile: 120725X22**



Results: T:\UltraTracePro\ICAL results\MM7_PCB_07192012_25JUL2012\SBS_120725_PCB_XI.utp_res, saved 27-Jul-2012 14:25 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.67 User/System: LKB/LBI7-065 cc: 4285, 8285 scc: 961-294 *Revised: 27-Jul-2012 14:18 (LKB) Printed: 28-Jul-2012 10:41 Page 21 of 21*

Datafile: 121214X02 **Client ID: 0_10429_OPR001** **Wt/Vol: 1 µL** **ICAL: MM7_PCB_07132012_25JUL12 CS3_121214_PCB_XA**

Acquired: 14 Dec 2012 04:52:37 **Lab ID: OPR1_10429_PCB** **J-level: 10 pg/uL** **Nominal ES spike: 100 pg**

OPR1_10429_PCB Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Checkcode: Noise	DL / DL
PCB-77 33'44'-TeCB	30.52		1.0006	1.0006	0	1.28E+07	0.77	1.13	58.2	1.51E+03	0.0724
PCB-81 344'5-TeCB	30.05		1.0006	1.0006	0	1.27E+07	0.79	1.13	62.9	1.51E+03	0.0781
PCB-105 233'44'-PeCB	33.45		1.0007	1.0007	0	1.05E+07	0.62	1.09	64.4	1.01E+03	0.0635
PCB-114 2344'5-PeCB	32.92		1.0007	1.0007	0	1.06E+07	0.62	1.16	60.3	1.01E+03	0.062
PCB-118 23'44'5-PeCB	32.47		1.0007	1.0007	0	1.08E+07	0.62	1.11	64	1.01E+03	0.0628
PCB-123 23'44'5'-PeCB	32.19		1.0006	1.0007	+0.2	1.02E+07	0.61	1.19	58	1.01E+03	0.0575
PCB-126 33'44'5-PeCB	36.06		1.0005	1.0005	0	1.05E+07	0.64	1.06	63.8	1.63E+03	0.111
PCB-156/157 ...-HxCB	38.58	C	1.0005	1.0005	0	1.87E+07	1.20	1.11	111	1.31E+03	0.0995
PCB-167 23'44'55'-HxCB	37.62		1.0005	1.0005	0	9.67E+06	1.19	1.14	54.4	1.31E+03	0.0753
PCB-169 33'44'55'-HxCB	41.30		1.0004	1.0005	+0.2	8.64E+06	1.22	1.11	55.7	1.31E+03	0.0914
PCB-189 233'44'55'-HpCB	43.41		1.0004	1.0005	+0.3	9.04E+06	1.03	1.06	59	1.29E+03	0.0901
									Recv.		
ES PCB-77	30.50		1.3599	1.3610	+2.0	1.94E+07	0.77	1.35	77.4 %	30%	140%
ES PCB-81	30.03		1.3390	1.3401	+2.0	1.79E+07	0.78	1.29	75 %	30%	140%
ES PCB-105	33.43		1.1826	1.1831	+1.0	1.50E+07	1.59	1.23	80.7 %	30%	140%
ES PCB-114	32.90		1.1639	1.1643	+0.8	1.51E+07	1.61	1.25	80.5 %	30%	140%
ES PCB-118	32.45		1.1481	1.1485	+0.8	1.53E+07	1.65	1.28	79.5 %	30%	140%
ES PCB-123	32.17		1.1383	1.1386	+0.6	1.47E+07	1.57	1.22	80.5 %	30%	140%
ES PCB-126	36.04		1.2746	1.2755	+1.9	1.55E+07	1.57	1.20	86.1 %	30%	140%
ES PCB-156/157	38.56		1.0994	1.0999	+1.2	3.05E+07	1.32	1.45	77.9 %	30%	140%
ES PCB-167	37.60		1.0720	1.0725	+1.1	1.56E+07	1.33	1.49	77.7 %	30%	140%
ES PCB-169	41.28		1.1769	1.1775	+1.5	1.40E+07	1.32	1.40	73.8 %	30%	140%
ES PCB-189	43.39		0.9611	0.9612	+0.3	1.45E+07	1.05	1.49	86.2 %	30%	140%
SS PCB-28	20.85	V	0.9298	0.9303	+0.6	3.19E+07	1.13	1.07	127 %	40%	125%
SS PCB-111	30.54	V	1.0805	1.0807	+0.4	1.89E+07	1.62	1.01	127 %	40%	125%
SS PCB-178	35.44		1.0108	1.0110	+0.4	1.04E+07	1.06	0.63	123 %	40%	125%
CS PCB-28	20.85		0.9298	0.9303	+0.6	3.19E+07	1.13	1.76	97.8 %	40%	125%
CS PCB-111	30.54		1.0805	1.0807	+0.4	1.89E+07	1.62	1.23	102 %	40%	125%
CS PCB-178	35.44		1.0108	1.0110	+0.4	1.04E+07	1.06	0.74	105 %	40%	125%
JS PCB-9	14.72					3.23E+07	1.60				
JS PCB-52	22.41					1.86E+07	0.76				
JS PCB-101	28.25					1.50E+07	1.59				
JS PCB-138	35.06					1.35E+07	1.27				
JS PCB-194	45.14					1.13E+07	0.89				

METHOD HR-PCB **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8A**

Lab Name: SGS Analytical Perspectives
Initial Calibration: ICAL: MM7_PCB_07132012_25JUL12
Instrument ID: MM7 GC Column ID:
VER Data Filename: 121214X02 Analysis Date: 14-DEC-2012 04:52:37
Lab ID: OPR1_10429_PCB

NATIVE ANALYTES	SPIKE CONC.	RECOVERY	RANGE (%)			OK
PCB-1 2-MoCB	50	125	50	-	150	Y
PCB-3 4-MoCB	50	127	50	-	150	Y
PCB-4 22'-DiCB	50	114	50	-	150	Y
PCB-15 44'-DiCB	50	119	50	-	150	Y
PCB-19 22'6-TrCB	50	123	50	-	150	Y
PCB-37 344'-TrCB	50	106	50	-	150	Y
PCB-54 22'66'-TeCB	50	124	50	-	150	Y
PCB-77 33'44'-TeCB	50	116	50	-	150	Y
PCB-81 344'5-TeCB	50	126	50	-	150	Y
PCB-104 22'466'-PeCB	50	113	50	-	150	Y
PCB-105 233'44'-PeCB	50	129	50	-	150	Y
PCB-114 2344'5-PeCB	50	121	50	-	150	Y
PCB-118 23'44'5-PeCB	50	128	50	-	150	Y
PCB-123 23'44'5'-PeCB	50	116	50	-	150	Y
PCB-126 33'44'5-PeCB	50	128	50	-	150	Y
PCB-155 22'44'66'-HxCB	50	114	50	-	150	Y
PCB-156/157 ...-HxCB	100	111	50	-	150	Y
PCB-167 23'44'55'-HxCB	50	109	50	-	150	Y
PCB-169 33'44'55'-HxCB	50	111	50	-	150	Y
PCB-188 22'34'566'-HpCB	50	121	50	-	150	Y
PCB-189 233'44'55'-HpCB	50	118	50	-	150	Y
PCB-202 22'33'55'66'-OcCB	50	139	50	-	150	Y
PCB-205 233'44'55'6-OcCB	50	118	50	-	150	Y
PCB-206 22'33'44'55'6-NoCB	50	125	50	-	150	Y
PCB-208 22'33'455'66'-NoCB	50	116	50	-	150	Y
PCB-209 DeCB	50	116	50	-	150	Y

Contract-required recovery limits for OPR as specified in Table 6,
Method 1668A.

Processed: 16 Dec 2012 13:35 Analyst: LB

METHOD HR-PCB **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8B**

Lab Name: SGS Analytical Perspectives
Initial Calibration: ICAL: MM7_PCB_07132012_25JUL12
Instrument ID: MM7 GC Column ID:
VER Data Filename: 121214X02 Analysis Date: 14-DEC-2012 04:52:37
Lab ID: OPR1_10429_PCB

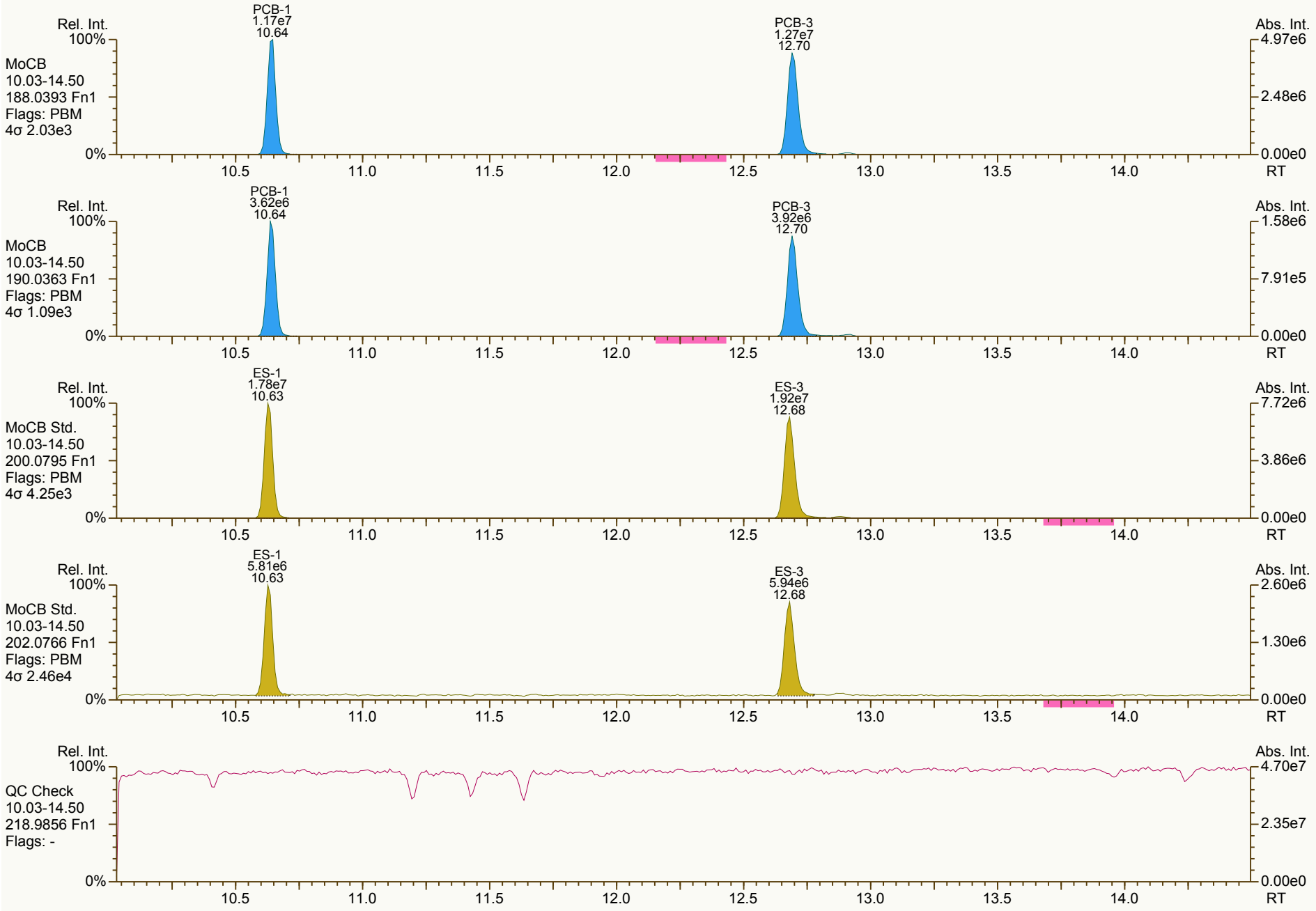
LABELED STANDARDS	SPIKE CONC.	RECOVERY	RANGE (%)			OK
ES PCB-1	100	67.7	30	-	140	Y
ES PCB-3	100	71.8	30	-	140	Y
ES PCB-4	100	95.6	30	-	140	Y
ES PCB-15	100	77.3	30	-	140	Y
ES PCB-19	100	75.6	30	-	140	Y
ES PCB-37	100	76.9	30	-	140	Y
ES PCB-54	100	79.6	30	-	140	Y
ES PCB-77	100	77.4	30	-	140	Y
ES PCB-81	100	75	30	-	140	Y
ES PCB-104	100	98.3	30	-	140	Y
ES PCB-105	100	80.7	30	-	140	Y
ES PCB-114	100	80.5	30	-	140	Y
ES PCB-118	100	79.5	30	-	140	Y
ES PCB-123	100	80.5	30	-	140	Y
ES PCB-126	100	86.1	30	-	140	Y
ES PCB-153	100	82.6	30	-	140	Y
ES PCB-155	100	83.3	30	-	140	Y
ES PCB-156/157	200	77.9	30	-	140	Y
ES PCB-167	100	77.7	30	-	140	Y
ES PCB-169	100	73.8	30	-	140	Y
ES PCB-170	100	81.7	30	-	140	Y
ES PCB-180	100	83.2	30	-	140	Y
ES PCB-188	100	85.1	30	-	140	Y
ES PCB-189	100	86.2	30	-	140	Y
ES PCB-202	100	84.3	30	-	140	Y
ES PCB-205	100	82.9	30	-	140	Y
ES PCB-206	100	88	30	-	140	Y
ES PCB-208	100	82.9	30	-	140	Y
ES PCB-209	100	95.3	30	-	140	Y
CLEANUP STANDARDS						
CS PCB-28	100	97.8	40	-	125	Y
CS PCB-111	100	102	40	-	125	Y
CS PCB-178	100	105	40	-	125	Y

Processed: 16 Dec 2012 13:35 Analyst: LB

SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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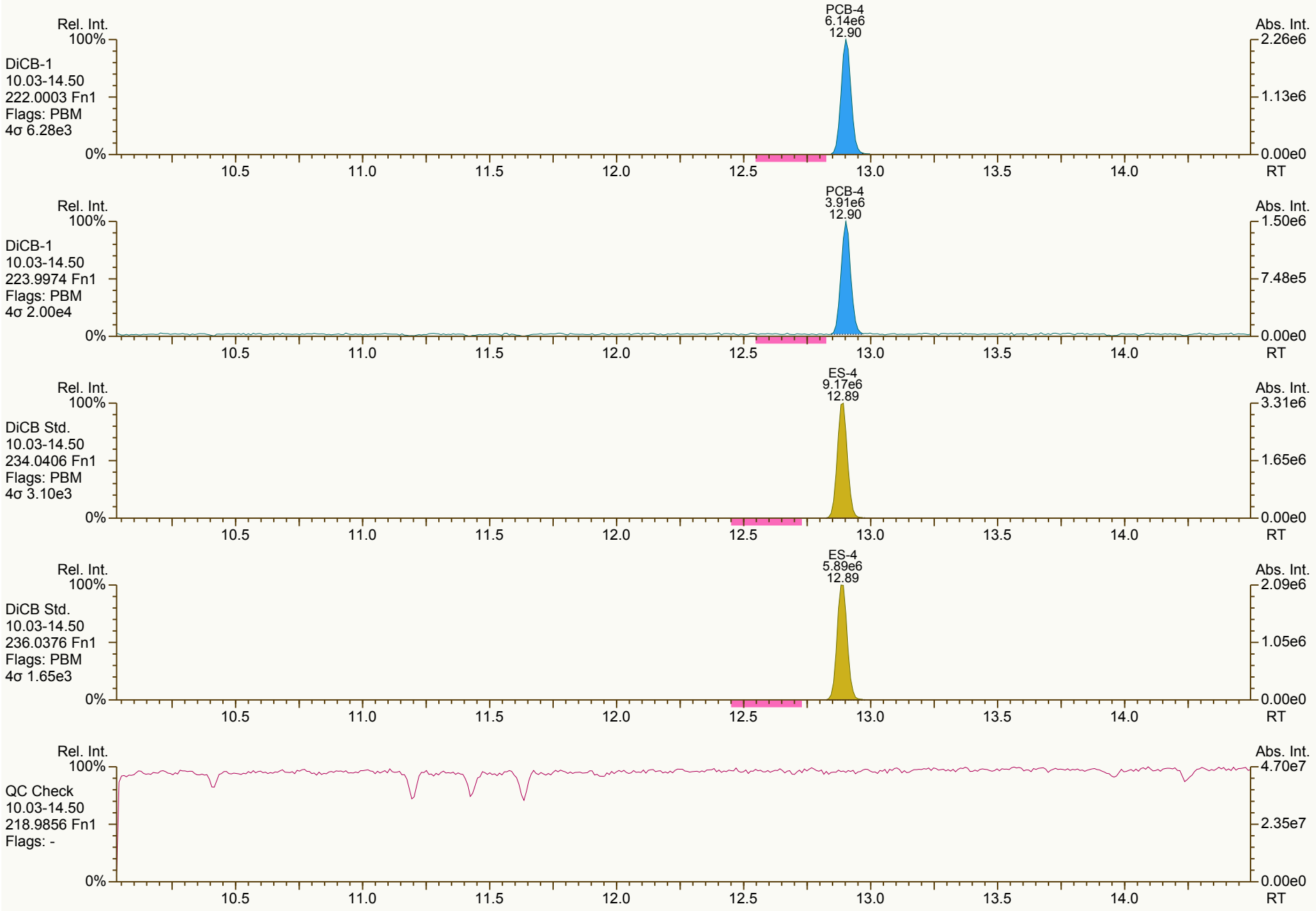
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0573, 2692 scc: 397-803 *Revised: 14-Dec-2012 09:36 (LKB) Printed: 16-Dec-2012 14:45 Page 2 of 21*

SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



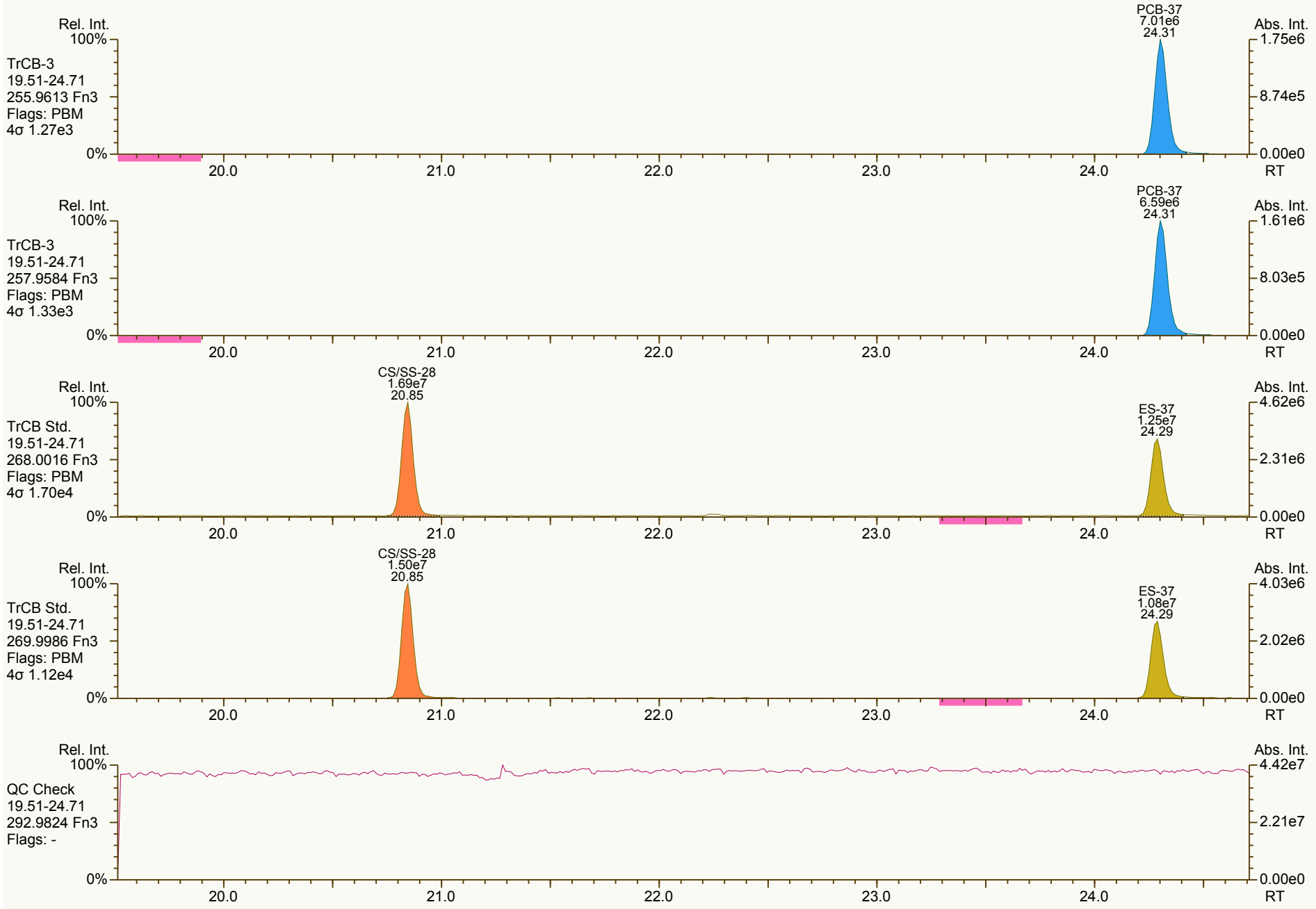
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\OPR1_10429_PCB.utp_res, saved 16-Dec-2012 14:41 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 1030, 3309 scc: 397-803 *PKD: 14-Dec-2012 09:34 Printed: 16-Dec-2012 14:45 Page 4 of 21*

SGS-AP ID: OPR1_10429_PCB | **Sample ID: 0_10429_OPR001** | **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 | **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** | **User: LKB Datafile: 121214X02**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\OPR1_10429_PCB.utp_res, saved 16-Dec-2012 14:41 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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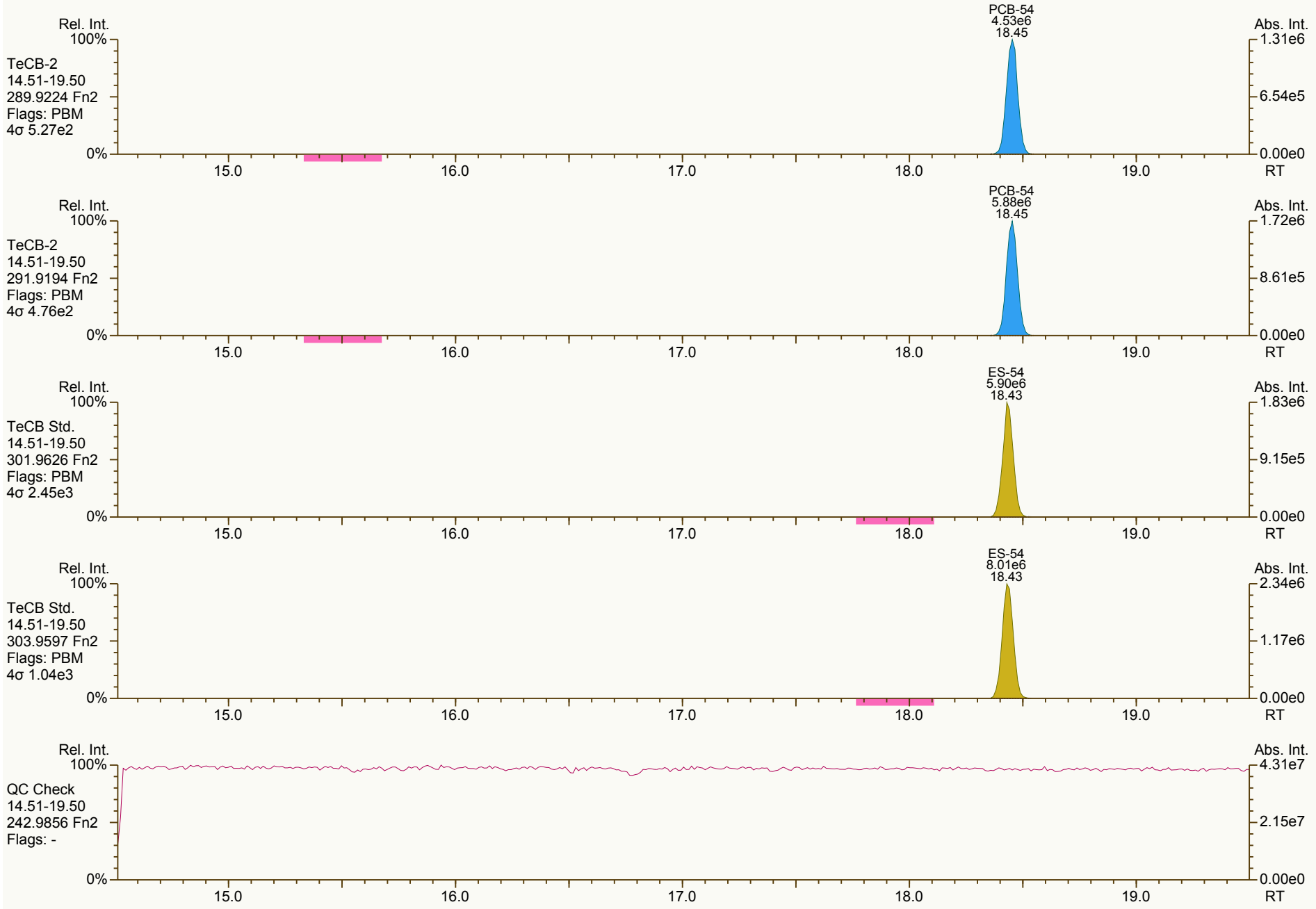
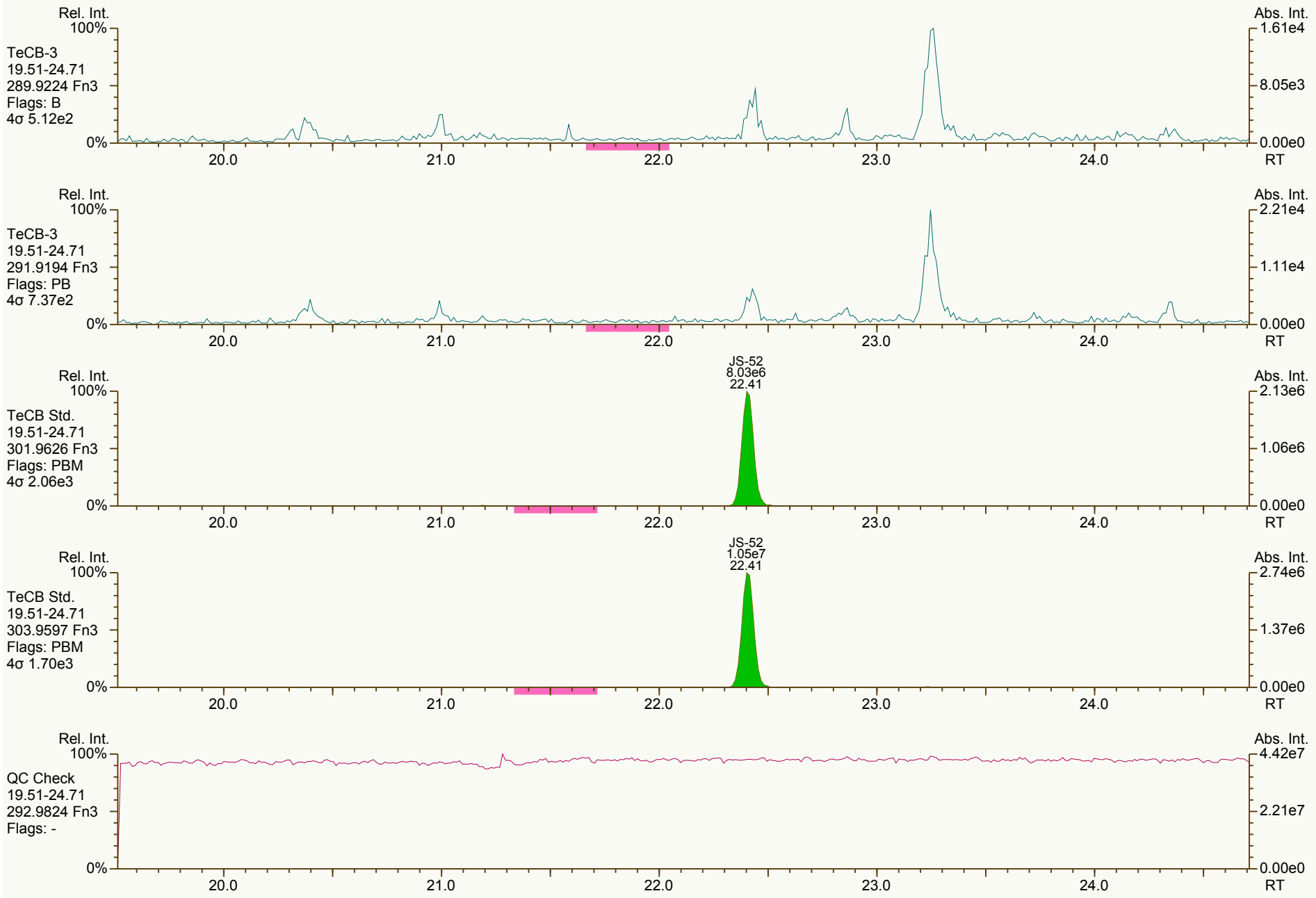
SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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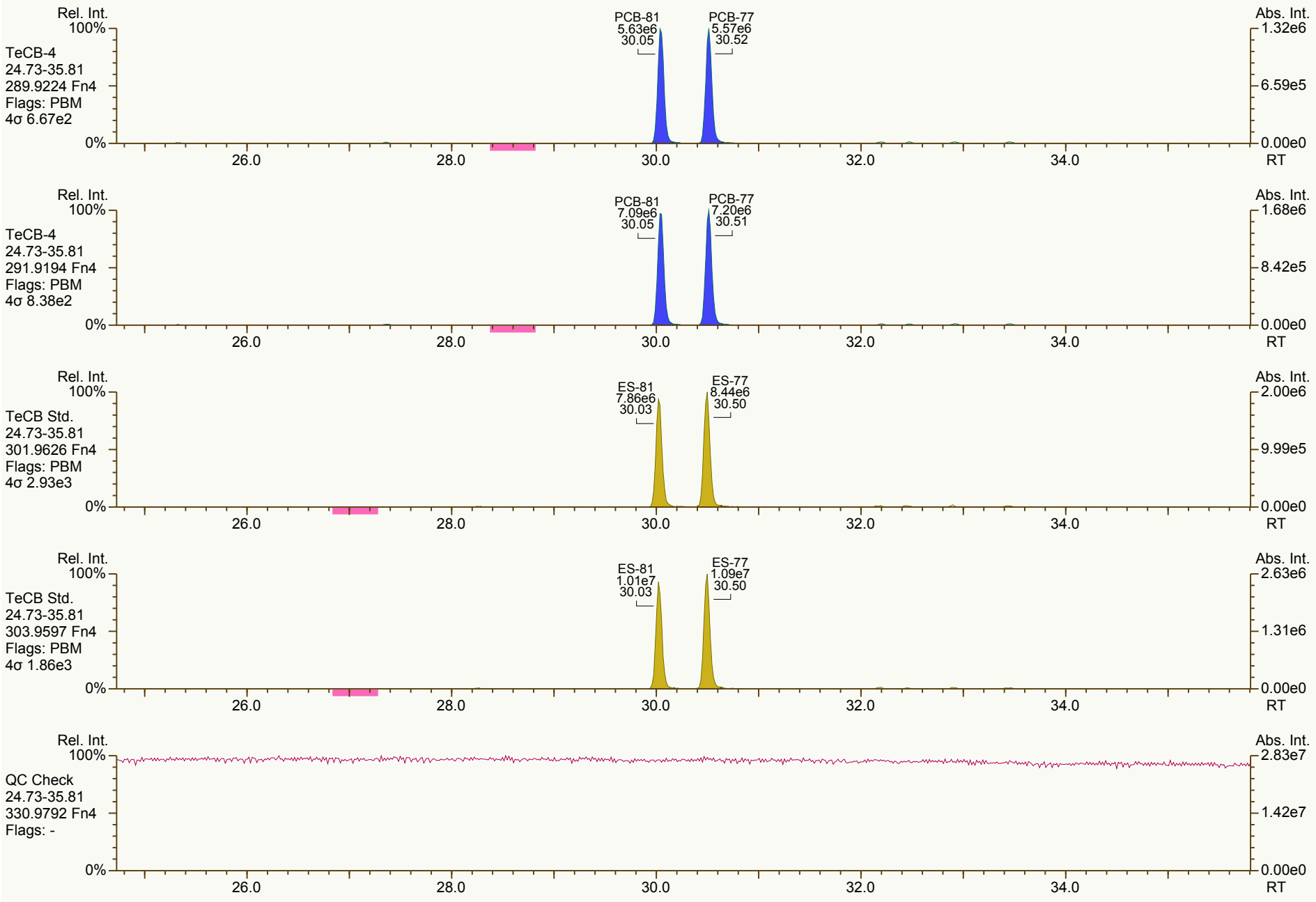
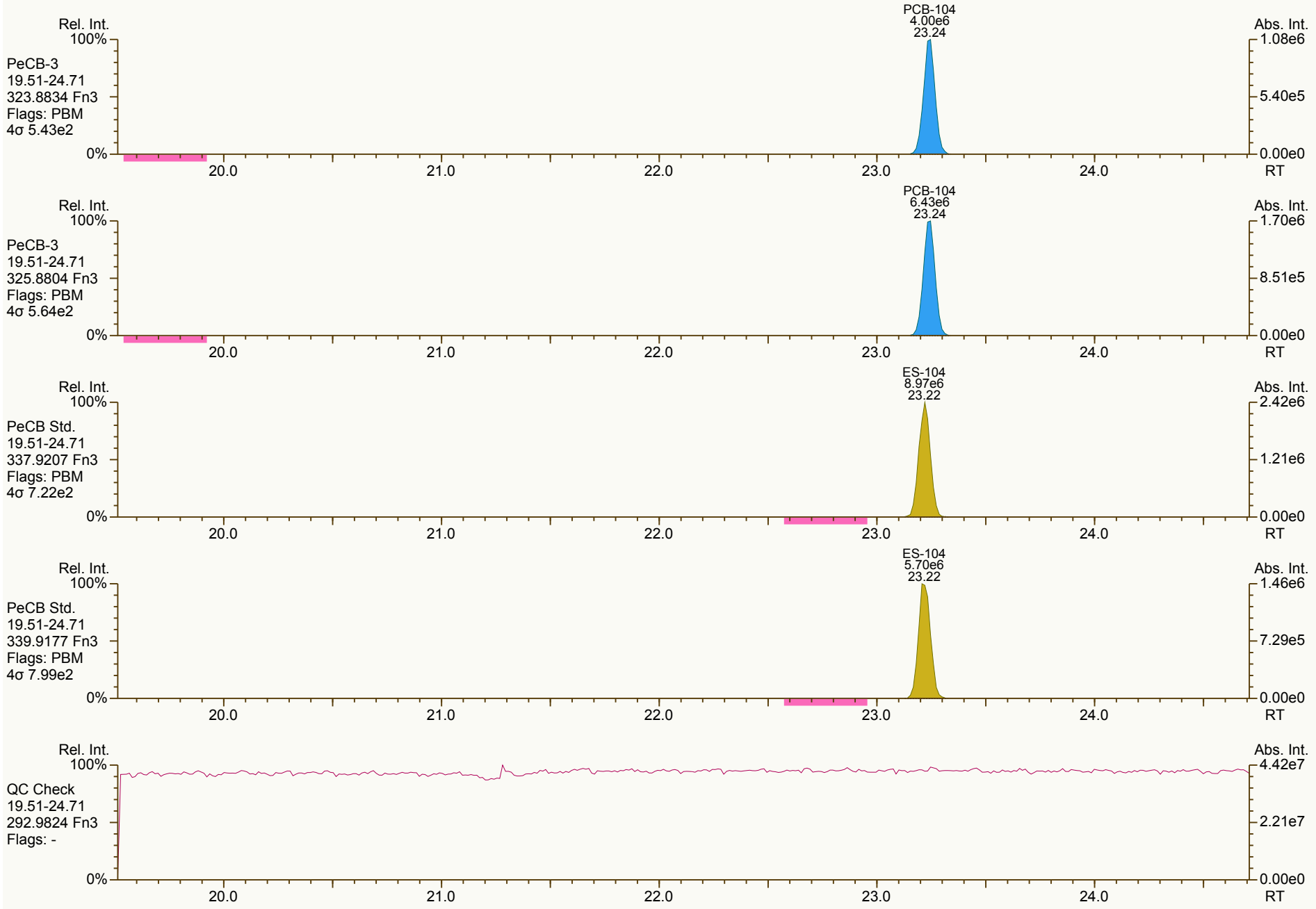
SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\OPR1_10429_PCB.utp_res, saved 16-Dec-2012 14:41 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 0269, 0097 scc: 397-803 *PKD: 14-Dec-2012 09:34 Printed: 16-Dec-2012 14:45 Page 9 of 21*

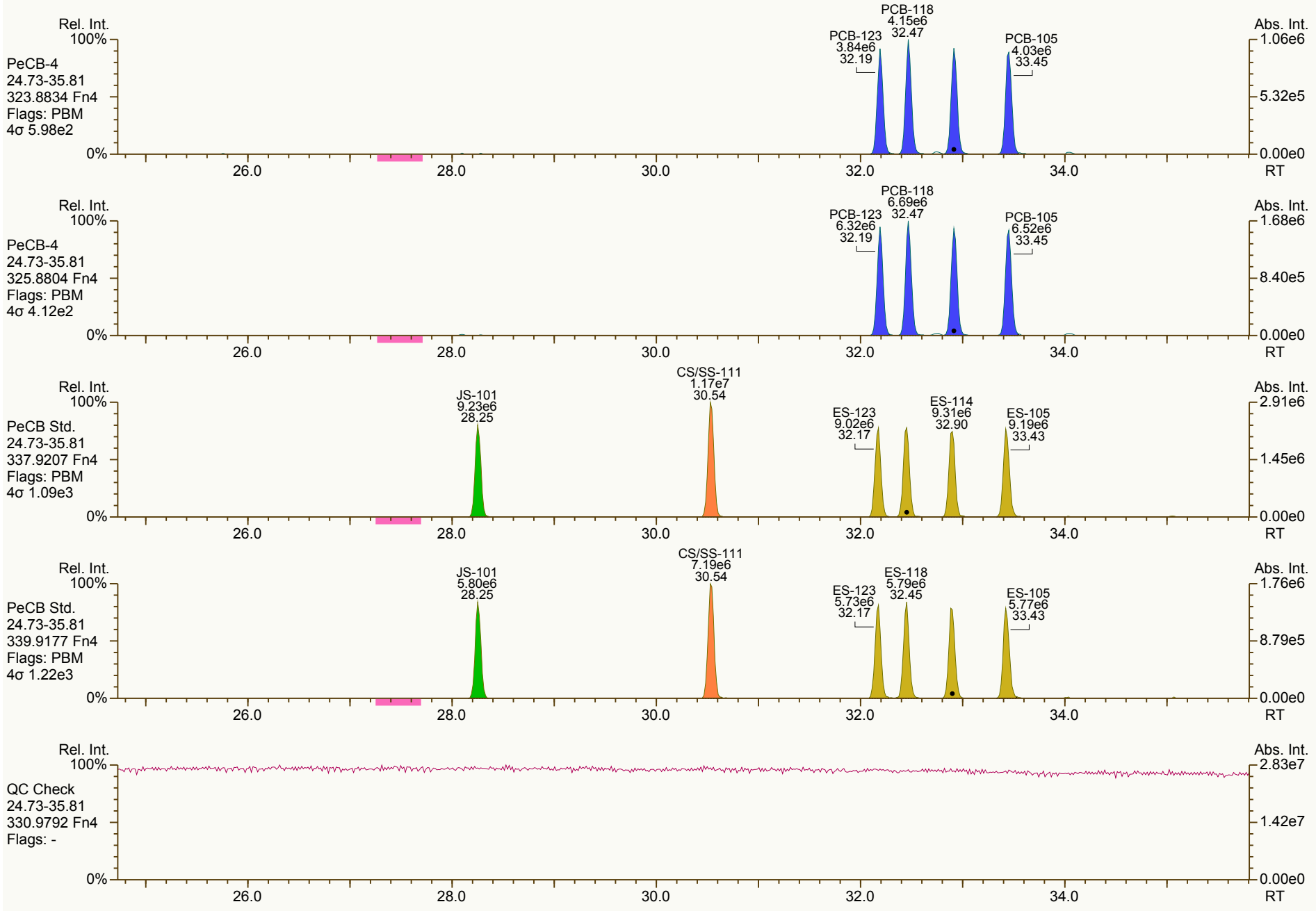
SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



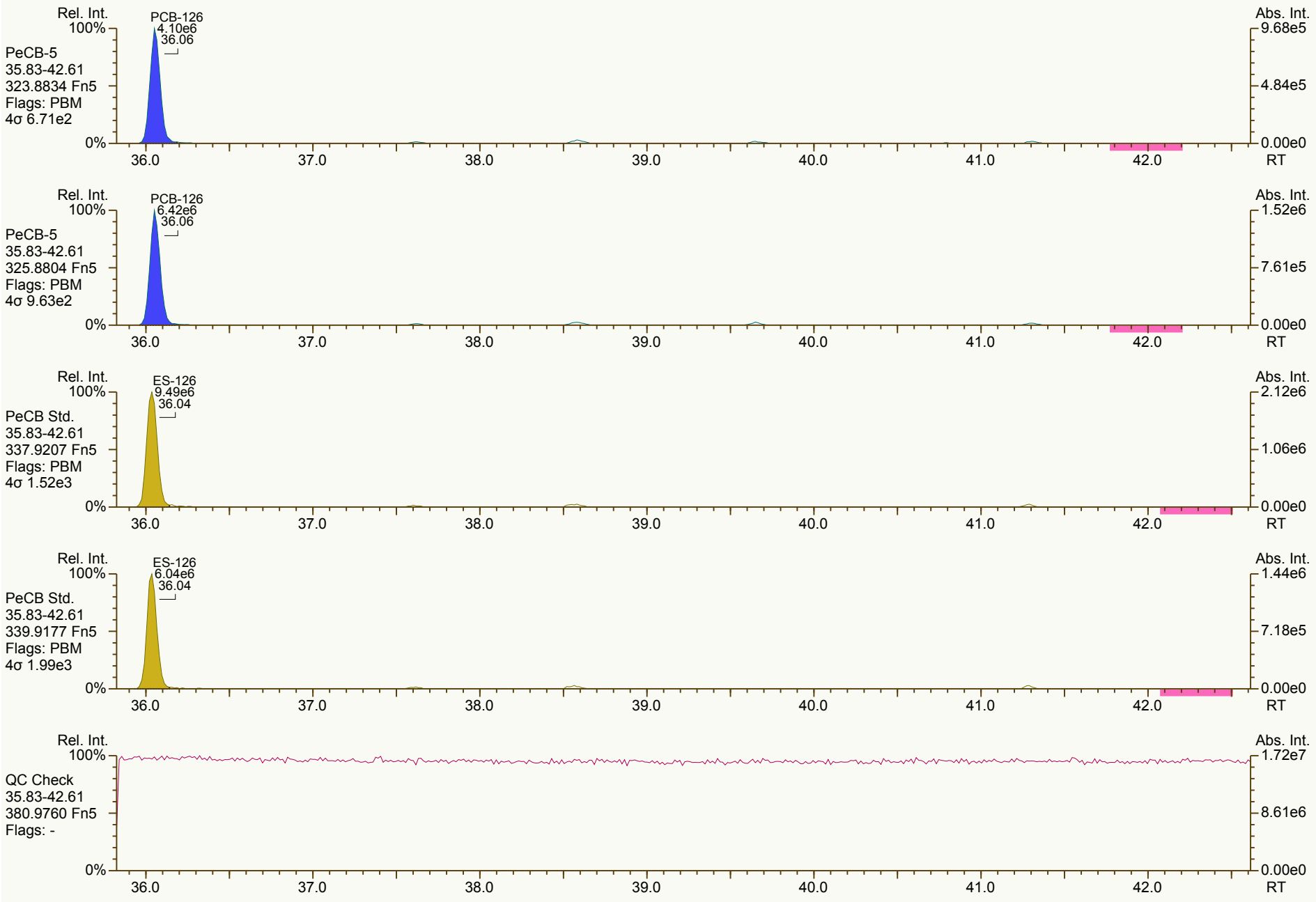
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\OPR1_10429_PCB.utp_res, saved 16-Dec-2012 14:41 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3727, 6050 scc: 397-803 *Revised: 14-Dec-2012 09:37 (LKB) Printed: 16-Dec-2012 14:45 Page 10 of 21*

SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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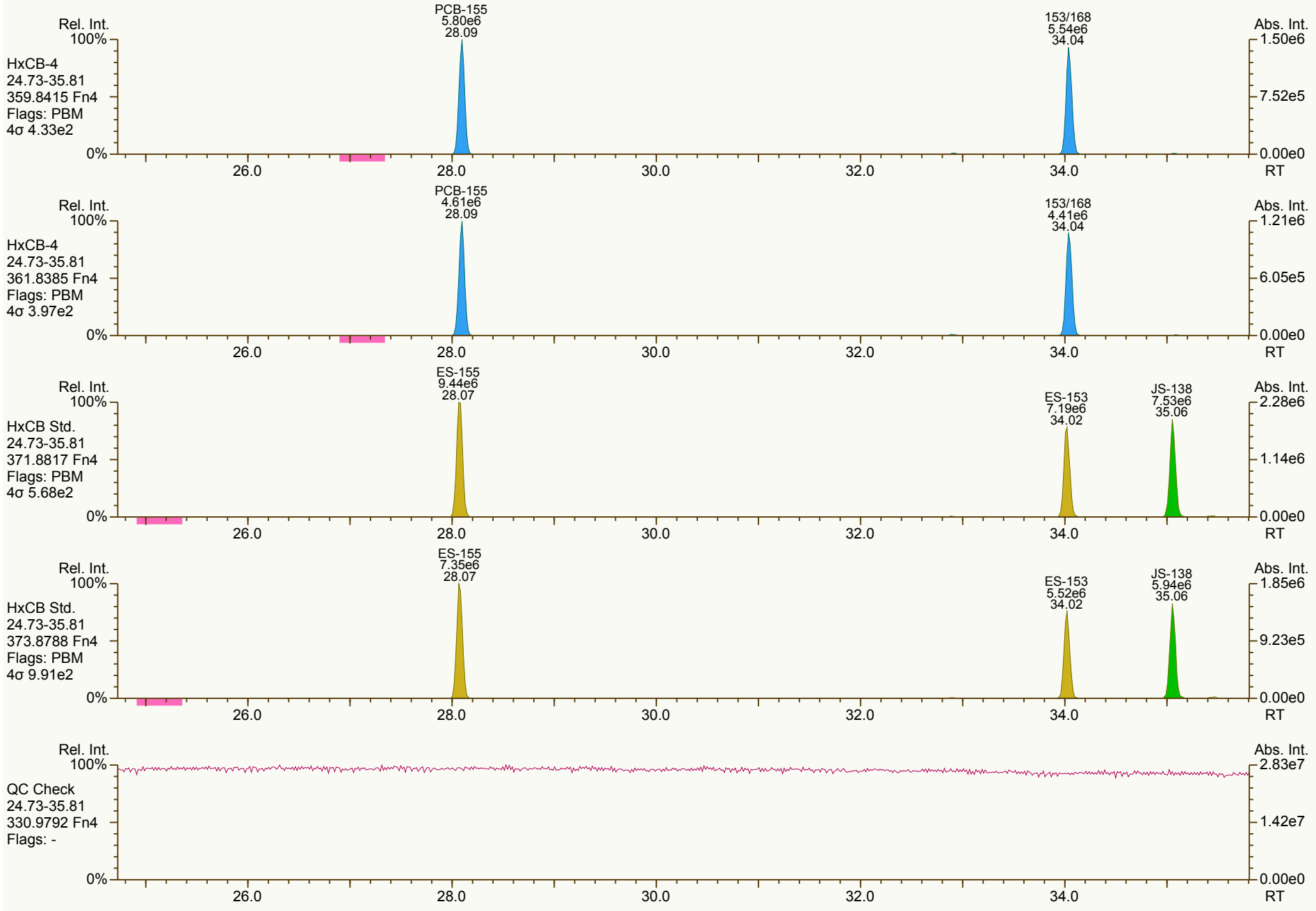
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 2490, 3766 scc: 397-803 *Revised: 14-Dec-2012 09:37 (LKB) Printed: 16-Dec-2012 14:45 Page 12 of 21*

SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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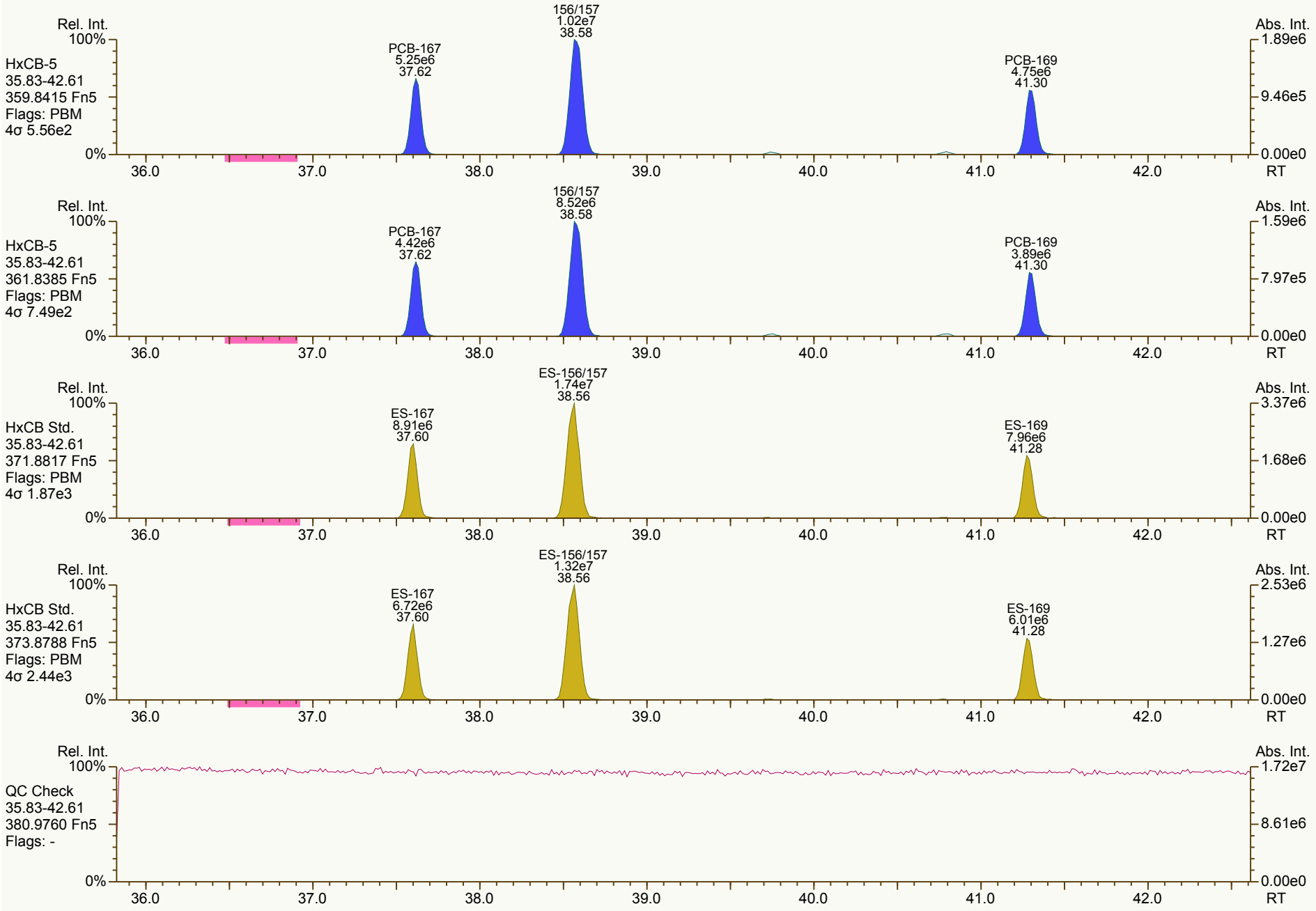
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 4183, 9629 scc: 397-803 *Revised: 14-Dec-2012 09:37 (LKB) Printed: 16-Dec-2012 14:45 Page 13 of 21*

SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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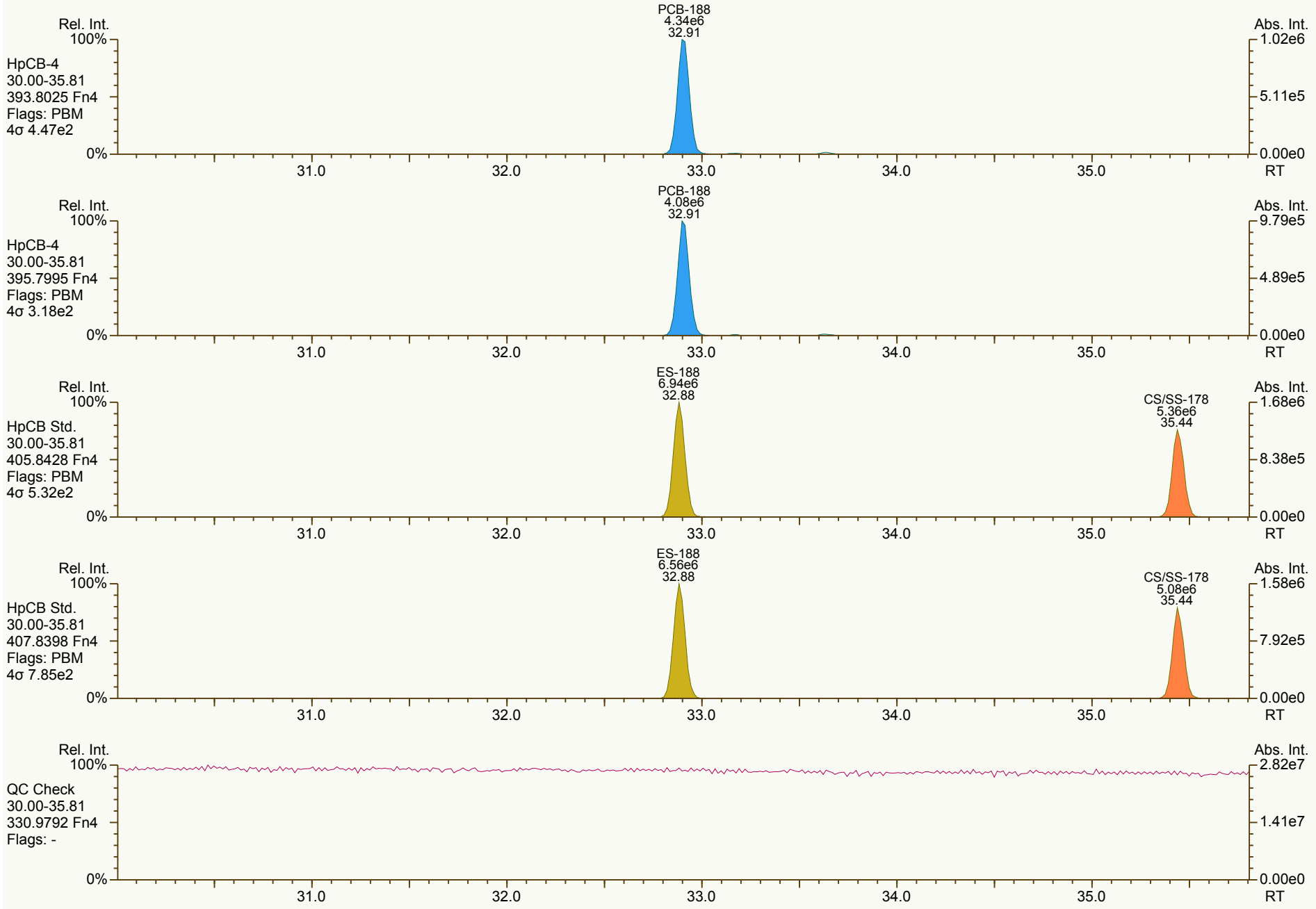
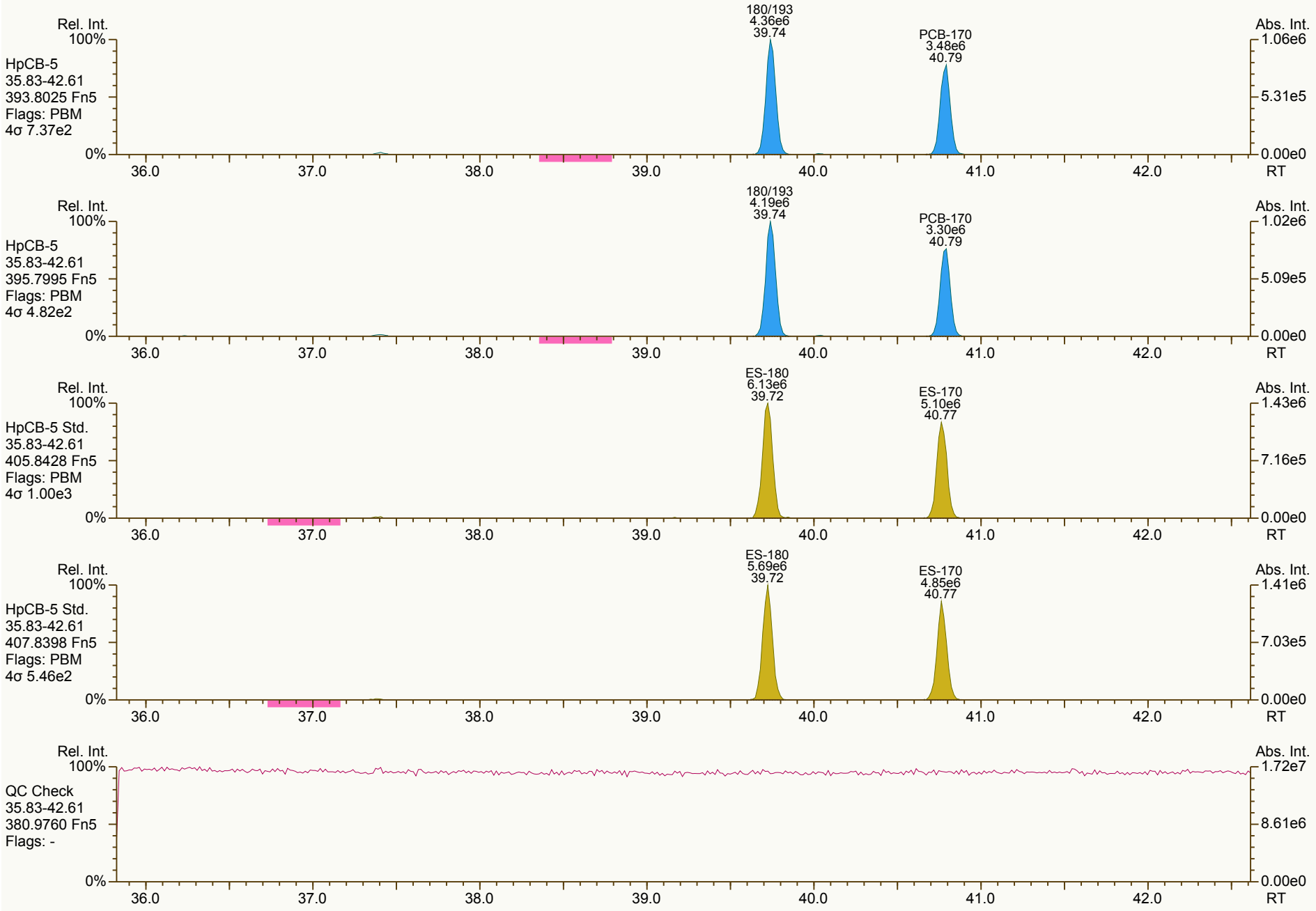
AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 8263, 6616 scc: 397-803 *PKD: 14-Dec-2012 09:36 Printed: 16-Dec-2012 14:45 Page 14 of 21*

SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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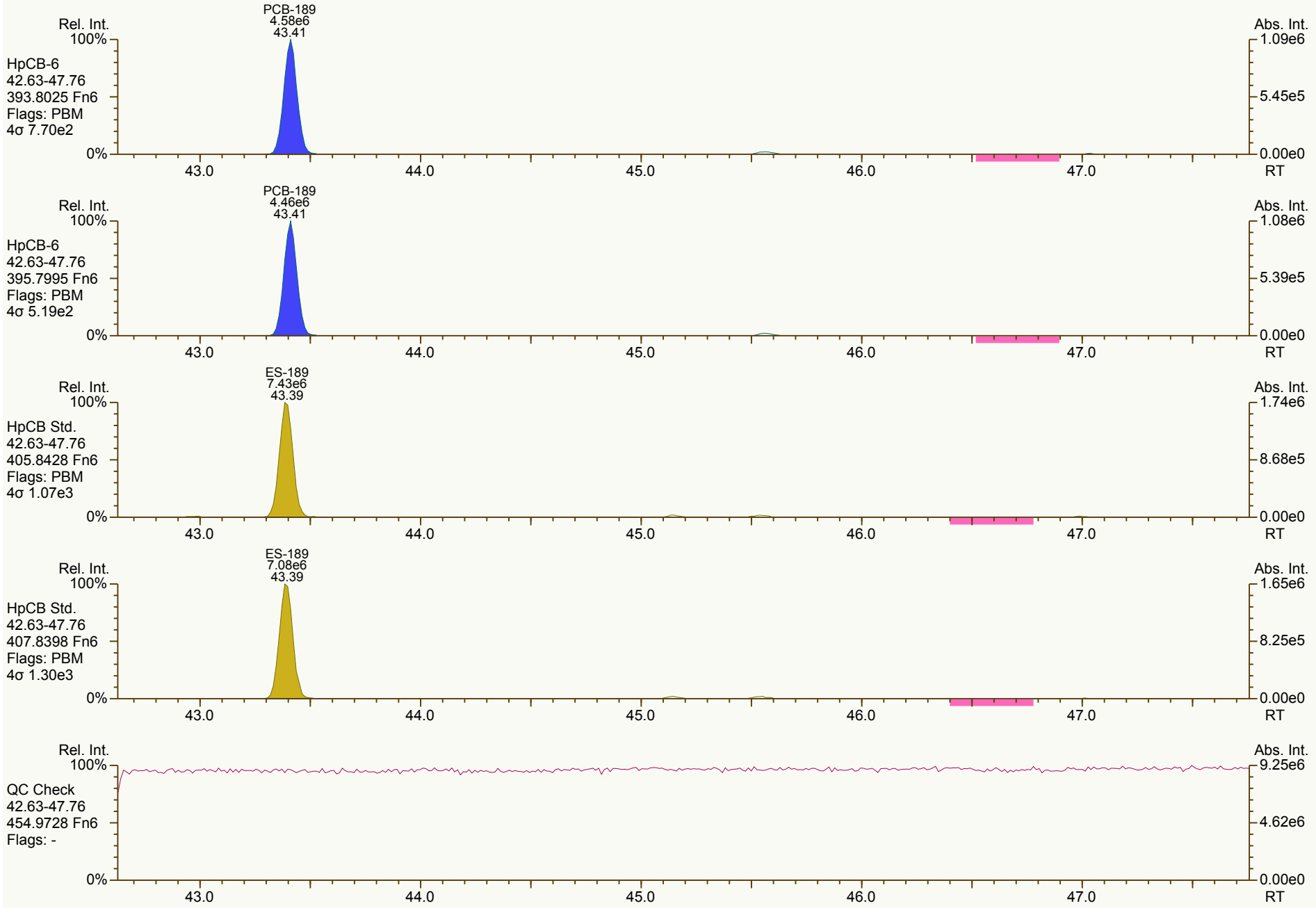
SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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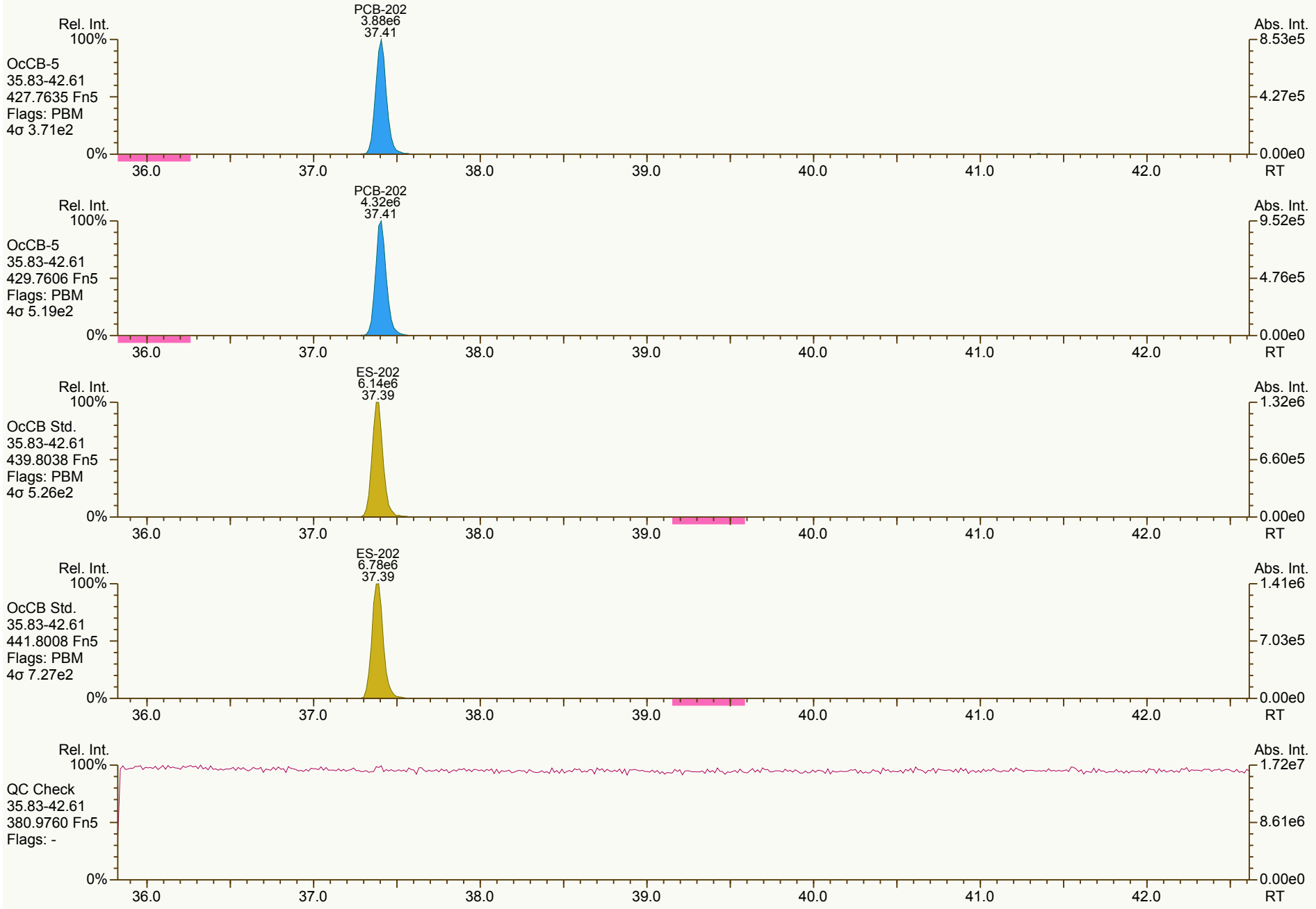
SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 3472, 5066 scc: 397-803 *PKD: 14-Dec-2012 09:36 Printed: 16-Dec-2012 14:45 Page 18 of 21*

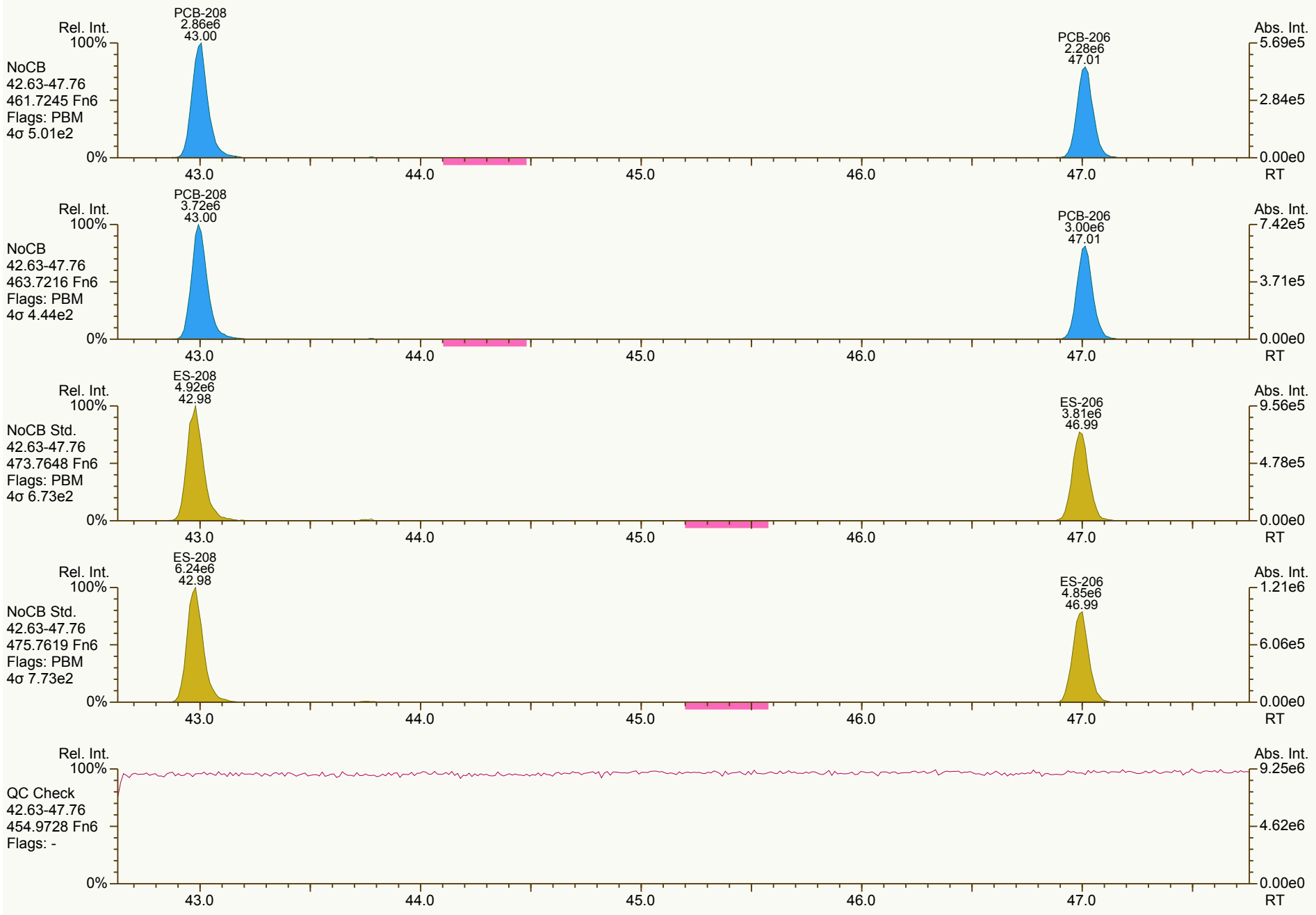
SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



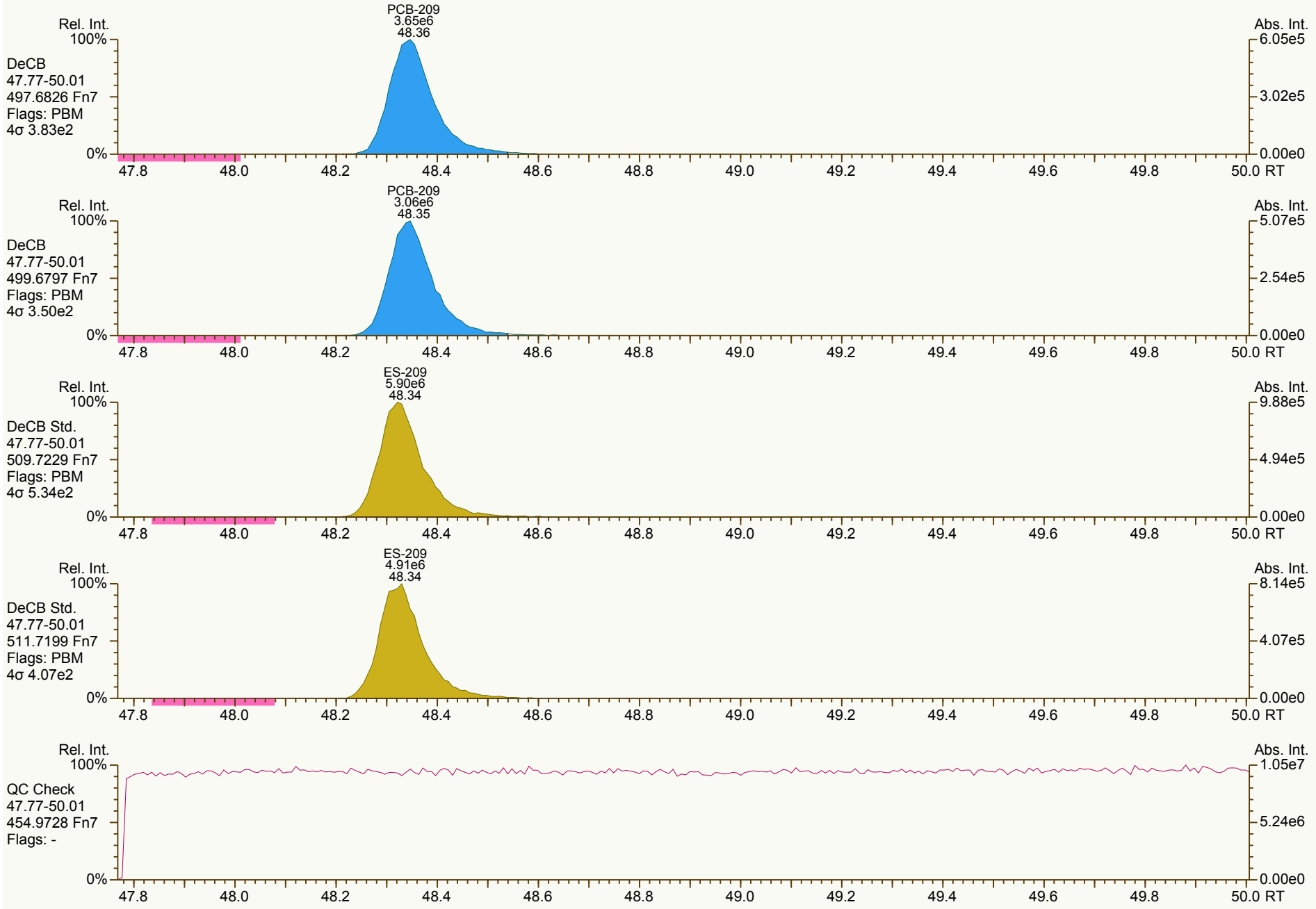
Results: P:\A4900_A4999\A4909\A4909_10429 PCB\Resources\OPR1_10429_PCB.utp_res, saved 16-Dec-2012 14:41 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 9317, 0122 scc: 397-803 *Revised: 14-Dec-2012 09:38 (LKB) Printed: 16-Dec-2012 14:45 Page 19 of 21*

SGS-AP ID: OPR1_10429_PCB
Instr: AutoSpec-Premier MM7
Sample ID: 0_10429_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59
Acq: 14-Dec-2012 04:52:37
User: LKB Datafile: 121214X02



SGS-AP ID: OPR1_10429_PCB **Sample ID: 0_10429_OPR001** **Acq: 14-Dec-2012 04:52:37**
Instr: AutoSpec-Premier MM7 **VSIR EI+: pcb-2012-01 GC: pcb90_a Vial: 59** **User: LKB Datafile: 121214X02**



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AP UltraTrace-Pro V4.73 User/System: LKB/LBI7-065 cc: 6345, 5970 scc: 397-803 *Revised: 14-Dec-2012 09:38 (LKB) Printed: 16-Dec-2012 14:45 Page 21 of 21*

4 January 2013

Cindy Fields
ANCHOR QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

Ph.: 206-903-3394
Email: cfields@anchorqea.com

Subject: Certificate of Results

Dear Cindy;

Attached to this narrative are the analytical results you requested on the samples submitted for the determination of the co-planar polychlorinated biphenyl congeners. The insert below summarizes the relevant information pertaining to your project. In particular, QC annotations bring to your attention specific analytical observations and assessments made during the sample handling and data interpretation phases. Results reported relate only to the items tested.

Project Information Summary	When applicable, see QC Annotations for details
Client Project No.	110730-02.01
AP Project #	**A4995**
Analytical Protocol	Method 1668A
No. Samples Submitted	4
No. Samples Analyzed	4
No. Laboratory Method Blanks	1
No. OPRs / Batch CS3	1
No. Outstanding Samples	0
Date Received	12-Dec-2012
Condition Received	good
Temperature upon Receipt (C)	0.2
Extraction within Holding Time	yes
Analysis within Holding Time	yes
Data meet QA/QC Requirements	yes
Exceptions	none
Analytical Difficulties	none

ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

QC Annotations:

Please see Appendix A & B attached for data qualifier/attribute and lab identifier descriptions which may be contained in the project.

Analytical Perspectives Certification IDs:

SOUTH CAROLINA	99054
ARKANSAS	88-0628
NEW JERSEY-NELAP SECONDARY	NC005
FLORIDA-NELAP PRIMARY	E87608
LOUISIANA	4024
NORTH CAROLINA	37783
WASHINGTON	C2027
NEW YORK	11988
VIRGINIA	460180
MINNESOTA	037-999-448
OREGON	pending
TEXAS	T104704484-10-1
PENNSYLVANIA-NELAP SECONDARY	68-01849

SGS Analytical Perspectives remains committed to serving you in the most effective manner. Should you have any questions or need additional information and technical support, please do not hesitate to contact us.

The management and staff of SGS Analytical Perspectives welcomes customer feedback, both positive and negative, as we continually improve our services. Please visit our web site at www.ultratrace.com and click on the 'Leave Your Feedback Here!' link on the Home Page. Thank you for choosing SGS Analytical Perspectives.

Sincerely,



Heather Steele, Ph.D.
Project Scientist

APPENDIX A: DATA QUALIFIERS / DATA ATTRIBUTES	
>	Indicates high recoveries. Shown with the numeric value at the top of the range.[1]
B	The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
C	Two or more congeners co-elute. In EDDs C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
E	The reported concentration exceeds the calibration range (upper point of the calibration curve).
EMPC	Represents an Estimated Maximum Possible Concentration. EMPC's arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
ETH	Indicates the presence of a diphenyl ether that appears to interfere with the quantitation of a furan. The reported concentration is the maximum.
H/h	If the standard recovery is below the method or SOP specified value "H" is assigned. If the obtained value is less than half the specified value "h" is assigned.[1]
J	Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve).
ND	Indicates a non-detect.
NR	Indicates a value that is not reportable.
PR	Due to interference, the associated congener is poorly resolved.
QI	Indicates the presence of a quantitative interference.
SI	Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.[1]
U	The analyte was not detected. The estimated detection limit (EDL) may be reported for this analyte.
V	The labeled standard recovery was found to be outside of the method control limits.
X	Indicates results reported from reinjection, refractionation, or repeat analyses.
APPENDIX B: LAB ID IDENTIFIERS	
AR	Indicates use of the archived portion of the sample extract.
CU	Indicates a sample that required additional clean-up prior to MS injection/processing.
D	Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
DE	Indicates a dilution performed with the addition of ES (extraction standard) solution.
DUP	Designation for a duplicate sample.
MS	Designation for a matrix spike.
MSD	Designation for a matrix spike duplicate.
RJ	Indicates a reinjection of the sample extract.
S	Indicates a sample split. The number that follows the "S" indicates the split factor.

[1]Denotes data qualifiers/attributes whose use will be phased out over time

Sample ID: 0_10495_OPR001 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Aqueous	Project No.:	A4995	Date Received:	n/a
Project ID:	31203982	Weight/Volume:	1 µL	Sample ID:	OPR1_10495_PCB	Date Extracted:	31-Dec-2013
Date Collected:	n/a	pH	n/a	QC Batch No.:	10495	Date Analyzed:	03-Jan-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/uL	pg/uL	pg/uL			%
PCB-77 33'44'-TeCB	54.2				ES PCB-1	86.8
PCB-81 344'5-TeCB	54.7				ES PCB-3	91.7
PCB-105 233'44'-PeCB	54.5				ES PCB-4	86.4
PCB-114 2344'5-PeCB	55.4				ES PCB-15	90.3
PCB-118 23'44'5-PeCB	53.1				ES PCB-19	80.3
PCB-123 23'44'5'-PeCB	54.4				ES PCB-37	97.7
PCB-126 33'44'5-PeCB	53				ES PCB-54	72.8
PCB-156/157 233'44'5/233'44'5'-HxCB	107			C	ES PCB-77	99.1
PCB-167 23'44'55'-HxCB	53.4				ES PCB-81	100
PCB-169 33'44'55'-HxCB	52.8				ES PCB-104	76.3
PCB-189 233'44'55'-HpCB	53.5				ES PCB-105	105
					ES PCB-114	95.7
TEQs (WHO M/H)					ES PCB-118	101
					ES PCB-123	97.8
ND = 0	6.91		6.91		ES PCB-126	101
ND = 0.5 x DL	6.91		6.91		ES PCB-153	91.3
					ES PCB-155	80.4
					ES PCB-156/157	96.1
					ES PCB-167	99.4
					ES PCB-169	86.8
					ES PCB-170	87.5
					ES PCB-180	86.4
					ES PCB-188	80.9
					ES PCB-189	93.8
					ES PCB-202	85.4
					ES PCB-205	86.9
					ES PCB-206	82
					ES PCB-208	92
					ES PCB-209	78.8
					CS PCB-28	101
					CS PCB-111	104
					CS PCB-178	87.9

Checkcode: 881-416-NQK SGS AP PCB 2012 Rev. 1.5 Report Created: 04-Jan-2013 14:51 Analyst: CM

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2714 Exchange Drive
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USA
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Sample ID: Method Blank

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Soil	Project No.:	A4995	Date Received:	n/a
Project ID:	31203982	Weight/Volume:	10.00 g	Sample ID:	MB1_10495_PCB_SDS	Date Extracted:	31-Dec-2013
Date Collected:	n/a	% Solids	n/a	QC Batch No.:	10495	Date Analyzed:	03-Jan-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	ND	0.285			ES PCB-1	86.6
PCB-81 344'5-TeCB	ND	0.284			ES PCB-3	90.2
PCB-105 233'44'-PeCB	0.302			J	ES PCB-4	85.6
PCB-114 2344'5-PeCB	ND	0.215			ES PCB-15	96
PCB-118 23'44'5-PeCB	0.468			J	ES PCB-19	86.8
PCB-123 23'44'5'-PeCB	ND	0.228			ES PCB-37	97.1
PCB-126 33'44'5-PeCB	ND	0.242			ES PCB-54	78.6
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	0.27		C	ES PCB-77	103
PCB-167 23'44'55'-HxCB	ND	0.197			ES PCB-81	105
PCB-169 33'44'55'-HxCB	ND	0.254			ES PCB-104	76.3
PCB-189 233'44'55'-HpCB	ND	0.287			ES PCB-105	105
					ES PCB-114	101
TEQs (WHO M/H)					ES PCB-118	105
					ES PCB-123	102
ND = 0	0.0000231		0.0000231		ES PCB-126	96.5
ND = 0.5 x DL	0.016		0.016		ES PCB-153	95.1
					ES PCB-155	88.9
					ES PCB-156/157	95.7
					ES PCB-167	98.4
					ES PCB-169	89.5
					ES PCB-170	93.9
					ES PCB-180	87
					ES PCB-188	87.2
					ES PCB-189	96.8
					ES PCB-202	90.5
					ES PCB-205	90
					ES PCB-206	79.7
					ES PCB-208	97.4
					ES PCB-209	77.1
					CS PCB-28	103
					CS PCB-111	107
					CS PCB-178	88.9

Checkcode: 421-123-FNY SGS AP PCB 2012 Rev. 1.5 Report Created: 04-Jan-2013 14:53 Analyst: CM

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Sample ID: AQ-SS-14-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Soil	Project No.:	A4995	Date Received:	12-Dec-2012
Project ID:	31203982	Weight/Volume:	10.43 g	Sample ID:	A4995_10495_PCB_001	Date Extracted:	31-Dec-2013
Date Collected:	10-Dec-2012	% Solids	0.0 %	QC Batch No.:	10495	Date Analyzed:	03-Jan-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	5.91				ES PCB-1	72.8
PCB-81 344'5-TeCB	ND	0.382			ES PCB-3	83.1
PCB-105 233'44'-PeCB	18.5				ES PCB-4	78.6
PCB-114 2344'5-PeCB	0.919			J	ES PCB-15	97.9
PCB-118 23'44'5-PeCB	33.2				ES PCB-19	89.2
PCB-123 23'44'5'-PeCB	1.14				ES PCB-37	97.2
PCB-126 33'44'5-PeCB	ND	0.312			ES PCB-54	76.6
PCB-156/157 233'44'5/233'44'5'-HxCB	3.35			C	ES PCB-77	106
PCB-167 23'44'55'-HxCB	1.26				ES PCB-81	107
PCB-169 33'44'55'-HxCB	ND	0.372			ES PCB-104	69.9
PCB-189 233'44'55'-HpCB	EMPC		0.495	J	ES PCB-105	107
					ES PCB-114	98.2
TEQs (WHO M/H)					ES PCB-118	104
					ES PCB-123	97.9
ND = 0	0.00234		0.00236		ES PCB-126	91
ND = 0.5 x DL	0.0236		0.0236		ES PCB-153	95.9
					ES PCB-155	90.5
					ES PCB-156/157	96.4
					ES PCB-167	102
					ES PCB-169	86.9
					ES PCB-170	95.8
					ES PCB-180	94.5
					ES PCB-188	84.4
					ES PCB-189	102
					ES PCB-202	88.3
					ES PCB-205	94
					ES PCB-206	83.6
					ES PCB-208	101
					ES PCB-209	79.4
					CS PCB-28	100
					CS PCB-111	103
					CS PCB-178	85.2

Checkcode: 819-764-PXY SGS AP PCB 2012 Rev. 1.5 Report Created: 04-Jan-2013 14:53 Analyst: CM

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Sample ID: AQ-SS-10-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Soil	Project No.:	A4995	Date Received:	12-Dec-2012
Project ID:	31203982	Weight/Volume:	10.24 g	Sample ID:	A4995_10495_PCB_002	Date Extracted:	31-Dec-2013
Date Collected:	10-Dec-2012	% Solids	0.0 %	QC Batch No.:	10495	Date Analyzed:	03-Jan-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	EMPC		2.23		ES PCB-1	96.9
PCB-81 344'5-TeCB	ND	0.327			ES PCB-3	96.8
PCB-105 233'44'-PeCB	10.8				ES PCB-4	87
PCB-114 2344'5-PeCB	EMPC		0.589	J	ES PCB-15	105
PCB-118 23'44'5-PeCB	22.3				ES PCB-19	91.1
PCB-123 23'44'5'-PeCB	EMPC		0.367	J	ES PCB-37	104
PCB-126 33'44'5-PeCB	ND	0.315			ES PCB-54	79.2
PCB-156/157 233'44'5/233'44'5'-HxCB	4.1			C	ES PCB-77	115
PCB-167 23'44'55'-HxCB	1.25				ES PCB-81	117
PCB-169 33'44'55'-HxCB	ND	0.327			ES PCB-104	75.9
PCB-189 233'44'55'-HpCB	ND	0.272			ES PCB-105	123
					ES PCB-114	105
TEQs (WHO M/H)					ES PCB-118	111
					ES PCB-123	106
ND = 0	0.00115		0.00141		ES PCB-126	101
ND = 0.5 x DL	0.0219		0.0221		ES PCB-153	104
					ES PCB-155	91.8
					ES PCB-156/157	102
					ES PCB-167	108
					ES PCB-169	92.3
					ES PCB-170	103
					ES PCB-180	101
					ES PCB-188	89.5
					ES PCB-189	108
					ES PCB-202	96.1
					ES PCB-205	98.1
					ES PCB-206	92.2
					ES PCB-208	105
					ES PCB-209	80.7
					CS PCB-28	107
					CS PCB-111	115
					CS PCB-178	91.2

Checkcode: 151-460-FNW SGS AP PCB 2012 Rev. 1.5 Report Created: 04-Jan-2013 14:54 Analyst: CM

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Sample ID: AQ-SS-09-10 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Soil	Project No.:	A4995	Date Received:	12-Dec-2012
Project ID:	31203982	Weight/Volume:	10.23 g	Sample ID:	A4995_10495_PCB_003	Date Extracted:	31-Dec-2013
Date Collected:	10-Dec-2012	% Solids	0.0 %	QC Batch No.:	10495	Date Analyzed:	03-Jan-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	1,380				ES PCB-1	78.6
PCB-81 344'5-TeCB	ND	20.3			ES PCB-3	84.9
PCB-105 233'44'-PeCB	17,500			E	ES PCB-4	78.5
PCB-114 2344'5-PeCB	1,280				ES PCB-15	107
PCB-118 23'44'5-PeCB	48,200			E	ES PCB-19	85.7
PCB-123 23'44'5'-PeCB	ND	1.48			ES PCB-37	94.7
PCB-126 33'44'5-PeCB	EMPC		47.5		ES PCB-54	70
PCB-156/157 233'44'5/233'44'5'-HxCB	10,200			E C	ES PCB-77	83.1
PCB-167 23'44'55'-HxCB	2,760				ES PCB-81	90.5
PCB-169 33'44'55'-HxCB	ND	14			ES PCB-104	79.7
PCB-189 233'44'55'-HpCB	462				ES PCB-105	92.6
					ES PCB-114	84.2
TEQs (WHO M/H)					ES PCB-118	99
					ES PCB-123	90.9
ND = 0	2.55		7.3		ES PCB-126	73.7
ND = 0.5 x DL	3.14		7.51		ES PCB-153	92.9
					ES PCB-155	86.7
					ES PCB-156/157	73.8
					ES PCB-167	81.6
					ES PCB-169	56.7
					ES PCB-170	115
					ES PCB-180	122
					ES PCB-188	77.7
					ES PCB-189	112
					ES PCB-202	75
					ES PCB-205	87.7
					ES PCB-206	79.2
					ES PCB-208	116
					ES PCB-209	76.7
					CS PCB-28	99.3
					CS PCB-111	92
					CS PCB-178	79.9

Checkcode: 529-183-SHJ SGS AP PCB 2012 Rev. 1.5 Report Created: 04-Jan-2013 14:54 Analyst: CM

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Sample ID: AQ-SS-04-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Soil	Project No.:	A4995	Date Received:	12-Dec-2012
Project ID:	31203982	Weight/Volume:	10.18 g	Sample ID:	A4995_10495_PCB_004	Date Extracted:	31-Dec-2013
Date Collected:	10-Dec-2012	% Solids	0.0 %	QC Batch No.:	10495	Date Analyzed:	03-Jan-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	2.2				ES PCB-1	70.5
PCB-81 344'5-TeCB	ND	0.639			ES PCB-3	80.1
PCB-105 233'44'-PeCB	8.63				ES PCB-4	75
PCB-114 2344'5-PeCB	ND	0.504			ES PCB-15	96.2
PCB-118 23'44'5-PeCB	18.2				ES PCB-19	84
PCB-123 23'44'5'-PeCB	ND	0.554			ES PCB-37	101
PCB-126 33'44'5-PeCB	ND	0.641			ES PCB-54	71
PCB-156/157 233'44'5/233'44'5'-HxCB	2.49			C	ES PCB-77	107
PCB-167 23'44'55'-HxCB	0.869			J	ES PCB-81	108
PCB-169 33'44'55'-HxCB	ND	0.785			ES PCB-104	70
PCB-189 233'44'55'-HpCB	ND	0.587			ES PCB-105	106
					ES PCB-114	103
TEQs (WHO M/H)					ES PCB-118	101
					ES PCB-123	98.6
ND = 0	0.00112		0.00112		ES PCB-126	93.5
ND = 0.5 x DL	0.0451		0.0451		ES PCB-153	90.2
					ES PCB-155	80.3
					ES PCB-156/157	93
					ES PCB-167	98.4
					ES PCB-169	80.5
					ES PCB-170	90.1
					ES PCB-180	89.4
					ES PCB-188	80
					ES PCB-189	92.2
					ES PCB-202	84.6
					ES PCB-205	85.6
					ES PCB-206	79.3
					ES PCB-208	91.5
					ES PCB-209	75.6
					CS PCB-28	102
					CS PCB-111	103
					CS PCB-178	87.8

Checkcode: 588-126-JPJ SGS AP PCB 2012 Rev. 1.5 Report Created: 04-Jan-2013 14:54 Analyst: CM

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Project Initiation Form

Project Number: A4995
Initiation Date: 13-Dec-12

Client Name: ANCHORENV
Analysis Method: 1668 PCB
Sample Matrix: Soil
TAT: 15 days
Project Manager: Amy

Special Instructions

1668A - WHO list/coplanars only OPR
% solids, report on dry-weight basis
2714 spiking
Full report from 2714
Anchor - Equis EDD

INV via Horizon

Reporting Instructions

1668A - WHO list/coplanars only OPR
% solids, report on dry-weight basis
2714 spiking
Full report from 2714
Anchor - Equis EDD

INV via Horizon

PM Initials: aboehm Date: 13-Dec-2012

Prep Sheet

TRANSFER: NA 1/3/13

RECEIVED: CRm 1-3-12

SGS ANALYTICAL PERSPECTIVES

1668 PCB | **Solids**

Project #	A4995	Batch #	10495	Extract Init/Date: NA 12/31/12	ASECS Init/Date: ~~TM~~ 1/3/13	Transfer Init/Date: NA 1/3/13

AP Sample ID	Client Sample ID	Extract WT (g)	SDS # Hex Abs	RV Initials	RV #	(Td)	ASECS #	Observations
A4995_10495_001	AQ-SS-14-10	14.55	3	MNI	1	—	3	wet sand
A4995_10495_002	AQ-SS-10-10	18.01	4	MNI	1	—	4	* Clumpy Brown Soil EE NA 12/31/12
A4995_10495_003	AQ-SS-09-10	15.06	5	MNI	1	—	5	See 001
A4995_10495_004	AQ-SS-04-10	14.08	6	MNI	1	—	6	See 001
MB1_10495	Method Blank	10.00	1	MNI	1	—	1	Hydrocarbon 12072012
OPR1_10495	0_10495_OPR001	10.00	2	MNI	1	—	2	Hydrocarbon 12072012
				1-2-13			~~TM~~ 1/3/13	

Special Instructions

1668A - WHO list/coplanars only OPR
% solids, report on dry-weight basis
2714 spiking
Full report from 2714
Anchor - Equis EDD

INV via Horizon

Cycle Time

Start 7:30 pm
Stop HEX 12:30 pm

Start 10:30 AM
Stop ~~12~~ 10:00 AM
EEM 1/2/13

Supply IDs

Toluene	DH378	Acid Silica	12/20/12 ~~12/27/12~~
CH_2CL_2	DH240	Base Silica	12312012
Sand	—	HydroMatrix	—
Florisil	12222012	Tetradecane	10252011
Hexane	DH434	Na_2SO_4 ~~H_2SO_4~~	12/9/2012
Silica	12202012	$AgNO_3$ ~~K Silicate~~	12312012

EE ~~TM~~ 1/3/13

SGS ANALYTICAL PERSPECTIVES

1668 PCB

Solid

Project # A4995 Batch # 10495

Inter-Department Communication Sheet

ee to 14Jan13

Special Instructions

1668A - WHO list/coplanars only OPR
% solids, report on dry-weight basis
2714 spiking
Full report from 2714
Anchor - Equis EDD

% Solids

ANALYTICAL PERSPECTIVES

Project: A4995

Batch #: 10495

Procedure:
- Tare Balance.
- Add boat and weigh. Record "Boat Wt."
- Add the sample (2-10 g) to the boat and record "Wet Wt. + Boat Wt." (total).
- Dry in oven overnight @ 107° C.
- Tare Balance.
- Return dish to toploader and record "Residue + Boat Wt."

AP Sample ID	Boat Wt.	Wet Wt. + Boat Wt.	Chem/Date	Residue + Boat Wt.	Chem/Date	105 °C Comments
001	1.32	6.47	MA	5.01	mn1	13.96
002	1.34	4.84	MA	3.33	mn1	17.59
003	1.34	8.30	MA	4.07	mn1	14.71
004	1.34	9.97	MA 12/17/12	7.58	mn1	13.83
					12-18-12	

SGS ANALYTICAL PERSPECTIVES

Wt. Volume Results for Extraction Batch
10495

Batch Project #'s: A4995, A5019

Comments:

AP Sample ID	Boat WT.	Wet Wt. + Boat Wt.	Residue+ Boat Wt.	% Solid	Average % Solid	RSD	Qtest Ratio (if Applicable)	Dry Wt. Equiv.	Extracted Wt.	Final Wt.
A4995_001	1.32	6.47	5.01	71.65%	71.65%			13.96	14.55	10.43
A4995_002	1.34	4.84	3.33	56.86%	56.86%			17.59	18.01	10.24
A4995_003	1.34	8.3	6.07	67.96%	67.96%			14.71	15.06	10.23
A4995_004	1.34	9.97	7.58	72.31%	72.31%			13.83	14.08	10.18
A5019_001	1.33	5.79	3.91	57.85%	57.85%			17.29	18.36	10.62

SGS ANALYTICAL PERSPECTIVES

1668 PCB | **Solids**

Project # A4995 Batch # 10495

SPIKE PROFILE PCBs

Analyte	Spike Compounds	Spiked Amount	Spiked Volume	Solution Conc.	Split Factor	Final Volume	Final Solvent
PCB	ES	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane
	CS	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane
	JS	2 ng	10 uL	200 pg/uL	1	20 uL	Nonane
	AAP68A Batch CS3	1 ng	20 uL	50 pg/uL	1	20 uL	Nonane
	AAP68A	1 ng	20 uL	50 pg/uL	1	20 uL	Nonane

	Spiker Initials/Date:	MA 12/31/12	MA 12/31/12	MA 1/2/13	MA 1/3/13		
AP Sample ID	Client Sample ID	PCB ES Amount: 20-1 Observer Initials	PCB AX 209 Amount: 20-1 Observer Initials	PCB CS Amount: 20-1 Observer Initials	PCB JS Amount: 10-1 Observer Initials	Amount: Observer Initials	
A4995_10495_001	AQ-SS-14-10	TM	—	TM	fm		
A4995_10495_002	AQ-SS-10-10	TM	—	TM	fm		
A4995_10495_003	AQ-SS-09-10	TM	—	TM	fm		
A4995_10495_004	AQ-SS-04-10	TM	—	TM	fm		
MB1_10495	Method Blank	TM	—	TM	fm		
OPR1_10495	0_10495_OPR001	TM	TM	TM	fm		
		12/31/12	12/31/12	1/2/13	1/3/13		

Standard Information

Std. Type		PCB ES	AX 209		PCB CS/SS	PCB JS	
Spike ID		071320121	011020121A		071320121	071320121	
SIL #		12-101-1	12-3-1		12-101-2	12-77-3	
Concentration		100	50		100	200	
Units		pg /µL	pg /µL		pg /µL	pg /µL	
Exp. Date		4/29/13	1/10/13		4/29/13	8/3/13	
Spike amount (µL)		20	20		20	10	

Sample Receipt Notification

2714 Exchange Drive
Wilmington, NC 28405 USA
Tel: 910 794-1613
Toll Free: 866 846-8290
Fax: 910 794-3919

Project Manager:	*Amy Boehm*
Receipt Date & Time:	
AP Project name:	*A4995*
Requested TAT:	*15 days*
Projected due date:	*3-Jan-13*
Matrix:	*Soil*
Phone#:	*910-794-1613*
Email Address:	*Amy.Boehm@sgs.com*

Company Contact:	*Amy Boehm*
Company:	*ANCHORENV*
Project Name & Site:	*31203982*
Project PO#:	
QAAP/Contract #:	
Requested Analysis:	
Phone#:	*n/a*
Email Address:	*none*

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Sampling Date	Sampling Time	Received Temp	Container #	Shipping #
AQ-SS-14-10	A4995_001	31203982001		10-Dec-12	10:33	3	1	Nothing
AQ-SS-10-10	A4995_002	31203982002		10-Dec-12	11:07	3	1	Nothing
AQ-SS-09-10	A4995_003	31203982003		10-Dec-12	11:51	3	1	Nothing
AQ-SS-04-10	A4995_004	31203982004		10-Dec-12	13:23	3	1	Nothing

Preservation Type: Ice - Good Condition **Sample Seals:** No

Notes/Comments:

SGS Project

Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.

Received by: *Logged in by: Amy Boehm* *QC'ed by:* _____

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1

CLIENT: Anchor QEA

CONTACT: Cindy Fields PHONE NO: (206)903-3394

PROJECT NAME: Former Reynolds Metals Reduction Plant RI/FS PROJECT/PWSID/PERMIT#: 110730-02.01

REPORTS TO: Nik Bacher EMAIL: labdata@anchorqea.com

INVOICE TO: Cindy Fields QUOTE #: P.O. #:

SGS Reference #: 31203982

page 1 of 1

2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used / Analysis Required (3) PCB Congeners									REMARKS/ LOC ID
	AQ-SS-14-10	12/10/2012	1033	SE	1	G	X									
	AQ-SS-10-10	↓	1107	↓	1	↓	X									
	AQ-SS-09-10	↓	1151	↓	1	↓	X									
	AQ-SS-04-10	↓	1323	↓	1	↓	X									

5

Collected/Relinquished By:(1)	Date	Time	Received By:
Amy Thatcher	12/11/12	725	[signature]
Relinquished By: (2) [signature]	Date 12/11/12	Time 1455	Received By:
Relinquished By: (3)	Date 12/12/12	Time 0940	Received By: [signature]
Relinquished By: (4) [signature]	Date 12/13/12	Time 1508	Received For Laboratory By: Ashley Owens

4

DOD Project? YES NO

Cooler ID _____

Data Deliverable Requirements:

Requested Turnaround Time and-or Special Instructions:

Temperature Blank °C: 0.2°C

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms and conditions.htm

White - Retained by Lab
Pink - Retained by Client

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **Anchor QEA** Work Order No.: **31203982**

1. _X_ Shipped
   ___ Hand Delivered

2. _X_ COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container
   _X_ No Custody Tape

4. _X_ Samples Intact
   ___ Samples Broken / Leaking

5. _X_ Chilled on Receipt Actual Temp.(s) in °C: 0.2
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. _X_ Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   ___ HCL < 2
   ___ Additional Preservatives verified (see notes)

8. _X_ Received Within Holding Time
   ___ Not Received Within Holding Time

9. _X_ No Discrepancies Noted
   ___ Discrepancies Noted
   ___ NCDENR notified of Discrepancies*

10. ___ No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

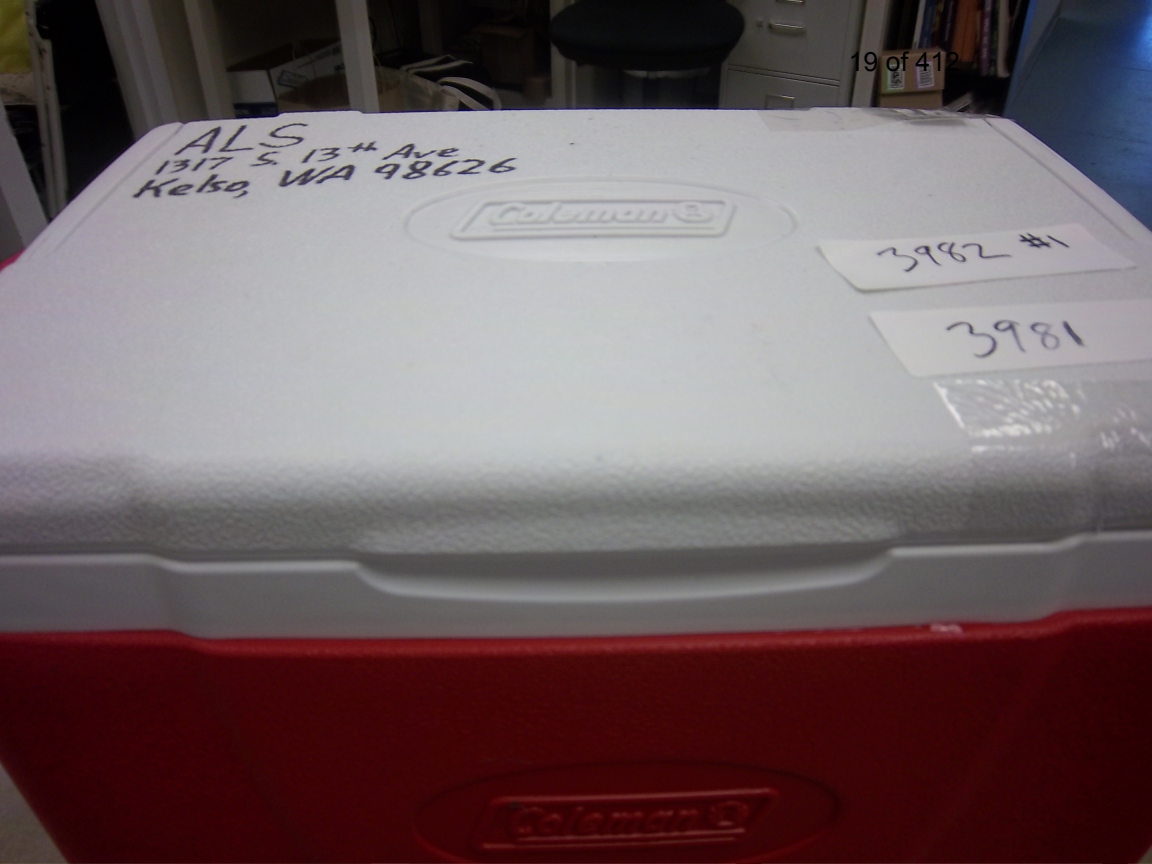
Notes:

Comments:

Inspected and Logged in by: JJ

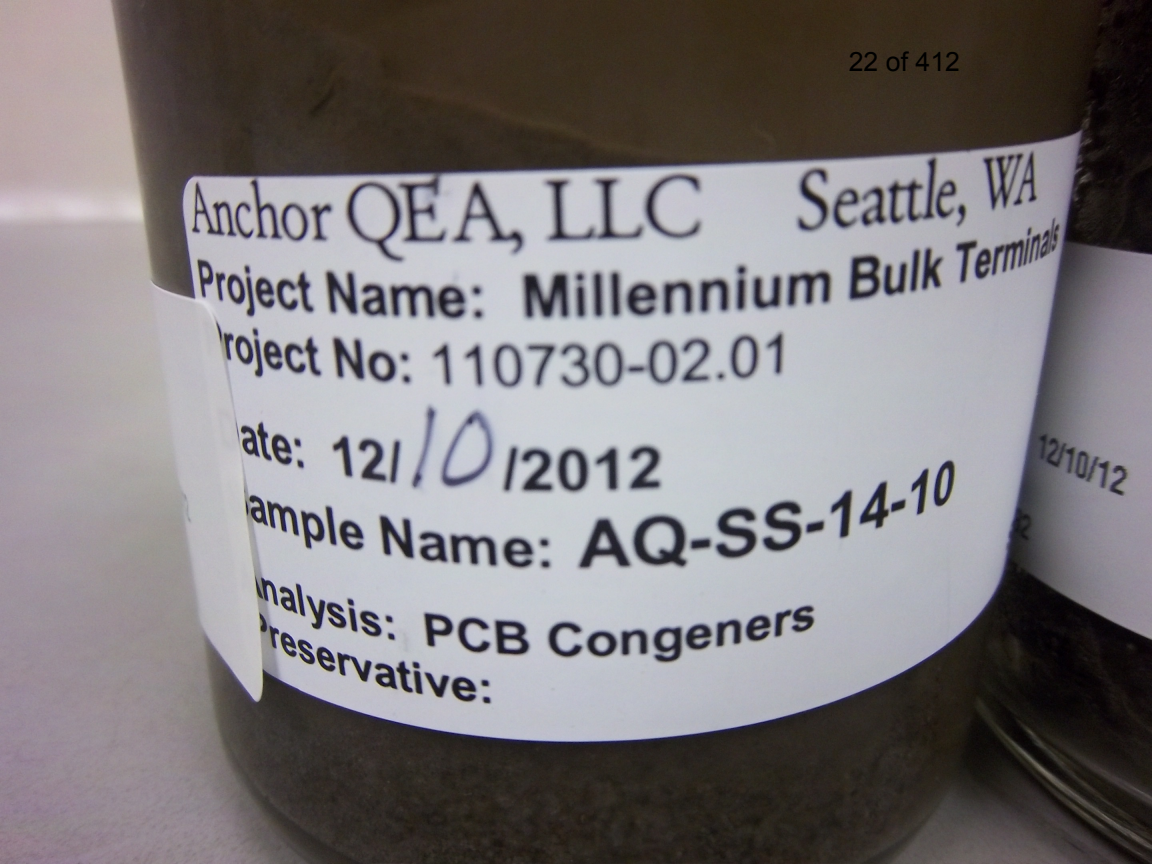
Date: Wed-12/12/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met.


ALS
1317 S. 13th Ave
Kelso, WA 98626
3982 #1
3981


RETURN COOLER TO:
ALS
1317 S. 13TH AVENUE
KELSO, WA. 98626
(360) 577-7222


Anchor QEA, LLC Seattle, WA
Project Name: Millennium Bulk Terminals
Project No: 110730-02.01
Date: 12/10/2012
Sample Name: AQ-SS-14-10
Analysis: PCB Congeners
Preservative:
Anchor QEA, LLC Seattle, WA
Project Name: Millennium Bulk Terminals
Project No: 110730-02.01
Date: 12/10/2012
Sample Name: AQ-SS-10-10
Analysis: PCB Congeners
Preservative:
Anchor QEA, LLC Seattle, WA
Project Name: Millennium Bulk Terminal
Project No: 110730-02.01
Date:
Sample Name: AQ-SS-09-10
Analysis: PCB Congeners
Preservative:
Anchor QEA, LLC Seattle, WA
Project Name: Millennium Bulk Terminal
Project No: 110730-02.01
Date: 12/10/2012
Sample Name: AQ-SS-04-10
Analysis: PCB Congeners
Preservative:


Anchor QEA, LLC Seattle, WA
Project Name: Millennium Bulk Terminals
roject No: 110730-02.01
ate: 12/10/2012
ample Name: AQ-SS-14-10
nalysis: PCB Congeners
reservative:
12/10/12

Anchor QEA, LLC Seattle, WA

Project Name: Millennium Bulk Termin

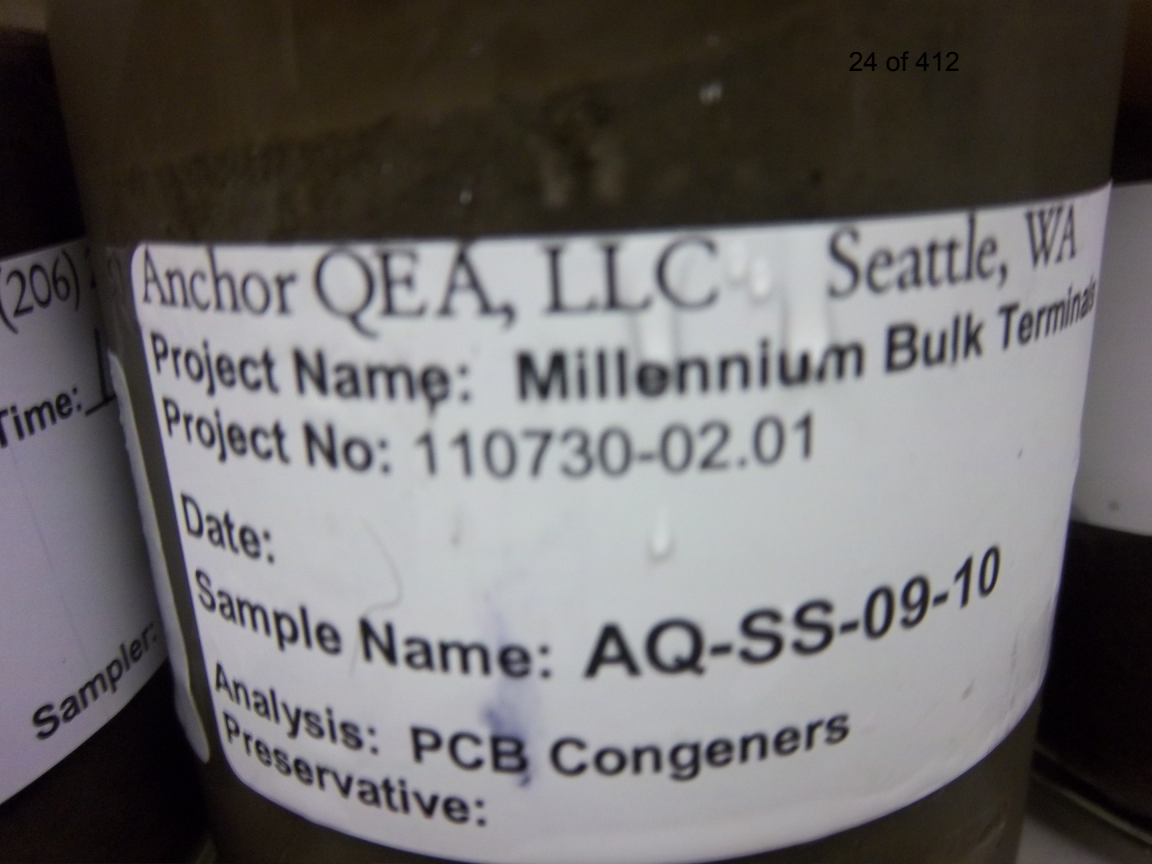
Project No: 110730-02.01

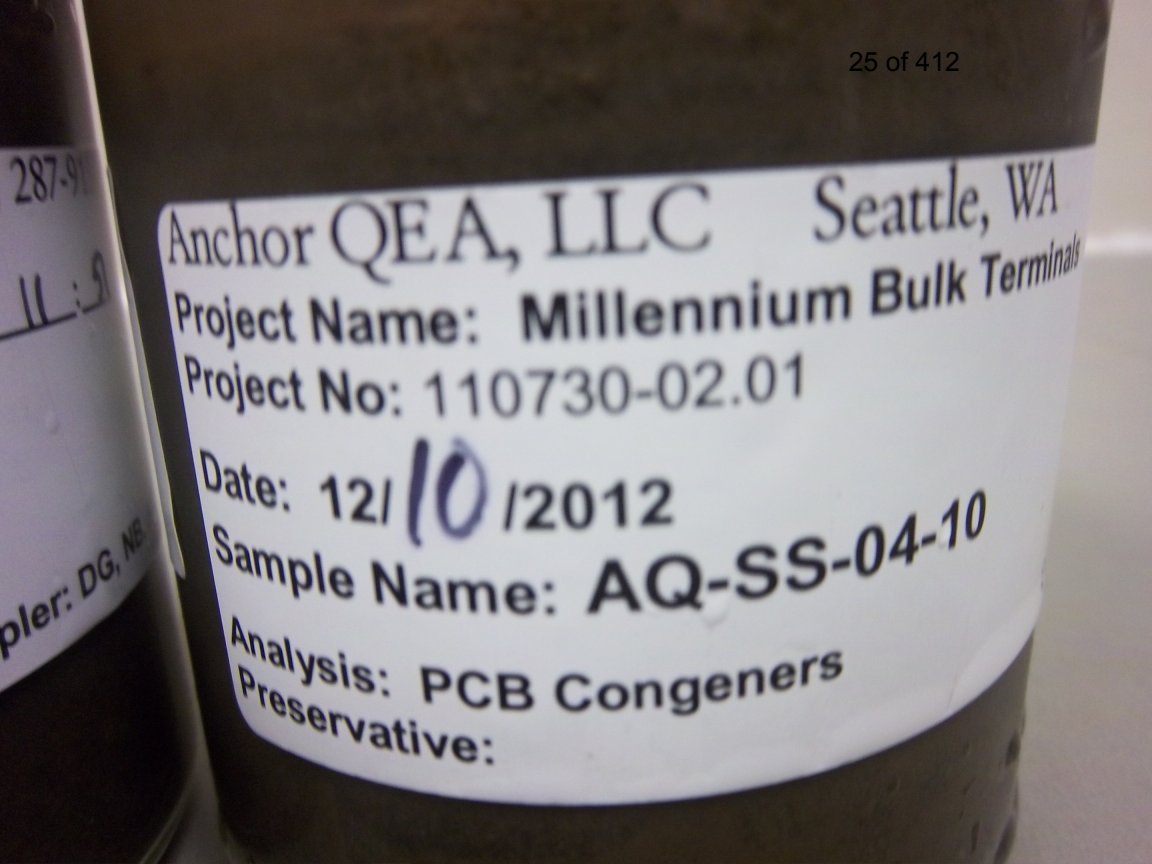
Date: 12/10/2012

Sample Name: AQ-SS-10-10

Analysis: PCB Congeners

Preservative:


Anchor QEA, LLC
Seattle, WA
Project Name: Millennium Bulk Terminal
Project No: 110730-02.01
Date:
Sample Name: AQ-SS-09-10
Analysis: PCB Congeners
Preservative:
(206)
Time:
Sampler:


Anchor QEA, LLC Seattle, WA
Project Name: Millennium Bulk Terminals
Project No: 110730-02.01
Date: 12/10/2012
Sample Name: AQ-SS-04-10
Analysis: PCB Congeners
Preservative:


Seattle, WA
Millennium Bulk Terminals
AQ-SS-14-10
A4995_001
Seattle, WA
Millennium Bulk Terminals
AQ-SS-10-10
A4995_002
Seattle, WA
Millennium Bulk Terminals
AQ-SS-09-10
A4995_003
Seattle, WA
Millennium Bulk Terminals
AQ-SS-04-10
A4995_004

SGS Analytical Perspectives — Run Log **Project: A4995_10495_PCB**

Instrument: MM6 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_b

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
1	130103V02	3	CS3_130103_PCB_VA	1.00	SIL 12-65-3	CEM	862-330	03-Jan-2013	17:12:36
2	130103V03	29	OPR1_10495_PCB	1.00	0_10495_OPR001	CEM	881-416	03-Jan-2013	18:05:40
3	130103V04	2	SBS_130103_PCB_VA	1.00	SIL 9-41-1	CEM	196-712	03-Jan-2013	19:00:49
4	130103V05	30	MB1_10495_PCB_SDS	10.00	Method Blank	CEM	421-123	03-Jan-2013	19:55:57
5	130103V06	31	A4995_10495_PCB_001	10.43	AQ-SS-14-10	CEM	819-764	03-Jan-2013	20:51:04
6	130103V07	32	A4995_10495_PCB_002	10.24	AQ-SS-10-10	CEM	151-460	03-Jan-2013	21:46:11
7	130103V08	33	A4995_10495_PCB_003	10.23	AQ-SS-09-10	CEM	529-183	03-Jan-2013	22:41:19
8	130103V09	34	A4995_10495_PCB_004	10.18	AQ-SS-04-10	CEM	588-126	03-Jan-2013	23:36:26

REVIEWED
By Chris Mimms at 3:44 pm, Jan 04, 2013

REVIEWED
By Heather Steele at 5:01 pm, Jan 04, 2013

Lab ID: MB1_10495_PCB_SDS | **ACQ:** 03-Jan-2013 19:55:57 CEM | **Wt/Vol:** 10.00 g | **ICAL:** MM6_PCB_07132012_14DEC12 CS3_130103_PCB_VA

Client ID: Method Blank | **UTP:** 04-Jan-2013 11:40 CEM | **J-level:** 1 pg/g **Split:** 1 | **Checkcode:** 421-123-FNY

Datafile: 130103V05 (EQ) | **RPT:** 04-Jan-2013 14:53 CM | **Stds (pg):** JS: 2000 ES: 2000 CS/SS: 2000 | **Method** HR-PCB

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
PCB-77 33'44'-TeCB	NotFnd		1.0006	-		0.00E+00		1.25	ND	3.70E+03	0.285
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.26	ND	3.70E+03	0.284
PCB-105 233'44'-PeCB	33.89	J	1.0007	1.0003	-0.8	2.58E+04	0.59	1.06	0.302	1.91E+03	0.23
PCB-114 2344'5-PeCB	NotFnd		1.0008	-		0.00E+00		1.11	ND	1.91E+03	0.215
PCB-118 23'44'5-PeCB	32.91	J	1.0008	1.0007	-0.2	4.31E+04	0.67	1.08	0.468	1.91E+03	0.223
PCB-123 23'44'5'-PeCB	NotFnd		1.0006	-		0.00E+00		1.12	ND	1.91E+03	0.228
PCB-126 33'44'5-PeCB	NotFnd		1.0006	-		0.00E+00		1.16	ND	2.47E+03	0.242
PCB-156/157 ...-HxCB	NotFnd	C	1.0005	-		0.00E+00		1.14	ND	1.46E+03	0.27
PCB-167 23'44'55'-HxCB	NotFnd		1.0005	-		0.00E+00		1.18	ND	1.46E+03	0.197
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.15	ND	1.46E+03	0.254
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.12	ND	2.19E+03	0.287
PCB-209 DeCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	2.13E+03	0.604
ES PCB-1	10.72		0.7199	0.7199	0	2.77E+07	3.13	0.97	86.6 %	25%	150%
ES PCB-3	12.81		0.8600	0.8600	0	2.68E+07	3.32	0.90	90.2 %	25%	150%
ES PCB-4	13.04		0.8753	0.8752	-0.1	1.98E+07	1.58	0.70	85.6 %	25%	150%
ES PCB-15	18.45		1.2382	1.2381	-0.1	3.22E+07	1.65	1.02	96 %	25%	150%
ES PCB-19	15.93		1.0690	1.0690	0	1.51E+07	1.06	0.53	86.8 %	25%	150%
ES PCB-37	24.62		1.0830	1.0830	0	2.23E+07	1.09	1.29	97.1 %	25%	150%
ES PCB-54	18.71		0.8228	0.8227	-0.1	1.99E+07	0.77	1.43	78.6 %	25%	150%
ES PCB-77	30.90		1.3590	1.3591	+0.2	2.21E+07	0.82	1.20	103 %	25%	150%
ES PCB-81	30.43		1.3382	1.3383	+0.2	2.17E+07	0.85	1.16	105 %	25%	150%
ES PCB-104	23.57		0.8226	0.8226	0	1.82E+07	1.55	1.70	76.3 %	25%	150%
ES PCB-105	33.88		1.1820	1.1821	+0.2	1.62E+07	1.53	1.10	105 %	25%	150%
ES PCB-114	33.34		1.1633	1.1634	+0.2	1.63E+07	1.54	1.16	101 %	25%	150%
ES PCB-118	32.89		1.1476	1.1477	+0.2	1.70E+07	1.59	1.15	105 %	25%	150%
ES PCB-123	32.61		1.1378	1.1379	+0.2	1.63E+07	1.55	1.14	102 %	25%	150%
ES PCB-126	36.50		1.2735	1.2738	+0.7	1.81E+07	1.56	1.34	96.5 %	25%	150%
ES PCB-153	34.49		0.9706	0.9706	0	1.51E+07	1.33	1.14	95.1 %	25%	150%
ES PCB-155	28.49		0.8019	0.8018	-0.2	2.00E+07	1.30	1.61	88.9 %	25%	150%
ES PCB-156/157	39.07		1.0993	1.0994	+0.2	2.61E+07	1.25	0.98	95.7 %	25%	150%
ES PCB-167	38.10		1.0720	1.0721	+0.2	1.38E+07	1.21	1.01	98.4 %	25%	150%
ES PCB-169	41.80		1.1764	1.1765	+0.3	1.12E+07	1.25	0.90	89.5 %	25%	150%
ES PCB-170	41.30		0.9029	0.9030	+0.2	1.06E+07	1.05	1.28	93.9 %	25%	150%
ES PCB-180	40.25		0.8799	0.8800	+0.2	1.21E+07	1.05	1.54	87 %	25%	150%
ES PCB-188	33.35		0.7291	0.7292	+0.2	1.97E+07	1.02	1.63	87.2 %	25%	150%
ES PCB-189	43.95		0.9609	0.9609	0	1.56E+07	1.06	1.97	96.8 %	25%	150%
ES PCB-202	37.89		0.8284	0.8285	+0.2	1.59E+07	0.93	1.26	90.5 %	25%	150%
ES PCB-205	46.14		1.0088	1.0088	0	9.03E+06	0.88	1.22	90 %	25%	150%
ES PCB-206	47.64		1.0414	1.0415	+0.3	7.19E+06	0.77	1.10	79.7 %	25%	150%
ES PCB-208	43.55		0.9521	0.9522	+0.3	1.12E+07	0.79	1.41	97.4 %	25%	150%
ES PCB-209	49.03		1.0715	1.0719	+1.2	7.87E+06	1.23	1.24	77.1 %	25%	150%

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
SS PCB-28	21.14		0.9299	0.9298	-0.1	2.78E+07	1.10	1.18	106 %	30%	135%
SS PCB-111	30.96		1.0801	1.0801	0	1.72E+07	1.55	1.01	105 %	30%	135%
SS PCB-178	35.92		1.0110	1.0110	0	1.21E+07	1.02	0.60	102 %	30%	135%
CS PCB-28	21.14		0.9299	0.9298	-0.1	2.78E+07	1.10	1.52	103 %	30%	135%
CS PCB-111	30.96		1.0801	1.0801	0	1.72E+07	1.55	1.15	107 %	30%	135%
CS PCB-178	35.92		1.0110	1.0110	0	1.21E+07	1.02	0.98	88.9 %	30%	135%
JS PCB-9	14.90					3.30E+07	1.65				
JS PCB-52	22.74					1.77E+07	0.76				
JS PCB-101	28.66					1.40E+07	1.52				
JS PCB-138	35.53					1.39E+07	1.25				
JS PCB-194	45.74					8.20E+06	0.91				

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



SGS-AP ID: MB1_10495_PCB_SDS | Sample ID: Method Blank | Acq: 03-Jan-2013 19:55:57
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30 | User: CEM Datafile: 130103V05 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 5486, 3987 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 2 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



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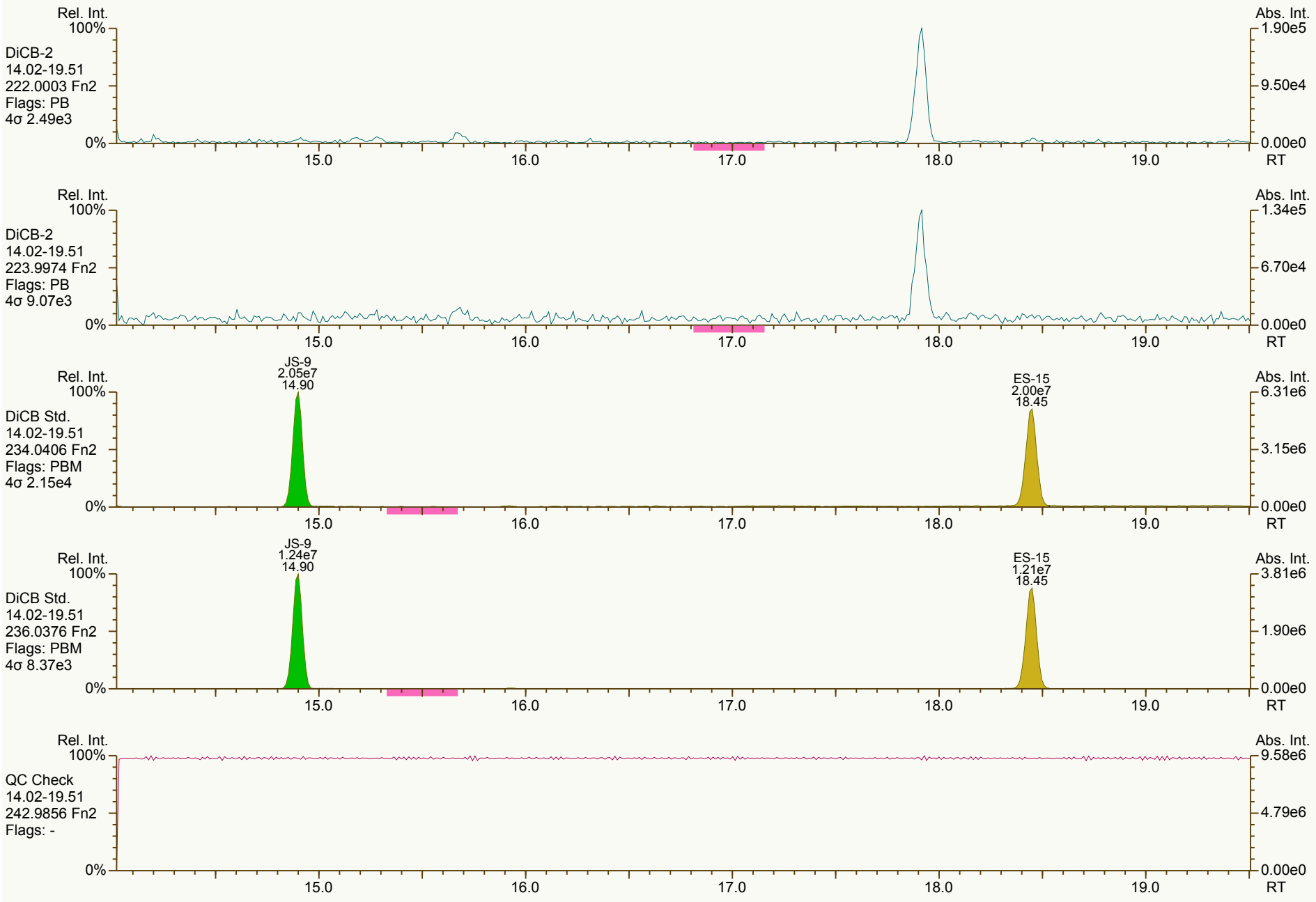
SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



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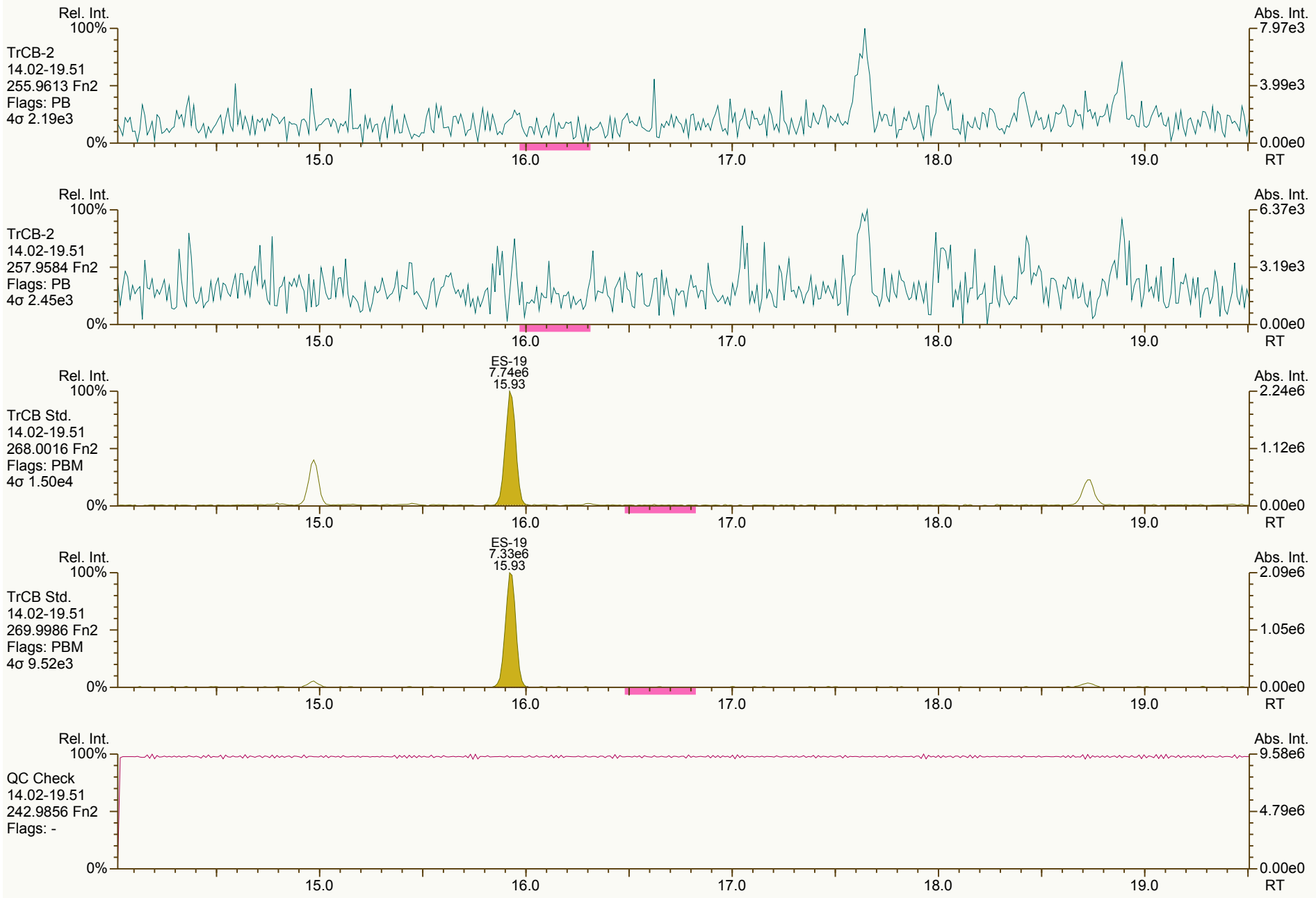
SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



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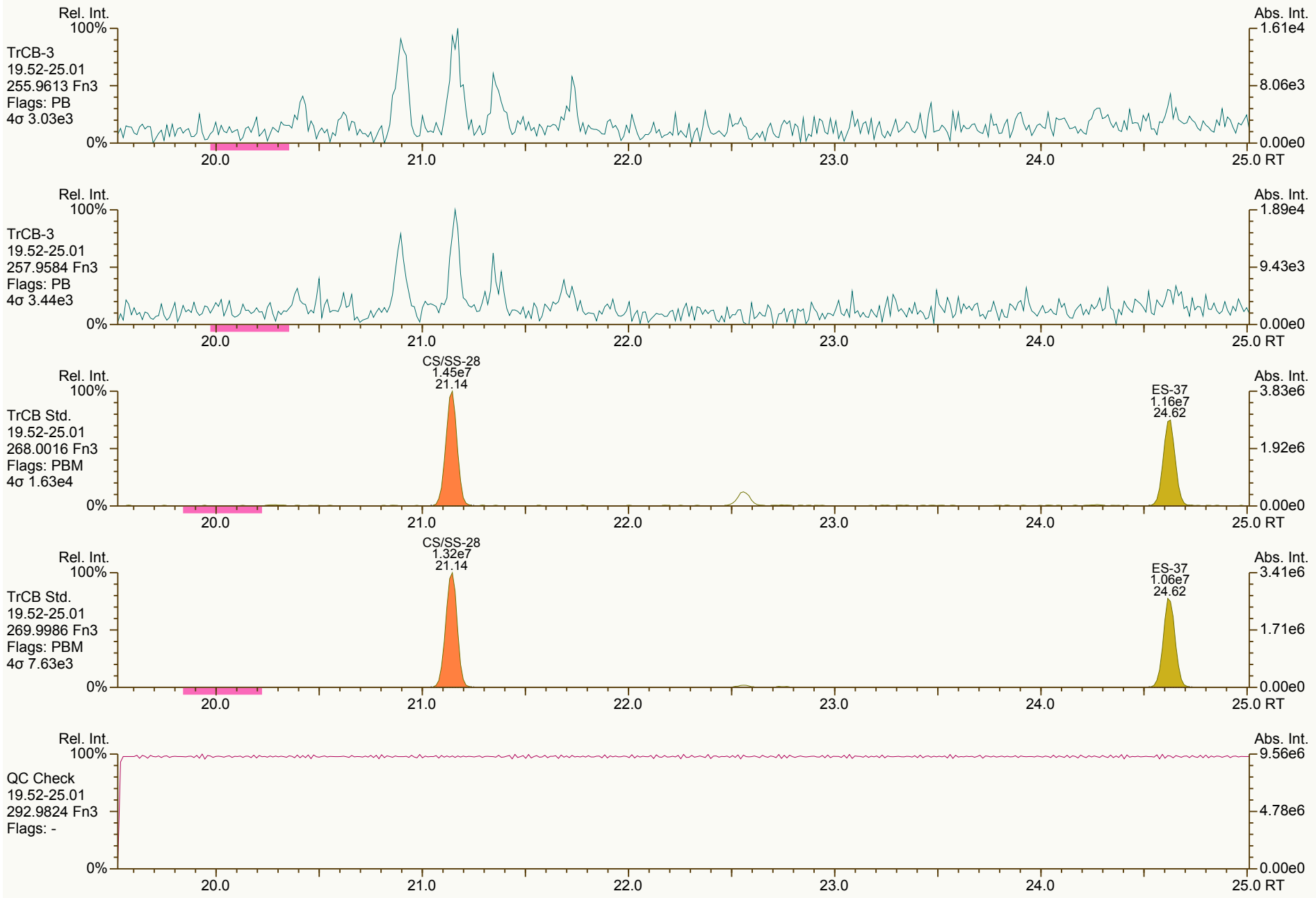
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9744, 5275 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 5 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 3665, 2104 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 6 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**

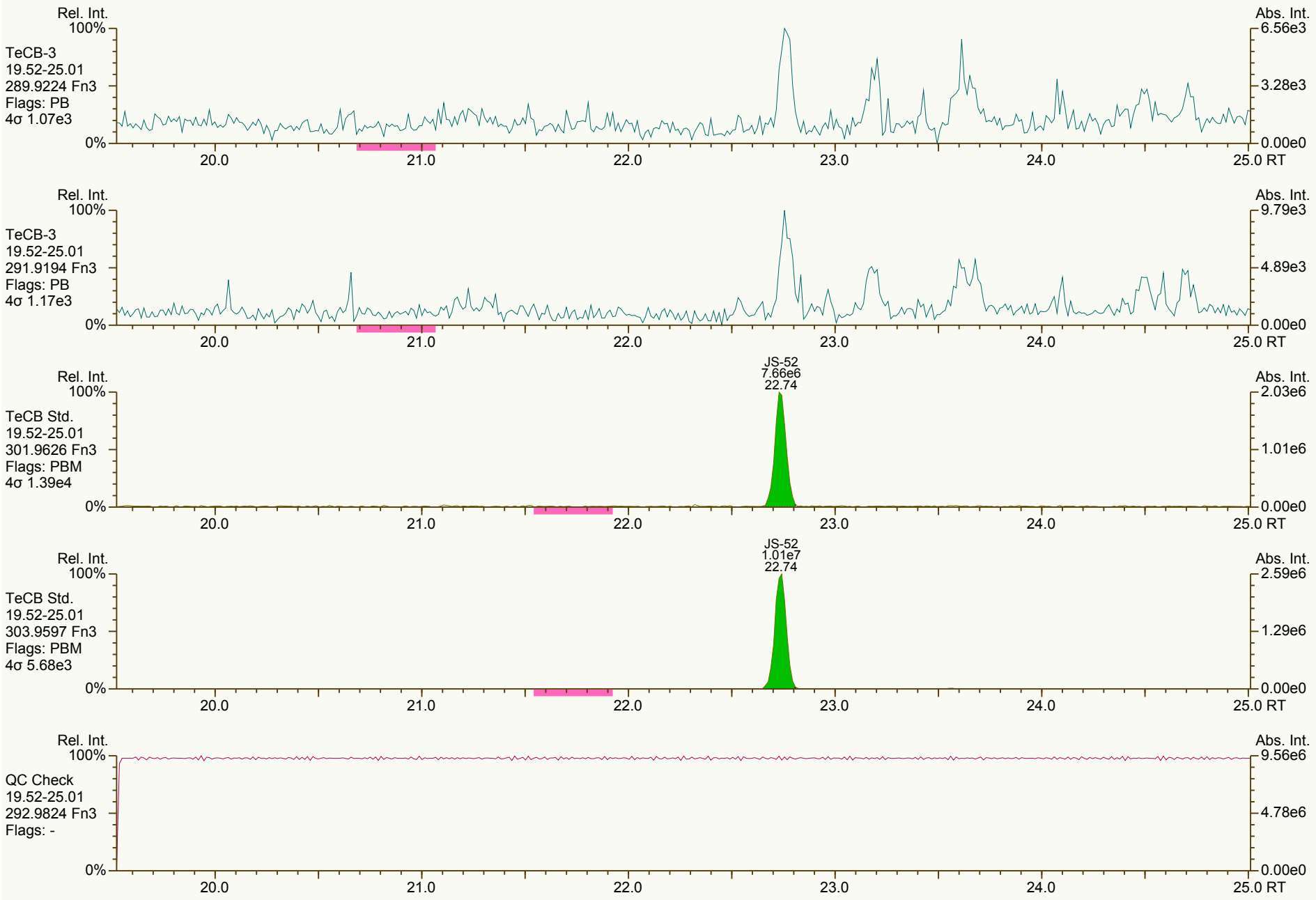


Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9184, 3284 scc: 421-123 *Revised: 04-Jan-2013 11:37 (CEM) Printed: 04-Jan-2013 13:59 Page 7 of 22*

SGS-AP ID: MB1_10495_PCB_SDS
Instr: AutoSpec-Premier MM6

Sample ID: Method Blank
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30

Acq: 03-Jan-2013 19:55:57
User: CEM Datafile: 130103V05 (EQ)



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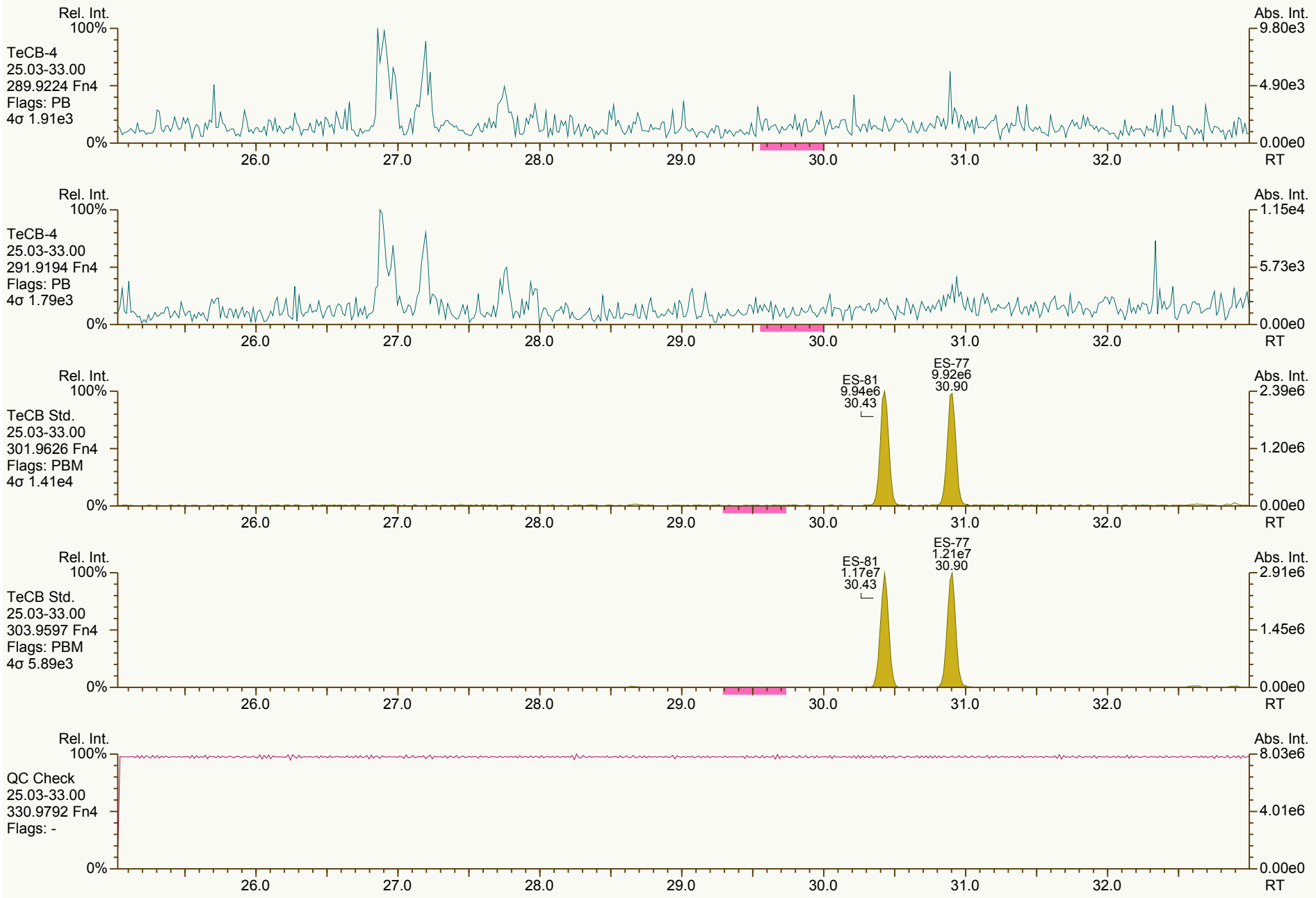
Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 0525, 2120 scc: 421-123
PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 8 of 22

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 3205, 5834 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 9 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*

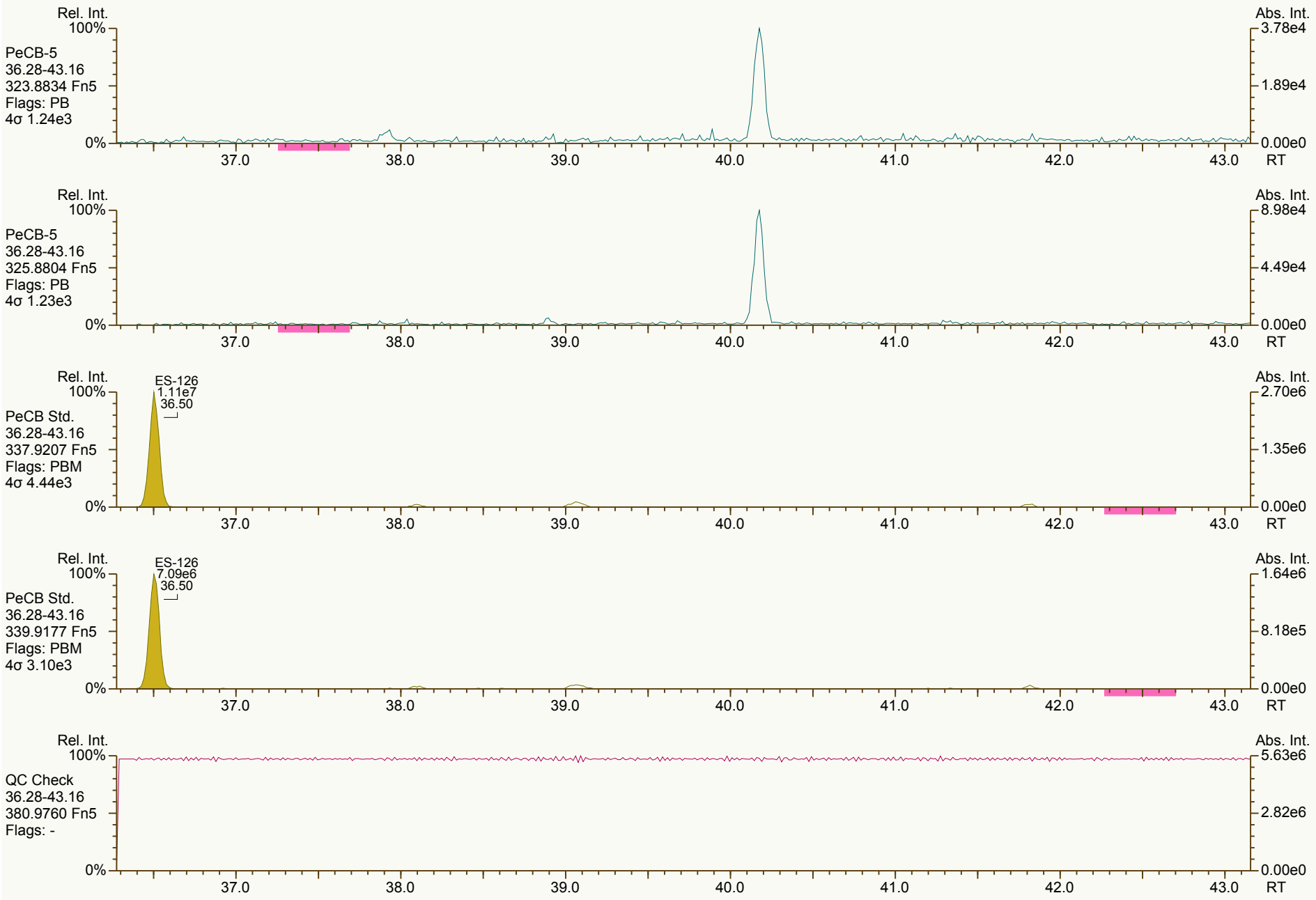
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 8626, 8987 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 10 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1524, 4127 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 12 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 4394, 0084 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 13 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 6491, 2735 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 15 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1720, 2108 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 16 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 3638, 5445 scc: 421-123 *PKD: 04-Jan-2013 11:37 Printed: 04-Jan-2013 13:59 Page 17 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9818, 9964 scc: 421-123 *Revised: 04-Jan-2013 11:37 (CEM) Printed: 04-Jan-2013 13:59 Page 19 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 2702, 4153 scc: 421-123 *Revised: 04-Jan-2013 11:37 (CEM) Printed: 04-Jan-2013 13:59 Page 21 of 22*

SGS-AP ID: MB1_10495_PCB_SDS **Sample ID: Method Blank** **Acq: 03-Jan-2013 19:55:57**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130103V05 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\MB1_10495_PCB_SDS.utp_res, saved 04-Jan-2013 11:40 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U scc: 421-123 *Revised: 04-Jan-2013 11:36 (CEM) Printed: 04-Jan-2013 13:59 Page 22 of 22*

Lab ID: A4995_10495_PCB_001 **ACQ:** 03-Jan-2013 20:51:04 CEM **Wt/Vol:** 10.43 g **ICAL:** MM6_PCB_07132012_14DEC12 CS3_130103_PCB_VA

Client ID: AQ-SS-14-10 **UTP:** 04-Jan-2013 12:10 CEM **J-level:** 0.959 pg/g **Split:** 1 **Checkcode:** 819-764-PXY

Datafile: 130103V06 (EQ) **RPT:** 04-Jan-2013 14:53 CM **Stds (pg):** JS: 2000 ES: 2000 CS/SS: 2000 **Method** HR-PCB

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
PCB-77 33'44'-TeCB	30.92		1.0006	1.0006	0	9.23E+05	0.82	1.25	5.91	5.67E+03	0.367
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.26	ND	5.67E+03	0.382
PCB-105 233'44'-PeCB	33.90		1.0007	1.0007	0	1.92E+06	0.63	1.06	18.5	2.77E+03	0.297
PCB-114 2344'5-PeCB	33.36	J	1.0008	1.0005	-0.6	9.74E+04	0.68	1.11	0.919	2.77E+03	0.277
PCB-118 23'44'5-PeCB	32.92		1.0008	1.0007	-0.2	3.62E+06	0.65	1.08	33.2	2.77E+03	0.267
PCB-123 23'44'5'-PeCB	32.64		1.0006	1.0007	+0.2	1.19E+05	0.59	1.12	1.14	2.77E+03	0.268
PCB-126 33'44'5-PeCB	NotFnd		1.0006	-		0.00E+00		1.16	ND	3.28E+03	0.312
PCB-156/157 ...-HxCB	39.08	C	1.0005	1.0002	-0.7	2.92E+05	1.26	1.14	3.35	2.52E+03	0.409
PCB-167 23'44'55'-HxCB	38.12		1.0005	1.0005	0	1.23E+05	1.34	1.18	1.26	2.52E+03	0.269
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.15	ND	2.52E+03	0.372
PCB-189 233'44'55'-HpCB	43.99	J EMPC	1.0004	1.0006	+0.5	5.09E+04	1.33	1.12	0.495	2.70E+03	0.284
PCB-209 DeCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	2.18E+03	0.487
ES PCB-1	10.73		0.7199	0.7202	+0.2	2.46E+07	3.17	0.97	72.8 %	25%	150%
ES PCB-3	12.81		0.8600	0.8600	0	2.61E+07	3.32	0.90	83.1 %	25%	150%
ES PCB-4	13.04		0.8753	0.8754	+0.1	1.92E+07	1.55	0.70	78.6 %	25%	150%
ES PCB-15	18.45		1.2382	1.2382	0	3.47E+07	1.69	1.02	97.9 %	25%	150%
ES PCB-19	15.93		1.0690	1.0690	0	1.64E+07	1.06	0.53	89.2 %	25%	150%
ES PCB-37	24.63		1.0830	1.0829	-0.1	2.38E+07	1.10	1.29	97.2 %	25%	150%
ES PCB-54	18.71		0.8228	0.8227	-0.1	2.06E+07	0.76	1.43	76.6 %	25%	150%
ES PCB-77	30.90		1.3590	1.3590	0	2.40E+07	0.83	1.20	106 %	25%	150%
ES PCB-81	30.43		1.3382	1.3383	+0.2	2.35E+07	0.80	1.16	107 %	25%	150%
ES PCB-104	23.58		0.8226	0.8226	0	1.91E+07	1.50	1.70	69.9 %	25%	150%
ES PCB-105	33.88		1.1820	1.1821	+0.2	1.89E+07	1.51	1.10	107 %	25%	150%
ES PCB-114	33.35		1.1633	1.1634	+0.2	1.83E+07	1.61	1.16	98.2 %	25%	150%
ES PCB-118	32.89		1.1476	1.1476	0	1.93E+07	1.59	1.15	104 %	25%	150%
ES PCB-123	32.61		1.1378	1.1378	0	1.80E+07	1.52	1.14	97.9 %	25%	150%
ES PCB-126	36.51		1.2735	1.2737	+0.4	1.96E+07	1.66	1.34	91 %	25%	150%
ES PCB-153	34.49		0.9706	0.9706	0	1.70E+07	1.36	1.14	95.9 %	25%	150%
ES PCB-155	28.49		0.8019	0.8018	-0.2	2.27E+07	1.29	1.61	90.5 %	25%	150%
ES PCB-156/157	39.07		1.0993	1.0994	+0.2	2.93E+07	1.26	0.98	96.4 %	25%	150%
ES PCB-167	38.10		1.0720	1.0721	+0.2	1.60E+07	1.24	1.01	102 %	25%	150%
ES PCB-169	41.81		1.1764	1.1765	+0.3	1.21E+07	1.25	0.90	86.9 %	25%	150%
ES PCB-170	41.31		0.9029	0.9029	0	1.16E+07	1.00	1.28	95.8 %	25%	150%
ES PCB-180	40.25		0.8799	0.8799	0	1.41E+07	1.09	1.54	94.5 %	25%	150%
ES PCB-188	33.35		0.7291	0.7290	-0.2	2.13E+07	1.06	1.63	84.4 %	25%	150%
ES PCB-189	43.96		0.9609	0.9609	0	1.77E+07	1.06	1.97	102 %	25%	150%
ES PCB-202	37.90		0.8284	0.8284	0	1.73E+07	0.88	1.26	88.3 %	25%	150%
ES PCB-205	46.16		1.0088	1.0089	+0.3	1.01E+07	0.88	1.22	94 %	25%	150%
ES PCB-206	47.66		1.0414	1.0417	+0.9	8.09E+06	0.80	1.10	83.6 %	25%	150%
ES PCB-208	43.56		0.9521	0.9522	+0.3	1.25E+07	0.80	1.41	101 %	25%	150%
ES PCB-209	49.04		1.0715	1.0720	+1.5	8.69E+06	1.19	1.24	79.4 %	25%	150%

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
SS PCB-28	21.14		0.9299	0.9298	-0.1	2.88E+07	1.09	1.18	103 %	30%	135%
SS PCB-111	30.96		1.0801	1.0801	0	1.90E+07	1.56	1.01	105 %	30%	135%
SS PCB-178	35.93		1.0110	1.0110	0	1.30E+07	1.01	0.60	101 %	30%	135%
CS PCB-28	21.14		0.9299	0.9298	-0.1	2.88E+07	1.09	1.52	100 %	30%	135%
CS PCB-111	30.96		1.0801	1.0801	0	1.90E+07	1.56	1.15	103 %	30%	135%
CS PCB-178	35.93		1.0110	1.0110	0	1.30E+07	1.01	0.98	85.2 %	30%	135%
JS PCB-9	14.90					3.49E+07	1.65				
JS PCB-52	22.74					1.89E+07	0.79				
JS PCB-101	28.66					1.61E+07	1.54				
JS PCB-138	35.54					1.55E+07	1.26				
JS PCB-194	45.75					8.80E+06	0.91				

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
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Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
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Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 2003, 0778 scc: 819-764 *Revised: 04-Jan-2013 12:08 (CEM) Printed: 04-Jan-2013 14:00 Page 3 of 22*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_001 Sample ID: AQ-SS-14-10 Acq: 03-Jan-2013 20:51:04
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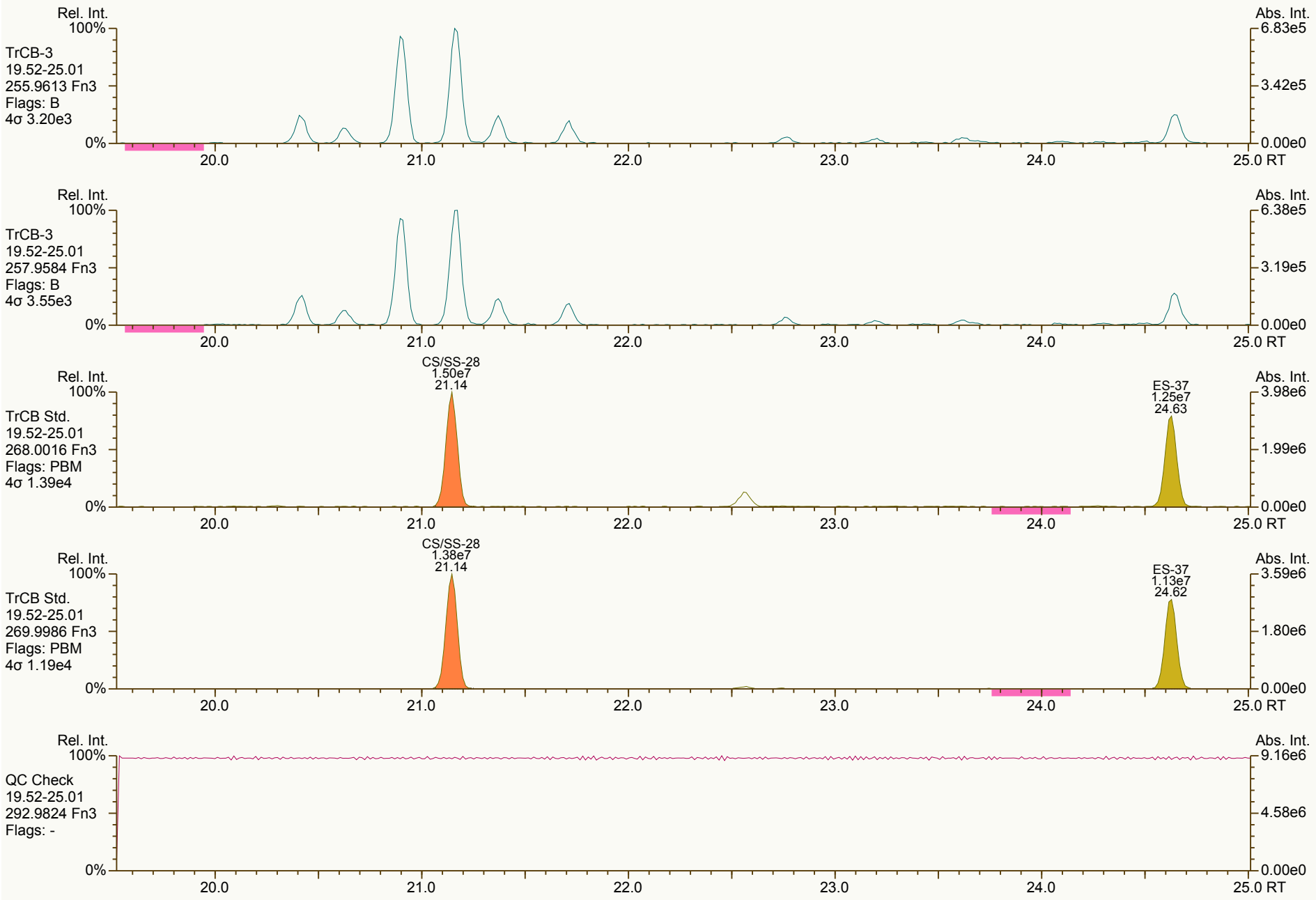
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9686, 6316 scc: 819-764 *PKD: 04-Jan-2013 12:08 Printed: 04-Jan-2013 14:00 Page 5 of 22*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
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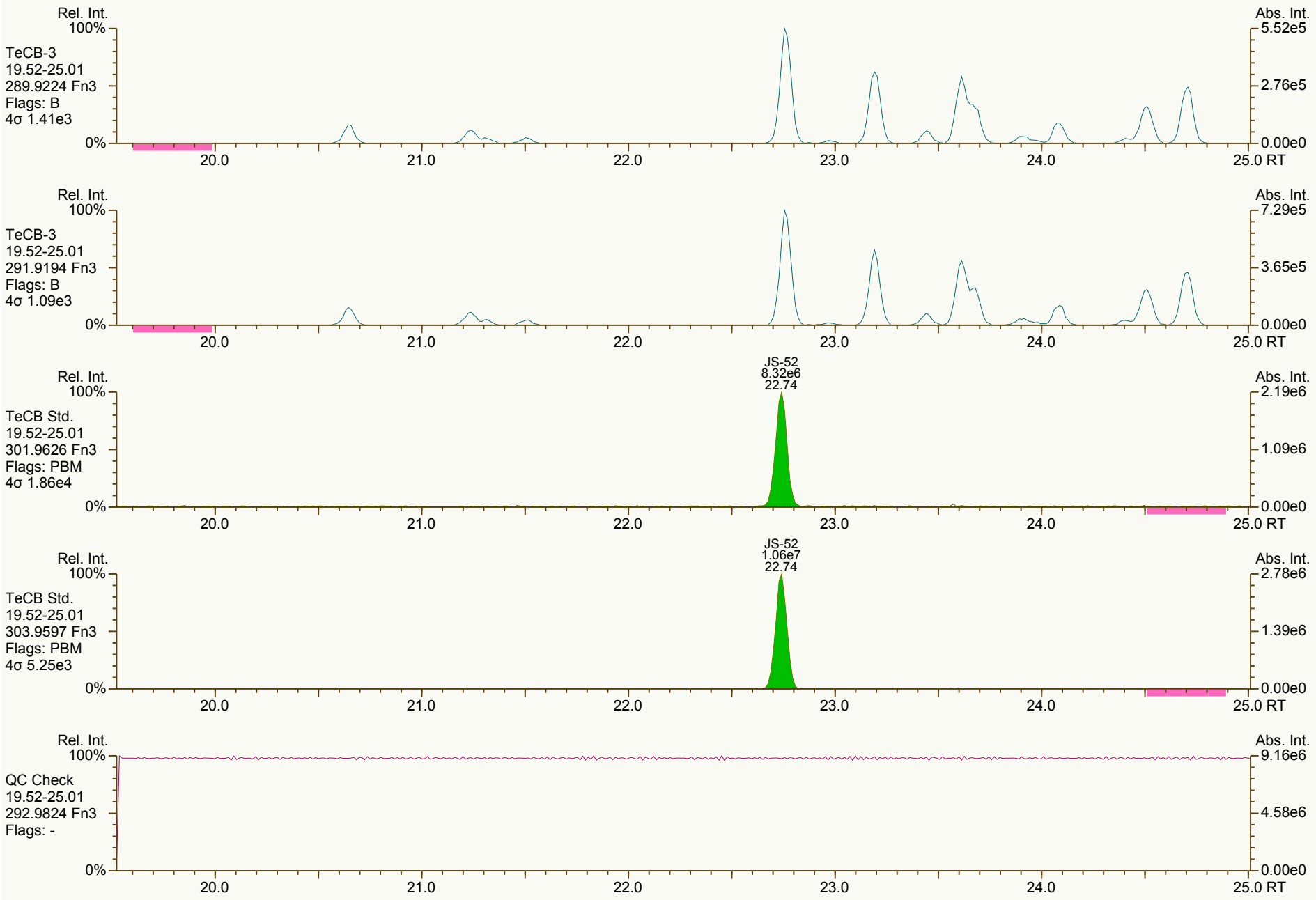
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 0558, 3358 scc: 819-764 *Revised: 04-Jan-2013 12:08 (CEM) Printed: 04-Jan-2013 14:00 Page 7 of 22*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
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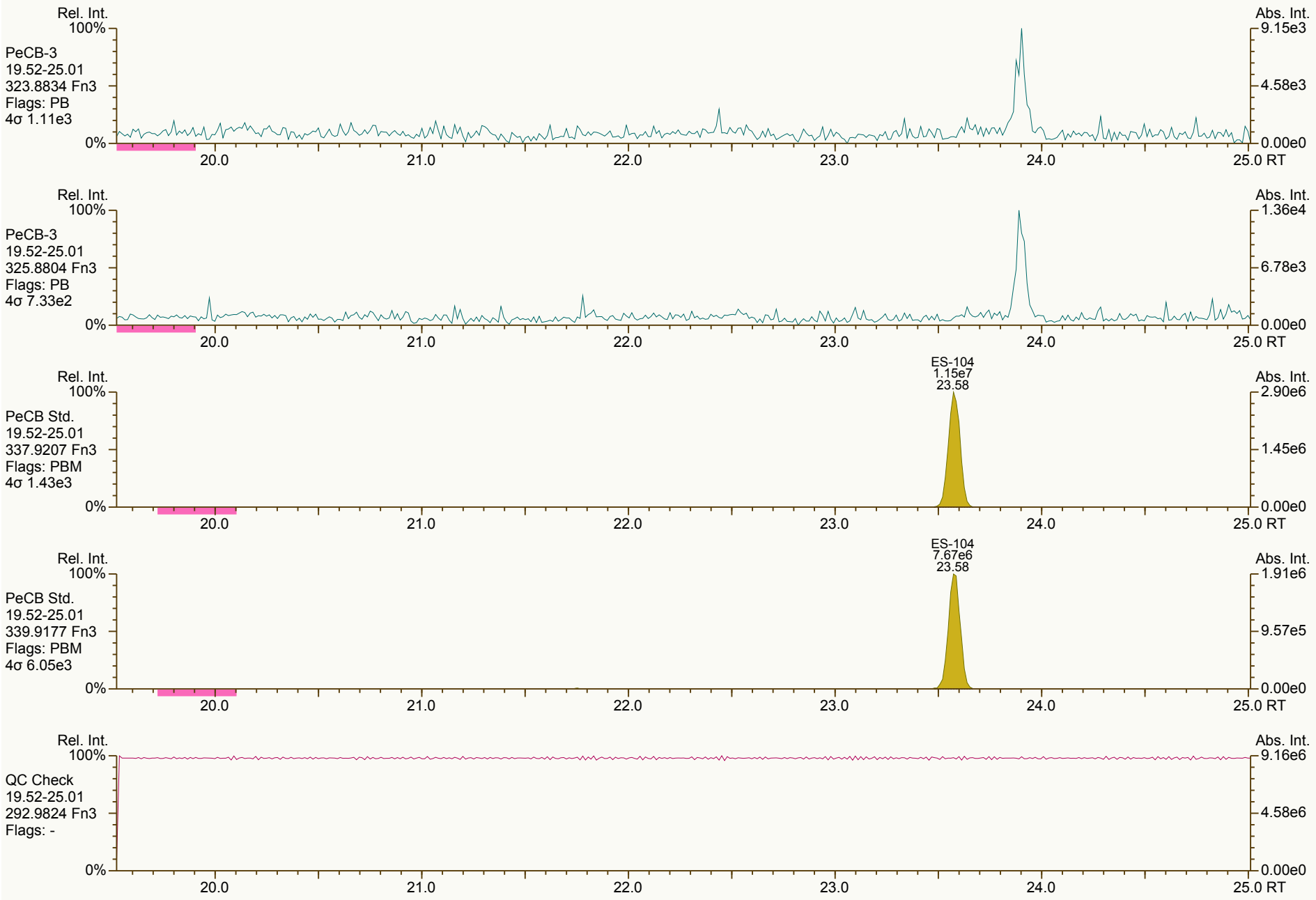
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 4677, 8944 scc: 819-764 *Revised: 04-Jan-2013 12:08 (CEM) Printed: 04-Jan-2013 14:00 Page 9 of 22*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
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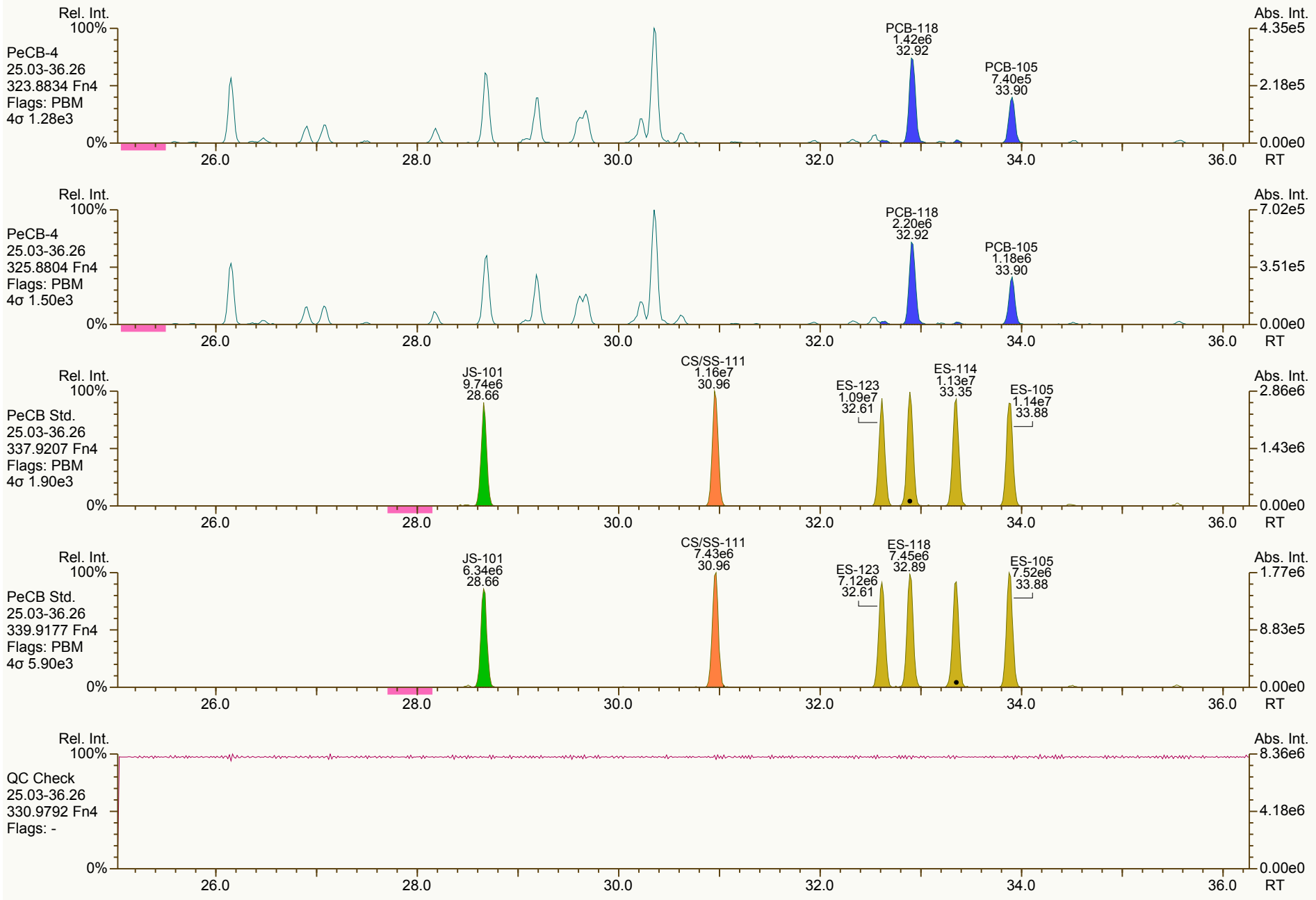
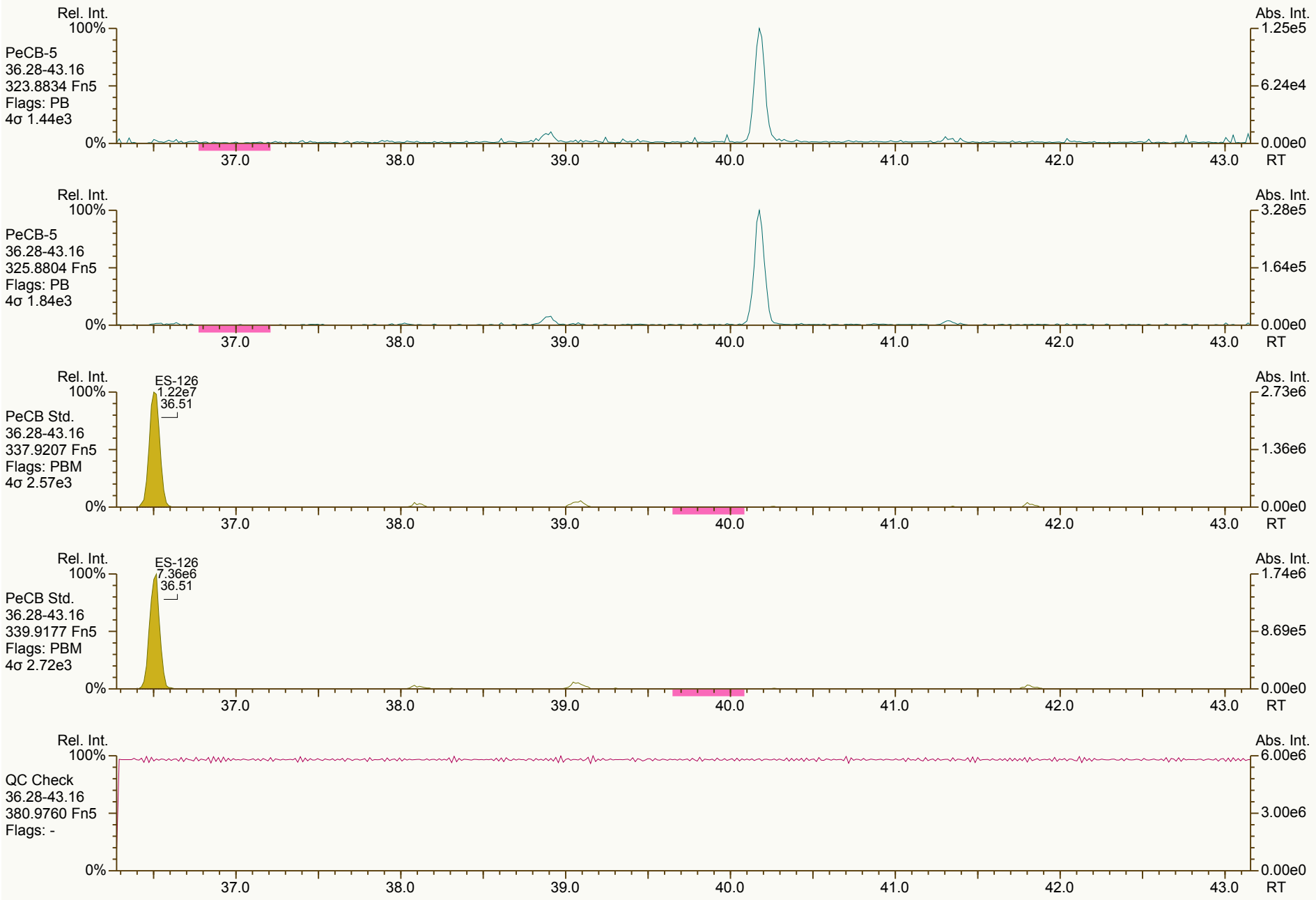


Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 6453, 3210 scc: 819-764 *Revised: 04-Jan-2013 12:08 (CEM) Printed: 04-Jan-2013 14:00 Page 12 of 22*

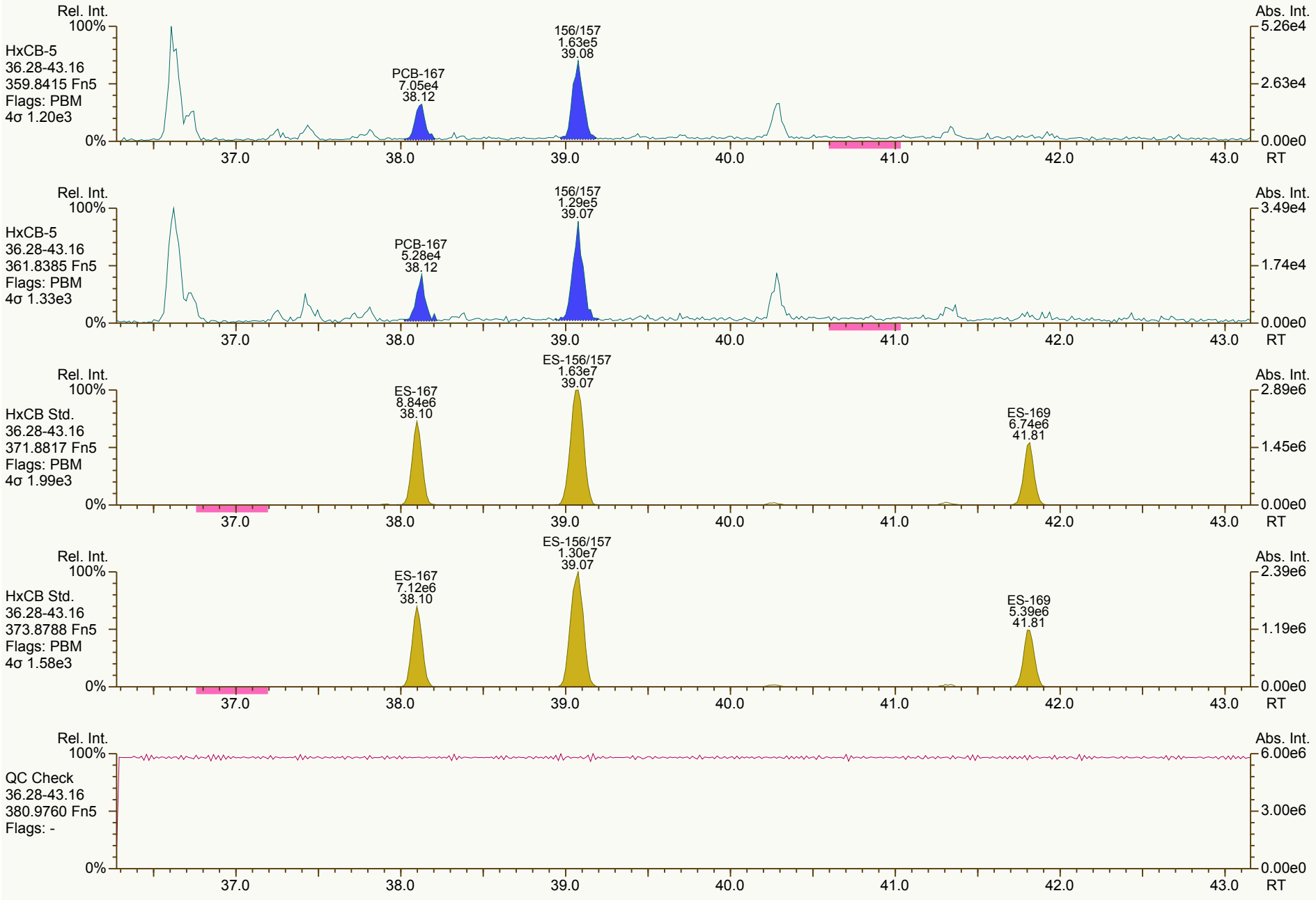
SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1262, 2623 scc: 819-764 *Revised: 04-Jan-2013 12:08 (CEM) Printed: 04-Jan-2013 14:00 Page 13 of 22*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



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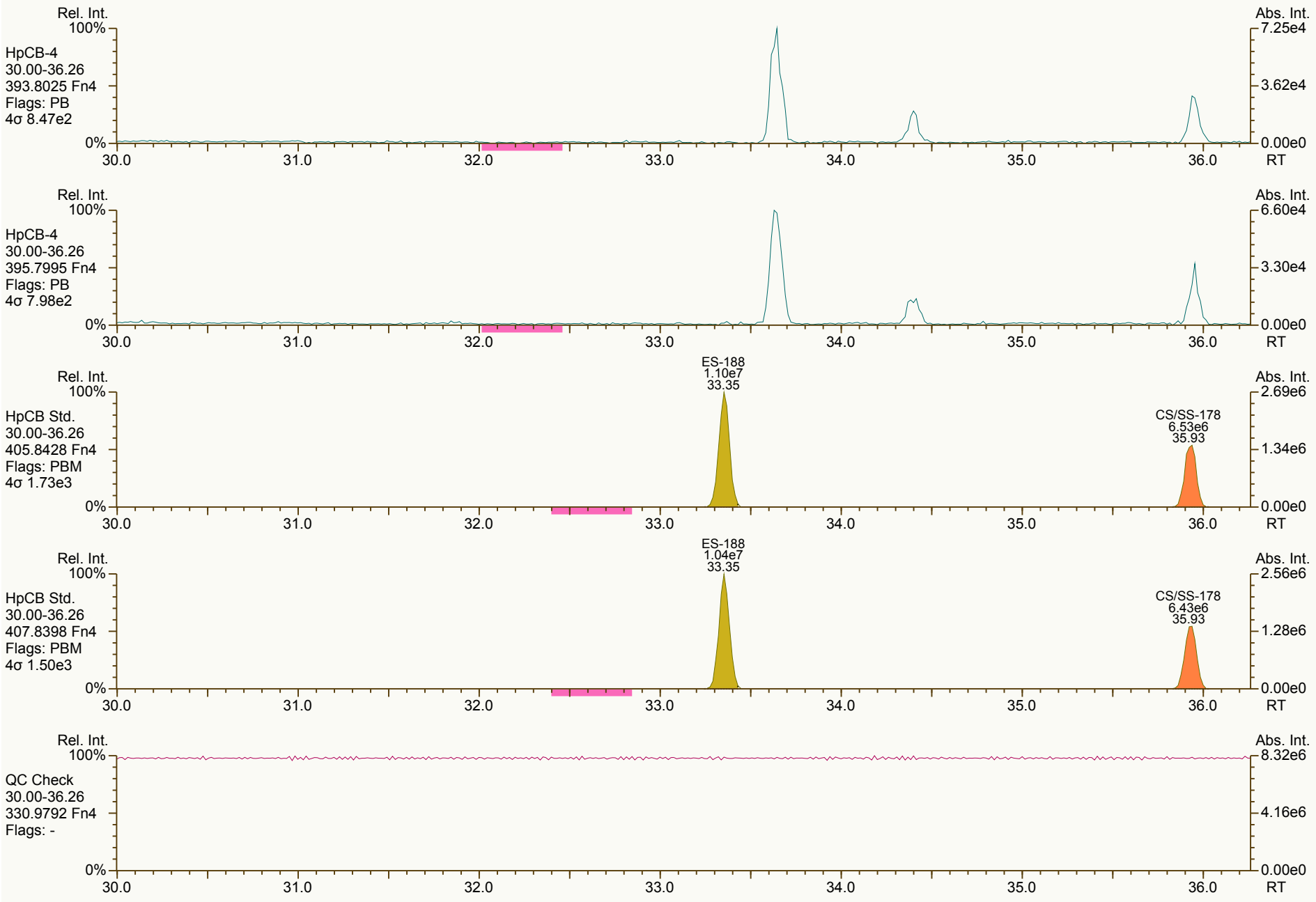
SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 4225, 7323 scc: 819-764 *Revised: 04-Jan-2013 12:08 (CEM) Printed: 04-Jan-2013 14:00 Page 15 of 22*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



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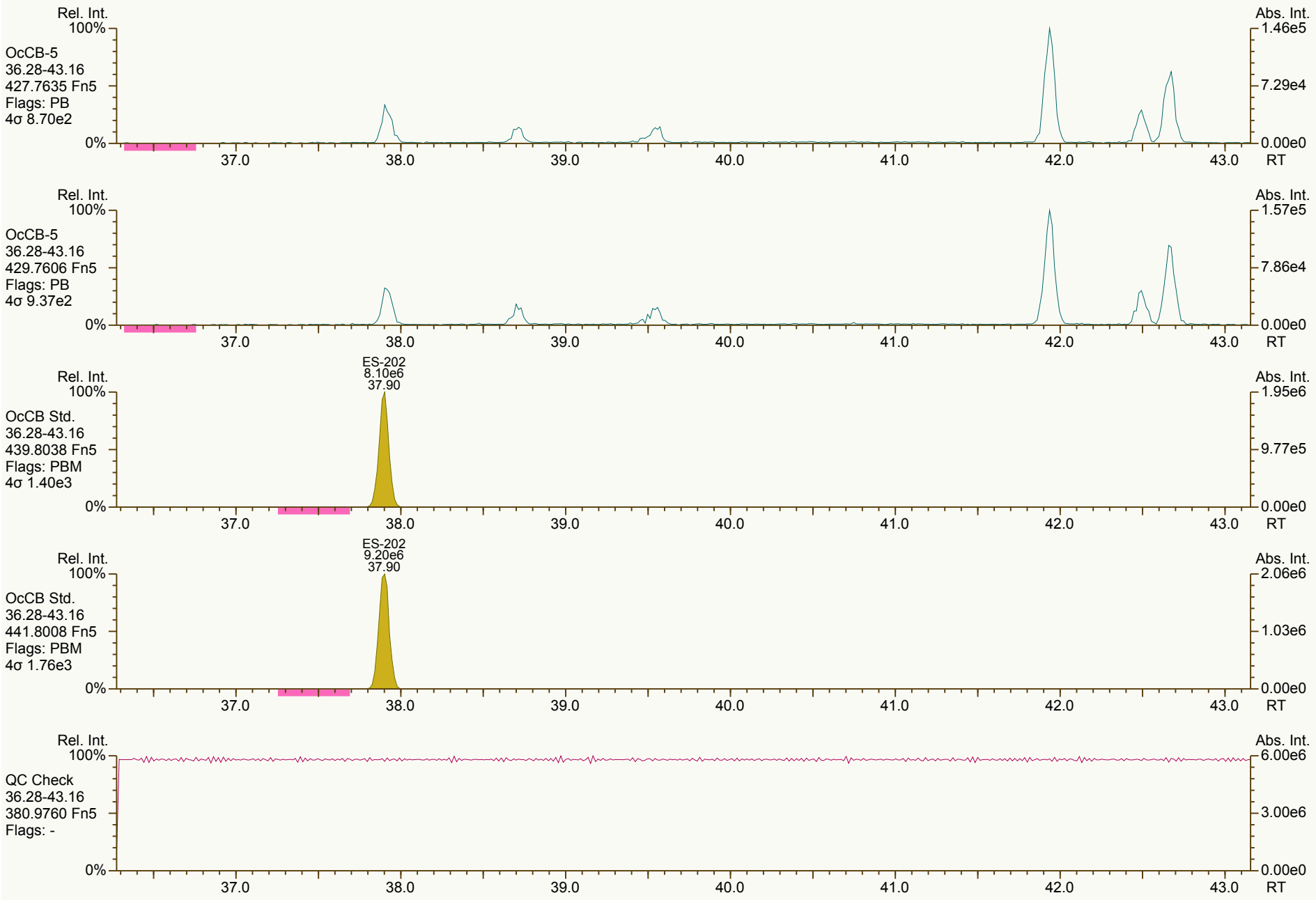
SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



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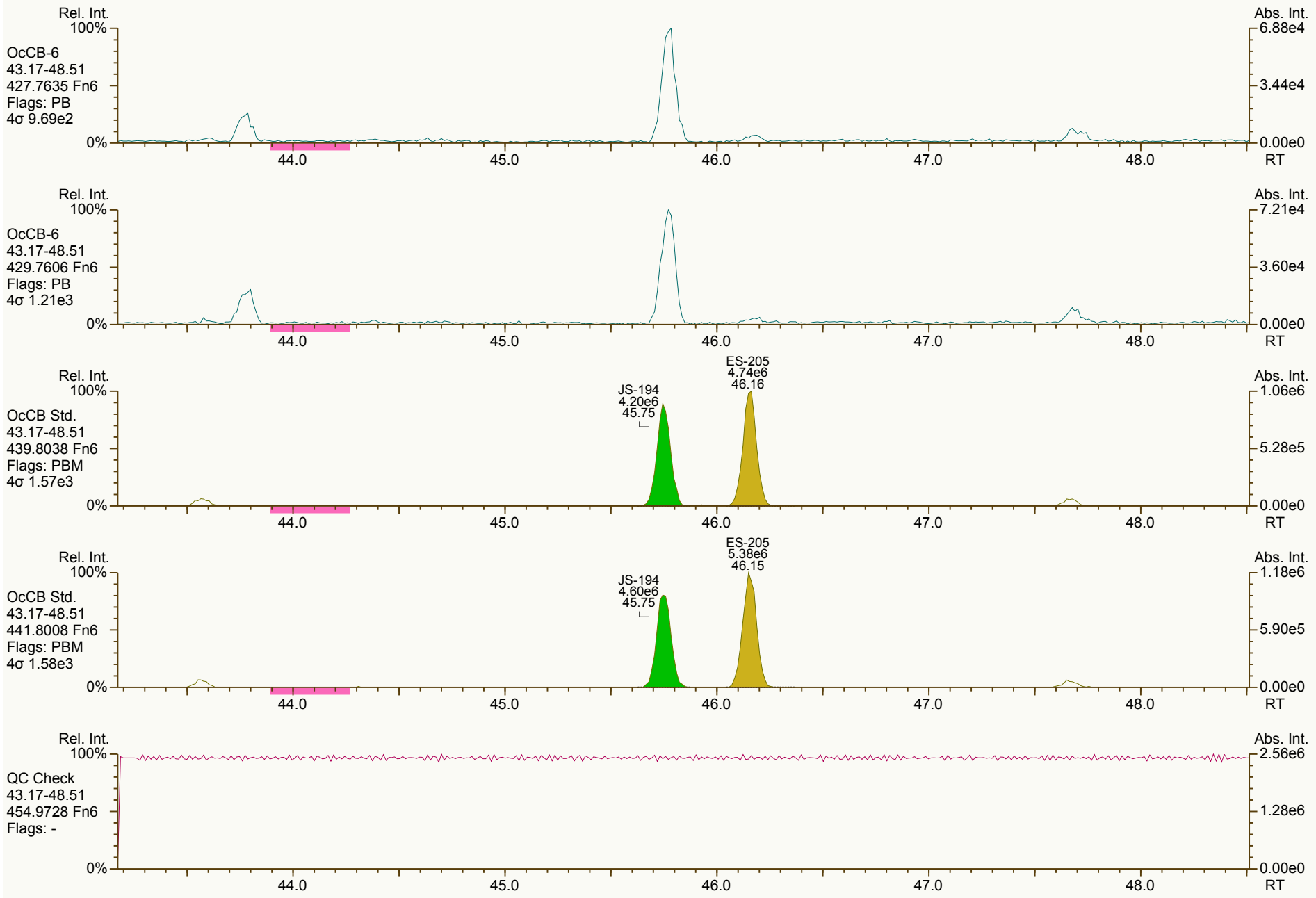
SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 0652, 2447 scc: 819-764 *Revised: 04-Jan-2013 12:08 (CEM) Printed: 04-Jan-2013 14:00 Page 20 of 22*

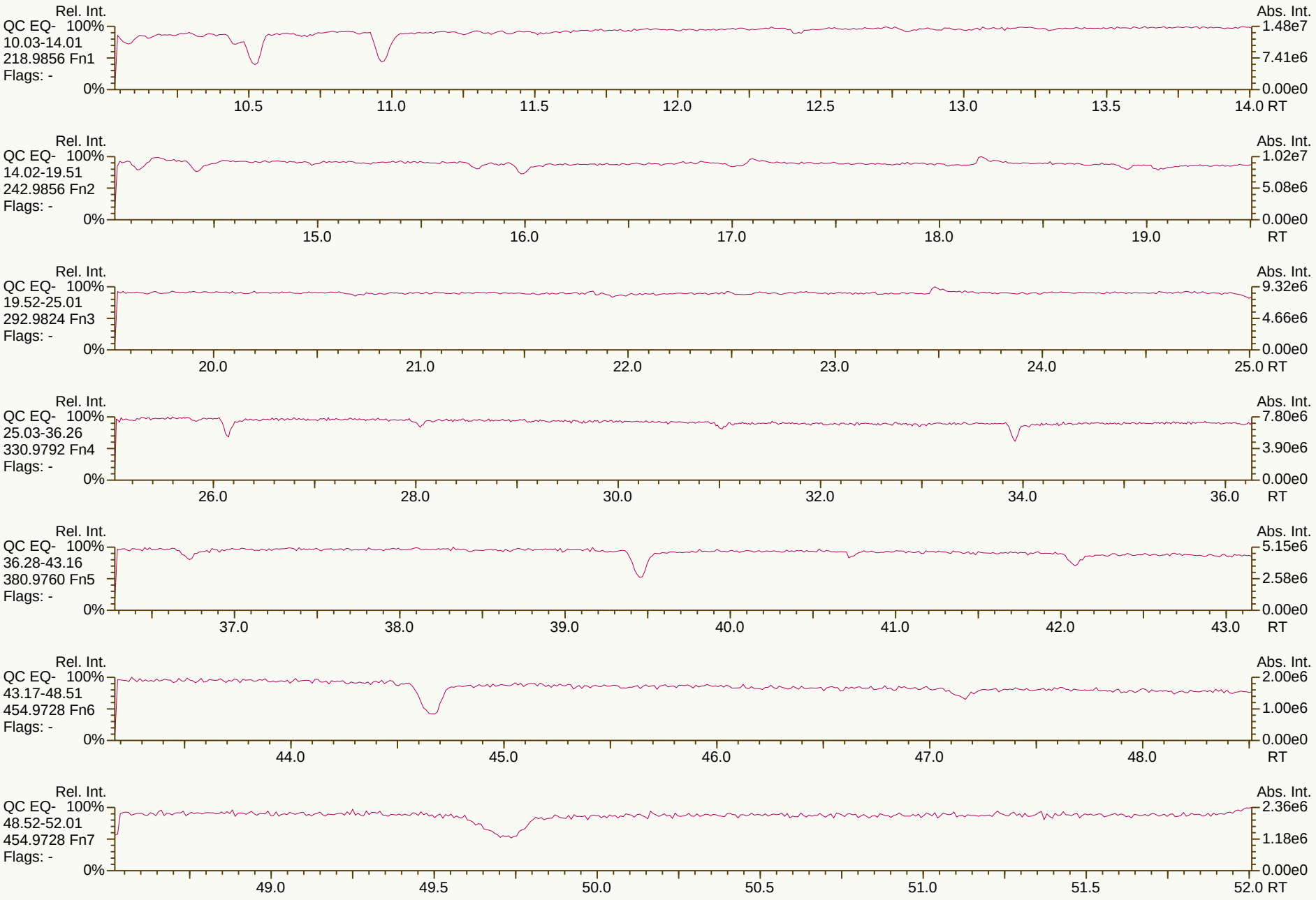
SGS-AP ID: A4995_10495_PCB_001 Sample ID: AQ-SS-14-10 Acq: 03-Jan-2013 20:51:04
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31 User: CEM Datafile: 130103V06 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9530, 0203 scc: 819-764 *Revised: 04-Jan-2013 12:08 (CEM) Printed: 04-Jan-2013 14:00 Page 21 of 22*

SGS-AP ID: A4995_10495_PCB_001 **Sample ID: AQ-SS-14-10** **Acq: 03-Jan-2013 20:51:04**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 31** **User: CEM Datafile: 130103V06 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_001.utp_res, saved 04-Jan-2013 12:10 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U scc: 819-764 *Revised: 04-Jan-2013 12:07 (CEM) Printed: 04-Jan-2013 14:00 Page 22 of 22*

Lab ID: A4995_10495_PCB_002 **ACQ:** 03-Jan-2013 21:46:11 CEM **Wt/Vol:** 10.24 g **ICAL:** MM6_PCB_07132012_14DEC12 CS3_130103_PCB_VA

Client ID: AQ-SS-10-10 **UTP:** 04-Jan-2013 13:23 CEM **J-level:** 0.977 pg/g **Split:** 1 **Checkcode:** 151-460-FNW

Datafile: 130103V07 (EQ) **RPT:** 04-Jan-2013 14:54 CM **Stds (pg):** JS: 2000 ES: 2000 CS/SS: 2000 **Method** HR-PCB

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
PCB-77 33'44'-TeCB	30.91	EMPC	1.0006	1.0006	0	3.78E+05	0.61	1.25	2.23	5.18E+03	0.332
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.26	ND	5.18E+03	0.327
PCB-105 233'44'-PeCB	33.89		1.0007	1.0006	-0.2	1.28E+06	0.68	1.06	10.8	2.55E+03	0.235
PCB-114 2344'5-PeCB	33.35	J EMPC	1.0008	1.0004	-0.8	6.61E+04	0.78	1.11	0.589	2.55E+03	0.232
PCB-118 23'44'5-PeCB	32.91		1.0008	1.0007	-0.2	2.57E+06	0.63	1.08	22.3	2.55E+03	0.232
PCB-123 23'44'5'-PeCB	32.63	J EMPC	1.0006	1.0009	+0.6	4.12E+04	0.84	1.12	0.367	2.55E+03	0.234
PCB-126 33'44'5-PeCB	NotFnd		1.0006	-		0.00E+00		1.16	ND	3.62E+03	0.315
PCB-156/157 ...-HxCB	39.07	C	1.0005	1.0002	-0.7	3.85E+05	1.36	1.14	4.1	2.32E+03	0.34
PCB-167 23'44'55'-HxCB	38.12		1.0005	1.0006	+0.2	1.33E+05	1.37	1.18	1.25	2.32E+03	0.233
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.15	ND	2.32E+03	0.327
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.12	ND	2.75E+03	0.272
PCB-209 DeCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	2.49E+03	0.573
ES PCB-1	10.73		0.7199	0.7203	+0.3	3.23E+07	3.08	0.97	96.9 %	25%	150%
ES PCB-3	12.81		0.8600	0.8602	+0.2	3.00E+07	3.29	0.90	96.8 %	25%	150%
ES PCB-4	13.04		0.8753	0.8754	+0.1	2.10E+07	1.55	0.70	87 %	25%	150%
ES PCB-15	18.44		1.2382	1.2383	+0.1	3.66E+07	1.67	1.02	105 %	25%	150%
ES PCB-19	15.92		1.0690	1.0691	+0.1	1.65E+07	1.05	0.53	91.1 %	25%	150%
ES PCB-37	24.61		1.0830	1.0830	0	2.57E+07	1.11	1.29	104 %	25%	150%
ES PCB-54	18.70		0.8228	0.8227	-0.1	2.16E+07	0.78	1.43	79.2 %	25%	150%
ES PCB-77	30.89		1.3590	1.3592	+0.4	2.65E+07	0.81	1.20	115 %	25%	150%
ES PCB-81	30.42		1.3382	1.3385	+0.5	2.59E+07	0.89	1.16	117 %	25%	150%
ES PCB-104	23.57		0.8226	0.8225	-0.1	2.10E+07	1.55	1.70	75.9 %	25%	150%
ES PCB-105	33.87		1.1820	1.1822	+0.4	2.18E+07	1.56	1.10	123 %	25%	150%
ES PCB-114	33.33		1.1633	1.1635	+0.4	1.97E+07	1.63	1.16	105 %	25%	150%
ES PCB-118	32.88		1.1476	1.1477	+0.2	2.08E+07	1.59	1.15	111 %	25%	150%
ES PCB-123	32.60		1.1378	1.1379	+0.2	1.95E+07	1.58	1.14	106 %	25%	150%
ES PCB-126	36.50		1.2735	1.2741	+1.3	2.20E+07	1.54	1.34	101 %	25%	150%
ES PCB-153	34.49		0.9706	0.9705	-0.2	1.90E+07	1.32	1.14	104 %	25%	150%
ES PCB-155	28.48		0.8019	0.8016	-0.5	2.38E+07	1.27	1.61	91.8 %	25%	150%
ES PCB-156/157	39.06		1.0993	1.0994	+0.2	3.22E+07	1.21	0.98	102 %	25%	150%
ES PCB-167	38.09		1.0720	1.0721	+0.2	1.75E+07	1.29	1.01	108 %	25%	150%
ES PCB-169	41.81		1.1764	1.1767	+0.8	1.33E+07	1.23	0.90	92.3 %	25%	150%
ES PCB-170	41.31		0.9029	0.9030	+0.2	1.26E+07	1.05	1.28	103 %	25%	150%
ES PCB-180	40.26		0.8799	0.8799	0	1.53E+07	1.08	1.54	101 %	25%	150%
ES PCB-188	33.34		0.7291	0.7288	-0.6	2.34E+07	1.06	1.63	89.5 %	25%	150%
ES PCB-189	43.96		0.9609	0.9608	-0.3	1.89E+07	1.06	1.97	108 %	25%	150%
ES PCB-202	37.89		0.8284	0.8283	-0.2	1.95E+07	0.87	1.26	96.1 %	25%	150%
ES PCB-205	46.15		1.0088	1.0088	0	1.07E+07	0.91	1.22	98.1 %	25%	150%
ES PCB-206	47.64		1.0414	1.0414	0	9.02E+06	0.82	1.10	92.2 %	25%	150%
ES PCB-208	43.56		0.9521	0.9521	0	1.31E+07	0.79	1.41	105 %	25%	150%
ES PCB-209	49.03		1.0715	1.0716	+0.3	8.93E+06	1.17	1.24	80.7 %	25%	150%

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
SS PCB-28	21.13		0.9299	0.9299	0	3.11E+07	1.09	1.18	103 %	30%	135%
SS PCB-111	30.95		1.0801	1.0801	0	2.13E+07	1.57	1.01	109 %	30%	135%
SS PCB-178	35.93		1.0110	1.0110	0	1.44E+07	1.03	0.60	102 %	30%	135%
CS PCB-28	21.13		0.9299	0.9299	0	3.11E+07	1.09	1.52	107 %	30%	135%
CS PCB-111	30.95		1.0801	1.0801	0	2.13E+07	1.57	1.15	115 %	30%	135%
CS PCB-178	35.93		1.0110	1.0110	0	1.44E+07	1.03	0.98	91.2 %	30%	135%
JS PCB-9	14.89					3.44E+07	1.64				
JS PCB-52	22.73					1.91E+07	0.79				
JS PCB-101	28.65					1.62E+07	1.51				
JS PCB-138	35.53					1.61E+07	1.29				
JS PCB-194	45.75					8.89E+06	0.89				

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



SGS-AP ID: A4995_10495_PCB_002 Sample ID: AQ-SS-10-10 Acq: 03-Jan-2013 21:46:11
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32 User: CEM Datafile: 130103V07 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 6755, 5485 scc: 151-460 *Revised: 04-Jan-2013 13:22 (CEM) Printed: 04-Jan-2013 14:00 Page 2 of 22*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 5398, 8116 scc: 151-460 *Revised: 04-Jan-2013 13:16 (CEM) Printed: 04-Jan-2013 14:00 Page 3 of 22*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
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Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
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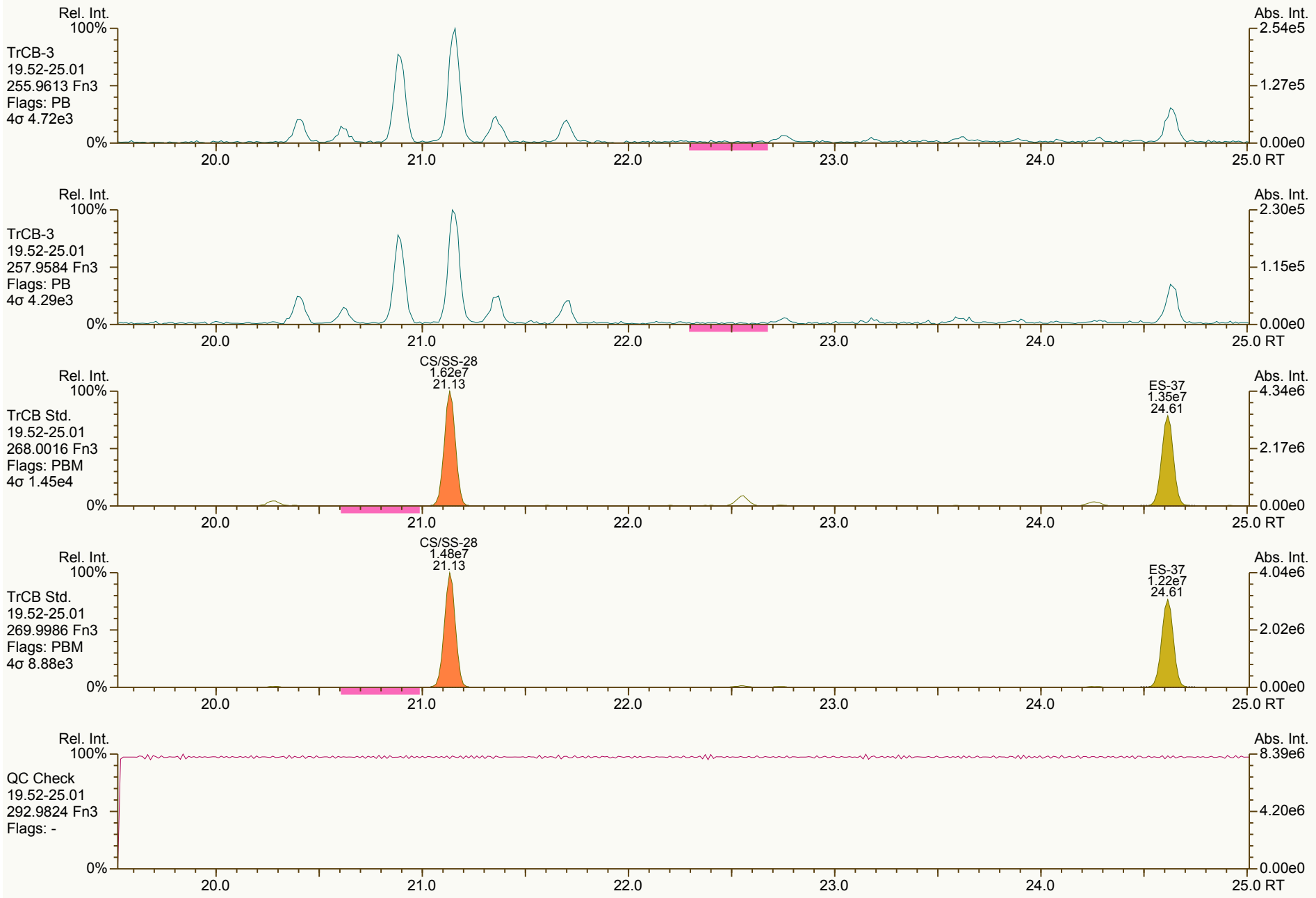

SGS-AP ID: A4995_10495_PCB_002 Sample ID: AQ-SS-10-10 Acq: 03-Jan-2013 21:46:11
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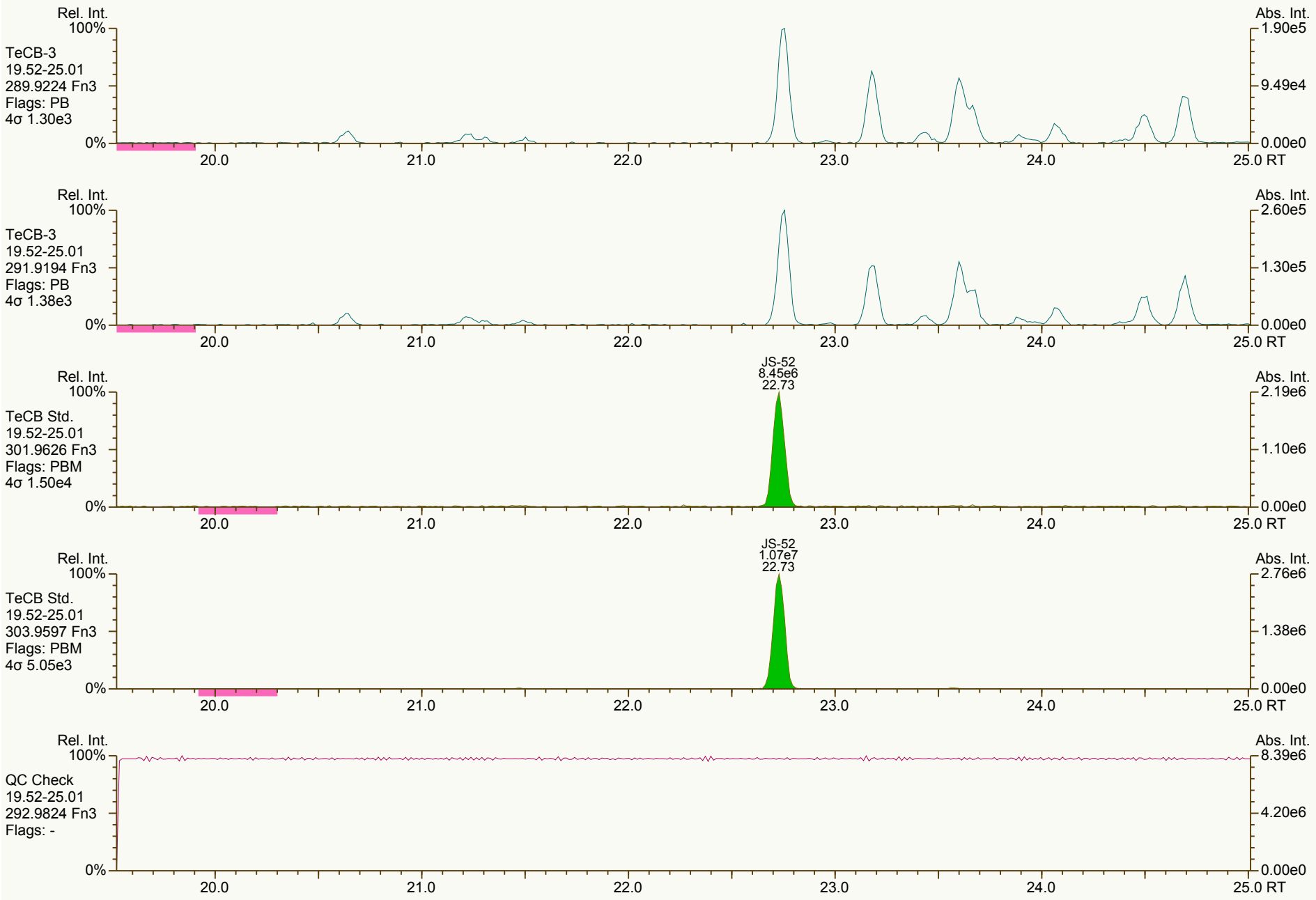
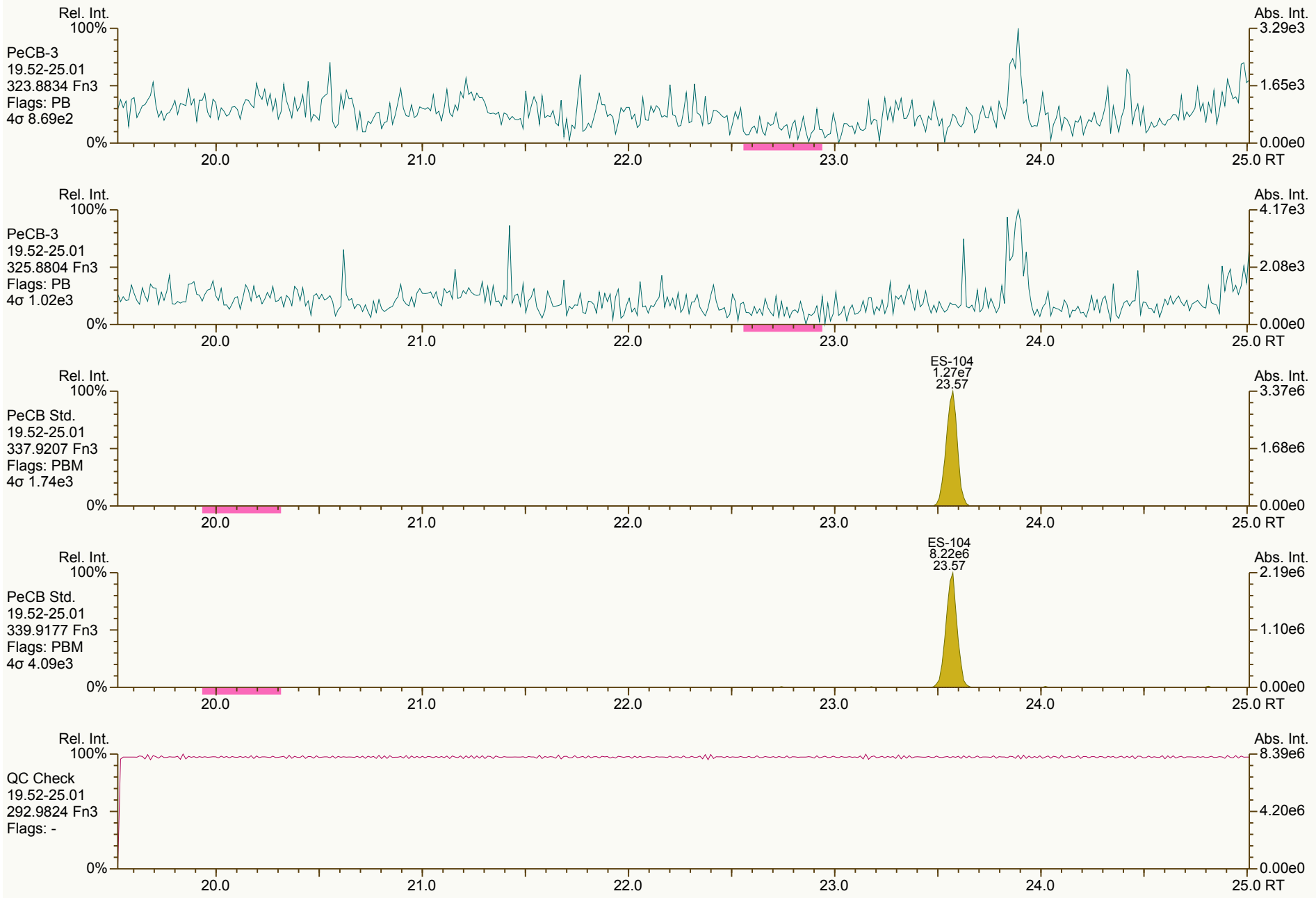


Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 2227, 7175 scc: 151-460 *Revised: 04-Jan-2013 13:16 (CEM) Printed: 04-Jan-2013 14:00 Page 8 of 22*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



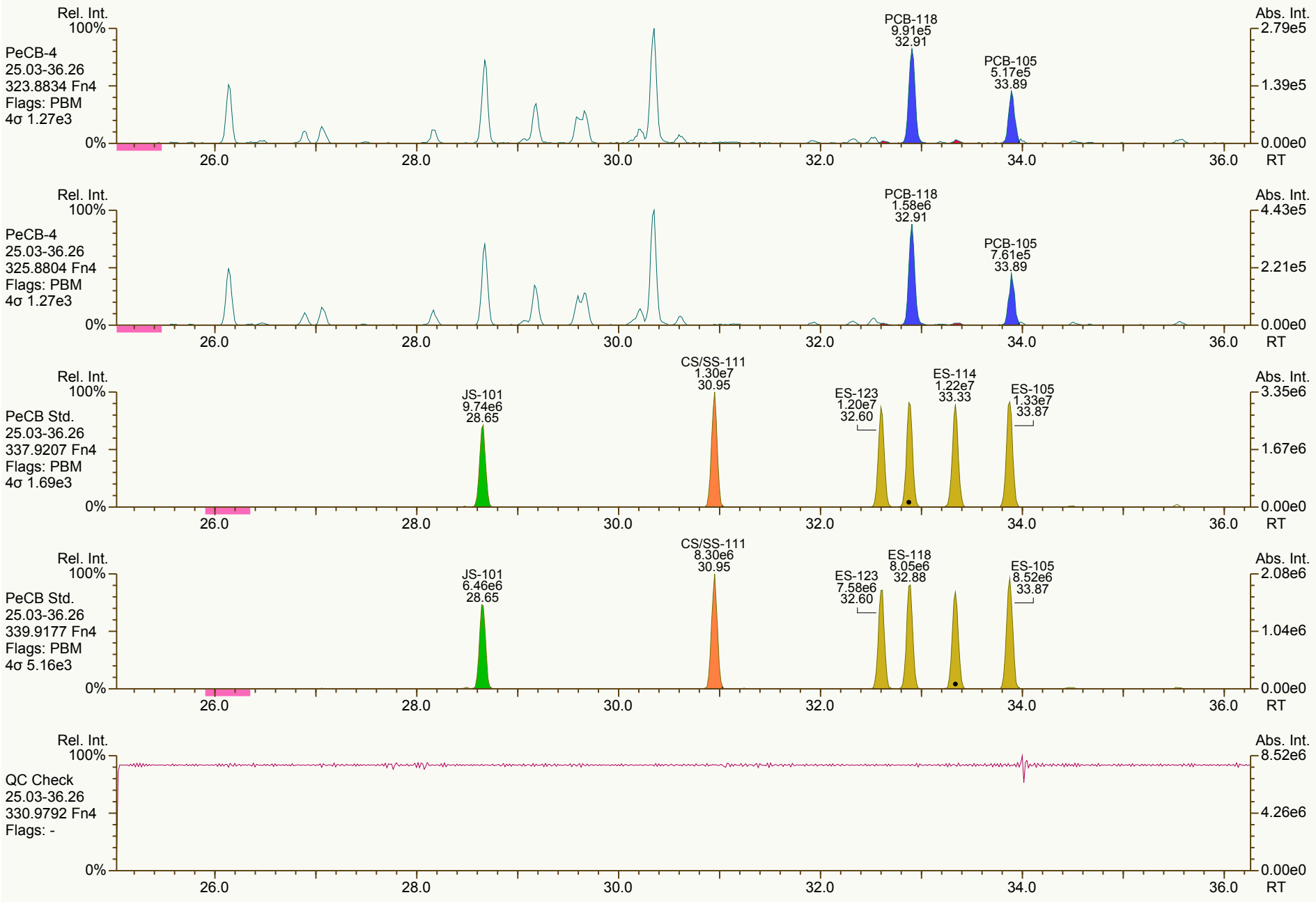
SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 8367, 6024 scc: 151-460 *Revised: 04-Jan-2013 13:16 (CEM) Printed: 04-Jan-2013 14:00 Page 10 of 22*

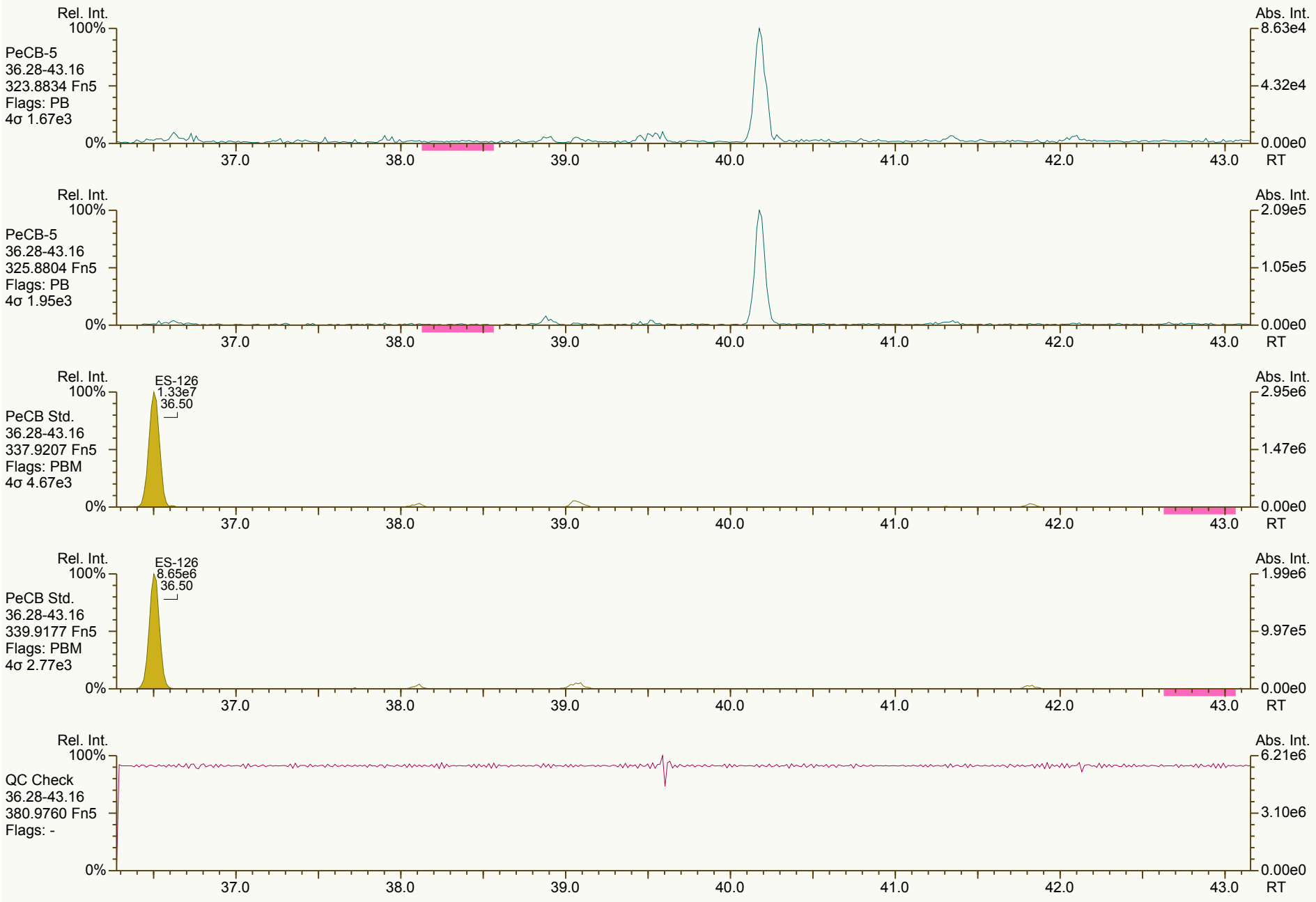
SGS-AP ID: A4995_10495_PCB_002 Sample ID: AQ-SS-10-10 Acq: 03-Jan-2013 21:46:11
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32 User: CEM Datafile: 130103V07 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 5429, 6529 scc: 151-460 *Revised: 04-Jan-2013 13:22 (CEM) Printed: 04-Jan-2013 14:00 Page 11 of 22*

SGS-AP ID: A4995_10495_PCB_002 Sample ID: AQ-SS-10-10 Acq: 03-Jan-2013 21:46:11
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32 User: CEM Datafile: 130103V07 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 8223, 0206 scc: 151-460 *Revised: 04-Jan-2013 13:21 (CEM) Printed: 04-Jan-2013 14:00 Page 12 of 22*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 8501, 1146 scc: 151-460 *Revised: 04-Jan-2013 13:16 (CEM) Printed: 04-Jan-2013 14:00 Page 13 of 22*

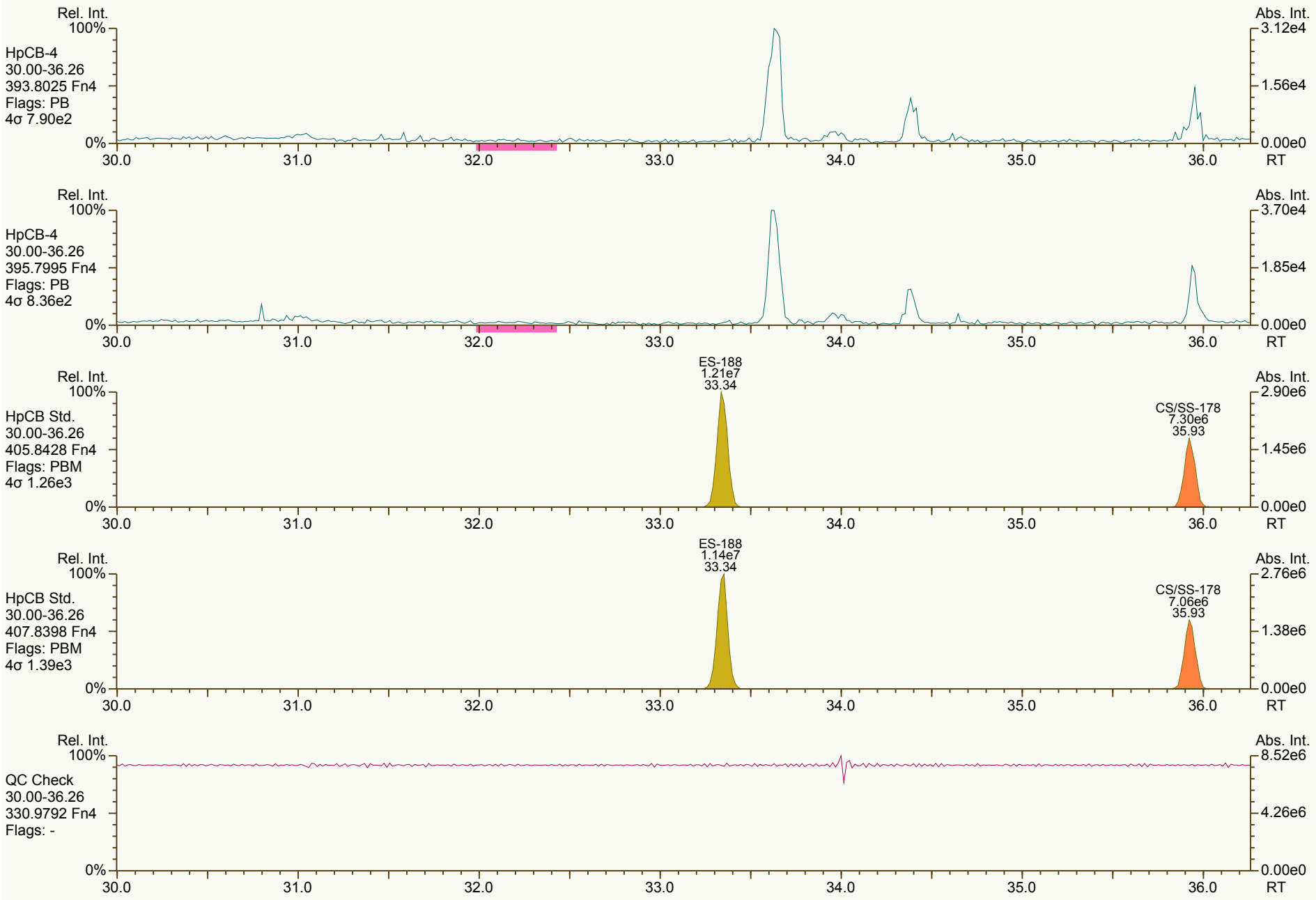
SGS-AP ID: A4995_10495_PCB_002 Sample ID: AQ-SS-10-10 Acq: 03-Jan-2013 21:46:11
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32 User: CEM Datafile: 130103V07 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 7680, 6521 scc: 151-460 *Revised: 04-Jan-2013 13:23 (CEM) Printed: 04-Jan-2013 14:00 Page 14 of 22*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9527, 9476 scc: 151-460 *Revised: 04-Jan-2013 13:16 (CEM) Printed: 04-Jan-2013 14:00 Page 15 of 22*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



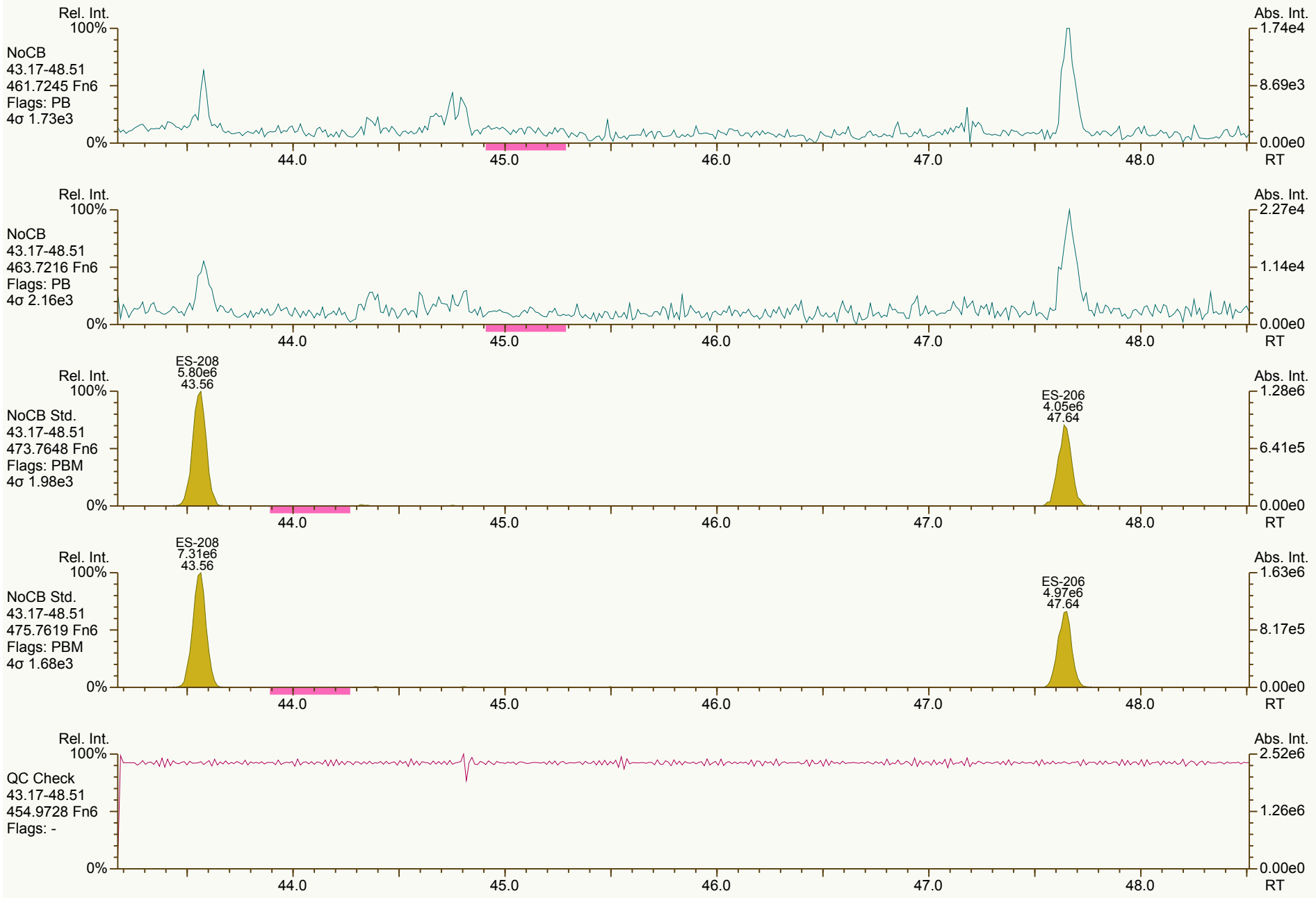
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



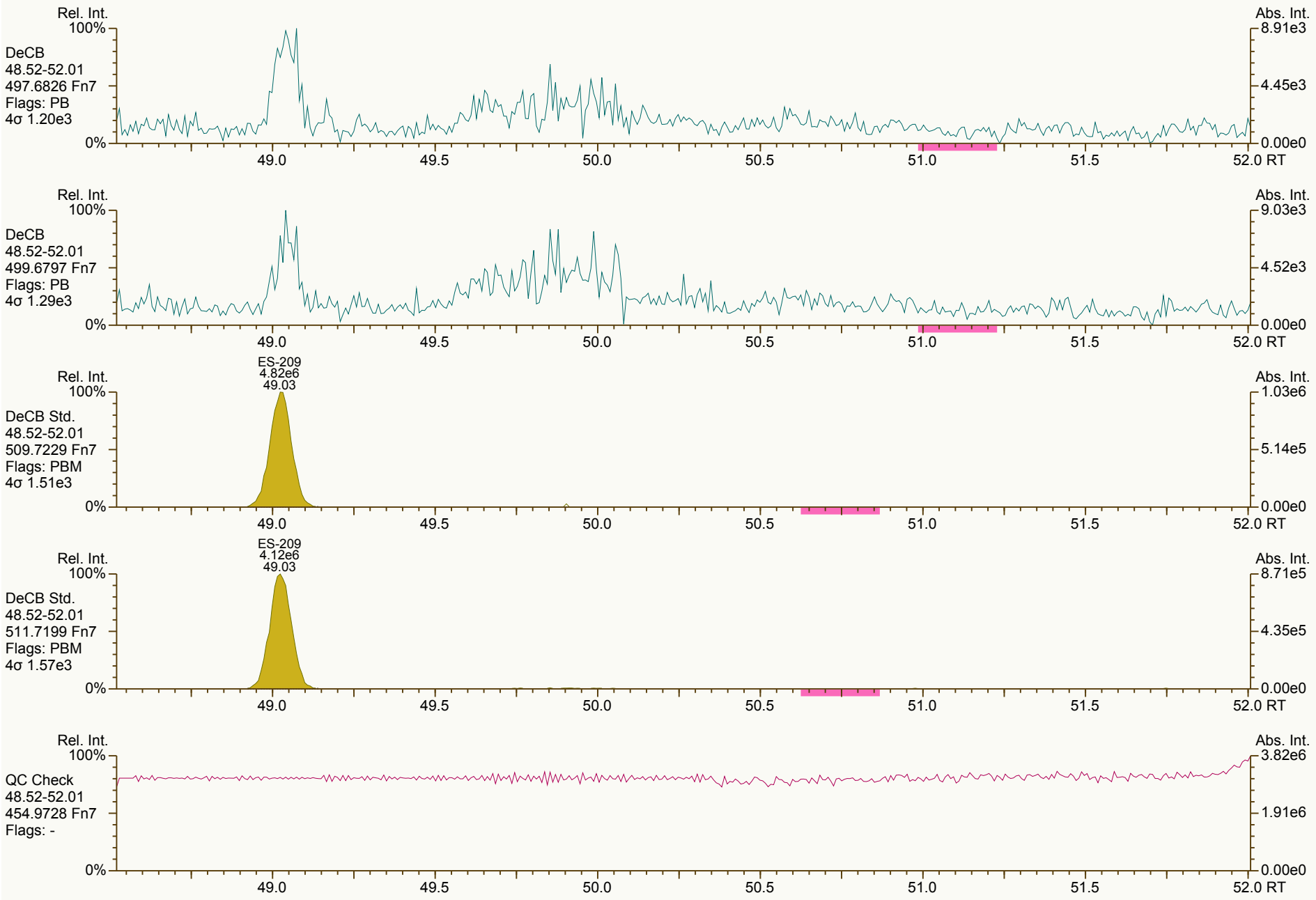
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1967, 5567 scc: 151-460 *Revised: 04-Jan-2013 13:16 (CEM) Printed: 04-Jan-2013 14:01 Page 19 of 22*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



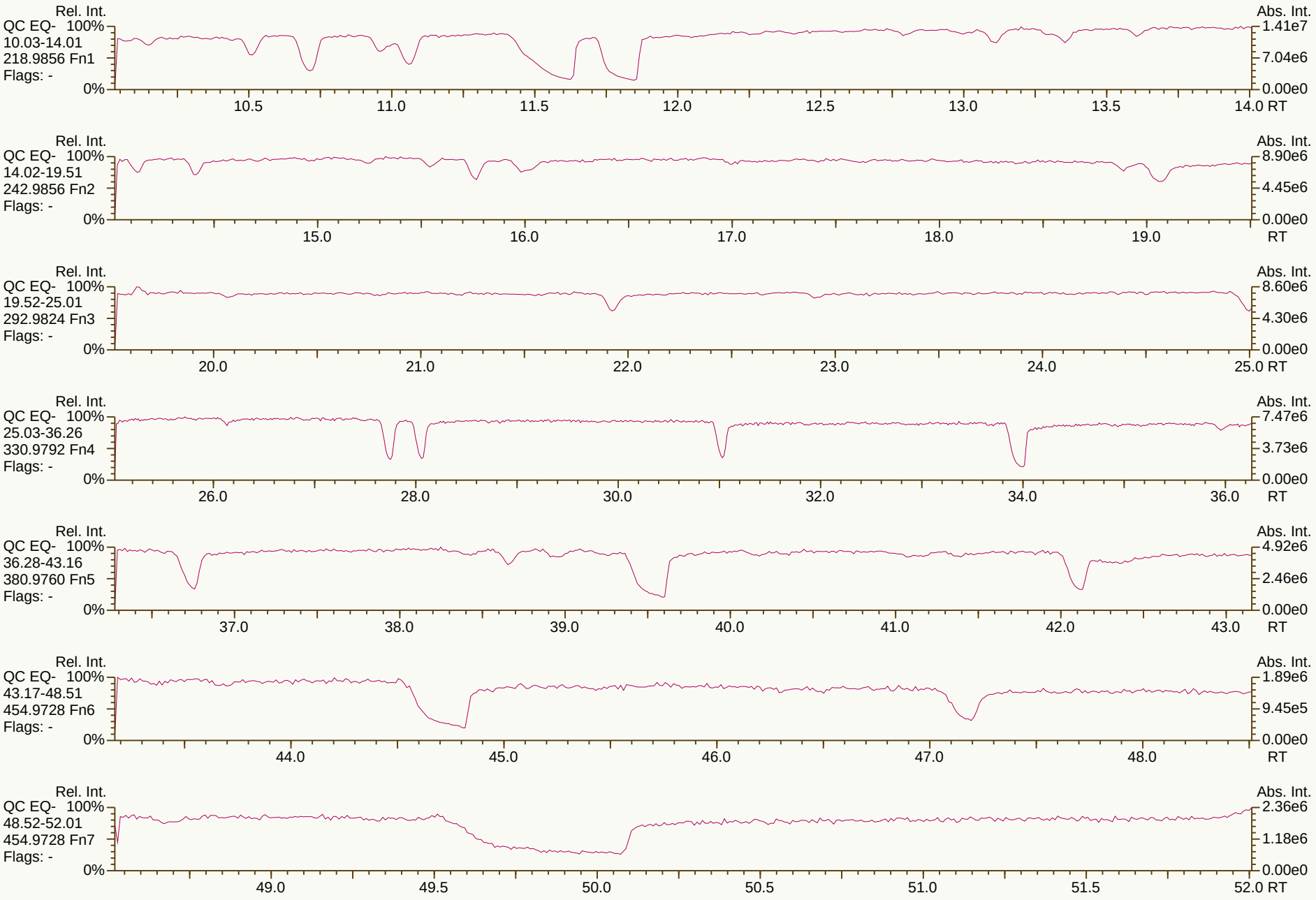
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 8971, 5078 scc: 151-460 *Revised: 04-Jan-2013 13:16 (CEM) Printed: 04-Jan-2013 14:01 Page 21 of 22*

SGS-AP ID: A4995_10495_PCB_002 **Sample ID: AQ-SS-10-10** **Acq: 03-Jan-2013 21:46:11**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130103V07 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_002.utp_res, saved 04-Jan-2013 13:23 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U scc: 151-460 *Revised: 04-Jan-2013 13:16 (CEM) Printed: 04-Jan-2013 14:01 Page 22 of 22*

Lab ID: A4995_10495_PCB_003 | **ACQ:** 03-Jan-2013 22:41:19 CEM | **Wt/Vol:** 10.23 g | **ICAL:** MM6_PCB_07132012_14DEC12 CS3_130103_PCB_VA

Client ID: AQ-SS-09-10 | **UTP:** 04-Jan-2013 14:03 CEM | **J-level:** 0.978 pg/g **Split:** 1 | **Checkcode:** 529-183-SHJ

Datafile: 130103V08 (EQ) | **RPT:** 04-Jan-2013 14:54 CM | **Stds (pg):** JS: 2000 ES: 2000 CS/SS: 2000 | **Method** HR-PCB

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
PCB-77 33'44'-TeCB	31.08		1.0006	1.0005	-0.2	1.15E+08	0.77	1.25	1,380	1.03E+05	23.4
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.26	ND	1.03E+05	20.3
PCB-105 233'44'-PeCB	34.09	E	1.0007	1.0007	0	9.17E+08	0.63	1.06	17,500	5.11E+03	1.65
PCB-114 2344'5-PeCB	33.55		1.0008	1.0007	-0.2	6.76E+07	0.62	1.11	1,280	5.11E+03	1.55
PCB-118 23'44'5-PeCB	33.10	E	1.0008	1.0007	-0.2	2.91E+09	0.63	1.08	48,200	5.11E+03	1.47
PCB-123 23'44'5'-PeCB	NotFnd		1.0006	-		0.00E+00		1.12	ND	5.11E+03	1.48
PCB-126 33'44'5-PeCB	36.70	EMPC	1.0006	0.9996	-2.2	2.65E+06	0.74	1.16	47.5	2.89E+04	7.51
PCB-156/157 ...-HxCB	39.29	E C	1.0005	1.0002	-0.7	3.87E+08	1.26	1.14	10,200	2.75E+04	12
PCB-167 23'44'55'-HxCB	38.33		1.0005	1.0005	0	1.24E+08	1.25	1.18	2,760	2.75E+04	8.73
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.15	ND	2.75E+04	14
PCB-189 233'44'55'-HpCB	44.18		1.0004	1.0004	0	1.79E+07	1.05	1.12	462	1.36E+04	3.82
PCB-209 DeCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	3.85E+03	2.61
ES PCB-1	10.73		0.7199	0.7197	-0.1	1.63E+07	3.27	0.97	78.6 %	25%	150%
ES PCB-3	12.82		0.8600	0.8598	-0.2	1.64E+07	3.32	0.90	84.9 %	25%	150%
ES PCB-4	13.05		0.8753	0.8751	-0.2	1.18E+07	1.54	0.70	78.5 %	25%	150%
ES PCB-15	18.48		1.2382	1.2391	+1.0	2.33E+07	1.66	1.02	107 %	25%	150%
ES PCB-19	15.94		1.0690	1.0690	0	9.66E+06	1.05	0.53	85.7 %	25%	150%
ES PCB-37	24.72		1.0830	1.0831	+0.1	1.60E+07	1.09	1.29	94.7 %	25%	150%
ES PCB-54	18.74		0.8228	0.8210	-2.0	1.30E+07	0.78	1.43	70 %	25%	150%
ES PCB-77	31.06		1.3590	1.3611	+3.9	1.30E+07	0.88	1.20	83.1 %	25%	150%
ES PCB-81	30.59		1.3382	1.3404	+4.0	1.37E+07	0.81	1.16	90.5 %	25%	150%
ES PCB-104	23.66		0.8226	0.8217	-1.3	1.30E+07	1.48	1.70	79.7 %	25%	150%
ES PCB-105	34.06		1.1820	1.1831	+2.2	9.72E+06	1.51	1.10	92.6 %	25%	150%
ES PCB-114	33.53		1.1633	1.1645	+2.4	9.31E+06	1.55	1.16	84.2 %	25%	150%
ES PCB-118	33.08		1.1476	1.1489	+2.6	1.09E+07	1.50	1.15	99 %	25%	150%
ES PCB-123	32.79		1.1378	1.1388	+2.0	9.91E+06	1.65	1.14	90.9 %	25%	150%
ES PCB-126	36.72		1.2735	1.2753	+4.0	9.43E+06	1.61	1.34	73.7 %	25%	150%
ES PCB-153	34.69		0.9706	0.9706	0	9.58E+06	1.28	1.14	92.9 %	25%	150%
ES PCB-155	28.61		0.8019	0.8005	-2.4	1.27E+07	1.30	1.61	86.7 %	25%	150%
ES PCB-156/157	39.28		1.0993	1.0990	-0.7	1.31E+07	1.31	0.98	73.8 %	25%	150%
ES PCB-167	38.31		1.0720	1.0721	+0.2	7.45E+06	1.22	1.01	81.6 %	25%	150%
ES PCB-169	42.03		1.1764	1.1761	-0.8	4.60E+06	1.19	0.90	56.7 %	25%	150%
ES PCB-170	41.51		0.9029	0.9039	+2.5	4.87E+06	1.03	1.28	115 %	25%	150%
ES PCB-180	40.46		0.8799	0.8811	+2.9	6.42E+06	1.00	1.54	122 %	25%	150%
ES PCB-188	33.52		0.7291	0.7299	+1.6	1.14E+07	1.00	1.63	77.7 %	25%	150%
ES PCB-189	44.16		0.9609	0.9616	+1.9	6.80E+06	1.07	1.97	112 %	25%	150%
ES PCB-202	38.09		0.8284	0.8293	+2.1	8.56E+06	0.92	1.26	75 %	25%	150%
ES PCB-205	46.32		1.0088	1.0086	-0.6	3.32E+06	0.89	1.22	87.7 %	25%	150%
ES PCB-206	47.79		1.0414	1.0406	-2.3	2.69E+06	0.79	1.10	79.2 %	25%	150%
ES PCB-208	43.74		0.9521	0.9524	+0.8	5.04E+06	0.77	1.41	116 %	25%	150%
ES PCB-209	49.15		1.0715	1.0703	-3.5	2.95E+06	1.19	1.24	76.7 %	25%	150%

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
SS PCB-28	21.21		0.9299	0.9293	-0.8	1.97E+07	1.11	1.18	105 %	30%	135%
SS PCB-111	31.12		1.0801	1.0810	+1.7	1.01E+07	1.49	1.01	101 %	30%	135%
SS PCB-178	36.12		1.0110	1.0106	-0.9	7.07E+06	1.00	0.60	103 %	30%	135%
CS PCB-28	21.21		0.9299	0.9293	-0.8	1.97E+07	1.11	1.52	99.3 %	30%	135%
CS PCB-111	31.12		1.0801	1.0810	+1.7	1.01E+07	1.49	1.15	92 %	30%	135%
CS PCB-178	36.12		1.0110	1.0106	-0.9	7.07E+06	1.00	0.98	79.9 %	30%	135%
JS PCB-9	14.91					2.14E+07	1.63				
JS PCB-52	22.82					1.30E+07	0.82				
JS PCB-101	28.79					9.55E+06	1.49				
JS PCB-138	35.74					9.04E+06	1.18				
JS PCB-194	45.93					3.09E+06	0.90				

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**

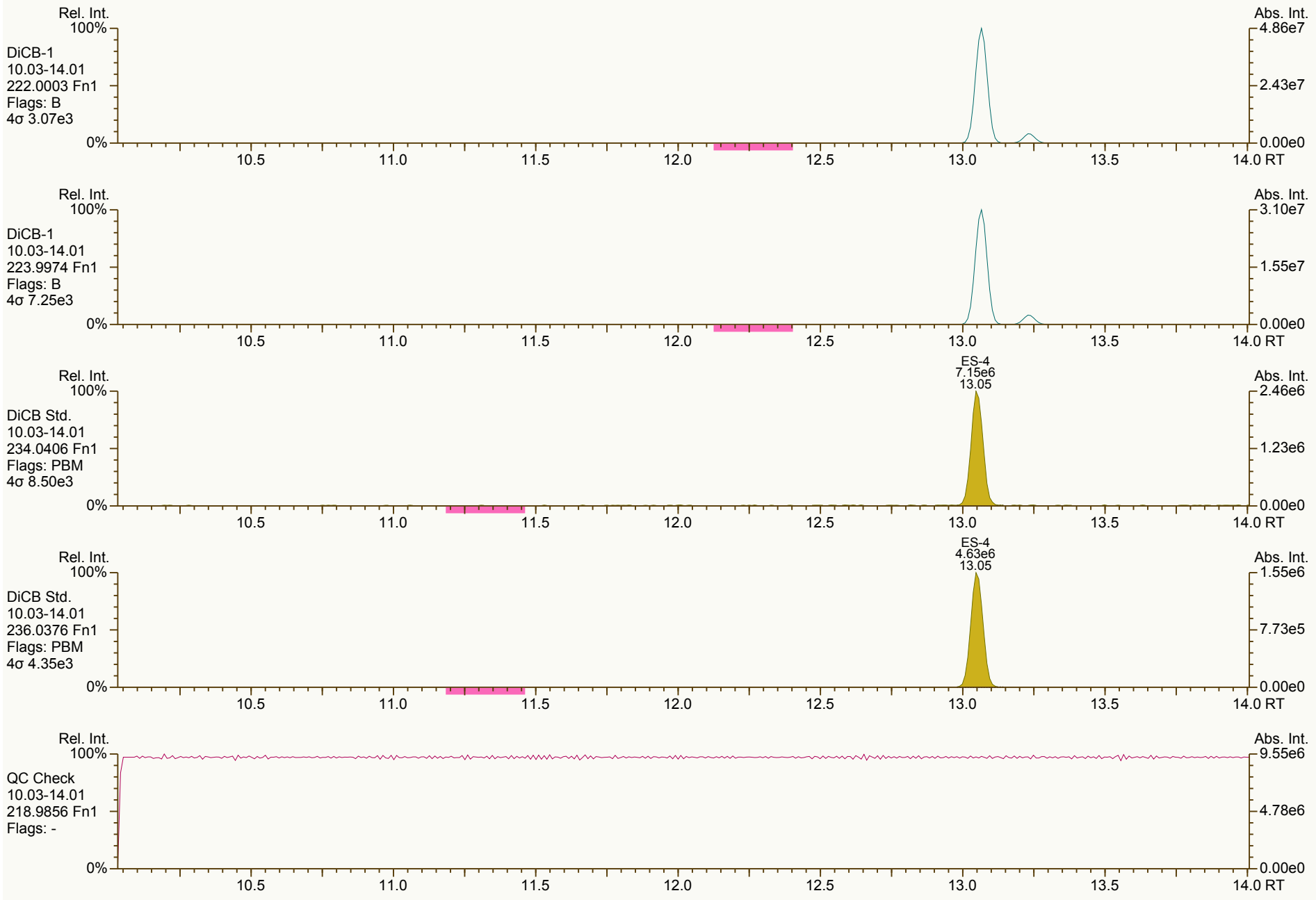


SGS-AP ID: A4995_10495_PCB_003 Sample ID: AQ-SS-09-10 Acq: 03-Jan-2013 22:41:19
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33 User: CEM Datafile: 130103V08 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
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Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
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Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
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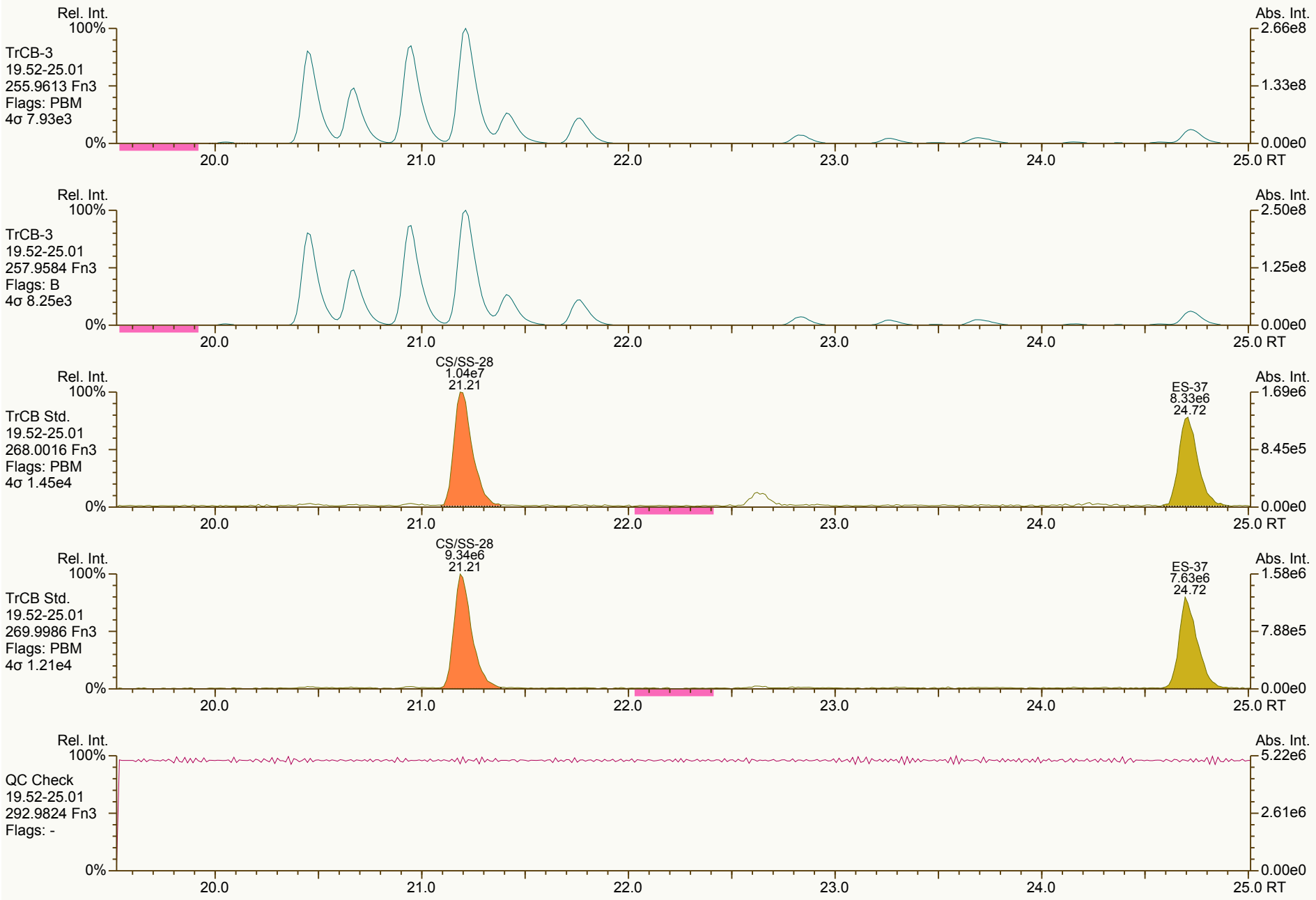


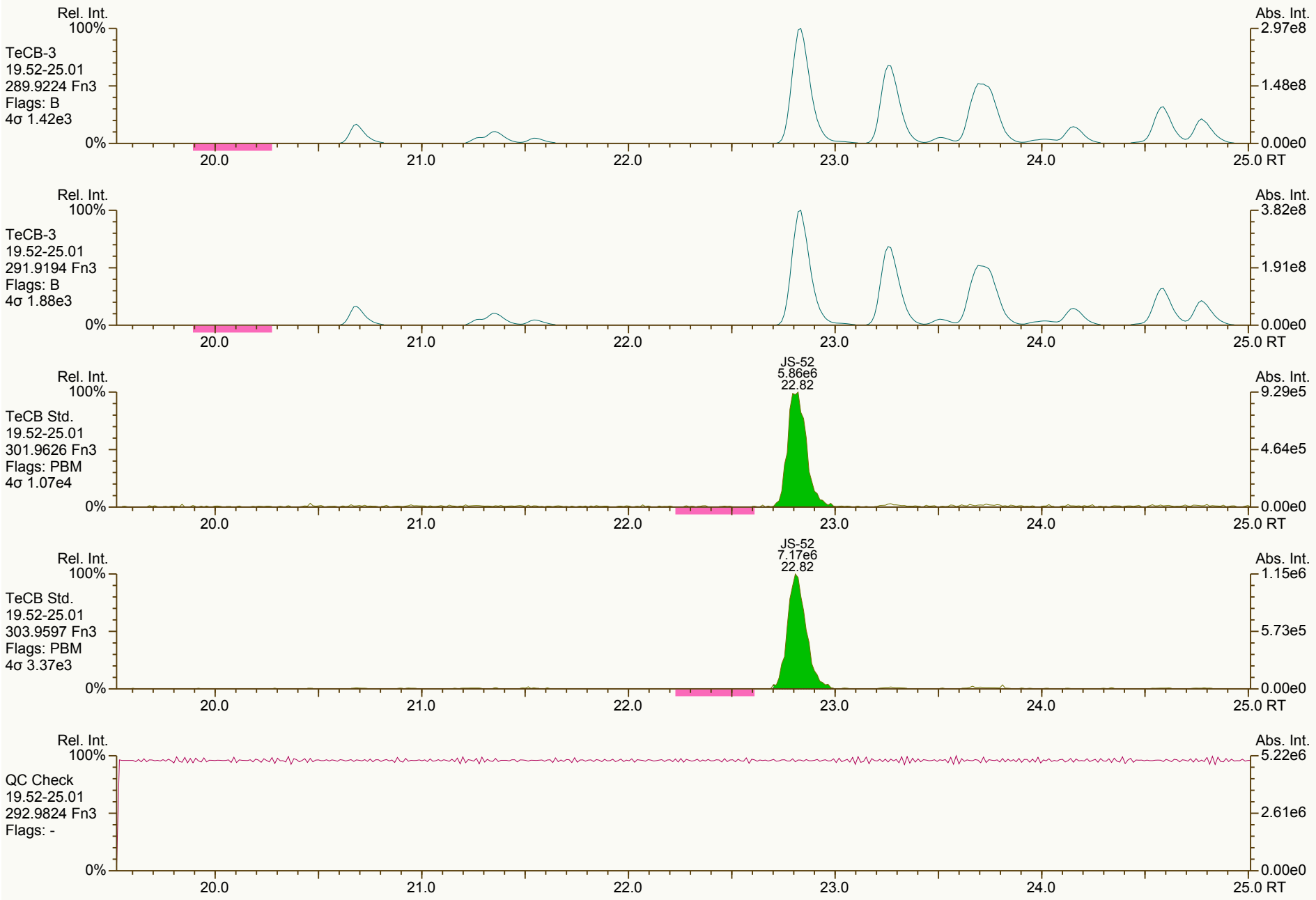
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 7820, 6720 scc: 529-183 *Revised: 04-Jan-2013 13:46 (CEM) Printed: 04-Jan-2013 14:04 Page 6 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



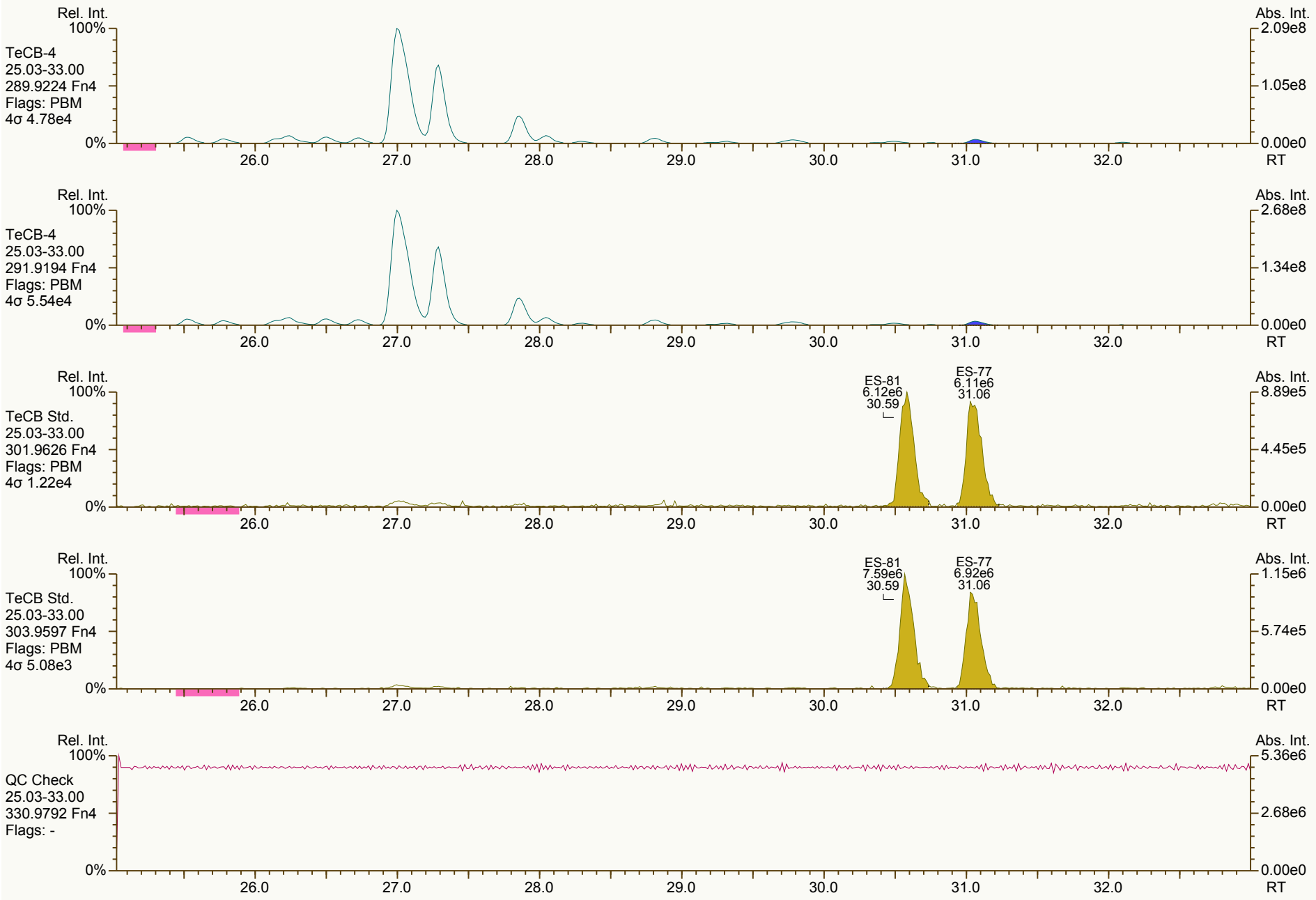
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1618, 8941 scc: 529-183 *Revised: 04-Jan-2013 13:46 (CEM) Printed: 04-Jan-2013 14:04 Page 7 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 3994, 7006 scc: 529-183 *Revised: 04-Jan-2013 13:46 (CEM) Printed: 04-Jan-2013 14:04 Page 8 of 22*

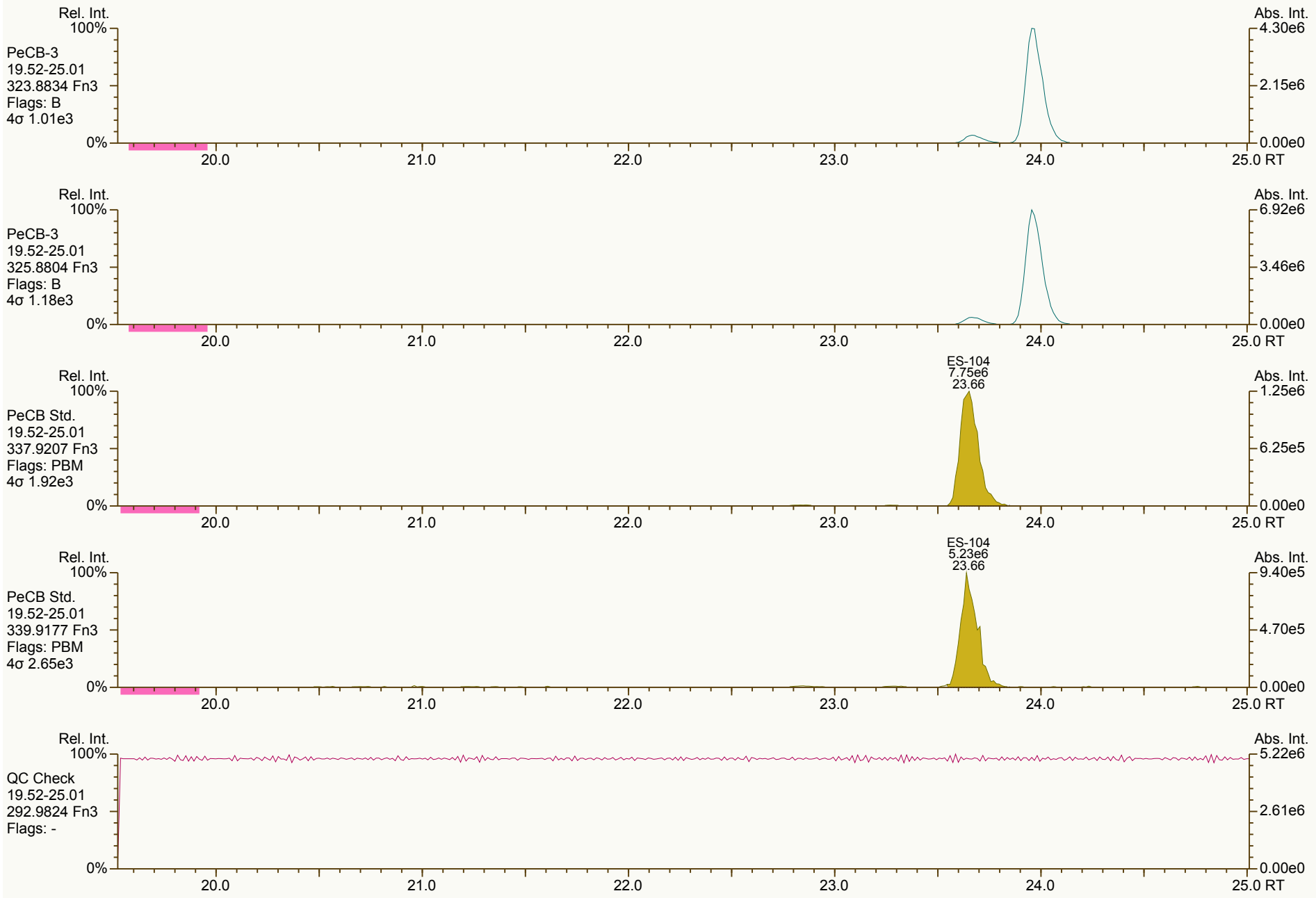
SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 4952, 5874 scc: 529-183 *Revised: 04-Jan-2013 14:03 (CEM) Printed: 04-Jan-2013 14:04 Page 9 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



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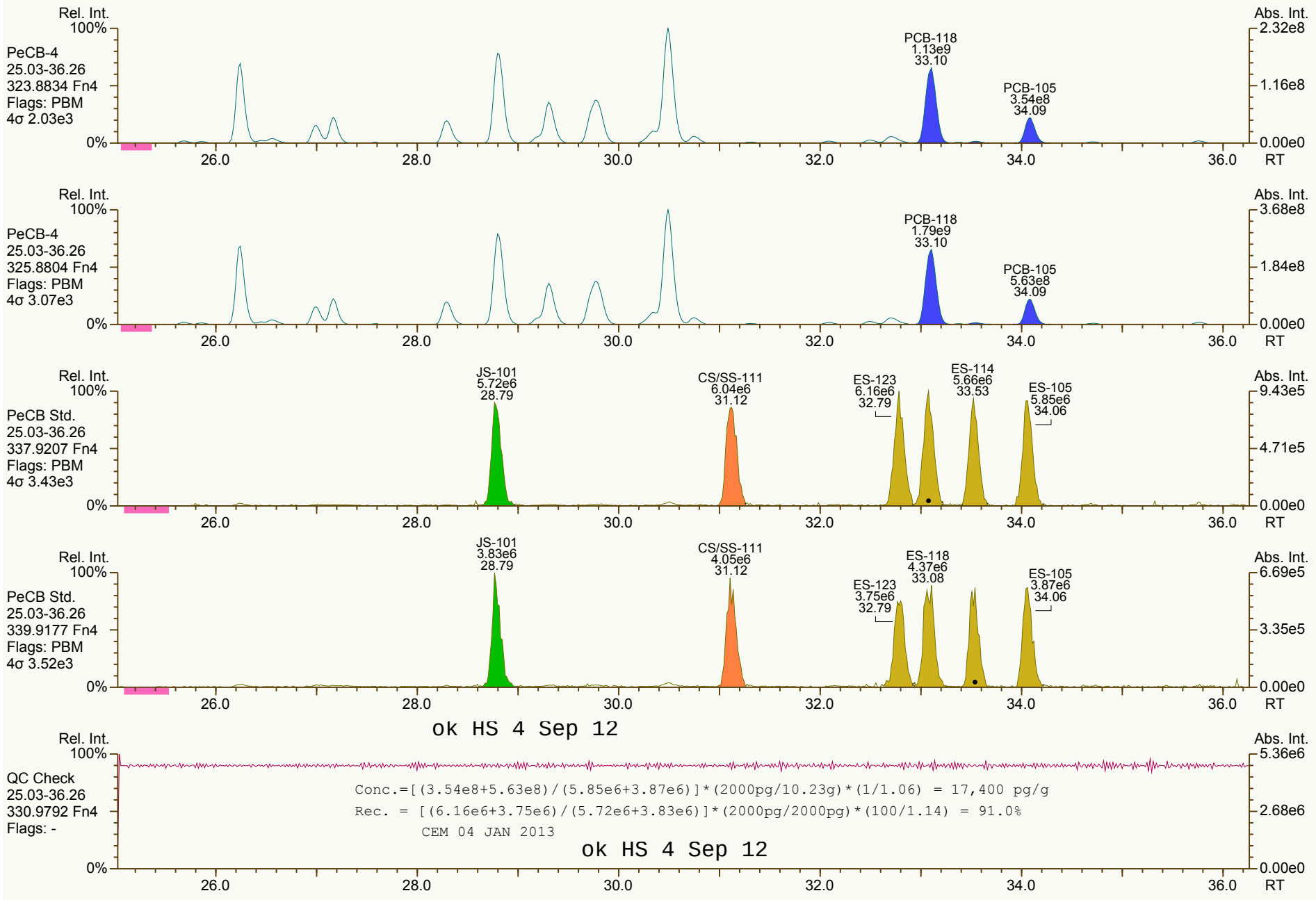
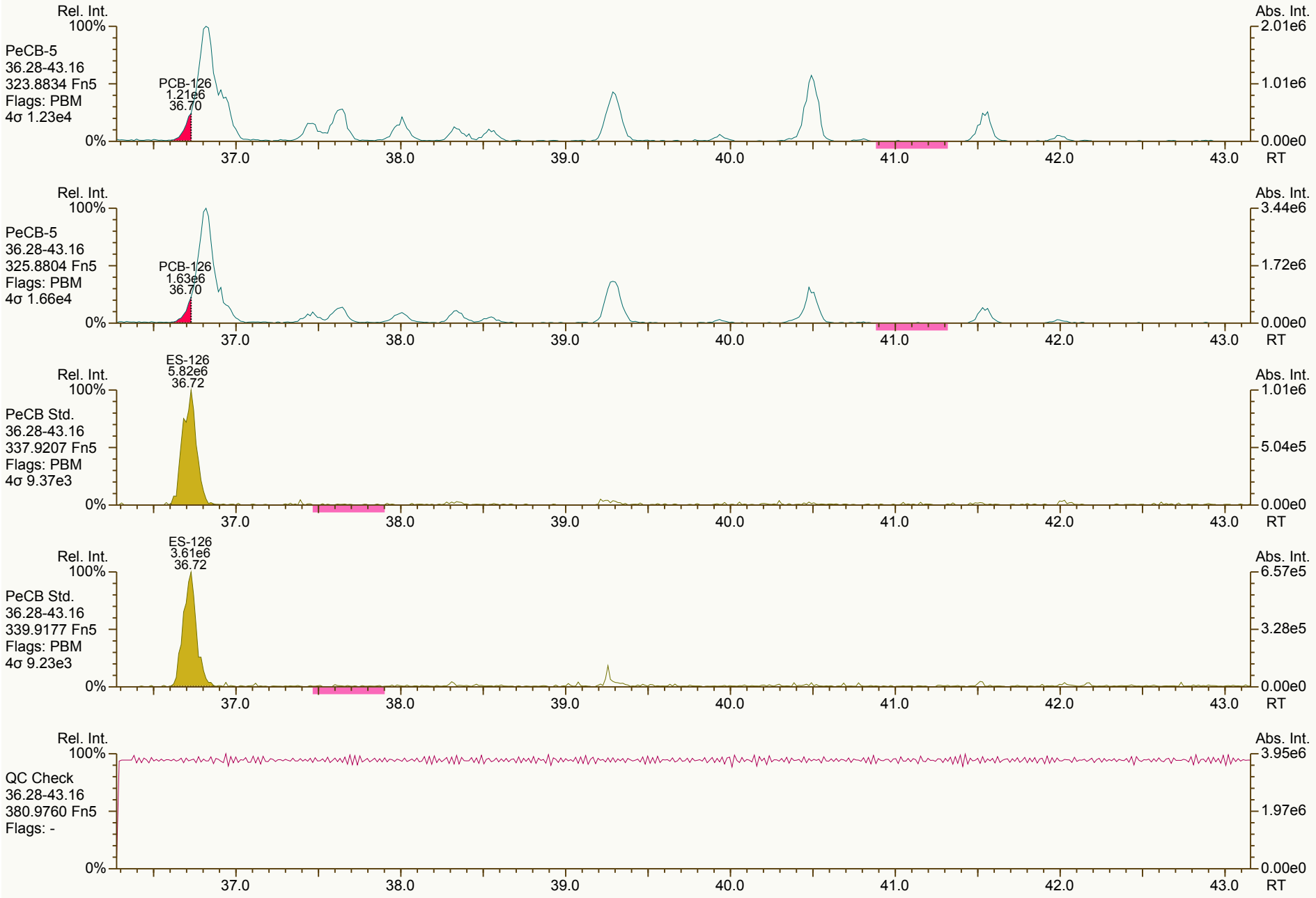
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 0279, 9130 scc: 529-183 *Revised: 04-Jan-2013 13:47 (CEM) Printed: 04-Jan-2013 14:04 Page 10 of 22*

SGS-AP ID: A4995_10495_PCB_003 Sample ID: AQ-SS-09-10 Acq: 03-Jan-2013 22:41:19
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33 User: CEM Datafile: 130103V08 (EQ)



SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 7350, 7242 scc: 529-183 *Revised: 04-Jan-2013 13:51 (CEM) Printed: 04-Jan-2013 14:04 Page 12 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



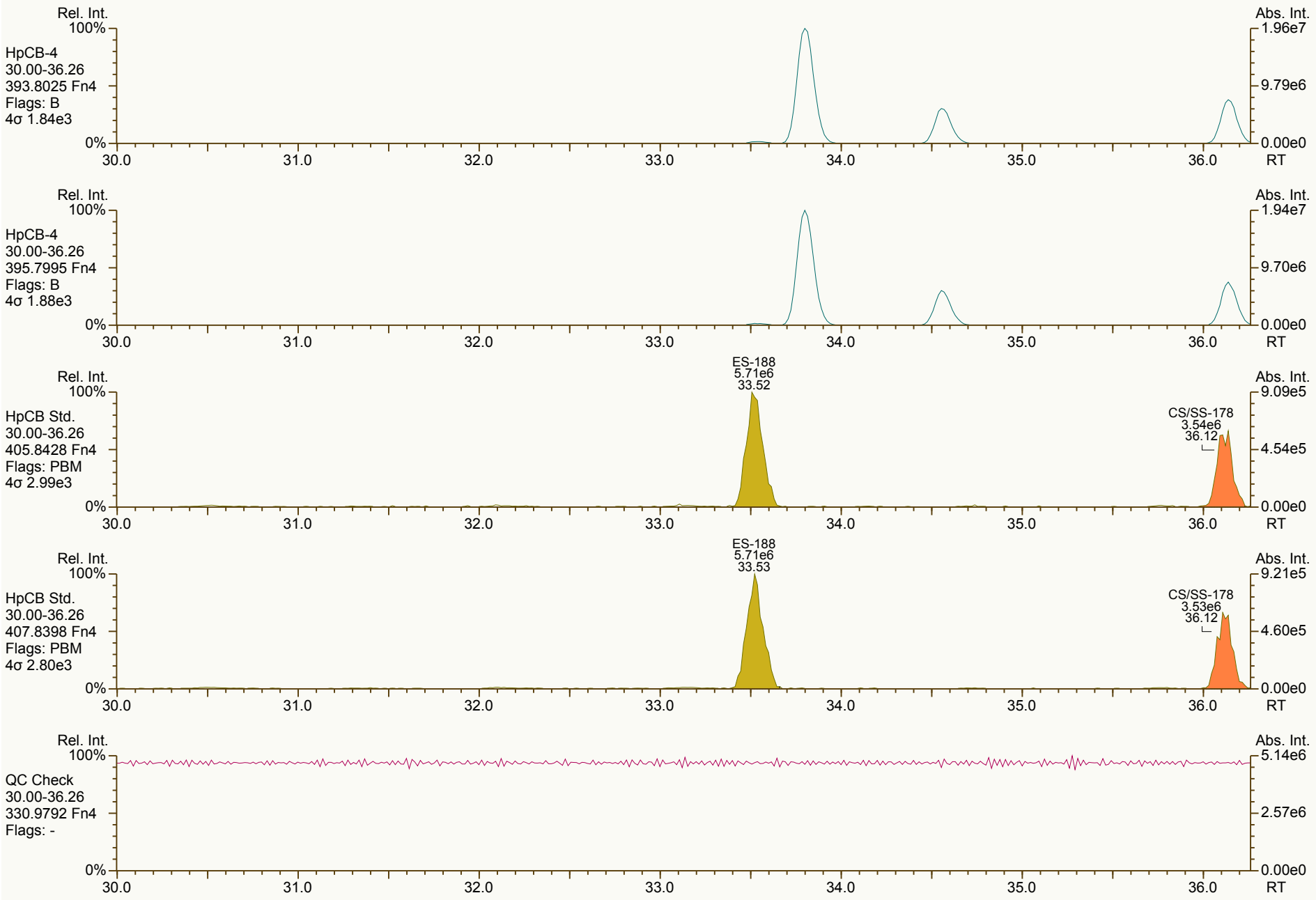
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 2346, 1686 scc: 529-183 *Revised: 04-Jan-2013 13:49 (CEM) Printed: 04-Jan-2013 14:04 Page 13 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 0062, 6612 scc: 529-183 *Revised: 04-Jan-2013 13:49 (CEM) Printed: 04-Jan-2013 14:04 Page 14 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



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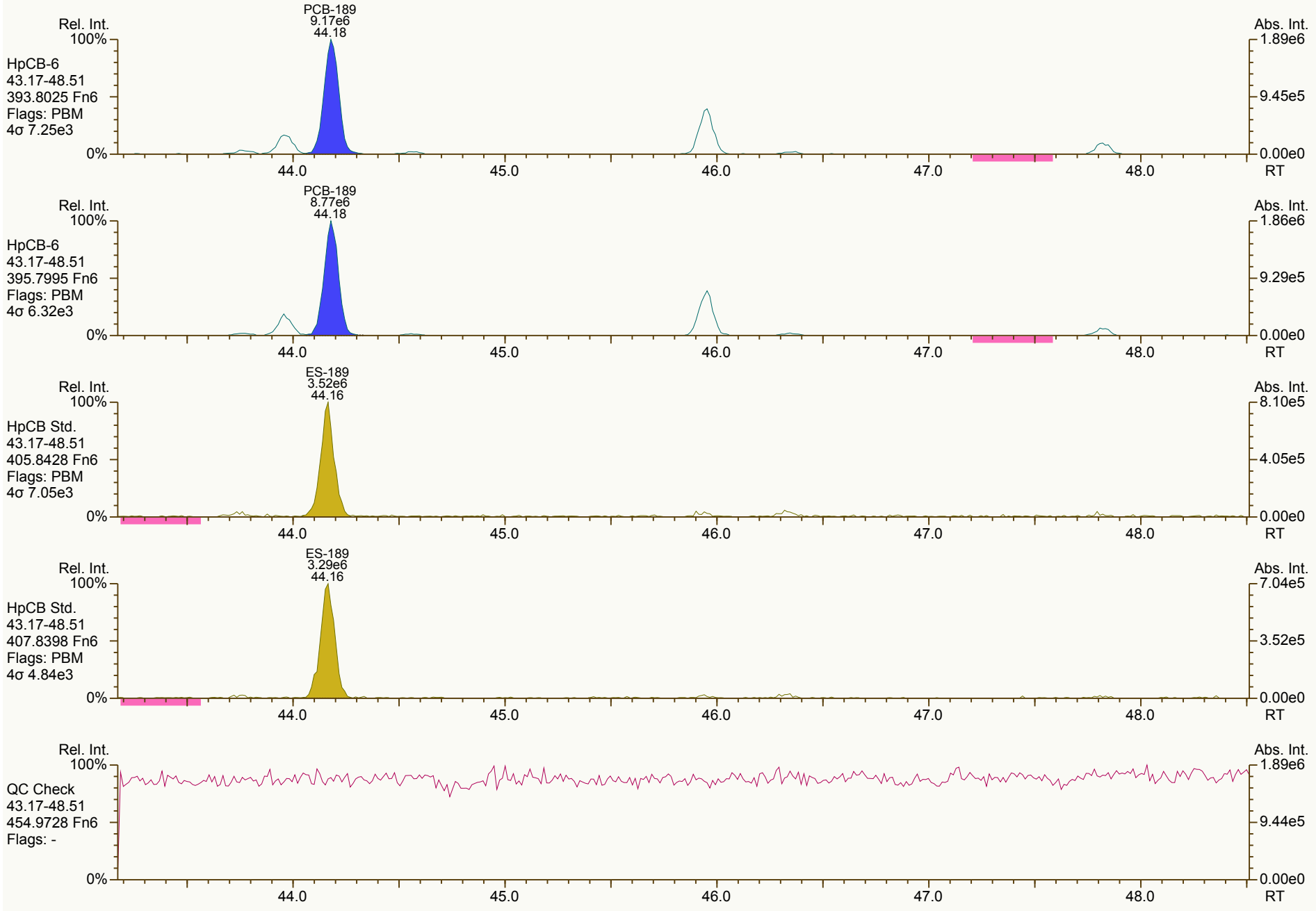
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1089, 9918 scc: 529-183 *Revised: 04-Jan-2013 13:50 (CEM) Printed: 04-Jan-2013 14:04 Page 15 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9156, 6012 scc: 529-183 *Revised: 04-Jan-2013 13:50 (CEM) Printed: 04-Jan-2013 14:04 Page 16 of 22*

SGS-AP ID: A4995_10495_PCB_003 Sample ID: AQ-SS-09-10 Acq: 03-Jan-2013 22:41:19
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33 User: CEM Datafile: 130103V08 (EQ)

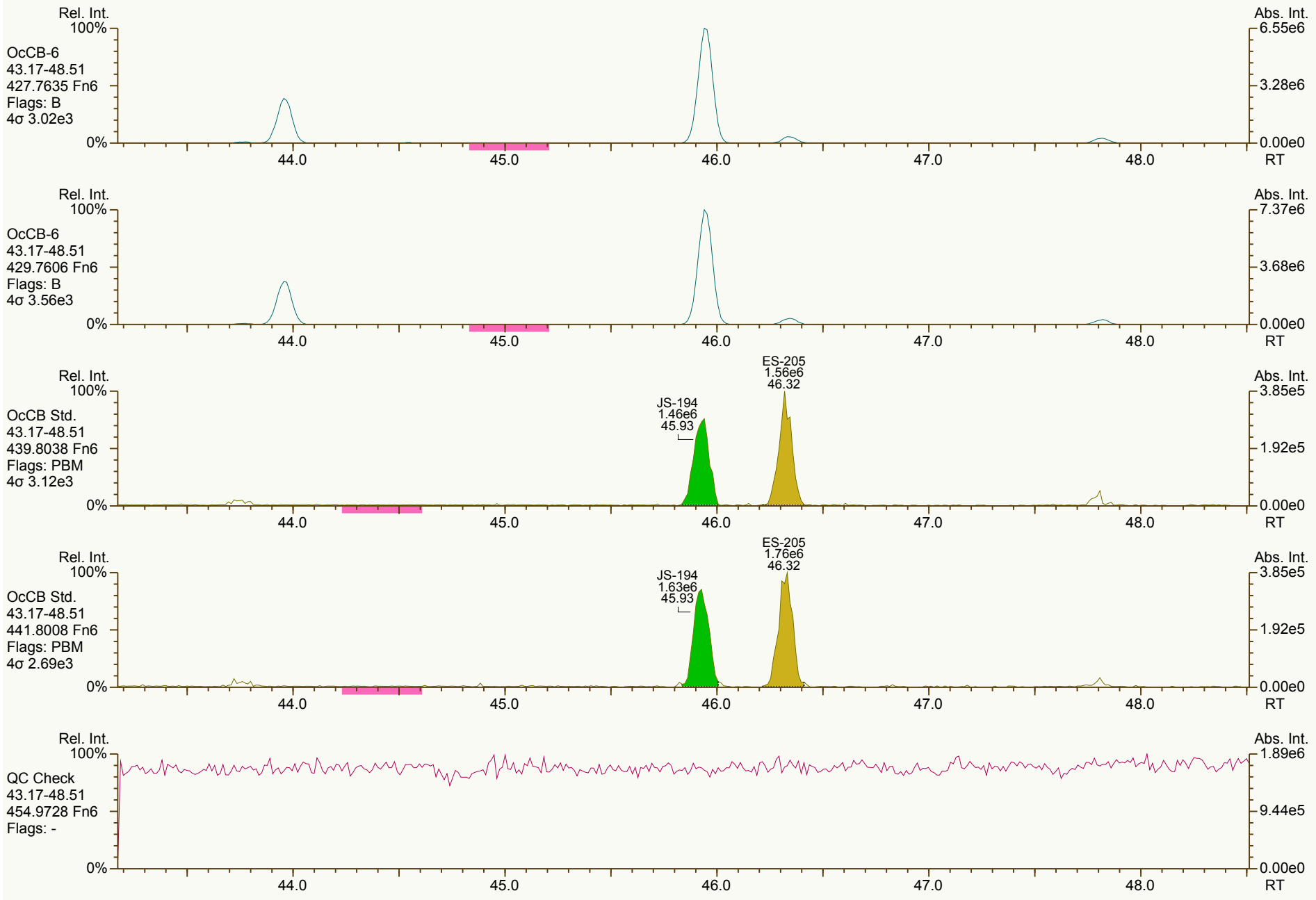


SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 5813, 5396 scc: 529-183 *Revised: 04-Jan-2013 13:50 (CEM) Printed: 04-Jan-2013 14:04 Page 18 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 4710, 6214 scc: 529-183 *Revised: 04-Jan-2013 13:50 (CEM) Printed: 04-Jan-2013 14:04 Page 19 of 22*

SGS-AP ID: A4995_10495_PCB_003 Sample ID: AQ-SS-09-10 Acq: 03-Jan-2013 22:41:19
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33 User: CEM Datafile: 130103V08 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*

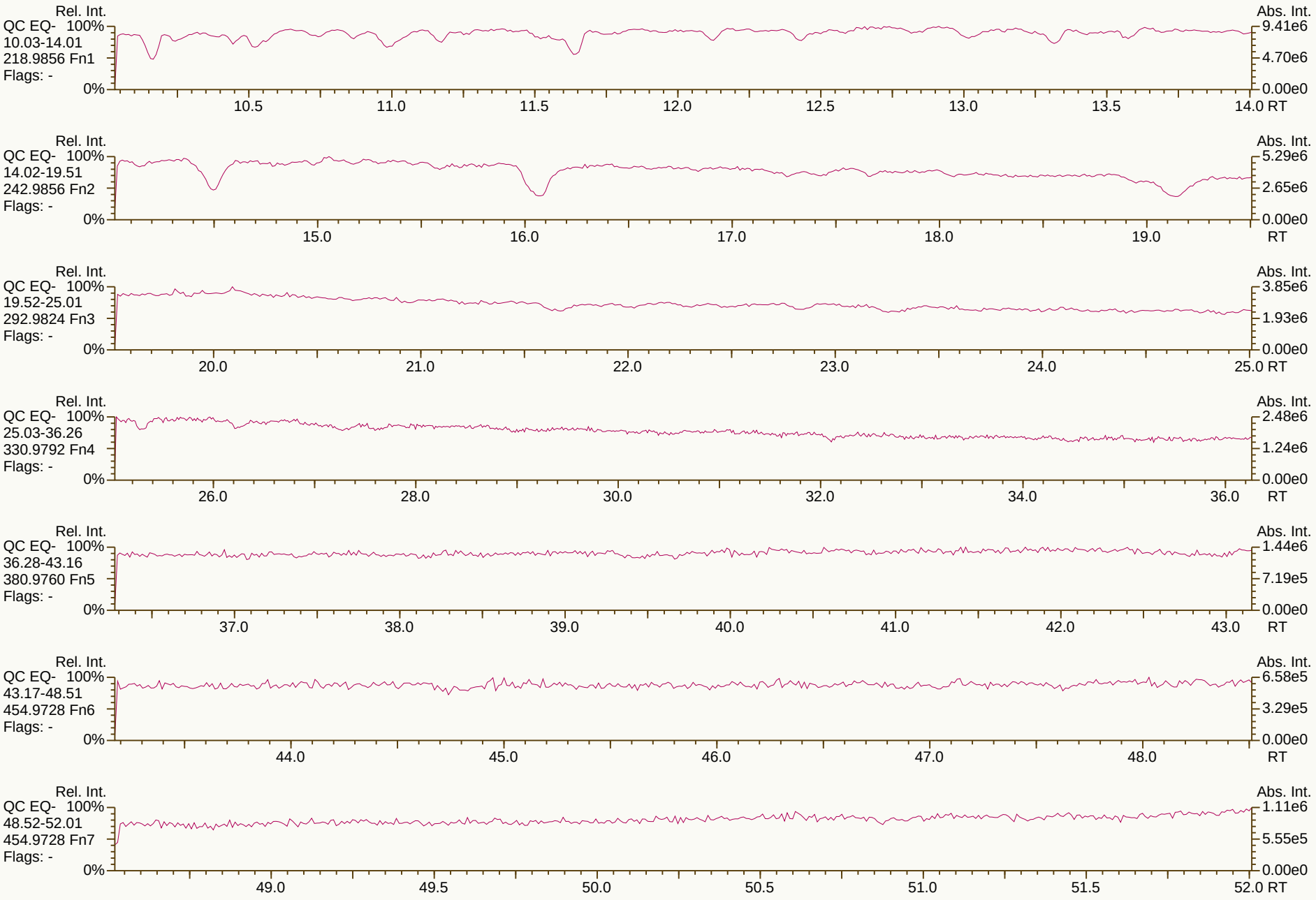
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9747, 5882 scc: 529-183 *Revised: 04-Jan-2013 13:50 (CEM) Printed: 04-Jan-2013 14:04 Page 20 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 5214, 8846 scc: 529-183 *Revised: 04-Jan-2013 13:50 (CEM) Printed: 04-Jan-2013 14:04 Page 21 of 22*

SGS-AP ID: A4995_10495_PCB_003 **Sample ID: AQ-SS-09-10** **Acq: 03-Jan-2013 22:41:19**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 33** **User: CEM Datafile: 130103V08 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_003.utp_res, saved 04-Jan-2013 14:03 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U scc: 529-183 *Revised: 04-Jan-2013 13:46 (CEM) Printed: 04-Jan-2013 14:04 Page 22 of 22*

Lab ID: A4995_10495_PCB_004 **ACQ:** 03-Jan-2013 23:36:26 CEM **Wt/Vol:** 10.18 g **ICAL:** MM6_PCB_07132012_14DEC12 CS3_130103_PCB_VA

Client ID: AQ-SS-04-10 **UTP:** 04-Jan-2013 13:55 CEM **J-level:** 0.982 pg/g **Split:** 1 **Checkcode:** 588-126-JPJ

Datafile: 130103V09 (EQ) **RPT:** 04-Jan-2013 14:55 CM **Stds (pg):** JS: 2000 ES: 2000 CS/SS: 2000 **Method** HR-PCB

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
PCB-77 33'44'-TeCB	30.91		1.0006	1.0005	-0.2	2.81E+05	0.78	1.25	2.2	7.68E+03	0.667
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.26	ND	7.68E+03	0.639
PCB-105 233'44'-PeCB	33.89		1.0007	1.0007	0	7.14E+05	0.61	1.06	8.63	4.39E+03	0.576
PCB-114 2344'5-PeCB	NotFnd		1.0008	-		0.00E+00		1.11	ND	4.39E+03	0.504
PCB-118 23'44'5-PeCB	32.91		1.0008	1.0007	-0.2	1.53E+06	0.63	1.08	18.2	4.39E+03	0.531
PCB-123 23'44'5'-PeCB	NotFnd		1.0006	-		0.00E+00		1.12	ND	4.39E+03	0.554
PCB-126 33'44'5-PeCB	NotFnd		1.0006	-		0.00E+00		1.16	ND	5.82E+03	0.641
PCB-156/157 ...-HxCB	39.07	C	1.0005	1.0002	-0.7	1.81E+05	1.18	1.14	2.49	4.23E+03	0.817
PCB-167 23'44'55'-HxCB	38.11	J	1.0005	1.0004	-0.2	7.14E+04	1.11	1.18	0.869	4.23E+03	0.581
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.15	ND	4.23E+03	0.785
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.12	ND	4.11E+03	0.587
PCB-209 DeCB	NotFnd		1.0004	-		0.00E+00		1.11	ND	3.09E+03	0.857
ES PCB-1	10.72		0.7199	0.7198	-0.1	1.95E+07	3.23	0.97	70.5 %	25%	150%
ES PCB-3	12.80		0.8600	0.8599	-0.1	2.06E+07	3.34	0.90	80.1 %	25%	150%
ES PCB-4	13.03		0.8753	0.8752	-0.1	1.50E+07	1.56	0.70	75 %	25%	150%
ES PCB-15	18.44		1.2382	1.2385	+0.3	2.79E+07	1.69	1.02	96.2 %	25%	150%
ES PCB-19	15.91		1.0690	1.0690	0	1.26E+07	1.04	0.53	84 %	25%	150%
ES PCB-37	24.61		1.0830	1.0830	0	2.04E+07	1.11	1.29	101 %	25%	150%
ES PCB-54	18.70		0.8228	0.8226	-0.2	1.57E+07	0.77	1.43	71 %	25%	150%
ES PCB-77	30.89		1.3590	1.3593	+0.6	2.00E+07	0.83	1.20	107 %	25%	150%
ES PCB-81	30.42		1.3382	1.3385	+0.5	1.95E+07	0.86	1.16	108 %	25%	150%
ES PCB-104	23.57		0.8226	0.8225	-0.1	1.57E+07	1.54	1.70	70 %	25%	150%
ES PCB-105	33.87		1.1820	1.1822	+0.4	1.54E+07	1.48	1.10	106 %	25%	150%
ES PCB-114	33.34		1.1633	1.1635	+0.4	1.57E+07	1.55	1.16	103 %	25%	150%
ES PCB-118	32.88		1.1476	1.1477	+0.2	1.54E+07	1.58	1.15	101 %	25%	150%
ES PCB-123	32.60		1.1378	1.1379	+0.2	1.48E+07	1.53	1.14	98.6 %	25%	150%
ES PCB-126	36.50		1.2735	1.2738	+0.7	1.65E+07	1.66	1.34	93.5 %	25%	150%
ES PCB-153	34.48		0.9706	0.9705	-0.2	1.42E+07	1.27	1.14	90.2 %	25%	150%
ES PCB-155	28.48		0.8019	0.8018	-0.2	1.78E+07	1.29	1.61	80.3 %	25%	150%
ES PCB-156/157	39.06		1.0993	1.0995	+0.5	2.50E+07	1.25	0.98	93 %	25%	150%
ES PCB-167	38.09		1.0720	1.0721	+0.2	1.37E+07	1.24	1.01	98.4 %	25%	150%
ES PCB-169	41.81		1.1764	1.1768	+1.0	9.96E+06	1.24	0.90	80.5 %	25%	150%
ES PCB-170	41.31		0.9029	0.9032	+0.7	9.53E+06	1.00	1.28	90.1 %	25%	150%
ES PCB-180	40.25		0.8799	0.8800	+0.2	1.17E+07	1.04	1.54	89.4 %	25%	150%
ES PCB-188	33.34		0.7291	0.7290	-0.2	1.79E+07	1.09	1.63	80 %	25%	150%
ES PCB-189	43.95		0.9609	0.9611	+0.5	1.40E+07	1.07	1.97	92.2 %	25%	150%
ES PCB-202	37.89		0.8284	0.8284	0	1.47E+07	0.86	1.26	84.6 %	25%	150%
ES PCB-205	46.14		1.0088	1.0088	0	8.05E+06	0.91	1.22	85.6 %	25%	150%
ES PCB-206	47.62		1.0414	1.0413	-0.3	6.70E+06	0.81	1.10	79.3 %	25%	150%
ES PCB-208	43.55		0.9521	0.9523	+0.5	9.92E+06	0.77	1.41	91.5 %	25%	150%
ES PCB-209	49.00		1.0715	1.0715	0	7.23E+06	1.14	1.24	75.6 %	25%	150%

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
SS PCB-28	21.13		0.9299	0.9298	-0.1	2.42E+07	1.10	1.18	101 %	30%	135%
SS PCB-111	30.95		1.0801	1.0802	+0.2	1.55E+07	1.53	1.01	104 %	30%	135%
SS PCB-178	35.92		1.0110	1.0110	0	1.18E+07	1.08	0.60	110 %	30%	135%
CS PCB-28	21.13		0.9299	0.9298	-0.1	2.42E+07	1.10	1.52	102 %	30%	135%
CS PCB-111	30.95		1.0801	1.0802	+0.2	1.55E+07	1.53	1.15	103 %	30%	135%
CS PCB-178	35.92		1.0110	1.0110	0	1.18E+07	1.08	0.98	87.8 %	30%	135%
JS PCB-9	14.89					2.85E+07	1.66				
JS PCB-52	22.73					1.56E+07	0.78				
JS PCB-101	28.65					1.32E+07	1.53				
JS PCB-138	35.53					1.38E+07	1.34				
JS PCB-194	45.74					7.69E+06	0.92				

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



SGS-AP ID: A4995_10495_PCB_004 Sample ID: AQ-SS-04-10 Acq: 03-Jan-2013 23:36:26
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34 User: CEM Datafile: 130103V09 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9263, 6044 scc: 588-126 *PKD: 04-Jan-2013 13:52 Printed: 04-Jan-2013 14:01 Page 2 of 22*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 2226, 1603 scc: 588-126 *PKD: 04-Jan-2013 13:52 Printed: 04-Jan-2013 14:01 Page 3 of 22*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

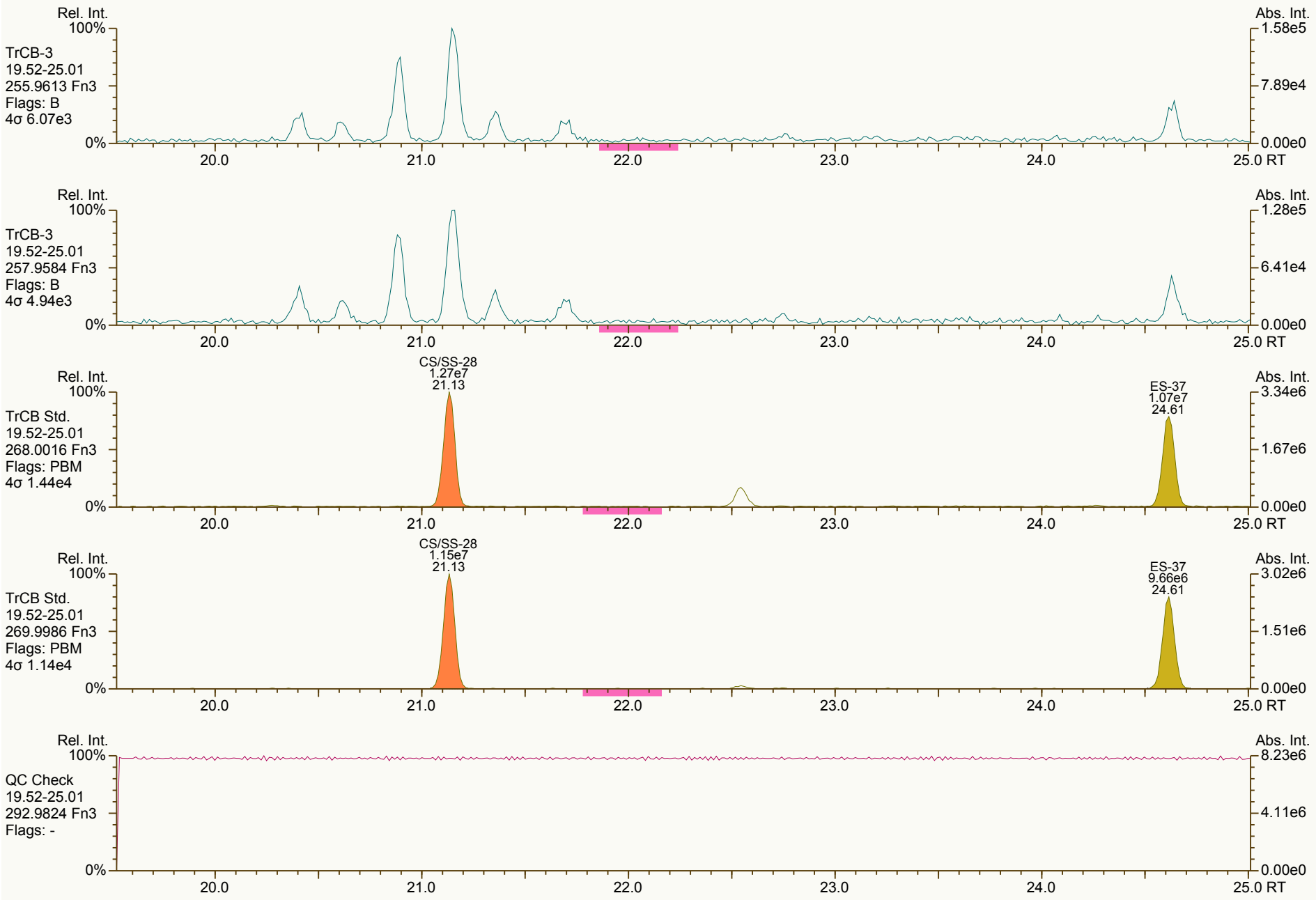
SGS-AP ID: A4995_10495_PCB_004 Sample ID: AQ-SS-04-10 Acq: 03-Jan-2013 23:36:26
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34 User: CEM Datafile: 130103V09 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 3874, 7084 scc: 588-126 *Revised: 04-Jan-2013 13:53 (CEM) Printed: 04-Jan-2013 14:01 Page 5 of 22*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**

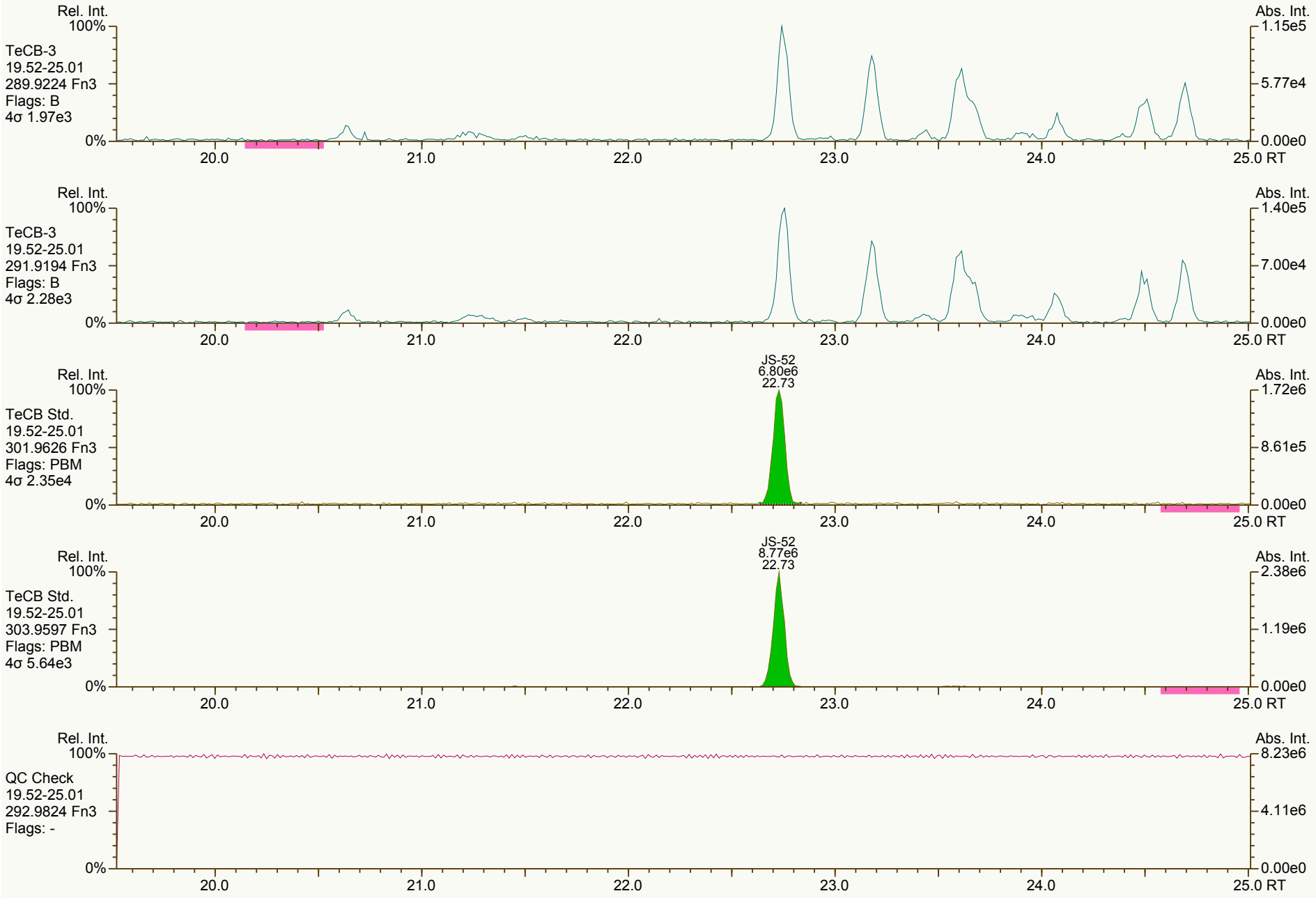


Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 3935, 0018 scc: 588-126 *Revised: 04-Jan-2013 13:53 (CEM) Printed: 04-Jan-2013 14:01 Page 6 of 22*

SGS-AP ID: A4995_10495_PCB_004 Sample ID: AQ-SS-04-10 Acq: 03-Jan-2013 23:36:26
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34 User: CEM Datafile: 130103V09 (EQ)



SGS-AP ID: A4995_10495_PCB_004 Sample ID: AQ-SS-04-10 Acq: 03-Jan-2013 23:36:26
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34 User: CEM Datafile: 130103V09 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**

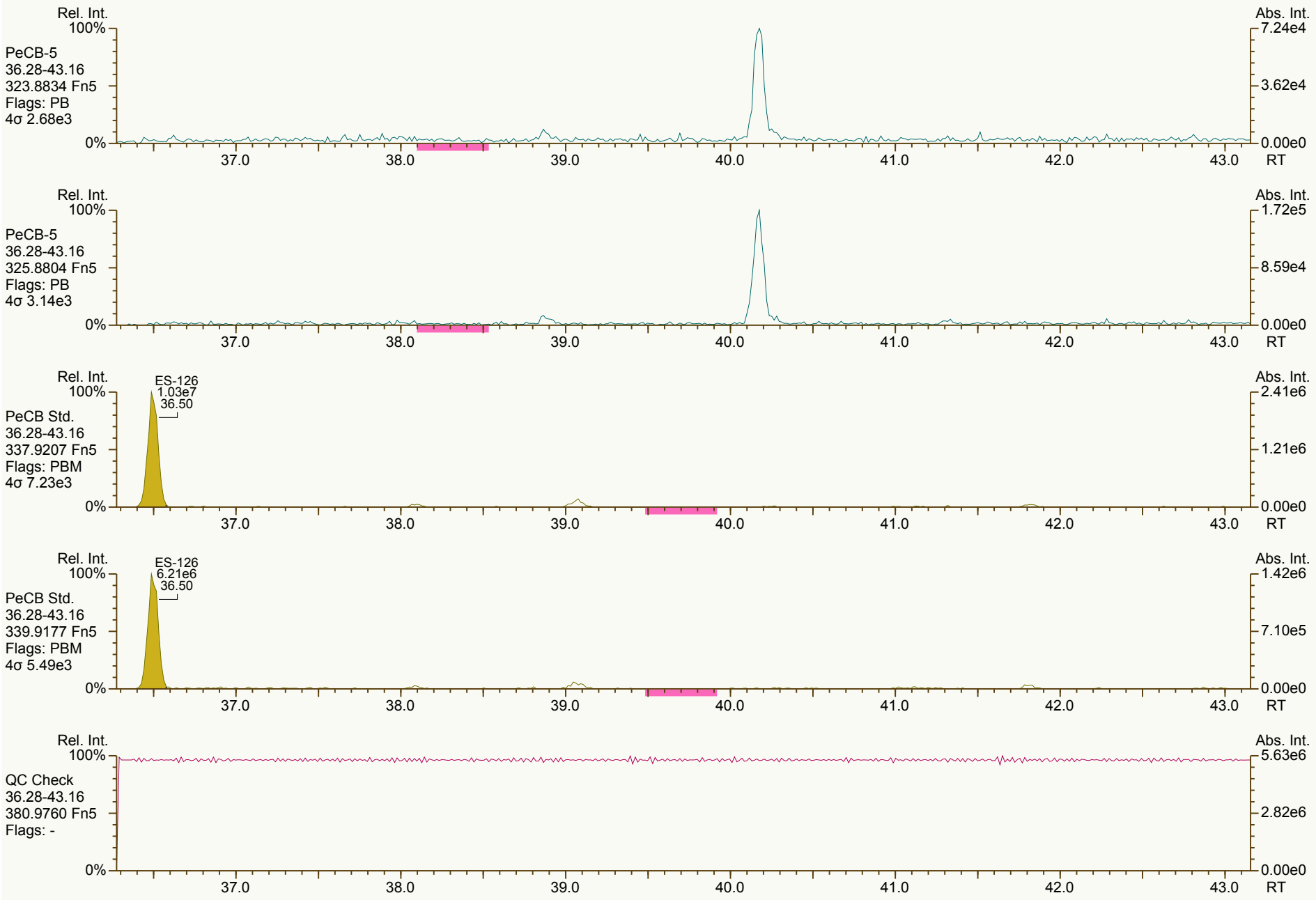


Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 5154, 9525 scc: 588-126 *PKD: 04-Jan-2013 13:52 Printed: 04-Jan-2013 14:02 Page 12 of 22*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

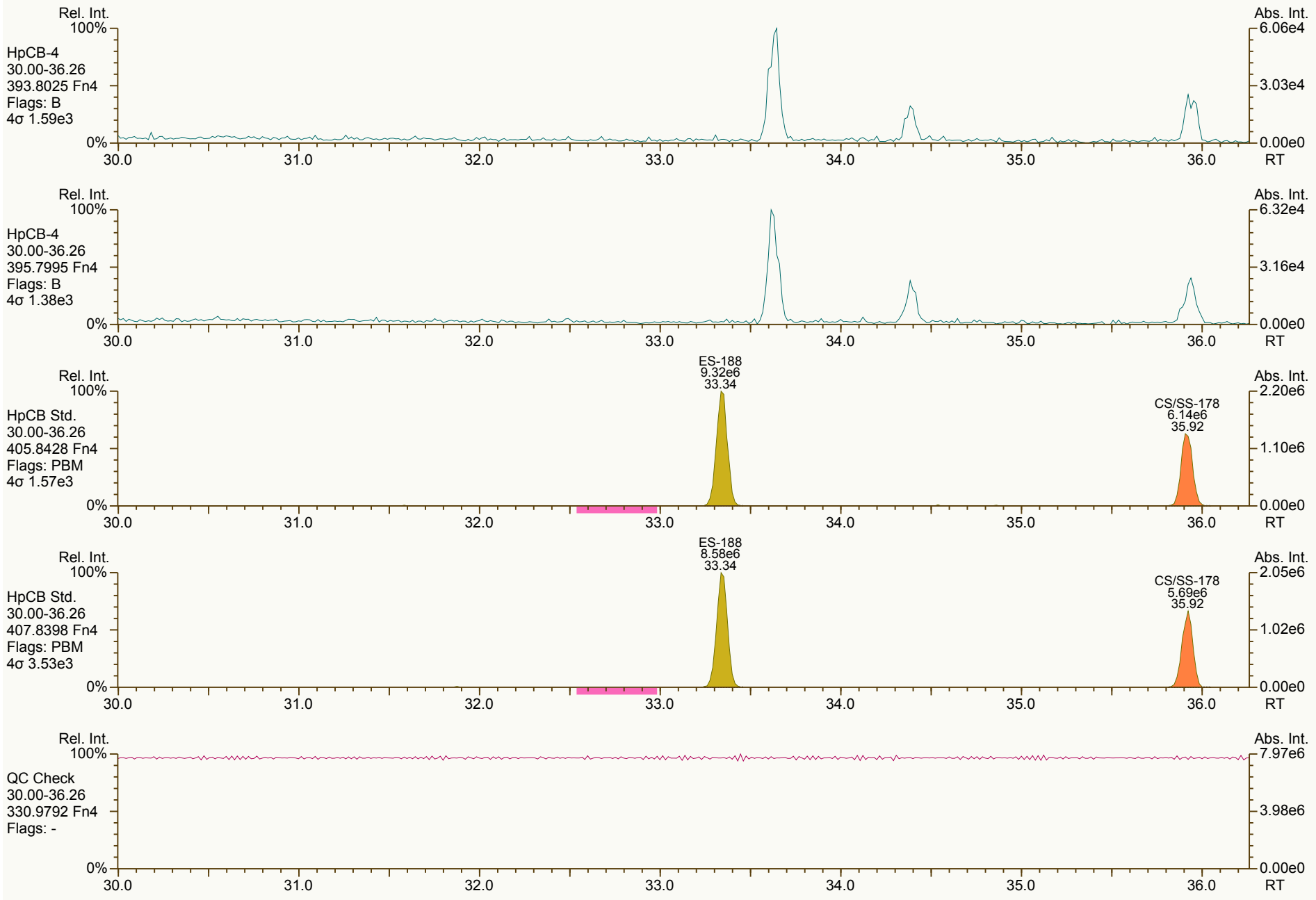
SGS-AP ID: A4995_10495_PCB_004 Sample ID: AQ-SS-04-10 Acq: 03-Jan-2013 23:36:26
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34 User: CEM Datafile: 130103V09 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9587, 2354 scc: 588-126 *Revised: 04-Jan-2013 13:54 (CEM) Printed: 04-Jan-2013 14:02 Page 14 of 22*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: A4995_10495_PCB_004 Sample ID: AQ-SS-04-10 Acq: 03-Jan-2013 23:36:26
Instr: AutoSpec-Premier MM6 VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34 User: CEM Datafile: 130103V09 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

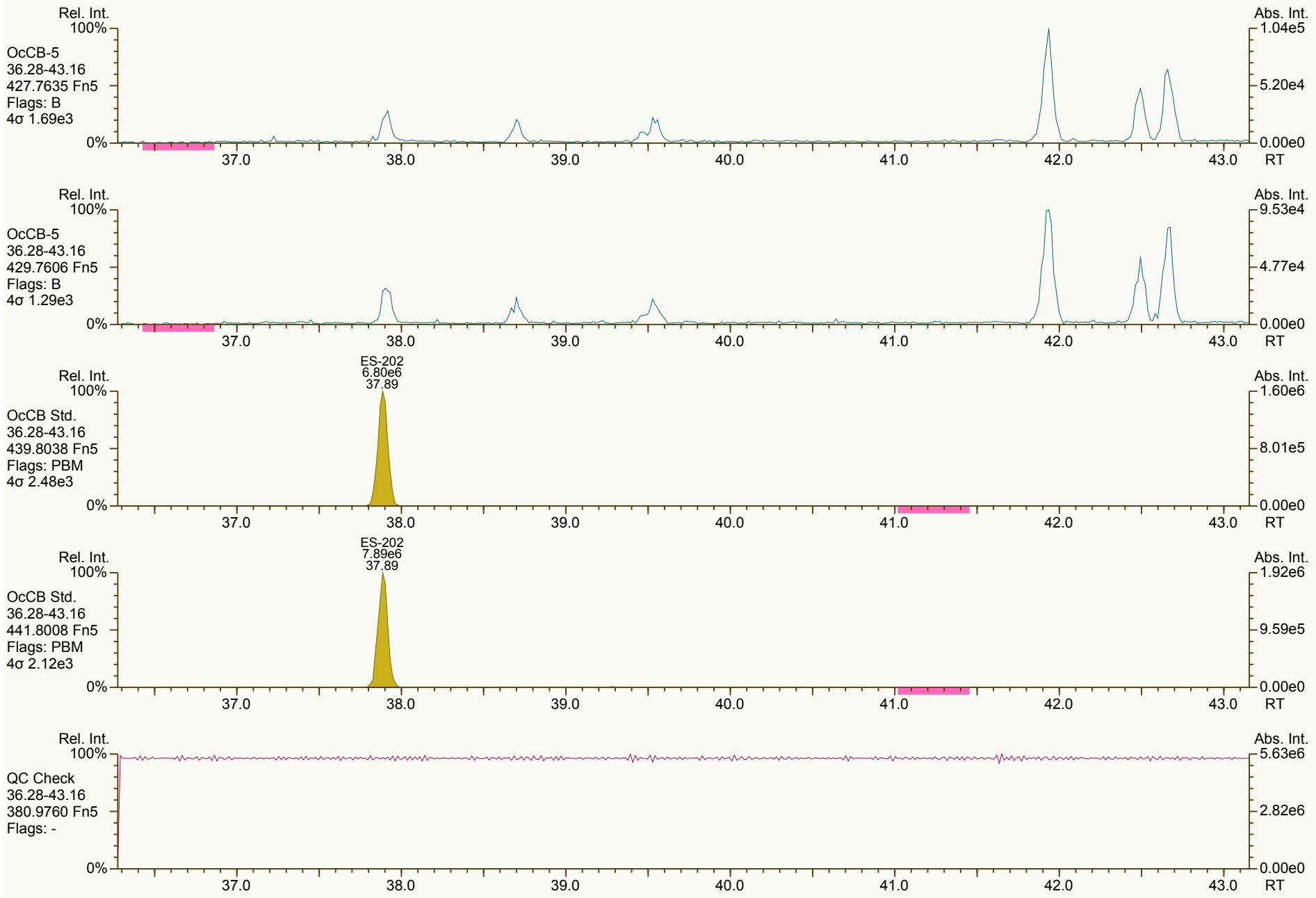
SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



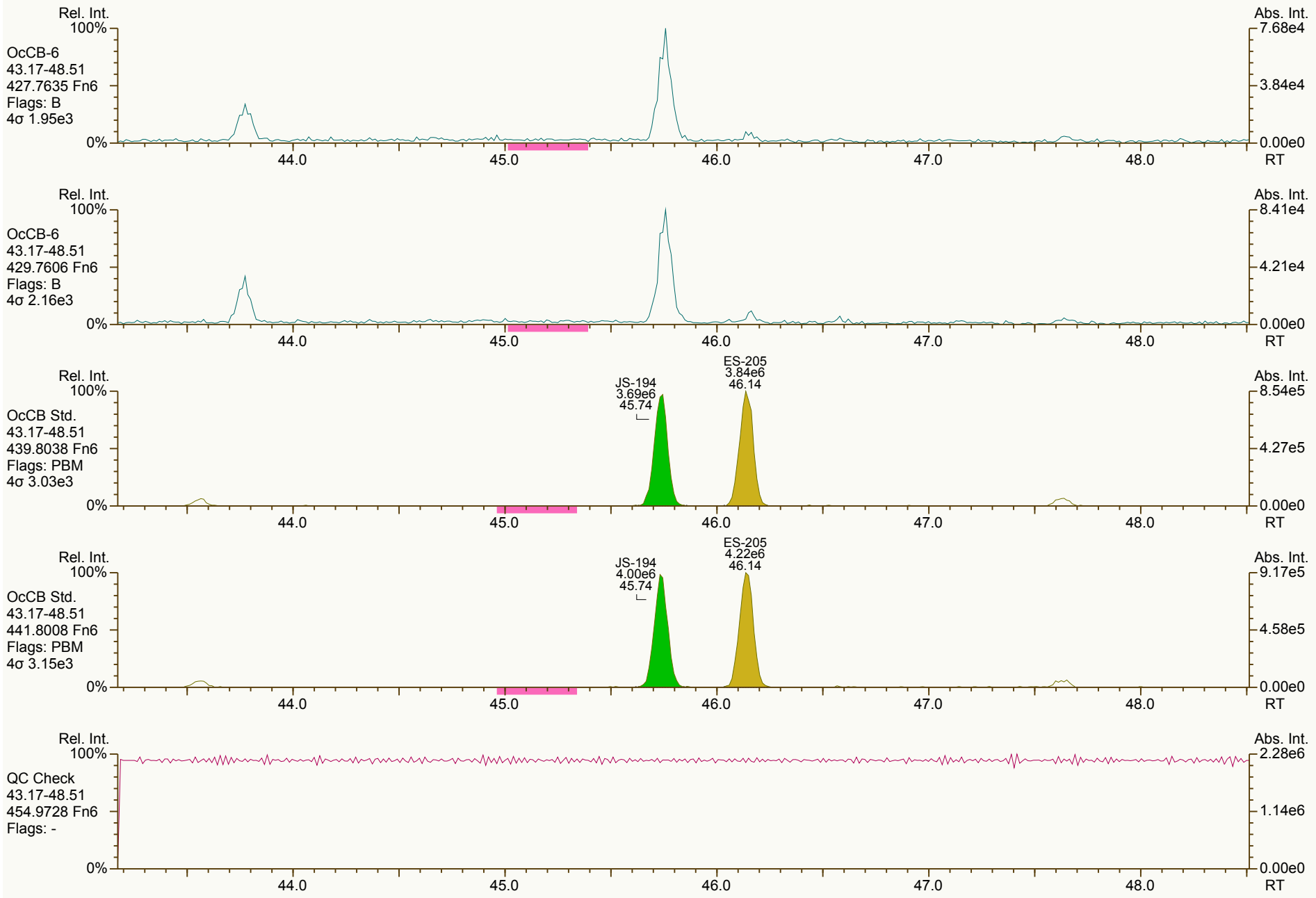
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 4896, 2366 scc: 588-126 *PKD: 04-Jan-2013 13:52 Printed: 04-Jan-2013 14:02 Page 17 of 22*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1652, 8661 scc: 588-126 *PKD: 04-Jan-2013 13:52 Printed: 04-Jan-2013 14:02 Page 21 of 22*

SGS-AP ID: A4995_10495_PCB_004 **Sample ID: AQ-SS-04-10** **Acq: 03-Jan-2013 23:36:26**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 34** **User: CEM Datafile: 130103V09 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\A4995_10495_PCB_004.utp_res, saved 04-Jan-2013 13:55 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U scc: 588-126 *Revised: 04-Jan-2013 13:52 (CEM) Printed: 04-Jan-2013 14:02 Page 22 of 22*

SGS Analytical Perspectives — Run Log **Project: A4995_10495_PCB**

Instrument: MM6 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_b

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
1	130103V02	3	CS3_130103_PCB_VA	1.00	SIL 12-65-3	CEM	862-330	03-Jan-2013	17:12:36
2	130103V03	29	OPR1_10495_PCB	1.00	0_10495_OPR001	CEM	881-416	03-Jan-2013	18:05:40
3	130103V04	2	SBS_130103_PCB_VA	1.00	SIL 9-41-1	CEM	196-712	03-Jan-2013	19:00:49
4	130103V05	30	MB1_10495_PCB_SDS	10.00	Method Blank	CEM	421-123	03-Jan-2013	19:55:57
5	130103V06	31	A4995_10495_PCB_001	10.43	AQ-SS-14-10	CEM	819-764	03-Jan-2013	20:51:04
6	130103V07	32	A4995_10495_PCB_002	10.24	AQ-SS-10-10	CEM	151-460	03-Jan-2013	21:46:11
7	130103V08	33	A4995_10495_PCB_003	10.23	AQ-SS-09-10	CEM	529-183	03-Jan-2013	22:41:19
8	130103V09	34	A4995_10495_PCB_004	10.18	AQ-SS-04-10	CEM	588-126	03-Jan-2013	23:36:26

REVIEWED
By Chris Mimms at 3:44 pm, Jan 04, 2013

REVIEWED
By Heather Steele at 5:01 pm, Jan 04, 2013

PCB QC Summary	SGS Analytical Perspectives					Processed: 4-Jan-2013 14:49
Lab ID:	CS3_130103_PCB_VA					
Acquired:	03-JAN-2013 17:12			ICAL: MM6_PCB_07132012_14DEC12		
Datafile:	130103V02					
Name	**RT**	**Response**	**RA**	**ICAL**	**RRF**	**Dev'n**
PCB-77 33'44'-TeCB	30.94	1.92E+07	0.78 Y	1.25	1.25	0.1%
PCB-81 344'5-TeCB	30.47	1.88E+07	0.79 Y	1.26	1.29	2.6%
PCB-105 233'44'-PeCB	33.92	1.16E+07	0.62 Y	1.06	1.09	3.4%
PCB-114 2344'5-PeCB	33.39	1.24E+07	0.63 Y	1.11	1.16	4.6%
PCB-118 23'44'5-PeCB	32.94	1.23E+07	0.62 Y	1.08	1.12	3.9%
PCB-123 23'44'5'-PeCB	32.65	1.27E+07	0.64 Y	1.12	1.19	6.2%
PCB-126 33'44'5-PeCB	36.55	1.52E+07	0.62 Y	1.16	1.18	1.9%
PCB-156/157 ...-HxCB	39.10	2.13E+07	1.28 Y	1.14	1.14	0.4%
PCB-167 23'44'55'-HxCB	38.14	1.18E+07	1.26 Y	1.18	1.21	2.4%
PCB-169 33'44'55'-HxCB	41.85	9.44E+06	1.26 Y	1.15	1.19	3.6%
PCB-189 233'44'55'-HpCB	44.00	1.20E+07	1.05 Y	1.12	1.14	1.9%
PCB-209 DeCB	49.06	5.83E+06	1.16 Y	1.11	1.08	-3.2%
ES PCB-1	10.73	4.09E+07	3.27 Y	0.97	0.95	-1.6%
ES PCB-3	12.82	3.81E+07	3.37 Y	0.90	0.89	-1.1%
ES PCB-4	13.05	2.62E+07	1.57 Y	0.70	0.61	-12.6%
ES PCB-15	18.46	4.41E+07	1.63 Y	1.02	1.03	1.4%
ES PCB-19	15.94	1.94E+07	1.06 Y	0.53	0.45	-14.0%
ES PCB-37	24.64	3.04E+07	1.10 Y	1.29	1.45	12.5%
ES PCB-54	18.72	2.57E+07	0.77 Y	1.43	1.23	-13.8%
ES PCB-77	30.92	3.08E+07	0.83 Y	1.20	1.47	22.4%
ES PCB-81	30.45	2.91E+07	0.79 Y	1.16	1.39	19.9%
ES PCB-104	23.59	2.31E+07	1.56 Y	1.70	1.29	-24.1%
ES PCB-105	33.90	2.12E+07	1.59 Y	1.10	1.19	8.0%
ES PCB-114	33.36	2.14E+07	1.57 Y	1.16	1.20	3.6%
ES PCB-118	32.91	2.19E+07	1.53 Y	1.15	1.23	6.4%
ES PCB-123	32.63	2.13E+07	1.54 Y	1.14	1.19	4.5%
ES PCB-126	36.52	2.59E+07	1.59 Y	1.34	1.45	8.2%
ES PCB-153	34.51	2.00E+07	1.29 Y	1.14	1.14	-0.2%
ES PCB-155	28.51	2.68E+07	1.32 Y	1.61	1.53	-5.5%
ES PCB-156/157	39.08	3.72E+07	1.27 Y	0.98	1.06	8.6%
ES PCB-167	38.12	1.95E+07	1.22 Y	1.01	1.11	9.8%
ES PCB-169	41.83	1.58E+07	1.26 Y	0.90	0.90	0.3%
ES PCB-170	41.33	1.39E+07	1.04 Y	1.28	1.38	7.2%
ES PCB-180	40.27	1.71E+07	1.07 Y	1.54	1.70	10.2%
ES PCB-188	33.37	2.55E+07	1.03 Y	1.63	1.45	-10.7%
ES PCB-189	43.98	2.11E+07	1.06 Y	1.97	2.09	6.3%
ES PCB-202	37.91	2.16E+07	0.93 Y	1.26	1.23	-2.3%
ES PCB-205	46.17	1.19E+07	0.92 Y	1.22	1.17	-3.9%
ES PCB-206	47.66	9.97E+06	0.80 Y	1.10	0.99	-10.1%
ES PCB-208	43.58	1.51E+07	0.79 Y	1.41	1.49	6.1%
ES PCB-209	49.04	1.08E+07	1.19 Y	1.24	1.07	-13.8%

PCB QC Summary	SGS Analytical Perspectives	Processed: 4-Jan-2013 14:49

Lab ID: CS3_130103_PCB_VA
Acquired: 03-JAN-2013 17:12
Datafile: 130103V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	21.16	3.46E+07	1.09 Y	1.18	1.14	-3.4%
SS PCB-111	30.98	2.11E+07	1.60 Y	1.01	0.99	-1.3%
SS PCB-178	35.95	1.54E+07	1.04 Y	0.60	0.61	0.7%
CS PCB-28	21.16	3.46E+07	1.09 Y	1.52	1.65	8.7%
CS PCB-111	30.98	2.11E+07	1.60 Y	1.15	1.18	3.1%
CS PCB-178	35.95	1.54E+07	1.04 Y	0.98	0.88	-10.1%
JS PCB-9	14.91	4.28E+07	1.65 Y		-	-
JS PCB-52	22.75	2.09E+07	0.80 Y		-	-
JS PCB-101	28.68	1.78E+07	1.52 Y		-	-
JS PCB-138	35.55	1.76E+07	1.30 Y		-	-
JS PCB-194	45.77	1.01E+07	0.93 Y		-	-
PCB-1 2-MoCB	10.75	2.60E+07	3.12 Y	1.25	1.27	2.1%
PCB-3 4-MoCB	12.84	2.50E+07	3.14 Y	1.27	1.31	3.6%
PCB-4 22'-DiCB	13.07	1.26E+07	1.56 Y	0.90	0.96	6.7%
PCB-15 44'-DiCB	18.48	2.45E+07	1.52 Y	1.10	1.11	1.4%
PCB-19 22'6-TrCB	15.96	9.64E+06	1.04 Y	0.95	0.99	5.0%
PCB-37 344'-TrCB	24.66	2.19E+07	1.07 Y	1.39	1.44	3.9%
PCB-54 22'66'-TeCB	18.74	1.47E+07	0.79 Y	1.05	1.14	8.5%
PCB-104 22'466'-PeCB	23.62	1.35E+07	0.62 Y	1.12	1.17	4.9%
PCB-155 22'44'66'-HxCB	28.53	1.47E+07	1.22 Y	1.09	1.10	0.9%
PCB-188 22'34'566'-HpCB	33.39	1.28E+07	1.03 Y	0.98	1.01	2.2%
PCB-202 22'33'55'66'-OcCB	37.94	9.52E+06	0.89 Y	0.86	0.88	1.8%
PCB-205 233'44'55'6-OcCB	46.19	6.93E+06	0.90 Y	1.13	1.17	3.1%
PCB-208 22'33'455'66'-NoCB	43.60	7.63E+06	0.78 Y	1.03	1.01	-2.0%
PCB-206 22'33'44'55'6-NoCB	47.68	4.76E+06	0.78 Y	0.97	0.95	-1.7%

PCB QC Summary - Ax2 Detail

Processed: 4-Jan-2013 14:49

Lab ID: CS3_130103_PCB_VA
Acquired: 03-JAN-2013 17:12
Datafile: 130103V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA		RRF	
PCB-1 2-MoCB	10.75	2.60E+07	3.12 Y	1.25	-	-
PCB-2 3-MoCB	12.67	2.57E+07	3.15 Y	1.28	1.35	5.8%
PCB-3 4-MoCB	12.84	2.50E+07	3.14 Y	1.27	-	-
PCB-4 22'-DiCB	13.07	1.26E+07	1.56 Y	0.90	-	-
PCB-10 26-DiCB	13.23	1.93E+07	1.57 Y	1.38	1.47	6.6%
PCB-9 25-DiCB	14.93	2.19E+07	1.55 Y	0.99	1.00	0.8%
PCB-7 24-DiCB	15.08	2.51E+07	1.56 Y	1.10	1.14	3.5%
PCB-6 23'-DiCB	15.29	2.36E+07	1.56 Y	1.04	1.07	3.0%
PCB-5 23-DiCB	15.57	2.37E+07	1.57 Y	1.02	1.08	4.9%
PCB-8 24'-DiCB	15.69	2.37E+07	1.56 Y	1.03	1.08	4.1%
PCB-14 35-DiCB	17.18	2.78E+07	1.56 Y	1.20	1.26	4.9%
PCB-11 33'-DiCB	17.93	2.38E+07	1.56 Y	1.03	1.08	5.2%
PCB-13/12 34'/34-DiCB	18.20	4.76E+07	1.57 Y	1.03	1.08	4.6%
PCB-15 44'-DiCB	18.48	2.45E+07	1.52 Y	1.10	-	-
PCB-19 22'6-TrCB	15.96	9.64E+06	1.04 Y	0.95	-	-
PCB-30/18 246/22'5-TrCB	17.65	2.72E+07	1.04 Y	1.23	1.40	13.9%
PCB-17 22'4-TrCB	18.03	1.16E+07	1.05 Y	1.05	1.20	13.4%
PCB-27 23'6-TrCB	18.22	1.59E+07	1.04 Y	1.46	1.64	11.7%
PCB-24 236-TrCB	18.34	1.52E+07	1.03 Y	1.32	1.56	18.3%
PCB-16 22'3-TrCB	18.43	8.80E+06	1.06 Y	0.81	0.91	12.4%
PCB-32 24'6-TrCB	18.90	1.69E+07	1.04 Y	1.48	1.74	17.8%
PCB-34 23'5'-TrCB	20.03	2.28E+07	1.07 Y	1.46	1.50	2.6%
PCB-23 235-TrCB	20.18	2.23E+07	1.05 Y	1.50	1.47	-2.4%
PCB-26/29 23'5/245-TrCB	20.45	4.69E+07	1.06 Y	1.53	1.54	0.9%
PCB-25 23'4-TrCB	20.64	2.39E+07	1.05 Y	1.53	1.57	2.3%
PCB-31 24'5-TrCB	20.91	2.41E+07	1.07 Y	1.55	1.58	2.1%
PCB-28/20 244'/233'-TrCB	21.19	4.67E+07	1.06 Y	1.51	1.54	2.0%
PCB-21/33 234/23'4'-TrCB	21.36	4.54E+07	1.06 Y	1.55	1.50	-3.3%
PCB-22 234'-TrCB	21.72	2.16E+07	1.06 Y	1.40	1.42	1.5%
PCB-36 33'5-TrCB	23.10	2.40E+07	1.06 Y	1.52	1.58	4.1%
PCB-39 34'5-TrCB	23.41	2.47E+07	1.05 Y	1.58	1.63	2.8%
PCB-38 345-TrCB	23.92	2.22E+07	1.06 Y	1.47	1.46	-0.3%
PCB-35 33'4-TrCB	24.31	2.13E+07	1.07 Y	1.33	1.40	5.3%
PCB-37 344'-TrCB	24.66	2.19E+07	1.07 Y	1.39	-	-
PCB-54 22'66'-TeCB	18.74	1.47E+07	0.79 Y	1.05	-	-
PCB-50/53 22'46/22'56'-TeCB	20.69	2.17E+07	0.78 Y	0.88	0.75	-14.9%
PCB-45 22'36-TeCB	21.25	9.65E+06	0.77 Y	0.73	0.66	-9.6%
PCB-51 22'46'-TeCB	21.33	9.57E+06	0.77 Y	0.94	0.66	-29.8%
PCB-46 22'36'-TeCB	21.52	8.53E+06	0.77 Y	0.72	0.59	-18.2%
PCB-52 22'55'-TeCB	22.78	1.04E+07	0.78 Y	0.82	0.72	-13.1%
PCB-73 23'5'6-TeCB	22.91	1.40E+07	0.77 Y	1.10	0.96	-12.6%

Lab ID: - Ax2 Detail **Processed: 4-Jan-2013 14:49**

Lab ID: CS3_130103_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 03-JAN-2013 17:12
Datafile: 130103V02

Name	RT	Response	RA		RRF	
PCB-43 22'35-TeCB	22.99	8.74E+06	0.79 Y	0.70	0.60	-14.7%
PCB-69/49 23'46/22'45'-TeCB	23.19	2.56E+07	0.77 Y	1.01	0.88	-12.7%
PCB-48 22'45-TeCB	23.46	1.08E+07	0.78 Y	0.84	0.74	-12.3%
PCB-44/47/65 ...-TeCB	23.67	3.30E+07	0.77 Y	0.90	0.76	-16.0%
PCB-59/62/75 ...-TeCB	23.94	4.38E+07	0.78 Y	1.15	1.00	-13.1%
PCB-42 22'34'-TeCB	24.10	9.50E+06	0.78 Y	0.76	0.65	-14.5%
PCB-41 22'34-TeCB	24.43	9.56E+06	0.78 Y	0.64	0.66	2.6%
PCB-71/40 23'4'6/22'33'-TeCB	24.52	2.07E+07	0.78 Y	0.83	0.71	-14.5%
PCB-64 234'6-TeCB	24.72	1.52E+07	0.78 Y	1.17	1.05	-10.8%
PCB-72 23'55'-TeCB	25.46	2.05E+07	0.77 Y	1.37	1.41	3.0%
PCB-68 23'45'-TeCB	25.71	2.20E+07	0.77 Y	1.52	1.52	0.0%
PCB-57 233'5-TeCB	26.07	1.94E+07	0.77 Y	1.32	1.33	0.6%
PCB-58 233'5'-TeCB	26.26	1.97E+07	0.78 Y	1.34	1.35	1.2%
PCB-67 23'45-TeCB	26.42	2.09E+07	0.77 Y	1.41	1.44	1.8%
PCB-63 234'5-TeCB	26.64	2.20E+07	0.79 Y	1.46	1.51	3.7%
PCB-61/70/74/76 ...-TeCB	26.93	8.15E+07	0.77 Y	1.37	1.40	2.6%
PCB-66 23'44'-TeCB	27.20	1.88E+07	0.78 Y	1.24	1.30	4.4%
PCB-55 233'4-TeCB	27.34	1.91E+07	0.77 Y	1.28	1.31	2.6%
PCB-56 233'4'-TeCB	27.77	1.87E+07	0.76 Y	1.23	1.28	4.5%
PCB-60 2344'-TeCB	27.96	1.93E+07	0.77 Y	1.30	1.32	2.0%
PCB-80 33'55'-TeCB	28.33	2.21E+07	0.78 Y	1.44	1.52	6.1%
PCB-79 33'45'-TeCB	29.62	2.22E+07	0.79 Y	1.48	1.52	3.3%
PCB-78 33'45-TeCB	30.10	1.80E+07	0.78 Y	1.21	1.23	2.1%
PCB-104 22'466'-PeCB	23.62	1.35E+07	0.62 Y	1.12	-	-
PCB-96 22'366'-PeCB	23.91	1.20E+07	0.63 Y	0.96	1.04	7.7%
PCB-103 22'45'6-PeCB	25.62	9.45E+06	0.62 Y	0.93	0.89	-4.7%
PCB-94 22'356'-PeCB	25.79	8.02E+06	0.62 Y	0.81	0.75	-6.9%
PCB-95 22'35'6-PeCB	26.17	8.75E+06	0.63 Y	0.85	0.82	-3.3%
PCB-100/93 22'44'6/22'356-PeC	26.38	1.76E+07	0.62 Y	0.88	0.82	-6.6%
PCB-102 22'456'-PeCB	26.49	1.06E+07	0.61 Y	0.93	0.99	6.4%
PCB-98 22'34'6'-PeCB	26.56	6.89E+06	0.63 Y	0.84	0.65	-22.8%
PCB-88 22'346-PeCB	26.84	7.31E+06	0.62 Y	0.77	0.69	-11.1%
PCB-91 22'34'6-PeCB	26.91	1.03E+07	0.64 Y	0.96	0.97	1.1%
PCB-84 22'33'6-PeCB	27.09	7.41E+06	0.63 Y	0.72	0.70	-3.5%
PCB-89 22'346'-PeCB	27.51	8.05E+06	0.63 Y	0.77	0.76	-2.0%
PCB-121 23'45'6-PeCB	27.89	1.21E+07	0.62 Y	1.15	1.14	-0.5%
PCB-92 22'355'-PeCB	28.20	8.40E+06	0.62 Y	0.79	0.79	-0.5%
PCB-113/90/101 ...-PeCB	28.68	3.00E+07	0.63 Y	0.95	0.94	-1.7%
PCB-83 22'33'5-PeCB	29.10	7.39E+06	0.63 Y	0.72	0.69	-3.6%

Lab ID: - Ax2 Detail **Processed: 4-Jan-2013 14:49**

Lab ID: CS3_130103_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 03-JAN-2013 17:12
Datafile: 130103V02

Name	RT	Response	RA		RRF	
PCB-99 22'44'5-PeCB	29.20	8.85E+06	0.63 Y	0.90	0.83	-7.2%
PCB-112 233'56-PeCB	29.30	1.22E+07	0.63 Y	1.09	1.15	5.1%
PCB-108/119/86/97/125...-PeCB	29.64	6.05E+07	0.62 Y	0.95	0.95	0.0%
PCB-117 234'56-PeCB	30.17	1.04E+07	0.62 Y	0.99	0.98	-1.2%
PCB-116/85 23456/22'344'-PeCB	30.25	2.08E+07	0.63 Y	0.96	0.97	1.6%
PCB-110 233'4'6-PeCB	30.37	1.08E+07	0.63 Y	1.01	1.01	0.2%
PCB-115 2344'6-PeCB	30.46	1.20E+07	0.62 Y	1.15	1.12	-2.4%
PCB-82 22'33'4-PeCB	30.64	7.25E+06	0.61 Y	0.70	0.68	-2.5%
PCB-111 233'55'-PeCB	31.00	1.23E+07	0.64 Y	1.16	1.16	-0.7%
PCB-120 23'455'-PeCB	31.39	1.25E+07	0.62 Y	1.14	1.17	3.0%
PCB-107/124 ...-PeCB	32.34	2.28E+07	0.62 Y	1.02	1.07	5.3%
PCB-109 233'46-PeCB	32.55	1.22E+07	0.62 Y	1.13	1.14	1.0%
PCB-106 233'45-PeCB	32.76	1.16E+07	0.64 Y	1.01	1.09	7.5%
PCB-122 233'4'5'-PeCB	33.22	1.08E+07	0.63 Y	0.91	1.01	10.6%
PCB-127 33'455'-PeCB	35.18	1.13E+07	0.61 Y	1.06	1.07	1.0%
PCB-155 22'44'66'-HxCB	28.53	1.47E+07	1.22 Y	1.09	-	-
PCB-152 22'3566'-HxCB	28.67	1.42E+07	1.24 Y	1.04	1.06	1.8%
PCB-150 22'34'66'-HxCB	28.82	1.39E+07	1.24 Y	1.03	1.04	1.2%
PCB-136 22'33'66'-HxCB	29.11	1.29E+07	1.25 Y	0.97	0.97	-0.8%
PCB-145 22'3466'-HxCB	29.38	1.33E+07	1.24 Y	0.96	1.00	3.5%
PCB-148 22'34'56'-HxCB	30.68	1.00E+07	1.24 Y	1.03	1.00	-2.8%
PCB-151/135 ...-HxCB	31.19	1.97E+07	1.23 Y	0.99	0.98	-1.1%
PCB-154 22'44'56'-HxCB	31.41	1.12E+07	1.26 Y	1.17	1.12	-4.9%
PCB-144 22'345'6-HxCB	31.66	1.01E+07	1.22 Y	1.03	1.01	-2.1%
PCB-147/149 ...-HxCB	31.96	2.04E+07	1.25 Y	1.02	1.02	0.0%
PCB-134 22'33'56-HxCB	32.12	7.63E+06	1.22 Y	0.80	0.76	-4.7%
PCB-143 22'3456'-HxCB	32.20	1.04E+07	1.25 Y	0.95	1.04	9.6%
PCB-139/140 ...-HxCB	32.47	2.08E+07	1.24 Y	1.05	1.04	-0.9%
PCB-131 22'33'46-HxCB	32.64	9.01E+06	1.24 Y	0.90	0.90	0.5%
PCB-142 22'3456-HxCB	32.77	9.00E+06	1.27 Y	0.93	0.90	-2.9%
PCB-132 22'33'46'-HxCB	33.01	9.34E+06	1.26 Y	0.93	0.93	0.5%
PCB-133 22'33'55'-HxCB	33.45	9.64E+06	1.21 Y	0.97	0.96	-0.5%
PCB-165 233'55'6-HxCB	33.79	1.19E+07	1.25 Y	1.16	1.19	2.3%
PCB-146 22'34'55'-HxCB	34.01	1.02E+07	1.20 Y	1.01	1.02	1.4%
PCB-161 233'45'6-HxCB	34.12	1.35E+07	1.22 Y	1.29	1.35	4.4%
PCB-153/168 ...-HxCB	34.55	2.53E+07	1.22 Y	1.24	1.26	2.1%
PCB-141 22'3455'-HxCB	34.69	9.89E+06	1.27 Y	0.95	0.99	4.3%
PCB-130 22'33'45'-HxCB	35.03	8.68E+06	1.25 Y	0.82	0.87	5.6%
PCB-137 22'344'5-HxCB	35.22	1.02E+07	1.22 Y	0.97	1.02	4.9%
PCB-164 233'4'5'6-HxCB	35.31	1.35E+07	1.27 Y	1.25	1.35	7.6%
PCB-163/138/129 ...-HxCB	35.60	3.18E+07	1.25 Y	1.04	1.06	1.8%

Lab ID: - Ax2 Detail **Processed: 4-Jan-2013 14:49**

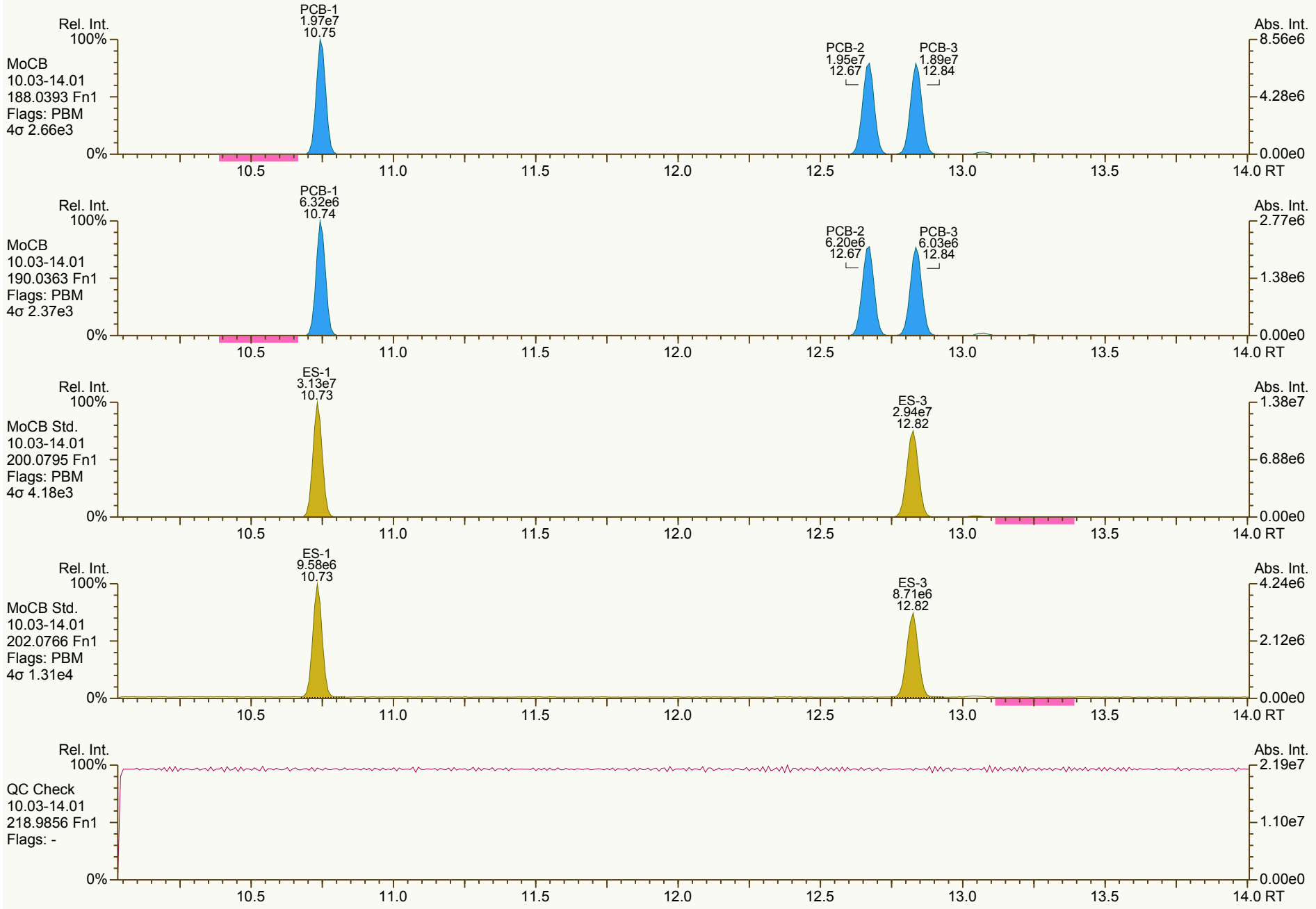
Lab ID: CS3_130103_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 03-JAN-2013 17:12
Datafile: 130103V02

Name	RT	Response	RA		RRF	
PCB-160 233'456-HxCB	35.73	1.24E+07	1.22 Y	1.19	1.24	4.1%
PCB-158 233'44'6-HxCB	35.92	1.40E+07	1.25 Y	1.34	1.40	4.3%
PCB-128/166 ...-HxCB	36.64	1.94E+07	1.25 Y	0.96	1.00	3.6%
PCB-159 233'455'-HxCB	37.49	1.11E+07	1.25 Y	1.12	1.14	1.6%
PCB-162 233'4'55'-HxCB	37.73	1.17E+07	1.27 Y	1.13	1.20	6.3%
PCB-188 22'34'566'-HpCB	33.39	1.28E+07	1.03 Y	0.98	-	-
PCB-179 22'33'566'-HpCB	33.66	1.21E+07	1.01 Y	0.90	0.95	5.7%
PCB-184 22'344'66'-HpCB	34.13	1.17E+07	1.02 Y	0.86	0.91	5.8%
PCB-176 22'33'466'-HpCB	34.41	1.32E+07	1.03 Y	0.97	1.03	6.6%
PCB-186 22'34566'-HpCB	34.80	1.24E+07	0.99 Y	0.93	0.98	5.6%
PCB-178 22'33'55'6-HpCB	35.97	8.91E+06	1.02 Y	0.66	0.70	5.7%
PCB-175 22'33'45'6-HpCB	36.51	8.69E+06	1.06 Y	1.02	1.01	-1.0%
PCB-187 22'34'55'6-HpCB	36.74	9.27E+06	1.03 Y	1.03	1.08	5.3%
PCB-182 22'344'56'-HpCB	36.92	9.37E+06	1.05 Y	1.10	1.09	-0.2%
PCB-183 22'344'5'6-HpCB	37.26	9.16E+06	1.04 Y	1.12	1.07	-4.8%
PCB-185 22'3455'6-HpCB	37.34	8.61E+06	1.06 Y	0.97	1.01	3.9%
PCB-174 22'33'456'-HpCB	37.45	7.78E+06	1.03 Y	0.90	0.91	1.5%
PCB-177 22'33'45'6'-HpCB	37.82	7.56E+06	1.08 Y	0.87	0.88	1.3%
PCB-181 22'344'56-HpCB	38.17	8.60E+06	1.05 Y	1.03	1.00	-2.9%
PCB-171/173 ...-HpCB	38.34	1.53E+07	1.03 Y	0.89	0.89	0.8%
PCB-172 22'33'455'-HpCB	39.73	7.49E+06	1.05 Y	0.87	0.87	0.3%
PCB-192 233'455'6-HpCB	39.98	9.90E+06	1.07 Y	1.16	1.16	-0.4%
PCB-180/193 ...-HpCB	40.26	1.83E+07	1.04 Y	1.07	1.07	0.0%
PCB-191 233'44'5'6-HpCB	40.59	1.02E+07	1.03 Y	1.18	1.19	0.9%
PCB-170 22'33'44'5-HpCB	41.35	6.92E+06	1.05 Y	0.99	1.00	0.2%
PCB-190 233'44'56-HpCB	41.80	9.32E+06	1.07 Y	1.36	1.34	-1.0%
PCB-202 22'33'55'66'-OcCB	37.94	9.52E+06	0.89 Y	0.86	-	-
PCB-201 22'33'45'66'-OcCB	38.72	1.04E+07	0.89 Y	0.95	0.96	0.8%
PCB-204 22'344'566'-OcCB	39.30	9.80E+06	0.89 Y	0.90	0.91	0.2%
PCB-197 22'33'44'66'-OcCB	39.49	1.01E+07	0.88 Y	0.96	0.94	-2.5%
PCB-200 22'33'4566'-OcCB	39.57	9.91E+06	0.91 Y	0.88	0.92	3.9%
PCB-198/199 ...-OcCB	41.93	1.31E+07	0.89 Y	0.63	0.61	-4.0%
PCB-196 22'33'44'56'-OcCB	42.51	6.74E+06	0.90 Y	0.66	0.62	-5.7%
PCB-203 22'344'55'6-OcCB	42.68	7.03E+06	0.91 Y	0.69	0.65	-6.5%
PCB-195 22'33'44'56-OcCB	43.79	5.62E+06	0.90 Y	0.82	0.95	15.0%
PCB-194 22'33'44'55'-OcCB	45.79	5.66E+06	0.90 Y	0.90	0.96	6.0%
PCB-205 233'44'55'6-OcCB	46.19	6.93E+06	0.90 Y	1.13	-	-
PCB-208 22'33'455'66'-NoCB	43.60	7.63E+06	0.78 Y	1.03	-	-
PCB-207 22'33'44'566'-NoCB	44.39	7.70E+06	0.77 Y	1.07	1.02	-4.3%
PCB-206 22'33'44'55'6-NoCB	47.68	4.76E+06	0.78 Y	0.97	-	-

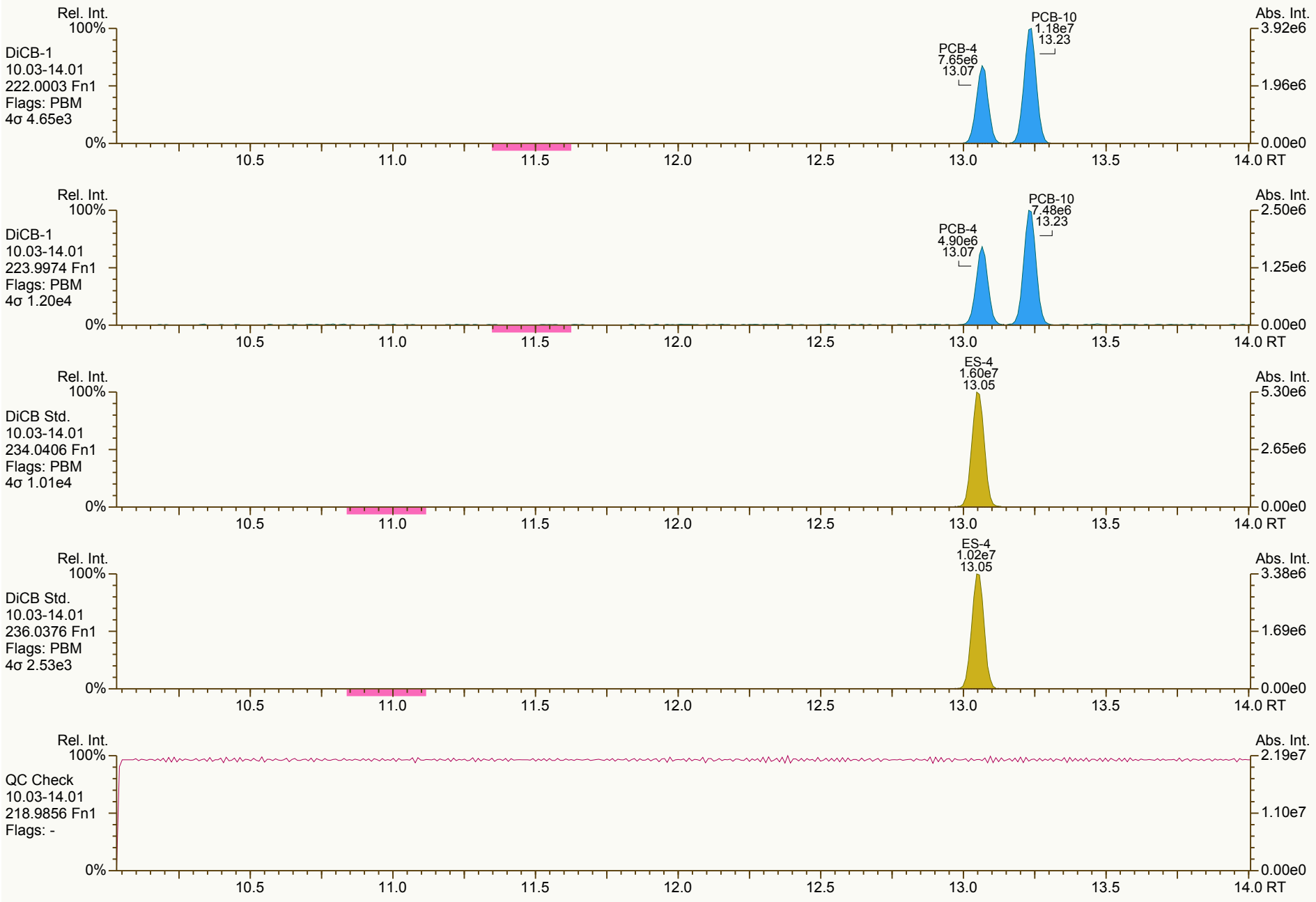
SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**



SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**



SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**



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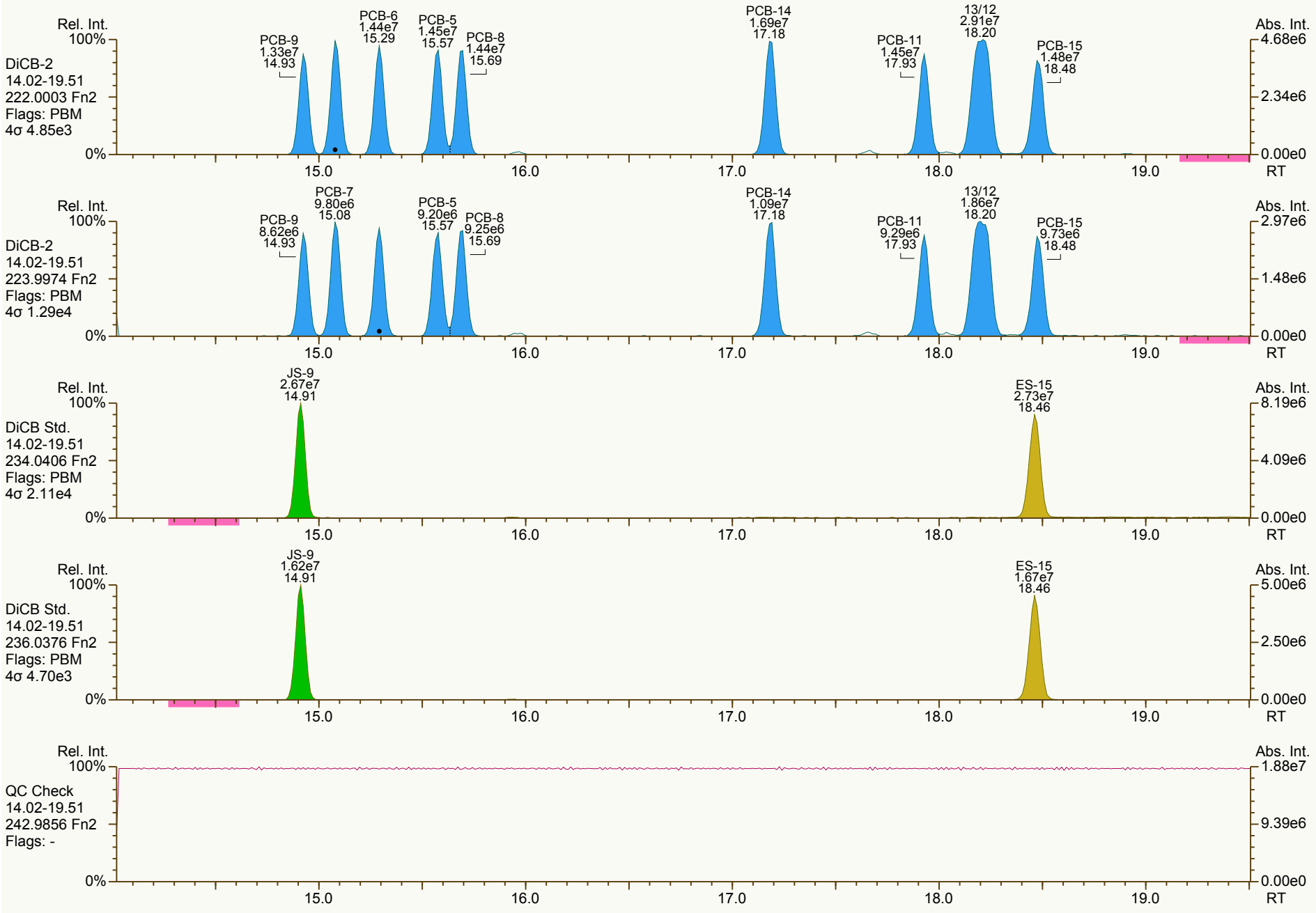
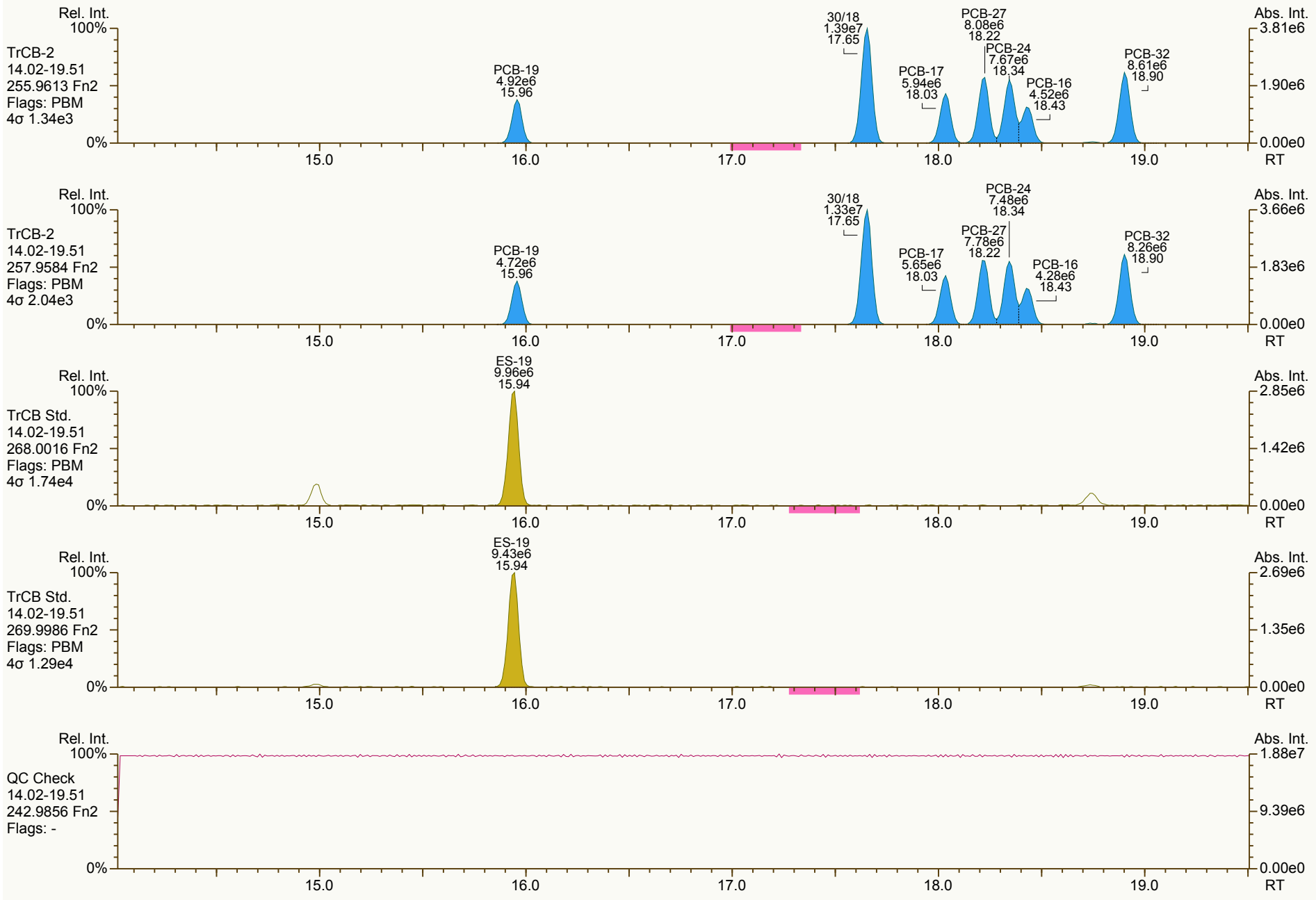
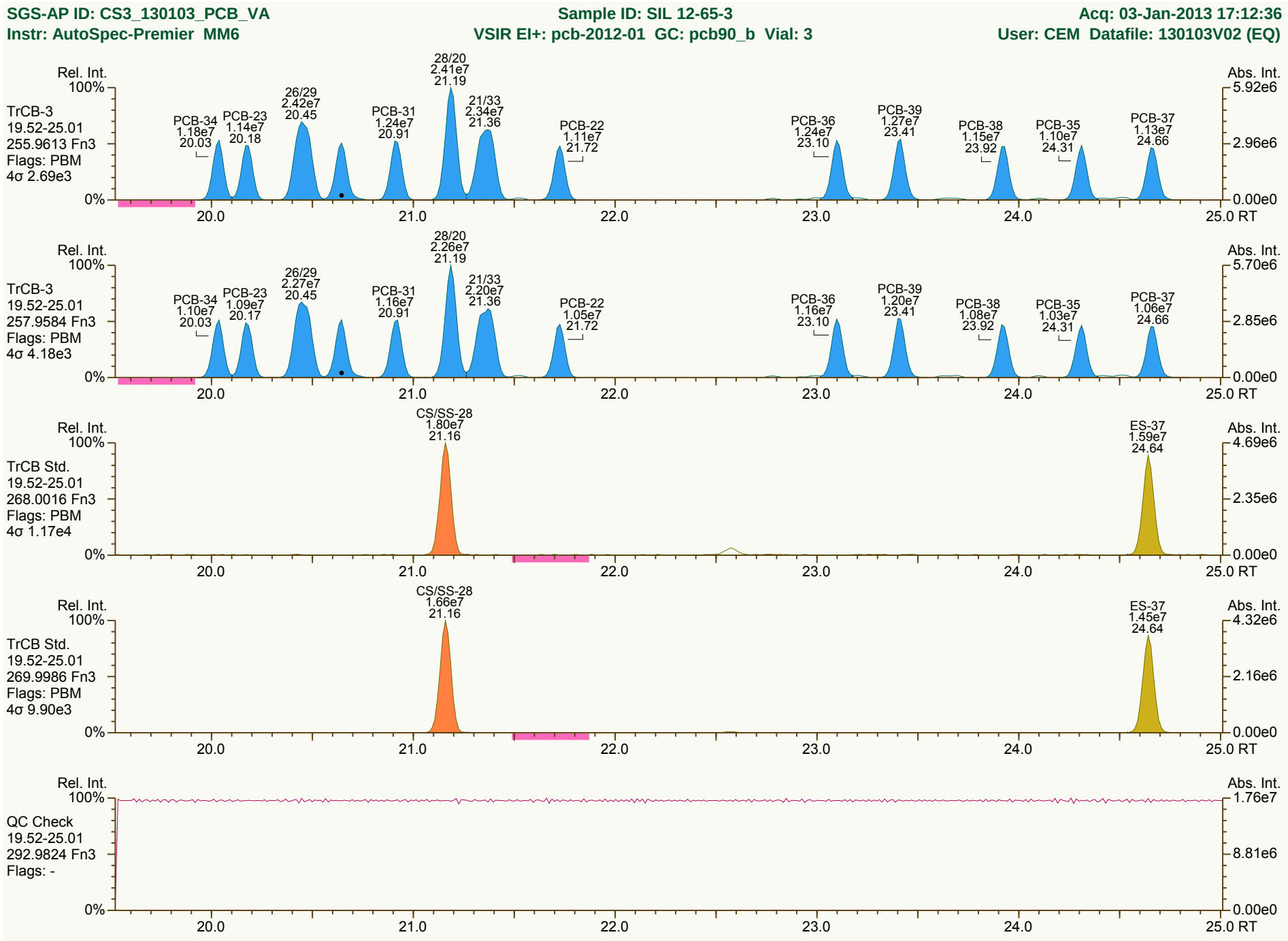
SGS-AP ID: CS3_130103_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 03-Jan-2013 17:12:36
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130103V02 (EQ)



SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\CS3_130103_PCB_VA.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 8879, 8199 scc: 862-330 *PKD: 04-Jan-2013 10:01 Printed: 04-Jan-2013 13:57 Page 5 of 22*



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\CS3_130103_PCB_VA.utp_res, saved 04-Jan-2013 12:07 (CEM)
Peak annotation: Areas, Centroids

SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**

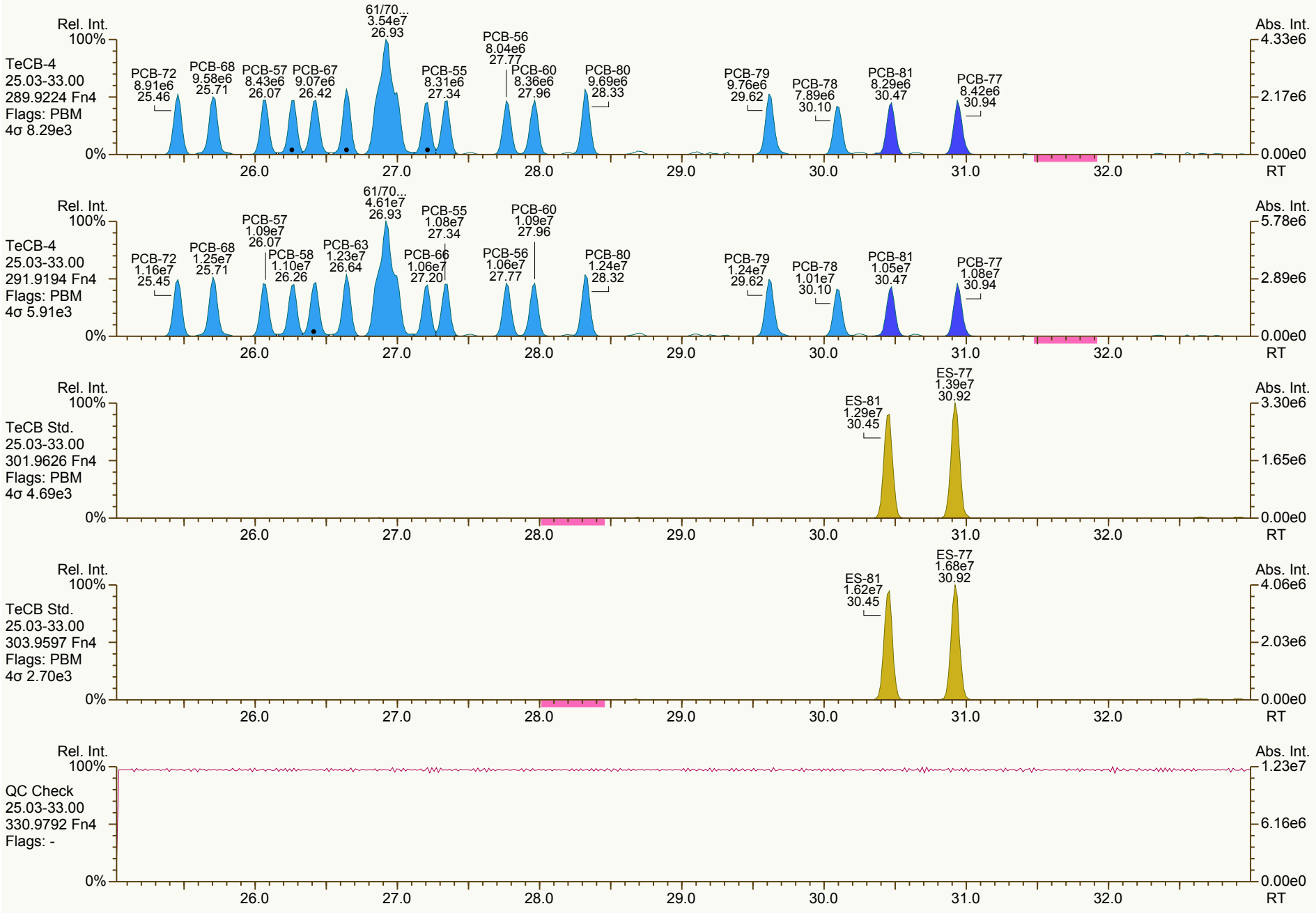


SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**



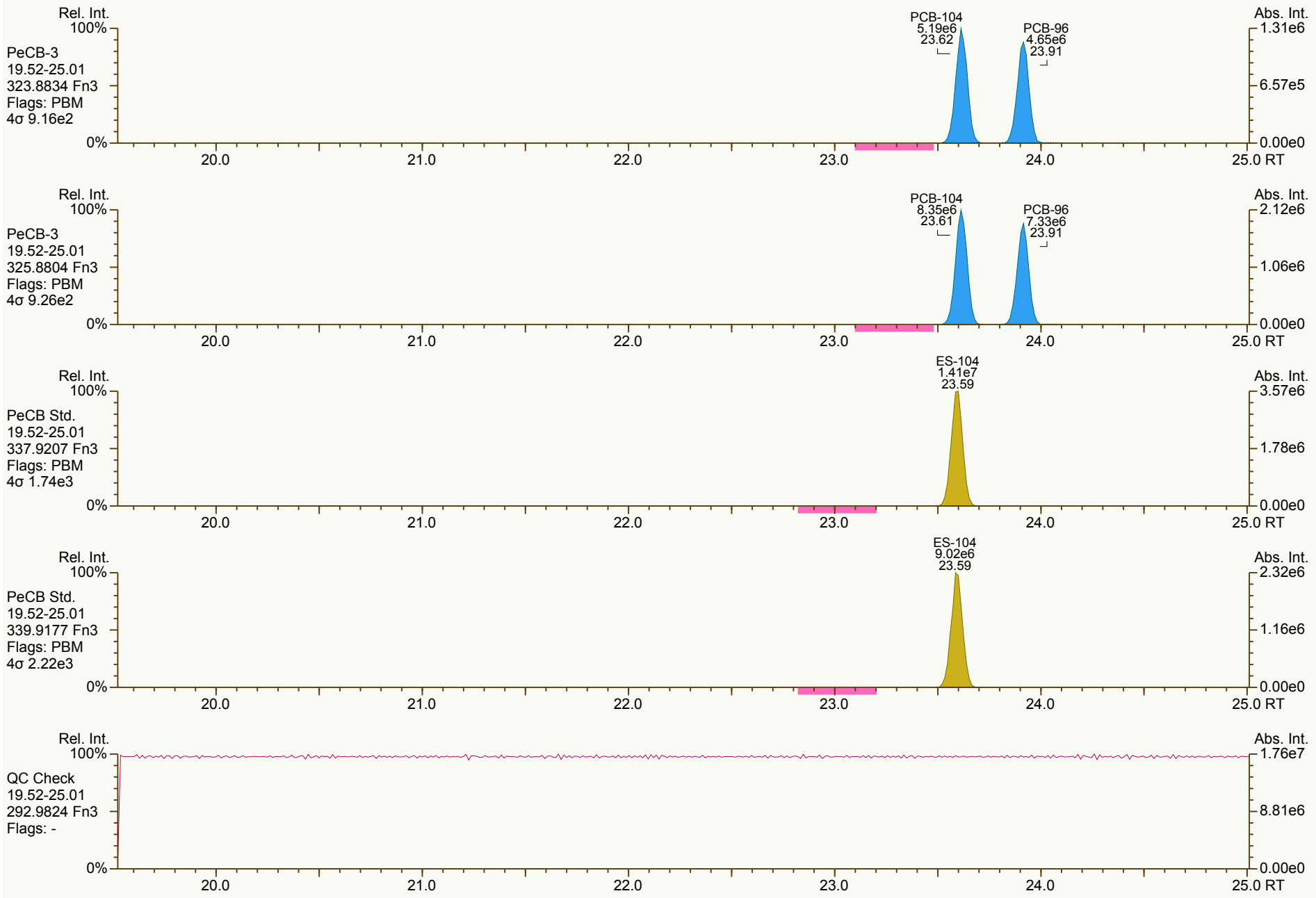
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\CS3_130103_PCB_VA.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_130103_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 03-Jan-2013 17:12:36
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130103V02 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\CS3_130103_PCB_VA.utp_res, saved 04-Jan-2013 12:07 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 5776, 9846 scc: 862-330
Revised: 04-Jan-2013 10:01 (CEM) Printed: 04-Jan-2013 13:57 Page 9 of 22

SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**



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SGS-AP ID: CS3_130103_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 03-Jan-2013 17:12:36
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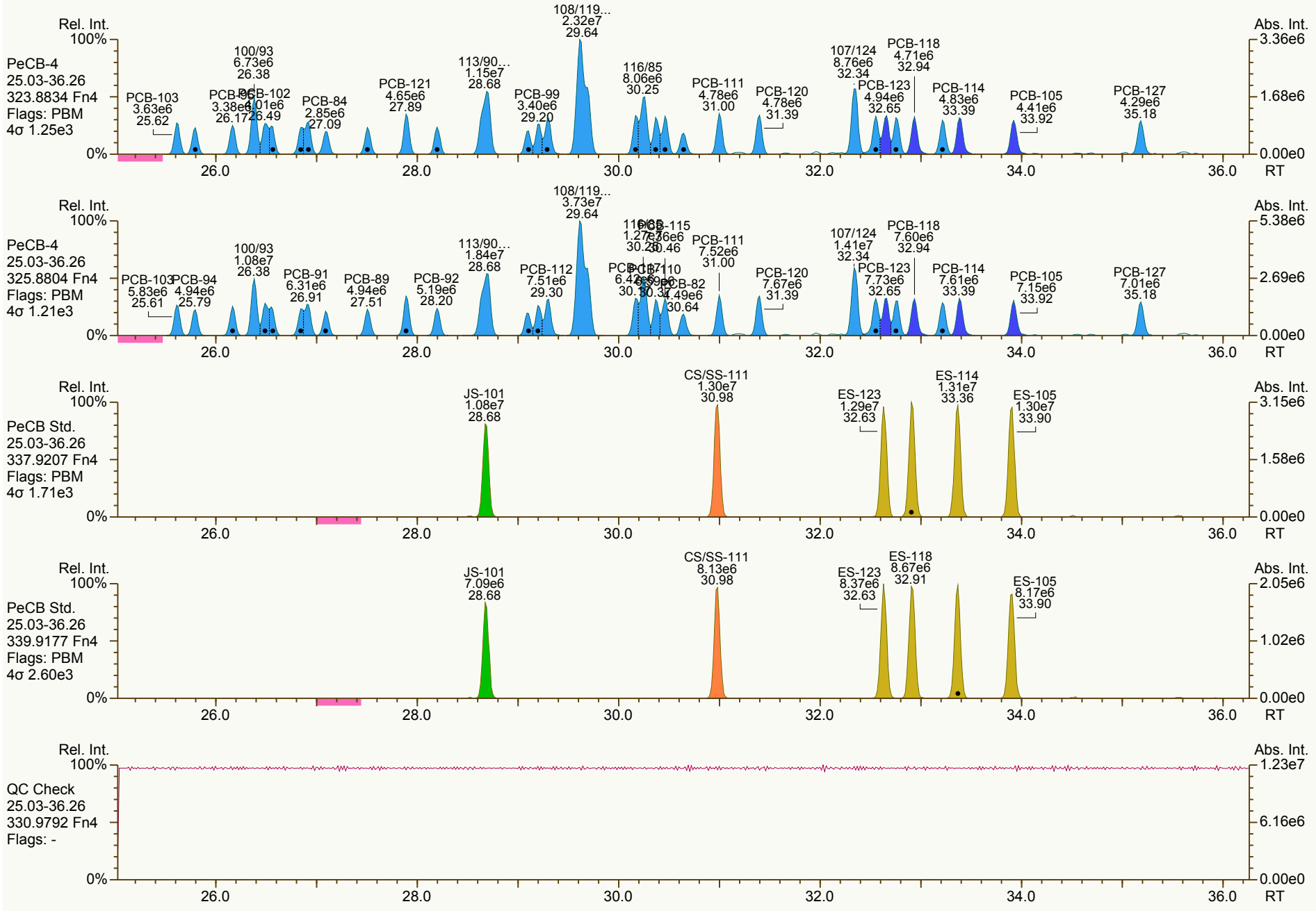

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Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 7821, 6271 scc: 862-330
Revised: 04-Jan-2013 10:02 (CEM) Printed: 04-Jan-2013 13:57 Page 11 of 22

SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\CS3_130103_PCB_VA.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 7220, 6343 scc: 862-330 *Revised: 04-Jan-2013 10:03 (CEM) Printed: 04-Jan-2013 13:57 Page 12 of 22*

SGS-AP ID: CS3_130103_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 03-Jan-2013 17:12:36
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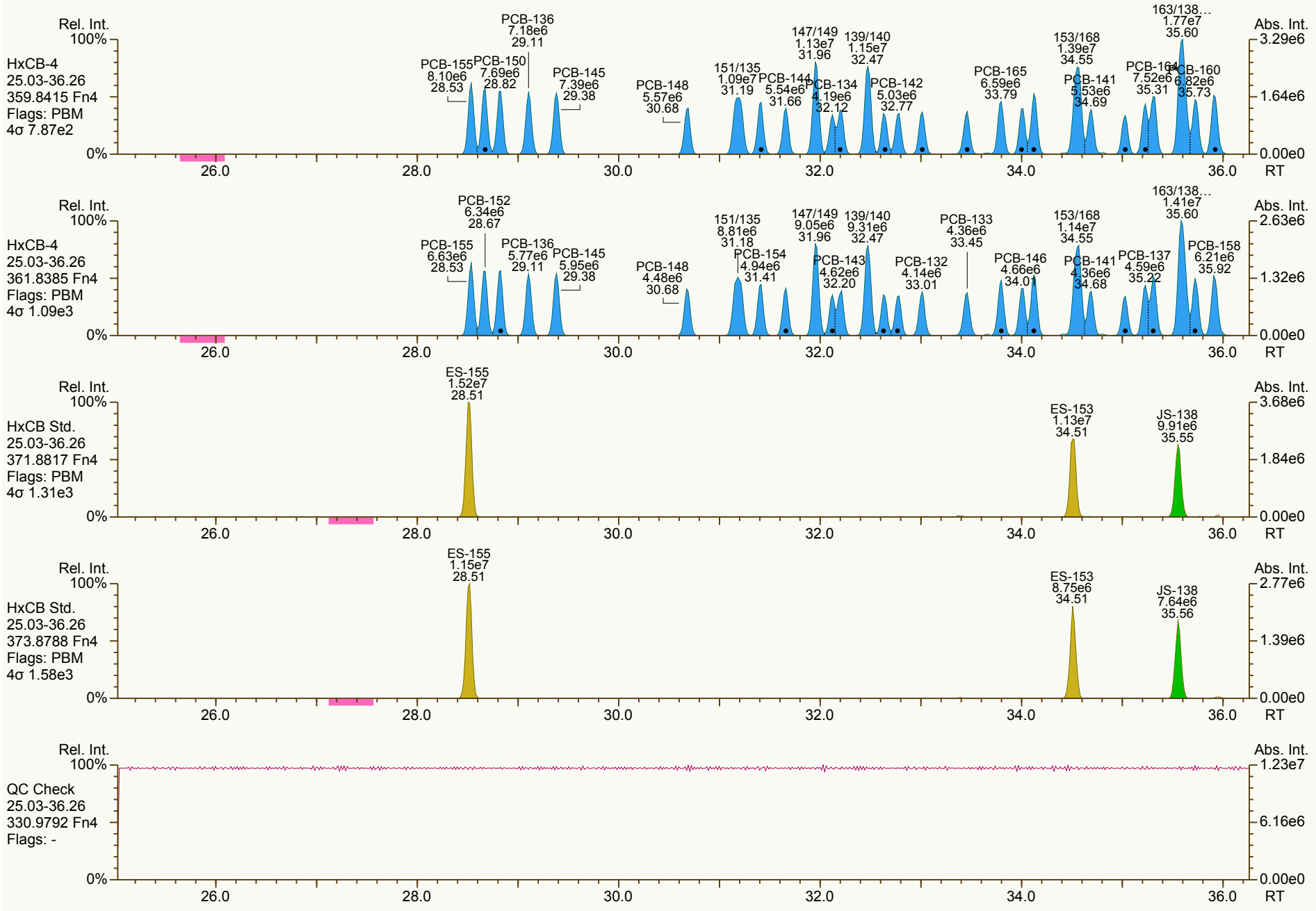

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SGS-AP ID: CS3_130103_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 03-Jan-2013 17:12:36
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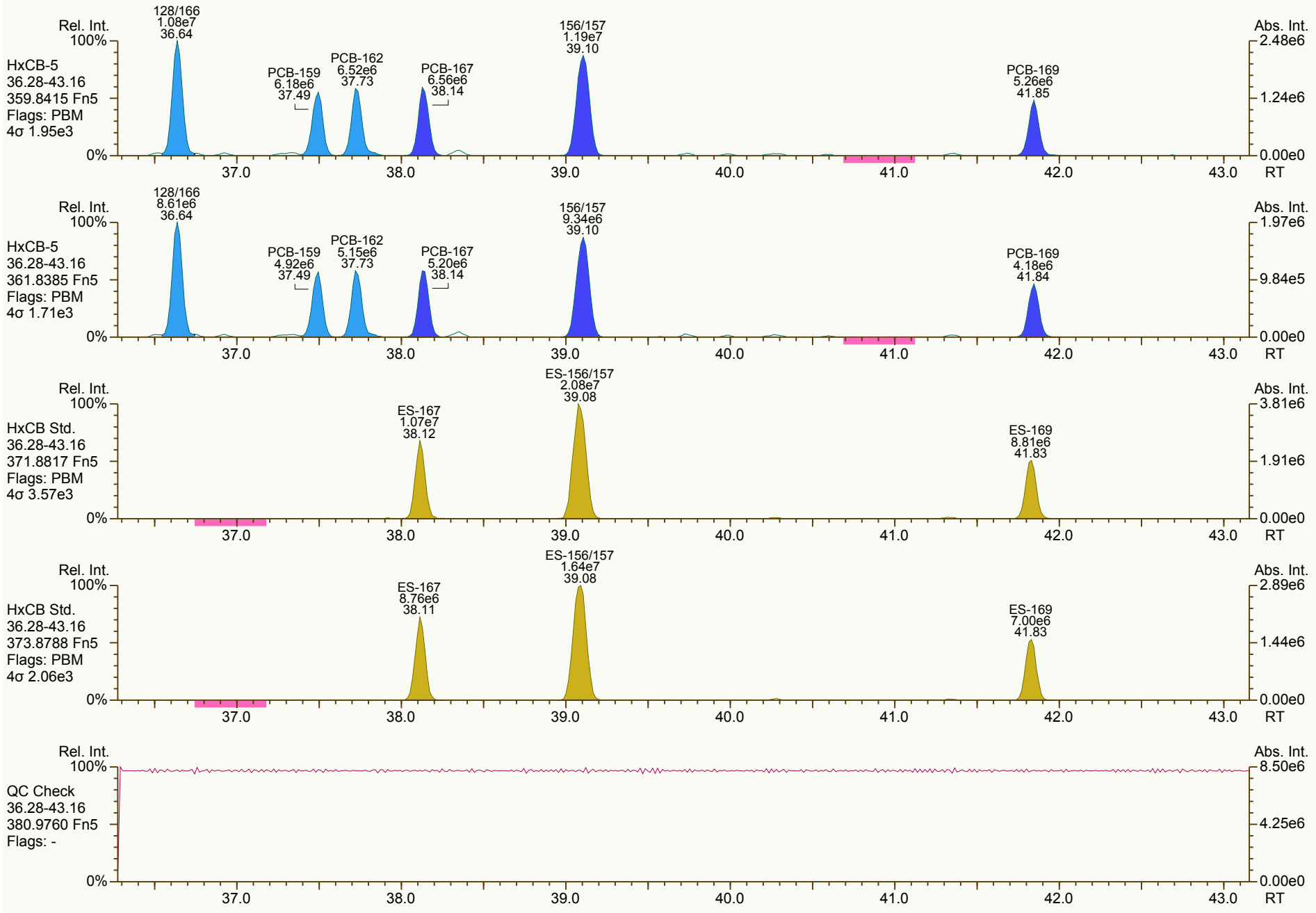
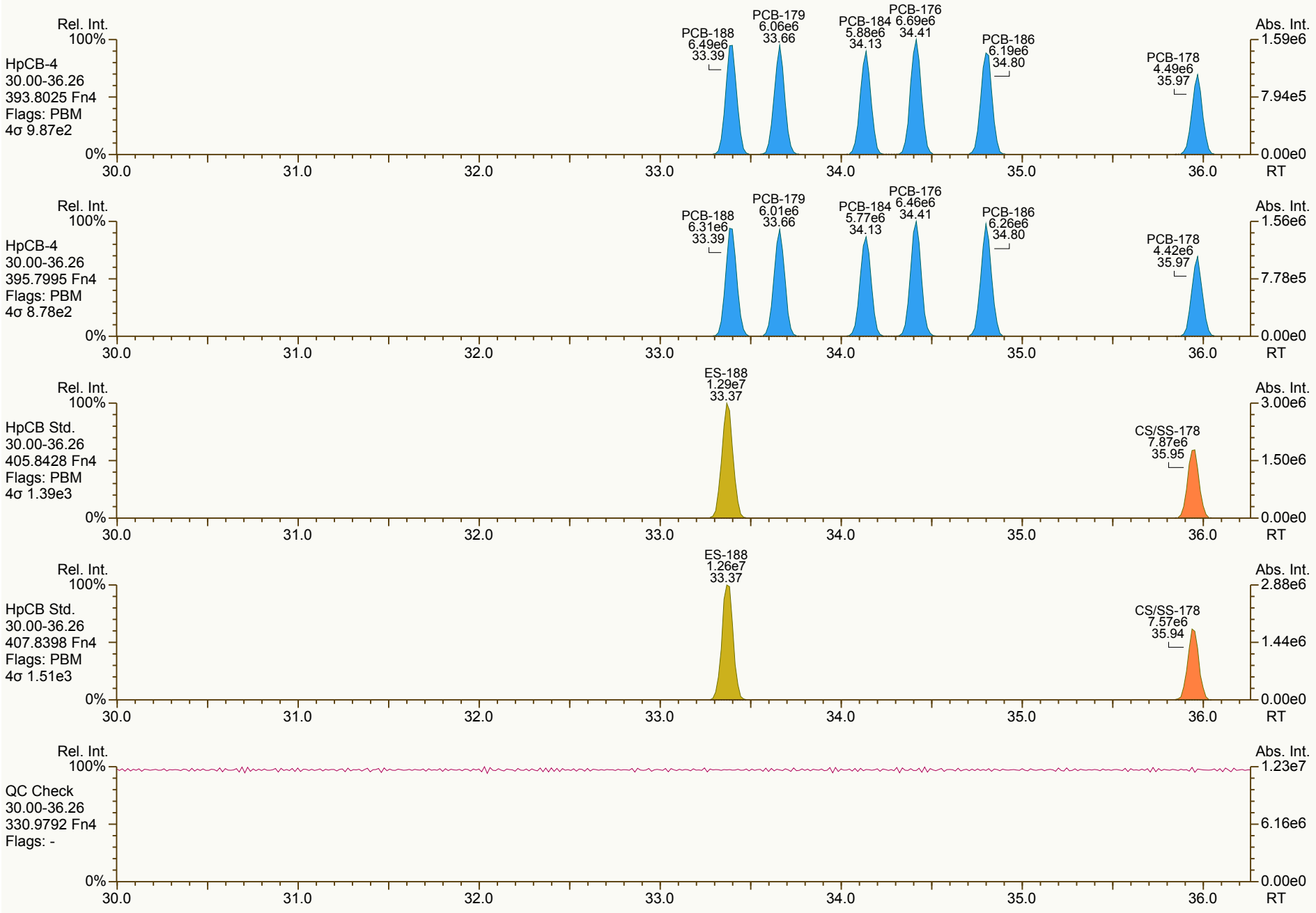


SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**



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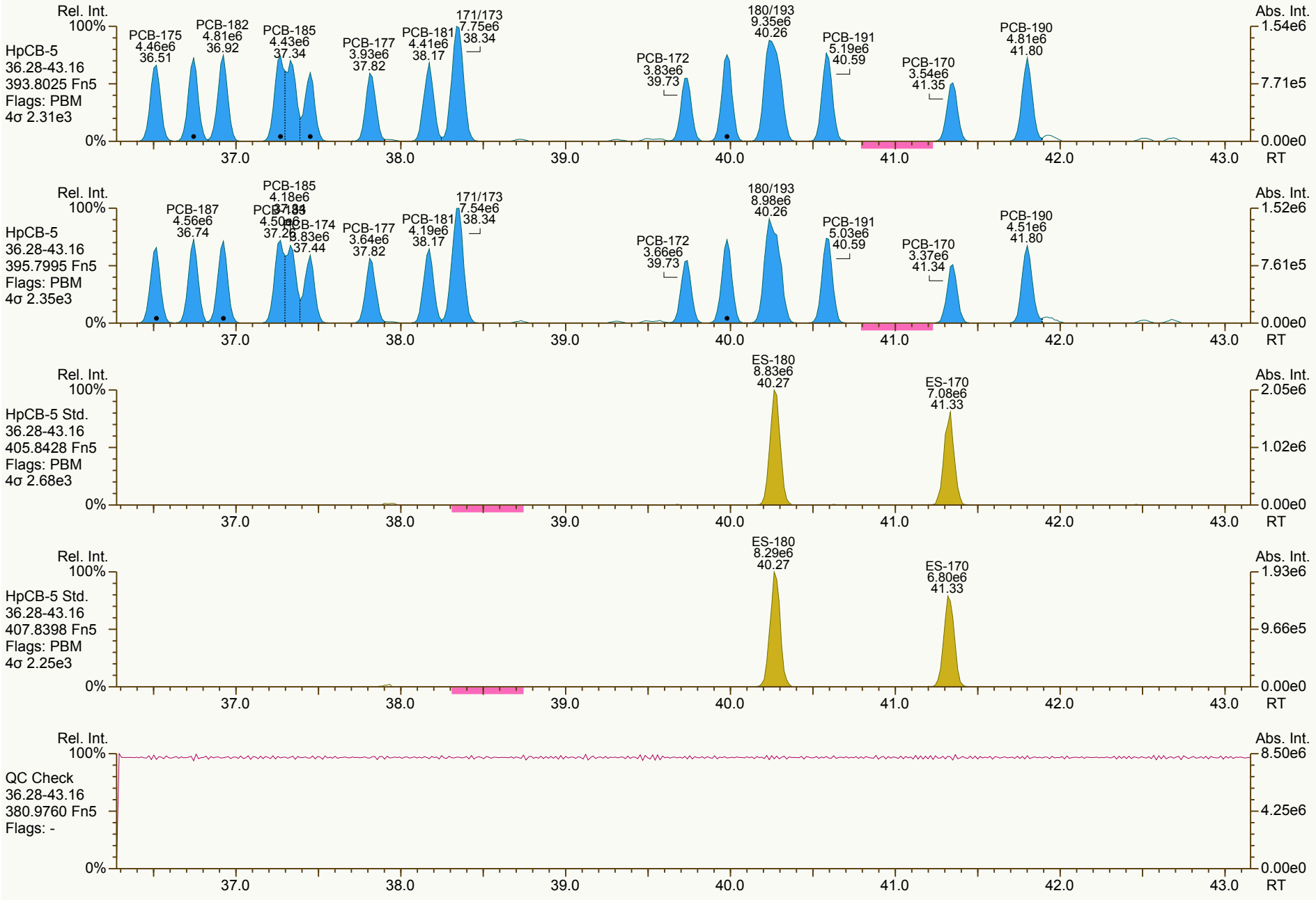
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 8435, 2750 scc: 862-330 *Revised: 04-Jan-2013 10:04 (CEM) Printed: 04-Jan-2013 13:57 Page 15 of 22*

SGS-AP ID: CS3_130103_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 03-Jan-2013 17:12:36
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130103V02 (EQ)



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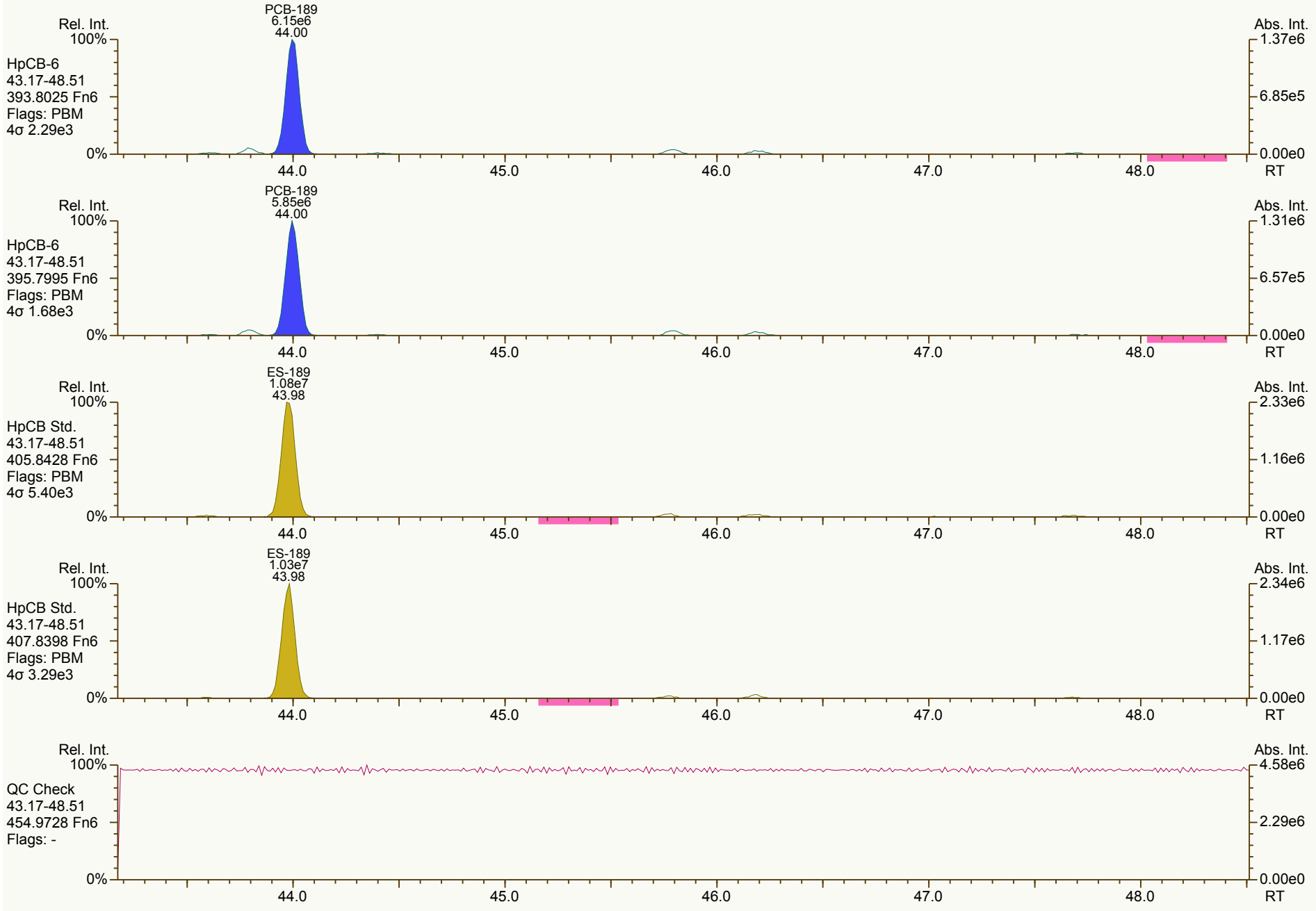

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SGS-AP ID: CS3_130103_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 03-Jan-2013 17:12:36
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130103V02 (EQ)



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SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
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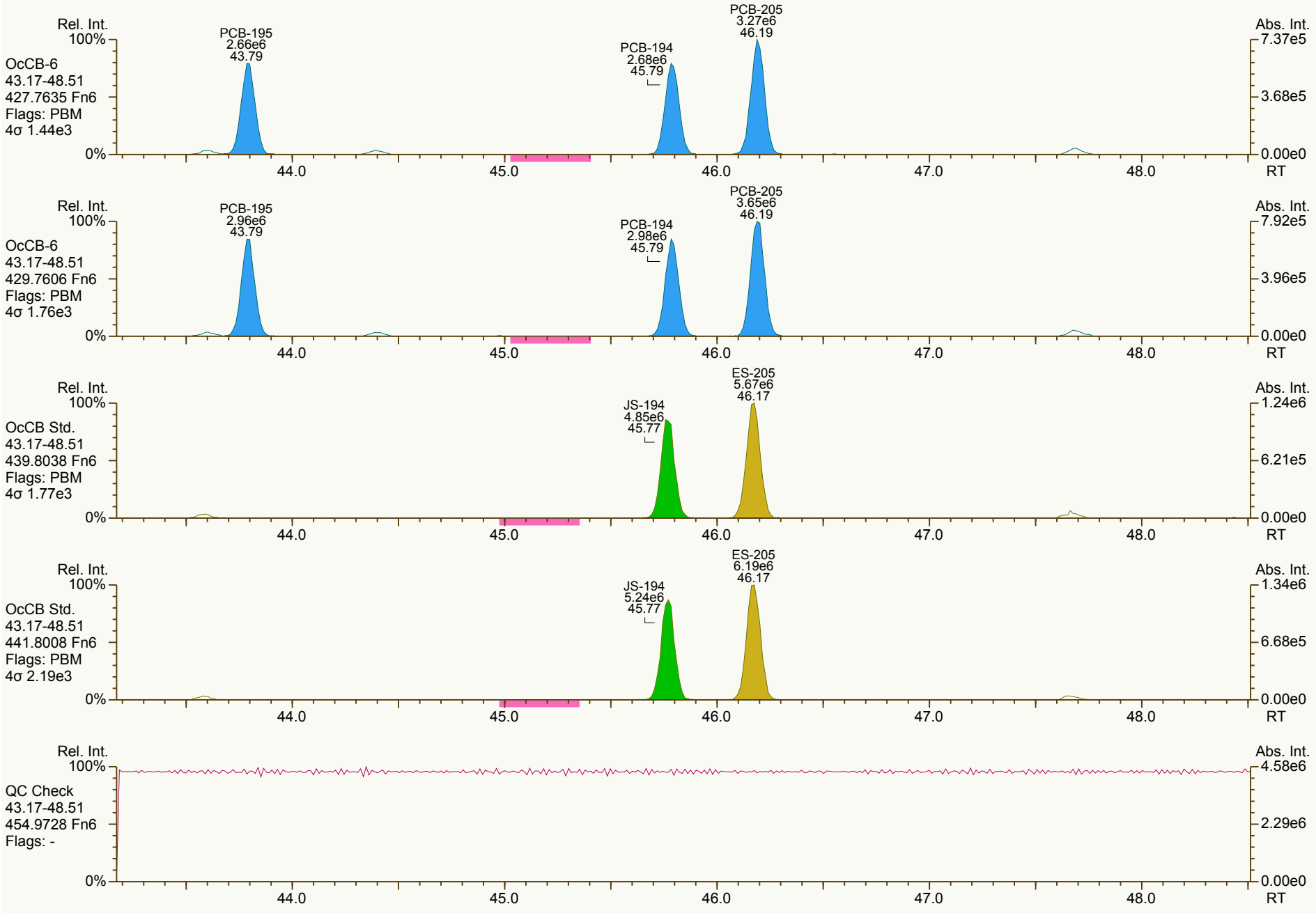

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SGS-AP ID: CS3_130103_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 03-Jan-2013 17:12:36
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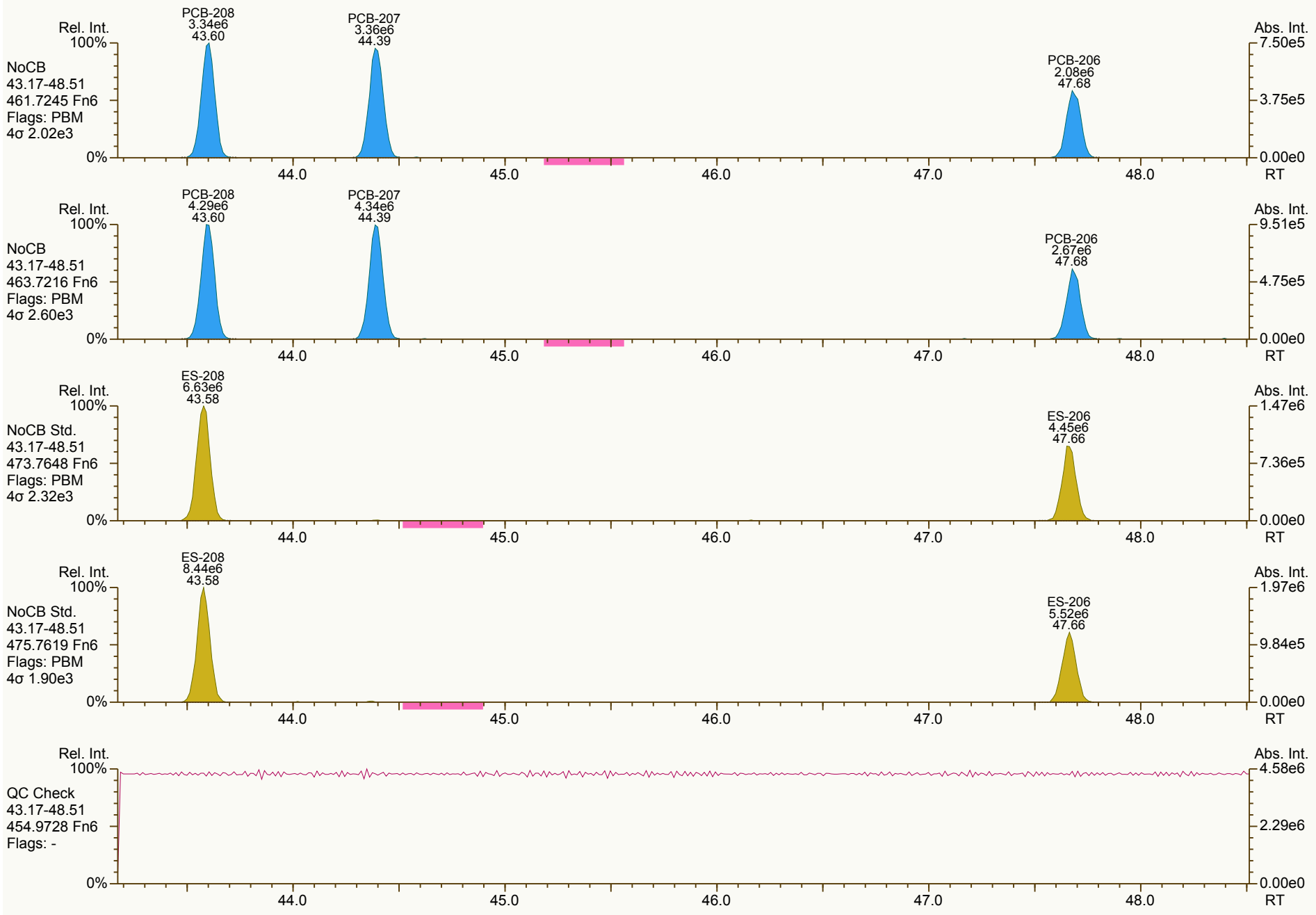

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AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 0218, 2211 scc: 862-330 *PKD: 04-Jan-2013 10:01 Printed: 04-Jan-2013 13:58 Page 20 of 22*

SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
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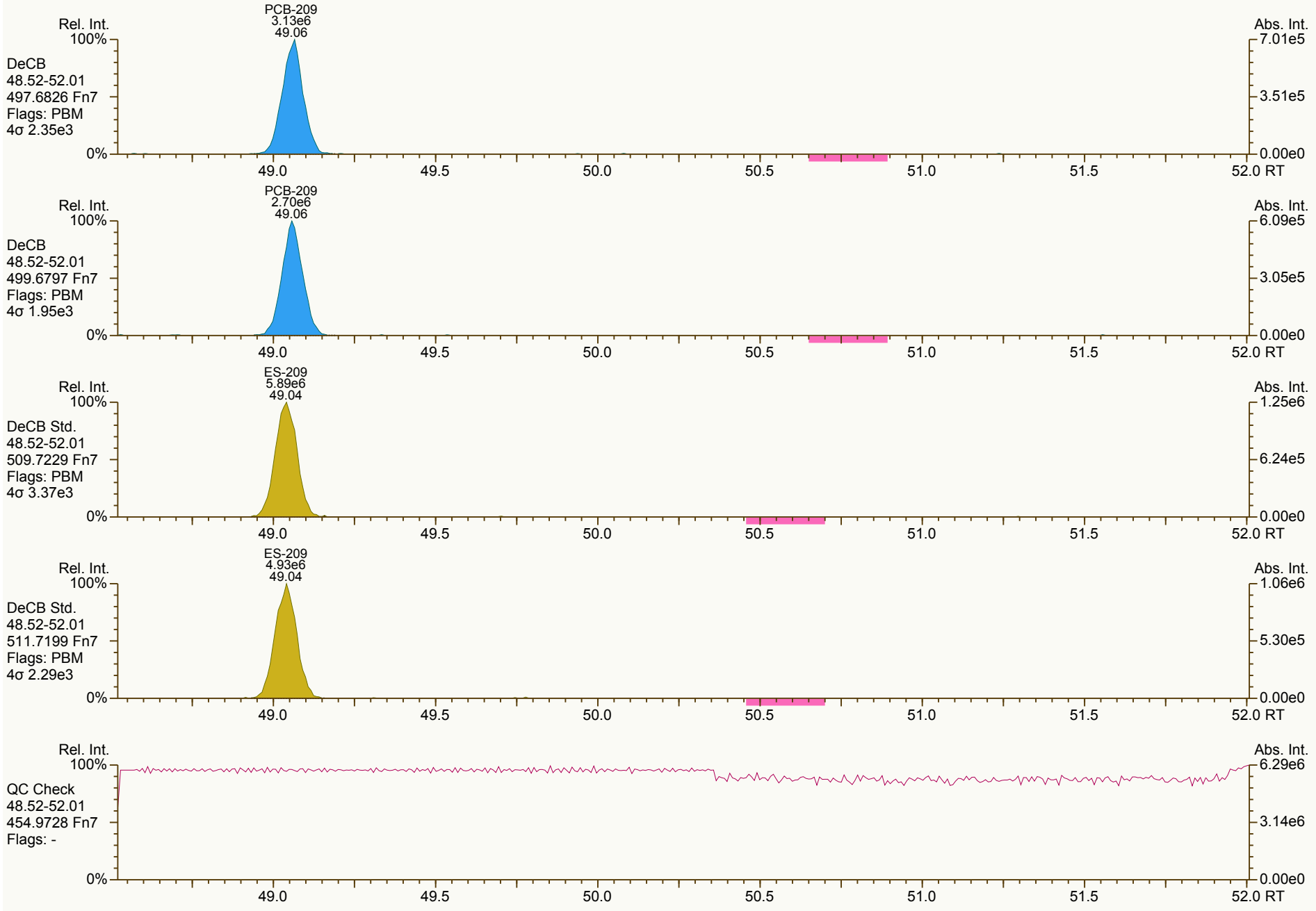

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SGS-AP ID: CS3_130103_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 03-Jan-2013 17:12:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130103V02 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\CS3_130103_PCB_VA.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\SBS_130103_PCB_VA.utp_res, saved 04-Jan-2013 11:27 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



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SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
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SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
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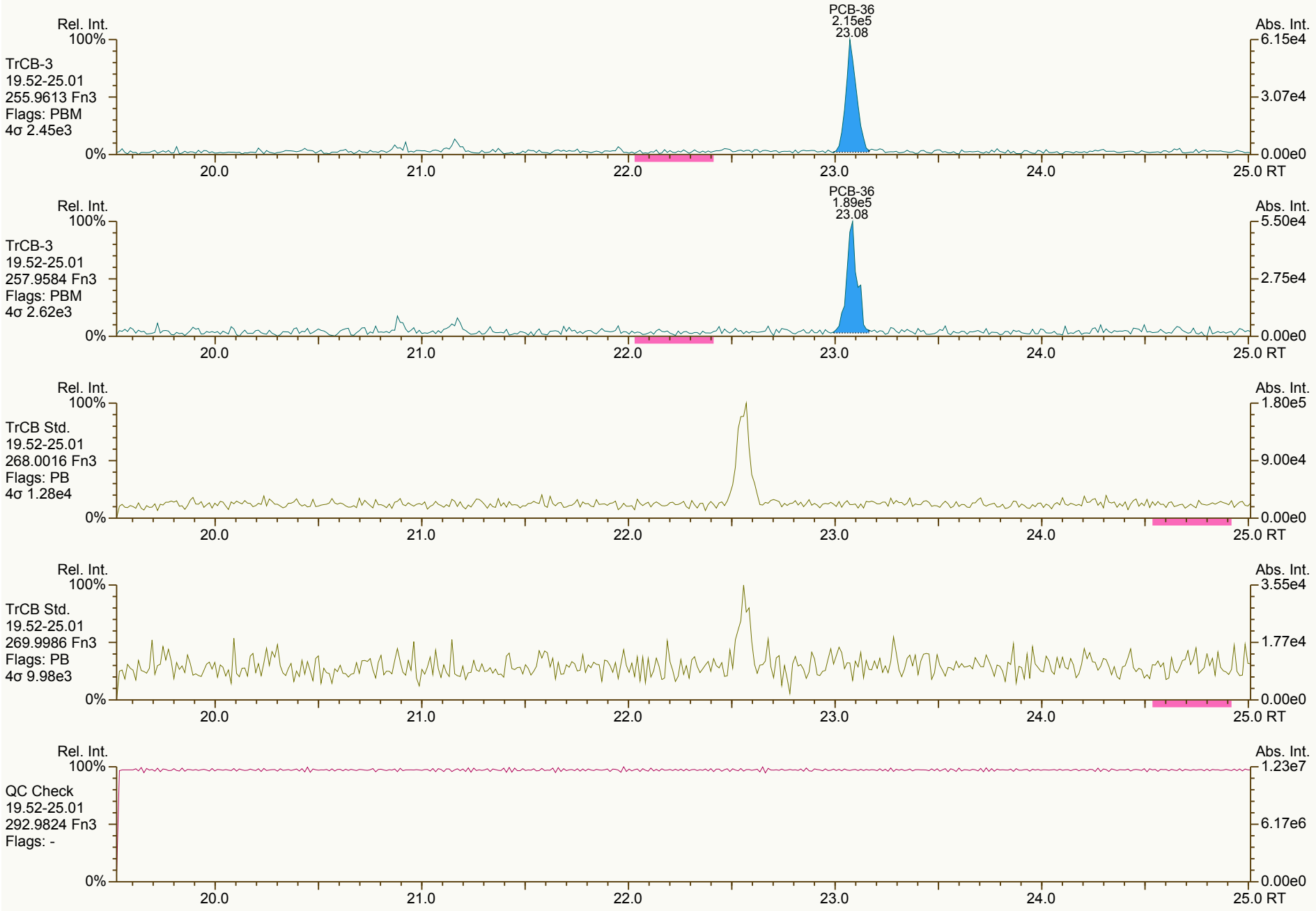

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AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 2789, 0664 scc: 196-712 *PKD: 04-Jan-2013 11:27 Printed: 04-Jan-2013 13:58 Page 6 of 22*

SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\SBS_130103_PCB_VA.utp_res, saved 04-Jan-2013 11:27 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 7394, 6511 scc: 196-712 *Revised: 04-Jan-2013 11:27 (CEM) Printed: 04-Jan-2013 13:58 Page 8 of 22*

SGS-AP ID: SBS_130103_PCB_VA | Sample ID: SIL 9-41-1 | Acq: 03-Jan-2013 19:00:49
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2 | User: CEM Datafile: 130103V04 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\SBS_130103_PCB_VA.utp_res, saved 04-Jan-2013 11:27 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 3293, 7135 scc: 196-712 *Revised: 04-Jan-2013 11:27 (CEM) Printed: 04-Jan-2013 13:58 Page 9 of 22*

SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



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SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
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SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
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SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
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SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
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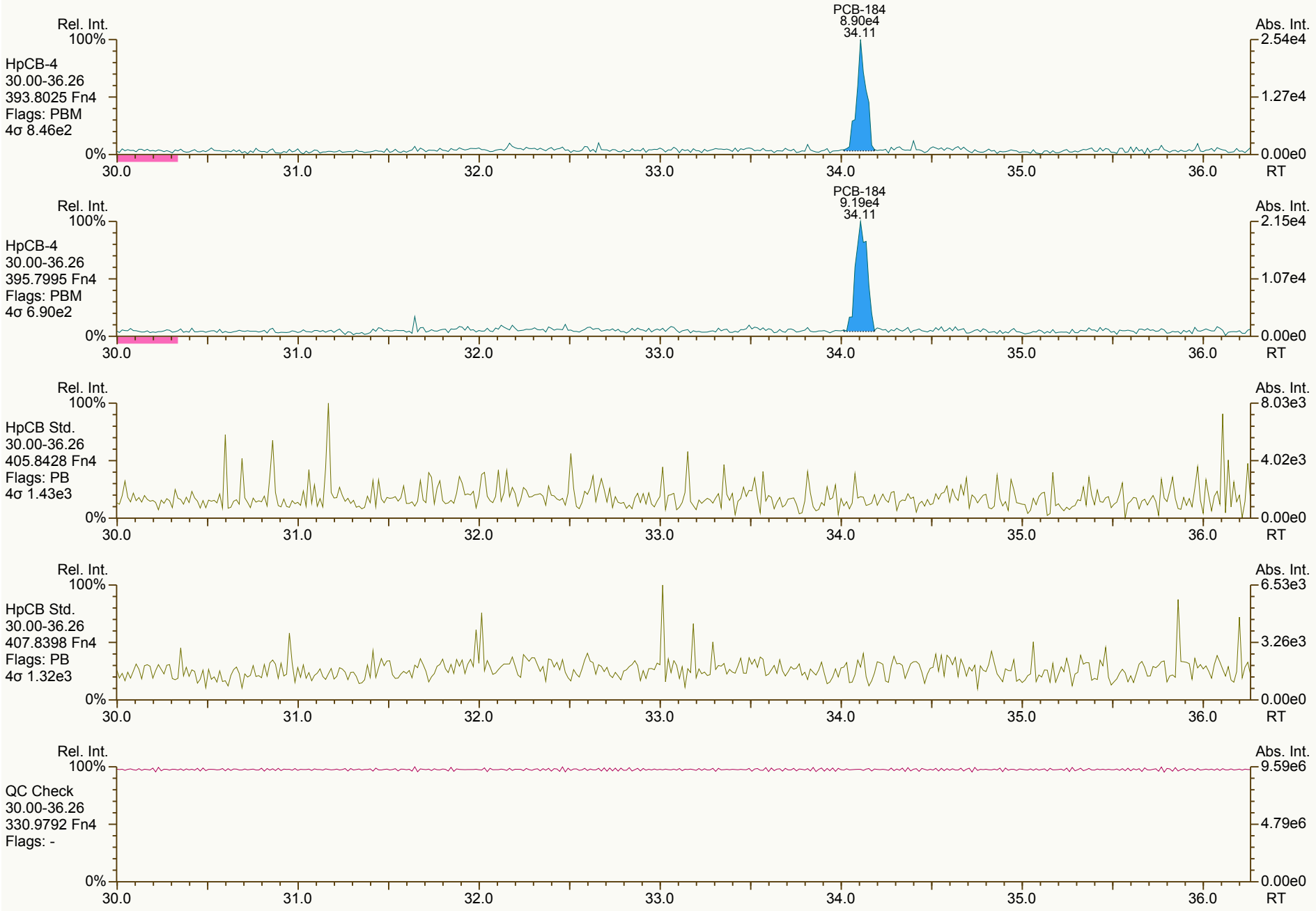

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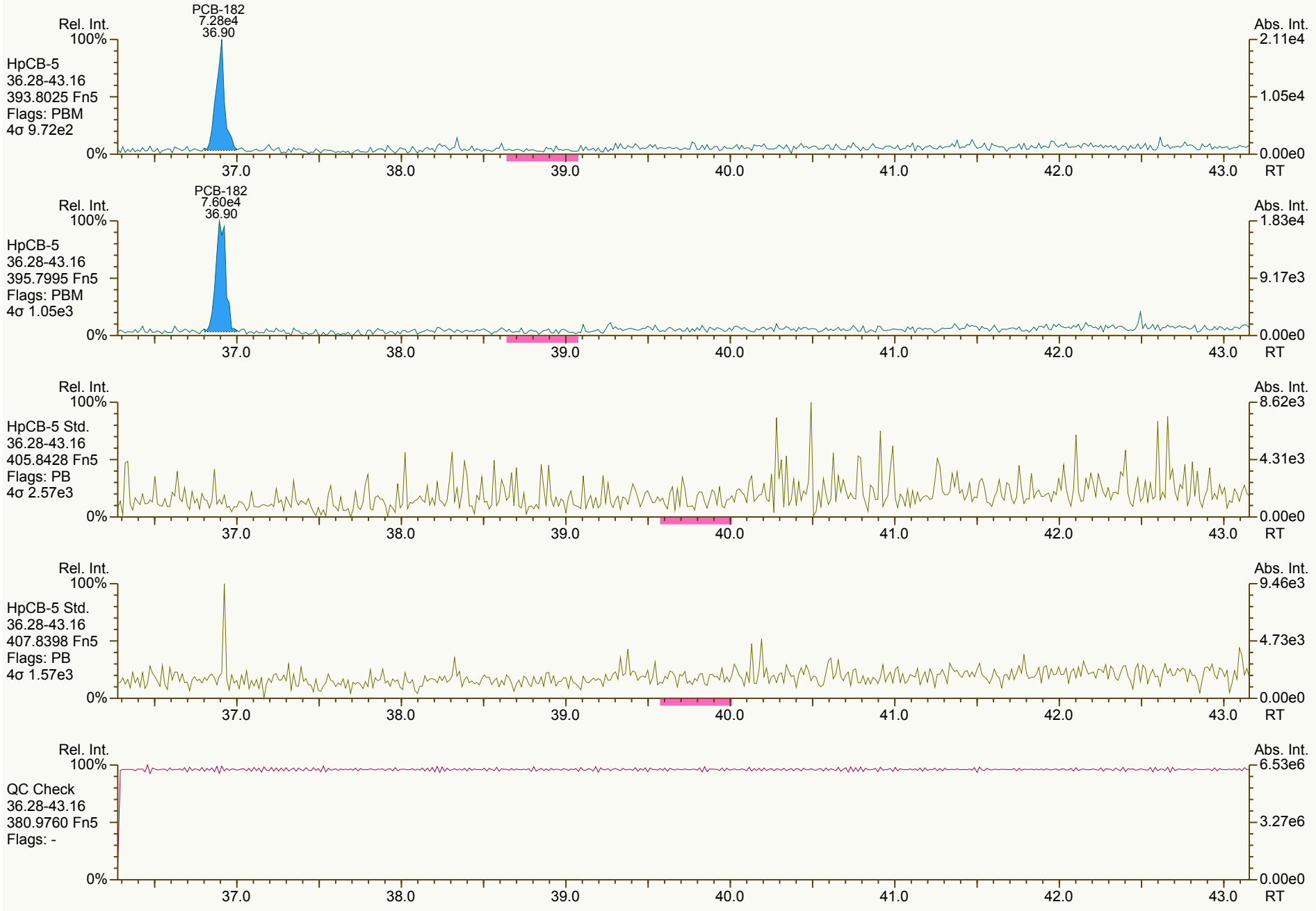
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 7584, 3072 scc: 196-712 *PKD: 04-Jan-2013 11:27 Printed: 04-Jan-2013 13:59 Page 15 of 22*

SGS-AP ID: SBS_130103_PCB_VA | Sample ID: SIL 9-41-1 | Acq: 03-Jan-2013 19:00:49
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2 | User: CEM Datafile: 130103V04 (EQ)



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SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\SBS_130103_PCB_VA.utp_res, saved 04-Jan-2013 11:27 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
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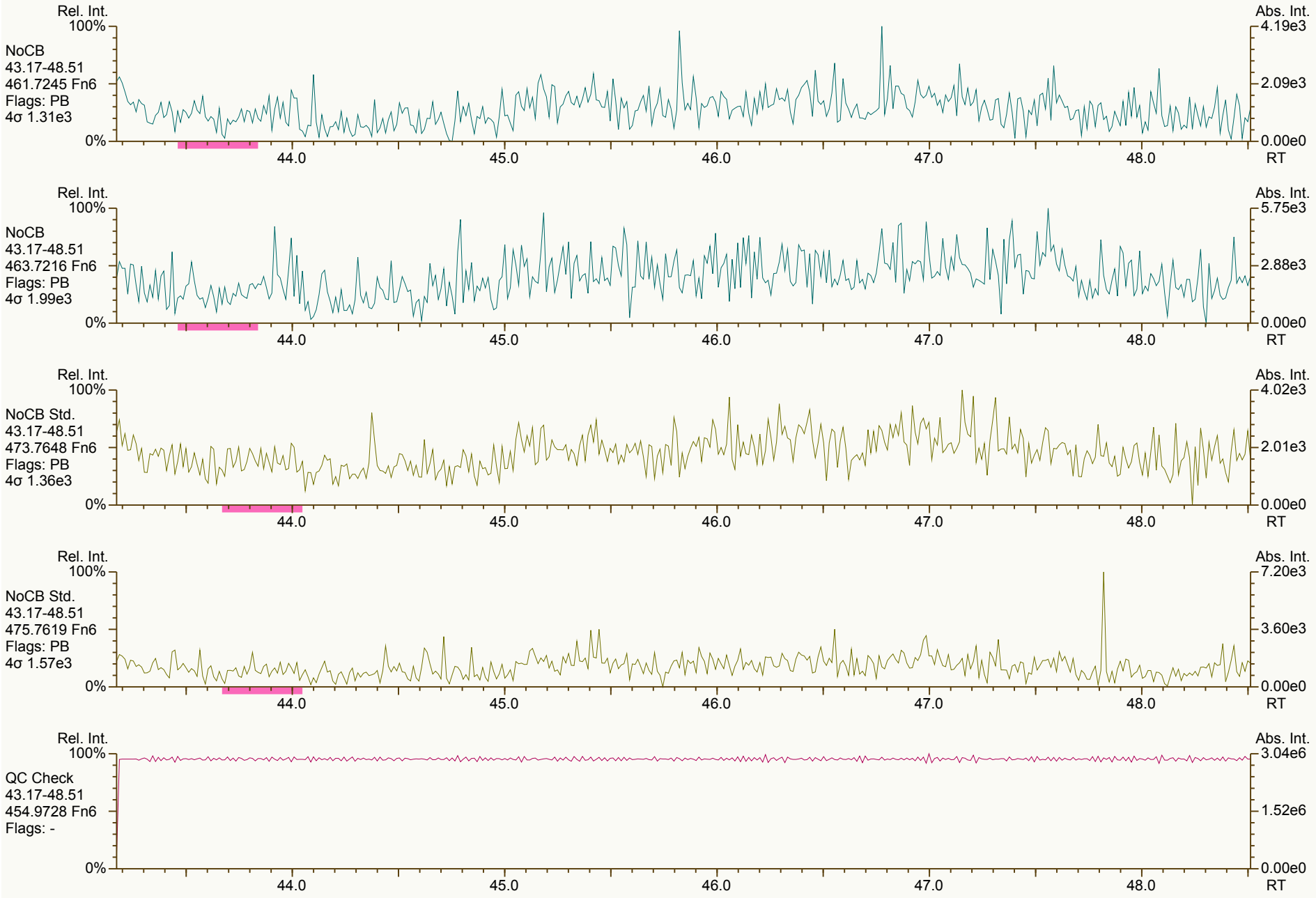

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SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\SBS_130103_PCB_VA.utp_res, saved 04-Jan-2013 11:27 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 5281, 9425 scc: 196-712 *Revised: 04-Jan-2013 11:27 (CEM) Printed: 04-Jan-2013 13:59 Page 21 of 22*

SGS-AP ID: SBS_130103_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 03-Jan-2013 19:00:49**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130103V04 (EQ)**



Experiment Calibration Report MassLynx 4.1 Page 1 of 1

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Printed: Thursday, January 03, 2013 16:12:26 Eastern Standard Time

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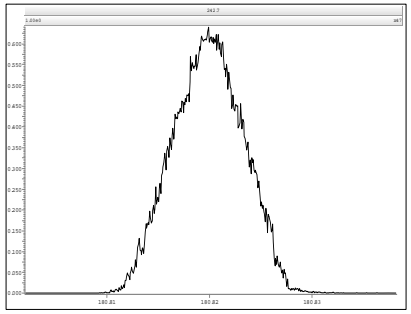

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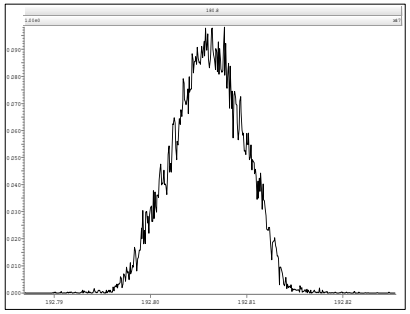

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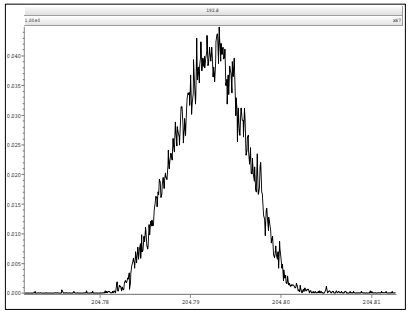
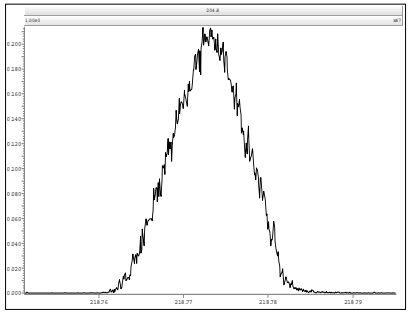
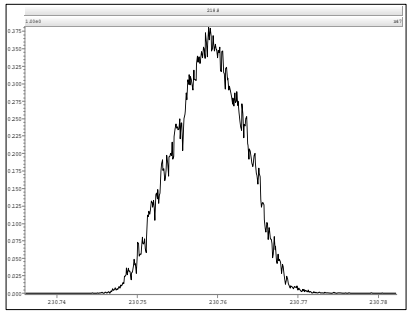


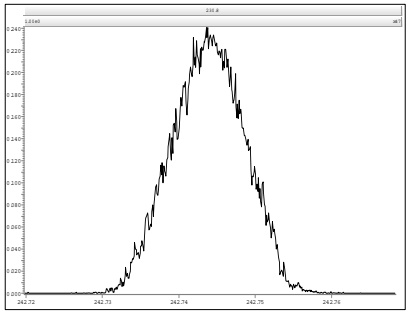
M 218.9856 R 11572



M 230.9856 R 11523



M 242.9856 R 11466



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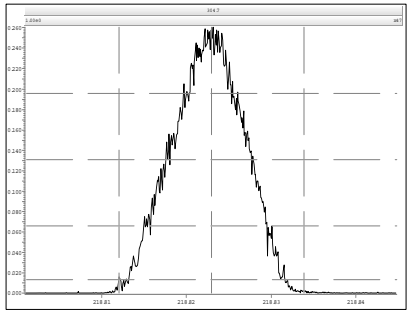
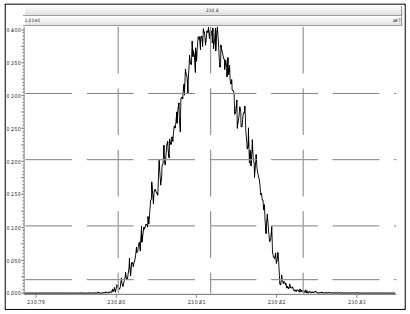
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 2 @ 200 (ppm)

Printed: Thursday, January 03, 2013 16:12:46 Eastern Standard Time

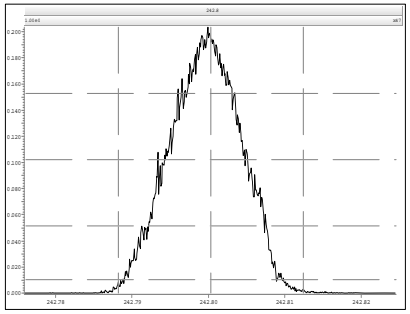
M 218.9856 R 11844



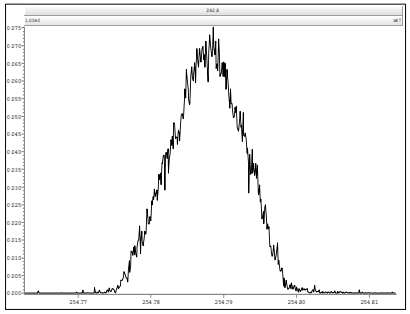
M 230.9856 R 11962



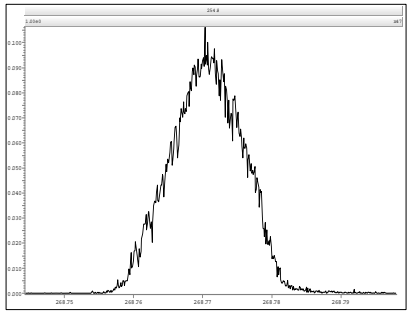
M 242.9856 R 12192



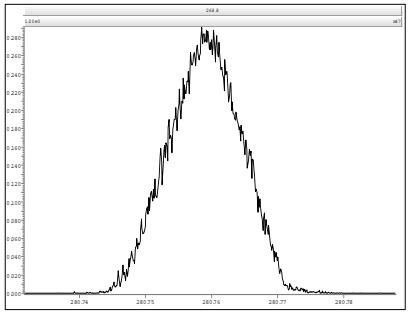
M 254.9856 R 11963



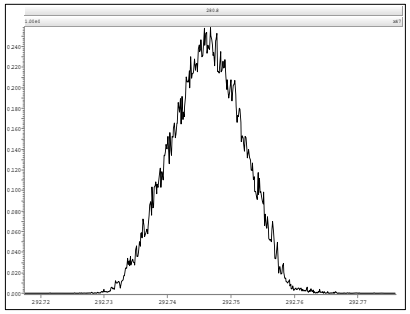
M 268.9824 R 11851



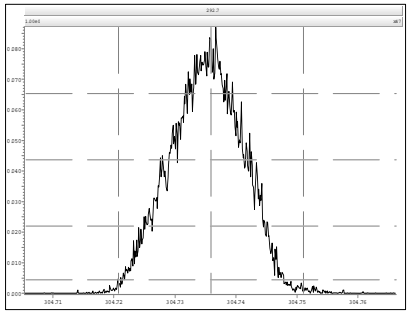
M 280.9824 R 11467



M 292.9824 R 11213



M 304.9824 R 11521

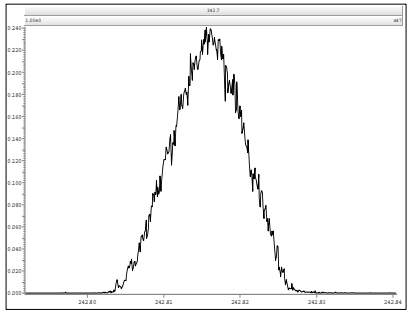


Experiment Calibration Report MassLynx 4.1 Page 1 of 1

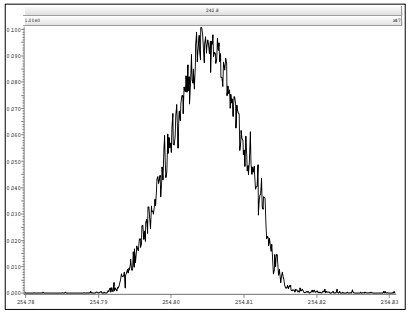
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 3 @ 200 (ppm)

Printed: Thursday, January 03, 2013 16:13:09 Eastern Standard Time

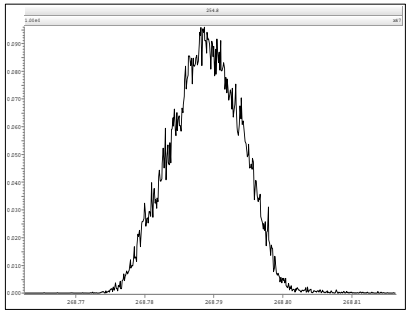
M 242.9856 R 11523



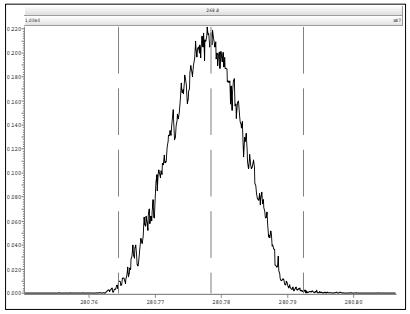
M 254.9856 R 11960



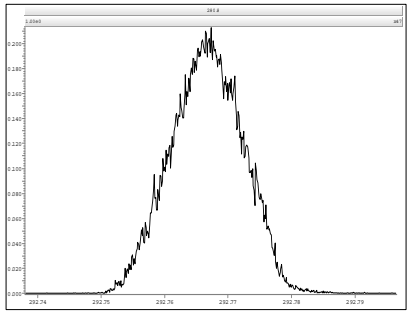
M 268.9824 R 11740



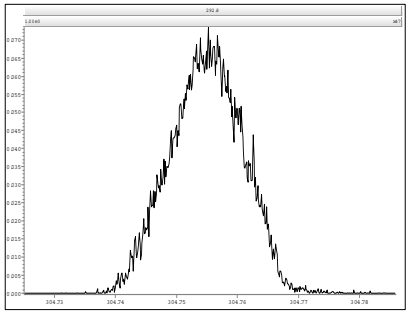
M 280.9824 R 11962



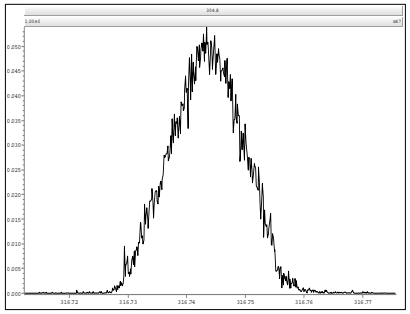
M 292.9824 R 11419



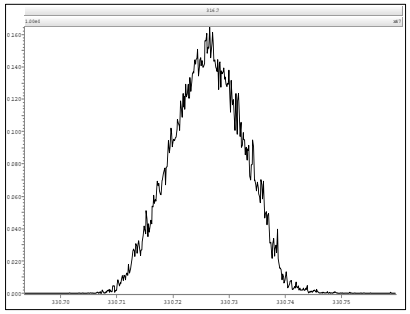
M 304.9824 R 11629



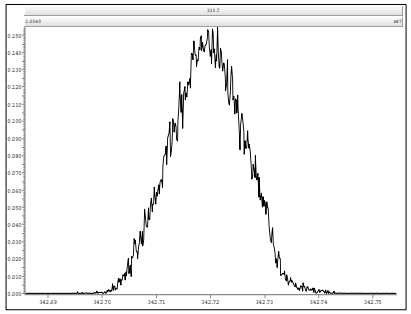
M 316.9824 R 11741



M 330.9792 R 11417



M 342.9792 R 11261



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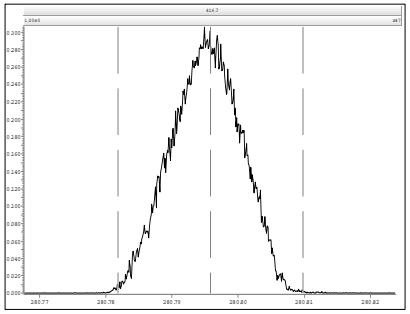
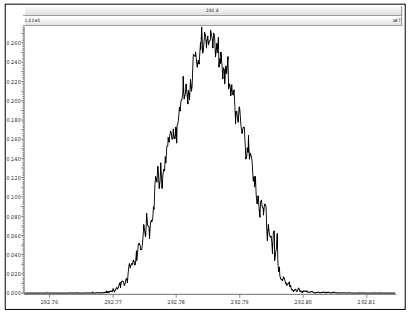
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 4 @ 200 (ppm)

Printed: Thursday, January 03, 2013 16:13:39 Eastern Standard Time

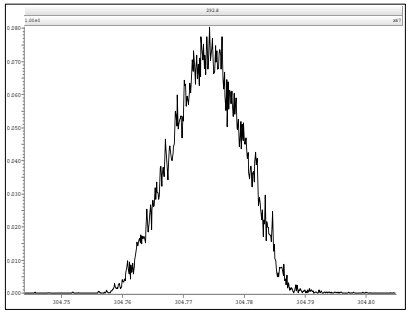
M 280.9824 R 11906



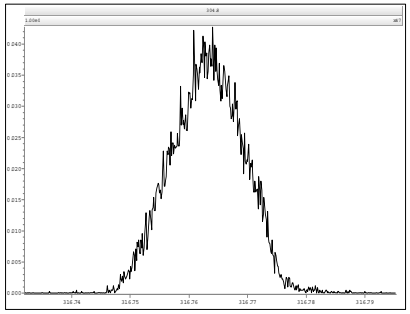
M 292.9824 R 12017



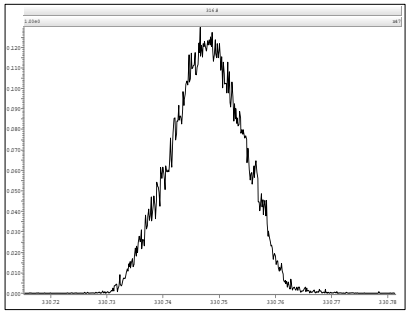
M 304.9824 R 11576



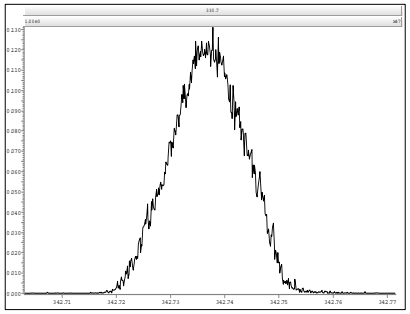
M 316.9824 R 11573



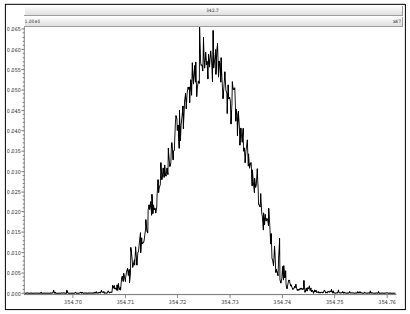
M 330.9792 R 11470



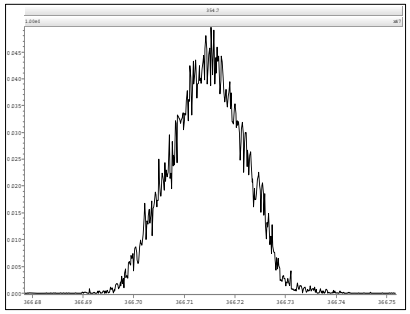
M 342.9792 R 11683



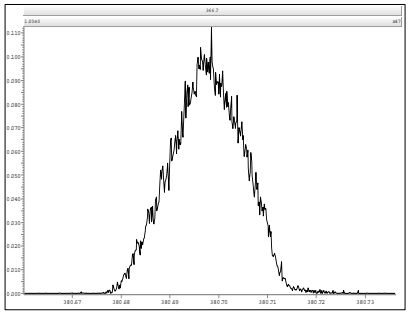
M 354.9792 R 11626



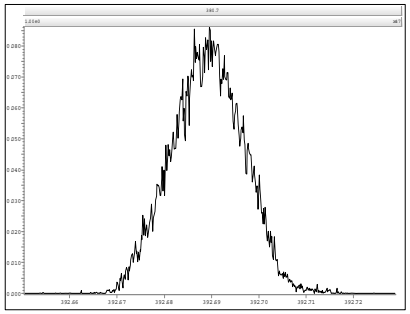
M 366.9792 R 11522



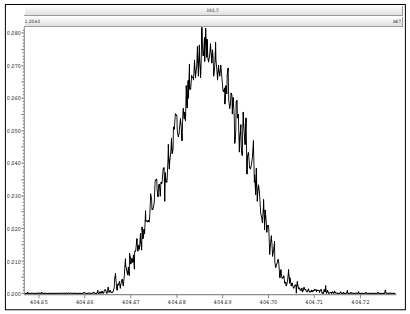
M 380.9760 R 11210



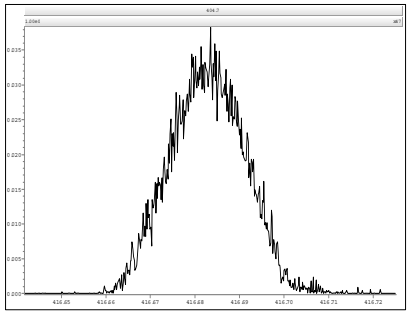
M 392.9760 R 11259



M 404.9760 R 11574



M 416.9760 R 11362



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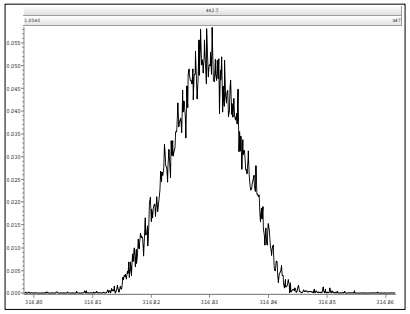
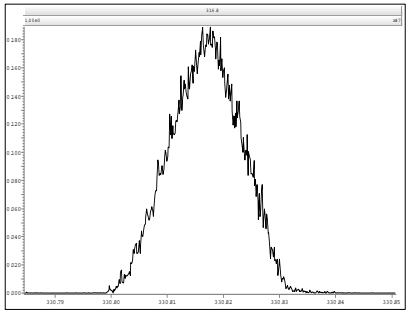
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 5 @ 200 (ppm)

Printed: Thursday, January 03, 2013 16:14:02 Eastern Standard Time

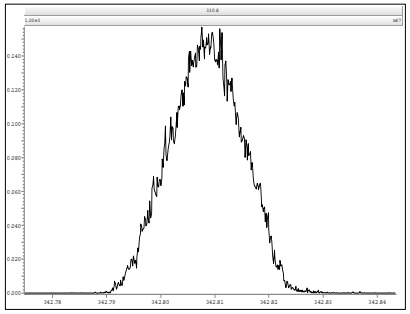
M 316.9824 R 11901



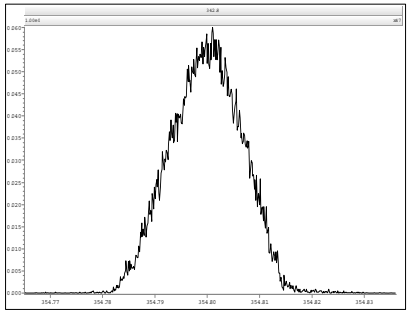
M 330.9792 R 11792



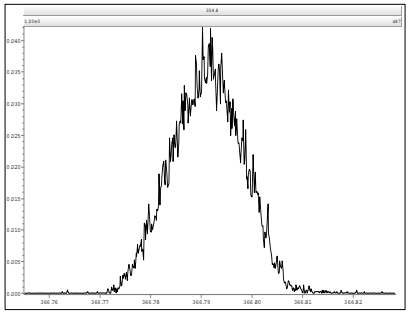
M 342.9792 R 11418



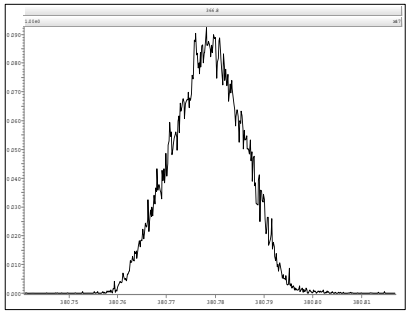
M 354.9792 R 11575



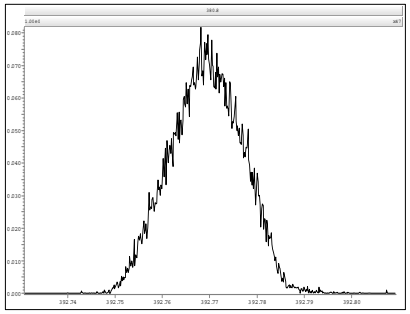
M 366.9792 R 11367



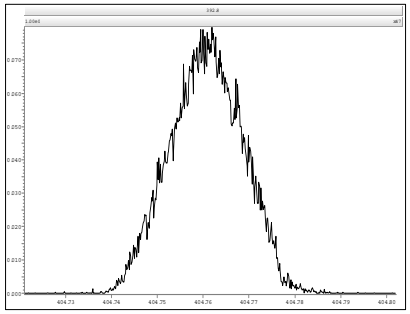
M 380.9760 R 11309



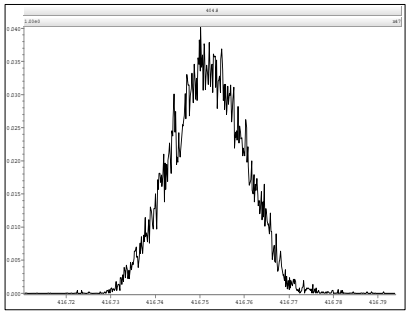
M 392.9760 R 11574



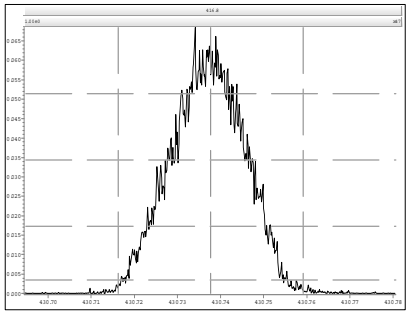
M 404.9760 R 11470



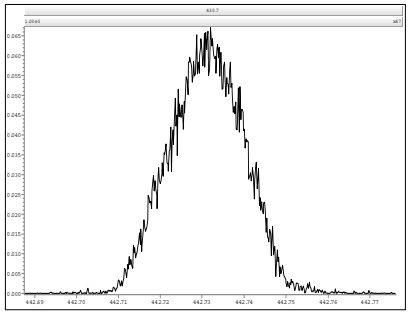
M 416.9760 R 11360



M 430.9728 R 11791



M 442.9728 R 11361



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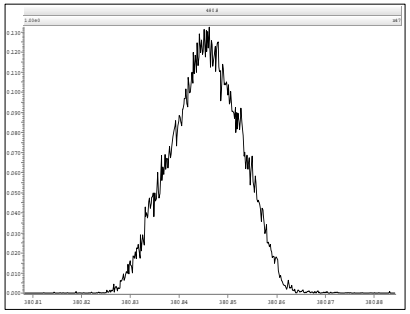
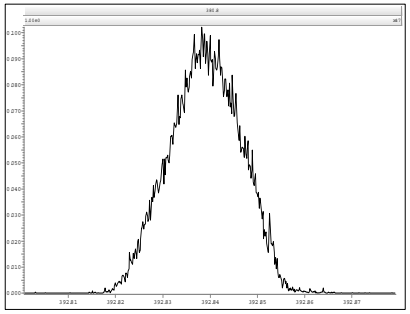
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 6 @ 200 (ppm)

Printed: Thursday, January 03, 2013 16:14:27 Eastern Standard Time

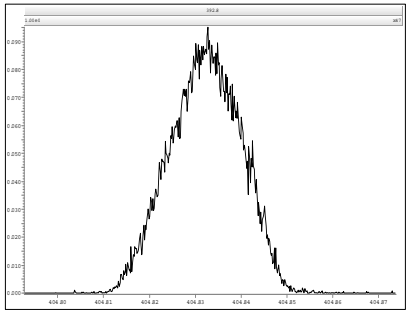
M 380.9760 R 11627



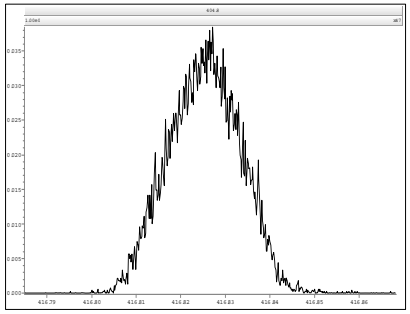
M 392.9760 R 11576



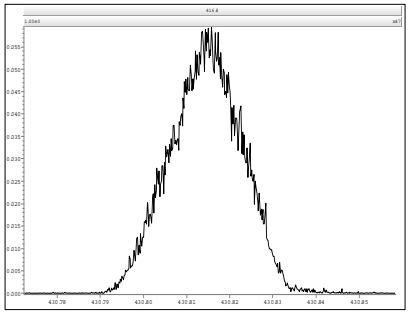
M 404.9760 R 11521



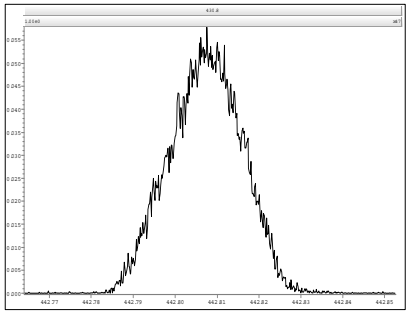
M 416.9760 R 12258



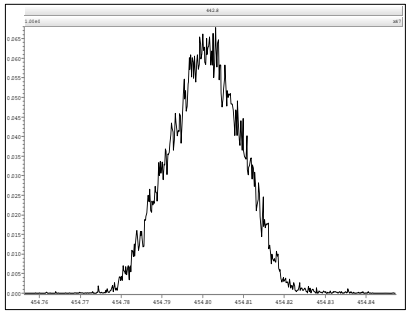
M 430.9728 R 11262



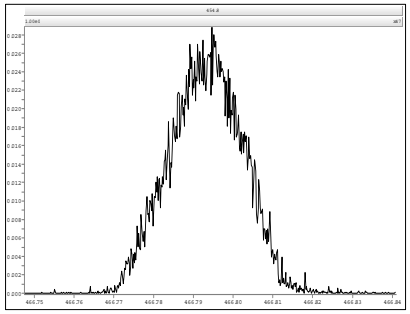
M 442.9728 R 11415



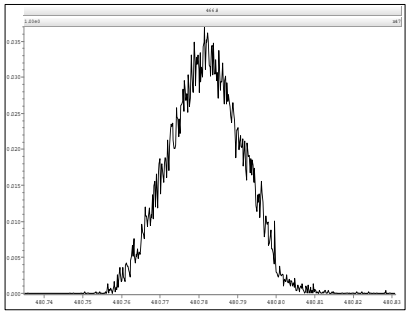
M 454.9728 R 11109



M 466.9728 R 11624



M 480.9696 R 11467



Experiment Calibration Report MassLynx 4.1 Page 1 of 1

File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 7 @ 200 (ppm)

Printed: Thursday, January 03, 2013 16:14:48 Eastern Standard Time

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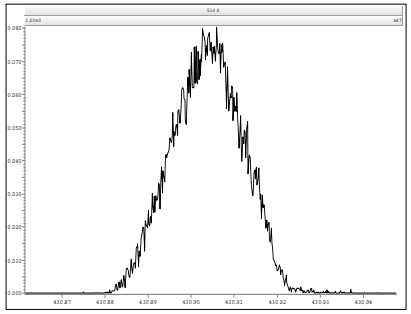

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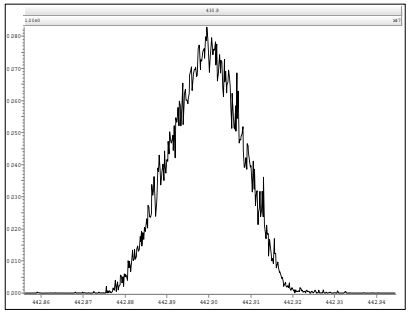

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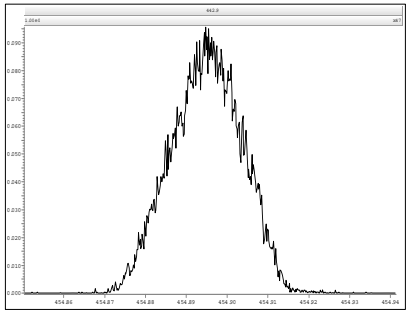

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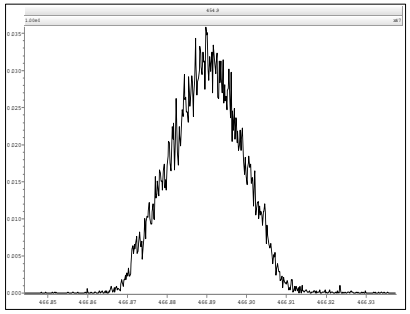

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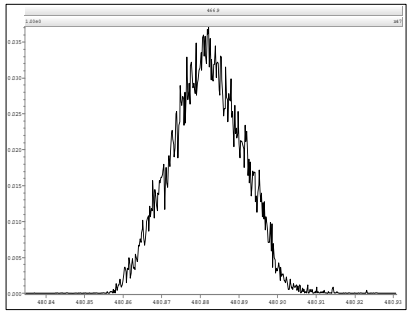

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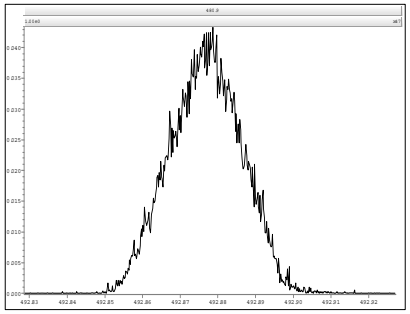

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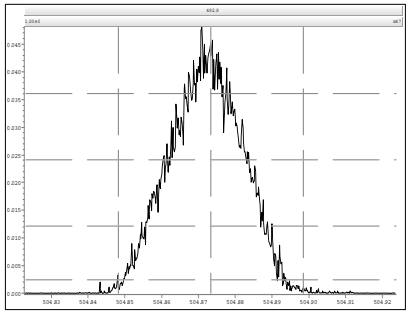

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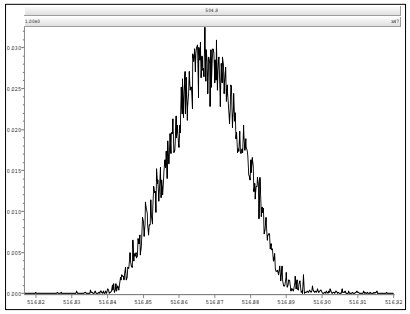

Resolution Check Report MassLynx 4.1 Page 1 of 6

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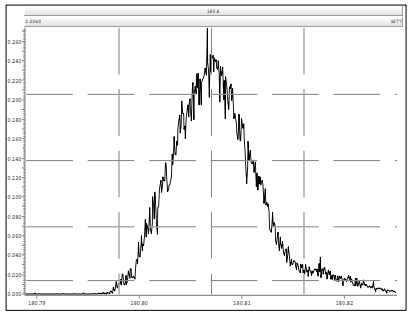

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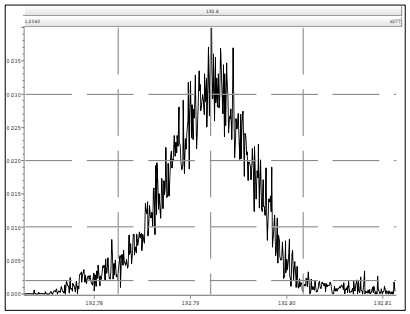

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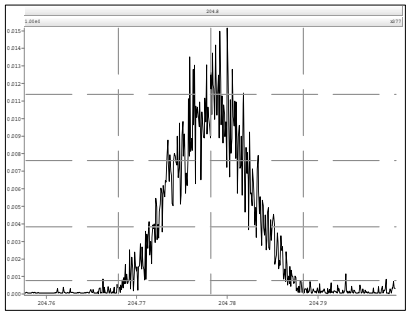

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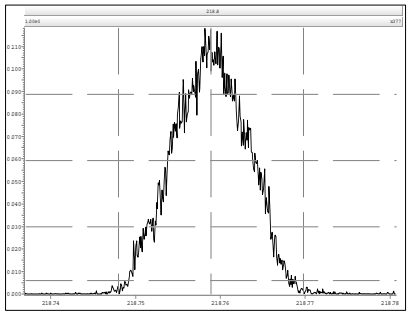

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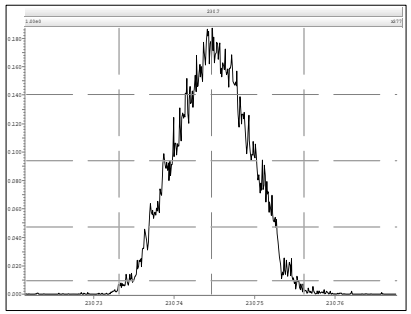

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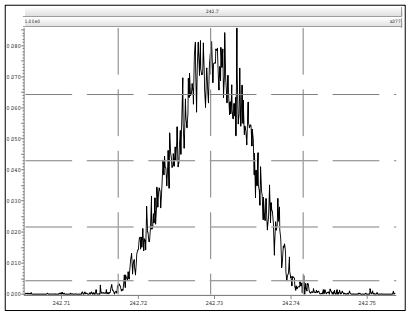

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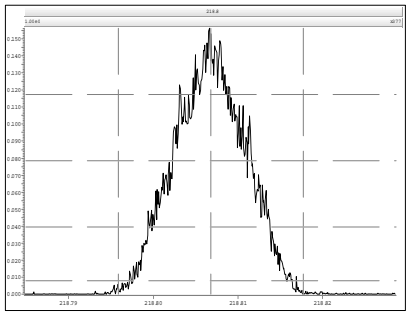

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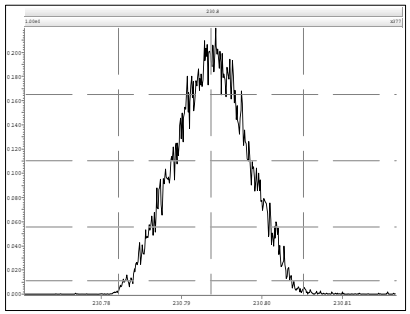

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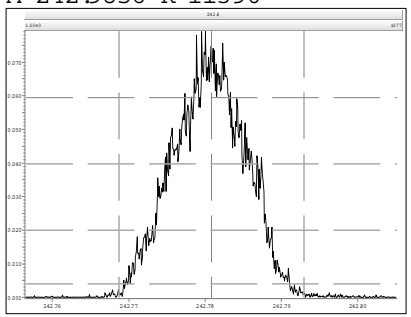

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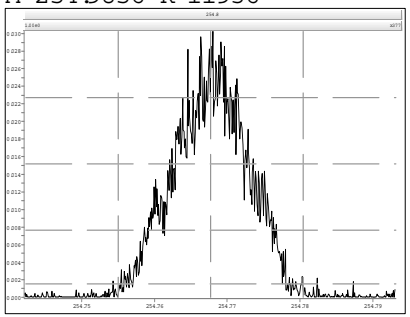

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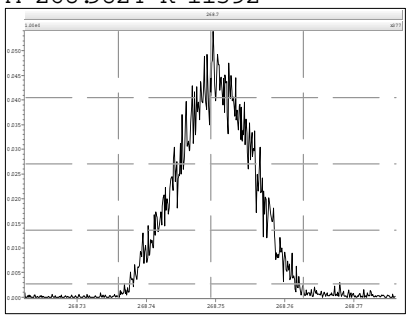

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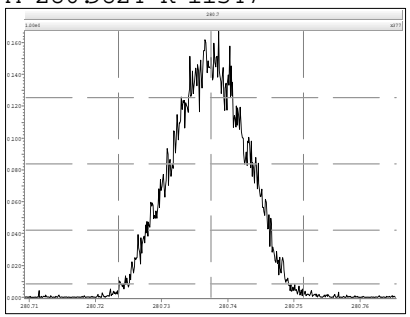

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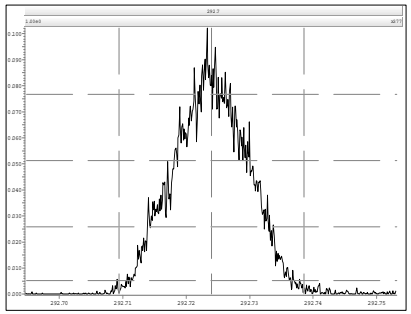

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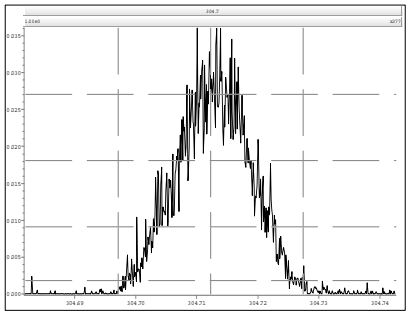

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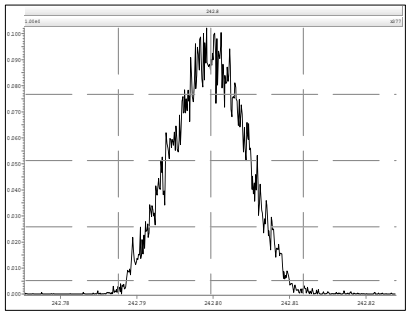

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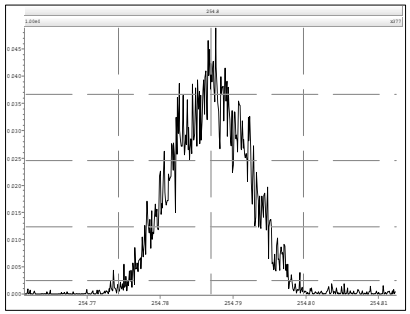

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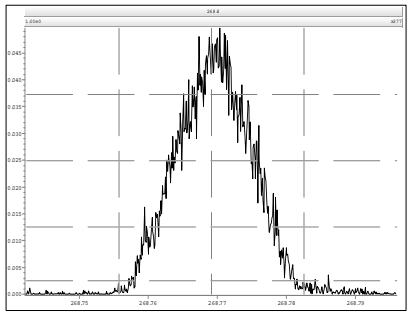

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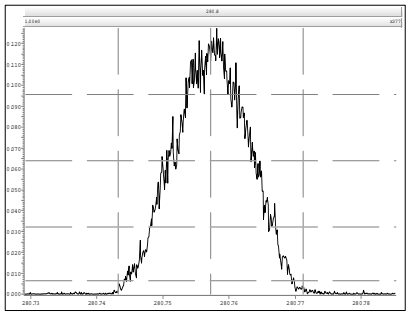

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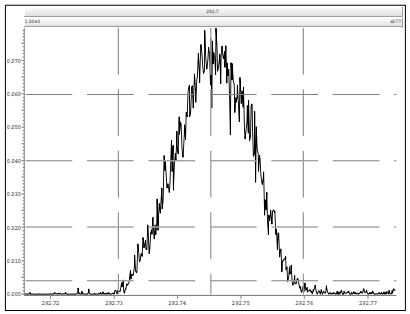

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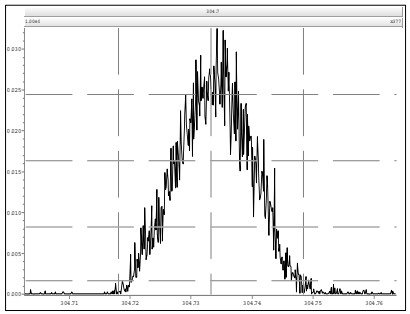

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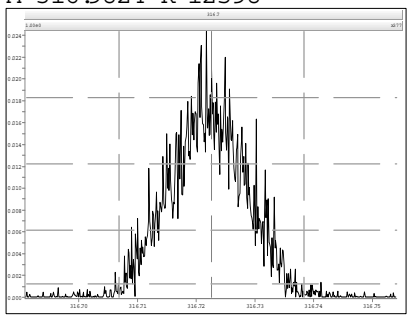

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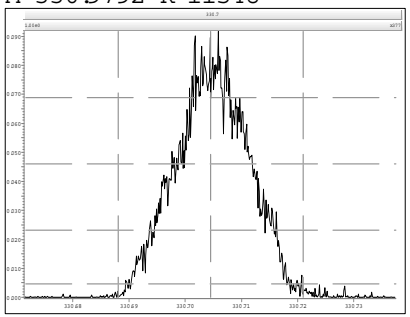

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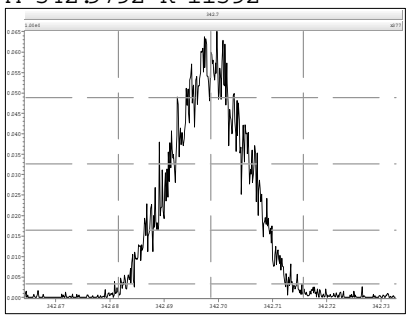

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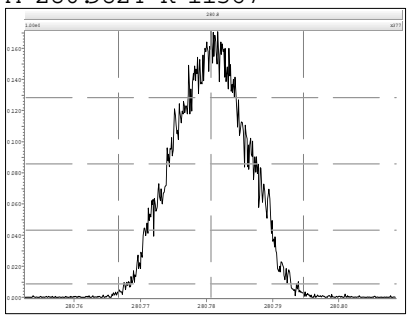

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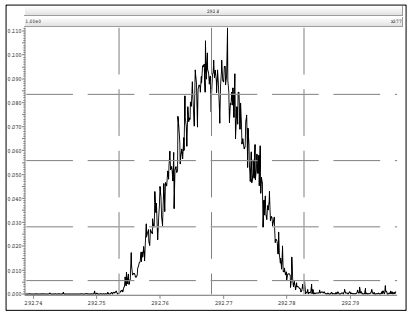

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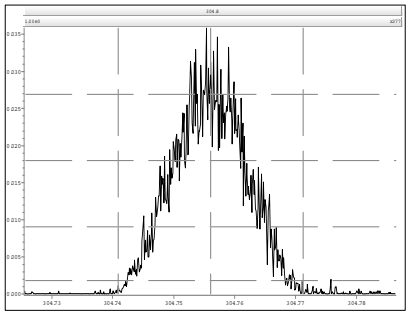

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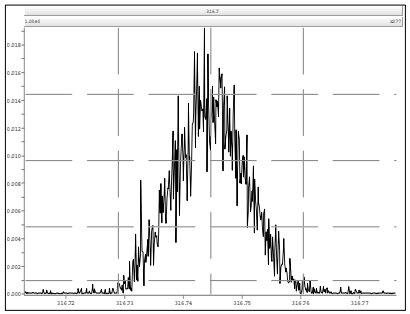

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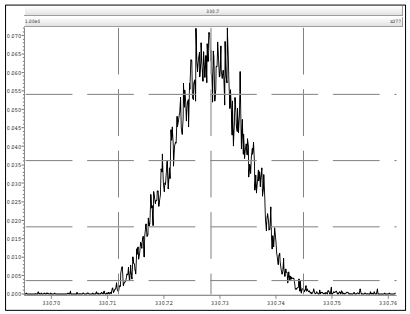

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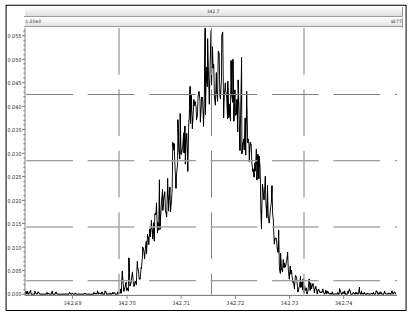

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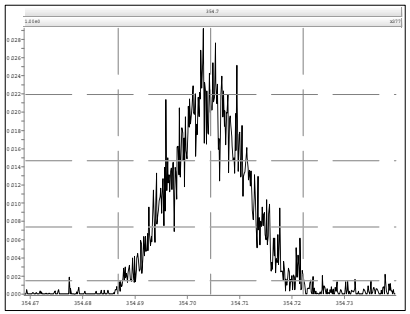

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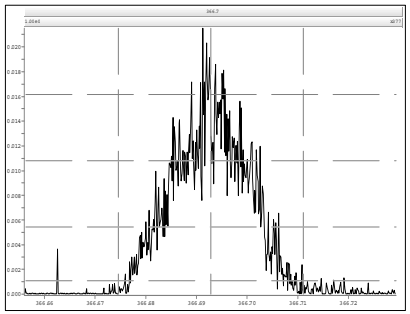

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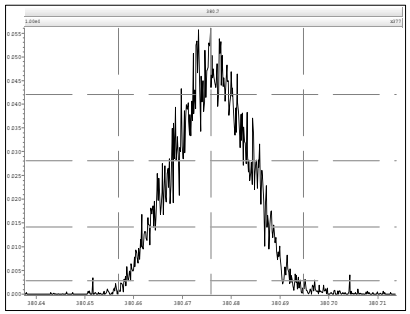

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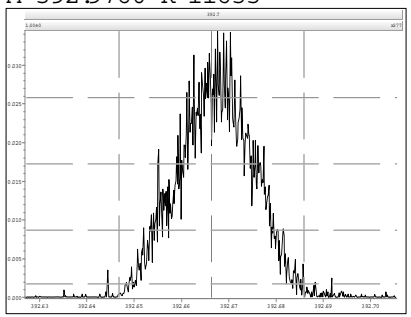

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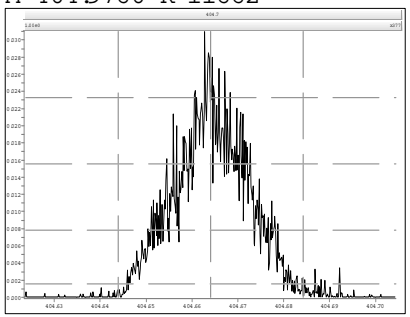

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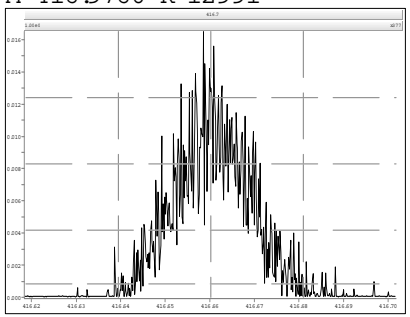

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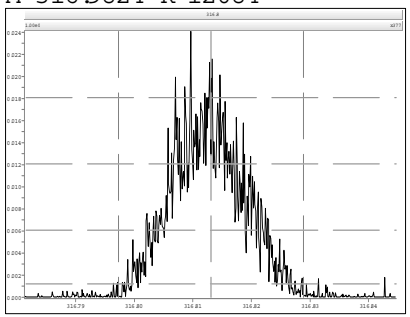

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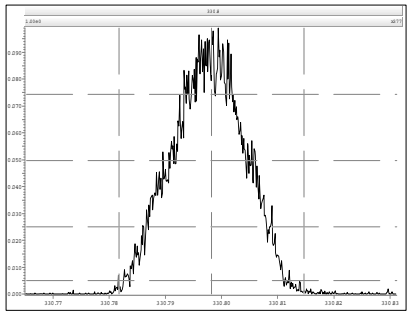

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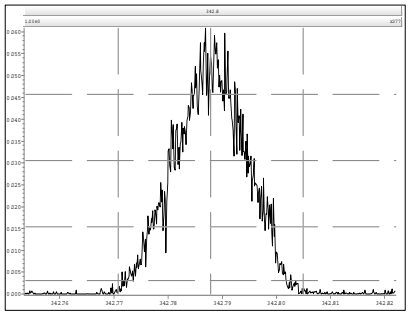

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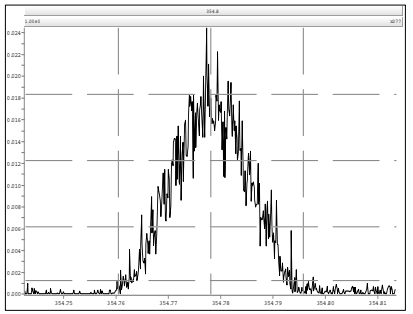

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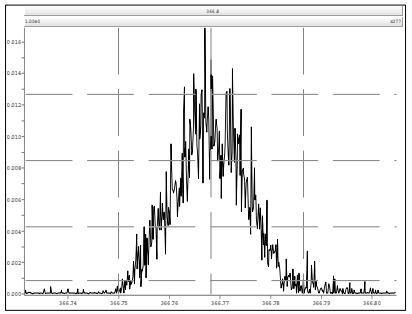

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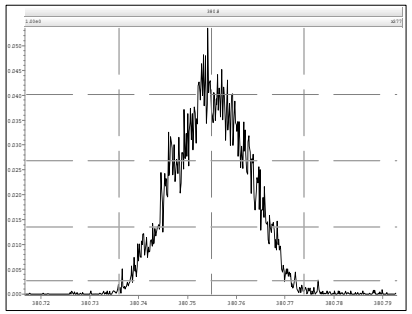

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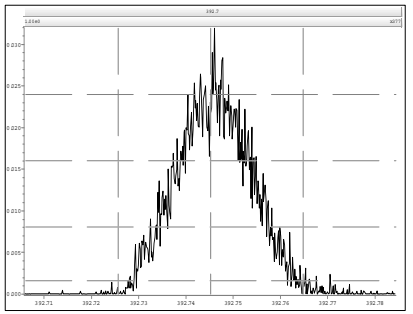

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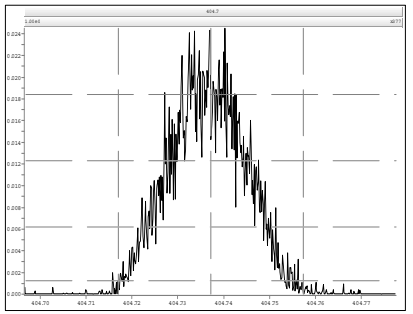

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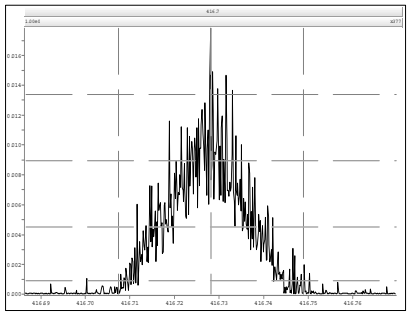

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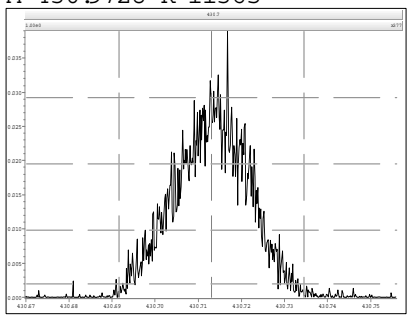

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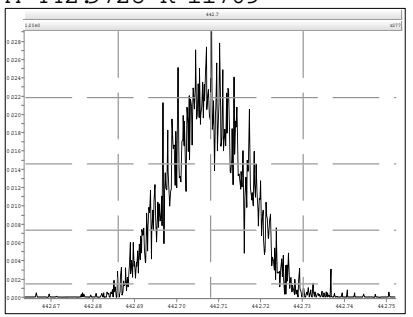
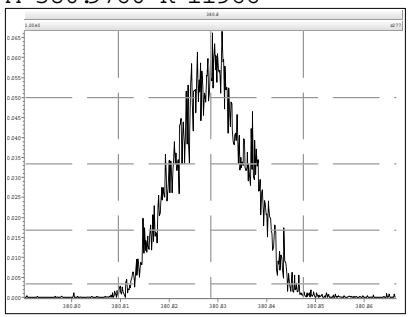
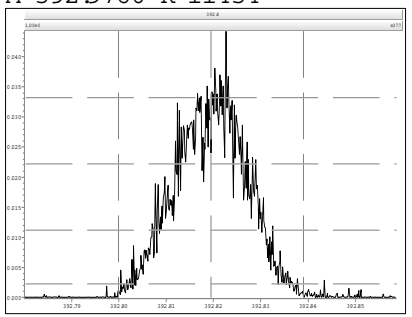


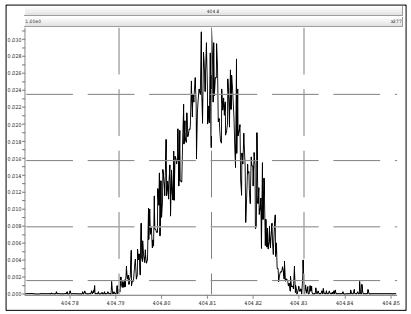
M 380.9760 R 11966



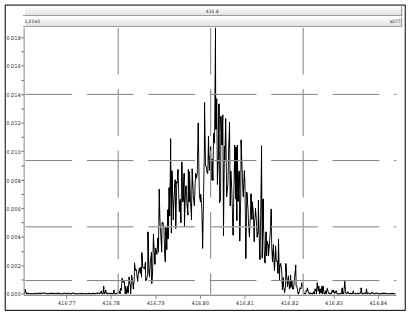
M 392.9760 R 11454



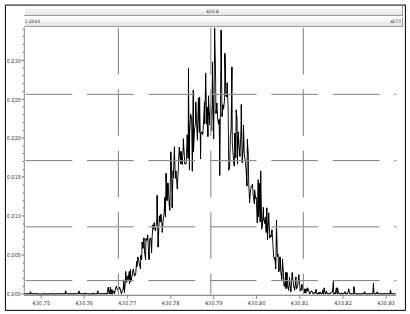
M 404.9760 R 12170



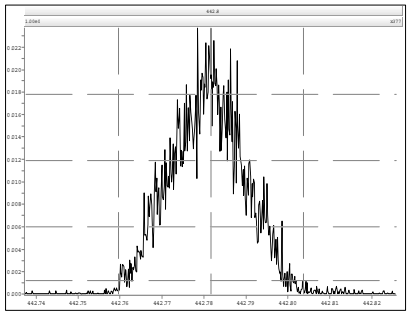
M 416.9760 R 11805



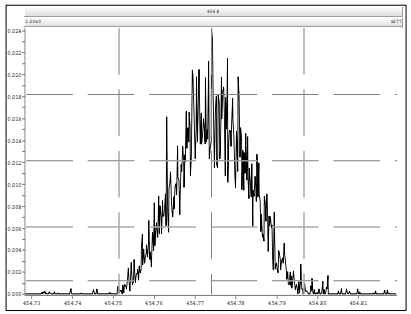
M 430.9728 R 11694



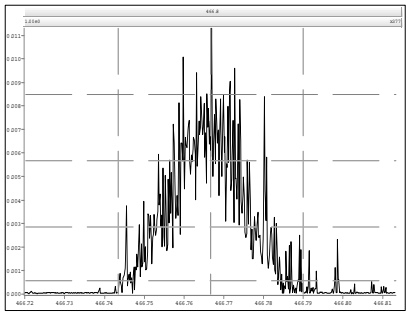
M 442.9728 R 11852



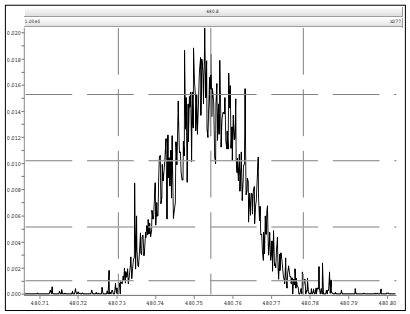
M 454.9728 R 11526



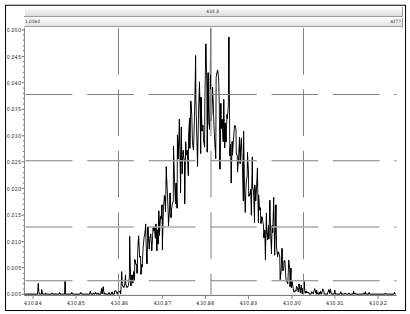
M 466.9728 R 13170



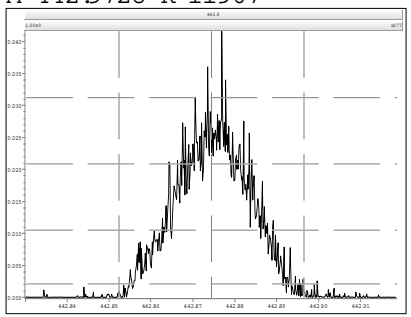
M 480.9696 R 11504



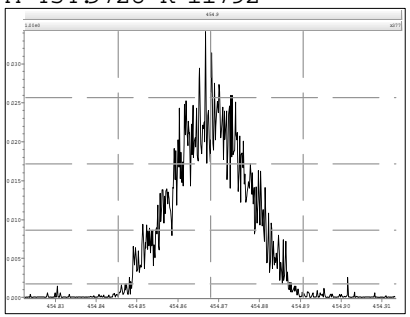
M 430.9728 R 11995



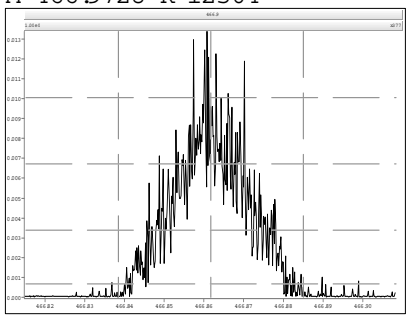
M 442.9728 R 11907



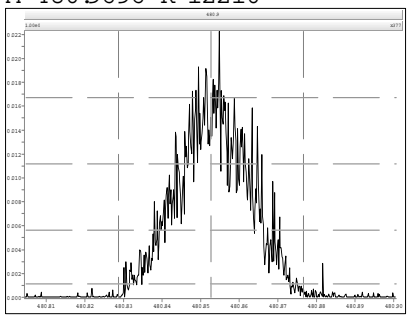
M 454.9728 R 11792



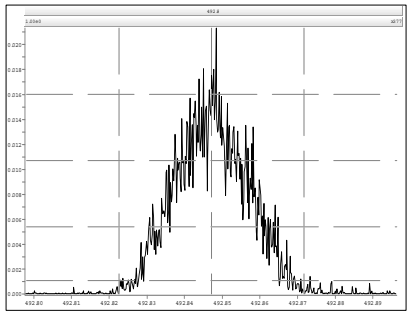
M 466.9728 R 12504



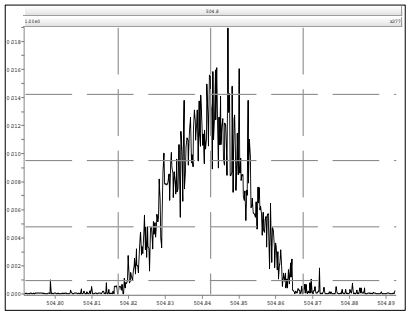
M 480.9696 R 12210



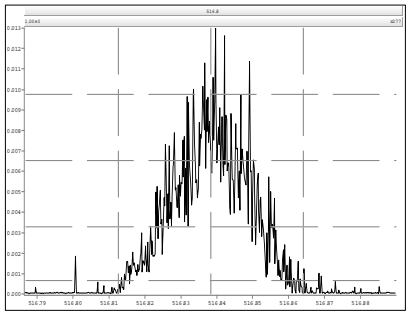
M 492.9696 R 12447



M 504.9696 R 12502



M 516.9697 R 11887



SGS Analytical Perspectives — Run Log **Project: 14 dec 12 ical**

Instrument: MM6 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_b

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
1	121214V02	10	CS0_121214_PCB_VA	1.00	SIL 12-65-6	CEM	877-492	14-Dec-2012	02:28:37
2	121214V03	11	CS1_121214_PCB_VA	1.00	SIL 12-65-5	CEM	461-132	14-Dec-2012	03:21:15
3	121214V04	12	CS2_121214_PCB_VA	1.00	SIL 12-65-4	CEM	403-865	14-Dec-2012	04:15:23
4	121214V05	13	CS3_121214_PCB_VA	1.00	SIL 12-65-3	CEM	858-276	14-Dec-2012	05:09:30
5	121214V06	14	CS4_121214_PCB_VA	1.00	SIL 12-65-2	CEM	777-854	14-Dec-2012	06:03:38
6	121214V07	15	CS5_121214_PCB_VA	1.00	SIL 12-65-1	CEM	067-301	14-Dec-2012	06:57:45

APPROVED

By Jeremy Kadylak at 3:51 pm, Dec 14, 2012

PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 14 Dec 2012 11:13**

ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14 Dec 2012
Date Processed: 14 Dec 2012 10:42

Name	Mean	% RSD	121214V02 0.5 CS0	121214V03 1 CS1	121214V04 5 CS2	121214V05 50 CS3	121214V06 400 CS4	121214V07 2000 CS5
PCB-77 33'44'-TeCB	1.25	5.4%	1.37	1.18	1.20	1.24	1.26	1.23
PCB-81 344'5-TeCB	1.26	5.0%	1.34	1.16	1.22	1.28	1.29	1.26
PCB-105 233'44'-PeCB	1.06	2.1%	1.07	1.08	1.04	1.05	1.07	1.02
PCB-114 2344'5-PeCB	1.11	4.0%	1.06	1.18	1.07	1.14	1.10	1.12
PCB-118 23'44'5-PeCB	1.08	2.3%	1.11	1.05	1.05	1.09	1.11	1.07
PCB-123 23'44'5'-PeCB	1.12	6.2%	1.15	1.20	1.04	1.19	1.09	1.05
PCB-126 33'44'5-PeCB	1.16	4.7%	1.26	1.15	1.13	1.12	1.16	1.11
PCB-156/157 ...-HxCB	1.14	2.4%	1.19	1.13	1.11	1.15	1.15	1.11
PCB-167 23'44'55'-HxCB	1.18	1.6%	1.17	1.16	1.16	1.20	1.20	1.19
PCB-169 33'44'55'-HxCB	1.15	3.7%	1.18	1.08	1.19	1.18	1.17	1.13
PCB-189 233'44'55'-HpCB	1.12	2.1%	1.14	1.08	1.10	1.11	1.13	1.12
PCB-209 DeCB	1.11	7.2%	1.26	1.14	1.05	1.08	1.08	1.06
ES PCB-1	0.97	6.3%	0.95	0.97	1.07	0.97	0.99	0.88
ES PCB-3	0.90	4.1%	0.88	0.90	0.95	0.89	0.93	0.85
ES PCB-4	0.70	3.5%	0.70	0.69	0.74	0.70	0.71	0.66
ES PCB-15	1.02	8.3%	0.99	0.95	0.91	1.00	1.09	1.14
ES PCB-19	0.53	4.3%	0.54	0.52	0.52	0.49	0.55	0.54
ES PCB-37	1.29	1.0%	1.31	1.28	1.30	1.30	1.30	1.28
ES PCB-54	1.43	2.7%	1.41	1.43	1.45	1.43	1.48	1.36
ES PCB-77	1.20	5.1%	1.30	1.11	1.20	1.22	1.21	1.18
ES PCB-81	1.16	5.0%	1.22	1.06	1.15	1.14	1.20	1.20
ES PCB-104	1.70	6.4%	1.64	1.91	1.73	1.69	1.67	1.59
ES PCB-105	1.10	3.9%	1.10	1.10	1.16	1.13	1.07	1.04
ES PCB-114	1.16	2.9%	1.18	1.16	1.19	1.17	1.14	1.10
ES PCB-118	1.15	3.9%	1.19	1.17	1.20	1.17	1.11	1.09
ES PCB-123	1.14	1.0%	1.14	1.12	1.16	1.15	1.13	1.14
ES PCB-126	1.34	4.2%	1.34	1.33	1.44	1.34	1.28	1.30
ES PCB-153	1.14	2.8%	1.18	1.13	1.16	1.16	1.14	1.09
ES PCB-155	1.61	4.6%	1.71	1.66	1.58	1.65	1.59	1.49
ES PCB-156/157	0.98	2.4%	1.01	0.94	0.99	0.97	0.98	0.97
ES PCB-167	1.01	2.5%	1.04	0.98	1.02	1.02	1.03	0.98
ES PCB-169	0.90	2.4%	0.93	0.86	0.90	0.89	0.91	0.91
ES PCB-170	1.28	2.5%	1.29	1.27	1.25	1.26	1.34	1.29
ES PCB-180	1.54	4.0%	1.51	1.50	1.48	1.51	1.62	1.62
ES PCB-188	1.63	2.3%	1.66	1.57	1.66	1.65	1.62	1.59
ES PCB-189	1.97	1.9%	2.00	1.98	1.92	1.93	1.96	2.02
ES PCB-202	1.26	2.2%	1.30	1.23	1.28	1.27	1.26	1.23
ES PCB-205	1.22	1.2%	1.21	1.22	1.21	1.21	1.22	1.25
ES PCB-206	1.10	1.4%	1.09	1.09	1.09	1.10	1.11	1.12

PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 14 Dec 2012 11:13**

ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14 Dec 2012
Date Processed: 14 Dec 2012 10:42

Name	Mean	% RSD	121214V02 0.5 CS0	121214V03 1 CS1	121214V04 5 CS2	121214V05 50 CS3	121214V06 400 CS4	121214V07 2000 CS5
ES PCB-208	1.41	2.8%	1.44	1.41	1.36	1.38	1.40	1.47
ES PCB-209	1.24	1.5%	1.25	1.23	1.25	1.21	1.25	1.27
SS PCB-28	1.18	2.4%	1.12	1.20	1.20	1.18	1.17	1.20
SS PCB-111	1.01	2.6%	1.03	1.03	1.02	1.00	0.99	0.97
SS PCB-178	0.60	1.5%	0.60	0.61	0.58	0.60	0.61	0.60
CS PCB-28	1.52	1.7%	1.47	1.53	1.55	1.53	1.52	1.53
CS PCB-111	1.15	2.7%	1.18	1.16	1.18	1.15	1.12	1.10
CS PCB-178	0.98	2.0%	1.00	0.95	0.97	1.00	0.99	0.96
PCB-1 2-MoCB	1.25	2.5%	1.24	1.21	1.22	1.27	1.29	1.25
PCB-3 4-MoCB	1.27	2.9%	1.24	1.22	1.24	1.30	1.31	1.28
PCB-4 22'-DiCB	0.90	2.7%	0.90	0.90	0.86	0.90	0.93	0.91
PCB-15 44'-DiCB	1.10	3.4%	1.13	1.13	1.04	1.11	1.10	1.06
PCB-19 22'6-TrCB	0.95	3.9%	0.98	0.88	0.92	0.98	0.96	0.95
PCB-37 344'-TrCB	1.39	2.9%	1.41	1.31	1.39	1.40	1.42	1.40
PCB-54 22'66'-TeCB	1.05	4.8%	1.01	1.00	1.02	1.08	1.11	1.10
PCB-104 22'466'-PeCB	1.12	3.6%	1.15	1.07	1.07	1.12	1.14	1.16
PCB-153/168 ...-HxCB	1.24	2.2%	1.29	1.20	1.23	1.23	1.22	1.24
PCB-155 22'44'66'-HxCB	1.09	1.5%	1.11	1.09	1.09	1.10	1.09	1.06
PCB-170 22'33'44'5-HpCB	0.99	3.1%	1.04	0.94	0.99	0.99	0.99	1.01
PCB-180/193 ...-HpCB	1.07	2.5%	1.06	1.12	1.05	1.08	1.07	1.04
PCB-188 22'34'566'-HpCB	0.98	2.6%	0.98	0.97	0.95	1.00	1.02	0.99
PCB-202 22'33'55'66'-OcCB	0.86	2.4%	0.87	0.90	0.84	0.86	0.88	0.85
PCB-205 233'44'55'6-OcCB	1.13	4.0%	1.16	1.11	1.05	1.15	1.18	1.15
PCB-208 22'33'455'66'-NoCB	1.03	1.7%	1.03	1.04	1.02	1.03	1.06	1.02
PCB-206 22'33'44'55'6-NoCB	0.97	1.9%	1.00	0.96	0.95	0.96	0.98	0.97

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:15
Lab ID:	CS0_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 02:28				
Datafile:	121214V02				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.12	2.54E+05	0.83 Y	1.25	1.37	10.0%
PCB-81 344'5-TeCB	28.65	2.34E+05	0.83 Y	1.26	1.34	6.8%
PCB-105 233'44'-PeCB	32.07	1.33E+05	0.56 Y	1.06	1.07	1.3%
PCB-114 2344'5-PeCB	31.53	1.42E+05	0.64 Y	1.11	1.06	-4.6%
PCB-118 23'44'5-PeCB	31.08	1.49E+05	0.61 Y	1.08	1.11	2.5%
PCB-123 23'44'5'-PeCB	30.81	1.49E+05	0.58 Y	1.12	1.15	2.9%
PCB-126 33'44'5-PeCB	34.65	1.91E+05	0.69 Y	1.16	1.26	9.0%
PCB-156/157 ...-HxCB	37.19	2.69E+05	1.38 Y	1.14	1.19	4.0%
PCB-167 23'44'55'-HxCB	36.23	1.37E+05	1.44 Y	1.18	1.17	-0.6%
PCB-169 33'44'55'-HxCB	39.90	1.23E+05	1.33 Y	1.15	1.18	2.3%
PCB-189 233'44'55'-HpCB	42.03	1.61E+05	1.15 Y	1.12	1.14	2.5%
PCB-209 DeCB	47.01	1.12E+05	1.26 Y	1.11	1.26	13.6%
ES PCB-1	9.83	5.27E+07	3.25 Y	0.97	0.95	-2.1%
ES PCB-3	11.73	4.89E+07	3.32 Y	0.90	0.88	-1.9%
ES PCB-4	11.94	3.88E+07	1.54 Y	0.70	0.70	-0.1%
ES PCB-15	17.00	5.50E+07	1.64 Y	1.02	0.99	-2.2%
ES PCB-19	14.62	3.00E+07	1.06 Y	0.53	0.54	2.8%
ES PCB-37	22.95	3.73E+07	1.11 Y	1.29	1.31	1.3%
ES PCB-54	17.24	4.01E+07	0.79 Y	1.43	1.41	-1.2%
ES PCB-77	29.10	3.70E+07	0.83 Y	1.20	1.30	7.9%
ES PCB-81	28.63	3.48E+07	0.84 Y	1.16	1.22	5.3%
ES PCB-104	21.92	3.71E+07	1.51 Y	1.70	1.64	-3.7%
ES PCB-105	32.04	2.48E+07	1.48 Y	1.10	1.10	-0.2%
ES PCB-114	31.50	2.67E+07	1.56 Y	1.16	1.18	2.1%
ES PCB-118	31.06	2.69E+07	1.49 Y	1.15	1.19	2.9%
ES PCB-123	30.79	2.58E+07	1.50 Y	1.14	1.14	0.1%
ES PCB-126	34.63	3.03E+07	1.65 Y	1.34	1.34	0.1%
ES PCB-153	32.65	2.65E+07	1.27 Y	1.14	1.18	3.5%
ES PCB-155	26.73	3.82E+07	1.30 Y	1.61	1.71	5.8%
ES PCB-156/157	37.17	4.54E+07	1.26 Y	0.98	1.01	3.7%
ES PCB-167	36.21	2.33E+07	1.25 Y	1.01	1.04	3.0%
ES PCB-169	39.88	2.08E+07	1.29 Y	0.90	0.93	3.3%
ES PCB-170	39.39	1.82E+07	1.02 Y	1.28	1.29	0.3%
ES PCB-180	38.35	2.13E+07	1.01 Y	1.54	1.51	-2.0%
ES PCB-188	31.52	3.72E+07	1.02 Y	1.63	1.66	2.1%
ES PCB-189	42.01	2.82E+07	1.05 Y	1.97	2.00	1.5%
ES PCB-202	36.02	2.91E+07	0.88 Y	1.26	1.30	2.9%
ES PCB-205	44.17	1.72E+07	0.89 Y	1.22	1.21	-0.7%
ES PCB-206	45.64	1.54E+07	0.75 Y	1.10	1.09	-1.0%
ES PCB-208	41.62	2.03E+07	0.78 Y	1.41	1.44	2.0%
ES PCB-209	46.99	1.77E+07	1.17 Y	1.24	1.25	0.8%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.58	4.20E+07	1.10 Y	1.18	1.12	-4.5%
SS PCB-111	29.16	2.67E+07	1.46 Y	1.01	1.03	2.7%
SS PCB-178	34.07	2.24E+07	1.03 Y	0.60	0.60	0.1%
CS PCB-28	19.58	4.20E+07	1.10 Y	1.52	1.47	-3.2%
CS PCB-111	29.16	2.67E+07	1.46 Y	1.15	1.18	2.7%
CS PCB-178	34.07	2.24E+07	1.03 Y	0.98	1.00	2.2%
JS PCB-9	13.66	5.54E+07	1.63 Y	-	-	-
JS PCB-52	21.12	2.85E+07	0.78 Y	-	-	-
JS PCB-101	26.90	2.26E+07	1.48 Y	-	-	-
JS PCB-138	33.68	2.24E+07	1.29 Y	-	-	-
JS PCB-194	43.78	1.41E+07	0.90 Y	-	-	-
PCB-1 2-MoCB	9.84	3.27E+05	3.04 Y	1.25	1.24	-0.4%
PCB-3 4-MoCB	11.75	3.04E+05	2.71 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.96	1.74E+05	0.00 S	0.90	0.90	-0.2%
PCB-15 44'-DiCB	17.01	3.10E+05	0.00 S	1.10	1.13	2.8%
PCB-19 22'6-TrCB	14.64	1.46E+05	1.05 Y	0.95	0.98	3.2%
PCB-37 344'-TrCB	22.97	2.63E+05	1.08 Y	1.39	1.41	1.5%
PCB-54 22'66'-TeCB	17.26	2.02E+05	0.73 Y	1.05	1.01	-4.5%
PCB-104 22'466'-PeCB	21.94	2.13E+05	0.53 Y	1.12	1.15	2.8%
PCB-153/168 ...-HxCB	32.69	3.41E+05	1.23 Y	1.24	1.29	4.1%
PCB-155 22'44'66'-HxCB	26.75	2.13E+05	1.25 Y	1.09	1.11	2.1%
PCB-170 22'33'44'5-HpCB	39.40	9.41E+04	0.90 Y	0.99	1.04	4.2%
PCB-180/193 ...-HpCB	38.33	2.26E+05	1.09 Y	1.07	1.06	-0.8%
PCB-188 22'34'566'-HpCB	31.54	1.82E+05	1.02 Y	0.98	0.98	-0.6%
PCB-202 22'33'55'66'-OcCB	36.04	1.26E+05	0.86 Y	0.86	0.87	0.5%
PCB-205 233'44'55'6-OcCB	44.19	9.92E+04	0.92 Y	1.13	1.16	2.0%
PCB-208 22'33'455'66'-NoCB	41.64	1.05E+05	0.75 Y	1.03	1.03	-0.3%
PCB-206 22'33'44'55'6-NoCB	45.66	7.71E+04	0.81 Y	0.97	1.00	3.3%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.84	3.27E+05	3.04 Y	1.25	1.24	-0.4%
PCB-2 3-MoCB	11.59	3.05E+05	3.09 Y	1.28	1.24	-2.6%
PCB-3 4-MoCB	11.75	3.04E+05	2.71 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.96	1.74E+05	0.00 S	0.90	0.90	-0.2%
PCB-10 26-DiCB	12.11	2.54E+05	0.00 S	1.38	1.31	-5.1%
PCB-9 25-DiCB	13.68	2.63E+05	0.00 S	0.99	0.96	-3.1%
PCB-7 24-DiCB	13.82	3.19E+05	0.00 S	1.10	1.16	5.3%
PCB-6 23'-DiCB	14.02	2.89E+05	0.00 S	1.04	1.05	1.0%
PCB-5 23-DiCB	14.28	2.82E+05	0.00 S	1.02	1.03	0.2%
PCB-8 24'-DiCB	14.39	2.75E+05	0.00 S	1.03	1.00	-3.3%
PCB-14 35-DiCB	15.79	3.30E+05	0.00 S	1.20	1.20	0.0%
PCB-11 33'-DiCB	16.49	2.89E+05	0.00 S	1.03	1.05	2.4%
PCB-13/12 34'/34-DiCB	16.76	5.52E+05	0.00 S	1.03	1.00	-3.0%
PCB-15 44'-DiCB	17.01	3.10E+05	0.00 S	1.10	1.13	2.8%
PCB-19 22'6-TrCB	14.64	1.46E+05	1.05 Y	0.95	0.98	3.2%
PCB-30/18 246/22'5-TrCB	16.23	3.45E+05	1.04 Y	1.23	1.15	-6.5%
PCB-17 22'4-TrCB	16.59	1.49E+05	0.92 Y	1.05	0.99	-6.0%
PCB-27 23'6-TrCB	16.77	2.10E+05	0.94 Y	1.46	1.40	-4.2%
PCB-24 236-TrCB	16.89	1.59E+05	0.80 N	1.32	1.06	-19.7%
PCB-16 22'3-TrCB	16.97	1.14E+05	1.03 Y	0.81	0.76	-5.6%
PCB-32 24'6-TrCB	17.42	2.07E+05	0.95 Y	1.48	1.38	-6.7%
PCB-34 23'5'-TrCB	18.50	2.59E+05	0.96 Y	1.46	1.39	-5.0%
PCB-23 235-TrCB	18.63	2.80E+05	0.98 Y	1.50	1.50	-0.1%
PCB-26/29 23'5/245-TrCB	18.90	5.56E+05	1.09 Y	1.53	1.49	-2.6%
PCB-25 23'4-TrCB	19.08	2.50E+05	1.03 Y	1.53	1.34	-12.7%
PCB-31 24'5-TrCB	19.35	2.80E+05	1.06 Y	1.55	1.50	-3.3%
PCB-28/20 244'/233'-TrCB	19.61	5.25E+05	1.11 Y	1.51	1.41	-6.6%
PCB-21/33 234/23'4'-TrCB	19.77	5.29E+05	1.13 Y	1.55	1.42	-8.4%
PCB-22 234'-TrCB	20.12	2.45E+05	1.08 Y	1.40	1.31	-6.0%
PCB-36 33'5-TrCB	21.45	2.88E+05	1.03 Y	1.52	1.55	1.8%
PCB-39 34'5-TrCB	21.75	2.99E+05	1.07 Y	1.58	1.60	1.1%
PCB-38 345-TrCB	22.24	2.82E+05	1.05 Y	1.47	1.51	2.9%
PCB-35 33'4-TrCB	22.62	2.59E+05	1.01 Y	1.33	1.39	4.2%
PCB-37 344'-TrCB	22.97	2.63E+05	1.08 Y	1.39	1.41	1.5%
PCB-54 22'66'-TeCB	17.26	2.02E+05	0.73 Y	1.05	1.01	-4.5%
PCB-50/53 22'46/22'56'-TeCB	19.12	2.57E+05	0.82 Y	0.88	0.74	-16.0%
PCB-45 22'36-TeCB	19.66	1.23E+05	0.74 Y	0.73	0.71	-3.6%
PCB-51 22'46'-TeCB	19.74	1.49E+05	0.75 Y	0.94	0.86	-8.8%
PCB-46 22'36'-TeCB	19.93	1.23E+05	0.77 Y	0.72	0.71	-1.5%
PCB-52 22'55'-TeCB	21.14	1.33E+05	0.72 Y	0.82	0.76	-7.5%
PCB-73 23'5'6-TeCB	21.27	1.74E+05	0.77 Y	1.10	1.00	-9.0%
PCB-43 22'35-TeCB	21.34	1.28E+05	0.71 Y	0.70	0.73	4.1%
PCB-69/49 23'46/22'45'-TeCB	21.54	3.34E+05	0.77 Y	1.01	0.96	-4.9%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.80	1.48E+05	0.68 Y	0.84	0.85	1.1%
PCB-44/47/65 ...-TeCB	22.00	4.47E+05	0.80 Y	0.90	0.86	-5.1%
PCB-59/62/75 ...-TeCB	22.26	5.57E+05	0.78 Y	1.15	1.07	-7.6%
PCB-42 22'34'-TeCB	22.42	1.31E+05	0.67 Y	0.76	0.75	-1.3%
PCB-41 22'34-TeCB	22.73	9.18E+04	0.68 Y	0.64	0.53	-17.7%
PCB-71/40 23'4'6/22'33'-TeCB	22.83	2.56E+05	0.77 Y	0.83	0.74	-11.6%
PCB-64 234'6-TeCB	23.02	1.98E+05	0.79 Y	1.17	1.14	-2.9%
PCB-72 23'55'-TeCB	23.75	2.26E+05	0.85 Y	1.37	1.30	-5.3%
PCB-68 23'45'-TeCB	23.98	2.65E+05	0.69 Y	1.52	1.52	0.5%
PCB-57 233'5-TeCB	24.34	2.29E+05	0.82 Y	1.32	1.31	-0.8%
PCB-58 233'5'-TeCB	24.53	2.43E+05	0.82 Y	1.34	1.39	4.2%
PCB-67 23'45-TeCB	24.68	2.29E+05	0.73 Y	1.41	1.32	-6.9%
PCB-63 234'5-TeCB	24.90	2.47E+05	0.83 Y	1.46	1.42	-2.5%
PCB-61/70/74/76 ...-TeCB	25.18	9.16E+05	0.71 Y	1.37	1.31	-3.7%
PCB-66 23'44'-TeCB	25.45	2.11E+05	0.78 Y	1.24	1.21	-2.4%
PCB-55 233'4-TeCB	25.58	2.21E+05	0.73 Y	1.28	1.27	-0.4%
PCB-56 233'4'-TeCB	26.01	2.15E+05	0.86 Y	1.23	1.23	0.3%
PCB-60 2344'-TeCB	26.19	2.32E+05	0.80 Y	1.30	1.33	2.6%
PCB-80 33'55'-TeCB	26.55	2.31E+05	0.73 Y	1.44	1.33	-7.4%
PCB-79 33'45'-TeCB	27.82	2.54E+05	0.83 Y	1.48	1.46	-1.2%
PCB-78 33'45-TeCB	28.29	2.19E+05	0.78 Y	1.21	1.26	4.2%
PCB-104 22'466'-PeCB	21.94	2.13E+05	0.53 Y	1.12	1.15	2.8%
PCB-96 22'366'-PeCB	22.24	1.80E+05	0.64 Y	0.96	0.97	0.3%
PCB-103 22'45'6-PeCB	23.90	1.26E+05	0.61 Y	0.93	0.98	4.6%
PCB-94 22'356'-PeCB	24.07	9.40E+04	0.66 Y	0.81	0.73	-10.0%
PCB-95 22'35'6-PeCB	24.43	1.17E+05	0.69 Y	0.85	0.90	6.2%
PCB-100/93 22'44'6/22'356-PeCB	24.64	2.38E+05	0.61 Y	0.88	0.92	4.5%
PCB-102 22'456'-PeCB	24.74	1.18E+05	0.64 Y	0.93	0.91	-1.9%
PCB-98 22'34'6'-PeCB	24.81	1.36E+05	0.67 Y	0.84	1.05	25.6%
PCB-88 22'346-PeCB	25.09	1.07E+05	0.55 Y	0.77	0.83	6.9%
PCB-91 22'34'6-PeCB	25.17	1.22E+05	0.76 N	0.96	0.94	-2.0%
PCB-84 22'33'6-PeCB	25.35	9.82E+04	0.59 Y	0.72	0.76	5.4%
PCB-89 22'346'-PeCB	25.75	1.03E+05	0.54 Y	0.77	0.80	3.3%
PCB-121 23'45'6-PeCB	26.13	1.51E+05	0.63 Y	1.15	1.17	2.0%
PCB-92 22'355'-PeCB	26.43	9.98E+04	0.68 Y	0.79	0.77	-2.5%
PCB-113/90/101 ...-PeCB	26.90	3.90E+05	0.65 Y	0.95	1.01	5.3%
PCB-83 22'33'5-PeCB	27.31	1.06E+05	0.53 Y	0.72	0.82	14.0%
PCB-99 22'44'5-PeCB	27.41	1.19E+05	0.69 Y	0.90	0.92	3.1%
PCB-112 233'56-PeCB	27.51	1.53E+05	0.63 Y	1.09	1.19	8.3%
PCB-109/119/86/97/125...-PeCB	27.84	7.38E+05	0.62 Y	0.95	0.95	0.6%
PCB-117 234'56-PeCB	28.36	1.42E+05	0.57 Y	0.99	1.10	11.3%
PCB-116/85 23456/22'344'-PeCB	28.43	2.55E+05	0.62 Y	0.96	0.99	2.9%
PCB-110 233'4'6-PeCB	28.56	1.24E+05	0.61 Y	1.01	0.96	-4.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.78E+05	0.58 Y	1.15	1.38	19.5%
PCB-82 22'33'4-PeCB	28.83	1.07E+05	0.75 N	0.70	0.83	19.1%
PCB-111 233'55'-PeCB	29.18	1.59E+05	0.65 Y	1.16	1.23	5.8%
PCB-120 23'455'-PeCB	29.57	1.49E+05	0.56 Y	1.14	1.16	1.7%
PCB-108/124 ...-PeCB	30.51	2.67E+05	0.62 Y	1.02	1.03	1.4%
PCB-107 233'4'5-PeCB	30.71	1.47E+05	0.72 N	1.13	1.14	0.2%
PCB-106 233'45-PeCB	30.91	1.29E+05	0.70 Y	1.01	1.00	-1.1%
PCB-122 233'4'5'-PeCB	31.37	1.15E+05	0.50 N	0.91	0.86	-5.6%
PCB-127 33'455'-PeCB	33.31	1.33E+05	0.66 Y	1.06	1.08	1.9%
PCB-155 22'44'66'-HxCB	26.75	2.13E+05	1.25 Y	1.09	1.11	2.1%
PCB-152 22'3566'-HxCB	26.88	2.00E+05	1.23 Y	1.04	1.05	0.7%
PCB-150 22'34'66'-HxCB	27.03	2.08E+05	1.35 Y	1.03	1.09	5.7%
PCB-136 22'33'66'-HxCB	27.31	2.03E+05	1.16 Y	0.97	1.06	8.8%
PCB-145 22'3466'-HxCB	27.58	1.97E+05	1.21 Y	0.96	1.03	7.0%
PCB-148 22'34'56'-HxCB	28.87	1.37E+05	0.98 N	1.03	1.03	0.0%
PCB-151/135 ...-HxCB	29.37	2.69E+05	1.17 Y	0.99	1.02	2.3%
PCB-154 22'44'56'-HxCB	29.58	1.78E+05	1.30 Y	1.17	1.34	14.6%
PCB-144 22'345'6-HxCB	29.83	1.37E+05	1.18 Y	1.03	1.03	0.7%
PCB-147/149 ...-HxCB	30.12	2.61E+05	1.17 Y	1.02	0.98	-3.4%
PCB-134 22'33'56-HxCB	30.29	1.10E+05	1.28 Y	0.80	0.83	4.2%
PCB-143 22'3456'-HxCB	30.36	1.27E+05	1.13 Y	0.95	0.96	0.9%
PCB-139/140 ...-HxCB	30.63	3.01E+05	1.36 Y	1.05	1.14	8.4%
PCB-131 22'33'46-HxCB	30.79	1.16E+05	0.95 N	0.90	0.88	-1.9%
PCB-142 22'3456-HxCB	30.92	1.32E+05	1.42 Y	0.93	0.99	7.3%
PCB-132 22'33'46'-HxCB	31.16	1.48E+05	1.41 Y	0.93	1.12	20.5%
PCB-133 22'33'55'-HxCB	31.61	1.30E+05	1.23 Y	0.97	0.98	1.5%
PCB-165 233'55'6-HxCB	31.95	1.57E+05	1.35 Y	1.16	1.19	2.3%
PCB-146 22'34'55'-HxCB	32.15	1.40E+05	1.11 Y	1.01	1.06	5.0%
PCB-161 233'45'6-HxCB	32.27	1.75E+05	1.15 Y	1.29	1.32	2.2%
PCB-153/168 ...-HxCB	32.69	3.41E+05	1.23 Y	1.24	1.29	4.1%
PCB-141 22'3455'-HxCB	32.82	1.22E+05	1.21 Y	0.95	0.92	-3.0%
PCB-130 22'33'45'-HxCB	33.16	1.10E+05	1.45 N	0.82	0.83	1.1%
PCB-137 22'344'5-HxCB	33.35	1.15E+05	1.26 Y	0.97	0.87	-10.8%
PCB-164 233'4'5'6-HxCB	33.44	1.71E+05	1.16 Y	1.25	1.29	3.1%
PCB-163/138/129 ...-HxCB	33.73	4.51E+05	1.34 Y	1.04	1.14	9.0%
PCB-160 233'456-HxCB	33.84	1.57E+05	1.37 Y	1.19	1.18	-0.7%
PCB-158 233'44'6-HxCB	34.04	1.91E+05	1.15 Y	1.34	1.44	7.5%
PCB-128/166 ...-HxCB	34.74	2.22E+05	1.44 Y	0.96	0.95	-0.8%
PCB-159 233'455'-HxCB	35.60	1.20E+05	1.28 Y	1.12	1.03	-8.1%
PCB-162 233'4'55'-HxCB	35.83	1.26E+05	1.14 Y	1.13	1.08	-4.4%
PCB-188 22'34'566'-HpCB	31.54	1.82E+05	1.02 Y	0.98	0.98	-0.6%
PCB-179 22'33'566'-HpCB	31.81	1.71E+05	1.04 Y	0.90	0.92	2.5%
PCB-184 22'344'66'-HpCB	32.27	1.54E+05	1.06 Y	0.86	0.83	-4.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA

Acquired: 14-DEC-2012 02:28

Datafile: 121214V02

ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.55	1.87E+05	1.09 Y	0.97	1.01	4.0%
PCB-186 22'34566'-HpCB	32.93	1.72E+05	1.03 Y	0.93	0.92	-0.3%
PCB-178 22'33'55'6-HpCB	34.10	1.15E+05	1.18 Y	0.66	0.62	-6.4%
PCB-175 22'33'45'6-HpCB	34.63	1.22E+05	1.07 Y	1.02	1.14	11.7%
PCB-187 22'34'55'6-HpCB	34.86	1.04E+05	1.31 N	1.03	0.98	-4.8%
PCB-182 22'344'56'-HpCB	35.03	1.35E+05	0.99 Y	1.10	1.27	15.5%
PCB-183 22'344'5'6-HpCB	35.37	1.26E+05	1.16 Y	1.12	1.18	5.0%
PCB-185 22'3455'6-HpCB	35.44	1.08E+05	1.14 Y	0.97	1.01	4.5%
PCB-174 22'33'456'-HpCB	35.55	9.35E+04	0.95 Y	0.90	0.88	-2.1%
PCB-177 22'33'45'6'-HpCB	35.92	1.09E+05	0.91 Y	0.87	1.02	17.0%
PCB-181 22'344'56-HpCB	36.26	1.11E+05	1.17 Y	1.03	1.04	0.7%
PCB-171/173 ...-HpCB	36.44	2.04E+05	0.94 Y	0.89	0.96	8.1%
PCB-172 22'33'455'-HpCB	37.82	9.70E+04	1.14 Y	0.87	0.91	4.3%
PCB-192 233'455'6-HpCB	38.05	1.34E+05	0.95 Y	1.16	1.25	8.1%
PCB-180/193 ...-HpCB	38.33	2.26E+05	1.09 Y	1.07	1.06	-0.8%
PCB-191 233'44'5'6-HpCB	38.66	1.32E+05	1.03 Y	1.18	1.24	4.6%
PCB-170 22'33'44'5-HpCB	39.40	9.41E+04	0.90 Y	0.99	1.04	4.2%
PCB-190 233'44'56-HpCB	39.85	1.24E+05	0.90 Y	1.36	1.36	0.6%
PCB-202 22'33'55'66'-OcCB	36.04	1.26E+05	0.86 Y	0.86	0.87	0.5%
PCB-201 22'33'45'66'-OcCB	36.81	1.32E+05	0.93 Y	0.95	0.91	-4.6%
PCB-204 22'344'566'-OcCB	37.38	1.50E+05	0.82 Y	0.90	1.03	14.0%
PCB-197 22'33'44'66'-OcCB	37.57	1.35E+05	0.86 Y	0.96	0.93	-3.1%
PCB-200 22'33'4566'-OcCB	37.65	1.29E+05	0.80 Y	0.88	0.89	0.4%
PCB-198/199 ...-OcCB	39.99	1.87E+05	0.85 Y	0.63	0.64	2.0%
PCB-196 22'33'44'56'-OcCB	40.56	1.05E+05	0.90 Y	0.66	0.72	9.1%
PCB-203 22'344'55'6-OcCB	40.73	1.05E+05	0.85 Y	0.69	0.72	4.0%
PCB-195 22'33'44'56-OcCB	41.83	7.48E+04	0.84 Y	0.82	0.87	5.7%
PCB-194 22'33'44'55'-OcCB	43.80	7.85E+04	0.83 Y	0.90	0.91	1.5%
PCB-205 233'44'55'6-OcCB	44.19	9.92E+04	0.92 Y	1.13	1.16	2.0%
PCB-208 22'33'455'66'-NoCB	41.64	1.05E+05	0.75 Y	1.03	1.03	-0.3%
PCB-207 22'33'44'566'-NoCB	42.42	1.08E+05	0.79 Y	1.07	1.07	-0.2%
PCB-206 22'33'44'55'6-NoCB	45.66	7.71E+04	0.81 Y	0.97	1.00	3.3%

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



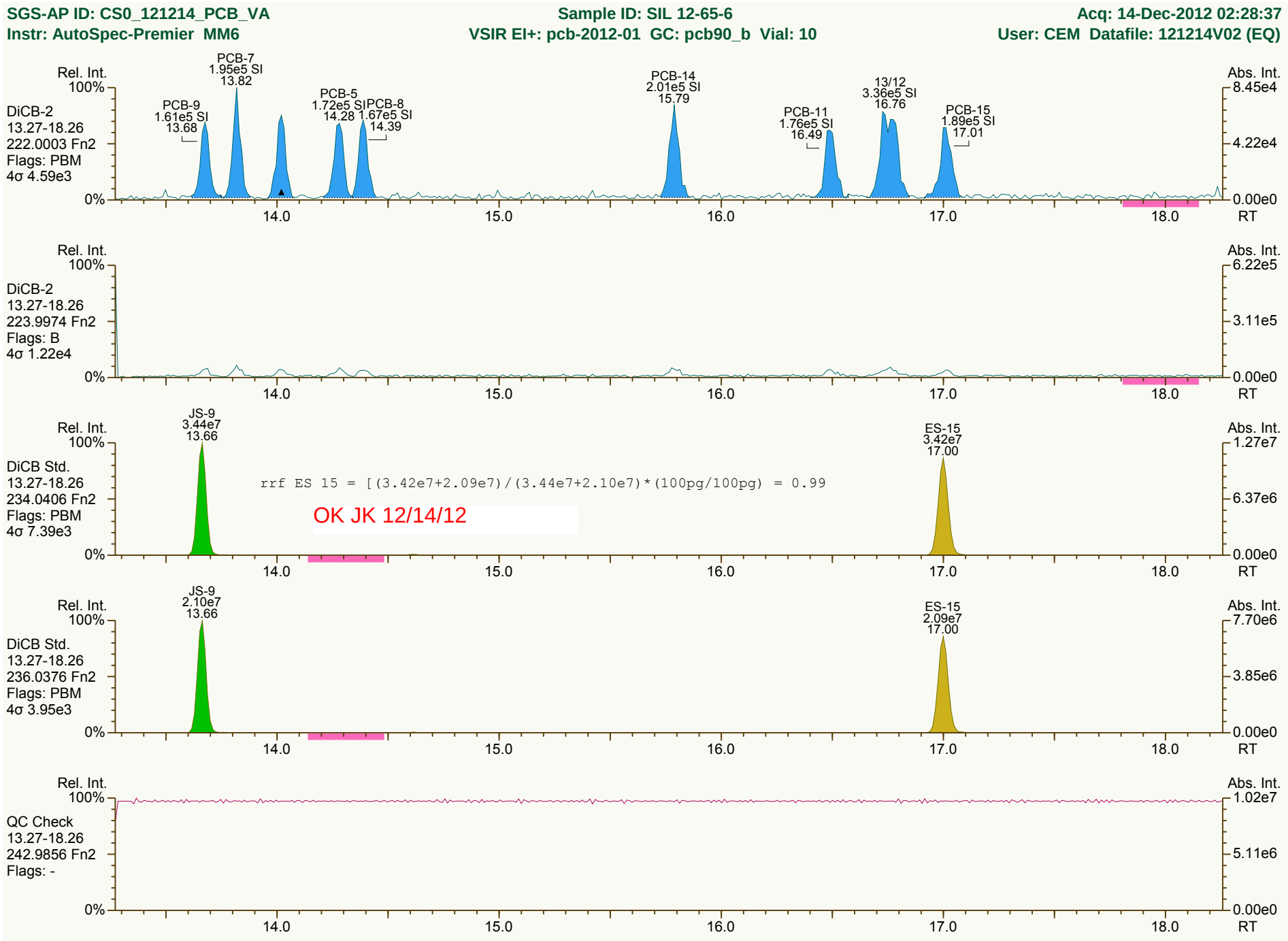
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 1289, 6403 scc: 877-492 *Revised: 14-Dec-2012 09:32 (CEM) Printed: 14-Dec-2012 11:19 Page 2 of 22*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**

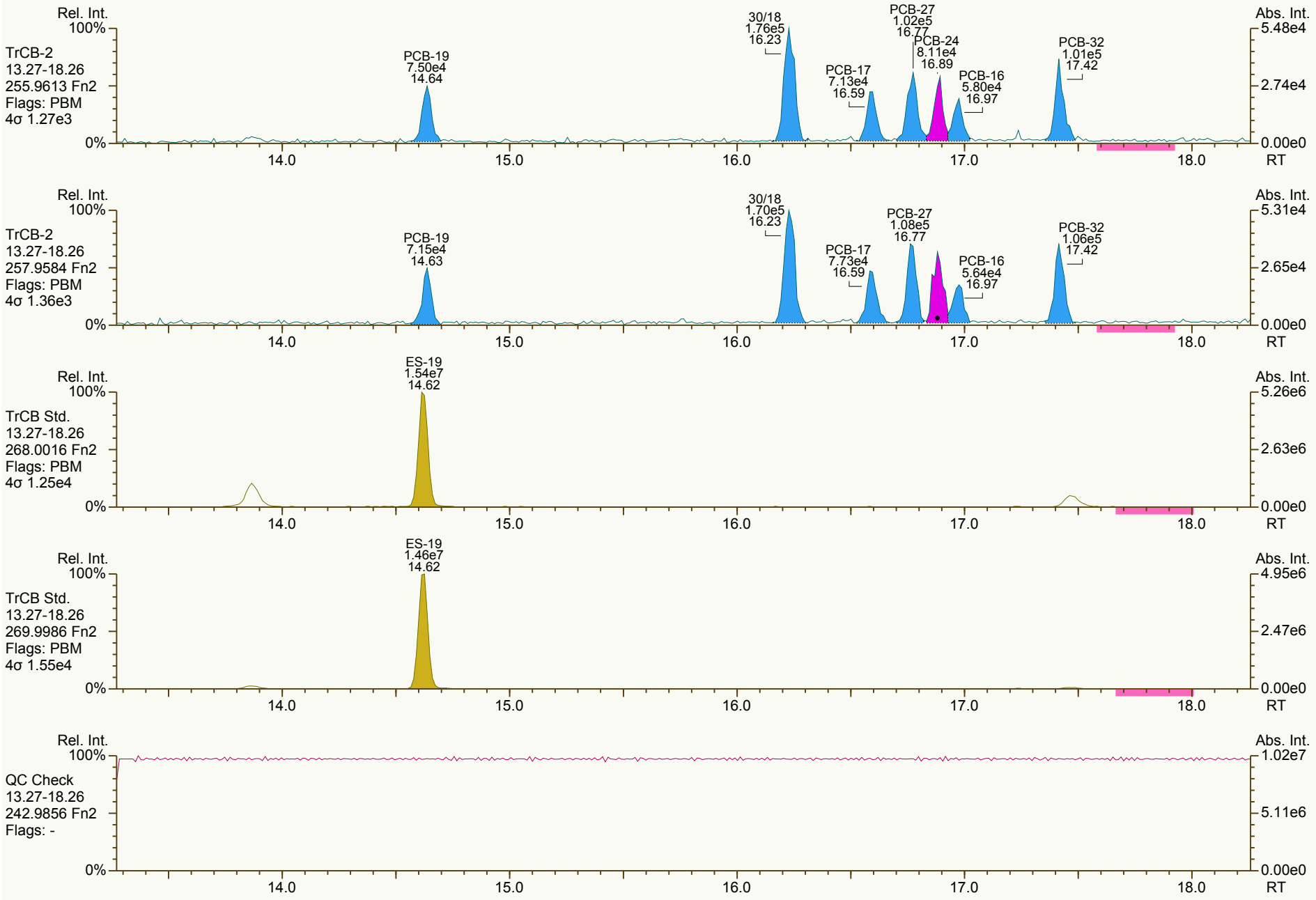


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*



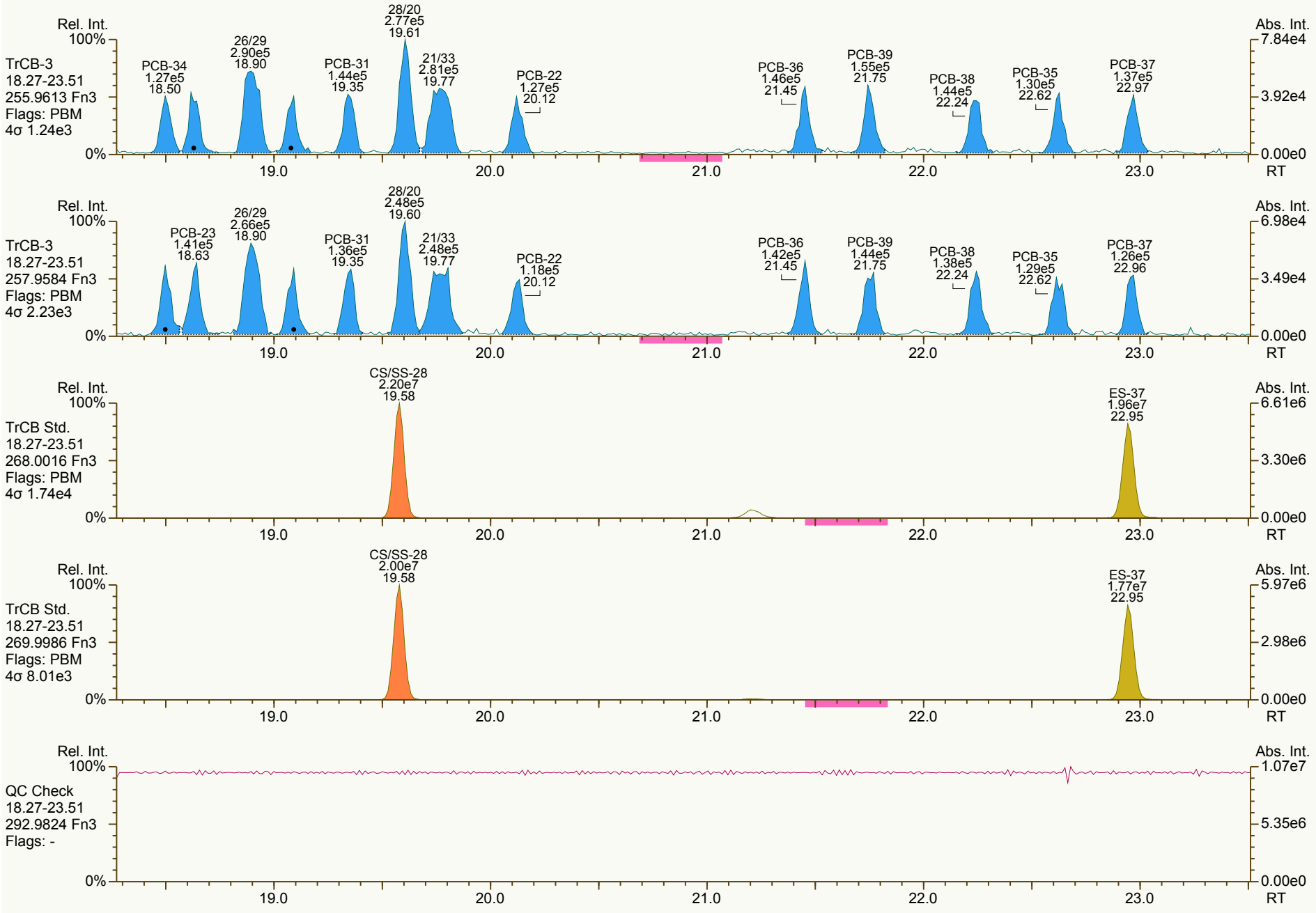
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 7333, 9074 scc: 877-492
Revised: 14-Dec-2012 09:33 (CEM) Printed: 14-Dec-2012 11:19 Page 4 of 22

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



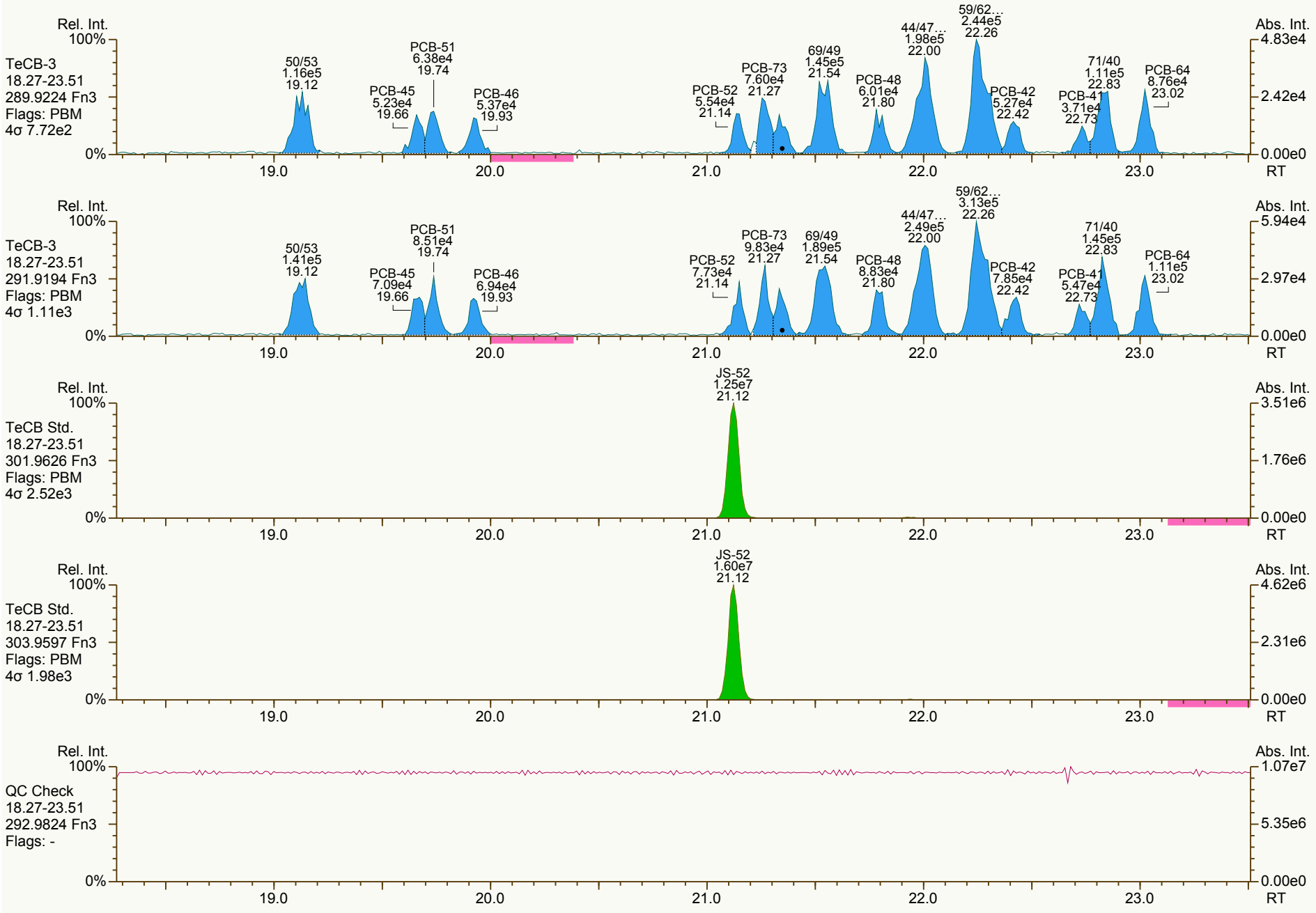
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 2910, 7127 scc: 877-492 *Revised: 14-Dec-2012 09:33 (CEM) Printed: 14-Dec-2012 11:19 Page 6 of 22*

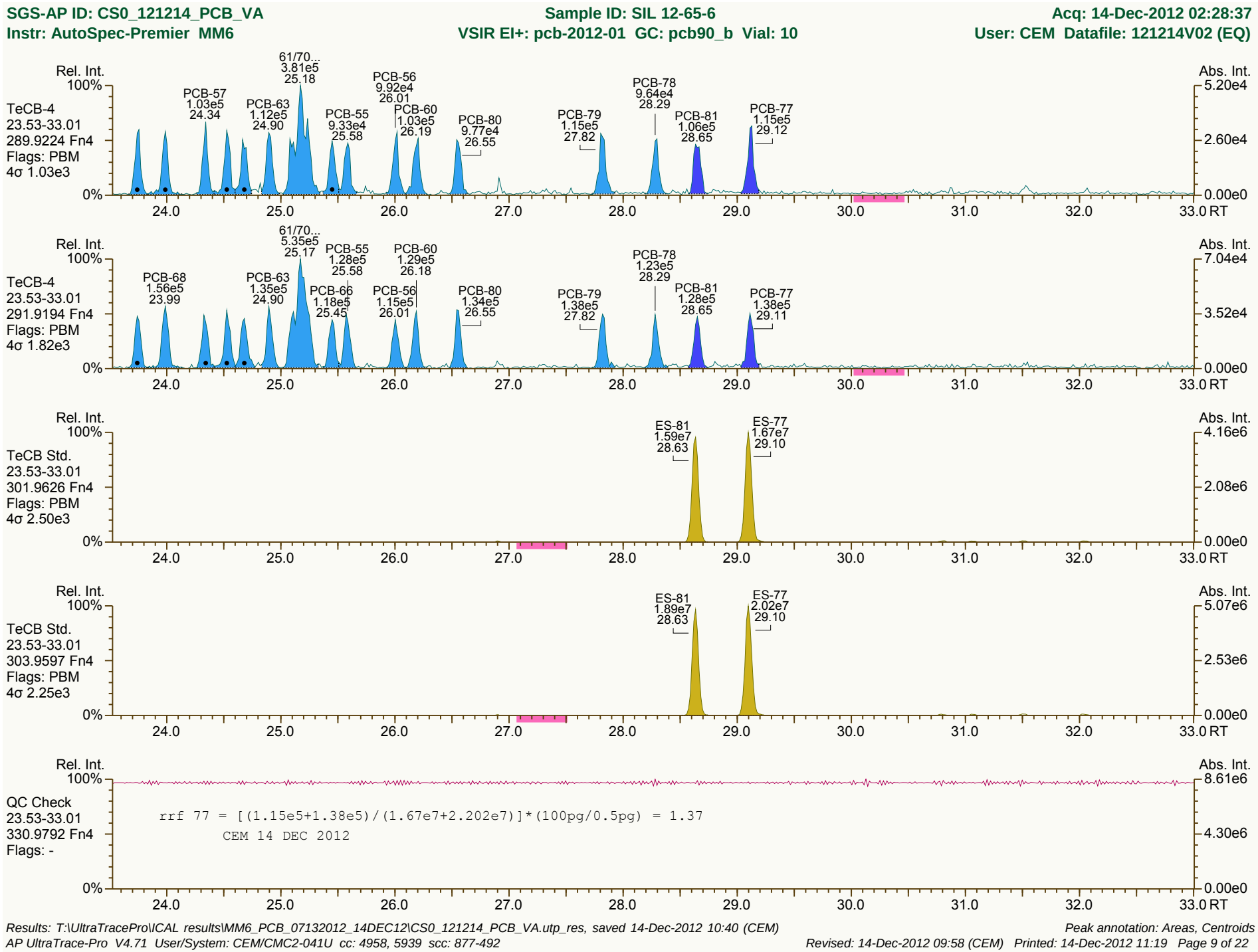
SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



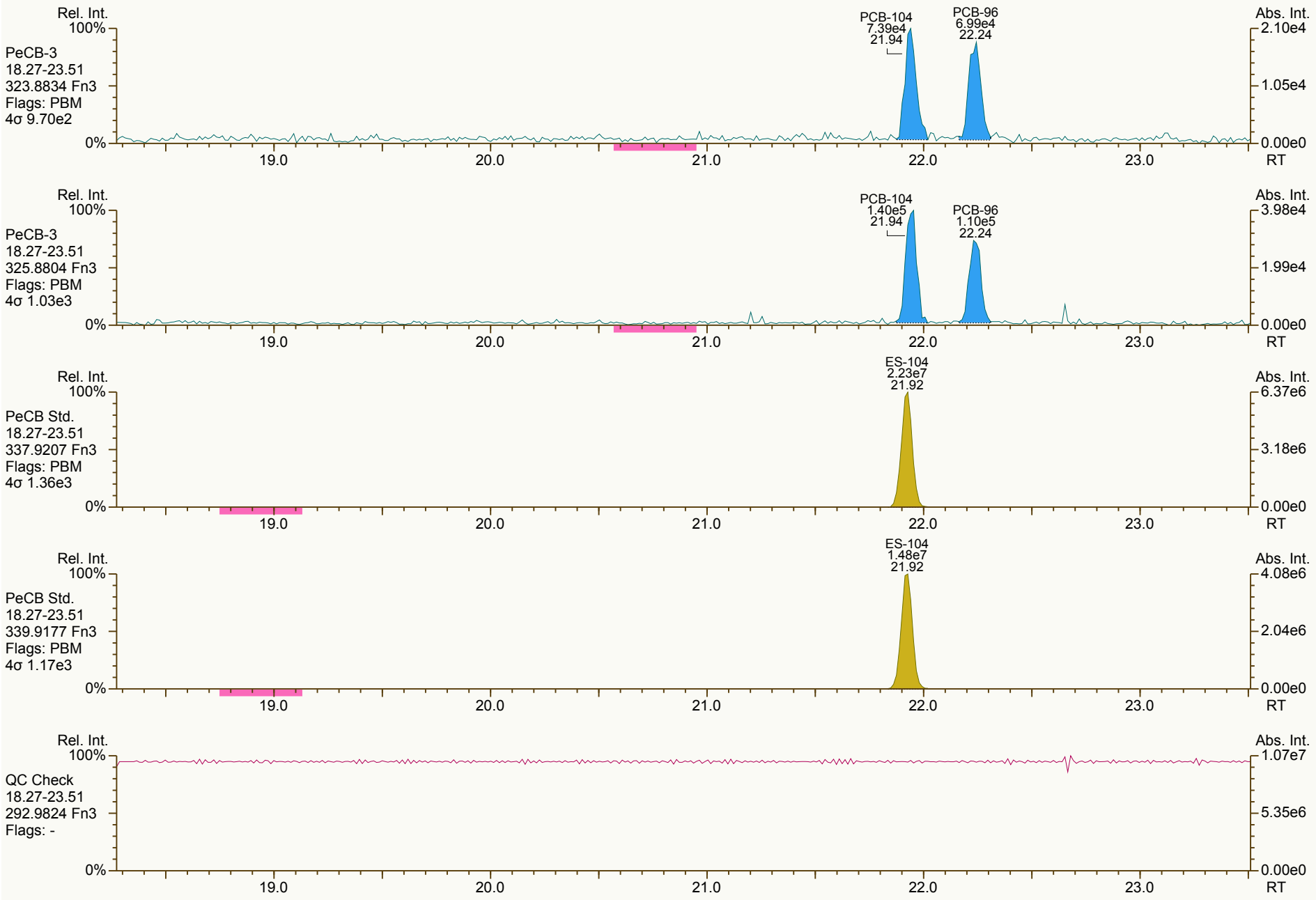
SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

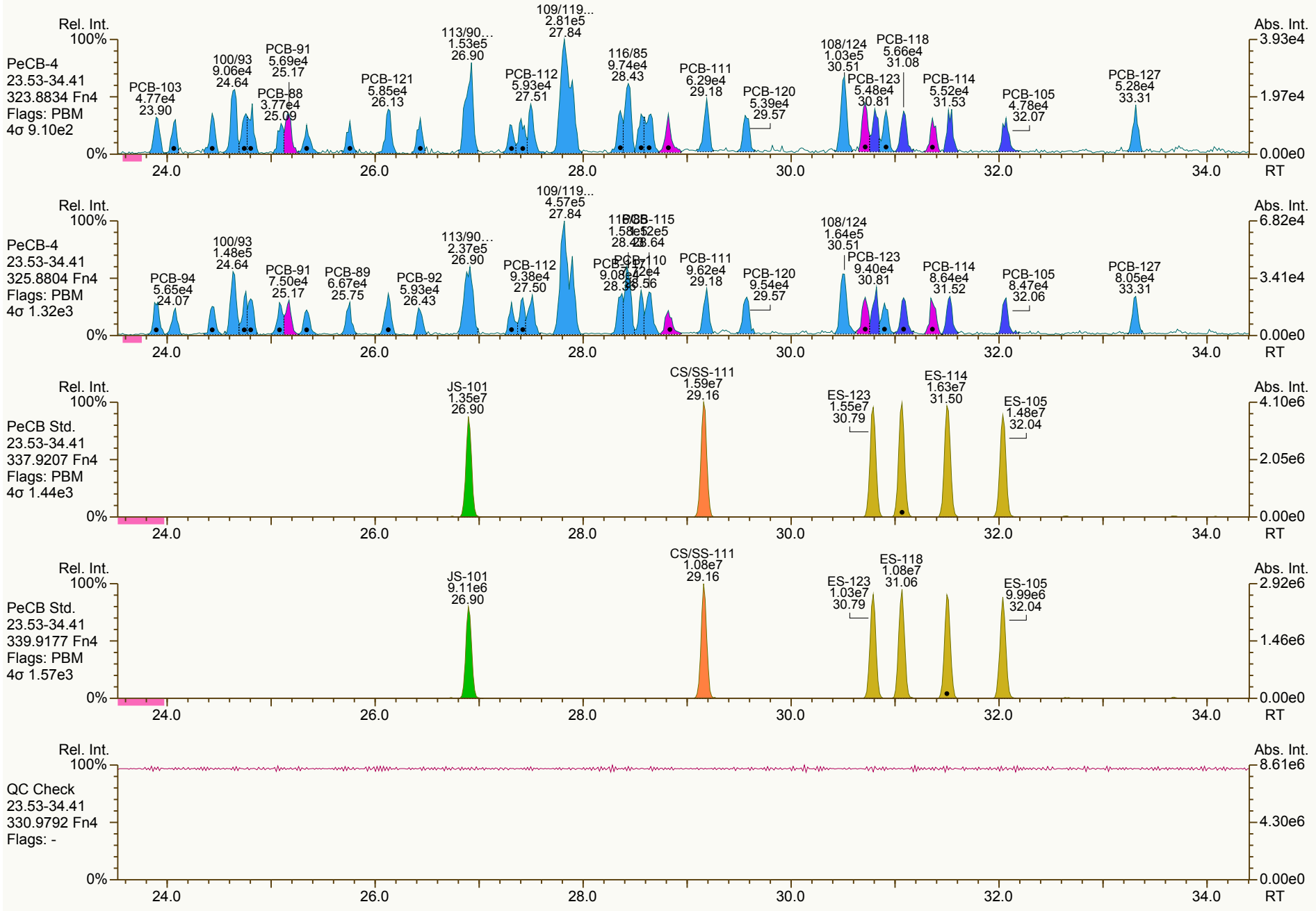

SGS-AP ID: CS0_121214_PCB_VA
Sample ID: SIL 12-65-6
Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10
User: CEM Datafile: 121214V02 (EQ)
Rel. Int.
Abs. Int.
TeCB-4
23.53-33.01
289.9224 Fn4
Flags: PBM
4σ 1.03e3
61/70... 3.81e5 25.18
PCB-57 1.03e5 24.34
PCB-63 1.12e5 24.90
PCB-55 9.33e4 25.58
PCB-56 9.92e4 26.01
PCB-60 1.03e5 26.19
PCB-80 9.77e4 26.55
PCB-79 1.15e5 27.82
PCB-78 9.64e4 28.29
PCB-81 1.06e5 28.65
PCB-77 1.15e5 29.12
TeCB-4
23.53-33.01
291.9194 Fn4
Flags: PBM
4σ 1.82e3
61/70... 5.35e5 25.17
PCB-68 1.56e5 23.99
PCB-63 1.35e5 24.90
PCB-55 1.28e5 25.58
PCB-66 1.18e5 25.45
PCB-56 1.15e5 26.01
PCB-60 1.29e5 26.18
PCB-80 1.34e5 26.55
PCB-79 1.38e5 27.82
PCB-78 1.23e5 28.29
PCB-81 1.28e5 28.65
PCB-77 1.38e5 29.11
TeCB Std.
23.53-33.01
301.9626 Fn4
Flags: PBM
4σ 2.50e3
ES-81 1.59e7 28.63
ES-77 1.67e7 29.10
TeCB Std.
23.53-33.01
303.9597 Fn4
Flags: PBM
4σ 2.25e3
ES-81 1.89e7 28.63
ES-77 2.02e7 29.10
QC Check
23.53-33.01
330.9792 Fn4
Flags: -
rrf 77 = [(1.15e5+1.38e5)/(1.67e7+2.202e7)]*(100pg/0.5pg) = 1.37
CEM 14 DEC 2012
RT

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**

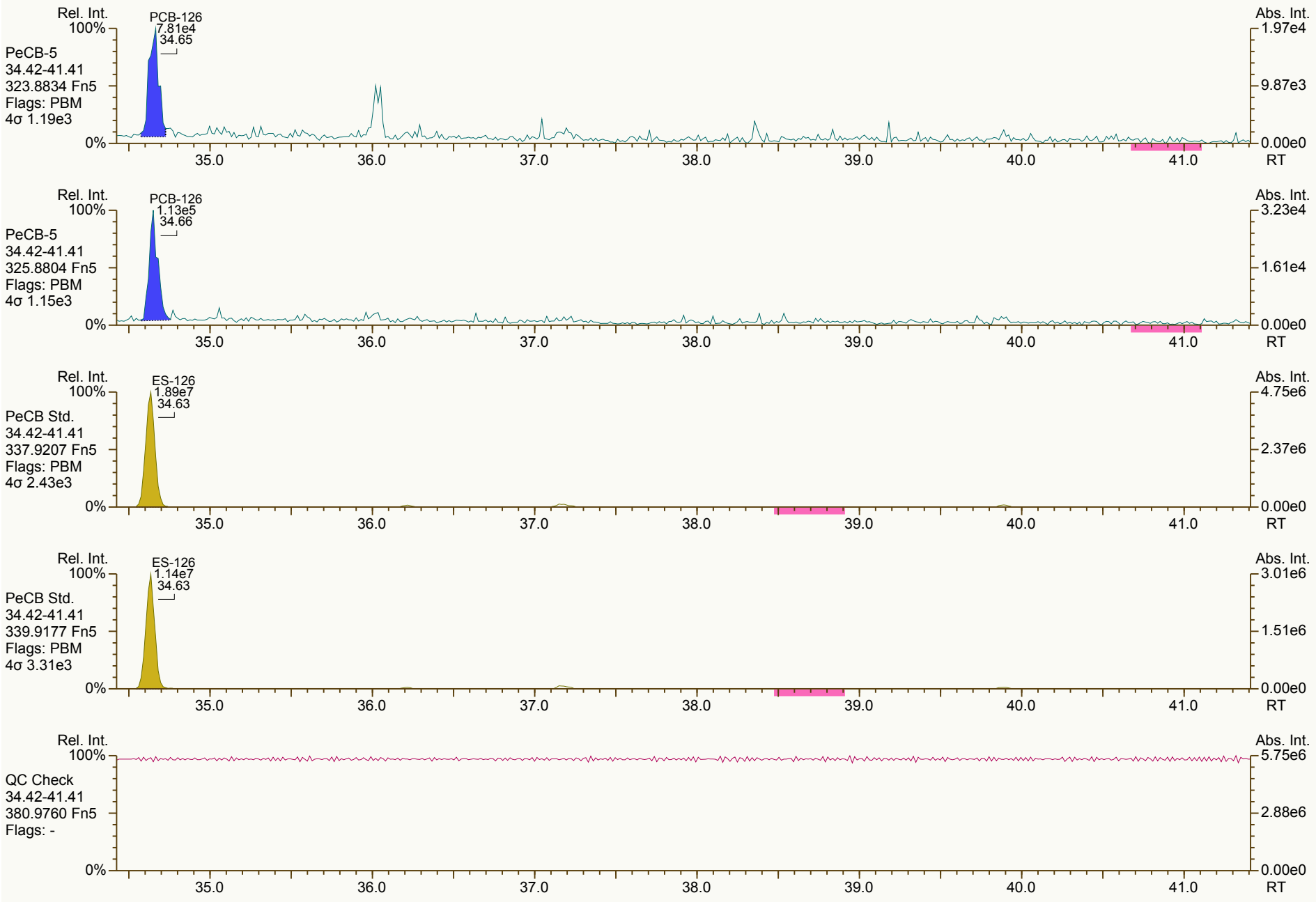


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)

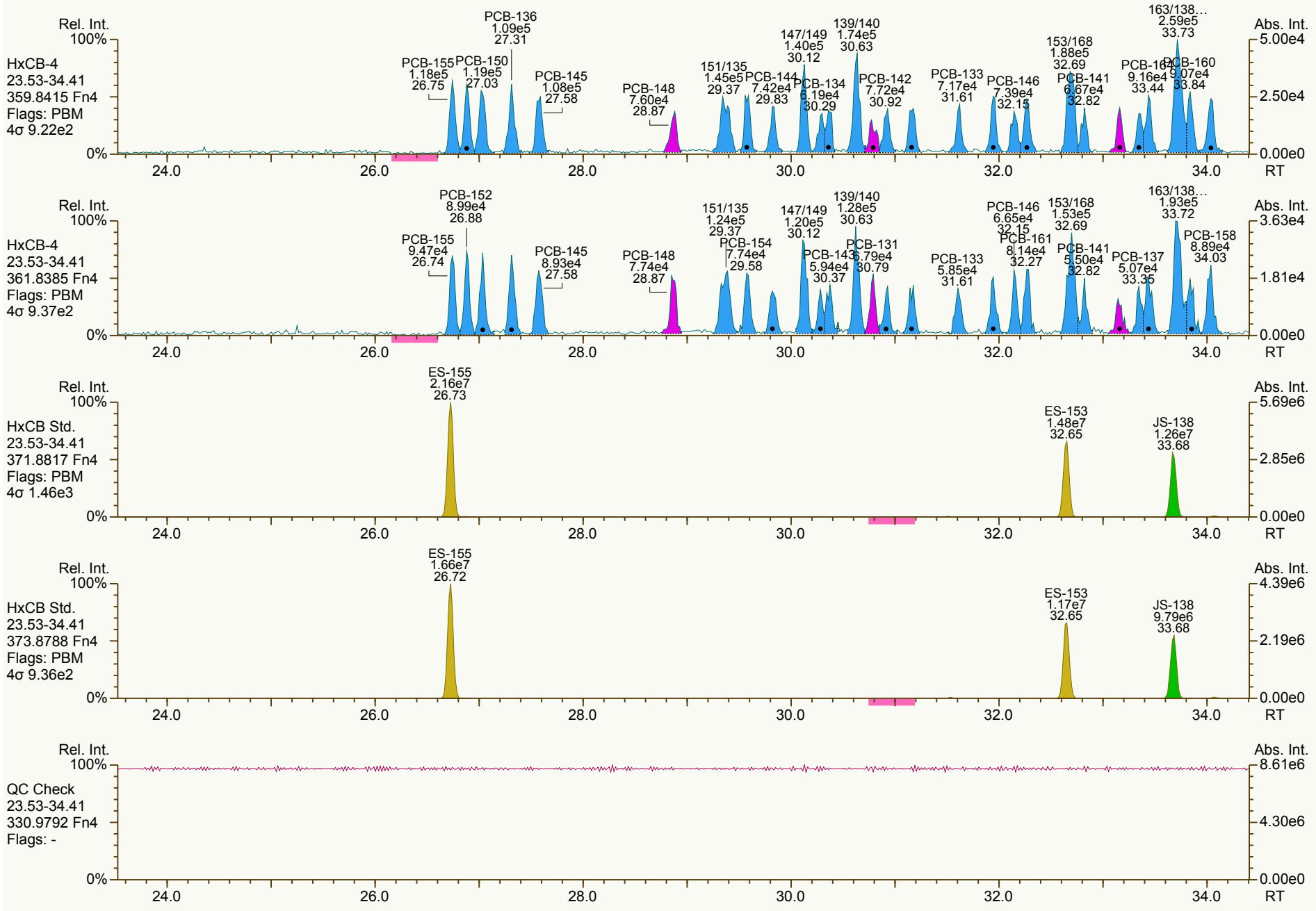


SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

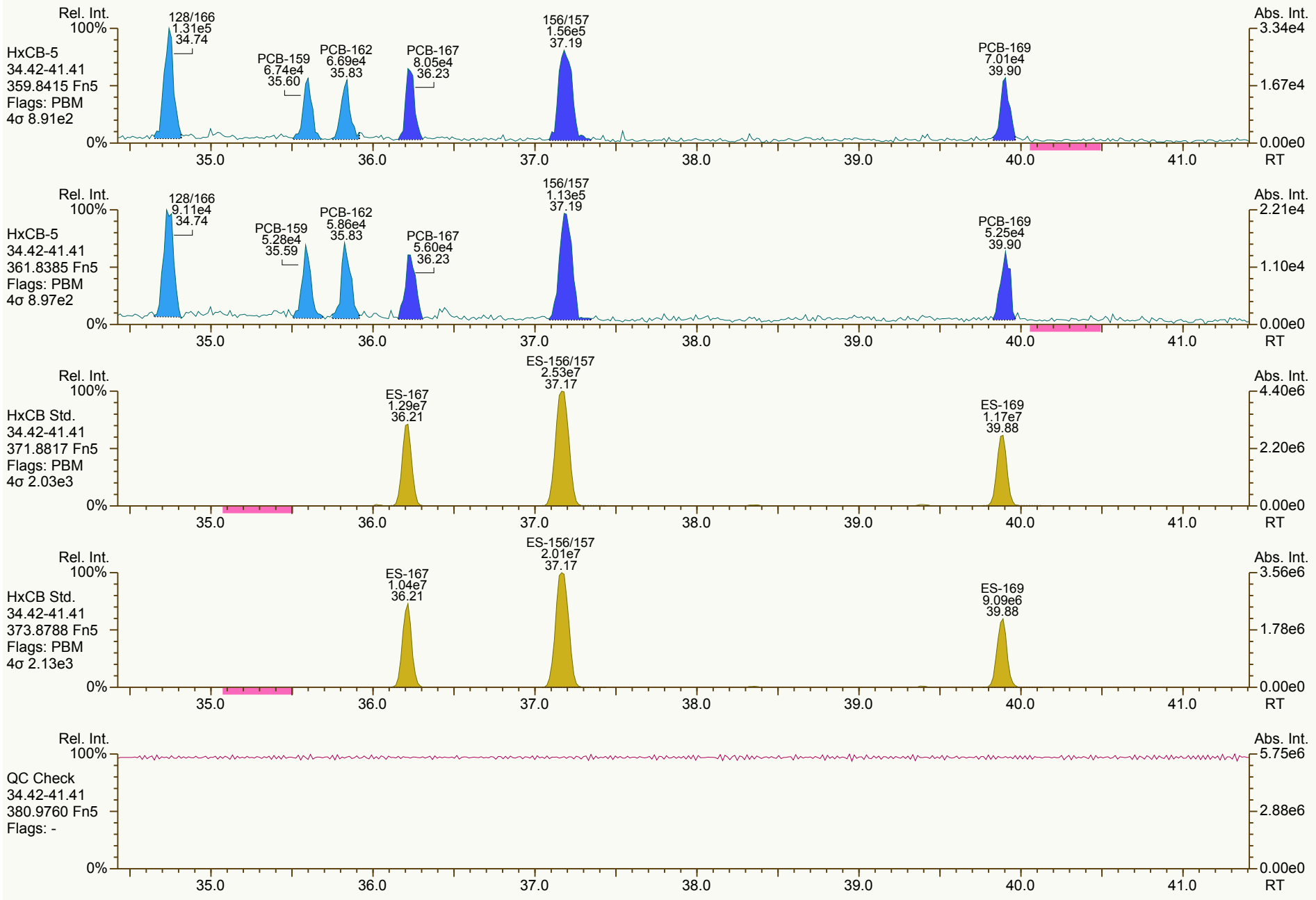
SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

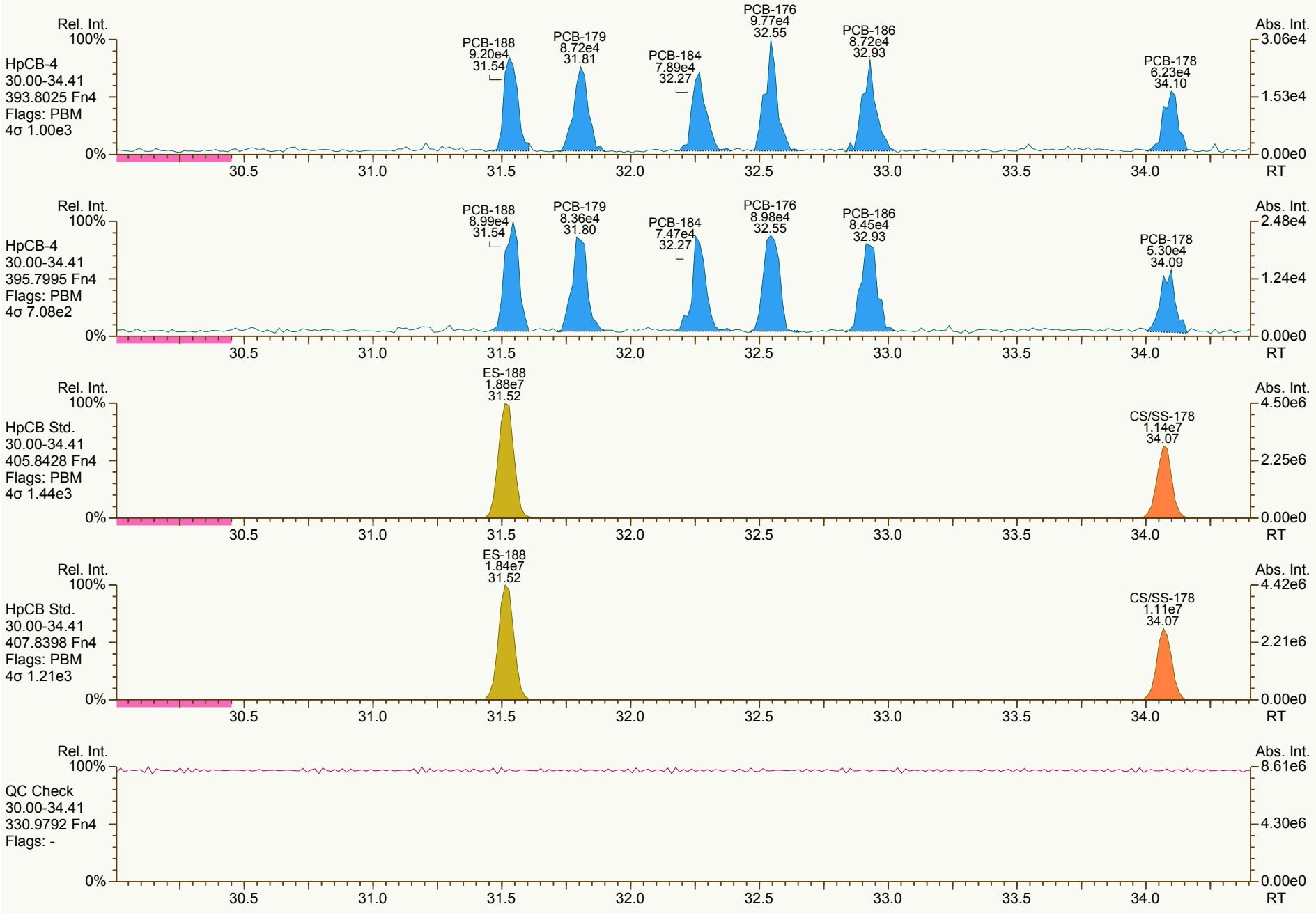
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 5368, 1777 scc: 877-492 *Revised: 14-Dec-2012 10:39 (CEM) Printed: 14-Dec-2012 11:19 Page 13 of 22*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



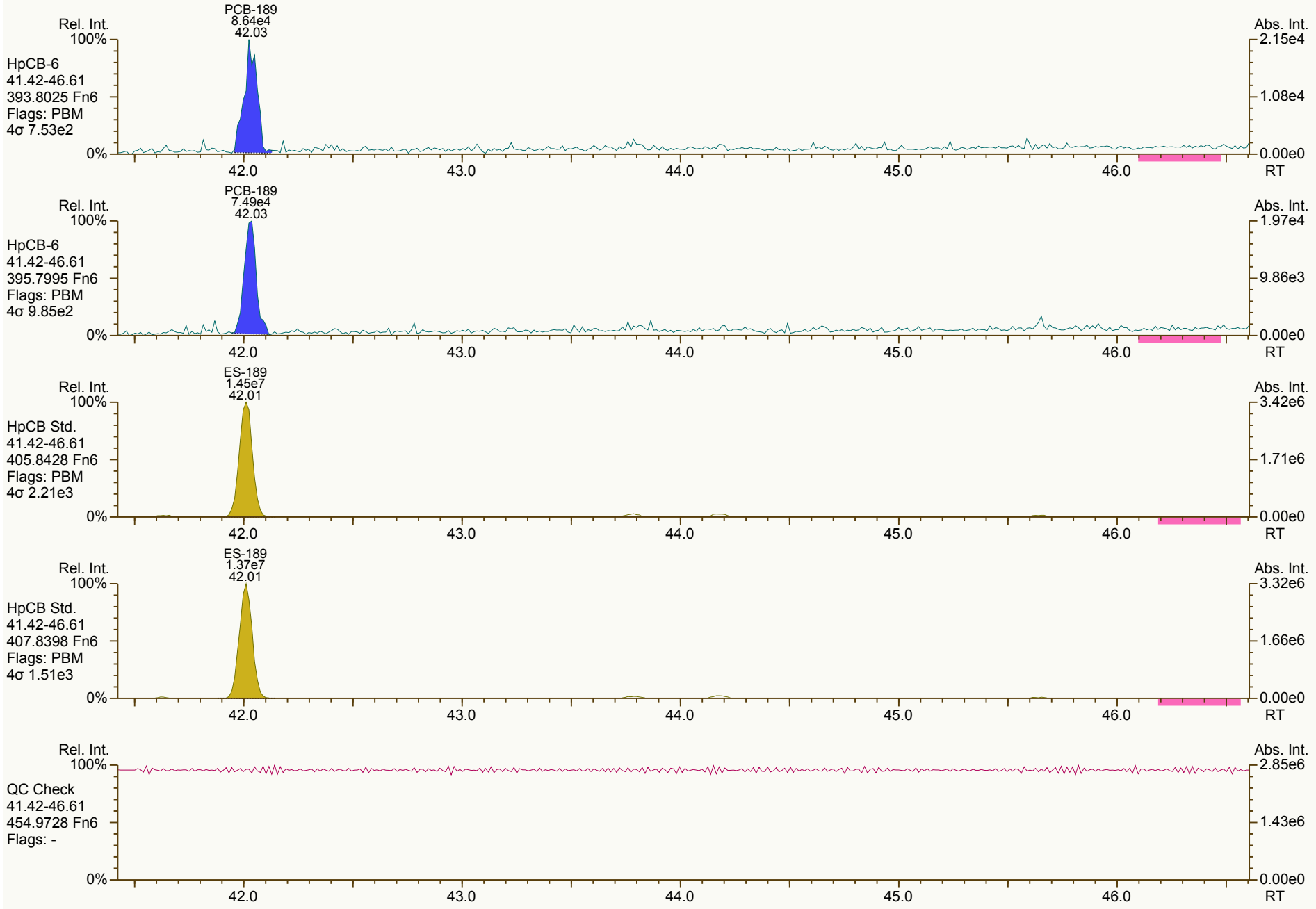
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



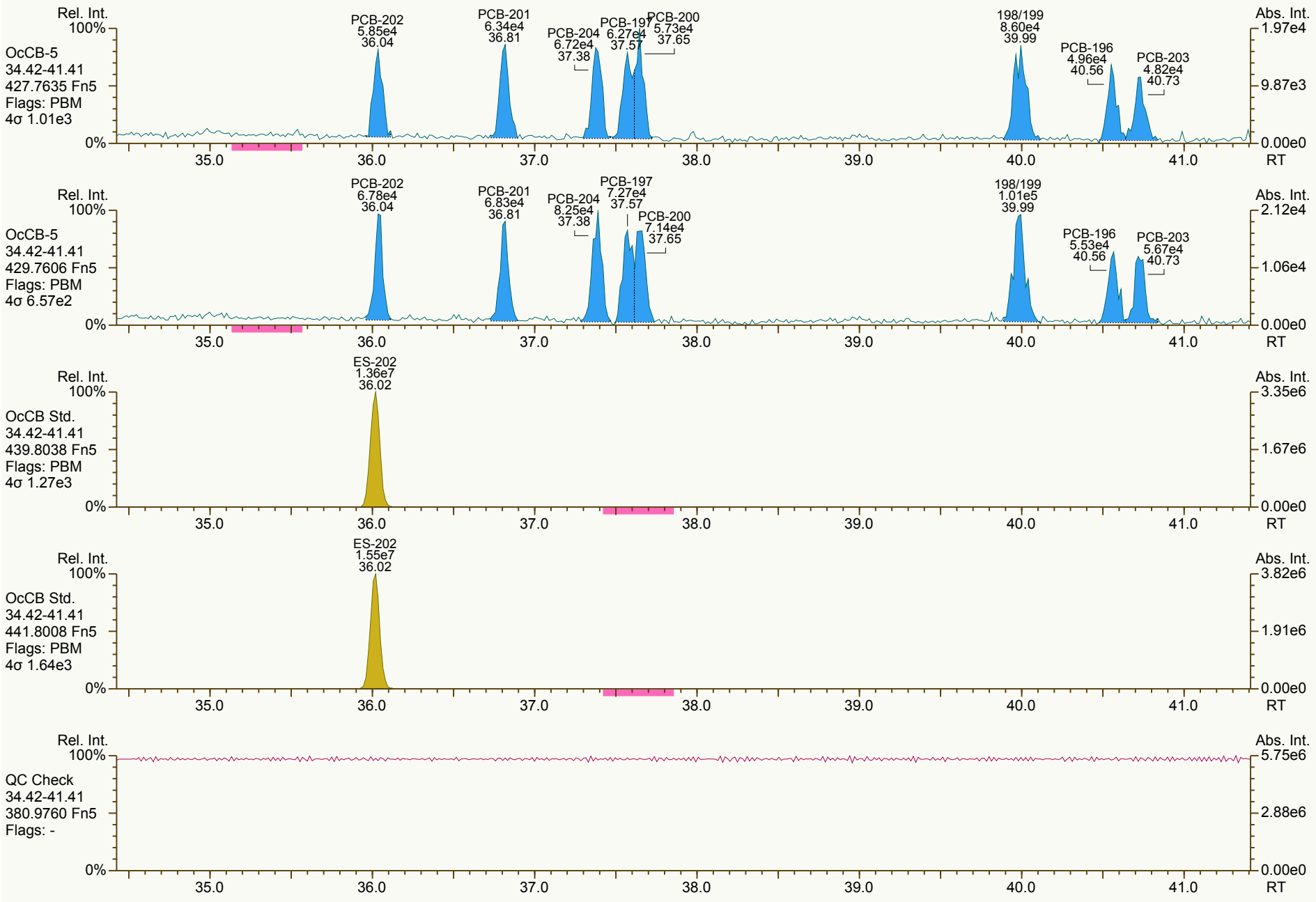
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



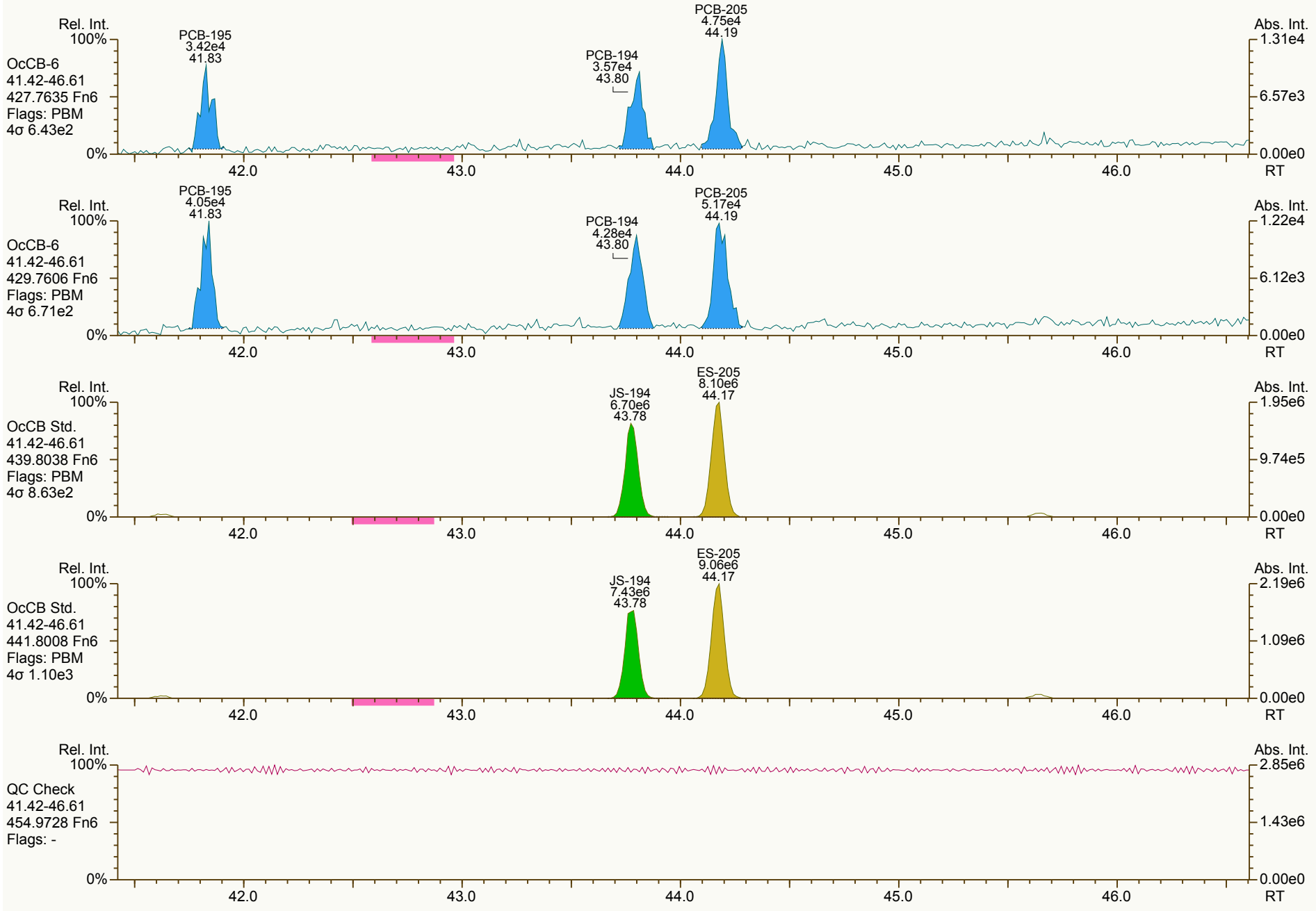
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | **Sample ID: SIL 12-65-6** | **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** | **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

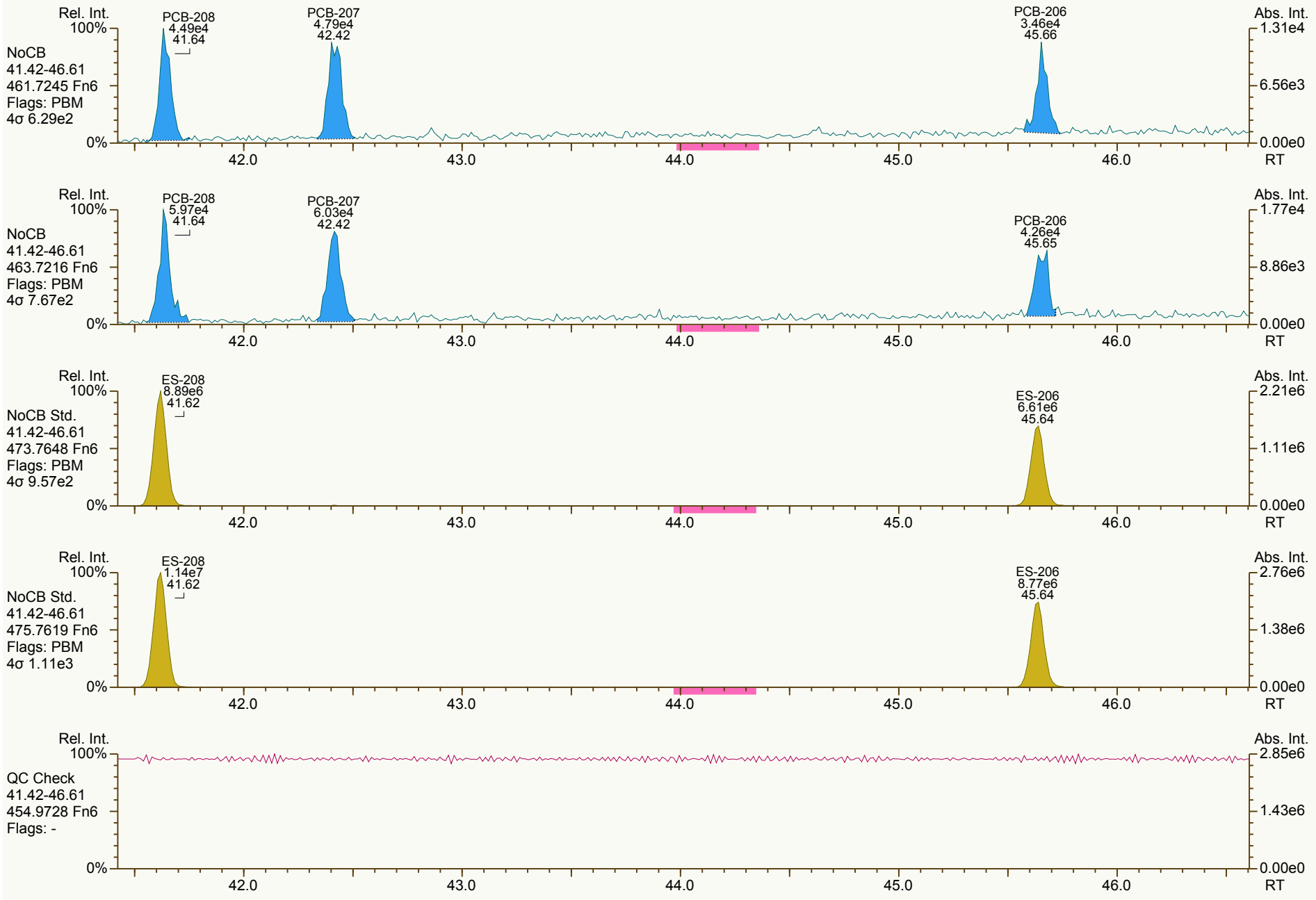
SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9138, 0869 scc: 877-492 *PKD: 14-Dec-2012 09:29 Printed: 14-Dec-2012 11:19 Page 19 of 22*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:16
Lab ID:	CS1_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 03:21				
Datafile:	121214V03				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.10	4.04E+05	0.78 Y	1.25	1.18	-5.3%
PCB-81 344'5-TeCB	28.63	3.78E+05	0.84 Y	1.26	1.16	-8.0%
PCB-105 233'44'-PeCB	32.04	2.48E+05	0.63 Y	1.06	1.08	2.2%
PCB-114 2344'5-PeCB	31.52	2.88E+05	0.67 Y	1.11	1.18	6.3%
PCB-118 23'44'5-PeCB	31.08	2.58E+05	0.61 Y	1.08	1.05	-2.5%
PCB-123 23'44'5'-PeCB	30.80	2.82E+05	0.66 Y	1.12	1.20	7.2%
PCB-126 33'44'5-PeCB	34.64	3.20E+05	0.59 Y	1.16	1.15	-0.7%
PCB-156/157 ...-HxCB	37.17	4.59E+05	1.27 Y	1.14	1.13	-0.5%
PCB-167 23'44'55'-HxCB	36.22	2.44E+05	1.40 Y	1.18	1.16	-1.5%
PCB-169 33'44'55'-HxCB	39.88	1.99E+05	1.19 Y	1.15	1.08	-6.7%
PCB-189 233'44'55'-HpCB	42.02	2.72E+05	1.09 Y	1.12	1.08	-3.5%
PCB-209 DeCB	46.99	1.79E+05	1.14 Y	1.11	1.14	2.5%
ES PCB-1	9.82	6.27E+07	3.29 Y	0.97	0.97	-0.2%
ES PCB-3	11.72	5.80E+07	3.36 Y	0.90	0.90	-0.4%
ES PCB-4	11.93	4.49E+07	1.54 Y	0.70	0.69	-1.1%
ES PCB-15	16.98	6.18E+07	1.63 Y	1.02	0.95	-6.0%
ES PCB-19	14.60	3.37E+07	1.04 Y	0.53	0.52	-1.3%
ES PCB-37	22.93	3.94E+07	1.11 Y	1.29	1.28	-1.2%
ES PCB-54	17.23	4.42E+07	0.77 Y	1.43	1.43	0.5%
ES PCB-77	29.08	3.42E+07	0.84 Y	1.20	1.11	-7.9%
ES PCB-81	28.62	3.27E+07	0.85 Y	1.16	1.06	-8.8%
ES PCB-104	21.90	3.98E+07	1.50 Y	1.70	1.91	11.8%
ES PCB-105	32.02	2.30E+07	1.52 Y	1.10	1.10	0.3%
ES PCB-114	31.49	2.43E+07	1.47 Y	1.16	1.16	0.6%
ES PCB-118	31.05	2.44E+07	1.49 Y	1.15	1.17	1.3%
ES PCB-123	30.77	2.35E+07	1.49 Y	1.14	1.12	-1.5%
ES PCB-126	34.62	2.79E+07	1.64 Y	1.34	1.33	-0.5%
ES PCB-153	32.63	2.43E+07	1.29 Y	1.14	1.13	-1.0%
ES PCB-155	26.71	3.57E+07	1.26 Y	1.61	1.66	3.1%
ES PCB-156/157	37.15	4.05E+07	1.25 Y	0.98	0.94	-3.4%
ES PCB-167	36.20	2.10E+07	1.26 Y	1.01	0.98	-3.1%
ES PCB-169	39.87	1.85E+07	1.21 Y	0.90	0.86	-3.9%
ES PCB-170	39.37	1.62E+07	1.03 Y	1.28	1.27	-1.1%
ES PCB-180	38.33	1.91E+07	1.04 Y	1.54	1.50	-2.6%
ES PCB-188	31.50	3.37E+07	1.06 Y	1.63	1.57	-3.4%
ES PCB-189	42.00	2.52E+07	1.06 Y	1.97	1.98	0.6%
ES PCB-202	36.00	2.63E+07	0.91 Y	1.26	1.23	-2.7%
ES PCB-205	44.16	1.55E+07	0.88 Y	1.22	1.22	-0.4%
ES PCB-206	45.63	1.38E+07	0.77 Y	1.10	1.09	-1.3%
ES PCB-208	41.60	1.79E+07	0.78 Y	1.41	1.41	-0.1%
ES PCB-209	46.97	1.57E+07	1.16 Y	1.24	1.23	-1.1%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03

ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.56	4.73E+07	1.10 Y	1.18	1.20	1.8%
SS PCB-111	29.15	2.42E+07	1.52 Y	1.01	1.03	2.4%
SS PCB-178	34.06	2.05E+07	1.04 Y	0.60	0.61	1.0%
CS PCB-28	19.56	4.73E+07	1.10 Y	1.52	1.53	0.6%
CS PCB-111	29.15	2.42E+07	1.52 Y	1.15	1.16	0.8%
CS PCB-178	34.06	2.05E+07	1.04 Y	0.98	0.95	-2.5%
JS PCB-9	13.65	6.48E+07	1.62 Y	-	-	-
JS PCB-52	21.10	3.09E+07	0.77 Y	-	-	-
JS PCB-101	26.89	2.09E+07	1.49 Y	-	-	-
JS PCB-138	33.66	2.14E+07	1.33 Y	-	-	-
JS PCB-194	43.76	1.27E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	9.83	7.57E+05	2.83 Y	1.25	1.21	-3.3%
PCB-3 4-MoCB	11.73	7.08E+05	2.79 Y	1.27	1.22	-3.6%
PCB-4 22'-DiCB	11.94	4.02E+05	1.36 Y	0.90	0.90	-0.3%
PCB-15 44'-DiCB	17.00	7.01E+05	1.33 Y	1.10	1.13	3.5%
PCB-19 22'6-TrCB	14.62	2.97E+05	1.03 Y	0.95	0.88	-6.7%
PCB-37 344'-TrCB	22.95	5.17E+05	1.09 Y	1.39	1.31	-5.6%
PCB-54 22'66'-TeCB	17.24	4.42E+05	0.79 Y	1.05	1.00	-5.0%
PCB-104 22'466'-PeCB	21.93	4.27E+05	0.62 Y	1.12	1.07	-4.2%
PCB-153/168 ...-HxCB	32.67	5.84E+05	1.24 Y	1.24	1.20	-2.7%
PCB-155 22'44'66'-HxCB	26.73	3.89E+05	1.20 Y	1.09	1.09	-0.1%
PCB-170 22'33'44'5-HpCB	39.39	1.52E+05	0.98 Y	0.99	0.94	-5.3%
PCB-180/193 ...-HpCB	38.32	4.27E+05	1.08 Y	1.07	1.12	4.5%
PCB-188 22'34'566'-HpCB	31.52	3.25E+05	1.19 Y	0.98	0.97	-1.7%
PCB-202 22'33'55'66'-OcCB	36.02	2.36E+05	0.83 Y	0.86	0.90	3.6%
PCB-205 233'44'55'6-OcCB	44.18	1.72E+05	0.87 Y	1.13	1.11	-1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.86E+05	0.71 Y	1.03	1.04	0.8%
PCB-206 22'33'44'55'6-NoCB	45.65	1.33E+05	0.69 Y	0.97	0.96	-0.8%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.83	7.57E+05	2.83 Y	1.25	1.21	-3.3%
PCB-2 3-MoCB	11.58	7.05E+05	3.17 Y	1.28	1.21	-4.9%
PCB-3 4-MoCB	11.73	7.08E+05	2.79 Y	1.27	1.22	-3.6%
PCB-4 22'-DiCB	11.94	4.02E+05	1.36 Y	0.90	0.90	-0.3%
PCB-10 26-DiCB	12.10	5.94E+05	1.53 Y	1.38	1.32	-4.1%
PCB-9 25-DiCB	13.66	6.24E+05	1.47 Y	0.99	1.01	2.2%
PCB-7 24-DiCB	13.80	6.72E+05	1.71 Y	1.10	1.09	-1.5%
PCB-6 23'-DiCB	14.00	6.62E+05	1.36 Y	1.04	1.07	3.1%
PCB-5 23-DiCB	14.26	6.29E+05	1.59 Y	1.02	1.02	-0.7%
PCB-8 24'-DiCB	14.37	6.02E+05	1.39 Y	1.03	0.97	-5.7%
PCB-14 35-DiCB	15.77	7.61E+05	1.47 Y	1.20	1.23	2.5%
PCB-11 33'-DiCB	16.48	6.57E+05	1.48 Y	1.03	1.06	3.4%
PCB-13/12 34'/34-DiCB	16.74	1.18E+06	1.48 Y	1.03	0.96	-7.6%
PCB-15 44'-DiCB	17.00	7.01E+05	1.33 Y	1.10	1.13	3.5%
PCB-19 22'6-TrCB	14.62	2.97E+05	1.03 Y	0.95	0.88	-6.7%
PCB-30/18 246/22'5-TrCB	16.21	7.25E+05	1.00 Y	1.23	1.08	-12.5%
PCB-17 22'4-TrCB	16.57	3.48E+05	1.07 Y	1.05	1.03	-1.9%
PCB-27 23'6-TrCB	16.75	4.46E+05	1.06 Y	1.46	1.33	-9.5%
PCB-24 236-TrCB	16.87	4.22E+05	1.02 Y	1.32	1.25	-5.1%
PCB-16 22'3-TrCB	16.95	2.62E+05	1.00 Y	0.81	0.78	-3.7%
PCB-32 24'6-TrCB	17.40	4.79E+05	1.06 Y	1.48	1.42	-3.6%
PCB-34 23'5'-TrCB	18.48	5.40E+05	1.01 Y	1.46	1.37	-6.3%
PCB-23 235-TrCB	18.61	5.73E+05	1.10 Y	1.50	1.45	-3.3%
PCB-26/29 23'5/245-TrCB	18.88	1.17E+06	1.04 Y	1.53	1.48	-2.9%
PCB-25 23'4-TrCB	19.07	6.05E+05	1.15 Y	1.53	1.53	0.0%
PCB-31 24'5-TrCB	19.33	5.97E+05	1.00 Y	1.55	1.51	-2.4%
PCB-28/20 244'/233'-TrCB	19.59	1.17E+06	1.06 Y	1.51	1.48	-1.6%
PCB-21/33 234/23'4'-TrCB	19.75	1.22E+06	1.00 Y	1.55	1.55	0.1%
PCB-22 234'-TrCB	20.10	5.44E+05	1.07 Y	1.40	1.38	-1.3%
PCB-36 33'5-TrCB	21.43	5.81E+05	1.11 Y	1.52	1.47	-2.9%
PCB-39 34'5-TrCB	21.73	6.17E+05	1.00 Y	1.58	1.57	-1.1%
PCB-38 345-TrCB	22.22	5.57E+05	1.08 Y	1.47	1.41	-3.7%
PCB-35 33'4-TrCB	22.61	4.81E+05	1.05 Y	1.33	1.22	-8.5%
PCB-37 344'-TrCB	22.95	5.17E+05	1.09 Y	1.39	1.31	-5.6%
PCB-54 22'66'-TeCB	17.24	4.42E+05	0.79 Y	1.05	1.00	-5.0%
PCB-50/53 22'46/22'56'-TeCB	19.10	6.13E+05	0.75 Y	0.88	0.94	6.9%
PCB-45 22'36-TeCB	19.64	2.33E+05	0.76 Y	0.73	0.71	-2.8%
PCB-51 22'46'-TeCB	19.71	3.28E+05	0.75 Y	0.94	1.00	7.0%
PCB-46 22'36'-TeCB	19.91	2.44E+05	0.72 Y	0.72	0.75	4.2%
PCB-52 22'55'-TeCB	21.13	2.72E+05	0.79 Y	0.82	0.83	0.9%
PCB-73 23'5'6-TeCB	21.25	3.71E+05	0.77 Y	1.10	1.13	3.0%
PCB-43 22'35-TeCB	21.33	2.32E+05	0.73 Y	0.70	0.71	0.7%
PCB-69/49 23'46/22'45'-TeCB	21.52	6.63E+05	0.74 Y	1.01	1.01	0.6%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.78	2.73E+05	0.77 Y	0.84	0.84	-0.9%
PCB-44/47/65 ...-TeCB	21.98	9.01E+05	0.76 Y	0.90	0.92	1.9%
PCB-59/62/75 ...-TeCB	22.25	1.12E+06	0.72 Y	1.15	1.14	-1.0%
PCB-42 22'34'-TeCB	22.40	2.55E+05	0.69 Y	0.76	0.78	2.1%
PCB-41 22'34-TeCB	22.71	2.06E+05	0.68 Y	0.64	0.63	-1.7%
PCB-71/40 23'4'6/22'33'-TeCB	22.81	5.79E+05	0.79 Y	0.83	0.89	6.3%
PCB-64 234'6-TeCB	23.00	3.83E+05	0.76 Y	1.17	1.17	-0.3%
PCB-72 23'55'-TeCB	23.73	4.38E+05	0.69 Y	1.37	1.34	-2.1%
PCB-68 23'45'-TeCB	23.97	5.52E+05	0.79 Y	1.52	1.69	11.3%
PCB-57 233'5-TeCB	24.32	4.56E+05	0.77 Y	1.32	1.40	5.4%
PCB-58 233'5'-TeCB	24.52	4.44E+05	0.78 Y	1.34	1.36	1.6%
PCB-67 23'45-TeCB	24.66	4.61E+05	0.77 Y	1.41	1.41	-0.1%
PCB-63 234'5-TeCB	24.88	4.96E+05	0.84 Y	1.46	1.52	4.1%
PCB-61/70/74/76 ...-TeCB	25.16	1.82E+06	0.78 Y	1.37	1.39	2.0%
PCB-66 23'44'-TeCB	25.44	4.11E+05	0.73 Y	1.24	1.26	1.2%
PCB-55 233'4-TeCB	25.57	4.13E+05	0.73 Y	1.28	1.26	-1.1%
PCB-56 233'4'-TeCB	25.99	4.21E+05	0.76 Y	1.23	1.29	4.7%
PCB-60 2344'-TeCB	26.17	4.32E+05	0.72 Y	1.30	1.32	1.9%
PCB-80 33'55'-TeCB	26.54	4.89E+05	0.77 Y	1.44	1.50	4.2%
PCB-79 33'45'-TeCB	27.81	4.75E+05	0.80 Y	1.48	1.45	-1.5%
PCB-78 33'45-TeCB	28.27	4.15E+05	0.75 Y	1.21	1.27	5.0%
PCB-104 22'466'-PeCB	21.93	4.27E+05	0.62 Y	1.12	1.07	-4.2%
PCB-96 22'366'-PeCB	22.22	3.48E+05	0.66 Y	0.96	0.87	-9.3%
PCB-103 22'45'6-PeCB	23.88	2.32E+05	0.61 Y	0.93	0.99	6.1%
PCB-94 22'356'-PeCB	24.05	2.21E+05	0.63 Y	0.81	0.94	16.5%
PCB-95 22'35'6-PeCB	24.42	2.00E+05	0.77 N	0.85	0.85	0.0%
PCB-100/93 22'44'6/22'356-PeCB	24.62	4.36E+05	0.63 Y	0.88	0.93	5.0%
PCB-102 22'456'-PeCB	24.74	2.52E+05	0.65 Y	0.93	1.07	15.2%
PCB-98 22'34'6'-PeCB	24.80	1.87E+05	0.69 Y	0.84	0.80	-5.0%
PCB-88 22'346-PeCB	25.08	1.84E+05	0.63 Y	0.77	0.78	1.6%
PCB-91 22'34'6-PeCB	25.15	2.29E+05	0.66 Y	0.96	0.97	1.5%
PCB-84 22'33'6-PeCB	25.33	1.72E+05	0.66 Y	0.72	0.73	1.5%
PCB-89 22'346'-PeCB	25.73	2.02E+05	0.69 Y	0.77	0.86	11.4%
PCB-121 23'45'6-PeCB	26.11	2.73E+05	0.56 Y	1.15	1.16	1.4%
PCB-92 22'355'-PeCB	26.42	1.97E+05	0.65 Y	0.79	0.84	5.5%
PCB-113/90/101 ...-PeCB	26.88	6.95E+05	0.61 Y	0.95	0.99	3.2%
PCB-83 22'33'5-PeCB	27.29	1.77E+05	0.64 Y	0.72	0.75	4.5%
PCB-99 22'44'5-PeCB	27.40	2.15E+05	0.68 Y	0.90	0.91	2.1%
PCB-112 233'56-PeCB	27.49	2.84E+05	0.64 Y	1.09	1.21	10.6%
PCB-109/119/86/97/125...-PeCB	27.82	1.35E+06	0.64 Y	0.95	0.96	1.1%
PCB-117 234'56-PeCB	28.34	2.50E+05	0.64 Y	0.99	1.07	7.5%
PCB-116/85 23456/22'344'-PeCB	28.42	4.28E+05	0.65 Y	0.96	0.91	-5.1%
PCB-110 233'4'6-PeCB	28.55	2.77E+05	0.66 Y	1.01	1.18	16.8%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.62	2.40E+05	0.63 Y	1.15	1.02	-11.1%
PCB-82 22'33'4-PeCB	28.81	1.67E+05	0.63 Y	0.70	0.71	1.8%
PCB-111 233'55'-PeCB	29.17	2.75E+05	0.61 Y	1.16	1.17	0.7%
PCB-120 23'455'-PeCB	29.55	2.70E+05	0.63 Y	1.14	1.15	1.1%
PCB-108/124 ...-PeCB	30.49	4.76E+05	0.65 Y	1.02	1.01	-0.6%
PCB-107 233'4'5-PeCB	30.69	2.69E+05	0.68 Y	1.13	1.14	0.9%
PCB-106 233'45-PeCB	30.89	2.33E+05	0.68 Y	1.01	0.99	-2.1%
PCB-122 233'4'5'-PeCB	31.35	2.17E+05	0.63 Y	0.91	0.89	-2.1%
PCB-127 33'455'-PeCB	33.30	2.33E+05	0.63 Y	1.06	1.01	-3.9%
PCB-155 22'44'66'-HxCB	26.73	3.89E+05	1.20 Y	1.09	1.09	-0.1%
PCB-152 22'3566'-HxCB	26.87	3.55E+05	1.37 Y	1.04	1.00	-4.4%
PCB-150 22'34'66'-HxCB	27.01	3.54E+05	1.33 Y	1.03	0.99	-3.5%
PCB-136 22'33'66'-HxCB	27.30	3.46E+05	1.23 Y	0.97	0.97	-0.3%
PCB-145 22'3466'-HxCB	27.56	3.18E+05	1.17 Y	0.96	0.89	-7.3%
PCB-148 22'34'56'-HxCB	28.85	2.64E+05	1.29 Y	1.03	1.09	5.3%
PCB-151/135 ...-HxCB	29.35	4.93E+05	1.23 Y	0.99	1.02	2.3%
PCB-154 22'44'56'-HxCB	29.56	2.72E+05	1.17 Y	1.17	1.12	-4.4%
PCB-144 22'345'6-HxCB	29.81	2.74E+05	1.30 Y	1.03	1.13	9.8%
PCB-147/149 ...-HxCB	30.11	5.15E+05	1.14 Y	1.02	1.06	4.3%
PCB-134 22'33'56-HxCB	30.27	1.97E+05	1.28 Y	0.80	0.81	1.3%
PCB-143 22'3456'-HxCB	30.35	2.20E+05	1.15 Y	0.95	0.91	-4.2%
PCB-139/140 ...-HxCB	30.61	4.87E+05	1.18 Y	1.05	1.00	-4.4%
PCB-131 22'33'46-HxCB	30.77	2.13E+05	1.21 Y	0.90	0.88	-1.8%
PCB-142 22'3456-HxCB	30.90	2.28E+05	1.28 Y	0.93	0.94	1.6%
PCB-132 22'33'46'-HxCB	31.15	2.08E+05	1.24 Y	0.93	0.86	-8.0%
PCB-133 22'33'55'-HxCB	31.60	2.44E+05	1.17 Y	0.97	1.00	3.7%
PCB-165 233'55'6-HxCB	31.93	2.90E+05	1.32 Y	1.16	1.20	3.0%
PCB-146 22'34'55'-HxCB	32.14	2.46E+05	1.34 Y	1.01	1.01	0.3%
PCB-161 233'45'6-HxCB	32.25	2.93E+05	1.15 Y	1.29	1.21	-6.7%
PCB-153/168 ...-HxCB	32.67	5.84E+05	1.24 Y	1.24	1.20	-2.7%
PCB-141 22'3455'-HxCB	32.80	2.54E+05	1.24 Y	0.95	1.05	10.3%
PCB-130 22'33'45'-HxCB	33.15	1.99E+05	1.17 Y	0.82	0.82	-0.4%
PCB-137 22'344'5-HxCB	33.33	2.15E+05	1.57 N	0.97	0.89	-8.5%
PCB-164 233'4'5'6-HxCB	33.42	2.99E+05	1.23 Y	1.25	1.23	-1.4%
PCB-163/138/129 ...-HxCB	33.70	7.01E+05	1.24 Y	1.04	0.96	-7.5%
PCB-160 233'456-HxCB	33.82	2.98E+05	1.20 Y	1.19	1.23	3.0%
PCB-158 233'44'6-HxCB	34.02	3.10E+05	1.13 Y	1.34	1.28	-4.7%
PCB-128/166 ...-HxCB	34.73	3.96E+05	1.31 Y	0.96	0.94	-1.8%
PCB-159 233'455'-HxCB	35.58	2.47E+05	1.32 Y	1.12	1.18	5.0%
PCB-162 233'4'55'-HxCB	35.82	2.39E+05	1.28 Y	1.13	1.14	1.0%
PCB-188 22'34'566'-HpCB	31.52	3.25E+05	1.19 Y	0.98	0.97	-1.7%
PCB-179 22'33'566'-HpCB	31.79	3.14E+05	1.13 Y	0.90	0.93	4.1%
PCB-184 22'344'66'-HpCB	32.25	2.84E+05	1.09 Y	0.86	0.84	-2.3%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA

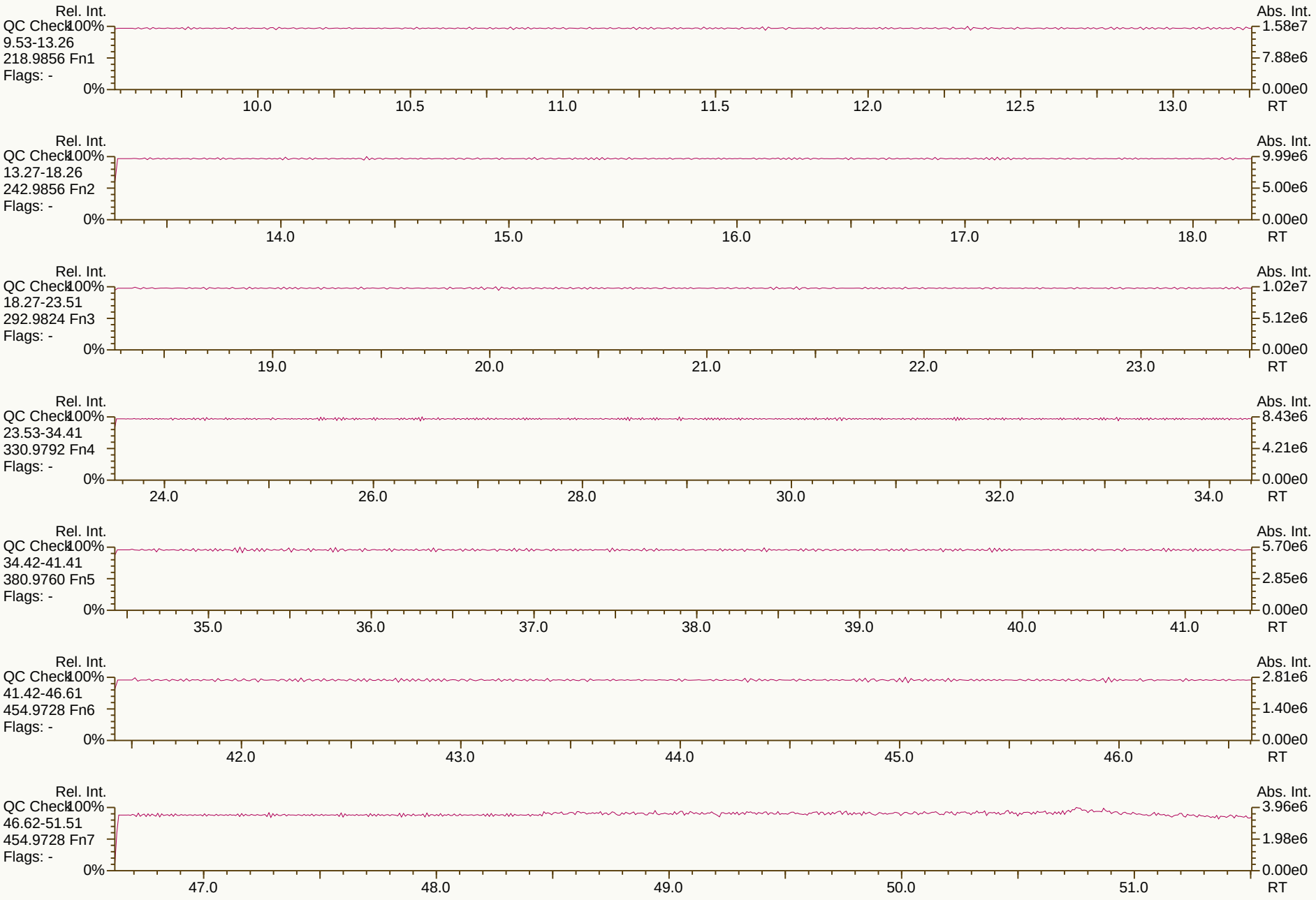
Acquired: 14-DEC-2012 03:21

Datafile: 121214V03

ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.53	3.32E+05	0.98 Y	0.97	0.99	1.9%
PCB-186 22'34566'-HpCB	32.91	3.41E+05	1.03 Y	0.93	1.01	9.3%
PCB-178 22'33'55'6-HpCB	34.08	2.33E+05	1.00 Y	0.66	0.69	4.5%
PCB-175 22'33'45'6-HpCB	34.61	1.90E+05	0.89 Y	1.02	1.00	-2.8%
PCB-187 22'34'55'6-HpCB	34.84	2.03E+05	1.03 Y	1.03	1.07	3.7%
PCB-182 22'344'56'-HpCB	35.01	2.13E+05	1.12 Y	1.10	1.11	1.6%
PCB-183 22'344'5'6-HpCB	35.36	2.48E+05	1.16 Y	1.12	1.30	15.4%
PCB-185 22'3455'6-HpCB	35.43	1.63E+05	1.07 Y	0.97	0.86	-11.7%
PCB-174 22'33'456'-HpCB	35.54	1.80E+05	0.96 Y	0.90	0.94	5.3%
PCB-177 22'33'45'6'-HpCB	35.91	1.55E+05	0.97 Y	0.87	0.81	-6.8%
PCB-181 22'344'56-HpCB	36.24	2.16E+05	1.11 Y	1.03	1.13	9.3%
PCB-171/173 ...-HpCB	36.42	3.40E+05	1.14 Y	0.89	0.89	0.4%
PCB-172 22'33'455'-HpCB	37.80	1.68E+05	1.11 Y	0.87	0.88	0.7%
PCB-192 233'455'6-HpCB	38.04	2.29E+05	1.02 Y	1.16	1.20	3.4%
PCB-180/193 ...-HpCB	38.32	4.27E+05	1.08 Y	1.07	1.12	4.5%
PCB-191 233'44'5'6-HpCB	38.65	2.30E+05	1.06 Y	1.18	1.20	1.7%
PCB-170 22'33'44'5-HpCB	39.39	1.52E+05	0.98 Y	0.99	0.94	-5.3%
PCB-190 233'44'56-HpCB	39.84	2.09E+05	1.09 Y	1.36	1.30	-4.5%
PCB-202 22'33'55'66'-OcCB	36.02	2.36E+05	0.83 Y	0.86	0.90	3.6%
PCB-201 22'33'45'66'-OcCB	36.80	2.67E+05	0.76 Y	0.95	1.02	7.0%
PCB-204 22'344'566'-OcCB	37.37	2.09E+05	0.83 Y	0.90	0.79	-12.2%
PCB-197 22'33'44'66'-OcCB	37.56	2.74E+05	0.93 Y	0.96	1.04	8.5%
PCB-200 22'33'4566'-OcCB	37.63	2.11E+05	0.97 Y	0.88	0.80	-9.2%
PCB-198/199 ...-OcCB	39.98	3.06E+05	0.84 Y	0.63	0.58	-7.7%
PCB-196 22'33'44'56'-OcCB	40.54	1.62E+05	0.79 Y	0.66	0.62	-7.0%
PCB-203 22'344'55'6-OcCB	40.71	1.86E+05	0.88 Y	0.69	0.71	1.6%
PCB-195 22'33'44'56-OcCB	41.81	1.20E+05	0.86 Y	0.82	0.77	-6.5%
PCB-194 22'33'44'55'-OcCB	43.79	1.38E+05	0.90 Y	0.90	0.89	-1.2%
PCB-205 233'44'55'6-OcCB	44.18	1.72E+05	0.87 Y	1.13	1.11	-1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.86E+05	0.71 Y	1.03	1.04	0.8%
PCB-207 22'33'44'566'-NoCB	42.41	1.95E+05	0.71 Y	1.07	1.09	1.9%
PCB-206 22'33'44'55'6-NoCB	45.65	1.33E+05	0.69 Y	0.97	0.96	-0.8%

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



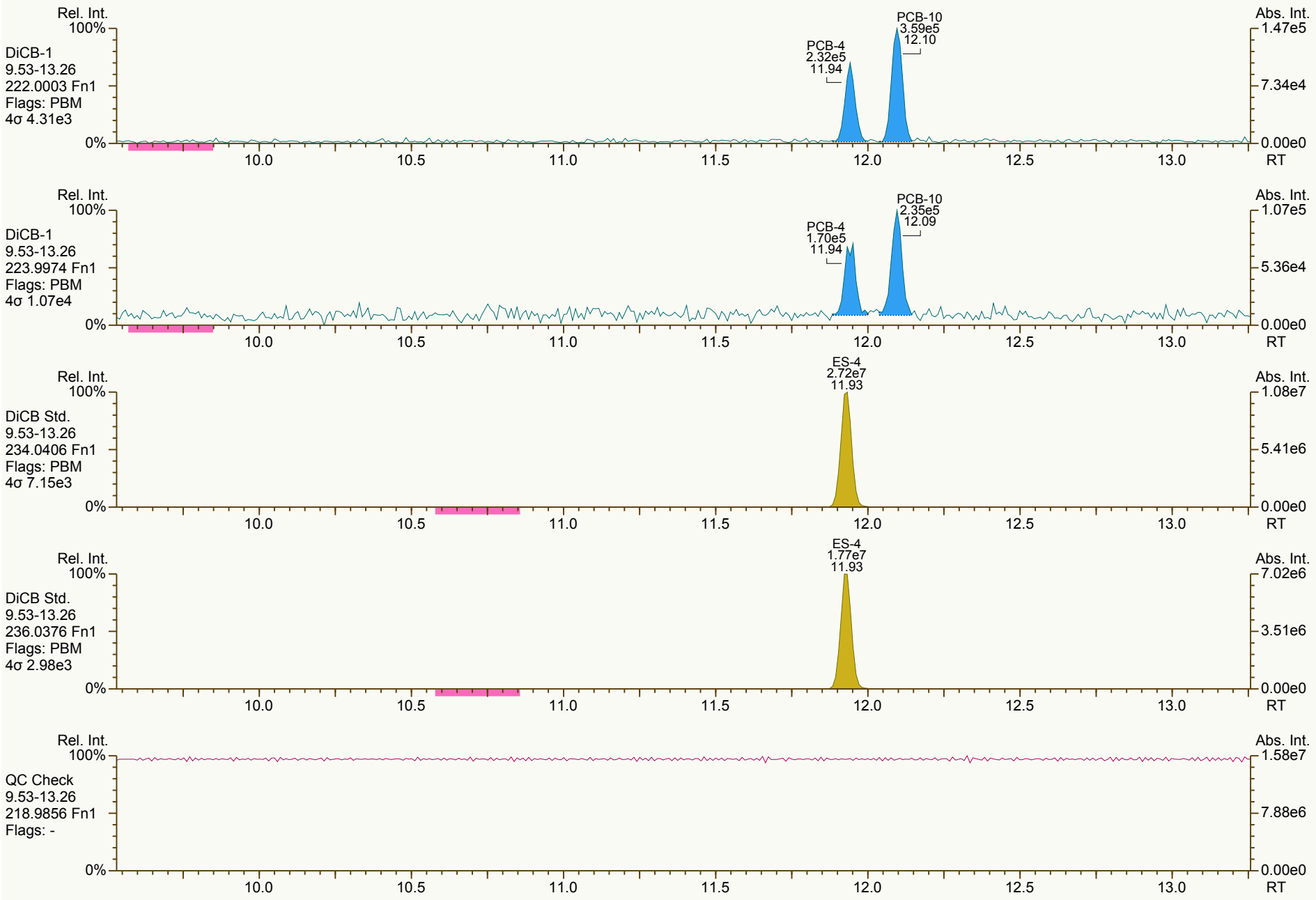
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**

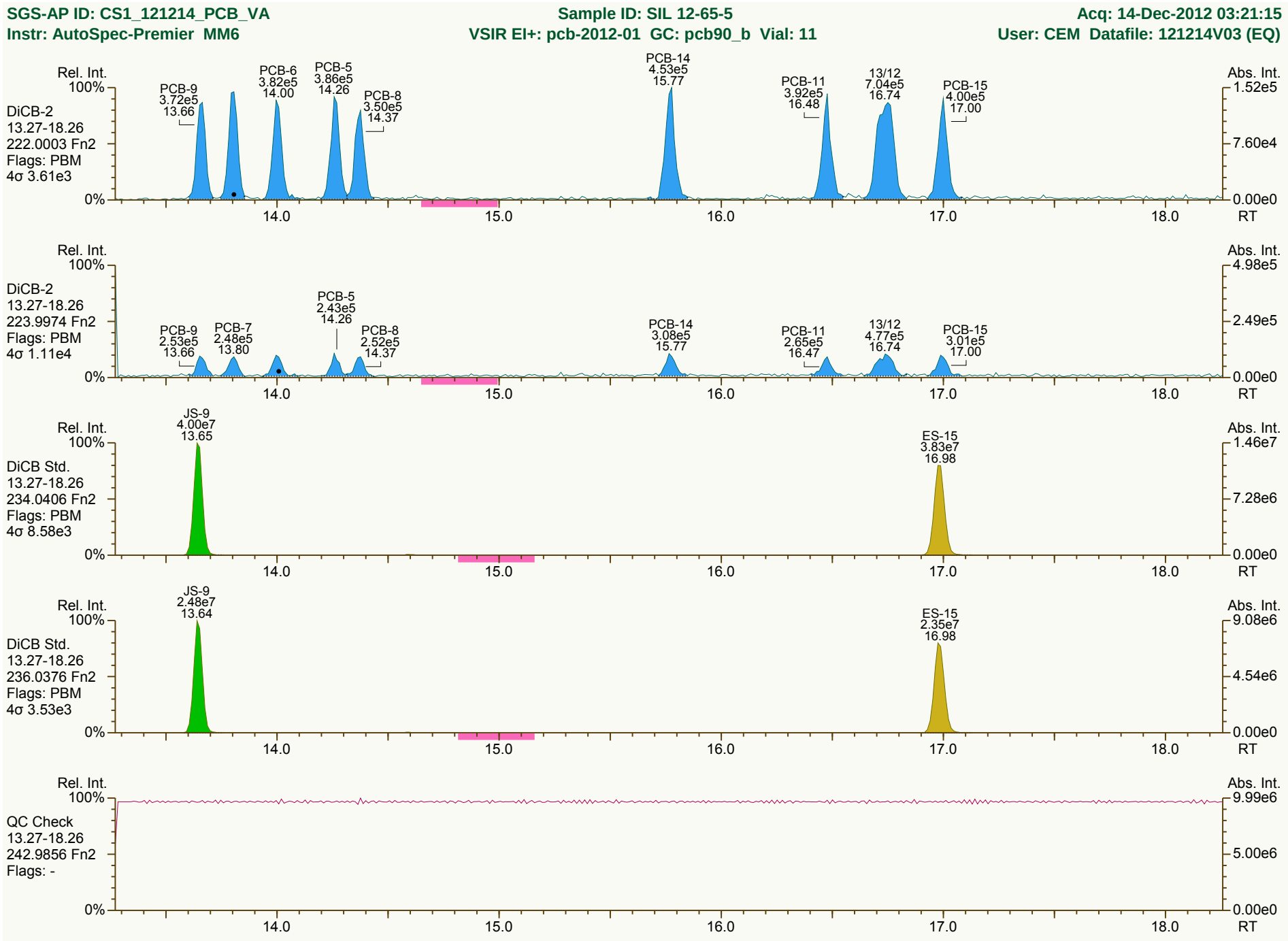


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

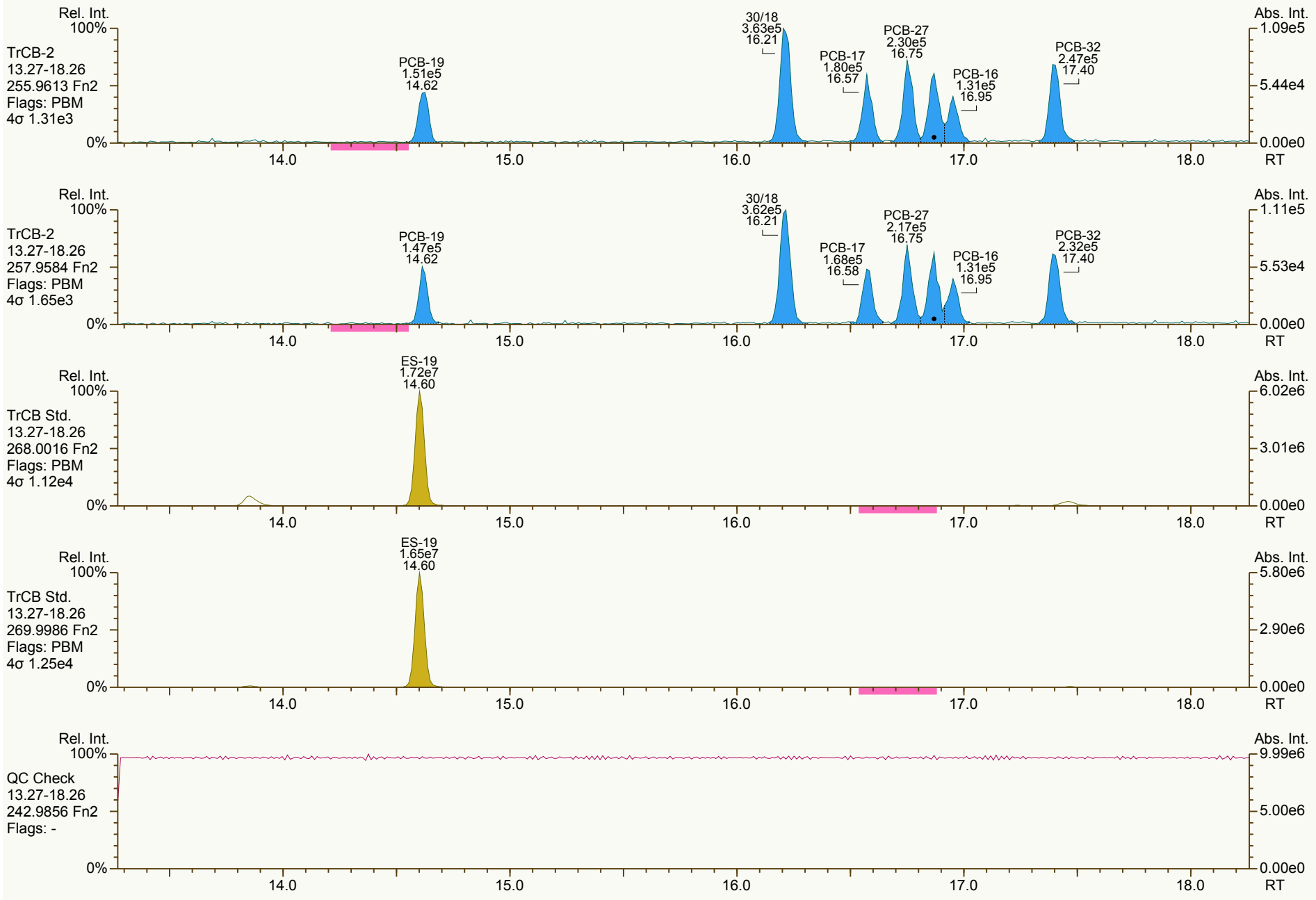
SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

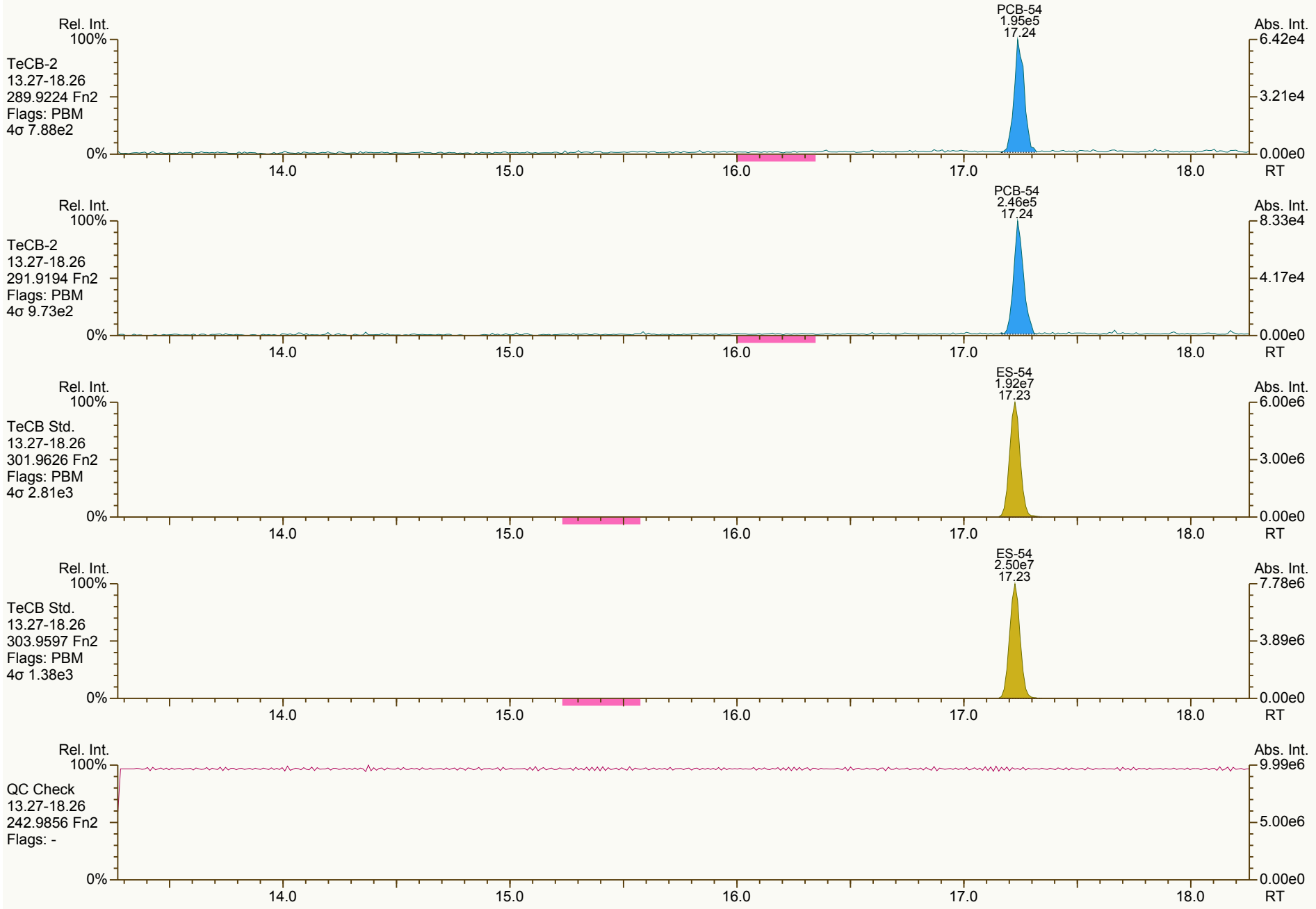

SGS-AP ID: CS1_121214_PCB_VA
Sample ID: SIL 12-65-5
Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11
User: CEM Datafile: 121214V03 (EQ)
Rel. Int.
Abs. Int.
DiCB-2
13.27-18.26
222.0003 Fn2
Flags: PBM
4σ 3.61e3
PCB-9 3.72e5 13.66
PCB-6 3.82e5 14.00
PCB-5 3.86e5 14.26
PCB-8 3.50e5 14.37
PCB-14 4.53e5 15.77
PCB-11 3.92e5 16.48
13/12 7.04e5 16.74
PCB-15 4.00e5 17.00
DiCB-2
13.27-18.26
223.9974 Fn2
Flags: PBM
4σ 1.11e4
PCB-9 2.53e5 13.66
PCB-7 2.48e5 13.80
PCB-5 2.43e5 14.26
PCB-8 2.52e5 14.37
PCB-14 3.08e5 15.77
PCB-11 2.65e5 16.47
13/12 4.77e5 16.74
PCB-15 3.01e5 17.00
DiCB Std.
13.27-18.26
234.0406 Fn2
Flags: PBM
4σ 8.58e3
JS-9 4.00e7 13.65
ES-15 3.83e7 16.98
DiCB Std.
13.27-18.26
236.0376 Fn2
Flags: PBM
4σ 3.53e3
JS-9 2.48e7 13.64
ES-15 2.35e7 16.98
QC Check
13.27-18.26
242.9856 Fn2
Flags: -
RT

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



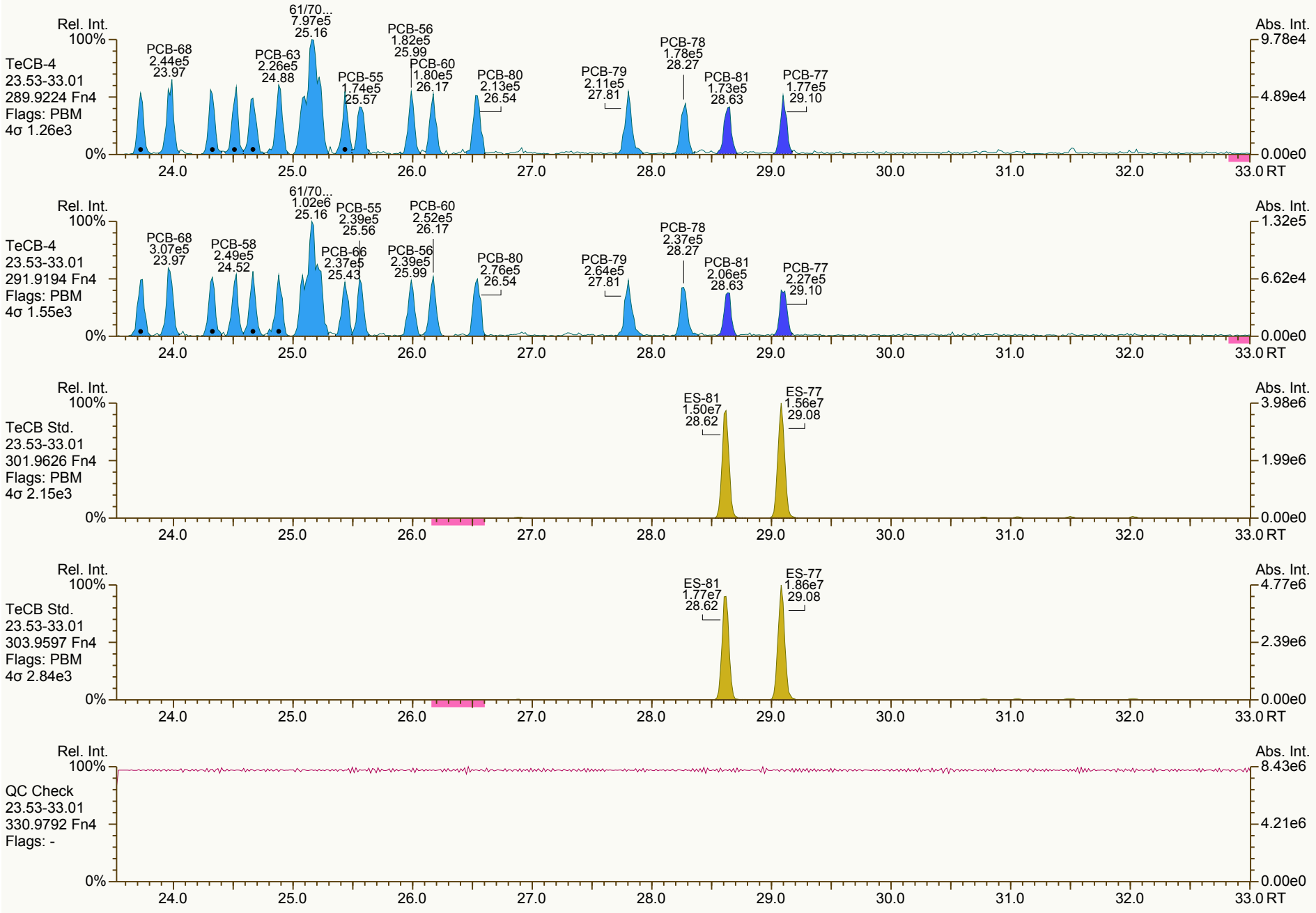
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



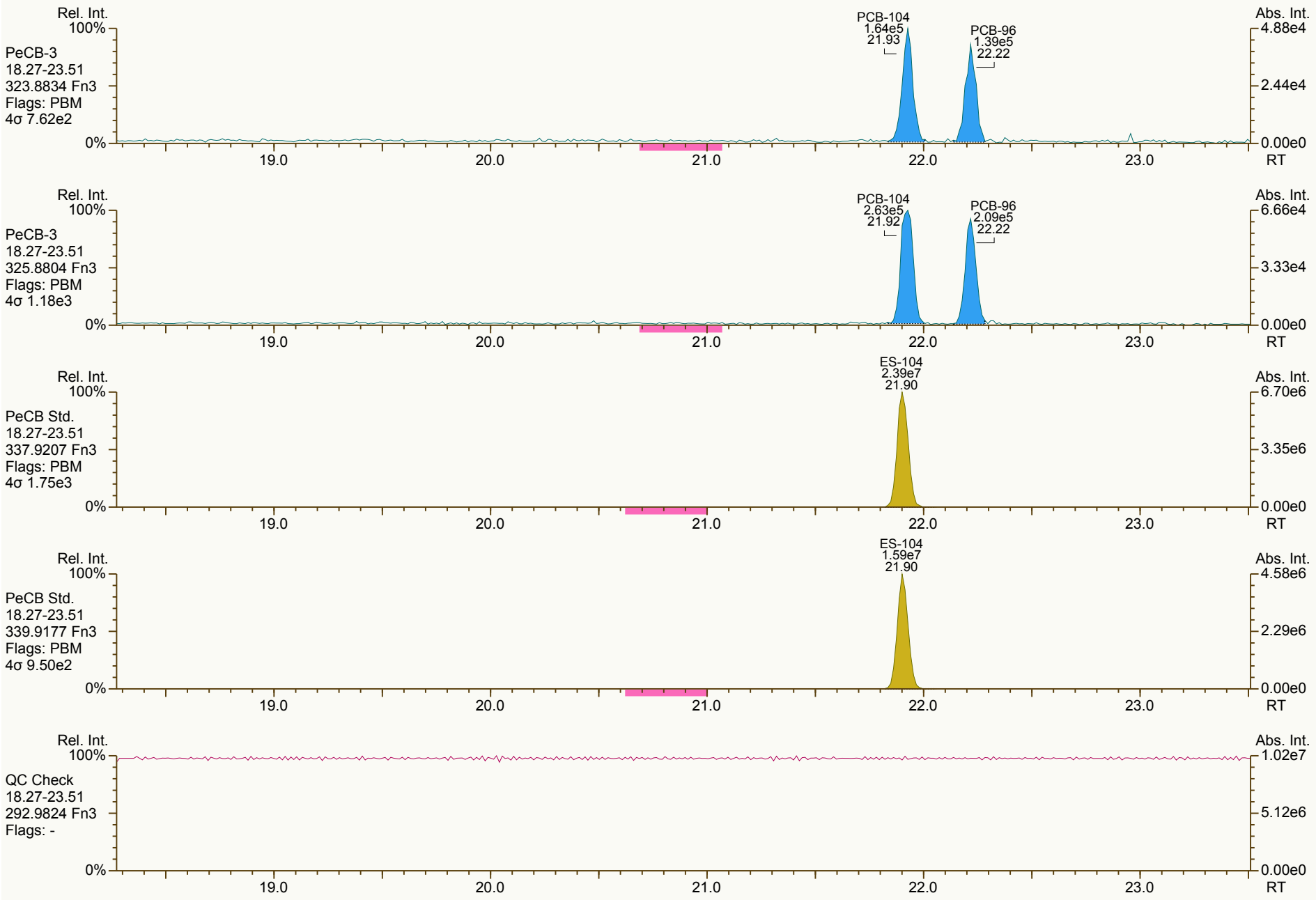
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**

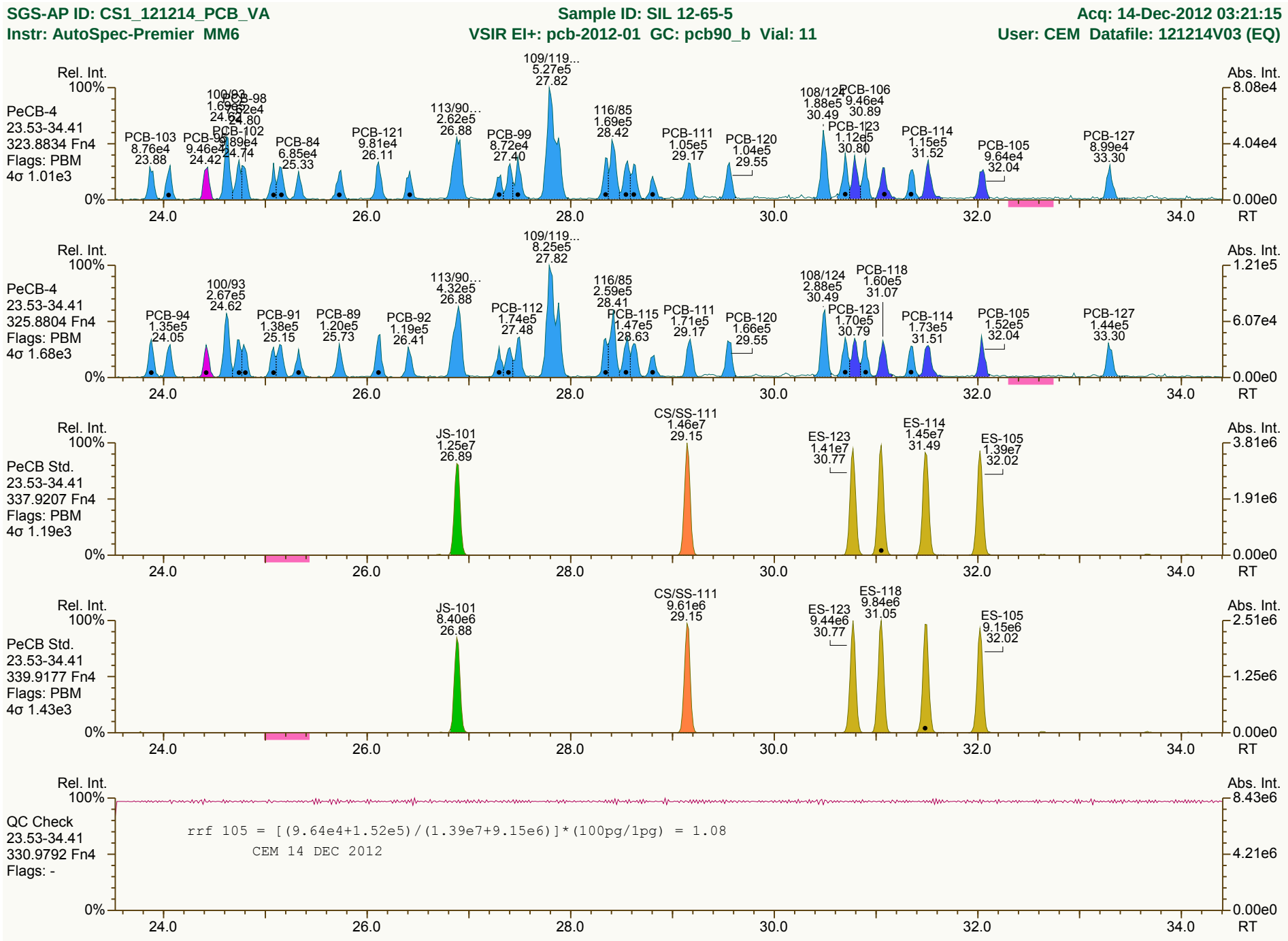


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*


SGS-AP ID: CS1_121214_PCB_VA
Sample ID: SIL 12-65-5
Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11
User: CEM Datafile: 121214V03 (EQ)
PeCB-4
23.53-34.41
323.8834 Fn4
Flags: PBM
4σ 1.01e3
PCB-103 8.76e4 23.88
PCB-84 6.85e4 25.33
PCB-121 9.81e4 26.11
113/90... 2.62e5 26.88
PCB-99 8.72e4 27.40
109/119... 5.27e5 27.82
116/85 1.69e5 28.42
PCB-111 1.05e5 29.17
PCB-120 1.04e5 29.55
PCB-106 9.46e4 30.89
PCB-123 1.12e5 30.80
PCB-114 1.15e5 31.52
PCB-105 9.64e4 32.04
PCB-127 8.99e4 33.30
PeCB-4
23.53-34.41
325.8804 Fn4
Flags: PBM
4σ 1.68e3
PCB-94 1.35e5 24.05
100/93 2.67e5 24.62
PCB-91 1.38e5 25.15
PCB-89 1.20e5 25.73
PCB-92 1.19e5 26.41
113/90... 4.32e5 26.88
PCB-112 1.74e5 27.48
109/119... 8.25e5 27.82
116/85 2.59e5 28.41
PCB-115 1.47e5 28.63
PCB-111 1.71e5 29.17
PCB-120 1.66e5 29.55
108/124 2.88e5 30.49
PCB-118 1.60e5 31.07
PCB-123 1.70e5 30.79
PCB-114 1.73e5 31.51
PCB-105 1.52e5 32.04
PCB-127 1.44e5 33.30
PeCB Std.
23.53-34.41
337.9207 Fn4
Flags: PBM
4σ 1.19e3
JS-101 1.25e7 26.89
CS/SS-111 1.46e7 29.15
ES-123 1.41e7 30.77
ES-114 1.45e7 31.49
ES-105 1.39e7 32.02
PeCB Std.
23.53-34.41
339.9177 Fn4
Flags: PBM
4σ 1.43e3
JS-101 8.40e6 26.88
CS/SS-111 9.61e6 29.15
ES-123 9.44e6 30.77
ES-118 9.84e6 31.05
ES-105 9.15e6 32.02
QC Check
23.53-34.41
330.9792 Fn4
Flags: -
rrf 105 = [(9.64e4+1.52e5)/(1.39e7+9.15e6)]*(100pg/1pg) = 1.08
CEM 14 DEC 2012
Rel. Int.
Abs. Int.
RT
24.0
26.0
28.0
30.0
32.0
34.0
0%
100%

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



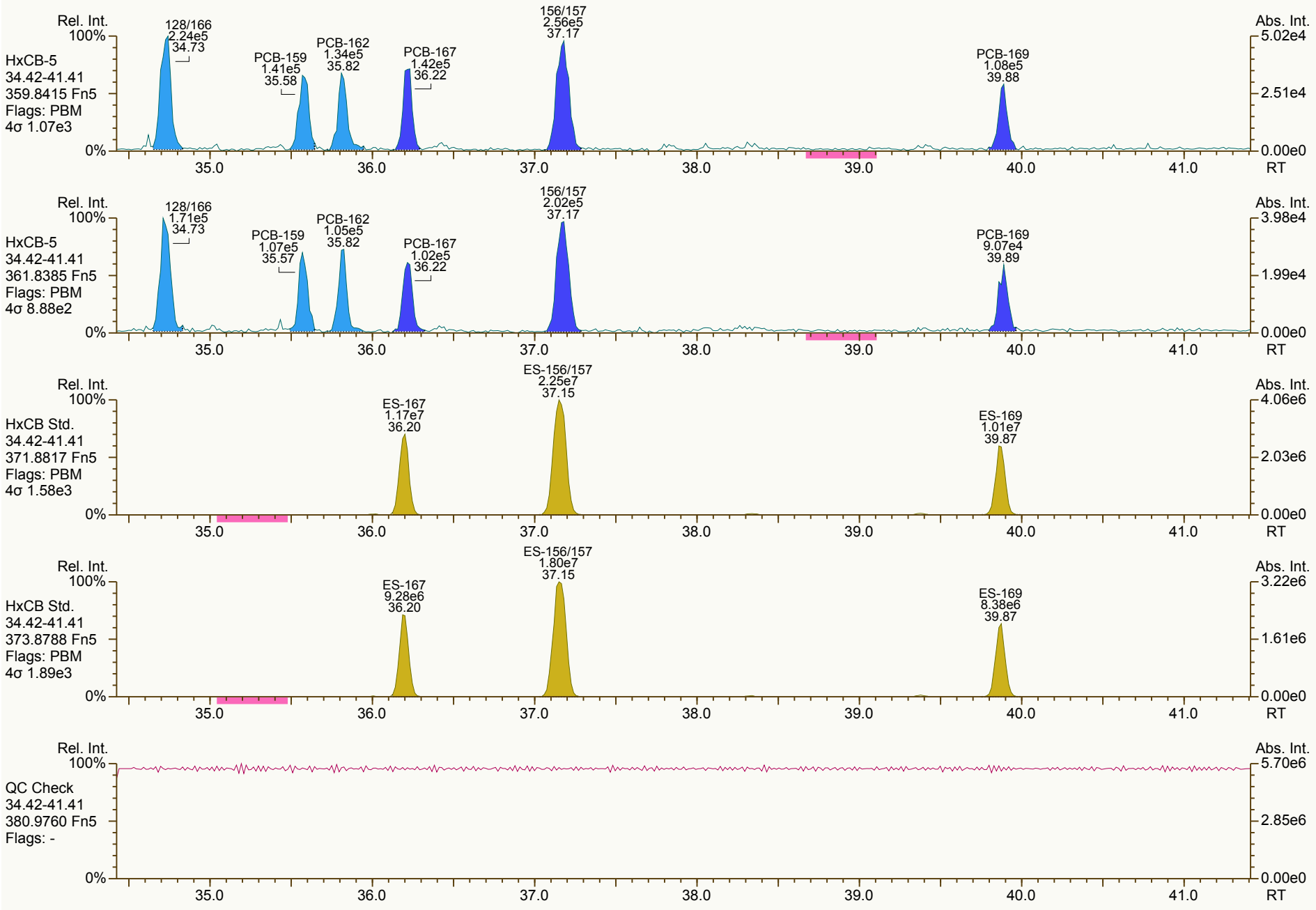
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

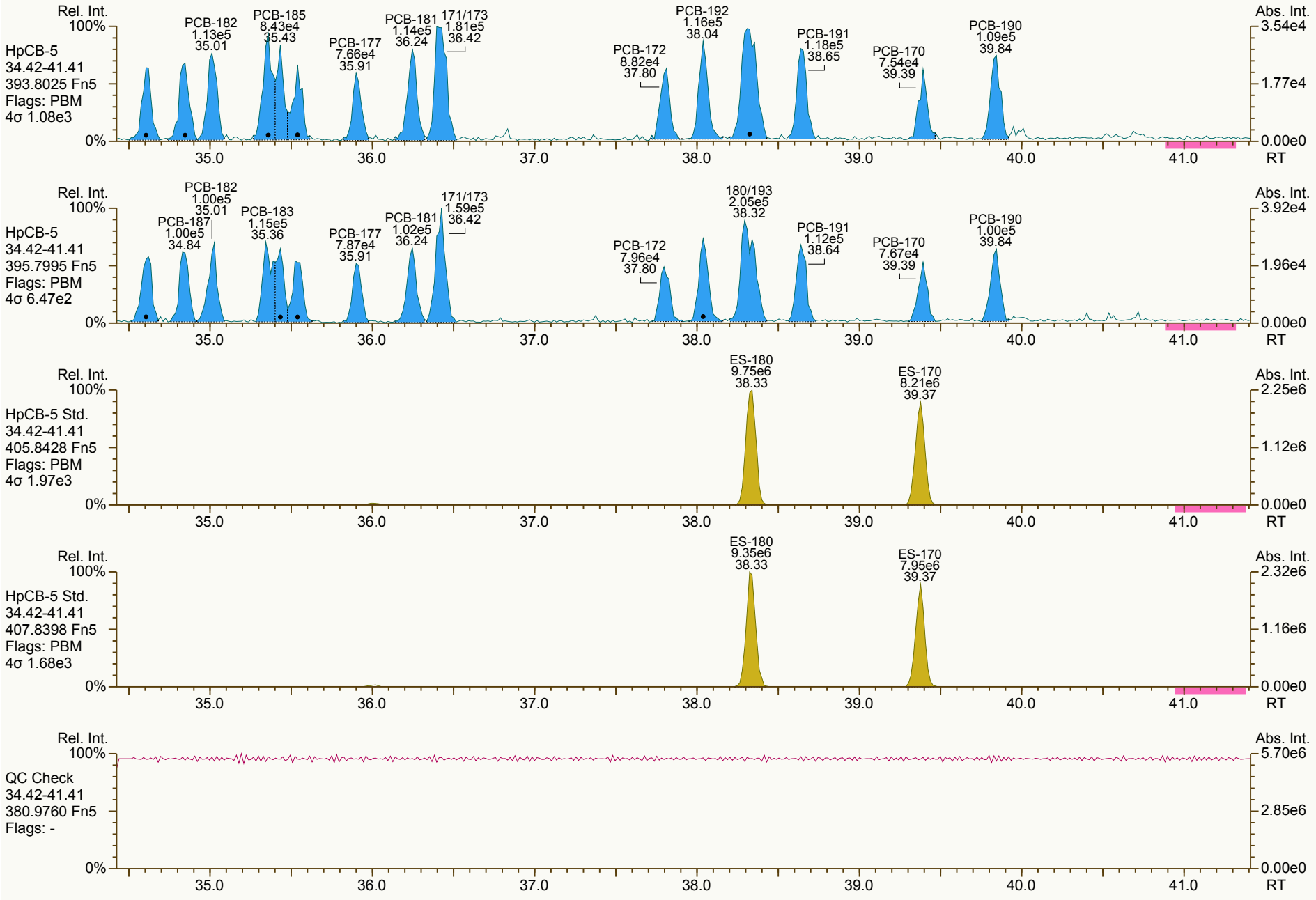
SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

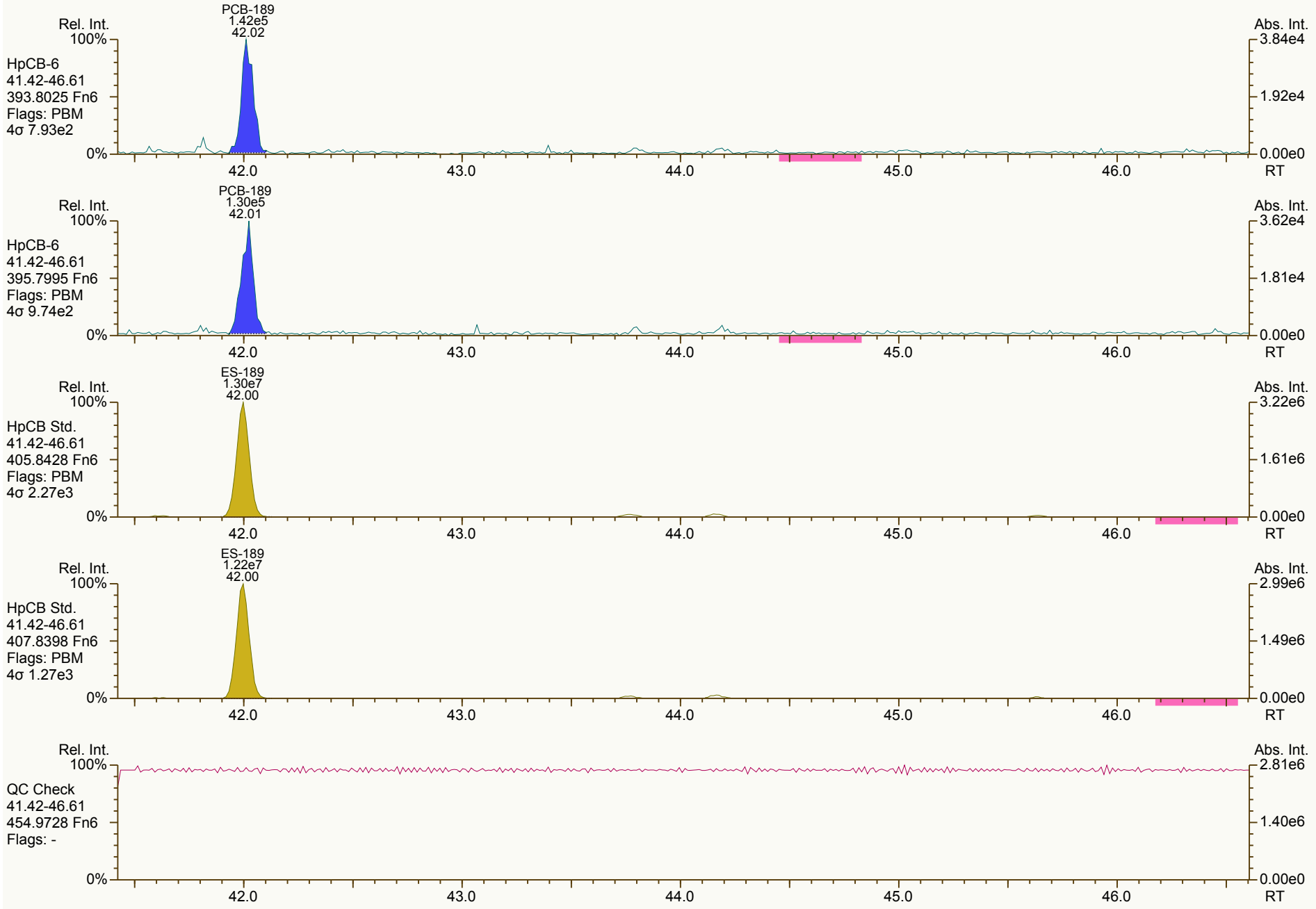
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 0550, 9062 scc: 461-132 *Revised: 14-Dec-2012 09:47 (CEM) Printed: 14-Dec-2012 11:20 Page 14 of 22*

SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



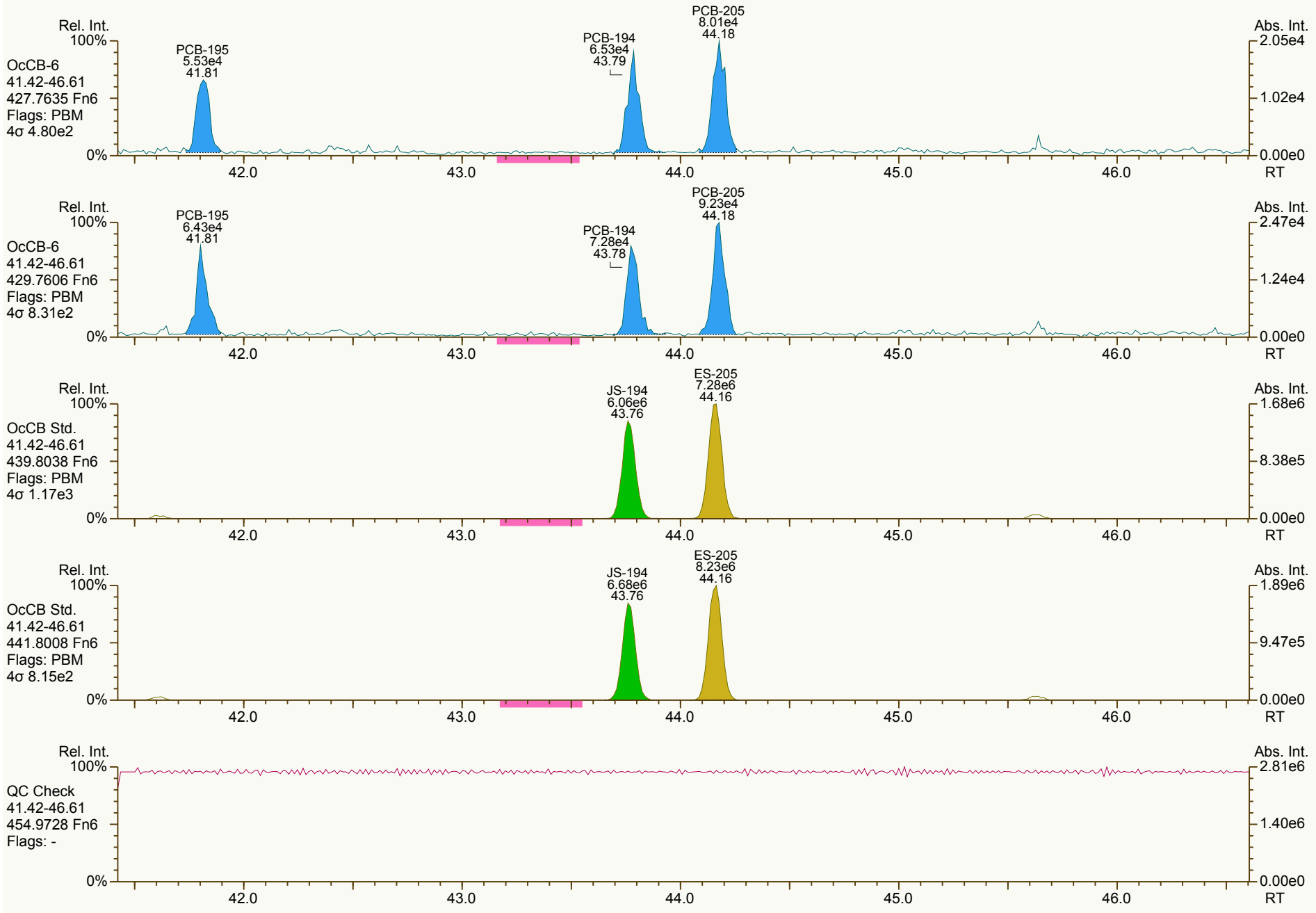
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



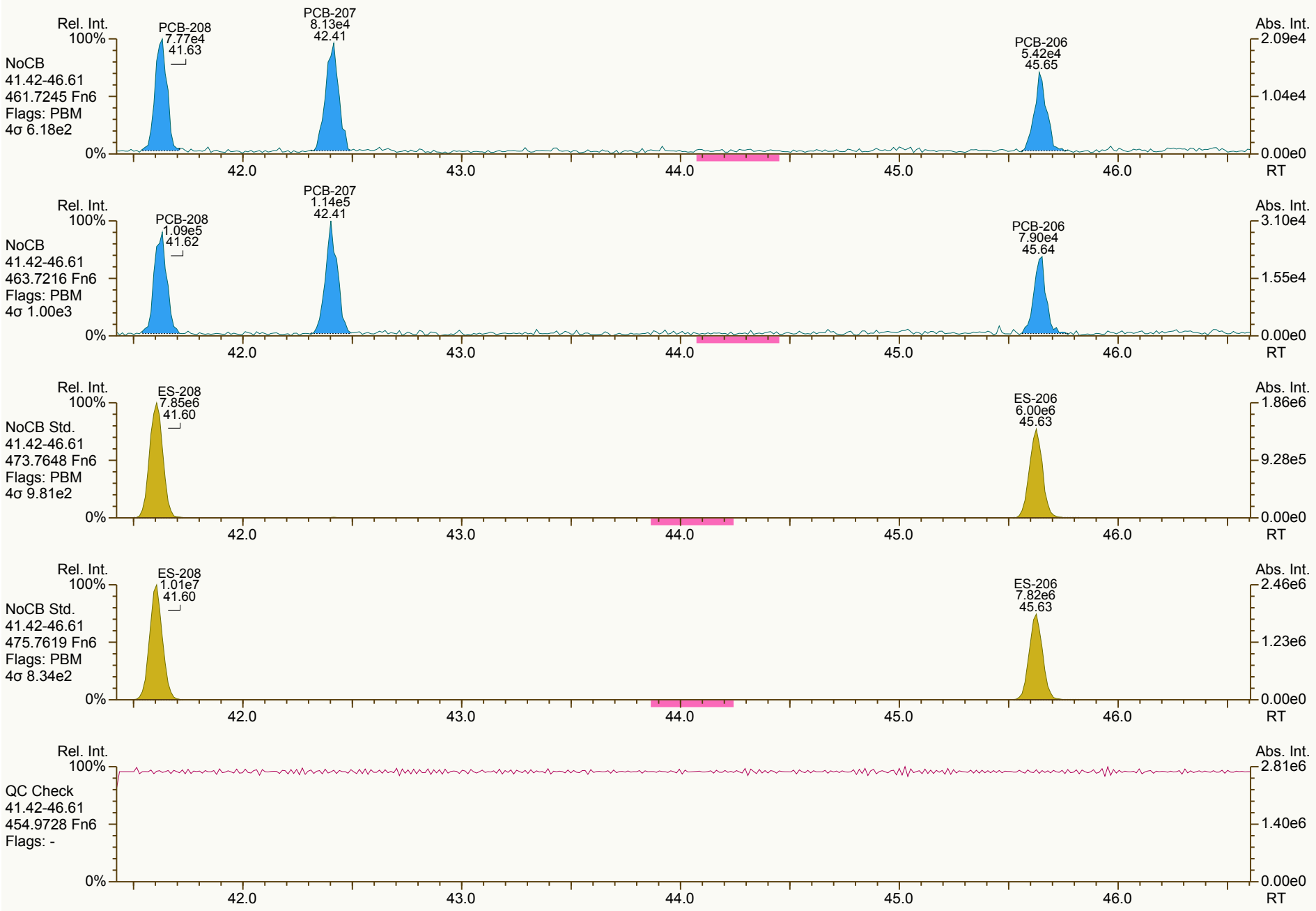
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



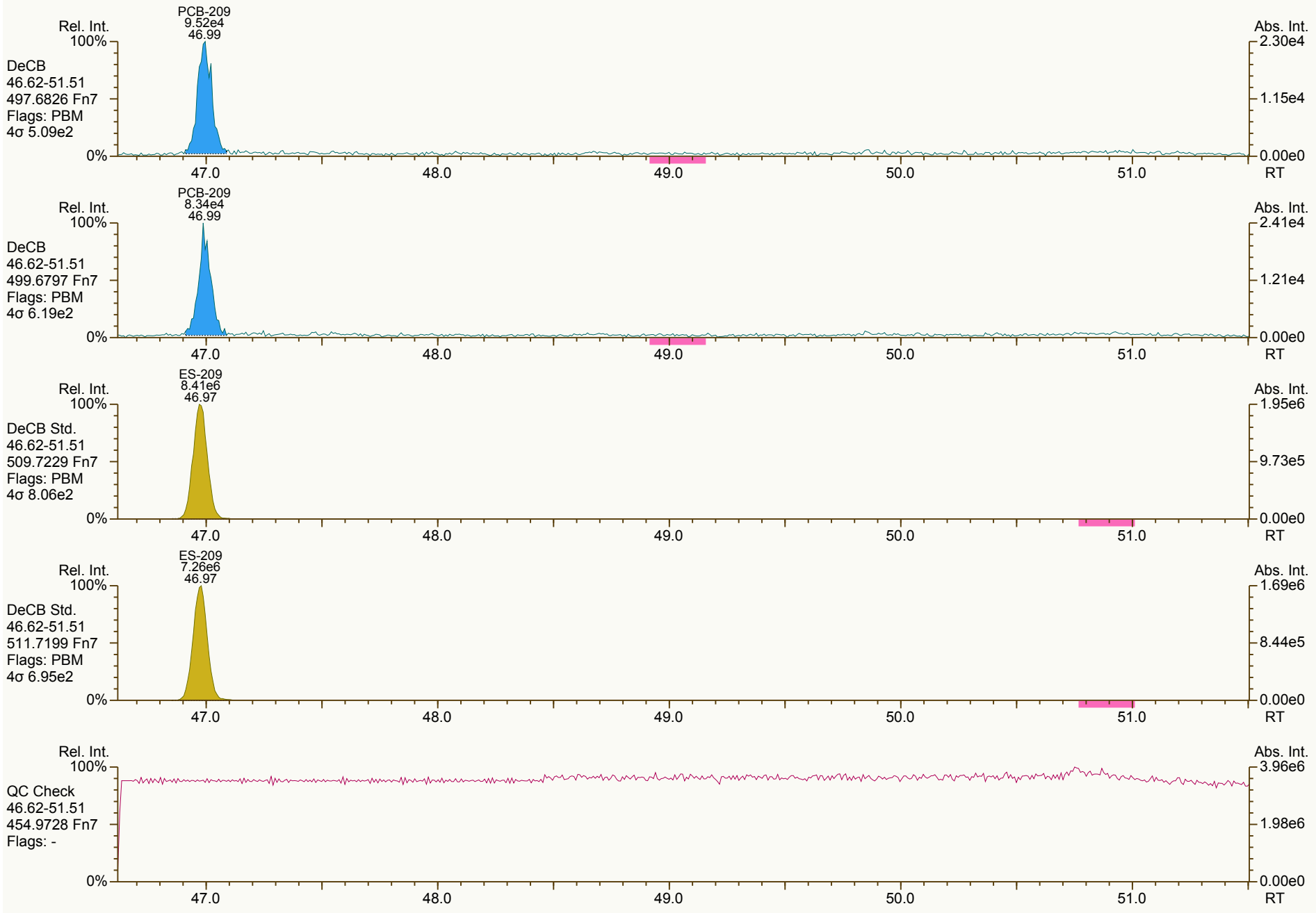
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



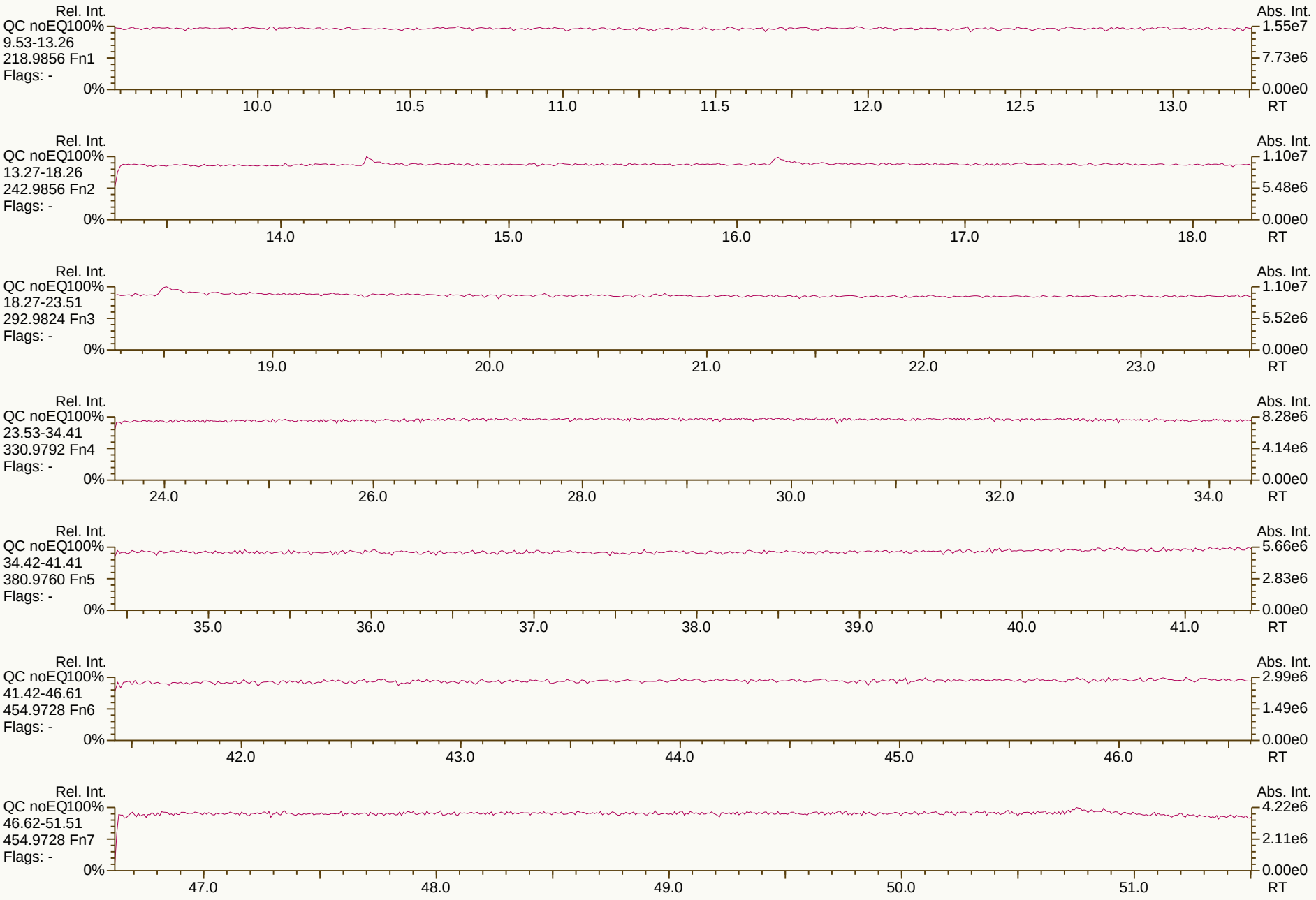
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:16
Lab ID:	CS2_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 04:15				
Datafile:	121214V04				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.11	1.97E+06	0.80 Y	1.25	1.20	-4.1%
PCB-81 344'5-TeCB	28.64	1.93E+06	0.79 Y	1.26	1.22	-3.0%
PCB-105 233'44'-PeCB	32.05	1.22E+06	0.63 Y	1.06	1.04	-1.2%
PCB-114 2344'5-PeCB	31.52	1.29E+06	0.62 Y	1.11	1.07	-3.7%
PCB-118 23'44'5-PeCB	31.08	1.27E+06	0.63 Y	1.08	1.05	-2.7%
PCB-123 23'44'5'-PeCB	30.80	1.22E+06	0.67 Y	1.12	1.04	-6.7%
PCB-126 33'44'5-PeCB	34.65	1.65E+06	0.59 Y	1.16	1.13	-2.3%
PCB-156/157 ...-HxCB	37.18	2.32E+06	1.26 Y	1.14	1.11	-2.3%
PCB-167 23'44'55'-HxCB	36.23	1.23E+06	1.23 Y	1.18	1.16	-1.9%
PCB-169 33'44'55'-HxCB	39.90	1.12E+06	1.19 Y	1.15	1.19	3.0%
PCB-189 233'44'55'-HpCB	42.03	1.43E+06	1.07 Y	1.12	1.10	-1.1%
PCB-209 DeCB	47.00	8.87E+05	1.19 Y	1.11	1.05	-5.4%
ES PCB-1	9.83	6.35E+07	3.27 Y	0.97	1.07	10.1%
ES PCB-3	11.73	5.68E+07	3.36 Y	0.90	0.95	6.1%
ES PCB-4	11.94	4.39E+07	1.54 Y	0.70	0.74	5.3%
ES PCB-15	16.99	5.44E+07	1.63 Y	1.02	0.91	-10.0%
ES PCB-19	14.61	3.07E+07	1.05 Y	0.53	0.52	-2.0%
ES PCB-37	22.94	3.57E+07	1.12 Y	1.29	1.30	0.2%
ES PCB-54	17.23	3.99E+07	0.79 Y	1.43	1.45	1.7%
ES PCB-77	29.09	3.30E+07	0.83 Y	1.20	1.20	-0.4%
ES PCB-81	28.63	3.17E+07	0.83 Y	1.16	1.15	-1.0%
ES PCB-104	21.91	3.49E+07	1.52 Y	1.70	1.73	1.3%
ES PCB-105	32.03	2.34E+07	1.46 Y	1.10	1.16	5.5%
ES PCB-114	31.50	2.40E+07	1.51 Y	1.16	1.19	2.8%
ES PCB-118	31.06	2.42E+07	1.50 Y	1.15	1.20	3.7%
ES PCB-123	30.78	2.34E+07	1.47 Y	1.14	1.16	1.4%
ES PCB-126	34.63	2.92E+07	1.63 Y	1.34	1.44	7.7%
ES PCB-153	32.64	2.42E+07	1.27 Y	1.14	1.16	1.3%
ES PCB-155	26.72	3.32E+07	1.27 Y	1.61	1.58	-1.8%
ES PCB-156/157	37.16	4.16E+07	1.27 Y	0.98	0.99	1.7%
ES PCB-167	36.20	2.13E+07	1.21 Y	1.01	1.02	0.6%
ES PCB-169	39.88	1.88E+07	1.27 Y	0.90	0.90	-0.1%
ES PCB-170	39.38	1.69E+07	1.04 Y	1.28	1.25	-2.4%
ES PCB-180	38.34	2.00E+07	1.05 Y	1.54	1.48	-3.6%
ES PCB-188	31.51	3.47E+07	1.04 Y	1.63	1.66	1.9%
ES PCB-189	42.01	2.60E+07	1.06 Y	1.97	1.92	-2.2%
ES PCB-202	36.01	2.69E+07	0.89 Y	1.26	1.28	1.8%
ES PCB-205	44.17	1.64E+07	0.90 Y	1.22	1.21	-0.7%
ES PCB-206	45.63	1.47E+07	0.78 Y	1.10	1.09	-1.2%
ES PCB-208	41.61	1.84E+07	0.76 Y	1.41	1.36	-3.4%
ES PCB-209	46.98	1.69E+07	1.16 Y	1.24	1.25	0.4%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.57	4.28E+07	1.10 Y	1.18	1.20	1.8%
SS PCB-111	29.15	2.38E+07	1.49 Y	1.01	1.02	1.2%
SS PCB-178	34.07	2.03E+07	1.02 Y	0.60	0.58	-2.9%
CS PCB-28	19.57	4.28E+07	1.10 Y	1.52	1.55	2.0%
CS PCB-111	29.15	2.38E+07	1.49 Y	1.15	1.18	2.6%
CS PCB-178	34.07	2.03E+07	1.02 Y	0.98	0.97	-1.1%
JS PCB-9	13.65	5.95E+07	1.65 Y	-	-	-
JS PCB-52	21.11	2.75E+07	0.76 Y	-	-	-
JS PCB-101	26.89	2.02E+07	1.48 Y	-	-	-
JS PCB-138	33.67	2.09E+07	1.31 Y	-	-	-
JS PCB-194	43.77	1.35E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	9.84	3.88E+06	3.07 Y	1.25	1.22	-2.1%
PCB-3 4-MoCB	11.74	3.53E+06	2.98 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.95	1.88E+06	1.56 Y	0.90	0.86	-4.7%
PCB-15 44'-DiCB	17.01	2.82E+06	1.54 Y	1.10	1.04	-5.2%
PCB-19 22'6-TrCB	14.63	1.42E+06	1.00 Y	0.95	0.92	-2.3%
PCB-37 344'-TrCB	22.96	2.48E+06	1.08 Y	1.39	1.39	-0.2%
PCB-54 22'66'-TeCB	17.25	2.03E+06	0.78 Y	1.05	1.02	-3.2%
PCB-104 22'466'-PeCB	21.93	1.86E+06	0.64 Y	1.12	1.07	-4.4%
PCB-153/168 ...-HxCB	32.68	2.99E+06	1.26 Y	1.24	1.23	-0.3%
PCB-155 22'44'66'-HxCB	26.74	1.81E+06	1.19 Y	1.09	1.09	0.2%
PCB-170 22'33'44'5-HpCB	39.40	8.38E+05	1.03 Y	0.99	0.99	-0.3%
PCB-180/193 ...-HpCB	38.33	2.10E+06	1.02 Y	1.07	1.05	-2.0%
PCB-188 22'34'566'-HpCB	31.53	1.64E+06	1.10 Y	0.98	0.95	-3.5%
PCB-202 22'33'55'66'-OcCB	36.03	1.13E+06	0.88 Y	0.86	0.84	-2.9%
PCB-205 233'44'55'6-OcCB	44.19	8.63E+05	0.87 Y	1.13	1.05	-7.2%
PCB-208 22'33'455'66'-NoCB	41.63	9.34E+05	0.77 Y	1.03	1.02	-1.7%
PCB-206 22'33'44'55'6-NoCB	45.65	6.98E+05	0.76 Y	0.97	0.95	-2.0%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.84	3.88E+06	3.07 Y	1.25	1.22	-2.1%
PCB-2 3-MoCB	11.59	3.65E+06	3.16 Y	1.28	1.29	0.6%
PCB-3 4-MoCB	11.74	3.53E+06	2.98 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.95	1.88E+06	1.56 Y	0.90	0.86	-4.7%
PCB-10 26-DiCB	12.10	2.93E+06	1.55 Y	1.38	1.33	-3.2%
PCB-9 25-DiCB	13.67	2.95E+06	1.48 Y	0.99	1.08	9.7%
PCB-7 24-DiCB	13.81	2.97E+06	1.49 Y	1.10	1.09	-0.8%
PCB-6 23'-DiCB	14.01	3.02E+06	1.48 Y	1.04	1.11	7.0%
PCB-5 23-DiCB	14.27	2.91E+06	1.51 Y	1.02	1.07	4.7%
PCB-8 24'-DiCB	14.38	3.06E+06	1.55 Y	1.03	1.13	9.1%
PCB-14 35-DiCB	15.78	3.32E+06	1.54 Y	1.20	1.22	1.7%
PCB-11 33'-DiCB	16.48	2.88E+06	1.51 Y	1.03	1.06	3.3%
PCB-13/12 34'/34-DiCB	16.75	5.75E+06	1.54 Y	1.03	1.06	2.4%
PCB-15 44'-DiCB	17.01	2.82E+06	1.54 Y	1.10	1.04	-5.2%
PCB-19 22'6-TrCB	14.63	1.42E+06	1.00 Y	0.95	0.92	-2.3%
PCB-30/18 246/22'5-TrCB	16.22	3.58E+06	1.03 Y	1.23	1.17	-5.3%
PCB-17 22'4-TrCB	16.58	1.54E+06	1.06 Y	1.05	1.00	-5.1%
PCB-27 23'6-TrCB	16.76	2.03E+06	1.01 Y	1.46	1.32	-9.6%
PCB-24 236-TrCB	16.88	1.95E+06	1.02 Y	1.32	1.27	-3.6%
PCB-16 22'3-TrCB	16.96	1.08E+06	1.03 Y	0.81	0.70	-13.1%
PCB-32 24'6-TrCB	17.41	2.13E+06	1.06 Y	1.48	1.39	-5.9%
PCB-34 23'5'-TrCB	18.49	2.67E+06	1.08 Y	1.46	1.49	2.2%
PCB-23 235-TrCB	18.62	2.66E+06	1.07 Y	1.50	1.49	-1.1%
PCB-26/29 23'5/245-TrCB	18.89	5.31E+06	1.08 Y	1.53	1.49	-2.7%
PCB-25 23'4-TrCB	19.08	2.72E+06	1.03 Y	1.53	1.52	-0.9%
PCB-31 24'5-TrCB	19.34	2.73E+06	1.07 Y	1.55	1.53	-1.3%
PCB-28/20 244'/233'-TrCB	19.60	5.32E+06	1.05 Y	1.51	1.49	-1.0%
PCB-21/33 234/23'4'-TrCB	19.76	5.39E+06	1.05 Y	1.55	1.51	-2.4%
PCB-22 234'-TrCB	20.11	2.52E+06	1.04 Y	1.40	1.41	0.8%
PCB-36 33'5-TrCB	21.44	2.66E+06	1.04 Y	1.52	1.49	-1.9%
PCB-39 34'5-TrCB	21.74	2.69E+06	1.04 Y	1.58	1.50	-5.0%
PCB-38 345-TrCB	22.23	2.45E+06	1.08 Y	1.47	1.37	-6.4%
PCB-35 33'4-TrCB	22.61	2.34E+06	1.12 Y	1.33	1.31	-1.6%
PCB-37 344'-TrCB	22.96	2.48E+06	1.08 Y	1.39	1.39	-0.2%
PCB-54 22'66'-TeCB	17.25	2.03E+06	0.78 Y	1.05	1.02	-3.2%
PCB-50/53 22'46/22'56'-TeCB	19.12	2.75E+06	0.77 Y	0.88	0.87	-1.1%
PCB-45 22'36-TeCB	19.65	1.13E+06	0.80 Y	0.73	0.71	-3.1%
PCB-51 22'46'-TeCB	19.73	1.45E+06	0.79 Y	0.94	0.92	-2.4%
PCB-46 22'36'-TeCB	19.92	1.11E+06	0.78 Y	0.72	0.70	-2.4%
PCB-52 22'55'-TeCB	21.14	1.30E+06	0.81 Y	0.82	0.82	-0.4%
PCB-73 23'5'6-TeCB	21.26	1.78E+06	0.75 Y	1.10	1.13	2.5%
PCB-43 22'35-TeCB	21.34	1.03E+06	0.76 Y	0.70	0.65	-7.5%
PCB-69/49 23'46/22'45'-TeCB	21.53	3.08E+06	0.75 Y	1.01	0.97	-3.5%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.79	1.29E+06	0.74 Y	0.84	0.81	-3.6%
PCB-44/47/65 ...-TeCB	21.99	4.09E+06	0.78 Y	0.90	0.86	-4.4%
PCB-59/62/75 ...-TeCB	22.26	5.23E+06	0.78 Y	1.15	1.10	-4.5%
PCB-42 22'34'-TeCB	22.41	1.18E+06	0.82 Y	0.76	0.75	-2.3%
PCB-41 22'34-TeCB	22.72	1.03E+06	0.77 Y	0.64	0.65	1.4%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	2.57E+06	0.77 Y	0.83	0.81	-2.5%
PCB-64 234'6-TeCB	23.02	1.82E+06	0.77 Y	1.17	1.15	-2.0%
PCB-72 23'55'-TeCB	23.74	2.16E+06	0.79 Y	1.37	1.37	-0.1%
PCB-68 23'45'-TeCB	23.98	2.28E+06	0.78 Y	1.52	1.44	-5.2%
PCB-57 233'5-TeCB	24.33	2.02E+06	0.75 Y	1.32	1.27	-3.7%
PCB-58 233'5'-TeCB	24.52	2.06E+06	0.79 Y	1.34	1.30	-2.9%
PCB-67 23'45-TeCB	24.67	2.23E+06	0.77 Y	1.41	1.41	-0.1%
PCB-63 234'5-TeCB	24.89	2.25E+06	0.80 Y	1.46	1.42	-2.6%
PCB-61/70/74/76 ...-TeCB	25.17	8.27E+06	0.77 Y	1.37	1.31	-4.3%
PCB-66 23'44'-TeCB	25.44	1.94E+06	0.74 Y	1.24	1.23	-1.0%
PCB-55 233'4-TeCB	25.57	2.02E+06	0.74 Y	1.28	1.27	-0.3%
PCB-56 233'4'-TeCB	26.00	1.87E+06	0.80 Y	1.23	1.18	-3.9%
PCB-60 2344'-TeCB	26.18	1.96E+06	0.74 Y	1.30	1.24	-4.7%
PCB-80 33'55'-TeCB	26.54	2.28E+06	0.78 Y	1.44	1.44	0.6%
PCB-79 33'45'-TeCB	27.81	2.19E+06	0.77 Y	1.48	1.38	-6.3%
PCB-78 33'45-TeCB	28.28	1.84E+06	0.75 Y	1.21	1.16	-3.9%
PCB-104 22'466'-PeCB	21.93	1.86E+06	0.64 Y	1.12	1.07	-4.4%
PCB-96 22'366'-PeCB	22.23	1.58E+06	0.64 Y	0.96	0.91	-6.0%
PCB-103 22'45'6-PeCB	23.89	1.07E+06	0.60 Y	0.93	0.91	-2.2%
PCB-94 22'356'-PeCB	24.06	9.29E+05	0.64 Y	0.81	0.79	-1.8%
PCB-95 22'35'6-PeCB	24.43	9.87E+05	0.61 Y	0.85	0.84	-0.6%
PCB-100/93 22'44'6/22'356-PeCB	24.63	2.01E+06	0.64 Y	0.88	0.86	-2.6%
PCB-102 22'456'-PeCB	24.74	1.01E+06	0.65 Y	0.93	0.87	-7.1%
PCB-98 22'34'6'-PeCB	24.80	9.43E+05	0.64 Y	0.84	0.81	-3.8%
PCB-88 22'346-PeCB	25.08	8.12E+05	0.59 Y	0.77	0.69	-10.0%
PCB-91 22'34'6-PeCB	25.15	1.15E+06	0.64 Y	0.96	0.98	2.3%
PCB-84 22'33'6-PeCB	25.34	8.41E+05	0.63 Y	0.72	0.72	-0.3%
PCB-89 22'346'-PeCB	25.74	8.70E+05	0.59 Y	0.77	0.74	-3.6%
PCB-121 23'45'6-PeCB	26.12	1.36E+06	0.60 Y	1.15	1.16	1.3%
PCB-92 22'355'-PeCB	26.43	9.50E+05	0.64 Y	0.79	0.81	2.5%
PCB-113/90/101 ...-PeCB	26.89	3.19E+06	0.63 Y	0.95	0.91	-4.7%
PCB-83 22'33'5-PeCB	27.30	8.20E+05	0.59 Y	0.72	0.70	-2.5%
PCB-99 22'44'5-PeCB	27.41	1.03E+06	0.60 Y	0.90	0.88	-2.0%
PCB-112 233'56-PeCB	27.50	1.24E+06	0.65 Y	1.09	1.06	-3.4%
PCB-109/119/86/97/125...-PeCB	27.83	6.46E+06	0.63 Y	0.95	0.92	-2.8%
PCB-117 234'56-PeCB	28.35	1.07E+06	0.64 Y	0.99	0.92	-7.3%
PCB-116/85 23456/22'344'-PeCB	28.42	2.30E+06	0.62 Y	0.96	0.98	2.3%
PCB-110 233'4'6-PeCB	28.55	1.16E+06	0.63 Y	1.01	0.99	-1.9%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.35E+06	0.63 Y	1.15	1.16	0.4%
PCB-82 22'33'4-PeCB	28.82	7.66E+05	0.61 Y	0.70	0.66	-6.1%
PCB-111 233'55'-PeCB	29.19	1.43E+06	0.65 Y	1.16	1.23	5.3%
PCB-120 23'455'-PeCB	29.56	1.35E+06	0.64 Y	1.14	1.15	1.5%
PCB-108/124 ...-PeCB	30.50	2.37E+06	0.66 Y	1.02	1.01	-0.4%
PCB-107 233'4'5-PeCB	30.70	1.36E+06	0.63 Y	1.13	1.16	2.5%
PCB-106 233'45-PeCB	30.90	1.19E+06	0.64 Y	1.01	1.02	0.6%
PCB-122 233'4'5'-PeCB	31.36	1.10E+06	0.63 Y	0.91	0.92	0.9%
PCB-127 33'455'-PeCB	33.31	1.23E+06	0.59 Y	1.06	1.05	-0.8%
PCB-155 22'44'66'-HxCB	26.74	1.81E+06	1.19 Y	1.09	1.09	0.2%
PCB-152 22'3566'-HxCB	26.87	1.69E+06	1.25 Y	1.04	1.02	-2.4%
PCB-150 22'34'66'-HxCB	27.02	1.73E+06	1.22 Y	1.03	1.04	1.2%
PCB-136 22'33'66'-HxCB	27.31	1.52E+06	1.26 Y	0.97	0.92	-5.8%
PCB-145 22'3466'-HxCB	27.57	1.63E+06	1.27 Y	0.96	0.98	1.9%
PCB-148 22'34'56'-HxCB	28.86	1.21E+06	1.22 Y	1.03	1.00	-3.4%
PCB-151/135 ...-HxCB	29.36	2.33E+06	1.25 Y	0.99	0.96	-3.2%
PCB-154 22'44'56'-HxCB	29.57	1.36E+06	1.26 Y	1.17	1.12	-4.6%
PCB-144 22'345'6-HxCB	29.82	1.21E+06	1.31 Y	1.03	1.00	-2.6%
PCB-147/149 ...-HxCB	30.12	2.39E+06	1.25 Y	1.02	0.98	-3.2%
PCB-134 22'33'56-HxCB	30.27	8.98E+05	1.23 Y	0.80	0.74	-7.3%
PCB-143 22'3456'-HxCB	30.36	1.17E+06	1.28 Y	0.95	0.97	1.9%
PCB-139/140 ...-HxCB	30.62	2.44E+06	1.20 Y	1.05	1.01	-4.1%
PCB-131 22'33'46-HxCB	30.78	1.05E+06	1.26 Y	0.90	0.87	-2.9%
PCB-142 22'3456-HxCB	30.91	1.06E+06	1.27 Y	0.93	0.88	-5.2%
PCB-132 22'33'46'-HxCB	31.16	1.09E+06	1.27 Y	0.93	0.90	-2.8%
PCB-133 22'33'55'-HxCB	31.60	1.16E+06	1.20 Y	0.97	0.95	-1.4%
PCB-165 233'55'6-HxCB	31.94	1.39E+06	1.32 Y	1.16	1.14	-1.5%
PCB-146 22'34'55'-HxCB	32.15	1.22E+06	1.21 Y	1.01	1.01	0.0%
PCB-161 233'45'6-HxCB	32.26	1.55E+06	1.23 Y	1.29	1.28	-1.3%
PCB-153/168 ...-HxCB	32.68	2.99E+06	1.26 Y	1.24	1.23	-0.3%
PCB-141 22'3455'-HxCB	32.81	1.14E+06	1.23 Y	0.95	0.94	-1.0%
PCB-130 22'33'45'-HxCB	33.15	9.82E+05	1.34 Y	0.82	0.81	-1.5%
PCB-137 22'344'5-HxCB	33.35	1.26E+06	1.21 Y	0.97	1.04	7.5%
PCB-164 233'4'5'6-HxCB	33.43	1.43E+06	1.29 Y	1.25	1.18	-5.3%
PCB-163/138/129 ...-HxCB	33.71	3.73E+06	1.25 Y	1.04	1.02	-1.6%
PCB-160 233'456-HxCB	33.83	1.35E+06	1.28 Y	1.19	1.12	-6.4%
PCB-158 233'44'6-HxCB	34.03	1.56E+06	1.24 Y	1.34	1.28	-4.1%
PCB-128/166 ...-HxCB	34.74	2.03E+06	1.23 Y	0.96	0.95	-0.8%
PCB-159 233'455'-HxCB	35.59	1.18E+06	1.30 Y	1.12	1.10	-1.6%
PCB-162 233'4'55'-HxCB	35.83	1.19E+06	1.26 Y	1.13	1.12	-0.8%
PCB-188 22'34'566'-HpCB	31.53	1.64E+06	1.10 Y	0.98	0.95	-3.5%
PCB-179 22'33'566'-HpCB	31.80	1.54E+06	1.03 Y	0.90	0.89	-0.7%
PCB-184 22'344'66'-HpCB	32.26	1.49E+06	1.02 Y	0.86	0.86	-0.9%

PCB QC Summary - Ax2 Detail **Printed: 14-Dec-2012 11:16**

Lab ID: CS2_121214_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.54	1.62E+06	1.05 Y	0.97	0.93	-3.7%
PCB-186 22'34566'-HpCB	32.92	1.55E+06	0.98 Y	0.93	0.90	-3.3%
PCB-178 22'33'55'6-HpCB	34.09	1.12E+06	1.05 Y	0.66	0.64	-2.8%
PCB-175 22'33'45'6-HpCB	34.62	9.86E+05	1.02 Y	1.02	0.98	-3.9%
PCB-187 22'34'55'6-HpCB	34.85	1.04E+06	1.08 Y	1.03	1.04	0.8%
PCB-182 22'344'56'-HpCB	35.02	1.06E+06	1.04 Y	1.10	1.05	-3.8%
PCB-183 22'344'5'6-HpCB	35.36	1.12E+06	1.03 Y	1.12	1.12	-0.3%
PCB-185 22'3455'6-HpCB	35.44	8.84E+05	1.07 Y	0.97	0.88	-8.9%
PCB-174 22'33'456'-HpCB	35.55	8.62E+05	1.05 Y	0.90	0.86	-3.9%
PCB-177 22'33'45'6'-HpCB	35.92	8.30E+05	0.98 Y	0.87	0.83	-5.0%
PCB-181 22'344'56-HpCB	36.25	9.91E+05	1.02 Y	1.03	0.99	-4.4%
PCB-171/173 ...-HpCB	36.43	1.70E+06	1.07 Y	0.89	0.85	-4.0%
PCB-172 22'33'455'-HpCB	37.81	8.70E+05	1.04 Y	0.87	0.87	-0.5%
PCB-192 233'455'6-HpCB	38.05	1.14E+06	1.07 Y	1.16	1.14	-1.9%
PCB-180/193 ...-HpCB	38.33	2.10E+06	1.02 Y	1.07	1.05	-2.0%
PCB-191 233'44'5'6-HpCB	38.65	1.20E+06	1.04 Y	1.18	1.20	1.5%
PCB-170 22'33'44'5-HpCB	39.40	8.38E+05	1.03 Y	0.99	0.99	-0.3%
PCB-190 233'44'56-HpCB	39.85	1.11E+06	1.02 Y	1.36	1.31	-3.6%
PCB-202 22'33'55'66'-OcCB	36.03	1.13E+06	0.88 Y	0.86	0.84	-2.9%
PCB-201 22'33'45'66'-OcCB	36.81	1.22E+06	0.89 Y	0.95	0.91	-4.3%
PCB-204 22'344'566'-OcCB	37.38	1.20E+06	0.86 Y	0.90	0.89	-1.3%
PCB-197 22'33'44'66'-OcCB	37.56	1.15E+06	0.89 Y	0.96	0.86	-10.8%
PCB-200 22'33'4566'-OcCB	37.64	1.19E+06	0.84 Y	0.88	0.89	0.6%
PCB-198/199 ...-OcCB	39.99	1.64E+06	0.89 Y	0.63	0.61	-3.3%
PCB-196 22'33'44'56'-OcCB	40.56	8.68E+05	0.93 Y	0.66	0.65	-2.4%
PCB-203 22'344'55'6-OcCB	40.72	9.02E+05	0.86 Y	0.69	0.67	-3.5%
PCB-195 22'33'44'56-OcCB	41.82	6.47E+05	0.90 Y	0.82	0.79	-4.4%
PCB-194 22'33'44'55'-OcCB	43.79	7.04E+05	0.87 Y	0.90	0.86	-4.8%
PCB-205 233'44'55'6-OcCB	44.19	8.63E+05	0.87 Y	1.13	1.05	-7.2%
PCB-208 22'33'455'66'-NoCB	41.63	9.34E+05	0.77 Y	1.03	1.02	-1.7%
PCB-207 22'33'44'566'-NoCB	42.42	9.83E+05	0.79 Y	1.07	1.07	0.1%
PCB-206 22'33'44'55'6-NoCB	45.65	6.98E+05	0.76 Y	0.97	0.95	-2.0%

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



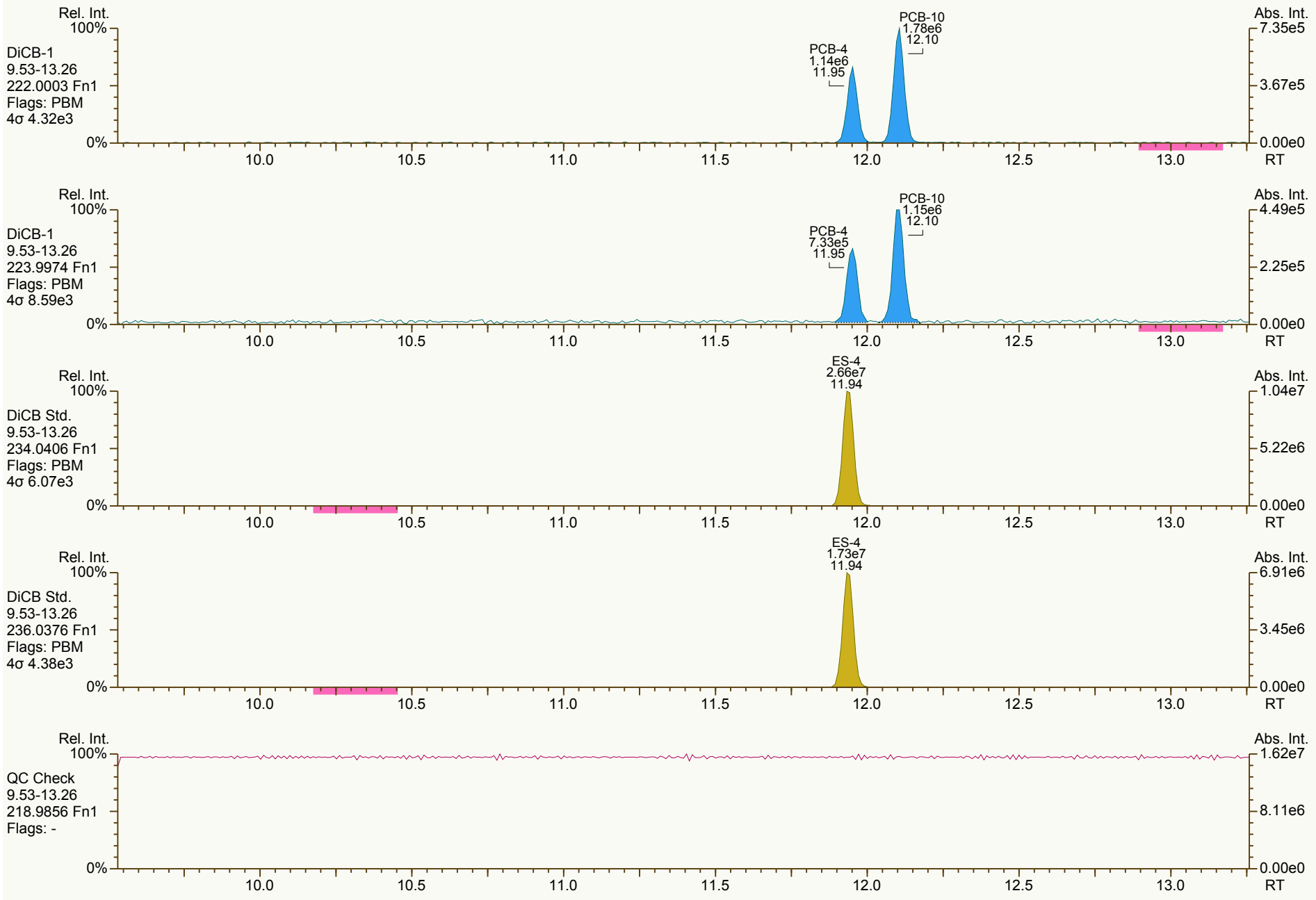
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



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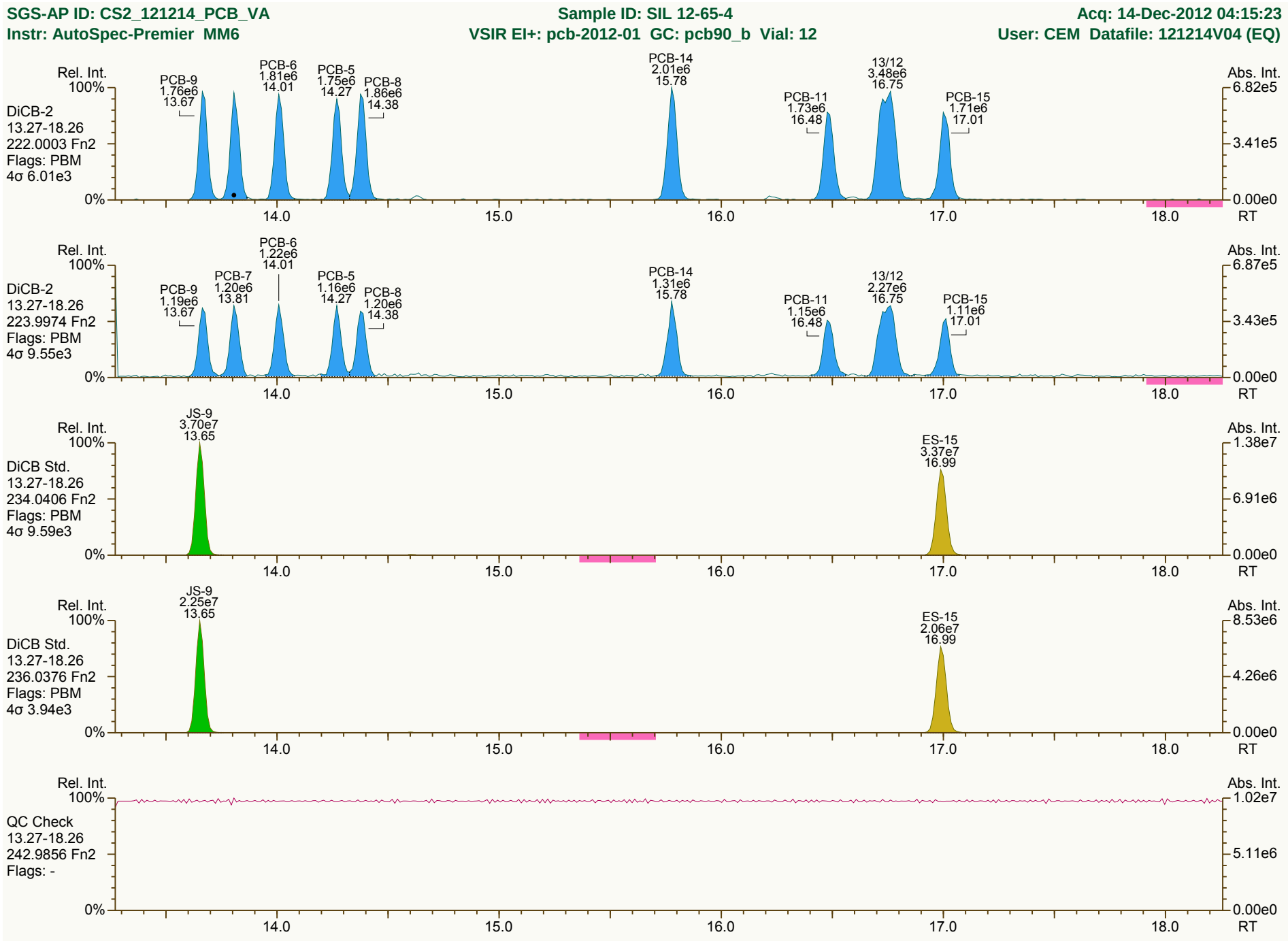

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Peak annotation: Areas, Centroids

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**

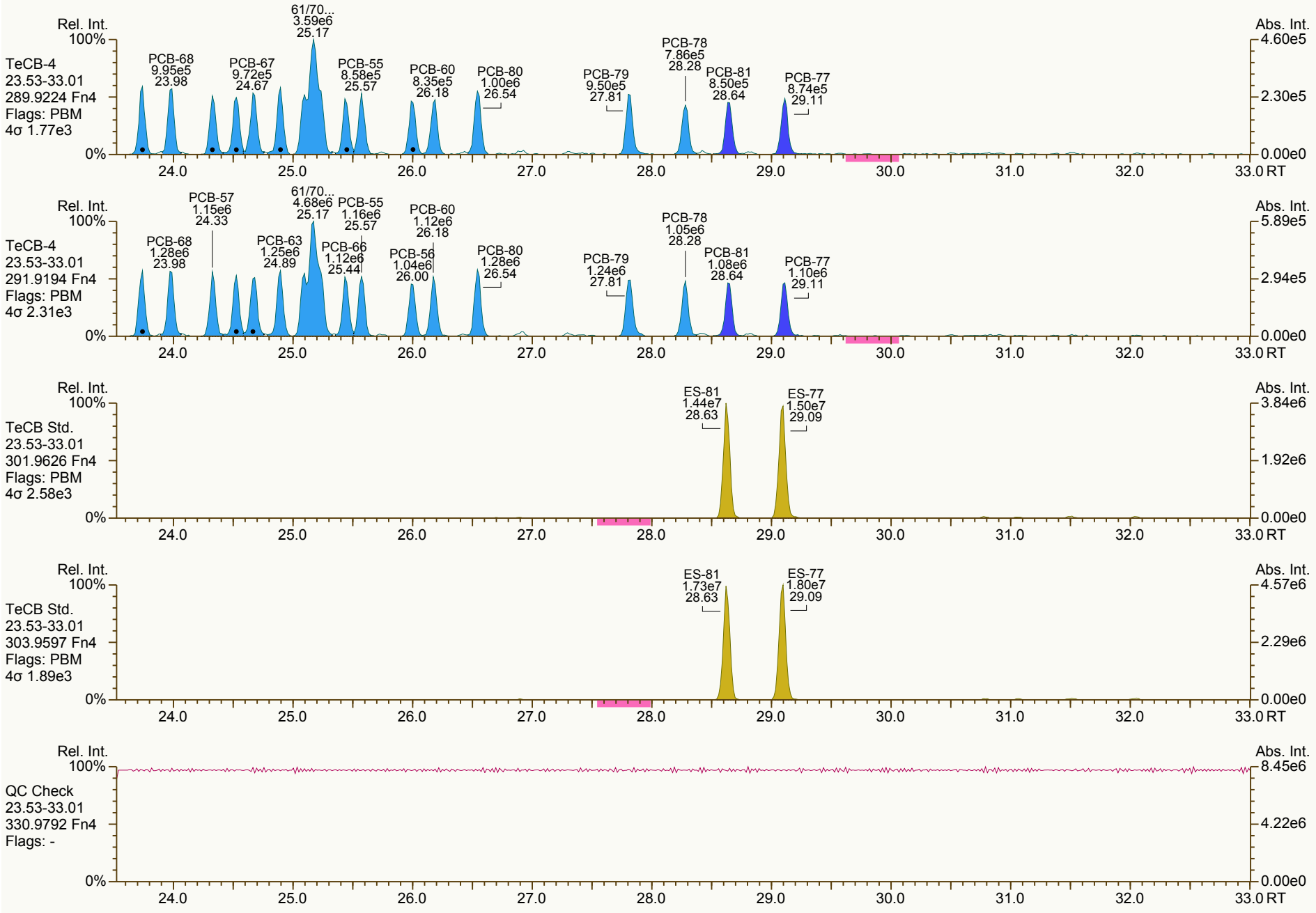


SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA | Sample ID: SIL 12-65-4 | Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12 | User: CEM Datafile: 121214V04 (EQ)



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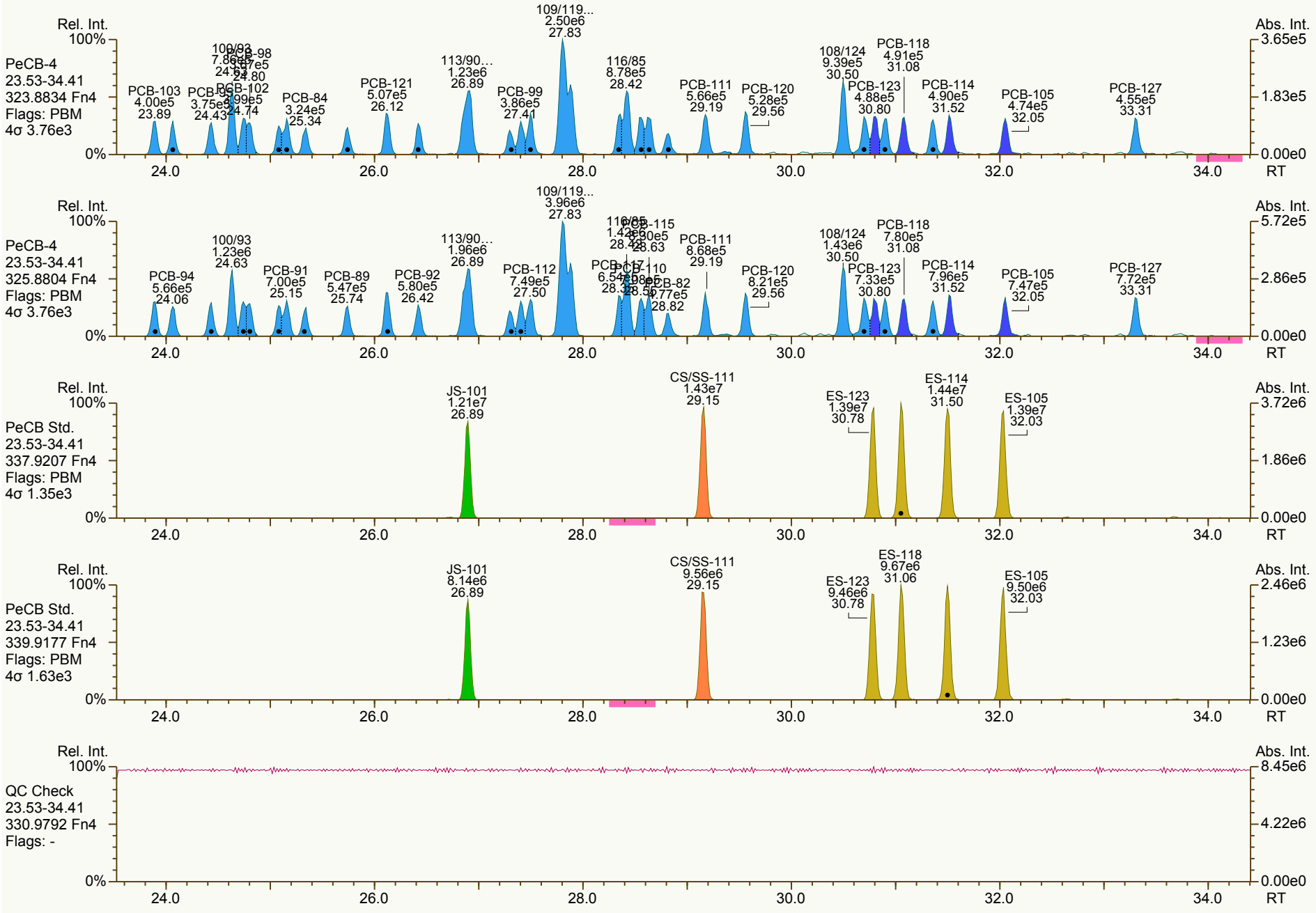
SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA | Sample ID: SIL 12-65-4 | Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12 | User: CEM Datafile: 121214V04 (EQ)



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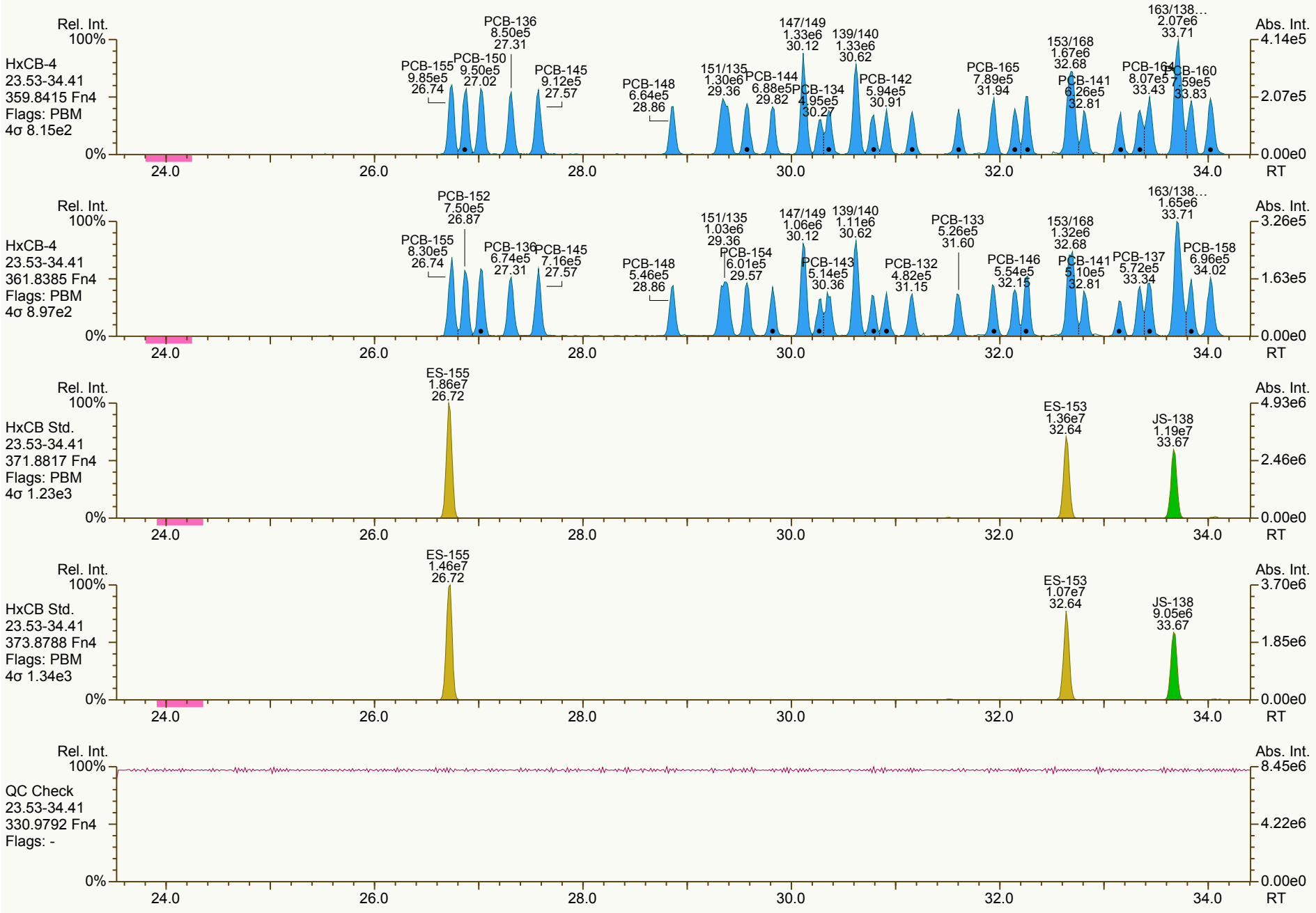
SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 0862, 3465 scc: 403-865 *PKD: 14-Dec-2012 09:53 Printed: 14-Dec-2012 11:20 Page 12 of 22*

SGS-AP ID: CS2_121214_PCB_VA | Sample ID: SIL 12-65-4 | Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12 | User: CEM Datafile: 121214V04 (EQ)



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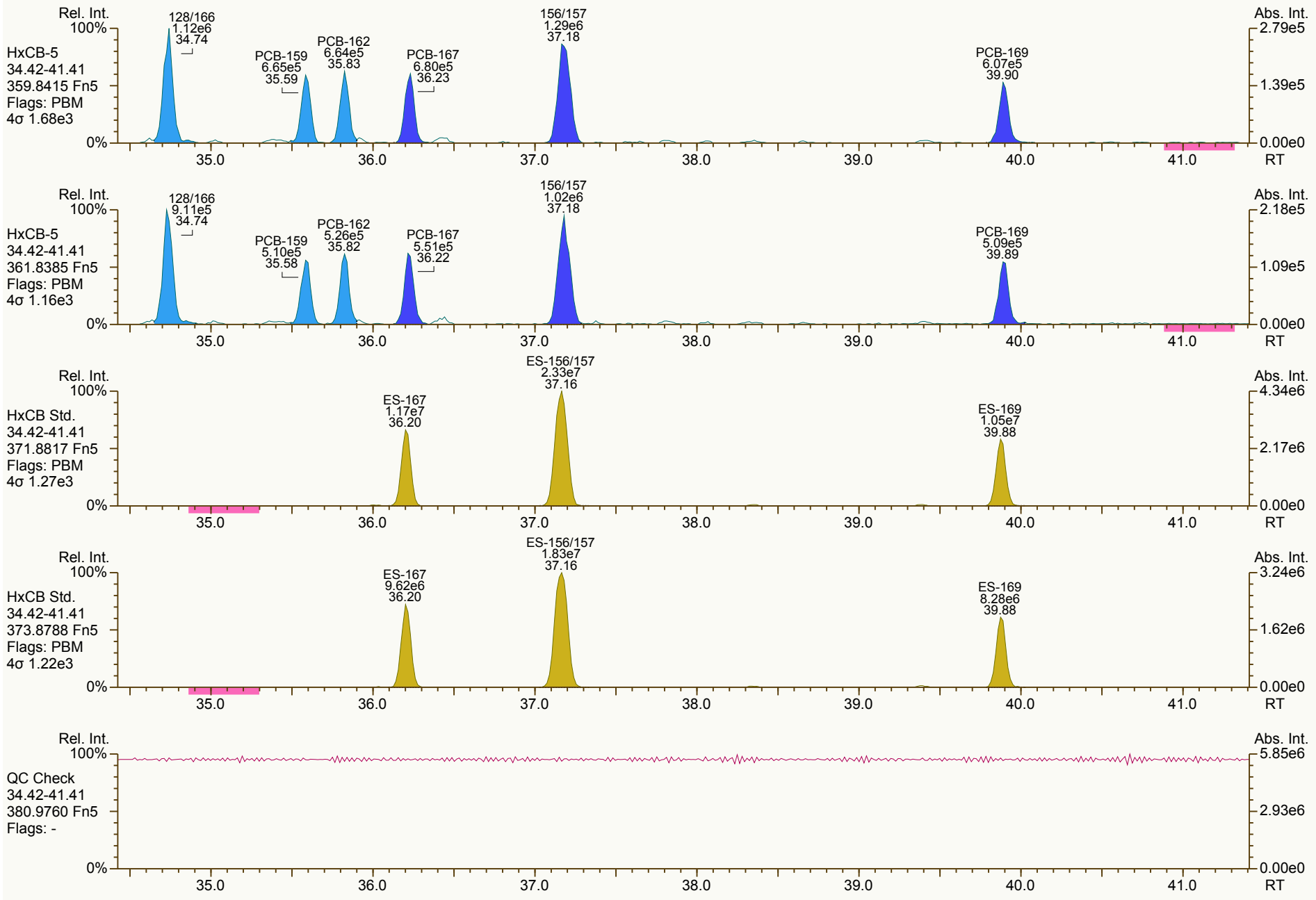
SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



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SGS-AP ID: CS2_121214_PCB_VA | **Sample ID: SIL 12-65-4** | **Acq: 14-Dec-2012 04:15:23**
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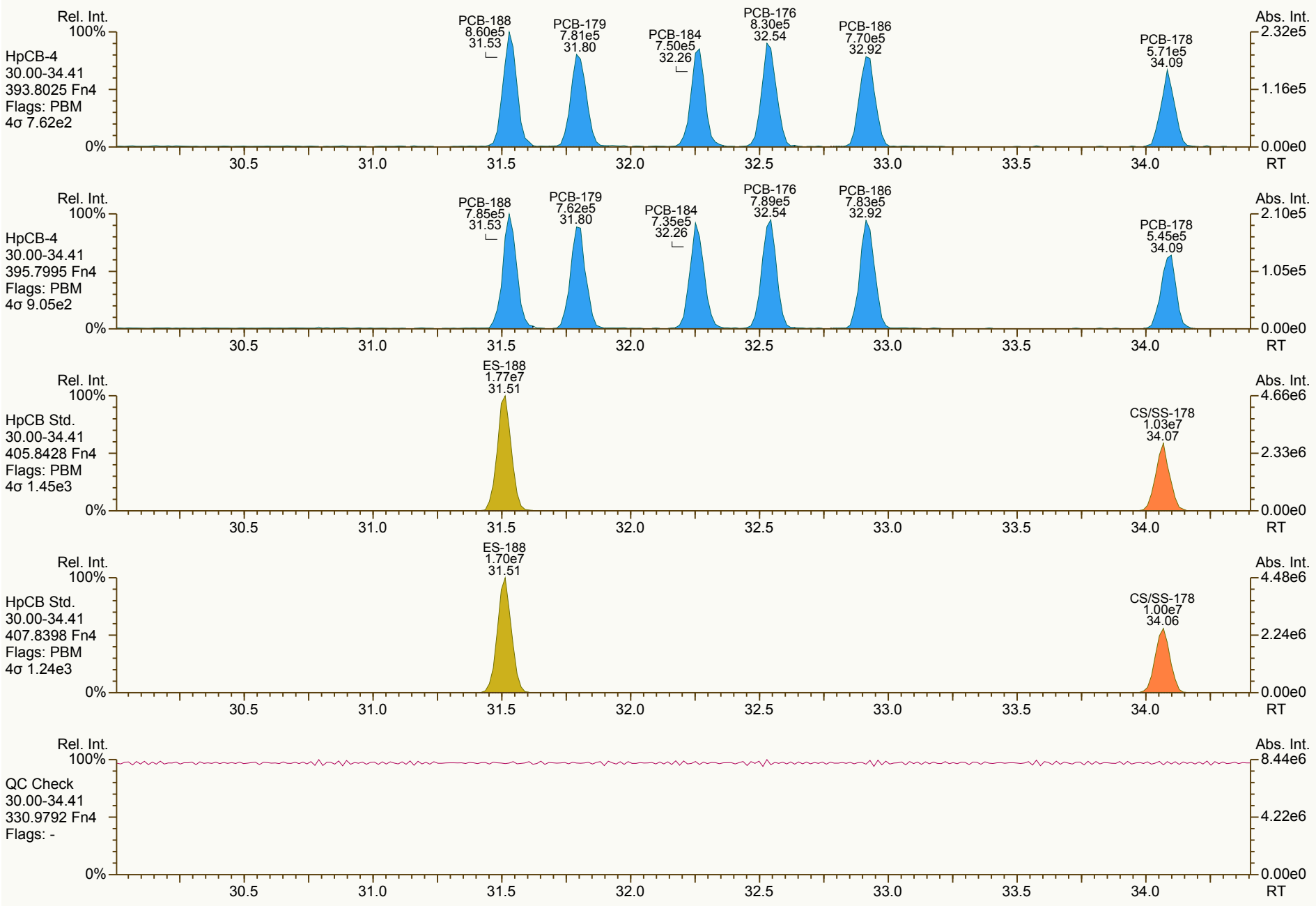

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SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
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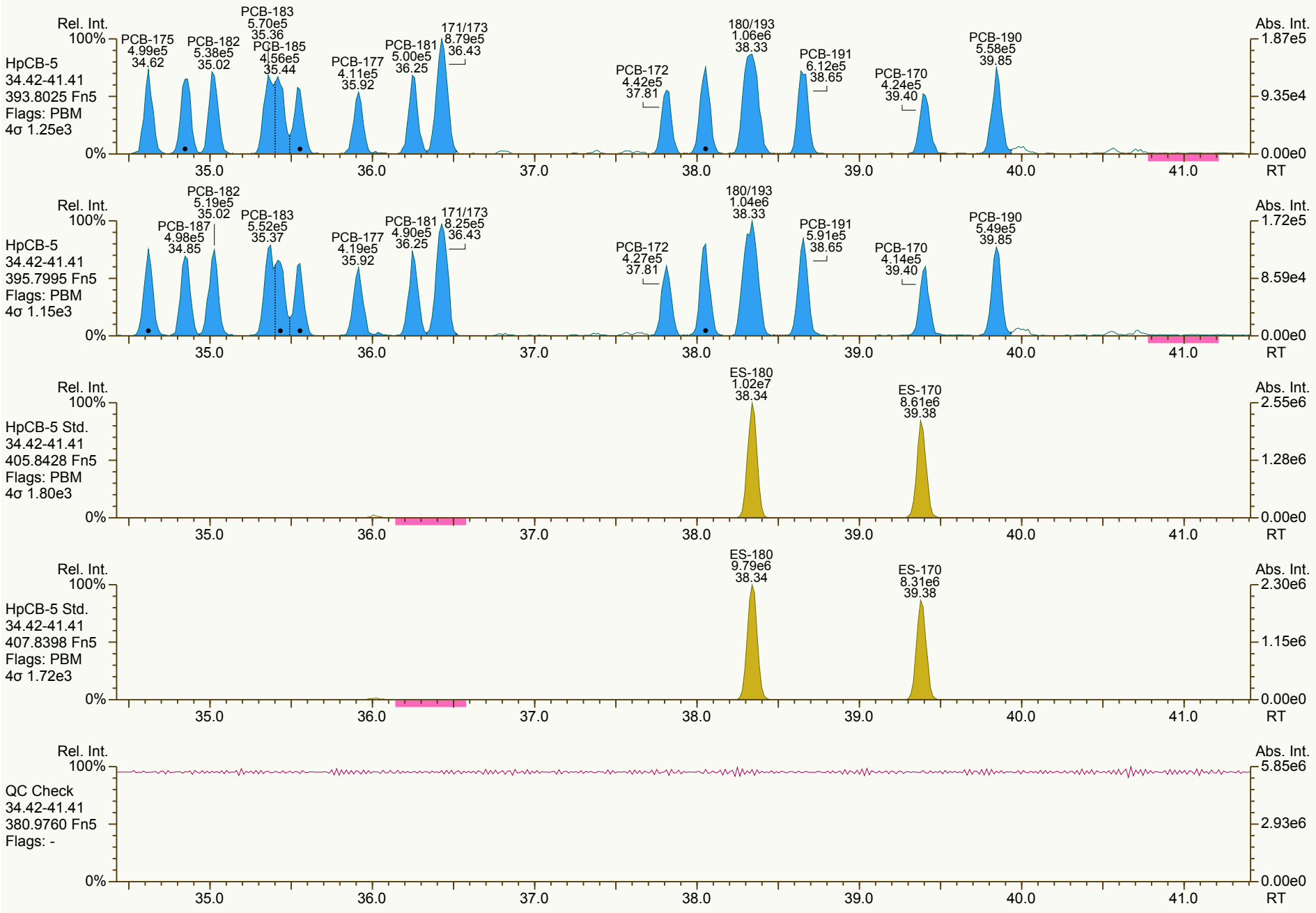

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SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
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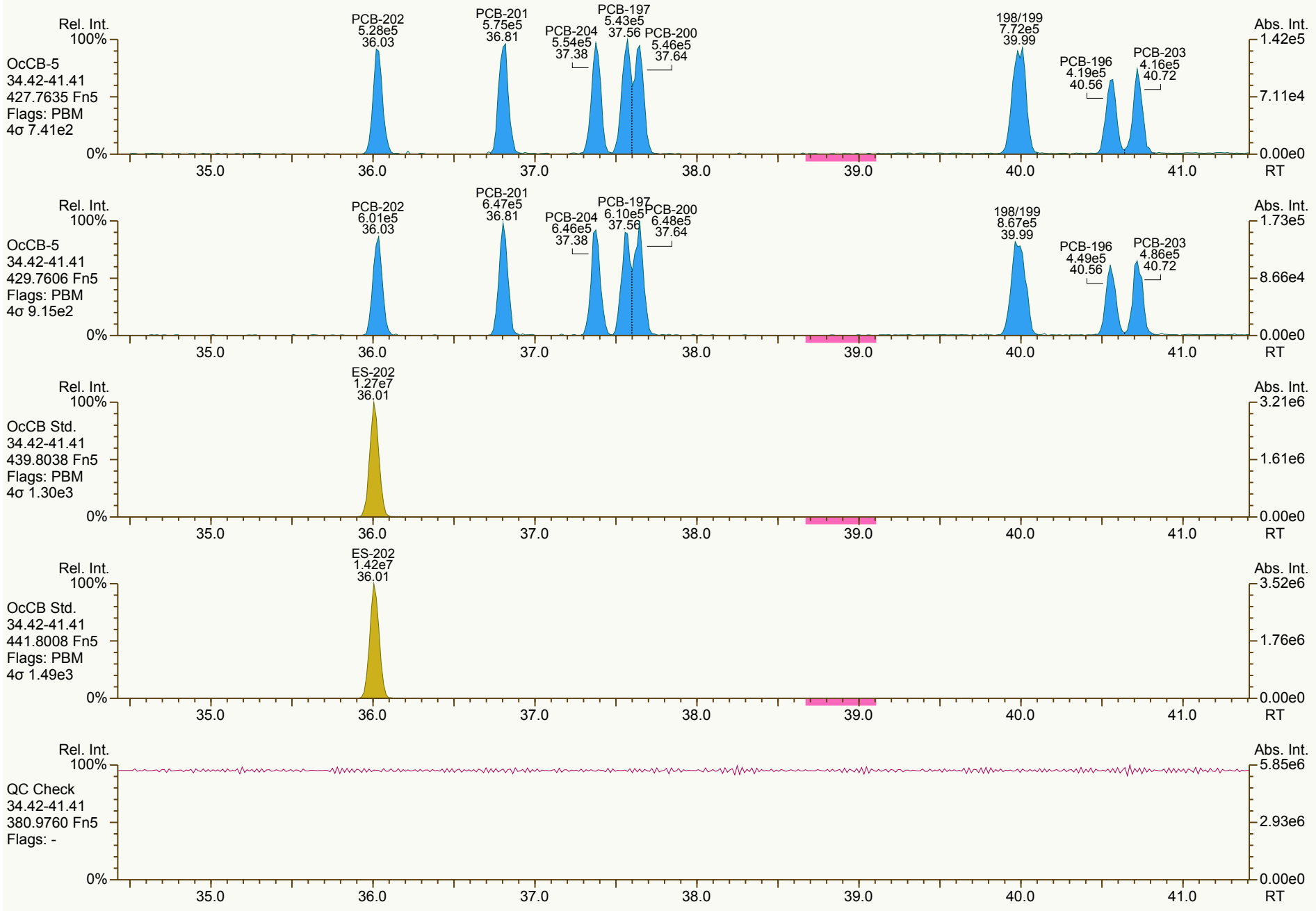

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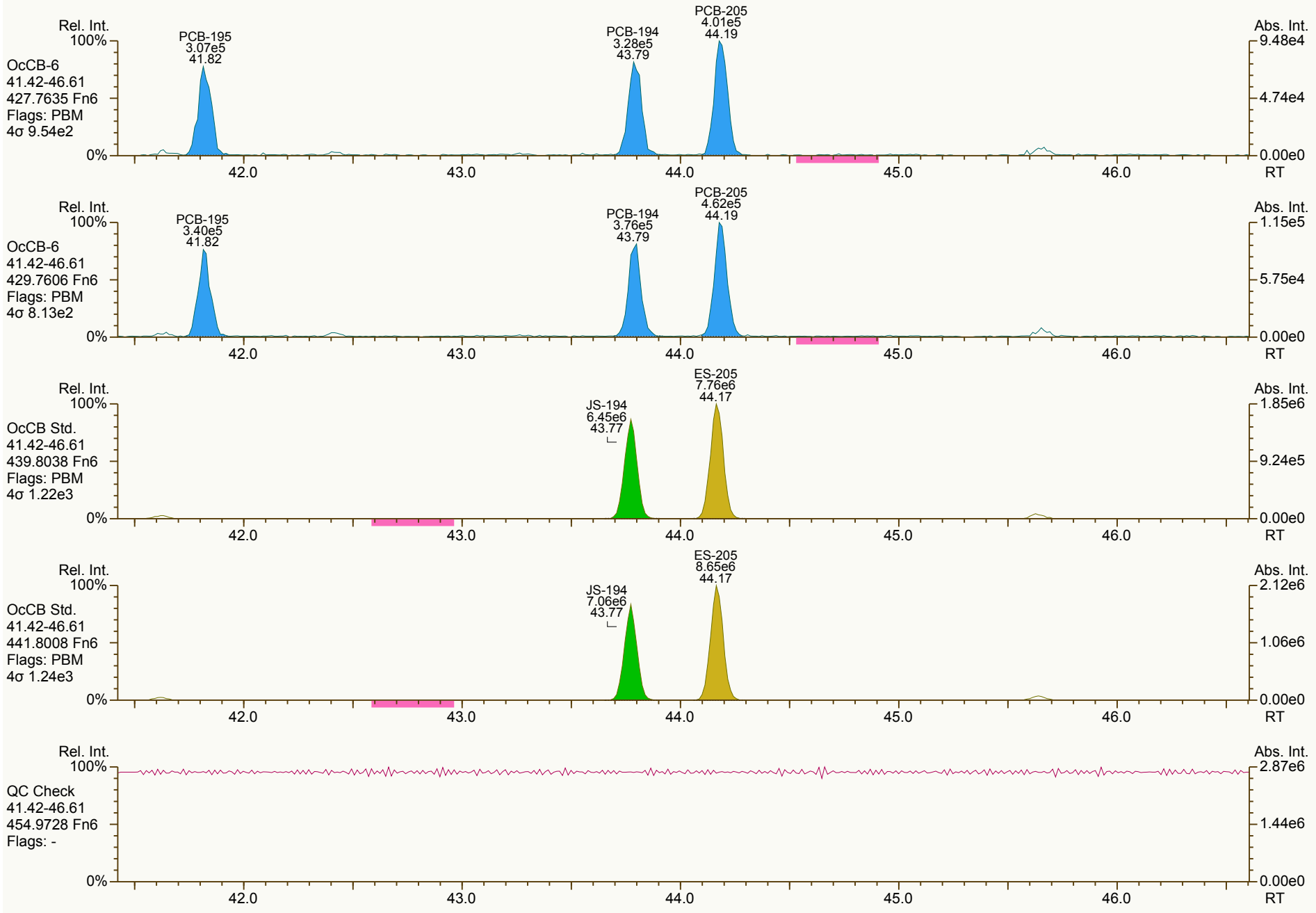
SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



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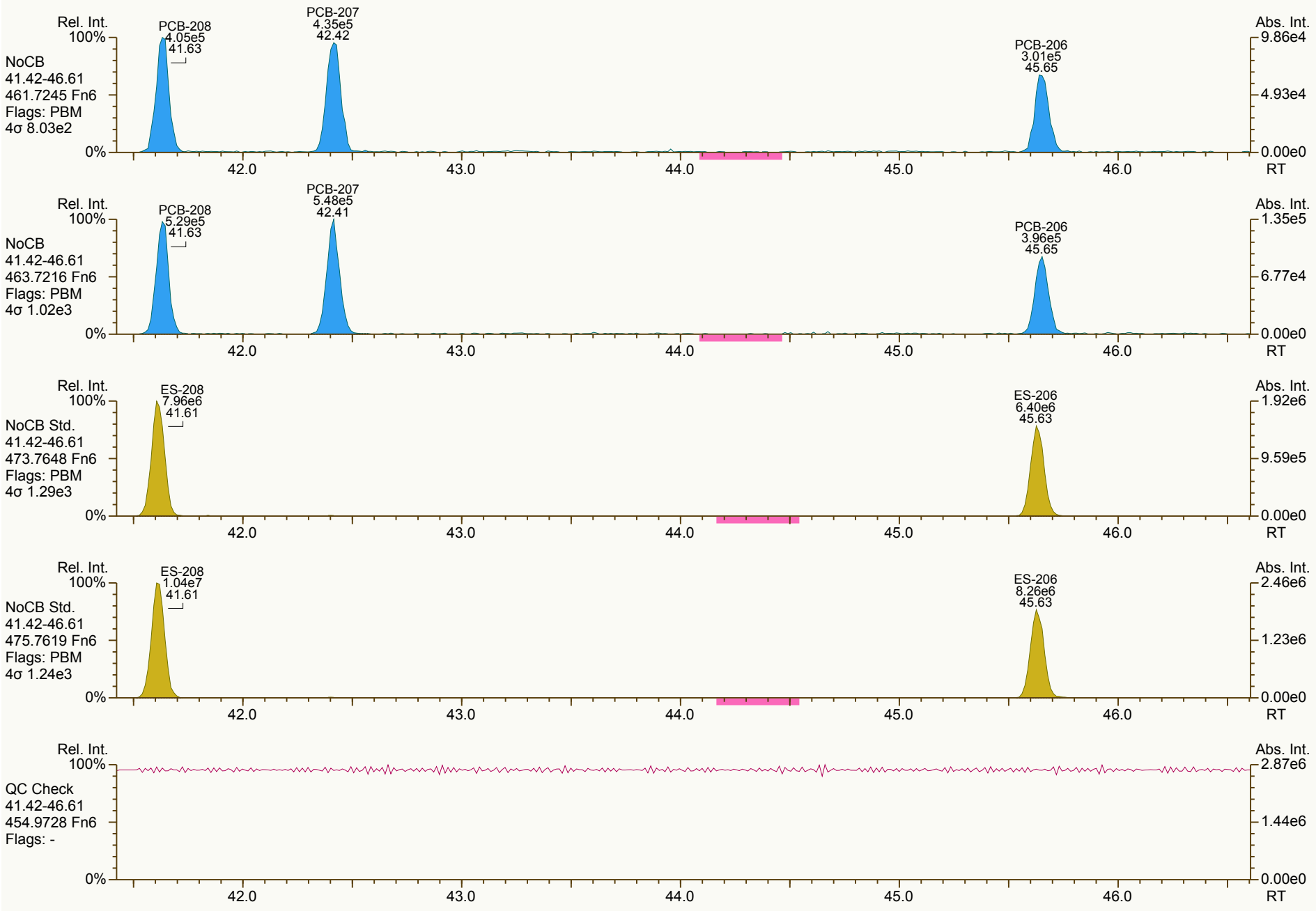
SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



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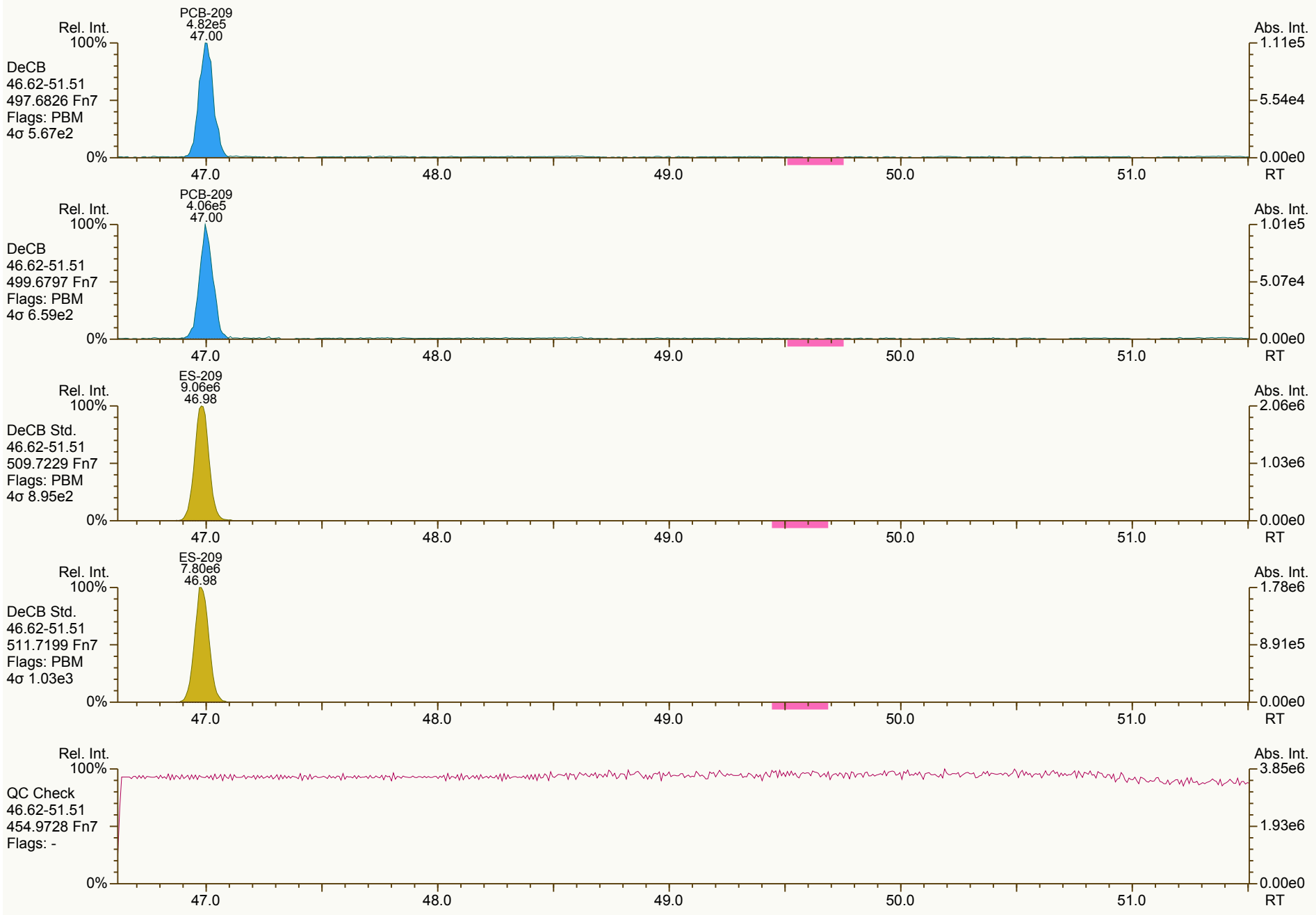
SGS-AP ID: CS2_121214_PCB_VA | Sample ID: SIL 12-65-4 | Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12 | User: CEM Datafile: 121214V04 (EQ)



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SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:17
Lab ID:	CS3_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 05:09				
Datafile:	121214V05				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.10	2.42E+07	0.76 Y	1.25	1.24	-0.4%
PCB-81 344'5-TeCB	28.64	2.32E+07	0.76 Y	1.26	1.28	1.5%
PCB-105 233'44'-PeCB	32.05	1.42E+07	0.62 Y	1.06	1.05	-0.8%
PCB-114 2344'5-PeCB	31.52	1.61E+07	0.62 Y	1.11	1.14	2.5%
PCB-118 23'44'5-PeCB	31.07	1.55E+07	0.63 Y	1.08	1.09	1.3%
PCB-123 23'44'5'-PeCB	30.80	1.65E+07	0.62 Y	1.12	1.19	6.0%
PCB-126 33'44'5-PeCB	34.64	1.81E+07	0.62 Y	1.16	1.12	-3.3%
PCB-156/157 ...-HxCB	37.17	2.67E+07	1.25 Y	1.14	1.15	0.6%
PCB-167 23'44'55'-HxCB	36.22	1.47E+07	1.26 Y	1.18	1.20	2.1%
PCB-169 33'44'55'-HxCB	39.89	1.25E+07	1.27 Y	1.15	1.18	2.1%
PCB-189 233'44'55'-HpCB	42.02	1.63E+07	1.05 Y	1.12	1.11	-0.1%
PCB-209 DeCB	47.00	9.92E+06	1.18 Y	1.11	1.08	-3.2%
ES PCB-1	9.82	6.05E+07	3.29 Y	0.97	0.97	-0.4%
ES PCB-3	11.72	5.58E+07	3.36 Y	0.90	0.89	-0.9%
ES PCB-4	11.93	4.37E+07	1.55 Y	0.70	0.70	-0.3%
ES PCB-15	16.99	6.29E+07	1.65 Y	1.02	1.00	-1.1%
ES PCB-19	14.61	3.07E+07	1.05 Y	0.53	0.49	-7.0%
ES PCB-37	22.93	4.13E+07	1.10 Y	1.29	1.30	0.3%
ES PCB-54	17.23	4.54E+07	0.79 Y	1.43	1.43	0.0%
ES PCB-77	29.09	3.89E+07	0.82 Y	1.20	1.22	1.5%
ES PCB-81	28.62	3.64E+07	0.84 Y	1.16	1.14	-1.5%
ES PCB-104	21.91	4.09E+07	1.54 Y	1.70	1.69	-0.7%
ES PCB-105	32.02	2.72E+07	1.46 Y	1.10	1.13	2.5%
ES PCB-114	31.49	2.83E+07	1.51 Y	1.16	1.17	1.2%
ES PCB-118	31.05	2.84E+07	1.51 Y	1.15	1.17	1.7%
ES PCB-123	30.78	2.78E+07	1.48 Y	1.14	1.15	0.7%
ES PCB-126	34.62	3.24E+07	1.60 Y	1.34	1.34	0.1%
ES PCB-153	32.63	2.79E+07	1.32 Y	1.14	1.16	1.6%
ES PCB-155	26.71	3.95E+07	1.26 Y	1.61	1.65	2.0%
ES PCB-156/157	37.16	4.65E+07	1.25 Y	0.98	0.97	-0.8%
ES PCB-167	36.20	2.44E+07	1.24 Y	1.01	1.02	0.8%
ES PCB-169	39.87	2.13E+07	1.26 Y	0.90	0.89	-1.0%
ES PCB-170	39.38	1.91E+07	1.02 Y	1.28	1.26	-1.6%
ES PCB-180	38.33	2.29E+07	1.01 Y	1.54	1.51	-2.1%
ES PCB-188	31.50	3.97E+07	1.04 Y	1.63	1.65	1.7%
ES PCB-189	42.00	2.93E+07	1.07 Y	1.97	1.93	-1.9%
ES PCB-202	36.00	3.04E+07	0.88 Y	1.26	1.27	0.5%
ES PCB-205	44.16	1.84E+07	0.90 Y	1.22	1.21	-0.7%
ES PCB-206	45.63	1.67E+07	0.76 Y	1.10	1.10	0.3%
ES PCB-208	41.61	2.09E+07	0.76 Y	1.41	1.38	-2.3%
ES PCB-209	46.98	1.84E+07	1.16 Y	1.24	1.21	-2.3%

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:17
Lab ID:	CS3_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 05:09				
Datafile:	121214V05				

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.56	4.85E+07	1.10 Y	1.18	1.18	-0.2%
SS PCB-111	29.15	2.77E+07	1.51 Y	1.01	1.00	-0.7%
SS PCB-178	34.06	2.40E+07	1.02 Y	0.60	0.60	0.4%
CS PCB-28	19.56	4.85E+07	1.10 Y	1.52	1.53	0.2%
CS PCB-111	29.15	2.77E+07	1.51 Y	1.15	1.15	0.0%
CS PCB-178	34.06	2.40E+07	1.02 Y	0.98	1.00	2.1%
JS PCB-9	13.65	6.27E+07	1.62 Y	-	-	-
JS PCB-52	21.11	3.18E+07	0.79 Y	-	-	-
JS PCB-101	26.89	2.42E+07	1.52 Y	-	-	-
JS PCB-138	33.66	2.40E+07	1.26 Y	-	-	-
JS PCB-194	43.77	1.52E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	9.83	3.85E+07	3.11 Y	1.25	1.27	2.0%
PCB-3 4-MoCB	11.73	3.64E+07	3.11 Y	1.27	1.30	3.0%
PCB-4 22'-DiCB	11.95	1.97E+07	1.57 Y	0.90	0.90	0.4%
PCB-15 44'-DiCB	17.00	3.50E+07	1.55 Y	1.10	1.11	1.5%
PCB-19 22'6-TrCB	14.62	1.51E+07	1.04 Y	0.95	0.98	4.0%
PCB-37 344'-TrCB	22.95	2.90E+07	1.06 Y	1.39	1.40	1.2%
PCB-54 22'66'-TeCB	17.25	2.45E+07	0.79 Y	1.05	1.08	2.5%
PCB-104 22'466'-PeCB	21.93	2.29E+07	0.62 Y	1.12	1.12	0.0%
PCB-153/168 ...-HxCB	32.68	3.44E+07	1.25 Y	1.24	1.23	-0.3%
PCB-155 22'44'66'-HxCB	26.73	2.16E+07	1.20 Y	1.09	1.10	0.4%
PCB-170 22'33'44'5-HpCB	39.40	9.52E+06	1.03 Y	0.99	0.99	0.1%
PCB-180/193 ...-HpCB	38.32	2.47E+07	1.04 Y	1.07	1.08	0.9%
PCB-188 22'34'566'-HpCB	31.53	1.99E+07	1.03 Y	0.98	1.00	1.9%
PCB-202 22'33'55'66'-OcCB	36.03	1.31E+07	0.89 Y	0.86	0.86	-0.7%
PCB-205 233'44'55'6-OcCB	44.18	1.06E+07	0.92 Y	1.13	1.15	1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.07E+07	0.78 Y	1.03	1.03	-0.7%
PCB-206 22'33'44'55'6-NoCB	45.65	8.01E+06	0.79 Y	0.97	0.96	-1.3%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.83	3.85E+07	3.11 Y	1.25	1.27	2.0%
PCB-2 3-MoCB	11.58	3.68E+07	3.11 Y	1.28	1.32	3.2%
PCB-3 4-MoCB	11.73	3.64E+07	3.11 Y	1.27	1.30	3.0%
PCB-4 22'-DiCB	11.95	1.97E+07	1.57 Y	0.90	0.90	0.4%
PCB-10 26-DiCB	12.10	3.09E+07	1.54 Y	1.38	1.41	2.4%
PCB-9 25-DiCB	13.66	3.19E+07	1.53 Y	0.99	1.02	2.7%
PCB-7 24-DiCB	13.81	3.59E+07	1.55 Y	1.10	1.14	3.5%
PCB-6 23'-DiCB	14.00	3.21E+07	1.55 Y	1.04	1.02	-1.7%
PCB-5 23-DiCB	14.27	3.23E+07	1.55 Y	1.02	1.03	0.2%
PCB-8 24'-DiCB	14.37	3.35E+07	1.53 Y	1.03	1.07	3.2%
PCB-14 35-DiCB	15.77	3.88E+07	1.57 Y	1.20	1.23	2.6%
PCB-11 33'-DiCB	16.48	3.28E+07	1.56 Y	1.03	1.04	1.5%
PCB-13/12 34'/34-DiCB	16.74	6.69E+07	1.55 Y	1.03	1.06	2.8%
PCB-15 44'-DiCB	17.00	3.50E+07	1.55 Y	1.10	1.11	1.5%
PCB-19 22'6-TrCB	14.62	1.51E+07	1.04 Y	0.95	0.98	4.0%
PCB-30/18 246/22'5-TrCB	16.22	4.13E+07	1.04 Y	1.23	1.35	9.5%
PCB-17 22'4-TrCB	16.58	1.77E+07	1.03 Y	1.05	1.15	9.3%
PCB-27 23'6-TrCB	16.76	2.40E+07	1.03 Y	1.46	1.57	7.0%
PCB-24 236-TrCB	16.87	2.29E+07	1.03 Y	1.32	1.49	13.0%
PCB-16 22'3-TrCB	16.96	1.39E+07	1.02 Y	0.81	0.91	12.3%
PCB-32 24'6-TrCB	17.40	2.50E+07	1.03 Y	1.48	1.63	10.6%
PCB-34 23'5'-TrCB	18.49	3.10E+07	1.06 Y	1.46	1.50	2.9%
PCB-23 235-TrCB	18.62	3.15E+07	1.05 Y	1.50	1.53	1.4%
PCB-26/29 23'5/245-TrCB	18.89	6.42E+07	1.06 Y	1.53	1.56	1.8%
PCB-25 23'4-TrCB	19.07	3.26E+07	1.06 Y	1.53	1.58	2.9%
PCB-31 24'5-TrCB	19.33	3.29E+07	1.05 Y	1.55	1.59	2.6%
PCB-28/20 244'/233'-TrCB	19.59	6.33E+07	1.06 Y	1.51	1.53	1.8%
PCB-21/33 234/23'4'-TrCB	19.75	6.46E+07	1.05 Y	1.55	1.56	1.2%
PCB-22 234'-TrCB	20.11	2.89E+07	1.06 Y	1.40	1.40	0.2%
PCB-36 33'5-TrCB	21.44	3.13E+07	1.06 Y	1.52	1.51	-0.2%
PCB-39 34'5-TrCB	21.74	3.28E+07	1.05 Y	1.58	1.59	0.3%
PCB-38 345-TrCB	22.23	2.92E+07	1.06 Y	1.47	1.41	-3.8%
PCB-35 33'4-TrCB	22.61	2.80E+07	1.05 Y	1.33	1.36	1.6%
PCB-37 344'-TrCB	22.95	2.90E+07	1.06 Y	1.39	1.40	1.2%
PCB-54 22'66'-TeCB	17.25	2.45E+07	0.79 Y	1.05	1.08	2.5%
PCB-50/53 22'46/22'56'-TeCB	19.11	3.29E+07	0.78 Y	0.88	0.90	3.0%
PCB-45 22'36-TeCB	19.65	1.42E+07	0.77 Y	0.73	0.78	6.2%
PCB-51 22'46'-TeCB	19.72	1.67E+07	0.77 Y	0.94	0.92	-2.0%
PCB-46 22'36'-TeCB	19.91	1.34E+07	0.78 Y	0.72	0.73	2.3%
PCB-52 22'55'-TeCB	21.13	1.57E+07	0.77 Y	0.82	0.86	4.8%
PCB-73 23'5'6-TeCB	21.25	2.04E+07	0.76 Y	1.10	1.12	1.8%
PCB-43 22'35-TeCB	21.33	1.35E+07	0.78 Y	0.70	0.74	5.1%
PCB-69/49 23'46/22'45'-TeCB	21.52	3.76E+07	0.77 Y	1.01	1.03	2.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.78	1.56E+07	0.78 Y	0.84	0.86	1.7%
PCB-44/47/65 ...-TeCB	21.99	4.96E+07	0.77 Y	0.90	0.91	0.8%
PCB-59/62/75 ...-TeCB	22.25	6.33E+07	0.77 Y	1.15	1.16	0.3%
PCB-42 22'34'-TeCB	22.41	1.42E+07	0.77 Y	0.76	0.78	1.8%
PCB-41 22'34-TeCB	22.72	1.29E+07	0.76 Y	0.64	0.71	10.4%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	3.10E+07	0.77 Y	0.83	0.85	2.3%
PCB-64 234'6-TeCB	23.01	2.19E+07	0.77 Y	1.17	1.20	2.4%
PCB-72 23'55'-TeCB	23.73	2.59E+07	0.77 Y	1.37	1.42	4.0%
PCB-68 23'45'-TeCB	23.97	2.75E+07	0.78 Y	1.52	1.51	-0.2%
PCB-57 233'5-TeCB	24.32	2.48E+07	0.77 Y	1.32	1.36	2.8%
PCB-58 233'5'-TeCB	24.52	2.47E+07	0.76 Y	1.34	1.36	1.4%
PCB-67 23'45-TeCB	24.67	2.67E+07	0.75 Y	1.41	1.47	3.9%
PCB-63 234'5-TeCB	24.89	2.76E+07	0.77 Y	1.46	1.51	3.9%
PCB-61/70/74/76 ...-TeCB	25.16	1.02E+08	0.77 Y	1.37	1.40	2.5%
PCB-66 23'44'-TeCB	25.44	2.33E+07	0.77 Y	1.24	1.28	3.0%
PCB-55 233'4-TeCB	25.57	2.43E+07	0.77 Y	1.28	1.33	4.3%
PCB-56 233'4'-TeCB	25.99	2.31E+07	0.78 Y	1.23	1.27	3.4%
PCB-60 2344'-TeCB	26.17	2.41E+07	0.76 Y	1.30	1.32	1.8%
PCB-80 33'55'-TeCB	26.54	2.74E+07	0.77 Y	1.44	1.50	4.7%
PCB-79 33'45'-TeCB	27.81	2.76E+07	0.78 Y	1.48	1.52	2.8%
PCB-78 33'45-TeCB	28.27	2.24E+07	0.79 Y	1.21	1.23	1.9%
PCB-104 22'466'-PeCB	21.93	2.29E+07	0.62 Y	1.12	1.12	0.0%
PCB-96 22'366'-PeCB	22.22	1.94E+07	0.63 Y	0.96	0.95	-1.3%
PCB-103 22'45'6-PeCB	23.88	1.31E+07	0.62 Y	0.93	0.94	1.1%
PCB-94 22'356'-PeCB	24.06	1.15E+07	0.62 Y	0.81	0.83	2.3%
PCB-95 22'35'6-PeCB	24.42	1.20E+07	0.63 Y	0.85	0.87	2.2%
PCB-100/93 22'44'6/22'356-PeCB	24.62	2.39E+07	0.62 Y	0.88	0.86	-2.7%
PCB-102 22'456'-PeCB	24.74	1.40E+07	0.62 Y	0.93	1.01	8.3%
PCB-98 22'34'6'-PeCB	24.80	1.08E+07	0.64 Y	0.84	0.77	-7.6%
PCB-88 22'346-PeCB	25.08	1.07E+07	0.61 Y	0.77	0.77	-0.6%
PCB-91 22'34'6-PeCB	25.15	1.32E+07	0.63 Y	0.96	0.95	-0.9%
PCB-84 22'33'6-PeCB	25.33	1.02E+07	0.63 Y	0.72	0.74	2.2%
PCB-89 22'346'-PeCB	25.73	1.08E+07	0.63 Y	0.77	0.78	0.6%
PCB-121 23'45'6-PeCB	26.11	1.60E+07	0.63 Y	1.15	1.15	0.7%
PCB-92 22'355'-PeCB	26.42	1.12E+07	0.62 Y	0.79	0.81	2.1%
PCB-113/90/101 ...-PeCB	26.88	4.00E+07	0.63 Y	0.95	0.96	0.5%
PCB-83 22'33'5-PeCB	27.30	9.44E+06	0.62 Y	0.72	0.68	-5.6%
PCB-99 22'44'5-PeCB	27.40	1.32E+07	0.64 Y	0.90	0.95	6.0%
PCB-112 233'56-PeCB	27.49	1.47E+07	0.63 Y	1.09	1.06	-3.1%
PCB-109/119/86/97/125...-PeCB	27.83	7.92E+07	0.62 Y	0.95	0.95	0.3%
PCB-117 234'56-PeCB	28.34	1.43E+07	0.62 Y	0.99	1.03	4.2%
PCB-116/85 23456/22'344'-PeCB	28.42	2.62E+07	0.63 Y	0.96	0.95	-1.5%
PCB-110 233'4'6-PeCB	28.55	1.47E+07	0.62 Y	1.01	1.06	5.2%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.51E+07	0.62 Y	1.15	1.09	-5.3%
PCB-82 22'33'4-PeCB	28.81	9.47E+06	0.62 Y	0.70	0.68	-2.4%
PCB-111 233'55'-PeCB	29.17	1.57E+07	0.63 Y	1.16	1.13	-3.1%
PCB-120 23'455'-PeCB	29.56	1.60E+07	0.62 Y	1.14	1.15	1.2%
PCB-108/124 ...-PeCB	30.49	2.84E+07	0.63 Y	1.02	1.02	0.4%
PCB-107 233'4'5-PeCB	30.69	1.56E+07	0.63 Y	1.13	1.12	-1.0%
PCB-106 233'45-PeCB	30.90	1.42E+07	0.64 Y	1.01	1.02	1.2%
PCB-122 233'4'5'-PeCB	31.35	1.35E+07	0.63 Y	0.91	0.95	4.8%
PCB-127 33'455'-PeCB	33.30	1.41E+07	0.62 Y	1.06	1.03	-2.0%
PCB-155 22'44'66'-HxCB	26.73	2.16E+07	1.20 Y	1.09	1.10	0.4%
PCB-152 22'3566'-HxCB	26.87	2.04E+07	1.24 Y	1.04	1.03	-0.8%
PCB-150 22'34'66'-HxCB	27.02	2.04E+07	1.25 Y	1.03	1.03	0.7%
PCB-136 22'33'66'-HxCB	27.30	1.87E+07	1.25 Y	0.97	0.94	-3.1%
PCB-145 22'3466'-HxCB	27.57	1.90E+07	1.24 Y	0.96	0.96	-0.1%
PCB-148 22'34'56'-HxCB	28.85	1.44E+07	1.23 Y	1.03	1.04	0.3%
PCB-151/135 ...-HxCB	29.35	2.79E+07	1.26 Y	0.99	1.00	0.9%
PCB-154 22'44'56'-HxCB	29.57	1.59E+07	1.22 Y	1.17	1.14	-2.7%
PCB-144 22'345'6-HxCB	29.81	1.44E+07	1.23 Y	1.03	1.03	0.5%
PCB-147/149 ...-HxCB	30.11	2.83E+07	1.25 Y	1.02	1.02	-0.1%
PCB-134 22'33'56-HxCB	30.27	1.17E+07	1.25 Y	0.80	0.84	4.5%
PCB-143 22'3456'-HxCB	30.35	1.33E+07	1.24 Y	0.95	0.96	0.7%
PCB-139/140 ...-HxCB	30.62	2.89E+07	1.24 Y	1.05	1.04	-1.3%
PCB-131 22'33'46-HxCB	30.77	1.25E+07	1.25 Y	0.90	0.90	0.4%
PCB-142 22'3456-HxCB	30.90	1.28E+07	1.23 Y	0.93	0.92	-0.9%
PCB-132 22'33'46'-HxCB	31.15	1.27E+07	1.25 Y	0.93	0.91	-2.2%
PCB-133 22'33'55'-HxCB	31.60	1.35E+07	1.25 Y	0.97	0.97	-0.2%
PCB-165 233'55'6-HxCB	31.93	1.64E+07	1.24 Y	1.16	1.18	1.2%
PCB-146 22'34'55'-HxCB	32.14	1.38E+07	1.24 Y	1.01	0.99	-2.2%
PCB-161 233'45'6-HxCB	32.25	1.83E+07	1.25 Y	1.29	1.31	1.3%
PCB-153/168 ...-HxCB	32.68	3.44E+07	1.25 Y	1.24	1.23	-0.3%
PCB-141 22'3455'-HxCB	32.81	1.30E+07	1.24 Y	0.95	0.93	-1.3%
PCB-130 22'33'45'-HxCB	33.15	1.17E+07	1.24 Y	0.82	0.84	2.0%
PCB-137 22'344'5-HxCB	33.34	1.34E+07	1.21 Y	0.97	0.96	-0.8%
PCB-164 233'4'5'6-HxCB	33.43	1.80E+07	1.23 Y	1.25	1.29	3.5%
PCB-163/138/129 ...-HxCB	33.70	4.21E+07	1.24 Y	1.04	1.01	-3.4%
PCB-160 233'456-HxCB	33.83	1.69E+07	1.27 Y	1.19	1.22	2.1%
PCB-158 233'44'6-HxCB	34.02	1.88E+07	1.26 Y	1.34	1.35	0.6%
PCB-128/166 ...-HxCB	34.73	2.36E+07	1.27 Y	0.96	0.97	0.6%
PCB-159 233'455'-HxCB	35.58	1.39E+07	1.25 Y	1.12	1.14	1.4%
PCB-162 233'4'55'-HxCB	35.82	1.40E+07	1.25 Y	1.13	1.15	2.0%
PCB-188 22'34'566'-HpCB	31.53	1.99E+07	1.03 Y	0.98	1.00	1.9%
PCB-179 22'33'566'-HpCB	31.79	1.79E+07	1.04 Y	0.90	0.90	0.6%
PCB-184 22'344'66'-HpCB	32.25	1.72E+07	1.05 Y	0.86	0.87	0.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA

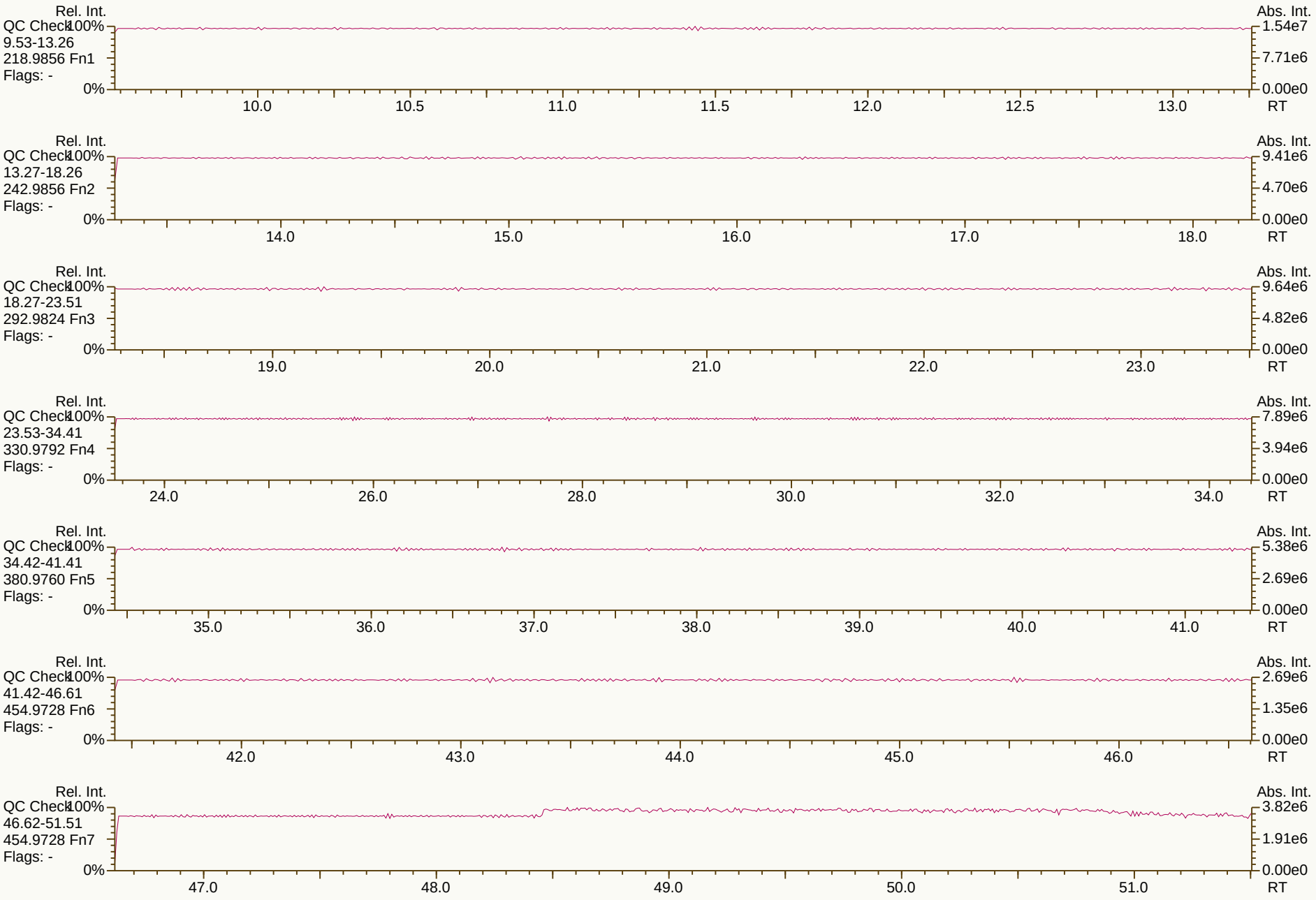
ICAL: MM6_PCB_07132012_14DEC12

Acquired: 14-DEC-2012 05:09

Datafile: 121214V05

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.53	1.96E+07	1.02 Y	0.97	0.99	1.7%
PCB-186 22'34566'-HpCB	32.91	1.84E+07	1.03 Y	0.93	0.93	0.3%
PCB-178 22'33'55'6-HpCB	34.08	1.32E+07	1.05 Y	0.66	0.67	0.9%
PCB-175 22'33'45'6-HpCB	34.61	1.14E+07	1.04 Y	1.02	1.00	-2.5%
PCB-187 22'34'55'6-HpCB	34.84	1.20E+07	1.05 Y	1.03	1.05	2.6%
PCB-182 22'344'56'-HpCB	35.02	1.23E+07	1.05 Y	1.10	1.07	-1.9%
PCB-183 22'344'5'6-HpCB	35.35	1.19E+07	1.03 Y	1.12	1.04	-7.5%
PCB-185 22'3455'6-HpCB	35.42	1.18E+07	1.03 Y	0.97	1.03	6.3%
PCB-174 22'33'456'-HpCB	35.54	1.06E+07	1.04 Y	0.90	0.93	3.8%
PCB-177 22'33'45'6'-HpCB	35.91	9.97E+06	1.04 Y	0.87	0.87	0.0%
PCB-181 22'344'56-HpCB	36.25	1.16E+07	1.05 Y	1.03	1.01	-1.9%
PCB-171/173 ...-HpCB	36.42	1.98E+07	1.04 Y	0.89	0.87	-2.2%
PCB-172 22'33'455'-HpCB	37.81	9.92E+06	1.04 Y	0.87	0.87	-0.5%
PCB-192 233'455'6-HpCB	38.04	1.29E+07	1.06 Y	1.16	1.13	-2.9%
PCB-180/193 ...-HpCB	38.32	2.47E+07	1.04 Y	1.07	1.08	0.9%
PCB-191 233'44'5'6-HpCB	38.65	1.35E+07	1.03 Y	1.18	1.18	-0.5%
PCB-170 22'33'44'5-HpCB	39.40	9.52E+06	1.03 Y	0.99	0.99	0.1%
PCB-190 233'44'56-HpCB	39.84	1.31E+07	1.04 Y	1.36	1.37	1.1%
PCB-202 22'33'55'66'-OcCB	36.03	1.31E+07	0.89 Y	0.86	0.86	-0.7%
PCB-201 22'33'45'66'-OcCB	36.80	1.44E+07	0.89 Y	0.95	0.95	-0.4%
PCB-204 22'344'566'-OcCB	37.37	1.38E+07	0.88 Y	0.90	0.91	0.2%
PCB-197 22'33'44'66'-OcCB	37.56	1.51E+07	0.86 Y	0.96	0.99	3.2%
PCB-200 22'33'4566'-OcCB	37.64	1.30E+07	0.87 Y	0.88	0.86	-2.8%
PCB-198/199 ...-OcCB	39.98	1.90E+07	0.89 Y	0.63	0.63	-0.6%
PCB-196 22'33'44'56'-OcCB	40.55	1.02E+07	0.87 Y	0.66	0.67	1.3%
PCB-203 22'344'55'6-OcCB	40.72	1.05E+07	0.91 Y	0.69	0.69	-0.7%
PCB-195 22'33'44'56-OcCB	41.82	7.59E+06	0.90 Y	0.82	0.82	-0.1%
PCB-194 22'33'44'55'-OcCB	43.79	8.37E+06	0.92 Y	0.90	0.91	0.9%
PCB-205 233'44'55'6-OcCB	44.18	1.06E+07	0.92 Y	1.13	1.15	1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.07E+07	0.78 Y	1.03	1.03	-0.7%
PCB-207 22'33'44'566'-NoCB	42.41	1.09E+07	0.77 Y	1.07	1.04	-2.5%
PCB-206 22'33'44'55'6-NoCB	45.65	8.01E+06	0.79 Y	0.97	0.96	-1.3%

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



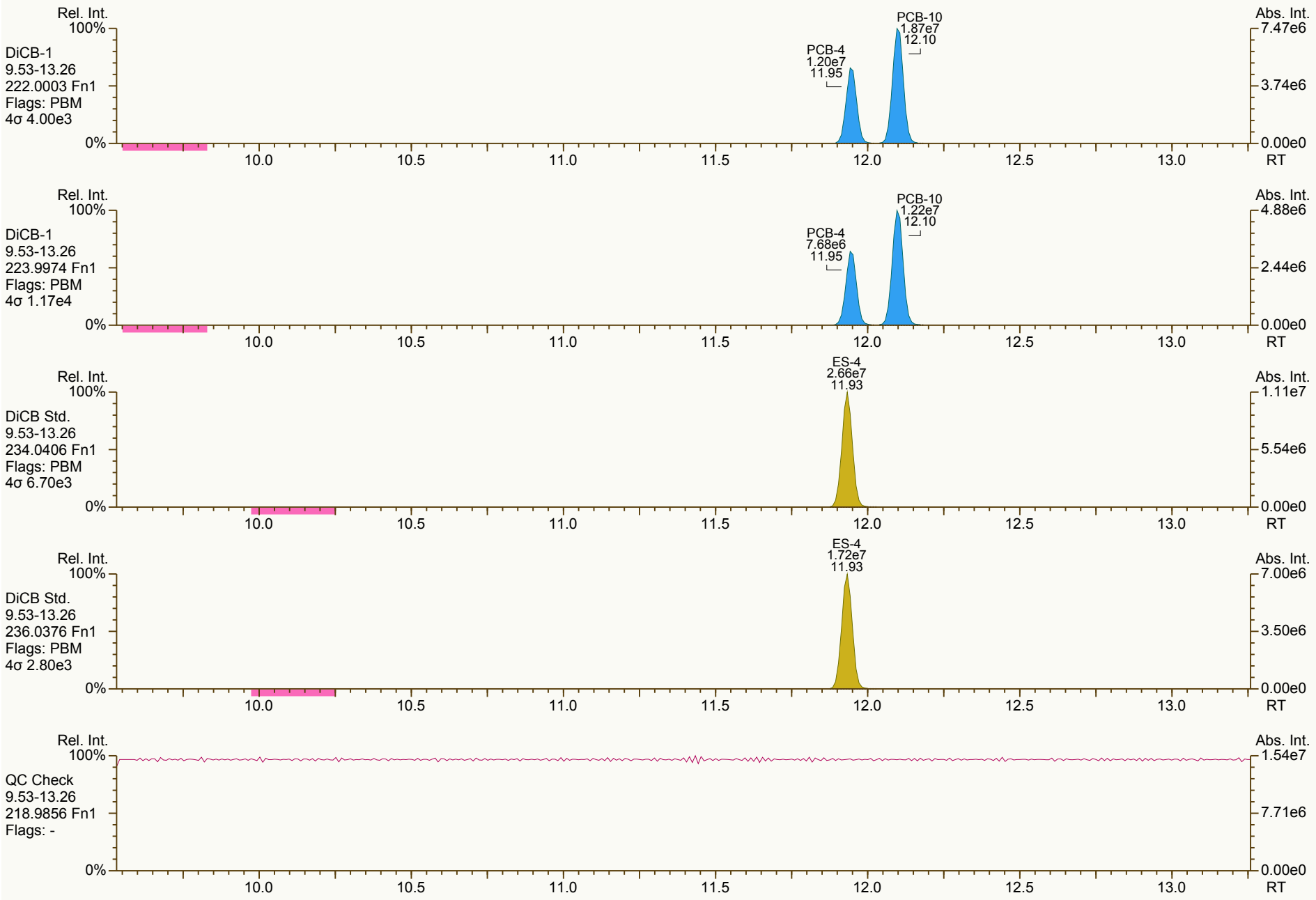
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



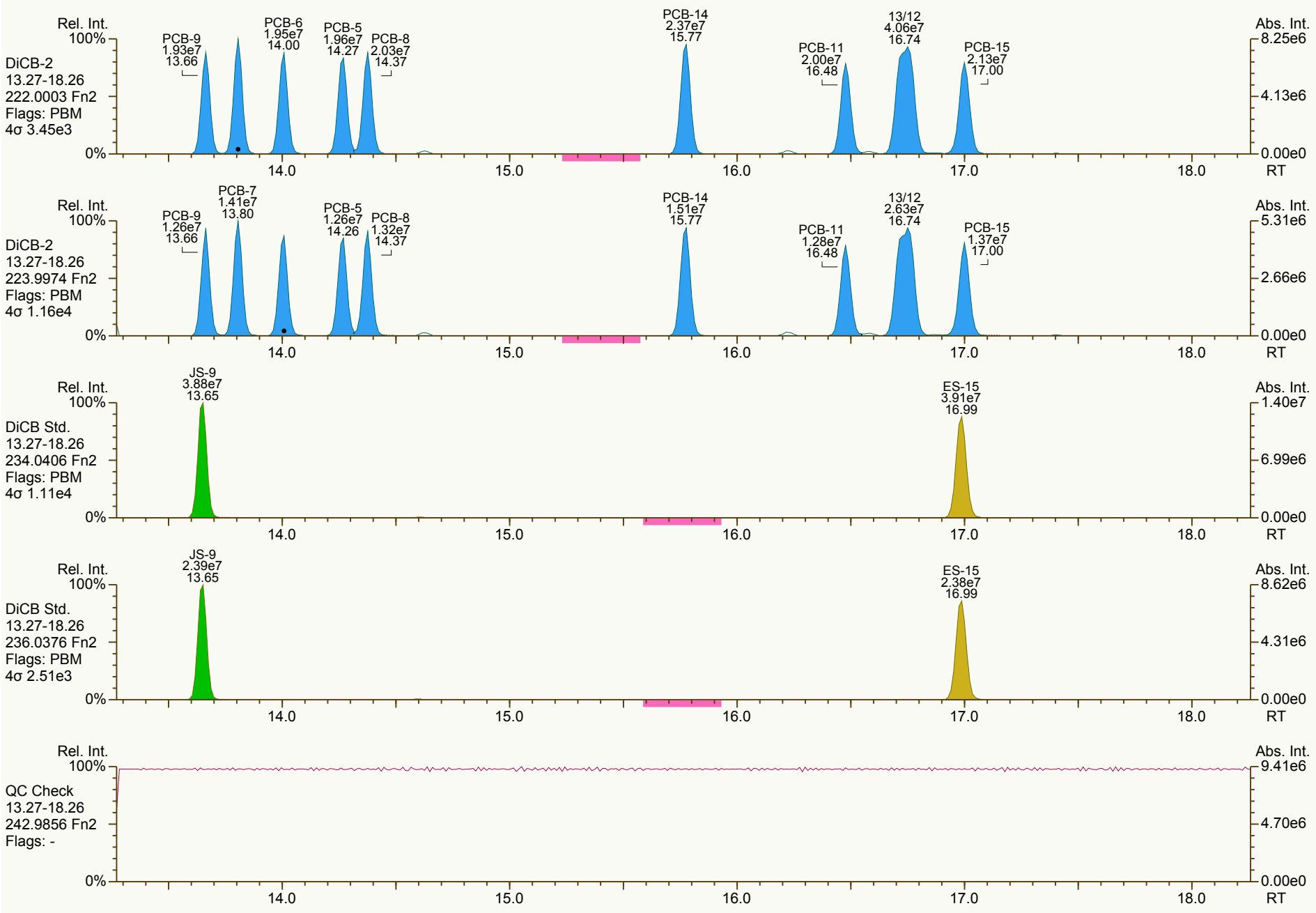
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
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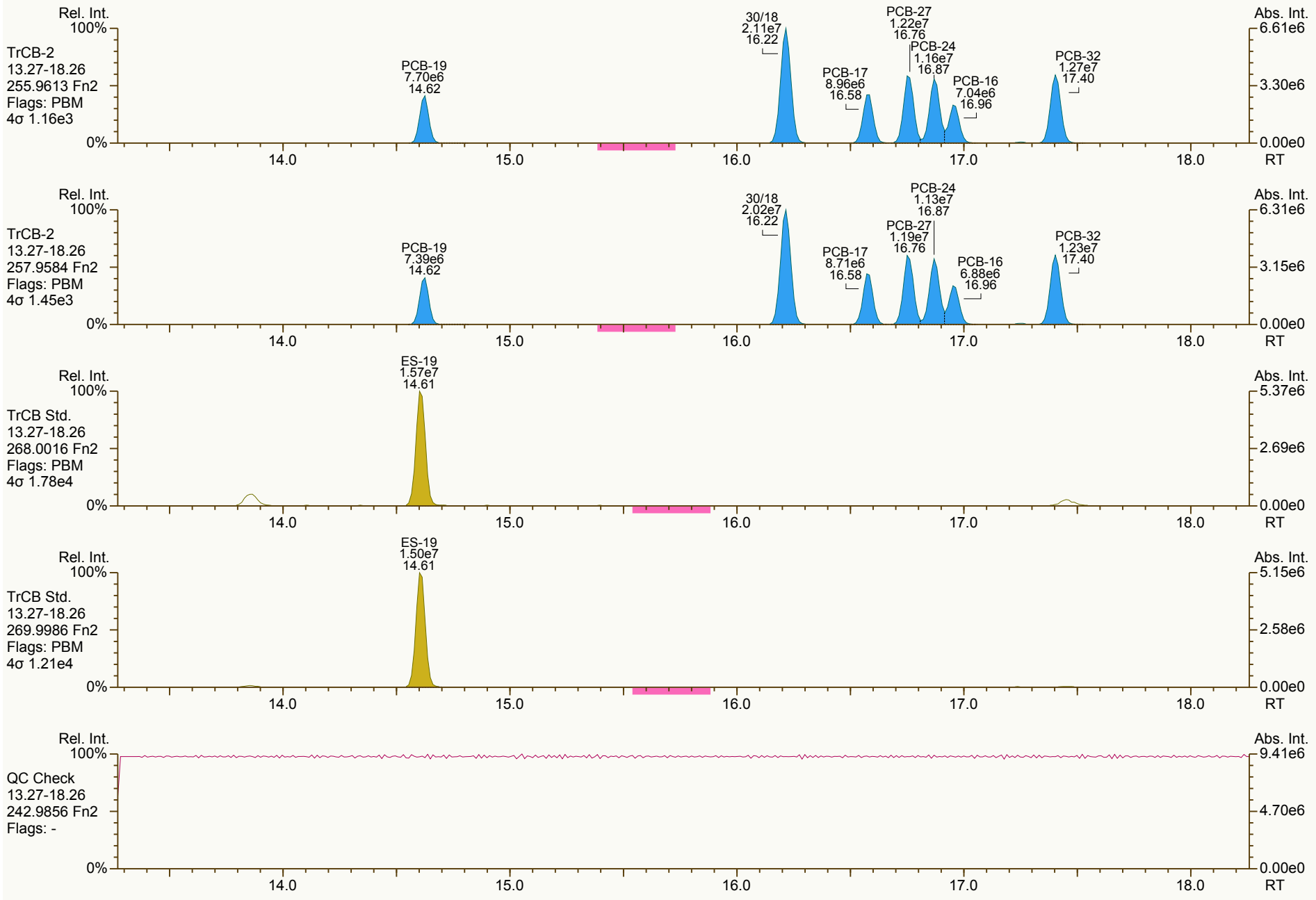
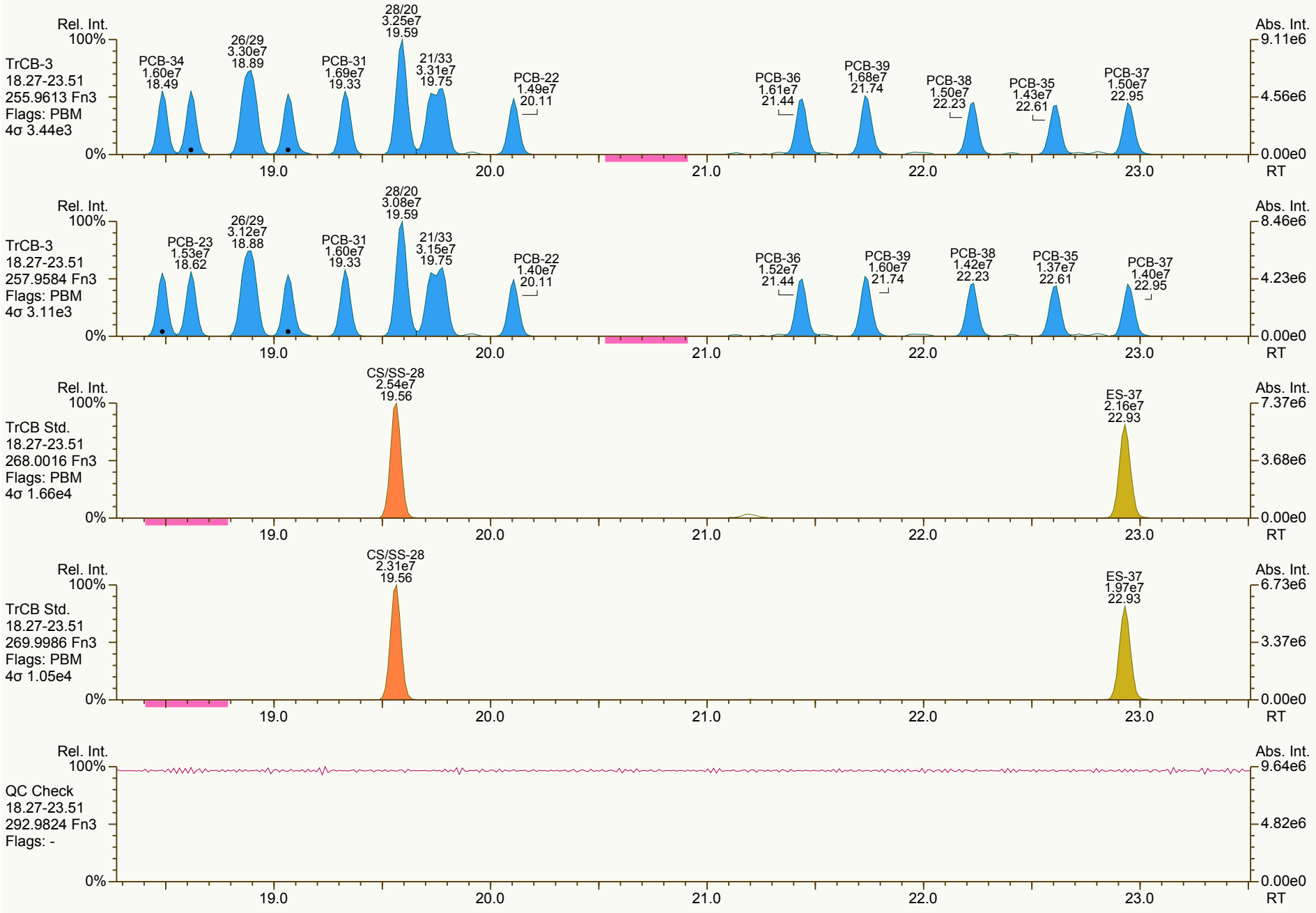


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



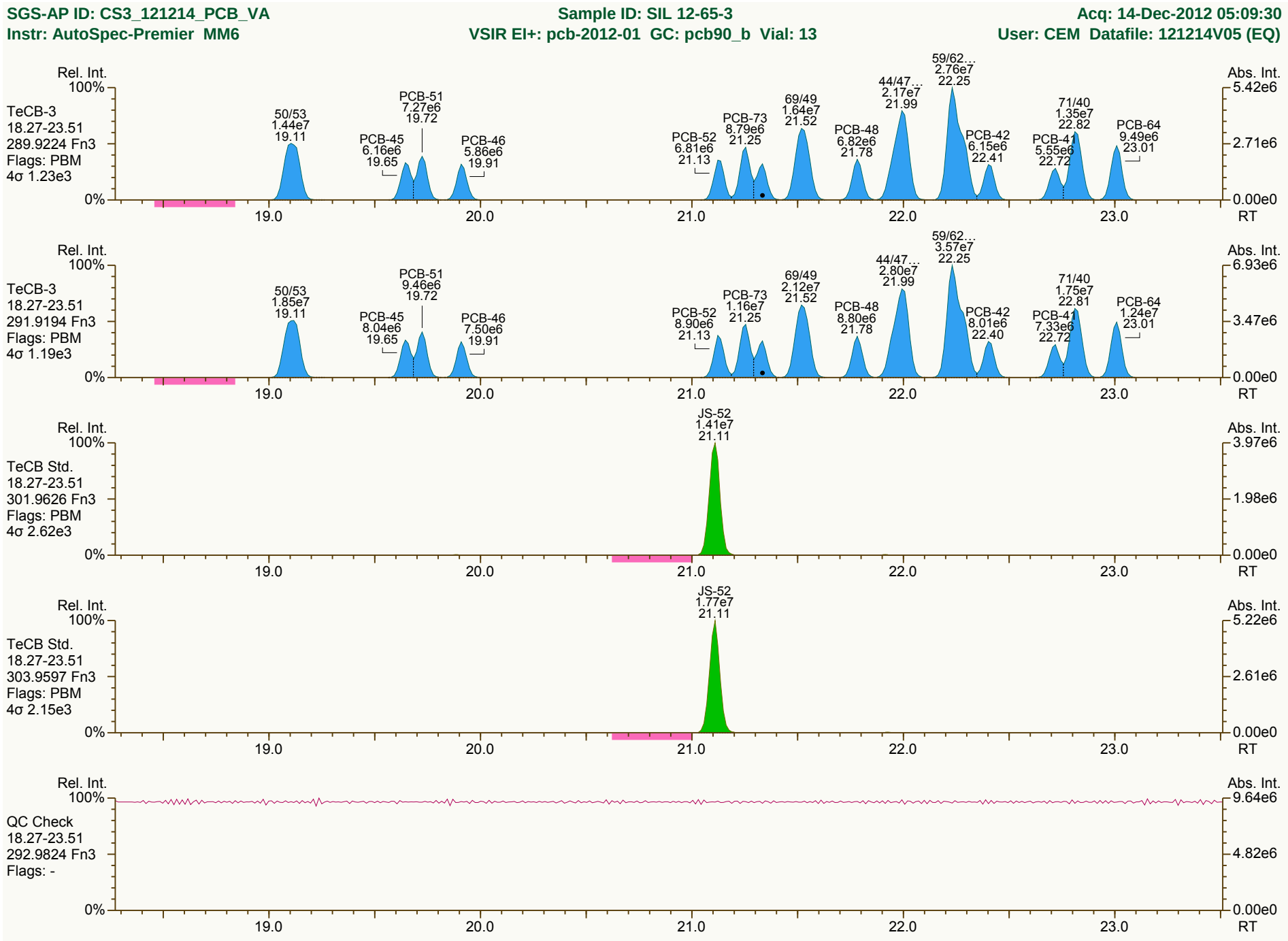
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 2731, 1379 scc: 858-276 *Revised: 14-Dec-2012 09:59 (CEM) Printed: 14-Dec-2012 11:21 Page 6 of 22*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**

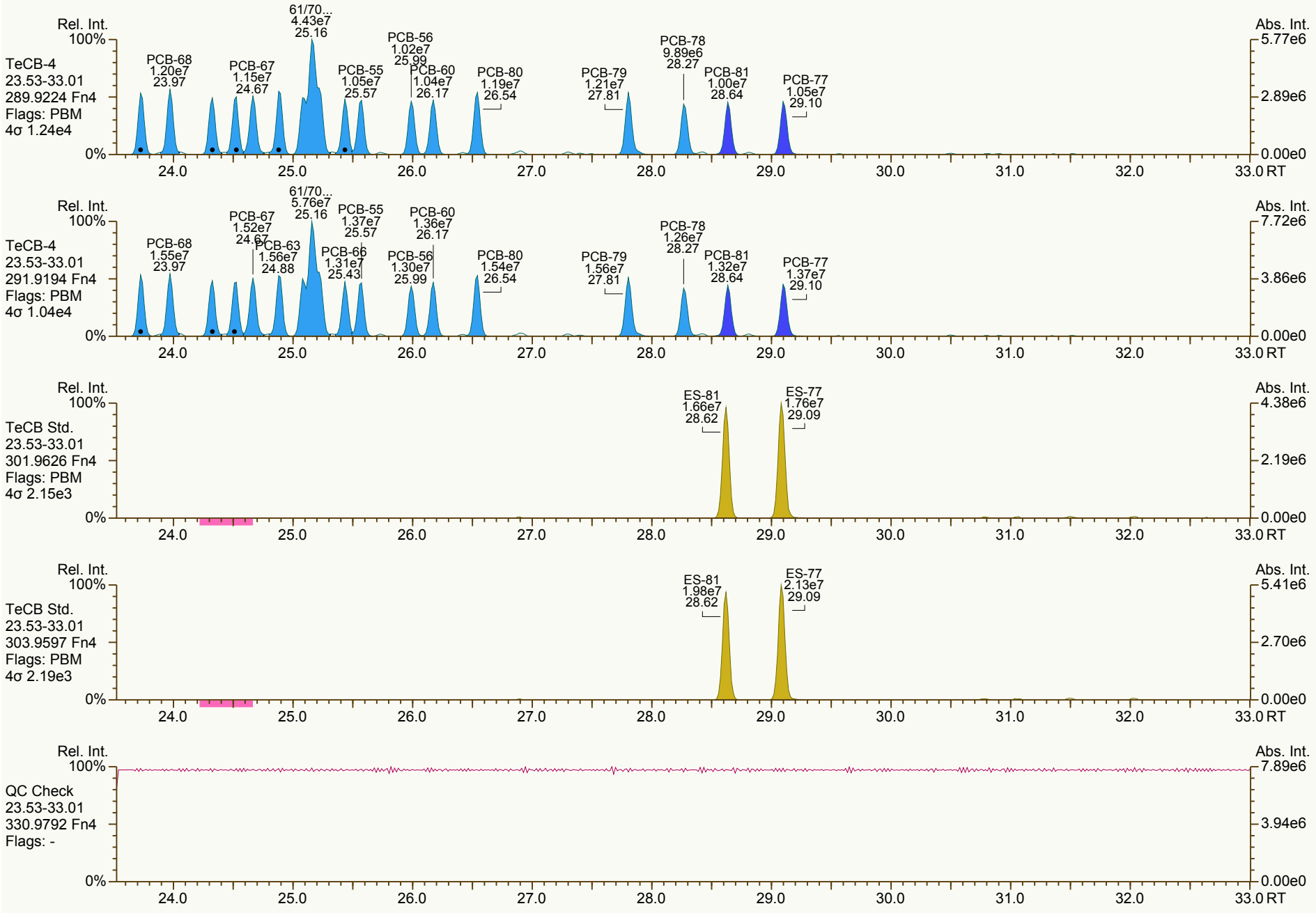


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 4712, 7465 scc: 858-276
PKD: 14-Dec-2012 09:59 Printed: 14-Dec-2012 11:21 Page 8 of 22

SGS-AP ID: CS3_121214_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 05:09:30
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13 | User: CEM Datafile: 121214V05 (EQ)

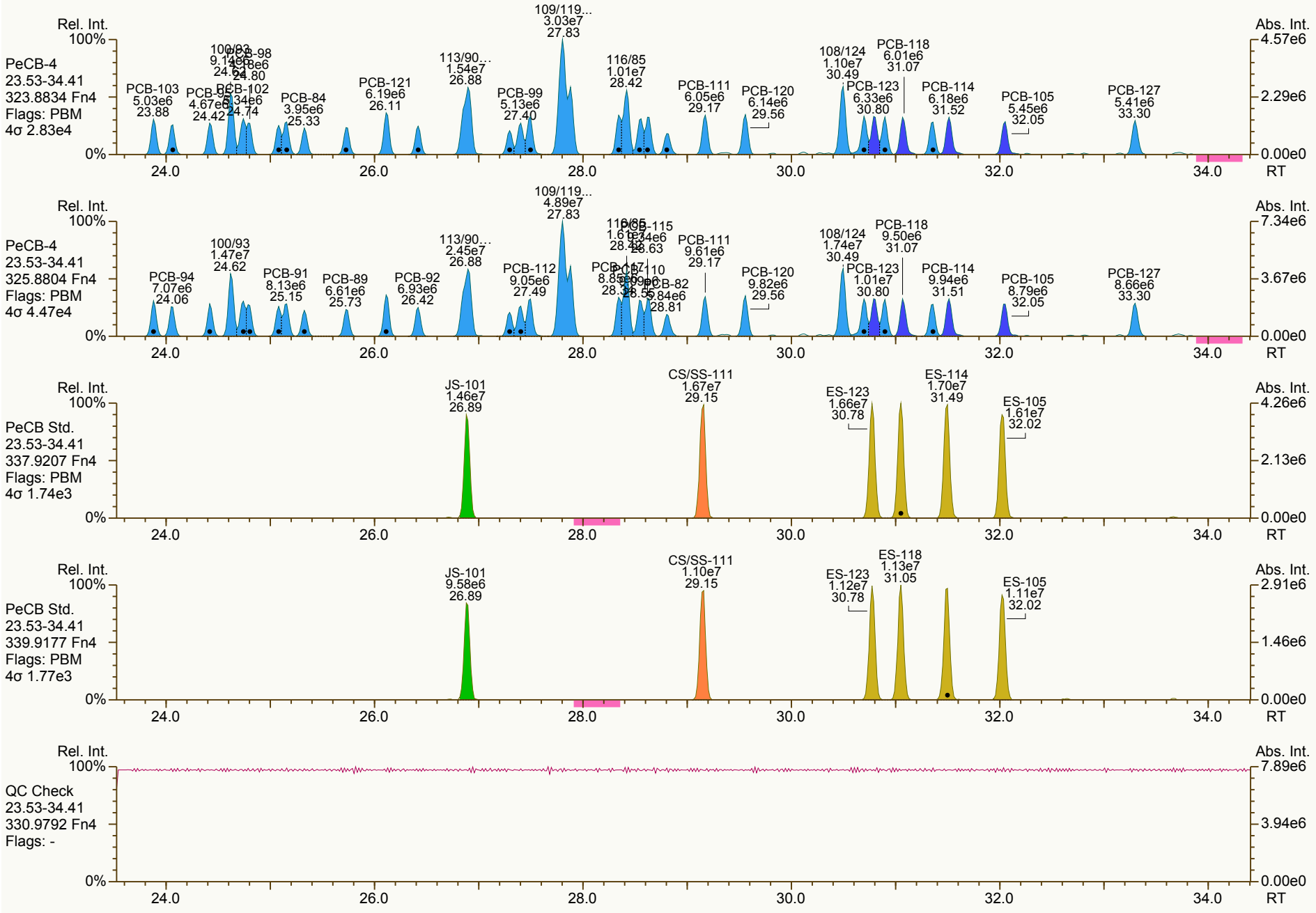


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



SGS-AP ID: CS3_121214_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 05:09:30
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13 | User: CEM Datafile: 121214V05 (EQ)



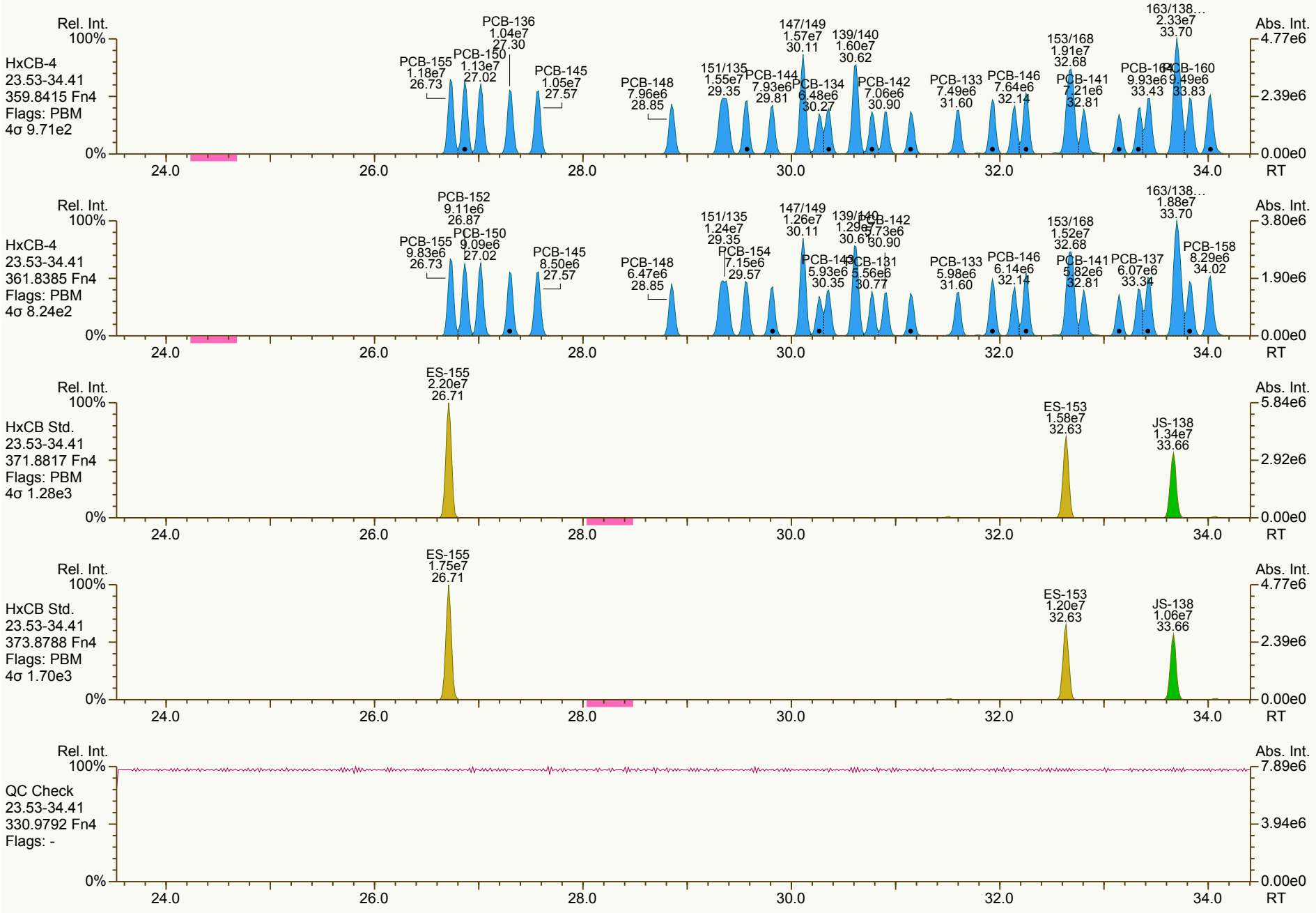
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9084, 6902 scc: 858-276
Revised: 14-Dec-2012 10:00 (CEM) Printed: 14-Dec-2012 11:21 Page 11 of 22

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 05:09:30
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13 | User: CEM Datafile: 121214V05 (EQ)



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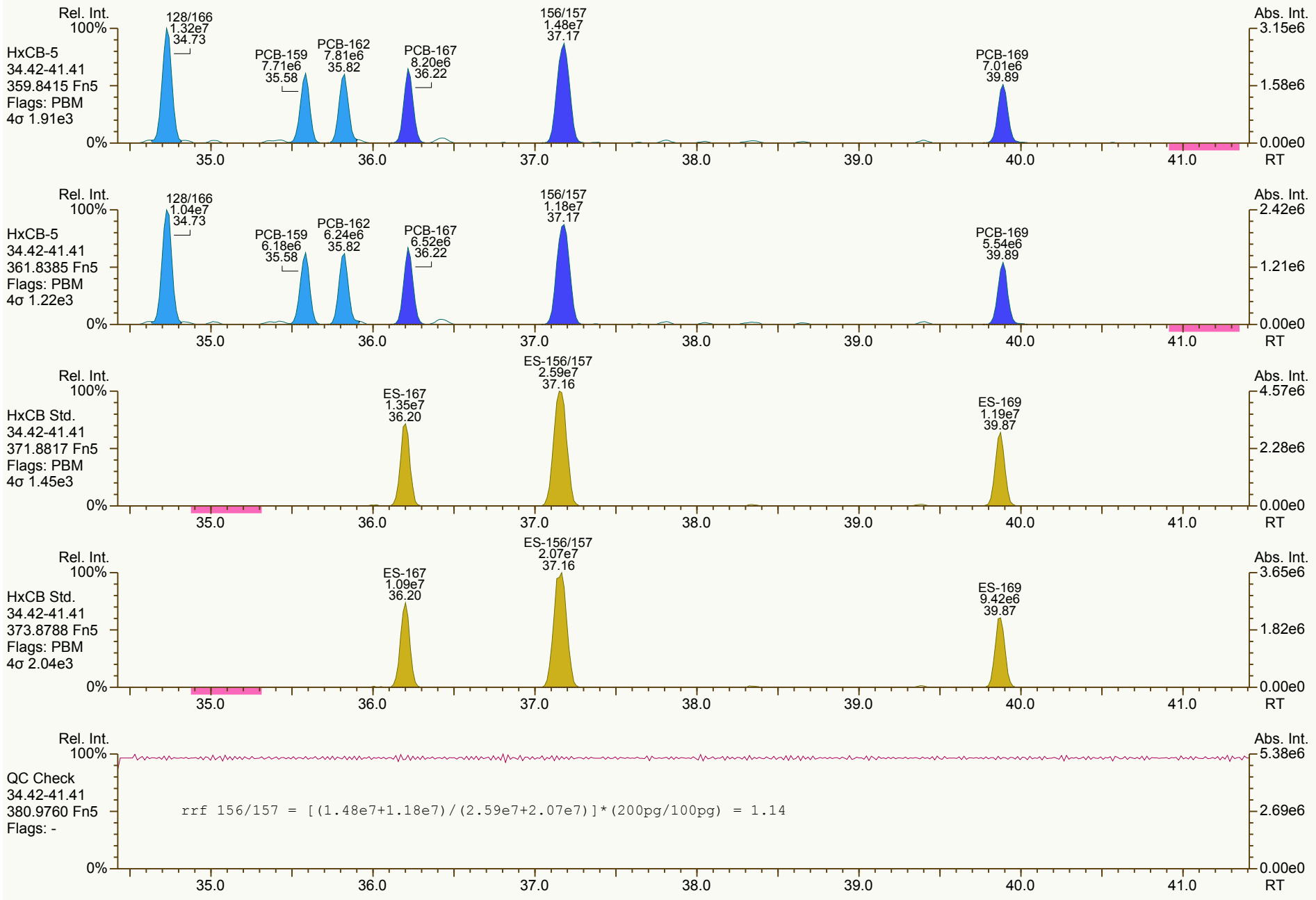
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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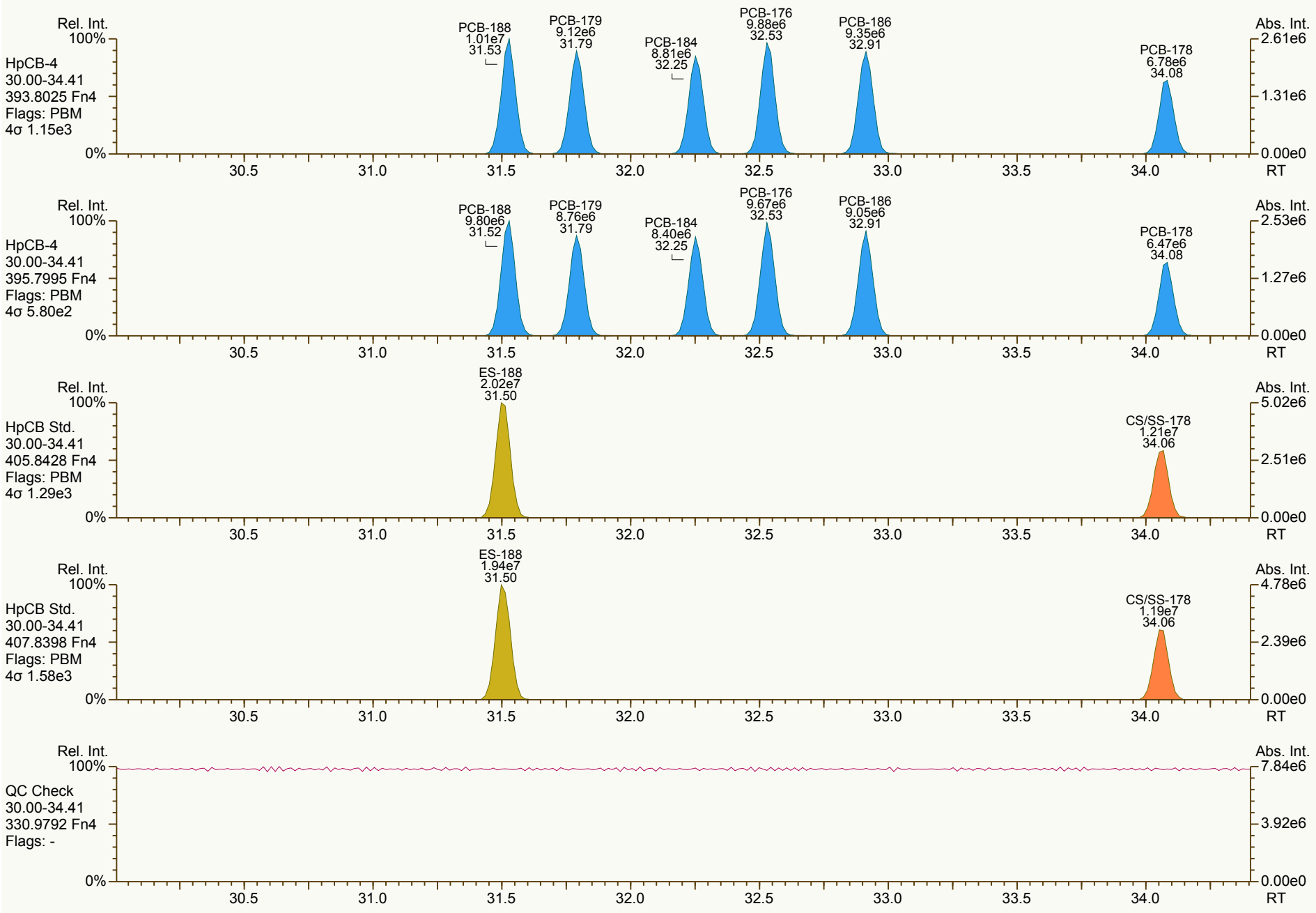
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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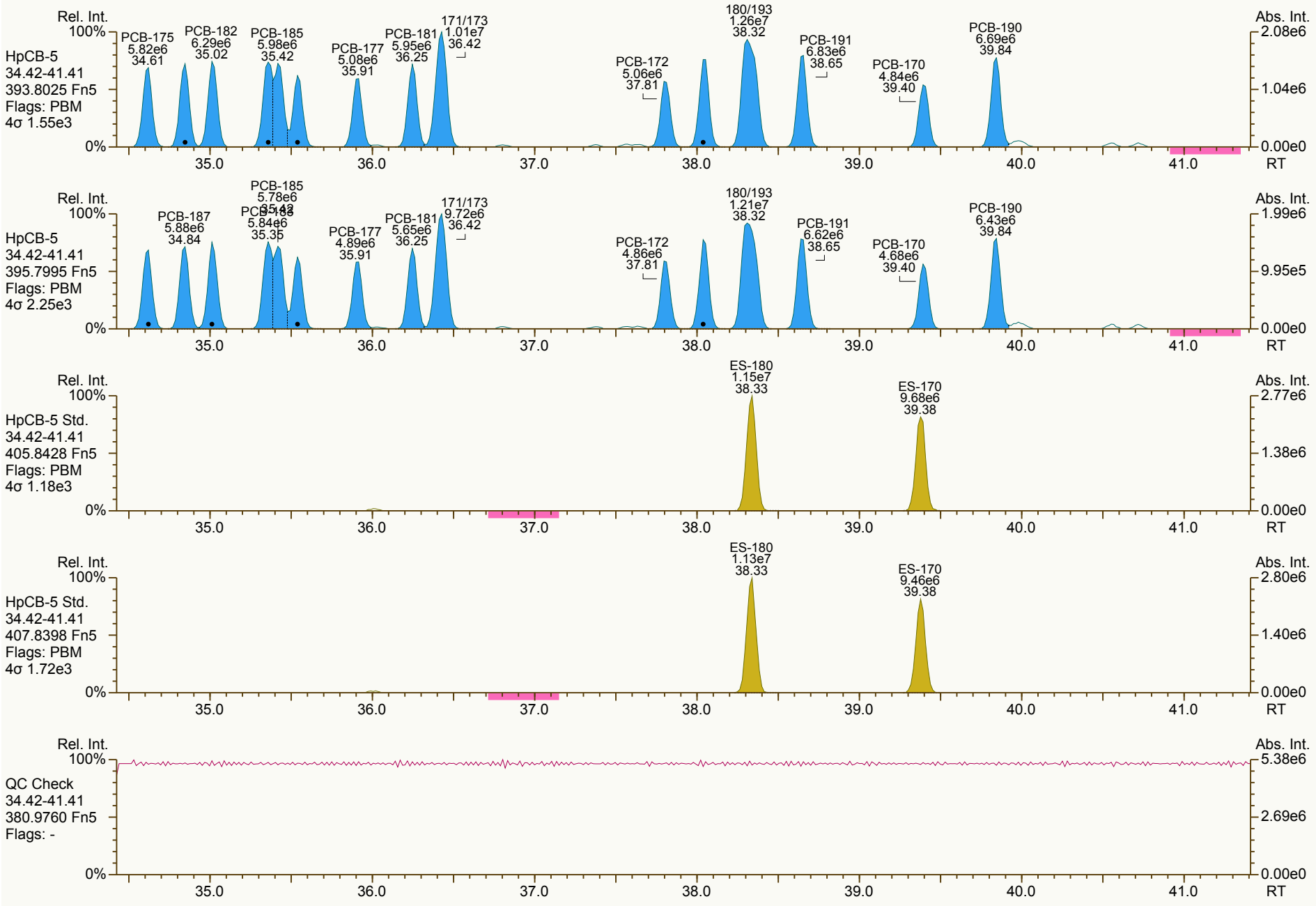
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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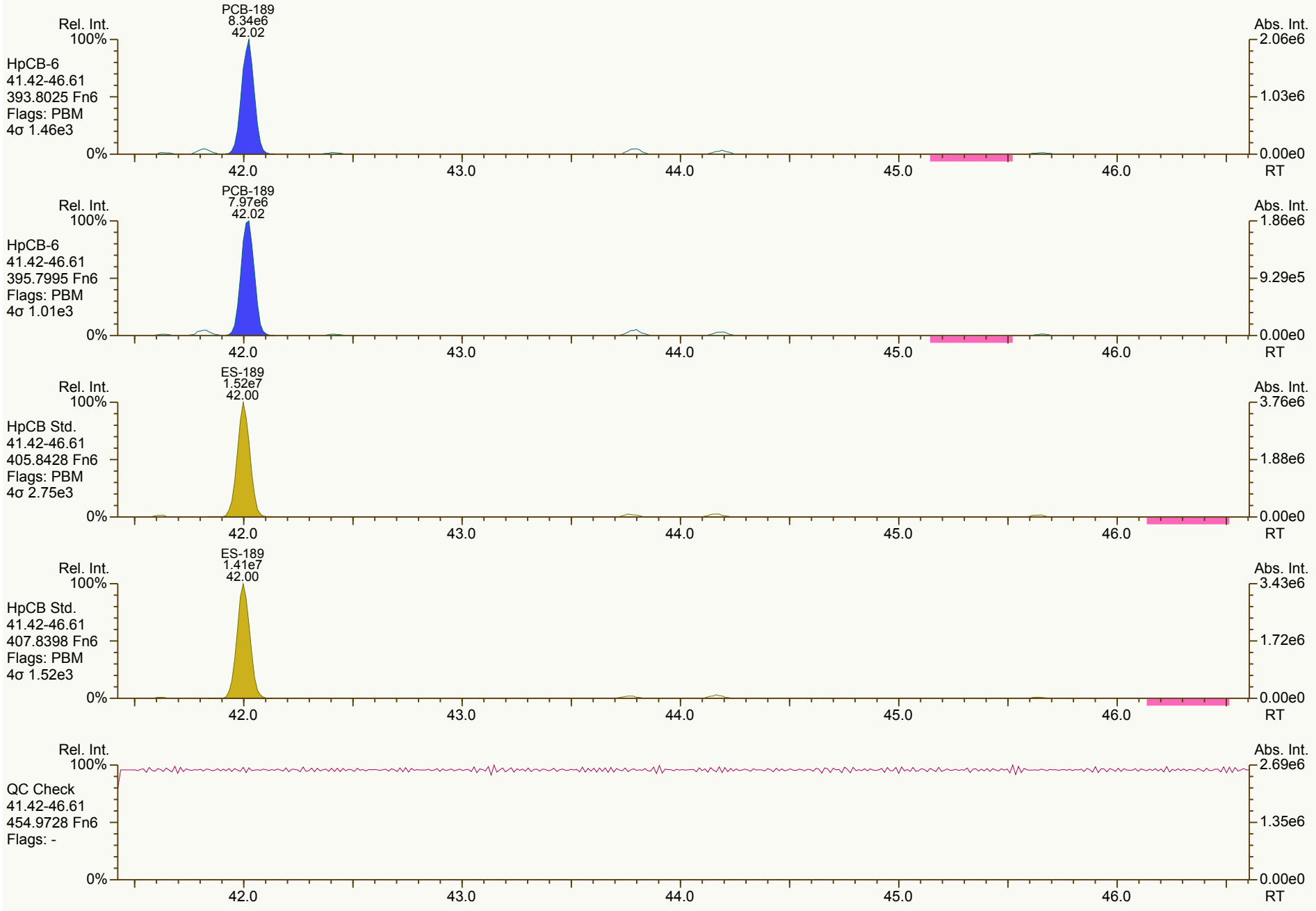
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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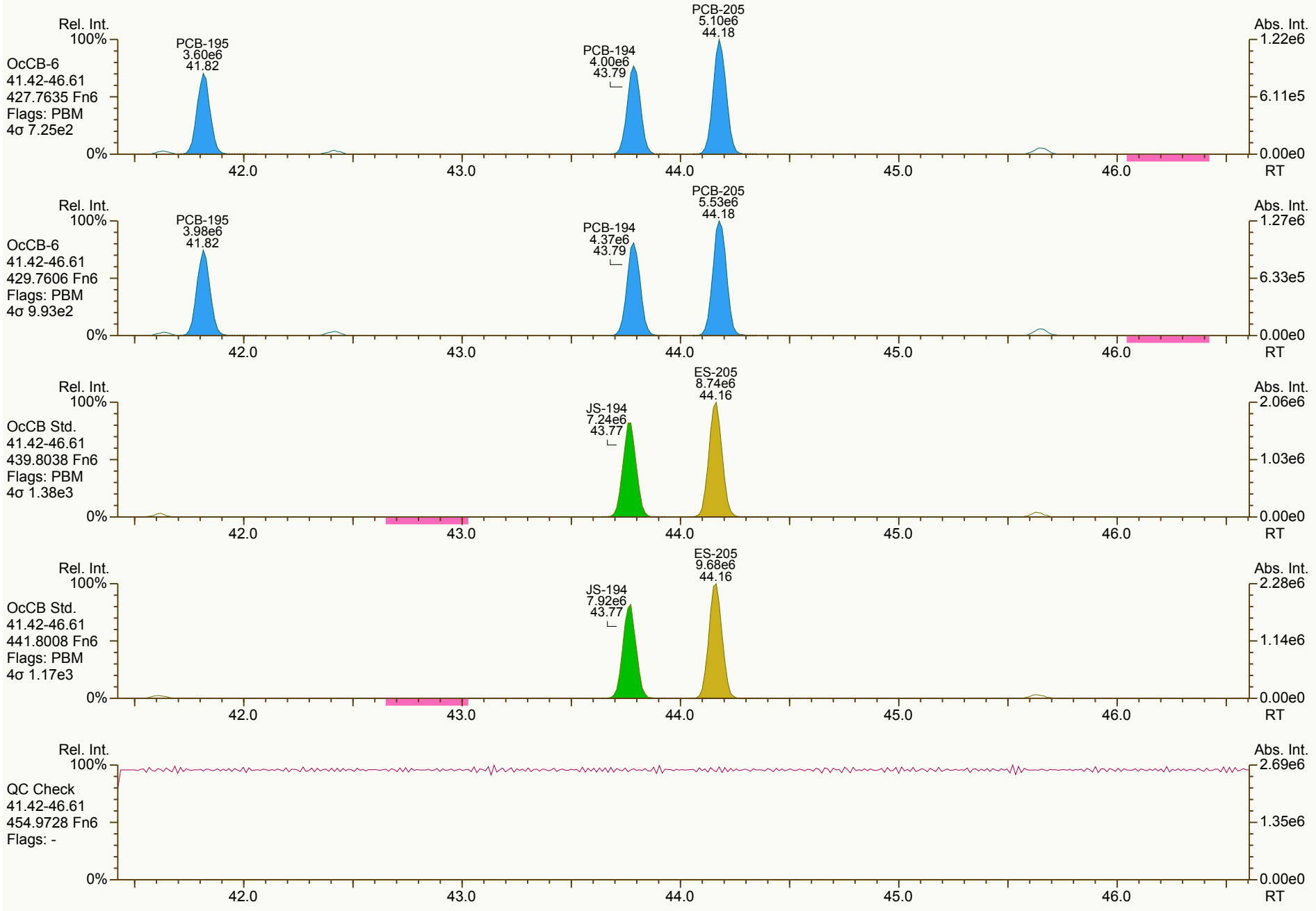
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



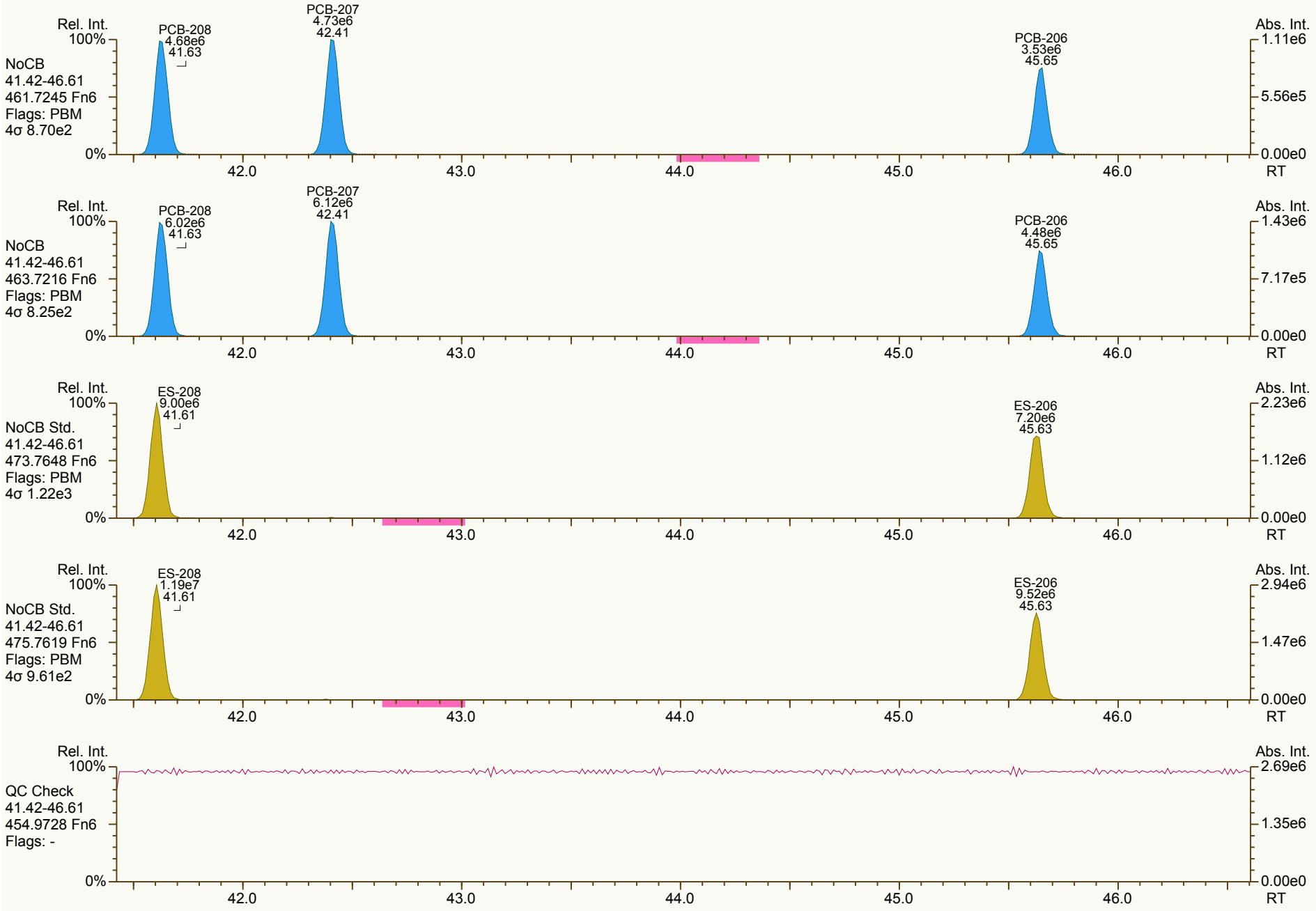
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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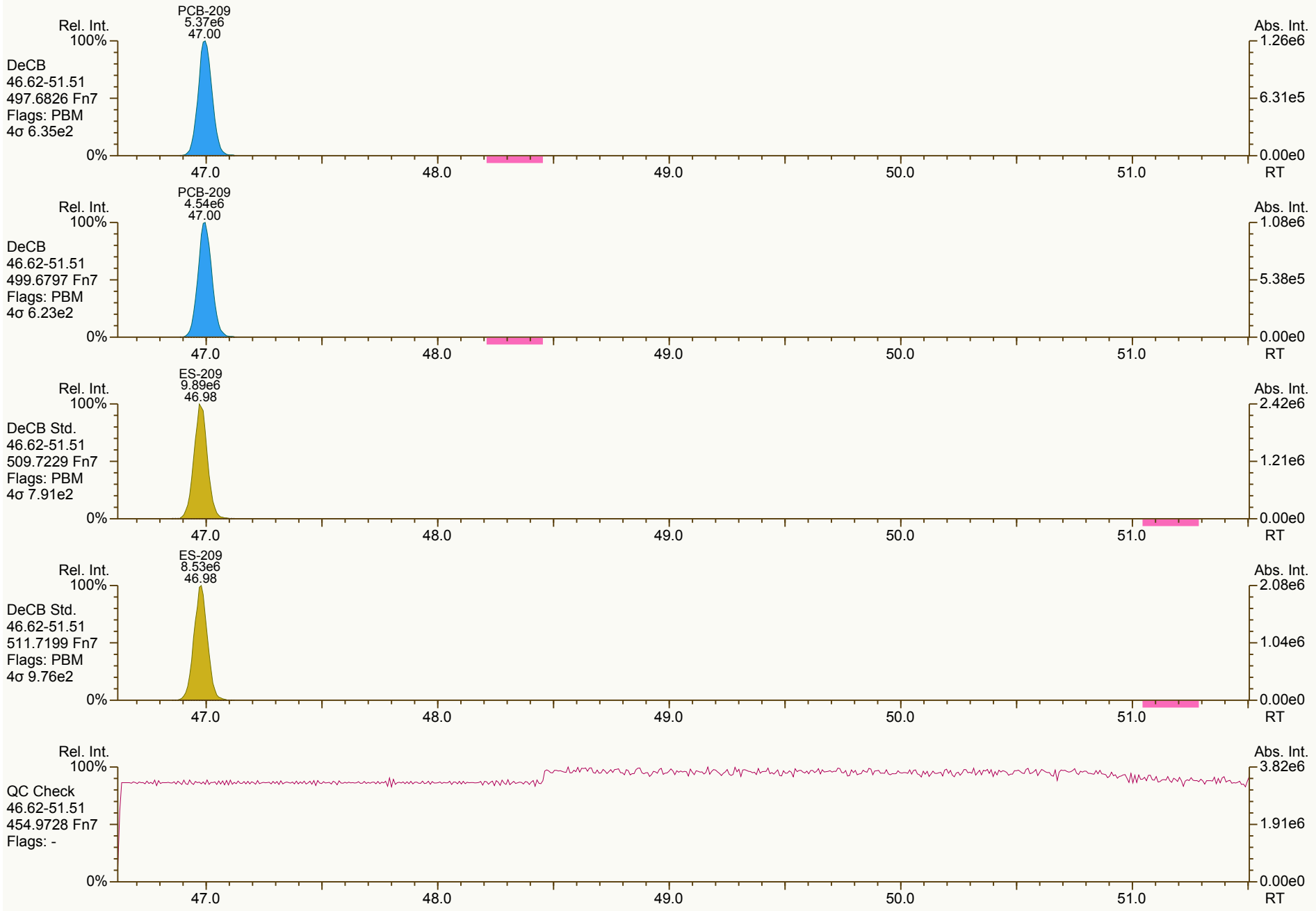
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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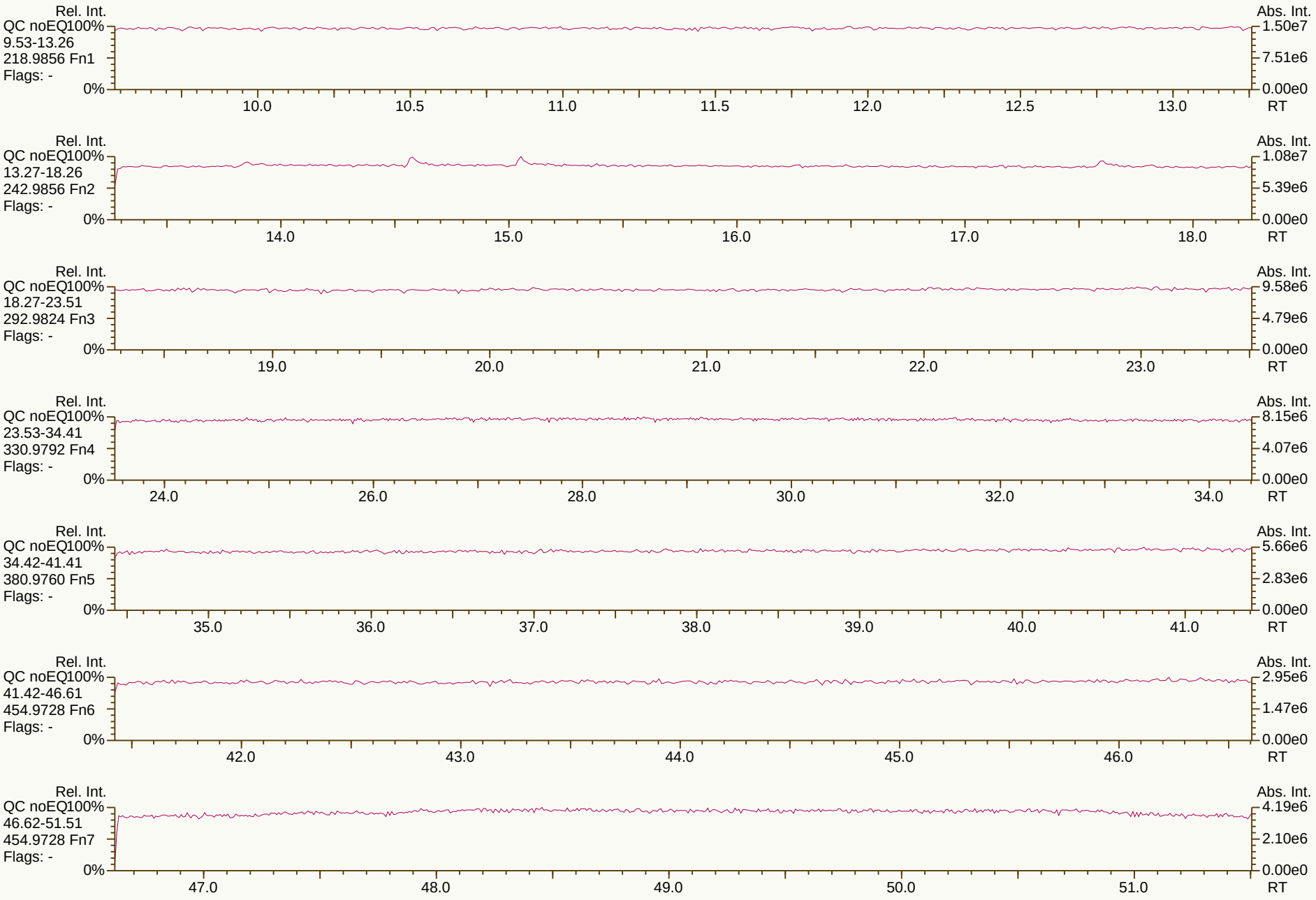
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:17
Lab ID:	CS4_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 06:03				
Datafile:	121214V06				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.11	2.08E+08	0.78 Y	1.25	1.26	1.0%
PCB-81 344'5-TeCB	28.64	2.10E+08	0.77 Y	1.26	1.29	2.4%
PCB-105 233'44'-PeCB	32.05	1.27E+08	0.62 Y	1.06	1.07	1.6%
PCB-114 2344'5-PeCB	31.52	1.39E+08	0.62 Y	1.11	1.10	-0.9%
PCB-118 23'44'5-PeCB	31.08	1.36E+08	0.63 Y	1.08	1.11	2.3%
PCB-123 23'44'5'-PeCB	30.80	1.37E+08	0.62 Y	1.12	1.09	-2.9%
PCB-126 33'44'5-PeCB	34.65	1.65E+08	0.62 Y	1.16	1.16	0.7%
PCB-156/157 ...-HxCB	37.18	2.46E+08	1.26 Y	1.14	1.15	0.6%
PCB-167 23'44'55'-HxCB	36.23	1.35E+08	1.25 Y	1.18	1.20	1.4%
PCB-169 33'44'55'-HxCB	39.90	1.16E+08	1.28 Y	1.15	1.17	1.3%
PCB-189 233'44'55'-HpCB	42.03	1.46E+08	1.03 Y	1.12	1.13	1.7%
PCB-209 DeCB	47.00	8.86E+07	1.18 Y	1.11	1.08	-3.0%
ES PCB-1	9.83	6.66E+07	3.27 Y	0.97	0.99	1.9%
ES PCB-3	11.73	6.23E+07	3.35 Y	0.90	0.93	2.9%
ES PCB-4	11.94	4.80E+07	1.55 Y	0.70	0.71	1.8%
ES PCB-15	16.99	7.32E+07	1.65 Y	1.02	1.09	7.1%
ES PCB-19	14.61	3.70E+07	1.04 Y	0.53	0.55	4.3%
ES PCB-37	22.94	4.44E+07	1.11 Y	1.29	1.30	0.5%
ES PCB-54	17.23	5.04E+07	0.78 Y	1.43	1.48	3.5%
ES PCB-77	29.09	4.13E+07	0.82 Y	1.20	1.21	0.5%
ES PCB-81	28.63	4.08E+07	0.83 Y	1.16	1.20	3.0%
ES PCB-104	21.91	4.62E+07	1.52 Y	1.70	1.67	-2.2%
ES PCB-105	32.03	2.97E+07	1.53 Y	1.10	1.07	-2.5%
ES PCB-114	31.50	3.15E+07	1.54 Y	1.16	1.14	-1.6%
ES PCB-118	31.06	3.08E+07	1.51 Y	1.15	1.11	-3.6%
ES PCB-123	30.78	3.14E+07	1.53 Y	1.14	1.13	-0.8%
ES PCB-126	34.63	3.55E+07	1.66 Y	1.34	1.28	-4.3%
ES PCB-153	32.64	3.13E+07	1.31 Y	1.14	1.14	-0.7%
ES PCB-155	26.72	4.37E+07	1.27 Y	1.61	1.59	-1.7%
ES PCB-156/157	37.16	5.37E+07	1.26 Y	0.98	0.98	-0.2%
ES PCB-167	36.21	2.83E+07	1.26 Y	1.01	1.03	1.7%
ES PCB-169	39.88	2.49E+07	1.25 Y	0.90	0.91	0.9%
ES PCB-170	39.38	2.21E+07	1.04 Y	1.28	1.34	4.5%
ES PCB-180	38.34	2.67E+07	1.06 Y	1.54	1.62	5.2%
ES PCB-188	31.51	4.46E+07	1.05 Y	1.63	1.62	-0.2%
ES PCB-189	42.01	3.23E+07	1.06 Y	1.97	1.96	-0.6%
ES PCB-202	36.01	3.47E+07	0.89 Y	1.26	1.26	0.0%
ES PCB-205	44.17	2.02E+07	0.91 Y	1.22	1.22	0.2%
ES PCB-206	45.63	1.83E+07	0.80 Y	1.10	1.11	1.1%
ES PCB-208	41.61	2.31E+07	0.78 Y	1.41	1.40	-0.4%
ES PCB-209	46.98	2.05E+07	1.15 Y	1.24	1.25	0.1%

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:17
Lab ID:	CS4_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 06:03				
Datafile:	121214V06				

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.57	5.19E+07	1.10 Y	1.18	1.17	-0.6%
SS PCB-111	29.15	3.11E+07	1.52 Y	1.01	0.99	-1.5%
SS PCB-178	34.07	2.72E+07	1.05 Y	0.60	0.61	1.2%
CS PCB-28	19.57	5.19E+07	1.10 Y	1.52	1.52	-0.2%
CS PCB-111	29.15	3.11E+07	1.52 Y	1.15	1.12	-2.2%
CS PCB-178	34.07	2.72E+07	1.05 Y	0.98	0.99	1.0%
JS PCB-9	13.65	6.74E+07	1.64 Y	-	-	-
JS PCB-52	21.11	3.41E+07	0.77 Y	-	-	-
JS PCB-101	26.89	2.77E+07	1.54 Y	-	-	-
JS PCB-138	33.67	2.75E+07	1.30 Y	-	-	-
JS PCB-194	43.77	1.65E+07	0.90 Y	-	-	-
PCB-1 2-MoCB	9.84	3.43E+08	3.08 Y	1.25	1.29	3.3%
PCB-3 4-MoCB	11.74	3.26E+08	3.10 Y	1.27	1.31	3.4%
PCB-4 22'-DiCB	11.95	1.78E+08	1.56 Y	0.90	0.93	3.5%
PCB-15 44'-DiCB	17.00	3.23E+08	1.55 Y	1.10	1.10	0.4%
PCB-19 22'6-TrCB	14.63	1.42E+08	1.03 Y	0.95	0.96	1.1%
PCB-37 344'-TrCB	22.95	2.52E+08	1.05 Y	1.39	1.42	2.1%
PCB-54 22'66'-TeCB	17.25	2.23E+08	0.80 Y	1.05	1.11	5.2%
PCB-104 22'466'-PeCB	21.94	2.11E+08	0.63 Y	1.12	1.14	1.9%
PCB-153/168 ...-HxCB	32.68	3.06E+08	1.24 Y	1.24	1.22	-1.0%
PCB-155 22'44'66'-HxCB	26.74	1.91E+08	1.24 Y	1.09	1.09	0.0%
PCB-170 22'33'44'5-HpCB	39.40	8.80E+07	1.03 Y	0.99	0.99	0.1%
PCB-180/193 ...-HpCB	38.33	2.28E+08	1.04 Y	1.07	1.07	-0.2%
PCB-188 22'34'566'-HpCB	31.53	1.82E+08	1.03 Y	0.98	1.02	3.7%
PCB-202 22'33'55'66'-OcCB	36.03	1.22E+08	0.90 Y	0.86	0.88	1.6%
PCB-205 233'44'55'6-OcCB	44.19	9.50E+07	0.91 Y	1.13	1.18	3.7%
PCB-208 22'33'455'66'-NoCB	41.63	9.84E+07	0.77 Y	1.03	1.06	2.9%
PCB-206 22'33'44'55'6-NoCB	45.65	7.16E+07	0.77 Y	0.97	0.98	0.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.84	3.43E+08	3.08 Y	1.25	1.29	3.3%
PCB-2 3-MoCB	11.59	3.28E+08	3.11 Y	1.28	1.32	3.1%
PCB-3 4-MoCB	11.74	3.26E+08	3.10 Y	1.27	1.31	3.4%
PCB-4 22'-DiCB	11.95	1.78E+08	1.56 Y	0.90	0.93	3.5%
PCB-10 26-DiCB	12.11	2.83E+08	1.55 Y	1.38	1.47	6.7%
PCB-9 25-DiCB	13.67	2.82E+08	1.55 Y	0.99	0.96	-2.5%
PCB-7 24-DiCB	13.81	3.21E+08	1.55 Y	1.10	1.10	-0.6%
PCB-6 23'-DiCB	14.01	3.00E+08	1.55 Y	1.04	1.03	-1.4%
PCB-5 23-DiCB	14.27	3.00E+08	1.55 Y	1.02	1.02	-0.2%
PCB-8 24'-DiCB	14.38	3.04E+08	1.56 Y	1.03	1.04	0.4%
PCB-14 35-DiCB	15.78	3.50E+08	1.55 Y	1.20	1.19	-0.5%
PCB-11 33'-DiCB	16.48	3.02E+08	1.56 Y	1.03	1.03	0.4%
PCB-13/12 34'/34-DiCB	16.74	6.26E+08	1.55 Y	1.03	1.07	3.4%
PCB-15 44'-DiCB	17.00	3.23E+08	1.55 Y	1.10	1.10	0.4%
PCB-19 22'6-TrCB	14.63	1.42E+08	1.03 Y	0.95	0.96	1.1%
PCB-30/18 246/22'5-TrCB	16.22	3.85E+08	1.03 Y	1.23	1.30	5.5%
PCB-17 22'4-TrCB	16.58	1.62E+08	1.04 Y	1.05	1.09	3.7%
PCB-27 23'6-TrCB	16.76	2.29E+08	1.03 Y	1.46	1.55	5.8%
PCB-24 236-TrCB	16.88	2.13E+08	1.03 Y	1.32	1.44	8.8%
PCB-16 22'3-TrCB	16.96	1.23E+08	1.03 Y	0.81	0.83	2.5%
PCB-32 24'6-TrCB	17.41	2.24E+08	1.04 Y	1.48	1.51	2.5%
PCB-34 23'5'-TrCB	18.49	2.73E+08	1.06 Y	1.46	1.54	5.3%
PCB-23 235-TrCB	18.62	2.77E+08	1.05 Y	1.50	1.56	3.8%
PCB-26/29 23'5/245-TrCB	18.89	5.66E+08	1.05 Y	1.53	1.59	4.2%
PCB-25 23'4-TrCB	19.08	2.88E+08	1.05 Y	1.53	1.62	5.8%
PCB-31 24'5-TrCB	19.34	2.82E+08	1.05 Y	1.55	1.59	2.5%
PCB-28/20 244'/233'-TrCB	19.60	5.52E+08	1.05 Y	1.51	1.55	3.2%
PCB-21/33 234/23'4'-TrCB	19.76	5.77E+08	1.06 Y	1.55	1.63	5.2%
PCB-22 234'-TrCB	20.11	2.60E+08	1.05 Y	1.40	1.47	4.8%
PCB-36 33'5-TrCB	21.44	2.80E+08	1.05 Y	1.52	1.58	3.8%
PCB-39 34'5-TrCB	21.74	2.92E+08	1.05 Y	1.58	1.64	3.9%
PCB-38 345-TrCB	22.23	2.72E+08	1.06 Y	1.47	1.53	4.3%
PCB-35 33'4-TrCB	22.61	2.43E+08	1.05 Y	1.33	1.37	2.8%
PCB-37 344'-TrCB	22.95	2.52E+08	1.05 Y	1.39	1.42	2.1%
PCB-54 22'66'-TeCB	17.25	2.23E+08	0.80 Y	1.05	1.11	5.2%
PCB-50/53 22'46/22'56'-TeCB	19.11	3.01E+08	0.77 Y	0.88	0.92	5.1%
PCB-45 22'36-TeCB	19.65	1.20E+08	0.76 Y	0.73	0.74	0.4%
PCB-51 22'46'-TeCB	19.73	1.61E+08	0.77 Y	0.94	0.99	5.2%
PCB-46 22'36'-TeCB	19.92	1.18E+08	0.77 Y	0.72	0.72	0.6%
PCB-52 22'55'-TeCB	21.13	1.37E+08	0.78 Y	0.82	0.84	1.6%
PCB-73 23'5'6-TeCB	21.26	1.91E+08	0.77 Y	1.10	1.17	6.4%
PCB-43 22'35-TeCB	21.34	1.12E+08	0.77 Y	0.70	0.68	-3.0%
PCB-69/49 23'46/22'45'-TeCB	21.53	3.42E+08	0.77 Y	1.01	1.05	3.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.79	1.40E+08	0.77 Y	0.84	0.86	1.4%
PCB-44/47/65 ...-TeCB	21.99	4.54E+08	0.77 Y	0.90	0.93	2.8%
PCB-59/62/75 ...-TeCB	22.26	6.05E+08	0.77 Y	1.15	1.23	6.9%
PCB-42 22'34'-TeCB	22.41	1.28E+08	0.77 Y	0.76	0.78	2.2%
PCB-41 22'34-TeCB	22.72	1.04E+08	0.76 Y	0.64	0.64	-0.2%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	2.78E+08	0.77 Y	0.83	0.85	2.2%
PCB-64 234'6-TeCB	23.01	1.96E+08	0.77 Y	1.17	1.20	2.2%
PCB-72 23'55'-TeCB	23.74	2.30E+08	0.77 Y	1.37	1.41	2.9%
PCB-68 23'45'-TeCB	23.98	2.45E+08	0.77 Y	1.52	1.50	-1.2%
PCB-57 233'5-TeCB	24.33	2.15E+08	0.78 Y	1.32	1.32	-0.6%
PCB-58 233'5'-TeCB	24.52	2.14E+08	0.78 Y	1.34	1.31	-2.0%
PCB-67 23'45-TeCB	24.67	2.36E+08	0.78 Y	1.41	1.44	2.1%
PCB-63 234'5-TeCB	24.89	2.37E+08	0.78 Y	1.46	1.45	-0.5%
PCB-61/70/74/76 ...-TeCB	25.17	9.16E+08	0.77 Y	1.37	1.40	2.7%
PCB-66 23'44'-TeCB	25.44	2.05E+08	0.77 Y	1.24	1.26	1.3%
PCB-55 233'4-TeCB	25.57	2.08E+08	0.77 Y	1.28	1.27	-0.3%
PCB-56 233'4'-TeCB	26.00	2.01E+08	0.78 Y	1.23	1.23	0.1%
PCB-60 2344'-TeCB	26.18	2.13E+08	0.77 Y	1.30	1.30	0.3%
PCB-80 33'55'-TeCB	26.54	2.35E+08	0.77 Y	1.44	1.44	0.1%
PCB-79 33'45'-TeCB	27.82	2.47E+08	0.78 Y	1.48	1.51	2.4%
PCB-78 33'45-TeCB	28.28	1.94E+08	0.78 Y	1.21	1.19	-1.7%
PCB-104 22'466'-PeCB	21.94	2.11E+08	0.63 Y	1.12	1.14	1.9%
PCB-96 22'366'-PeCB	22.23	1.90E+08	0.63 Y	0.96	1.03	6.6%
PCB-103 22'45'6-PeCB	23.89	1.14E+08	0.63 Y	0.93	0.91	-2.2%
PCB-94 22'356'-PeCB	24.06	1.01E+08	0.63 Y	0.81	0.81	-0.3%
PCB-95 22'35'6-PeCB	24.43	1.06E+08	0.63 Y	0.85	0.84	-0.8%
PCB-100/93 22'44'6/22'356-PeCB	24.63	2.19E+08	0.62 Y	0.88	0.87	-1.3%
PCB-102 22'456'-PeCB	24.74	1.09E+08	0.62 Y	0.93	0.87	-6.4%
PCB-98 22'34'6'-PeCB	24.80	1.06E+08	0.63 Y	0.84	0.85	0.9%
PCB-88 22'346-PeCB	25.09	1.06E+08	0.62 Y	0.77	0.85	9.8%
PCB-91 22'34'6-PeCB	25.16	1.14E+08	0.63 Y	0.96	0.91	-5.5%
PCB-84 22'33'6-PeCB	25.33	8.91E+07	0.63 Y	0.72	0.71	-1.6%
PCB-89 22'346'-PeCB	25.74	9.42E+07	0.62 Y	0.77	0.75	-2.7%
PCB-121 23'45'6-PeCB	26.12	1.43E+08	0.63 Y	1.15	1.14	-0.5%
PCB-92 22'355'-PeCB	26.42	9.82E+07	0.63 Y	0.79	0.78	-1.4%
PCB-113/90/101 ...-PeCB	26.89	3.57E+08	0.62 Y	0.95	0.95	-0.8%
PCB-83 22'33'5-PeCB	27.31	8.87E+07	0.62 Y	0.72	0.71	-1.9%
PCB-99 22'44'5-PeCB	27.41	1.06E+08	0.63 Y	0.90	0.84	-5.8%
PCB-112 233'56-PeCB	27.50	1.34E+08	0.63 Y	1.09	1.07	-2.4%
PCB-109/119/86/97/125...-PeCB	27.83	7.24E+08	0.62 Y	0.95	0.96	1.4%
PCB-117 234'56-PeCB	28.35	1.13E+08	0.62 Y	0.99	0.90	-9.0%
PCB-116/85 23456/22'344'-PeCB	28.42	2.49E+08	0.63 Y	0.96	0.99	3.3%
PCB-110 233'4'6-PeCB	28.55	1.18E+08	0.63 Y	1.01	0.94	-6.5%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.48E+08	0.63 Y	1.15	1.18	2.3%
PCB-82 22'33'4-PeCB	28.82	8.37E+07	0.62 Y	0.70	0.67	-4.4%
PCB-111 233'55'-PeCB	29.18	1.39E+08	0.62 Y	1.16	1.11	-5.1%
PCB-120 23'455'-PeCB	29.56	1.41E+08	0.62 Y	1.14	1.13	-0.9%
PCB-108/124 ...-PeCB	30.50	2.57E+08	0.62 Y	1.02	1.02	0.5%
PCB-107 233'4'5-PeCB	30.70	1.44E+08	0.62 Y	1.13	1.15	1.3%
PCB-106 233'45-PeCB	30.90	1.30E+08	0.64 Y	1.01	1.04	2.4%
PCB-122 233'4'5'-PeCB	31.36	1.17E+08	0.63 Y	0.91	0.93	2.3%
PCB-127 33'455'-PeCB	33.31	1.28E+08	0.63 Y	1.06	1.08	2.5%
PCB-155 22'44'66'-HxCB	26.74	1.91E+08	1.24 Y	1.09	1.09	0.0%
PCB-152 22'3566'-HxCB	26.87	1.87E+08	1.23 Y	1.04	1.07	3.0%
PCB-150 22'34'66'-HxCB	27.02	1.77E+08	1.23 Y	1.03	1.01	-1.4%
PCB-136 22'33'66'-HxCB	27.31	1.70E+08	1.25 Y	0.97	0.97	-0.2%
PCB-145 22'3466'-HxCB	27.57	1.67E+08	1.24 Y	0.96	0.96	-0.6%
PCB-148 22'34'56'-HxCB	28.86	1.29E+08	1.25 Y	1.03	1.03	0.0%
PCB-151/135 ...-HxCB	29.36	2.47E+08	1.24 Y	0.99	0.99	-0.4%
PCB-154 22'44'56'-HxCB	29.57	1.45E+08	1.23 Y	1.17	1.16	-0.8%
PCB-144 22'345'6-HxCB	29.82	1.24E+08	1.24 Y	1.03	0.99	-3.2%
PCB-147/149 ...-HxCB	30.12	2.58E+08	1.24 Y	1.02	1.03	1.4%
PCB-134 22'33'56-HxCB	30.28	9.65E+07	1.24 Y	0.80	0.77	-3.5%
PCB-143 22'3456'-HxCB	30.36	1.22E+08	1.25 Y	0.95	0.98	3.2%
PCB-139/140 ...-HxCB	30.62	2.63E+08	1.24 Y	1.05	1.05	0.4%
PCB-131 22'33'46-HxCB	30.78	1.15E+08	1.25 Y	0.90	0.92	2.8%
PCB-142 22'3456-HxCB	30.91	1.13E+08	1.23 Y	0.93	0.90	-2.4%
PCB-132 22'33'46'-HxCB	31.16	1.13E+08	1.24 Y	0.93	0.90	-2.7%
PCB-133 22'33'55'-HxCB	31.60	1.19E+08	1.24 Y	0.97	0.96	-1.3%
PCB-165 233'55'6-HxCB	31.94	1.45E+08	1.24 Y	1.16	1.16	0.2%
PCB-146 22'34'55'-HxCB	32.15	1.27E+08	1.23 Y	1.01	1.02	0.6%
PCB-161 233'45'6-HxCB	32.26	1.62E+08	1.24 Y	1.29	1.30	0.4%
PCB-153/168 ...-HxCB	32.68	3.06E+08	1.24 Y	1.24	1.22	-1.0%
PCB-141 22'3455'-HxCB	32.81	1.17E+08	1.24 Y	0.95	0.94	-1.3%
PCB-130 22'33'45'-HxCB	33.15	1.03E+08	1.24 Y	0.82	0.83	0.7%
PCB-137 22'344'5-HxCB	33.35	1.33E+08	1.23 Y	0.97	1.06	9.6%
PCB-164 233'4'5'6-HxCB	33.44	1.54E+08	1.24 Y	1.25	1.23	-1.4%
PCB-163/138/129 ...-HxCB	33.71	3.99E+08	1.23 Y	1.04	1.06	2.2%
PCB-160 233'456-HxCB	33.84	1.48E+08	1.25 Y	1.19	1.18	-0.7%
PCB-158 233'44'6-HxCB	34.03	1.71E+08	1.24 Y	1.34	1.36	1.9%
PCB-128/166 ...-HxCB	34.74	2.19E+08	1.25 Y	0.96	0.97	0.8%
PCB-159 233'455'-HxCB	35.59	1.29E+08	1.25 Y	1.12	1.14	1.6%
PCB-162 233'4'55'-HxCB	35.83	1.31E+08	1.25 Y	1.13	1.16	3.1%
PCB-188 22'34'566'-HpCB	31.53	1.82E+08	1.03 Y	0.98	1.02	3.7%
PCB-179 22'33'566'-HpCB	31.80	1.60E+08	1.03 Y	0.90	0.89	-0.3%
PCB-184 22'344'66'-HpCB	32.26	1.61E+08	1.02 Y	0.86	0.90	4.5%

PCB QC Summary - Ax2 Detail **Printed: 14-Dec-2012 11:17**

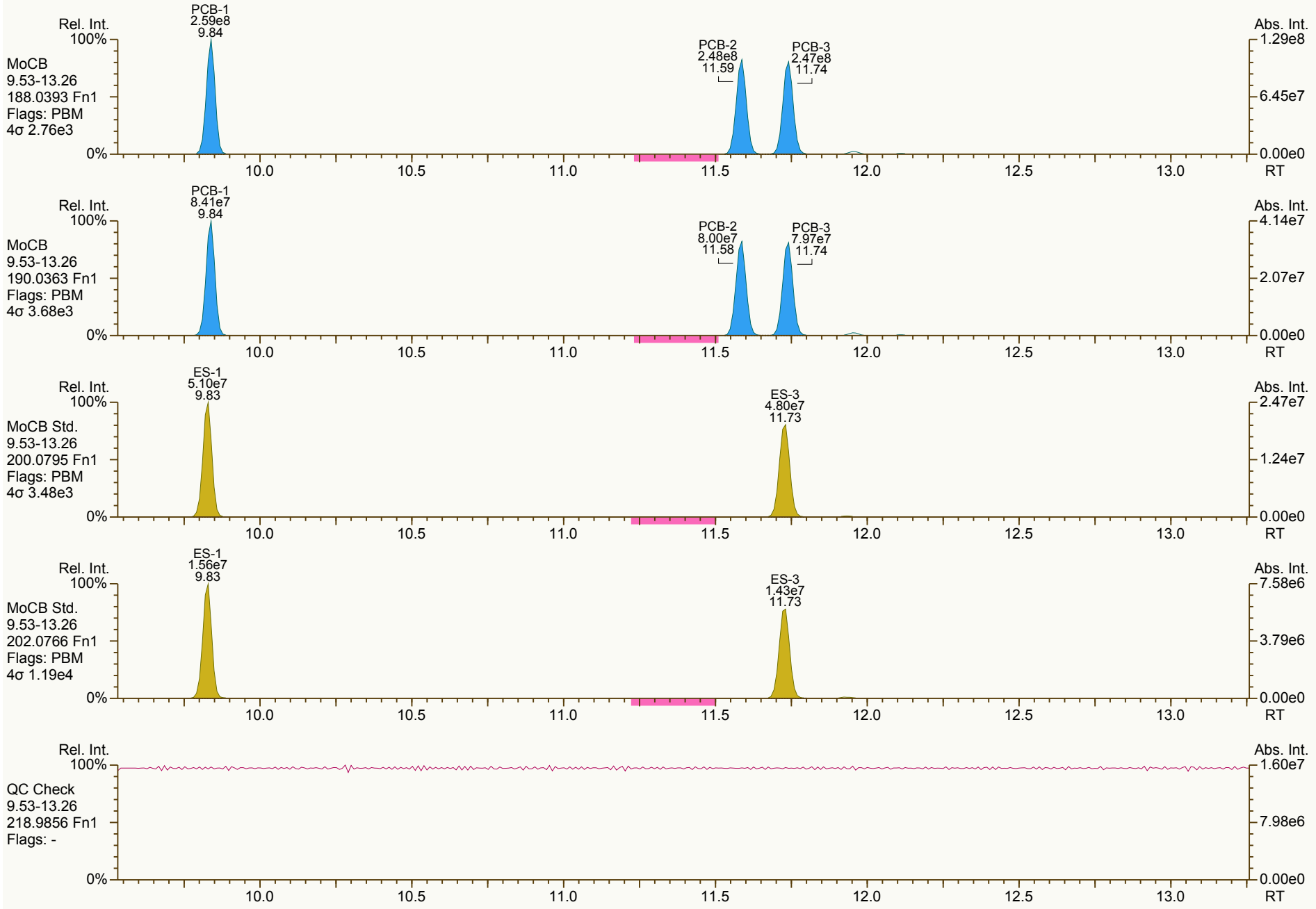
Lab ID: CS4_121214_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.54	1.74E+08	1.03 Y	0.97	0.97	0.6%
PCB-186 22'34566'-HpCB	32.92	1.64E+08	1.02 Y	0.93	0.92	-0.5%
PCB-178 22'33'55'6-HpCB	34.09	1.22E+08	1.03 Y	0.66	0.69	3.6%
PCB-175 22'33'45'6-HpCB	34.62	1.08E+08	1.04 Y	1.02	1.01	-1.3%
PCB-187 22'34'55'6-HpCB	34.85	1.11E+08	1.04 Y	1.03	1.04	1.1%
PCB-182 22'344'56'-HpCB	35.02	1.12E+08	1.03 Y	1.10	1.05	-3.9%
PCB-183 22'344'5'6-HpCB	35.37	1.21E+08	1.03 Y	1.12	1.13	0.6%
PCB-185 22'3455'6-HpCB	35.44	1.02E+08	1.06 Y	0.97	0.95	-1.5%
PCB-174 22'33'456'-HpCB	35.55	9.54E+07	1.04 Y	0.90	0.89	-0.3%
PCB-177 22'33'45'6'-HpCB	35.92	9.28E+07	1.03 Y	0.87	0.87	-0.3%
PCB-181 22'344'56-HpCB	36.26	1.09E+08	1.03 Y	1.03	1.02	-1.5%
PCB-171/173 ...-HpCB	36.43	1.88E+08	1.04 Y	0.89	0.88	-0.5%
PCB-172 22'33'455'-HpCB	37.81	9.34E+07	1.03 Y	0.87	0.87	0.2%
PCB-192 233'455'6-HpCB	38.05	1.21E+08	1.04 Y	1.16	1.14	-2.2%
PCB-180/193 ...-HpCB	38.33	2.28E+08	1.04 Y	1.07	1.07	-0.2%
PCB-191 233'44'5'6-HpCB	38.65	1.24E+08	1.04 Y	1.18	1.16	-2.1%
PCB-170 22'33'44'5-HpCB	39.40	8.80E+07	1.03 Y	0.99	0.99	0.1%
PCB-190 233'44'56-HpCB	39.85	1.22E+08	1.04 Y	1.36	1.38	1.6%
PCB-202 22'33'55'66'-OcCB	36.03	1.22E+08	0.90 Y	0.86	0.88	1.6%
PCB-201 22'33'45'66'-OcCB	36.81	1.35E+08	0.89 Y	0.95	0.97	2.4%
PCB-204 22'344'566'-OcCB	37.38	1.27E+08	0.89 Y	0.90	0.91	1.2%
PCB-197 22'33'44'66'-OcCB	37.56	1.32E+08	0.88 Y	0.96	0.95	-1.4%
PCB-200 22'33'4566'-OcCB	37.64	1.35E+08	0.89 Y	0.88	0.97	10.3%
PCB-198/199 ...-OcCB	39.99	1.82E+08	0.88 Y	0.63	0.66	4.0%
PCB-196 22'33'44'56'-OcCB	40.56	9.26E+07	0.89 Y	0.66	0.67	0.9%
PCB-203 22'344'55'6-OcCB	40.72	9.60E+07	0.89 Y	0.69	0.69	-0.5%
PCB-195 22'33'44'56-OcCB	41.82	6.88E+07	0.90 Y	0.82	0.85	3.3%
PCB-194 22'33'44'55'-OcCB	43.79	7.58E+07	0.91 Y	0.90	0.94	4.1%
PCB-205 233'44'55'6-OcCB	44.19	9.50E+07	0.91 Y	1.13	1.18	3.7%
PCB-208 22'33'455'66'-NoCB	41.63	9.84E+07	0.77 Y	1.03	1.06	2.9%
PCB-207 22'33'44'566'-NoCB	42.42	1.01E+08	0.77 Y	1.07	1.09	2.4%
PCB-206 22'33'44'55'6-NoCB	45.65	7.16E+07	0.77 Y	0.97	0.98	0.7%

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**

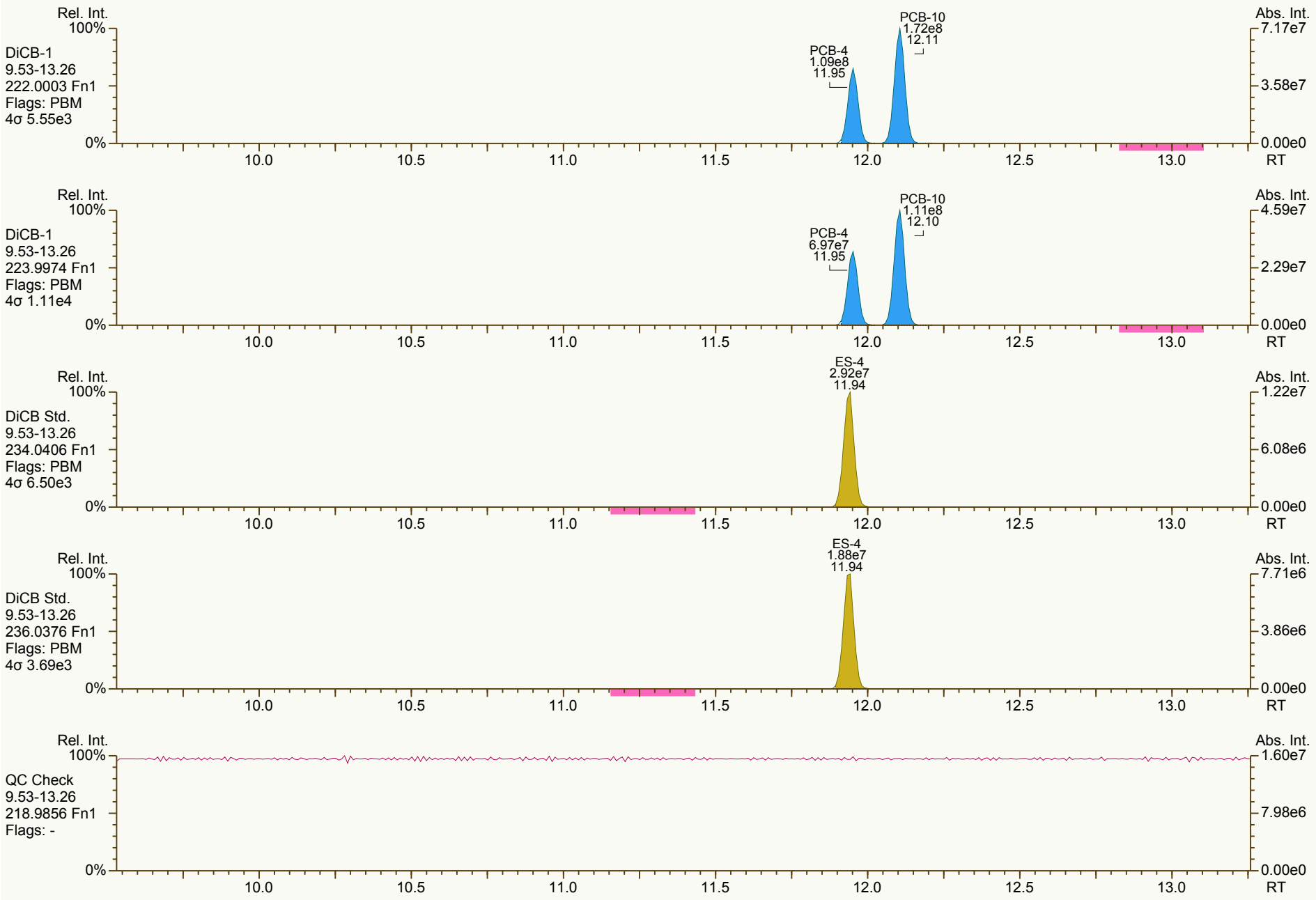


SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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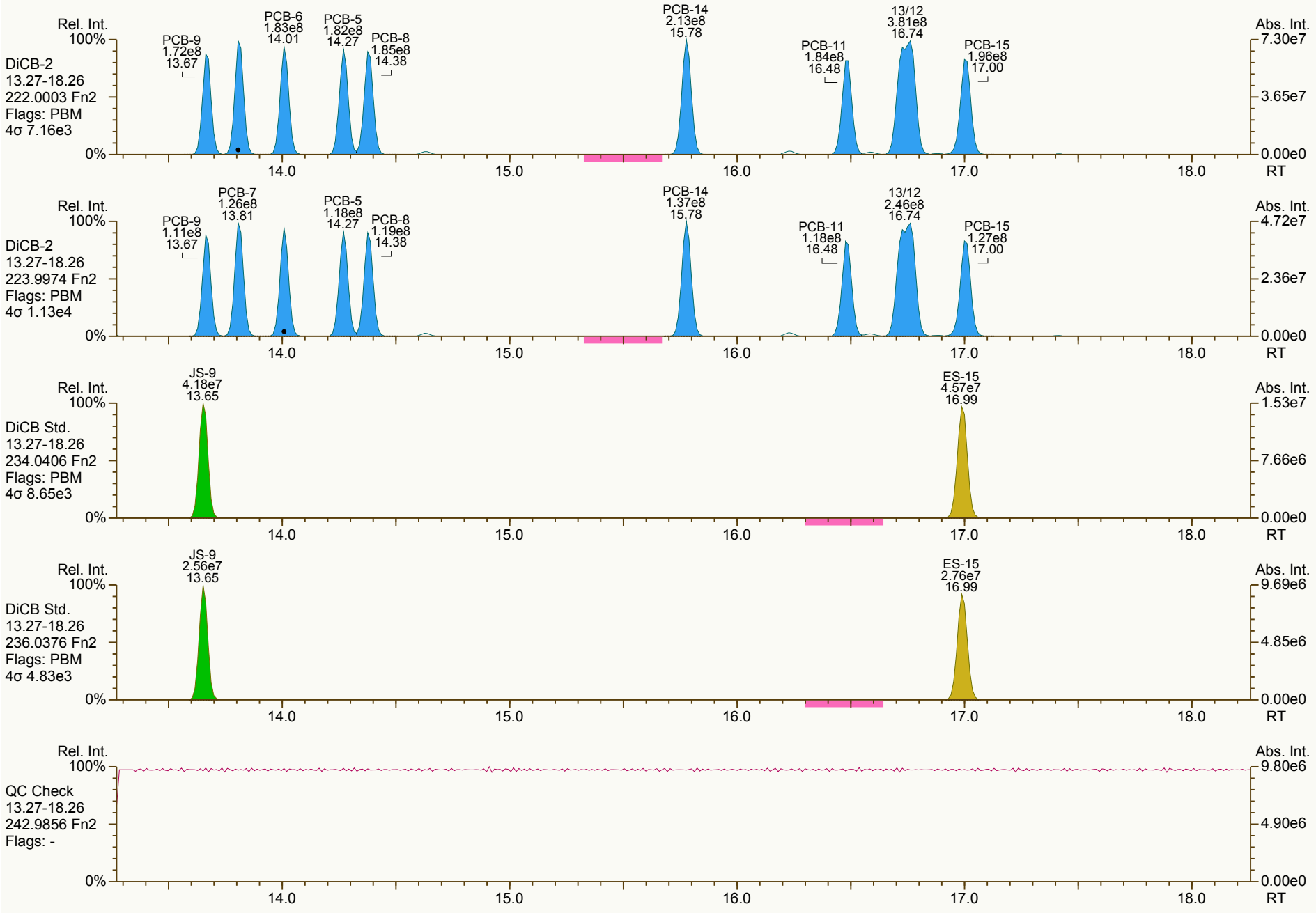
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**

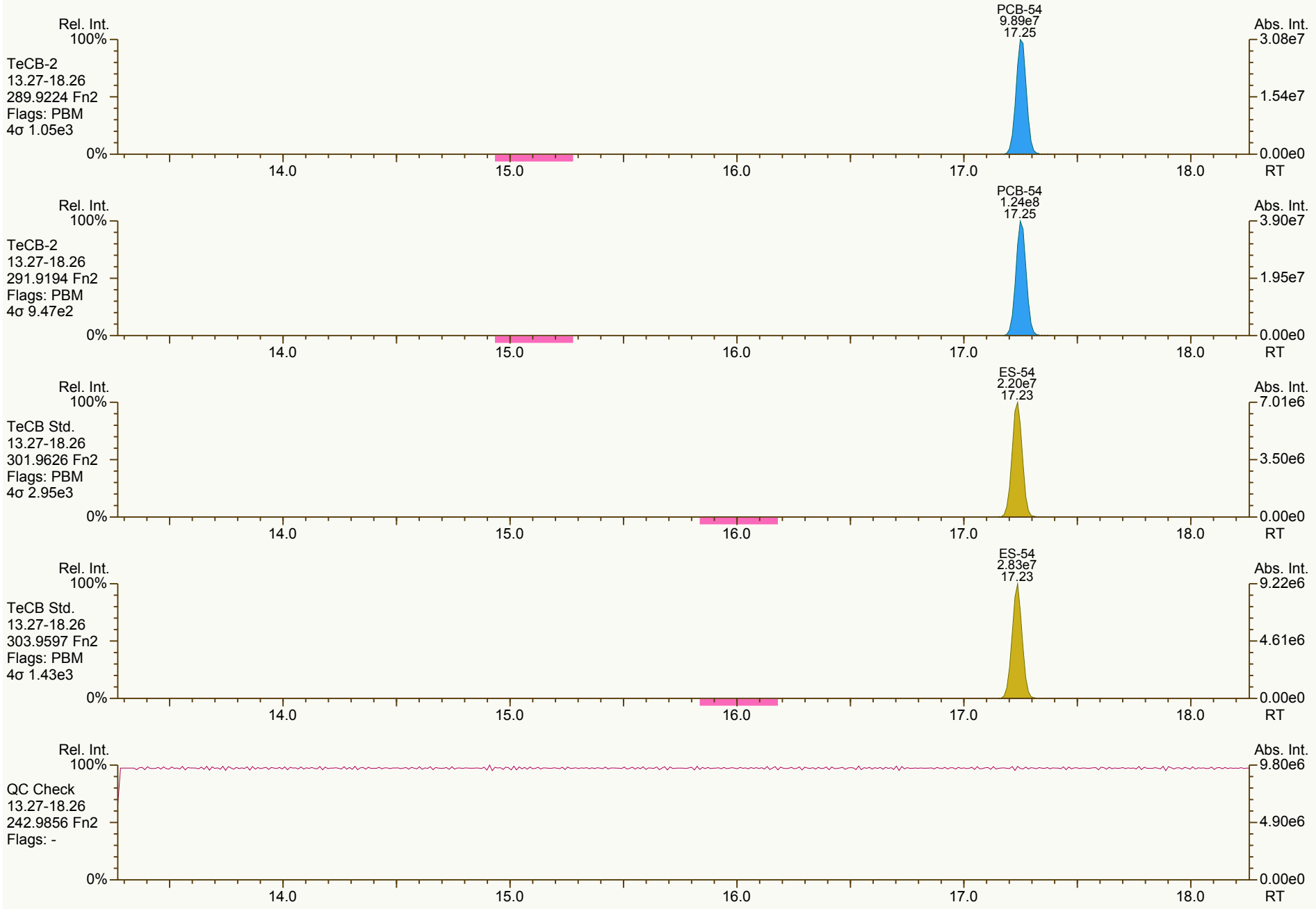


SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



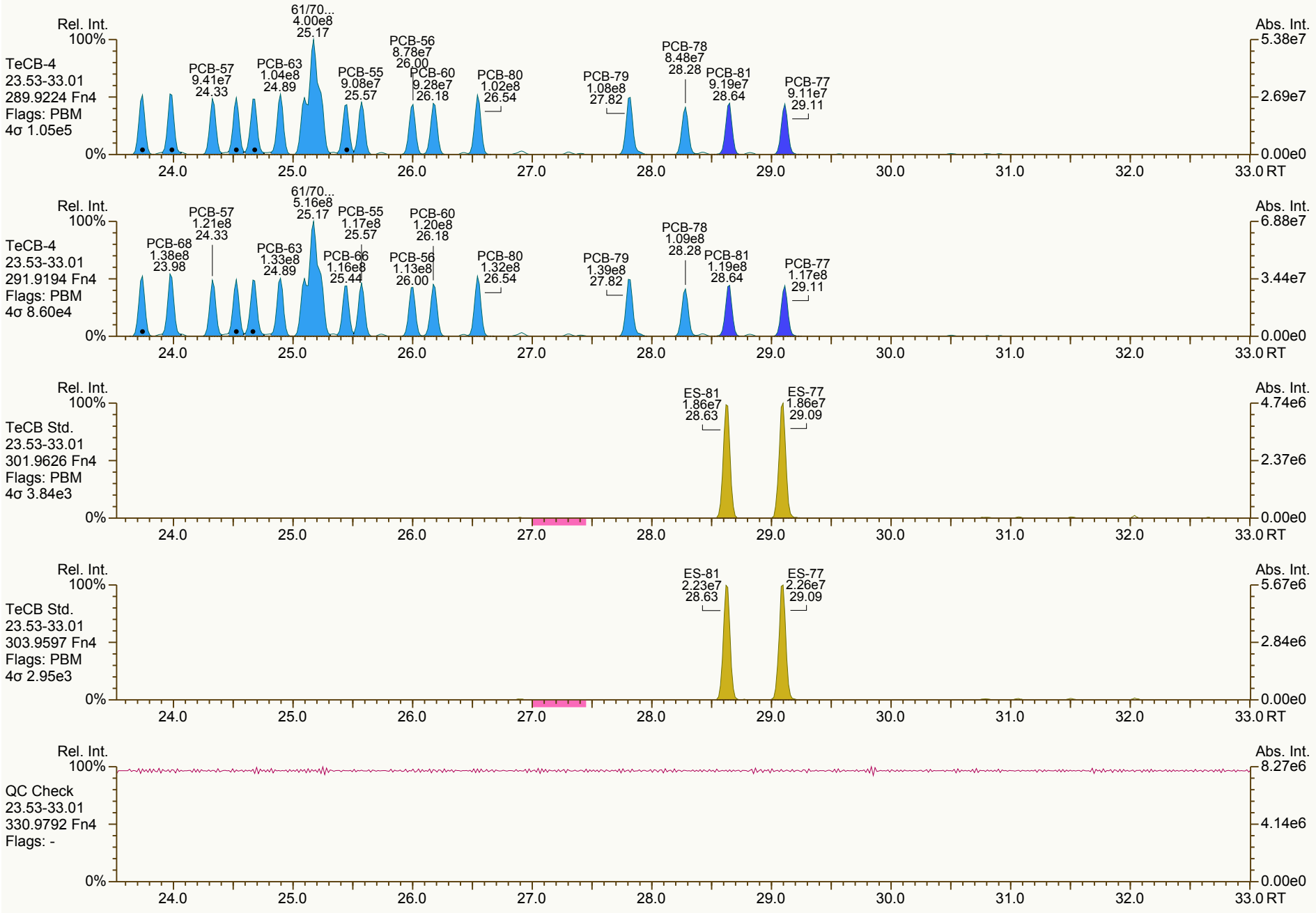
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



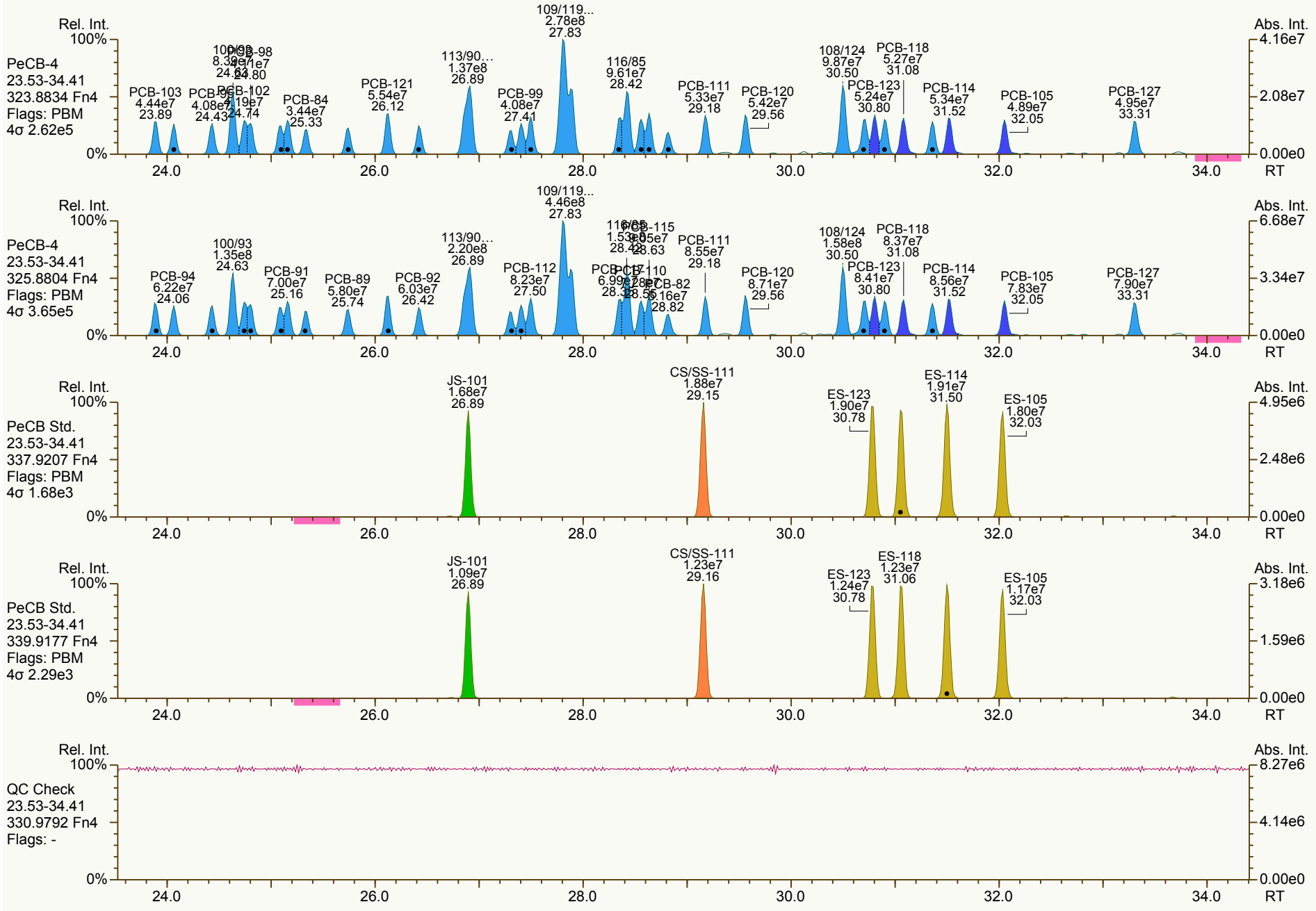
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

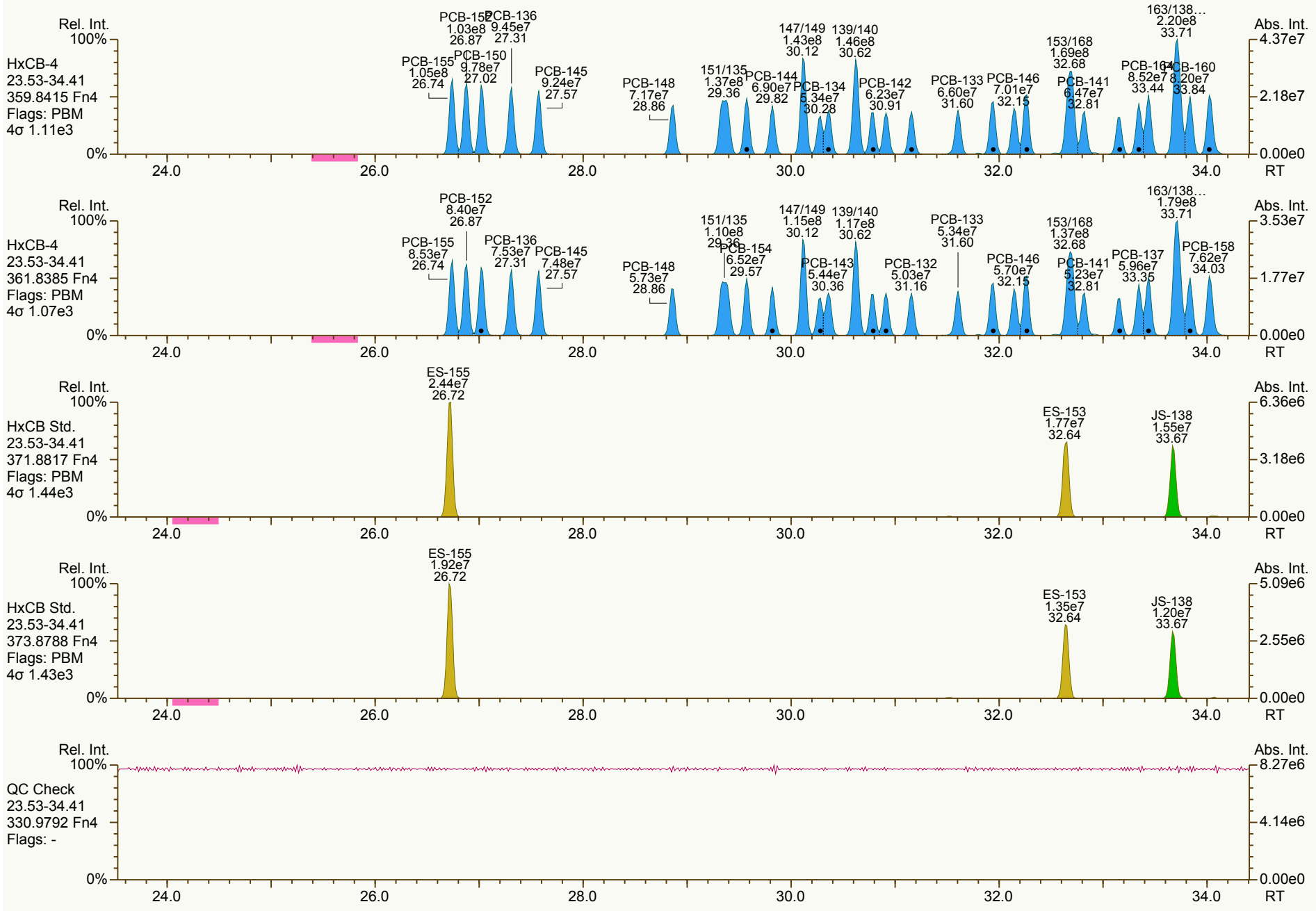
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9684, 9806 scc: 777-854 *Revised: 14-Dec-2012 10:04 (CEM) Printed: 14-Dec-2012 11:22 Page 11 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

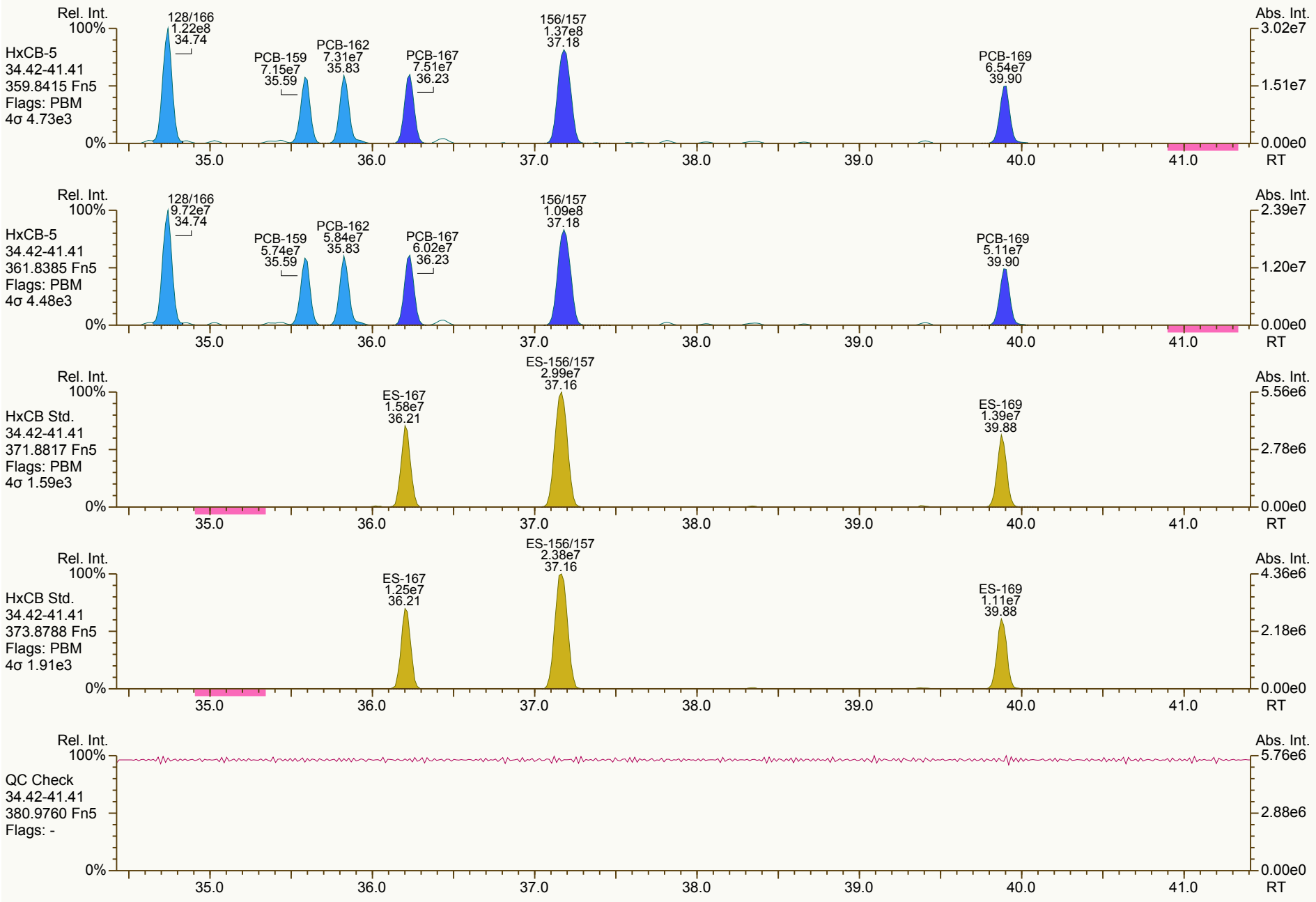
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9442, 2594 scc: 777-854 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:22 Page 13 of 22*

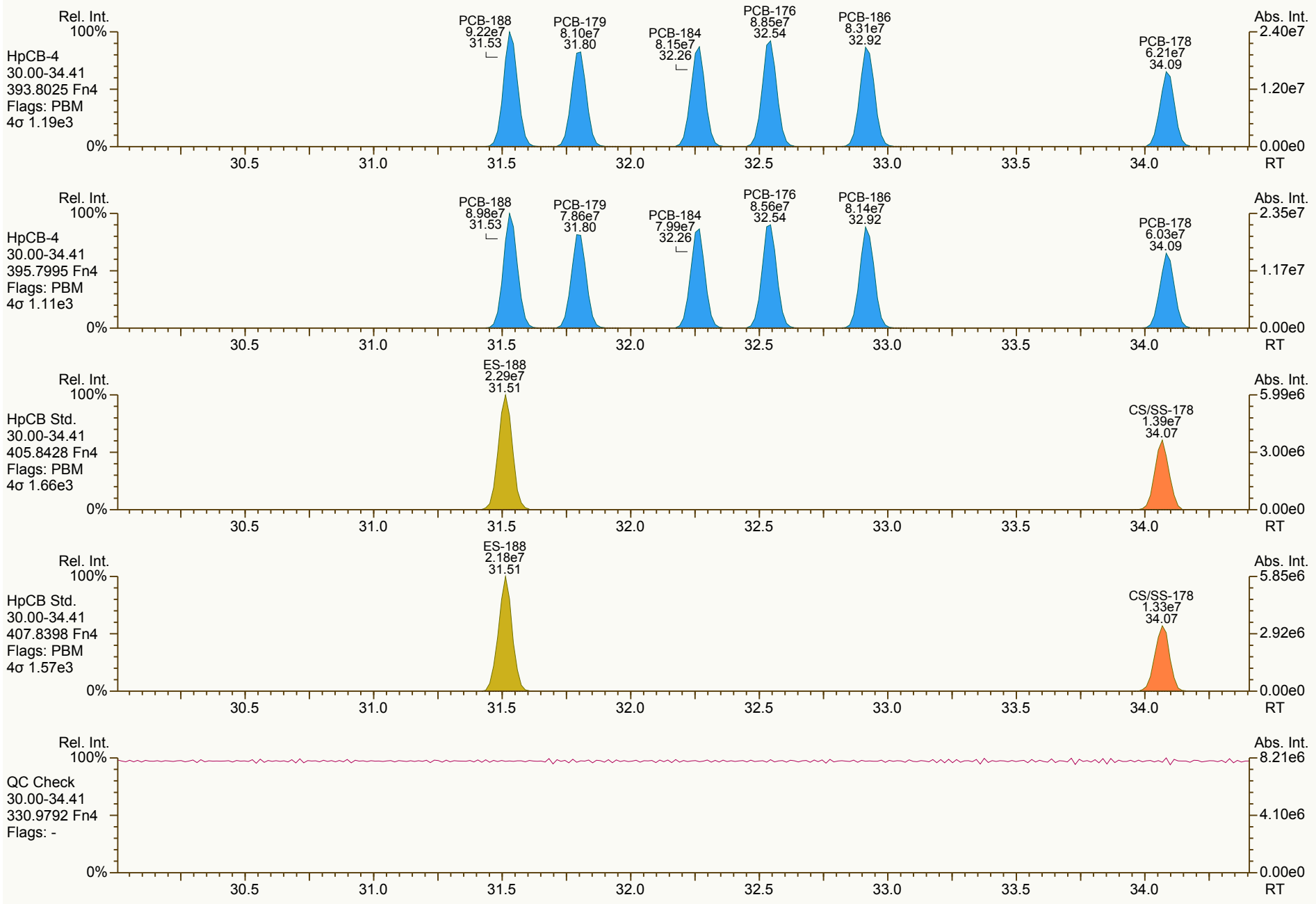
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

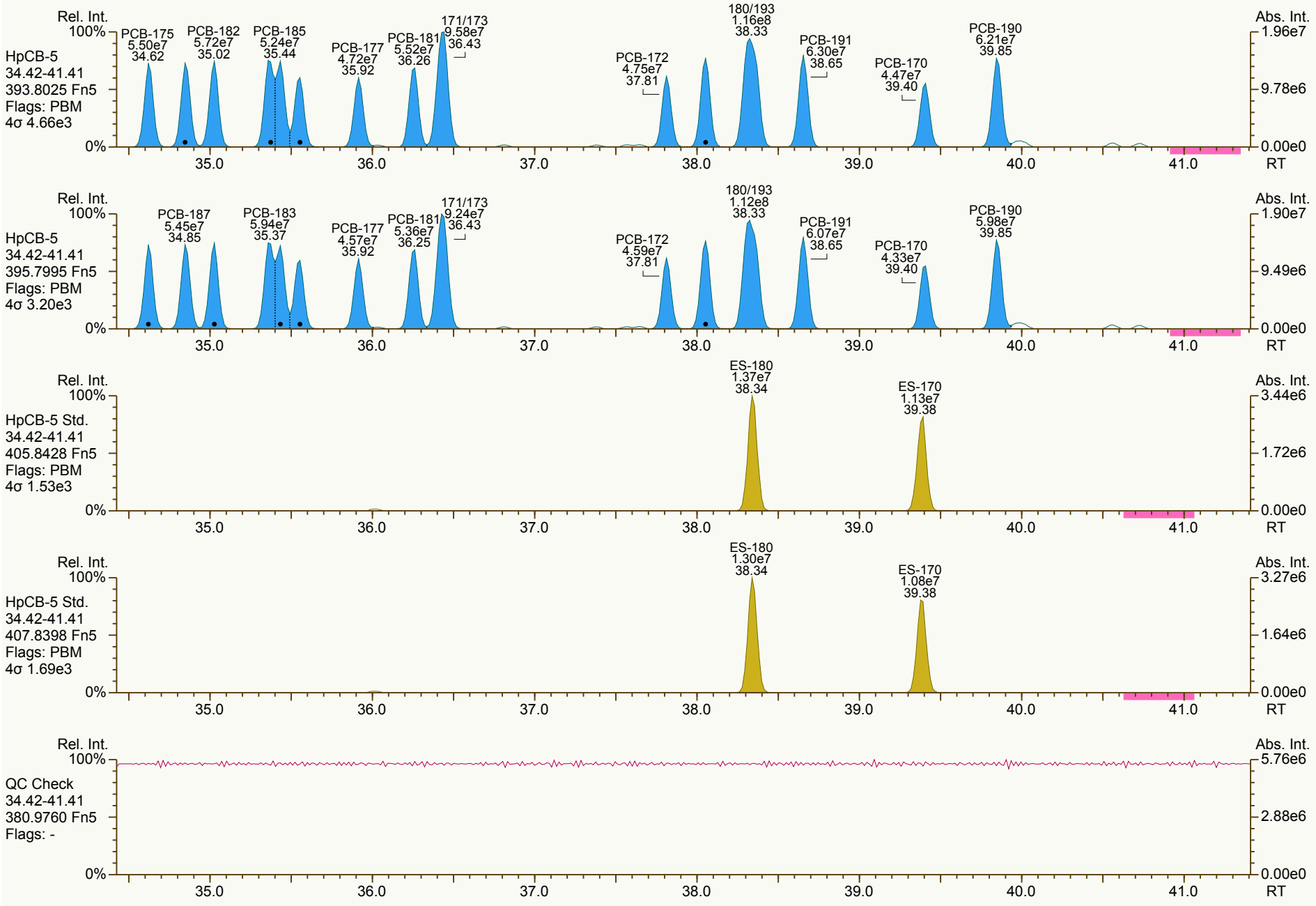
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 5740, 4025 scc: 777-854 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:22 Page 14 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

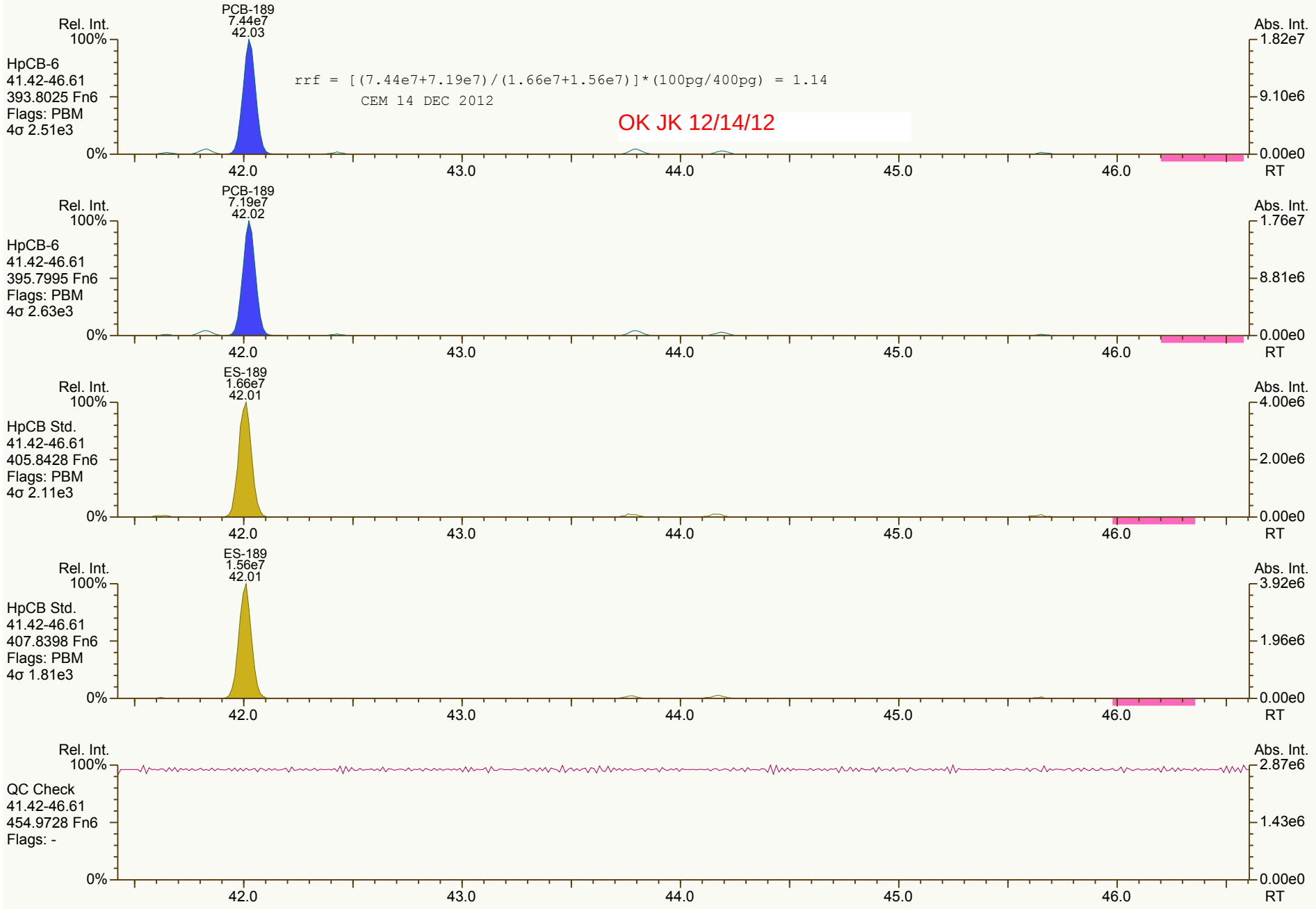
SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

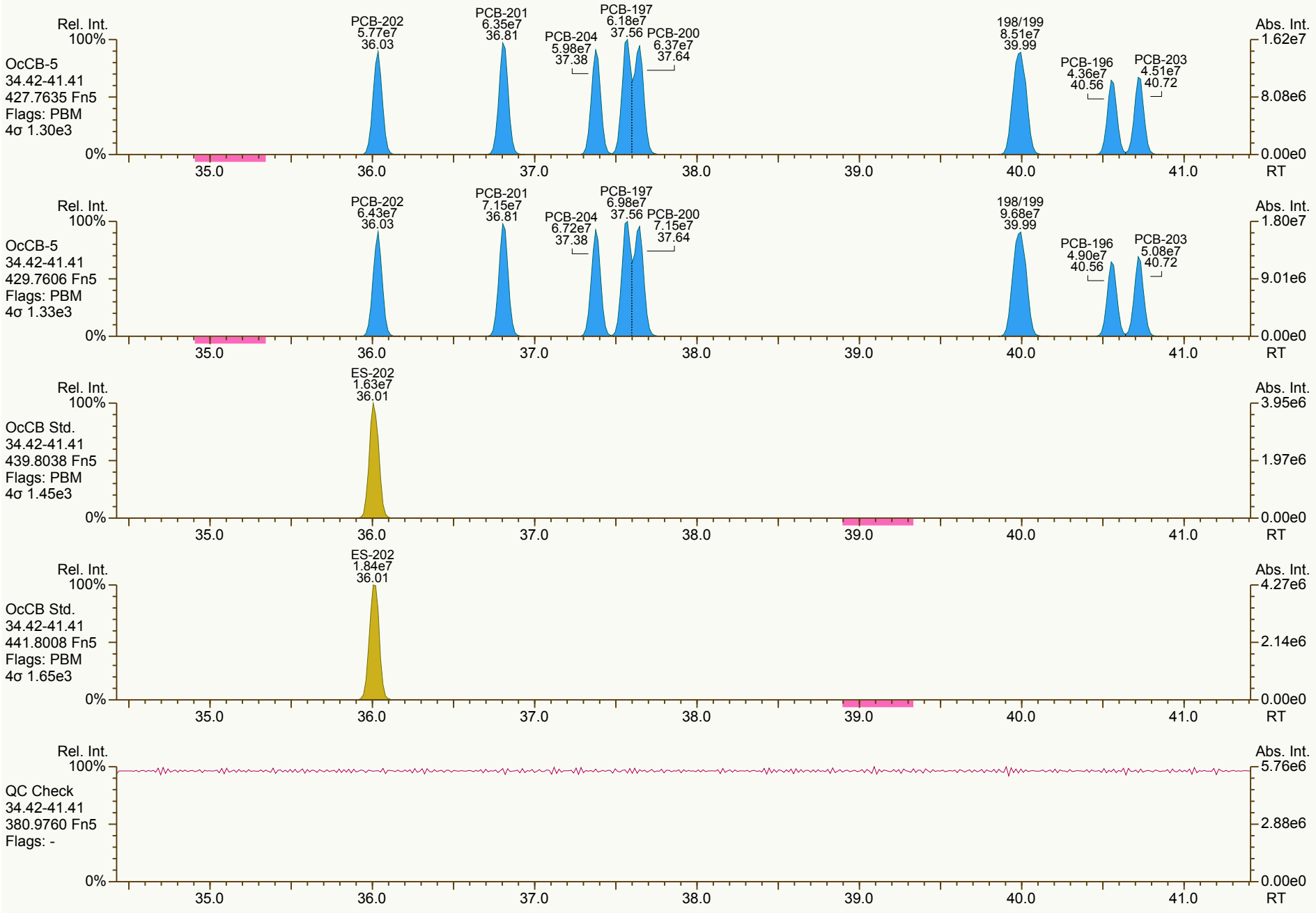
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9881, 8161 scc: 777-854 *Revised: 14-Dec-2012 10:05 (CEM) Printed: 14-Dec-2012 11:22 Page 16 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



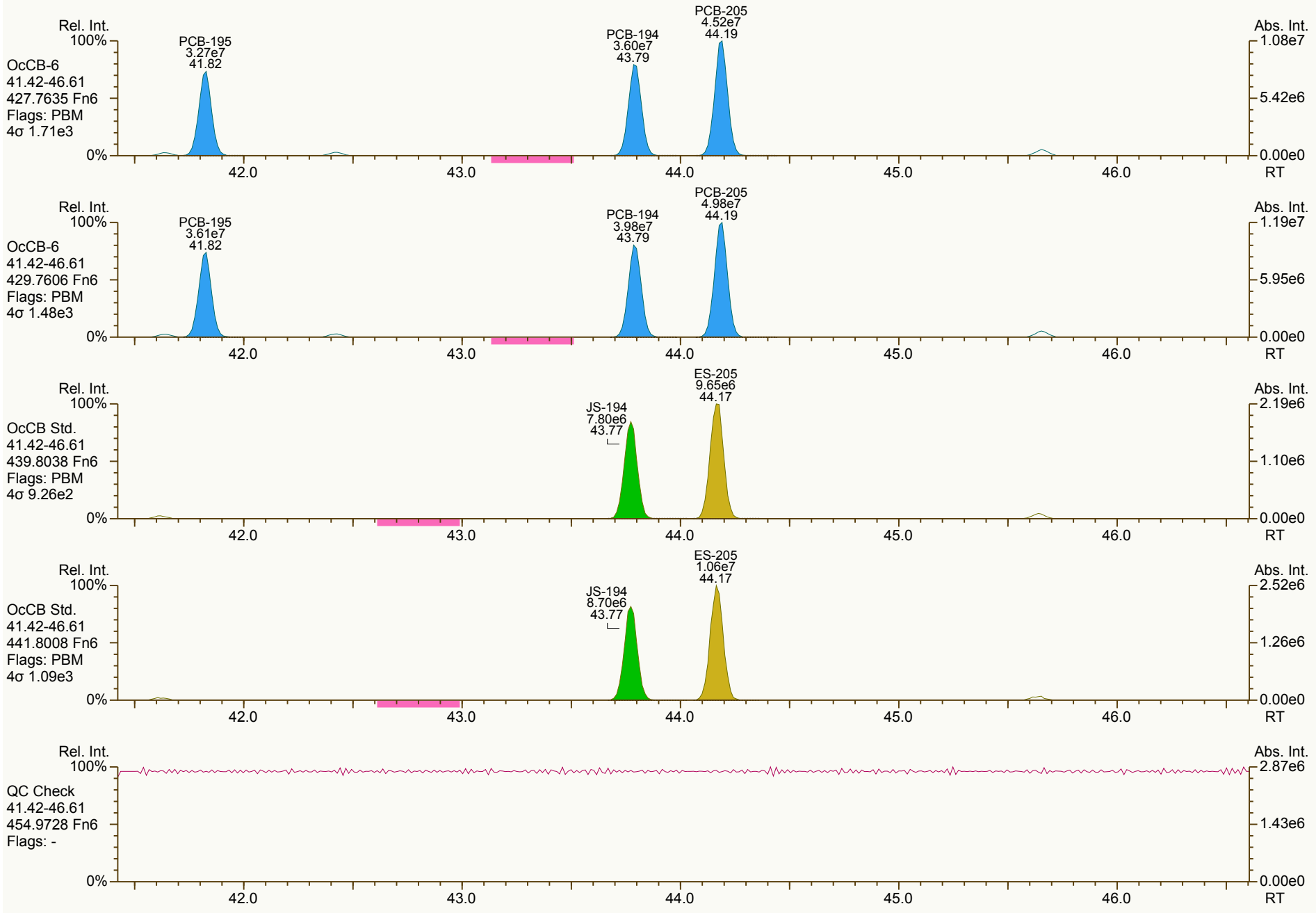
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



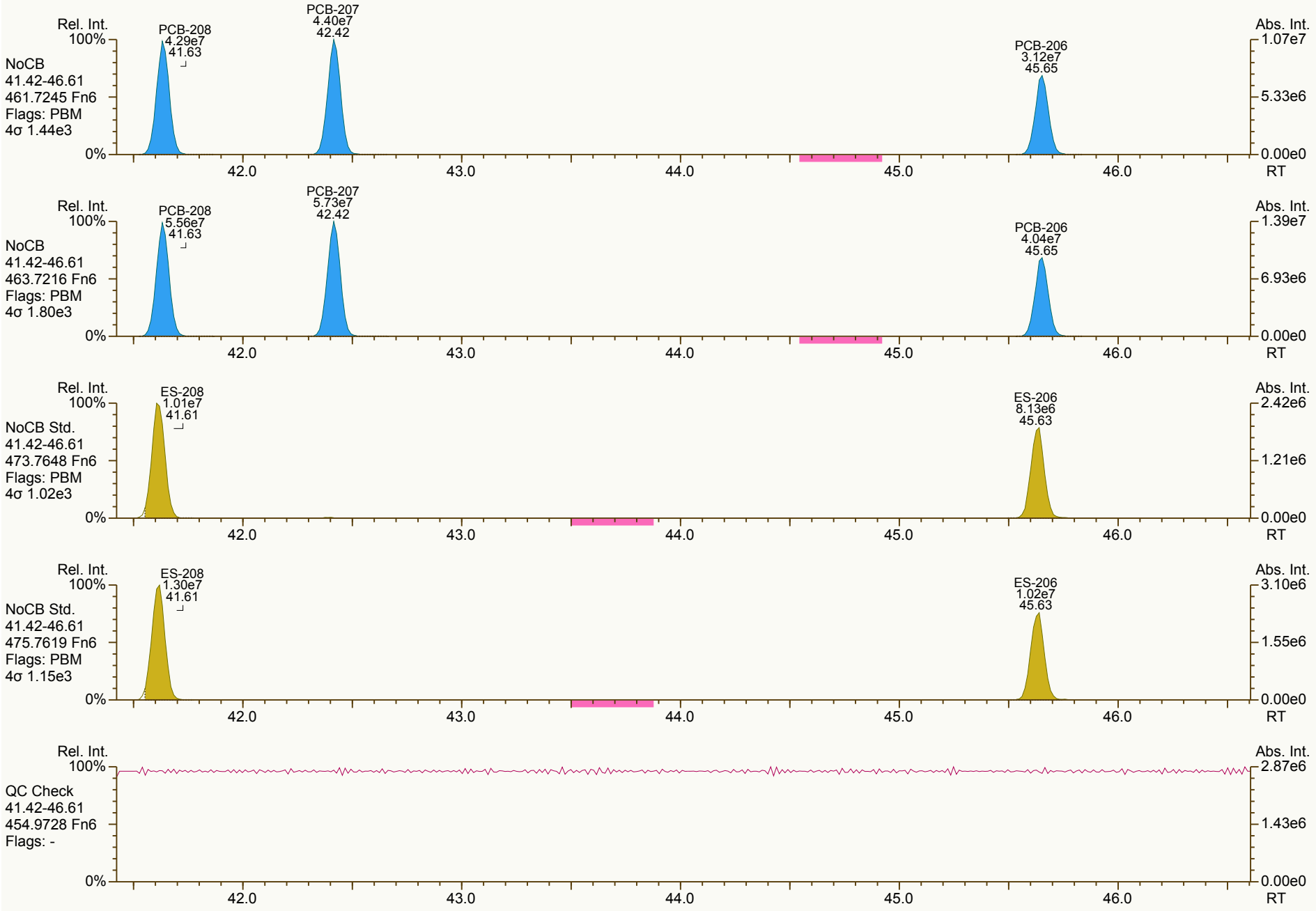
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM)
Peak annotation: Areas, Centroids

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



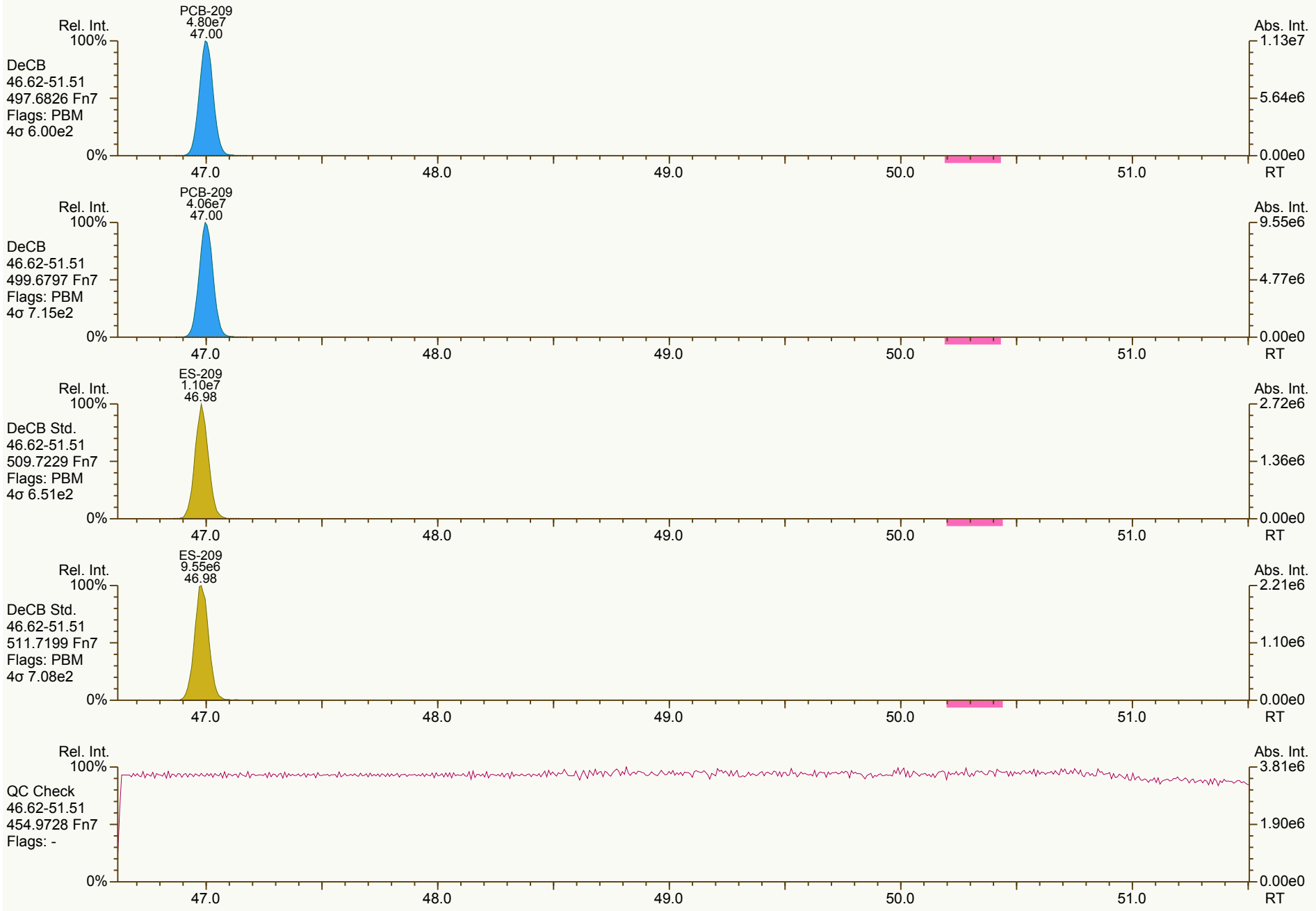
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



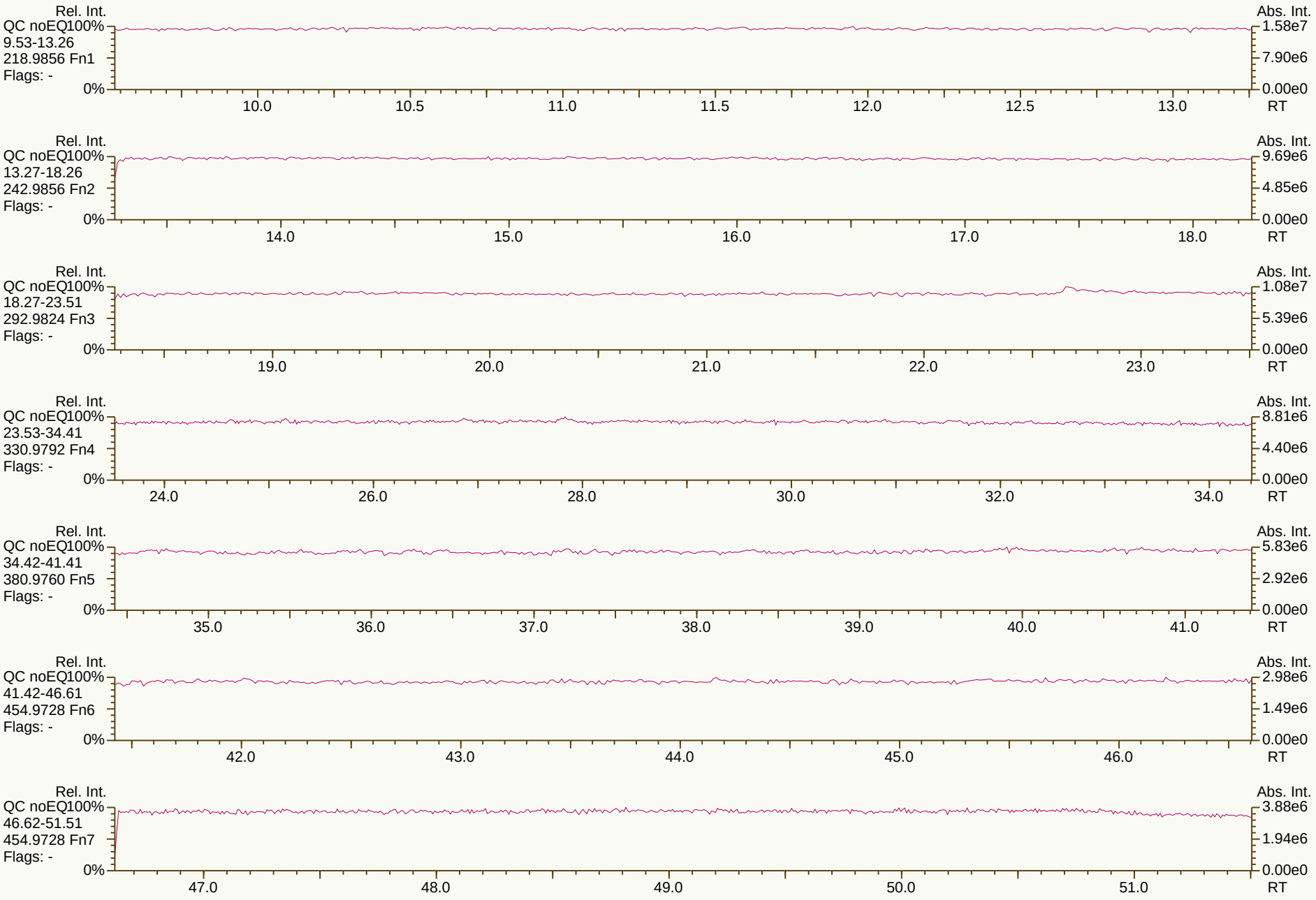
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:18
Lab ID:	CS5_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 06:57				
Datafile:	121214V07				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.10	1.66E+09	0.78 Y	1.25	1.23	-1.1%
PCB-81 344'5-TeCB	28.64	1.71E+09	0.78 Y	1.26	1.26	0.2%
PCB-105 233'44'-PeCB	32.05	9.93E+08	0.62 Y	1.06	1.02	-3.1%
PCB-114 2344'5-PeCB	31.52	1.15E+09	0.63 Y	1.11	1.12	0.5%
PCB-118 23'44'5-PeCB	31.08	1.09E+09	0.63 Y	1.08	1.07	-0.9%
PCB-123 23'44'5'-PeCB	30.80	1.12E+09	0.63 Y	1.12	1.05	-6.4%
PCB-126 33'44'5-PeCB	34.64	1.36E+09	0.63 Y	1.16	1.11	-3.5%
PCB-156/157 ...-HxCB	37.18	2.04E+09	1.24 Y	1.14	1.11	-2.4%
PCB-167 23'44'55'-HxCB	36.22	1.10E+09	1.25 Y	1.18	1.19	0.5%
PCB-169 33'44'55'-HxCB	39.89	9.71E+08	1.28 Y	1.15	1.13	-1.9%
PCB-189 233'44'55'-HpCB	42.02	1.26E+09	1.04 Y	1.12	1.12	0.5%
PCB-209 DeCB	46.99	7.51E+08	1.18 Y	1.11	1.06	-4.5%
ES PCB-1	9.81	9.28E+07	3.24 Y	0.97	0.88	-9.3%
ES PCB-3	11.71	8.94E+07	3.31 Y	0.90	0.85	-5.8%
ES PCB-4	11.92	6.98E+07	1.53 Y	0.70	0.66	-5.5%
ES PCB-15	16.98	1.20E+08	1.64 Y	1.02	1.14	12.3%
ES PCB-19	14.60	5.73E+07	1.05 Y	0.53	0.54	3.2%
ES PCB-37	22.93	7.26E+07	1.11 Y	1.29	1.28	-1.2%
ES PCB-54	17.23	7.75E+07	0.77 Y	1.43	1.36	-4.4%
ES PCB-77	29.09	6.72E+07	0.85 Y	1.20	1.18	-1.6%
ES PCB-81	28.62	6.80E+07	0.82 Y	1.16	1.20	3.0%
ES PCB-104	21.91	7.46E+07	1.54 Y	1.70	1.59	-6.7%
ES PCB-105	32.03	4.86E+07	1.56 Y	1.10	1.04	-5.6%
ES PCB-114	31.49	5.14E+07	1.52 Y	1.16	1.10	-5.1%
ES PCB-118	31.05	5.09E+07	1.52 Y	1.15	1.09	-5.9%
ES PCB-123	30.78	5.35E+07	1.53 Y	1.14	1.14	0.0%
ES PCB-126	34.62	6.08E+07	1.64 Y	1.34	1.30	-3.1%
ES PCB-153	32.64	5.17E+07	1.28 Y	1.14	1.09	-4.7%
ES PCB-155	26.71	7.08E+07	1.28 Y	1.61	1.49	-7.4%
ES PCB-156/157	37.16	9.19E+07	1.25 Y	0.98	0.97	-0.8%
ES PCB-167	36.20	4.64E+07	1.26 Y	1.01	0.98	-3.0%
ES PCB-169	39.87	4.29E+07	1.24 Y	0.90	0.91	0.9%
ES PCB-170	39.38	3.58E+07	1.03 Y	1.28	1.29	0.3%
ES PCB-180	38.33	4.50E+07	1.02 Y	1.54	1.62	5.0%
ES PCB-188	31.51	7.55E+07	1.01 Y	1.63	1.59	-2.0%
ES PCB-189	42.00	5.63E+07	1.05 Y	1.97	2.02	2.7%
ES PCB-202	36.01	5.83E+07	0.88 Y	1.26	1.23	-2.4%
ES PCB-205	44.16	3.48E+07	0.91 Y	1.22	1.25	2.3%
ES PCB-206	45.62	3.12E+07	0.77 Y	1.10	1.12	2.1%
ES PCB-208	41.61	4.08E+07	0.77 Y	1.41	1.47	4.2%
ES PCB-209	46.97	3.54E+07	1.15 Y	1.24	1.27	2.1%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.56	8.69E+07	1.10 Y	1.18	1.20	1.6%
SS PCB-111	29.15	5.17E+07	1.53 Y	1.01	0.97	-4.0%
SS PCB-178	34.06	4.56E+07	1.03 Y	0.60	0.60	0.2%
CS PCB-28	19.56	8.69E+07	1.10 Y	1.52	1.53	0.4%
CS PCB-111	29.15	5.17E+07	1.53 Y	1.15	1.10	-4.0%
CS PCB-178	34.06	4.56E+07	1.03 Y	0.98	0.96	-1.8%
JS PCB-9	13.64	1.05E+08	1.62 Y	-	-	-
JS PCB-52	21.11	5.68E+07	0.77 Y	-	-	-
JS PCB-101	26.89	4.69E+07	1.53 Y	-	-	-
JS PCB-138	33.67	4.74E+07	1.27 Y	-	-	-
JS PCB-194	43.76	2.78E+07	0.94 Y	-	-	-
PCB-1 2-MoCB	9.82	2.33E+09	3.09 Y	1.25	1.25	0.5%
PCB-3 4-MoCB	11.73	2.28E+09	3.09 Y	1.27	1.28	0.9%
PCB-4 22'-DiCB	11.94	1.27E+09	1.56 Y	0.90	0.91	1.3%
PCB-15 44'-DiCB	17.00	2.56E+09	1.54 Y	1.10	1.06	-2.9%
PCB-19 22'6-TrCB	14.62	1.09E+09	1.03 Y	0.95	0.95	0.7%
PCB-37 344'-TrCB	22.95	2.04E+09	1.05 Y	1.39	1.40	1.1%
PCB-54 22'66'-TeCB	17.24	1.71E+09	0.80 Y	1.05	1.10	5.0%
PCB-104 22'466'-PeCB	21.93	1.73E+09	0.63 Y	1.12	1.16	3.9%
PCB-153/168 ...-HxCB	32.68	2.56E+09	1.23 Y	1.24	1.24	0.2%
PCB-155 22'44'66'-HxCB	26.73	1.50E+09	1.23 Y	1.09	1.06	-2.6%
PCB-170 22'33'44'5-HpCB	39.39	7.22E+08	1.03 Y	0.99	1.01	1.4%
PCB-180/193 ...-HpCB	38.32	1.88E+09	1.03 Y	1.07	1.04	-2.4%
PCB-188 22'34'566'-HpCB	31.53	1.49E+09	1.03 Y	0.98	0.99	0.3%
PCB-202 22'33'55'66'-OcCB	36.03	9.88E+08	0.89 Y	0.86	0.85	-2.1%
PCB-205 233'44'55'6-OcCB	44.18	8.01E+08	0.90 Y	1.13	1.15	1.5%
PCB-208 22'33'455'66'-NoCB	41.63	8.35E+08	0.77 Y	1.03	1.02	-1.1%
PCB-206 22'33'44'55'6-NoCB	45.64	6.07E+08	0.77 Y	0.97	0.97	0.1%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA

ICAL: MM6_PCB_07132012_14DEC12

Acquired: 14-DEC-2012 06:57

Datafile: 121214V07

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.82	2.33E+09	3.09 Y	1.25	1.25	0.5%
PCB-2 3-MoCB	11.57	2.30E+09	3.10 Y	1.28	1.29	0.6%
PCB-3 4-MoCB	11.73	2.28E+09	3.09 Y	1.27	1.28	0.9%
PCB-4 22'-DiCB	11.94	1.27E+09	1.56 Y	0.90	0.91	1.3%
PCB-10 26-DiCB	12.09	1.99E+09	1.55 Y	1.38	1.42	3.3%
PCB-9 25-DiCB	13.66	2.17E+09	1.55 Y	0.99	0.90	-8.9%
PCB-7 24-DiCB	13.80	2.49E+09	1.55 Y	1.10	1.04	-5.9%
PCB-6 23'-DiCB	14.00	2.30E+09	1.55 Y	1.04	0.96	-8.1%
PCB-5 23-DiCB	14.26	2.36E+09	1.56 Y	1.02	0.98	-4.3%
PCB-8 24'-DiCB	14.37	2.39E+09	1.55 Y	1.03	0.99	-3.7%
PCB-14 35-DiCB	15.77	2.70E+09	1.55 Y	1.20	1.12	-6.3%
PCB-11 33'-DiCB	16.47	2.20E+09	1.56 Y	1.03	0.92	-10.9%
PCB-13/12 34'/34-DiCB	16.74	5.07E+09	1.55 Y	1.03	1.05	2.0%
PCB-15 44'-DiCB	17.00	2.56E+09	1.54 Y	1.10	1.06	-2.9%
PCB-19 22'6-TrCB	14.62	1.09E+09	1.03 Y	0.95	0.95	0.7%
PCB-30/18 246/22'5-TrCB	16.21	3.09E+09	1.03 Y	1.23	1.35	9.4%
PCB-17 22'4-TrCB	16.58	1.21E+09	1.03 Y	1.05	1.05	0.1%
PCB-27 23'6-TrCB	16.76	1.85E+09	1.04 Y	1.46	1.62	10.5%
PCB-24 236-TrCB	16.87	1.61E+09	1.03 Y	1.32	1.41	6.5%
PCB-16 22'3-TrCB	16.96	9.96E+08	1.05 Y	0.81	0.87	7.6%
PCB-32 24'6-TrCB	17.40	1.74E+09	1.03 Y	1.48	1.52	3.0%
PCB-34 23'5'-TrCB	18.48	2.15E+09	1.06 Y	1.46	1.48	1.0%
PCB-23 235-TrCB	18.61	2.17E+09	1.05 Y	1.50	1.49	-0.6%
PCB-26/29 23'5/245-TrCB	18.88	4.54E+09	1.05 Y	1.53	1.56	2.2%
PCB-25 23'4-TrCB	19.07	2.34E+09	1.05 Y	1.53	1.61	4.9%
PCB-31 24'5-TrCB	19.33	2.30E+09	1.05 Y	1.55	1.58	1.9%
PCB-28/20 244'/233'-TrCB	19.59	4.56E+09	1.04 Y	1.51	1.57	4.1%
PCB-21/33 234/23'4'-TrCB	19.75	4.69E+09	1.06 Y	1.55	1.61	4.4%
PCB-22 234'-TrCB	20.10	2.06E+09	1.05 Y	1.40	1.42	1.5%
PCB-36 33'5-TrCB	21.44	2.19E+09	1.06 Y	1.52	1.51	-0.6%
PCB-39 34'5-TrCB	21.74	2.32E+09	1.05 Y	1.58	1.59	0.7%
PCB-38 345-TrCB	22.23	2.28E+09	1.05 Y	1.47	1.57	6.7%
PCB-35 33'4-TrCB	22.61	1.96E+09	1.05 Y	1.33	1.35	1.4%
PCB-37 344'-TrCB	22.95	2.04E+09	1.05 Y	1.39	1.40	1.1%
PCB-54 22'66'-TeCB	17.24	1.71E+09	0.80 Y	1.05	1.10	5.0%
PCB-50/53 22'46/22'56'-TeCB	19.11	2.43E+09	0.77 Y	0.88	0.89	2.0%
PCB-45 22'36-TeCB	19.65	1.03E+09	0.76 Y	0.73	0.76	2.9%
PCB-51 22'46'-TeCB	19.72	1.29E+09	0.77 Y	0.94	0.95	0.9%
PCB-46 22'36'-TeCB	19.91	9.44E+08	0.77 Y	0.72	0.69	-3.2%
PCB-52 22'55'-TeCB	21.13	1.13E+09	0.77 Y	0.82	0.83	0.6%
PCB-73 23'5'6-TeCB	21.25	1.42E+09	0.77 Y	1.10	1.05	-4.8%
PCB-43 22'35-TeCB	21.33	9.63E+08	0.77 Y	0.70	0.71	0.5%
PCB-69/49 23'46/22'45'-TeCB	21.52	2.79E+09	0.77 Y	1.01	1.03	1.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.78	1.15E+09	0.77 Y	0.84	0.85	0.4%
PCB-44/47/65 ...-TeCB	21.99	3.82E+09	0.77 Y	0.90	0.94	3.9%
PCB-59/62/75 ...-TeCB	22.25	4.99E+09	0.77 Y	1.15	1.22	5.9%
PCB-42 22'34'-TeCB	22.40	1.01E+09	0.77 Y	0.76	0.74	-2.5%
PCB-41 22'34-TeCB	22.72	9.40E+08	0.77 Y	0.64	0.69	7.9%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	2.34E+09	0.77 Y	0.83	0.86	3.2%
PCB-64 234'6-TeCB	23.01	1.60E+09	0.77 Y	1.17	1.18	0.5%
PCB-72 23'55'-TeCB	23.73	1.87E+09	0.78 Y	1.37	1.38	0.6%
PCB-68 23'45'-TeCB	23.97	1.95E+09	0.78 Y	1.52	1.44	-5.3%
PCB-57 233'5-TeCB	24.32	1.74E+09	0.78 Y	1.32	1.28	-3.2%
PCB-58 233'5'-TeCB	24.52	1.78E+09	0.78 Y	1.34	1.31	-2.3%
PCB-67 23'45-TeCB	24.67	1.94E+09	0.77 Y	1.41	1.43	1.0%
PCB-63 234'5-TeCB	24.89	1.93E+09	0.78 Y	1.46	1.42	-2.4%
PCB-61/70/74/76 ...-TeCB	25.16	7.48E+09	0.78 Y	1.37	1.38	0.8%
PCB-66 23'44'-TeCB	25.44	1.65E+09	0.77 Y	1.24	1.21	-2.2%
PCB-55 233'4-TeCB	25.57	1.70E+09	0.78 Y	1.28	1.25	-2.2%
PCB-56 233'4'-TeCB	25.99	1.59E+09	0.78 Y	1.23	1.17	-4.7%
PCB-60 2344'-TeCB	26.17	1.73E+09	0.77 Y	1.30	1.27	-2.0%
PCB-80 33'55'-TeCB	26.54	1.91E+09	0.78 Y	1.44	1.40	-2.2%
PCB-79 33'45'-TeCB	27.82	2.08E+09	0.78 Y	1.48	1.53	3.8%
PCB-78 33'45-TeCB	28.27	1.55E+09	0.77 Y	1.21	1.14	-5.5%
PCB-104 22'466'-PeCB	21.93	1.73E+09	0.63 Y	1.12	1.16	3.9%
PCB-96 22'366'-PeCB	22.23	1.58E+09	0.64 Y	0.96	1.06	9.7%
PCB-103 22'45'6-PeCB	23.88	9.25E+08	0.62 Y	0.93	0.86	-7.3%
PCB-94 22'356'-PeCB	24.06	8.08E+08	0.62 Y	0.81	0.76	-6.6%
PCB-95 22'35'6-PeCB	24.42	8.46E+08	0.63 Y	0.85	0.79	-7.0%
PCB-100/93 22'44'6/22'356-PeCB	24.63	1.84E+09	0.62 Y	0.88	0.86	-2.9%
PCB-102 22'456'-PeCB	24.74	9.16E+08	0.62 Y	0.93	0.86	-8.1%
PCB-98 22'34'6'-PeCB	24.80	8.08E+08	0.63 Y	0.84	0.75	-10.0%
PCB-88 22'346-PeCB	25.08	7.63E+08	0.62 Y	0.77	0.71	-7.7%
PCB-91 22'34'6-PeCB	25.15	1.08E+09	0.64 Y	0.96	1.01	4.7%
PCB-84 22'33'6-PeCB	25.33	7.16E+08	0.63 Y	0.72	0.67	-7.2%
PCB-89 22'346'-PeCB	25.73	7.52E+08	0.63 Y	0.77	0.70	-9.0%
PCB-121 23'45'6-PeCB	26.11	1.17E+09	0.63 Y	1.15	1.09	-4.9%
PCB-92 22'355'-PeCB	26.42	7.96E+08	0.63 Y	0.79	0.74	-6.2%
PCB-113/90/101 ...-PeCB	26.89	2.96E+09	0.63 Y	0.95	0.92	-3.6%
PCB-83 22'33'5-PeCB	27.30	7.05E+08	0.62 Y	0.72	0.66	-8.5%
PCB-99 22'44'5-PeCB	27.40	9.27E+08	0.62 Y	0.90	0.87	-3.4%
PCB-112 233'56-PeCB	27.49	1.05E+09	0.63 Y	1.09	0.98	-10.0%
PCB-109/119/86/97/125...-PeCB	27.83	6.05E+09	0.63 Y	0.95	0.94	-0.6%
PCB-117 234'56-PeCB	28.35	9.88E+08	0.62 Y	0.99	0.92	-6.8%
PCB-116/85 23456/22'344'-PeCB	28.42	2.02E+09	0.63 Y	0.96	0.94	-1.8%
PCB-110 233'4'6-PeCB	28.55	9.80E+08	0.63 Y	1.01	0.92	-9.2%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.16E+09	0.63 Y	1.15	1.08	-5.9%
PCB-82 22'33'4-PeCB	28.81	6.88E+08	0.63 Y	0.70	0.64	-8.0%
PCB-111 233'55'-PeCB	29.18	1.20E+09	0.62 Y	1.16	1.12	-3.5%
PCB-120 23'455'-PeCB	29.56	1.16E+09	0.62 Y	1.14	1.08	-4.6%
PCB-108/124 ...-PeCB	30.50	2.15E+09	0.62 Y	1.02	1.01	-1.2%
PCB-107 233'4'5-PeCB	30.70	1.17E+09	0.62 Y	1.13	1.09	-3.9%
PCB-106 233'45-PeCB	30.90	1.07E+09	0.63 Y	1.01	1.00	-1.1%
PCB-122 233'4'5'-PeCB	31.35	9.35E+08	0.63 Y	0.91	0.91	-0.2%
PCB-127 33'455'-PeCB	33.30	1.05E+09	0.63 Y	1.06	1.08	2.4%
PCB-155 22'44'66'-HxCB	26.73	1.50E+09	1.23 Y	1.09	1.06	-2.6%
PCB-152 22'3566'-HxCB	26.87	1.53E+09	1.23 Y	1.04	1.08	3.9%
PCB-150 22'34'66'-HxCB	27.02	1.42E+09	1.24 Y	1.03	1.00	-2.7%
PCB-136 22'33'66'-HxCB	27.30	1.39E+09	1.24 Y	0.97	0.98	0.6%
PCB-145 22'3466'-HxCB	27.57	1.35E+09	1.24 Y	0.96	0.95	-1.0%
PCB-148 22'34'56'-HxCB	28.85	1.04E+09	1.23 Y	1.03	1.01	-2.3%
PCB-151/135 ...-HxCB	29.35	2.01E+09	1.24 Y	0.99	0.97	-1.9%
PCB-154 22'44'56'-HxCB	29.57	1.19E+09	1.23 Y	1.17	1.15	-2.1%
PCB-144 22'345'6-HxCB	29.81	1.01E+09	1.24 Y	1.03	0.97	-5.2%
PCB-147/149 ...-HxCB	30.11	2.12E+09	1.24 Y	1.02	1.03	0.9%
PCB-134 22'33'56-HxCB	30.27	8.33E+08	1.23 Y	0.80	0.81	0.8%
PCB-143 22'3456'-HxCB	30.35	9.55E+08	1.24 Y	0.95	0.92	-2.5%
PCB-139/140 ...-HxCB	30.62	2.19E+09	1.23 Y	1.05	1.06	1.0%
PCB-131 22'33'46-HxCB	30.78	9.56E+08	1.23 Y	0.90	0.93	3.4%
PCB-142 22'3456-HxCB	30.91	9.53E+08	1.23 Y	0.93	0.92	-0.4%
PCB-132 22'33'46'-HxCB	31.15	9.14E+08	1.25 Y	0.93	0.88	-4.8%
PCB-133 22'33'55'-HxCB	31.60	9.78E+08	1.24 Y	0.97	0.95	-2.2%
PCB-165 233'55'6-HxCB	31.93	1.14E+09	1.24 Y	1.16	1.10	-5.2%
PCB-146 22'34'55'-HxCB	32.14	1.00E+09	1.24 Y	1.01	0.97	-3.7%
PCB-161 233'45'6-HxCB	32.25	1.39E+09	1.25 Y	1.29	1.35	4.2%
PCB-153/168 ...-HxCB	32.68	2.56E+09	1.23 Y	1.24	1.24	0.2%
PCB-141 22'3455'-HxCB	32.81	9.43E+08	1.24 Y	0.95	0.91	-3.6%
PCB-130 22'33'45'-HxCB	33.15	8.32E+08	1.24 Y	0.82	0.81	-2.0%
PCB-137 22'344'5-HxCB	33.34	1.03E+09	1.21 Y	0.97	1.00	2.9%
PCB-164 233'4'5'6-HxCB	33.43	1.31E+09	1.24 Y	1.25	1.27	1.4%
PCB-163/138/129 ...-HxCB	33.71	3.28E+09	1.23 Y	1.04	1.06	1.4%
PCB-160 233'456-HxCB	33.83	1.26E+09	1.24 Y	1.19	1.22	2.7%
PCB-158 233'44'6-HxCB	34.02	1.37E+09	1.22 Y	1.34	1.32	-1.1%
PCB-128/166 ...-HxCB	34.73	1.82E+09	1.25 Y	0.96	0.98	2.1%
PCB-159 233'455'-HxCB	35.58	1.06E+09	1.26 Y	1.12	1.14	1.7%
PCB-162 233'4'55'-HxCB	35.82	1.04E+09	1.24 Y	1.13	1.12	-0.9%
PCB-188 22'34'566'-HpCB	31.53	1.49E+09	1.03 Y	0.98	0.99	0.3%
PCB-179 22'33'566'-HpCB	31.79	1.27E+09	1.03 Y	0.90	0.84	-6.0%
PCB-184 22'344'66'-HpCB	32.26	1.34E+09	1.02 Y	0.86	0.89	2.7%

PCB QC Summary - Ax2 Detail **Printed: 14-Dec-2012 11:18**

Lab ID: CS5_121214_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.53	1.40E+09	1.02 Y	0.97	0.93	-4.6%
PCB-186 22'34566'-HpCB	32.91	1.32E+09	1.03 Y	0.93	0.87	-5.5%
PCB-178 22'33'55'6-HpCB	34.08	1.00E+09	1.03 Y	0.66	0.66	0.1%
PCB-175 22'33'45'6-HpCB	34.62	9.11E+08	1.04 Y	1.02	1.01	-1.2%
PCB-187 22'34'55'6-HpCB	34.84	8.94E+08	1.04 Y	1.03	0.99	-3.3%
PCB-182 22'344'56'-HpCB	35.02	9.12E+08	1.04 Y	1.10	1.01	-7.5%
PCB-183 22'344'5'6-HpCB	35.36	8.79E+08	1.03 Y	1.12	0.98	-13.1%
PCB-185 22'3455'6-HpCB	35.43	9.69E+08	1.04 Y	0.97	1.08	11.3%
PCB-174 22'33'456'-HpCB	35.54	7.83E+08	1.04 Y	0.90	0.87	-2.8%
PCB-177 22'33'45'6'-HpCB	35.91	7.46E+08	1.04 Y	0.87	0.83	-4.9%
PCB-181 22'344'56-HpCB	36.25	9.09E+08	1.03 Y	1.03	1.01	-2.3%
PCB-171/173 ...-HpCB	36.42	1.57E+09	1.04 Y	0.89	0.87	-1.7%
PCB-172 22'33'455'-HpCB	37.81	7.53E+08	1.03 Y	0.87	0.84	-4.1%
PCB-192 233'455'6-HpCB	38.04	9.98E+08	1.04 Y	1.16	1.11	-4.5%
PCB-180/193 ...-HpCB	38.32	1.88E+09	1.03 Y	1.07	1.04	-2.4%
PCB-191 233'44'5'6-HpCB	38.65	1.01E+09	1.04 Y	1.18	1.12	-5.3%
PCB-170 22'33'44'5-HpCB	39.39	7.22E+08	1.03 Y	0.99	1.01	1.4%
PCB-190 233'44'56-HpCB	39.84	1.02E+09	1.03 Y	1.36	1.42	4.8%
PCB-202 22'33'55'66'-OcCB	36.03	9.88E+08	0.89 Y	0.86	0.85	-2.1%
PCB-201 22'33'45'66'-OcCB	36.80	1.11E+09	0.89 Y	0.95	0.95	0.0%
PCB-204 22'344'566'-OcCB	37.37	1.03E+09	0.89 Y	0.90	0.89	-1.9%
PCB-197 22'33'44'66'-OcCB	37.56	1.16E+09	0.88 Y	0.96	1.00	3.6%
PCB-200 22'33'4566'-OcCB	37.64	1.04E+09	0.90 Y	0.88	0.89	0.7%
PCB-198/199 ...-OcCB	39.98	1.55E+09	0.89 Y	0.63	0.67	5.6%
PCB-196 22'33'44'56'-OcCB	40.55	7.58E+08	0.88 Y	0.66	0.65	-1.8%
PCB-203 22'344'55'6-OcCB	40.71	8.03E+08	0.89 Y	0.69	0.69	-0.9%
PCB-195 22'33'44'56-OcCB	41.81	5.86E+08	0.91 Y	0.82	0.84	2.0%
PCB-194 22'33'44'55'-OcCB	43.78	6.25E+08	0.90 Y	0.90	0.90	-0.5%
PCB-205 233'44'55'6-OcCB	44.18	8.01E+08	0.90 Y	1.13	1.15	1.5%
PCB-208 22'33'455'66'-NoCB	41.63	8.35E+08	0.77 Y	1.03	1.02	-1.1%
PCB-207 22'33'44'566'-NoCB	42.41	8.57E+08	0.77 Y	1.07	1.05	-1.8%
PCB-206 22'33'44'55'6-NoCB	45.64	6.07E+08	0.77 Y	0.97	0.97	0.1%

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



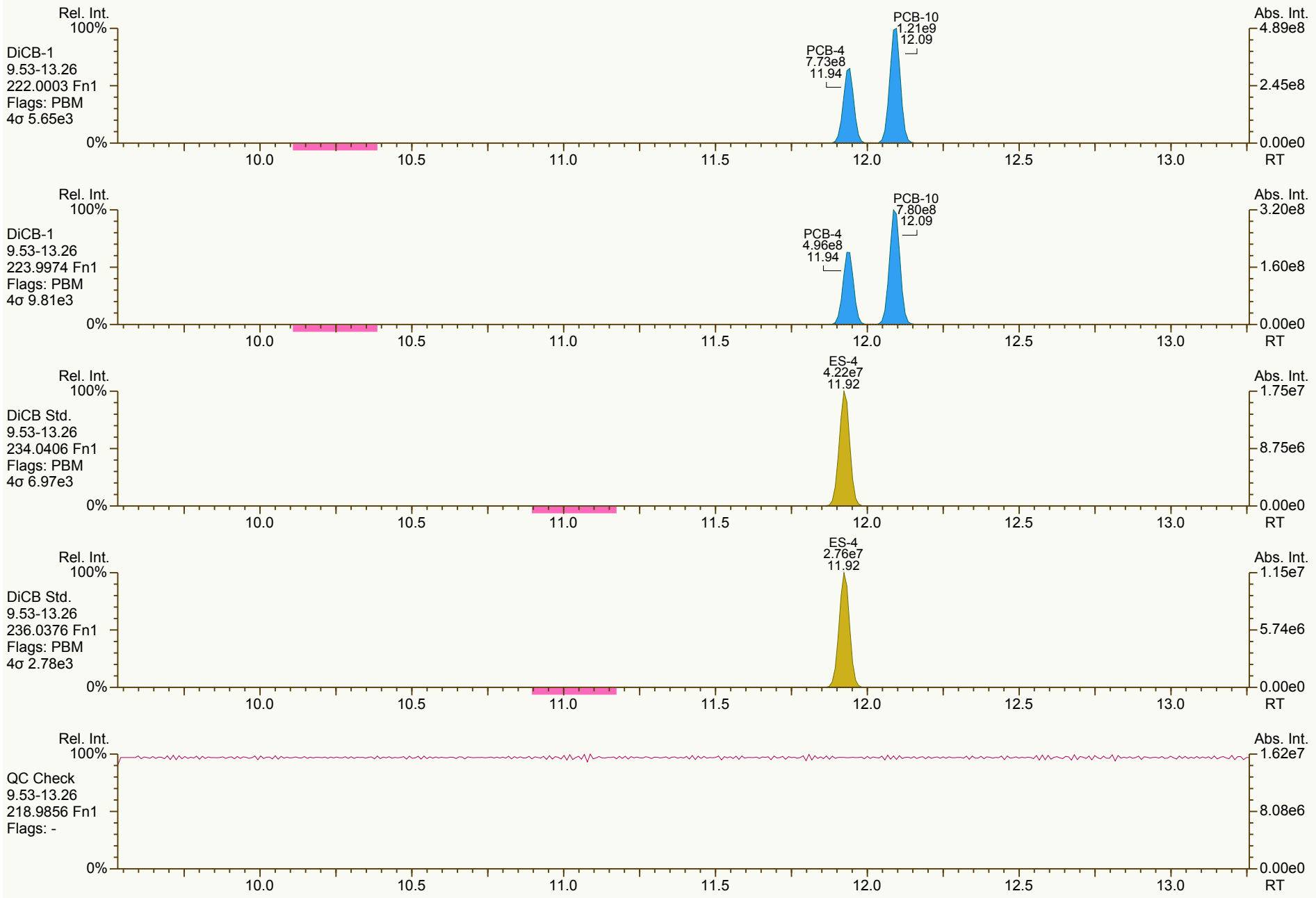
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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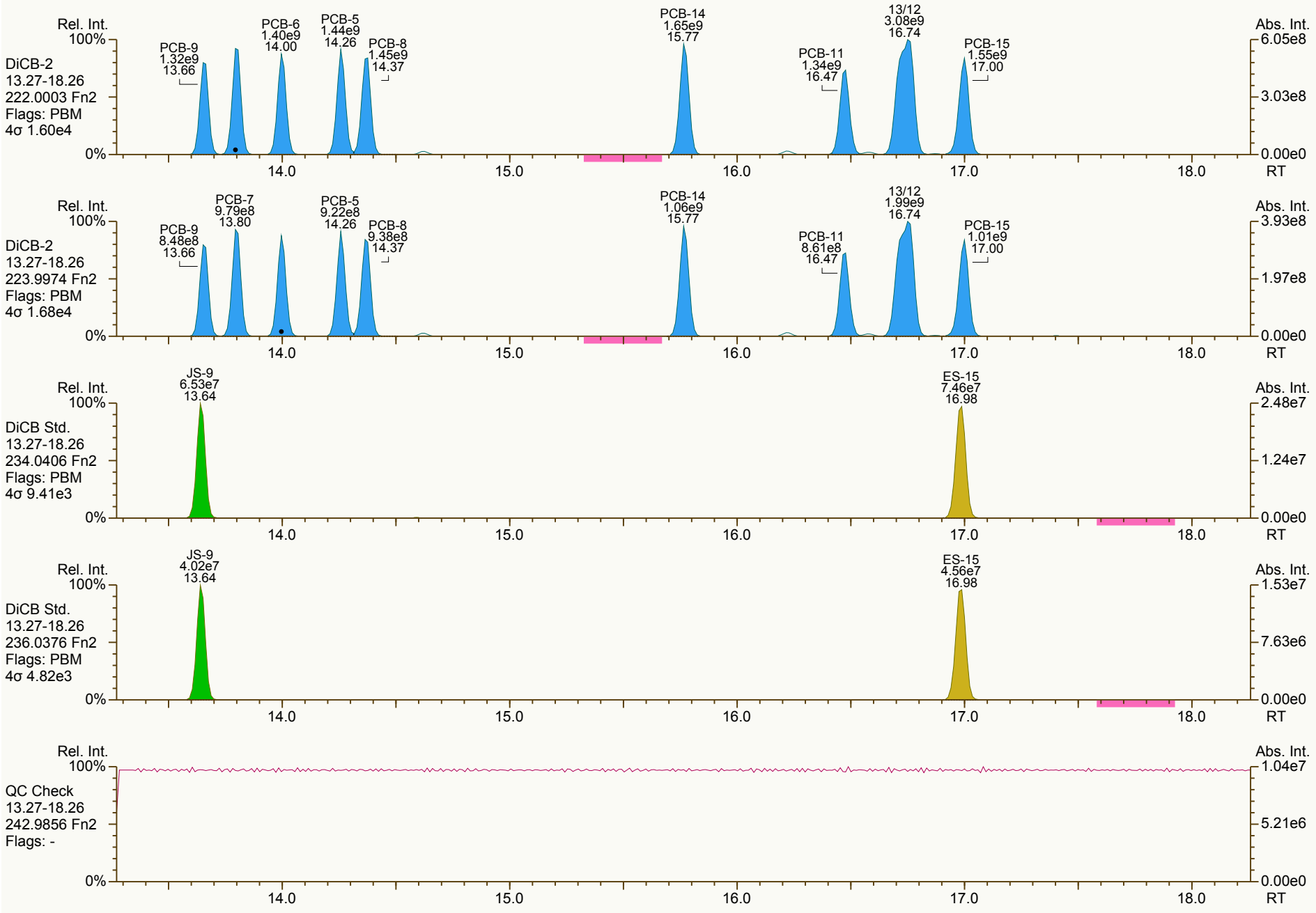
SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15 | User: CEM Datafile: 121214V07 (EQ)



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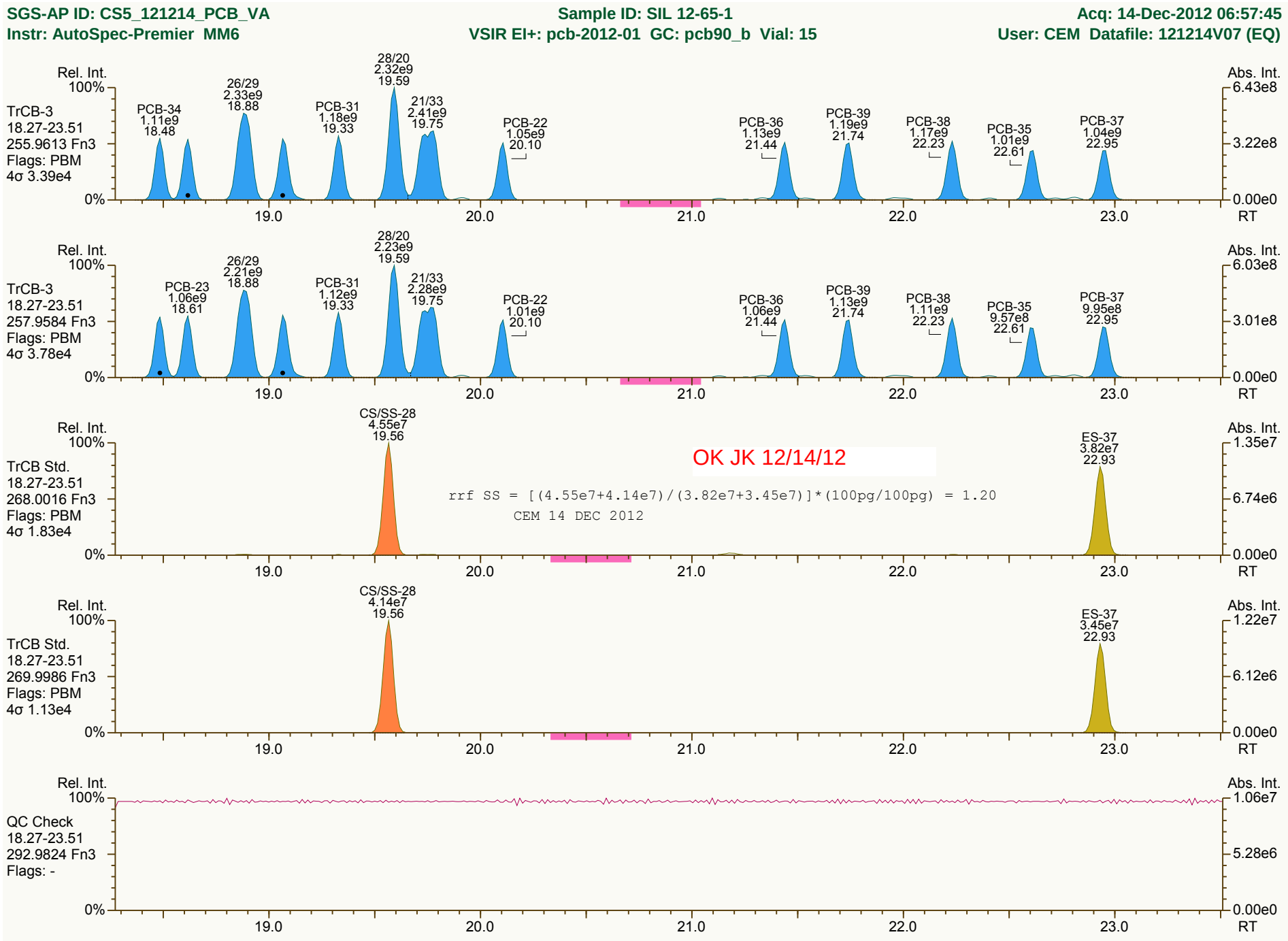
Peak annotation: Areas, Centroids

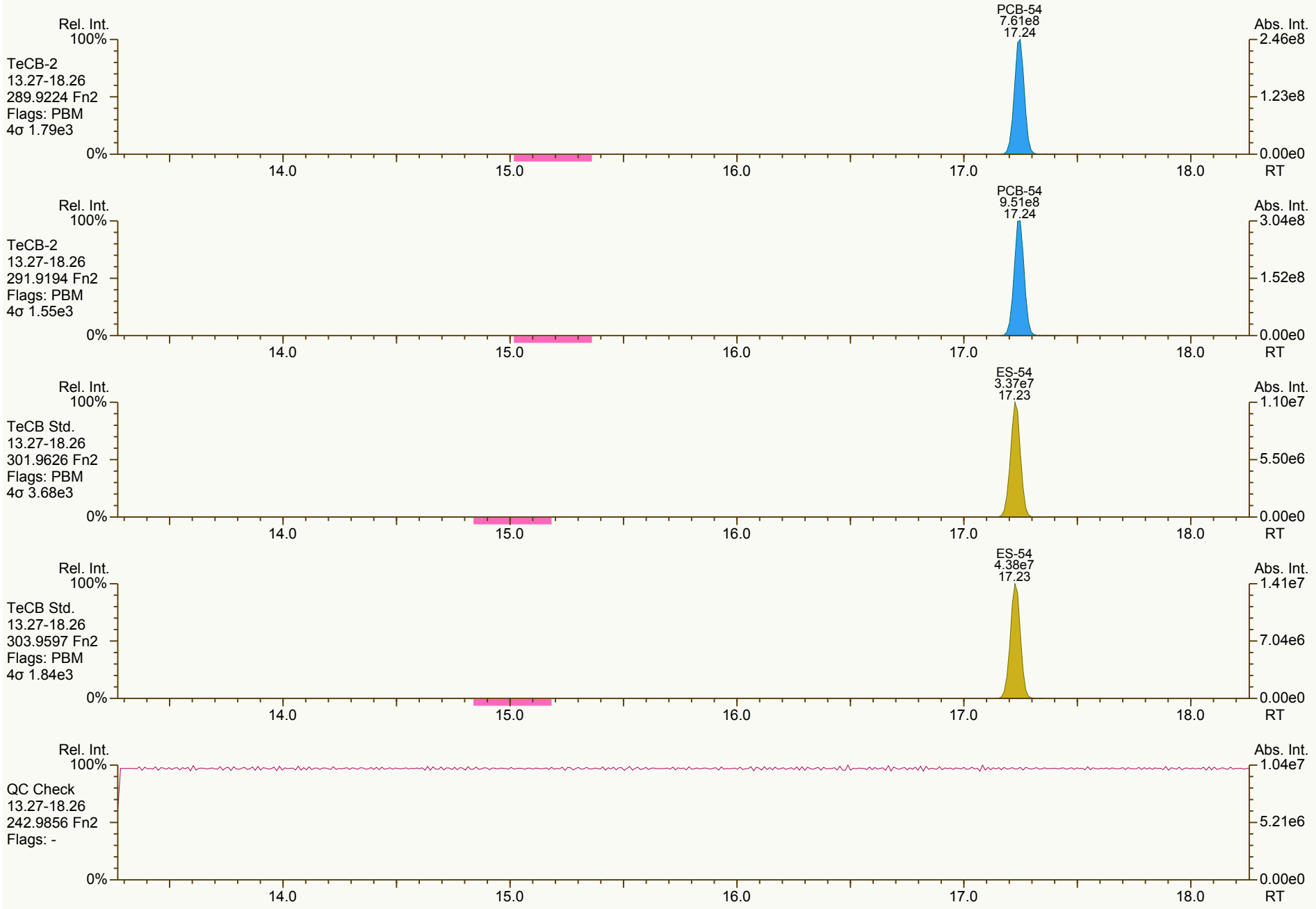
SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*


SGS-AP ID: CS5_121214_PCB_VA
Sample ID: SIL 12-65-1
Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15
User: CEM Datafile: 121214V07 (EQ)
TrCB-3
18.27-23.51
255.9613 Fn3
Flags: PBM
4σ 3.39e4
PCB-34 1.11e9 18.48
26/29 2.33e9 18.88
PCB-31 1.18e9 19.33
28/20 2.32e9 19.59
21/33 2.41e9 19.75
PCB-22 1.05e9 20.10
PCB-36 1.13e9 21.44
PCB-39 1.19e9 21.74
PCB-38 1.17e9 22.23
PCB-35 1.01e9 22.61
PCB-37 1.04e9 22.95
TrCB-3
18.27-23.51
257.9584 Fn3
Flags: PBM
4σ 3.78e4
PCB-23 1.06e9 18.61
26/29 2.21e9 18.88
PCB-31 1.12e9 19.33
28/20 2.23e9 19.59
21/33 2.28e9 19.75
PCB-22 1.01e9 20.10
PCB-36 1.06e9 21.44
PCB-39 1.13e9 21.74
PCB-38 1.11e9 22.23
PCB-35 9.57e8 22.61
PCB-37 9.95e8 22.95
TrCB Std.
18.27-23.51
268.0016 Fn3
Flags: PBM
4σ 1.83e4
CS/SS-28 4.55e7 19.56
ES-37 3.82e7 22.93
OK JK 12/14/12
rrf SS = [(4.55e7+4.14e7)/(3.82e7+3.45e7)]*(100pg/100pg) = 1.20
CEM 14 DEC 2012
TrCB Std.
18.27-23.51
269.9986 Fn3
Flags: PBM
4σ 1.13e4
CS/SS-28 4.14e7 19.56
ES-37 3.45e7 22.93
QC Check
18.27-23.51
292.9824 Fn3
Flags: -
Rel. Int.
Abs. Int.
RT
19.0
20.0
21.0
22.0
23.0

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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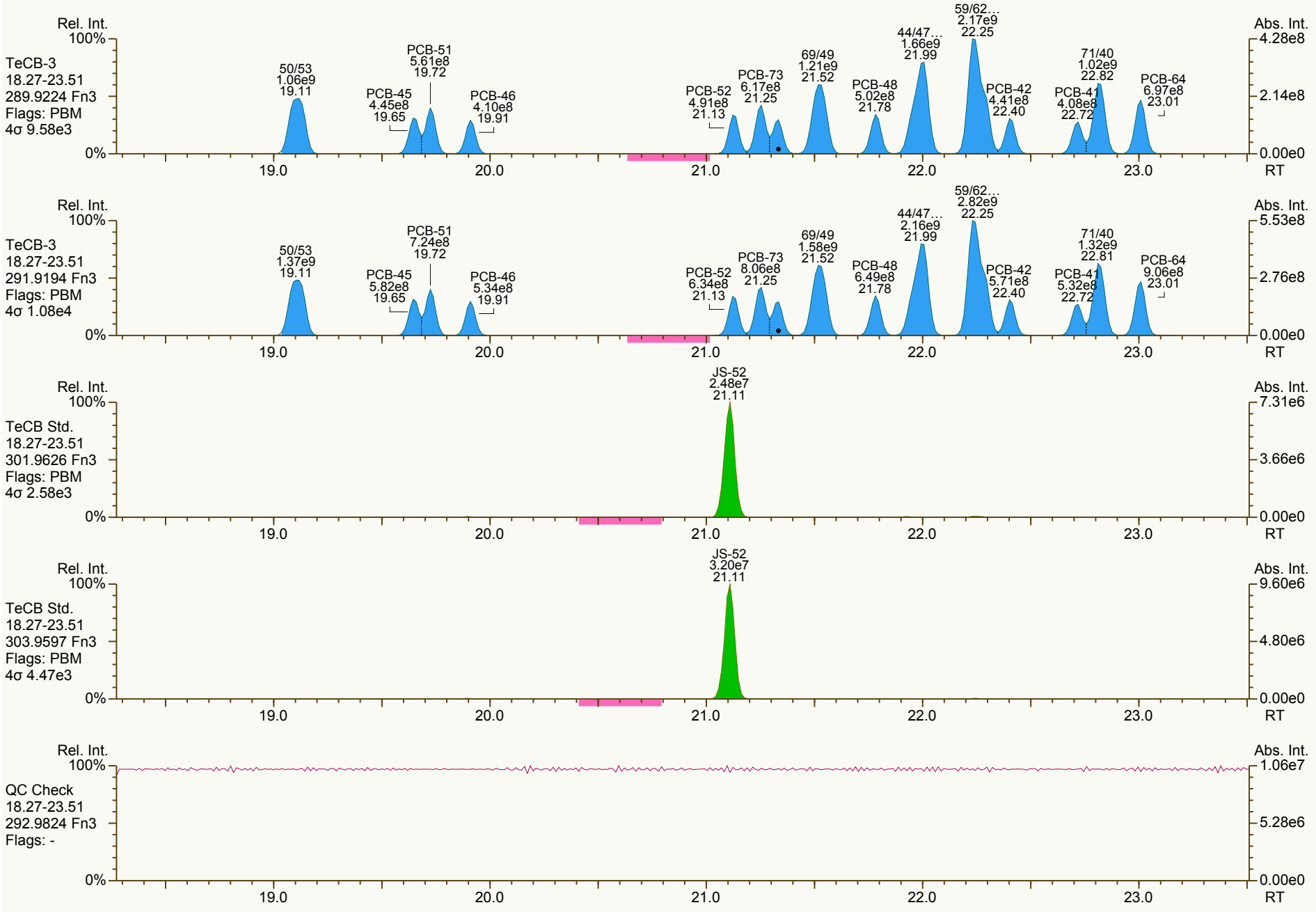
SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15 | User: CEM Datafile: 121214V07 (EQ)



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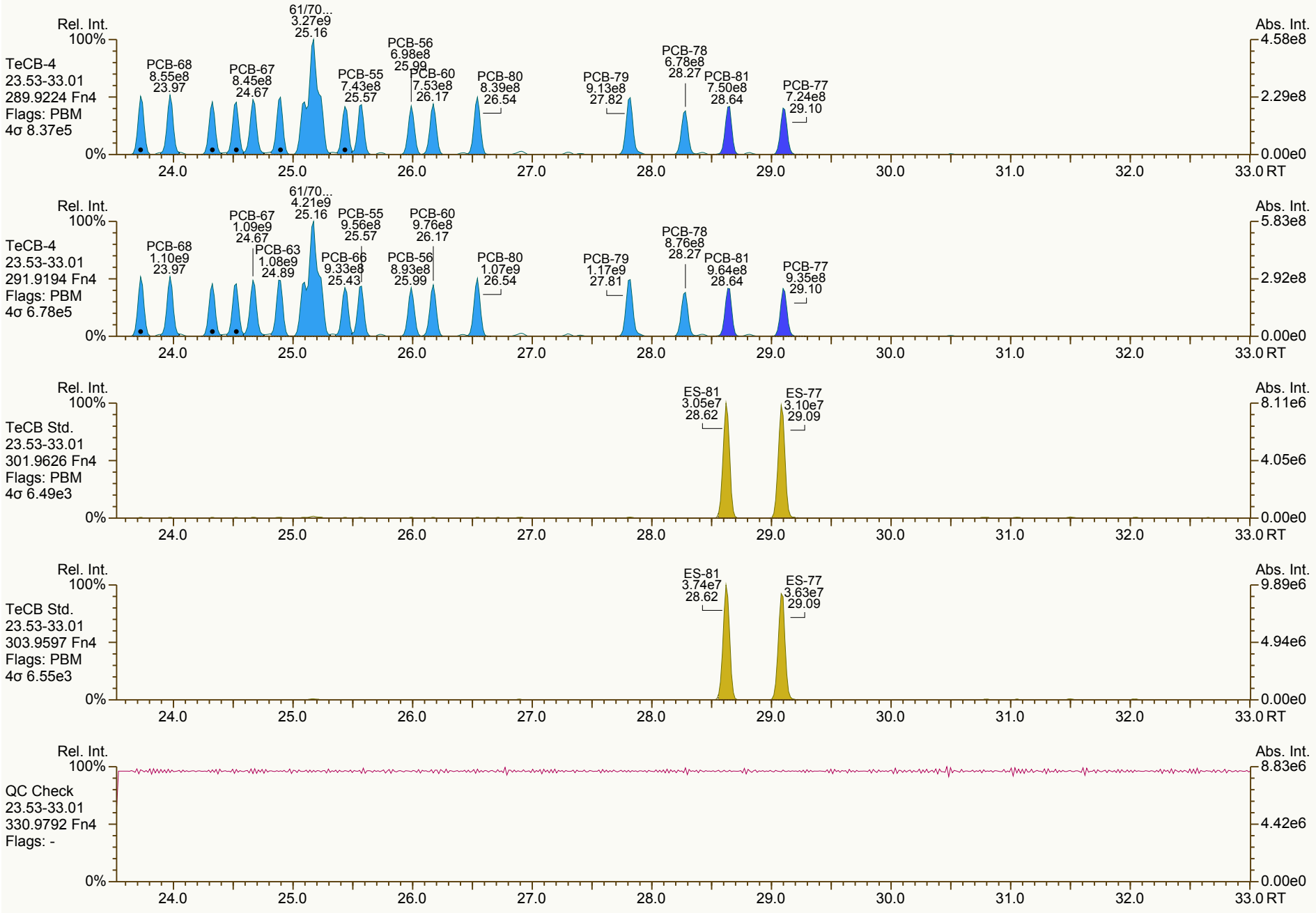
Peak annotation: Areas, Centroids

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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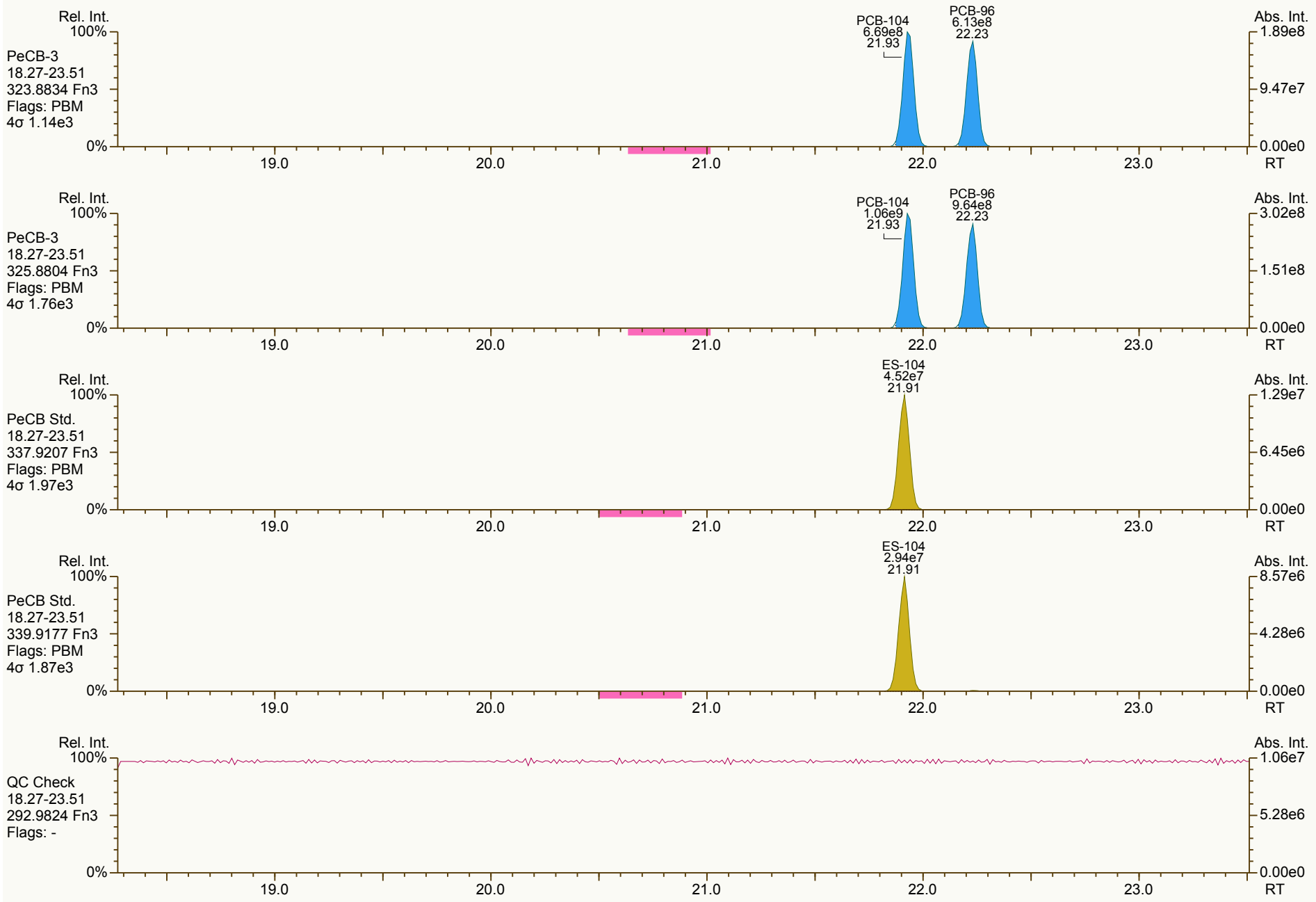
SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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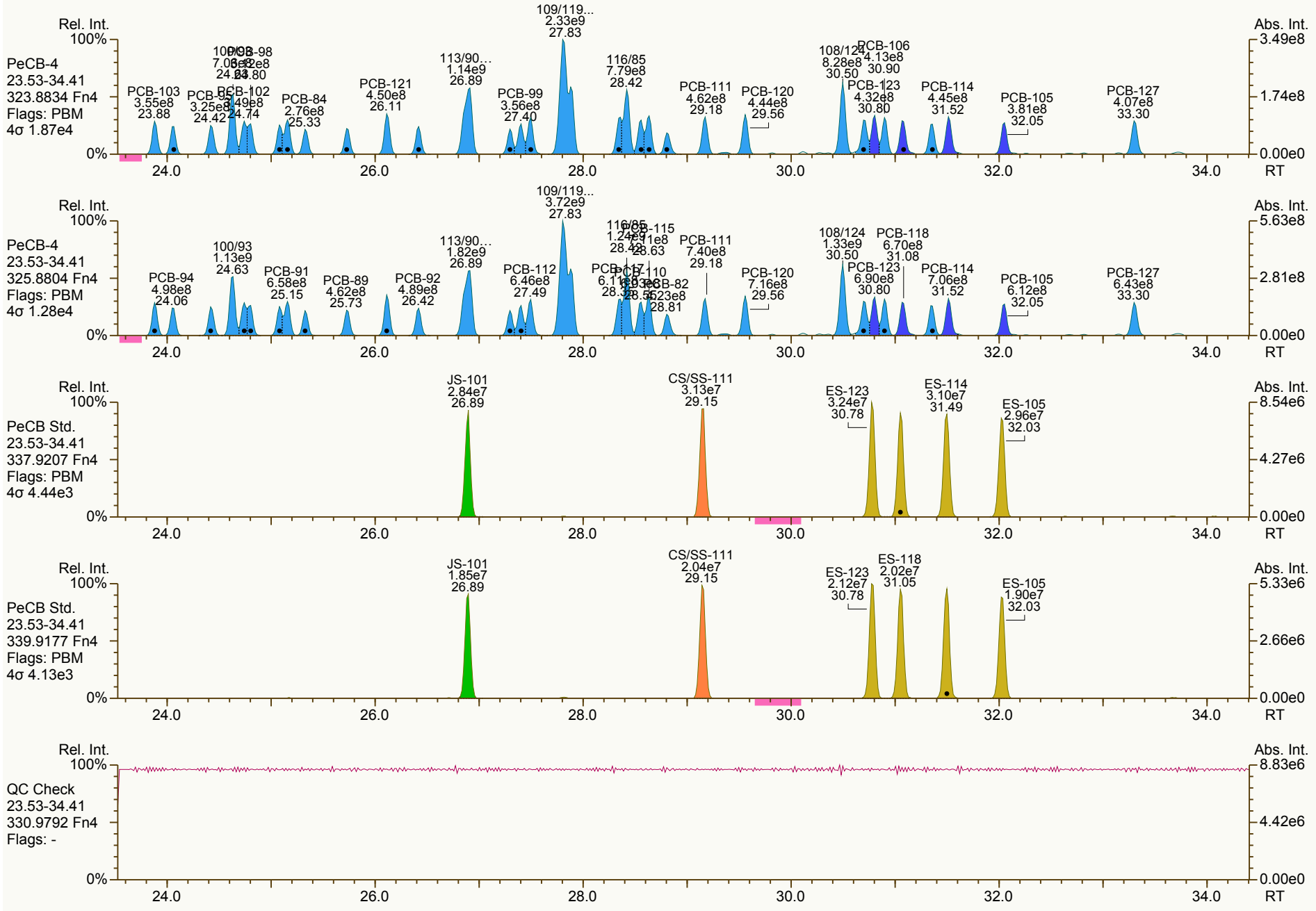
SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15 | User: CEM Datafile: 121214V07 (EQ)



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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
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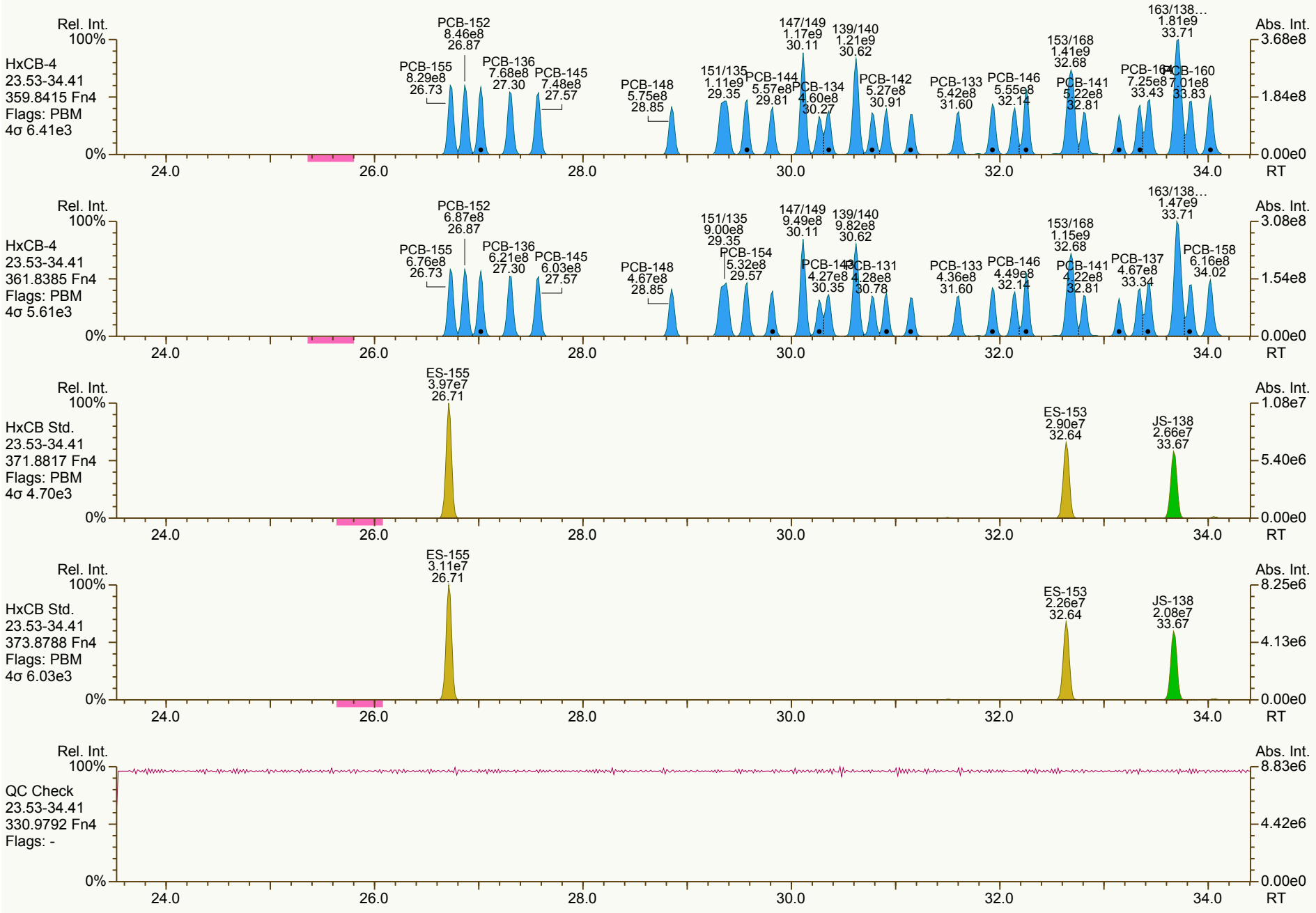

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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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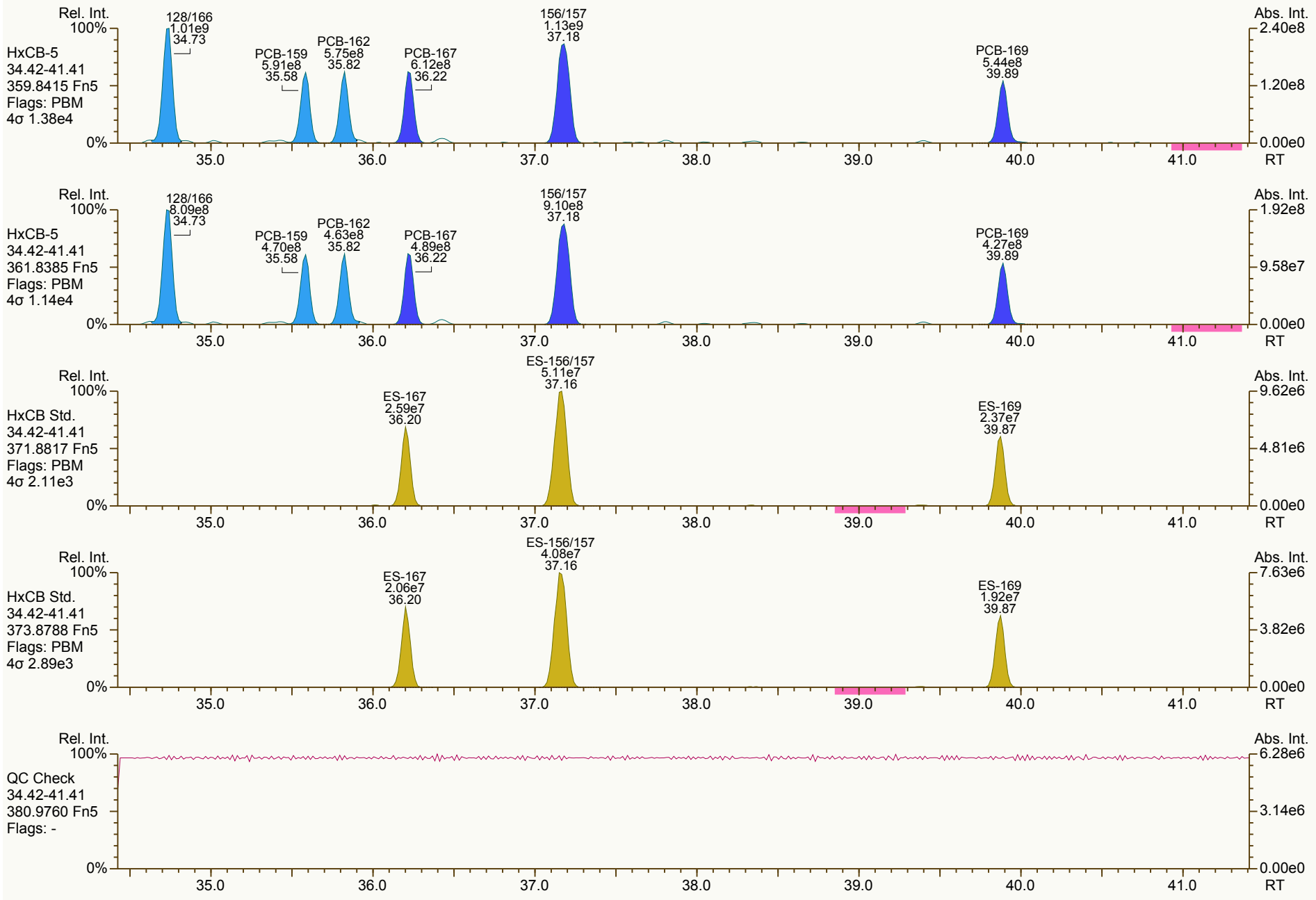

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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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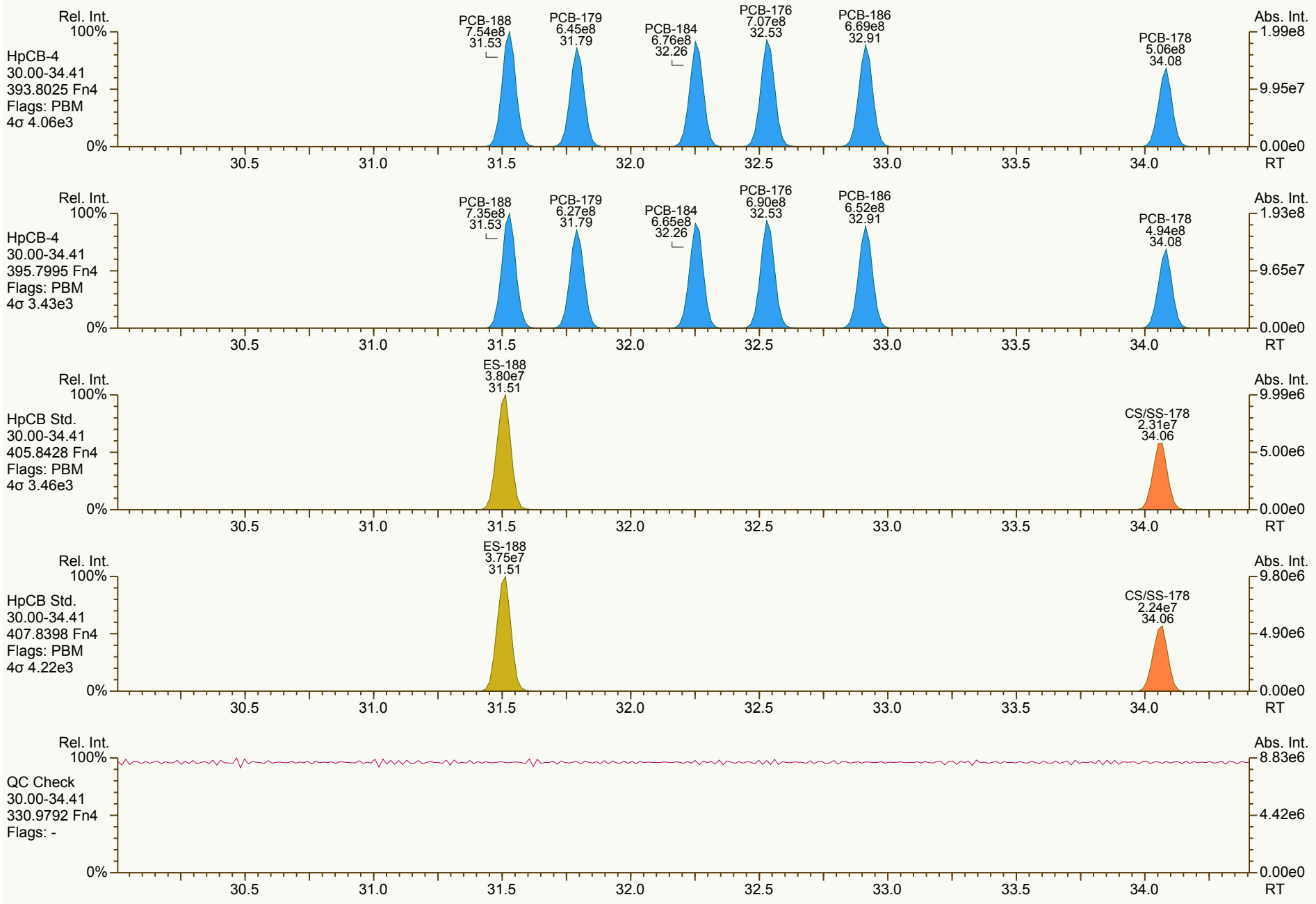

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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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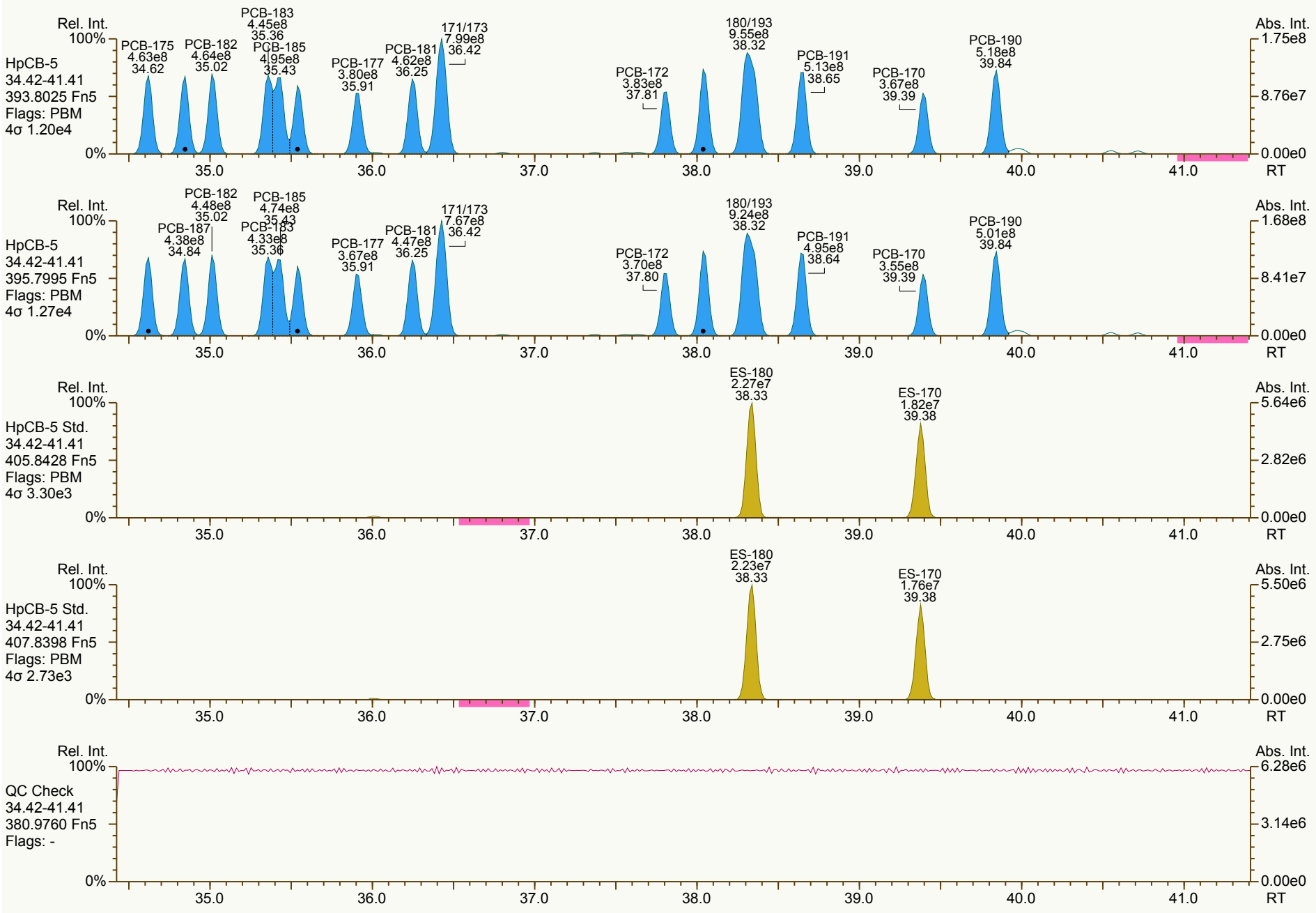

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SGS-AP ID: CS5_121214_PCB_VA
Instr: AutoSpec-Premier MM6
Sample ID: SIL 12-65-1
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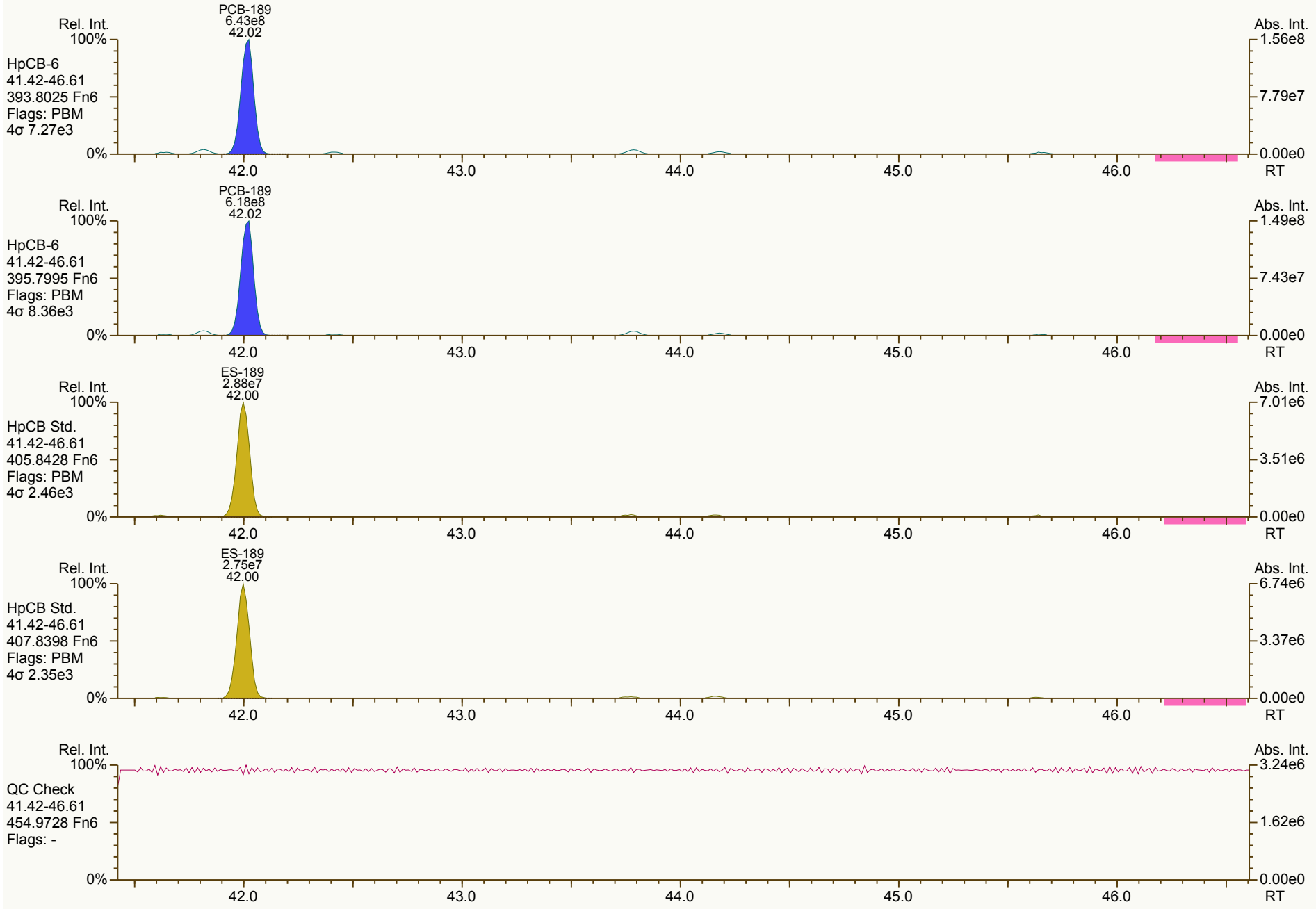

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Peak annotation: Areas, Centroids

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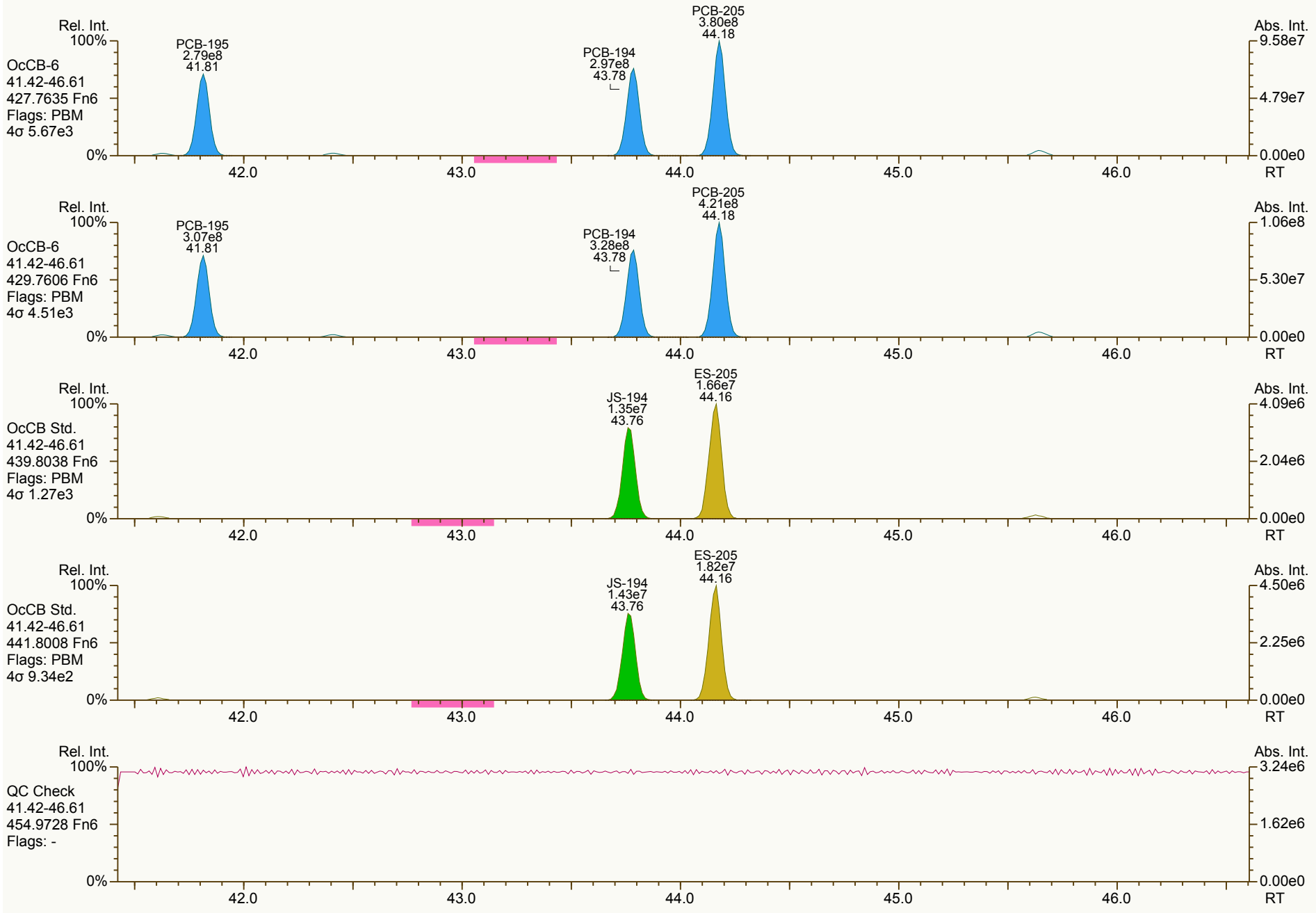

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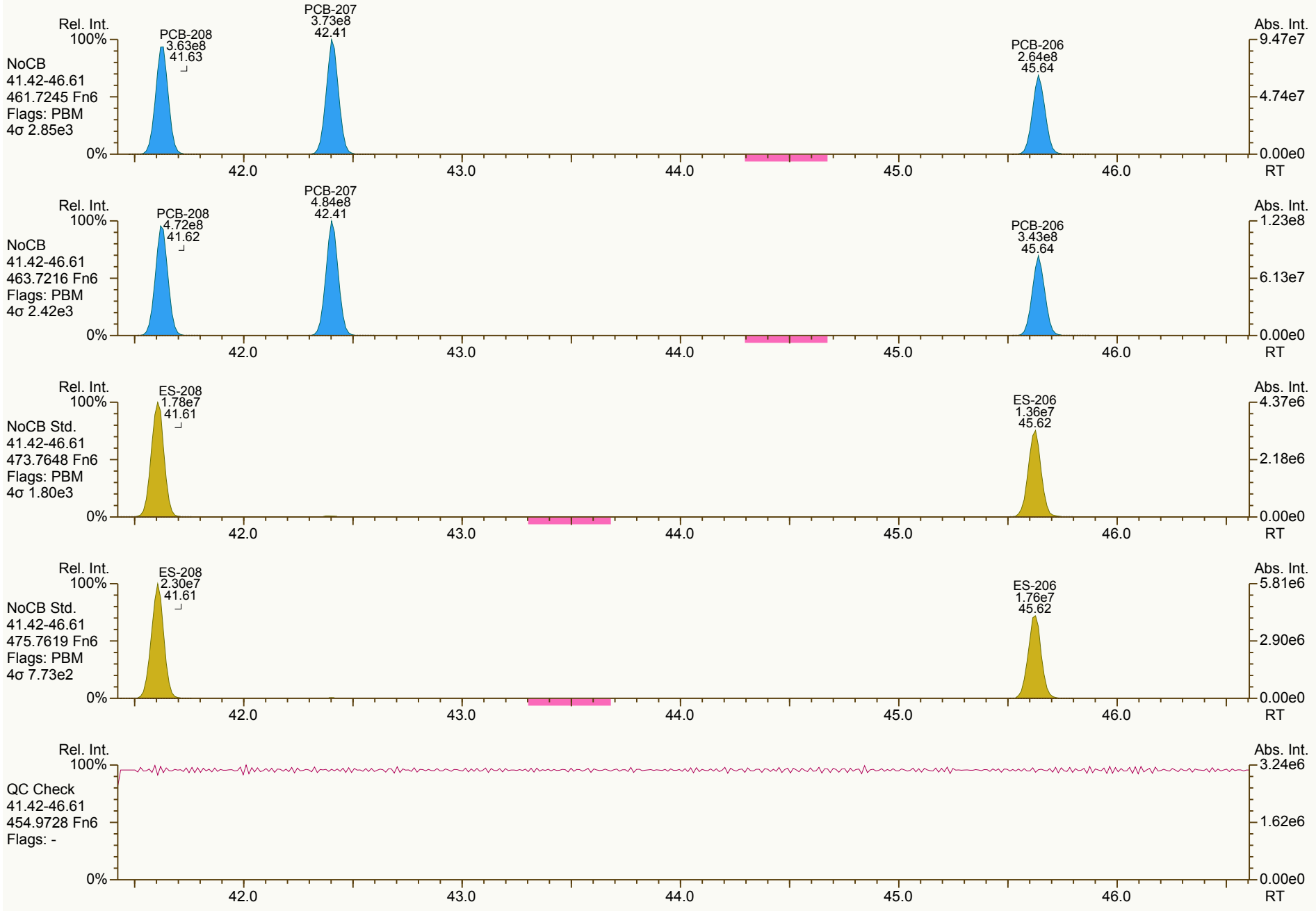

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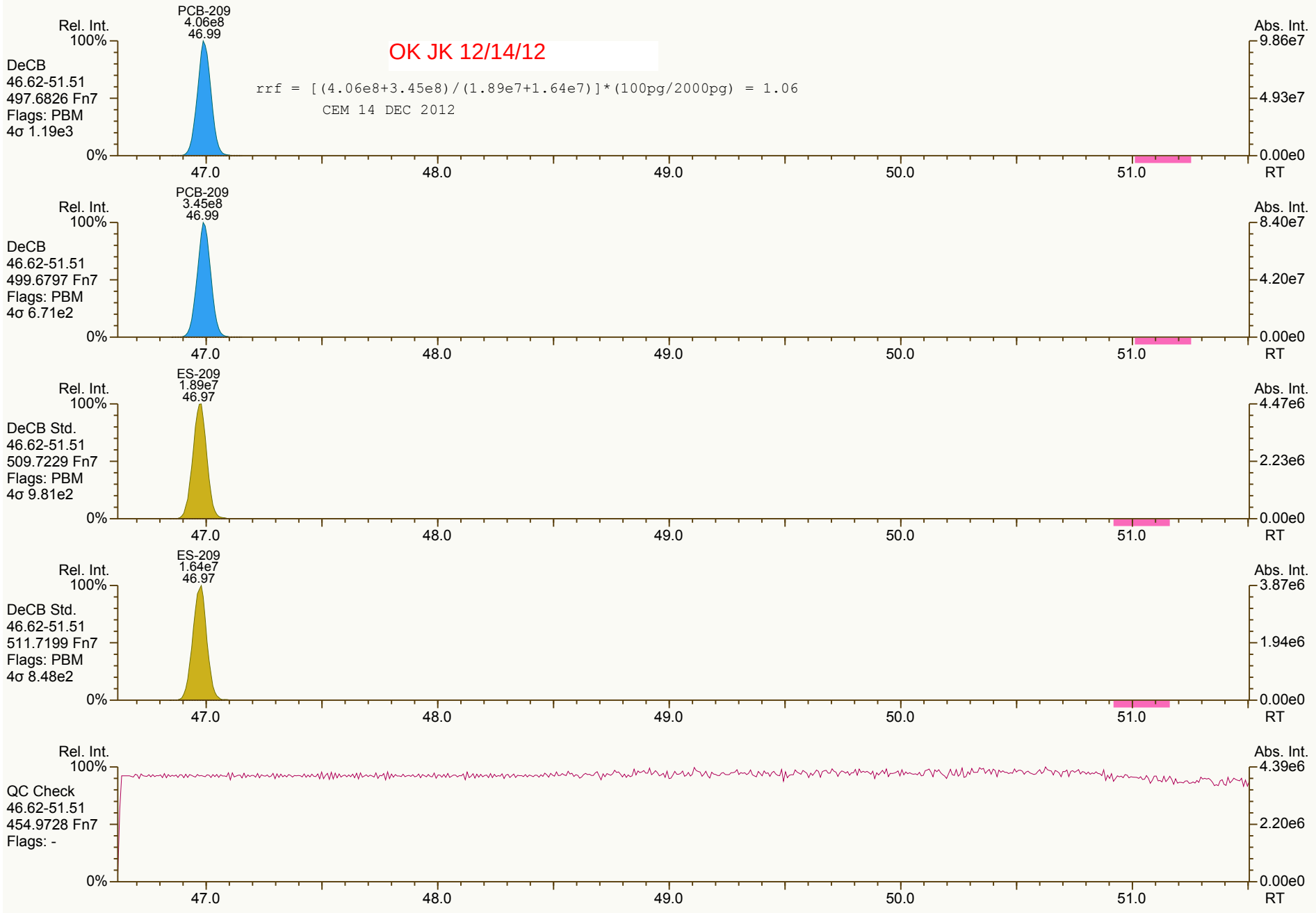

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AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 4491, 7771 scc: 067-301 *PKD: 14-Dec-2012 10:05 Printed: 14-Dec-2012 11:22 Page 21 of 22*

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Printed: Friday, December 14, 2012 02:28:34 Eastern Standard Time

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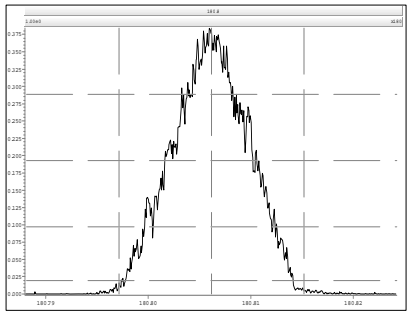
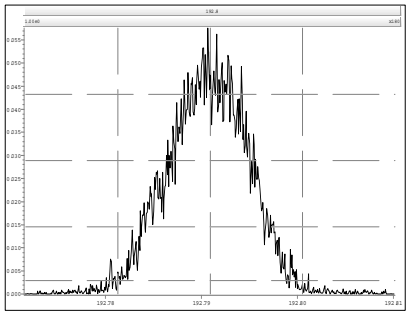


M 192.9888 R 11367



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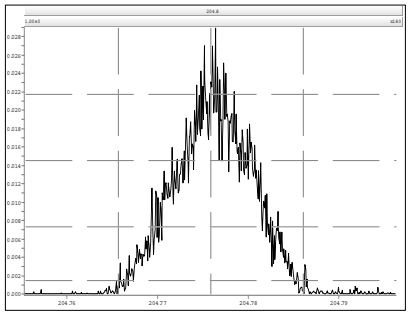

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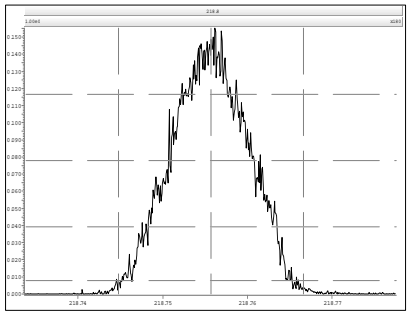
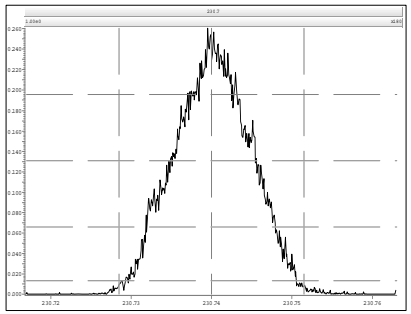
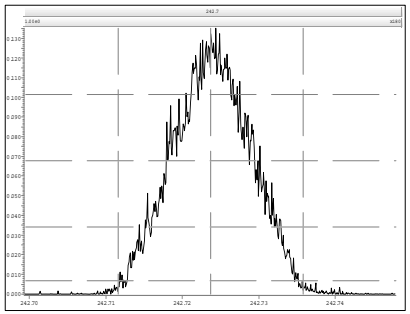


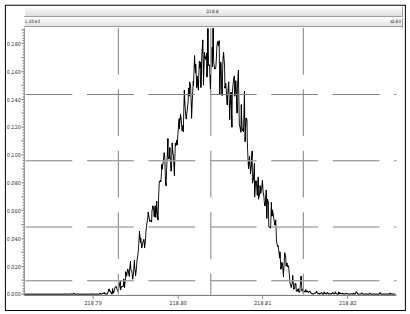
M 230.9856 R 11186



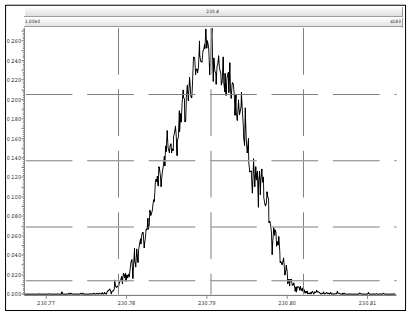
M 242.9856 R 10991



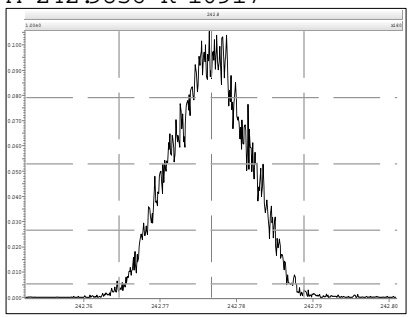
M 218.9856 R 11039



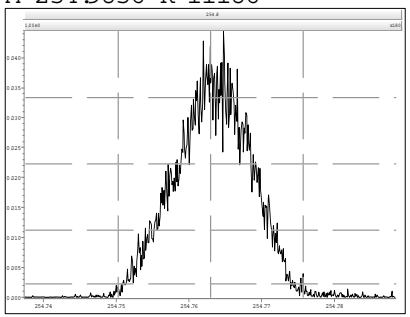
M 230.9856 R 11286



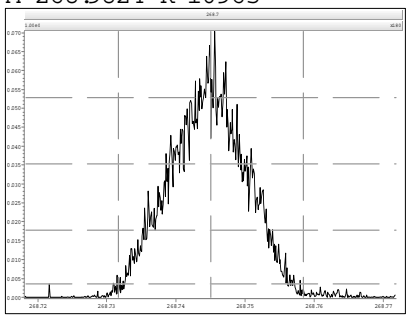
M 242.9856 R 10917



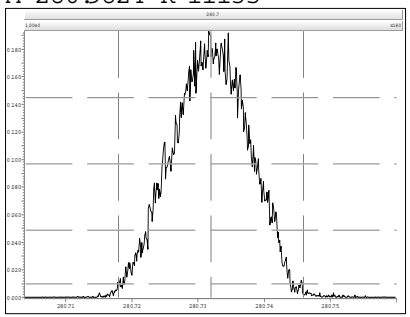
M 254.9856 R 11186



M 268.9824 R 10965



M 280.9824 R 11135



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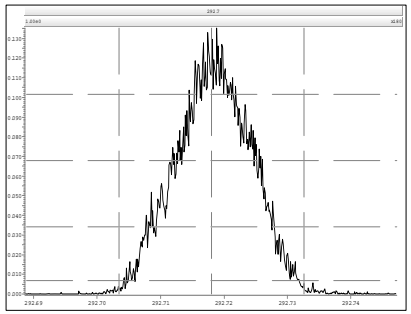
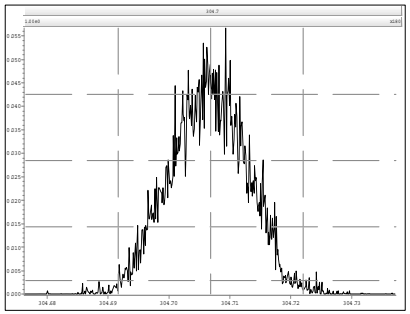
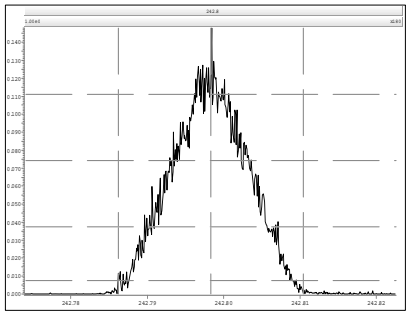


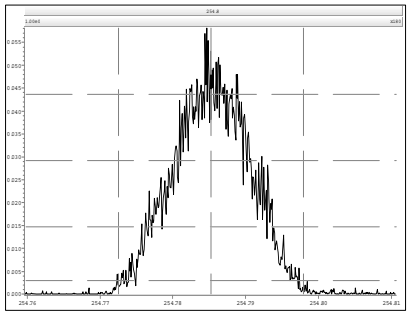
M 304.9824 R 11444



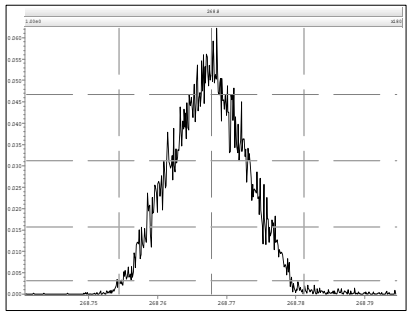
M 242.9856 R 10991



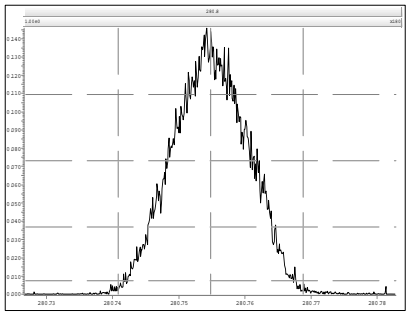
M 254.9856 R 11240



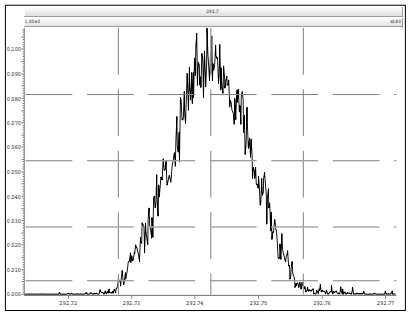
M 268.9824 R 11340



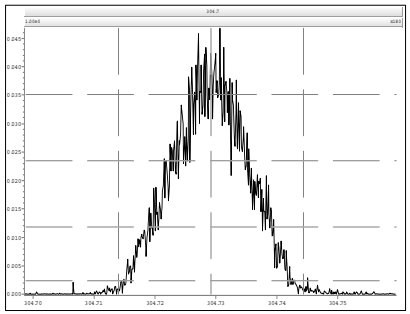
M 280.9824 R 11185



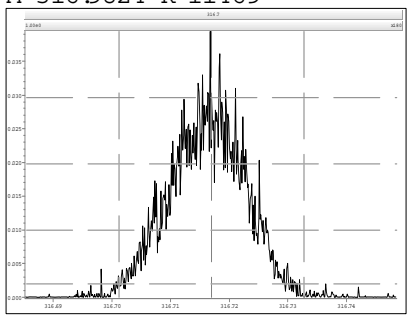
M 292.9824 R 10869



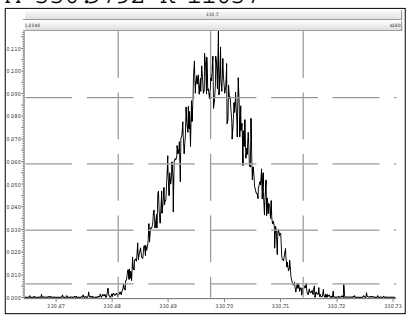
M 304.9824 R 11685



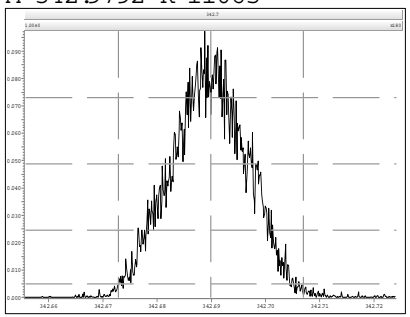
M 316.9824 R 11469



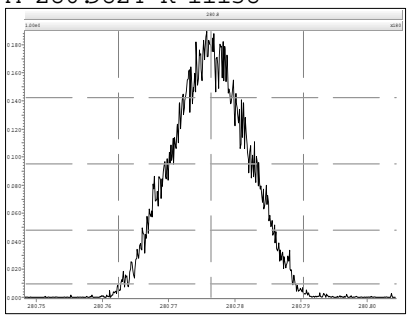
M 330.9792 R 11037



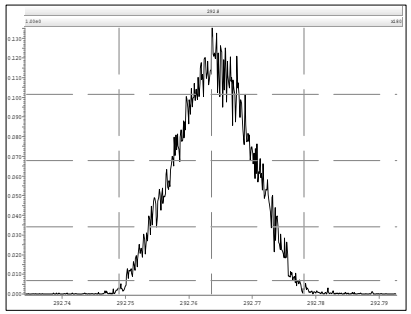
M 342.9792 R 11065



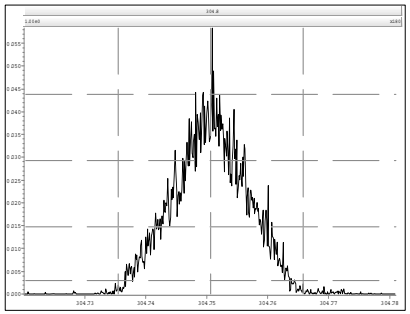
M 280.9824 R 11138



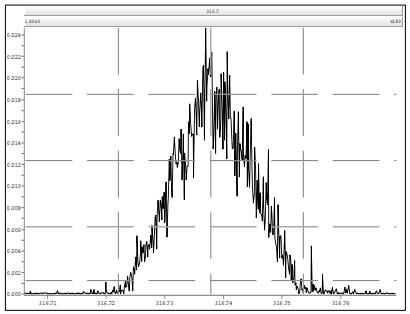
M 292.9824 R 11037



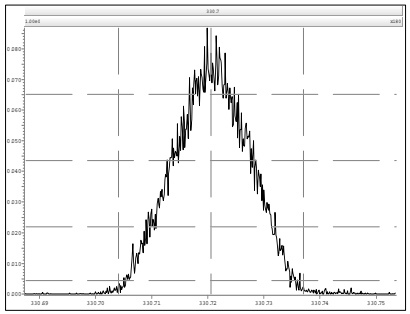
M 304.9824 R 11286



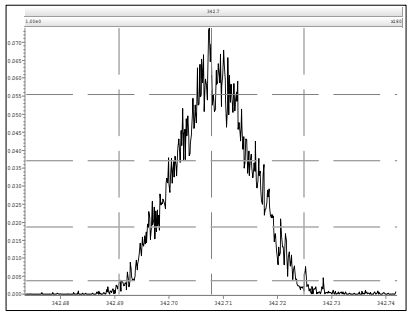
M 316.9824 R 11691



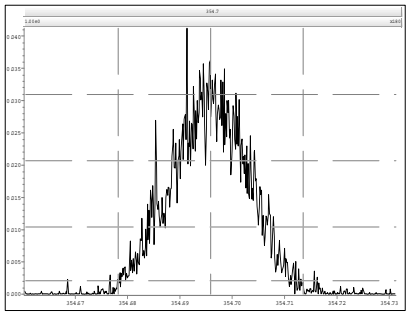
M 330.9792 R 10952



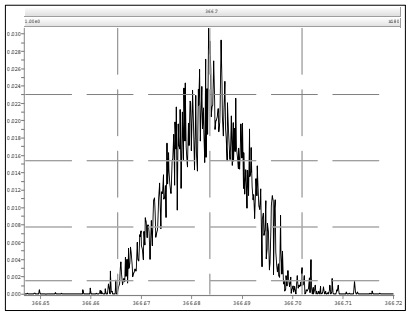
M 342.9792 R 11266



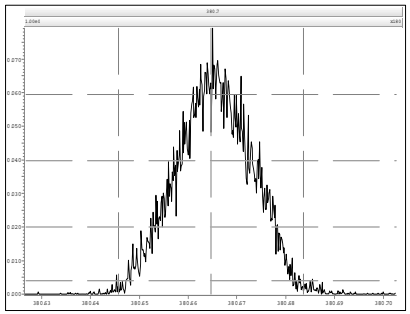
M 354.9792 R 11110



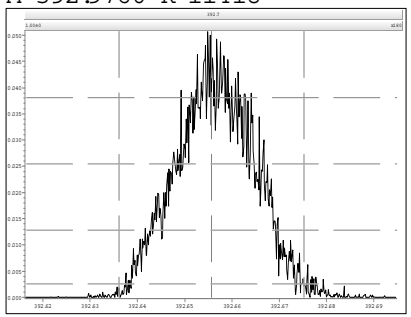
M 366.9792 R 11608



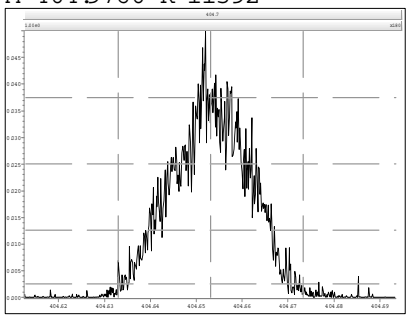
M 380.9760 R 11313



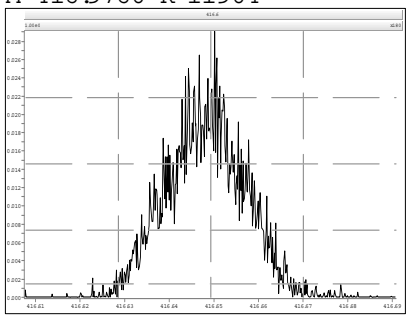
M 392.9760 R 11418



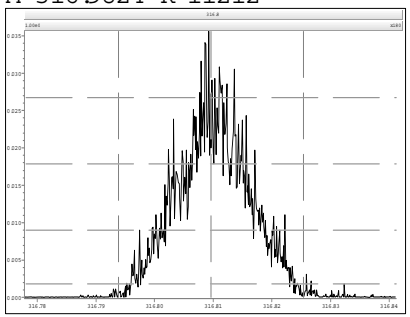
M 404.9760 R 11392



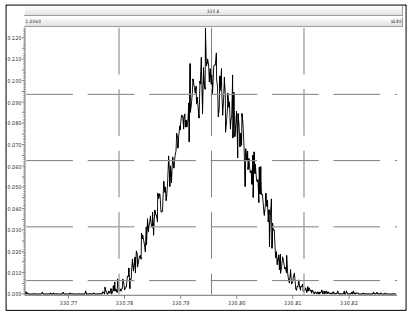
M 416.9760 R 11904



M 316.9824 R 11212



M 330.9792 R 11235



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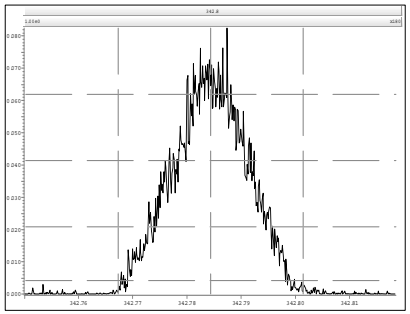
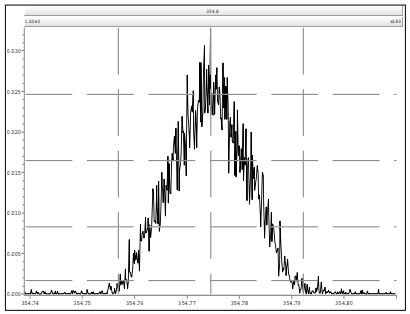
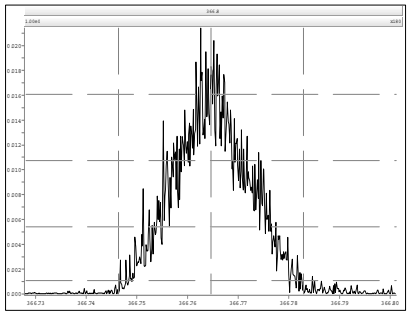


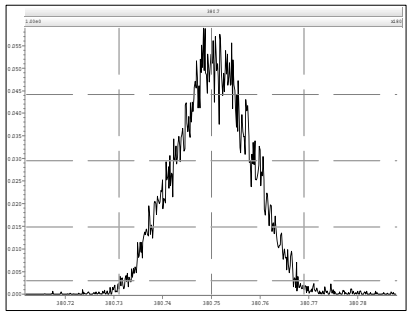
M 354.9792 R 11493



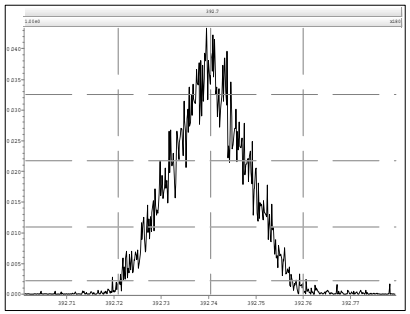
M 366.9792 R 11315



M 380.9760 R 11264



M 392.9760 R 11037



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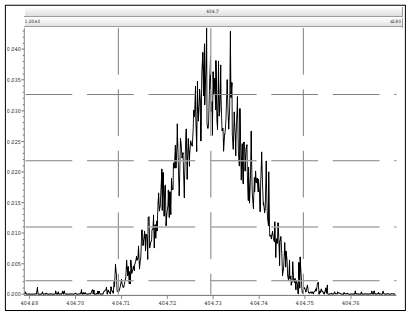
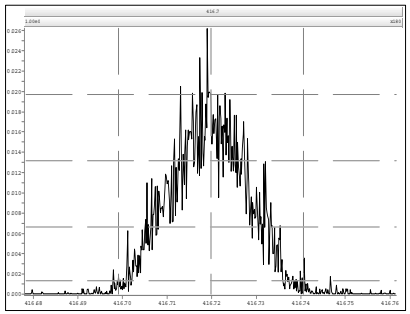
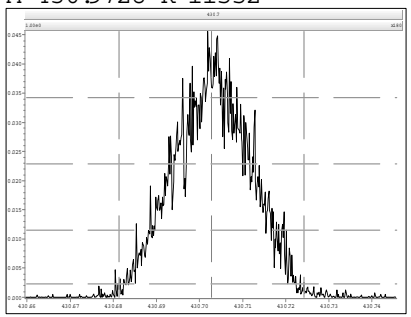


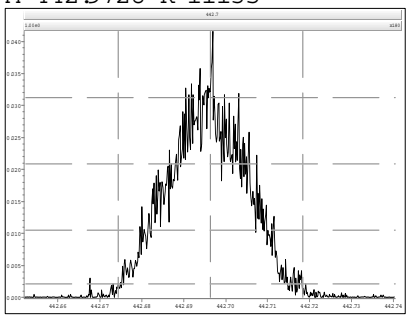
M 416.9760 R 11968



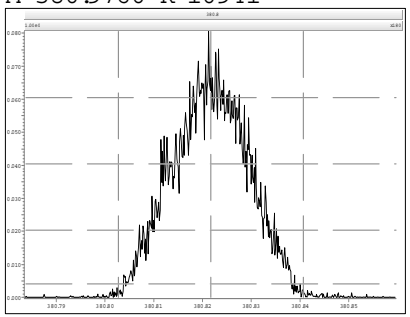
M 430.9728 R 11552



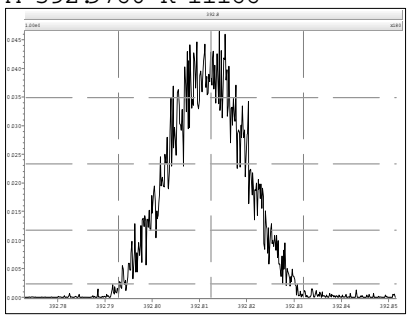
M 442.9728 R 11135



M 380.9760 R 10941



M 392.9760 R 11166



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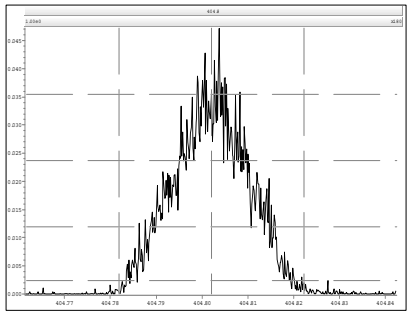

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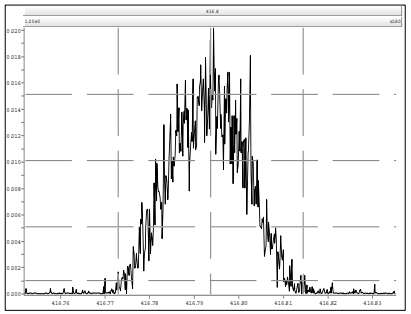
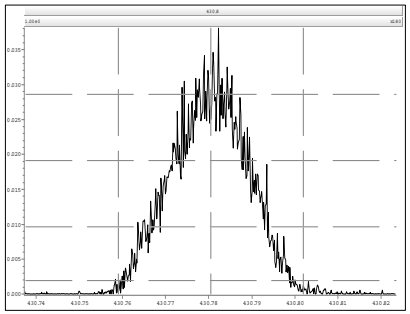
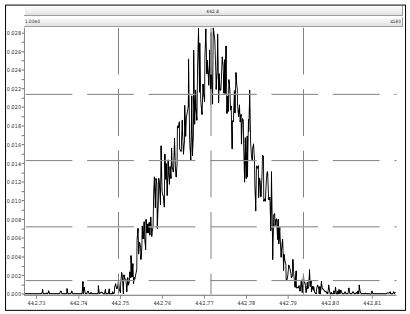


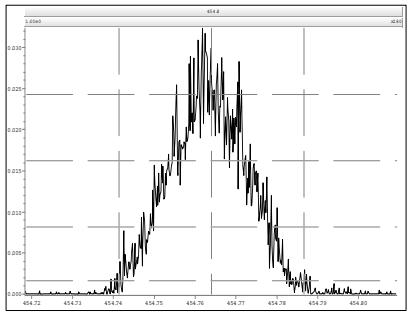
M 430.9728 R 11261



M 442.9728 R 11446



M 454.9728 R 11261



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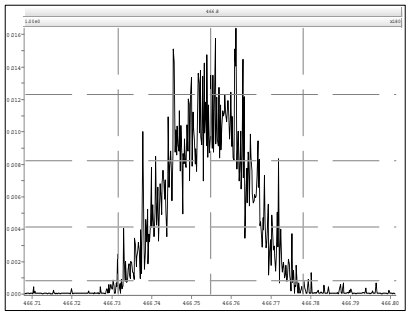
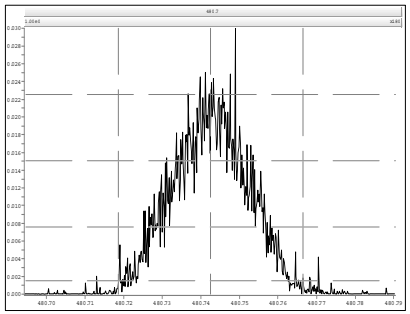
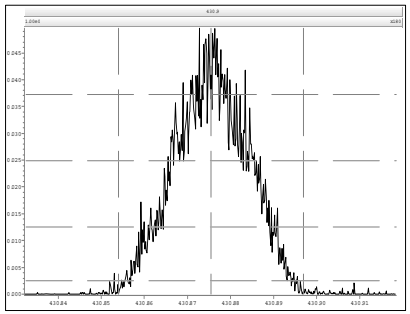


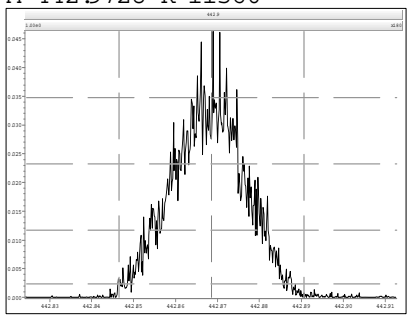
M 480.9696 R 11342



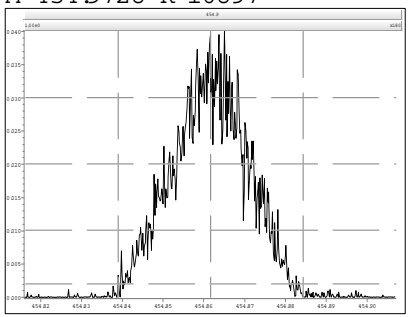
M 430.9728 R 11628



M 442.9728 R 11560



M 454.9728 R 10897



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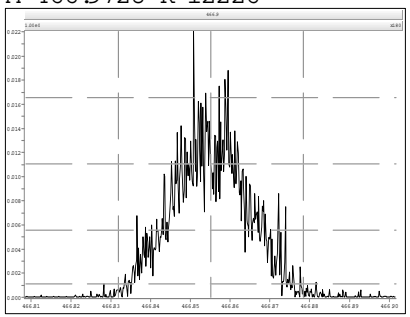

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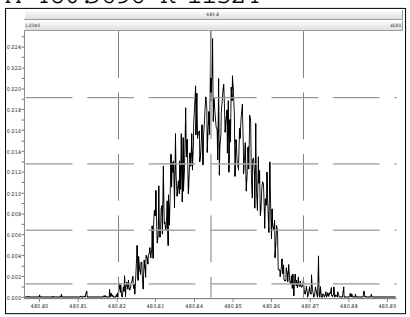

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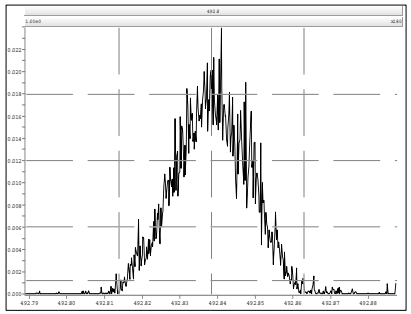
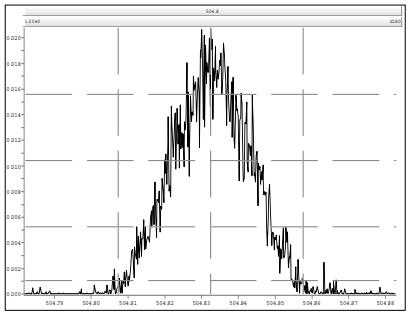
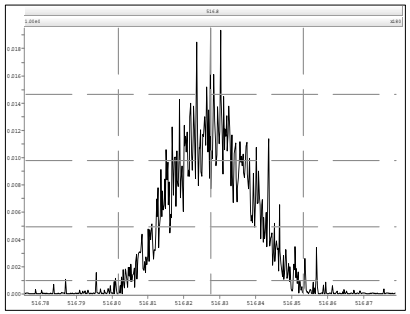


M 504.9696 R 11582



M 516.9697 R 11434



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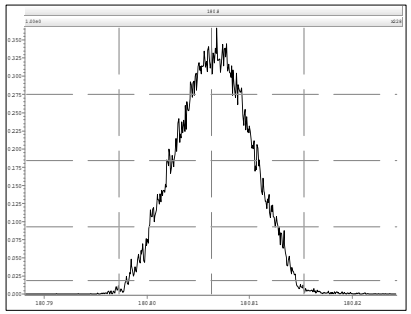
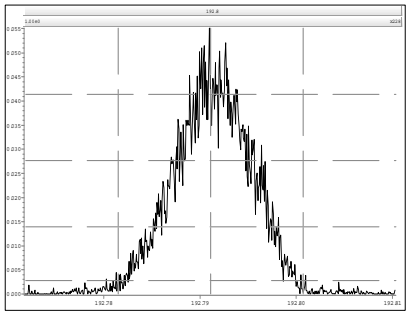
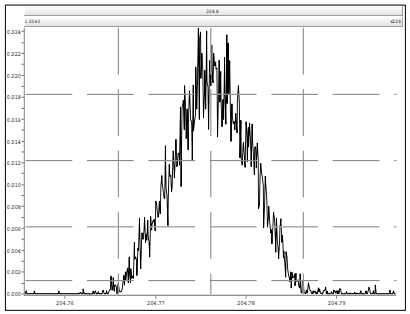
M 180.9888 R 11110



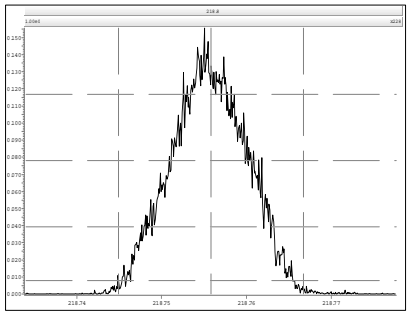
M 192.9888 R 11116



M 204.9888 R 11393



M 218.9856 R 11111



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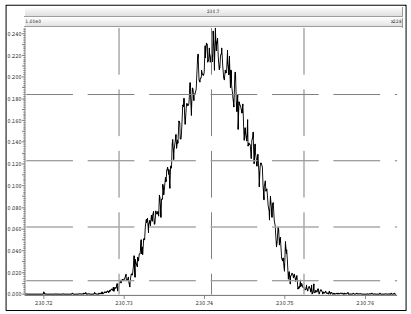
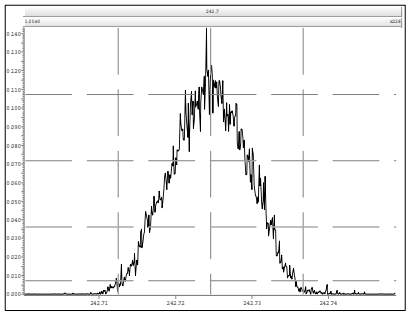
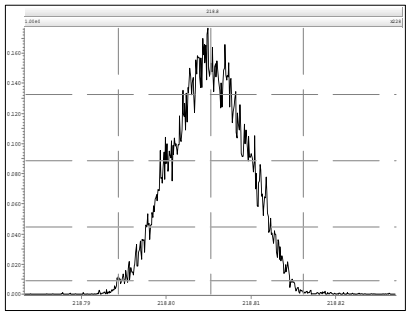


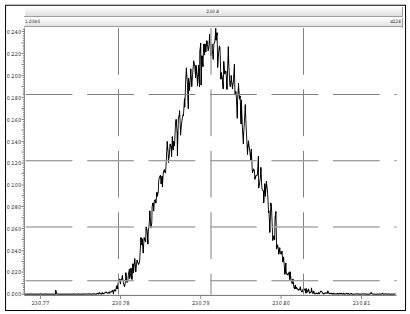
M 242.9856 R 10752



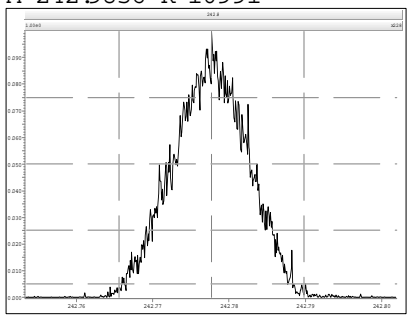
M 218.9856 R 10752



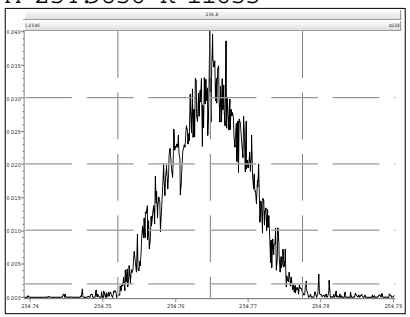
M 230.9856 R 11135



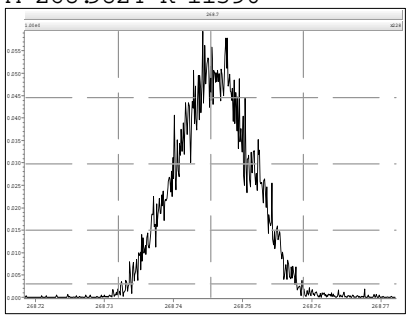
M 242.9856 R 10991



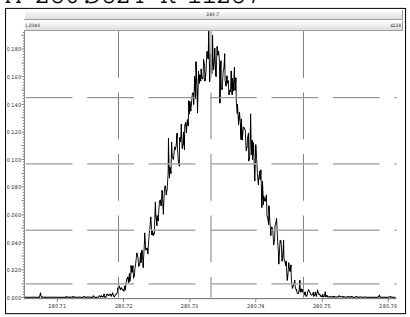
M 254.9856 R 11655



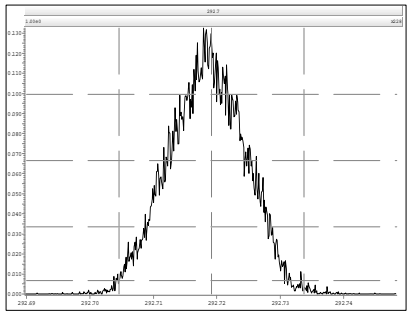
M 268.9824 R 11390



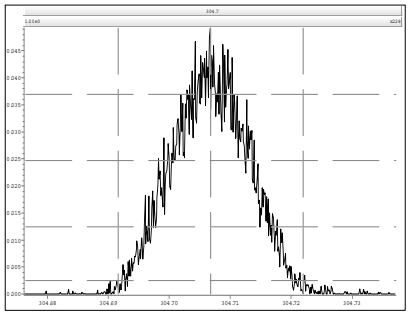
M 280.9824 R 11287



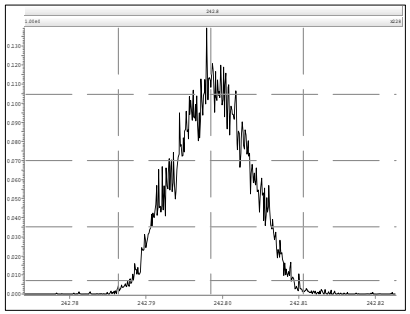
M 292.9824 R 11016



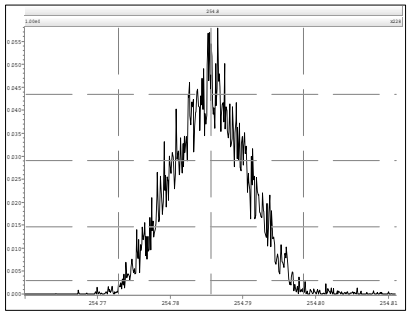
M 304.9824 R 11390



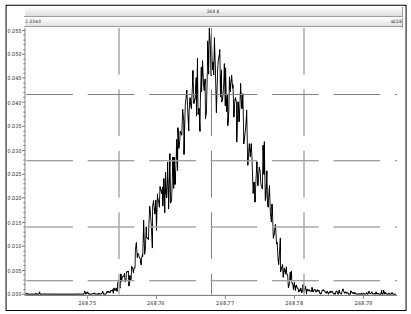
M 242.9856 R 11312



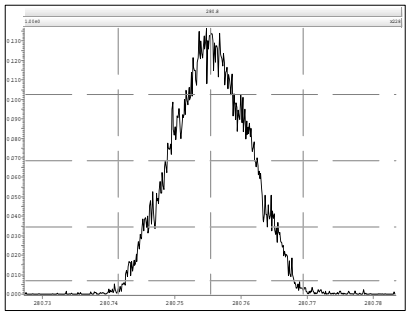
M 254.9856 R 11552



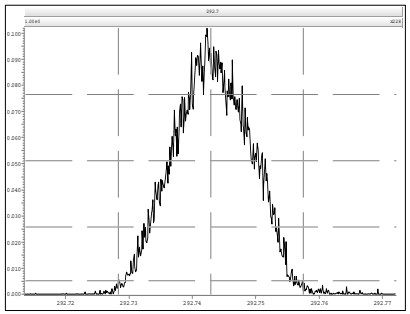
M 268.9824 R 11252



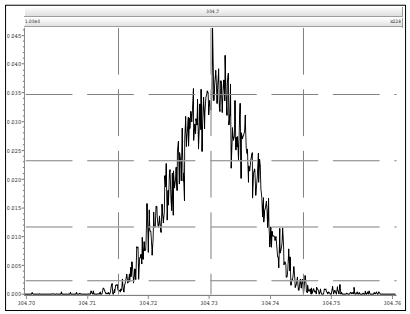
M 280.9824 R 10965



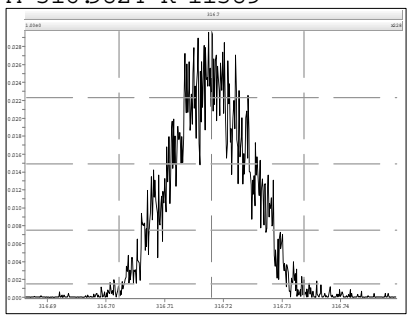
M 292.9824 R 11138



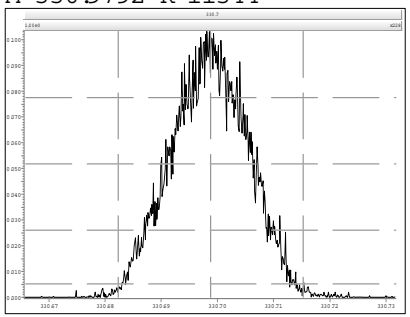
M 304.9824 R 11991



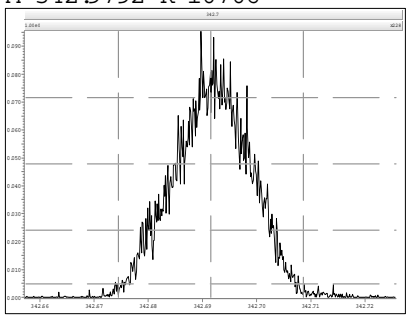
M 316.9824 R 11389



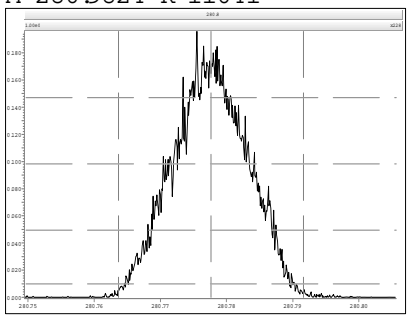
M 330.9792 R 11344



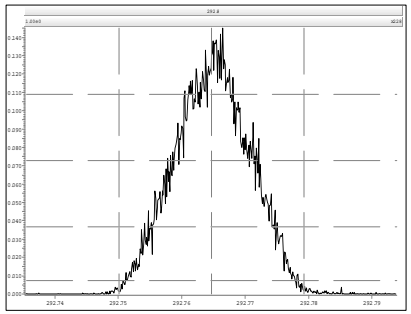
M 342.9792 R 10706



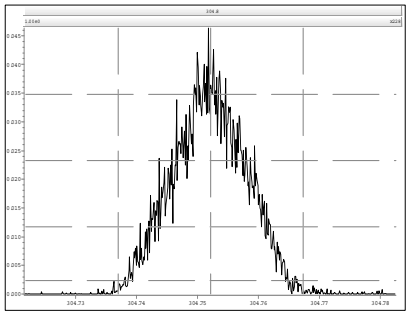
M 280.9824 R 11041



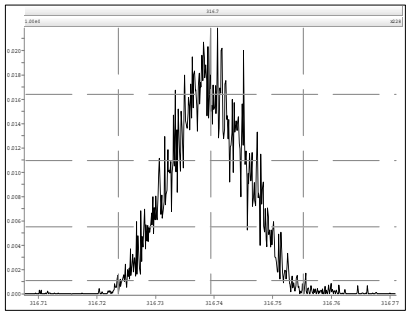
M 292.9824 R 10869



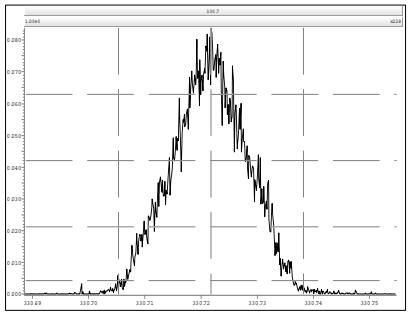
M 304.9824 R 11468



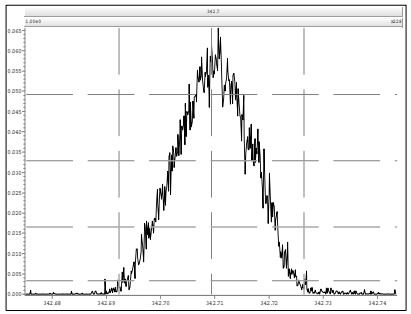
M 316.9824 R 11691



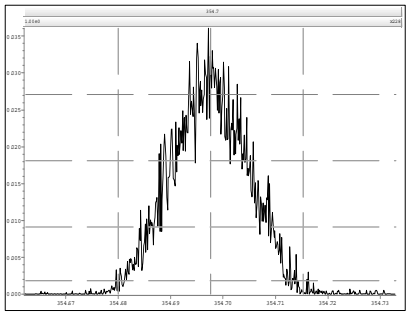
M 330.9792 R 10917



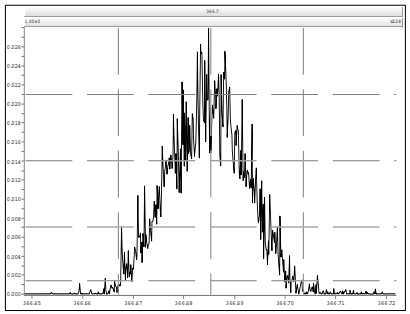
M 342.9792 R 11111



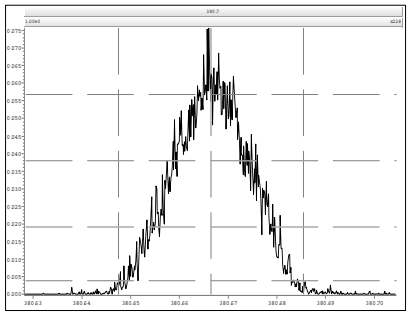
M 354.9792 R 11112



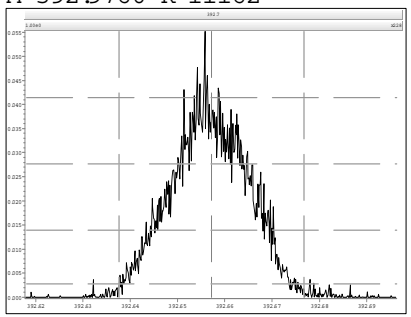
M 366.9792 R 11582



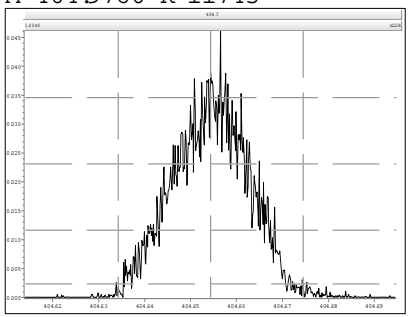
M 380.9760 R 11261



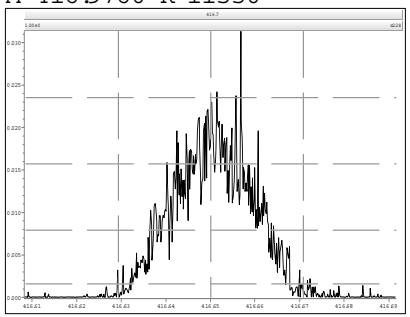
M 392.9760 R 11162



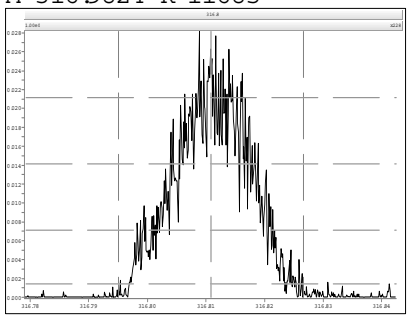
M 404.9760 R 11743



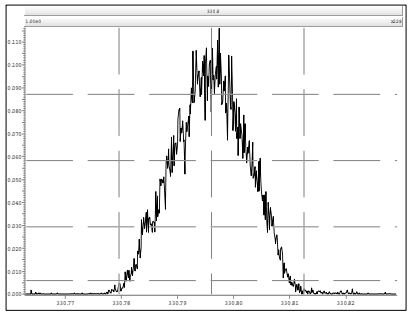
M 416.9760 R 11550



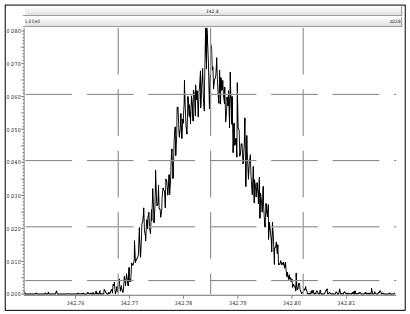
M 316.9824 R 11685



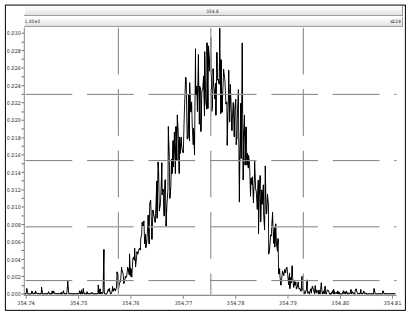
M 330.9792 R 11389



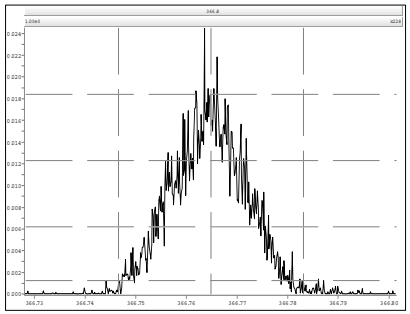
M 342.9792 R 11363



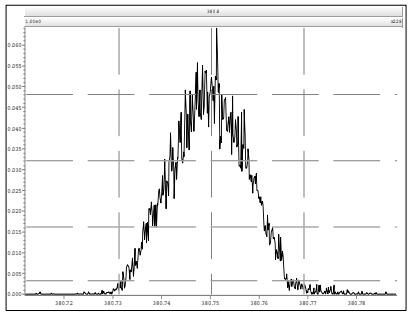
M 354.9792 R 11454



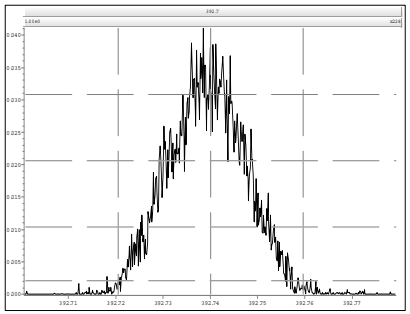
M 366.9792 R 11086



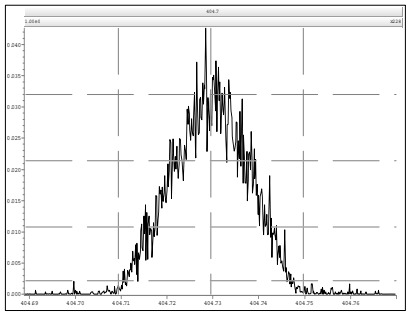
M 380.9760 R 11494



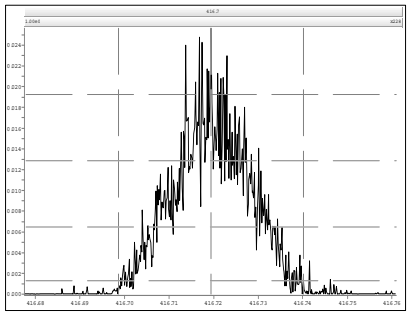
M 392.9760 R 11702



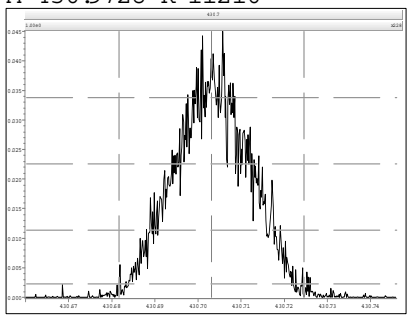
M 404.9760 R 11286



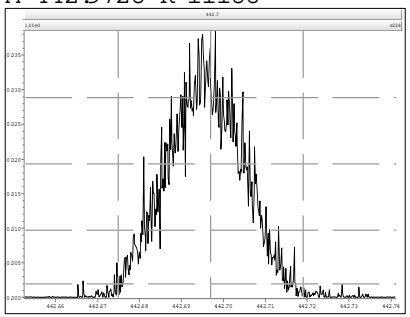
M 416.9760 R 12345



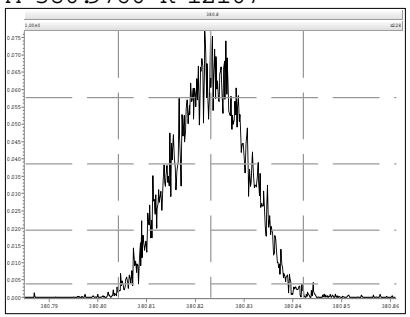
M 430.9728 R 11210



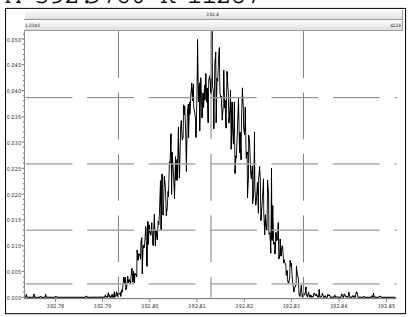
M 442.9728 R 11188



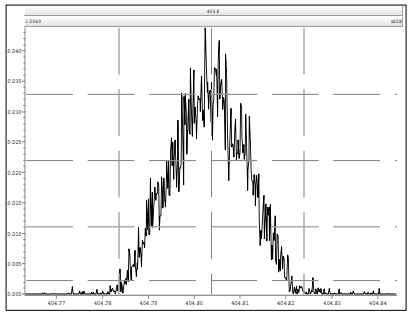
M 380.9760 R 12107



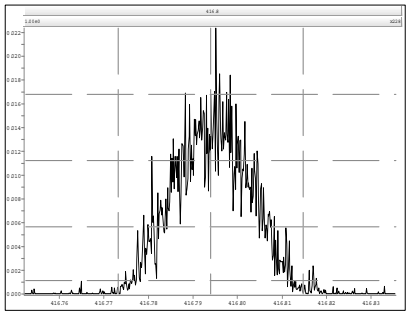
M 392.9760 R 11287



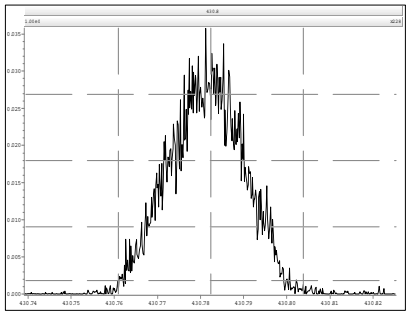
M 404.9760 R 11390



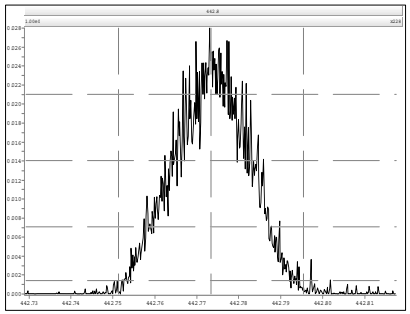
M 416.9760 R 11576



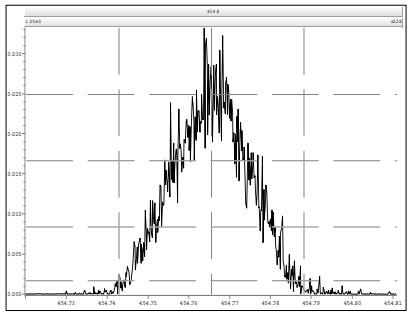
M 430.9728 R 11494



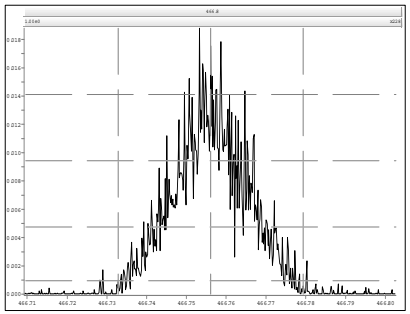
M 442.9728 R 11444



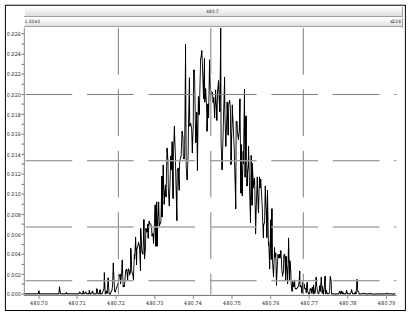
M 454.9728 R 11655



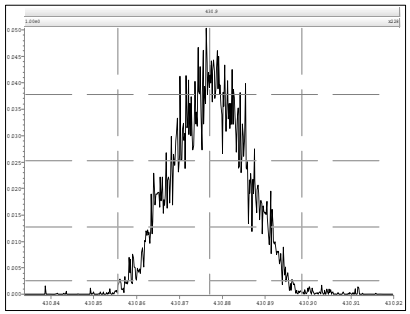
M 466.9728 R 11547



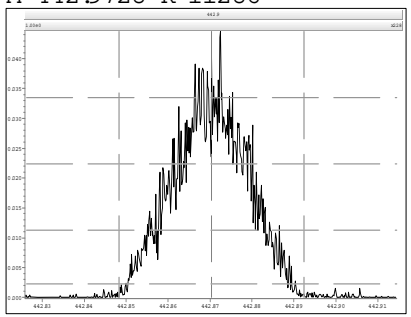
M 480.9696 R 11995



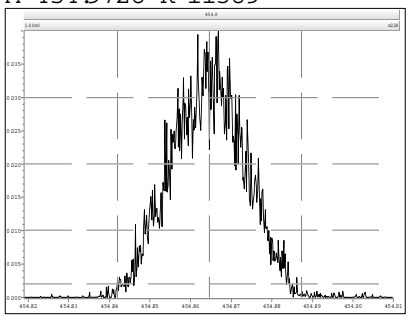
M 430.9728 R 12109



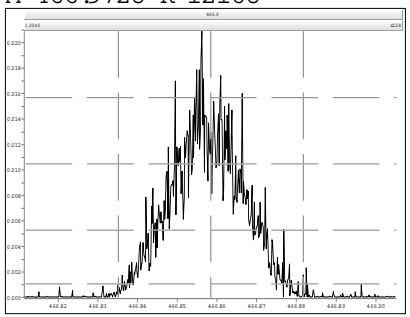
M 442.9728 R 11286



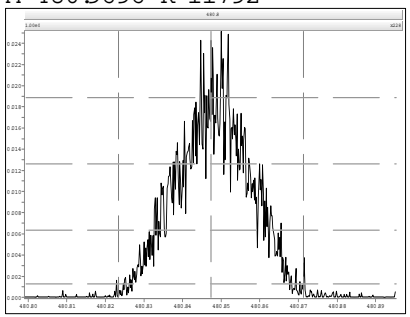
M 454.9728 R 11389



M 466.9728 R 12168

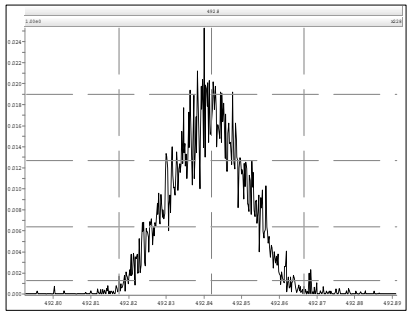


M 480.9696 R 11792

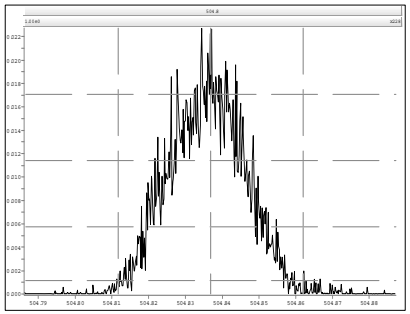


Printed: Friday, December 14, 2012 08:04:32 Eastern Standard Time

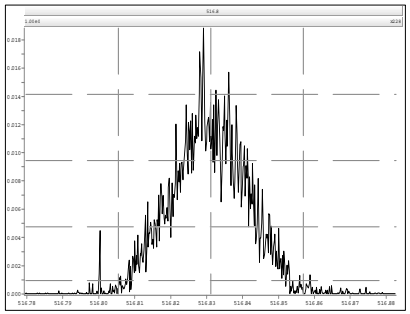
M 492.9696 R 11416



M 504.9696 R 11808



M 516.9697 R 11550



Lab ID: OPR1_10495_PCB | **ACQ:** 03-Jan-2013 18:05:40 CEM | **Wt/Vol:** 1 µL | **ICAL:** MM6_PCB_07132012_14DEC12 CS3_130103_PCB_VA

Client ID: 0_10495_OPR001 | **UTP:** 04-Jan-2013 12:07 CEM | **J-level:** 10 pg/uL **Split:** 1 | **Checkcode:** 881-416-BZV

Datafile: 130103V03 (EQ) | **RPT:** 04-Jan-2013 16:07 CM | **Stds (pg):** JS: 100 ES: 100 CS/SS: 100 | **Method** HR-PCB

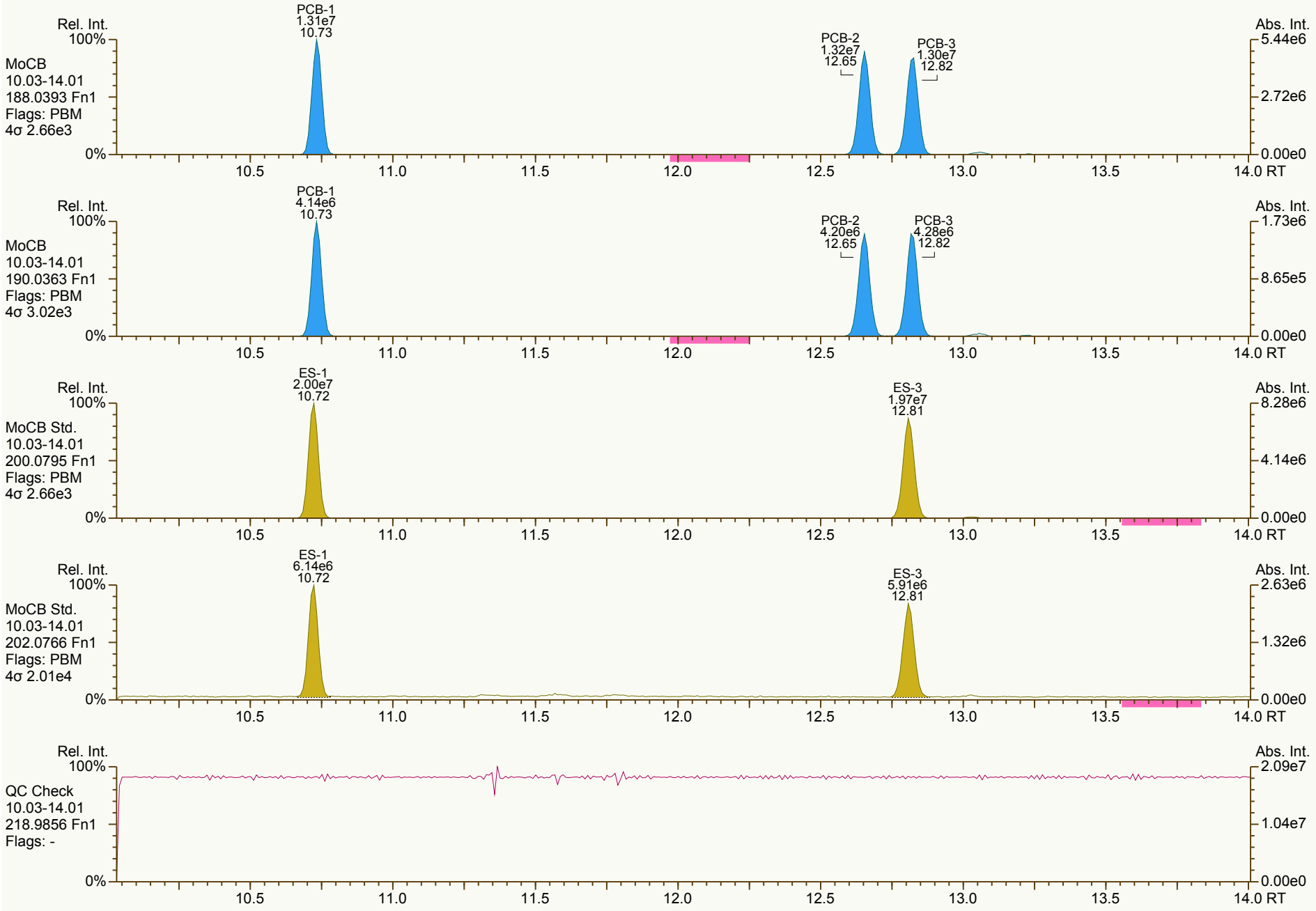
Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
PCB-77 33'44'-TeCB	30.92		1.0006	1.0007	+0.2	1.34E+07	0.78	1.25	54.2	1.11E+04	0.463
PCB-81 344'5-TeCB	30.45		1.0006	1.0006	0	1.33E+07	0.78	1.26	54.7	1.11E+04	0.458
PCB-105 233'44'-PeCB	33.90		1.0007	1.0007	0	8.89E+06	0.63	1.06	54.5	3.19E+03	0.199
PCB-114 2344'5-PeCB	33.37		1.0008	1.0007	-0.2	9.16E+06	0.63	1.11	55.4	3.19E+03	0.207
PCB-118 23'44'5-PeCB	32.92		1.0008	1.0008	0	9.01E+06	0.63	1.08	53.1	3.19E+03	0.196
PCB-123 23'44'5'-PeCB	32.63		1.0006	1.0007	+0.2	9.13E+06	0.63	1.12	54.4	3.19E+03	0.191
PCB-126 33'44'5-PeCB	36.52		1.0006	1.0006	0	1.11E+07	0.64	1.16	53	4.47E+03	0.231
PCB-156/157 ...-HxCB	39.08	C	1.0005	1.0005	0	1.59E+07	1.25	1.14	107	3.58E+03	0.339
PCB-167 23'44'55'-HxCB	38.11		1.0005	1.0006	+0.2	8.83E+06	1.25	1.18	53.4	3.58E+03	0.235
PCB-169 33'44'55'-HxCB	41.83		1.0004	1.0004	0	6.62E+06	1.25	1.15	52.8	3.58E+03	0.305
PCB-189 233'44'55'-HpCB	43.98		1.0004	1.0004	0	9.09E+06	1.06	1.12	53.5	3.13E+03	0.207
PCB-209 DeCB	49.02		1.0004	1.0004	0	4.56E+06	1.19	1.11	50.7	3.44E+03	0.454
ES PCB-1	10.72		0.7199	0.7198	-0.1	2.62E+07	3.26	0.97	86.8 %	30%	140%
ES PCB-3	12.81		0.8600	0.8600	0	2.56E+07	3.33	0.90	91.7 %	30%	140%
ES PCB-4	13.04		0.8753	0.8752	-0.1	1.88E+07	1.56	0.70	86.4 %	30%	140%
ES PCB-15	18.45		1.2382	1.2384	+0.2	2.85E+07	1.70	1.02	90.3 %	30%	140%
ES PCB-19	15.92		1.0690	1.0691	+0.1	1.31E+07	1.03	0.53	80.3 %	30%	140%
ES PCB-37	24.62		1.0830	1.0830	0	2.10E+07	1.10	1.29	97.7 %	30%	140%
ES PCB-54	18.70		0.8228	0.8227	-0.1	1.73E+07	0.77	1.43	72.8 %	30%	140%
ES PCB-77	30.90		1.3590	1.3592	+0.4	1.98E+07	0.81	1.20	99.1 %	30%	140%
ES PCB-81	30.43		1.3382	1.3385	+0.5	1.94E+07	0.82	1.16	100 %	30%	140%
ES PCB-104	23.57		0.8226	0.8225	-0.1	1.75E+07	1.51	1.70	76.3 %	30%	140%
ES PCB-105	33.88		1.1820	1.1821	+0.2	1.54E+07	1.53	1.10	105 %	30%	140%
ES PCB-114	33.34		1.1633	1.1634	+0.2	1.49E+07	1.56	1.16	95.7 %	30%	140%
ES PCB-118	32.89		1.1476	1.1476	0	1.57E+07	1.55	1.15	101 %	30%	140%
ES PCB-123	32.61		1.1378	1.1378	0	1.50E+07	1.52	1.14	97.8 %	30%	140%
ES PCB-126	36.50		1.2735	1.2736	+0.2	1.82E+07	1.60	1.34	101 %	30%	140%
ES PCB-153	34.49		0.9706	0.9706	0	1.46E+07	1.30	1.14	91.3 %	30%	140%
ES PCB-155	28.49		0.8019	0.8019	0	1.81E+07	1.25	1.61	80.4 %	30%	140%
ES PCB-156/157	39.07		1.0993	1.0994	+0.2	2.62E+07	1.27	0.98	96.1 %	30%	140%
ES PCB-167	38.09		1.0720	1.0721	+0.2	1.40E+07	1.25	1.01	99.4 %	30%	140%
ES PCB-169	41.81		1.1764	1.1768	+1.0	1.09E+07	1.25	0.90	86.8 %	30%	140%
ES PCB-170	41.31		0.9029	0.9032	+0.7	9.93E+06	1.09	1.28	87.5 %	30%	140%
ES PCB-180	40.25		0.8799	0.8801	+0.5	1.21E+07	1.04	1.54	86.4 %	30%	140%
ES PCB-188	33.35		0.7291	0.7292	+0.2	1.84E+07	1.04	1.63	80.9 %	30%	140%
ES PCB-189	43.96		0.9609	0.9611	+0.5	1.52E+07	1.09	1.97	93.8 %	30%	140%
ES PCB-202	37.89		0.8284	0.8285	+0.2	1.50E+07	0.90	1.26	85.4 %	30%	140%
ES PCB-205	46.14		1.0088	1.0088	0	8.77E+06	0.90	1.22	86.9 %	30%	140%
ES PCB-206	47.62		1.0414	1.0412	-0.6	7.43E+06	0.78	1.10	82 %	30%	140%
ES PCB-208	43.56		0.9521	0.9524	+0.8	1.07E+07	0.78	1.41	92 %	30%	140%
ES PCB-209	49.00		1.0715	1.0713	-0.6	8.09E+06	1.18	1.24	78.8 %	30%	140%

Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc. / Recv.	Noise / Recv. Low	DL / Recv. High
SS PCB-28	21.14		0.9299	0.9299	0	2.56E+07	1.09	1.18	103 %	40%	125%
SS PCB-111	30.96		1.0801	1.0802	+0.2	1.60E+07	1.55	1.01	106 %	40%	125%
SS PCB-178	35.92		1.0110	1.0110	0	1.20E+07	1.04	0.60	109 %	40%	125%
CS PCB-28	21.14		0.9299	0.9299	0	2.56E+07	1.09	1.52	101 %	40%	125%
CS PCB-111	30.96		1.0801	1.0802	+0.2	1.60E+07	1.55	1.15	104 %	40%	125%
CS PCB-178	35.92		1.0110	1.0110	0	1.20E+07	1.04	0.98	87.9 %	40%	125%
JS PCB-9	14.89					3.11E+07	1.64				
JS PCB-52	22.74					1.66E+07	0.78				
JS PCB-101	28.66					1.34E+07	1.59				
JS PCB-138	35.53					1.40E+07	1.26				
JS PCB-194	45.74					8.25E+06	0.89				

SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**

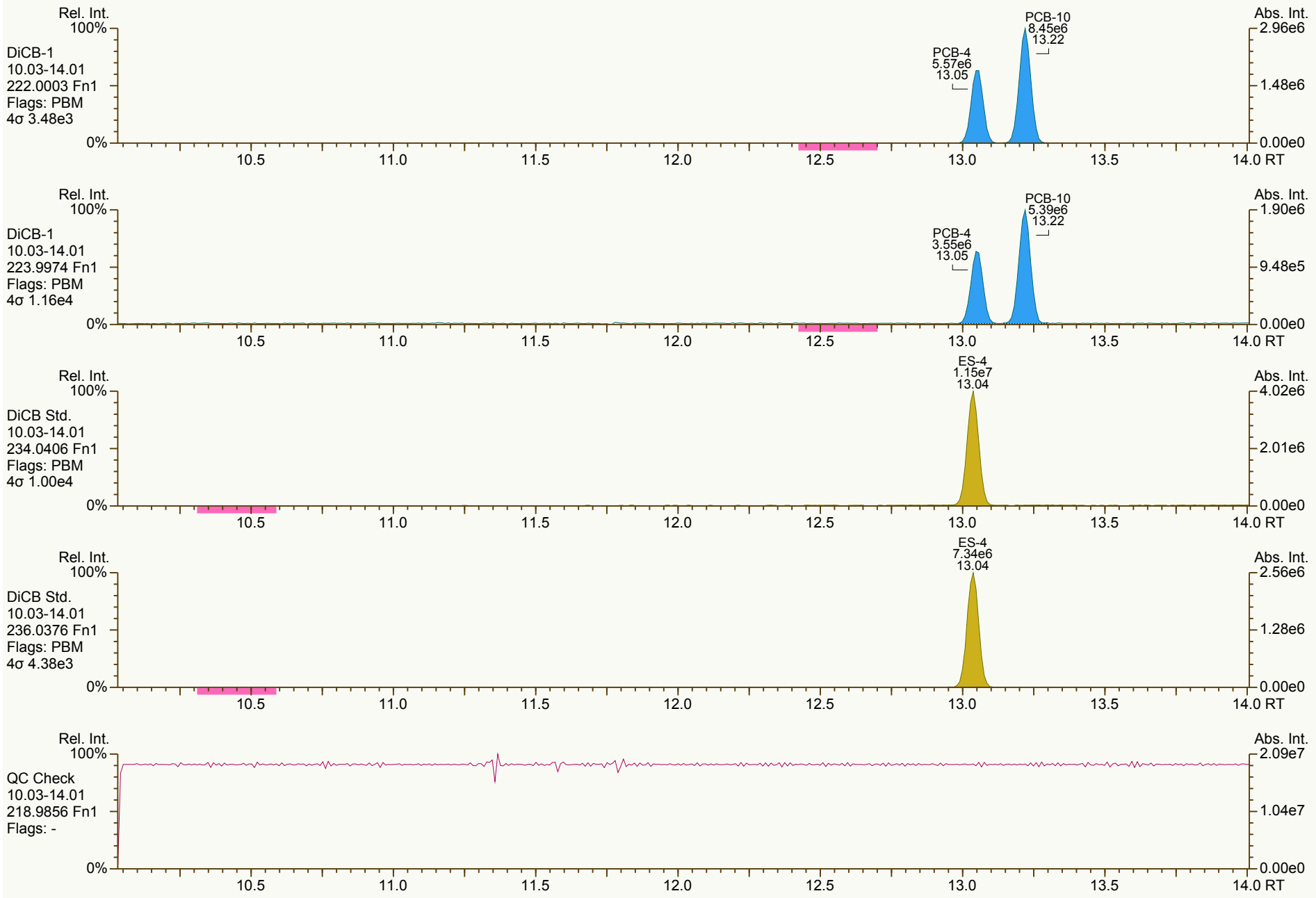


SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 5918, 4811 scc: 881-416 *PKD: 04-Jan-2013 10:54 Printed: 04-Jan-2013 13:58 Page 2 of 22*

SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**



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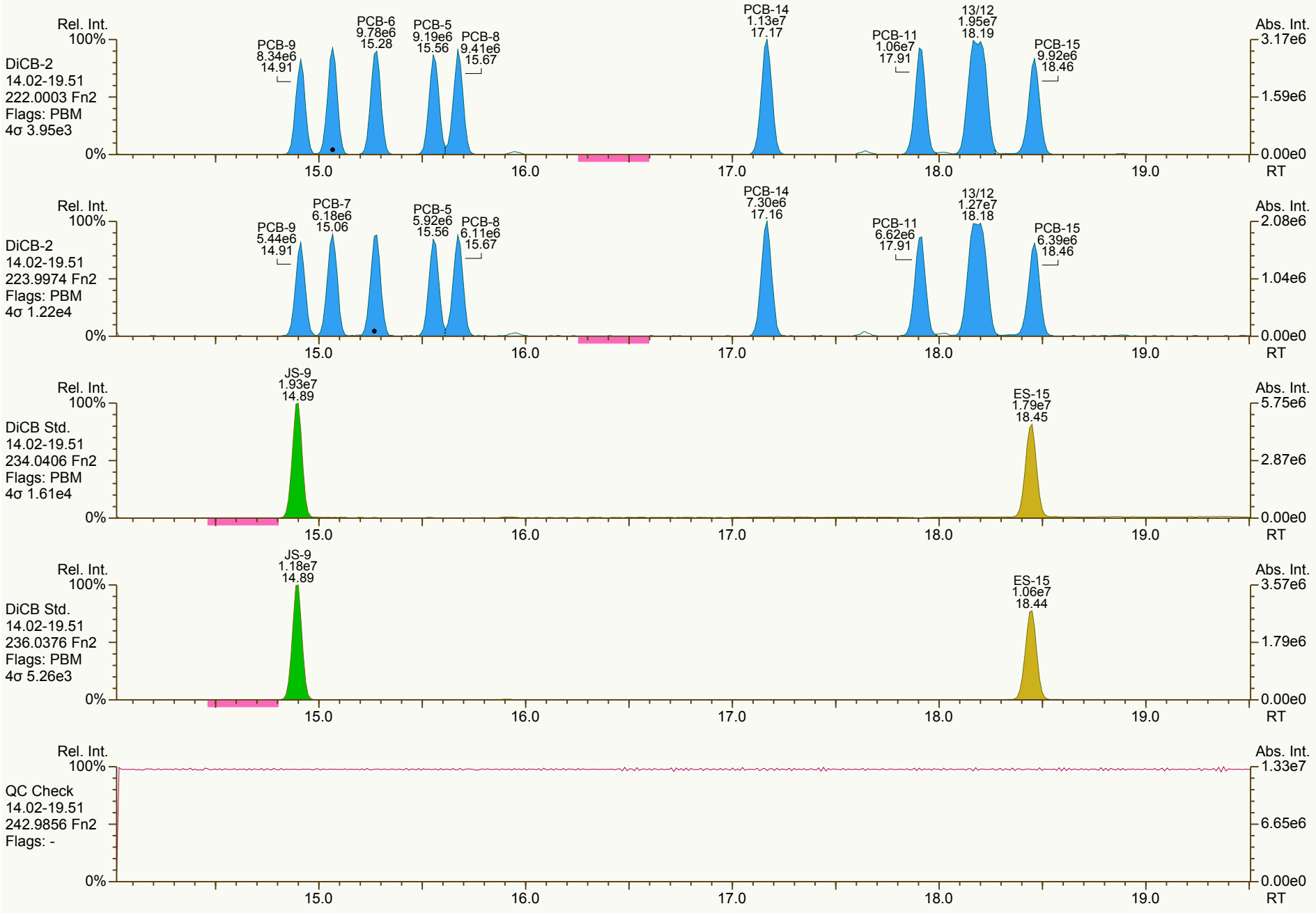
SGS-AP ID: OPR1_10495_PCB
Instr: AutoSpec-Premier MM6

Sample ID: 0_10495_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29

Acq: 03-Jan-2013 18:05:40
User: CEM Datafile: 130103V03 (EQ)



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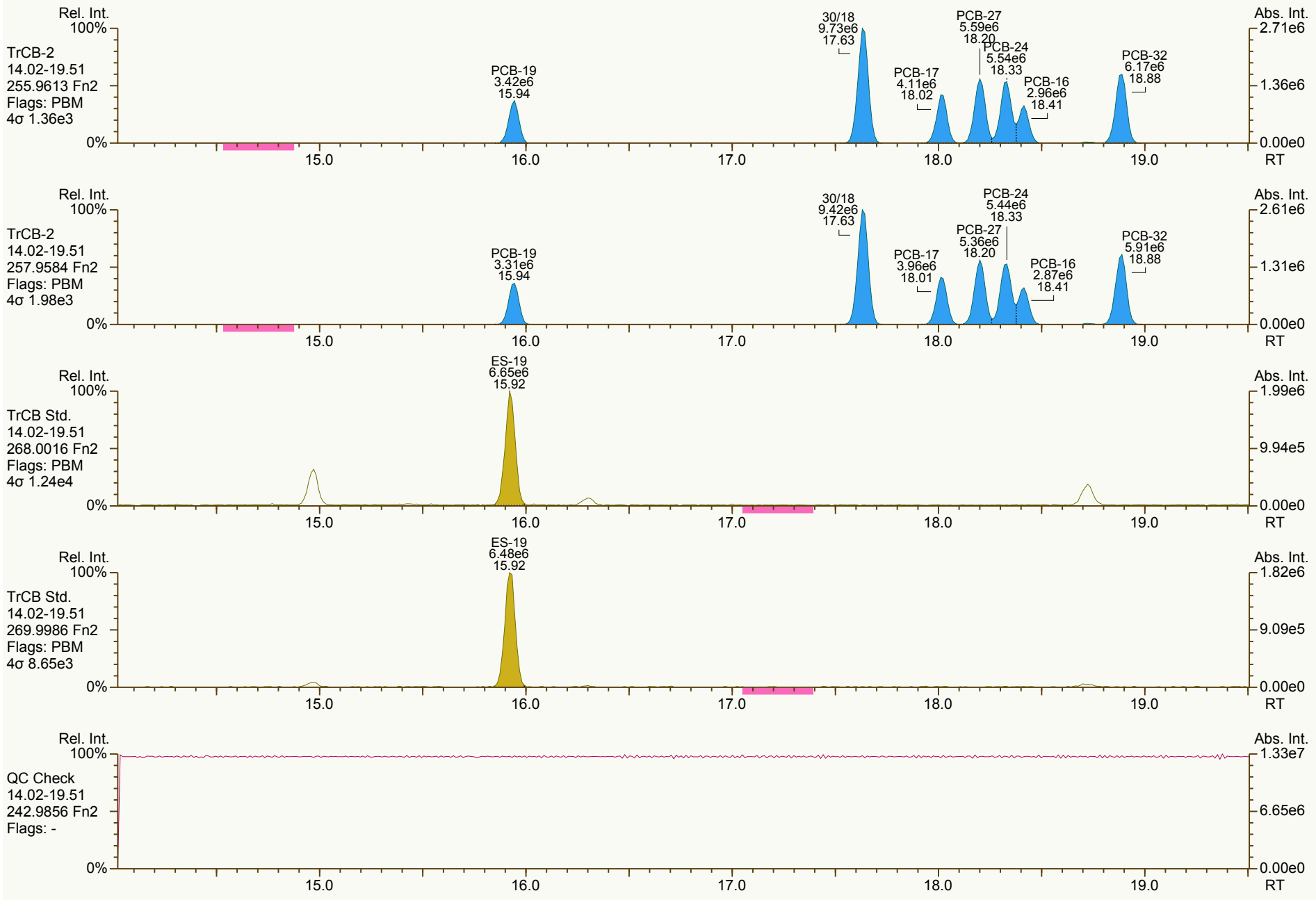
Peak annotation: Areas, Centroids

SGS-AP ID: OPR1_10495_PCB | **Sample ID: 0_10495_OPR001** | **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** | **User: CEM Datafile: 130103V03 (EQ)**



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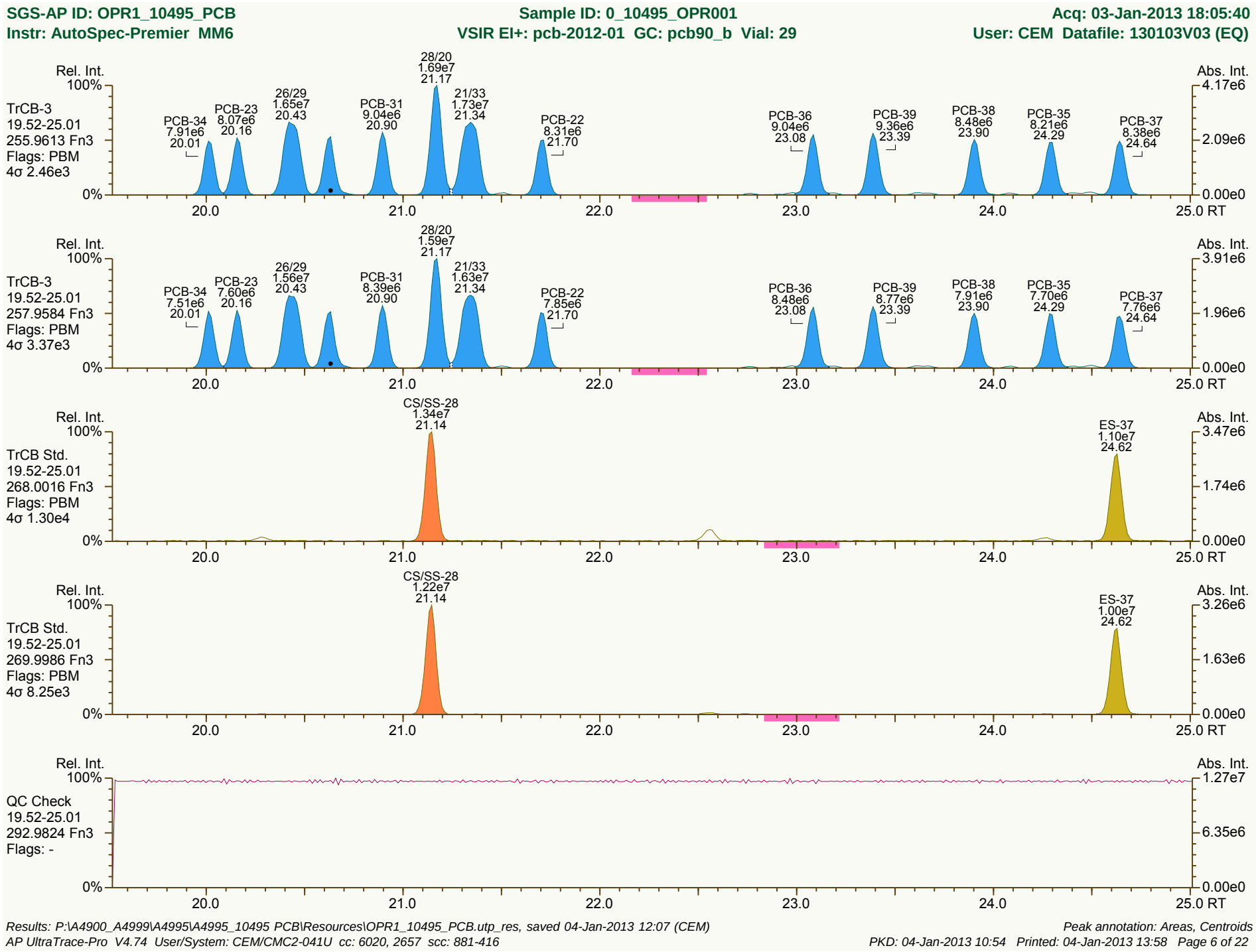
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 2199, 9489 scc: 881-416 *PKD: 04-Jan-2013 10:54 Printed: 04-Jan-2013 13:58 Page 5 of 22*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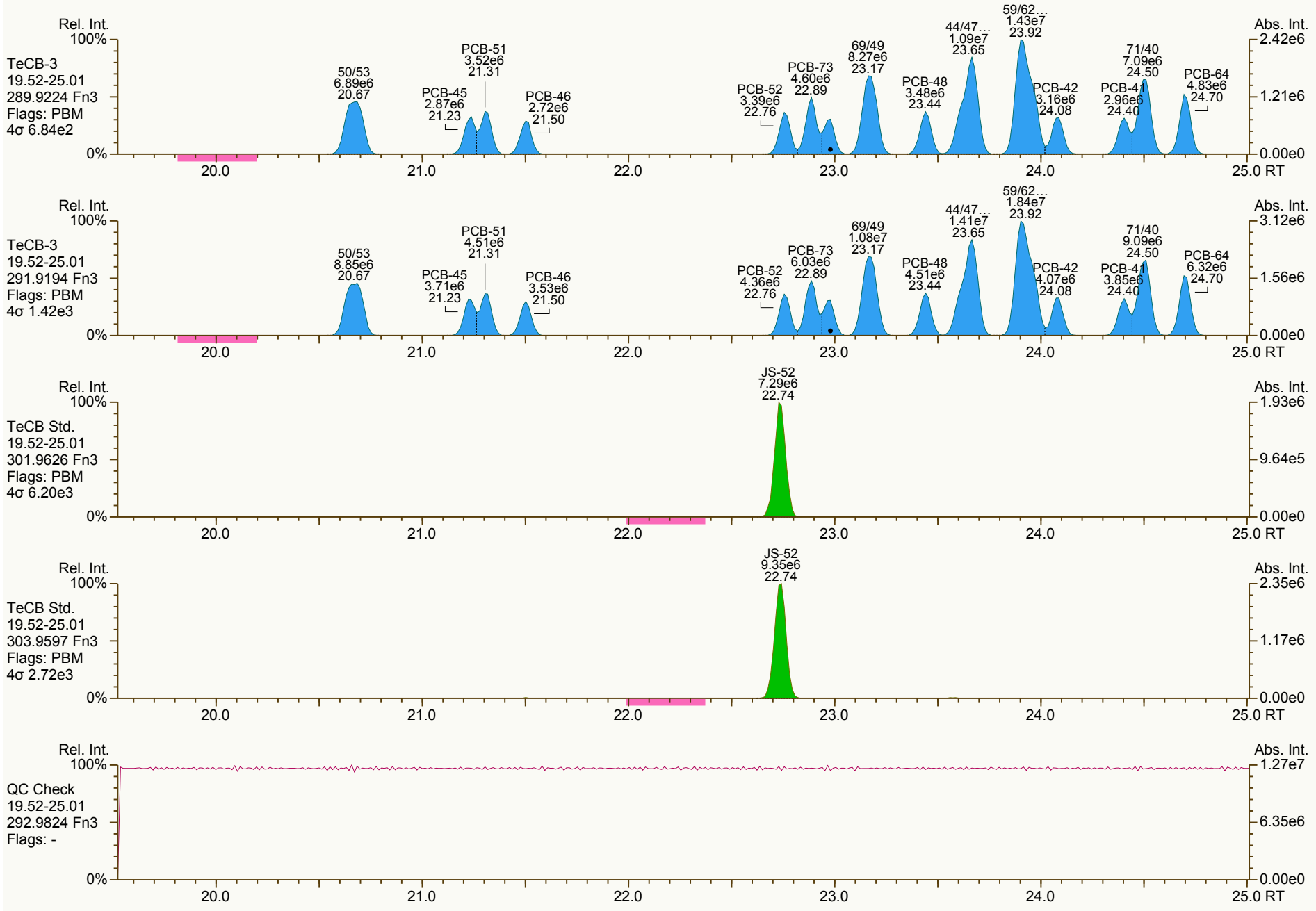
Sample ID: 0_10495_OPR001
Acq: 03-Jan-2013 18:05:40
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29
User: CEM Datafile: 130103V03 (EQ)
TrCB-3
19.52-25.01
255.9613 Fn3
Flags: PBM
4σ 2.46e3
PCB-34 7.91e6 20.01
PCB-23 8.07e6 20.16
26/29 1.65e7 20.43
PCB-31 9.04e6 20.90
28/20 1.69e7 21.17
21/33 1.73e7 21.34
PCB-22 8.31e6 21.70
PCB-36 9.04e6 23.08
PCB-39 9.36e6 23.39
PCB-38 8.48e6 23.90
PCB-35 8.21e6 24.29
PCB-37 8.38e6 24.64
TrCB-3
19.52-25.01
257.9584 Fn3
Flags: PBM
4σ 3.37e3
PCB-34 7.51e6 20.01
PCB-23 7.60e6 20.16
26/29 1.56e7 20.43
PCB-31 8.39e6 20.90
28/20 1.59e7 21.17
21/33 1.63e7 21.34
PCB-22 7.85e6 21.70
PCB-36 8.48e6 23.08
PCB-39 8.77e6 23.39
PCB-38 7.91e6 23.90
PCB-35 7.70e6 24.29
PCB-37 7.76e6 24.64
TrCB Std.
19.52-25.01
268.0016 Fn3
Flags: PBM
4σ 1.30e4
CS/SS-28 1.34e7 21.14
ES-37 1.10e7 24.62
TrCB Std.
19.52-25.01
269.9986 Fn3
Flags: PBM
4σ 8.25e3
CS/SS-28 1.22e7 21.14
ES-37 1.00e7 24.62
QC Check
19.52-25.01
292.9824 Fn3
Flags: -
Rel. Int.
Abs. Int.
100%
0%
20.0
21.0
22.0
23.0
24.0
25.0 RT
4.17e6
2.09e6
0.00e0
3.91e6
1.96e6
3.47e6
1.74e6
3.26e6
1.63e6
1.27e7
6.35e6

SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**

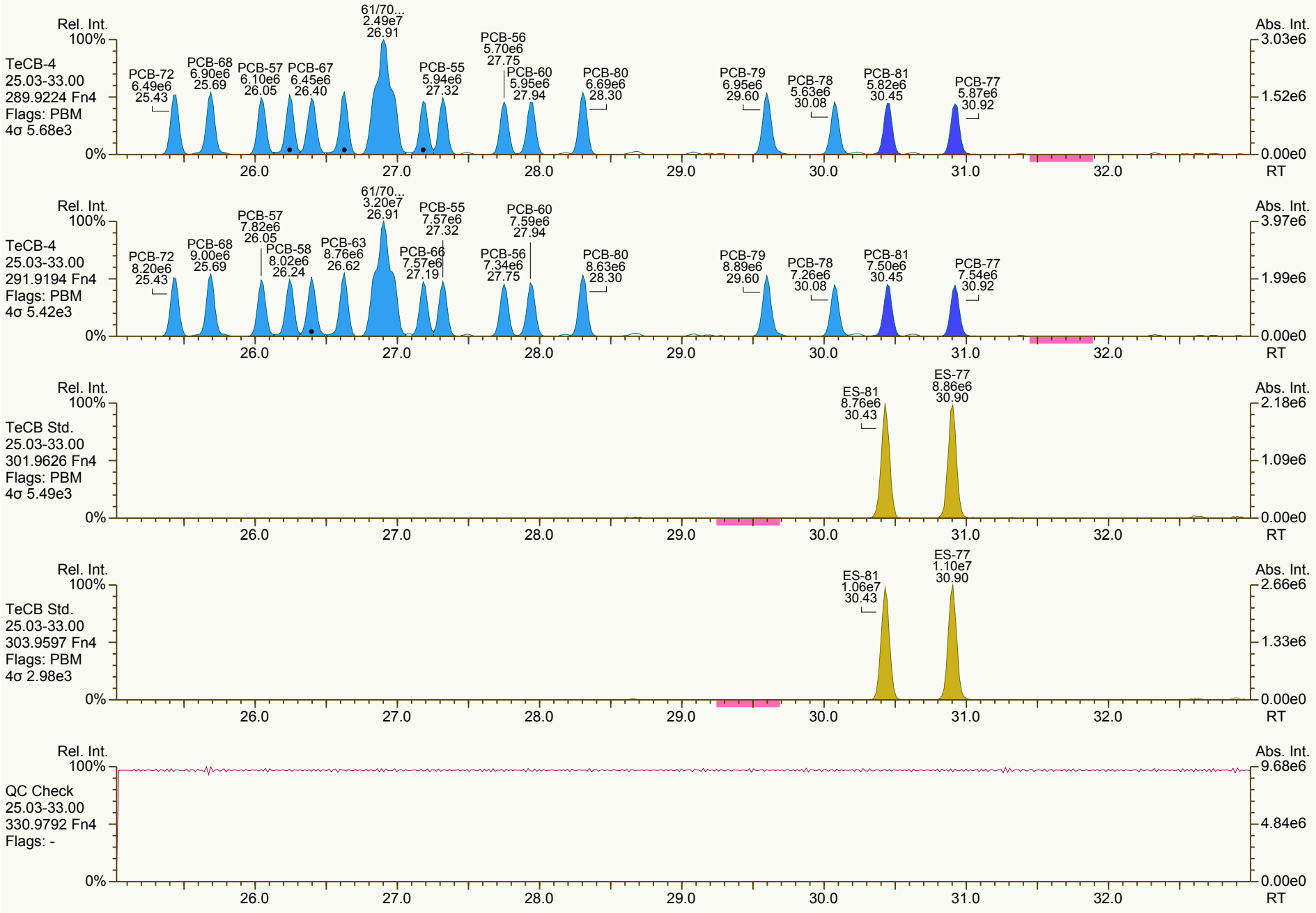


SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**

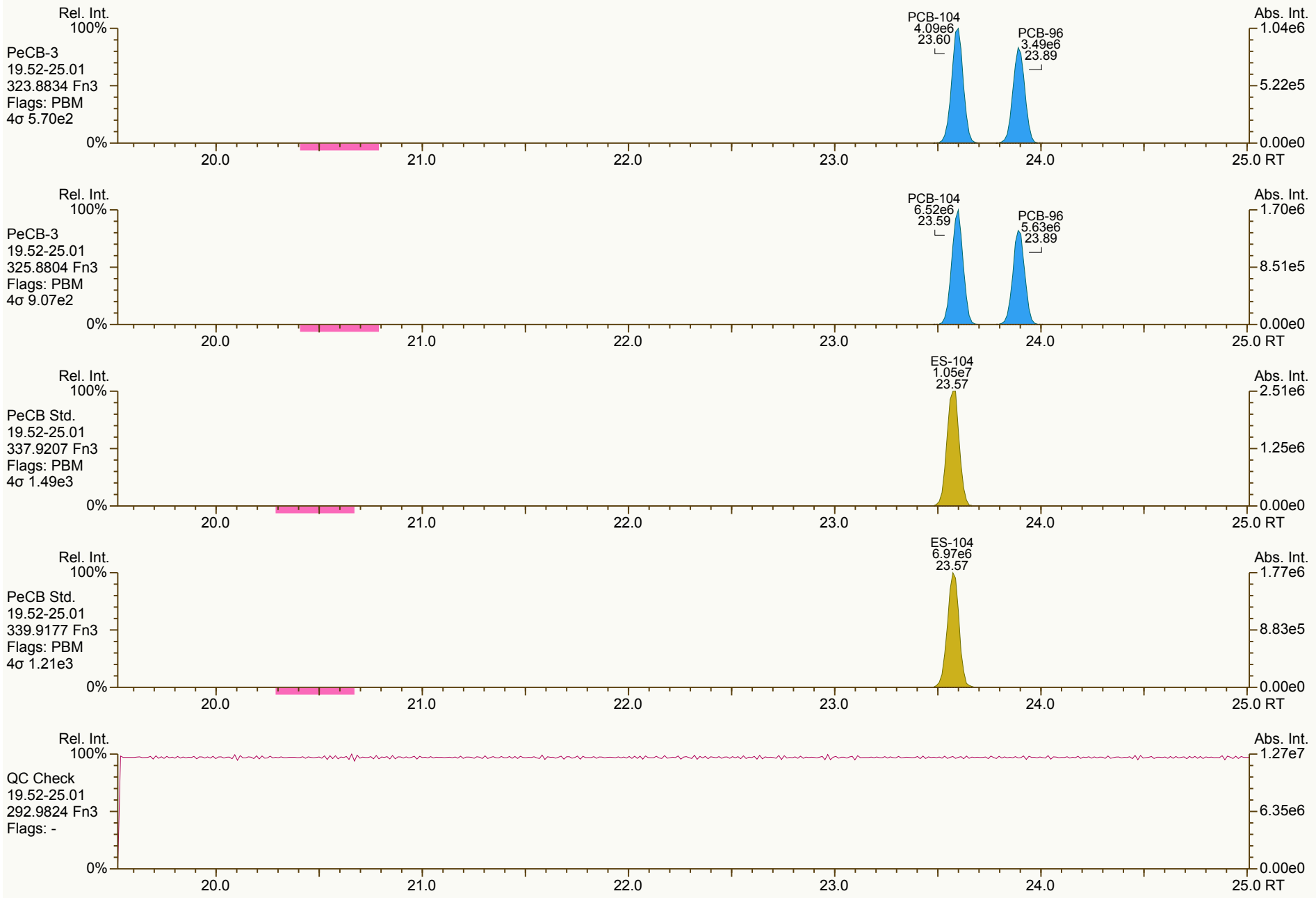


Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 2075, 6672 scc: 881-416 *PKD: 04-Jan-2013 10:54 Printed: 04-Jan-2013 13:58 Page 8 of 22*

SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**



SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**



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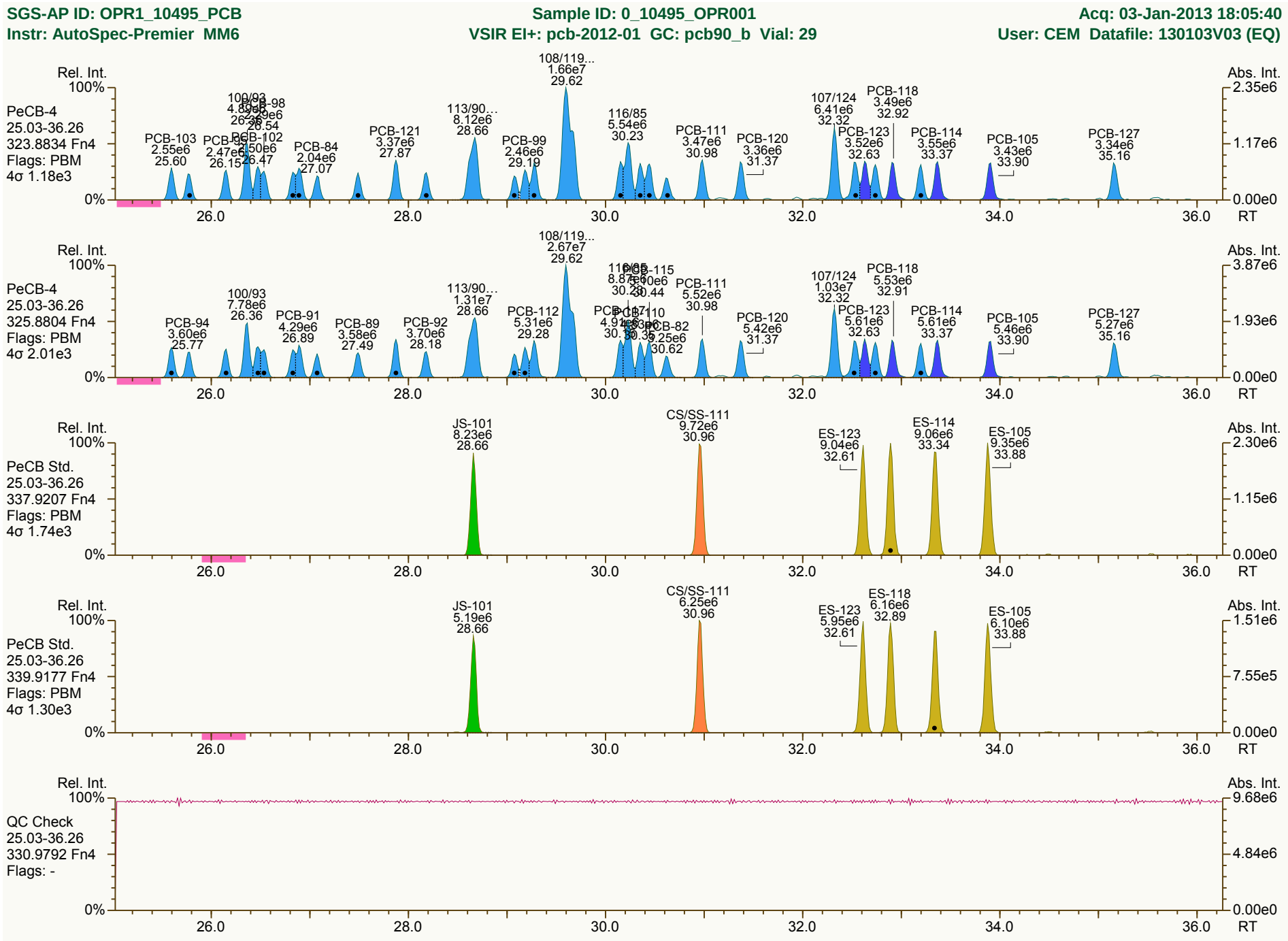
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 8127, 7709 scc: 881-416 *Revised: 04-Jan-2013 10:54 (CEM) Printed: 04-Jan-2013 13:58 Page 10 of 22*


SGS-AP ID: OPR1_10495_PCB
Sample ID: 0_10495_OPR001
Acq: 03-Jan-2013 18:05:40
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29
User: CEM Datafile: 130103V03 (EQ)
PeCB-4
25.03-36.26
323.8834 Fn4
Flags: PBM
4σ 1.18e3
PCB-103 2.55e6 25.60
PCB-102 2.50e6 26.47
PCB-84 2.04e6 27.07
PCB-121 3.37e6 27.87
113/90... 8.12e6 28.66
PCB-99 2.46e6 29.19
108/119... 1.66e7 29.62
116/85 5.54e6 30.23
PCB-111 3.47e6 30.98
PCB-120 3.36e6 31.37
107/124 6.41e6 32.32
PCB-118 3.49e6 32.92
PCB-123 3.52e6 32.63
PCB-114 3.55e6 33.37
PCB-105 3.43e6 33.90
PCB-127 3.34e6 35.16
PeCB-4
25.03-36.26
325.8804 Fn4
Flags: PBM
4σ 2.01e3
PCB-94 3.60e6 25.77
100/93 7.78e6 26.36
PCB-91 4.29e6 26.89
PCB-89 3.58e6 27.49
PCB-92 3.70e6 28.18
113/90... 1.31e7 28.66
PCB-112 5.31e6 29.28
108/119... 2.67e7 29.62
PCB-115 8.87e6 30.44
PCB-111 5.52e6 30.98
PCB-82 3.25e6 30.62
PCB-120 5.42e6 31.37
107/124 1.03e7 32.32
PCB-118 5.53e6 32.91
PCB-123 5.61e6 32.63
PCB-114 5.61e6 33.37
PCB-105 5.46e6 33.90
PCB-127 5.27e6 35.16
PeCB Std.
25.03-36.26
337.9207 Fn4
Flags: PBM
4σ 1.74e3
JS-101 8.23e6 28.66
CS/SS-111 9.72e6 30.96
ES-123 9.04e6 32.61
ES-114 9.06e6 33.34
ES-105 9.35e6 33.88
PeCB Std.
25.03-36.26
339.9177 Fn4
Flags: PBM
4σ 1.30e3
JS-101 5.19e6 28.66
CS/SS-111 6.25e6 30.96
ES-123 5.95e6 32.61
ES-118 6.16e6 32.89
ES-105 6.10e6 33.88
QC Check
25.03-36.26
330.9792 Fn4
Flags: -
Rel. Int.
Abs. Int.
RT
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1874, 9987 scc: 881-416
Revised: 04-Jan-2013 10:55 (CEM) Printed: 04-Jan-2013 13:58 Page 11 of 22

SGS-AP ID: OPR1_10495_PCB
Instr: AutoSpec-Premier MM6

Sample ID: 0_10495_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29

Acq: 03-Jan-2013 18:05:40
User: CEM Datafile: 130103V03 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM)

Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 4607, 0962 scc: 881-416

Revised: 04-Jan-2013 10:55 (CEM) Printed: 04-Jan-2013 13:58 Page 12 of 22

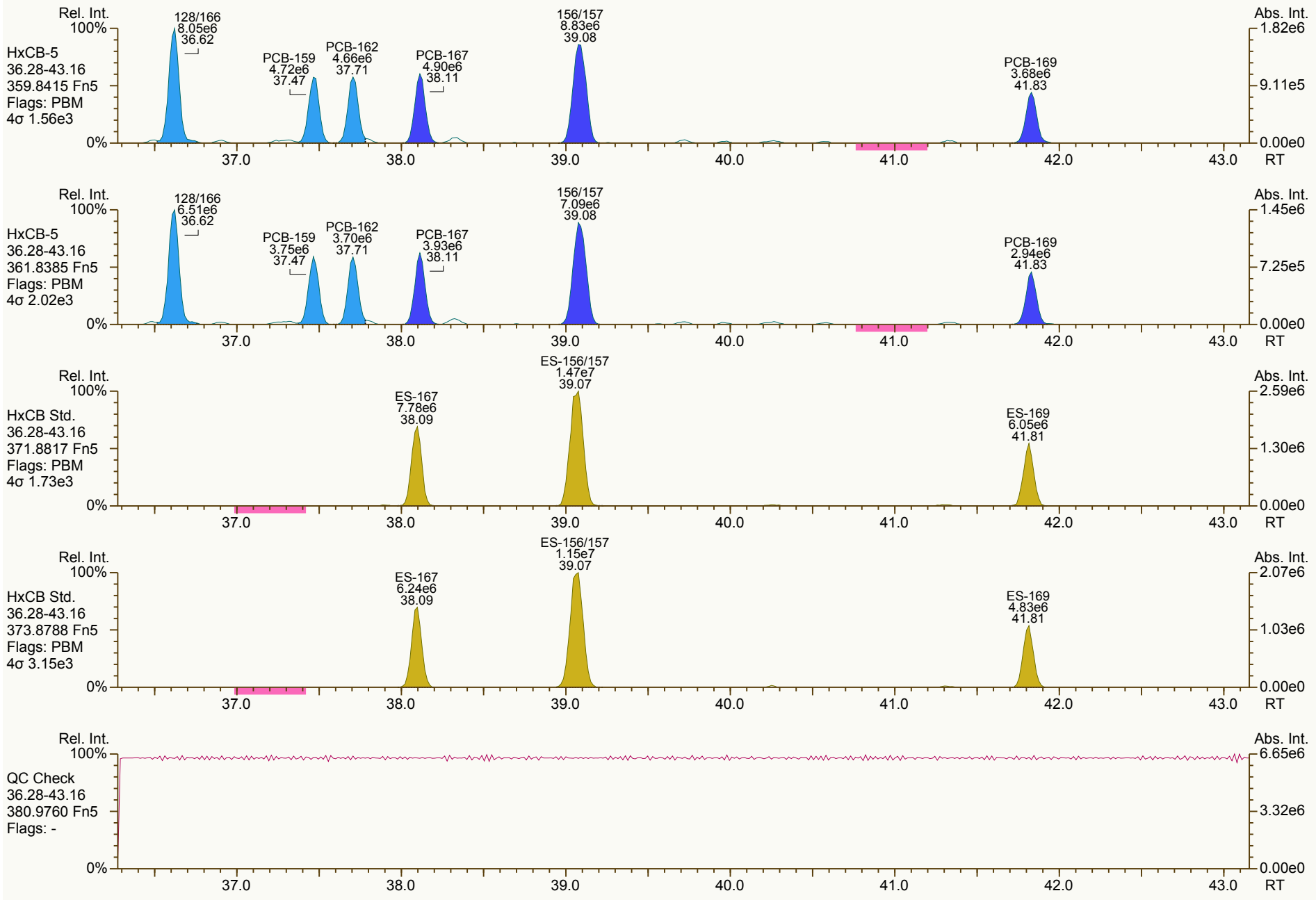
SGS-AP ID: OPR1_10495_PCB
Instr: AutoSpec-Premier MM6

Sample ID: 0_10495_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29

Acq: 03-Jan-2013 18:05:40
User: CEM Datafile: 130103V03 (EQ)

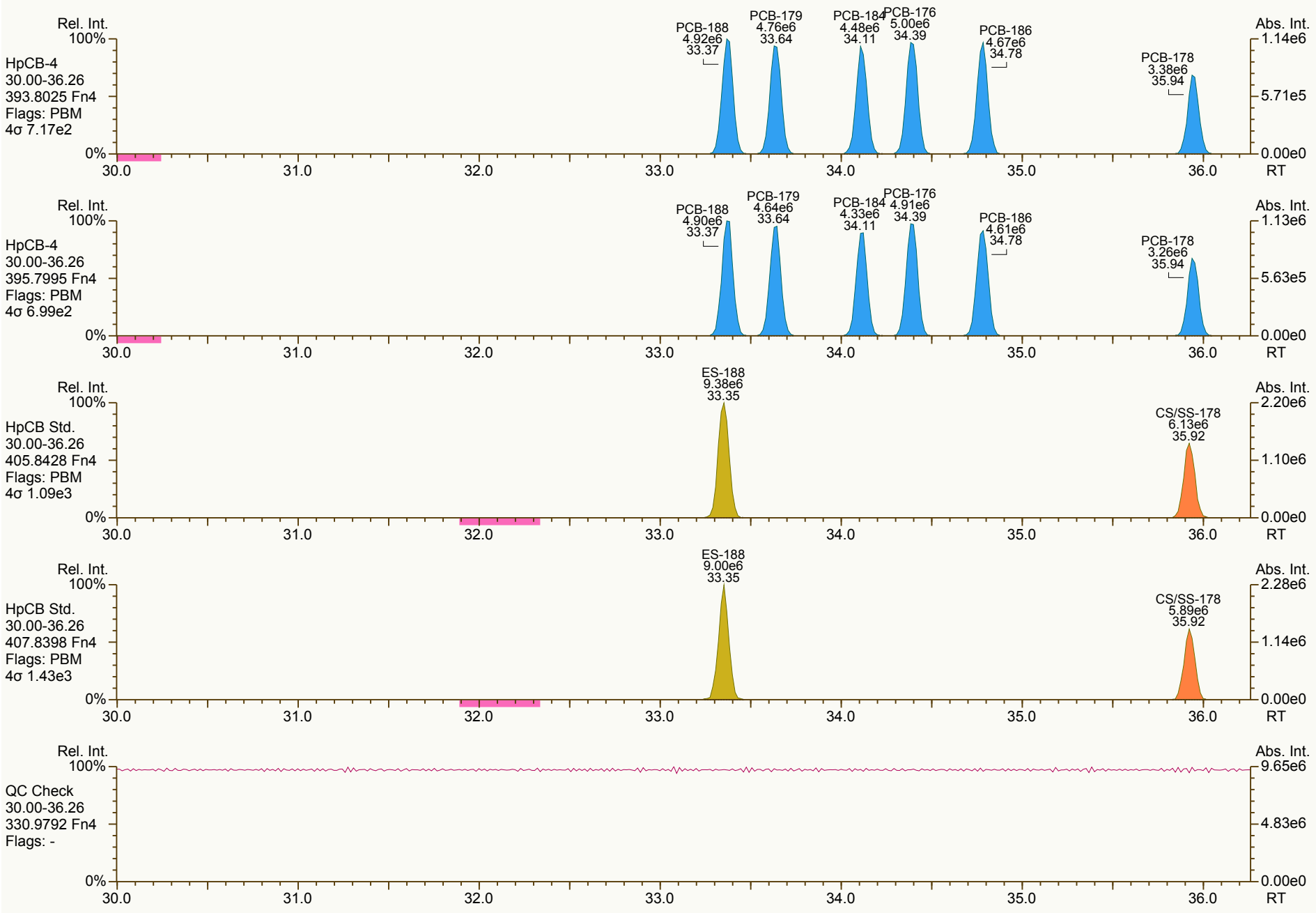


SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**



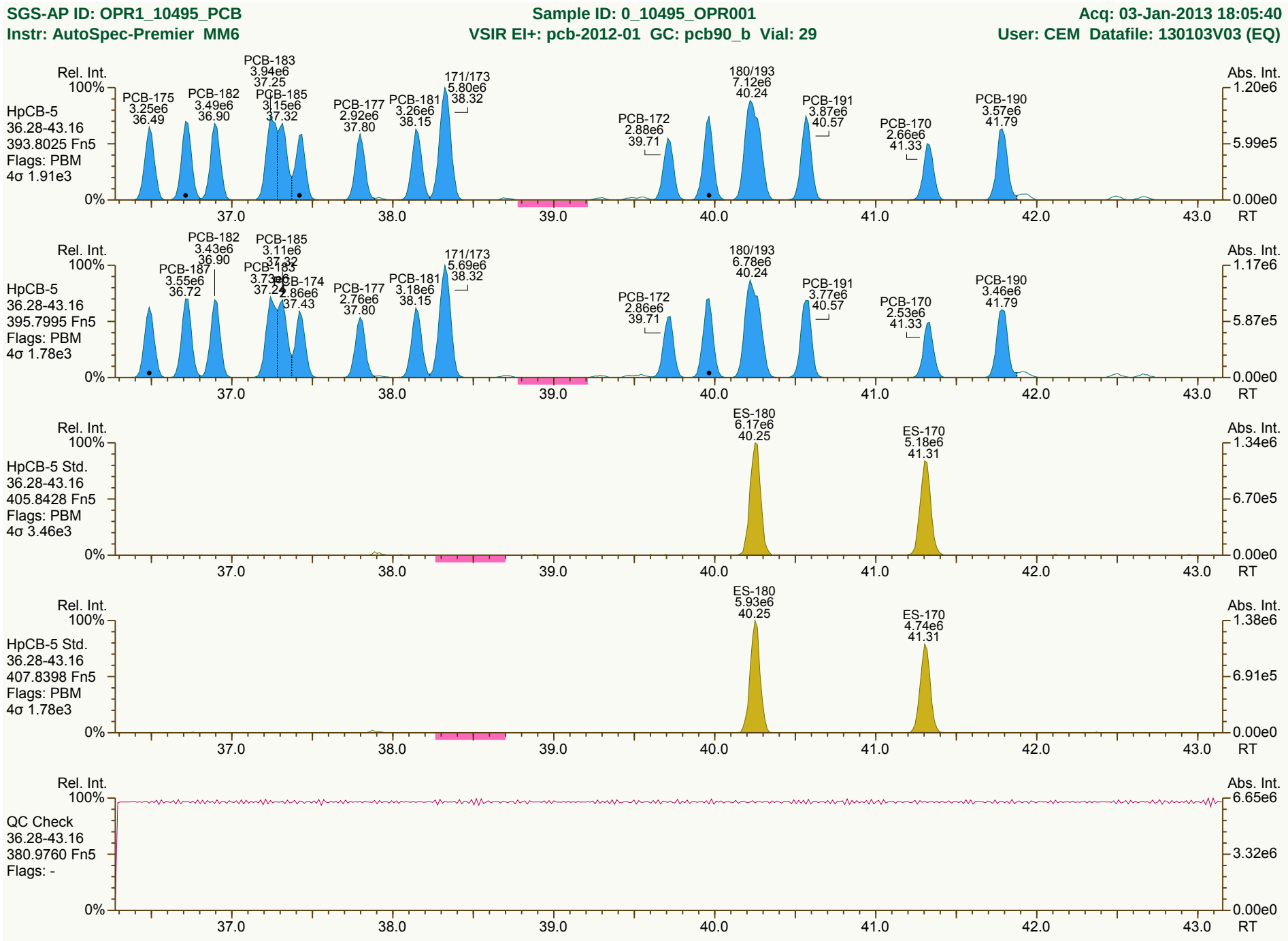
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9842, 9504 scc: 881-416 *Revised: 04-Jan-2013 11:26 (CEM) Printed: 04-Jan-2013 13:58 Page 14 of 22*

SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*

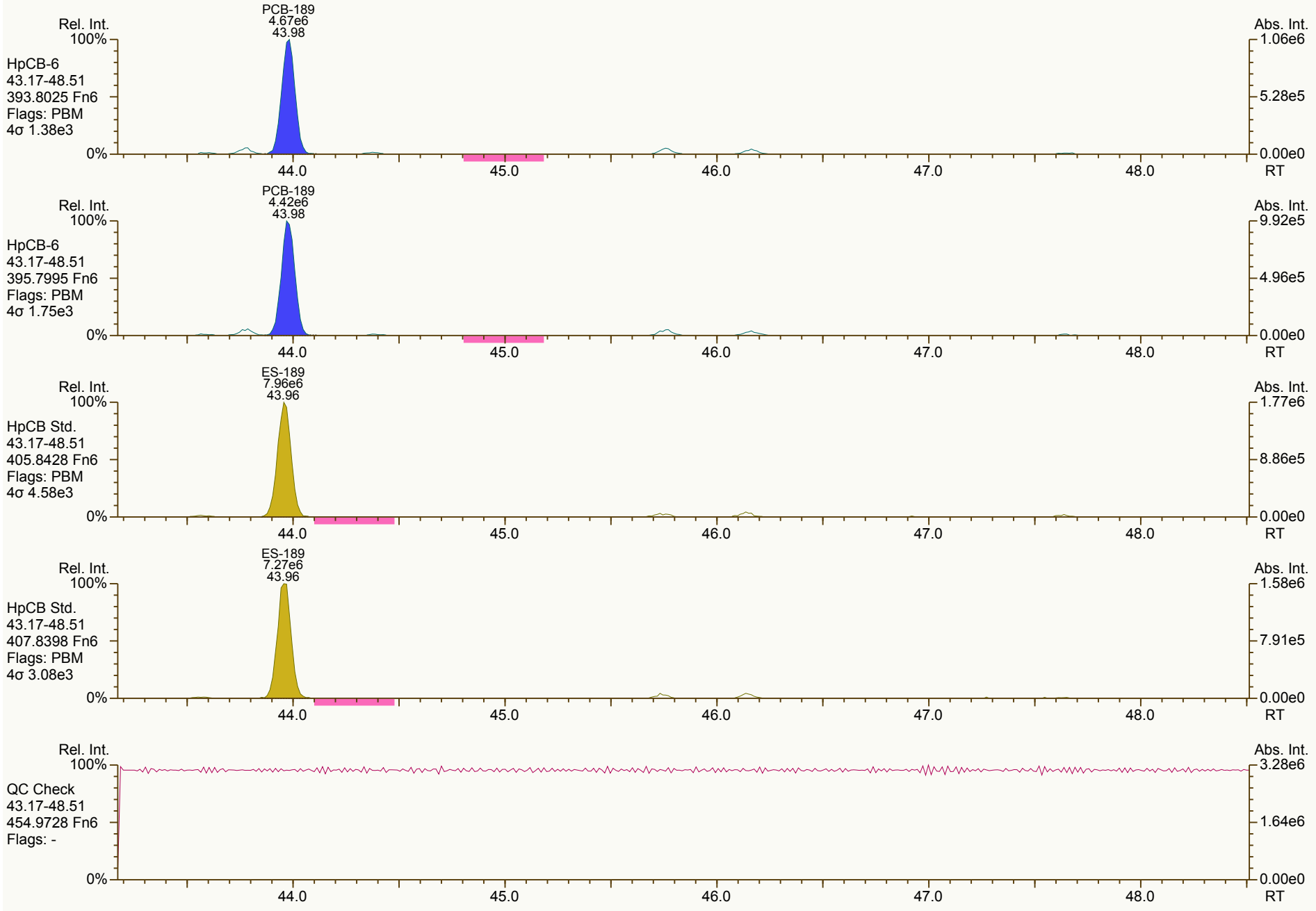
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1604, 3296 scc: 881-416 *PKD: 04-Jan-2013 10:54 Printed: 04-Jan-2013 13:58 Page 15 of 22*


SGS-AP ID: OPR1_10495_PCB
Sample ID: 0_10495_OPR001
Acq: 03-Jan-2013 18:05:40
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29
User: CEM Datafile: 130103V03 (EQ)
HpCB-5
36.28-43.16
393.8025 Fn5
Flags: PBM
4σ 1.91e3
PCB-175 3.25e6 36.49
PCB-182 3.49e6 36.90
PCB-183 3.94e6 37.25
PCB-185 3.15e6 37.32
PCB-177 2.92e6 37.80
PCB-181 3.26e6 38.15
171/173 5.80e6 38.32
PCB-172 2.88e6 39.71
180/193 7.12e6 40.24
PCB-191 3.87e6 40.57
PCB-170 2.66e6 41.33
PCB-190 3.57e6 41.79
HpCB-5
36.28-43.16
395.7995 Fn5
Flags: PBM
4σ 1.78e3
PCB-187 3.55e6 36.72
PCB-182 3.43e6 36.90
PCB-185 3.11e6 37.32
PCB-174 2.86e6 37.43
PCB-177 2.76e6 37.80
PCB-181 3.18e6 38.15
171/173 5.69e6 38.32
PCB-172 2.86e6 39.71
180/193 6.78e6 40.24
PCB-191 3.77e6 40.57
PCB-170 2.53e6 41.33
PCB-190 3.46e6 41.79
HpCB-5 Std.
36.28-43.16
405.8428 Fn5
Flags: PBM
4σ 3.46e3
ES-180 6.17e6 40.25
ES-170 5.18e6 41.31
HpCB-5 Std.
36.28-43.16
407.8398 Fn5
Flags: PBM
4σ 1.78e3
ES-180 5.93e6 40.25
ES-170 4.74e6 41.31
QC Check
36.28-43.16
380.9760 Fn5
Flags: -
Rel. Int.
Abs. Int.
RT
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 9595, 2554 scc: 881-416
Revised: 04-Jan-2013 11:26 (CEM) Printed: 04-Jan-2013 13:58 Page 16 of 22

SGS-AP ID: OPR1_10495_PCB
Instr: AutoSpec-Premier MM6

Sample ID: 0_10495_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29

Acq: 03-Jan-2013 18:05:40
User: CEM Datafile: 130103V03 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM)
Peak annotation: Areas, Centroids

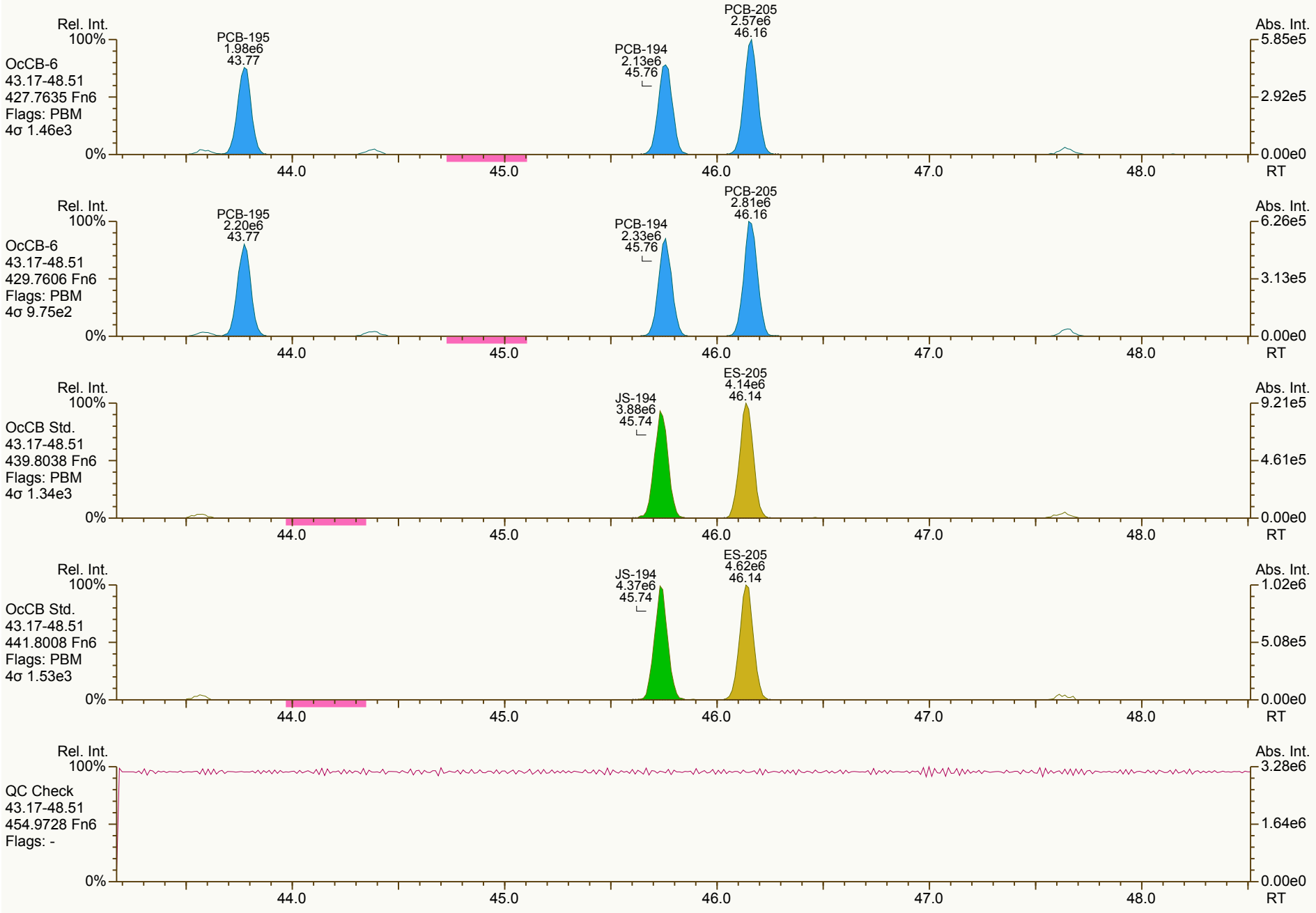
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 1454, 5641 scc: 881-416
PKD: 04-Jan-2013 10:54 Printed: 04-Jan-2013 13:58 Page 17 of 22

SGS-AP ID: OPR1_10495_PCB
Instr: AutoSpec-Premier MM6
Sample ID: 0_10495_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29
Acq: 03-Jan-2013 18:05:40
User: CEM Datafile: 130103V03 (EQ)



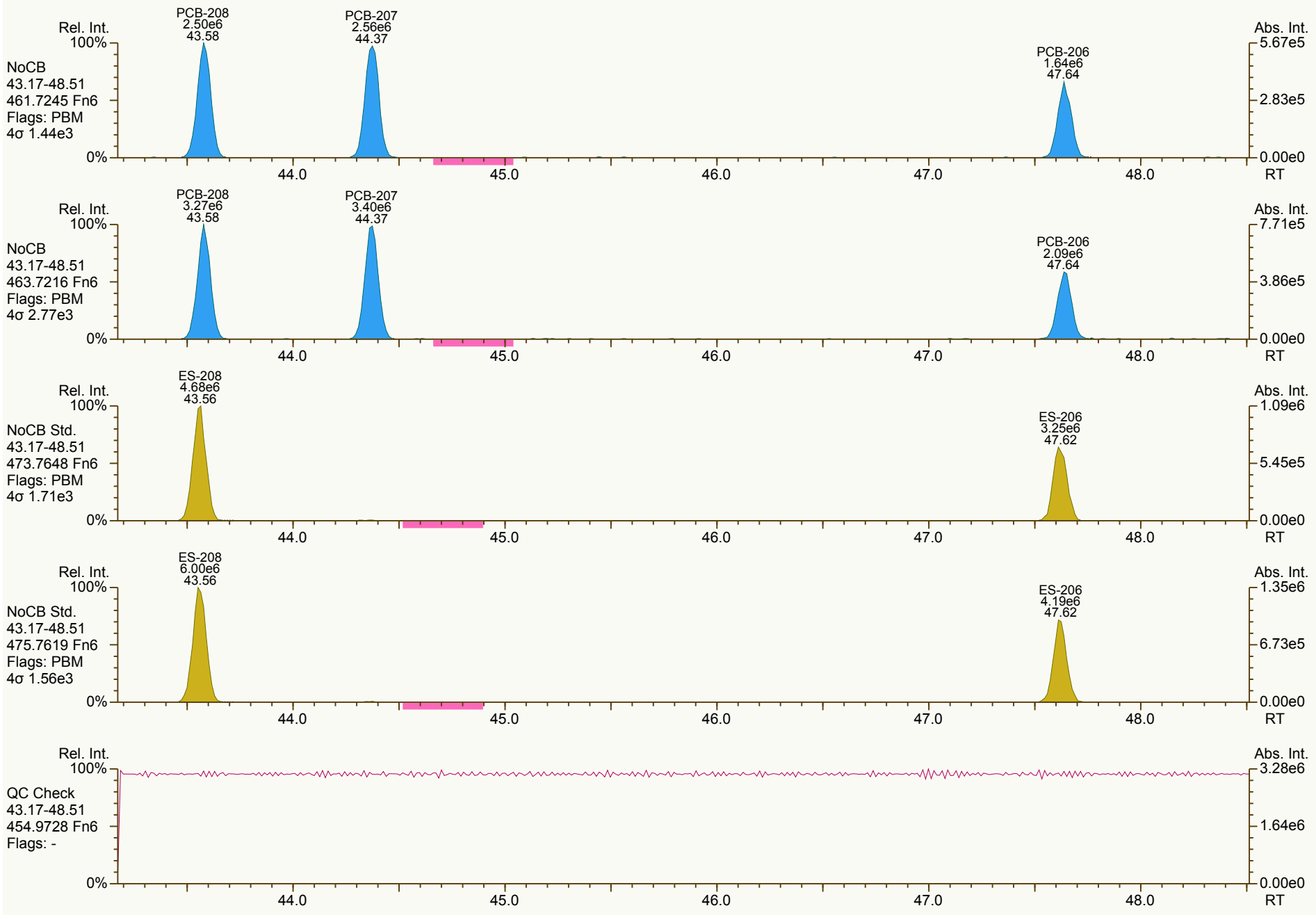
Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 3727, 4284 scc: 881-416
Revised: 04-Jan-2013 12:06 (CEM) Printed: 04-Jan-2013 13:58 Page 18 of 22

SGS-AP ID: OPR1_10495_PCB
Sample ID: 0_10495_OPR001
Acq: 03-Jan-2013 18:05:40
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29
User: CEM Datafile: 130103V03 (EQ)



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 0472, 4807 scc: 881-416
PKD: 04-Jan-2013 10:54 Printed: 04-Jan-2013 13:58 Page 19 of 22

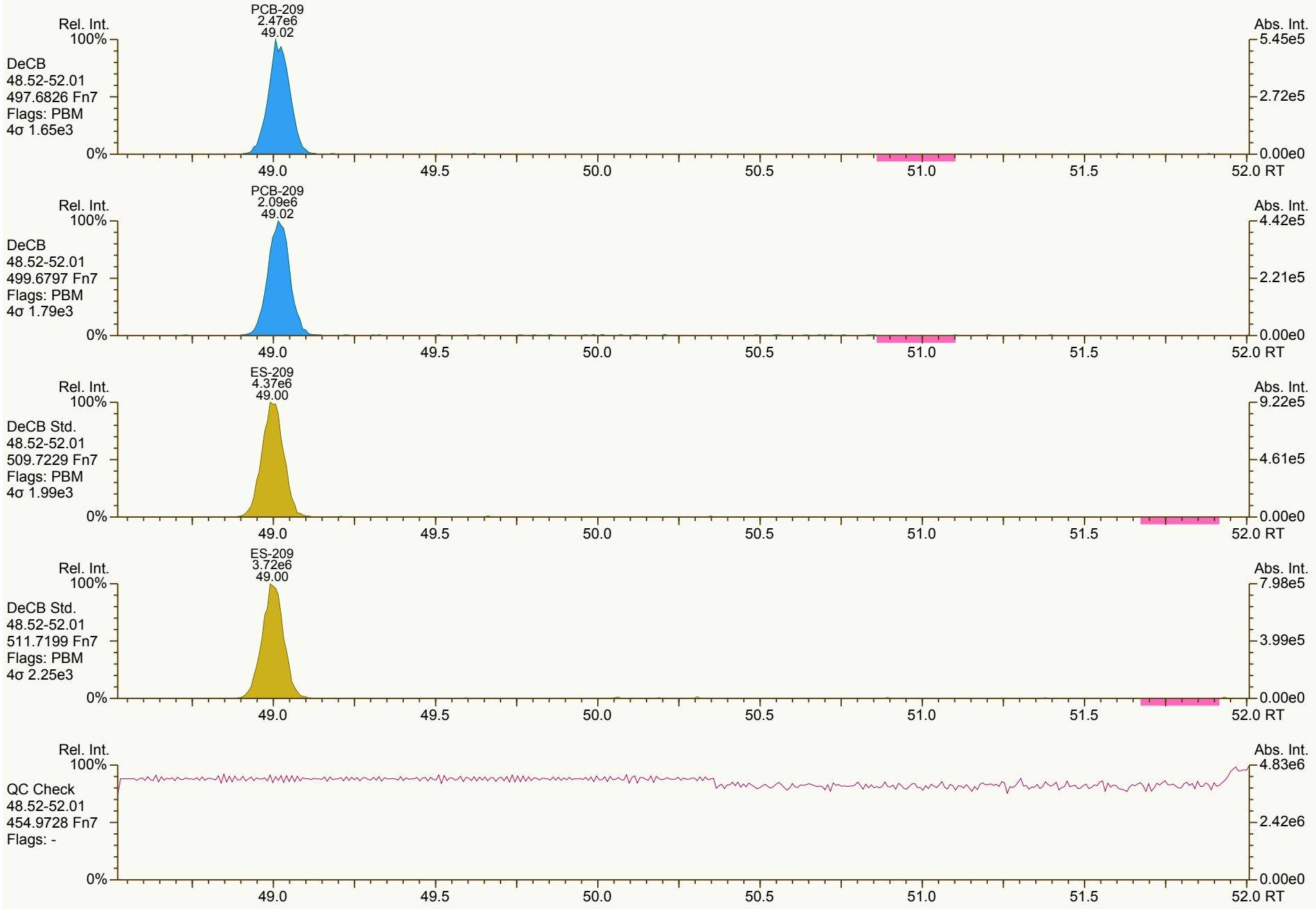
SGS-AP ID: OPR1_10495_PCB | **Sample ID: 0_10495_OPR001** | **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** | **User: CEM Datafile: 130103V03 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 6744, 4064 scc: 881-416 *PKD: 04-Jan-2013 10:54 Printed: 04-Jan-2013 13:58 Page 20 of 22*

SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**



Results: P:\A4900_A4999\A4995\A4995_10495 PCB\Resources\OPR1_10495_PCB.utp_res, saved 04-Jan-2013 12:07 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: CEM/CMC2-041U cc: 4423, 2079 scc: 881-416 *Revised: 04-Jan-2013 10:54 (CEM) Printed: 04-Jan-2013 13:58 Page 21 of 22*

SGS-AP ID: OPR1_10495_PCB **Sample ID: 0_10495_OPR001** **Acq: 03-Jan-2013 18:05:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 29** **User: CEM Datafile: 130103V03 (EQ)**



15 February 2013

Cindy Fields
ANCHOR QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

Ph.: 206-903-3394
Email: cfields@anchorqea.com

Subject: Certificate of Results

Dear Cindy;

Attached to this narrative are the analytical results you requested on the sample submitted for the determination of the co-planar polychlorinated biphenyl congeners. The insert below summarizes the relevant information pertaining to your project. In particular, QC annotations bring to your attention specific analytical observations and assessments made during the sample handling and data interpretation phases. Results reported relate only to the items tested.

Project Information Summary	When applicable, see QC Annotations for details
Client Project No.	110730-02.01
AP Project #	**A5019R, RR**
Analytical Protocol	Method 1668A
No. Samples Submitted	1
No. Samples Analyzed	1
No. Laboratory Method Blanks	2
No. OPRs / Batch CS3	2
No. Outstanding Samples	0
Date Received	13-Dec-2012
Condition Received	good
Temperature upon Receipt (C)	2.4
Extraction within Holding Time	yes
Analysis within Holding Time	yes
Data meet QA/QC Requirements	yes
Exceptions	none
Analytical Difficulties	see narration

ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

SGS

QC Annotations: Please see Appendix A & B attached for data qualifier/attribute and lab identifier descriptions which may be contained in the project.

Sample **AQ-SS-03-10** was originally extracted in batch 10495 on 1/3/2013. Results from that analysis were rejected.

The sample was re-extracted on 2/2/2013 (batch 10601) and again on 2/5/2013 (batch 10631). Results for both of the re-extractions met method QA/QC criteria requirements and are provided in the attached report.

Analytical Perspectives Certification IDs:

SOUTH CAROLINA	99054
ARKANSAS	88-0628
NEW JERSEY-NELAP SECONDARY	NC005
FLORIDA-NELAP PRIMARY	E87608
LOUISIANA	4024
NORTH CAROLINA	37783
WASHINGTON	C2027
NEW YORK	11988
VIRGINIA	460180
MINNESOTA	037-999-448
OREGON	pending
TEXAS	T104704484-10-1
PENNSYLVANIA-NELAP SECONDARY	68-01849

SGS Analytical Perspectives remains committed to serving you in the most effective manner. Should you have any questions or need additional information and technical support, please do not hesitate to contact us.

The management and staff of SGS Analytical Perspectives welcomes customer feedback, both positive and negative, as we continually improve our services. Please visit our web site at www.ultratrace.com and click on the 'Leave Your Feedback Here!' link on the Home Page. Thank you for choosing SGS Analytical Perspectives.

Sincerely,

Amy Boehm
2013.02.15
16:43:34 -05'00'

Amy J. Boehm
Senior Project Manager

APPENDIX A: DATA QUALIFIERS / DATA ATTRIBUTES	
>	Indicates high recoveries. Shown with the numeric value at the top of the range.[1]
B	The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
C	Two or more congeners co-elute. In EDDs C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
E	The reported concentration exceeds the calibration range (upper point of the calibration curve).
EMPC	Represents an Estimated Maximum Possible Concentration. EMPC's arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
ETH	Indicates the presence of a diphenyl ether that appears to interfere with the quantitation of a furan. The reported concentration is the maximum.
H/h	If the standard recovery is below the method or SOP specified value "H" is assigned. If the obtained value is less than half the specified value "h" is assigned.[1]
J	Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve).
ND	Indicates a non-detect.
NR	Indicates a value that is not reportable.
PR	Due to interference, the associated congener is poorly resolved.
QI	Indicates the presence of a quantitative interference.
SI	Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.[1]
U	The analyte was not detected. The estimated detection limit (EDL) may be reported for this analyte.
V	The labeled standard recovery was found to be outside of the method control limits.
X	Indicates results reported from reinjection, refractionation, or repeat analyses.
APPENDIX B: LAB ID IDENTIFIERS	
AR	Indicates use of the archived portion of the sample extract.
CU	Indicates a sample that required additional clean-up prior to MS injection/processing.
D	Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
DE	Indicates a dilution performed with the addition of ES (extraction standard) solution.
DUP	Designation for a duplicate sample.
MS	Designation for a matrix spike.
MSD	Designation for a matrix spike duplicate.
RJ	Indicates a reinjection of the sample extract.
S	Indicates a sample split. The number that follows the "S" indicates the split factor.

[1]Denotes data qualifiers/attributes whose use will be phased out over time

Sample Summary





HR-PCB

Analyte	Method Blank A5019-R Conc. pg/g	AQ-SS-03-10 Conc. pg/g	Method Blank A5019-R-R Conc. pg/g	AQ-SS-03-10 Conc. pg/g
PCB-77	(0.343)	0.779	(0.174)	0.880
PCB-81	(0.356)	(0.327)	(0.188)	(0.0953)
PCB-105	(0.299)	2.79	[0.223]	3.25
PCB-114	(0.305)	(0.342)	(0.169)	[0.179]
PCB-118	0.443	4.96	[0.438]	6.26
PCB-123	(0.29)	(0.328)	(0.171)	(0.0906)
PCB-126	(0.443)	(0.431)	(0.161)	(0.109)
PCB-156/157	(0.554)	0.694	(0.211)	0.705
PCB-167	(0.396)	(0.372)	(0.163)	0.310
PCB-169	(0.533)	(0.503)	(0.192)	(0.131)
PCB-189	(0.366)	(0.319)	(0.126)	(0.0933)
TEQs (WHO 2005 M/H)				
ND = 0; EMPC = 0	0.0000133	0.000331	0.00	0.000404
ND = 0; EMPC = EMPC	0.0000133	0.000331	0.0000198	0.000409
ND = DL/2; EMPC = 0	0.0303	0.0295	0.0110	0.00783
ND = DL/2; EMPC = EMPC	0.0303	0.0295	0.0110	0.00784
ND = DL; EMPC = 0	0.0605	0.0587	0.0219	0.0153
ND = DL; EMPC = EMPC	0.0605	0.0587	0.0219	0.0153
Checkcode	823-496-CVB	209-506-ZYY	093-755-ZLG	060-855-CYP

() = DL
[] = EMPC

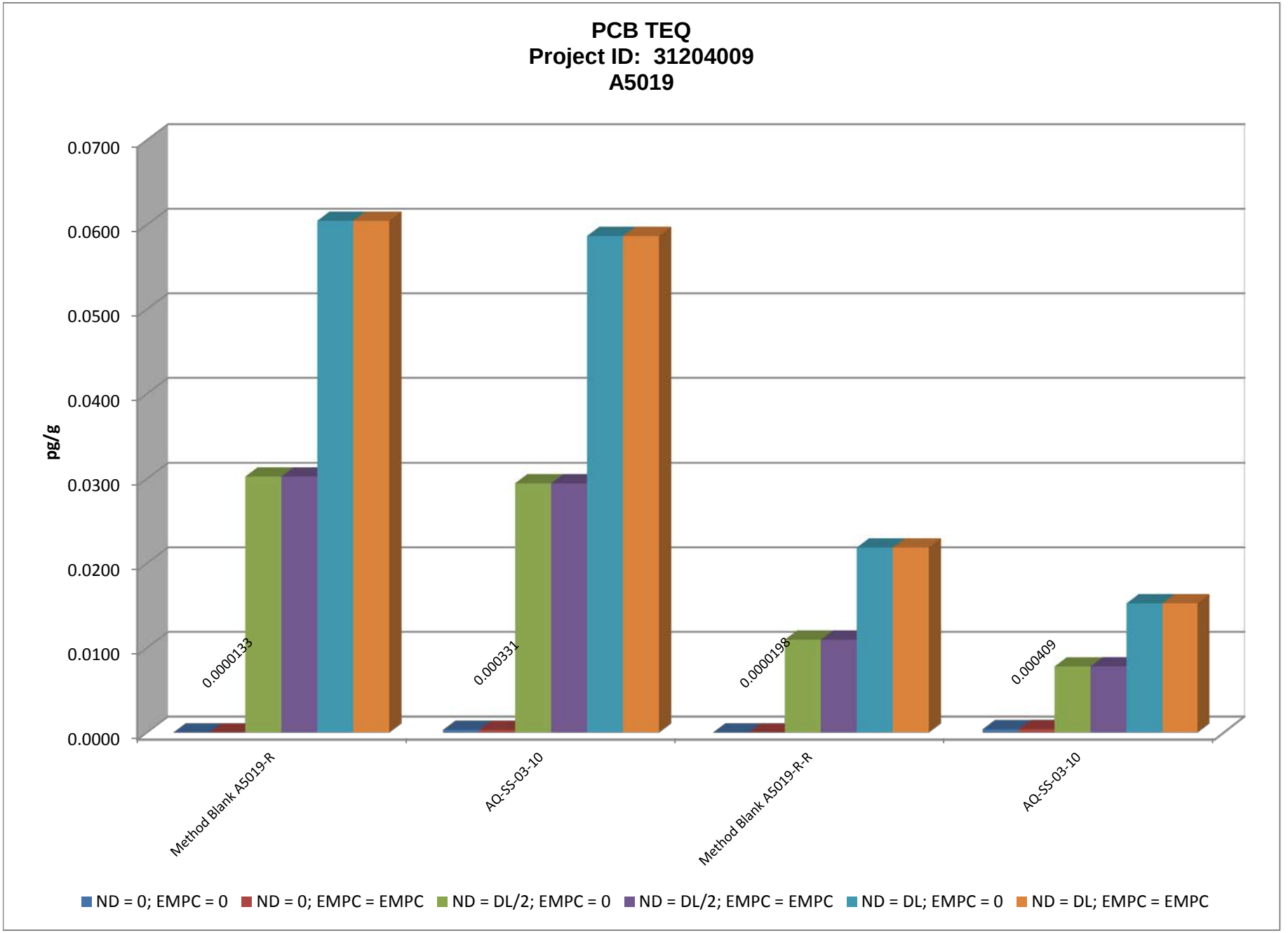
PCB Recoveries

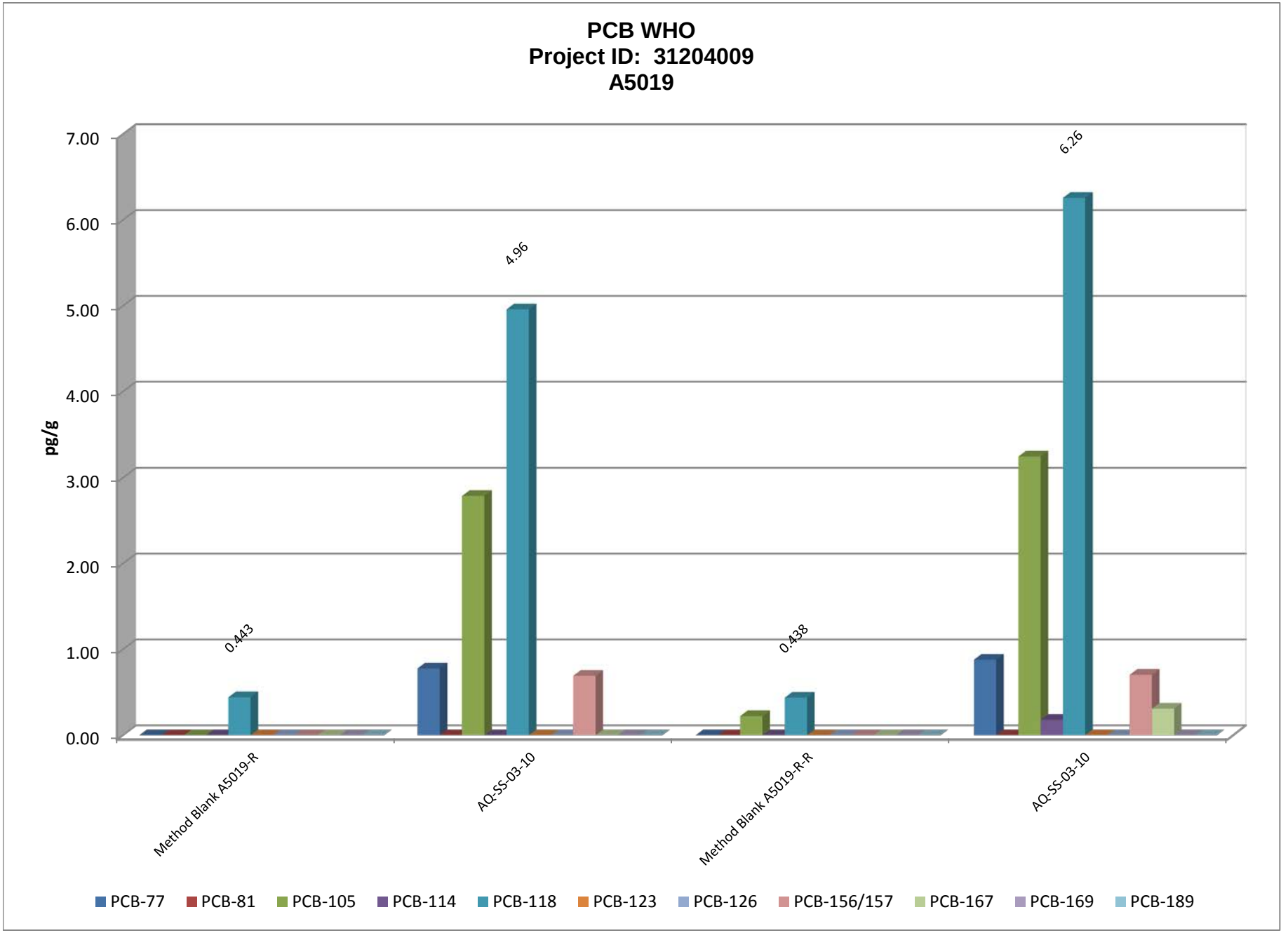
HR-PCB

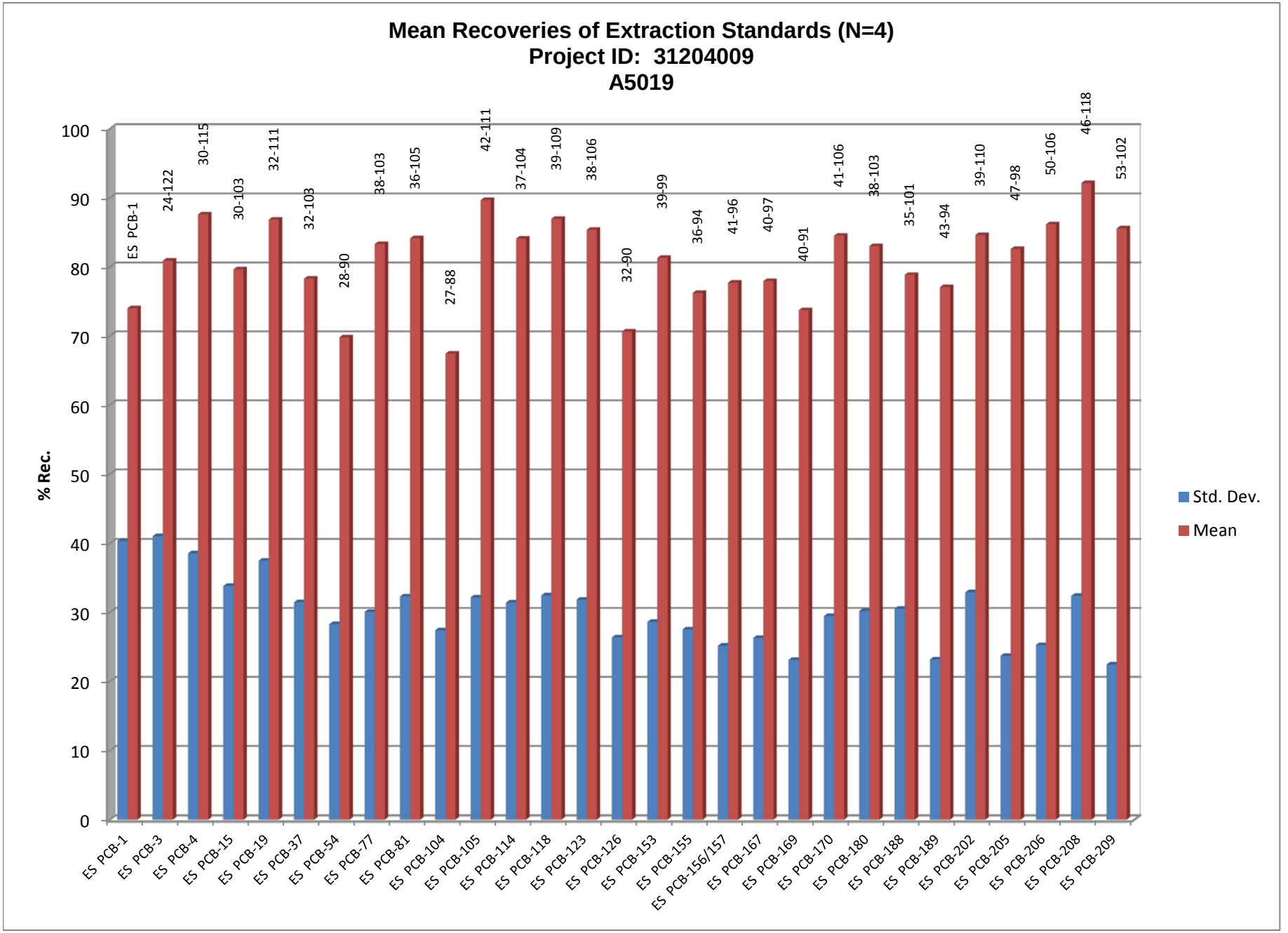
Standard	Method Blank A5019-R	AQ-SS-03-10	Method Blank A5019-R-R	AQ-SS-03-10
ES PCB-1	80.5	83.7	17.9	114
ES PCB-3	86.0	91.5	24.1	122
ES PCB-4	101	104	30.5	115
ES PCB-15	97.3	103	29.7	88.6
ES PCB-19	109	111	31.5	95.9
ES PCB-37	87.2	90.8	32.2	103
ES PCB-54	82.5	89.8	27.9	79.0
ES PCB-77	95.1	96.7	38.5	103
ES PCB-81	96.1	99.5	36.0	105
ES PCB-104	81.3	88.2	27.4	72.8
ES PCB-105	102	104	41.8	111
ES PCB-114	97.6	104	37.2	97.6
ES PCB-118	101	109	38.7	99.2
ES PCB-123	100	106	37.9	97.6
ES PCB-126	85.9	89.6	32.2	74.9
ES PCB-153	96.2	99.3	38.7	91.1
ES PCB-155	92.4	94.1	35.6	82.8
ES PCB-156/157	91.6	96.2	41.0	82.1
ES PCB-167	93.1	97.4	39.8	81.5
ES PCB-169	86.2	90.6	39.9	78.2
ES PCB-170	97.3	106	41.0	93.8
ES PCB-180	95.6	103	38.0	95.5
ES PCB-188	97.7	101	34.8	81.9
ES PCB-189	86.6	94.4	42.9	84.4
ES PCB-202	108	110	39.4	81.1
ES PCB-205	93.3	98.3	47.3	91.5
ES PCB-206	98.8	106	49.5	90.4
ES PCB-208	112	118	46.5	92.1
ES PCB-209	97.9	102	52.8	89.6

Checkcode 823-496-CVB 209-506-ZYY 093-755-ZLG 060-855-CYP

() = DL
[] = EMPC


PCB TEQ
Project ID: 31204009
A5019
pg/g
0.0700
0.0600
0.0500
0.0400
0.0300
0.0200
0.0100
0.0000
0.0000133
0.000331
0.0000198
0.000409
Method Blank A5019-R
AQ-SS-03-10
Method Blank A5019-R-R
AQ-SS-03-10
ND = 0; EMPC = 0
ND = 0; EMPC = EMPC
ND = DL/2; EMPC = 0
ND = DL/2; EMPC = EMPC
ND = DL; EMPC = 0
ND = DL; EMPC = EMPC


PCB WHO
Project ID: 31204009
A5019
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pg/g
0.443
4.96
0.438
6.26
Method Blank A5019-R
AQ-SS-03-10
Method Blank A5019-R-R
AQ-SS-03-10
PCB-77
PCB-81
PCB-105
PCB-114
PCB-118
PCB-123
PCB-126
PCB-156/157
PCB-167
PCB-169
PCB-189


Mean Recoveries of Extraction Standards (N=4)
Project ID: 31204009
A5019
% Rec.
100
90
80
70
60
50
40
30
20
10
0
ES PCB-1
24-122
30-115
30-103
32-111
32-108
28-90
38-103
36-105
27-88
42-111
37-104
39-109
38-106
32-90
39-99
36-94
41-96
40-97
40-91
41-106
38-103
35-101
43-94
39-110
47-98
50-106
46-118
53-102
ES PCB-1
ES PCB-3
ES PCB-4
ES PCB-15
ES PCB-19
ES PCB-37
ES PCB-54
ES PCB-77
ES PCB-81
ES PCB-104
ES PCB-105
ES PCB-114
ES PCB-118
ES PCB-123
ES PCB-126
ES PCB-153
ES PCB-155
ES PCB-156/157
ES PCB-167
ES PCB-169
ES PCB-170
ES PCB-180
ES PCB-188
ES PCB-189
ES PCB-202
ES PCB-205
ES PCB-206
ES PCB-208
ES PCB-209
Std. Dev.
Mean

Sample ID: AQ-SS-03-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Solid	Project No.:	A5019	Date Received:	13-Dec-2012
Project ID:	31204009	Weight/Volume:	10.35 g	Sample ID:	A5019_10601_PCB_001-R	Date Extracted:	28-Jan-2013
Date Collected:	12-Dec-2012	% Solids	57.3 %	QC Batch No.:	10601	Date Analyzed:	02-Feb-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	0.779			J	ES PCB-1	83.7
PCB-81 344'5-TeCB	ND	0.327			ES PCB-3	91.5
PCB-105 233'44'-PeCB	2.79				ES PCB-4	104
PCB-114 2344'5-PeCB	ND	0.342			ES PCB-15	103
PCB-118 23'44'5-PeCB	4.96				ES PCB-19	111
PCB-123 23'44'5'-PeCB	ND	0.328			ES PCB-37	90.8
PCB-126 33'44'5-PeCB	ND	0.431			ES PCB-54	89.8
PCB-156/157 233'44'5/233'44'5'-HxCB	0.694			J C	ES PCB-77	96.7
PCB-167 23'44'55'-HxCB	ND	0.372			ES PCB-81	99.5
PCB-169 33'44'55'-HxCB	ND	0.503			ES PCB-104	88.2
PCB-189 233'44'55'-HpCB	ND	0.319			ES PCB-105	104
					ES PCB-114	104
TEQs (WHO M/H)					ES PCB-118	109
					ES PCB-123	106
ND = 0	0.000331		0.000331		ES PCB-126	89.6
ND = 0.5 x DL	0.0295		0.0295		ES PCB-153	99.3
ND = DL	0.0587		0.0587		ES PCB-155	94.1
					ES PCB-156/157	96.2
Totals					ES PCB-167	97.4
					ES PCB-169	90.6
					ES PCB-170	106
					ES PCB-180	103
					ES PCB-188	101
					ES PCB-189	94.4
					ES PCB-202	110
					ES PCB-205	98.3
					ES PCB-206	106
					ES PCB-208	118
					ES PCB-209	102
					CS PCB-28	89.2
					CS PCB-111	111
					CS PCB-178	107

Checkcode: 209-506-ZYY

SGS AP PCB 2013 Rev. 1.0

Report Created: 04-Feb-2013 12:34 Analyst: LB

SGS ANALYTICAL PERSPECTIVES

2714 Exchange Drive
Wilmington
North Carolina 28405
USA

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Sample ID: Method Blank A5019-R

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Solid	Project No.:	A5019	Date Received:	n/a
Project ID:	31204009	Weight/Volume:	10.00 g	Sample ID:	MB1_10601_PCB_SDS	Date Extracted:	n/a
Date Collected:	n/a	% Solids	n/a	QC Batch No.:	10601	Date Analyzed:	02-Feb-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	ND	0.343			ES PCB-1	80.5
PCB-81 344'5-TeCB	ND	0.356			ES PCB-3	86
PCB-105 233'44'-PeCB	ND	0.299			ES PCB-4	101
PCB-114 2344'5-PeCB	ND	0.305			ES PCB-15	97.3
PCB-118 23'44'5-PeCB	0.443			J	ES PCB-19	109
PCB-123 23'44'5'-PeCB	ND	0.29			ES PCB-37	87.2
PCB-126 33'44'5-PeCB	ND	0.443			ES PCB-54	82.5
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	0.554		C	ES PCB-77	95.1
PCB-167 23'44'55'-HxCB	ND	0.396			ES PCB-81	96.1
PCB-169 33'44'55'-HxCB	ND	0.533			ES PCB-104	81.3
PCB-189 233'44'55'-HpCB	ND	0.366			ES PCB-105	102
					ES PCB-114	97.6
TEQs (WHO M/H)					ES PCB-118	101
					ES PCB-123	100
ND = 0	0.0000133		0.0000133		ES PCB-126	85.9
ND = 0.5 x DL	0.0303		0.0303		ES PCB-153	96.2
ND = DL	0.0605		0.0605		ES PCB-155	92.4
					ES PCB-156/157	91.6
Totals					ES PCB-167	93.1
					ES PCB-169	86.2
					ES PCB-170	97.3
					ES PCB-180	95.6
					ES PCB-188	97.7
					ES PCB-189	86.6
					ES PCB-202	108
					ES PCB-205	93.3
					ES PCB-206	98.8
					ES PCB-208	112
					ES PCB-209	97.9
					CS PCB-28	86.2
					CS PCB-111	108
					CS PCB-178	108

Checkcode: 823-496-CVB

SGS AP PCB 2013 Rev. 1.0

Report Created: 04-Feb-2013 12:26 Analyst: LB

SGS ANALYTICAL PERSPECTIVES

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OPR1_10601_PCB

SGS ANALYTICAL PERSPECTIVES

Method HR-PCB

Analyte	Spike pg/uL	Conc. pg/uL	Recovery
PCB-77 33'44'-TeCB	50	50.7	101%
PCB-81 344'5-TeCB	50	50.7	101%
PCB-105 233'44'-PeCB	50	49.4	98.8%
PCB-114 2344'5-PeCB	50	46.7	93.4%
PCB-118 23'44'5-PeCB	50	49.7	99.4%
PCB-123 2'344'5-PeCB	50	49.6	99.2%
PCB-126 33'44'5-PeCB	50	48.8	97.6%
PCB-156/157 233'44'5/233'44'5'	100	96.3	96.3%
PCB-167 23'44'55'-HxCB	50	48.2	96.4%
PCB-169 33'44'55'-HxCB	50	48.4	96.8%
PCB-189 233'44'55'-HpCB	50	50.3	101%

Reviewer .....
Date .....

Sample ID: AQ-SS-03-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Solid	Project No.:	A5019	Date Received:	13-Dec-2012
Project ID:	31204009	Weight/Volume:	10.03 g	Sample ID:	A5019_10631_PCB_001-R-R	Date Extracted:	05-Feb-2013
Date Collected:	12-Dec-2012	% Solids	57.3%	QC Batch No.:	10631	Date Analyzed:	09-Feb-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	0.88			J	ES PCB-1	114
PCB-81 344'5-TeCB	ND	0.0953			ES PCB-3	122
PCB-105 233'44'-PeCB	3.25				ES PCB-4	115
PCB-114 2344'5-PeCB	EMPC		0.179	J	ES PCB-15	88.6
PCB-118 23'44'5-PeCB	6.26				ES PCB-19	95.9
PCB-123 23'44'5'-PeCB	ND	0.0906			ES PCB-37	103
PCB-126 33'44'5-PeCB	ND	0.109			ES PCB-54	79
PCB-156/157 233'44'5/233'44'5'-HxCB	0.705			J C	ES PCB-77	103
PCB-167 23'44'55'-HxCB	0.31			J	ES PCB-81	105
PCB-169 33'44'55'-HxCB	ND	0.131			ES PCB-104	72.8
PCB-189 233'44'55'-HpCB	ND	0.0933			ES PCB-105	111
					ES PCB-114	97.6
TEQs (WHO M/H)					ES PCB-118	99.2
					ES PCB-123	97.6
ND = 0	0.000404		0.000409		ES PCB-126	74.9
ND = 0.5 x DL	0.00783		0.00784		ES PCB-153	91.1
ND = DL	0.0153		0.0153		ES PCB-155	82.8
					ES PCB-156/157	82.1
Totals					ES PCB-167	81.5
					ES PCB-169	78.2
					ES PCB-170	93.8
					ES PCB-180	95.5
					ES PCB-188	81.9
					ES PCB-189	84.4
					ES PCB-202	81.1
					ES PCB-205	91.5
					ES PCB-206	90.4
					ES PCB-208	92.1
					ES PCB-209	89.6
					CS PCB-28	88.3
					CS PCB-111	105
					CS PCB-178	91.2

Checkcode: 060-855-CYP SGS AP PCB 2013 Rev. 1.0 Report Created: 11-Feb-2013 11:05 Analyst: LB

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Sample ID: Method Blank A5019-R-R

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Solid	Project No.:	A5019	Date Received:	n/a
Project ID:	31204009	Weight/Volume:	10.00 g	Sample ID:	MB1_10631_PCB_TLX	Date Extracted:	n/a
Date Collected:	n/a	% Solids	n/a	QC Batch No.:	10631	Date Analyzed:	09-Feb-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	ND	0.174			ES PCB-1	17.9 V
PCB-81 344'5-TeCB	ND	0.188			ES PCB-3	24.1 V
PCB-105 233'44'-PeCB	EMPC		0.223	J	ES PCB-4	30.5
PCB-114 2344'5-PeCB	ND	0.169			ES PCB-15	29.7
PCB-118 23'44'5-PeCB	EMPC		0.438	J	ES PCB-19	31.5
PCB-123 23'44'5'-PeCB	ND	0.171			ES PCB-37	32.2
PCB-126 33'44'5-PeCB	ND	0.161			ES PCB-54	27.9
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	0.211		C	ES PCB-77	38.5
PCB-167 23'44'55'-HxCB	ND	0.163			ES PCB-81	36
PCB-169 33'44'55'-HxCB	ND	0.192			ES PCB-104	27.4
PCB-189 233'44'55'-HpCB	ND	0.126			ES PCB-105	41.8
					ES PCB-114	37.2
TEQs (WHO M/H)					ES PCB-118	38.7
					ES PCB-123	37.9
ND = 0	0		0.0000198		ES PCB-126	32.2
ND = 0.5 x DL	0.011		0.011		ES PCB-153	38.7
ND = DL	0.0219		0.0219		ES PCB-155	35.6
					ES PCB-156/157	41
Totals					ES PCB-167	39.8
					ES PCB-169	39.9
					ES PCB-170	41
					ES PCB-180	38
					ES PCB-188	34.8
					ES PCB-189	42.9
					ES PCB-202	39.4
					ES PCB-205	47.3
					ES PCB-206	49.5
					ES PCB-208	46.5
					ES PCB-209	52.8
					CS PCB-28	90.6
					CS PCB-111	101
					CS PCB-178	88.8

Checkcode: 093-755-ZLG SGS AP PCB 2013 Rev. 1.0 Report Created: 11-Feb-2013 11:03 Analyst: LB

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OPR1_10631_PCB

Method HR-PCB

Analyte	Spike pg/uL	Conc. pg/uL	Recovery
PCB-77 33'44'-TeCB	50	49.9	99.8%
PCB-81 344'5-TeCB	50	51.0	102%
PCB-105 233'44'-PeCB	50	51.0	102%
PCB-114 2344'5-PeCB	50	51.5	103%
PCB-118 23'44'5-PeCB	50	49.3	98.6%
PCB-123 2'344'5-PeCB	50	47.2	94.4%
PCB-126 33'44'5-PeCB	50	50.8	102%
PCB-156/157 233'44'5/233'44'5'	100	99.5	99.5%
PCB-167 23'44'55'-HxCB	50	50.7	101%
PCB-169 33'44'55'-HxCB	50	50.8	102%
PCB-189 233'44'55'-HpCB	50	50.6	101%

Reviewer .....
Date .....

SGS North America Inc.
CHAIN OF CUSTODY RECORD

Locations Nationwide
- Alaska
- New Jersey
- North Carolina
- West Virginia
- Maryland
- New York
- Indiana
- Kentucky

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(1)
CLIENT: Anchor QEA
CONTACT: Cindy Fields PHONE NO: 206 287 9130
PROJECT NAME: Former Reynolds RI/FS PROJECT/ PWSID/ PERMIT#: 110730-02.01
REPORTS TO: Cindy Fields EMAIL: labdata@anchorqea.com cfields@anchorQEA.com
INVOICE TO: Cindy Fields Anchor QEA QUOTE #: P.O. #:

SGS Reference #: 3204009 page 1 of 1

(2)

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used	Analysis Required (3) PCB congeners	REMARKS/ LOC ID
	AQ-SS-03-10	12/12/12	1305	SE	1	G		X	
		PG							

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
David Gillingham Todd Gillespie	12/13/12	0645	
Relinquished By: (2)	Date	Time	Received By:
	12/13/12	1400	
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:
	12/13/12	1100	Barbara Hagen

(4)
DOD Project? YES NO
Cooler ID _____
Data Deliverable Requirements:

Requested Turnaround Time and-or Special Instructions:

Temperature Blank °C: 2.4° or Ambient [ ]
(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)
INTACT BROKEN (ABSENT)
(See attached Sample Receipt Form)

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **Anchor QEA** Work Order No.: **31204009**

1. _X_ Shipped
   ___ Hand Delivered

2. _X_ COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container
   _X_ No Custody Tape

4. _X_ Samples Intact
   ___ Samples Broken / Leaking

5. _X_ Chilled on Receipt Actual Temp.(s) in °C: 2.4
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. _X_ Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   ___ HCL < 2
   ___ Additional Preservatives verified (see notes)

8. _X_ Received Within Holding Time
   ___ Not Received Within Holding Time

9. _X_ No Discrepancies Noted
   ___ Discrepancies Noted
   ___ NCDENR notified of Discrepancies*

10. ___ No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

Notes:

Comments:

Inspected and Logged in by: JJ

Date: Mon-12/17/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met.

SGS ANALYTICAL PERSPECTIVES

Project Initiation Form

Project Number: A5019-R

Initiation Date: ~~17-Dec-12~~ 23 Jan 13

Client Name: ANCHORENV

Analysis Method: 1668 PCB

Sample Matrix: Soil

TAT: ~~15~~ 14 days

Project Manager: Amy

Special Instructions

Horizon Method: I-1668WHOS

1668A - WHO list/coplanars only OPR
% solids, report on dry-weight basis
2714 spiking
Full report from 2714
Anchor - Equis EDD

INV via Horizon

Reporting Instructions

1668A - WHO list/coplanars only OPR
% solids, report on dry-weight basis
2714 spiking
Full report from 2714
Anchor - Equis EDD

INV via Horizon

PM Initials: aboehm Date: 17-Dec-2012

SGS ANALYTICAL PERSPECTIVES

1668 PCB | **Solids**

Project # A5019-R | Batch # 10601 | Extract Init/Date: MA 1/28/13 | ASECS Init/Date: ~~Tw 1/31/13~~ Transfer Init/Date: MA 2-1-13

AP Sample ID	Client Sample ID	Extract WT (g)	SDS #	RV Initials	RV #	(Td)	ASECS #	Observations
A5019_10601_001-R	AQ-SS-03-10	18.07	3	MA	2	–	10	Brown Clumpy Mud
MB1_10601	Method Blank A5019-R	10.00	1	MA	4	–	12	Hydromatrix
OPR1_10601	0_10601_OPR001	10.00	2	MA	3	–	11	Hydromatrix
				1/30 MA			Tw 1/31/13	

Special Instructions

Horizon Method: I-1668WHOS 1668A - WHO list/coplanars only OPR % solids, report on dry-weight basis
2714 spiking Full report from 2714 Anchor - Equis EDD INV via Horizon

Cycle Time

Start	3:30
Stop	9:30 AM
Start	4:00 PM
Stop	9:30 AM

Supply IDs

Toluene	DH579	Acid Silica	01312013
CH_2CL_2	D6836	Base Silica	02 92013
Sand	—	HydroMatrix	—
Florisil	01162013	Tetradecane	102520L
Hexane	DH586	~~Na_2SO_4~~ ~~H_2SO_4~~	1705 2012
Silica	~~01312013~~ EE Tw 1/31/13 01112013	~~$AgNO_3$~~ ~~K-Silicate~~	01282013

SGS ANALYTICAL PERSPECTIVES

1668A | **Solids**

Project # A5019-R-R | Batch # 10631 | Extract Init/Date: NT 2/5/13 | ASECS Init/Date: TM 2/7/13 Transfer Init/Date: MM 2/7/13

AP Sample ID	Client Sample ID	Extract WT (g)	SDS # HEX / TOL	RV Initials	RV #	(Td)	ASECS #	Observations
A5019_10631_001-R-R	AQ-SS-03-10	17.51	3	TM	1	—	3	Clay like mud
MB1_10631	Method Blank A5019-R-R	10.00	1	TM	2	—	1	Hydromatrix
OPR1_10631	0_10631_OPR001	10.00	2	TM	3	—	2	Hydromatrix
				2/7/13	2/7/13		TM 2/7/13	

Special Instructions

Horizon Method: I-1668WHOS 1668A - WHO list/coplanars only OPR % solids, report on dry-weight basis
2714 spiking Full report from 2714 Anchor - Equis EDD INV via Horizon

Cycle Time

Start 4:30 pm
Stop HEX
Start
Stop TOL

Supply IDs

Toluene	DH1579	Acid Silica	02062013
CH_2CL_2	D6936	Base Silica	02072013
Sand	—	HydroMatrix	—
Florisil	01292013	Tetradecane	10252014
Hexane	DH586	~~Na_2SO_4~~ / ~~H_2SO_4~~	12052012
Silica	01112013	AgNO3 / ~~K Silicate~~	02072013

SGS ANALYTICAL PERSPECTIVES

1668 PCB

Solid

Project # A5019-R Batch # 10601

Inter-Department Communication Sheet

2/4/13

Special Instructions

Horizon Method: I-1668WHOS 1668A - WHO list/coplanars only OPR % solids, report on dry-weight basis 2714 spiking Full report from 2714 Anchor - Equis EDD INV via Horizon

% Solids

ANALYTICAL PERSPECTIVES

Project: A5019

Batch #:

Procedure:
- Tare Balance.
- Add boat and weigh. Record "Boat Wt."
- Add the sample (2-10 g) to the boat and record "Wet Wt. + Boat Wt." (total).
- Dry in oven overnight @ 107° C.
- Tare Balance.
- Return dish to toploader and record "Residue + Boat Wt."

AP Sample ID	Boat Wt.	Wet Wt. + Boat Wt.	Chem/Date	Residue + Boat Wt.	Chem/Date	Comments
001	1.33	4.14	M 1/25/13	2.94	1/28/13	17.45

SGS ANALYTICAL PERSPECTIVES

Wt. Volume Results for Extraction Batch

10601

Batch Project #'s: A5019

Comments:

AP Sample ID	Boat WT.	Wet Wt. + Boat Wt.	Residue+ Boat Wt.	% Solid	Average % Solid	RSD	Qtest Ratio (if Applicable)	Dry Wt. Equiv.	Extracted Wt.	Final Wt.
A5019_001-R	1.33	4.14	2.94	57.30%	57.30%			17.45	18.07	10.35

SGS ANALYTICAL PERSPECTIVES

Wt. Volume Results for Extraction Batch
10631

Batch Project #'s: A5019

Comments:

AP Sample ID	Boat WT.	Wet Wt. + Boat Wt.	Residue+ Boat Wt.	% Solid	Average % Solid	RSD	Qtest Ratio (if Applicable)	Dry Wt. Equiv.	Extracted Wt.	Final Wt.
A5019_001-R-R	1.33	4.14	2.94	57.30%	57.30%			17.45	17.51	10.03
A5019_001-R-R	1.33	4.14	2.94	57.30%	57.30%			17.45	17.51	10.03

SGS ANALYTICAL PERSPECTIVES

1668 PCB | **Solids**

Project # A5019-R Batch # 10601

SPIKE PROFILE PCBs

Analyte	Spike Compounds	Spiked Amount	Spiked Volume	Solution Conc.	Split Factor	Final Volume	Final Solvent
PCB	ES	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane
	CS	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane
	JS	2 ng	10 uL	200 pg/uL	1	20 uL	Nonane
	AAP68A Batch CS3	1 ng	20 uL	50 pg/uL	1	20 uL	Nonane
	AAP68A	1 ng	20 uL	50 pg/uL	1	20 uL	Nonane

Spiker Initials/Date: MM 1/28/13 | JK 1/30/13 | MM 2/1/13 | MM 1/28/13

AP Sample ID	Client Sample ID	PCB ES	PCB AX-NOAA	PCB AAP68A	PCB CS/SS	PCB JS	PCB 209 Ax
		Amount: 20µL	Amount:	Amount:	Amount: 20µL	Amount: 10	Amt: 20µL
		Observer Initials	Observer Initials	Observer Initials	Observer Initials	Observer Initials	
A5019_10601_001-R	AQ-SS-03-10	TM	-	-	TM	MM	-
MB1_10601	Method Blank A5019-R	TM	-	-	TM	MM	-
OPR1_10601	0_10601_OPR001	TM	-	-	TM	MM	TM
		1/28/13			1/30/13	2-1-13	1/28/13

Standard Information

		PCB ES	AAP68A	NOAA	PCB CS/SS	PCB JS	PCB 209 Ax
Std. Type							
Spike ID		071320120			071320120	071320120	011020124
SIL #		12-106-1			12-106-2	12-161-5	12-3-1
Concentration		100	50	50	100	200	50
Units		pg /µL	pg /µL	pg /µL	pg /µL	pg /µL	pg/µL
Exp. Date		12/20/13			12/20/13	11-29-13	4/10/13
Spike amount (µL)		20	20	20	20	10	20µL

TRANSFERRED: MM 2-1-13

RECEIVED: MM 2-1-13

SGS Analytical Perspectives

1668A

Solids

Project # A5019-R-R Batch # 10631

SPIKE PROFILE PCBs

Analyte	Spike Compounds	Spiked Amount	Spiked Volume	Solution Conc.	Split Factor	Final Volume	Final Solvent

Spiker Initials/Date: PA 2/5/13 PA 2/5/13 mm 2/7/13 Jm 2/7/13

AP Sample ID	Client Sample ID	PCB ES Amount: 20 ul Observer Initials	PCB AX 209 Amount: 20 ul Observer Initials	PCB CS Amount: 20 ml Observer Initials	PCB JS Amount: 10 ml Observer Initials	Amount: Observer Initials	
A5019_10631_001-R-R	AQ-SS-03-10	PA	—	Jm	mm		
MB1_10631	Method Blank A5019-R-R	PA	—	Jm	mm		
OPR1_10631	0_10631_OPR001	~~PA~~ PA	PA	Jm	mm		
		EE 2/5/13 PA	2/5/13	2/7/13	2/7/13		
		2/5/13					

Standard Information

			PCB ES	PCB AX 209	PCB CS	PCB JS	
Std. Type							
Spike ID			07132012D	01102012A	07132012D	07132012D	
SIL #			12-106-1	12-3-1	12-106-2	12-106-3	
Concentration			100	50	100	200	
Units			pg /µL	pg /µL	pg /µL	pg /µL	
Exp. Date			12/20/13	1/10/13	12/20/13	12/20/13	
Spike amount (µL)			20	20	20	10	

RECEIVED: mm 2/7/13

Sample Receipt Notification

2714 Exchange Drive
Wilmington, NC 28405 USA
Tel: 910 794-1613
Toll Free: 866 846-8290
Fax: 910 794-3919

Project Manager:	*Amy Boehm*
Receipt Date & Time:	
AP Project name:	*A5019*
Requested TAT:	*15 days*
Projected due date:	*4-Jan-13*
Matrix:	*Soil*
Phone#:	*910-794-1613*
Email Address:	*Amy.Boehm@sgs.com*

Company Contact:	*Amy Boehm*
Company:	*ANCHORENV*
Project Name & Site:	*31204009*
Project PO#:	
QAAP/Contract #:	
Requested Analysis:	
Phone#:	*n/a*
Email Address:	*none*

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Sampling Date	Sampling Time	Received Temp	Container #	Shipping #
AQ-SS-03-10	A5019_001	31204009001		12-Dec-12	13:05	3	1	Nothing

Preservation Type:	Ice - Good Condition	**Sample Seals:**	No

Notes/Comments:

SGS Project

Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.

Received by: *Logged in by: Amy Boehm* *QC'ed by:* _____

SGS North America Inc.
CHAIN OF CUSTODY RECORD

Locations Nationwide
- Alaska
- New Jersey
- North Carolina
- West Virginia
- Maryland
- New York
- Indiana
- Kentucky

www.us.sgs.com

(1)
CLIENT: Anchor QEA
CONTACT: Cindy Fields PHONE NO: 206 287 9130
PROJECT NAME: Former Reynolds RI/FS PROJECT/ PWSID/ PERMIT#: 110730-02.01
REPORTS TO: Cindy Fields labdata@anchorqea.com cfields@anchorQEA.com
INVOICE TO: Cindy Fields Anchor QEA QUOTE #: P.O. #:

SGS Reference #: 31204009 page 1 of 1

(2)

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used	Analysis Required (3) PCB congeners	REMARKS/ LOC ID
	AQ-SS-03-10	12/12/12	1305	SE	1	G		X	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
David Gillingham	12/13/12	0645	
Relinquished By: (2)	Date	Time	Received By:
	12/13/12	1400	
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:
	12/13/12	1100	Barbara Hagen

(4)
DOD Project? YES NO
Cooler ID _____
Data Deliverable Requirements:
Requested Turnaround Time and-or Special Instructions:
Temperature Blank °C: 2.4° or Ambient [ ]
(See attached Sample Receipt Form)
Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT)
(See attached Sample Receipt Form)

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **Anchor QEA** Work Order No.: **31204009**

1. [X] Shipped
   [ ] Hand Delivered

2. [X] COC Present on Receipt
   [ ] No COC
   [ ] Additional Transmittal Forms

3. [ ] Custody Tape on Container
   [X] No Custody Tape

4. [X] Samples Intact
   [ ] Samples Broken / Leaking

5. [X] Chilled on Receipt Actual Temp.(s) in °C: 2.4
   [ ] Ambient on Receipt
   [ ] Walk-in on Ice; Coming down to temp.
   [ ] Received Outside of Temperature Specifications

6. [X] Sufficient Sample Submitted
   [ ] Insufficient Sample Submitted

7. [ ] Chlorine absent
   [ ] HNO3 < 2
   [ ] HCL < 2
   [ ] Additional Preservatives verified (see notes)

8. [X] Received Within Holding Time
   [ ] Not Received Within Holding Time

9. [X] No Discrepancies Noted
   [ ] Discrepancies Noted
   [ ] NCDENR notified of Discrepancies*

10. [ ] No Headspace present in VOC vials
    [ ] Headspace present in VOC vials >6mm

Notes:

Comments:

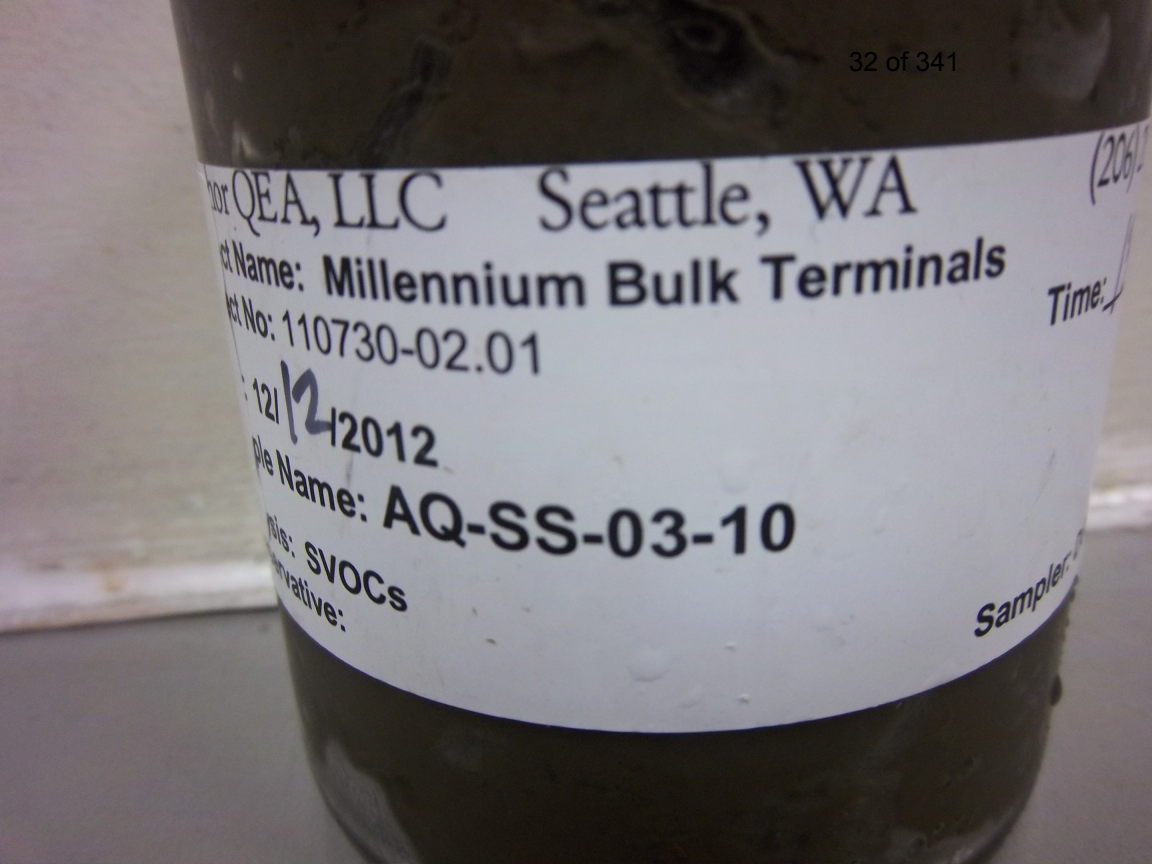
Inspected and Logged in by: JJ
Date: Mon-12/17/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met.


4006
3990
3943
4009
3 4 5 6 7 8 9 10 11 12 13 14 15 16


SGS


QEA, LLC
Seattle, WA
Millennium Bulk Terminals
110730-02.01
12/12/2012
AQ-SS-03-10
SVOCs
Time:
Sampler:


for QEA, LLC Seattle, WA
(206)
ct Name: Millennium Bulk Terminals
Time:
ct No: 110730-02.01
: 12/12/2012
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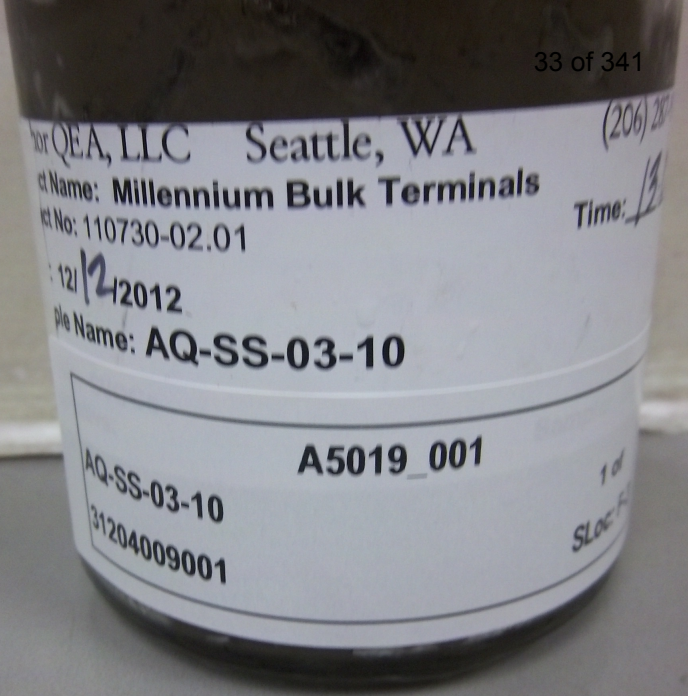
ysis: SVOCs
ervative:
Sampler:


for QEA, LLC Seattle, WA
(206) 28
ct Name: Millennium Bulk Terminals
Time:
ect No: 110730-02.01
: 12/12/2012
ple Name: AQ-SS-03-10
A5019_001
AQ-SS-03-10
1 of
31204009001
SLoc:

SGS Analytical Perspectives — Run Log **Project: A5019_10601_PCB**

Instrument: MM6 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_b

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
1	130202V01	3	CS3_130202_PCB_VA	1.00	SIL 12-65-3	CEM, LKB	331-871	02-Feb-2013	16:07:32
2	130202V02	49	OPR1_10601_PCB	1.00	0_10601_OPR001	CEM, LKB	369-971	02-Feb-2013	17:00:40
3	130202V03	2	SBS_130202_PCB_VA	1.00	SIL 9-41-1	CEM, LKB	981-012	02-Feb-2013	17:55:36
4	130202V04	50	MB1_10601_PCB_SDS	10.00	Method Blank A5019-R	CEM, LKB	823-496	02-Feb-2013	18:50:44
5	130202V05	51	A5019_10601_PCB_001-R	10.35	AQ-SS-03-10	CEM, LKB	209-506	02-Feb-2013	19:45:46

= manual calculation

REVIEWED
By Laura Boivin at 12:53 pm, Feb 04, 2013

APPROVED
By Amy Boehm at 4:30 pm, Feb 04, 2013

Datafile: 130202V04 **Client ID: Method Blank A5019-R** **Wt/Vol: 10.00 g** **ICAL: MM6_PCB_07132012_14DEC12 CS3_130202_PCB_VA**

Acquired: 02 Feb 2013 18:50:44 **Lab ID: MB1_10601_PCB_SDS** **J-level: 1 pg/g** **Nominal ES spike: 2000 pg**

MB1_10601_PCB_SDS Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Noise	DL
											Checkcode: 23-496-CV
PCB-77 33'44'-TeCB	NotFnd		1.0007	-		0.00E+00		1.25	ND	1.83E+03	0.343
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.26	ND	1.83E+03	0.356
PCB-105 233'44'-PeCB	NotFnd		1.0007	-		0.00E+00		1.06	ND	1.24E+03	0.299
PCB-114 2344'5-PeCB	NotFnd		1.0007	-		0.00E+00		1.11	ND	1.24E+03	0.305
PCB-118 23'44'5-PeCB	32.82	J	1.0007	1.0004	-0.6	2.01E+04	0.64	1.08	0.443	1.24E+03	0.293
PCB-123 23'44'5'-PeCB	NotFnd		1.0007	-		0.00E+00		1.12	ND	1.24E+03	0.29
PCB-126 33'44'5-PeCB	NotFnd		1.0006	-		0.00E+00		1.16	ND	1.80E+03	0.443
PCB-156/157 ...-HxCB	NotFnd	C	1.0005	-		0.00E+00		1.14	ND	1.67E+03	0.554
PCB-167 23'44'55'-HxCB	NotFnd		1.0006	-		0.00E+00		1.18	ND	1.67E+03	0.396
PCB-169 33'44'55'-HxCB	NotFnd		1.0005	-		0.00E+00		1.15	ND	1.67E+03	0.533
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.12	ND	1.49E+03	0.366
									Recv.		
ES PCB-77	30.82		1.3597	1.3599	+0.4	9.19E+06	0.82	1.20	95.1 %	25%	150%
ES PCB-81	30.35		1.3388	1.3391	+0.5	8.96E+06	0.80	1.16	96.1 %	25%	150%
ES PCB-105	33.80		1.1823	1.1825	+0.4	8.11E+06	1.49	1.10	102 %	25%	150%
ES PCB-114	33.26		1.1636	1.1638	+0.4	8.17E+06	1.56	1.16	97.6 %	25%	150%
ES PCB-118	32.81		1.1478	1.1480	+0.4	8.42E+06	1.54	1.15	101 %	25%	150%
ES PCB-123	32.53		1.1380	1.1382	+0.4	8.27E+06	1.48	1.14	100 %	25%	150%
ES PCB-126	36.42		1.2739	1.2742	+0.7	8.33E+06	1.61	1.34	85.9 %	25%	150%
ES PCB-156/157	38.97		1.0993	1.0993	0	1.44E+07	1.22	0.98	91.6 %	25%	150%
ES PCB-167	38.00		1.0720	1.0720	0	7.58E+06	1.28	1.01	93.1 %	25%	150%
ES PCB-169	41.70		1.1762	1.1764	+0.5	6.24E+06	1.30	0.90	86.2 %	25%	150%
ES PCB-189	43.84		0.9612	0.9612	0	8.60E+06	1.05	1.97	86.6 %	25%	150%
SS PCB-28	21.07		0.9298	0.9297	-0.1	1.05E+07	1.10	1.18	98.9 %	30%	135%
SS PCB-111	30.88		1.0802	1.0803	+0.2	9.00E+06	1.47	1.01	108 %	30%	135%
SS PCB-178	35.84		1.0110	1.0110	0	8.49E+06	0.98	0.60	110 %	30%	135%
CS PCB-28	21.07		0.9298	0.9297	-0.1	1.05E+07	1.10	1.52	86.2 %	30%	135%
CS PCB-111	30.88		1.0802	1.0803	+0.2	9.00E+06	1.47	1.15	108 %	30%	135%
CS PCB-178	35.84		1.0110	1.0110	0	8.49E+06	0.98	0.98	108 %	30%	135%
JS PCB-9	14.85					1.19E+07	1.64				
JS PCB-52	22.67					8.04E+06	0.79				
JS PCB-101	28.58					7.24E+06	1.55				
JS PCB-138	35.45					8.06E+06	1.34				
JS PCB-194	45.61					5.05E+06	0.91				

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 823-496 *PKD: n/a Printed: 04-Feb-2013 12:50 Page 1 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6171, 9698 scc: 823-496 *PKD: 04-Feb-2013 12:02 Printed: 04-Feb-2013 12:50 Page 2 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



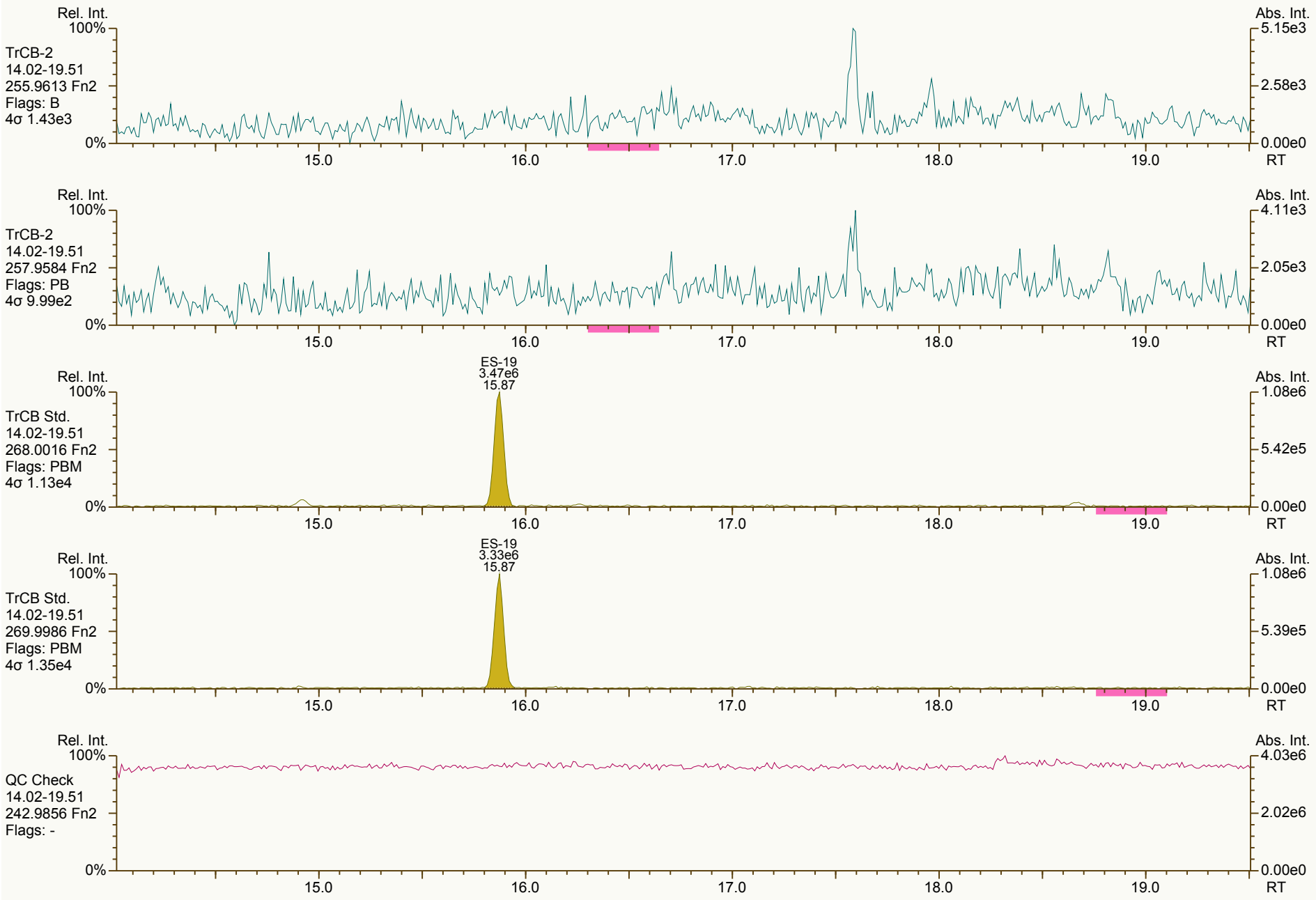
Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7330, 1903 scc: 823-496 *Revised: 04-Feb-2013 12:00 (LKB) Printed: 04-Feb-2013 12:50 Page 3 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9181, 0579 scc: 823-496 *PKD: 04-Feb-2013 12:02 Printed: 04-Feb-2013 12:50 Page 4 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9002, 2796 scc: 823-496 *PKD: 04-Feb-2013 12:02 Printed: 04-Feb-2013 12:50 Page 5 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



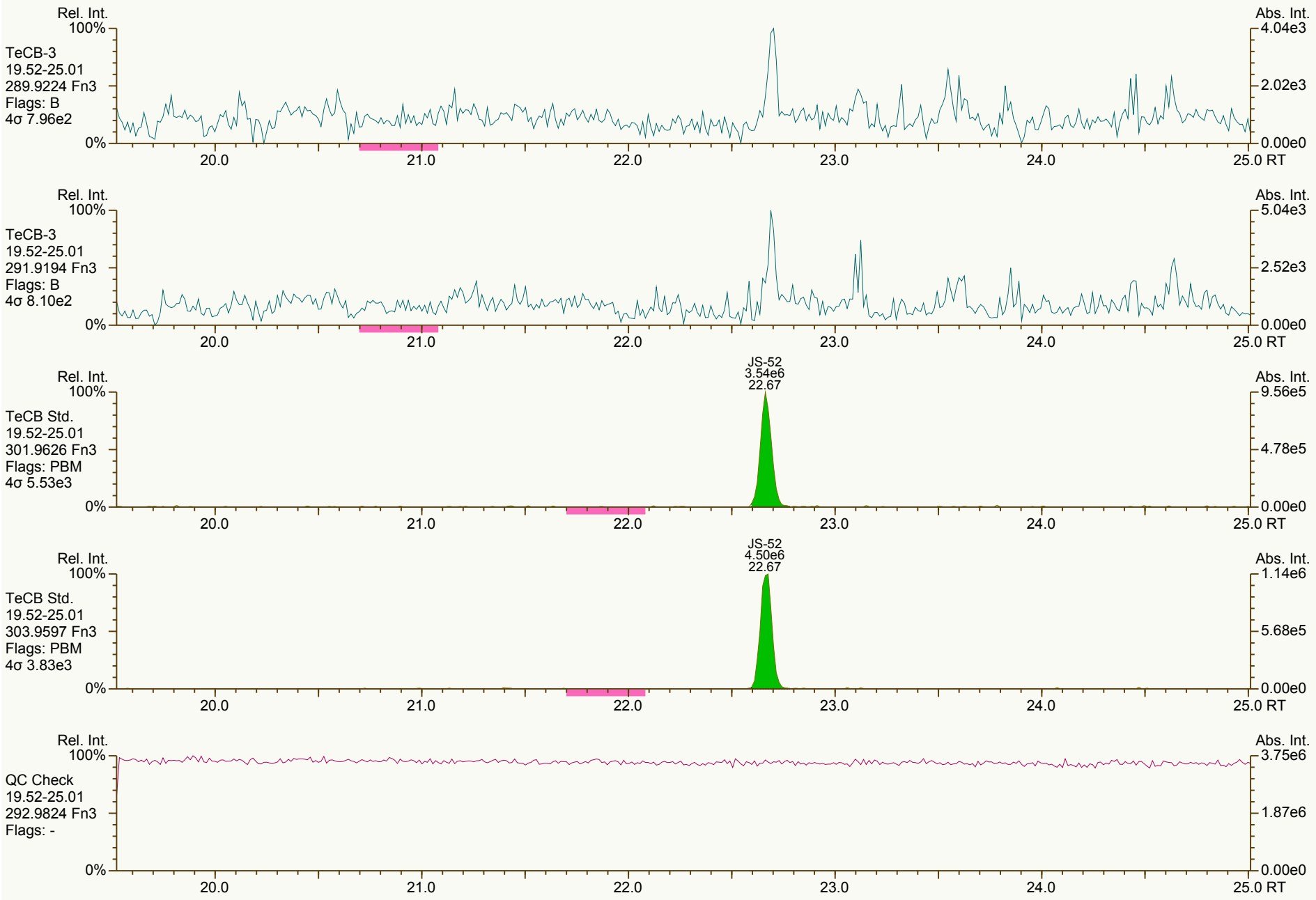
Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2369, 7258 scc: 823-496 *PKD: 04-Feb-2013 12:02 Printed: 04-Feb-2013 12:50 Page 6 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1922, 4778 scc: 823-496 *PKD: 04-Feb-2013 12:02 Printed: 04-Feb-2013 12:50 Page 7 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6108, 0172 scc: 823-496 *Revised: 04-Feb-2013 12:02 (LKB) Printed: 04-Feb-2013 12:50 Page 8 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5304, 6361 scc: 823-496 *Revised: 04-Feb-2013 12:02 (LKB) Printed: 04-Feb-2013 12:50 Page 9 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4428, 2447 scc: 823-496 *PKD: 04-Feb-2013 12:03 Printed: 04-Feb-2013 12:50 Page 10 of 21*

SGS-AP ID: MB1_10601_PCB_SDS
Instr: AutoSpec-Premier MM6

Sample ID: Method Blank A5019-R
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50

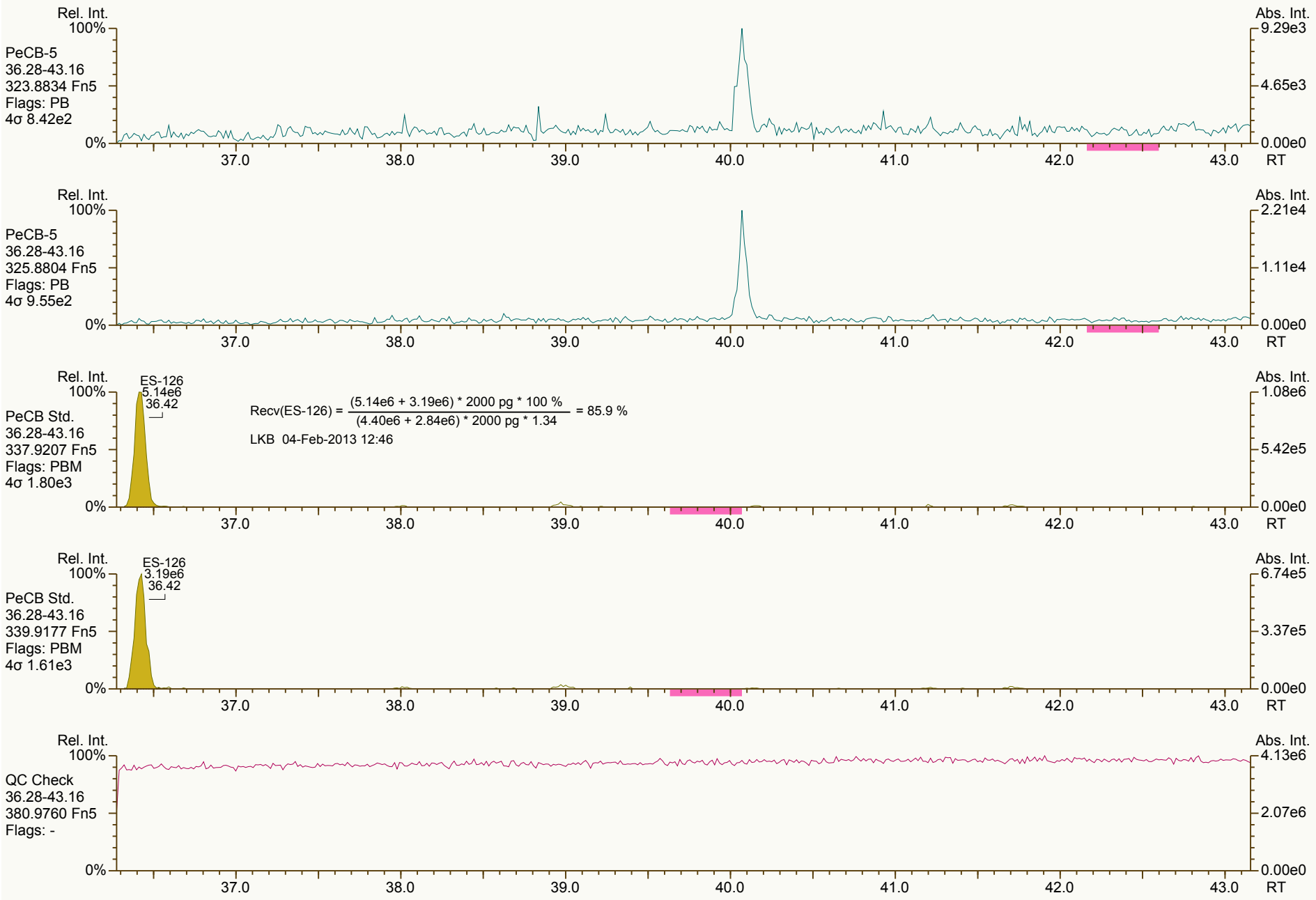
Acq: 02-Feb-2013 18:50:44
User: CEM Datafile: 130202V04



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB)
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6465, 4308 scc: 823-496

Peak annotation: Areas, Centroids
PKD: 04-Feb-2013 12:02 Printed: 04-Feb-2013 12:50 Page 11 of 21

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4660, 6356 scc: 823-496 *Revised: 04-Feb-2013 12:02 (LKB) Printed: 04-Feb-2013 12:50 Page 13 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0944, 9148 scc: 823-496 *PKD: 04-Feb-2013 12:03 Printed: 04-Feb-2013 12:50 Page 14 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4043, 0201 scc: 823-496 *Revised: 04-Feb-2013 12:03 (LKB) Printed: 04-Feb-2013 12:50 Page 15 of 21*

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7847, 8607 scc: 823-496 *Revised: 04-Feb-2013 12:03 (LKB) Printed: 04-Feb-2013 12:50 Page 16 of 21*

SGS-AP ID: MB1_10601_PCB_SDS
Instr: AutoSpec-Premier MM6

Sample ID: Method Blank A5019-R
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50

Acq: 02-Feb-2013 18:50:44
User: CEM Datafile: 130202V04



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB)
Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7386, 9306 scc: 823-496
PKD: 04-Feb-2013 12:03 Printed: 04-Feb-2013 12:50 Page 17 of 21

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**

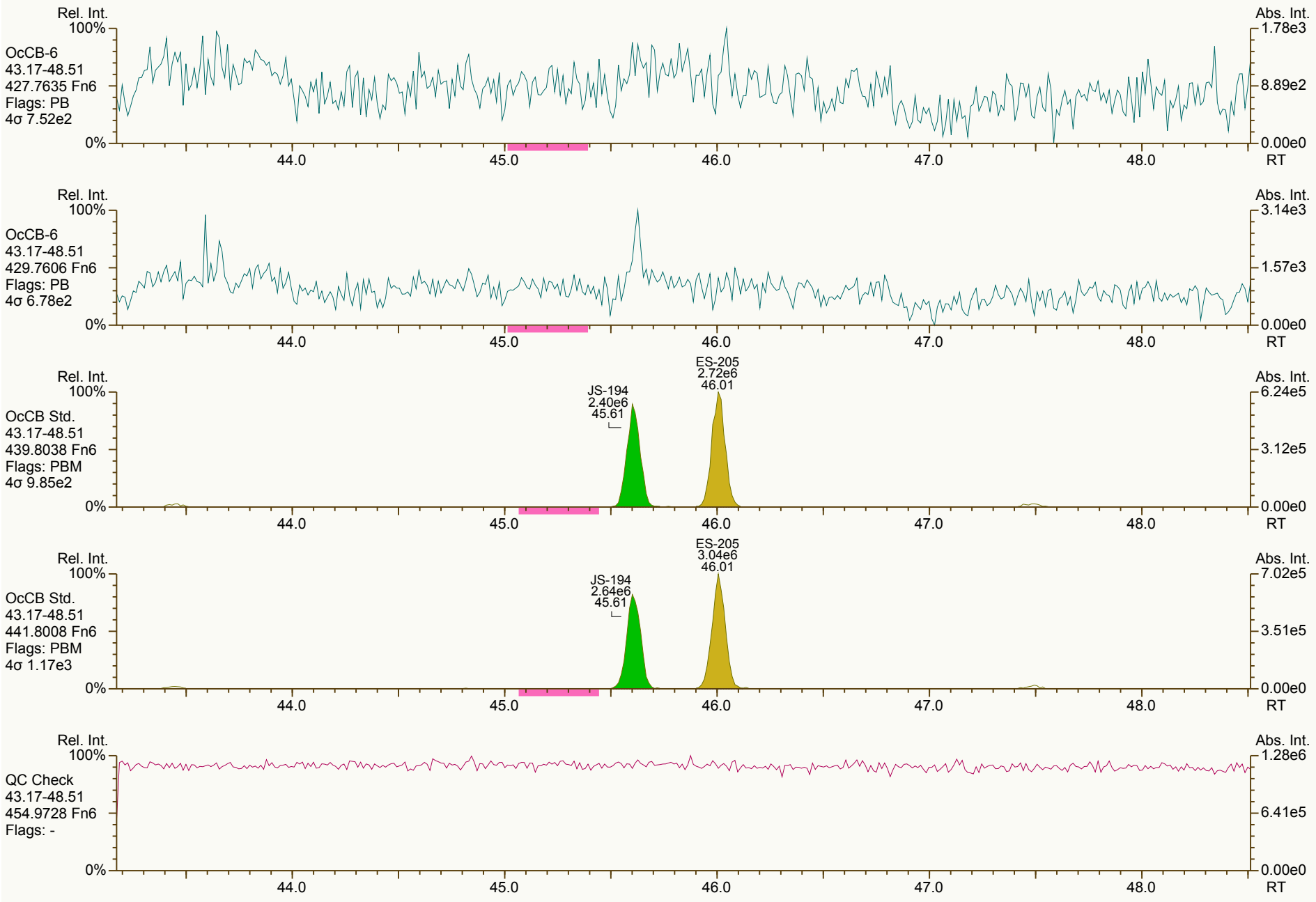


Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4411, 6981 scc: 823-496 *Revised: 04-Feb-2013 12:03 (LKB) Printed: 04-Feb-2013 12:50 Page 18 of 21*

SGS-AP ID: MB1_10601_PCB_SDS
Instr: AutoSpec-Premier MM6

Sample ID: Method Blank A5019-R
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50

Acq: 02-Feb-2013 18:50:44
User: CEM Datafile: 130202V04



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB)
Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6757, 8270 scc: 823-496
PKD: 04-Feb-2013 12:03 Printed: 04-Feb-2013 12:50 Page 19 of 21

SGS-AP ID: MB1_10601_PCB_SDS
Instr: AutoSpec-Premier MM6

Sample ID: Method Blank A5019-R
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50

Acq: 02-Feb-2013 18:50:44
User: CEM Datafile: 130202V04



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB)
Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8084, 5069 scc: 823-496
PKD: 04-Feb-2013 12:02 Printed: 04-Feb-2013 12:50 Page 20 of 21

SGS-AP ID: MB1_10601_PCB_SDS **Sample ID: Method Blank A5019-R** **Acq: 02-Feb-2013 18:50:44**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 50** **User: CEM Datafile: 130202V04**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\MB1_10601_PCB_SDS.utp_res, saved 04-Feb-2013 12:47 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3823, 5963 scc: 823-496 *Revised: 04-Feb-2013 12:00 (LKB) Printed: 04-Feb-2013 12:50 Page 21 of 21*

Datafile: 130202V05 **Client ID: AQ-SS-03-10** **Wt/Vol: 10.35 g** **ICAL: MM6_PCB_07132012_14DEC12 CS3_130202_PCB_VA**

Acquired: 02 Feb 2013 19:45:46 **Lab ID: A5019_10601_PCB_001-R** **J-level: 0.966 pg/g** **Nominal ES spike: 2000 pg**

A5019_10601_PCB_001-R Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Noise	DL
											Checkcode: 09-506-ZY
PCB-77 33'44'-TeCB	30.86	J	1.0007	1.0008	+0.2	5.15E+04	0.84	1.25	0.779	2.04E+03	0.344
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.26	ND	2.04E+03	0.327
PCB-105 233'44'-PeCB	33.83		1.0007	1.0008	+0.2	1.31E+05	0.64	1.06	2.79	1.65E+03	0.382
PCB-114 2344'5-PeCB	NotFnd		1.0007	-		0.00E+00		1.11	ND	1.65E+03	0.342
PCB-118 23'44'5-PeCB	32.84		1.0007	1.0006	-0.2	2.65E+05	0.63	1.08	4.96	1.65E+03	0.321
PCB-123 23'44'5'-PeCB	NotFnd		1.0007	-		0.00E+00		1.12	ND	1.65E+03	0.328
PCB-126 33'44'5-PeCB	NotFnd		1.0006	-		0.00E+00		1.16	ND	2.08E+03	0.431
PCB-156/157 ...-HxCB	39.00	J C	1.0005	1.0004	-0.2	3.29E+04	1.32	1.14	0.694	1.81E+03	0.523
PCB-167 23'44'55'-HxCB	NotFnd		1.0006	-		0.00E+00		1.18	ND	1.81E+03	0.372
PCB-169 33'44'55'-HxCB	NotFnd		1.0005	-		0.00E+00		1.15	ND	1.81E+03	0.503
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.12	ND	1.58E+03	0.319
									Recv.		
ES PCB-77	30.84		1.3597	1.3597	0	1.02E+07	0.83	1.20	96.7 %	25%	150%
ES PCB-81	30.37		1.3388	1.3390	+0.4	1.02E+07	0.84	1.16	99.5 %	25%	150%
ES PCB-105	33.81		1.1823	1.1824	+0.2	8.59E+06	1.58	1.10	104 %	25%	150%
ES PCB-114	33.27		1.1636	1.1636	0	9.07E+06	1.57	1.16	104 %	25%	150%
ES PCB-118	32.82		1.1478	1.1479	+0.2	9.55E+06	1.54	1.15	109 %	25%	150%
ES PCB-123	32.54		1.1380	1.1381	+0.2	9.17E+06	1.56	1.14	106 %	25%	150%
ES PCB-126	36.44		1.2739	1.2743	+0.9	9.07E+06	1.60	1.34	89.6 %	25%	150%
ES PCB-156/157	38.98		1.0993	1.0993	0	1.61E+07	1.21	0.98	96.2 %	25%	150%
ES PCB-167	38.02		1.0720	1.0720	0	8.41E+06	1.26	1.01	97.4 %	25%	150%
ES PCB-169	41.72		1.1762	1.1765	+0.8	6.96E+06	1.26	0.90	90.6 %	25%	150%
ES PCB-189	43.86		0.9612	0.9610	-0.5	9.43E+06	1.07	1.97	94.4 %	25%	150%
SS PCB-28	21.09		0.9298	0.9298	0	1.20E+07	1.10	1.18	98.3 %	30%	135%
SS PCB-111	30.89		1.0802	1.0802	0	9.65E+06	1.49	1.01	105 %	30%	135%
SS PCB-178	35.86		1.0110	1.0110	0	8.98E+06	0.99	0.60	106 %	30%	135%
CS PCB-28	21.09		0.9298	0.9298	0	1.20E+07	1.10	1.52	89.2 %	30%	135%
CS PCB-111	30.89		1.0802	1.0802	0	9.65E+06	1.49	1.15	111 %	30%	135%
CS PCB-178	35.86		1.0110	1.0110	0	8.98E+06	0.99	0.98	107 %	30%	135%
JS PCB-9	14.86					1.38E+07	1.63				
JS PCB-52	22.68					8.81E+06	0.75				
JS PCB-101	28.59					7.56E+06	1.56				
JS PCB-138	35.46					8.55E+06	1.27				
JS PCB-194	45.64					5.07E+06	0.89				

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\A5019_10601_PCB_001-R.utp_res, saved 04-Feb-2013 12:48 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1703, 3325 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 2 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



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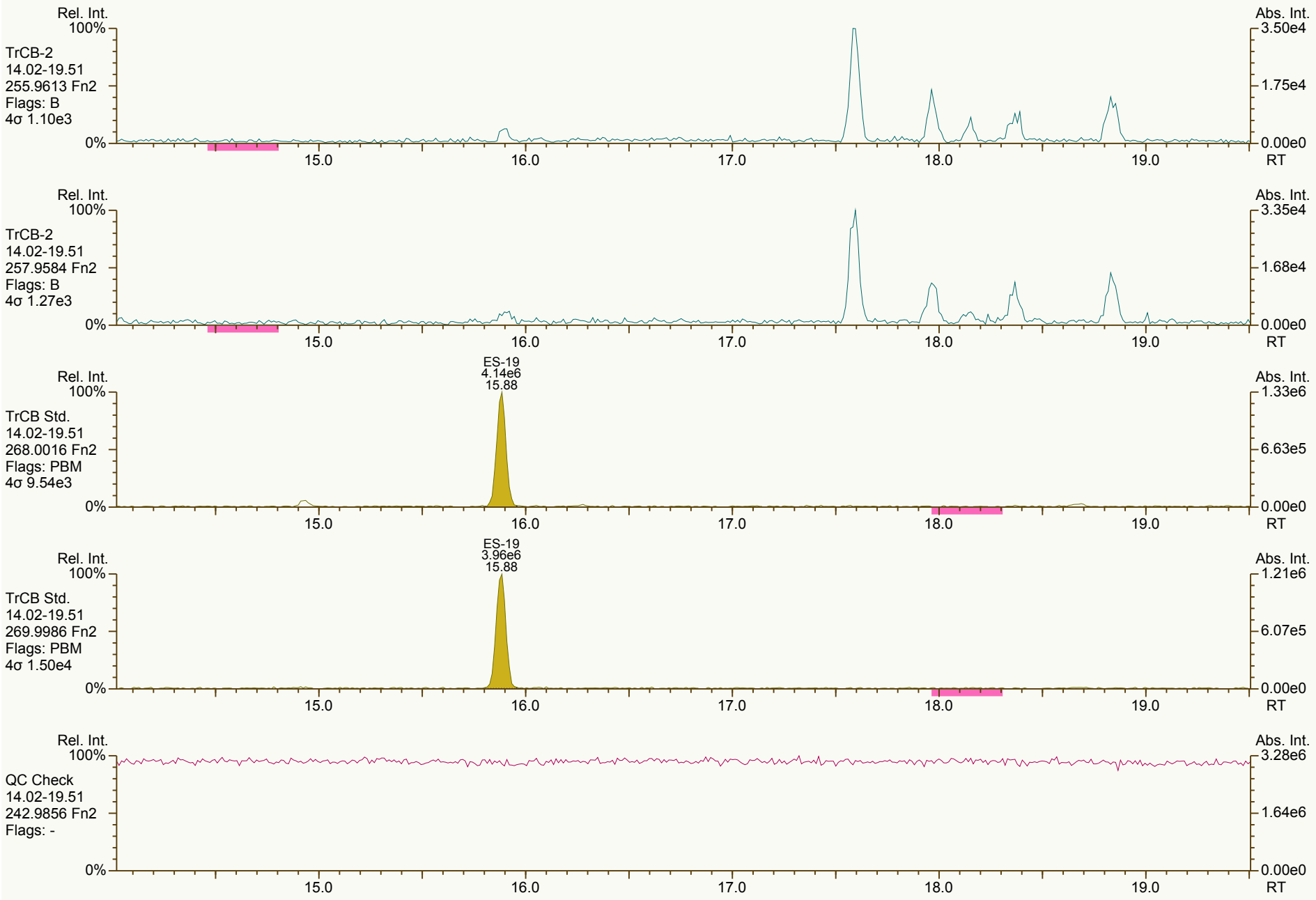
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5268, 5615 scc: 209-506 *Revised: 04-Feb-2013 12:05 (LKB) Printed: 04-Feb-2013 12:50 Page 3 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\A5019_10601_PCB_001-R.utp_res, saved 04-Feb-2013 12:48 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7509, 0419 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 4 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0628, 6338 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 5 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
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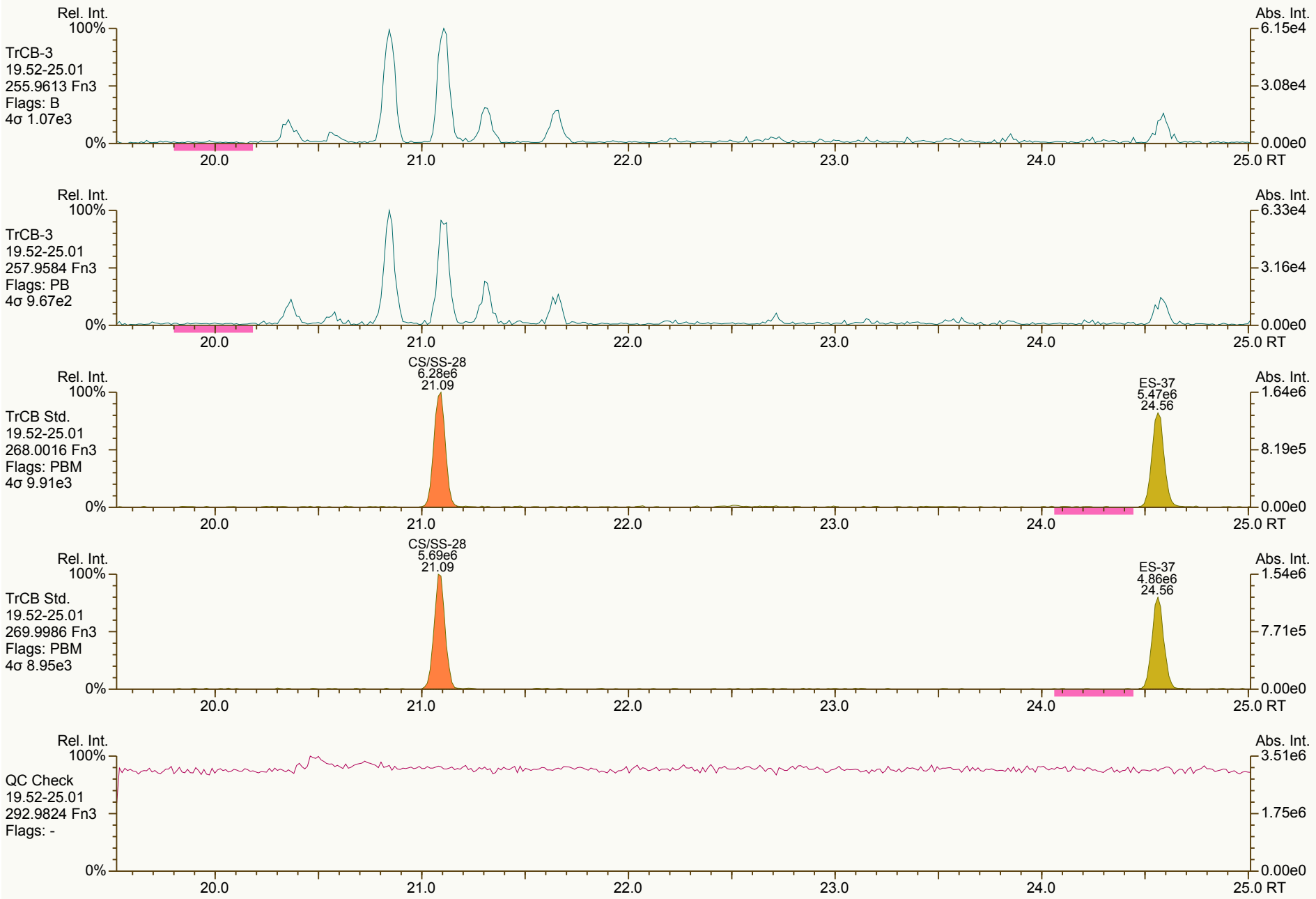

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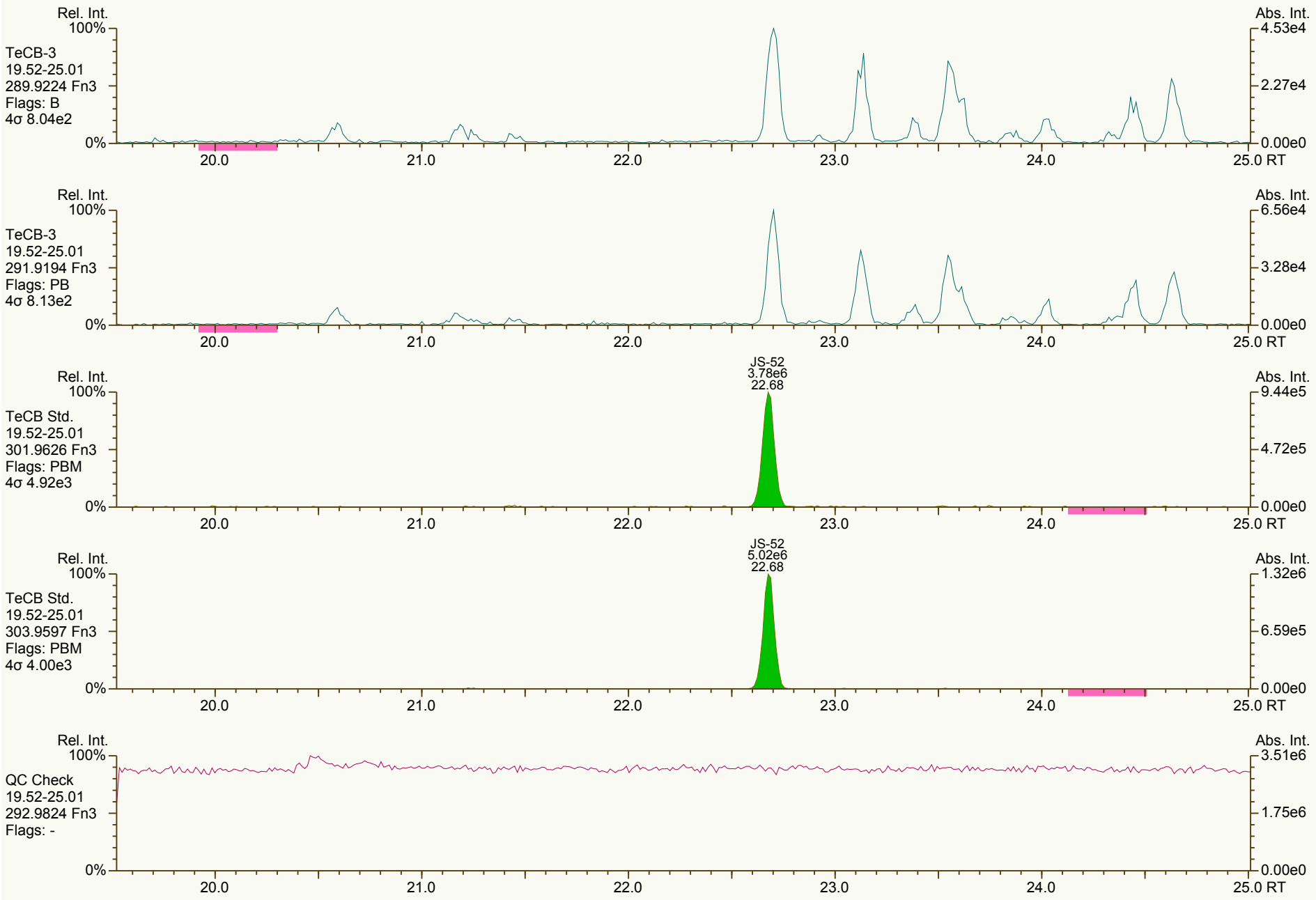
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0341, 7915 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 6 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



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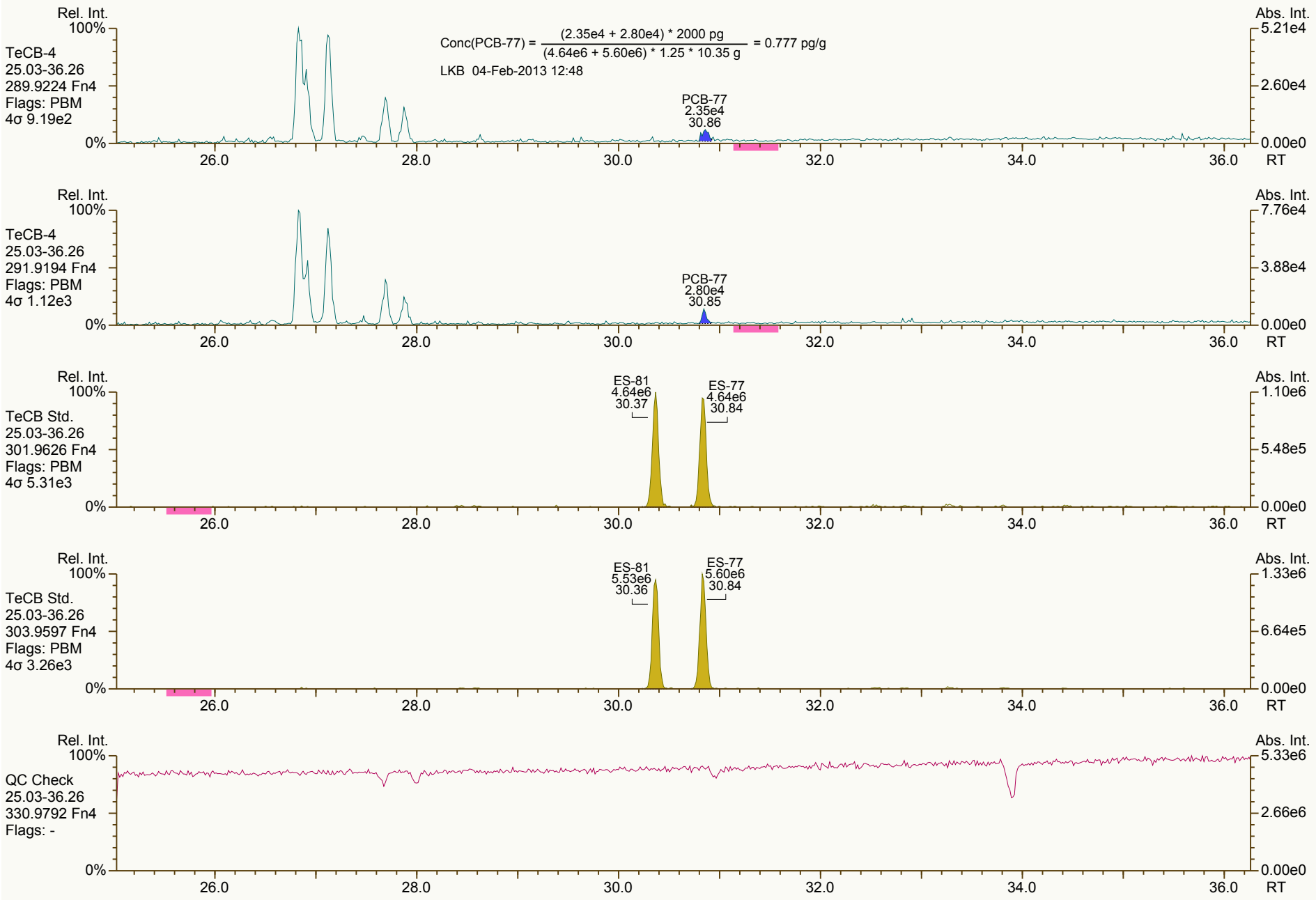
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9474, 4149 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 8 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



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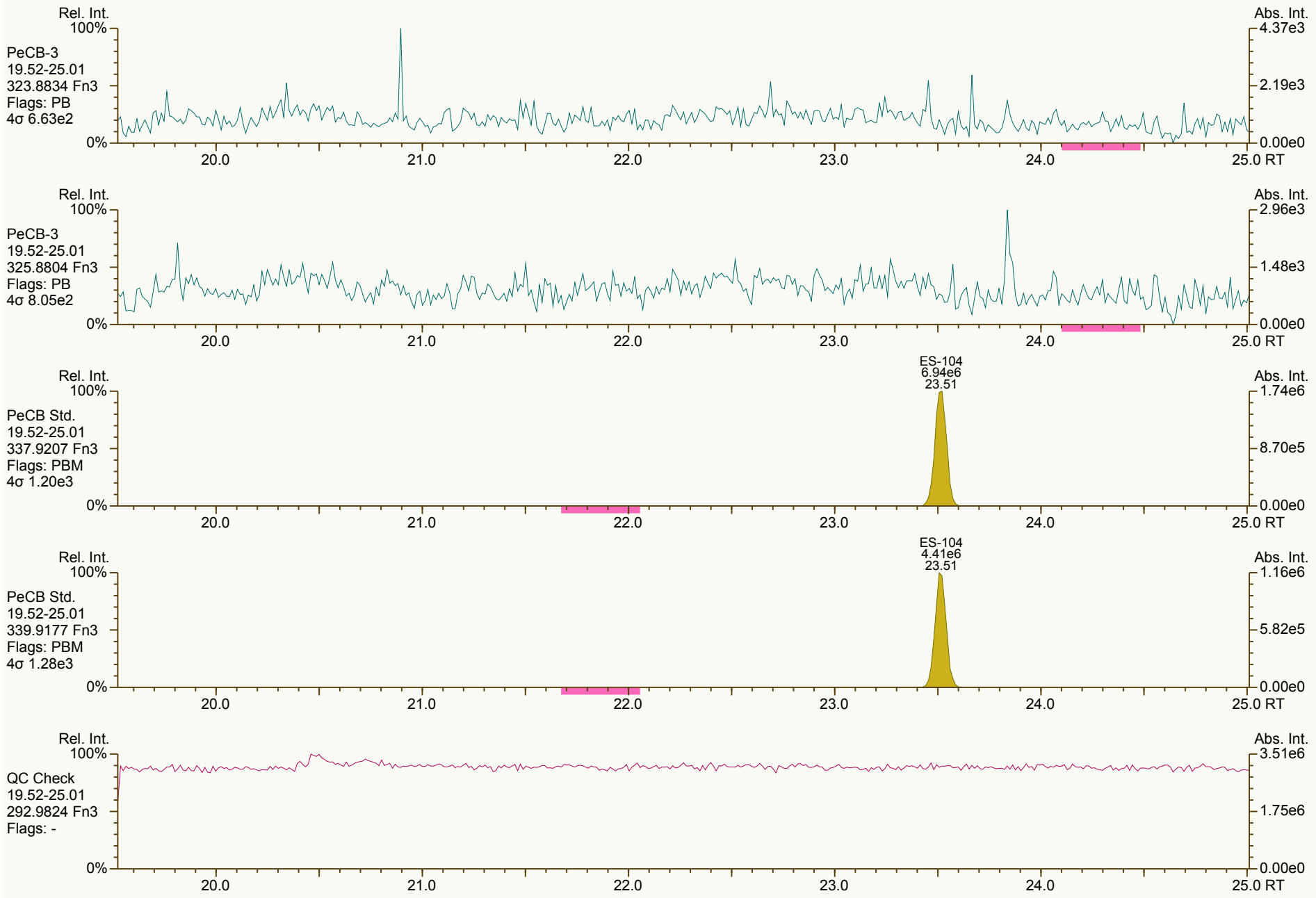
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7566, 8565 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 9 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0846, 2706 scc: 209-506 *Revised: 04-Feb-2013 12:05 (LKB) Printed: 04-Feb-2013 12:50 Page 10 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2069, 0144 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 11 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



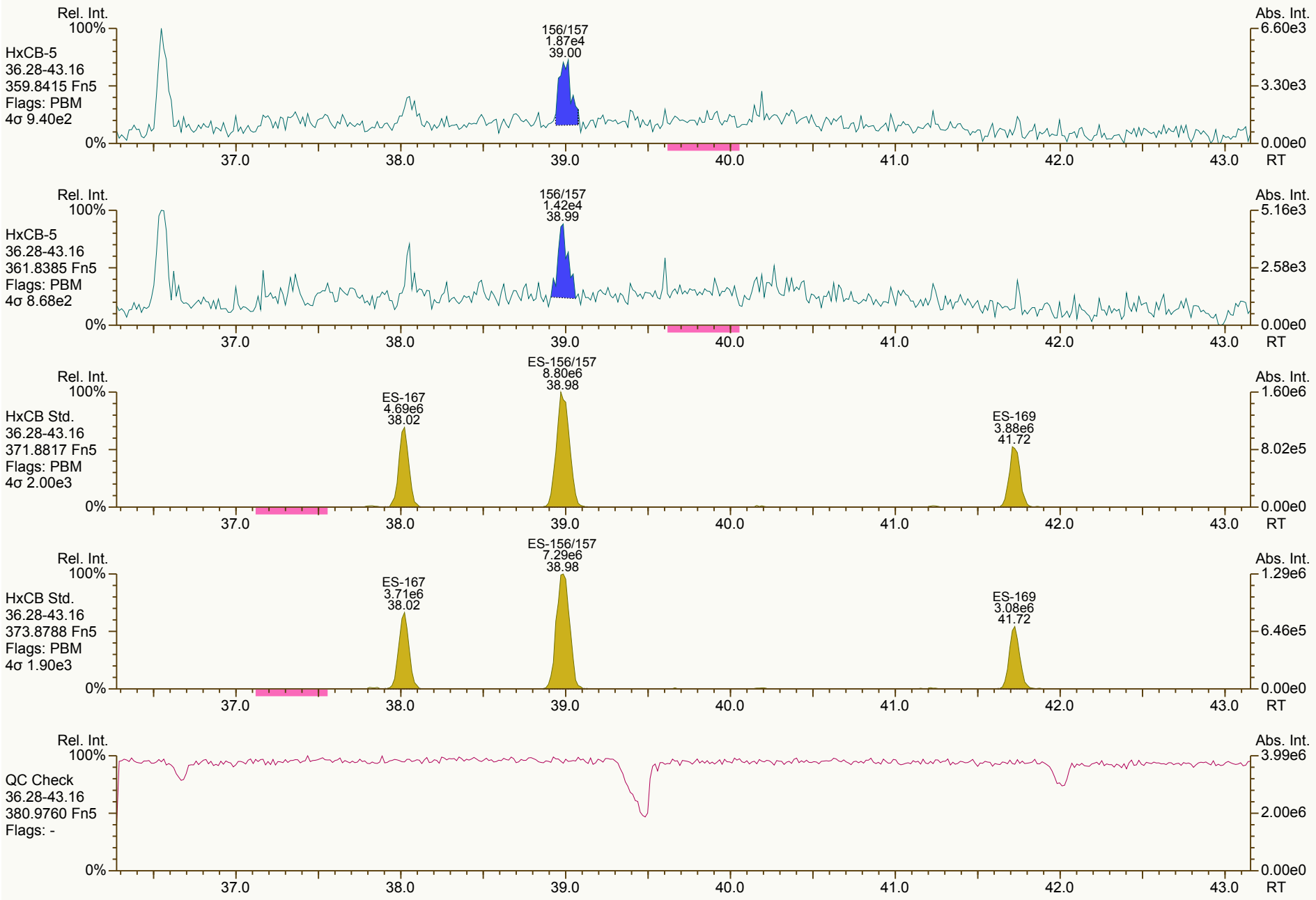
Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\A5019_10601_PCB_001-R.utp_res, saved 04-Feb-2013 12:48 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9978, 9367 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 12 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\A5019_10601_PCB_001-R.utp_res, saved 04-Feb-2013 12:48 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5440, 9065 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 13 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



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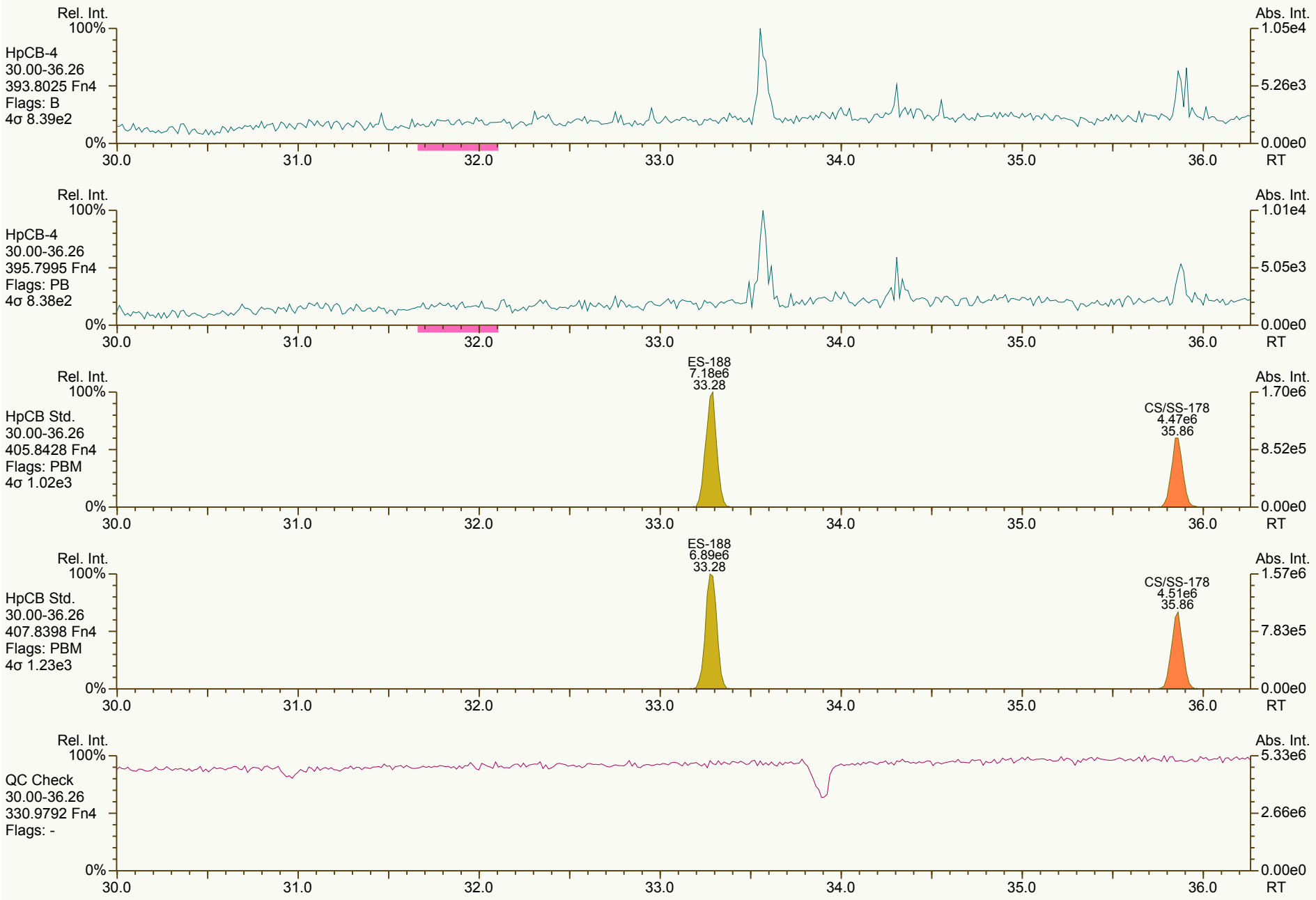
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2114, 2971 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 14 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5211, 4816 scc: 209-506 *PKD: 04-Feb-2013 12:07 Printed: 04-Feb-2013 12:50 Page 15 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8855, 6568 scc: 209-506 *PKD: 04-Feb-2013 12:08 Printed: 04-Feb-2013 12:50 Page 16 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**

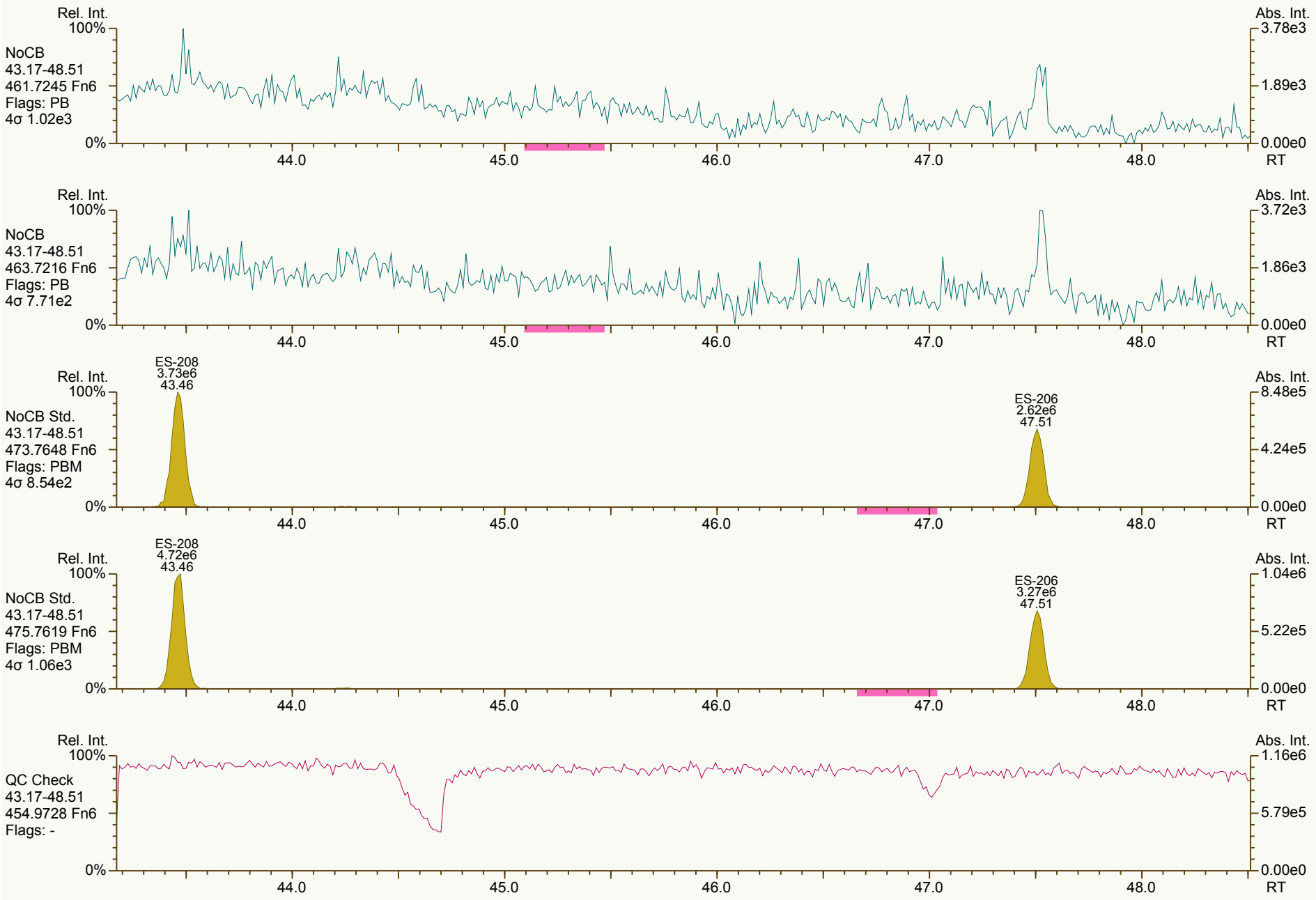


Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\A5019_10601_PCB_001-R.utp_res, saved 04-Feb-2013 12:48 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8625, 6813 scc: 209-506 *Revised: 04-Feb-2013 12:07 (LKB) Printed: 04-Feb-2013 12:50 Page 18 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\A5019_10601_PCB_001-R.utp_res, saved 04-Feb-2013 12:48 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4343, 2888 scc: 209-506 *Revised: 04-Feb-2013 12:07 (LKB) Printed: 04-Feb-2013 12:50 Page 20 of 21*

SGS-AP ID: A5019_10601_PCB_001-R **Sample ID: AQ-SS-03-10** **Acq: 02-Feb-2013 19:45:46**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 51** **User: CEM Datafile: 130202V05**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\A5019_10601_PCB_001-R.utp_res, saved 04-Feb-2013 12:48 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3075, 3224 scc: 209-506 *Revised: 04-Feb-2013 12:07 (LKB) Printed: 04-Feb-2013 12:50 Page 21 of 21*

SGS Analytical Perspectives — Run Log **Project: A5019_10601_PCB**

Instrument: MM6 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_b

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
1	130202V01	3	CS3_130202_PCB_VA	1.00	SIL 12-65-3	CEM, LKB	331-871	02-Feb-2013	16:07:32
2	130202V02	49	OPR1_10601_PCB	1.00	0_10601_OPR001	CEM, LKB	369-971	02-Feb-2013	17:00:40
3	130202V03	2	SBS_130202_PCB_VA	1.00	SIL 9-41-1	CEM, LKB	981-012	02-Feb-2013	17:55:36
4	130202V04	50	MB1_10601_PCB_SDS	10.00	Method Blank A5019-R	CEM, LKB	823-496	02-Feb-2013	18:50:44
5	130202V05	51	A5019_10601_PCB_001-R	10.35	AQ-SS-03-10	CEM, LKB	209-506	02-Feb-2013	19:45:46

✓ = manual calculation

REVIEWED
By Laura Boivin at 12:53 pm, Feb 04, 2013

APPROVED
By Amy Boehm at 4:25 pm, Feb 04, 2013

PCB QC Summary	SGS Analytical Perspectives				Processed: 4-Feb-2013 12:22
Lab ID:	**CS3_130202_PCB_VA**				
Acquired:	**02-FEB-2013 16:07**			**ICAL: MM6_PCB_07132012_14DEC12**	
Datafile:	**130202V01**				
Name	**RT**	**Response**	**RA**	**ICAL**	**RRF**	**Dev'n**
PCB-77 33'44'-TeCB	30.86	2.59E+07	0.77 Y	1.25	1.23	-1.2%
PCB-81 344'5-TeCB	30.39	2.51E+07	0.77 Y	1.26	1.25	-0.8%
PCB-105 233'44'-PeCB	33.84	1.69E+07	0.63 Y	1.06	1.02	-3.8%
PCB-114 2344'5-PeCB	33.30	1.90E+07	0.63 Y	1.11	1.07	-3.6%
PCB-118 23'44'5-PeCB	32.85	1.84E+07	0.62 Y	1.08	1.02	-5.6%
PCB-123 23'44'5'-PeCB	32.57	1.75E+07	0.62 Y	1.12	1.00	-11.1%
PCB-126 33'44'5-PeCB	36.46	1.99E+07	0.64 Y	1.16	1.11	-3.6%
PCB-156/157 ...-HxCB	39.00	3.28E+07	1.23 Y	1.14	1.09	-3.9%
PCB-167 23'44'55'-HxCB	38.04	1.76E+07	1.23 Y	1.18	1.11	-6.1%
PCB-169 33'44'55'-HxCB	41.73	1.47E+07	1.25 Y	1.15	1.11	-4.0%
PCB-189 233'44'55'-HpCB	43.86	1.95E+07	1.04 Y	1.12	1.10	-1.2%
PCB-209 DeCB	48.86	1.30E+07	1.18 Y	1.11	1.04	-6.7%
ES PCB-1	10.71	5.53E+07	3.26 Y	0.97	0.89	-7.9%
ES PCB-3	12.79	5.33E+07	3.35 Y	0.90	0.86	-4.3%
ES PCB-4	13.02	4.70E+07	1.57 Y	0.70	0.76	8.6%
ES PCB-15	18.41	6.37E+07	1.65 Y	1.02	1.03	1.4%
ES PCB-19	15.89	3.64E+07	1.03 Y	0.53	0.59	11.7%
ES PCB-37	24.58	4.29E+07	1.12 Y	1.29	1.11	-14.2%
ES PCB-54	18.67	5.23E+07	0.78 Y	1.43	1.35	-5.1%
ES PCB-77	30.85	4.20E+07	0.85 Y	1.20	1.09	-9.6%
ES PCB-81	30.37	4.03E+07	0.81 Y	1.16	1.04	-10.3%
ES PCB-104	23.52	5.11E+07	1.53 Y	1.70	1.61	-5.5%
ES PCB-105	33.81	3.33E+07	1.53 Y	1.10	1.05	-4.5%
ES PCB-114	33.28	3.54E+07	1.58 Y	1.16	1.11	-3.7%
ES PCB-118	32.83	3.60E+07	1.52 Y	1.15	1.13	-1.7%
ES PCB-123	32.55	3.51E+07	1.55 Y	1.14	1.11	-3.1%
ES PCB-126	36.44	3.58E+07	1.63 Y	1.34	1.13	-15.9%
ES PCB-153	34.42	3.81E+07	1.27 Y	1.14	1.15	0.8%
ES PCB-155	28.43	5.33E+07	1.30 Y	1.61	1.61	-0.3%
ES PCB-156/157	38.98	6.00E+07	1.27 Y	0.98	0.91	-7.4%
ES PCB-167	38.01	3.17E+07	1.25 Y	1.01	0.96	-5.3%
ES PCB-169	41.71	2.66E+07	1.27 Y	0.90	0.80	-10.4%
ES PCB-170	41.21	2.81E+07	1.05 Y	1.28	1.40	9.0%
ES PCB-180	40.16	3.37E+07	1.05 Y	1.54	1.68	9.1%
ES PCB-188	33.28	5.49E+07	1.02 Y	1.63	1.66	2.0%
ES PCB-189	43.85	3.54E+07	1.06 Y	1.97	1.76	-10.5%
ES PCB-202	37.81	4.52E+07	0.86 Y	1.26	1.37	8.4%
ES PCB-205	46.01	2.37E+07	0.89 Y	1.22	1.18	-3.5%
ES PCB-206	47.48	2.25E+07	0.77 Y	1.10	1.12	1.9%
ES PCB-208	43.45	3.21E+07	0.79 Y	1.41	1.60	13.6%
ES PCB-209	48.84	2.51E+07	1.16 Y	1.24	1.25	0.6%

PCB QC Summary	SGS Analytical Perspectives				Processed: 4-Feb-2013 12:22
Lab ID:	**CS3_130202_PCB_VA**			**ICAL: MM6_PCB_07132012_14DEC12**	
Acquired:	**02-FEB-2013 16:07**				
Datafile:	**130202V01**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	21.10	5.00E+07	1.10 Y	1.18	1.17	-1.0%
SS PCB-111	30.89	3.63E+07	1.53 Y	1.01	1.03	2.6%
SS PCB-178	35.85	3.43E+07	1.00 Y	0.60	0.62	3.7%
CS PCB-28	21.10	5.00E+07	1.10 Y	1.52	1.29	-15.0%
CS PCB-111	30.89	3.63E+07	1.53 Y	1.15	1.14	-0.6%
CS PCB-178	35.85	3.43E+07	1.00 Y	0.98	1.04	5.9%
JS PCB-9	14.87	6.19E+07	1.62 Y		-	-
JS PCB-52	22.69	3.87E+07	0.79 Y		-	-
JS PCB-101	28.60	3.18E+07	1.54 Y		-	-
JS PCB-138	35.46	3.31E+07	1.27 Y		-	-
JS PCB-194	45.61	2.01E+07	0.91 Y		-	-
PCB-1 2-MoCB	10.72	3.57E+07	3.05 Y	1.25	1.29	3.7%
PCB-3 4-MoCB	12.80	3.47E+07	3.09 Y	1.27	1.30	2.9%
PCB-4 22'-DiCB	13.03	2.08E+07	1.56 Y	0.90	0.88	-1.5%
PCB-15 44'-DiCB	18.43	3.36E+07	1.55 Y	1.10	1.05	-3.8%
PCB-19 22'6-TrCB	15.91	1.69E+07	1.02 Y	0.95	0.93	-1.9%
PCB-37 344'-TrCB	24.59	3.06E+07	1.06 Y	1.39	1.43	2.7%
PCB-54 22'66'-TeCB	18.69	2.81E+07	0.78 Y	1.05	1.07	2.1%
PCB-104 22'466'-PeCB	23.55	2.79E+07	0.63 Y	1.12	1.09	-2.3%
PCB-155 22'44'66'-HxCB	28.45	2.87E+07	1.24 Y	1.09	1.08	-1.2%
PCB-188 22'34'566'-HpCB	33.31	2.74E+07	1.05 Y	0.98	1.00	1.5%
PCB-202 22'33'55'66'-OcCB	37.83	1.93E+07	0.88 Y	0.86	0.85	-1.5%
PCB-205 233'44'55'6-OcCB	46.03	1.30E+07	0.89 Y	1.13	1.10	-2.8%
PCB-208 22'33'455'66'-NoCB	43.47	1.59E+07	0.77 Y	1.03	0.99	-4.2%
PCB-206 22'33'44'55'6-NoCB	47.50	1.08E+07	0.77 Y	0.97	0.96	-1.1%

PCB QC Summary - Ax2 Detail

Processed: 4-Feb-2013 12:22

Lab ID: CS3_130202_PCB_VA
Acquired: 02-FEB-2013 16:07
Datafile: 130202V01
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA		RRF	
PCB-1 2-MoCB	10.72	3.57E+07	3.05 Y	1.25	-	-
PCB-2 3-MoCB	12.64	3.48E+07	3.10 Y	1.28	1.31	2.3%
PCB-3 4-MoCB	12.80	3.47E+07	3.09 Y	1.27	-	-
PCB-4 22'-DiCB	13.03	2.08E+07	1.56 Y	0.90	-	-
PCB-10 26-DiCB	13.20	3.22E+07	1.58 Y	1.38	1.37	-0.9%
PCB-9 25-DiCB	14.89	3.09E+07	1.57 Y	0.99	0.97	-1.9%
PCB-7 24-DiCB	15.04	3.51E+07	1.55 Y	1.10	1.10	0.0%
PCB-6 23'-DiCB	15.25	3.27E+07	1.54 Y	1.04	1.03	-1.3%
PCB-5 23-DiCB	15.53	3.29E+07	1.57 Y	1.02	1.03	0.7%
PCB-8 24'-DiCB	15.65	3.34E+07	1.54 Y	1.03	1.05	1.6%
PCB-14 35-DiCB	17.13	3.92E+07	1.56 Y	1.20	1.23	2.6%
PCB-11 33'-DiCB	17.88	3.31E+07	1.56 Y	1.03	1.04	1.3%
PCB-13/12 34'/34-DiCB	18.15	6.59E+07	1.53 Y	1.03	1.04	0.1%
PCB-15 44'-DiCB	18.43	3.36E+07	1.55 Y	1.10	-	-
PCB-19 22'6-TrCB	15.91	1.69E+07	1.02 Y	0.95	-	-
PCB-30/18 246/22'5-TrCB	17.60	4.57E+07	1.03 Y	1.23	1.25	1.9%
PCB-17 22'4-TrCB	17.98	2.00E+07	1.03 Y	1.05	1.10	4.3%
PCB-27 23'6-TrCB	18.17	2.62E+07	1.02 Y	1.46	1.44	-1.6%
PCB-24 236-TrCB	18.29	2.56E+07	1.02 Y	1.32	1.41	6.5%
PCB-16 22'3-TrCB	18.38	1.45E+07	1.04 Y	0.81	0.80	-1.5%
PCB-32 24'6-TrCB	18.85	2.75E+07	1.04 Y	1.48	1.51	2.4%
PCB-34 23'5'-TrCB	19.98	3.21E+07	1.05 Y	1.46	1.50	2.5%
PCB-23 235-TrCB	20.12	3.22E+07	1.05 Y	1.50	1.50	-0.2%
PCB-26/29 23'5/245-TrCB	20.39	6.58E+07	1.05 Y	1.53	1.53	0.3%
PCB-25 23'4-TrCB	20.58	3.29E+07	1.05 Y	1.53	1.54	0.1%
PCB-31 24'5-TrCB	20.85	3.37E+07	1.04 Y	1.55	1.57	1.3%
PCB-28/20 244'/233'-TrCB	21.13	6.47E+07	1.04 Y	1.51	1.51	0.2%
PCB-21/33 234/23'4'-TrCB	21.30	6.63E+07	1.04 Y	1.55	1.55	0.0%
PCB-22 234'-TrCB	21.66	3.05E+07	1.04 Y	1.40	1.42	1.7%
PCB-36 33'5-TrCB	23.03	3.27E+07	1.05 Y	1.52	1.52	0.4%
PCB-39 34'5-TrCB	23.34	3.41E+07	1.06 Y	1.58	1.59	0.4%
PCB-38 345-TrCB	23.85	3.04E+07	1.05 Y	1.47	1.42	-3.4%
PCB-35 33'4-TrCB	24.24	2.95E+07	1.06 Y	1.33	1.37	3.0%
PCB-37 344'-TrCB	24.59	3.06E+07	1.06 Y	1.39	-	-
PCB-54 22'66'-TeCB	18.69	2.81E+07	0.78 Y	1.05	-	-
PCB-50/53 22'46/22'56'-TeCB	20.63	3.76E+07	0.77 Y	0.88	0.93	6.4%
PCB-45 22'36-TeCB	21.19	1.65E+07	0.77 Y	0.73	0.82	11.8%
PCB-51 22'46'-TeCB	21.26	1.90E+07	0.77 Y	0.94	0.94	0.5%
PCB-46 22'36'-TeCB	21.46	1.52E+07	0.77 Y	0.72	0.76	5.3%
PCB-52 22'55'-TeCB	22.71	1.79E+07	0.77 Y	0.82	0.89	8.2%
PCB-73 23'5'6-TeCB	22.84	2.39E+07	0.77 Y	1.10	1.19	8.0%

Lab ID: - Ax2 Detail **Processed: 4-Feb-2013 12:22**

Lab ID: CS3_130202_PCB_VA
Acquired: 02-FEB-2013 16:07
Datafile: 130202V01
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA		RRF	
PCB-43 22'35-TeCB	22.93	1.54E+07	0.77 Y	0.70	0.76	8.4%
PCB-69/49 23'46/22'45'-TeCB	23.12	4.38E+07	0.76 Y	1.01	1.09	7.8%
PCB-48 22'45-TeCB	23.39	1.85E+07	0.75 Y	0.84	0.92	8.7%
PCB-44/47/65 ...-TeCB	23.60	5.83E+07	0.77 Y	0.90	0.97	7.1%
PCB-59/62/75 ...-TeCB	23.87	7.39E+07	0.77 Y	1.15	1.22	5.9%
PCB-42 22'34'-TeCB	24.03	1.72E+07	0.77 Y	0.76	0.86	12.0%
PCB-41 22'34-TeCB	24.35	1.54E+07	0.76 Y	0.64	0.77	19.5%
PCB-71/40 23'4'6/22'33'-TeCB	24.45	3.70E+07	0.77 Y	0.83	0.92	10.2%
PCB-64 234'6-TeCB	24.65	2.62E+07	0.76 Y	1.17	1.30	10.9%
PCB-72 23'55'-TeCB	25.38	2.92E+07	0.78 Y	1.37	1.45	5.9%
PCB-68 23'45'-TeCB	25.63	3.01E+07	0.77 Y	1.52	1.50	-1.3%
PCB-57 233'5-TeCB	25.99	2.77E+07	0.78 Y	1.32	1.38	3.9%
PCB-58 233'5'-TeCB	26.19	2.84E+07	0.78 Y	1.34	1.41	5.4%
PCB-67 23'45-TeCB	26.34	2.90E+07	0.77 Y	1.41	1.44	1.9%
PCB-63 234'5-TeCB	26.57	3.08E+07	0.78 Y	1.46	1.53	5.2%
PCB-61/70/74/76 ...-TeCB	26.85	1.13E+08	0.78 Y	1.37	1.40	2.7%
PCB-66 23'44'-TeCB	27.13	2.61E+07	0.77 Y	1.24	1.30	4.4%
PCB-55 233'4-TeCB	27.26	2.67E+07	0.77 Y	1.28	1.33	3.8%
PCB-56 233'4'-TeCB	27.69	2.59E+07	0.77 Y	1.23	1.29	4.8%
PCB-60 2344'-TeCB	27.88	2.66E+07	0.77 Y	1.30	1.32	1.9%
PCB-80 33'55'-TeCB	28.25	3.02E+07	0.77 Y	1.44	1.50	4.4%
PCB-79 33'45'-TeCB	29.54	2.92E+07	0.78 Y	1.48	1.45	-1.7%
PCB-78 33'45-TeCB	30.02	2.43E+07	0.77 Y	1.21	1.21	-0.1%
PCB-104 22'466'-PeCB	23.55	2.79E+07	0.63 Y	1.12	-	-
PCB-96 22'366'-PeCB	23.84	2.42E+07	0.63 Y	0.96	0.95	-1.9%
PCB-103 22'45'6-PeCB	25.54	1.60E+07	0.62 Y	0.93	0.91	-2.2%
PCB-94 22'356'-PeCB	25.72	1.38E+07	0.62 Y	0.81	0.78	-3.0%
PCB-95 22'35'6-PeCB	26.09	1.47E+07	0.63 Y	0.85	0.83	-1.7%
PCB-100/93 22'44'6/22'356-PeC	26.31	2.99E+07	0.63 Y	0.88	0.85	-3.6%
PCB-102 22'456'-PeCB	26.42	1.77E+07	0.63 Y	0.93	1.01	8.4%
PCB-98 22'34'6'-PeCB	26.48	1.20E+07	0.64 Y	0.84	0.68	-18.8%
PCB-88 22'346-PeCB	26.77	1.23E+07	0.60 Y	0.77	0.70	-9.4%
PCB-91 22'34'6-PeCB	26.84	1.74E+07	0.64 Y	0.96	0.99	3.1%
PCB-84 22'33'6-PeCB	27.02	1.25E+07	0.63 Y	0.72	0.71	-1.0%
PCB-89 22'346'-PeCB	27.43	1.34E+07	0.63 Y	0.77	0.76	-1.5%
PCB-121 23'45'6-PeCB	27.82	1.97E+07	0.62 Y	1.15	1.12	-1.9%
PCB-92 22'355'-PeCB	28.12	1.39E+07	0.63 Y	0.79	0.79	-0.5%
PCB-113/90/101 ...-PeCB	28.60	4.88E+07	0.62 Y	0.95	0.93	-3.0%
PCB-83 22'33'5-PeCB	29.02	1.21E+07	0.62 Y	0.72	0.69	-3.9%

Lab ID: - Ax2 Detail **Processed: 4-Feb-2013 12:22**

Lab ID: CS3_130202_PCB_VA
Acquired: 02-FEB-2013 16:07
Datafile: 130202V01
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA		RRF	
PCB-99 22'44'5-PeCB	29.12	1.46E+07	0.63 Y	0.90	0.83	-7.5%
PCB-112 233'56-PeCB	29.22	1.90E+07	0.63 Y	1.09	1.08	-1.0%
PCB-108/119/86/97/125...-PeCB	29.56	9.89E+07	0.62 Y	0.95	0.94	-0.9%
PCB-117 234'56-PeCB	30.09	1.77E+07	0.62 Y	0.99	1.01	2.0%
PCB-116/85 23456/22'344'-PeCl	30.17	3.15E+07	0.62 Y	0.96	0.90	-6.5%
PCB-110 233'4'6-PeCB	30.29	1.73E+07	0.61 Y	1.01	0.99	-2.0%
PCB-115 2344'6-PeCB	30.38	1.86E+07	0.63 Y	1.15	1.06	-7.7%
PCB-82 22'33'4-PeCB	30.56	1.17E+07	0.62 Y	0.70	0.66	-4.9%
PCB-111 233'55'-PeCB	30.92	1.94E+07	0.63 Y	1.16	1.10	-5.3%
PCB-120 23'455'-PeCB	31.31	1.92E+07	0.62 Y	1.14	1.09	-3.9%
PCB-107/124 ...-PeCB	32.26	3.42E+07	0.63 Y	1.02	0.97	-4.4%
PCB-109 233'46-PeCB	32.47	1.90E+07	0.61 Y	1.13	1.08	-4.4%
PCB-106 233'45-PeCB	32.67	1.79E+07	0.63 Y	1.01	1.02	0.7%
PCB-122 233'4'5'-PeCB	33.13	1.61E+07	0.63 Y	0.91	0.91	0.2%
PCB-127 33'455'-PeCB	35.09	1.63E+07	0.63 Y	1.06	0.98	-7.6%
PCB-155 22'44'66'-HxCB	28.45	2.87E+07	1.24 Y	1.09	-	-
PCB-152 22'3566'-HxCB	28.59	2.70E+07	1.24 Y	1.04	1.01	-2.8%
PCB-150 22'34'66'-HxCB	28.74	2.73E+07	1.23 Y	1.03	1.02	-0.4%
PCB-136 22'33'66'-HxCB	29.03	2.49E+07	1.21 Y	0.97	0.94	-4.0%
PCB-145 22'3466'-HxCB	29.30	2.57E+07	1.23 Y	0.96	0.96	0.0%
PCB-148 22'34'56'-HxCB	30.60	1.94E+07	1.25 Y	1.03	1.02	-1.4%
PCB-151/135 ...-HxCB	31.10	3.73E+07	1.24 Y	0.99	0.98	-1.5%
PCB-154 22'44'56'-HxCB	31.32	2.15E+07	1.24 Y	1.17	1.13	-3.9%
PCB-144 22'345'6-HxCB	31.57	1.94E+07	1.24 Y	1.03	1.02	-0.9%
PCB-147/149 ...-HxCB	31.87	3.82E+07	1.24 Y	1.02	1.00	-1.6%
PCB-134 22'33'56-HxCB	32.03	1.57E+07	1.24 Y	0.80	0.82	2.8%
PCB-143 22'3456'-HxCB	32.12	1.83E+07	1.24 Y	0.95	0.96	1.0%
PCB-139/140 ...-HxCB	32.39	3.90E+07	1.26 Y	1.05	1.02	-2.7%
PCB-131 22'33'46-HxCB	32.55	1.65E+07	1.23 Y	0.90	0.86	-3.6%
PCB-142 22'3456-HxCB	32.69	1.71E+07	1.22 Y	0.93	0.89	-3.4%
PCB-132 22'33'46'-HxCB	32.92	1.73E+07	1.25 Y	0.93	0.90	-2.6%
PCB-133 22'33'55'-HxCB	33.37	1.76E+07	1.25 Y	0.97	0.92	-4.8%
PCB-165 233'55'6-HxCB	33.71	2.14E+07	1.24 Y	1.16	1.12	-3.5%
PCB-146 22'34'55'-HxCB	33.92	1.86E+07	1.22 Y	1.01	0.98	-3.4%
PCB-161 233'45'6-HxCB	34.03	2.41E+07	1.24 Y	1.29	1.26	-2.3%
PCB-153/168 ...-HxCB	34.46	4.55E+07	1.24 Y	1.24	1.19	-3.6%
PCB-141 22'3455'-HxCB	34.59	1.81E+07	1.24 Y	0.95	0.95	0.4%
PCB-130 22'33'45'-HxCB	34.94	1.57E+07	1.23 Y	0.82	0.82	-0.1%
PCB-137 22'344'5-HxCB	35.13	1.82E+07	1.24 Y	0.97	0.95	-1.8%
PCB-164 233'4'5'6-HxCB	35.22	2.43E+07	1.22 Y	1.25	1.27	1.9%
PCB-163/138/129 ...-HxCB	35.50	5.73E+07	1.23 Y	1.04	1.00	-3.9%

Lab ID: - Ax2 Detail **Processed: 4-Feb-2013 12:22**

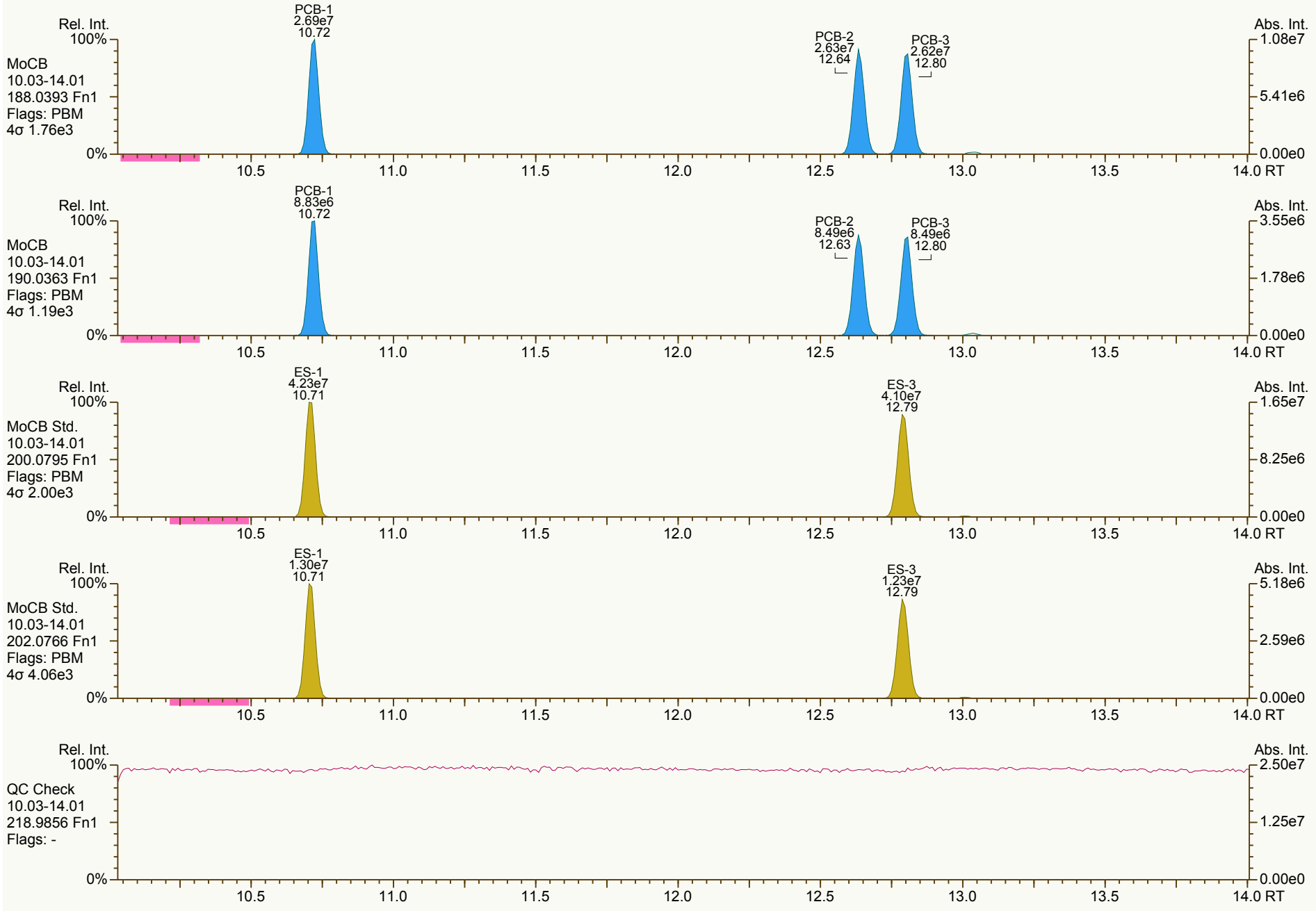
Lab ID: CS3_130202_PCB_VA **ICAL:** MM6_PCB_07132012_14DEC12
Acquired: 02-FEB-2013 16:07
Datafile: 130202V01

Name	RT	Response	RA		RRF	
PCB-160 233'456-HxCB	35.63	2.20E+07	1.24 Y	1.19	1.15	-3.3%
PCB-158 233'44'6-HxCB	35.82	2.46E+07	1.23 Y	1.34	1.29	-3.7%
PCB-128/166 ...-HxCB	36.55	2.95E+07	1.25 Y	0.96	0.93	-3.0%
PCB-159 233'455'-HxCB	37.39	1.67E+07	1.24 Y	1.12	1.06	-5.9%
PCB-162 233'4'55'-HxCB	37.63	1.75E+07	1.25 Y	1.13	1.11	-1.9%
PCB-188 22'34'566'-HpCB	33.31	2.74E+07	1.05 Y	0.98	-	-
PCB-179 22'33'566'-HpCB	33.57	2.52E+07	1.00 Y	0.90	0.92	2.3%
PCB-184 22'344'66'-HpCB	34.04	2.41E+07	1.00 Y	0.86	0.88	1.4%
PCB-176 22'33'466'-HpCB	34.32	2.68E+07	1.03 Y	0.97	0.98	0.7%
PCB-186 22'34566'-HpCB	34.71	2.54E+07	1.02 Y	0.93	0.93	0.1%
PCB-178 22'33'55'6-HpCB	35.87	1.84E+07	1.04 Y	0.66	0.67	1.4%
PCB-175 22'33'45'6-HpCB	36.42	1.62E+07	1.04 Y	1.02	0.96	-6.3%
PCB-187 22'34'55'6-HpCB	36.64	1.67E+07	1.04 Y	1.03	0.99	-3.8%
PCB-182 22'344'56'-HpCB	36.82	1.70E+07	1.03 Y	1.10	1.01	-7.9%
PCB-183 22'344'5'6-HpCB	37.17	1.85E+07	1.04 Y	1.12	1.10	-2.1%
PCB-185 22'3455'6-HpCB	37.24	1.49E+07	1.04 Y	0.97	0.89	-8.5%
PCB-174 22'33'456'-HpCB	37.35	1.36E+07	1.04 Y	0.90	0.81	-9.7%
PCB-177 22'33'45'6'-HpCB	37.72	1.38E+07	1.03 Y	0.87	0.82	-6.0%
PCB-181 22'344'56-HpCB	38.07	1.60E+07	1.03 Y	1.03	0.95	-8.3%
PCB-171/173 ...-HpCB	38.24	2.81E+07	1.04 Y	0.89	0.83	-5.9%
PCB-172 22'33'455'-HpCB	39.62	1.41E+07	1.04 Y	0.87	0.84	-3.9%
PCB-192 233'455'6-HpCB	39.87	1.86E+07	1.03 Y	1.16	1.11	-4.7%
PCB-180/193 ...-HpCB	40.15	3.47E+07	1.04 Y	1.07	1.03	-3.7%
PCB-191 233'44'5'6-HpCB	40.47	1.92E+07	1.03 Y	1.18	1.14	-3.8%
PCB-170 22'33'44'5-HpCB	41.23	1.38E+07	1.04 Y	0.99	0.98	-1.1%
PCB-190 233'44'56-HpCB	41.68	1.84E+07	1.03 Y	1.36	1.31	-3.5%
PCB-202 22'33'55'66'-OcCB	37.83	1.93E+07	0.88 Y	0.86	-	-
PCB-201 22'33'45'66'-OcCB	38.62	2.15E+07	0.89 Y	0.95	0.95	0.1%
PCB-204 22'344'566'-OcCB	39.20	2.01E+07	0.89 Y	0.90	0.89	-1.8%
PCB-197 22'33'44'66'-OcCB	39.38	2.13E+07	0.88 Y	0.96	0.94	-2.1%
PCB-200 22'33'4566'-OcCB	39.46	2.10E+07	0.90 Y	0.88	0.93	5.4%
PCB-198/199 ...-OcCB	41.81	2.91E+07	0.87 Y	0.63	0.64	2.2%
PCB-196 22'33'44'56'-OcCB	42.39	1.51E+07	0.87 Y	0.66	0.67	0.9%
PCB-203 22'344'55'6-OcCB	42.56	1.58E+07	0.88 Y	0.69	0.70	0.5%
PCB-195 22'33'44'56-OcCB	43.66	1.01E+07	0.88 Y	0.82	0.85	3.0%
PCB-194 22'33'44'55'-OcCB	45.63	1.06E+07	0.91 Y	0.90	0.90	-0.7%
PCB-205 233'44'55'6-OcCB	46.03	1.30E+07	0.89 Y	1.13	-	-
PCB-208 22'33'455'66'-NoCB	43.47	1.59E+07	0.77 Y	1.03	-	-
PCB-207 22'33'44'566'-NoCB	44.26	1.64E+07	0.77 Y	1.07	1.02	-4.6%
PCB-206 22'33'44'55'6-NoCB	47.50	1.08E+07	0.77 Y	0.97	-	-

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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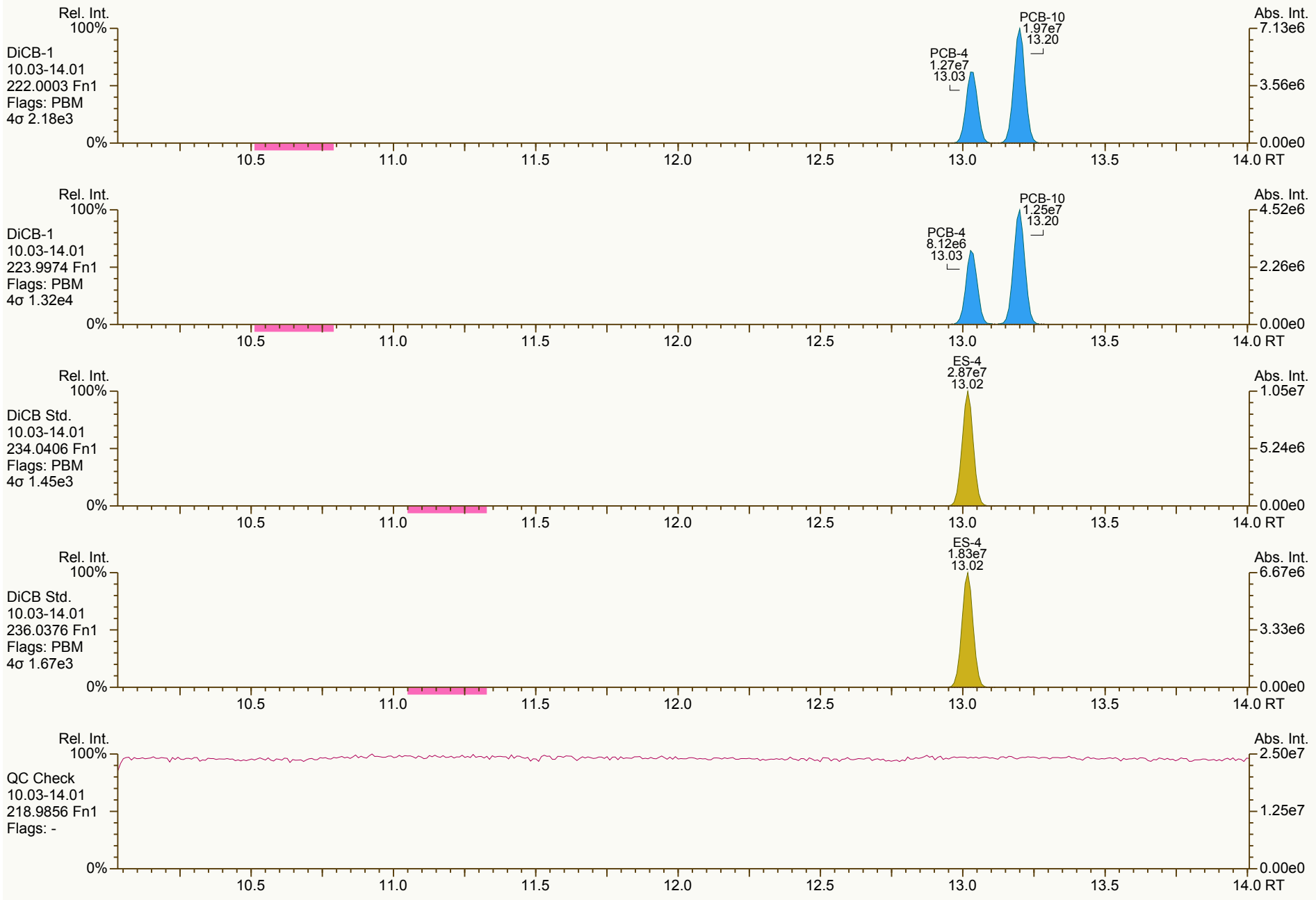
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7539, 9349 scc: 331-871 *PKD: 04-Feb-2013 11:46 Printed: 04-Feb-2013 12:48 Page 2 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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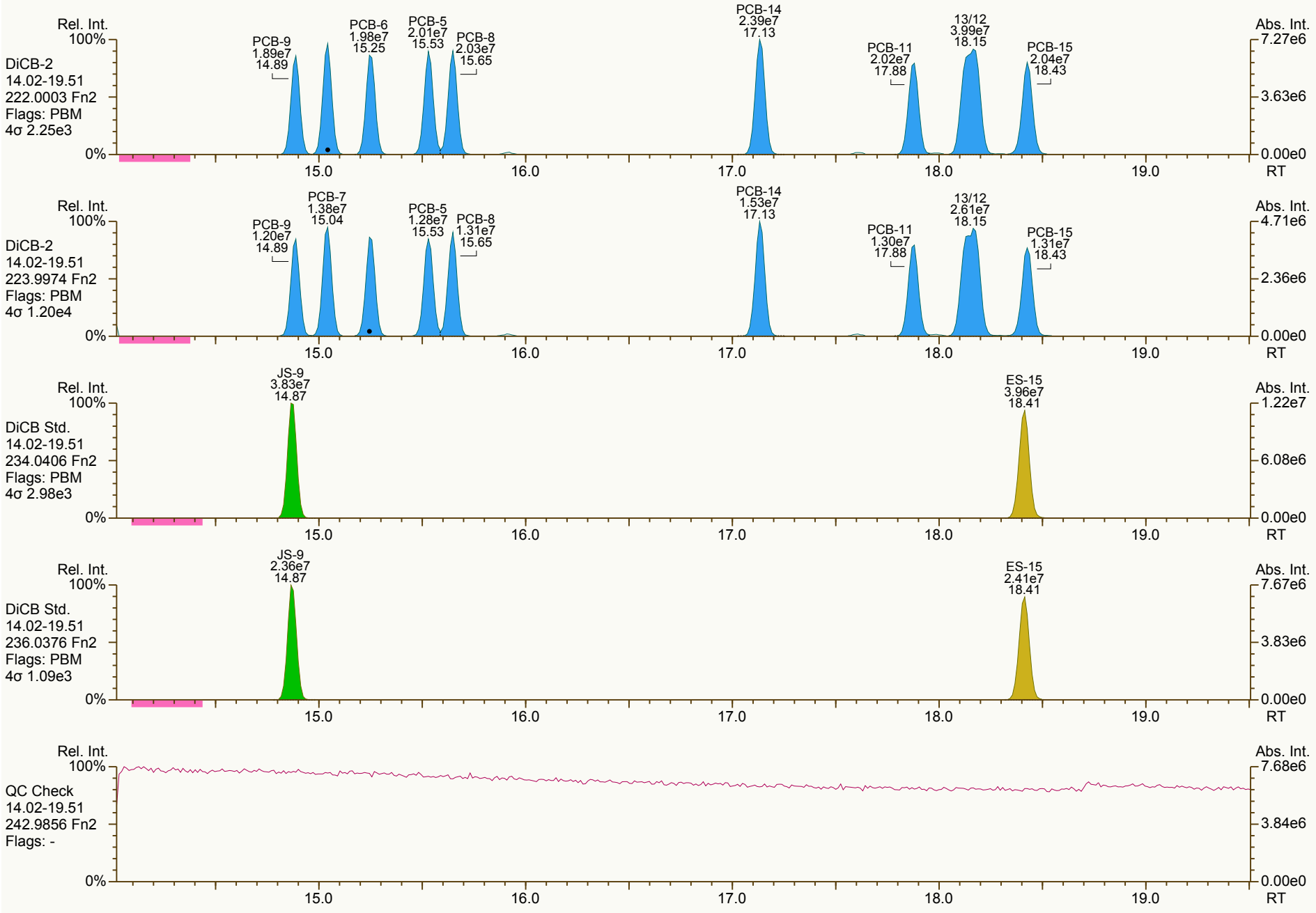
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3296, 3838 scc: 331-871 *Revised: 04-Feb-2013 11:44 (LKB) Printed: 04-Feb-2013 12:48 Page 3 of 21*

SGS-AP ID: CS3_130202_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 02-Feb-2013 16:07:32
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130202V01



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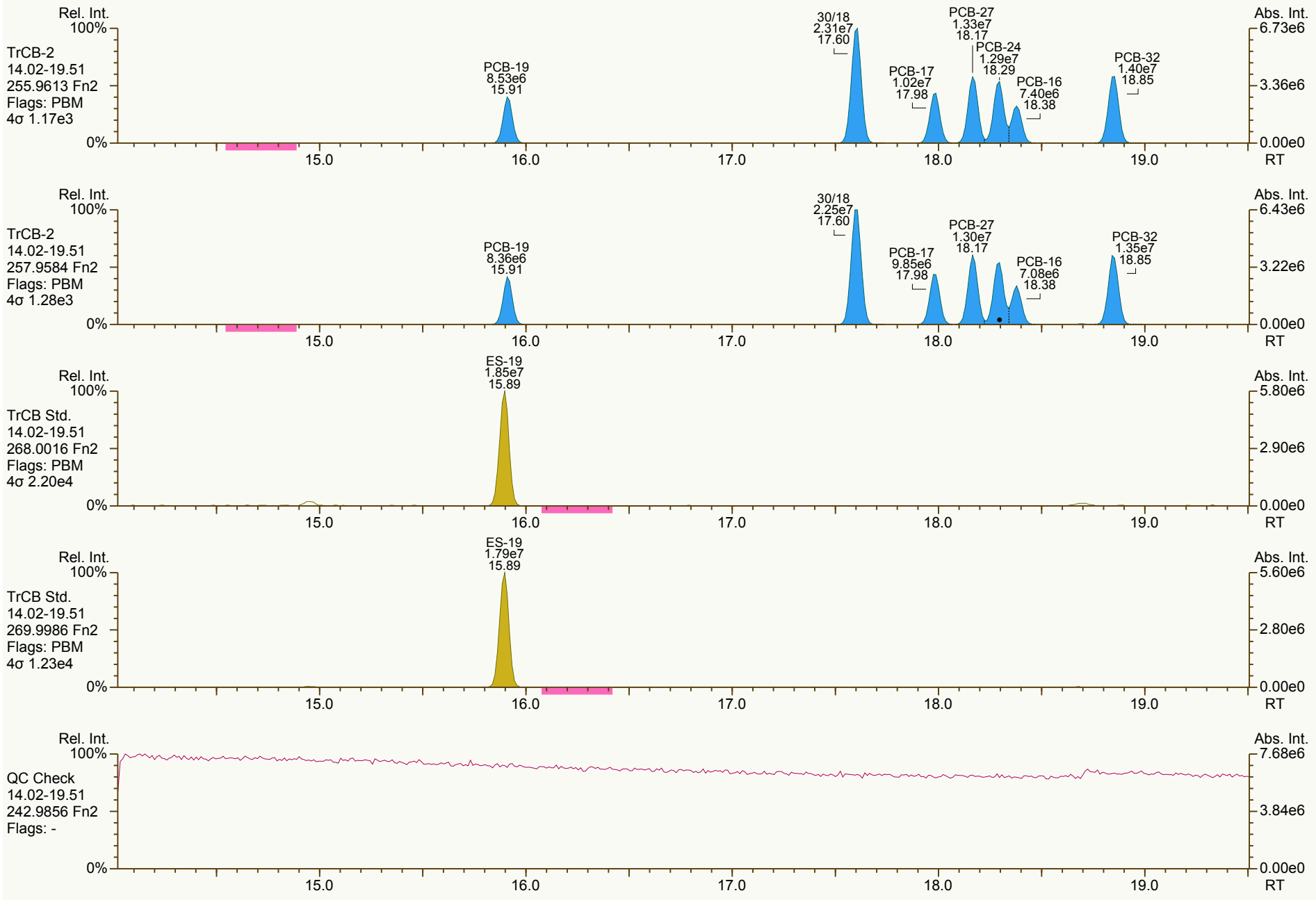
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1850, 0184 scc: 331-871
PKD: 04-Feb-2013 11:46 Printed: 04-Feb-2013 12:48 Page 4 of 21

SGS-AP ID: CS3_130202_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 02-Feb-2013 16:07:32
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130202V01



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Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1698, 9072 scc: 331-871
PKD: 04-Feb-2013 11:46 Printed: 04-Feb-2013 12:49 Page 5 of 21

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4111, 9865 scc: 331-871 *PKD: 04-Feb-2013 11:46 Printed: 04-Feb-2013 12:49 Page 6 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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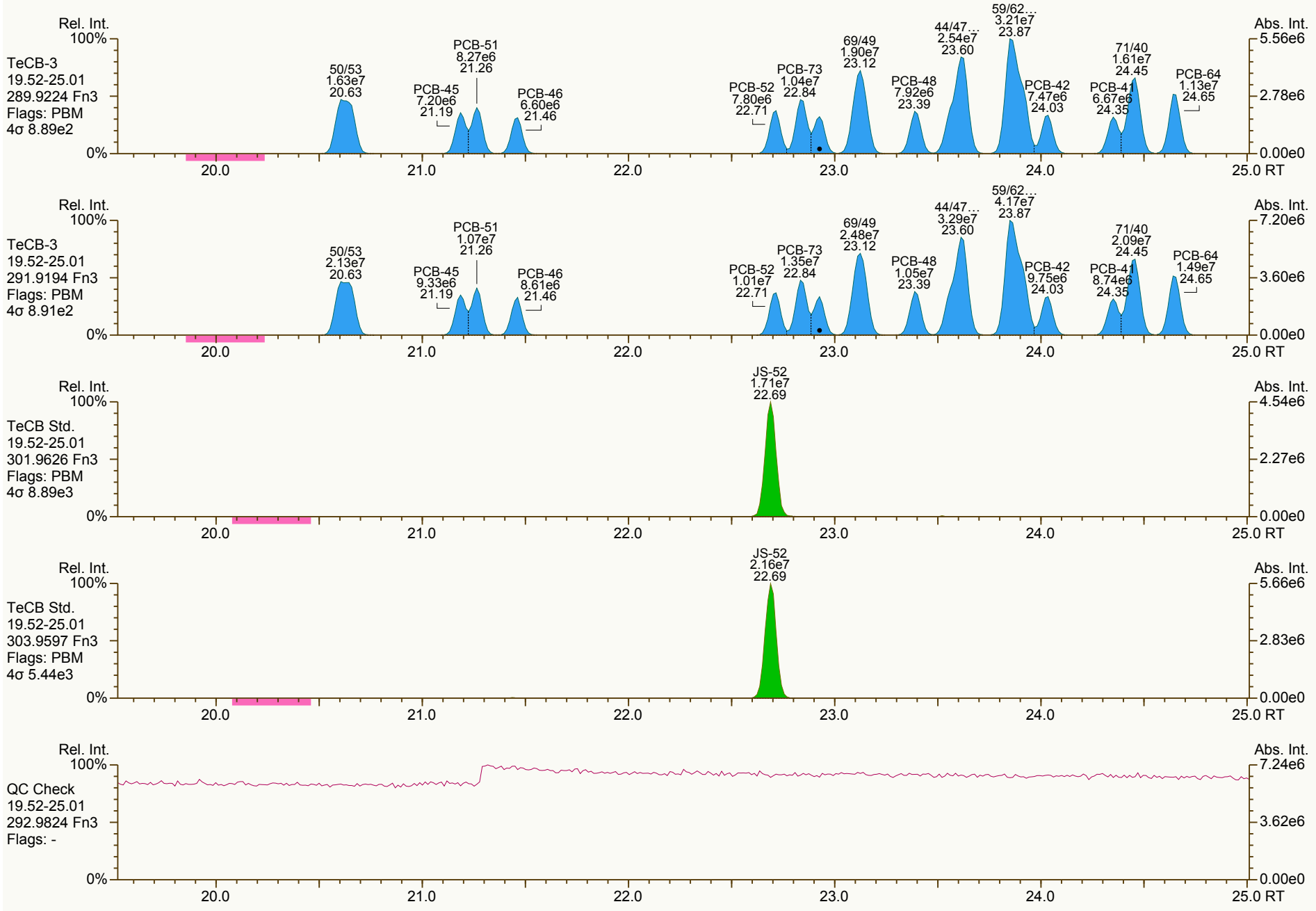
SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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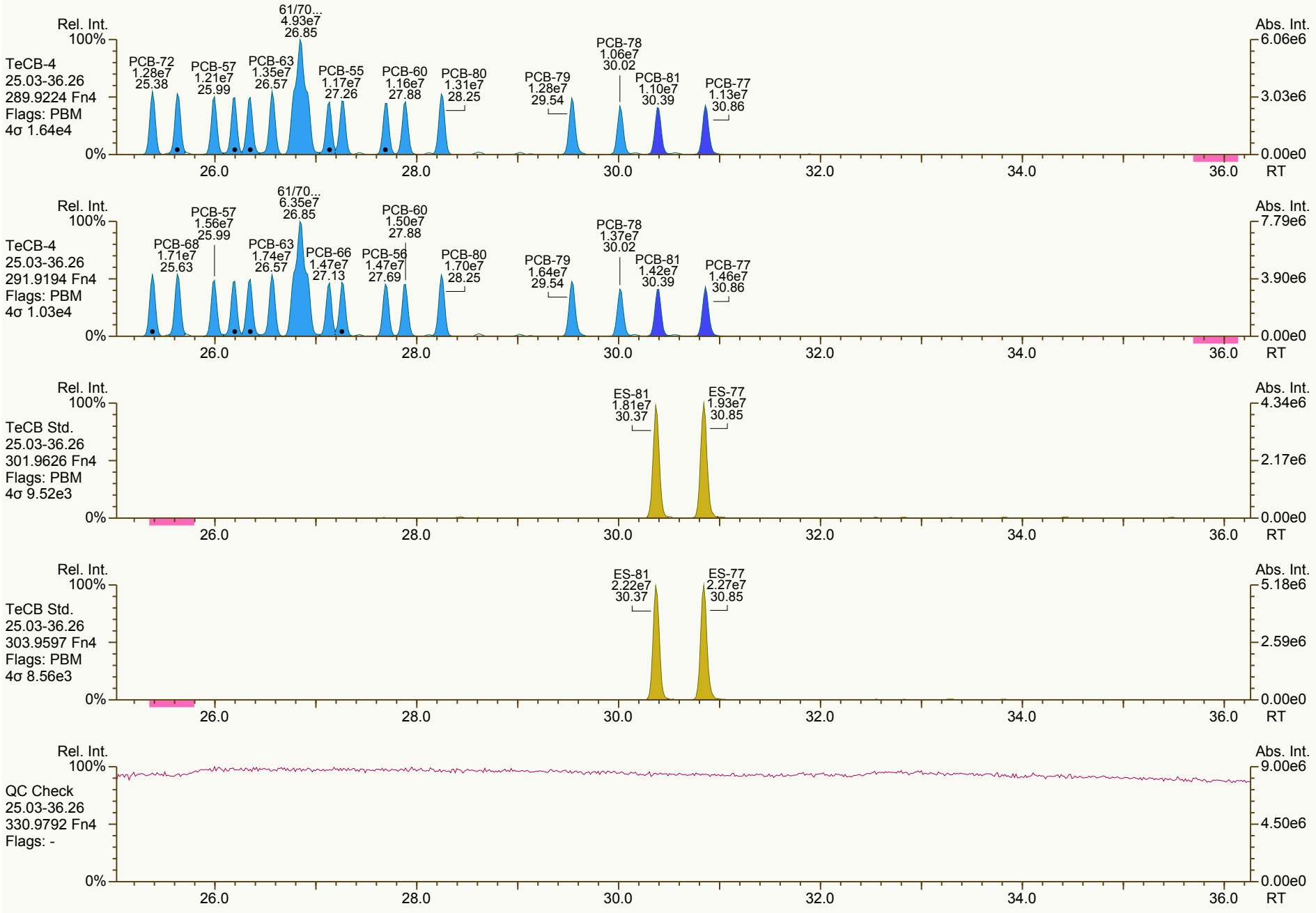
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7265, 0285 scc: 331-871 *PKD: 04-Feb-2013 11:46 Printed: 04-Feb-2013 12:49 Page 8 of 21*

SGS-AP ID: CS3_130202_PCB_VA | **Sample ID: SIL 12-65-3** | **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** | **User: CEM Datafile: 130202V01**



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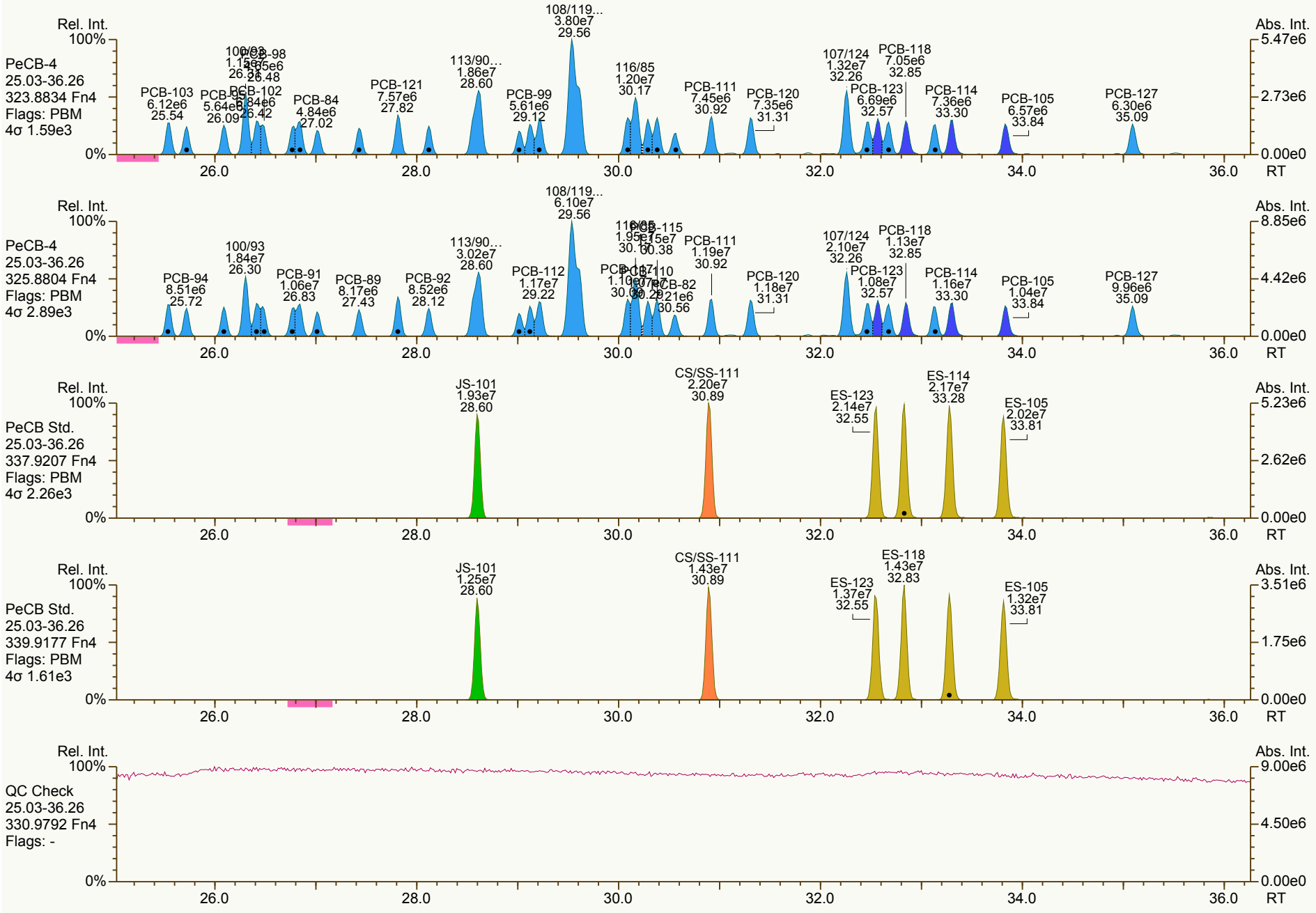
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8555, 5405 scc: 331-871 *Revised: 04-Feb-2013 11:46 (LKB) Printed: 04-Feb-2013 12:49 Page 9 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



SGS-AP ID: CS3_130202_PCB_VA | **Sample ID: SIL 12-65-3** | **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** | **User: CEM Datafile: 130202V01**



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SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7817, 5883 scc: 331-871 *Revised: 04-Feb-2013 11:51 (LKB) Printed: 04-Feb-2013 12:49 Page 12 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
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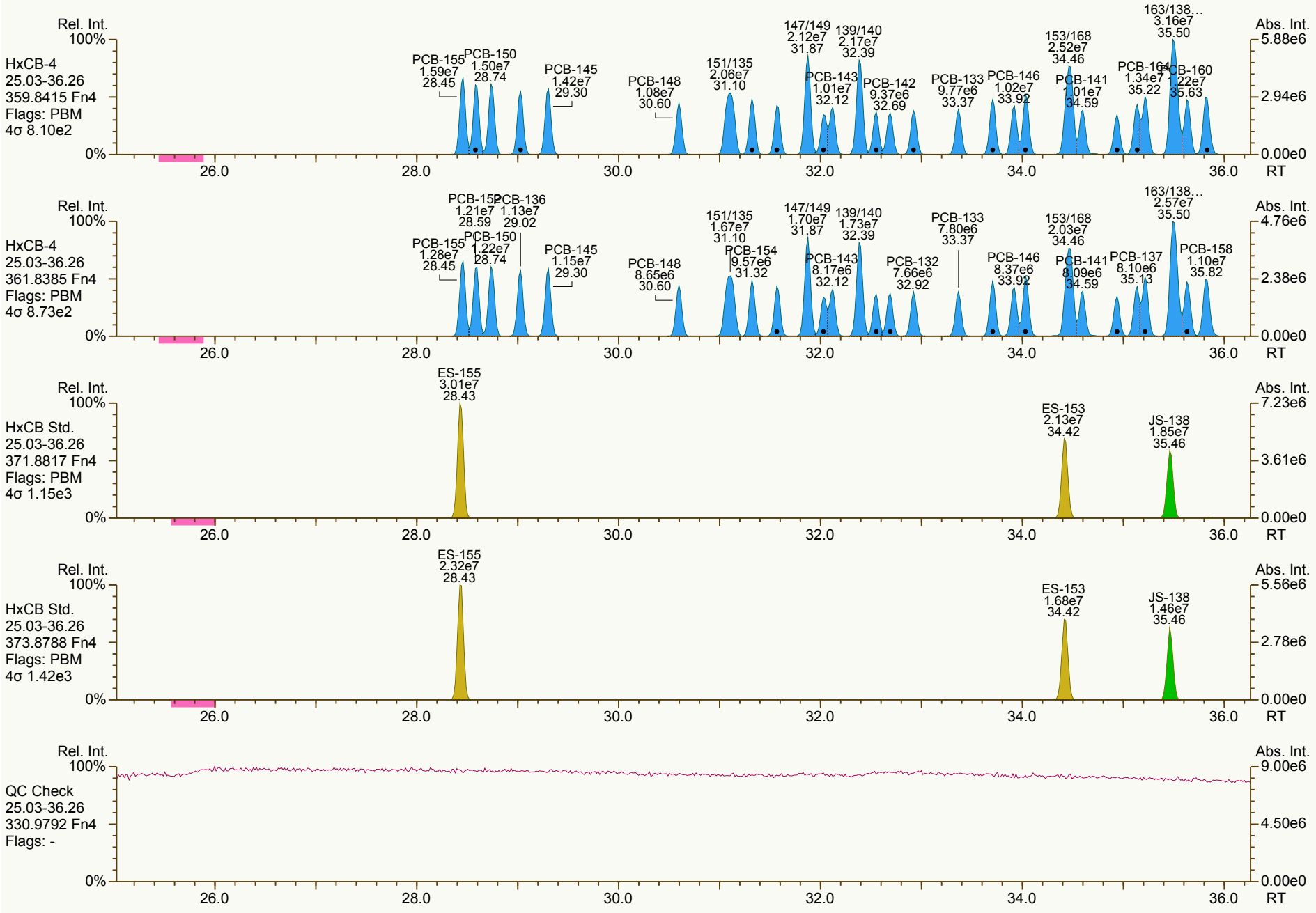

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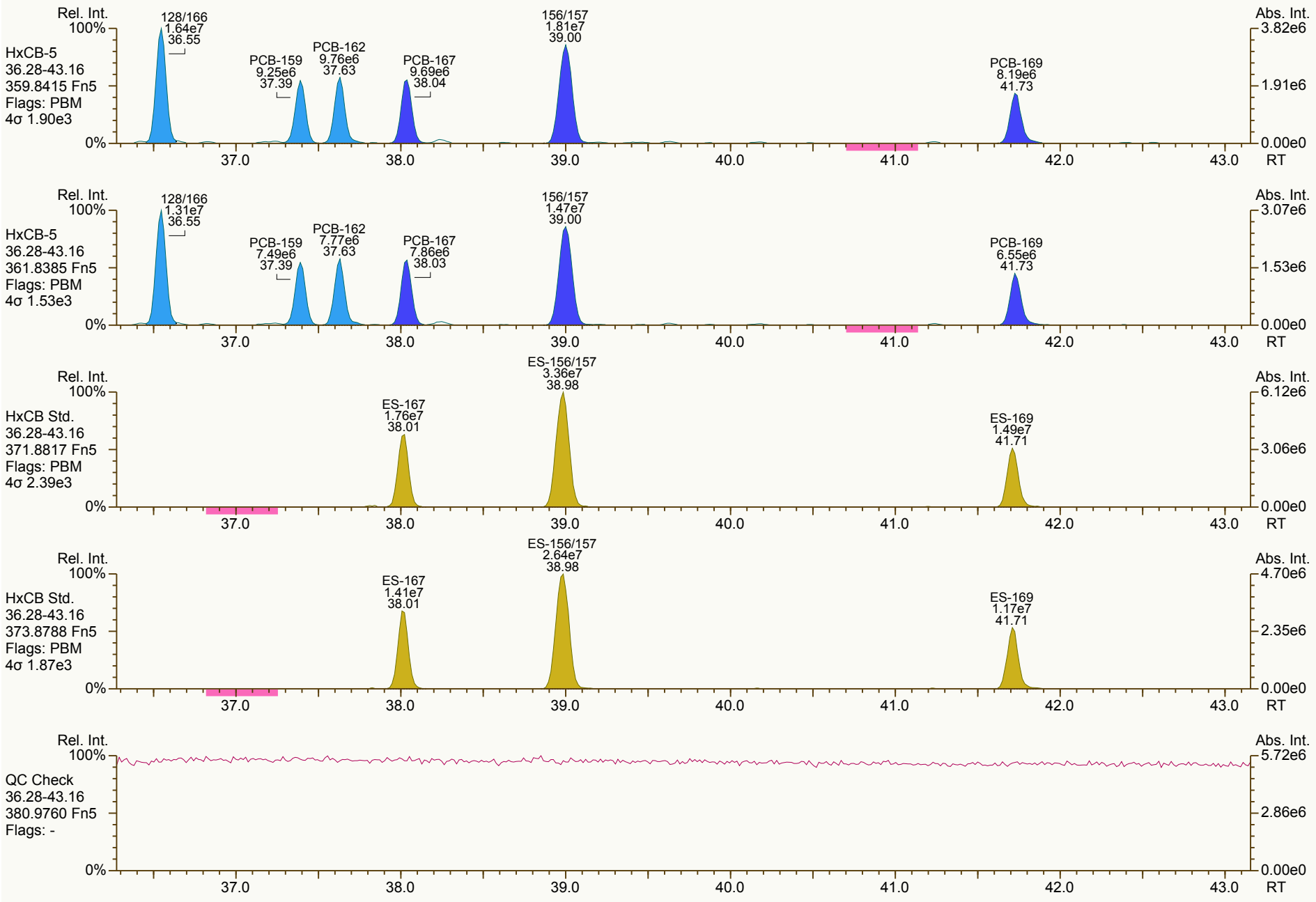
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7027, 8671 scc: 331-871 *PKD: 04-Feb-2013 11:48 Printed: 04-Feb-2013 12:49 Page 13 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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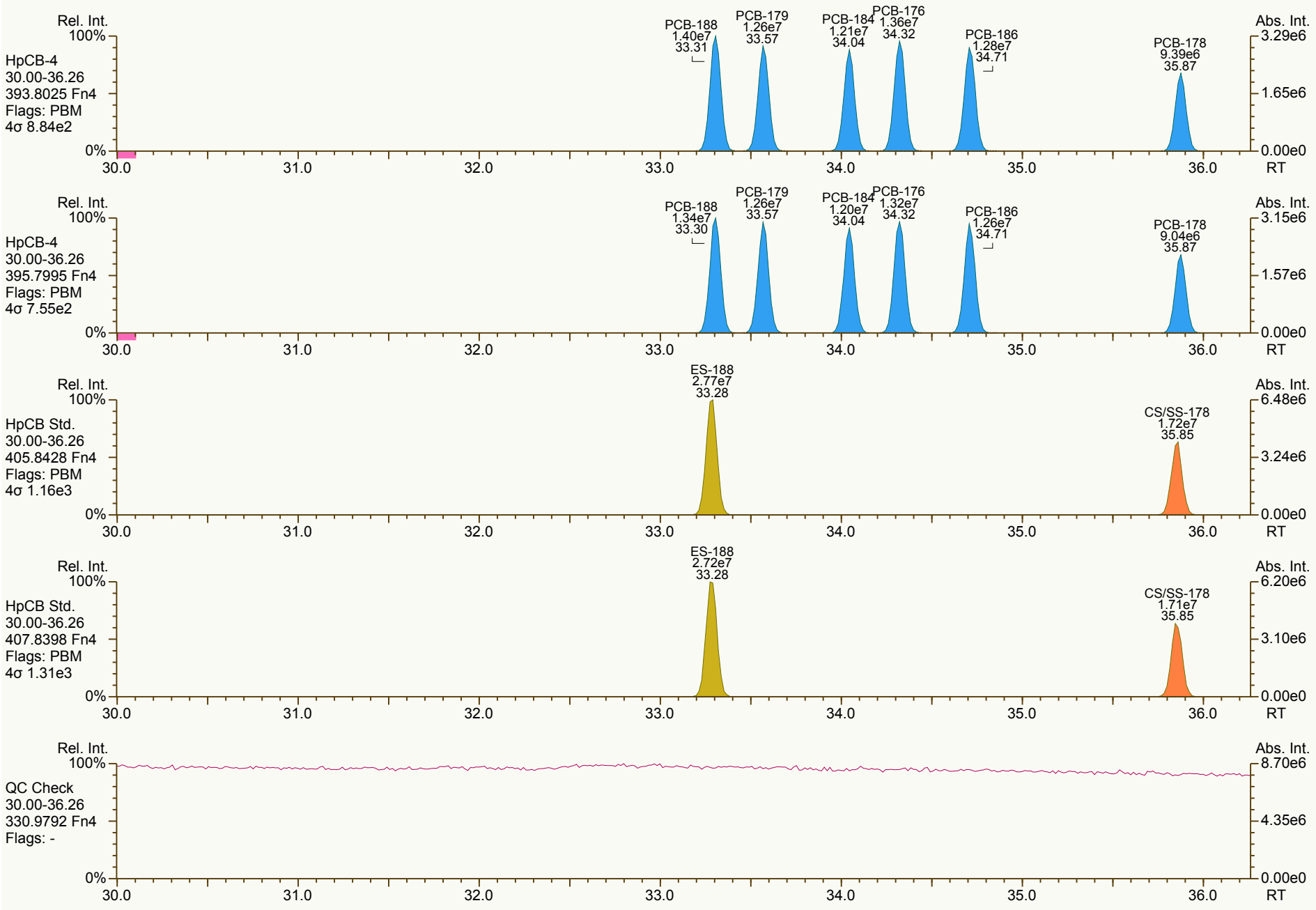
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2720, 9840 scc: 331-871 *Revised: 04-Feb-2013 11:51 (LKB) Printed: 04-Feb-2013 12:49 Page 14 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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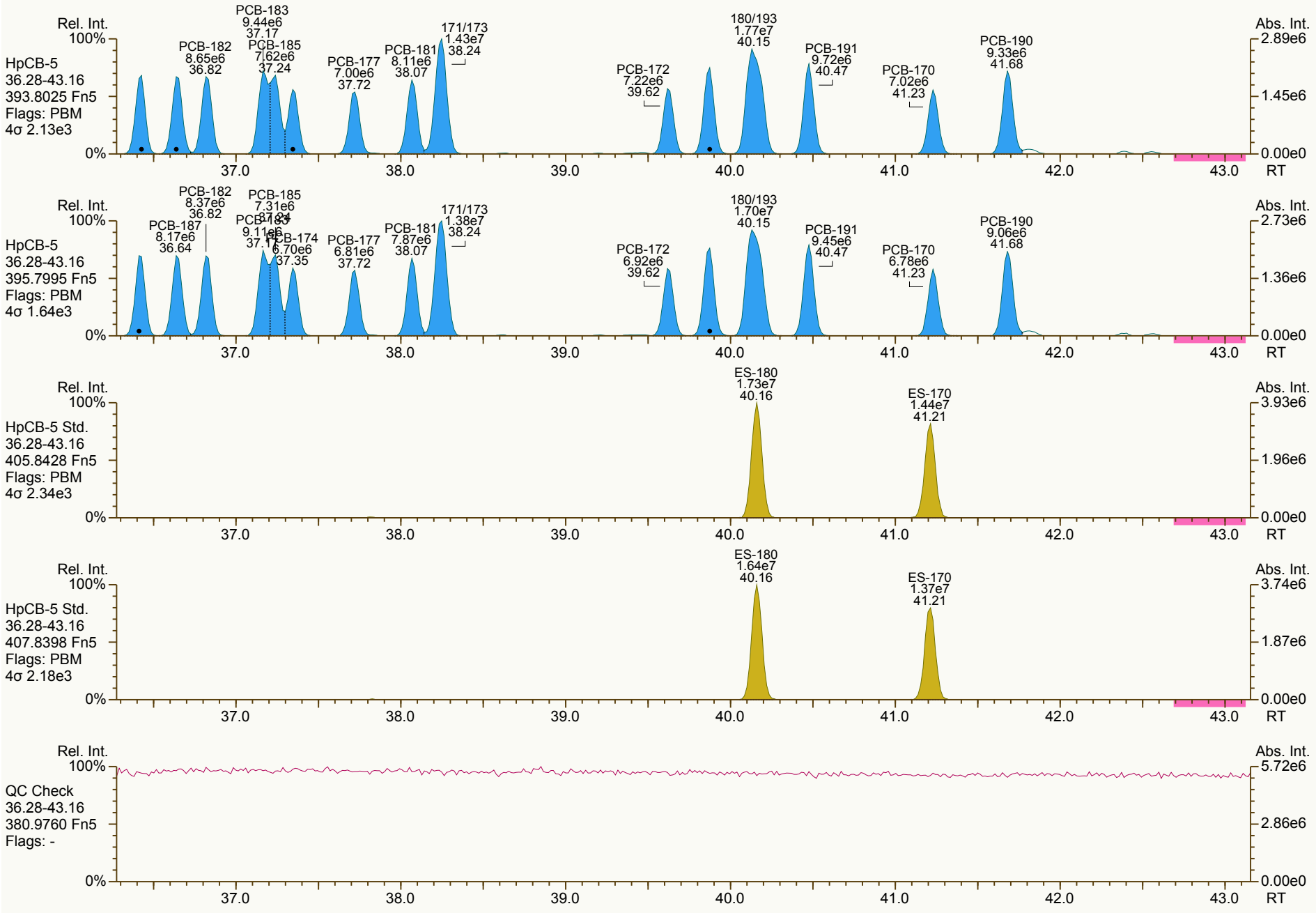
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1092, 6455 scc: 331-871 *PKD: 04-Feb-2013 11:48 Printed: 04-Feb-2013 12:49 Page 15 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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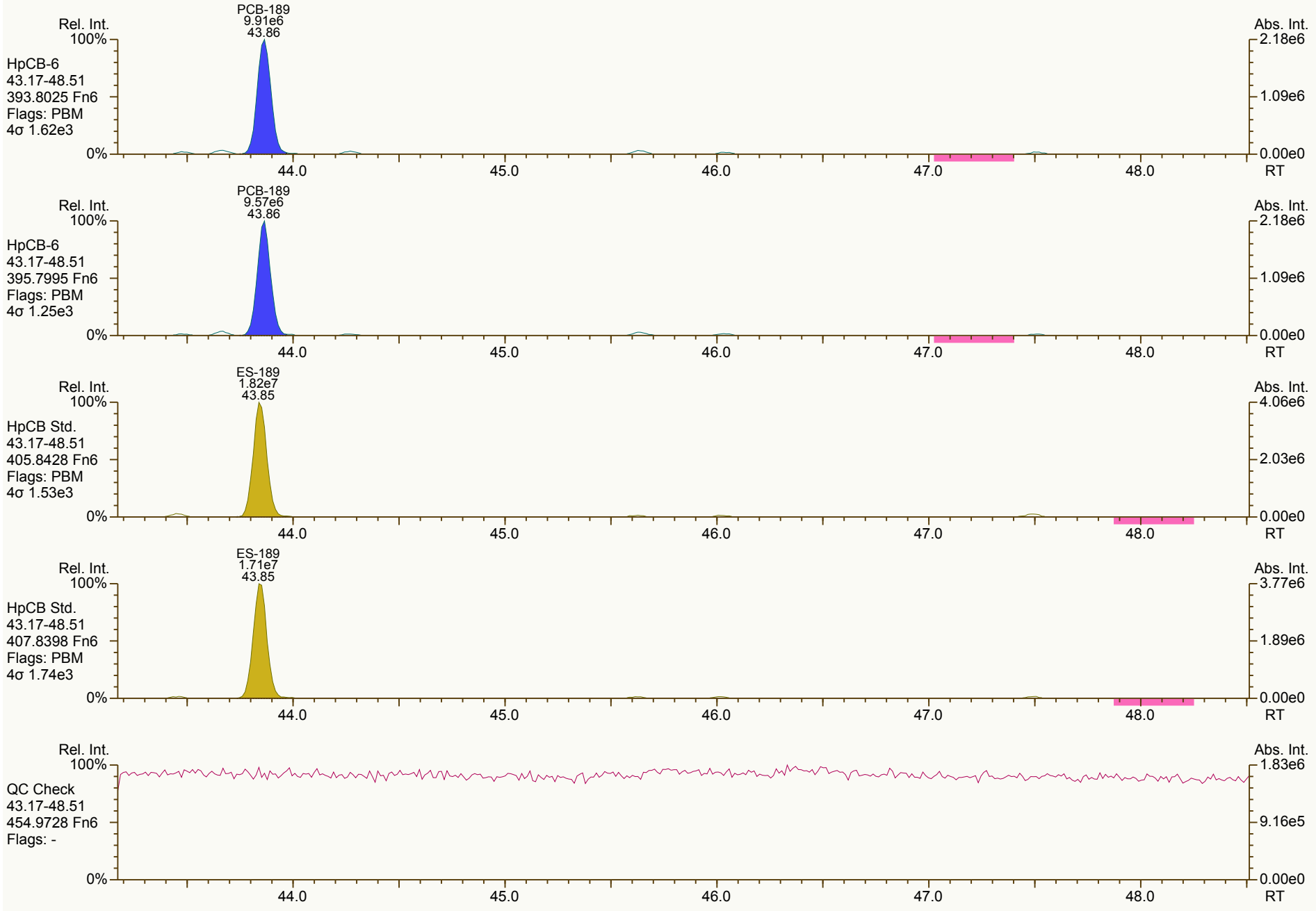
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5866, 3680 scc: 331-871 *PKD: 04-Feb-2013 11:48 Printed: 04-Feb-2013 12:49 Page 16 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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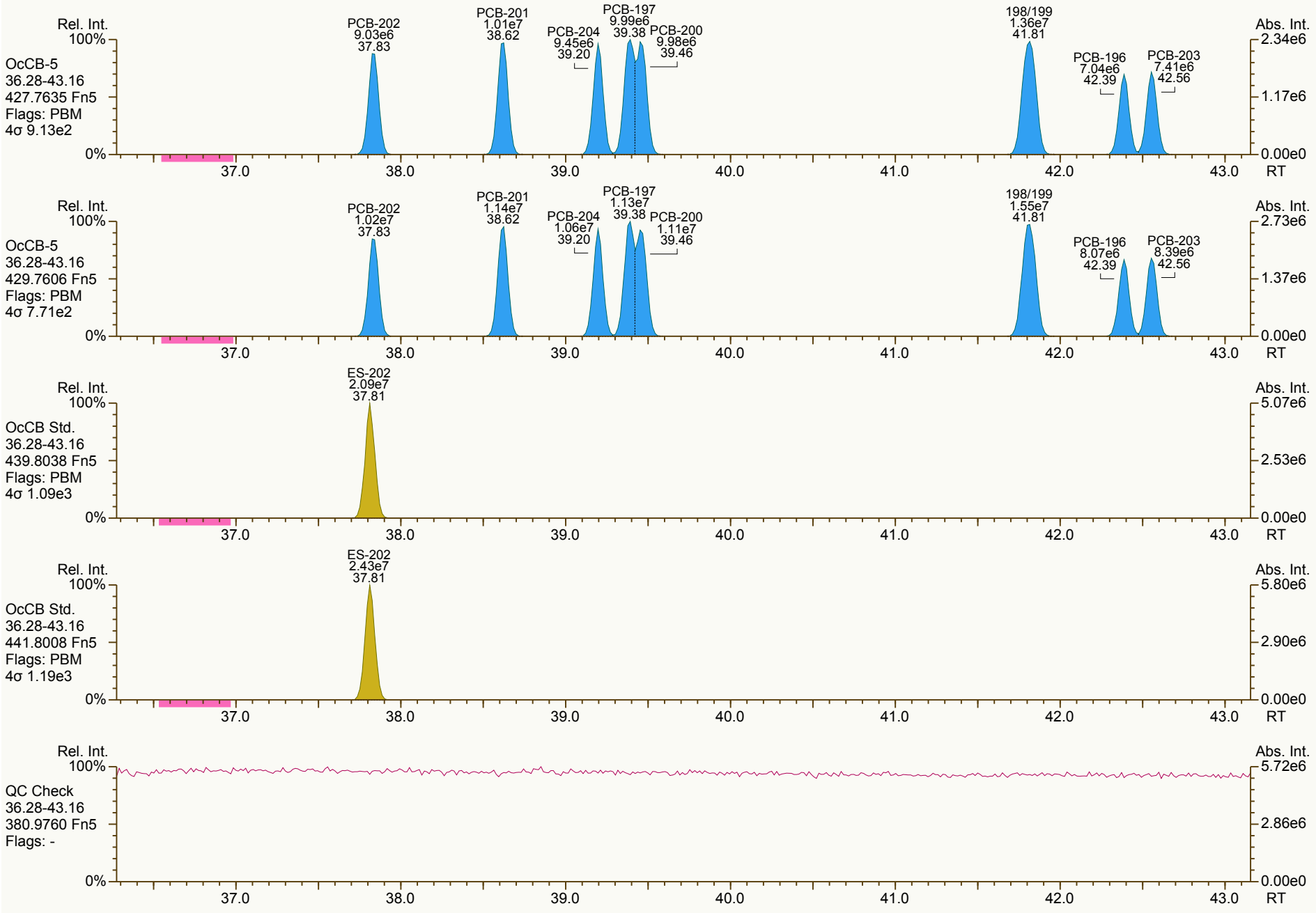
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0868, 0907 scc: 331-871 *Revised: 04-Feb-2013 11:51 (LKB) Printed: 04-Feb-2013 12:49 Page 17 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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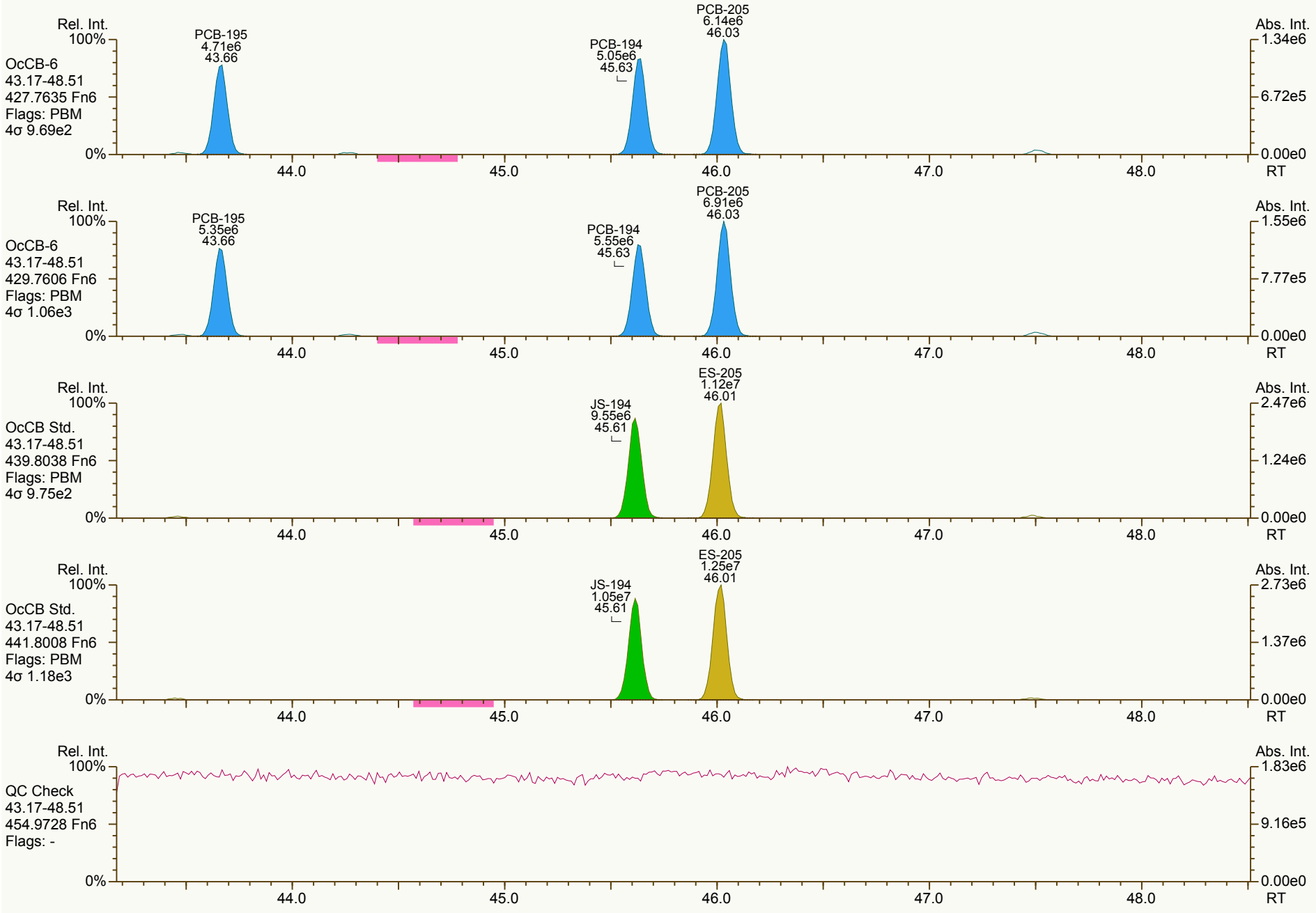
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6688, 6895 scc: 331-871 *Revised: 04-Feb-2013 11:51 (LKB) Printed: 04-Feb-2013 12:49 Page 18 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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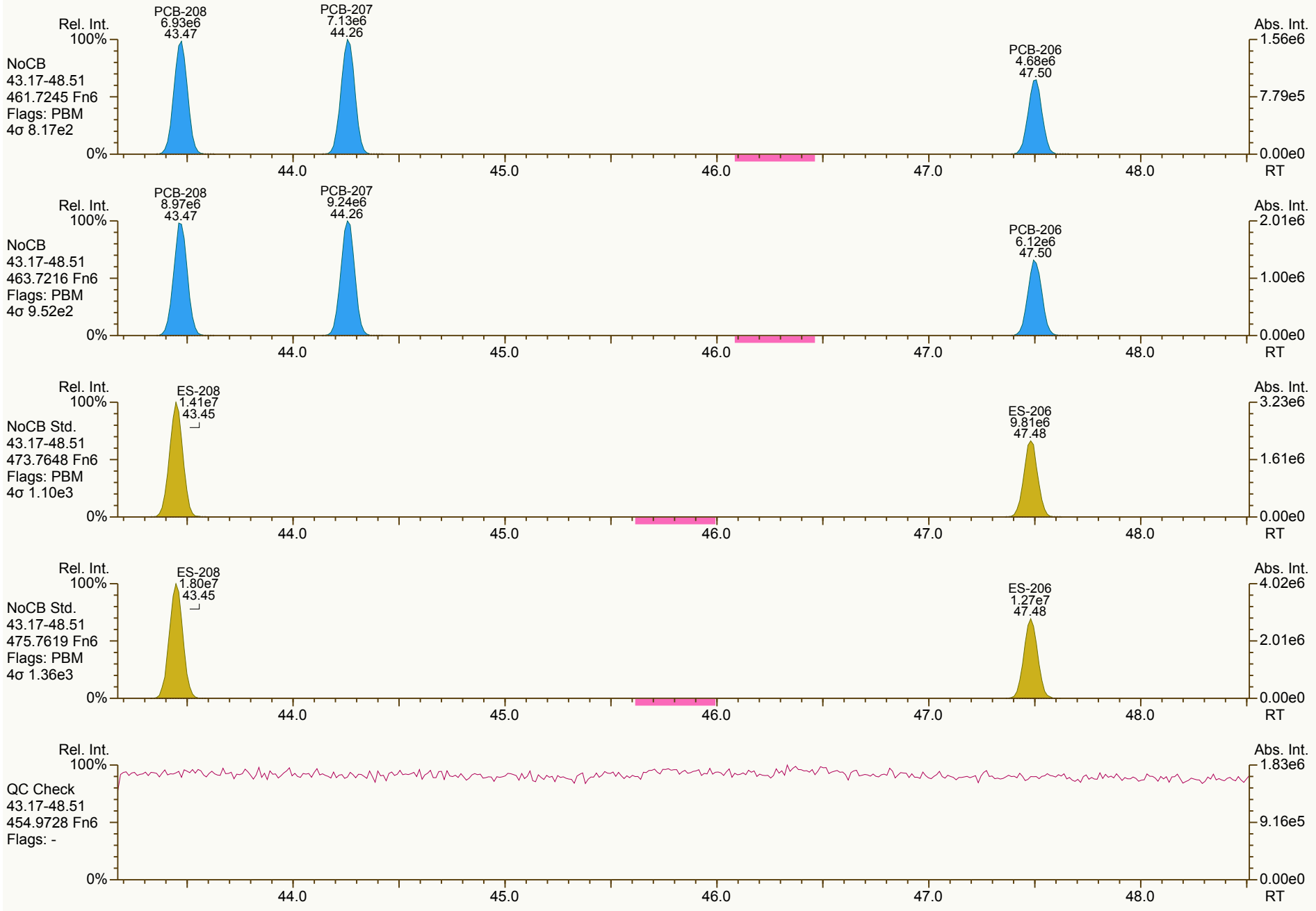
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4319, 1045 scc: 331-871 *PKD: 04-Feb-2013 11:48 Printed: 04-Feb-2013 12:49 Page 19 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9075, 9112 scc: 331-871 *PKD: 04-Feb-2013 11:48 Printed: 04-Feb-2013 12:49 Page 20 of 21*

SGS-AP ID: CS3_130202_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 02-Feb-2013 16:07:32**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130202V01**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\CS3_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3598, 5719 scc: 331-871 *Revised: 04-Feb-2013 11:51 (LKB) Printed: 04-Feb-2013 12:49 Page 21 of 21*

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 981-012 *PKD: n/a Printed: 04-Feb-2013 12:49 Page 1 of 21*

Injection OK, minimal solution left in vial so analyte recovery was low/zero. 4-Feb-2013 LKB

SGS-AP ID: SBS_130202_PCB_VA | **Sample ID: SIL 9-41-1** | **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** | **User: CEM Datafile: 130202V03**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9855, 4726 scc: 981-012
Revised: 04-Feb-2013 11:57 (LKB) Printed: 04-Feb-2013 12:49 Page 2 of 21

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**

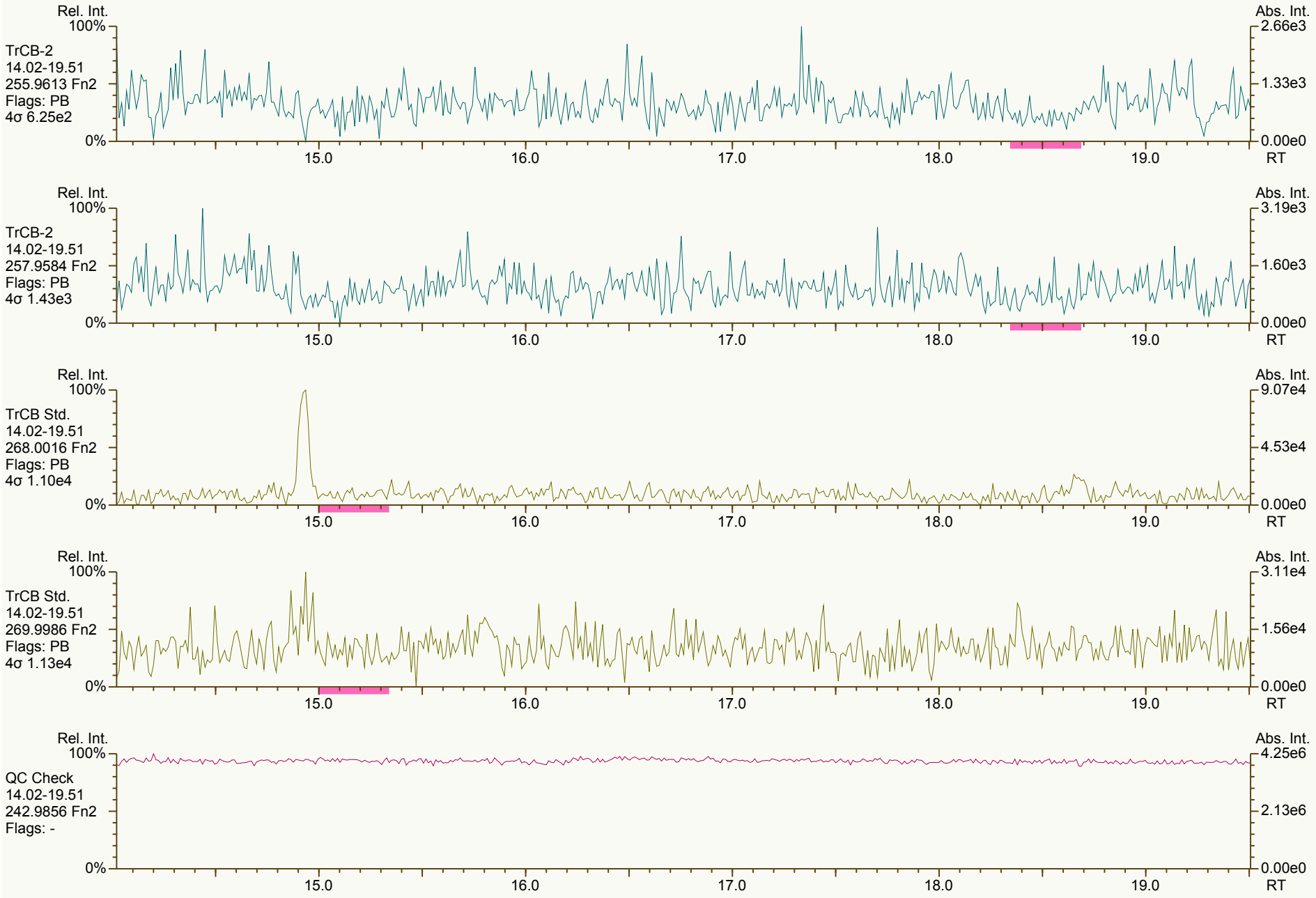


Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1949, 5284 scc: 981-012 *Revised: 04-Feb-2013 11:57 (LKB) Printed: 04-Feb-2013 12:49 Page 3 of 21*

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2040, 4637 scc: 981-012 *PKD: 04-Feb-2013 12:00 Printed: 04-Feb-2013 12:49 Page 5 of 21*

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0657, 9983 scc: 981-012 *Revised: 04-Feb-2013 11:58 (LKB) Printed: 04-Feb-2013 12:49 Page 6 of 21*

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1698, 2338 scc: 981-012 *Revised: 04-Feb-2013 11:57 (LKB) Printed: 04-Feb-2013 12:49 Page 8 of 21*

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7393, 7198 scc: 981-012 *Revised: 04-Feb-2013 11:58 (LKB) Printed: 04-Feb-2013 12:49 Page 9 of 21*

SGS-AP ID: SBS_130202_PCB_VA | Sample ID: SIL 9-41-1 | Acq: 02-Feb-2013 17:55:36
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2 | User: CEM Datafile: 130202V03



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7306, 8581 scc: 981-012 *Revised: 04-Feb-2013 11:58 (LKB) Printed: 04-Feb-2013 12:49 Page 10 of 21*

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3662, 8985 scc: 981-012 *Revised: 04-Feb-2013 11:59 (LKB) Printed: 04-Feb-2013 12:49 Page 11 of 21*

SGS-AP ID: SBS_130202_PCB_VA | Sample ID: SIL 9-41-1 | Acq: 02-Feb-2013 17:55:36
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2 | User: CEM Datafile: 130202V03



SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



SGS-AP ID: SBS_130202_PCB_VA
Instr: AutoSpec-Premier MM6

Sample ID: SIL 9-41-1
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2

Acq: 02-Feb-2013 17:55:36
User: CEM Datafile: 130202V03



SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**

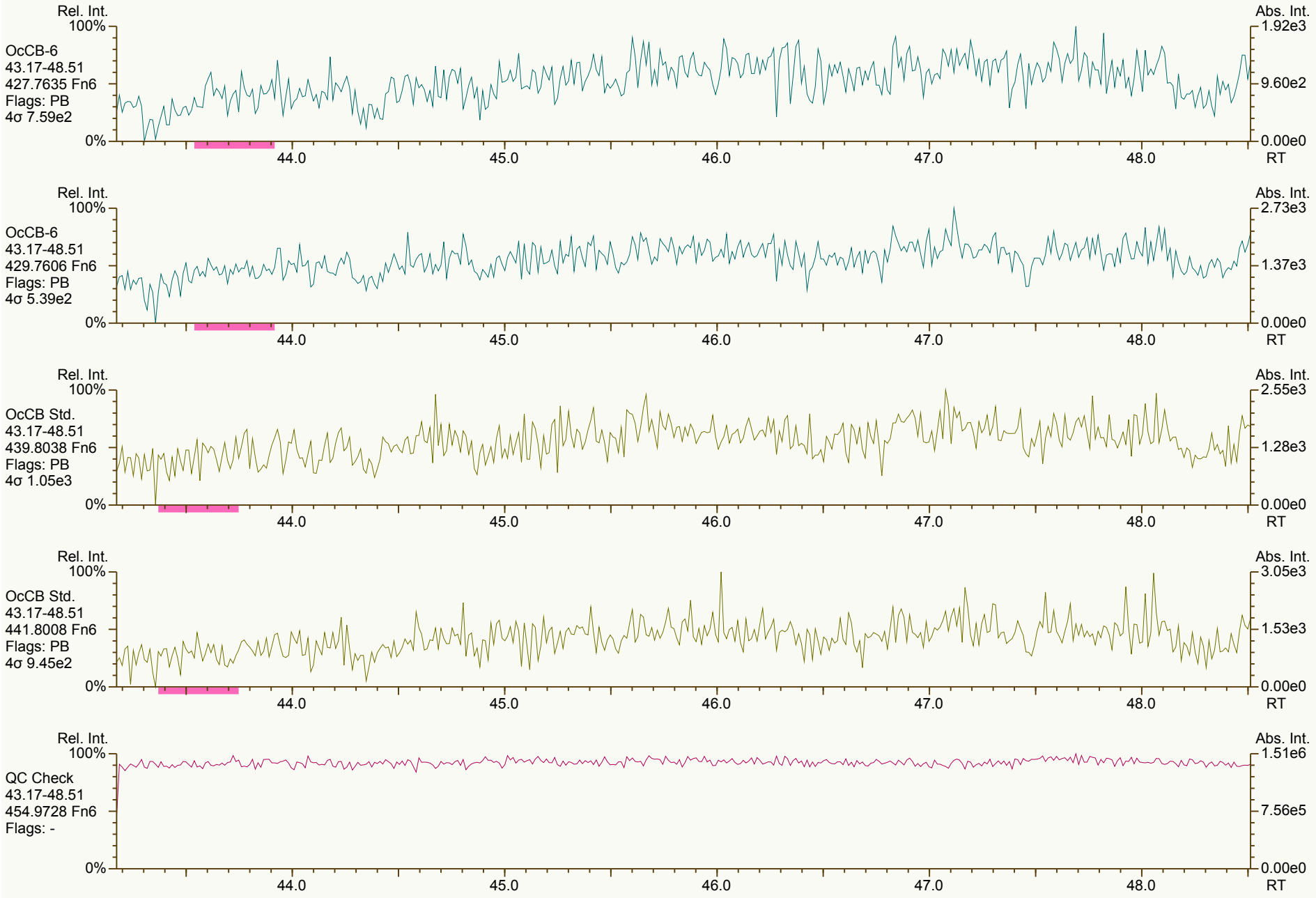


Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8265, 2268 scc: 981-012 *Revised: 04-Feb-2013 11:57 (LKB) Printed: 04-Feb-2013 12:50 Page 17 of 21*

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**

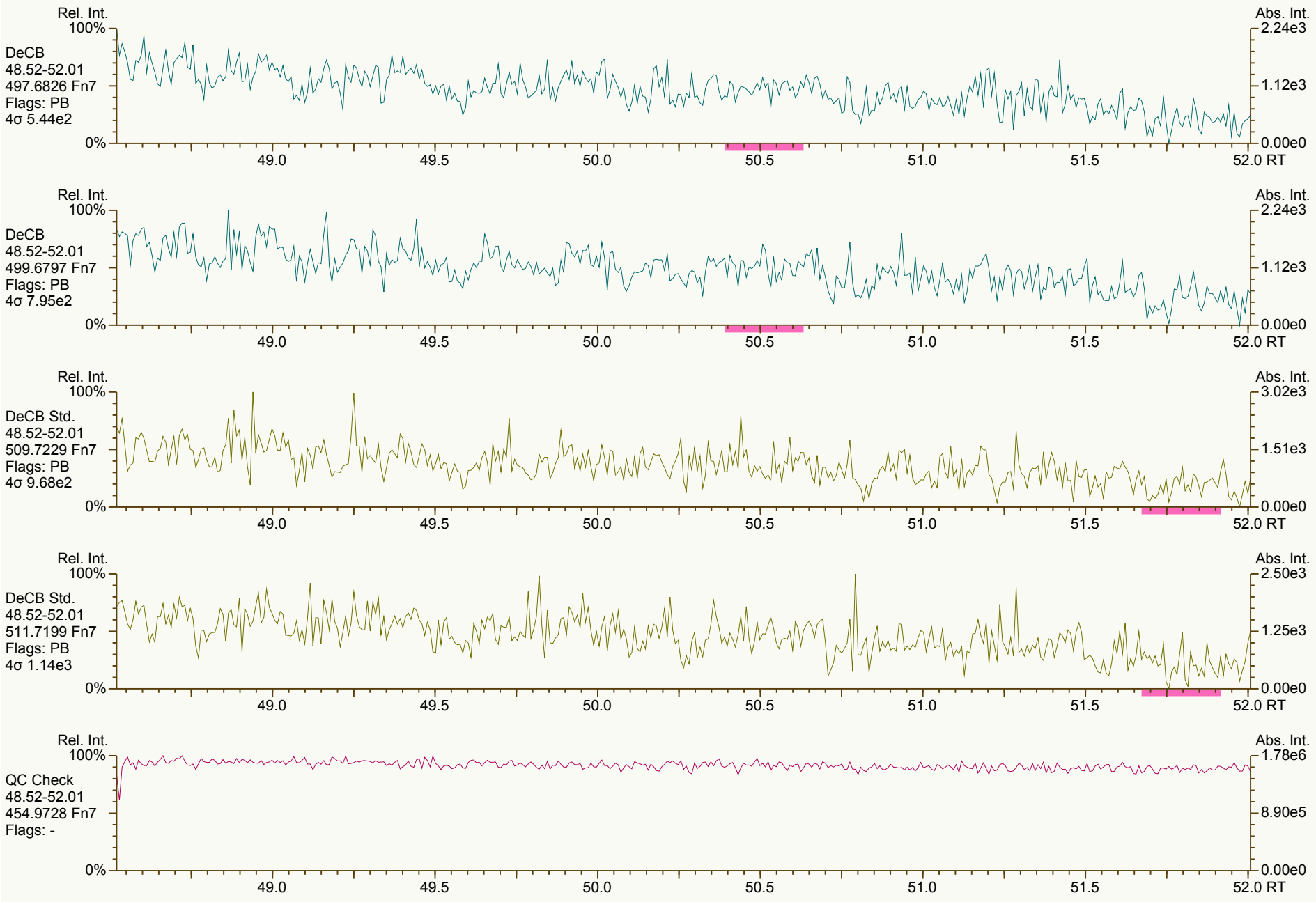


SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\SBS_130202_PCB_VA.utp_res, saved 04-Feb-2013 12:12 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5684, 6708 scc: 981-012 *Revised: 04-Feb-2013 11:57 (LKB) Printed: 04-Feb-2013 12:50 Page 20 of 21*

SGS-AP ID: SBS_130202_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 02-Feb-2013 17:55:36**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130202V03**



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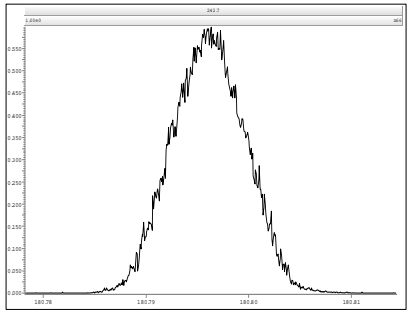
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7078, 8904 scc: 981-012 *Revised: 04-Feb-2013 11:57 (LKB) Printed: 04-Feb-2013 12:50 Page 21 of 21*

Experiment Calibration Report MassLynx 4.1 Page 1 of 1

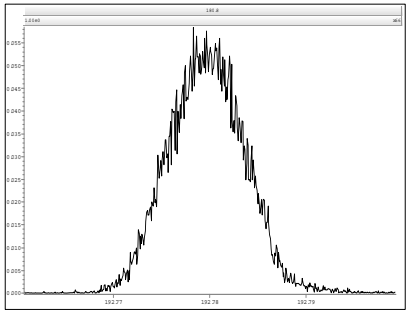
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 1 @ 200 (ppm)

Printed: Saturday, February 02, 2013 16:04:23 Eastern Standard Time

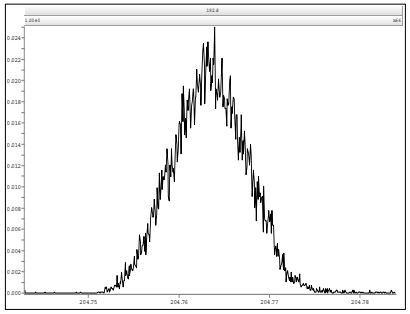
M 180.9888 R 11419



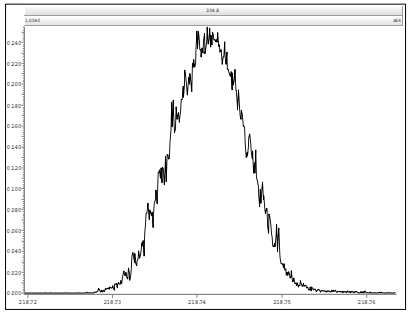
M 192.9888 R 11903



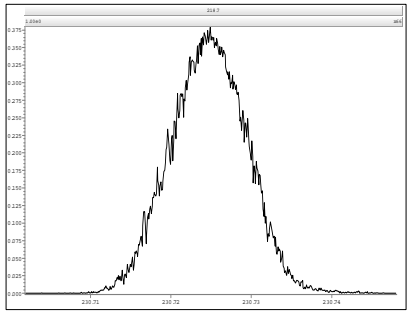
M 204.9888 R 10916



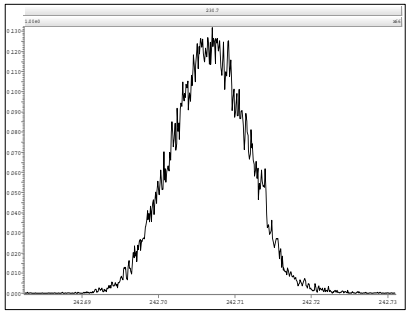
M 218.9856 R 10866



M 230.9856 R 10965



M 242.9856 R 10460

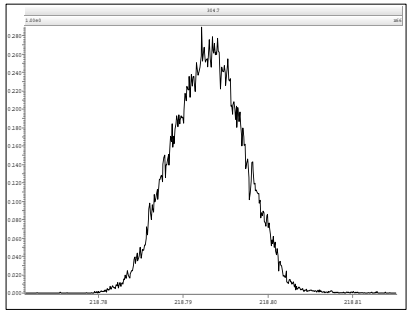


Experiment Calibration Report MassLynx 4.1 Page 1 of 1

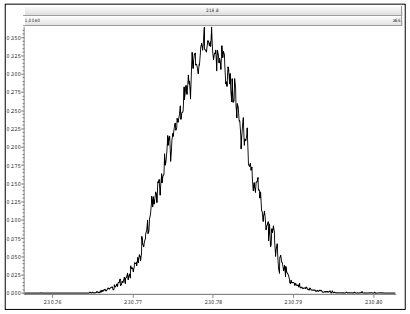
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 2 @ 200 (ppm)

Printed: Saturday, February 02, 2013 16:04:43 Eastern Standard Time

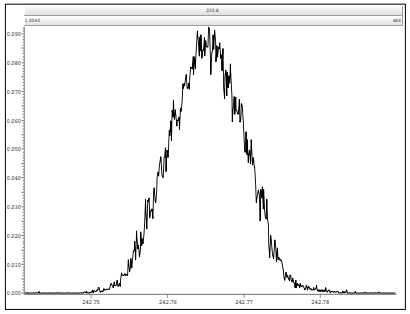
M 218.9856 R 11362



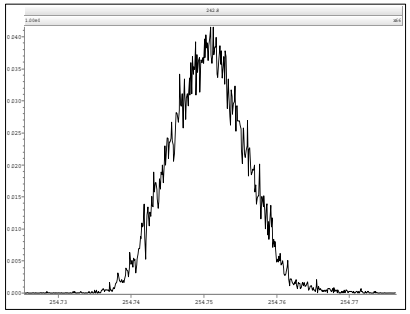
M 230.9856 R 11311



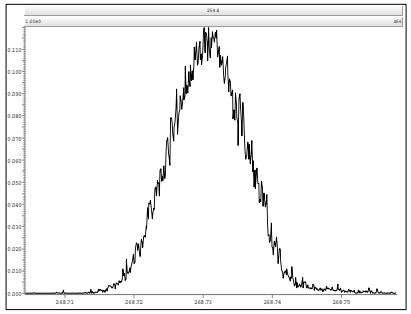
M 242.9856 R 10822



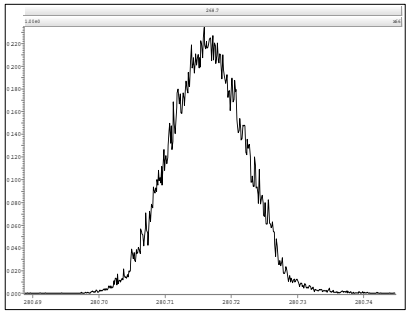
M 254.9856 R 11261



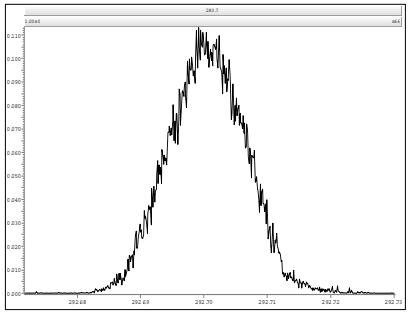
M 268.9824 R 10684



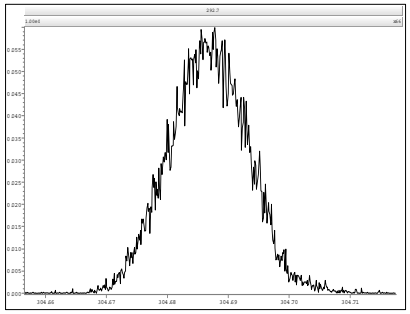
M 280.9824 R 11115



M 292.9824 R 10777



M 304.9824 R 11060

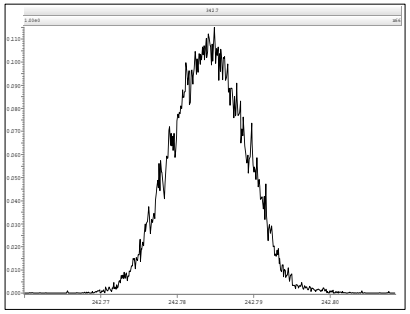


Experiment Calibration Report MassLynx 4.1 Page 1 of 1

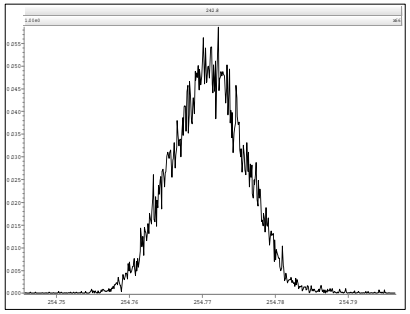
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 3 @ 200 (ppm)

Printed: Saturday, February 02, 2013 16:05:06 Eastern Standard Time

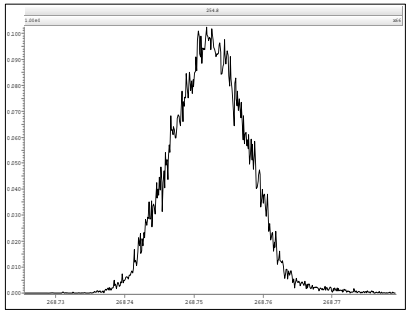
M 242.9856 R 11468



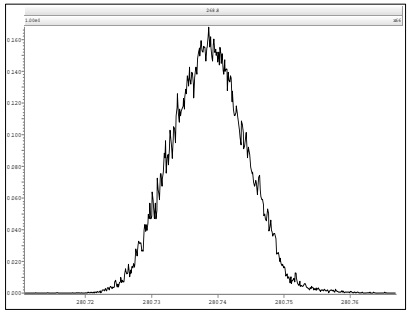
M 254.9856 R 11262



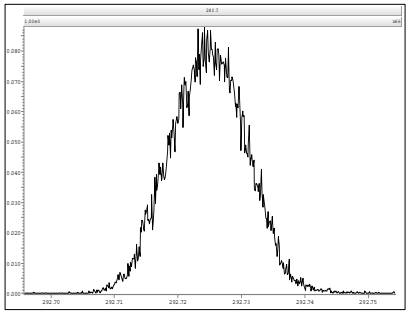
M 268.9824 R 11057



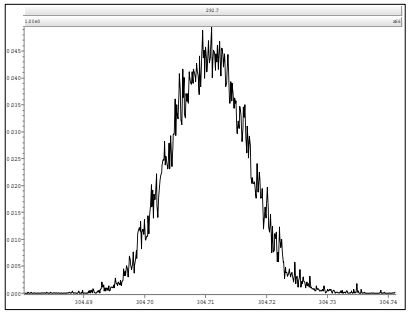
M 280.9824 R 11209



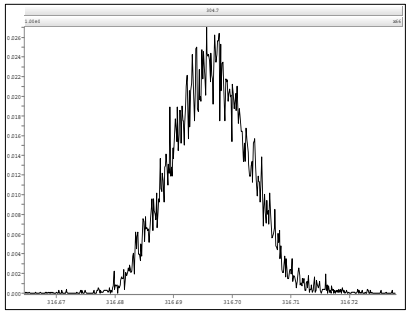
M 292.9824 R 10595



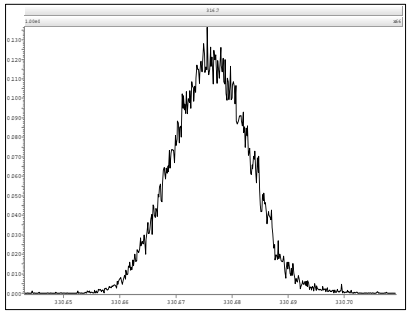
M 304.9824 R 10683



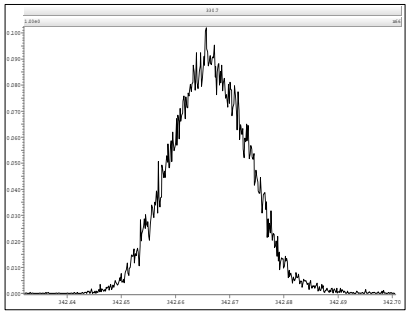
M 316.9824 R 10819



M 330.9792 R 10776



M 342.9792 R 11060



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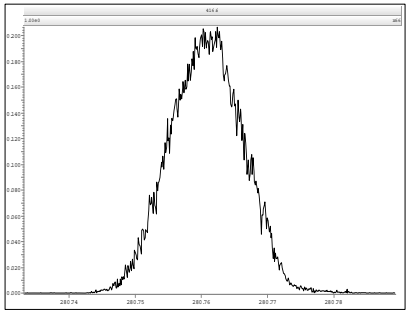
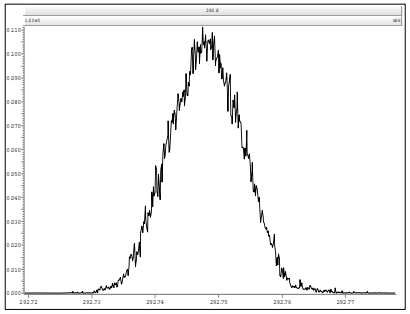
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 4 @ 200 (ppm)

Printed: Saturday, February 02, 2013 16:05:30 Eastern Standard Time

M 280.9824 R 11210



M 292.9824 R 11108



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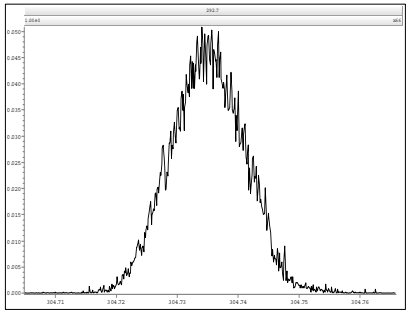
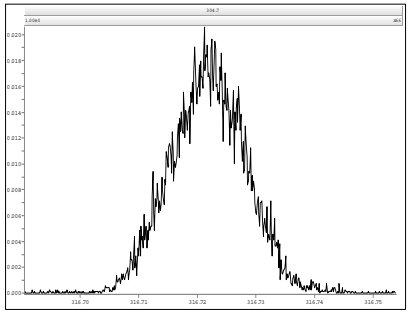
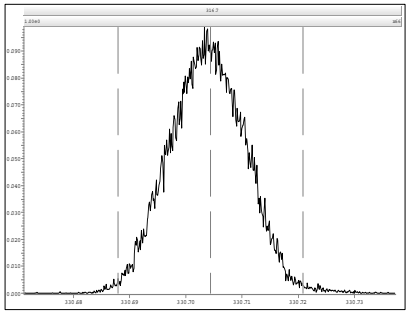


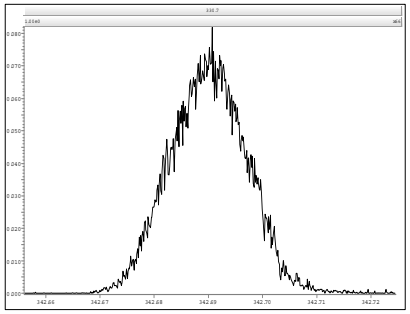
M 316.9824 R 10820



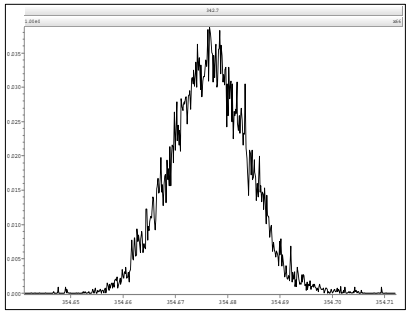
M 330.9792 R 11262



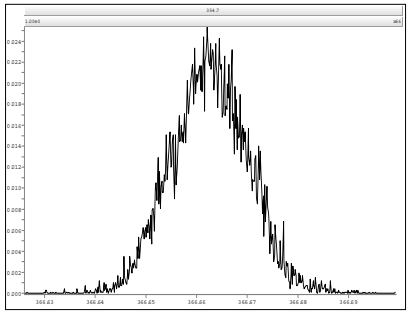
M 342.9792 R 10921



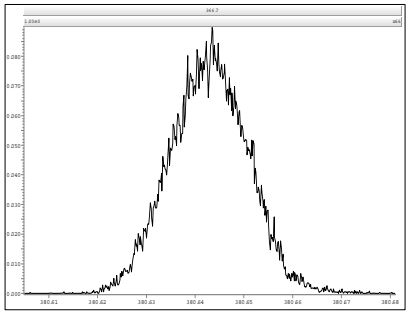
M 354.9792 R 11417



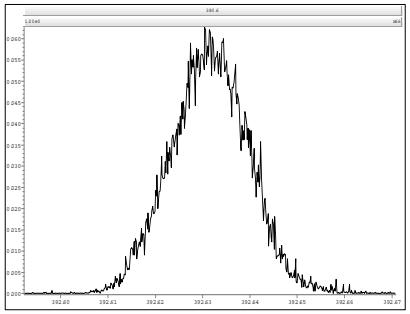
M 366.9792 R 11415



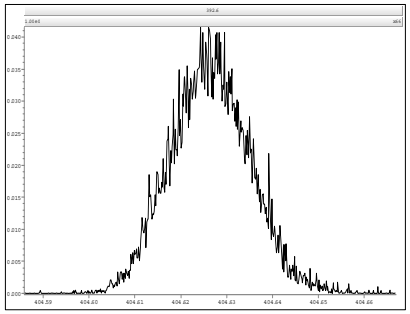
M 380.9760 R 10328



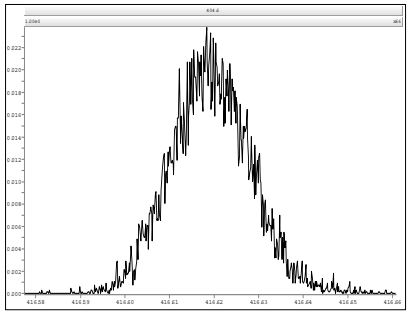
M 392.9760 R 10684



M 404.9760 R 10728



M 416.9760 R 11625



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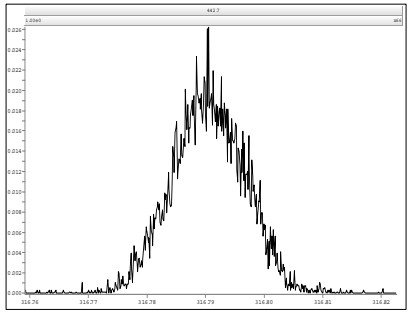
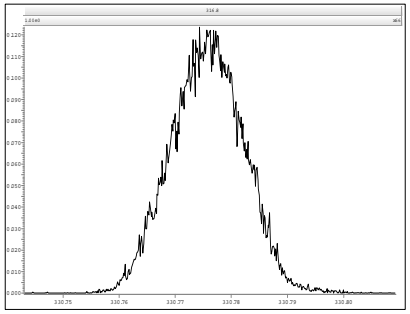
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 5 @ 200 (ppm)

Printed: Saturday, February 02, 2013 16:05:59 Eastern Standard Time

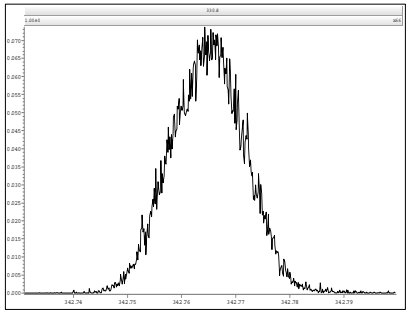
M 316.9824 R 12195



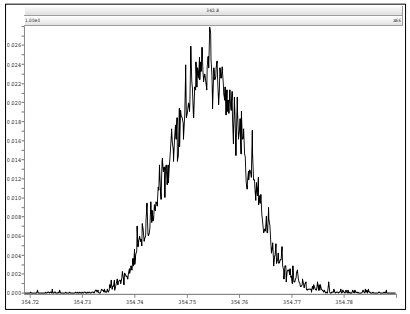
M 330.9792 R 11214



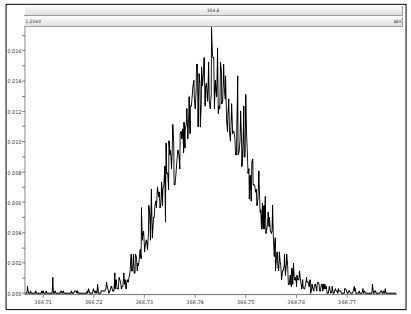
M 342.9792 R 11162



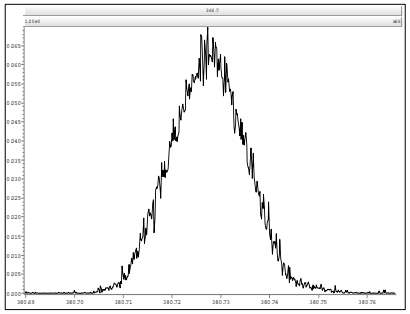
M 354.9792 R 11066



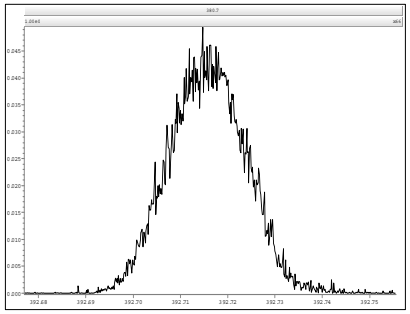
M 366.9792 R 11417



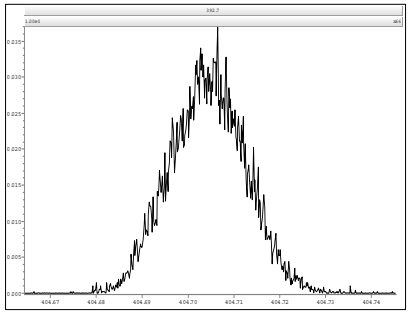
M 380.9760 R 11111



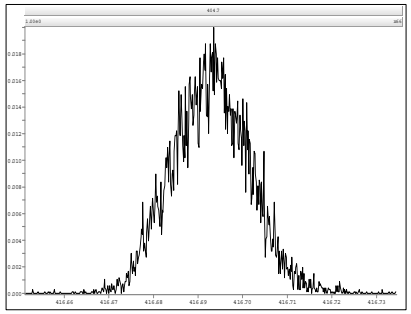
M 392.9760 R 10821



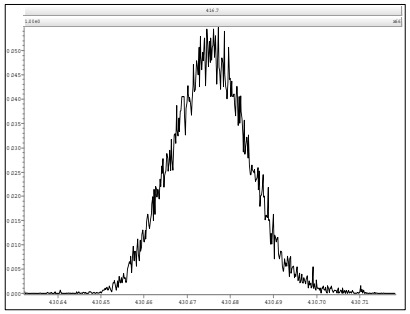
M 404.9760 R 10914



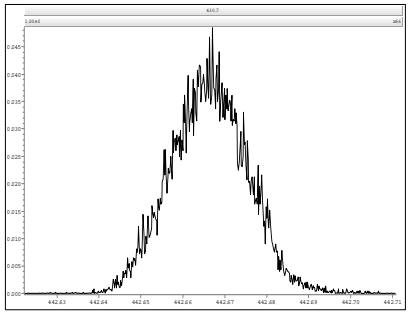
M 416.9760 R 11367



M 430.9728 R 10731



M 442.9728 R 10504



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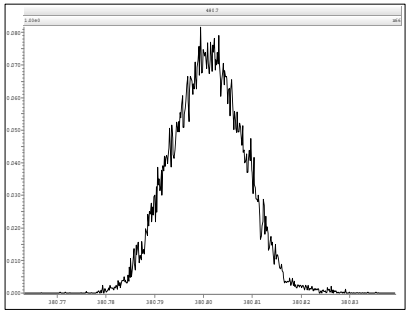
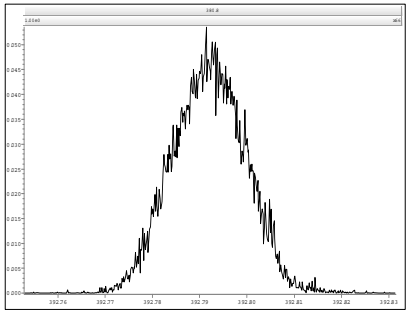
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 6 @ 200 (ppm)

Printed: Saturday, February 02, 2013 16:06:24 Eastern Standard Time

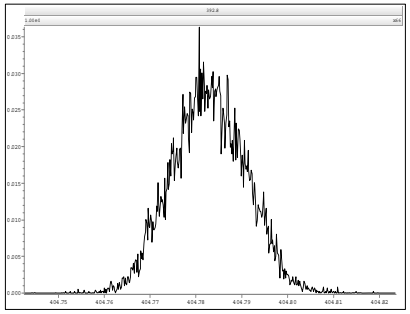
M 380.9760 R 11846



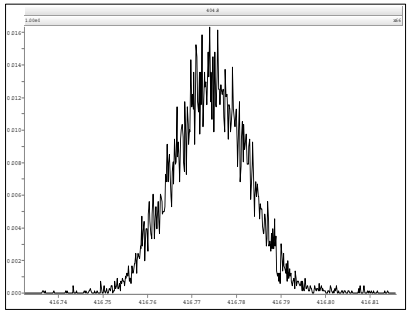
M 392.9760 R 11062



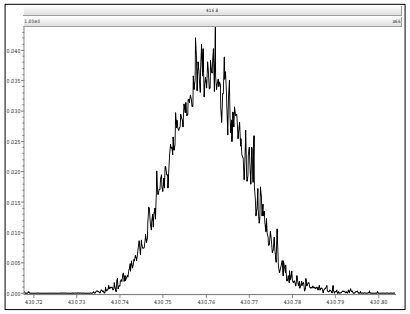
M 404.9760 R 10774



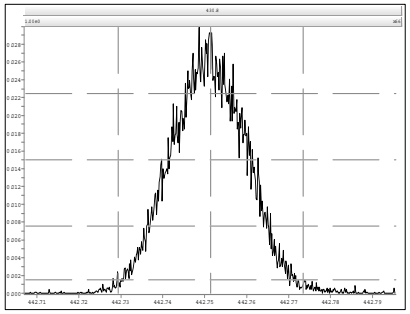
M 416.9760 R 12623



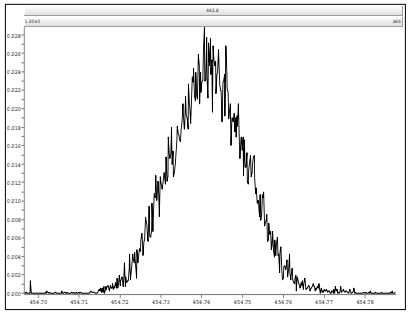
M 430.9728 R 11013



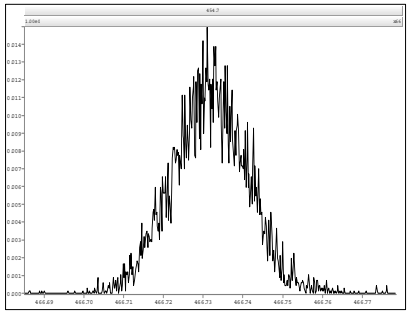
M 442.9728 R 11064



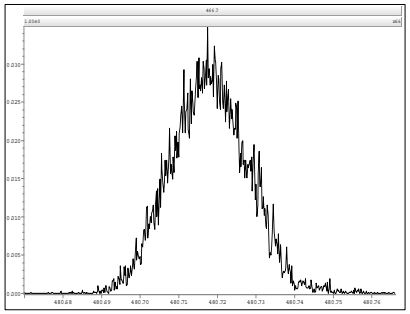
M 454.9728 R 10870



M 466.9728 R 12314



M 480.9696 R 11259



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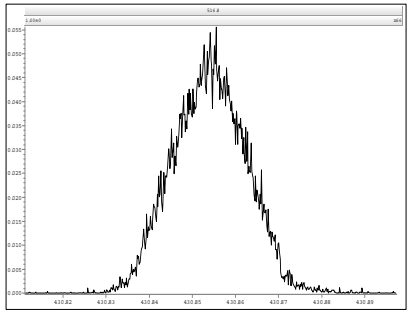
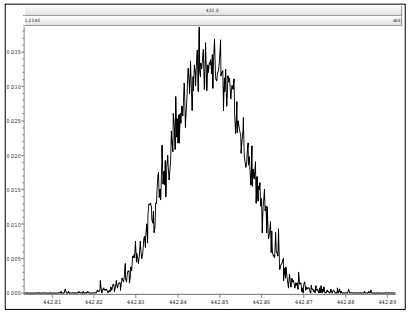
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 7 @ 200 (ppm)

Printed: Saturday, February 02, 2013 16:06:50 Eastern Standard Time

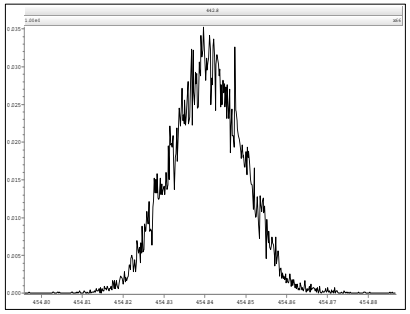
M 430.9728 R 11630



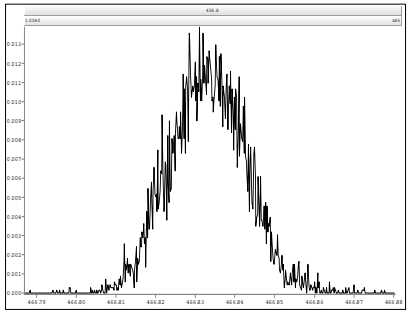
M 442.9728 R 11738



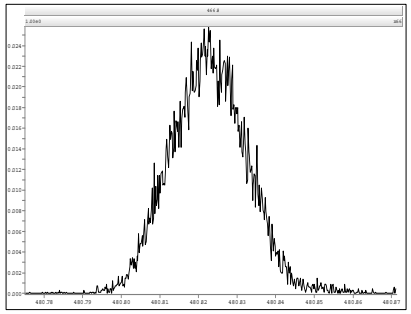
M 454.9728 R 11414



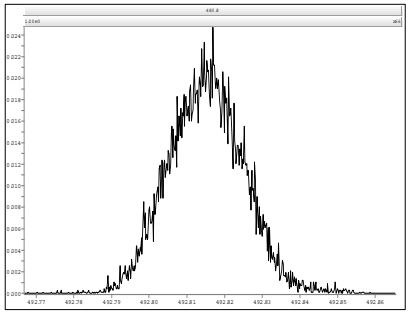
M 466.9728 R 12378



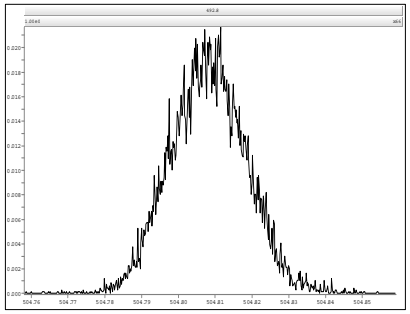
M 480.9696 R 11415



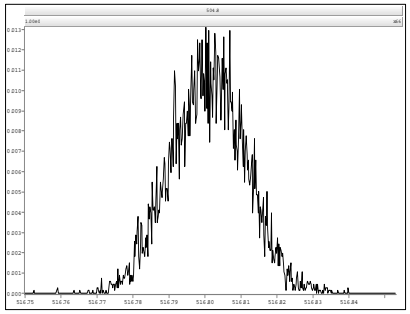
M 492.9696 R 10963



M 504.9696 R 11062

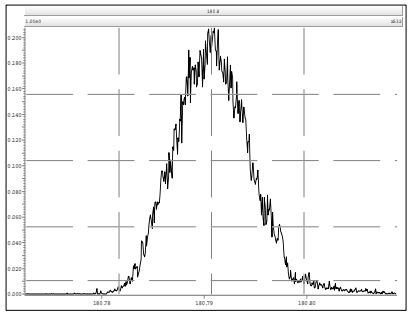


M 516.9697 R 11163

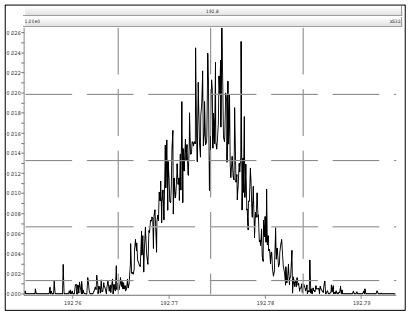


Printed: Saturday, February 02, 2013 20:53:41 Eastern Standard Time

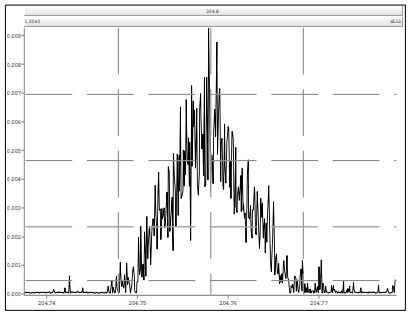
M 180.9888 R 11069



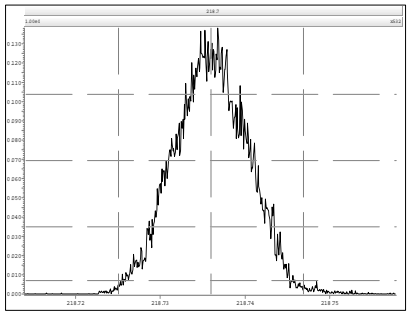
M 192.9888 R 11712



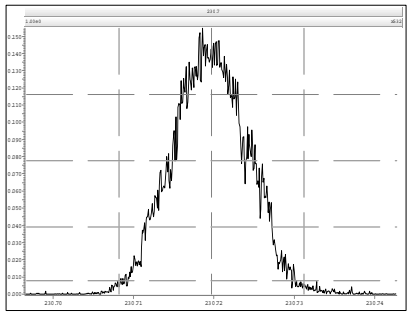
M 204.9888 R 12607



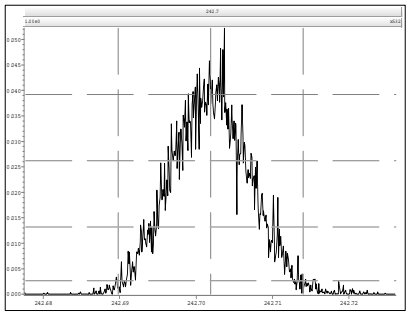
M 218.9856 R 11261



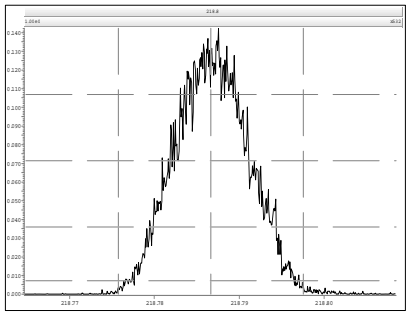
M 230.9856 R 10952



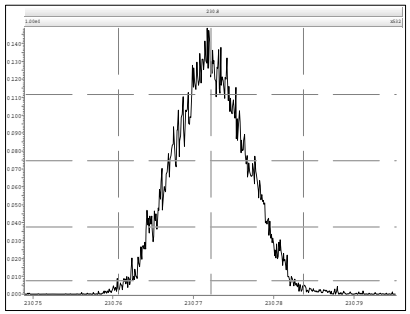
M 242.9856 R 11212



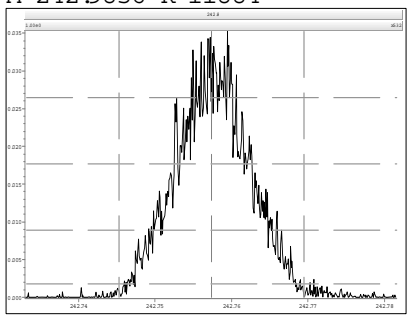
M 218.9856 R 11369



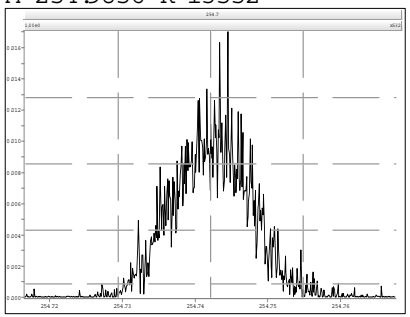
M 230.9856 R 11393



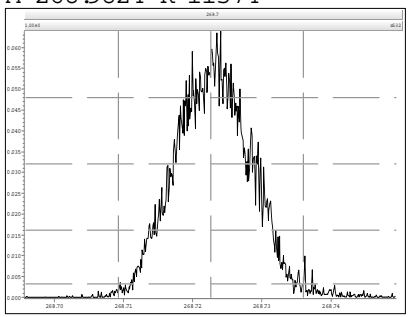
M 242.9856 R 11884



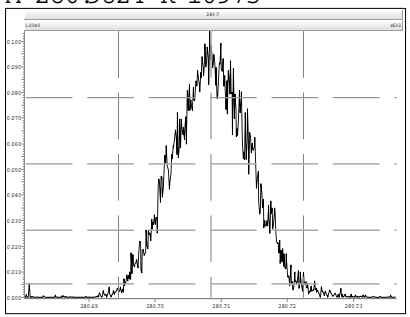
M 254.9856 R 13552



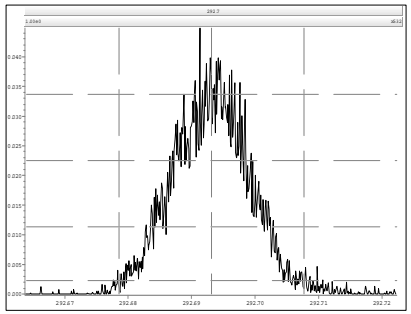
M 268.9824 R 11574



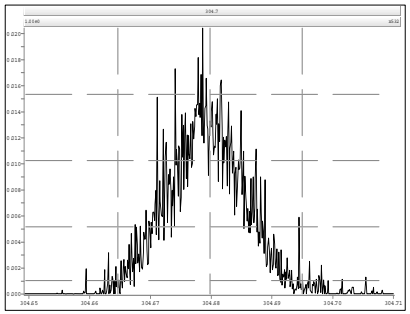
M 280.9824 R 10975



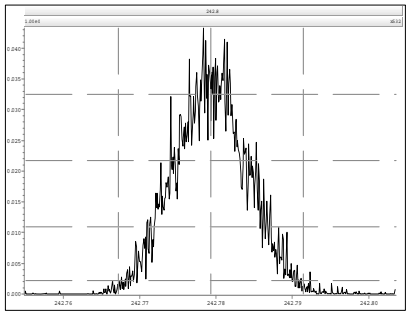
M 292.9824 R 11469



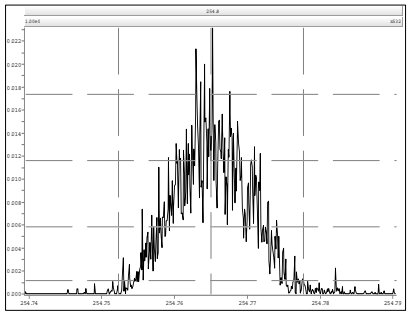
M 304.9824 R 12469



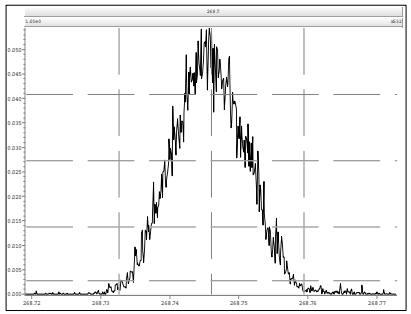
M 242.9856 R 11813



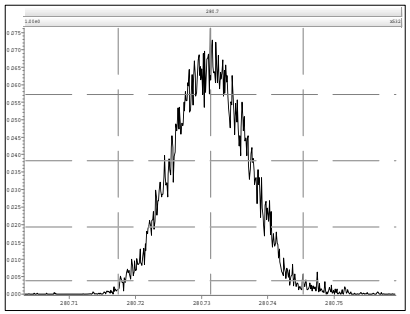
M 254.9856 R 12795



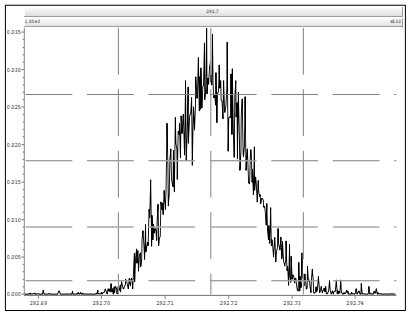
M 268.9824 R 11633



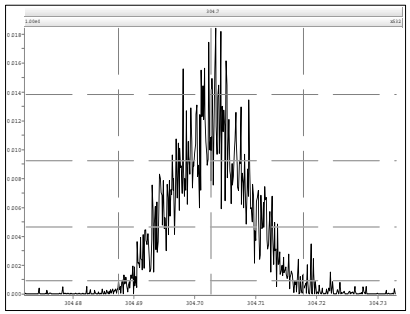
M 280.9824 R 11186



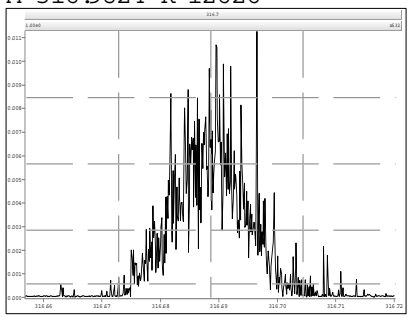
M 292.9824 R 12078



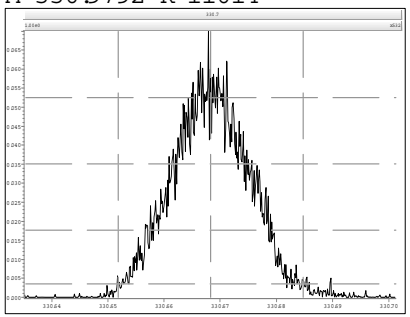
M 304.9824 R 12049



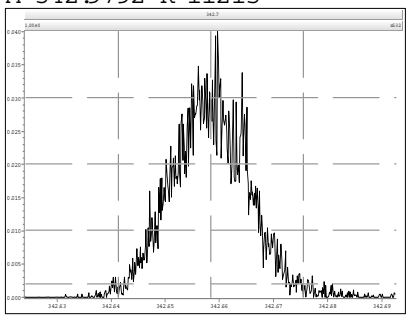
M 316.9824 R 12626



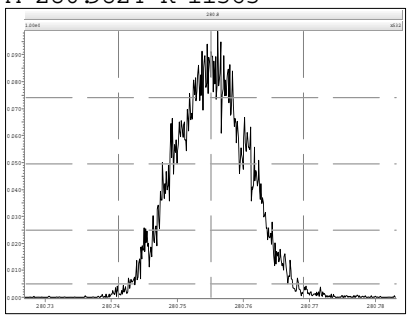
M 330.9792 R 11014



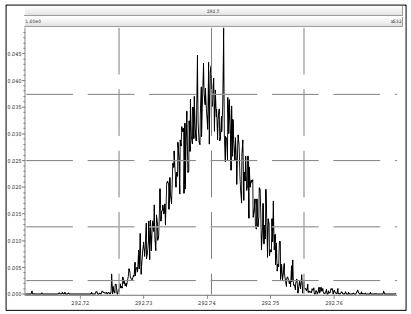
M 342.9792 R 11215



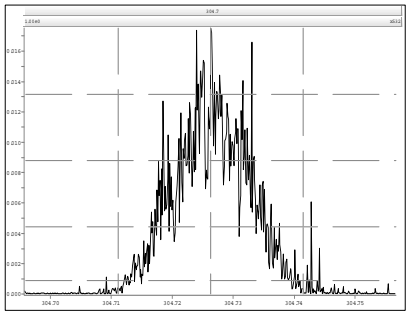
M 280.9824 R 11363



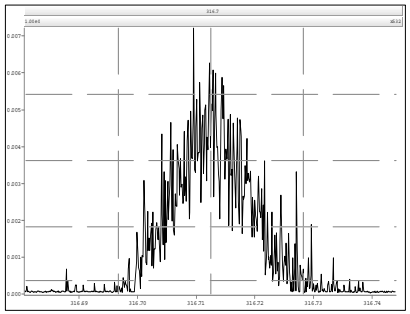
M 292.9824 R 11455



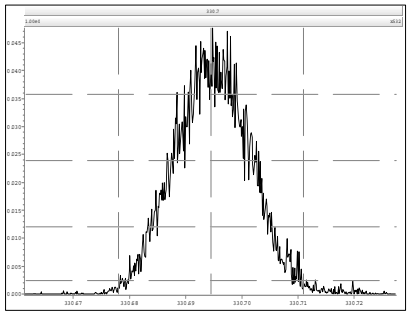
M 304.9824 R 12001



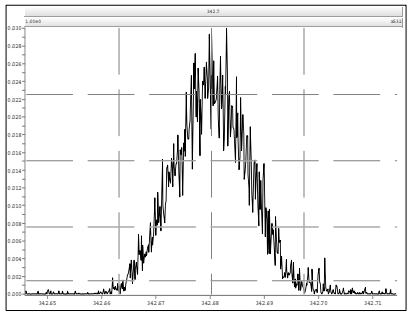
M 316.9824 R 12406



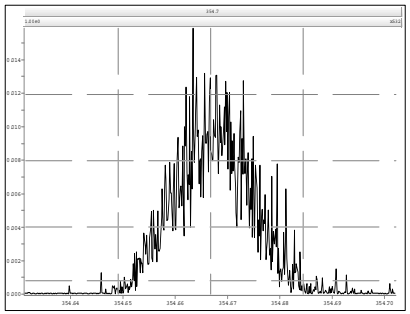
M 330.9792 R 11185



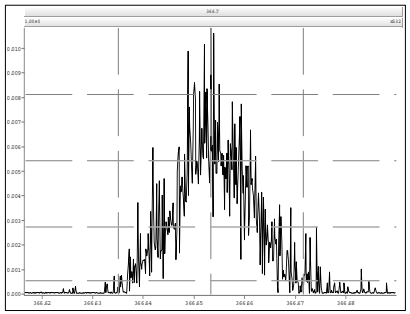
M 342.9792 R 11600



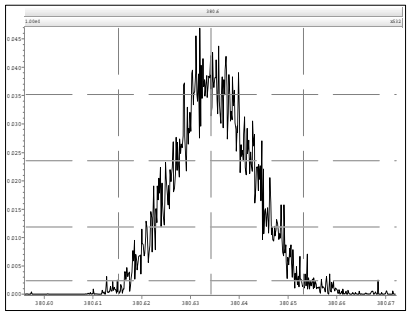
M 354.9792 R 12825



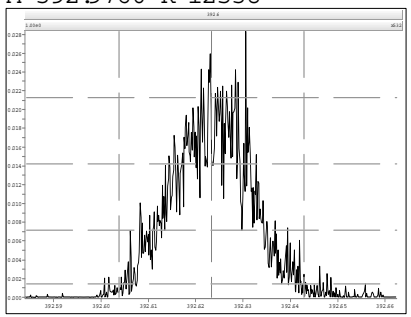
M 366.9792 R 12594



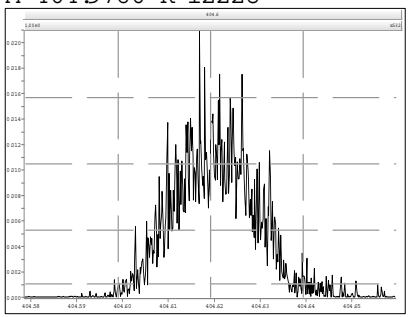
M 380.9760 R 11415



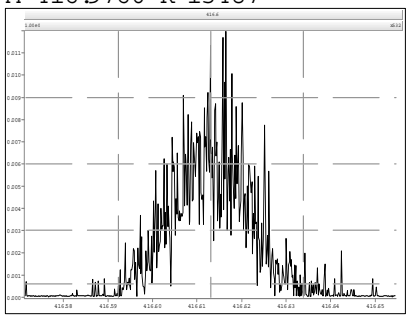
M 392.9760 R 12538



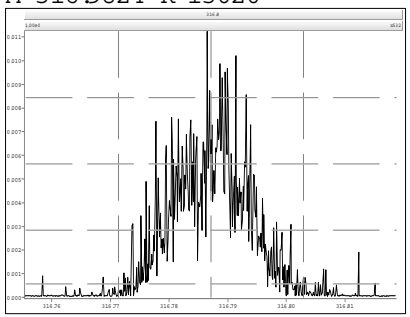
M 404.9760 R 12228



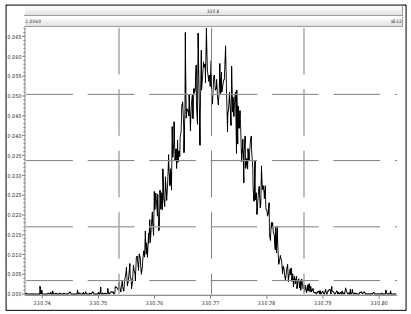
M 416.9760 R 13487



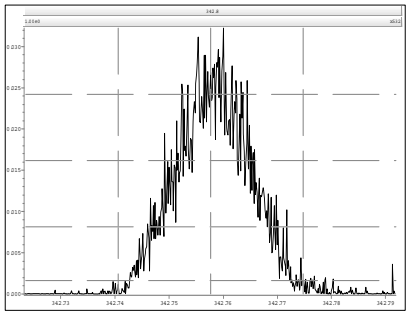
M 316.9824 R 13020



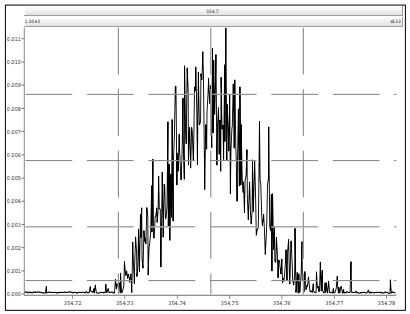
M 330.9792 R 11390



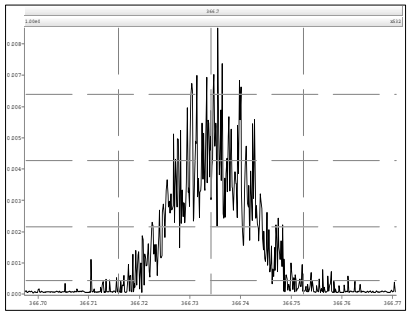
M 342.9792 R 11631



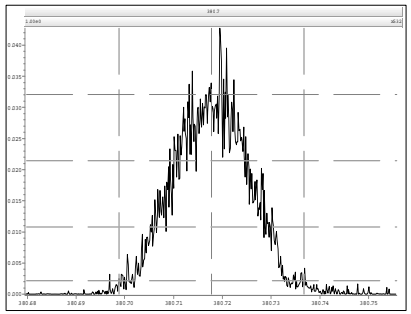
M 354.9792 R 12273



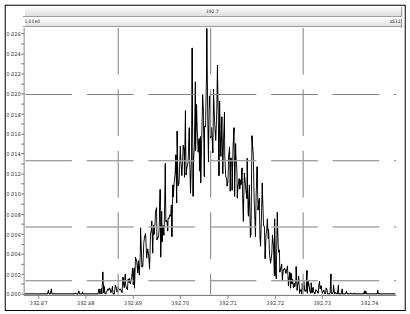
M 366.9792 R 12365



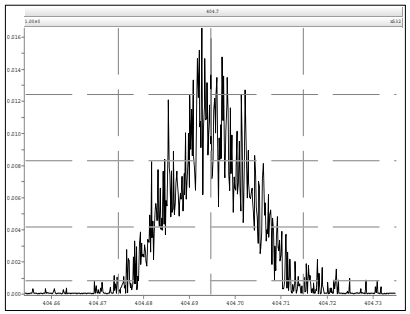
M 380.9760 R 11801



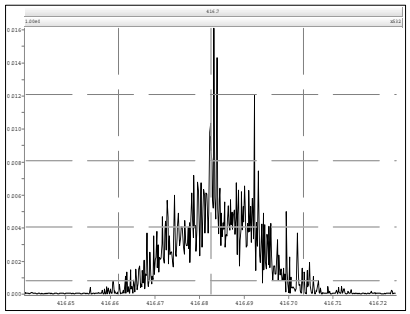
M 392.9760 R 12048



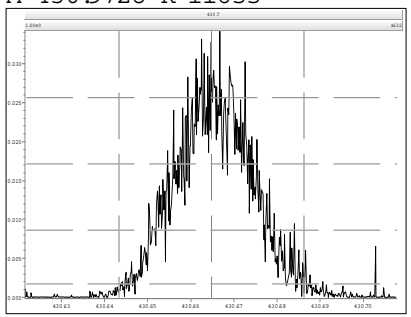
M 404.9760 R 12362



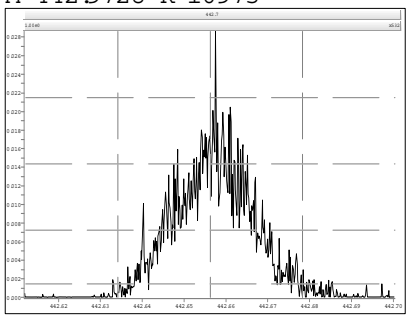
M 416.9760 R 13303



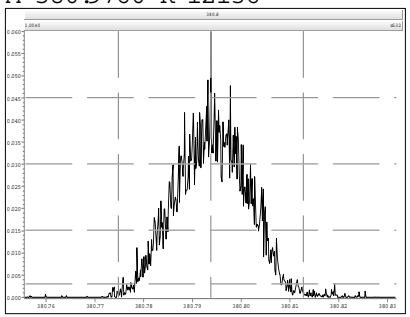
M 430.9728 R 11655



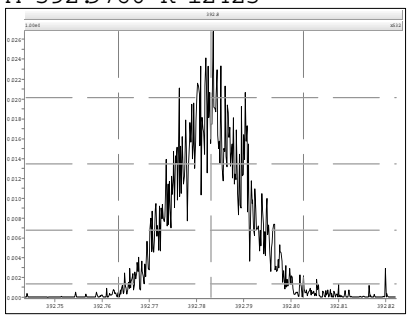
M 442.9728 R 10973



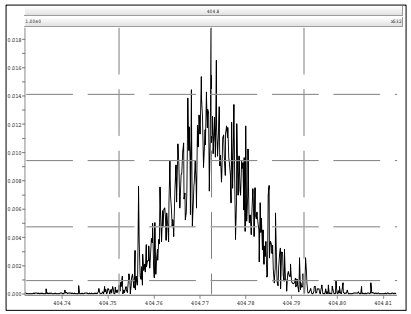
M 380.9760 R 12136



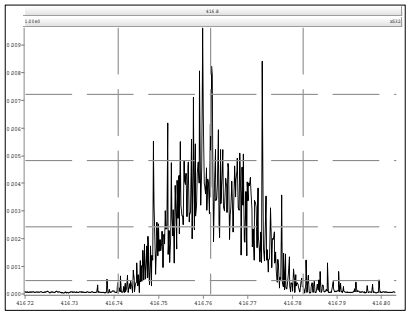
M 392.9760 R 12423



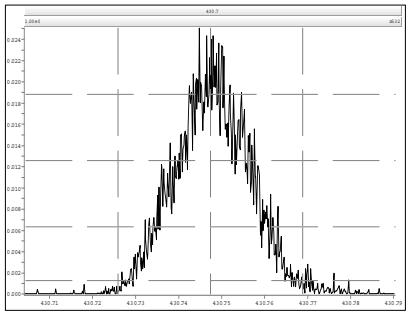
M 404.9760 R 13407



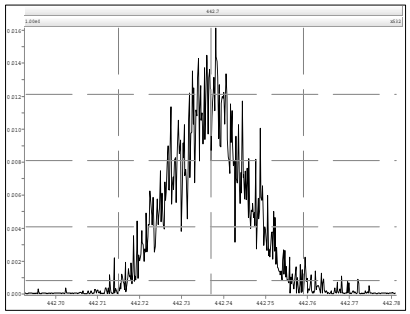
M 416.9760 R 13987



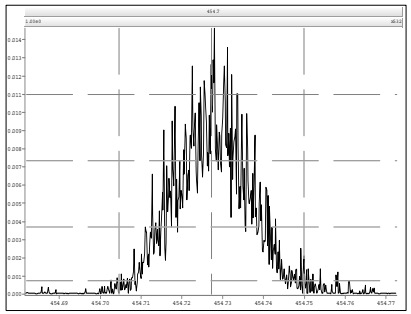
M 430.9728 R 11764



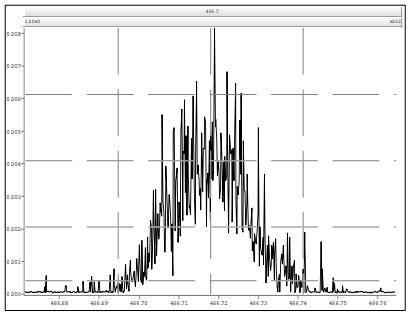
M 442.9728 R 12865



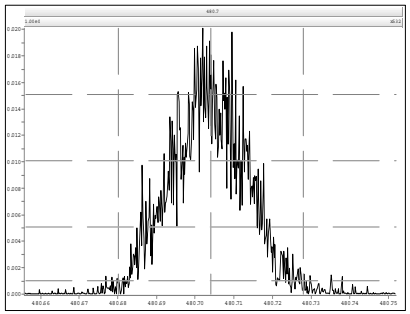
M 454.9728 R 12109



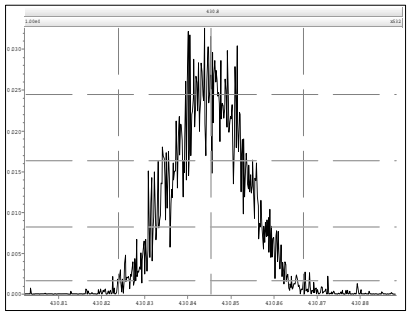
M 466.9728 R 14314



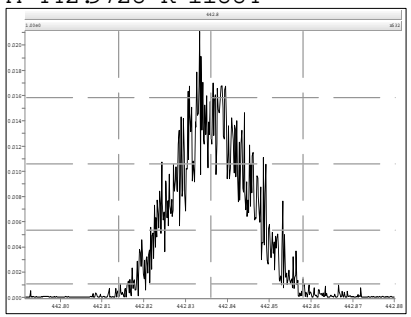
M 480.9696 R 11988



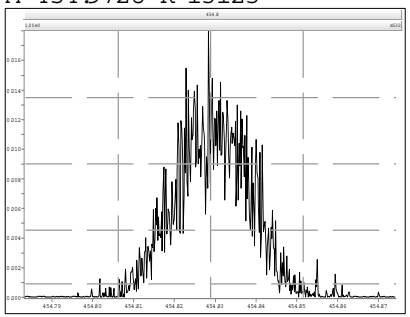
M 430.9728 R 12440



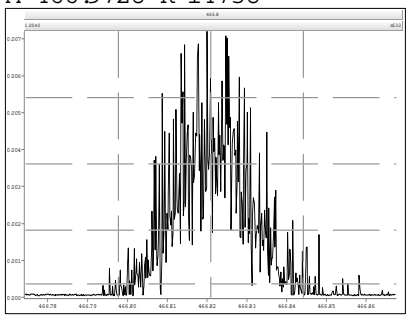
M 442.9728 R 11884



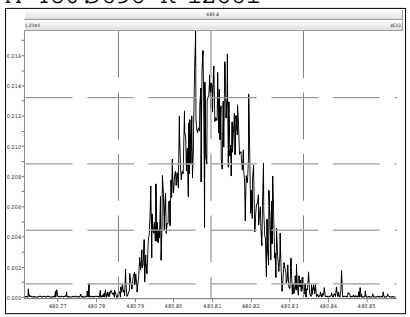
M 454.9728 R 13123



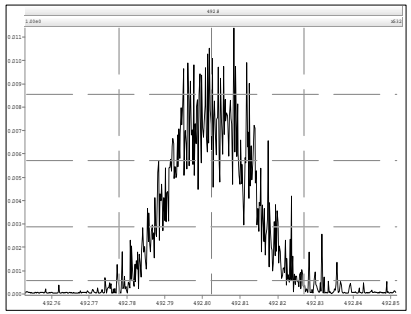
M 466.9728 R 14738



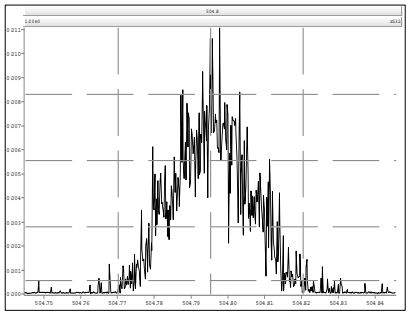
M 480.9696 R 12661



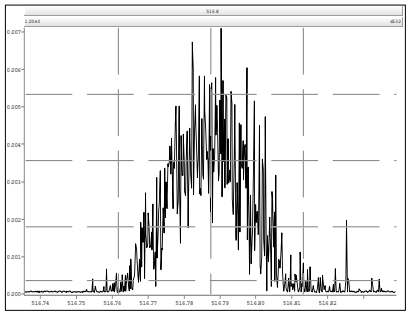
M 492.9696 R 11614



M 504.9696 R 12365



M 516.9697 R 13587



SGS Analytical Perspectives — Run Log **Project: 14 dec 12 ical**

Instrument: MM6 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_b

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
1	121214V02	10	CS0_121214_PCB_VA	1.00	SIL 12-65-6	CEM	877-492	14-Dec-2012	02:28:37
2	121214V03	11	CS1_121214_PCB_VA	1.00	SIL 12-65-5	CEM	461-132	14-Dec-2012	03:21:15
3	121214V04	12	CS2_121214_PCB_VA	1.00	SIL 12-65-4	CEM	403-865	14-Dec-2012	04:15:23
4	121214V05	13	CS3_121214_PCB_VA	1.00	SIL 12-65-3	CEM	858-276	14-Dec-2012	05:09:30
5	121214V06	14	CS4_121214_PCB_VA	1.00	SIL 12-65-2	CEM	777-854	14-Dec-2012	06:03:38
6	121214V07	15	CS5_121214_PCB_VA	1.00	SIL 12-65-1	CEM	067-301	14-Dec-2012	06:57:45

APPROVED

By Jeremy Kadylak at 3:51 pm, Dec 14, 2012

PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 14 Dec 2012 11:13**

ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14 Dec 2012
Date Processed: 14 Dec 2012 10:42

Name	Mean	% RSD	121214V02 0.5 CS0	121214V03 1 CS1	121214V04 5 CS2	121214V05 50 CS3	121214V06 400 CS4	121214V07 2000 CS5
PCB-77 33'44'-TeCB	1.25	5.4%	1.37	1.18	1.20	1.24	1.26	1.23
PCB-81 344'5-TeCB	1.26	5.0%	1.34	1.16	1.22	1.28	1.29	1.26
PCB-105 233'44'-PeCB	1.06	2.1%	1.07	1.08	1.04	1.05	1.07	1.02
PCB-114 2344'5-PeCB	1.11	4.0%	1.06	1.18	1.07	1.14	1.10	1.12
PCB-118 23'44'5-PeCB	1.08	2.3%	1.11	1.05	1.05	1.09	1.11	1.07
PCB-123 23'44'5'-PeCB	1.12	6.2%	1.15	1.20	1.04	1.19	1.09	1.05
PCB-126 33'44'5-PeCB	1.16	4.7%	1.26	1.15	1.13	1.12	1.16	1.11
PCB-156/157 ...-HxCB	1.14	2.4%	1.19	1.13	1.11	1.15	1.15	1.11
PCB-167 23'44'55'-HxCB	1.18	1.6%	1.17	1.16	1.16	1.20	1.20	1.19
PCB-169 33'44'55'-HxCB	1.15	3.7%	1.18	1.08	1.19	1.18	1.17	1.13
PCB-189 233'44'55'-HpCB	1.12	2.1%	1.14	1.08	1.10	1.11	1.13	1.12
PCB-209 DeCB	1.11	7.2%	1.26	1.14	1.05	1.08	1.08	1.06
ES PCB-1	0.97	6.3%	0.95	0.97	1.07	0.97	0.99	0.88
ES PCB-3	0.90	4.1%	0.88	0.90	0.95	0.89	0.93	0.85
ES PCB-4	0.70	3.5%	0.70	0.69	0.74	0.70	0.71	0.66
ES PCB-15	1.02	8.3%	0.99	0.95	0.91	1.00	1.09	1.14
ES PCB-19	0.53	4.3%	0.54	0.52	0.52	0.49	0.55	0.54
ES PCB-37	1.29	1.0%	1.31	1.28	1.30	1.30	1.30	1.28
ES PCB-54	1.43	2.7%	1.41	1.43	1.45	1.43	1.48	1.36
ES PCB-77	1.20	5.1%	1.30	1.11	1.20	1.22	1.21	1.18
ES PCB-81	1.16	5.0%	1.22	1.06	1.15	1.14	1.20	1.20
ES PCB-104	1.70	6.4%	1.64	1.91	1.73	1.69	1.67	1.59
ES PCB-105	1.10	3.9%	1.10	1.10	1.16	1.13	1.07	1.04
ES PCB-114	1.16	2.9%	1.18	1.16	1.19	1.17	1.14	1.10
ES PCB-118	1.15	3.9%	1.19	1.17	1.20	1.17	1.11	1.09
ES PCB-123	1.14	1.0%	1.14	1.12	1.16	1.15	1.13	1.14
ES PCB-126	1.34	4.2%	1.34	1.33	1.44	1.34	1.28	1.30
ES PCB-153	1.14	2.8%	1.18	1.13	1.16	1.16	1.14	1.09
ES PCB-155	1.61	4.6%	1.71	1.66	1.58	1.65	1.59	1.49
ES PCB-156/157	0.98	2.4%	1.01	0.94	0.99	0.97	0.98	0.97
ES PCB-167	1.01	2.5%	1.04	0.98	1.02	1.02	1.03	0.98
ES PCB-169	0.90	2.4%	0.93	0.86	0.90	0.89	0.91	0.91
ES PCB-170	1.28	2.5%	1.29	1.27	1.25	1.26	1.34	1.29
ES PCB-180	1.54	4.0%	1.51	1.50	1.48	1.51	1.62	1.62
ES PCB-188	1.63	2.3%	1.66	1.57	1.66	1.65	1.62	1.59
ES PCB-189	1.97	1.9%	2.00	1.98	1.92	1.93	1.96	2.02
ES PCB-202	1.26	2.2%	1.30	1.23	1.28	1.27	1.26	1.23
ES PCB-205	1.22	1.2%	1.21	1.22	1.21	1.21	1.22	1.25
ES PCB-206	1.10	1.4%	1.09	1.09	1.09	1.10	1.11	1.12

PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 14 Dec 2012 11:13**

ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14 Dec 2012
Date Processed: 14 Dec 2012 10:42

Name	Mean	% RSD	121214V02 0.5 CS0	121214V03 1 CS1	121214V04 5 CS2	121214V05 50 CS3	121214V06 400 CS4	121214V07 2000 CS5
ES PCB-208	1.41	2.8%	1.44	1.41	1.36	1.38	1.40	1.47
ES PCB-209	1.24	1.5%	1.25	1.23	1.25	1.21	1.25	1.27
SS PCB-28	1.18	2.4%	1.12	1.20	1.20	1.18	1.17	1.20
SS PCB-111	1.01	2.6%	1.03	1.03	1.02	1.00	0.99	0.97
SS PCB-178	0.60	1.5%	0.60	0.61	0.58	0.60	0.61	0.60
CS PCB-28	1.52	1.7%	1.47	1.53	1.55	1.53	1.52	1.53
CS PCB-111	1.15	2.7%	1.18	1.16	1.18	1.15	1.12	1.10
CS PCB-178	0.98	2.0%	1.00	0.95	0.97	1.00	0.99	0.96
PCB-1 2-MoCB	1.25	2.5%	1.24	1.21	1.22	1.27	1.29	1.25
PCB-3 4-MoCB	1.27	2.9%	1.24	1.22	1.24	1.30	1.31	1.28
PCB-4 22'-DiCB	0.90	2.7%	0.90	0.90	0.86	0.90	0.93	0.91
PCB-15 44'-DiCB	1.10	3.4%	1.13	1.13	1.04	1.11	1.10	1.06
PCB-19 22'6-TrCB	0.95	3.9%	0.98	0.88	0.92	0.98	0.96	0.95
PCB-37 344'-TrCB	1.39	2.9%	1.41	1.31	1.39	1.40	1.42	1.40
PCB-54 22'66'-TeCB	1.05	4.8%	1.01	1.00	1.02	1.08	1.11	1.10
PCB-104 22'466'-PeCB	1.12	3.6%	1.15	1.07	1.07	1.12	1.14	1.16
PCB-153/168 ...-HxCB	1.24	2.2%	1.29	1.20	1.23	1.23	1.22	1.24
PCB-155 22'44'66'-HxCB	1.09	1.5%	1.11	1.09	1.09	1.10	1.09	1.06
PCB-170 22'33'44'5-HpCB	0.99	3.1%	1.04	0.94	0.99	0.99	0.99	1.01
PCB-180/193 ...-HpCB	1.07	2.5%	1.06	1.12	1.05	1.08	1.07	1.04
PCB-188 22'34'566'-HpCB	0.98	2.6%	0.98	0.97	0.95	1.00	1.02	0.99
PCB-202 22'33'55'66'-OcCB	0.86	2.4%	0.87	0.90	0.84	0.86	0.88	0.85
PCB-205 233'44'55'6-OcCB	1.13	4.0%	1.16	1.11	1.05	1.15	1.18	1.15
PCB-208 22'33'455'66'-NoCB	1.03	1.7%	1.03	1.04	1.02	1.03	1.06	1.02
PCB-206 22'33'44'55'6-NoCB	0.97	1.9%	1.00	0.96	0.95	0.96	0.98	0.97

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:15
Lab ID:	CS0_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 02:28				
Datafile:	121214V02				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.12	2.54E+05	0.83 Y	1.25	1.37	10.0%
PCB-81 344'5-TeCB	28.65	2.34E+05	0.83 Y	1.26	1.34	6.8%
PCB-105 233'44'-PeCB	32.07	1.33E+05	0.56 Y	1.06	1.07	1.3%
PCB-114 2344'5-PeCB	31.53	1.42E+05	0.64 Y	1.11	1.06	-4.6%
PCB-118 23'44'5-PeCB	31.08	1.49E+05	0.61 Y	1.08	1.11	2.5%
PCB-123 23'44'5'-PeCB	30.81	1.49E+05	0.58 Y	1.12	1.15	2.9%
PCB-126 33'44'5-PeCB	34.65	1.91E+05	0.69 Y	1.16	1.26	9.0%
PCB-156/157 ...-HxCB	37.19	2.69E+05	1.38 Y	1.14	1.19	4.0%
PCB-167 23'44'55'-HxCB	36.23	1.37E+05	1.44 Y	1.18	1.17	-0.6%
PCB-169 33'44'55'-HxCB	39.90	1.23E+05	1.33 Y	1.15	1.18	2.3%
PCB-189 233'44'55'-HpCB	42.03	1.61E+05	1.15 Y	1.12	1.14	2.5%
PCB-209 DeCB	47.01	1.12E+05	1.26 Y	1.11	1.26	13.6%
ES PCB-1	9.83	5.27E+07	3.25 Y	0.97	0.95	-2.1%
ES PCB-3	11.73	4.89E+07	3.32 Y	0.90	0.88	-1.9%
ES PCB-4	11.94	3.88E+07	1.54 Y	0.70	0.70	-0.1%
ES PCB-15	17.00	5.50E+07	1.64 Y	1.02	0.99	-2.2%
ES PCB-19	14.62	3.00E+07	1.06 Y	0.53	0.54	2.8%
ES PCB-37	22.95	3.73E+07	1.11 Y	1.29	1.31	1.3%
ES PCB-54	17.24	4.01E+07	0.79 Y	1.43	1.41	-1.2%
ES PCB-77	29.10	3.70E+07	0.83 Y	1.20	1.30	7.9%
ES PCB-81	28.63	3.48E+07	0.84 Y	1.16	1.22	5.3%
ES PCB-104	21.92	3.71E+07	1.51 Y	1.70	1.64	-3.7%
ES PCB-105	32.04	2.48E+07	1.48 Y	1.10	1.10	-0.2%
ES PCB-114	31.50	2.67E+07	1.56 Y	1.16	1.18	2.1%
ES PCB-118	31.06	2.69E+07	1.49 Y	1.15	1.19	2.9%
ES PCB-123	30.79	2.58E+07	1.50 Y	1.14	1.14	0.1%
ES PCB-126	34.63	3.03E+07	1.65 Y	1.34	1.34	0.1%
ES PCB-153	32.65	2.65E+07	1.27 Y	1.14	1.18	3.5%
ES PCB-155	26.73	3.82E+07	1.30 Y	1.61	1.71	5.8%
ES PCB-156/157	37.17	4.54E+07	1.26 Y	0.98	1.01	3.7%
ES PCB-167	36.21	2.33E+07	1.25 Y	1.01	1.04	3.0%
ES PCB-169	39.88	2.08E+07	1.29 Y	0.90	0.93	3.3%
ES PCB-170	39.39	1.82E+07	1.02 Y	1.28	1.29	0.3%
ES PCB-180	38.35	2.13E+07	1.01 Y	1.54	1.51	-2.0%
ES PCB-188	31.52	3.72E+07	1.02 Y	1.63	1.66	2.1%
ES PCB-189	42.01	2.82E+07	1.05 Y	1.97	2.00	1.5%
ES PCB-202	36.02	2.91E+07	0.88 Y	1.26	1.30	2.9%
ES PCB-205	44.17	1.72E+07	0.89 Y	1.22	1.21	-0.7%
ES PCB-206	45.64	1.54E+07	0.75 Y	1.10	1.09	-1.0%
ES PCB-208	41.62	2.03E+07	0.78 Y	1.41	1.44	2.0%
ES PCB-209	46.99	1.77E+07	1.17 Y	1.24	1.25	0.8%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02

ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.58	4.20E+07	1.10 Y	1.18	1.12	-4.5%
SS PCB-111	29.16	2.67E+07	1.46 Y	1.01	1.03	2.7%
SS PCB-178	34.07	2.24E+07	1.03 Y	0.60	0.60	0.1%
CS PCB-28	19.58	4.20E+07	1.10 Y	1.52	1.47	-3.2%
CS PCB-111	29.16	2.67E+07	1.46 Y	1.15	1.18	2.7%
CS PCB-178	34.07	2.24E+07	1.03 Y	0.98	1.00	2.2%
JS PCB-9	13.66	5.54E+07	1.63 Y	-	-	-
JS PCB-52	21.12	2.85E+07	0.78 Y	-	-	-
JS PCB-101	26.90	2.26E+07	1.48 Y	-	-	-
JS PCB-138	33.68	2.24E+07	1.29 Y	-	-	-
JS PCB-194	43.78	1.41E+07	0.90 Y	-	-	-
PCB-1 2-MoCB	9.84	3.27E+05	3.04 Y	1.25	1.24	-0.4%
PCB-3 4-MoCB	11.75	3.04E+05	2.71 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.96	1.74E+05	0.00 S	0.90	0.90	-0.2%
PCB-15 44'-DiCB	17.01	3.10E+05	0.00 S	1.10	1.13	2.8%
PCB-19 22'6-TrCB	14.64	1.46E+05	1.05 Y	0.95	0.98	3.2%
PCB-37 344'-TrCB	22.97	2.63E+05	1.08 Y	1.39	1.41	1.5%
PCB-54 22'66'-TeCB	17.26	2.02E+05	0.73 Y	1.05	1.01	-4.5%
PCB-104 22'466'-PeCB	21.94	2.13E+05	0.53 Y	1.12	1.15	2.8%
PCB-153/168 ...-HxCB	32.69	3.41E+05	1.23 Y	1.24	1.29	4.1%
PCB-155 22'44'66'-HxCB	26.75	2.13E+05	1.25 Y	1.09	1.11	2.1%
PCB-170 22'33'44'5-HpCB	39.40	9.41E+04	0.90 Y	0.99	1.04	4.2%
PCB-180/193 ...-HpCB	38.33	2.26E+05	1.09 Y	1.07	1.06	-0.8%
PCB-188 22'34'566'-HpCB	31.54	1.82E+05	1.02 Y	0.98	0.98	-0.6%
PCB-202 22'33'55'66'-OcCB	36.04	1.26E+05	0.86 Y	0.86	0.87	0.5%
PCB-205 233'44'55'6-OcCB	44.19	9.92E+04	0.92 Y	1.13	1.16	2.0%
PCB-208 22'33'455'66'-NoCB	41.64	1.05E+05	0.75 Y	1.03	1.03	-0.3%
PCB-206 22'33'44'55'6-NoCB	45.66	7.71E+04	0.81 Y	0.97	1.00	3.3%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.84	3.27E+05	3.04 Y	1.25	1.24	-0.4%
PCB-2 3-MoCB	11.59	3.05E+05	3.09 Y	1.28	1.24	-2.6%
PCB-3 4-MoCB	11.75	3.04E+05	2.71 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.96	1.74E+05	0.00 S	0.90	0.90	-0.2%
PCB-10 26-DiCB	12.11	2.54E+05	0.00 S	1.38	1.31	-5.1%
PCB-9 25-DiCB	13.68	2.63E+05	0.00 S	0.99	0.96	-3.1%
PCB-7 24-DiCB	13.82	3.19E+05	0.00 S	1.10	1.16	5.3%
PCB-6 23'-DiCB	14.02	2.89E+05	0.00 S	1.04	1.05	1.0%
PCB-5 23-DiCB	14.28	2.82E+05	0.00 S	1.02	1.03	0.2%
PCB-8 24'-DiCB	14.39	2.75E+05	0.00 S	1.03	1.00	-3.3%
PCB-14 35-DiCB	15.79	3.30E+05	0.00 S	1.20	1.20	0.0%
PCB-11 33'-DiCB	16.49	2.89E+05	0.00 S	1.03	1.05	2.4%
PCB-13/12 34'/34-DiCB	16.76	5.52E+05	0.00 S	1.03	1.00	-3.0%
PCB-15 44'-DiCB	17.01	3.10E+05	0.00 S	1.10	1.13	2.8%
PCB-19 22'6-TrCB	14.64	1.46E+05	1.05 Y	0.95	0.98	3.2%
PCB-30/18 246/22'5-TrCB	16.23	3.45E+05	1.04 Y	1.23	1.15	-6.5%
PCB-17 22'4-TrCB	16.59	1.49E+05	0.92 Y	1.05	0.99	-6.0%
PCB-27 23'6-TrCB	16.77	2.10E+05	0.94 Y	1.46	1.40	-4.2%
PCB-24 236-TrCB	16.89	1.59E+05	0.80 N	1.32	1.06	-19.7%
PCB-16 22'3-TrCB	16.97	1.14E+05	1.03 Y	0.81	0.76	-5.6%
PCB-32 24'6-TrCB	17.42	2.07E+05	0.95 Y	1.48	1.38	-6.7%
PCB-34 23'5'-TrCB	18.50	2.59E+05	0.96 Y	1.46	1.39	-5.0%
PCB-23 235-TrCB	18.63	2.80E+05	0.98 Y	1.50	1.50	-0.1%
PCB-26/29 23'5/245-TrCB	18.90	5.56E+05	1.09 Y	1.53	1.49	-2.6%
PCB-25 23'4-TrCB	19.08	2.50E+05	1.03 Y	1.53	1.34	-12.7%
PCB-31 24'5-TrCB	19.35	2.80E+05	1.06 Y	1.55	1.50	-3.3%
PCB-28/20 244'/233'-TrCB	19.61	5.25E+05	1.11 Y	1.51	1.41	-6.6%
PCB-21/33 234/23'4'-TrCB	19.77	5.29E+05	1.13 Y	1.55	1.42	-8.4%
PCB-22 234'-TrCB	20.12	2.45E+05	1.08 Y	1.40	1.31	-6.0%
PCB-36 33'5-TrCB	21.45	2.88E+05	1.03 Y	1.52	1.55	1.8%
PCB-39 34'5-TrCB	21.75	2.99E+05	1.07 Y	1.58	1.60	1.1%
PCB-38 345-TrCB	22.24	2.82E+05	1.05 Y	1.47	1.51	2.9%
PCB-35 33'4-TrCB	22.62	2.59E+05	1.01 Y	1.33	1.39	4.2%
PCB-37 344'-TrCB	22.97	2.63E+05	1.08 Y	1.39	1.41	1.5%
PCB-54 22'66'-TeCB	17.26	2.02E+05	0.73 Y	1.05	1.01	-4.5%
PCB-50/53 22'46/22'56'-TeCB	19.12	2.57E+05	0.82 Y	0.88	0.74	-16.0%
PCB-45 22'36-TeCB	19.66	1.23E+05	0.74 Y	0.73	0.71	-3.6%
PCB-51 22'46'-TeCB	19.74	1.49E+05	0.75 Y	0.94	0.86	-8.8%
PCB-46 22'36'-TeCB	19.93	1.23E+05	0.77 Y	0.72	0.71	-1.5%
PCB-52 22'55'-TeCB	21.14	1.33E+05	0.72 Y	0.82	0.76	-7.5%
PCB-73 23'5'6-TeCB	21.27	1.74E+05	0.77 Y	1.10	1.00	-9.0%
PCB-43 22'35-TeCB	21.34	1.28E+05	0.71 Y	0.70	0.73	4.1%
PCB-69/49 23'46/22'45'-TeCB	21.54	3.34E+05	0.77 Y	1.01	0.96	-4.9%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.80	1.48E+05	0.68 Y	0.84	0.85	1.1%
PCB-44/47/65 ...-TeCB	22.00	4.47E+05	0.80 Y	0.90	0.86	-5.1%
PCB-59/62/75 ...-TeCB	22.26	5.57E+05	0.78 Y	1.15	1.07	-7.6%
PCB-42 22'34'-TeCB	22.42	1.31E+05	0.67 Y	0.76	0.75	-1.3%
PCB-41 22'34-TeCB	22.73	9.18E+04	0.68 Y	0.64	0.53	-17.7%
PCB-71/40 23'4'6/22'33'-TeCB	22.83	2.56E+05	0.77 Y	0.83	0.74	-11.6%
PCB-64 234'6-TeCB	23.02	1.98E+05	0.79 Y	1.17	1.14	-2.9%
PCB-72 23'55'-TeCB	23.75	2.26E+05	0.85 Y	1.37	1.30	-5.3%
PCB-68 23'45'-TeCB	23.98	2.65E+05	0.69 Y	1.52	1.52	0.5%
PCB-57 233'5-TeCB	24.34	2.29E+05	0.82 Y	1.32	1.31	-0.8%
PCB-58 233'5'-TeCB	24.53	2.43E+05	0.82 Y	1.34	1.39	4.2%
PCB-67 23'45-TeCB	24.68	2.29E+05	0.73 Y	1.41	1.32	-6.9%
PCB-63 234'5-TeCB	24.90	2.47E+05	0.83 Y	1.46	1.42	-2.5%
PCB-61/70/74/76 ...-TeCB	25.18	9.16E+05	0.71 Y	1.37	1.31	-3.7%
PCB-66 23'44'-TeCB	25.45	2.11E+05	0.78 Y	1.24	1.21	-2.4%
PCB-55 233'4-TeCB	25.58	2.21E+05	0.73 Y	1.28	1.27	-0.4%
PCB-56 233'4'-TeCB	26.01	2.15E+05	0.86 Y	1.23	1.23	0.3%
PCB-60 2344'-TeCB	26.19	2.32E+05	0.80 Y	1.30	1.33	2.6%
PCB-80 33'55'-TeCB	26.55	2.31E+05	0.73 Y	1.44	1.33	-7.4%
PCB-79 33'45'-TeCB	27.82	2.54E+05	0.83 Y	1.48	1.46	-1.2%
PCB-78 33'45-TeCB	28.29	2.19E+05	0.78 Y	1.21	1.26	4.2%
PCB-104 22'466'-PeCB	21.94	2.13E+05	0.53 Y	1.12	1.15	2.8%
PCB-96 22'366'-PeCB	22.24	1.80E+05	0.64 Y	0.96	0.97	0.3%
PCB-103 22'45'6-PeCB	23.90	1.26E+05	0.61 Y	0.93	0.98	4.6%
PCB-94 22'356'-PeCB	24.07	9.40E+04	0.66 Y	0.81	0.73	-10.0%
PCB-95 22'35'6-PeCB	24.43	1.17E+05	0.69 Y	0.85	0.90	6.2%
PCB-100/93 22'44'6/22'356-PeCB	24.64	2.38E+05	0.61 Y	0.88	0.92	4.5%
PCB-102 22'456'-PeCB	24.74	1.18E+05	0.64 Y	0.93	0.91	-1.9%
PCB-98 22'34'6'-PeCB	24.81	1.36E+05	0.67 Y	0.84	1.05	25.6%
PCB-88 22'346-PeCB	25.09	1.07E+05	0.55 Y	0.77	0.83	6.9%
PCB-91 22'34'6-PeCB	25.17	1.22E+05	0.76 N	0.96	0.94	-2.0%
PCB-84 22'33'6-PeCB	25.35	9.82E+04	0.59 Y	0.72	0.76	5.4%
PCB-89 22'346'-PeCB	25.75	1.03E+05	0.54 Y	0.77	0.80	3.3%
PCB-121 23'45'6-PeCB	26.13	1.51E+05	0.63 Y	1.15	1.17	2.0%
PCB-92 22'355'-PeCB	26.43	9.98E+04	0.68 Y	0.79	0.77	-2.5%
PCB-113/90/101 ...-PeCB	26.90	3.90E+05	0.65 Y	0.95	1.01	5.3%
PCB-83 22'33'5-PeCB	27.31	1.06E+05	0.53 Y	0.72	0.82	14.0%
PCB-99 22'44'5-PeCB	27.41	1.19E+05	0.69 Y	0.90	0.92	3.1%
PCB-112 233'56-PeCB	27.51	1.53E+05	0.63 Y	1.09	1.19	8.3%
PCB-109/119/86/97/125...-PeCB	27.84	7.38E+05	0.62 Y	0.95	0.95	0.6%
PCB-117 234'56-PeCB	28.36	1.42E+05	0.57 Y	0.99	1.10	11.3%
PCB-116/85 23456/22'344'-PeCB	28.43	2.55E+05	0.62 Y	0.96	0.99	2.9%
PCB-110 233'4'6-PeCB	28.56	1.24E+05	0.61 Y	1.01	0.96	-4.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.78E+05	0.58 Y	1.15	1.38	19.5%
PCB-82 22'33'4-PeCB	28.83	1.07E+05	0.75 N	0.70	0.83	19.1%
PCB-111 233'55'-PeCB	29.18	1.59E+05	0.65 Y	1.16	1.23	5.8%
PCB-120 23'455'-PeCB	29.57	1.49E+05	0.56 Y	1.14	1.16	1.7%
PCB-108/124 ...-PeCB	30.51	2.67E+05	0.62 Y	1.02	1.03	1.4%
PCB-107 233'4'5-PeCB	30.71	1.47E+05	0.72 N	1.13	1.14	0.2%
PCB-106 233'45-PeCB	30.91	1.29E+05	0.70 Y	1.01	1.00	-1.1%
PCB-122 233'4'5'-PeCB	31.37	1.15E+05	0.50 N	0.91	0.86	-5.6%
PCB-127 33'455'-PeCB	33.31	1.33E+05	0.66 Y	1.06	1.08	1.9%
PCB-155 22'44'66'-HxCB	26.75	2.13E+05	1.25 Y	1.09	1.11	2.1%
PCB-152 22'3566'-HxCB	26.88	2.00E+05	1.23 Y	1.04	1.05	0.7%
PCB-150 22'34'66'-HxCB	27.03	2.08E+05	1.35 Y	1.03	1.09	5.7%
PCB-136 22'33'66'-HxCB	27.31	2.03E+05	1.16 Y	0.97	1.06	8.8%
PCB-145 22'3466'-HxCB	27.58	1.97E+05	1.21 Y	0.96	1.03	7.0%
PCB-148 22'34'56'-HxCB	28.87	1.37E+05	0.98 N	1.03	1.03	0.0%
PCB-151/135 ...-HxCB	29.37	2.69E+05	1.17 Y	0.99	1.02	2.3%
PCB-154 22'44'56'-HxCB	29.58	1.78E+05	1.30 Y	1.17	1.34	14.6%
PCB-144 22'345'6-HxCB	29.83	1.37E+05	1.18 Y	1.03	1.03	0.7%
PCB-147/149 ...-HxCB	30.12	2.61E+05	1.17 Y	1.02	0.98	-3.4%
PCB-134 22'33'56-HxCB	30.29	1.10E+05	1.28 Y	0.80	0.83	4.2%
PCB-143 22'3456'-HxCB	30.36	1.27E+05	1.13 Y	0.95	0.96	0.9%
PCB-139/140 ...-HxCB	30.63	3.01E+05	1.36 Y	1.05	1.14	8.4%
PCB-131 22'33'46-HxCB	30.79	1.16E+05	0.95 N	0.90	0.88	-1.9%
PCB-142 22'3456-HxCB	30.92	1.32E+05	1.42 Y	0.93	0.99	7.3%
PCB-132 22'33'46'-HxCB	31.16	1.48E+05	1.41 Y	0.93	1.12	20.5%
PCB-133 22'33'55'-HxCB	31.61	1.30E+05	1.23 Y	0.97	0.98	1.5%
PCB-165 233'55'6-HxCB	31.95	1.57E+05	1.35 Y	1.16	1.19	2.3%
PCB-146 22'34'55'-HxCB	32.15	1.40E+05	1.11 Y	1.01	1.06	5.0%
PCB-161 233'45'6-HxCB	32.27	1.75E+05	1.15 Y	1.29	1.32	2.2%
PCB-153/168 ...-HxCB	32.69	3.41E+05	1.23 Y	1.24	1.29	4.1%
PCB-141 22'3455'-HxCB	32.82	1.22E+05	1.21 Y	0.95	0.92	-3.0%
PCB-130 22'33'45'-HxCB	33.16	1.10E+05	1.45 N	0.82	0.83	1.1%
PCB-137 22'344'5-HxCB	33.35	1.15E+05	1.26 Y	0.97	0.87	-10.8%
PCB-164 233'4'5'6-HxCB	33.44	1.71E+05	1.16 Y	1.25	1.29	3.1%
PCB-163/138/129 ...-HxCB	33.73	4.51E+05	1.34 Y	1.04	1.14	9.0%
PCB-160 233'456-HxCB	33.84	1.57E+05	1.37 Y	1.19	1.18	-0.7%
PCB-158 233'44'6-HxCB	34.04	1.91E+05	1.15 Y	1.34	1.44	7.5%
PCB-128/166 ...-HxCB	34.74	2.22E+05	1.44 Y	0.96	0.95	-0.8%
PCB-159 233'455'-HxCB	35.60	1.20E+05	1.28 Y	1.12	1.03	-8.1%
PCB-162 233'4'55'-HxCB	35.83	1.26E+05	1.14 Y	1.13	1.08	-4.4%
PCB-188 22'34'566'-HpCB	31.54	1.82E+05	1.02 Y	0.98	0.98	-0.6%
PCB-179 22'33'566'-HpCB	31.81	1.71E+05	1.04 Y	0.90	0.92	2.5%
PCB-184 22'344'66'-HpCB	32.27	1.54E+05	1.06 Y	0.86	0.83	-4.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA

Acquired: 14-DEC-2012 02:28

Datafile: 121214V02

ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.55	1.87E+05	1.09 Y	0.97	1.01	4.0%
PCB-186 22'34566'-HpCB	32.93	1.72E+05	1.03 Y	0.93	0.92	-0.3%
PCB-178 22'33'55'6-HpCB	34.10	1.15E+05	1.18 Y	0.66	0.62	-6.4%
PCB-175 22'33'45'6-HpCB	34.63	1.22E+05	1.07 Y	1.02	1.14	11.7%
PCB-187 22'34'55'6-HpCB	34.86	1.04E+05	1.31 N	1.03	0.98	-4.8%
PCB-182 22'344'56'-HpCB	35.03	1.35E+05	0.99 Y	1.10	1.27	15.5%
PCB-183 22'344'5'6-HpCB	35.37	1.26E+05	1.16 Y	1.12	1.18	5.0%
PCB-185 22'3455'6-HpCB	35.44	1.08E+05	1.14 Y	0.97	1.01	4.5%
PCB-174 22'33'456'-HpCB	35.55	9.35E+04	0.95 Y	0.90	0.88	-2.1%
PCB-177 22'33'45'6'-HpCB	35.92	1.09E+05	0.91 Y	0.87	1.02	17.0%
PCB-181 22'344'56-HpCB	36.26	1.11E+05	1.17 Y	1.03	1.04	0.7%
PCB-171/173 ...-HpCB	36.44	2.04E+05	0.94 Y	0.89	0.96	8.1%
PCB-172 22'33'455'-HpCB	37.82	9.70E+04	1.14 Y	0.87	0.91	4.3%
PCB-192 233'455'6-HpCB	38.05	1.34E+05	0.95 Y	1.16	1.25	8.1%
PCB-180/193 ...-HpCB	38.33	2.26E+05	1.09 Y	1.07	1.06	-0.8%
PCB-191 233'44'5'6-HpCB	38.66	1.32E+05	1.03 Y	1.18	1.24	4.6%
PCB-170 22'33'44'5-HpCB	39.40	9.41E+04	0.90 Y	0.99	1.04	4.2%
PCB-190 233'44'56-HpCB	39.85	1.24E+05	0.90 Y	1.36	1.36	0.6%
PCB-202 22'33'55'66'-OcCB	36.04	1.26E+05	0.86 Y	0.86	0.87	0.5%
PCB-201 22'33'45'66'-OcCB	36.81	1.32E+05	0.93 Y	0.95	0.91	-4.6%
PCB-204 22'344'566'-OcCB	37.38	1.50E+05	0.82 Y	0.90	1.03	14.0%
PCB-197 22'33'44'66'-OcCB	37.57	1.35E+05	0.86 Y	0.96	0.93	-3.1%
PCB-200 22'33'4566'-OcCB	37.65	1.29E+05	0.80 Y	0.88	0.89	0.4%
PCB-198/199 ...-OcCB	39.99	1.87E+05	0.85 Y	0.63	0.64	2.0%
PCB-196 22'33'44'56'-OcCB	40.56	1.05E+05	0.90 Y	0.66	0.72	9.1%
PCB-203 22'344'55'6-OcCB	40.73	1.05E+05	0.85 Y	0.69	0.72	4.0%
PCB-195 22'33'44'56-OcCB	41.83	7.48E+04	0.84 Y	0.82	0.87	5.7%
PCB-194 22'33'44'55'-OcCB	43.80	7.85E+04	0.83 Y	0.90	0.91	1.5%
PCB-205 233'44'55'6-OcCB	44.19	9.92E+04	0.92 Y	1.13	1.16	2.0%
PCB-208 22'33'455'66'-NoCB	41.64	1.05E+05	0.75 Y	1.03	1.03	-0.3%
PCB-207 22'33'44'566'-NoCB	42.42	1.08E+05	0.79 Y	1.07	1.07	-0.2%
PCB-206 22'33'44'55'6-NoCB	45.66	7.71E+04	0.81 Y	0.97	1.00	3.3%

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



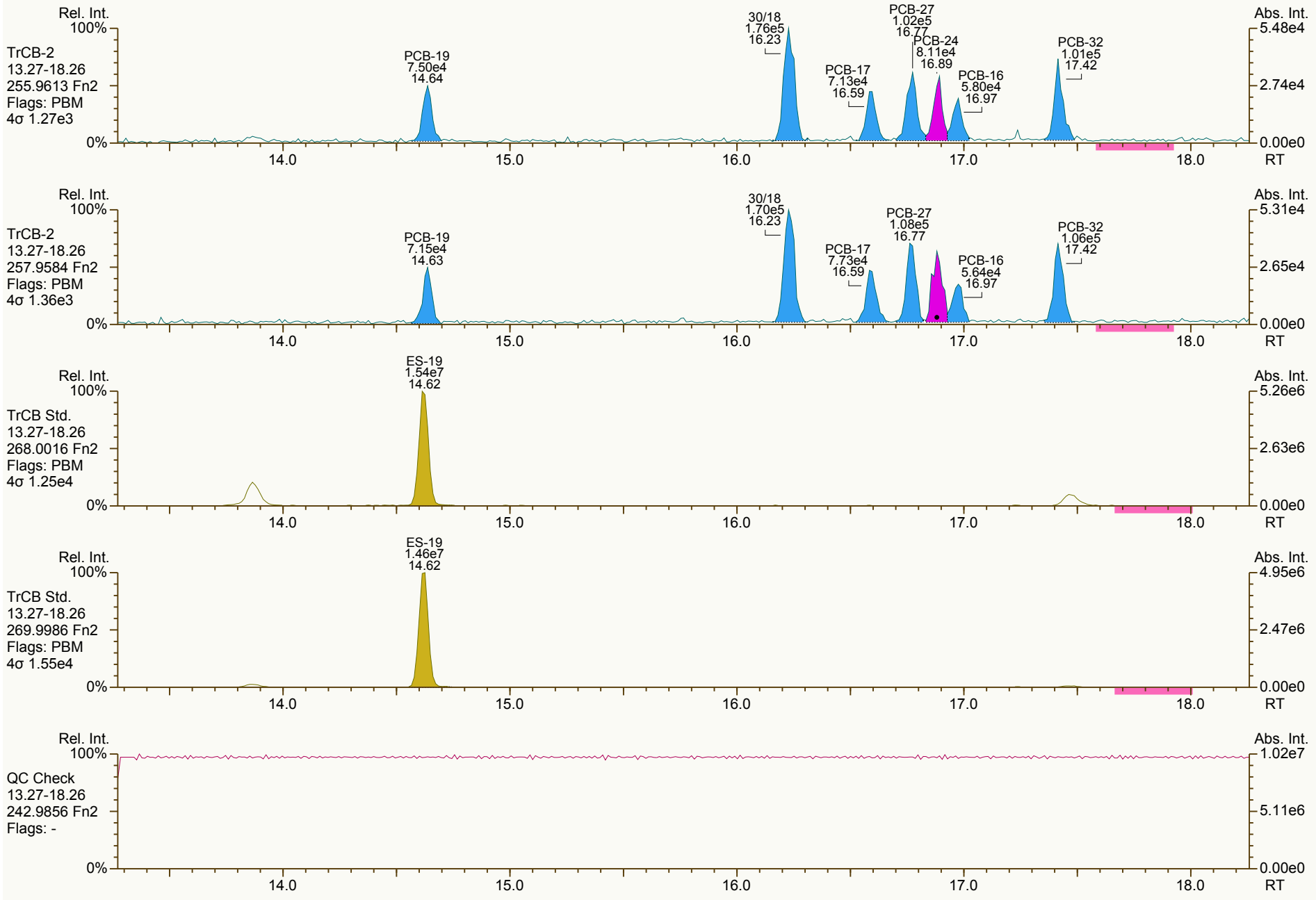
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)

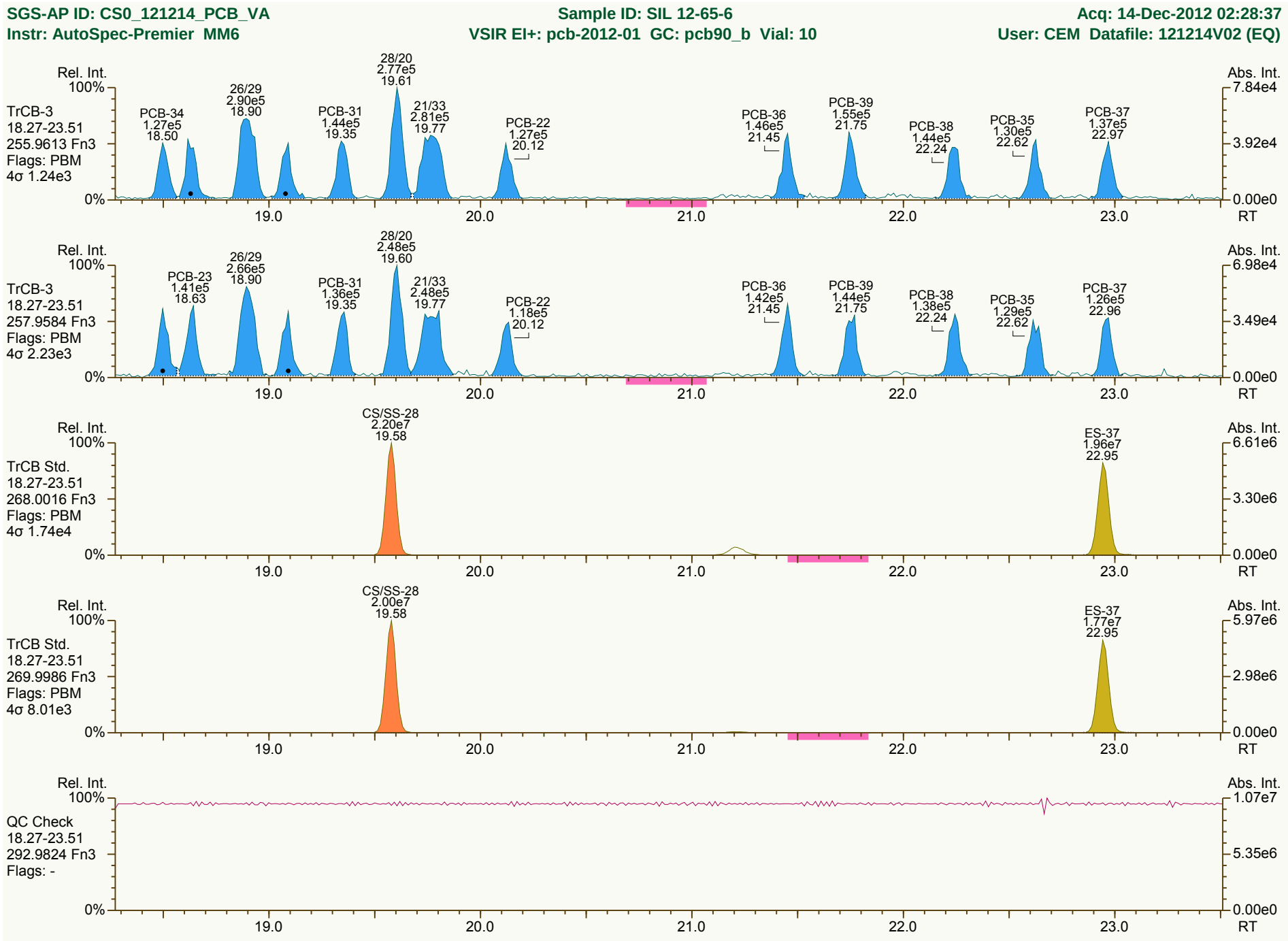


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 7333, 9074 scc: 877-492
Revised: 14-Dec-2012 09:33 (CEM) Printed: 14-Dec-2012 11:19 Page 4 of 22

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

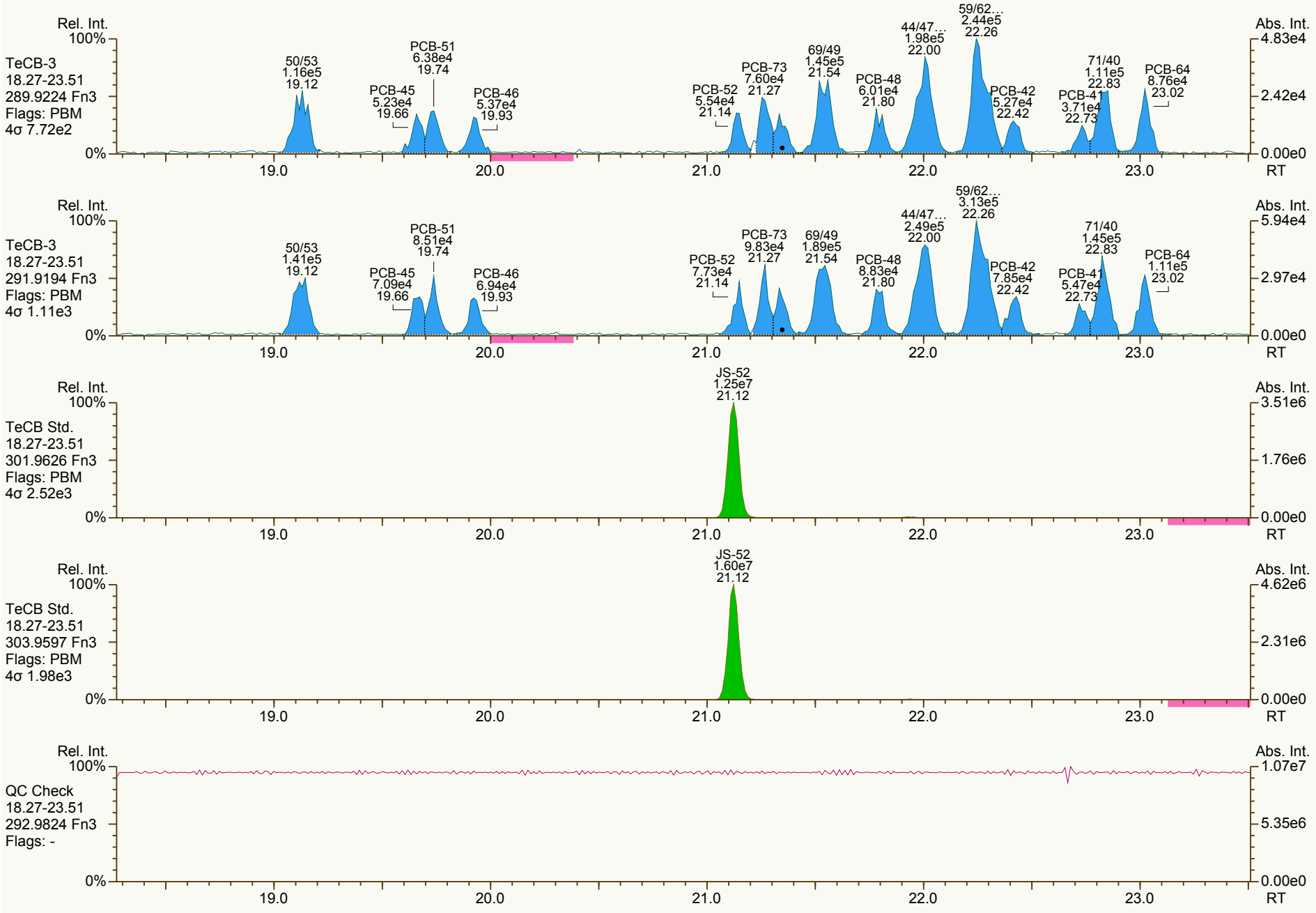

SGS-AP ID: CS0_121214_PCB_VA
Sample ID: SIL 12-65-6
Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10
User: CEM Datafile: 121214V02 (EQ)
Rel. Int.
Abs. Int.
TrCB-3
18.27-23.51
255.9613 Fn3
Flags: PBM
4σ 1.24e3
PCB-34 1.27e5 18.50
26/29 2.90e5 18.90
PCB-31 1.44e5 19.35
28/20 2.77e5 19.61
21/33 2.81e5 19.77
PCB-22 1.27e5 20.12
PCB-36 1.46e5 21.45
PCB-39 1.55e5 21.75
PCB-38 1.44e5 22.24
PCB-35 1.30e5 22.62
PCB-37 1.37e5 22.97
TrCB-3
18.27-23.51
257.9584 Fn3
Flags: PBM
4σ 2.23e3
PCB-23 1.41e5 18.63
26/29 2.66e5 18.90
PCB-31 1.36e5 19.35
28/20 2.48e5 19.60
21/33 2.48e5 19.77
PCB-22 1.18e5 20.12
PCB-36 1.42e5 21.45
PCB-39 1.44e5 21.75
PCB-38 1.38e5 22.24
PCB-35 1.29e5 22.62
PCB-37 1.26e5 22.96
TrCB Std.
18.27-23.51
268.0016 Fn3
Flags: PBM
4σ 1.74e4
CS/SS-28 2.20e7 19.58
ES-37 1.96e7 22.95
TrCB Std.
18.27-23.51
269.9986 Fn3
Flags: PBM
4σ 8.01e3
CS/SS-28 2.00e7 19.58
ES-37 1.77e7 22.95
QC Check
18.27-23.51
292.9824 Fn3
Flags: -
RT

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



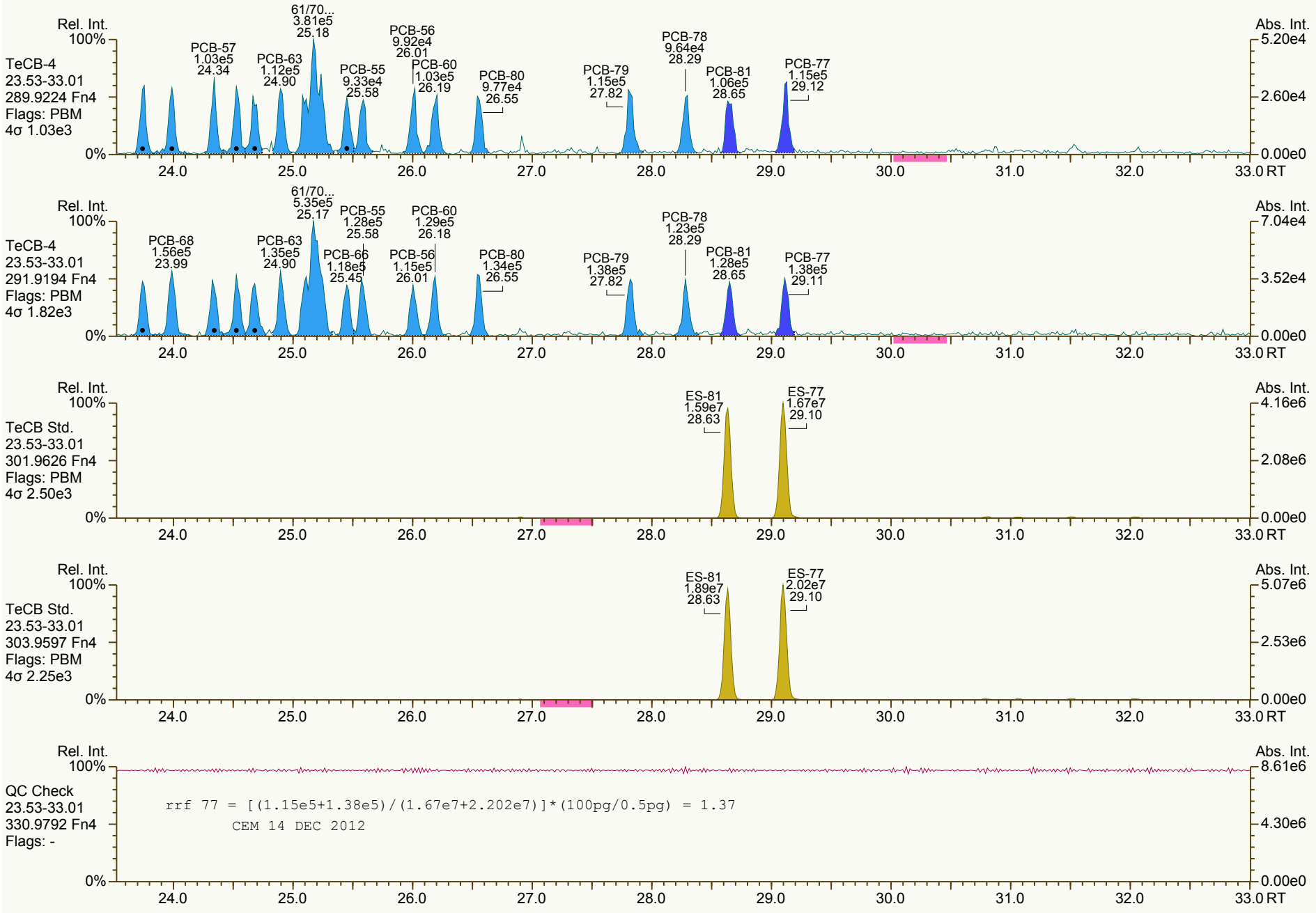
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



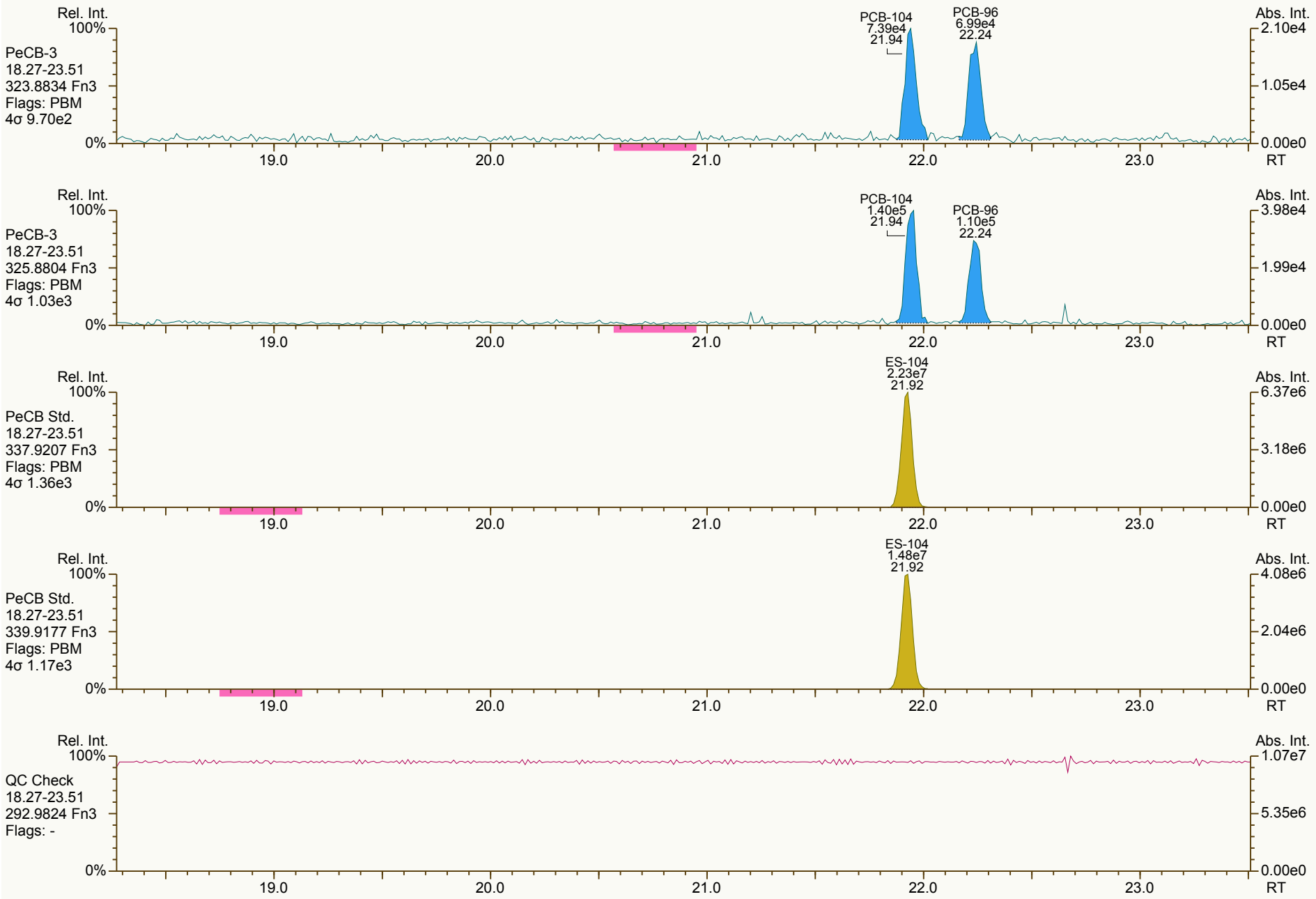
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



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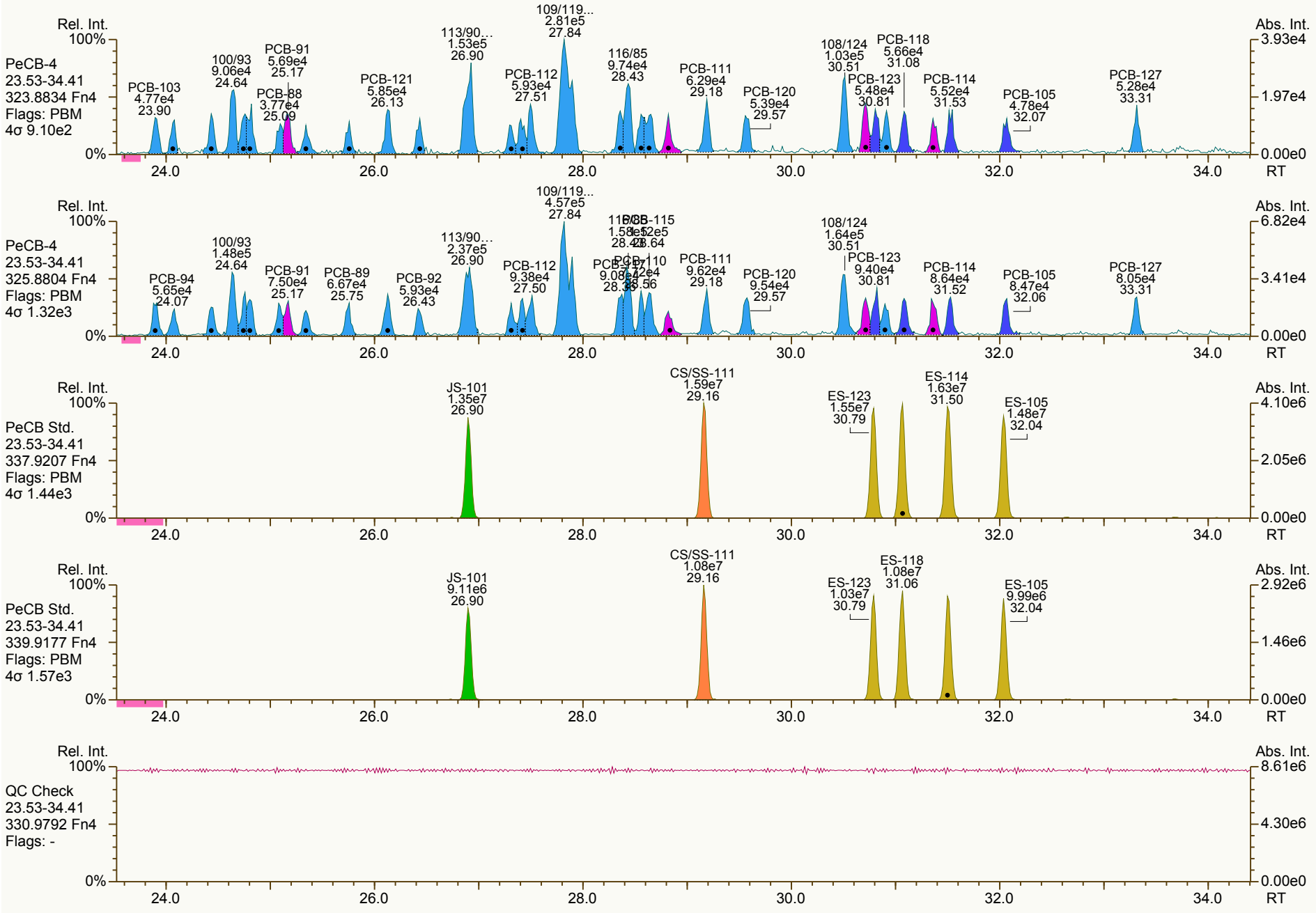
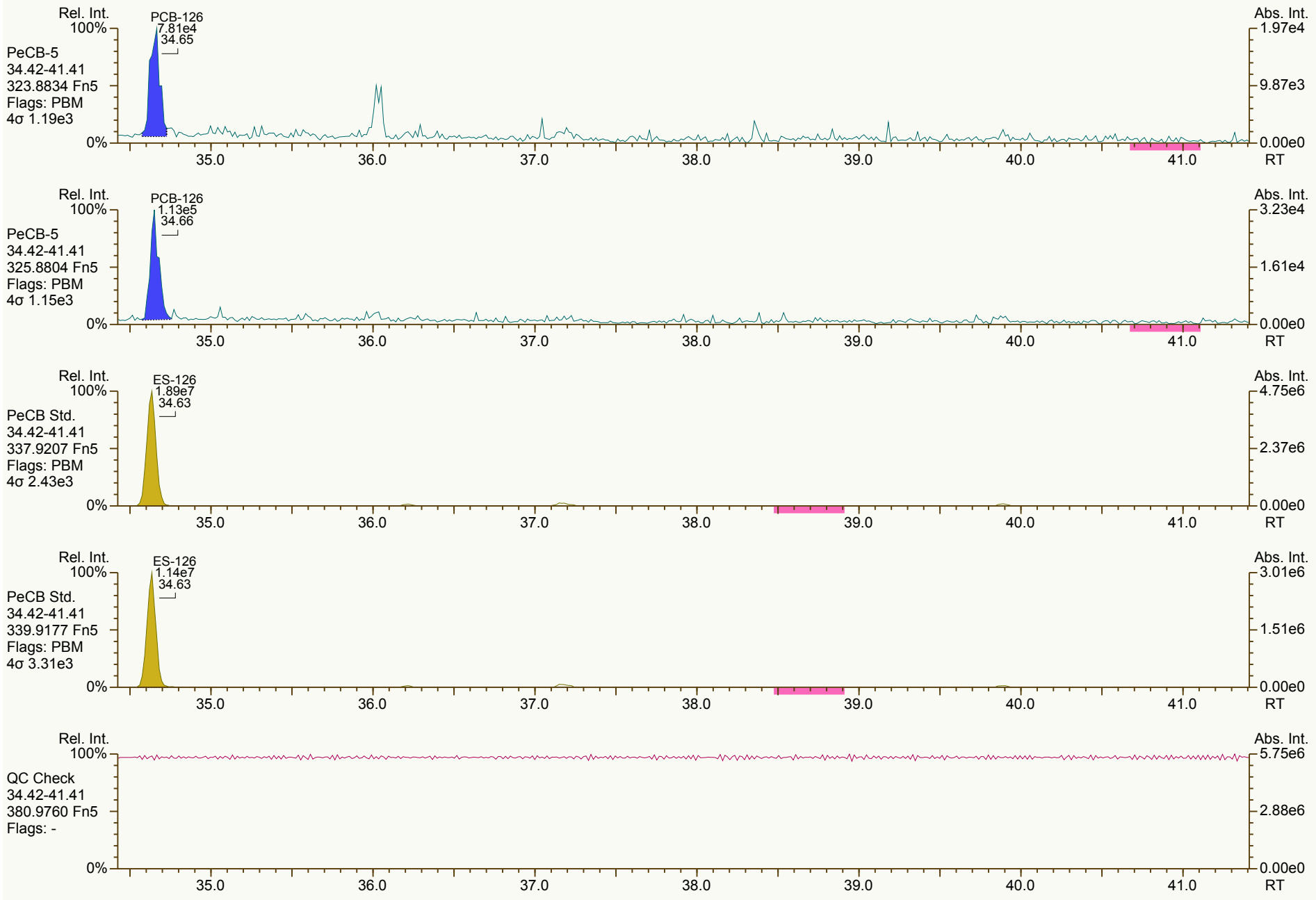
SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)

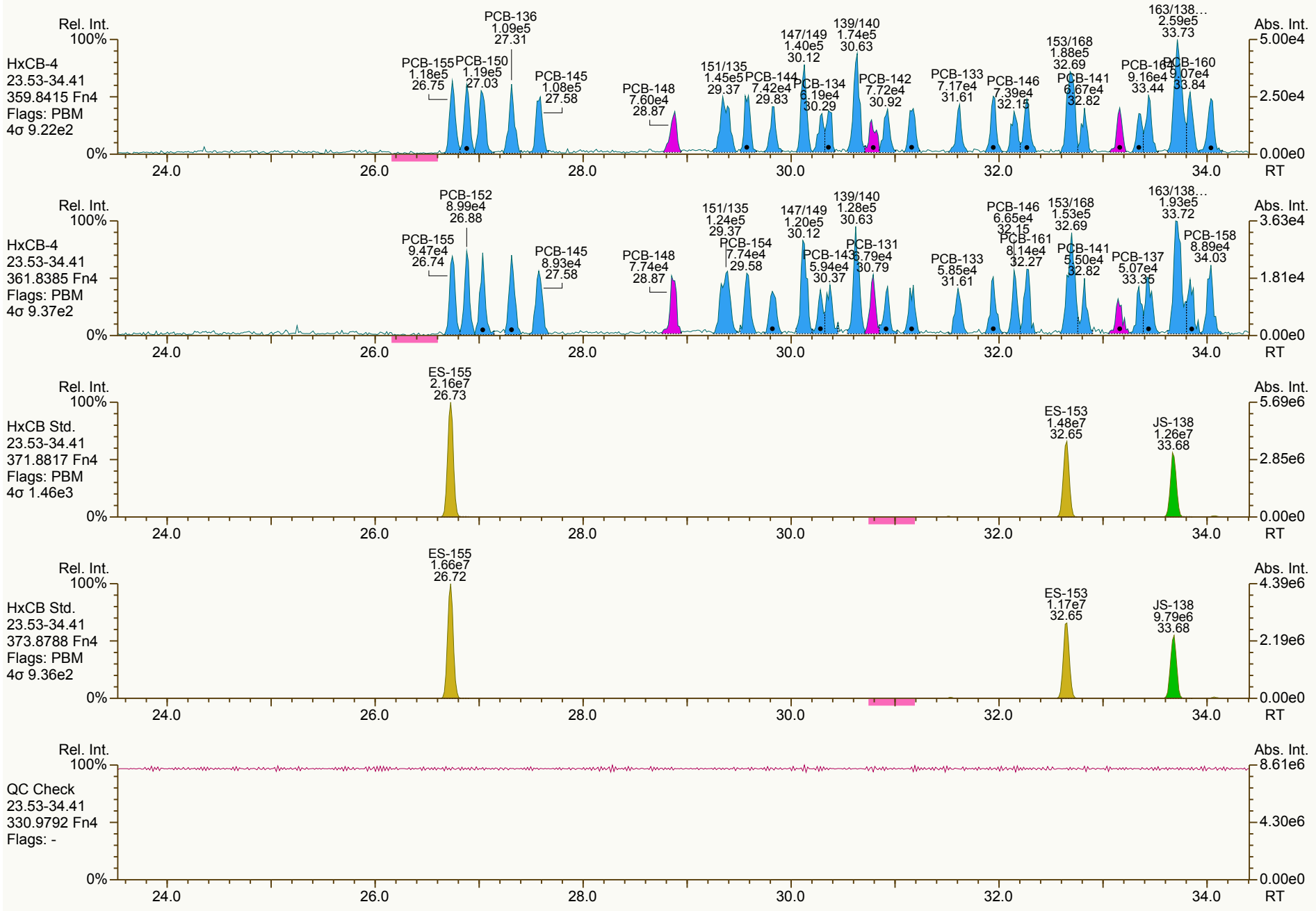


SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

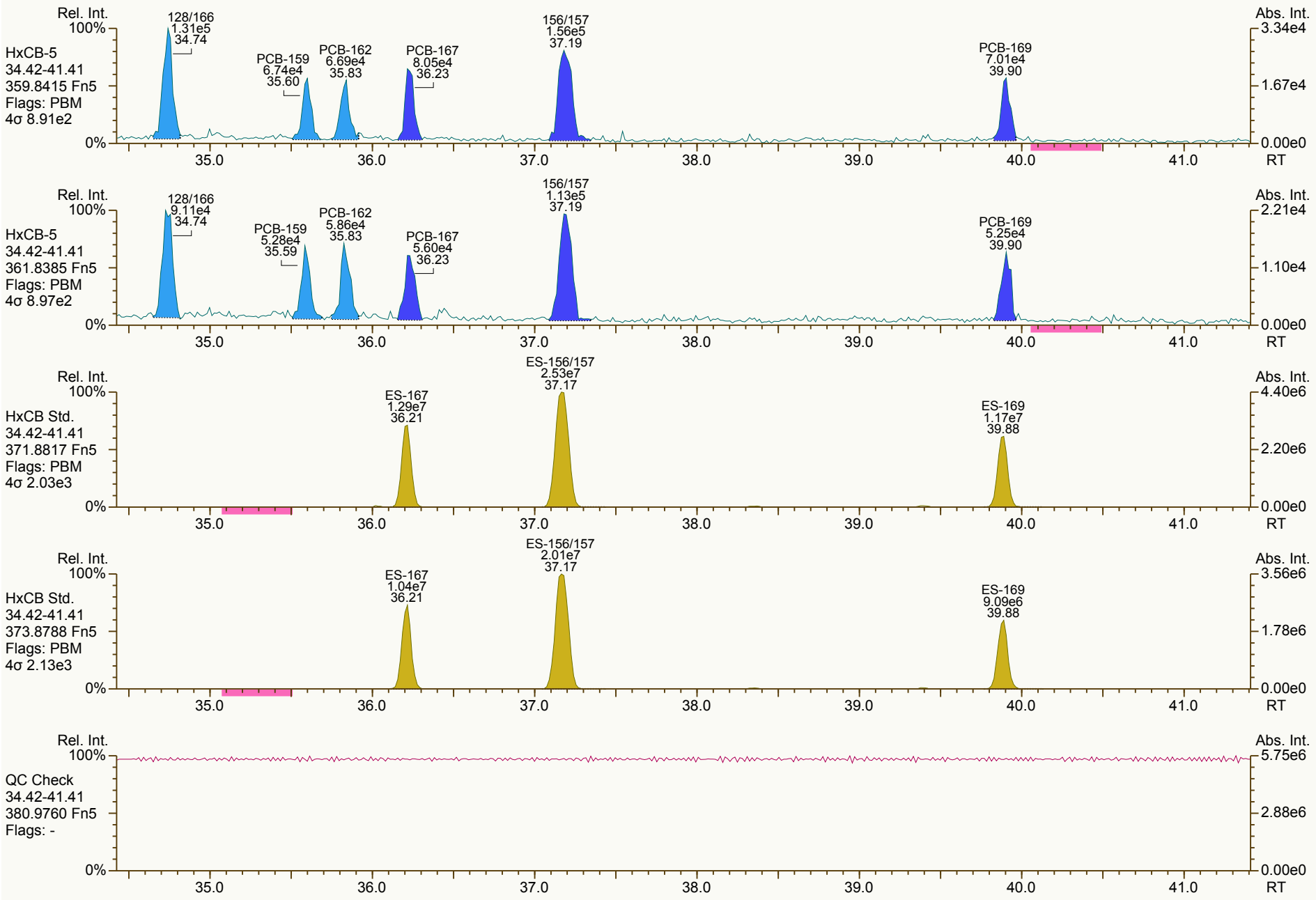
SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

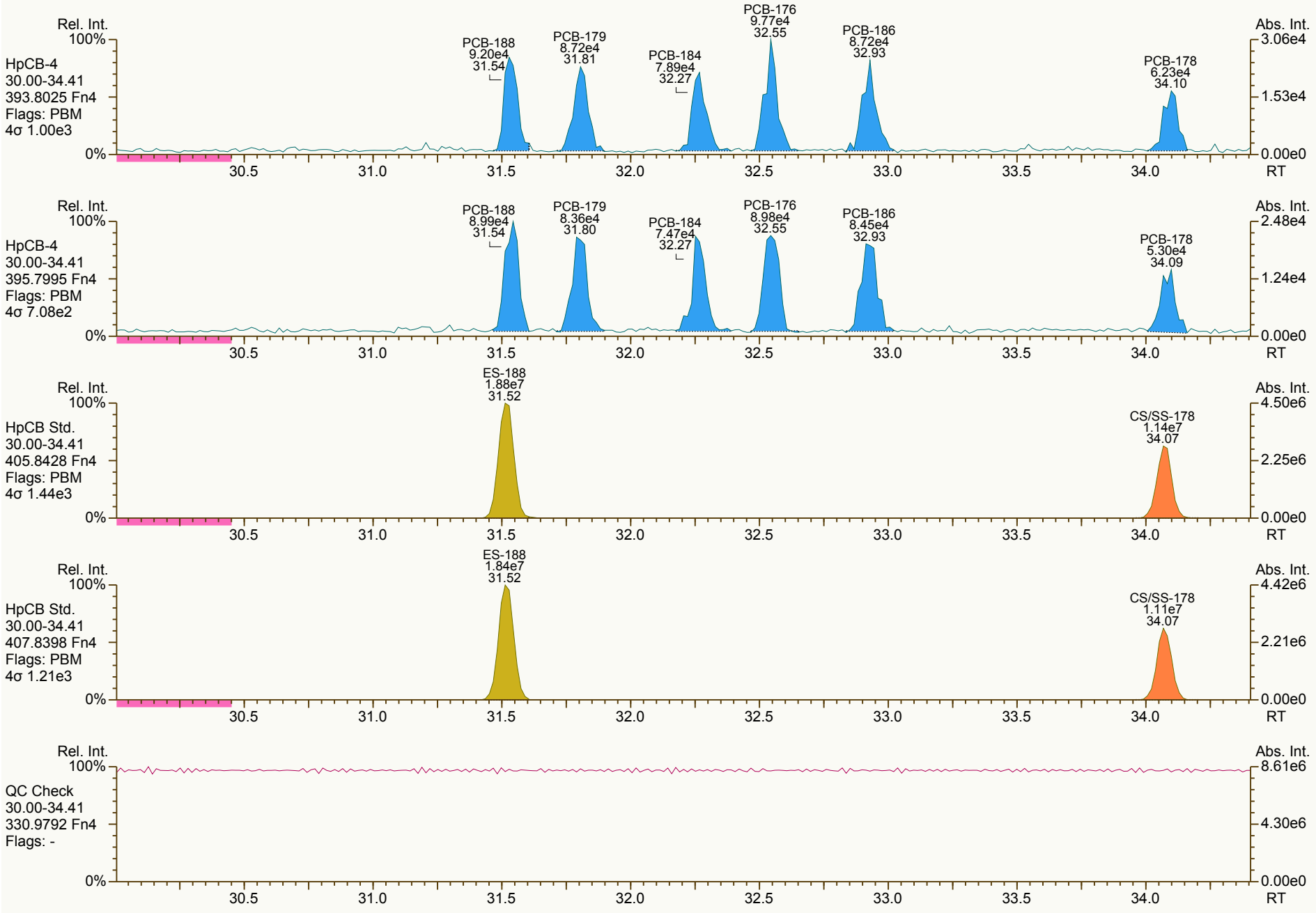
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 5368, 1777 scc: 877-492 *Revised: 14-Dec-2012 10:39 (CEM) Printed: 14-Dec-2012 11:19 Page 13 of 22*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



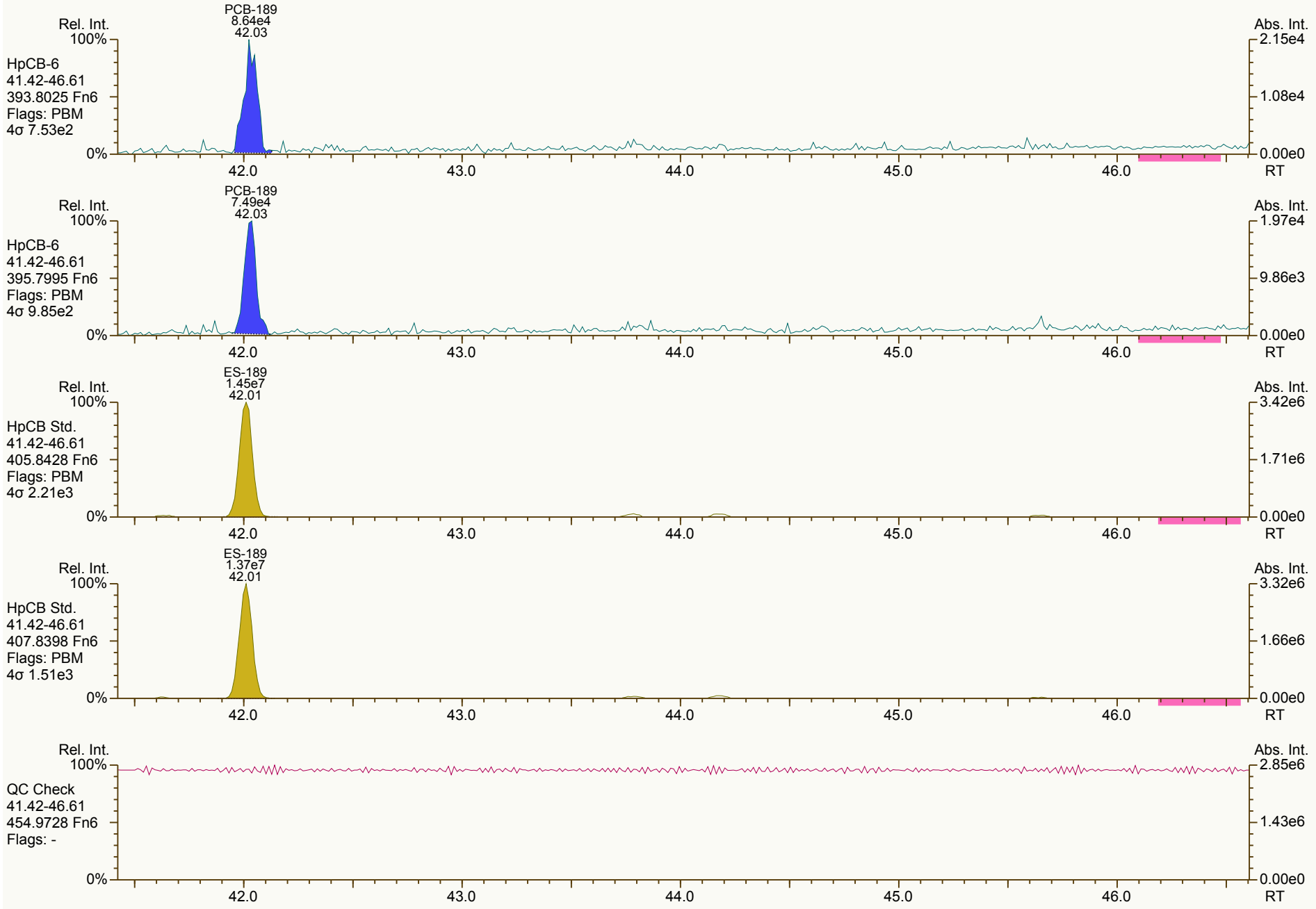
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**

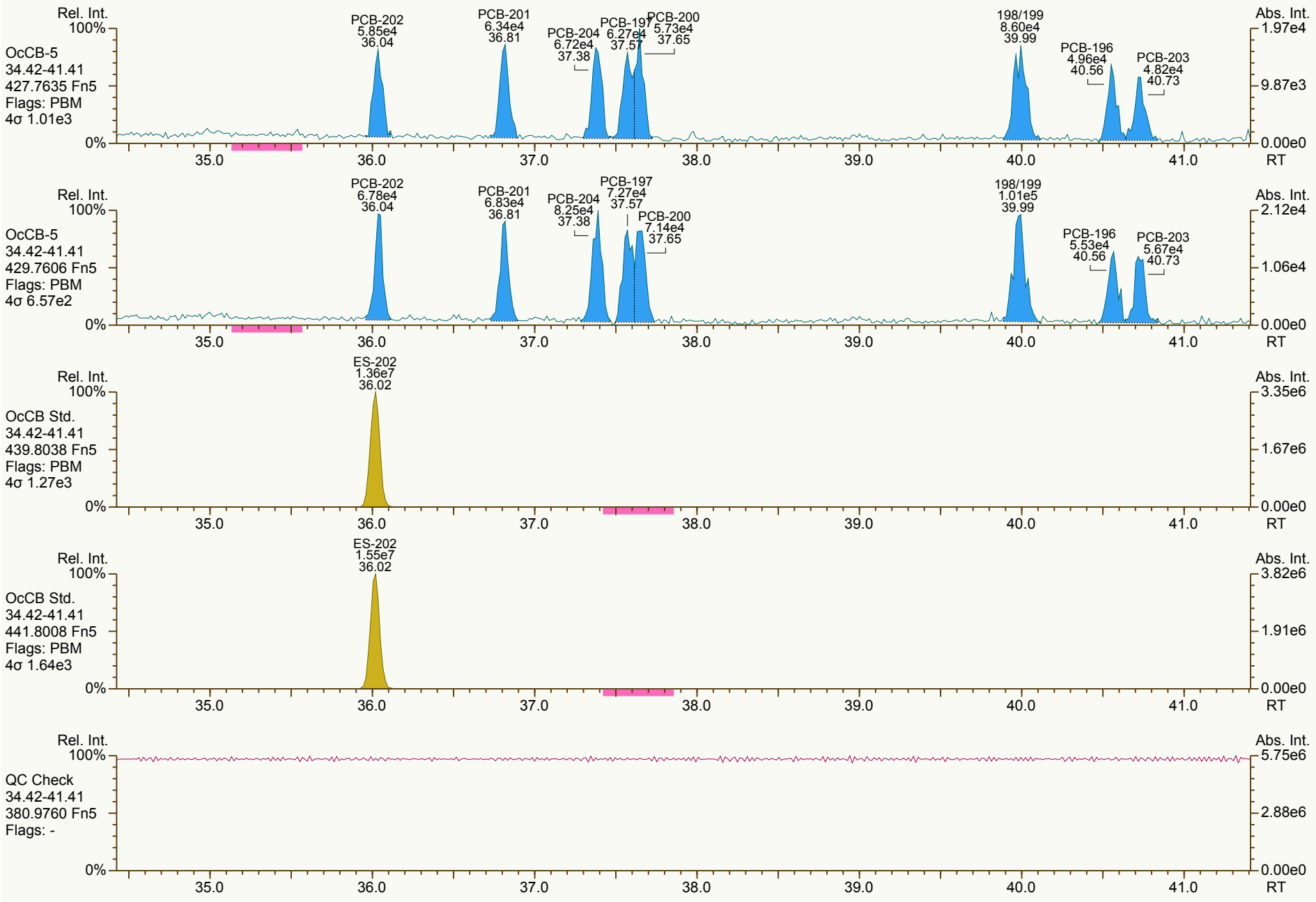


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**

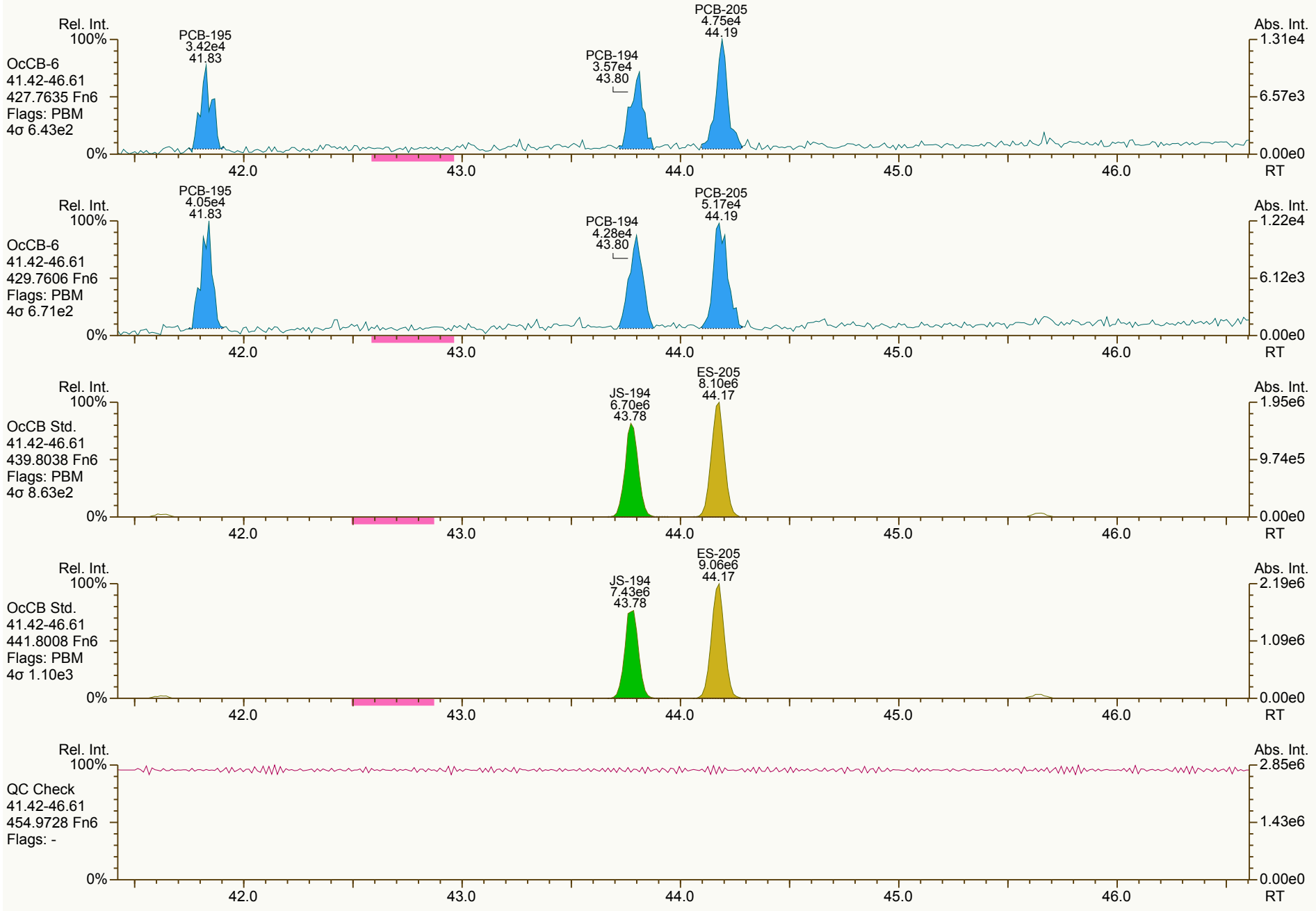


SGS-AP ID: CS0_121214_PCB_VA | **Sample ID: SIL 12-65-6** | **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** | **User: CEM Datafile: 121214V02 (EQ)**



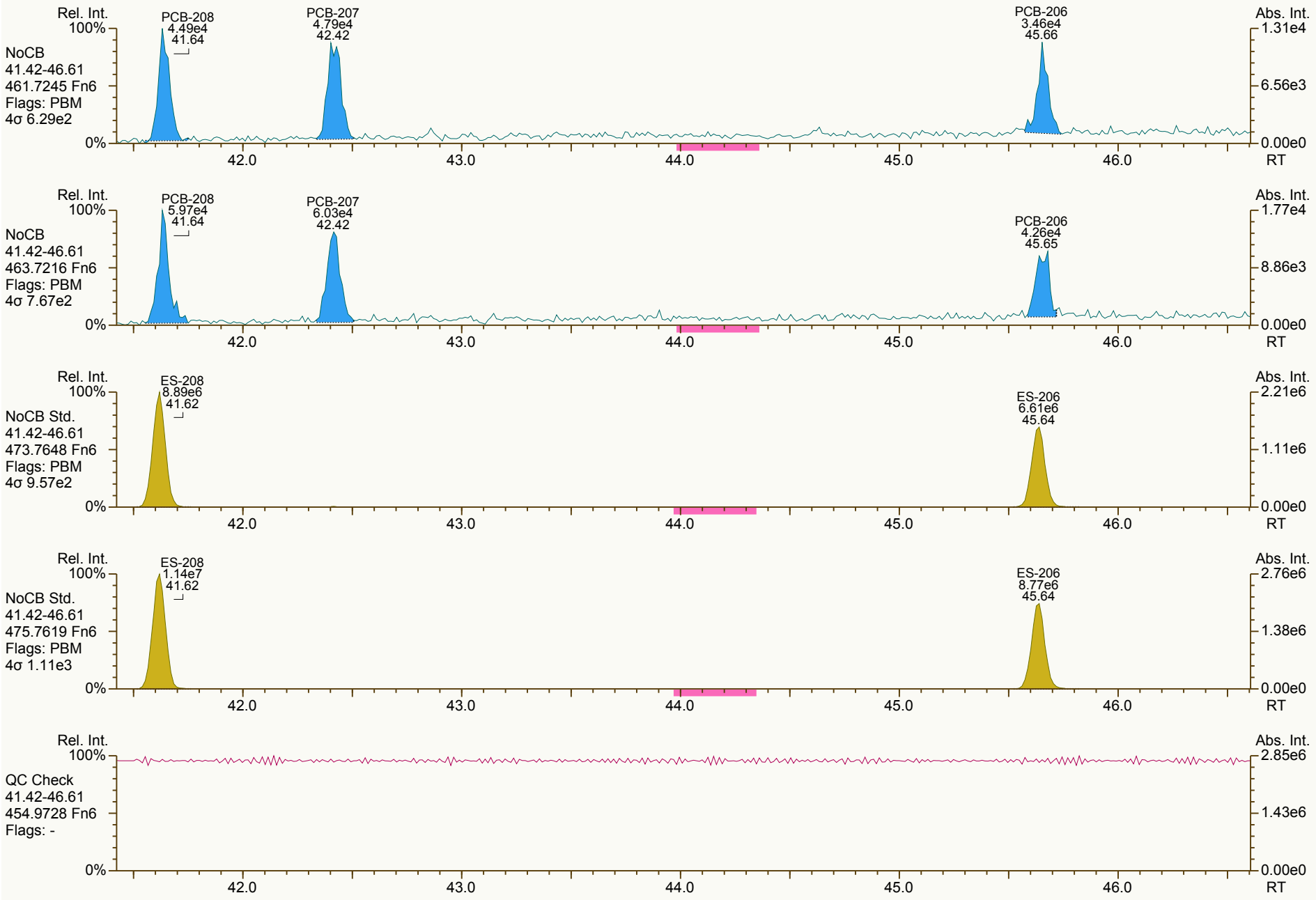
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



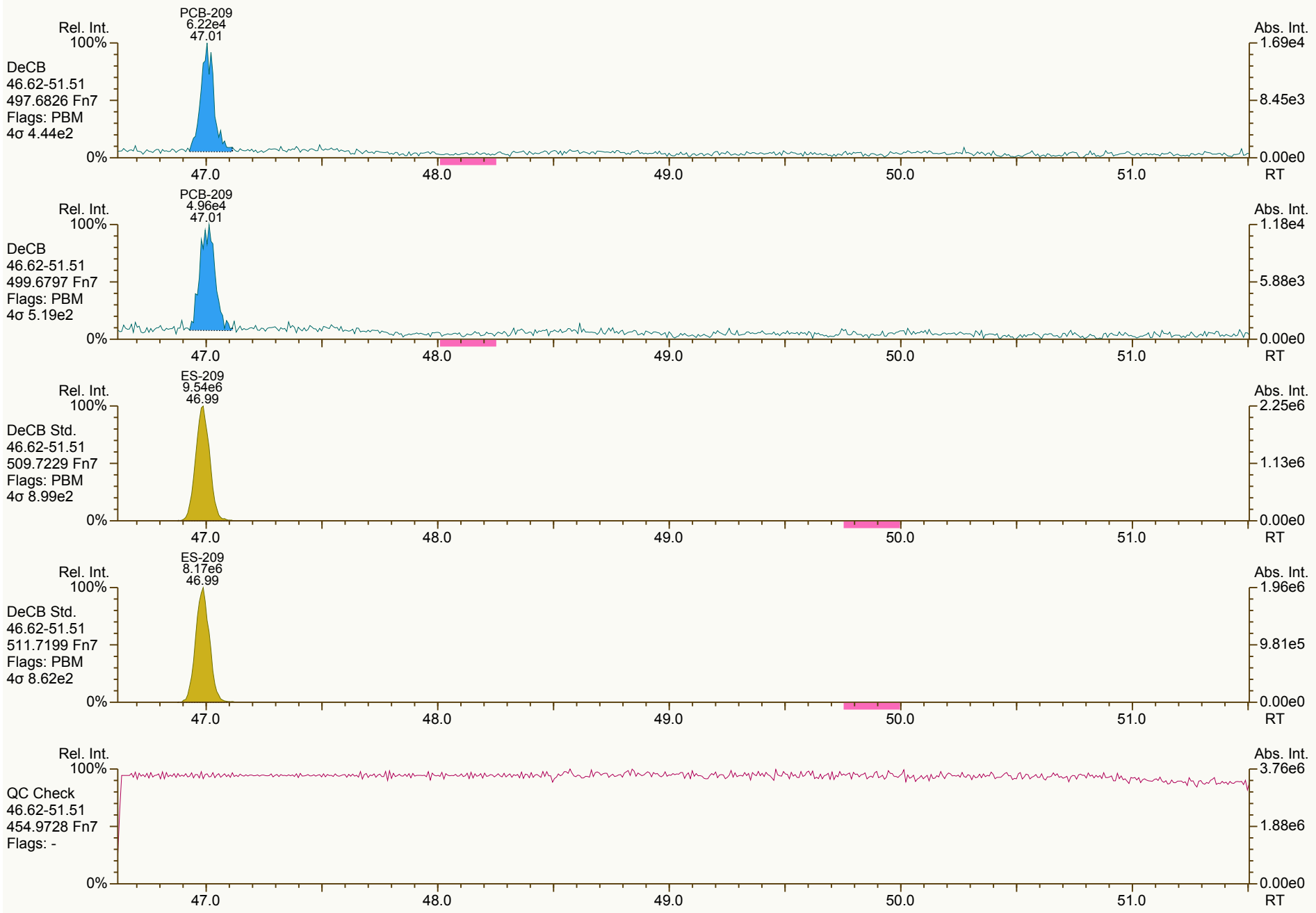
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:16
Lab ID:	CS1_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 03:21				
Datafile:	121214V03				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.10	4.04E+05	0.78 Y	1.25	1.18	-5.3%
PCB-81 344'5-TeCB	28.63	3.78E+05	0.84 Y	1.26	1.16	-8.0%
PCB-105 233'44'-PeCB	32.04	2.48E+05	0.63 Y	1.06	1.08	2.2%
PCB-114 2344'5-PeCB	31.52	2.88E+05	0.67 Y	1.11	1.18	6.3%
PCB-118 23'44'5-PeCB	31.08	2.58E+05	0.61 Y	1.08	1.05	-2.5%
PCB-123 23'44'5'-PeCB	30.80	2.82E+05	0.66 Y	1.12	1.20	7.2%
PCB-126 33'44'5-PeCB	34.64	3.20E+05	0.59 Y	1.16	1.15	-0.7%
PCB-156/157 ...-HxCB	37.17	4.59E+05	1.27 Y	1.14	1.13	-0.5%
PCB-167 23'44'55'-HxCB	36.22	2.44E+05	1.40 Y	1.18	1.16	-1.5%
PCB-169 33'44'55'-HxCB	39.88	1.99E+05	1.19 Y	1.15	1.08	-6.7%
PCB-189 233'44'55'-HpCB	42.02	2.72E+05	1.09 Y	1.12	1.08	-3.5%
PCB-209 DeCB	46.99	1.79E+05	1.14 Y	1.11	1.14	2.5%
ES PCB-1	9.82	6.27E+07	3.29 Y	0.97	0.97	-0.2%
ES PCB-3	11.72	5.80E+07	3.36 Y	0.90	0.90	-0.4%
ES PCB-4	11.93	4.49E+07	1.54 Y	0.70	0.69	-1.1%
ES PCB-15	16.98	6.18E+07	1.63 Y	1.02	0.95	-6.0%
ES PCB-19	14.60	3.37E+07	1.04 Y	0.53	0.52	-1.3%
ES PCB-37	22.93	3.94E+07	1.11 Y	1.29	1.28	-1.2%
ES PCB-54	17.23	4.42E+07	0.77 Y	1.43	1.43	0.5%
ES PCB-77	29.08	3.42E+07	0.84 Y	1.20	1.11	-7.9%
ES PCB-81	28.62	3.27E+07	0.85 Y	1.16	1.06	-8.8%
ES PCB-104	21.90	3.98E+07	1.50 Y	1.70	1.91	11.8%
ES PCB-105	32.02	2.30E+07	1.52 Y	1.10	1.10	0.3%
ES PCB-114	31.49	2.43E+07	1.47 Y	1.16	1.16	0.6%
ES PCB-118	31.05	2.44E+07	1.49 Y	1.15	1.17	1.3%
ES PCB-123	30.77	2.35E+07	1.49 Y	1.14	1.12	-1.5%
ES PCB-126	34.62	2.79E+07	1.64 Y	1.34	1.33	-0.5%
ES PCB-153	32.63	2.43E+07	1.29 Y	1.14	1.13	-1.0%
ES PCB-155	26.71	3.57E+07	1.26 Y	1.61	1.66	3.1%
ES PCB-156/157	37.15	4.05E+07	1.25 Y	0.98	0.94	-3.4%
ES PCB-167	36.20	2.10E+07	1.26 Y	1.01	0.98	-3.1%
ES PCB-169	39.87	1.85E+07	1.21 Y	0.90	0.86	-3.9%
ES PCB-170	39.37	1.62E+07	1.03 Y	1.28	1.27	-1.1%
ES PCB-180	38.33	1.91E+07	1.04 Y	1.54	1.50	-2.6%
ES PCB-188	31.50	3.37E+07	1.06 Y	1.63	1.57	-3.4%
ES PCB-189	42.00	2.52E+07	1.06 Y	1.97	1.98	0.6%
ES PCB-202	36.00	2.63E+07	0.91 Y	1.26	1.23	-2.7%
ES PCB-205	44.16	1.55E+07	0.88 Y	1.22	1.22	-0.4%
ES PCB-206	45.63	1.38E+07	0.77 Y	1.10	1.09	-1.3%
ES PCB-208	41.60	1.79E+07	0.78 Y	1.41	1.41	-0.1%
ES PCB-209	46.97	1.57E+07	1.16 Y	1.24	1.23	-1.1%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.56	4.73E+07	1.10 Y	1.18	1.20	1.8%
SS PCB-111	29.15	2.42E+07	1.52 Y	1.01	1.03	2.4%
SS PCB-178	34.06	2.05E+07	1.04 Y	0.60	0.61	1.0%
CS PCB-28	19.56	4.73E+07	1.10 Y	1.52	1.53	0.6%
CS PCB-111	29.15	2.42E+07	1.52 Y	1.15	1.16	0.8%
CS PCB-178	34.06	2.05E+07	1.04 Y	0.98	0.95	-2.5%
JS PCB-9	13.65	6.48E+07	1.62 Y	-	-	-
JS PCB-52	21.10	3.09E+07	0.77 Y	-	-	-
JS PCB-101	26.89	2.09E+07	1.49 Y	-	-	-
JS PCB-138	33.66	2.14E+07	1.33 Y	-	-	-
JS PCB-194	43.76	1.27E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	9.83	7.57E+05	2.83 Y	1.25	1.21	-3.3%
PCB-3 4-MoCB	11.73	7.08E+05	2.79 Y	1.27	1.22	-3.6%
PCB-4 22'-DiCB	11.94	4.02E+05	1.36 Y	0.90	0.90	-0.3%
PCB-15 44'-DiCB	17.00	7.01E+05	1.33 Y	1.10	1.13	3.5%
PCB-19 22'6-TrCB	14.62	2.97E+05	1.03 Y	0.95	0.88	-6.7%
PCB-37 344'-TrCB	22.95	5.17E+05	1.09 Y	1.39	1.31	-5.6%
PCB-54 22'66'-TeCB	17.24	4.42E+05	0.79 Y	1.05	1.00	-5.0%
PCB-104 22'466'-PeCB	21.93	4.27E+05	0.62 Y	1.12	1.07	-4.2%
PCB-153/168 ...-HxCB	32.67	5.84E+05	1.24 Y	1.24	1.20	-2.7%
PCB-155 22'44'66'-HxCB	26.73	3.89E+05	1.20 Y	1.09	1.09	-0.1%
PCB-170 22'33'44'5-HpCB	39.39	1.52E+05	0.98 Y	0.99	0.94	-5.3%
PCB-180/193 ...-HpCB	38.32	4.27E+05	1.08 Y	1.07	1.12	4.5%
PCB-188 22'34'566'-HpCB	31.52	3.25E+05	1.19 Y	0.98	0.97	-1.7%
PCB-202 22'33'55'66'-OcCB	36.02	2.36E+05	0.83 Y	0.86	0.90	3.6%
PCB-205 233'44'55'6-OcCB	44.18	1.72E+05	0.87 Y	1.13	1.11	-1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.86E+05	0.71 Y	1.03	1.04	0.8%
PCB-206 22'33'44'55'6-NoCB	45.65	1.33E+05	0.69 Y	0.97	0.96	-0.8%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.83	7.57E+05	2.83 Y	1.25	1.21	-3.3%
PCB-2 3-MoCB	11.58	7.05E+05	3.17 Y	1.28	1.21	-4.9%
PCB-3 4-MoCB	11.73	7.08E+05	2.79 Y	1.27	1.22	-3.6%
PCB-4 22'-DiCB	11.94	4.02E+05	1.36 Y	0.90	0.90	-0.3%
PCB-10 26-DiCB	12.10	5.94E+05	1.53 Y	1.38	1.32	-4.1%
PCB-9 25-DiCB	13.66	6.24E+05	1.47 Y	0.99	1.01	2.2%
PCB-7 24-DiCB	13.80	6.72E+05	1.71 Y	1.10	1.09	-1.5%
PCB-6 23'-DiCB	14.00	6.62E+05	1.36 Y	1.04	1.07	3.1%
PCB-5 23-DiCB	14.26	6.29E+05	1.59 Y	1.02	1.02	-0.7%
PCB-8 24'-DiCB	14.37	6.02E+05	1.39 Y	1.03	0.97	-5.7%
PCB-14 35-DiCB	15.77	7.61E+05	1.47 Y	1.20	1.23	2.5%
PCB-11 33'-DiCB	16.48	6.57E+05	1.48 Y	1.03	1.06	3.4%
PCB-13/12 34'/34-DiCB	16.74	1.18E+06	1.48 Y	1.03	0.96	-7.6%
PCB-15 44'-DiCB	17.00	7.01E+05	1.33 Y	1.10	1.13	3.5%
PCB-19 22'6-TrCB	14.62	2.97E+05	1.03 Y	0.95	0.88	-6.7%
PCB-30/18 246/22'5-TrCB	16.21	7.25E+05	1.00 Y	1.23	1.08	-12.5%
PCB-17 22'4-TrCB	16.57	3.48E+05	1.07 Y	1.05	1.03	-1.9%
PCB-27 23'6-TrCB	16.75	4.46E+05	1.06 Y	1.46	1.33	-9.5%
PCB-24 236-TrCB	16.87	4.22E+05	1.02 Y	1.32	1.25	-5.1%
PCB-16 22'3-TrCB	16.95	2.62E+05	1.00 Y	0.81	0.78	-3.7%
PCB-32 24'6-TrCB	17.40	4.79E+05	1.06 Y	1.48	1.42	-3.6%
PCB-34 23'5'-TrCB	18.48	5.40E+05	1.01 Y	1.46	1.37	-6.3%
PCB-23 235-TrCB	18.61	5.73E+05	1.10 Y	1.50	1.45	-3.3%
PCB-26/29 23'5/245-TrCB	18.88	1.17E+06	1.04 Y	1.53	1.48	-2.9%
PCB-25 23'4-TrCB	19.07	6.05E+05	1.15 Y	1.53	1.53	0.0%
PCB-31 24'5-TrCB	19.33	5.97E+05	1.00 Y	1.55	1.51	-2.4%
PCB-28/20 244'/233'-TrCB	19.59	1.17E+06	1.06 Y	1.51	1.48	-1.6%
PCB-21/33 234/23'4'-TrCB	19.75	1.22E+06	1.00 Y	1.55	1.55	0.1%
PCB-22 234'-TrCB	20.10	5.44E+05	1.07 Y	1.40	1.38	-1.3%
PCB-36 33'5-TrCB	21.43	5.81E+05	1.11 Y	1.52	1.47	-2.9%
PCB-39 34'5-TrCB	21.73	6.17E+05	1.00 Y	1.58	1.57	-1.1%
PCB-38 345-TrCB	22.22	5.57E+05	1.08 Y	1.47	1.41	-3.7%
PCB-35 33'4-TrCB	22.61	4.81E+05	1.05 Y	1.33	1.22	-8.5%
PCB-37 344'-TrCB	22.95	5.17E+05	1.09 Y	1.39	1.31	-5.6%
PCB-54 22'66'-TeCB	17.24	4.42E+05	0.79 Y	1.05	1.00	-5.0%
PCB-50/53 22'46/22'56'-TeCB	19.10	6.13E+05	0.75 Y	0.88	0.94	6.9%
PCB-45 22'36-TeCB	19.64	2.33E+05	0.76 Y	0.73	0.71	-2.8%
PCB-51 22'46'-TeCB	19.71	3.28E+05	0.75 Y	0.94	1.00	7.0%
PCB-46 22'36'-TeCB	19.91	2.44E+05	0.72 Y	0.72	0.75	4.2%
PCB-52 22'55'-TeCB	21.13	2.72E+05	0.79 Y	0.82	0.83	0.9%
PCB-73 23'5'6-TeCB	21.25	3.71E+05	0.77 Y	1.10	1.13	3.0%
PCB-43 22'35-TeCB	21.33	2.32E+05	0.73 Y	0.70	0.71	0.7%
PCB-69/49 23'46/22'45'-TeCB	21.52	6.63E+05	0.74 Y	1.01	1.01	0.6%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.78	2.73E+05	0.77 Y	0.84	0.84	-0.9%
PCB-44/47/65 ...-TeCB	21.98	9.01E+05	0.76 Y	0.90	0.92	1.9%
PCB-59/62/75 ...-TeCB	22.25	1.12E+06	0.72 Y	1.15	1.14	-1.0%
PCB-42 22'34'-TeCB	22.40	2.55E+05	0.69 Y	0.76	0.78	2.1%
PCB-41 22'34-TeCB	22.71	2.06E+05	0.68 Y	0.64	0.63	-1.7%
PCB-71/40 23'4'6/22'33'-TeCB	22.81	5.79E+05	0.79 Y	0.83	0.89	6.3%
PCB-64 234'6-TeCB	23.00	3.83E+05	0.76 Y	1.17	1.17	-0.3%
PCB-72 23'55'-TeCB	23.73	4.38E+05	0.69 Y	1.37	1.34	-2.1%
PCB-68 23'45'-TeCB	23.97	5.52E+05	0.79 Y	1.52	1.69	11.3%
PCB-57 233'5-TeCB	24.32	4.56E+05	0.77 Y	1.32	1.40	5.4%
PCB-58 233'5'-TeCB	24.52	4.44E+05	0.78 Y	1.34	1.36	1.6%
PCB-67 23'45-TeCB	24.66	4.61E+05	0.77 Y	1.41	1.41	-0.1%
PCB-63 234'5-TeCB	24.88	4.96E+05	0.84 Y	1.46	1.52	4.1%
PCB-61/70/74/76 ...-TeCB	25.16	1.82E+06	0.78 Y	1.37	1.39	2.0%
PCB-66 23'44'-TeCB	25.44	4.11E+05	0.73 Y	1.24	1.26	1.2%
PCB-55 233'4-TeCB	25.57	4.13E+05	0.73 Y	1.28	1.26	-1.1%
PCB-56 233'4'-TeCB	25.99	4.21E+05	0.76 Y	1.23	1.29	4.7%
PCB-60 2344'-TeCB	26.17	4.32E+05	0.72 Y	1.30	1.32	1.9%
PCB-80 33'55'-TeCB	26.54	4.89E+05	0.77 Y	1.44	1.50	4.2%
PCB-79 33'45'-TeCB	27.81	4.75E+05	0.80 Y	1.48	1.45	-1.5%
PCB-78 33'45-TeCB	28.27	4.15E+05	0.75 Y	1.21	1.27	5.0%
PCB-104 22'466'-PeCB	21.93	4.27E+05	0.62 Y	1.12	1.07	-4.2%
PCB-96 22'366'-PeCB	22.22	3.48E+05	0.66 Y	0.96	0.87	-9.3%
PCB-103 22'45'6-PeCB	23.88	2.32E+05	0.61 Y	0.93	0.99	6.1%
PCB-94 22'356'-PeCB	24.05	2.21E+05	0.63 Y	0.81	0.94	16.5%
PCB-95 22'35'6-PeCB	24.42	2.00E+05	0.77 N	0.85	0.85	0.0%
PCB-100/93 22'44'6/22'356-PeCB	24.62	4.36E+05	0.63 Y	0.88	0.93	5.0%
PCB-102 22'456'-PeCB	24.74	2.52E+05	0.65 Y	0.93	1.07	15.2%
PCB-98 22'34'6'-PeCB	24.80	1.87E+05	0.69 Y	0.84	0.80	-5.0%
PCB-88 22'346-PeCB	25.08	1.84E+05	0.63 Y	0.77	0.78	1.6%
PCB-91 22'34'6-PeCB	25.15	2.29E+05	0.66 Y	0.96	0.97	1.5%
PCB-84 22'33'6-PeCB	25.33	1.72E+05	0.66 Y	0.72	0.73	1.5%
PCB-89 22'346'-PeCB	25.73	2.02E+05	0.69 Y	0.77	0.86	11.4%
PCB-121 23'45'6-PeCB	26.11	2.73E+05	0.56 Y	1.15	1.16	1.4%
PCB-92 22'355'-PeCB	26.42	1.97E+05	0.65 Y	0.79	0.84	5.5%
PCB-113/90/101 ...-PeCB	26.88	6.95E+05	0.61 Y	0.95	0.99	3.2%
PCB-83 22'33'5-PeCB	27.29	1.77E+05	0.64 Y	0.72	0.75	4.5%
PCB-99 22'44'5-PeCB	27.40	2.15E+05	0.68 Y	0.90	0.91	2.1%
PCB-112 233'56-PeCB	27.49	2.84E+05	0.64 Y	1.09	1.21	10.6%
PCB-109/119/86/97/125...-PeCB	27.82	1.35E+06	0.64 Y	0.95	0.96	1.1%
PCB-117 234'56-PeCB	28.34	2.50E+05	0.64 Y	0.99	1.07	7.5%
PCB-116/85 23456/22'344'-PeCB	28.42	4.28E+05	0.65 Y	0.96	0.91	-5.1%
PCB-110 233'4'6-PeCB	28.55	2.77E+05	0.66 Y	1.01	1.18	16.8%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.62	2.40E+05	0.63 Y	1.15	1.02	-11.1%
PCB-82 22'33'4-PeCB	28.81	1.67E+05	0.63 Y	0.70	0.71	1.8%
PCB-111 233'55'-PeCB	29.17	2.75E+05	0.61 Y	1.16	1.17	0.7%
PCB-120 23'455'-PeCB	29.55	2.70E+05	0.63 Y	1.14	1.15	1.1%
PCB-108/124 ...-PeCB	30.49	4.76E+05	0.65 Y	1.02	1.01	-0.6%
PCB-107 233'4'5-PeCB	30.69	2.69E+05	0.68 Y	1.13	1.14	0.9%
PCB-106 233'45-PeCB	30.89	2.33E+05	0.68 Y	1.01	0.99	-2.1%
PCB-122 233'4'5'-PeCB	31.35	2.17E+05	0.63 Y	0.91	0.89	-2.1%
PCB-127 33'455'-PeCB	33.30	2.33E+05	0.63 Y	1.06	1.01	-3.9%
PCB-155 22'44'66'-HxCB	26.73	3.89E+05	1.20 Y	1.09	1.09	-0.1%
PCB-152 22'3566'-HxCB	26.87	3.55E+05	1.37 Y	1.04	1.00	-4.4%
PCB-150 22'34'66'-HxCB	27.01	3.54E+05	1.33 Y	1.03	0.99	-3.5%
PCB-136 22'33'66'-HxCB	27.30	3.46E+05	1.23 Y	0.97	0.97	-0.3%
PCB-145 22'3466'-HxCB	27.56	3.18E+05	1.17 Y	0.96	0.89	-7.3%
PCB-148 22'34'56'-HxCB	28.85	2.64E+05	1.29 Y	1.03	1.09	5.3%
PCB-151/135 ...-HxCB	29.35	4.93E+05	1.23 Y	0.99	1.02	2.3%
PCB-154 22'44'56'-HxCB	29.56	2.72E+05	1.17 Y	1.17	1.12	-4.4%
PCB-144 22'345'6-HxCB	29.81	2.74E+05	1.30 Y	1.03	1.13	9.8%
PCB-147/149 ...-HxCB	30.11	5.15E+05	1.14 Y	1.02	1.06	4.3%
PCB-134 22'33'56-HxCB	30.27	1.97E+05	1.28 Y	0.80	0.81	1.3%
PCB-143 22'3456'-HxCB	30.35	2.20E+05	1.15 Y	0.95	0.91	-4.2%
PCB-139/140 ...-HxCB	30.61	4.87E+05	1.18 Y	1.05	1.00	-4.4%
PCB-131 22'33'46-HxCB	30.77	2.13E+05	1.21 Y	0.90	0.88	-1.8%
PCB-142 22'3456-HxCB	30.90	2.28E+05	1.28 Y	0.93	0.94	1.6%
PCB-132 22'33'46'-HxCB	31.15	2.08E+05	1.24 Y	0.93	0.86	-8.0%
PCB-133 22'33'55'-HxCB	31.60	2.44E+05	1.17 Y	0.97	1.00	3.7%
PCB-165 233'55'6-HxCB	31.93	2.90E+05	1.32 Y	1.16	1.20	3.0%
PCB-146 22'34'55'-HxCB	32.14	2.46E+05	1.34 Y	1.01	1.01	0.3%
PCB-161 233'45'6-HxCB	32.25	2.93E+05	1.15 Y	1.29	1.21	-6.7%
PCB-153/168 ...-HxCB	32.67	5.84E+05	1.24 Y	1.24	1.20	-2.7%
PCB-141 22'3455'-HxCB	32.80	2.54E+05	1.24 Y	0.95	1.05	10.3%
PCB-130 22'33'45'-HxCB	33.15	1.99E+05	1.17 Y	0.82	0.82	-0.4%
PCB-137 22'344'5-HxCB	33.33	2.15E+05	1.57 N	0.97	0.89	-8.5%
PCB-164 233'4'5'6-HxCB	33.42	2.99E+05	1.23 Y	1.25	1.23	-1.4%
PCB-163/138/129 ...-HxCB	33.70	7.01E+05	1.24 Y	1.04	0.96	-7.5%
PCB-160 233'456-HxCB	33.82	2.98E+05	1.20 Y	1.19	1.23	3.0%
PCB-158 233'44'6-HxCB	34.02	3.10E+05	1.13 Y	1.34	1.28	-4.7%
PCB-128/166 ...-HxCB	34.73	3.96E+05	1.31 Y	0.96	0.94	-1.8%
PCB-159 233'455'-HxCB	35.58	2.47E+05	1.32 Y	1.12	1.18	5.0%
PCB-162 233'4'55'-HxCB	35.82	2.39E+05	1.28 Y	1.13	1.14	1.0%
PCB-188 22'34'566'-HpCB	31.52	3.25E+05	1.19 Y	0.98	0.97	-1.7%
PCB-179 22'33'566'-HpCB	31.79	3.14E+05	1.13 Y	0.90	0.93	4.1%
PCB-184 22'344'66'-HpCB	32.25	2.84E+05	1.09 Y	0.86	0.84	-2.3%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA

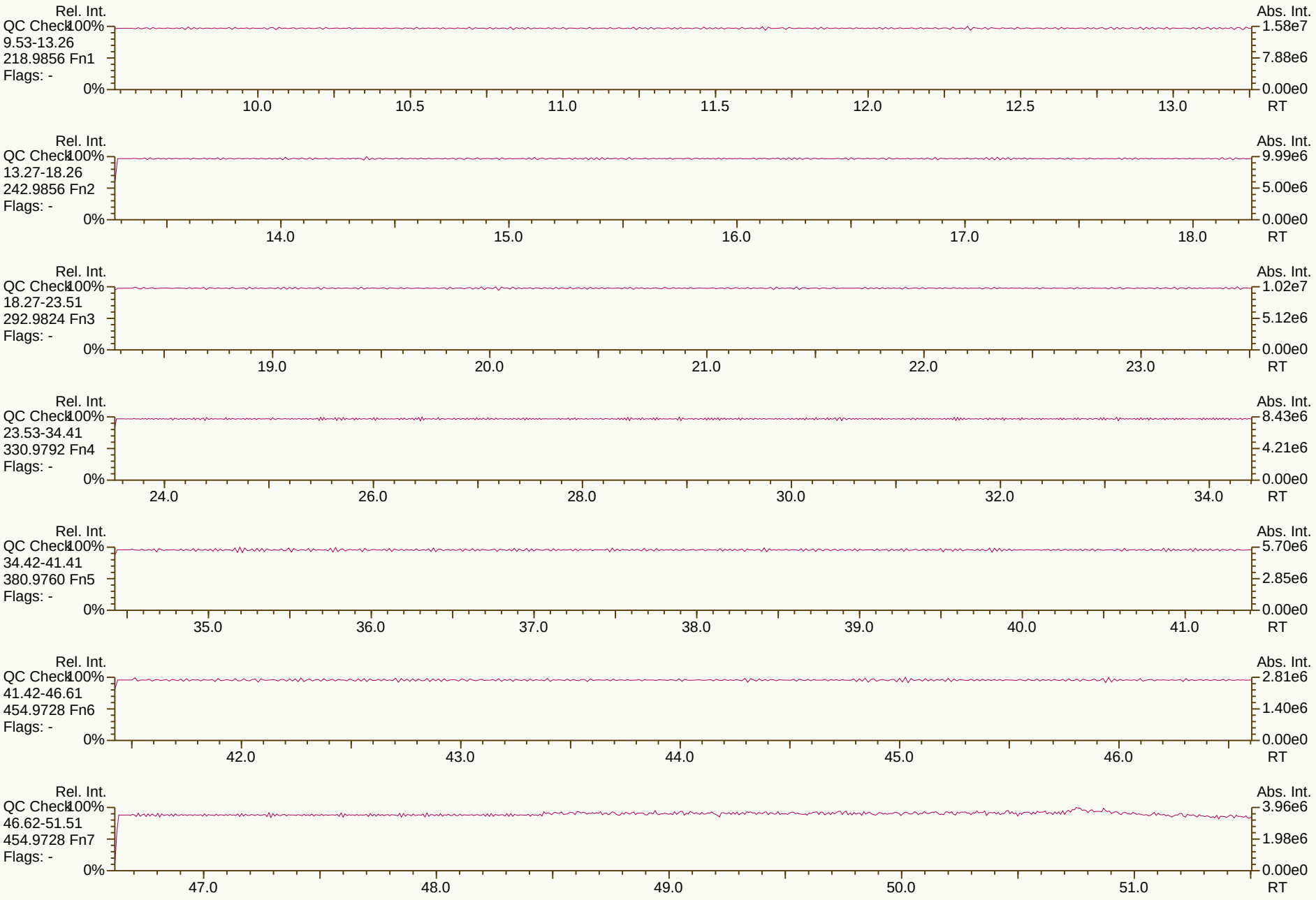
ICAL: MM6_PCB_07132012_14DEC12

Acquired: 14-DEC-2012 03:21

Datafile: 121214V03

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.53	3.32E+05	0.98 Y	0.97	0.99	1.9%
PCB-186 22'34566'-HpCB	32.91	3.41E+05	1.03 Y	0.93	1.01	9.3%
PCB-178 22'33'55'6-HpCB	34.08	2.33E+05	1.00 Y	0.66	0.69	4.5%
PCB-175 22'33'45'6-HpCB	34.61	1.90E+05	0.89 Y	1.02	1.00	-2.8%
PCB-187 22'34'55'6-HpCB	34.84	2.03E+05	1.03 Y	1.03	1.07	3.7%
PCB-182 22'344'56'-HpCB	35.01	2.13E+05	1.12 Y	1.10	1.11	1.6%
PCB-183 22'344'5'6-HpCB	35.36	2.48E+05	1.16 Y	1.12	1.30	15.4%
PCB-185 22'3455'6-HpCB	35.43	1.63E+05	1.07 Y	0.97	0.86	-11.7%
PCB-174 22'33'456'-HpCB	35.54	1.80E+05	0.96 Y	0.90	0.94	5.3%
PCB-177 22'33'45'6'-HpCB	35.91	1.55E+05	0.97 Y	0.87	0.81	-6.8%
PCB-181 22'344'56-HpCB	36.24	2.16E+05	1.11 Y	1.03	1.13	9.3%
PCB-171/173 ...-HpCB	36.42	3.40E+05	1.14 Y	0.89	0.89	0.4%
PCB-172 22'33'455'-HpCB	37.80	1.68E+05	1.11 Y	0.87	0.88	0.7%
PCB-192 233'455'6-HpCB	38.04	2.29E+05	1.02 Y	1.16	1.20	3.4%
PCB-180/193 ...-HpCB	38.32	4.27E+05	1.08 Y	1.07	1.12	4.5%
PCB-191 233'44'5'6-HpCB	38.65	2.30E+05	1.06 Y	1.18	1.20	1.7%
PCB-170 22'33'44'5-HpCB	39.39	1.52E+05	0.98 Y	0.99	0.94	-5.3%
PCB-190 233'44'56-HpCB	39.84	2.09E+05	1.09 Y	1.36	1.30	-4.5%
PCB-202 22'33'55'66'-OcCB	36.02	2.36E+05	0.83 Y	0.86	0.90	3.6%
PCB-201 22'33'45'66'-OcCB	36.80	2.67E+05	0.76 Y	0.95	1.02	7.0%
PCB-204 22'344'566'-OcCB	37.37	2.09E+05	0.83 Y	0.90	0.79	-12.2%
PCB-197 22'33'44'66'-OcCB	37.56	2.74E+05	0.93 Y	0.96	1.04	8.5%
PCB-200 22'33'4566'-OcCB	37.63	2.11E+05	0.97 Y	0.88	0.80	-9.2%
PCB-198/199 ...-OcCB	39.98	3.06E+05	0.84 Y	0.63	0.58	-7.7%
PCB-196 22'33'44'56'-OcCB	40.54	1.62E+05	0.79 Y	0.66	0.62	-7.0%
PCB-203 22'344'55'6-OcCB	40.71	1.86E+05	0.88 Y	0.69	0.71	1.6%
PCB-195 22'33'44'56-OcCB	41.81	1.20E+05	0.86 Y	0.82	0.77	-6.5%
PCB-194 22'33'44'55'-OcCB	43.79	1.38E+05	0.90 Y	0.90	0.89	-1.2%
PCB-205 233'44'55'6-OcCB	44.18	1.72E+05	0.87 Y	1.13	1.11	-1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.86E+05	0.71 Y	1.03	1.04	0.8%
PCB-207 22'33'44'566'-NoCB	42.41	1.95E+05	0.71 Y	1.07	1.09	1.9%
PCB-206 22'33'44'55'6-NoCB	45.65	1.33E+05	0.69 Y	0.97	0.96	-0.8%

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



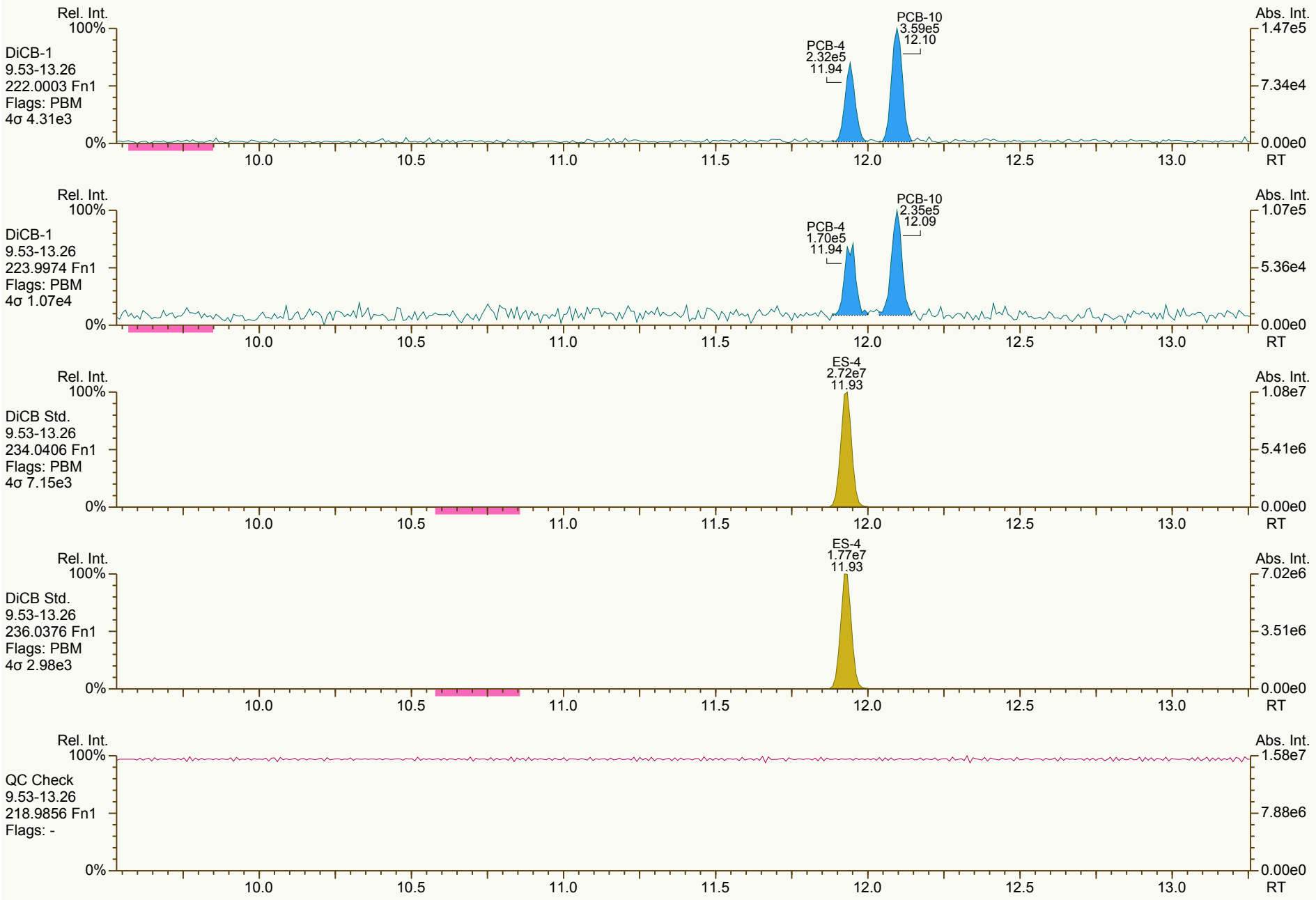
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**

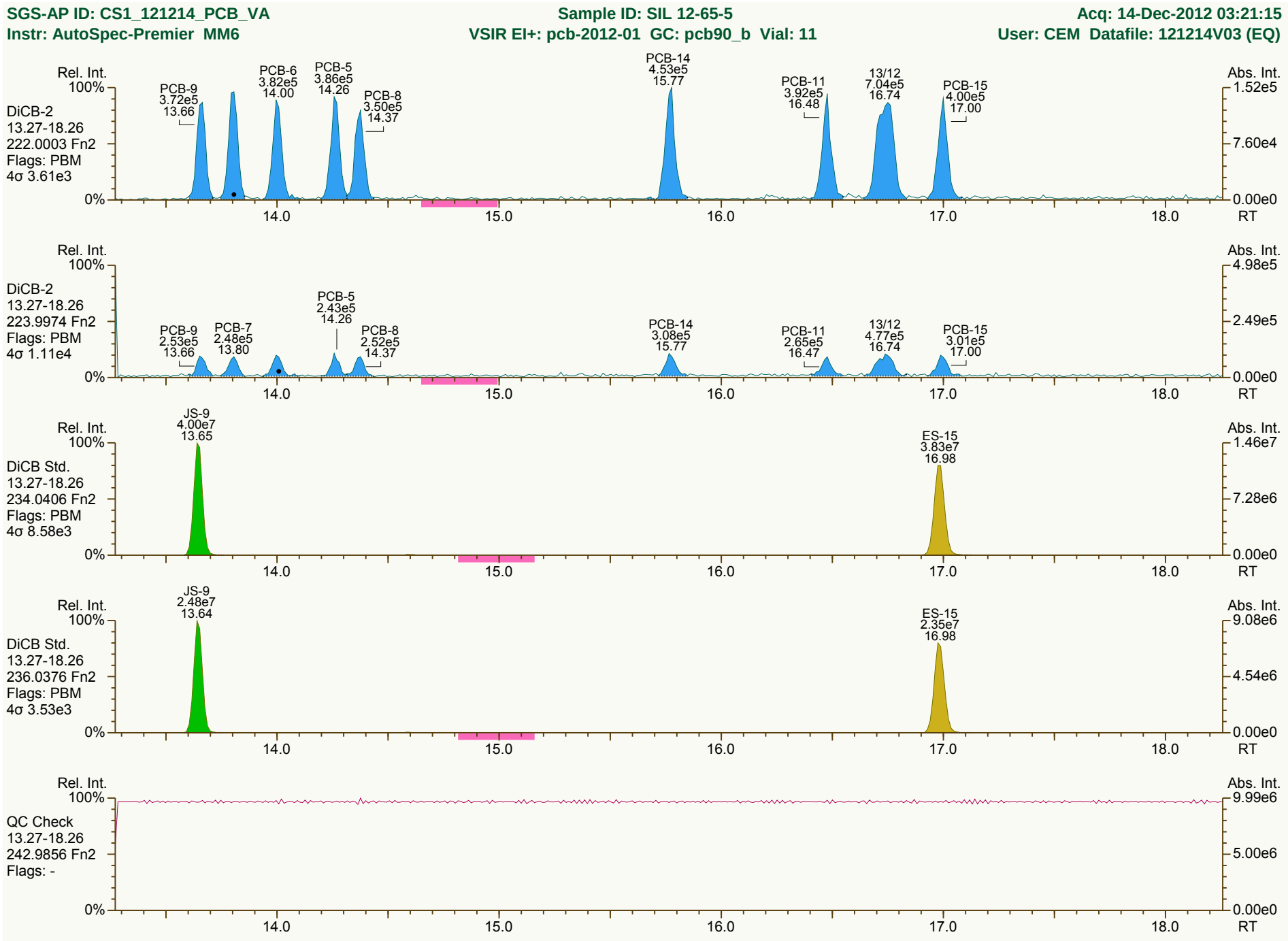


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



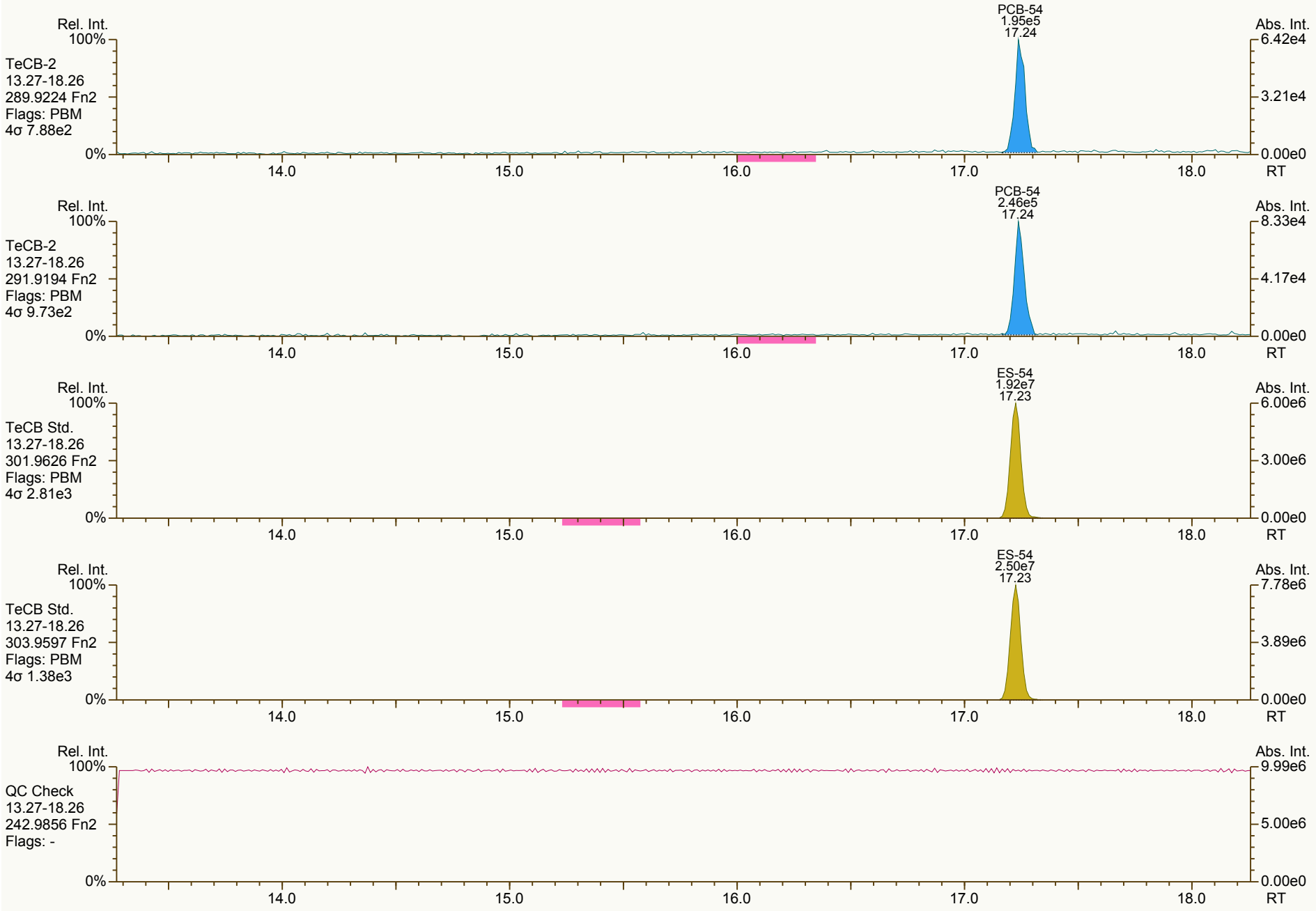
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*


SGS-AP ID: CS1_121214_PCB_VA
Sample ID: SIL 12-65-5
Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11
User: CEM Datafile: 121214V03 (EQ)
Rel. Int.
Abs. Int.
DiCB-2
13.27-18.26
222.0003 Fn2
Flags: PBM
4σ 3.61e3
PCB-9 3.72e5 13.66
PCB-6 3.82e5 14.00
PCB-5 3.86e5 14.26
PCB-8 3.50e5 14.37
PCB-14 4.53e5 15.77
PCB-11 3.92e5 16.48
13/12 7.04e5 16.74
PCB-15 4.00e5 17.00
DiCB-2
13.27-18.26
223.9974 Fn2
Flags: PBM
4σ 1.11e4
PCB-9 2.53e5 13.66
PCB-7 2.48e5 13.80
PCB-5 2.43e5 14.26
PCB-8 2.52e5 14.37
PCB-14 3.08e5 15.77
PCB-11 2.65e5 16.47
13/12 4.77e5 16.74
PCB-15 3.01e5 17.00
DiCB Std.
13.27-18.26
234.0406 Fn2
Flags: PBM
4σ 8.58e3
JS-9 4.00e7 13.65
ES-15 3.83e7 16.98
DiCB Std.
13.27-18.26
236.0376 Fn2
Flags: PBM
4σ 3.53e3
JS-9 2.48e7 13.64
ES-15 2.35e7 16.98
QC Check
13.27-18.26
242.9856 Fn2
Flags: -
RT

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**

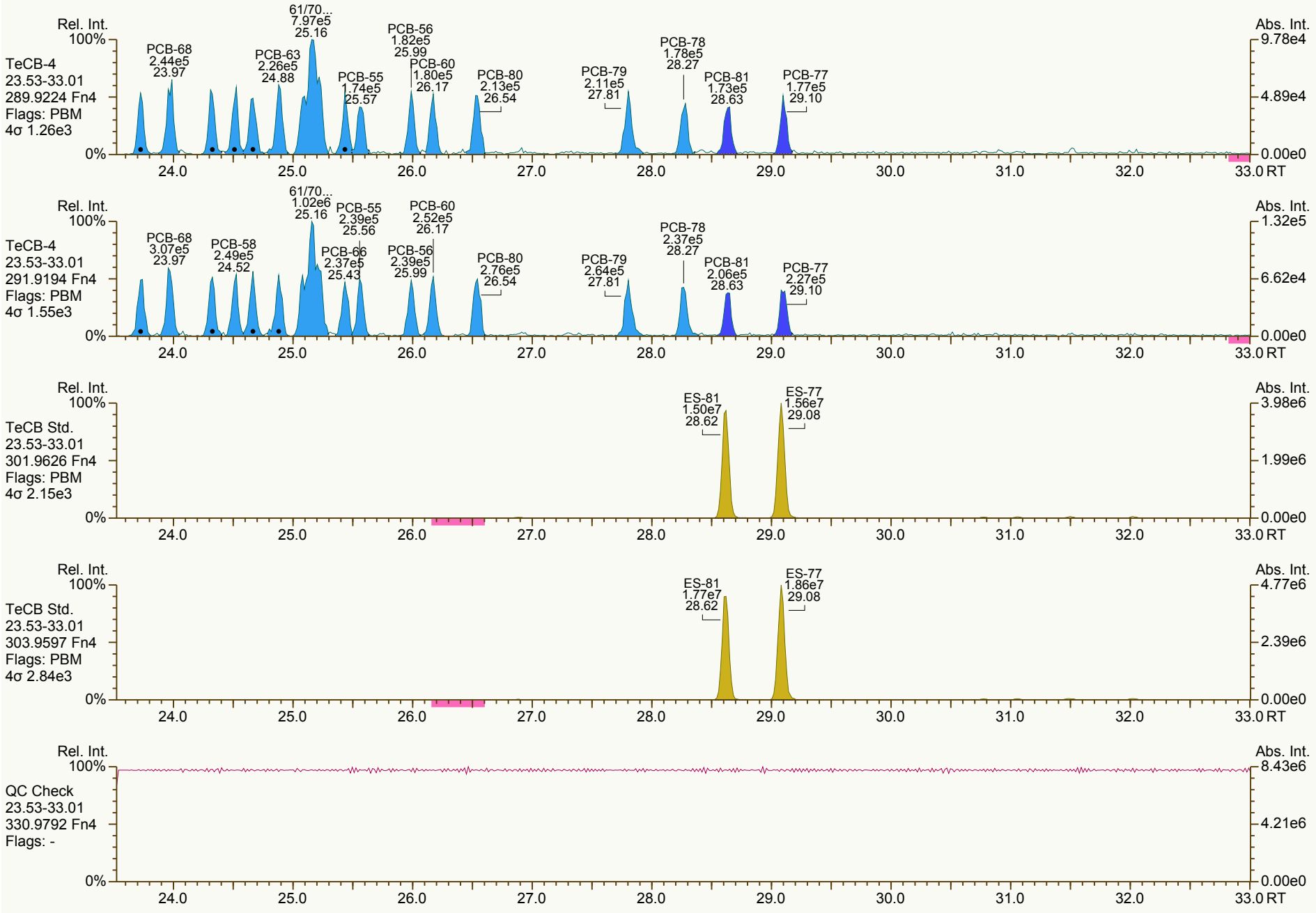


SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



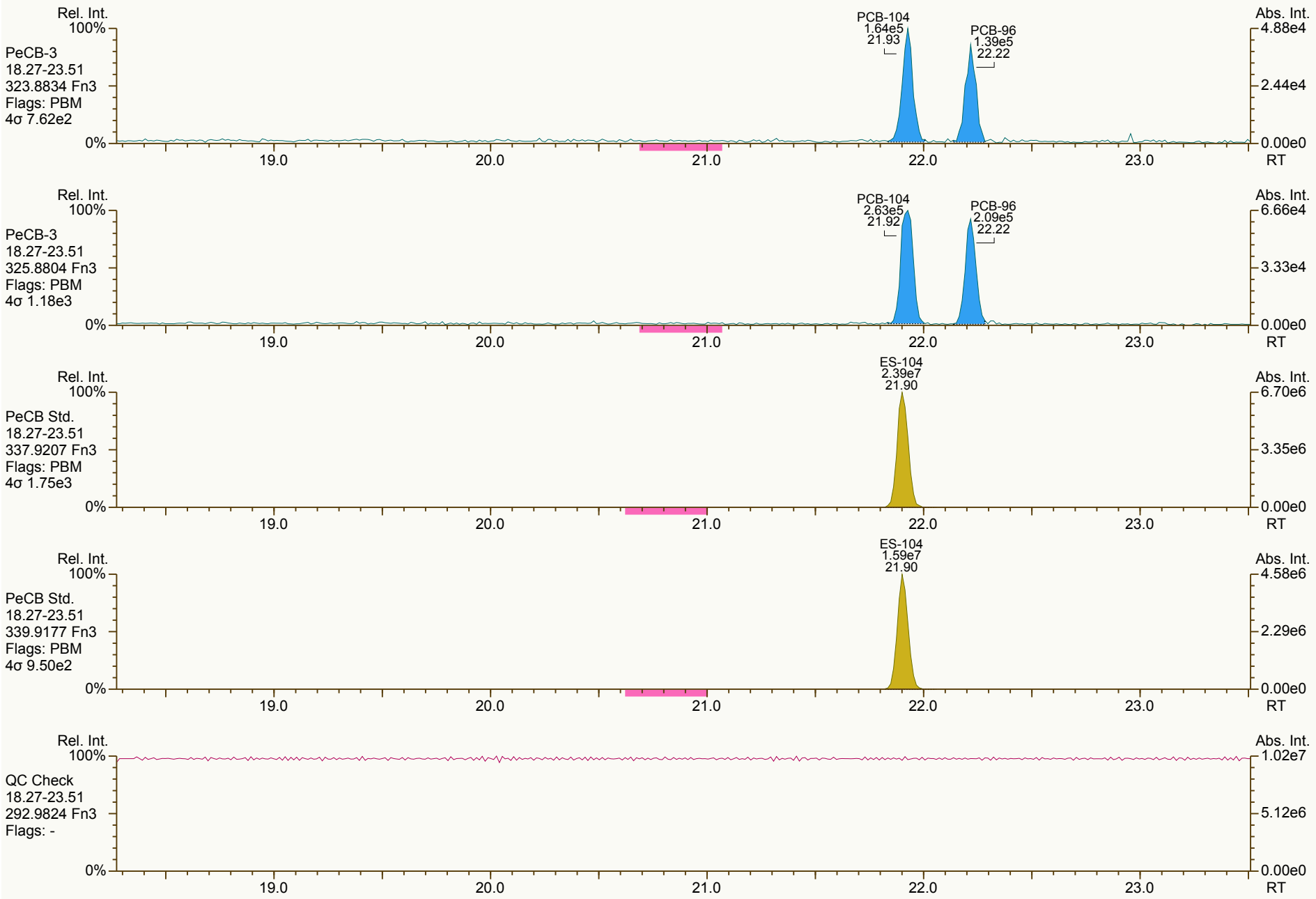
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



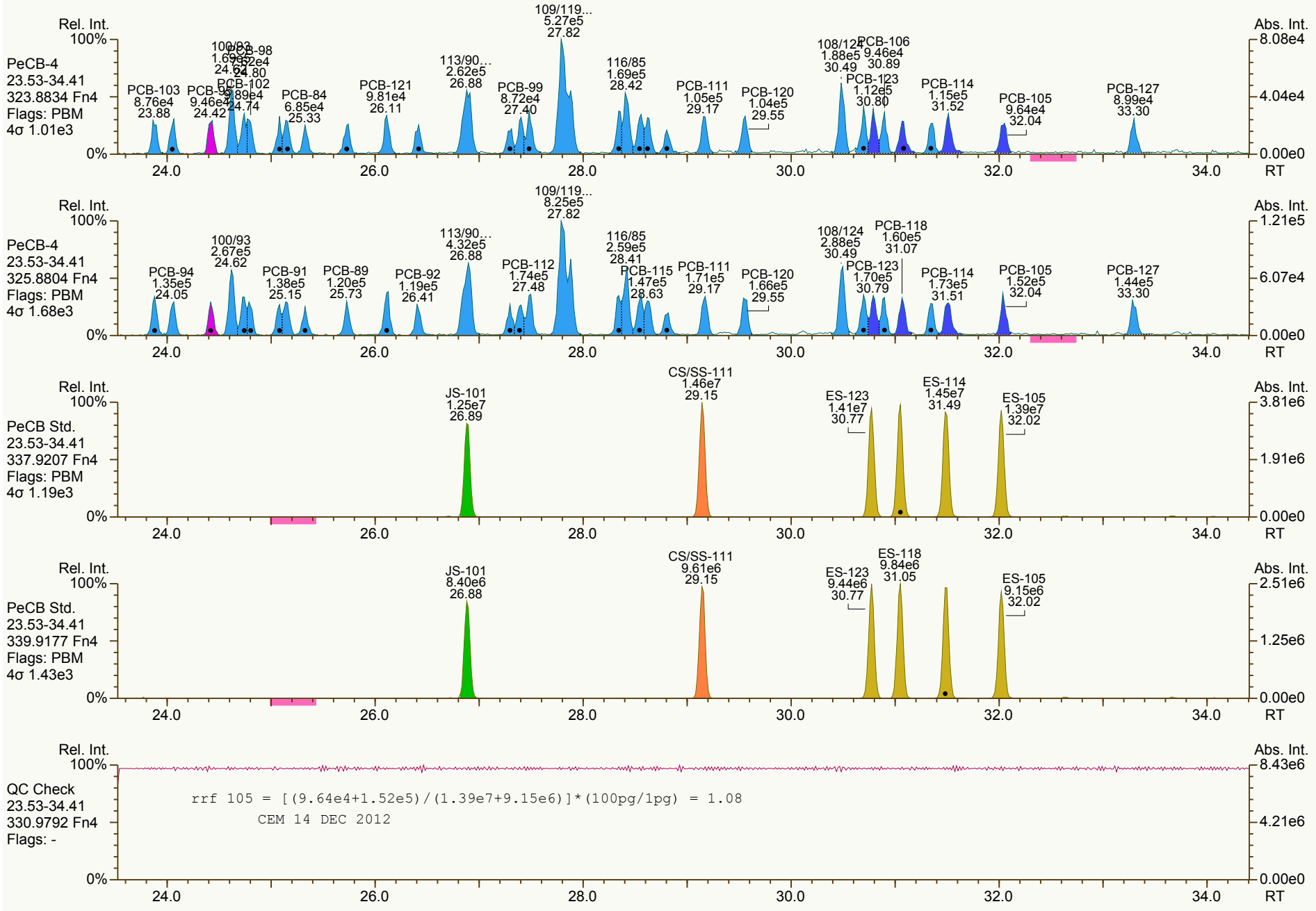
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



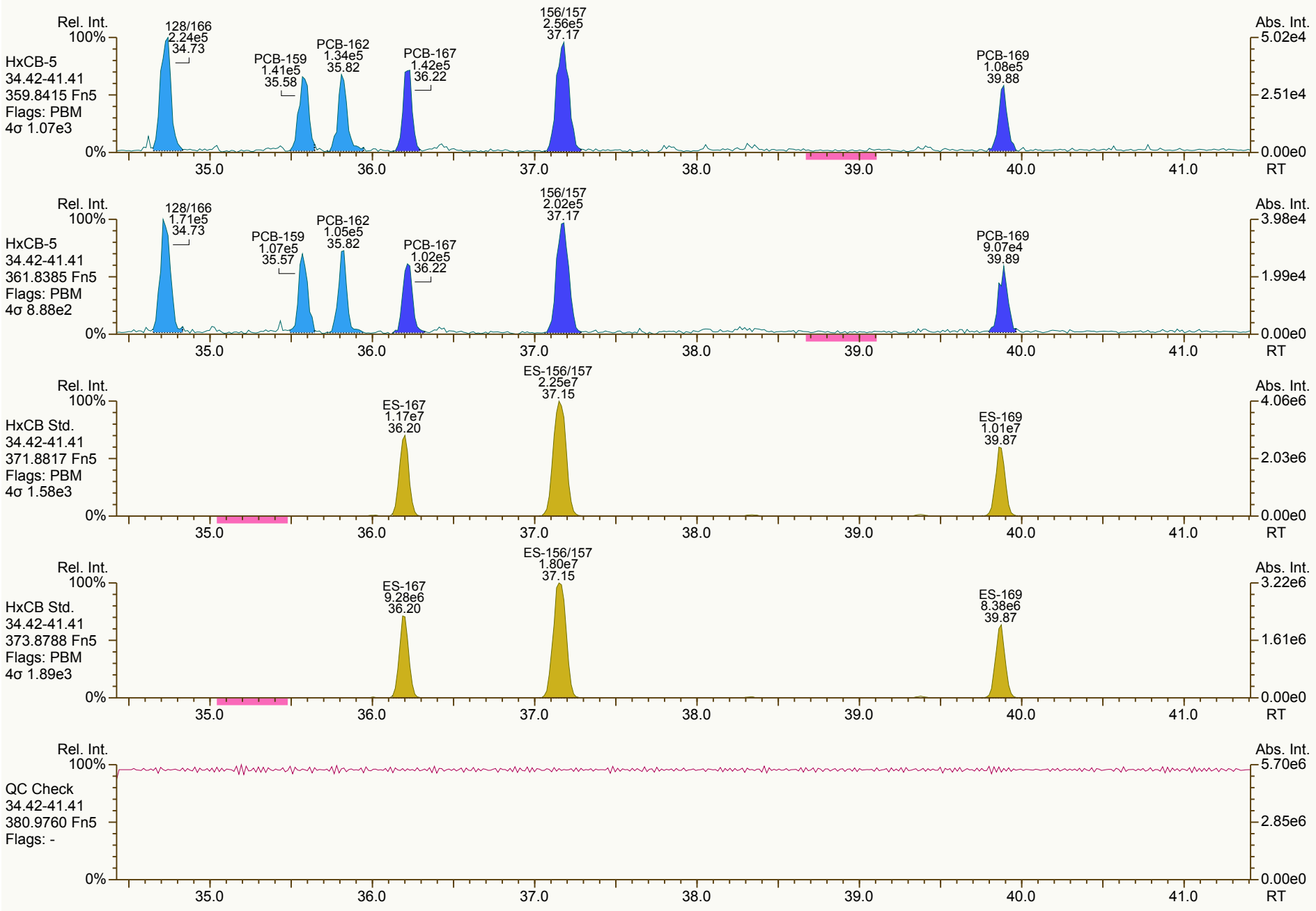
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



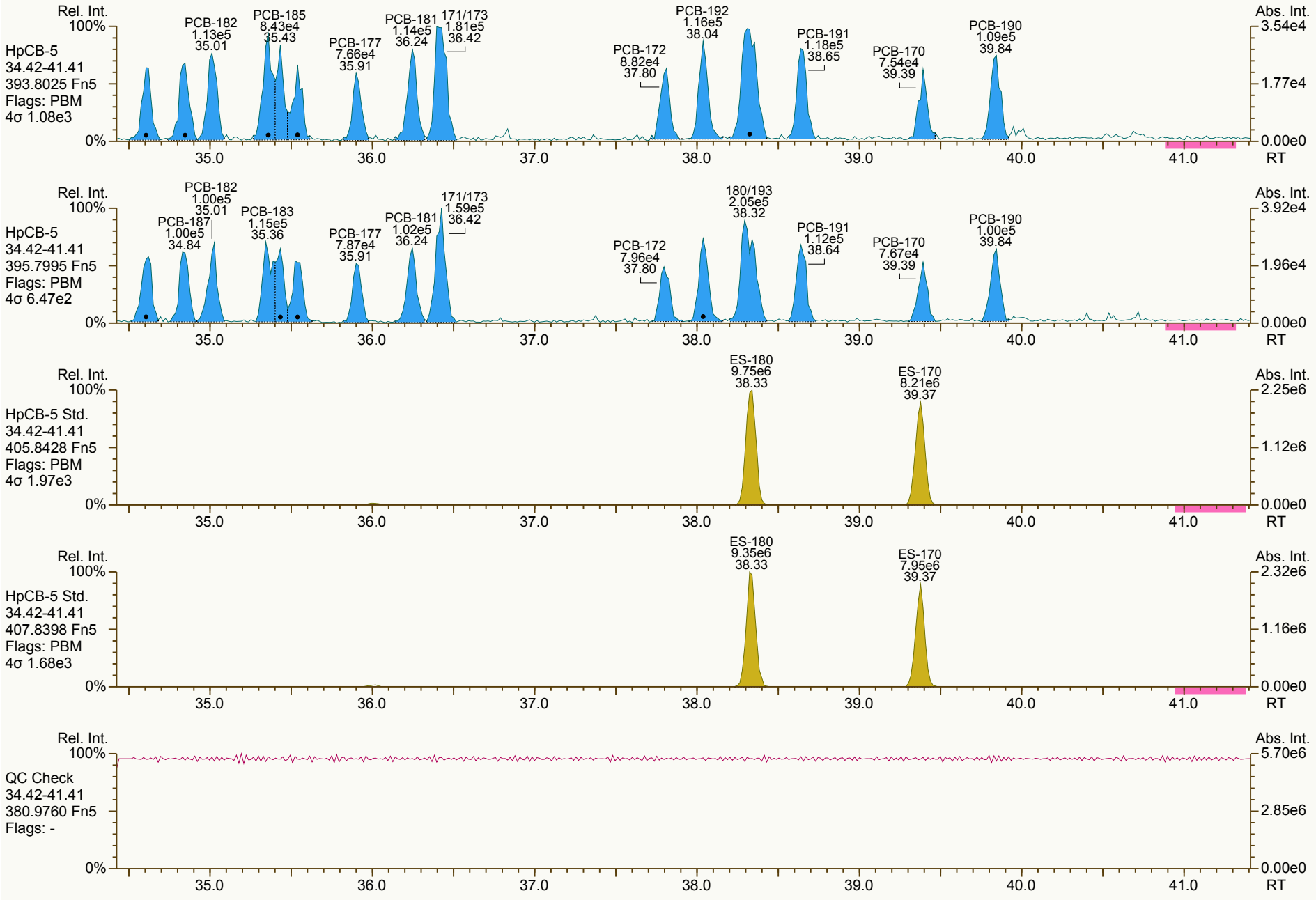
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA | **Sample ID: SIL 12-65-5** | **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** | **User: CEM Datafile: 121214V03 (EQ)**



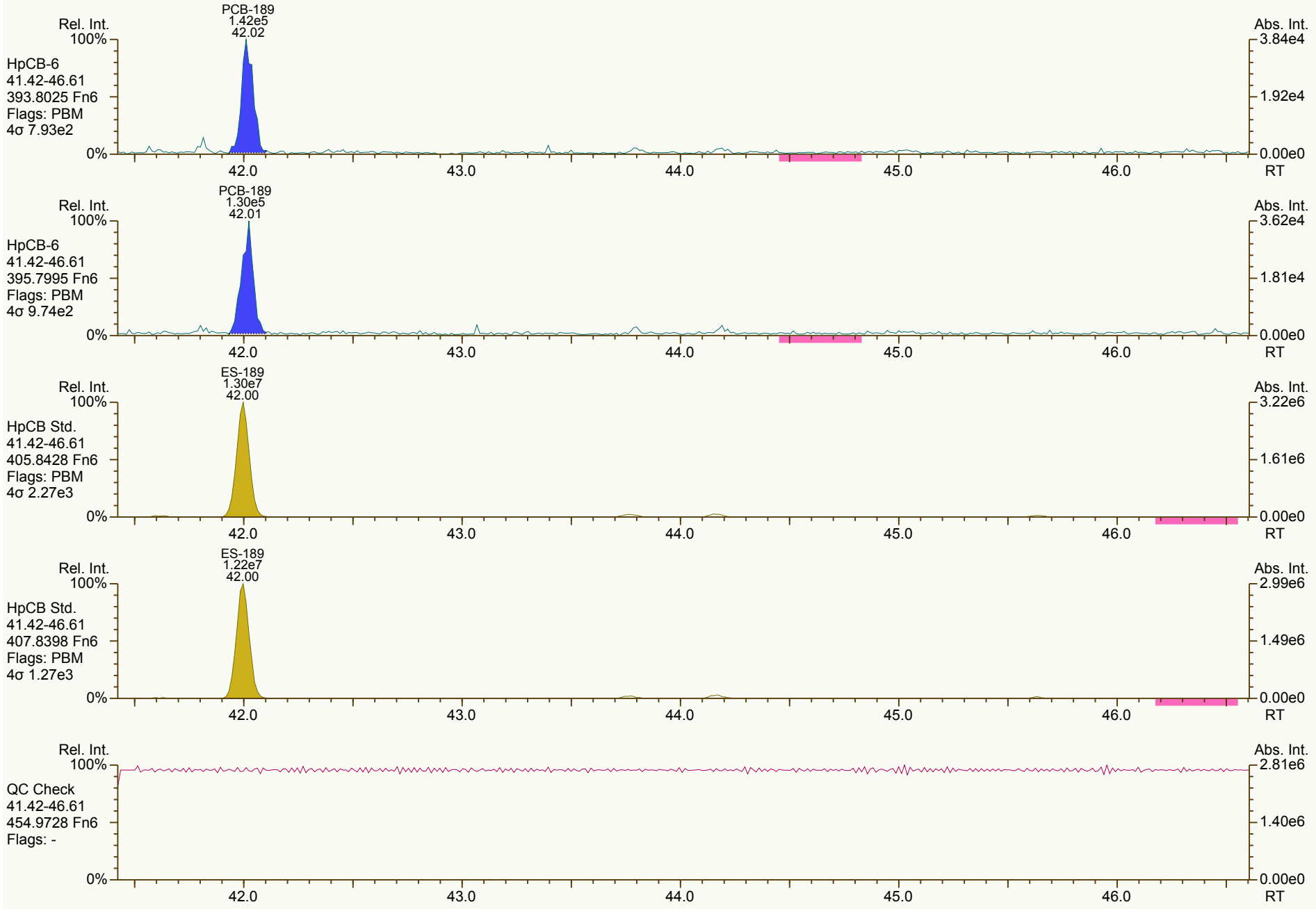
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



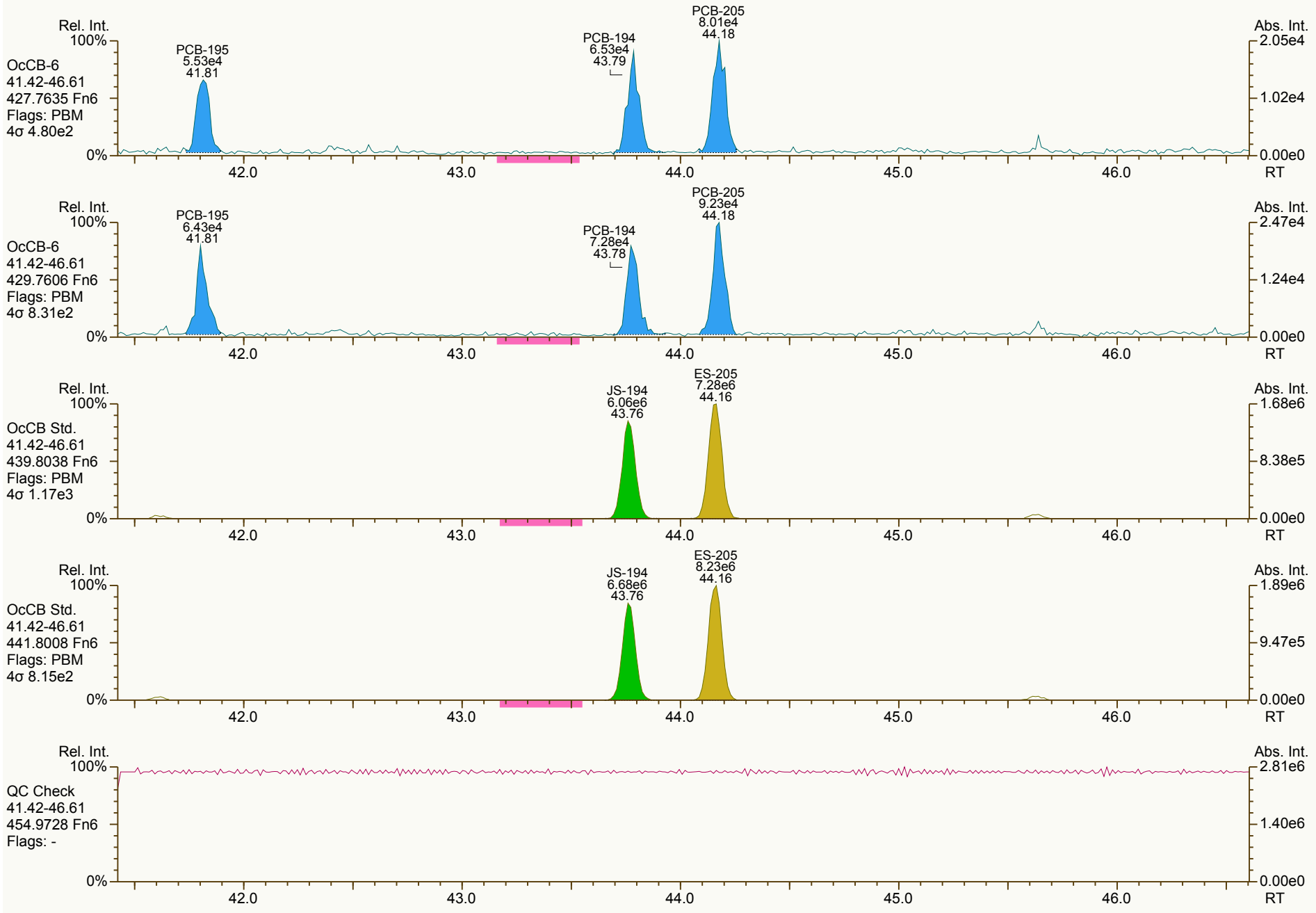
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA | **Sample ID: SIL 12-65-5** | **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** | **User: CEM Datafile: 121214V03 (EQ)**



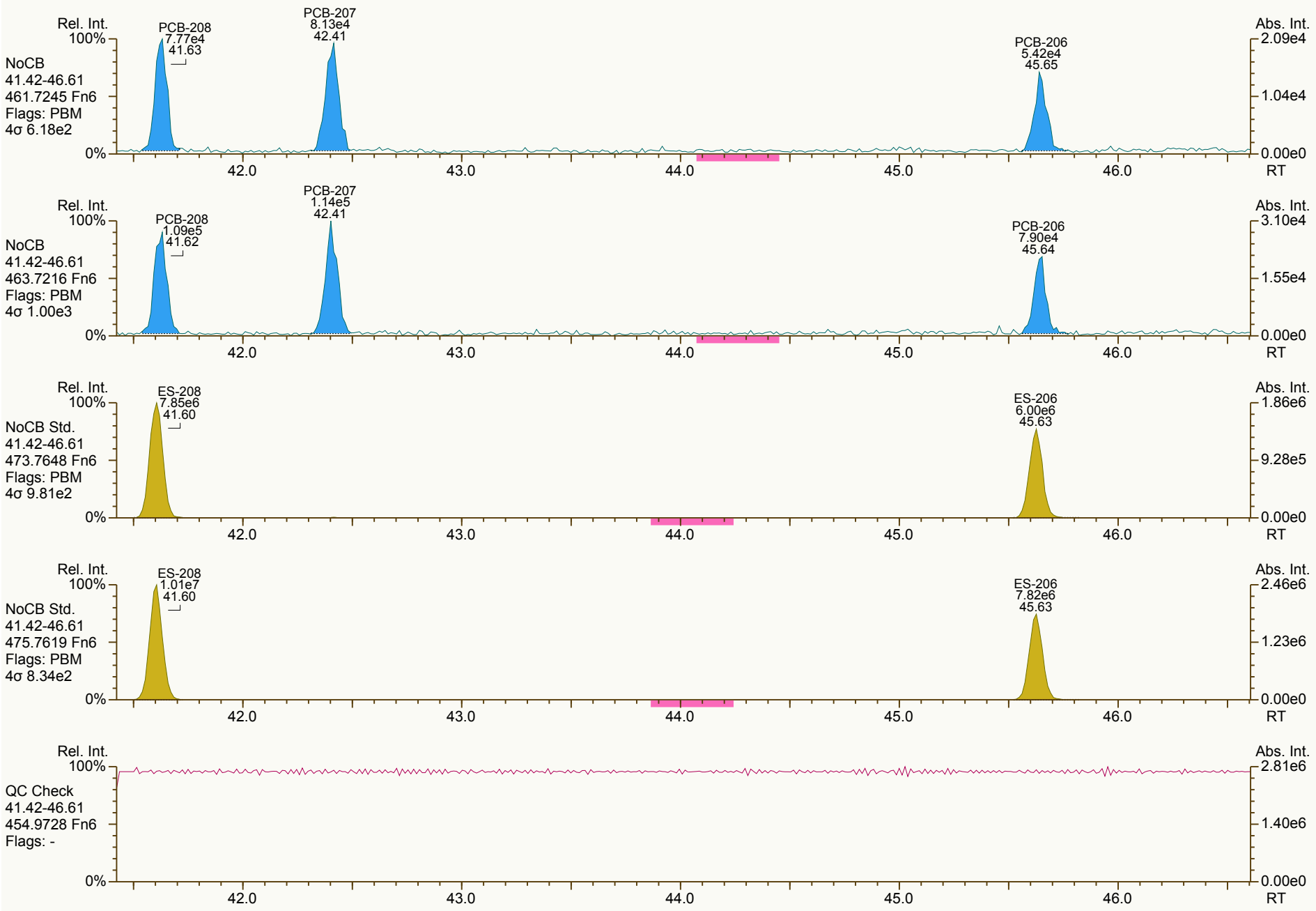
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**

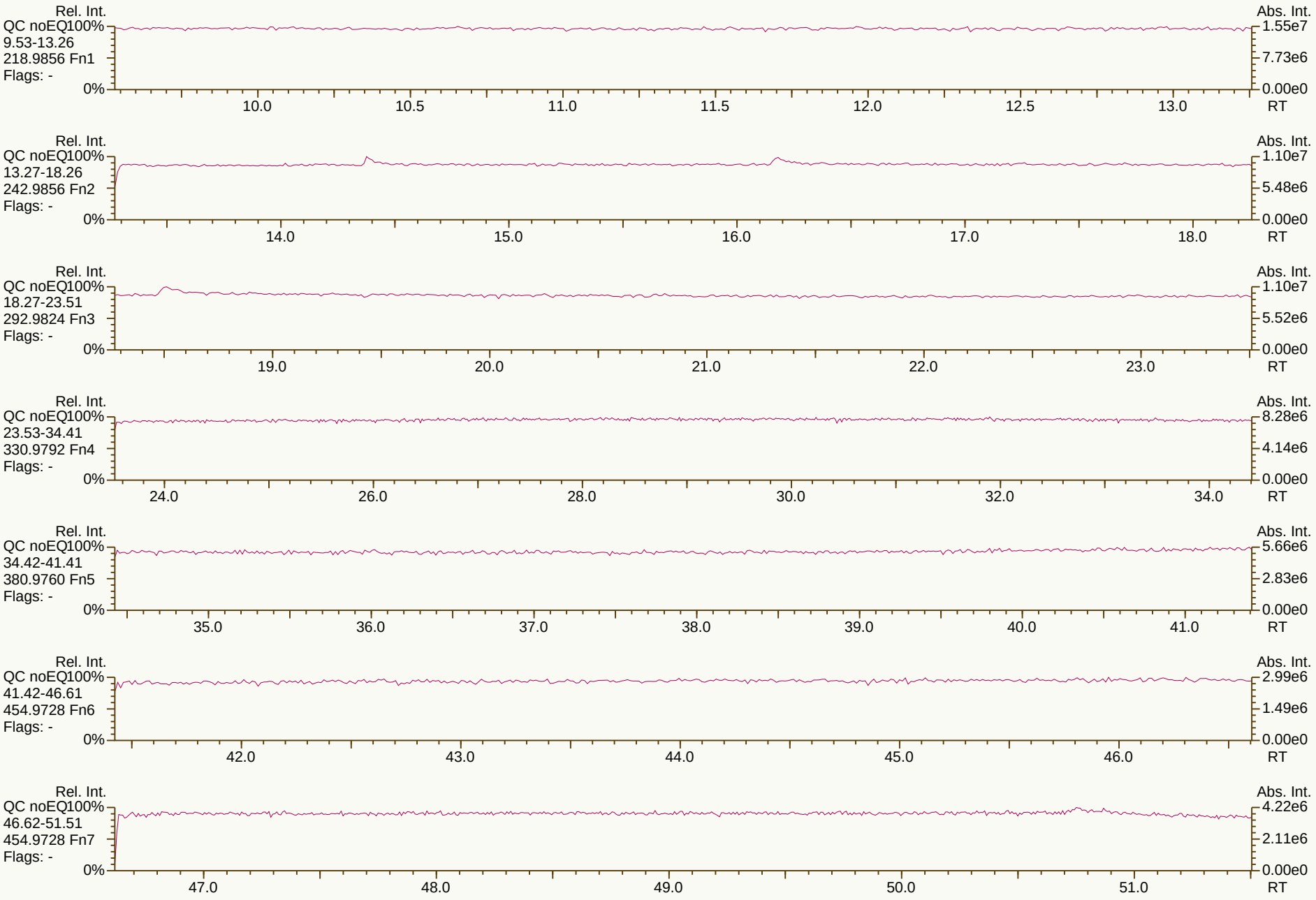


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:16
Lab ID:	CS2_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 04:15				
Datafile:	121214V04				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.11	1.97E+06	0.80 Y	1.25	1.20	-4.1%
PCB-81 344'5-TeCB	28.64	1.93E+06	0.79 Y	1.26	1.22	-3.0%
PCB-105 233'44'-PeCB	32.05	1.22E+06	0.63 Y	1.06	1.04	-1.2%
PCB-114 2344'5-PeCB	31.52	1.29E+06	0.62 Y	1.11	1.07	-3.7%
PCB-118 23'44'5-PeCB	31.08	1.27E+06	0.63 Y	1.08	1.05	-2.7%
PCB-123 23'44'5'-PeCB	30.80	1.22E+06	0.67 Y	1.12	1.04	-6.7%
PCB-126 33'44'5-PeCB	34.65	1.65E+06	0.59 Y	1.16	1.13	-2.3%
PCB-156/157 ...-HxCB	37.18	2.32E+06	1.26 Y	1.14	1.11	-2.3%
PCB-167 23'44'55'-HxCB	36.23	1.23E+06	1.23 Y	1.18	1.16	-1.9%
PCB-169 33'44'55'-HxCB	39.90	1.12E+06	1.19 Y	1.15	1.19	3.0%
PCB-189 233'44'55'-HpCB	42.03	1.43E+06	1.07 Y	1.12	1.10	-1.1%
PCB-209 DeCB	47.00	8.87E+05	1.19 Y	1.11	1.05	-5.4%
ES PCB-1	9.83	6.35E+07	3.27 Y	0.97	1.07	10.1%
ES PCB-3	11.73	5.68E+07	3.36 Y	0.90	0.95	6.1%
ES PCB-4	11.94	4.39E+07	1.54 Y	0.70	0.74	5.3%
ES PCB-15	16.99	5.44E+07	1.63 Y	1.02	0.91	-10.0%
ES PCB-19	14.61	3.07E+07	1.05 Y	0.53	0.52	-2.0%
ES PCB-37	22.94	3.57E+07	1.12 Y	1.29	1.30	0.2%
ES PCB-54	17.23	3.99E+07	0.79 Y	1.43	1.45	1.7%
ES PCB-77	29.09	3.30E+07	0.83 Y	1.20	1.20	-0.4%
ES PCB-81	28.63	3.17E+07	0.83 Y	1.16	1.15	-1.0%
ES PCB-104	21.91	3.49E+07	1.52 Y	1.70	1.73	1.3%
ES PCB-105	32.03	2.34E+07	1.46 Y	1.10	1.16	5.5%
ES PCB-114	31.50	2.40E+07	1.51 Y	1.16	1.19	2.8%
ES PCB-118	31.06	2.42E+07	1.50 Y	1.15	1.20	3.7%
ES PCB-123	30.78	2.34E+07	1.47 Y	1.14	1.16	1.4%
ES PCB-126	34.63	2.92E+07	1.63 Y	1.34	1.44	7.7%
ES PCB-153	32.64	2.42E+07	1.27 Y	1.14	1.16	1.3%
ES PCB-155	26.72	3.32E+07	1.27 Y	1.61	1.58	-1.8%
ES PCB-156/157	37.16	4.16E+07	1.27 Y	0.98	0.99	1.7%
ES PCB-167	36.20	2.13E+07	1.21 Y	1.01	1.02	0.6%
ES PCB-169	39.88	1.88E+07	1.27 Y	0.90	0.90	-0.1%
ES PCB-170	39.38	1.69E+07	1.04 Y	1.28	1.25	-2.4%
ES PCB-180	38.34	2.00E+07	1.05 Y	1.54	1.48	-3.6%
ES PCB-188	31.51	3.47E+07	1.04 Y	1.63	1.66	1.9%
ES PCB-189	42.01	2.60E+07	1.06 Y	1.97	1.92	-2.2%
ES PCB-202	36.01	2.69E+07	0.89 Y	1.26	1.28	1.8%
ES PCB-205	44.17	1.64E+07	0.90 Y	1.22	1.21	-0.7%
ES PCB-206	45.63	1.47E+07	0.78 Y	1.10	1.09	-1.2%
ES PCB-208	41.61	1.84E+07	0.76 Y	1.41	1.36	-3.4%
ES PCB-209	46.98	1.69E+07	1.16 Y	1.24	1.25	0.4%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.57	4.28E+07	1.10 Y	1.18	1.20	1.8%
SS PCB-111	29.15	2.38E+07	1.49 Y	1.01	1.02	1.2%
SS PCB-178	34.07	2.03E+07	1.02 Y	0.60	0.58	-2.9%
CS PCB-28	19.57	4.28E+07	1.10 Y	1.52	1.55	2.0%
CS PCB-111	29.15	2.38E+07	1.49 Y	1.15	1.18	2.6%
CS PCB-178	34.07	2.03E+07	1.02 Y	0.98	0.97	-1.1%
JS PCB-9	13.65	5.95E+07	1.65 Y	-	-	-
JS PCB-52	21.11	2.75E+07	0.76 Y	-	-	-
JS PCB-101	26.89	2.02E+07	1.48 Y	-	-	-
JS PCB-138	33.67	2.09E+07	1.31 Y	-	-	-
JS PCB-194	43.77	1.35E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	9.84	3.88E+06	3.07 Y	1.25	1.22	-2.1%
PCB-3 4-MoCB	11.74	3.53E+06	2.98 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.95	1.88E+06	1.56 Y	0.90	0.86	-4.7%
PCB-15 44'-DiCB	17.01	2.82E+06	1.54 Y	1.10	1.04	-5.2%
PCB-19 22'6-TrCB	14.63	1.42E+06	1.00 Y	0.95	0.92	-2.3%
PCB-37 344'-TrCB	22.96	2.48E+06	1.08 Y	1.39	1.39	-0.2%
PCB-54 22'66'-TeCB	17.25	2.03E+06	0.78 Y	1.05	1.02	-3.2%
PCB-104 22'466'-PeCB	21.93	1.86E+06	0.64 Y	1.12	1.07	-4.4%
PCB-153/168 ...-HxCB	32.68	2.99E+06	1.26 Y	1.24	1.23	-0.3%
PCB-155 22'44'66'-HxCB	26.74	1.81E+06	1.19 Y	1.09	1.09	0.2%
PCB-170 22'33'44'5-HpCB	39.40	8.38E+05	1.03 Y	0.99	0.99	-0.3%
PCB-180/193 ...-HpCB	38.33	2.10E+06	1.02 Y	1.07	1.05	-2.0%
PCB-188 22'34'566'-HpCB	31.53	1.64E+06	1.10 Y	0.98	0.95	-3.5%
PCB-202 22'33'55'66'-OcCB	36.03	1.13E+06	0.88 Y	0.86	0.84	-2.9%
PCB-205 233'44'55'6-OcCB	44.19	8.63E+05	0.87 Y	1.13	1.05	-7.2%
PCB-208 22'33'455'66'-NoCB	41.63	9.34E+05	0.77 Y	1.03	1.02	-1.7%
PCB-206 22'33'44'55'6-NoCB	45.65	6.98E+05	0.76 Y	0.97	0.95	-2.0%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.84	3.88E+06	3.07 Y	1.25	1.22	-2.1%
PCB-2 3-MoCB	11.59	3.65E+06	3.16 Y	1.28	1.29	0.6%
PCB-3 4-MoCB	11.74	3.53E+06	2.98 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.95	1.88E+06	1.56 Y	0.90	0.86	-4.7%
PCB-10 26-DiCB	12.10	2.93E+06	1.55 Y	1.38	1.33	-3.2%
PCB-9 25-DiCB	13.67	2.95E+06	1.48 Y	0.99	1.08	9.7%
PCB-7 24-DiCB	13.81	2.97E+06	1.49 Y	1.10	1.09	-0.8%
PCB-6 23'-DiCB	14.01	3.02E+06	1.48 Y	1.04	1.11	7.0%
PCB-5 23-DiCB	14.27	2.91E+06	1.51 Y	1.02	1.07	4.7%
PCB-8 24'-DiCB	14.38	3.06E+06	1.55 Y	1.03	1.13	9.1%
PCB-14 35-DiCB	15.78	3.32E+06	1.54 Y	1.20	1.22	1.7%
PCB-11 33'-DiCB	16.48	2.88E+06	1.51 Y	1.03	1.06	3.3%
PCB-13/12 34'/34-DiCB	16.75	5.75E+06	1.54 Y	1.03	1.06	2.4%
PCB-15 44'-DiCB	17.01	2.82E+06	1.54 Y	1.10	1.04	-5.2%
PCB-19 22'6-TrCB	14.63	1.42E+06	1.00 Y	0.95	0.92	-2.3%
PCB-30/18 246/22'5-TrCB	16.22	3.58E+06	1.03 Y	1.23	1.17	-5.3%
PCB-17 22'4-TrCB	16.58	1.54E+06	1.06 Y	1.05	1.00	-5.1%
PCB-27 23'6-TrCB	16.76	2.03E+06	1.01 Y	1.46	1.32	-9.6%
PCB-24 236-TrCB	16.88	1.95E+06	1.02 Y	1.32	1.27	-3.6%
PCB-16 22'3-TrCB	16.96	1.08E+06	1.03 Y	0.81	0.70	-13.1%
PCB-32 24'6-TrCB	17.41	2.13E+06	1.06 Y	1.48	1.39	-5.9%
PCB-34 23'5'-TrCB	18.49	2.67E+06	1.08 Y	1.46	1.49	2.2%
PCB-23 235-TrCB	18.62	2.66E+06	1.07 Y	1.50	1.49	-1.1%
PCB-26/29 23'5/245-TrCB	18.89	5.31E+06	1.08 Y	1.53	1.49	-2.7%
PCB-25 23'4-TrCB	19.08	2.72E+06	1.03 Y	1.53	1.52	-0.9%
PCB-31 24'5-TrCB	19.34	2.73E+06	1.07 Y	1.55	1.53	-1.3%
PCB-28/20 244'/233'-TrCB	19.60	5.32E+06	1.05 Y	1.51	1.49	-1.0%
PCB-21/33 234/23'4'-TrCB	19.76	5.39E+06	1.05 Y	1.55	1.51	-2.4%
PCB-22 234'-TrCB	20.11	2.52E+06	1.04 Y	1.40	1.41	0.8%
PCB-36 33'5-TrCB	21.44	2.66E+06	1.04 Y	1.52	1.49	-1.9%
PCB-39 34'5-TrCB	21.74	2.69E+06	1.04 Y	1.58	1.50	-5.0%
PCB-38 345-TrCB	22.23	2.45E+06	1.08 Y	1.47	1.37	-6.4%
PCB-35 33'4-TrCB	22.61	2.34E+06	1.12 Y	1.33	1.31	-1.6%
PCB-37 344'-TrCB	22.96	2.48E+06	1.08 Y	1.39	1.39	-0.2%
PCB-54 22'66'-TeCB	17.25	2.03E+06	0.78 Y	1.05	1.02	-3.2%
PCB-50/53 22'46/22'56'-TeCB	19.12	2.75E+06	0.77 Y	0.88	0.87	-1.1%
PCB-45 22'36-TeCB	19.65	1.13E+06	0.80 Y	0.73	0.71	-3.1%
PCB-51 22'46'-TeCB	19.73	1.45E+06	0.79 Y	0.94	0.92	-2.4%
PCB-46 22'36'-TeCB	19.92	1.11E+06	0.78 Y	0.72	0.70	-2.4%
PCB-52 22'55'-TeCB	21.14	1.30E+06	0.81 Y	0.82	0.82	-0.4%
PCB-73 23'5'6-TeCB	21.26	1.78E+06	0.75 Y	1.10	1.13	2.5%
PCB-43 22'35-TeCB	21.34	1.03E+06	0.76 Y	0.70	0.65	-7.5%
PCB-69/49 23'46/22'45'-TeCB	21.53	3.08E+06	0.75 Y	1.01	0.97	-3.5%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.79	1.29E+06	0.74 Y	0.84	0.81	-3.6%
PCB-44/47/65 ...-TeCB	21.99	4.09E+06	0.78 Y	0.90	0.86	-4.4%
PCB-59/62/75 ...-TeCB	22.26	5.23E+06	0.78 Y	1.15	1.10	-4.5%
PCB-42 22'34'-TeCB	22.41	1.18E+06	0.82 Y	0.76	0.75	-2.3%
PCB-41 22'34-TeCB	22.72	1.03E+06	0.77 Y	0.64	0.65	1.4%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	2.57E+06	0.77 Y	0.83	0.81	-2.5%
PCB-64 234'6-TeCB	23.02	1.82E+06	0.77 Y	1.17	1.15	-2.0%
PCB-72 23'55'-TeCB	23.74	2.16E+06	0.79 Y	1.37	1.37	-0.1%
PCB-68 23'45'-TeCB	23.98	2.28E+06	0.78 Y	1.52	1.44	-5.2%
PCB-57 233'5-TeCB	24.33	2.02E+06	0.75 Y	1.32	1.27	-3.7%
PCB-58 233'5'-TeCB	24.52	2.06E+06	0.79 Y	1.34	1.30	-2.9%
PCB-67 23'45-TeCB	24.67	2.23E+06	0.77 Y	1.41	1.41	-0.1%
PCB-63 234'5-TeCB	24.89	2.25E+06	0.80 Y	1.46	1.42	-2.6%
PCB-61/70/74/76 ...-TeCB	25.17	8.27E+06	0.77 Y	1.37	1.31	-4.3%
PCB-66 23'44'-TeCB	25.44	1.94E+06	0.74 Y	1.24	1.23	-1.0%
PCB-55 233'4-TeCB	25.57	2.02E+06	0.74 Y	1.28	1.27	-0.3%
PCB-56 233'4'-TeCB	26.00	1.87E+06	0.80 Y	1.23	1.18	-3.9%
PCB-60 2344'-TeCB	26.18	1.96E+06	0.74 Y	1.30	1.24	-4.7%
PCB-80 33'55'-TeCB	26.54	2.28E+06	0.78 Y	1.44	1.44	0.6%
PCB-79 33'45'-TeCB	27.81	2.19E+06	0.77 Y	1.48	1.38	-6.3%
PCB-78 33'45-TeCB	28.28	1.84E+06	0.75 Y	1.21	1.16	-3.9%
PCB-104 22'466'-PeCB	21.93	1.86E+06	0.64 Y	1.12	1.07	-4.4%
PCB-96 22'366'-PeCB	22.23	1.58E+06	0.64 Y	0.96	0.91	-6.0%
PCB-103 22'45'6-PeCB	23.89	1.07E+06	0.60 Y	0.93	0.91	-2.2%
PCB-94 22'356'-PeCB	24.06	9.29E+05	0.64 Y	0.81	0.79	-1.8%
PCB-95 22'35'6-PeCB	24.43	9.87E+05	0.61 Y	0.85	0.84	-0.6%
PCB-100/93 22'44'6/22'356-PeCB	24.63	2.01E+06	0.64 Y	0.88	0.86	-2.6%
PCB-102 22'456'-PeCB	24.74	1.01E+06	0.65 Y	0.93	0.87	-7.1%
PCB-98 22'34'6'-PeCB	24.80	9.43E+05	0.64 Y	0.84	0.81	-3.8%
PCB-88 22'346-PeCB	25.08	8.12E+05	0.59 Y	0.77	0.69	-10.0%
PCB-91 22'34'6-PeCB	25.15	1.15E+06	0.64 Y	0.96	0.98	2.3%
PCB-84 22'33'6-PeCB	25.34	8.41E+05	0.63 Y	0.72	0.72	-0.3%
PCB-89 22'346'-PeCB	25.74	8.70E+05	0.59 Y	0.77	0.74	-3.6%
PCB-121 23'45'6-PeCB	26.12	1.36E+06	0.60 Y	1.15	1.16	1.3%
PCB-92 22'355'-PeCB	26.43	9.50E+05	0.64 Y	0.79	0.81	2.5%
PCB-113/90/101 ...-PeCB	26.89	3.19E+06	0.63 Y	0.95	0.91	-4.7%
PCB-83 22'33'5-PeCB	27.30	8.20E+05	0.59 Y	0.72	0.70	-2.5%
PCB-99 22'44'5-PeCB	27.41	1.03E+06	0.60 Y	0.90	0.88	-2.0%
PCB-112 233'56-PeCB	27.50	1.24E+06	0.65 Y	1.09	1.06	-3.4%
PCB-109/119/86/97/125...-PeCB	27.83	6.46E+06	0.63 Y	0.95	0.92	-2.8%
PCB-117 234'56-PeCB	28.35	1.07E+06	0.64 Y	0.99	0.92	-7.3%
PCB-116/85 23456/22'344'-PeCB	28.42	2.30E+06	0.62 Y	0.96	0.98	2.3%
PCB-110 233'4'6-PeCB	28.55	1.16E+06	0.63 Y	1.01	0.99	-1.9%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.35E+06	0.63 Y	1.15	1.16	0.4%
PCB-82 22'33'4-PeCB	28.82	7.66E+05	0.61 Y	0.70	0.66	-6.1%
PCB-111 233'55'-PeCB	29.19	1.43E+06	0.65 Y	1.16	1.23	5.3%
PCB-120 23'455'-PeCB	29.56	1.35E+06	0.64 Y	1.14	1.15	1.5%
PCB-108/124 ...-PeCB	30.50	2.37E+06	0.66 Y	1.02	1.01	-0.4%
PCB-107 233'4'5-PeCB	30.70	1.36E+06	0.63 Y	1.13	1.16	2.5%
PCB-106 233'45-PeCB	30.90	1.19E+06	0.64 Y	1.01	1.02	0.6%
PCB-122 233'4'5'-PeCB	31.36	1.10E+06	0.63 Y	0.91	0.92	0.9%
PCB-127 33'455'-PeCB	33.31	1.23E+06	0.59 Y	1.06	1.05	-0.8%
PCB-155 22'44'66'-HxCB	26.74	1.81E+06	1.19 Y	1.09	1.09	0.2%
PCB-152 22'3566'-HxCB	26.87	1.69E+06	1.25 Y	1.04	1.02	-2.4%
PCB-150 22'34'66'-HxCB	27.02	1.73E+06	1.22 Y	1.03	1.04	1.2%
PCB-136 22'33'66'-HxCB	27.31	1.52E+06	1.26 Y	0.97	0.92	-5.8%
PCB-145 22'3466'-HxCB	27.57	1.63E+06	1.27 Y	0.96	0.98	1.9%
PCB-148 22'34'56'-HxCB	28.86	1.21E+06	1.22 Y	1.03	1.00	-3.4%
PCB-151/135 ...-HxCB	29.36	2.33E+06	1.25 Y	0.99	0.96	-3.2%
PCB-154 22'44'56'-HxCB	29.57	1.36E+06	1.26 Y	1.17	1.12	-4.6%
PCB-144 22'345'6-HxCB	29.82	1.21E+06	1.31 Y	1.03	1.00	-2.6%
PCB-147/149 ...-HxCB	30.12	2.39E+06	1.25 Y	1.02	0.98	-3.2%
PCB-134 22'33'56-HxCB	30.27	8.98E+05	1.23 Y	0.80	0.74	-7.3%
PCB-143 22'3456'-HxCB	30.36	1.17E+06	1.28 Y	0.95	0.97	1.9%
PCB-139/140 ...-HxCB	30.62	2.44E+06	1.20 Y	1.05	1.01	-4.1%
PCB-131 22'33'46-HxCB	30.78	1.05E+06	1.26 Y	0.90	0.87	-2.9%
PCB-142 22'3456-HxCB	30.91	1.06E+06	1.27 Y	0.93	0.88	-5.2%
PCB-132 22'33'46'-HxCB	31.16	1.09E+06	1.27 Y	0.93	0.90	-2.8%
PCB-133 22'33'55'-HxCB	31.60	1.16E+06	1.20 Y	0.97	0.95	-1.4%
PCB-165 233'55'6-HxCB	31.94	1.39E+06	1.32 Y	1.16	1.14	-1.5%
PCB-146 22'34'55'-HxCB	32.15	1.22E+06	1.21 Y	1.01	1.01	0.0%
PCB-161 233'45'6-HxCB	32.26	1.55E+06	1.23 Y	1.29	1.28	-1.3%
PCB-153/168 ...-HxCB	32.68	2.99E+06	1.26 Y	1.24	1.23	-0.3%
PCB-141 22'3455'-HxCB	32.81	1.14E+06	1.23 Y	0.95	0.94	-1.0%
PCB-130 22'33'45'-HxCB	33.15	9.82E+05	1.34 Y	0.82	0.81	-1.5%
PCB-137 22'344'5-HxCB	33.35	1.26E+06	1.21 Y	0.97	1.04	7.5%
PCB-164 233'4'5'6-HxCB	33.43	1.43E+06	1.29 Y	1.25	1.18	-5.3%
PCB-163/138/129 ...-HxCB	33.71	3.73E+06	1.25 Y	1.04	1.02	-1.6%
PCB-160 233'456-HxCB	33.83	1.35E+06	1.28 Y	1.19	1.12	-6.4%
PCB-158 233'44'6-HxCB	34.03	1.56E+06	1.24 Y	1.34	1.28	-4.1%
PCB-128/166 ...-HxCB	34.74	2.03E+06	1.23 Y	0.96	0.95	-0.8%
PCB-159 233'455'-HxCB	35.59	1.18E+06	1.30 Y	1.12	1.10	-1.6%
PCB-162 233'4'55'-HxCB	35.83	1.19E+06	1.26 Y	1.13	1.12	-0.8%
PCB-188 22'34'566'-HpCB	31.53	1.64E+06	1.10 Y	0.98	0.95	-3.5%
PCB-179 22'33'566'-HpCB	31.80	1.54E+06	1.03 Y	0.90	0.89	-0.7%
PCB-184 22'344'66'-HpCB	32.26	1.49E+06	1.02 Y	0.86	0.86	-0.9%

PCB QC Summary - Ax2 Detail **Printed: 14-Dec-2012 11:16**

Lab ID: CS2_121214_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.54	1.62E+06	1.05 Y	0.97	0.93	-3.7%
PCB-186 22'34566'-HpCB	32.92	1.55E+06	0.98 Y	0.93	0.90	-3.3%
PCB-178 22'33'55'6-HpCB	34.09	1.12E+06	1.05 Y	0.66	0.64	-2.8%
PCB-175 22'33'45'6-HpCB	34.62	9.86E+05	1.02 Y	1.02	0.98	-3.9%
PCB-187 22'34'55'6-HpCB	34.85	1.04E+06	1.08 Y	1.03	1.04	0.8%
PCB-182 22'344'56'-HpCB	35.02	1.06E+06	1.04 Y	1.10	1.05	-3.8%
PCB-183 22'344'5'6-HpCB	35.36	1.12E+06	1.03 Y	1.12	1.12	-0.3%
PCB-185 22'3455'6-HpCB	35.44	8.84E+05	1.07 Y	0.97	0.88	-8.9%
PCB-174 22'33'456'-HpCB	35.55	8.62E+05	1.05 Y	0.90	0.86	-3.9%
PCB-177 22'33'45'6'-HpCB	35.92	8.30E+05	0.98 Y	0.87	0.83	-5.0%
PCB-181 22'344'56-HpCB	36.25	9.91E+05	1.02 Y	1.03	0.99	-4.4%
PCB-171/173 ...-HpCB	36.43	1.70E+06	1.07 Y	0.89	0.85	-4.0%
PCB-172 22'33'455'-HpCB	37.81	8.70E+05	1.04 Y	0.87	0.87	-0.5%
PCB-192 233'455'6-HpCB	38.05	1.14E+06	1.07 Y	1.16	1.14	-1.9%
PCB-180/193 ...-HpCB	38.33	2.10E+06	1.02 Y	1.07	1.05	-2.0%
PCB-191 233'44'5'6-HpCB	38.65	1.20E+06	1.04 Y	1.18	1.20	1.5%
PCB-170 22'33'44'5-HpCB	39.40	8.38E+05	1.03 Y	0.99	0.99	-0.3%
PCB-190 233'44'56-HpCB	39.85	1.11E+06	1.02 Y	1.36	1.31	-3.6%
PCB-202 22'33'55'66'-OcCB	36.03	1.13E+06	0.88 Y	0.86	0.84	-2.9%
PCB-201 22'33'45'66'-OcCB	36.81	1.22E+06	0.89 Y	0.95	0.91	-4.3%
PCB-204 22'344'566'-OcCB	37.38	1.20E+06	0.86 Y	0.90	0.89	-1.3%
PCB-197 22'33'44'66'-OcCB	37.56	1.15E+06	0.89 Y	0.96	0.86	-10.8%
PCB-200 22'33'4566'-OcCB	37.64	1.19E+06	0.84 Y	0.88	0.89	0.6%
PCB-198/199 ...-OcCB	39.99	1.64E+06	0.89 Y	0.63	0.61	-3.3%
PCB-196 22'33'44'56'-OcCB	40.56	8.68E+05	0.93 Y	0.66	0.65	-2.4%
PCB-203 22'344'55'6-OcCB	40.72	9.02E+05	0.86 Y	0.69	0.67	-3.5%
PCB-195 22'33'44'56-OcCB	41.82	6.47E+05	0.90 Y	0.82	0.79	-4.4%
PCB-194 22'33'44'55'-OcCB	43.79	7.04E+05	0.87 Y	0.90	0.86	-4.8%
PCB-205 233'44'55'6-OcCB	44.19	8.63E+05	0.87 Y	1.13	1.05	-7.2%
PCB-208 22'33'455'66'-NoCB	41.63	9.34E+05	0.77 Y	1.03	1.02	-1.7%
PCB-207 22'33'44'566'-NoCB	42.42	9.83E+05	0.79 Y	1.07	1.07	0.1%
PCB-206 22'33'44'55'6-NoCB	45.65	6.98E+05	0.76 Y	0.97	0.95	-2.0%

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



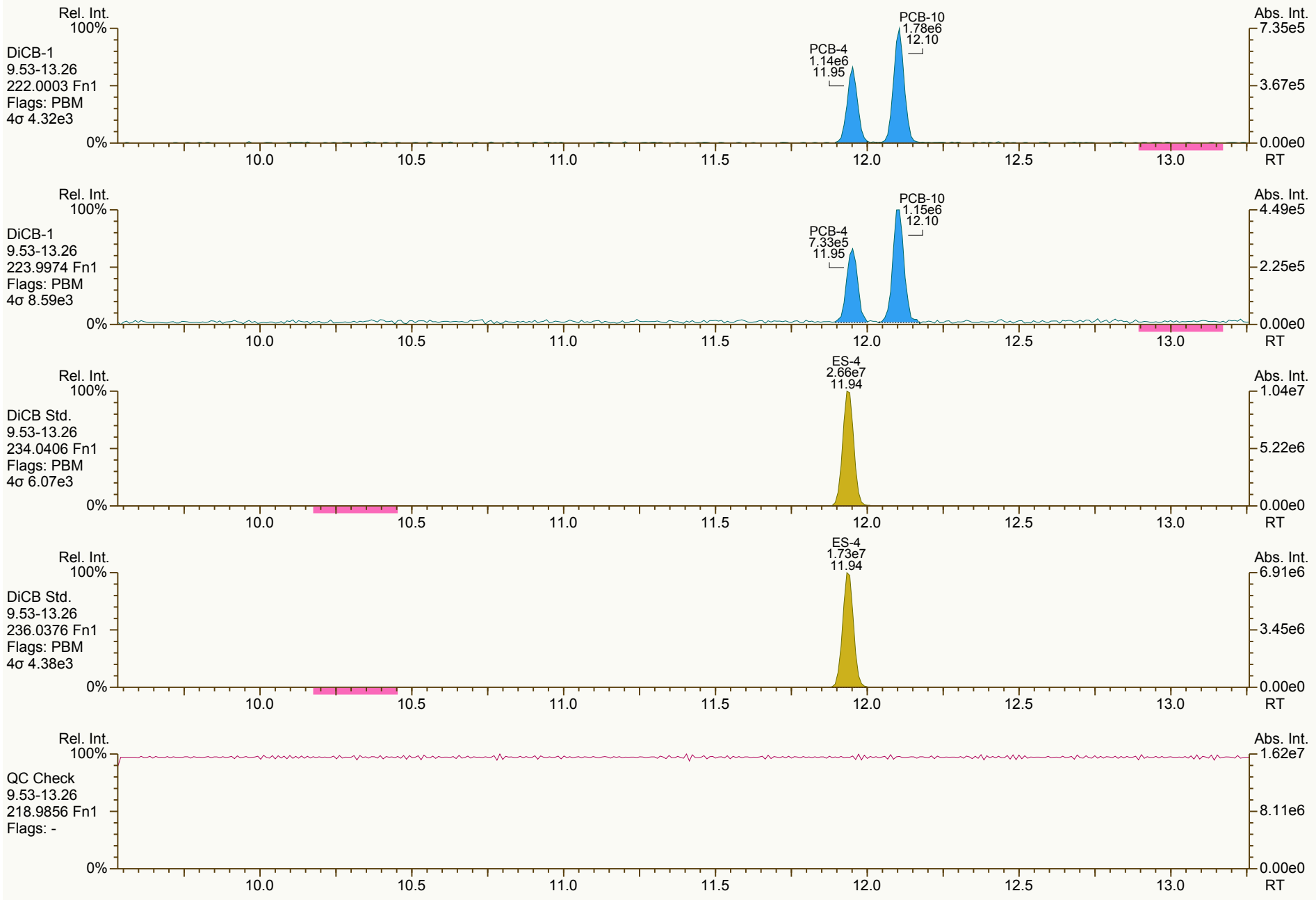
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



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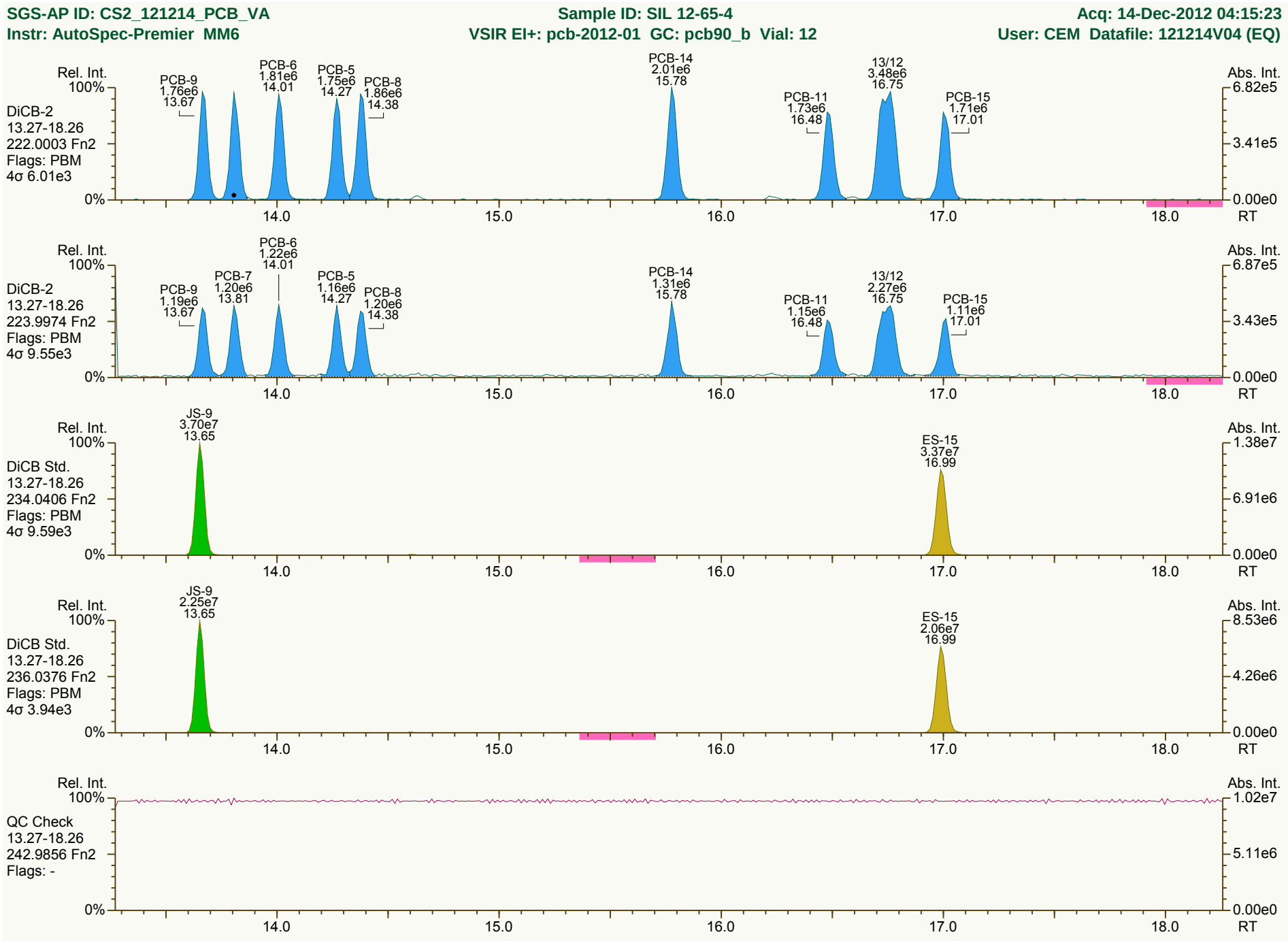
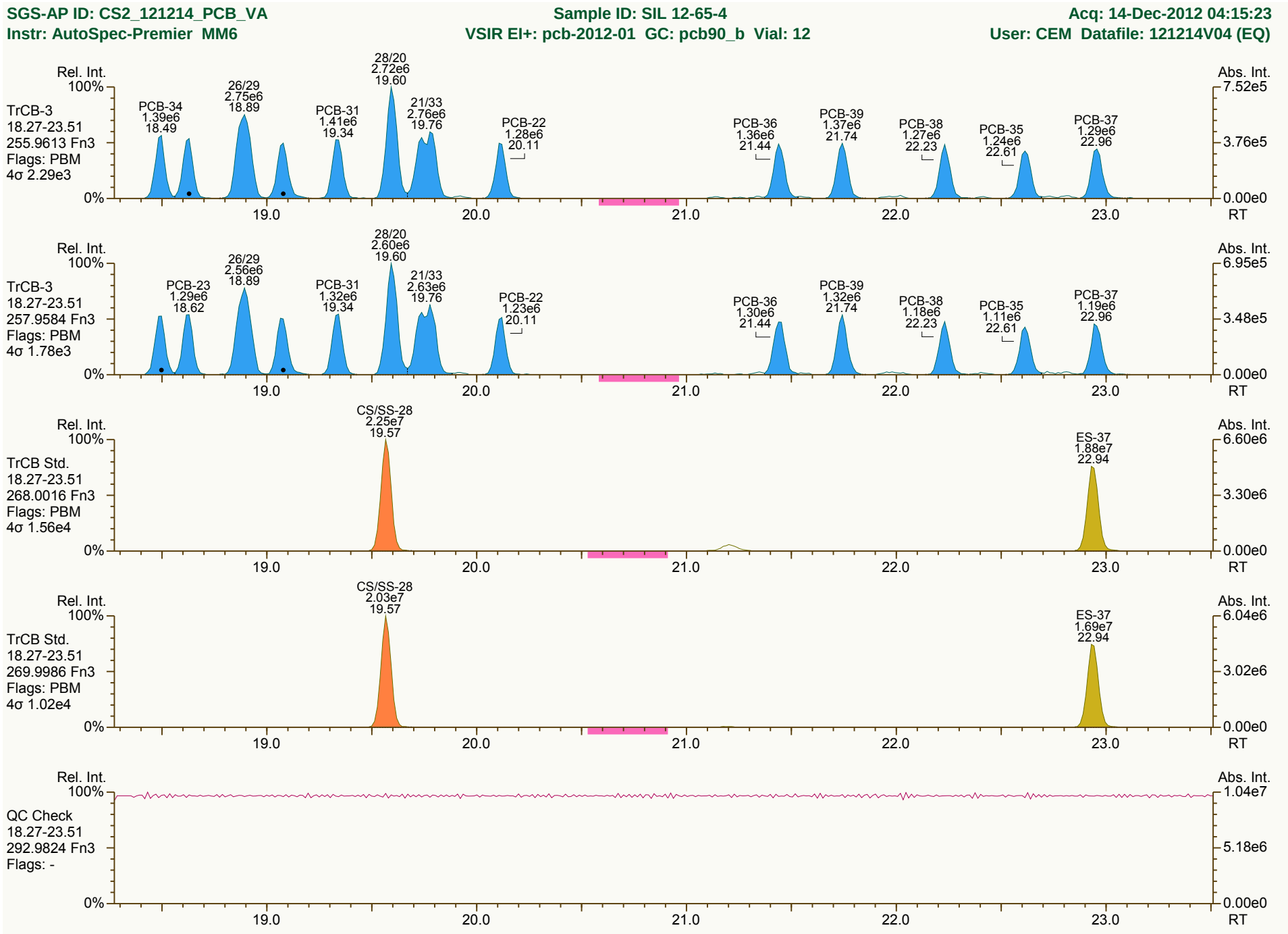


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM)
Peak annotation: Areas, Centroids

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*


SGS-AP ID: CS2_121214_PCB_VA
Sample ID: SIL 12-65-4
Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12
User: CEM Datafile: 121214V04 (EQ)
Rel. Int.
Abs. Int.
TrCB-3
18.27-23.51
255.9613 Fn3
Flags: PBM
4σ 2.29e3
PCB-34 1.39e6 18.49
26/29 2.75e6 18.89
PCB-31 1.41e6 19.34
28/20 2.72e6 19.60
21/33 2.76e6 19.76
PCB-22 1.28e6 20.11
PCB-36 1.36e6 21.44
PCB-39 1.37e6 21.74
PCB-38 1.27e6 22.23
PCB-35 1.24e6 22.61
PCB-37 1.29e6 22.96
TrCB-3
18.27-23.51
257.9584 Fn3
Flags: PBM
4σ 1.78e3
PCB-23 1.29e6 18.62
26/29 2.56e6 18.89
PCB-31 1.32e6 19.34
28/20 2.60e6 19.60
21/33 2.63e6 19.76
PCB-22 1.23e6 20.11
PCB-36 1.30e6 21.44
PCB-39 1.32e6 21.74
PCB-38 1.18e6 22.23
PCB-35 1.11e6 22.61
PCB-37 1.19e6 22.96
TrCB Std.
18.27-23.51
268.0016 Fn3
Flags: PBM
4σ 1.56e4
CS/SS-28 2.25e7 19.57
ES-37 1.88e7 22.94
TrCB Std.
18.27-23.51
269.9986 Fn3
Flags: PBM
4σ 1.02e4
CS/SS-28 2.03e7 19.57
ES-37 1.69e7 22.94
QC Check
18.27-23.51
292.9824 Fn3
Flags: -
RT
19.0
20.0
21.0
22.0
23.0

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**

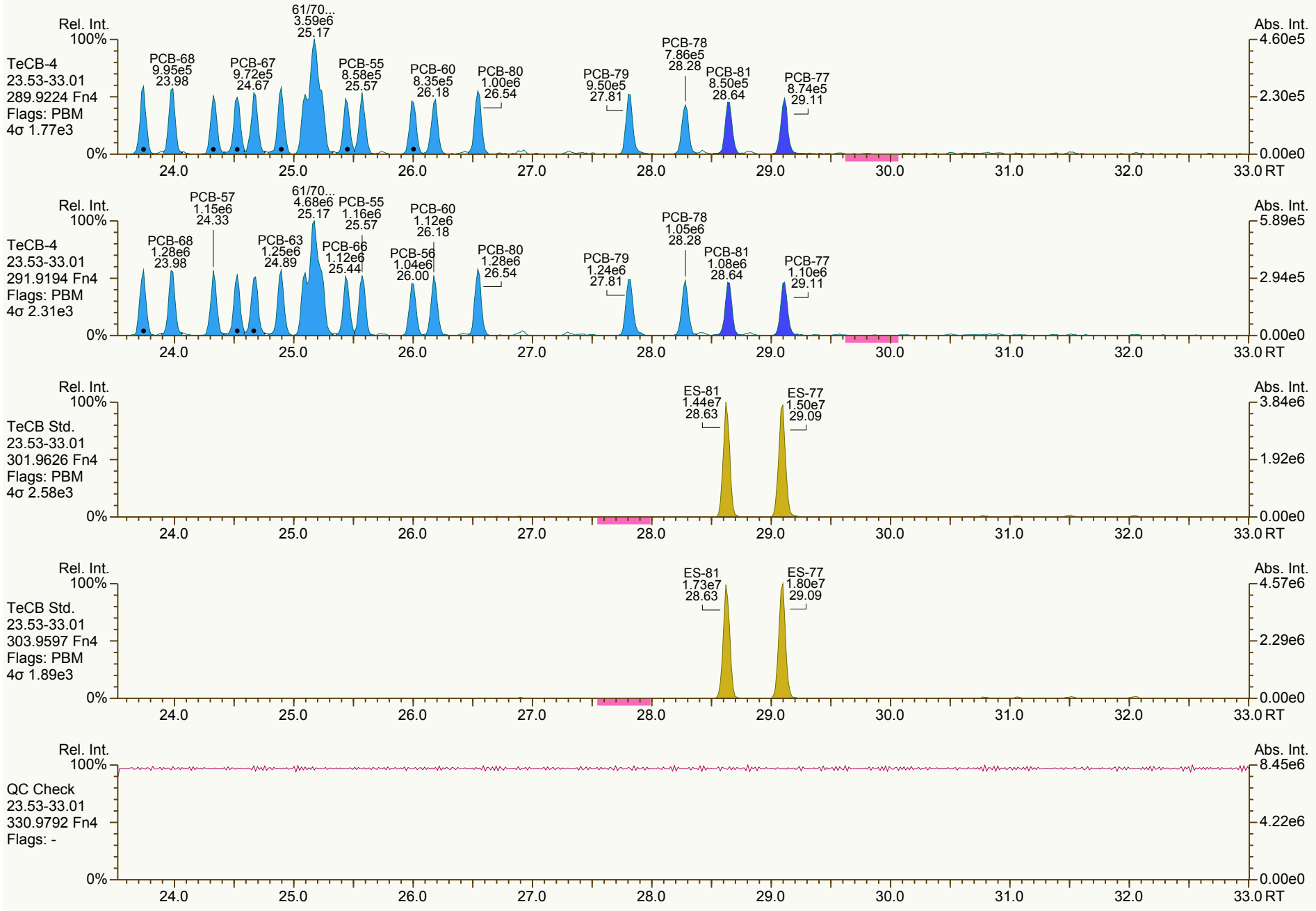


SGS-AP ID: CS2_121214_PCB_VA | Sample ID: SIL 12-65-4 | Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12 | User: CEM Datafile: 121214V04 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



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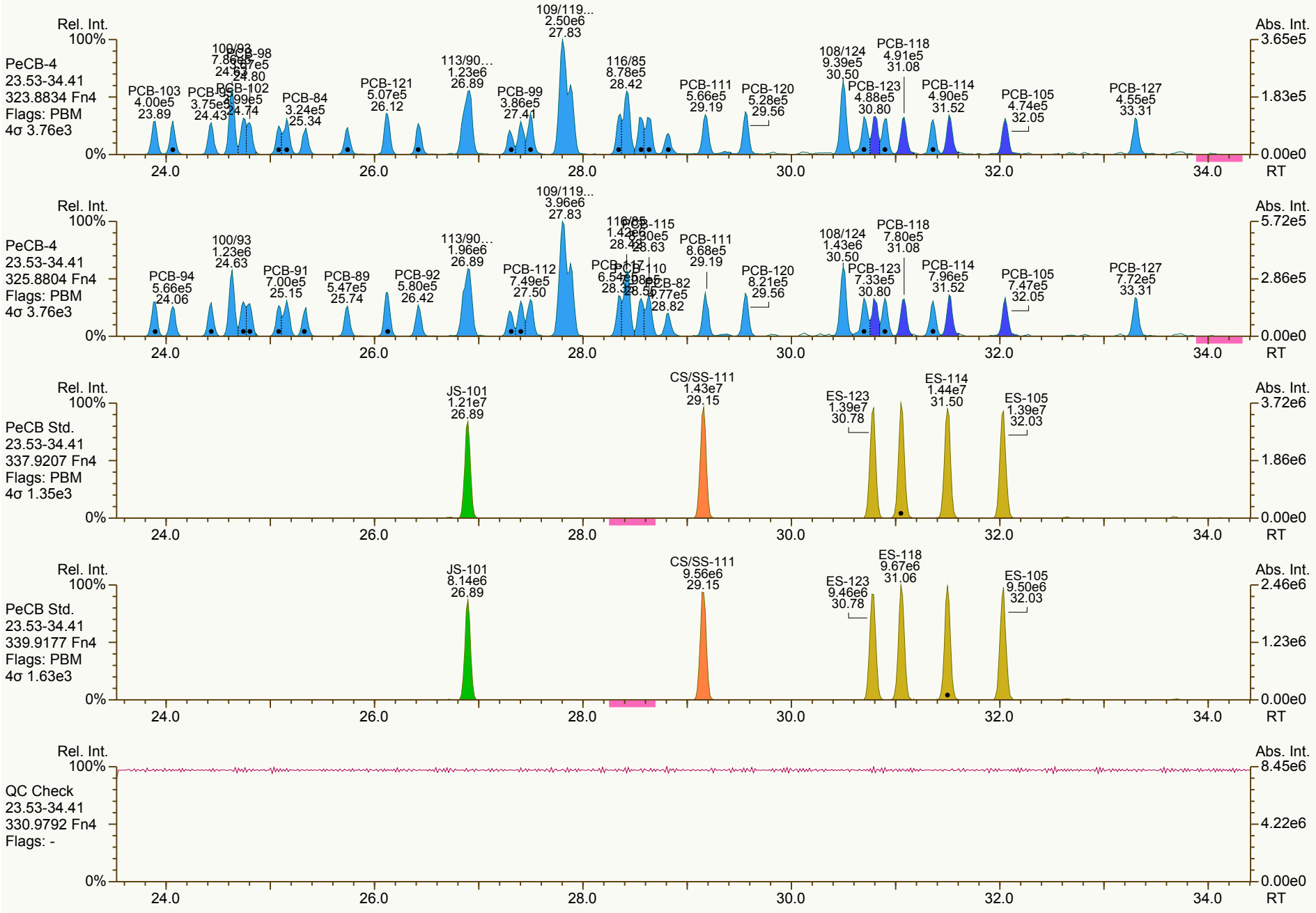
SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



SGS-AP ID: CS2_121214_PCB_VA | Sample ID: SIL 12-65-4 | Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12 | User: CEM Datafile: 121214V04 (EQ)



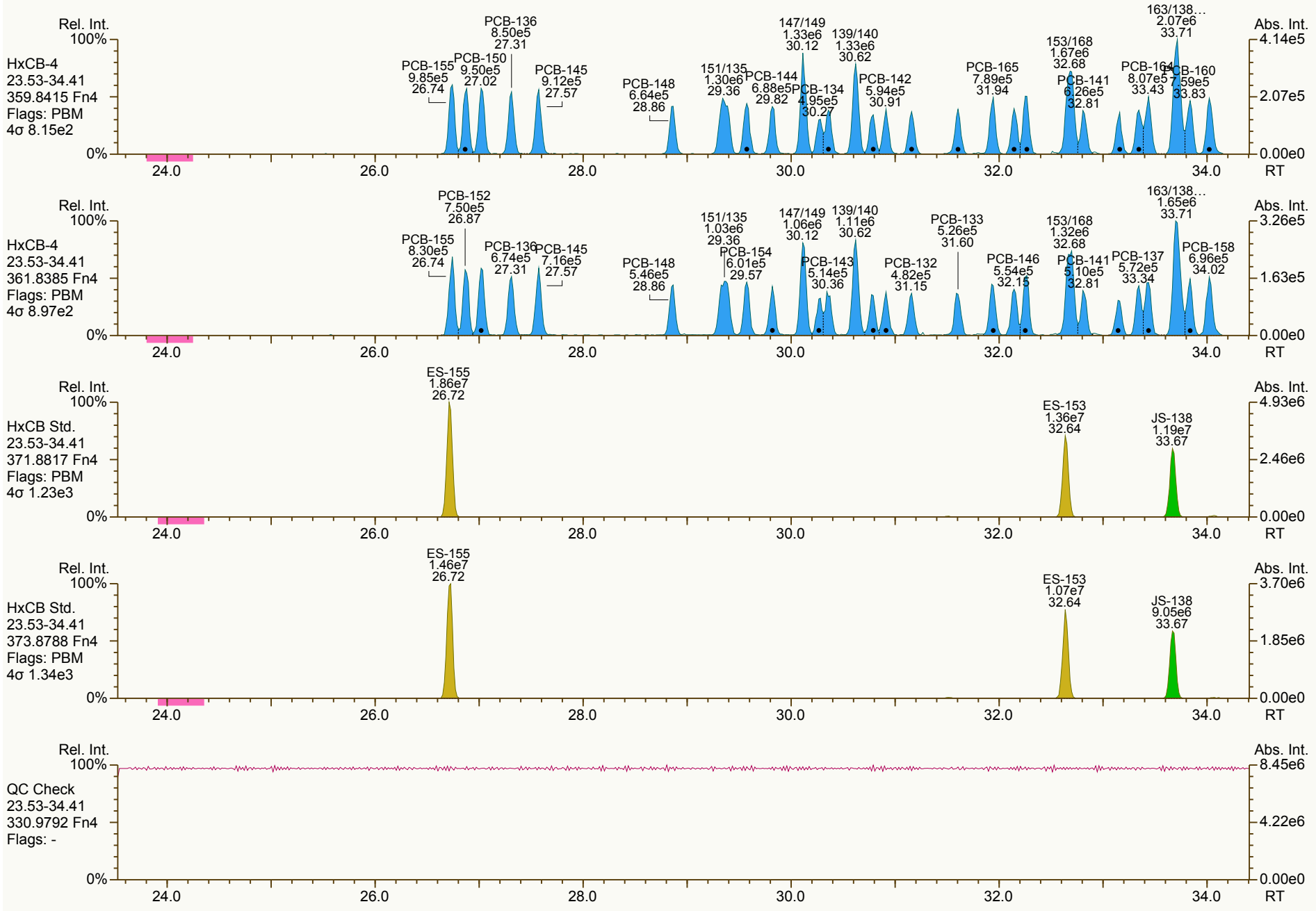
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



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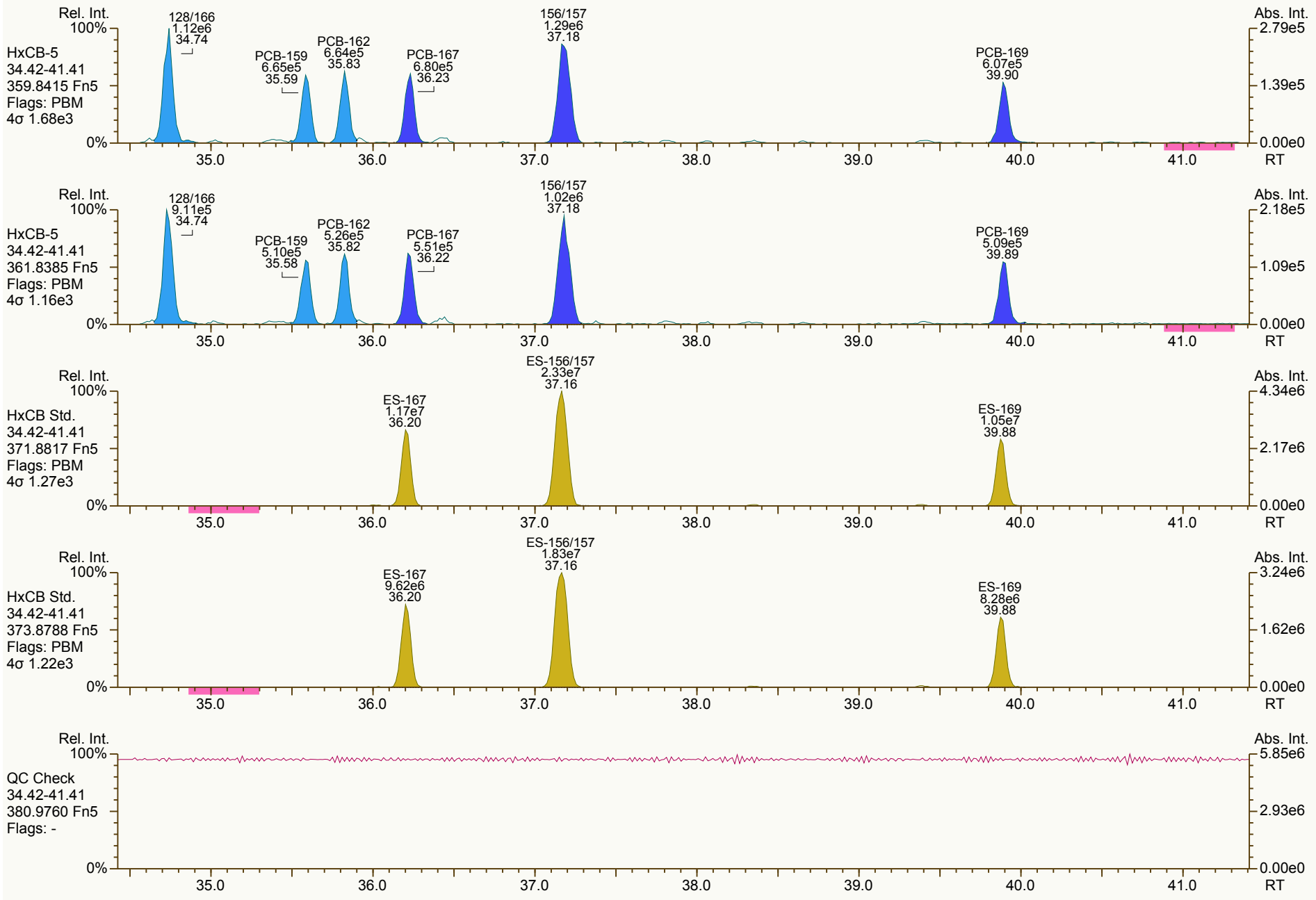
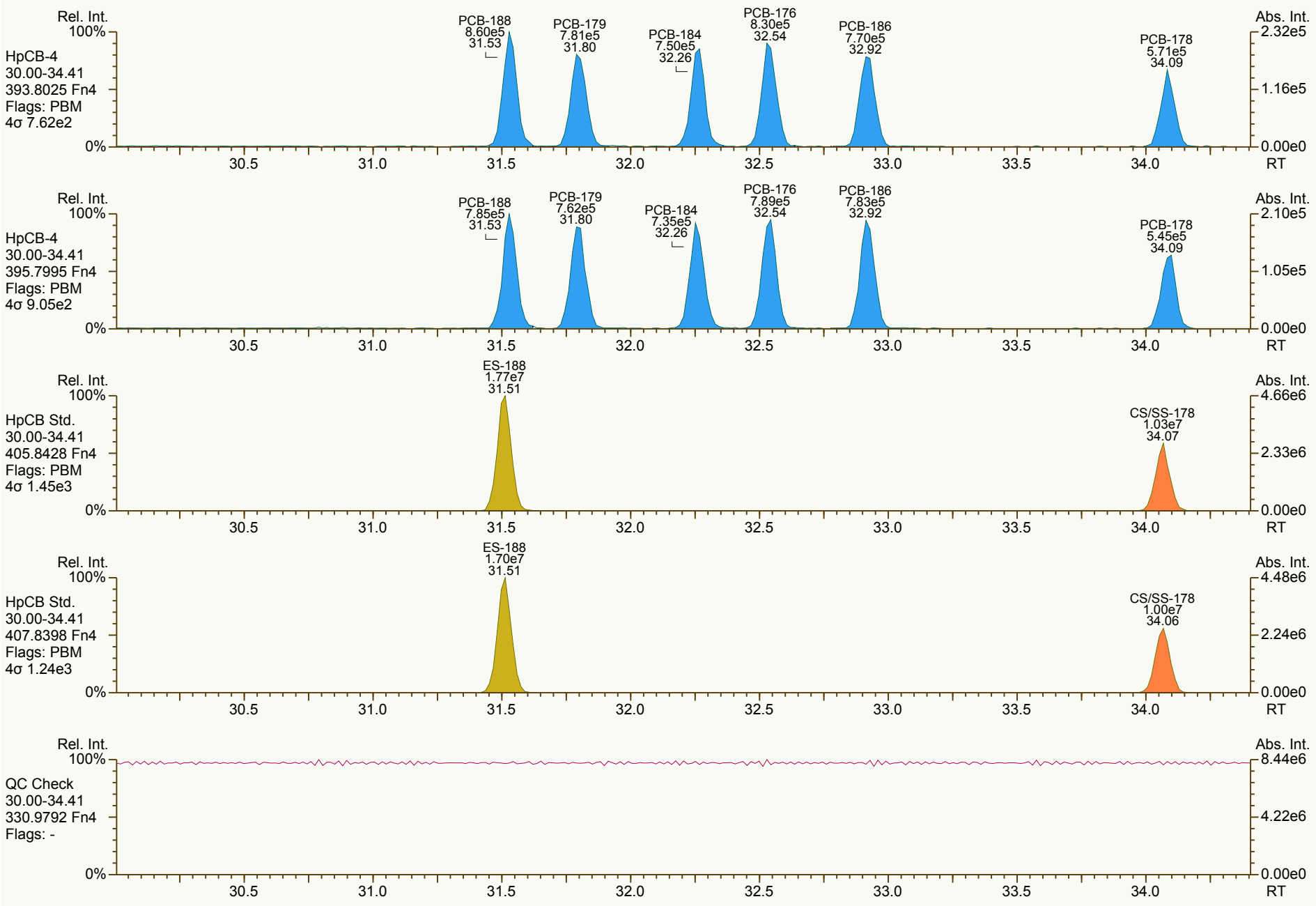
SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



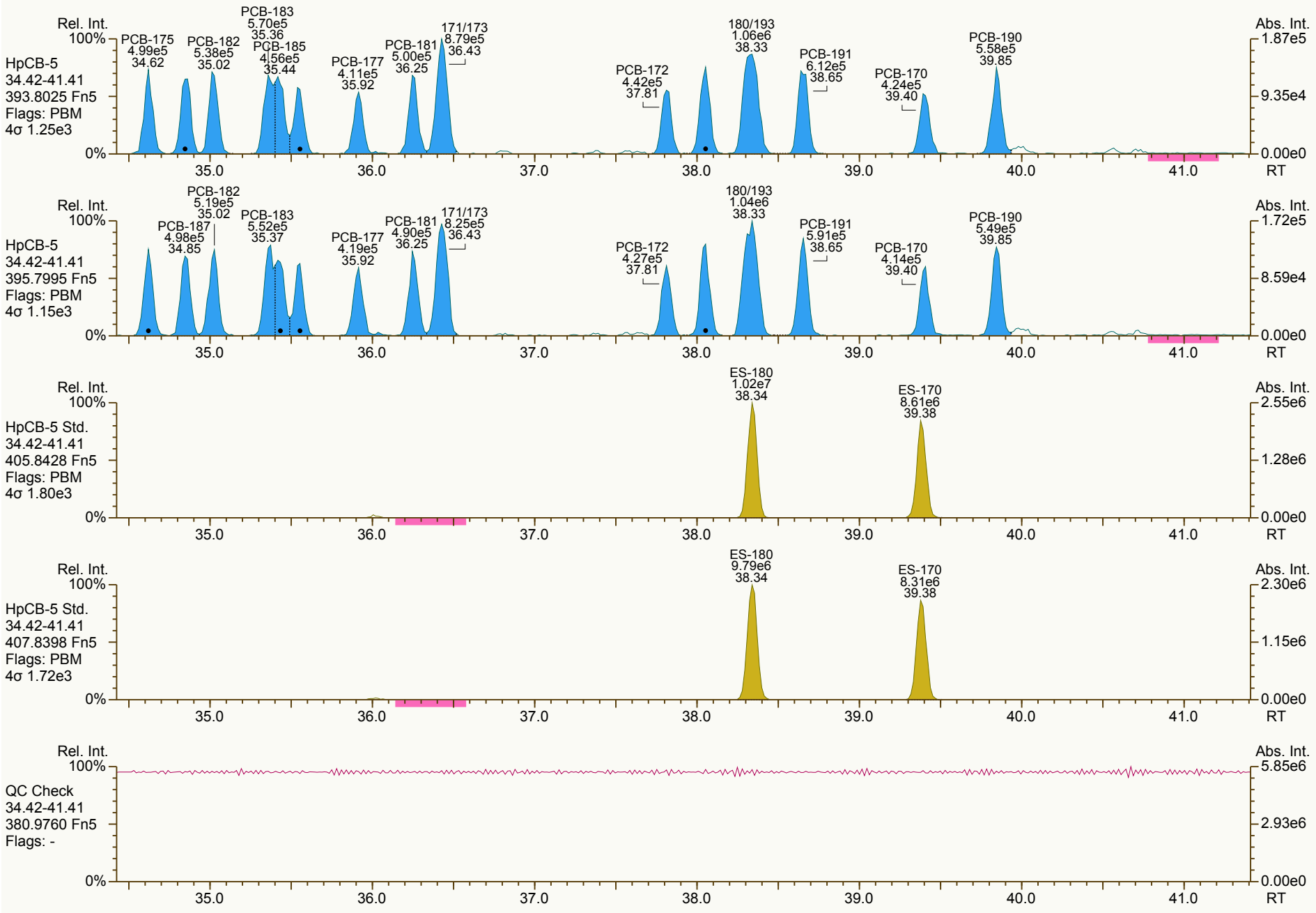
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



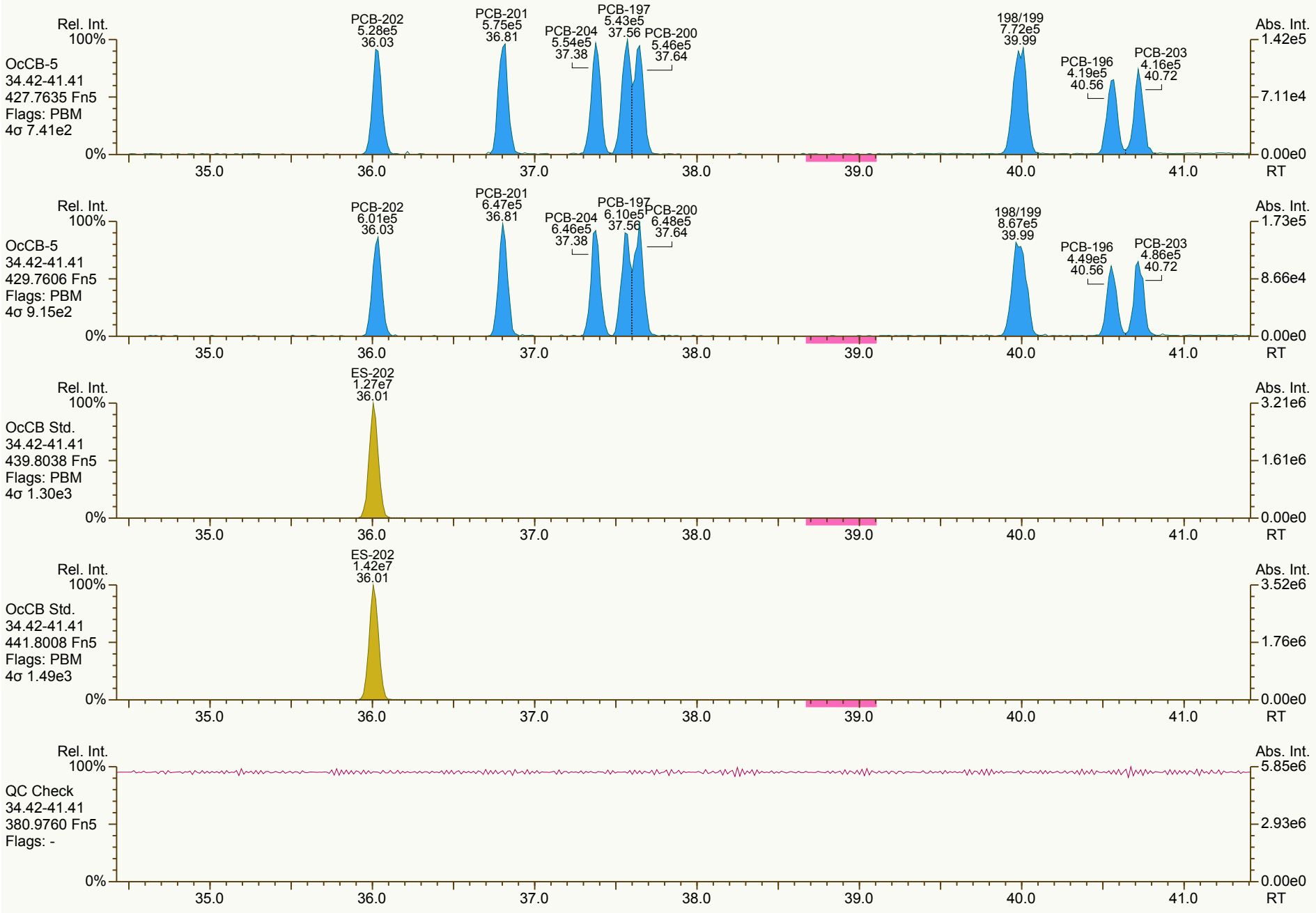
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



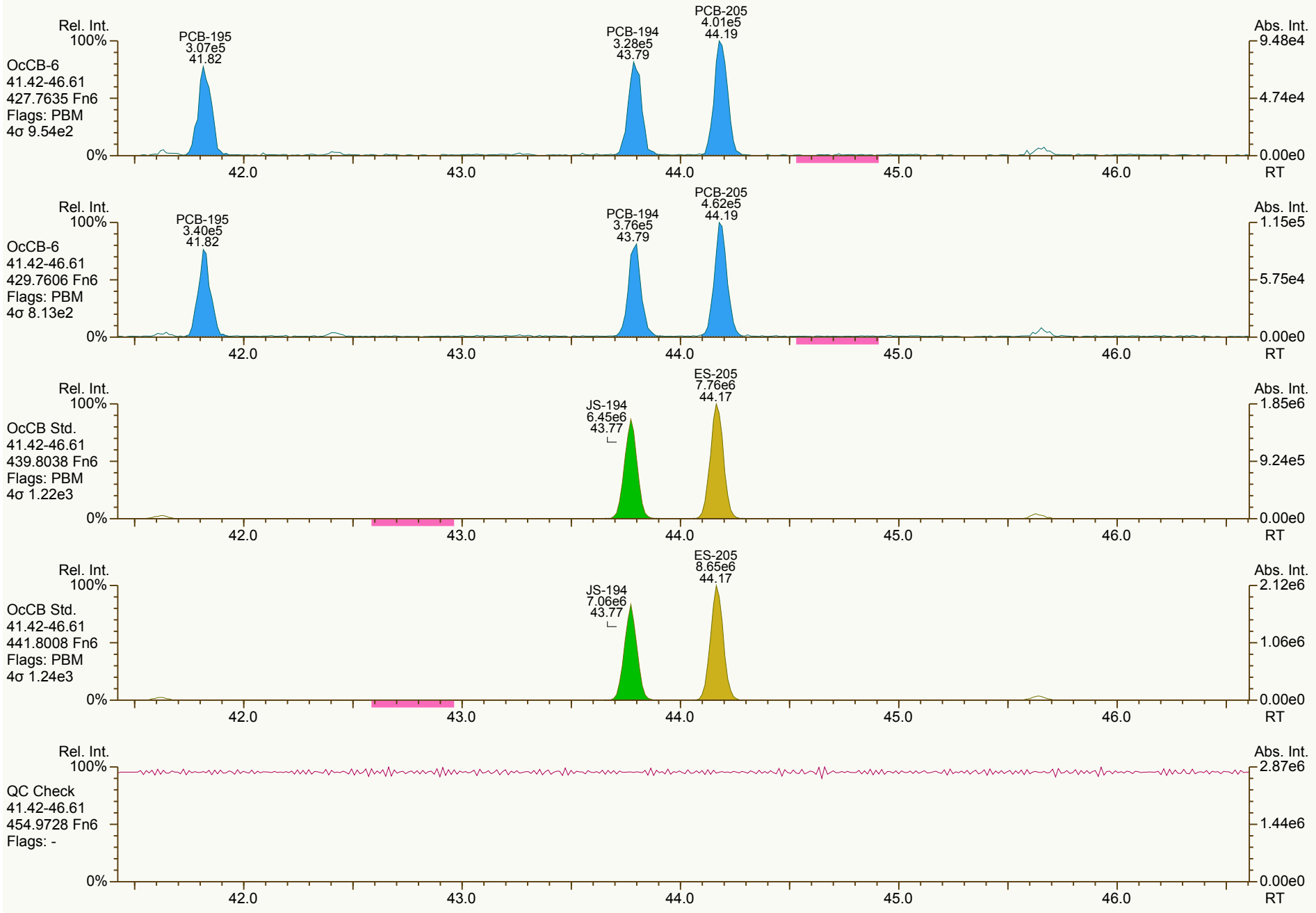
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



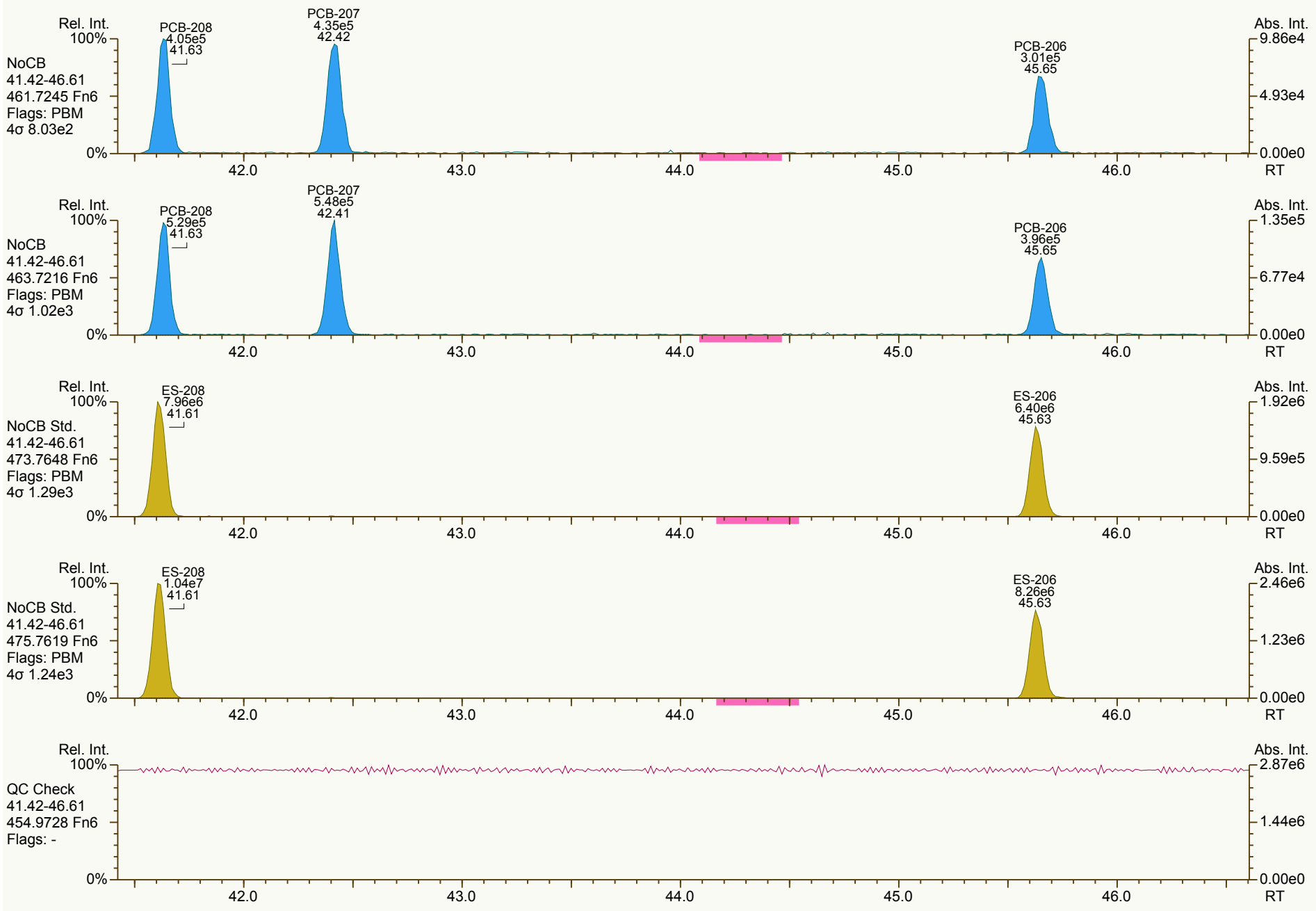
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



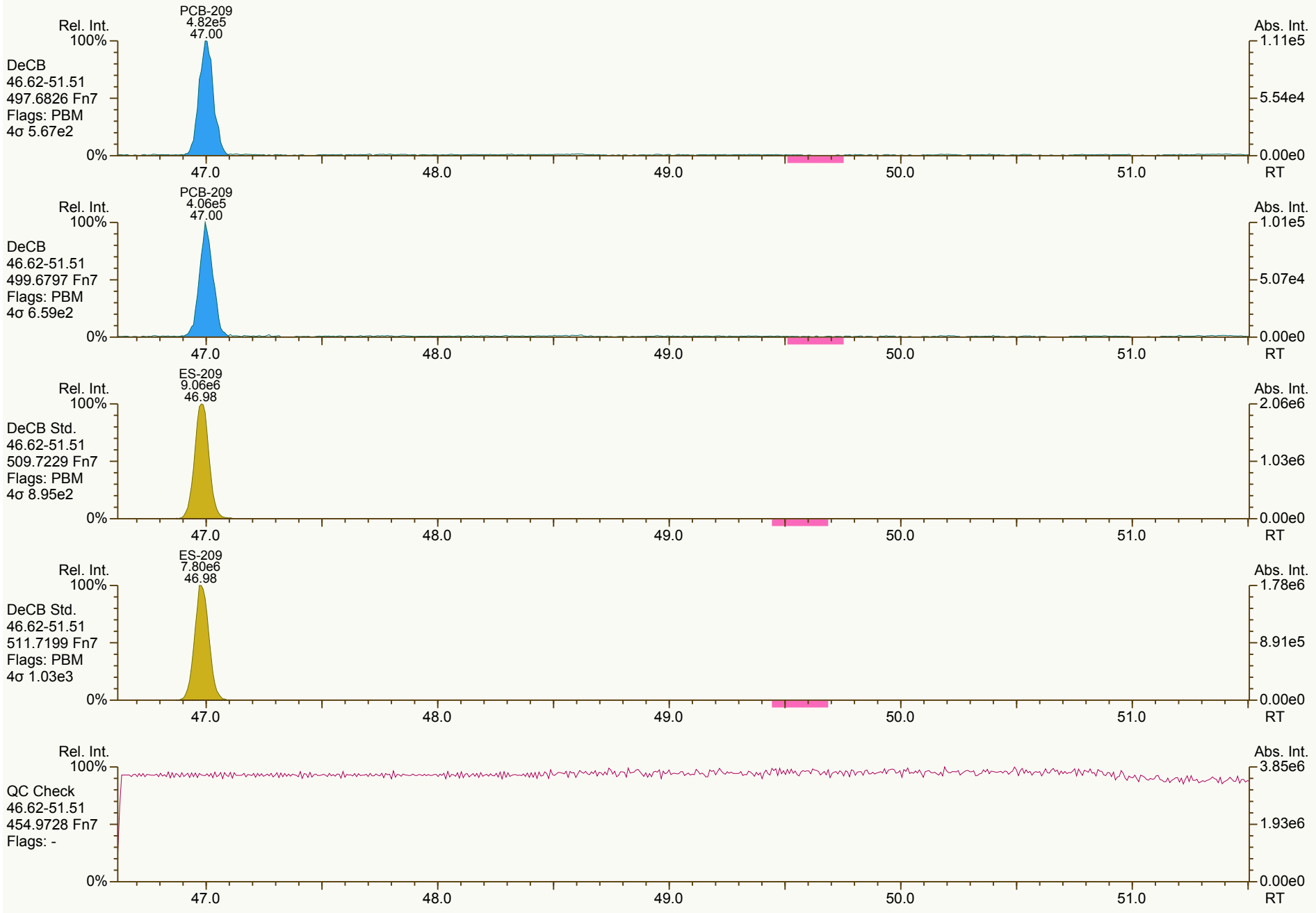
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 7150, 4441 scc: 403-865 *PKD: 14-Dec-2012 09:53 Printed: 14-Dec-2012 11:21 Page 21 of 22*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:17
Lab ID:	CS3_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 05:09				
Datafile:	121214V05				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.10	2.42E+07	0.76 Y	1.25	1.24	-0.4%
PCB-81 344'5-TeCB	28.64	2.32E+07	0.76 Y	1.26	1.28	1.5%
PCB-105 233'44'-PeCB	32.05	1.42E+07	0.62 Y	1.06	1.05	-0.8%
PCB-114 2344'5-PeCB	31.52	1.61E+07	0.62 Y	1.11	1.14	2.5%
PCB-118 23'44'5-PeCB	31.07	1.55E+07	0.63 Y	1.08	1.09	1.3%
PCB-123 23'44'5'-PeCB	30.80	1.65E+07	0.62 Y	1.12	1.19	6.0%
PCB-126 33'44'5-PeCB	34.64	1.81E+07	0.62 Y	1.16	1.12	-3.3%
PCB-156/157 ...-HxCB	37.17	2.67E+07	1.25 Y	1.14	1.15	0.6%
PCB-167 23'44'55'-HxCB	36.22	1.47E+07	1.26 Y	1.18	1.20	2.1%
PCB-169 33'44'55'-HxCB	39.89	1.25E+07	1.27 Y	1.15	1.18	2.1%
PCB-189 233'44'55'-HpCB	42.02	1.63E+07	1.05 Y	1.12	1.11	-0.1%
PCB-209 DeCB	47.00	9.92E+06	1.18 Y	1.11	1.08	-3.2%
ES PCB-1	9.82	6.05E+07	3.29 Y	0.97	0.97	-0.4%
ES PCB-3	11.72	5.58E+07	3.36 Y	0.90	0.89	-0.9%
ES PCB-4	11.93	4.37E+07	1.55 Y	0.70	0.70	-0.3%
ES PCB-15	16.99	6.29E+07	1.65 Y	1.02	1.00	-1.1%
ES PCB-19	14.61	3.07E+07	1.05 Y	0.53	0.49	-7.0%
ES PCB-37	22.93	4.13E+07	1.10 Y	1.29	1.30	0.3%
ES PCB-54	17.23	4.54E+07	0.79 Y	1.43	1.43	0.0%
ES PCB-77	29.09	3.89E+07	0.82 Y	1.20	1.22	1.5%
ES PCB-81	28.62	3.64E+07	0.84 Y	1.16	1.14	-1.5%
ES PCB-104	21.91	4.09E+07	1.54 Y	1.70	1.69	-0.7%
ES PCB-105	32.02	2.72E+07	1.46 Y	1.10	1.13	2.5%
ES PCB-114	31.49	2.83E+07	1.51 Y	1.16	1.17	1.2%
ES PCB-118	31.05	2.84E+07	1.51 Y	1.15	1.17	1.7%
ES PCB-123	30.78	2.78E+07	1.48 Y	1.14	1.15	0.7%
ES PCB-126	34.62	3.24E+07	1.60 Y	1.34	1.34	0.1%
ES PCB-153	32.63	2.79E+07	1.32 Y	1.14	1.16	1.6%
ES PCB-155	26.71	3.95E+07	1.26 Y	1.61	1.65	2.0%
ES PCB-156/157	37.16	4.65E+07	1.25 Y	0.98	0.97	-0.8%
ES PCB-167	36.20	2.44E+07	1.24 Y	1.01	1.02	0.8%
ES PCB-169	39.87	2.13E+07	1.26 Y	0.90	0.89	-1.0%
ES PCB-170	39.38	1.91E+07	1.02 Y	1.28	1.26	-1.6%
ES PCB-180	38.33	2.29E+07	1.01 Y	1.54	1.51	-2.1%
ES PCB-188	31.50	3.97E+07	1.04 Y	1.63	1.65	1.7%
ES PCB-189	42.00	2.93E+07	1.07 Y	1.97	1.93	-1.9%
ES PCB-202	36.00	3.04E+07	0.88 Y	1.26	1.27	0.5%
ES PCB-205	44.16	1.84E+07	0.90 Y	1.22	1.21	-0.7%
ES PCB-206	45.63	1.67E+07	0.76 Y	1.10	1.10	0.3%
ES PCB-208	41.61	2.09E+07	0.76 Y	1.41	1.38	-2.3%
ES PCB-209	46.98	1.84E+07	1.16 Y	1.24	1.21	-2.3%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.56	4.85E+07	1.10 Y	1.18	1.18	-0.2%
SS PCB-111	29.15	2.77E+07	1.51 Y	1.01	1.00	-0.7%
SS PCB-178	34.06	2.40E+07	1.02 Y	0.60	0.60	0.4%
CS PCB-28	19.56	4.85E+07	1.10 Y	1.52	1.53	0.2%
CS PCB-111	29.15	2.77E+07	1.51 Y	1.15	1.15	0.0%
CS PCB-178	34.06	2.40E+07	1.02 Y	0.98	1.00	2.1%
JS PCB-9	13.65	6.27E+07	1.62 Y	-	-	-
JS PCB-52	21.11	3.18E+07	0.79 Y	-	-	-
JS PCB-101	26.89	2.42E+07	1.52 Y	-	-	-
JS PCB-138	33.66	2.40E+07	1.26 Y	-	-	-
JS PCB-194	43.77	1.52E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	9.83	3.85E+07	3.11 Y	1.25	1.27	2.0%
PCB-3 4-MoCB	11.73	3.64E+07	3.11 Y	1.27	1.30	3.0%
PCB-4 22'-DiCB	11.95	1.97E+07	1.57 Y	0.90	0.90	0.4%
PCB-15 44'-DiCB	17.00	3.50E+07	1.55 Y	1.10	1.11	1.5%
PCB-19 22'6-TrCB	14.62	1.51E+07	1.04 Y	0.95	0.98	4.0%
PCB-37 344'-TrCB	22.95	2.90E+07	1.06 Y	1.39	1.40	1.2%
PCB-54 22'66'-TeCB	17.25	2.45E+07	0.79 Y	1.05	1.08	2.5%
PCB-104 22'466'-PeCB	21.93	2.29E+07	0.62 Y	1.12	1.12	0.0%
PCB-153/168 ...-HxCB	32.68	3.44E+07	1.25 Y	1.24	1.23	-0.3%
PCB-155 22'44'66'-HxCB	26.73	2.16E+07	1.20 Y	1.09	1.10	0.4%
PCB-170 22'33'44'5-HpCB	39.40	9.52E+06	1.03 Y	0.99	0.99	0.1%
PCB-180/193 ...-HpCB	38.32	2.47E+07	1.04 Y	1.07	1.08	0.9%
PCB-188 22'34'566'-HpCB	31.53	1.99E+07	1.03 Y	0.98	1.00	1.9%
PCB-202 22'33'55'66'-OcCB	36.03	1.31E+07	0.89 Y	0.86	0.86	-0.7%
PCB-205 233'44'55'6-OcCB	44.18	1.06E+07	0.92 Y	1.13	1.15	1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.07E+07	0.78 Y	1.03	1.03	-0.7%
PCB-206 22'33'44'55'6-NoCB	45.65	8.01E+06	0.79 Y	0.97	0.96	-1.3%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.83	3.85E+07	3.11 Y	1.25	1.27	2.0%
PCB-2 3-MoCB	11.58	3.68E+07	3.11 Y	1.28	1.32	3.2%
PCB-3 4-MoCB	11.73	3.64E+07	3.11 Y	1.27	1.30	3.0%
PCB-4 22'-DiCB	11.95	1.97E+07	1.57 Y	0.90	0.90	0.4%
PCB-10 26-DiCB	12.10	3.09E+07	1.54 Y	1.38	1.41	2.4%
PCB-9 25-DiCB	13.66	3.19E+07	1.53 Y	0.99	1.02	2.7%
PCB-7 24-DiCB	13.81	3.59E+07	1.55 Y	1.10	1.14	3.5%
PCB-6 23'-DiCB	14.00	3.21E+07	1.55 Y	1.04	1.02	-1.7%
PCB-5 23-DiCB	14.27	3.23E+07	1.55 Y	1.02	1.03	0.2%
PCB-8 24'-DiCB	14.37	3.35E+07	1.53 Y	1.03	1.07	3.2%
PCB-14 35-DiCB	15.77	3.88E+07	1.57 Y	1.20	1.23	2.6%
PCB-11 33'-DiCB	16.48	3.28E+07	1.56 Y	1.03	1.04	1.5%
PCB-13/12 34'/34-DiCB	16.74	6.69E+07	1.55 Y	1.03	1.06	2.8%
PCB-15 44'-DiCB	17.00	3.50E+07	1.55 Y	1.10	1.11	1.5%
PCB-19 22'6-TrCB	14.62	1.51E+07	1.04 Y	0.95	0.98	4.0%
PCB-30/18 246/22'5-TrCB	16.22	4.13E+07	1.04 Y	1.23	1.35	9.5%
PCB-17 22'4-TrCB	16.58	1.77E+07	1.03 Y	1.05	1.15	9.3%
PCB-27 23'6-TrCB	16.76	2.40E+07	1.03 Y	1.46	1.57	7.0%
PCB-24 236-TrCB	16.87	2.29E+07	1.03 Y	1.32	1.49	13.0%
PCB-16 22'3-TrCB	16.96	1.39E+07	1.02 Y	0.81	0.91	12.3%
PCB-32 24'6-TrCB	17.40	2.50E+07	1.03 Y	1.48	1.63	10.6%
PCB-34 23'5'-TrCB	18.49	3.10E+07	1.06 Y	1.46	1.50	2.9%
PCB-23 235-TrCB	18.62	3.15E+07	1.05 Y	1.50	1.53	1.4%
PCB-26/29 23'5/245-TrCB	18.89	6.42E+07	1.06 Y	1.53	1.56	1.8%
PCB-25 23'4-TrCB	19.07	3.26E+07	1.06 Y	1.53	1.58	2.9%
PCB-31 24'5-TrCB	19.33	3.29E+07	1.05 Y	1.55	1.59	2.6%
PCB-28/20 244'/233'-TrCB	19.59	6.33E+07	1.06 Y	1.51	1.53	1.8%
PCB-21/33 234/23'4'-TrCB	19.75	6.46E+07	1.05 Y	1.55	1.56	1.2%
PCB-22 234'-TrCB	20.11	2.89E+07	1.06 Y	1.40	1.40	0.2%
PCB-36 33'5-TrCB	21.44	3.13E+07	1.06 Y	1.52	1.51	-0.2%
PCB-39 34'5-TrCB	21.74	3.28E+07	1.05 Y	1.58	1.59	0.3%
PCB-38 345-TrCB	22.23	2.92E+07	1.06 Y	1.47	1.41	-3.8%
PCB-35 33'4-TrCB	22.61	2.80E+07	1.05 Y	1.33	1.36	1.6%
PCB-37 344'-TrCB	22.95	2.90E+07	1.06 Y	1.39	1.40	1.2%
PCB-54 22'66'-TeCB	17.25	2.45E+07	0.79 Y	1.05	1.08	2.5%
PCB-50/53 22'46/22'56'-TeCB	19.11	3.29E+07	0.78 Y	0.88	0.90	3.0%
PCB-45 22'36-TeCB	19.65	1.42E+07	0.77 Y	0.73	0.78	6.2%
PCB-51 22'46'-TeCB	19.72	1.67E+07	0.77 Y	0.94	0.92	-2.0%
PCB-46 22'36'-TeCB	19.91	1.34E+07	0.78 Y	0.72	0.73	2.3%
PCB-52 22'55'-TeCB	21.13	1.57E+07	0.77 Y	0.82	0.86	4.8%
PCB-73 23'5'6-TeCB	21.25	2.04E+07	0.76 Y	1.10	1.12	1.8%
PCB-43 22'35-TeCB	21.33	1.35E+07	0.78 Y	0.70	0.74	5.1%
PCB-69/49 23'46/22'45'-TeCB	21.52	3.76E+07	0.77 Y	1.01	1.03	2.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.78	1.56E+07	0.78 Y	0.84	0.86	1.7%
PCB-44/47/65 ...-TeCB	21.99	4.96E+07	0.77 Y	0.90	0.91	0.8%
PCB-59/62/75 ...-TeCB	22.25	6.33E+07	0.77 Y	1.15	1.16	0.3%
PCB-42 22'34'-TeCB	22.41	1.42E+07	0.77 Y	0.76	0.78	1.8%
PCB-41 22'34-TeCB	22.72	1.29E+07	0.76 Y	0.64	0.71	10.4%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	3.10E+07	0.77 Y	0.83	0.85	2.3%
PCB-64 234'6-TeCB	23.01	2.19E+07	0.77 Y	1.17	1.20	2.4%
PCB-72 23'55'-TeCB	23.73	2.59E+07	0.77 Y	1.37	1.42	4.0%
PCB-68 23'45'-TeCB	23.97	2.75E+07	0.78 Y	1.52	1.51	-0.2%
PCB-57 233'5-TeCB	24.32	2.48E+07	0.77 Y	1.32	1.36	2.8%
PCB-58 233'5'-TeCB	24.52	2.47E+07	0.76 Y	1.34	1.36	1.4%
PCB-67 23'45-TeCB	24.67	2.67E+07	0.75 Y	1.41	1.47	3.9%
PCB-63 234'5-TeCB	24.89	2.76E+07	0.77 Y	1.46	1.51	3.9%
PCB-61/70/74/76 ...-TeCB	25.16	1.02E+08	0.77 Y	1.37	1.40	2.5%
PCB-66 23'44'-TeCB	25.44	2.33E+07	0.77 Y	1.24	1.28	3.0%
PCB-55 233'4-TeCB	25.57	2.43E+07	0.77 Y	1.28	1.33	4.3%
PCB-56 233'4'-TeCB	25.99	2.31E+07	0.78 Y	1.23	1.27	3.4%
PCB-60 2344'-TeCB	26.17	2.41E+07	0.76 Y	1.30	1.32	1.8%
PCB-80 33'55'-TeCB	26.54	2.74E+07	0.77 Y	1.44	1.50	4.7%
PCB-79 33'45'-TeCB	27.81	2.76E+07	0.78 Y	1.48	1.52	2.8%
PCB-78 33'45-TeCB	28.27	2.24E+07	0.79 Y	1.21	1.23	1.9%
PCB-104 22'466'-PeCB	21.93	2.29E+07	0.62 Y	1.12	1.12	0.0%
PCB-96 22'366'-PeCB	22.22	1.94E+07	0.63 Y	0.96	0.95	-1.3%
PCB-103 22'45'6-PeCB	23.88	1.31E+07	0.62 Y	0.93	0.94	1.1%
PCB-94 22'356'-PeCB	24.06	1.15E+07	0.62 Y	0.81	0.83	2.3%
PCB-95 22'35'6-PeCB	24.42	1.20E+07	0.63 Y	0.85	0.87	2.2%
PCB-100/93 22'44'6/22'356-PeCB	24.62	2.39E+07	0.62 Y	0.88	0.86	-2.7%
PCB-102 22'456'-PeCB	24.74	1.40E+07	0.62 Y	0.93	1.01	8.3%
PCB-98 22'34'6'-PeCB	24.80	1.08E+07	0.64 Y	0.84	0.77	-7.6%
PCB-88 22'346-PeCB	25.08	1.07E+07	0.61 Y	0.77	0.77	-0.6%
PCB-91 22'34'6-PeCB	25.15	1.32E+07	0.63 Y	0.96	0.95	-0.9%
PCB-84 22'33'6-PeCB	25.33	1.02E+07	0.63 Y	0.72	0.74	2.2%
PCB-89 22'346'-PeCB	25.73	1.08E+07	0.63 Y	0.77	0.78	0.6%
PCB-121 23'45'6-PeCB	26.11	1.60E+07	0.63 Y	1.15	1.15	0.7%
PCB-92 22'355'-PeCB	26.42	1.12E+07	0.62 Y	0.79	0.81	2.1%
PCB-113/90/101 ...-PeCB	26.88	4.00E+07	0.63 Y	0.95	0.96	0.5%
PCB-83 22'33'5-PeCB	27.30	9.44E+06	0.62 Y	0.72	0.68	-5.6%
PCB-99 22'44'5-PeCB	27.40	1.32E+07	0.64 Y	0.90	0.95	6.0%
PCB-112 233'56-PeCB	27.49	1.47E+07	0.63 Y	1.09	1.06	-3.1%
PCB-109/119/86/97/125...-PeCB	27.83	7.92E+07	0.62 Y	0.95	0.95	0.3%
PCB-117 234'56-PeCB	28.34	1.43E+07	0.62 Y	0.99	1.03	4.2%
PCB-116/85 23456/22'344'-PeCB	28.42	2.62E+07	0.63 Y	0.96	0.95	-1.5%
PCB-110 233'4'6-PeCB	28.55	1.47E+07	0.62 Y	1.01	1.06	5.2%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.51E+07	0.62 Y	1.15	1.09	-5.3%
PCB-82 22'33'4-PeCB	28.81	9.47E+06	0.62 Y	0.70	0.68	-2.4%
PCB-111 233'55'-PeCB	29.17	1.57E+07	0.63 Y	1.16	1.13	-3.1%
PCB-120 23'455'-PeCB	29.56	1.60E+07	0.62 Y	1.14	1.15	1.2%
PCB-108/124 ...-PeCB	30.49	2.84E+07	0.63 Y	1.02	1.02	0.4%
PCB-107 233'4'5-PeCB	30.69	1.56E+07	0.63 Y	1.13	1.12	-1.0%
PCB-106 233'45-PeCB	30.90	1.42E+07	0.64 Y	1.01	1.02	1.2%
PCB-122 233'4'5'-PeCB	31.35	1.35E+07	0.63 Y	0.91	0.95	4.8%
PCB-127 33'455'-PeCB	33.30	1.41E+07	0.62 Y	1.06	1.03	-2.0%
PCB-155 22'44'66'-HxCB	26.73	2.16E+07	1.20 Y	1.09	1.10	0.4%
PCB-152 22'3566'-HxCB	26.87	2.04E+07	1.24 Y	1.04	1.03	-0.8%
PCB-150 22'34'66'-HxCB	27.02	2.04E+07	1.25 Y	1.03	1.03	0.7%
PCB-136 22'33'66'-HxCB	27.30	1.87E+07	1.25 Y	0.97	0.94	-3.1%
PCB-145 22'3466'-HxCB	27.57	1.90E+07	1.24 Y	0.96	0.96	-0.1%
PCB-148 22'34'56'-HxCB	28.85	1.44E+07	1.23 Y	1.03	1.04	0.3%
PCB-151/135 ...-HxCB	29.35	2.79E+07	1.26 Y	0.99	1.00	0.9%
PCB-154 22'44'56'-HxCB	29.57	1.59E+07	1.22 Y	1.17	1.14	-2.7%
PCB-144 22'345'6-HxCB	29.81	1.44E+07	1.23 Y	1.03	1.03	0.5%
PCB-147/149 ...-HxCB	30.11	2.83E+07	1.25 Y	1.02	1.02	-0.1%
PCB-134 22'33'56-HxCB	30.27	1.17E+07	1.25 Y	0.80	0.84	4.5%
PCB-143 22'3456'-HxCB	30.35	1.33E+07	1.24 Y	0.95	0.96	0.7%
PCB-139/140 ...-HxCB	30.62	2.89E+07	1.24 Y	1.05	1.04	-1.3%
PCB-131 22'33'46-HxCB	30.77	1.25E+07	1.25 Y	0.90	0.90	0.4%
PCB-142 22'3456-HxCB	30.90	1.28E+07	1.23 Y	0.93	0.92	-0.9%
PCB-132 22'33'46'-HxCB	31.15	1.27E+07	1.25 Y	0.93	0.91	-2.2%
PCB-133 22'33'55'-HxCB	31.60	1.35E+07	1.25 Y	0.97	0.97	-0.2%
PCB-165 233'55'6-HxCB	31.93	1.64E+07	1.24 Y	1.16	1.18	1.2%
PCB-146 22'34'55'-HxCB	32.14	1.38E+07	1.24 Y	1.01	0.99	-2.2%
PCB-161 233'45'6-HxCB	32.25	1.83E+07	1.25 Y	1.29	1.31	1.3%
PCB-153/168 ...-HxCB	32.68	3.44E+07	1.25 Y	1.24	1.23	-0.3%
PCB-141 22'3455'-HxCB	32.81	1.30E+07	1.24 Y	0.95	0.93	-1.3%
PCB-130 22'33'45'-HxCB	33.15	1.17E+07	1.24 Y	0.82	0.84	2.0%
PCB-137 22'344'5-HxCB	33.34	1.34E+07	1.21 Y	0.97	0.96	-0.8%
PCB-164 233'4'5'6-HxCB	33.43	1.80E+07	1.23 Y	1.25	1.29	3.5%
PCB-163/138/129 ...-HxCB	33.70	4.21E+07	1.24 Y	1.04	1.01	-3.4%
PCB-160 233'456-HxCB	33.83	1.69E+07	1.27 Y	1.19	1.22	2.1%
PCB-158 233'44'6-HxCB	34.02	1.88E+07	1.26 Y	1.34	1.35	0.6%
PCB-128/166 ...-HxCB	34.73	2.36E+07	1.27 Y	0.96	0.97	0.6%
PCB-159 233'455'-HxCB	35.58	1.39E+07	1.25 Y	1.12	1.14	1.4%
PCB-162 233'4'55'-HxCB	35.82	1.40E+07	1.25 Y	1.13	1.15	2.0%
PCB-188 22'34'566'-HpCB	31.53	1.99E+07	1.03 Y	0.98	1.00	1.9%
PCB-179 22'33'566'-HpCB	31.79	1.79E+07	1.04 Y	0.90	0.90	0.6%
PCB-184 22'344'66'-HpCB	32.25	1.72E+07	1.05 Y	0.86	0.87	0.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA

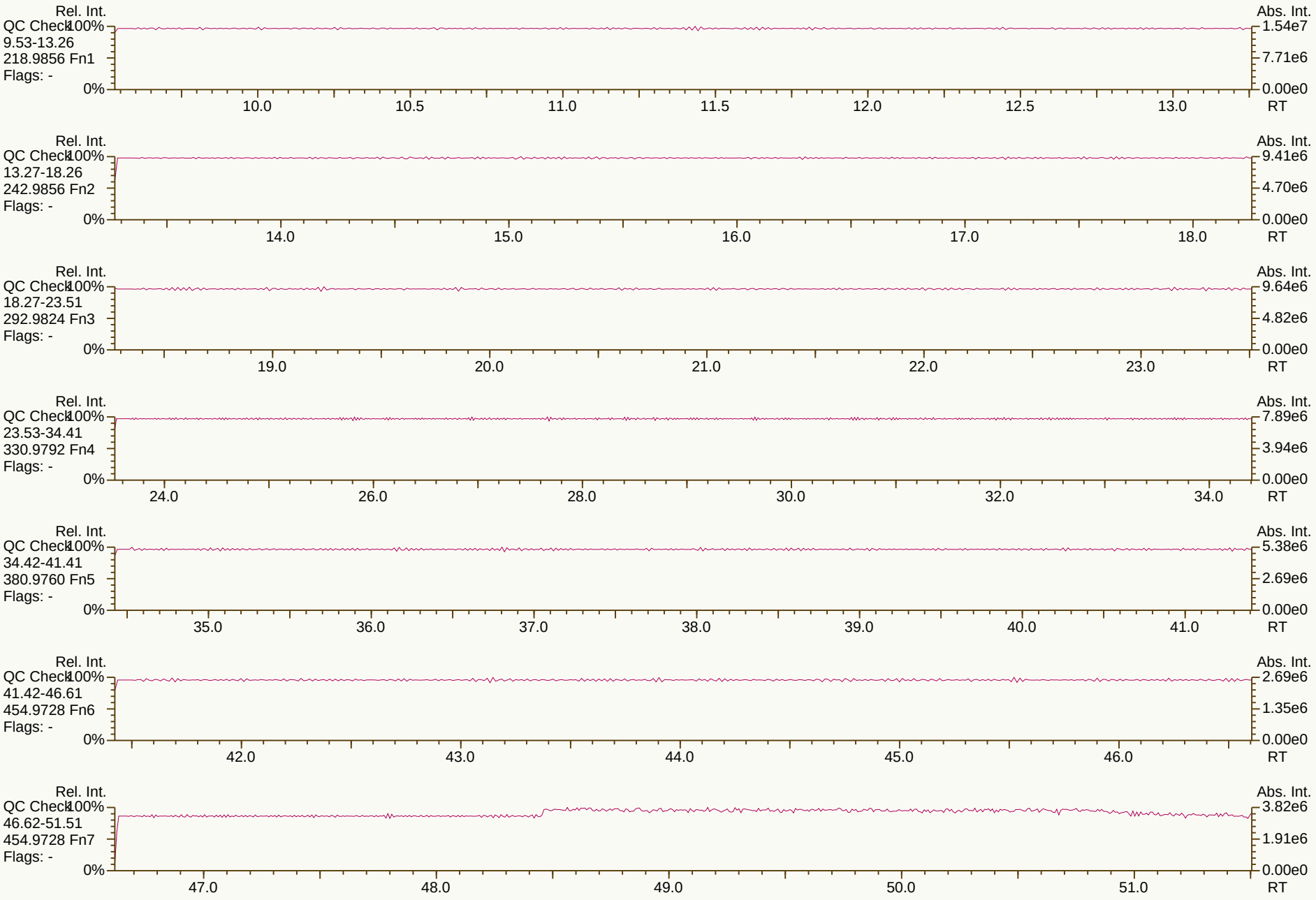
Acquired: 14-DEC-2012 05:09

Datafile: 121214V05

ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.53	1.96E+07	1.02 Y	0.97	0.99	1.7%
PCB-186 22'34566'-HpCB	32.91	1.84E+07	1.03 Y	0.93	0.93	0.3%
PCB-178 22'33'55'6-HpCB	34.08	1.32E+07	1.05 Y	0.66	0.67	0.9%
PCB-175 22'33'45'6-HpCB	34.61	1.14E+07	1.04 Y	1.02	1.00	-2.5%
PCB-187 22'34'55'6-HpCB	34.84	1.20E+07	1.05 Y	1.03	1.05	2.6%
PCB-182 22'344'56'-HpCB	35.02	1.23E+07	1.05 Y	1.10	1.07	-1.9%
PCB-183 22'344'5'6-HpCB	35.35	1.19E+07	1.03 Y	1.12	1.04	-7.5%
PCB-185 22'3455'6-HpCB	35.42	1.18E+07	1.03 Y	0.97	1.03	6.3%
PCB-174 22'33'456'-HpCB	35.54	1.06E+07	1.04 Y	0.90	0.93	3.8%
PCB-177 22'33'45'6'-HpCB	35.91	9.97E+06	1.04 Y	0.87	0.87	0.0%
PCB-181 22'344'56-HpCB	36.25	1.16E+07	1.05 Y	1.03	1.01	-1.9%
PCB-171/173 ...-HpCB	36.42	1.98E+07	1.04 Y	0.89	0.87	-2.2%
PCB-172 22'33'455'-HpCB	37.81	9.92E+06	1.04 Y	0.87	0.87	-0.5%
PCB-192 233'455'6-HpCB	38.04	1.29E+07	1.06 Y	1.16	1.13	-2.9%
PCB-180/193 ...-HpCB	38.32	2.47E+07	1.04 Y	1.07	1.08	0.9%
PCB-191 233'44'5'6-HpCB	38.65	1.35E+07	1.03 Y	1.18	1.18	-0.5%
PCB-170 22'33'44'5-HpCB	39.40	9.52E+06	1.03 Y	0.99	0.99	0.1%
PCB-190 233'44'56-HpCB	39.84	1.31E+07	1.04 Y	1.36	1.37	1.1%
PCB-202 22'33'55'66'-OcCB	36.03	1.31E+07	0.89 Y	0.86	0.86	-0.7%
PCB-201 22'33'45'66'-OcCB	36.80	1.44E+07	0.89 Y	0.95	0.95	-0.4%
PCB-204 22'344'566'-OcCB	37.37	1.38E+07	0.88 Y	0.90	0.91	0.2%
PCB-197 22'33'44'66'-OcCB	37.56	1.51E+07	0.86 Y	0.96	0.99	3.2%
PCB-200 22'33'4566'-OcCB	37.64	1.30E+07	0.87 Y	0.88	0.86	-2.8%
PCB-198/199 ...-OcCB	39.98	1.90E+07	0.89 Y	0.63	0.63	-0.6%
PCB-196 22'33'44'56'-OcCB	40.55	1.02E+07	0.87 Y	0.66	0.67	1.3%
PCB-203 22'344'55'6-OcCB	40.72	1.05E+07	0.91 Y	0.69	0.69	-0.7%
PCB-195 22'33'44'56-OcCB	41.82	7.59E+06	0.90 Y	0.82	0.82	-0.1%
PCB-194 22'33'44'55'-OcCB	43.79	8.37E+06	0.92 Y	0.90	0.91	0.9%
PCB-205 233'44'55'6-OcCB	44.18	1.06E+07	0.92 Y	1.13	1.15	1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.07E+07	0.78 Y	1.03	1.03	-0.7%
PCB-207 22'33'44'566'-NoCB	42.41	1.09E+07	0.77 Y	1.07	1.04	-2.5%
PCB-206 22'33'44'55'6-NoCB	45.65	8.01E+06	0.79 Y	0.97	0.96	-1.3%

SGS-AP ID: CS3_121214_PCB_VA | **Sample ID: SIL 12-65-3** | **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** | **User: CEM Datafile: 121214V05 (EQ)**



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SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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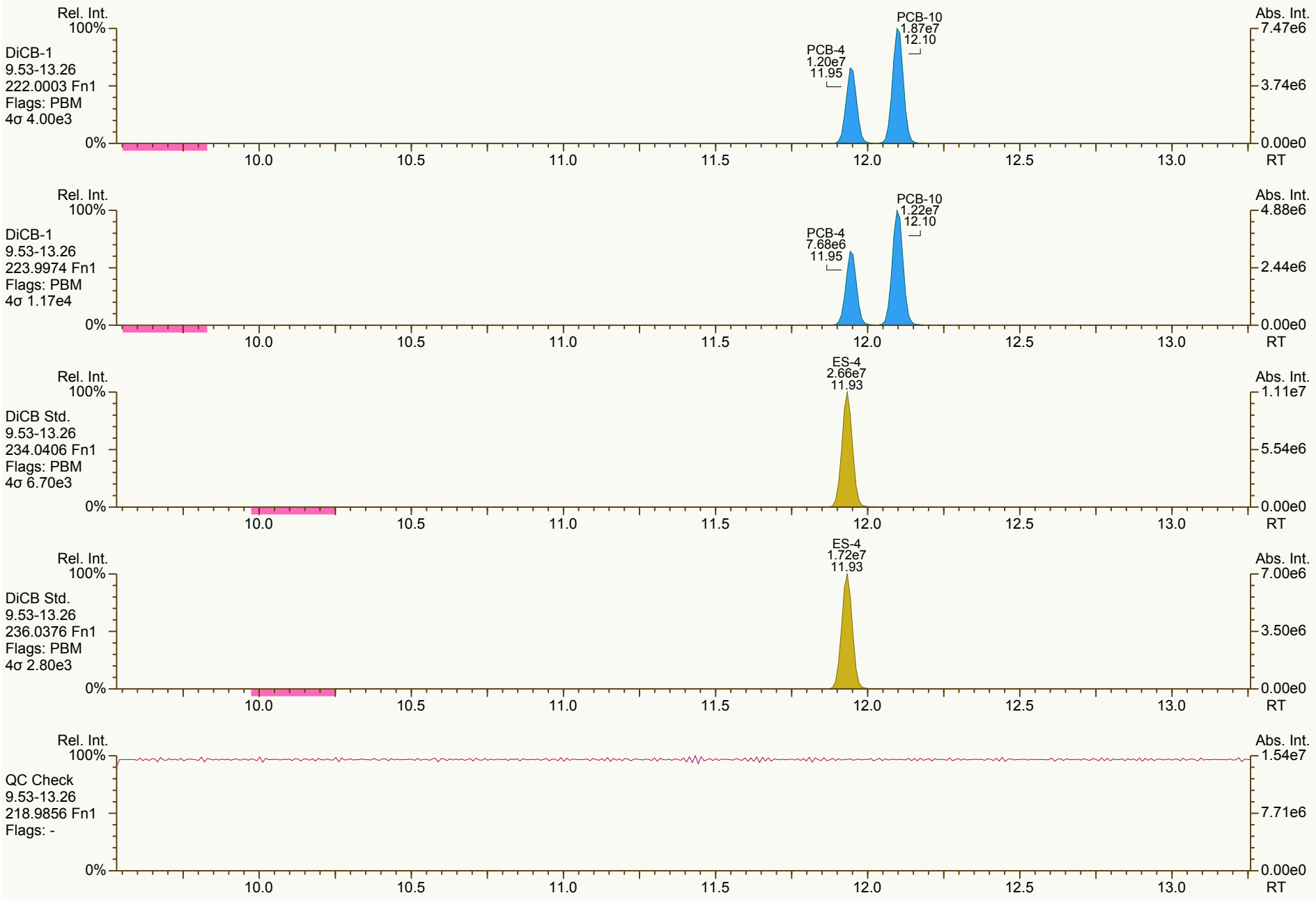
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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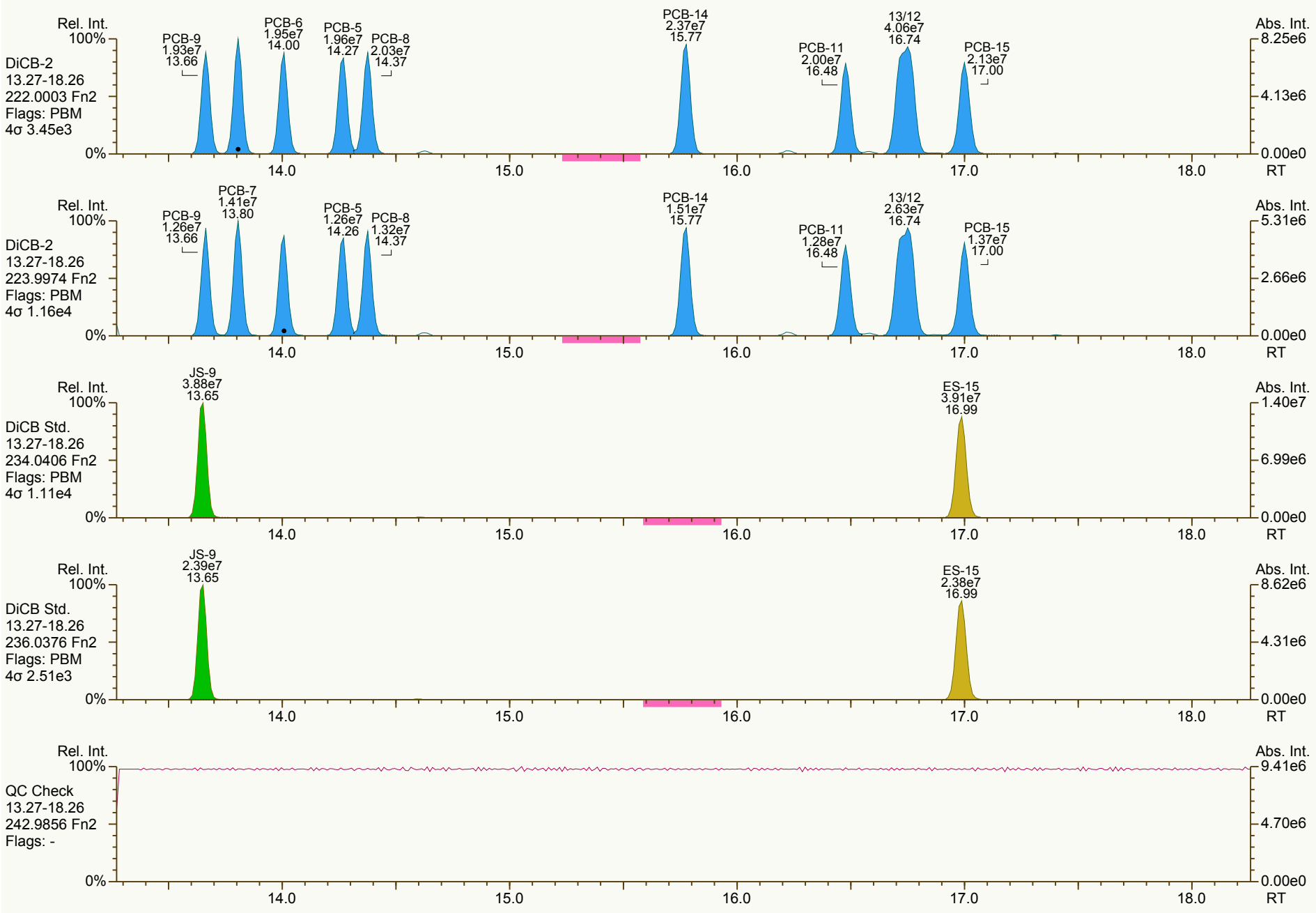
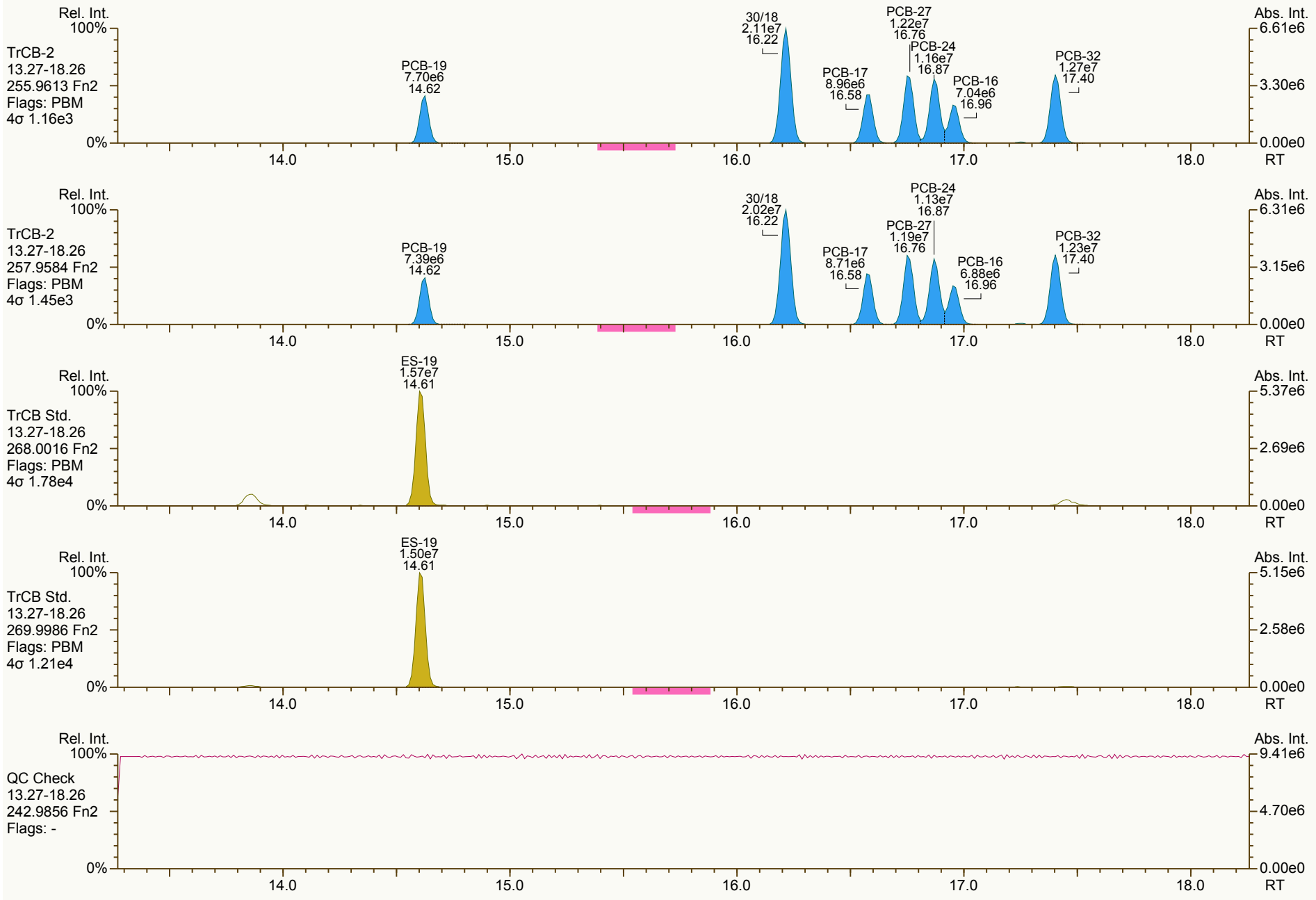
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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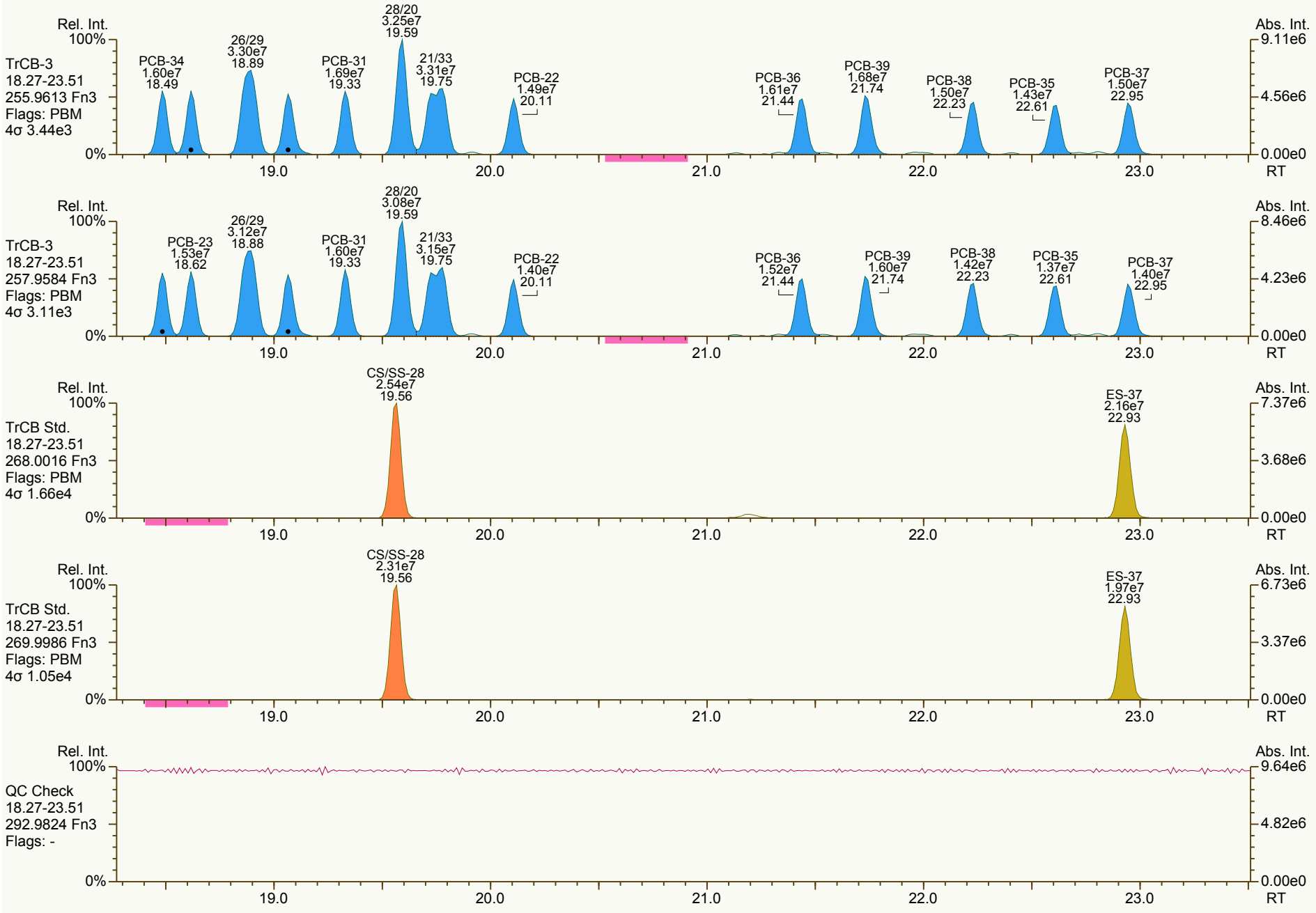
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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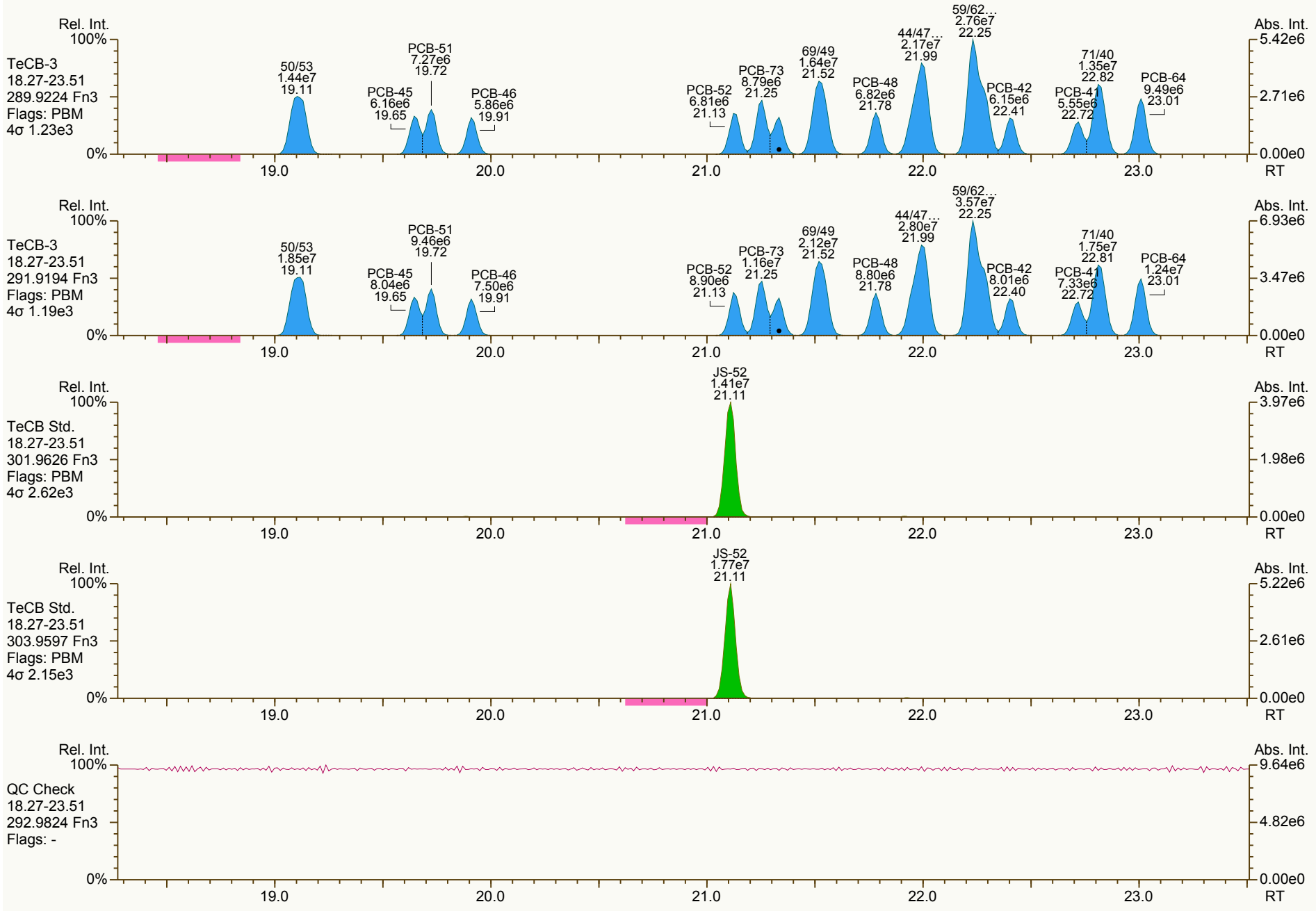
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 2731, 1379 scc: 858-276 *Revised: 14-Dec-2012 09:59 (CEM) Printed: 14-Dec-2012 11:21 Page 6 of 22*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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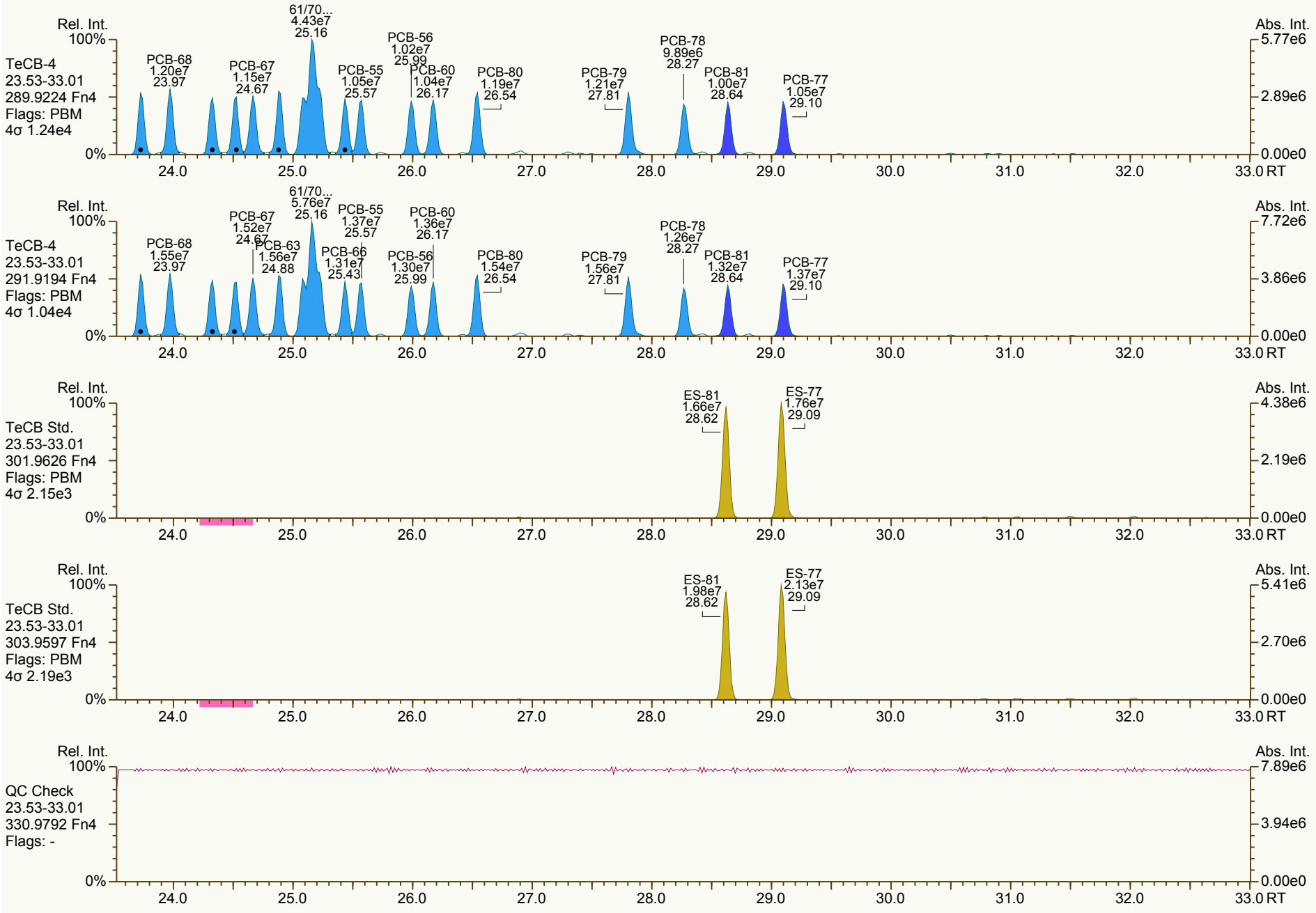
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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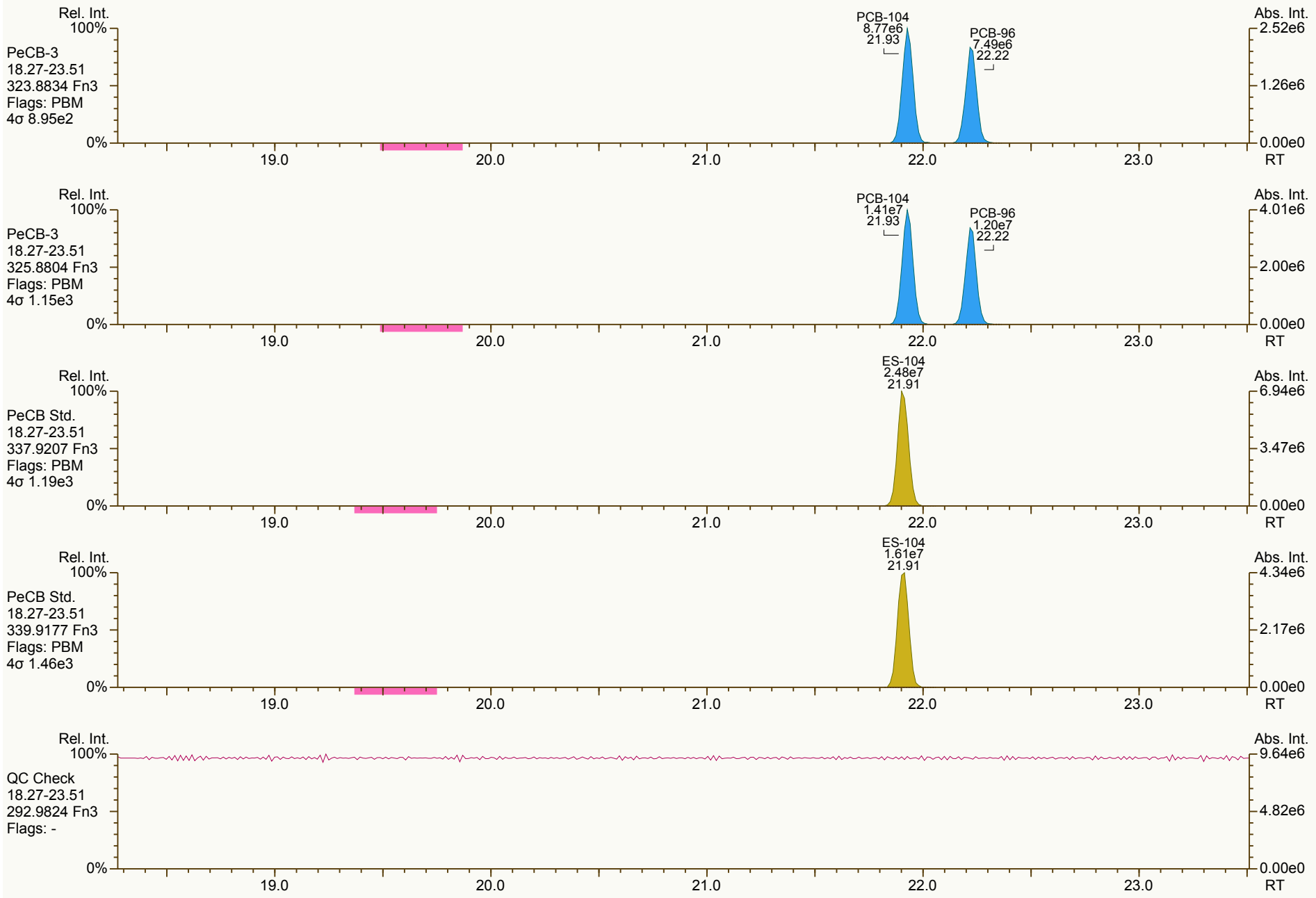
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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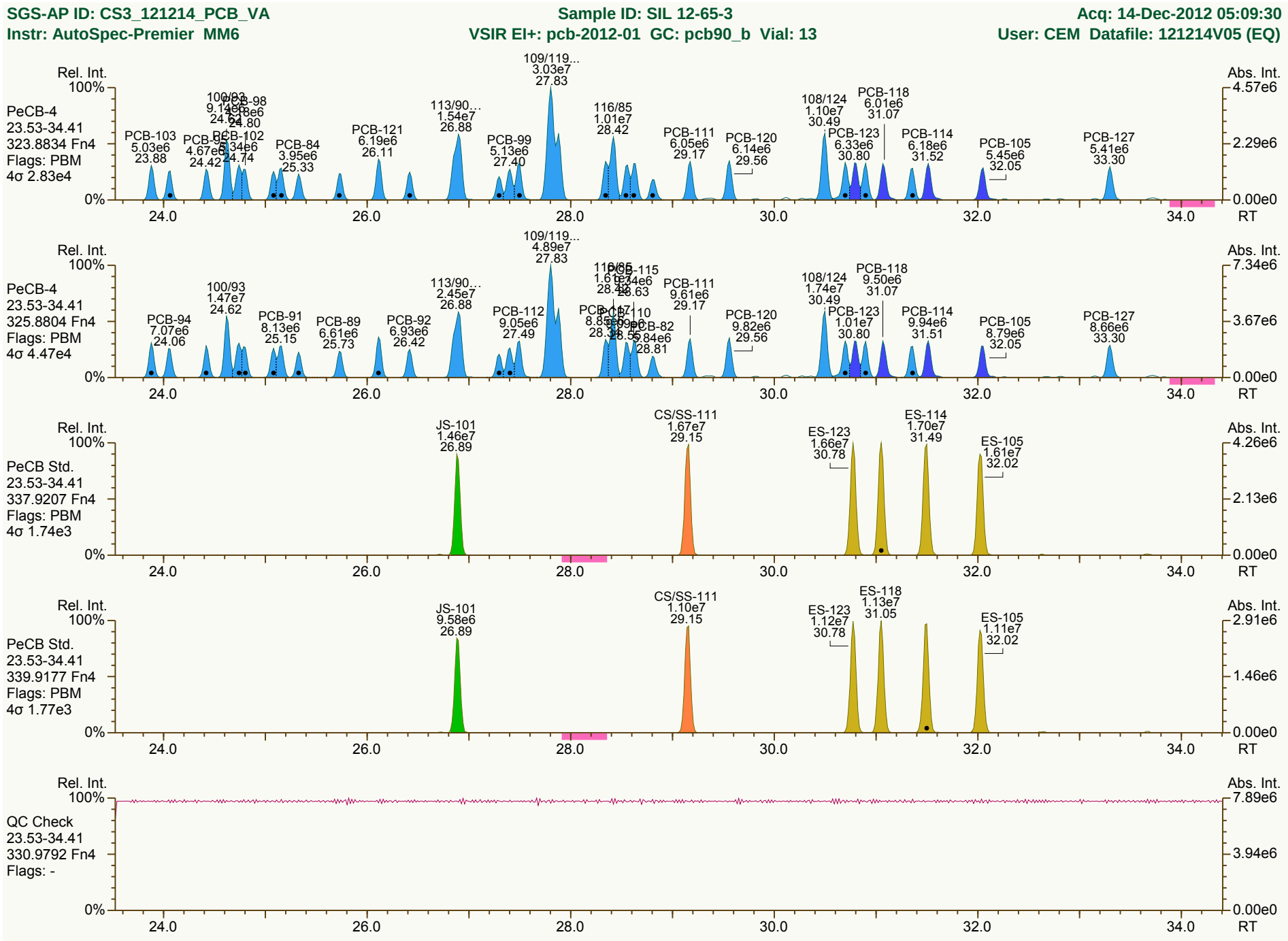

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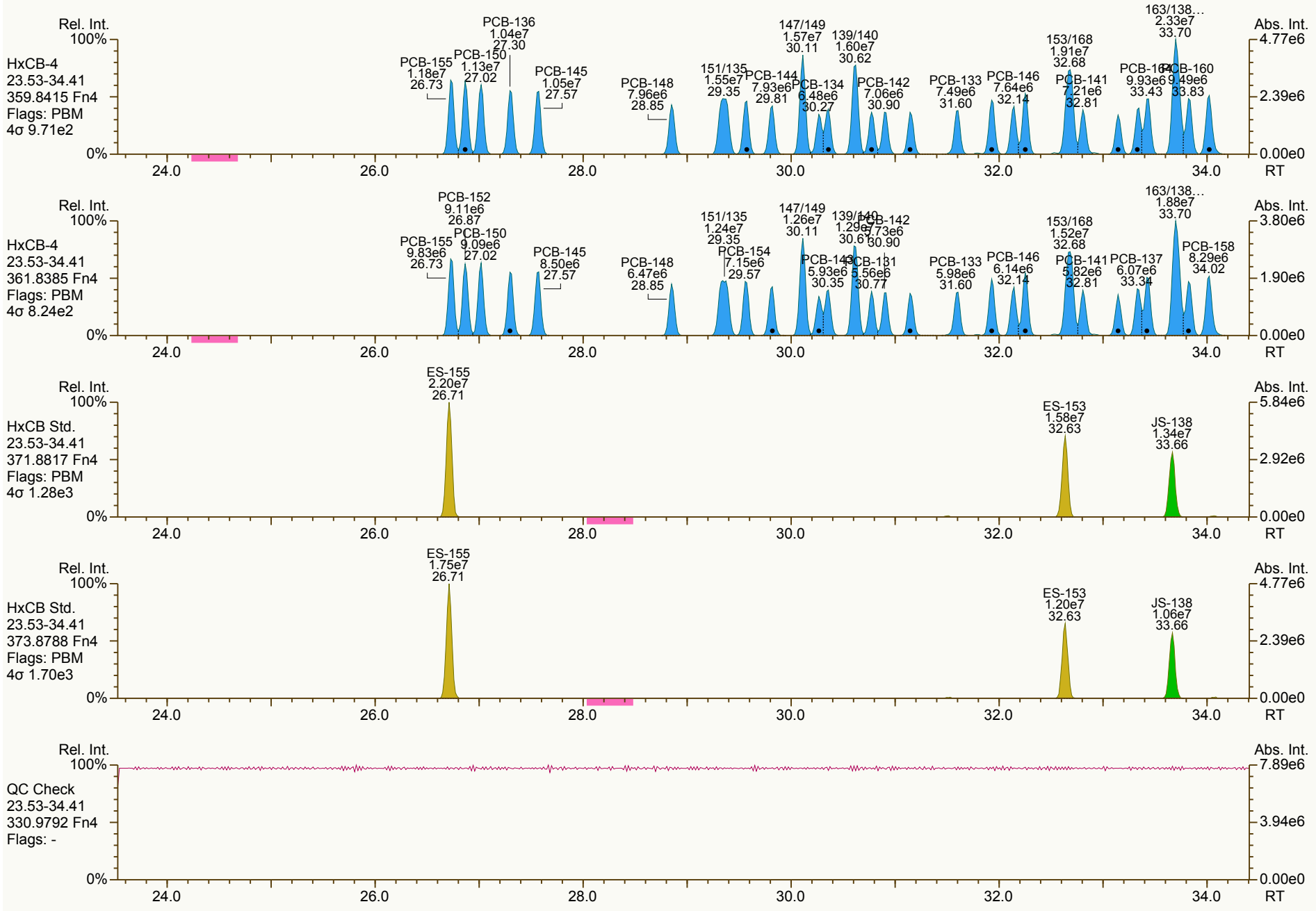
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9084, 6902 scc: 858-276
Revised: 14-Dec-2012 10:00 (CEM) Printed: 14-Dec-2012 11:21 Page 11 of 22

SGS-AP ID: CS3_121214_PCB_VA | **Sample ID: SIL 12-65-3** | **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** | **User: CEM Datafile: 121214V05 (EQ)**



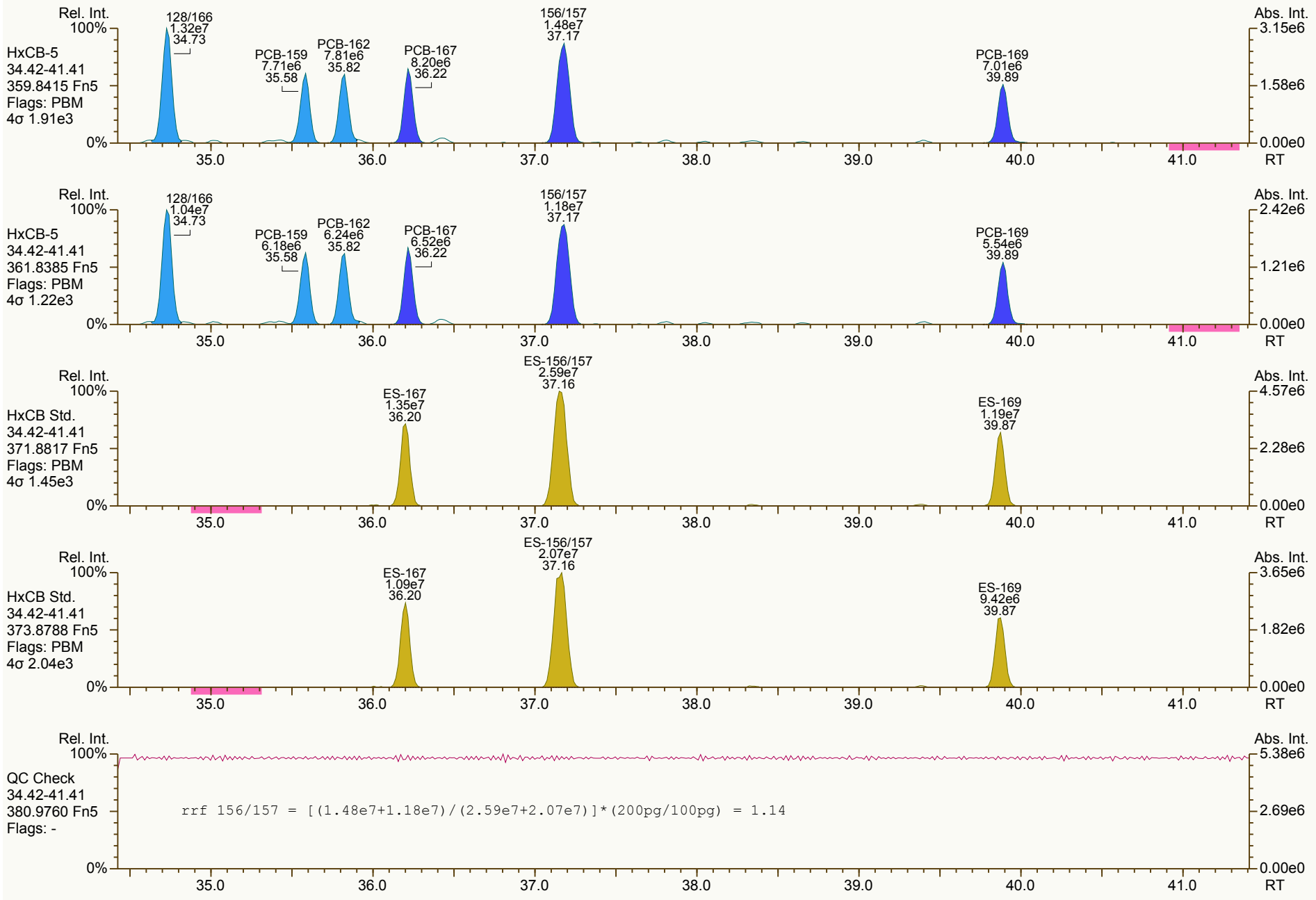
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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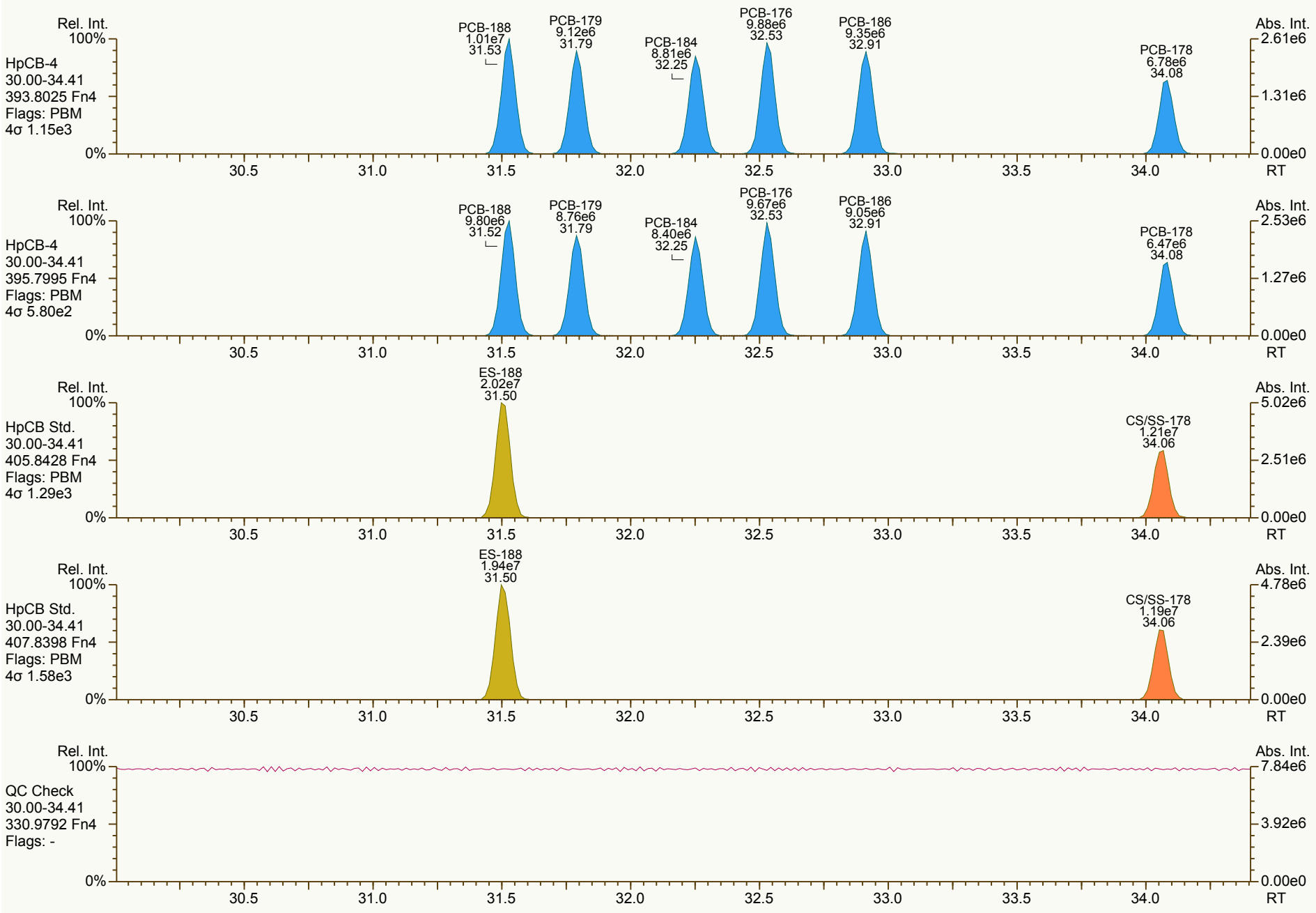
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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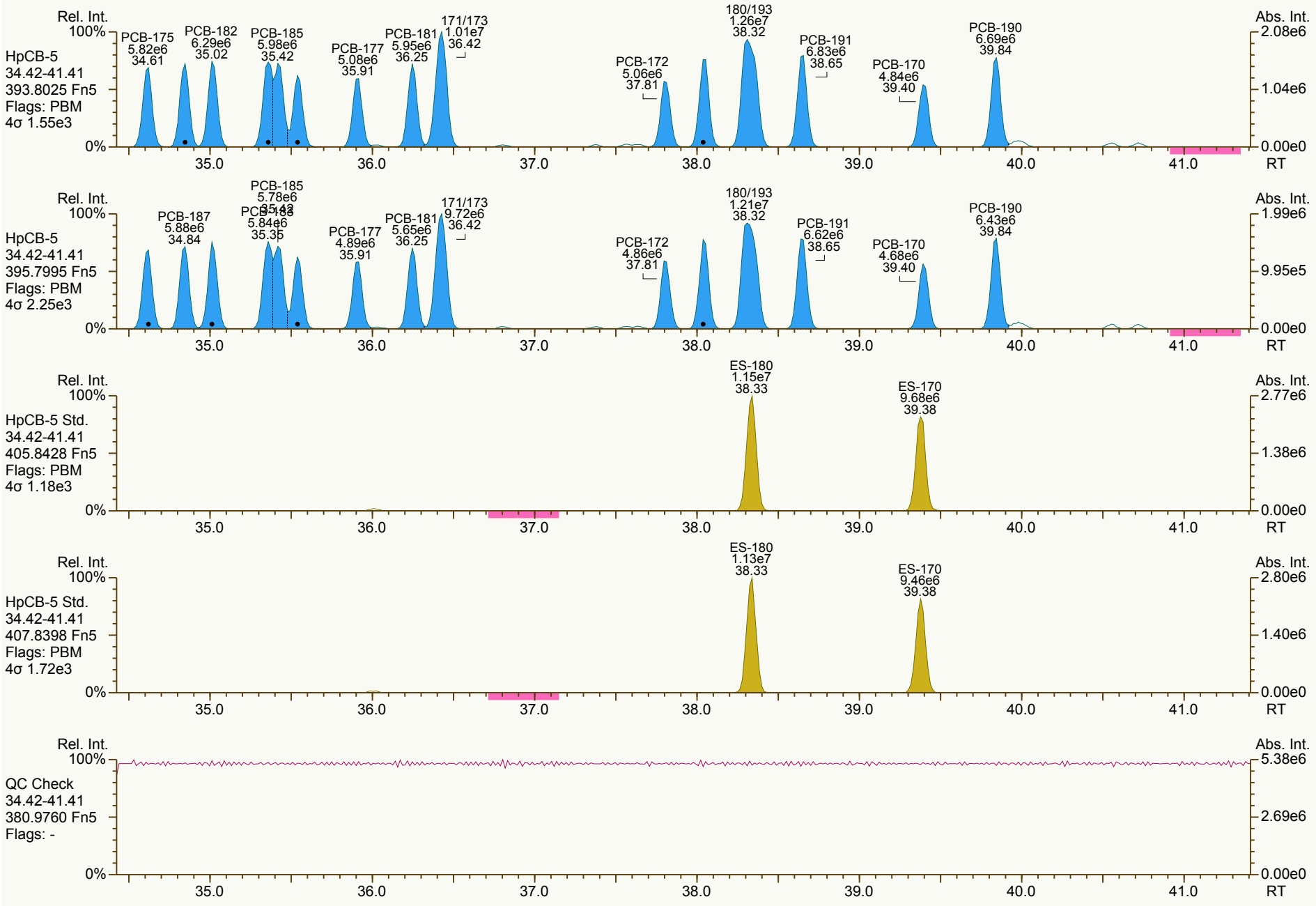
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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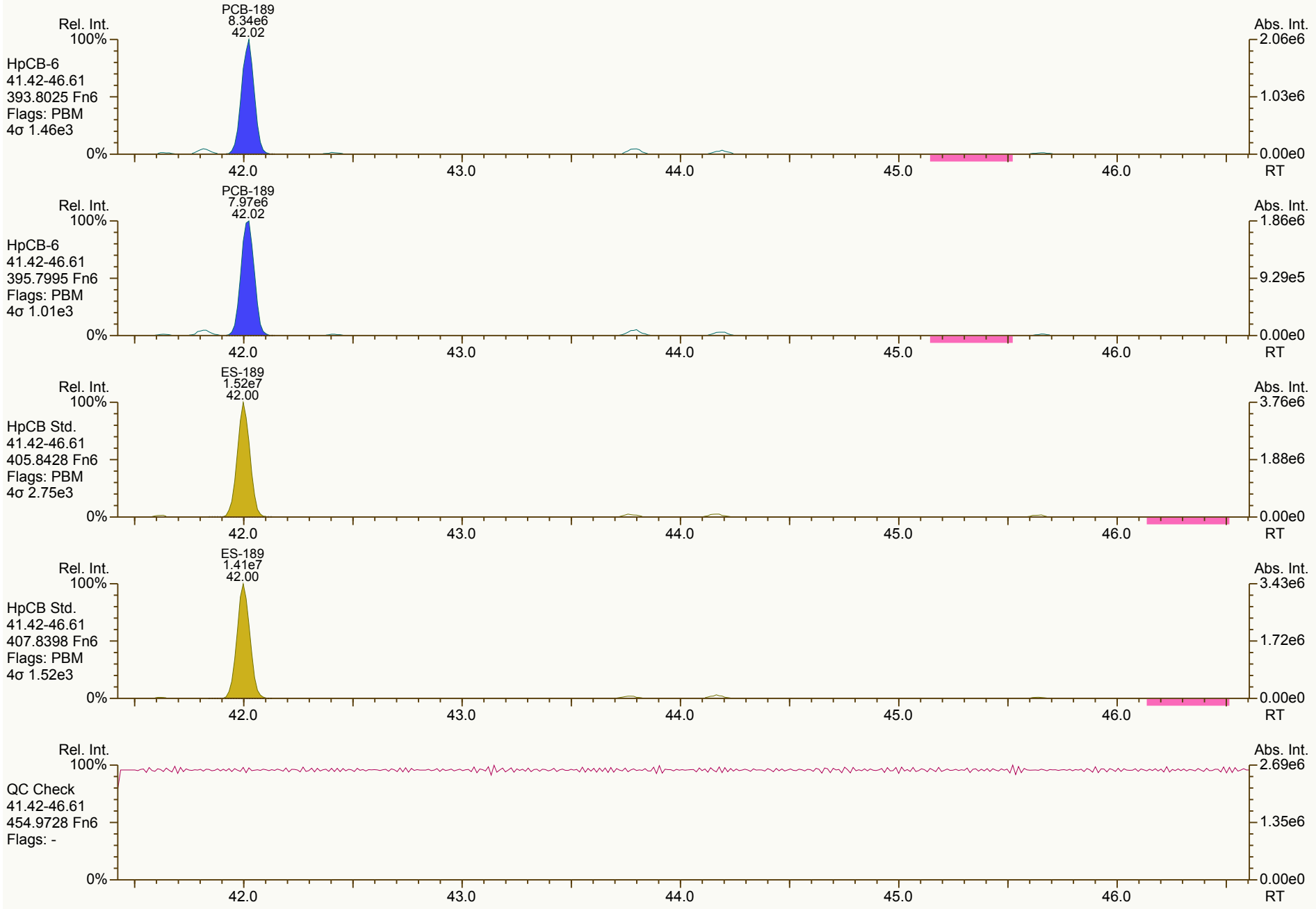
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



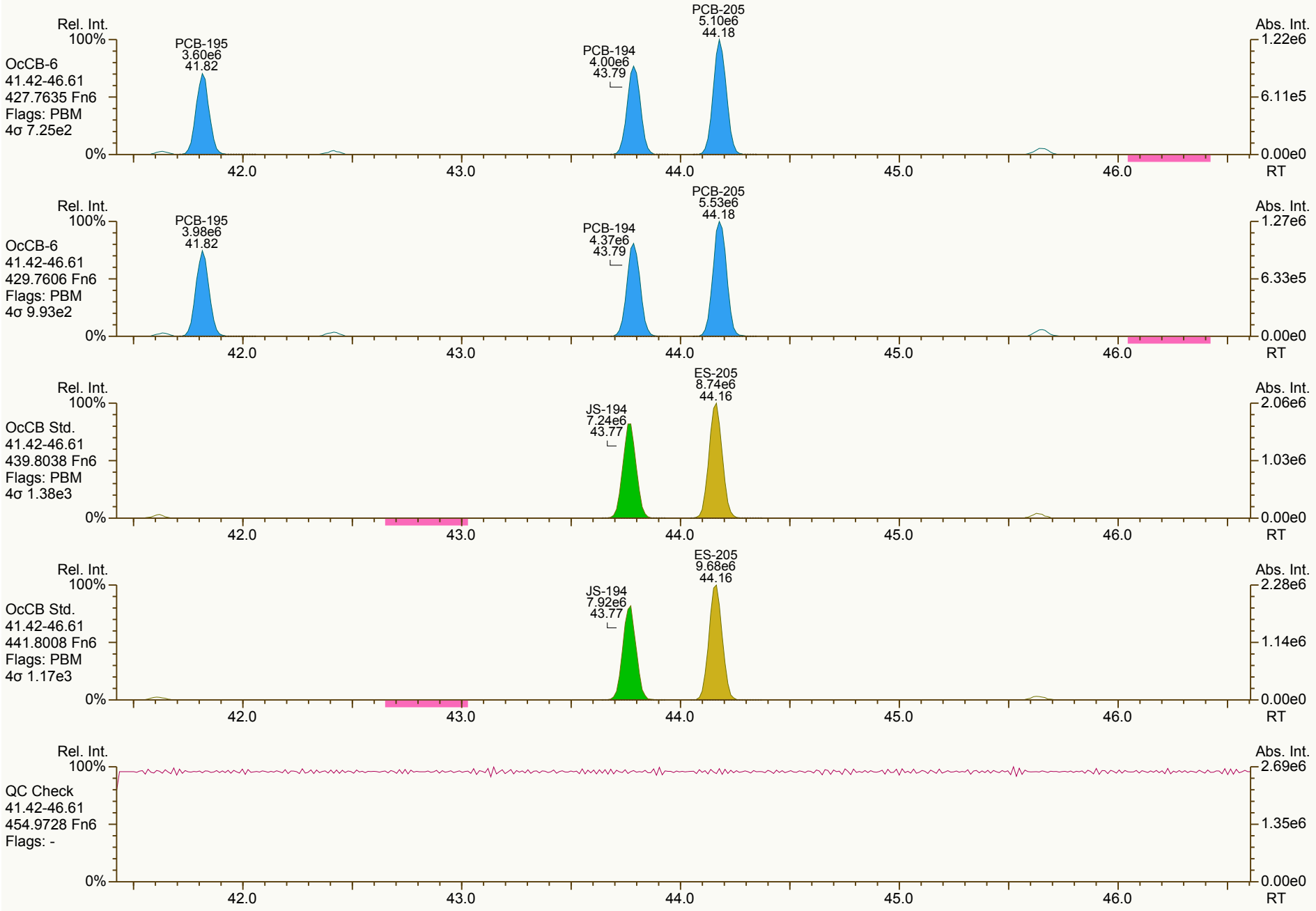
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA | **Sample ID: SIL 12-65-3** | **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** | **User: CEM Datafile: 121214V05 (EQ)**



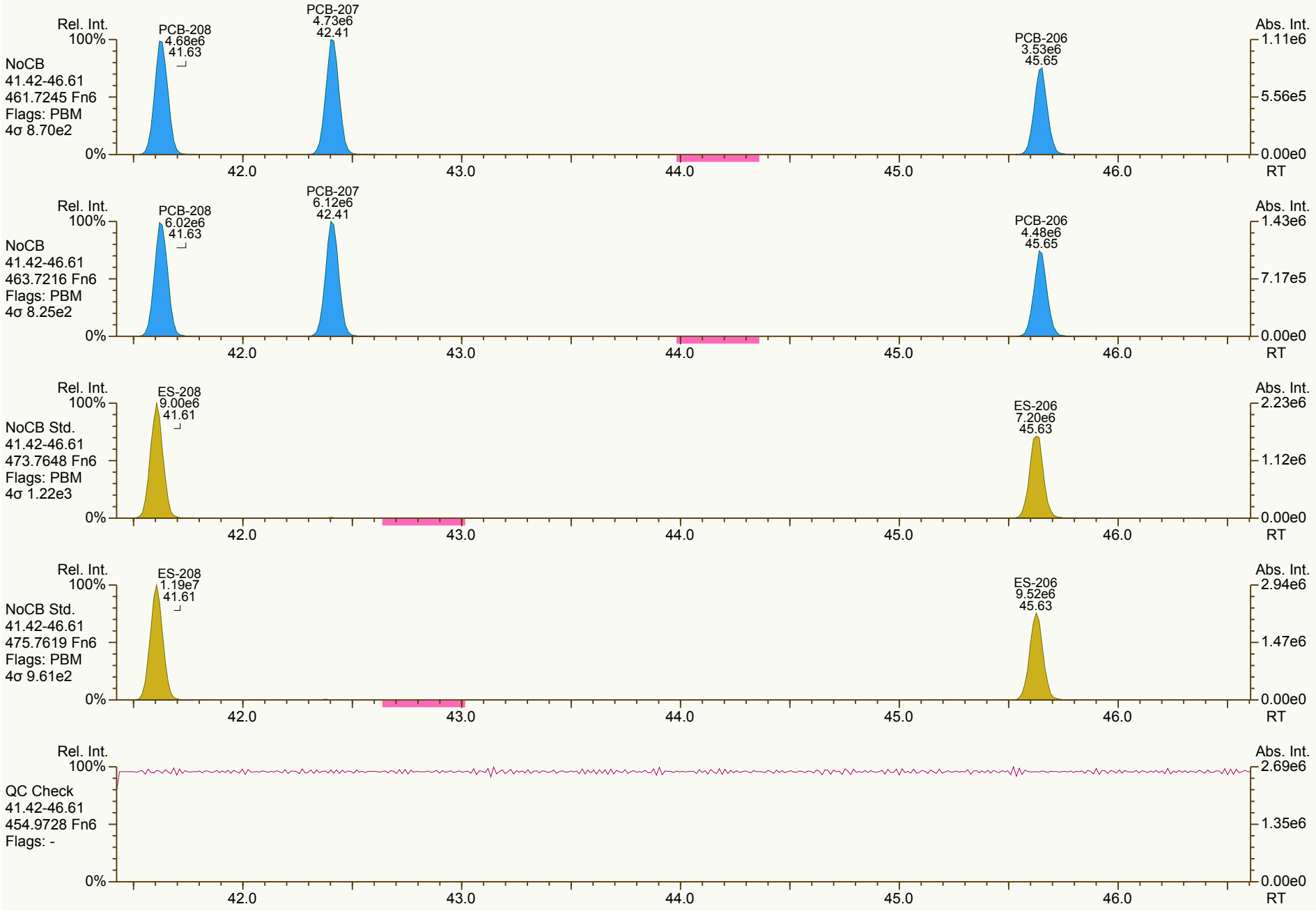
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



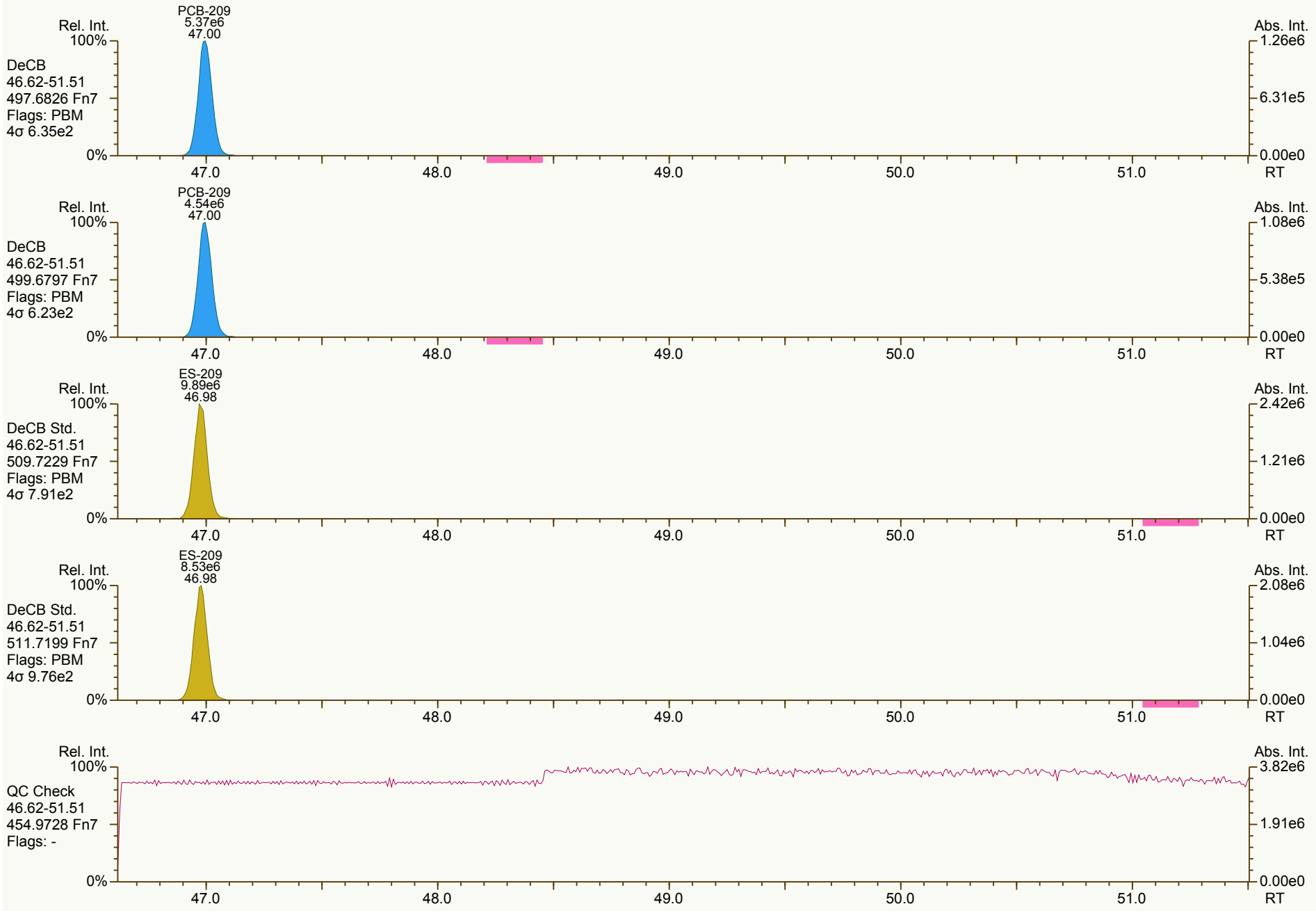
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



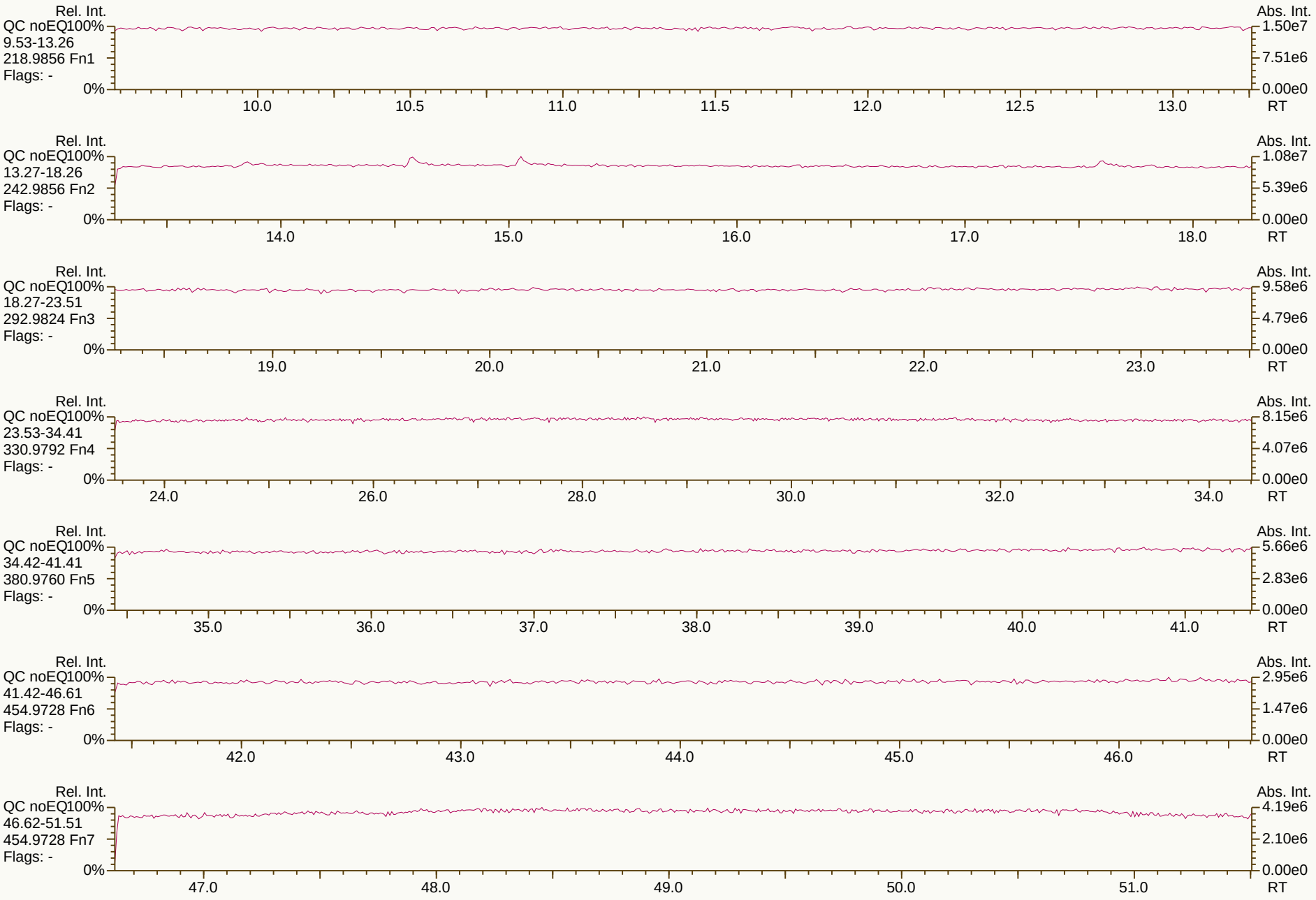
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:17
Lab ID:	CS4_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 06:03				
Datafile:	121214V06				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.11	2.08E+08	0.78 Y	1.25	1.26	1.0%
PCB-81 344'5-TeCB	28.64	2.10E+08	0.77 Y	1.26	1.29	2.4%
PCB-105 233'44'-PeCB	32.05	1.27E+08	0.62 Y	1.06	1.07	1.6%
PCB-114 2344'5-PeCB	31.52	1.39E+08	0.62 Y	1.11	1.10	-0.9%
PCB-118 23'44'5-PeCB	31.08	1.36E+08	0.63 Y	1.08	1.11	2.3%
PCB-123 23'44'5'-PeCB	30.80	1.37E+08	0.62 Y	1.12	1.09	-2.9%
PCB-126 33'44'5-PeCB	34.65	1.65E+08	0.62 Y	1.16	1.16	0.7%
PCB-156/157 ...-HxCB	37.18	2.46E+08	1.26 Y	1.14	1.15	0.6%
PCB-167 23'44'55'-HxCB	36.23	1.35E+08	1.25 Y	1.18	1.20	1.4%
PCB-169 33'44'55'-HxCB	39.90	1.16E+08	1.28 Y	1.15	1.17	1.3%
PCB-189 233'44'55'-HpCB	42.03	1.46E+08	1.03 Y	1.12	1.13	1.7%
PCB-209 DeCB	47.00	8.86E+07	1.18 Y	1.11	1.08	-3.0%
ES PCB-1	9.83	6.66E+07	3.27 Y	0.97	0.99	1.9%
ES PCB-3	11.73	6.23E+07	3.35 Y	0.90	0.93	2.9%
ES PCB-4	11.94	4.80E+07	1.55 Y	0.70	0.71	1.8%
ES PCB-15	16.99	7.32E+07	1.65 Y	1.02	1.09	7.1%
ES PCB-19	14.61	3.70E+07	1.04 Y	0.53	0.55	4.3%
ES PCB-37	22.94	4.44E+07	1.11 Y	1.29	1.30	0.5%
ES PCB-54	17.23	5.04E+07	0.78 Y	1.43	1.48	3.5%
ES PCB-77	29.09	4.13E+07	0.82 Y	1.20	1.21	0.5%
ES PCB-81	28.63	4.08E+07	0.83 Y	1.16	1.20	3.0%
ES PCB-104	21.91	4.62E+07	1.52 Y	1.70	1.67	-2.2%
ES PCB-105	32.03	2.97E+07	1.53 Y	1.10	1.07	-2.5%
ES PCB-114	31.50	3.15E+07	1.54 Y	1.16	1.14	-1.6%
ES PCB-118	31.06	3.08E+07	1.51 Y	1.15	1.11	-3.6%
ES PCB-123	30.78	3.14E+07	1.53 Y	1.14	1.13	-0.8%
ES PCB-126	34.63	3.55E+07	1.66 Y	1.34	1.28	-4.3%
ES PCB-153	32.64	3.13E+07	1.31 Y	1.14	1.14	-0.7%
ES PCB-155	26.72	4.37E+07	1.27 Y	1.61	1.59	-1.7%
ES PCB-156/157	37.16	5.37E+07	1.26 Y	0.98	0.98	-0.2%
ES PCB-167	36.21	2.83E+07	1.26 Y	1.01	1.03	1.7%
ES PCB-169	39.88	2.49E+07	1.25 Y	0.90	0.91	0.9%
ES PCB-170	39.38	2.21E+07	1.04 Y	1.28	1.34	4.5%
ES PCB-180	38.34	2.67E+07	1.06 Y	1.54	1.62	5.2%
ES PCB-188	31.51	4.46E+07	1.05 Y	1.63	1.62	-0.2%
ES PCB-189	42.01	3.23E+07	1.06 Y	1.97	1.96	-0.6%
ES PCB-202	36.01	3.47E+07	0.89 Y	1.26	1.26	0.0%
ES PCB-205	44.17	2.02E+07	0.91 Y	1.22	1.22	0.2%
ES PCB-206	45.63	1.83E+07	0.80 Y	1.10	1.11	1.1%
ES PCB-208	41.61	2.31E+07	0.78 Y	1.41	1.40	-0.4%
ES PCB-209	46.98	2.05E+07	1.15 Y	1.24	1.25	0.1%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.57	5.19E+07	1.10 Y	1.18	1.17	-0.6%
SS PCB-111	29.15	3.11E+07	1.52 Y	1.01	0.99	-1.5%
SS PCB-178	34.07	2.72E+07	1.05 Y	0.60	0.61	1.2%
CS PCB-28	19.57	5.19E+07	1.10 Y	1.52	1.52	-0.2%
CS PCB-111	29.15	3.11E+07	1.52 Y	1.15	1.12	-2.2%
CS PCB-178	34.07	2.72E+07	1.05 Y	0.98	0.99	1.0%
JS PCB-9	13.65	6.74E+07	1.64 Y	-	-	-
JS PCB-52	21.11	3.41E+07	0.77 Y	-	-	-
JS PCB-101	26.89	2.77E+07	1.54 Y	-	-	-
JS PCB-138	33.67	2.75E+07	1.30 Y	-	-	-
JS PCB-194	43.77	1.65E+07	0.90 Y	-	-	-
PCB-1 2-MoCB	9.84	3.43E+08	3.08 Y	1.25	1.29	3.3%
PCB-3 4-MoCB	11.74	3.26E+08	3.10 Y	1.27	1.31	3.4%
PCB-4 22'-DiCB	11.95	1.78E+08	1.56 Y	0.90	0.93	3.5%
PCB-15 44'-DiCB	17.00	3.23E+08	1.55 Y	1.10	1.10	0.4%
PCB-19 22'6-TrCB	14.63	1.42E+08	1.03 Y	0.95	0.96	1.1%
PCB-37 344'-TrCB	22.95	2.52E+08	1.05 Y	1.39	1.42	2.1%
PCB-54 22'66'-TeCB	17.25	2.23E+08	0.80 Y	1.05	1.11	5.2%
PCB-104 22'466'-PeCB	21.94	2.11E+08	0.63 Y	1.12	1.14	1.9%
PCB-153/168 ...-HxCB	32.68	3.06E+08	1.24 Y	1.24	1.22	-1.0%
PCB-155 22'44'66'-HxCB	26.74	1.91E+08	1.24 Y	1.09	1.09	0.0%
PCB-170 22'33'44'5-HpCB	39.40	8.80E+07	1.03 Y	0.99	0.99	0.1%
PCB-180/193 ...-HpCB	38.33	2.28E+08	1.04 Y	1.07	1.07	-0.2%
PCB-188 22'34'566'-HpCB	31.53	1.82E+08	1.03 Y	0.98	1.02	3.7%
PCB-202 22'33'55'66'-OcCB	36.03	1.22E+08	0.90 Y	0.86	0.88	1.6%
PCB-205 233'44'55'6-OcCB	44.19	9.50E+07	0.91 Y	1.13	1.18	3.7%
PCB-208 22'33'455'66'-NoCB	41.63	9.84E+07	0.77 Y	1.03	1.06	2.9%
PCB-206 22'33'44'55'6-NoCB	45.65	7.16E+07	0.77 Y	0.97	0.98	0.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.84	3.43E+08	3.08 Y	1.25	1.29	3.3%
PCB-2 3-MoCB	11.59	3.28E+08	3.11 Y	1.28	1.32	3.1%
PCB-3 4-MoCB	11.74	3.26E+08	3.10 Y	1.27	1.31	3.4%
PCB-4 22'-DiCB	11.95	1.78E+08	1.56 Y	0.90	0.93	3.5%
PCB-10 26-DiCB	12.11	2.83E+08	1.55 Y	1.38	1.47	6.7%
PCB-9 25-DiCB	13.67	2.82E+08	1.55 Y	0.99	0.96	-2.5%
PCB-7 24-DiCB	13.81	3.21E+08	1.55 Y	1.10	1.10	-0.6%
PCB-6 23'-DiCB	14.01	3.00E+08	1.55 Y	1.04	1.03	-1.4%
PCB-5 23-DiCB	14.27	3.00E+08	1.55 Y	1.02	1.02	-0.2%
PCB-8 24'-DiCB	14.38	3.04E+08	1.56 Y	1.03	1.04	0.4%
PCB-14 35-DiCB	15.78	3.50E+08	1.55 Y	1.20	1.19	-0.5%
PCB-11 33'-DiCB	16.48	3.02E+08	1.56 Y	1.03	1.03	0.4%
PCB-13/12 34'/34-DiCB	16.74	6.26E+08	1.55 Y	1.03	1.07	3.4%
PCB-15 44'-DiCB	17.00	3.23E+08	1.55 Y	1.10	1.10	0.4%
PCB-19 22'6-TrCB	14.63	1.42E+08	1.03 Y	0.95	0.96	1.1%
PCB-30/18 246/22'5-TrCB	16.22	3.85E+08	1.03 Y	1.23	1.30	5.5%
PCB-17 22'4-TrCB	16.58	1.62E+08	1.04 Y	1.05	1.09	3.7%
PCB-27 23'6-TrCB	16.76	2.29E+08	1.03 Y	1.46	1.55	5.8%
PCB-24 236-TrCB	16.88	2.13E+08	1.03 Y	1.32	1.44	8.8%
PCB-16 22'3-TrCB	16.96	1.23E+08	1.03 Y	0.81	0.83	2.5%
PCB-32 24'6-TrCB	17.41	2.24E+08	1.04 Y	1.48	1.51	2.5%
PCB-34 23'5'-TrCB	18.49	2.73E+08	1.06 Y	1.46	1.54	5.3%
PCB-23 235-TrCB	18.62	2.77E+08	1.05 Y	1.50	1.56	3.8%
PCB-26/29 23'5/245-TrCB	18.89	5.66E+08	1.05 Y	1.53	1.59	4.2%
PCB-25 23'4-TrCB	19.08	2.88E+08	1.05 Y	1.53	1.62	5.8%
PCB-31 24'5-TrCB	19.34	2.82E+08	1.05 Y	1.55	1.59	2.5%
PCB-28/20 244'/233'-TrCB	19.60	5.52E+08	1.05 Y	1.51	1.55	3.2%
PCB-21/33 234/23'4'-TrCB	19.76	5.77E+08	1.06 Y	1.55	1.63	5.2%
PCB-22 234'-TrCB	20.11	2.60E+08	1.05 Y	1.40	1.47	4.8%
PCB-36 33'5-TrCB	21.44	2.80E+08	1.05 Y	1.52	1.58	3.8%
PCB-39 34'5-TrCB	21.74	2.92E+08	1.05 Y	1.58	1.64	3.9%
PCB-38 345-TrCB	22.23	2.72E+08	1.06 Y	1.47	1.53	4.3%
PCB-35 33'4-TrCB	22.61	2.43E+08	1.05 Y	1.33	1.37	2.8%
PCB-37 344'-TrCB	22.95	2.52E+08	1.05 Y	1.39	1.42	2.1%
PCB-54 22'66'-TeCB	17.25	2.23E+08	0.80 Y	1.05	1.11	5.2%
PCB-50/53 22'46/22'56'-TeCB	19.11	3.01E+08	0.77 Y	0.88	0.92	5.1%
PCB-45 22'36-TeCB	19.65	1.20E+08	0.76 Y	0.73	0.74	0.4%
PCB-51 22'46'-TeCB	19.73	1.61E+08	0.77 Y	0.94	0.99	5.2%
PCB-46 22'36'-TeCB	19.92	1.18E+08	0.77 Y	0.72	0.72	0.6%
PCB-52 22'55'-TeCB	21.13	1.37E+08	0.78 Y	0.82	0.84	1.6%
PCB-73 23'5'6-TeCB	21.26	1.91E+08	0.77 Y	1.10	1.17	6.4%
PCB-43 22'35-TeCB	21.34	1.12E+08	0.77 Y	0.70	0.68	-3.0%
PCB-69/49 23'46/22'45'-TeCB	21.53	3.42E+08	0.77 Y	1.01	1.05	3.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.79	1.40E+08	0.77 Y	0.84	0.86	1.4%
PCB-44/47/65 ...-TeCB	21.99	4.54E+08	0.77 Y	0.90	0.93	2.8%
PCB-59/62/75 ...-TeCB	22.26	6.05E+08	0.77 Y	1.15	1.23	6.9%
PCB-42 22'34'-TeCB	22.41	1.28E+08	0.77 Y	0.76	0.78	2.2%
PCB-41 22'34-TeCB	22.72	1.04E+08	0.76 Y	0.64	0.64	-0.2%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	2.78E+08	0.77 Y	0.83	0.85	2.2%
PCB-64 234'6-TeCB	23.01	1.96E+08	0.77 Y	1.17	1.20	2.2%
PCB-72 23'55'-TeCB	23.74	2.30E+08	0.77 Y	1.37	1.41	2.9%
PCB-68 23'45'-TeCB	23.98	2.45E+08	0.77 Y	1.52	1.50	-1.2%
PCB-57 233'5-TeCB	24.33	2.15E+08	0.78 Y	1.32	1.32	-0.6%
PCB-58 233'5'-TeCB	24.52	2.14E+08	0.78 Y	1.34	1.31	-2.0%
PCB-67 23'45-TeCB	24.67	2.36E+08	0.78 Y	1.41	1.44	2.1%
PCB-63 234'5-TeCB	24.89	2.37E+08	0.78 Y	1.46	1.45	-0.5%
PCB-61/70/74/76 ...-TeCB	25.17	9.16E+08	0.77 Y	1.37	1.40	2.7%
PCB-66 23'44'-TeCB	25.44	2.05E+08	0.77 Y	1.24	1.26	1.3%
PCB-55 233'4-TeCB	25.57	2.08E+08	0.77 Y	1.28	1.27	-0.3%
PCB-56 233'4'-TeCB	26.00	2.01E+08	0.78 Y	1.23	1.23	0.1%
PCB-60 2344'-TeCB	26.18	2.13E+08	0.77 Y	1.30	1.30	0.3%
PCB-80 33'55'-TeCB	26.54	2.35E+08	0.77 Y	1.44	1.44	0.1%
PCB-79 33'45'-TeCB	27.82	2.47E+08	0.78 Y	1.48	1.51	2.4%
PCB-78 33'45-TeCB	28.28	1.94E+08	0.78 Y	1.21	1.19	-1.7%
PCB-104 22'466'-PeCB	21.94	2.11E+08	0.63 Y	1.12	1.14	1.9%
PCB-96 22'366'-PeCB	22.23	1.90E+08	0.63 Y	0.96	1.03	6.6%
PCB-103 22'45'6-PeCB	23.89	1.14E+08	0.63 Y	0.93	0.91	-2.2%
PCB-94 22'356'-PeCB	24.06	1.01E+08	0.63 Y	0.81	0.81	-0.3%
PCB-95 22'35'6-PeCB	24.43	1.06E+08	0.63 Y	0.85	0.84	-0.8%
PCB-100/93 22'44'6/22'356-PeCB	24.63	2.19E+08	0.62 Y	0.88	0.87	-1.3%
PCB-102 22'456'-PeCB	24.74	1.09E+08	0.62 Y	0.93	0.87	-6.4%
PCB-98 22'34'6'-PeCB	24.80	1.06E+08	0.63 Y	0.84	0.85	0.9%
PCB-88 22'346-PeCB	25.09	1.06E+08	0.62 Y	0.77	0.85	9.8%
PCB-91 22'34'6-PeCB	25.16	1.14E+08	0.63 Y	0.96	0.91	-5.5%
PCB-84 22'33'6-PeCB	25.33	8.91E+07	0.63 Y	0.72	0.71	-1.6%
PCB-89 22'346'-PeCB	25.74	9.42E+07	0.62 Y	0.77	0.75	-2.7%
PCB-121 23'45'6-PeCB	26.12	1.43E+08	0.63 Y	1.15	1.14	-0.5%
PCB-92 22'355'-PeCB	26.42	9.82E+07	0.63 Y	0.79	0.78	-1.4%
PCB-113/90/101 ...-PeCB	26.89	3.57E+08	0.62 Y	0.95	0.95	-0.8%
PCB-83 22'33'5-PeCB	27.31	8.87E+07	0.62 Y	0.72	0.71	-1.9%
PCB-99 22'44'5-PeCB	27.41	1.06E+08	0.63 Y	0.90	0.84	-5.8%
PCB-112 233'56-PeCB	27.50	1.34E+08	0.63 Y	1.09	1.07	-2.4%
PCB-109/119/86/97/125...-PeCB	27.83	7.24E+08	0.62 Y	0.95	0.96	1.4%
PCB-117 234'56-PeCB	28.35	1.13E+08	0.62 Y	0.99	0.90	-9.0%
PCB-116/85 23456/22'344'-PeCB	28.42	2.49E+08	0.63 Y	0.96	0.99	3.3%
PCB-110 233'4'6-PeCB	28.55	1.18E+08	0.63 Y	1.01	0.94	-6.5%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.48E+08	0.63 Y	1.15	1.18	2.3%
PCB-82 22'33'4-PeCB	28.82	8.37E+07	0.62 Y	0.70	0.67	-4.4%
PCB-111 233'55'-PeCB	29.18	1.39E+08	0.62 Y	1.16	1.11	-5.1%
PCB-120 23'455'-PeCB	29.56	1.41E+08	0.62 Y	1.14	1.13	-0.9%
PCB-108/124 ...-PeCB	30.50	2.57E+08	0.62 Y	1.02	1.02	0.5%
PCB-107 233'4'5-PeCB	30.70	1.44E+08	0.62 Y	1.13	1.15	1.3%
PCB-106 233'45-PeCB	30.90	1.30E+08	0.64 Y	1.01	1.04	2.4%
PCB-122 233'4'5'-PeCB	31.36	1.17E+08	0.63 Y	0.91	0.93	2.3%
PCB-127 33'455'-PeCB	33.31	1.28E+08	0.63 Y	1.06	1.08	2.5%
PCB-155 22'44'66'-HxCB	26.74	1.91E+08	1.24 Y	1.09	1.09	0.0%
PCB-152 22'3566'-HxCB	26.87	1.87E+08	1.23 Y	1.04	1.07	3.0%
PCB-150 22'34'66'-HxCB	27.02	1.77E+08	1.23 Y	1.03	1.01	-1.4%
PCB-136 22'33'66'-HxCB	27.31	1.70E+08	1.25 Y	0.97	0.97	-0.2%
PCB-145 22'3466'-HxCB	27.57	1.67E+08	1.24 Y	0.96	0.96	-0.6%
PCB-148 22'34'56'-HxCB	28.86	1.29E+08	1.25 Y	1.03	1.03	0.0%
PCB-151/135 ...-HxCB	29.36	2.47E+08	1.24 Y	0.99	0.99	-0.4%
PCB-154 22'44'56'-HxCB	29.57	1.45E+08	1.23 Y	1.17	1.16	-0.8%
PCB-144 22'345'6-HxCB	29.82	1.24E+08	1.24 Y	1.03	0.99	-3.2%
PCB-147/149 ...-HxCB	30.12	2.58E+08	1.24 Y	1.02	1.03	1.4%
PCB-134 22'33'56-HxCB	30.28	9.65E+07	1.24 Y	0.80	0.77	-3.5%
PCB-143 22'3456'-HxCB	30.36	1.22E+08	1.25 Y	0.95	0.98	3.2%
PCB-139/140 ...-HxCB	30.62	2.63E+08	1.24 Y	1.05	1.05	0.4%
PCB-131 22'33'46-HxCB	30.78	1.15E+08	1.25 Y	0.90	0.92	2.8%
PCB-142 22'3456-HxCB	30.91	1.13E+08	1.23 Y	0.93	0.90	-2.4%
PCB-132 22'33'46'-HxCB	31.16	1.13E+08	1.24 Y	0.93	0.90	-2.7%
PCB-133 22'33'55'-HxCB	31.60	1.19E+08	1.24 Y	0.97	0.96	-1.3%
PCB-165 233'55'6-HxCB	31.94	1.45E+08	1.24 Y	1.16	1.16	0.2%
PCB-146 22'34'55'-HxCB	32.15	1.27E+08	1.23 Y	1.01	1.02	0.6%
PCB-161 233'45'6-HxCB	32.26	1.62E+08	1.24 Y	1.29	1.30	0.4%
PCB-153/168 ...-HxCB	32.68	3.06E+08	1.24 Y	1.24	1.22	-1.0%
PCB-141 22'3455'-HxCB	32.81	1.17E+08	1.24 Y	0.95	0.94	-1.3%
PCB-130 22'33'45'-HxCB	33.15	1.03E+08	1.24 Y	0.82	0.83	0.7%
PCB-137 22'344'5-HxCB	33.35	1.33E+08	1.23 Y	0.97	1.06	9.6%
PCB-164 233'4'5'6-HxCB	33.44	1.54E+08	1.24 Y	1.25	1.23	-1.4%
PCB-163/138/129 ...-HxCB	33.71	3.99E+08	1.23 Y	1.04	1.06	2.2%
PCB-160 233'456-HxCB	33.84	1.48E+08	1.25 Y	1.19	1.18	-0.7%
PCB-158 233'44'6-HxCB	34.03	1.71E+08	1.24 Y	1.34	1.36	1.9%
PCB-128/166 ...-HxCB	34.74	2.19E+08	1.25 Y	0.96	0.97	0.8%
PCB-159 233'455'-HxCB	35.59	1.29E+08	1.25 Y	1.12	1.14	1.6%
PCB-162 233'4'55'-HxCB	35.83	1.31E+08	1.25 Y	1.13	1.16	3.1%
PCB-188 22'34'566'-HpCB	31.53	1.82E+08	1.03 Y	0.98	1.02	3.7%
PCB-179 22'33'566'-HpCB	31.80	1.60E+08	1.03 Y	0.90	0.89	-0.3%
PCB-184 22'344'66'-HpCB	32.26	1.61E+08	1.02 Y	0.86	0.90	4.5%

PCB QC Summary - Ax2 Detail **Printed: 14-Dec-2012 11:17**

Lab ID: CS4_121214_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06

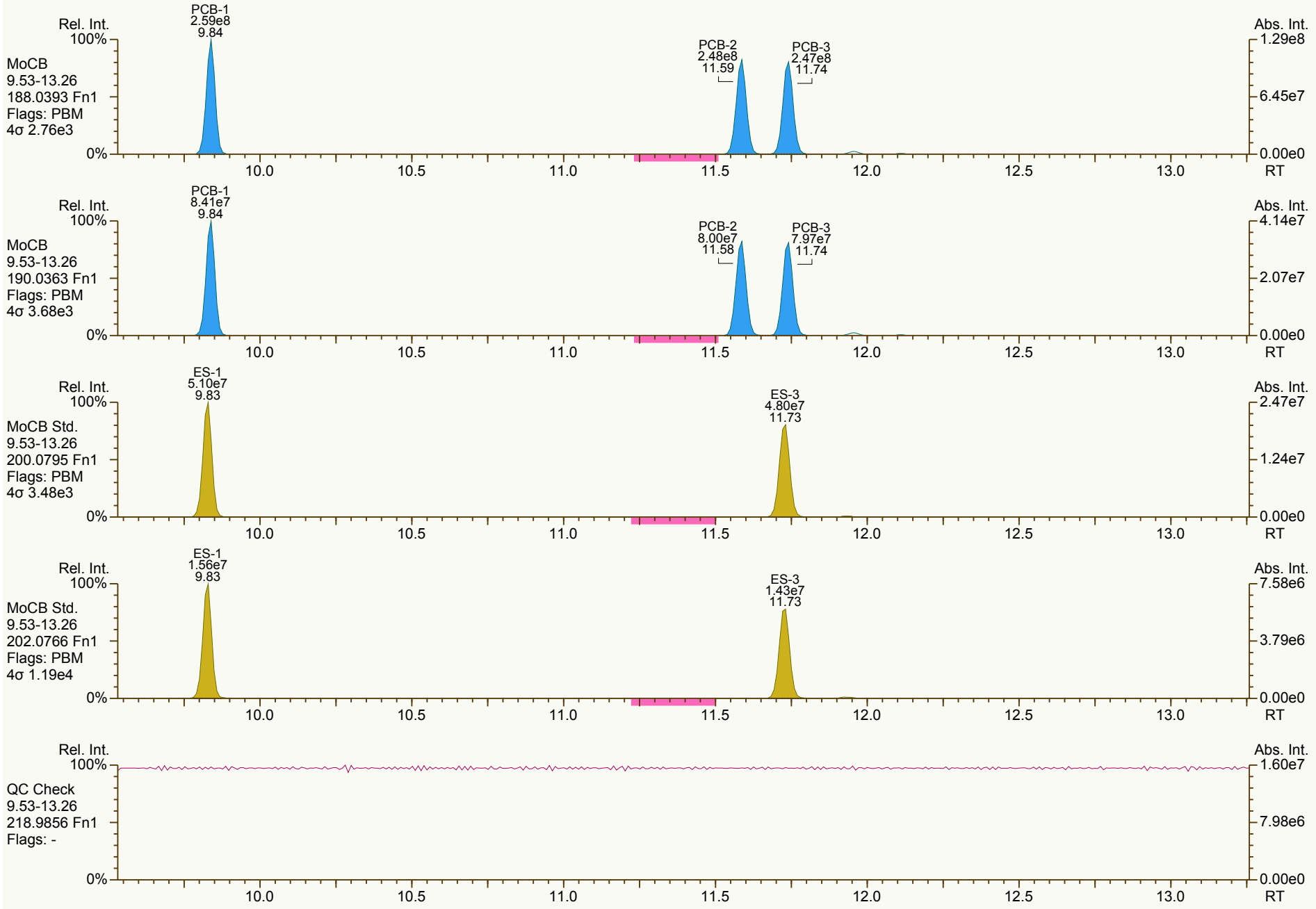
Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.54	1.74E+08	1.03 Y	0.97	0.97	0.6%
PCB-186 22'34566'-HpCB	32.92	1.64E+08	1.02 Y	0.93	0.92	-0.5%
PCB-178 22'33'55'6-HpCB	34.09	1.22E+08	1.03 Y	0.66	0.69	3.6%
PCB-175 22'33'45'6-HpCB	34.62	1.08E+08	1.04 Y	1.02	1.01	-1.3%
PCB-187 22'34'55'6-HpCB	34.85	1.11E+08	1.04 Y	1.03	1.04	1.1%
PCB-182 22'344'56'-HpCB	35.02	1.12E+08	1.03 Y	1.10	1.05	-3.9%
PCB-183 22'344'5'6-HpCB	35.37	1.21E+08	1.03 Y	1.12	1.13	0.6%
PCB-185 22'3455'6-HpCB	35.44	1.02E+08	1.06 Y	0.97	0.95	-1.5%
PCB-174 22'33'456'-HpCB	35.55	9.54E+07	1.04 Y	0.90	0.89	-0.3%
PCB-177 22'33'45'6'-HpCB	35.92	9.28E+07	1.03 Y	0.87	0.87	-0.3%
PCB-181 22'344'56-HpCB	36.26	1.09E+08	1.03 Y	1.03	1.02	-1.5%
PCB-171/173 ...-HpCB	36.43	1.88E+08	1.04 Y	0.89	0.88	-0.5%
PCB-172 22'33'455'-HpCB	37.81	9.34E+07	1.03 Y	0.87	0.87	0.2%
PCB-192 233'455'6-HpCB	38.05	1.21E+08	1.04 Y	1.16	1.14	-2.2%
PCB-180/193 ...-HpCB	38.33	2.28E+08	1.04 Y	1.07	1.07	-0.2%
PCB-191 233'44'5'6-HpCB	38.65	1.24E+08	1.04 Y	1.18	1.16	-2.1%
PCB-170 22'33'44'5-HpCB	39.40	8.80E+07	1.03 Y	0.99	0.99	0.1%
PCB-190 233'44'56-HpCB	39.85	1.22E+08	1.04 Y	1.36	1.38	1.6%
PCB-202 22'33'55'66'-OcCB	36.03	1.22E+08	0.90 Y	0.86	0.88	1.6%
PCB-201 22'33'45'66'-OcCB	36.81	1.35E+08	0.89 Y	0.95	0.97	2.4%
PCB-204 22'344'566'-OcCB	37.38	1.27E+08	0.89 Y	0.90	0.91	1.2%
PCB-197 22'33'44'66'-OcCB	37.56	1.32E+08	0.88 Y	0.96	0.95	-1.4%
PCB-200 22'33'4566'-OcCB	37.64	1.35E+08	0.89 Y	0.88	0.97	10.3%
PCB-198/199 ...-OcCB	39.99	1.82E+08	0.88 Y	0.63	0.66	4.0%
PCB-196 22'33'44'56'-OcCB	40.56	9.26E+07	0.89 Y	0.66	0.67	0.9%
PCB-203 22'344'55'6-OcCB	40.72	9.60E+07	0.89 Y	0.69	0.69	-0.5%
PCB-195 22'33'44'56-OcCB	41.82	6.88E+07	0.90 Y	0.82	0.85	3.3%
PCB-194 22'33'44'55'-OcCB	43.79	7.58E+07	0.91 Y	0.90	0.94	4.1%
PCB-205 233'44'55'6-OcCB	44.19	9.50E+07	0.91 Y	1.13	1.18	3.7%
PCB-208 22'33'455'66'-NoCB	41.63	9.84E+07	0.77 Y	1.03	1.06	2.9%
PCB-207 22'33'44'566'-NoCB	42.42	1.01E+08	0.77 Y	1.07	1.09	2.4%
PCB-206 22'33'44'55'6-NoCB	45.65	7.16E+07	0.77 Y	0.97	0.98	0.7%

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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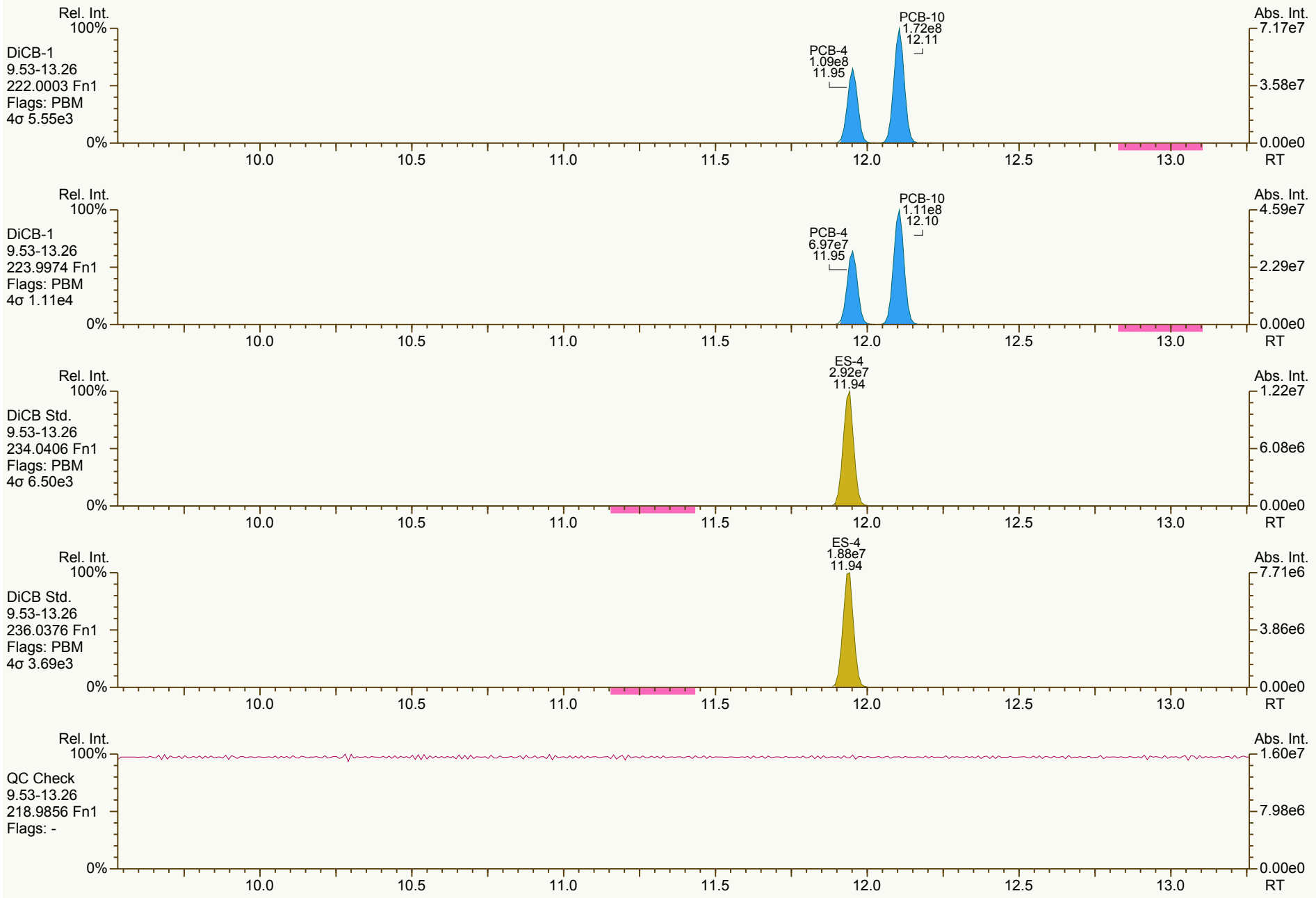
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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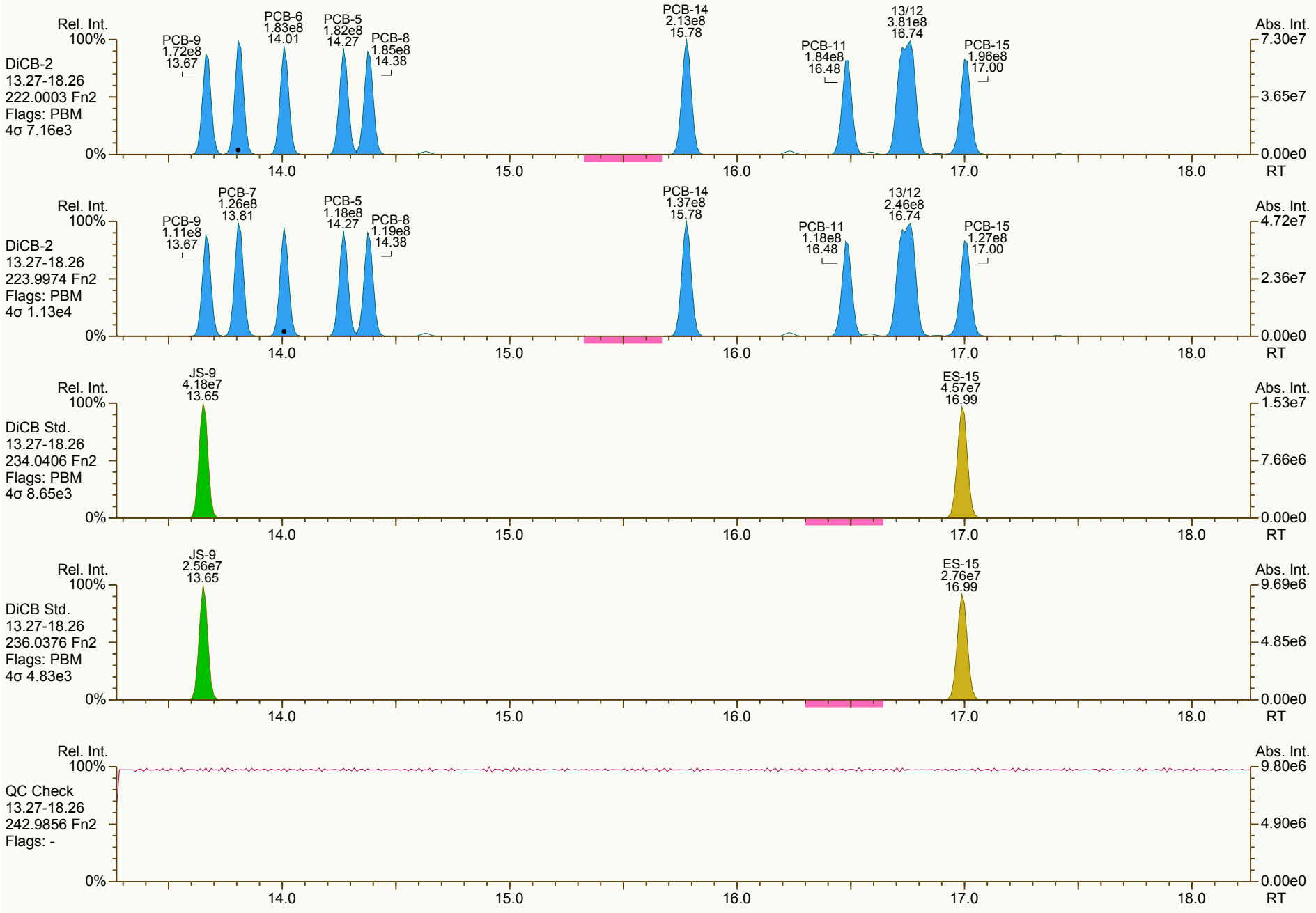
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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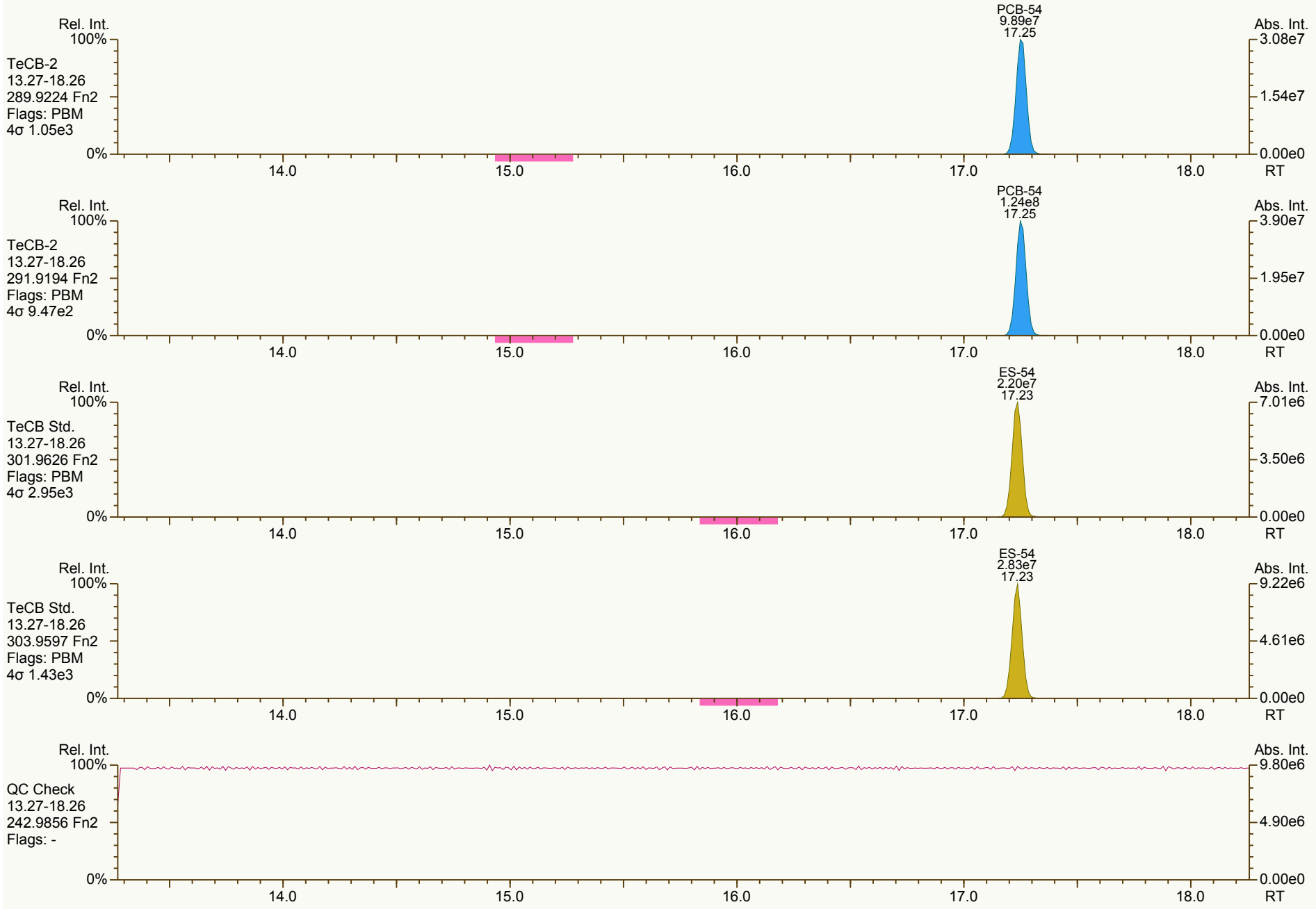
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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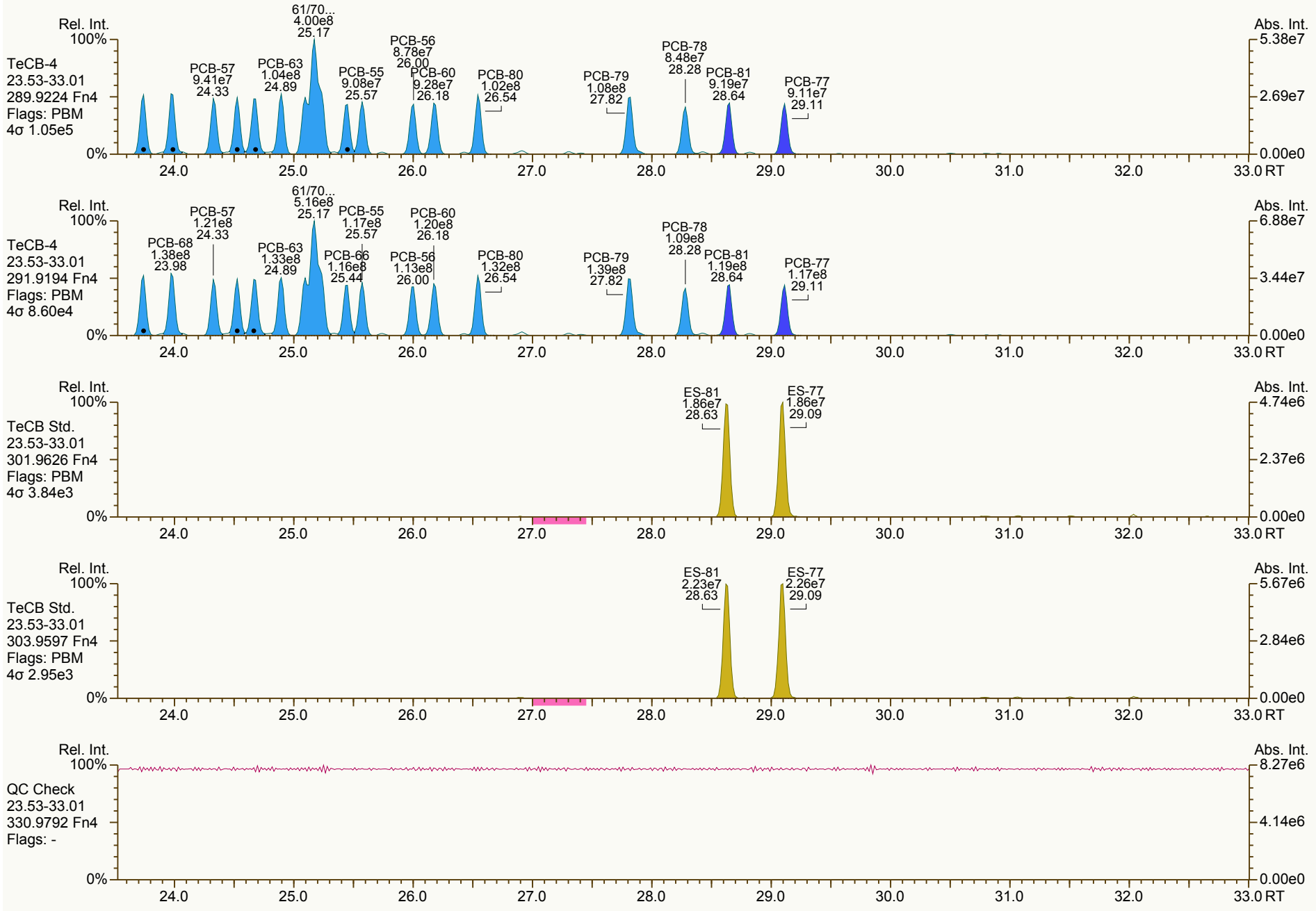
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**

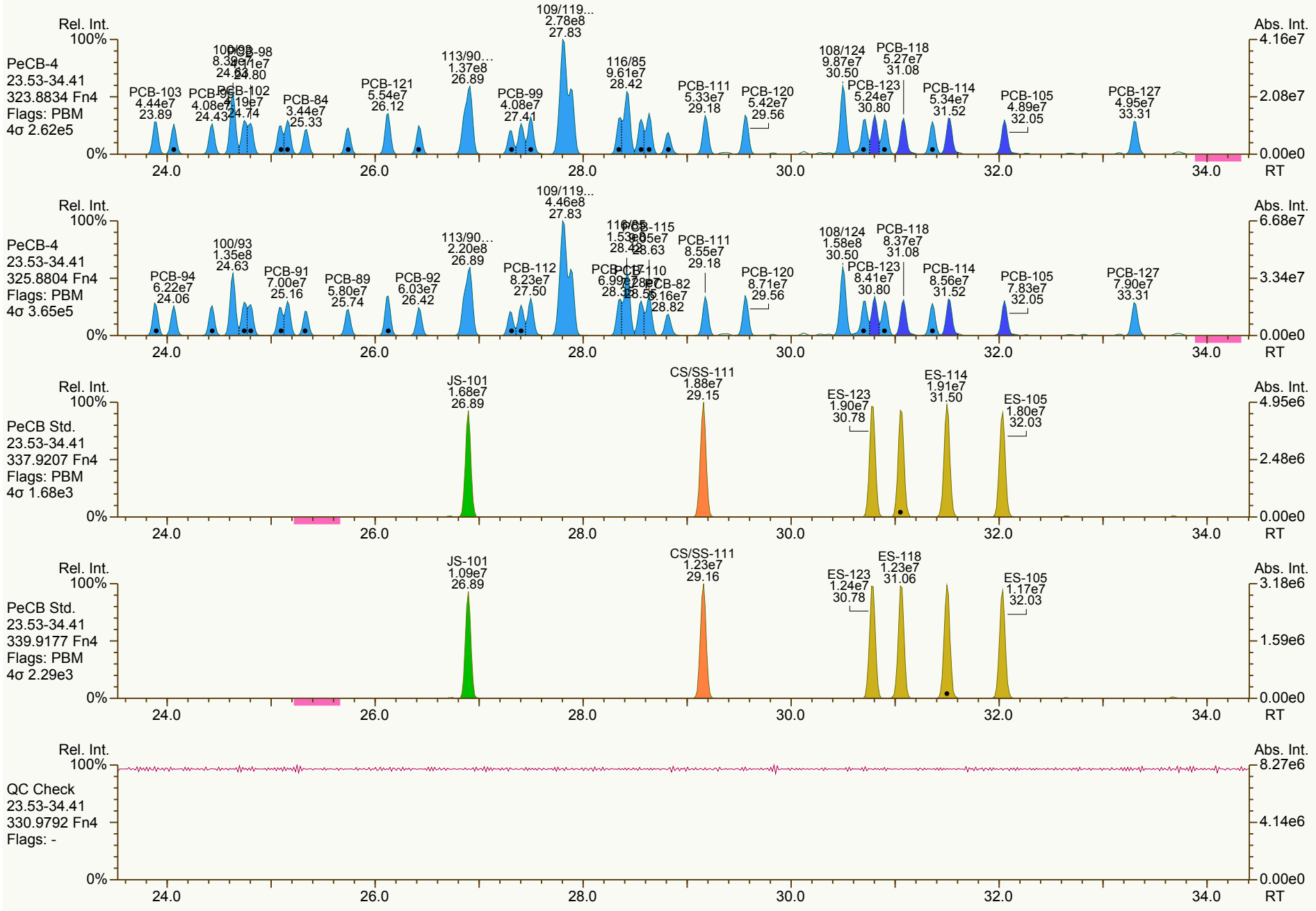


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



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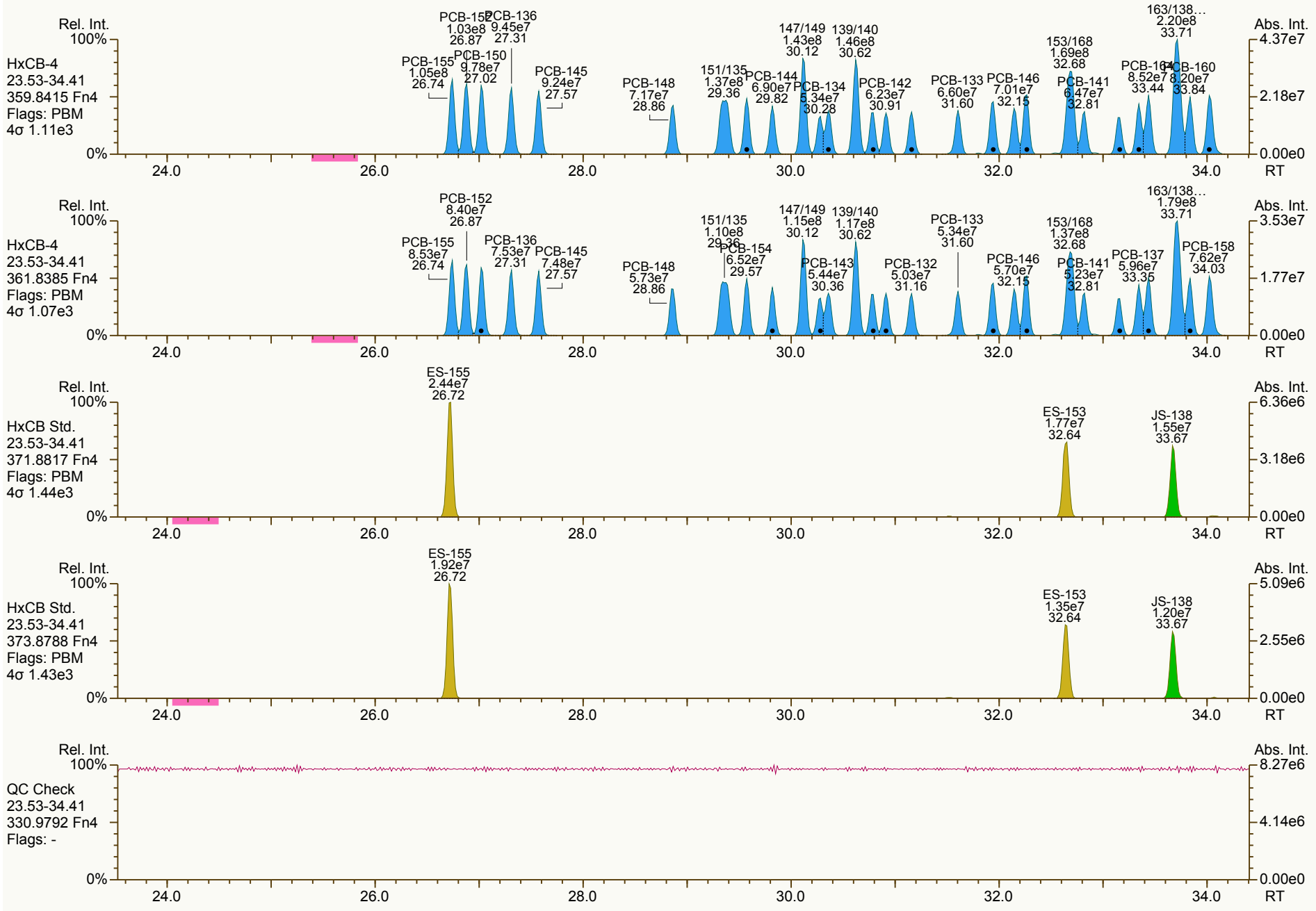
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9684, 9806 scc: 777-854 *Revised: 14-Dec-2012 10:04 (CEM) Printed: 14-Dec-2012 11:22 Page 11 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



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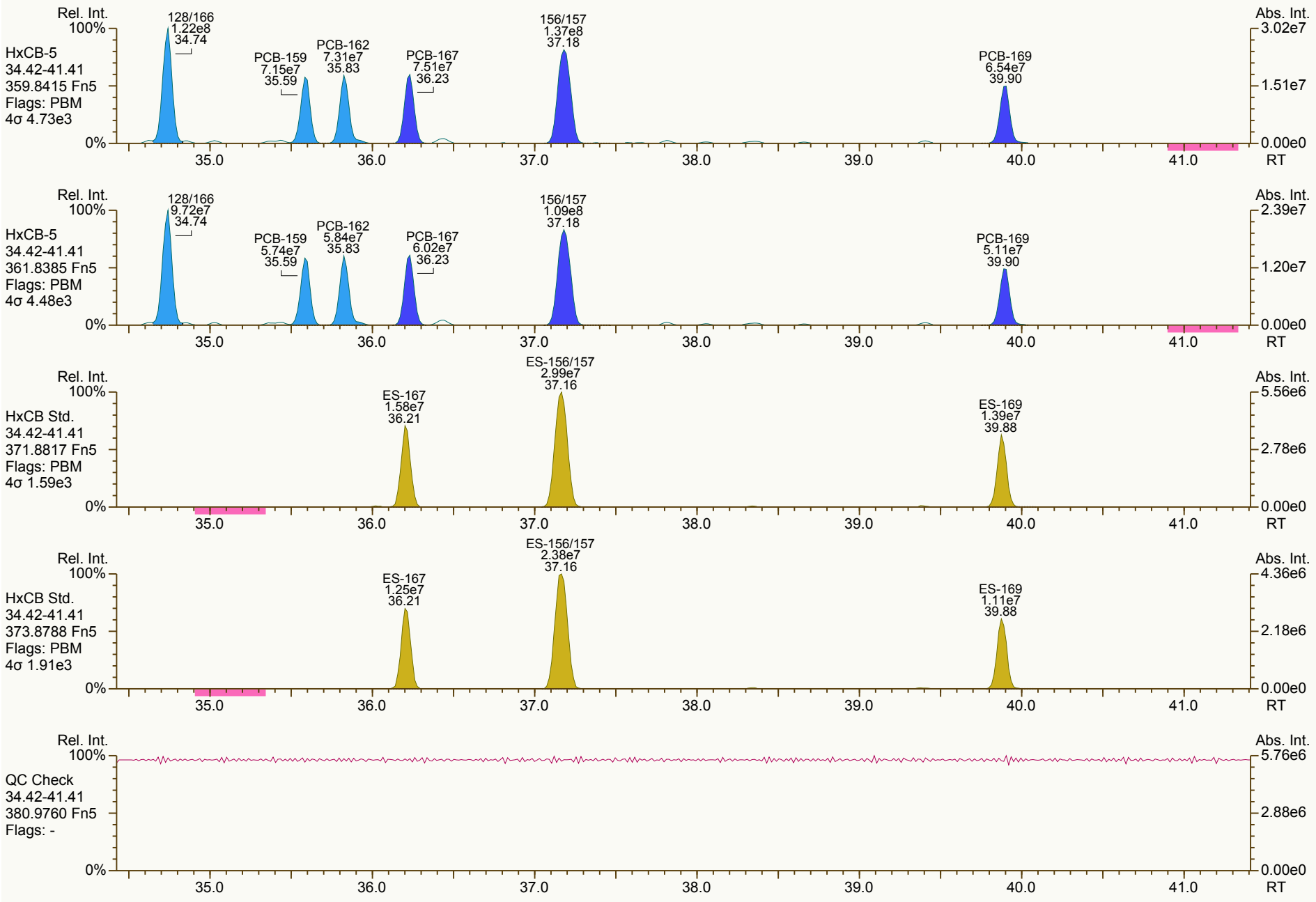
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9442, 2594 scc: 777-854 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:22 Page 13 of 22*

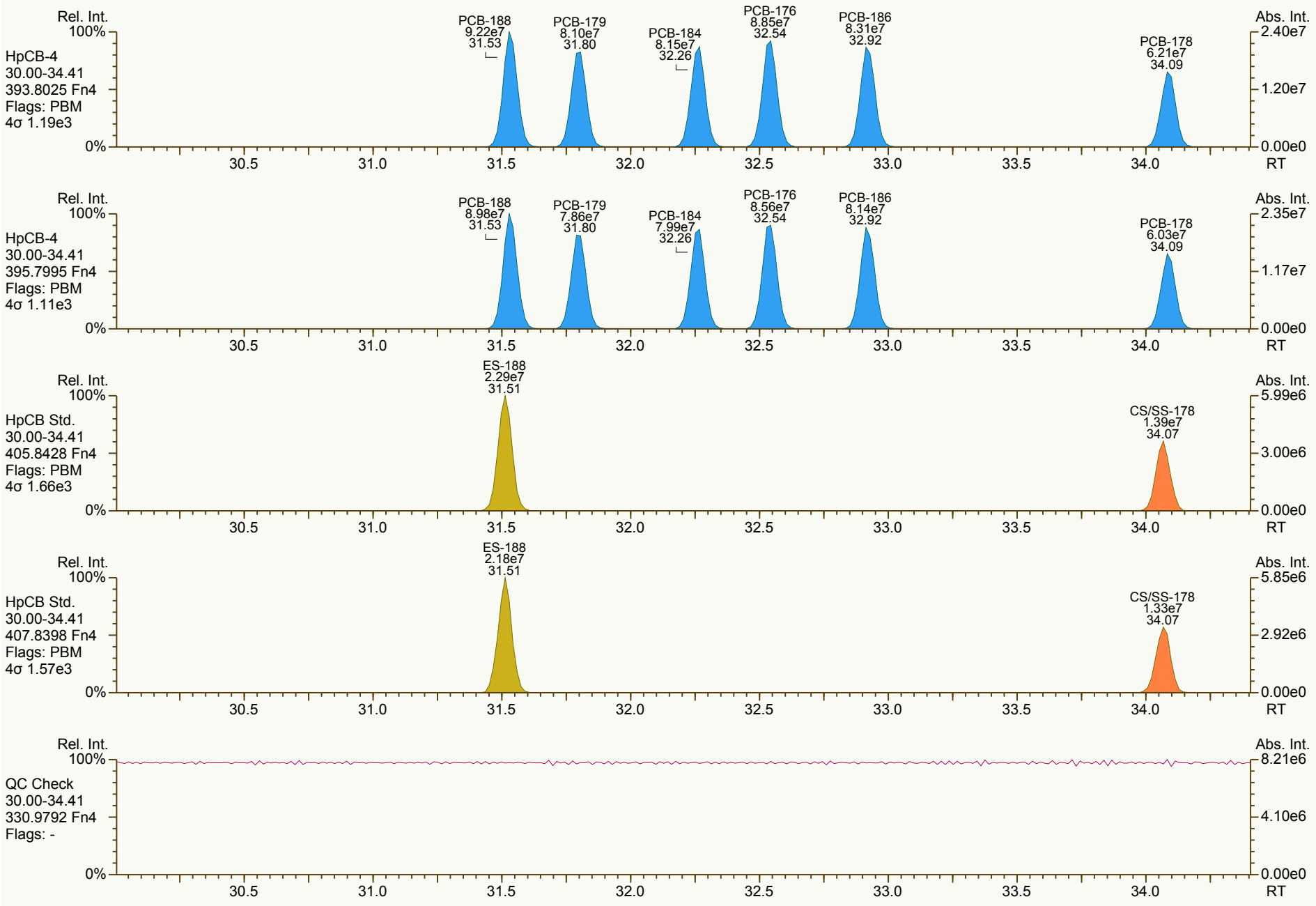
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

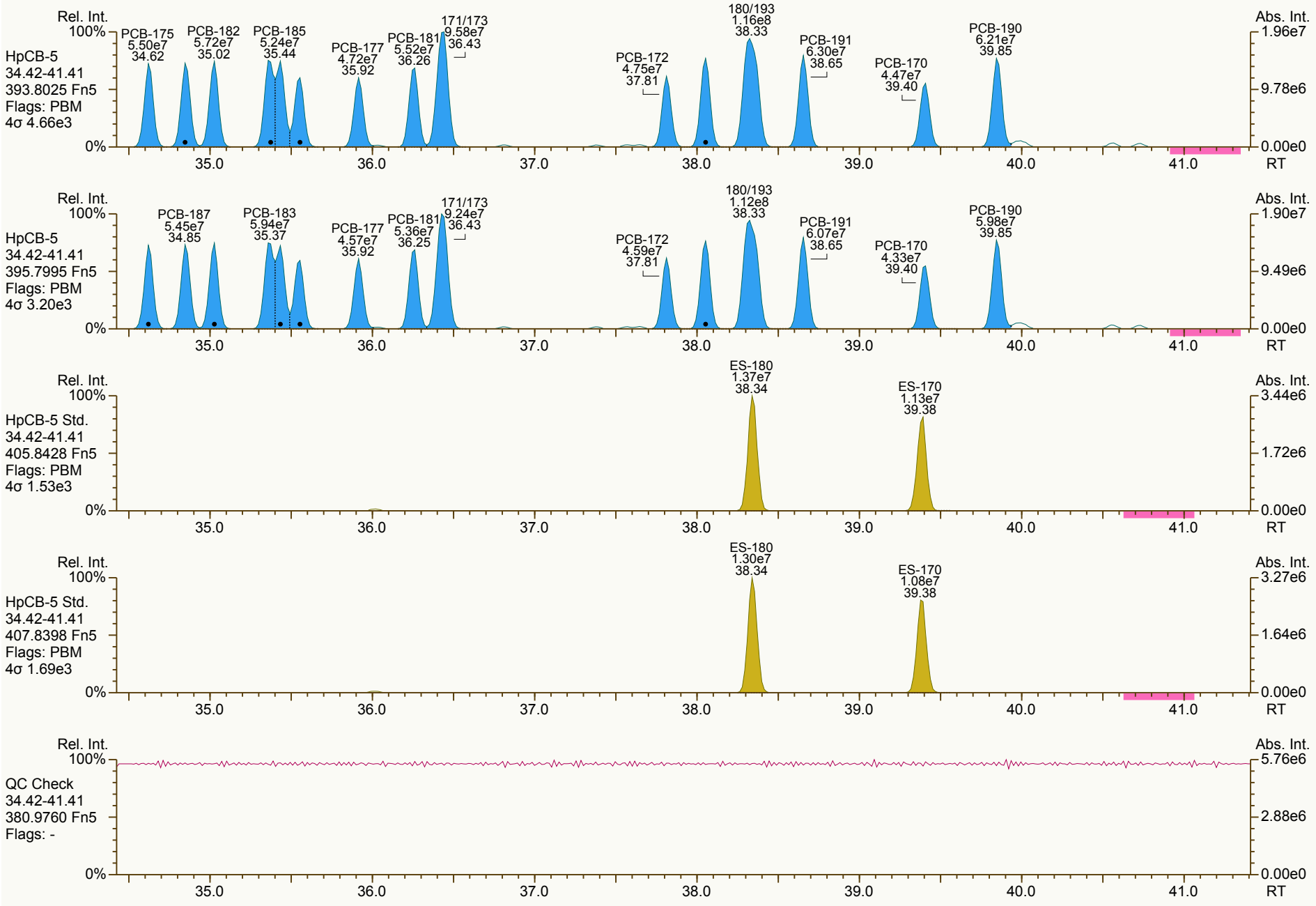
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 5740, 4025 scc: 777-854 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:22 Page 14 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

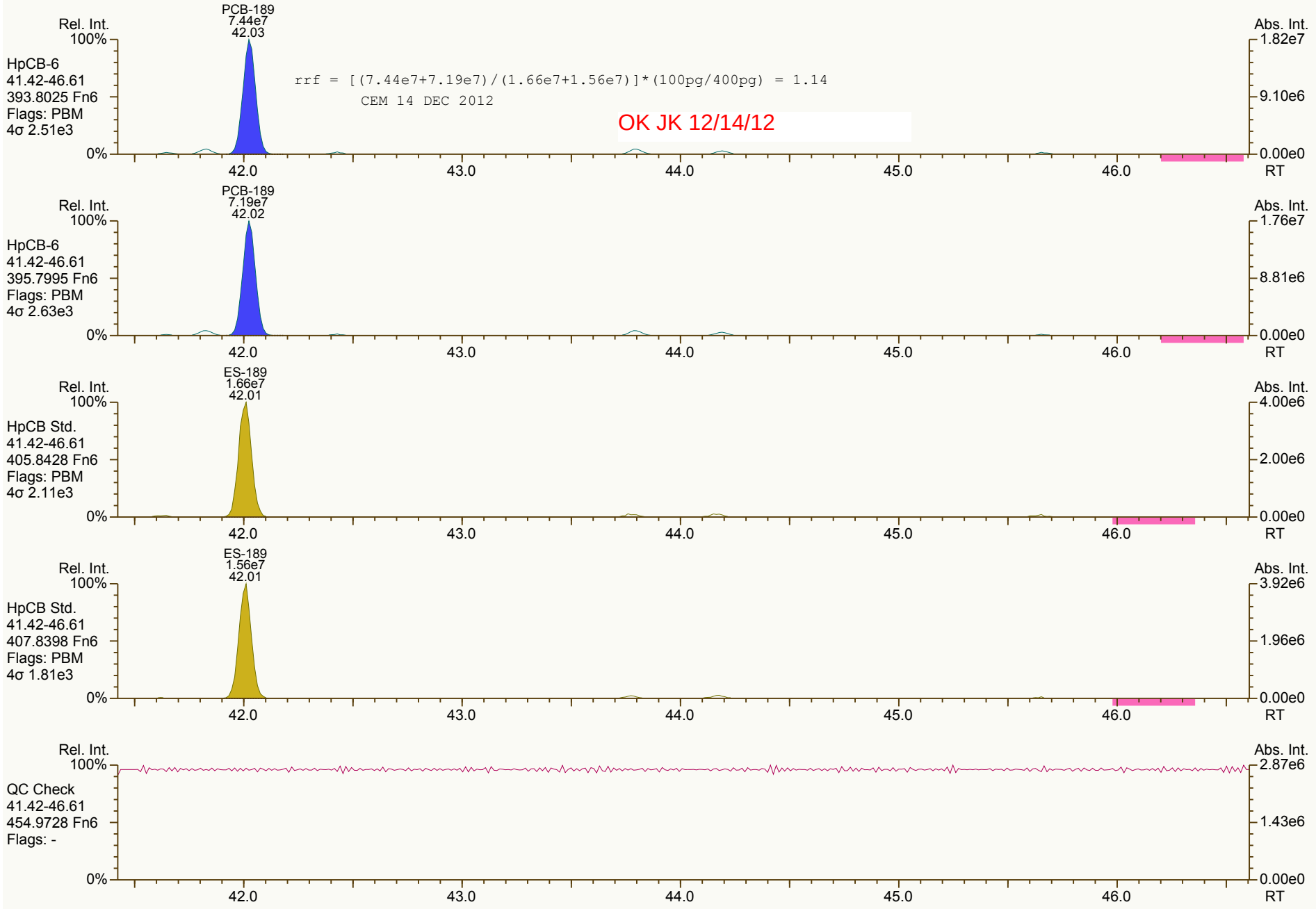
SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9881, 8161 scc: 777-854 *Revised: 14-Dec-2012 10:05 (CEM) Printed: 14-Dec-2012 11:22 Page 16 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



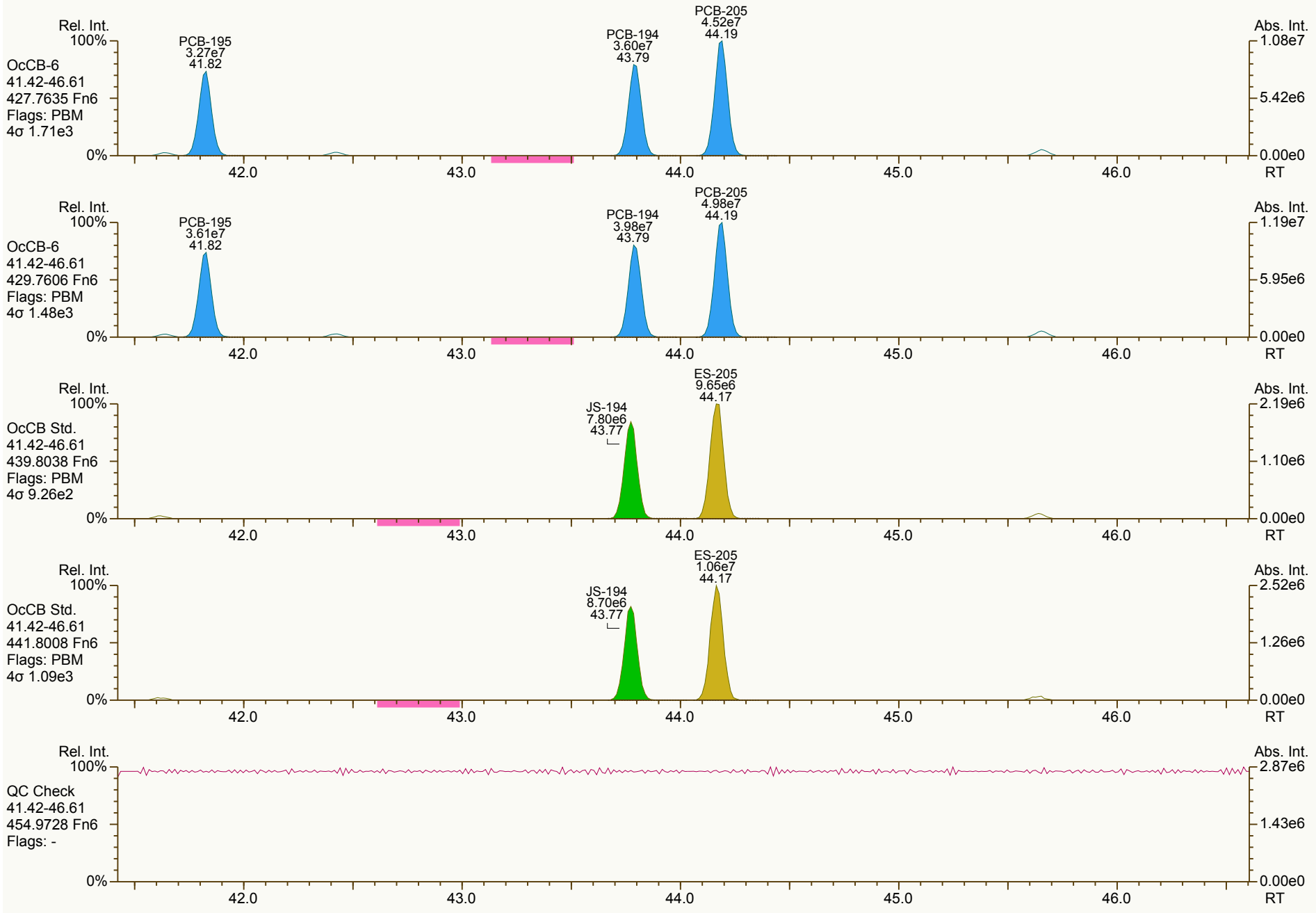
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

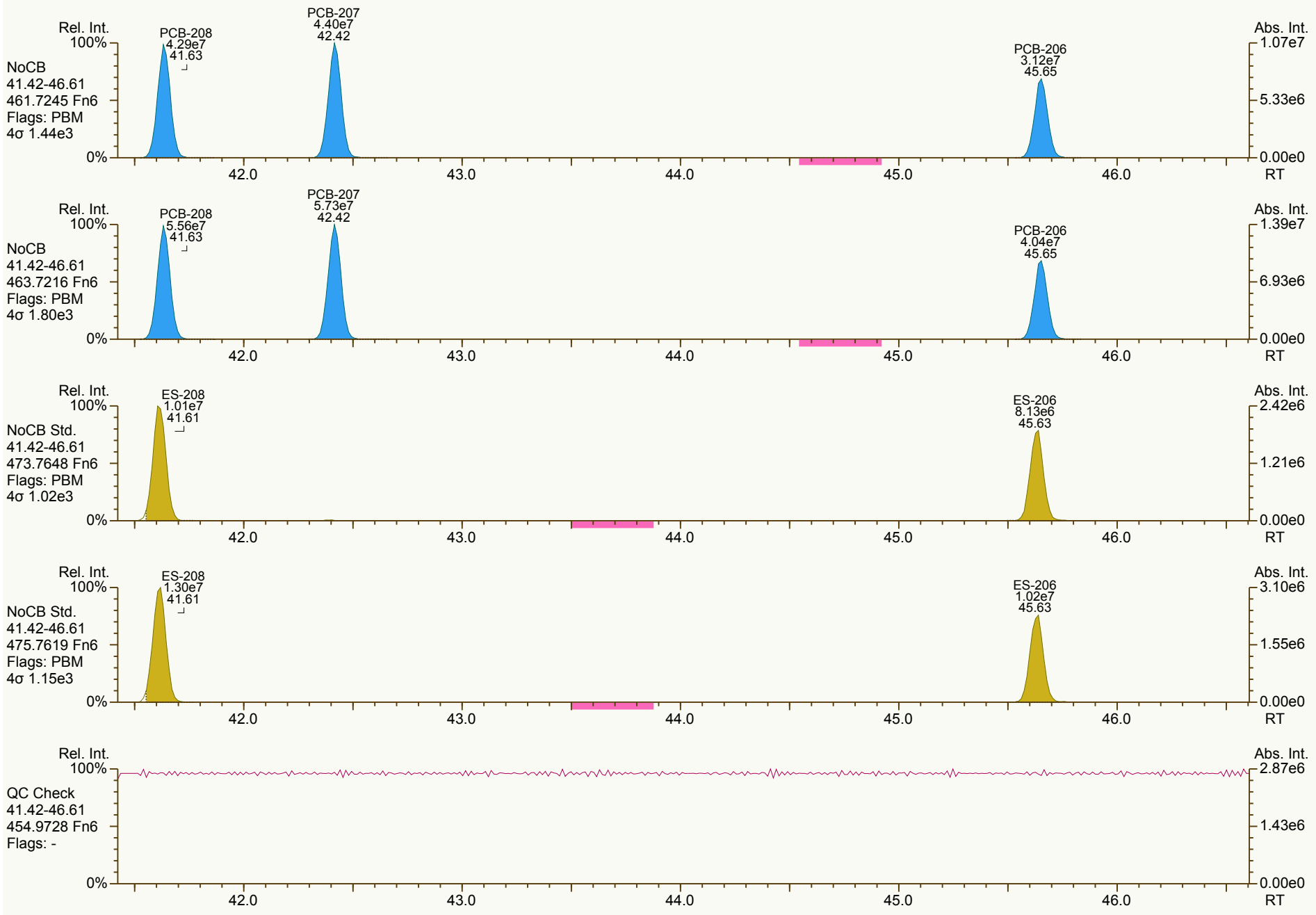
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

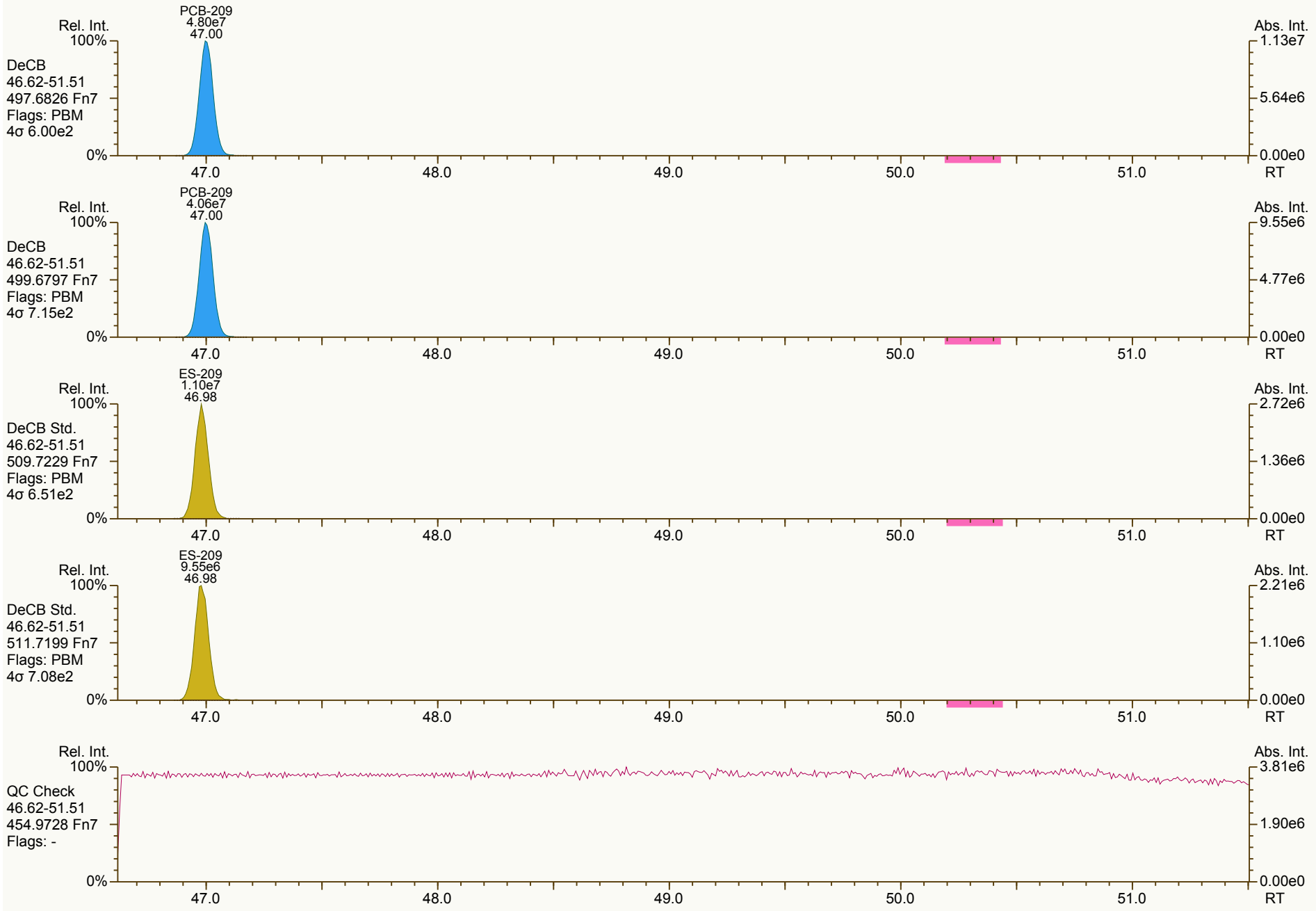
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 1515, 4315 scc: 777-854 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:22 Page 19 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



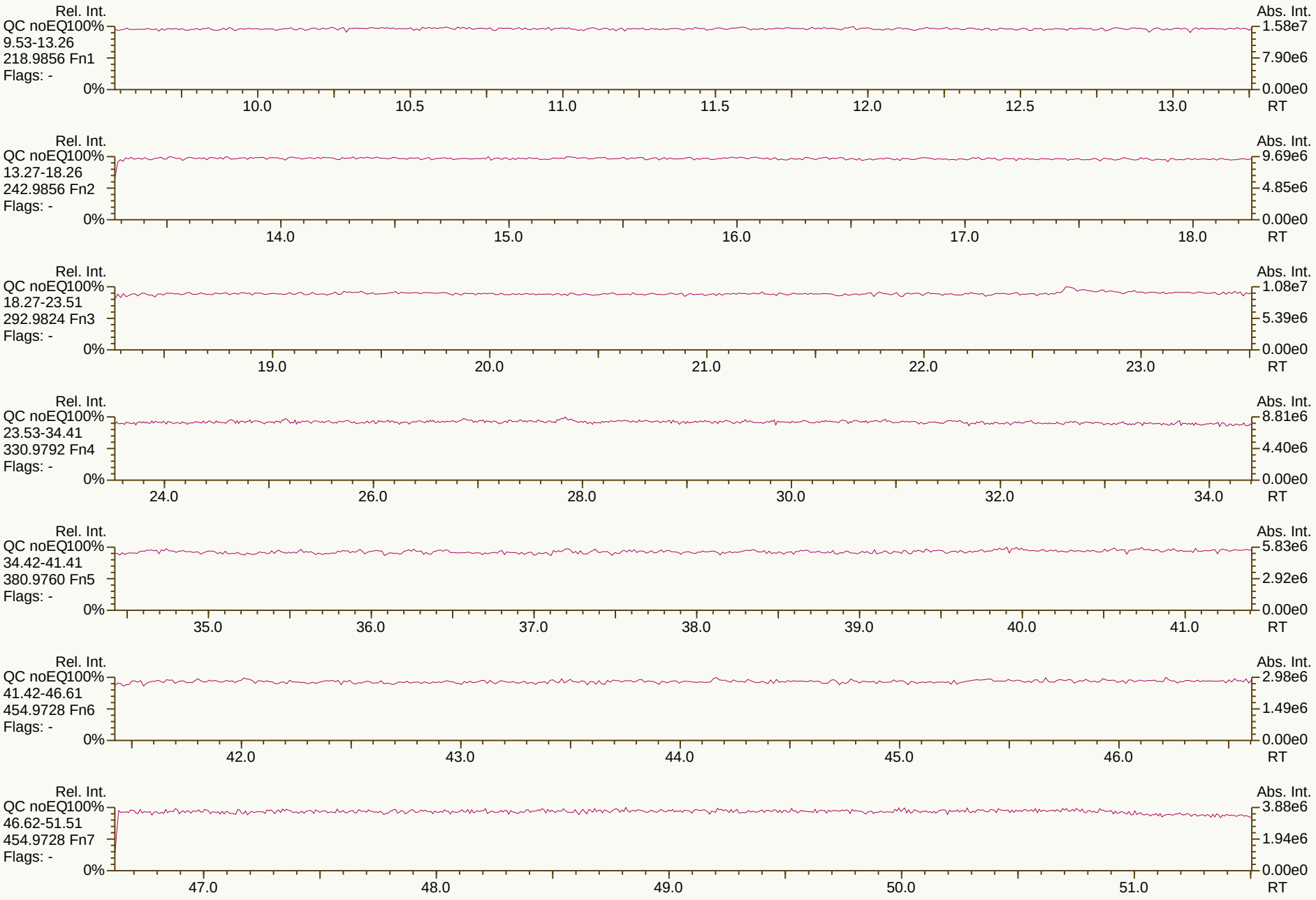
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:18
Lab ID:	CS5_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 06:57				
Datafile:	121214V07				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.10	1.66E+09	0.78 Y	1.25	1.23	-1.1%
PCB-81 344'5-TeCB	28.64	1.71E+09	0.78 Y	1.26	1.26	0.2%
PCB-105 233'44'-PeCB	32.05	9.93E+08	0.62 Y	1.06	1.02	-3.1%
PCB-114 2344'5-PeCB	31.52	1.15E+09	0.63 Y	1.11	1.12	0.5%
PCB-118 23'44'5-PeCB	31.08	1.09E+09	0.63 Y	1.08	1.07	-0.9%
PCB-123 23'44'5'-PeCB	30.80	1.12E+09	0.63 Y	1.12	1.05	-6.4%
PCB-126 33'44'5-PeCB	34.64	1.36E+09	0.63 Y	1.16	1.11	-3.5%
PCB-156/157 ...-HxCB	37.18	2.04E+09	1.24 Y	1.14	1.11	-2.4%
PCB-167 23'44'55'-HxCB	36.22	1.10E+09	1.25 Y	1.18	1.19	0.5%
PCB-169 33'44'55'-HxCB	39.89	9.71E+08	1.28 Y	1.15	1.13	-1.9%
PCB-189 233'44'55'-HpCB	42.02	1.26E+09	1.04 Y	1.12	1.12	0.5%
PCB-209 DeCB	46.99	7.51E+08	1.18 Y	1.11	1.06	-4.5%
ES PCB-1	9.81	9.28E+07	3.24 Y	0.97	0.88	-9.3%
ES PCB-3	11.71	8.94E+07	3.31 Y	0.90	0.85	-5.8%
ES PCB-4	11.92	6.98E+07	1.53 Y	0.70	0.66	-5.5%
ES PCB-15	16.98	1.20E+08	1.64 Y	1.02	1.14	12.3%
ES PCB-19	14.60	5.73E+07	1.05 Y	0.53	0.54	3.2%
ES PCB-37	22.93	7.26E+07	1.11 Y	1.29	1.28	-1.2%
ES PCB-54	17.23	7.75E+07	0.77 Y	1.43	1.36	-4.4%
ES PCB-77	29.09	6.72E+07	0.85 Y	1.20	1.18	-1.6%
ES PCB-81	28.62	6.80E+07	0.82 Y	1.16	1.20	3.0%
ES PCB-104	21.91	7.46E+07	1.54 Y	1.70	1.59	-6.7%
ES PCB-105	32.03	4.86E+07	1.56 Y	1.10	1.04	-5.6%
ES PCB-114	31.49	5.14E+07	1.52 Y	1.16	1.10	-5.1%
ES PCB-118	31.05	5.09E+07	1.52 Y	1.15	1.09	-5.9%
ES PCB-123	30.78	5.35E+07	1.53 Y	1.14	1.14	0.0%
ES PCB-126	34.62	6.08E+07	1.64 Y	1.34	1.30	-3.1%
ES PCB-153	32.64	5.17E+07	1.28 Y	1.14	1.09	-4.7%
ES PCB-155	26.71	7.08E+07	1.28 Y	1.61	1.49	-7.4%
ES PCB-156/157	37.16	9.19E+07	1.25 Y	0.98	0.97	-0.8%
ES PCB-167	36.20	4.64E+07	1.26 Y	1.01	0.98	-3.0%
ES PCB-169	39.87	4.29E+07	1.24 Y	0.90	0.91	0.9%
ES PCB-170	39.38	3.58E+07	1.03 Y	1.28	1.29	0.3%
ES PCB-180	38.33	4.50E+07	1.02 Y	1.54	1.62	5.0%
ES PCB-188	31.51	7.55E+07	1.01 Y	1.63	1.59	-2.0%
ES PCB-189	42.00	5.63E+07	1.05 Y	1.97	2.02	2.7%
ES PCB-202	36.01	5.83E+07	0.88 Y	1.26	1.23	-2.4%
ES PCB-205	44.16	3.48E+07	0.91 Y	1.22	1.25	2.3%
ES PCB-206	45.62	3.12E+07	0.77 Y	1.10	1.12	2.1%
ES PCB-208	41.61	4.08E+07	0.77 Y	1.41	1.47	4.2%
ES PCB-209	46.97	3.54E+07	1.15 Y	1.24	1.27	2.1%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.56	8.69E+07	1.10 Y	1.18	1.20	1.6%
SS PCB-111	29.15	5.17E+07	1.53 Y	1.01	0.97	-4.0%
SS PCB-178	34.06	4.56E+07	1.03 Y	0.60	0.60	0.2%
CS PCB-28	19.56	8.69E+07	1.10 Y	1.52	1.53	0.4%
CS PCB-111	29.15	5.17E+07	1.53 Y	1.15	1.10	-4.0%
CS PCB-178	34.06	4.56E+07	1.03 Y	0.98	0.96	-1.8%
JS PCB-9	13.64	1.05E+08	1.62 Y	-	-	-
JS PCB-52	21.11	5.68E+07	0.77 Y	-	-	-
JS PCB-101	26.89	4.69E+07	1.53 Y	-	-	-
JS PCB-138	33.67	4.74E+07	1.27 Y	-	-	-
JS PCB-194	43.76	2.78E+07	0.94 Y	-	-	-
PCB-1 2-MoCB	9.82	2.33E+09	3.09 Y	1.25	1.25	0.5%
PCB-3 4-MoCB	11.73	2.28E+09	3.09 Y	1.27	1.28	0.9%
PCB-4 22'-DiCB	11.94	1.27E+09	1.56 Y	0.90	0.91	1.3%
PCB-15 44'-DiCB	17.00	2.56E+09	1.54 Y	1.10	1.06	-2.9%
PCB-19 22'6-TrCB	14.62	1.09E+09	1.03 Y	0.95	0.95	0.7%
PCB-37 344'-TrCB	22.95	2.04E+09	1.05 Y	1.39	1.40	1.1%
PCB-54 22'66'-TeCB	17.24	1.71E+09	0.80 Y	1.05	1.10	5.0%
PCB-104 22'466'-PeCB	21.93	1.73E+09	0.63 Y	1.12	1.16	3.9%
PCB-153/168 ...-HxCB	32.68	2.56E+09	1.23 Y	1.24	1.24	0.2%
PCB-155 22'44'66'-HxCB	26.73	1.50E+09	1.23 Y	1.09	1.06	-2.6%
PCB-170 22'33'44'5-HpCB	39.39	7.22E+08	1.03 Y	0.99	1.01	1.4%
PCB-180/193 ...-HpCB	38.32	1.88E+09	1.03 Y	1.07	1.04	-2.4%
PCB-188 22'34'566'-HpCB	31.53	1.49E+09	1.03 Y	0.98	0.99	0.3%
PCB-202 22'33'55'66'-OcCB	36.03	9.88E+08	0.89 Y	0.86	0.85	-2.1%
PCB-205 233'44'55'6-OcCB	44.18	8.01E+08	0.90 Y	1.13	1.15	1.5%
PCB-208 22'33'455'66'-NoCB	41.63	8.35E+08	0.77 Y	1.03	1.02	-1.1%
PCB-206 22'33'44'55'6-NoCB	45.64	6.07E+08	0.77 Y	0.97	0.97	0.1%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.82	2.33E+09	3.09 Y	1.25	1.25	0.5%
PCB-2 3-MoCB	11.57	2.30E+09	3.10 Y	1.28	1.29	0.6%
PCB-3 4-MoCB	11.73	2.28E+09	3.09 Y	1.27	1.28	0.9%
PCB-4 22'-DiCB	11.94	1.27E+09	1.56 Y	0.90	0.91	1.3%
PCB-10 26-DiCB	12.09	1.99E+09	1.55 Y	1.38	1.42	3.3%
PCB-9 25-DiCB	13.66	2.17E+09	1.55 Y	0.99	0.90	-8.9%
PCB-7 24-DiCB	13.80	2.49E+09	1.55 Y	1.10	1.04	-5.9%
PCB-6 23'-DiCB	14.00	2.30E+09	1.55 Y	1.04	0.96	-8.1%
PCB-5 23-DiCB	14.26	2.36E+09	1.56 Y	1.02	0.98	-4.3%
PCB-8 24'-DiCB	14.37	2.39E+09	1.55 Y	1.03	0.99	-3.7%
PCB-14 35-DiCB	15.77	2.70E+09	1.55 Y	1.20	1.12	-6.3%
PCB-11 33'-DiCB	16.47	2.20E+09	1.56 Y	1.03	0.92	-10.9%
PCB-13/12 34'/34-DiCB	16.74	5.07E+09	1.55 Y	1.03	1.05	2.0%
PCB-15 44'-DiCB	17.00	2.56E+09	1.54 Y	1.10	1.06	-2.9%
PCB-19 22'6-TrCB	14.62	1.09E+09	1.03 Y	0.95	0.95	0.7%
PCB-30/18 246/22'5-TrCB	16.21	3.09E+09	1.03 Y	1.23	1.35	9.4%
PCB-17 22'4-TrCB	16.58	1.21E+09	1.03 Y	1.05	1.05	0.1%
PCB-27 23'6-TrCB	16.76	1.85E+09	1.04 Y	1.46	1.62	10.5%
PCB-24 236-TrCB	16.87	1.61E+09	1.03 Y	1.32	1.41	6.5%
PCB-16 22'3-TrCB	16.96	9.96E+08	1.05 Y	0.81	0.87	7.6%
PCB-32 24'6-TrCB	17.40	1.74E+09	1.03 Y	1.48	1.52	3.0%
PCB-34 23'5'-TrCB	18.48	2.15E+09	1.06 Y	1.46	1.48	1.0%
PCB-23 235-TrCB	18.61	2.17E+09	1.05 Y	1.50	1.49	-0.6%
PCB-26/29 23'5/245-TrCB	18.88	4.54E+09	1.05 Y	1.53	1.56	2.2%
PCB-25 23'4-TrCB	19.07	2.34E+09	1.05 Y	1.53	1.61	4.9%
PCB-31 24'5-TrCB	19.33	2.30E+09	1.05 Y	1.55	1.58	1.9%
PCB-28/20 244'/233'-TrCB	19.59	4.56E+09	1.04 Y	1.51	1.57	4.1%
PCB-21/33 234/23'4'-TrCB	19.75	4.69E+09	1.06 Y	1.55	1.61	4.4%
PCB-22 234'-TrCB	20.10	2.06E+09	1.05 Y	1.40	1.42	1.5%
PCB-36 33'5-TrCB	21.44	2.19E+09	1.06 Y	1.52	1.51	-0.6%
PCB-39 34'5-TrCB	21.74	2.32E+09	1.05 Y	1.58	1.59	0.7%
PCB-38 345-TrCB	22.23	2.28E+09	1.05 Y	1.47	1.57	6.7%
PCB-35 33'4-TrCB	22.61	1.96E+09	1.05 Y	1.33	1.35	1.4%
PCB-37 344'-TrCB	22.95	2.04E+09	1.05 Y	1.39	1.40	1.1%
PCB-54 22'66'-TeCB	17.24	1.71E+09	0.80 Y	1.05	1.10	5.0%
PCB-50/53 22'46/22'56'-TeCB	19.11	2.43E+09	0.77 Y	0.88	0.89	2.0%
PCB-45 22'36-TeCB	19.65	1.03E+09	0.76 Y	0.73	0.76	2.9%
PCB-51 22'46'-TeCB	19.72	1.29E+09	0.77 Y	0.94	0.95	0.9%
PCB-46 22'36'-TeCB	19.91	9.44E+08	0.77 Y	0.72	0.69	-3.2%
PCB-52 22'55'-TeCB	21.13	1.13E+09	0.77 Y	0.82	0.83	0.6%
PCB-73 23'5'6-TeCB	21.25	1.42E+09	0.77 Y	1.10	1.05	-4.8%
PCB-43 22'35-TeCB	21.33	9.63E+08	0.77 Y	0.70	0.71	0.5%
PCB-69/49 23'46/22'45'-TeCB	21.52	2.79E+09	0.77 Y	1.01	1.03	1.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.78	1.15E+09	0.77 Y	0.84	0.85	0.4%
PCB-44/47/65 ...-TeCB	21.99	3.82E+09	0.77 Y	0.90	0.94	3.9%
PCB-59/62/75 ...-TeCB	22.25	4.99E+09	0.77 Y	1.15	1.22	5.9%
PCB-42 22'34'-TeCB	22.40	1.01E+09	0.77 Y	0.76	0.74	-2.5%
PCB-41 22'34-TeCB	22.72	9.40E+08	0.77 Y	0.64	0.69	7.9%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	2.34E+09	0.77 Y	0.83	0.86	3.2%
PCB-64 234'6-TeCB	23.01	1.60E+09	0.77 Y	1.17	1.18	0.5%
PCB-72 23'55'-TeCB	23.73	1.87E+09	0.78 Y	1.37	1.38	0.6%
PCB-68 23'45'-TeCB	23.97	1.95E+09	0.78 Y	1.52	1.44	-5.3%
PCB-57 233'5-TeCB	24.32	1.74E+09	0.78 Y	1.32	1.28	-3.2%
PCB-58 233'5'-TeCB	24.52	1.78E+09	0.78 Y	1.34	1.31	-2.3%
PCB-67 23'45-TeCB	24.67	1.94E+09	0.77 Y	1.41	1.43	1.0%
PCB-63 234'5-TeCB	24.89	1.93E+09	0.78 Y	1.46	1.42	-2.4%
PCB-61/70/74/76 ...-TeCB	25.16	7.48E+09	0.78 Y	1.37	1.38	0.8%
PCB-66 23'44'-TeCB	25.44	1.65E+09	0.77 Y	1.24	1.21	-2.2%
PCB-55 233'4-TeCB	25.57	1.70E+09	0.78 Y	1.28	1.25	-2.2%
PCB-56 233'4'-TeCB	25.99	1.59E+09	0.78 Y	1.23	1.17	-4.7%
PCB-60 2344'-TeCB	26.17	1.73E+09	0.77 Y	1.30	1.27	-2.0%
PCB-80 33'55'-TeCB	26.54	1.91E+09	0.78 Y	1.44	1.40	-2.2%
PCB-79 33'45'-TeCB	27.82	2.08E+09	0.78 Y	1.48	1.53	3.8%
PCB-78 33'45-TeCB	28.27	1.55E+09	0.77 Y	1.21	1.14	-5.5%
PCB-104 22'466'-PeCB	21.93	1.73E+09	0.63 Y	1.12	1.16	3.9%
PCB-96 22'366'-PeCB	22.23	1.58E+09	0.64 Y	0.96	1.06	9.7%
PCB-103 22'45'6-PeCB	23.88	9.25E+08	0.62 Y	0.93	0.86	-7.3%
PCB-94 22'356'-PeCB	24.06	8.08E+08	0.62 Y	0.81	0.76	-6.6%
PCB-95 22'35'6-PeCB	24.42	8.46E+08	0.63 Y	0.85	0.79	-7.0%
PCB-100/93 22'44'6/22'356-PeCB	24.63	1.84E+09	0.62 Y	0.88	0.86	-2.9%
PCB-102 22'456'-PeCB	24.74	9.16E+08	0.62 Y	0.93	0.86	-8.1%
PCB-98 22'34'6'-PeCB	24.80	8.08E+08	0.63 Y	0.84	0.75	-10.0%
PCB-88 22'346-PeCB	25.08	7.63E+08	0.62 Y	0.77	0.71	-7.7%
PCB-91 22'34'6-PeCB	25.15	1.08E+09	0.64 Y	0.96	1.01	4.7%
PCB-84 22'33'6-PeCB	25.33	7.16E+08	0.63 Y	0.72	0.67	-7.2%
PCB-89 22'346'-PeCB	25.73	7.52E+08	0.63 Y	0.77	0.70	-9.0%
PCB-121 23'45'6-PeCB	26.11	1.17E+09	0.63 Y	1.15	1.09	-4.9%
PCB-92 22'355'-PeCB	26.42	7.96E+08	0.63 Y	0.79	0.74	-6.2%
PCB-113/90/101 ...-PeCB	26.89	2.96E+09	0.63 Y	0.95	0.92	-3.6%
PCB-83 22'33'5-PeCB	27.30	7.05E+08	0.62 Y	0.72	0.66	-8.5%
PCB-99 22'44'5-PeCB	27.40	9.27E+08	0.62 Y	0.90	0.87	-3.4%
PCB-112 233'56-PeCB	27.49	1.05E+09	0.63 Y	1.09	0.98	-10.0%
PCB-109/119/86/97/125...-PeCB	27.83	6.05E+09	0.63 Y	0.95	0.94	-0.6%
PCB-117 234'56-PeCB	28.35	9.88E+08	0.62 Y	0.99	0.92	-6.8%
PCB-116/85 23456/22'344'-PeCB	28.42	2.02E+09	0.63 Y	0.96	0.94	-1.8%
PCB-110 233'4'6-PeCB	28.55	9.80E+08	0.63 Y	1.01	0.92	-9.2%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.16E+09	0.63 Y	1.15	1.08	-5.9%
PCB-82 22'33'4-PeCB	28.81	6.88E+08	0.63 Y	0.70	0.64	-8.0%
PCB-111 233'55'-PeCB	29.18	1.20E+09	0.62 Y	1.16	1.12	-3.5%
PCB-120 23'455'-PeCB	29.56	1.16E+09	0.62 Y	1.14	1.08	-4.6%
PCB-108/124 ...-PeCB	30.50	2.15E+09	0.62 Y	1.02	1.01	-1.2%
PCB-107 233'4'5-PeCB	30.70	1.17E+09	0.62 Y	1.13	1.09	-3.9%
PCB-106 233'45-PeCB	30.90	1.07E+09	0.63 Y	1.01	1.00	-1.1%
PCB-122 233'4'5'-PeCB	31.35	9.35E+08	0.63 Y	0.91	0.91	-0.2%
PCB-127 33'455'-PeCB	33.30	1.05E+09	0.63 Y	1.06	1.08	2.4%
PCB-155 22'44'66'-HxCB	26.73	1.50E+09	1.23 Y	1.09	1.06	-2.6%
PCB-152 22'3566'-HxCB	26.87	1.53E+09	1.23 Y	1.04	1.08	3.9%
PCB-150 22'34'66'-HxCB	27.02	1.42E+09	1.24 Y	1.03	1.00	-2.7%
PCB-136 22'33'66'-HxCB	27.30	1.39E+09	1.24 Y	0.97	0.98	0.6%
PCB-145 22'3466'-HxCB	27.57	1.35E+09	1.24 Y	0.96	0.95	-1.0%
PCB-148 22'34'56'-HxCB	28.85	1.04E+09	1.23 Y	1.03	1.01	-2.3%
PCB-151/135 ...-HxCB	29.35	2.01E+09	1.24 Y	0.99	0.97	-1.9%
PCB-154 22'44'56'-HxCB	29.57	1.19E+09	1.23 Y	1.17	1.15	-2.1%
PCB-144 22'345'6-HxCB	29.81	1.01E+09	1.24 Y	1.03	0.97	-5.2%
PCB-147/149 ...-HxCB	30.11	2.12E+09	1.24 Y	1.02	1.03	0.9%
PCB-134 22'33'56-HxCB	30.27	8.33E+08	1.23 Y	0.80	0.81	0.8%
PCB-143 22'3456'-HxCB	30.35	9.55E+08	1.24 Y	0.95	0.92	-2.5%
PCB-139/140 ...-HxCB	30.62	2.19E+09	1.23 Y	1.05	1.06	1.0%
PCB-131 22'33'46-HxCB	30.78	9.56E+08	1.23 Y	0.90	0.93	3.4%
PCB-142 22'3456-HxCB	30.91	9.53E+08	1.23 Y	0.93	0.92	-0.4%
PCB-132 22'33'46'-HxCB	31.15	9.14E+08	1.25 Y	0.93	0.88	-4.8%
PCB-133 22'33'55'-HxCB	31.60	9.78E+08	1.24 Y	0.97	0.95	-2.2%
PCB-165 233'55'6-HxCB	31.93	1.14E+09	1.24 Y	1.16	1.10	-5.2%
PCB-146 22'34'55'-HxCB	32.14	1.00E+09	1.24 Y	1.01	0.97	-3.7%
PCB-161 233'45'6-HxCB	32.25	1.39E+09	1.25 Y	1.29	1.35	4.2%
PCB-153/168 ...-HxCB	32.68	2.56E+09	1.23 Y	1.24	1.24	0.2%
PCB-141 22'3455'-HxCB	32.81	9.43E+08	1.24 Y	0.95	0.91	-3.6%
PCB-130 22'33'45'-HxCB	33.15	8.32E+08	1.24 Y	0.82	0.81	-2.0%
PCB-137 22'344'5-HxCB	33.34	1.03E+09	1.21 Y	0.97	1.00	2.9%
PCB-164 233'4'5'6-HxCB	33.43	1.31E+09	1.24 Y	1.25	1.27	1.4%
PCB-163/138/129 ...-HxCB	33.71	3.28E+09	1.23 Y	1.04	1.06	1.4%
PCB-160 233'456-HxCB	33.83	1.26E+09	1.24 Y	1.19	1.22	2.7%
PCB-158 233'44'6-HxCB	34.02	1.37E+09	1.22 Y	1.34	1.32	-1.1%
PCB-128/166 ...-HxCB	34.73	1.82E+09	1.25 Y	0.96	0.98	2.1%
PCB-159 233'455'-HxCB	35.58	1.06E+09	1.26 Y	1.12	1.14	1.7%
PCB-162 233'4'55'-HxCB	35.82	1.04E+09	1.24 Y	1.13	1.12	-0.9%
PCB-188 22'34'566'-HpCB	31.53	1.49E+09	1.03 Y	0.98	0.99	0.3%
PCB-179 22'33'566'-HpCB	31.79	1.27E+09	1.03 Y	0.90	0.84	-6.0%
PCB-184 22'344'66'-HpCB	32.26	1.34E+09	1.02 Y	0.86	0.89	2.7%

PCB QC Summary - Ax2 Detail **Printed: 14-Dec-2012 11:18**

Lab ID: CS5_121214_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.53	1.40E+09	1.02 Y	0.97	0.93	-4.6%
PCB-186 22'34566'-HpCB	32.91	1.32E+09	1.03 Y	0.93	0.87	-5.5%
PCB-178 22'33'55'6-HpCB	34.08	1.00E+09	1.03 Y	0.66	0.66	0.1%
PCB-175 22'33'45'6-HpCB	34.62	9.11E+08	1.04 Y	1.02	1.01	-1.2%
PCB-187 22'34'55'6-HpCB	34.84	8.94E+08	1.04 Y	1.03	0.99	-3.3%
PCB-182 22'344'56'-HpCB	35.02	9.12E+08	1.04 Y	1.10	1.01	-7.5%
PCB-183 22'344'5'6-HpCB	35.36	8.79E+08	1.03 Y	1.12	0.98	-13.1%
PCB-185 22'3455'6-HpCB	35.43	9.69E+08	1.04 Y	0.97	1.08	11.3%
PCB-174 22'33'456'-HpCB	35.54	7.83E+08	1.04 Y	0.90	0.87	-2.8%
PCB-177 22'33'45'6'-HpCB	35.91	7.46E+08	1.04 Y	0.87	0.83	-4.9%
PCB-181 22'344'56-HpCB	36.25	9.09E+08	1.03 Y	1.03	1.01	-2.3%
PCB-171/173 ...-HpCB	36.42	1.57E+09	1.04 Y	0.89	0.87	-1.7%
PCB-172 22'33'455'-HpCB	37.81	7.53E+08	1.03 Y	0.87	0.84	-4.1%
PCB-192 233'455'6-HpCB	38.04	9.98E+08	1.04 Y	1.16	1.11	-4.5%
PCB-180/193 ...-HpCB	38.32	1.88E+09	1.03 Y	1.07	1.04	-2.4%
PCB-191 233'44'5'6-HpCB	38.65	1.01E+09	1.04 Y	1.18	1.12	-5.3%
PCB-170 22'33'44'5-HpCB	39.39	7.22E+08	1.03 Y	0.99	1.01	1.4%
PCB-190 233'44'56-HpCB	39.84	1.02E+09	1.03 Y	1.36	1.42	4.8%
PCB-202 22'33'55'66'-OcCB	36.03	9.88E+08	0.89 Y	0.86	0.85	-2.1%
PCB-201 22'33'45'66'-OcCB	36.80	1.11E+09	0.89 Y	0.95	0.95	0.0%
PCB-204 22'344'566'-OcCB	37.37	1.03E+09	0.89 Y	0.90	0.89	-1.9%
PCB-197 22'33'44'66'-OcCB	37.56	1.16E+09	0.88 Y	0.96	1.00	3.6%
PCB-200 22'33'4566'-OcCB	37.64	1.04E+09	0.90 Y	0.88	0.89	0.7%
PCB-198/199 ...-OcCB	39.98	1.55E+09	0.89 Y	0.63	0.67	5.6%
PCB-196 22'33'44'56'-OcCB	40.55	7.58E+08	0.88 Y	0.66	0.65	-1.8%
PCB-203 22'344'55'6-OcCB	40.71	8.03E+08	0.89 Y	0.69	0.69	-0.9%
PCB-195 22'33'44'56-OcCB	41.81	5.86E+08	0.91 Y	0.82	0.84	2.0%
PCB-194 22'33'44'55'-OcCB	43.78	6.25E+08	0.90 Y	0.90	0.90	-0.5%
PCB-205 233'44'55'6-OcCB	44.18	8.01E+08	0.90 Y	1.13	1.15	1.5%
PCB-208 22'33'455'66'-NoCB	41.63	8.35E+08	0.77 Y	1.03	1.02	-1.1%
PCB-207 22'33'44'566'-NoCB	42.41	8.57E+08	0.77 Y	1.07	1.05	-1.8%
PCB-206 22'33'44'55'6-NoCB	45.64	6.07E+08	0.77 Y	0.97	0.97	0.1%

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



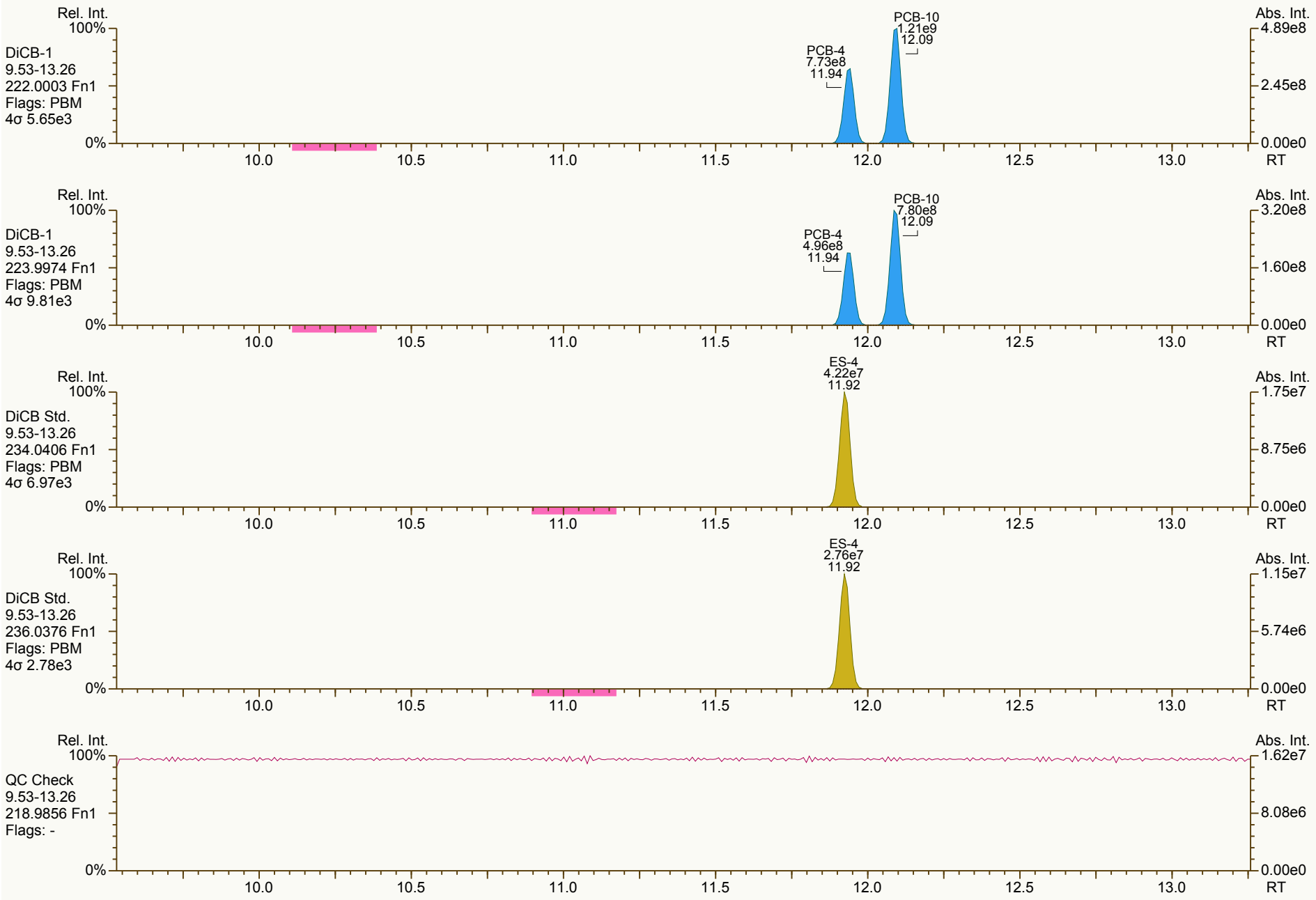
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**

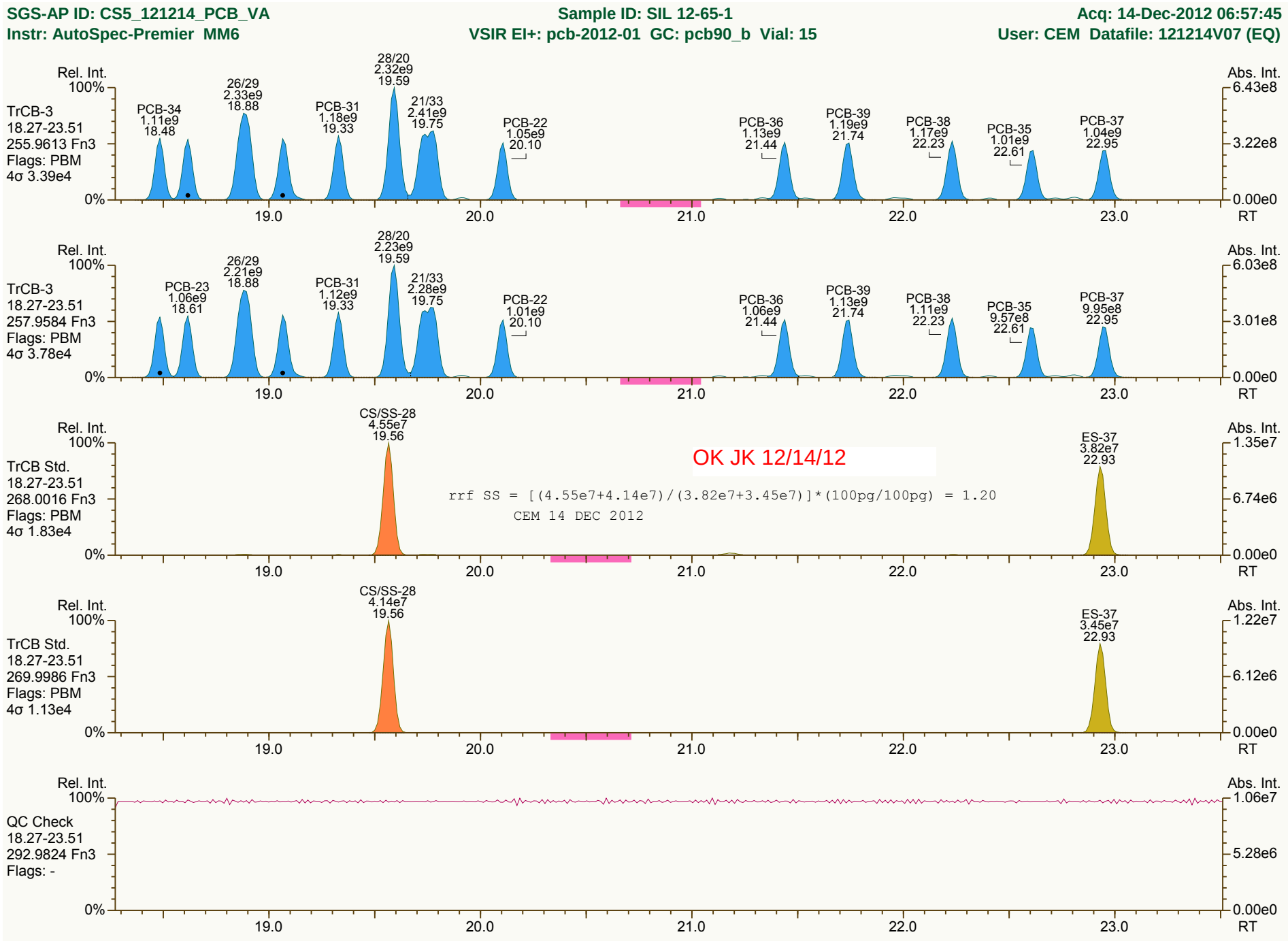


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

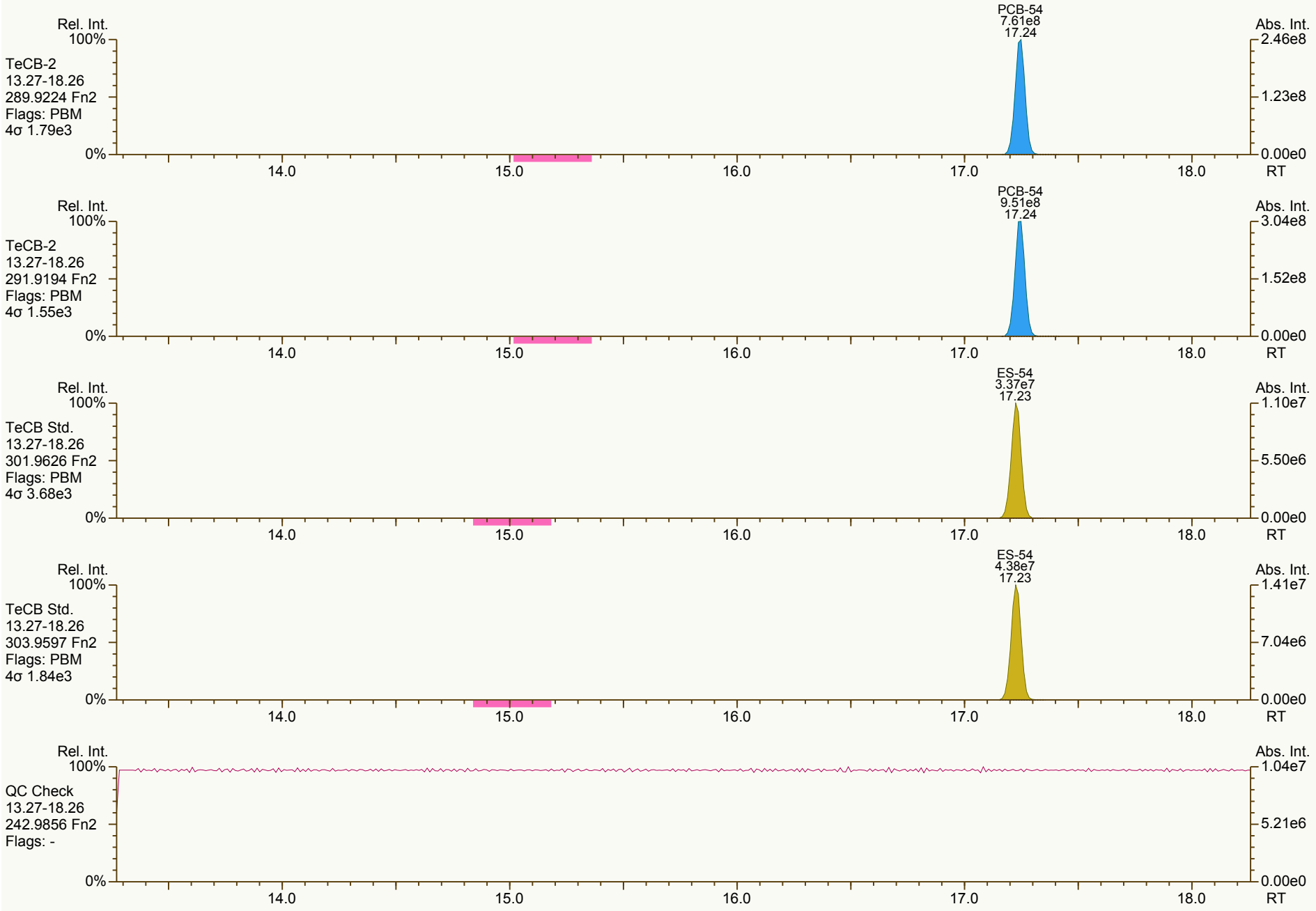
SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*


SGS-AP ID: CS5_121214_PCB_VA
Sample ID: SIL 12-65-1
Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15
User: CEM Datafile: 121214V07 (EQ)
TrCB-3
18.27-23.51
255.9613 Fn3
Flags: PBM
4σ 3.39e4
PCB-34 1.11e9 18.48
26/29 2.33e9 18.88
PCB-31 1.18e9 19.33
28/20 2.32e9 19.59
21/33 2.41e9 19.75
PCB-22 1.05e9 20.10
PCB-36 1.13e9 21.44
PCB-39 1.19e9 21.74
PCB-38 1.17e9 22.23
PCB-35 1.01e9 22.61
PCB-37 1.04e9 22.95
TrCB-3
18.27-23.51
257.9584 Fn3
Flags: PBM
4σ 3.78e4
PCB-23 1.06e9 18.61
26/29 2.21e9 18.88
PCB-31 1.12e9 19.33
28/20 2.23e9 19.59
21/33 2.28e9 19.75
PCB-22 1.01e9 20.10
PCB-36 1.06e9 21.44
PCB-39 1.13e9 21.74
PCB-38 1.11e9 22.23
PCB-35 9.57e8 22.61
PCB-37 9.95e8 22.95
TrCB Std.
18.27-23.51
268.0016 Fn3
Flags: PBM
4σ 1.83e4
CS/SS-28 4.55e7 19.56
ES-37 3.82e7 22.93
OK JK 12/14/12
rrf SS = [(4.55e7+4.14e7)/(3.82e7+3.45e7)]*(100pg/100pg) = 1.20
CEM 14 DEC 2012
TrCB Std.
18.27-23.51
269.9986 Fn3
Flags: PBM
4σ 1.13e4
CS/SS-28 4.14e7 19.56
ES-37 3.45e7 22.93
QC Check
18.27-23.51
292.9824 Fn3
Flags: -
Rel. Int.
Abs. Int.
RT
19.0
20.0
21.0
22.0
23.0

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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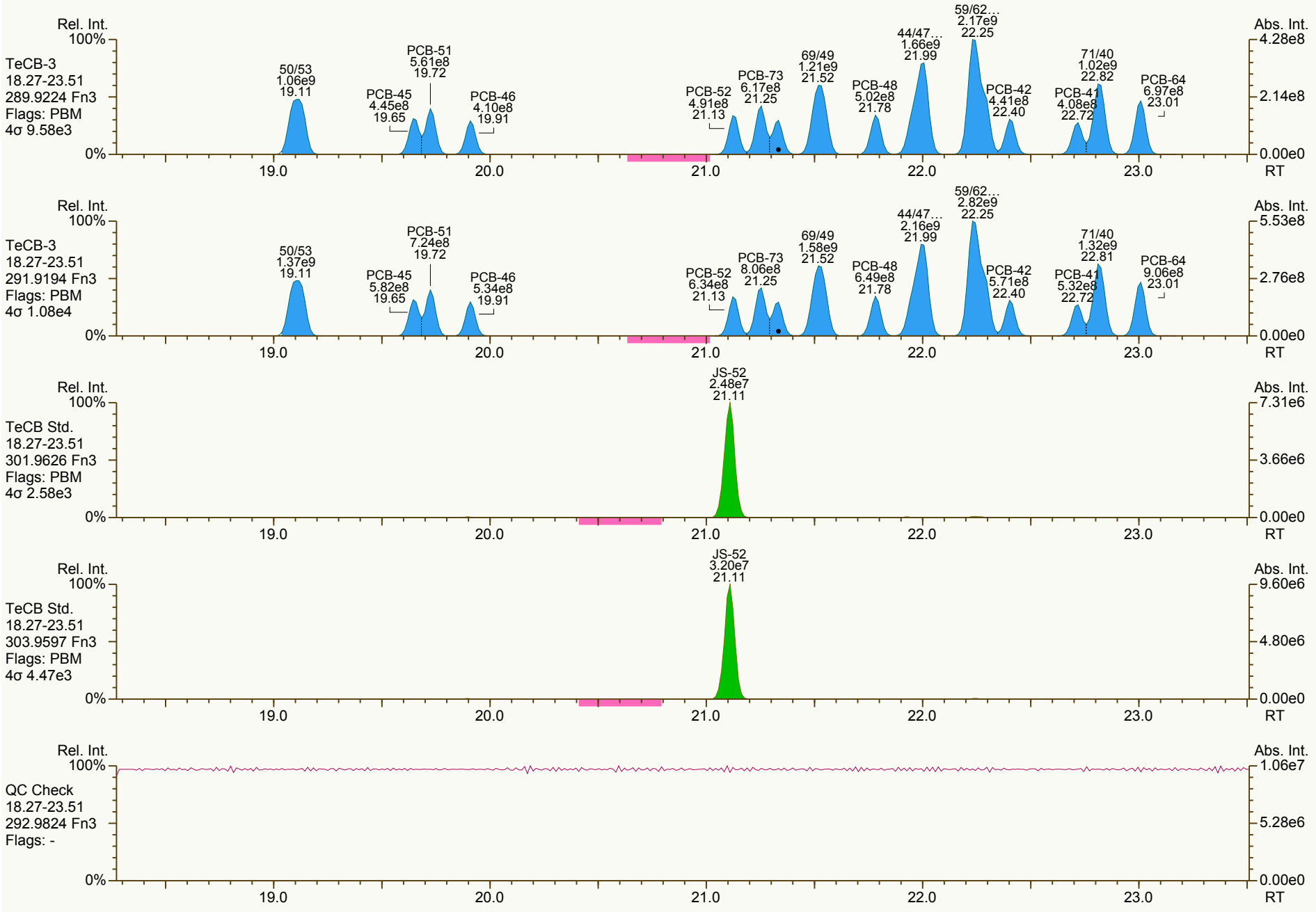
SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15 | User: CEM Datafile: 121214V07 (EQ)



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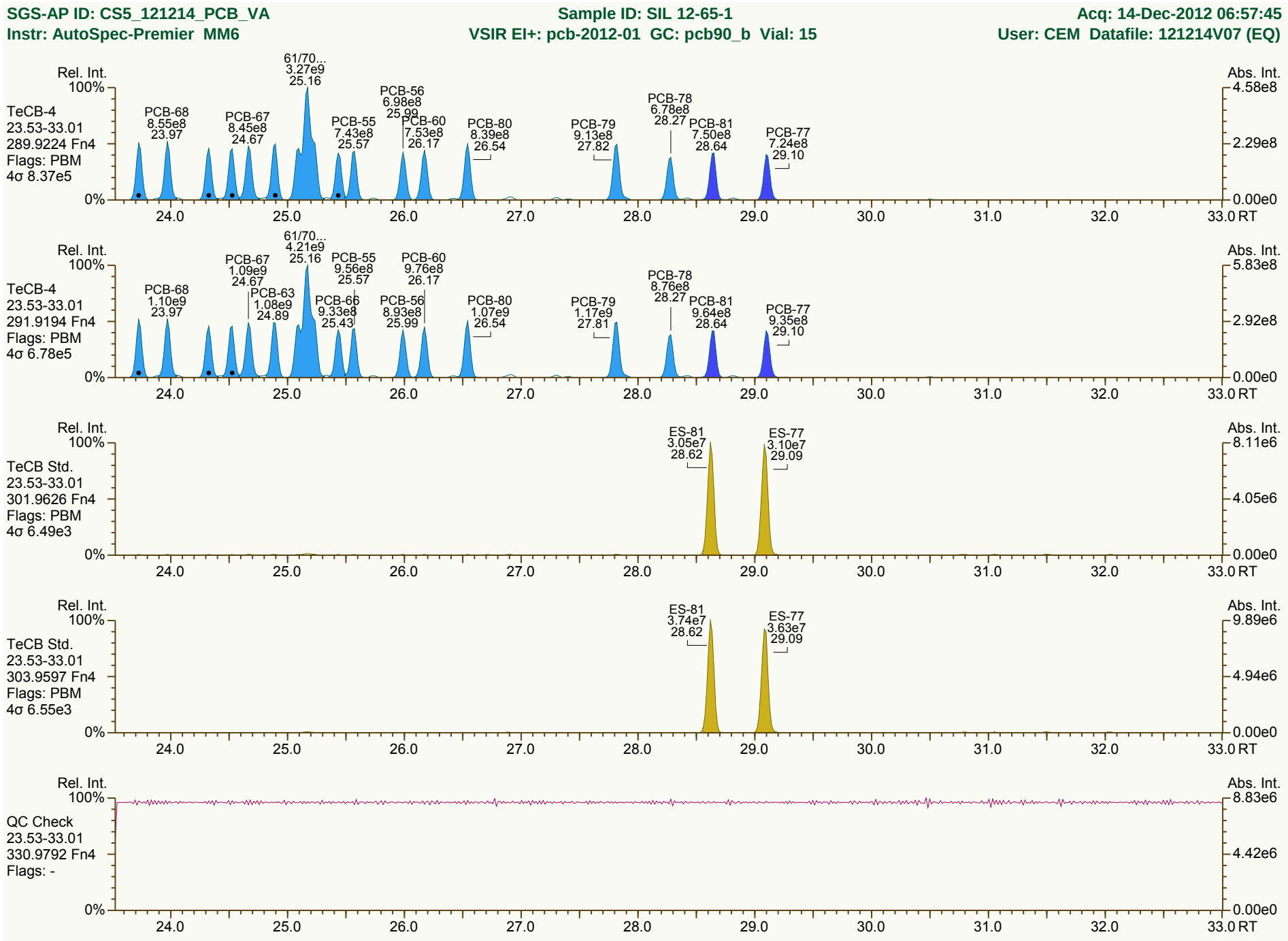
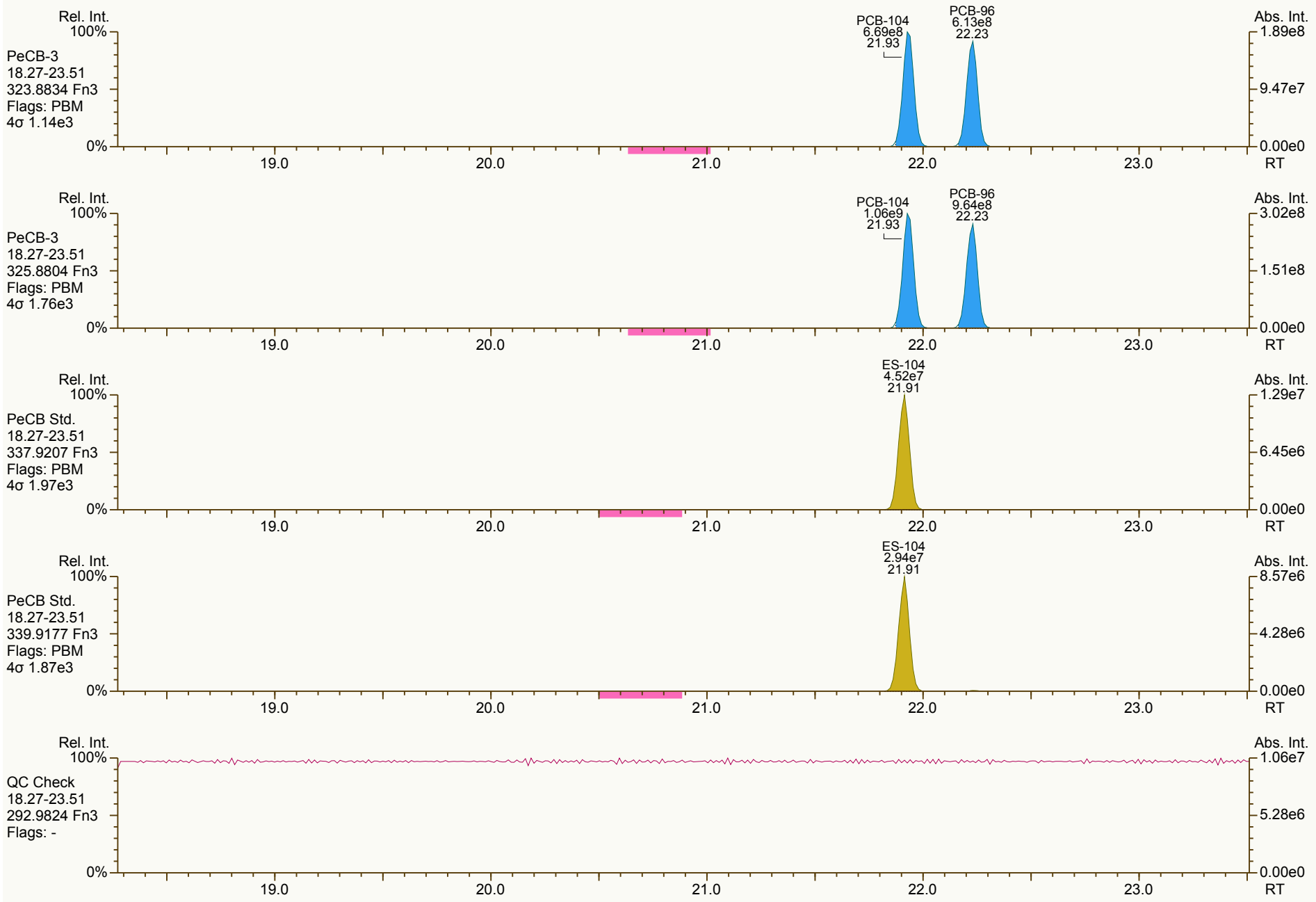
Peak annotation: Areas, Centroids


SGS-AP ID: CS5_121214_PCB_VA
Sample ID: SIL 12-65-1
Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15
User: CEM Datafile: 121214V07 (EQ)
TeCB-4
23.53-33.01
289.9224 Fn4
Flags: PBM
4σ 8.37e5
PCB-68 8.55e8 23.97
PCB-67 8.45e8 24.67
61/70... 3.27e9 25.16
PCB-55 7.43e8 25.57
PCB-56 6.98e8 25.99
PCB-60 7.53e8 26.17
PCB-80 8.39e8 26.54
PCB-79 9.13e8 27.82
PCB-78 6.78e8 28.27
PCB-81 7.50e8 28.64
PCB-77 7.24e8 29.10
TeCB-4
23.53-33.01
291.9194 Fn4
Flags: PBM
4σ 6.78e5
PCB-68 1.10e9 23.97
PCB-67 1.09e9 24.67
PCB-63 1.08e9 24.89
61/70... 4.21e9 25.16
PCB-55 9.56e8 25.57
PCB-66 9.33e8 25.43
PCB-56 8.93e8 25.99
PCB-60 9.76e8 26.17
PCB-80 1.07e9 26.54
PCB-79 1.17e9 27.81
PCB-78 8.76e8 28.27
PCB-81 9.64e8 28.64
PCB-77 9.35e8 29.10
TeCB Std.
23.53-33.01
301.9626 Fn4
Flags: PBM
4σ 6.49e3
ES-81 3.05e7 28.62
ES-77 3.10e7 29.09
TeCB Std.
23.53-33.01
303.9597 Fn4
Flags: PBM
4σ 6.55e3
ES-81 3.74e7 28.62
ES-77 3.63e7 29.09
QC Check
23.53-33.01
330.9792 Fn4
Flags: -
Rel. Int.
Abs. Int.
RT

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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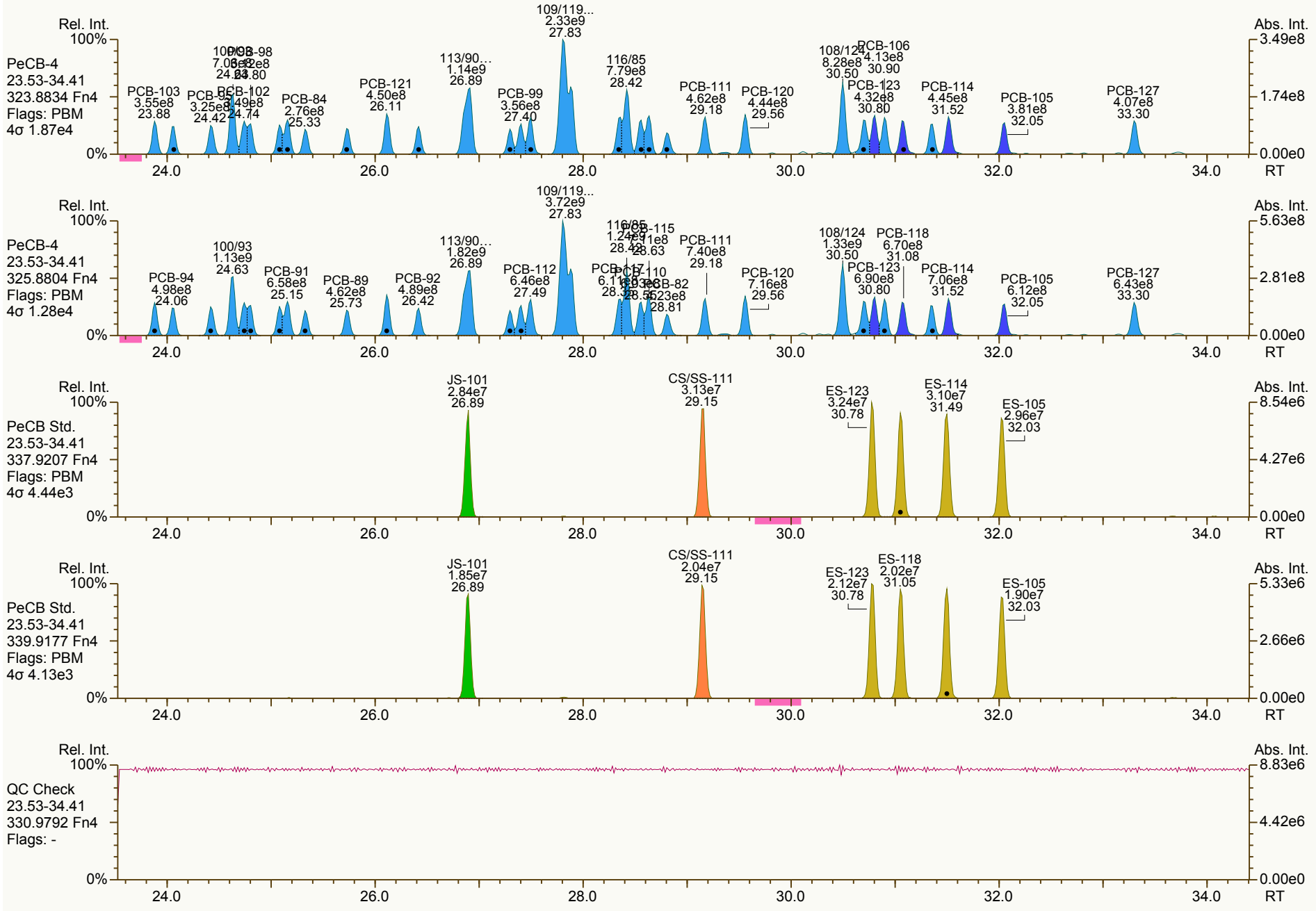
SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15 | User: CEM Datafile: 121214V07 (EQ)



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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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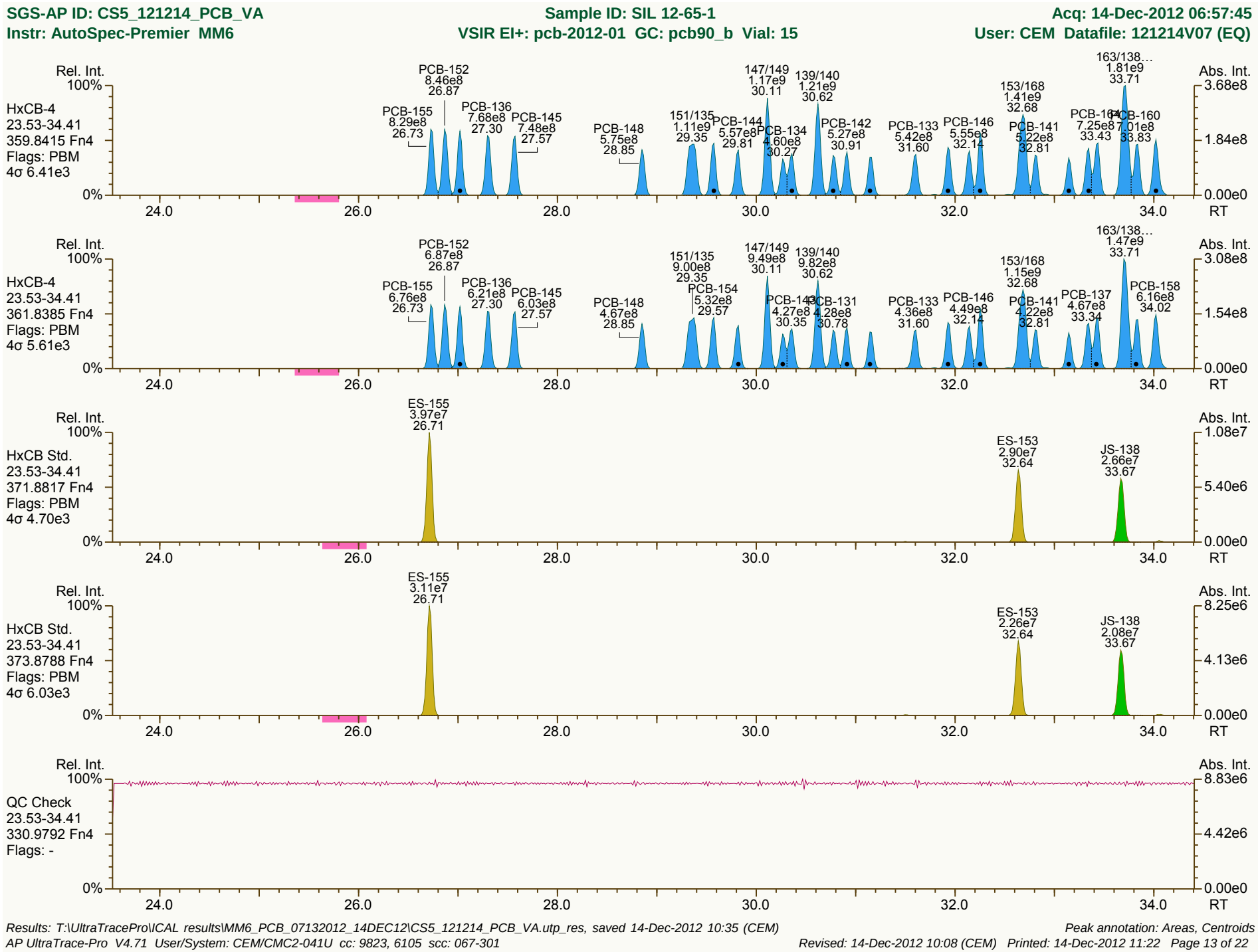
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Sample ID: SIL 12-65-1
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Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15
User: CEM Datafile: 121214V07 (EQ)
HxCB-4
23.53-34.41
359.8415 Fn4
Flags: PBM
4σ 6.41e3
PCB-152 8.46e8 26.87
PCB-155 8.29e8 26.73
PCB-136 7.68e8 27.30
PCB-145 7.48e8 27.57
PCB-148 5.75e8 28.85
151/135 1.11e9 29.35
PCB-144 5.57e8 29.81
147/149 1.17e9 30.11
PCB-134 4.60e8 30.27
139/140 1.21e9 30.62
PCB-142 5.27e8 30.91
PCB-133 5.42e8 31.60
PCB-146 5.55e8 32.14
153/168 1.41e9 32.68
PCB-141 5.22e8 32.81
PCB-164 7.25e8 33.43
PCB-160 7.01e8 33.83
163/138... 1.81e9 33.71
HxCB-4
23.53-34.41
361.8385 Fn4
Flags: PBM
4σ 5.61e3
PCB-152 6.87e8 26.87
PCB-155 6.76e8 26.73
PCB-136 6.21e8 27.30
PCB-145 6.03e8 27.57
PCB-148 4.67e8 28.85
151/135 9.00e8 29.35
PCB-154 5.32e8 29.57
147/149 9.49e8 30.11
PCB-143 4.27e8 30.35
139/140 9.82e8 30.62
PCB-131 4.28e8 30.78
PCB-133 4.36e8 31.60
PCB-146 4.49e8 32.14
153/168 1.15e9 32.68
PCB-141 4.22e8 32.81
PCB-137 4.67e8 33.34
PCB-158 6.16e8 34.02
163/138... 1.47e9 33.71
HxCB Std.
23.53-34.41
371.8817 Fn4
Flags: PBM
4σ 4.70e3
ES-155 3.97e7 26.71
ES-153 2.90e7 32.64
JS-138 2.66e7 33.67
HxCB Std.
23.53-34.41
373.8788 Fn4
Flags: PBM
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ES-155 3.11e7 26.71
ES-153 2.26e7 32.64
JS-138 2.08e7 33.67
QC Check
23.53-34.41
330.9792 Fn4
Flags: -
Rel. Int.
Abs. Int.
RT
24.0
26.0
28.0
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34.0
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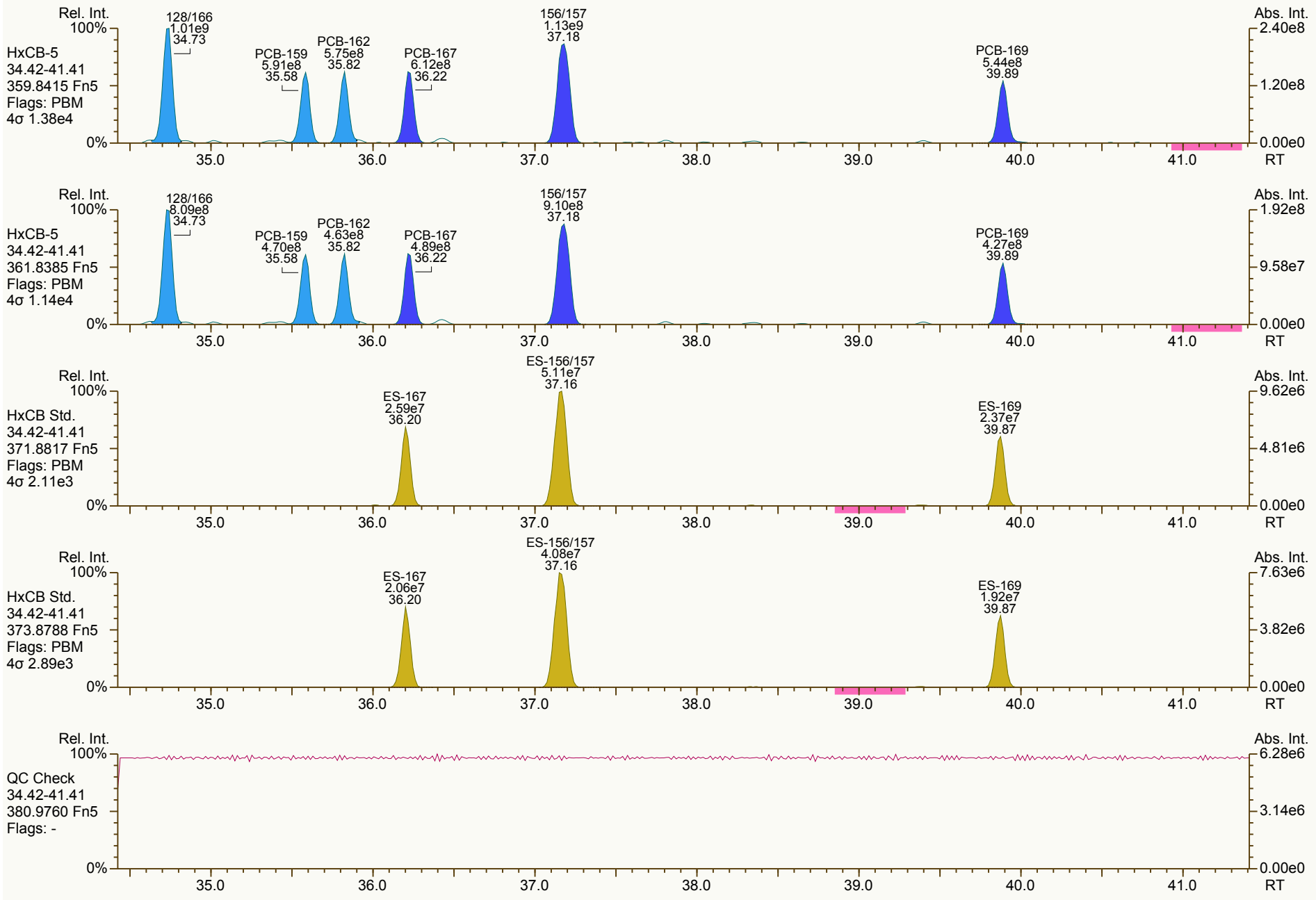
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9823, 6105 scc: 067-301
Revised: 14-Dec-2012 10:08 (CEM) Printed: 14-Dec-2012 11:22 Page 13 of 22

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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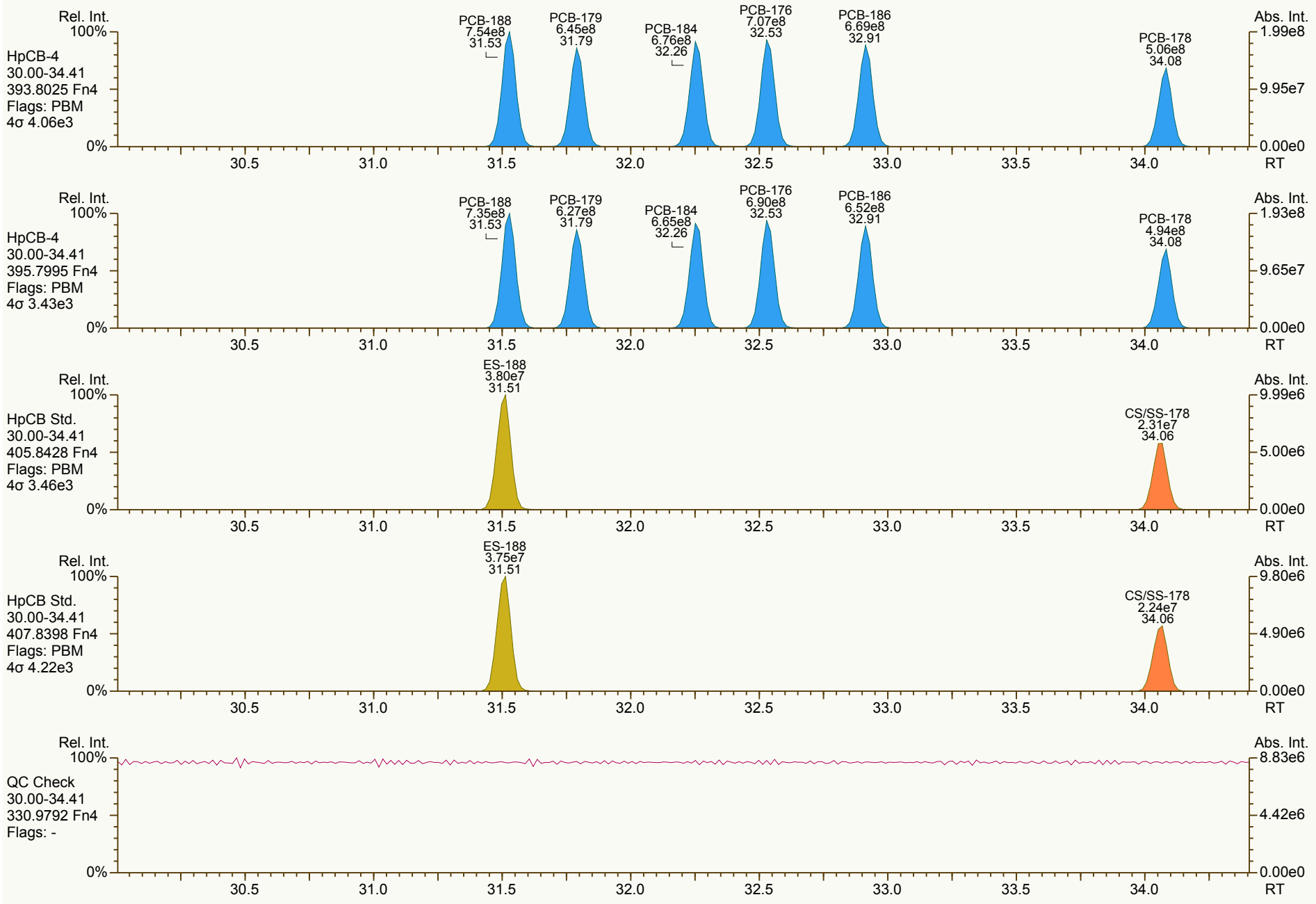

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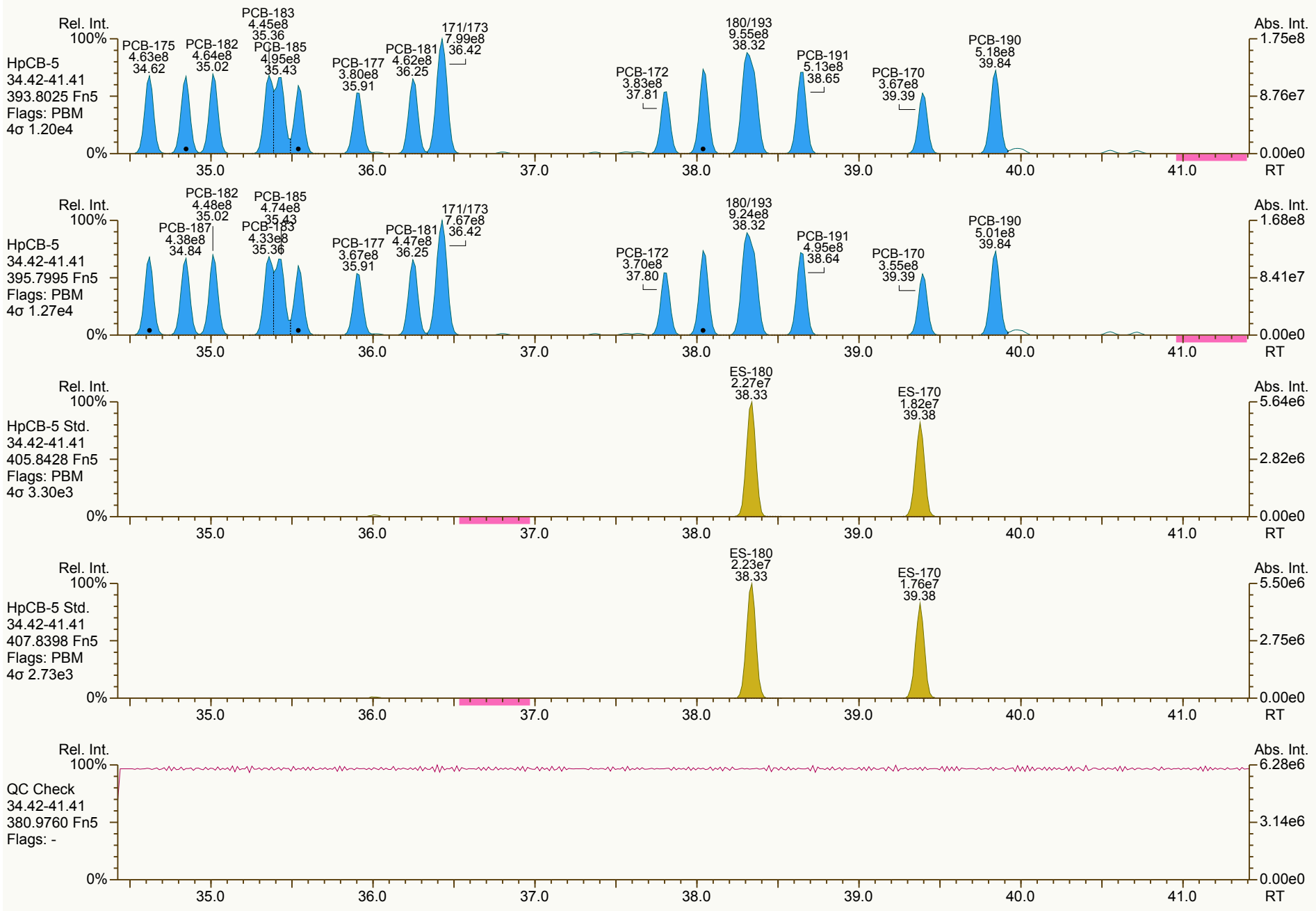
SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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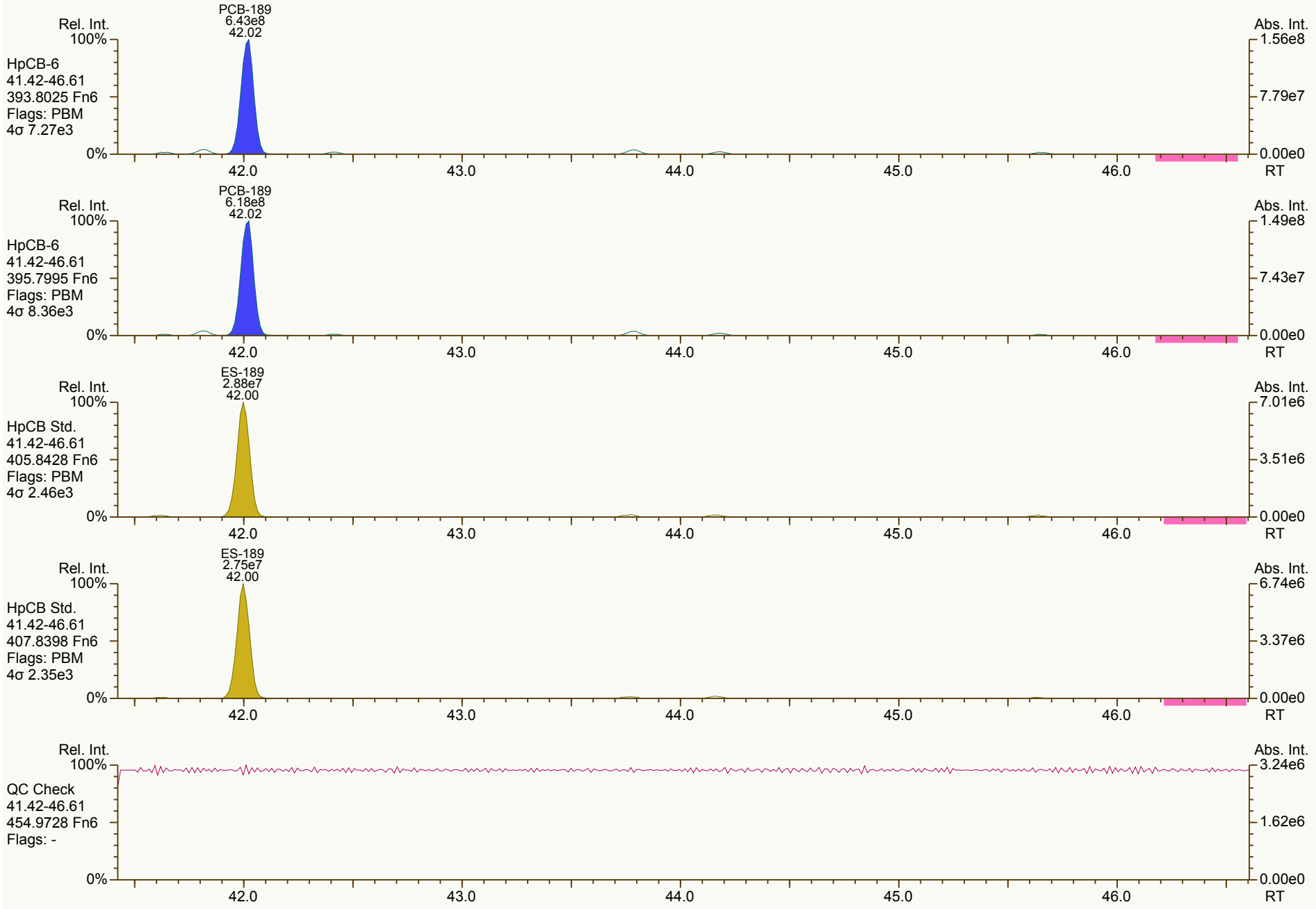
SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15 | User: CEM Datafile: 121214V07 (EQ)



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Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

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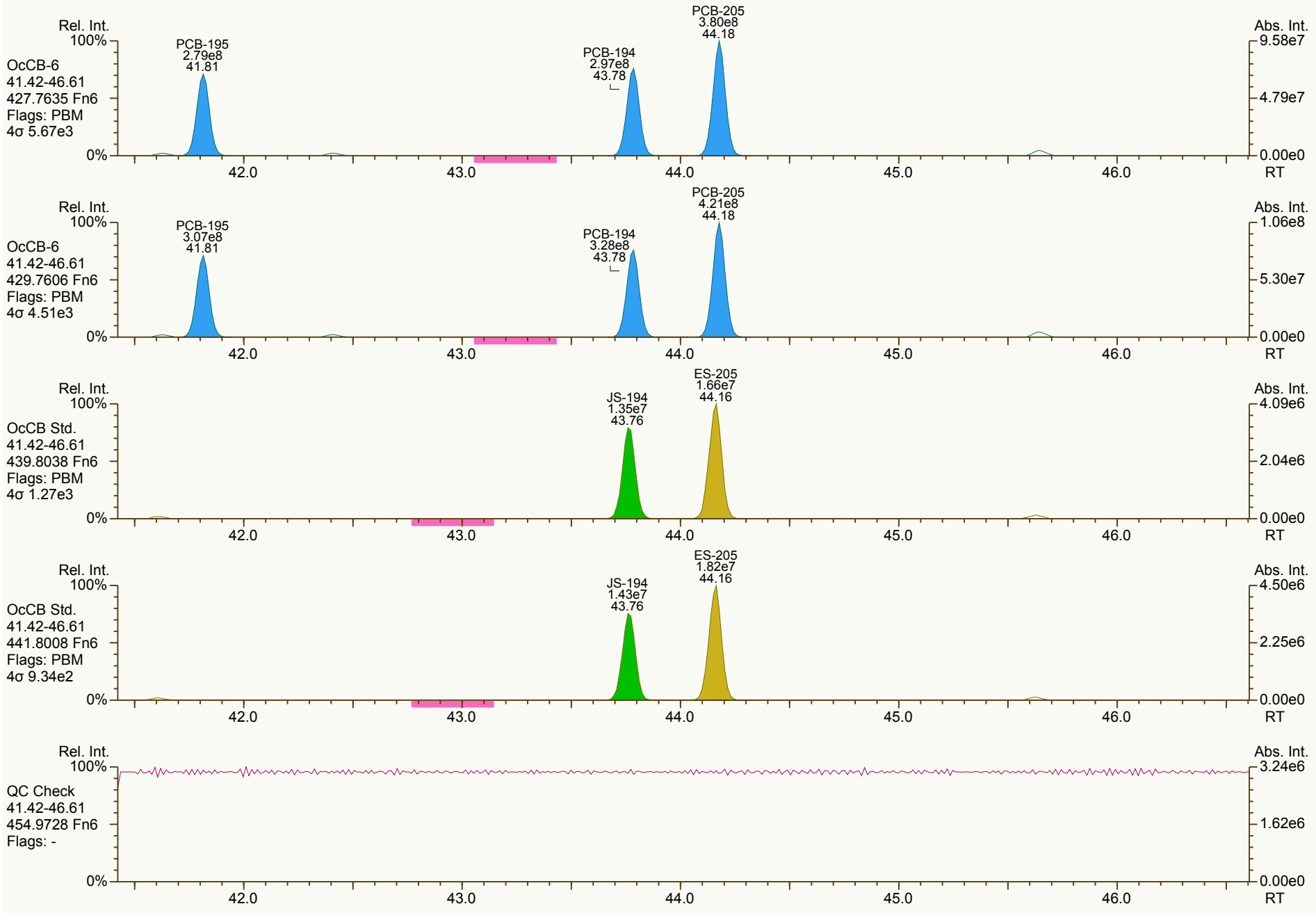
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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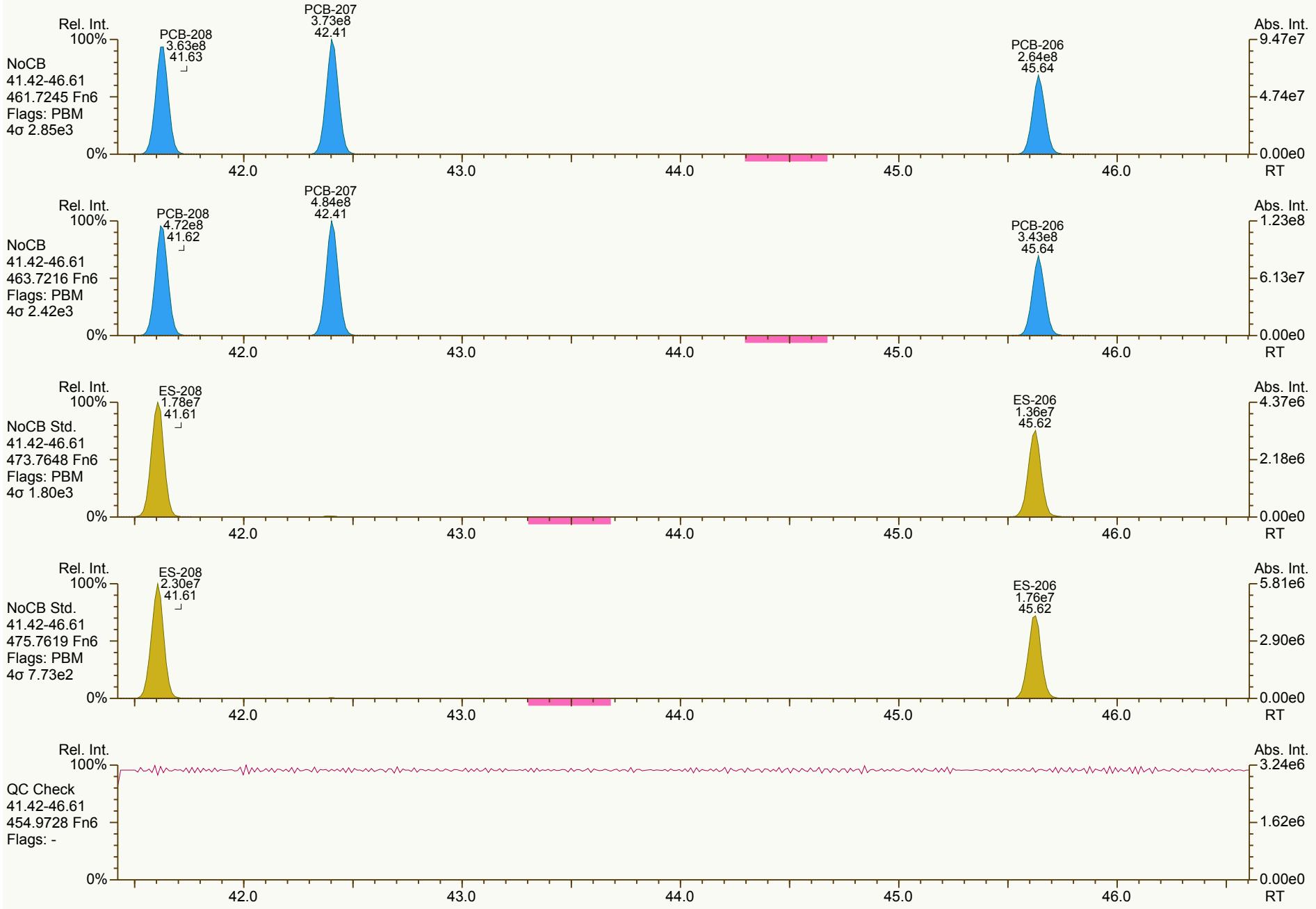

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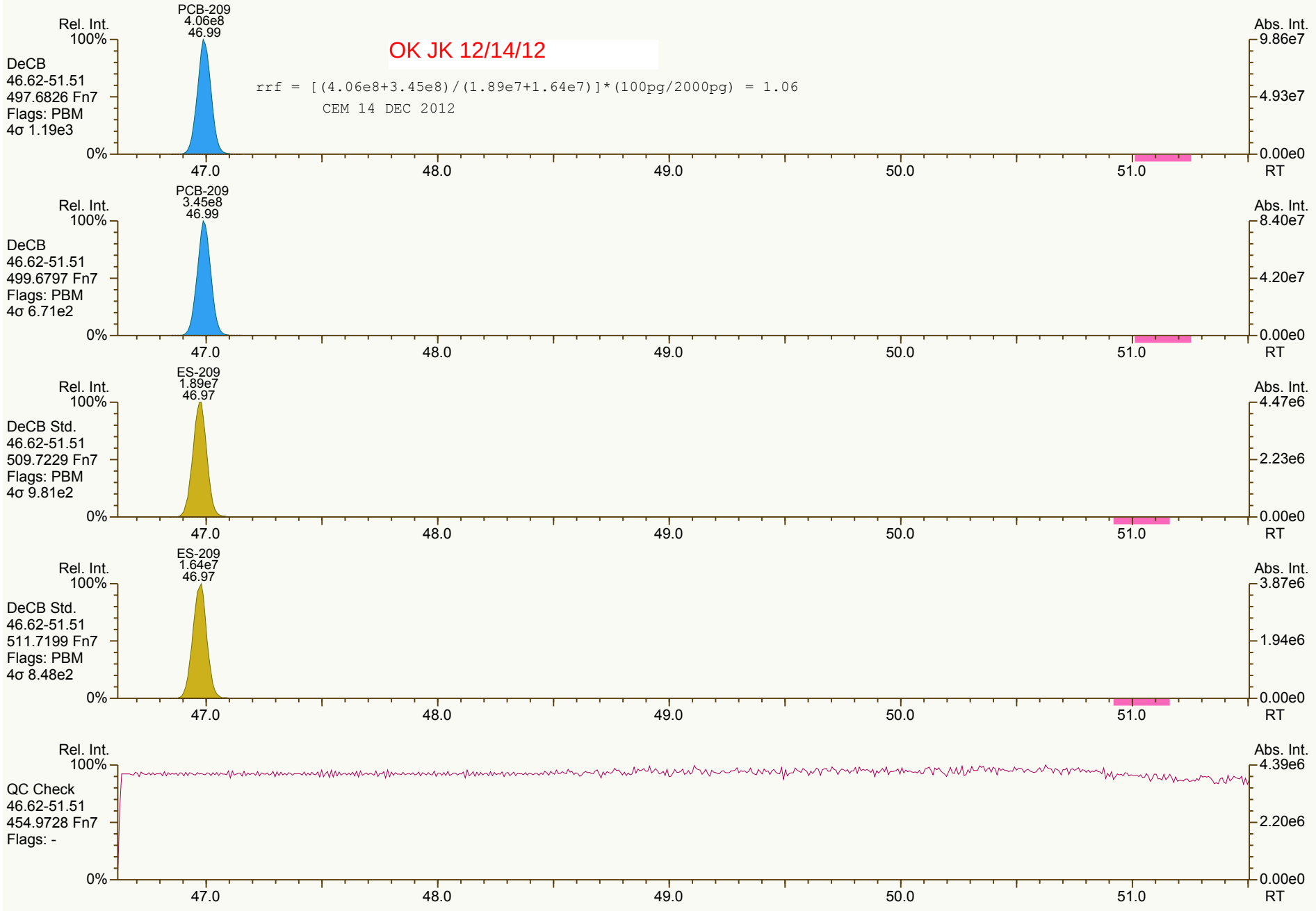
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Printed: Friday, December 14, 2012 02:28:34 Eastern Standard Time

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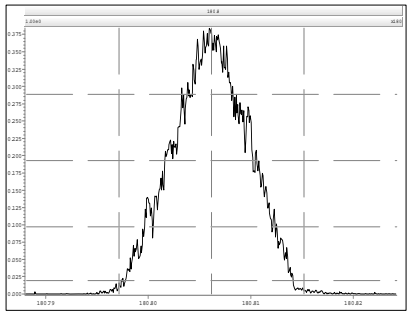
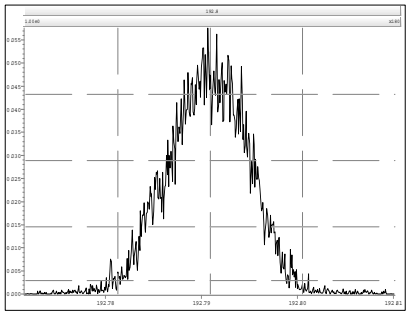
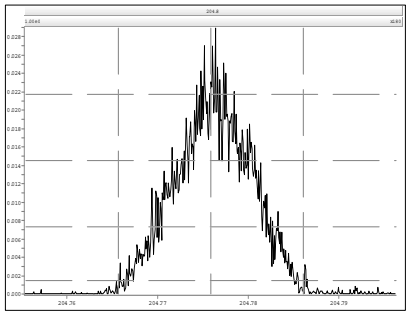


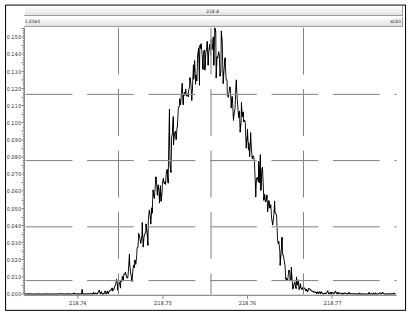
M 192.9888 R 11367



M 204.9888 R 11185



M 218.9856 R 10798



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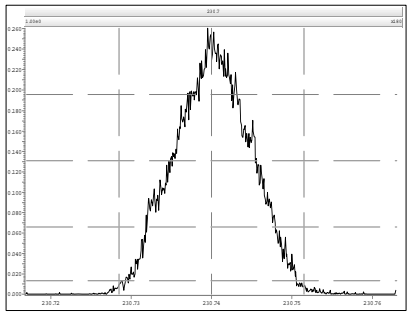
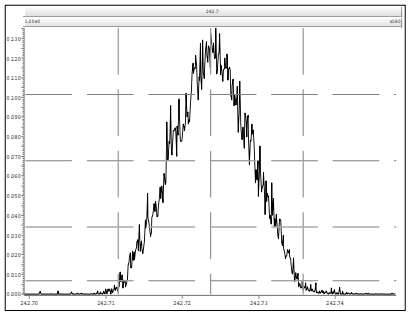


M 242.9856 R 10991



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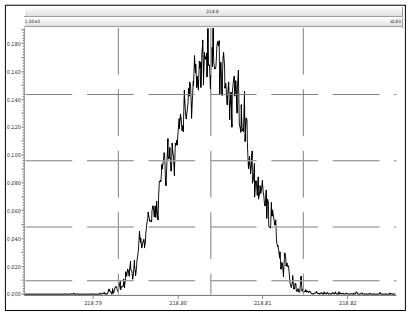

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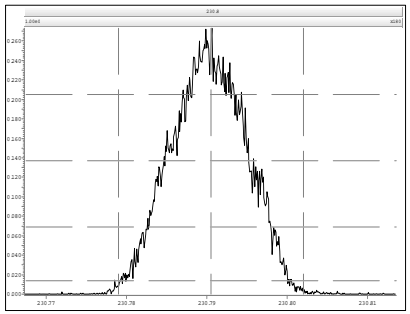

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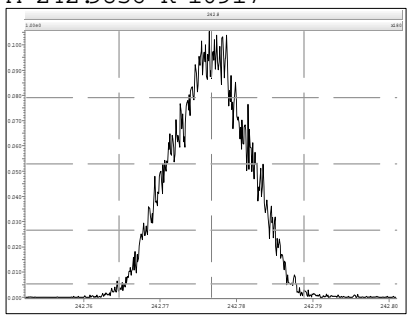

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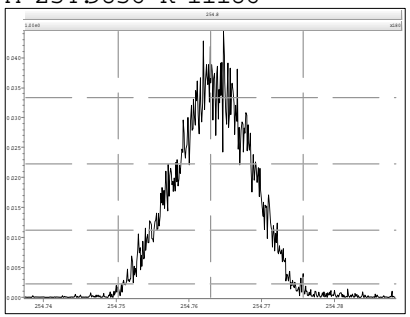
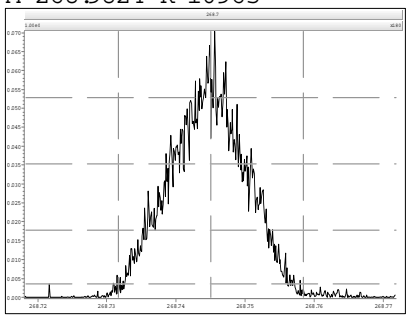
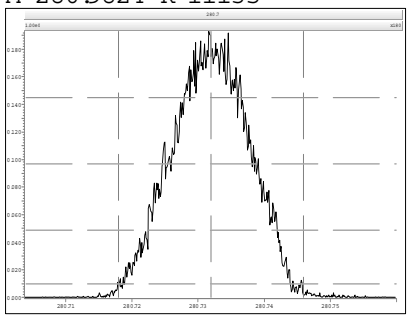


M 268.9824 R 10965



M 280.9824 R 11135



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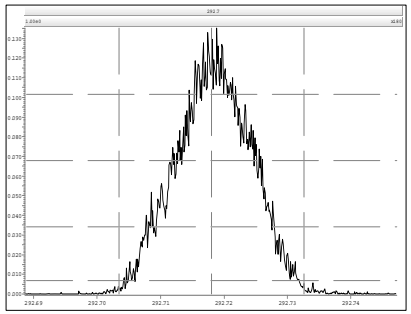

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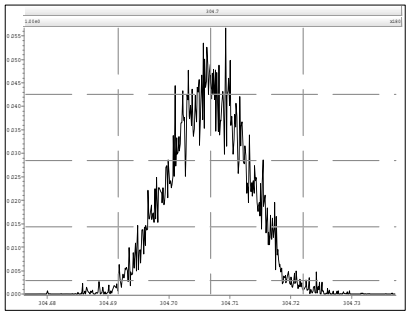

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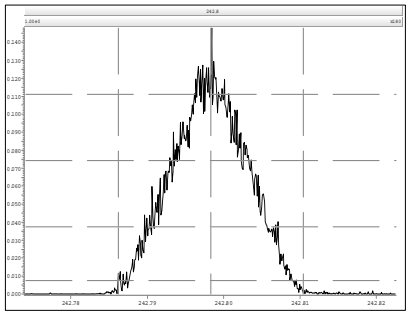

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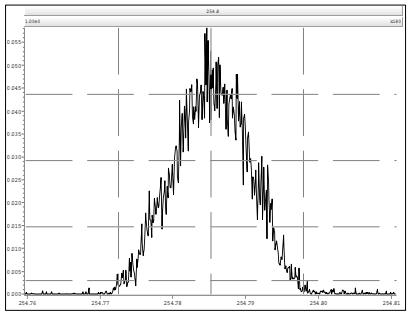

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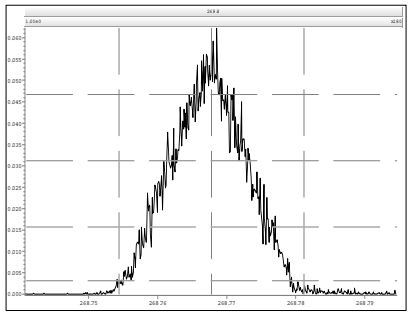

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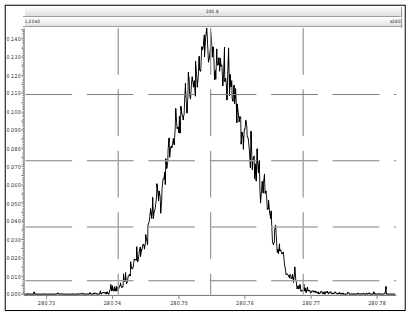

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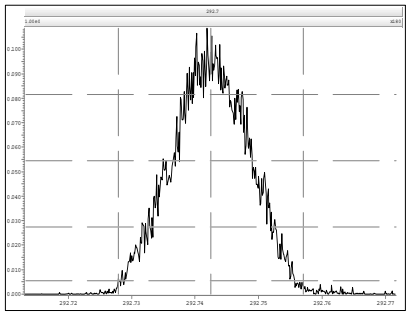
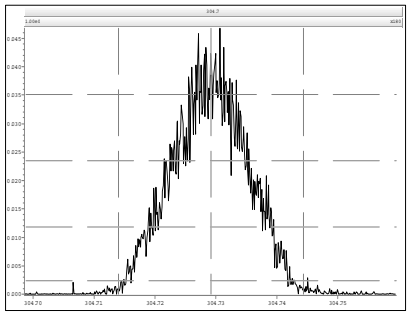


M 304.9824 R 11685



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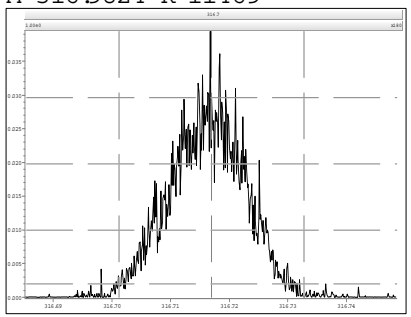
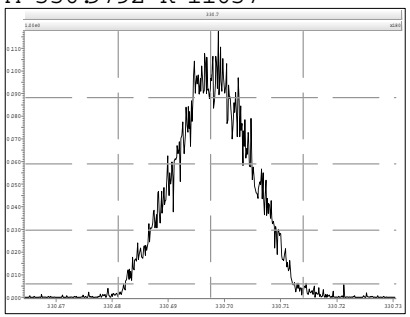
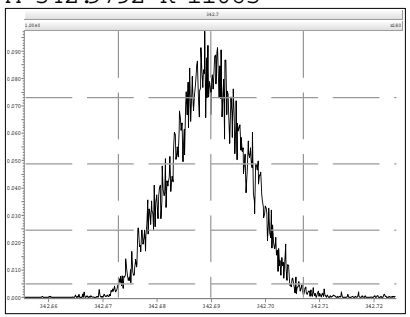


M 330.9792 R 11037



M 342.9792 R 11065



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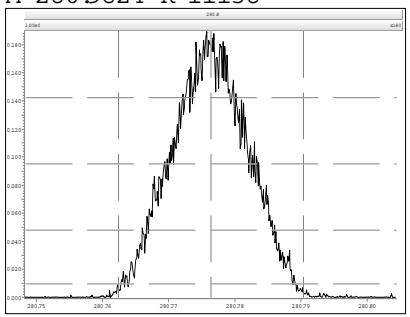

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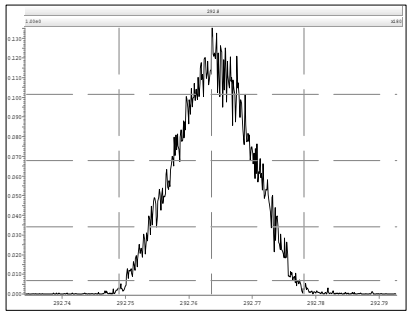
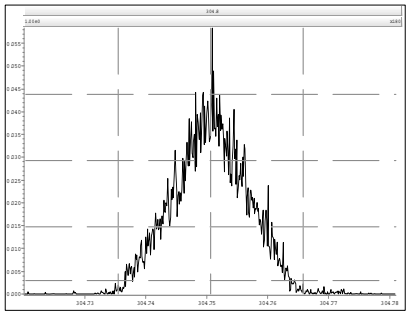


M 304.9824 R 11286



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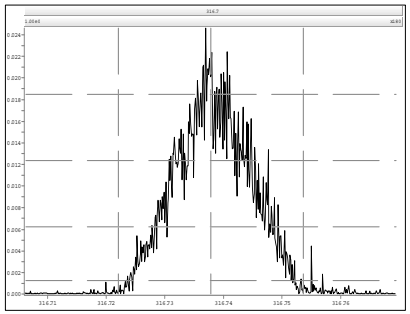

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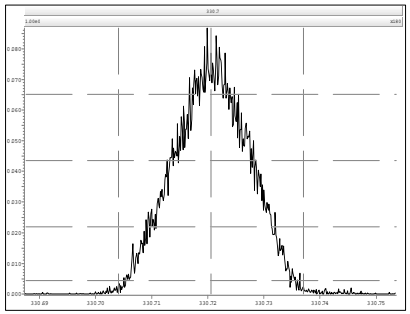

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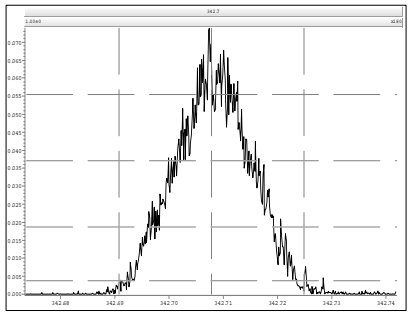

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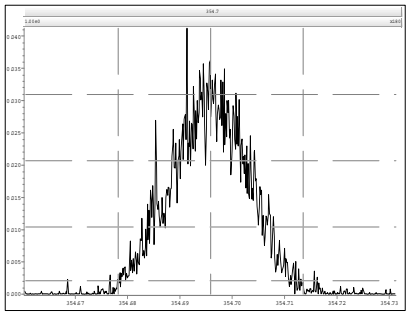

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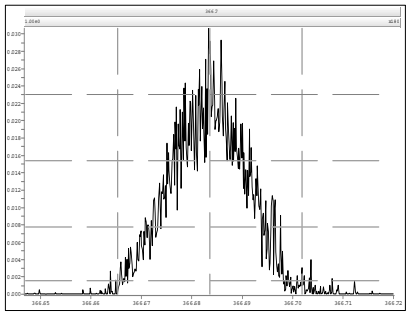

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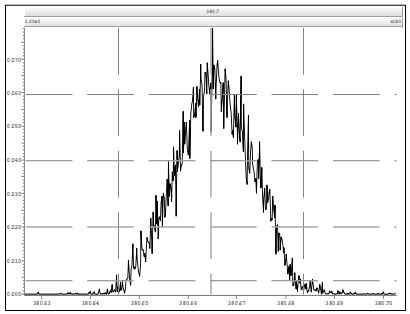

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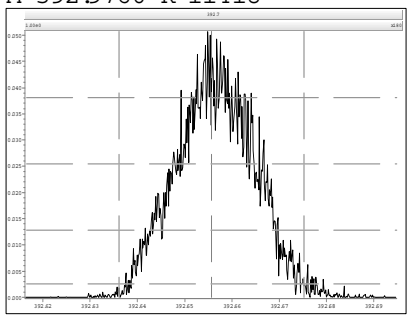

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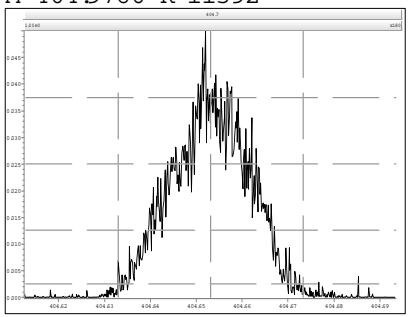

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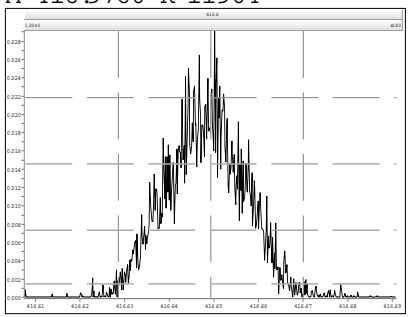

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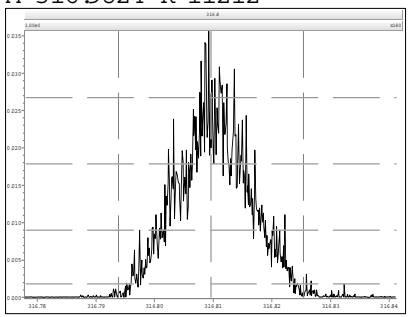

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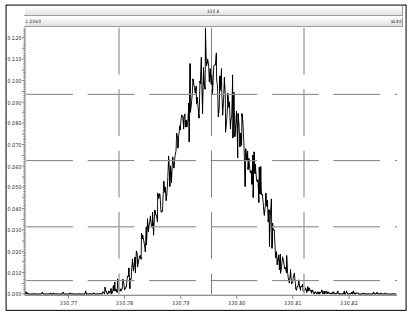

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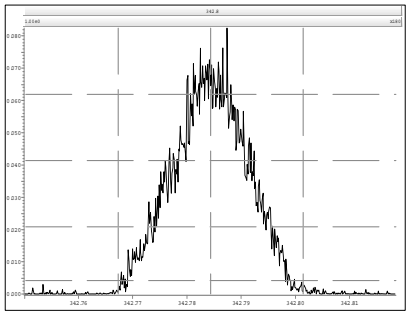

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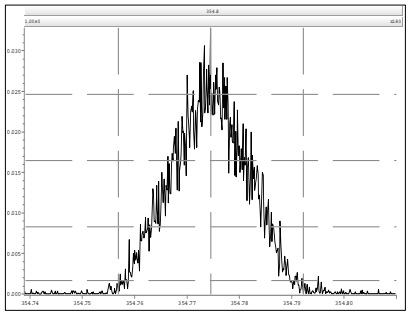

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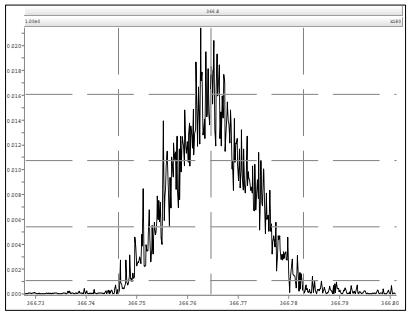

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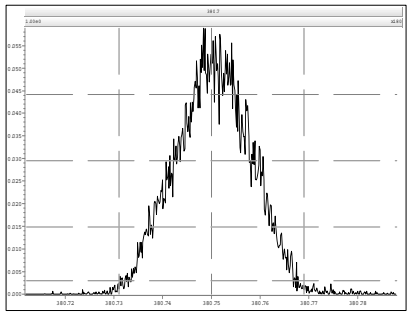

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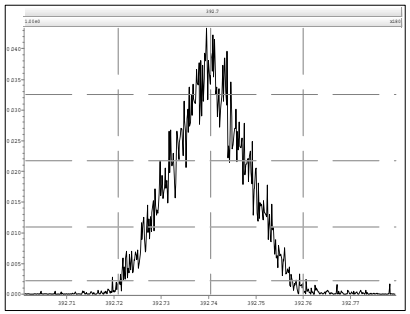

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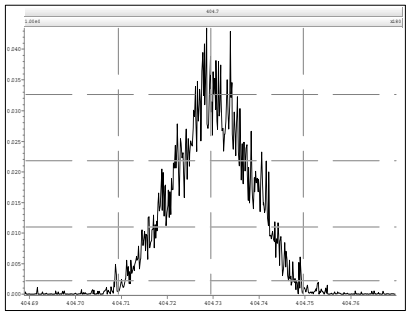

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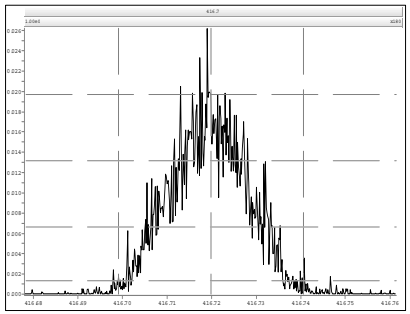

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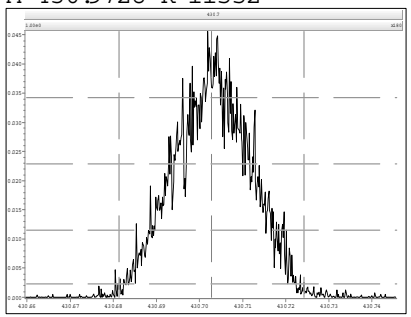

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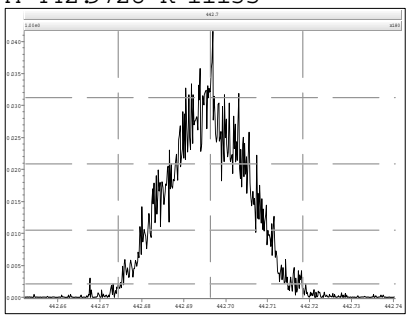

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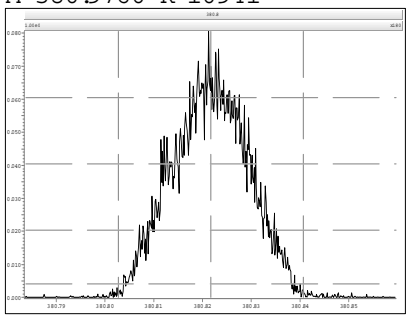

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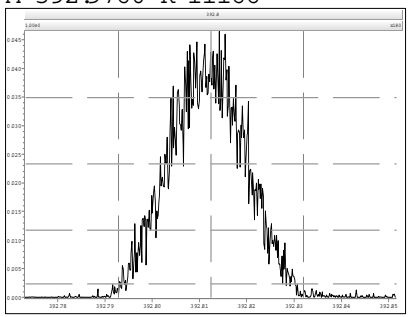

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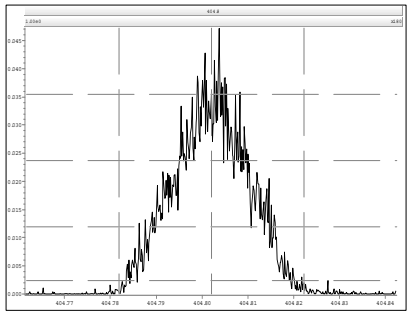

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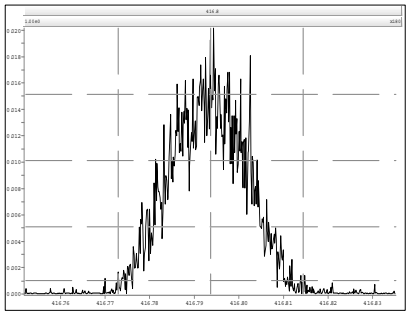

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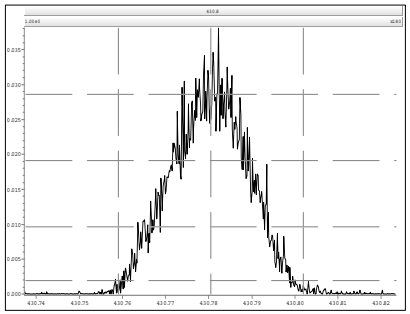

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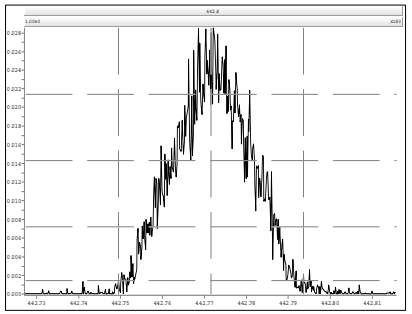

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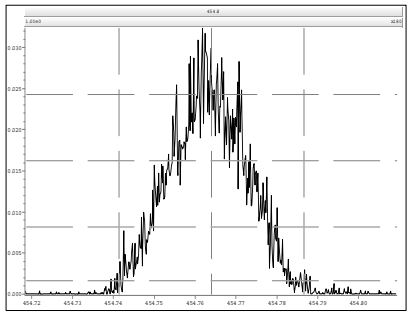

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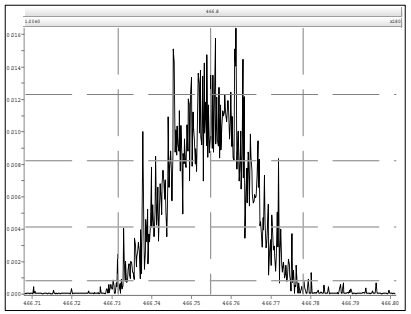

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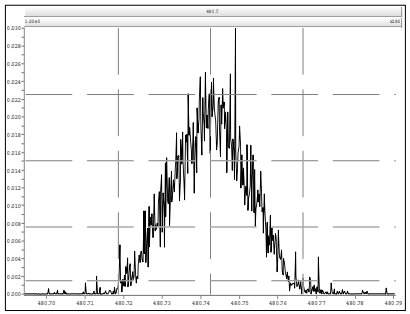

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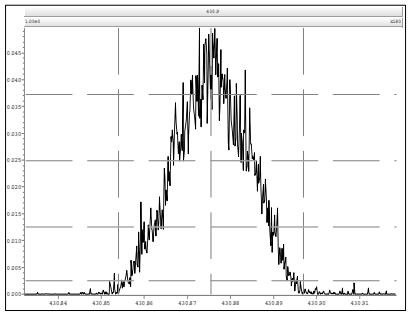

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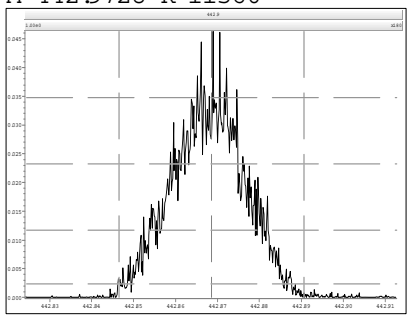

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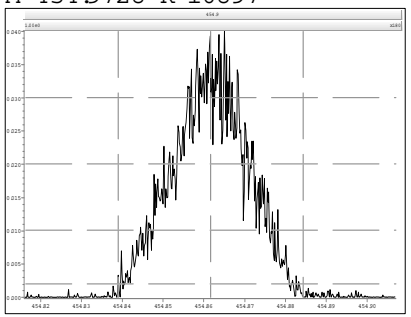

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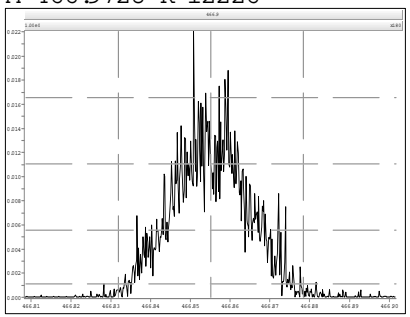
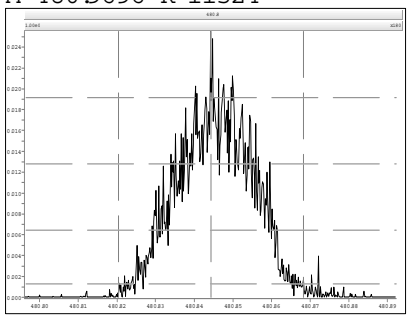


M 480.9696 R 11524



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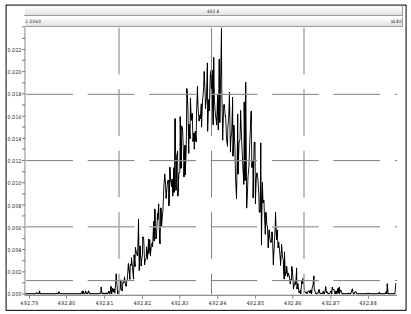

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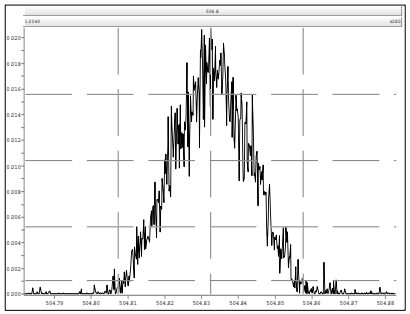

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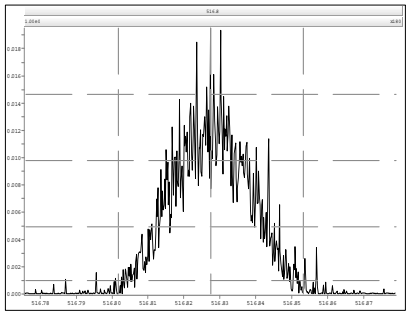

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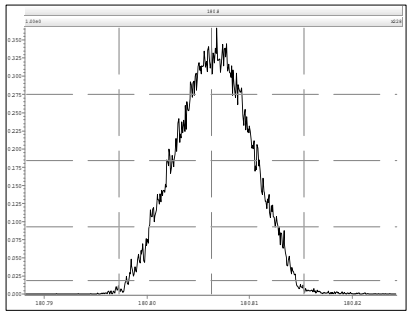

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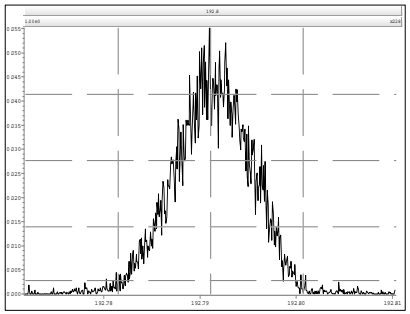

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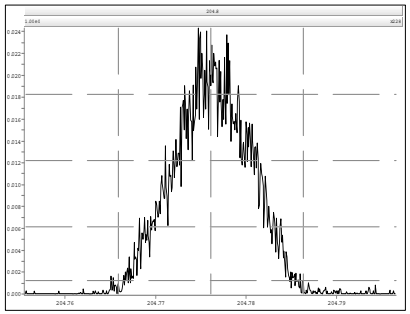

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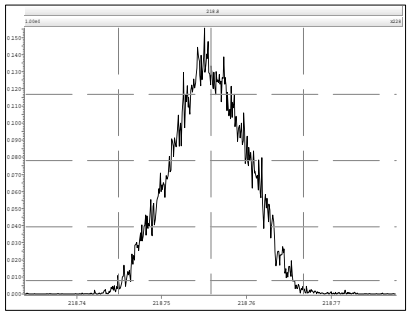

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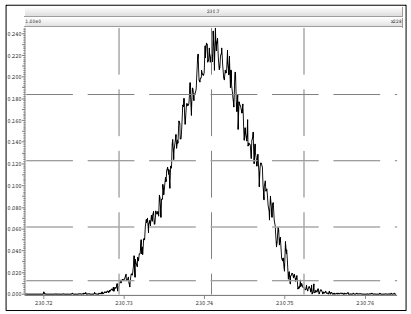

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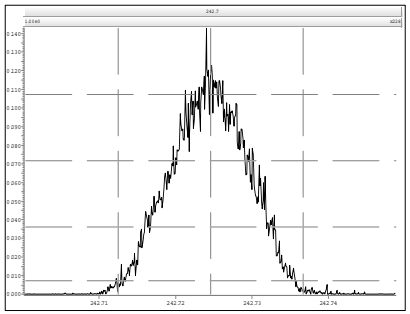

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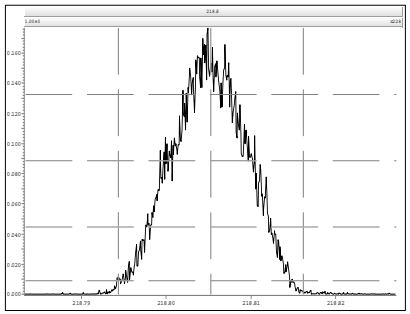

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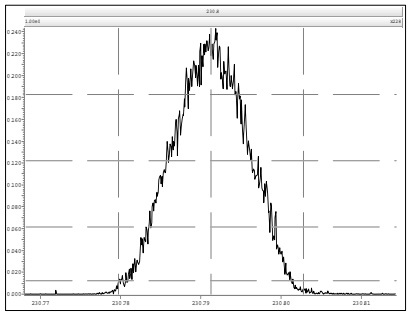

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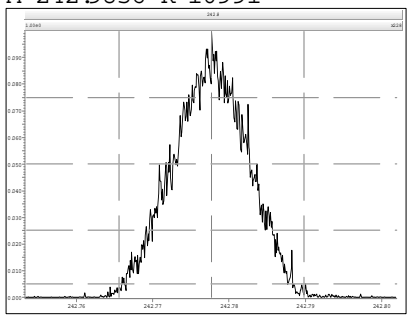

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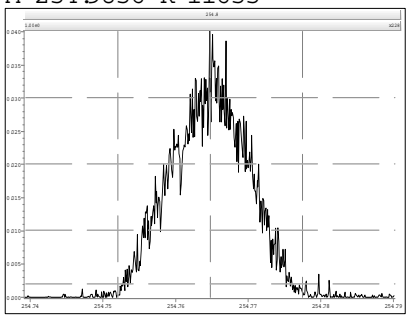

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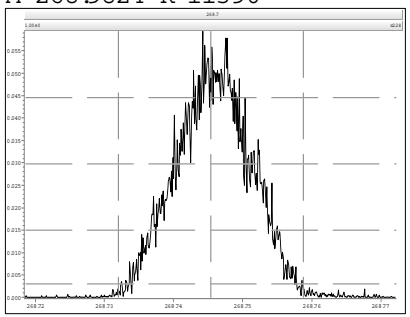

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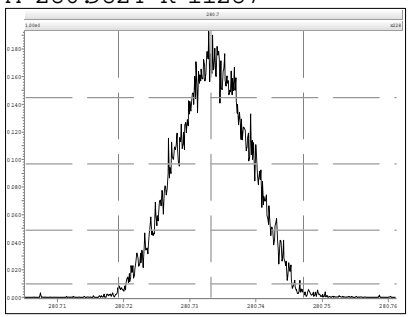

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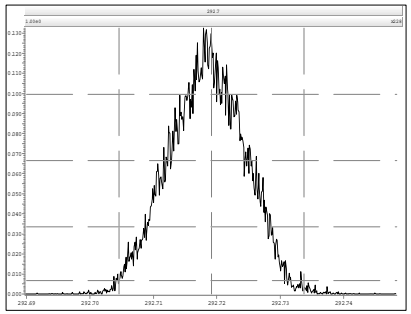

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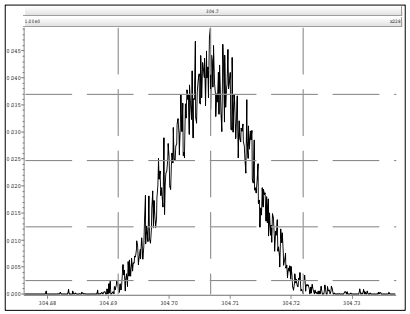

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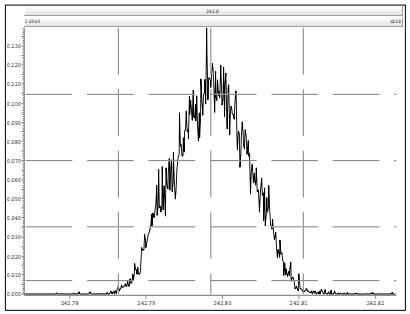

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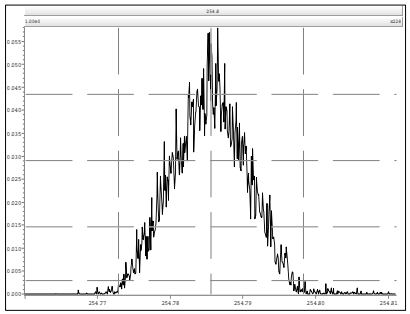
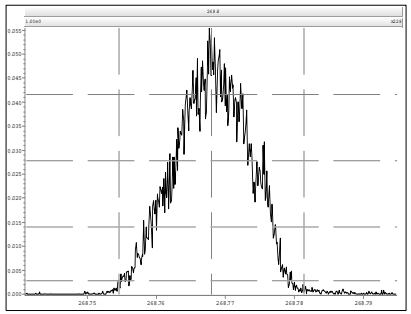
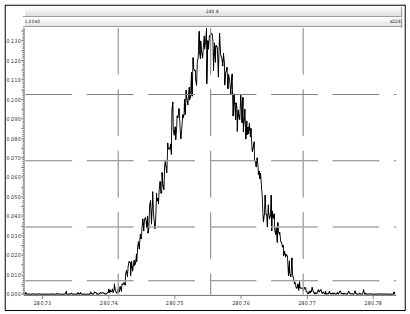


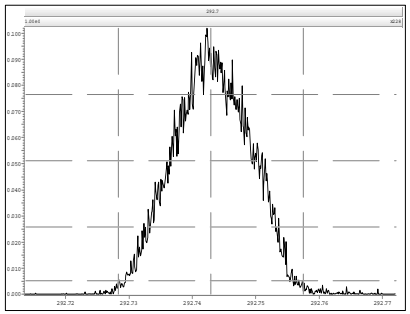
M 268.9824 R 11252



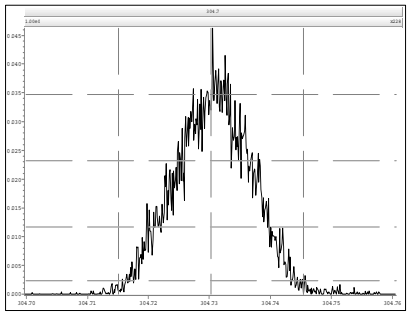
M 280.9824 R 10965



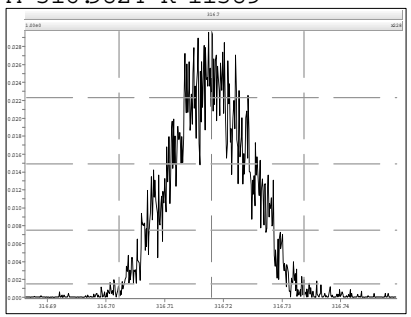
M 292.9824 R 11138



M 304.9824 R 11991



M 316.9824 R 11389



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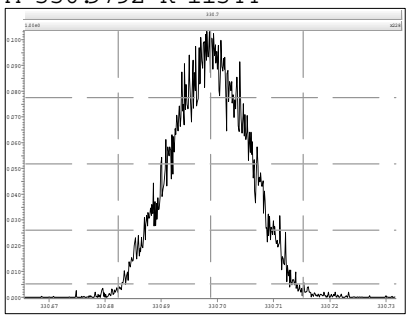

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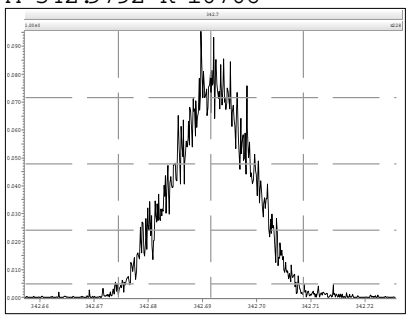

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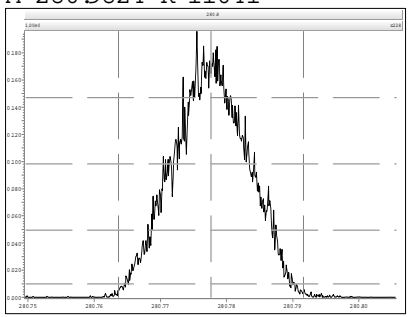

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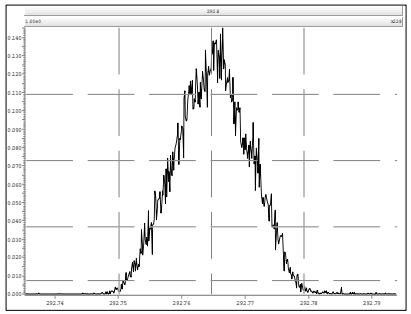

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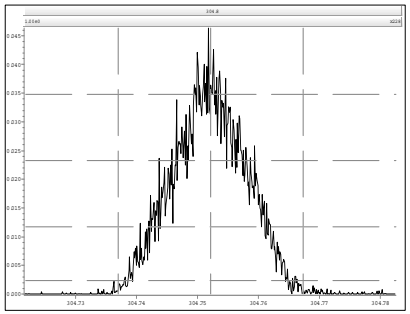

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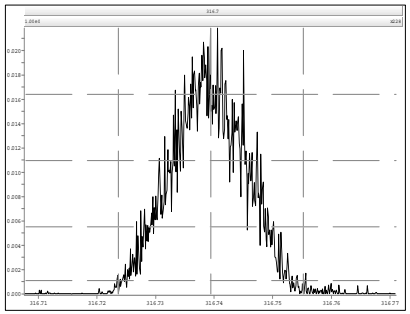

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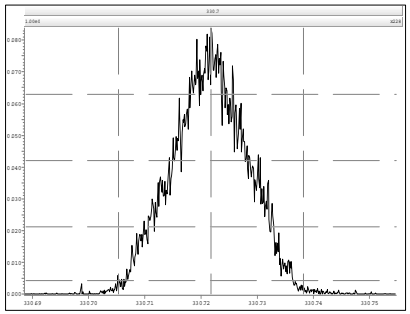

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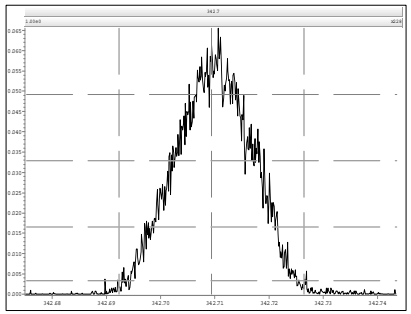

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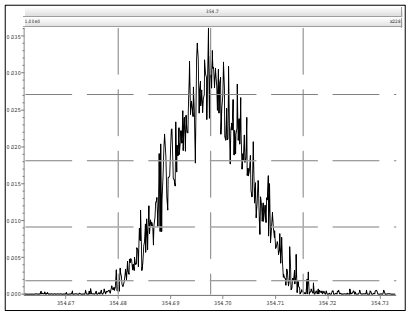

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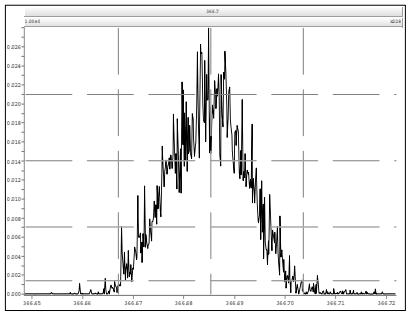
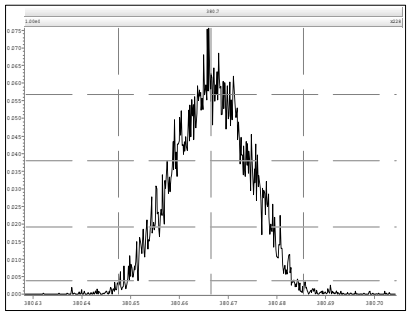


M 380.9760 R 11261



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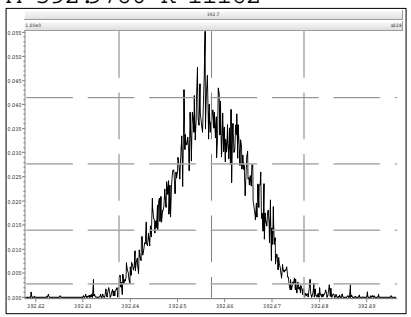

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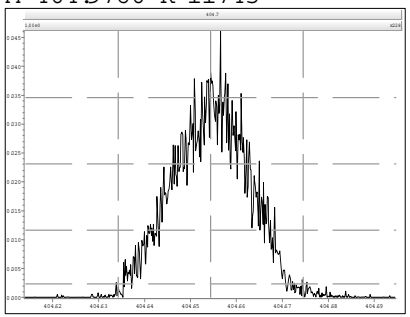

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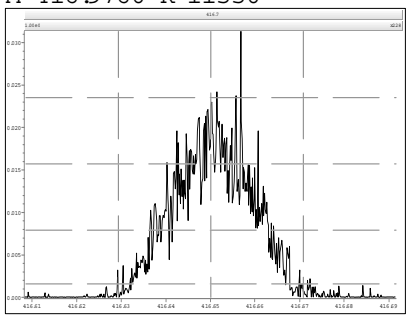

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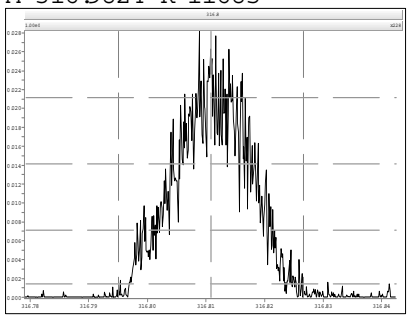
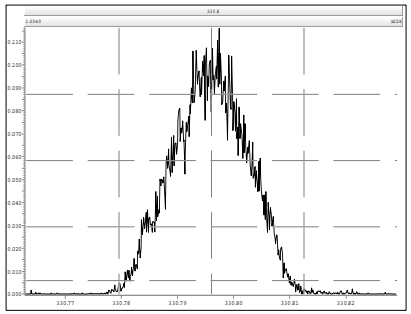


M 330.9792 R 11389



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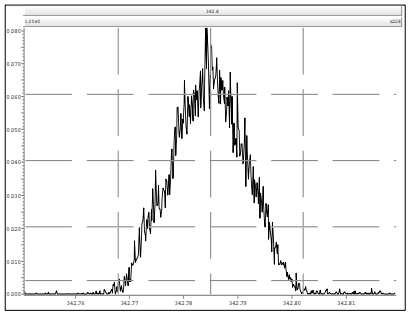

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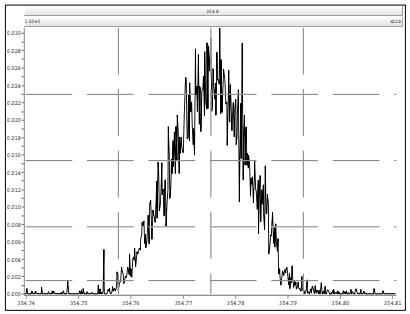
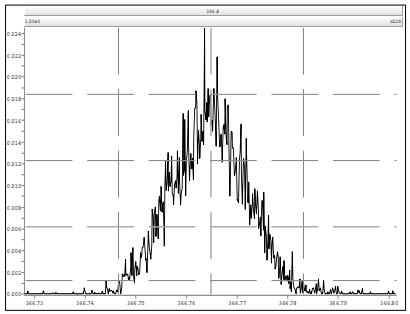


M 366.9792 R 11086



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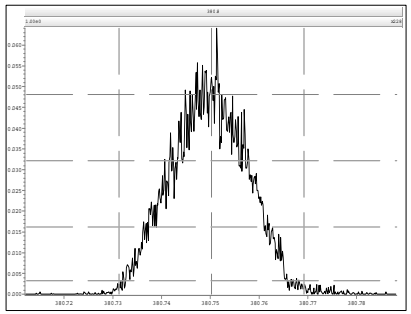

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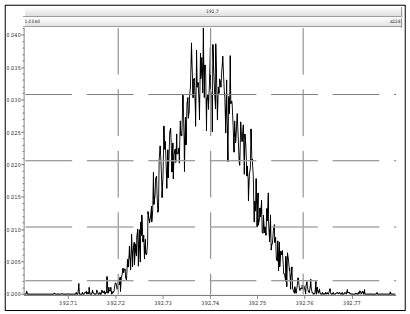

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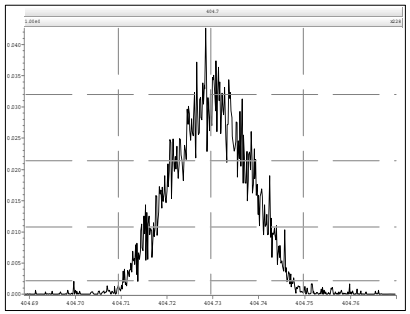

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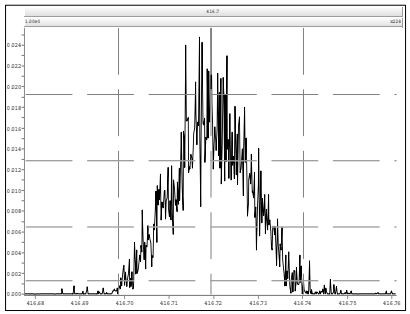

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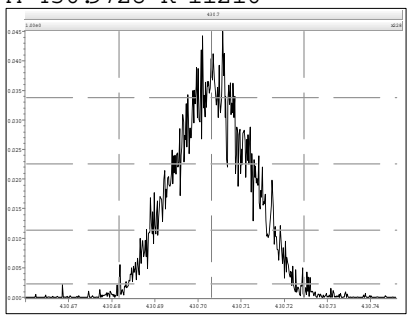

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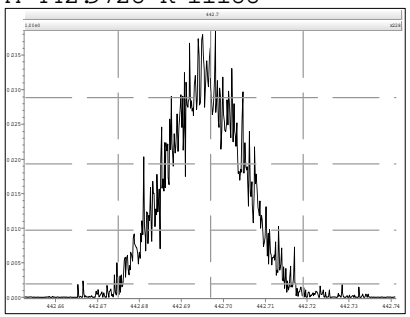
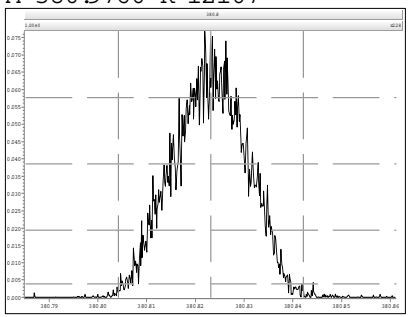
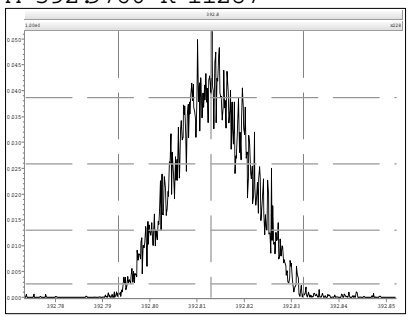


M 380.9760 R 12107



M 392.9760 R 11287



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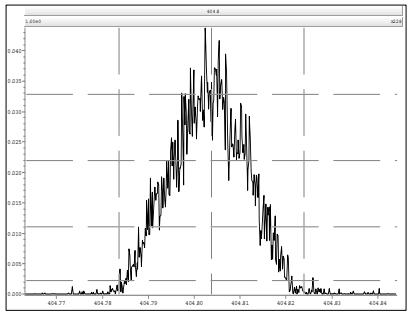

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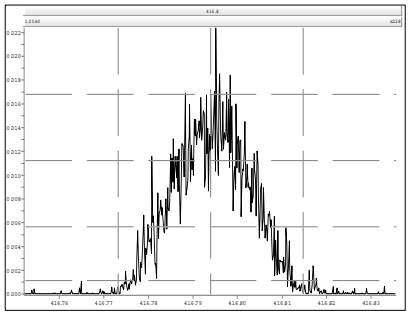
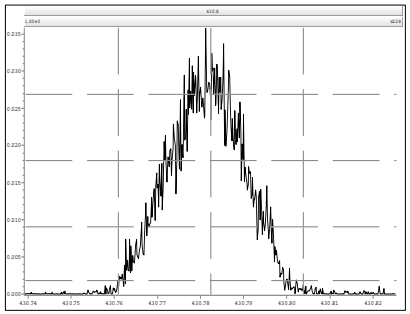
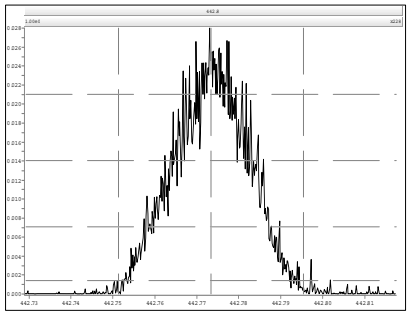


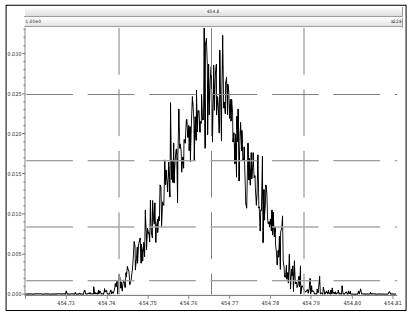
M 430.9728 R 11494



M 442.9728 R 11444



M 454.9728 R 11655



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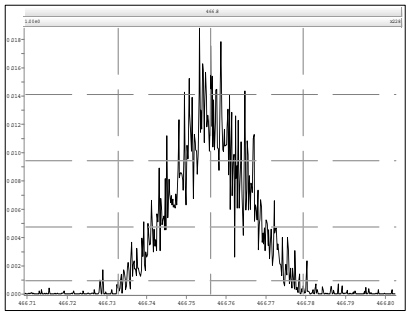
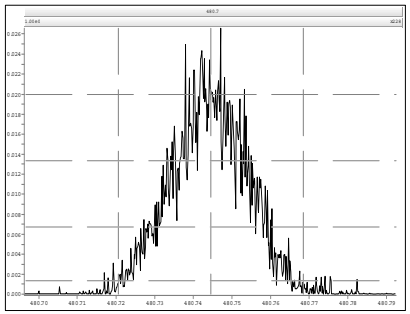


M 480.9696 R 11995



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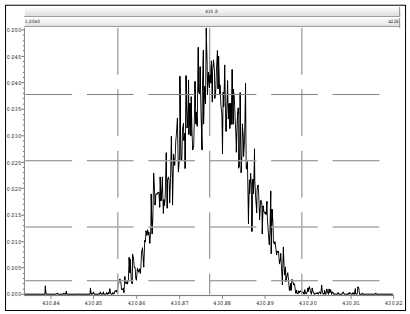
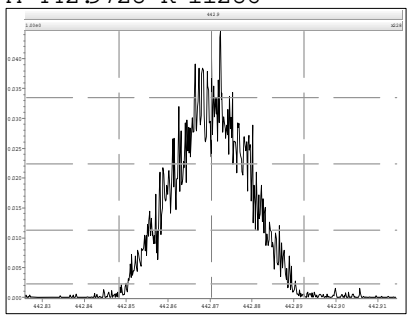
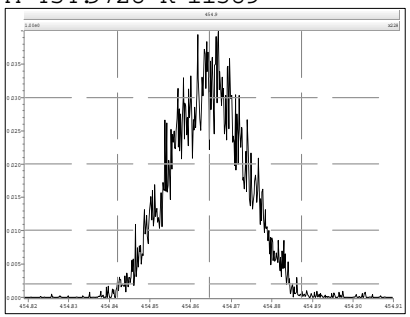


M 442.9728 R 11286



M 454.9728 R 11389



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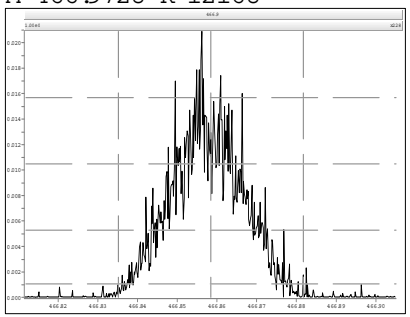

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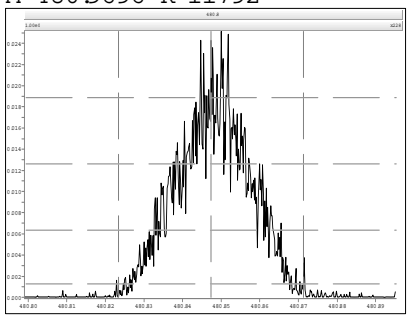

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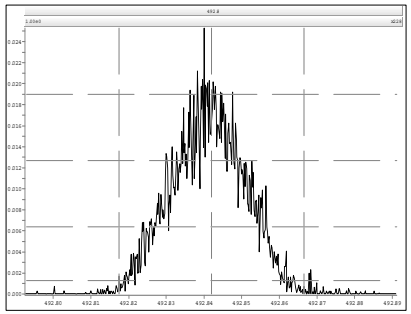
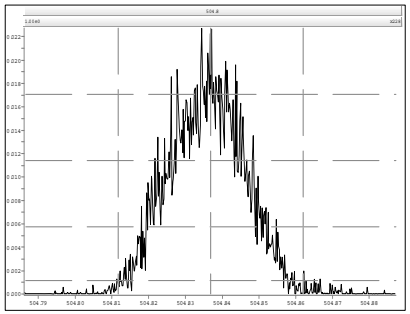
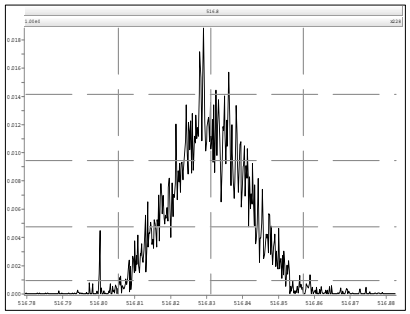
M 492.9696 R 11416



M 504.9696 R 11808



M 516.9697 R 11550



Datafile: 130202V02 **Client ID:** 0_10601_OPR001 **Wt/Vol:** 1 µL **ICAL:** MM6_PCB_07132012_14DEC12 CS3_130202_PCB_VA

Acquired: 02 Feb 2013 17:00:40 **Lab ID:** OPR1_10601_PCB **J-level:** 10 pg/uL **Nominal ES spike:** 100 pg

Checkcode: 69-971-CP

OPR1_10601_PCB Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Noise	DL
PCB-77 33'44'-TeCB	30.85		1.0007	1.0006	-0.2	6.03E+06	0.78	1.25	50.7	8.84E+03	0.799
PCB-81 344'5-TeCB	30.38		1.0006	1.0006	0	5.86E+06	0.79	1.26	50.7	8.84E+03	0.779
PCB-105 233'44'-PeCB	33.83		1.0007	1.0007	0	4.35E+06	0.63	1.06	49.4	4.12E+03	0.506
PCB-114 2344'5-PeCB	33.29		1.0007	1.0007	0	4.55E+06	0.63	1.11	46.7	4.12E+03	0.487
PCB-118 23'44'5-PeCB	32.84		1.0007	1.0007	0	4.50E+06	0.62	1.08	49.7	4.12E+03	0.482
PCB-123 23'44'5'-PeCB	32.56		1.0007	1.0007	0	4.59E+06	0.63	1.12	49.6	4.12E+03	0.473
PCB-126 33'44'5-PeCB	36.44		1.0006	1.0005	-0.2	4.79E+06	0.62	1.16	48.8	2.09E+03	0.228
PCB-156/157 ...-HxCB	39.00	C	1.0005	1.0005	0	8.17E+06	1.25	1.14	96.3	2.18E+03	0.347
PCB-167 23'44'55'-HxCB	38.03		1.0006	1.0005	-0.2	4.47E+06	1.23	1.18	48.2	2.18E+03	0.258
PCB-169 33'44'55'-HxCB	41.73		1.0005	1.0005	0	3.55E+06	1.27	1.15	48.4	2.18E+03	0.351
PCB-189 233'44'55'-HpCB	43.87		1.0004	1.0004	0	4.96E+06	1.03	1.12	50.3	2.00E+03	0.241
									Recv.		
ES PCB-77	30.83		1.3597	1.3598	+0.2	9.52E+06	0.86	1.20	103 %	30%	140%
ES PCB-81	30.36		1.3388	1.3390	+0.4	9.18E+06	0.81	1.16	103 %	30%	140%
ES PCB-105	33.80		1.1823	1.1825	+0.4	8.35E+06	1.59	1.10	105 %	30%	140%
ES PCB-114	33.27		1.1636	1.1637	+0.2	8.74E+06	1.59	1.16	105 %	30%	140%
ES PCB-118	32.82		1.1478	1.1479	+0.2	8.39E+06	1.49	1.15	101 %	30%	140%
ES PCB-123	32.54		1.1380	1.1381	+0.2	8.27E+06	1.54	1.14	100 %	30%	140%
ES PCB-126	36.43		1.2739	1.2742	+0.7	8.50E+06	1.60	1.34	87.8 %	30%	140%
ES PCB-156/157	38.98		1.0993	1.0993	0	1.49E+07	1.26	0.98	91.2 %	30%	140%
ES PCB-167	38.01		1.0720	1.0720	0	7.86E+06	1.23	1.01	93.2 %	30%	140%
ES PCB-169	41.71		1.1762	1.1764	+0.5	6.36E+06	1.23	0.90	84.7 %	30%	140%
ES PCB-189	43.85		0.9612	0.9612	0	8.84E+06	1.03	1.97	87.4 %	30%	140%
SS PCB-28	21.08		0.9298	0.9297	-0.1	9.96E+06	1.12	1.18	98.4 %	40%	125%
SS PCB-111	30.88		1.0802	1.0803	+0.2	9.01E+06	1.50	1.01	108 %	40%	125%
SS PCB-178	35.84		1.0110	1.0110	0	8.31E+06	1.02	0.60	106 %	40%	125%
CS PCB-28	21.08		0.9298	0.9297	-0.1	9.96E+06	1.12	1.52	85.5 %	40%	125%
CS PCB-111	30.88		1.0802	1.0803	+0.2	9.01E+06	1.50	1.15	109 %	40%	125%
CS PCB-178	35.84		1.0110	1.0110	0	8.31E+06	1.02	0.98	102 %	40%	125%
JS PCB-9	14.85					1.03E+07	1.65				
JS PCB-52	22.67					7.65E+06	0.76				
JS PCB-101	28.59					7.22E+06	1.57				
JS PCB-138	35.45					8.36E+06	1.26				
JS PCB-194	45.62					5.14E+06	0.92				

APPROVED
By Amy Boehm at 4:27 pm, Feb 04, 2013

METHOD HR-PCB **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8A**

Lab Name: SGS Analytical Perspectives
Initial Calibration: ICAL: MM6_PCB_07132012_14DEC12
Instrument ID: MM6 GC Column ID:
VER Data Filename: 130202V02 Analysis Date: 02-FEB-2013 17:00:40
Lab ID: OPR1_10601_PCB

NATIVE ANALYTES	SPIKE CONC.	RECOVERY	RANGE (%)			OK
PCB-1 2-MoCB	50	108	50	-	150	Y
PCB-3 4-MoCB	50	111	50	-	150	Y
PCB-4 22'-DiCB	50	103	50	-	150	Y
PCB-15 44'-DiCB	50	103	50	-	150	Y
PCB-19 22'6-TrCB	50	100	50	-	150	Y
PCB-37 344'-TrCB	50	105	50	-	150	Y
PCB-54 22'66'-TeCB	50	107	50	-	150	Y
PCB-77 33'44'-TeCB	50	101	50	-	150	Y
PCB-81 344'5-TeCB	50	101	50	-	150	Y
PCB-104 22'466'-PeCB	50	106	50	-	150	Y
PCB-105 233'44'-PeCB	50	98.8	50	-	150	Y
PCB-114 2344'5-PeCB	50	93.5	50	-	150	Y
PCB-118 23'44'5-PeCB	50	99.4	50	-	150	Y
PCB-123 23'44'5'-PeCB	50	99.2	50	-	150	Y
PCB-126 33'44'5-PeCB	50	97.7	50	-	150	Y
PCB-155 22'44'66'-HxCB	50	100	50	-	150	Y
PCB-156/157 ...-HxCB	100	96.3	50	-	150	Y
PCB-167 23'44'55'-HxCB	50	96.4	50	-	150	Y
PCB-169 33'44'55'-HxCB	50	96.7	50	-	150	Y
PCB-188 22'34'566'-HpCB	50	101	50	-	150	Y
PCB-189 233'44'55'-HpCB	50	101	50	-	150	Y
PCB-202 22'33'55'66'-OcCB	50	97.9	50	-	150	Y
PCB-205 233'44'55'6-OcCB	50	99.7	50	-	150	Y
PCB-206 22'33'44'55'6-NoCB	50	99.4	50	-	150	Y
PCB-208 22'33'455'66'-NoCB	50	96.2	50	-	150	Y
PCB-209 DeCB	50	92.9	50	-	150	Y

Contract-required recovery limits for OPR as specified in Table 6,
Method 1668A.

Processed: 04 Feb 2013 12:25 Analyst: LB

METHOD HR-PCB **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8B**

Lab Name: SGS Analytical Perspectives
Initial Calibration: ICAL: MM6_PCB_07132012_14DEC12
Instrument ID: MM6 GC Column ID:
VER Data Filename: 130202V02 Analysis Date: 02-FEB-2013 17:00:40
Lab ID: OPR1_10601_PCB

LABELED STANDARDS	SPIKE CONC.	RECOVERY	RANGE (%)			OK
ES PCB-1	100	66.3	30	-	140	Y
ES PCB-3	100	75.2	30	-	140	Y
ES PCB-4	100	92.5	30	-	140	Y
ES PCB-15	100	98.9	30	-	140	Y
ES PCB-19	100	107	30	-	140	Y
ES PCB-37	100	86.9	30	-	140	Y
ES PCB-54	100	78.2	30	-	140	Y
ES PCB-77	100	103	30	-	140	Y
ES PCB-81	100	103	30	-	140	Y
ES PCB-104	100	77.1	30	-	140	Y
ES PCB-105	100	105	30	-	140	Y
ES PCB-114	100	105	30	-	140	Y
ES PCB-118	100	101	30	-	140	Y
ES PCB-123	100	100	30	-	140	Y
ES PCB-126	100	87.8	30	-	140	Y
ES PCB-153	100	96.8	30	-	140	Y
ES PCB-155	100	87.7	30	-	140	Y
ES PCB-156/157	200	91.2	30	-	140	Y
ES PCB-167	100	93.2	30	-	140	Y
ES PCB-169	100	84.7	30	-	140	Y
ES PCB-170	100	98.9	30	-	140	Y
ES PCB-180	100	99	30	-	140	Y
ES PCB-188	100	96.2	30	-	140	Y
ES PCB-189	100	87.4	30	-	140	Y
ES PCB-202	100	107	30	-	140	Y
ES PCB-205	100	92.3	30	-	140	Y
ES PCB-206	100	102	30	-	140	Y
ES PCB-208	100	112	30	-	140	Y
ES PCB-209	100	102	30	-	140	Y
CLEANUP STANDARDS						
CS PCB-28	100	85.5	40	-	125	Y
CS PCB-111	100	109	40	-	125	Y
CS PCB-178	100	102	40	-	125	Y

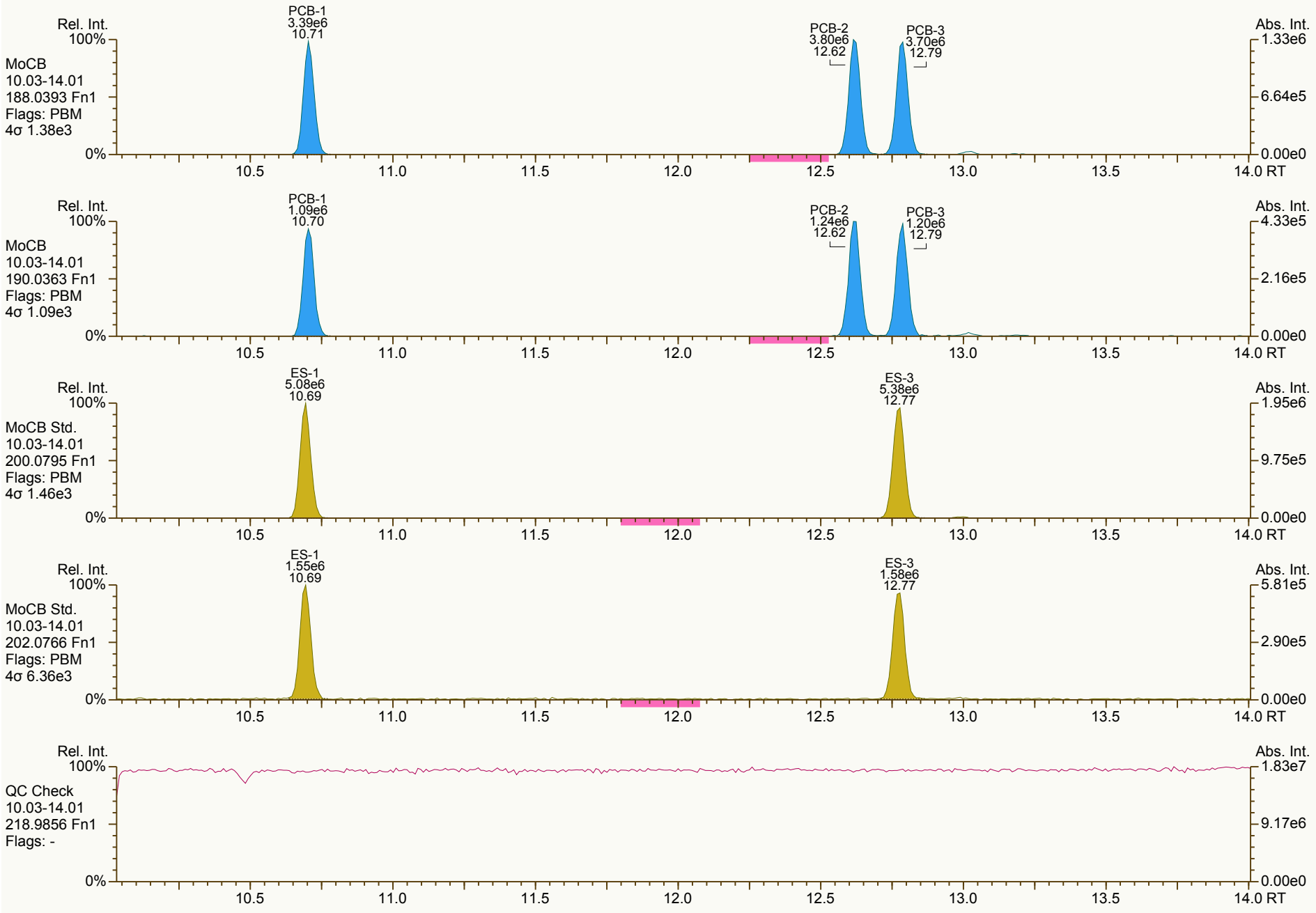
Processed: 04 Feb 2013 12:25 Analyst: LB

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 369-971 *PKD: n/a Printed: 04-Feb-2013 12:49 Page 1 of 21*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9095, 4361 scc: 369-971 *Revised: 04-Feb-2013 11:56 (LKB) Printed: 04-Feb-2013 12:49 Page 2 of 21*

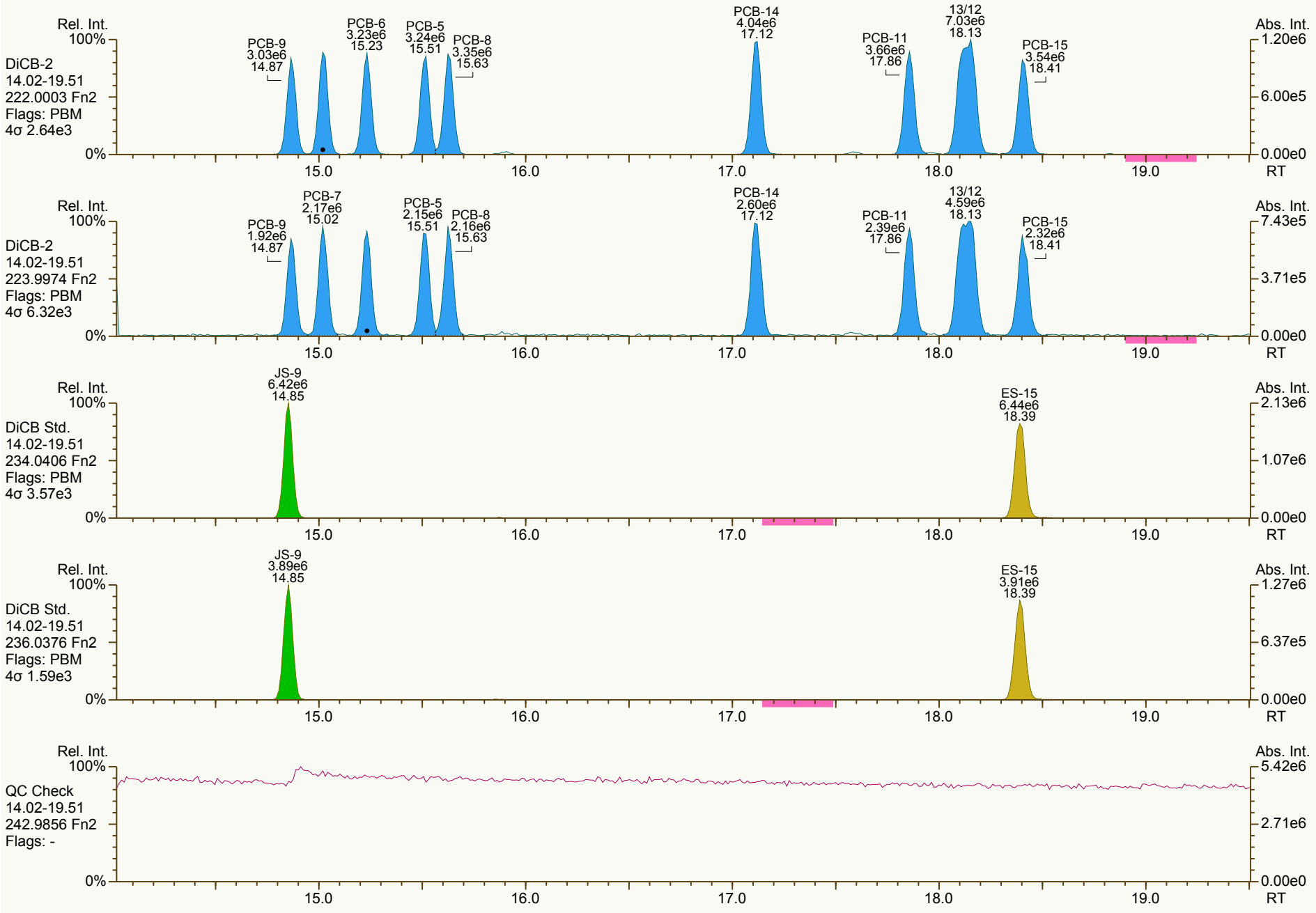
SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3134, 4629 scc: 369-971 *Revised: 04-Feb-2013 11:56 (LKB) Printed: 04-Feb-2013 12:49 Page 3 of 21*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



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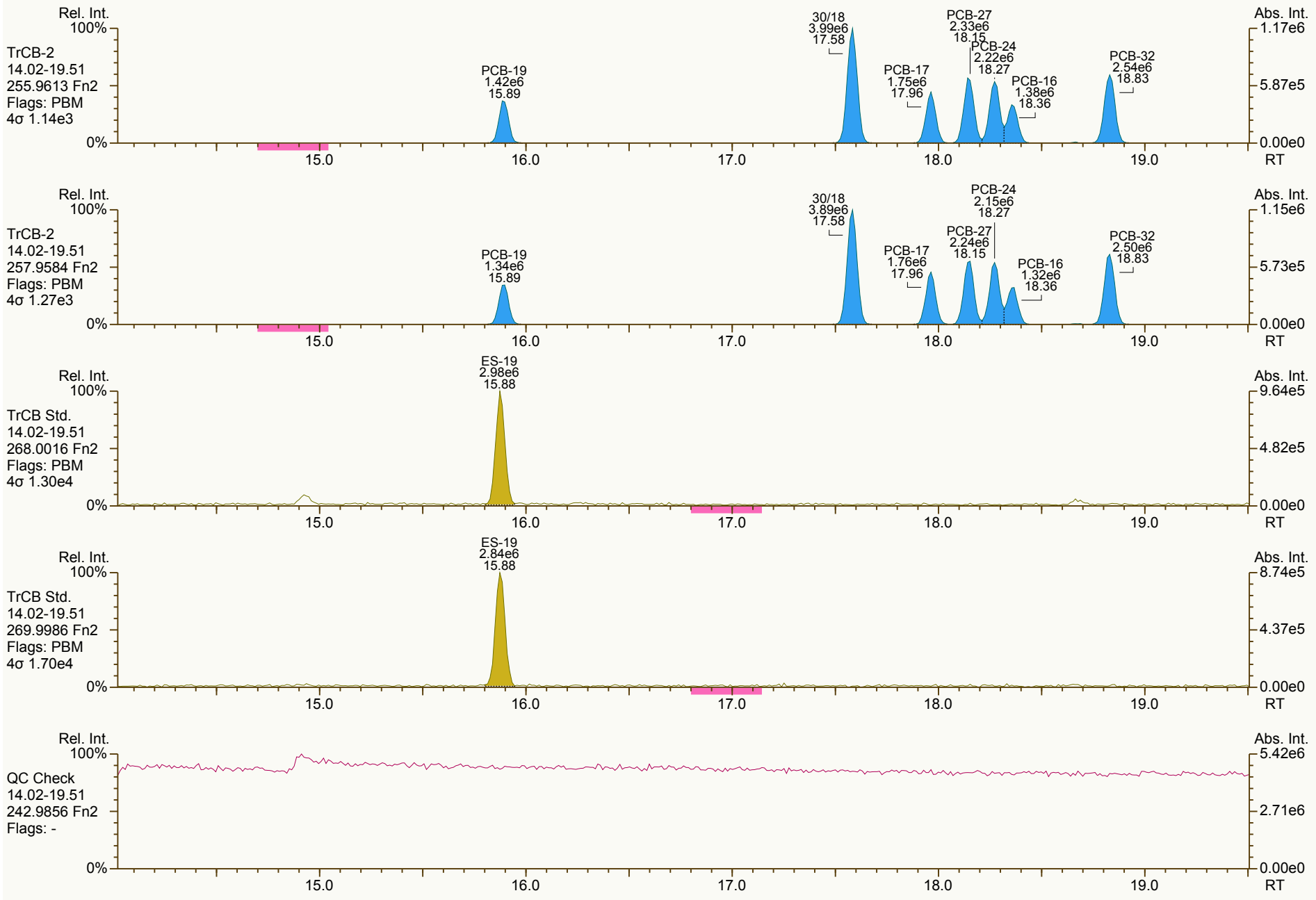
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0709, 7355 scc: 369-971 *Revised: 04-Feb-2013 11:56 (LKB) Printed: 04-Feb-2013 12:49 Page 4 of 21*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4389, 2772 scc: 369-971 *PKD: 04-Feb-2013 11:54 Printed: 04-Feb-2013 12:49 Page 5 of 21*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1835, 1477 scc: 369-971 *PKD: 04-Feb-2013 11:57 Printed: 04-Feb-2013 12:49 Page 6 of 21*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



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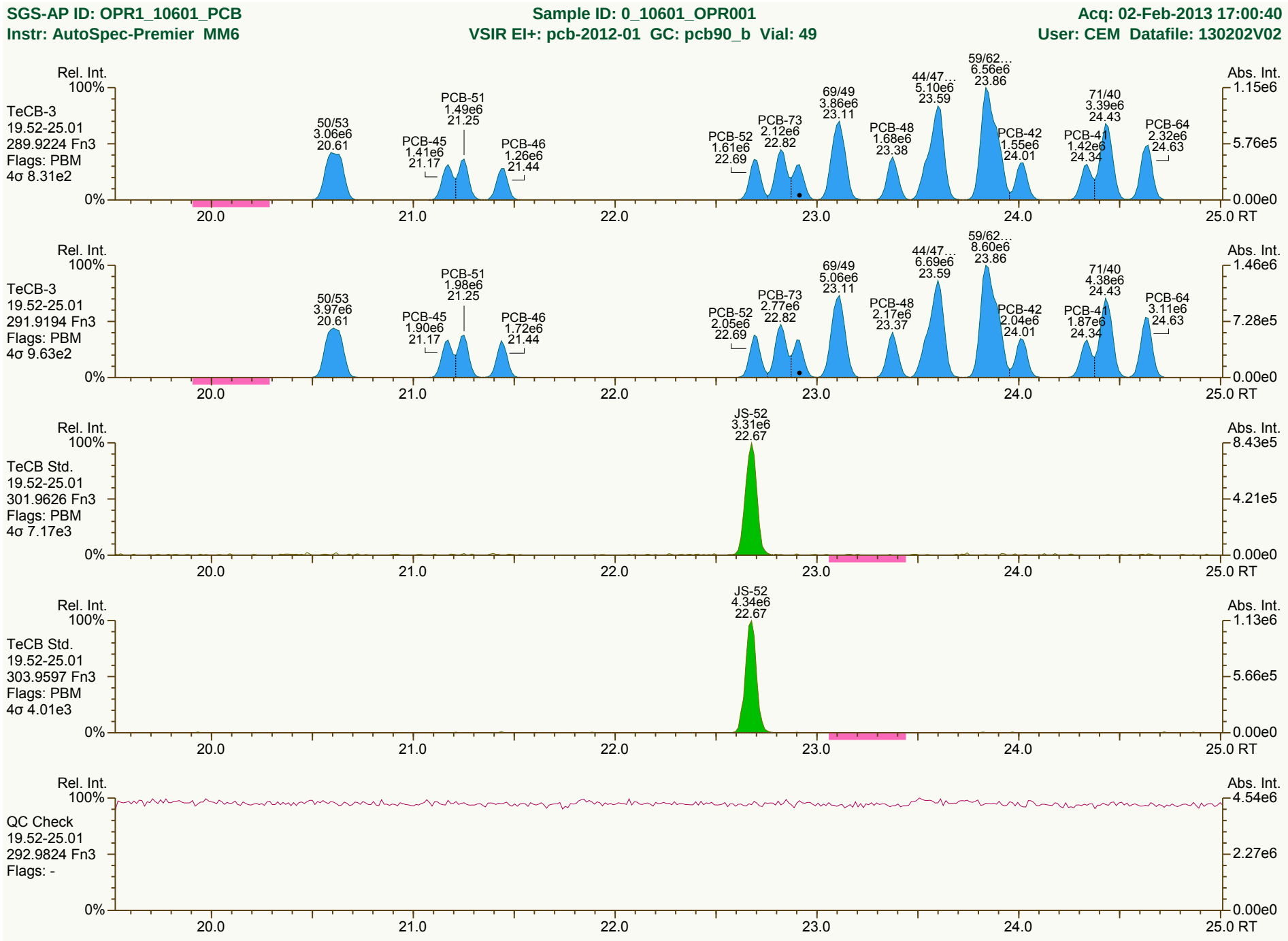
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9326, 2505 scc: 369-971 *Revised: 04-Feb-2013 11:52 (LKB) Printed: 04-Feb-2013 12:49 Page 7 of 21*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Sample ID: 0_10601_OPR001
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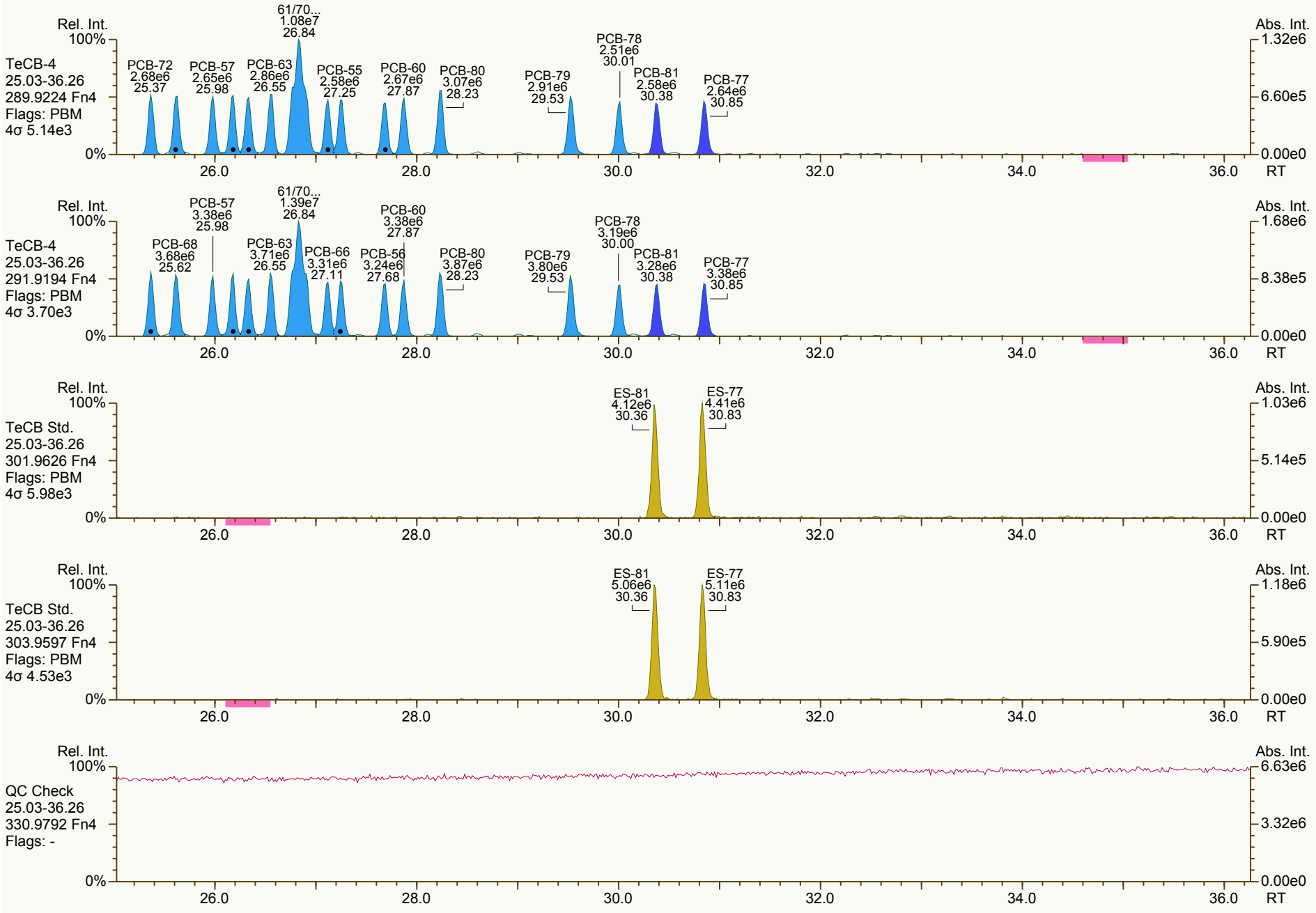
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49
User: CEM Datafile: 130202V02
Rel. Int.
Abs. Int.
TeCB-3
19.52-25.01
289.9224 Fn3
Flags: PBM
4σ 8.31e2
50/53 3.06e6 20.61
PCB-45 1.41e6 21.17
PCB-51 1.49e6 21.25
PCB-46 1.26e6 21.44
PCB-52 1.61e6 22.69
PCB-73 2.12e6 22.82
69/49 3.86e6 23.11
PCB-48 1.68e6 23.38
44/47… 5.10e6 23.59
59/62… 6.56e6 23.86
PCB-42 1.55e6 24.01
PCB-41 1.42e6 24.34
71/40 3.39e6 24.43
PCB-64 2.32e6 24.63
TeCB-3
19.52-25.01
291.9194 Fn3
Flags: PBM
4σ 9.63e2
50/53 3.97e6 20.61
PCB-45 1.90e6 21.17
PCB-51 1.98e6 21.25
PCB-46 1.72e6 21.44
PCB-52 2.05e6 22.69
PCB-73 2.77e6 22.82
69/49 5.06e6 23.11
PCB-48 2.17e6 23.37
44/47… 6.69e6 23.59
59/62… 8.60e6 23.86
PCB-42 2.04e6 24.01
PCB-41 1.87e6 24.34
71/40 4.38e6 24.43
PCB-64 3.11e6 24.63
TeCB Std.
19.52-25.01
301.9626 Fn3
Flags: PBM
4σ 7.17e3
JS-52 3.31e6 22.67
TeCB Std.
19.52-25.01
303.9597 Fn3
Flags: PBM
4σ 4.01e3
JS-52 4.34e6 22.67
QC Check
19.52-25.01
292.9824 Fn3
Flags: -
20.0
21.0
22.0
23.0
24.0
25.0 RT
Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1973, 1490 scc: 369-971
PKD: 04-Feb-2013 11:54 Printed: 04-Feb-2013 12:49 Page 8 of 21

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



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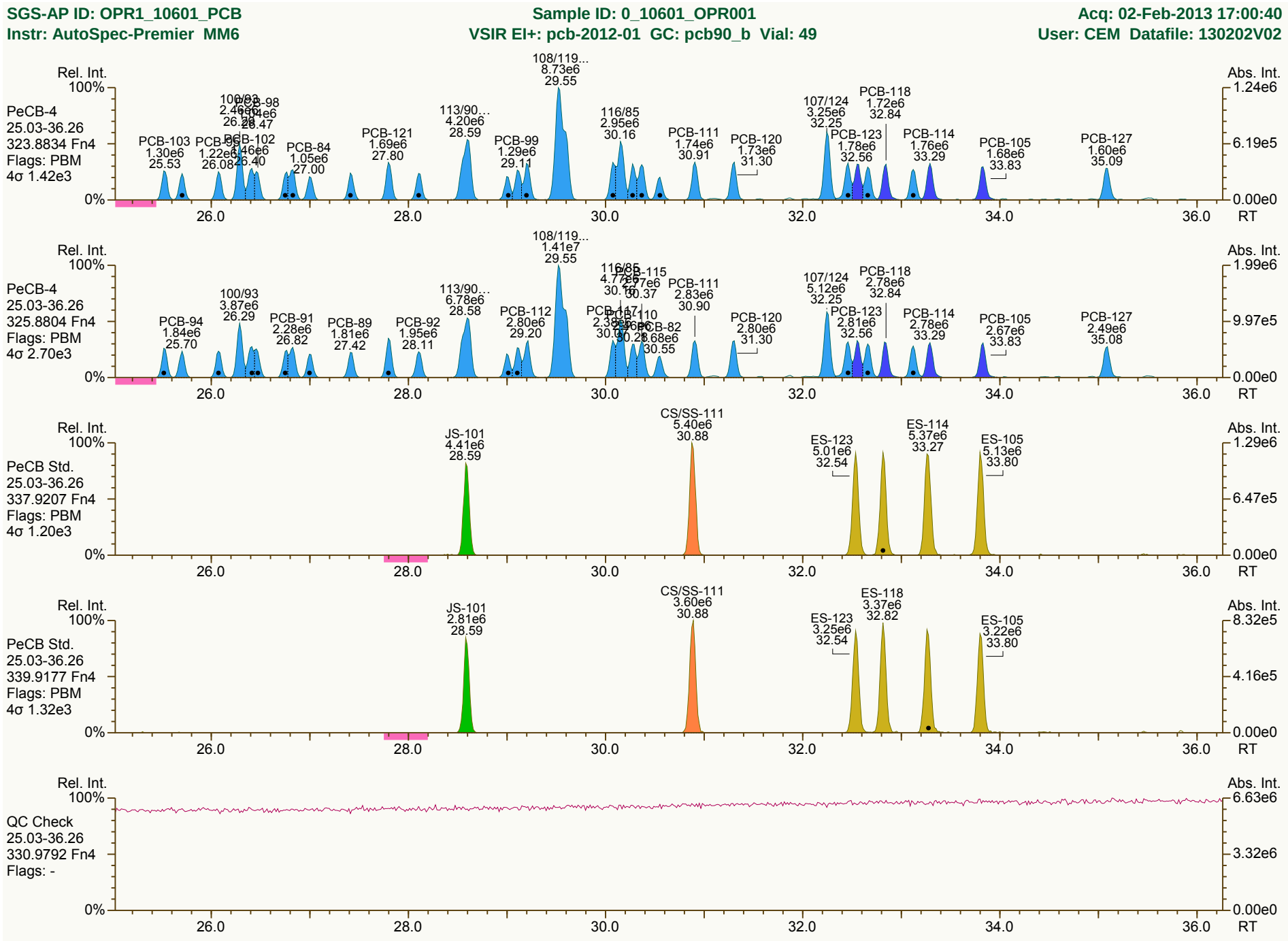
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3289, 4790 scc: 369-971 *PKD: 04-Feb-2013 11:54 Printed: 04-Feb-2013 12:49 Page 9 of 21*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3896, 7530 scc: 369-971 *Revised: 04-Feb-2013 11:56 (LKB) Printed: 04-Feb-2013 12:49 Page 10 of 21*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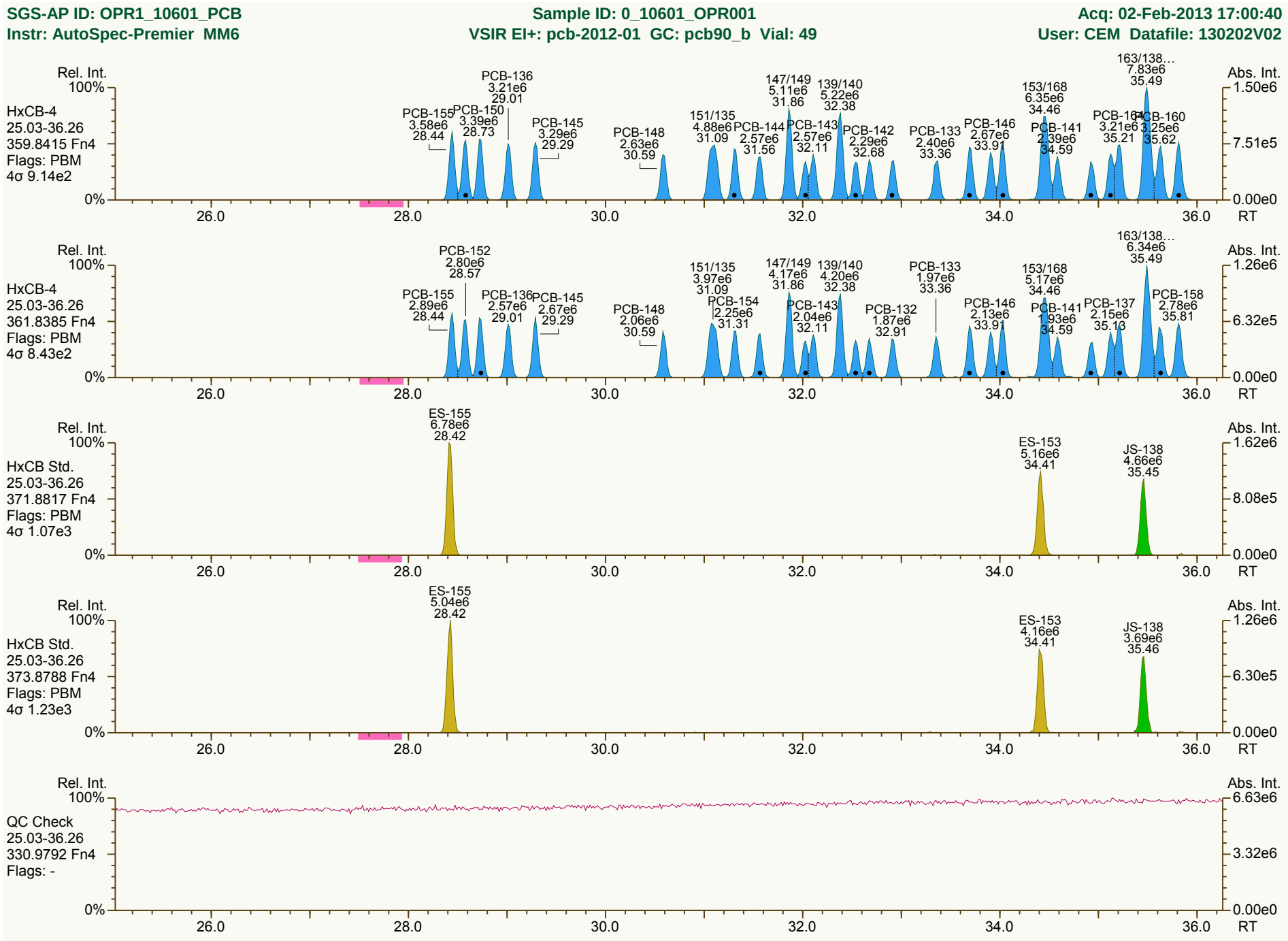
Sample ID: 0_10601_OPR001
Acq: 02-Feb-2013 17:00:40
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49
User: CEM Datafile: 130202V02
PeCB-4
25.03-36.26
323.8834 Fn4
Flags: PBM
4σ 1.42e3
PCB-103 1.30e6 25.53
PCB-102 1.46e6 26.40
PCB-84 1.05e6 27.00
PCB-121 1.69e6 27.80
113/90... 4.20e6 28.59
PCB-99 1.29e6 29.11
108/119... 8.73e6 29.55
116/85 2.95e6 30.16
PCB-111 1.74e6 30.91
PCB-120 1.73e6 31.30
107/124 3.25e6 32.25
PCB-118 1.72e6 32.84
PCB-123 1.78e6 32.56
PCB-114 1.76e6 33.29
PCB-105 1.68e6 33.83
PCB-127 1.60e6 35.09
PeCB-4
25.03-36.26
325.8804 Fn4
Flags: PBM
4σ 2.70e3
PCB-94 1.84e6 25.70
100/93 3.87e6 26.29
PCB-91 2.28e6 26.82
PCB-89 1.81e6 27.42
PCB-92 1.95e6 28.11
113/90... 6.78e6 28.58
PCB-112 2.80e6 29.20
108/119... 1.41e7 29.55
PCB-111 2.83e6 30.90
PCB-120 2.80e6 31.30
107/124 5.12e6 32.25
PCB-118 2.78e6 32.84
PCB-123 2.81e6 32.56
PCB-114 2.78e6 33.29
PCB-105 2.67e6 33.83
PCB-127 2.49e6 35.08
PeCB Std.
25.03-36.26
337.9207 Fn4
Flags: PBM
4σ 1.20e3
JS-101 4.41e6 28.59
CS/SS-111 5.40e6 30.88
ES-123 5.01e6 32.54
ES-114 5.37e6 33.27
ES-105 5.13e6 33.80
PeCB Std.
25.03-36.26
339.9177 Fn4
Flags: PBM
4σ 1.32e3
JS-101 2.81e6 28.59
CS/SS-111 3.60e6 30.88
ES-123 3.25e6 32.54
ES-118 3.37e6 32.82
ES-105 3.22e6 33.80
QC Check
25.03-36.26
330.9792 Fn4
Flags: -
Rel. Int.
Abs. Int.
RT
Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8638, 2735 scc: 369-971
Revised: 04-Feb-2013 11:57 (LKB) Printed: 04-Feb-2013 12:49 Page 11 of 21

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1453, 5667 scc: 369-971 *PKD: 04-Feb-2013 11:54 Printed: 04-Feb-2013 12:49 Page 12 of 21*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Sample ID: 0_10601_OPR001
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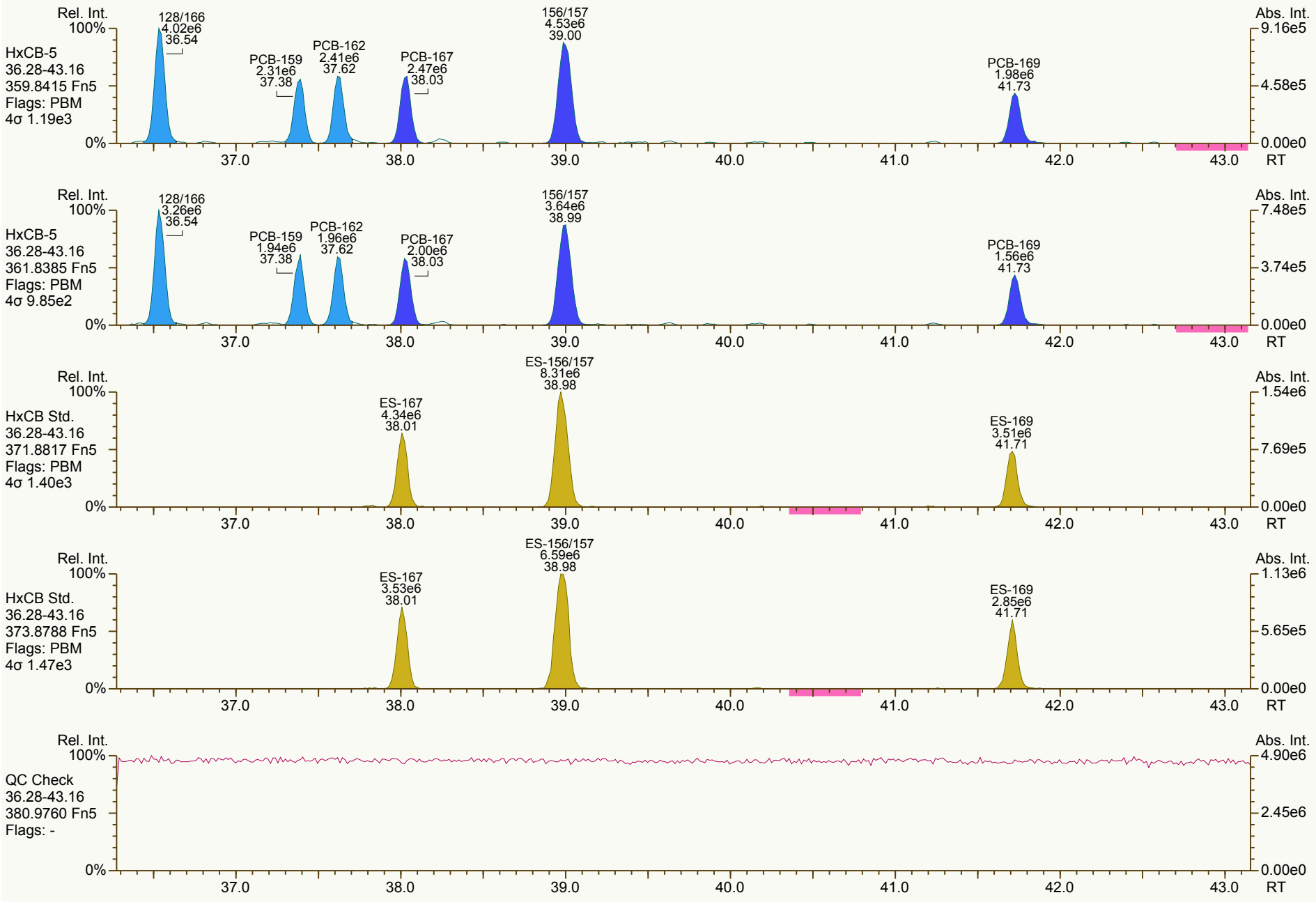
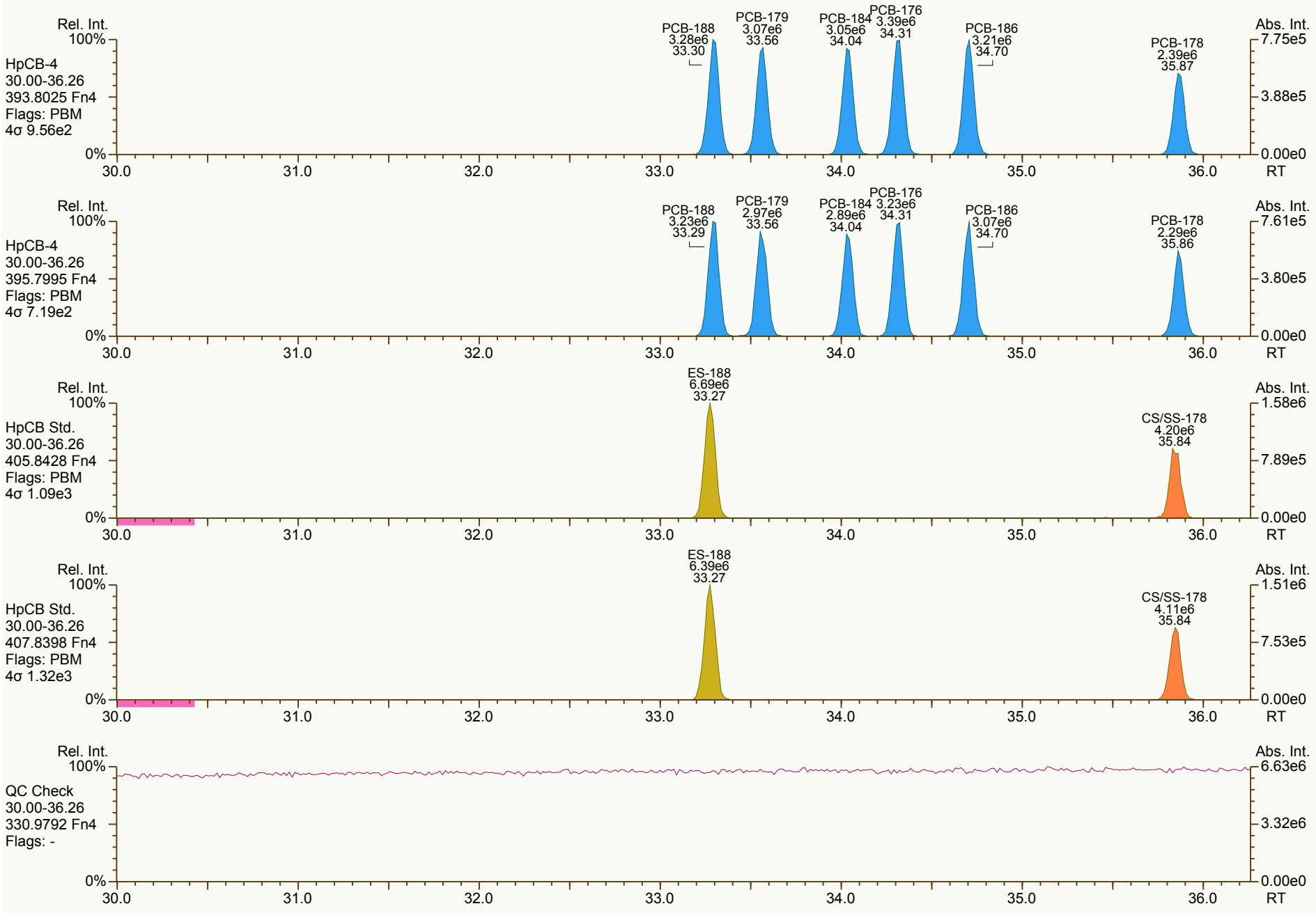
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49
User: CEM Datafile: 130202V02
Rel. Int.
Abs. Int.
HxCB-4
25.03-36.26
359.8415 Fn4
Flags: PBM
4σ 9.14e2
PCB-155 3.58e6 28.44
PCB-150 3.39e6 28.73
PCB-136 3.21e6 29.01
PCB-145 3.29e6 29.29
PCB-148 2.63e6 30.59
151/135 4.88e6 31.09
PCB-144 2.57e6 31.56
147/149 5.11e6 31.86
PCB-143 2.57e6 32.11
139/140 5.22e6 32.38
PCB-142 2.29e6 32.68
PCB-133 2.40e6 33.36
PCB-146 2.67e6 33.91
153/168 6.35e6 34.46
PCB-141 2.39e6 34.59
PCB-164 3.21e6 35.21
PCB-160 3.25e6 35.62
163/138... 7.83e6 35.49
HxCB-4
25.03-36.26
361.8385 Fn4
Flags: PBM
4σ 8.43e2
PCB-155 2.89e6 28.44
PCB-152 2.80e6 28.57
PCB-136 2.57e6 29.01
PCB-145 2.67e6 29.29
PCB-148 2.06e6 30.59
151/135 3.97e6 31.09
PCB-154 2.25e6 31.31
147/149 4.17e6 31.86
PCB-143 2.04e6 32.11
139/140 4.20e6 32.38
PCB-132 1.87e6 32.91
PCB-133 1.97e6 33.36
PCB-146 2.13e6 33.91
153/168 5.17e6 34.46
PCB-141 1.93e6 34.59
PCB-137 2.15e6 35.13
PCB-158 2.78e6 35.81
163/138... 6.34e6 35.49
HxCB Std.
25.03-36.26
371.8817 Fn4
Flags: PBM
4σ 1.07e3
ES-155 6.78e6 28.42
ES-153 5.16e6 34.41
JS-138 4.66e6 35.45
HxCB Std.
25.03-36.26
373.8788 Fn4
Flags: PBM
4σ 1.23e3
ES-155 5.04e6 28.42
ES-153 4.16e6 34.41
JS-138 3.69e6 35.46
QC Check
25.03-36.26
330.9792 Fn4
Flags: -
RT
26.0
28.0
30.0
32.0
34.0
36.0
100%
0%
1.50e6
7.51e5
0.00e0
1.26e6
6.32e5
1.62e6
8.08e5
1.26e6
6.30e5
6.63e6
3.32e6

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



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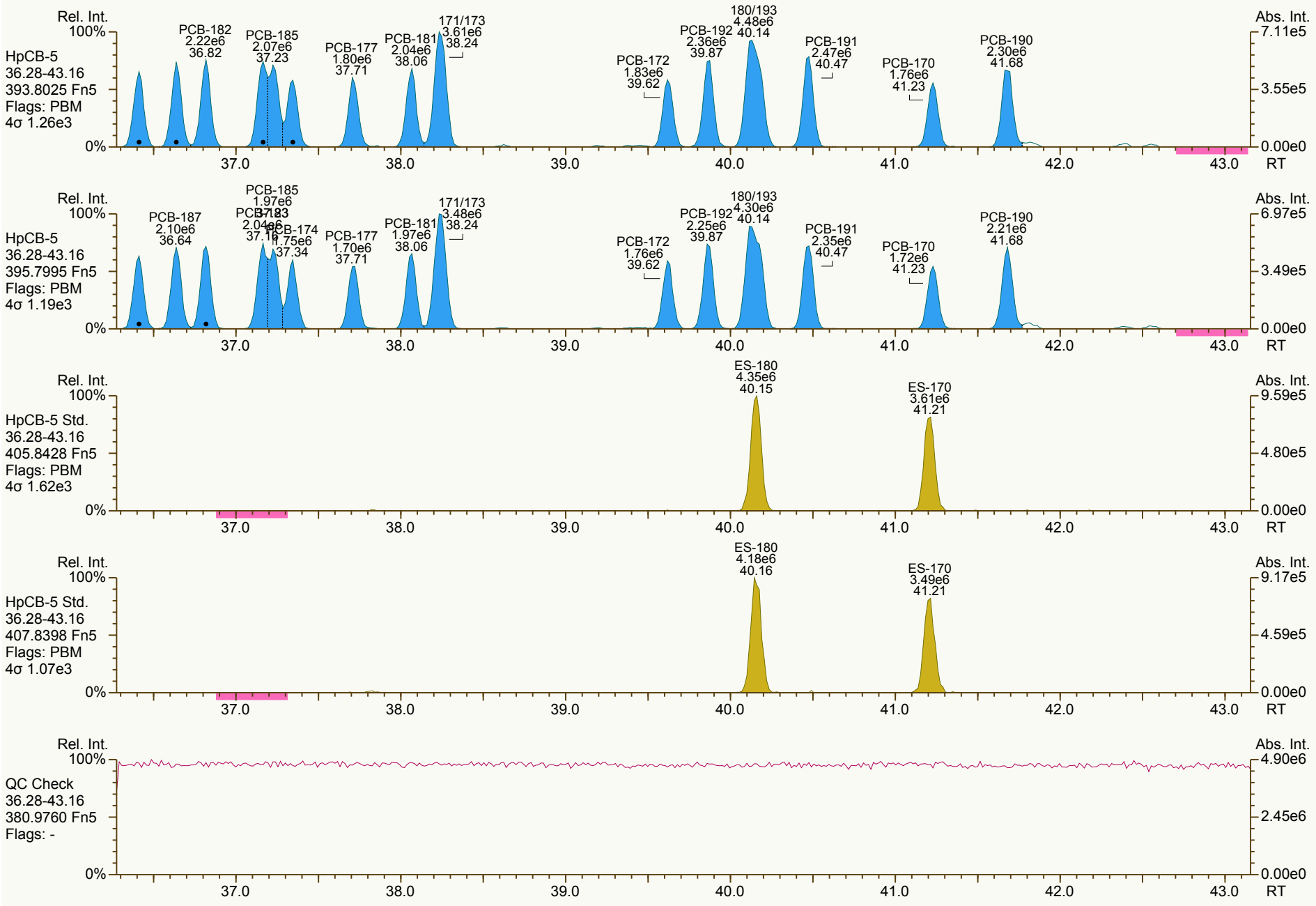
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2036, 6891 scc: 369-971 *Revised: 04-Feb-2013 11:57 (LKB) Printed: 04-Feb-2013 12:49 Page 15 of 21*

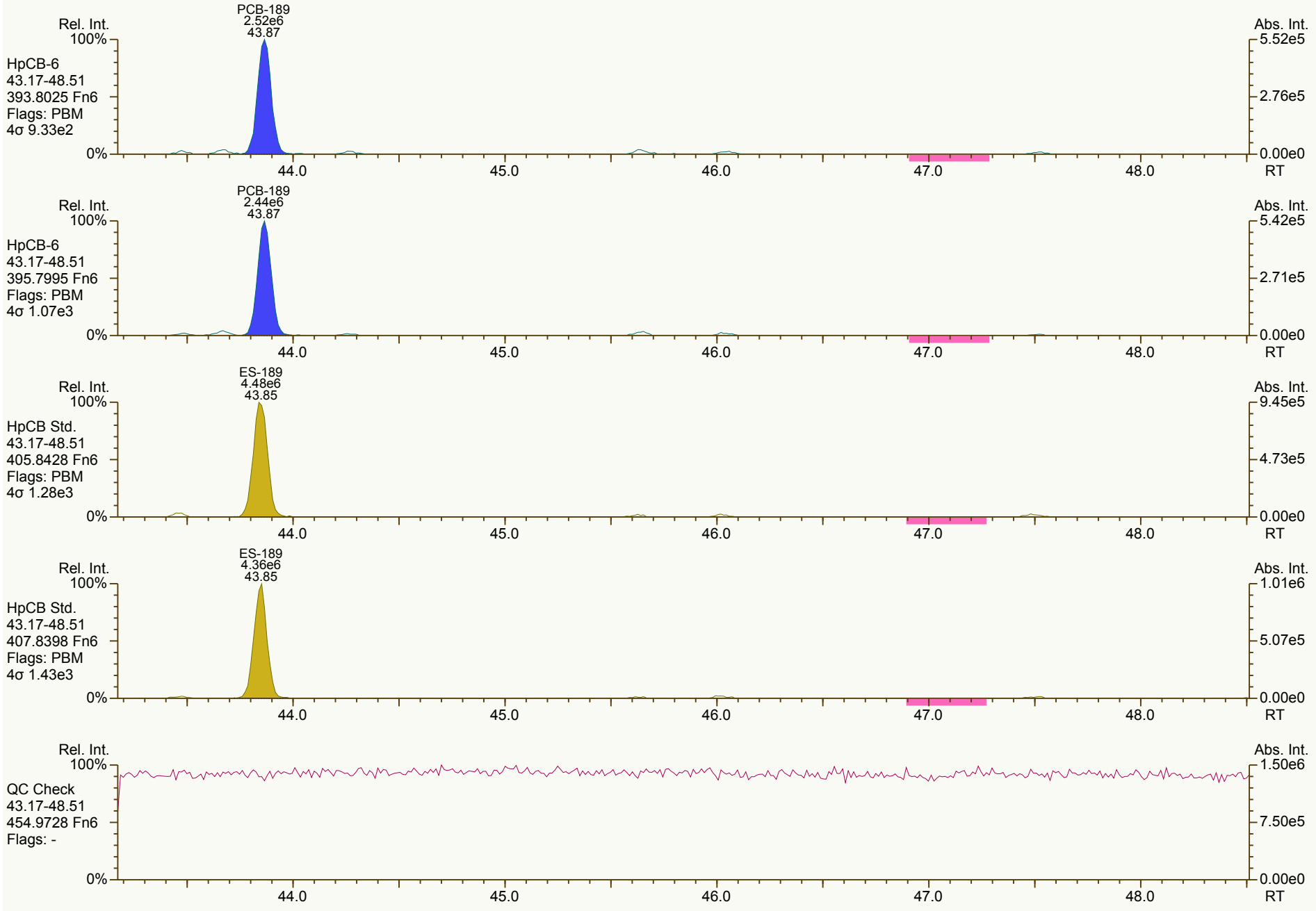
SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*

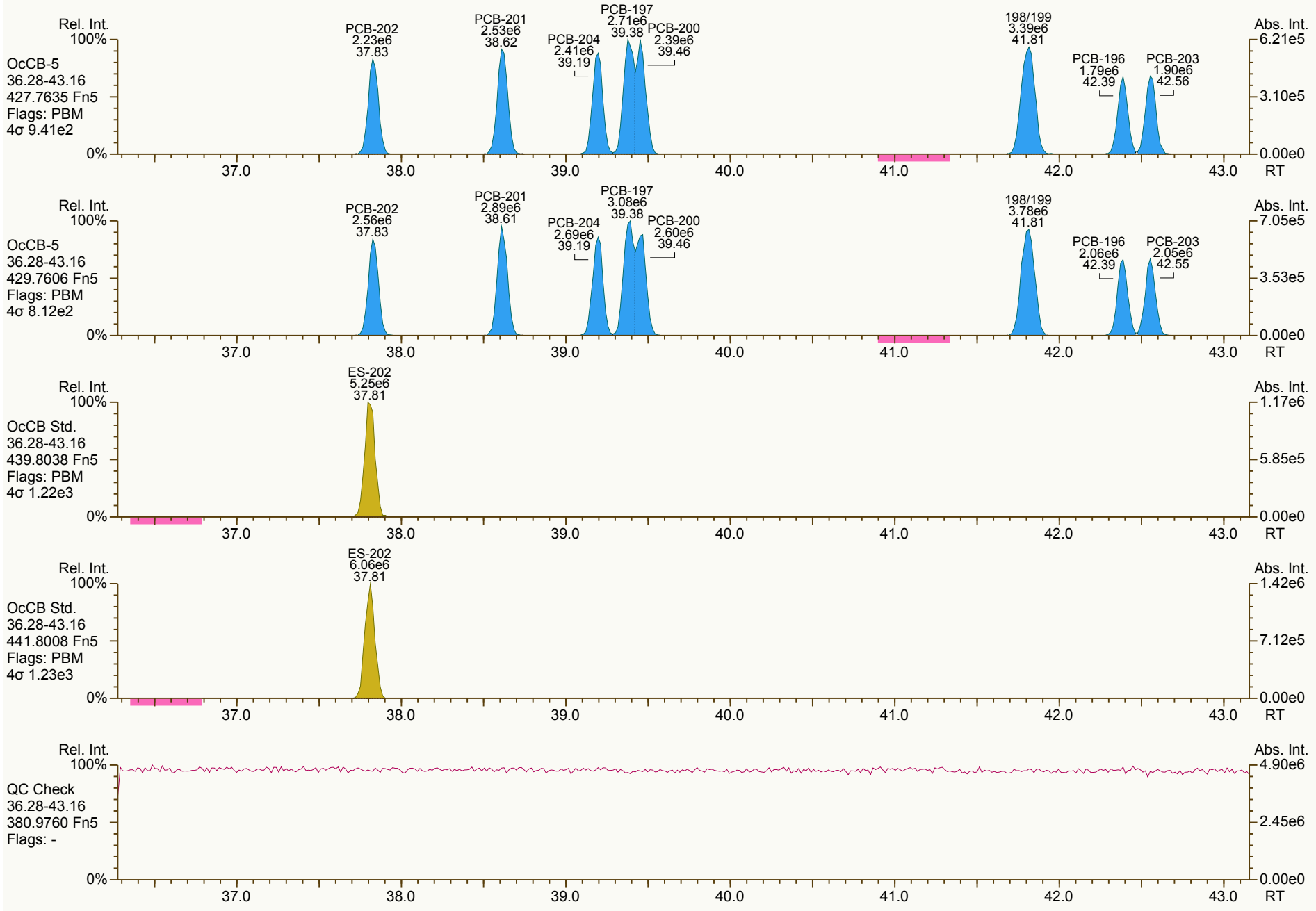
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9964, 1189 scc: 369-971 *PKD: 04-Feb-2013 11:54 Printed: 04-Feb-2013 12:49 Page 16 of 21*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



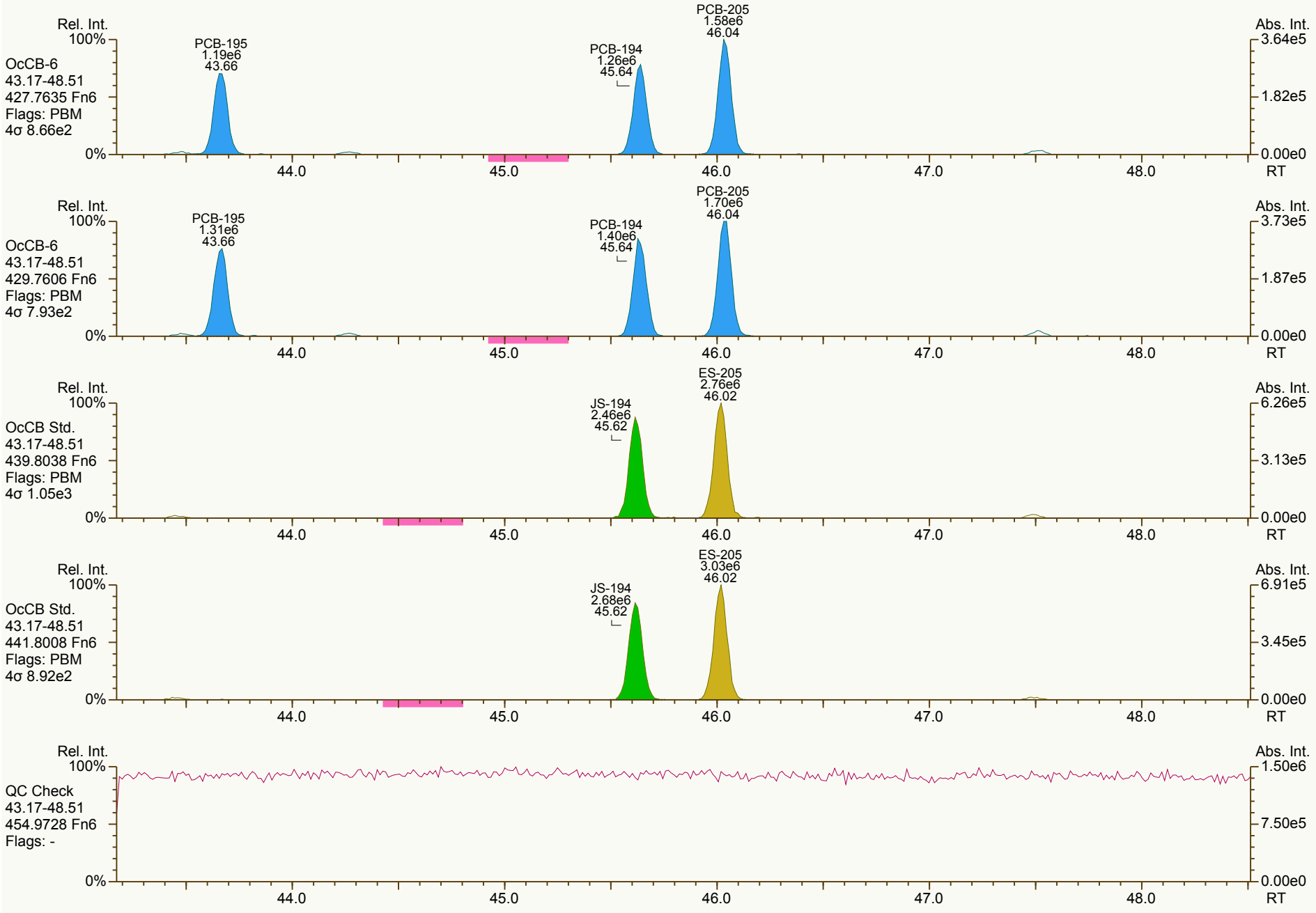
Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1251, 4116 scc: 369-971 *Revised: 04-Feb-2013 11:57 (LKB) Printed: 04-Feb-2013 12:49 Page 17 of 21*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**

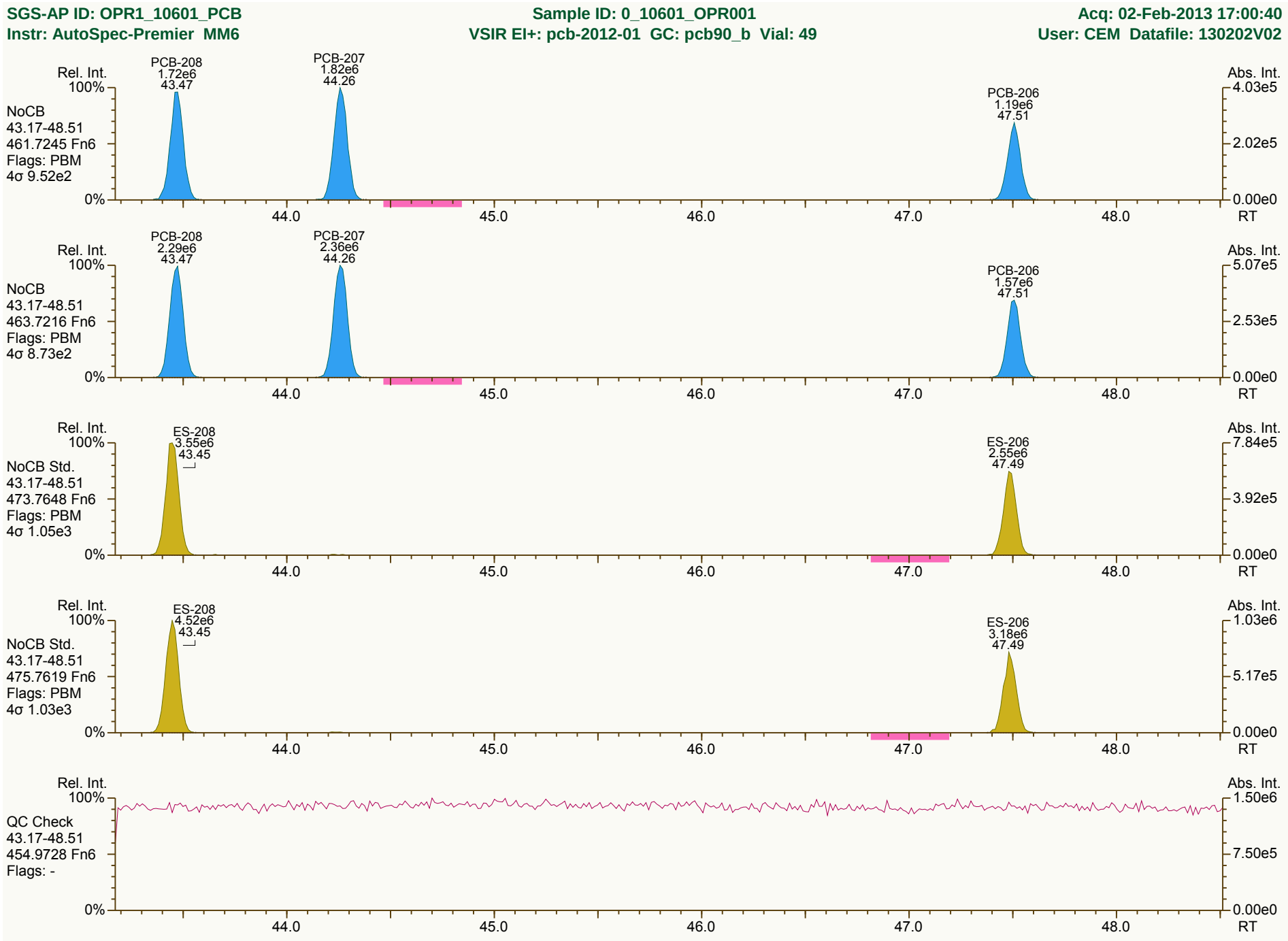


Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3854, 1553 scc: 369-971 *Revised: 04-Feb-2013 11:52 (LKB) Printed: 04-Feb-2013 12:49 Page 18 of 21*

SGS-AP ID: OPR1_10601_PCB **Sample ID: 0_10601_OPR001** **Acq: 02-Feb-2013 17:00:40**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49** **User: CEM Datafile: 130202V02**



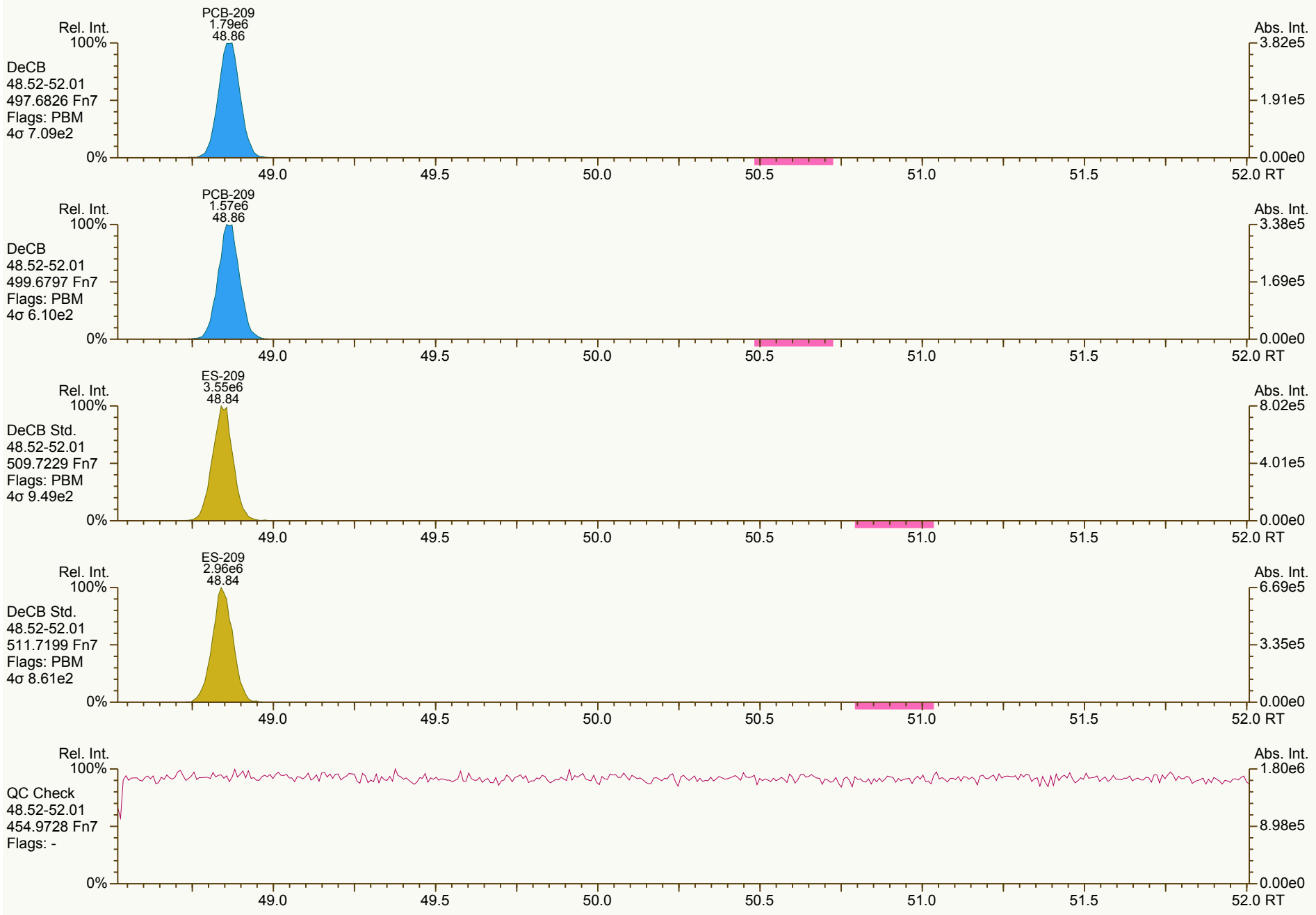
Results: P:\A5000_A5099\A5019\A5019_10601 PCB\Resources\OPR1_10601_PCB.utp_res, saved 04-Feb-2013 12:13 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9275, 5530 scc: 369-971 *PKD: 04-Feb-2013 11:55 Printed: 04-Feb-2013 12:49 Page 19 of 21*


SGS-AP ID: OPR1_10601_PCB
Sample ID: 0_10601_OPR001
Acq: 02-Feb-2013 17:00:40
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49
User: CEM Datafile: 130202V02
Rel. Int.
Abs. Int.
NoCB
43.17-48.51
461.7245 Fn6
Flags: PBM
4σ 9.52e2
PCB-208
1.72e6
43.47
PCB-207
1.82e6
44.26
PCB-206
1.19e6
47.51
4.03e5
2.02e5
0.00e0
NoCB
43.17-48.51
463.7216 Fn6
Flags: PBM
4σ 8.73e2
PCB-208
2.29e6
43.47
PCB-207
2.36e6
44.26
PCB-206
1.57e6
47.51
5.07e5
2.53e5
0.00e0
NoCB Std.
43.17-48.51
473.7648 Fn6
Flags: PBM
4σ 1.05e3
ES-208
3.55e6
43.45
ES-206
2.55e6
47.49
7.84e5
3.92e5
0.00e0
NoCB Std.
43.17-48.51
475.7619 Fn6
Flags: PBM
4σ 1.03e3
ES-208
4.52e6
43.45
ES-206
3.18e6
47.49
1.03e6
5.17e5
0.00e0
QC Check
43.17-48.51
454.9728 Fn6
Flags: -
1.50e6
7.50e5
0.00e0
100%
0%
44.0
45.0
46.0
47.0
48.0
RT

SGS-AP ID: OPR1_10601_PCB
Instr: AutoSpec-Premier MM6

Sample ID: 0_10601_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 49

Acq: 02-Feb-2013 17:00:40
User: CEM Datafile: 130202V02



15 February 2013

Cindy Fields
ANCHOR QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

Ph.: 206-903-3394
Email: cfields@anchorqea.com

Subject: Certificate of Results

Dear Cindy;

Attached to this narrative are the analytical results you requested on the sample submitted for the determination of the co-planar polychlorinated biphenyl congeners. The insert below summarizes the relevant information pertaining to your project. In particular, QC annotations bring to your attention specific analytical observations and assessments made during the sample handling and data interpretation phases. Results reported relate only to the items tested.

Project Information Summary	When applicable, see QC Annotations for details
Client Project No.	110730-02.01
AP Project #	**A5019R, RR**
Analytical Protocol	Method 1668A
No. Samples Submitted	1
No. Samples Analyzed	1
No. Laboratory Method Blanks	2
No. OPRs / Batch CS3	2
No. Outstanding Samples	0
Date Received	13-Dec-2012
Condition Received	good
Temperature upon Receipt (C)	2.4
Extraction within Holding Time	yes
Analysis within Holding Time	yes
Data meet QA/QC Requirements	yes
Exceptions	none
Analytical Difficulties	see narration

ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

SGS

QC Annotations: Please see Appendix A & B attached for data qualifier/attribute and lab identifier descriptions which may be contained in the project.

Sample **AQ-SS-03-10** was originally extracted in batch 10495 on 1/3/2013. Results from that analysis were rejected.

The sample was re-extracted on 2/2/2013 (batch 10601) and again on 2/5/2013 (batch 10631). Results for both of the re-extractions met method QA/QC criteria requirements and are provided in the attached report.

Analytical Perspectives Certification IDs:

SOUTH CAROLINA	99054
ARKANSAS	88-0628
NEW JERSEY-NELAP SECONDARY	NC005
FLORIDA-NELAP PRIMARY	E87608
LOUISIANA	4024
NORTH CAROLINA	37783
WASHINGTON	C2027
NEW YORK	11988
VIRGINIA	460180
MINNESOTA	037-999-448
OREGON	pending
TEXAS	T104704484-10-1
PENNSYLVANIA-NELAP SECONDARY	68-01849

SGS Analytical Perspectives remains committed to serving you in the most effective manner. Should you have any questions or need additional information and technical support, please do not hesitate to contact us.

The management and staff of SGS Analytical Perspectives welcomes customer feedback, both positive and negative, as we continually improve our services. Please visit our web site at www.ultratrace.com and click on the 'Leave Your Feedback Here!' link on the Home Page. Thank you for choosing SGS Analytical Perspectives.

Sincerely,

Amy Boehm
2013.02.15
16:43:34 -05'00'

Amy J. Boehm
Senior Project Manager

APPENDIX A: DATA QUALIFIERS / DATA ATTRIBUTES	
>	Indicates high recoveries. Shown with the numeric value at the top of the range.[1]
B	The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
C	Two or more congeners co-elute. In EDDs C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
E	The reported concentration exceeds the calibration range (upper point of the calibration curve).
EMPC	Represents an Estimated Maximum Possible Concentration. EMPC's arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
ETH	Indicates the presence of a diphenyl ether that appears to interfere with the quantitation of a furan. The reported concentration is the maximum.
H/h	If the standard recovery is below the method or SOP specified value "H" is assigned. If the obtained value is less than half the specified value "h" is assigned.[1]
J	Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve).
ND	Indicates a non-detect.
NR	Indicates a value that is not reportable.
PR	Due to interference, the associated congener is poorly resolved.
QI	Indicates the presence of a quantitative interference.
SI	Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.[1]
U	The analyte was not detected. The estimated detection limit (EDL) may be reported for this analyte.
V	The labeled standard recovery was found to be outside of the method control limits.
X	Indicates results reported from reinjection, refractionation, or repeat analyses.
APPENDIX B: LAB ID IDENTIFIERS	
AR	Indicates use of the archived portion of the sample extract.
CU	Indicates a sample that required additional clean-up prior to MS injection/processing.
D	Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
DE	Indicates a dilution performed with the addition of ES (extraction standard) solution.
DUP	Designation for a duplicate sample.
MS	Designation for a matrix spike.
MSD	Designation for a matrix spike duplicate.
RJ	Indicates a reinjection of the sample extract.
S	Indicates a sample split. The number that follows the "S" indicates the split factor.

[1]Denotes data qualifiers/attributes whose use will be phased out over time

Sample Summary





HR-PCB

Analyte	Method Blank A5019-R Conc. pg/g	AQ-SS-03-10 Conc. pg/g	Method Blank A5019-R-R Conc. pg/g	AQ-SS-03-10 Conc. pg/g
PCB-77	(0.343)	0.779	(0.174)	0.880
PCB-81	(0.356)	(0.327)	(0.188)	(0.0953)
PCB-105	(0.299)	2.79	[0.223]	3.25
PCB-114	(0.305)	(0.342)	(0.169)	[0.179]
PCB-118	0.443	4.96	[0.438]	6.26
PCB-123	(0.29)	(0.328)	(0.171)	(0.0906)
PCB-126	(0.443)	(0.431)	(0.161)	(0.109)
PCB-156/157	(0.554)	0.694	(0.211)	0.705
PCB-167	(0.396)	(0.372)	(0.163)	0.310
PCB-169	(0.533)	(0.503)	(0.192)	(0.131)
PCB-189	(0.366)	(0.319)	(0.126)	(0.0933)
TEQs (WHO 2005 M/H)				
ND = 0; EMPC = 0	0.0000133	0.000331	0.00	0.000404
ND = 0; EMPC = EMPC	0.0000133	0.000331	0.0000198	0.000409
ND = DL/2; EMPC = 0	0.0303	0.0295	0.0110	0.00783
ND = DL/2; EMPC = EMPC	0.0303	0.0295	0.0110	0.00784
ND = DL; EMPC = 0	0.0605	0.0587	0.0219	0.0153
ND = DL; EMPC = EMPC	0.0605	0.0587	0.0219	0.0153
Checkcode	823-496-CVB	209-506-ZYY	093-755-ZLG	060-855-CYP

() = DL
[] = EMPC

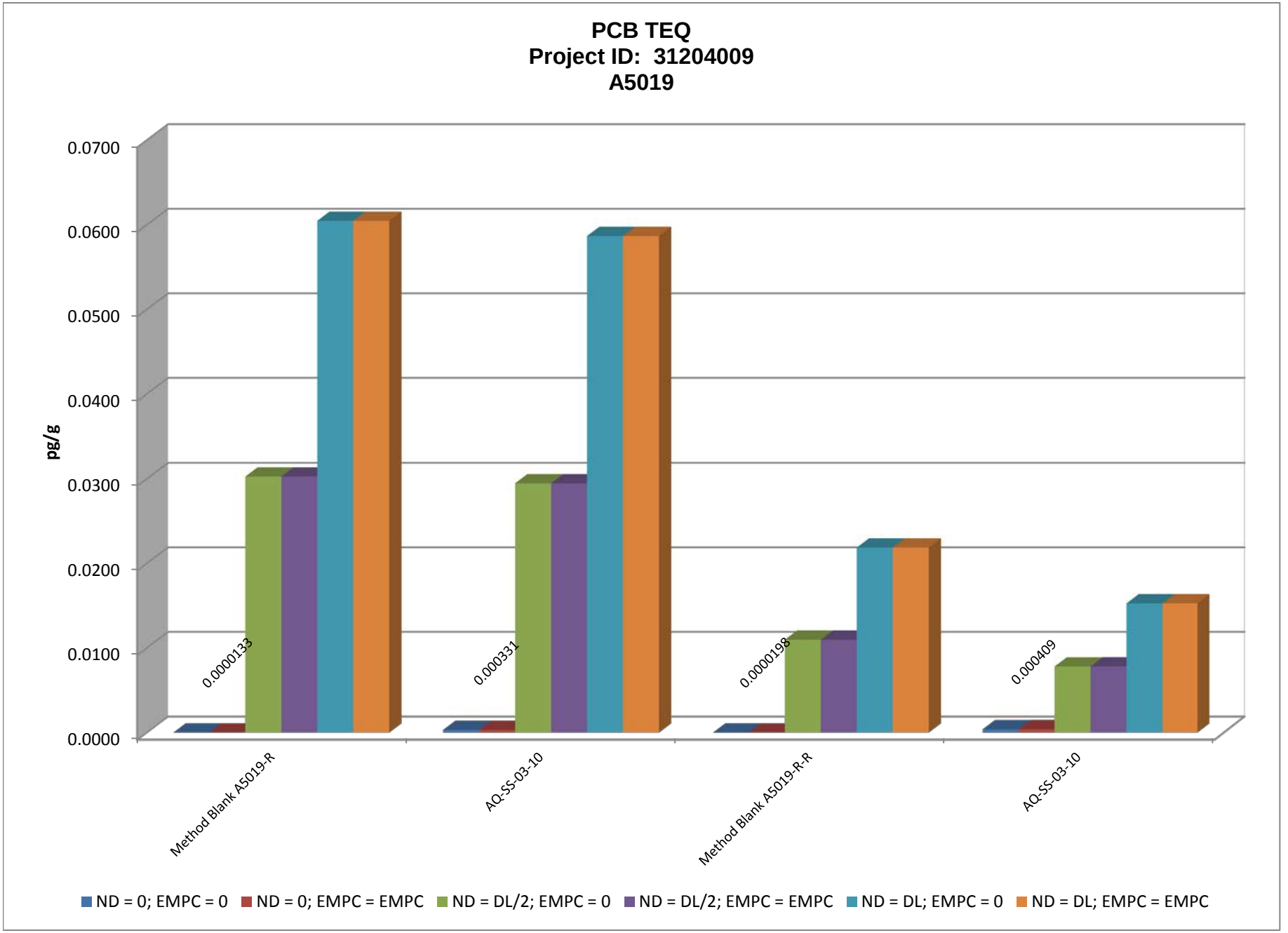
PCB Recoveries

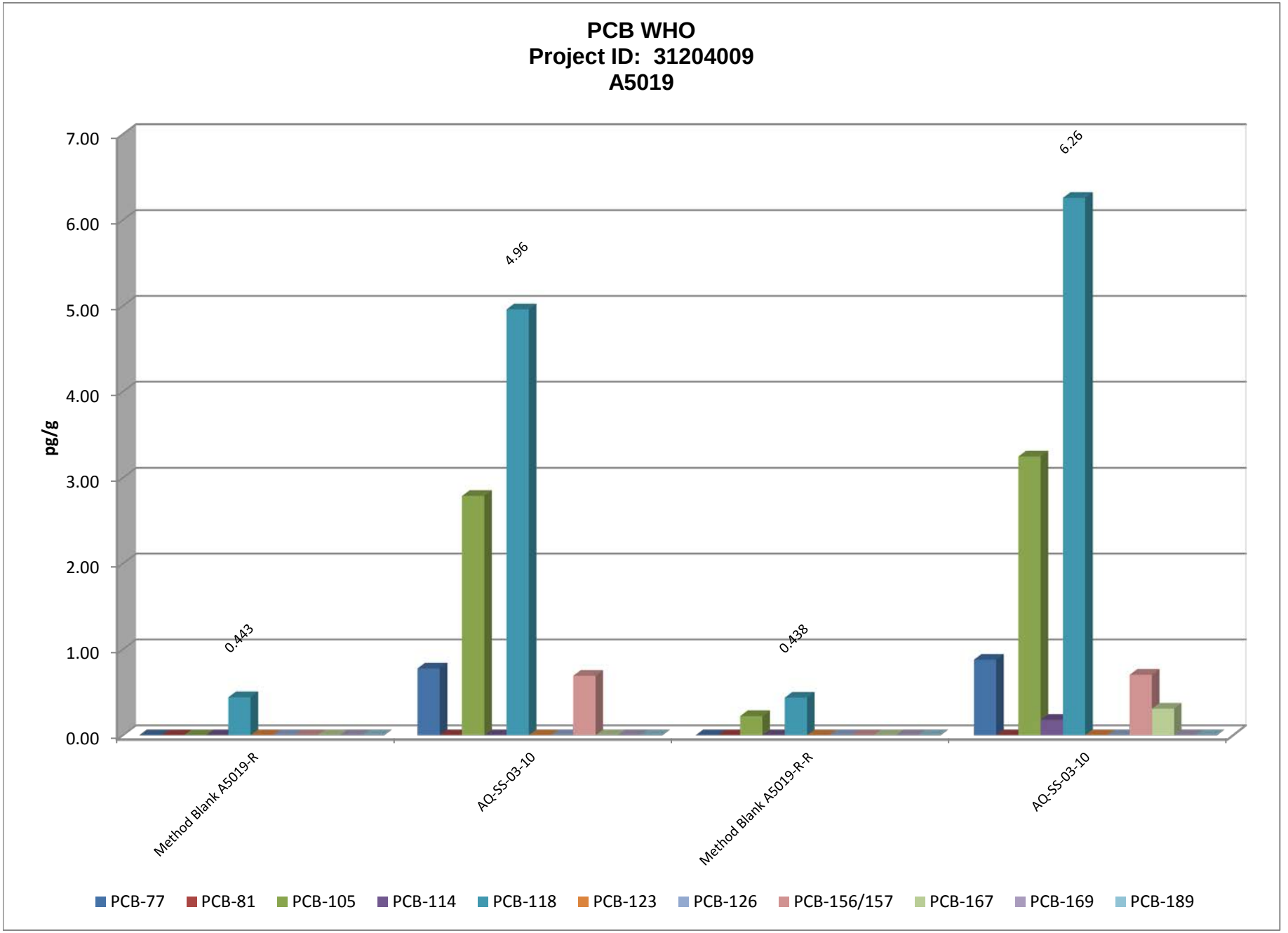
HR-PCB

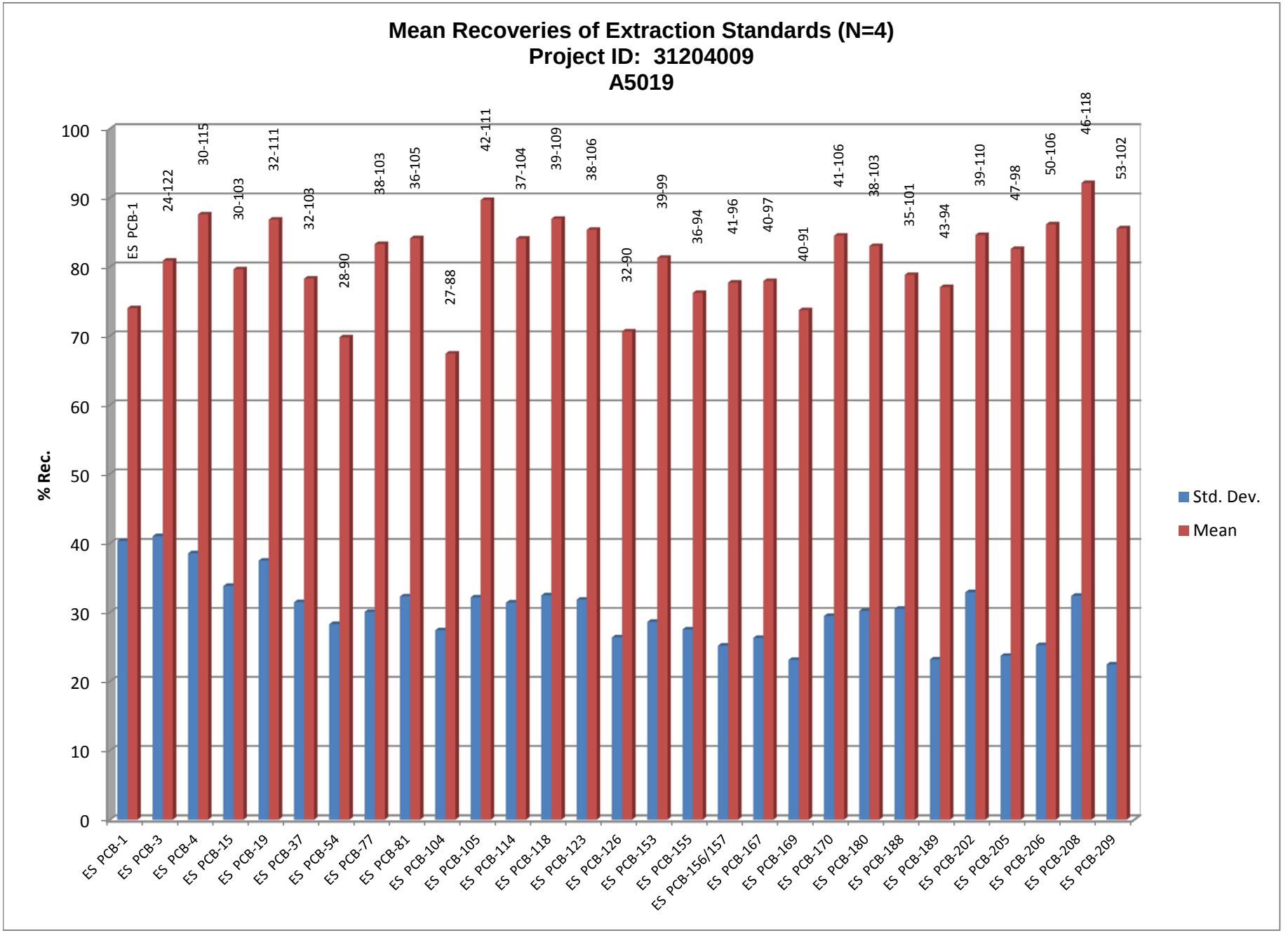
Standard	Method Blank A5019-R	AQ-SS-03-10	Method Blank A5019-R-R	AQ-SS-03-10
ES PCB-1	80.5	83.7	17.9	114
ES PCB-3	86.0	91.5	24.1	122
ES PCB-4	101	104	30.5	115
ES PCB-15	97.3	103	29.7	88.6
ES PCB-19	109	111	31.5	95.9
ES PCB-37	87.2	90.8	32.2	103
ES PCB-54	82.5	89.8	27.9	79.0
ES PCB-77	95.1	96.7	38.5	103
ES PCB-81	96.1	99.5	36.0	105
ES PCB-104	81.3	88.2	27.4	72.8
ES PCB-105	102	104	41.8	111
ES PCB-114	97.6	104	37.2	97.6
ES PCB-118	101	109	38.7	99.2
ES PCB-123	100	106	37.9	97.6
ES PCB-126	85.9	89.6	32.2	74.9
ES PCB-153	96.2	99.3	38.7	91.1
ES PCB-155	92.4	94.1	35.6	82.8
ES PCB-156/157	91.6	96.2	41.0	82.1
ES PCB-167	93.1	97.4	39.8	81.5
ES PCB-169	86.2	90.6	39.9	78.2
ES PCB-170	97.3	106	41.0	93.8
ES PCB-180	95.6	103	38.0	95.5
ES PCB-188	97.7	101	34.8	81.9
ES PCB-189	86.6	94.4	42.9	84.4
ES PCB-202	108	110	39.4	81.1
ES PCB-205	93.3	98.3	47.3	91.5
ES PCB-206	98.8	106	49.5	90.4
ES PCB-208	112	118	46.5	92.1
ES PCB-209	97.9	102	52.8	89.6

Checkcode 823-496-CVB 209-506-ZYY 093-755-ZLG 060-855-CYP

() = DL
[] = EMPC


PCB TEQ
Project ID: 31204009
A5019
pg/g
0.0700
0.0600
0.0500
0.0400
0.0300
0.0200
0.0100
0.0000
0.0000133
0.000331
0.0000198
0.000409
Method Blank A5019-R
AQ-SS-03-10
Method Blank A5019-R-R
AQ-SS-03-10
ND = 0; EMPC = 0
ND = 0; EMPC = EMPC
ND = DL/2; EMPC = 0
ND = DL/2; EMPC = EMPC
ND = DL; EMPC = 0
ND = DL; EMPC = EMPC


PCB WHO
Project ID: 31204009
A5019
pg/g
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.443
4.96
0.438
6.26
Method Blank A5019-R
AQ-SS-03-10
Method Blank A5019-R-R
AQ-SS-03-10
PCB-77
PCB-81
PCB-105
PCB-114
PCB-118
PCB-123
PCB-126
PCB-156/157
PCB-167
PCB-169
PCB-189


Mean Recoveries of Extraction Standards (N=4)
Project ID: 31204009
A5019
% Rec.
100
90
80
70
60
50
40
30
20
10
0
ES PCB-1
24-122
30-115
30-103
32-111
32-108
28-90
38-103
36-105
27-88
42-111
37-104
39-109
38-106
32-90
39-99
36-94
41-96
40-97
40-91
41-106
38-103
35-101
43-94
39-110
47-98
50-106
46-118
53-102
ES PCB-1
ES PCB-3
ES PCB-4
ES PCB-15
ES PCB-19
ES PCB-37
ES PCB-54
ES PCB-77
ES PCB-81
ES PCB-104
ES PCB-105
ES PCB-114
ES PCB-118
ES PCB-123
ES PCB-126
ES PCB-153
ES PCB-155
ES PCB-156/157
ES PCB-167
ES PCB-169
ES PCB-170
ES PCB-180
ES PCB-188
ES PCB-189
ES PCB-202
ES PCB-205
ES PCB-206
ES PCB-208
ES PCB-209
Std. Dev.
Mean

Sample ID: AQ-SS-03-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Solid	Project No.:	A5019	Date Received:	13-Dec-2012
Project ID:	31204009	Weight/Volume:	10.35 g	Sample ID:	A5019_10601_PCB_001-R	Date Extracted:	28-Jan-2013
Date Collected:	12-Dec-2012	% Solids	57.3 %	QC Batch No.:	10601	Date Analyzed:	02-Feb-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	0.779			J	ES PCB-1	83.7
PCB-81 344'5-TeCB	ND	0.327			ES PCB-3	91.5
PCB-105 233'44'-PeCB	2.79				ES PCB-4	104
PCB-114 2344'5-PeCB	ND	0.342			ES PCB-15	103
PCB-118 23'44'5-PeCB	4.96				ES PCB-19	111
PCB-123 23'44'5'-PeCB	ND	0.328			ES PCB-37	90.8
PCB-126 33'44'5-PeCB	ND	0.431			ES PCB-54	89.8
PCB-156/157 233'44'5/233'44'5'-HxCB	0.694			J C	ES PCB-77	96.7
PCB-167 23'44'55'-HxCB	ND	0.372			ES PCB-81	99.5
PCB-169 33'44'55'-HxCB	ND	0.503			ES PCB-104	88.2
PCB-189 233'44'55'-HpCB	ND	0.319			ES PCB-105	104
					ES PCB-114	104
TEQs (WHO M/H)					ES PCB-118	109
					ES PCB-123	106
ND = 0	0.000331		0.000331		ES PCB-126	89.6
ND = 0.5 x DL	0.0295		0.0295		ES PCB-153	99.3
ND = DL	0.0587		0.0587		ES PCB-155	94.1
					ES PCB-156/157	96.2
Totals					ES PCB-167	97.4
					ES PCB-169	90.6
					ES PCB-170	106
					ES PCB-180	103
					ES PCB-188	101
					ES PCB-189	94.4
					ES PCB-202	110
					ES PCB-205	98.3
					ES PCB-206	106
					ES PCB-208	118
					ES PCB-209	102
					CS PCB-28	89.2
					CS PCB-111	111
					CS PCB-178	107

Checkcode: 209-506-ZYY

SGS AP PCB 2013 Rev. 1.0

Report Created: 04-Feb-2013 12:34 Analyst: LB

SGS ANALYTICAL PERSPECTIVES

2714 Exchange Drive
Wilmington
North Carolina 28405
USA

T: 910 794-1613
F: 910 794-3919
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Sample ID: Method Blank A5019-R

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Solid	Project No.:	A5019	Date Received:	n/a
Project ID:	31204009	Weight/Volume:	10.00 g	Sample ID:	MB1_10601_PCB_SDS	Date Extracted:	n/a
Date Collected:	n/a	% Solids	n/a	QC Batch No.:	10601	Date Analyzed:	02-Feb-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	ND	0.343			ES PCB-1	80.5
PCB-81 344'5-TeCB	ND	0.356			ES PCB-3	86
PCB-105 233'44'-PeCB	ND	0.299			ES PCB-4	101
PCB-114 2344'5-PeCB	ND	0.305			ES PCB-15	97.3
PCB-118 23'44'5-PeCB	0.443			J	ES PCB-19	109
PCB-123 23'44'5'-PeCB	ND	0.29			ES PCB-37	87.2
PCB-126 33'44'5-PeCB	ND	0.443			ES PCB-54	82.5
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	0.554		C	ES PCB-77	95.1
PCB-167 23'44'55'-HxCB	ND	0.396			ES PCB-81	96.1
PCB-169 33'44'55'-HxCB	ND	0.533			ES PCB-104	81.3
PCB-189 233'44'55'-HpCB	ND	0.366			ES PCB-105	102
					ES PCB-114	97.6
TEQs (WHO M/H)					ES PCB-118	101
					ES PCB-123	100
ND = 0	0.0000133		0.0000133		ES PCB-126	85.9
ND = 0.5 x DL	0.0303		0.0303		ES PCB-153	96.2
ND = DL	0.0605		0.0605		ES PCB-155	92.4
					ES PCB-156/157	91.6
Totals					ES PCB-167	93.1
					ES PCB-169	86.2
					ES PCB-170	97.3
					ES PCB-180	95.6
					ES PCB-188	97.7
					ES PCB-189	86.6
					ES PCB-202	108
					ES PCB-205	93.3
					ES PCB-206	98.8
					ES PCB-208	112
					ES PCB-209	97.9
					CS PCB-28	86.2
					CS PCB-111	108
					CS PCB-178	108

Checkcode: 823-496-CVB

SGS AP PCB 2013 Rev. 1.0

Report Created: 04-Feb-2013 12:26 Analyst: LB

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2714 Exchange Drive
Wilmington
North Carolina 28405
USA

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OPR1_10601_PCB

Method HR-PCB

Analyte	Spike pg/uL	Conc. pg/uL	Recovery
PCB-77 33'44'-TeCB	50	50.7	101%
PCB-81 344'5-TeCB	50	50.7	101%
PCB-105 233'44'-PeCB	50	49.4	98.8%
PCB-114 2344'5-PeCB	50	46.7	93.4%
PCB-118 23'44'5-PeCB	50	49.7	99.4%
PCB-123 2'344'5-PeCB	50	49.6	99.2%
PCB-126 33'44'5-PeCB	50	48.8	97.6%
PCB-156/157 233'44'5/233'44'5'	100	96.3	96.3%
PCB-167 23'44'55'-HxCB	50	48.2	96.4%
PCB-169 33'44'55'-HxCB	50	48.4	96.8%
PCB-189 233'44'55'-HpCB	50	50.3	101%

Reviewer .....
Date .....

Sample ID: AQ-SS-03-10 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Solid	Project No.:	A5019	Date Received:	13-Dec-2012
Project ID:	31204009	Weight/Volume:	10.03 g	Sample ID:	A5019_10631_PCB_001-R-R	Date Extracted:	05-Feb-2013
Date Collected:	12-Dec-2012	% Solids	57.3%	QC Batch No.:	10631	Date Analyzed:	09-Feb-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	0.88			J	ES PCB-1	114
PCB-81 344'5-TeCB	ND	0.0953			ES PCB-3	122
PCB-105 233'44'-PeCB	3.25				ES PCB-4	115
PCB-114 2344'5-PeCB	EMPC		0.179	J	ES PCB-15	88.6
PCB-118 23'44'5-PeCB	6.26				ES PCB-19	95.9
PCB-123 23'44'5'-PeCB	ND	0.0906			ES PCB-37	103
PCB-126 33'44'5-PeCB	ND	0.109			ES PCB-54	79
PCB-156/157 233'44'5/233'44'5'-HxCB	0.705			J C	ES PCB-77	103
PCB-167 23'44'55'-HxCB	0.31			J	ES PCB-81	105
PCB-169 33'44'55'-HxCB	ND	0.131			ES PCB-104	72.8
PCB-189 233'44'55'-HpCB	ND	0.0933			ES PCB-105	111
					ES PCB-114	97.6
TEQs (WHO M/H)					ES PCB-118	99.2
					ES PCB-123	97.6
ND = 0	0.000404		0.000409		ES PCB-126	74.9
ND = 0.5 x DL	0.00783		0.00784		ES PCB-153	91.1
ND = DL	0.0153		0.0153		ES PCB-155	82.8
					ES PCB-156/157	82.1
Totals					ES PCB-167	81.5
					ES PCB-169	78.2
					ES PCB-170	93.8
					ES PCB-180	95.5
					ES PCB-188	81.9
					ES PCB-189	84.4
					ES PCB-202	81.1
					ES PCB-205	91.5
					ES PCB-206	90.4
					ES PCB-208	92.1
					ES PCB-209	89.6
					CS PCB-28	88.3
					CS PCB-111	105
					CS PCB-178	91.2

Checkcode: 060-855-CYP SGS AP PCB 2013 Rev. 1.0 Report Created: 11-Feb-2013 11:05 Analyst: LB

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Wilmington
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Sample ID: Method Blank A5019-R-R

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	ANCHORENV	Matrix:	Solid	Project No.:	A5019	Date Received:	n/a
Project ID:	31204009	Weight/Volume:	10.00 g	Sample ID:	MB1_10631_PCB_TLX	Date Extracted:	n/a
Date Collected:	n/a	% Solids	n/a	QC Batch No.:	10631	Date Analyzed:	09-Feb-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/g	pg/g	pg/g			%
PCB-77 33'44'-TeCB	ND	0.174			ES PCB-1	17.9 V
PCB-81 344'5-TeCB	ND	0.188			ES PCB-3	24.1 V
PCB-105 233'44'-PeCB	EMPC		0.223	J	ES PCB-4	30.5
PCB-114 2344'5-PeCB	ND	0.169			ES PCB-15	29.7
PCB-118 23'44'5-PeCB	EMPC		0.438	J	ES PCB-19	31.5
PCB-123 23'44'5'-PeCB	ND	0.171			ES PCB-37	32.2
PCB-126 33'44'5-PeCB	ND	0.161			ES PCB-54	27.9
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	0.211		C	ES PCB-77	38.5
PCB-167 23'44'55'-HxCB	ND	0.163			ES PCB-81	36
PCB-169 33'44'55'-HxCB	ND	0.192			ES PCB-104	27.4
PCB-189 233'44'55'-HpCB	ND	0.126			ES PCB-105	41.8
					ES PCB-114	37.2
TEQs (WHO M/H)					ES PCB-118	38.7
					ES PCB-123	37.9
ND = 0	0		0.0000198		ES PCB-126	32.2
ND = 0.5 x DL	0.011		0.011		ES PCB-153	38.7
ND = DL	0.0219		0.0219		ES PCB-155	35.6
					ES PCB-156/157	41
Totals					ES PCB-167	39.8
					ES PCB-169	39.9
					ES PCB-170	41
					ES PCB-180	38
					ES PCB-188	34.8
					ES PCB-189	42.9
					ES PCB-202	39.4
					ES PCB-205	47.3
					ES PCB-206	49.5
					ES PCB-208	46.5
					ES PCB-209	52.8
					CS PCB-28	90.6
					CS PCB-111	101
					CS PCB-178	88.8

Checkcode: 093-755-ZLG

SGS AP PCB 2013 Rev. 1.0

Report Created: 11-Feb-2013 11:03 Analyst: LB

SGS ANALYTICAL PERSPECTIVES

2714 Exchange Drive
Wilmington
North Carolina 28405
USA

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OPR1_10631_PCB

Method HR-PCB

Analyte	Spike pg/uL	Conc. pg/uL	Recovery
PCB-77 33'44'-TeCB	50	49.9	99.8%
PCB-81 344'5-TeCB	50	51.0	102%
PCB-105 233'44'-PeCB	50	51.0	102%
PCB-114 2344'5-PeCB	50	51.5	103%
PCB-118 23'44'5-PeCB	50	49.3	98.6%
PCB-123 2'344'5-PeCB	50	47.2	94.4%
PCB-126 33'44'5-PeCB	50	50.8	102%
PCB-156/157 233'44'5/233'44'5'	100	99.5	99.5%
PCB-167 23'44'55'-HxCB	50	50.7	101%
PCB-169 33'44'55'-HxCB	50	50.8	102%
PCB-189 233'44'55'-HpCB	50	50.6	101%

Reviewer .....
Date .....

SGS North America Inc.
CHAIN OF CUSTODY RECORD

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- New Jersey
- North Carolina
- West Virginia
- Maryland
- New York
- Indiana
- Kentucky

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(1)
CLIENT: Anchor QEA
CONTACT: Cindy Fields PHONE NO: 206 287 9130
PROJECT NAME: Former Reynolds RI/FS PROJECT/ PWSID/ PERMIT#: 110730-02.01
REPORTS TO: Cindy Fields EMAIL: labdata@anchorqea.com cfields@anchorQEA.com
INVOICE TO: Cindy Fields Anchor QEA QUOTE #: P.O. #:

SGS Reference #: 3204009 page 1 of 1

(2)

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used	Analysis Required (3) PCB Congeners	REMARKS/ LOC ID
	AQ-SS-03-10	12/12/12	1305	SE	1	G		X	
		PG							

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
David Gillingham Todd Gillespie	12/13/12	0645	
Relinquished By: (2)	Date	Time	Received By:
Kim Leyden	12/13/12	1400	
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:
	12/13/12	1100	Barbara Hagen

(4)
DOD Project? YES NO
Cooler ID _____
Data Deliverable Requirements:

Requested Turnaround Time and-or Special Instructions:

Temperature Blank °C: 2.4° or Ambient [ ]
(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)
INTACT BROKEN (ABSENT)
(See attached Sample Receipt Form)

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **Anchor QEA** Work Order No.: **31204009**

1. _X_ Shipped
   ___ Hand Delivered

2. _X_ COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container
   _X_ No Custody Tape

4. _X_ Samples Intact
   ___ Samples Broken / Leaking

5. _X_ Chilled on Receipt Actual Temp.(s) in °C: 2.4
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. _X_ Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   ___ HCL < 2
   ___ Additional Preservatives verified (see notes)

8. _X_ Received Within Holding Time
   ___ Not Received Within Holding Time

9. _X_ No Discrepancies Noted
   ___ Discrepancies Noted
   ___ NCDENR notified of Discrepancies*

10. ___ No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

Notes:

Comments:

Inspected and Logged in by: JJ

Date: Mon-12/17/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met.

SGS ANALYTICAL PERSPECTIVES

Project Initiation Form

Project Number: A5019-R

Initiation Date: ~~17-Dec-12~~ 23 Jan 13

Client Name: ANCHORENV

Analysis Method: 1668 PCB

Sample Matrix: Soil

TAT: ~~15~~ 14 days

Project Manager: Amy

Special Instructions

Horizon Method: I-1668WHOS

1668A - WHO list/coplanars only OPR
% solids, report on dry-weight basis
2714 spiking
Full report from 2714
Anchor - Equis EDD

INV via Horizon

Reporting Instructions

1668A - WHO list/coplanars only OPR
% solids, report on dry-weight basis
2714 spiking
Full report from 2714
Anchor - Equis EDD

INV via Horizon

PM Initials: aboehm Date: 17-Dec-2012

SGS ANALYTICAL PERSPECTIVES

1668 PCB | **Solids**

Project # A5019-R | Batch # 10601 | Extract Init/Date: MA 1/28/13 | ASECS Init/Date: ~~Tw 1/31/13~~ Transfer Init/Date: MA 2-1-13

AP Sample ID	Client Sample ID	Extract WT (g)	SDS #	RV Initials	RV #	(Td)	ASECS #	Observations
A5019_10601_001-R	AQ-SS-03-10	18.07	3	MA	2	–	10	Brown Clumpy Mud
MB1_10601	Method Blank A5019-R	10.00	1	MA	4	–	12	Hydromatrix
OPR1_10601	0_10601_OPR001	10.00	2	MA	3	–	11	Hydromatrix
				1/30 MA			Tw 1/31/13	

Special Instructions

Horizon Method: I-1668WHOS 1668A - WHO list/coplanars only OPR % solids, report on dry-weight basis
2714 spiking Full report from 2714 Anchor - Equis EDD INV via Horizon

Cycle Time

Start	3:30
Stop	9:30 AM
Start	4:00 PM
Stop	9:30 AM

Supply IDs

Toluene	DH579	Acid Silica	01312013
CH_2CL_2	D6836	Base Silica	02 92013
Sand	—	HydroMatrix	—
Florisil	01162013	Tetradecane	102520L
Hexane	DH586	~~Na_2SO_4~~ ~~H_2SO_4~~	1705 2012
Silica	~~01312013~~ EE Tw 1/31/13 01112013	~~AgNO3~~ K-Silicate	01282013

SGS ANALYTICAL PERSPECTIVES

1668A | **Solids**

Project # A5019-R-R | Batch # 10631 | Extract Init/Date: NT 2/5/13 | ASECS Init/Date: TM 2/7/13 Transfer Init/Date: MM 2/7/13

AP Sample ID	Client Sample ID	Extract WT (g)	SDS # HEX / TOL	RV Initials	RV #	(Td)	ASECS #	Observations
A5019_10631_001-R-R	AQ-SS-03-10	17.51	3	TM	1	—	3	Clay like mud
MB1_10631	Method Blank A5019-R-R	10.00	1	TM	2	—	1	Hydromatrix
OPR1_10631	0_10631_OPR001	10.00	2	TM	3	—	2	Hydromatrix
				2/7/13	2/7/13		TM 2/7/13	

Special Instructions

Horizon Method: I-1668WHOS 1668A - WHO list/coplanars only OPR % solids, report on dry-weight basis
2714 spiking Full report from 2714 Anchor - Equis EDD INV via Horizon

Cycle Time

Start 4:30 pm
Stop HEX
Start
Stop TOL

Supply IDs

Toluene	DH579	Acid Silica	02062013
CH_2CL_2	D6936	Base Silica	02072013
Sand	—	HydroMatrix	—
Florisil	01292013	Tetradecane	10252014
Hexane	DH586	~~Na_2SO_4~~ H_2SO_4	12052012
Silica	01112013	~~K Silicate~~ AgNO$_3$	02072013

SGS ANALYTICAL PERSPECTIVES

1668 PCB

Solid

Project # A5019-R Batch # 10601

Inter-Department Communication Sheet

2/4/13

Special Instructions

Horizon Method: I-1668WHOS 1668A - WHO list/coplanars only OPR % solids, report on dry-weight basis 2714 spiking Full report from 2714 Anchor - Equis EDD INV via Horizon

% Solids

ANALYTICAL PERSPECTIVES

Project: A5019

Batch #:

Procedure:
- Tare Balance.
- Add boat and weigh. Record "Boat Wt."
- Add the sample (2-10 g) to the boat and record "Wet Wt. + Boat Wt." (total).
- Dry in oven overnight @ 107° C.
- Tare Balance.
- Return dish to toploader and record "Residue + Boat Wt."

AP Sample ID	Boat Wt.	Wet Wt. + Boat Wt.	Chem/Date	Residue + Boat Wt.	Chem/Date	Comments
001	1.33	4.14	M 11/25/13	2.94	1/28/13	17.45

SGS ANALYTICAL PERSPECTIVES

Wt. Volume Results for Extraction Batch

10601

Batch Project #'s: A5019

Comments:

AP Sample ID	Boat WT.	Wet Wt. + Boat Wt.	Residue+ Boat Wt.	% Solid	Average % Solid	RSD	Qtest Ratio (if Applicable)	Dry Wt. Equiv.	Extracted Wt.	Final Wt.
A5019_001-R	1.33	4.14	2.94	57.30%	57.30%			17.45	18.07	10.35

SGS ANALYTICAL PERSPECTIVES

Wt. Volume Results for Extraction Batch
10631

Batch Project #'s: A5019

Comments:

AP Sample ID	Boat WT.	Wet Wt. + Boat Wt.	Residue+ Boat Wt.	% Solid	Average % Solid	RSD	Qtest Ratio (if Applicable)	Dry Wt. Equiv.	Extracted Wt.	Final Wt.
A5019_001-R-R	1.33	4.14	2.94	57.30%	57.30%			17.45	17.51	10.03
A5019_001-R-R	1.33	4.14	2.94	57.30%	57.30%			17.45	17.51	10.03

SGS ANALYTICAL PERSPECTIVES

1668 PCB | **Solids**

Project # A5019-R Batch # 10601

SPIKE PROFILE PCBs

Analyte	Spike Compounds	Spiked Amount	Spiked Volume	Solution Conc.	Split Factor	Final Volume	Final Solvent
PCB	ES	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane
	CS	2 ng	20 uL	100 pg/uL	1	20 uL	Nonane
	JS	2 ng	10 uL	200 pg/uL	1	20 uL	Nonane
	AAP68A Batch CS3	1 ng	20 uL	50 pg/uL	1	20 uL	Nonane
	AAP68A	1 ng	20 uL	50 pg/uL	1	20 uL	Nonane

Spiker Initials/Date: MM 1/28/13 | JK 1/30/13 | MM 2/1/13 | MM 1/28/13

AP Sample ID	Client Sample ID	PCB ES Amount: 20 µL Observer Initials	PCB AX-NOAA Amount: Observer Initials	PCB AAP68A Amount: Observer Initials	PCB CS/SS Amount: 20µL Observer Initials	PCB JS Amount: 10 Observer Initials	PCB 209 Ax Amt: 20µL
A5019_10601_001-R	AQ-SS-03-10	TM	-	-	TM	MM	-
MB1_10601	Method Blank A5019-R	TM	-	-	TM	MM	-
OPR1_10601	0_10601_OPR001	TM	-	-	TM	MM	TM
		1/28/13			1/30/13	2-1-13	1/28/13

Standard Information

	PCB ES	AAP68A	NOAA	PCB CS/SS	PCB JS	PCB 209 Ax
Std. Type						
Spike ID	07132012D			07132012D	07132012C	01102012A
SIL #	12-106-1			12-106-2	12-161-5	12-3-1
Concentration	100	50	50	100	200	50
Units	pg /µL	pg /µL	pg /µL	pg /µL	pg /µL	pg/µL
Exp. Date	12/20/13			12/20/13	11-29-13	4/10/13
Spike amount (µL)	20	20	20	20	10	20µL

TRANSFERRED: MM 1/28/13 2-1-13

RECEIVED: MM 2-1-13

SGS Analytical Perspectives

1668A

Solids

Project # A5019-R-R Batch # 10631

SPIKE PROFILE PCBs

Analyte	Spike Compounds	Spiked Amount	Spiked Volume	Solution Conc.	Split Factor	Final Volume	Final Solvent

Spiker Initials/Date: PA 2/5/13 PA 2/5/13 mm 2/7/13 Jm 2/7/13

AP Sample ID	Client Sample ID	PCB ES Amount: 20 ul Observer Initials	PCB AX 209 Amount: 20 ul Observer Initials	PCB CS Amount: 20 ml Observer Initials	PCB JS Amount: 10 ml Observer Initials	Amount: Observer Initials	
A5019_10631_001-R-R	AQ-SS-03-10	PA	—	Jm	mm		
MB1_10631	Method Blank A5019-R-R	PA	—	Jm	mm		
OPR1_10631	0_10631_OPR001	~~PA~~ PA	PA	Jm	mm		
		EE 2/5/13 PA	2/5/13	2/7/13	2/7/13		
		2/5/13					

Standard Information

			PCB ES	PCB AX 209	PCB CS	PCB JS	
Std. Type							
Spike ID			071320120	011020124	071320120	071320120	
SIL #			12-106-1	12-3-1	12-106-2	12-106-3	
Concentration			100	50	100	200	
Units			pg /µL	pg /µL	pg /µL	pg /µL	
Exp. Date			12/20/13	1/10/13	12/20/13	12/20/13	
Spike amount (µL)			20	20	20	10	

RECEIVED: mm 2/7/13

Sample Receipt Notification

2714 Exchange Drive
Wilmington, NC 28405 USA
Tel: 910 794-1613
Toll Free: 866 846-8290
Fax: 910 794-3919

Project Manager:	*Amy Boehm*
Receipt Date & Time:	
AP Project name:	*A5019*
Requested TAT:	*15 days*
Projected due date:	*4-Jan-13*
Matrix:	*Soil*
Phone#:	*910-794-1613*
Email Address:	*Amy.Boehm@sgs.com*

Company Contact:	*Amy Boehm*
Company:	*ANCHORENV*
Project Name & Site:	*31204009*
Project PO#:	
QAAP/Contract #:	
Requested Analysis:	
Phone#:	*n/a*
Email Address:	*none*

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Sampling Date	Sampling Time	Received Temp	Container #	Shipping #
AQ-SS-03-10	A5019_001	31204009001		12-Dec-12	13:05	3	1	Nothing

Preservation Type:	Ice - Good Condition	**Sample Seals:**	No

Notes/Comments:

SGS Project

Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.

Received by: *Logged in by: Amy Boehm* *QC'ed by:* _____

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(1)
CLIENT: Anchor QEA
CONTACT: Cindy Fields PHONE NO: 206 287 9130
PROJECT NAME: Former Reynolds RI/FS PROJECT/ PWSID/ PERMIT#: 110730-02.01
REPORTS TO: Cindy Fields labdata@anchorqea.com cfields@anchorQEA.com
INVOICE TO: Cindy Fields Anchor QEA QUOTE #: P.O. #:

SGS Reference #: 31204009 page 1 of 1

(2)

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used	Analysis Required (3) PCB congeners	REMARKS/ LOC ID
	AQ-SS-03-10	12/12/12	1305	SE	1	G		X	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
David Gillingham	12/13/12	0645	
Relinquished By: (2)	Date	Time	Received By:
	12/13/12	1400	
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:
	12/13/12	1100	Barbara Hagen

(4)
DOD Project? YES NO
Cooler ID _____
Data Deliverable Requirements:
Requested Turnaround Time and-or Special Instructions:
Temperature Blank °C: 2.4° or Ambient [ ]
(See attached Sample Receipt Form)
Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT)
(See attached Sample Receipt Form)

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **Anchor QEA** Work Order No.: **31204009**

1. [X] Shipped
   [ ] Hand Delivered

2. [X] COC Present on Receipt
   [ ] No COC
   [ ] Additional Transmittal Forms

3. [ ] Custody Tape on Container
   [X] No Custody Tape

4. [X] Samples Intact
   [ ] Samples Broken / Leaking

5. [X] Chilled on Receipt Actual Temp.(s) in °C: 2.4
   [ ] Ambient on Receipt
   [ ] Walk-in on Ice; Coming down to temp.
   [ ] Received Outside of Temperature Specifications

6. [X] Sufficient Sample Submitted
   [ ] Insufficient Sample Submitted

7. [ ] Chlorine absent
   [ ] HNO3 < 2
   [ ] HCL < 2
   [ ] Additional Preservatives verified (see notes)

8. [X] Received Within Holding Time
   [ ] Not Received Within Holding Time

9. [X] No Discrepancies Noted
   [ ] Discrepancies Noted
   [ ] NCDENR notified of Discrepancies*

10. [ ] No Headspace present in VOC vials
    [ ] Headspace present in VOC vials >6mm

Notes:

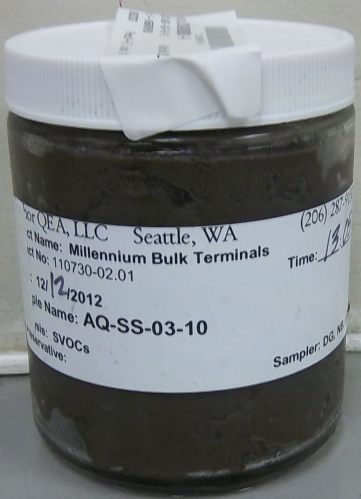
Comments:

Inspected and Logged in by: JJ
Date: Mon-12/17/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met.


4006
3990
3943
4009
3 4 5 6 7 8 9 10 11 12 13 14 15 16


SGS


for QEA, LLC Seattle, WA
(206) 287-9
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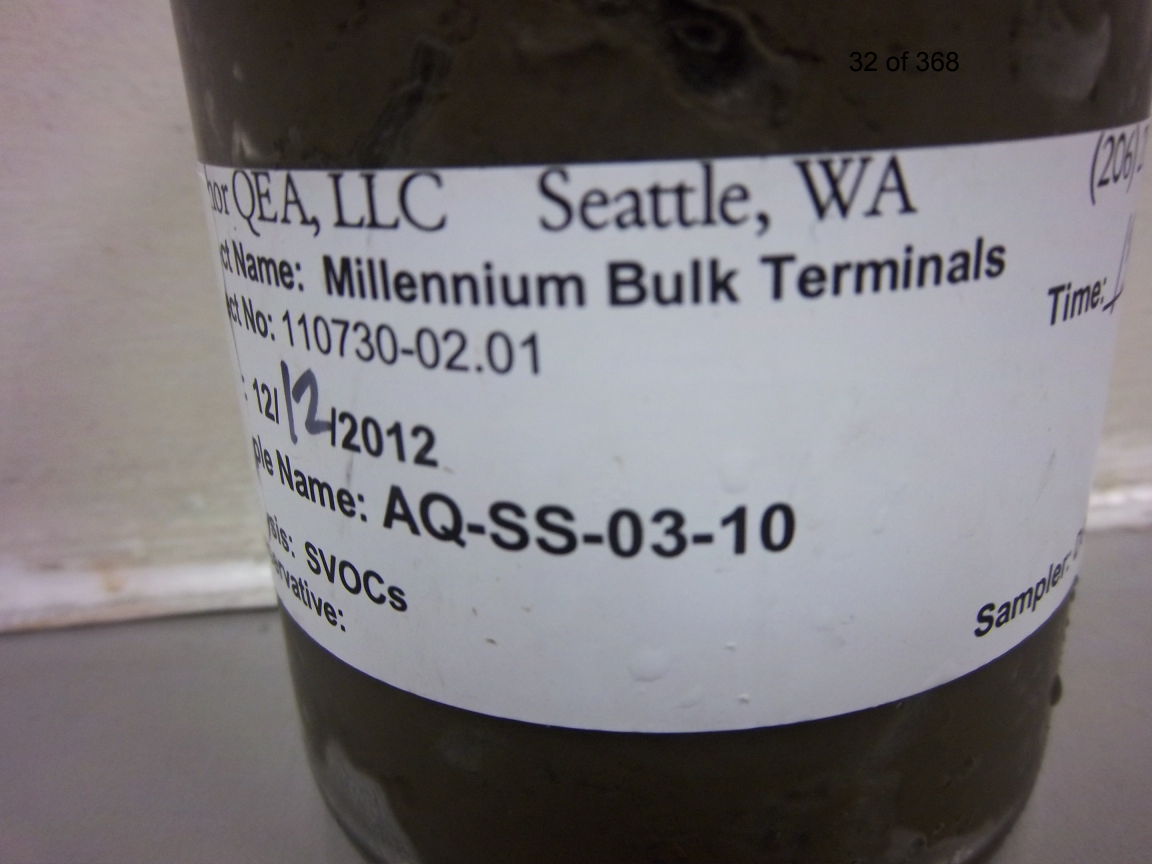
ct No: 110730-02.01
: 12/12/2012
ple Name: AQ-SS-03-10
ers: SVOCs
servative:
Time:
Sampler: DG, MS


for QEA, LLC Seattle, WA
(206)
ct Name: Millennium Bulk Terminals
Time:
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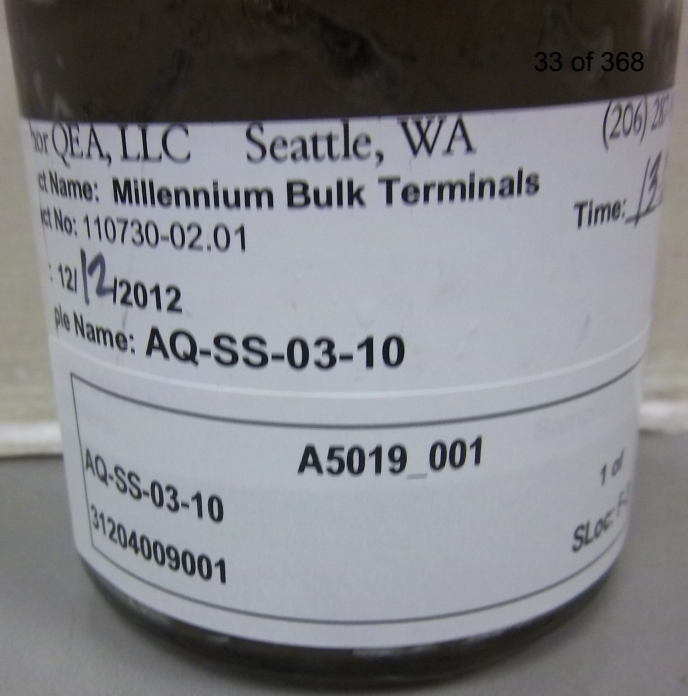

for QEA, LLC Seattle, WA
(206) 28
ct Name: Millennium Bulk Terminals
ect No: 110730-02.01
Time:
: 12/12/2012
ple Name: AQ-SS-03-10
A5019_001
AQ-SS-03-10
1 of
31204009001
SLoc:

SGS Analytical Perspectives — Run Log **Project: A5019_10631_PCB**

Instrument: MM6 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_b

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
2	130209V01	3	CS3_130209_PCB_VA	1.00	SIL 12-65-3	CEM, LKB	355-469	09-Feb-2013	14:01:01
4	130209V03	30	OPR1_10631_PCB	1.00	0_10631_OPR001	CEM, LKB	163-875	09-Feb-2013	15:51:06
5	130209V04	2	SBS_130209_PCB_VA	1.00	SIL 9-41-1	CEM, LKB	760-701	09-Feb-2013	16:46:07
7	130209V06 ✓	32	MB1_10631_PCB_TLX	10.00	Method Blank A5019-R-R	CEM, LKB	093-755	09-Feb-2013	18:36:13
11	130209V10	2	SBS_130209_PCB_VC	1.00	SIL 9-41-1	CEM, LKB	245-060	09-Feb-2013	22:16:38
12	130209V11 ✓	35	A5019_10631_PCB_001-R-R	10.03	AQ-SS-03-10	CEM, LKB	060-855	09-Feb-2013	23:11:41

✓ = manual calculation

REVIEWED
By Laura Boivin at 3:07 pm, Feb 11, 2013

APPROVED
By Amy Boehm at 2:37 pm, Feb 12, 2013

Datafile: 130209V06 **Client ID: Method Blank A5019-R-R** **Wt/Vol: 10.00 g** **ICAL: MM6_PCB_07132012_14DEC12 CS3_130209_PCB_VA**

Acquired: 09 Feb 2013 18:36:13 **Lab ID: MB1_10631_PCB_TLX** **J-level: 1 pg/g** **Nominal ES spike: 2000 pg**

MB1_10631_PCB_TLX Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Noise	DL
											Checkcode: 93-755-ZL
PCB-77 33'44'-TeCB	NotFnd		1.0006	-		0.00E+00		1.25	ND	1.93E+03	0.174
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.26	ND	1.93E+03	0.188
PCB-105 233'44'-PeCB	33.73	J EMPC	1.0007	1.0005	-0.4	1.91E+04	0.71	1.06	0.223	1.35E+03	0.165
PCB-114 2344'5-PeCB	NotFnd		1.0007	-		0.00E+00		1.11	ND	1.35E+03	0.169
PCB-118 23'44'5-PeCB	32.74	J EMPC	1.0008	1.0007	-0.2	3.73E+04	0.52	1.08	0.438	1.35E+03	0.165
PCB-123 23'44'5'-PeCB	NotFnd		1.0007	-		0.00E+00		1.12	ND	1.35E+03	0.171
PCB-126 33'44'5-PeCB	NotFnd		1.0005	-		0.00E+00		1.16	ND	1.35E+03	0.161
PCB-156/157 ...-HxCB	NotFnd	C	1.0005	-		0.00E+00		1.14	ND	1.19E+03	0.211
PCB-167 23'44'55'-HxCB	NotFnd		1.0005	-		0.00E+00		1.18	ND	1.19E+03	0.163
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.15	ND	1.19E+03	0.192
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.12	ND	1.15E+03	0.126
									Recv.		
ES PCB-77	30.74		1.3605	1.3605	0	1.99E+07	0.86	1.20	38.5 %	25%	150%
ES PCB-81	30.27		1.3396	1.3396	0	1.80E+07	0.83	1.16	36 %	25%	150%
ES PCB-105	33.71		1.1826	1.1827	+0.2	1.62E+07	1.51	1.10	41.8 %	25%	150%
ES PCB-114	33.17		1.1639	1.1639	0	1.52E+07	1.55	1.16	37.2 %	25%	150%
ES PCB-118	32.72		1.1481	1.1481	0	1.58E+07	1.56	1.15	38.7 %	25%	150%
ES PCB-123	32.44		1.1383	1.1383	0	1.52E+07	1.52	1.14	37.9 %	25%	150%
ES PCB-126	36.32		1.2745	1.2746	+0.2	1.52E+07	1.65	1.34	32.2 %	25%	150%
ES PCB-156/157	38.87		1.0995	1.0995	0	2.73E+07	1.25	0.98	41 %	25%	150%
ES PCB-167	37.91		1.0721	1.0721	0	1.37E+07	1.27	1.01	39.8 %	25%	150%
ES PCB-169	41.60		1.1767	1.1767	0	1.22E+07	1.29	0.90	39.9 %	25%	150%
ES PCB-189	43.73		0.9611	0.9611	0	1.85E+07	1.06	1.97	42.9 %	25%	150%
SS PCB-28	21.00	V	0.9296	0.9296	0	5.93E+07	1.10	1.18	282 %	30%	135%
SS PCB-111	30.79	V	1.0804	1.0804	0	4.10E+07	1.55	1.01	267 %	30%	135%
SS PCB-178	35.74	V	1.0110	1.0110	0	2.97E+07	1.05	0.60	256 %	30%	135%
CS PCB-28	21.00		0.9296	0.9296	0	5.93E+07	1.10	1.52	90.6 %	30%	135%
CS PCB-111	30.79		1.0804	1.0804	0	4.10E+07	1.55	1.15	101 %	30%	135%
CS PCB-178	35.74		1.0110	1.0110	0	2.97E+07	1.05	0.98	88.8 %	30%	135%
JS PCB-9	14.79					7.96E+07	1.64				
JS PCB-52	22.59					4.30E+07	0.78				
JS PCB-101	28.50					3.52E+07	1.57				
JS PCB-138	35.36					3.41E+07	1.33				
JS PCB-194	45.51					2.19E+07	0.91				

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



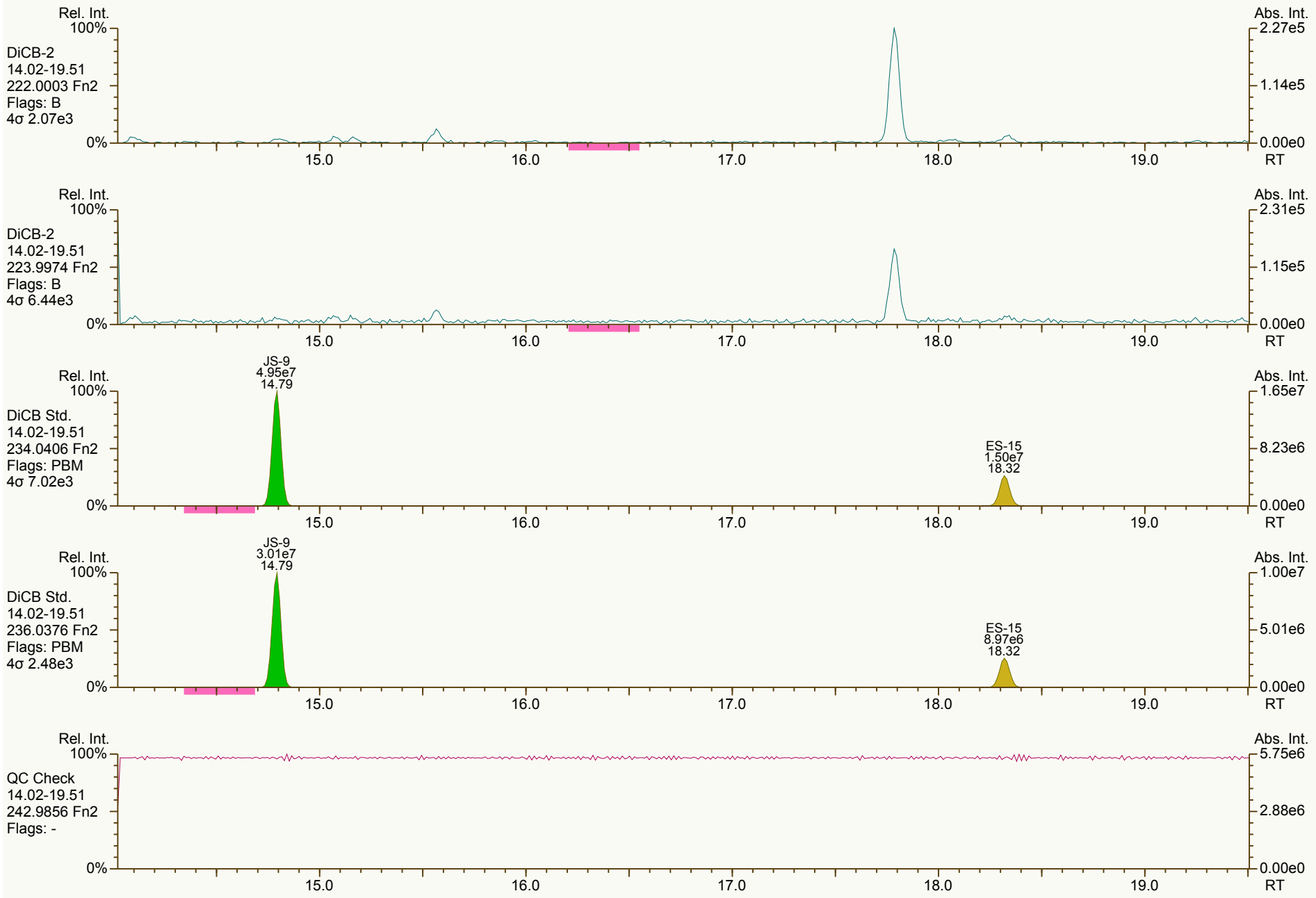
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1551, 3138 scc: 093-755 *Revised: 11-Feb-2013 10:55 (LKB) Printed: 11-Feb-2013 15:21 Page 2 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8167, 3981 scc: 093-755 *PKD: 11-Feb-2013 10:56 Printed: 11-Feb-2013 15:21 Page 3 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



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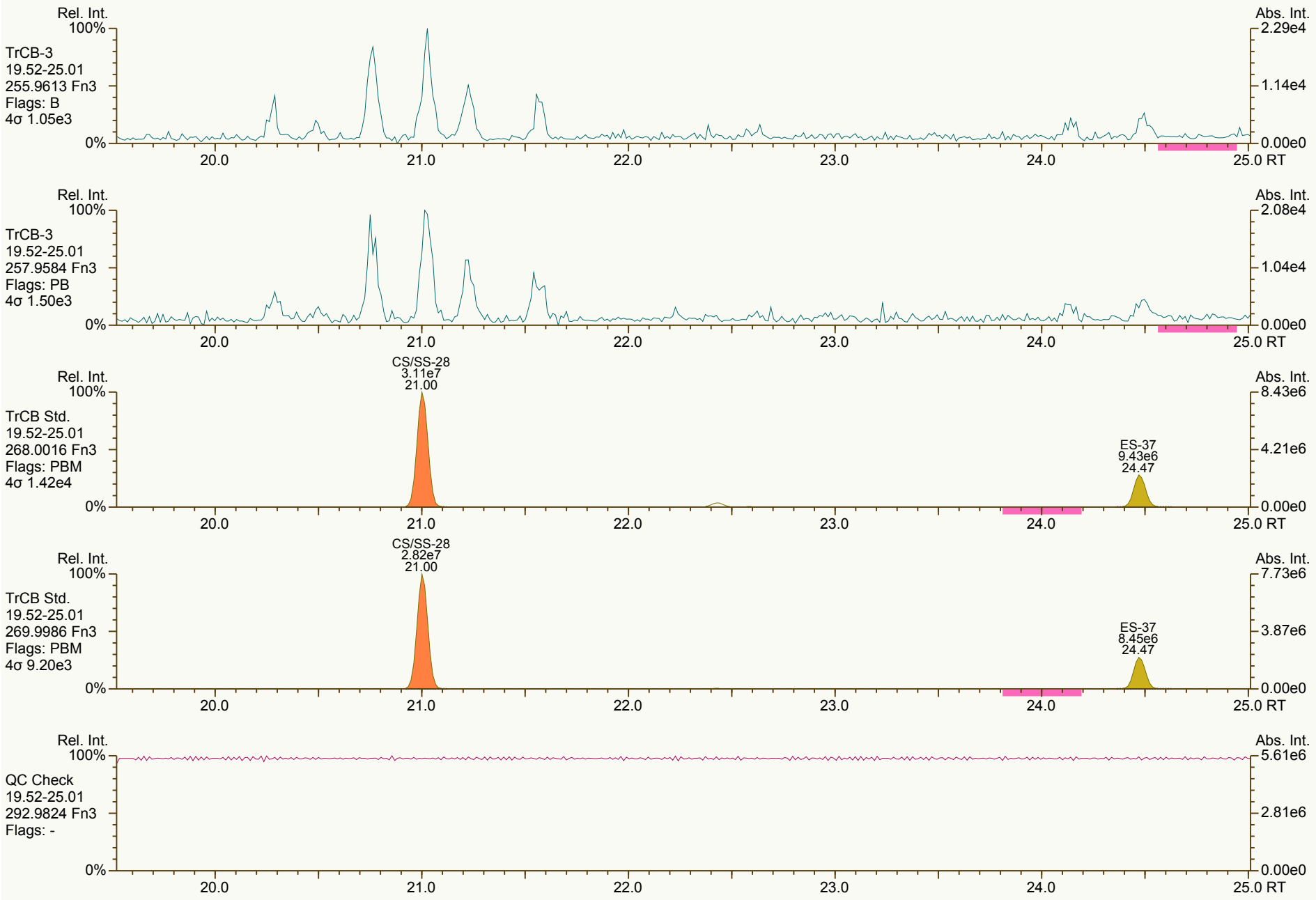
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9214, 3003 scc: 093-755 *PKD: 11-Feb-2013 10:56 Printed: 11-Feb-2013 15:21 Page 5 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5403, 9532 scc: 093-755 *PKD: 11-Feb-2013 10:56 Printed: 11-Feb-2013 15:21 Page 6 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



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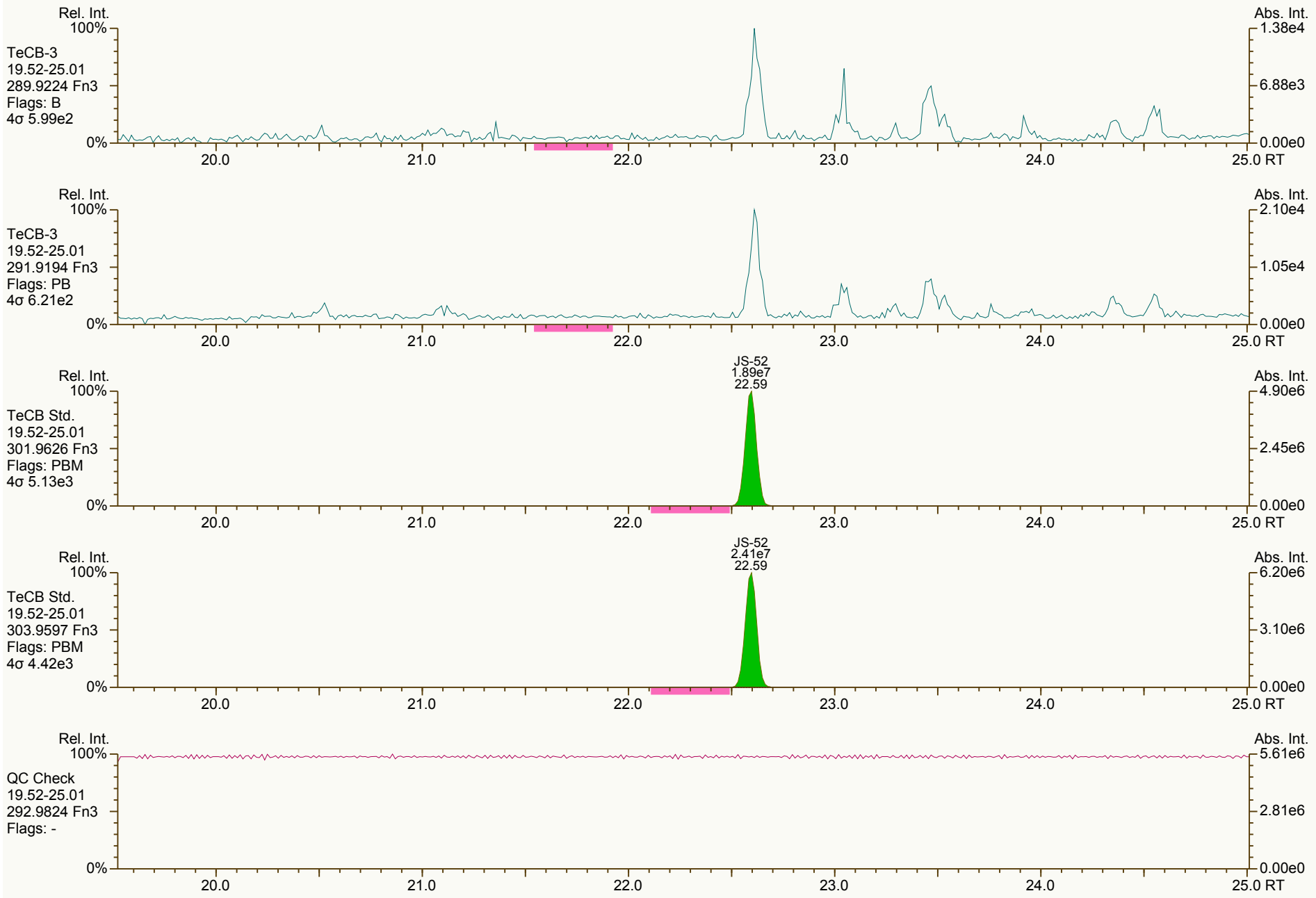
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0721, 7068 scc: 093-755 *Revised: 11-Feb-2013 10:53 (LKB) Printed: 11-Feb-2013 15:21 Page 7 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2261, 9978 scc: 093-755 *PKD: 11-Feb-2013 10:56 Printed: 11-Feb-2013 15:21 Page 8 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
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SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
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SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0350, 3488 scc: 093-755 *PKD: 11-Feb-2013 10:54 Printed: 11-Feb-2013 15:21 Page 11 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6173, 0099 scc: 093-755 *Revised: 11-Feb-2013 10:55 (LKB) Printed: 11-Feb-2013 15:21 Page 12 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
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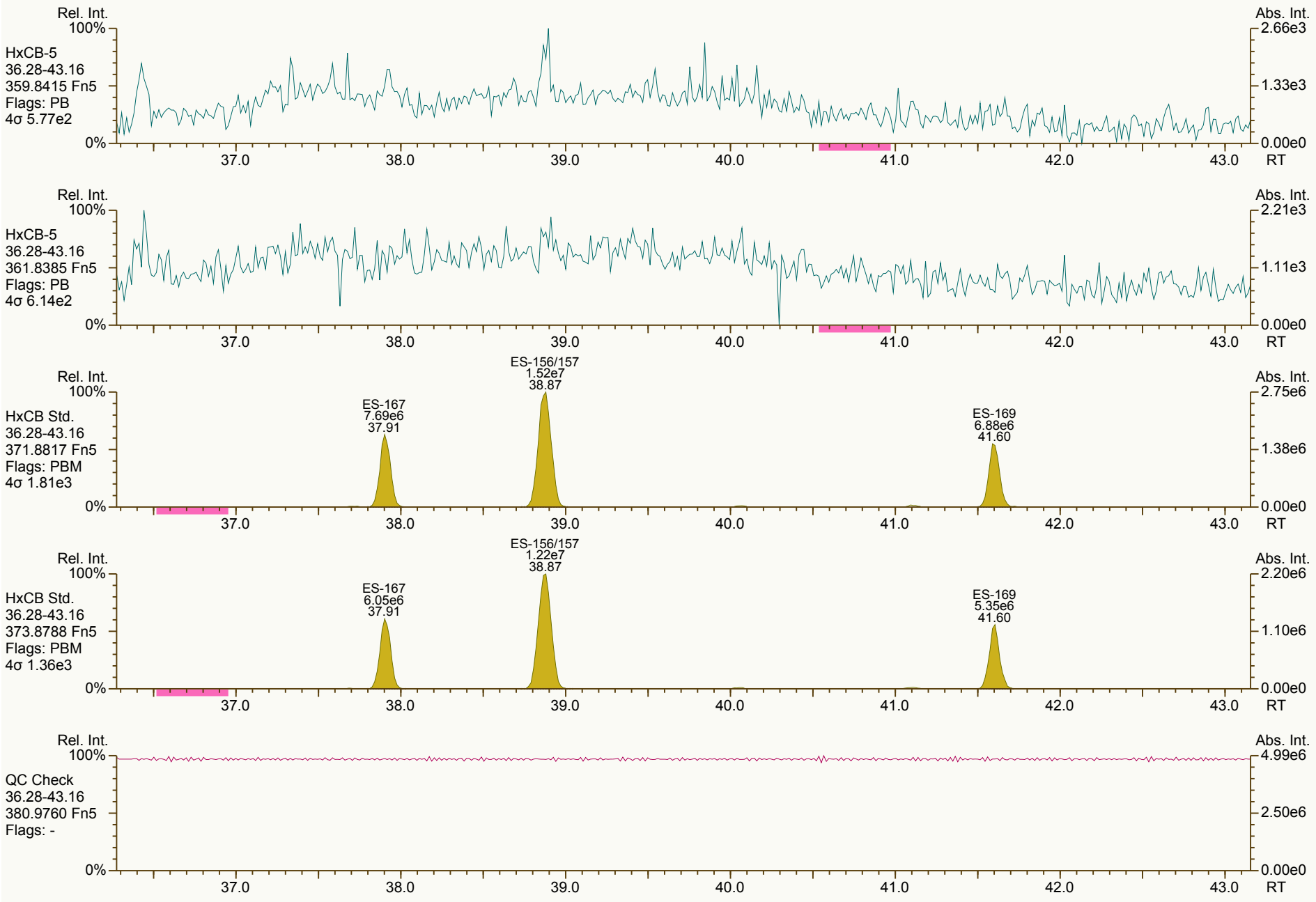
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1659, 4612 scc: 093-755 *PKD: 11-Feb-2013 10:56 Printed: 11-Feb-2013 15:21 Page 13 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8540, 7369 scc: 093-755 *PKD: 11-Feb-2013 10:54 Printed: 11-Feb-2013 15:21 Page 14 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



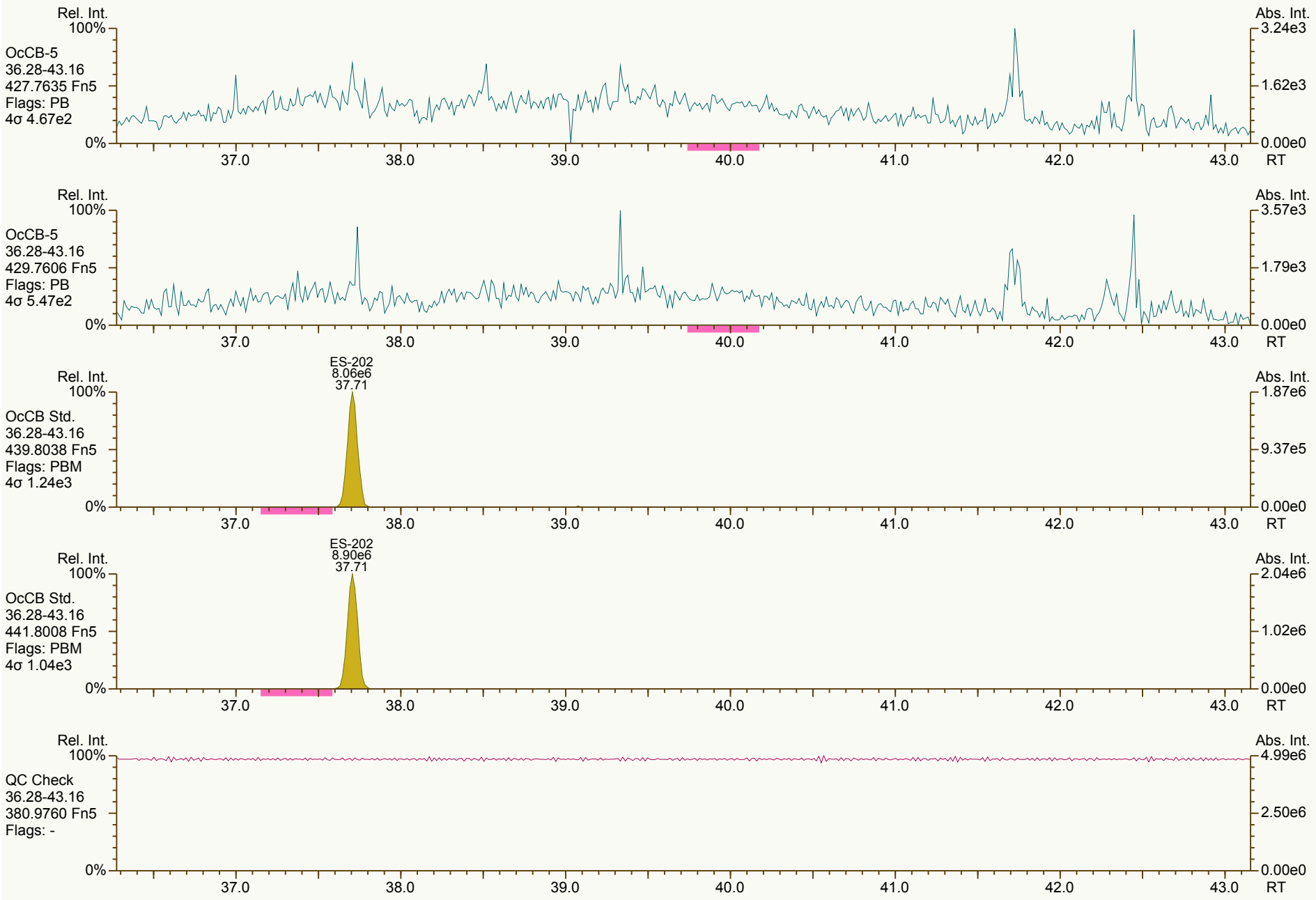
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1071, 1118 scc: 093-755 *PKD: 11-Feb-2013 10:56 Printed: 11-Feb-2013 15:21 Page 17 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



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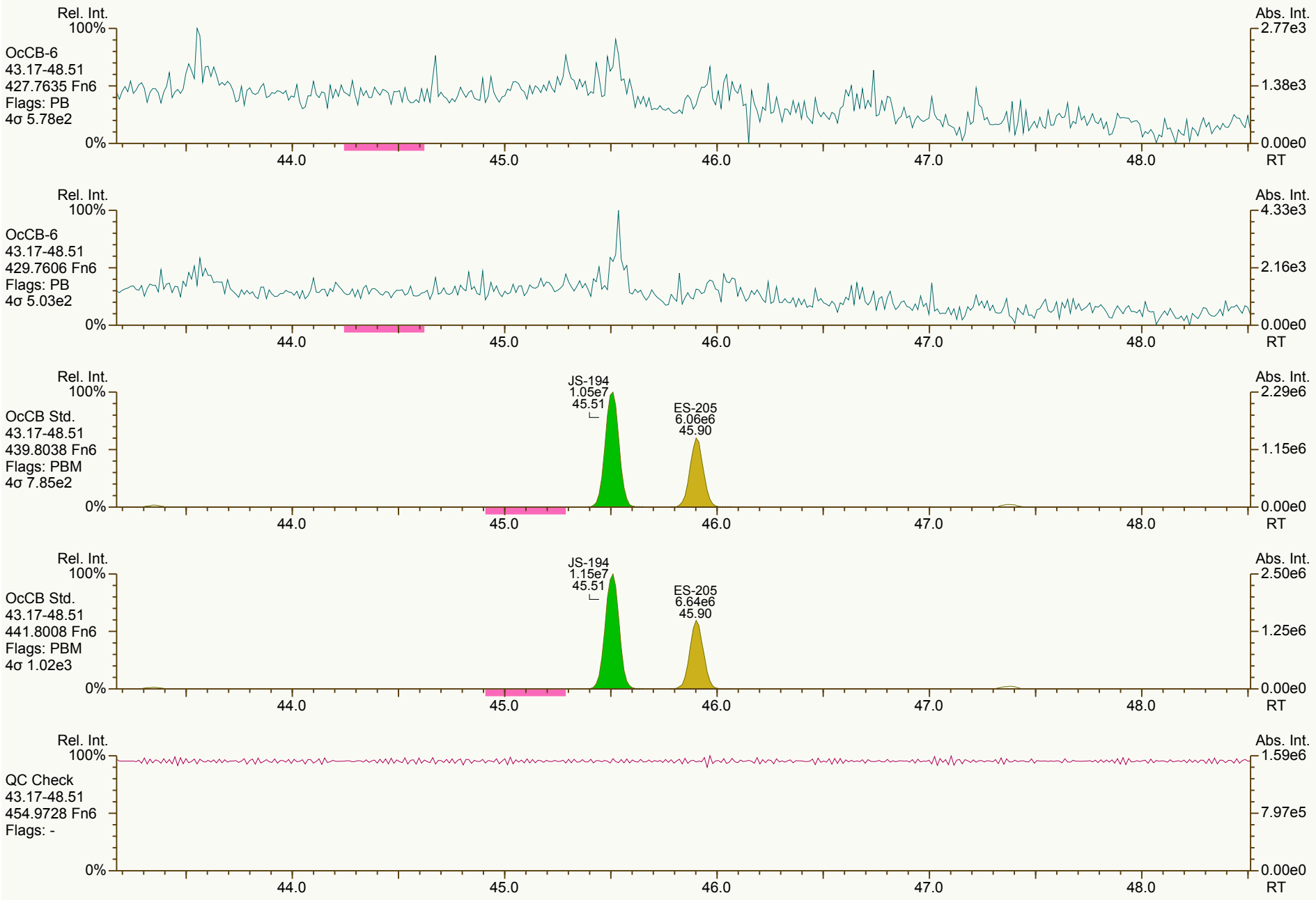
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2410, 7416 scc: 093-755 *PKD: 11-Feb-2013 10:54 Printed: 11-Feb-2013 15:21 Page 18 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



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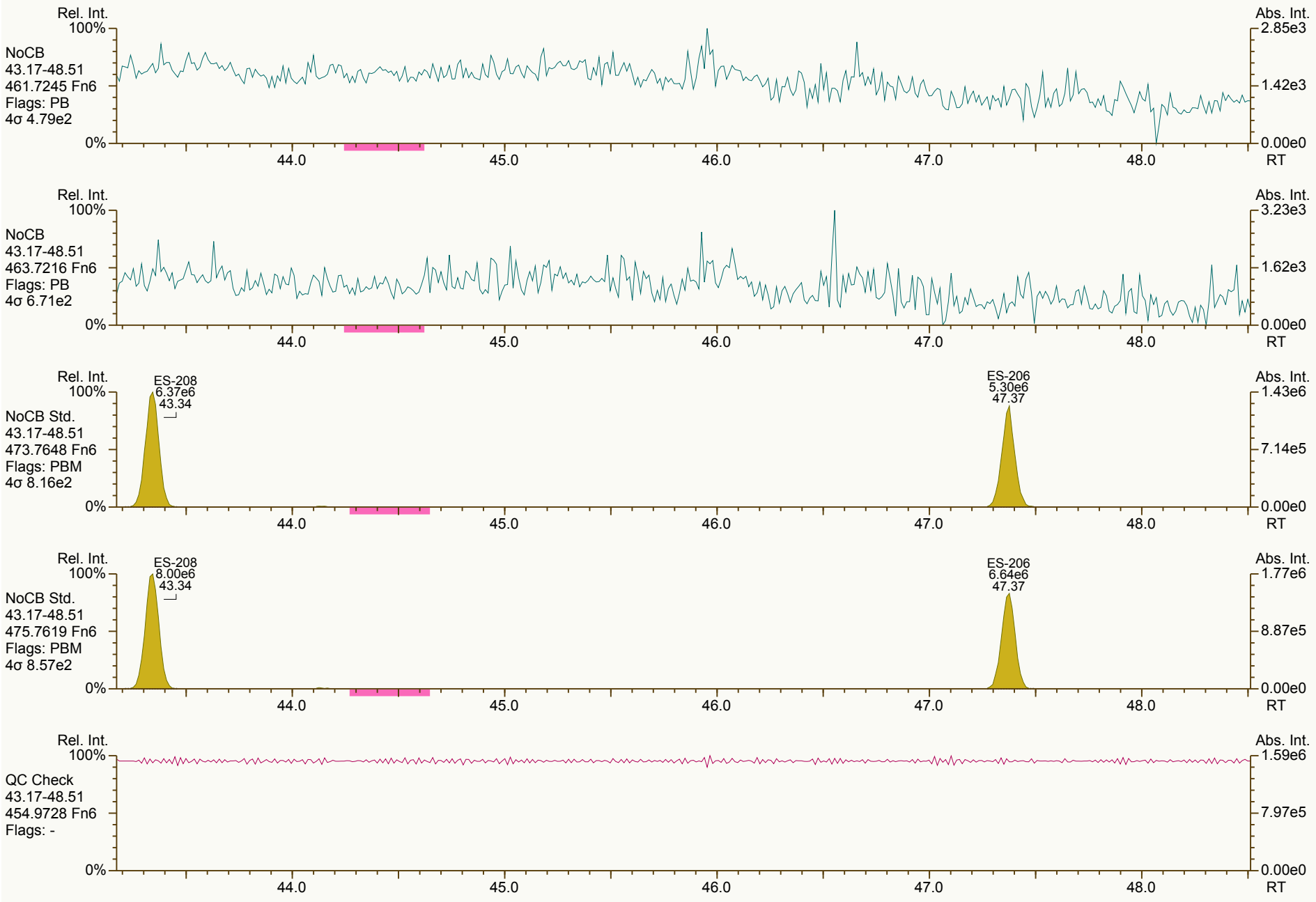
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9563, 2940 scc: 093-755 *PKD: 11-Feb-2013 10:54 Printed: 11-Feb-2013 15:21 Page 19 of 22*

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1717, 5830 scc: 093-755 *PKD: 11-Feb-2013 10:56 Printed: 11-Feb-2013 15:21 Page 20 of 22*

SGS-AP ID: MB1_10631_PCB_TLX
Instr: AutoSpec-Premier MM6

Sample ID: Method Blank A5019-R-R
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32

Acq: 09-Feb-2013 18:36:13
User: CEM Datafile: 130209V06 (EQ)



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB)
Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1579, 3280 scc: 093-755
PKD: 11-Feb-2013 10:56 Printed: 11-Feb-2013 15:21 Page 21 of 22

SGS-AP ID: MB1_10631_PCB_TLX **Sample ID: Method Blank A5019-R-R** **Acq: 09-Feb-2013 18:36:13**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 32** **User: CEM Datafile: 130209V06 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\MB1_10631_PCB_TLX.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 093-755 *Revised: 11-Feb-2013 10:53 (LKB) Printed: 11-Feb-2013 15:21 Page 22 of 22*

Datafile: 130209V11 **Client ID: AQ-SS-03-10** **Wt/Vol: 10.03 g** **ICAL: MM6_PCB_07132012_14DEC12 CS3_130209_PCB_VA**

Acquired: 09 Feb 2013 23:11:41 **Lab ID: A5019_10631_PCB_001-R-R** **J-level: 0.997 pg/g** **Nominal ES spike: 2000 pg**

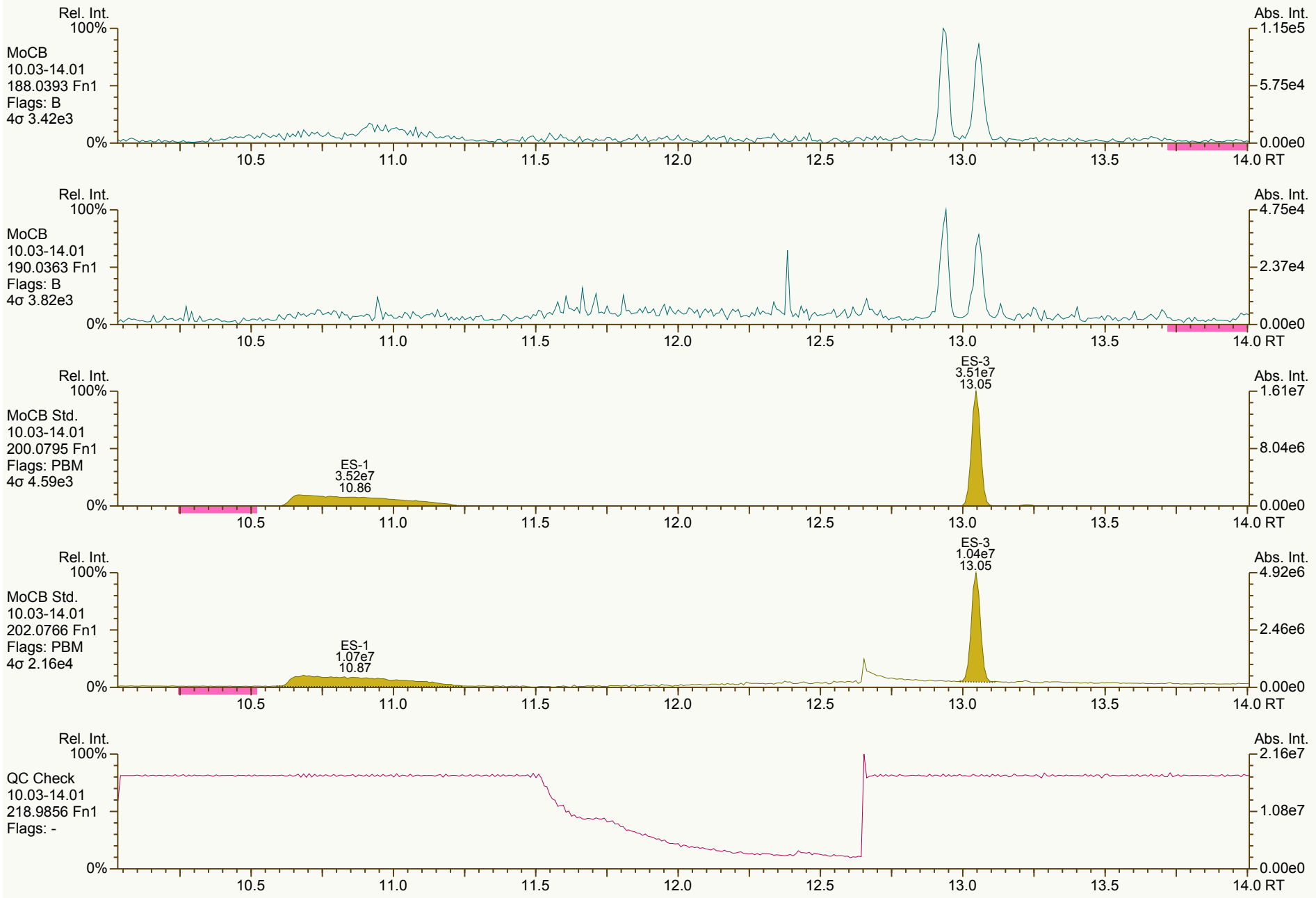
A5019_10631_PCB_001-R-R Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Noise	DL
											Checkcode: 60-855-CY
PCB-77 33'44'-TeCB	30.76	J	1.0006	1.0008	+0.4	1.61E+05	0.86	1.25	0.88	1.67E+03	0.0945
PCB-81 344'5-TeCB	NotFnd		1.0006	-		0.00E+00		1.26	ND	1.67E+03	0.0953
PCB-105 233'44'-PeCB	33.72		1.0007	1.0007	0	4.41E+05	0.57	1.06	3.25	1.16E+03	0.0928
PCB-114 2344'5-PeCB	33.19	J EMPC	1.0007	1.0006	-0.2	2.36E+04	0.94	1.11	0.179	1.16E+03	0.0918
PCB-118 23'44'5-PeCB	32.74		1.0008	1.0007	-0.2	8.12E+05	0.61	1.08	6.26	1.16E+03	0.0964
PCB-123 23'44'5'-PeCB	NotFnd		1.0007	-		0.00E+00		1.12	ND	1.16E+03	0.0906
PCB-126 33'44'5-PeCB	NotFnd		1.0005	-		0.00E+00		1.16	ND	1.31E+03	0.109
PCB-156/157 ...-HxCB	38.88	J C	1.0005	1.0003	-0.5	7.29E+04	1.41	1.14	0.705	1.04E+03	0.14
PCB-167 23'44'55'-HxCB	37.92	J	1.0005	1.0005	0	3.40E+04	1.23	1.18	0.31	1.04E+03	0.101
PCB-169 33'44'55'-HxCB	NotFnd		1.0004	-		0.00E+00		1.15	ND	1.04E+03	0.131
PCB-189 233'44'55'-HpCB	NotFnd		1.0004	-		0.00E+00		1.12	ND	8.79E+02	0.0933
									Recv.		
ES PCB-77	30.74		1.3605	1.3599	-1.1	2.91E+07	0.82	1.20	103 %	25%	150%
ES PCB-81	30.27		1.3396	1.3391	-0.9	2.85E+07	0.81	1.16	105 %	25%	150%
ES PCB-105	33.70		1.1826	1.1821	-1.0	2.56E+07	1.57	1.10	111 %	25%	150%
ES PCB-114	33.17		1.1639	1.1634	-1.0	2.36E+07	1.56	1.16	97.6 %	25%	150%
ES PCB-118	32.71		1.1481	1.1476	-1.0	2.40E+07	1.56	1.15	99.2 %	25%	150%
ES PCB-123	32.44		1.1383	1.1378	-1.0	2.33E+07	1.58	1.14	97.6 %	25%	150%
ES PCB-126	36.32		1.2745	1.2742	-0.7	2.10E+07	1.58	1.34	74.9 %	25%	150%
ES PCB-156/157	38.87		1.0995	1.0995	0	3.62E+07	1.25	0.98	82.1 %	25%	150%
ES PCB-167	37.90		1.0721	1.0722	+0.2	1.86E+07	1.26	1.01	81.5 %	25%	150%
ES PCB-169	41.61		1.1767	1.1771	+1.0	1.58E+07	1.28	0.90	78.2 %	25%	150%
ES PCB-189	43.74		0.9611	0.9609	-0.5	1.94E+07	1.07	1.97	84.4 %	25%	150%
SS PCB-28	21.01		0.9296	0.9298	+0.3	3.15E+07	1.11	1.18	85.5 %	30%	135%
SS PCB-111	30.79		1.0804	1.0801	-0.6	2.52E+07	1.55	1.01	108 %	30%	135%
SS PCB-178	35.74		1.0110	1.0111	+0.2	2.01E+07	1.06	0.60	111 %	30%	135%
CS PCB-28	21.01		0.9296	0.9298	+0.3	3.15E+07	1.11	1.52	88.3 %	30%	135%
CS PCB-111	30.79		1.0804	1.0801	-0.6	2.52E+07	1.55	1.15	105 %	30%	135%
CS PCB-178	35.74		1.0110	1.0111	+0.2	2.01E+07	1.06	0.98	91.2 %	30%	135%
JS PCB-9	14.90					4.15E+07	1.62				
JS PCB-52	22.60					2.35E+07	0.77				
JS PCB-101	28.51					2.09E+07	1.55				
JS PCB-138	35.35					2.26E+07	1.26				
JS PCB-194	45.52					1.17E+07	0.92				

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 060-855 *Revised: 11-Feb-2013 10:56 (LKB) Printed: 11-Feb-2013 15:22 Page 1 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



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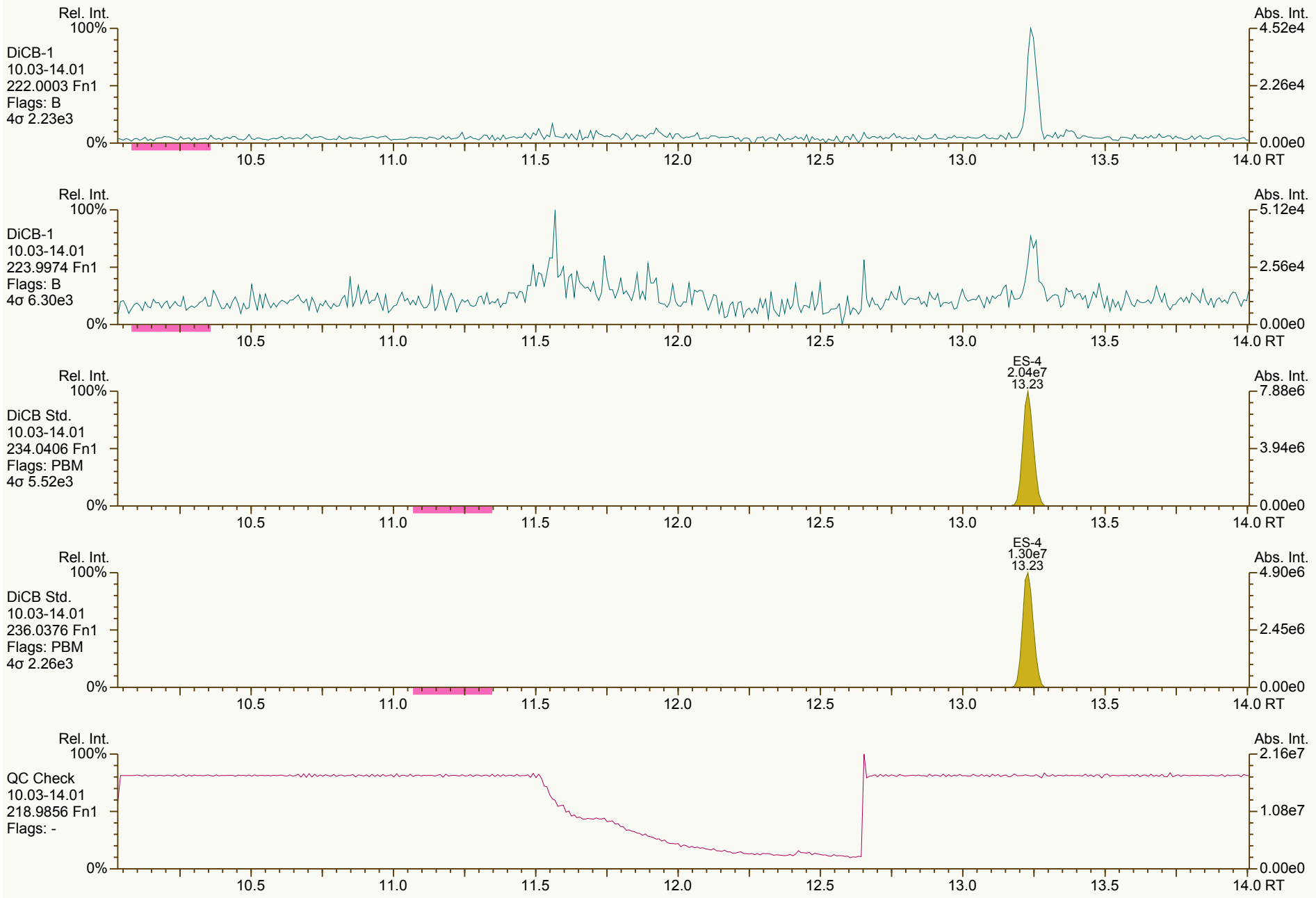
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6596, 2043 scc: 060-855 *Revised: 11-Feb-2013 11:00 (LKB) Printed: 11-Feb-2013 15:22 Page 2 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**

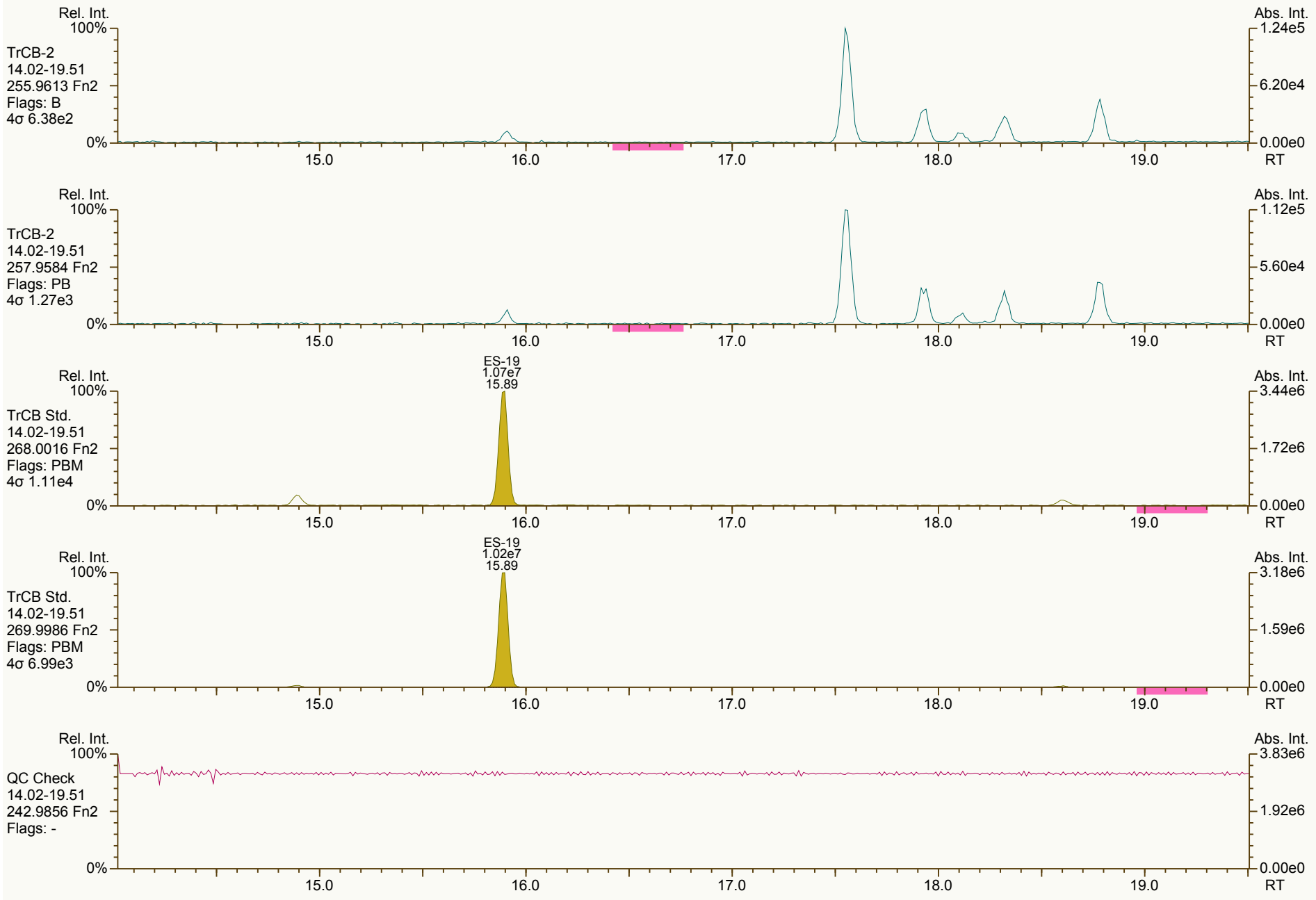


SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5775, 4646 scc: 060-855 *PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 4 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



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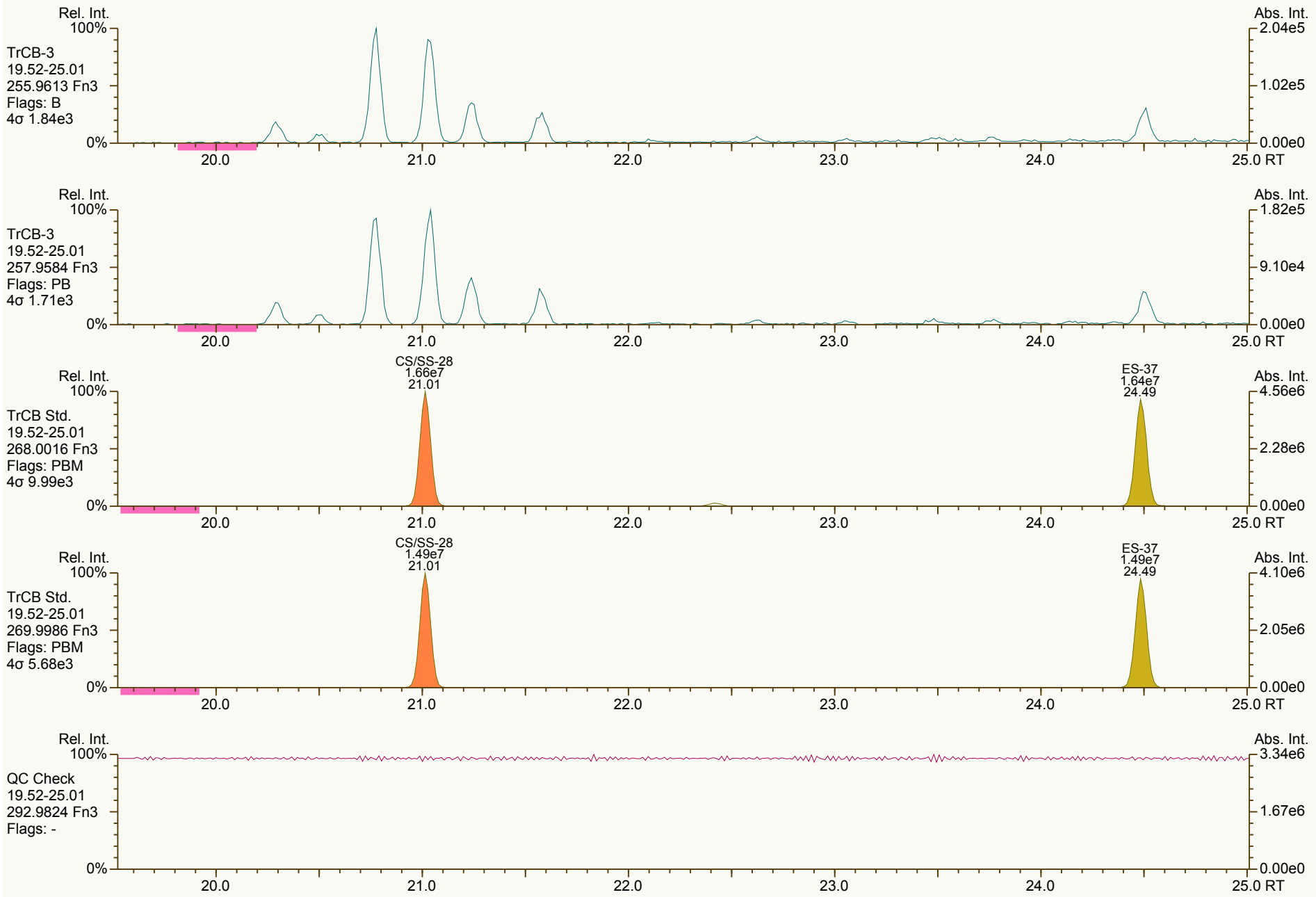
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7633, 9793 scc: 060-855 *PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 5 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



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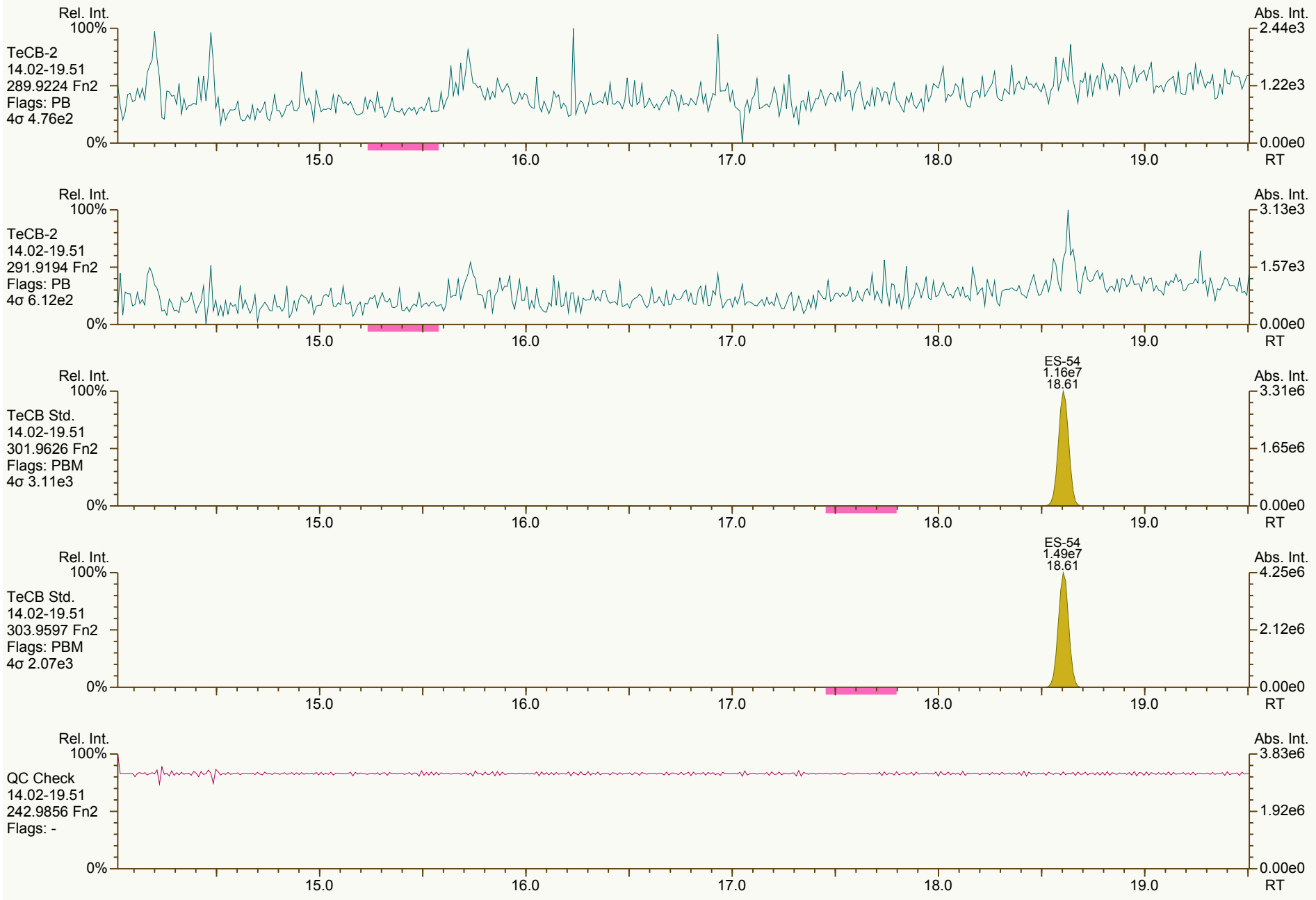
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4125, 8630 scc: 060-855 *PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 6 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



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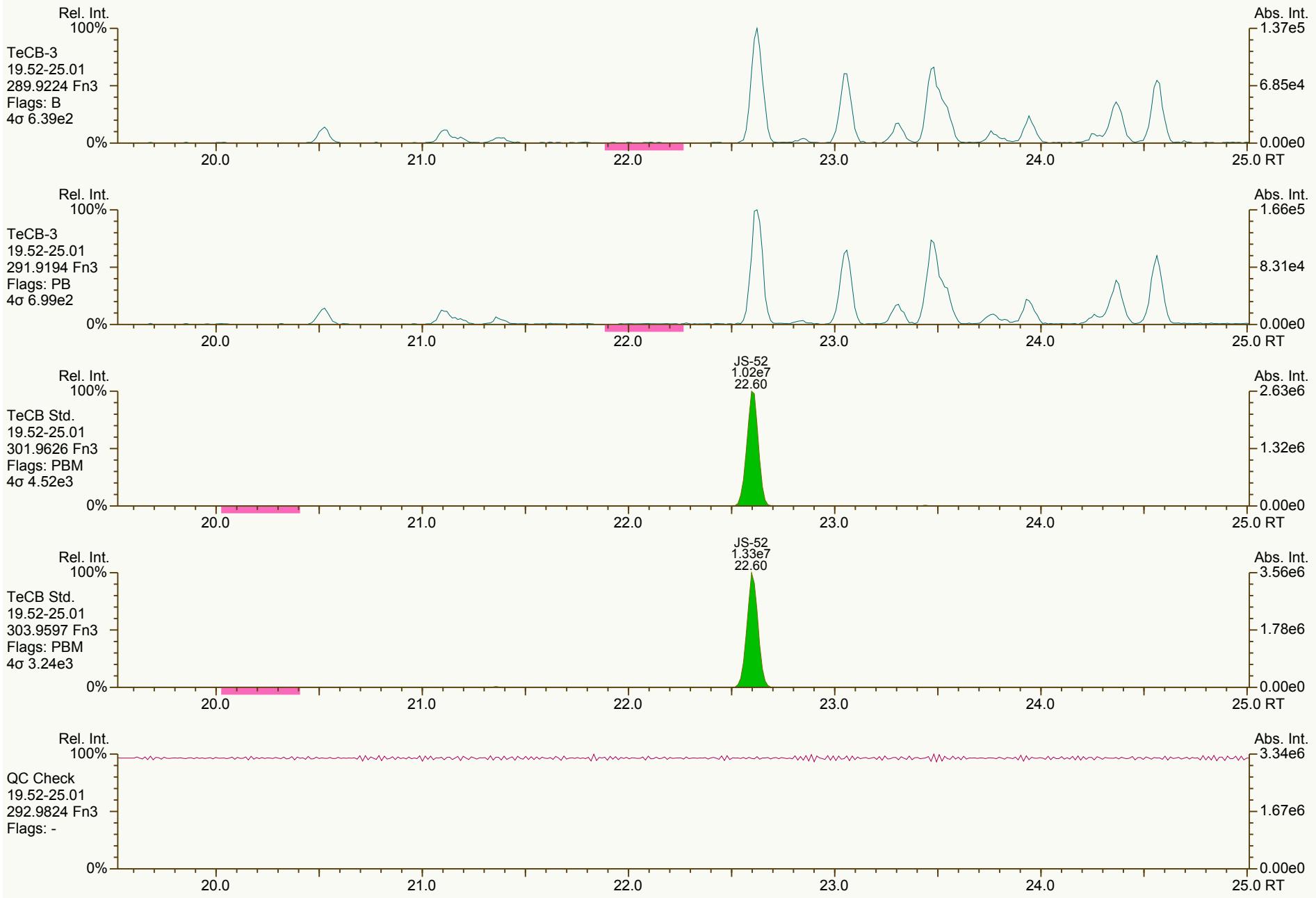
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0386, 5496 scc: 060-855 *PKD: 11-Feb-2013 10:58 Printed: 11-Feb-2013 15:22 Page 7 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9847, 6822 scc: 060-855 *PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 8 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6014, 1109 scc: 060-855 *PKD: 11-Feb-2013 10:59 Printed: 11-Feb-2013 15:22 Page 9 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**

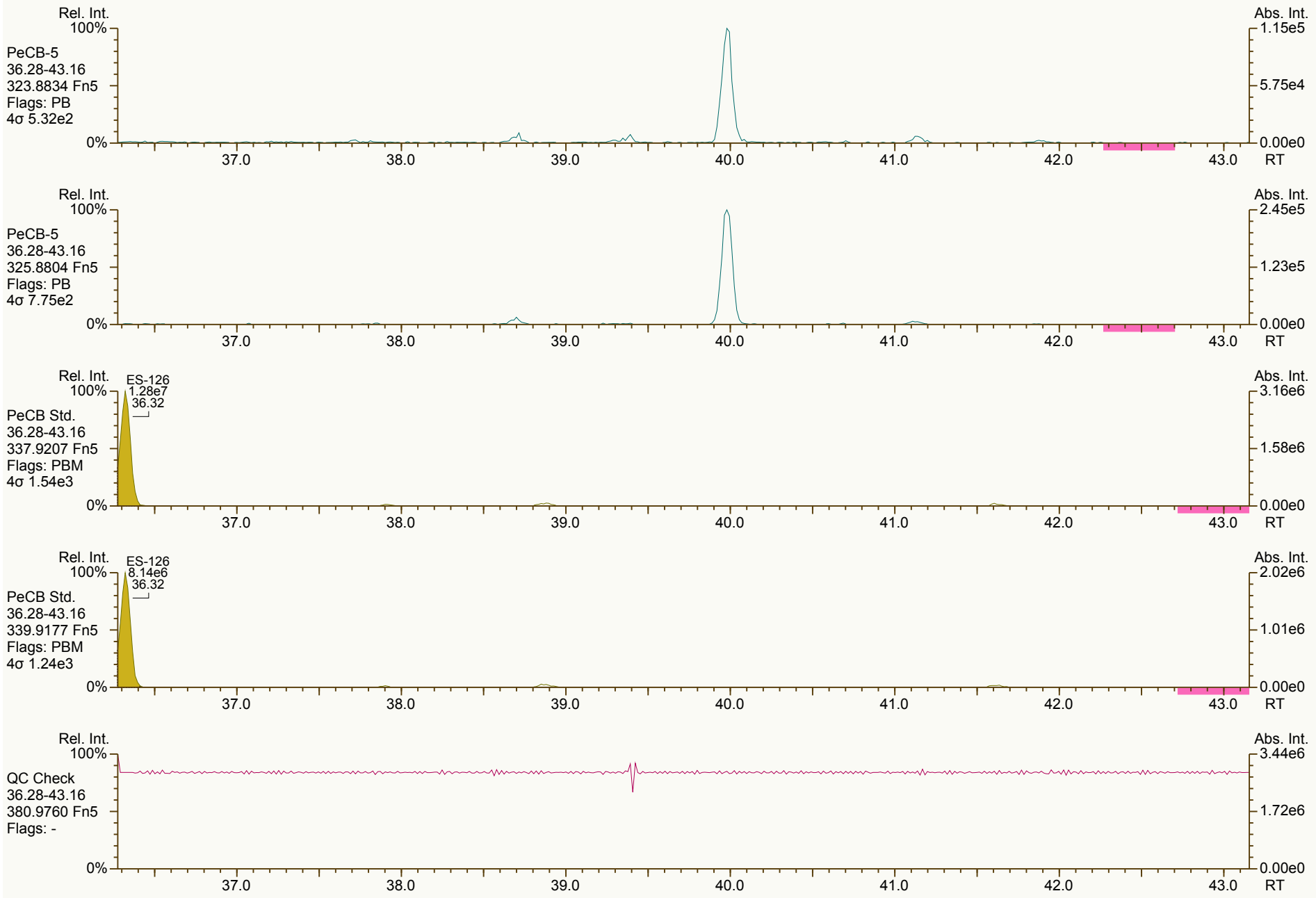


SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6756, 8355 scc: 060-855 *PKD: 11-Feb-2013 10:59 Printed: 11-Feb-2013 15:22 Page 11 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3995, 7920 scc: 060-855 *PKD: 11-Feb-2013 10:58 Printed: 11-Feb-2013 15:22 Page 12 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



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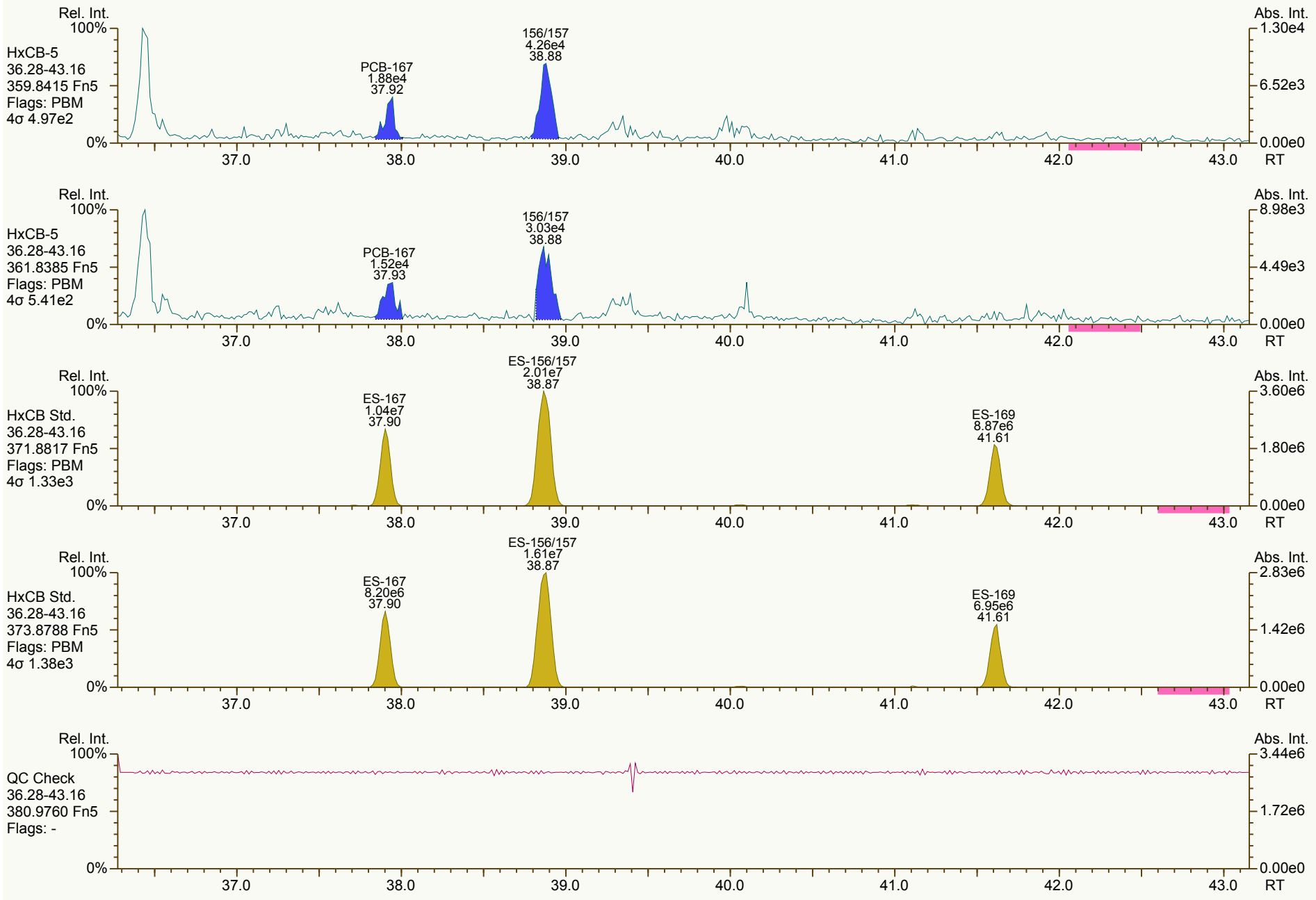
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3341, 7223 scc: 060-855 *PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 13 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1145, 0305 scc: 060-855 *PKD: 11-Feb-2013 10:59 Printed: 11-Feb-2013 15:22 Page 14 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8649, 5693 scc: 060-855 *PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 15 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R
Instr: AutoSpec-Premier MM6

Sample ID: AQ-SS-03-10
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35

Acq: 09-Feb-2013 23:11:41
User: CEM Datafile: 130209V11 (EQ)



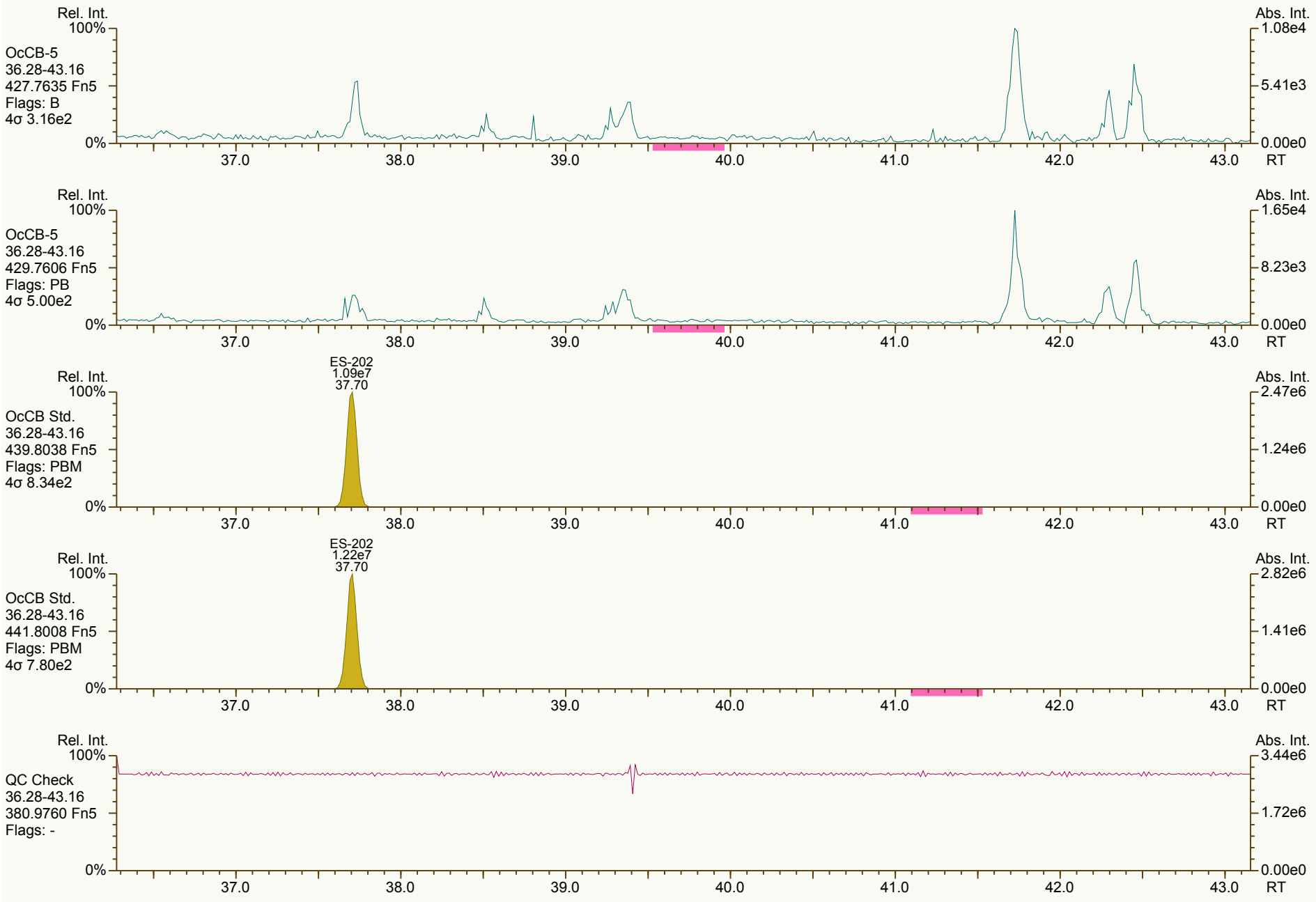
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB)
Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4531, 9348 scc: 060-855
PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 16 of 22

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**

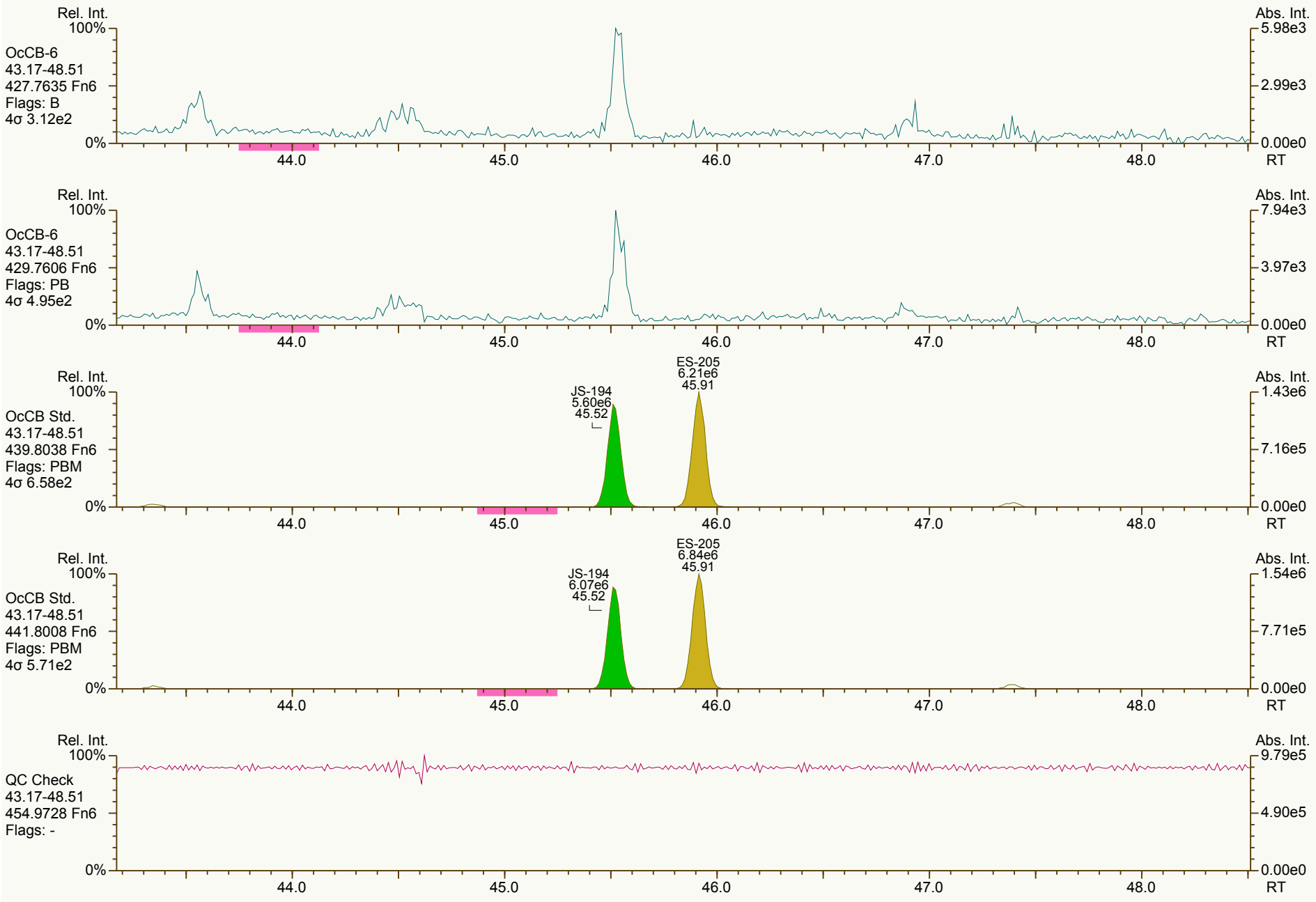


SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6802, 7951 scc: 060-855 *PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 18 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



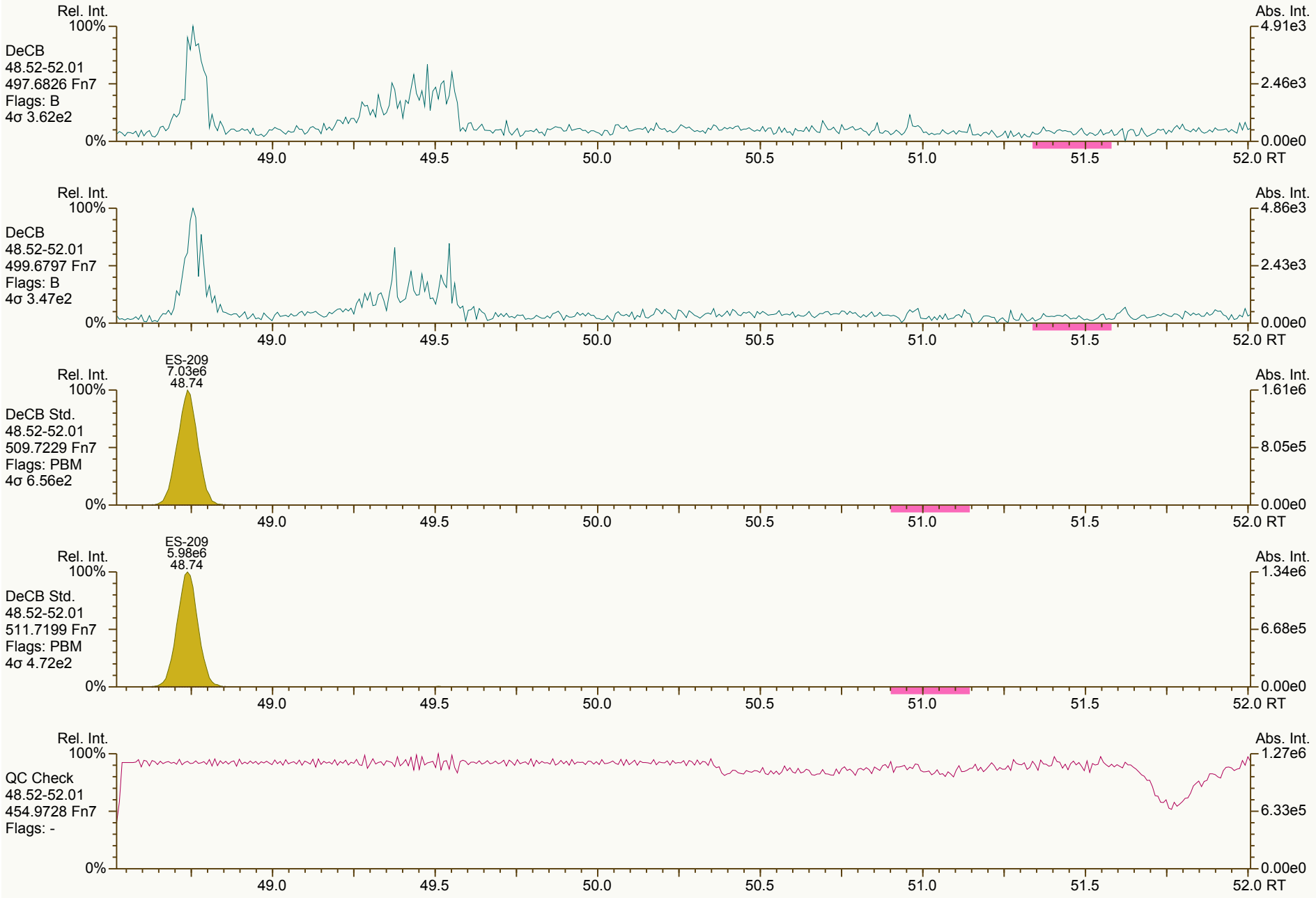
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0603, 1379 scc: 060-855 *PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 19 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



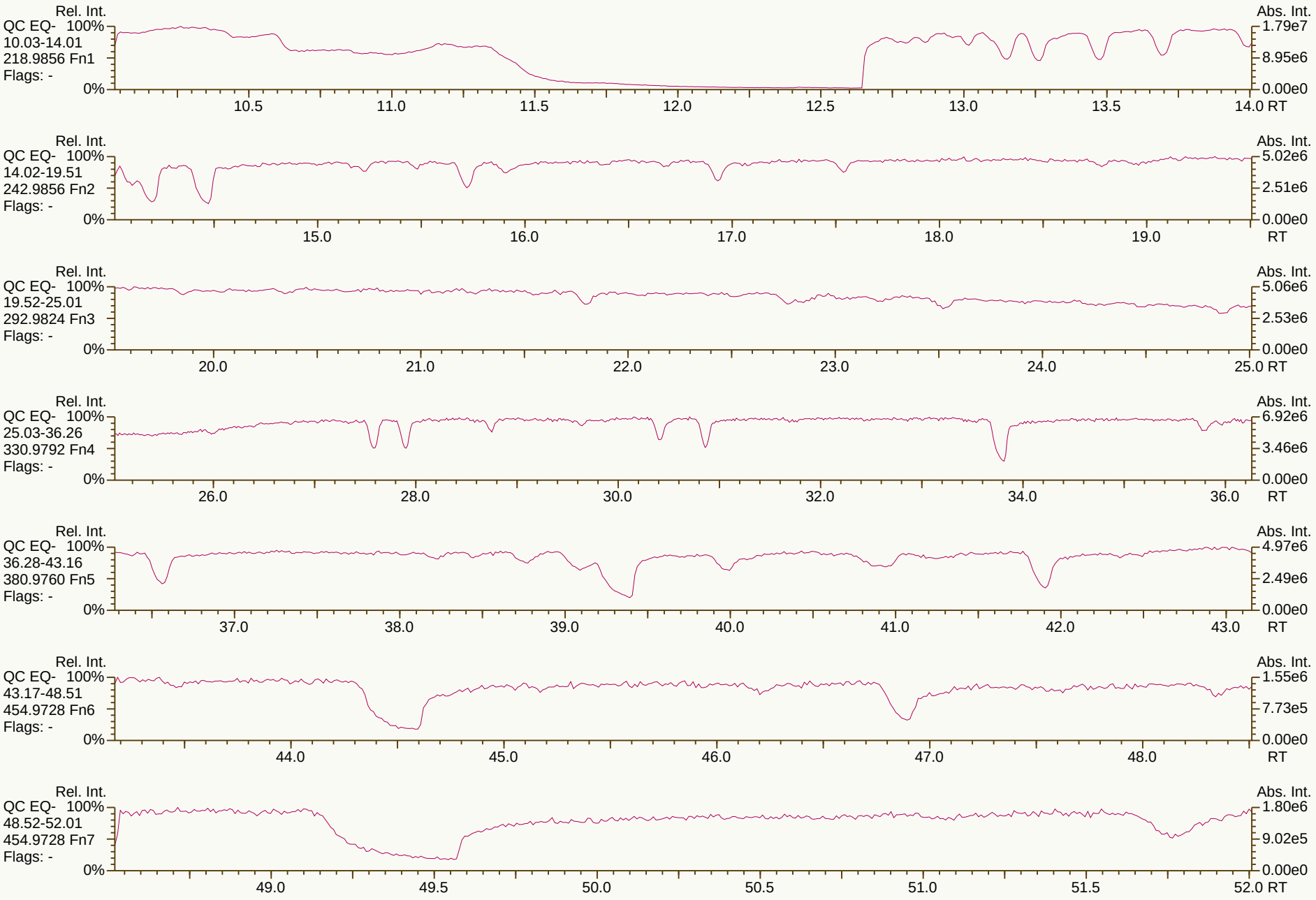
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5890, 3441 scc: 060-855 *PKD: 11-Feb-2013 11:00 Printed: 11-Feb-2013 15:22 Page 20 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\A5019_10631_PCB_001-R-R.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7811, 2813 scc: 060-855 *Revised: 11-Feb-2013 10:56 (LKB) Printed: 11-Feb-2013 15:22 Page 21 of 22*

SGS-AP ID: A5019_10631_PCB_001-R-R **Sample ID: AQ-SS-03-10** **Acq: 09-Feb-2013 23:11:41**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 35** **User: CEM Datafile: 130209V11 (EQ)**



SGS Analytical Perspectives — Run Log **Project: A5019_10631_PCB**

Instrument: MM6 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_b

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
2	130209V01	3	CS3_130209_PCB_VA	1.00	SIL 12-65-3	CEM, LKB	355-469	09-Feb-2013	14:01:01
4	130209V03	30	OPR1_10631_PCB	1.00	0_10631_OPR001	CEM, LKB	163-875	09-Feb-2013	15:51:06
5	130209V04	2	SBS_130209_PCB_VA	1.00	SIL 9-41-1	CEM, LKB	760-701	09-Feb-2013	16:46:07
7	130209V06 ✓	32	MB1_10631_PCB_TLX	10.00	Method Blank A5019-R-R	CEM, LKB	093-755	09-Feb-2013	18:36:13
11	130209V10	2	SBS_130209_PCB_VC	1.00	SIL 9-41-1	CEM, LKB	245-060	09-Feb-2013	22:16:38
12	130209V11 ✓	35	A5019_10631_PCB_001-R-R	10.03	AQ-SS-03-10	CEM, LKB	060-855	09-Feb-2013	23:11:41

✓ = manual calculation

Slight RT shift affecting PCB-126 for CS3 and samples.
No impact on reported data. ajb 2/12/13

REVIEWED
By Laura Boivin at 3:07 pm, Feb 11, 2013

APPROVED
By Amy Boehm at 1:45 pm, Feb 12, 2013

PCB QC Summary	SGS Analytical Perspectives				Processed: 11-Feb-2013 11:01
Lab ID:	**CS3_130209_PCB_VA**				
Acquired:	**09-FEB-2013 14:01**			**ICAL: MM6_PCB_07132012_14DEC12**	
Datafile:	**130209V01**				
Name	**RT**	**Response**	**RA**	**ICAL**	**RRF**	**Dev'n**
PCB-77 33'44'-TeCB	30.76	3.72E+07	0.77 Y	1.25	1.23	-1.3%
PCB-81 344'5-TeCB	30.29	3.61E+07	0.79 Y	1.26	1.24	-1.5%
PCB-105 233'44'-PeCB	33.73	2.45E+07	0.61 Y	1.06	1.00	-5.0%
PCB-114 2344'5-PeCB	33.20	2.79E+07	0.62 Y	1.11	1.11	-0.3%
PCB-118 23'44'5-PeCB	32.75	2.71E+07	0.62 Y	1.08	1.06	-1.7%
PCB-123 23'44'5'-PeCB	32.47	2.75E+07	0.62 Y	1.12	1.13	0.7%
PCB-126 33'44'5-PeCB	36.35	2.70E+07	0.62 Y	1.16	1.11	-4.2%
PCB-156/157 ...-HxCB	38.90	4.80E+07	1.25 Y	1.14	1.11	-2.3%
PCB-167 23'44'55'-HxCB	37.93	2.60E+07	1.23 Y	1.18	1.17	-0.7%
PCB-169 33'44'55'-HxCB	41.62	2.12E+07	1.26 Y	1.15	1.13	-2.3%
PCB-189 233'44'55'-HpCB	43.76	2.71E+07	1.04 Y	1.12	1.11	-0.9%
PCB-209 DeCB	48.75	1.77E+07	1.18 Y	1.11	1.06	-4.8%
ES PCB-1	10.65	8.77E+07	3.30 Y	0.97	0.90	-6.8%
ES PCB-3	12.72	8.64E+07	3.35 Y	0.90	0.89	-1.0%
ES PCB-4	12.94	6.87E+07	1.56 Y	0.70	0.71	1.1%
ES PCB-15	18.32	9.57E+07	1.64 Y	1.02	0.99	-2.8%
ES PCB-19	15.81	5.31E+07	1.05 Y	0.53	0.55	4.1%
ES PCB-37	24.48	6.10E+07	1.11 Y	1.29	1.22	-5.4%
ES PCB-54	18.58	6.92E+07	0.78 Y	1.43	1.39	-2.7%
ES PCB-77	30.74	6.04E+07	0.81 Y	1.20	1.21	0.7%
ES PCB-81	30.27	5.83E+07	0.83 Y	1.16	1.17	0.7%
ES PCB-104	23.43	6.20E+07	1.51 Y	1.70	1.53	-10.0%
ES PCB-105	33.71	4.89E+07	1.54 Y	1.10	1.21	10.1%
ES PCB-114	33.18	5.03E+07	1.56 Y	1.16	1.24	7.5%
ES PCB-118	32.72	5.11E+07	1.56 Y	1.15	1.26	9.3%
ES PCB-123	32.44	4.87E+07	1.54 Y	1.14	1.20	5.5%
ES PCB-126	36.33	4.88E+07	1.60 Y	1.34	1.21	-9.9%
ES PCB-153	34.32	5.09E+07	1.27 Y	1.14	1.16	1.5%
ES PCB-155	28.34	6.75E+07	1.28 Y	1.61	1.54	-4.7%
ES PCB-156/157	38.88	8.62E+07	1.25 Y	0.98	0.98	0.4%
ES PCB-167	37.91	4.44E+07	1.26 Y	1.01	1.01	0.1%
ES PCB-169	41.61	3.76E+07	1.24 Y	0.90	0.86	-4.6%
ES PCB-170	41.11	3.64E+07	1.06 Y	1.28	1.40	9.3%
ES PCB-180	40.06	4.38E+07	1.03 Y	1.54	1.69	9.5%
ES PCB-188	33.18	6.64E+07	1.06 Y	1.63	1.51	-7.0%
ES PCB-189	43.74	4.91E+07	1.05 Y	1.97	1.89	-4.1%
ES PCB-202	37.71	5.75E+07	0.90 Y	1.26	1.31	3.8%
ES PCB-205	45.91	3.14E+07	0.90 Y	1.22	1.21	-1.2%
ES PCB-206	47.38	2.91E+07	0.79 Y	1.10	1.12	1.8%
ES PCB-208	43.34	4.11E+07	0.78 Y	1.41	1.58	12.3%
ES PCB-209	48.73	3.35E+07	1.17 Y	1.24	1.29	3.6%

PCB QC Summary	SGS Analytical Perspectives				Processed: 11-Feb-2013 11:01
Lab ID:	**CS3_130209_PCB_VA**			**ICAL: MM6_PCB_07132012_14DEC12**	
Acquired:	**09-FEB-2013 14:01**				
Datafile:	**130209V01**				

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	21.01	7.06E+07	1.10 Y	1.18	1.16	-1.8%
SS PCB-111	30.79	4.95E+07	1.55 Y	1.01	1.02	1.0%
SS PCB-178	35.75	4.02E+07	1.01 Y	0.60	0.60	0.4%
CS PCB-28	21.01	7.06E+07	1.10 Y	1.52	1.42	-7.0%
CS PCB-111	30.79	4.95E+07	1.55 Y	1.15	1.22	6.6%
CS PCB-178	35.75	4.02E+07	1.01 Y	0.98	0.91	-6.6%
JS PCB-9	14.79	9.70E+07	1.64 Y		-	-
JS PCB-52	22.60	4.99E+07	0.79 Y		-	-
JS PCB-101	28.50	4.04E+07	1.54 Y		-	-
JS PCB-138	35.36	4.39E+07	1.29 Y		-	-
JS PCB-194	45.51	2.60E+07	0.92 Y		-	-
PCB-1 2-MoCB	10.66	5.56E+07	3.08 Y	1.25	1.27	1.7%
PCB-3 4-MoCB	12.73	5.61E+07	3.07 Y	1.27	1.30	2.7%
PCB-4 22'-DiCB	12.96	3.14E+07	1.57 Y	0.90	0.91	1.9%
PCB-15 44'-DiCB	18.34	5.07E+07	1.53 Y	1.10	1.06	-3.2%
PCB-19 22'6-TrCB	15.83	2.53E+07	1.03 Y	0.95	0.95	0.6%
PCB-37 344'-TrCB	24.50	4.35E+07	1.05 Y	1.39	1.42	2.6%
PCB-54 22'66'-TeCB	18.60	3.85E+07	0.79 Y	1.05	1.11	5.7%
PCB-104 22'466'-PeCB	23.45	3.53E+07	0.63 Y	1.12	1.14	1.8%
PCB-155 22'44'66'-HxCB	28.36	3.68E+07	1.24 Y	1.09	1.09	0.0%
PCB-188 22'34'566'-HpCB	33.20	3.45E+07	1.03 Y	0.98	1.04	5.8%
PCB-202 22'33'55'66'-OcCB	37.73	2.51E+07	0.89 Y	0.86	0.87	0.9%
PCB-205 233'44'55'6-OcCB	45.93	1.76E+07	0.90 Y	1.13	1.12	-1.3%
PCB-208 22'33'455'66'-NoCB	43.36	2.07E+07	0.77 Y	1.03	1.01	-2.5%
PCB-206 22'33'44'55'6-NoCB	47.40	1.40E+07	0.77 Y	0.97	0.96	-0.9%

PCB QC Summary - Ax2 Detail

Processed: 11-Feb-2013 11:01

Lab ID: CS3_130209_PCB_VA
Acquired: 09-FEB-2013 14:01
Datafile: 130209V01
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA		RRF	
PCB-1 2-MoCB	10.66	5.56E+07	3.08 Y	1.25	-	-
PCB-2 3-MoCB	12.56	5.65E+07	3.08 Y	1.28	1.31	2.3%
PCB-3 4-MoCB	12.73	5.61E+07	3.07 Y	1.27	-	-
PCB-4 22'-DiCB	12.96	3.14E+07	1.57 Y	0.90	-	-
PCB-10 26-DiCB	13.12	4.97E+07	1.57 Y	1.38	1.45	5.0%
PCB-9 25-DiCB	14.81	4.72E+07	1.53 Y	0.99	0.99	-0.1%
PCB-7 24-DiCB	14.96	5.31E+07	1.53 Y	1.10	1.11	0.7%
PCB-6 23'-DiCB	15.17	5.03E+07	1.53 Y	1.04	1.05	1.2%
PCB-5 23-DiCB	15.45	5.03E+07	1.55 Y	1.02	1.05	2.6%
PCB-8 24'-DiCB	15.56	5.19E+07	1.53 Y	1.03	1.09	5.1%
PCB-14 35-DiCB	17.05	5.87E+07	1.54 Y	1.20	1.23	2.2%
PCB-11 33'-DiCB	17.79	4.96E+07	1.57 Y	1.03	1.04	0.9%
PCB-13/12 34'/34-DiCB	18.06	9.95E+07	1.56 Y	1.03	1.04	0.6%
PCB-15 44'-DiCB	18.34	5.07E+07	1.53 Y	1.10	-	-
PCB-19 22'6-TrCB	15.83	2.53E+07	1.03 Y	0.95	-	-
PCB-30/18 246/22'5-TrCB	17.51	6.60E+07	1.04 Y	1.23	1.24	0.9%
PCB-17 22'4-TrCB	17.89	2.82E+07	1.03 Y	1.05	1.06	0.8%
PCB-27 23'6-TrCB	18.08	3.85E+07	1.04 Y	1.46	1.45	-0.9%
PCB-24 236-TrCB	18.20	3.62E+07	1.03 Y	1.32	1.36	3.0%
PCB-16 22'3-TrCB	18.29	2.16E+07	1.03 Y	0.81	0.81	0.8%
PCB-32 24'6-TrCB	18.76	3.97E+07	1.03 Y	1.48	1.49	1.2%
PCB-34 23'5'-TrCB	19.88	4.59E+07	1.06 Y	1.46	1.51	3.0%
PCB-23 235-TrCB	20.03	4.66E+07	1.05 Y	1.50	1.53	1.6%
PCB-26/29 23'5/245-TrCB	20.30	9.39E+07	1.05 Y	1.53	1.54	0.6%
PCB-25 23'4-TrCB	20.49	4.75E+07	1.05 Y	1.53	1.56	1.4%
PCB-31 24'5-TrCB	20.76	4.86E+07	1.05 Y	1.55	1.59	2.6%
PCB-28/20 244'/233'-TrCB	21.03	9.22E+07	1.05 Y	1.51	1.51	0.3%
PCB-21/33 234/23'4'-TrCB	21.20	9.53E+07	1.04 Y	1.55	1.56	0.9%
PCB-22 234'-TrCB	21.57	4.33E+07	1.06 Y	1.40	1.42	1.6%
PCB-36 33'5-TrCB	22.94	4.67E+07	1.06 Y	1.52	1.53	0.8%
PCB-39 34'5-TrCB	23.25	4.87E+07	1.06 Y	1.58	1.60	0.9%
PCB-38 345-TrCB	23.76	4.35E+07	1.05 Y	1.47	1.43	-2.9%
PCB-35 33'4-TrCB	24.15	4.18E+07	1.06 Y	1.33	1.37	2.7%
PCB-37 344'-TrCB	24.50	4.35E+07	1.05 Y	1.39	-	-
PCB-54 22'66'-TeCB	18.60	3.85E+07	0.79 Y	1.05	-	-
PCB-50/53 22'46/22'56'-TeCB	20.54	5.00E+07	0.77 Y	0.88	0.86	-2.4%
PCB-45 22'36-TeCB	21.10	2.15E+07	0.77 Y	0.73	0.74	0.4%
PCB-51 22'46'-TeCB	21.17	2.53E+07	0.78 Y	0.94	0.87	-7.5%
PCB-46 22'36'-TeCB	21.37	2.02E+07	0.76 Y	0.72	0.69	-3.3%
PCB-52 22'55'-TeCB	22.62	2.39E+07	0.77 Y	0.82	0.82	-0.7%
PCB-73 23'5'6-TeCB	22.75	3.23E+07	0.76 Y	1.10	1.11	0.6%

Lab ID: - Ax2 Detail **Processed: 11-Feb-2013 11:01**

Lab ID: CS3_130209_PCB_VA
Acquired: 09-FEB-2013 14:01
Datafile: 130209V01
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA		RRF	
PCB-43 22'35-TeCB	22.83	1.99E+07	0.77 Y	0.70	0.68	-3.4%
PCB-69/49 23'46/22'45'-TeCB	23.03	5.87E+07	0.77 Y	1.01	1.01	-0.2%
PCB-48 22'45-TeCB	23.30	2.44E+07	0.77 Y	0.84	0.84	-1.0%
PCB-44/47/65 ...-TeCB	23.51	7.75E+07	0.77 Y	0.90	0.89	-1.8%
PCB-59/62/75 ...-TeCB	23.78	9.95E+07	0.77 Y	1.15	1.14	-1.5%
PCB-42 22'34'-TeCB	23.94	2.22E+07	0.77 Y	0.76	0.76	-0.3%
PCB-41 22'34-TeCB	24.26	2.06E+07	0.76 Y	0.64	0.71	10.1%
PCB-71/40 23'4'6/22'33'-TeCB	24.36	4.88E+07	0.78 Y	0.83	0.84	0.3%
PCB-64 234'6-TeCB	24.55	3.53E+07	0.77 Y	1.17	1.21	3.0%
PCB-72 23'55'-TeCB	25.29	3.95E+07	0.77 Y	1.37	1.36	-1.0%
PCB-68 23'45'-TeCB	25.54	4.19E+07	0.77 Y	1.52	1.44	-5.3%
PCB-57 233'5-TeCB	25.90	3.84E+07	0.77 Y	1.32	1.32	-0.6%
PCB-58 233'5'-TeCB	26.09	3.85E+07	0.78 Y	1.34	1.32	-1.3%
PCB-67 23'45-TeCB	26.25	4.09E+07	0.76 Y	1.41	1.40	-0.7%
PCB-63 234'5-TeCB	26.47	4.20E+07	0.77 Y	1.46	1.44	-1.1%
PCB-61/70/74/76 ...-TeCB	26.75	1.58E+08	0.77 Y	1.37	1.35	-1.1%
PCB-66 23'44'-TeCB	27.03	3.67E+07	0.77 Y	1.24	1.26	1.5%
PCB-55 233'4-TeCB	27.17	3.67E+07	0.77 Y	1.28	1.26	-1.5%
PCB-56 233'4'-TeCB	27.60	3.59E+07	0.77 Y	1.23	1.23	0.3%
PCB-60 2344'-TeCB	27.78	3.73E+07	0.76 Y	1.30	1.28	-1.4%
PCB-80 33'55'-TeCB	28.15	4.31E+07	0.77 Y	1.44	1.48	2.9%
PCB-79 33'45'-TeCB	29.44	4.12E+07	0.77 Y	1.48	1.41	-4.2%
PCB-78 33'45-TeCB	29.92	3.44E+07	0.76 Y	1.21	1.18	-2.6%
PCB-104 22'466'-PeCB	23.45	3.53E+07	0.63 Y	1.12	-	-
PCB-96 22'366'-PeCB	23.75	3.02E+07	0.63 Y	0.96	0.97	1.1%
PCB-103 22'45'6-PeCB	25.45	2.11E+07	0.62 Y	0.93	0.86	-7.2%
PCB-94 22'356'-PeCB	25.62	1.83E+07	0.62 Y	0.81	0.75	-7.3%
PCB-95 22'35'6-PeCB	25.99	1.94E+07	0.62 Y	0.85	0.80	-6.2%
PCB-100/93 22'44'6/22'356-PeC	26.21	3.97E+07	0.62 Y	0.88	0.82	-7.7%
PCB-102 22'456'-PeCB	26.32	1.98E+07	0.62 Y	0.93	0.81	-12.5%
PCB-98 22'34'6'-PeCB	26.38	1.89E+07	0.63 Y	0.84	0.78	-7.3%
PCB-88 22'346-PeCB	26.67	1.72E+07	0.62 Y	0.77	0.70	-8.8%
PCB-91 22'34'6-PeCB	26.74	2.21E+07	0.63 Y	0.96	0.91	-5.5%
PCB-84 22'33'6-PeCB	26.92	1.65E+07	0.63 Y	0.72	0.68	-6.0%
PCB-89 22'346'-PeCB	27.33	1.77E+07	0.62 Y	0.77	0.72	-6.1%
PCB-121 23'45'6-PeCB	27.72	2.74E+07	0.62 Y	1.15	1.12	-2.0%
PCB-92 22'355'-PeCB	28.02	1.88E+07	0.63 Y	0.79	0.77	-2.8%
PCB-113/90/101 ...-PeCB	28.50	6.44E+07	0.62 Y	0.95	0.88	-7.6%
PCB-83 22'33'5-PeCB	28.92	1.50E+07	0.61 Y	0.72	0.62	-14.2%

Lab ID: - Ax2 Detail **Processed: 11-Feb-2013 11:01**

Lab ID: CS3_130209_PCB_VA
Acquired: 09-FEB-2013 14:01
Datafile: 130209V01
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA		RRF	
PCB-99 22'44'5-PeCB	29.03	2.10E+07	0.61 Y	0.90	0.86	-3.7%
PCB-112 233'56-PeCB	29.12	2.47E+07	0.62 Y	1.09	1.01	-7.3%
PCB-108/119/86/97/125...-PeCB	29.46	1.31E+08	0.62 Y	0.95	0.90	-5.3%
PCB-117 234'56-PeCB	29.98	2.15E+07	0.62 Y	0.99	0.88	-10.8%
PCB-116/85 23456/22'344'-PeCl	30.07	4.68E+07	0.63 Y	0.96	0.96	0.2%
PCB-110 233'4'6-PeCB	30.19	2.32E+07	0.62 Y	1.01	0.95	-5.6%
PCB-115 2344'6-PeCB	30.28	2.78E+07	0.62 Y	1.15	1.14	-1.0%
PCB-82 22'33'4-PeCB	30.46	1.60E+07	0.63 Y	0.70	0.66	-5.8%
PCB-111 233'55'-PeCB	30.82	2.71E+07	0.62 Y	1.16	1.11	-4.5%
PCB-120 23'455'-PeCB	31.21	2.73E+07	0.63 Y	1.14	1.12	-1.2%
PCB-107/124 ...-PeCB	32.16	5.00E+07	0.63 Y	1.02	1.03	0.8%
PCB-109 233'46-PeCB	32.36	2.75E+07	0.63 Y	1.13	1.13	-0.5%
PCB-106 233'45-PeCB	32.57	2.48E+07	0.62 Y	1.01	1.02	0.9%
PCB-122 233'4'5'-PeCB	33.03	2.34E+07	0.62 Y	0.91	0.93	2.4%
PCB-127 33'455'-PeCB	34.99	2.46E+07	0.62 Y	1.06	1.01	-4.7%
PCB-155 22'44'66'-HxCB	28.36	3.68E+07	1.24 Y	1.09	-	-
PCB-152 22'3566'-HxCB	28.49	3.37E+07	1.24 Y	1.04	1.00	-4.1%
PCB-150 22'34'66'-HxCB	28.64	3.34E+07	1.25 Y	1.03	0.99	-3.6%
PCB-136 22'33'66'-HxCB	28.93	3.07E+07	1.24 Y	0.97	0.91	-6.6%
PCB-145 22'3466'-HxCB	29.20	3.22E+07	1.23 Y	0.96	0.95	-0.9%
PCB-148 22'34'56'-HxCB	30.50	2.49E+07	1.23 Y	1.03	0.98	-5.2%
PCB-151/135 ...-HxCB	31.00	4.82E+07	1.24 Y	0.99	0.95	-4.7%
PCB-154 22'44'56'-HxCB	31.22	2.82E+07	1.24 Y	1.17	1.11	-5.4%
PCB-144 22'345'6-HxCB	31.47	2.52E+07	1.26 Y	1.03	0.99	-3.5%
PCB-147/149 ...-HxCB	31.77	5.01E+07	1.24 Y	1.02	0.98	-3.4%
PCB-134 22'33'56-HxCB	31.93	1.83E+07	1.23 Y	0.80	0.72	-10.1%
PCB-143 22'3456'-HxCB	32.01	2.52E+07	1.25 Y	0.95	0.99	4.5%
PCB-139/140 ...-HxCB	32.29	5.17E+07	1.25 Y	1.05	1.01	-3.4%
PCB-131 22'33'46-HxCB	32.45	2.22E+07	1.25 Y	0.90	0.87	-2.6%
PCB-142 22'3456-HxCB	32.59	2.21E+07	1.21 Y	0.93	0.87	-6.3%
PCB-132 22'33'46'-HxCB	32.82	2.26E+07	1.23 Y	0.93	0.89	-4.5%
PCB-133 22'33'55'-HxCB	33.26	2.38E+07	1.24 Y	0.97	0.94	-3.3%
PCB-165 233'55'6-HxCB	33.60	2.94E+07	1.23 Y	1.16	1.16	-0.4%
PCB-146 22'34'55'-HxCB	33.82	2.60E+07	1.24 Y	1.01	1.02	1.0%
PCB-161 233'45'6-HxCB	33.93	3.27E+07	1.24 Y	1.29	1.28	-0.9%
PCB-153/168 ...-HxCB	34.36	6.37E+07	1.24 Y	1.24	1.25	1.0%
PCB-141 22'3455'-HxCB	34.49	2.32E+07	1.25 Y	0.95	0.91	-3.7%
PCB-130 22'33'45'-HxCB	34.83	2.12E+07	1.26 Y	0.82	0.83	1.3%
PCB-137 22'344'5-HxCB	35.03	2.69E+07	1.21 Y	0.97	1.06	9.1%
PCB-164 233'4'5'6-HxCB	35.12	3.05E+07	1.25 Y	1.25	1.20	-4.3%
PCB-163/138/129 ...-HxCB	35.40	7.75E+07	1.24 Y	1.04	1.01	-2.7%

Lab ID: - Ax2 Detail **Processed: 11-Feb-2013 11:01**

Lab ID: CS3_130209_PCB_VA **ICAL:** MM6_PCB_07132012_14DEC12
Acquired: 09-FEB-2013 14:01
Datafile: 130209V01

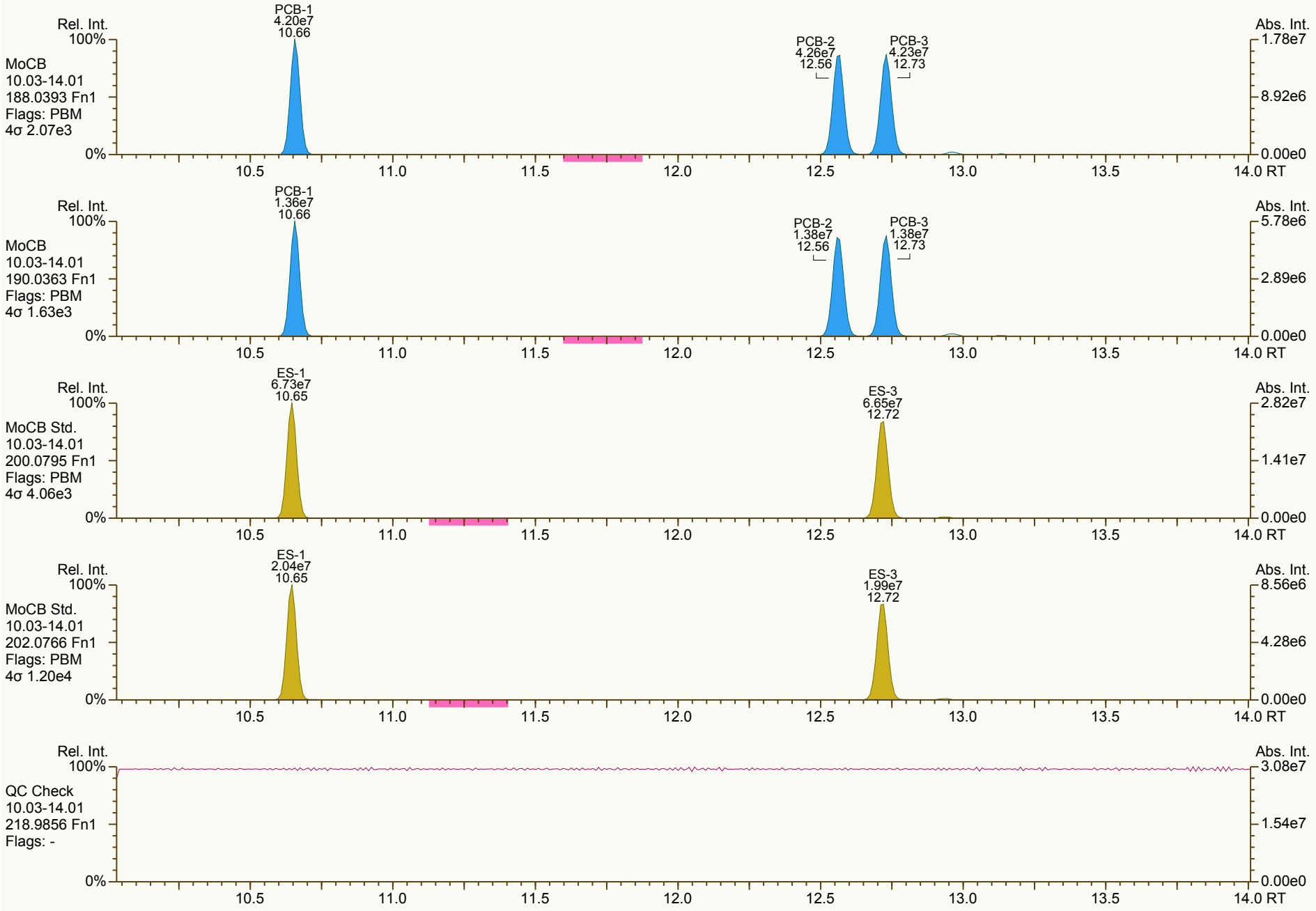
Name	RT	Response	RA		RRF	
PCB-160 233'456-HxCB	35.53	3.13E+07	1.24 Y	1.19	1.23	3.2%
PCB-158 233'44'6-HxCB	35.72	3.44E+07	1.24 Y	1.34	1.35	0.7%
PCB-128/166 ...-HxCB	36.44	4.24E+07	1.24 Y	0.96	0.96	-0.6%
PCB-159 233'455'-HxCB	37.29	2.48E+07	1.25 Y	1.12	1.12	-0.5%
PCB-162 233'4'55'-HxCB	37.53	2.50E+07	1.24 Y	1.13	1.13	-0.2%
PCB-188 22'34'566'-HpCB	33.20	3.45E+07	1.03 Y	0.98	-	-
PCB-179 22'33'566'-HpCB	33.47	3.13E+07	1.02 Y	0.90	0.94	5.1%
PCB-184 22'344'66'-HpCB	33.94	3.10E+07	1.03 Y	0.86	0.93	8.2%
PCB-176 22'33'466'-HpCB	34.22	3.45E+07	1.03 Y	0.97	1.04	7.3%
PCB-186 22'34566'-HpCB	34.61	3.22E+07	1.03 Y	0.93	0.97	4.6%
PCB-178 22'33'55'6-HpCB	35.77	2.34E+07	1.03 Y	0.66	0.70	6.4%
PCB-175 22'33'45'6-HpCB	36.32	1.90E+07	1.05 Y	1.02	0.87	-15.5%
PCB-187 22'34'55'6-HpCB	36.54	2.26E+07	1.03 Y	1.03	1.03	0.4%
PCB-182 22'344'56'-HpCB	36.72	2.33E+07	1.03 Y	1.10	1.06	-3.1%
PCB-183 22'344'5'6-HpCB	37.06	2.46E+07	1.03 Y	1.12	1.12	0.0%
PCB-185 22'3455'6-HpCB	37.14	2.05E+07	1.04 Y	0.97	0.93	-3.4%
PCB-174 22'33'456'-HpCB	37.24	1.90E+07	1.05 Y	0.90	0.87	-3.3%
PCB-177 22'33'45'6'-HpCB	37.62	1.85E+07	1.05 Y	0.87	0.84	-3.2%
PCB-181 22'344'56-HpCB	37.97	2.16E+07	1.04 Y	1.03	0.99	-4.6%
PCB-171/173 ...-HpCB	38.14	3.79E+07	1.03 Y	0.89	0.87	-2.3%
PCB-172 22'33'455'-HpCB	39.52	1.90E+07	1.05 Y	0.87	0.87	-0.4%
PCB-192 233'455'6-HpCB	39.76	2.52E+07	1.04 Y	1.16	1.15	-0.8%
PCB-180/193 ...-HpCB	40.04	4.68E+07	1.04 Y	1.07	1.07	-0.2%
PCB-191 233'44'5'6-HpCB	40.37	2.61E+07	1.04 Y	1.18	1.19	0.8%
PCB-170 22'33'44'5-HpCB	41.13	1.79E+07	1.03 Y	0.99	0.98	-1.0%
PCB-190 233'44'56-HpCB	41.58	2.50E+07	1.03 Y	1.36	1.37	1.0%
PCB-202 22'33'55'66'-OcCB	37.73	2.51E+07	0.89 Y	0.86	-	-
PCB-201 22'33'45'66'-OcCB	38.52	2.79E+07	0.89 Y	0.95	0.97	2.0%
PCB-204 22'344'566'-OcCB	39.09	2.63E+07	0.90 Y	0.90	0.91	1.0%
PCB-197 22'33'44'66'-OcCB	39.28	2.73E+07	0.89 Y	0.96	0.95	-1.3%
PCB-200 22'33'4566'-OcCB	39.36	2.75E+07	0.90 Y	0.88	0.96	8.4%
PCB-198/199 ...-OcCB	41.71	3.66E+07	0.89 Y	0.63	0.64	0.9%
PCB-196 22'33'44'56'-OcCB	42.28	1.87E+07	0.89 Y	0.66	0.65	-1.5%
PCB-203 22'344'55'6-OcCB	42.45	1.98E+07	0.88 Y	0.69	0.69	-0.9%
PCB-195 22'33'44'56-OcCB	43.56	1.36E+07	0.90 Y	0.82	0.87	5.3%
PCB-194 22'33'44'55'-OcCB	45.53	1.42E+07	0.90 Y	0.90	0.91	0.7%
PCB-205 233'44'55'6-OcCB	45.93	1.76E+07	0.90 Y	1.13	-	-
PCB-208 22'33'455'66'-NoCB	43.36	2.07E+07	0.77 Y	1.03	-	-
PCB-207 22'33'44'566'-NoCB	44.15	2.14E+07	0.77 Y	1.07	1.04	-2.4%
PCB-206 22'33'44'55'6-NoCB	47.40	1.40E+07	0.77 Y	0.97	-	-

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\CS3_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 355-469 *Revised: 11-Feb-2013 10:00 (LKB) Printed: 11-Feb-2013 15:19 Page 1 of 22*

SGS-AP ID: CS3_130209_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 09-Feb-2013 14:01:01
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130209V01 (EQ)



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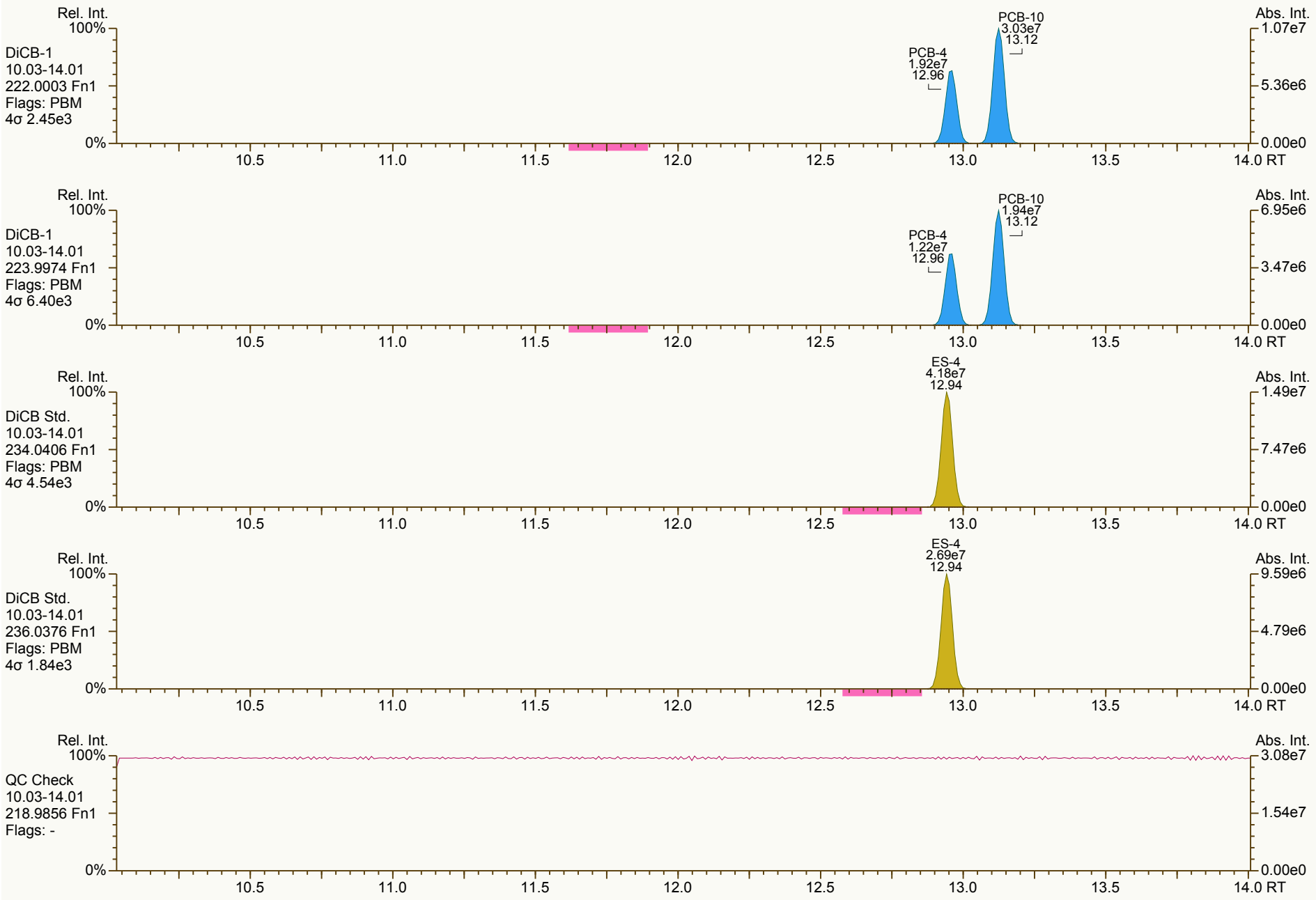
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5639, 3772 scc: 355-469 *PKD: 11-Feb-2013 10:02 Printed: 11-Feb-2013 15:19 Page 2 of 22*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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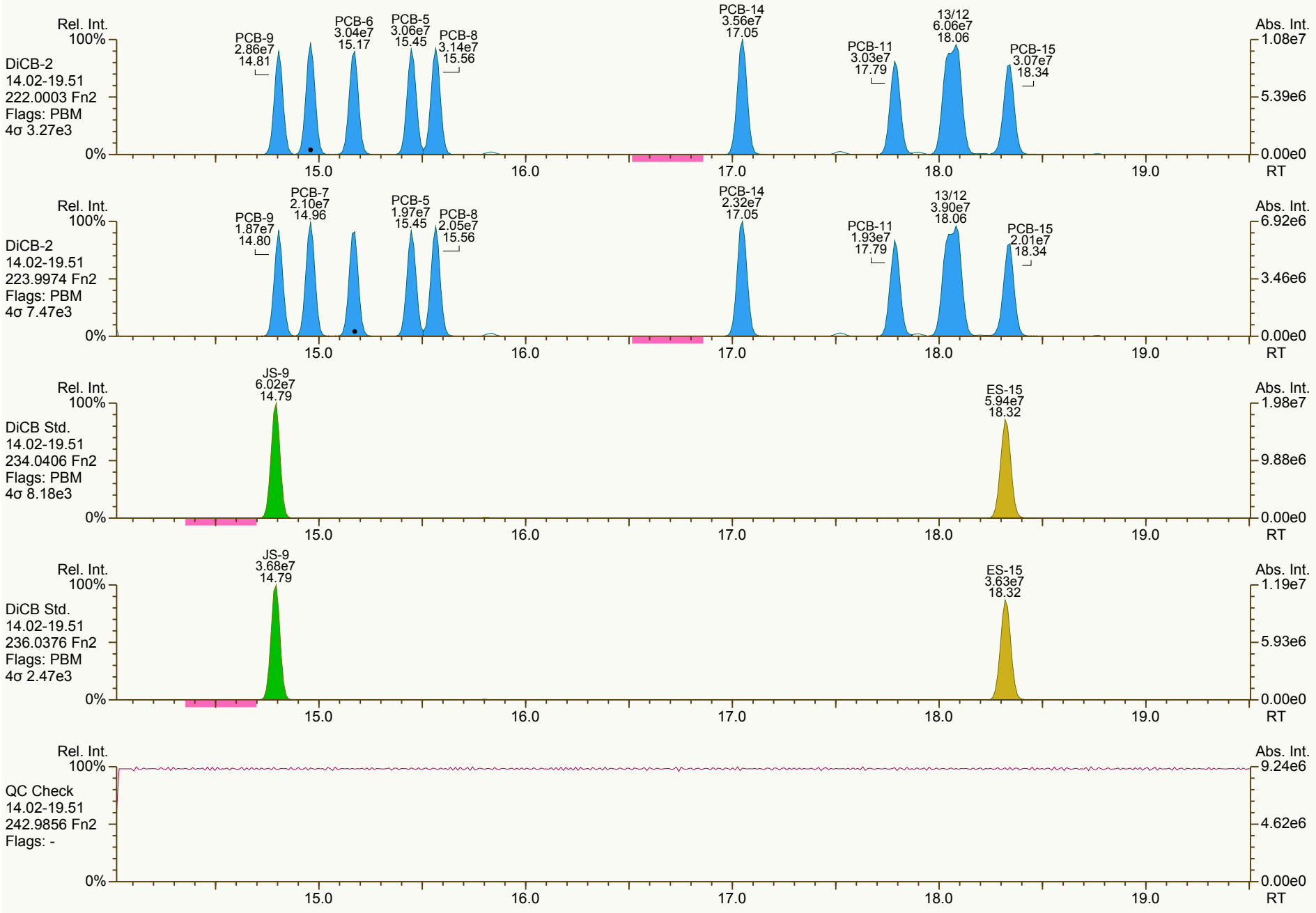
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6443, 2606 scc: 355-469 *Revised: 11-Feb-2013 10:00 (LKB) Printed: 11-Feb-2013 15:19 Page 3 of 22*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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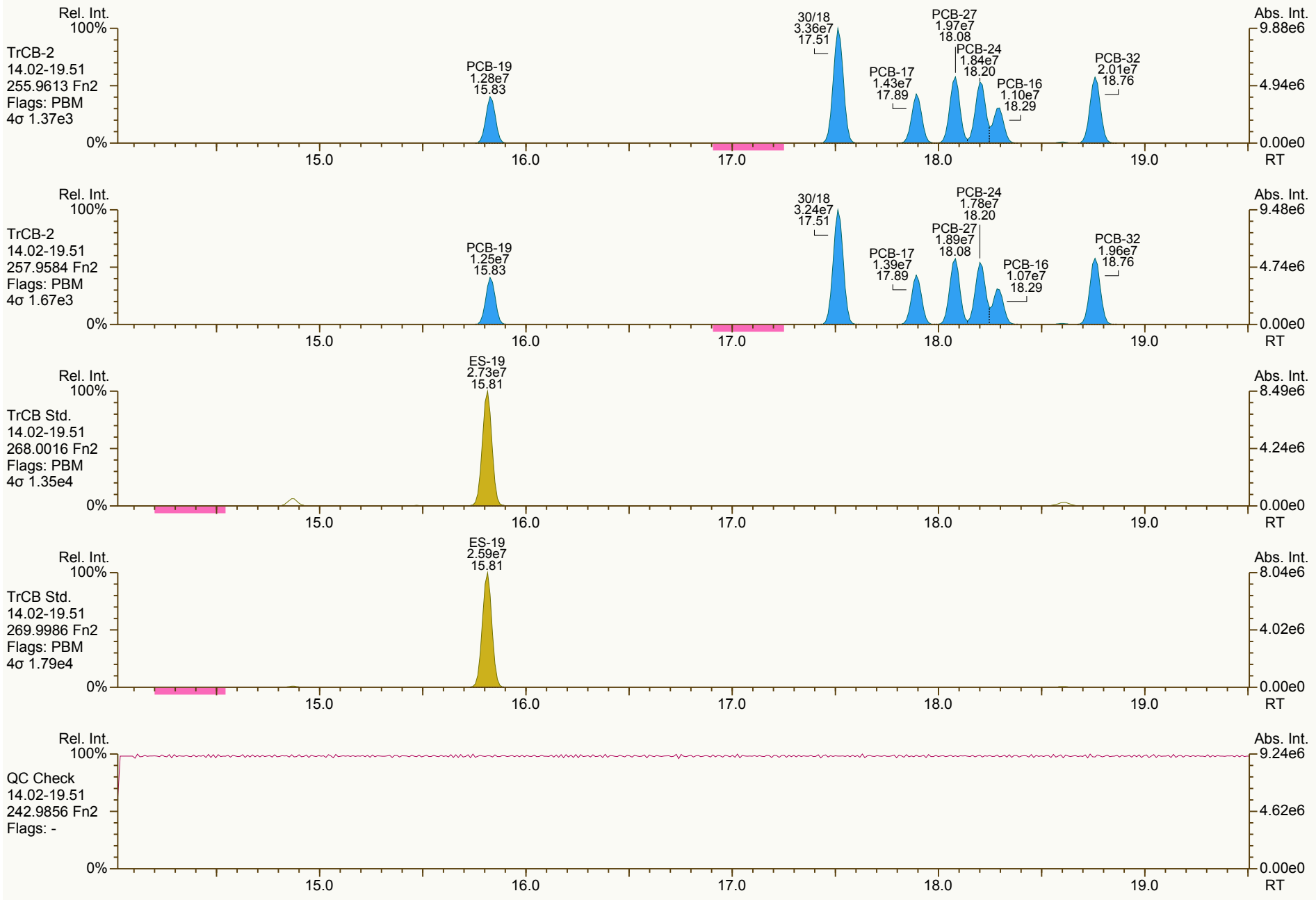
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8224, 9926 scc: 355-469 *PKD: 11-Feb-2013 10:02 Printed: 11-Feb-2013 15:19 Page 4 of 22*

SGS-AP ID: CS3_130209_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 09-Feb-2013 14:01:01
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130209V01 (EQ)



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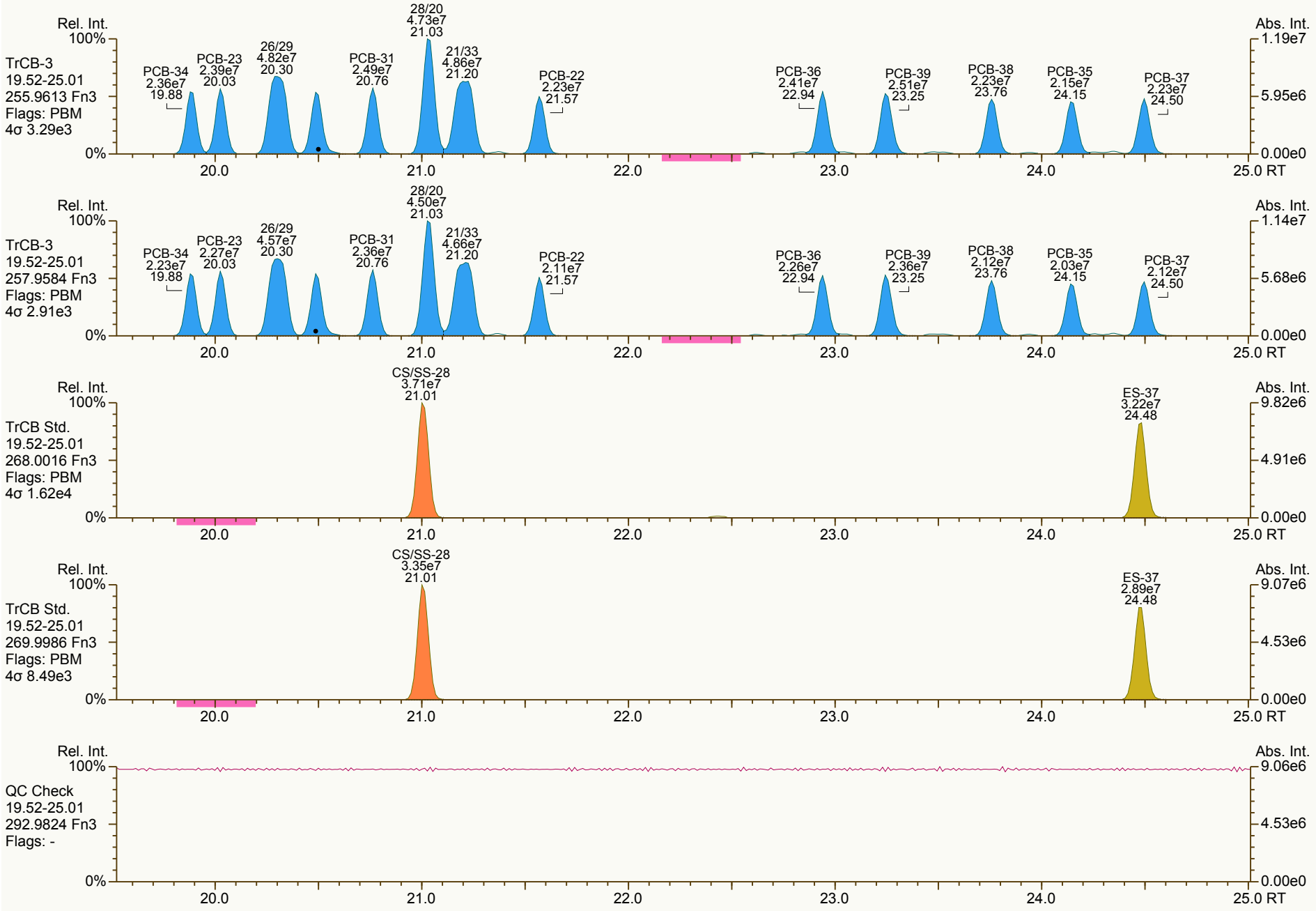
SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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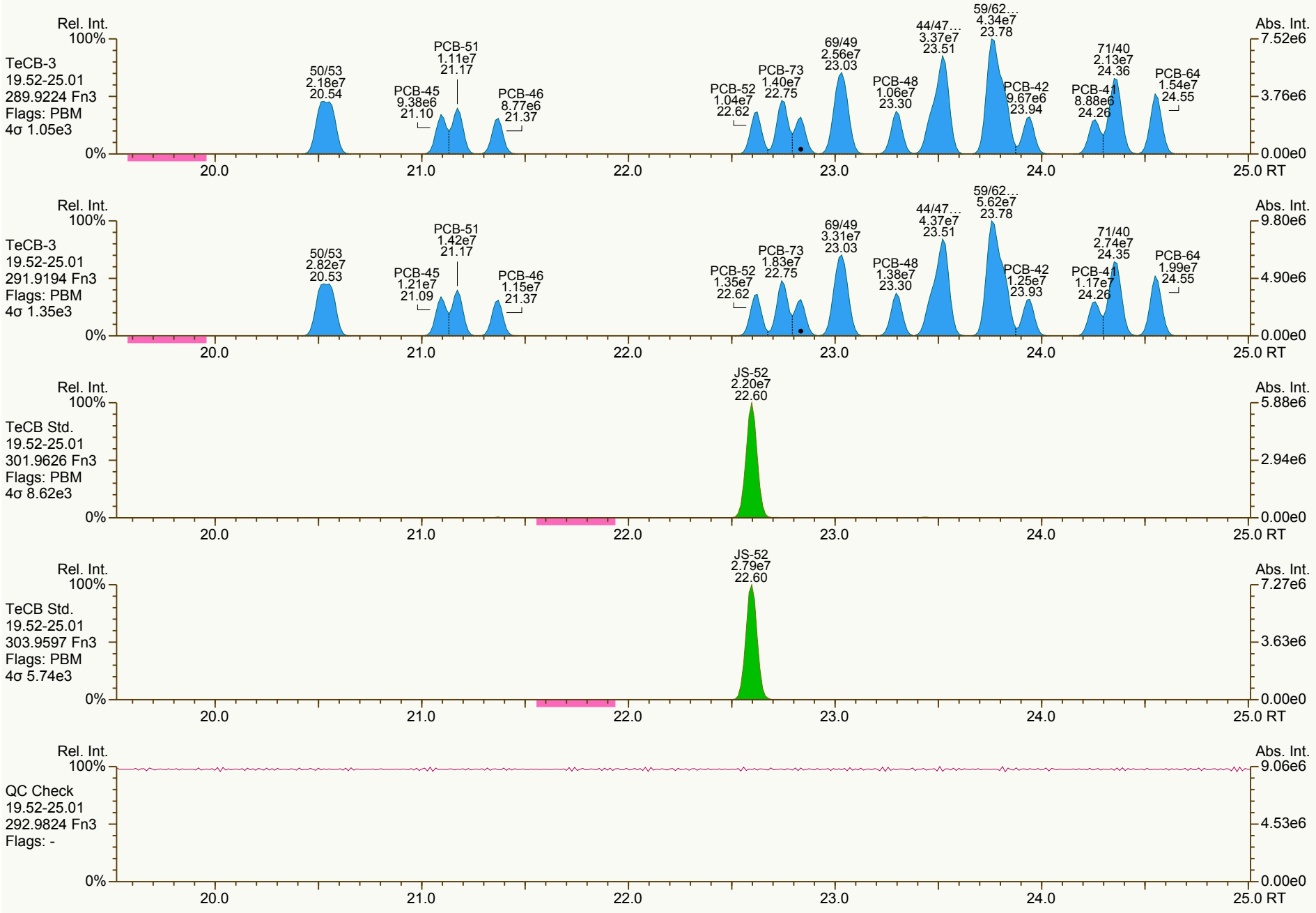
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9610, 4990 scc: 355-469 *PKD: 11-Feb-2013 10:02 Printed: 11-Feb-2013 15:19 Page 6 of 22*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\CS3_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3692, 4467 scc: 355-469 *Revised: 11-Feb-2013 10:00 (LKB) Printed: 11-Feb-2013 15:19 Page 7 of 22*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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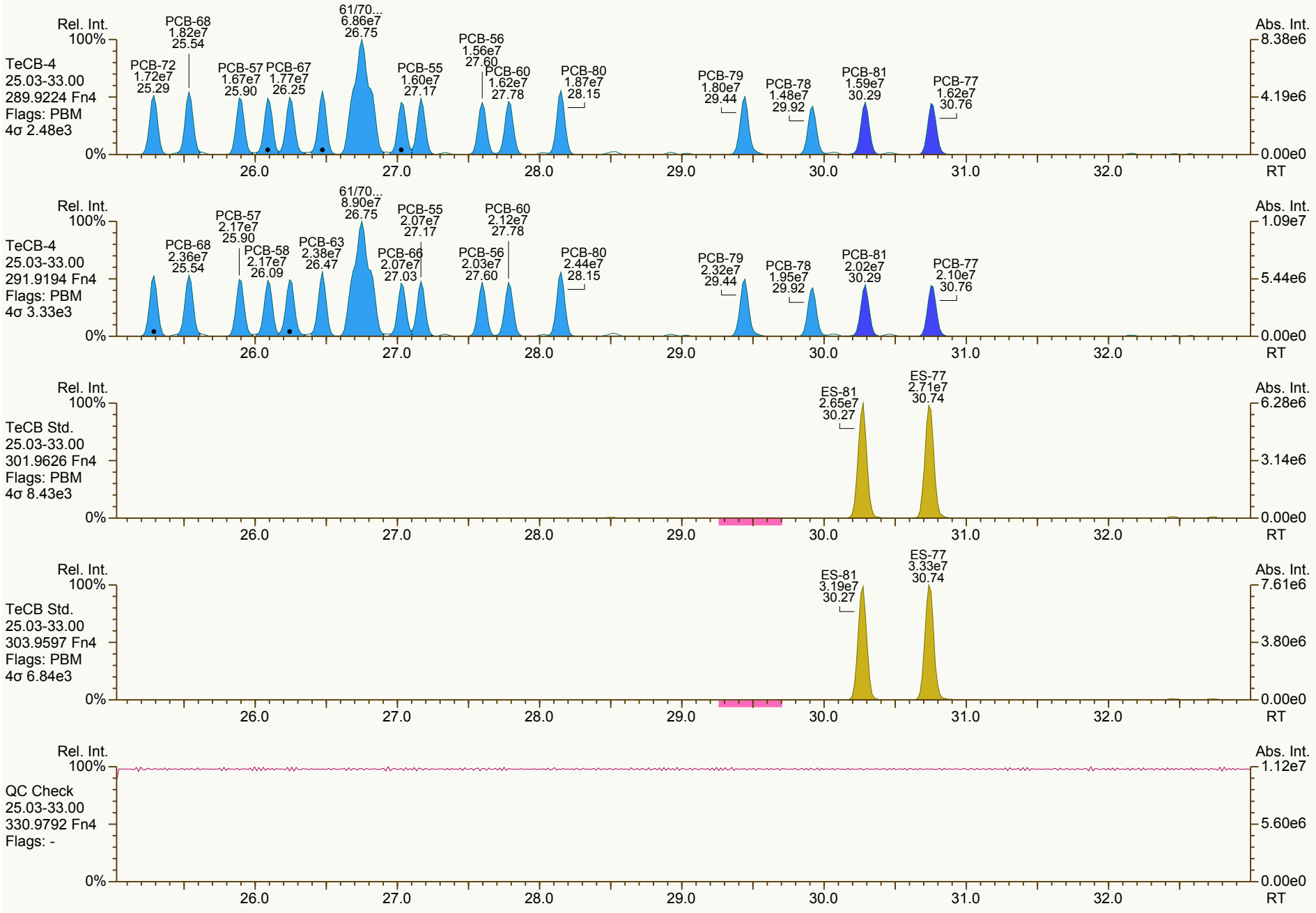
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7797, 4850 scc: 355-469 *PKD: 11-Feb-2013 10:02 Printed: 11-Feb-2013 15:19 Page 8 of 22*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



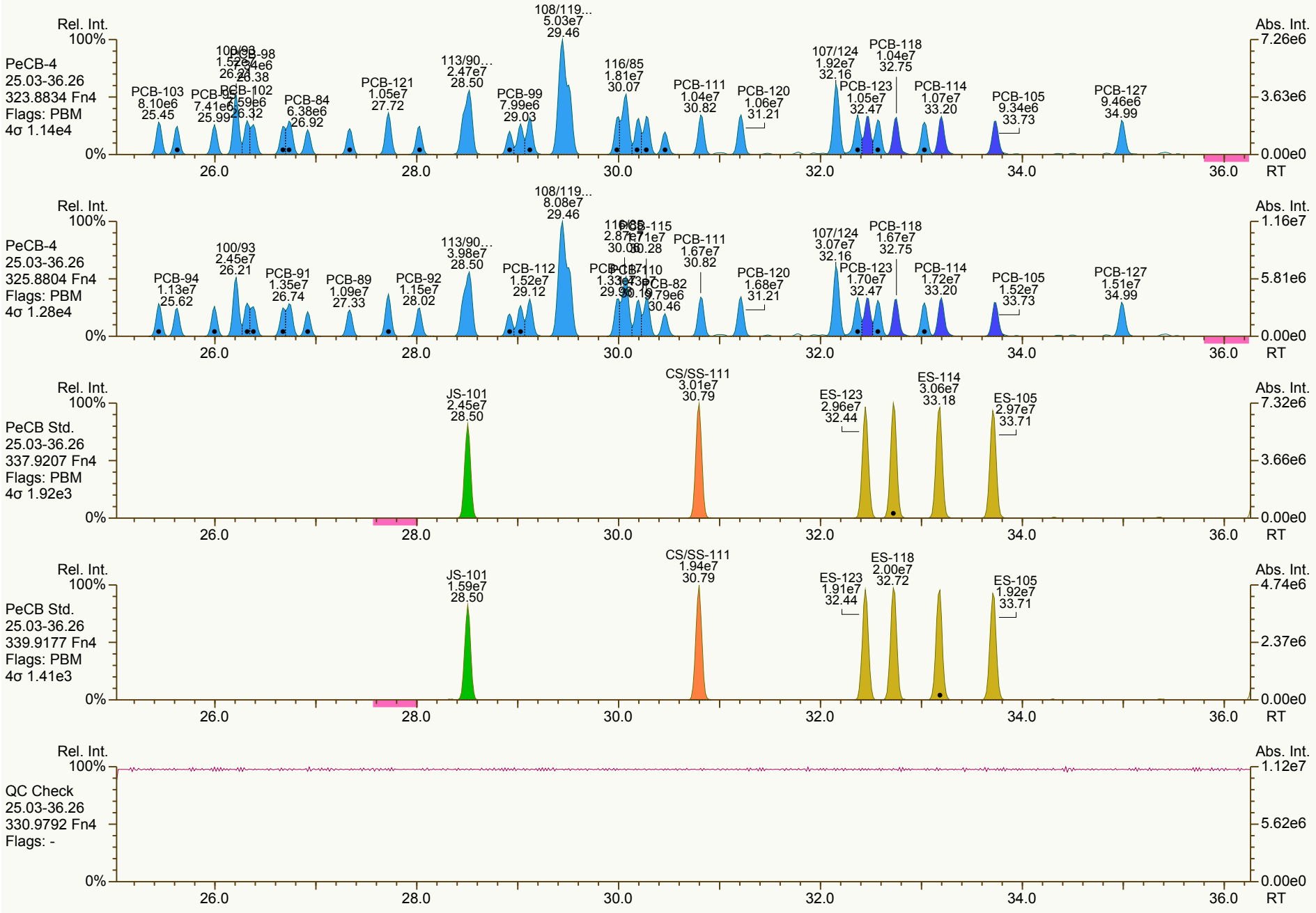
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\CS3_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9497, 4475 scc: 355-469 *PKD: 11-Feb-2013 10:14 Printed: 11-Feb-2013 15:19 Page 9 of 22*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\CS3_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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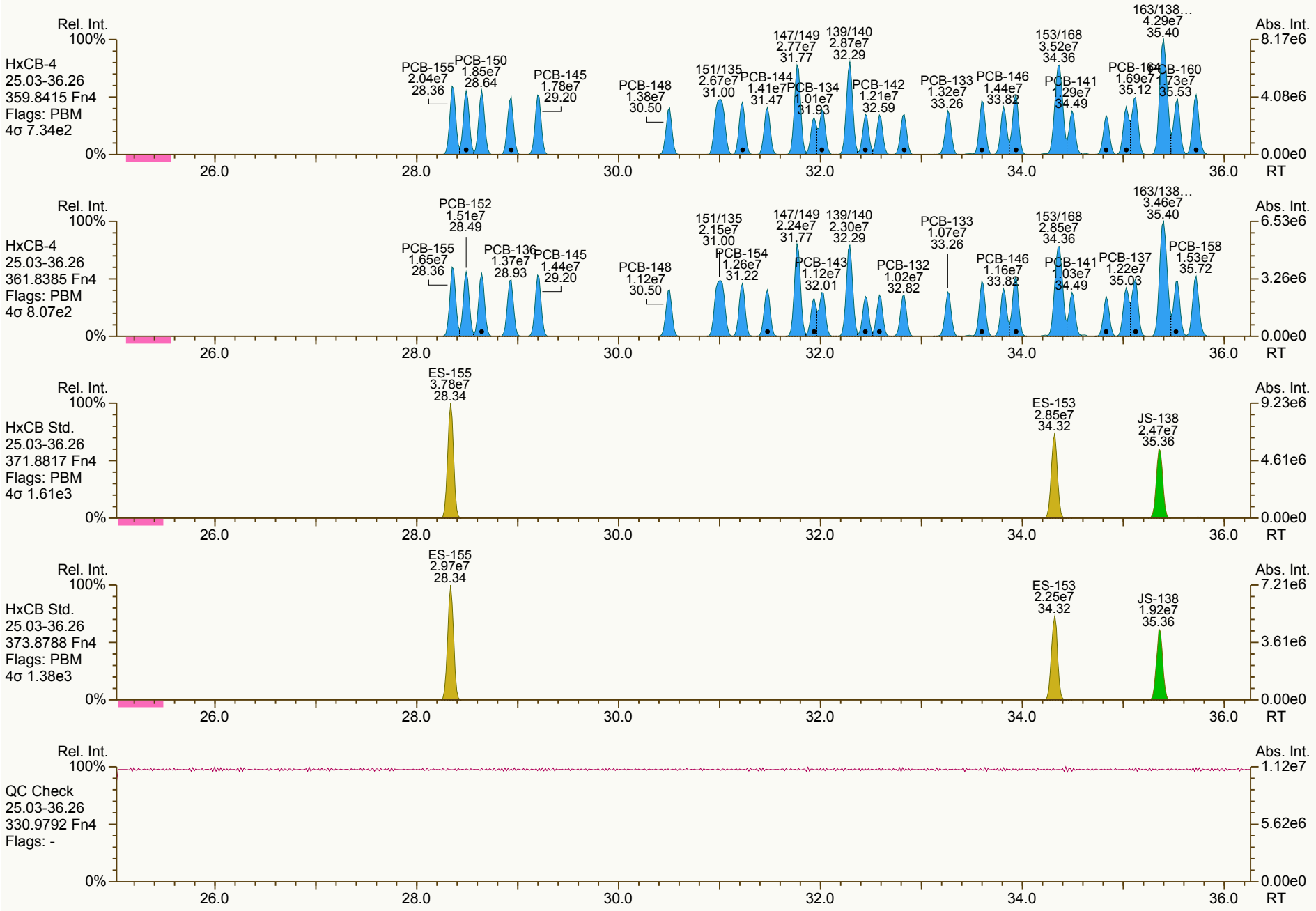
SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



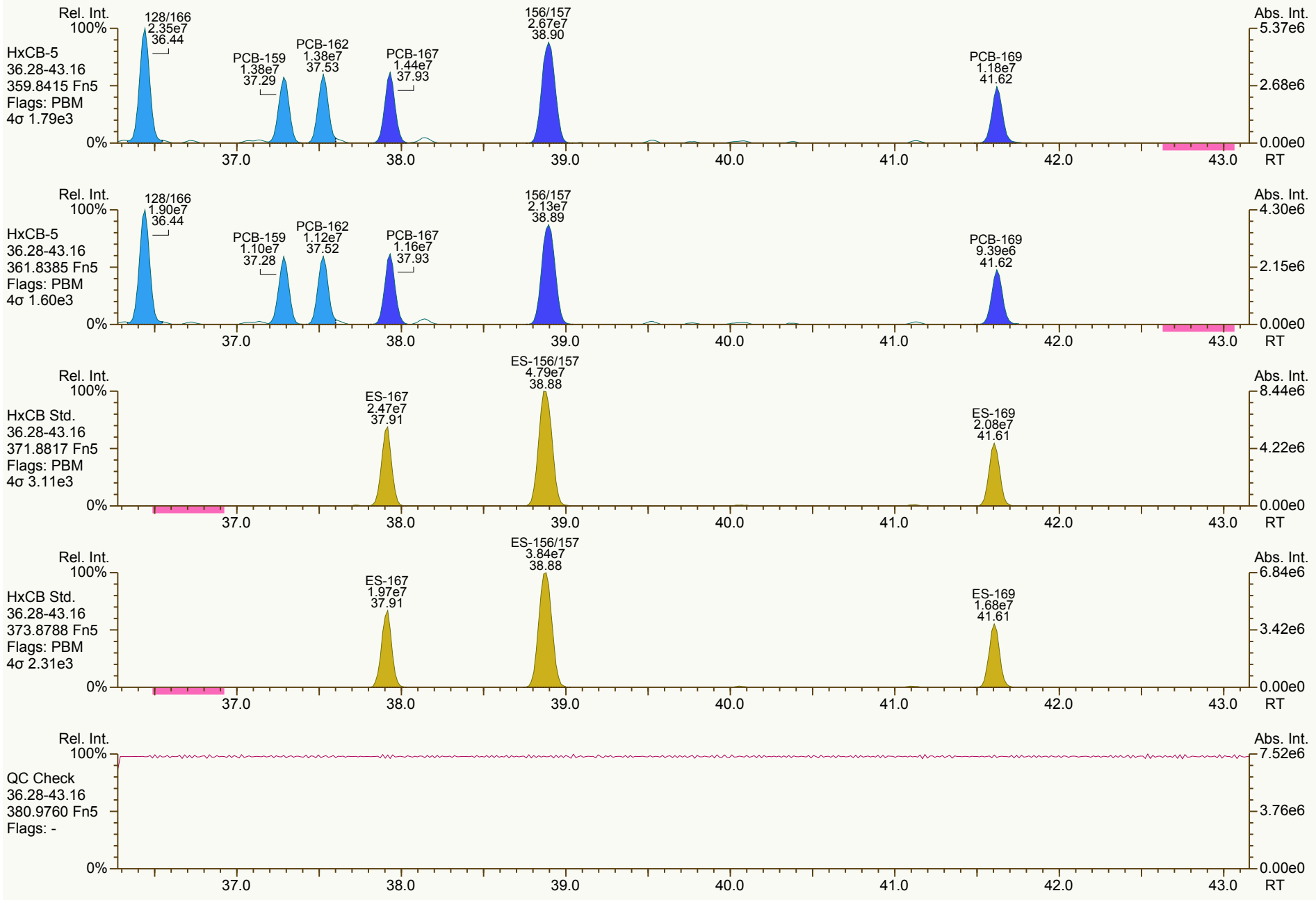
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\CS3_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4739, 9794 scc: 355-469 *Revised: 11-Feb-2013 10:14 (LKB) Printed: 11-Feb-2013 15:19 Page 12 of 22*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



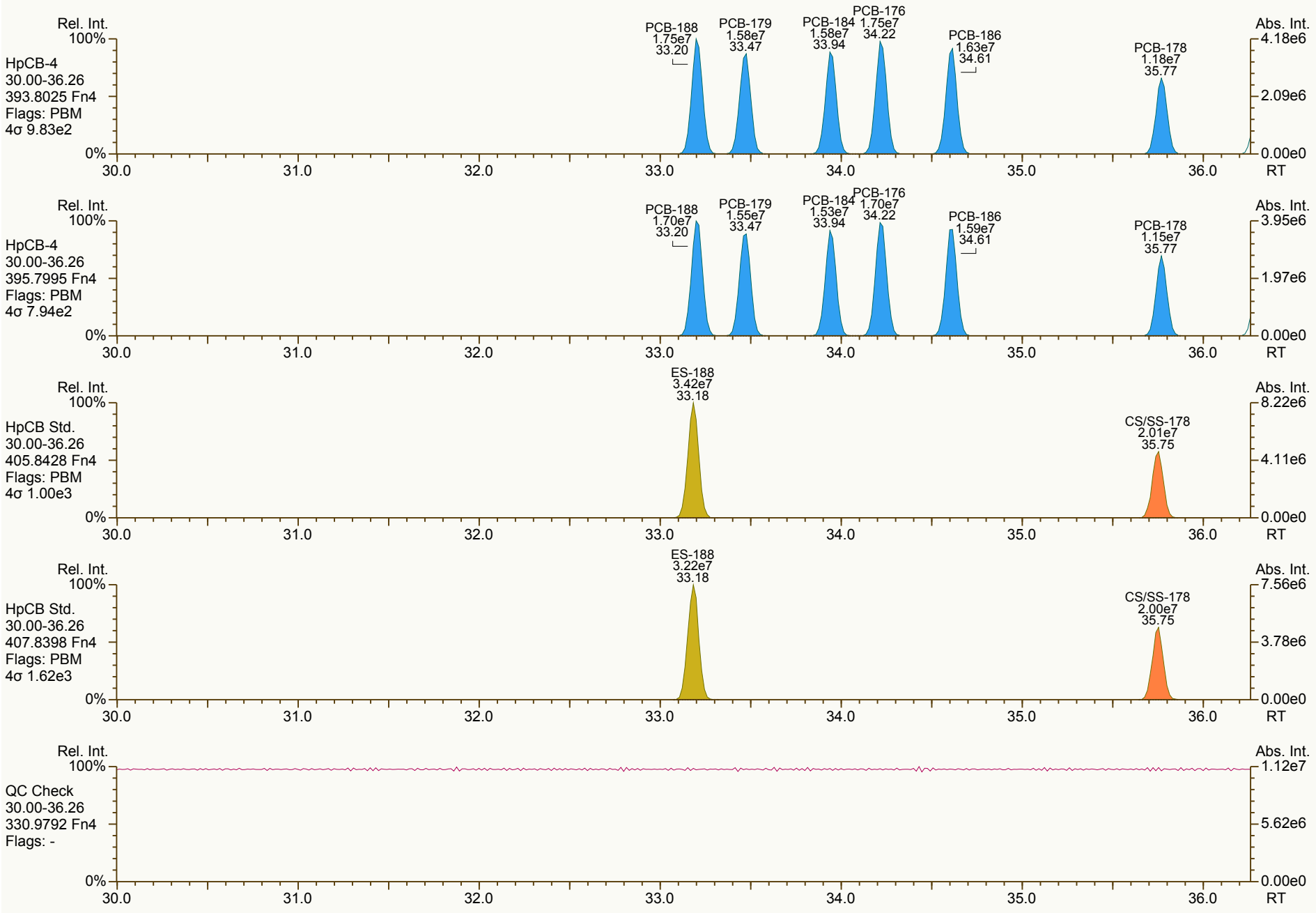
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\CS3_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2044, 0686 scc: 355-469 *PKD: 11-Feb-2013 10:16 Printed: 11-Feb-2013 15:20 Page 13 of 22*

SGS-AP ID: CS3_130209_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 09-Feb-2013 14:01:01
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130209V01 (EQ)



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\CS3_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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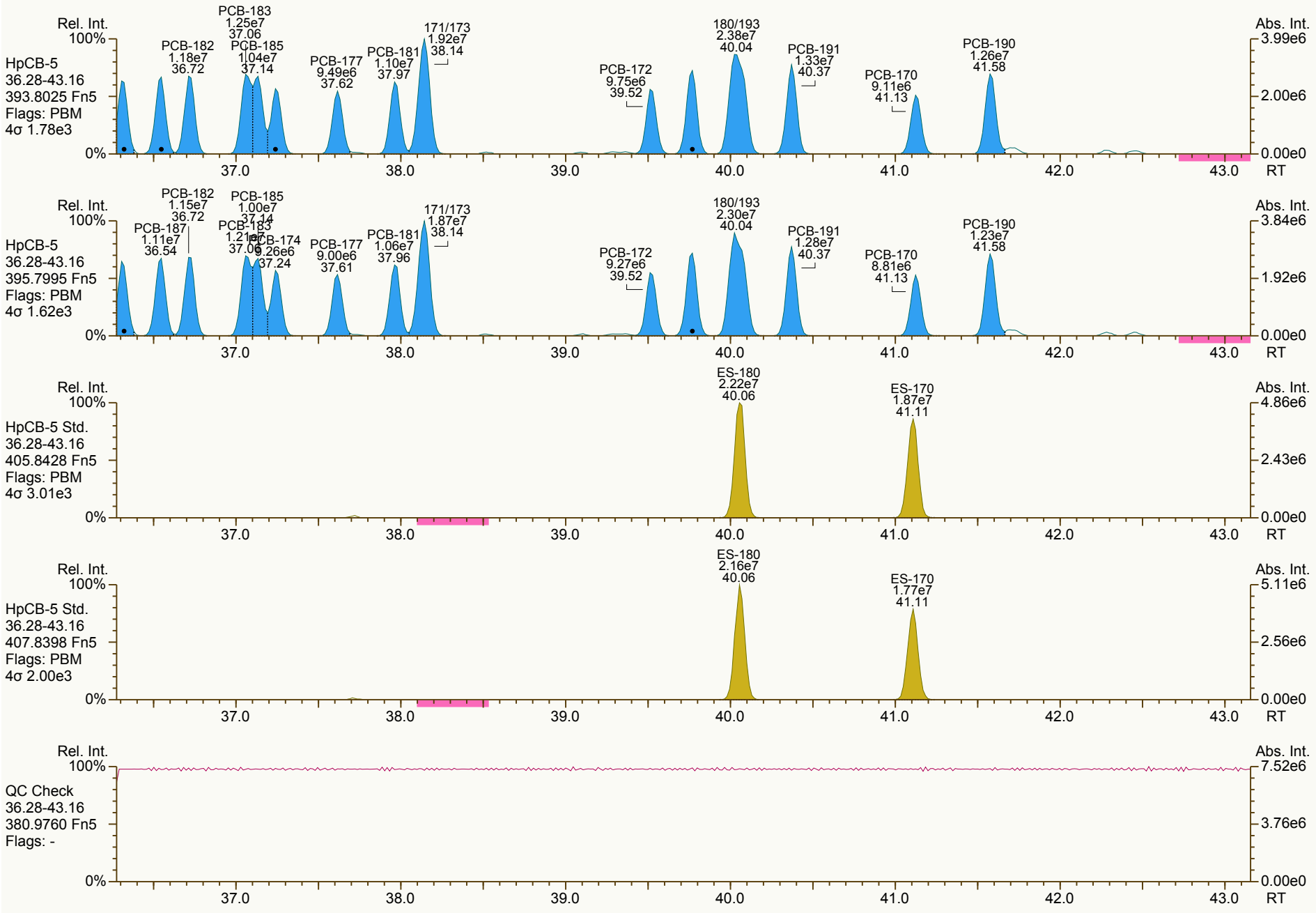
SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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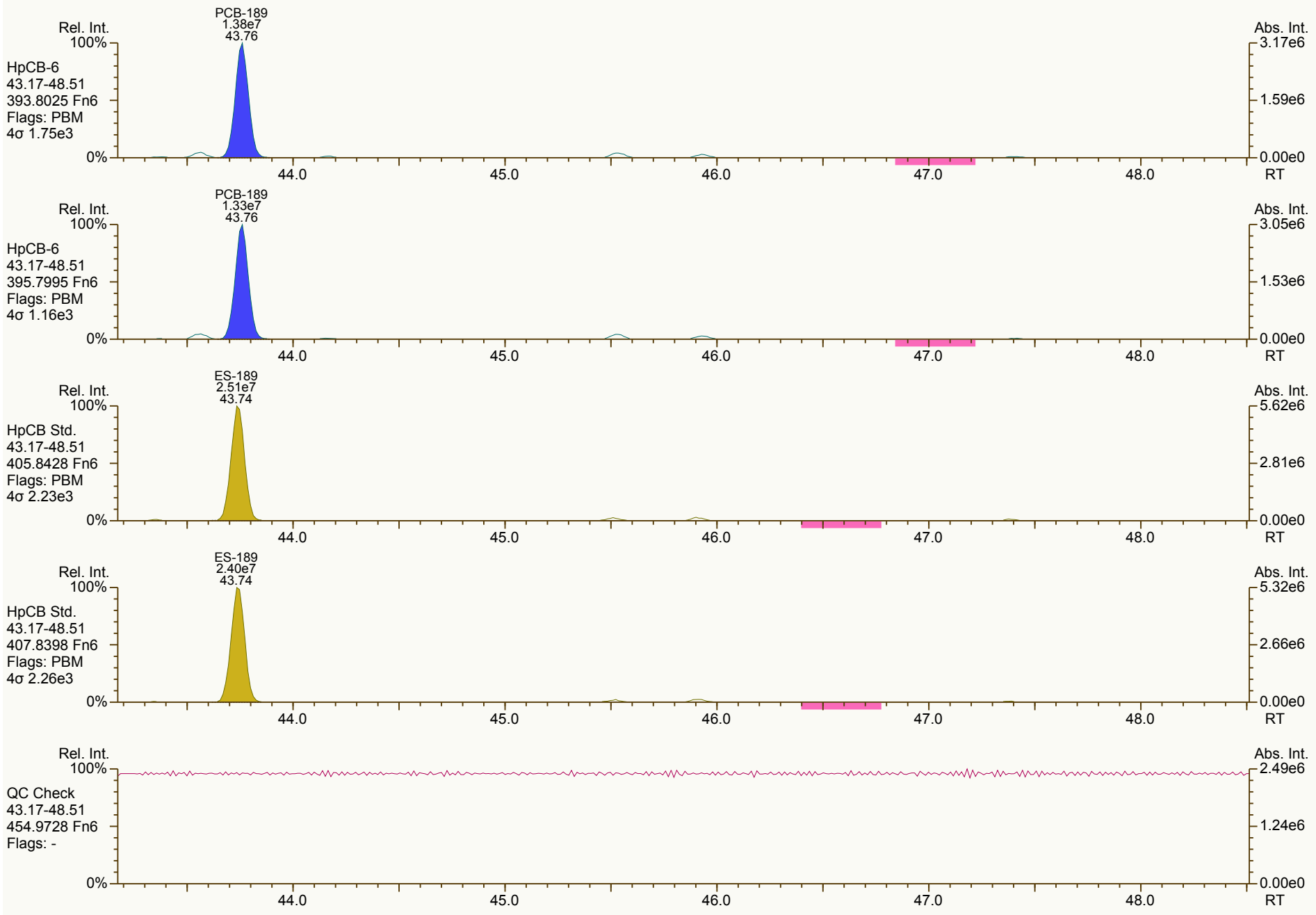
SGS-AP ID: CS3_130209_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 09-Feb-2013 14:01:01
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130209V01 (EQ)



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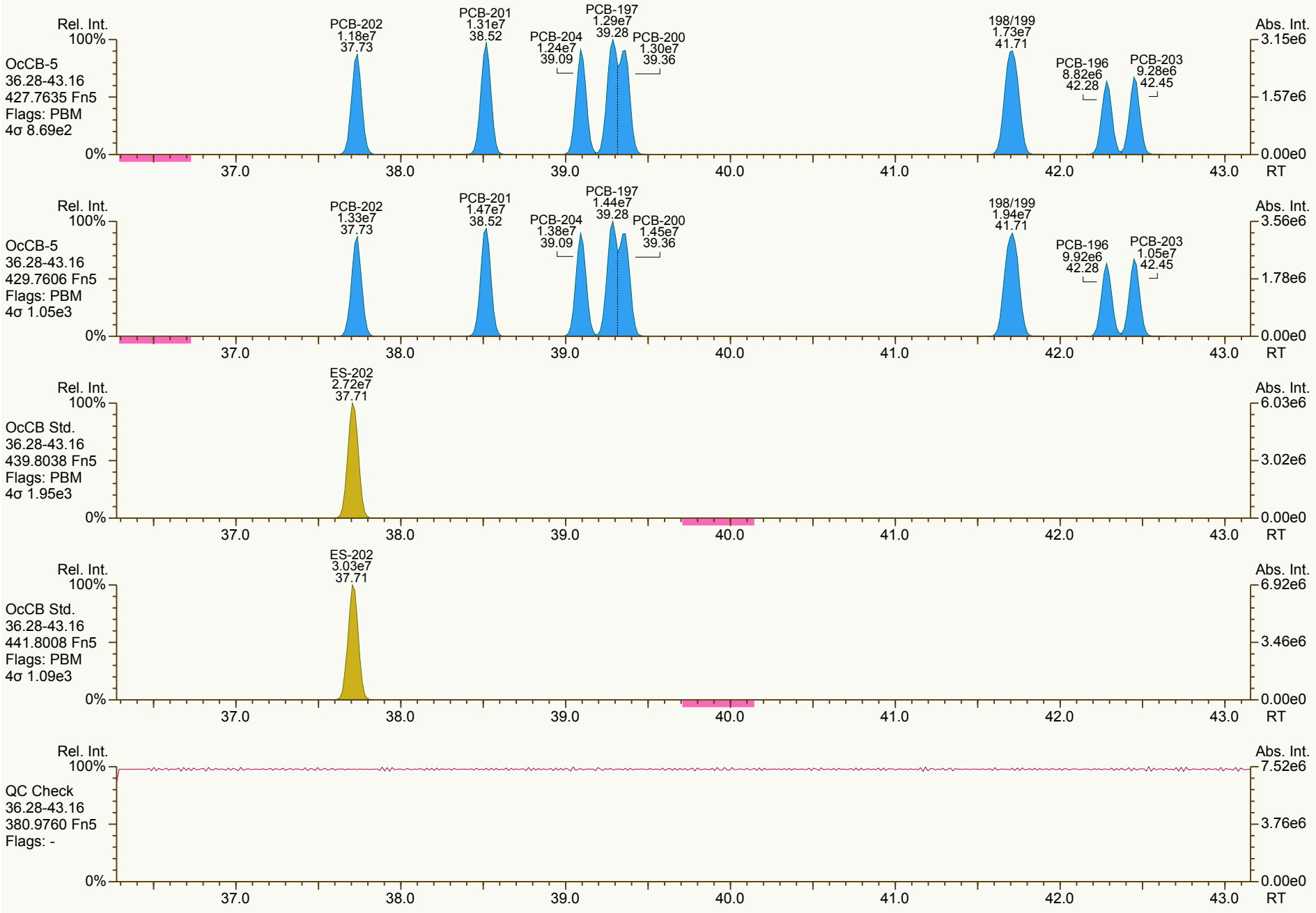
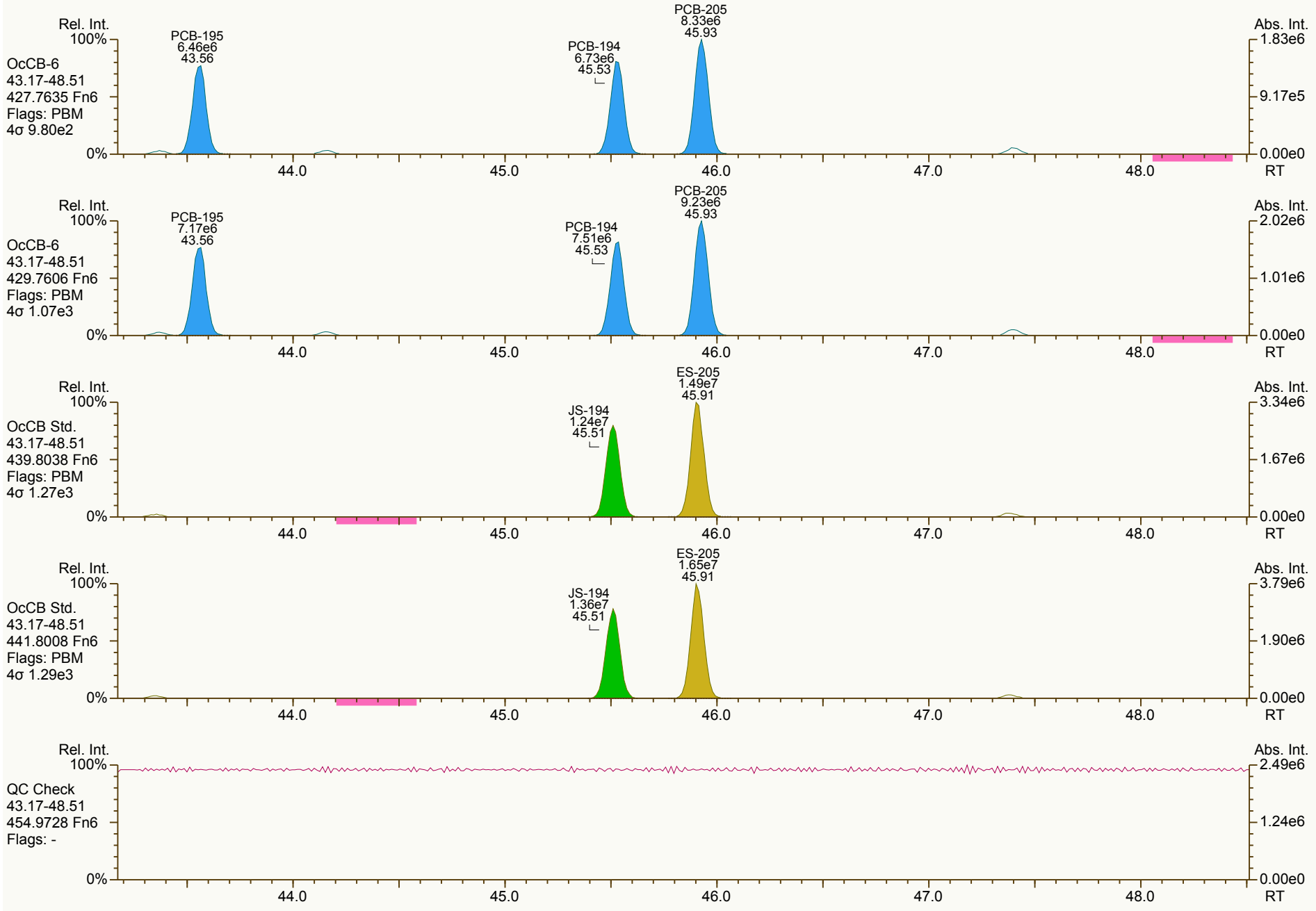
SGS-AP ID: CS3_130209_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 09-Feb-2013 14:01:01
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3 | User: CEM Datafile: 130209V01 (EQ)



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\CS3_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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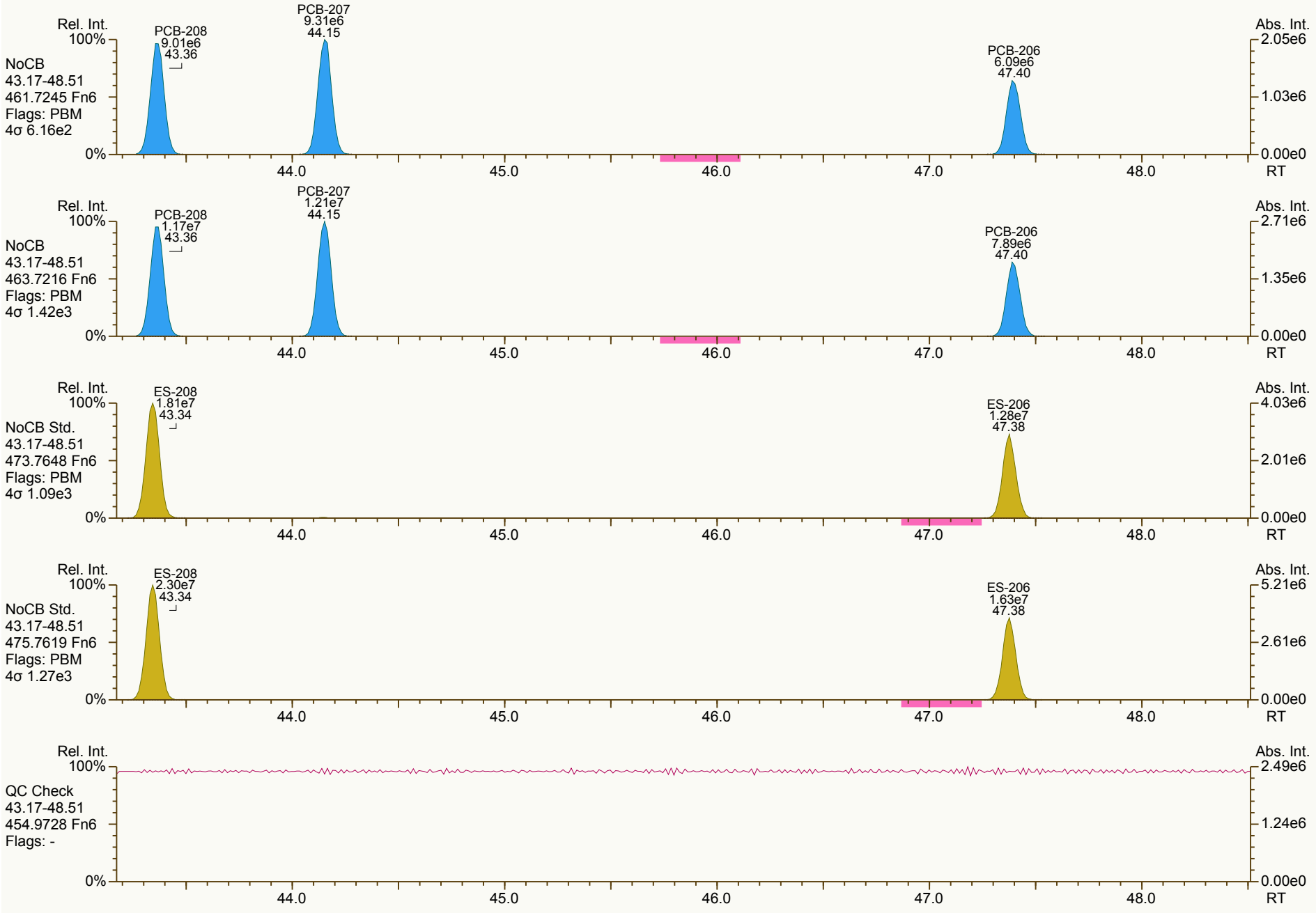
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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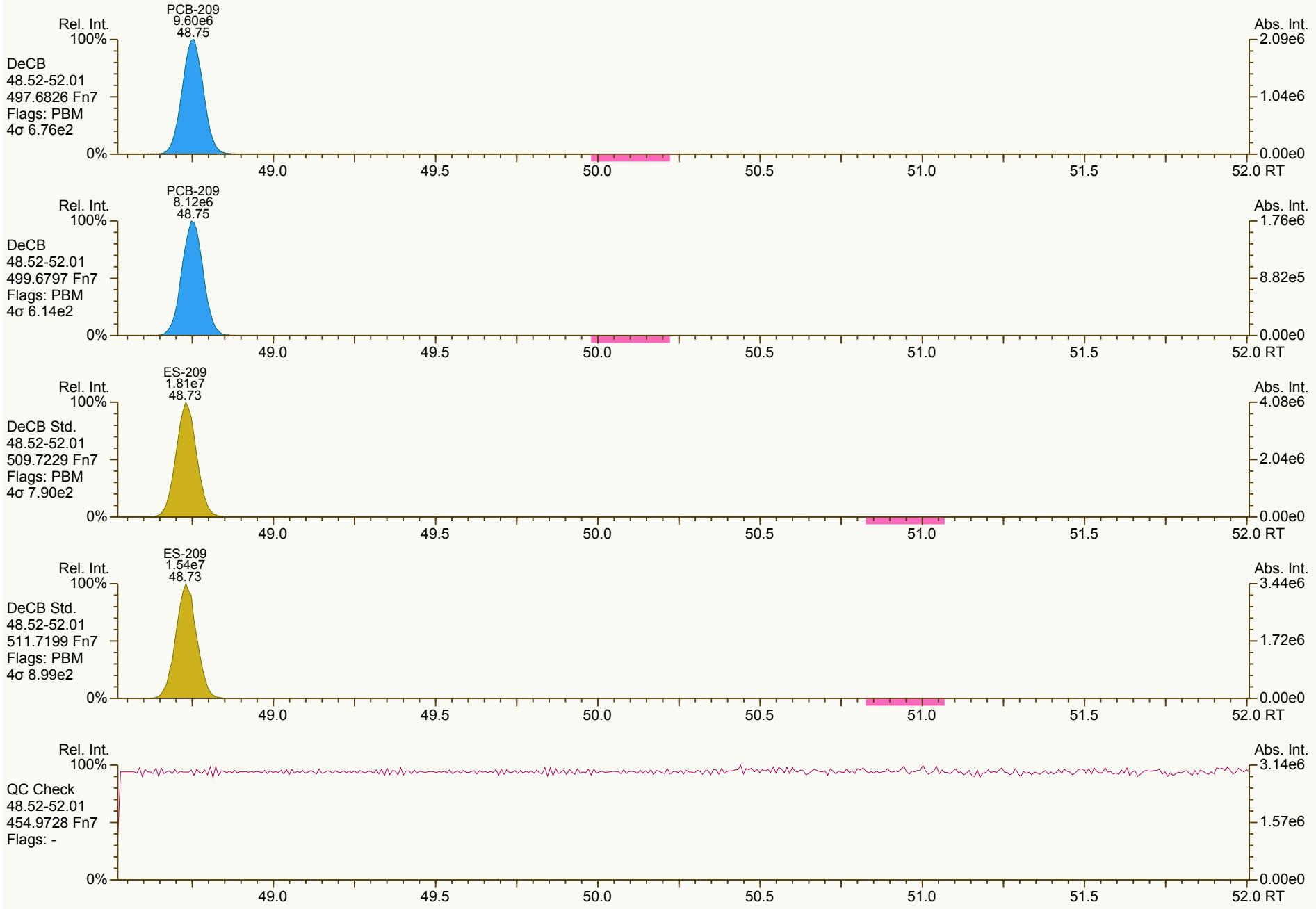
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8557, 0322 scc: 355-469 *PKD: 11-Feb-2013 10:16 Printed: 11-Feb-2013 15:20 Page 20 of 22*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3327, 1560 scc: 355-469 *PKD: 11-Feb-2013 10:16 Printed: 11-Feb-2013 15:20 Page 21 of 22*

SGS-AP ID: CS3_130209_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 09-Feb-2013 14:01:01**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 3** **User: CEM Datafile: 130209V01 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\CS3_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 355-469 *Revised: 11-Feb-2013 10:00 (LKB) Printed: 11-Feb-2013 15:20 Page 22 of 22*

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



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SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

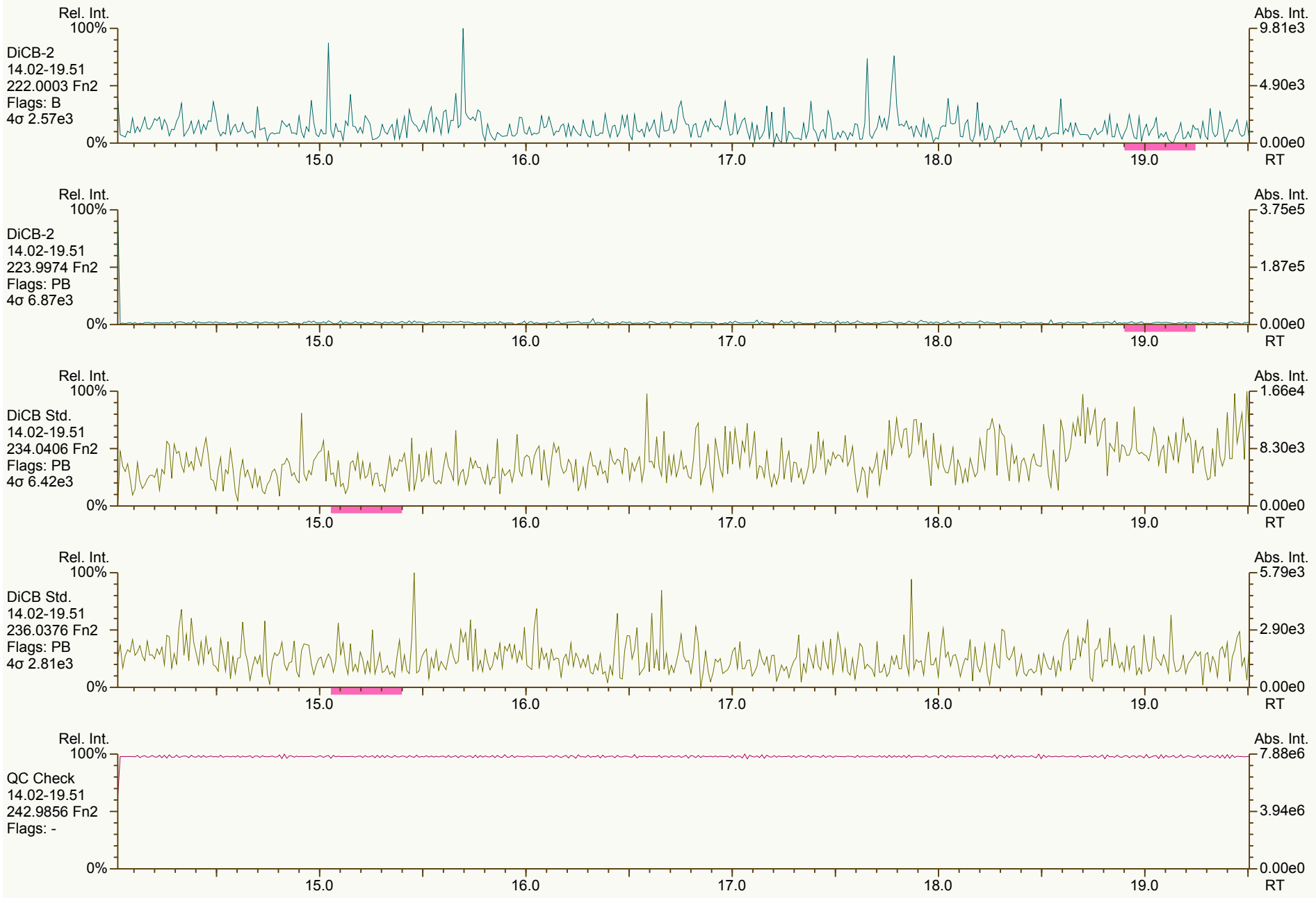
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8832, 9721 scc: 760-701 *Revised: 11-Feb-2013 10:51 (LKB) Printed: 11-Feb-2013 15:20 Page 2 of 22*

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1443, 0867 scc: 760-701 *Revised: 11-Feb-2013 10:51 (LKB) Printed: 11-Feb-2013 15:20 Page 3 of 22*

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



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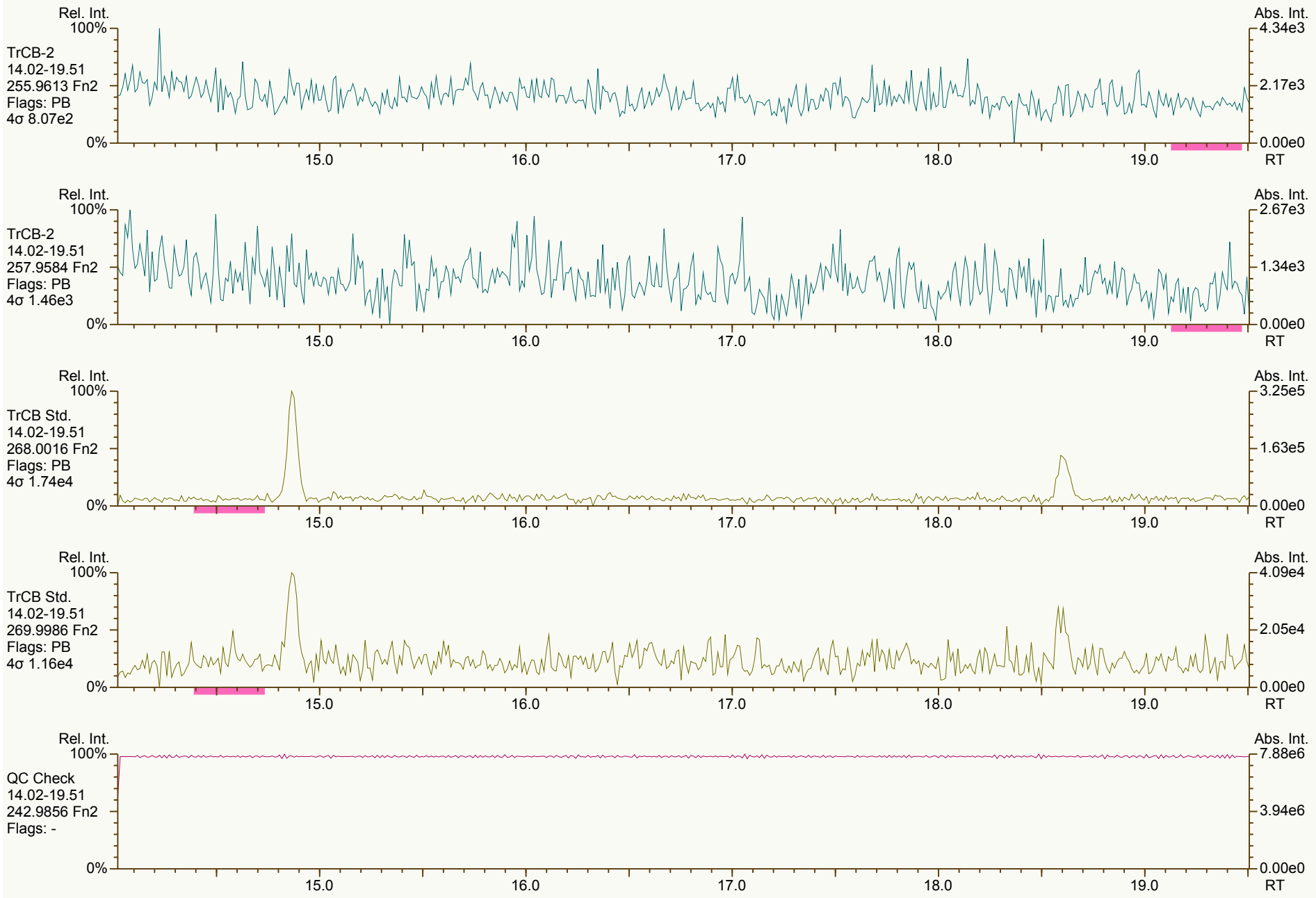
SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5150, 6814 scc: 760-701 *PKD: 11-Feb-2013 10:51 Printed: 11-Feb-2013 15:20 Page 5 of 22*

SGS-AP ID: SBS_130209_PCB_VA | **Sample ID: SIL 9-41-1** | **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** | **User: CEM Datafile: 130209V04 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0043, 1341 scc: 760-701 *Revised: 11-Feb-2013 10:51 (LKB) Printed: 11-Feb-2013 15:20 Page 8 of 22*

SGS-AP ID: SBS_130209_PCB_VA | Sample ID: SIL 9-41-1 | Acq: 09-Feb-2013 16:46:07
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2 | User: CEM Datafile: 130209V04 (EQ)



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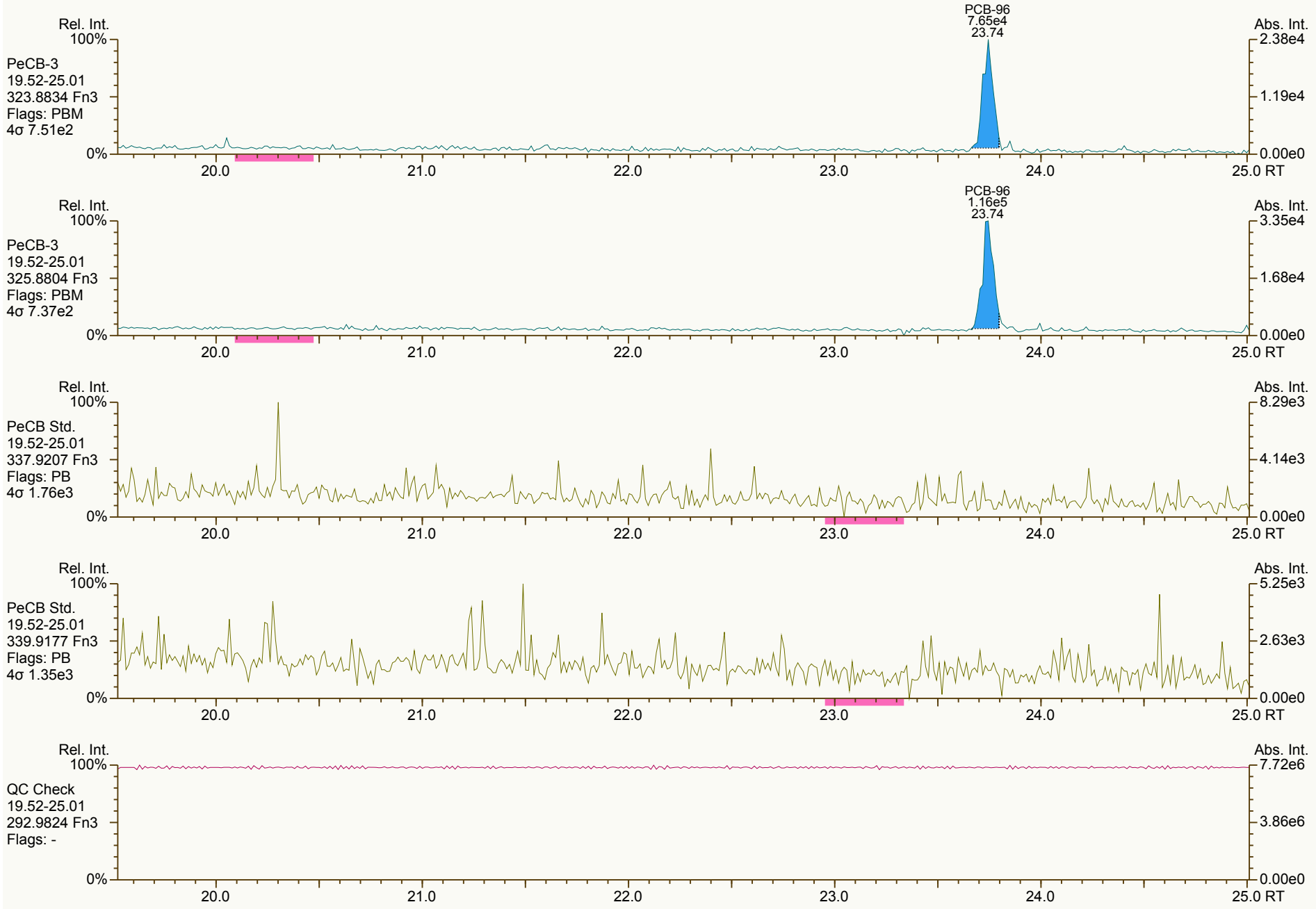
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5331, 3421 scc: 760-701
PKD: 11-Feb-2013 10:51 Printed: 11-Feb-2013 15:20 Page 9 of 22

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4111, 6368 scc: 760-701 *Revised: 11-Feb-2013 10:51 (LKB) Printed: 11-Feb-2013 15:20 Page 10 of 22*

SGS-AP ID: SBS_130209_PCB_VA
Instr: AutoSpec-Premier MM6

Sample ID: SIL 9-41-1
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2

Acq: 09-Feb-2013 16:46:07
User: CEM Datafile: 130209V04 (EQ)



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:19 (LKB)
Peak annotation: Areas, Centroids

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Revised: 11-Feb-2013 10:51 (LKB) Printed: 11-Feb-2013 15:20 Page 11 of 22

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7336, 4138 scc: 760-701 *PKD: 11-Feb-2013 10:51 Printed: 11-Feb-2013 15:20 Page 12 of 22*

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



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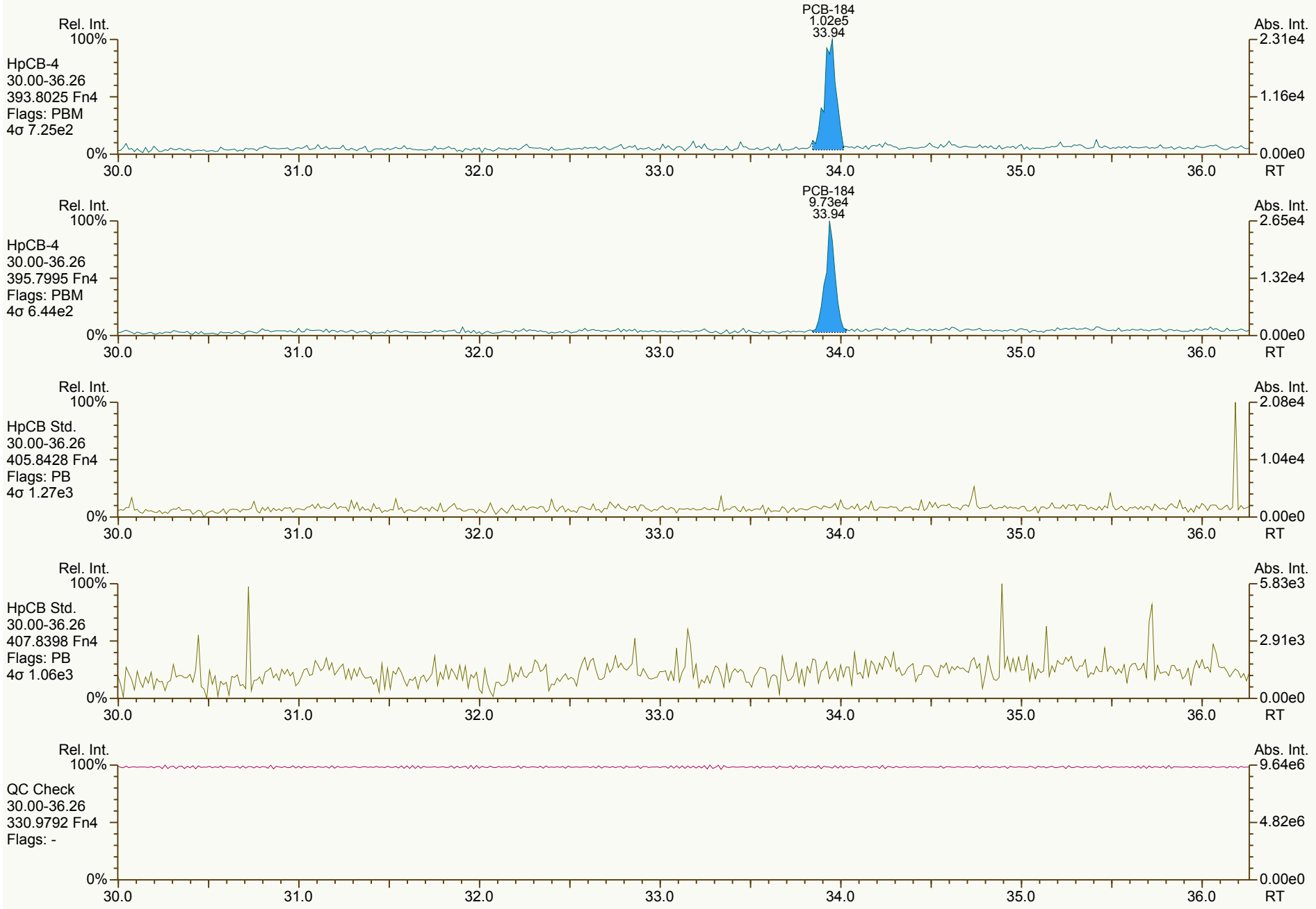
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8373, 8705 scc: 760-701 *Revised: 11-Feb-2013 10:51 (LKB) Printed: 11-Feb-2013 15:20 Page 13 of 22*

SGS-AP ID: SBS_130209_PCB_VA | **Sample ID: SIL 9-41-1** | **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** | **User: CEM Datafile: 130209V04 (EQ)**



SGS-AP ID: SBS_130209_PCB_VA | Sample ID: SIL 9-41-1 | Acq: 09-Feb-2013 16:46:07
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2 | User: CEM Datafile: 130209V04 (EQ)



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SGS-AP ID: SBS_130209_PCB_VA | Sample ID: SIL 9-41-1 | Acq: 09-Feb-2013 16:46:07
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2 | User: CEM Datafile: 130209V04 (EQ)



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7769, 7566 scc: 760-701 *Revised: 11-Feb-2013 10:51 (LKB) Printed: 11-Feb-2013 15:20 Page 16 of 22*

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



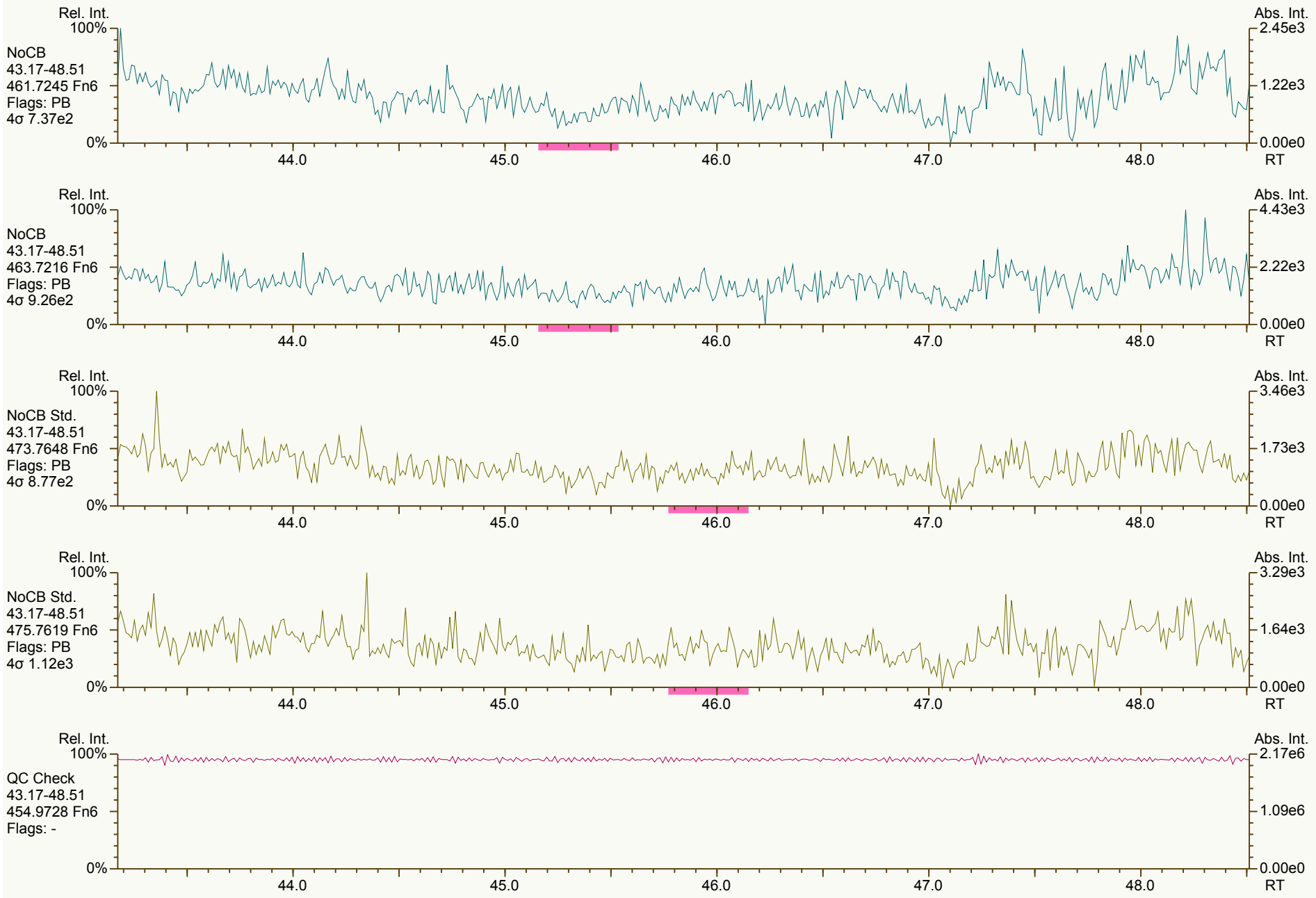
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8971, 5508 scc: 760-701 *PKD: 11-Feb-2013 10:51 Printed: 11-Feb-2013 15:20 Page 18 of 22*

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7957, 4477 scc: 760-701 *Revised: 11-Feb-2013 10:51 (LKB) Printed: 11-Feb-2013 15:20 Page 19 of 22*

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



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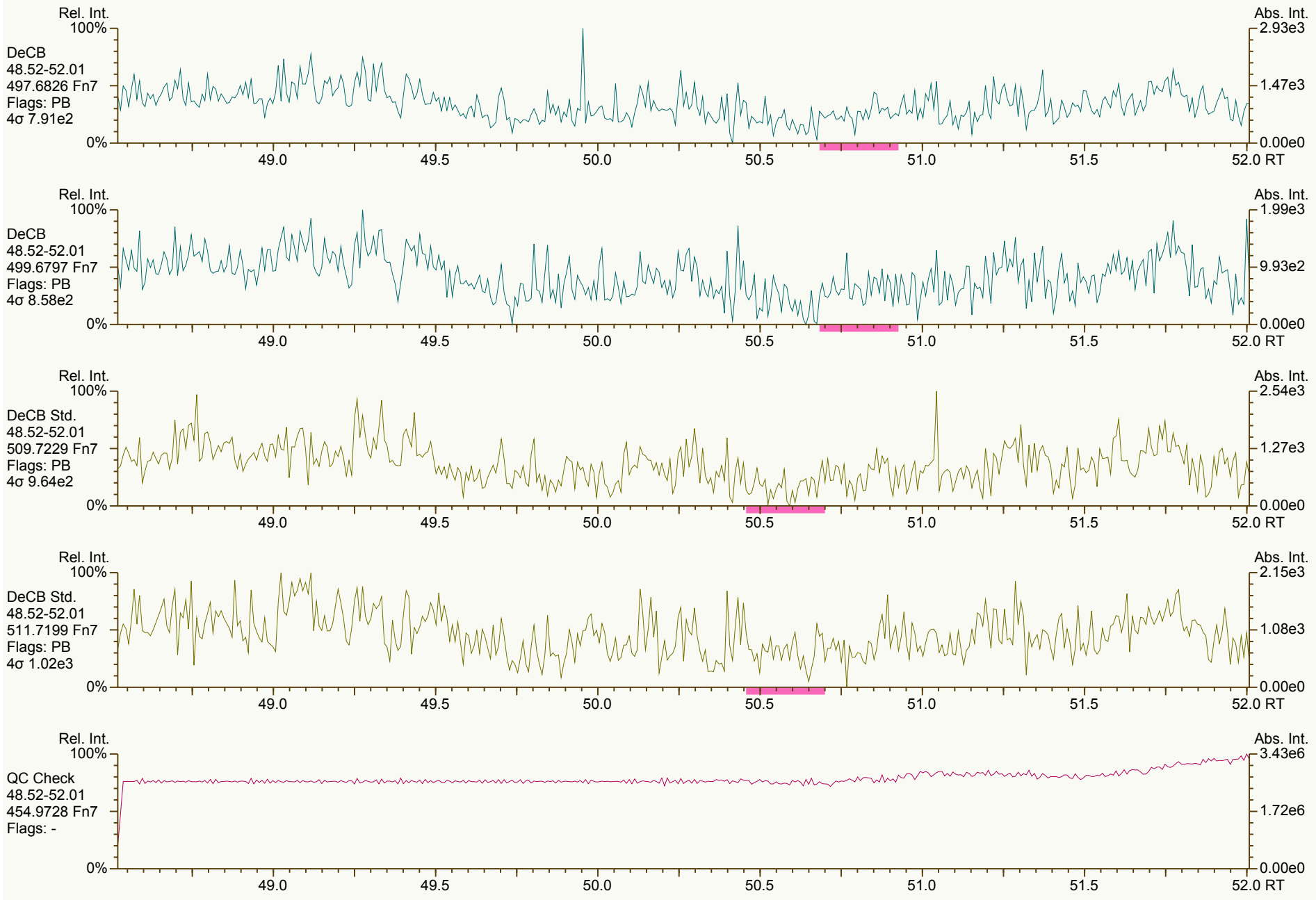
SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 9300, 1388 scc: 760-701 *Revised: 11-Feb-2013 10:51 (LKB) Printed: 11-Feb-2013 15:21 Page 21 of 22*

SGS-AP ID: SBS_130209_PCB_VA **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 16:46:07**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V04 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VA.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5420, 3120 scc: 245-060 *Revised: 11-Feb-2013 10:52 (LKB) Printed: 11-Feb-2013 15:21 Page 2 of 22*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1713, 2601 scc: 245-060 *Revised: 11-Feb-2013 10:52 (LKB) Printed: 11-Feb-2013 15:21 Page 3 of 22*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 0115, 4059 scc: 245-060 *PKD: 11-Feb-2013 10:53 Printed: 11-Feb-2013 15:21 Page 5 of 22*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8350, 7188 scc: 245-060 *Revised: 11-Feb-2013 10:52 (LKB) Printed: 11-Feb-2013 15:21 Page 8 of 22*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5334, 7237 scc: 245-060 *Revised: 11-Feb-2013 10:52 (LKB) Printed: 11-Feb-2013 15:21 Page 10 of 22*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7497, 8359 scc: 245-060 *Revised: 11-Feb-2013 10:53 (LKB) Printed: 11-Feb-2013 15:21 Page 11 of 22*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**

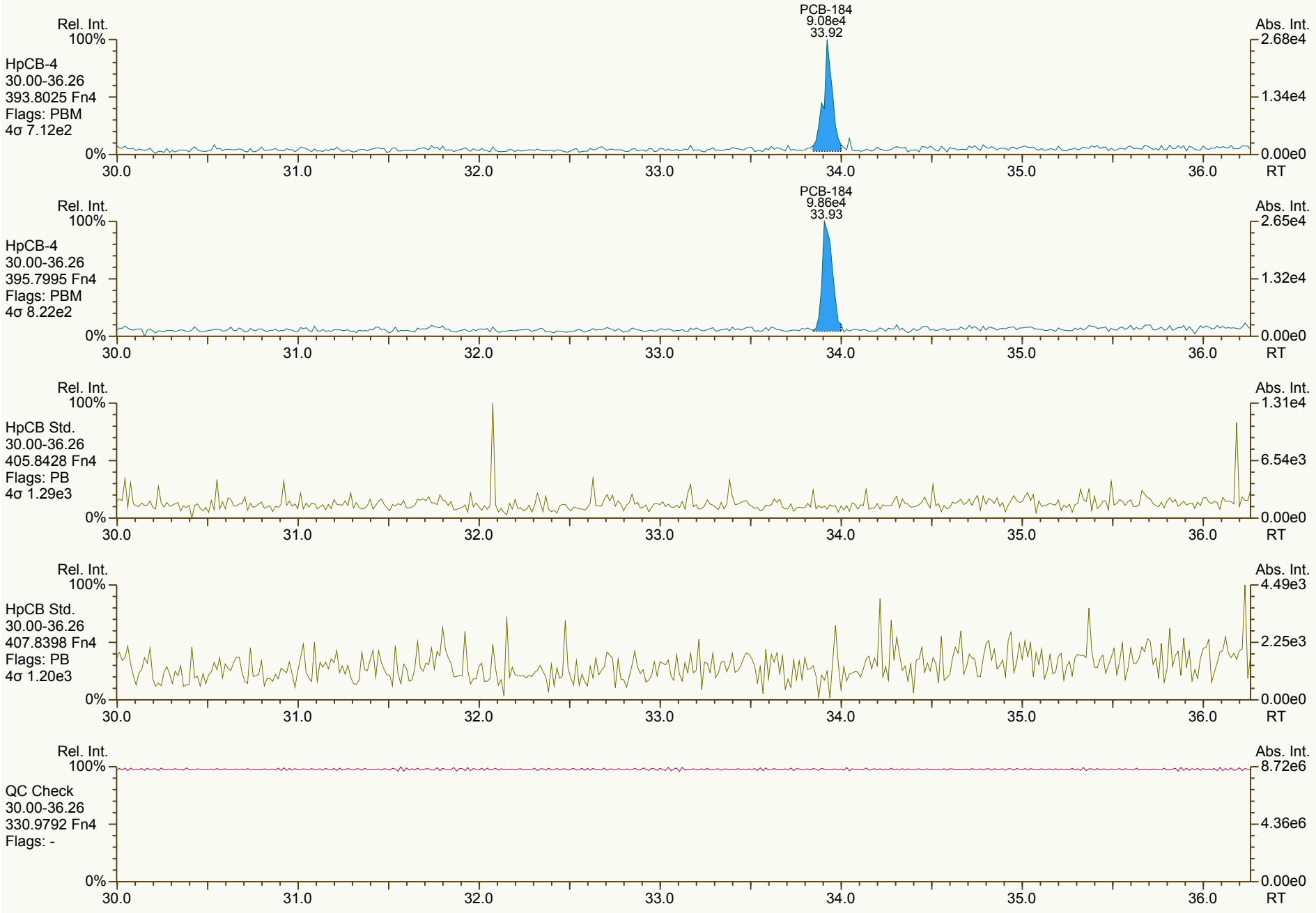


Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4161, 7782 scc: 245-060 *Revised: 11-Feb-2013 10:52 (LKB) Printed: 11-Feb-2013 15:21 Page 13 of 22*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



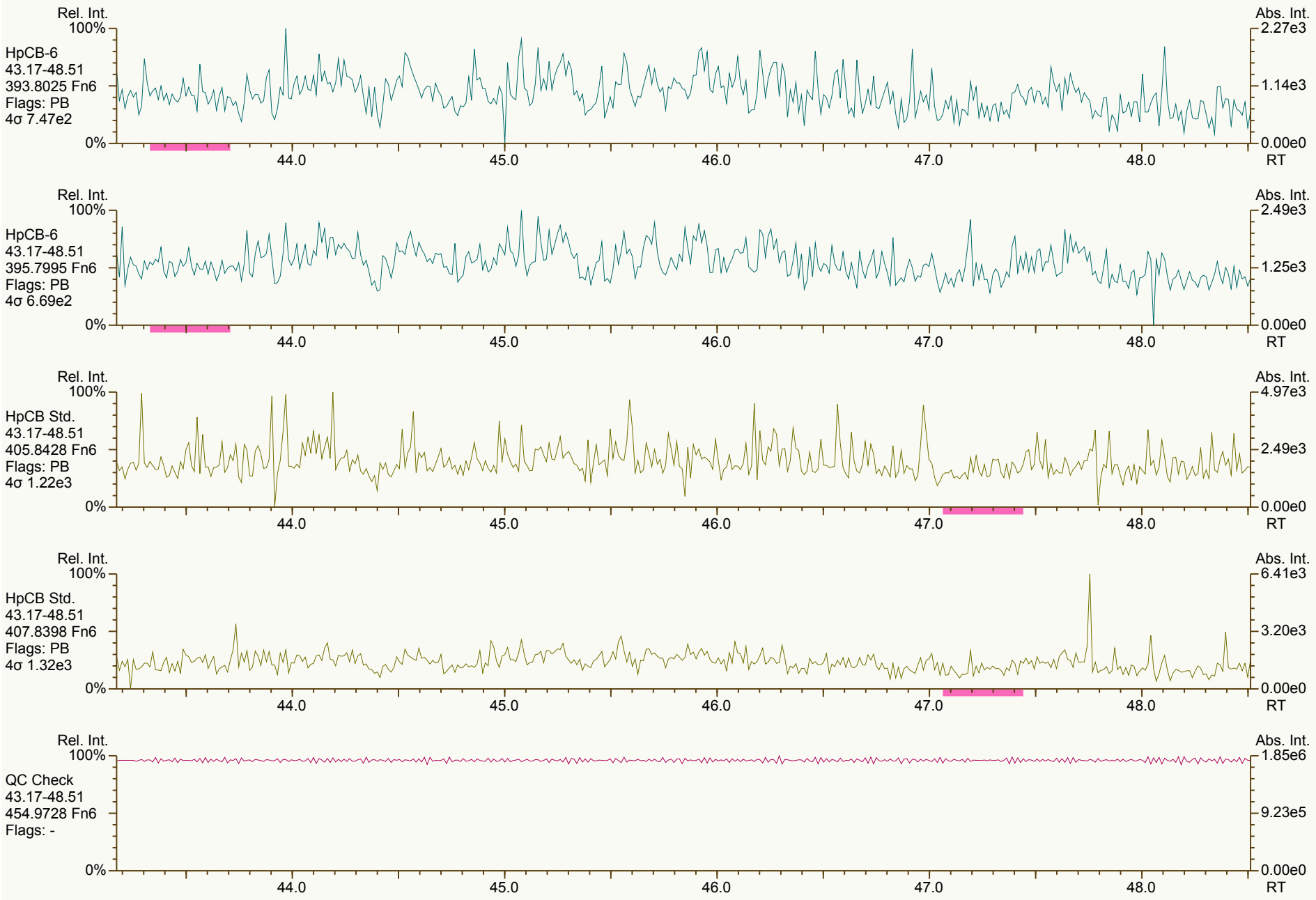
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130209_PCB_VC | Sample ID: SIL 9-41-1 | Acq: 09-Feb-2013 22:16:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2 | User: CEM Datafile: 130209V10 (EQ)



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6511, 2167 scc: 245-060 *Revised: 11-Feb-2013 10:52 (LKB) Printed: 11-Feb-2013 15:21 Page 17 of 22*

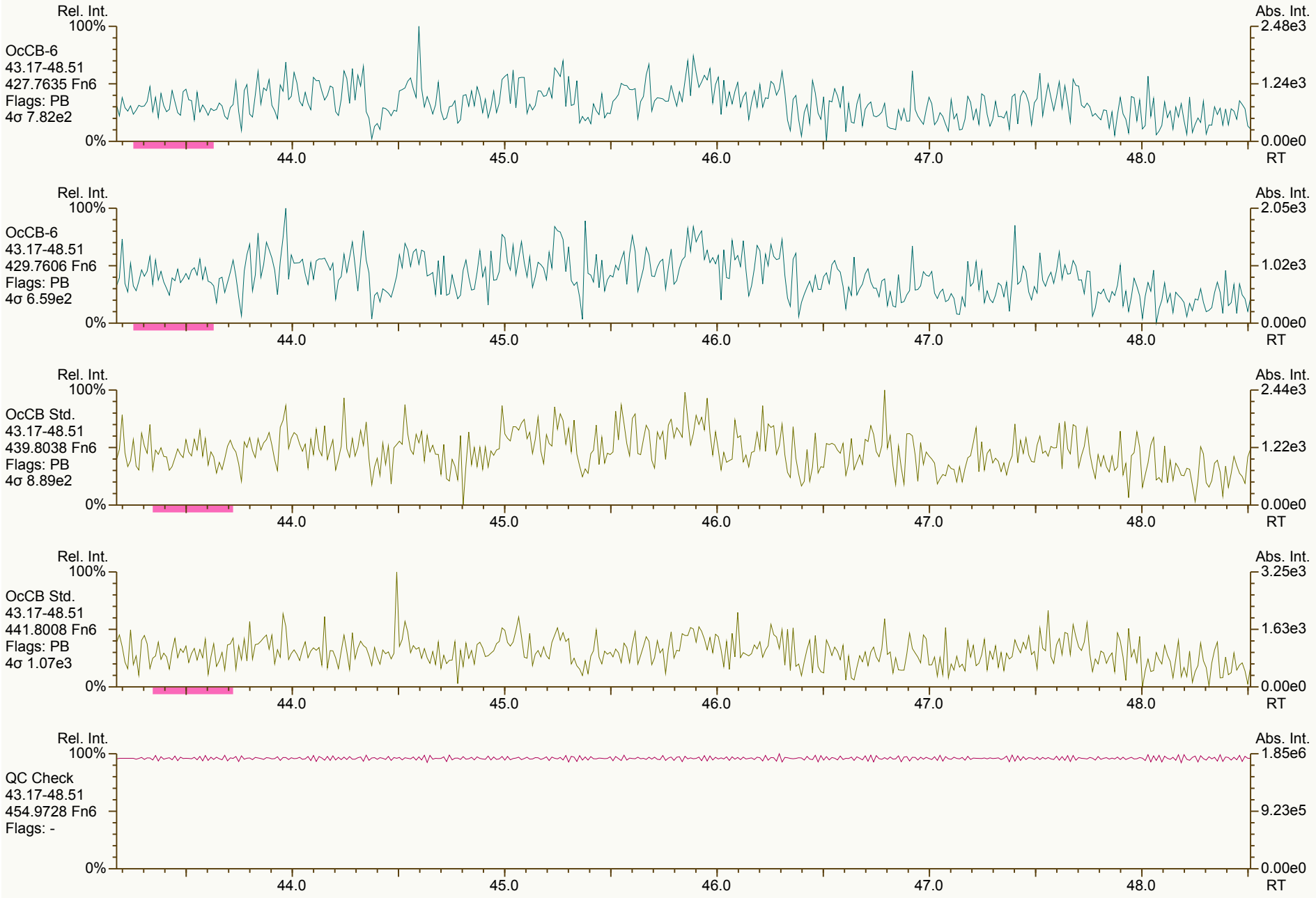
SGS-AP ID: SBS_130209_PCB_VC | Sample ID: SIL 9-41-1 | Acq: 09-Feb-2013 22:16:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2 | User: CEM Datafile: 130209V10 (EQ)



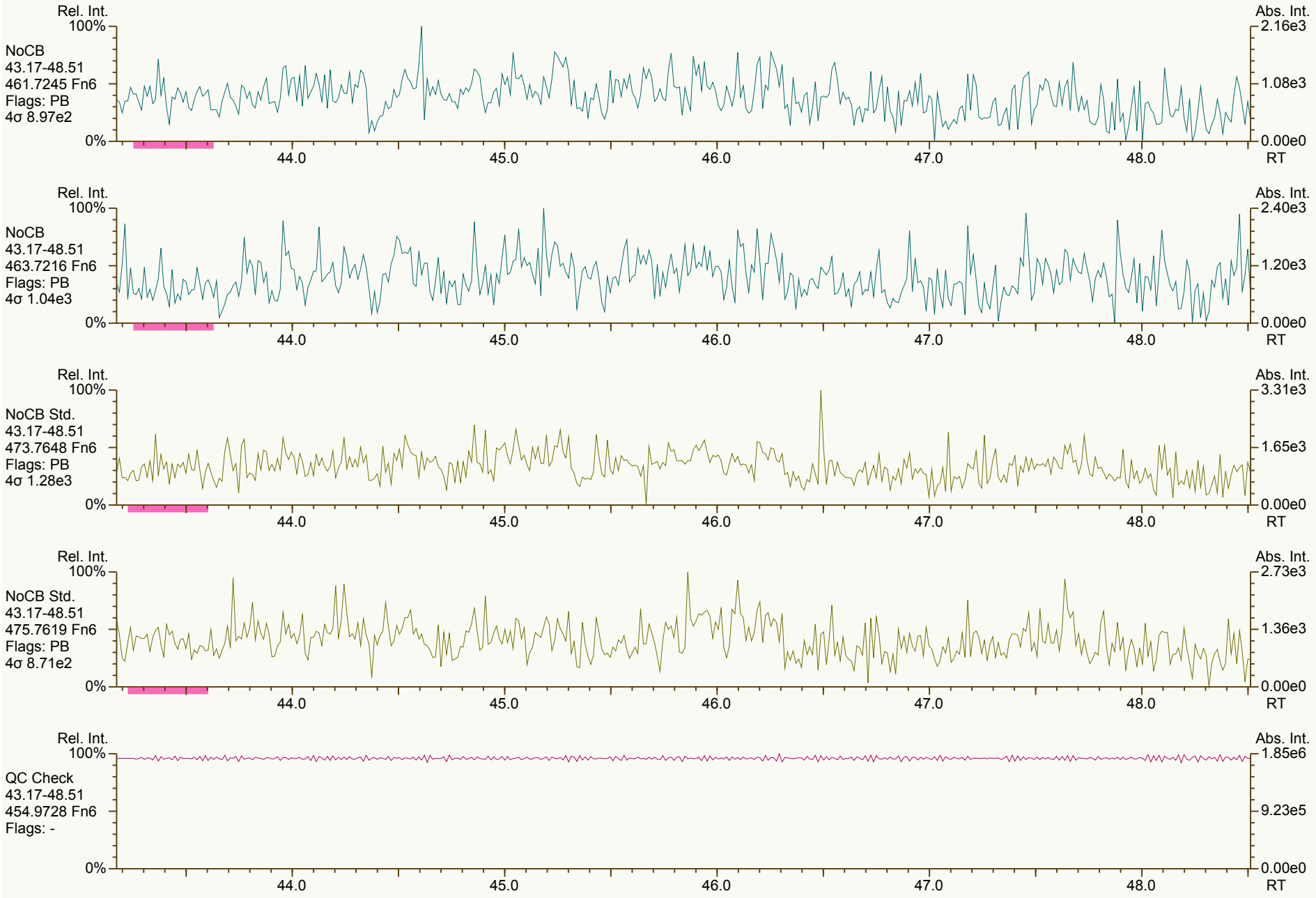
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 6536, 5034 scc: 245-060 *Revised: 11-Feb-2013 10:52 (LKB) Printed: 11-Feb-2013 15:21 Page 18 of 22*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**

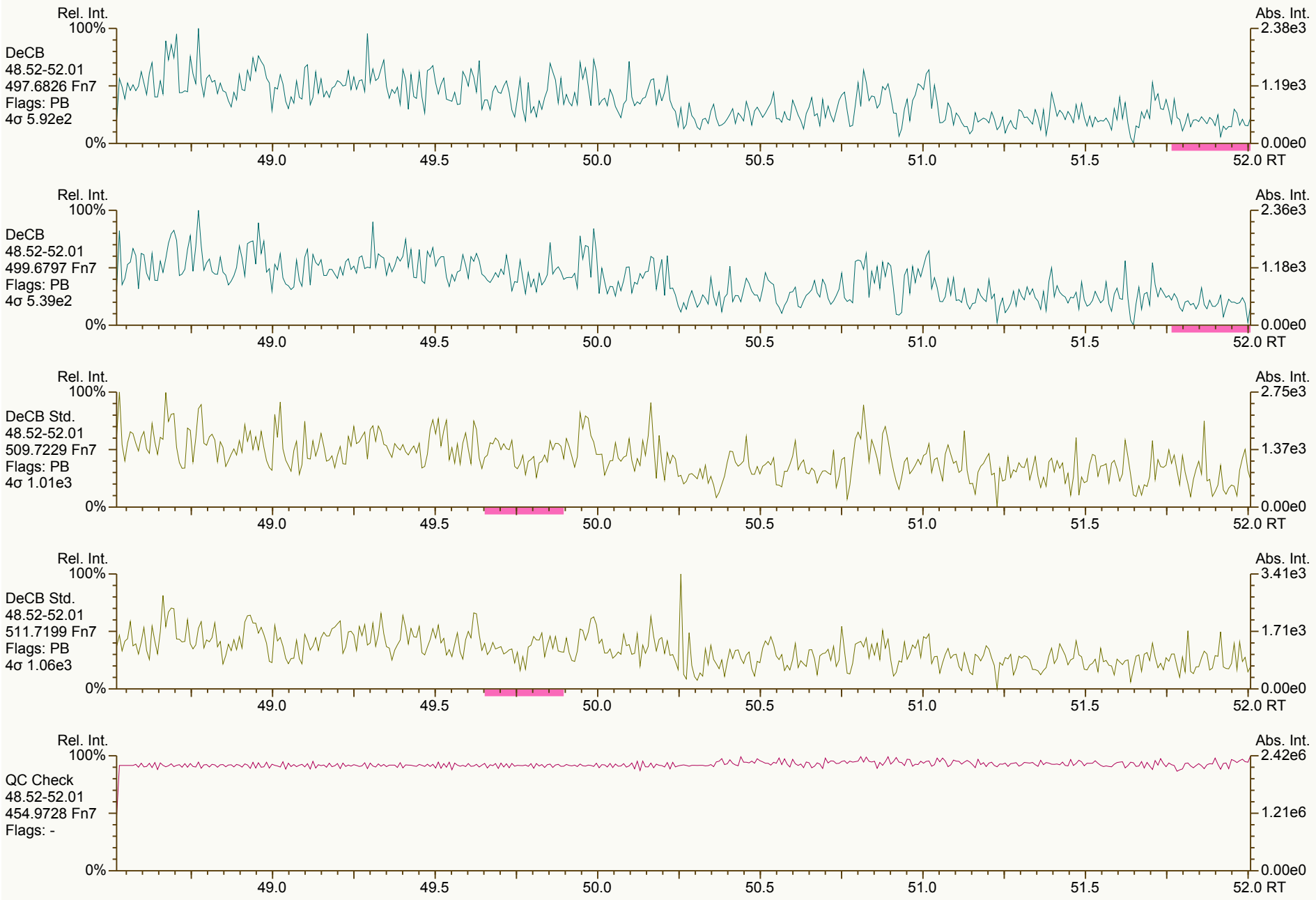


SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2623, 4029 scc: 245-060 *Revised: 11-Feb-2013 10:52 (LKB) Printed: 11-Feb-2013 15:21 Page 20 of 22*

SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



SGS-AP ID: SBS_130209_PCB_VC **Sample ID: SIL 9-41-1** **Acq: 09-Feb-2013 22:16:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 2** **User: CEM Datafile: 130209V10 (EQ)**



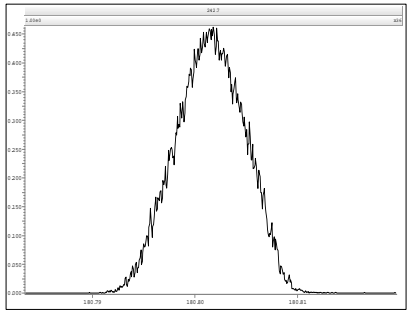
Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\SBS_130209_PCB_VC.utp_res, saved 11-Feb-2013 15:19 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 245-060 *Revised: 11-Feb-2013 10:52 (LKB) Printed: 11-Feb-2013 15:22 Page 22 of 22*

Experiment Calibration Report MassLynx 4.1 Page 1 of 1

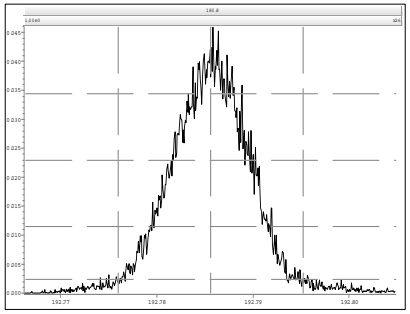
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 1 @ 200 (ppm)

Printed: Saturday, February 09, 2013 13:03:28 Eastern Standard Time

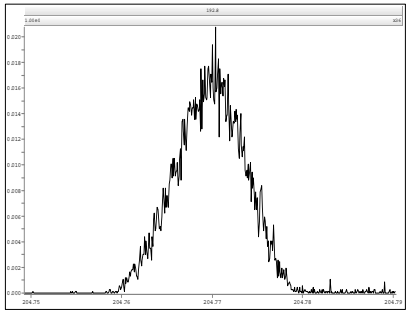
M 180.9888 R 11903



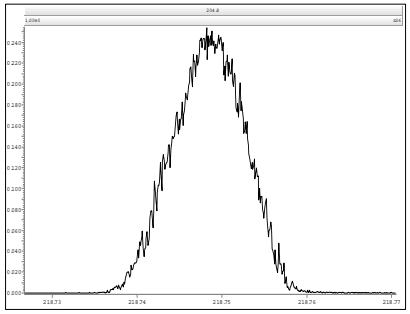
M 192.9888 R 11012



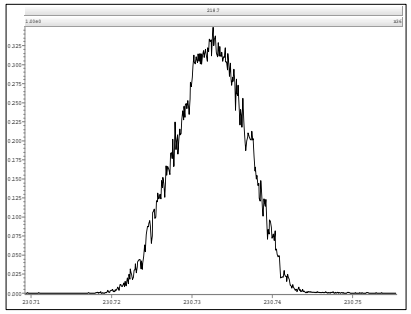
M 204.9888 R 11415



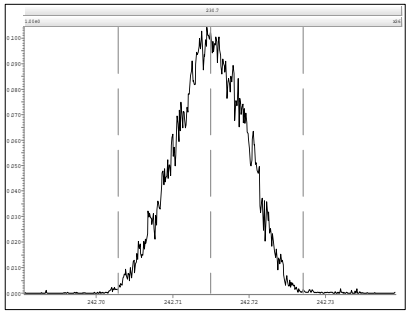
M 218.9856 R 11628



M 230.9856 R 11738



M 242.9856 R 12016

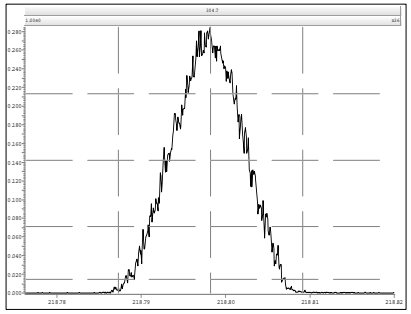


Experiment Calibration Report MassLynx 4.1 Page 1 of 1

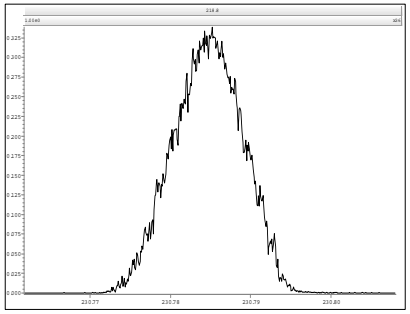
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 2 @ 200 (ppm)

Printed: Saturday, February 09, 2013 13:03:51 Eastern Standard Time

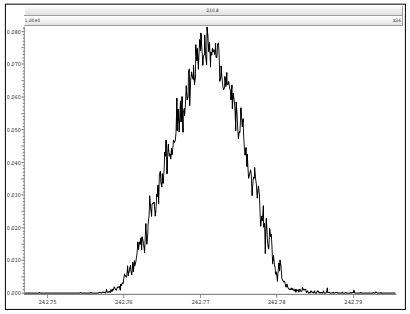
M 218.9856 R 12018



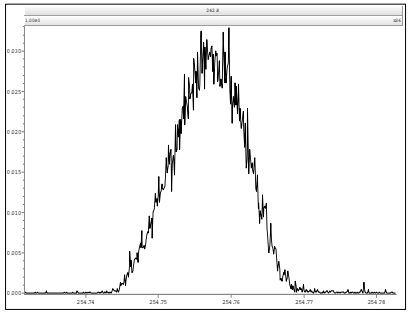
M 230.9856 R 11627



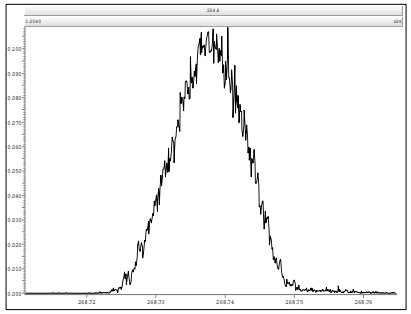
M 242.9856 R 12077



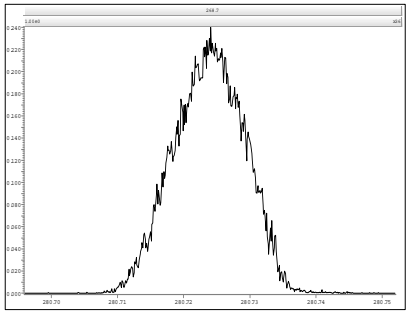
M 254.9856 R 11360



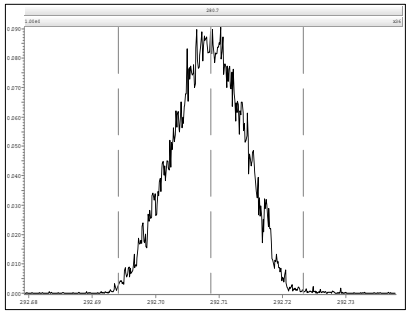
M 268.9824 R 12078



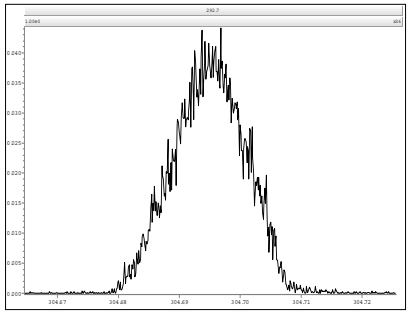
M 280.9824 R 11903



M 292.9824 R 11629



M 304.9824 R 11627

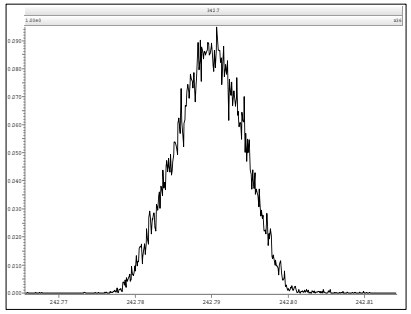


Experiment Calibration Report MassLynx 4.1 Page 1 of 1

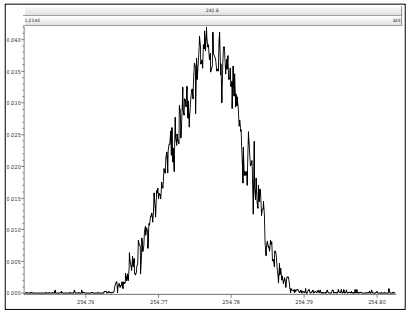
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 3 @ 200 (ppm)

Printed: Saturday, February 09, 2013 13:04:14 Eastern Standard Time

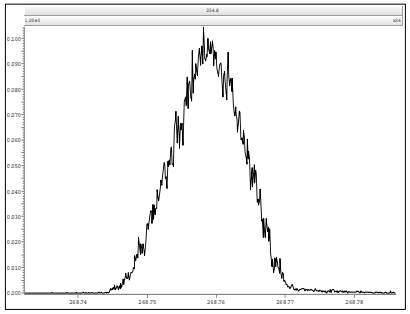
M 242.9856 R 11683



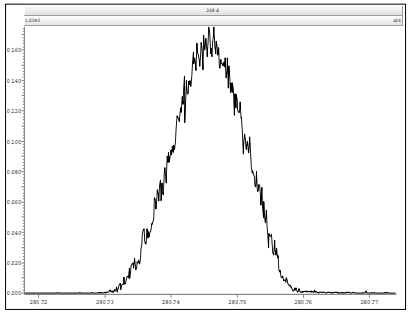
M 254.9856 R 12133



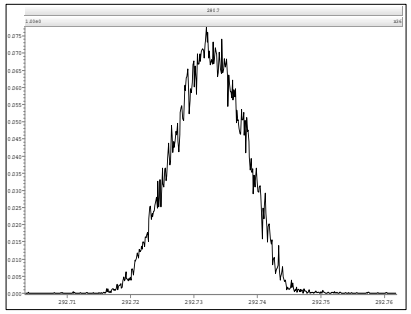
M 268.9824 R 11623



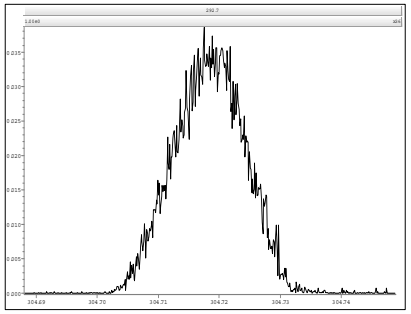
M 280.9824 R 11847



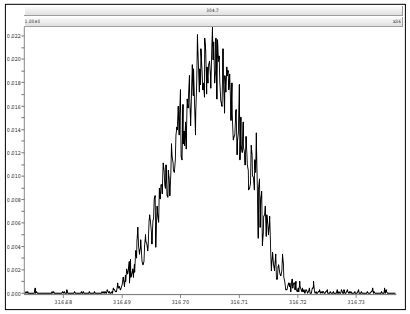
M 292.9824 R 11360



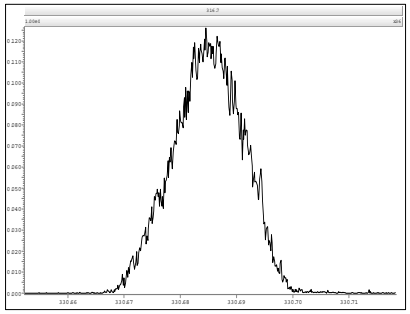
M 304.9824 R 11467



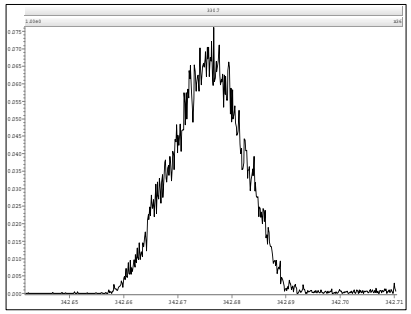
M 316.9824 R 11959



M 330.9792 R 11849



M 342.9792 R 11791

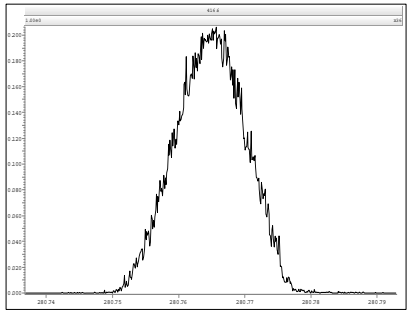


Experiment Calibration Report MassLynx 4.1 Page 1 of 1

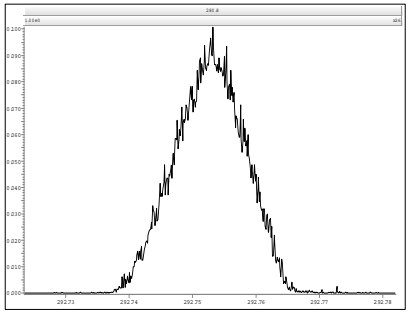
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 4 @ 200 (ppm)

Printed: Saturday, February 09, 2013 13:05:59 Eastern Standard Time

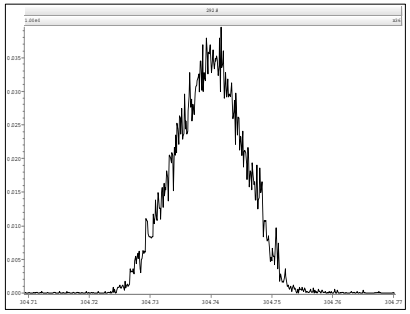
M 280.9824 R 11904



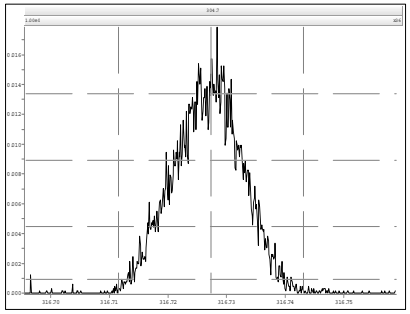
M 292.9824 R 12133



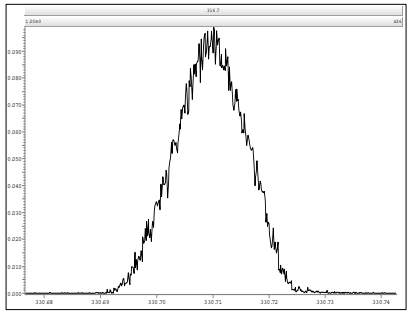
M 304.9824 R 12189



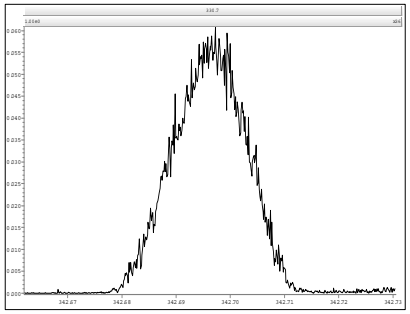
M 316.9824 R 11519



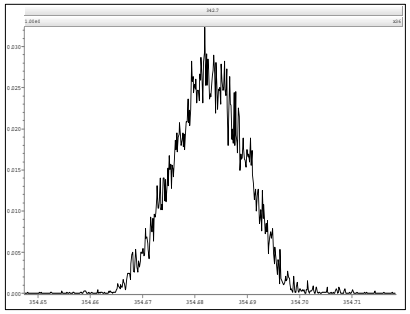
M 330.9792 R 11963



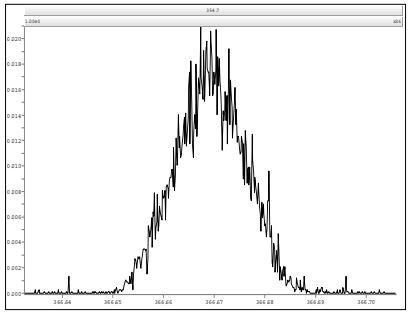
M 342.9792 R 11791



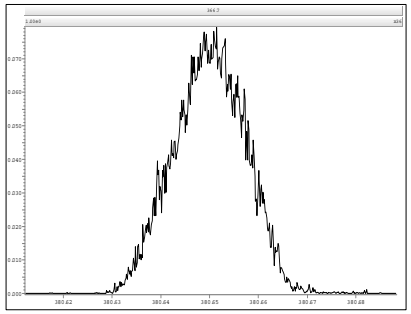
M 354.9792 R 11309



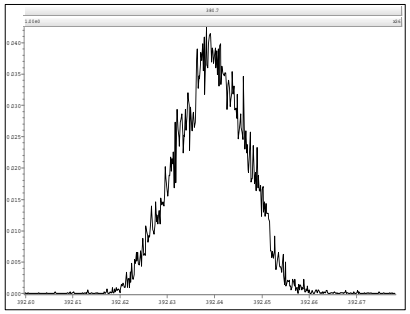
M 366.9792 R 12195



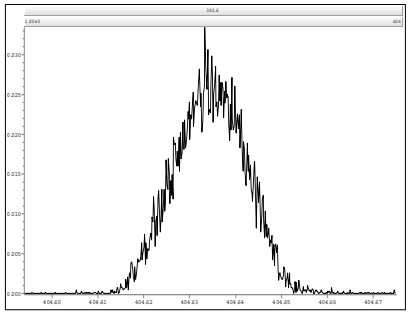
M 380.9760 R 11209



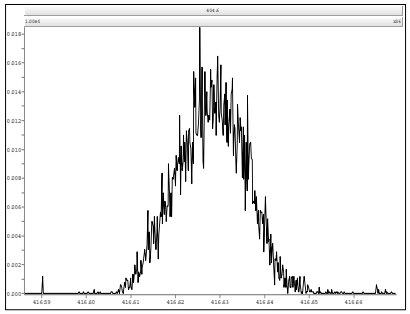
M 392.9760 R 12020



M 404.9760 R 11847



M 416.9760 R 13090



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File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 5 @ 200 (ppm)

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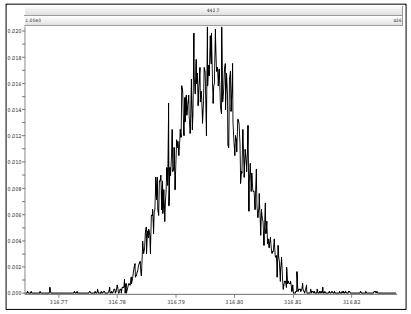
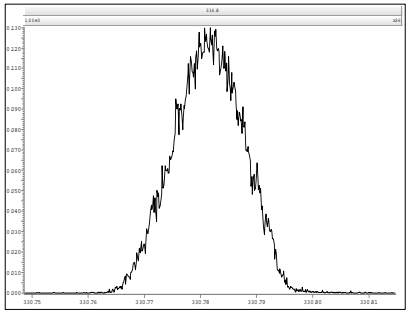
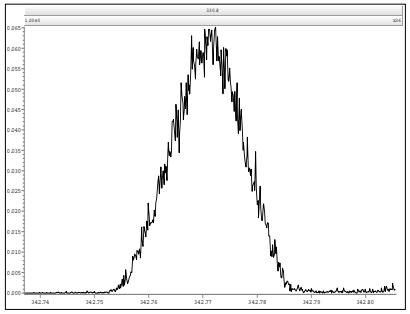
M 316.9824 R 12316



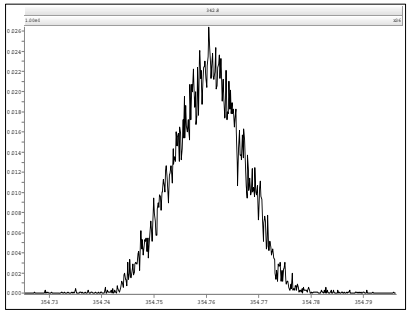
M 330.9792 R 11736



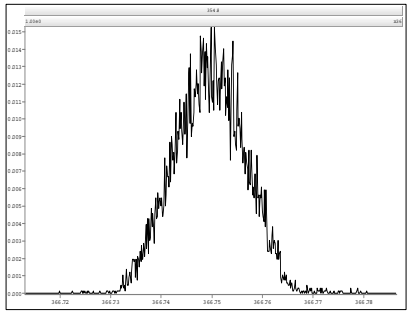
M 342.9792 R 11906



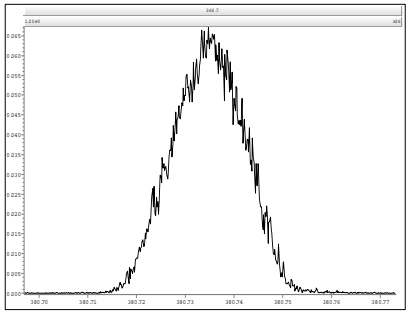
M 354.9792 R 12375



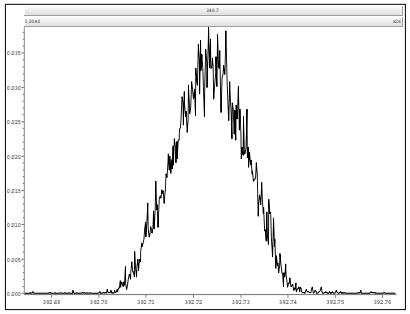
M 366.9792 R 11625



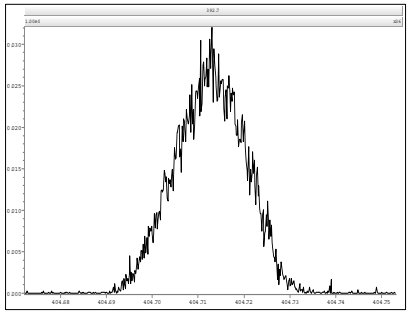
M 380.9760 R 11844



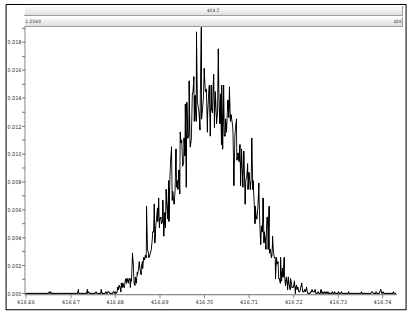
M 392.9760 R 11960



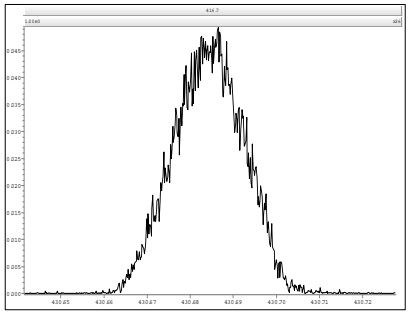
M 404.9760 R 12888



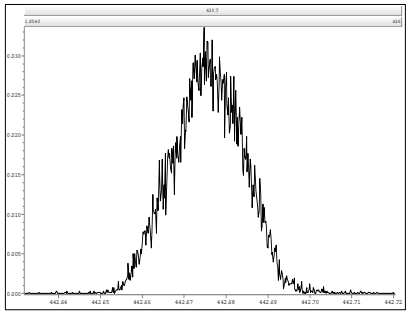
M 416.9760 R 11847



M 430.9728 R 11518



M 442.9728 R 11682



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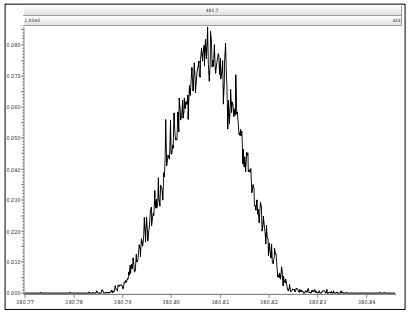
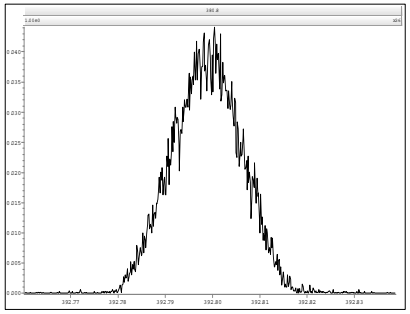
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 6 @ 200 (ppm)

Printed: Saturday, February 09, 2013 13:06:59 Eastern Standard Time

M 380.9760 R 11903



M 392.9760 R 11733



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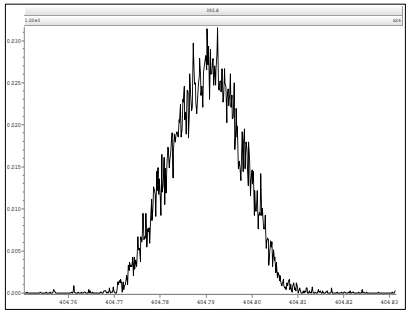
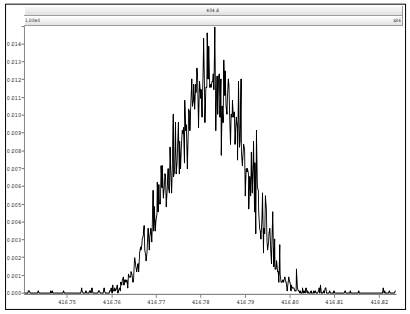
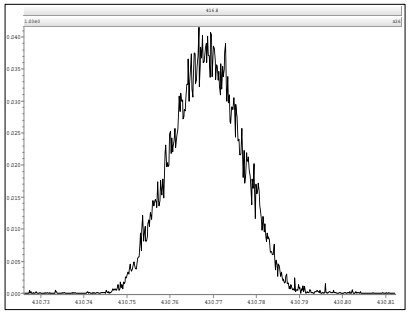


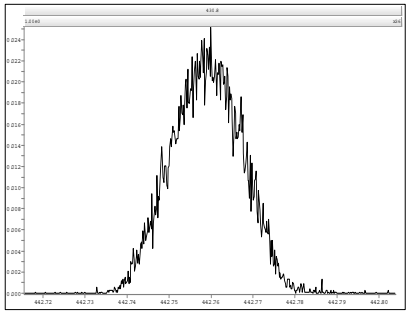
M 416.9760 R 12074



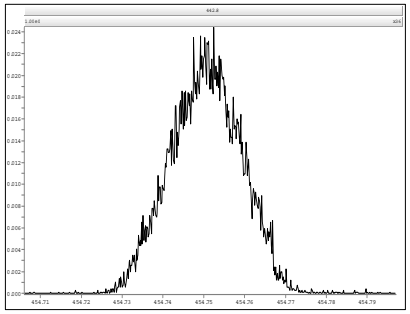
M 430.9728 R 11628



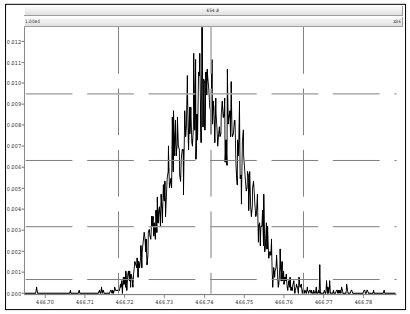
M 442.9728 R 11907



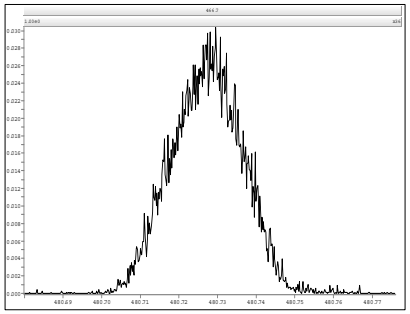
M 454.9728 R 11575



M 466.9728 R 13297



M 480.9696 R 11794

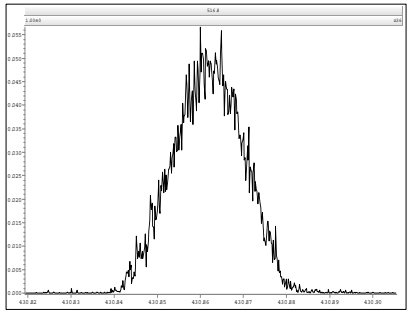


Experiment Calibration Report MassLynx 4.1 Page 1 of 1

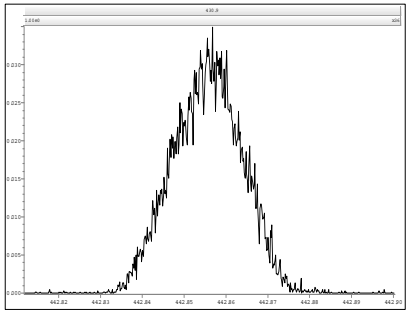
File: Experiment: pcb-2012-01.exp Reference: Pfk2.ref Function: 7 @ 200 (ppm)

Printed: Saturday, February 09, 2013 13:07:30 Eastern Standard Time

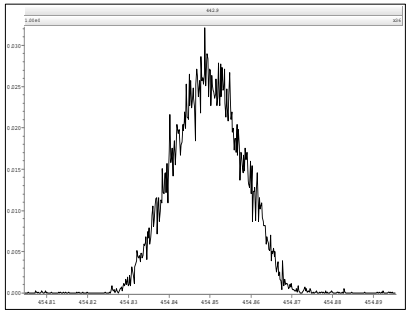
M 430.9728 R 12374



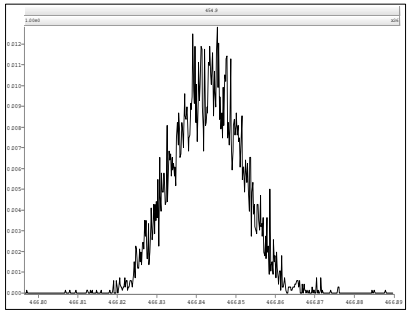
M 442.9728 R 12074



M 454.9728 R 12625



M 466.9728 R 12435



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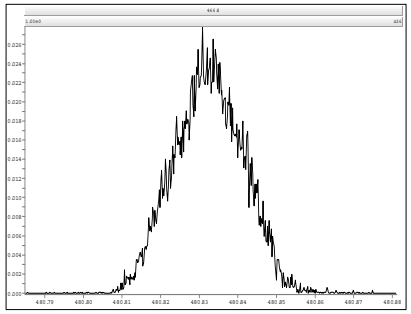
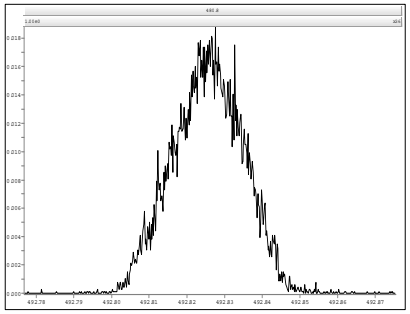
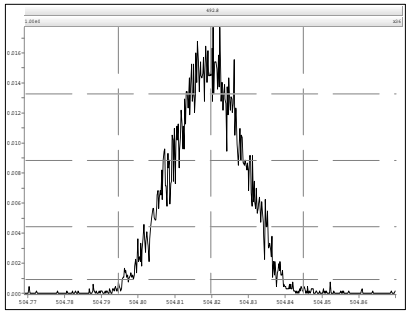


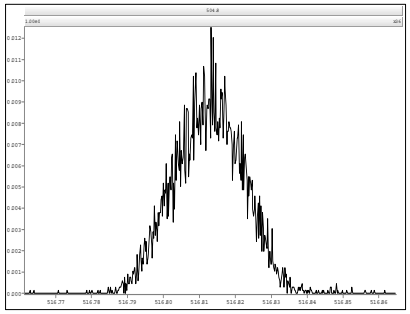
M 492.9696 R 11847



M 504.9696 R 12560



M 516.9697 R 12132



Resolution Check Report MassLynx 4.1 Page 1 of 6

Printed: Sunday, February 10, 2013 00:19:36 Eastern Standard Time

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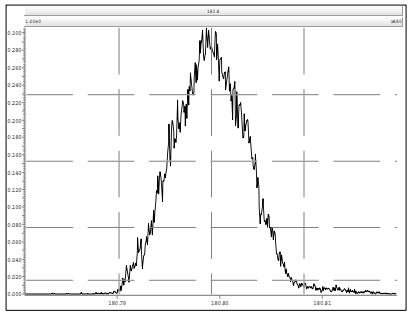
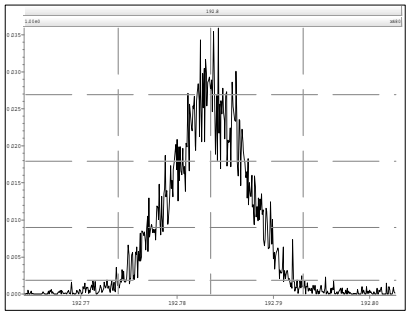
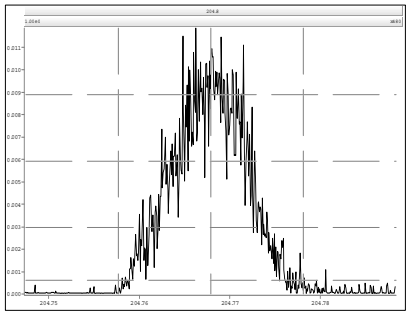


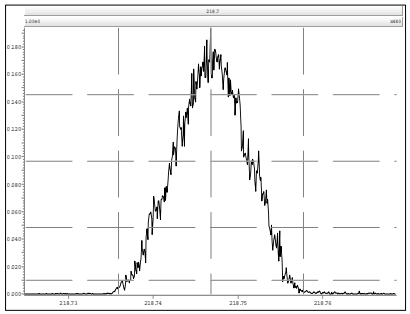
M 192.9888 R 11502



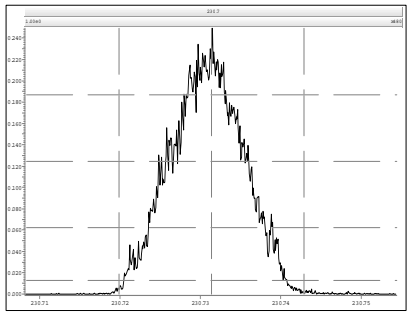
M 204.9888 R 11737



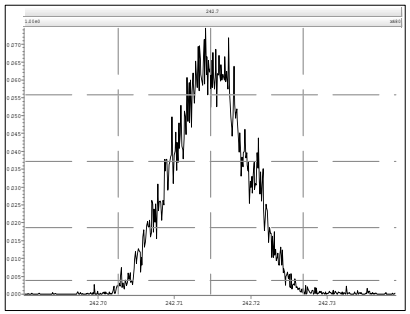
M 218.9856 R 11737



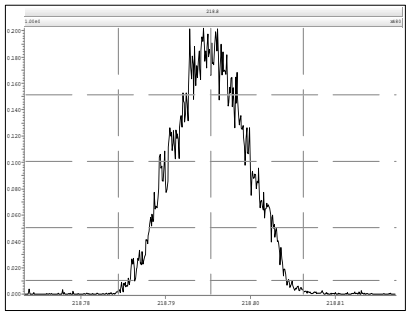
M 230.9856 R 11286



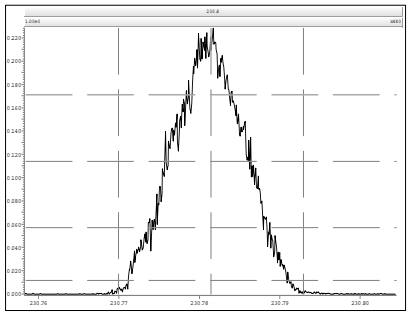
M 242.9856 R 11993



M 218.9856 R 11962



M 230.9856 R 11684



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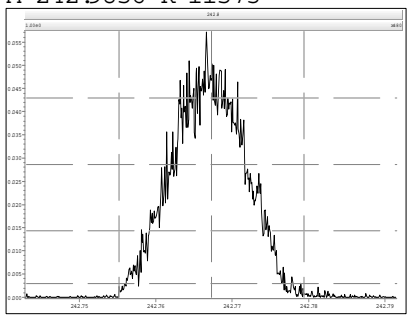
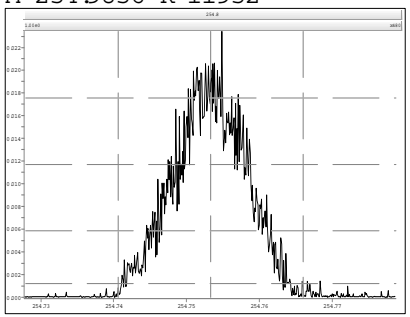
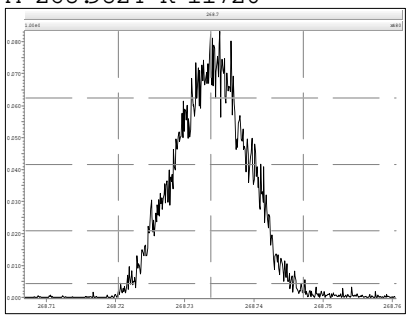


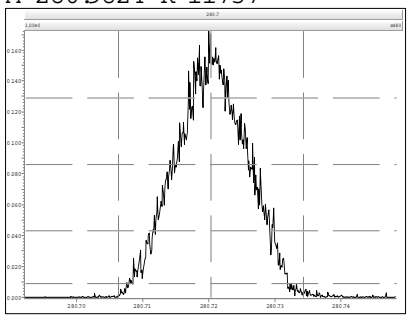
M 254.9856 R 11952



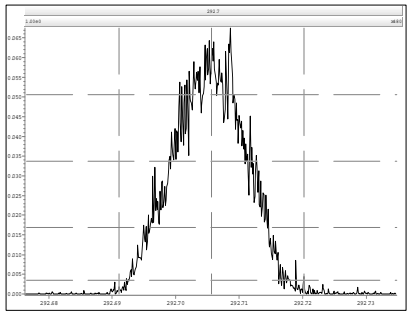
M 268.9824 R 11720



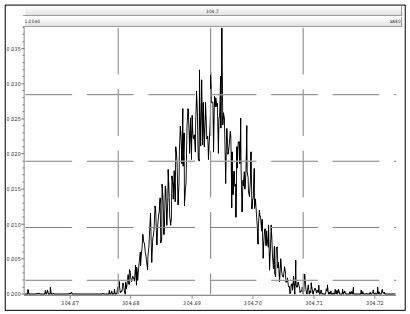
M 280.9824 R 11737



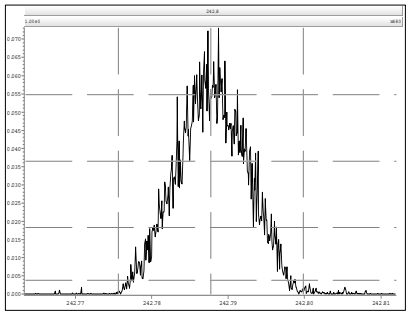
M 292.9824 R 11917



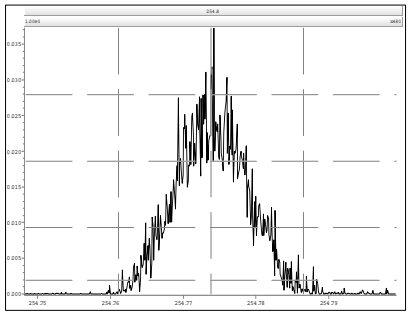
M 304.9824 R 12170



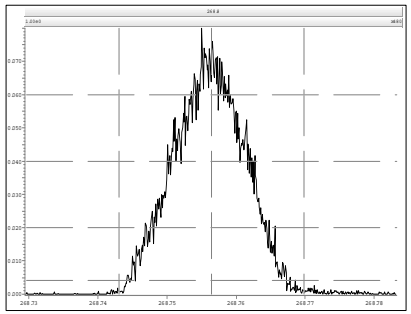
M 242.9856 R 11709



M 254.9856 R 13123



M 268.9824 R 11904



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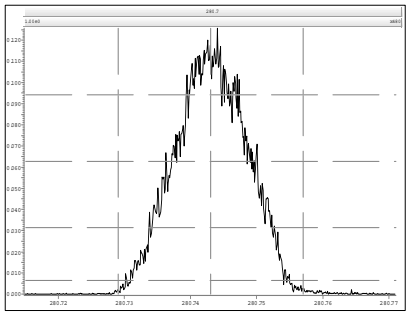

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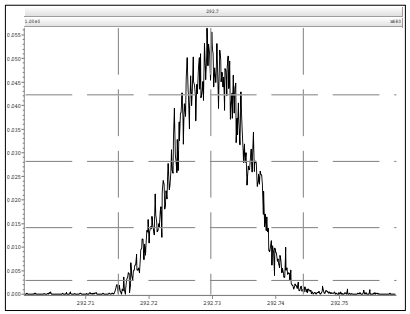

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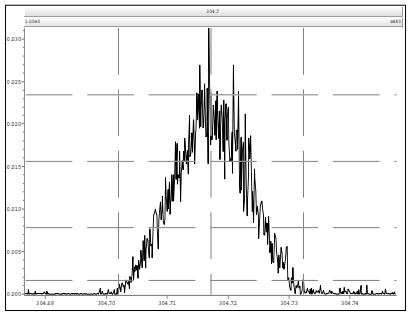

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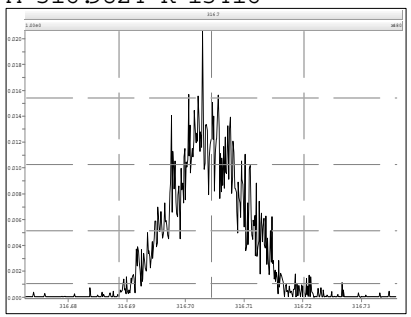

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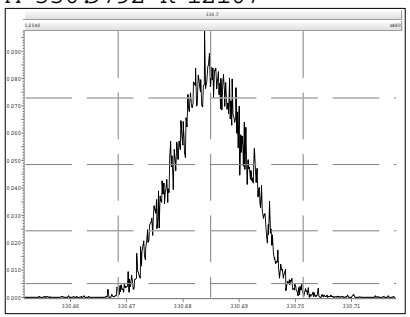

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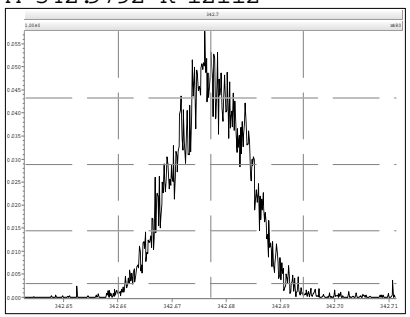

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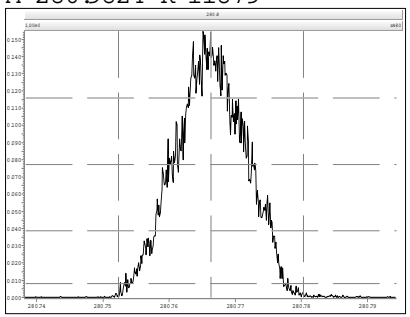

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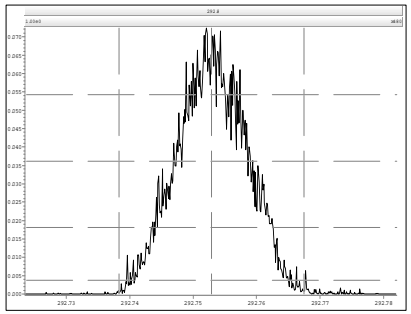

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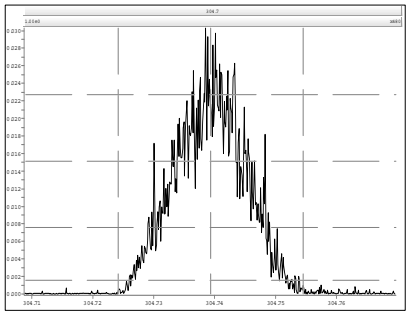

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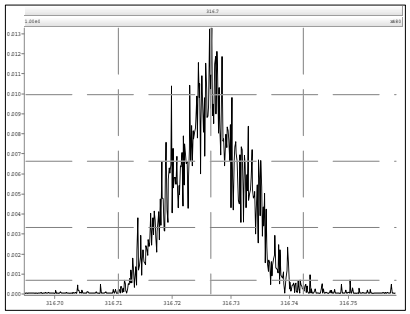

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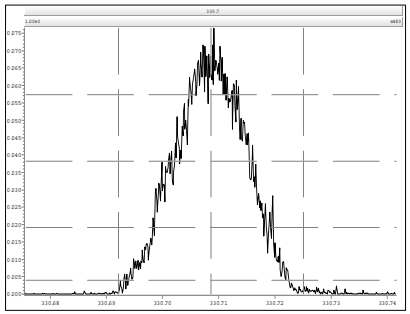

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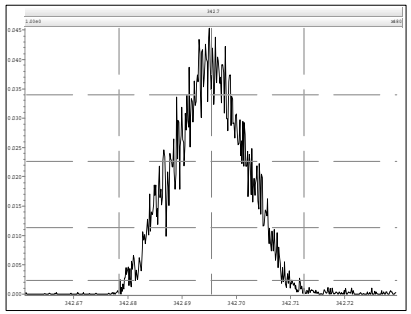

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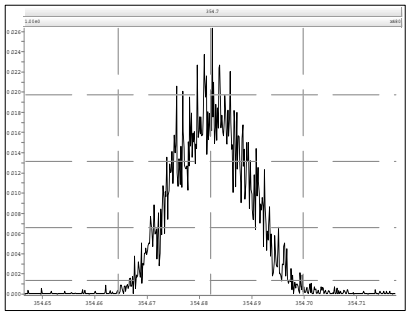

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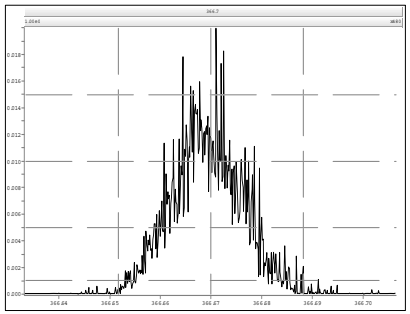

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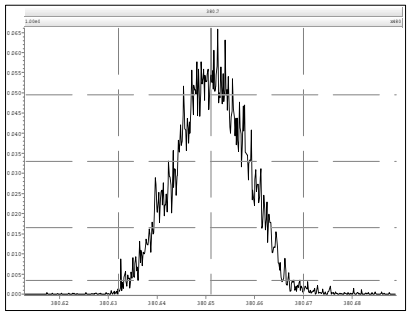

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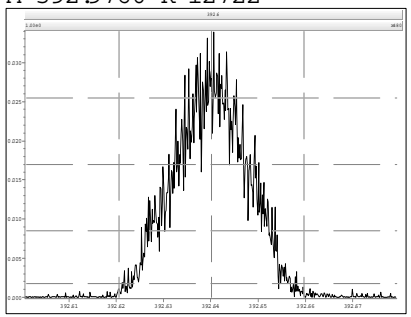

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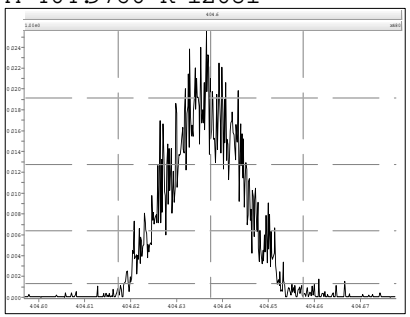

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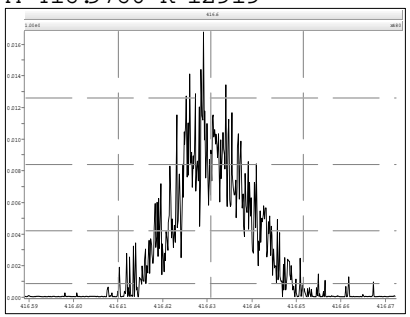

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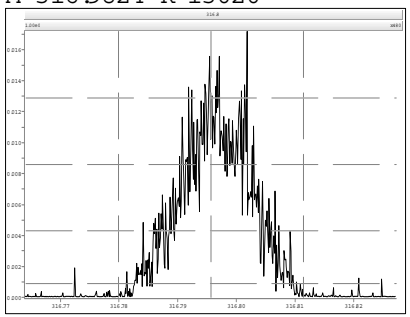
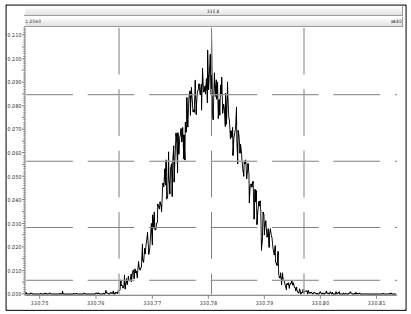


M 330.9792 R 11772



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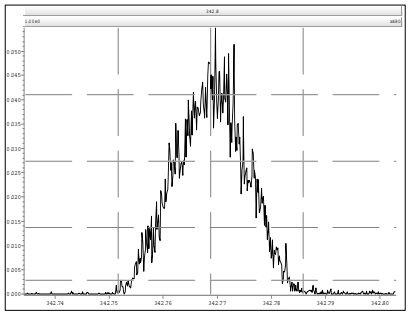

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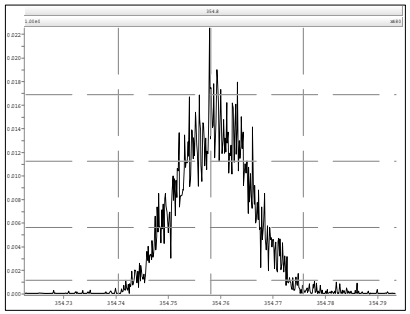

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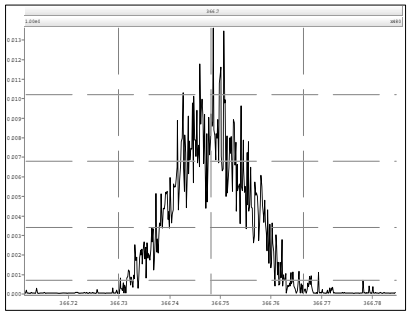

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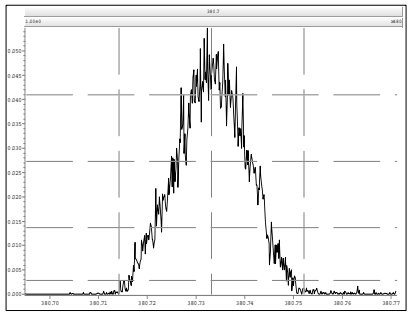

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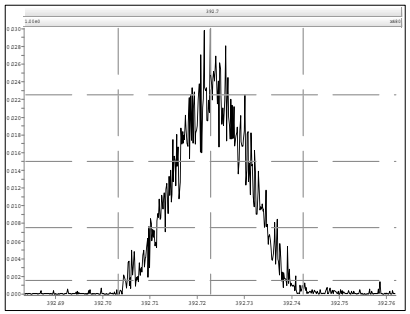

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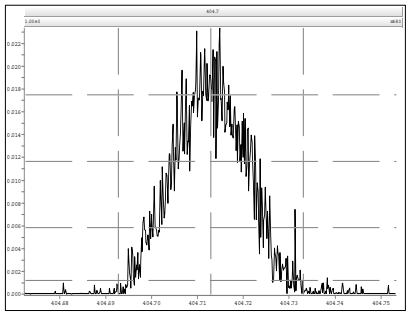
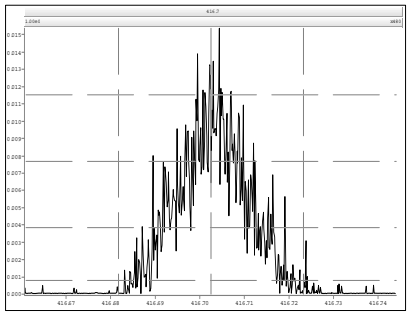
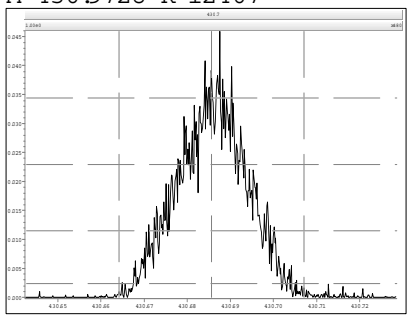


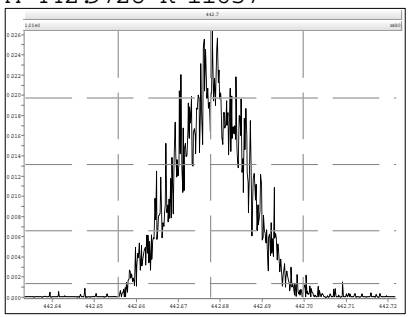
M 416.9760 R 13205



M 430.9728 R 12407



M 442.9728 R 11657



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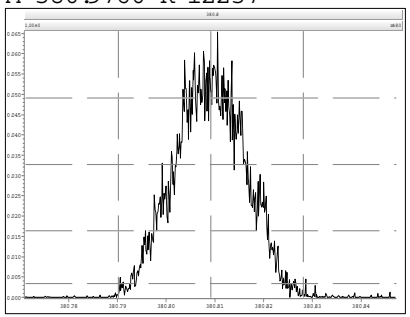

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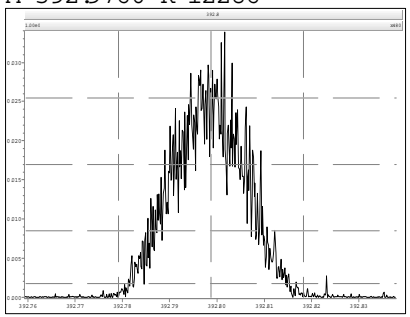

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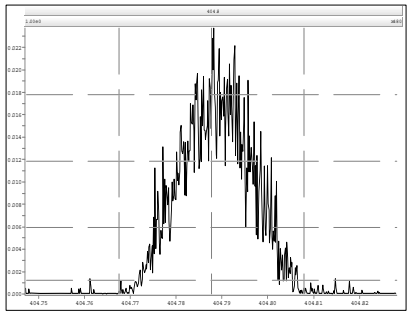

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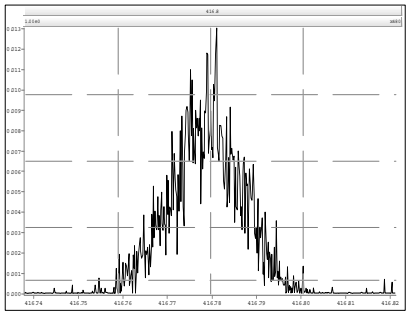
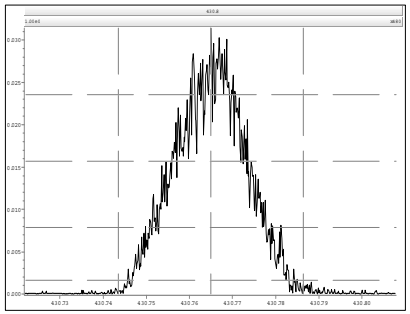
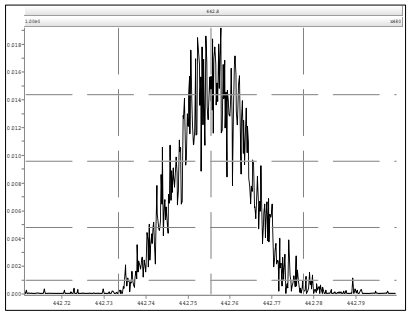


M 430.9728 R 12142



M 442.9728 R 12724



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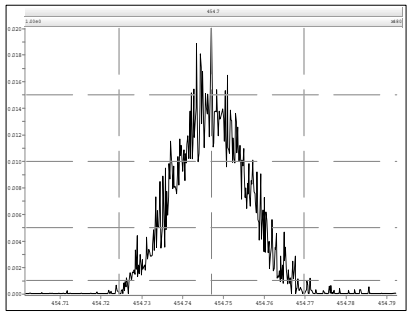

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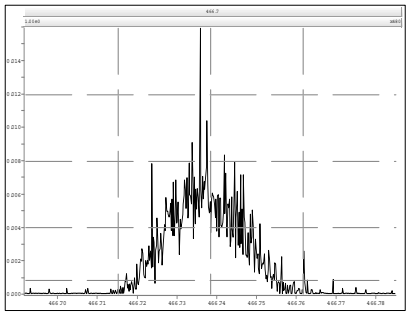

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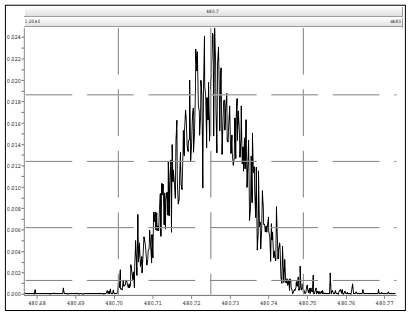
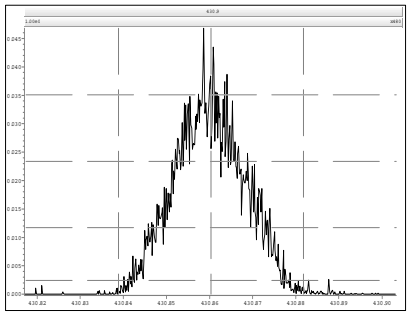


M 430.9728 R 12284



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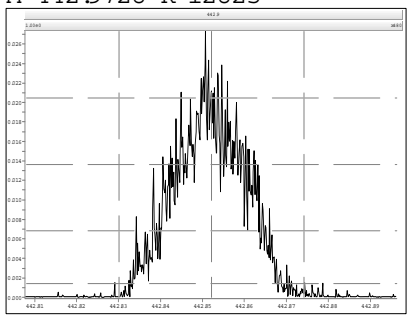
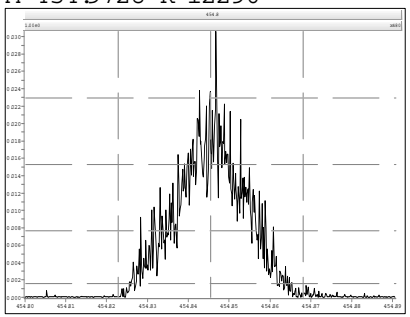
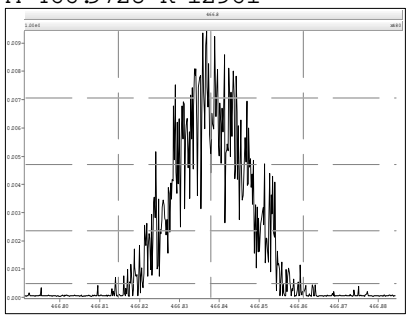


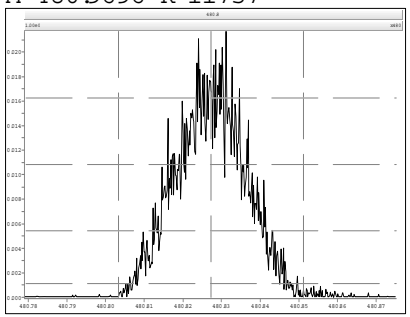
M 454.9728 R 12290



M 466.9728 R 12961



M 480.9696 R 11757



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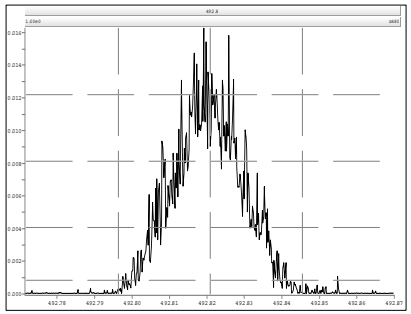

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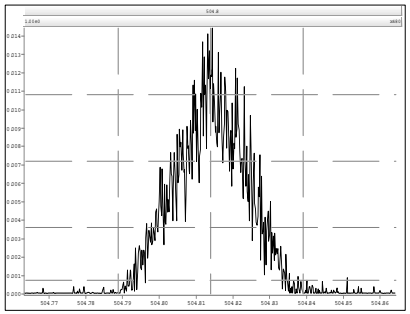
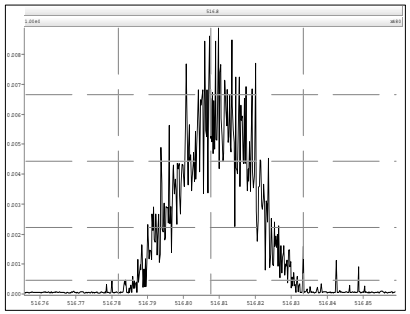


M 516.9697 R 13101



SGS Analytical Perspectives — Run Log **Project: 14 dec 12 ical**

Instrument: MM6 (AutoSpec-Premier) MS Experiment: pcb-2012-01 GC Program: pcb90_b

#	Datafile	Vial#	Lab ID	Wt/Vol	Client/Sample ID	Analyst(s)	Checkcode	Acq Date	Acq Time
1	121214V02	10	CS0_121214_PCB_VA	1.00	SIL 12-65-6	CEM	877-492	14-Dec-2012	02:28:37
2	121214V03	11	CS1_121214_PCB_VA	1.00	SIL 12-65-5	CEM	461-132	14-Dec-2012	03:21:15
3	121214V04	12	CS2_121214_PCB_VA	1.00	SIL 12-65-4	CEM	403-865	14-Dec-2012	04:15:23
4	121214V05	13	CS3_121214_PCB_VA	1.00	SIL 12-65-3	CEM	858-276	14-Dec-2012	05:09:30
5	121214V06	14	CS4_121214_PCB_VA	1.00	SIL 12-65-2	CEM	777-854	14-Dec-2012	06:03:38
6	121214V07	15	CS5_121214_PCB_VA	1.00	SIL 12-65-1	CEM	067-301	14-Dec-2012	06:57:45

APPROVED

By Jeremy Kadylak at 3:51 pm, Dec 14, 2012

PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 14 Dec 2012 11:13**

ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14 Dec 2012
Date Processed: 14 Dec 2012 10:42

Name	Mean	% RSD	121214V02 0.5 CS0	121214V03 1 CS1	121214V04 5 CS2	121214V05 50 CS3	121214V06 400 CS4	121214V07 2000 CS5
PCB-77 33'44'-TeCB	1.25	5.4%	1.37	1.18	1.20	1.24	1.26	1.23
PCB-81 344'5-TeCB	1.26	5.0%	1.34	1.16	1.22	1.28	1.29	1.26
PCB-105 233'44'-PeCB	1.06	2.1%	1.07	1.08	1.04	1.05	1.07	1.02
PCB-114 2344'5-PeCB	1.11	4.0%	1.06	1.18	1.07	1.14	1.10	1.12
PCB-118 23'44'5-PeCB	1.08	2.3%	1.11	1.05	1.05	1.09	1.11	1.07
PCB-123 23'44'5'-PeCB	1.12	6.2%	1.15	1.20	1.04	1.19	1.09	1.05
PCB-126 33'44'5-PeCB	1.16	4.7%	1.26	1.15	1.13	1.12	1.16	1.11
PCB-156/157 ...-HxCB	1.14	2.4%	1.19	1.13	1.11	1.15	1.15	1.11
PCB-167 23'44'55'-HxCB	1.18	1.6%	1.17	1.16	1.16	1.20	1.20	1.19
PCB-169 33'44'55'-HxCB	1.15	3.7%	1.18	1.08	1.19	1.18	1.17	1.13
PCB-189 233'44'55'-HpCB	1.12	2.1%	1.14	1.08	1.10	1.11	1.13	1.12
PCB-209 DeCB	1.11	7.2%	1.26	1.14	1.05	1.08	1.08	1.06
ES PCB-1	0.97	6.3%	0.95	0.97	1.07	0.97	0.99	0.88
ES PCB-3	0.90	4.1%	0.88	0.90	0.95	0.89	0.93	0.85
ES PCB-4	0.70	3.5%	0.70	0.69	0.74	0.70	0.71	0.66
ES PCB-15	1.02	8.3%	0.99	0.95	0.91	1.00	1.09	1.14
ES PCB-19	0.53	4.3%	0.54	0.52	0.52	0.49	0.55	0.54
ES PCB-37	1.29	1.0%	1.31	1.28	1.30	1.30	1.30	1.28
ES PCB-54	1.43	2.7%	1.41	1.43	1.45	1.43	1.48	1.36
ES PCB-77	1.20	5.1%	1.30	1.11	1.20	1.22	1.21	1.18
ES PCB-81	1.16	5.0%	1.22	1.06	1.15	1.14	1.20	1.20
ES PCB-104	1.70	6.4%	1.64	1.91	1.73	1.69	1.67	1.59
ES PCB-105	1.10	3.9%	1.10	1.10	1.16	1.13	1.07	1.04
ES PCB-114	1.16	2.9%	1.18	1.16	1.19	1.17	1.14	1.10
ES PCB-118	1.15	3.9%	1.19	1.17	1.20	1.17	1.11	1.09
ES PCB-123	1.14	1.0%	1.14	1.12	1.16	1.15	1.13	1.14
ES PCB-126	1.34	4.2%	1.34	1.33	1.44	1.34	1.28	1.30
ES PCB-153	1.14	2.8%	1.18	1.13	1.16	1.16	1.14	1.09
ES PCB-155	1.61	4.6%	1.71	1.66	1.58	1.65	1.59	1.49
ES PCB-156/157	0.98	2.4%	1.01	0.94	0.99	0.97	0.98	0.97
ES PCB-167	1.01	2.5%	1.04	0.98	1.02	1.02	1.03	0.98
ES PCB-169	0.90	2.4%	0.93	0.86	0.90	0.89	0.91	0.91
ES PCB-170	1.28	2.5%	1.29	1.27	1.25	1.26	1.34	1.29
ES PCB-180	1.54	4.0%	1.51	1.50	1.48	1.51	1.62	1.62
ES PCB-188	1.63	2.3%	1.66	1.57	1.66	1.65	1.62	1.59
ES PCB-189	1.97	1.9%	2.00	1.98	1.92	1.93	1.96	2.02
ES PCB-202	1.26	2.2%	1.30	1.23	1.28	1.27	1.26	1.23
ES PCB-205	1.22	1.2%	1.21	1.22	1.21	1.21	1.22	1.25
ES PCB-206	1.10	1.4%	1.09	1.09	1.09	1.10	1.11	1.12

PCB ICAL Summary | **SGS Analytical Perspectives** | **Printed: 14 Dec 2012 11:13**

ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14 Dec 2012
Date Processed: 14 Dec 2012 10:42

Name	Mean	% RSD	121214V02 0.5 CS0	121214V03 1 CS1	121214V04 5 CS2	121214V05 50 CS3	121214V06 400 CS4	121214V07 2000 CS5
ES PCB-208	1.41	2.8%	1.44	1.41	1.36	1.38	1.40	1.47
ES PCB-209	1.24	1.5%	1.25	1.23	1.25	1.21	1.25	1.27
SS PCB-28	1.18	2.4%	1.12	1.20	1.20	1.18	1.17	1.20
SS PCB-111	1.01	2.6%	1.03	1.03	1.02	1.00	0.99	0.97
SS PCB-178	0.60	1.5%	0.60	0.61	0.58	0.60	0.61	0.60
CS PCB-28	1.52	1.7%	1.47	1.53	1.55	1.53	1.52	1.53
CS PCB-111	1.15	2.7%	1.18	1.16	1.18	1.15	1.12	1.10
CS PCB-178	0.98	2.0%	1.00	0.95	0.97	1.00	0.99	0.96
PCB-1 2-MoCB	1.25	2.5%	1.24	1.21	1.22	1.27	1.29	1.25
PCB-3 4-MoCB	1.27	2.9%	1.24	1.22	1.24	1.30	1.31	1.28
PCB-4 22'-DiCB	0.90	2.7%	0.90	0.90	0.86	0.90	0.93	0.91
PCB-15 44'-DiCB	1.10	3.4%	1.13	1.13	1.04	1.11	1.10	1.06
PCB-19 22'6-TrCB	0.95	3.9%	0.98	0.88	0.92	0.98	0.96	0.95
PCB-37 344'-TrCB	1.39	2.9%	1.41	1.31	1.39	1.40	1.42	1.40
PCB-54 22'66'-TeCB	1.05	4.8%	1.01	1.00	1.02	1.08	1.11	1.10
PCB-104 22'466'-PeCB	1.12	3.6%	1.15	1.07	1.07	1.12	1.14	1.16
PCB-153/168 ...-HxCB	1.24	2.2%	1.29	1.20	1.23	1.23	1.22	1.24
PCB-155 22'44'66'-HxCB	1.09	1.5%	1.11	1.09	1.09	1.10	1.09	1.06
PCB-170 22'33'44'5-HpCB	0.99	3.1%	1.04	0.94	0.99	0.99	0.99	1.01
PCB-180/193 ...-HpCB	1.07	2.5%	1.06	1.12	1.05	1.08	1.07	1.04
PCB-188 22'34'566'-HpCB	0.98	2.6%	0.98	0.97	0.95	1.00	1.02	0.99
PCB-202 22'33'55'66'-OcCB	0.86	2.4%	0.87	0.90	0.84	0.86	0.88	0.85
PCB-205 233'44'55'6-OcCB	1.13	4.0%	1.16	1.11	1.05	1.15	1.18	1.15
PCB-208 22'33'455'66'-NoCB	1.03	1.7%	1.03	1.04	1.02	1.03	1.06	1.02
PCB-206 22'33'44'55'6-NoCB	0.97	1.9%	1.00	0.96	0.95	0.96	0.98	0.97

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:15
Lab ID:	CS0_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 02:28				
Datafile:	121214V02				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.12	2.54E+05	0.83 Y	1.25	1.37	10.0%
PCB-81 344'5-TeCB	28.65	2.34E+05	0.83 Y	1.26	1.34	6.8%
PCB-105 233'44'-PeCB	32.07	1.33E+05	0.56 Y	1.06	1.07	1.3%
PCB-114 2344'5-PeCB	31.53	1.42E+05	0.64 Y	1.11	1.06	-4.6%
PCB-118 23'44'5-PeCB	31.08	1.49E+05	0.61 Y	1.08	1.11	2.5%
PCB-123 23'44'5'-PeCB	30.81	1.49E+05	0.58 Y	1.12	1.15	2.9%
PCB-126 33'44'5-PeCB	34.65	1.91E+05	0.69 Y	1.16	1.26	9.0%
PCB-156/157 ...-HxCB	37.19	2.69E+05	1.38 Y	1.14	1.19	4.0%
PCB-167 23'44'55'-HxCB	36.23	1.37E+05	1.44 Y	1.18	1.17	-0.6%
PCB-169 33'44'55'-HxCB	39.90	1.23E+05	1.33 Y	1.15	1.18	2.3%
PCB-189 233'44'55'-HpCB	42.03	1.61E+05	1.15 Y	1.12	1.14	2.5%
PCB-209 DeCB	47.01	1.12E+05	1.26 Y	1.11	1.26	13.6%
ES PCB-1	9.83	5.27E+07	3.25 Y	0.97	0.95	-2.1%
ES PCB-3	11.73	4.89E+07	3.32 Y	0.90	0.88	-1.9%
ES PCB-4	11.94	3.88E+07	1.54 Y	0.70	0.70	-0.1%
ES PCB-15	17.00	5.50E+07	1.64 Y	1.02	0.99	-2.2%
ES PCB-19	14.62	3.00E+07	1.06 Y	0.53	0.54	2.8%
ES PCB-37	22.95	3.73E+07	1.11 Y	1.29	1.31	1.3%
ES PCB-54	17.24	4.01E+07	0.79 Y	1.43	1.41	-1.2%
ES PCB-77	29.10	3.70E+07	0.83 Y	1.20	1.30	7.9%
ES PCB-81	28.63	3.48E+07	0.84 Y	1.16	1.22	5.3%
ES PCB-104	21.92	3.71E+07	1.51 Y	1.70	1.64	-3.7%
ES PCB-105	32.04	2.48E+07	1.48 Y	1.10	1.10	-0.2%
ES PCB-114	31.50	2.67E+07	1.56 Y	1.16	1.18	2.1%
ES PCB-118	31.06	2.69E+07	1.49 Y	1.15	1.19	2.9%
ES PCB-123	30.79	2.58E+07	1.50 Y	1.14	1.14	0.1%
ES PCB-126	34.63	3.03E+07	1.65 Y	1.34	1.34	0.1%
ES PCB-153	32.65	2.65E+07	1.27 Y	1.14	1.18	3.5%
ES PCB-155	26.73	3.82E+07	1.30 Y	1.61	1.71	5.8%
ES PCB-156/157	37.17	4.54E+07	1.26 Y	0.98	1.01	3.7%
ES PCB-167	36.21	2.33E+07	1.25 Y	1.01	1.04	3.0%
ES PCB-169	39.88	2.08E+07	1.29 Y	0.90	0.93	3.3%
ES PCB-170	39.39	1.82E+07	1.02 Y	1.28	1.29	0.3%
ES PCB-180	38.35	2.13E+07	1.01 Y	1.54	1.51	-2.0%
ES PCB-188	31.52	3.72E+07	1.02 Y	1.63	1.66	2.1%
ES PCB-189	42.01	2.82E+07	1.05 Y	1.97	2.00	1.5%
ES PCB-202	36.02	2.91E+07	0.88 Y	1.26	1.30	2.9%
ES PCB-205	44.17	1.72E+07	0.89 Y	1.22	1.21	-0.7%
ES PCB-206	45.64	1.54E+07	0.75 Y	1.10	1.09	-1.0%
ES PCB-208	41.62	2.03E+07	0.78 Y	1.41	1.44	2.0%
ES PCB-209	46.99	1.77E+07	1.17 Y	1.24	1.25	0.8%

PCB QC Summary | **SGS Analytical Perspectives** | **Printed: 14-Dec-2012 11:15**

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02

ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.58	4.20E+07	1.10 Y	1.18	1.12	-4.5%
SS PCB-111	29.16	2.67E+07	1.46 Y	1.01	1.03	2.7%
SS PCB-178	34.07	2.24E+07	1.03 Y	0.60	0.60	0.1%
CS PCB-28	19.58	4.20E+07	1.10 Y	1.52	1.47	-3.2%
CS PCB-111	29.16	2.67E+07	1.46 Y	1.15	1.18	2.7%
CS PCB-178	34.07	2.24E+07	1.03 Y	0.98	1.00	2.2%
JS PCB-9	13.66	5.54E+07	1.63 Y	-	-	-
JS PCB-52	21.12	2.85E+07	0.78 Y	-	-	-
JS PCB-101	26.90	2.26E+07	1.48 Y	-	-	-
JS PCB-138	33.68	2.24E+07	1.29 Y	-	-	-
JS PCB-194	43.78	1.41E+07	0.90 Y	-	-	-
PCB-1 2-MoCB	9.84	3.27E+05	3.04 Y	1.25	1.24	-0.4%
PCB-3 4-MoCB	11.75	3.04E+05	2.71 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.96	1.74E+05	0.00 S	0.90	0.90	-0.2%
PCB-15 44'-DiCB	17.01	3.10E+05	0.00 S	1.10	1.13	2.8%
PCB-19 22'6-TrCB	14.64	1.46E+05	1.05 Y	0.95	0.98	3.2%
PCB-37 344'-TrCB	22.97	2.63E+05	1.08 Y	1.39	1.41	1.5%
PCB-54 22'66'-TeCB	17.26	2.02E+05	0.73 Y	1.05	1.01	-4.5%
PCB-104 22'466'-PeCB	21.94	2.13E+05	0.53 Y	1.12	1.15	2.8%
PCB-153/168 ...-HxCB	32.69	3.41E+05	1.23 Y	1.24	1.29	4.1%
PCB-155 22'44'66'-HxCB	26.75	2.13E+05	1.25 Y	1.09	1.11	2.1%
PCB-170 22'33'44'5-HpCB	39.40	9.41E+04	0.90 Y	0.99	1.04	4.2%
PCB-180/193 ...-HpCB	38.33	2.26E+05	1.09 Y	1.07	1.06	-0.8%
PCB-188 22'34'566'-HpCB	31.54	1.82E+05	1.02 Y	0.98	0.98	-0.6%
PCB-202 22'33'55'66'-OcCB	36.04	1.26E+05	0.86 Y	0.86	0.87	0.5%
PCB-205 233'44'55'6-OcCB	44.19	9.92E+04	0.92 Y	1.13	1.16	2.0%
PCB-208 22'33'455'66'-NoCB	41.64	1.05E+05	0.75 Y	1.03	1.03	-0.3%
PCB-206 22'33'44'55'6-NoCB	45.66	7.71E+04	0.81 Y	0.97	1.00	3.3%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.84	3.27E+05	3.04 Y	1.25	1.24	-0.4%
PCB-2 3-MoCB	11.59	3.05E+05	3.09 Y	1.28	1.24	-2.6%
PCB-3 4-MoCB	11.75	3.04E+05	2.71 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.96	1.74E+05	0.00 S	0.90	0.90	-0.2%
PCB-10 26-DiCB	12.11	2.54E+05	0.00 S	1.38	1.31	-5.1%
PCB-9 25-DiCB	13.68	2.63E+05	0.00 S	0.99	0.96	-3.1%
PCB-7 24-DiCB	13.82	3.19E+05	0.00 S	1.10	1.16	5.3%
PCB-6 23'-DiCB	14.02	2.89E+05	0.00 S	1.04	1.05	1.0%
PCB-5 23-DiCB	14.28	2.82E+05	0.00 S	1.02	1.03	0.2%
PCB-8 24'-DiCB	14.39	2.75E+05	0.00 S	1.03	1.00	-3.3%
PCB-14 35-DiCB	15.79	3.30E+05	0.00 S	1.20	1.20	0.0%
PCB-11 33'-DiCB	16.49	2.89E+05	0.00 S	1.03	1.05	2.4%
PCB-13/12 34'/34-DiCB	16.76	5.52E+05	0.00 S	1.03	1.00	-3.0%
PCB-15 44'-DiCB	17.01	3.10E+05	0.00 S	1.10	1.13	2.8%
PCB-19 22'6-TrCB	14.64	1.46E+05	1.05 Y	0.95	0.98	3.2%
PCB-30/18 246/22'5-TrCB	16.23	3.45E+05	1.04 Y	1.23	1.15	-6.5%
PCB-17 22'4-TrCB	16.59	1.49E+05	0.92 Y	1.05	0.99	-6.0%
PCB-27 23'6-TrCB	16.77	2.10E+05	0.94 Y	1.46	1.40	-4.2%
PCB-24 236-TrCB	16.89	1.59E+05	0.80 N	1.32	1.06	-19.7%
PCB-16 22'3-TrCB	16.97	1.14E+05	1.03 Y	0.81	0.76	-5.6%
PCB-32 24'6-TrCB	17.42	2.07E+05	0.95 Y	1.48	1.38	-6.7%
PCB-34 23'5'-TrCB	18.50	2.59E+05	0.96 Y	1.46	1.39	-5.0%
PCB-23 235-TrCB	18.63	2.80E+05	0.98 Y	1.50	1.50	-0.1%
PCB-26/29 23'5/245-TrCB	18.90	5.56E+05	1.09 Y	1.53	1.49	-2.6%
PCB-25 23'4-TrCB	19.08	2.50E+05	1.03 Y	1.53	1.34	-12.7%
PCB-31 24'5-TrCB	19.35	2.80E+05	1.06 Y	1.55	1.50	-3.3%
PCB-28/20 244'/233'-TrCB	19.61	5.25E+05	1.11 Y	1.51	1.41	-6.6%
PCB-21/33 234/23'4'-TrCB	19.77	5.29E+05	1.13 Y	1.55	1.42	-8.4%
PCB-22 234'-TrCB	20.12	2.45E+05	1.08 Y	1.40	1.31	-6.0%
PCB-36 33'5-TrCB	21.45	2.88E+05	1.03 Y	1.52	1.55	1.8%
PCB-39 34'5-TrCB	21.75	2.99E+05	1.07 Y	1.58	1.60	1.1%
PCB-38 345-TrCB	22.24	2.82E+05	1.05 Y	1.47	1.51	2.9%
PCB-35 33'4-TrCB	22.62	2.59E+05	1.01 Y	1.33	1.39	4.2%
PCB-37 344'-TrCB	22.97	2.63E+05	1.08 Y	1.39	1.41	1.5%
PCB-54 22'66'-TeCB	17.26	2.02E+05	0.73 Y	1.05	1.01	-4.5%
PCB-50/53 22'46/22'56'-TeCB	19.12	2.57E+05	0.82 Y	0.88	0.74	-16.0%
PCB-45 22'36-TeCB	19.66	1.23E+05	0.74 Y	0.73	0.71	-3.6%
PCB-51 22'46'-TeCB	19.74	1.49E+05	0.75 Y	0.94	0.86	-8.8%
PCB-46 22'36'-TeCB	19.93	1.23E+05	0.77 Y	0.72	0.71	-1.5%
PCB-52 22'55'-TeCB	21.14	1.33E+05	0.72 Y	0.82	0.76	-7.5%
PCB-73 23'5'6-TeCB	21.27	1.74E+05	0.77 Y	1.10	1.00	-9.0%
PCB-43 22'35-TeCB	21.34	1.28E+05	0.71 Y	0.70	0.73	4.1%
PCB-69/49 23'46/22'45'-TeCB	21.54	3.34E+05	0.77 Y	1.01	0.96	-4.9%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.80	1.48E+05	0.68 Y	0.84	0.85	1.1%
PCB-44/47/65 ...-TeCB	22.00	4.47E+05	0.80 Y	0.90	0.86	-5.1%
PCB-59/62/75 ...-TeCB	22.26	5.57E+05	0.78 Y	1.15	1.07	-7.6%
PCB-42 22'34'-TeCB	22.42	1.31E+05	0.67 Y	0.76	0.75	-1.3%
PCB-41 22'34-TeCB	22.73	9.18E+04	0.68 Y	0.64	0.53	-17.7%
PCB-71/40 23'4'6/22'33'-TeCB	22.83	2.56E+05	0.77 Y	0.83	0.74	-11.6%
PCB-64 234'6-TeCB	23.02	1.98E+05	0.79 Y	1.17	1.14	-2.9%
PCB-72 23'55'-TeCB	23.75	2.26E+05	0.85 Y	1.37	1.30	-5.3%
PCB-68 23'45'-TeCB	23.98	2.65E+05	0.69 Y	1.52	1.52	0.5%
PCB-57 233'5-TeCB	24.34	2.29E+05	0.82 Y	1.32	1.31	-0.8%
PCB-58 233'5'-TeCB	24.53	2.43E+05	0.82 Y	1.34	1.39	4.2%
PCB-67 23'45-TeCB	24.68	2.29E+05	0.73 Y	1.41	1.32	-6.9%
PCB-63 234'5-TeCB	24.90	2.47E+05	0.83 Y	1.46	1.42	-2.5%
PCB-61/70/74/76 ...-TeCB	25.18	9.16E+05	0.71 Y	1.37	1.31	-3.7%
PCB-66 23'44'-TeCB	25.45	2.11E+05	0.78 Y	1.24	1.21	-2.4%
PCB-55 233'4-TeCB	25.58	2.21E+05	0.73 Y	1.28	1.27	-0.4%
PCB-56 233'4'-TeCB	26.01	2.15E+05	0.86 Y	1.23	1.23	0.3%
PCB-60 2344'-TeCB	26.19	2.32E+05	0.80 Y	1.30	1.33	2.6%
PCB-80 33'55'-TeCB	26.55	2.31E+05	0.73 Y	1.44	1.33	-7.4%
PCB-79 33'45'-TeCB	27.82	2.54E+05	0.83 Y	1.48	1.46	-1.2%
PCB-78 33'45-TeCB	28.29	2.19E+05	0.78 Y	1.21	1.26	4.2%
PCB-104 22'466'-PeCB	21.94	2.13E+05	0.53 Y	1.12	1.15	2.8%
PCB-96 22'366'-PeCB	22.24	1.80E+05	0.64 Y	0.96	0.97	0.3%
PCB-103 22'45'6-PeCB	23.90	1.26E+05	0.61 Y	0.93	0.98	4.6%
PCB-94 22'356'-PeCB	24.07	9.40E+04	0.66 Y	0.81	0.73	-10.0%
PCB-95 22'35'6-PeCB	24.43	1.17E+05	0.69 Y	0.85	0.90	6.2%
PCB-100/93 22'44'6/22'356-PeCB	24.64	2.38E+05	0.61 Y	0.88	0.92	4.5%
PCB-102 22'456'-PeCB	24.74	1.18E+05	0.64 Y	0.93	0.91	-1.9%
PCB-98 22'34'6'-PeCB	24.81	1.36E+05	0.67 Y	0.84	1.05	25.6%
PCB-88 22'346-PeCB	25.09	1.07E+05	0.55 Y	0.77	0.83	6.9%
PCB-91 22'34'6-PeCB	25.17	1.22E+05	0.76 N	0.96	0.94	-2.0%
PCB-84 22'33'6-PeCB	25.35	9.82E+04	0.59 Y	0.72	0.76	5.4%
PCB-89 22'346'-PeCB	25.75	1.03E+05	0.54 Y	0.77	0.80	3.3%
PCB-121 23'45'6-PeCB	26.13	1.51E+05	0.63 Y	1.15	1.17	2.0%
PCB-92 22'355'-PeCB	26.43	9.98E+04	0.68 Y	0.79	0.77	-2.5%
PCB-113/90/101 ...-PeCB	26.90	3.90E+05	0.65 Y	0.95	1.01	5.3%
PCB-83 22'33'5-PeCB	27.31	1.06E+05	0.53 Y	0.72	0.82	14.0%
PCB-99 22'44'5-PeCB	27.41	1.19E+05	0.69 Y	0.90	0.92	3.1%
PCB-112 233'56-PeCB	27.51	1.53E+05	0.63 Y	1.09	1.19	8.3%
PCB-109/119/86/97/125...-PeCB	27.84	7.38E+05	0.62 Y	0.95	0.95	0.6%
PCB-117 234'56-PeCB	28.36	1.42E+05	0.57 Y	0.99	1.10	11.3%
PCB-116/85 23456/22'344'-PeCB	28.43	2.55E+05	0.62 Y	0.96	0.99	2.9%
PCB-110 233'4'6-PeCB	28.56	1.24E+05	0.61 Y	1.01	0.96	-4.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA
Acquired: 14-DEC-2012 02:28
Datafile: 121214V02
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.78E+05	0.58 Y	1.15	1.38	19.5%
PCB-82 22'33'4-PeCB	28.83	1.07E+05	0.75 N	0.70	0.83	19.1%
PCB-111 233'55'-PeCB	29.18	1.59E+05	0.65 Y	1.16	1.23	5.8%
PCB-120 23'455'-PeCB	29.57	1.49E+05	0.56 Y	1.14	1.16	1.7%
PCB-108/124 ...-PeCB	30.51	2.67E+05	0.62 Y	1.02	1.03	1.4%
PCB-107 233'4'5-PeCB	30.71	1.47E+05	0.72 N	1.13	1.14	0.2%
PCB-106 233'45-PeCB	30.91	1.29E+05	0.70 Y	1.01	1.00	-1.1%
PCB-122 233'4'5'-PeCB	31.37	1.15E+05	0.50 N	0.91	0.86	-5.6%
PCB-127 33'455'-PeCB	33.31	1.33E+05	0.66 Y	1.06	1.08	1.9%
PCB-155 22'44'66'-HxCB	26.75	2.13E+05	1.25 Y	1.09	1.11	2.1%
PCB-152 22'3566'-HxCB	26.88	2.00E+05	1.23 Y	1.04	1.05	0.7%
PCB-150 22'34'66'-HxCB	27.03	2.08E+05	1.35 Y	1.03	1.09	5.7%
PCB-136 22'33'66'-HxCB	27.31	2.03E+05	1.16 Y	0.97	1.06	8.8%
PCB-145 22'3466'-HxCB	27.58	1.97E+05	1.21 Y	0.96	1.03	7.0%
PCB-148 22'34'56'-HxCB	28.87	1.37E+05	0.98 N	1.03	1.03	0.0%
PCB-151/135 ...-HxCB	29.37	2.69E+05	1.17 Y	0.99	1.02	2.3%
PCB-154 22'44'56'-HxCB	29.58	1.78E+05	1.30 Y	1.17	1.34	14.6%
PCB-144 22'345'6-HxCB	29.83	1.37E+05	1.18 Y	1.03	1.03	0.7%
PCB-147/149 ...-HxCB	30.12	2.61E+05	1.17 Y	1.02	0.98	-3.4%
PCB-134 22'33'56-HxCB	30.29	1.10E+05	1.28 Y	0.80	0.83	4.2%
PCB-143 22'3456'-HxCB	30.36	1.27E+05	1.13 Y	0.95	0.96	0.9%
PCB-139/140 ...-HxCB	30.63	3.01E+05	1.36 Y	1.05	1.14	8.4%
PCB-131 22'33'46-HxCB	30.79	1.16E+05	0.95 N	0.90	0.88	-1.9%
PCB-142 22'3456-HxCB	30.92	1.32E+05	1.42 Y	0.93	0.99	7.3%
PCB-132 22'33'46'-HxCB	31.16	1.48E+05	1.41 Y	0.93	1.12	20.5%
PCB-133 22'33'55'-HxCB	31.61	1.30E+05	1.23 Y	0.97	0.98	1.5%
PCB-165 233'55'6-HxCB	31.95	1.57E+05	1.35 Y	1.16	1.19	2.3%
PCB-146 22'34'55'-HxCB	32.15	1.40E+05	1.11 Y	1.01	1.06	5.0%
PCB-161 233'45'6-HxCB	32.27	1.75E+05	1.15 Y	1.29	1.32	2.2%
PCB-153/168 ...-HxCB	32.69	3.41E+05	1.23 Y	1.24	1.29	4.1%
PCB-141 22'3455'-HxCB	32.82	1.22E+05	1.21 Y	0.95	0.92	-3.0%
PCB-130 22'33'45'-HxCB	33.16	1.10E+05	1.45 N	0.82	0.83	1.1%
PCB-137 22'344'5-HxCB	33.35	1.15E+05	1.26 Y	0.97	0.87	-10.8%
PCB-164 233'4'5'6-HxCB	33.44	1.71E+05	1.16 Y	1.25	1.29	3.1%
PCB-163/138/129 ...-HxCB	33.73	4.51E+05	1.34 Y	1.04	1.14	9.0%
PCB-160 233'456-HxCB	33.84	1.57E+05	1.37 Y	1.19	1.18	-0.7%
PCB-158 233'44'6-HxCB	34.04	1.91E+05	1.15 Y	1.34	1.44	7.5%
PCB-128/166 ...-HxCB	34.74	2.22E+05	1.44 Y	0.96	0.95	-0.8%
PCB-159 233'455'-HxCB	35.60	1.20E+05	1.28 Y	1.12	1.03	-8.1%
PCB-162 233'4'55'-HxCB	35.83	1.26E+05	1.14 Y	1.13	1.08	-4.4%
PCB-188 22'34'566'-HpCB	31.54	1.82E+05	1.02 Y	0.98	0.98	-0.6%
PCB-179 22'33'566'-HpCB	31.81	1.71E+05	1.04 Y	0.90	0.92	2.5%
PCB-184 22'344'66'-HpCB	32.27	1.54E+05	1.06 Y	0.86	0.83	-4.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:15

Lab ID: CS0_121214_PCB_VA

ICAL: MM6_PCB_07132012_14DEC12

Acquired: 14-DEC-2012 02:28

Datafile: 121214V02

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.55	1.87E+05	1.09 Y	0.97	1.01	4.0%
PCB-186 22'34566'-HpCB	32.93	1.72E+05	1.03 Y	0.93	0.92	-0.3%
PCB-178 22'33'55'6-HpCB	34.10	1.15E+05	1.18 Y	0.66	0.62	-6.4%
PCB-175 22'33'45'6-HpCB	34.63	1.22E+05	1.07 Y	1.02	1.14	11.7%
PCB-187 22'34'55'6-HpCB	34.86	1.04E+05	1.31 N	1.03	0.98	-4.8%
PCB-182 22'344'56'-HpCB	35.03	1.35E+05	0.99 Y	1.10	1.27	15.5%
PCB-183 22'344'5'6-HpCB	35.37	1.26E+05	1.16 Y	1.12	1.18	5.0%
PCB-185 22'3455'6-HpCB	35.44	1.08E+05	1.14 Y	0.97	1.01	4.5%
PCB-174 22'33'456'-HpCB	35.55	9.35E+04	0.95 Y	0.90	0.88	-2.1%
PCB-177 22'33'45'6'-HpCB	35.92	1.09E+05	0.91 Y	0.87	1.02	17.0%
PCB-181 22'344'56-HpCB	36.26	1.11E+05	1.17 Y	1.03	1.04	0.7%
PCB-171/173 ...-HpCB	36.44	2.04E+05	0.94 Y	0.89	0.96	8.1%
PCB-172 22'33'455'-HpCB	37.82	9.70E+04	1.14 Y	0.87	0.91	4.3%
PCB-192 233'455'6-HpCB	38.05	1.34E+05	0.95 Y	1.16	1.25	8.1%
PCB-180/193 ...-HpCB	38.33	2.26E+05	1.09 Y	1.07	1.06	-0.8%
PCB-191 233'44'5'6-HpCB	38.66	1.32E+05	1.03 Y	1.18	1.24	4.6%
PCB-170 22'33'44'5-HpCB	39.40	9.41E+04	0.90 Y	0.99	1.04	4.2%
PCB-190 233'44'56-HpCB	39.85	1.24E+05	0.90 Y	1.36	1.36	0.6%
PCB-202 22'33'55'66'-OcCB	36.04	1.26E+05	0.86 Y	0.86	0.87	0.5%
PCB-201 22'33'45'66'-OcCB	36.81	1.32E+05	0.93 Y	0.95	0.91	-4.6%
PCB-204 22'344'566'-OcCB	37.38	1.50E+05	0.82 Y	0.90	1.03	14.0%
PCB-197 22'33'44'66'-OcCB	37.57	1.35E+05	0.86 Y	0.96	0.93	-3.1%
PCB-200 22'33'4566'-OcCB	37.65	1.29E+05	0.80 Y	0.88	0.89	0.4%
PCB-198/199 ...-OcCB	39.99	1.87E+05	0.85 Y	0.63	0.64	2.0%
PCB-196 22'33'44'56'-OcCB	40.56	1.05E+05	0.90 Y	0.66	0.72	9.1%
PCB-203 22'344'55'6-OcCB	40.73	1.05E+05	0.85 Y	0.69	0.72	4.0%
PCB-195 22'33'44'56-OcCB	41.83	7.48E+04	0.84 Y	0.82	0.87	5.7%
PCB-194 22'33'44'55'-OcCB	43.80	7.85E+04	0.83 Y	0.90	0.91	1.5%
PCB-205 233'44'55'6-OcCB	44.19	9.92E+04	0.92 Y	1.13	1.16	2.0%
PCB-208 22'33'455'66'-NoCB	41.64	1.05E+05	0.75 Y	1.03	1.03	-0.3%
PCB-207 22'33'44'566'-NoCB	42.42	1.08E+05	0.79 Y	1.07	1.07	-0.2%
PCB-206 22'33'44'55'6-NoCB	45.66	7.71E+04	0.81 Y	0.97	1.00	3.3%

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**

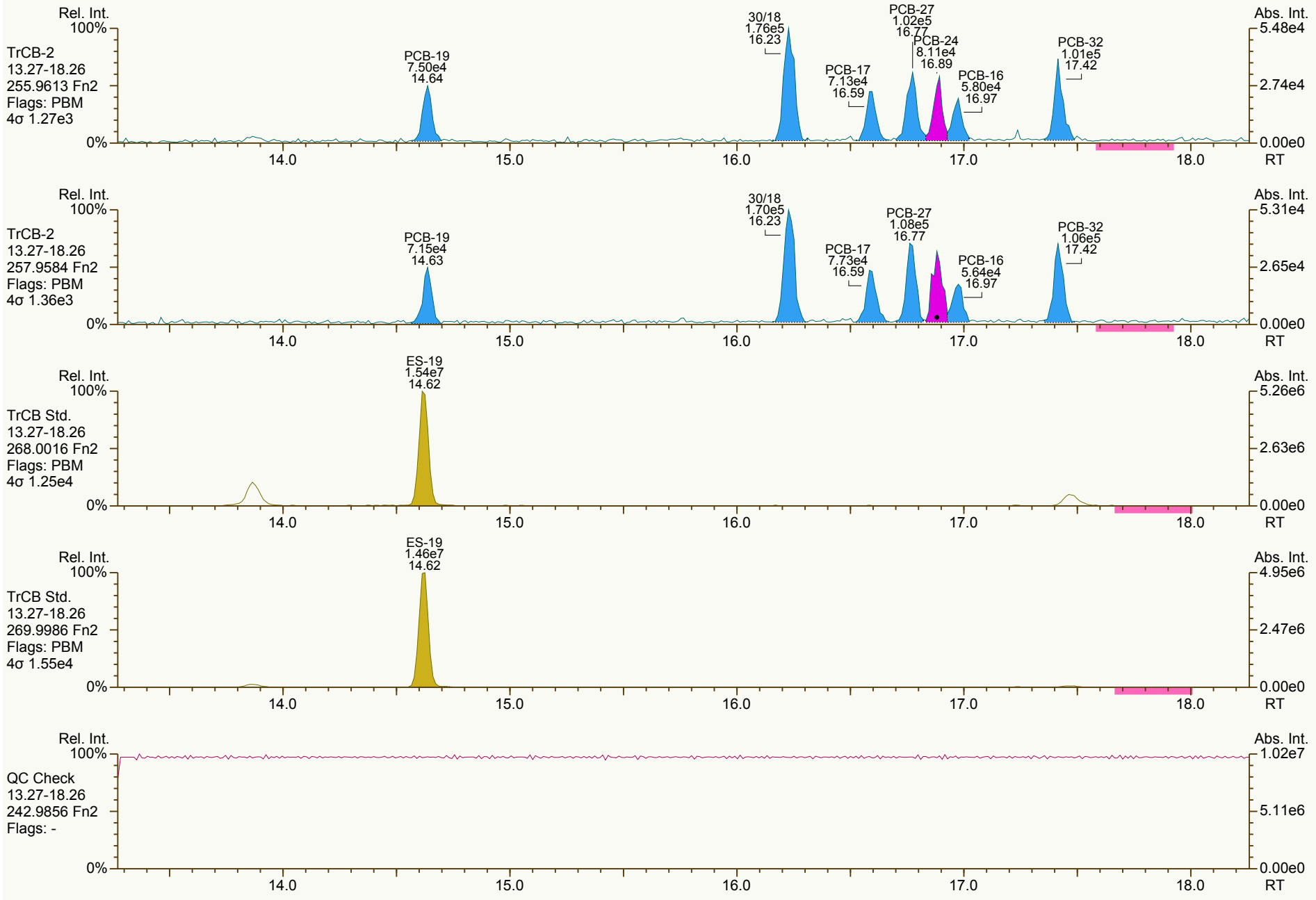


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)

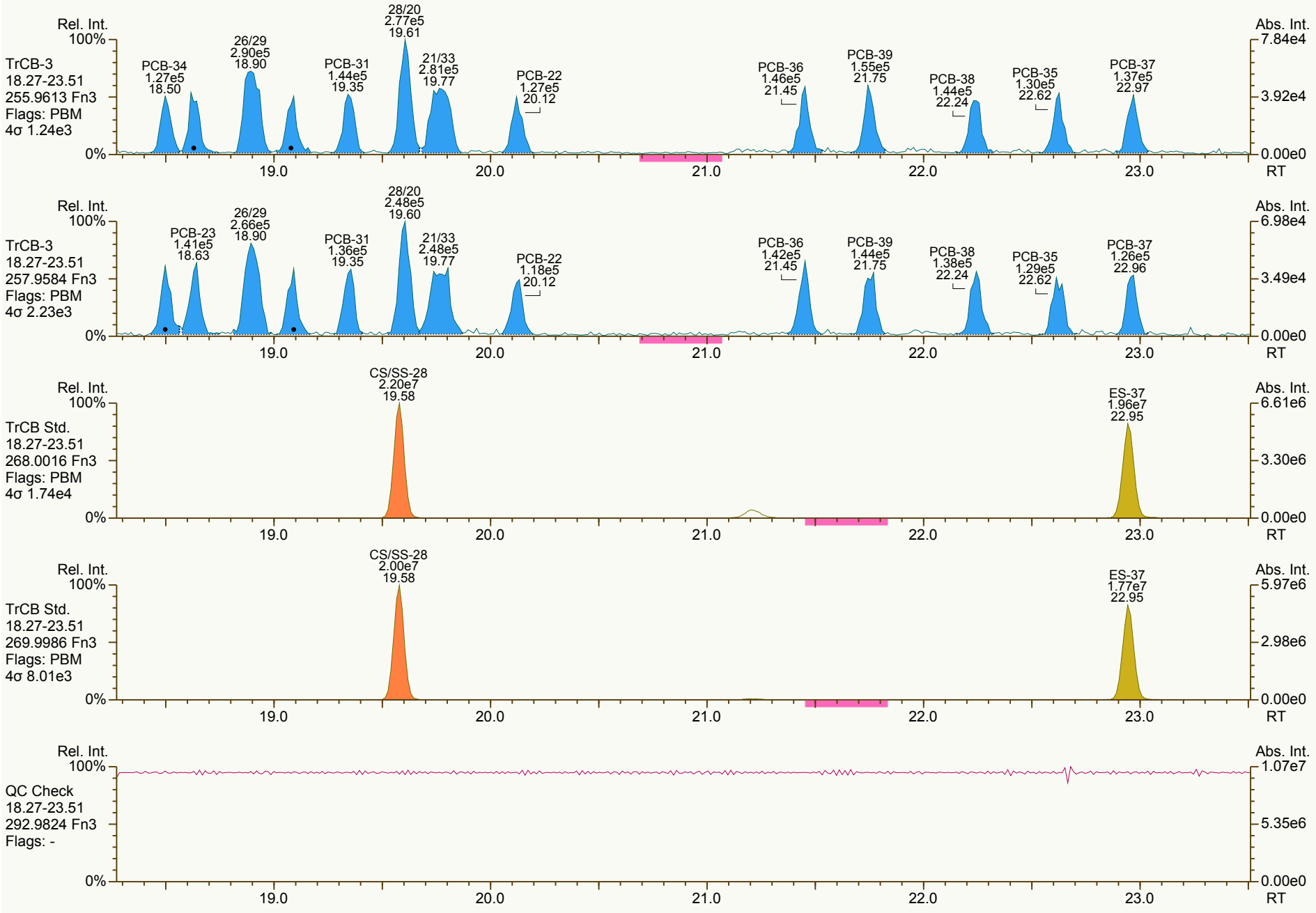


SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



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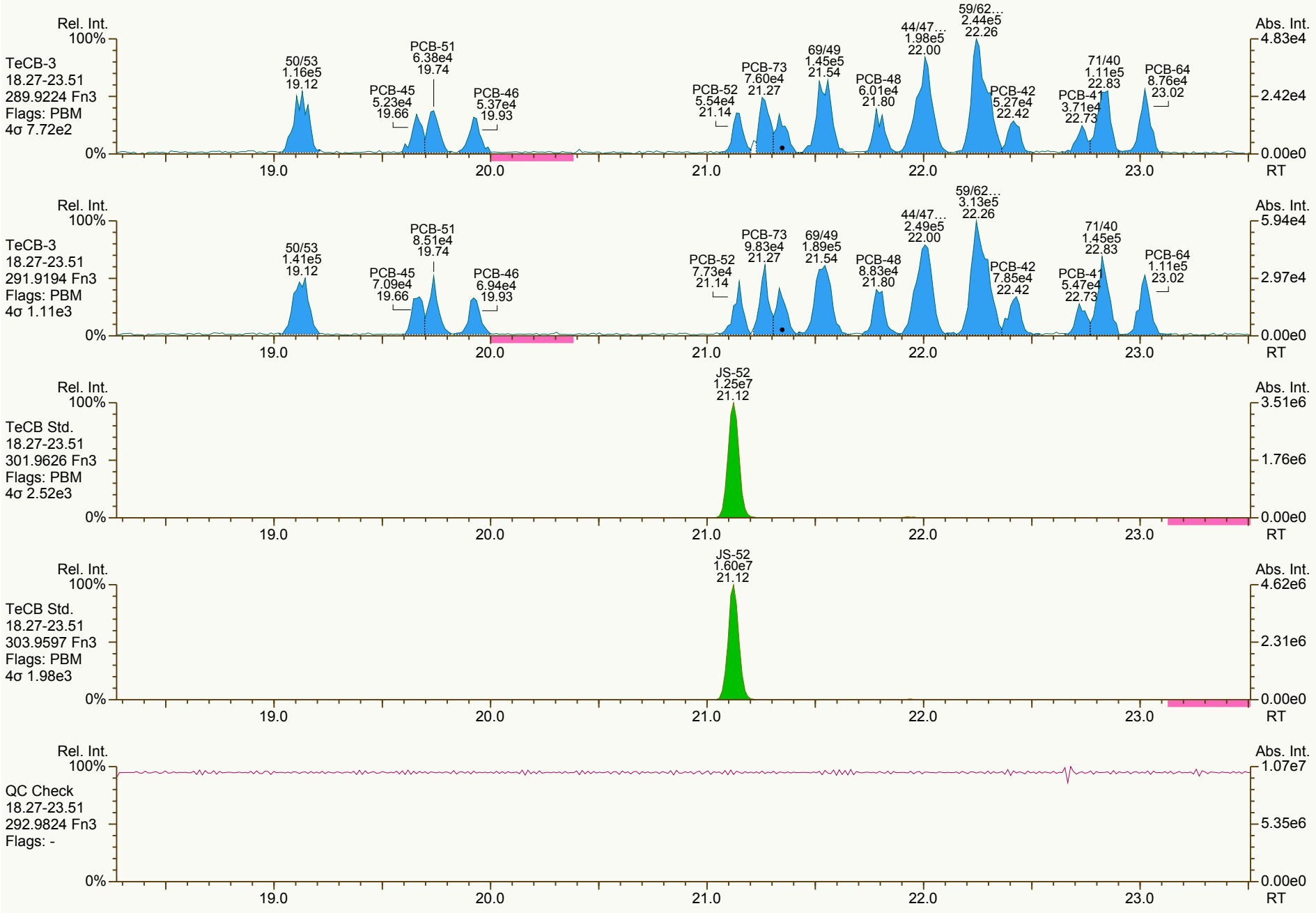
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 2910, 7127 scc: 877-492 *Revised: 14-Dec-2012 09:33 (CEM) Printed: 14-Dec-2012 11:19 Page 6 of 22*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



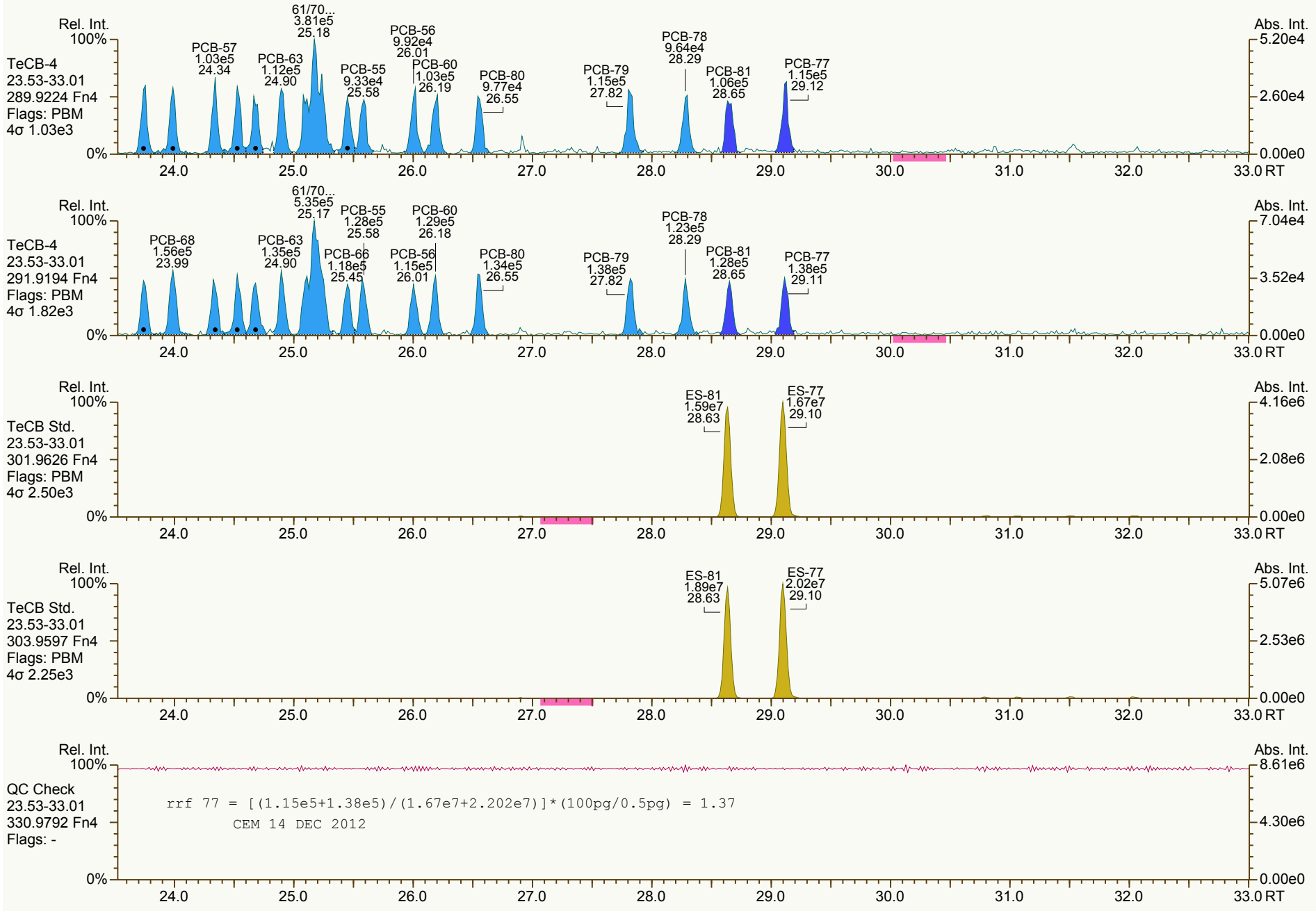
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



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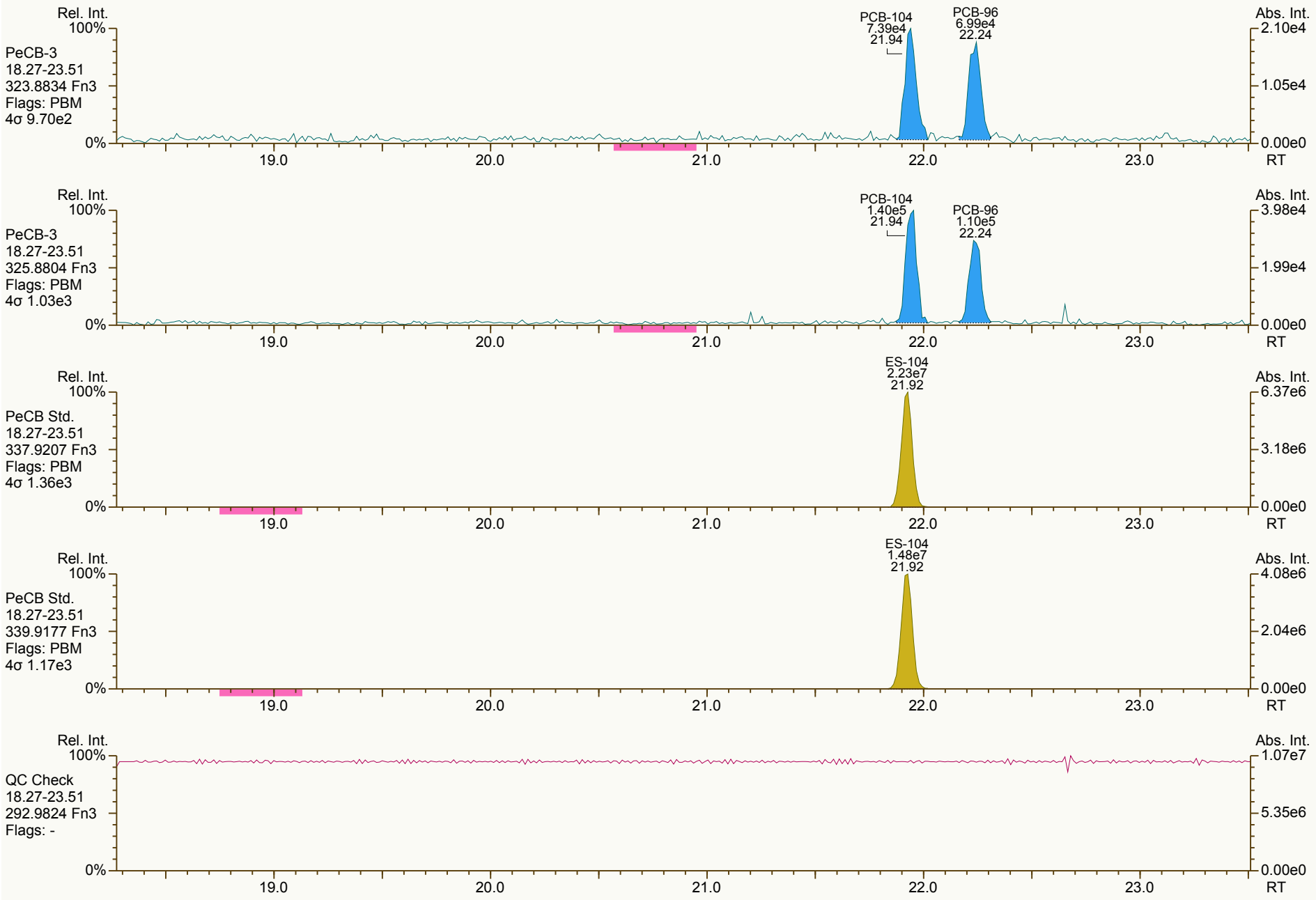
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 4958, 5939 scc: 877-492 *Revised: 14-Dec-2012 09:58 (CEM) Printed: 14-Dec-2012 11:19 Page 9 of 22*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



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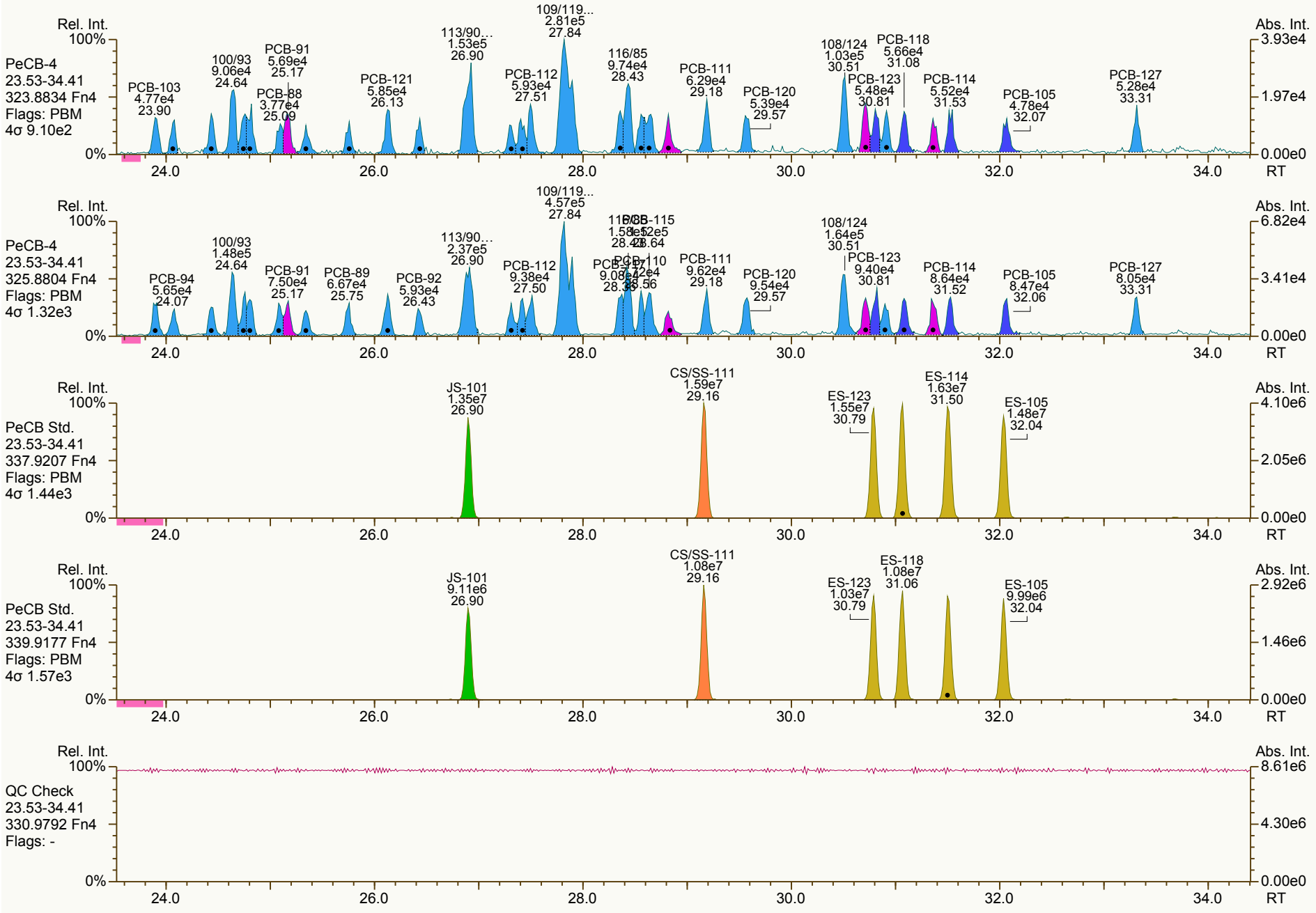
SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



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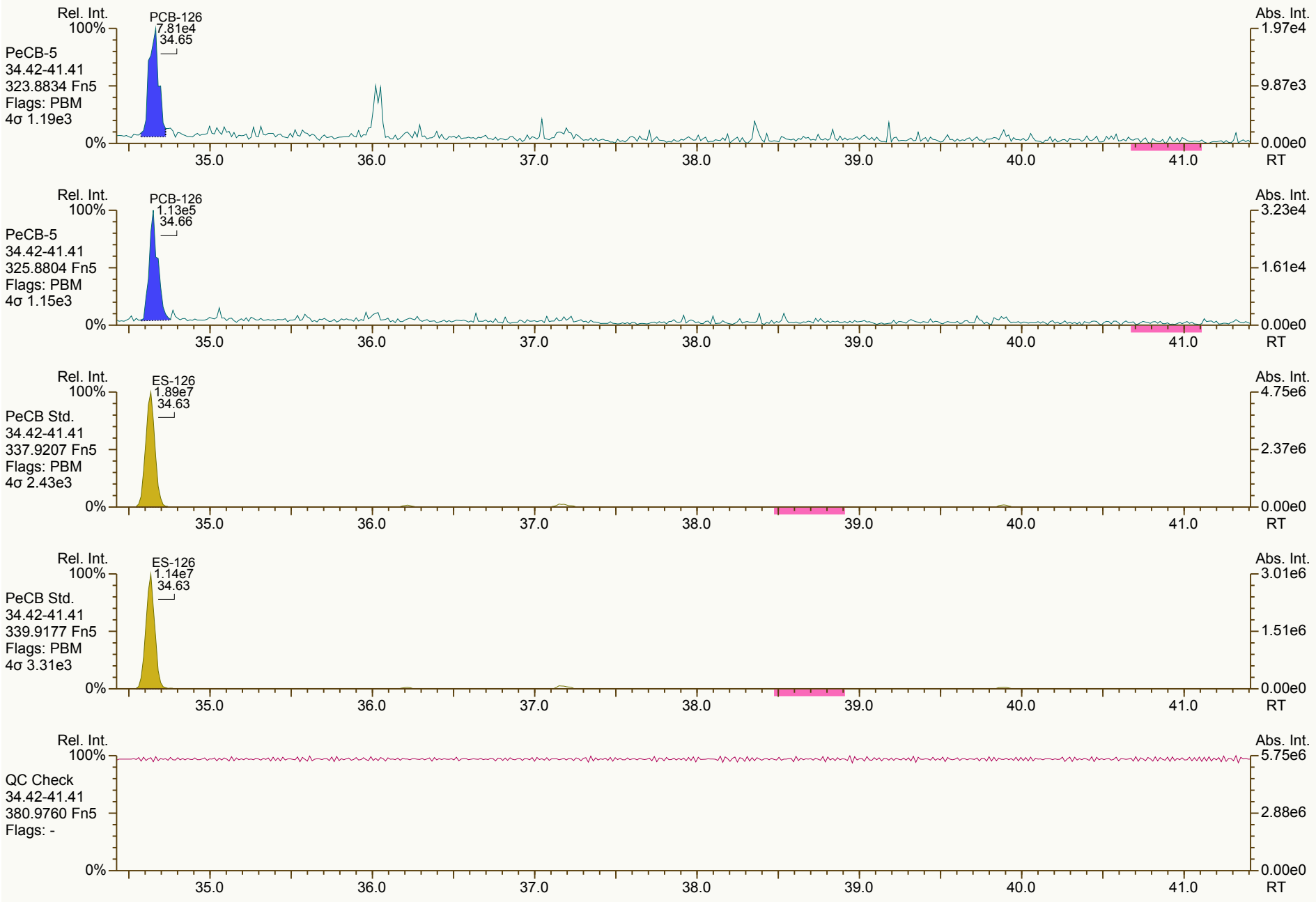
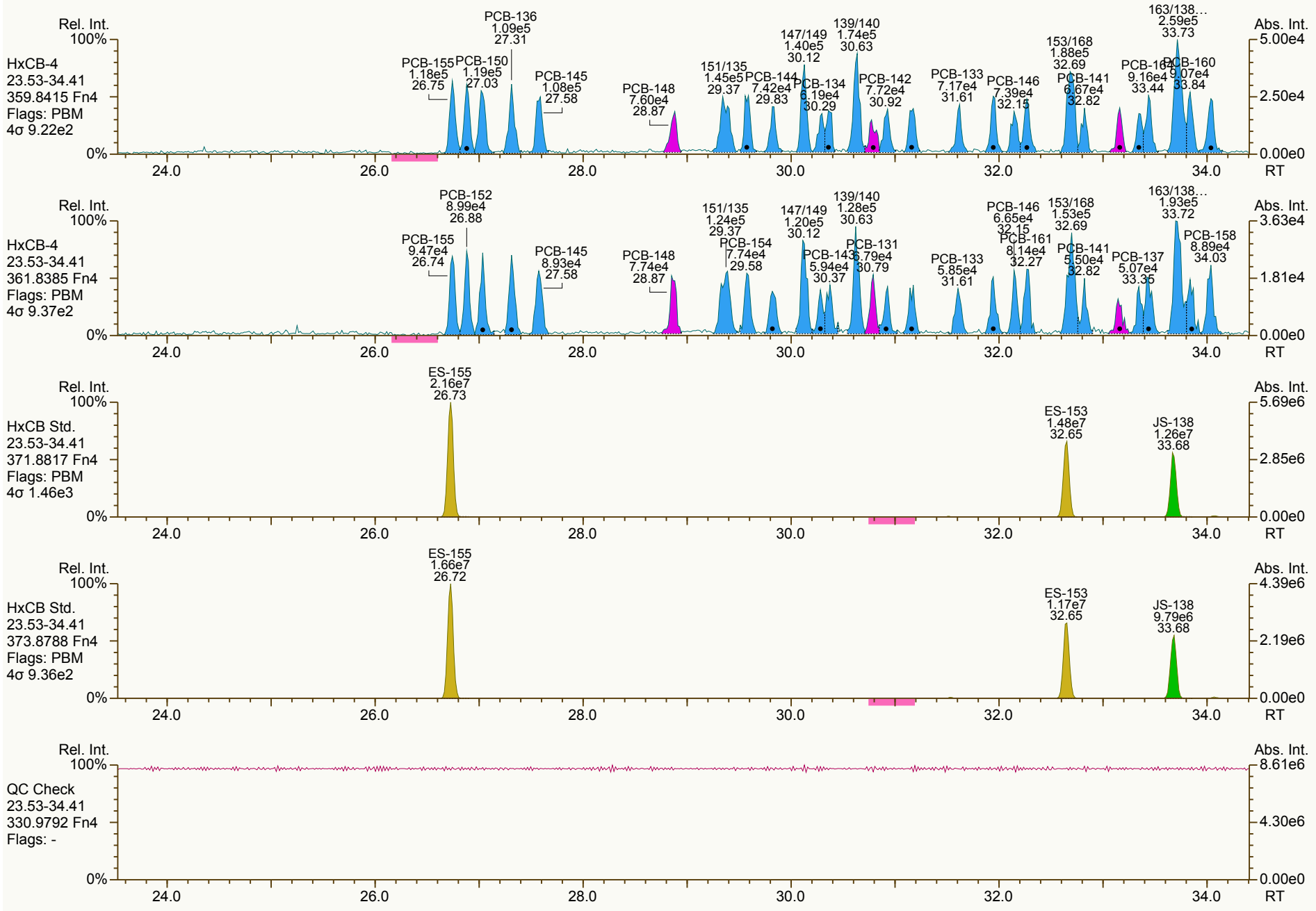
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 6834, 5691 scc: 877-492 *Revised: 14-Dec-2012 09:39 (CEM) Printed: 14-Dec-2012 11:19 Page 11 of 22*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



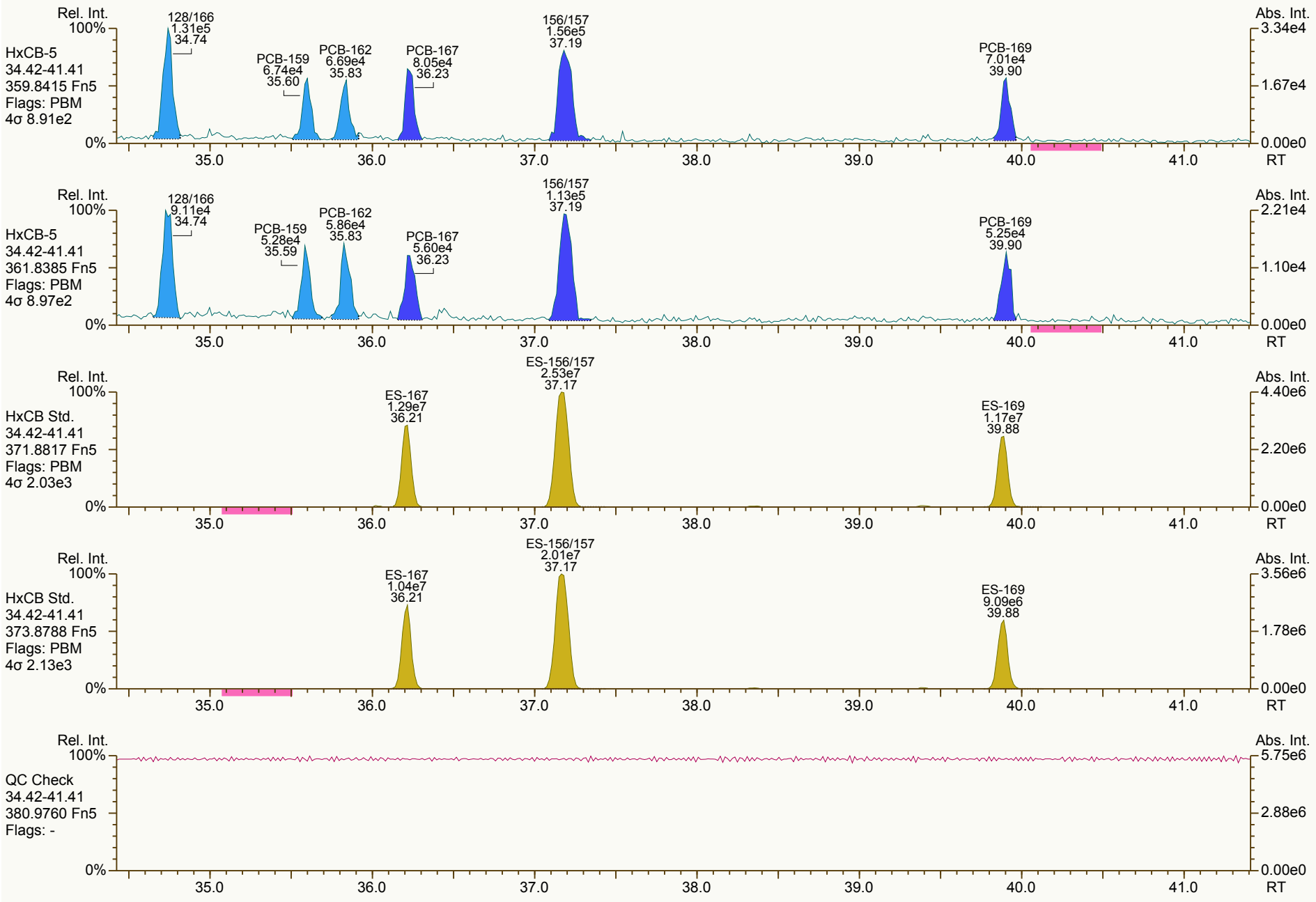
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)



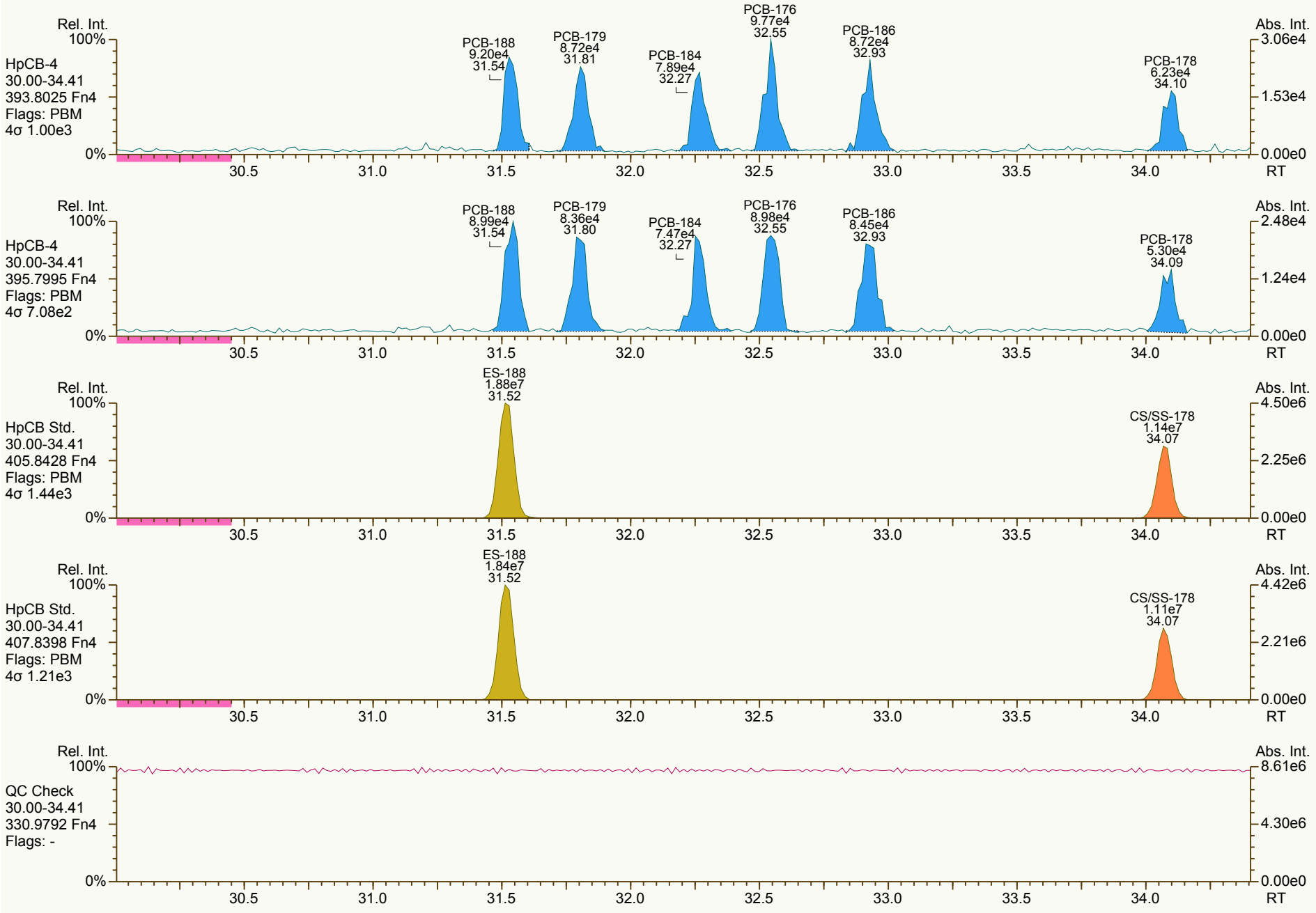
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | **Sample ID: SIL 12-65-6** | **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** | **User: CEM Datafile: 121214V02 (EQ)**



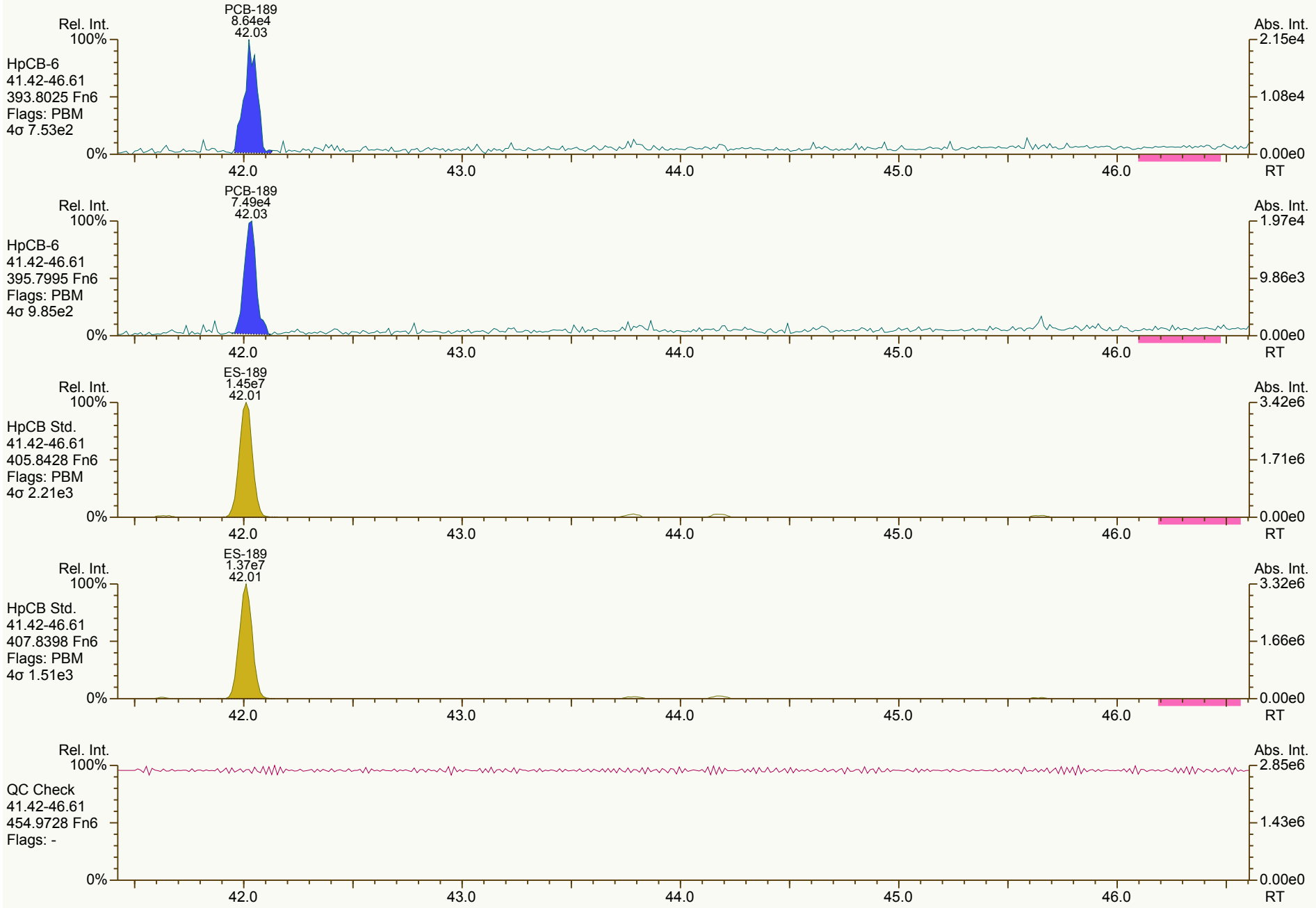
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA | Sample ID: SIL 12-65-6 | Acq: 14-Dec-2012 02:28:37
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10 | User: CEM Datafile: 121214V02 (EQ)

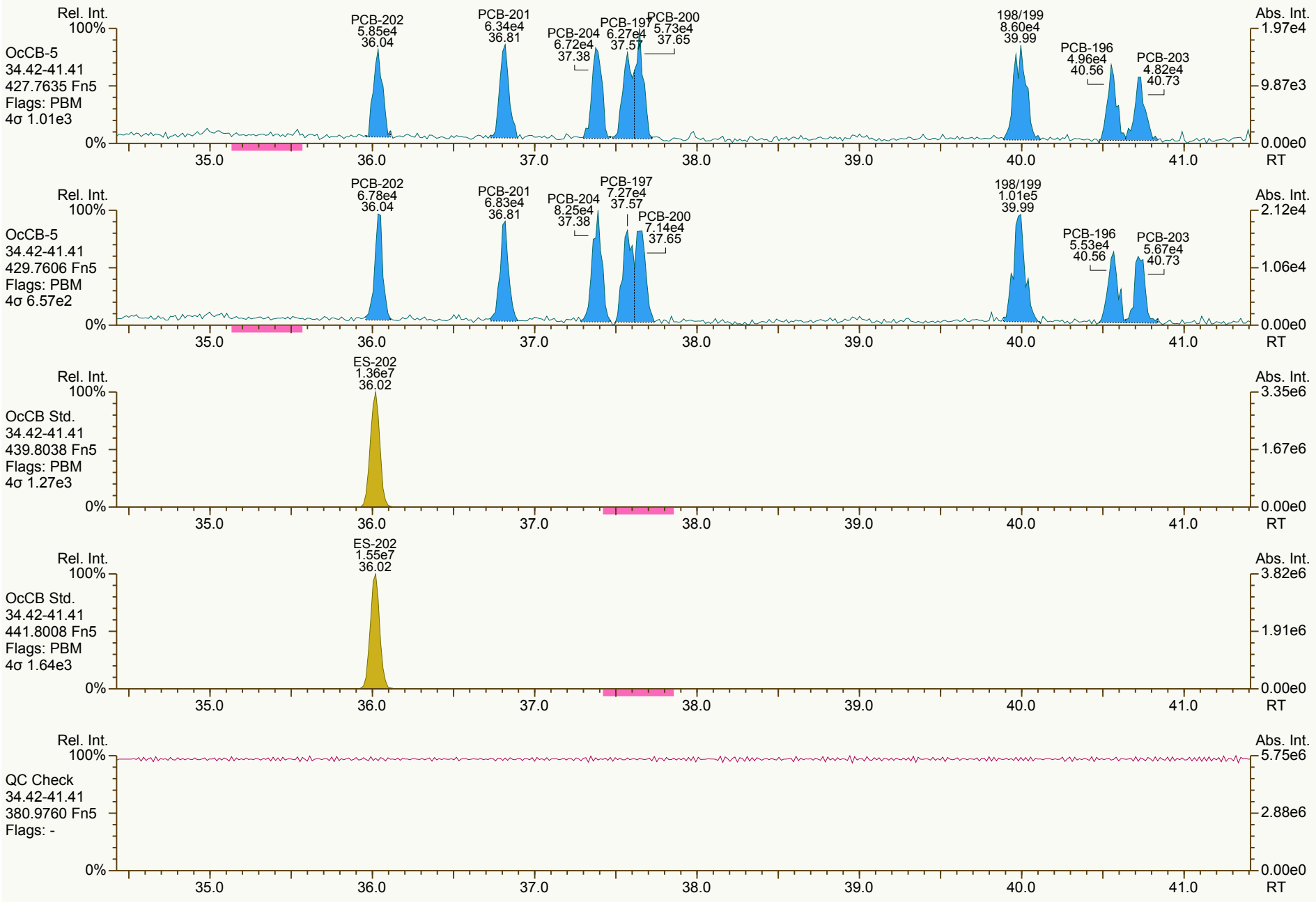


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**

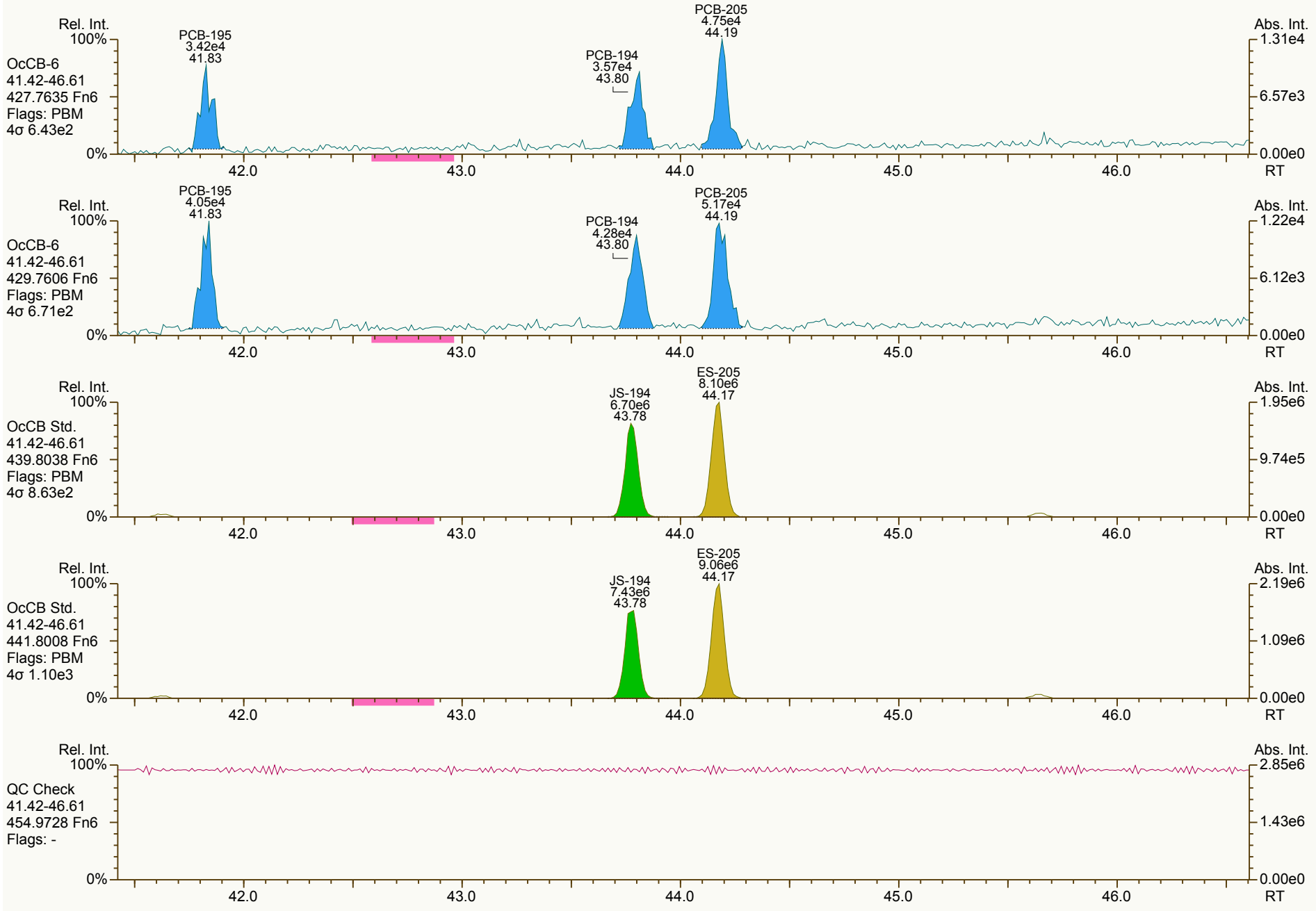


SGS-AP ID: CS0_121214_PCB_VA | **Sample ID: SIL 12-65-6** | **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** | **User: CEM Datafile: 121214V02 (EQ)**



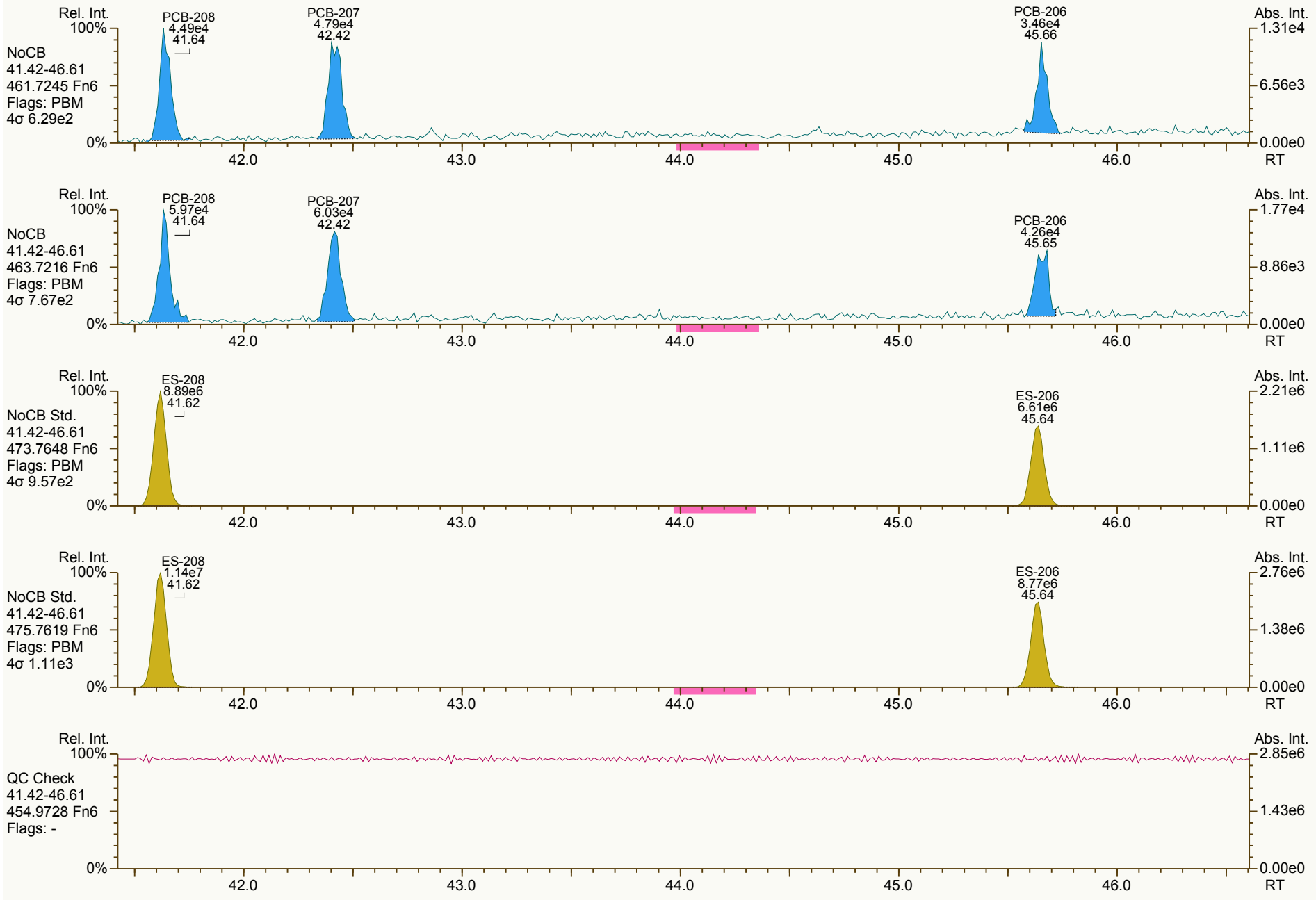
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS0_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:40 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS0_121214_PCB_VA **Sample ID: SIL 12-65-6** **Acq: 14-Dec-2012 02:28:37**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 10** **User: CEM Datafile: 121214V02 (EQ)**



PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:16
Lab ID:	CS1_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 03:21				
Datafile:	121214V03				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.10	4.04E+05	0.78 Y	1.25	1.18	-5.3%
PCB-81 344'5-TeCB	28.63	3.78E+05	0.84 Y	1.26	1.16	-8.0%
PCB-105 233'44'-PeCB	32.04	2.48E+05	0.63 Y	1.06	1.08	2.2%
PCB-114 2344'5-PeCB	31.52	2.88E+05	0.67 Y	1.11	1.18	6.3%
PCB-118 23'44'5-PeCB	31.08	2.58E+05	0.61 Y	1.08	1.05	-2.5%
PCB-123 23'44'5'-PeCB	30.80	2.82E+05	0.66 Y	1.12	1.20	7.2%
PCB-126 33'44'5-PeCB	34.64	3.20E+05	0.59 Y	1.16	1.15	-0.7%
PCB-156/157 ...-HxCB	37.17	4.59E+05	1.27 Y	1.14	1.13	-0.5%
PCB-167 23'44'55'-HxCB	36.22	2.44E+05	1.40 Y	1.18	1.16	-1.5%
PCB-169 33'44'55'-HxCB	39.88	1.99E+05	1.19 Y	1.15	1.08	-6.7%
PCB-189 233'44'55'-HpCB	42.02	2.72E+05	1.09 Y	1.12	1.08	-3.5%
PCB-209 DeCB	46.99	1.79E+05	1.14 Y	1.11	1.14	2.5%
ES PCB-1	9.82	6.27E+07	3.29 Y	0.97	0.97	-0.2%
ES PCB-3	11.72	5.80E+07	3.36 Y	0.90	0.90	-0.4%
ES PCB-4	11.93	4.49E+07	1.54 Y	0.70	0.69	-1.1%
ES PCB-15	16.98	6.18E+07	1.63 Y	1.02	0.95	-6.0%
ES PCB-19	14.60	3.37E+07	1.04 Y	0.53	0.52	-1.3%
ES PCB-37	22.93	3.94E+07	1.11 Y	1.29	1.28	-1.2%
ES PCB-54	17.23	4.42E+07	0.77 Y	1.43	1.43	0.5%
ES PCB-77	29.08	3.42E+07	0.84 Y	1.20	1.11	-7.9%
ES PCB-81	28.62	3.27E+07	0.85 Y	1.16	1.06	-8.8%
ES PCB-104	21.90	3.98E+07	1.50 Y	1.70	1.91	11.8%
ES PCB-105	32.02	2.30E+07	1.52 Y	1.10	1.10	0.3%
ES PCB-114	31.49	2.43E+07	1.47 Y	1.16	1.16	0.6%
ES PCB-118	31.05	2.44E+07	1.49 Y	1.15	1.17	1.3%
ES PCB-123	30.77	2.35E+07	1.49 Y	1.14	1.12	-1.5%
ES PCB-126	34.62	2.79E+07	1.64 Y	1.34	1.33	-0.5%
ES PCB-153	32.63	2.43E+07	1.29 Y	1.14	1.13	-1.0%
ES PCB-155	26.71	3.57E+07	1.26 Y	1.61	1.66	3.1%
ES PCB-156/157	37.15	4.05E+07	1.25 Y	0.98	0.94	-3.4%
ES PCB-167	36.20	2.10E+07	1.26 Y	1.01	0.98	-3.1%
ES PCB-169	39.87	1.85E+07	1.21 Y	0.90	0.86	-3.9%
ES PCB-170	39.37	1.62E+07	1.03 Y	1.28	1.27	-1.1%
ES PCB-180	38.33	1.91E+07	1.04 Y	1.54	1.50	-2.6%
ES PCB-188	31.50	3.37E+07	1.06 Y	1.63	1.57	-3.4%
ES PCB-189	42.00	2.52E+07	1.06 Y	1.97	1.98	0.6%
ES PCB-202	36.00	2.63E+07	0.91 Y	1.26	1.23	-2.7%
ES PCB-205	44.16	1.55E+07	0.88 Y	1.22	1.22	-0.4%
ES PCB-206	45.63	1.38E+07	0.77 Y	1.10	1.09	-1.3%
ES PCB-208	41.60	1.79E+07	0.78 Y	1.41	1.41	-0.1%
ES PCB-209	46.97	1.57E+07	1.16 Y	1.24	1.23	-1.1%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03

ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.56	4.73E+07	1.10 Y	1.18	1.20	1.8%
SS PCB-111	29.15	2.42E+07	1.52 Y	1.01	1.03	2.4%
SS PCB-178	34.06	2.05E+07	1.04 Y	0.60	0.61	1.0%
CS PCB-28	19.56	4.73E+07	1.10 Y	1.52	1.53	0.6%
CS PCB-111	29.15	2.42E+07	1.52 Y	1.15	1.16	0.8%
CS PCB-178	34.06	2.05E+07	1.04 Y	0.98	0.95	-2.5%
JS PCB-9	13.65	6.48E+07	1.62 Y	-	-	-
JS PCB-52	21.10	3.09E+07	0.77 Y	-	-	-
JS PCB-101	26.89	2.09E+07	1.49 Y	-	-	-
JS PCB-138	33.66	2.14E+07	1.33 Y	-	-	-
JS PCB-194	43.76	1.27E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	9.83	7.57E+05	2.83 Y	1.25	1.21	-3.3%
PCB-3 4-MoCB	11.73	7.08E+05	2.79 Y	1.27	1.22	-3.6%
PCB-4 22'-DiCB	11.94	4.02E+05	1.36 Y	0.90	0.90	-0.3%
PCB-15 44'-DiCB	17.00	7.01E+05	1.33 Y	1.10	1.13	3.5%
PCB-19 22'6-TrCB	14.62	2.97E+05	1.03 Y	0.95	0.88	-6.7%
PCB-37 344'-TrCB	22.95	5.17E+05	1.09 Y	1.39	1.31	-5.6%
PCB-54 22'66'-TeCB	17.24	4.42E+05	0.79 Y	1.05	1.00	-5.0%
PCB-104 22'466'-PeCB	21.93	4.27E+05	0.62 Y	1.12	1.07	-4.2%
PCB-153/168 ...-HxCB	32.67	5.84E+05	1.24 Y	1.24	1.20	-2.7%
PCB-155 22'44'66'-HxCB	26.73	3.89E+05	1.20 Y	1.09	1.09	-0.1%
PCB-170 22'33'44'5-HpCB	39.39	1.52E+05	0.98 Y	0.99	0.94	-5.3%
PCB-180/193 ...-HpCB	38.32	4.27E+05	1.08 Y	1.07	1.12	4.5%
PCB-188 22'34'566'-HpCB	31.52	3.25E+05	1.19 Y	0.98	0.97	-1.7%
PCB-202 22'33'55'66'-OcCB	36.02	2.36E+05	0.83 Y	0.86	0.90	3.6%
PCB-205 233'44'55'6-OcCB	44.18	1.72E+05	0.87 Y	1.13	1.11	-1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.86E+05	0.71 Y	1.03	1.04	0.8%
PCB-206 22'33'44'55'6-NoCB	45.65	1.33E+05	0.69 Y	0.97	0.96	-0.8%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.83	7.57E+05	2.83 Y	1.25	1.21	-3.3%
PCB-2 3-MoCB	11.58	7.05E+05	3.17 Y	1.28	1.21	-4.9%
PCB-3 4-MoCB	11.73	7.08E+05	2.79 Y	1.27	1.22	-3.6%
PCB-4 22'-DiCB	11.94	4.02E+05	1.36 Y	0.90	0.90	-0.3%
PCB-10 26-DiCB	12.10	5.94E+05	1.53 Y	1.38	1.32	-4.1%
PCB-9 25-DiCB	13.66	6.24E+05	1.47 Y	0.99	1.01	2.2%
PCB-7 24-DiCB	13.80	6.72E+05	1.71 Y	1.10	1.09	-1.5%
PCB-6 23'-DiCB	14.00	6.62E+05	1.36 Y	1.04	1.07	3.1%
PCB-5 23-DiCB	14.26	6.29E+05	1.59 Y	1.02	1.02	-0.7%
PCB-8 24'-DiCB	14.37	6.02E+05	1.39 Y	1.03	0.97	-5.7%
PCB-14 35-DiCB	15.77	7.61E+05	1.47 Y	1.20	1.23	2.5%
PCB-11 33'-DiCB	16.48	6.57E+05	1.48 Y	1.03	1.06	3.4%
PCB-13/12 34'/34-DiCB	16.74	1.18E+06	1.48 Y	1.03	0.96	-7.6%
PCB-15 44'-DiCB	17.00	7.01E+05	1.33 Y	1.10	1.13	3.5%
PCB-19 22'6-TrCB	14.62	2.97E+05	1.03 Y	0.95	0.88	-6.7%
PCB-30/18 246/22'5-TrCB	16.21	7.25E+05	1.00 Y	1.23	1.08	-12.5%
PCB-17 22'4-TrCB	16.57	3.48E+05	1.07 Y	1.05	1.03	-1.9%
PCB-27 23'6-TrCB	16.75	4.46E+05	1.06 Y	1.46	1.33	-9.5%
PCB-24 236-TrCB	16.87	4.22E+05	1.02 Y	1.32	1.25	-5.1%
PCB-16 22'3-TrCB	16.95	2.62E+05	1.00 Y	0.81	0.78	-3.7%
PCB-32 24'6-TrCB	17.40	4.79E+05	1.06 Y	1.48	1.42	-3.6%
PCB-34 23'5'-TrCB	18.48	5.40E+05	1.01 Y	1.46	1.37	-6.3%
PCB-23 235-TrCB	18.61	5.73E+05	1.10 Y	1.50	1.45	-3.3%
PCB-26/29 23'5/245-TrCB	18.88	1.17E+06	1.04 Y	1.53	1.48	-2.9%
PCB-25 23'4-TrCB	19.07	6.05E+05	1.15 Y	1.53	1.53	0.0%
PCB-31 24'5-TrCB	19.33	5.97E+05	1.00 Y	1.55	1.51	-2.4%
PCB-28/20 244'/233'-TrCB	19.59	1.17E+06	1.06 Y	1.51	1.48	-1.6%
PCB-21/33 234/23'4'-TrCB	19.75	1.22E+06	1.00 Y	1.55	1.55	0.1%
PCB-22 234'-TrCB	20.10	5.44E+05	1.07 Y	1.40	1.38	-1.3%
PCB-36 33'5-TrCB	21.43	5.81E+05	1.11 Y	1.52	1.47	-2.9%
PCB-39 34'5-TrCB	21.73	6.17E+05	1.00 Y	1.58	1.57	-1.1%
PCB-38 345-TrCB	22.22	5.57E+05	1.08 Y	1.47	1.41	-3.7%
PCB-35 33'4-TrCB	22.61	4.81E+05	1.05 Y	1.33	1.22	-8.5%
PCB-37 344'-TrCB	22.95	5.17E+05	1.09 Y	1.39	1.31	-5.6%
PCB-54 22'66'-TeCB	17.24	4.42E+05	0.79 Y	1.05	1.00	-5.0%
PCB-50/53 22'46/22'56'-TeCB	19.10	6.13E+05	0.75 Y	0.88	0.94	6.9%
PCB-45 22'36-TeCB	19.64	2.33E+05	0.76 Y	0.73	0.71	-2.8%
PCB-51 22'46'-TeCB	19.71	3.28E+05	0.75 Y	0.94	1.00	7.0%
PCB-46 22'36'-TeCB	19.91	2.44E+05	0.72 Y	0.72	0.75	4.2%
PCB-52 22'55'-TeCB	21.13	2.72E+05	0.79 Y	0.82	0.83	0.9%
PCB-73 23'5'6-TeCB	21.25	3.71E+05	0.77 Y	1.10	1.13	3.0%
PCB-43 22'35-TeCB	21.33	2.32E+05	0.73 Y	0.70	0.71	0.7%
PCB-69/49 23'46/22'45'-TeCB	21.52	6.63E+05	0.74 Y	1.01	1.01	0.6%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.78	2.73E+05	0.77 Y	0.84	0.84	-0.9%
PCB-44/47/65 ...-TeCB	21.98	9.01E+05	0.76 Y	0.90	0.92	1.9%
PCB-59/62/75 ...-TeCB	22.25	1.12E+06	0.72 Y	1.15	1.14	-1.0%
PCB-42 22'34'-TeCB	22.40	2.55E+05	0.69 Y	0.76	0.78	2.1%
PCB-41 22'34-TeCB	22.71	2.06E+05	0.68 Y	0.64	0.63	-1.7%
PCB-71/40 23'4'6/22'33'-TeCB	22.81	5.79E+05	0.79 Y	0.83	0.89	6.3%
PCB-64 234'6-TeCB	23.00	3.83E+05	0.76 Y	1.17	1.17	-0.3%
PCB-72 23'55'-TeCB	23.73	4.38E+05	0.69 Y	1.37	1.34	-2.1%
PCB-68 23'45'-TeCB	23.97	5.52E+05	0.79 Y	1.52	1.69	11.3%
PCB-57 233'5-TeCB	24.32	4.56E+05	0.77 Y	1.32	1.40	5.4%
PCB-58 233'5'-TeCB	24.52	4.44E+05	0.78 Y	1.34	1.36	1.6%
PCB-67 23'45-TeCB	24.66	4.61E+05	0.77 Y	1.41	1.41	-0.1%
PCB-63 234'5-TeCB	24.88	4.96E+05	0.84 Y	1.46	1.52	4.1%
PCB-61/70/74/76 ...-TeCB	25.16	1.82E+06	0.78 Y	1.37	1.39	2.0%
PCB-66 23'44'-TeCB	25.44	4.11E+05	0.73 Y	1.24	1.26	1.2%
PCB-55 233'4-TeCB	25.57	4.13E+05	0.73 Y	1.28	1.26	-1.1%
PCB-56 233'4'-TeCB	25.99	4.21E+05	0.76 Y	1.23	1.29	4.7%
PCB-60 2344'-TeCB	26.17	4.32E+05	0.72 Y	1.30	1.32	1.9%
PCB-80 33'55'-TeCB	26.54	4.89E+05	0.77 Y	1.44	1.50	4.2%
PCB-79 33'45'-TeCB	27.81	4.75E+05	0.80 Y	1.48	1.45	-1.5%
PCB-78 33'45-TeCB	28.27	4.15E+05	0.75 Y	1.21	1.27	5.0%
PCB-104 22'466'-PeCB	21.93	4.27E+05	0.62 Y	1.12	1.07	-4.2%
PCB-96 22'366'-PeCB	22.22	3.48E+05	0.66 Y	0.96	0.87	-9.3%
PCB-103 22'45'6-PeCB	23.88	2.32E+05	0.61 Y	0.93	0.99	6.1%
PCB-94 22'356'-PeCB	24.05	2.21E+05	0.63 Y	0.81	0.94	16.5%
PCB-95 22'35'6-PeCB	24.42	2.00E+05	0.77 N	0.85	0.85	0.0%
PCB-100/93 22'44'6/22'356-PeCB	24.62	4.36E+05	0.63 Y	0.88	0.93	5.0%
PCB-102 22'456'-PeCB	24.74	2.52E+05	0.65 Y	0.93	1.07	15.2%
PCB-98 22'34'6'-PeCB	24.80	1.87E+05	0.69 Y	0.84	0.80	-5.0%
PCB-88 22'346-PeCB	25.08	1.84E+05	0.63 Y	0.77	0.78	1.6%
PCB-91 22'34'6-PeCB	25.15	2.29E+05	0.66 Y	0.96	0.97	1.5%
PCB-84 22'33'6-PeCB	25.33	1.72E+05	0.66 Y	0.72	0.73	1.5%
PCB-89 22'346'-PeCB	25.73	2.02E+05	0.69 Y	0.77	0.86	11.4%
PCB-121 23'45'6-PeCB	26.11	2.73E+05	0.56 Y	1.15	1.16	1.4%
PCB-92 22'355'-PeCB	26.42	1.97E+05	0.65 Y	0.79	0.84	5.5%
PCB-113/90/101 ...-PeCB	26.88	6.95E+05	0.61 Y	0.95	0.99	3.2%
PCB-83 22'33'5-PeCB	27.29	1.77E+05	0.64 Y	0.72	0.75	4.5%
PCB-99 22'44'5-PeCB	27.40	2.15E+05	0.68 Y	0.90	0.91	2.1%
PCB-112 233'56-PeCB	27.49	2.84E+05	0.64 Y	1.09	1.21	10.6%
PCB-109/119/86/97/125...-PeCB	27.82	1.35E+06	0.64 Y	0.95	0.96	1.1%
PCB-117 234'56-PeCB	28.34	2.50E+05	0.64 Y	0.99	1.07	7.5%
PCB-116/85 23456/22'344'-PeCB	28.42	4.28E+05	0.65 Y	0.96	0.91	-5.1%
PCB-110 233'4'6-PeCB	28.55	2.77E+05	0.66 Y	1.01	1.18	16.8%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA
Acquired: 14-DEC-2012 03:21
Datafile: 121214V03
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.62	2.40E+05	0.63 Y	1.15	1.02	-11.1%
PCB-82 22'33'4-PeCB	28.81	1.67E+05	0.63 Y	0.70	0.71	1.8%
PCB-111 233'55'-PeCB	29.17	2.75E+05	0.61 Y	1.16	1.17	0.7%
PCB-120 23'455'-PeCB	29.55	2.70E+05	0.63 Y	1.14	1.15	1.1%
PCB-108/124 ...-PeCB	30.49	4.76E+05	0.65 Y	1.02	1.01	-0.6%
PCB-107 233'4'5-PeCB	30.69	2.69E+05	0.68 Y	1.13	1.14	0.9%
PCB-106 233'45-PeCB	30.89	2.33E+05	0.68 Y	1.01	0.99	-2.1%
PCB-122 233'4'5'-PeCB	31.35	2.17E+05	0.63 Y	0.91	0.89	-2.1%
PCB-127 33'455'-PeCB	33.30	2.33E+05	0.63 Y	1.06	1.01	-3.9%
PCB-155 22'44'66'-HxCB	26.73	3.89E+05	1.20 Y	1.09	1.09	-0.1%
PCB-152 22'3566'-HxCB	26.87	3.55E+05	1.37 Y	1.04	1.00	-4.4%
PCB-150 22'34'66'-HxCB	27.01	3.54E+05	1.33 Y	1.03	0.99	-3.5%
PCB-136 22'33'66'-HxCB	27.30	3.46E+05	1.23 Y	0.97	0.97	-0.3%
PCB-145 22'3466'-HxCB	27.56	3.18E+05	1.17 Y	0.96	0.89	-7.3%
PCB-148 22'34'56'-HxCB	28.85	2.64E+05	1.29 Y	1.03	1.09	5.3%
PCB-151/135 ...-HxCB	29.35	4.93E+05	1.23 Y	0.99	1.02	2.3%
PCB-154 22'44'56'-HxCB	29.56	2.72E+05	1.17 Y	1.17	1.12	-4.4%
PCB-144 22'345'6-HxCB	29.81	2.74E+05	1.30 Y	1.03	1.13	9.8%
PCB-147/149 ...-HxCB	30.11	5.15E+05	1.14 Y	1.02	1.06	4.3%
PCB-134 22'33'56-HxCB	30.27	1.97E+05	1.28 Y	0.80	0.81	1.3%
PCB-143 22'3456'-HxCB	30.35	2.20E+05	1.15 Y	0.95	0.91	-4.2%
PCB-139/140 ...-HxCB	30.61	4.87E+05	1.18 Y	1.05	1.00	-4.4%
PCB-131 22'33'46-HxCB	30.77	2.13E+05	1.21 Y	0.90	0.88	-1.8%
PCB-142 22'3456-HxCB	30.90	2.28E+05	1.28 Y	0.93	0.94	1.6%
PCB-132 22'33'46'-HxCB	31.15	2.08E+05	1.24 Y	0.93	0.86	-8.0%
PCB-133 22'33'55'-HxCB	31.60	2.44E+05	1.17 Y	0.97	1.00	3.7%
PCB-165 233'55'6-HxCB	31.93	2.90E+05	1.32 Y	1.16	1.20	3.0%
PCB-146 22'34'55'-HxCB	32.14	2.46E+05	1.34 Y	1.01	1.01	0.3%
PCB-161 233'45'6-HxCB	32.25	2.93E+05	1.15 Y	1.29	1.21	-6.7%
PCB-153/168 ...-HxCB	32.67	5.84E+05	1.24 Y	1.24	1.20	-2.7%
PCB-141 22'3455'-HxCB	32.80	2.54E+05	1.24 Y	0.95	1.05	10.3%
PCB-130 22'33'45'-HxCB	33.15	1.99E+05	1.17 Y	0.82	0.82	-0.4%
PCB-137 22'344'5-HxCB	33.33	2.15E+05	1.57 N	0.97	0.89	-8.5%
PCB-164 233'4'5'6-HxCB	33.42	2.99E+05	1.23 Y	1.25	1.23	-1.4%
PCB-163/138/129 ...-HxCB	33.70	7.01E+05	1.24 Y	1.04	0.96	-7.5%
PCB-160 233'456-HxCB	33.82	2.98E+05	1.20 Y	1.19	1.23	3.0%
PCB-158 233'44'6-HxCB	34.02	3.10E+05	1.13 Y	1.34	1.28	-4.7%
PCB-128/166 ...-HxCB	34.73	3.96E+05	1.31 Y	0.96	0.94	-1.8%
PCB-159 233'455'-HxCB	35.58	2.47E+05	1.32 Y	1.12	1.18	5.0%
PCB-162 233'4'55'-HxCB	35.82	2.39E+05	1.28 Y	1.13	1.14	1.0%
PCB-188 22'34'566'-HpCB	31.52	3.25E+05	1.19 Y	0.98	0.97	-1.7%
PCB-179 22'33'566'-HpCB	31.79	3.14E+05	1.13 Y	0.90	0.93	4.1%
PCB-184 22'344'66'-HpCB	32.25	2.84E+05	1.09 Y	0.86	0.84	-2.3%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS1_121214_PCB_VA

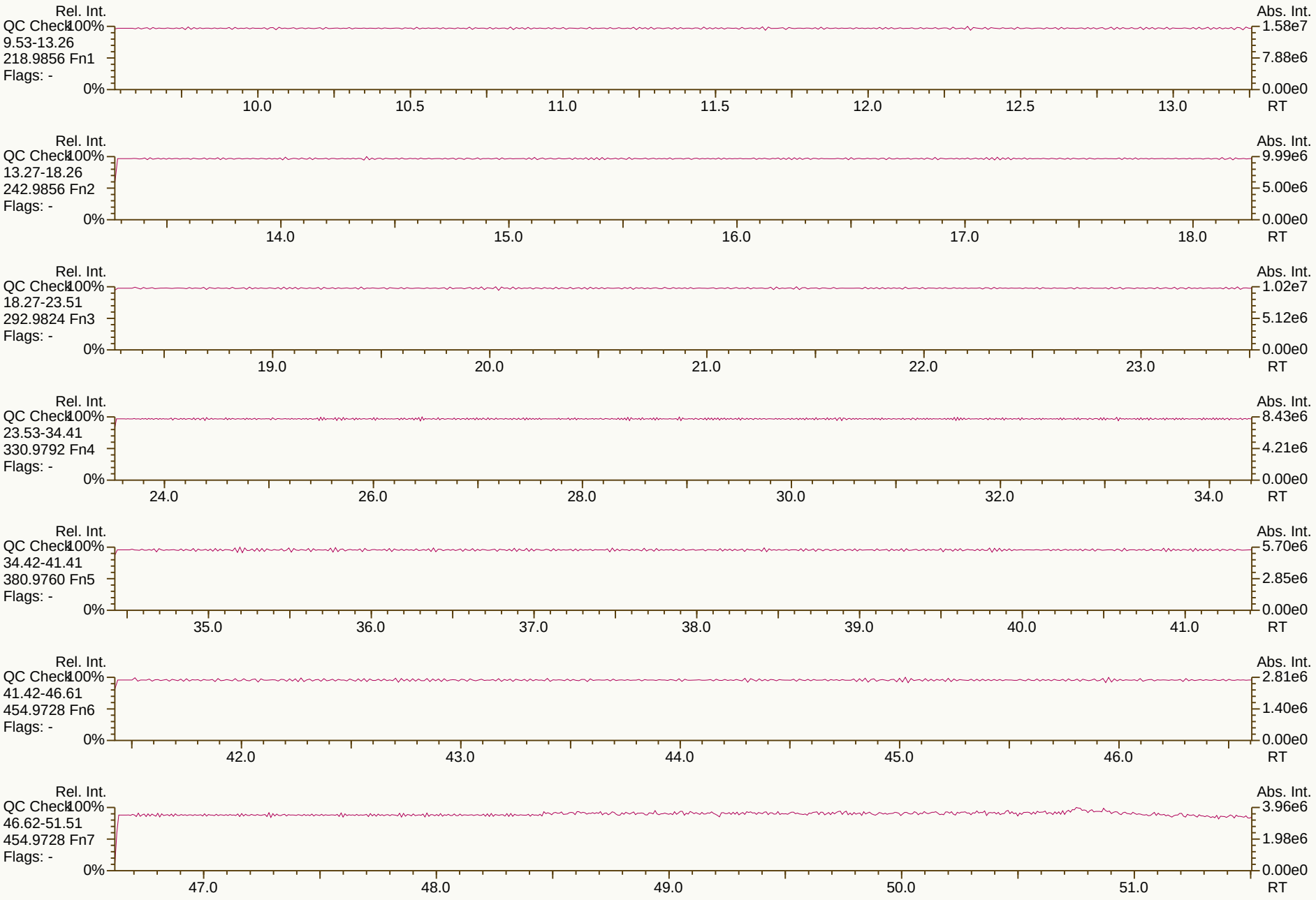
Acquired: 14-DEC-2012 03:21

Datafile: 121214V03

ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.53	3.32E+05	0.98 Y	0.97	0.99	1.9%
PCB-186 22'34566'-HpCB	32.91	3.41E+05	1.03 Y	0.93	1.01	9.3%
PCB-178 22'33'55'6-HpCB	34.08	2.33E+05	1.00 Y	0.66	0.69	4.5%
PCB-175 22'33'45'6-HpCB	34.61	1.90E+05	0.89 Y	1.02	1.00	-2.8%
PCB-187 22'34'55'6-HpCB	34.84	2.03E+05	1.03 Y	1.03	1.07	3.7%
PCB-182 22'344'56'-HpCB	35.01	2.13E+05	1.12 Y	1.10	1.11	1.6%
PCB-183 22'344'5'6-HpCB	35.36	2.48E+05	1.16 Y	1.12	1.30	15.4%
PCB-185 22'3455'6-HpCB	35.43	1.63E+05	1.07 Y	0.97	0.86	-11.7%
PCB-174 22'33'456'-HpCB	35.54	1.80E+05	0.96 Y	0.90	0.94	5.3%
PCB-177 22'33'45'6'-HpCB	35.91	1.55E+05	0.97 Y	0.87	0.81	-6.8%
PCB-181 22'344'56-HpCB	36.24	2.16E+05	1.11 Y	1.03	1.13	9.3%
PCB-171/173 ...-HpCB	36.42	3.40E+05	1.14 Y	0.89	0.89	0.4%
PCB-172 22'33'455'-HpCB	37.80	1.68E+05	1.11 Y	0.87	0.88	0.7%
PCB-192 233'455'6-HpCB	38.04	2.29E+05	1.02 Y	1.16	1.20	3.4%
PCB-180/193 ...-HpCB	38.32	4.27E+05	1.08 Y	1.07	1.12	4.5%
PCB-191 233'44'5'6-HpCB	38.65	2.30E+05	1.06 Y	1.18	1.20	1.7%
PCB-170 22'33'44'5-HpCB	39.39	1.52E+05	0.98 Y	0.99	0.94	-5.3%
PCB-190 233'44'56-HpCB	39.84	2.09E+05	1.09 Y	1.36	1.30	-4.5%
PCB-202 22'33'55'66'-OcCB	36.02	2.36E+05	0.83 Y	0.86	0.90	3.6%
PCB-201 22'33'45'66'-OcCB	36.80	2.67E+05	0.76 Y	0.95	1.02	7.0%
PCB-204 22'344'566'-OcCB	37.37	2.09E+05	0.83 Y	0.90	0.79	-12.2%
PCB-197 22'33'44'66'-OcCB	37.56	2.74E+05	0.93 Y	0.96	1.04	8.5%
PCB-200 22'33'4566'-OcCB	37.63	2.11E+05	0.97 Y	0.88	0.80	-9.2%
PCB-198/199 ...-OcCB	39.98	3.06E+05	0.84 Y	0.63	0.58	-7.7%
PCB-196 22'33'44'56'-OcCB	40.54	1.62E+05	0.79 Y	0.66	0.62	-7.0%
PCB-203 22'344'55'6-OcCB	40.71	1.86E+05	0.88 Y	0.69	0.71	1.6%
PCB-195 22'33'44'56-OcCB	41.81	1.20E+05	0.86 Y	0.82	0.77	-6.5%
PCB-194 22'33'44'55'-OcCB	43.79	1.38E+05	0.90 Y	0.90	0.89	-1.2%
PCB-205 233'44'55'6-OcCB	44.18	1.72E+05	0.87 Y	1.13	1.11	-1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.86E+05	0.71 Y	1.03	1.04	0.8%
PCB-207 22'33'44'566'-NoCB	42.41	1.95E+05	0.71 Y	1.07	1.09	1.9%
PCB-206 22'33'44'55'6-NoCB	45.65	1.33E+05	0.69 Y	0.97	0.96	-0.8%

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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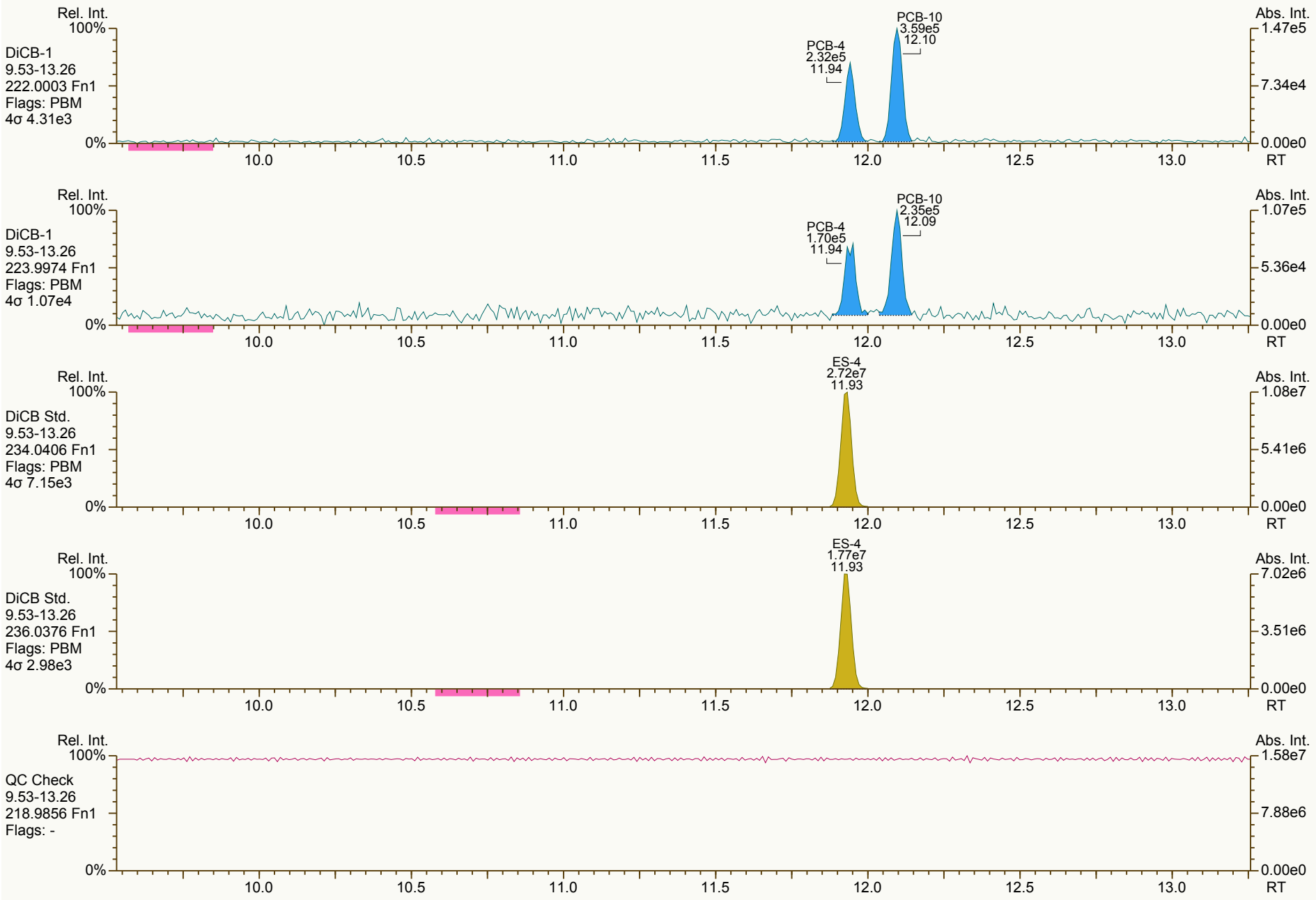
SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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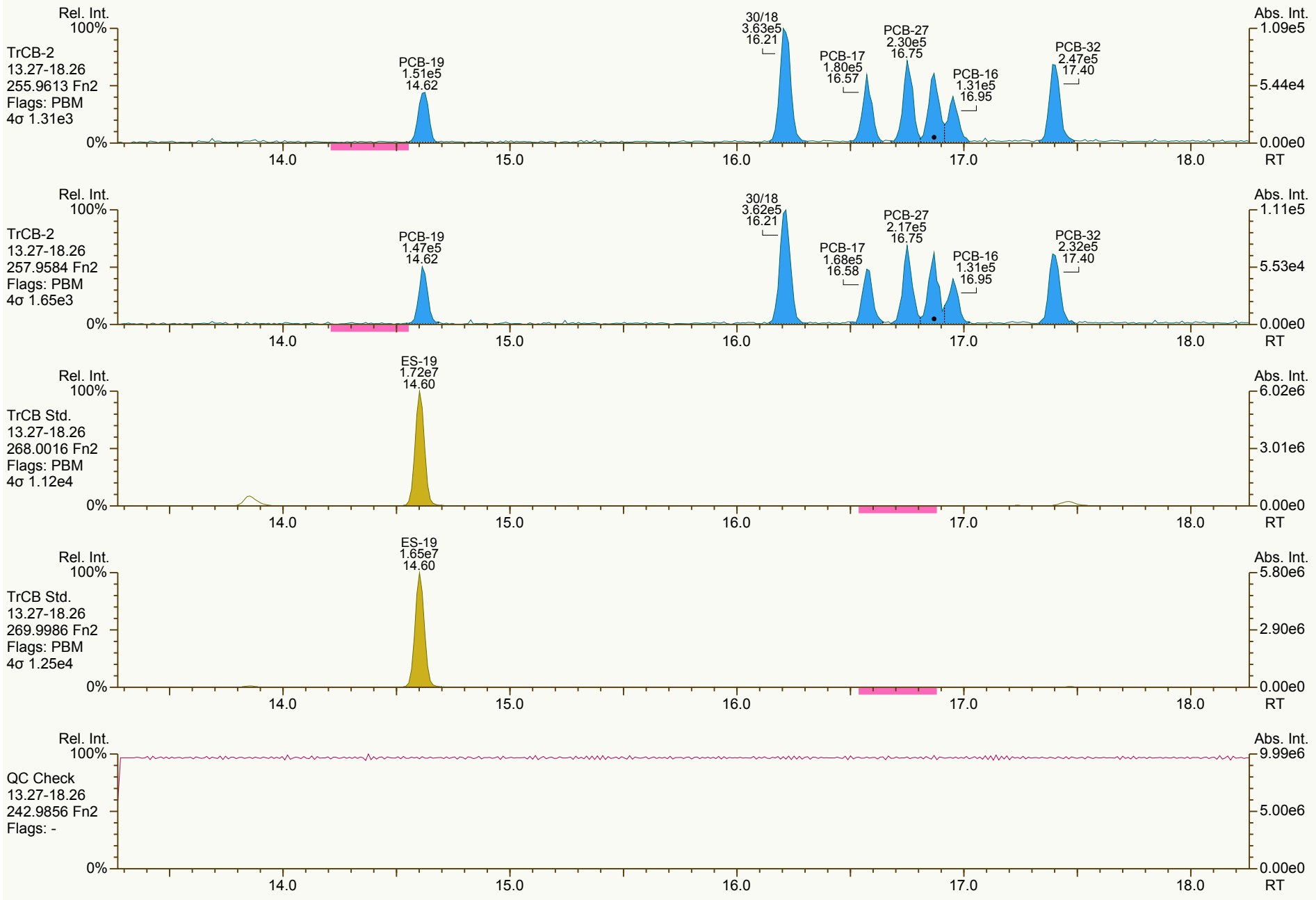
SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM)
Peak annotation: Areas, Centroids

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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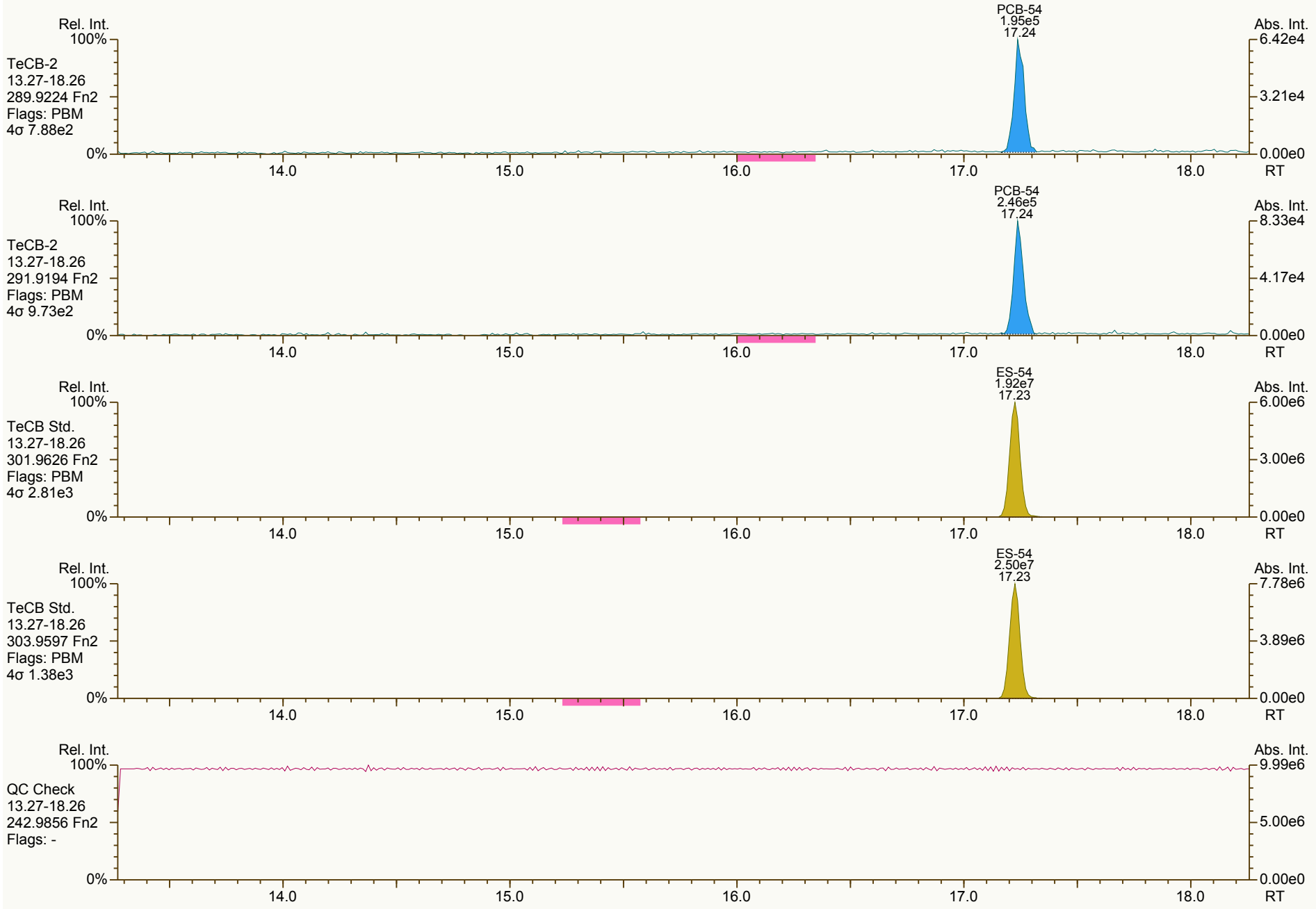
SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**

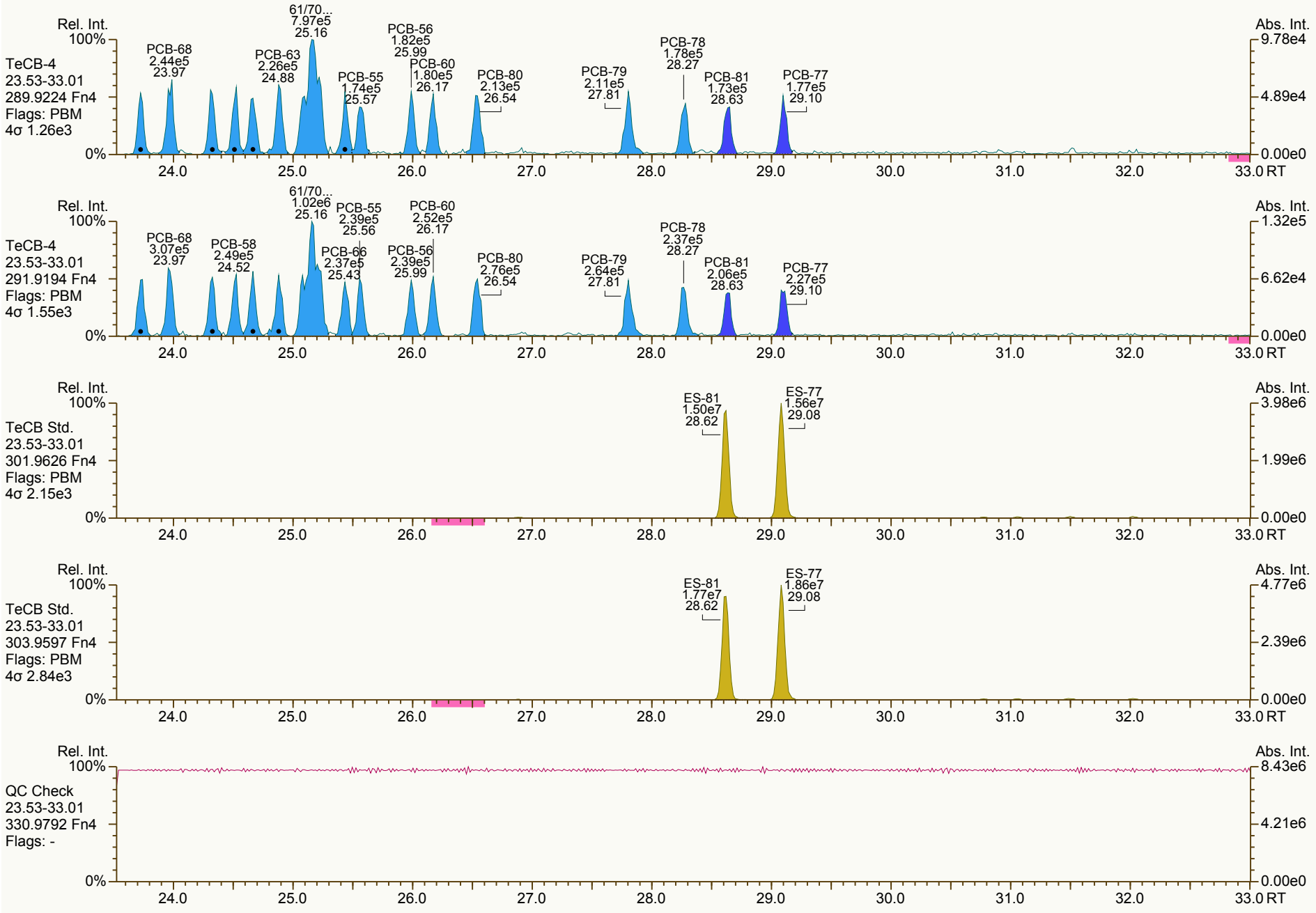


SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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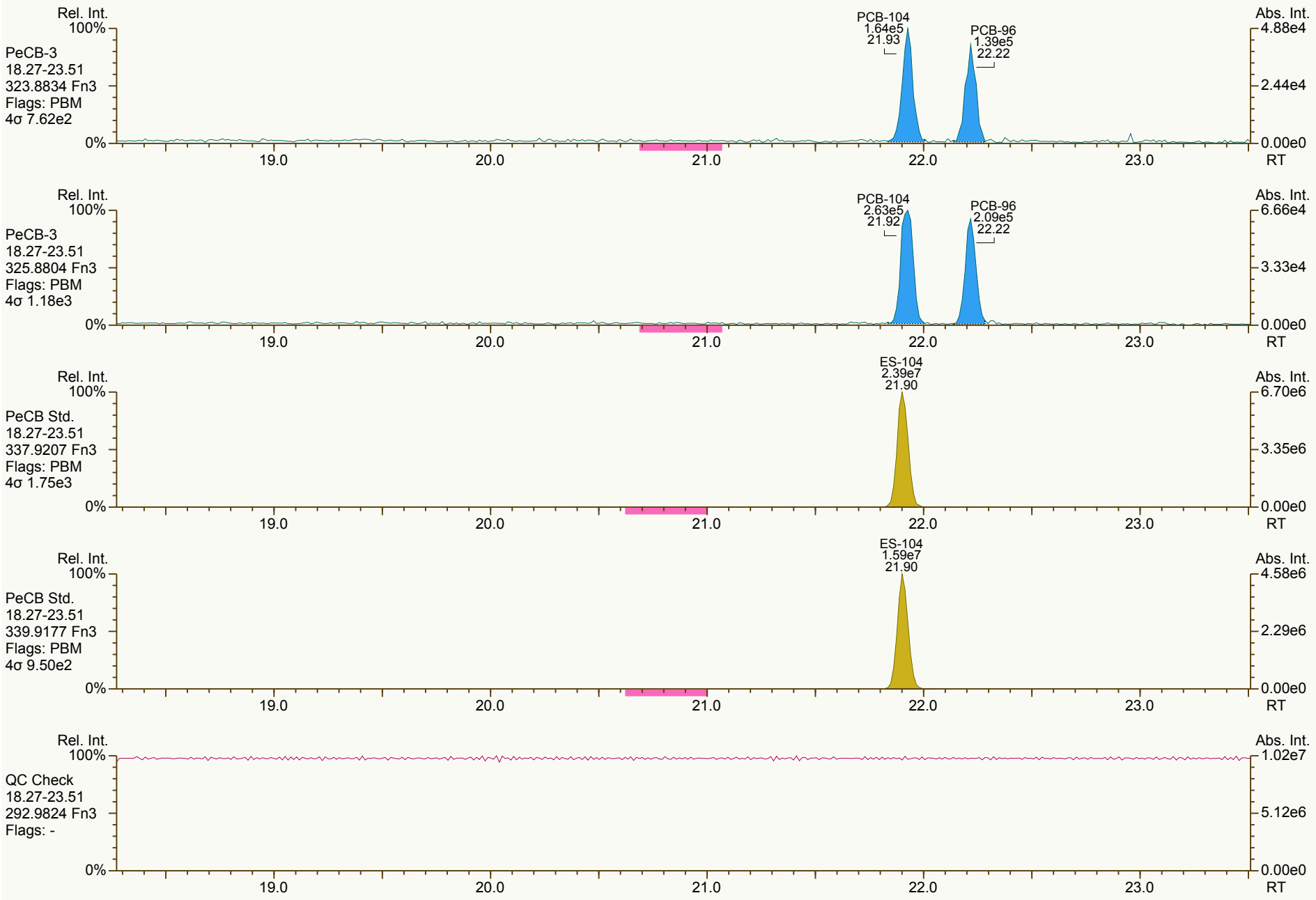
SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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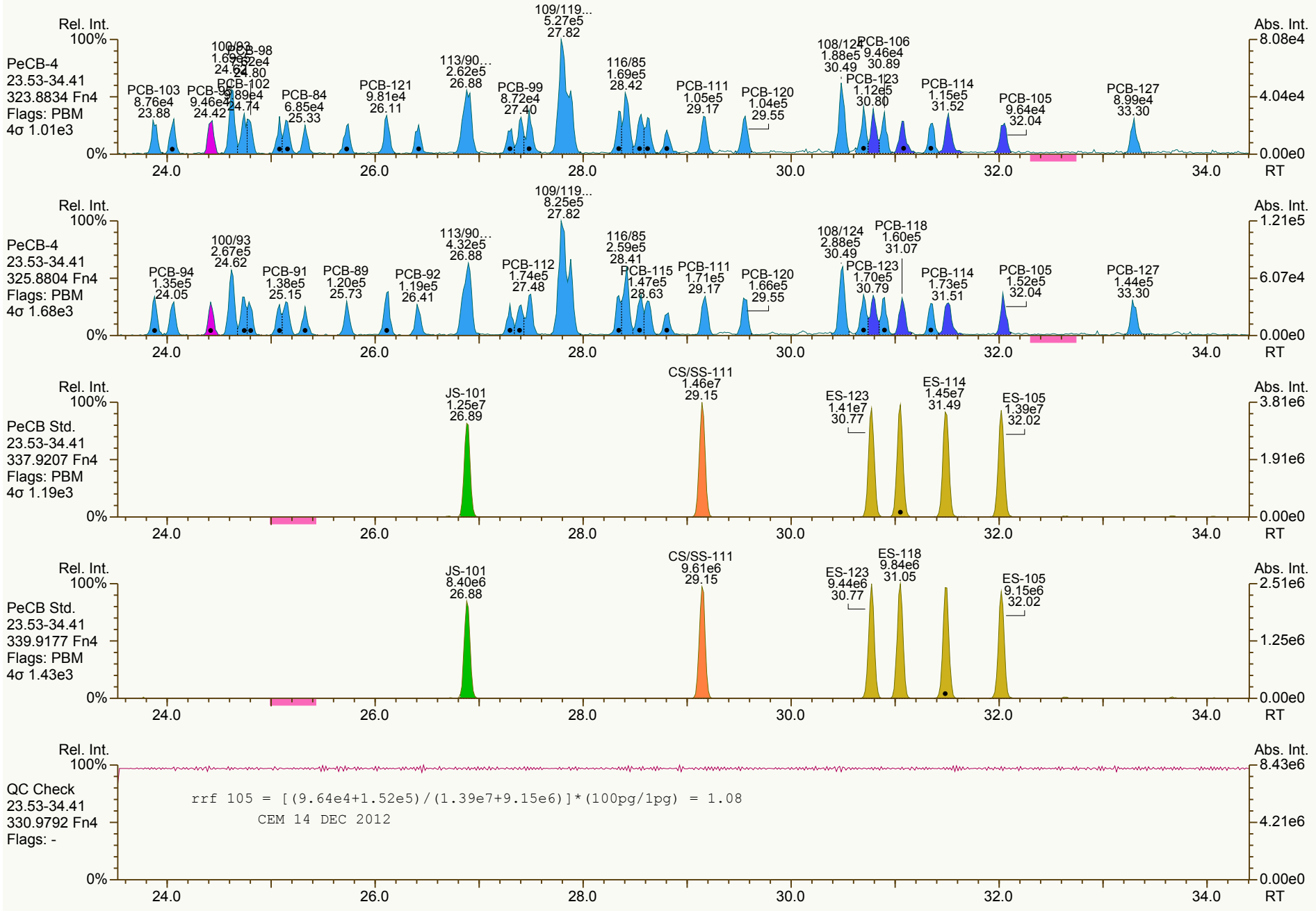
SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



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Peak annotation: Areas, Centroids

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



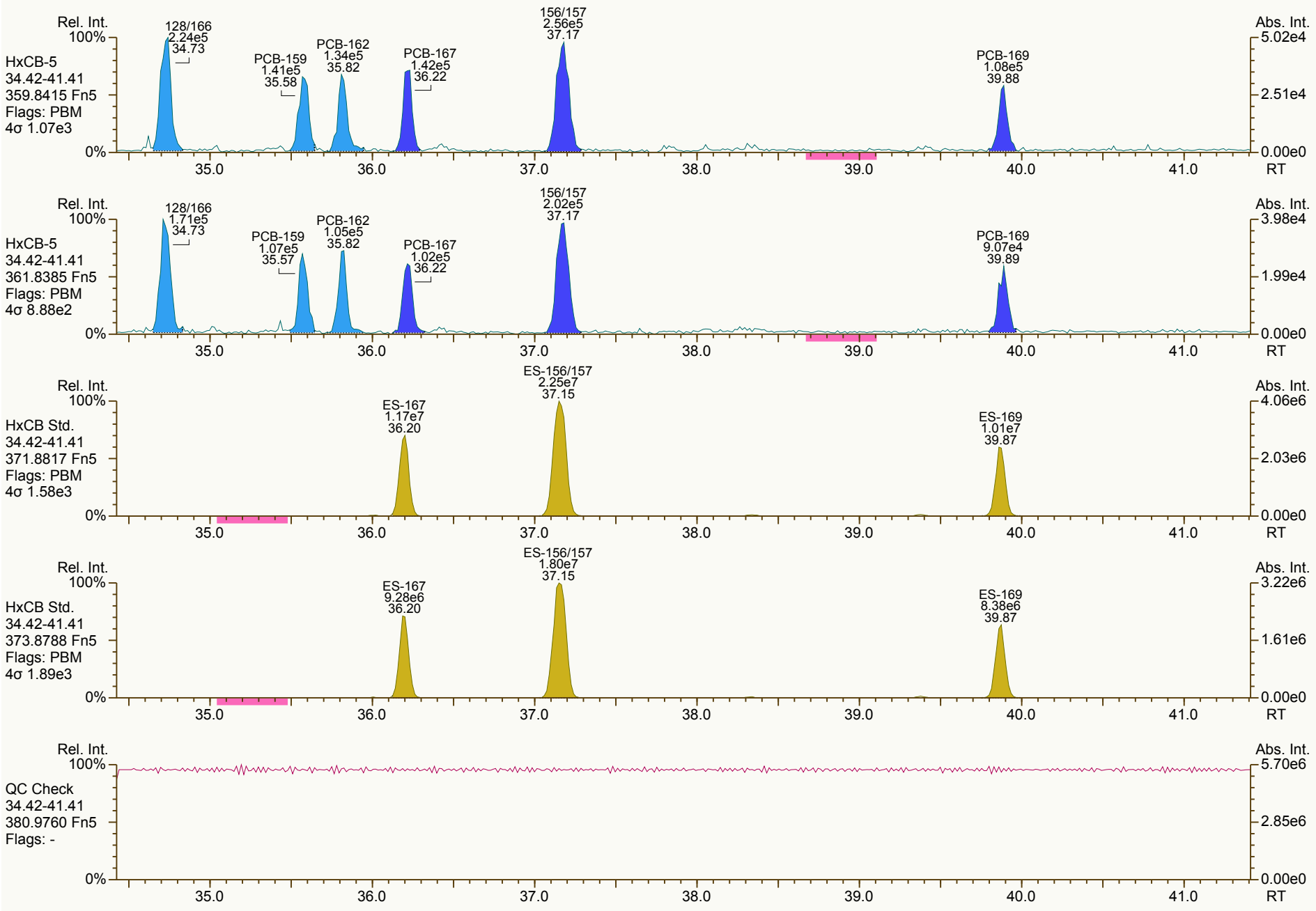
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA | Sample ID: SIL 12-65-5 | Acq: 14-Dec-2012 03:21:15
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11 | User: CEM Datafile: 121214V03 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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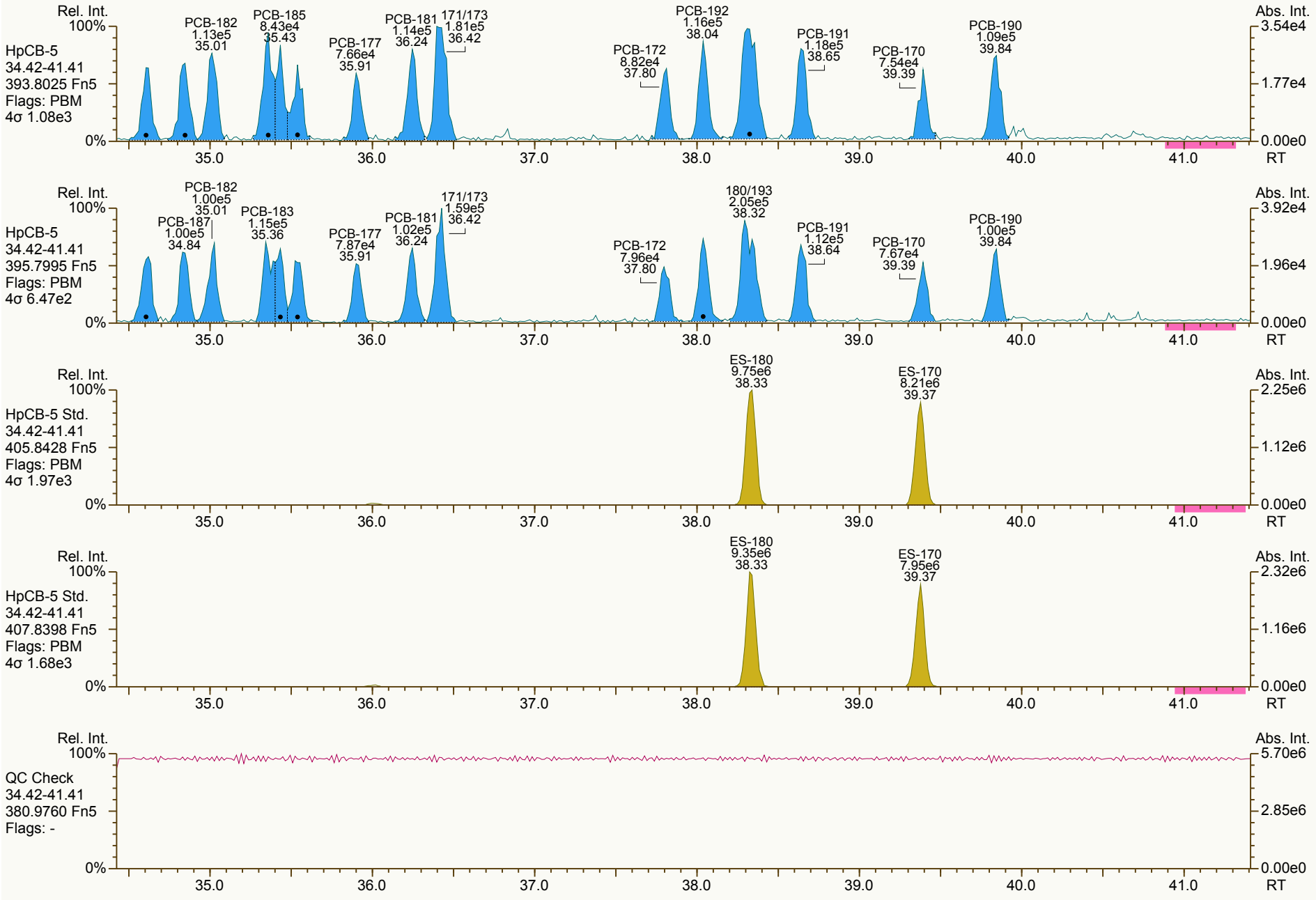
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 0550, 9062 scc: 461-132 *Revised: 14-Dec-2012 09:47 (CEM) Printed: 14-Dec-2012 11:20 Page 14 of 22*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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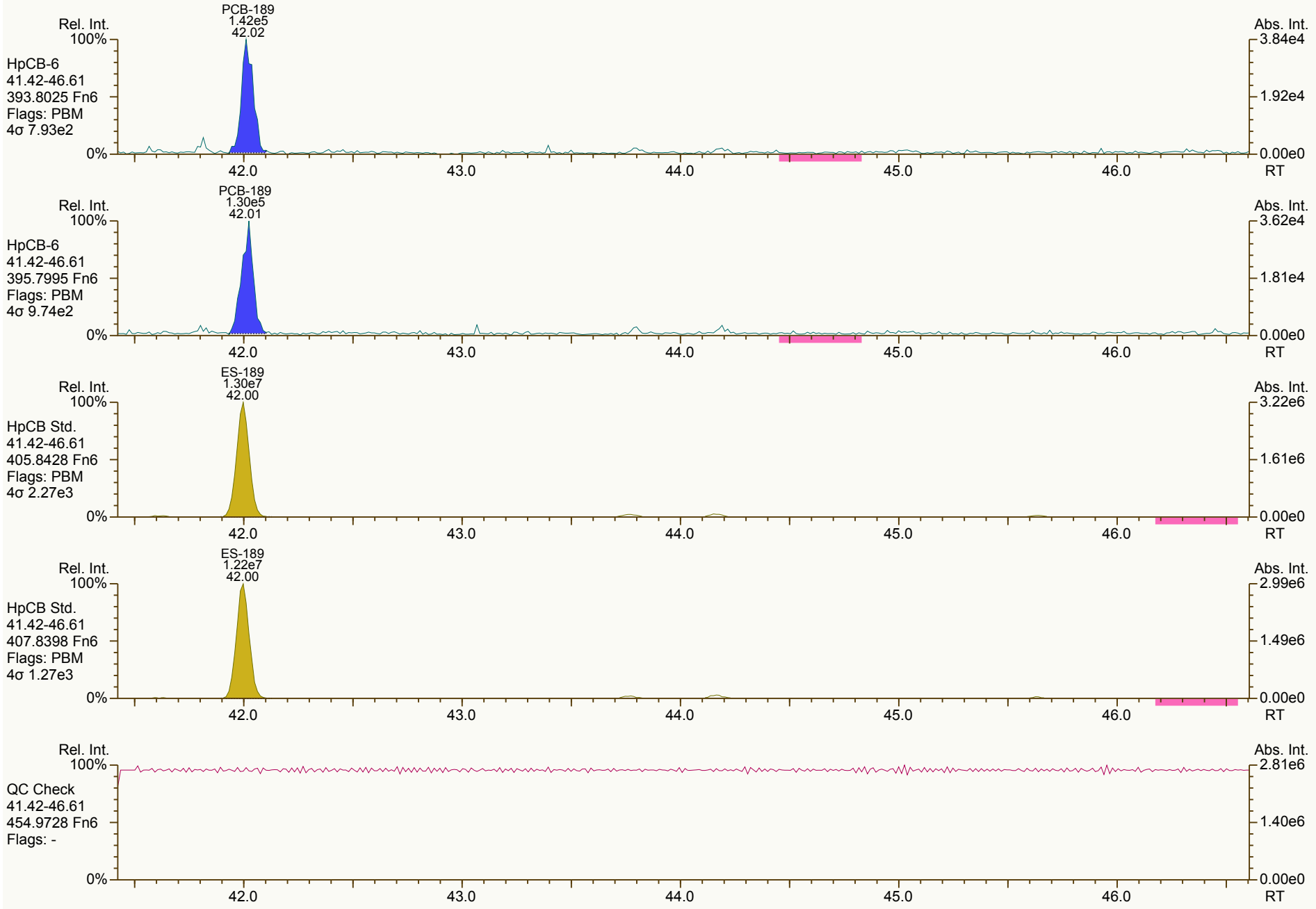
SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



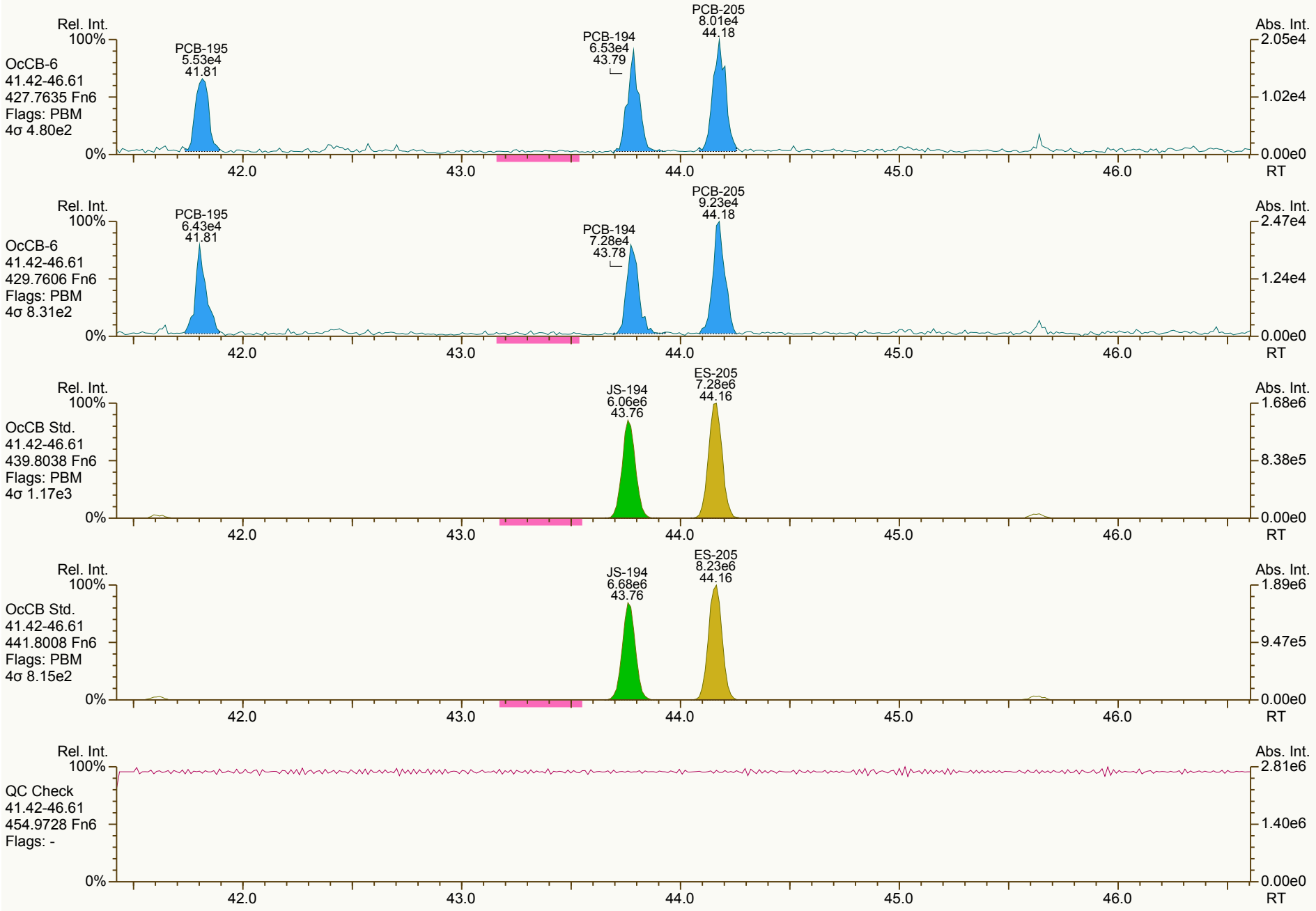
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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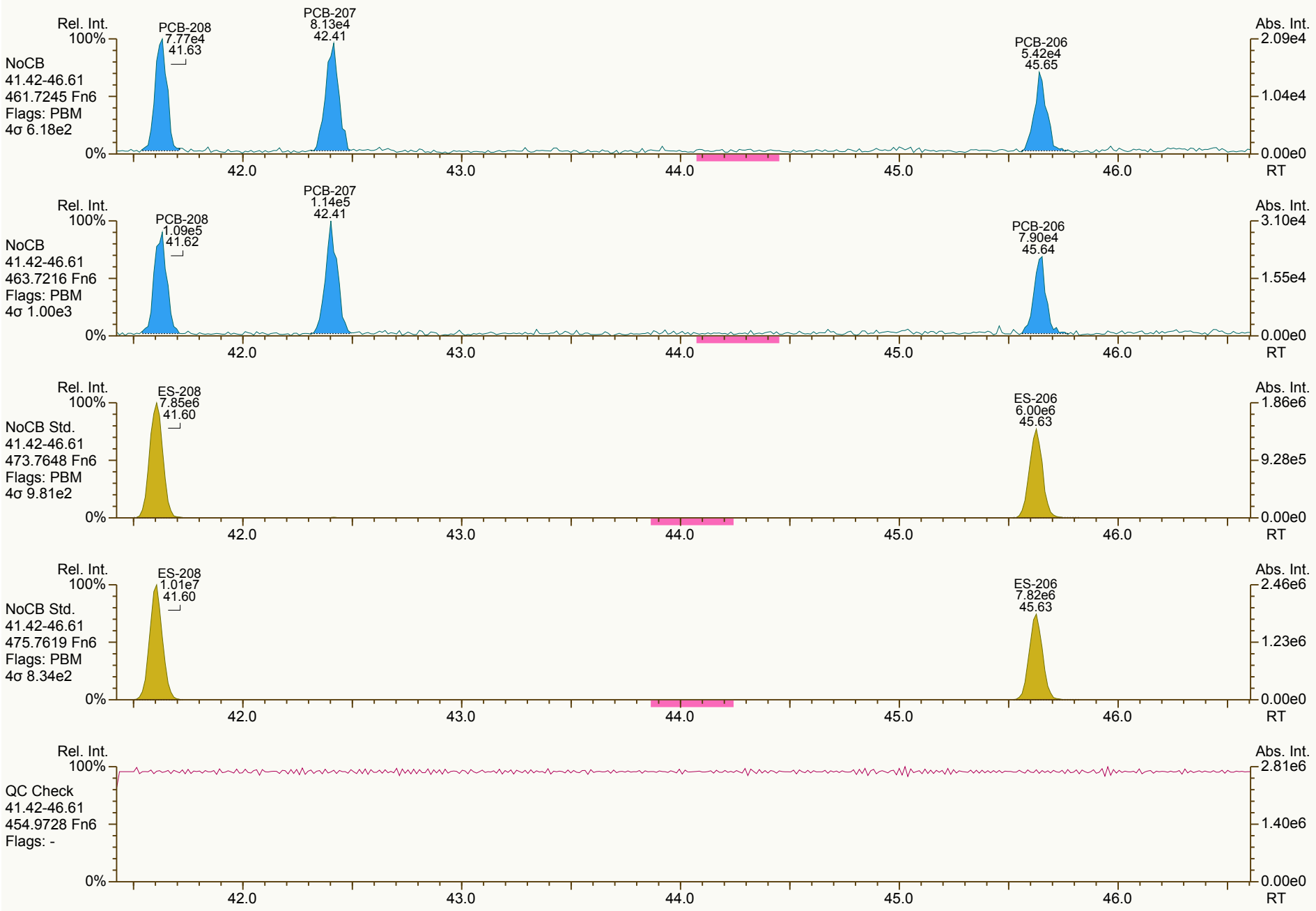
SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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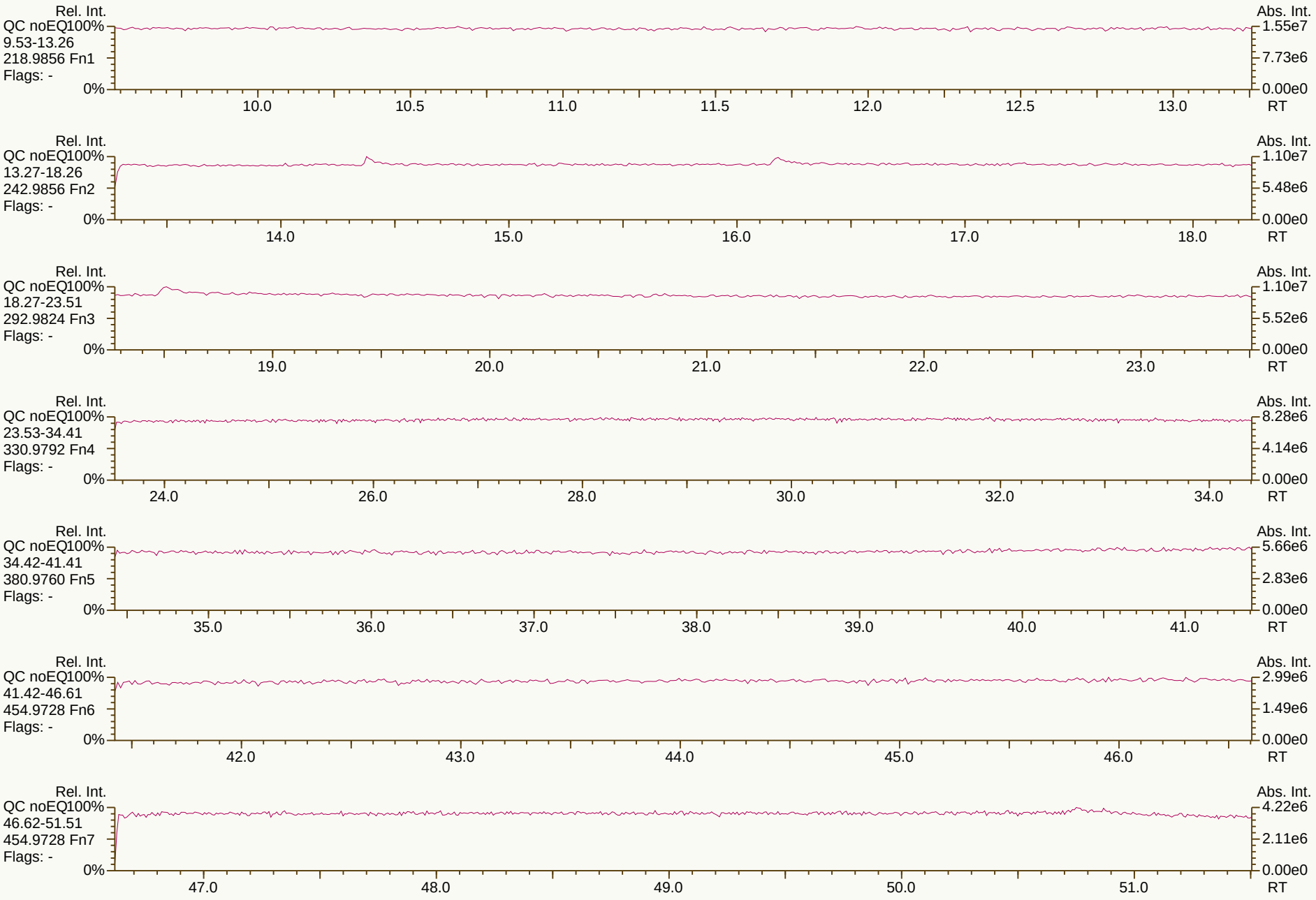
SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS1_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:29 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS1_121214_PCB_VA **Sample ID: SIL 12-65-5** **Acq: 14-Dec-2012 03:21:15**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 11** **User: CEM Datafile: 121214V03 (EQ)**



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PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:16
Lab ID:	CS2_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 04:15				
Datafile:	121214V04				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.11	1.97E+06	0.80 Y	1.25	1.20	-4.1%
PCB-81 344'5-TeCB	28.64	1.93E+06	0.79 Y	1.26	1.22	-3.0%
PCB-105 233'44'-PeCB	32.05	1.22E+06	0.63 Y	1.06	1.04	-1.2%
PCB-114 2344'5-PeCB	31.52	1.29E+06	0.62 Y	1.11	1.07	-3.7%
PCB-118 23'44'5-PeCB	31.08	1.27E+06	0.63 Y	1.08	1.05	-2.7%
PCB-123 23'44'5'-PeCB	30.80	1.22E+06	0.67 Y	1.12	1.04	-6.7%
PCB-126 33'44'5-PeCB	34.65	1.65E+06	0.59 Y	1.16	1.13	-2.3%
PCB-156/157 ...-HxCB	37.18	2.32E+06	1.26 Y	1.14	1.11	-2.3%
PCB-167 23'44'55'-HxCB	36.23	1.23E+06	1.23 Y	1.18	1.16	-1.9%
PCB-169 33'44'55'-HxCB	39.90	1.12E+06	1.19 Y	1.15	1.19	3.0%
PCB-189 233'44'55'-HpCB	42.03	1.43E+06	1.07 Y	1.12	1.10	-1.1%
PCB-209 DeCB	47.00	8.87E+05	1.19 Y	1.11	1.05	-5.4%
ES PCB-1	9.83	6.35E+07	3.27 Y	0.97	1.07	10.1%
ES PCB-3	11.73	5.68E+07	3.36 Y	0.90	0.95	6.1%
ES PCB-4	11.94	4.39E+07	1.54 Y	0.70	0.74	5.3%
ES PCB-15	16.99	5.44E+07	1.63 Y	1.02	0.91	-10.0%
ES PCB-19	14.61	3.07E+07	1.05 Y	0.53	0.52	-2.0%
ES PCB-37	22.94	3.57E+07	1.12 Y	1.29	1.30	0.2%
ES PCB-54	17.23	3.99E+07	0.79 Y	1.43	1.45	1.7%
ES PCB-77	29.09	3.30E+07	0.83 Y	1.20	1.20	-0.4%
ES PCB-81	28.63	3.17E+07	0.83 Y	1.16	1.15	-1.0%
ES PCB-104	21.91	3.49E+07	1.52 Y	1.70	1.73	1.3%
ES PCB-105	32.03	2.34E+07	1.46 Y	1.10	1.16	5.5%
ES PCB-114	31.50	2.40E+07	1.51 Y	1.16	1.19	2.8%
ES PCB-118	31.06	2.42E+07	1.50 Y	1.15	1.20	3.7%
ES PCB-123	30.78	2.34E+07	1.47 Y	1.14	1.16	1.4%
ES PCB-126	34.63	2.92E+07	1.63 Y	1.34	1.44	7.7%
ES PCB-153	32.64	2.42E+07	1.27 Y	1.14	1.16	1.3%
ES PCB-155	26.72	3.32E+07	1.27 Y	1.61	1.58	-1.8%
ES PCB-156/157	37.16	4.16E+07	1.27 Y	0.98	0.99	1.7%
ES PCB-167	36.20	2.13E+07	1.21 Y	1.01	1.02	0.6%
ES PCB-169	39.88	1.88E+07	1.27 Y	0.90	0.90	-0.1%
ES PCB-170	39.38	1.69E+07	1.04 Y	1.28	1.25	-2.4%
ES PCB-180	38.34	2.00E+07	1.05 Y	1.54	1.48	-3.6%
ES PCB-188	31.51	3.47E+07	1.04 Y	1.63	1.66	1.9%
ES PCB-189	42.01	2.60E+07	1.06 Y	1.97	1.92	-2.2%
ES PCB-202	36.01	2.69E+07	0.89 Y	1.26	1.28	1.8%
ES PCB-205	44.17	1.64E+07	0.90 Y	1.22	1.21	-0.7%
ES PCB-206	45.63	1.47E+07	0.78 Y	1.10	1.09	-1.2%
ES PCB-208	41.61	1.84E+07	0.76 Y	1.41	1.36	-3.4%
ES PCB-209	46.98	1.69E+07	1.16 Y	1.24	1.25	0.4%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.57	4.28E+07	1.10 Y	1.18	1.20	1.8%
SS PCB-111	29.15	2.38E+07	1.49 Y	1.01	1.02	1.2%
SS PCB-178	34.07	2.03E+07	1.02 Y	0.60	0.58	-2.9%
CS PCB-28	19.57	4.28E+07	1.10 Y	1.52	1.55	2.0%
CS PCB-111	29.15	2.38E+07	1.49 Y	1.15	1.18	2.6%
CS PCB-178	34.07	2.03E+07	1.02 Y	0.98	0.97	-1.1%
JS PCB-9	13.65	5.95E+07	1.65 Y	-	-	-
JS PCB-52	21.11	2.75E+07	0.76 Y	-	-	-
JS PCB-101	26.89	2.02E+07	1.48 Y	-	-	-
JS PCB-138	33.67	2.09E+07	1.31 Y	-	-	-
JS PCB-194	43.77	1.35E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	9.84	3.88E+06	3.07 Y	1.25	1.22	-2.1%
PCB-3 4-MoCB	11.74	3.53E+06	2.98 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.95	1.88E+06	1.56 Y	0.90	0.86	-4.7%
PCB-15 44'-DiCB	17.01	2.82E+06	1.54 Y	1.10	1.04	-5.2%
PCB-19 22'6-TrCB	14.63	1.42E+06	1.00 Y	0.95	0.92	-2.3%
PCB-37 344'-TrCB	22.96	2.48E+06	1.08 Y	1.39	1.39	-0.2%
PCB-54 22'66'-TeCB	17.25	2.03E+06	0.78 Y	1.05	1.02	-3.2%
PCB-104 22'466'-PeCB	21.93	1.86E+06	0.64 Y	1.12	1.07	-4.4%
PCB-153/168 ...-HxCB	32.68	2.99E+06	1.26 Y	1.24	1.23	-0.3%
PCB-155 22'44'66'-HxCB	26.74	1.81E+06	1.19 Y	1.09	1.09	0.2%
PCB-170 22'33'44'5-HpCB	39.40	8.38E+05	1.03 Y	0.99	0.99	-0.3%
PCB-180/193 ...-HpCB	38.33	2.10E+06	1.02 Y	1.07	1.05	-2.0%
PCB-188 22'34'566'-HpCB	31.53	1.64E+06	1.10 Y	0.98	0.95	-3.5%
PCB-202 22'33'55'66'-OcCB	36.03	1.13E+06	0.88 Y	0.86	0.84	-2.9%
PCB-205 233'44'55'6-OcCB	44.19	8.63E+05	0.87 Y	1.13	1.05	-7.2%
PCB-208 22'33'455'66'-NoCB	41.63	9.34E+05	0.77 Y	1.03	1.02	-1.7%
PCB-206 22'33'44'55'6-NoCB	45.65	6.98E+05	0.76 Y	0.97	0.95	-2.0%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.84	3.88E+06	3.07 Y	1.25	1.22	-2.1%
PCB-2 3-MoCB	11.59	3.65E+06	3.16 Y	1.28	1.29	0.6%
PCB-3 4-MoCB	11.74	3.53E+06	2.98 Y	1.27	1.24	-1.8%
PCB-4 22'-DiCB	11.95	1.88E+06	1.56 Y	0.90	0.86	-4.7%
PCB-10 26-DiCB	12.10	2.93E+06	1.55 Y	1.38	1.33	-3.2%
PCB-9 25-DiCB	13.67	2.95E+06	1.48 Y	0.99	1.08	9.7%
PCB-7 24-DiCB	13.81	2.97E+06	1.49 Y	1.10	1.09	-0.8%
PCB-6 23'-DiCB	14.01	3.02E+06	1.48 Y	1.04	1.11	7.0%
PCB-5 23-DiCB	14.27	2.91E+06	1.51 Y	1.02	1.07	4.7%
PCB-8 24'-DiCB	14.38	3.06E+06	1.55 Y	1.03	1.13	9.1%
PCB-14 35-DiCB	15.78	3.32E+06	1.54 Y	1.20	1.22	1.7%
PCB-11 33'-DiCB	16.48	2.88E+06	1.51 Y	1.03	1.06	3.3%
PCB-13/12 34'/34-DiCB	16.75	5.75E+06	1.54 Y	1.03	1.06	2.4%
PCB-15 44'-DiCB	17.01	2.82E+06	1.54 Y	1.10	1.04	-5.2%
PCB-19 22'6-TrCB	14.63	1.42E+06	1.00 Y	0.95	0.92	-2.3%
PCB-30/18 246/22'5-TrCB	16.22	3.58E+06	1.03 Y	1.23	1.17	-5.3%
PCB-17 22'4-TrCB	16.58	1.54E+06	1.06 Y	1.05	1.00	-5.1%
PCB-27 23'6-TrCB	16.76	2.03E+06	1.01 Y	1.46	1.32	-9.6%
PCB-24 236-TrCB	16.88	1.95E+06	1.02 Y	1.32	1.27	-3.6%
PCB-16 22'3-TrCB	16.96	1.08E+06	1.03 Y	0.81	0.70	-13.1%
PCB-32 24'6-TrCB	17.41	2.13E+06	1.06 Y	1.48	1.39	-5.9%
PCB-34 23'5'-TrCB	18.49	2.67E+06	1.08 Y	1.46	1.49	2.2%
PCB-23 235-TrCB	18.62	2.66E+06	1.07 Y	1.50	1.49	-1.1%
PCB-26/29 23'5/245-TrCB	18.89	5.31E+06	1.08 Y	1.53	1.49	-2.7%
PCB-25 23'4-TrCB	19.08	2.72E+06	1.03 Y	1.53	1.52	-0.9%
PCB-31 24'5-TrCB	19.34	2.73E+06	1.07 Y	1.55	1.53	-1.3%
PCB-28/20 244'/233'-TrCB	19.60	5.32E+06	1.05 Y	1.51	1.49	-1.0%
PCB-21/33 234/23'4'-TrCB	19.76	5.39E+06	1.05 Y	1.55	1.51	-2.4%
PCB-22 234'-TrCB	20.11	2.52E+06	1.04 Y	1.40	1.41	0.8%
PCB-36 33'5-TrCB	21.44	2.66E+06	1.04 Y	1.52	1.49	-1.9%
PCB-39 34'5-TrCB	21.74	2.69E+06	1.04 Y	1.58	1.50	-5.0%
PCB-38 345-TrCB	22.23	2.45E+06	1.08 Y	1.47	1.37	-6.4%
PCB-35 33'4-TrCB	22.61	2.34E+06	1.12 Y	1.33	1.31	-1.6%
PCB-37 344'-TrCB	22.96	2.48E+06	1.08 Y	1.39	1.39	-0.2%
PCB-54 22'66'-TeCB	17.25	2.03E+06	0.78 Y	1.05	1.02	-3.2%
PCB-50/53 22'46/22'56'-TeCB	19.12	2.75E+06	0.77 Y	0.88	0.87	-1.1%
PCB-45 22'36-TeCB	19.65	1.13E+06	0.80 Y	0.73	0.71	-3.1%
PCB-51 22'46'-TeCB	19.73	1.45E+06	0.79 Y	0.94	0.92	-2.4%
PCB-46 22'36'-TeCB	19.92	1.11E+06	0.78 Y	0.72	0.70	-2.4%
PCB-52 22'55'-TeCB	21.14	1.30E+06	0.81 Y	0.82	0.82	-0.4%
PCB-73 23'5'6-TeCB	21.26	1.78E+06	0.75 Y	1.10	1.13	2.5%
PCB-43 22'35-TeCB	21.34	1.03E+06	0.76 Y	0.70	0.65	-7.5%
PCB-69/49 23'46/22'45'-TeCB	21.53	3.08E+06	0.75 Y	1.01	0.97	-3.5%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.79	1.29E+06	0.74 Y	0.84	0.81	-3.6%
PCB-44/47/65 ...-TeCB	21.99	4.09E+06	0.78 Y	0.90	0.86	-4.4%
PCB-59/62/75 ...-TeCB	22.26	5.23E+06	0.78 Y	1.15	1.10	-4.5%
PCB-42 22'34'-TeCB	22.41	1.18E+06	0.82 Y	0.76	0.75	-2.3%
PCB-41 22'34-TeCB	22.72	1.03E+06	0.77 Y	0.64	0.65	1.4%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	2.57E+06	0.77 Y	0.83	0.81	-2.5%
PCB-64 234'6-TeCB	23.02	1.82E+06	0.77 Y	1.17	1.15	-2.0%
PCB-72 23'55'-TeCB	23.74	2.16E+06	0.79 Y	1.37	1.37	-0.1%
PCB-68 23'45'-TeCB	23.98	2.28E+06	0.78 Y	1.52	1.44	-5.2%
PCB-57 233'5-TeCB	24.33	2.02E+06	0.75 Y	1.32	1.27	-3.7%
PCB-58 233'5'-TeCB	24.52	2.06E+06	0.79 Y	1.34	1.30	-2.9%
PCB-67 23'45-TeCB	24.67	2.23E+06	0.77 Y	1.41	1.41	-0.1%
PCB-63 234'5-TeCB	24.89	2.25E+06	0.80 Y	1.46	1.42	-2.6%
PCB-61/70/74/76 ...-TeCB	25.17	8.27E+06	0.77 Y	1.37	1.31	-4.3%
PCB-66 23'44'-TeCB	25.44	1.94E+06	0.74 Y	1.24	1.23	-1.0%
PCB-55 233'4-TeCB	25.57	2.02E+06	0.74 Y	1.28	1.27	-0.3%
PCB-56 233'4'-TeCB	26.00	1.87E+06	0.80 Y	1.23	1.18	-3.9%
PCB-60 2344'-TeCB	26.18	1.96E+06	0.74 Y	1.30	1.24	-4.7%
PCB-80 33'55'-TeCB	26.54	2.28E+06	0.78 Y	1.44	1.44	0.6%
PCB-79 33'45'-TeCB	27.81	2.19E+06	0.77 Y	1.48	1.38	-6.3%
PCB-78 33'45-TeCB	28.28	1.84E+06	0.75 Y	1.21	1.16	-3.9%
PCB-104 22'466'-PeCB	21.93	1.86E+06	0.64 Y	1.12	1.07	-4.4%
PCB-96 22'366'-PeCB	22.23	1.58E+06	0.64 Y	0.96	0.91	-6.0%
PCB-103 22'45'6-PeCB	23.89	1.07E+06	0.60 Y	0.93	0.91	-2.2%
PCB-94 22'356'-PeCB	24.06	9.29E+05	0.64 Y	0.81	0.79	-1.8%
PCB-95 22'35'6-PeCB	24.43	9.87E+05	0.61 Y	0.85	0.84	-0.6%
PCB-100/93 22'44'6/22'356-PeCB	24.63	2.01E+06	0.64 Y	0.88	0.86	-2.6%
PCB-102 22'456'-PeCB	24.74	1.01E+06	0.65 Y	0.93	0.87	-7.1%
PCB-98 22'34'6'-PeCB	24.80	9.43E+05	0.64 Y	0.84	0.81	-3.8%
PCB-88 22'346-PeCB	25.08	8.12E+05	0.59 Y	0.77	0.69	-10.0%
PCB-91 22'34'6-PeCB	25.15	1.15E+06	0.64 Y	0.96	0.98	2.3%
PCB-84 22'33'6-PeCB	25.34	8.41E+05	0.63 Y	0.72	0.72	-0.3%
PCB-89 22'346'-PeCB	25.74	8.70E+05	0.59 Y	0.77	0.74	-3.6%
PCB-121 23'45'6-PeCB	26.12	1.36E+06	0.60 Y	1.15	1.16	1.3%
PCB-92 22'355'-PeCB	26.43	9.50E+05	0.64 Y	0.79	0.81	2.5%
PCB-113/90/101 ...-PeCB	26.89	3.19E+06	0.63 Y	0.95	0.91	-4.7%
PCB-83 22'33'5-PeCB	27.30	8.20E+05	0.59 Y	0.72	0.70	-2.5%
PCB-99 22'44'5-PeCB	27.41	1.03E+06	0.60 Y	0.90	0.88	-2.0%
PCB-112 233'56-PeCB	27.50	1.24E+06	0.65 Y	1.09	1.06	-3.4%
PCB-109/119/86/97/125...-PeCB	27.83	6.46E+06	0.63 Y	0.95	0.92	-2.8%
PCB-117 234'56-PeCB	28.35	1.07E+06	0.64 Y	0.99	0.92	-7.3%
PCB-116/85 23456/22'344'-PeCB	28.42	2.30E+06	0.62 Y	0.96	0.98	2.3%
PCB-110 233'4'6-PeCB	28.55	1.16E+06	0.63 Y	1.01	0.99	-1.9%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:16

Lab ID: CS2_121214_PCB_VA
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.35E+06	0.63 Y	1.15	1.16	0.4%
PCB-82 22'33'4-PeCB	28.82	7.66E+05	0.61 Y	0.70	0.66	-6.1%
PCB-111 233'55'-PeCB	29.19	1.43E+06	0.65 Y	1.16	1.23	5.3%
PCB-120 23'455'-PeCB	29.56	1.35E+06	0.64 Y	1.14	1.15	1.5%
PCB-108/124 ...-PeCB	30.50	2.37E+06	0.66 Y	1.02	1.01	-0.4%
PCB-107 233'4'5-PeCB	30.70	1.36E+06	0.63 Y	1.13	1.16	2.5%
PCB-106 233'45-PeCB	30.90	1.19E+06	0.64 Y	1.01	1.02	0.6%
PCB-122 233'4'5'-PeCB	31.36	1.10E+06	0.63 Y	0.91	0.92	0.9%
PCB-127 33'455'-PeCB	33.31	1.23E+06	0.59 Y	1.06	1.05	-0.8%
PCB-155 22'44'66'-HxCB	26.74	1.81E+06	1.19 Y	1.09	1.09	0.2%
PCB-152 22'3566'-HxCB	26.87	1.69E+06	1.25 Y	1.04	1.02	-2.4%
PCB-150 22'34'66'-HxCB	27.02	1.73E+06	1.22 Y	1.03	1.04	1.2%
PCB-136 22'33'66'-HxCB	27.31	1.52E+06	1.26 Y	0.97	0.92	-5.8%
PCB-145 22'3466'-HxCB	27.57	1.63E+06	1.27 Y	0.96	0.98	1.9%
PCB-148 22'34'56'-HxCB	28.86	1.21E+06	1.22 Y	1.03	1.00	-3.4%
PCB-151/135 ...-HxCB	29.36	2.33E+06	1.25 Y	0.99	0.96	-3.2%
PCB-154 22'44'56'-HxCB	29.57	1.36E+06	1.26 Y	1.17	1.12	-4.6%
PCB-144 22'345'6-HxCB	29.82	1.21E+06	1.31 Y	1.03	1.00	-2.6%
PCB-147/149 ...-HxCB	30.12	2.39E+06	1.25 Y	1.02	0.98	-3.2%
PCB-134 22'33'56-HxCB	30.27	8.98E+05	1.23 Y	0.80	0.74	-7.3%
PCB-143 22'3456'-HxCB	30.36	1.17E+06	1.28 Y	0.95	0.97	1.9%
PCB-139/140 ...-HxCB	30.62	2.44E+06	1.20 Y	1.05	1.01	-4.1%
PCB-131 22'33'46-HxCB	30.78	1.05E+06	1.26 Y	0.90	0.87	-2.9%
PCB-142 22'3456-HxCB	30.91	1.06E+06	1.27 Y	0.93	0.88	-5.2%
PCB-132 22'33'46'-HxCB	31.16	1.09E+06	1.27 Y	0.93	0.90	-2.8%
PCB-133 22'33'55'-HxCB	31.60	1.16E+06	1.20 Y	0.97	0.95	-1.4%
PCB-165 233'55'6-HxCB	31.94	1.39E+06	1.32 Y	1.16	1.14	-1.5%
PCB-146 22'34'55'-HxCB	32.15	1.22E+06	1.21 Y	1.01	1.01	0.0%
PCB-161 233'45'6-HxCB	32.26	1.55E+06	1.23 Y	1.29	1.28	-1.3%
PCB-153/168 ...-HxCB	32.68	2.99E+06	1.26 Y	1.24	1.23	-0.3%
PCB-141 22'3455'-HxCB	32.81	1.14E+06	1.23 Y	0.95	0.94	-1.0%
PCB-130 22'33'45'-HxCB	33.15	9.82E+05	1.34 Y	0.82	0.81	-1.5%
PCB-137 22'344'5-HxCB	33.35	1.26E+06	1.21 Y	0.97	1.04	7.5%
PCB-164 233'4'5'6-HxCB	33.43	1.43E+06	1.29 Y	1.25	1.18	-5.3%
PCB-163/138/129 ...-HxCB	33.71	3.73E+06	1.25 Y	1.04	1.02	-1.6%
PCB-160 233'456-HxCB	33.83	1.35E+06	1.28 Y	1.19	1.12	-6.4%
PCB-158 233'44'6-HxCB	34.03	1.56E+06	1.24 Y	1.34	1.28	-4.1%
PCB-128/166 ...-HxCB	34.74	2.03E+06	1.23 Y	0.96	0.95	-0.8%
PCB-159 233'455'-HxCB	35.59	1.18E+06	1.30 Y	1.12	1.10	-1.6%
PCB-162 233'4'55'-HxCB	35.83	1.19E+06	1.26 Y	1.13	1.12	-0.8%
PCB-188 22'34'566'-HpCB	31.53	1.64E+06	1.10 Y	0.98	0.95	-3.5%
PCB-179 22'33'566'-HpCB	31.80	1.54E+06	1.03 Y	0.90	0.89	-0.7%
PCB-184 22'344'66'-HpCB	32.26	1.49E+06	1.02 Y	0.86	0.86	-0.9%

PCB QC Summary - Ax2 Detail **Printed: 14-Dec-2012 11:16**

Lab ID: CS2_121214_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14-DEC-2012 04:15
Datafile: 121214V04

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.54	1.62E+06	1.05 Y	0.97	0.93	-3.7%
PCB-186 22'34566'-HpCB	32.92	1.55E+06	0.98 Y	0.93	0.90	-3.3%
PCB-178 22'33'55'6-HpCB	34.09	1.12E+06	1.05 Y	0.66	0.64	-2.8%
PCB-175 22'33'45'6-HpCB	34.62	9.86E+05	1.02 Y	1.02	0.98	-3.9%
PCB-187 22'34'55'6-HpCB	34.85	1.04E+06	1.08 Y	1.03	1.04	0.8%
PCB-182 22'344'56'-HpCB	35.02	1.06E+06	1.04 Y	1.10	1.05	-3.8%
PCB-183 22'344'5'6-HpCB	35.36	1.12E+06	1.03 Y	1.12	1.12	-0.3%
PCB-185 22'3455'6-HpCB	35.44	8.84E+05	1.07 Y	0.97	0.88	-8.9%
PCB-174 22'33'456'-HpCB	35.55	8.62E+05	1.05 Y	0.90	0.86	-3.9%
PCB-177 22'33'45'6'-HpCB	35.92	8.30E+05	0.98 Y	0.87	0.83	-5.0%
PCB-181 22'344'56-HpCB	36.25	9.91E+05	1.02 Y	1.03	0.99	-4.4%
PCB-171/173 ...-HpCB	36.43	1.70E+06	1.07 Y	0.89	0.85	-4.0%
PCB-172 22'33'455'-HpCB	37.81	8.70E+05	1.04 Y	0.87	0.87	-0.5%
PCB-192 233'455'6-HpCB	38.05	1.14E+06	1.07 Y	1.16	1.14	-1.9%
PCB-180/193 ...-HpCB	38.33	2.10E+06	1.02 Y	1.07	1.05	-2.0%
PCB-191 233'44'5'6-HpCB	38.65	1.20E+06	1.04 Y	1.18	1.20	1.5%
PCB-170 22'33'44'5-HpCB	39.40	8.38E+05	1.03 Y	0.99	0.99	-0.3%
PCB-190 233'44'56-HpCB	39.85	1.11E+06	1.02 Y	1.36	1.31	-3.6%
PCB-202 22'33'55'66'-OcCB	36.03	1.13E+06	0.88 Y	0.86	0.84	-2.9%
PCB-201 22'33'45'66'-OcCB	36.81	1.22E+06	0.89 Y	0.95	0.91	-4.3%
PCB-204 22'344'566'-OcCB	37.38	1.20E+06	0.86 Y	0.90	0.89	-1.3%
PCB-197 22'33'44'66'-OcCB	37.56	1.15E+06	0.89 Y	0.96	0.86	-10.8%
PCB-200 22'33'4566'-OcCB	37.64	1.19E+06	0.84 Y	0.88	0.89	0.6%
PCB-198/199 ...-OcCB	39.99	1.64E+06	0.89 Y	0.63	0.61	-3.3%
PCB-196 22'33'44'56'-OcCB	40.56	8.68E+05	0.93 Y	0.66	0.65	-2.4%
PCB-203 22'344'55'6-OcCB	40.72	9.02E+05	0.86 Y	0.69	0.67	-3.5%
PCB-195 22'33'44'56-OcCB	41.82	6.47E+05	0.90 Y	0.82	0.79	-4.4%
PCB-194 22'33'44'55'-OcCB	43.79	7.04E+05	0.87 Y	0.90	0.86	-4.8%
PCB-205 233'44'55'6-OcCB	44.19	8.63E+05	0.87 Y	1.13	1.05	-7.2%
PCB-208 22'33'455'66'-NoCB	41.63	9.34E+05	0.77 Y	1.03	1.02	-1.7%
PCB-207 22'33'44'566'-NoCB	42.42	9.83E+05	0.79 Y	1.07	1.07	0.1%
PCB-206 22'33'44'55'6-NoCB	45.65	6.98E+05	0.76 Y	0.97	0.95	-2.0%

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



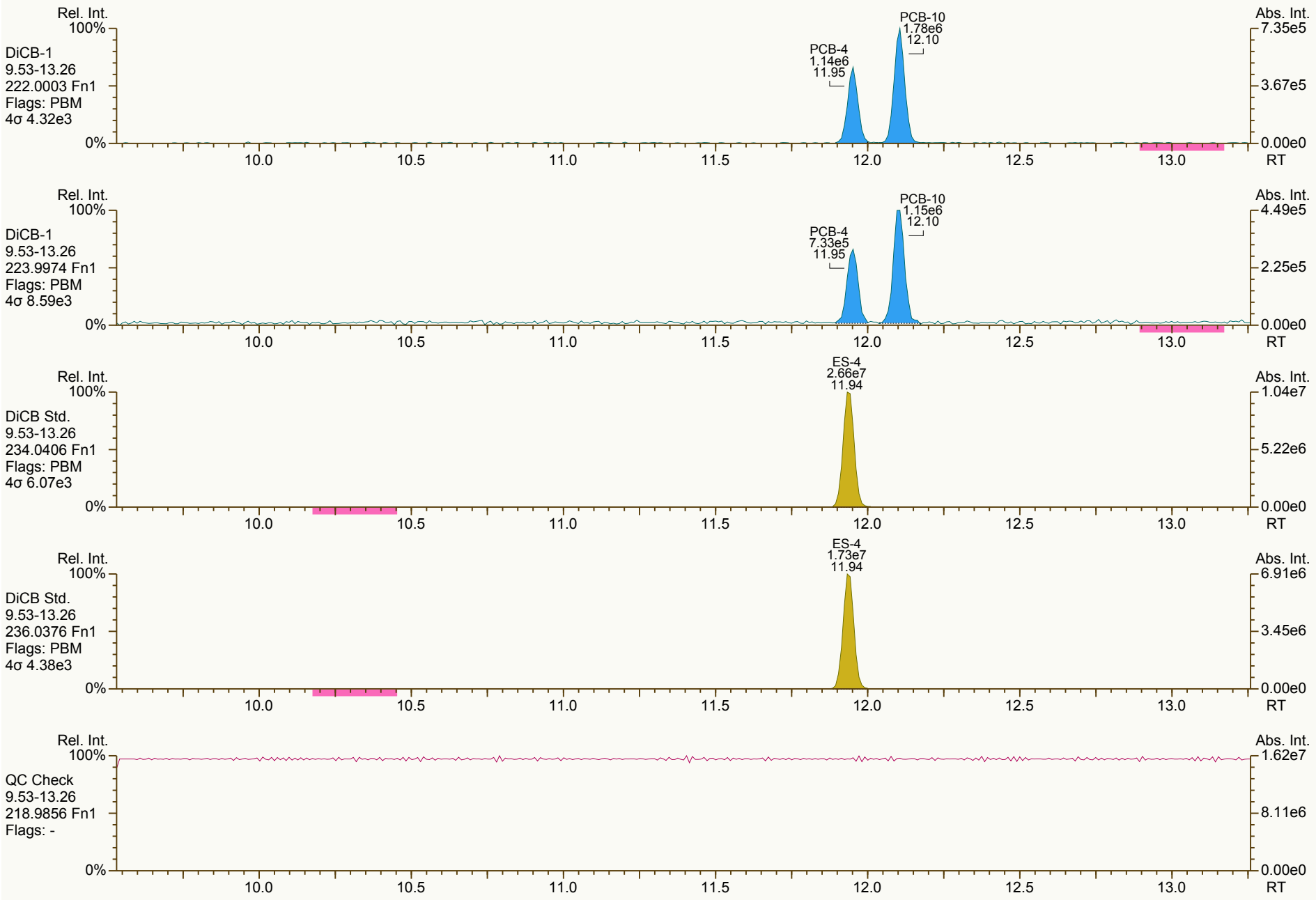
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**

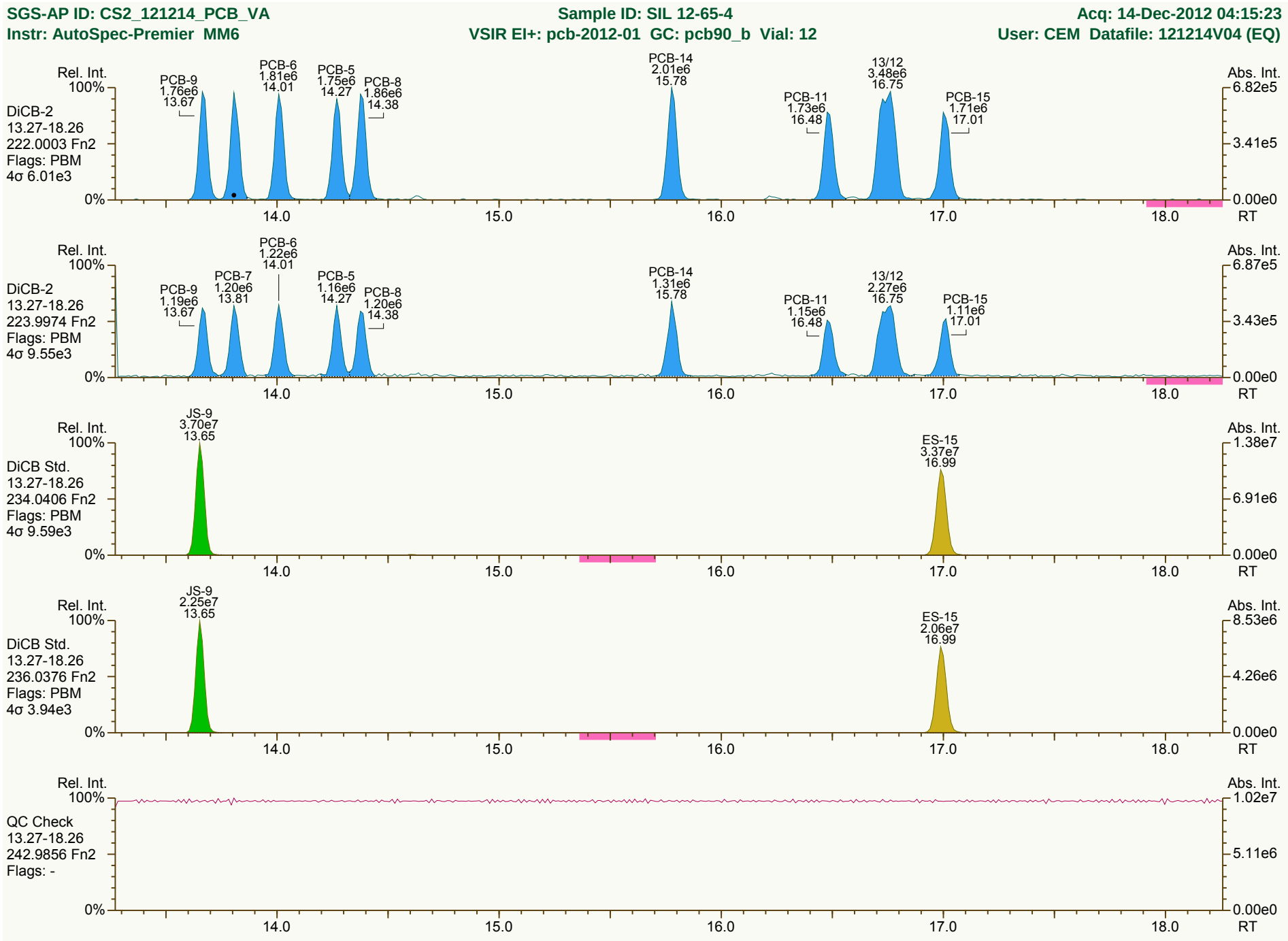


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



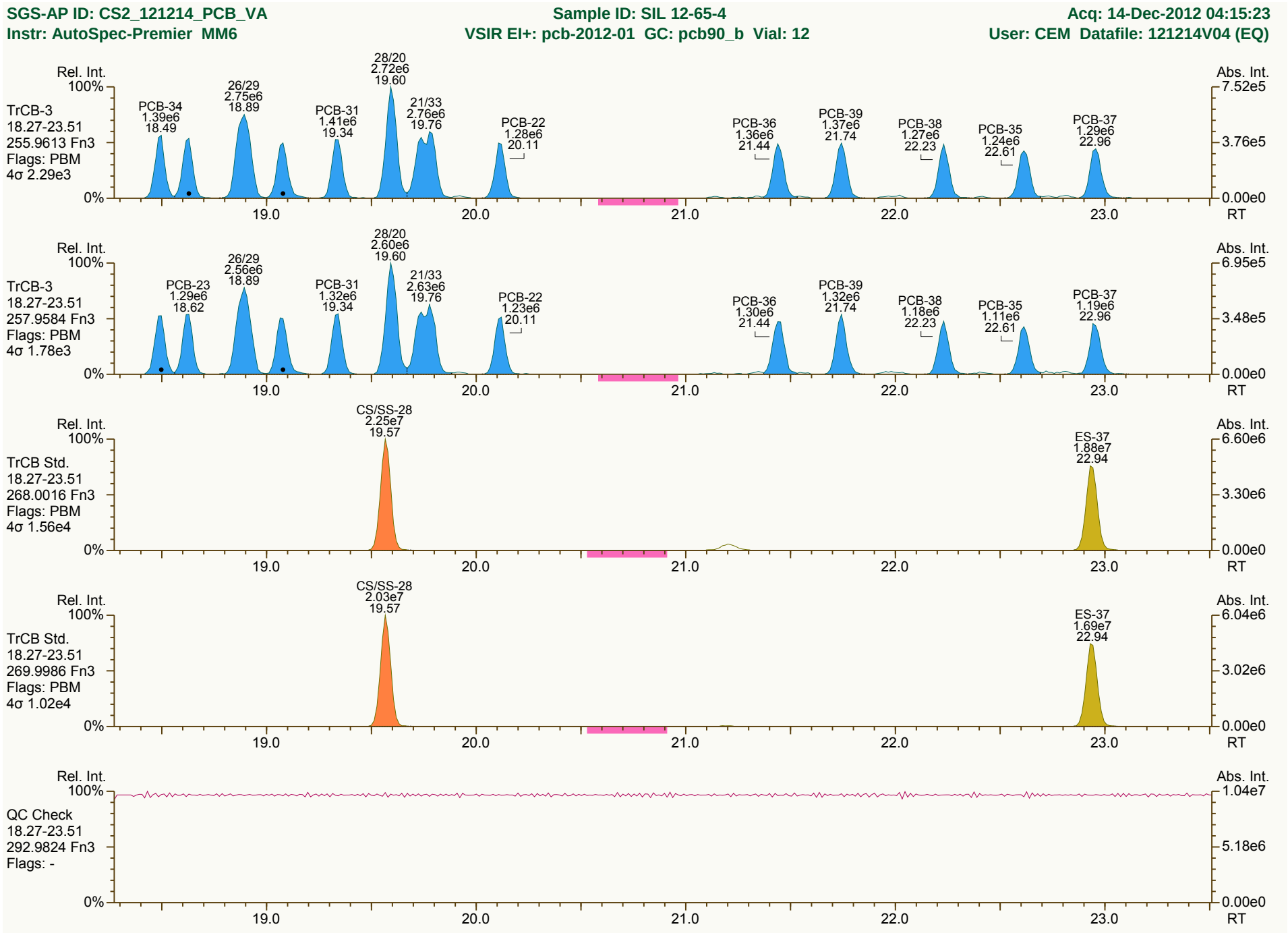
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*


SGS-AP ID: CS2_121214_PCB_VA
Sample ID: SIL 12-65-4
Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12
User: CEM Datafile: 121214V04 (EQ)
Rel. Int.
Abs. Int.
DiCB-2
13.27-18.26
222.0003 Fn2
Flags: PBM
4σ 6.01e3
PCB-9 1.76e6 13.67
PCB-6 1.81e6 14.01
PCB-5 1.75e6 14.27
PCB-8 1.86e6 14.38
PCB-14 2.01e6 15.78
PCB-11 1.73e6 16.48
13/12 3.48e6 16.75
PCB-15 1.71e6 17.01
DiCB-2
13.27-18.26
223.9974 Fn2
Flags: PBM
4σ 9.55e3
PCB-9 1.19e6 13.67
PCB-7 1.20e6 13.81
PCB-6 1.22e6 14.01
PCB-5 1.16e6 14.27
PCB-8 1.20e6 14.38
PCB-14 1.31e6 15.78
PCB-11 1.15e6 16.48
13/12 2.27e6 16.75
PCB-15 1.11e6 17.01
DiCB Std.
13.27-18.26
234.0406 Fn2
Flags: PBM
4σ 9.59e3
JS-9 3.70e7 13.65
ES-15 3.37e7 16.99
DiCB Std.
13.27-18.26
236.0376 Fn2
Flags: PBM
4σ 3.94e3
JS-9 2.25e7 13.65
ES-15 2.06e7 16.99
QC Check
13.27-18.26
242.9856 Fn2
Flags: -
RT

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*


SGS-AP ID: CS2_121214_PCB_VA
Sample ID: SIL 12-65-4
Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12
User: CEM Datafile: 121214V04 (EQ)
Rel. Int.
Abs. Int.
TrCB-3
18.27-23.51
255.9613 Fn3
Flags: PBM
4σ 2.29e3
PCB-34 1.39e6 18.49
26/29 2.75e6 18.89
PCB-31 1.41e6 19.34
28/20 2.72e6 19.60
21/33 2.76e6 19.76
PCB-22 1.28e6 20.11
PCB-36 1.36e6 21.44
PCB-39 1.37e6 21.74
PCB-38 1.27e6 22.23
PCB-35 1.24e6 22.61
PCB-37 1.29e6 22.96
TrCB-3
18.27-23.51
257.9584 Fn3
Flags: PBM
4σ 1.78e3
PCB-23 1.29e6 18.62
26/29 2.56e6 18.89
PCB-31 1.32e6 19.34
28/20 2.60e6 19.60
21/33 2.63e6 19.76
PCB-22 1.23e6 20.11
PCB-36 1.30e6 21.44
PCB-39 1.32e6 21.74
PCB-38 1.18e6 22.23
PCB-35 1.11e6 22.61
PCB-37 1.19e6 22.96
TrCB Std.
18.27-23.51
268.0016 Fn3
Flags: PBM
4σ 1.56e4
CS/SS-28 2.25e7 19.57
ES-37 1.88e7 22.94
TrCB Std.
18.27-23.51
269.9986 Fn3
Flags: PBM
4σ 1.02e4
CS/SS-28 2.03e7 19.57
ES-37 1.69e7 22.94
QC Check
18.27-23.51
292.9824 Fn3
Flags: -
RT

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**

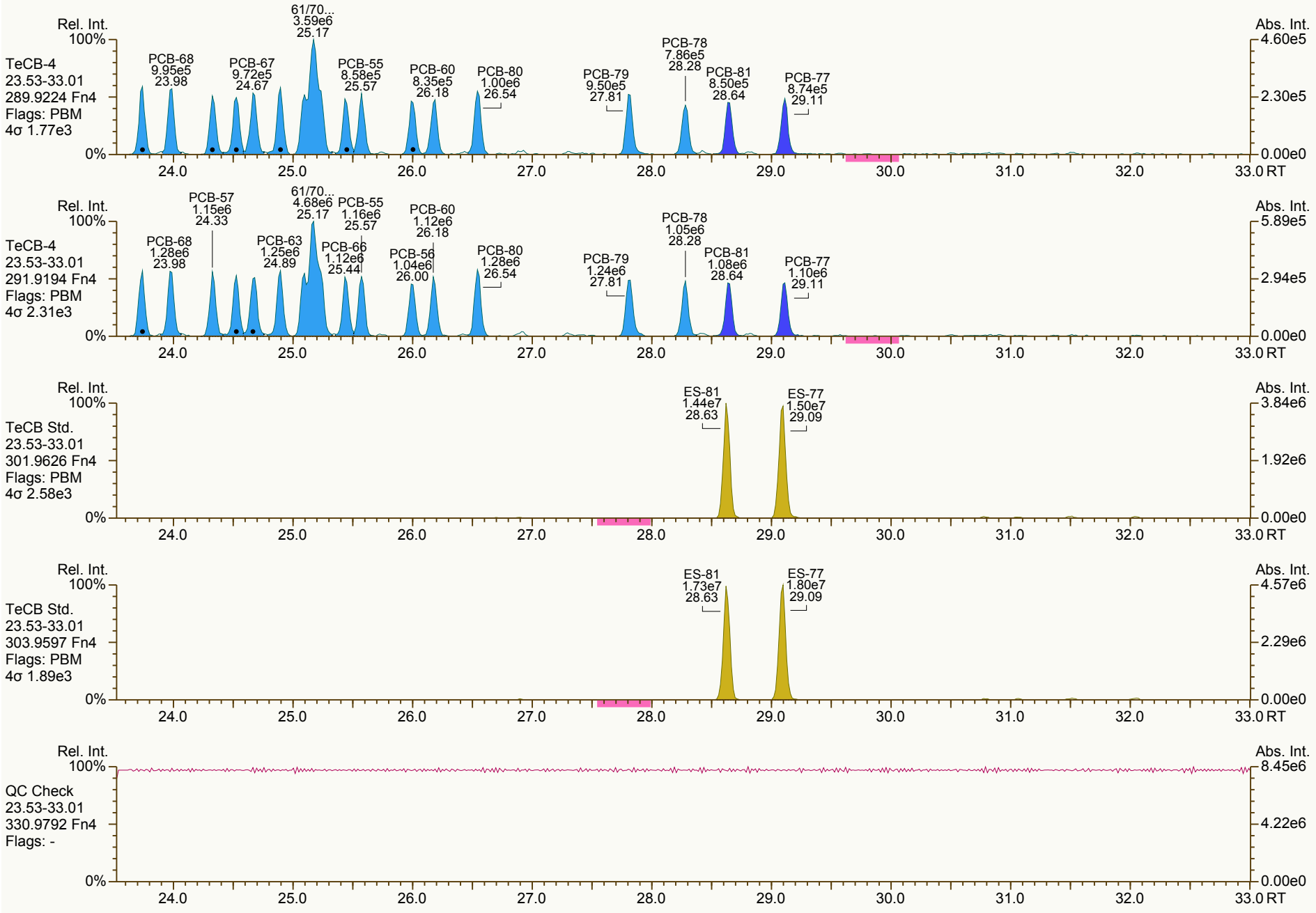


SGS-AP ID: CS2_121214_PCB_VA | Sample ID: SIL 12-65-4 | Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12 | User: CEM Datafile: 121214V04 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA | Sample ID: SIL 12-65-4 | Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12 | User: CEM Datafile: 121214V04 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

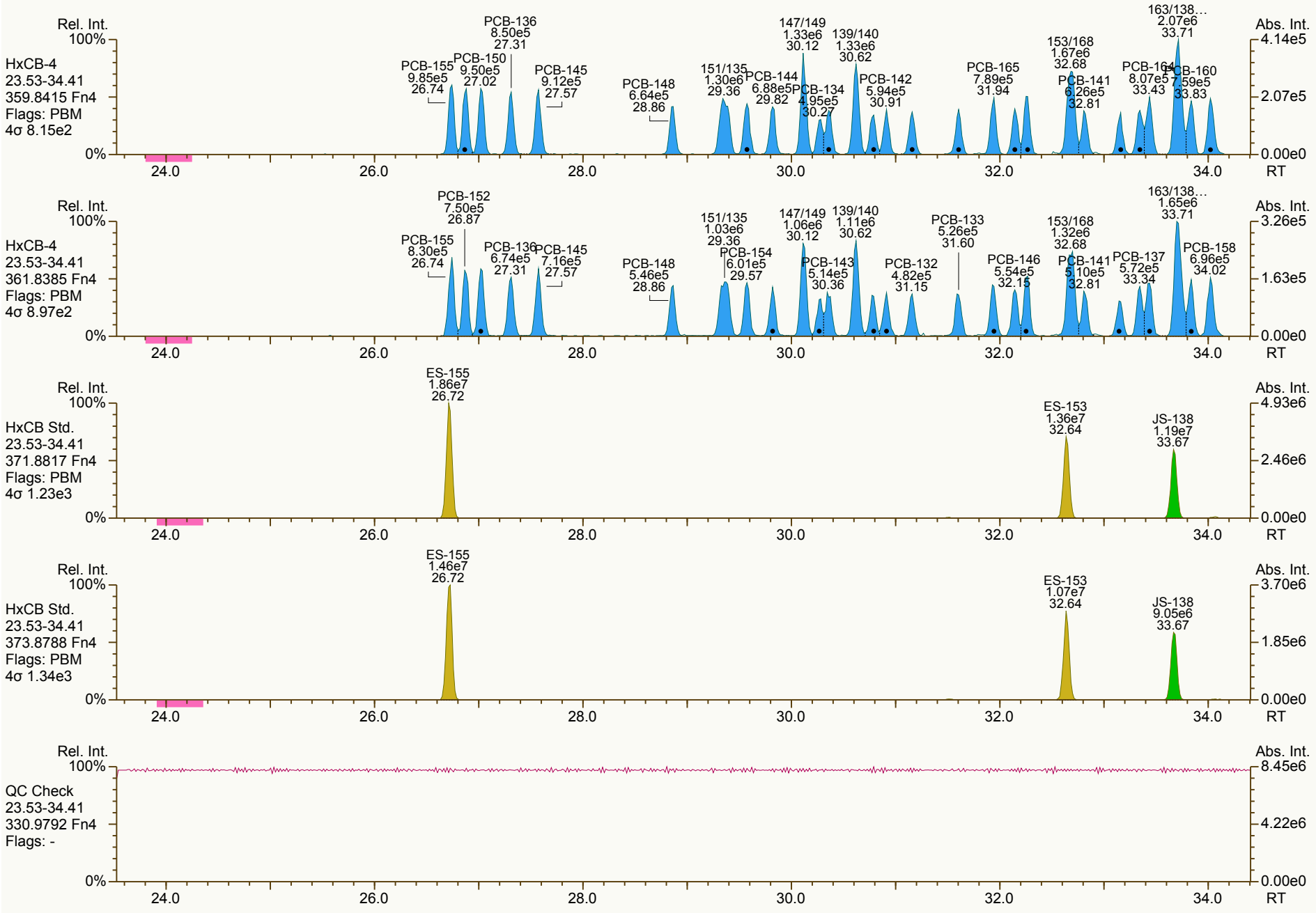
SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

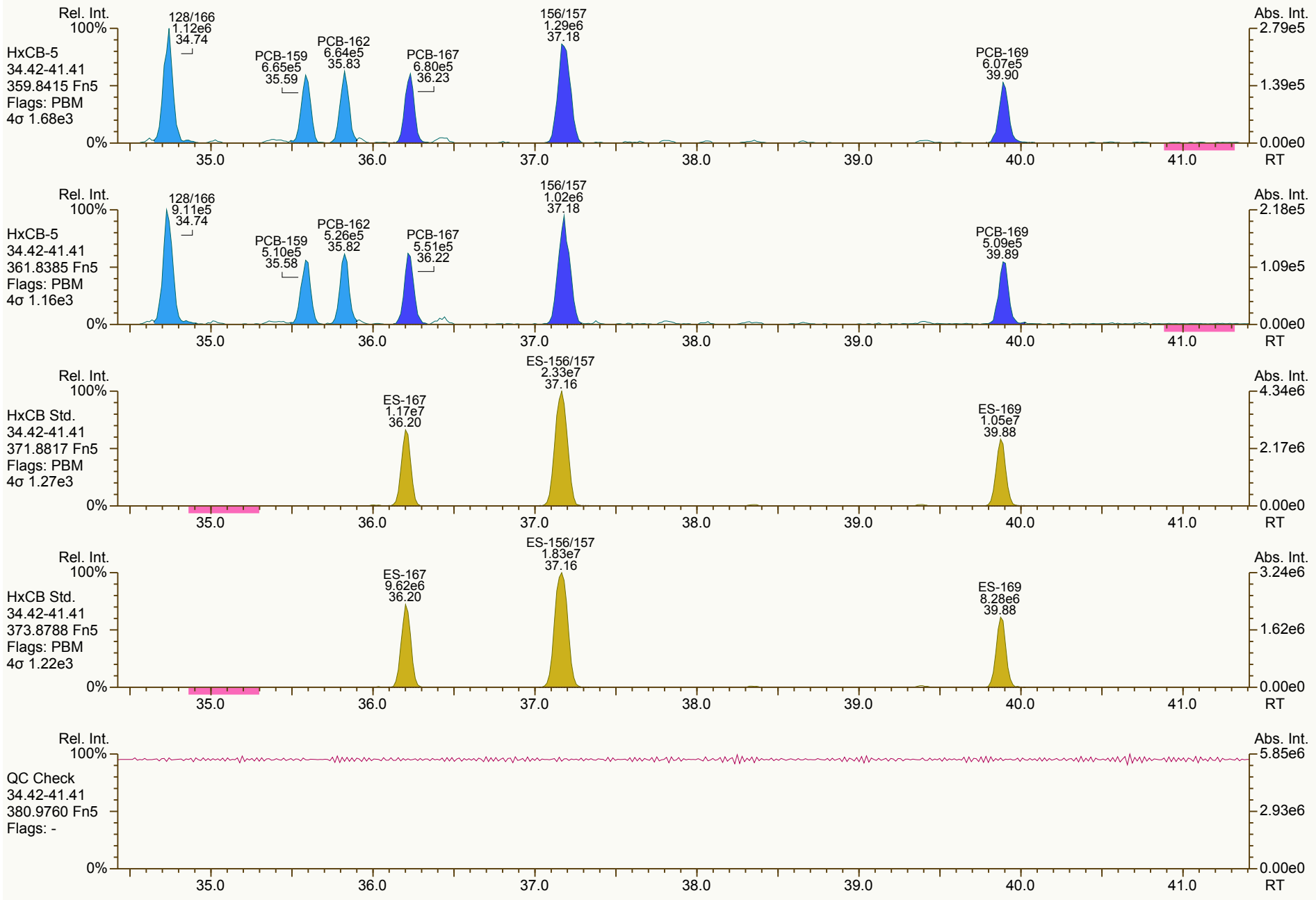
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 0862, 3465 scc: 403-865 *PKD: 14-Dec-2012 09:53 Printed: 14-Dec-2012 11:20 Page 12 of 22*

SGS-AP ID: CS2_121214_PCB_VA | **Sample ID: SIL 12-65-4** | **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** | **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



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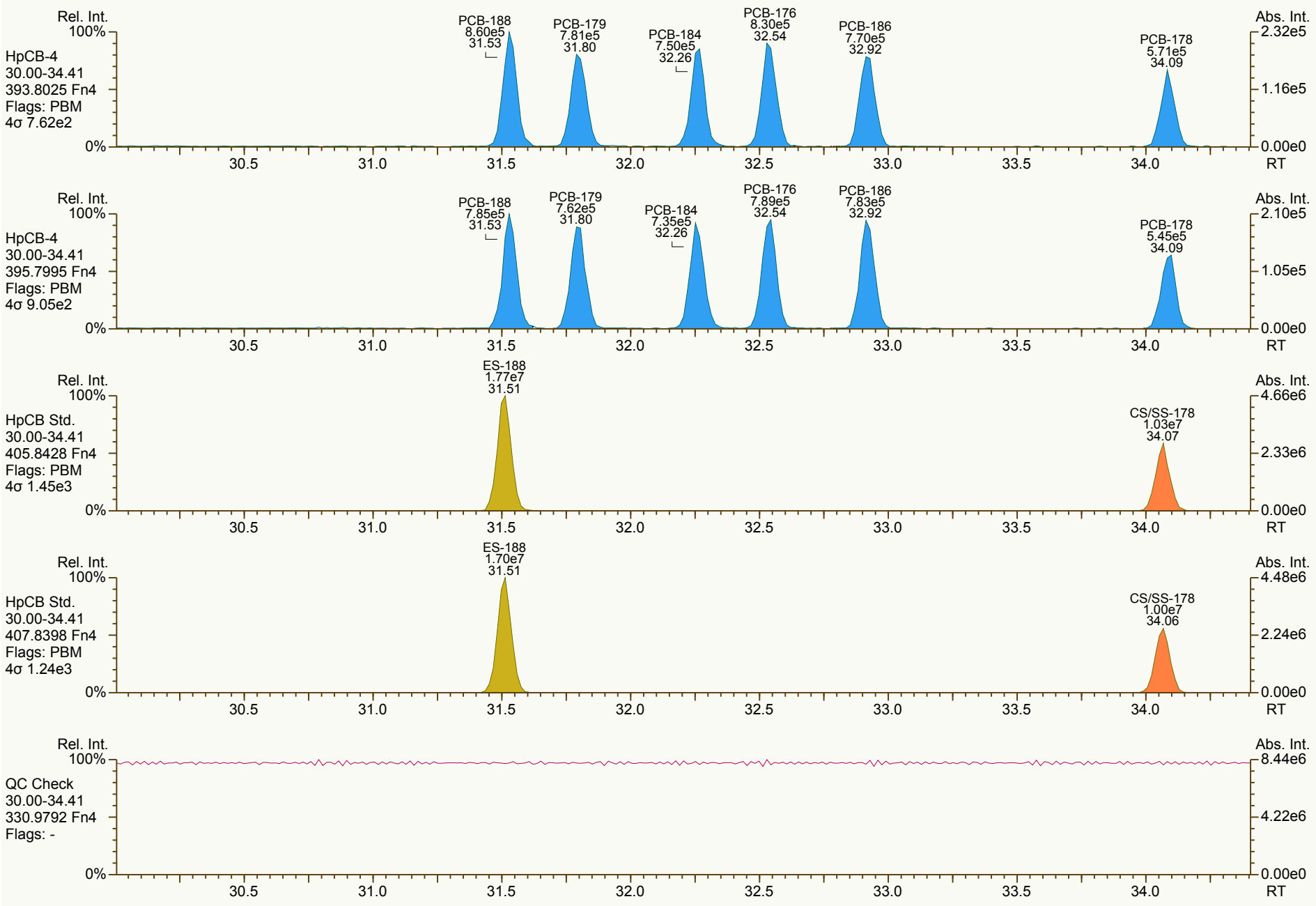
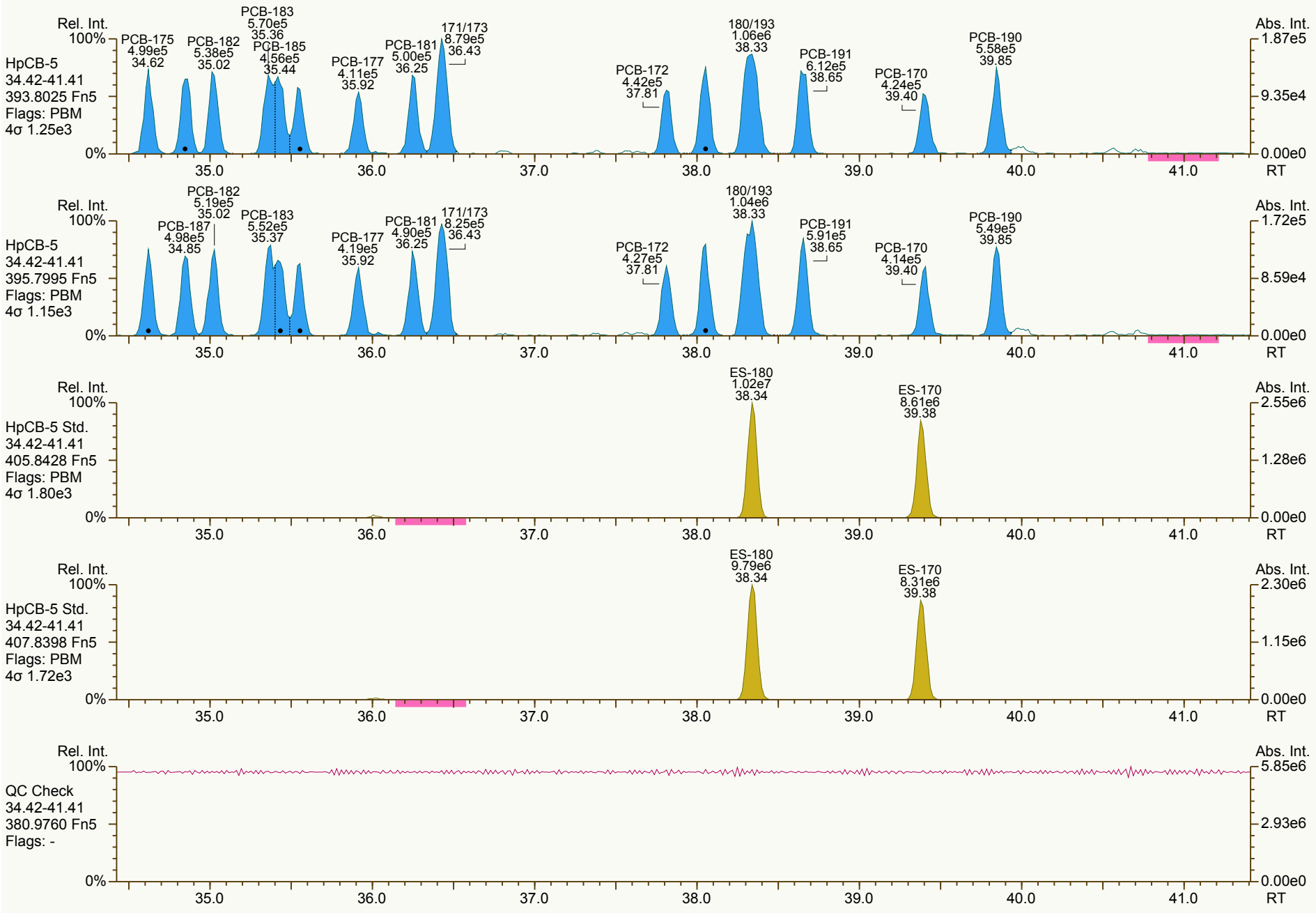
SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**

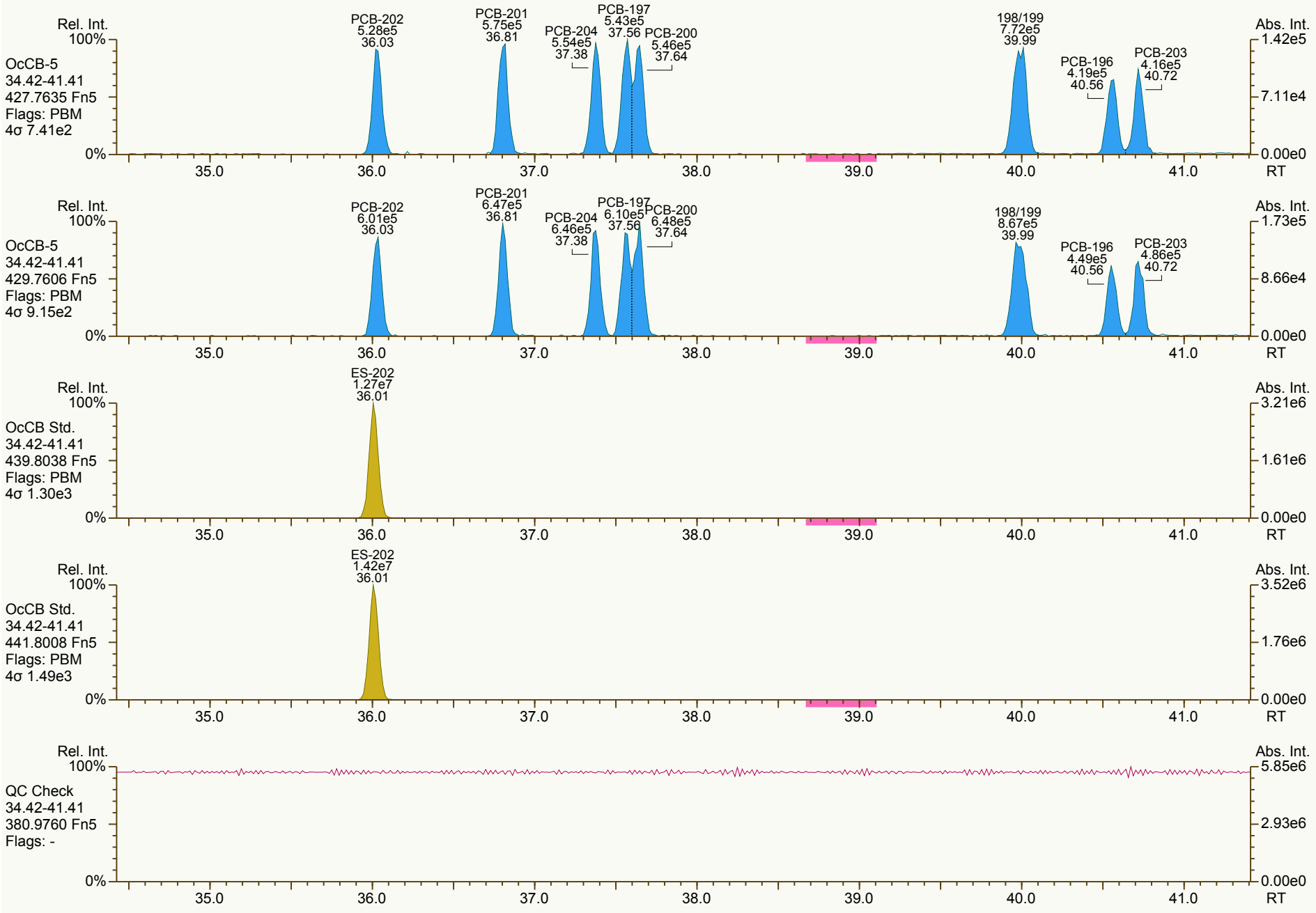


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA | Sample ID: SIL 12-65-4 | Acq: 14-Dec-2012 04:15:23
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12 | User: CEM Datafile: 121214V04 (EQ)

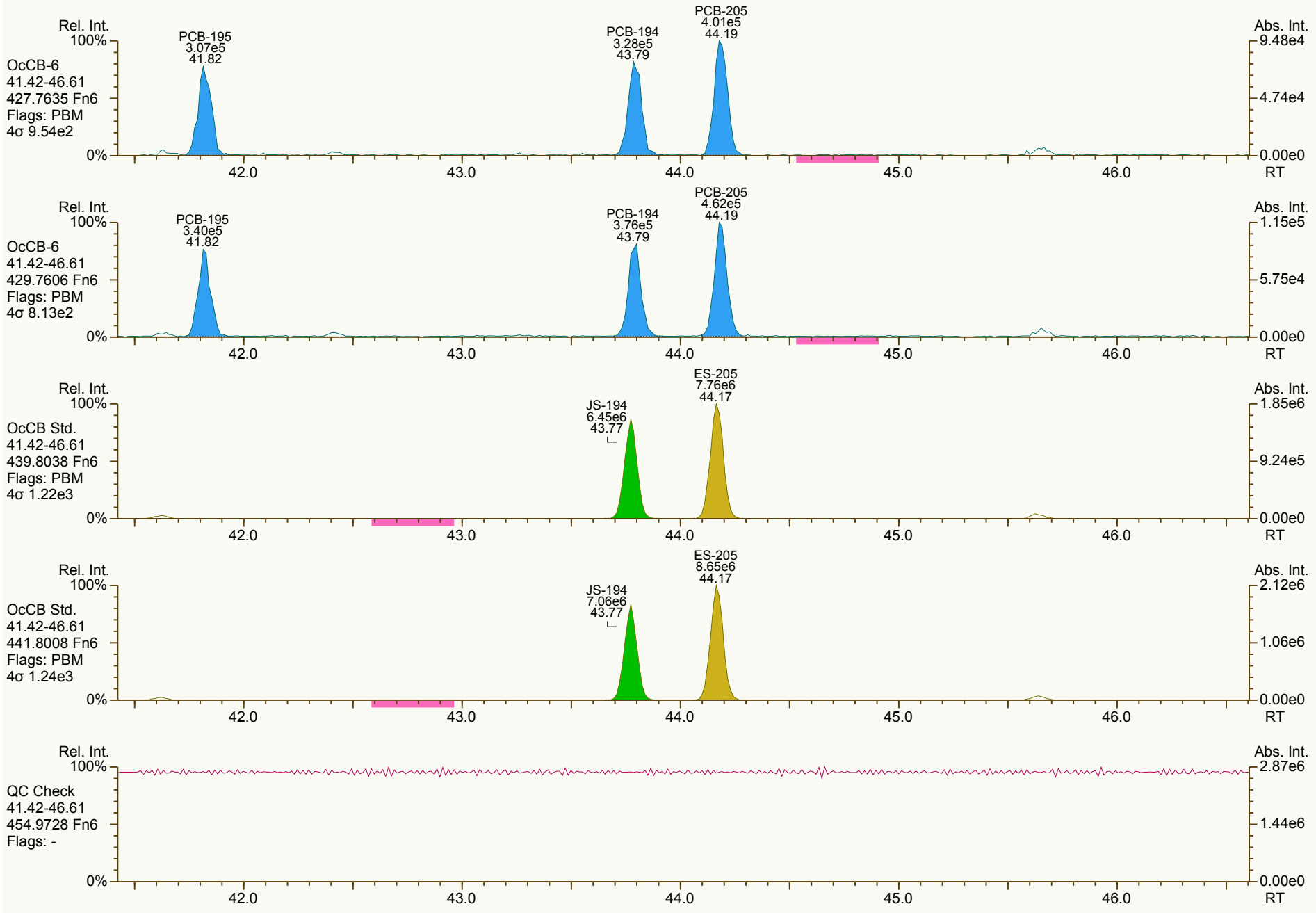


SGS-AP ID: CS2_121214_PCB_VA | **Sample ID: SIL 12-65-4** | **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** | **User: CEM Datafile: 121214V04 (EQ)**



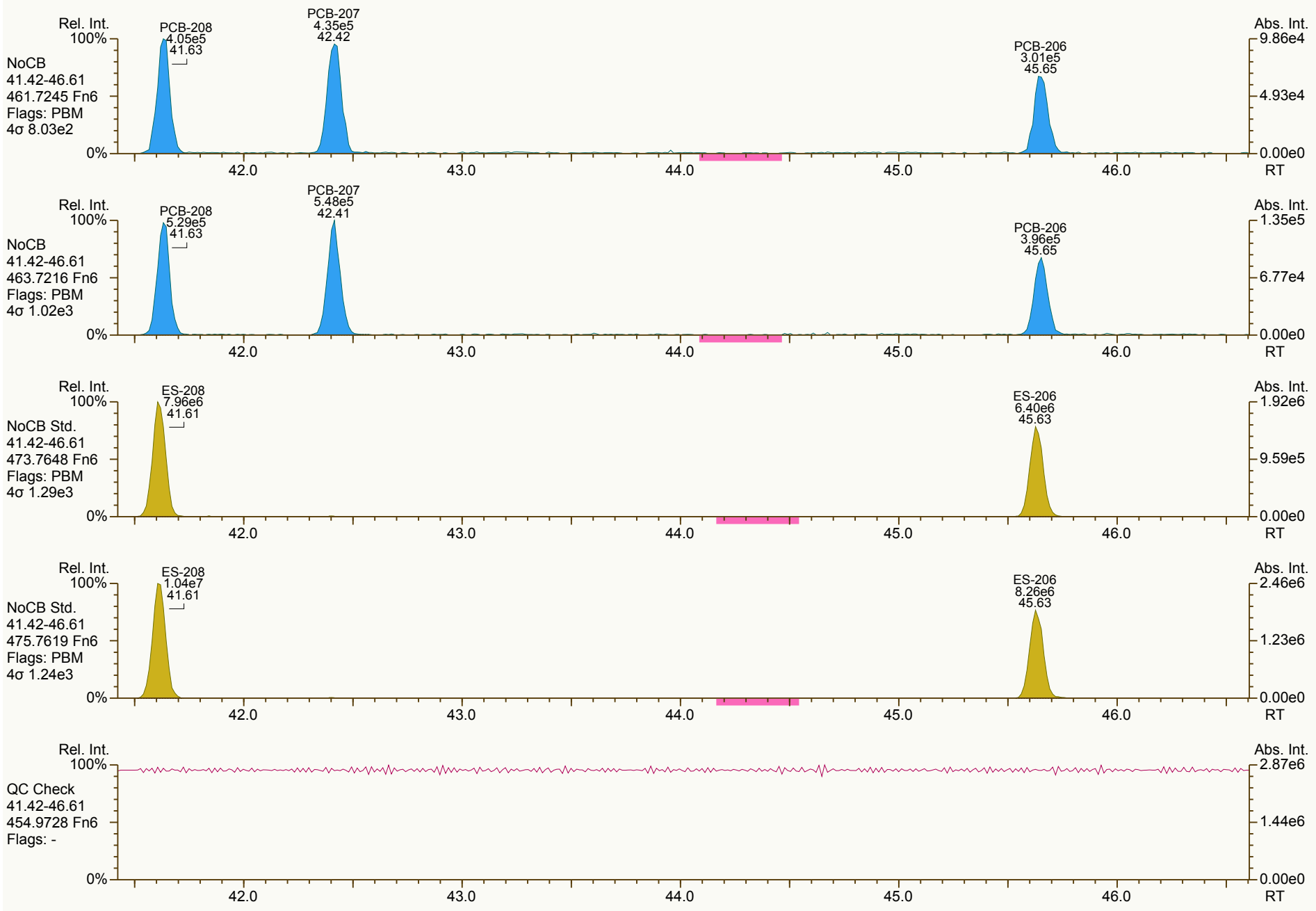
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



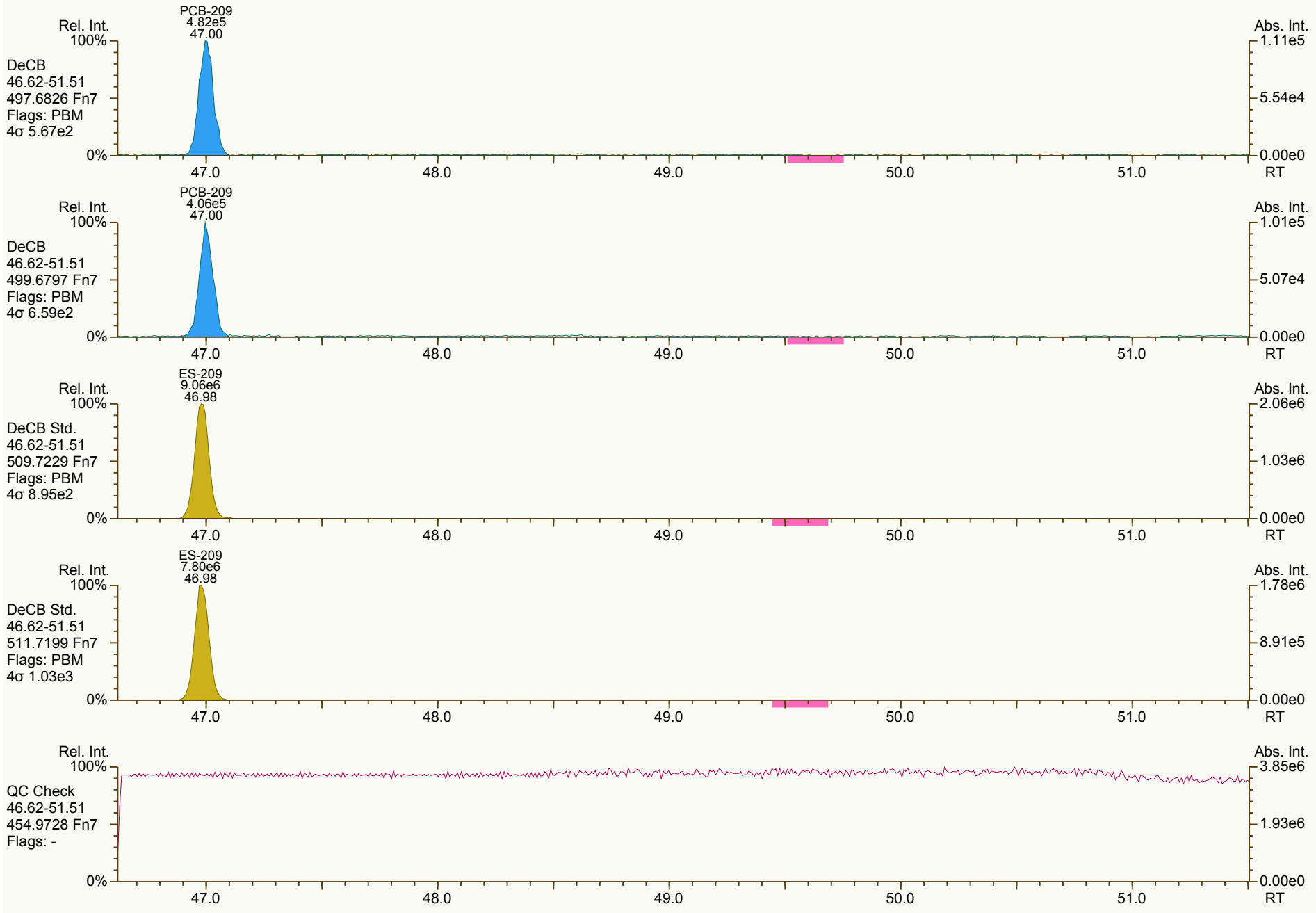
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 7150, 4441 scc: 403-865 *PKD: 14-Dec-2012 09:53 Printed: 14-Dec-2012 11:21 Page 21 of 22*

SGS-AP ID: CS2_121214_PCB_VA **Sample ID: SIL 12-65-4** **Acq: 14-Dec-2012 04:15:23**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 12** **User: CEM Datafile: 121214V04 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS2_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:42 (CEM) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:17
Lab ID:	CS3_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 05:09				
Datafile:	121214V05				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.10	2.42E+07	0.76 Y	1.25	1.24	-0.4%
PCB-81 344'5-TeCB	28.64	2.32E+07	0.76 Y	1.26	1.28	1.5%
PCB-105 233'44'-PeCB	32.05	1.42E+07	0.62 Y	1.06	1.05	-0.8%
PCB-114 2344'5-PeCB	31.52	1.61E+07	0.62 Y	1.11	1.14	2.5%
PCB-118 23'44'5-PeCB	31.07	1.55E+07	0.63 Y	1.08	1.09	1.3%
PCB-123 23'44'5'-PeCB	30.80	1.65E+07	0.62 Y	1.12	1.19	6.0%
PCB-126 33'44'5-PeCB	34.64	1.81E+07	0.62 Y	1.16	1.12	-3.3%
PCB-156/157 ...-HxCB	37.17	2.67E+07	1.25 Y	1.14	1.15	0.6%
PCB-167 23'44'55'-HxCB	36.22	1.47E+07	1.26 Y	1.18	1.20	2.1%
PCB-169 33'44'55'-HxCB	39.89	1.25E+07	1.27 Y	1.15	1.18	2.1%
PCB-189 233'44'55'-HpCB	42.02	1.63E+07	1.05 Y	1.12	1.11	-0.1%
PCB-209 DeCB	47.00	9.92E+06	1.18 Y	1.11	1.08	-3.2%
ES PCB-1	9.82	6.05E+07	3.29 Y	0.97	0.97	-0.4%
ES PCB-3	11.72	5.58E+07	3.36 Y	0.90	0.89	-0.9%
ES PCB-4	11.93	4.37E+07	1.55 Y	0.70	0.70	-0.3%
ES PCB-15	16.99	6.29E+07	1.65 Y	1.02	1.00	-1.1%
ES PCB-19	14.61	3.07E+07	1.05 Y	0.53	0.49	-7.0%
ES PCB-37	22.93	4.13E+07	1.10 Y	1.29	1.30	0.3%
ES PCB-54	17.23	4.54E+07	0.79 Y	1.43	1.43	0.0%
ES PCB-77	29.09	3.89E+07	0.82 Y	1.20	1.22	1.5%
ES PCB-81	28.62	3.64E+07	0.84 Y	1.16	1.14	-1.5%
ES PCB-104	21.91	4.09E+07	1.54 Y	1.70	1.69	-0.7%
ES PCB-105	32.02	2.72E+07	1.46 Y	1.10	1.13	2.5%
ES PCB-114	31.49	2.83E+07	1.51 Y	1.16	1.17	1.2%
ES PCB-118	31.05	2.84E+07	1.51 Y	1.15	1.17	1.7%
ES PCB-123	30.78	2.78E+07	1.48 Y	1.14	1.15	0.7%
ES PCB-126	34.62	3.24E+07	1.60 Y	1.34	1.34	0.1%
ES PCB-153	32.63	2.79E+07	1.32 Y	1.14	1.16	1.6%
ES PCB-155	26.71	3.95E+07	1.26 Y	1.61	1.65	2.0%
ES PCB-156/157	37.16	4.65E+07	1.25 Y	0.98	0.97	-0.8%
ES PCB-167	36.20	2.44E+07	1.24 Y	1.01	1.02	0.8%
ES PCB-169	39.87	2.13E+07	1.26 Y	0.90	0.89	-1.0%
ES PCB-170	39.38	1.91E+07	1.02 Y	1.28	1.26	-1.6%
ES PCB-180	38.33	2.29E+07	1.01 Y	1.54	1.51	-2.1%
ES PCB-188	31.50	3.97E+07	1.04 Y	1.63	1.65	1.7%
ES PCB-189	42.00	2.93E+07	1.07 Y	1.97	1.93	-1.9%
ES PCB-202	36.00	3.04E+07	0.88 Y	1.26	1.27	0.5%
ES PCB-205	44.16	1.84E+07	0.90 Y	1.22	1.21	-0.7%
ES PCB-206	45.63	1.67E+07	0.76 Y	1.10	1.10	0.3%
ES PCB-208	41.61	2.09E+07	0.76 Y	1.41	1.38	-2.3%
ES PCB-209	46.98	1.84E+07	1.16 Y	1.24	1.21	-2.3%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.56	4.85E+07	1.10 Y	1.18	1.18	-0.2%
SS PCB-111	29.15	2.77E+07	1.51 Y	1.01	1.00	-0.7%
SS PCB-178	34.06	2.40E+07	1.02 Y	0.60	0.60	0.4%
CS PCB-28	19.56	4.85E+07	1.10 Y	1.52	1.53	0.2%
CS PCB-111	29.15	2.77E+07	1.51 Y	1.15	1.15	0.0%
CS PCB-178	34.06	2.40E+07	1.02 Y	0.98	1.00	2.1%
JS PCB-9	13.65	6.27E+07	1.62 Y	-	-	-
JS PCB-52	21.11	3.18E+07	0.79 Y	-	-	-
JS PCB-101	26.89	2.42E+07	1.52 Y	-	-	-
JS PCB-138	33.66	2.40E+07	1.26 Y	-	-	-
JS PCB-194	43.77	1.52E+07	0.91 Y	-	-	-
PCB-1 2-MoCB	9.83	3.85E+07	3.11 Y	1.25	1.27	2.0%
PCB-3 4-MoCB	11.73	3.64E+07	3.11 Y	1.27	1.30	3.0%
PCB-4 22'-DiCB	11.95	1.97E+07	1.57 Y	0.90	0.90	0.4%
PCB-15 44'-DiCB	17.00	3.50E+07	1.55 Y	1.10	1.11	1.5%
PCB-19 22'6-TrCB	14.62	1.51E+07	1.04 Y	0.95	0.98	4.0%
PCB-37 344'-TrCB	22.95	2.90E+07	1.06 Y	1.39	1.40	1.2%
PCB-54 22'66'-TeCB	17.25	2.45E+07	0.79 Y	1.05	1.08	2.5%
PCB-104 22'466'-PeCB	21.93	2.29E+07	0.62 Y	1.12	1.12	0.0%
PCB-153/168 ...-HxCB	32.68	3.44E+07	1.25 Y	1.24	1.23	-0.3%
PCB-155 22'44'66'-HxCB	26.73	2.16E+07	1.20 Y	1.09	1.10	0.4%
PCB-170 22'33'44'5-HpCB	39.40	9.52E+06	1.03 Y	0.99	0.99	0.1%
PCB-180/193 ...-HpCB	38.32	2.47E+07	1.04 Y	1.07	1.08	0.9%
PCB-188 22'34'566'-HpCB	31.53	1.99E+07	1.03 Y	0.98	1.00	1.9%
PCB-202 22'33'55'66'-OcCB	36.03	1.31E+07	0.89 Y	0.86	0.86	-0.7%
PCB-205 233'44'55'6-OcCB	44.18	1.06E+07	0.92 Y	1.13	1.15	1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.07E+07	0.78 Y	1.03	1.03	-0.7%
PCB-206 22'33'44'55'6-NoCB	45.65	8.01E+06	0.79 Y	0.97	0.96	-1.3%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.83	3.85E+07	3.11 Y	1.25	1.27	2.0%
PCB-2 3-MoCB	11.58	3.68E+07	3.11 Y	1.28	1.32	3.2%
PCB-3 4-MoCB	11.73	3.64E+07	3.11 Y	1.27	1.30	3.0%
PCB-4 22'-DiCB	11.95	1.97E+07	1.57 Y	0.90	0.90	0.4%
PCB-10 26-DiCB	12.10	3.09E+07	1.54 Y	1.38	1.41	2.4%
PCB-9 25-DiCB	13.66	3.19E+07	1.53 Y	0.99	1.02	2.7%
PCB-7 24-DiCB	13.81	3.59E+07	1.55 Y	1.10	1.14	3.5%
PCB-6 23'-DiCB	14.00	3.21E+07	1.55 Y	1.04	1.02	-1.7%
PCB-5 23-DiCB	14.27	3.23E+07	1.55 Y	1.02	1.03	0.2%
PCB-8 24'-DiCB	14.37	3.35E+07	1.53 Y	1.03	1.07	3.2%
PCB-14 35-DiCB	15.77	3.88E+07	1.57 Y	1.20	1.23	2.6%
PCB-11 33'-DiCB	16.48	3.28E+07	1.56 Y	1.03	1.04	1.5%
PCB-13/12 34'/34-DiCB	16.74	6.69E+07	1.55 Y	1.03	1.06	2.8%
PCB-15 44'-DiCB	17.00	3.50E+07	1.55 Y	1.10	1.11	1.5%
PCB-19 22'6-TrCB	14.62	1.51E+07	1.04 Y	0.95	0.98	4.0%
PCB-30/18 246/22'5-TrCB	16.22	4.13E+07	1.04 Y	1.23	1.35	9.5%
PCB-17 22'4-TrCB	16.58	1.77E+07	1.03 Y	1.05	1.15	9.3%
PCB-27 23'6-TrCB	16.76	2.40E+07	1.03 Y	1.46	1.57	7.0%
PCB-24 236-TrCB	16.87	2.29E+07	1.03 Y	1.32	1.49	13.0%
PCB-16 22'3-TrCB	16.96	1.39E+07	1.02 Y	0.81	0.91	12.3%
PCB-32 24'6-TrCB	17.40	2.50E+07	1.03 Y	1.48	1.63	10.6%
PCB-34 23'5'-TrCB	18.49	3.10E+07	1.06 Y	1.46	1.50	2.9%
PCB-23 235-TrCB	18.62	3.15E+07	1.05 Y	1.50	1.53	1.4%
PCB-26/29 23'5/245-TrCB	18.89	6.42E+07	1.06 Y	1.53	1.56	1.8%
PCB-25 23'4-TrCB	19.07	3.26E+07	1.06 Y	1.53	1.58	2.9%
PCB-31 24'5-TrCB	19.33	3.29E+07	1.05 Y	1.55	1.59	2.6%
PCB-28/20 244'/233'-TrCB	19.59	6.33E+07	1.06 Y	1.51	1.53	1.8%
PCB-21/33 234/23'4'-TrCB	19.75	6.46E+07	1.05 Y	1.55	1.56	1.2%
PCB-22 234'-TrCB	20.11	2.89E+07	1.06 Y	1.40	1.40	0.2%
PCB-36 33'5-TrCB	21.44	3.13E+07	1.06 Y	1.52	1.51	-0.2%
PCB-39 34'5-TrCB	21.74	3.28E+07	1.05 Y	1.58	1.59	0.3%
PCB-38 345-TrCB	22.23	2.92E+07	1.06 Y	1.47	1.41	-3.8%
PCB-35 33'4-TrCB	22.61	2.80E+07	1.05 Y	1.33	1.36	1.6%
PCB-37 344'-TrCB	22.95	2.90E+07	1.06 Y	1.39	1.40	1.2%
PCB-54 22'66'-TeCB	17.25	2.45E+07	0.79 Y	1.05	1.08	2.5%
PCB-50/53 22'46/22'56'-TeCB	19.11	3.29E+07	0.78 Y	0.88	0.90	3.0%
PCB-45 22'36-TeCB	19.65	1.42E+07	0.77 Y	0.73	0.78	6.2%
PCB-51 22'46'-TeCB	19.72	1.67E+07	0.77 Y	0.94	0.92	-2.0%
PCB-46 22'36'-TeCB	19.91	1.34E+07	0.78 Y	0.72	0.73	2.3%
PCB-52 22'55'-TeCB	21.13	1.57E+07	0.77 Y	0.82	0.86	4.8%
PCB-73 23'5'6-TeCB	21.25	2.04E+07	0.76 Y	1.10	1.12	1.8%
PCB-43 22'35-TeCB	21.33	1.35E+07	0.78 Y	0.70	0.74	5.1%
PCB-69/49 23'46/22'45'-TeCB	21.52	3.76E+07	0.77 Y	1.01	1.03	2.4%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.78	1.56E+07	0.78 Y	0.84	0.86	1.7%
PCB-44/47/65 ...-TeCB	21.99	4.96E+07	0.77 Y	0.90	0.91	0.8%
PCB-59/62/75 ...-TeCB	22.25	6.33E+07	0.77 Y	1.15	1.16	0.3%
PCB-42 22'34'-TeCB	22.41	1.42E+07	0.77 Y	0.76	0.78	1.8%
PCB-41 22'34-TeCB	22.72	1.29E+07	0.76 Y	0.64	0.71	10.4%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	3.10E+07	0.77 Y	0.83	0.85	2.3%
PCB-64 234'6-TeCB	23.01	2.19E+07	0.77 Y	1.17	1.20	2.4%
PCB-72 23'55'-TeCB	23.73	2.59E+07	0.77 Y	1.37	1.42	4.0%
PCB-68 23'45'-TeCB	23.97	2.75E+07	0.78 Y	1.52	1.51	-0.2%
PCB-57 233'5-TeCB	24.32	2.48E+07	0.77 Y	1.32	1.36	2.8%
PCB-58 233'5'-TeCB	24.52	2.47E+07	0.76 Y	1.34	1.36	1.4%
PCB-67 23'45-TeCB	24.67	2.67E+07	0.75 Y	1.41	1.47	3.9%
PCB-63 234'5-TeCB	24.89	2.76E+07	0.77 Y	1.46	1.51	3.9%
PCB-61/70/74/76 ...-TeCB	25.16	1.02E+08	0.77 Y	1.37	1.40	2.5%
PCB-66 23'44'-TeCB	25.44	2.33E+07	0.77 Y	1.24	1.28	3.0%
PCB-55 233'4-TeCB	25.57	2.43E+07	0.77 Y	1.28	1.33	4.3%
PCB-56 233'4'-TeCB	25.99	2.31E+07	0.78 Y	1.23	1.27	3.4%
PCB-60 2344'-TeCB	26.17	2.41E+07	0.76 Y	1.30	1.32	1.8%
PCB-80 33'55'-TeCB	26.54	2.74E+07	0.77 Y	1.44	1.50	4.7%
PCB-79 33'45'-TeCB	27.81	2.76E+07	0.78 Y	1.48	1.52	2.8%
PCB-78 33'45-TeCB	28.27	2.24E+07	0.79 Y	1.21	1.23	1.9%
PCB-104 22'466'-PeCB	21.93	2.29E+07	0.62 Y	1.12	1.12	0.0%
PCB-96 22'366'-PeCB	22.22	1.94E+07	0.63 Y	0.96	0.95	-1.3%
PCB-103 22'45'6-PeCB	23.88	1.31E+07	0.62 Y	0.93	0.94	1.1%
PCB-94 22'356'-PeCB	24.06	1.15E+07	0.62 Y	0.81	0.83	2.3%
PCB-95 22'35'6-PeCB	24.42	1.20E+07	0.63 Y	0.85	0.87	2.2%
PCB-100/93 22'44'6/22'356-PeCB	24.62	2.39E+07	0.62 Y	0.88	0.86	-2.7%
PCB-102 22'456'-PeCB	24.74	1.40E+07	0.62 Y	0.93	1.01	8.3%
PCB-98 22'34'6'-PeCB	24.80	1.08E+07	0.64 Y	0.84	0.77	-7.6%
PCB-88 22'346-PeCB	25.08	1.07E+07	0.61 Y	0.77	0.77	-0.6%
PCB-91 22'34'6-PeCB	25.15	1.32E+07	0.63 Y	0.96	0.95	-0.9%
PCB-84 22'33'6-PeCB	25.33	1.02E+07	0.63 Y	0.72	0.74	2.2%
PCB-89 22'346'-PeCB	25.73	1.08E+07	0.63 Y	0.77	0.78	0.6%
PCB-121 23'45'6-PeCB	26.11	1.60E+07	0.63 Y	1.15	1.15	0.7%
PCB-92 22'355'-PeCB	26.42	1.12E+07	0.62 Y	0.79	0.81	2.1%
PCB-113/90/101 ...-PeCB	26.88	4.00E+07	0.63 Y	0.95	0.96	0.5%
PCB-83 22'33'5-PeCB	27.30	9.44E+06	0.62 Y	0.72	0.68	-5.6%
PCB-99 22'44'5-PeCB	27.40	1.32E+07	0.64 Y	0.90	0.95	6.0%
PCB-112 233'56-PeCB	27.49	1.47E+07	0.63 Y	1.09	1.06	-3.1%
PCB-109/119/86/97/125...-PeCB	27.83	7.92E+07	0.62 Y	0.95	0.95	0.3%
PCB-117 234'56-PeCB	28.34	1.43E+07	0.62 Y	0.99	1.03	4.2%
PCB-116/85 23456/22'344'-PeCB	28.42	2.62E+07	0.63 Y	0.96	0.95	-1.5%
PCB-110 233'4'6-PeCB	28.55	1.47E+07	0.62 Y	1.01	1.06	5.2%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS3_121214_PCB_VA
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05
ICAL: MM6_PCB_07132012_14DEC12

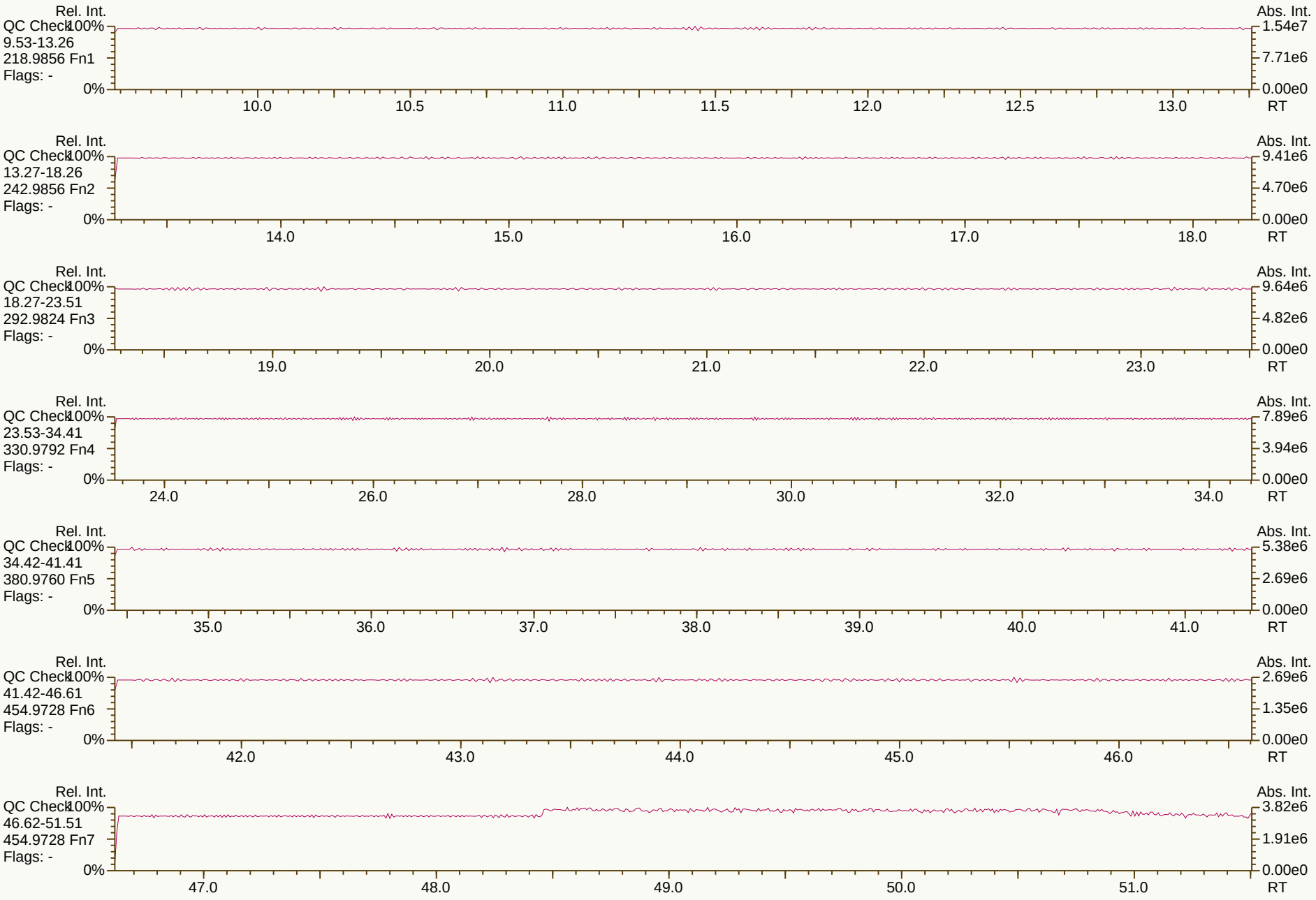
Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.51E+07	0.62 Y	1.15	1.09	-5.3%
PCB-82 22'33'4-PeCB	28.81	9.47E+06	0.62 Y	0.70	0.68	-2.4%
PCB-111 233'55'-PeCB	29.17	1.57E+07	0.63 Y	1.16	1.13	-3.1%
PCB-120 23'455'-PeCB	29.56	1.60E+07	0.62 Y	1.14	1.15	1.2%
PCB-108/124 ...-PeCB	30.49	2.84E+07	0.63 Y	1.02	1.02	0.4%
PCB-107 233'4'5-PeCB	30.69	1.56E+07	0.63 Y	1.13	1.12	-1.0%
PCB-106 233'45-PeCB	30.90	1.42E+07	0.64 Y	1.01	1.02	1.2%
PCB-122 233'4'5'-PeCB	31.35	1.35E+07	0.63 Y	0.91	0.95	4.8%
PCB-127 33'455'-PeCB	33.30	1.41E+07	0.62 Y	1.06	1.03	-2.0%
PCB-155 22'44'66'-HxCB	26.73	2.16E+07	1.20 Y	1.09	1.10	0.4%
PCB-152 22'3566'-HxCB	26.87	2.04E+07	1.24 Y	1.04	1.03	-0.8%
PCB-150 22'34'66'-HxCB	27.02	2.04E+07	1.25 Y	1.03	1.03	0.7%
PCB-136 22'33'66'-HxCB	27.30	1.87E+07	1.25 Y	0.97	0.94	-3.1%
PCB-145 22'3466'-HxCB	27.57	1.90E+07	1.24 Y	0.96	0.96	-0.1%
PCB-148 22'34'56'-HxCB	28.85	1.44E+07	1.23 Y	1.03	1.04	0.3%
PCB-151/135 ...-HxCB	29.35	2.79E+07	1.26 Y	0.99	1.00	0.9%
PCB-154 22'44'56'-HxCB	29.57	1.59E+07	1.22 Y	1.17	1.14	-2.7%
PCB-144 22'345'6-HxCB	29.81	1.44E+07	1.23 Y	1.03	1.03	0.5%
PCB-147/149 ...-HxCB	30.11	2.83E+07	1.25 Y	1.02	1.02	-0.1%
PCB-134 22'33'56-HxCB	30.27	1.17E+07	1.25 Y	0.80	0.84	4.5%
PCB-143 22'3456'-HxCB	30.35	1.33E+07	1.24 Y	0.95	0.96	0.7%
PCB-139/140 ...-HxCB	30.62	2.89E+07	1.24 Y	1.05	1.04	-1.3%
PCB-131 22'33'46-HxCB	30.77	1.25E+07	1.25 Y	0.90	0.90	0.4%
PCB-142 22'3456-HxCB	30.90	1.28E+07	1.23 Y	0.93	0.92	-0.9%
PCB-132 22'33'46'-HxCB	31.15	1.27E+07	1.25 Y	0.93	0.91	-2.2%
PCB-133 22'33'55'-HxCB	31.60	1.35E+07	1.25 Y	0.97	0.97	-0.2%
PCB-165 233'55'6-HxCB	31.93	1.64E+07	1.24 Y	1.16	1.18	1.2%
PCB-146 22'34'55'-HxCB	32.14	1.38E+07	1.24 Y	1.01	0.99	-2.2%
PCB-161 233'45'6-HxCB	32.25	1.83E+07	1.25 Y	1.29	1.31	1.3%
PCB-153/168 ...-HxCB	32.68	3.44E+07	1.25 Y	1.24	1.23	-0.3%
PCB-141 22'3455'-HxCB	32.81	1.30E+07	1.24 Y	0.95	0.93	-1.3%
PCB-130 22'33'45'-HxCB	33.15	1.17E+07	1.24 Y	0.82	0.84	2.0%
PCB-137 22'344'5-HxCB	33.34	1.34E+07	1.21 Y	0.97	0.96	-0.8%
PCB-164 233'4'5'6-HxCB	33.43	1.80E+07	1.23 Y	1.25	1.29	3.5%
PCB-163/138/129 ...-HxCB	33.70	4.21E+07	1.24 Y	1.04	1.01	-3.4%
PCB-160 233'456-HxCB	33.83	1.69E+07	1.27 Y	1.19	1.22	2.1%
PCB-158 233'44'6-HxCB	34.02	1.88E+07	1.26 Y	1.34	1.35	0.6%
PCB-128/166 ...-HxCB	34.73	2.36E+07	1.27 Y	0.96	0.97	0.6%
PCB-159 233'455'-HxCB	35.58	1.39E+07	1.25 Y	1.12	1.14	1.4%
PCB-162 233'4'55'-HxCB	35.82	1.40E+07	1.25 Y	1.13	1.15	2.0%
PCB-188 22'34'566'-HpCB	31.53	1.99E+07	1.03 Y	0.98	1.00	1.9%
PCB-179 22'33'566'-HpCB	31.79	1.79E+07	1.04 Y	0.90	0.90	0.6%
PCB-184 22'344'66'-HpCB	32.25	1.72E+07	1.05 Y	0.86	0.87	0.4%

PCB QC Summary - Ax2 Detail **Printed: 14-Dec-2012 11:17**

Lab ID: CS3_121214_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14-DEC-2012 05:09
Datafile: 121214V05

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.53	1.96E+07	1.02 Y	0.97	0.99	1.7%
PCB-186 22'34566'-HpCB	32.91	1.84E+07	1.03 Y	0.93	0.93	0.3%
PCB-178 22'33'55'6-HpCB	34.08	1.32E+07	1.05 Y	0.66	0.67	0.9%
PCB-175 22'33'45'6-HpCB	34.61	1.14E+07	1.04 Y	1.02	1.00	-2.5%
PCB-187 22'34'55'6-HpCB	34.84	1.20E+07	1.05 Y	1.03	1.05	2.6%
PCB-182 22'344'56'-HpCB	35.02	1.23E+07	1.05 Y	1.10	1.07	-1.9%
PCB-183 22'344'5'6-HpCB	35.35	1.19E+07	1.03 Y	1.12	1.04	-7.5%
PCB-185 22'3455'6-HpCB	35.42	1.18E+07	1.03 Y	0.97	1.03	6.3%
PCB-174 22'33'456'-HpCB	35.54	1.06E+07	1.04 Y	0.90	0.93	3.8%
PCB-177 22'33'45'6'-HpCB	35.91	9.97E+06	1.04 Y	0.87	0.87	0.0%
PCB-181 22'344'56-HpCB	36.25	1.16E+07	1.05 Y	1.03	1.01	-1.9%
PCB-171/173 ...-HpCB	36.42	1.98E+07	1.04 Y	0.89	0.87	-2.2%
PCB-172 22'33'455'-HpCB	37.81	9.92E+06	1.04 Y	0.87	0.87	-0.5%
PCB-192 233'455'6-HpCB	38.04	1.29E+07	1.06 Y	1.16	1.13	-2.9%
PCB-180/193 ...-HpCB	38.32	2.47E+07	1.04 Y	1.07	1.08	0.9%
PCB-191 233'44'5'6-HpCB	38.65	1.35E+07	1.03 Y	1.18	1.18	-0.5%
PCB-170 22'33'44'5-HpCB	39.40	9.52E+06	1.03 Y	0.99	0.99	0.1%
PCB-190 233'44'56-HpCB	39.84	1.31E+07	1.04 Y	1.36	1.37	1.1%
PCB-202 22'33'55'66'-OcCB	36.03	1.31E+07	0.89 Y	0.86	0.86	-0.7%
PCB-201 22'33'45'66'-OcCB	36.80	1.44E+07	0.89 Y	0.95	0.95	-0.4%
PCB-204 22'344'566'-OcCB	37.37	1.38E+07	0.88 Y	0.90	0.91	0.2%
PCB-197 22'33'44'66'-OcCB	37.56	1.51E+07	0.86 Y	0.96	0.99	3.2%
PCB-200 22'33'4566'-OcCB	37.64	1.30E+07	0.87 Y	0.88	0.86	-2.8%
PCB-198/199 ...-OcCB	39.98	1.90E+07	0.89 Y	0.63	0.63	-0.6%
PCB-196 22'33'44'56'-OcCB	40.55	1.02E+07	0.87 Y	0.66	0.67	1.3%
PCB-203 22'344'55'6-OcCB	40.72	1.05E+07	0.91 Y	0.69	0.69	-0.7%
PCB-195 22'33'44'56-OcCB	41.82	7.59E+06	0.90 Y	0.82	0.82	-0.1%
PCB-194 22'33'44'55'-OcCB	43.79	8.37E+06	0.92 Y	0.90	0.91	0.9%
PCB-205 233'44'55'6-OcCB	44.18	1.06E+07	0.92 Y	1.13	1.15	1.9%
PCB-208 22'33'455'66'-NoCB	41.63	1.07E+07	0.78 Y	1.03	1.03	-0.7%
PCB-207 22'33'44'566'-NoCB	42.41	1.09E+07	0.77 Y	1.07	1.04	-2.5%
PCB-206 22'33'44'55'6-NoCB	45.65	8.01E+06	0.79 Y	0.97	0.96	-1.3%

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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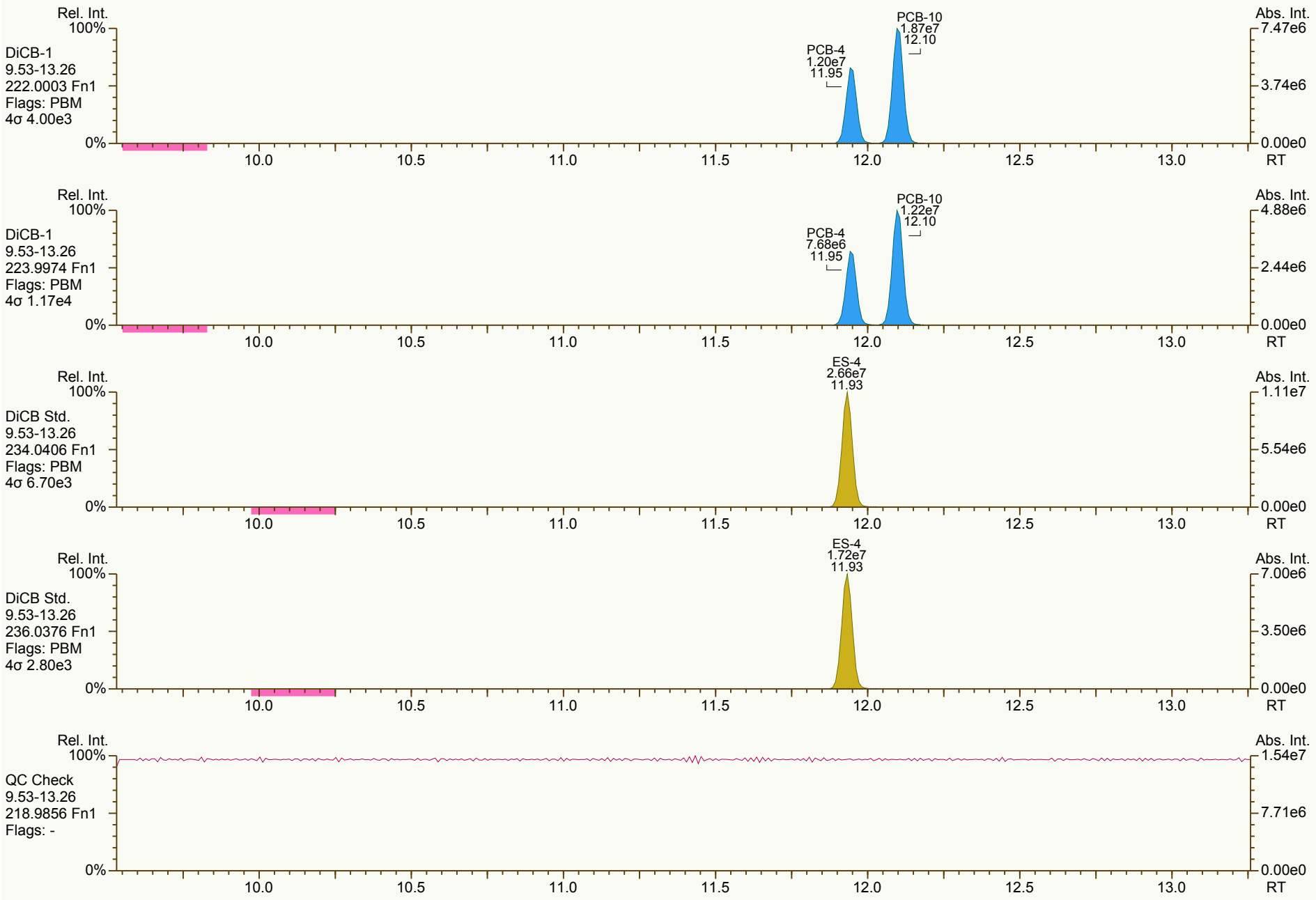
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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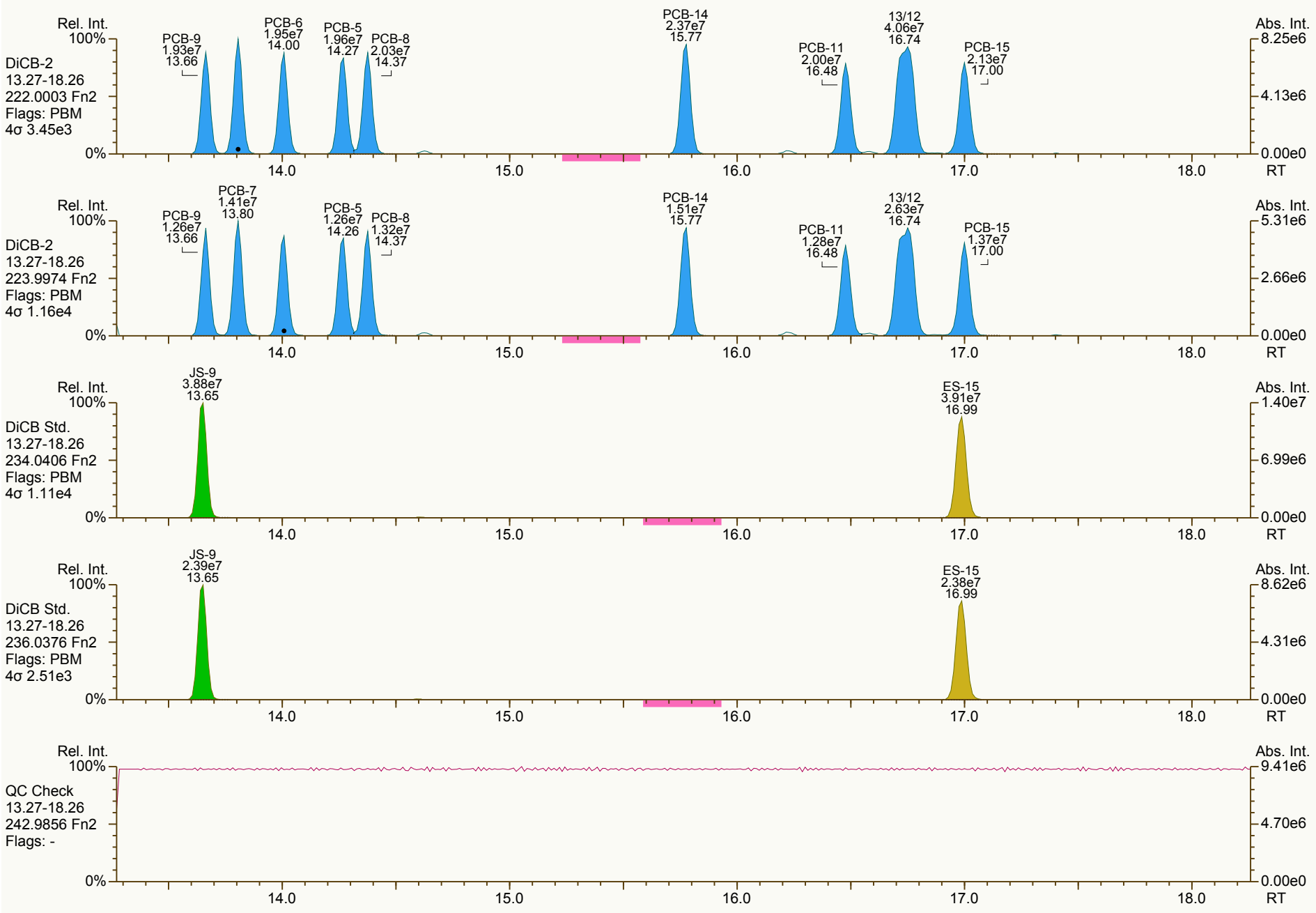
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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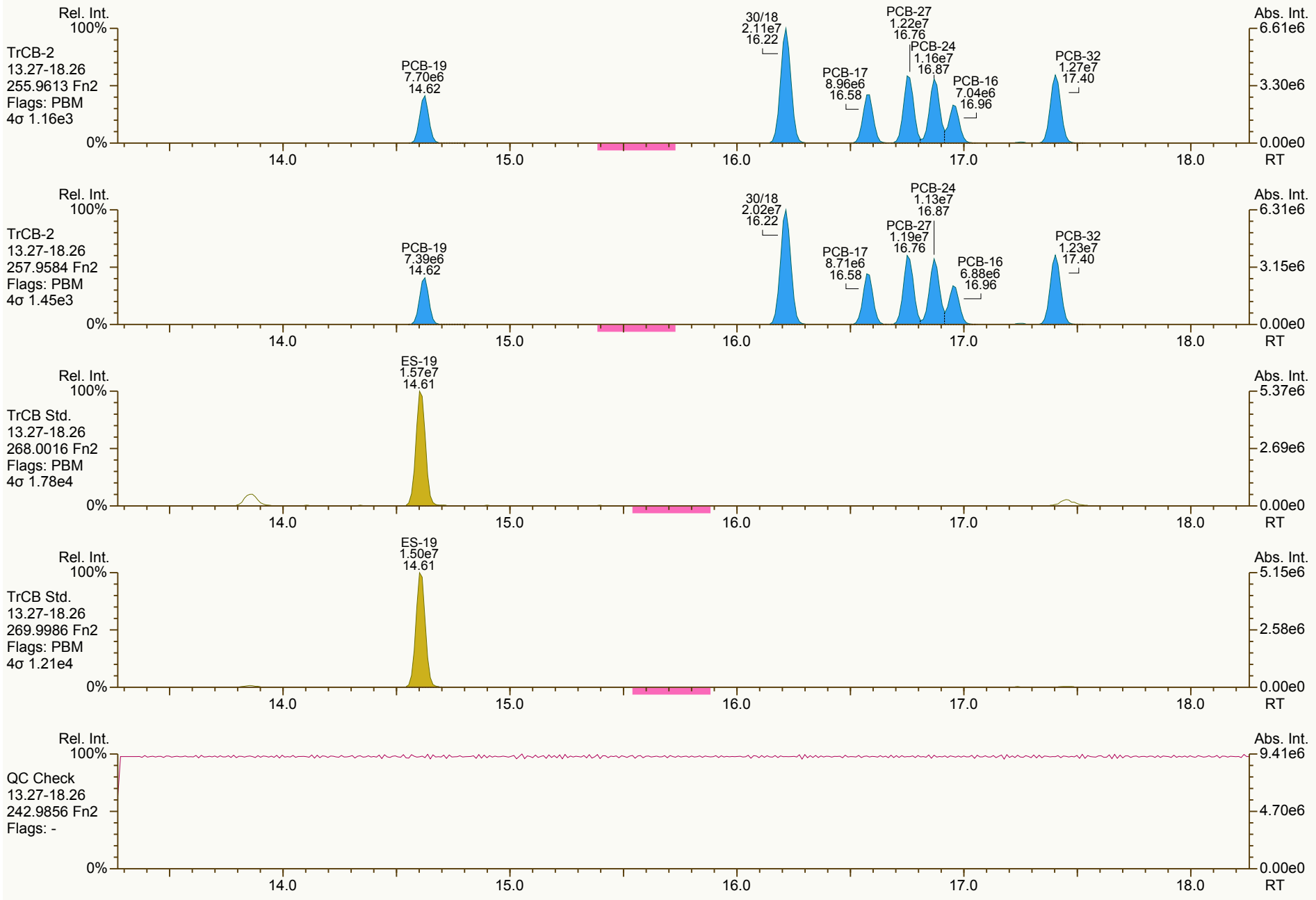
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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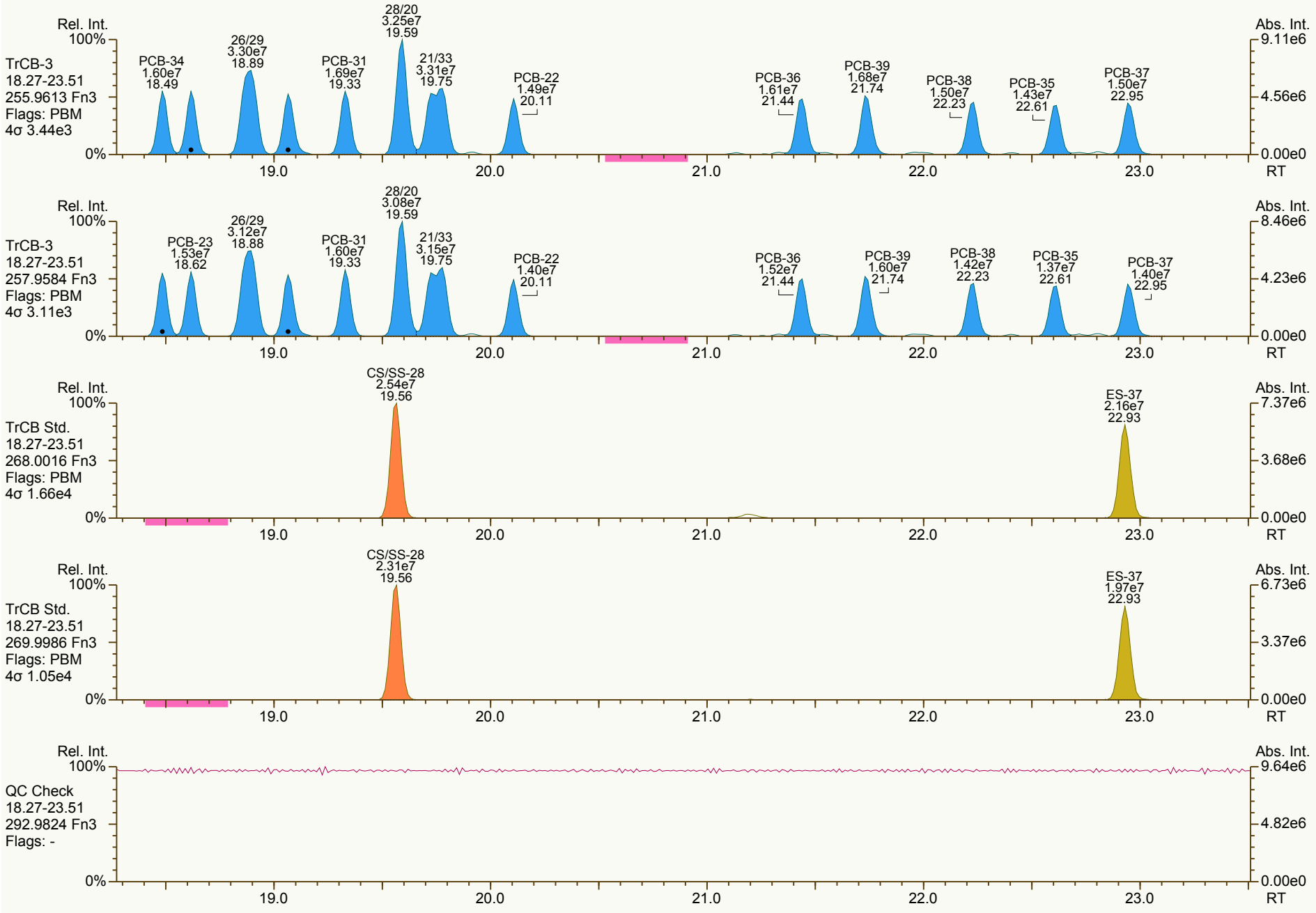
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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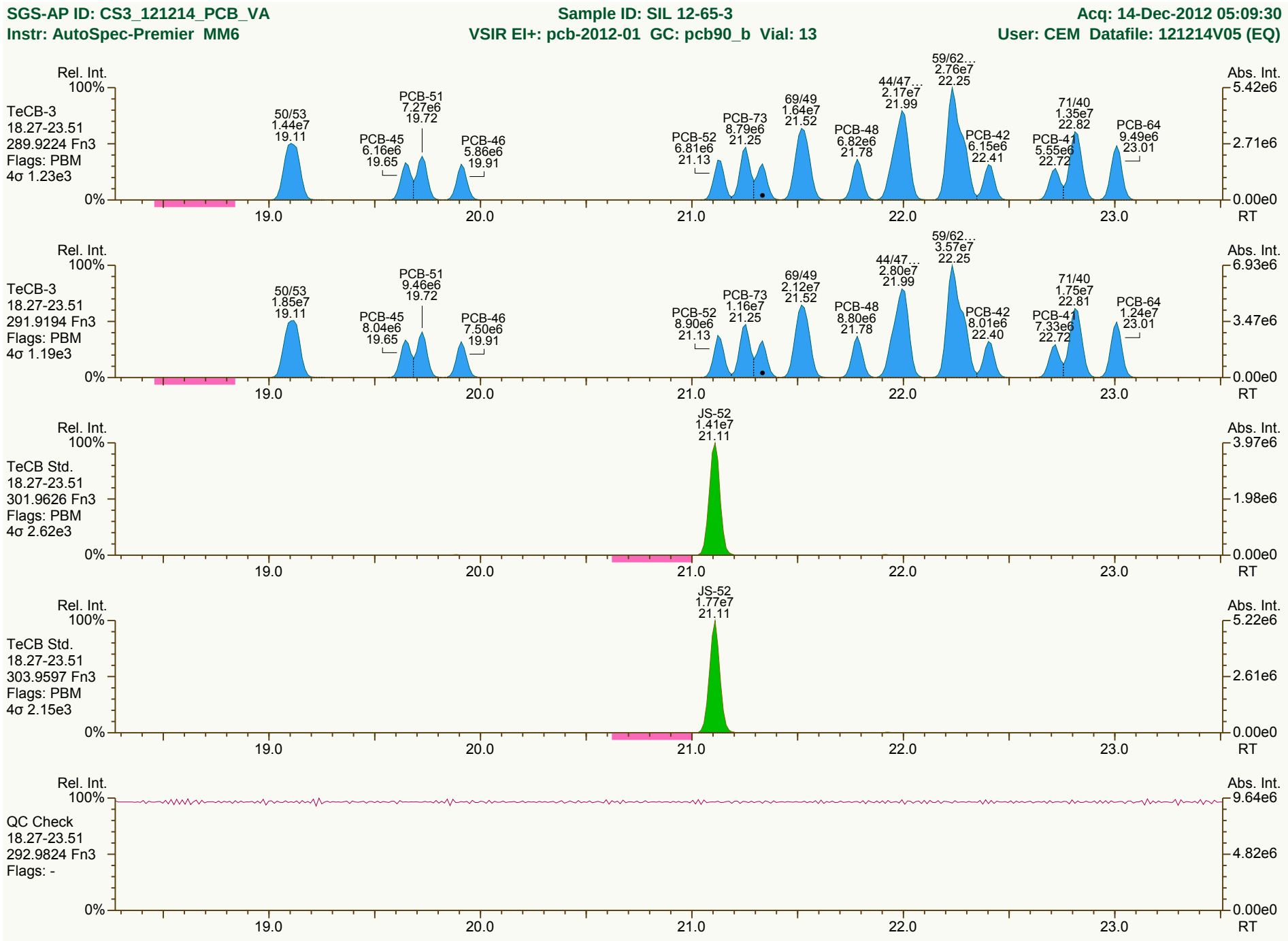
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**





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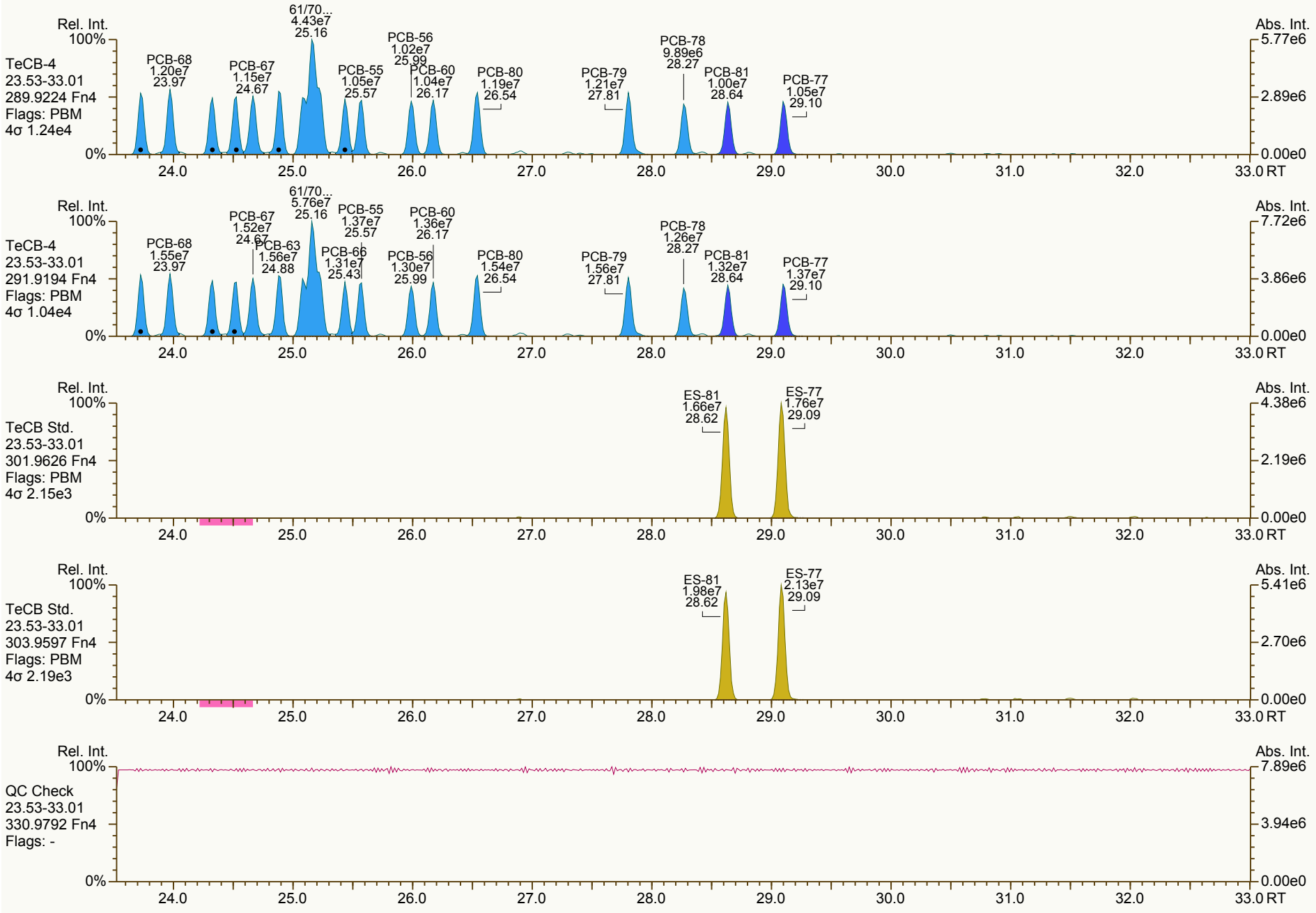
Peak annotation: Areas, Centroids

SGS-AP ID: CS3_121214_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 05:09:30
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13 | User: CEM Datafile: 121214V05 (EQ)



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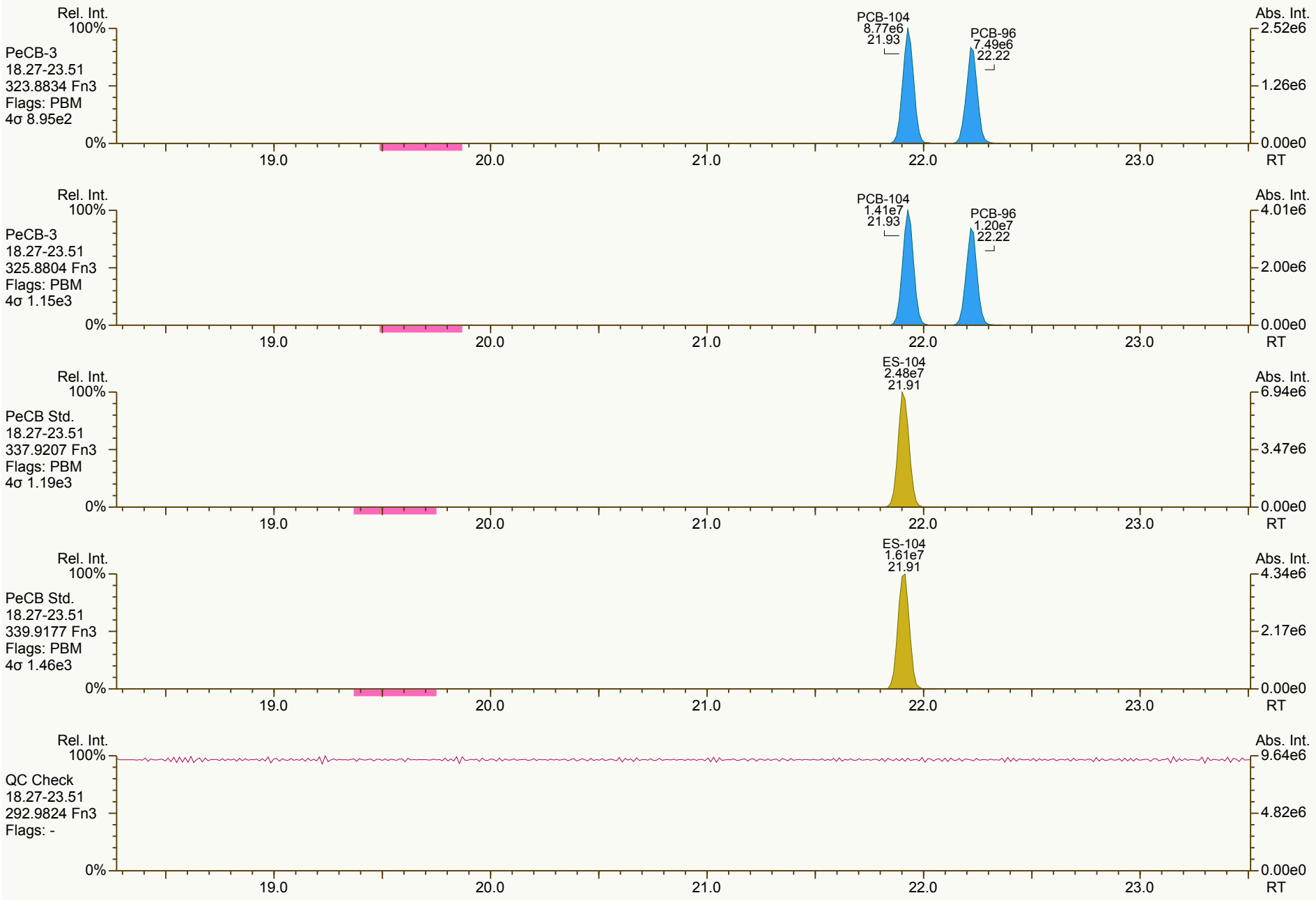
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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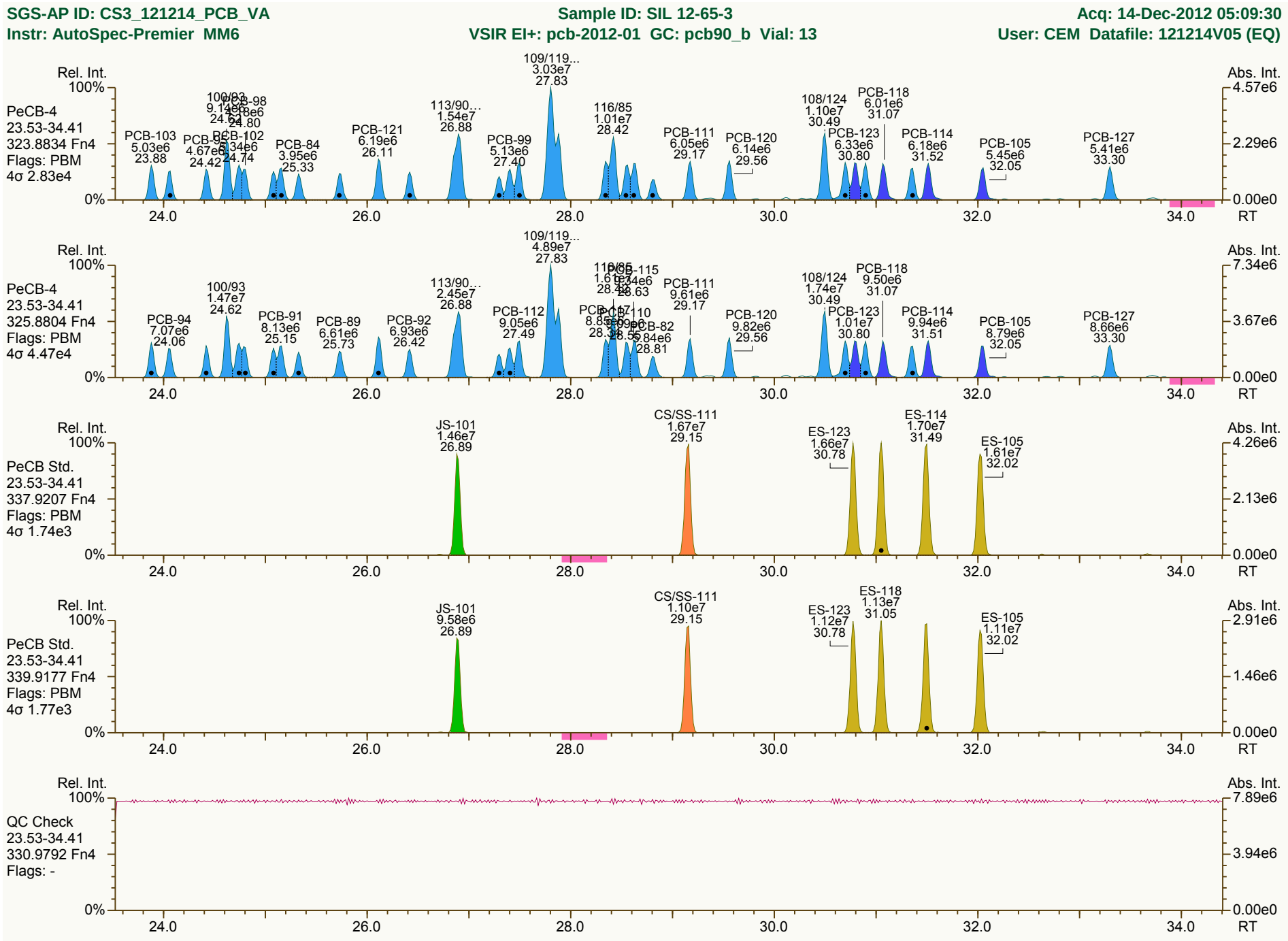

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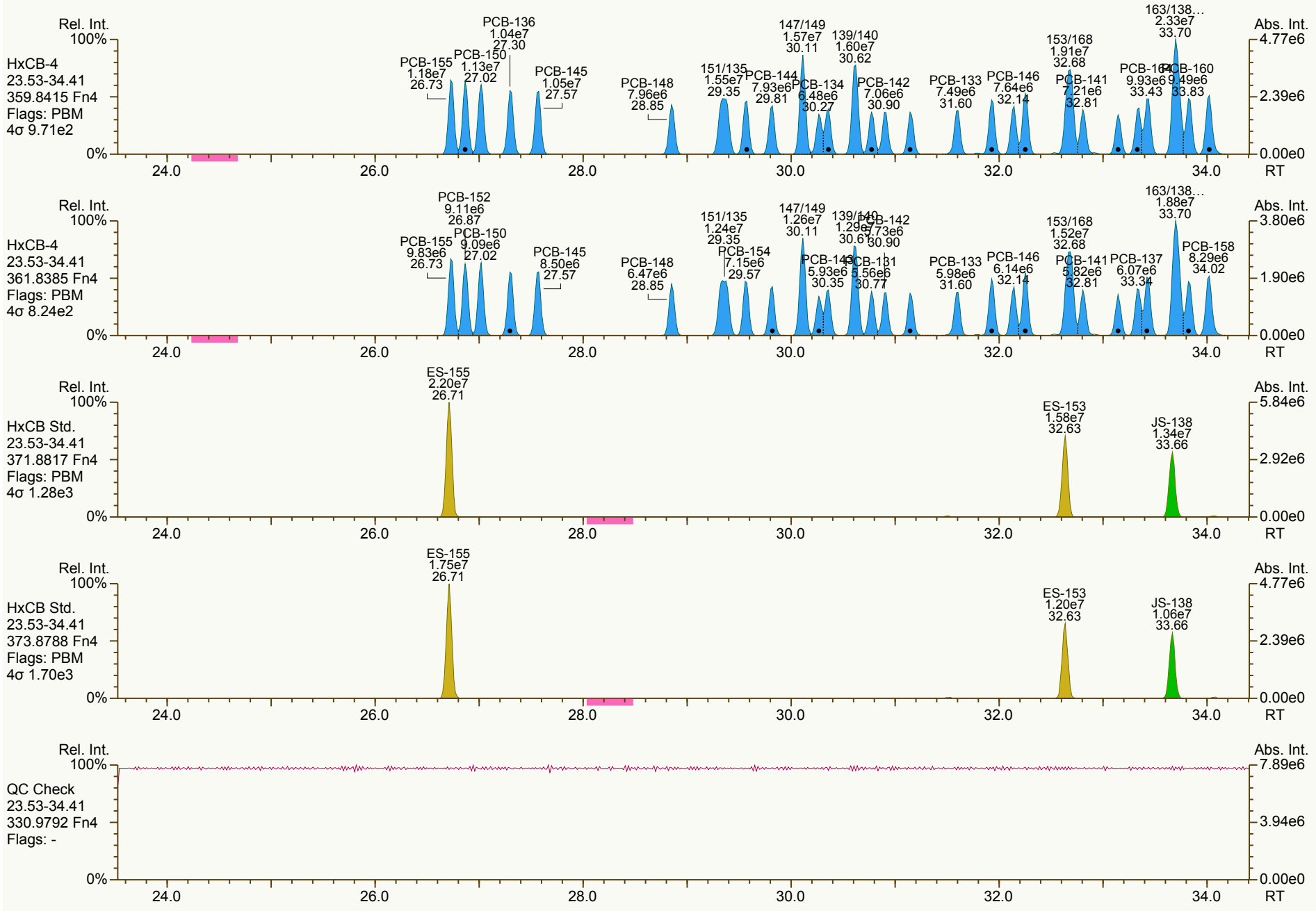
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9084, 6902 scc: 858-276
Revised: 14-Dec-2012 10:00 (CEM) Printed: 14-Dec-2012 11:21 Page 11 of 22

SGS-AP ID: CS3_121214_PCB_VA | **Sample ID: SIL 12-65-3** | **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 | **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** | **User: CEM Datafile: 121214V05 (EQ)**

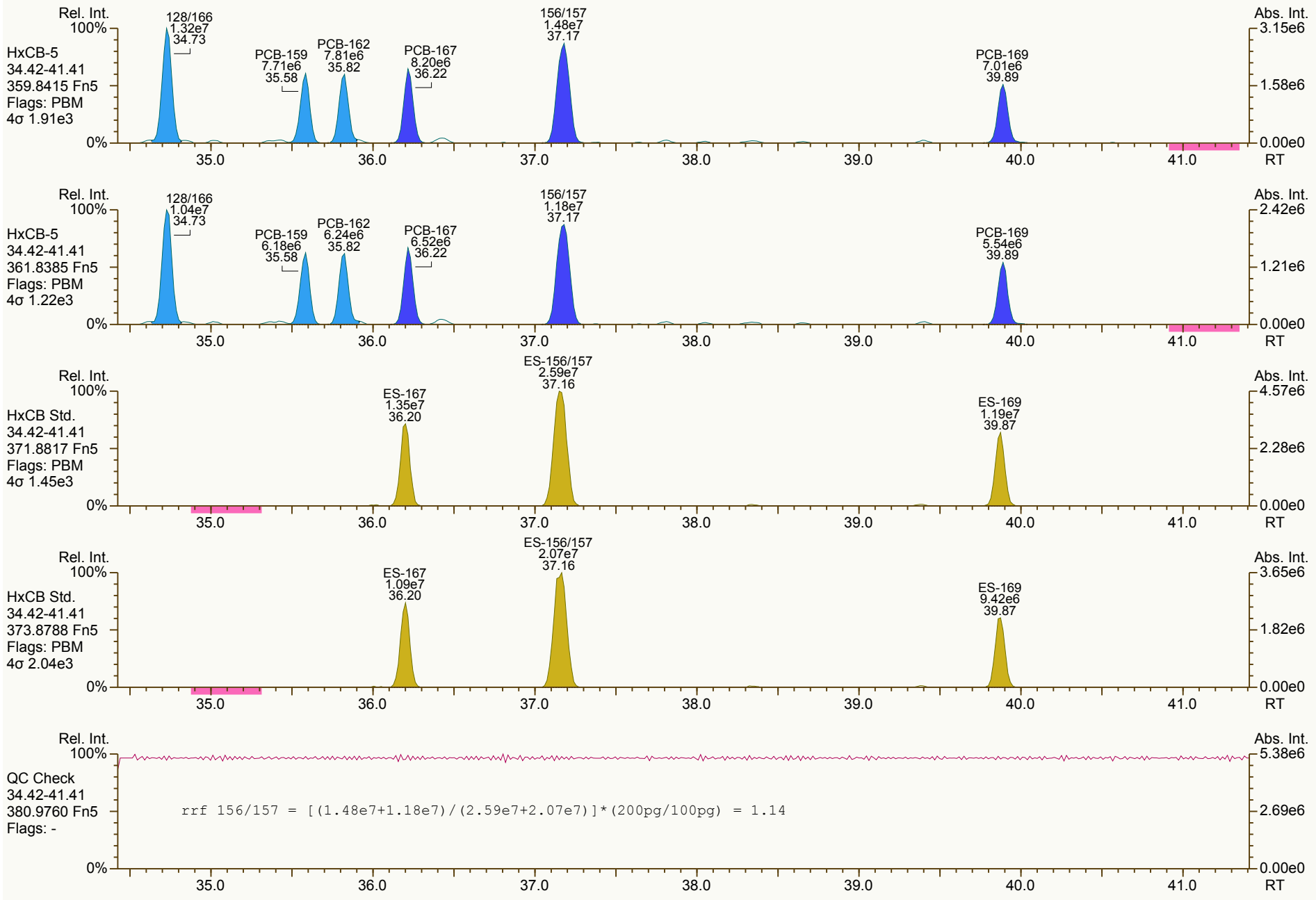


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 05:09:30
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13 | User: CEM Datafile: 121214V05 (EQ)



SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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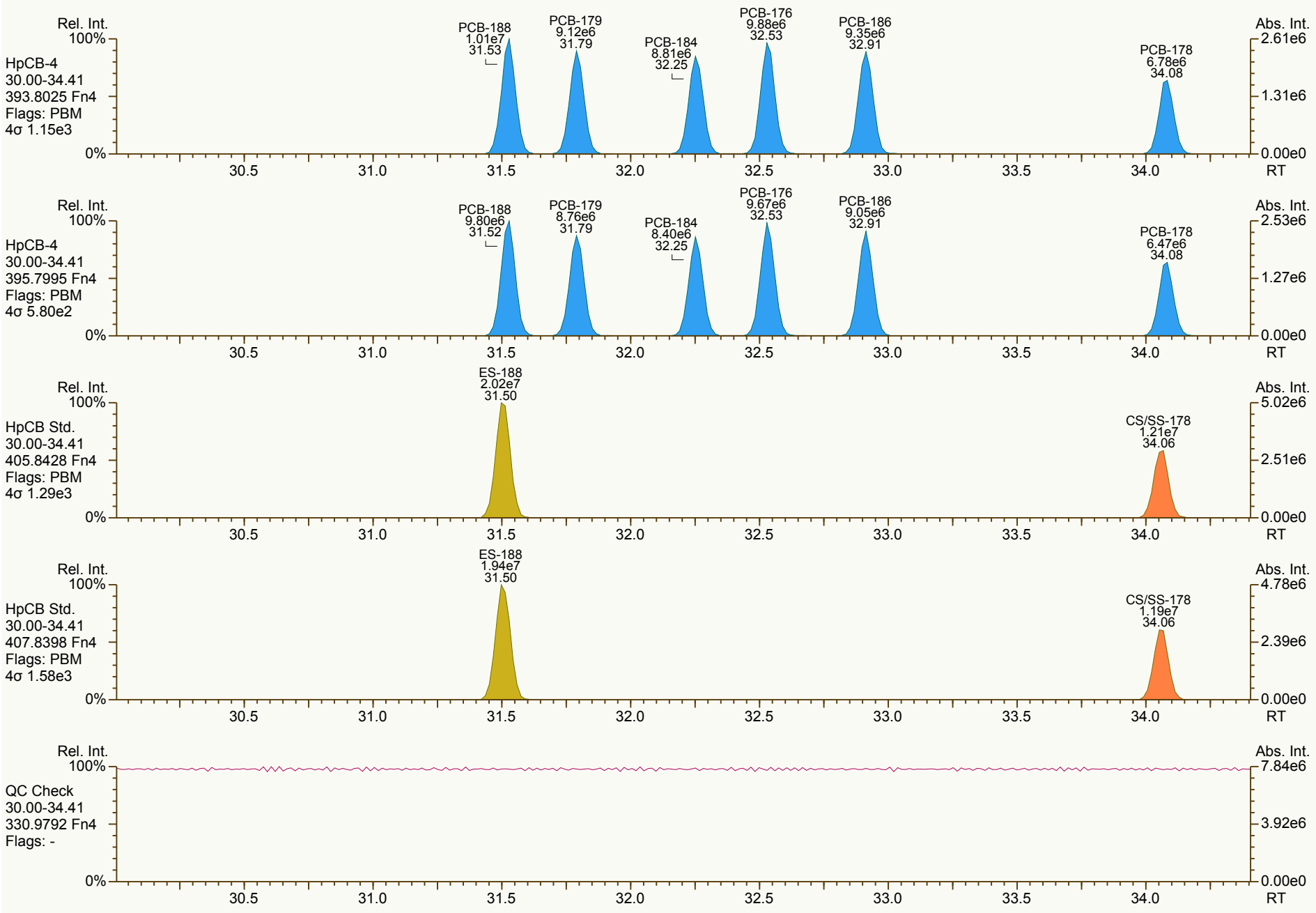
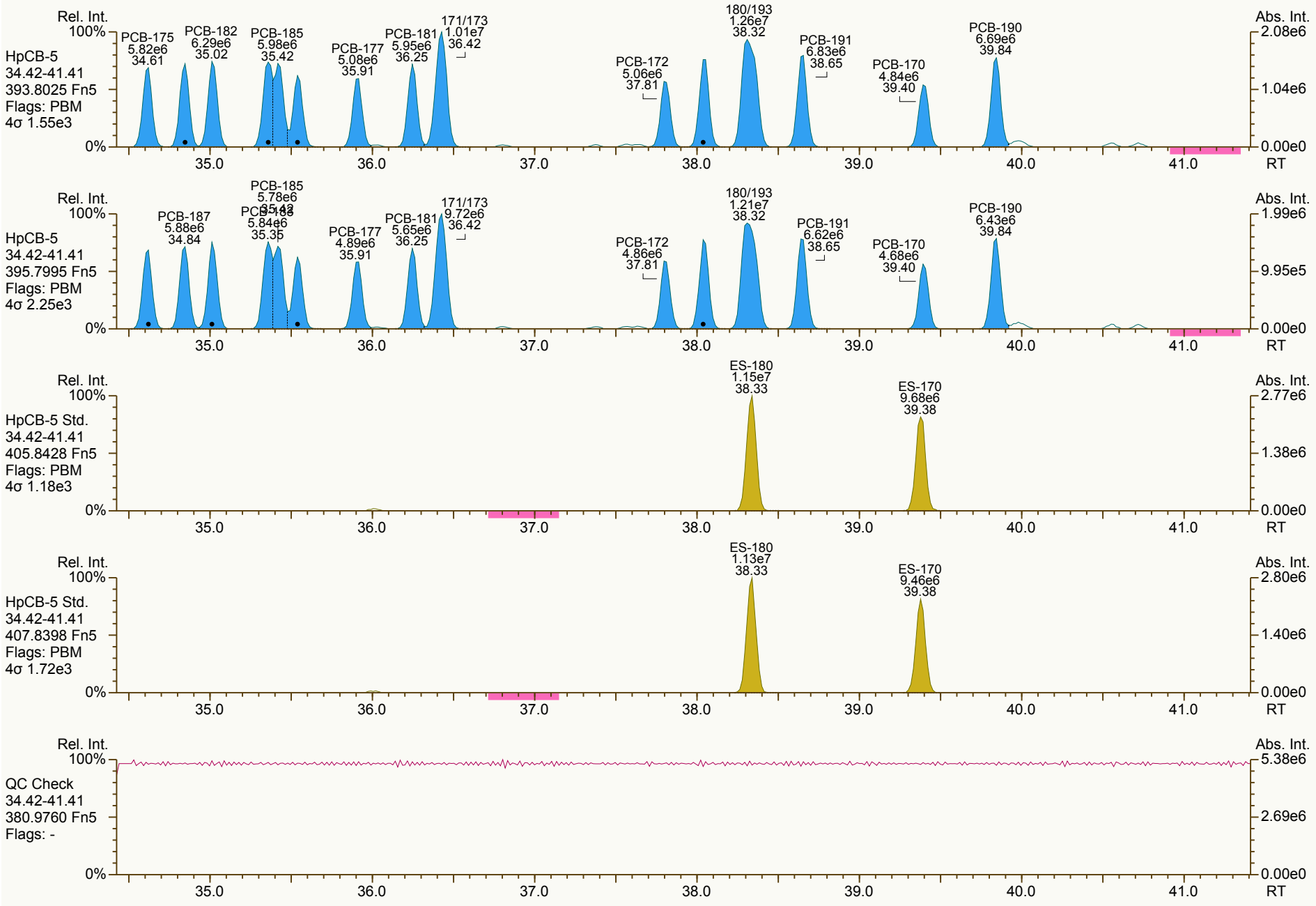
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 8432, 6811 scc: 858-276 *PKD: 14-Dec-2012 09:59 Printed: 14-Dec-2012 11:21 Page 15 of 22*

SGS-AP ID: CS3_121214_PCB_VA | Sample ID: SIL 12-65-3 | Acq: 14-Dec-2012 05:09:30
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13 | User: CEM Datafile: 121214V05 (EQ)



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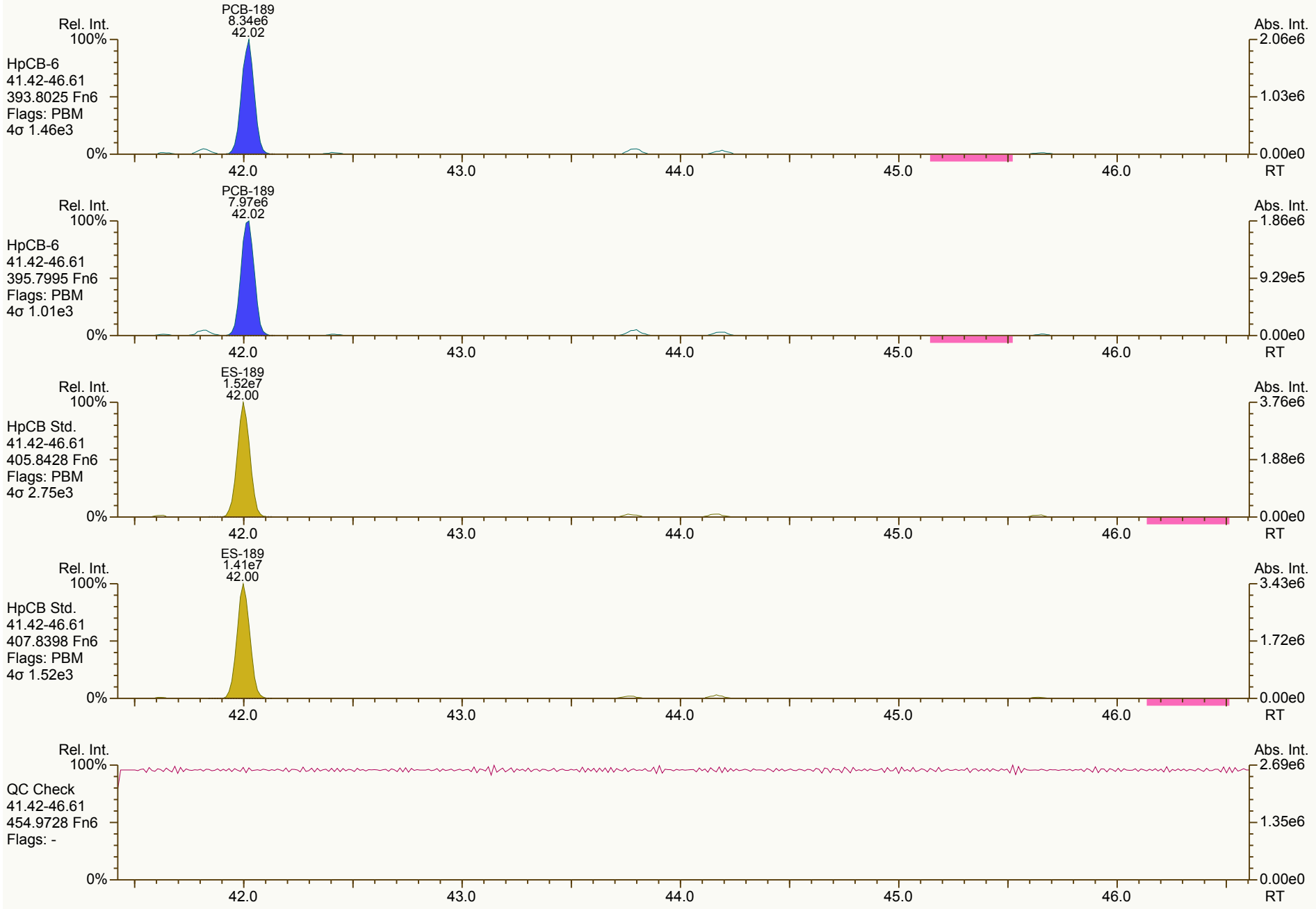
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



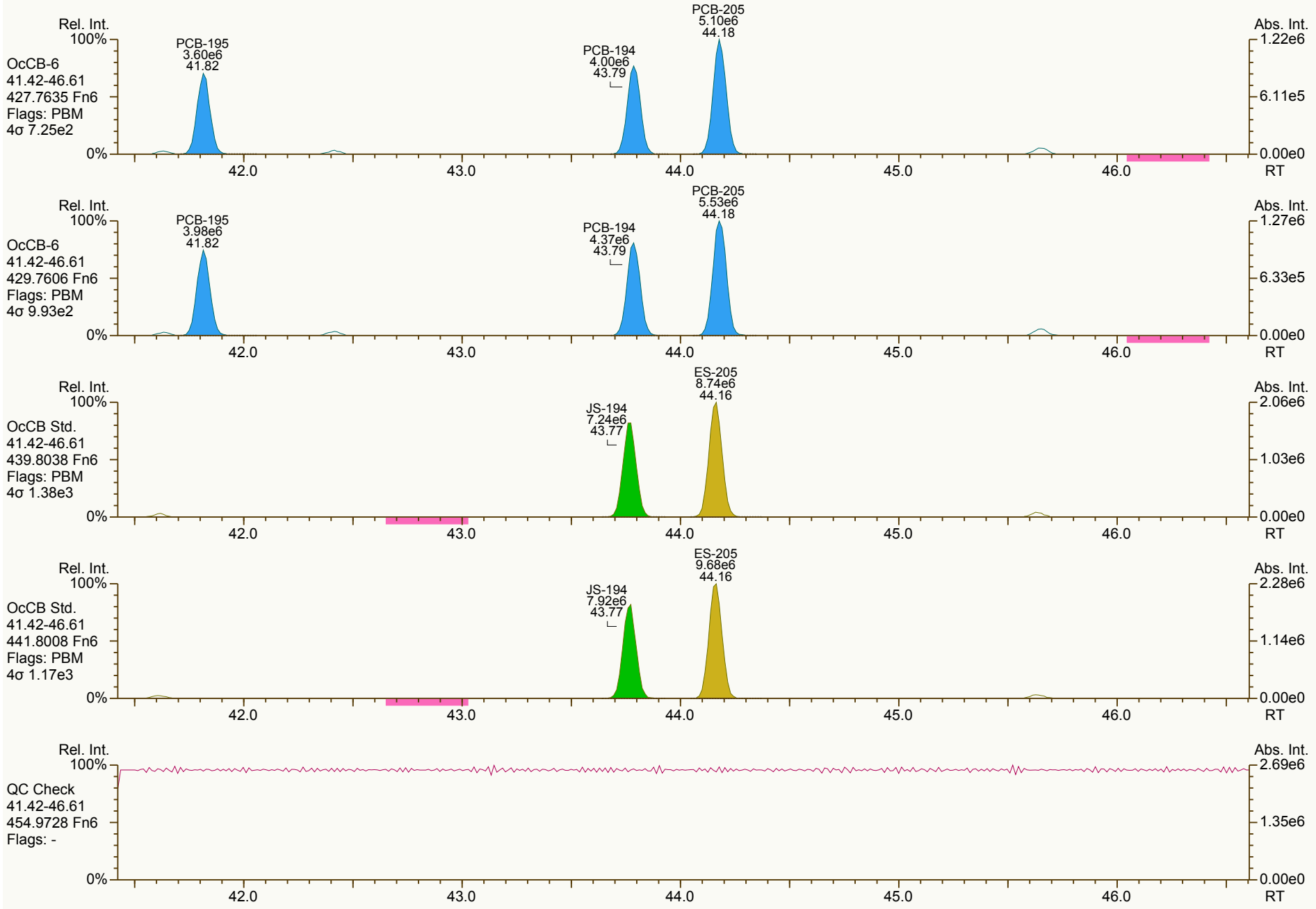
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



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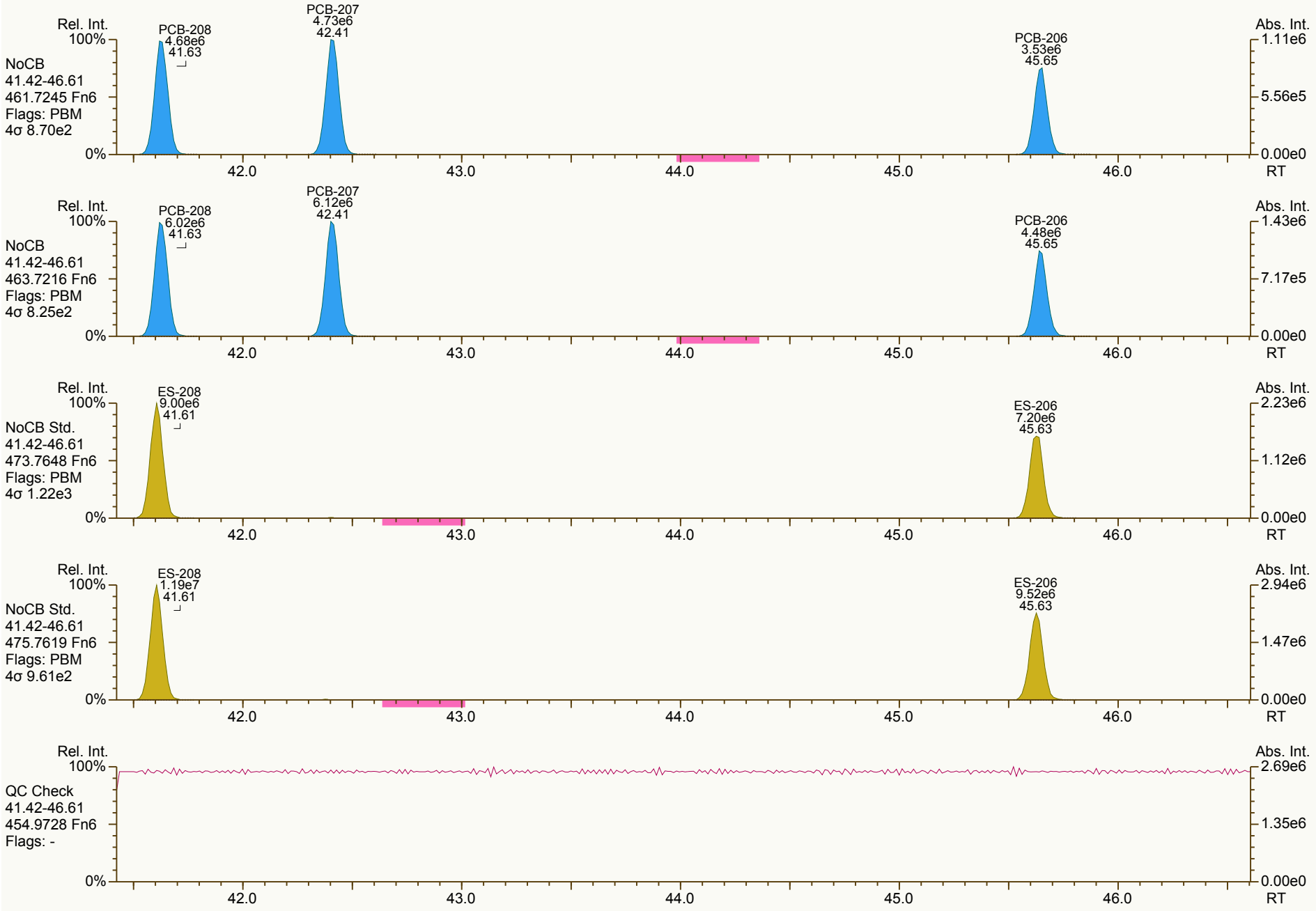
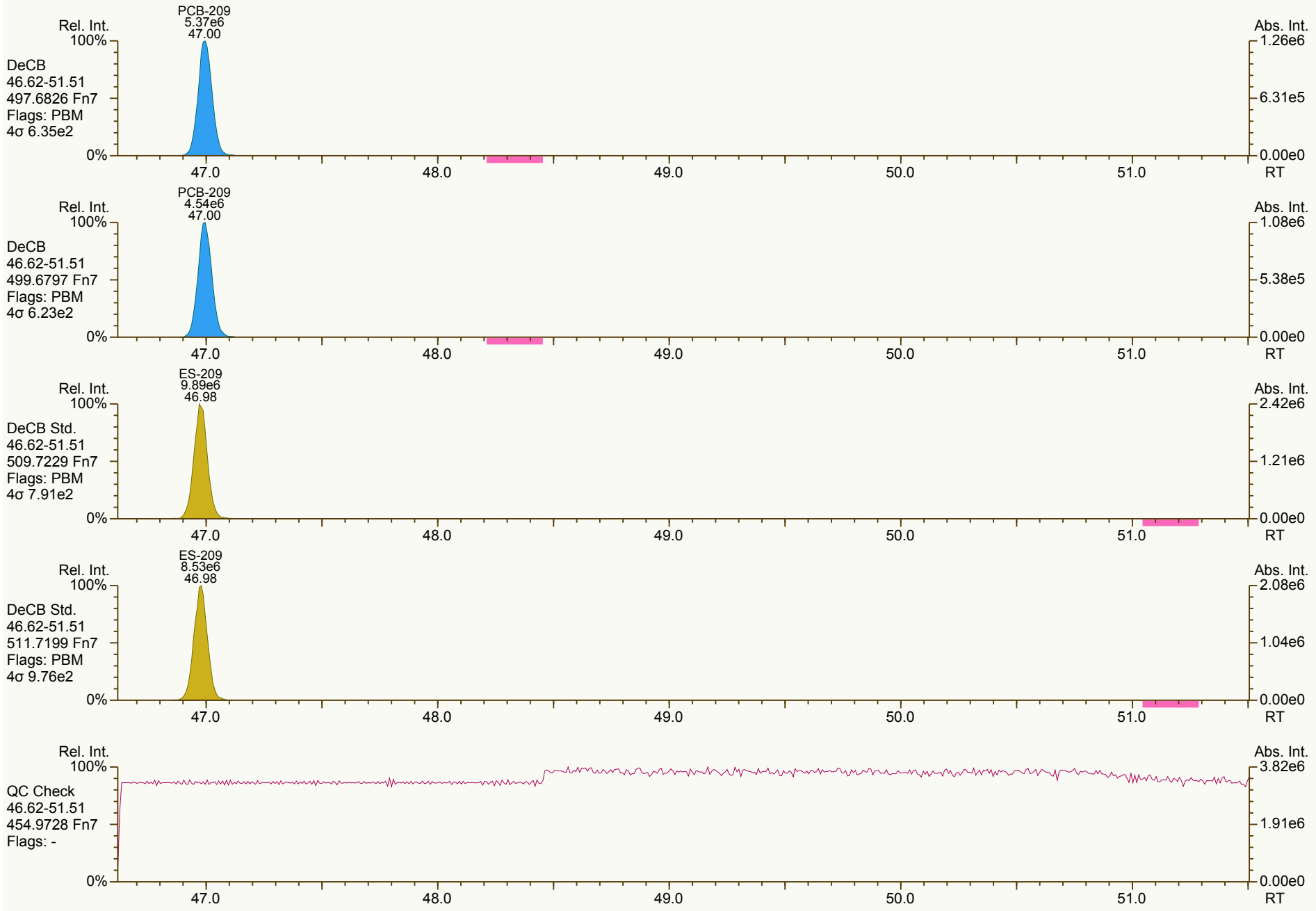
SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



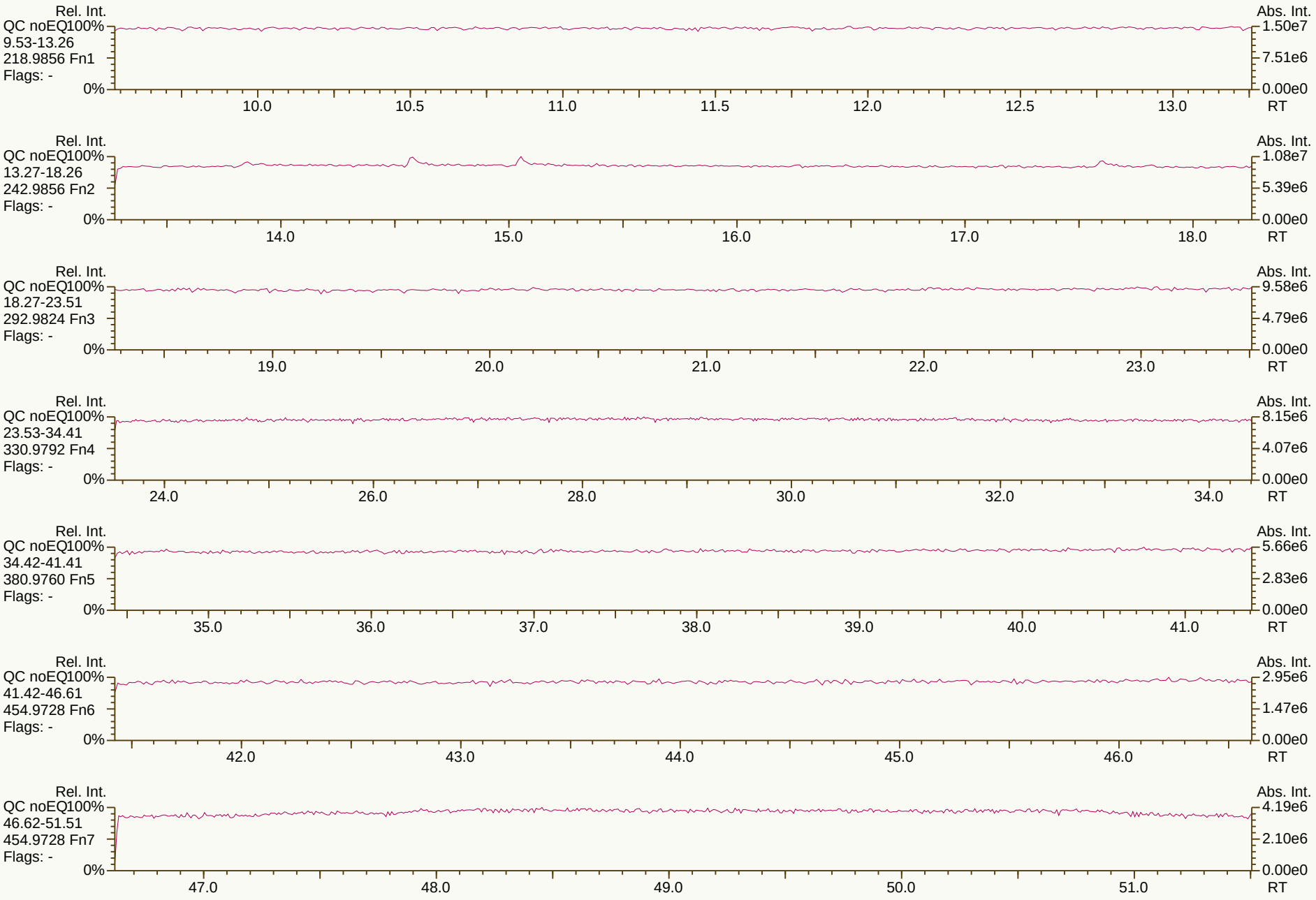
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS3_121214_PCB_VA **Sample ID: SIL 12-65-3** **Acq: 14-Dec-2012 05:09:30**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 13** **User: CEM Datafile: 121214V05 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS3_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:17
Lab ID:	CS4_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 06:03				
Datafile:	121214V06				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.11	2.08E+08	0.78 Y	1.25	1.26	1.0%
PCB-81 344'5-TeCB	28.64	2.10E+08	0.77 Y	1.26	1.29	2.4%
PCB-105 233'44'-PeCB	32.05	1.27E+08	0.62 Y	1.06	1.07	1.6%
PCB-114 2344'5-PeCB	31.52	1.39E+08	0.62 Y	1.11	1.10	-0.9%
PCB-118 23'44'5-PeCB	31.08	1.36E+08	0.63 Y	1.08	1.11	2.3%
PCB-123 23'44'5'-PeCB	30.80	1.37E+08	0.62 Y	1.12	1.09	-2.9%
PCB-126 33'44'5-PeCB	34.65	1.65E+08	0.62 Y	1.16	1.16	0.7%
PCB-156/157 ...-HxCB	37.18	2.46E+08	1.26 Y	1.14	1.15	0.6%
PCB-167 23'44'55'-HxCB	36.23	1.35E+08	1.25 Y	1.18	1.20	1.4%
PCB-169 33'44'55'-HxCB	39.90	1.16E+08	1.28 Y	1.15	1.17	1.3%
PCB-189 233'44'55'-HpCB	42.03	1.46E+08	1.03 Y	1.12	1.13	1.7%
PCB-209 DeCB	47.00	8.86E+07	1.18 Y	1.11	1.08	-3.0%
ES PCB-1	9.83	6.66E+07	3.27 Y	0.97	0.99	1.9%
ES PCB-3	11.73	6.23E+07	3.35 Y	0.90	0.93	2.9%
ES PCB-4	11.94	4.80E+07	1.55 Y	0.70	0.71	1.8%
ES PCB-15	16.99	7.32E+07	1.65 Y	1.02	1.09	7.1%
ES PCB-19	14.61	3.70E+07	1.04 Y	0.53	0.55	4.3%
ES PCB-37	22.94	4.44E+07	1.11 Y	1.29	1.30	0.5%
ES PCB-54	17.23	5.04E+07	0.78 Y	1.43	1.48	3.5%
ES PCB-77	29.09	4.13E+07	0.82 Y	1.20	1.21	0.5%
ES PCB-81	28.63	4.08E+07	0.83 Y	1.16	1.20	3.0%
ES PCB-104	21.91	4.62E+07	1.52 Y	1.70	1.67	-2.2%
ES PCB-105	32.03	2.97E+07	1.53 Y	1.10	1.07	-2.5%
ES PCB-114	31.50	3.15E+07	1.54 Y	1.16	1.14	-1.6%
ES PCB-118	31.06	3.08E+07	1.51 Y	1.15	1.11	-3.6%
ES PCB-123	30.78	3.14E+07	1.53 Y	1.14	1.13	-0.8%
ES PCB-126	34.63	3.55E+07	1.66 Y	1.34	1.28	-4.3%
ES PCB-153	32.64	3.13E+07	1.31 Y	1.14	1.14	-0.7%
ES PCB-155	26.72	4.37E+07	1.27 Y	1.61	1.59	-1.7%
ES PCB-156/157	37.16	5.37E+07	1.26 Y	0.98	0.98	-0.2%
ES PCB-167	36.21	2.83E+07	1.26 Y	1.01	1.03	1.7%
ES PCB-169	39.88	2.49E+07	1.25 Y	0.90	0.91	0.9%
ES PCB-170	39.38	2.21E+07	1.04 Y	1.28	1.34	4.5%
ES PCB-180	38.34	2.67E+07	1.06 Y	1.54	1.62	5.2%
ES PCB-188	31.51	4.46E+07	1.05 Y	1.63	1.62	-0.2%
ES PCB-189	42.01	3.23E+07	1.06 Y	1.97	1.96	-0.6%
ES PCB-202	36.01	3.47E+07	0.89 Y	1.26	1.26	0.0%
ES PCB-205	44.17	2.02E+07	0.91 Y	1.22	1.22	0.2%
ES PCB-206	45.63	1.83E+07	0.80 Y	1.10	1.11	1.1%
ES PCB-208	41.61	2.31E+07	0.78 Y	1.41	1.40	-0.4%
ES PCB-209	46.98	2.05E+07	1.15 Y	1.24	1.25	0.1%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.57	5.19E+07	1.10 Y	1.18	1.17	-0.6%
SS PCB-111	29.15	3.11E+07	1.52 Y	1.01	0.99	-1.5%
SS PCB-178	34.07	2.72E+07	1.05 Y	0.60	0.61	1.2%
CS PCB-28	19.57	5.19E+07	1.10 Y	1.52	1.52	-0.2%
CS PCB-111	29.15	3.11E+07	1.52 Y	1.15	1.12	-2.2%
CS PCB-178	34.07	2.72E+07	1.05 Y	0.98	0.99	1.0%
JS PCB-9	13.65	6.74E+07	1.64 Y	-	-	-
JS PCB-52	21.11	3.41E+07	0.77 Y	-	-	-
JS PCB-101	26.89	2.77E+07	1.54 Y	-	-	-
JS PCB-138	33.67	2.75E+07	1.30 Y	-	-	-
JS PCB-194	43.77	1.65E+07	0.90 Y	-	-	-
PCB-1 2-MoCB	9.84	3.43E+08	3.08 Y	1.25	1.29	3.3%
PCB-3 4-MoCB	11.74	3.26E+08	3.10 Y	1.27	1.31	3.4%
PCB-4 22'-DiCB	11.95	1.78E+08	1.56 Y	0.90	0.93	3.5%
PCB-15 44'-DiCB	17.00	3.23E+08	1.55 Y	1.10	1.10	0.4%
PCB-19 22'6-TrCB	14.63	1.42E+08	1.03 Y	0.95	0.96	1.1%
PCB-37 344'-TrCB	22.95	2.52E+08	1.05 Y	1.39	1.42	2.1%
PCB-54 22'66'-TeCB	17.25	2.23E+08	0.80 Y	1.05	1.11	5.2%
PCB-104 22'466'-PeCB	21.94	2.11E+08	0.63 Y	1.12	1.14	1.9%
PCB-153/168 ...-HxCB	32.68	3.06E+08	1.24 Y	1.24	1.22	-1.0%
PCB-155 22'44'66'-HxCB	26.74	1.91E+08	1.24 Y	1.09	1.09	0.0%
PCB-170 22'33'44'5-HpCB	39.40	8.80E+07	1.03 Y	0.99	0.99	0.1%
PCB-180/193 ...-HpCB	38.33	2.28E+08	1.04 Y	1.07	1.07	-0.2%
PCB-188 22'34'566'-HpCB	31.53	1.82E+08	1.03 Y	0.98	1.02	3.7%
PCB-202 22'33'55'66'-OcCB	36.03	1.22E+08	0.90 Y	0.86	0.88	1.6%
PCB-205 233'44'55'6-OcCB	44.19	9.50E+07	0.91 Y	1.13	1.18	3.7%
PCB-208 22'33'455'66'-NoCB	41.63	9.84E+07	0.77 Y	1.03	1.06	2.9%
PCB-206 22'33'44'55'6-NoCB	45.65	7.16E+07	0.77 Y	0.97	0.98	0.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.84	3.43E+08	3.08 Y	1.25	1.29	3.3%
PCB-2 3-MoCB	11.59	3.28E+08	3.11 Y	1.28	1.32	3.1%
PCB-3 4-MoCB	11.74	3.26E+08	3.10 Y	1.27	1.31	3.4%
PCB-4 22'-DiCB	11.95	1.78E+08	1.56 Y	0.90	0.93	3.5%
PCB-10 26-DiCB	12.11	2.83E+08	1.55 Y	1.38	1.47	6.7%
PCB-9 25-DiCB	13.67	2.82E+08	1.55 Y	0.99	0.96	-2.5%
PCB-7 24-DiCB	13.81	3.21E+08	1.55 Y	1.10	1.10	-0.6%
PCB-6 23'-DiCB	14.01	3.00E+08	1.55 Y	1.04	1.03	-1.4%
PCB-5 23-DiCB	14.27	3.00E+08	1.55 Y	1.02	1.02	-0.2%
PCB-8 24'-DiCB	14.38	3.04E+08	1.56 Y	1.03	1.04	0.4%
PCB-14 35-DiCB	15.78	3.50E+08	1.55 Y	1.20	1.19	-0.5%
PCB-11 33'-DiCB	16.48	3.02E+08	1.56 Y	1.03	1.03	0.4%
PCB-13/12 34'/34-DiCB	16.74	6.26E+08	1.55 Y	1.03	1.07	3.4%
PCB-15 44'-DiCB	17.00	3.23E+08	1.55 Y	1.10	1.10	0.4%
PCB-19 22'6-TrCB	14.63	1.42E+08	1.03 Y	0.95	0.96	1.1%
PCB-30/18 246/22'5-TrCB	16.22	3.85E+08	1.03 Y	1.23	1.30	5.5%
PCB-17 22'4-TrCB	16.58	1.62E+08	1.04 Y	1.05	1.09	3.7%
PCB-27 23'6-TrCB	16.76	2.29E+08	1.03 Y	1.46	1.55	5.8%
PCB-24 236-TrCB	16.88	2.13E+08	1.03 Y	1.32	1.44	8.8%
PCB-16 22'3-TrCB	16.96	1.23E+08	1.03 Y	0.81	0.83	2.5%
PCB-32 24'6-TrCB	17.41	2.24E+08	1.04 Y	1.48	1.51	2.5%
PCB-34 23'5'-TrCB	18.49	2.73E+08	1.06 Y	1.46	1.54	5.3%
PCB-23 235-TrCB	18.62	2.77E+08	1.05 Y	1.50	1.56	3.8%
PCB-26/29 23'5/245-TrCB	18.89	5.66E+08	1.05 Y	1.53	1.59	4.2%
PCB-25 23'4-TrCB	19.08	2.88E+08	1.05 Y	1.53	1.62	5.8%
PCB-31 24'5-TrCB	19.34	2.82E+08	1.05 Y	1.55	1.59	2.5%
PCB-28/20 244'/233'-TrCB	19.60	5.52E+08	1.05 Y	1.51	1.55	3.2%
PCB-21/33 234/23'4'-TrCB	19.76	5.77E+08	1.06 Y	1.55	1.63	5.2%
PCB-22 234'-TrCB	20.11	2.60E+08	1.05 Y	1.40	1.47	4.8%
PCB-36 33'5-TrCB	21.44	2.80E+08	1.05 Y	1.52	1.58	3.8%
PCB-39 34'5-TrCB	21.74	2.92E+08	1.05 Y	1.58	1.64	3.9%
PCB-38 345-TrCB	22.23	2.72E+08	1.06 Y	1.47	1.53	4.3%
PCB-35 33'4-TrCB	22.61	2.43E+08	1.05 Y	1.33	1.37	2.8%
PCB-37 344'-TrCB	22.95	2.52E+08	1.05 Y	1.39	1.42	2.1%
PCB-54 22'66'-TeCB	17.25	2.23E+08	0.80 Y	1.05	1.11	5.2%
PCB-50/53 22'46/22'56'-TeCB	19.11	3.01E+08	0.77 Y	0.88	0.92	5.1%
PCB-45 22'36-TeCB	19.65	1.20E+08	0.76 Y	0.73	0.74	0.4%
PCB-51 22'46'-TeCB	19.73	1.61E+08	0.77 Y	0.94	0.99	5.2%
PCB-46 22'36'-TeCB	19.92	1.18E+08	0.77 Y	0.72	0.72	0.6%
PCB-52 22'55'-TeCB	21.13	1.37E+08	0.78 Y	0.82	0.84	1.6%
PCB-73 23'5'6-TeCB	21.26	1.91E+08	0.77 Y	1.10	1.17	6.4%
PCB-43 22'35-TeCB	21.34	1.12E+08	0.77 Y	0.70	0.68	-3.0%
PCB-69/49 23'46/22'45'-TeCB	21.53	3.42E+08	0.77 Y	1.01	1.05	3.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.79	1.40E+08	0.77 Y	0.84	0.86	1.4%
PCB-44/47/65 ...-TeCB	21.99	4.54E+08	0.77 Y	0.90	0.93	2.8%
PCB-59/62/75 ...-TeCB	22.26	6.05E+08	0.77 Y	1.15	1.23	6.9%
PCB-42 22'34'-TeCB	22.41	1.28E+08	0.77 Y	0.76	0.78	2.2%
PCB-41 22'34-TeCB	22.72	1.04E+08	0.76 Y	0.64	0.64	-0.2%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	2.78E+08	0.77 Y	0.83	0.85	2.2%
PCB-64 234'6-TeCB	23.01	1.96E+08	0.77 Y	1.17	1.20	2.2%
PCB-72 23'55'-TeCB	23.74	2.30E+08	0.77 Y	1.37	1.41	2.9%
PCB-68 23'45'-TeCB	23.98	2.45E+08	0.77 Y	1.52	1.50	-1.2%
PCB-57 233'5-TeCB	24.33	2.15E+08	0.78 Y	1.32	1.32	-0.6%
PCB-58 233'5'-TeCB	24.52	2.14E+08	0.78 Y	1.34	1.31	-2.0%
PCB-67 23'45-TeCB	24.67	2.36E+08	0.78 Y	1.41	1.44	2.1%
PCB-63 234'5-TeCB	24.89	2.37E+08	0.78 Y	1.46	1.45	-0.5%
PCB-61/70/74/76 ...-TeCB	25.17	9.16E+08	0.77 Y	1.37	1.40	2.7%
PCB-66 23'44'-TeCB	25.44	2.05E+08	0.77 Y	1.24	1.26	1.3%
PCB-55 233'4-TeCB	25.57	2.08E+08	0.77 Y	1.28	1.27	-0.3%
PCB-56 233'4'-TeCB	26.00	2.01E+08	0.78 Y	1.23	1.23	0.1%
PCB-60 2344'-TeCB	26.18	2.13E+08	0.77 Y	1.30	1.30	0.3%
PCB-80 33'55'-TeCB	26.54	2.35E+08	0.77 Y	1.44	1.44	0.1%
PCB-79 33'45'-TeCB	27.82	2.47E+08	0.78 Y	1.48	1.51	2.4%
PCB-78 33'45-TeCB	28.28	1.94E+08	0.78 Y	1.21	1.19	-1.7%
PCB-104 22'466'-PeCB	21.94	2.11E+08	0.63 Y	1.12	1.14	1.9%
PCB-96 22'366'-PeCB	22.23	1.90E+08	0.63 Y	0.96	1.03	6.6%
PCB-103 22'45'6-PeCB	23.89	1.14E+08	0.63 Y	0.93	0.91	-2.2%
PCB-94 22'356'-PeCB	24.06	1.01E+08	0.63 Y	0.81	0.81	-0.3%
PCB-95 22'35'6-PeCB	24.43	1.06E+08	0.63 Y	0.85	0.84	-0.8%
PCB-100/93 22'44'6/22'356-PeCB	24.63	2.19E+08	0.62 Y	0.88	0.87	-1.3%
PCB-102 22'456'-PeCB	24.74	1.09E+08	0.62 Y	0.93	0.87	-6.4%
PCB-98 22'34'6'-PeCB	24.80	1.06E+08	0.63 Y	0.84	0.85	0.9%
PCB-88 22'346-PeCB	25.09	1.06E+08	0.62 Y	0.77	0.85	9.8%
PCB-91 22'34'6-PeCB	25.16	1.14E+08	0.63 Y	0.96	0.91	-5.5%
PCB-84 22'33'6-PeCB	25.33	8.91E+07	0.63 Y	0.72	0.71	-1.6%
PCB-89 22'346'-PeCB	25.74	9.42E+07	0.62 Y	0.77	0.75	-2.7%
PCB-121 23'45'6-PeCB	26.12	1.43E+08	0.63 Y	1.15	1.14	-0.5%
PCB-92 22'355'-PeCB	26.42	9.82E+07	0.63 Y	0.79	0.78	-1.4%
PCB-113/90/101 ...-PeCB	26.89	3.57E+08	0.62 Y	0.95	0.95	-0.8%
PCB-83 22'33'5-PeCB	27.31	8.87E+07	0.62 Y	0.72	0.71	-1.9%
PCB-99 22'44'5-PeCB	27.41	1.06E+08	0.63 Y	0.90	0.84	-5.8%
PCB-112 233'56-PeCB	27.50	1.34E+08	0.63 Y	1.09	1.07	-2.4%
PCB-109/119/86/97/125...-PeCB	27.83	7.24E+08	0.62 Y	0.95	0.96	1.4%
PCB-117 234'56-PeCB	28.35	1.13E+08	0.62 Y	0.99	0.90	-9.0%
PCB-116/85 23456/22'344'-PeCB	28.42	2.49E+08	0.63 Y	0.96	0.99	3.3%
PCB-110 233'4'6-PeCB	28.55	1.18E+08	0.63 Y	1.01	0.94	-6.5%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:17

Lab ID: CS4_121214_PCB_VA
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.48E+08	0.63 Y	1.15	1.18	2.3%
PCB-82 22'33'4-PeCB	28.82	8.37E+07	0.62 Y	0.70	0.67	-4.4%
PCB-111 233'55'-PeCB	29.18	1.39E+08	0.62 Y	1.16	1.11	-5.1%
PCB-120 23'455'-PeCB	29.56	1.41E+08	0.62 Y	1.14	1.13	-0.9%
PCB-108/124 ...-PeCB	30.50	2.57E+08	0.62 Y	1.02	1.02	0.5%
PCB-107 233'4'5-PeCB	30.70	1.44E+08	0.62 Y	1.13	1.15	1.3%
PCB-106 233'45-PeCB	30.90	1.30E+08	0.64 Y	1.01	1.04	2.4%
PCB-122 233'4'5'-PeCB	31.36	1.17E+08	0.63 Y	0.91	0.93	2.3%
PCB-127 33'455'-PeCB	33.31	1.28E+08	0.63 Y	1.06	1.08	2.5%
PCB-155 22'44'66'-HxCB	26.74	1.91E+08	1.24 Y	1.09	1.09	0.0%
PCB-152 22'3566'-HxCB	26.87	1.87E+08	1.23 Y	1.04	1.07	3.0%
PCB-150 22'34'66'-HxCB	27.02	1.77E+08	1.23 Y	1.03	1.01	-1.4%
PCB-136 22'33'66'-HxCB	27.31	1.70E+08	1.25 Y	0.97	0.97	-0.2%
PCB-145 22'3466'-HxCB	27.57	1.67E+08	1.24 Y	0.96	0.96	-0.6%
PCB-148 22'34'56'-HxCB	28.86	1.29E+08	1.25 Y	1.03	1.03	0.0%
PCB-151/135 ...-HxCB	29.36	2.47E+08	1.24 Y	0.99	0.99	-0.4%
PCB-154 22'44'56'-HxCB	29.57	1.45E+08	1.23 Y	1.17	1.16	-0.8%
PCB-144 22'345'6-HxCB	29.82	1.24E+08	1.24 Y	1.03	0.99	-3.2%
PCB-147/149 ...-HxCB	30.12	2.58E+08	1.24 Y	1.02	1.03	1.4%
PCB-134 22'33'56-HxCB	30.28	9.65E+07	1.24 Y	0.80	0.77	-3.5%
PCB-143 22'3456'-HxCB	30.36	1.22E+08	1.25 Y	0.95	0.98	3.2%
PCB-139/140 ...-HxCB	30.62	2.63E+08	1.24 Y	1.05	1.05	0.4%
PCB-131 22'33'46-HxCB	30.78	1.15E+08	1.25 Y	0.90	0.92	2.8%
PCB-142 22'3456-HxCB	30.91	1.13E+08	1.23 Y	0.93	0.90	-2.4%
PCB-132 22'33'46'-HxCB	31.16	1.13E+08	1.24 Y	0.93	0.90	-2.7%
PCB-133 22'33'55'-HxCB	31.60	1.19E+08	1.24 Y	0.97	0.96	-1.3%
PCB-165 233'55'6-HxCB	31.94	1.45E+08	1.24 Y	1.16	1.16	0.2%
PCB-146 22'34'55'-HxCB	32.15	1.27E+08	1.23 Y	1.01	1.02	0.6%
PCB-161 233'45'6-HxCB	32.26	1.62E+08	1.24 Y	1.29	1.30	0.4%
PCB-153/168 ...-HxCB	32.68	3.06E+08	1.24 Y	1.24	1.22	-1.0%
PCB-141 22'3455'-HxCB	32.81	1.17E+08	1.24 Y	0.95	0.94	-1.3%
PCB-130 22'33'45'-HxCB	33.15	1.03E+08	1.24 Y	0.82	0.83	0.7%
PCB-137 22'344'5-HxCB	33.35	1.33E+08	1.23 Y	0.97	1.06	9.6%
PCB-164 233'4'5'6-HxCB	33.44	1.54E+08	1.24 Y	1.25	1.23	-1.4%
PCB-163/138/129 ...-HxCB	33.71	3.99E+08	1.23 Y	1.04	1.06	2.2%
PCB-160 233'456-HxCB	33.84	1.48E+08	1.25 Y	1.19	1.18	-0.7%
PCB-158 233'44'6-HxCB	34.03	1.71E+08	1.24 Y	1.34	1.36	1.9%
PCB-128/166 ...-HxCB	34.74	2.19E+08	1.25 Y	0.96	0.97	0.8%
PCB-159 233'455'-HxCB	35.59	1.29E+08	1.25 Y	1.12	1.14	1.6%
PCB-162 233'4'55'-HxCB	35.83	1.31E+08	1.25 Y	1.13	1.16	3.1%
PCB-188 22'34'566'-HpCB	31.53	1.82E+08	1.03 Y	0.98	1.02	3.7%
PCB-179 22'33'566'-HpCB	31.80	1.60E+08	1.03 Y	0.90	0.89	-0.3%
PCB-184 22'344'66'-HpCB	32.26	1.61E+08	1.02 Y	0.86	0.90	4.5%

PCB QC Summary - Ax2 Detail **Printed: 14-Dec-2012 11:17**

Lab ID: CS4_121214_PCB_VA ICAL: MM6_PCB_07132012_14DEC12
Acquired: 14-DEC-2012 06:03
Datafile: 121214V06

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.54	1.74E+08	1.03 Y	0.97	0.97	0.6%
PCB-186 22'34566'-HpCB	32.92	1.64E+08	1.02 Y	0.93	0.92	-0.5%
PCB-178 22'33'55'6-HpCB	34.09	1.22E+08	1.03 Y	0.66	0.69	3.6%
PCB-175 22'33'45'6-HpCB	34.62	1.08E+08	1.04 Y	1.02	1.01	-1.3%
PCB-187 22'34'55'6-HpCB	34.85	1.11E+08	1.04 Y	1.03	1.04	1.1%
PCB-182 22'344'56'-HpCB	35.02	1.12E+08	1.03 Y	1.10	1.05	-3.9%
PCB-183 22'344'5'6-HpCB	35.37	1.21E+08	1.03 Y	1.12	1.13	0.6%
PCB-185 22'3455'6-HpCB	35.44	1.02E+08	1.06 Y	0.97	0.95	-1.5%
PCB-174 22'33'456'-HpCB	35.55	9.54E+07	1.04 Y	0.90	0.89	-0.3%
PCB-177 22'33'45'6'-HpCB	35.92	9.28E+07	1.03 Y	0.87	0.87	-0.3%
PCB-181 22'344'56-HpCB	36.26	1.09E+08	1.03 Y	1.03	1.02	-1.5%
PCB-171/173 ...-HpCB	36.43	1.88E+08	1.04 Y	0.89	0.88	-0.5%
PCB-172 22'33'455'-HpCB	37.81	9.34E+07	1.03 Y	0.87	0.87	0.2%
PCB-192 233'455'6-HpCB	38.05	1.21E+08	1.04 Y	1.16	1.14	-2.2%
PCB-180/193 ...-HpCB	38.33	2.28E+08	1.04 Y	1.07	1.07	-0.2%
PCB-191 233'44'5'6-HpCB	38.65	1.24E+08	1.04 Y	1.18	1.16	-2.1%
PCB-170 22'33'44'5-HpCB	39.40	8.80E+07	1.03 Y	0.99	0.99	0.1%
PCB-190 233'44'56-HpCB	39.85	1.22E+08	1.04 Y	1.36	1.38	1.6%
PCB-202 22'33'55'66'-OcCB	36.03	1.22E+08	0.90 Y	0.86	0.88	1.6%
PCB-201 22'33'45'66'-OcCB	36.81	1.35E+08	0.89 Y	0.95	0.97	2.4%
PCB-204 22'344'566'-OcCB	37.38	1.27E+08	0.89 Y	0.90	0.91	1.2%
PCB-197 22'33'44'66'-OcCB	37.56	1.32E+08	0.88 Y	0.96	0.95	-1.4%
PCB-200 22'33'4566'-OcCB	37.64	1.35E+08	0.89 Y	0.88	0.97	10.3%
PCB-198/199 ...-OcCB	39.99	1.82E+08	0.88 Y	0.63	0.66	4.0%
PCB-196 22'33'44'56'-OcCB	40.56	9.26E+07	0.89 Y	0.66	0.67	0.9%
PCB-203 22'344'55'6-OcCB	40.72	9.60E+07	0.89 Y	0.69	0.69	-0.5%
PCB-195 22'33'44'56-OcCB	41.82	6.88E+07	0.90 Y	0.82	0.85	3.3%
PCB-194 22'33'44'55'-OcCB	43.79	7.58E+07	0.91 Y	0.90	0.94	4.1%
PCB-205 233'44'55'6-OcCB	44.19	9.50E+07	0.91 Y	1.13	1.18	3.7%
PCB-208 22'33'455'66'-NoCB	41.63	9.84E+07	0.77 Y	1.03	1.06	2.9%
PCB-207 22'33'44'566'-NoCB	42.42	1.01E+08	0.77 Y	1.07	1.09	2.4%
PCB-206 22'33'44'55'6-NoCB	45.65	7.16E+07	0.77 Y	0.97	0.98	0.7%

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



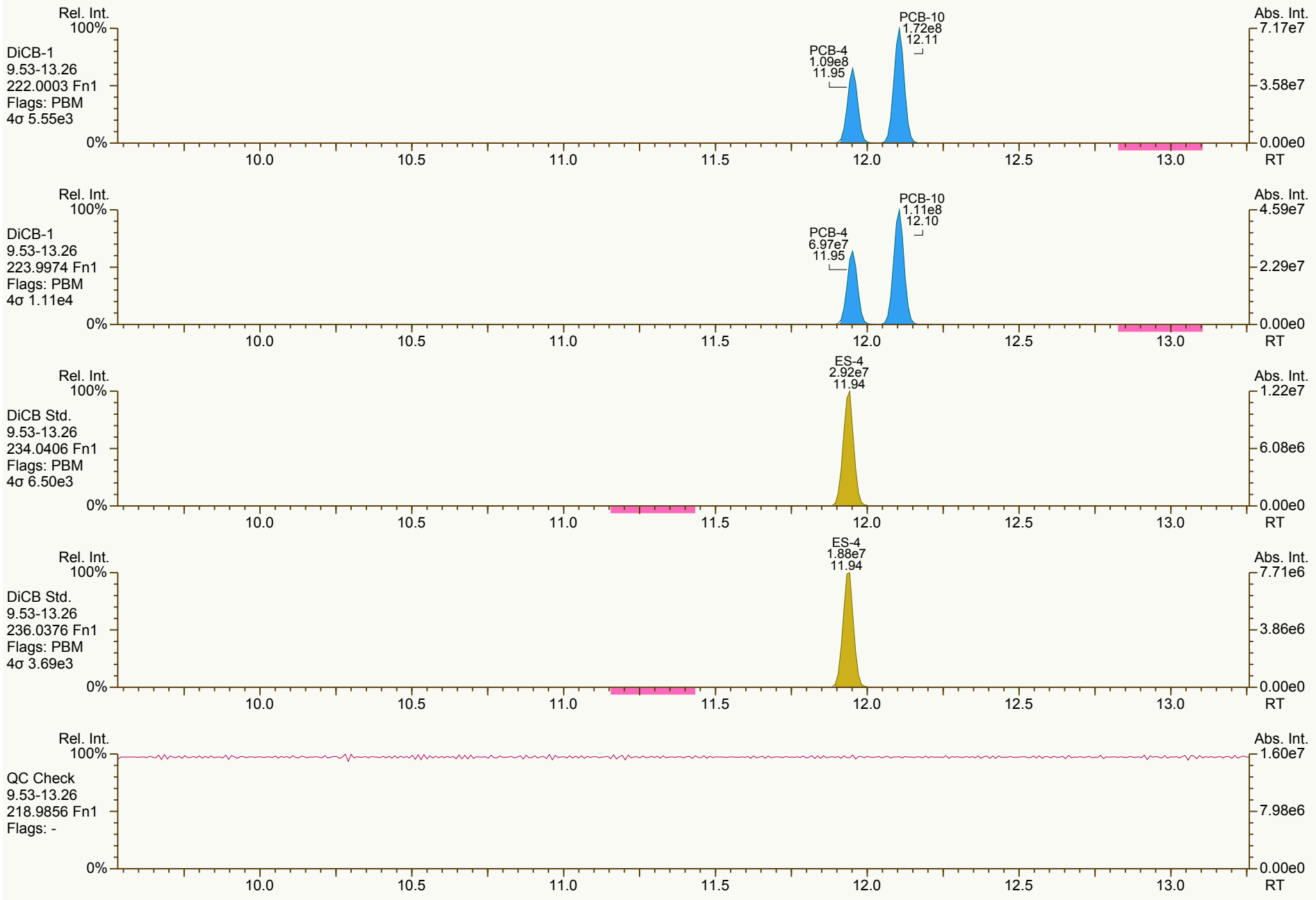
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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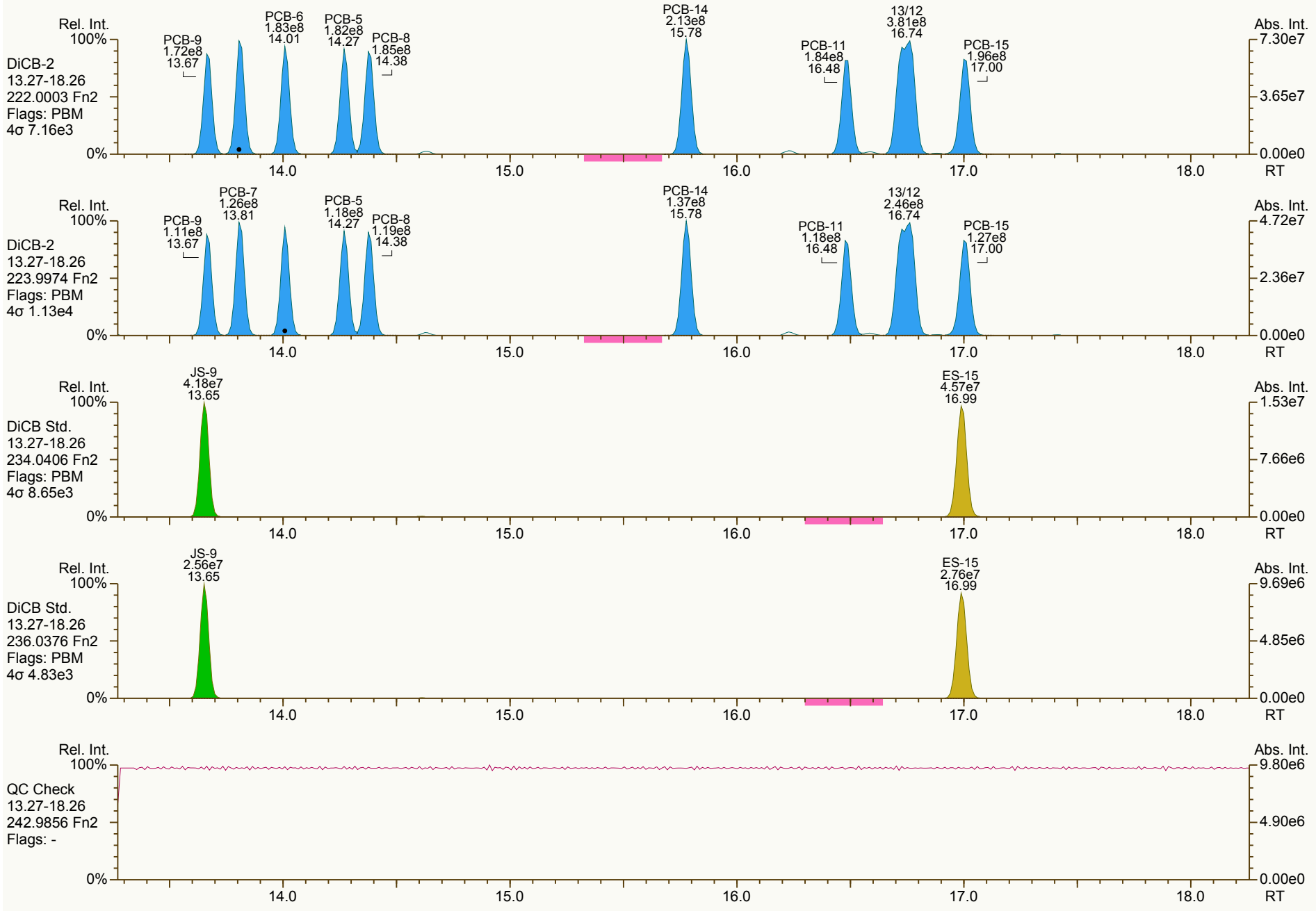
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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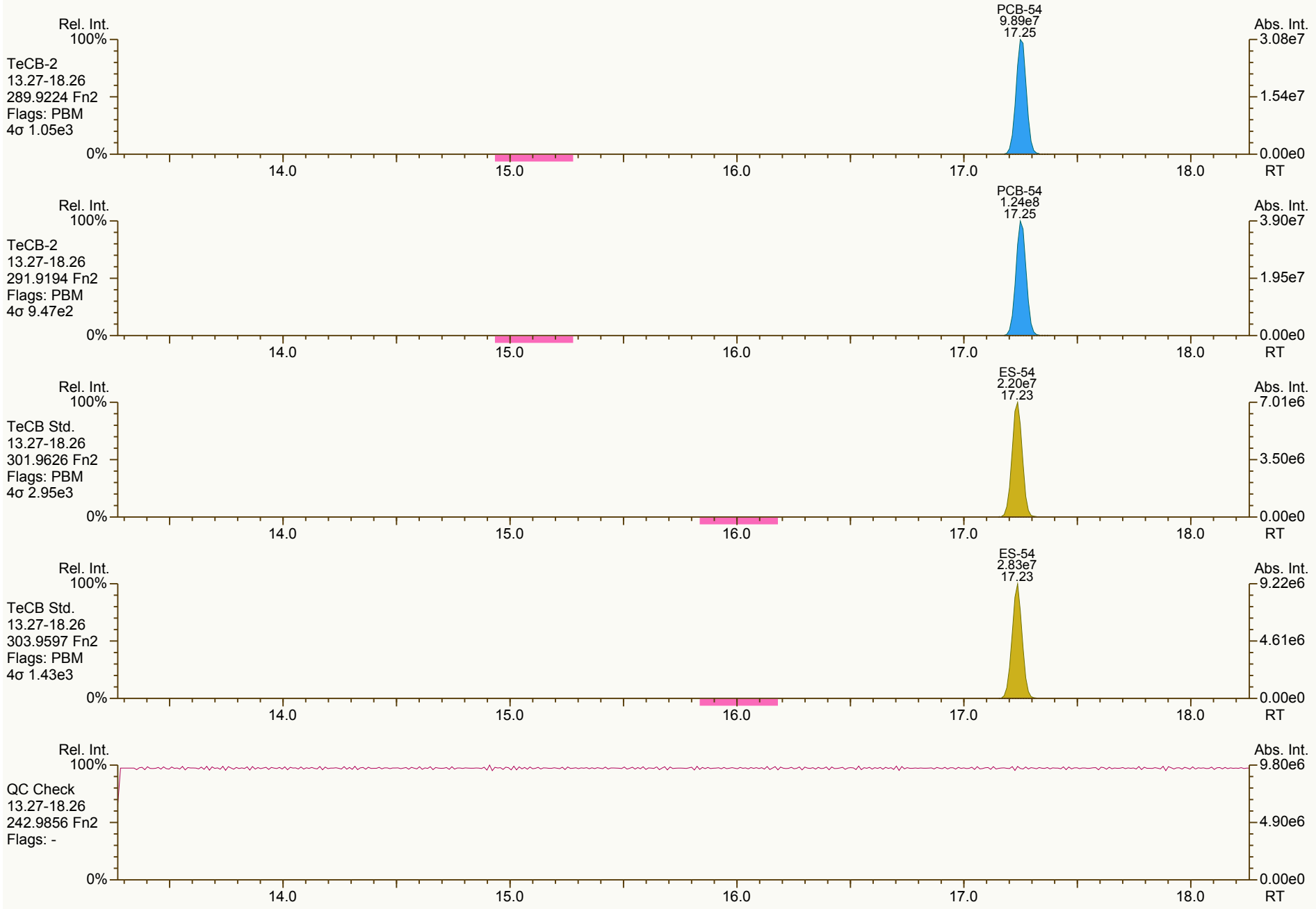
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 3241, 4400 scc: 777-854 *Revised: 14-Dec-2012 10:02 (CEM) Printed: 14-Dec-2012 11:21 Page 6 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



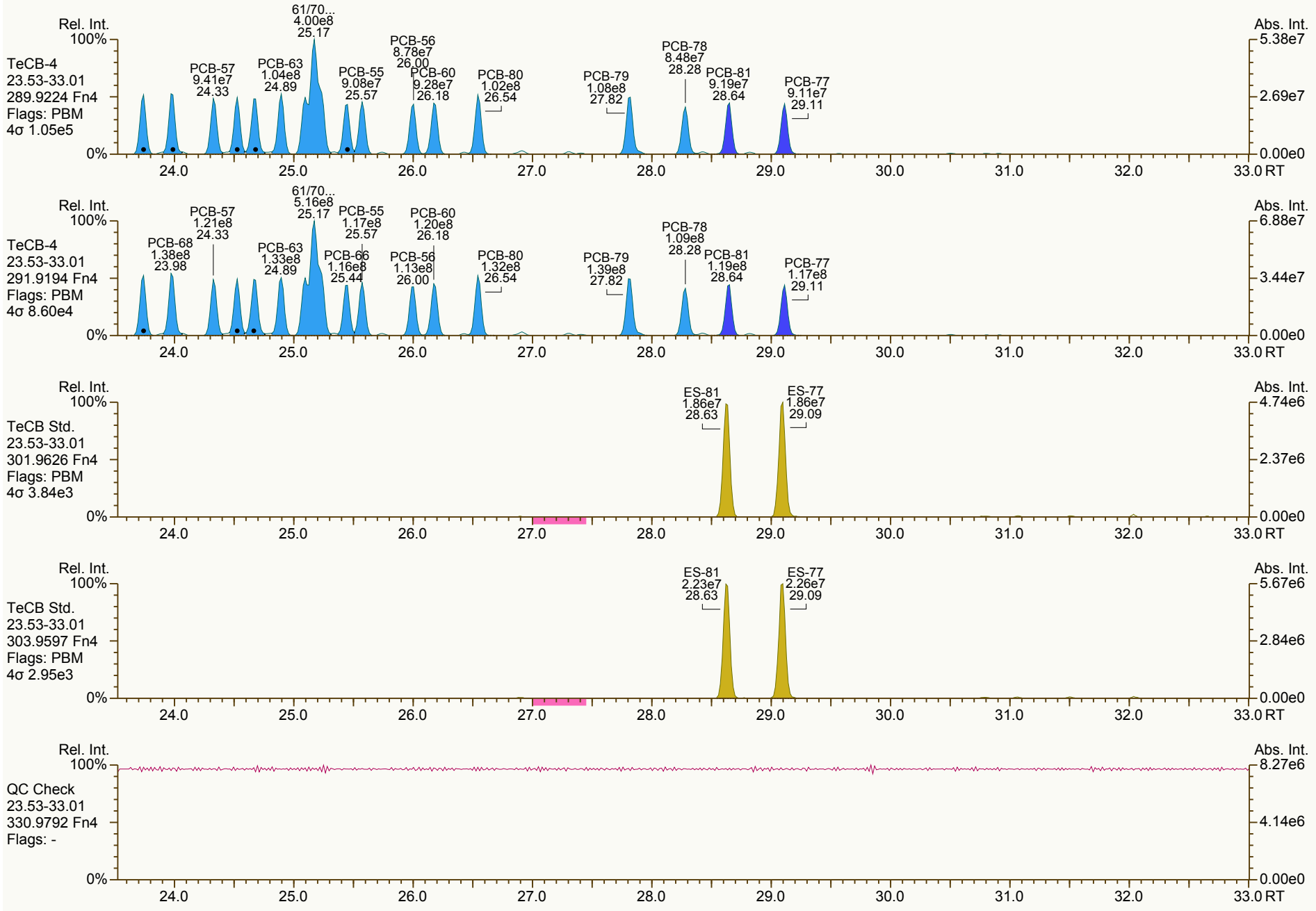
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**

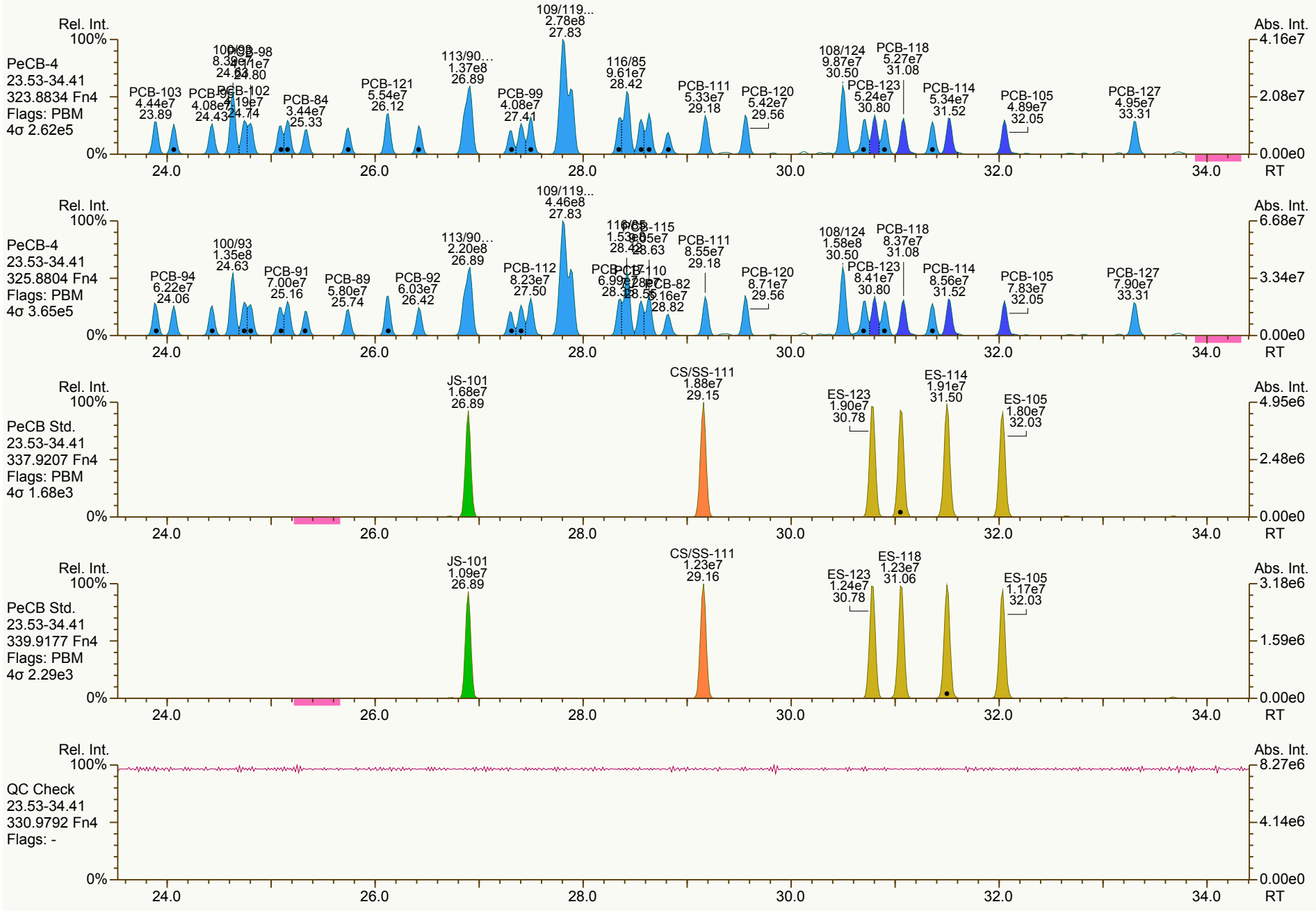


Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



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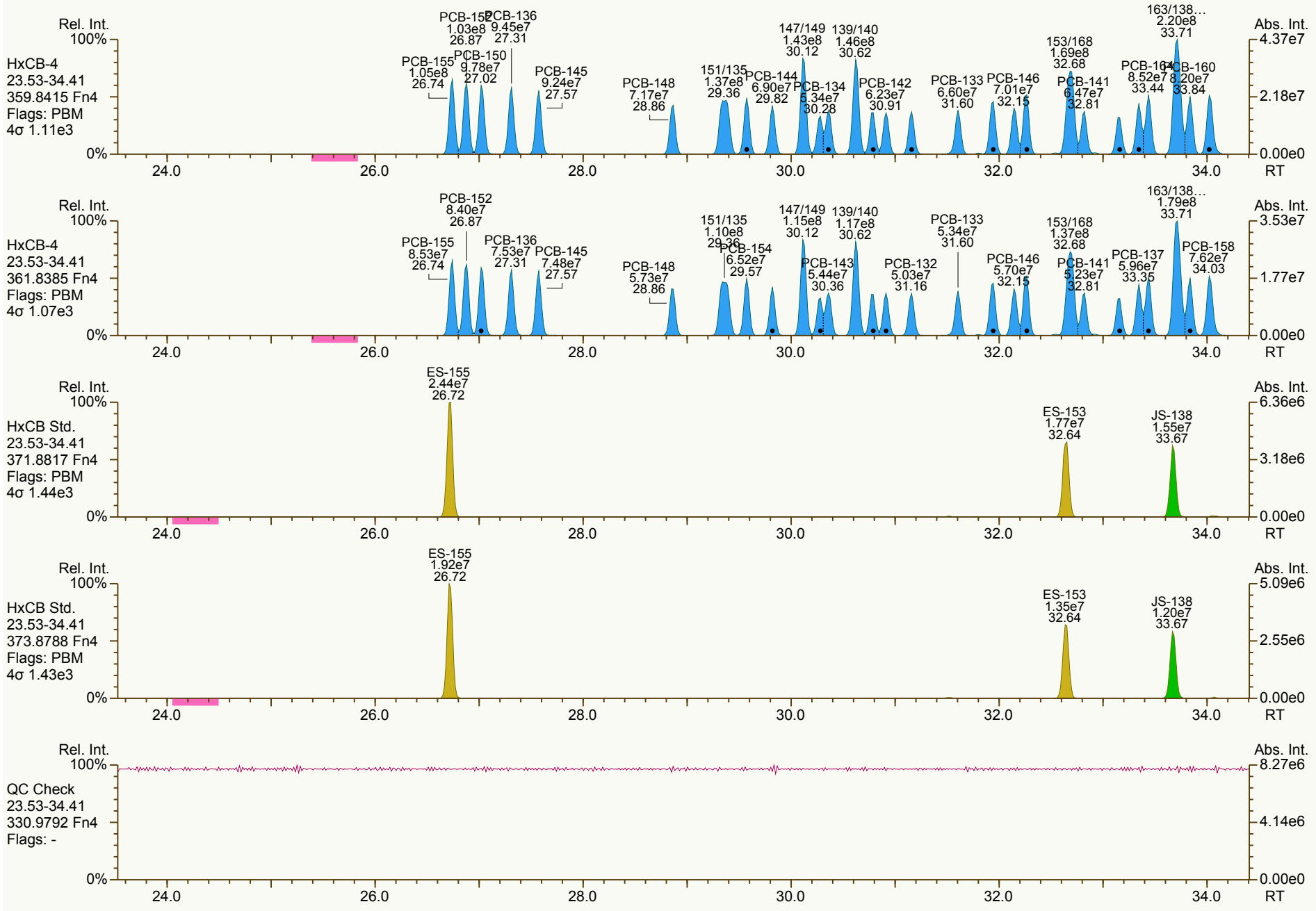
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9684, 9806 scc: 777-854 *Revised: 14-Dec-2012 10:04 (CEM) Printed: 14-Dec-2012 11:22 Page 11 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

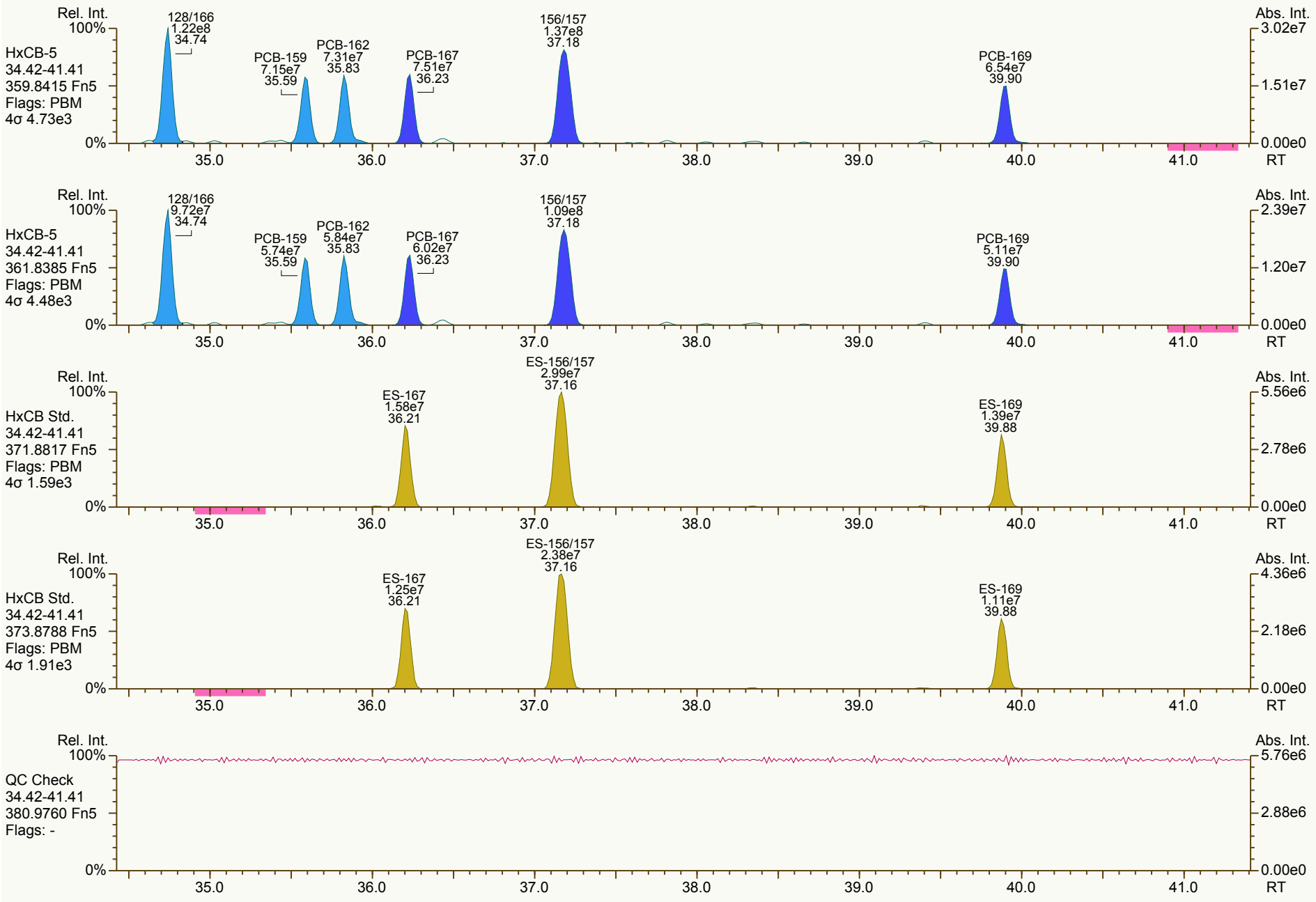
SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 9442, 2594 scc: 777-854 *PKD: 14-Dec-2012 10:01 Printed: 14-Dec-2012 11:22 Page 13 of 22*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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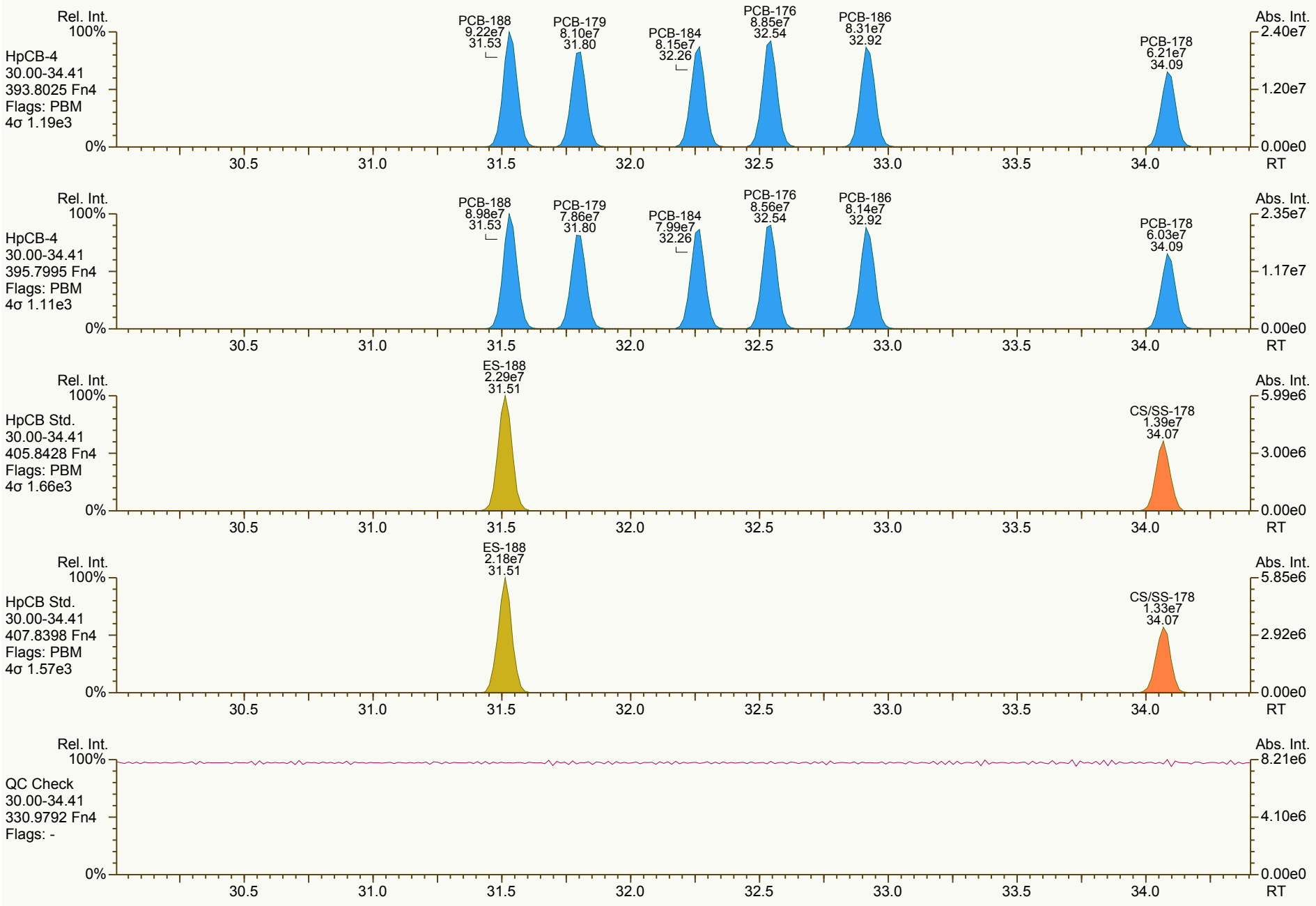
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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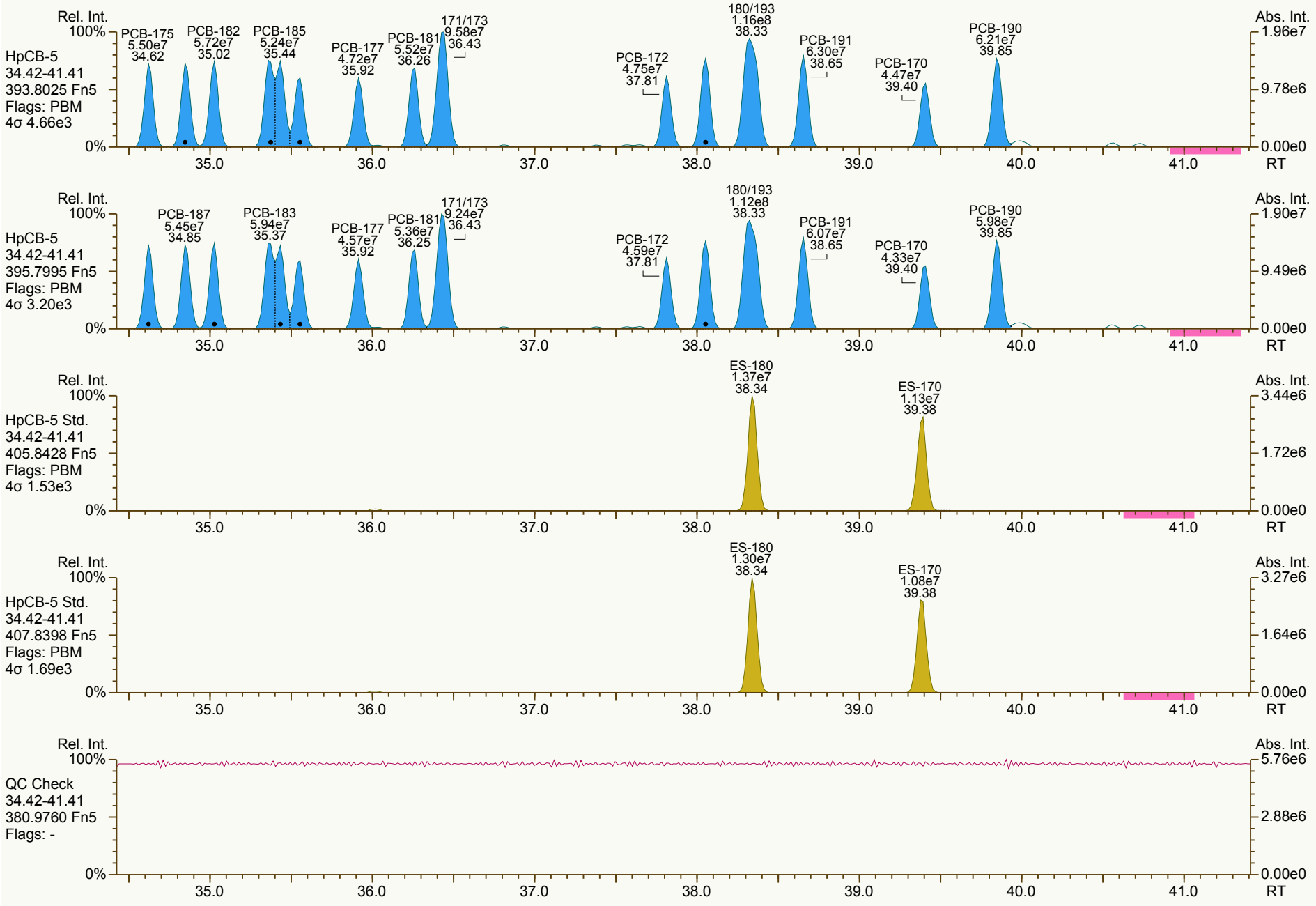
SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



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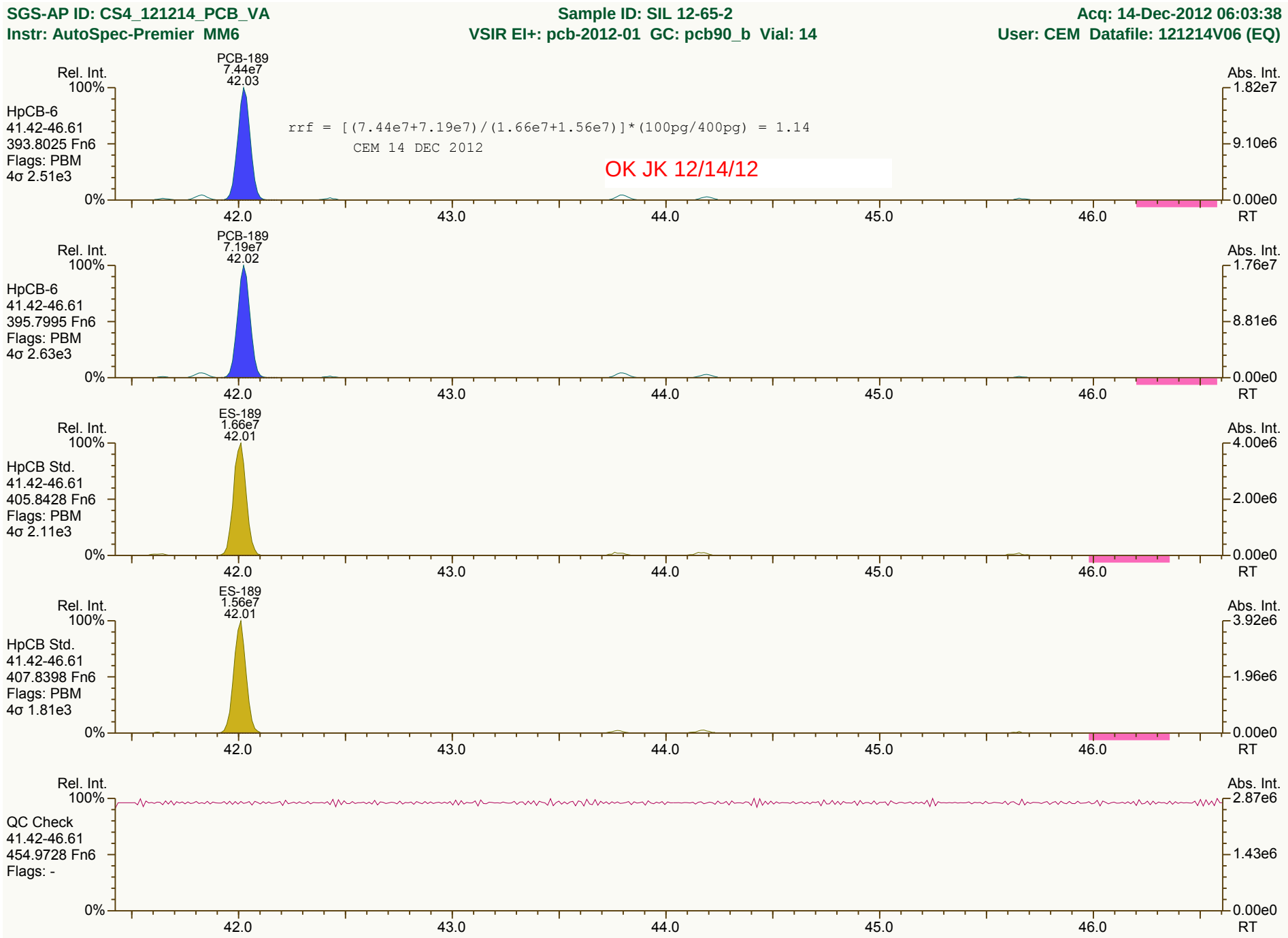
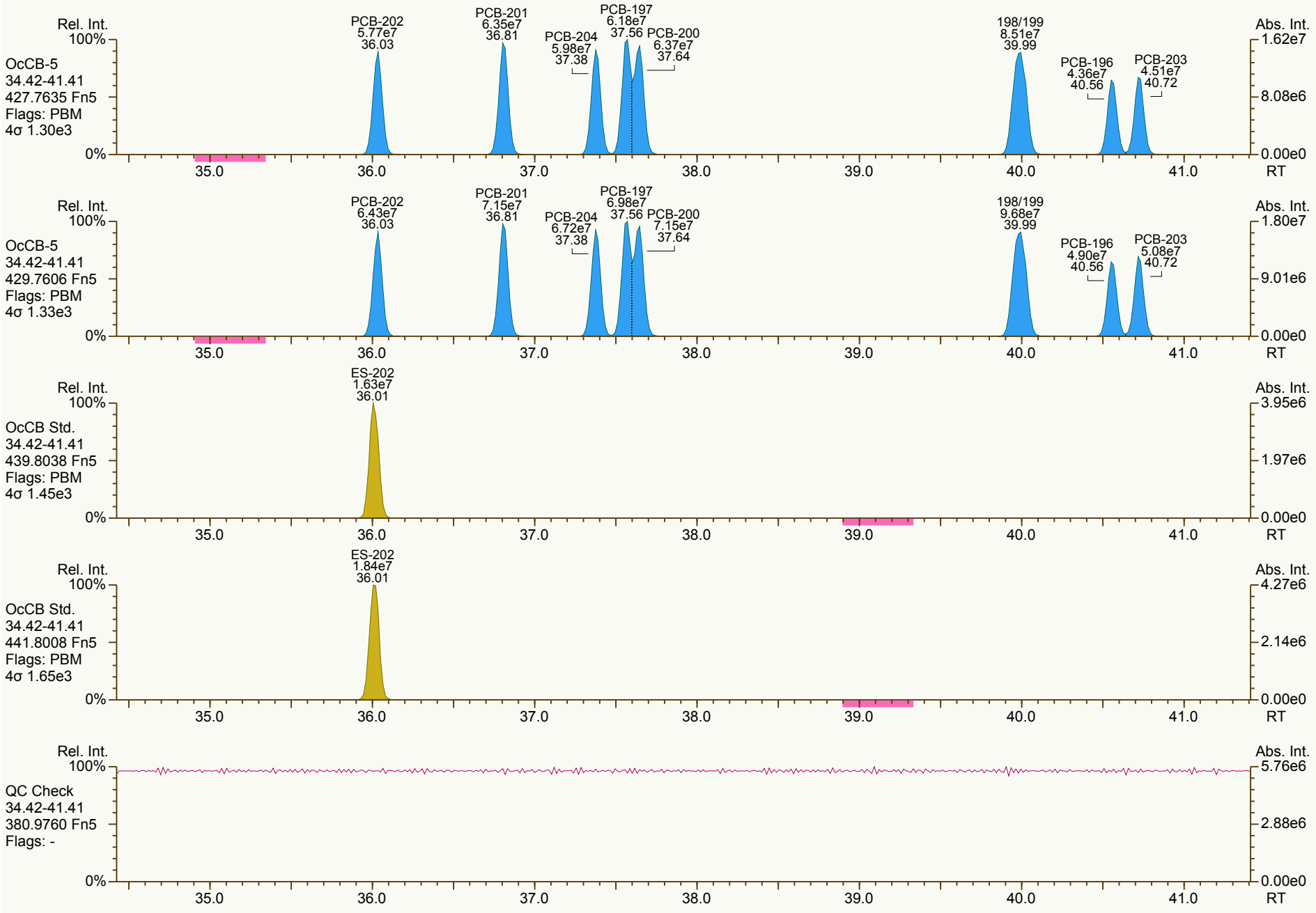
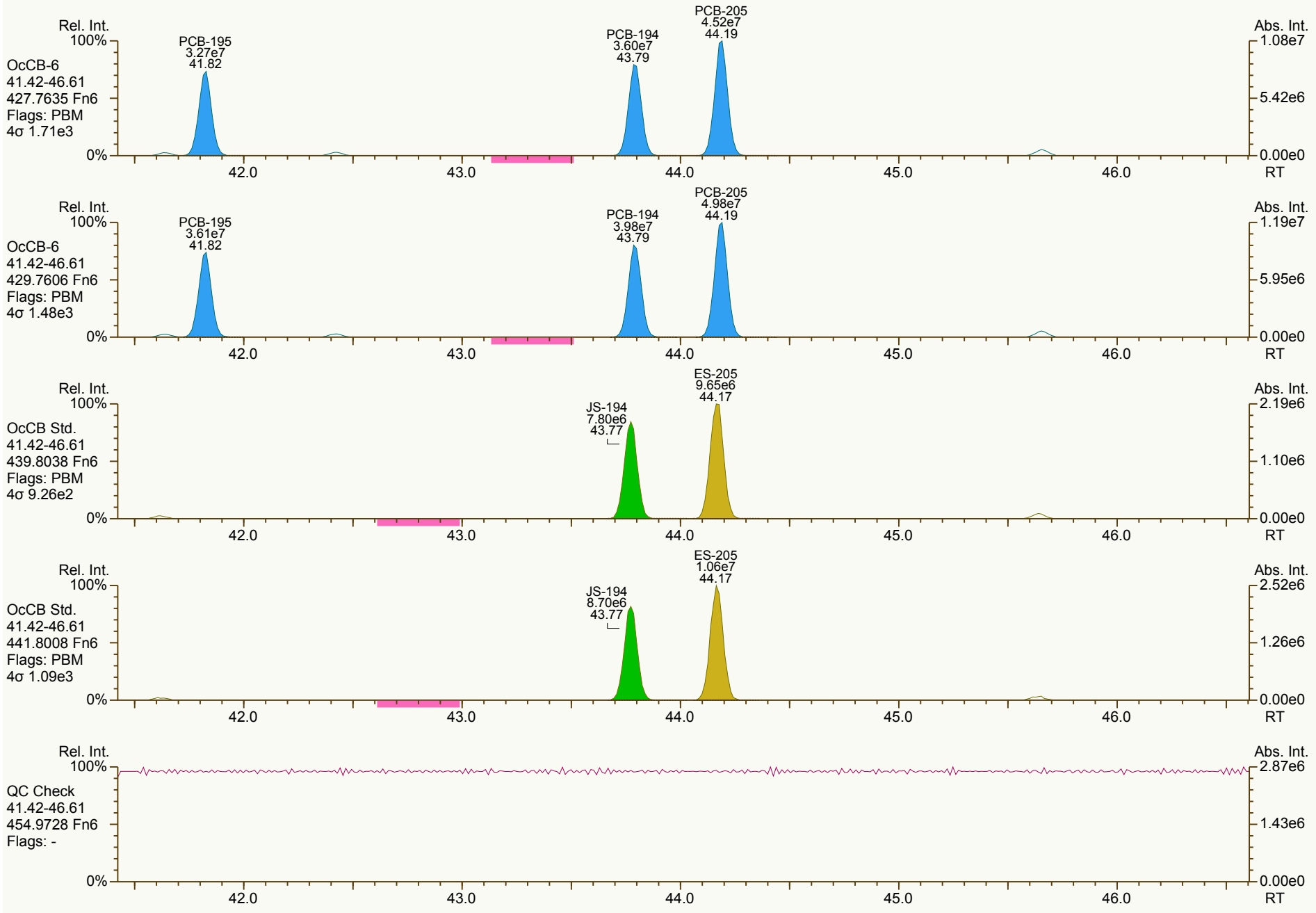

SGS-AP ID: CS4_121214_PCB_VA
Sample ID: SIL 12-65-2
Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14
User: CEM Datafile: 121214V06 (EQ)
PCB-189
7.44e7
42.03
HpCB-6
41.42-46.61
393.8025 Fn6
Flags: PBM
4σ 2.51e3
rrf = [(7.44e7+7.19e7)/(1.66e7+1.56e7)]*(100pg/400pg) = 1.14
CEM 14 DEC 2012
OK JK 12/14/12
PCB-189
7.19e7
42.02
HpCB-6
41.42-46.61
395.7995 Fn6
Flags: PBM
4σ 2.63e3
ES-189
1.66e7
42.01
HpCB Std.
41.42-46.61
405.8428 Fn6
Flags: PBM
4σ 2.11e3
ES-189
1.56e7
42.01
HpCB Std.
41.42-46.61
407.8398 Fn6
Flags: PBM
4σ 1.81e3
QC Check
41.42-46.61
454.9728 Fn6
Flags: -
Rel. Int.
Abs. Int.
RT
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM)
Peak annotation: Areas, Centroids
AP UltraTrace-Pro V4.71 User/System: CEM/CMC2-041U cc: 1277, 9484 scc: 777-854
Revised: 14-Dec-2012 10:05 (CEM) Printed: 14-Dec-2012 11:22 Page 17 of 22

SGS-AP ID: CS4_121214_PCB_VA | Sample ID: SIL 12-65-2 | Acq: 14-Dec-2012 06:03:38
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14 | User: CEM Datafile: 121214V06 (EQ)



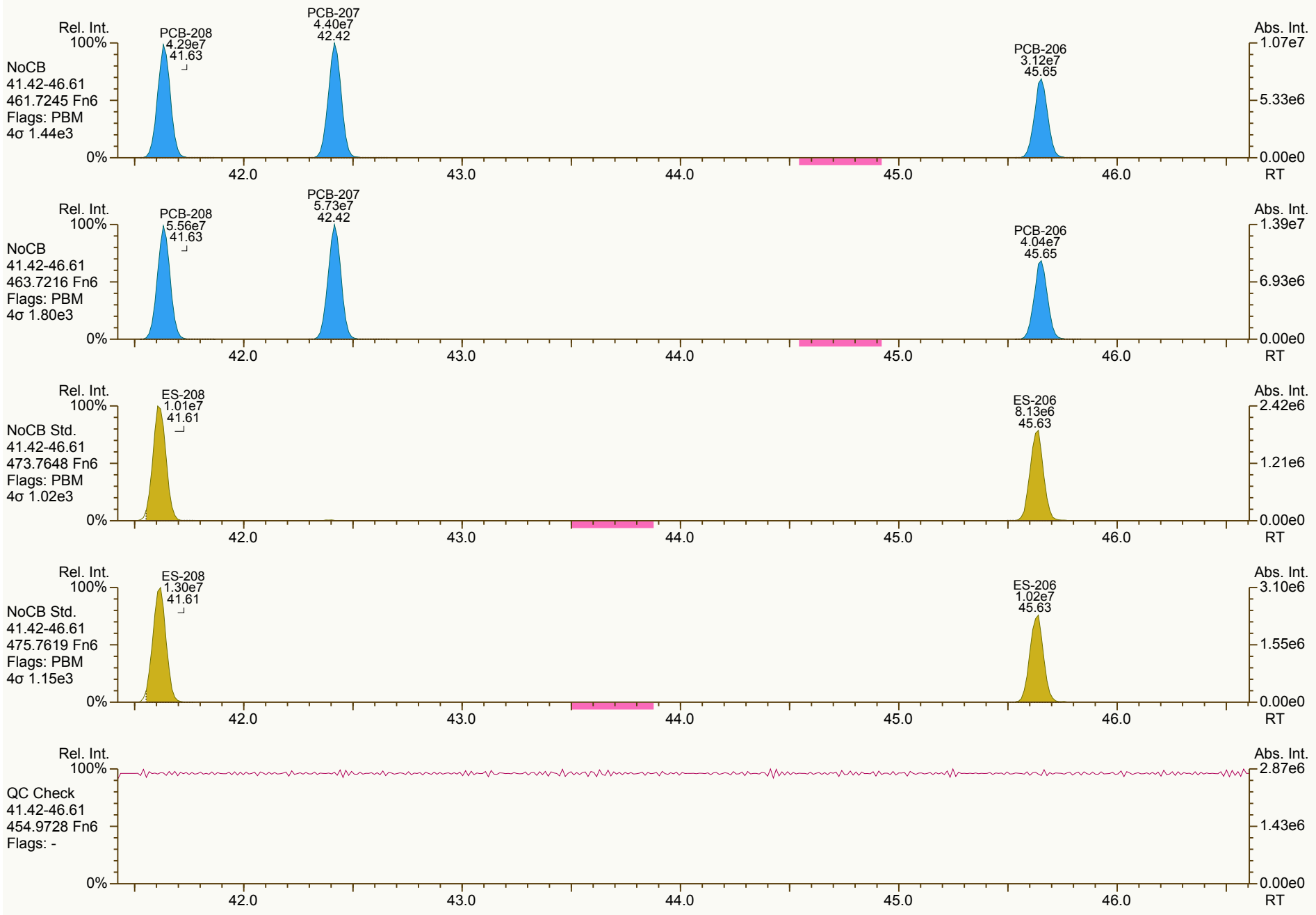
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM)
Peak annotation: Areas, Centroids

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



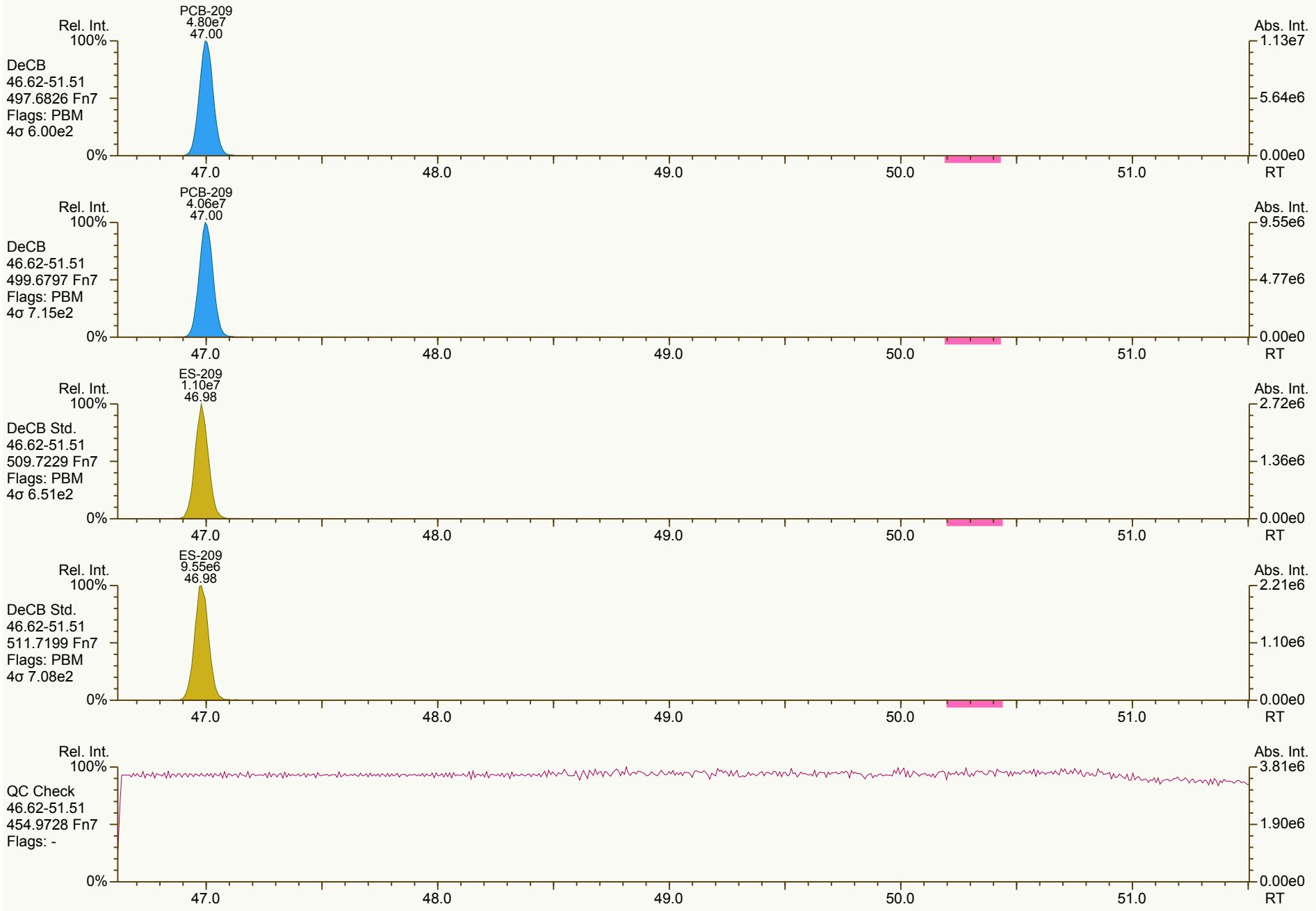
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



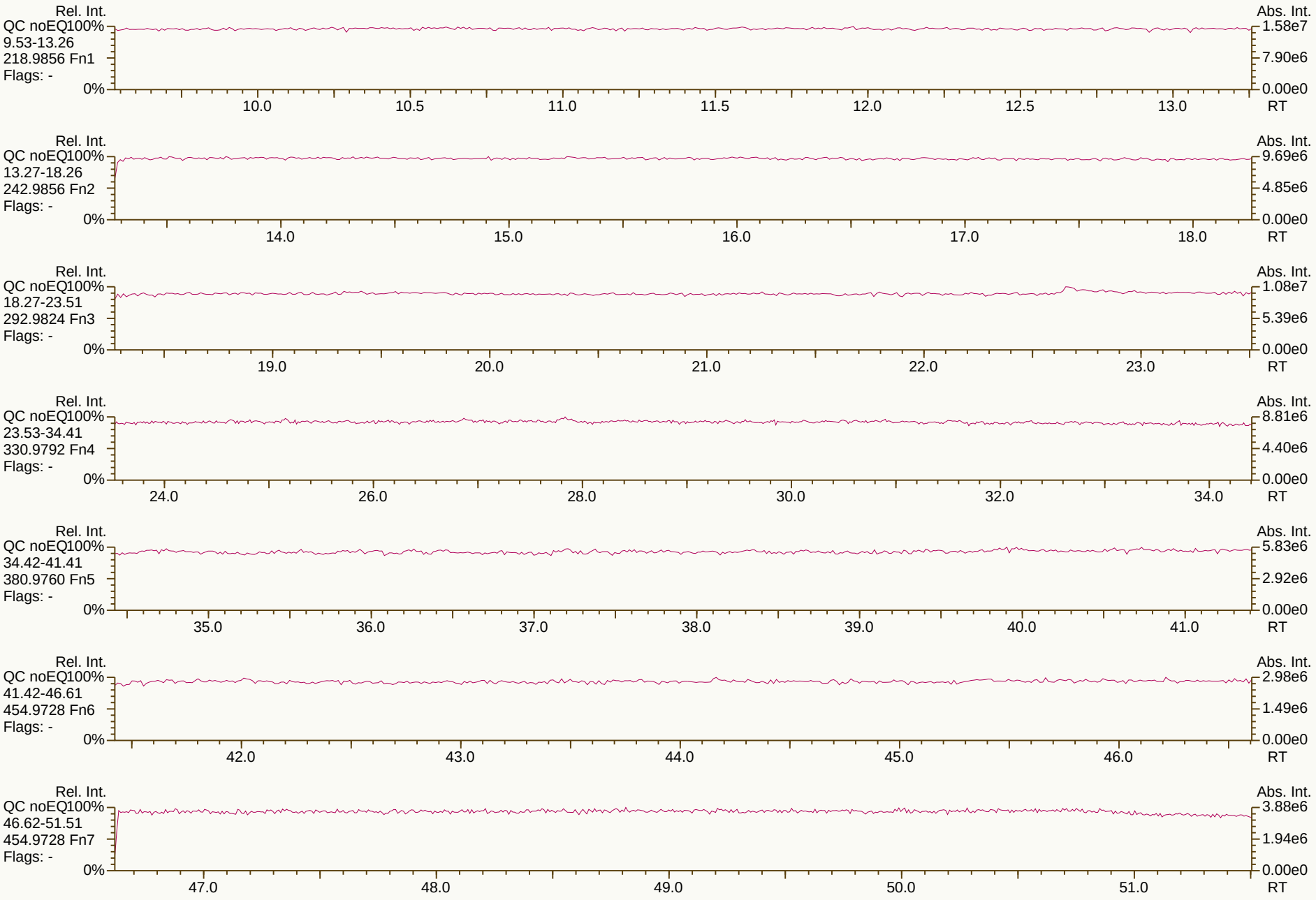
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS4_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:30 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS4_121214_PCB_VA **Sample ID: SIL 12-65-2** **Acq: 14-Dec-2012 06:03:38**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 14** **User: CEM Datafile: 121214V06 (EQ)**



PCB QC Summary	SGS Analytical Perspectives				Printed: 14-Dec-2012 11:18
Lab ID:	CS5_121214_PCB_VA			ICAL: MM6_PCB_07132012_14DEC12	
Acquired:	14-DEC-2012 06:57				
Datafile:	121214V07				

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-77 33'44'-TeCB	29.10	1.66E+09	0.78 Y	1.25	1.23	-1.1%
PCB-81 344'5-TeCB	28.64	1.71E+09	0.78 Y	1.26	1.26	0.2%
PCB-105 233'44'-PeCB	32.05	9.93E+08	0.62 Y	1.06	1.02	-3.1%
PCB-114 2344'5-PeCB	31.52	1.15E+09	0.63 Y	1.11	1.12	0.5%
PCB-118 23'44'5-PeCB	31.08	1.09E+09	0.63 Y	1.08	1.07	-0.9%
PCB-123 23'44'5'-PeCB	30.80	1.12E+09	0.63 Y	1.12	1.05	-6.4%
PCB-126 33'44'5-PeCB	34.64	1.36E+09	0.63 Y	1.16	1.11	-3.5%
PCB-156/157 ...-HxCB	37.18	2.04E+09	1.24 Y	1.14	1.11	-2.4%
PCB-167 23'44'55'-HxCB	36.22	1.10E+09	1.25 Y	1.18	1.19	0.5%
PCB-169 33'44'55'-HxCB	39.89	9.71E+08	1.28 Y	1.15	1.13	-1.9%
PCB-189 233'44'55'-HpCB	42.02	1.26E+09	1.04 Y	1.12	1.12	0.5%
PCB-209 DeCB	46.99	7.51E+08	1.18 Y	1.11	1.06	-4.5%
ES PCB-1	9.81	9.28E+07	3.24 Y	0.97	0.88	-9.3%
ES PCB-3	11.71	8.94E+07	3.31 Y	0.90	0.85	-5.8%
ES PCB-4	11.92	6.98E+07	1.53 Y	0.70	0.66	-5.5%
ES PCB-15	16.98	1.20E+08	1.64 Y	1.02	1.14	12.3%
ES PCB-19	14.60	5.73E+07	1.05 Y	0.53	0.54	3.2%
ES PCB-37	22.93	7.26E+07	1.11 Y	1.29	1.28	-1.2%
ES PCB-54	17.23	7.75E+07	0.77 Y	1.43	1.36	-4.4%
ES PCB-77	29.09	6.72E+07	0.85 Y	1.20	1.18	-1.6%
ES PCB-81	28.62	6.80E+07	0.82 Y	1.16	1.20	3.0%
ES PCB-104	21.91	7.46E+07	1.54 Y	1.70	1.59	-6.7%
ES PCB-105	32.03	4.86E+07	1.56 Y	1.10	1.04	-5.6%
ES PCB-114	31.49	5.14E+07	1.52 Y	1.16	1.10	-5.1%
ES PCB-118	31.05	5.09E+07	1.52 Y	1.15	1.09	-5.9%
ES PCB-123	30.78	5.35E+07	1.53 Y	1.14	1.14	0.0%
ES PCB-126	34.62	6.08E+07	1.64 Y	1.34	1.30	-3.1%
ES PCB-153	32.64	5.17E+07	1.28 Y	1.14	1.09	-4.7%
ES PCB-155	26.71	7.08E+07	1.28 Y	1.61	1.49	-7.4%
ES PCB-156/157	37.16	9.19E+07	1.25 Y	0.98	0.97	-0.8%
ES PCB-167	36.20	4.64E+07	1.26 Y	1.01	0.98	-3.0%
ES PCB-169	39.87	4.29E+07	1.24 Y	0.90	0.91	0.9%
ES PCB-170	39.38	3.58E+07	1.03 Y	1.28	1.29	0.3%
ES PCB-180	38.33	4.50E+07	1.02 Y	1.54	1.62	5.0%
ES PCB-188	31.51	7.55E+07	1.01 Y	1.63	1.59	-2.0%
ES PCB-189	42.00	5.63E+07	1.05 Y	1.97	2.02	2.7%
ES PCB-202	36.01	5.83E+07	0.88 Y	1.26	1.23	-2.4%
ES PCB-205	44.16	3.48E+07	0.91 Y	1.22	1.25	2.3%
ES PCB-206	45.62	3.12E+07	0.77 Y	1.10	1.12	2.1%
ES PCB-208	41.61	4.08E+07	0.77 Y	1.41	1.47	4.2%
ES PCB-209	46.97	3.54E+07	1.15 Y	1.24	1.27	2.1%

PCB QC Summary	SGS Analytical Perspectives	Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
SS PCB-28	19.56	8.69E+07	1.10 Y	1.18	1.20	1.6%
SS PCB-111	29.15	5.17E+07	1.53 Y	1.01	0.97	-4.0%
SS PCB-178	34.06	4.56E+07	1.03 Y	0.60	0.60	0.2%
CS PCB-28	19.56	8.69E+07	1.10 Y	1.52	1.53	0.4%
CS PCB-111	29.15	5.17E+07	1.53 Y	1.15	1.10	-4.0%
CS PCB-178	34.06	4.56E+07	1.03 Y	0.98	0.96	-1.8%
JS PCB-9	13.64	1.05E+08	1.62 Y	-	-	-
JS PCB-52	21.11	5.68E+07	0.77 Y	-	-	-
JS PCB-101	26.89	4.69E+07	1.53 Y	-	-	-
JS PCB-138	33.67	4.74E+07	1.27 Y	-	-	-
JS PCB-194	43.76	2.78E+07	0.94 Y	-	-	-
PCB-1 2-MoCB	9.82	2.33E+09	3.09 Y	1.25	1.25	0.5%
PCB-3 4-MoCB	11.73	2.28E+09	3.09 Y	1.27	1.28	0.9%
PCB-4 22'-DiCB	11.94	1.27E+09	1.56 Y	0.90	0.91	1.3%
PCB-15 44'-DiCB	17.00	2.56E+09	1.54 Y	1.10	1.06	-2.9%
PCB-19 22'6-TrCB	14.62	1.09E+09	1.03 Y	0.95	0.95	0.7%
PCB-37 344'-TrCB	22.95	2.04E+09	1.05 Y	1.39	1.40	1.1%
PCB-54 22'66'-TeCB	17.24	1.71E+09	0.80 Y	1.05	1.10	5.0%
PCB-104 22'466'-PeCB	21.93	1.73E+09	0.63 Y	1.12	1.16	3.9%
PCB-153/168 ...-HxCB	32.68	2.56E+09	1.23 Y	1.24	1.24	0.2%
PCB-155 22'44'66'-HxCB	26.73	1.50E+09	1.23 Y	1.09	1.06	-2.6%
PCB-170 22'33'44'5-HpCB	39.39	7.22E+08	1.03 Y	0.99	1.01	1.4%
PCB-180/193 ...-HpCB	38.32	1.88E+09	1.03 Y	1.07	1.04	-2.4%
PCB-188 22'34'566'-HpCB	31.53	1.49E+09	1.03 Y	0.98	0.99	0.3%
PCB-202 22'33'55'66'-OcCB	36.03	9.88E+08	0.89 Y	0.86	0.85	-2.1%
PCB-205 233'44'55'6-OcCB	44.18	8.01E+08	0.90 Y	1.13	1.15	1.5%
PCB-208 22'33'455'66'-NoCB	41.63	8.35E+08	0.77 Y	1.03	1.02	-1.1%
PCB-206 22'33'44'55'6-NoCB	45.64	6.07E+08	0.77 Y	0.97	0.97	0.1%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-1 2-MoCB	9.82	2.33E+09	3.09 Y	1.25	1.25	0.5%
PCB-2 3-MoCB	11.57	2.30E+09	3.10 Y	1.28	1.29	0.6%
PCB-3 4-MoCB	11.73	2.28E+09	3.09 Y	1.27	1.28	0.9%
PCB-4 22'-DiCB	11.94	1.27E+09	1.56 Y	0.90	0.91	1.3%
PCB-10 26-DiCB	12.09	1.99E+09	1.55 Y	1.38	1.42	3.3%
PCB-9 25-DiCB	13.66	2.17E+09	1.55 Y	0.99	0.90	-8.9%
PCB-7 24-DiCB	13.80	2.49E+09	1.55 Y	1.10	1.04	-5.9%
PCB-6 23'-DiCB	14.00	2.30E+09	1.55 Y	1.04	0.96	-8.1%
PCB-5 23-DiCB	14.26	2.36E+09	1.56 Y	1.02	0.98	-4.3%
PCB-8 24'-DiCB	14.37	2.39E+09	1.55 Y	1.03	0.99	-3.7%
PCB-14 35-DiCB	15.77	2.70E+09	1.55 Y	1.20	1.12	-6.3%
PCB-11 33'-DiCB	16.47	2.20E+09	1.56 Y	1.03	0.92	-10.9%
PCB-13/12 34'/34-DiCB	16.74	5.07E+09	1.55 Y	1.03	1.05	2.0%
PCB-15 44'-DiCB	17.00	2.56E+09	1.54 Y	1.10	1.06	-2.9%
PCB-19 22'6-TrCB	14.62	1.09E+09	1.03 Y	0.95	0.95	0.7%
PCB-30/18 246/22'5-TrCB	16.21	3.09E+09	1.03 Y	1.23	1.35	9.4%
PCB-17 22'4-TrCB	16.58	1.21E+09	1.03 Y	1.05	1.05	0.1%
PCB-27 23'6-TrCB	16.76	1.85E+09	1.04 Y	1.46	1.62	10.5%
PCB-24 236-TrCB	16.87	1.61E+09	1.03 Y	1.32	1.41	6.5%
PCB-16 22'3-TrCB	16.96	9.96E+08	1.05 Y	0.81	0.87	7.6%
PCB-32 24'6-TrCB	17.40	1.74E+09	1.03 Y	1.48	1.52	3.0%
PCB-34 23'5'-TrCB	18.48	2.15E+09	1.06 Y	1.46	1.48	1.0%
PCB-23 235-TrCB	18.61	2.17E+09	1.05 Y	1.50	1.49	-0.6%
PCB-26/29 23'5/245-TrCB	18.88	4.54E+09	1.05 Y	1.53	1.56	2.2%
PCB-25 23'4-TrCB	19.07	2.34E+09	1.05 Y	1.53	1.61	4.9%
PCB-31 24'5-TrCB	19.33	2.30E+09	1.05 Y	1.55	1.58	1.9%
PCB-28/20 244'/233'-TrCB	19.59	4.56E+09	1.04 Y	1.51	1.57	4.1%
PCB-21/33 234/23'4'-TrCB	19.75	4.69E+09	1.06 Y	1.55	1.61	4.4%
PCB-22 234'-TrCB	20.10	2.06E+09	1.05 Y	1.40	1.42	1.5%
PCB-36 33'5-TrCB	21.44	2.19E+09	1.06 Y	1.52	1.51	-0.6%
PCB-39 34'5-TrCB	21.74	2.32E+09	1.05 Y	1.58	1.59	0.7%
PCB-38 345-TrCB	22.23	2.28E+09	1.05 Y	1.47	1.57	6.7%
PCB-35 33'4-TrCB	22.61	1.96E+09	1.05 Y	1.33	1.35	1.4%
PCB-37 344'-TrCB	22.95	2.04E+09	1.05 Y	1.39	1.40	1.1%
PCB-54 22'66'-TeCB	17.24	1.71E+09	0.80 Y	1.05	1.10	5.0%
PCB-50/53 22'46/22'56'-TeCB	19.11	2.43E+09	0.77 Y	0.88	0.89	2.0%
PCB-45 22'36-TeCB	19.65	1.03E+09	0.76 Y	0.73	0.76	2.9%
PCB-51 22'46'-TeCB	19.72	1.29E+09	0.77 Y	0.94	0.95	0.9%
PCB-46 22'36'-TeCB	19.91	9.44E+08	0.77 Y	0.72	0.69	-3.2%
PCB-52 22'55'-TeCB	21.13	1.13E+09	0.77 Y	0.82	0.83	0.6%
PCB-73 23'5'6-TeCB	21.25	1.42E+09	0.77 Y	1.10	1.05	-4.8%
PCB-43 22'35-TeCB	21.33	9.63E+08	0.77 Y	0.70	0.71	0.5%
PCB-69/49 23'46/22'45'-TeCB	21.52	2.79E+09	0.77 Y	1.01	1.03	1.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-48 22'45-TeCB	21.78	1.15E+09	0.77 Y	0.84	0.85	0.4%
PCB-44/47/65 ...-TeCB	21.99	3.82E+09	0.77 Y	0.90	0.94	3.9%
PCB-59/62/75 ...-TeCB	22.25	4.99E+09	0.77 Y	1.15	1.22	5.9%
PCB-42 22'34'-TeCB	22.40	1.01E+09	0.77 Y	0.76	0.74	-2.5%
PCB-41 22'34-TeCB	22.72	9.40E+08	0.77 Y	0.64	0.69	7.9%
PCB-71/40 23'4'6/22'33'-TeCB	22.82	2.34E+09	0.77 Y	0.83	0.86	3.2%
PCB-64 234'6-TeCB	23.01	1.60E+09	0.77 Y	1.17	1.18	0.5%
PCB-72 23'55'-TeCB	23.73	1.87E+09	0.78 Y	1.37	1.38	0.6%
PCB-68 23'45'-TeCB	23.97	1.95E+09	0.78 Y	1.52	1.44	-5.3%
PCB-57 233'5-TeCB	24.32	1.74E+09	0.78 Y	1.32	1.28	-3.2%
PCB-58 233'5'-TeCB	24.52	1.78E+09	0.78 Y	1.34	1.31	-2.3%
PCB-67 23'45-TeCB	24.67	1.94E+09	0.77 Y	1.41	1.43	1.0%
PCB-63 234'5-TeCB	24.89	1.93E+09	0.78 Y	1.46	1.42	-2.4%
PCB-61/70/74/76 ...-TeCB	25.16	7.48E+09	0.78 Y	1.37	1.38	0.8%
PCB-66 23'44'-TeCB	25.44	1.65E+09	0.77 Y	1.24	1.21	-2.2%
PCB-55 233'4-TeCB	25.57	1.70E+09	0.78 Y	1.28	1.25	-2.2%
PCB-56 233'4'-TeCB	25.99	1.59E+09	0.78 Y	1.23	1.17	-4.7%
PCB-60 2344'-TeCB	26.17	1.73E+09	0.77 Y	1.30	1.27	-2.0%
PCB-80 33'55'-TeCB	26.54	1.91E+09	0.78 Y	1.44	1.40	-2.2%
PCB-79 33'45'-TeCB	27.82	2.08E+09	0.78 Y	1.48	1.53	3.8%
PCB-78 33'45-TeCB	28.27	1.55E+09	0.77 Y	1.21	1.14	-5.5%
PCB-104 22'466'-PeCB	21.93	1.73E+09	0.63 Y	1.12	1.16	3.9%
PCB-96 22'366'-PeCB	22.23	1.58E+09	0.64 Y	0.96	1.06	9.7%
PCB-103 22'45'6-PeCB	23.88	9.25E+08	0.62 Y	0.93	0.86	-7.3%
PCB-94 22'356'-PeCB	24.06	8.08E+08	0.62 Y	0.81	0.76	-6.6%
PCB-95 22'35'6-PeCB	24.42	8.46E+08	0.63 Y	0.85	0.79	-7.0%
PCB-100/93 22'44'6/22'356-PeCB	24.63	1.84E+09	0.62 Y	0.88	0.86	-2.9%
PCB-102 22'456'-PeCB	24.74	9.16E+08	0.62 Y	0.93	0.86	-8.1%
PCB-98 22'34'6'-PeCB	24.80	8.08E+08	0.63 Y	0.84	0.75	-10.0%
PCB-88 22'346-PeCB	25.08	7.63E+08	0.62 Y	0.77	0.71	-7.7%
PCB-91 22'34'6-PeCB	25.15	1.08E+09	0.64 Y	0.96	1.01	4.7%
PCB-84 22'33'6-PeCB	25.33	7.16E+08	0.63 Y	0.72	0.67	-7.2%
PCB-89 22'346'-PeCB	25.73	7.52E+08	0.63 Y	0.77	0.70	-9.0%
PCB-121 23'45'6-PeCB	26.11	1.17E+09	0.63 Y	1.15	1.09	-4.9%
PCB-92 22'355'-PeCB	26.42	7.96E+08	0.63 Y	0.79	0.74	-6.2%
PCB-113/90/101 ...-PeCB	26.89	2.96E+09	0.63 Y	0.95	0.92	-3.6%
PCB-83 22'33'5-PeCB	27.30	7.05E+08	0.62 Y	0.72	0.66	-8.5%
PCB-99 22'44'5-PeCB	27.40	9.27E+08	0.62 Y	0.90	0.87	-3.4%
PCB-112 233'56-PeCB	27.49	1.05E+09	0.63 Y	1.09	0.98	-10.0%
PCB-109/119/86/97/125...-PeCB	27.83	6.05E+09	0.63 Y	0.95	0.94	-0.6%
PCB-117 234'56-PeCB	28.35	9.88E+08	0.62 Y	0.99	0.92	-6.8%
PCB-116/85 23456/22'344'-PeCB	28.42	2.02E+09	0.63 Y	0.96	0.94	-1.8%
PCB-110 233'4'6-PeCB	28.55	9.80E+08	0.63 Y	1.01	0.92	-9.2%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA
Acquired: 14-DEC-2012 06:57
Datafile: 121214V07
ICAL: MM6_PCB_07132012_14DEC12

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-115 2344'6-PeCB	28.63	1.16E+09	0.63 Y	1.15	1.08	-5.9%
PCB-82 22'33'4-PeCB	28.81	6.88E+08	0.63 Y	0.70	0.64	-8.0%
PCB-111 233'55'-PeCB	29.18	1.20E+09	0.62 Y	1.16	1.12	-3.5%
PCB-120 23'455'-PeCB	29.56	1.16E+09	0.62 Y	1.14	1.08	-4.6%
PCB-108/124 ...-PeCB	30.50	2.15E+09	0.62 Y	1.02	1.01	-1.2%
PCB-107 233'4'5-PeCB	30.70	1.17E+09	0.62 Y	1.13	1.09	-3.9%
PCB-106 233'45-PeCB	30.90	1.07E+09	0.63 Y	1.01	1.00	-1.1%
PCB-122 233'4'5'-PeCB	31.35	9.35E+08	0.63 Y	0.91	0.91	-0.2%
PCB-127 33'455'-PeCB	33.30	1.05E+09	0.63 Y	1.06	1.08	2.4%
PCB-155 22'44'66'-HxCB	26.73	1.50E+09	1.23 Y	1.09	1.06	-2.6%
PCB-152 22'3566'-HxCB	26.87	1.53E+09	1.23 Y	1.04	1.08	3.9%
PCB-150 22'34'66'-HxCB	27.02	1.42E+09	1.24 Y	1.03	1.00	-2.7%
PCB-136 22'33'66'-HxCB	27.30	1.39E+09	1.24 Y	0.97	0.98	0.6%
PCB-145 22'3466'-HxCB	27.57	1.35E+09	1.24 Y	0.96	0.95	-1.0%
PCB-148 22'34'56'-HxCB	28.85	1.04E+09	1.23 Y	1.03	1.01	-2.3%
PCB-151/135 ...-HxCB	29.35	2.01E+09	1.24 Y	0.99	0.97	-1.9%
PCB-154 22'44'56'-HxCB	29.57	1.19E+09	1.23 Y	1.17	1.15	-2.1%
PCB-144 22'345'6-HxCB	29.81	1.01E+09	1.24 Y	1.03	0.97	-5.2%
PCB-147/149 ...-HxCB	30.11	2.12E+09	1.24 Y	1.02	1.03	0.9%
PCB-134 22'33'56-HxCB	30.27	8.33E+08	1.23 Y	0.80	0.81	0.8%
PCB-143 22'3456'-HxCB	30.35	9.55E+08	1.24 Y	0.95	0.92	-2.5%
PCB-139/140 ...-HxCB	30.62	2.19E+09	1.23 Y	1.05	1.06	1.0%
PCB-131 22'33'46-HxCB	30.78	9.56E+08	1.23 Y	0.90	0.93	3.4%
PCB-142 22'3456-HxCB	30.91	9.53E+08	1.23 Y	0.93	0.92	-0.4%
PCB-132 22'33'46'-HxCB	31.15	9.14E+08	1.25 Y	0.93	0.88	-4.8%
PCB-133 22'33'55'-HxCB	31.60	9.78E+08	1.24 Y	0.97	0.95	-2.2%
PCB-165 233'55'6-HxCB	31.93	1.14E+09	1.24 Y	1.16	1.10	-5.2%
PCB-146 22'34'55'-HxCB	32.14	1.00E+09	1.24 Y	1.01	0.97	-3.7%
PCB-161 233'45'6-HxCB	32.25	1.39E+09	1.25 Y	1.29	1.35	4.2%
PCB-153/168 ...-HxCB	32.68	2.56E+09	1.23 Y	1.24	1.24	0.2%
PCB-141 22'3455'-HxCB	32.81	9.43E+08	1.24 Y	0.95	0.91	-3.6%
PCB-130 22'33'45'-HxCB	33.15	8.32E+08	1.24 Y	0.82	0.81	-2.0%
PCB-137 22'344'5-HxCB	33.34	1.03E+09	1.21 Y	0.97	1.00	2.9%
PCB-164 233'4'5'6-HxCB	33.43	1.31E+09	1.24 Y	1.25	1.27	1.4%
PCB-163/138/129 ...-HxCB	33.71	3.28E+09	1.23 Y	1.04	1.06	1.4%
PCB-160 233'456-HxCB	33.83	1.26E+09	1.24 Y	1.19	1.22	2.7%
PCB-158 233'44'6-HxCB	34.02	1.37E+09	1.22 Y	1.34	1.32	-1.1%
PCB-128/166 ...-HxCB	34.73	1.82E+09	1.25 Y	0.96	0.98	2.1%
PCB-159 233'455'-HxCB	35.58	1.06E+09	1.26 Y	1.12	1.14	1.7%
PCB-162 233'4'55'-HxCB	35.82	1.04E+09	1.24 Y	1.13	1.12	-0.9%
PCB-188 22'34'566'-HpCB	31.53	1.49E+09	1.03 Y	0.98	0.99	0.3%
PCB-179 22'33'566'-HpCB	31.79	1.27E+09	1.03 Y	0.90	0.84	-6.0%
PCB-184 22'344'66'-HpCB	32.26	1.34E+09	1.02 Y	0.86	0.89	2.7%

PCB QC Summary - Ax2 Detail

Printed: 14-Dec-2012 11:18

Lab ID: CS5_121214_PCB_VA

ICAL: MM6_PCB_07132012_14DEC12

Acquired: 14-DEC-2012 06:57

Datafile: 121214V07

Name	RT	Response	RA	ICAL	RRF	Dev'n
PCB-176 22'33'466'-HpCB	32.53	1.40E+09	1.02 Y	0.97	0.93	-4.6%
PCB-186 22'34566'-HpCB	32.91	1.32E+09	1.03 Y	0.93	0.87	-5.5%
PCB-178 22'33'55'6-HpCB	34.08	1.00E+09	1.03 Y	0.66	0.66	0.1%
PCB-175 22'33'45'6-HpCB	34.62	9.11E+08	1.04 Y	1.02	1.01	-1.2%
PCB-187 22'34'55'6-HpCB	34.84	8.94E+08	1.04 Y	1.03	0.99	-3.3%
PCB-182 22'344'56'-HpCB	35.02	9.12E+08	1.04 Y	1.10	1.01	-7.5%
PCB-183 22'344'5'6-HpCB	35.36	8.79E+08	1.03 Y	1.12	0.98	-13.1%
PCB-185 22'3455'6-HpCB	35.43	9.69E+08	1.04 Y	0.97	1.08	11.3%
PCB-174 22'33'456'-HpCB	35.54	7.83E+08	1.04 Y	0.90	0.87	-2.8%
PCB-177 22'33'45'6'-HpCB	35.91	7.46E+08	1.04 Y	0.87	0.83	-4.9%
PCB-181 22'344'56-HpCB	36.25	9.09E+08	1.03 Y	1.03	1.01	-2.3%
PCB-171/173 ...-HpCB	36.42	1.57E+09	1.04 Y	0.89	0.87	-1.7%
PCB-172 22'33'455'-HpCB	37.81	7.53E+08	1.03 Y	0.87	0.84	-4.1%
PCB-192 233'455'6-HpCB	38.04	9.98E+08	1.04 Y	1.16	1.11	-4.5%
PCB-180/193 ...-HpCB	38.32	1.88E+09	1.03 Y	1.07	1.04	-2.4%
PCB-191 233'44'5'6-HpCB	38.65	1.01E+09	1.04 Y	1.18	1.12	-5.3%
PCB-170 22'33'44'5-HpCB	39.39	7.22E+08	1.03 Y	0.99	1.01	1.4%
PCB-190 233'44'56-HpCB	39.84	1.02E+09	1.03 Y	1.36	1.42	4.8%
PCB-202 22'33'55'66'-OcCB	36.03	9.88E+08	0.89 Y	0.86	0.85	-2.1%
PCB-201 22'33'45'66'-OcCB	36.80	1.11E+09	0.89 Y	0.95	0.95	0.0%
PCB-204 22'344'566'-OcCB	37.37	1.03E+09	0.89 Y	0.90	0.89	-1.9%
PCB-197 22'33'44'66'-OcCB	37.56	1.16E+09	0.88 Y	0.96	1.00	3.6%
PCB-200 22'33'4566'-OcCB	37.64	1.04E+09	0.90 Y	0.88	0.89	0.7%
PCB-198/199 ...-OcCB	39.98	1.55E+09	0.89 Y	0.63	0.67	5.6%
PCB-196 22'33'44'56'-OcCB	40.55	7.58E+08	0.88 Y	0.66	0.65	-1.8%
PCB-203 22'344'55'6-OcCB	40.71	8.03E+08	0.89 Y	0.69	0.69	-0.9%
PCB-195 22'33'44'56-OcCB	41.81	5.86E+08	0.91 Y	0.82	0.84	2.0%
PCB-194 22'33'44'55'-OcCB	43.78	6.25E+08	0.90 Y	0.90	0.90	-0.5%
PCB-205 233'44'55'6-OcCB	44.18	8.01E+08	0.90 Y	1.13	1.15	1.5%
PCB-208 22'33'455'66'-NoCB	41.63	8.35E+08	0.77 Y	1.03	1.02	-1.1%
PCB-207 22'33'44'566'-NoCB	42.41	8.57E+08	0.77 Y	1.07	1.05	-1.8%
PCB-206 22'33'44'55'6-NoCB	45.64	6.07E+08	0.77 Y	0.97	0.97	0.1%

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



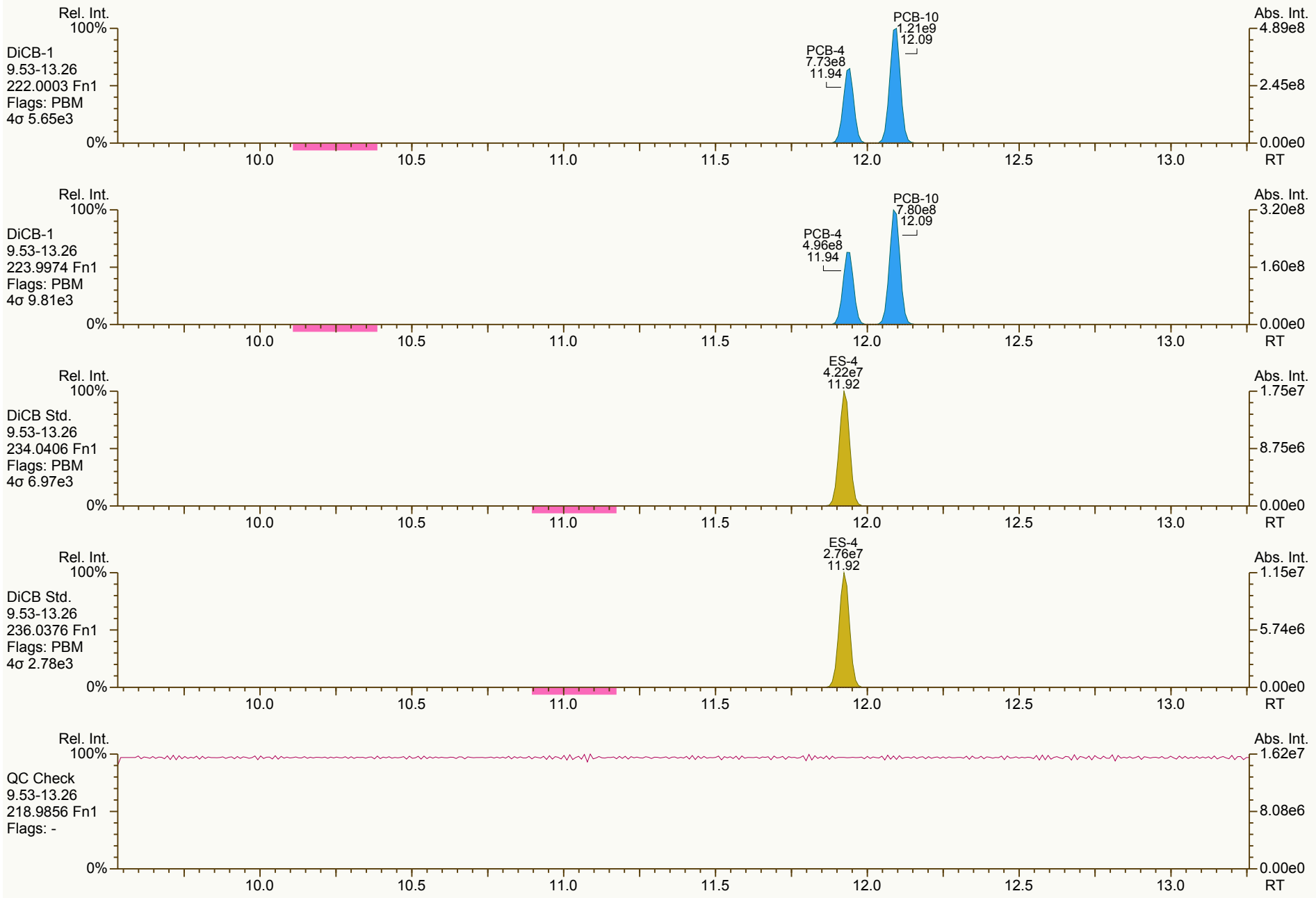
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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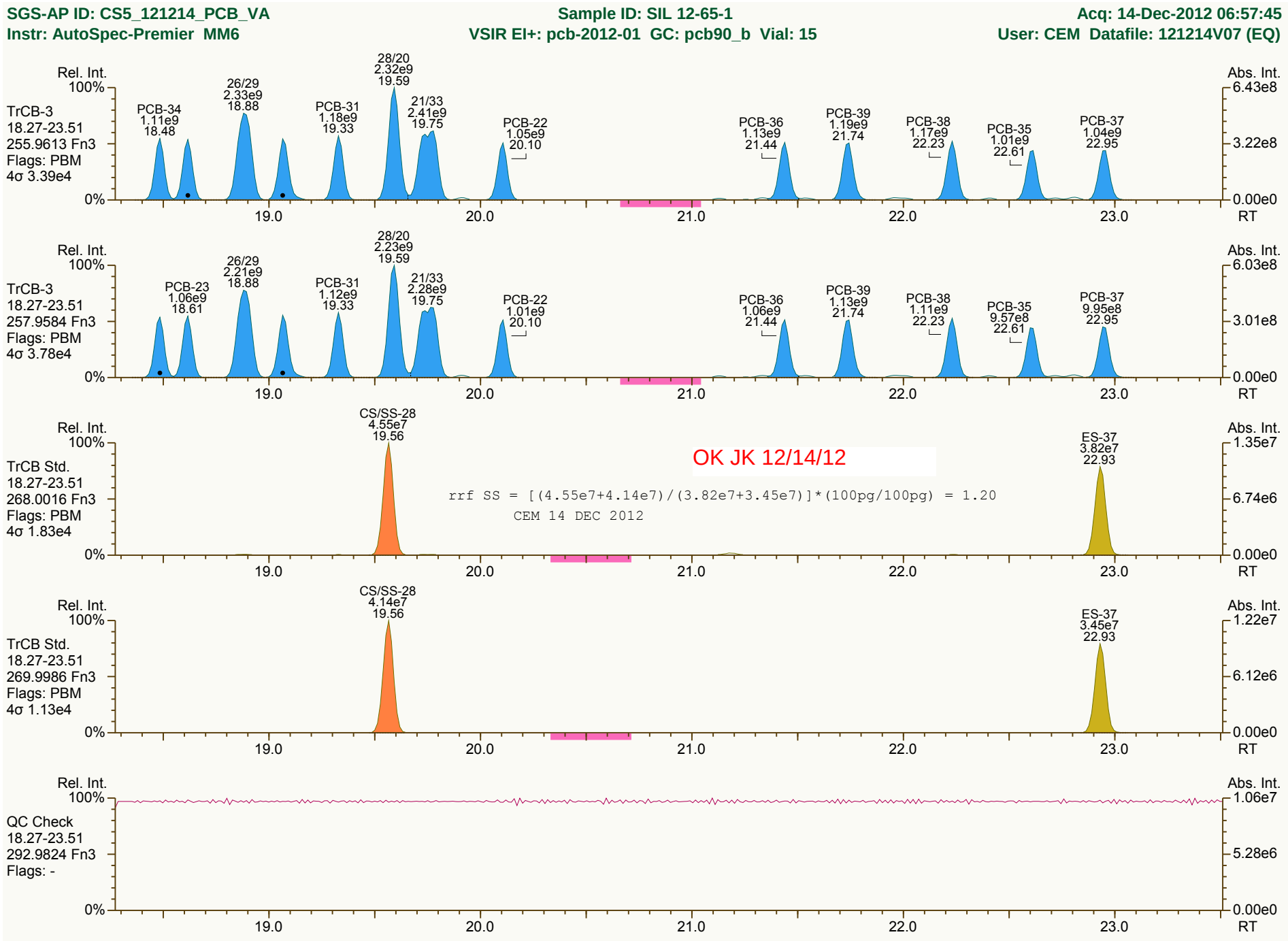
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

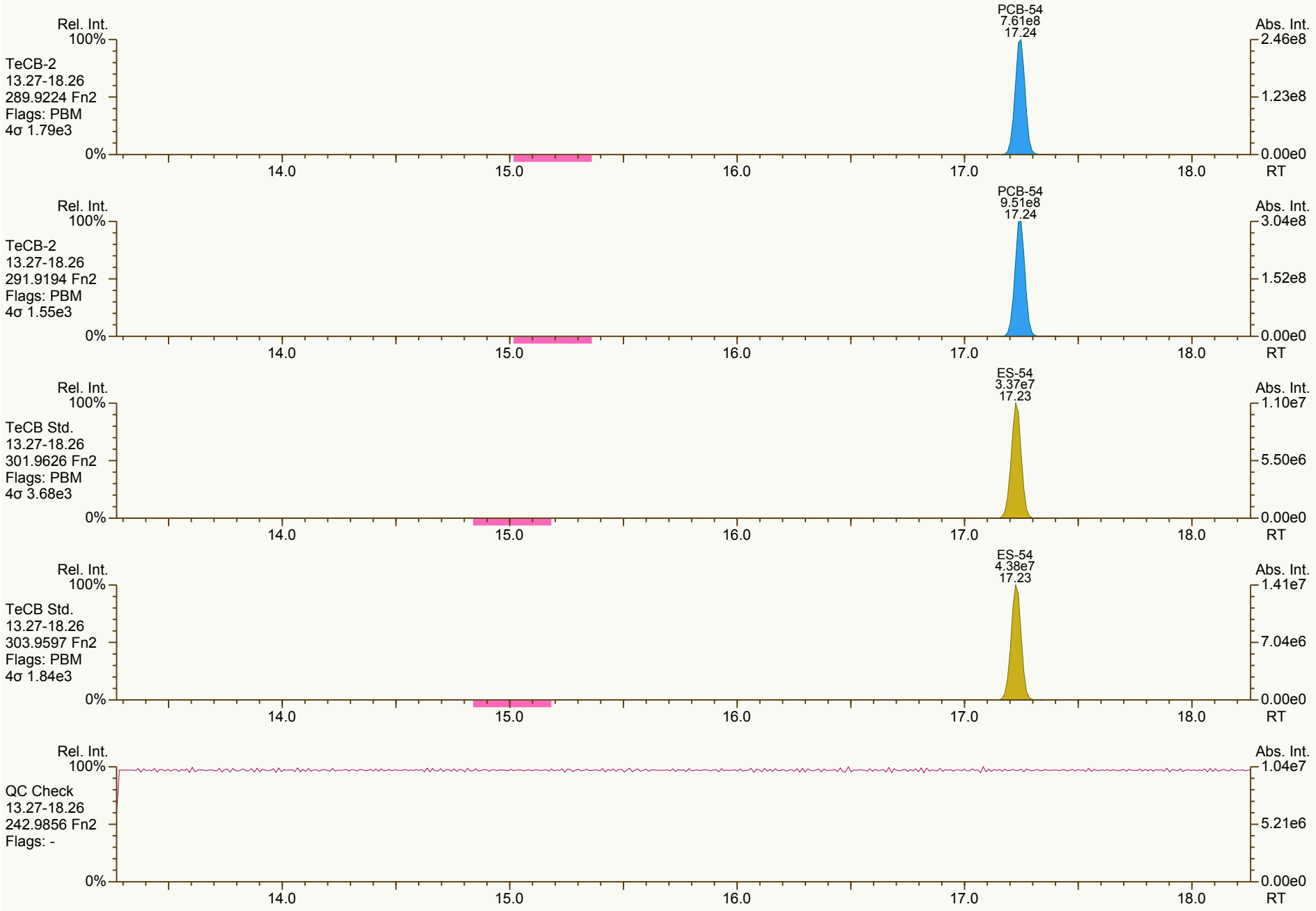
SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

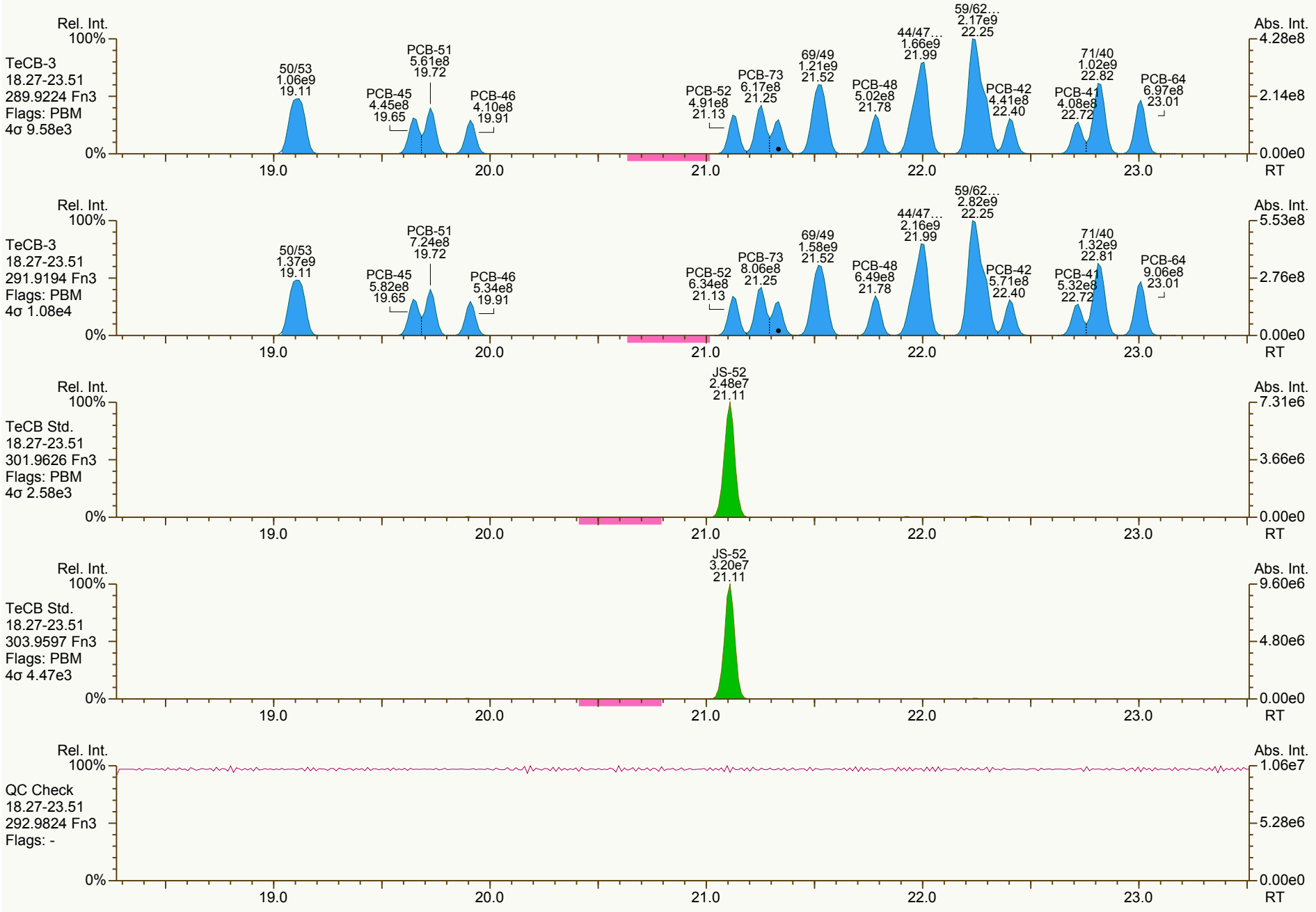

SGS-AP ID: CS5_121214_PCB_VA
Sample ID: SIL 12-65-1
Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15
User: CEM Datafile: 121214V07 (EQ)
TrCB-3
18.27-23.51
255.9613 Fn3
Flags: PBM
4σ 3.39e4
PCB-34 1.11e9 18.48
26/29 2.33e9 18.88
PCB-31 1.18e9 19.33
28/20 2.32e9 19.59
21/33 2.41e9 19.75
PCB-22 1.05e9 20.10
PCB-36 1.13e9 21.44
PCB-39 1.19e9 21.74
PCB-38 1.17e9 22.23
PCB-35 1.01e9 22.61
PCB-37 1.04e9 22.95
TrCB-3
18.27-23.51
257.9584 Fn3
Flags: PBM
4σ 3.78e4
PCB-23 1.06e9 18.61
26/29 2.21e9 18.88
PCB-31 1.12e9 19.33
28/20 2.23e9 19.59
21/33 2.28e9 19.75
PCB-22 1.01e9 20.10
PCB-36 1.06e9 21.44
PCB-39 1.13e9 21.74
PCB-38 1.11e9 22.23
PCB-35 9.57e8 22.61
PCB-37 9.95e8 22.95
TrCB Std.
18.27-23.51
268.0016 Fn3
Flags: PBM
4σ 1.83e4
CS/SS-28 4.55e7 19.56
ES-37 3.82e7 22.93
OK JK 12/14/12
rrf SS = [(4.55e7+4.14e7)/(3.82e7+3.45e7)]*(100pg/100pg) = 1.20
CEM 14 DEC 2012
TrCB Std.
18.27-23.51
269.9986 Fn3
Flags: PBM
4σ 1.13e4
CS/SS-28 4.14e7 19.56
ES-37 3.45e7 22.93
QC Check
18.27-23.51
292.9824 Fn3
Flags: -
Rel. Int.
Abs. Int.
RT
19.0
20.0
21.0
22.0
23.0

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15 | User: CEM Datafile: 121214V07 (EQ)



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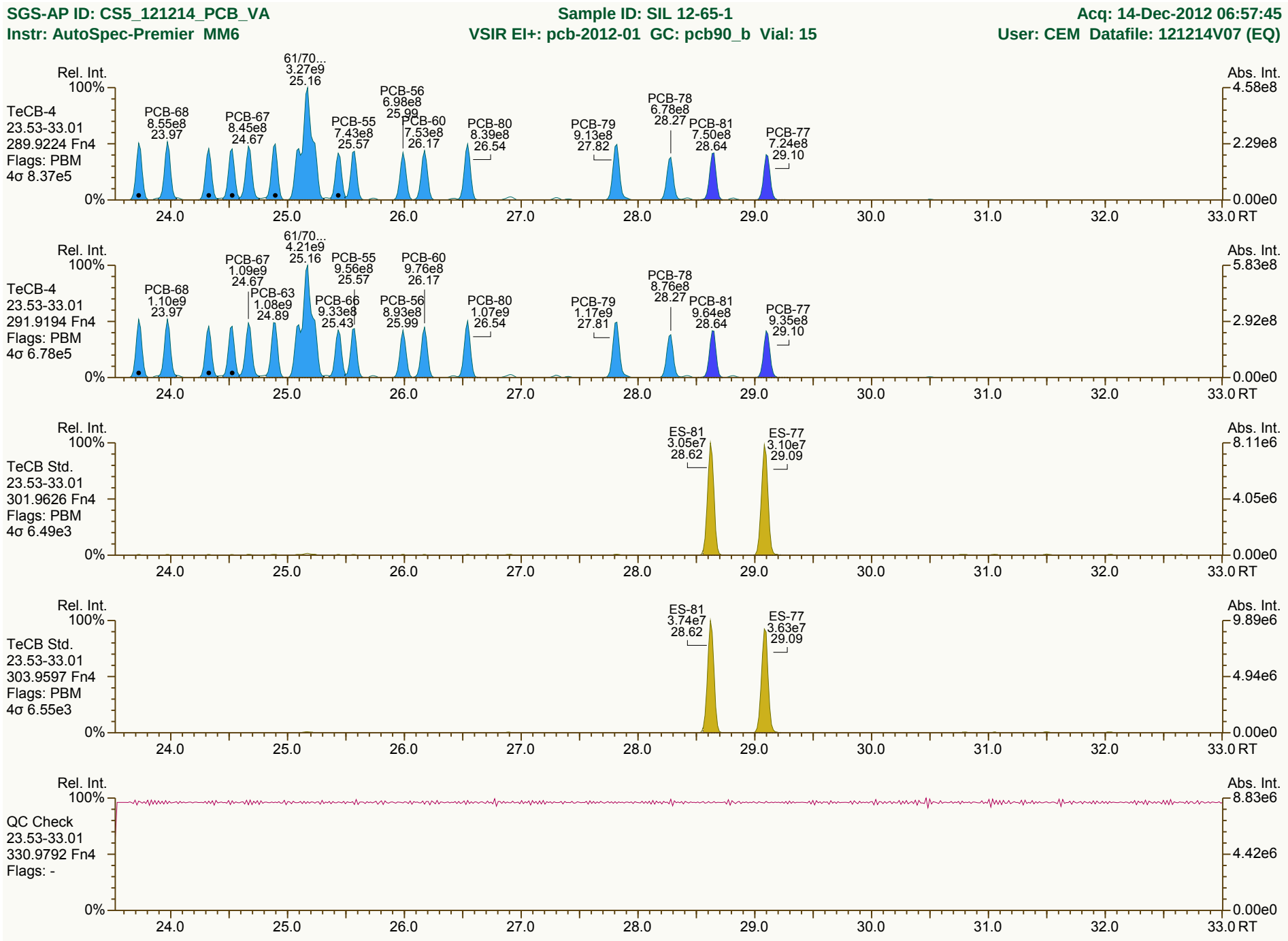
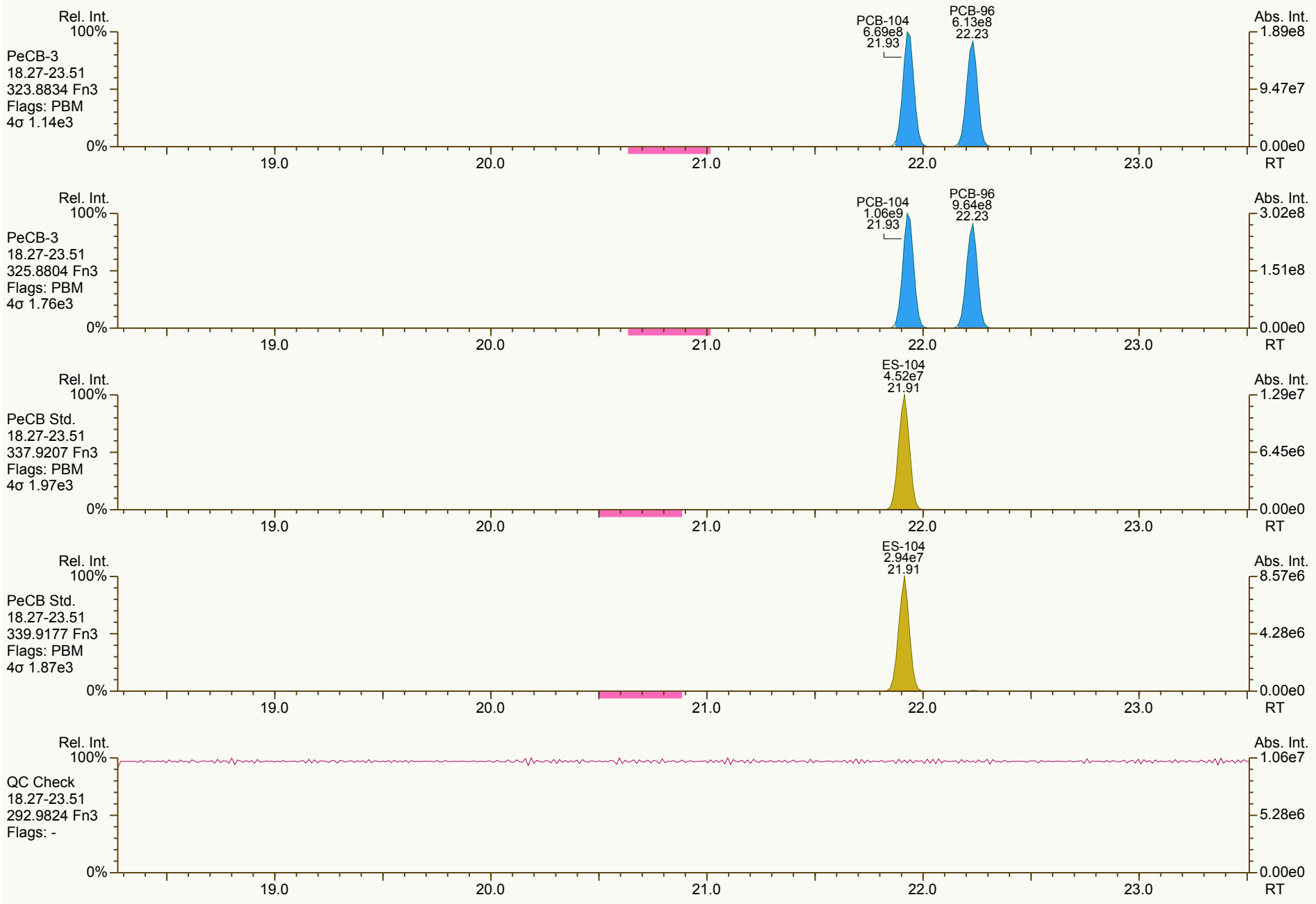
Peak annotation: Areas, Centroids

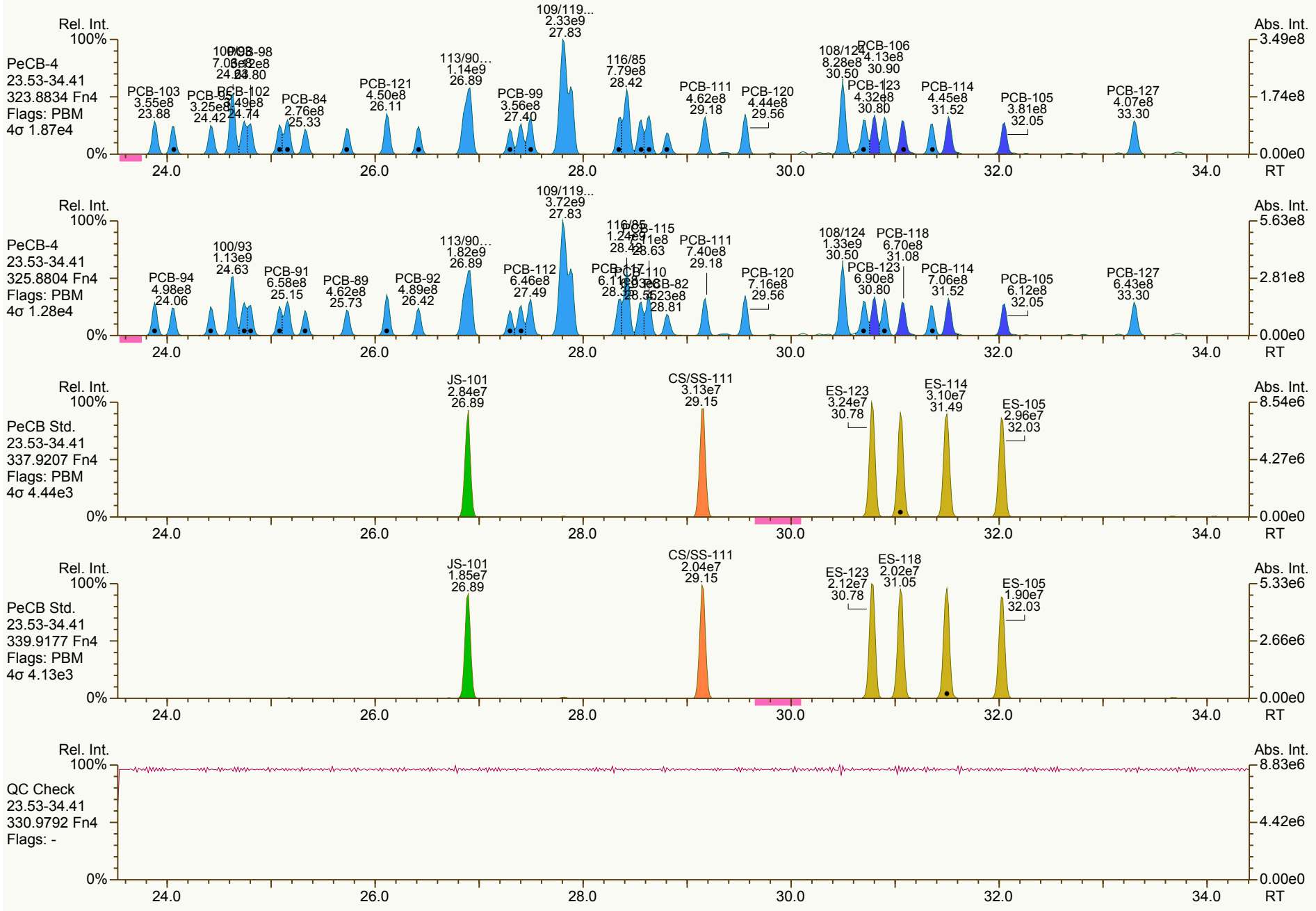

SGS-AP ID: CS5_121214_PCB_VA
Sample ID: SIL 12-65-1
Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15
User: CEM Datafile: 121214V07 (EQ)
TeCB-4
23.53-33.01
289.9224 Fn4
Flags: PBM
4σ 8.37e5
PCB-68 8.55e8 23.97
PCB-67 8.45e8 24.67
61/70... 3.27e9 25.16
PCB-55 7.43e8 25.57
PCB-56 6.98e8 25.99
PCB-60 7.53e8 26.17
PCB-80 8.39e8 26.54
PCB-79 9.13e8 27.82
PCB-78 6.78e8 28.27
PCB-81 7.50e8 28.64
PCB-77 7.24e8 29.10
TeCB-4
23.53-33.01
291.9194 Fn4
Flags: PBM
4σ 6.78e5
PCB-68 1.10e9 23.97
PCB-67 1.09e9 24.67
PCB-63 1.08e9 24.89
61/70... 4.21e9 25.16
PCB-55 9.56e8 25.57
PCB-66 9.33e8 25.43
PCB-56 8.93e8 25.99
PCB-60 9.76e8 26.17
PCB-80 1.07e9 26.54
PCB-79 1.17e9 27.81
PCB-78 8.76e8 28.27
PCB-81 9.64e8 28.64
PCB-77 9.35e8 29.10
TeCB Std.
23.53-33.01
301.9626 Fn4
Flags: PBM
4σ 6.49e3
ES-81 3.05e7 28.62
ES-77 3.10e7 29.09
TeCB Std.
23.53-33.01
303.9597 Fn4
Flags: PBM
4σ 6.55e3
ES-81 3.74e7 28.62
ES-77 3.63e7 29.09
QC Check
23.53-33.01
330.9792 Fn4
Flags: -
Rel. Int.
Abs. Int.
RT

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15 | User: CEM Datafile: 121214V07 (EQ)



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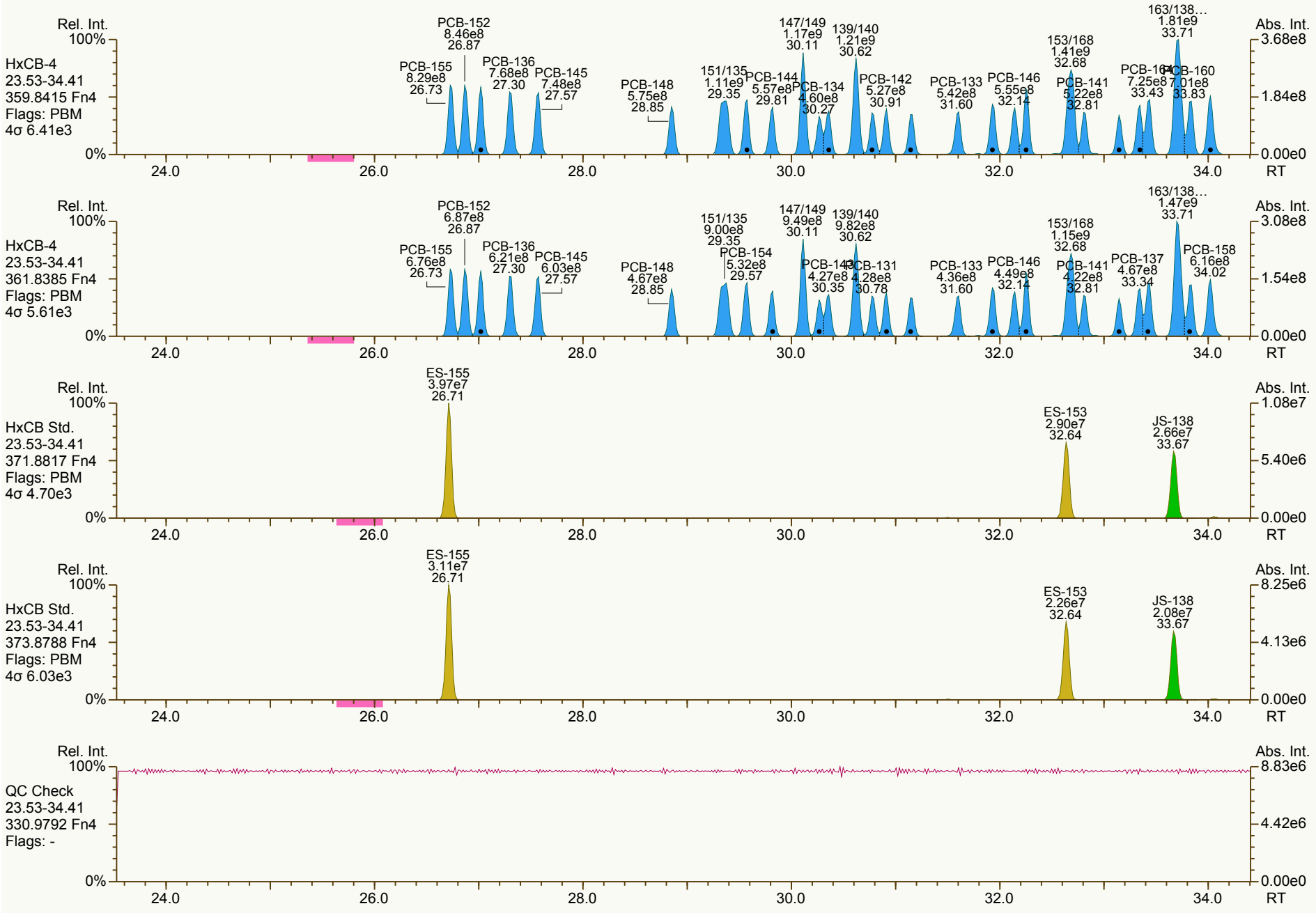
SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



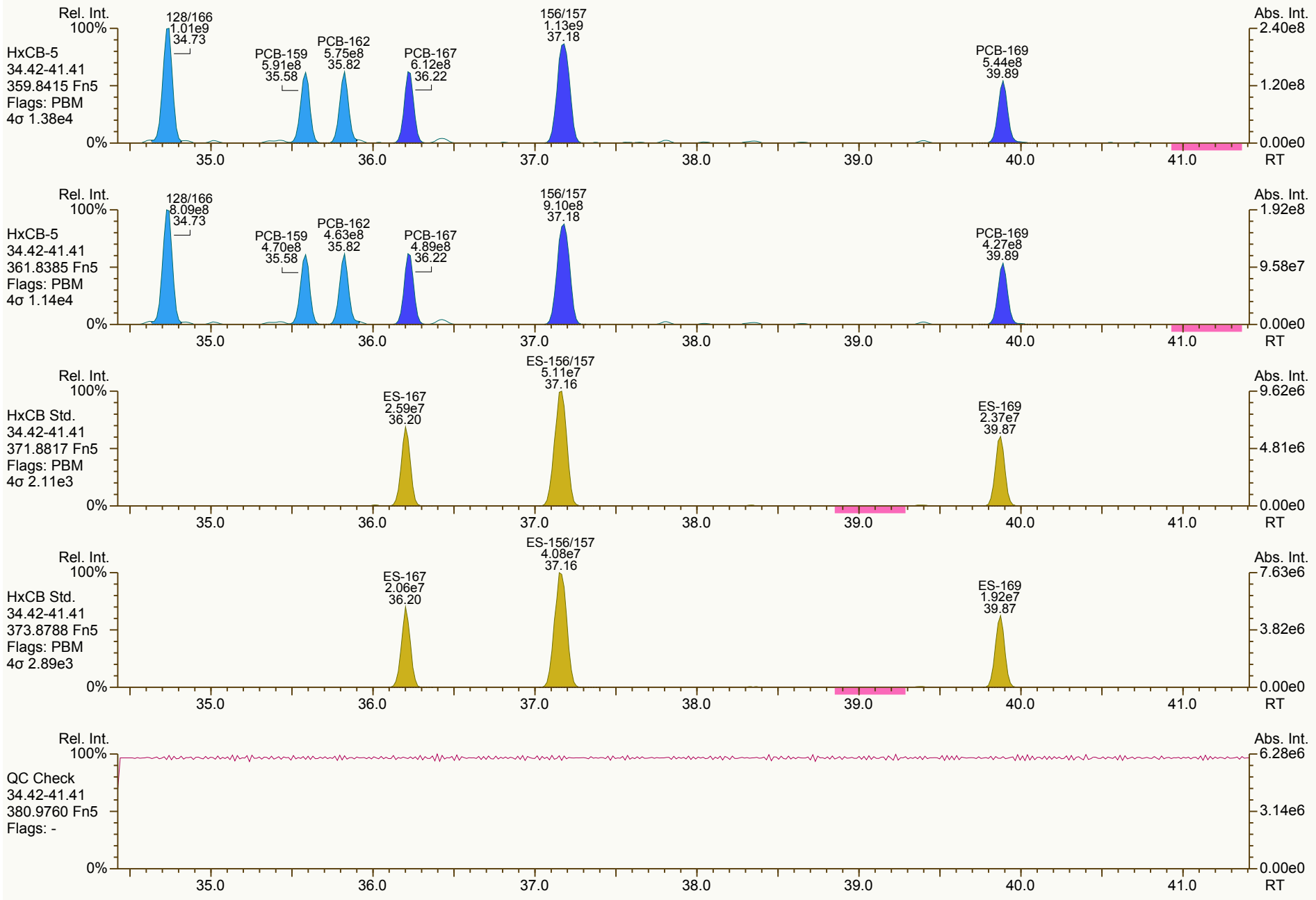
Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA | Sample ID: SIL 12-65-1 | Acq: 14-Dec-2012 06:57:45
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15 | User: CEM Datafile: 121214V07 (EQ)



Results: T:\UltraTracePro\ICAL results\MM6_PCB_07132012_14DEC12\CS5_121214_PCB_VA.utp_res, saved 14-Dec-2012 10:35 (CEM) *Peak annotation: Areas, Centroids*

SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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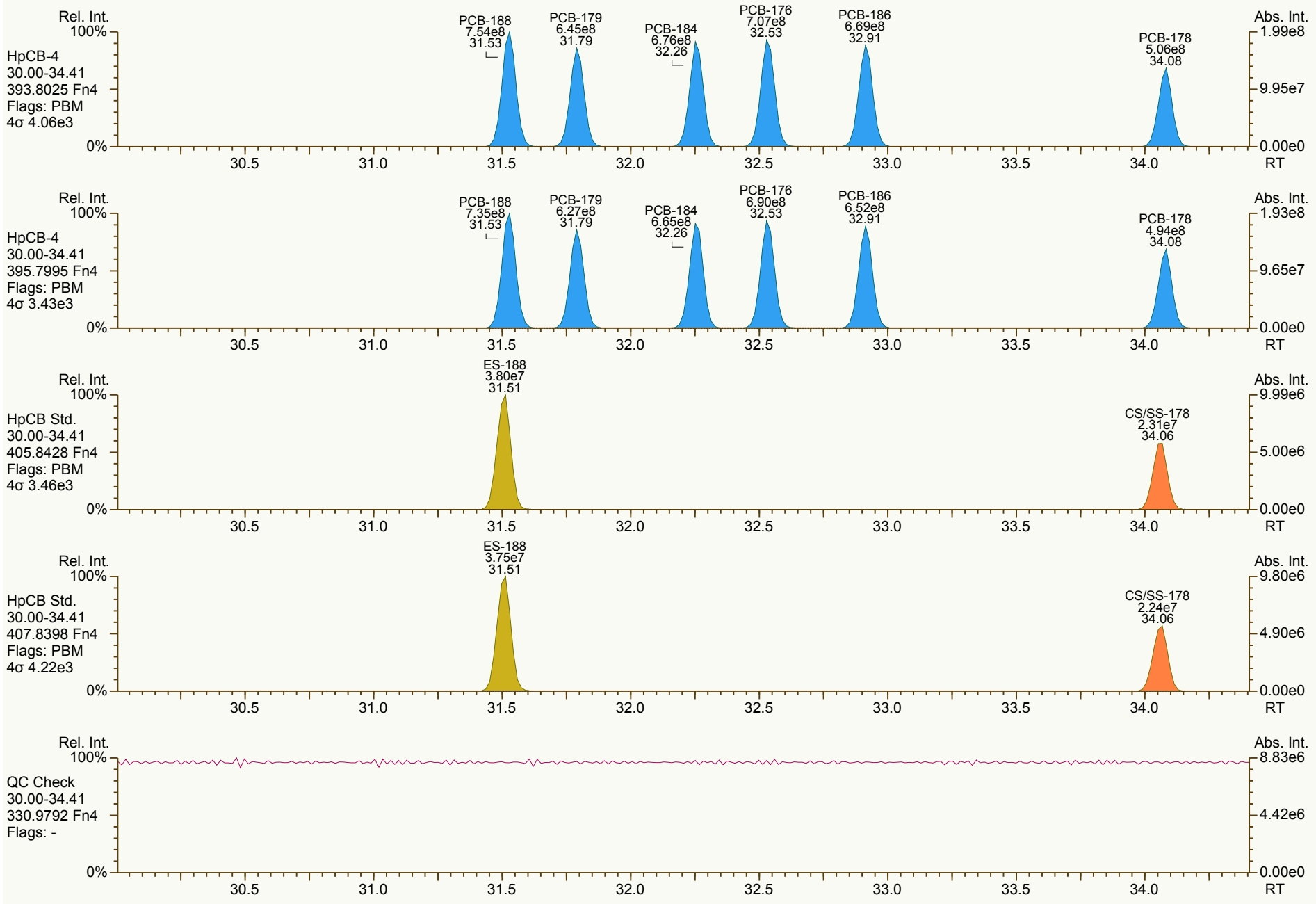
SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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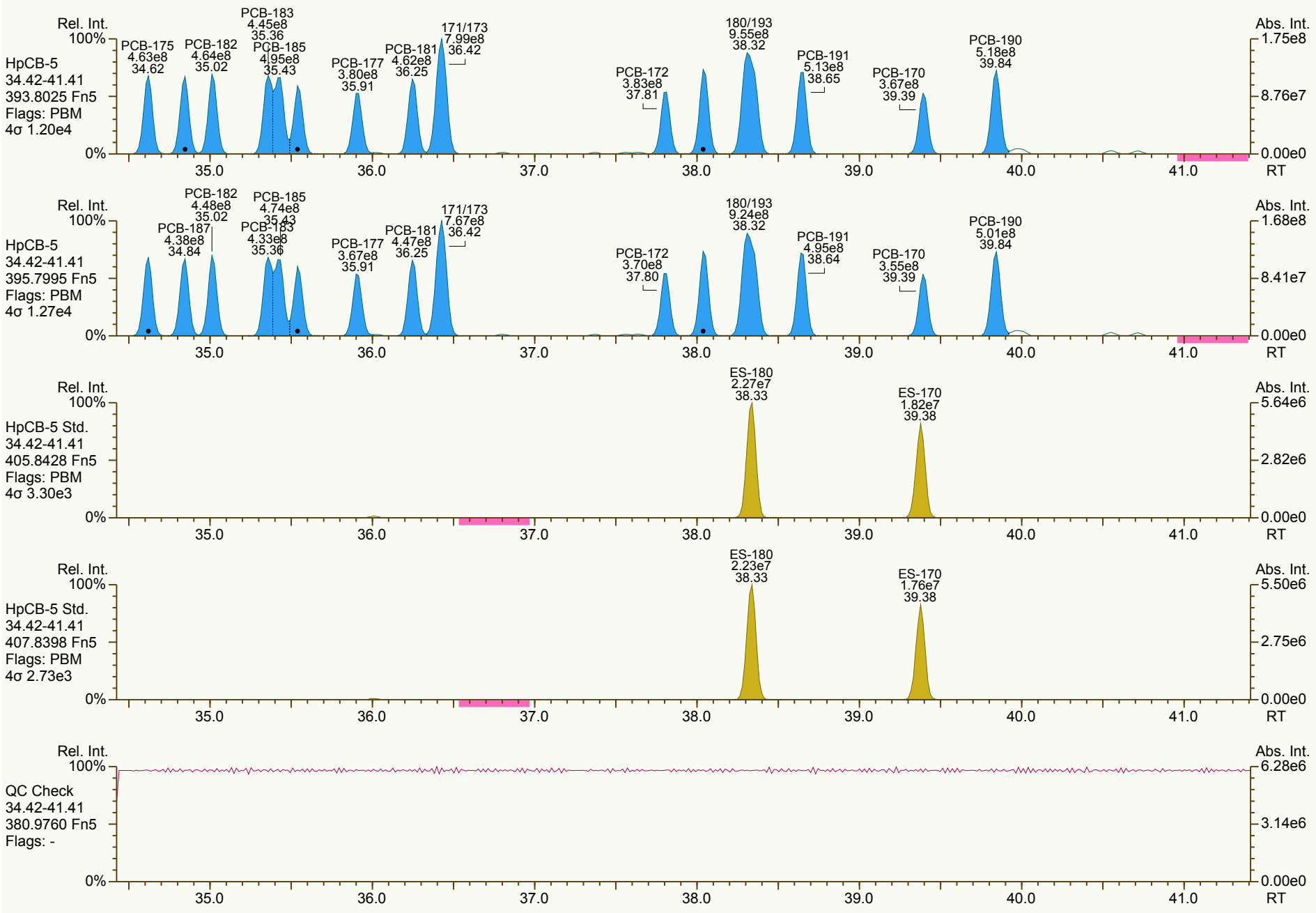

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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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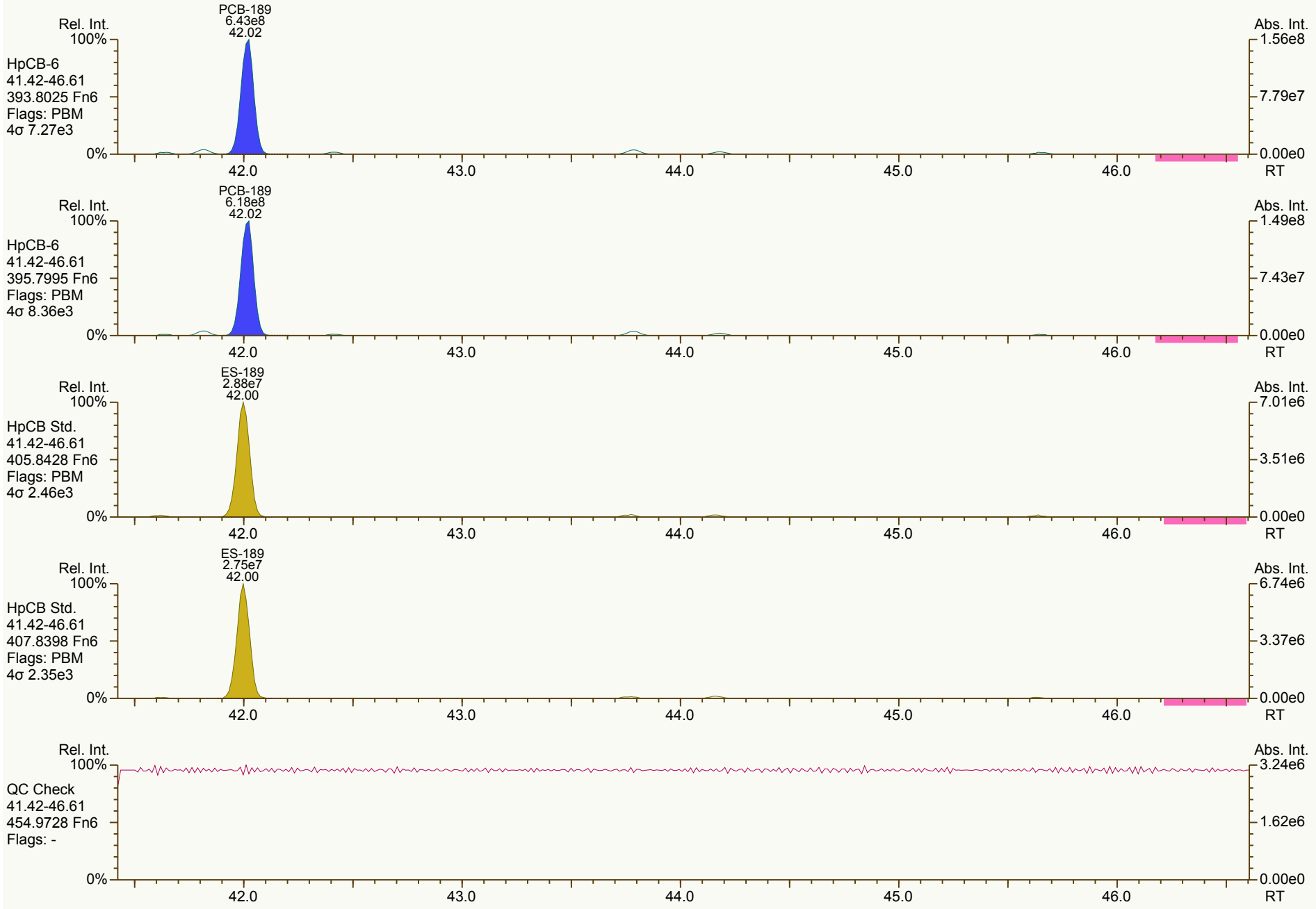

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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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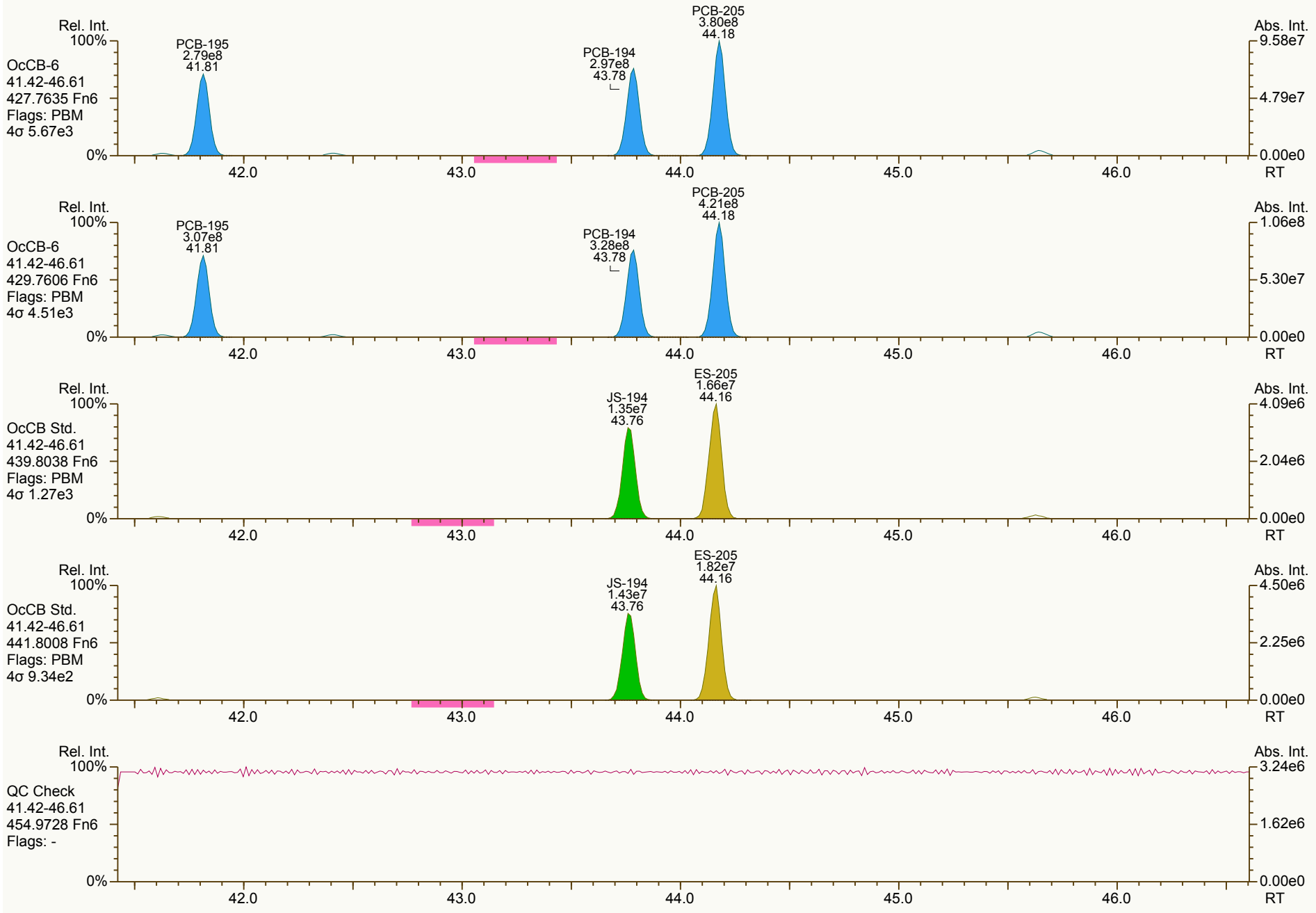

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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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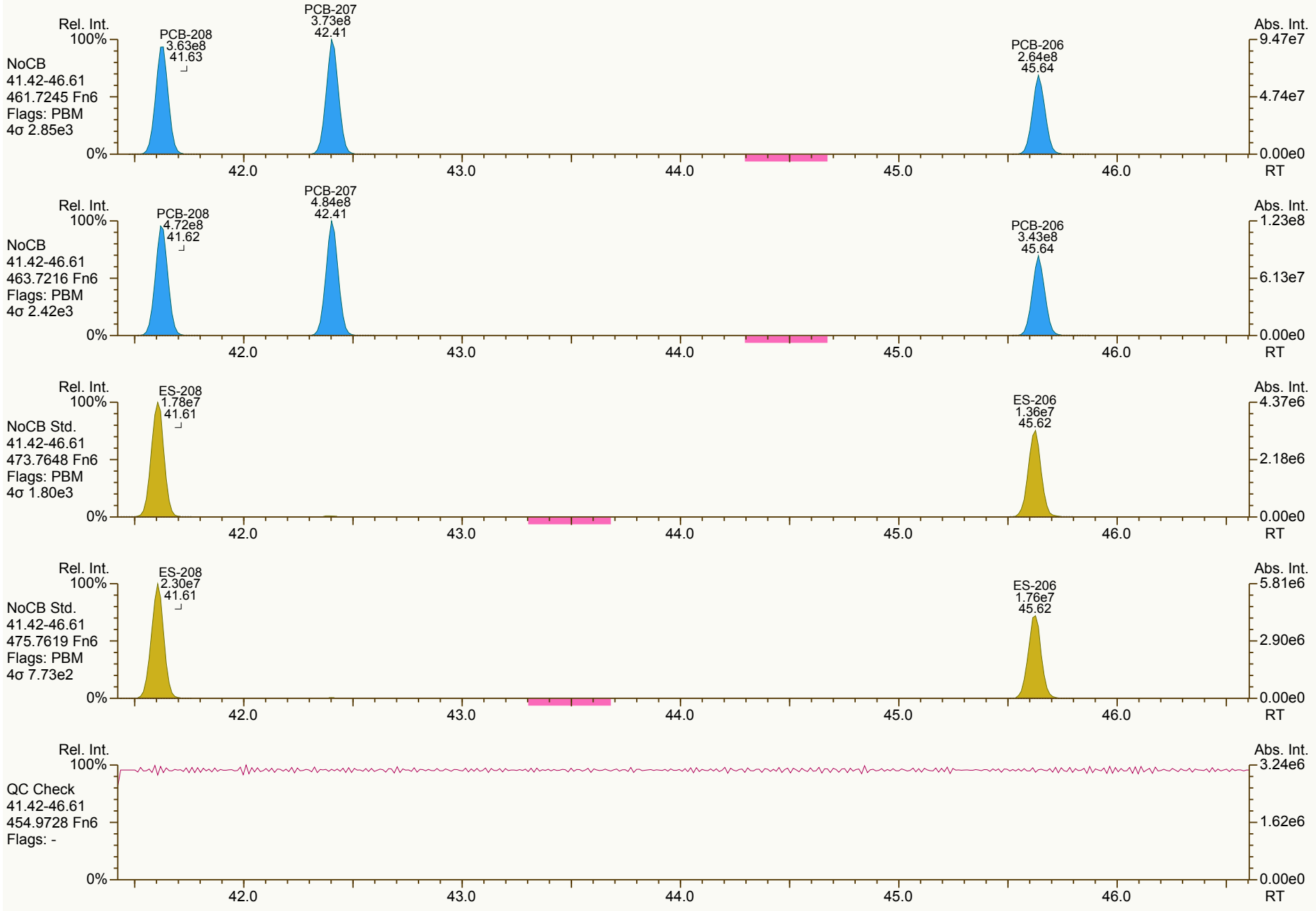

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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
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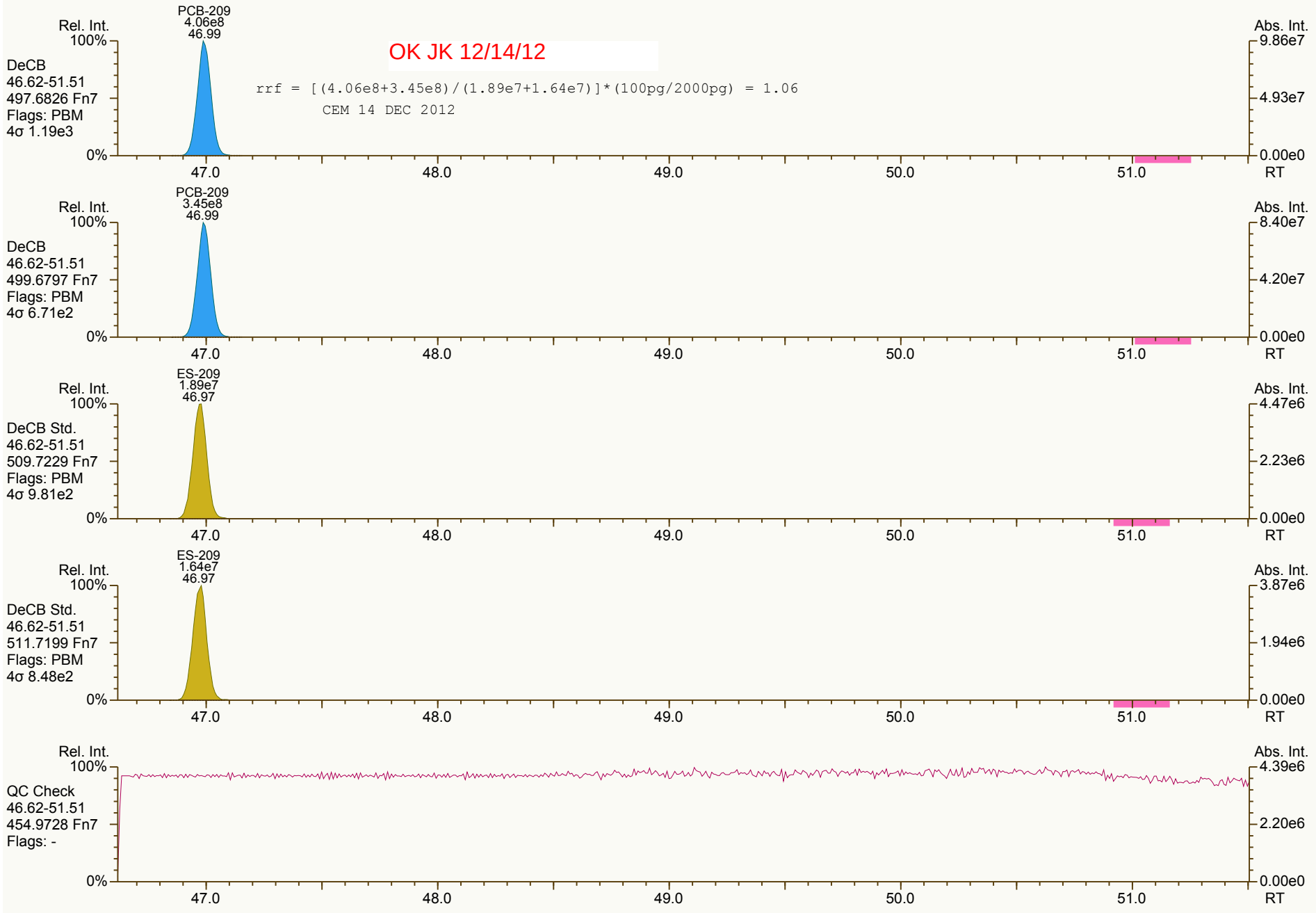

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SGS-AP ID: CS5_121214_PCB_VA **Sample ID: SIL 12-65-1** **Acq: 14-Dec-2012 06:57:45**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 15** **User: CEM Datafile: 121214V07 (EQ)**



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Printed: Friday, December 14, 2012 02:28:34 Eastern Standard Time

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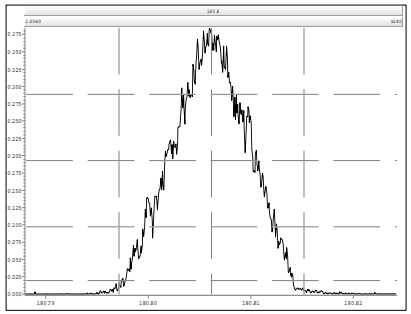
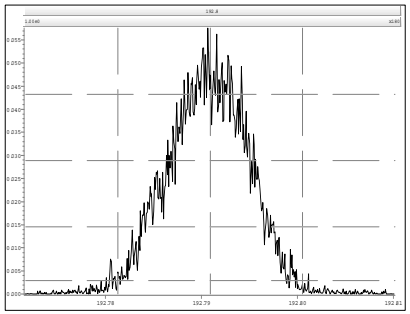


M 192.9888 R 11367



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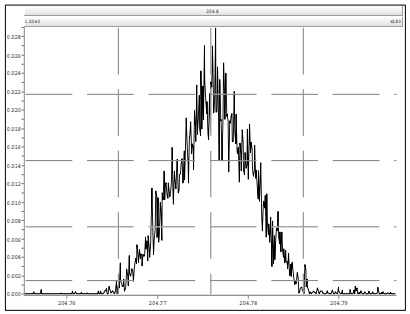

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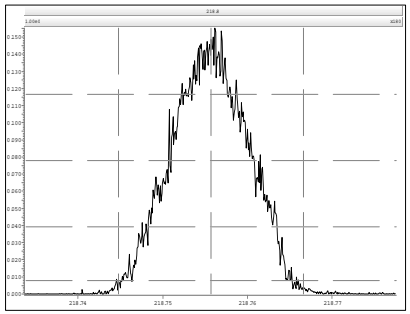

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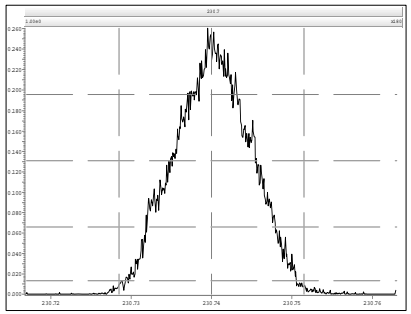

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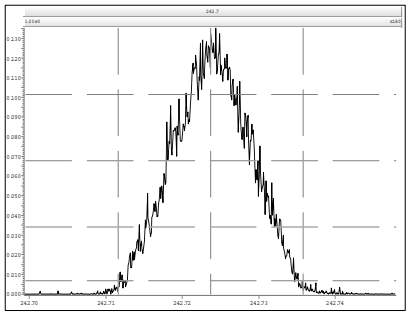

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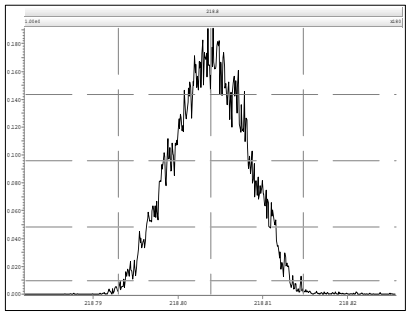

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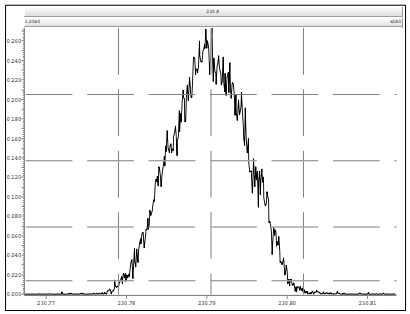

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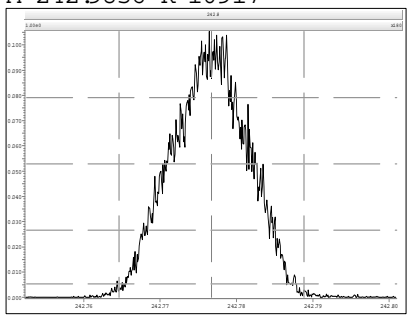

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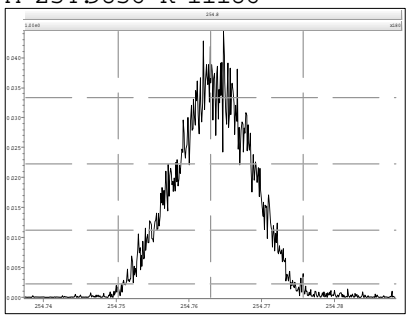
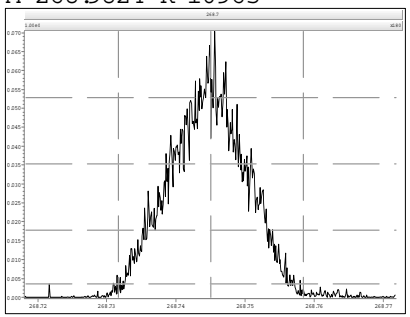


M 268.9824 R 10965



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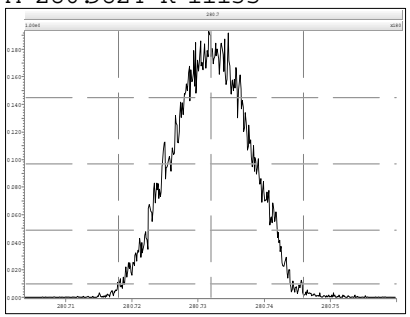

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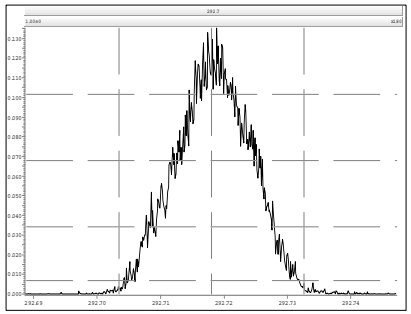

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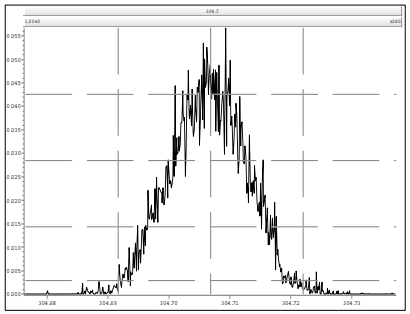

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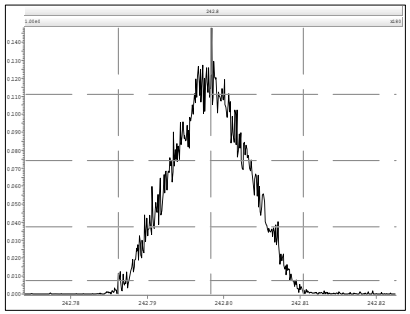

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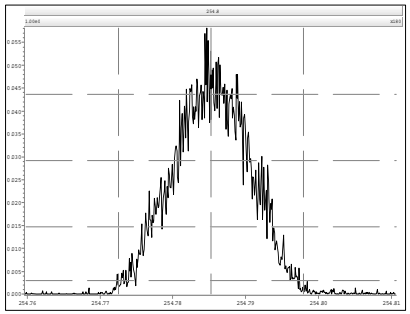

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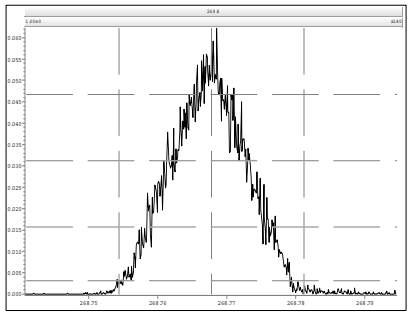

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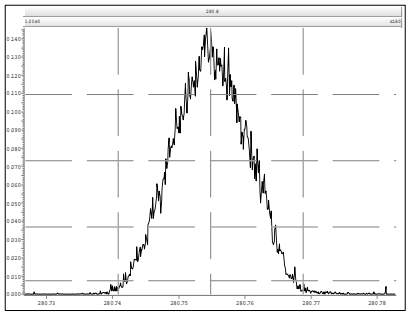

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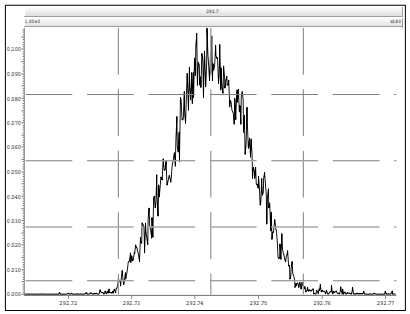

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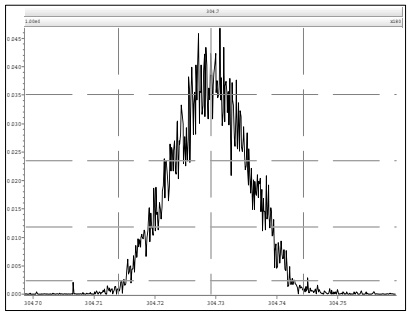

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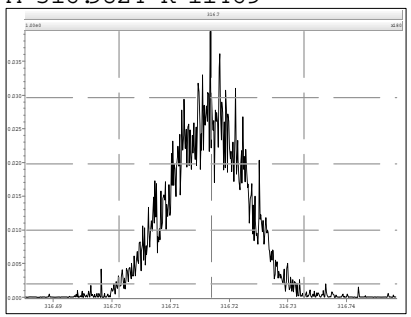

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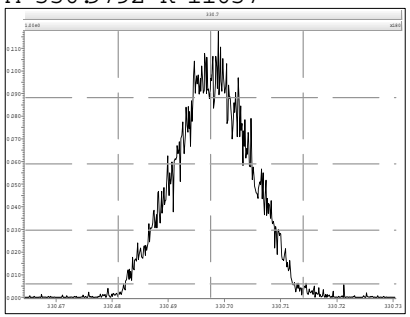

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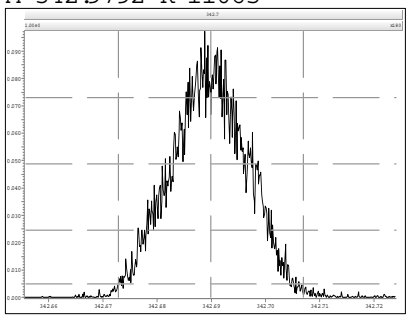

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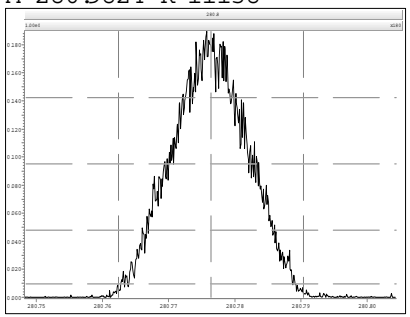

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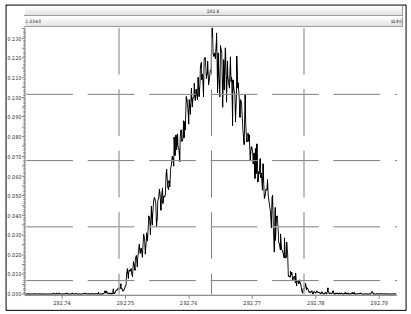

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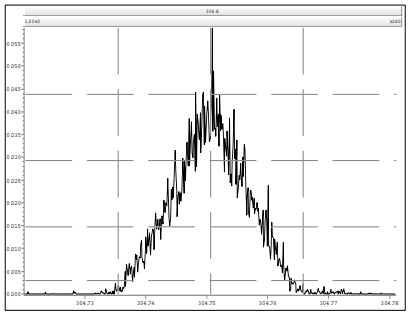

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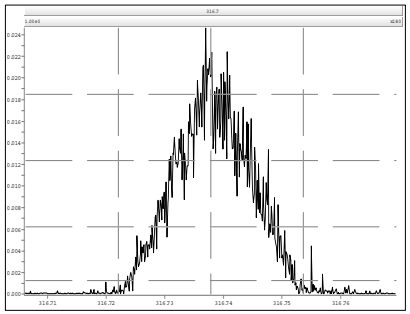

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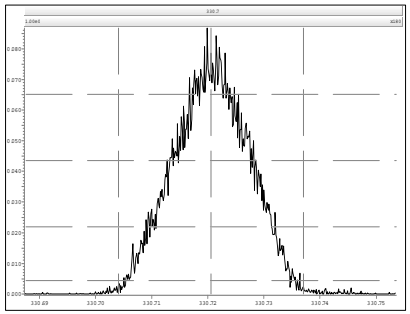

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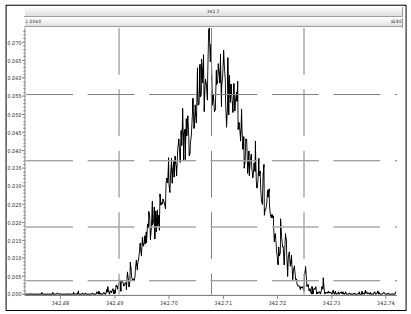

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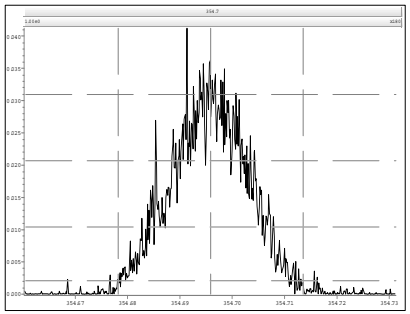

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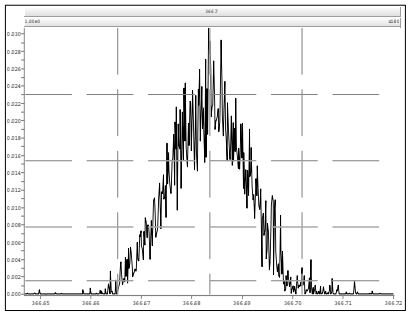

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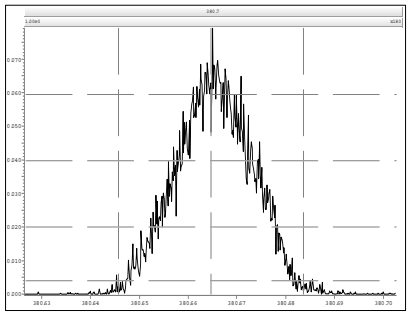

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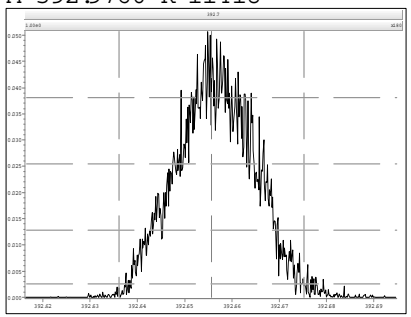

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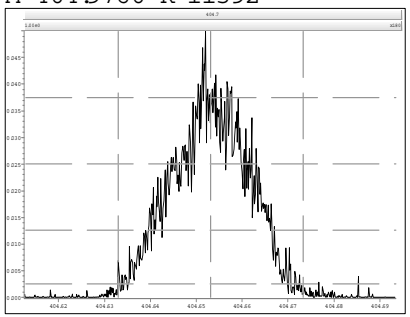

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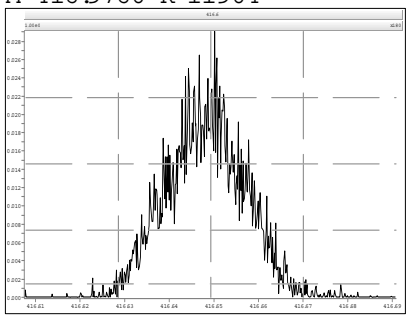

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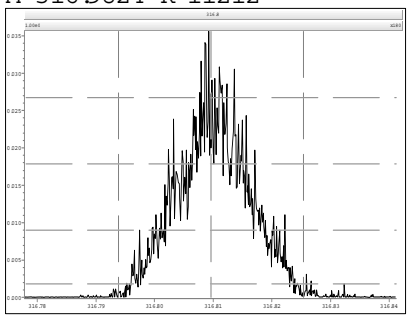

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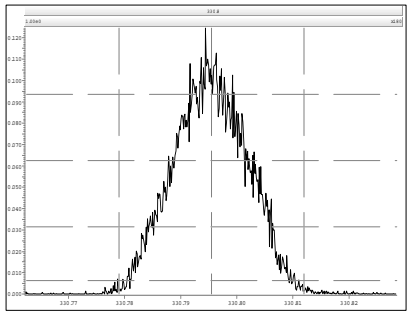

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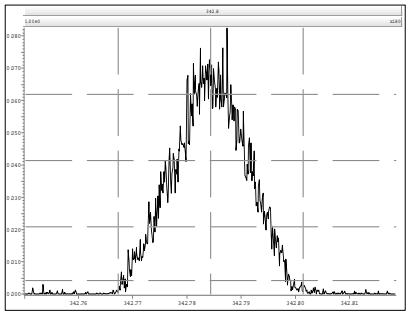

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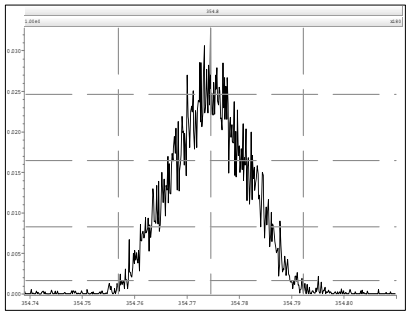

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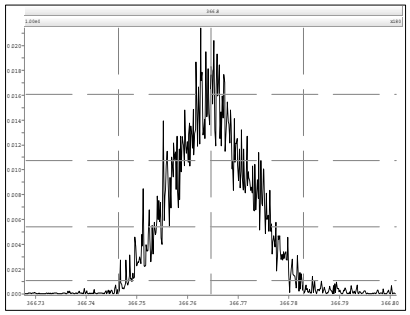
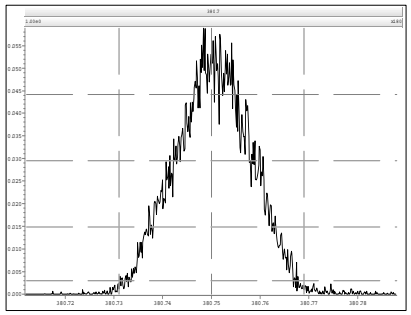


M 380.9760 R 11264



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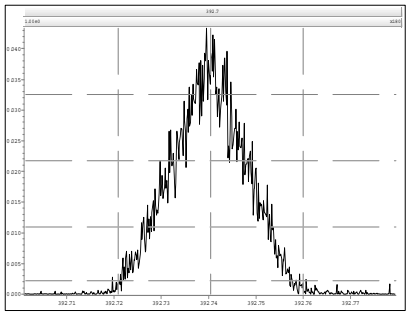

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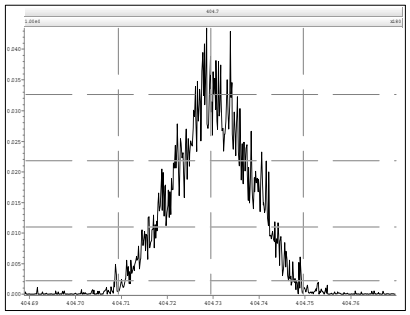
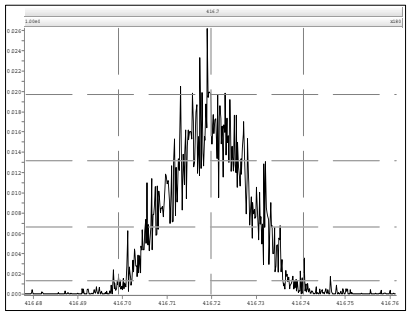
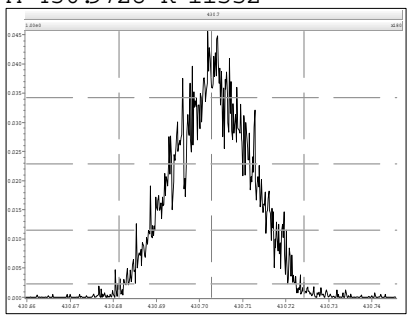


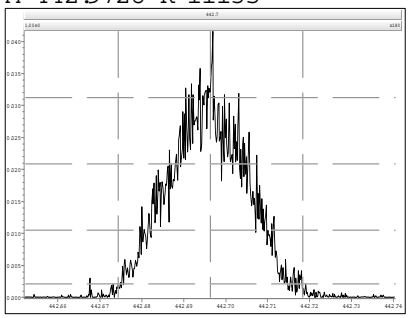
M 416.9760 R 11968



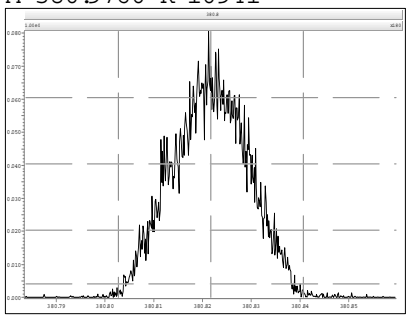
M 430.9728 R 11552



M 442.9728 R 11135



M 380.9760 R 10941



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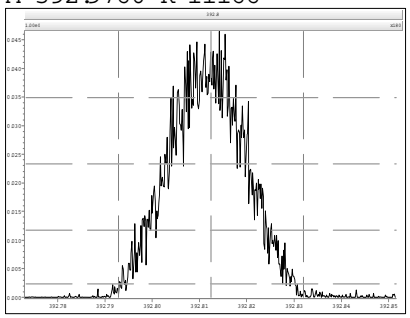

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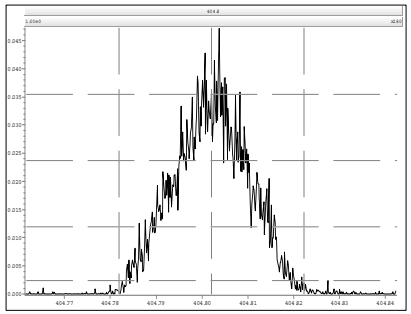

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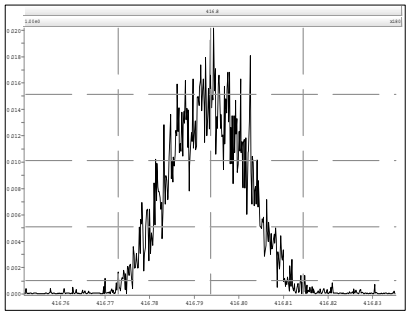
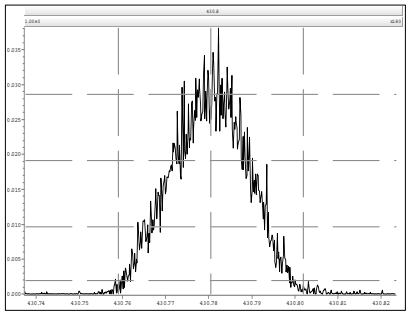
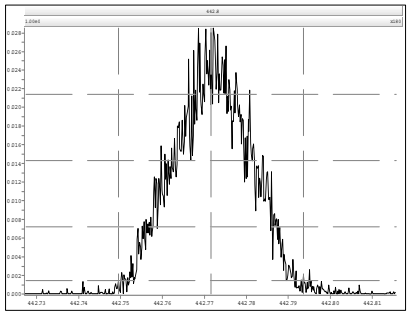


M 430.9728 R 11261



M 442.9728 R 11446



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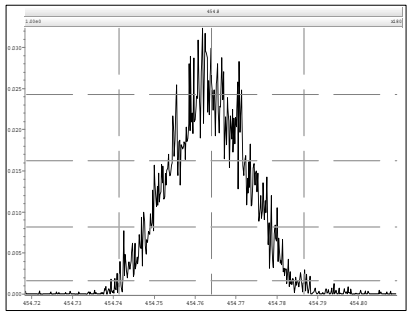

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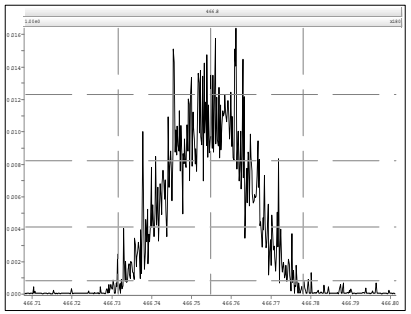
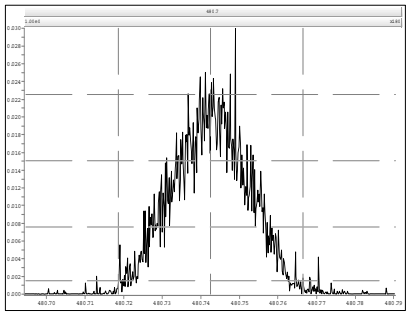
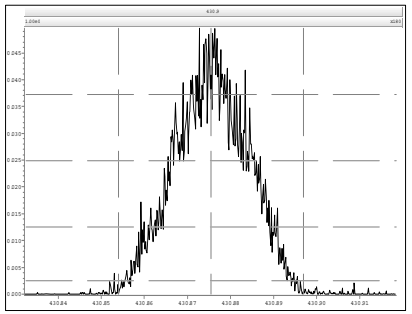


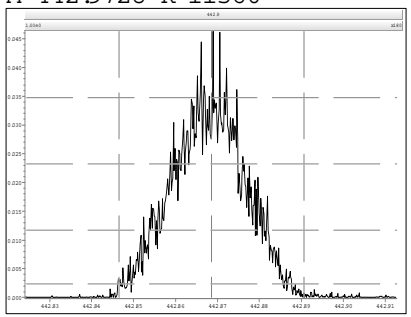
M 480.9696 R 11342



M 430.9728 R 11628



M 442.9728 R 11560



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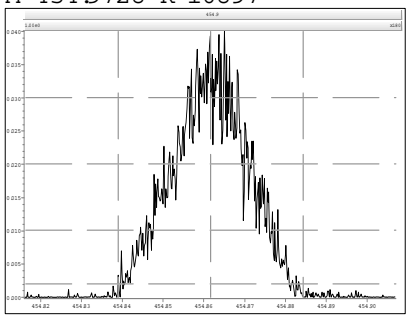

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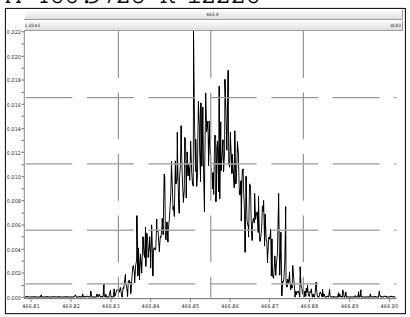

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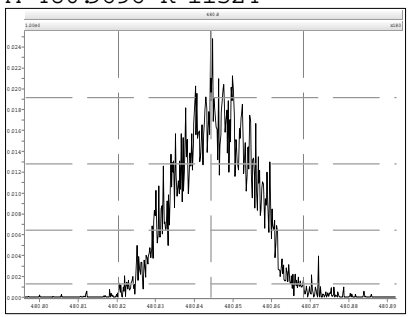

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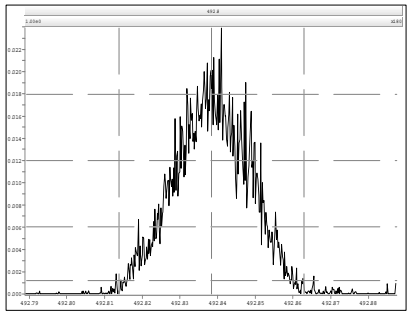

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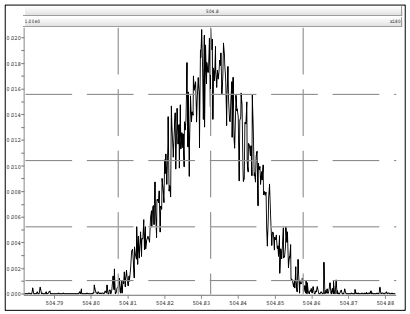

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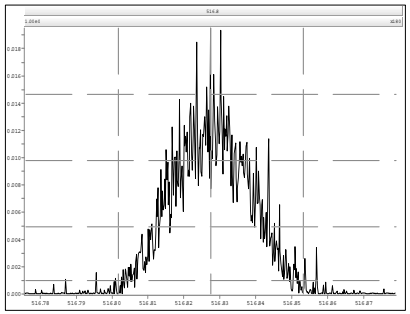

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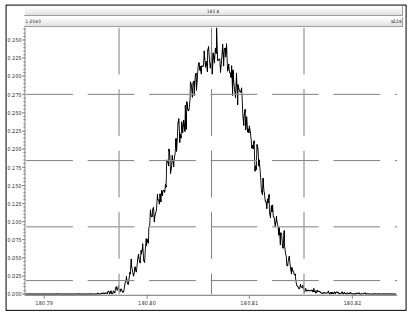

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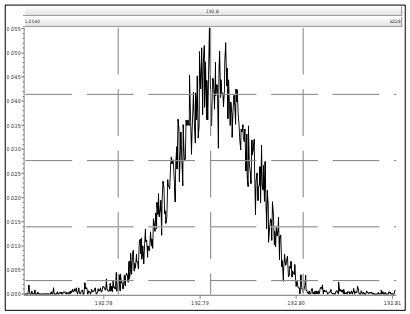

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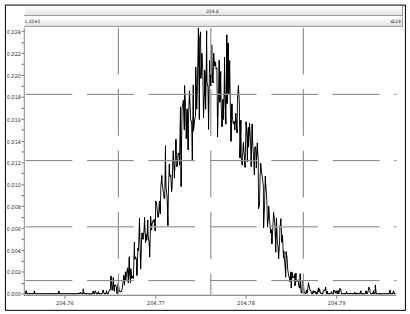

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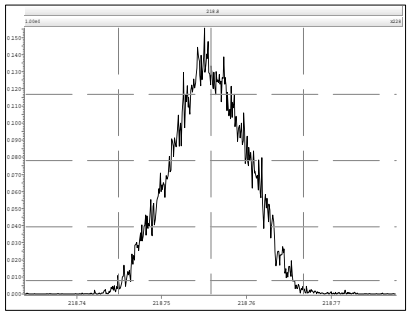

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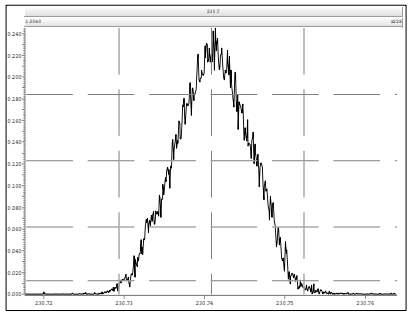

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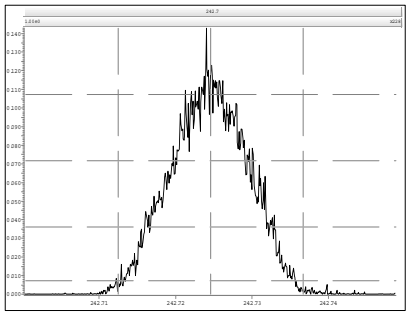

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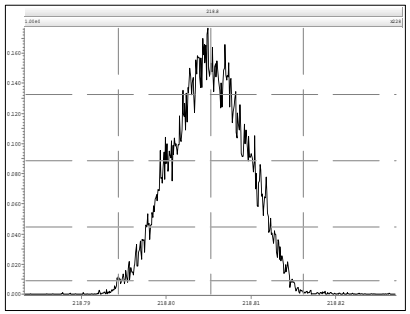

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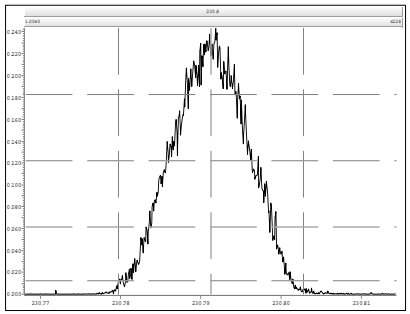
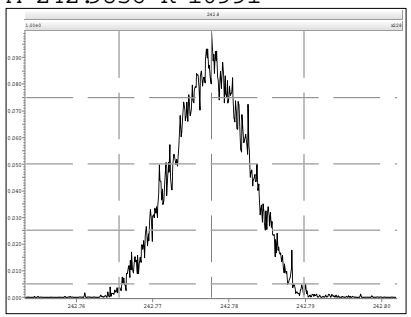
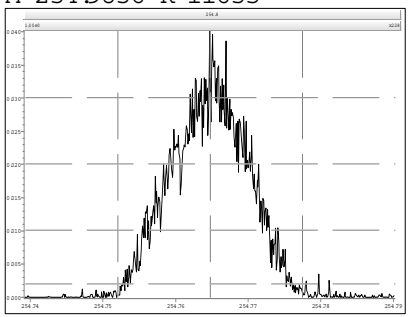


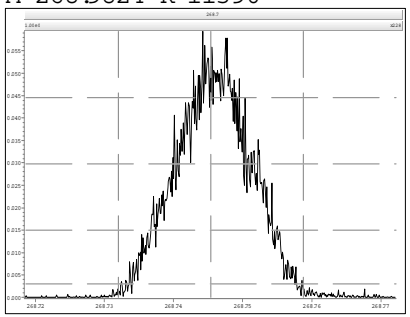
M 242.9856 R 10991



M 254.9856 R 11655



M 268.9824 R 11390



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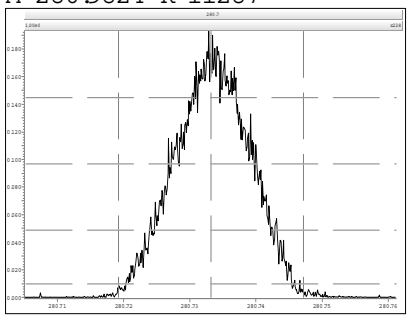

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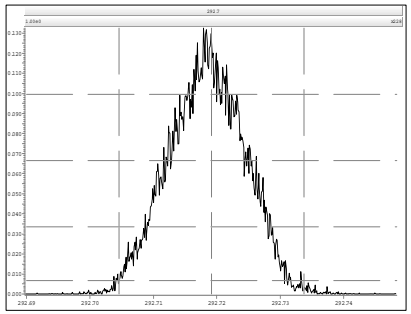

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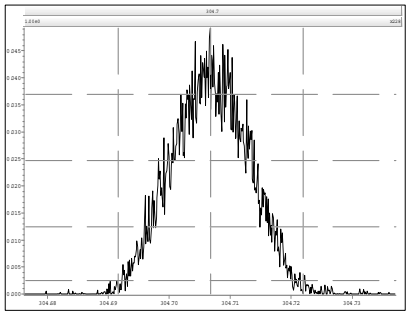

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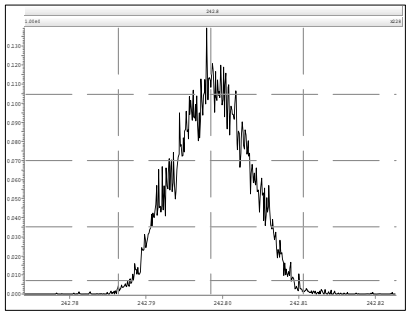

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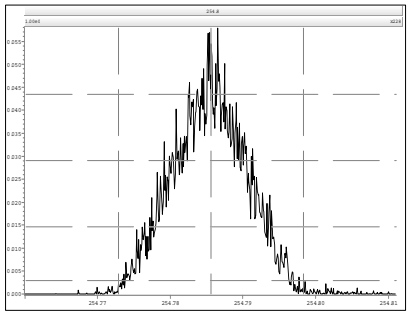

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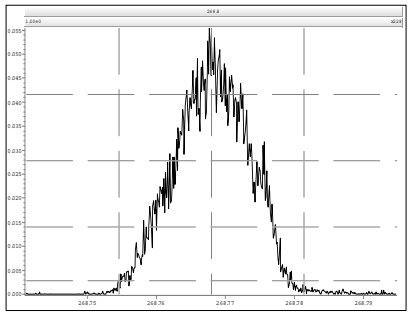
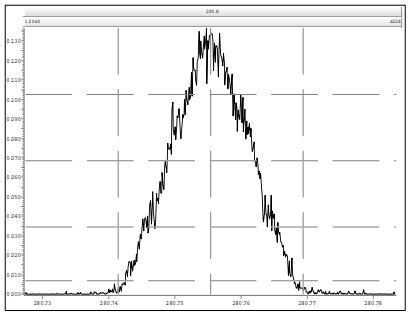


M 280.9824 R 10965



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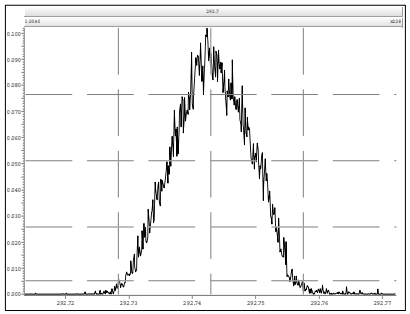

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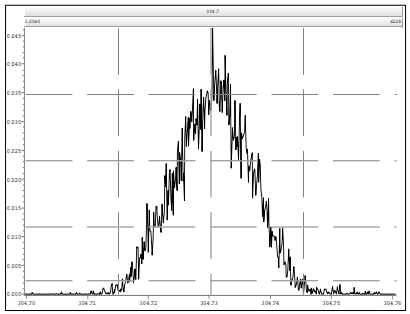

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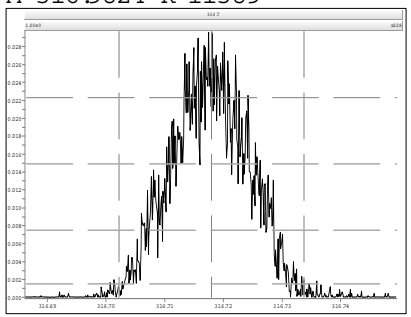
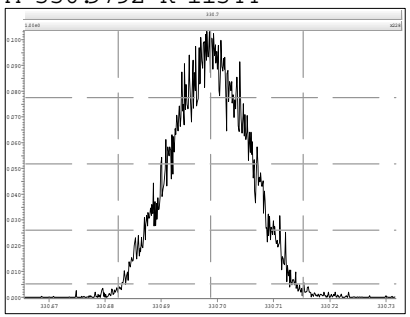


M 330.9792 R 11344



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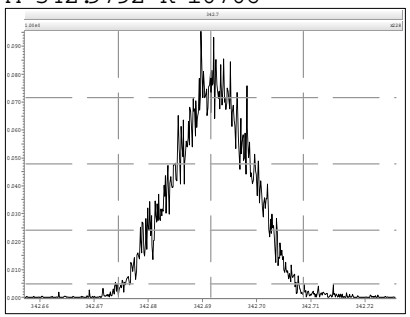
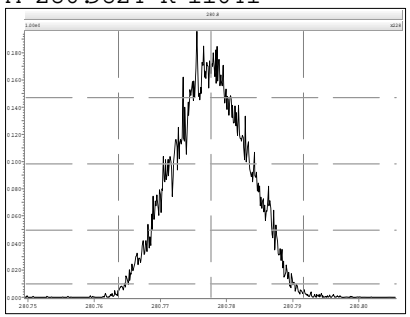
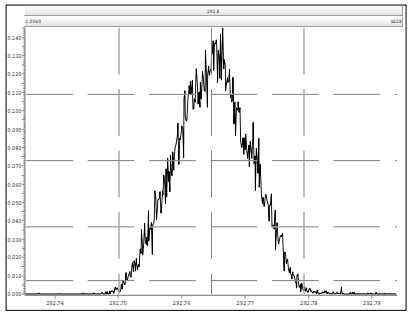


M 280.9824 R 11041



M 292.9824 R 10869



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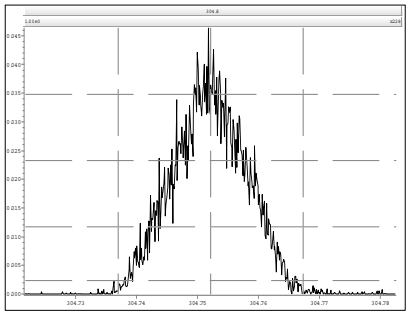
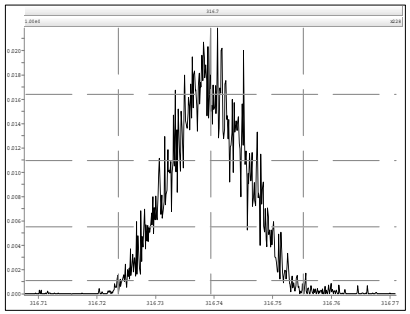


M 316.9824 R 11691



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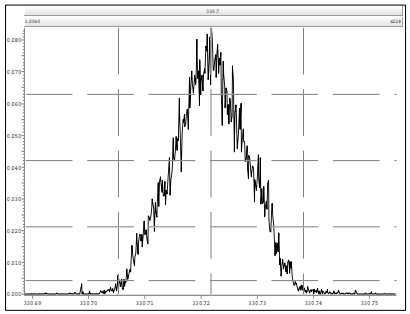
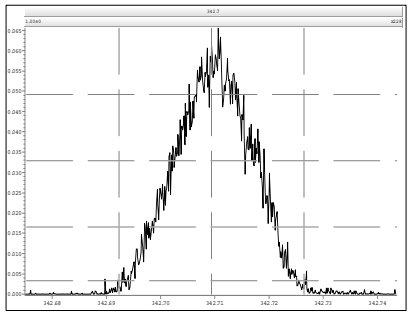


M 342.9792 R 11111



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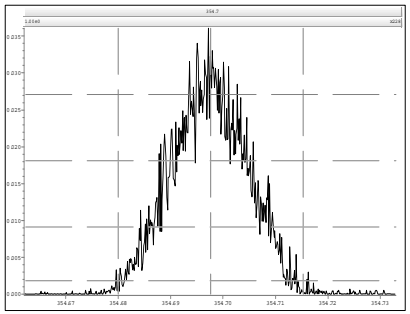
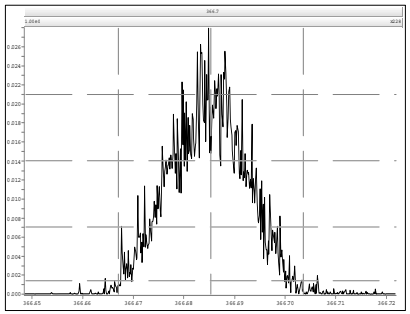
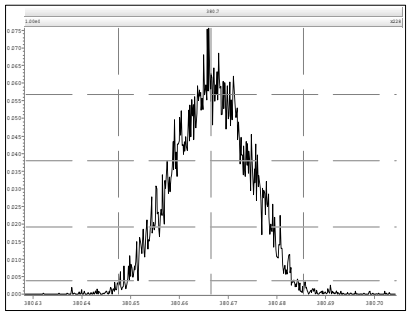


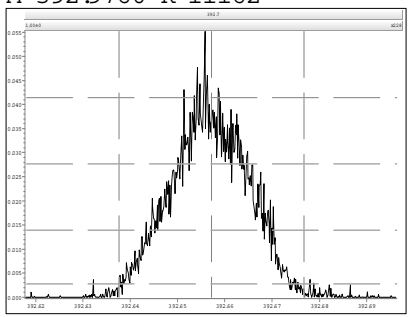
M 366.9792 R 11582



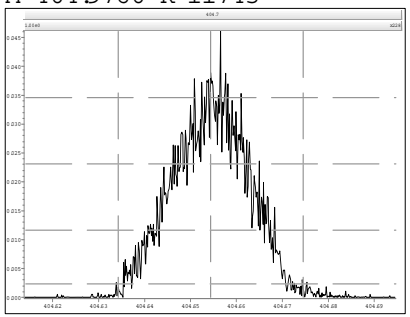
M 380.9760 R 11261



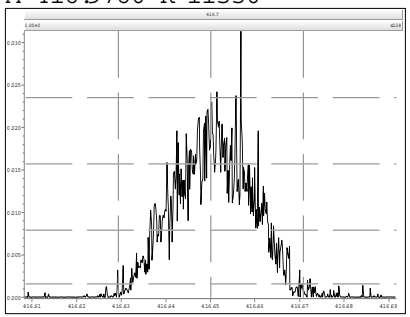
M 392.9760 R 11162



M 404.9760 R 11743



M 416.9760 R 11550



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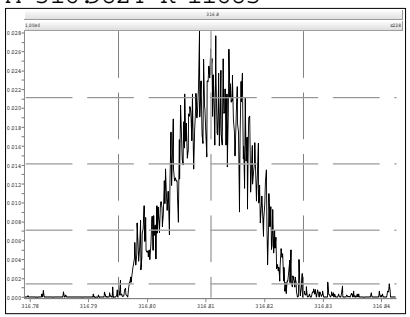
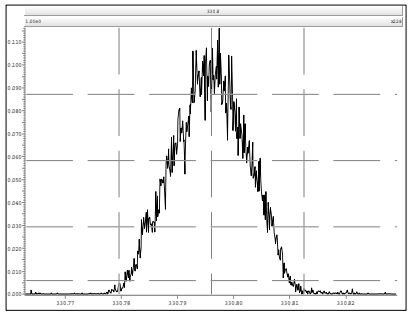
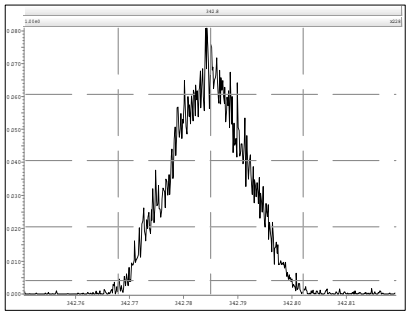


M 330.9792 R 11389



M 342.9792 R 11363



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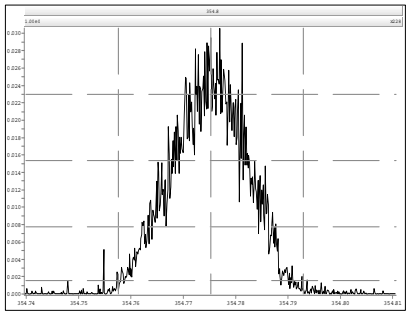
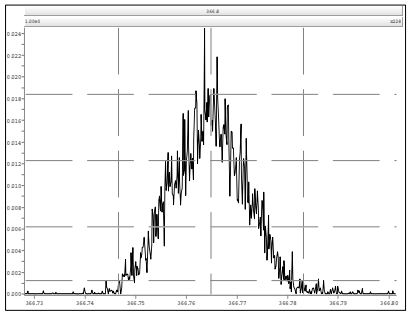
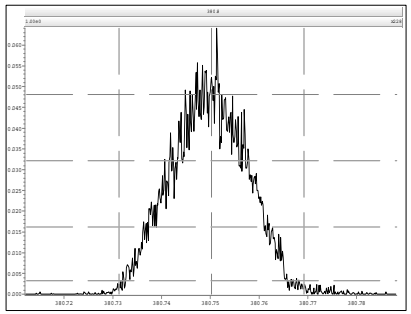


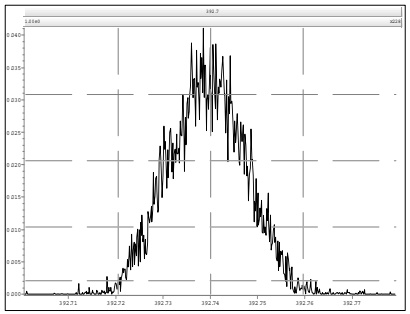
M 366.9792 R 11086



M 380.9760 R 11494



M 392.9760 R 11702



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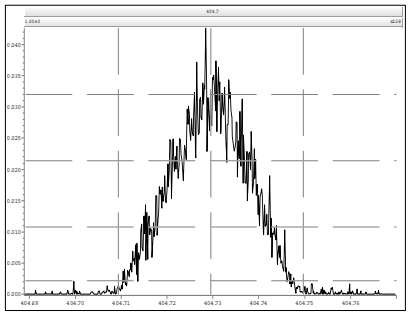

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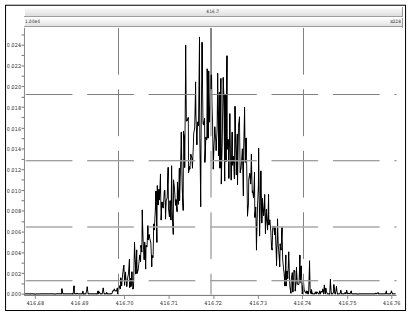
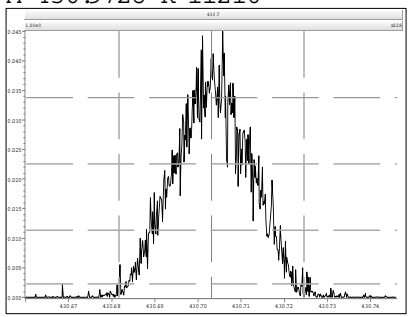
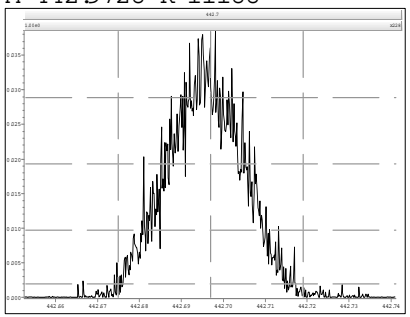


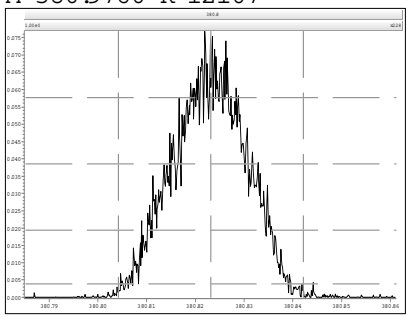
M 430.9728 R 11210



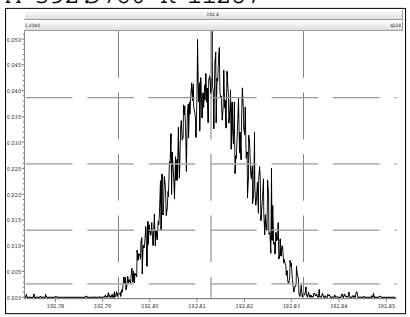
M 442.9728 R 11188



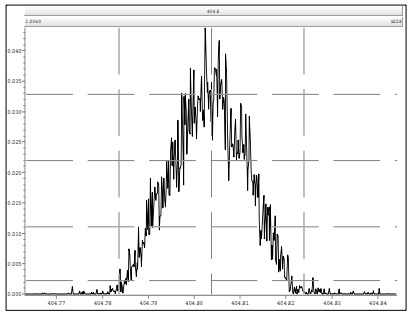
M 380.9760 R 12107



M 392.9760 R 11287



M 404.9760 R 11390



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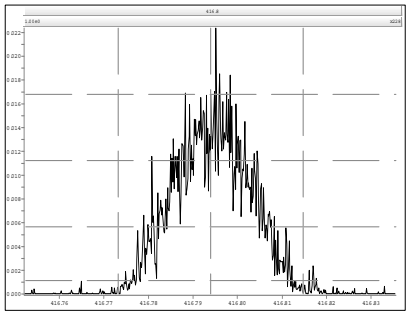

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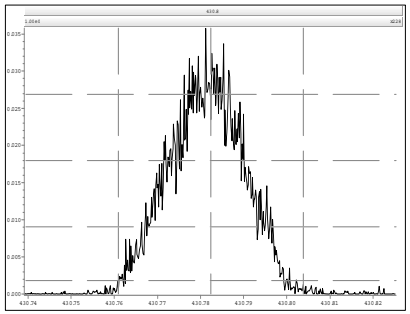
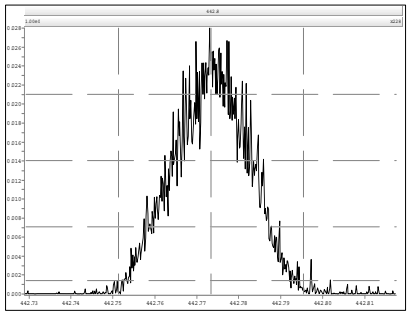
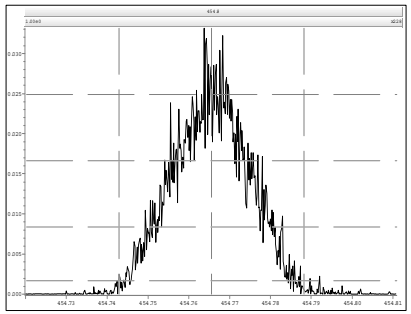


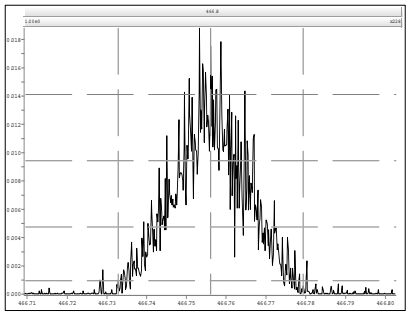
M 442.9728 R 11444



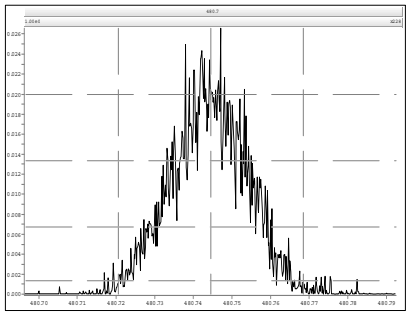
M 454.9728 R 11655



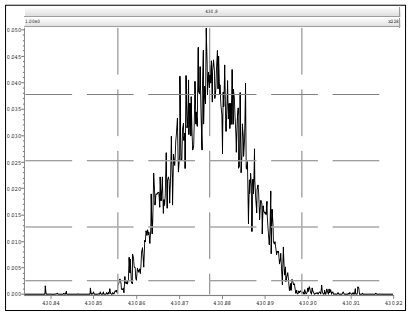
M 466.9728 R 11547



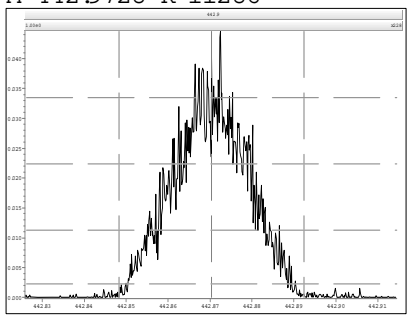
M 480.9696 R 11995



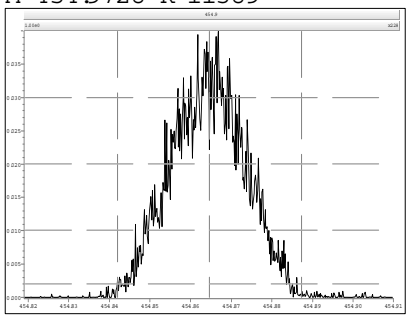
M 430.9728 R 12109



M 442.9728 R 11286



M 454.9728 R 11389



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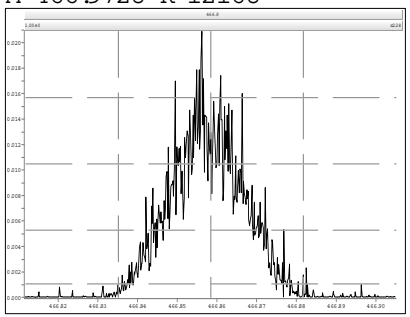
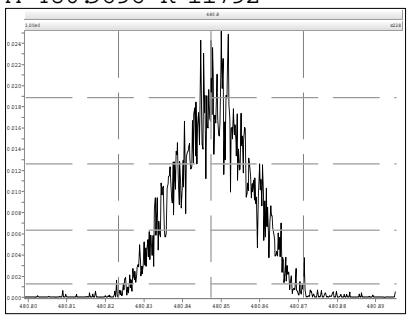


M 480.9696 R 11792



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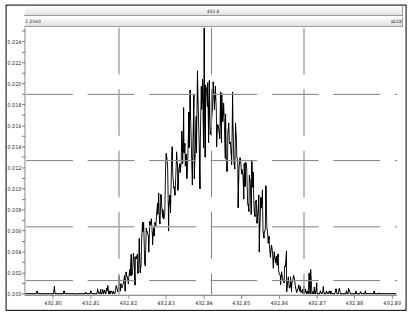

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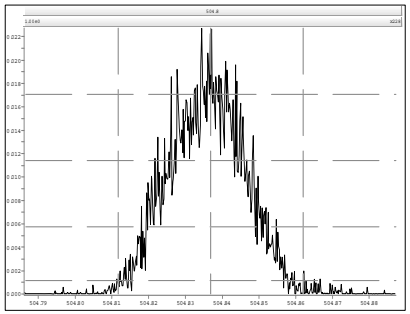
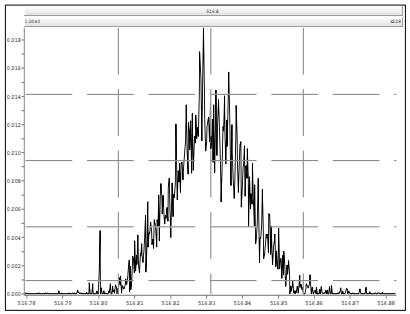


M 516.9697 R 11550



Datafile: 130209V03 **Client ID:** 0_10631_OPR001 **Wt/Vol:** 1 µL **ICAL:** MM6_PCB_07132012_14DEC12 CS3_130209_PCB_VA

Acquired: 09 Feb 2013 15:51:06 **Lab ID:** OPR1_10631_PCB **J-level:** 10 pg/uL **Nominal ES spike:** 100 pg

OPR1_10631_PCB Name	Actual RT	QC	Pred RRT	Actual RRT	Diff Secs	Response	Ra	RRF	Conc	Noise	DL
											Checkcode: 63-875-ZC
PCB-77 33'44'-TeCB	30.77		1.0006	1.0006	0	2.17E+07	0.77	1.25	49.9	4.81E+03	0.118
PCB-81 344'5-TeCB	30.29		1.0006	1.0005	-0.2	2.15E+07	0.77	1.26	51	4.81E+03	0.121
PCB-105 233'44'-PeCB	33.74		1.0007	1.0007	0	1.48E+07	0.61	1.06	51	1.79E+04	0.674
PCB-114 2344'5-PeCB	33.21		1.0007	1.0007	0	1.54E+07	0.63	1.11	51.5	1.79E+04	0.65
PCB-118 23'44'5-PeCB	32.76		1.0008	1.0008	0	1.51E+07	0.62	1.08	49.3	1.79E+04	0.631
PCB-123 23'44'5'-PeCB	32.47		1.0007	1.0006	-0.2	1.45E+07	0.62	1.12	47.2	1.79E+04	0.605
PCB-126 33'44'5-PeCB	36.35		1.0005	1.0005	0	1.53E+07	0.62	1.16	50.8	3.42E+03	0.113
PCB-156/157 ...-HxCB	38.90	C	1.0005	1.0005	0	2.64E+07	1.23	1.14	99.5	3.55E+03	0.185
PCB-167 23'44'55'-HxCB	37.94		1.0005	1.0006	+0.2	1.46E+07	1.25	1.18	50.7	3.55E+03	0.134
PCB-169 33'44'55'-HxCB	41.63		1.0004	1.0004	0	1.21E+07	1.25	1.15	50.8	3.55E+03	0.167
PCB-189 233'44'55'-HpCB	43.77		1.0004	1.0005	+0.3	1.64E+07	1.04	1.12	50.6	2.35E+03	0.0804
									Recv.		
ES PCB-77	30.75		1.3605	1.3604	-0.2	3.48E+07	0.82	1.20	82 %	30%	140%
ES PCB-81	30.28		1.3396	1.3396	0	3.34E+07	0.84	1.16	81.7 %	30%	140%
ES PCB-105	33.72		1.1826	1.1827	+0.2	2.75E+07	1.56	1.10	91 %	30%	140%
ES PCB-114	33.18		1.1639	1.1639	0	2.69E+07	1.58	1.16	84.6 %	30%	140%
ES PCB-118	32.73		1.1481	1.1480	-0.2	2.83E+07	1.55	1.15	88.8 %	30%	140%
ES PCB-123	32.45		1.1383	1.1383	0	2.73E+07	1.53	1.14	87 %	30%	140%
ES PCB-126	36.34		1.2745	1.2745	0	2.61E+07	1.65	1.34	70.7 %	30%	140%
ES PCB-156/157	38.89		1.0995	1.0995	0	4.66E+07	1.23	0.98	88.9 %	30%	140%
ES PCB-167	37.92		1.0721	1.0721	0	2.44E+07	1.25	1.01	90 %	30%	140%
ES PCB-169	41.61		1.1767	1.1766	-0.2	2.07E+07	1.26	0.90	86 %	30%	140%
ES PCB-189	43.75		0.9611	0.9611	0	2.90E+07	1.06	1.97	83.9 %	30%	140%
SS PCB-28	21.01		0.9296	0.9297	+0.1	4.91E+07	1.10	1.18	122 %	40%	125%
SS PCB-111	30.80		1.0804	1.0804	0	3.10E+07	1.57	1.01	113 %	40%	125%
SS PCB-178	35.76		1.0110	1.0110	0	2.37E+07	1.03	0.60	111 %	40%	125%
CS PCB-28	21.01		0.9296	0.9297	+0.1	4.91E+07	1.10	1.52	91.4 %	40%	125%
CS PCB-111	30.80		1.0804	1.0804	0	3.10E+07	1.57	1.15	98 %	40%	125%
CS PCB-178	35.76		1.0110	1.0110	0	2.37E+07	1.03	0.98	90.4 %	40%	125%
JS PCB-9	14.80					6.20E+07	1.63				
JS PCB-52	22.60					3.53E+07	0.79				
JS PCB-101	28.51					2.75E+07	1.58				
JS PCB-138	35.37					2.68E+07	1.29				
JS PCB-194	45.52					1.76E+07	0.89				

APPROVED

By Amy Boehm at 1:49 pm, Feb 12, 2013

METHOD HR-PCB **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8A**

Lab Name: SGS Analytical Perspectives
Initial Calibration: ICAL: MM6_PCB_07132012_14DEC12
Instrument ID: MM6 GC Column ID:
VER Data Filename: 130209V03 Analysis Date: 09-FEB-2013 15:51:06
Lab ID: OPR1_10631_PCB

NATIVE ANALYTES	SPIKE CONC.	RECOVERY	RANGE (%)			OK
PCB-1 2-MoCB	50	104	50	-	150	Y
PCB-3 4-MoCB	50	105	50	-	150	Y
PCB-4 22'-DiCB	50	104	50	-	150	Y
PCB-15 44'-DiCB	50	98.8	50	-	150	Y
PCB-19 22'6-TrCB	50	104	50	-	150	Y
PCB-37 344'-TrCB	50	105	50	-	150	Y
PCB-54 22'66'-TeCB	50	109	50	-	150	Y
PCB-77 33'44'-TeCB	50	99.9	50	-	150	Y
PCB-81 344'5-TeCB	50	102	50	-	150	Y
PCB-104 22'466'-PeCB	50	105	50	-	150	Y
PCB-105 233'44'-PeCB	50	102	50	-	150	Y
PCB-114 2344'5-PeCB	50	103	50	-	150	Y
PCB-118 23'44'5-PeCB	50	98.6	50	-	150	Y
PCB-123 23'44'5'-PeCB	50	94.5	50	-	150	Y
PCB-126 33'44'5-PeCB	50	102	50	-	150	Y
PCB-155 22'44'66'-HxCB	50	104	50	-	150	Y
PCB-156/157 ...-HxCB	100	99.5	50	-	150	Y
PCB-167 23'44'55'-HxCB	50	101	50	-	150	Y
PCB-169 33'44'55'-HxCB	50	102	50	-	150	Y
PCB-188 22'34'566'-HpCB	50	108	50	-	150	Y
PCB-189 233'44'55'-HpCB	50	101	50	-	150	Y
PCB-202 22'33'55'66'-OcCB	50	102	50	-	150	Y
PCB-205 233'44'55'6-OcCB	50	102	50	-	150	Y
PCB-206 22'33'44'55'6-NoCB	50	102	50	-	150	Y
PCB-208 22'33'455'66'-NoCB	50	100	50	-	150	Y
PCB-209 DeCB	50	98.3	50	-	150	Y

Contract-required recovery limits for OPR as specified in Table 6,
Method 1668A.

Processed: 11 Feb 2013 11:02 Analyst: LB

METHOD HR-PCB **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8B**

Lab Name: SGS Analytical Perspectives
Initial Calibration: ICAL: MM6_PCB_07132012_14DEC12
Instrument ID: MM6 GC Column ID:
VER Data Filename: 130209V03 Analysis Date: 09-FEB-2013 15:51:06
Lab ID: OPR1_10631_PCB

LABELED STANDARDS	SPIKE CONC.	RECOVERY	RANGE (%)			OK
ES PCB-1	100	66.7	30	-	140	Y
ES PCB-3	100	78.5	30	-	140	Y
ES PCB-4	100	92.4	30	-	140	Y
ES PCB-15	100	88	30	-	140	Y
ES PCB-19	100	88.9	30	-	140	Y
ES PCB-37	100	74.8	30	-	140	Y
ES PCB-54	100	77.7	30	-	140	Y
ES PCB-77	100	82	30	-	140	Y
ES PCB-81	100	81.7	30	-	140	Y
ES PCB-104	100	62.7	30	-	140	Y
ES PCB-105	100	91	30	-	140	Y
ES PCB-114	100	84.6	30	-	140	Y
ES PCB-118	100	88.8	30	-	140	Y
ES PCB-123	100	87	30	-	140	Y
ES PCB-126	100	70.7	30	-	140	Y
ES PCB-153	100	86.7	30	-	140	Y
ES PCB-155	100	89.9	30	-	140	Y
ES PCB-156/157	200	88.9	30	-	140	Y
ES PCB-167	100	90	30	-	140	Y
ES PCB-169	100	86	30	-	140	Y
ES PCB-170	100	82.8	30	-	140	Y
ES PCB-180	100	81.7	30	-	140	Y
ES PCB-188	100	81.7	30	-	140	Y
ES PCB-189	100	83.9	30	-	140	Y
ES PCB-202	100	91.6	30	-	140	Y
ES PCB-205	100	88.1	30	-	140	Y
ES PCB-206	100	91	30	-	140	Y
ES PCB-208	100	94.3	30	-	140	Y
ES PCB-209	100	93.1	30	-	140	Y
CLEANUP STANDARDS						
CS PCB-28	100	91.4	40	-	125	Y
CS PCB-111	100	98	40	-	125	Y
CS PCB-178	100	90.4	40	-	125	Y

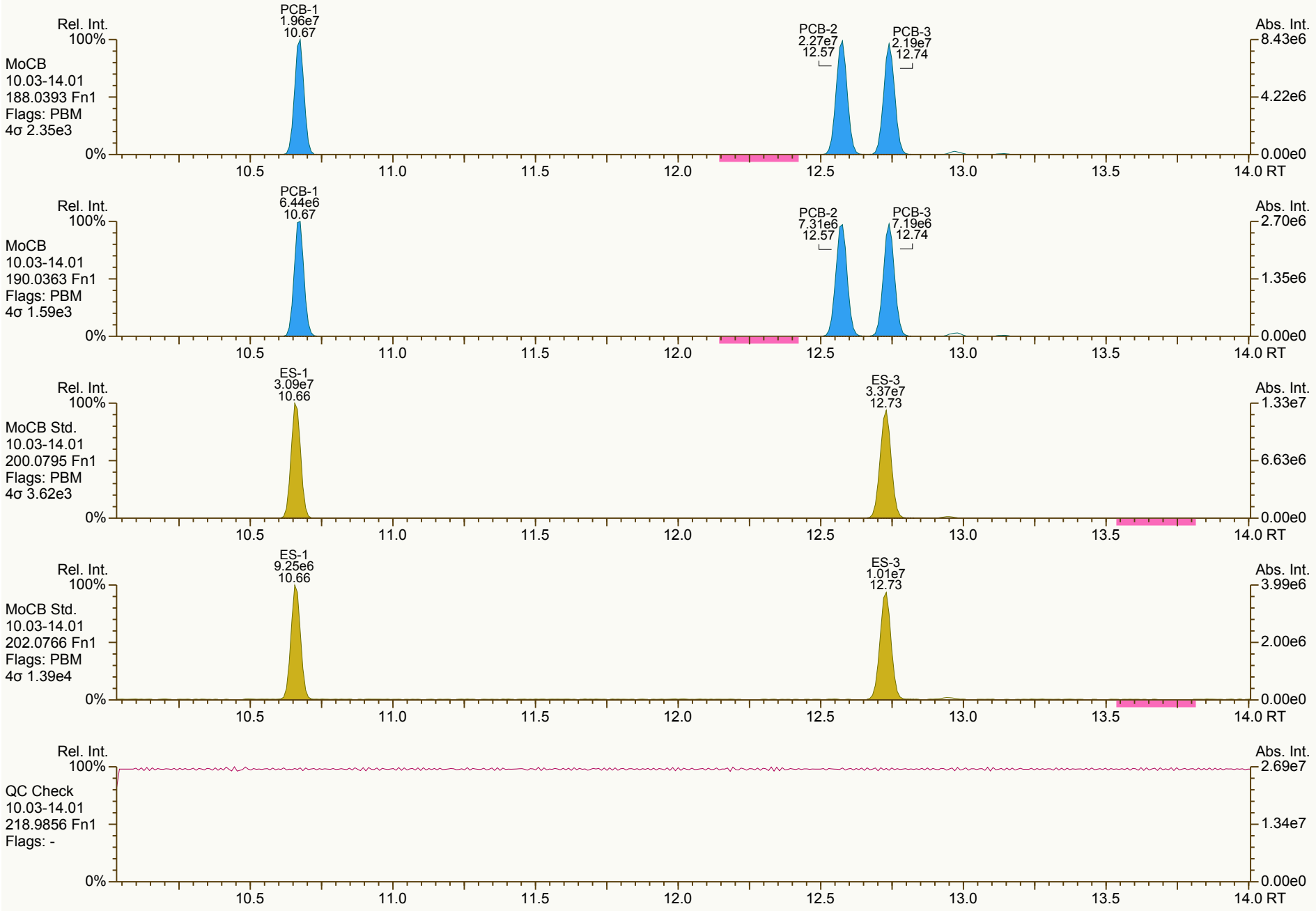
Processed: 11 Feb 2013 11:02 Analyst: LB

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\OPR1_10631_PCB.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 163-875 *Revised: 11-Feb-2013 10:27 (LKB) Printed: 11-Feb-2013 15:20 Page 1 of 22*

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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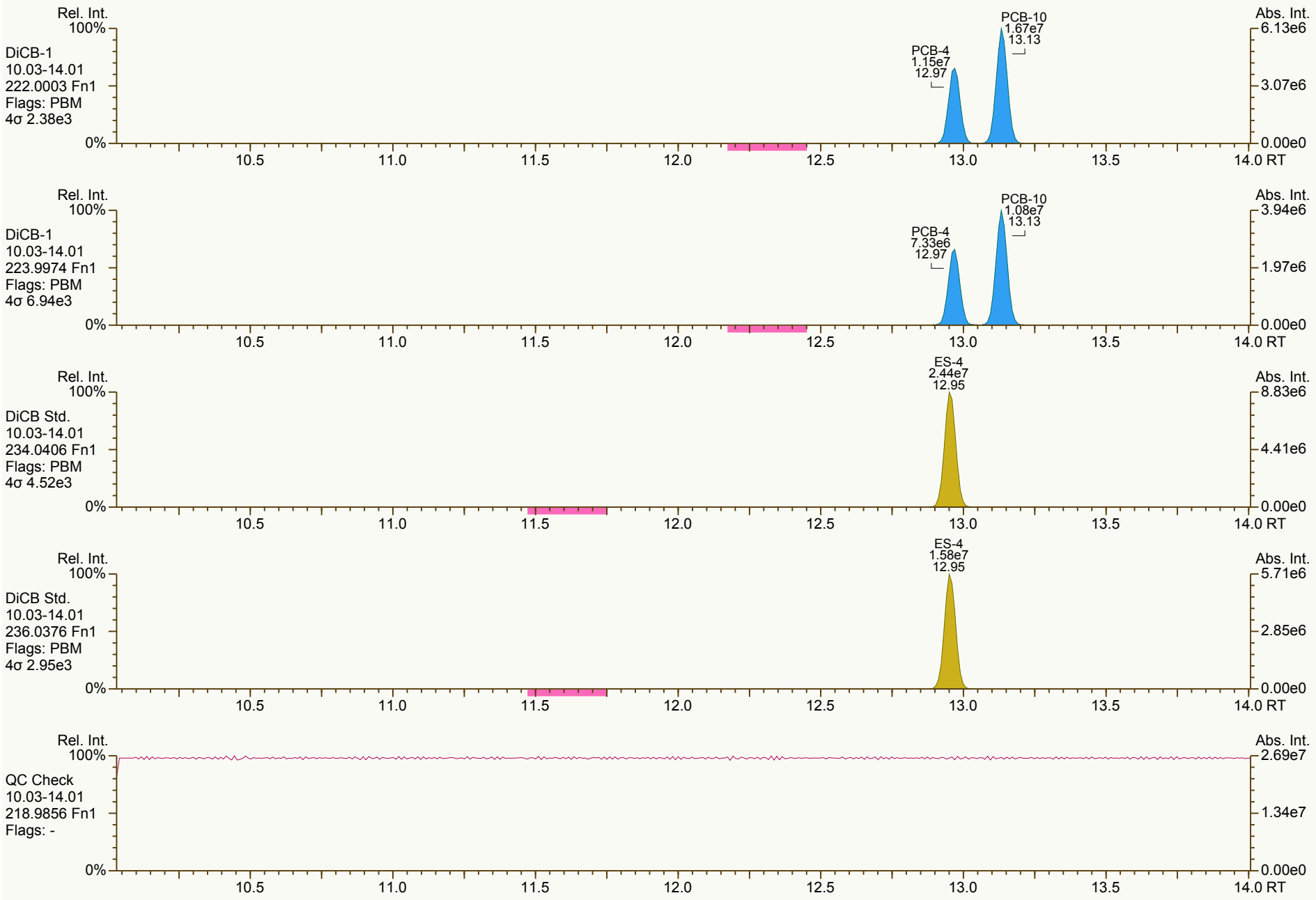
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2875, 8863 scc: 163-875 *Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 2 of 22*

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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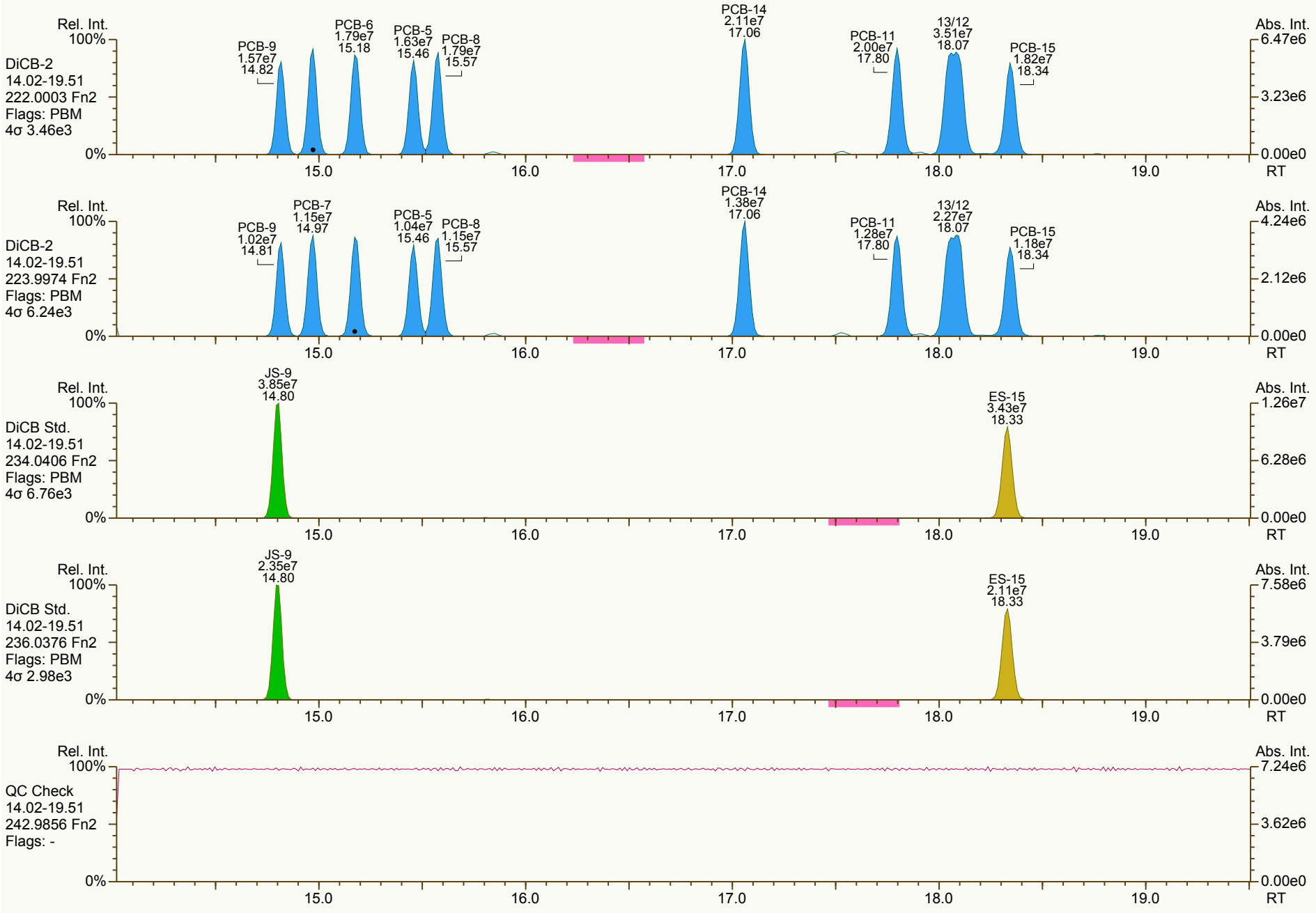
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1534, 8828 scc: 163-875 *Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 3 of 22*

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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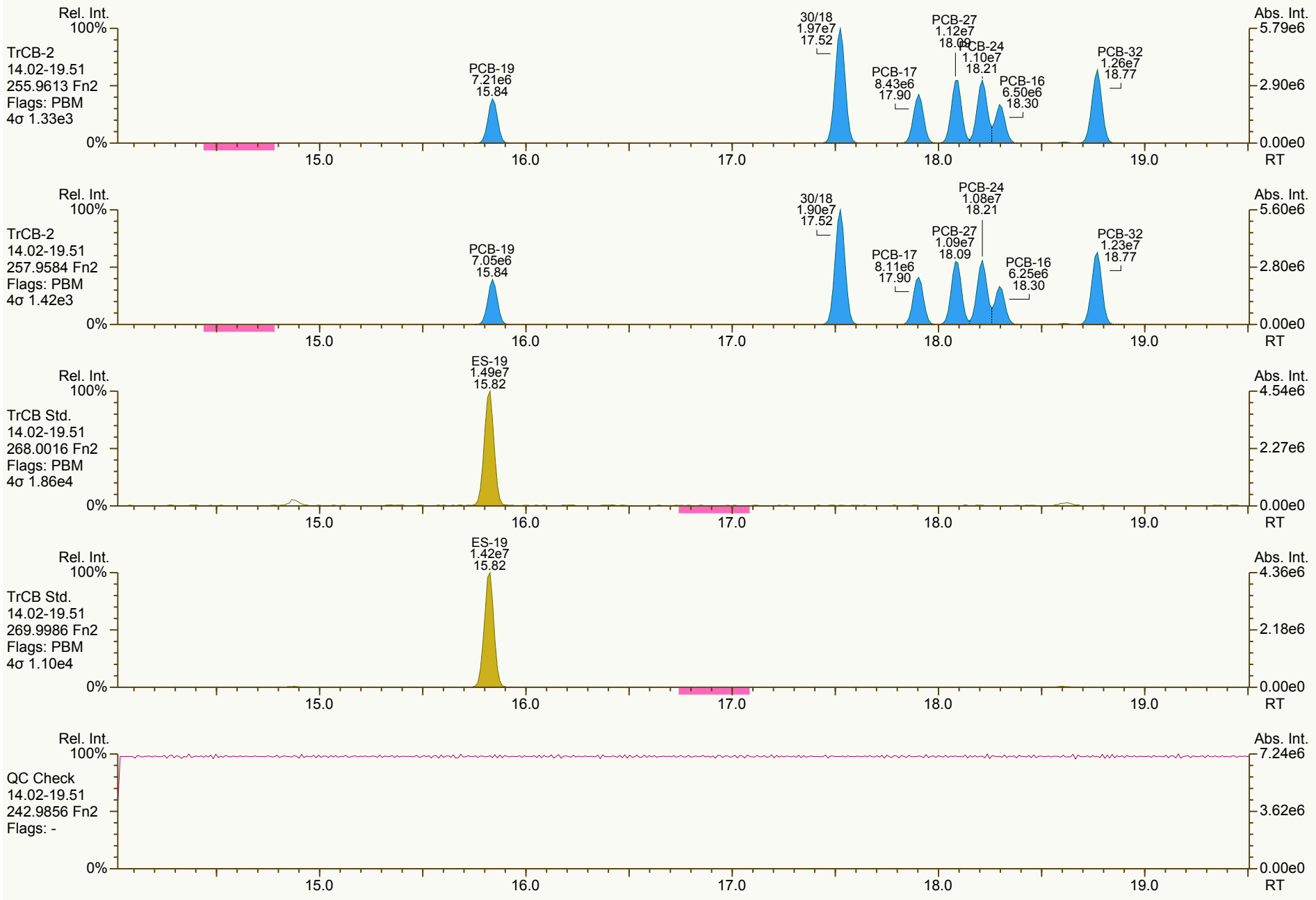
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8573, 2538 scc: 163-875 *Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 4 of 22*

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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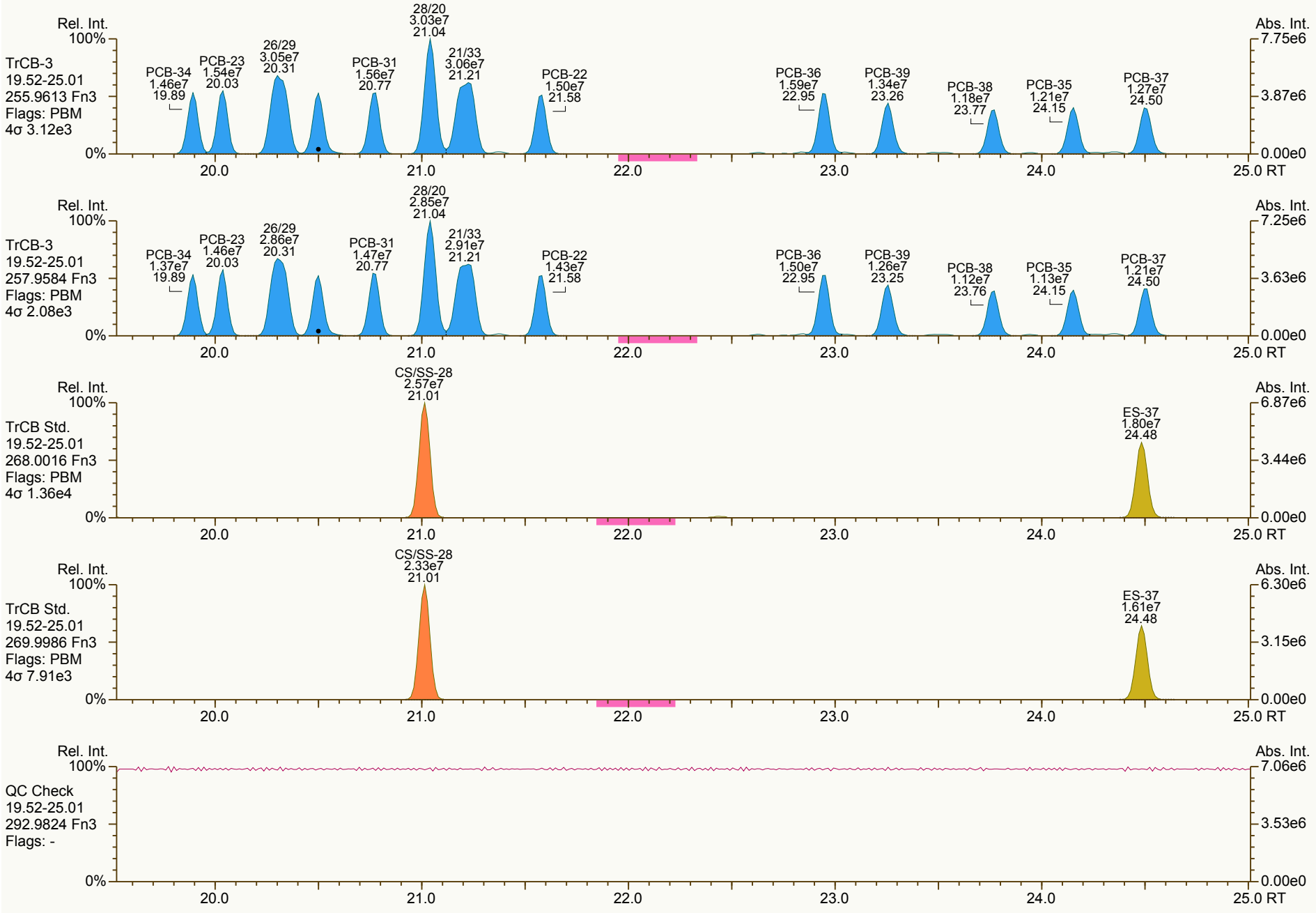
SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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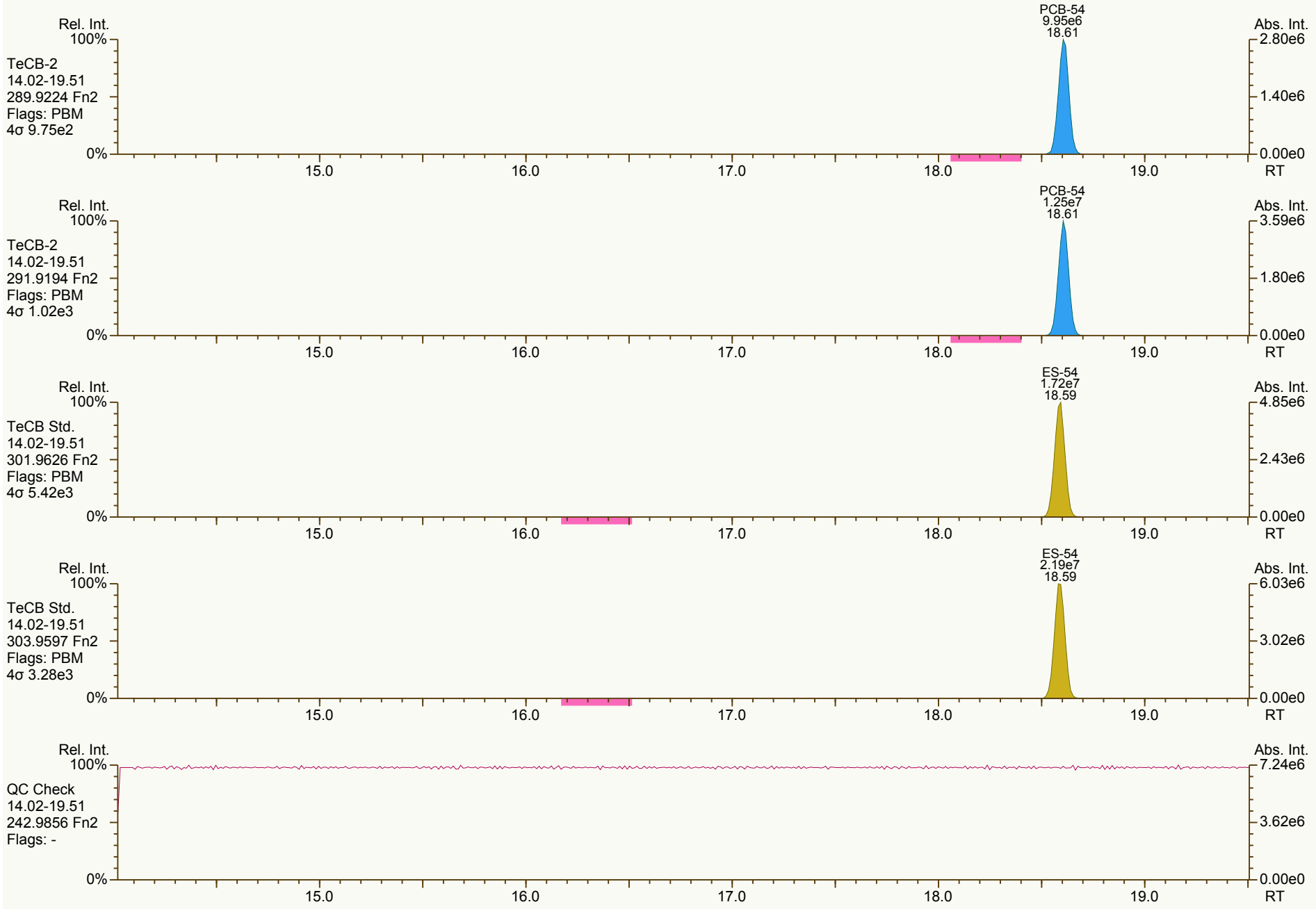
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 5471, 3791 scc: 163-875 *Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 6 of 22*

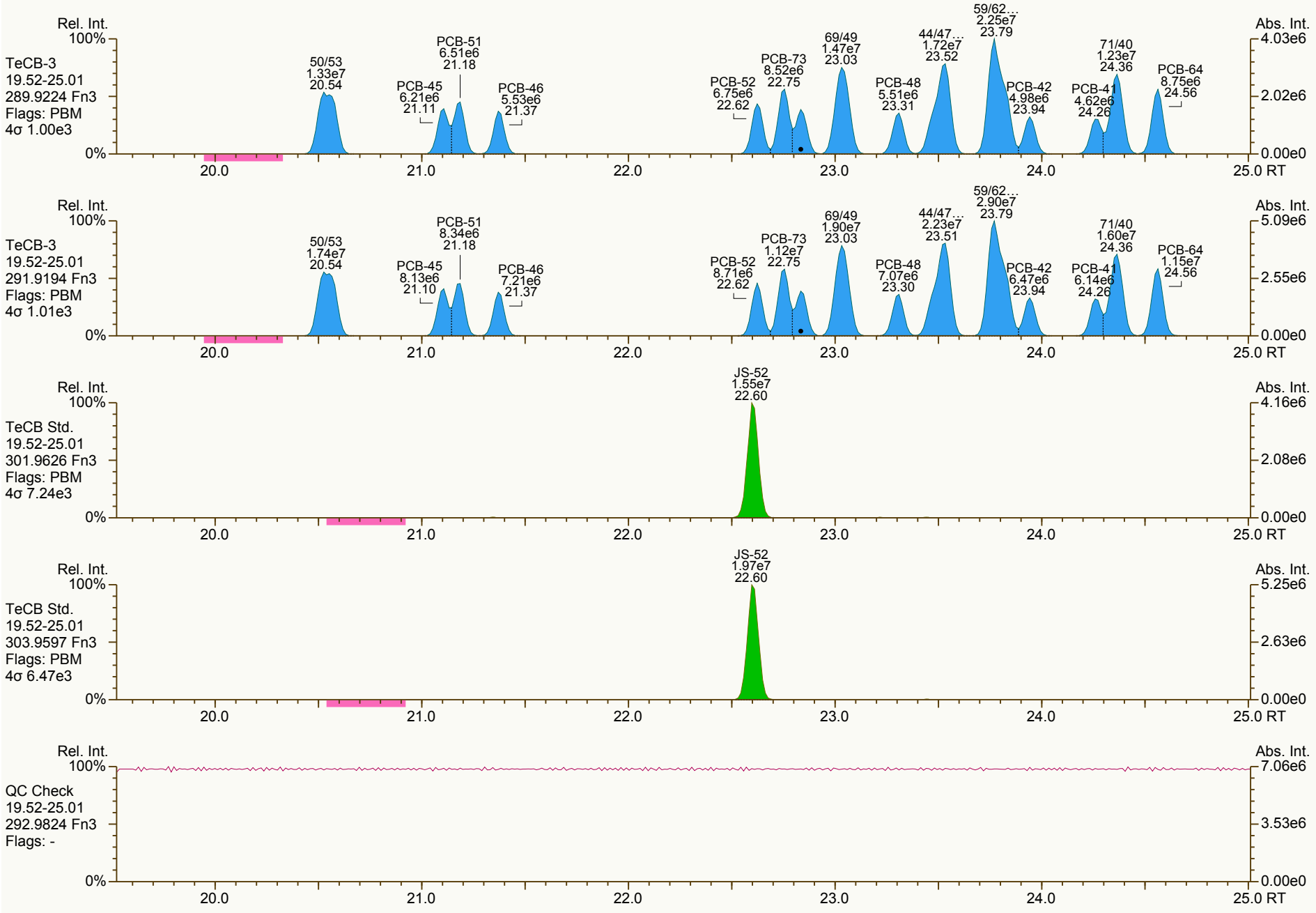
SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



SGS-AP ID: OPR1_10631_PCB
Instr: AutoSpec-Premier MM6

Sample ID: 0_10631_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30

Acq: 09-Feb-2013 15:51:06
User: CEM Datafile: 130209V03 (EQ)



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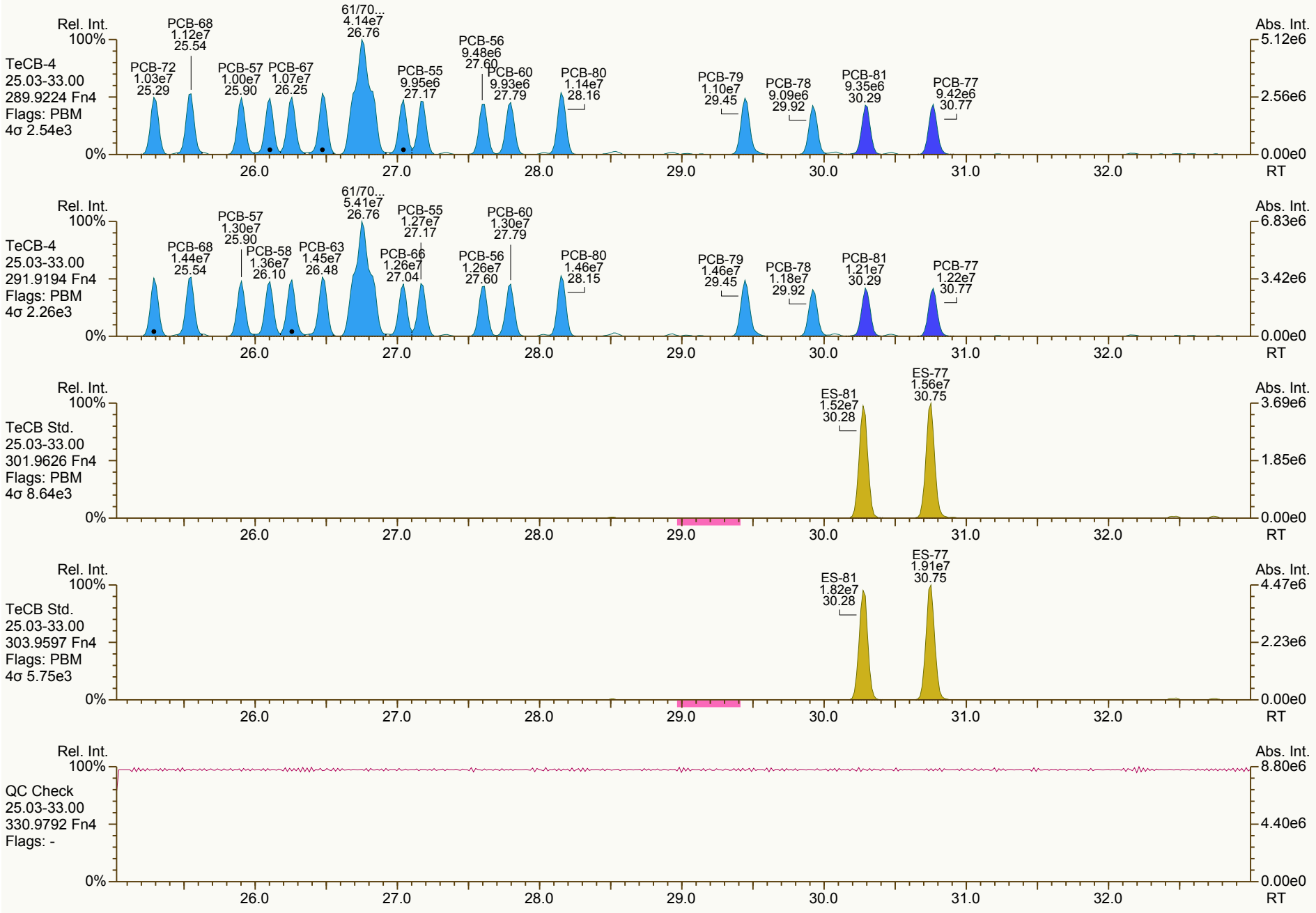
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 8910, 1270 scc: 163-875
Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 8 of 22

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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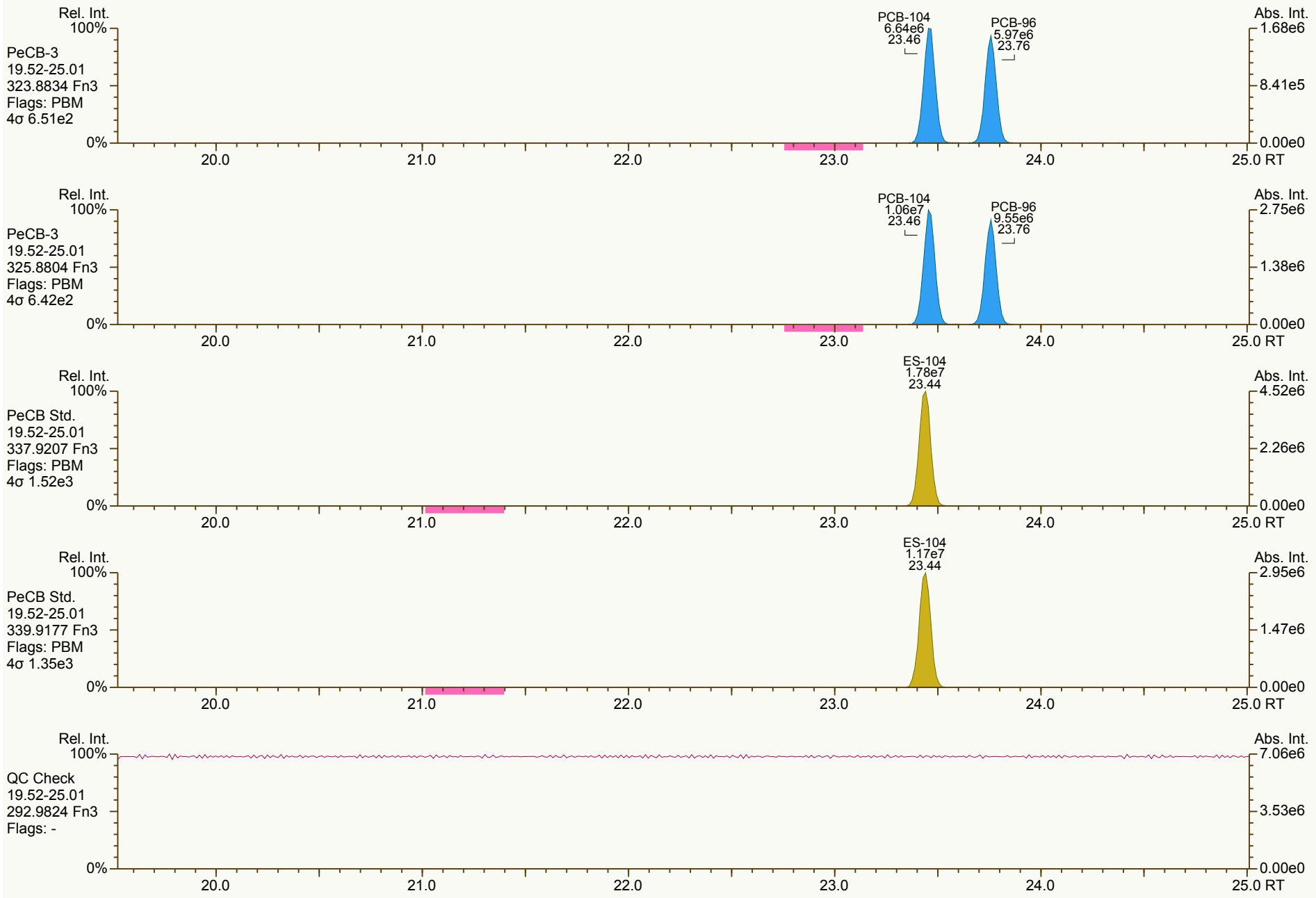
SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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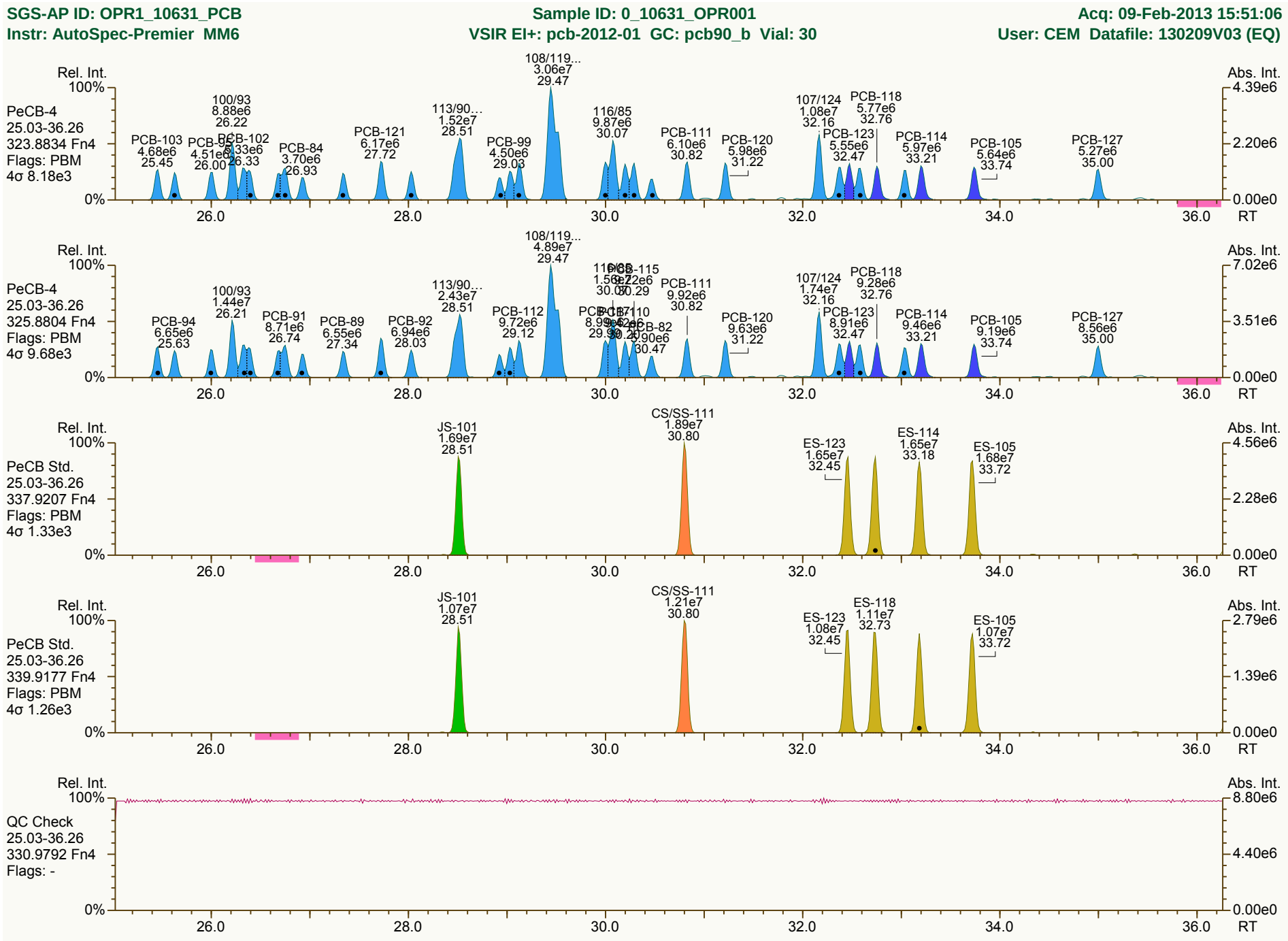
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4674, 5824 scc: 163-875 *Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 10 of 22*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Sample ID: 0_10631_OPR001
Acq: 09-Feb-2013 15:51:06
Instr: AutoSpec-Premier MM6
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30
User: CEM Datafile: 130209V03 (EQ)
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323.8834 Fn4
Flags: PBM
4σ 8.18e3
PCB-103 4.68e6 25.45
100/93 8.88e6 26.22
PCB-102 5.33e6 26.33
PCB-84 3.70e6 26.93
PCB-121 6.17e6 27.72
113/90... 1.52e7 28.51
PCB-99 4.50e6 29.03
108/119... 3.06e7 29.47
116/85 9.87e6 30.07
PCB-111 6.10e6 30.82
PCB-120 5.98e6 31.22
107/124 1.08e7 32.16
PCB-118 5.77e6 32.76
PCB-123 5.55e6 32.47
PCB-114 5.97e6 33.21
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PCB-127 5.27e6 35.00
PeCB-4
25.03-36.26
325.8804 Fn4
Flags: PBM
4σ 9.68e3
PCB-94 6.65e6 25.63
100/93 1.44e7 26.21
PCB-91 8.71e6 26.74
PCB-89 6.55e6 27.34
PCB-92 6.94e6 28.03
113/90... 2.43e7 28.51
PCB-112 9.72e6 29.12
108/119... 4.89e7 29.47
PCB-111 9.92e6 30.82
PCB-120 9.63e6 31.22
107/124 1.74e7 32.16
PCB-118 9.28e6 32.76
PCB-123 8.91e6 32.47
PCB-114 9.46e6 33.21
PCB-105 9.19e6 33.74
PCB-127 8.56e6 35.00
PeCB Std.
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Flags: PBM
4σ 1.33e3
JS-101 1.69e7 28.51
CS/SS-111 1.89e7 30.80
ES-123 1.65e7 32.45
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ES-105 1.68e7 33.72
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Rel. Int.
Abs. Int.
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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7190, 8974 scc: 163-875
Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 11 of 22

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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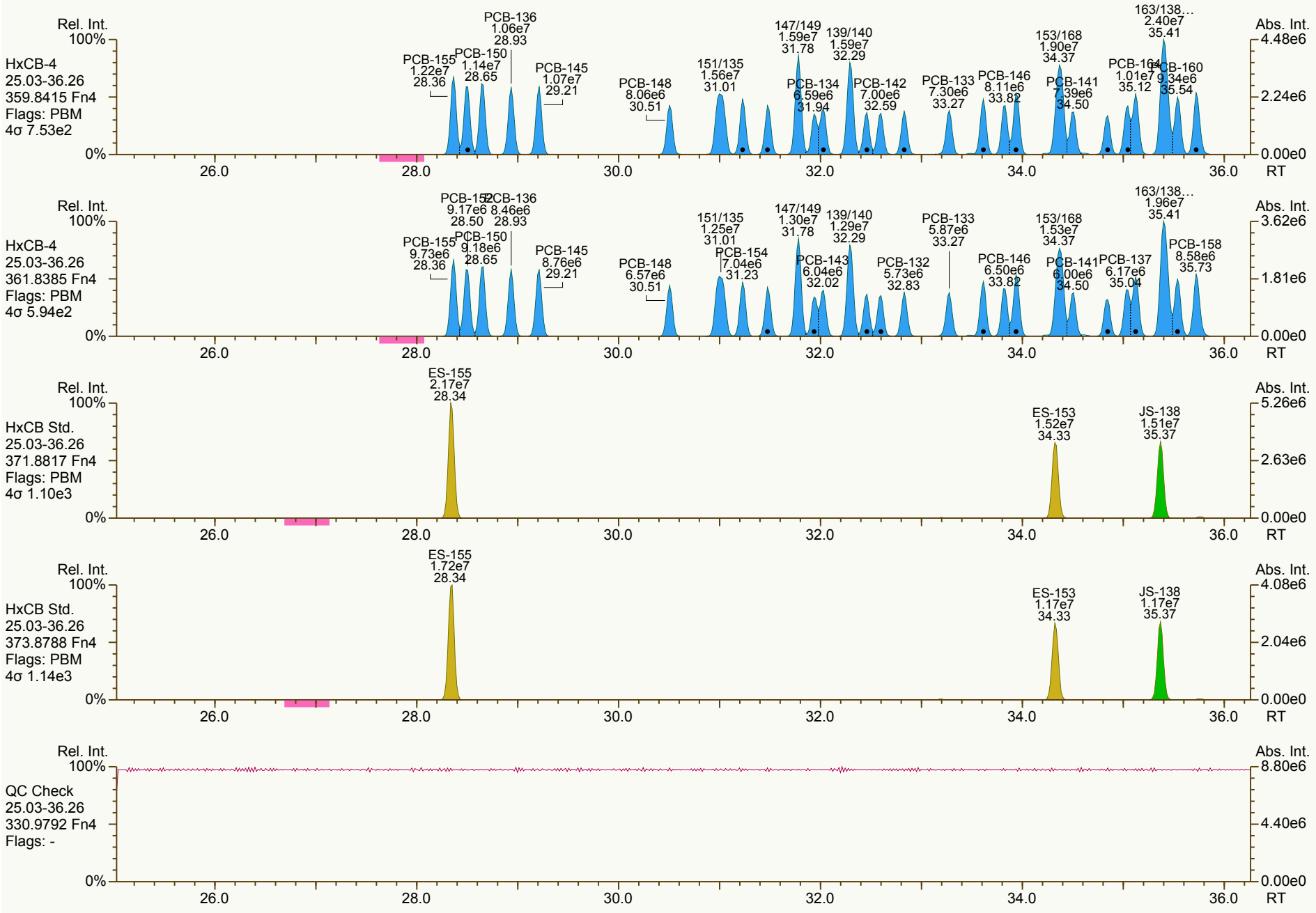
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7008, 7887 scc: 163-875 *Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 12 of 22*

SGS-AP ID: OPR1_10631_PCB | Sample ID: 0_10631_OPR001 | Acq: 09-Feb-2013 15:51:06
Instr: AutoSpec-Premier MM6 | VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30 | User: CEM Datafile: 130209V03 (EQ)



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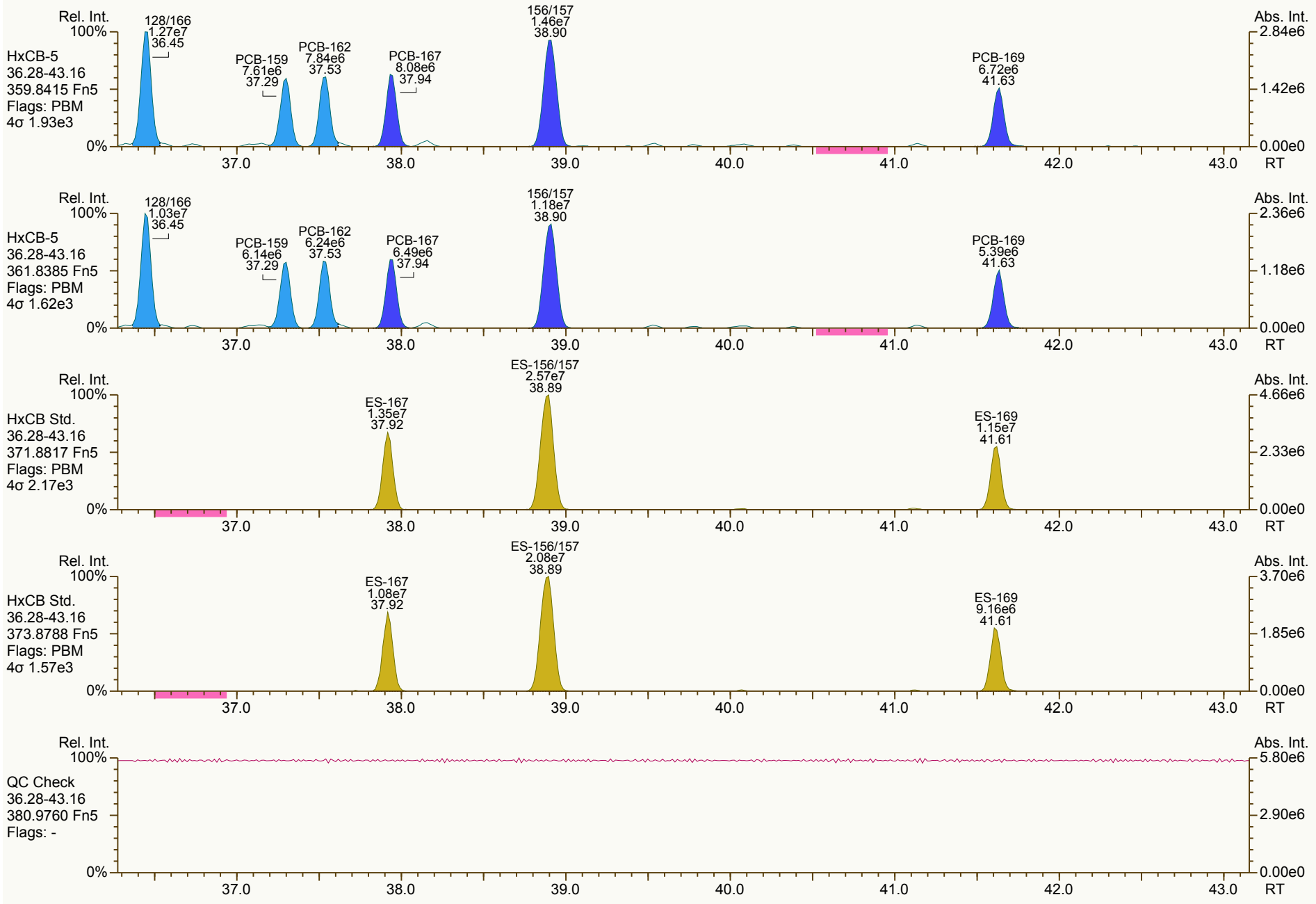
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 7179, 7720 scc: 163-875 *Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 13 of 22*

SGS-AP ID: OPR1_10631_PCB
Instr: AutoSpec-Premier MM6
Sample ID: 0_10631_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30
Acq: 09-Feb-2013 15:51:06
User: CEM Datafile: 130209V03 (EQ)



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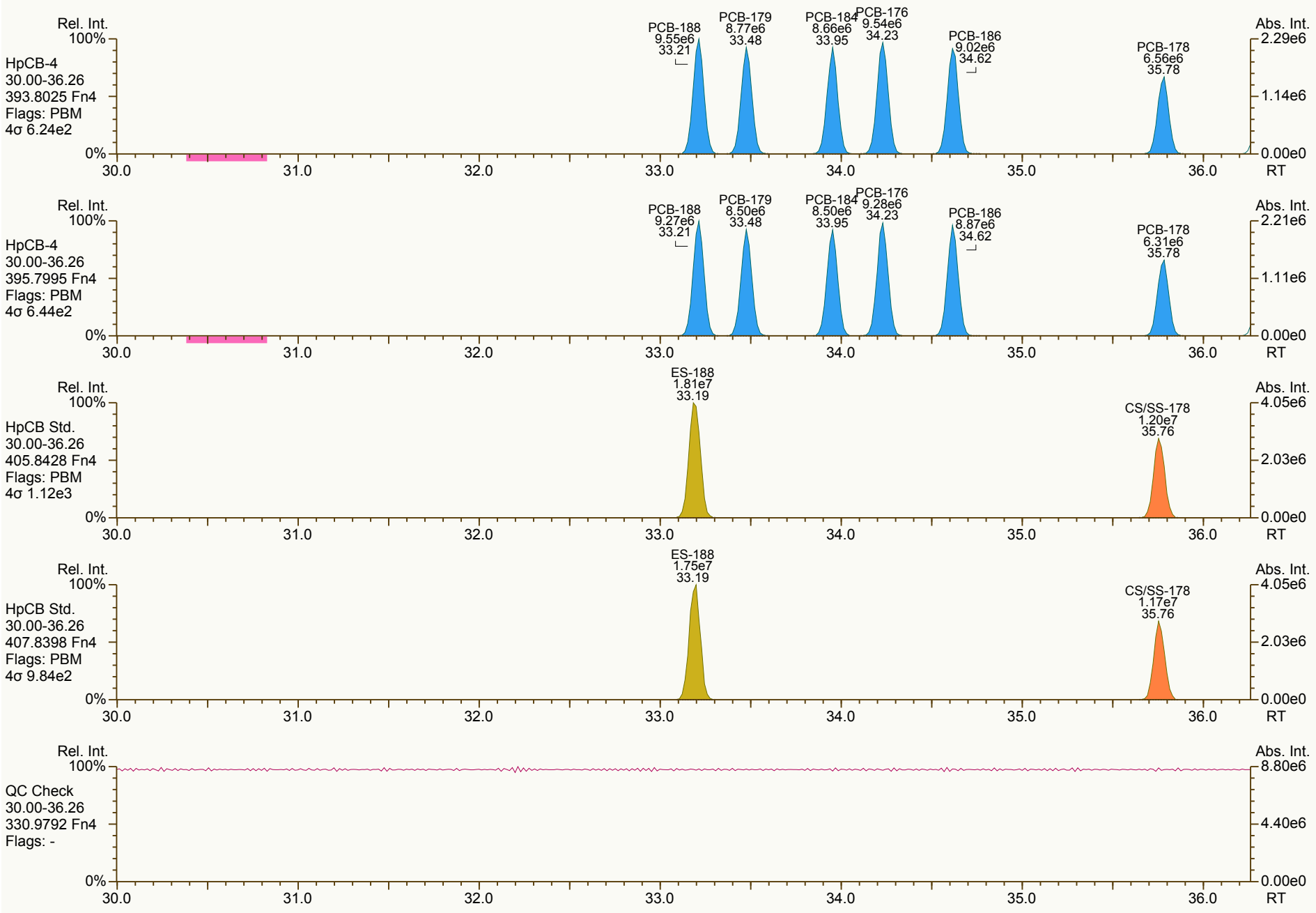
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4422, 1858 scc: 163-875
Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 14 of 22

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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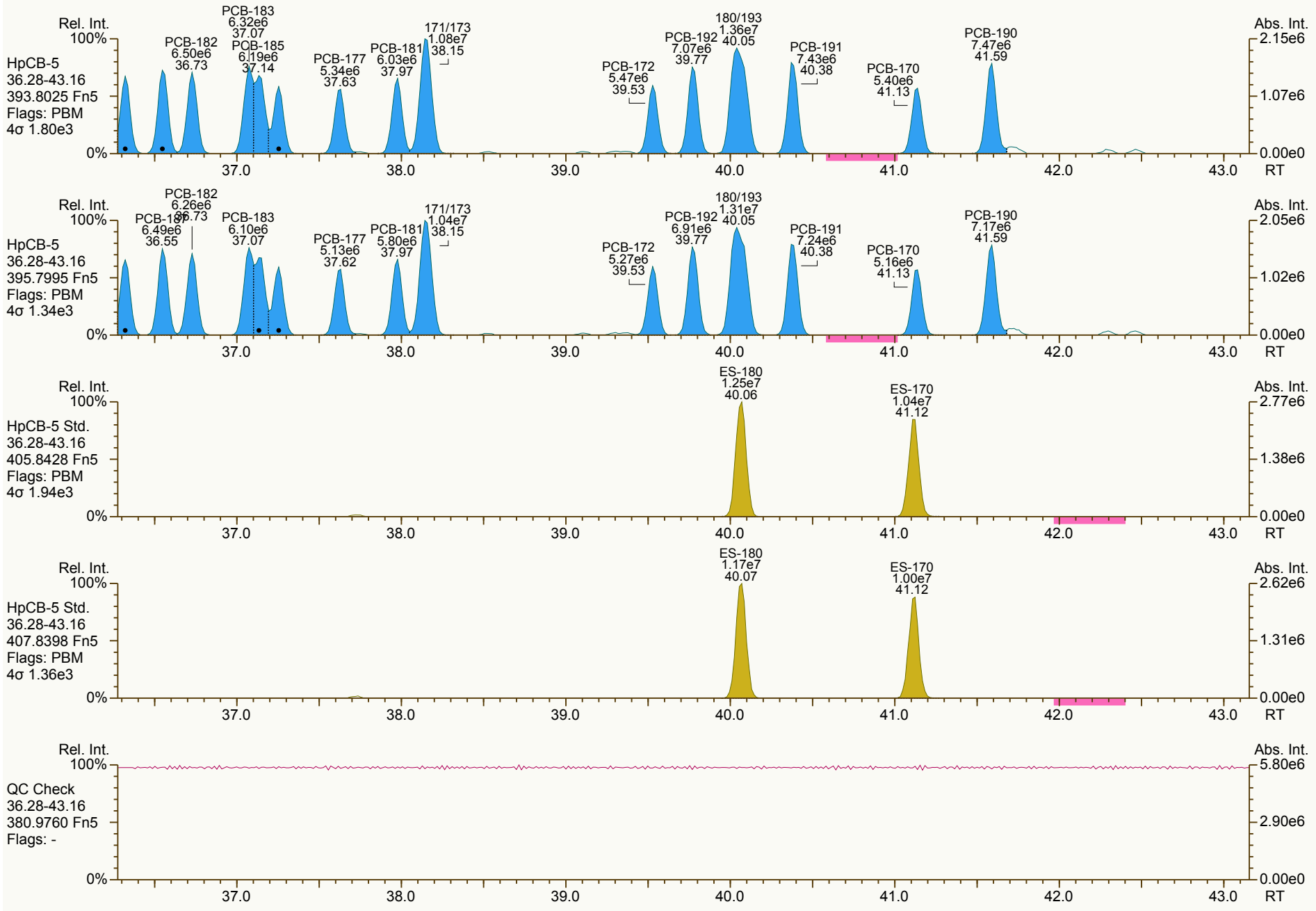
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 4874, 4708 scc: 163-875 *Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 15 of 22*

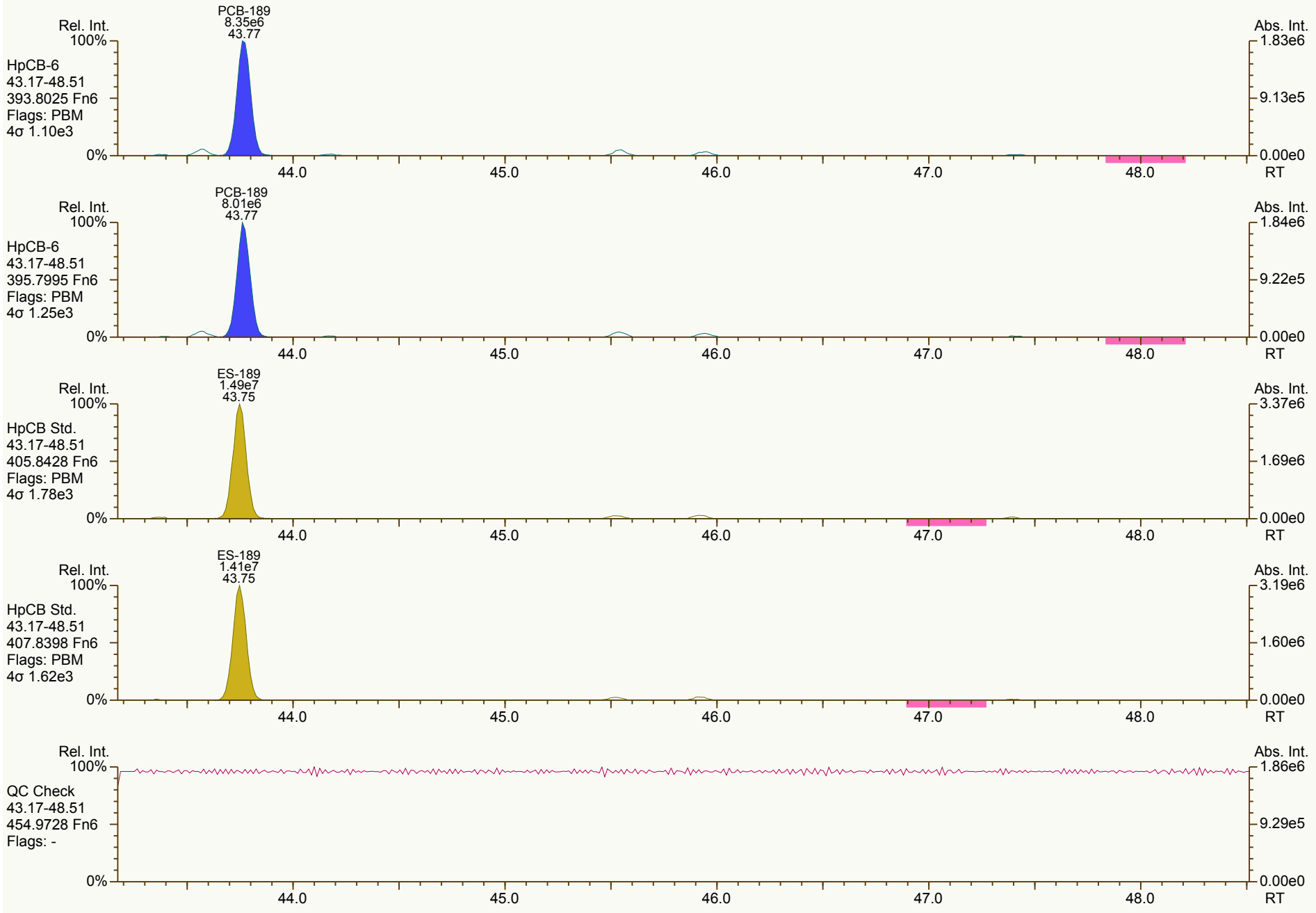
SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



SGS-AP ID: OPR1_10631_PCB
Instr: AutoSpec-Premier MM6

Sample ID: 0_10631_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30

Acq: 09-Feb-2013 15:51:06
User: CEM Datafile: 130209V03 (EQ)



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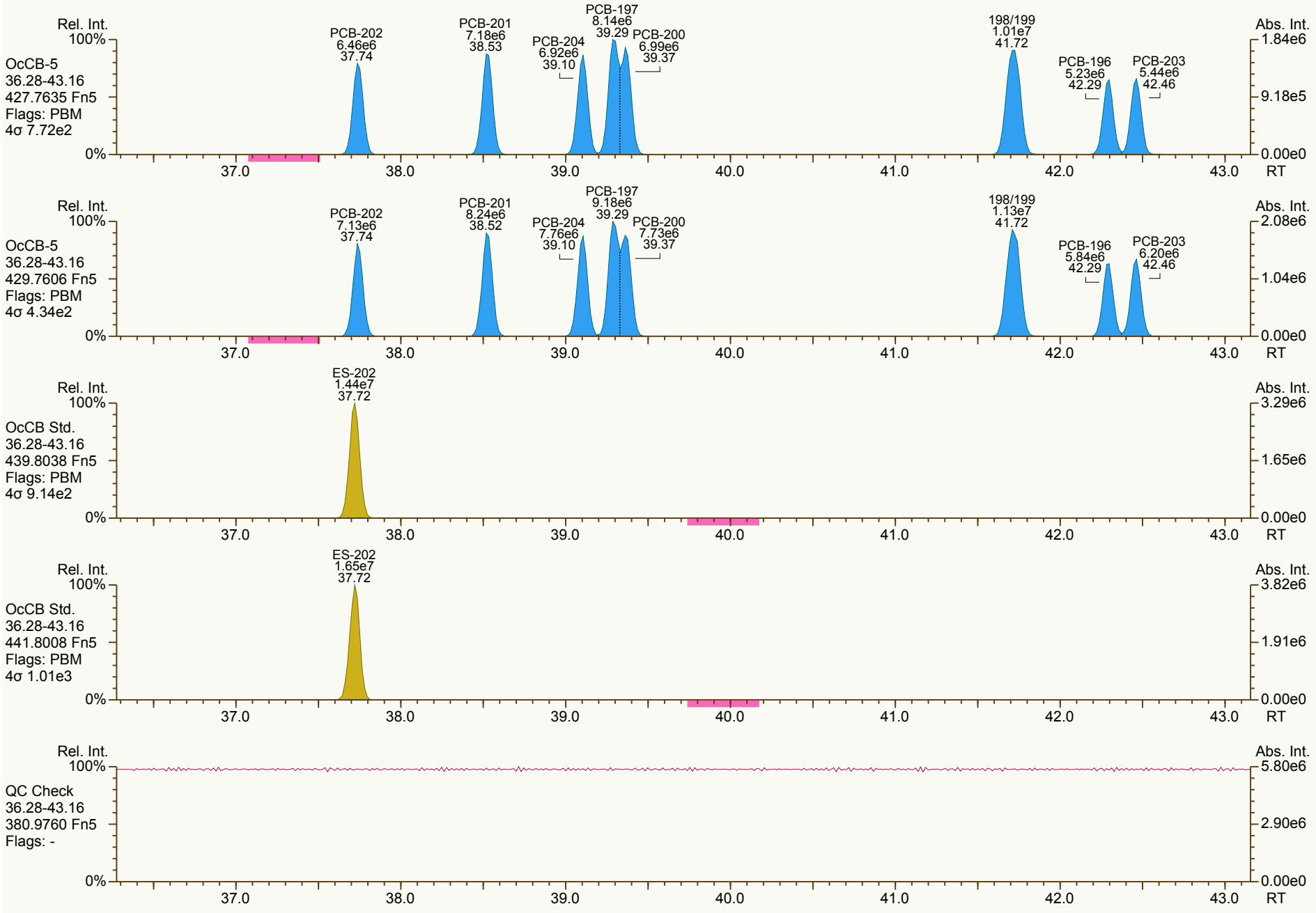
Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 3399, 9474 scc: 163-875

Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 17 of 22

SGS-AP ID: OPR1_10631_PCB
Instr: AutoSpec-Premier MM6
Sample ID: 0_10631_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30
Acq: 09-Feb-2013 15:51:06
User: CEM Datafile: 130209V03 (EQ)



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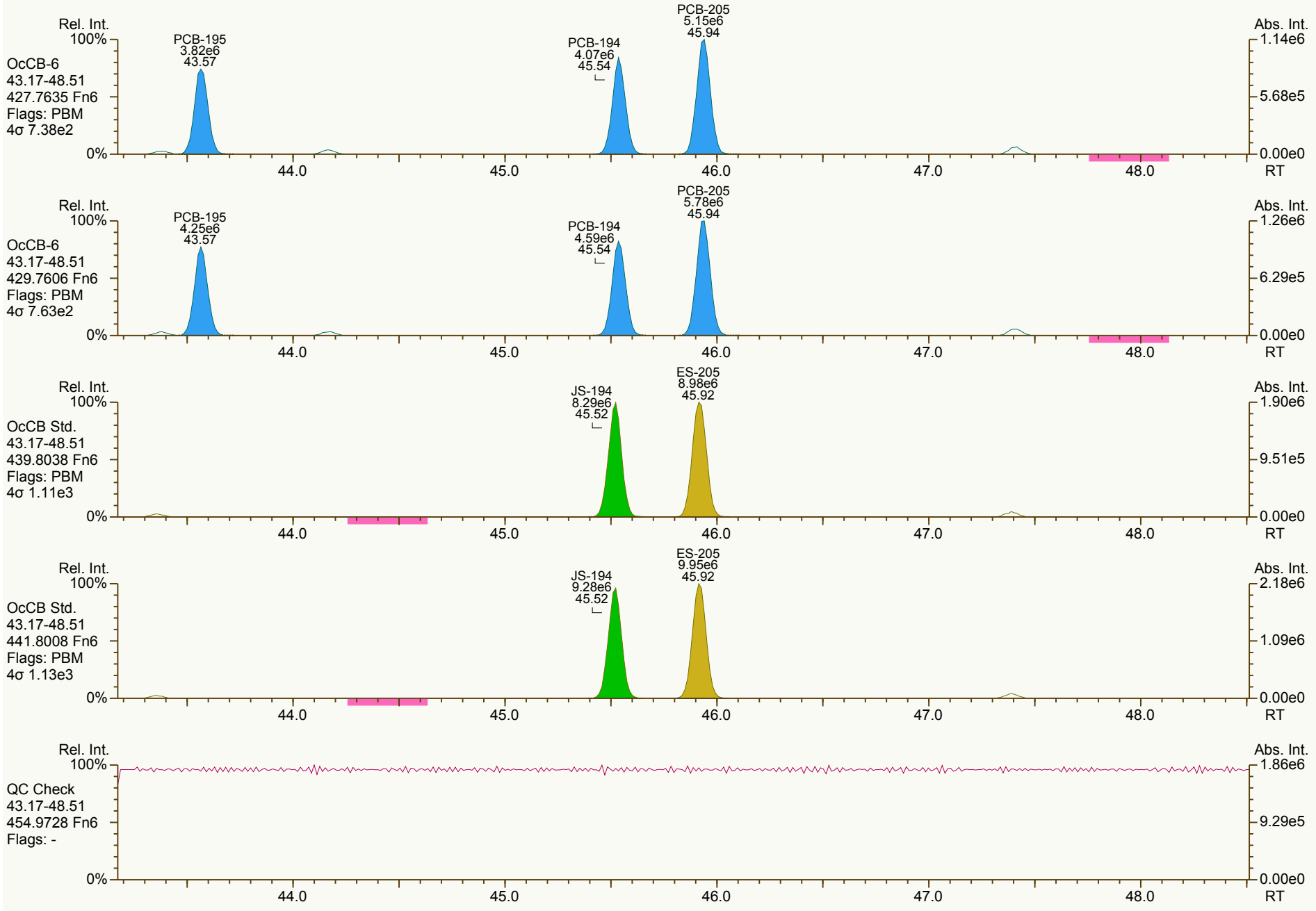
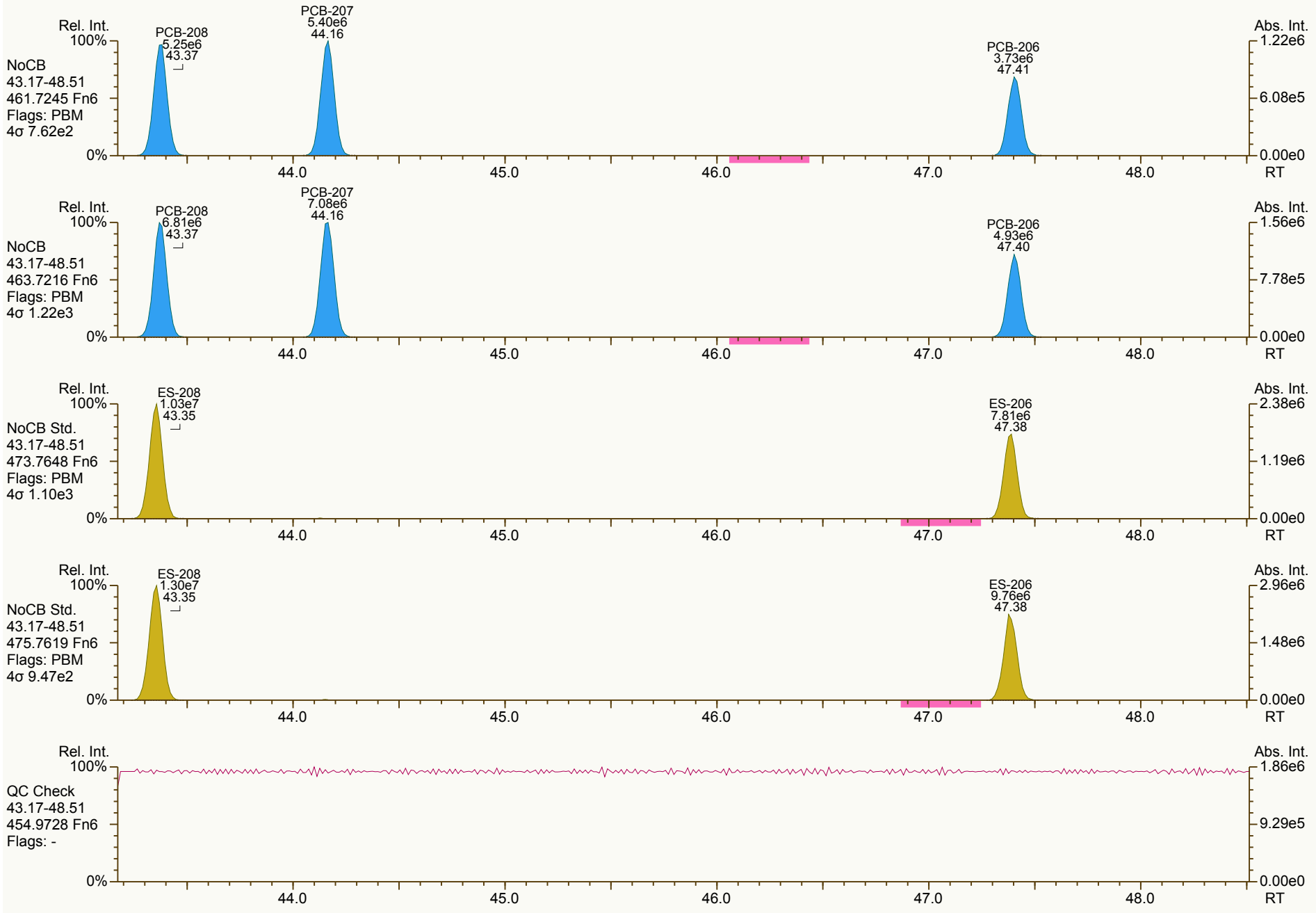
Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 18 of 22

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



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AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 2041, 1530 scc: 163-875 *Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 20 of 22*

SGS-AP ID: OPR1_10631_PCB
Instr: AutoSpec-Premier MM6

Sample ID: 0_10631_OPR001
VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30

Acq: 09-Feb-2013 15:51:06
User: CEM Datafile: 130209V03 (EQ)



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\OPR1_10631_PCB.utp_res, saved 11-Feb-2013 15:18 (LKB)
Peak annotation: Areas, Centroids

AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 cc: 1769, 1559 scc: 163-875
Revised: 11-Feb-2013 10:50 (LKB) Printed: 11-Feb-2013 15:20 Page 21 of 22

SGS-AP ID: OPR1_10631_PCB **Sample ID: 0_10631_OPR001** **Acq: 09-Feb-2013 15:51:06**
Instr: AutoSpec-Premier MM6 **VSIR EI+: pcb-2012-01 GC: pcb90_b Vial: 30** **User: CEM Datafile: 130209V03 (EQ)**



Results: P:\A5000_A5099\A5019\A5019_10631 PCB\Resources\OPR1_10631_PCB.utp_res, saved 11-Feb-2013 15:18 (LKB) *Peak annotation: Areas, Centroids*
AP UltraTrace-Pro V4.74 User/System: LKB/LBI7-065 scc: 163-875 *Revised: 11-Feb-2013 10:27 (LKB) Printed: 11-Feb-2013 15:20 Page 22 of 22*

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Extractions Bench Sheets and Notes	34	36
Initial Calibration	37	86
Run Logs, Continuing Calibrations, and Raw Data	87	131

BL
Signature

October-24-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

October 24, 2012

Darwin Thomas
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A12J175
ARI Job No.: VM65

Dear Mr. Thomas:

Please find enclosed the original Chain of Custody record (COC), sample receipt documentation, and the final data for the samples from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this package will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.



Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: VM65

Enclosures

Chain of Custody Documentation

ARI Job ID: VM65

MK17

SUBCONTRACT ORDER

Apex Laboratories

A12J175

VM65

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Darwin Thomas

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

Sample Name: SSA6-MW-01-100512 **Water** **Sampled: 10/05/12 13:39** (A12J175-04)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	10/16/12 17:00	10/19/12 13:39	mdl-ARI--Level 4 Data Package
Containers Supplied.			
(J)1 L Amber Glass - HCL			

2/3 HS

Sample Name: RB-01-100512 **Water** **Sampled: 10/05/12 11:05** (A12J175-09)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	10/16/12 17:00	10/19/12 11:05	mdl-ARI--Level 4 Data Package
Containers Supplied:			
(L)1 L Amber Glass - HCL			

Released By	Date	Received By	Date
[signature]	10/9/12 1500		
Released By	Date	Received By	Date
			10/10 M 1040

VM65 : 00003

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client Apex
COC No(s) _____ (NA)
Assigned ARI Job No VM55

Project Name ALS 175
Delivered by Fed-Ex (UPS) Courier Hand Delivered Other _____
Tracking No 12X4720R 13 9429 3841 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2 0-6 0 °C for chemistry). 5.3		
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID# 90811952	

Cooler Accepted by: _____ Date 10-10-12 Time 1940

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other _____		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI.	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time _____ Equipment _____ Split by: _____

Samples Logged by JS Date 10-11-12 Time 1200

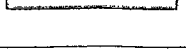
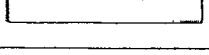
*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Bottles were pres checked & pH<2.

By: JS Date 10-11-12

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm
		

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VM65

Case Narrative

Client: Apex Laboratories
Project: A12J175
ARI Job No.: VM65

Sample Receipt

Analytical Resources, Inc. (ARI) accepted two water samples on October 10, 2012 under ARI job VM65. The cooler temperature measured by IR thermometer following ARI SOP was 5.3° C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for parameters as requested on the COC.

Extractable Petroleum Hydrocarbons (EPH)

The samples were extracted and analyzed within method recommended holding times.

Initial calibration and continuing calibrations met method requirements.

The surrogate percent recoveries were within the control limits.

The method blank was clean at the reporting limit. The LCS and LCSD percent recoveries were within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VM65
Client: Apex Laboratories
Project Event: N/A
Project Name: A12J175

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	SSA6-MW-01-100512	VM65A	12-19621	Water	10/05/12 13:39	10/10/12 10:40
2.	RB-01-100512	VM65B	12-19622	Water	10/05/12 11:05	10/10/12 10:40

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

VM65 : 00008

S	Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
NA	The flagged analyte was not analyzed for
NR	Spiked compound recovery is not reported due to chromatographic interference
NS	The flagged analyte was not spiked into the sample
M	Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
M2	The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
Y	The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
EMPC	Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**
C	The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
P	The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference
X	Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**
Z	Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

VM65 : 00009

Geotechnical Data

A	The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
F	Samples were frozen prior to particle size determination
SM	Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
SS	Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
W	Weight of sample in some pipette aliquots was below the level required for accurate weighting

VM65 : 00010

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Extractable Petroleum Hydrocarbons (EPH) Washington Department of Ecology Interim Method[1,2]

Effective: 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Calculated Control Limits [3]	
Sample Matrix	Water	Soil / Sediment
Sample Amount / Final Volume:	500 mL / 1 mL	10 g / 1 mL
LCS Spike Recovery [4]		
C8-C10 Aliphatics	**10** - **100**	21 - **100**
C10-C12 Aliphatics	14 - **100**	23 - **100**
C12-C16 Aliphatics	43 - 110	30 - 120
C16-C21 Aliphatics	44 - 122	32 - 129
C10-C12 Aromatics	16 - 105	20 - 109
C12-C16 Aromatics	42 - 116	30 - 125
C16-C21 Aromatics	55 - 127	37 - 135
C21-C34 Aromatics	54 - 136	45 - 137
Method Blank/LCS Surrogate Recovery		
Ortho-Terphenyl	44 - 133	34 - 133
1-Chloro-octadecane	38 - 121	27 - 128
Sample Surrogate Recovery		
Ortho-Terphenyl	39 - 141	**10** - 143
1-Chloro-octadecane	42 - 120	39 - 131

(1) Control limits calculated using all available data for 1/1/08 through 11/30/08.
(2) Analytical method published in: *Washington State Department of Ecology, Analytical Methods for Petroleum Hydrocarbons, Publication No. ECY 97-602, June 1997*
(3) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.

VM55 : 00011

EPH Analysis
Report and Summary QC Forms

ARI Job ID: VM65

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3510C
Page 1 of 1

Sample ID: SSA6-MW-01-100512
SAMPLE

Lab Sample ID: VM65A
LIMS ID: 12-19621
Matrix: Water
Data Release Authorized: *B*
Reported: 10/22/12

QC Report No: VM65-Apex Laboratories
Project: A12J175

Date Sampled: 10/05/12
Date Received: 10/10/12

Date Extracted: 10/11/12

Sample Amount: 500 mL
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 10/21/12 03:25
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 10/20/12 20:17
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	**40**	**44**
C10-C12 Aliphatics	40	< 40 U
C12-C16 Aliphatics	40	< 40 U
C16-C21 Aliphatics	40	< 40 U
C21-C34 Aliphatics	40	< 40 U
C8-C10 Aromatics	40	< 40 U
C10-C12 Aromatics	40	< 40 U
C12-C16 Aromatics	40	< 40 U
C16-C21 Aromatics	40	< 40 U
C21-C34 Aromatics	40	< 40 U

Reported in µg/L (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	73.1%
Aromatic	o-Terphenyl	73.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3510C
Page 1 of 1

Sample ID: RB-01-100512
SAMPLE

Lab Sample ID: VM65B
LIMS ID: 12-19622
Matrix: Water
Data Release Authorized:
Reported: 10/22/12

QC Report No: VM65-Apex Laboratories
Project: A12J175

Date Sampled: 10/05/12
Date Received: 10/10/12

Date Extracted: 10/11/12

Sample Amount: 500 mL
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 10/21/12 03:50
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 10/20/12 20:42
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	**40**	**40**
C10-C12 Aliphatics	40	< 40 U
C12-C16 Aliphatics	40	< 40 U
C16-C21 Aliphatics	40	< 40 U
C21-C34 Aliphatics	40	< 40 U
C8-C10 Aromatics	40	< 40 U
C10-C12 Aromatics	40	< 40 U
C12-C16 Aromatics	40	< 40 U
C16-C21 Aromatics	40	< 40 U
C21-C34 Aromatics	40	< 40 U

Reported in µg/L (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	83.7%
Aromatic	o-Terphenyl	75.4%

ANALYTICAL RESOURCES INCORPORATED

ALIPHATIC EPH WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: VM65-Apex Laboratories
Project: A12J175

ARI ID	Client ID	COD	TOT OUT
MB-101112	Method Blank	75.8%	0
LCS-101112	Lab Control	69.2%	0
LCSD-101112	Lab Control Dup	71.3%	0
VM65A	SSA6-MW-01-100512	73.1%	0
VM65B	RB-01-100512	83.7%	0

	LCS/MB LIMITS	QC LIMITS
(COD) = 1-Chlorooctadecane	(38-121)	(42-120)

Prep Method: SW3510C
Log Number Range: 12-19621 to 12-19622

ANALYTICAL RESOURCES INCORPORATED

AROMATIC EPH WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: VM65-Apex Laboratories
Project: A12J175

ARI ID	Client ID	OTER	TOT OUT
MB-101112	Method Blank	78.5%	0
LCS-101112	Lab Control	73.7%	0
LCSD-101112	Lab Control Dup	76.3%	0
VM65A	SSA6-MW-01-100512	73.0%	0
VM65B	RB-01-100512	75.4%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(44-133)	(39-141)

Prep Method: SW3510C
Log Number Range: 12-19621 to 12-19622

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Page 1 of 1

Sample ID: LCS-101112
LCS/LCSD

Lab Sample ID: LCS-101112
LIMS ID: 12-19621
Matrix: Water
Data Release Authorized:
Reported: 10/22/12

QC Report No: VM65-Apex Laboratories
Project: A12J175

Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 10/11/12

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

Aliphatic
Date Analyzed LCS: 10/21/12 02:35
LCSD: 10/21/12 03:00
Instrument/Analyst LCS: FID8/JGR
LCSD: FID8/JGR

Dilution Factor LCS: 1.00
LCSD: 1.00

Aromatic
Date Analyzed LCS: 10/20/12 19:27
LCSD: 10/20/12 19:52
Instrument/Analyst LCS: FID8/JGR
LCSD: FID8/JGR

Dilution Factor LCS: 1.00
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
C8-C10 Aliphatics	90.0	150	60.0%	86.0	150	57.3%	4.5%
C10-C12 Aliphatics	74.0	150	49.3%	70.0	150	46.7%	5.6%
C12-C16 Aliphatics	100	150	66.7%	102	150	68.0%	2.0%
C16-C21 Aliphatics	110	150	73.3%	114	150	76.0%	3.6%
C10-C12 Aromatics	58.0	150	38.7%	68.0	150	45.3%	15.9%
C12-C16 Aromatics	96.0	150	64.0%	100	150	66.7%	4.1%
C16-C21 Aromatics	216	300	72.0%	220	300	73.3%	1.8%
C21-C34 Aromatics	226	300	75.3%	238	300	79.3%	5.2%

EPH Surrogate Recovery

		LCS	LCSD
Aliphatic	1-Chlorooctadecane	69.2%	71.3%
Aromatic	o-Terphenyl	73.7%	76.3%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.

ALIPH EPH METHOD BLANK SUMMARY

BLANK NO.

VM65MBW1

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VM65 Project No.: A12J175

Date Extracted: 10/11/12 Matrix: LIQUID

Date Analyzed : 10/20/12 Instrument ID : FID8

Time Analyzed : 0210

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
03	VM65LCSW1	VM65LCSW1	10/21/12
04	VM65LCSDW1	VM65LCSDW1	10/21/12
05	SSA6-MW-01-1	VM65A	10/21/12
06	RB-01-100512	VM65B	10/21/12
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			

ALIPH EPH METHOD BLANK SUMMARY

BLANK NO.

VM65MBW1

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VM65 Project No.: A12J175

Date Extracted: 10/11/12 Matrix: LIQUID

Date Analyzed : 10/20/12 Instrument ID : FID8

Time Analyzed : 1901

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
03	VM65LCSW1	VM65LCSW1	10/21/12
04	VM65LCSDW1	VM65LCSDW1	10/21/12
05	SSA6-MW-01-1	VM65A	10/21/12
06	RB-01-100512	VM65B	10/21/12
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			

FORM IV TPH

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3510C
Page 1 of 1

Sample ID: MB-101112
METHOD BLANK

Lab Sample ID: MB-101112
LIMS ID: 12-19621
Matrix: Water
Data Release Authorized:
Reported: 10/22/12

QC Report No: VM65-Apex Laboratories
Project: A12J175

Date Sampled: 10/05/12
Date Received: 10/10/12

Date Extracted: 10/11/12

Sample Amount: 500 mL
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 10/21/12 02:10
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 10/20/12 19:01
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	40	< 40 U
C10-C12 Aliphatics	40	< 40 U
C12-C16 Aliphatics	40	< 40 U
C16-C21 Aliphatics	40	< 40 U
C21-C34 Aliphatics	40	< 40 U
C8-C10 Aromatics	40	< 40 U
C10-C12 Aromatics	40	< 40 U
C12-C16 Aromatics	40	< 40 U
C16-C21 Aromatics	40	< 40 U
C21-C34 Aromatics	40	< 40 U

Reported in µg/L (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	75.8%
Aromatic	o-Terphenyl	78.5%

6a
EPH ALIPHATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client:

Instrument: FID8.I Project:

Calibration Date: 20-OCT-2012 SDG No.:

Aliphatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	20529	22754	22479	22666	21403	21966	4.4
C10-C12	18677	21371	20971	21307	19653	20396	5.8
C12-C16	19301	22645	21699	22197	19969	21162	6.9
C16-C21	21867	25065	23697	24411	22691	23546	5.5
C21-C34	19739	22052	22566	23190	22326	21975	6.0

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1020A020.D	20-OCT-2012 16:06
1020A021.D	20-OCT-2012 16:31
1020A022.D	20-OCT-2012 16:56
1020A023.D	20-OCT-2012 17:21
1020A024.D	20-OCT-2012 17:46
	20-OCT-2012 17:46

6a
EPH AROMATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client:

Instrument: FID8.I Project:

Calibration Date: 20-OCT-2012 SDG No.:

Aromatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	24574	27109	26493	26423	25002	25920	4.2
C10-C12	25377	26558	27646	27627	24857	26413	4.8
C12-C16	25763	27037	28118	28085	25343	26869	4.8
C16-C21	28891	30105	30909	30502	29034	29888	3.0
C21-C34	25904	27180	27537	26943	26133	26739	2.6

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1020A013.D	20-OCT-2012 13:10
1020A014.D	20-OCT-2012 13:35
1020A015.D	20-OCT-2012 14:00
1020A016.D	20-OCT-2012 14:26
1020A017.D	20-OCT-2012 14:51
	20-OCT-2012 14:51

7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AROM#1

ICal Date: 20-OCT-2012 Client ID: A12J175

CCal Date: 20-OCT-2012 Instrument: FID8.I

Analysis Time: 18:36 Lab File Name: 1020A026.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	5237150	202.0	200	1.0
C10-C12	Arom.	2718281	102.9	100	2.9
C12-C16	Arom.	2797957	104.1	100	4.1
C16-C21	Arom.	3121775	104.4	100	4.4
C21-C34	Arom.	2881546	107.8	100	7.8
Surrogate		2881909	104.0	100	4.0

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AROM#2

ICal Date: 20-OCT-2012 Client ID: A12J175

CCal Date: 21-OCT-2012 Instrument: FID8.I

Analysis Time: 01:19 Lab File Name: 1020A042.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	5651524	218.0	200	9.0
C10-C12	Arom.	2917713	110.5	100	10.5
C12-C16	Arom.	2967678	110.4	100	10.4
C16-C21	Arom.	3281693	109.8	100	9.8
C21-C34	Arom.	2947650	110.2	100	10.2
Surrogate		3049205	110.0	100	10.0

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: ALIPH#1

ICal Date: 20-OCT-2012 Client ID: A12J175

CCal Date: 21-OCT-2012 Instrument: FID8.I

Analysis Time: 01:44 Lab File Name: 1020A043.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	4802774	218.7	200	9.4
C10-C12	Aliph.	2329039	114.2	100	14.2
C12-C16	Aliph.	2404753	113.6	100	13.6
C16-C21	Aliph.	2567164	109.0	100	9.0
C21-C34	Aliph.	2347444	106.8	100	6.8
Surrogate		5200914	217.8	100	117.8<-

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: ALIPH#2

ICal Date: 20-OCT-2012 Client ID: A12J175

CCal Date: 21-OCT-2012 Instrument: FID8.I

Analysis Time: 08:27 Lab File Name: 1020A059.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	4620951	210.4	200	5.2
C10-C12	Aliph.	2117829	103.8	100	3.8
C12-C16	Aliph.	2149494	101.6	100	1.6
C16-C21	Aliph.	2401986	102.0	100	2.0
C21-C34	Aliph.	2417209	110.0	100	10.0
Surrogate		4887485	204.7	100	104.7<-

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a
EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: ALIPH#1

ICal Date: 20-OCT-2012 Client ID: A12J175

CCal Date: 21-OCT-2012 Instrument: FID8.I

Analysis Time: 01:44 Lab File Name: 1020A043.D

Quant	Range	Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	4802774	218.7	200	9.4
C10-C12	Aliph.	2329039	114.2	100	14.2
C12-C16	Aliph.	2404753	113.6	100	13.6
C16-C21	Aliph.	2567164	109.0	100	9.0
C21-C34	Aliph.	2347444	106.8	100	6.8
Surrogate		5200914	217.8	100	117.8

* From Range Reference Peak(s)
<- Indicates an RPD outside 20% QC limits

7a
EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: ALIPH#2

ICal Date: 20-OCT-2012 Client ID: A12J175

CCal Date: 21-OCT-2012 Instrument: FID8.I

Analysis Time: 08:27 Lab File Name: 1020A059.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	4620951	210.4	200	5.2
C10-C12	Aliph.	2117829	103.8	100	3.8
C12-C16	Aliph.	2149494	101.6	100	1.6
C16-C21	Aliph.	2401986	102.0	100	2.0
C21-C34	Aliph.	2417209	110.0	100	10.0
Surrogate		4887485	204.7	100	104.7

* From Range Reference Peak(s)
<- Indicates an RPD outside 20% QC limits

8

ALIPH EPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VM65 Project: A12J175

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.81

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01	ALIPH#1	ALIPH#1	10/21/12	0144	6.79
02	VM65MBW1	VM65MBW1	10/21/12	0210	6.79
03	VM65LCSW1	VM65LCSW1	10/21/12	0235	6.79
04	VM65LCSDW1	VM65LCSDW1	10/21/12	0300	6.79
05	SSA6-MW-01-1	VM65A	10/21/12	0325	6.79
06	RB-01-100512	VM65B	10/21/12	0350	6.79
07	ALIPH#2	ALIPH#2	10/21/12	0827	6.80

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

ALIPH EPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VM65 Project: A12J175

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.81

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01	ALIPH#1	ALIPH#1	10/21/12	0144	6.79	
02	VM65MBW1	VM65MBW1	10/21/12	0210	6.79	
03	VM65LCSW1	VM65LCSW1	10/21/12	0235	6.79	
04	VM65LCSDW1	VM65LCSDW1	10/21/12	0300	6.79	
05	SSA6-MW-01-1	VM65A	10/21/12	0325	6.79	
06	RB-01-100512	VM65B	10/21/12	0350	6.79	
07	ALIPH#2	ALIPH#2	10/21/12	0827	6.80	

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

8

AROM EPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VM65 Project: A12J175

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.08

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01	AROM#1	AROM#1	10/20/12	1836	6.09	
02	VM65MBW1	VM65MBW1	10/20/12	1901	6.09	
03	VM65LCSW1	VM65LCSW1	10/20/12	1927	6.08	
04	VM65LCSDW1	VM65LCSDW1	10/20/12	1952	6.08	
05	SSA6-MW-01-1	VM65A	10/20/12	2017	6.08	
06	RB-01-100512	VM65B	10/20/12	2042	6.09	
07	AROM#2	AROM#2	10/21/12	0119	6.08	

QC LIMITS
S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

8

AROM EPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VM65 Project: A12J175

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.09

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01	ZZZZZ	ZZZZZ	10/20/12	1245	6.08	
02		20PPMAROM	10/20/12	1310	6.08	
03		50PPMAROM	10/20/12	1335	6.08	
04		100PPMAROM	10/20/12	1400	6.08	
05		150PPMAROM	10/20/12	1426	6.09	
06		200PPMAROM	10/20/12	1451	6.09	
07	ZZZZZ	ZZZZZ	10/20/12	1516	6.09	

QC LIMITS

S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VM65 Project: A12J175

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.81

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01		ALIB	10/20/12	1541	6.79	
02		20PPMALIPH	10/20/12	1606	6.79	
03		50PPMALIPH	10/20/12	1631	6.80	
04		100PPMALIPH	10/20/12	1656	6.80	
05		150PPMALIPH	10/20/12	1721	6.81	
06		200PPMALIPH	10/20/12	1746	6.81	
07		ALIPHICV	10/20/12	1811	6.80	

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

EPH Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: VM65

Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

EPH – Water
Separatory Funnel (3510C) (SOP # 3311S)

Preparation Test EPH # 2 (EPHWSI)
ARI Job No(s) VM65

Page 1 of 1

In-House (40ppb)
Batch set up by: ~~JH~~

Bottle #	Extraction Requirements	Volume Extracted	Fractionate Aromatic/ Aliphatic (1:1)	Final Effective Volume AR	Final Effective Volume AL	Volume to Lab AR	Volume to Lab AL	Comments
	VM65 MBW	500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
	SBW	500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
	SBWDup	500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
	~~QLS~~	~~500mL~~	~~(1:1) 2mL~~	~~1mL~~	~~1mL~~	~~1mL~~	~~1mL~~	
1	VM65 A	500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	See notes
1	B	500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	See notes
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	
		500mL	(1:1) 2mL	1mL	1mL	1mL	1mL	SP 10/17/12
		500mL	(1:1) 2mL	1mL	1mL	1mL		
Analyst/Date	SP 10/11/12		SP 10/17/12	SP 10/12/12	SP 10/17/12	SP 10/17/12	SP 10/17/12	

Verify Client ID: SP 10/11/12

Analyst/Date

KD
80-85°C
To 1mL

Exchange with 30mL
90.10
Pentane/Hexane
100°C
To 1mL
YL 10/13/12

Analyst/Date

TurboVap
1 2 3
Pre-Fractionation

Analyst/Date

TurboVap
1 2 3
Post Fractionation

SP 10/17/12
Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	M (2012-1)	1500µg/mL	100µL	5/17/13	M	SP
Spike	5 (5833-2)	750 ~~1500~~µg/mL	100µL	10/04/13	M	SP
~~QLS Spike~~	~~22 ( )~~	~~400µg/mL~~	~~50µL~~			
Extraction Time: 1435						

SPECIAL INSTRUCTIONS: 1. Samples preserved w/HCL? Check pH is 2. Acidify samples with 1:1 HCL if needed and note on Analyst Notes. 2. Add surr/spk. 3. Acidify blanks with 1:1 Sulfuric Acid. 4. Extract 3X with 30mL DCM. 5. KD (no drying column) to 1mL at 80°C. 6. Exchange with 30mL 90:10 Pentane/Hexane. 7. KD to 1mL at 100°C. 8. Let Cool: After cooling: volume should be 5mL. 9. TurboVap to 2mL 10. Fractionate Aromatic/Aliphatic-collect each fractions extract into (2) Turbo Tubes. 11. TurboVap to 1mL. 12. Vial both fractions in DCM.

A. Archive (Y) N

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: VM65 Client ID: Apex Laboratories

Parameter: EPH Client Project: A125175

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☒ Turbid/Color= A = pale yellow	SP 10/11/12
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☒ Other (Details)= Samples were in 1 Liter bottles. No bottle rinse was performed. A = faint odor noted.	SP 10/11/12
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
(Centrifuge#1 used for all Centrifugations)	

EPH Raw Data
Initial Calibration

ARI Job ID: VM65

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 10/20/12 Internal Standard ID N/A Expiration N/A

Endrin/DDT Breakdown <15%? YES / NO / NA		ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration

Detail problems, corrective actions and/or other pertinent information below:

C21-C34 ranges for Aliph ICV ~71% rec.

Analyst: _____ **Date:** 10/22/12

Reviewer: _____ **Date:** 10/22/12

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 20-OCT-2012 13:10
End Cal Date : 20-OCT-2012 14:51
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Cal Date : 22-Oct-2012 13:07 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/fid8.i/20121020AROM.B/1020A013.D
Level 2: /chem2/fid8.i/20121020AROM.B/1020A014.D
Level 3: /chem2/fid8.i/20121020AROM.B/1020A015.D
Level 4: /chem2/fid8.i/20121020AROM.B/1020A016.D
Level 5: /chem2/fid8.i/20121020AROM.B/1020A017.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	RRF	% RSD
2 Toluene	24155	28121	25874	25794	25295	25848	5.588
75 1-chlorooctodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 1,2,3-Trimetben	24994	26096	27112	27052	24709	25993	4.316
4 Naphthalene	25377	26558	27646	27627	24857	26413	4.830
7 Acenaphthene	25763	27037	28118	28085	25343	26869	4.788
13 Pyrene	28891	30105	30909	30502	29034	29888	2.987
21 Benzo-ghi-per	25904	27180	27537	26943	26133	26739	2.602
$ 11 o-Terph Surr	26704	27937	28831	28598	26549	27724	3.808

6a
EPH AROMATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20121020AROM

Instrument: FID8.I Project:

Calibration Date: 20-OCT-2012 SDG No.: 20121020AROM

Aromatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	24574	27109	26493	26423	25002	25920	4.2
C10-C12	25377	26558	27646	27627	24857	26413	4.8
C12-C16	25763	27037	28118	28085	25343	26869	4.8
C16-C21	28891	30105	30909	30502	29034	29888	3.0
C21-C34	25904	27180	27537	26943	26133	26739	2.6

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1020A013.D	20-OCT-2012 13:10
1020A014.D	20-OCT-2012 13:35
1020A015.D	20-OCT-2012 14:00
1020A016.D	20-OCT-2012 14:26
1020A017.D	20-OCT-2012 14:51
	20-OCT-2012 14:51

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 20-OCT-2012 16:06
End Cal Date : 20-OCT-2012 17:46
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Cal Date : 22-Oct-2012 12:59 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/fid8.i/20121020ALIPH.B/1020A020.D
Level 2: /chem2/fid8.i/20121020ALIPH.B/1020A021.D
Level 3: /chem2/fid8.i/20121020ALIPH.B/1020A022.D
Level 4: /chem2/fid8.i/20121020ALIPH.B/1020A023.D
Level 5: /chem2/fid8.i/20121020ALIPH.B/1020A024.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	___ RRF	% RSD
2 C8	21165	23117	22722	22786	21577	22273	3.816
3 C10	19893	22392	22236	22545	21229	21659	5.141
45 C12	18677	21371	20971	21307	19653	20396	5.811
46 C16	19301	22645	21699	22197	19969	21162	6.865
47 C21	21867	25065	23697	24411	22691	23546	5.467
48 C34	19739	22052	22566	23190	22326	21975	6.001
$ 51 1-Chloro-Octodecane	21930	25268	24129	24856	23209	23878	5.617

6a
EPH ALIPHATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20121020ALIPH

Instrument: FID8.I Project:

Calibration Date: 20-OCT-2012 SDG No.: 20121020ALIPH

Aliphatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	20529	22754	22479	22666	21403	21966	4.4
C10-C12	18677	21371	20971	21307	19653	20396	5.8
C12-C16	19301	22645	21699	22197	19969	21162	6.9
C16-C21	21867	25065	23697	24411	22691	23546	5.5
C21-C34	19739	22052	22566	23190	22326	21975	6.0

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1020A020.D	20-OCT-2012 16:06
1020A021.D	20-OCT-2012 16:31
1020A022.D	20-OCT-2012 16:56
1020A023.D	20-OCT-2012 17:21
1020A024.D	20-OCT-2012 17:46
	20-OCT-2012 17:46

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Batch File: /chem2/fid8.i/20121020ALIPH.B
Inst ID: fid8.i

ID:	RT01	RT02	RT03	RT04	RT05
FILENAME:	1020A020	1020A021	1020A022	1020A023	1020A024
INJ.DATE:	20-OCT-2012	20-OCT-2012	20-OCT-2012	20-OCT-2012	20-OCT-2012
INJ.TIME:	16:06	16:31	16:56	17:21	17:46

	Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	2 C8	1.150	1.149	1.143	1.142	1.138	1.138	1.088-1.188	1.144	0.005
	3 C10	3.289	3.289	3.289	3.290	3.291	3.291	3.241-3.341	3.290	0.001
	45 C12	4.099	4.099	4.100	4.102	4.101	4.101	4.051-4.151	4.100	0.001
	46 C16	5.255	5.257	5.258	5.259	5.259	5.259	5.209-5.309	5.258	0.002
$	51 1-Chloro-Octodecane	6.788	6.797	6.800	6.807	6.811	6.811	6.761-6.861	6.800	0.009
	47 C21	6.842	6.847	6.851	6.855	6.859	6.859	6.809-6.909	6.851	0.007
	48 C34	11.809	11.812	11.817	11.820	11.821	11.821	11.771-11.871	11.816	0.005

Reviewer 1 _____ Date: 10/22/12

Reviewer 2 _____ Date: 10/22/12

GT0005 - 5914

Report Date : 22-Oct-2012 13:16

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Batch File: /chem2/fid8.i/20121020AROM.B
Inst ID: fid8.i

ID:	RT01	RT02	RT03	RT04	RT05
FILENAME:	1020A013	1020A014	1020A015	1020A016	1020A017
INJ.DATE:	20-OCT-2012	20-OCT-2012	20-OCT-2012	20-OCT-2012	20-OCT-2012
INJ.TIME:	13:10	13:35	14:00	14:26	14:51

Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
2 Toluene	0.779	0.778	0.775	0.778	0.777	0.777	0.727-0.827	0.777	0.002
75 1-chlorooctodecane	6.795	6.789	6.784	6.781	6.784	6.784	6.734-6.834	6.787	0.006
3 1,2,3-Trimetben	3.397	3.398	3.398	3.400	3.401	3.401	3.351-3.451	3.399	0.002
4 Naphthalene	4.068	4.068	4.071	4.072	4.073	4.073	4.023-4.123	4.070	0.002
7 Acenaphthene	5.003	5.004	5.007	5.009	5.010	5.010	4.960-5.060	5.007	0.003
$ 11 o-Terph Surr	6.084	6.084	6.084	6.087	6.088	6.088	6.038-6.138	6.085	0.002
13 Pyrene	7.008	7.014	7.021	7.028	7.035	7.035	6.985-7.085	7.021	0.011
21 Benzo-ghi-per	11.492	11.495	11.507	11.517	11.525	11.525	11.475-11.575	11.507	0.014

Reviewer 1 [signature] Date: 10/22/12
Reviewer 2 [signature] Date: 10/22/12

VM65:00044

Analytical Resources, Inc.

)ata file : /chem2/fid8.i/20121020AROM.B/1020A012.D
Lab Smp Id: ARIB
Inj Date : 20-OCT-2012 12:45
)perator : JR Inst ID: fid8.i
Smp Info : ARIB
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:09 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 1
)il Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2 Toluene	Compound Not Detected					
3 1,2,3-Trimetben	3 407	3 401	0 006	261	0 01004	0 010
4 Naphthalene	4 093	4.073	0.020	194	0 00734	0 007
7 Acenaphthene	4 980	5.010	-0.030	60	0 00223	0 002
11 o-Terph Surr	6 084	6 088	-0.004	3551300	128 096	128 095
75 1-chlorooctodecane	6 781	6 784	-0 003	796		
13 Pyrene	7 044	7 035	0 009	436	0 01459	0 014
21 Benzo-ghi-per	11 553	11 525	0 028	224	0 00838	0 008

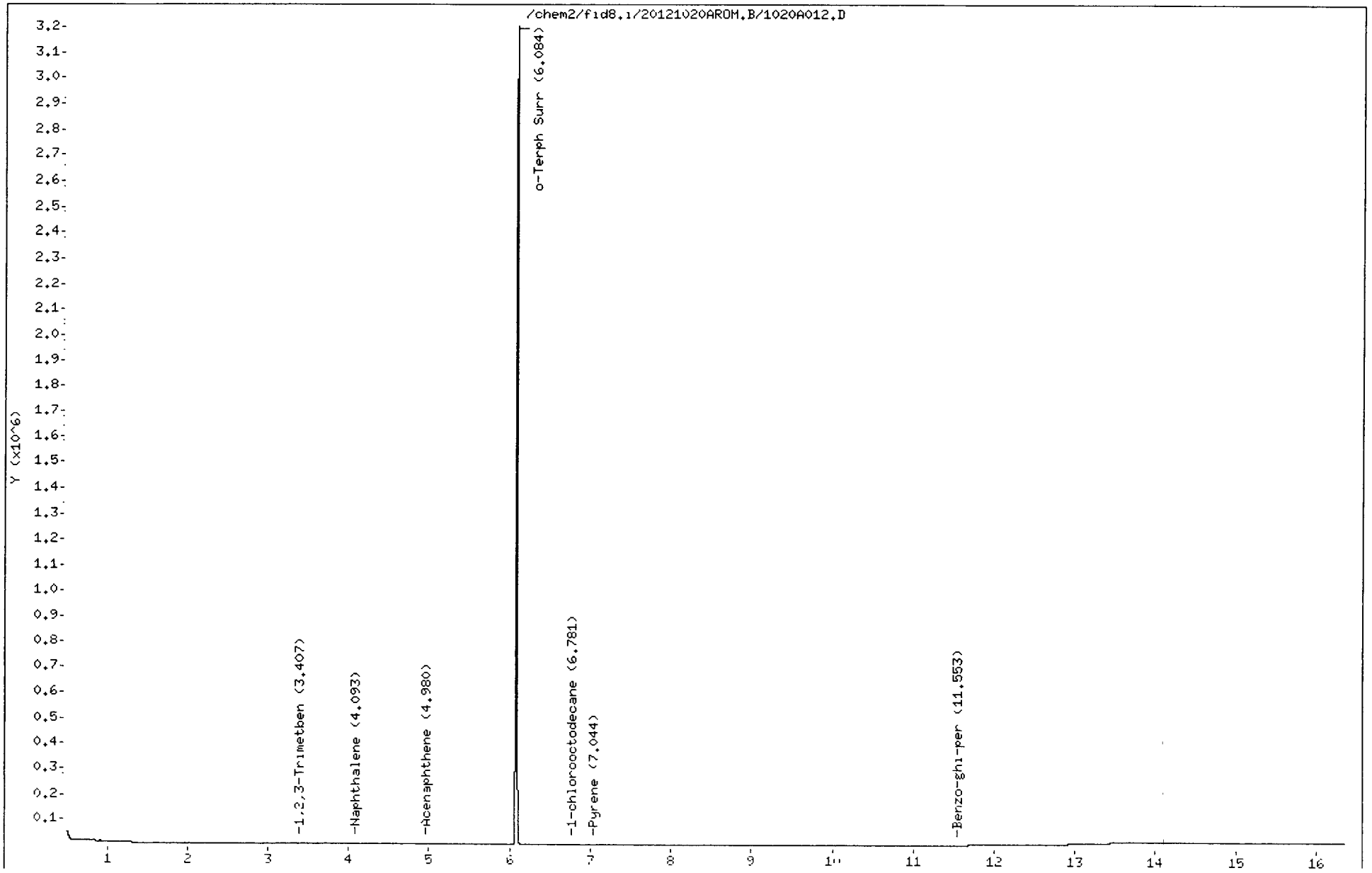
10/22/12

Data File: /chem2/fid8.i/20121020AROM.B/1020A012.D
Date : 20-OCT-2012 12:45
Client ID:
Sample Info: ARIB

Column phase: ZB-5

Instrument: fid8.i

Operator: JR
Column diameter: 0.32



VM65 00045

Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A012.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: ARIB
Client ID:
Injection: 20-OCT-2012 12:45
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	69727	3	(0.677 - 3.501)
C10-C12	Arom.	26413	580	0	(3.501 - 4.173)
C12-C16	Arom.	26869	1236	0	(4.173 - 5.110)
C16-C21	Arom.	29888	4953	0	(5.110 - 7.135)
C21-C34	Arom.	26739	8038	0	(7.135 - 11.625)

Surrogate Rec: 85.4%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A013.D
Lab Smp Id: 20PPMAROM
Inj Date : 20-OCT-2012 13:10
Operator : JR Inst ID: fid8.i
Smp Info : 20PPMAROM
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:09 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
ompounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
2 Toluene	0 779	0 777	0.002	483095	20 0000	18.690
3 1,2,3-Trimetben	3 397	3.401	-0.004	499872	20.0000	19 231
4 Naphthalene	4 068	4.073	-0.005	507536	20 0000	19.215
7 Acenaphthene	5 003	5 010	-0.007	515258	20.0000	19 176
11 o-Terph Surr	6.084	6 088	-0 004	534074	20 0000	19 264
75 1-chlorooctodecane	6 795	6 784	0 011	295	20 0000	
13 Pyrene	7 008	7.035	-0.027	577824	20 0000	19 332
21 Benzo-ghi-per	11.492	11 525	-0.033	518080	20 0000	19.375

Data File: /chem2/fid8.i/20121020AROM.B/1020A013.D

Date : 20-OCT-2012 13:10

Client ID:

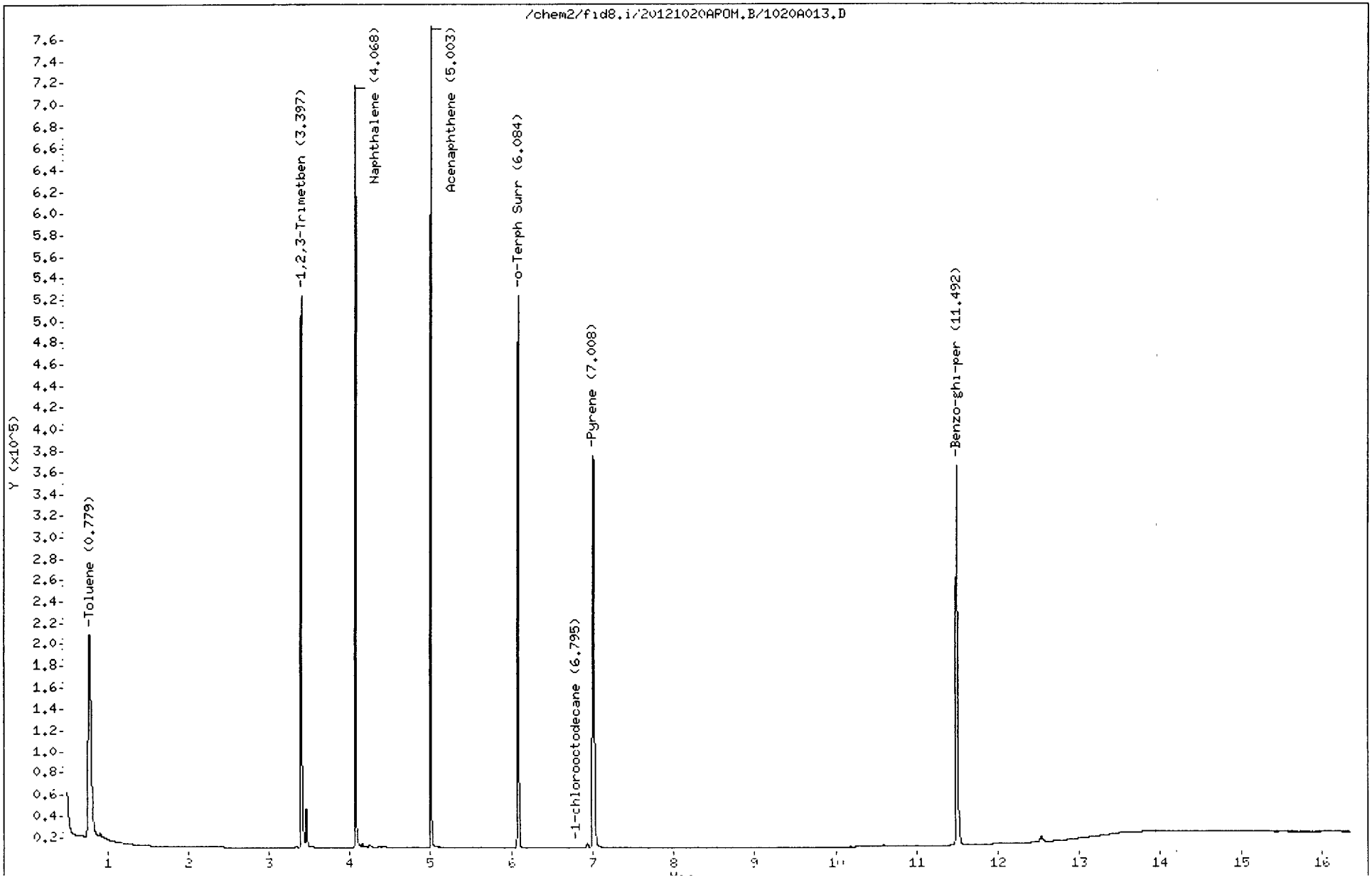
Sample Info: 20PPMAROM

Column phase: ZB-5

Instrument: fid8.i

Operator: JR

Column diameter: 0.32



Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A013.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: 20PPMAROM
Client ID:
Injection: 20-OCT-2012 13:10
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	1028972	40	(0.677 - 3.501)
C10-C12	Arom.	26413	517302	20	(3.501 - 4.173)
C12-C16	Arom.	26869	529789	20	(4.173 - 5.110)
C16-C21	Arom.	29888	585607	20	(5.110 - 7.135)
C21-C34	Arom.	26739	528003	20	(7.135 - 11.625)

Surrogate Rec: 12.8%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A014.D
Lab Smp Id: 50PPMAROM
Inj Date : 20-OCT-2012 13:35
Operator : JR Inst ID: fid8.i
Smp Info : 50PPMAROM
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:09 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

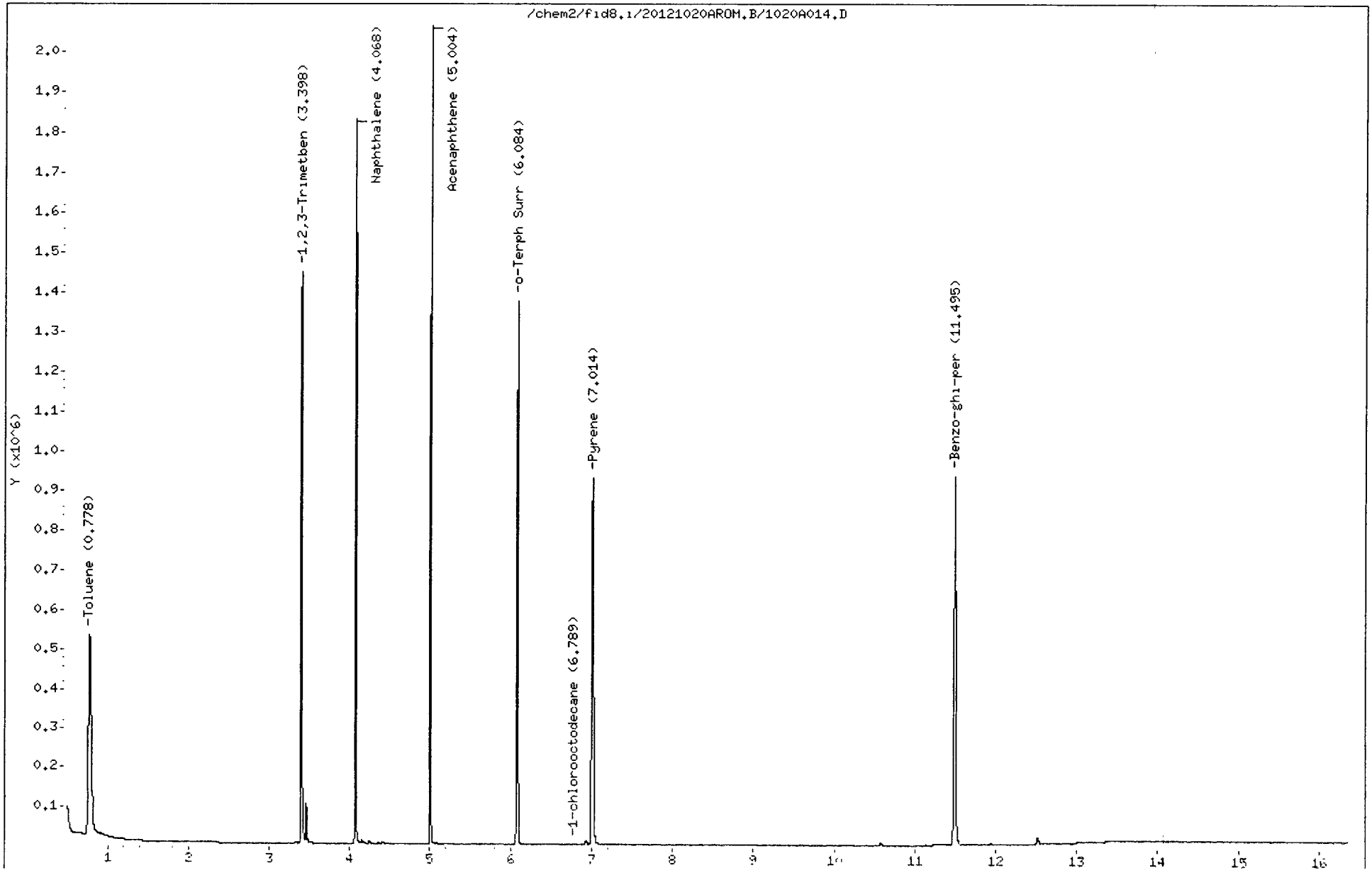
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
2 Toluene	0 778	0 777	0 001	1406055	50 0000	54.397
3 1,2,3-Trimetben	3 398	3.401	-0 003	1304804	50 0000	50.199
4 Naphthalene	4 068	4.073	-0 005	1327897	50.0000	50.274
7 Acenaphthene	5 004	5 010	-0 006	1351865	50 0000	50 312
11 o-Terph Surr	6 084	6.088	-0.004	1396831	50 0000	50 383
75 1-chlorooctodecane	6 789	6 784	0.005	339	50 0000	
13 Pyrene	7 014	7 035	-0.021	1505273	50 0000	50 363
21 Benzo-ghi-per	11.495	11 525	-0.030	1358980	50.0000	50 823

Data File: /chem2/fid8.1/20121020AROM.B/1020A014.D
Date : 20-OCT-2012 13:35
Client ID:
Sample Info: 50PPMAROM

Instrument: fid8.1

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



UMG5 000552

Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A014.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: 50PPMAROM
Client ID:
Injection: 20-OCT-2012 13:35
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	2842003	110	(0.677 - 3.501)
C10-C12	Arom.	26413	1348982	51	(3.501 - 4.173)
C12-C16	Arom.	26869	1392089	52	(4.173 - 5.110)
C16-C21	Arom.	29888	1523537	51	(5.110 - 7.135)
C21-C34	Arom.	26739	1378840	52	(7.135 - 11.625)

Surrogate Rec: 33.6%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A015.D
Lab Smp Id: 100PPMAROM
Inj Date : 20-OCT-2012 14:00
Operator : JR Inst ID: fid8.i
Smp Info : 100PPMAROM
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:09 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

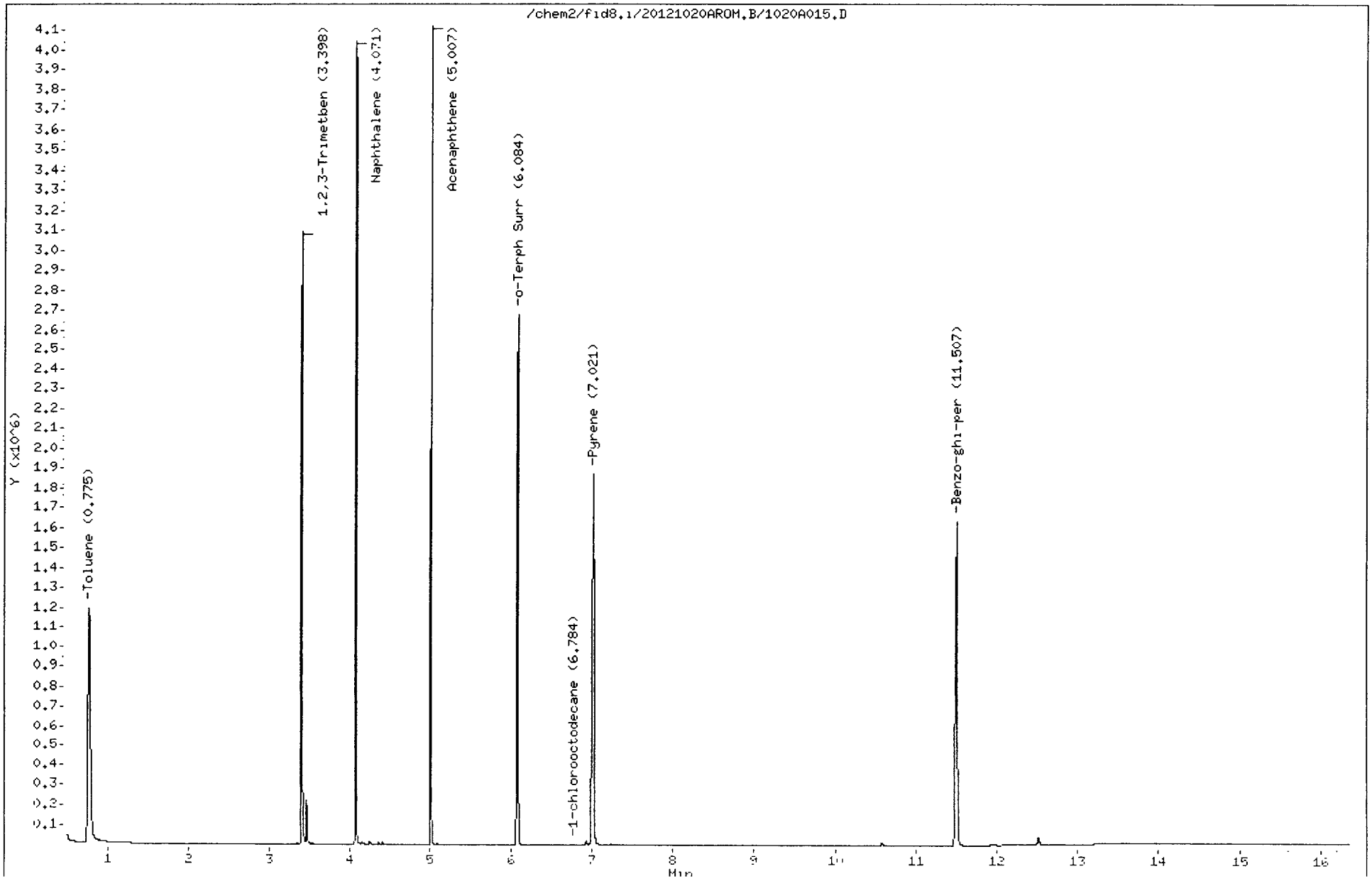
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2 Toluene	0 775	0 777	-0.002	2587398	100 000	100 102
3 1,2,3-Trimetben	3 398	3 401	-0.003	2711245	100 000	104 308
4 Naphthalene	4 071	4 073	-0.002	2764598	100.000	104 668
7 Acenaphthene	5 007	5 010	-0.003	2811837	100 000	104 648
11 o-Terph Surr	6 084	6 088	-0.004	2883137	100.000	103 994
75 1-chlorooctodecane	6 784	6 784	0 000	949	100 000	
13 Pyrene	7.021	7.035	-0 014	3090863	100 000	103 413
21 Benzo-ghi-per	11.507	11.525	-0.018	2753654	100 000	102 981

Data File: /chem2/fid8.1/20121020AROM.B/1020A015.D
Date : 20-OCT-2012 14:00
Client ID:
Sample Info: 100PPMAROM

Instrument: fid8.1

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A015.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: 100PPMAROM
Client ID:
Injection: 20-OCT-2012 14:00
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	5531763	213	(0.677 - 3.501)
C10-C12	Arom.	26413	2801376	106	(3.501 - 4.173)
C12-C16	Arom.	26869	2903934	108	(4.173 - 5.110)
C16-C21	Arom.	29888	3130472	105	(5.110 - 7.135)
C21-C34	Arom.	26739	2794001	104	(7.135 - 11.625)

Surrogate Rec: 69.3%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A016.D
Lab Smp Id: 150PPMAROM
Inj Date : 20-OCT-2012 14:26
Operator : JR Inst ID: fid8.i
Smp Info : 150PPMAROM
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:09 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

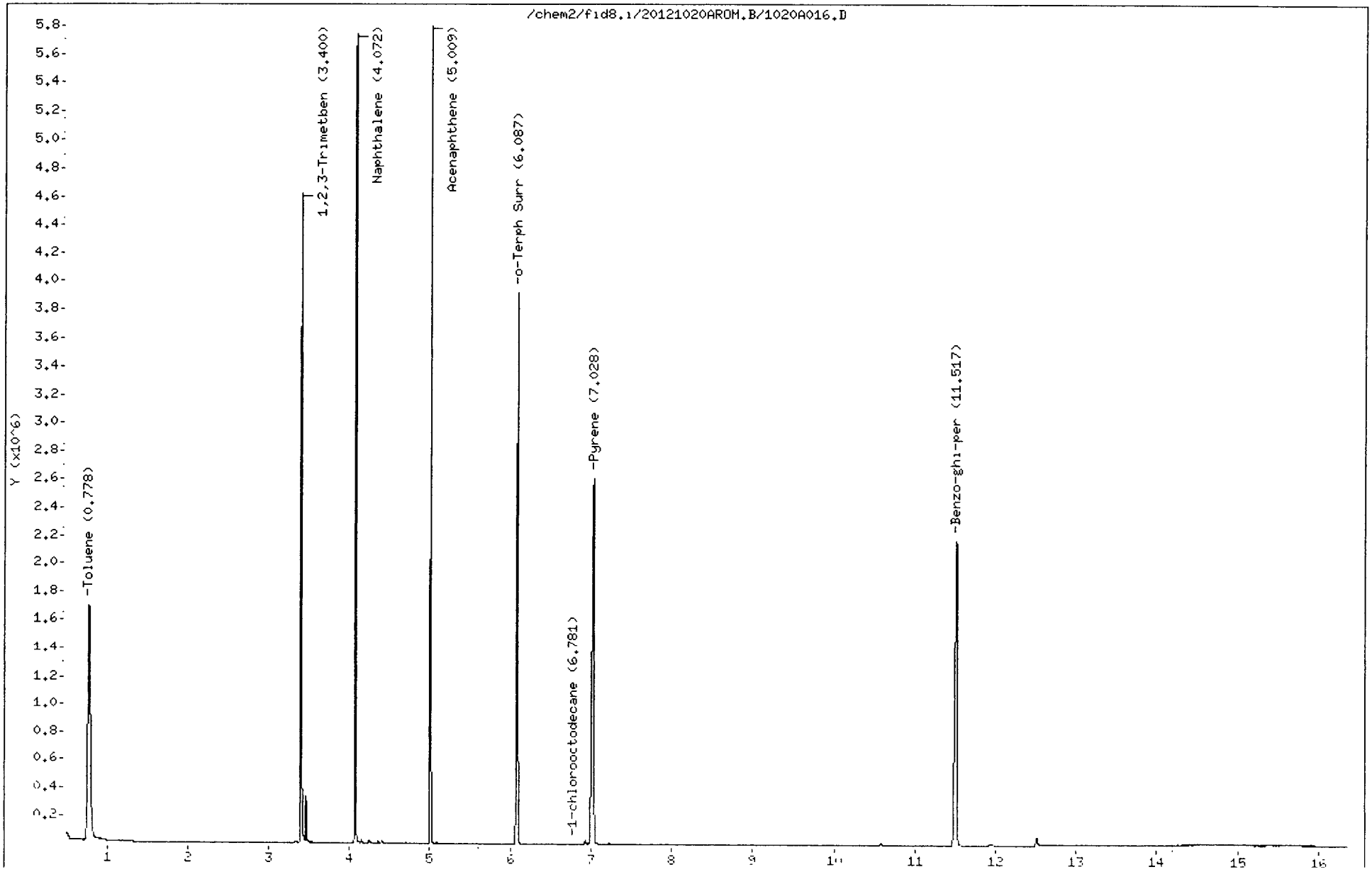
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
2 Toluene	0 778	0 777	0 001	3869031	150 000	149.686
3 1,2,3-Trimetben	3 400	3 401	-0 001	4057786	150 000	156 113
4 Naphthalene	4 072	4 073	-0 001	4144078	150.000	156 895
7 Acenaphthene	5 009	5 010	-0 001	4212711	150.000	156 785
11 o-Terph Surr	6 087	6.088	-0 001	4289751	150.000	154.731
75 1-chlorooctodecane	6 781	6 784	-0 003	1207	150.000	
13 Pyrene	7 028	7 035	-0 007	4575315	150.000	153.080
21 Benzo-ghi-per	11 517	11 525	-0 008	4041490	150 000	151 144

Data File: /chem2/fid8.1/20121020APOM.B/1020A016.D
Date : 20-OCT-2012 14:26
Client ID:
Sample Info: 150PPMAROM

Instrument: fid8.1

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A016.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: 150PPMAROM
Client ID:
Injection: 20-OCT-2012 14:26
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	8271280	319	(0.677 - 3.501)
C10-C12	Arom.	26413	4191088	159	(3.501 - 4.173)
C12-C16	Arom.	26869	4339942	162	(4.173 - 5.110)
C16-C21	Arom.	29888	4628517	155	(5.110 - 7.135)
C21-C34	Arom.	26739	4097958	153	(7.135 - 11.625)

Surrogate Rec: 103.2%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A017.D
Lab Smp Id: 200PPMAROM
Inj Date : 20-OCT-2012 14:51
Operator : JR Inst ID: fid8.i
Smp Info : 200PPMAROM
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:09 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
2 Toluene	0.777	0 777	0 000	5058936	200 000	195 721
3 1,2,3-Trimetben	3 401	3 401	0.000	4941748	200 000	190 121
4 Naphthalene	4 073	4.073	0 000	4971388	200 000	188 217
7 Acenaphthene	5.010	5 010	0 000	5068609	200 000	188.639
11 o-Terph Surr	6.088	6 088	0.000	5309801	200 000	191 524
75 1-chlorooctodecane	6 784	6 784	0 000	1667	200 000	
13 Pyrene	7 035	7 035	0.000	5806804	200 000	194 283
21 Benzo-ghi-per	11 525	11 525	0 000	5226537	200 000	195 463

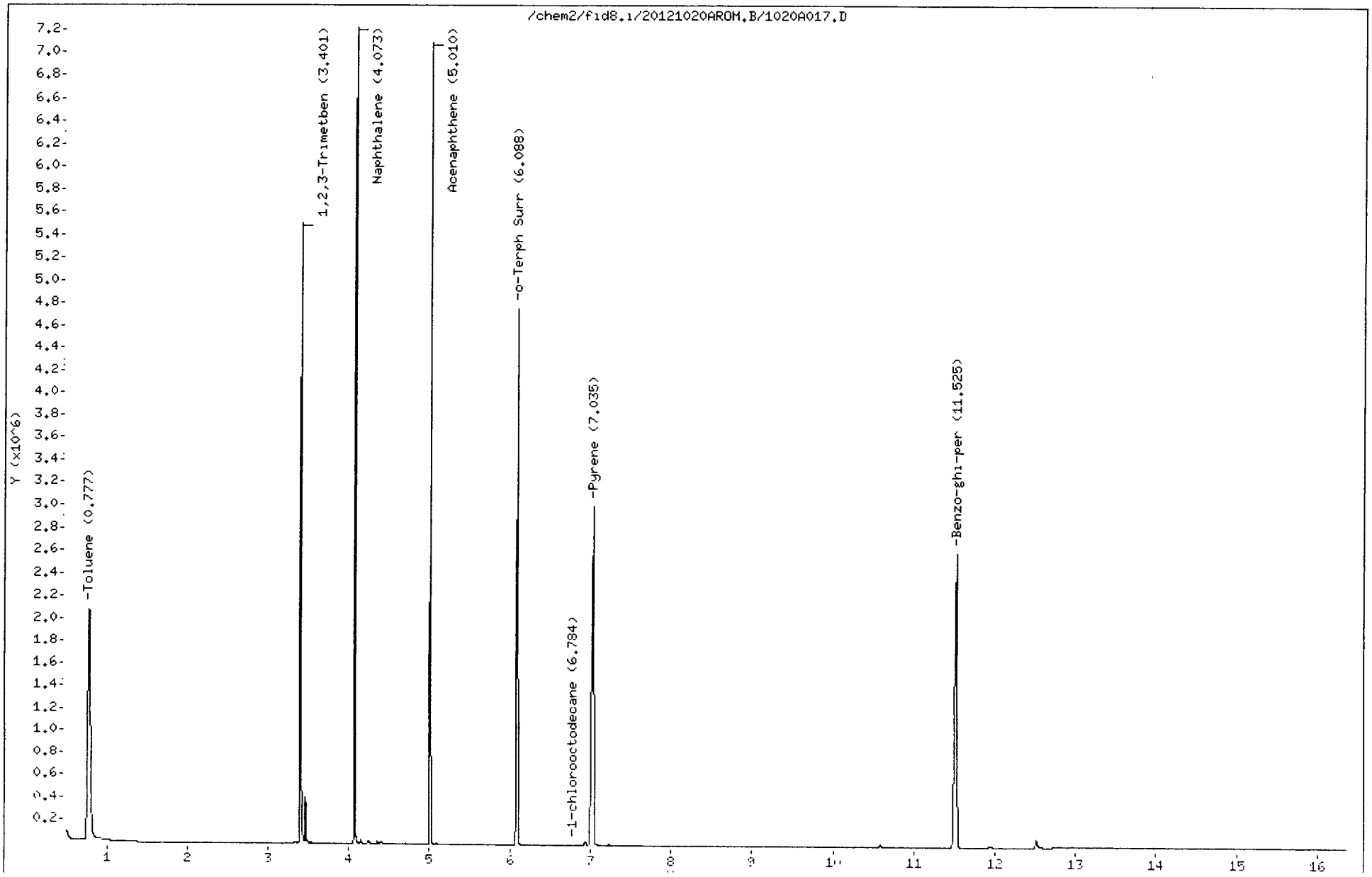
10/22/12

Data File: /chem2/fid8.i/20121020AROM.B/1020A017.D
Date : 20-OCT-2012 14:51
Client ID:
Sample Info: 200PPMAROM

Column phase: ZB-5

Instrument: fid8.i

Operator: JR
Column diameter: 0.32



VM65:00061

Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A017.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: 200PPMAROM
Client ID:
Injection: 20-OCT-2012 14:51
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	10486623	405	(0.677 - 3.501)
C10-C12	Arom.	26413	5027970	190	(3.501 - 4.173)
C12-C16	Arom.	26869	5230735	195	(4.173 - 5.110)
C16-C21	Arom.	29888	5875310	197	(5.110 - 7.135)
C21-C34	Arom.	26739	5300342	198	(7.135 - 11.625)

Surrogate Rec: 127.7%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A018.D
Lab Smp Id: AROMICV
Inj Date : 20-OCT-2012 15:16
Operator : JR Inst ID: fid8.i
Smp Info : AROMICV
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:09 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2 Toluene	0 775	0 777	-0.002	2527161	97 7716	97 771
3 1,2,3-Trimetben	3 398	3 401	-0.003	2631477	101 240	101 239
4 Naphthalene	4 070	4.073	-0 003	2669765	101 078	101 077
7 Acenaphthene	5 006	5 010	-0 004	2688091	100.043	100 043
11 o-Terph Surr	6 087	6.088	-0.001	2767424	99.8212	99 821
75 1-chlorooctodecane	6 787	6 784	0 003	860		
13 Pyrene	7.020	7.035	-0 015	2963696	99 1591	99 159
21 Benzo-ghi-per	11 509	11 525	-0 016	2662196	99 5615	99 561

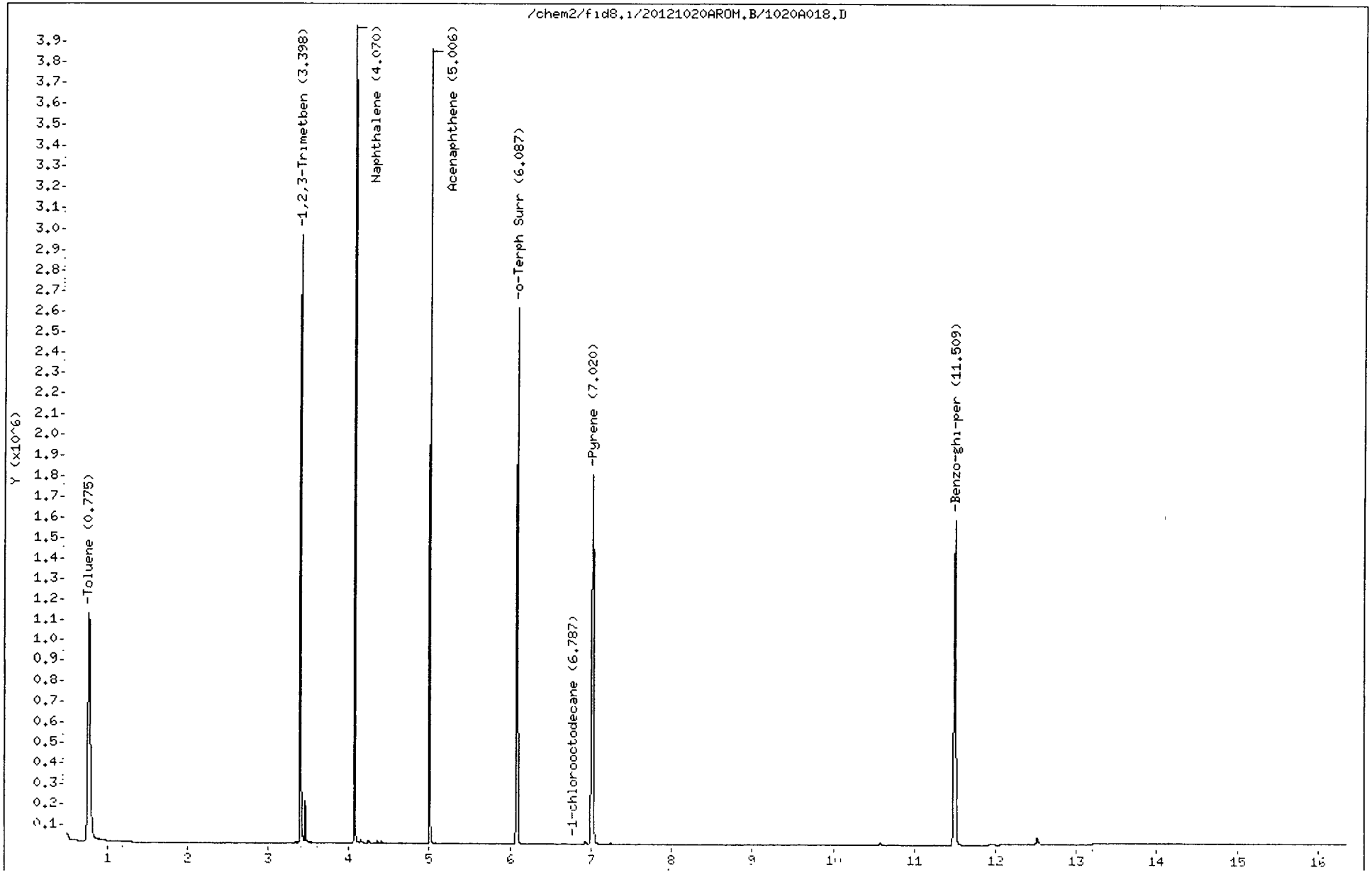
JR 10/22/12

Data File: /chem2/fid8.1/20121020AROM.B/1020A018.D
Date : 20-OCT-2012 15:16
Client ID:
Sample Info: AROMICV

Instrument: fid8.1

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A018.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: AROMICV
Client ID:
Injection: 20-OCT-2012 15:16
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	5384450	208	(0.677 - 3.501)
C10-C12	Arom.	26413	2704717	102	(3.501 - 4.173)
C12-C16	Arom.	26869	2770304	103	(4.173 - 5.110)
C16-C21	Arom.	29888	3000311	100	(5.110 - 7.135)
C21-C34	Arom.	26739	2698952	101	(7.135 - 11.625)

Surrogate Rec: 66.5%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A019.D
Lab Smp Id: ALIB
Inj Date : 20-OCT-2012 15:41
Operator : JR Inst ID: fid8.i
Smp Info : ALIB
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 12:59 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

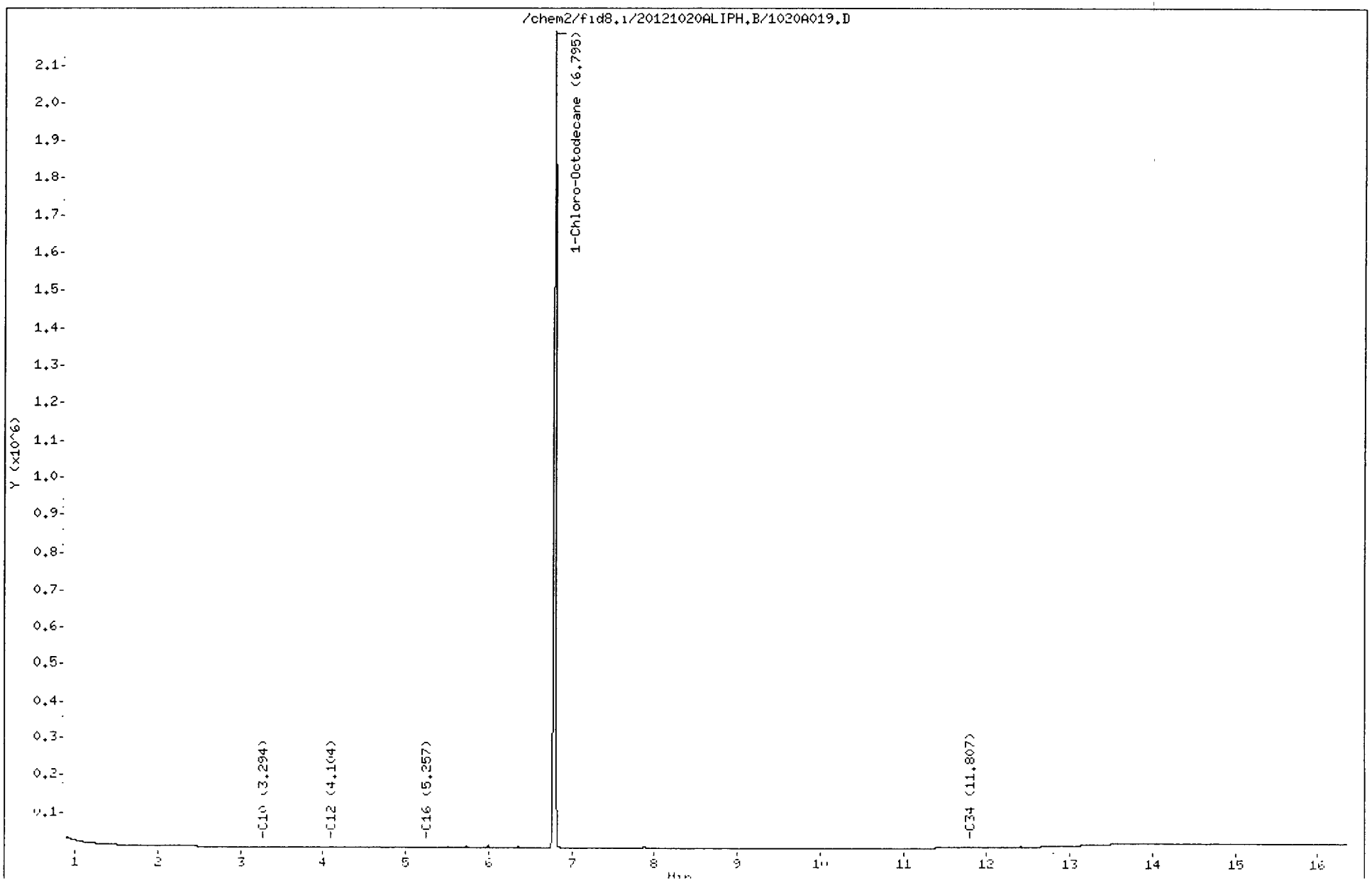
					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ug/Kg)
2 C8	Compound Not Detected.					
3 C10	3 294	3 291	0 003	1449	0 06690	0 066
45 C12	4 104	4 101	0 003	374	0.01834	0 018
46 C16	5.257	5.259	-0 002	266	0.01257	0.012
51 1-Chloro-Octodecane	6 795	6.811	-0 016	3682301	154 210	154 210
47 C21	Compound Not Detected					
48 C34	11 807	11 821	-0.014	6	0 000273	0 000

Data File: /chem2/fid8.i/20121020ALIPH.B/1020A019.D
Date : 20-OCT-2012 15:41
Client ID:
Sample Info: ALIB

Column phase: ZB-5

Instrument: fid8.i

Operator: JP
Column diameter: 0.32



VM65:00067

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A019.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: ALIB
Client ID:
Injection: 20-OCT-2012 15:41
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	35504	2	(1.038 - 3.391)
C10-C12	Aliph.	3890	0	(3.391 - 4.201)
C12-C16	Aliph.	2630	0	(4.201 - 5.359)
C16-C21	Aliph.	21663	1	(5.359 - 6.959)
C21-C34	Aliph.	22148	1	(6.959 - 11.921)

Surrogate Rec: 102.8%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A020.D
Lab Smp Id: 20PPMALIPH
Inj Date : 20-OCT-2012 16:06
Operator : JR Inst ID: fid8.i
Smp Info : 20PPMALIPH
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 12:59 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 24 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
2 C8	1.150	1.138	0.012	423293	20.0000	19.004 (M)
3 C10	3.289	3.291	-0.002	397854	20.0000	18.369
45 C12	4.099	4.101	-0.002	373536	20.0000	18.314
46 C16	5.255	5.259	-0.004	386024	20.0000	18.241
51 1-Chloro-Octodecane	6.788	6.811	-0.023	877192	40.0000	36.735
47 C21	6.842	6.859	-0.017	437338	20.0000	18.573
48 C34	11.809	11.821	-0.012	394774	20.0000	17.964

QC Flag Legend

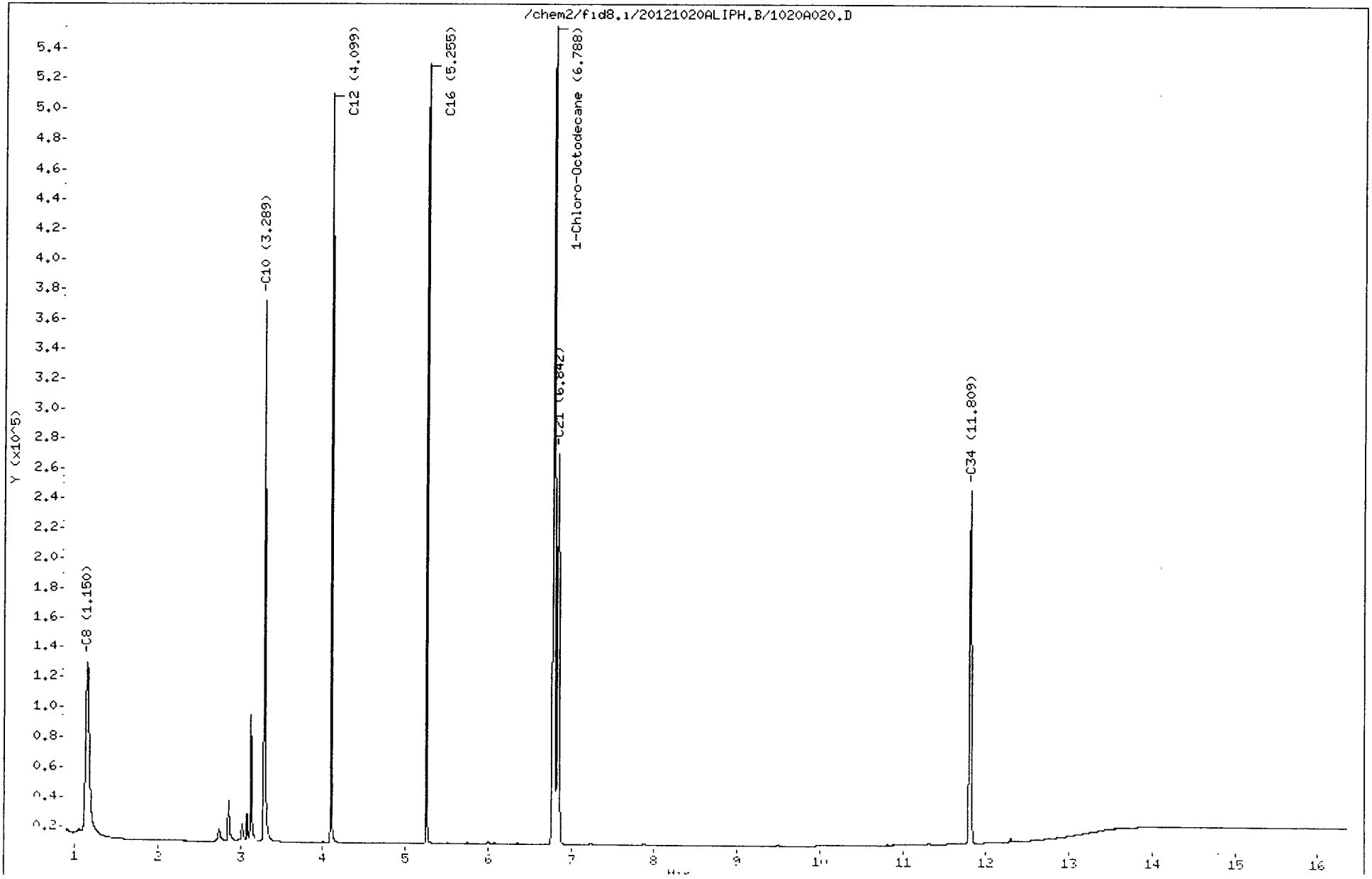
M - Compound response manually integrated.

Data File: /chem2/fid8.1/20121020ALIPH.B/1020A020.D
Date : 20-OCT-2012 16:06
Client ID:
Sample Info: 20PPMALIPH

Instrument: fid8.1

Operator: JP
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A020.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: 20PPMALIPH
Client ID:
Injection: 20-OCT-2012 16:06
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	1053980	48	(1.038 - 3.391)
C10-C12	Aliph.	375617	18	(3.391 - 4.201)
C12-C16	Aliph.	388577	18	(4.201 - 5.359)
C16-C21	Aliph.	444954	19	(5.359 - 6.959)
C21-C34	Aliph.	406843	19	(6.959 - 11.921)

Surrogate Rec: 24.5%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A021.D
Lab Smp Id: 50PPMALIPH
Inj Date : 20-OCT-2012 16:31
Operator : JR Inst ID: fid8.i
Smp Info : 50PPMALIPH
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 12:59 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 25 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

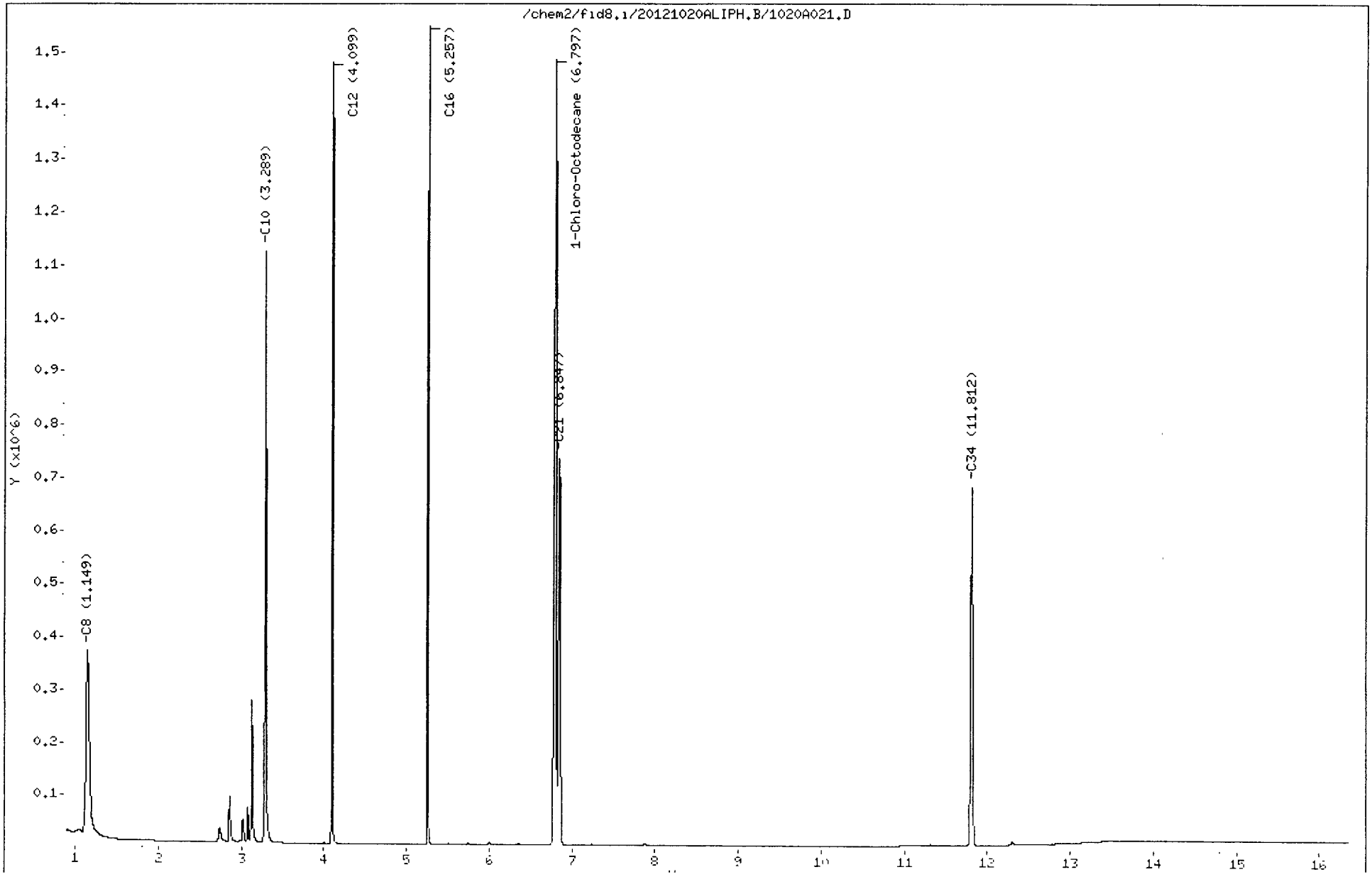
					AMOUNTS	
					CAL-AMT	ON-COL
ompounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
2 C8	1 149	1.138	0 011	1155828	50 0000	51 893
3 C10	3 289	3 291	-0 002	1119591	50.0000	51 691
45 C12	4 099	4 101	-0.002	1068562	50 0000	52 391
46 C16	5 257	5 259	-0 002	1132228	50 0000	53 502
51 1-Chloro-Octodecane	6 797	6.811	-0.014	2526840	100 000	105 821
47 C21	6 847	6 859	-0 012	1253246	50 0000	53 225
48 C34	11 812	11 821	-0 009	1102621	50 0000	50 176

Data File: /chem2/fid8.i/20121020ALIPH.B/1020A021.D
Date : 20-OCT-2012 16:31
Client ID:
Sample Info: 50PPMALIPH

Column phase: ZB-5

Instrument: fid8.i

Operator: JP
Column diameter: 0.32



VM65:00073

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A021.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: 50PPMALIPH
Client ID:
Injection: 20-OCT-2012 16:31
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	2988553	136	(1.038 - 3.391)
C10-C12	Aliph.	1083784	53	(3.391 - 4.201)
C12-C16	Aliph.	1137928	54	(4.201 - 5.359)
C16-C21	Aliph.	1272098	54	(5.359 - 6.959)
C21-C34	Aliph.	1128926	51	(6.959 - 11.921)

Surrogate Rec: 70.5%

Manual Integration: YES (NO)

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A022.D
Lab Smp Id: 100PPMALIPH
Inj Date : 20-OCT-2012 16:56
Operator : JR Inst ID: fid8.i
Smp Info : 100PPMALIPH
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 12:59 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 26 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

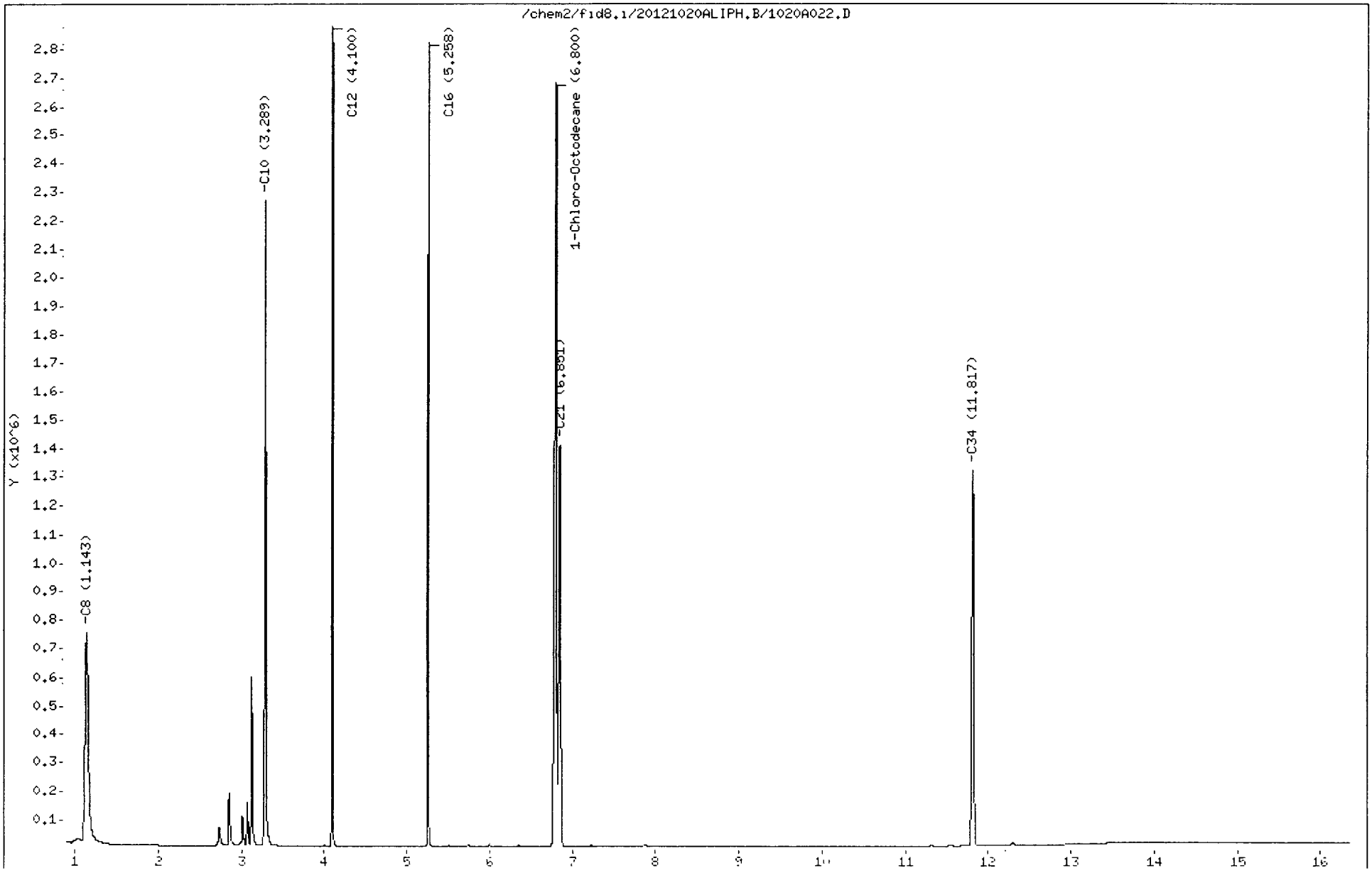
					AMOUNTS	
					CAL-AMT	ON-COL
ompounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
2 C8	1 143	1 138	0.005	2272217	100 000	102.015
3 C10	3 289	3 291	-0 002	2223550	100 000	102 661
45 C12	4 100	4 101	-0.001	2097062	100.000	102.818
46 C16	5 258	5 259	-0 001	2169928	100 000	102 538
51 1-Chloro-Octodecane	6 800	6 811	-0.011	4825707	200.000	202 094
47 C21	6 851	6 859	-0 008	2369735	100 000	100.642
48 C34	11 817	11 821	-0 004	2256617	100 000	102 691

Data File: /chem2/fid8.1/20121020ALIPH.B/1020A022.D
Date : 20-OCT-2012 16:56
Client ID:
Sample Info: 100PPMALIPH

Instrument: fid8.1

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A022.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: 100PPMALIPH
Client ID:
Injection: 20-OCT-2012 16:56
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	5791868	264	(1.038 - 3.391)
C10-C12	Aliph.	2120764	104	(3.391 - 4.201)
C12-C16	Aliph.	2178980	103	(4.201 - 5.359)
C16-C21	Aliph.	2406522	102	(5.359 - 6.959)
C21-C34	Aliph.	2305861	105	(6.959 - 11.921)

Surrogate Rec: 134.7%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A023.D
Lab Smp Id: 150PPMALIPH
Inj Date : 20-OCT-2012 17:21
Operator : JR Inst ID: fid8.i
Smp Info : 150PPMALIPH
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 12:59 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 27 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
==========	==	======	======	========	=======	=======
2 C8	1 142	1 138	0 004	3417943	150 000	153 455
3 C10	3 290	3 291	-0 001	3381819	150.000	156 139
45 C12	4 102	4 101	0 001	3196021	150.000	156 700
46 C16	5 259	5 259	0 000	3329515	150 000	157 333
51 1-Chloro-Octodecane	6 807	6 811	-0 004	7456819	300 000	312.282
47 C21	6 855	6.859	-0 004	3661644	150 000	155.509
48 C34	11 820	11.821	-0.001	3478486	150 000	158 295

Data File: /chem2/fid8.i/20121020ALIPH.B/1020A023.D

Date : 20-OCT-2012 17:21

Client ID:

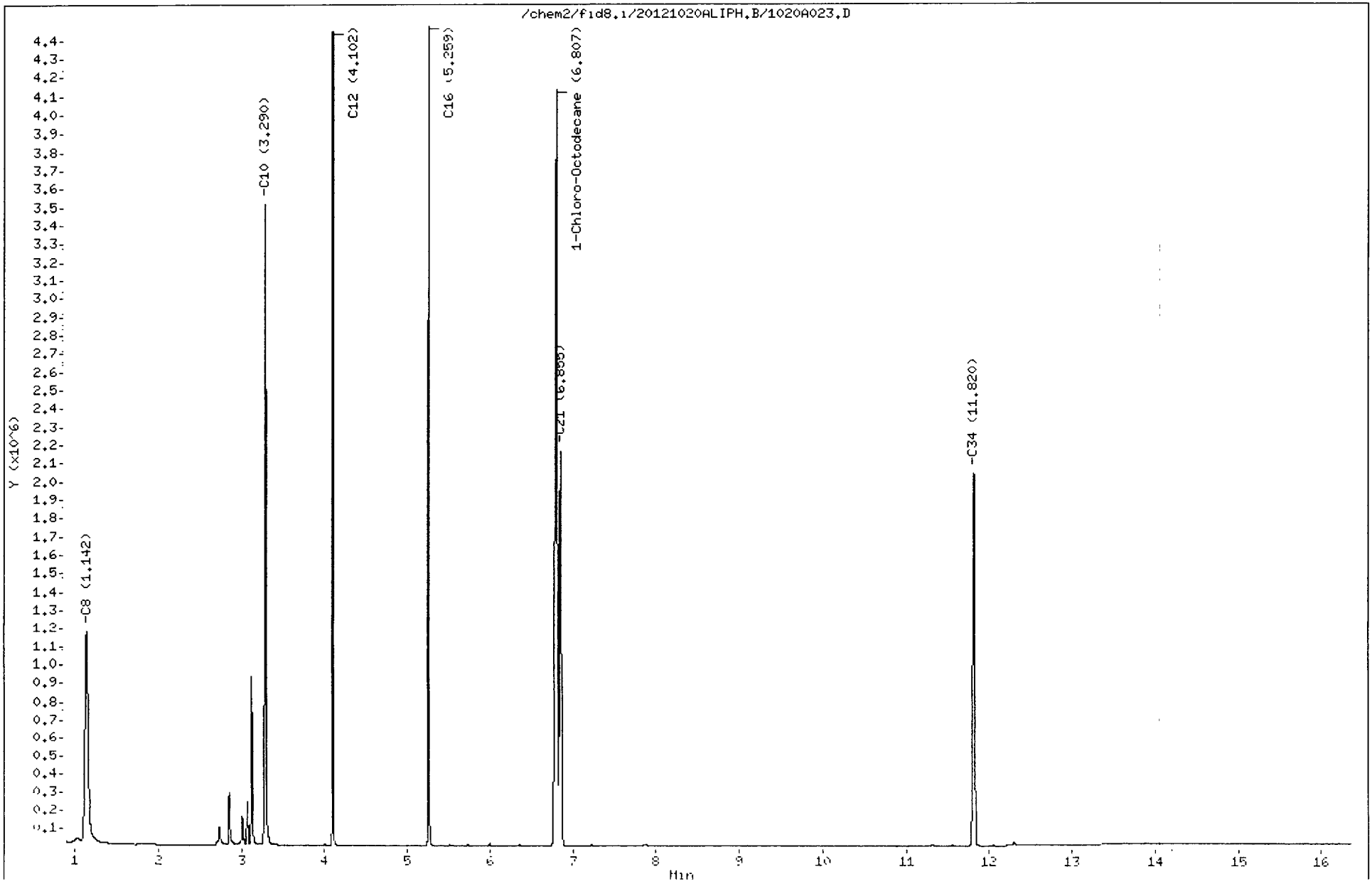
Sample Info: 150PPMALIPH

Column phase: ZB-5

Instrument: fid8.i

Operator: JR

Column diameter: 0.32



VM65:00079

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A023.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: 150PPMALIPH
Client ID:
Injection: 20-OCT-2012 17:21
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	8797943	401	(1.038 - 3.391)
C10-C12	Aliph.	3231462	158	(3.391 - 4.201)
C12-C16	Aliph.	3343301	158	(4.201 - 5.359)
C16-C21	Aliph.	3728463	158	(5.359 - 6.959)
C21-C34	Aliph.	3551374	162	(6.959 - 11.921)

Surrogate Rec: 208.2%

Manual Integration: YES (NO)

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A024.D
Lab Smp Id: 200PPMALIPH
Inj Date : 20-OCT-2012 17:46
Operator : JR Inst ID: fid8.i
Smp Info : 200PPMALIPH
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 12:59 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 28 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
2 C8	1 138	1.138	0.000	4315305	200.000	193 743
3 C10	3.291	3.291	0.000	4245845	200.000	196.031
45 C12	4 101	4 101	0 000	3930679	200.000	192 720
46 C16	5 259	5 259	0 000	3993782	200 000	188 722
51 1-Chloro-Octodecane	6 811	6.811	0 000	9283718	400 000	388 791
47 C21	6 859	6 859	0.000	4538134	200.000	192.733
48 C34	11 821	11 821	0.000	4465231	200 000	203 198

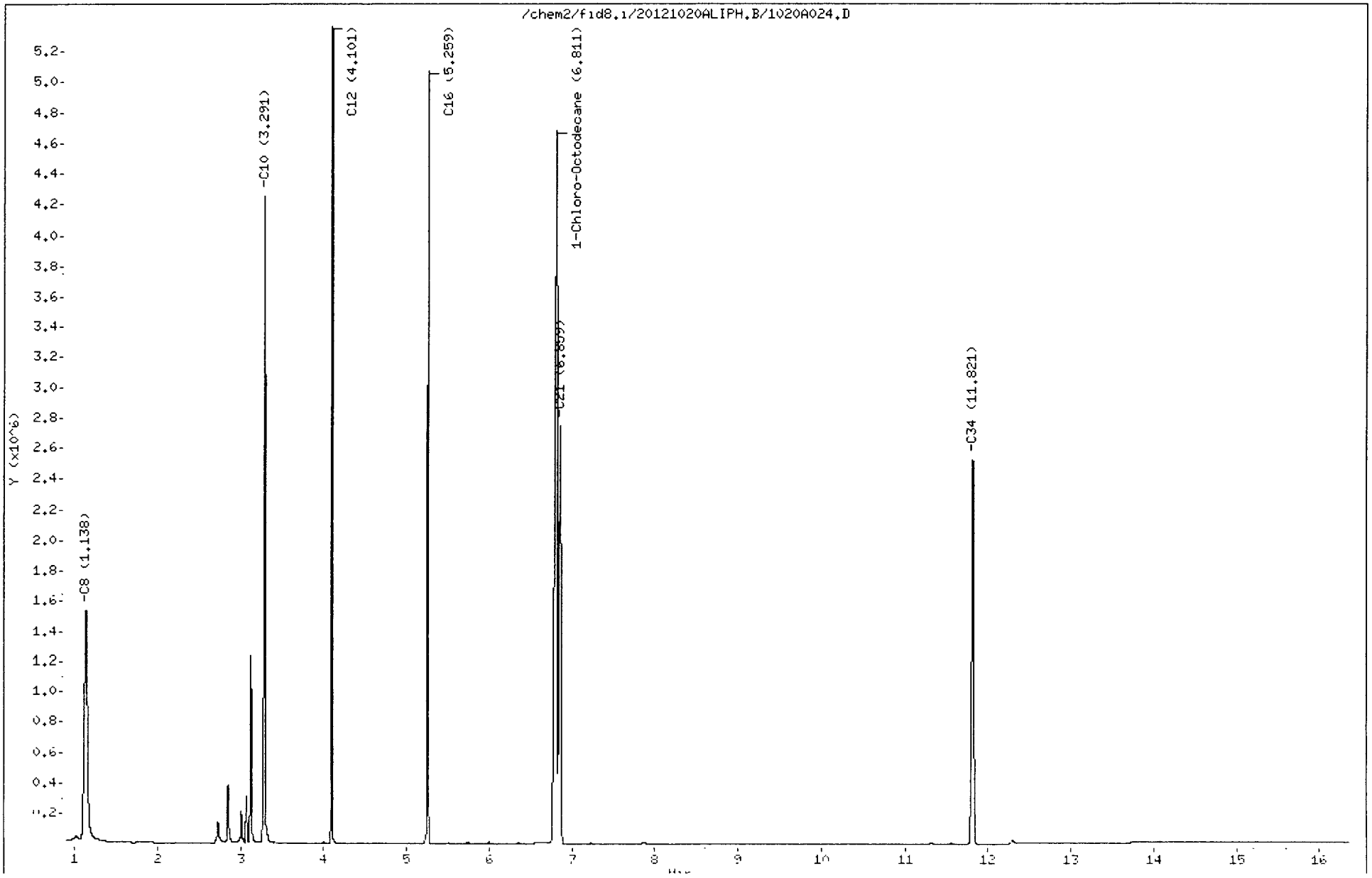
11/10/22/12

Data File: /chem2/fid8.1/20121020ALIPH.B/102vAv24.D
Date : 20-OCT-2012 17:46
Client ID:
Sample Info: 200PPMALIPH

Instrument: fid8.1

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



VMGS 550682

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A024.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: 200PPMALIPH
Client ID:
Injection: 20-OCT-2012 17:46
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	11124947	506	(1.038 - 3.391)
C10-C12	Aliph.	3979242	195	(3.391 - 4.201)
C12-C16	Aliph.	4010874	190	(4.201 - 5.359)
C16-C21	Aliph.	4651345	198	(5.359 - 6.959)
C21-C34	Aliph.	4555593	207	(6.959 - 11.921)

Surrogate Rec: 259.2%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A025.D
Lab Smp Id: ALIPHICV
Inj Date : 20-OCT-2012 18:11
Operator : JR Inst ID: fid8.i
Smp Info : ALIPHICV
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 12:59 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2	C8	1 154	1.138	0.016	2325484	104 407	104 407
3	C10	3 291	3 291	0 000	2201498	101 644	101 643
45	C12	4 101	4 101	0 000	2155906	105 704	105 703
46	C16	5 259	5 259	0.000	2246433	106 153	106 153
51	1-Chloro-Octodecane	6 799	6 811	-0.012	2511114	105 162	105 162
47	C21	6 855	6.859	-0 004	2466680	104 759	104 759
48	C34	11 816	11.821	-0 005	1512444	68 8267	68 826

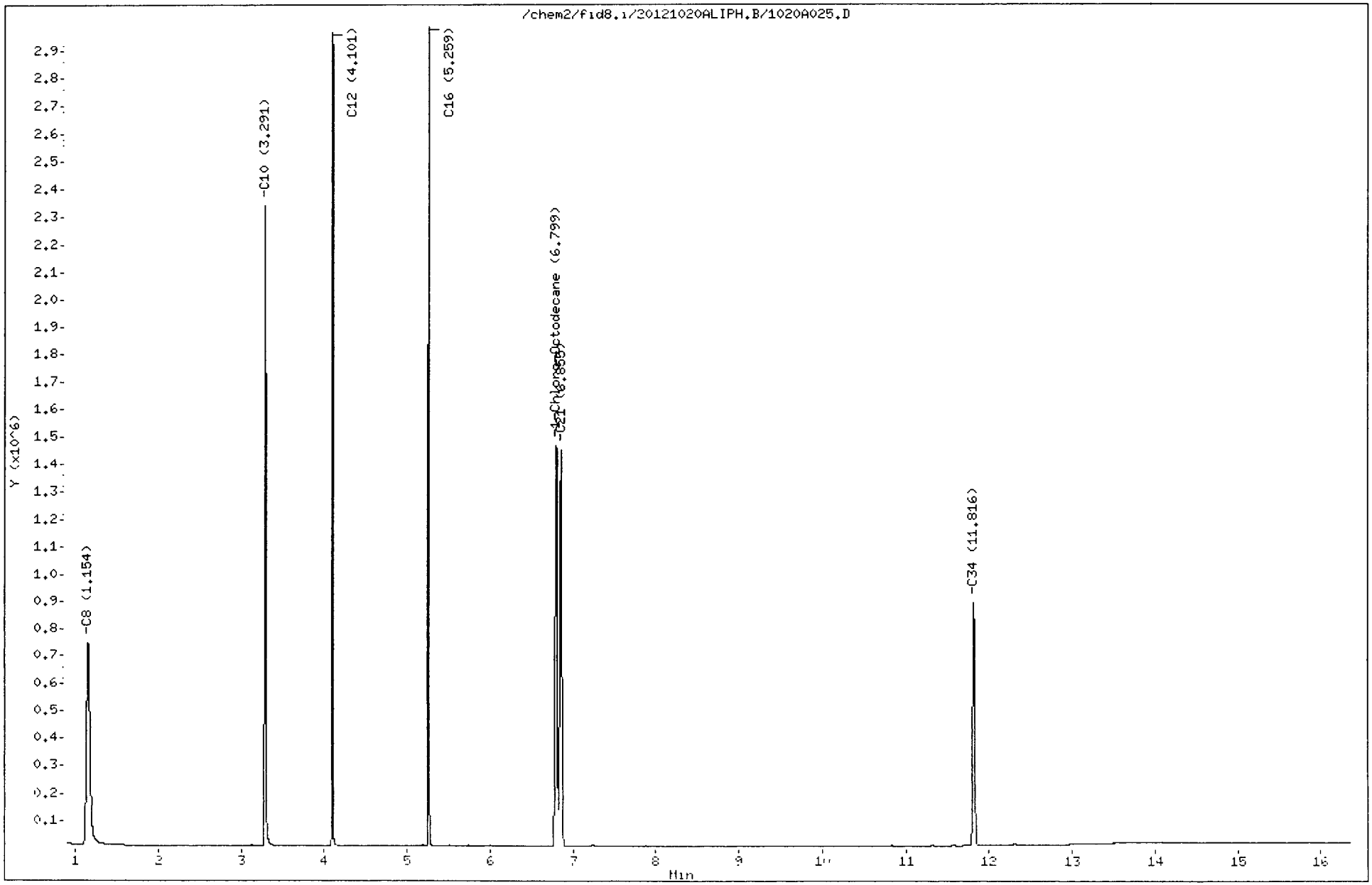
10/22/12

Data File: /chem2/fid8.i/20121020ALIPH.B/1020A025.D
Date : 20-OCT-2012 18:11
Client ID:
Sample Info: ALIPHICV

Instrument: fid8.i

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



VMS : 000025

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A025.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: ALIPHICV
Client ID:
Injection: 20-OCT-2012 18:11
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	4544047	207	(1.038 - 3.391)
C10-C12	Aliph.	2169322	106	(3.391 - 4.201)
C12-C16	Aliph.	2256778	107	(4.201 - 5.359)
C16-C21	Aliph.	2489654	106	(5.359 - 6.959)
C21-C34	Aliph.	1555321	71	(6.959 - 11.921)

Surrogate Rec: 70.1%

Manual Integration: YES NO

Analyst: _____ Date: _____

EPH Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: VM65

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: VM65 Client ID: A12J175

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): Aromatics Aliphatics

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 (FID-8)
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 10/20/12 Analysis Start: 10/21/12

Endrin/DDT Breakdown <15%? YES / NO / (NA)		Method Blank In Control?	(YES) / NO
ICal Meets RF & %RSD Criteria?	(YES) / NO	LCS/LCSD Recovery In Control?	(YES) / NO
CCal Meets RF & %RSD Criteria?	(YES) / NO	Surrogate Recovery In Control?	(YES) / NO
Manual Integrations for ICal?	YES / (NO)	Manual Integrations for Samples?	YES / (NO)
Internal Standard Meets Criteria?	(YES) / NO / NA	Special Analysis Criteria Met?	YES / NO / (NA)

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / (No)

Analyst: [signature] **Date:** 10/22/12

Reviewer: [signature] **Date:** 10/22/12

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/fid8.i/20121020ALIPH.B

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0210	1020A044.D	VM65MBW1	VM65MBW1	1	NO MANUAL INTEGRATION
0235	1020A045.D	VM65LCSW1	VM65LCSW1	1	NO MANUAL INTEGRATION
0300	1020A046.D	VM65LCSDW1	VM65LCSDW1	1	NO MANUAL INTEGRATION
0325	1020A047.D	VM65A	SSA6-MW-01	1	NO MANUAL INTEGRATION
0350	1020A048.D	VM65B	RB-01-1005	1	NO MANUAL INTEGRATION
0415	1020A049.D	VM81MBS1		1	NO MANUAL INTEGRATION
0440	1020A050.D	VM81LCSS1		1	NO MANUAL INTEGRATION
0505	1020A051.D	VM81LCSDS1		1	NO MANUAL INTEGRATION
0531	1020A052.D	VM81A		1	C10, C12, C16, C34, 1-Chloro-Octodecane,
0556	1020A053.D	VN01MBW1		1	NO MANUAL INTEGRATION
0621	1020A054.D	VN01LCSW1		1	NO MANUAL INTEGRATION
0646	1020A055.D	VN01LCSDW1		1	NO MANUAL INTEGRATION
0711	1020A056.D	VN01A		1	C10, C12, C16, 1-Chloro-Octodecane,
0736	1020A057.D	VN01B		1	C8, C10, C12, C16, C21, C34, 1-Chloro-Octodecane,
0801	1020A058.D	VN01C		1	C8, C10, C12, C16, 1-Chloro-Octodecane,
0827	1020A059.D	ALIPH#2	A12J175	1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/fid8.i/20121020AROM.B

ARI Job No.: RINS Method: EPHArom.m Instrument: fid8.i Date: 20-OCT-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0805	1020A001.D	RINSE		1	NO MANUAL INTEGRATION
0830	1020A002.D	RINSE		1	NO MANUAL INTEGRATION
0855	1020A003.D	RINSE		1	NO MANUAL INTEGRATION
0920	1020A004.D	RINSE		1	NO MANUAL INTEGRATION
0945	1020A005.D	AR IB		1	NO MANUAL INTEGRATION
1013	1020A006.D	RINSE		1	1,2,3-Trimetben,
1038	1020A007.D	RINSE		1	NO MANUAL INTEGRATION
1103	1020A008.D	AR IB		1	NO MANUAL INTEGRATION
1129	1020A009.D	RINSE		1	NO MANUAL INTEGRATION
1154	1020A010.D	RINSE		1	NO MANUAL INTEGRATION
1219	1020A011.D	RINSE		1	NO MANUAL INTEGRATION
1245	1020A012.D	ARIB		1	NO MANUAL INTEGRATION
1310	1020A013.D	20PPMAROM		1	NO MANUAL INTEGRATION
1335	1020A014.D	50PPMAROM		1	NO MANUAL INTEGRATION
1400	1020A015.D	100PPMAROM		1	NO MANUAL INTEGRATION
1426	1020A016.D	150PPMAROM		1	NO MANUAL INTEGRATION
1451	1020A017.D	200PPMAROM		1	NO MANUAL INTEGRATION
1516	1020A018.D	AROMICV		1	NO MANUAL INTEGRATION
1836	1020A026.D	AROM#1	A12J175	1	NO MANUAL INTEGRATION
1901	1020A027.D	VM65MBW1	VM65MBW1	1	NO MANUAL INTEGRATION

1927 1020A028.D VM65LCSW1 VM65LCSW1 1 NO MANUAL INTEGRATION

VM65:00091

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/fid8.i/20121020AROM.B

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1952	1020A029.D	VM65LCSDW1	VM65LCSDW1	1	NO MANUAL INTEGRATION
2017	1020A030.D	VM65A	SSA6-MW-01	1	NO MANUAL INTEGRATION
2042	1020A031.D	VM65B	RB-01-1005	1	NO MANUAL INTEGRATION
2107	1020A032.D	VM81MBS1		1	NO MANUAL INTEGRATION
2133	1020A033.D	VM81LCSS1		1	NO MANUAL INTEGRATION
2158	1020A034.D	VM81LCSDS1		1	NO MANUAL INTEGRATION
2223	1020A035.D	VM81A		1	NO MANUAL INTEGRATION
2248	1020A036.D	VN01MBW1		1	NO MANUAL INTEGRATION
2314	1020A037.D	VN01LCSW1		1	NO MANUAL INTEGRATION
2339	1020A038.D	VN01LCSDW1		1	NO MANUAL INTEGRATION
0004	1020A039.D	VN01A		1	NO MANUAL INTEGRATION
0029	1020A040.D	VN01B		1	NO MANUAL INTEGRATION
0054	1020A041.D	VN01C		1	NO MANUAL INTEGRATION
0119	1020A042.D	AROM#2	A12J175	1	NO MANUAL INTEGRATION
1541	1020A019.D	ALIB		1	NO MANUAL INTEGRATION
1606	1020A020.D	20PPMALIPH		1	C8,
1631	1020A021.D	50PPMALIPH		1	NO MANUAL INTEGRATION
1656	1020A022.D	100PPMALIPH		1	NO MANUAL INTEGRATION
1721	1020A023.D	150PPMALIPH		1	NO MANUAL INTEGRATION
1746	1020A024.D	200PPMALIPH		1	NO MANUAL INTEGRATION
1811	1020A025.D	ALIPHICV		1	NO MANUAL INTEGRATION

0144 1020A043.D ALIPH#1 A12J175 1 NO MANUAL INTEGRATION

VM65.00093

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A026.D
Lab Smp Id: AROM#1 Client Smp ID: AROM#1
Inj Date : 20-OCT-2012 18:36
Operator : JR Inst ID: fid8.i
Smp Info : AROM#1
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:50 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

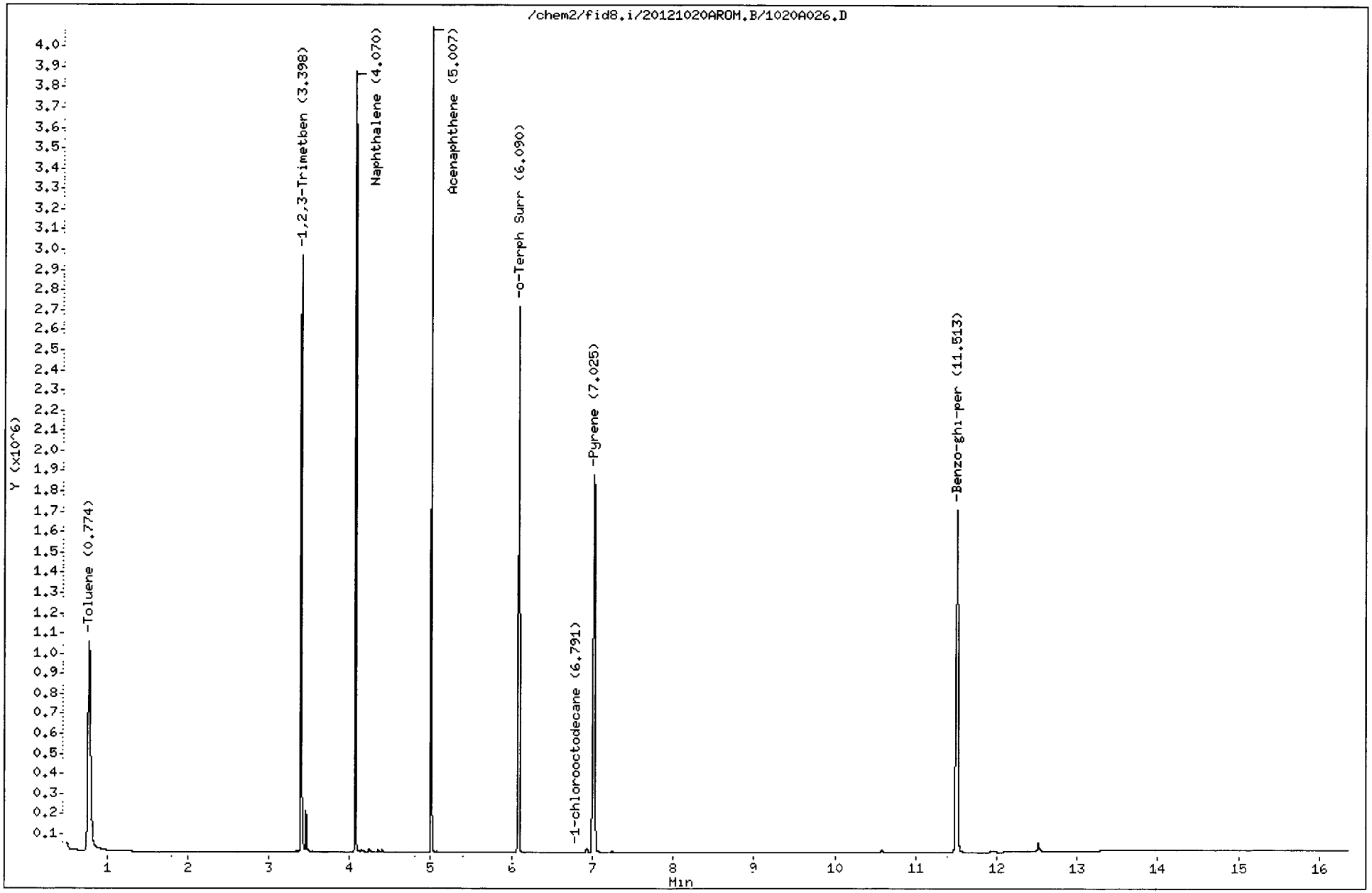
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	2 Toluene	0.774	0.776	-0.002	2588313	100.000	100.137
	3 1,2,3-Trimetben	3.398	3.400	-0.002	2648837	100.000	101.907
	4 Naphthalene	4.070	4 071	-0.001	2718281	100.000	102.914
	7 Acenaphthene	5.007	5.007	0.000	2797957	100.000	104.132
$	11 o-Terph Surr	6.090	6.079	0.011	2881909	100 000	103.950
	75 1-chlorooctodecane	6.791	6.785	0.006	639	100.000	
	13 Pyrene	7.025	7.018	0.007	3121775	100.000	104.448
	21 Benzo-ghi-per	11.513	11.506	0.007	2881546	100.000	107.764

Data File: /chem2/fid8.i/20121020AROM.B/1020A026.D
Date : 20-OCT-2012 18:36
Client ID: AROM#1
Sample Info: AROM#1

Instrument: fid8.i

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



VM55 : 00055

Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A027.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: VM65MBW1
Client ID: VM65MBW1
Injection: 20-OCT-2012 19:01
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	99268	4	(0.676 - 3.500)
C10-C12	Arom.	26413	5149	0	(3.500 - 4.171)
C12-C16	Arom.	26869	6288	0	(4.171 - 5.107)
C16-C21	Arom.	29888	102787	3	(5.107 - 7.118)
C21-C34	Arom.	26739	14224	1	(7.118 - 11.606)

Surrogate Rec: 78.5%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A027.D
Lab Smp Id: VM65MBW1 Client Smp ID: VM65MBW1
Inj Date : 20-OCT-2012 19:01
Operator : JR Inst ID: fid8.i
Smp Info : VM65MBW1
Misc Info : 12-19621
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:50 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
	2 Toluene	0.766	0.776	-0.010	10917	0.42236	0.422
	3 1,2,3-Trimetben	3.406	3.400	0 006	416	0.01600	0.016
	4 Naphthalene	4.079	4.071	0.008	4205	0.15920	0.159
	7 Acenaphthene	5.009	5.007	0.002	3576	0.13309	0.133
$	11 o-Terph Surr	6.088	6.079	0.009	3266267	117.815	117.814
	75 1-chlorooctodecane	6.787	6.785	0.002	93699		
	13 Pyrene	7.027	7.018	0.009	1774	0.05935	0.059
	21 Benzo-ghi-per	11 530	11.506	0.024	688	0.02573	0.025

Data File: /chem2/fid8.i/20121020AROM.B/1020A027.D

Date : 20-OCT-2012 19:01

Client ID: VM65MBW1

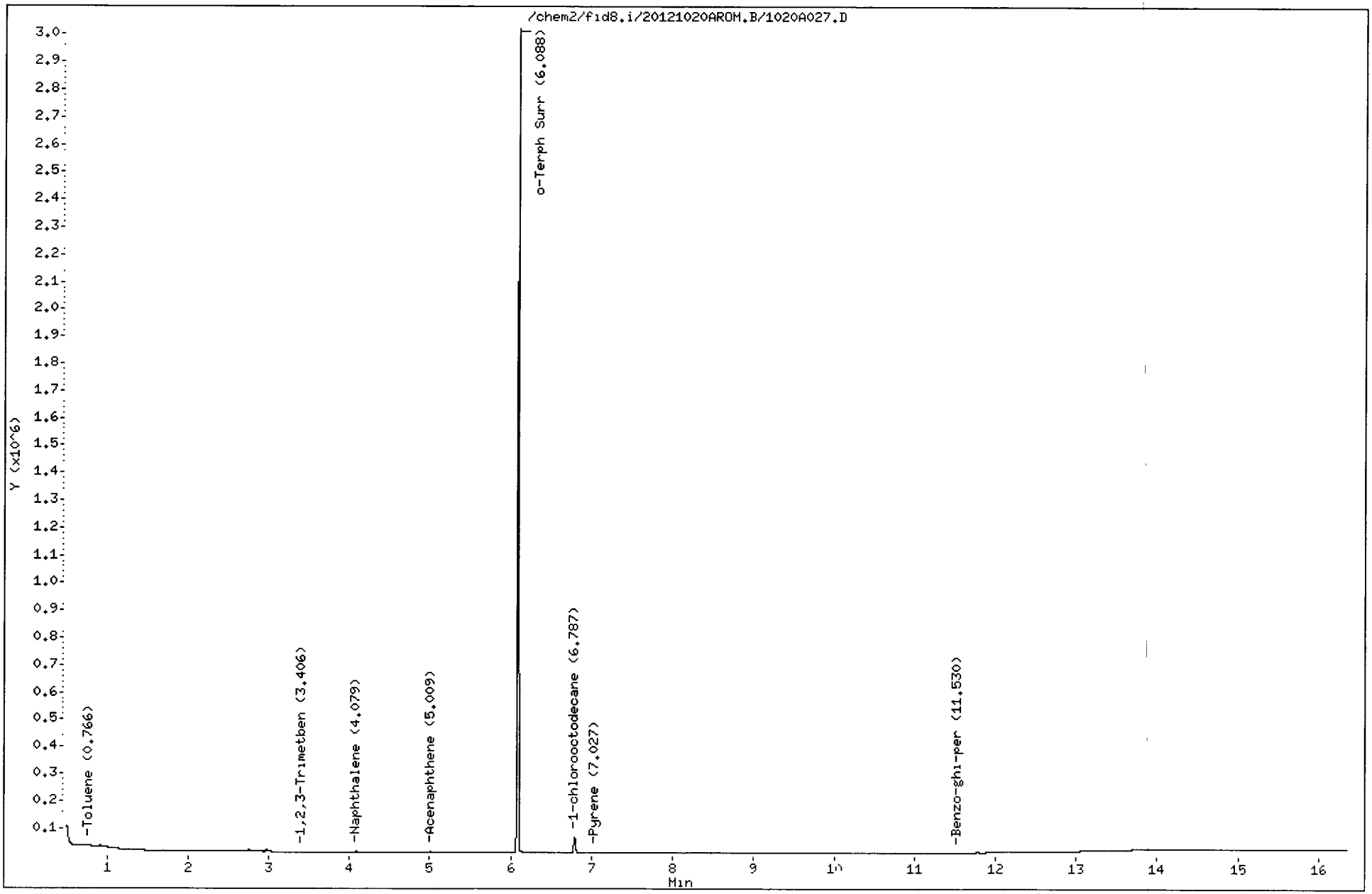
Sample Info: VM65MBW1

Column phase: ZB-5

Instrument: fid8.i

Operator: JR

Column diameter: 0.32



VM65 00098

Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A028.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: VM65LCSW1
Client ID: VM65LCSW1
Injection: 20-OCT-2012 19:27
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	662413	26	(0.676 - 3.500)
C10-C12	Arom.	26413	779018	29	(3.500 - 4.171)
C12-C16	Arom.	26869	1277947	48	(4.171 - 5.107)
C16-C21	Arom.	29888	3213716	108	(5.107 - 7.118)
C21-C34	Arom.	26739	3019730	113	(7.118 - 11.606)

Surrogate Rec: 73.7%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A028.D
Lab Smp Id: VM65LCSW1 Client Smp ID: VM65LCSW1
Inj Date : 20-OCT-2012 19:27
Operator : JR Inst ID: fid8.i
Smp Info : VM65LCSW1
Misc Info : 12-19621
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:50 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

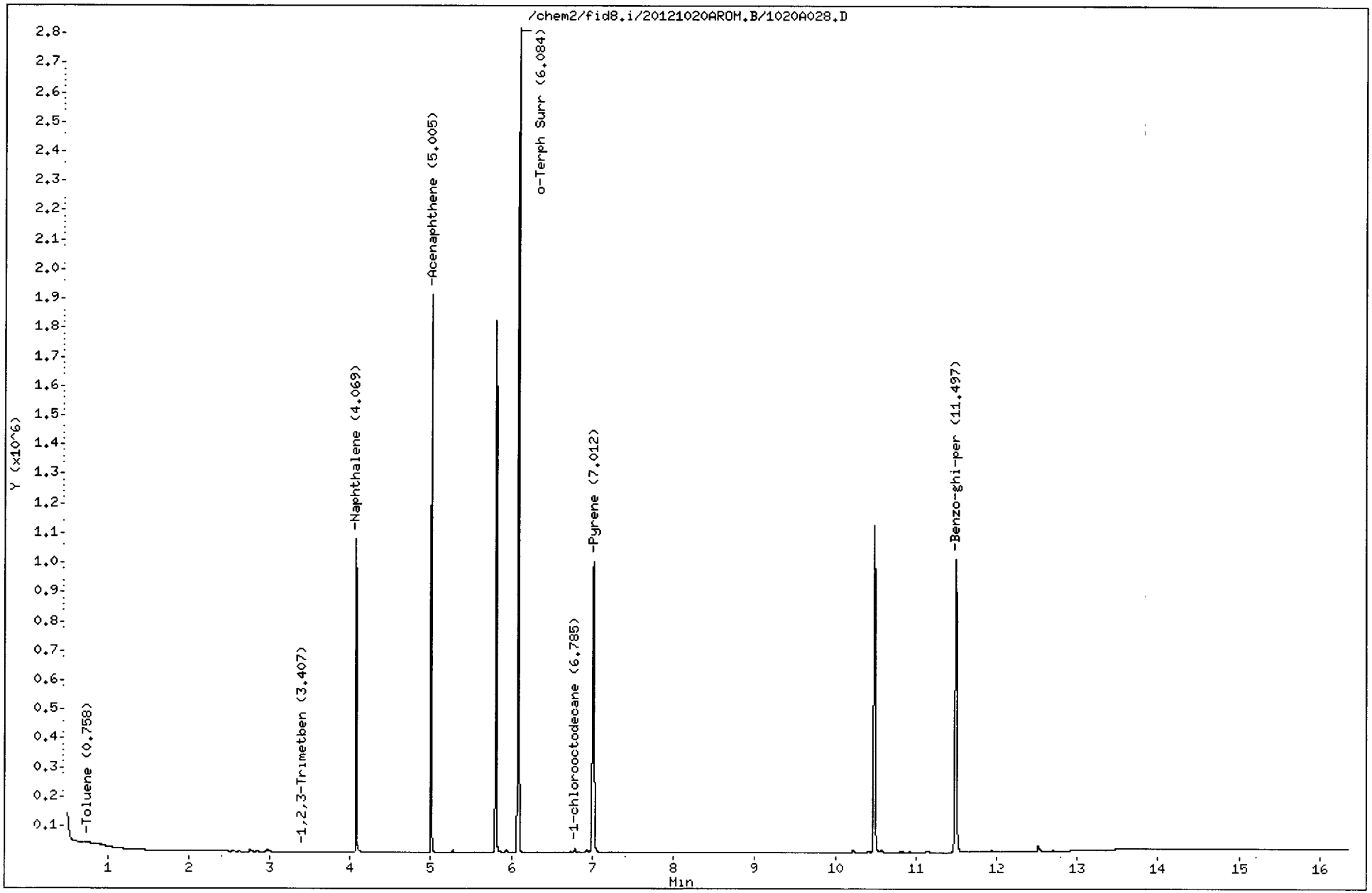
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
	2 Toluene	0.758	0 776	-0.018	206768	7.99950	7.999
	3 1,2,3-Trimetben	3.407	3 400	0.007	248	0.00954	0.009
	4 Naphthalene	4.069	4.071	-0.002	777943	29.4531	29.453
	7 Acenaphthene	5.005	5 007	-0.002	1269394	47.2433	47.243
$	11 o-Terph Surr	6.084	6.079	0.005	3064303	110.530	110.529
	75 1-chlorooctodecane	6.785	6.785	0.000	20769		
	13 Pyrene	7.012	7.018	-0.006	1547378	51.7721	51.772
	21 Benzo-ghi-per	11.497	11.506	-0.009	1492542	55.8185	55.818

Data File: /chem2/fid8.i/20121020AROM.B/1020A028.D
Date : 20-OCT-2012 19:27
Client ID: VM65LCSW1
Sample Info: VM65LCSW1

Instrument: fid8.i

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



VM65:001101

Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A029.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: VM65LCSDW1
Client ID: VM65LCSDW1
Injection: 20-OCT-2012 19:52
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	86177	3	(0.676 - 3.500)
C10-C12	Arom.	26413	888449	34	(3.500 - 4.171)
C12-C16	Arom.	26869	1333893	50	(4.171 - 5.107)
C16-C21	Arom.	29888	3296958	110	(5.107 - 7.118)
C21-C34	Arom.	26739	3190276	119	(7.118 - 11.606)

Surrogate Rec: 76.3%

Manual Integration: YES (NO)

Analyst: JR Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A029.D
Lab Smp Id: VM65LCSDW1 Client Smp ID: VM65LCSDW1
Inj Date : 20-OCT-2012 19:52
Operator : JR Inst ID: fid8.i
Smp Info : VM65LCSDW1
Misc Info : 12-19621
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:50 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 10 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
	2 Toluene	0.755	0.776	-0.021	7938	0.30711	0.307
	3 1,2,3-Trimetben	3.404	3.400	0.004	87	0.00335	0.003
	4 Naphthalene	4.069	4.071	-0.002	887550	33.6028	33.602
	7 Acenaphthene	5.005	5.007	-0.002	1325904	49.3465	49.346
$	11 o-Terph Surr	6.085	6.079	0.006	3174982	114 522	114.521
	75 1-chlorooctodecane	6.784	6.785	-0.001	24510		
	13 Pyrene	7 010	7.018	-0.008	1593362	53.3106	53.310
	21 Benzo-ghi-per	11.500	11.506	-0.006	1586460	59.3308	59.330

Data File: /chem2/fid8.i/20121020AROM.B/1020A029.D

Date : 20-OCT-2012 19:52

Client ID: VM65LCSDW1

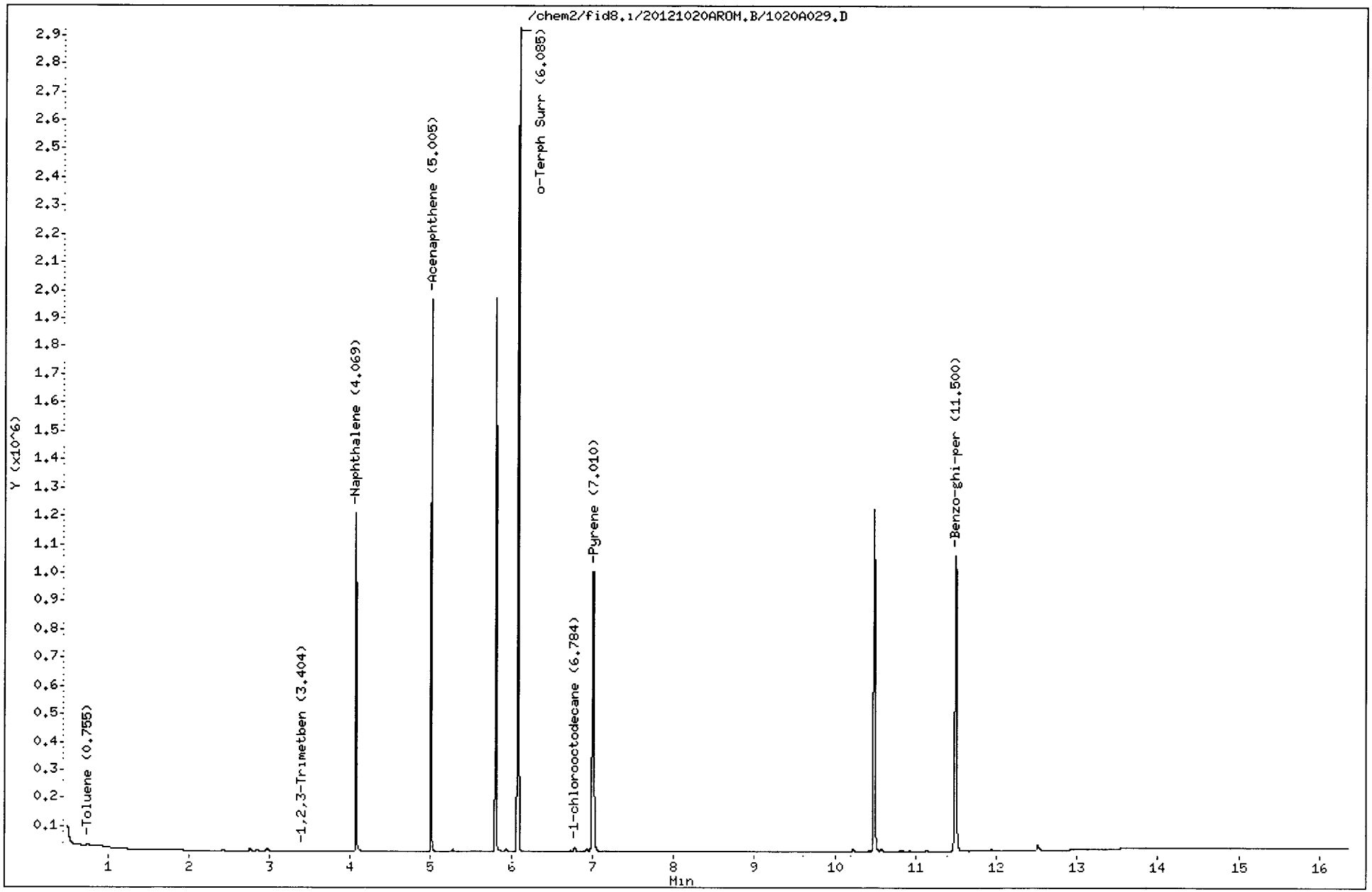
Sample Info: VM65LCSDW1

Column phase: ZB-5

Instrument: fid8.i

Operator: JR

Column diameter: 0.32



VM65 : 00104

Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A030.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: VM65A
Client ID: SSA6-MW-01-100512
Injection: 20-OCT-2012 20:17
Matrix: WATER
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	91720	4	(0.676 - 3.500)
C10-C12	Arom.	26413	12632	0	(3.500 - 4.171)
C12-C16	Arom.	26869	103910	4	(4.171 - 5.107)
C16-C21	Arom.	29888	26011	1	(5.107 - 7.118)
C21-C34	Arom.	26739	40591	2	(7.118 - 11.606)

Surrogate Rec: 73.0%

Manual Integration: YES (NO)

Analyst: JR Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A030.D
Lab Smp Id: VM65A Client Smp ID: SSA6-MW-01-100512
Inj Date : 20-OCT-2012 20:17
Operator : JR Inst ID: fid8.i
Smp Info : VM65A
Misc Info : 12-19621
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:50 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

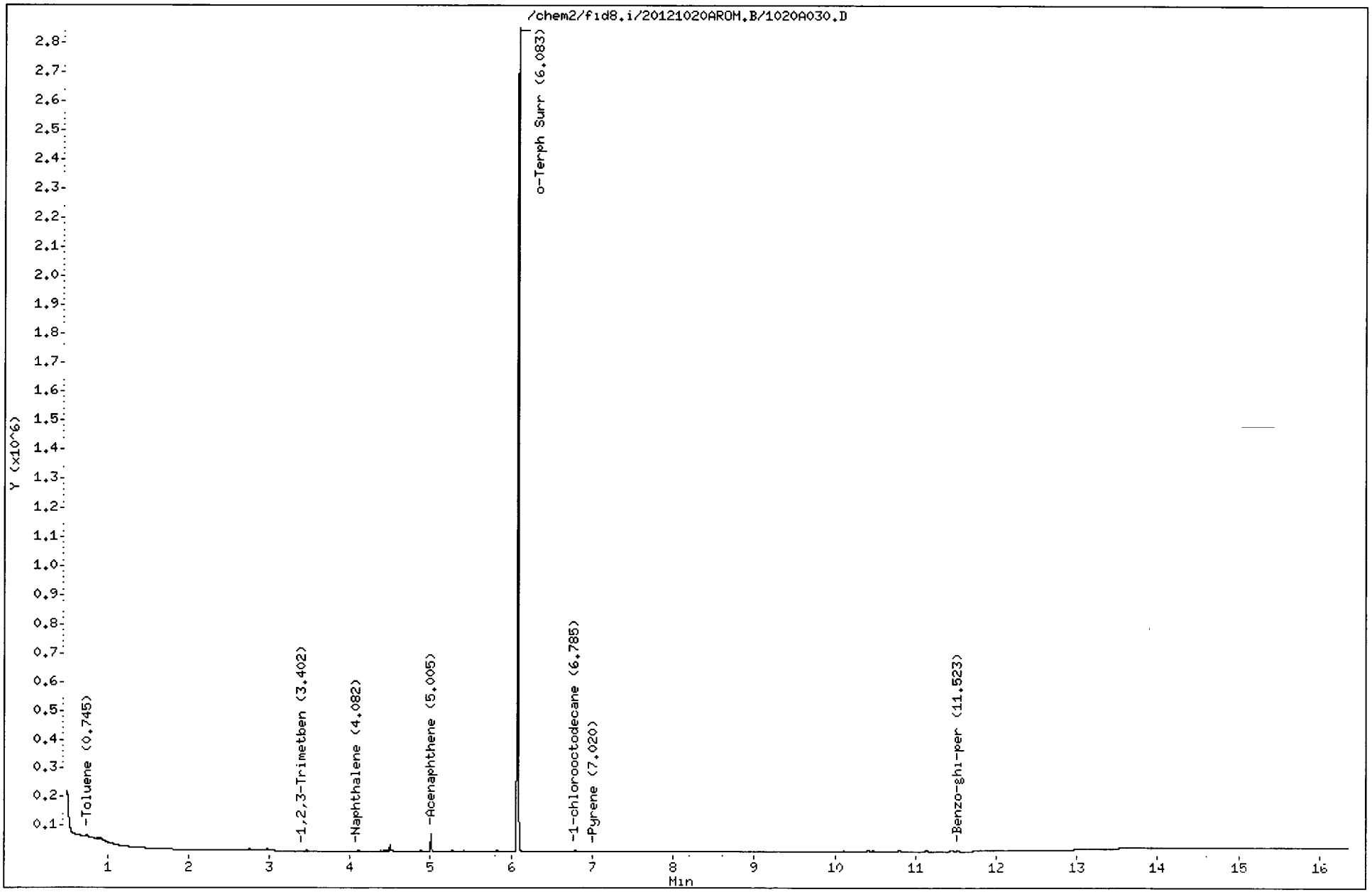
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	2 Toluene	0 745	0.776	-0.031	16893	0.65356	0.653
	3 1,2,3-Trimetben	3.402	3.400	0.002	717	0 02758	0.027
	4 Naphthalene	4.082	4.071	0.011	1153	0.04365	0.043
	7 Acenaphthene	5.005	5.007	-0.002	45345	1.68762	1.687
$	11 o-Terph Surr	6.083	6 079	0.004	3037491	109.563	109.562
	75 1-chlorooctodecane	6.785	6 785	0.000	5622		
	13 Pyrene	7.020	7.018	0.002	3094	0.10352	0.103
	21 Benzo-ghi-per	11.523	11.506	0.017	1153	0.04312	0 043

Data File: /chem2/fid8.i/20121020AROM.B/1020A030.D
Date : 20-OCT-2012 20:17
Client ID: SSA6-MW-01-100512
Sample Info: VM65A

Column phase: ZB-5

Instrument: fid8.i

Operator: JR
Column diameter: 0.32



VM65:00107

Analytical Resources Inc.
WA-EPH Aromatics Report

Data file: /chem2/fid8.i/20121020AROM.B/1020A031.D
Method: /chem2/fid8.i/20121020AROM.B/EPHArom.m
Instrument: fid8.i
Operator: JR
Report Date: 10/22/2012
Macro: AROM120911FID8

ARI ID: VM65B
Client ID: RB-01-100512
Injection: 20-OCT-2012 20:42
Matrix: WATER
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range		RF	Area	Conc	Time Range
C8-C10	Arom.	25920	136512	5	(0.676 - 3.500)
C10-C12	Arom.	26413	1927	0	(3.500 - 4.171)
C12-C16	Arom.	26869	81670	3	(4.171 - 5.107)
C16-C21	Arom.	29888	72073	2	(5.107 - 7.118)
C21-C34	Arom.	26739	20106	1	(7.118 - 11.606)

Surrogate Rec: 75.4%

Manual Integration: YES (NO)

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A031.D
Lab Smp Id: VM65B Client Smp ID: RB-01-100512
Inj Date : 20-OCT-2012 20:42
Operator : JR Inst ID: fid8.i
Smp Info : VM65B
Misc Info : 12-19622
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:50 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	2 Toluene	0.741	0.776	-0 035	25885	1.00145	1.001
	3 1,2,3-Trimetben	3.406	3.400	0.006	1139	0.04382	0.043
	4 Naphthalene	4.087	4 071	0.016	579	0.02192	0.021
	7 Acenaphthene	5.036	5.007	0.029	78942	2.93800	2 938
$	11 o-Terph Surr	6.086	6 079	0.007	3135985	113.115	113.115
	75 1-chlorooctodecane	6.786	6.785	0 001	65037		
	13 Pyrene	7.015	7.018	-0 003	652	0.02181	0.021
	21 Benzo-ghi-per	11.546	11.506	0.040	178	0.00666	0.006

Data File: /chem2/fid8.i/20121020AROM.B/1020A031.D

Date : 20-OCT-2012 20:42

Client ID: RB-01-100512

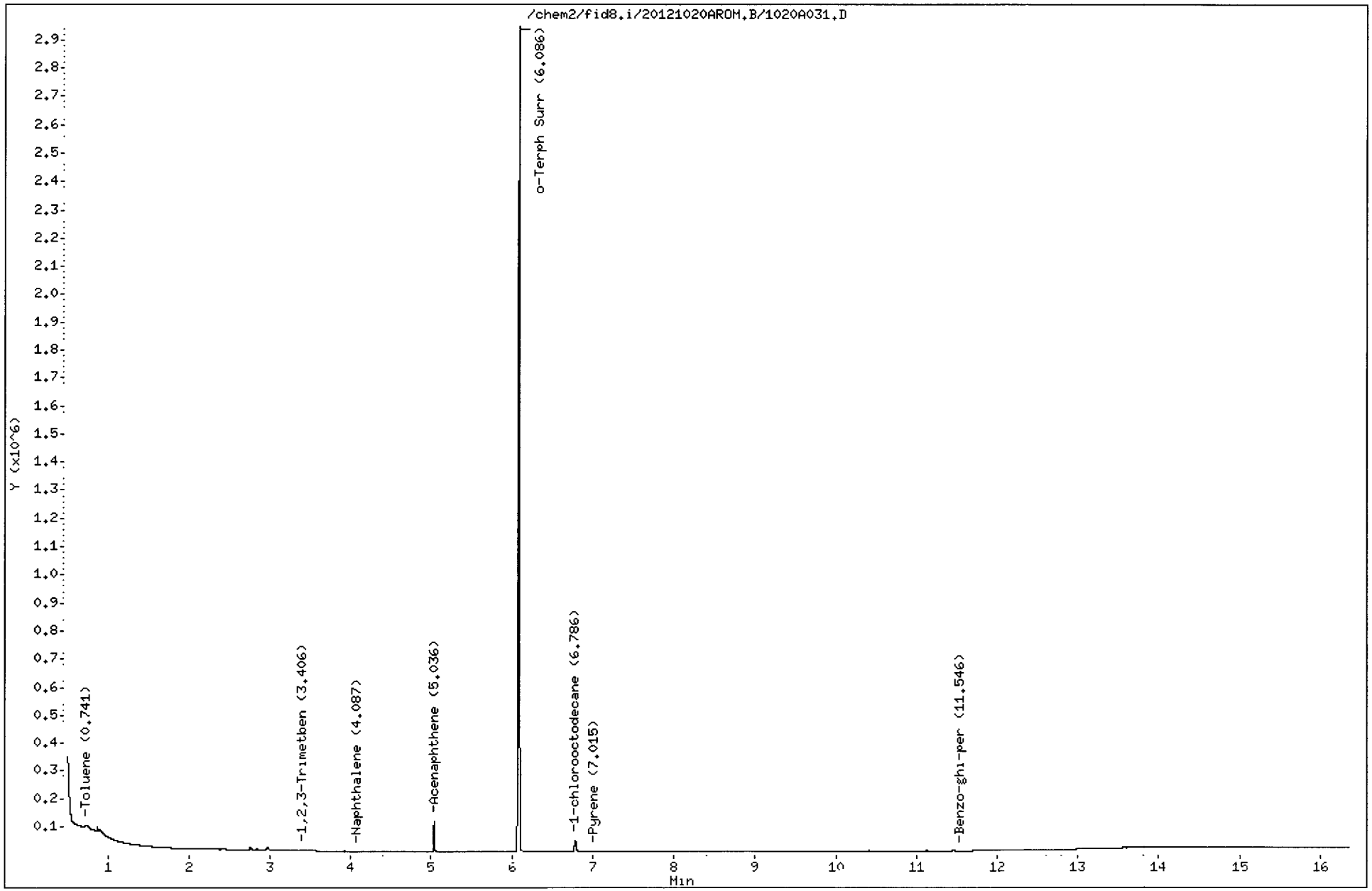
Sample Info: VM65B

Column phase: ZB-5

Instrument: fid8.i

Operator: JR

Column diameter: 0.32



VM65 00110

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020AROM.B/1020A042.D
Lab Smp Id: AROM#2 Client Smp ID: AROM#2
Inj Date : 21-OCT-2012 01:19
Operator : JR Inst ID: fid8.i
Smp Info : AROM#2
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020AROM.B/EPHArom.m
Meth Date : 22-Oct-2012 13:50 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 14:51 Cal File: 1020A017.D
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

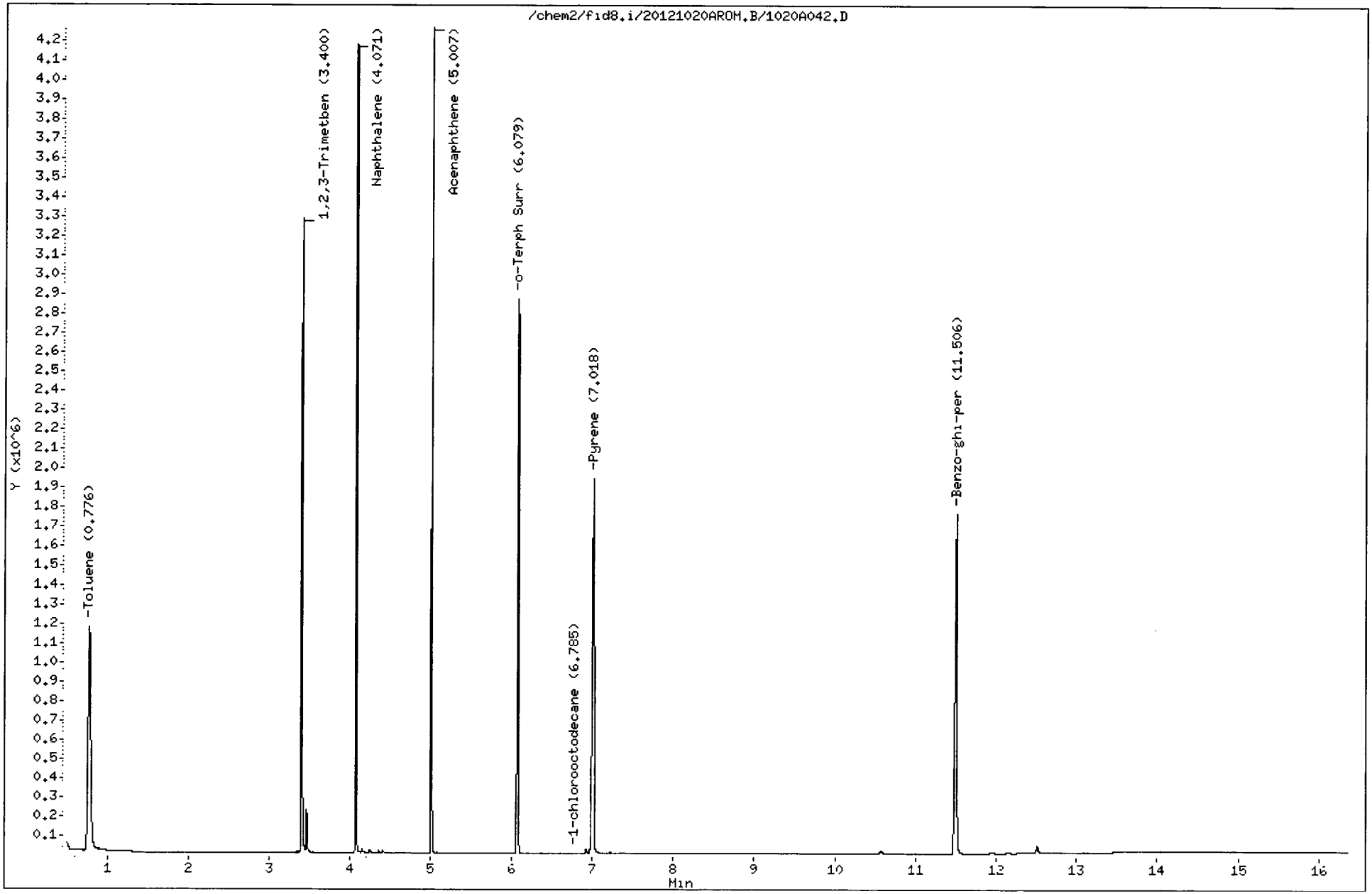
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	2 Toluene	0.776	0.776	0 000	2791016	100 000	107.979
	3 1,2,3-Trimetben	3.400	3.400	0.000	2860508	100.000	110.051
	4 Naphthalene	4.071	4.071	0.000	2917713	100.000	110.465
	7 Acenaphthene	5.007	5.007	0.000	2967678	100.000	110.448
$	11 o-Terph Surr	6.079	6.079	0.000	3049205	100.000	109.985
	75 1-chlorooctodecane	6.785	6.785	0.000	885	100.000	
	13 Pyrene	7.018	7.018	0.000	3281693	100.000	109.798
	21 Benzo-ghi-per	11.506	11 506	0.000	2947650	100.000	110.236

Data File: /chem2/fid8.i/20121020AROM.B/1020A042.D
Date : 21-OCT-2012 01:19
Client ID: AROM#2
Sample Info: AROM#2

Column phase: ZB-5

Instrument: fid8.i

Operator: JR
Column diameter: 0.32



VM65:00112

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A043.D
Lab Smp Id: ALIPH#1 Client Smp ID: ALIPH#1
Inj Date : 21-OCT-2012 01:44
Operator : JR Inst ID: fid8.i
Smp Info : ALIPH#1
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 13:49 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2	C8	1.143	1.138	0.005	2371257	100.000	106.462
3	C10	3.290	3 291	-0.001	2431517	100.000	112.263
45	C12	4.101	4.101	0.000	2329039	100.000	114.192
46	C16	5.257	5.259	-0.002	2404753	100.000	113.634
$ 51	1-Chloro-Octodecane	6.795	6.811	-0.016	5200914	200.000	217.808
47	C21	6.846	6.859	-0.013	2567164	100.000	109.026
48	C34	11.813	11.821	-0.008	2347444	100.000	106.824

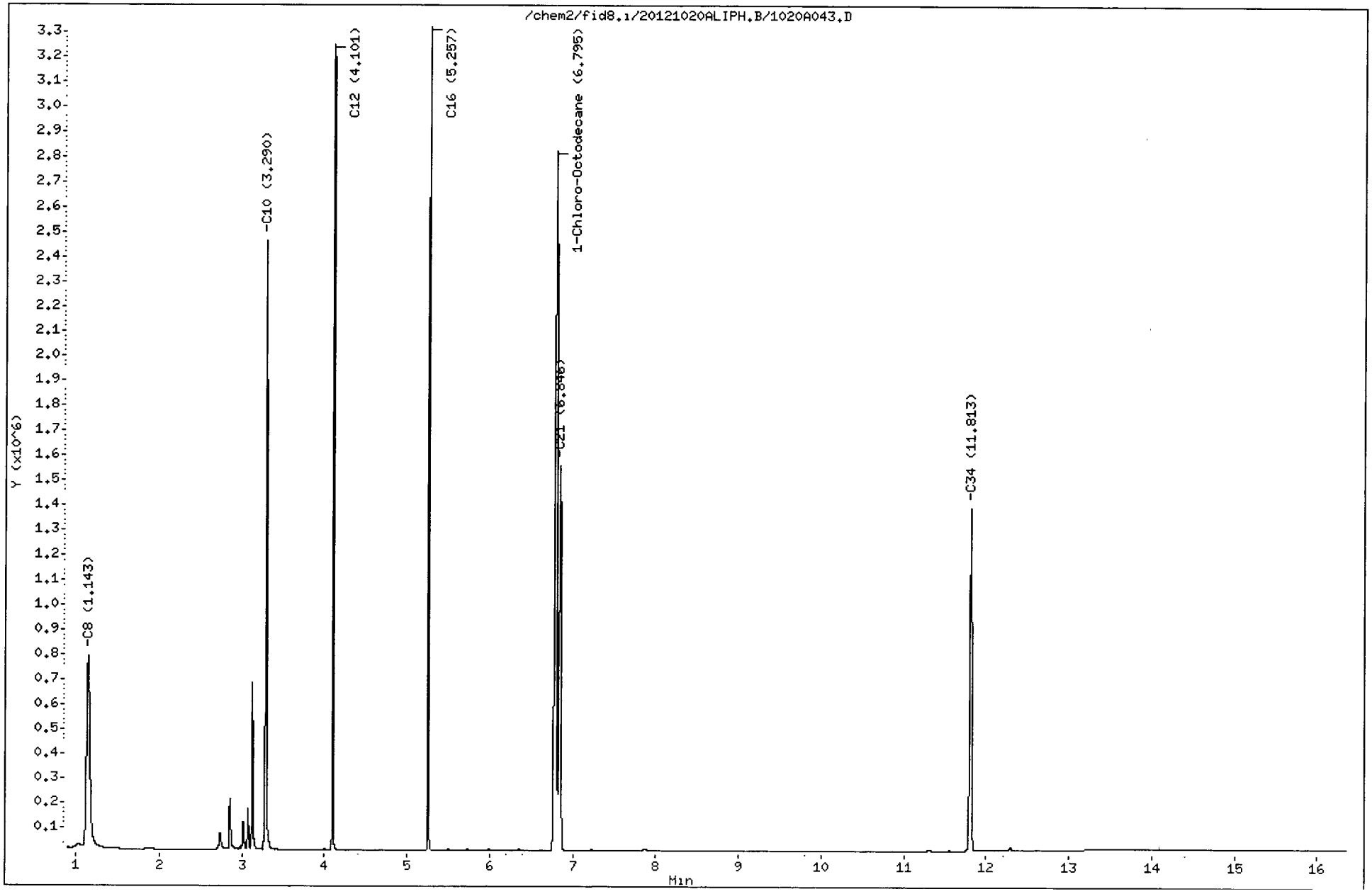
10/22/12

Data File: /chem2/fid8.i/20121020ALIPH.B/1020A043.D
Date : 21-OCT-2012 01:44
Client ID: ALIPH#1
Sample Info: ALIPH#1

Column phase: ZB-5

Instrument: fid8.i

Operator: JR
Column diameter: 0.32



VM65:00114

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A044.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: VM65MBW1
Client ID: VM65MBW1
Injection: 21-OCT-2012 02:10
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	406291	18	(1.038 - 3.391)
C10-C12	Aliph.	6703	0	(3.391 - 4.201)
C12-C16	Aliph.	10060	0	(4.201 - 5.359)
C16-C21	Aliph.	24465	1	(5.359 - 6.959)
C21-C34	Aliph.	29562	1	(6.959 - 11.921)

Surrogate Rec: 75.8%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A044.D
Lab Smp Id: VM65MBW1 Client Smp ID: VM65MBW1
Inj Date : 21-OCT-2012 02:10
Operator : JR Inst ID: fid8.i
Smp Info : VM65MBW1
Misc Info : 12-19621
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 13:49 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
2	C8	1.064	1.138	-0.074	328159	14 7333	14.733
3	C10	3.292	3.291	0.001	1724	0.07960	0.079
45	C12	4.078	4.101	-0.023	116	0.00569	0.005
46	C16	5 255	5.259	-0.004	2994	0.14148	0.141
$ 51	1-Chloro-Octodecane	6.787	6.811	-0.024	2716377	113.759	113.758
47	C21	Compound Not Detected.					
48	C34	11.802	11.821	-0 019	1939	0 08824	0.088

Data File: /chem2/fid8.i/20121020ALIPH.B/1020A044.D

Date : 21-OCT-2012 02:10

Client ID: VM65MBW1

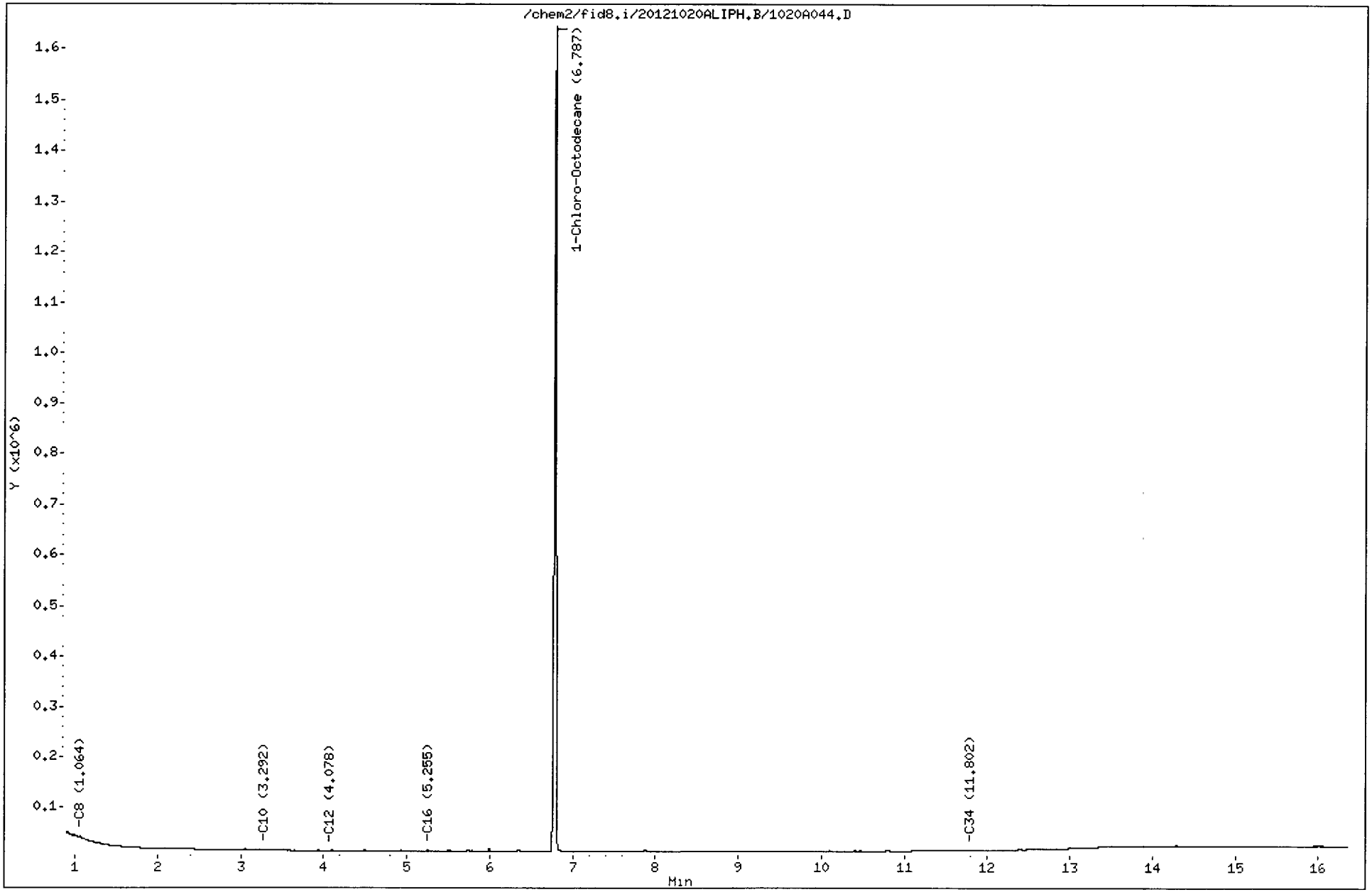
Sample Info: VM65MBW1

Column phase: ZB-5

Instrument: fid8.i

Operator: JR

Column diameter: 0.32



VM65 00117

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A045.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: VM65LCSW1
Client ID: VM65LCSW1
Injection: 21-OCT-2012 02:35
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	979632	45	(1.038 - 3.391)
C10-C12	Aliph.	751481	37	(3.391 - 4.201)
C12-C16	Aliph.	1063983	50	(4.201 - 5.359)
C16-C21	Aliph.	1311365	56	(5.359 - 6.959)
C21-C34	Aliph.	1486261	68	(6.959 - 11.921)

Surrogate Rec: 69.2%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A045.D
Lab Smp Id: VM65LCSW1 Client Smp ID: VM65LCSW1
Inj Date : 21-OCT-2012 02:35
Operator : JR Inst ID: fid8.i
Smp Info : VM65LCSW1
Misc Info : 12-19621
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 13:49 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
	2 C8	1.064	1.138	-0.074	253946	11.4014	11.401
	3 C10	3.284	3.291	-0.007	664464	30.6785	30.678
	45 C12	4.098	4.101	-0.003	743202	36.4390	36.439
	46 C16	5.256	5.259	-0.003	1053316	49.7736	49.773
$	51 1-Chloro-Octodecane	6.789	6.811	-0.022	2479853	103.853	103.853
	47 C21	6.843	6.859	-0.016	1286421	54.6340	54.634
	48 C34	11.810	11.821	-0.011	1458057	66.3517	66.351

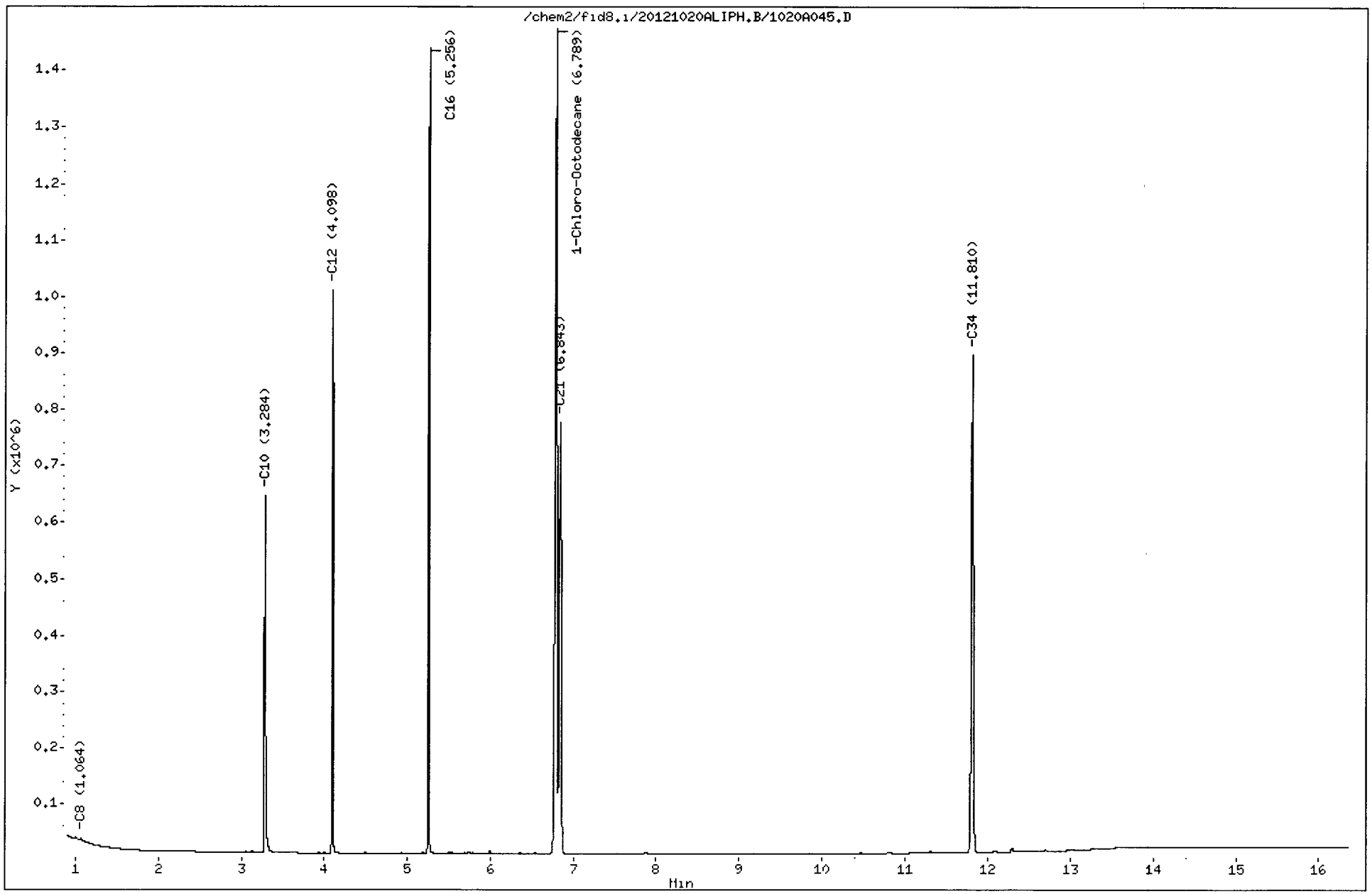
Data File: /chem2/fid8.i/20121020ALIPH.B/1020A045.D
Date : 21-OCT-2012 02:35
Client ID: VM65LCSW1
Sample Info: VM65LCSW1

Instrument: fid8.i

Operator: JR
Column diameter: 0.32

Column phase: ZB-5

VM65 : 66129



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A046.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: VM65LCSDW1
Client ID: VM65LCSDW1
Injection: 21-OCT-2012 03:00
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	952483	43	(1.038 - 3.391)
C10-C12	Aliph.	718325	35	(3.391 - 4.201)
C12-C16	Aliph.	1074453	51	(4.201 - 5.359)
C16-C21	Aliph.	1336618	57	(5.359 - 6.959)
C21-C34	Aliph.	1578560	72	(6.959 - 11.921)

Surrogate Rec: 71.3%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A046.D
Lab Smp Id: VM65LCSDW1 Client Smp ID: VM65LCSDW1
Inj Date : 21-OCT-2012 03:00
Operator : JR Inst ID: fid8.i
Smp Info : VM65LCSDW1
Misc Info : 12-19621
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 13:49 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 32 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

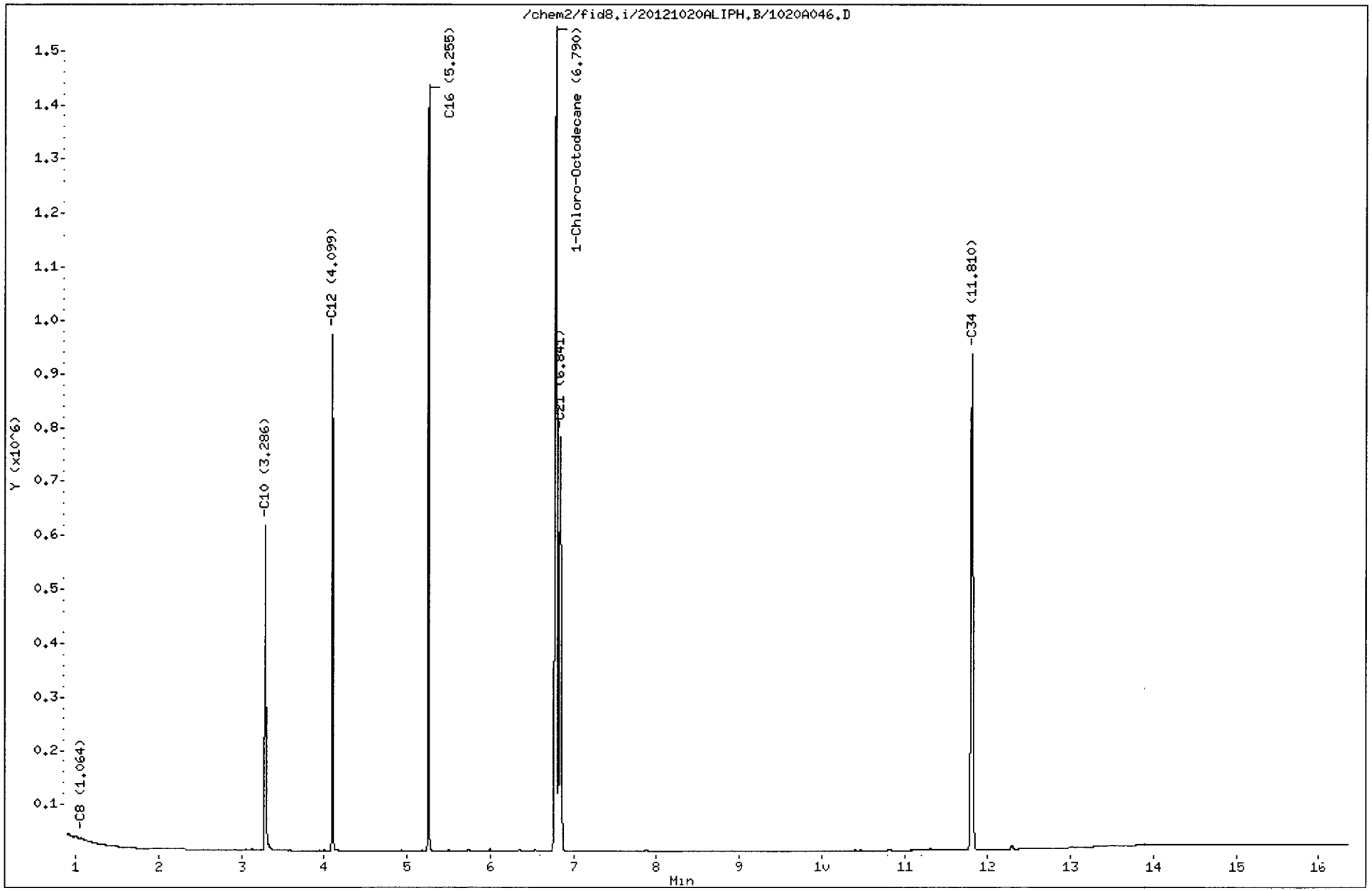
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/Kg)
	2 C8	1.064	1.138	-0.074	266371	11.9592	11.959
	3 C10	3.286	3.291	-0.005	626448	28.9233	28.923
	45 C12	4.099	4.101	-0.002	711459	34.8827	34.882
	46 C16	5.255	5 259	-0.004	1066352	50.3896	50.389
$	51 1-Chloro-Octodecane	6.790	6.811	-0.021	2553020	106.917	106.917
	47 C21	6.841	6.859	-0.018	1312479	55.7407	55.740
	48 C34	11.810	11.821	-0.011	1549342	70.5058	70.505

Data File: /chem2/fid8.i/20121020ALIPH.B/1020A046.D
Date : 21-OCT-2012 03:00
Client ID: VM65LCSDW1
Sample Info: VM65LCSDW1

Instrument: fid8.i

Operator: JR
Column diameter: 0.32

Column phase: ZB-5



VM65 09123

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A047.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: VM65A
Client ID: SSA6-MW-01-100512
Injection: 21-OCT-2012 03:25
Matrix: WATER
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	480787	22	(1.038 - 3.391)
C10-C12	Aliph.	11046	1	(3.391 - 4.201)
C12-C16	Aliph.	9393	0	(4.201 - 5.359)
C16-C21	Aliph.	25162	1	(5.359 - 6.959)
C21-C34	Aliph.	42570	2	(6.959 - 11.921)

Surrogate Rec: 73.1%

Manual Integration: YES NO

Analyst: _____ Date: 10/22/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A047.D
Lab Smp Id: VM65A Client Smp ID: SSA6-MW-01-100512
Inj Date : 21-OCT-2012 03:25
Operator : JR Inst ID: fid8.i
Smp Info : VM65A
Misc Info : 12-19621
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 13:49 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
2	C8	1.063	1.138	-0.075	395726	17.7669	17.766
3	C10	3.286	3.291	-0.005	2064	0.09530	0.095
45	C12	4.103	4.101	0.002	749	0.03672	0.036
46	C16	5.255	5.259	-0.004	2145	0.10136	0 101
$ 51	1-Chloro-Octodecane	6.788	6.811	-0.023	2616811	109.589	109.588
47	C21	Compound Not Detected.					
48	C34	11.801	11.821	-0.020	2053	0.09343	0.093

Data File: /chem2/fid8.i/20121020ALIPH.B/1020A047.D

Date : 21-OCT-2012 03:25

Client ID: SSA6-MW-01-100512

Sample Info: VM65A

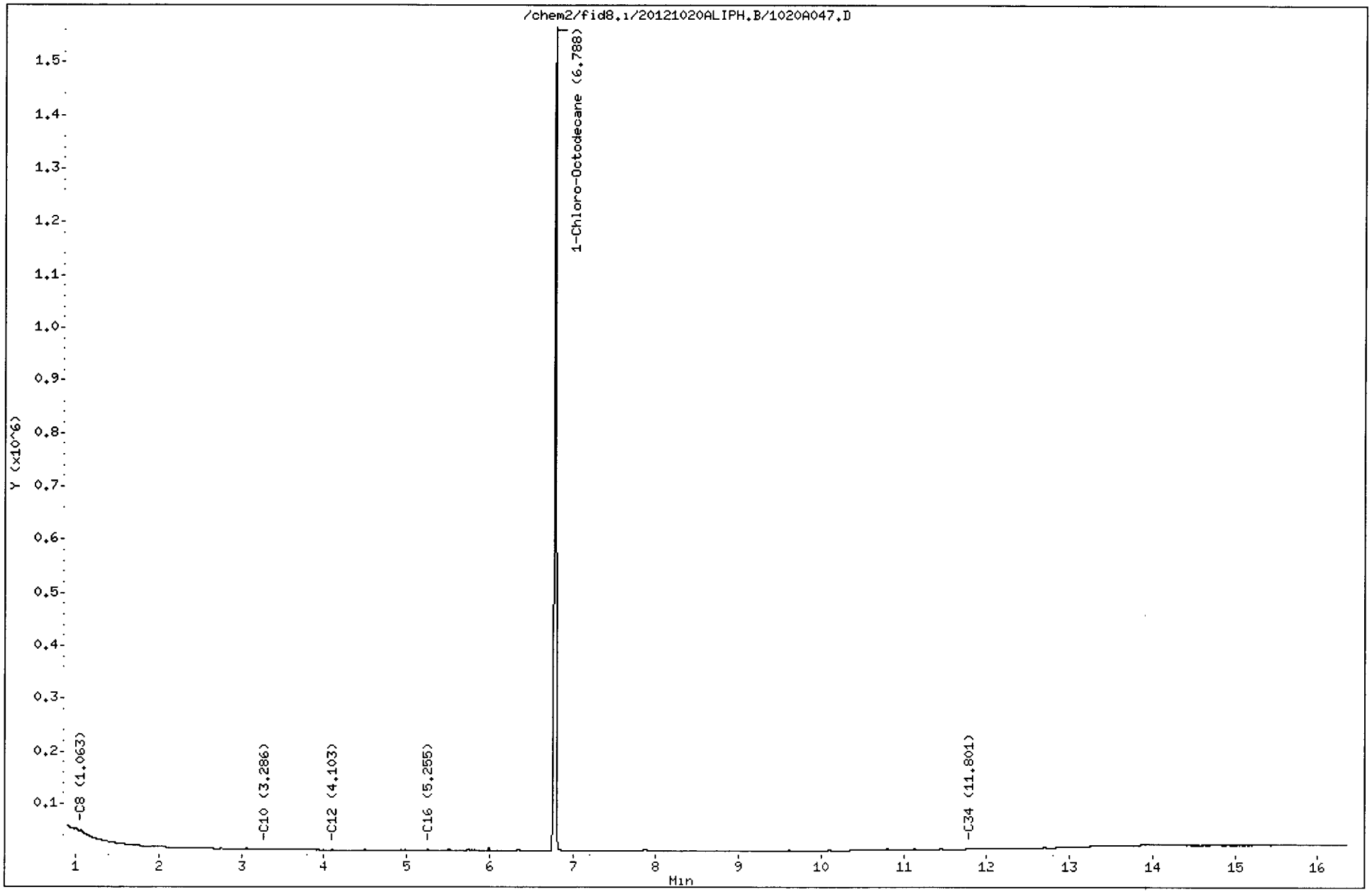
Column phase: ZB-5

Instrument: fid8.i

Operator: JR

Column diameter: 0.32

VM65 : 09.25



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20121020ALIPH.B/1020A048.D
Method: /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Instrument: fid8.i
Operator: JR
Macro: ALIPH120912FID8

ARI ID: VM65B
Client ID: RB-01-100512
Injection: 21-OCT-2012 03:50
Matrix: WATER
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	449166	20	(1.038 - 3.391)
C10-C12	Aliph.	12142	1	(3.391 - 4.201)
C12-C16	Aliph.	6377	0	(4.201 - 5.359)
C16-C21	Aliph.	23194	1	(5.359 - 6.959)
C21-C34	Aliph.	57377	3	(6.959 - 11.921)

Surrogate Rec: 83.7%

Manual Integration: YES NO

Analyst: _____ Date: 10/27/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A048.D
Lab Smp Id: VM65B Client Smp ID: RB-01-100512
Inj Date : 21-OCT-2012 03:50
Operator : JR Inst ID: fid8.i
Smp Info : VM65B
Misc Info : 12-19622
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 13:49 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
2	C8	1.063	1.138	-0.075	302020	13.5598	13.559
3	C10	3.286	3 291	-0.005	4452	0.20555	0.205
45	C12	4 105	4.101	0.004	280	0.01373	0.013
46	C16	5.256	5.259	-0.003	697	0.03294	0.032
$ 51	1-Chloro-Octodecane	6.790	6.811	-0.021	2999165	125.601	125.601
47	C21	Compound Not Detected.					
48	C34	11.832	11.821	0.011	518	0.02357	0.023

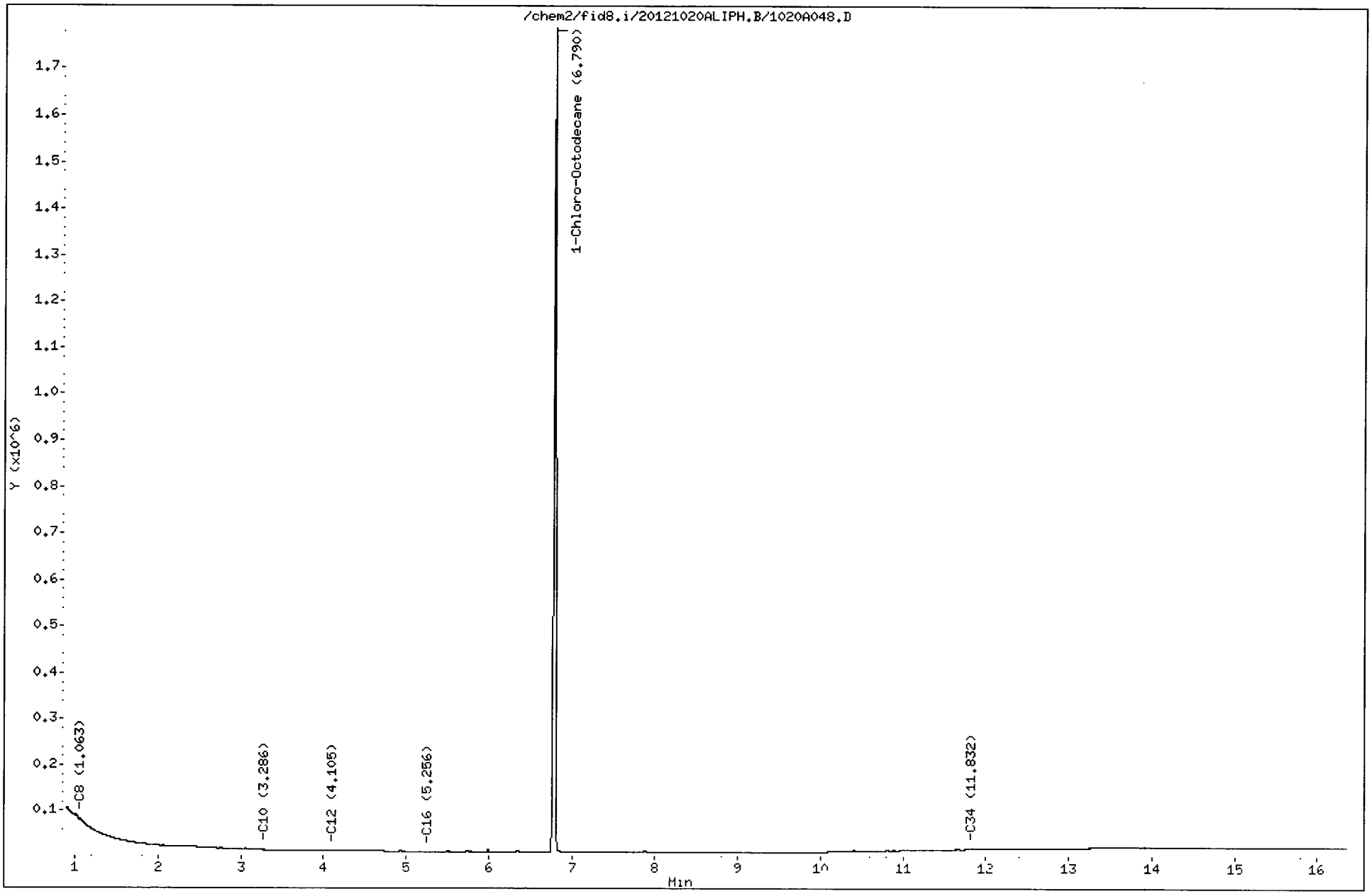
Data File: /chem2/fid8.i/20121020ALIPH.B/1020A048.D
Date : 21-OCT-2012 03:50
Client ID: RB-01-100512
Sample Info: VM65B

Column phase: ZB-5

Instrument: fid8.i

Operator: JR
Column diameter: 0.32

VM65 : 60123



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20121020ALIPH.B/1020A059.D
Lab Smp Id: ALIPH#2 Client Smp ID: ALIPH#2
Inj Date : 21-OCT-2012 08:27
Operator : JR Inst ID: fid8.i
Smp Info : ALIPH#2
Misc Info :
Comment :
Method : /chem2/fid8.i/20121020ALIPH.B/EPHAliph.m
Meth Date : 22-Oct-2012 13:49 jrains Quant Type: ESTD
Cal Date : 20-OCT-2012 17:46 Cal File: 1020A024.D
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
2	C8	1.140	1.138	0.002	2350648	100 000	105.536
3	C10	3.290	3.291	-0.001	2270303	100.000	104.820
45	C12	4 100	4.101	-0.001	2117829	100.000	103.836
46	C16	5.257	5.259	-0.002	2149494	100.000	101.572
$ 51	1-Chloro-Octodecane	6.799	6.811	-0.012	4887485	200.000	204.682
47	C21	6.850	6.859	-0.009	2401986	100.000	102.011
48	C34	11.817	11.821	-0.004	2417209	100.000	109.999

Data File: /chem2/fid8.i/20121020ALIPH.B/1020A059.D

Date : 21-OCT-2012 08:27

Client ID: ALIPH#2

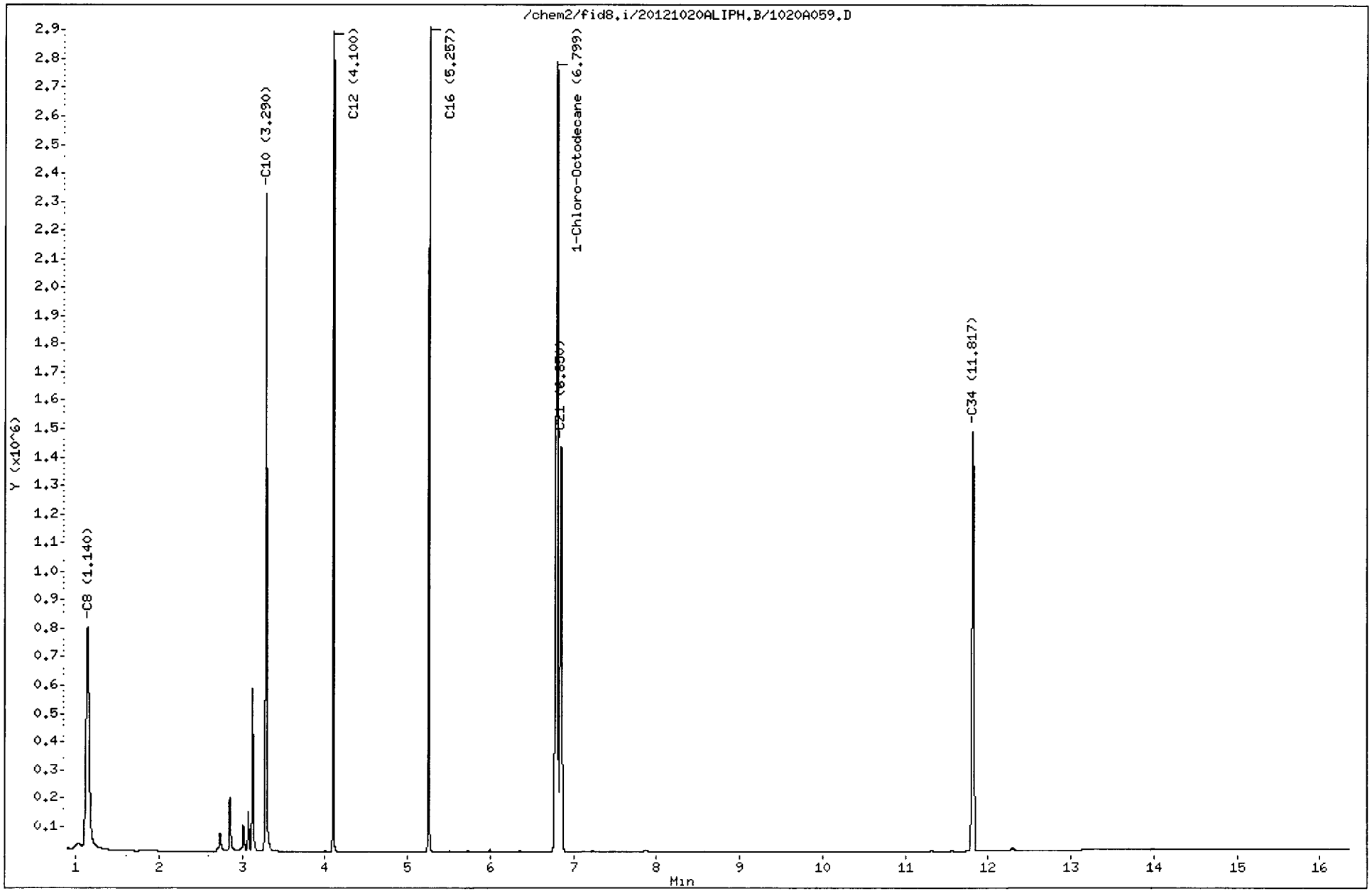
Sample Info: ALIPH#2

Column phase: ZB-5

Instrument: fid8.i

Operator: JR

Column diameter: 0.32



VM55:00131

Table of Contents: ARI Job VV14

Client: Apex Labs Project: A12L086

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Chain of Custody Documentation	2	8
Case Narrative, Data Qualifiers, Control Limits	9	15
EPH Analysis		
Report and Summary QC Forms	16	48
Total Solids		
Report and Summary QC Forms	49	51

Signature

December-13-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 13, 2012

Darwin Thomas
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A12L086
ARI Job No.: VV14

Dear Mr. Thomas:,

Please find enclosed the original Chain of Custody records (COCs), sample receipt documentation, and the final data for the samples from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this report and all supporting raw data will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.



Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: VV14

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: VV14

KH
12-5-12

SUBCONTRACT ORDER

Apex Laboratories

A12L086

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Darwin Thomas

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

Sample Name: AQ-FSL-01-0-12 **Soil** **Sampled: 10/18/12 15:45** (A12L086-01)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/13/12 17:00	11/01/12 15:45	
Containers Supplied:			
(B)2 oz Glass Jar			

Sample Name: AQ-FSL-03-1-8.5 **Soil** **Sampled: 10/18/12 17:24** (A12L086-02)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/13/12 17:00	11/01/12 17:24	
Containers Supplied:			
(B)2 oz Glass Jar			

Sample Name: AQ-ECA-02-1-5 **Soil** **Sampled: 10/19/12 15:00** (A12L086-03)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/13/12 17:00	11/02/12 15:00	
Containers Supplied:			
(B)2 oz Glass Jar			

Sample Name: AQ-BMP-02-1-15 **Soil** **Sampled: 10/24/12 10:12** (A12L086-04)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	12/13/12 17:00	11/07/12 10:12	
Containers Supplied:			
(B)2 oz Glass Jar			

Due 12/13/12

Released By	Date	Received By	Date
[signature]	12/5/12 1350	UPS (Shipper)	
UPS (Shipper)		[signature]	12-6-12 940
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Apex Laboratories

A12L086

Sample Name: AQ-BMP-05-1.5-15.5 **Soil** **Sampled: 10/23/12 14:40** (A12L086-05)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub) *Containers Supplied:* (B)2 oz Glass Jar	12/13/12 17:00	11/06/12 14:40	

Kuelgler 12/5/12 1350 UPS (Shipper)

Released By Date Received By Date

UPS (Shipper) 12-5-12 9:45

Released By Date Received By Date

12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Apex

COC No(s): NA

Assigned ARI Job No: UV14

Project Name: A12L086

Delivered by: Fed-Ex UPS Courier Hand Delivered Other:

Tracking No: 12 X 47 20R 13 93 207856 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2 0-6 0 °C for chemistry) 2.9

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877952

Cooler Accepted by: TS Date: 12-6-12 Time: 945

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI...	NA		

Was Sample Split by ARI: NA YES Date/Time: Equipment: Split by:

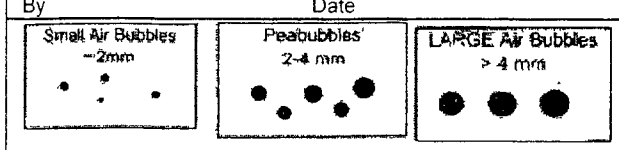
Samples Logged by: TS Date: 12-6-12 Time: 1130

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By Date



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

Subject: RE: VV14 A12L086 Sample Receipt and COCs
From: "Kendra Hinckley" <KHinckley@Apex-Labs.com>
Date: 12/6/2012 1:53 PM
To: "Cheronne Oreiro" <cheronneo@arilabs.com>
CC: "Darwin Thomas" <DThomas@Apex-Labs.com>

Hi Cheronne,

Here is an updated subcontract which includes comments of results to the mdl and a level 4 data package is needed. Thanks and please confirm.

Thanks,

Kendra Hinckley
Sample Control Supervisor
and Project Management Support
APEX Laboratories
Main: 503-718-2323
Fax: 503-718-0333
KHinckley@apex-labs.com
MP Please consider the environment before printing this email

-----Original Message-----
From: Cheronne Oreiro [mailto:cheronneo@arilabs.com]
Sent: Thursday, December 06, 2012 12:09 PM
To: Darwin Thomas; Philip Nerenberg; Allison Greiner; Darrell Auvil; Kendra Hinckley
Subject: VV14 A12L086 Sample Receipt and COCs

Hi All,

Just a couple of things I wanted to note about this sample receipt.

- Samples were received outside the recommended 14-day holding time.
- Please confirm and RUSH TAT of 1-week is needed. If so, a 50% surcharge will be added to the final invoice.

Thanks,
-Cheronne

--
NOTE: ARI is closed December 25th and January 1st.

Cheronne Oreiro
Project Manager
Analytical Resources, Inc.
4611 S. 134th Place, Suite 100
Tukwila, WA 98168-3240
cheronneo@arilabs.com
(206)-695-6214

This correspondence contains confidential information from Analytical Resources, Inc. (ARI) The information contained herein is intended solely for the use of the individual(s) named above. If you are not the intended recipient, any copying, distribution, disclosure, or use of the text and/or attached document(s) is strictly prohibited.

If you have received this correspondence in error, please notify sender immediately. Thank you.

KH
12-5-12

SUBCONTRACT ORDER

Apex Laboratories

A12L086

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Darwin Thomas

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

Sample Name: AQ-FSL-01-0-12 Soil Sampled: 10/18/12 15:45 (A12L086-01)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub) *Containers Supplied:* (B)2 oz Glass Jar	12/13/12 17:00	11/01/12 15:45	mdl, level 4 data package

Sample Name: AQ-FSL-03-1-8.5 Soil Sampled: 10/18/12 17:24 (A12L086-02)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub) *Containers Supplied:* (B)2 oz Glass Jar	12/13/12 17:00	11/01/12 17:24	

Sample Name: AQ-ECA-02-1-5 Soil Sampled: 10/19/12 15:00 (A12L086-03)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub) *Containers Supplied:* (B)2 oz Glass Jar	12/13/12 17:00	11/02/12 15:00	

Sample Name: AQ-BMP-02-1-15 Soil Sampled: 10/24/12 10:12 (A12L086-04)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub) *Containers Supplied:* (B)2 oz Glass Jar	12/13/12 17:00	11/07/12 10:12	

Due 12/13/12

updated 12-6-12 KH
mdl, level 4 data package

Released By	Date	Received By	Date
Kim Coglin	12/5/12 1850	UPS (Shipper)	
UPS (Shipper)			
Released By	Date	Received By	Date
			12-6-12 940

SUBCONTRACT ORDER

Apex Laboratories

A12L086

Sample Name: AQ-BMP-05-1.5-15.5		Soil	Sampled: 10/23/12 14:40	(A12L086-05)
Analysis	Due	Expires	Comments	
NWTPH-EPH (Sub)	12/13/12 17:00	11/06/12 14:40		
Containers Supplied:				
(B)2 oz Glass Jar				

Released By	Date	Received By	Date	
12/5/12 1350		UPS (Shipper)		
UPS (Shipper)			12-6-12	940
Released By	Date	Received By	Date	

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VV14

Case Narrative

Client: Apex Laboratories
Project: A12086
ARI Job No.: VV14

Sample Receipt

Analytical Resources, Inc. (ARI) accepted five soil samples on December 6, 2012 under ARI job VV14. The cooler temperature measured by IR thermometer following ARI SOP was 2.9° C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for parameters as requested on the COC.

Extractable Petroleum Hydrocarbons (EPH)

The samples were extracted and analyzed outside the method recommended holding time.

The continuing calibration (CCAL) on 12/11/12 at 15:15 was outside the 20% control limit high for Aliphatics C21-C34. All other CCALs were in control, no corrective action was taken.

There were no other irregularities with this analysis.

VV14 : 00018

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VV14
Client: Apex Labs
Project Event: N/A
Project Name: A12L086

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	AQ-FSL-01-0-12	VV14A	12-24090	Soil	10/18/12 15:45	12/06/12 09:40
2.	AQ-FSL-03-1-8.5	VV14B	12-24091	Soil	10/18/12 17:24	12/06/12 09:40
3.	AQ-ECA-02-1-5	VV14C	12-24092	Soil	10/19/12 15:00	12/06/12 09:40
4.	AQ-BMP-02-1-15	VV14D	12-24093	Soil	10/24/12 10:12	12/06/12 09:40
5.	AQ-BMP-05-1.5-15.5	VV14E	12-24094	Soil	10/23/12 14:40	12/06/12 09:40

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

UU1U : 00012

S Indicates an analyte response that has saturated the detector The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

0014 : 00013

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Extractable Petroleum Hydrocarbons (EPH) Washington Department of Ecology Interim Method[1,2]

Effective: 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Calculated Control Limits [3]	
Sample Matrix	Water	Soil / Sediment
Sample Amount / Final Volume:	500 mL / 1 mL	10 g / 1 mL
LCS Spike Recovery [4]		
C8-C10 Aliphatics	**10** - **100**	21 - **100**
C10-C12 Aliphatics	14 - **100**	23 - **100**
C12-C16 Aliphatics	43 - 110	30 - 120
C16-C21 Aliphatics	44 - 122	32 - 129
C10-C12 Aromatics	16 - 105	20 - 109
C12-C16 Aromatics	42 - 116	30 - 125
C16-C21 Aromatics	55 - 127	37 - 135
C21-C34 Aromatics	54 - 136	45 - 137
Method Blank/LCS Surrogate Recovery		
Ortho-Terphenyl	44 - 133	34 - 133
1-Chloro-octadecane	38 - 121	27 - 128
Sample Surrogate Recovery		
Ortho-Terphenyl	39 - 141	**10** - 143
1-Chloro-octadecane	42 - 120	39 - 131

(1) Control limits calculated using all available data for 1/1/08 through 11/30/08.
(2) Analytical method published in: *Washington State Department of Ecology, Analytical Methods for Petroleum Hydrocarbons, Publication No. ECY 97-602, June 1997*
(3) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.

EPH Analysis
Report and Summary QC Forms

ARI Job ID: VV14

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: AQ-FSL-01-0-12
SAMPLE

Lab Sample ID: VV14A
LIMS ID: 12-24090
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/18/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 28.5%

Sample Amount: 7.16 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 12/12/12 12:17
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/10/12 23:02
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,800	< 2,800 U
C10-C12 Aliphatics	**2,800**	**2,900**
C12-C16 Aliphatics	**2,800**	**140,000**
C16-C21 Aliphatics	**2,800**	**460,000**
C21-C34 Aliphatics	**2,800**	**370,000**
C8-C10 Aromatics	2,800	< 2,800 U
C10-C12 Aromatics	**2,800**	**47,000**
C12-C16 Aromatics	**2,800**	**600,000**
C16-C21 Aromatics	**2,800**	**3,700,000**
C21-C34 Aromatics	**2,800**	**3,800,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	61.8%
Aromatic	o-Terphenyl	NR

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C

Sample ID: AQ-FSL-01-0-12
DILUTION

Lab Sample ID: VV14A
LIMS ID: 12-24090
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/18/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 28.5%

Sample Amount: 7.16 g-dry-wt
Final Extract Volume: 1.0 mL

Aromatic
Date Analyzed: 12/11/12 12:44
Instrument/Analyst: FID8/JGR

Dilution Factor: 20.0

Range	RL	Result
C8-C10 Aromatics	56,000	< 56,000 U
C10-C12 Aromatics	56,000	< 56,000 U
C12-C16 Aromatics	**56,000**	**730,000**
C16-C21 Aromatics	**56,000**	**3,600,000**
C21-C34 Aromatics	**56,000**	**3,600,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aromatic	o-Terphenyl	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C

Sample ID: AQ-FSL-03-1-8.5
SAMPLE

Lab Sample ID: VV14B
LIMS ID: 12-24091
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/18/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 24.3%

Sample Amount: 7.71 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 12/12/12 12:42
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/10/12 23:26
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,600	< 2,600 U
C10-C12 Aliphatics	2,600	< 2,600 U
C12-C16 Aliphatics	**2,600**	**4,500**
C16-C21 Aliphatics	**2,600**	**24,000**
C21-C34 Aliphatics	**2,600**	**140,000**
C8-C10 Aromatics	2,600	< 2,600 U
C10-C12 Aromatics	**2,600**	**18,000**
C12-C16 Aromatics	**2,600**	**130,000**
C16-C21 Aromatics	**2,600**	**1,200,000**
C21-C34 Aromatics	**2,600**	**1,600,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	67.3%
Aromatic	o-Terphenyl	80.6%

VV14 : 00015

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C

Sample ID: AQ-FSL-03-1-8.5
DILUTION

Lab Sample ID: VV14B
LIMS ID: 12-24091
Matrix: Soil
Data Release Authorized: B
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/18/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 24.3%

Sample Amount: 7.71 g-dry-wt
Final Extract Volume: 1.0 mL

Aromatic
Date Analyzed: 12/11/12 13:09
Instrument/Analyst: FID8/JGR

Dilution Factor: 20.0

Range	RL	Result
C8-C10 Aromatics	52,000	< 52,000 U
C10-C12 Aromatics	52,000	< 52,000 U
C12-C16 Aromatics	**52,000**	**130,000**
C16-C21 Aromatics	**52,000**	**1,300,000**
C21-C34 Aromatics	**52,000**	**1,300,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aromatic	o-Terphenyl	77.0%

VV14B : 000026

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: AQ-ECA-02-1-5
SAMPLE

Lab Sample ID: VV14C
LIMS ID: 12-24092
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/19/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 36.0%

Sample Amount: 6.70 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 12/12/12 13:06
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/10/12 23:51
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	3,000	< 3,000 U
C10-C12 Aliphatics	3,000	< 3,000 U
C12-C16 Aliphatics	3,000	< 3,000 U
C16-C21 Aliphatics	**3,000**	**22,000**
C21-C34 Aliphatics	**3,000**	**46,000**
C8-C10 Aromatics	3,000	< 3,000 U
C10-C12 Aromatics	3,000	< 3,000 U
C12-C16 Aromatics	**3,000**	**4,900**
C16-C21 Aromatics	**3,000**	**540,000**
C21-C34 Aromatics	**3,000**	**1,000,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	71.9%
Aromatic	o-Terphenyl	74.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: AQ-ECA-02-1-5
DILUTION

Lab Sample ID: VV14C
LIMS ID: 12-24092
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/19/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 36.0%

Sample Amount: 6.70 g-dry-wt
Final Extract Volume: 1.0 mL

Aromatic
Date Analyzed: 12/11/12 13:34
Instrument/Analyst: FID8/JGR

Dilution Factor: 10.0

Range	RL	Result
C8-C10 Aromatics	30,000	< 30,000 U
C10-C12 Aromatics	30,000	< 30,000 U
C12-C16 Aromatics	30,000	< 30,000 U
C16-C21 Aromatics	**30,000**	**810,000**
C21-C34 Aromatics	**30,000**	**780,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aromatic	o-Terphenyl	80.2%

VV14 II - 00022

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: AQ-BMP-02-1-15
SAMPLE

Lab Sample ID: VV14D
LIMS ID: 12-24093
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/24/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 25.9%

Sample Amount: 7.57 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 12/12/12 13:32
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/11/12 00:16
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,600	< 2,600 U
C10-C12 Aliphatics	2,600	< 2,600 U
C12-C16 Aliphatics	**2,600**	**3,600**
C16-C21 Aliphatics	**2,600**	**23,000**
C21-C34 Aliphatics	**2,600**	**78,000**
C8-C10 Aromatics	2,600	< 2,600 U
C10-C12 Aromatics	2,600	< 2,600 U
C12-C16 Aromatics	**2,600**	**8,700**
C16-C21 Aromatics	**2,600**	**1,000,000**
C21-C34 Aromatics	**2,600**	**2,400,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	73.5%
Aromatic	o-Terphenyl	99.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C

Sample ID: AQ-BMP-02-1-15
DILUTION

Lab Sample ID: VV14D
LIMS ID: 12-24093
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/24/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 25.9%

Sample Amount: 7.57 g-dry-wt
Final Extract Volume: 1.0 mL

Aromatic
Date Analyzed: 12/11/12 13:59
Instrument/Analyst: FID8/JGR

Dilution Factor: 10.0

Range	RL	Result
C8-C10 Aromatics	26,000	< 26,000 U
C10-C12 Aromatics	26,000	< 26,000 U
C12-C16 Aromatics	26,000	< 26,000 U
C16-C21 Aromatics	**26,000**	**1,400,000**
C21-C34 Aromatics	**26,000**	**1,900,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aromatic	o-Terphenyl	85.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: AQ-BMP-05-1.5-15.5
SAMPLE

Lab Sample ID: VV14E
LIMS ID: 12-24094
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/23/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 29.2%

Sample Amount: 7.27 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 12/12/12 13:56
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/11/12 00:41
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,800	< 2,800 U
C10-C12 Aliphatics	2,800	< 2,800 U
C12-C16 Aliphatics	**2,800**	**3,400**
C16-C21 Aliphatics	**2,800**	**24,000**
C21-C34 Aliphatics	**2,800**	**97,000**
C8-C10 Aromatics	2,800	< 2,800 U
C10-C12 Aromatics	2,800	< 2,800 U
C12-C16 Aromatics	**2,800**	**24,000**
C16-C21 Aromatics	**2,800**	**3,100,000**
C21-C34 Aromatics	**2,800**	**4,800,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	70.6%
Aromatic	o-Terphenyl	NR

UU14 : 00025

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C

Sample ID: AQ-BMP-05-1.5-15.5
DILUTION

Lab Sample ID: VV14E
LIMS ID: 12-24094
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: 10/23/12
Date Received: 12/06/12

Date Extracted: 12/07/12
Percent Moisture: 29.2%

Sample Amount: 7.27 g-dry-wt
Final Extract Volume: 1.0 mL

Aromatic
Date Analyzed: 12/11/12 14:24
Instrument/Analyst: FID8/JGR

Dilution Factor: 10.0

Range	RL	Result
C8-C10 Aromatics	28,000	< 28,000 U
C10-C12 Aromatics	28,000	< 28,000 U
C12-C16 Aromatics	28,000	< 28,000 U
C16-C21 Aromatics	**28,000**	**4,200,000**
C21-C34 Aromatics	**28,000**	**3,600,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aromatic	o-Terphenyl	99.4%

VV14 I : 000026

ANALYTICAL RESOURCES INCORPORATED

ALEPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: VV14-Apex Labs
Project: A12L086

Client ID	COD	TOT OUT
MB-120712	71.4%	0
LCS-120712	70.5%	0
LCSD-120712	68.1%	0
AQ-FSL-01-0-12	61.8%	0
AQ-FSL-03-1-8.5	67.3%	0
AQ-ECA-02-1-5	71.9%	0
AQ-BMP-02-1-15	73.5%	0
AQ-BMP-05-1.5-15.5	70.6%	0

	LCS/MB LIMITS	QC LIMITS
(COD) = 1-Chlorooctadecane	(27-128)	(39-131)

Prep Method: SW3550C
Log Number Range: 12-24090 to 12-24094

ANALYTICAL RESOURCES INCORPORATED

AREPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: VV14-Apex Labs
Project: A12L086

Client ID	OTER	TOT OUT
MB-120712	63.1%	0
LCS-120712	61.7%	0
LCSD-120712	63.0%	0
AQ-FSL-01-0-12	NR	0
AQ-FSL-01-0-12 DL	106%	0
AQ-FSL-03-1-8.5	80.6%	0
AQ-FSL-03-1-8.5 DL	77.0%	0
AQ-ECA-02-1-5	74.1%	0
AQ-ECA-02-1-5 DL	80.2%	0
AQ-BMP-02-1-15	99.0%	0
AQ-BMP-02-1-15 DL	85.7%	0
AQ-BMP-05-1.5-15.5	NR	0
AQ-BMP-05-1.5-15.5 DL	99.4%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(34-133)	(10-143)

Prep Method: SW3550C
Log Number Range: 12-24090 to 12-24094

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH

Sample ID: LCS-120712
LCS/LCSD

Lab Sample ID: LCS-120712
LIMS ID: 12-24090
Matrix: Soil
Data Release Authorized: JB
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 12/07/12

Sample Amount LCS: 10.0 g-as-rec
LCSD: 10.0 g-as-rec
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

Aliphatic
Date Analyzed LCS: 12/11/12 04:49
LCSD: 12/11/12 05:14
Instrument/Analyst LCS: FID8/JGR
LCSD: FID8/JGR

Dilution Factor LCS: 1.00
LCSD: 1.00

Aromatic
Date Analyzed LCS: 12/11/12 11:54
LCSD: 12/11/12 12:19
Instrument/Analyst LCS: FID8/JGR
LCSD: FID8/JGR

Dilution Factor LCS: 1.00
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
C8-C10 Aliphatics	4900	7500	65.3%	4300	7500	57.3%	13.0%
C10-C12 Aliphatics	4800	7500	64.0%	4200	7500	56.0%	13.3%
C12-C16 Aliphatics	5800	7500	77.3%	5400	7500	72.0%	7.1%
C16-C21 Aliphatics	6600	7500	88.0%	6300	7500	84.0%	4.7%
C10-C12 Aromatics	4100	7500	54.7%	4200	7500	56.0%	2.4%
C12-C16 Aromatics	4600	7500	61.3%	4700	7500	62.7%	2.2%
C16-C21 Aromatics	9500	15000	63.3%	9400	15000	62.7%	1.1%
C21-C34 Aromatics	9200	15000	61.3%	9400	15000	62.7%	2.2%

EPH Surrogate Recovery

		LCS	LCSD
Aliphatic	1-Chlorooctadecane	70.5%	68.1%
Aromatic	o-Terphenyl	61.7%	63.0%

Results reported in µg/kg
RPD calculated using sample concentrations per SW846.

TPH METHOD BLANK SUMMARY

BLANK NO.

VV14MBS1

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV14 Project No.: A12L086

Date Extracted: 12/07/12 Matrix: SOLID

Date Analyzed : 12/11/12 Instrument ID : FID8

Time Analyzed : 0424

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	VV14LCSS1	VV14LCSS1	12/11/12
02	VV14LCSDS1	VV14LCSDS1	12/11/12
06	AQ-FSL-01-0-	VV14A	12/12/12
07	AQ-FSL-03-1-	VV14B	12/12/12
08	AQ-ECA-02-1-	VV14C	12/12/12
09	AQ-BMP-02-1-	VV14D	12/12/12
10	AQ-BMP-05-1.	VV14E	12/12/12
05			
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TPH METHOD BLANK SUMMARY

BLANK NO.

VV14MBS1

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV14 Project No.: A12L086

Date Extracted: 12/07/12 Matrix: SOLID

Date Analyzed : 12/11/12 Instrument ID : FID8

Time Analyzed : 1128

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
03	VV14LCSS1	VV14LCSS1	12/11/12
04	VV14LCSDS1	VV14LCSDS1	12/11/12
06	AQ-FSL-01-0-	VV14A	12/11/12
07	AQ-FSL-03-1-	VV14B	12/11/12
08	AQ-ECA-02-1-	VV14C	12/11/12
09	AQ-BMP-02-1-	VV14D	12/11/12
10	AQ-BMP-05-1.	VV14E	12/11/12
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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C

Sample ID: MB-120712
METHOD BLANK

Lab Sample ID: MB-120712
LIMS ID: 12-24090
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV14-Apex Labs
Project: A12L086

Date Sampled: NA
Date Received: NA

Date Extracted: 12/07/12
Percent Moisture: NA

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 12/11/12 04:24
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/11/12 11:28
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,000	< 2,000 U
C10-C12 Aliphatics	2,000	< 2,000 U
C12-C16 Aliphatics	2,000	< 2,000 U
C16-C21 Aliphatics	2,000	< 2,000 U
C21-C34 Aliphatics	2,000	< 2,000 U
C8-C10 Aromatics	2,000	< 2,000 U
C10-C12 Aromatics	2,000	< 2,000 U
C12-C16 Aromatics	2,000	< 2,000 U
C16-C21 Aromatics	2,000	< 2,000 U
C21-C34 Aromatics	2,000	< 2,000 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	71.4%
Aromatic	o-Terphenyl	63.1%

VV14 : 00033

6a
EPH ALIPHATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client: APEX LAB

Instrument: FID8.I Project: A12L086

Calibration Date: 15-NOV-2012 SDG No.: VV14

Aliphatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	22122	22590	22292	22347	22591	22389	0.9
C10-C12	20590	20824	20742	20894	21111	20832	0.9
C12-C16	20070	20224	20097	20323	20506	20244	0.9
C16-C21	19826	19810	19528	19525	19495	19637	0.8
C21-C34	18176	18373	18799	19227	19569	18829	3.1

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1115A014.D	15-NOV-2012 15:24
1115A015.D	15-NOV-2012 15:49
1115A016.D	15-NOV-2012 16:14
1115A017.D	15-NOV-2012 16:40
1115A018.D	15-NOV-2012 17:05
	15-NOV-2012 17:05

6a
EPH AROMATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client: APEX LAB

Instrument: FID8.I Project: A12L086

Calibration Date: 20-OCT-2012 SDG No.: VV14

Aromatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	24574	27109	26493	26423	25002	25920	4.2
C10-C12	25377	26558	27646	27627	24857	26413	4.8
C12-C16	25763	27037	28118	28085	25343	26869	4.8
C16-C21	28891	30105	30909	30502	29034	29888	3.0
C21-C34	25904	27180	27537	26943	26133	26739	2.6

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1020A013.D	20-OCT-2012 13:10
1020A014.D	20-OCT-2012 13:35
1020A015.D	20-OCT-2012 14:00
1020A016.D	20-OCT-2012 14:26
1020A017.D	20-OCT-2012 14:51
	20-OCT-2012 14:51

7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AR#2

ICal Date: 20-OCT-2012 Client ID: A12L086

CCal Date: 10-DEC-2012 Instrument: FID8.I

Analysis Time: 22:37 Lab File Name: 1210A027.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	5300590	204.5	200	2.3
C10-C12	Arom.	2605534	98.6	100	-1.4
C12-C16	Arom.	2514374	93.6	100	-6.4
C16-C21	Arom.	2632530	88.1	100	-11.9
C21-C34	Arom.	2380081	89.0	100	-11.0
Surrogate		2446683	88.3	100	-11.7

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AL#1

ICal Date: 15-NOV-2012 Client ID: A12L086

CCal Date: 11-DEC-2012 Instrument: FID8.I

Analysis Time: 01:31 Lab File Name: 1210A034.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	4512003	201.6	200	0.8
C10-C12	Aliph.	2084718	100.1	100	0.1
C12-C16	Aliph.	2010056	99.3	100	-0.7
C16-C21	Aliph.	1959975	99.8	100	-0.2
C21-C34	Aliph.	2192207	116.4	100	16.4
Surrogate		2188204	98.3	100	-1.7

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AR#3

ICal Date: 20-OCT-2012 Client ID: A12L086

CCal Date: 11-DEC-2012 Instrument: FID8.I

Analysis Time: 06:53 Lab File Name: 1210A047.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	5652061	218.1	200	9.0
C10-C12	Arom.	2818469	106.7	100	6.7
C12-C16	Arom.	2717901	101.2	100	1.2
C16-C21	Arom.	2902153	97.1	100	-2.9
C21-C34	Arom.	2632145	98.4	100	-1.6
Surrogate		2623868	94.6	100	-5.4

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a
EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AL#2

ICal Date: 15-NOV-2012 Client ID: A12L086

CCal Date: 11-DEC-2012 Instrument: FID8.I

Analysis Time: 08:07 Lab File Name: 1210A050.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	4520510	201.9	200	1.0
C10-C12	Aliph.	2061674	99.0	100	-1.0
C12-C16	Aliph.	1984345	98.0	100	-2.0
C16-C21	Aliph.	1949451	99.3	100	-0.7
C21-C34	Aliph.	2164377	114.9	100	14.9
Surrogate		2164619	97.2	100	-2.8

* From Range Reference Peak(s)
<- Indicates an RPD outside 20% QC limits

7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AR#4

ICal Date: 20-OCT-2012 Client ID: A12L086

CCal Date: 11-DEC-2012 Instrument: FID8.I

Analysis Time: 08:32 Lab File Name: 1210A051.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	5744852	221.6	200	10.8
C10-C12	Arom.	2861411	108.3	100	8.3
C12-C16	Arom.	2763095	102.8	100	2.8
C16-C21	Arom.	2945451	98.5	100	-1.5
C21-C34	Arom.	2670632	99.9	100	-0.1
Surrogate		2673597	96.4	100	-3.6

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AR#5

ICal Date: 20-OCT-2012 Client ID: A12L086

CCal Date: 11-DEC-2012 Instrument: FID8.I

Analysis Time: 14:49 Lab File Name: 1210A066.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	6221752	240.0	200	20.0 <-
C10-C12	Arom.	3121482	118.2	100	18.2
C12-C16	Arom.	3003069	111.8	100	11.8
C16-C21	Arom.	3220154	107.7	100	7.7
C21-C34	Arom.	2909151	108.8	100	8.8
Surrogate		2921575	105.4	100	5.4

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a
EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AL#3

ICal Date: 15-NOV-2012 Client ID: A12L086

CCal Date: 11-DEC-2012 Instrument: FID8.I

Analysis Time: 15:15 Lab File Name: 1210A067.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	4725528	211.1	200	5.6
C10-C12	Aliph.	2170100	104.2	100	4.2
C12-C16	Aliph.	2087839	103.1	100	3.1
C16-C21	Aliph.	2063537	105.1	100	5.1
C21-C34	Aliph.	2273477	120.7	100	20.7<-
Surrogate		2284526	102.6	100	2.6

* From Range Reference Peak(s)
<- Indicates an RPD outside 20% QC limits

7a

EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AL#4

ICal Date: 15-NOV-2012 Client ID: A12L086

CCal Date: 11-DEC-2012 Instrument: FID8.I

Analysis Time: 17:46 Lab File Name: 1210A073.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	3965606	177.2	200	-11.4
C10-C12	Aliph.	1853772	89.0	100	-11.0
C12-C16	Aliph.	1785402	88.2	100	-11.8
C16-C21	Aliph.	1755877	89.4	100	-10.6
C21-C34	Aliph.	1943969	103.2	100	3.2
Surrogate		1959034	88.0	100	-12.0

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AL#7

ICal Date: 15-NOV-2012 Client ID: AL#7

CCal Date: 12-DEC-2012 Instrument: FID8.I

Analysis Time: 10:28 Lab File Name: 1210A113.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	3977903	177.7	200	-11.1
C10-C12	Aliph.	1829383	87.8	100	-12.2
C12-C16	Aliph.	1756046	86.7	100	-13.3
C16-C21	Aliph.	1763698	89.8	100	-10.2
C21-C34	Aliph.	1980886	105.2	100	5.2
Surrogate		1947694	87.5	100	-12.5

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AL#8

ICal Date: 15-NOV-2012 Client ID: AL#8

CCal Date: 12-DEC-2012 Instrument: FID8.I

Analysis Time: 14:22 Lab File Name: 1210A119.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	4048769	180.9	200	-9.6
C10-C12	Aliph.	1880883	90.3	100	-9.7
C12-C16	Aliph.	1807711	89.3	100	-10.7
C16-C21	Aliph.	1805219	91.9	100	-8.1
C21-C34	Aliph.	2021366	107.4	100	7.4
Surrogate		2008279	90.2	100	-9.8

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV14 Project: A12L086

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.80

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01		ALIB	11/15/12	1458	6.79	
02		20PPMALIPH	11/15/12	1524	6.78	
03		50PPMALIPH	11/15/12	1549	6.78	
04		100PPMALIPH	11/15/12	1614	6.78	
05		150PPMALIPH	11/15/12	1640	6.79	
06		200PPMALIPH	11/15/12	1705	6.80	
07		ALIPH ICV	11/15/12	1730	6.79	

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV14 Project: A12L086

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.08

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01	ZZZZZ	ZZZZZ	10/20/12	1245	6.08
02	20PPMAROM	20PPMAROM	10/20/12	1310	6.08
03	50PPMAROM	50PPMAROM	10/20/12	1335	6.08
04	100PPMAROM	100PPMAROM	10/20/12	1400	6.08
05	150PPMAROM	150PPMAROM	10/20/12	1426	6.09
06	200PPMAROM	200PPMAROM	10/20/12	1451	6.09
07	AROMICV	AROMICV	10/20/12	1516	6.09

QC LIMITS

S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV14 Project: A12L086

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.80

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01	ALIB	ALIB	12/11/12	0106	6.79
02	AL#1	AL#1	12/11/12	0131	6.79
03	VV14MBS1	VV14MBS1	12/11/12	0424	6.79
04	VV14LCSS1	VV14LCSS1	12/11/12	0449	6.79
05	VV14LCSDS1	VV14LCSDS1	12/11/12	0514	6.79
11	AL#2	AL#2	12/11/12	0807	6.80
12	AL#3	AL#3	12/11/12	1515	6.80
01	AL#7	AL#7	12/12/12	1028	6.80
02	AQ-FSL-01-0-	VV14A	12/12/12	1217	6.80
03	AQ-FSL-03-1-	VV14B	12/12/12	1242	6.80
04	AQ-ECA-02-1-	VV14C	12/12/12	1306	6.80
05	AQ-BMP-02-1-	VV14D	12/12/12	1332	6.80
06	AQ-BMP-05-1.	VV14E	12/12/12	1356	6.80
07	AL#8	AL#8	12/12/12	1422	6.79

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV14 Project: A12L086

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.08

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01	AR#2	AR#2	12/10/12	2237	6.08	
02	AQ-FSL-01-0-	VV14A	12/10/12	2302	6.12	
03	AQ-FSL-03-1-	VV14B	12/10/12	2326	6.09	
04	AQ-ECA-02-1-	VV14C	12/10/12	2351	6.09	
05	AQ-BMP-02-1-	VV14D	12/11/12	0016	6.10	
06	AQ-BMP-05-1.	VV14E	12/11/12	0041	6.11	
07	AR#3	AR#3	12/11/12	0653	6.09	
08	AR#4	AR#4	12/11/12	0832	6.09	
09	VV14MBS1	VV14MBS1	12/11/12	1128	6.09	
10	VV14LCSS1	VV14LCSS1	12/11/12	1154	6.10	
11	VV14LCSDS1	VV14LCSDS1	12/11/12	1219	6.09	
12	AQ-FSL-01-0-	VV14A	12/11/12	1244	6.09	
13	AQ-FSL-03-1-	VV14B	12/11/12	1309	6.09	
14	AQ-ECA-02-1-	VV14C	12/11/12	1334	6.09	
15	AQ-BMP-02-1-	VV14D	12/11/12	1359	6.09	
16	AQ-BMP-05-1.	VV14E	12/11/12	1424	6.09	
17	AR#5	AR#5	12/11/12	1449	6.09	

QC LIMITS
S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

Total Solids

ARI Job ID: VV14

<2>

Extractions Total Solids-extts
Data By: Adam L. Rains
Created: 12/ 7/12

Worklist: 1202
Analyst: ALR
Comments:

Apex

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	VV14A 12-24090 AQ-FSL-01-0-12	1.18	10.58	7.90	71.5	NR
2.	VV14B 12-24091 AQ-FSL-03-1-8.5	1.17	10.46	8.20	75.7	NR
3.	VV14C 12-24092 AQ-ECA-02-1-5	1.17	10.29	7.01	64.0	NR
4.	VV14D 12-24093 AQ-BMP-02-1-15	1.17	10.64	8.19	74.1	NR
5.	VV14E 12-24094 AQ-BMP-05-1.5-15.5	1.16	10.74	7.94	70.8	NR

Extractions Total Solids-extts
Data By: Adam L. Rains
Created: 12/ 7/12

Worklist: 1202
Analyst: ALR
Comments:

Oven ID: ϕ15

Balance ID: B114127534

Samples In: Date: 12/07/12 Time: 12:10 Temp: 163 Analyst: AR

Samples Out: Date: 12/8/12 Time: ϕ955 Temp: 103 Analyst: NL

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	VV14A 12-24090 AQ-FSL-01-0-12	1.18	10.58	7.92 (9ϕ) NL 12/8/12		NR
2.	VV14B 12-24091 AQ-FSL-03-1-8.5	1.17	10.46	8.2ϕ		NR
3.	VV14C 12-24092 AQ-ECA-02-1-5	1.17	10.29	7.ϕ1		NR
4.	VV14D 12-24093 AQ-BMP-02-1-15	1.17	10.64	8.19		NR
5.	VV14E 12-24094 AQ-BMP-05-1.5-15.5	1.18	10.74	7.94		NR

Table of Contents: ARI Job VV48

Client: Apex Laboratories Project: A12L107

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EPH Analysis		
Report and Summary QC Forms	12	31
Total Solids		
Report and Summary QC Forms	32	34

Signature

December-13-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 13, 2012

Darwin Thomas
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A12L107
ARI Job No.: VV48

Dear Mr. Thomas:

Please find enclosed the original Chain of Custody record (COC), sample receipt documentation, and the final data for the samples from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this report and all supporting raw data will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.



Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: VV48

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

- Chain of Custody Documentation

ARI Job ID: VV48

VKH
12-6-12

SUBCONTRACT ORDER

Apex Laboratories

A12L107

VV 248

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Darwin Thomas

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

Sample Name: AQ-IFL-03-0-12 **Soil** **Sampled: 10/17/12 16:10** (A12L107-03)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub) *Containers Supplied:* (B)2 oz Glass Jar	12/14/12 17:00	10/31/12 16:10	mdl-ARI--Level 4 Data Package

Sample Name: AQ-IFL-05-0-14 **Soil** **Sampled: 10/18/12 10:06** (A12L107-04)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub) *Containers Supplied:* (B)2 oz Glass Jar	12/14/12 17:00	11/01/12 10:06	mdl-ARI--Level 4 Data Package,

run out of hold
due 12-14-12

Released By	Date	Received By	Date
[signature]	12/6/12 1350	UPS (Shipper)	
UPS (Shipper)		[signature]	12/7/12 9:15

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client APEX

Project Name AIZH07

COC No(s) NA

Delivered by Fed-Ex UPS Courier Hand Delivered Other:

Assigned ARI Job No VV48

Tracking No 1ZX4720R13 9187 2720 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2 0-6 0 °C for chemistry). 1.8

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID# 90877952

Cooler Accepted by: JM Date: 12/7/12 Time ~~930~~ 915

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI NA YES Date/Time _____ Equipment _____ Split by: _____

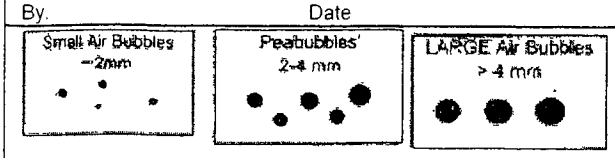
Samples Logged by: TS Date: 12-7-12 Time: 1149

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By. Date



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VV48

Case Narrative

Client: Apex Laboratories
Project: A12107
ARI Job No.: VV48

Sample Receipt

Analytical Resources, Inc. (ARI) accepted two soil samples on December 14, 2012 under ARI job VV48. The cooler temperature measured by IR thermometer following ARI SOP was 1.8° C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for parameters as requested on the COC.

Extractable Petroleum Hydrocarbons (EPH)

The samples were extracted and analyzed outside the method recommended holding time.

There were no other irregularities with this analysis.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VV48
Client: Apex Laboratories
Project Event: N/A
Project Name: A12L107

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	AQ-IFL-03-0-12	VV48A	12-24277	Soil	10/17/12 16:10	12/07/12 09:15
2.	AQ-IFL-05-0-14	VV48B	12-24278	Soil	10/18/12 10:06	12/07/12 09:15

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S — Indicates an analyte response that has saturated the detector. The calculated concentration is not valid, a dilution is required to obtain valid quantification of the analyte

NA — The flagged analyte was not analyzed for

NR — Spiked compound recovery is not reported due to chromatographic interference

NS — The flagged analyte was not spiked into the sample

M — Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 — The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N — The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y — The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC — Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C — The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P — The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X — Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z — Analyte signal includes interference from the sample matrix or perfluorokerosene ions **(Dioxin/Furan analysis only)**

Geotechnical Data

A	The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
F	Samples were frozen prior to particle size determination
SM	Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
SS	Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
W	Weight of sample in some pipette aliquots was below the level required for accurate weighting

UUIA : 00010

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Extractable Petroleum Hydrocarbons (EPH) Washington Department of Ecology Interim Method[1,2]

Effective: 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Calculated Control Limits [3]	
Sample Matrix	Water	Soil / Sediment
Sample Amount / Final Volume:	500 mL / 1 mL	10 g / 1 mL
LCS Spike Recovery [4]		
C8-C10 Aliphatics	**10** - **100**	21 - **100**
C10-C12 Aliphatics	14 - **100**	23 - **100**
C12-C16 Aliphatics	43 - 110	30 - 120
C16-C21 Aliphatics	44 - 122	32 - 129
C10-C12 Aromatics	16 - 105	20 - 109
C12-C16 Aromatics	42 - 116	30 - 125
C16-C21 Aromatics	55 - 127	37 - 135
C21-C34 Aromatics	54 - 136	45 - 137
Method Blank/LCS Surrogate Recovery		
Ortho-Terphenyl	44 - 133	34 - 133
1-Chloro-octadecane	38 - 121	27 - 128
Sample Surrogate Recovery		
Ortho-Terphenyl	39 - 141	**10** - 143
1-Chloro-octadecane	42 - 120	39 - 131

(1) Control limits calculated using all available data for 1/1/08 through 11/30/08.
(2) Analytical method published in: *Washington State Department of Ecology, Analytical Methods for Petroleum Hydrocarbons, Publication No. ECY 97-602, June 1997*
(3) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.

EPH Analysis
Report and Summary QC Forms

ARI Job ID: VV48

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: AQ-IFL-03-0-12
SAMPLE

Lab Sample ID: VV48A
LIMS ID: 12-24277
Matrix: Soil
Data Release Authorized: MW
Reported: 12/13/12

QC Report No: VV48-Apex Laboratories
Project: A12L107

Date Sampled: 10/17/12
Date Received: 12/07/12

Date Extracted: 12/08/12
Percent Moisture: 18.1%

Sample Amount: 8.28 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 12/12/12 06:18
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/11/12 21:57
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,400	< 2,400 U
C10-C12 Aliphatics	2,400	< 2,400 U
C12-C16 Aliphatics	**2,400**	**2,800**
C16-C21 Aliphatics	**2,400**	**39,000**
C21-C34 Aliphatics	**2,400**	**370,000**
C8-C10 Aromatics	**2,400**	**14,000**
C10-C12 Aromatics	2,400	< 2,400 U
C12-C16 Aromatics	**2,400**	**8,900**
C16-C21 Aromatics	**2,400**	**500,000**
C21-C34 Aromatics	**2,400**	**2,600,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	70.7%
Aromatic	o-Terphenyl	115%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: AQ-IFL-05-0-14
SAMPLE

Lab Sample ID: VV48B
LIMS ID: 12-24278
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV48-Apex Laboratories
Project: A12L107
Date Sampled: 10/18/12
Date Received: 12/07/12

Date Extracted: 12/08/12
Percent Moisture: 15.8%

Sample Amount: 8.55 g-dry-wt
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 12/12/12 06:42
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/11/12 22:23
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,300	< 2,300 U
C10-C12 Aliphatics	2,300	< 2,300 U
C12-C16 Aliphatics	2,300	< 2,300 U
C16-C21 Aliphatics	**2,300**	**25,000**
C21-C34 Aliphatics	**2,300**	**370,000**
C8-C10 Aromatics	2,300	< 2,300 U
C10-C12 Aromatics	2,300	< 2,300 U
C12-C16 Aromatics	**2,300**	**9,000**
C16-C21 Aromatics	**2,300**	**300,000**
C21-C34 Aromatics	**2,300**	**1,400,000**

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	75.7%
Aromatic	o-Terphenyl	92.0%

VV48 00021

ANALYTICAL RESOURCES INCORPORATED

ALEPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: VV48-Apex Laboratories
Project: A12L107

Client ID	COD	TOT OUT
MB-120812	77.1%	0
LCS-120812	78.3%	0
LCSD-120812	77.9%	0
AQ-IFL-03-0-12	70.7%	0
AQ-IFL-05-0-14	75.7%	0

	LCS/MB LIMITS	QC LIMITS
(COD) = 1-Chlorooctadecane	(27-128)	(39-131)

Prep Method: SW3550C
Log Number Range: 12-24277 to 12-24278

FORM-II ALEPH

VV48 : 00015

ANALYTICAL RESOURCES INCORPORATED

AREPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: VV48-Apex Laboratories
Project: A12L107

Client ID	OTER	TOT OUT
MB-120812	80.0%	0
LCS-120812	73.9%	0
LCSD-120812	80.5%	0
AQ-IFL-03-0-12	115%	0
AQ-IFL-05-0-14	92.0%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(34-133)	(10-143)

Prep Method: SW3550C
Log Number Range: 12-24277 to 12-24278

FORM-II AREPH

VV48 00016

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH **Sample ID: LCS-120812**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-120812 QC Report No: VV48-Apex Laboratories
LIMS ID: 12-24277 Project: A12L107
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12 Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 12/08/12 Sample Amount LCS: 10.0 g-as-rec
LCSD: 10.0 g-as-rec
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

Aliphatic
Date Analyzed LCS: 12/12/12 03:48 Dilution Factor LCS: 1.00
LCSD: 12/12/12 03:48 LCSD: 1.00
Instrument/Analyst LCS: FID8/JGR
LCSD: FID8/JGR

Aromatic
Date Analyzed LCS: 12/11/12 19:01 Dilution Factor LCS: 1.00
LCSD: 12/11/12 19:27 LCSD: 1.00
Instrument/Analyst LCS: FID8/JGR
LCSD: FID8/JGR

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
C8-C10 Aliphatics	4800	7500	64.0%	4700	7500	62.7%	2.1%
C10-C12 Aliphatics	3900	7500	52.0%	4200	7500	56.0%	7.4%
C12-C16 Aliphatics	5900	7500	78.7%	5600	7500	74.7%	5.2%
C16-C21 Aliphatics	6900	7500	92.0%	6800	7500	90.7%	1.5%
C10-C12 Aromatics	4400	7500	58.7%	4700	7500	62.7%	6.6%
C12-C16 Aromatics	5200	7500	69.3%	5600	7500	74.7%	7.4%
C16-C21 Aromatics	10700	15000	71.3%	12100	15000	80.7%	12.3%
C21-C34 Aromatics	10600	15000	70.7%	12200	15000	81.3%	14.0%

EPH Surrogate Recovery

		LCS	LCSD
Aliphatic	1-Chlorooctadecane	78.3%	77.9%
Aromatic	o-Terphenyl	73.9%	80.5%

Results reported in µg/kg
RPD calculated using sample concentrations per SW846.

TPH METHOD BLANK SUMMARY

BLANK NO.

VV42MBS1

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV42 Project No.: A12L108

Date Extracted: 12/08/12 Matrix: SOLID

Date Analyzed : 12/12/12 Instrument ID : FID8

Time Analyzed : 0258

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
03	VV42LCSS1	VV42LCSS1	12/12/12
04	VV42LCSDS1	VV42LCSDS1	12/12/12
05	AQ-ILF-02-6-	VV42A	12/11/12
06	AQ-ILF-03-8-	VV42B	12/11/12
07	AQ-ILF-04-12	VV42C	12/11/12
08	AQ-ILF-05-10	VV42D	12/11/12
09	AQ-FSL-02-14	VV42E	12/11/12
05			
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TPH METHOD BLANK SUMMARY

BLANK NO.

VV42MBS1

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV42 Project No.: A12L108

Date Extracted: 12/08/12 Matrix: SOLID

Date Analyzed : 12/11/12 Instrument ID : FID8

Time Analyzed : 1836

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	VV42LCSS1	VV42LCSS1	12/11/12
02	VV42LCSDS1	VV42LCSDS1	12/11/12
05	AQ-ILF-02-6-	VV42A	12/11/12
06	AQ-ILF-03-8-	VV42B	12/11/12
07	AQ-ILF-04-12	VV42C	12/11/12
08	AQ-ILF-05-10	VV42D	12/11/12
09	AQ-FSL-02-14	VV42E	12/11/12
05			
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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Aliphatic/Aromatic GC-EPH
Extraction Method: SW3550C
Page 1 of 1

Sample ID: MB-120812
METHOD BLANK

Lab Sample ID: MB-120812
LIMS ID: 12-24277
Matrix: Soil
Data Release Authorized:
Reported: 12/13/12

QC Report No: VV48-Apex Laboratories
Project: A12L107

Date Sampled: NA
Date Received: NA

Date Extracted: 12/08/12
Percent Moisture: NA

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

Aliphatic
Date Analyzed: 12/12/12 02:58
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Aromatic
Date Analyzed: 12/11/12 18:36
Instrument/Analyst: FID8/JGR

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,000	< 2,000 U
C10-C12 Aliphatics	2,000	< 2,000 U
C12-C16 Aliphatics	2,000	< 2,000 U
C16-C21 Aliphatics	2,000	< 2,000 U
C21-C34 Aliphatics	2,000	< 2,000 U
C8-C10 Aromatics	2,000	< 2,000 U
C10-C12 Aromatics	2,000	< 2,000 U
C12-C16 Aromatics	2,000	< 2,000 U
C16-C21 Aromatics	2,000	< 2,000 U
C21-C34 Aromatics	2,000	< 2,000 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	77.1%
Aromatic	o-Terphenyl	80.0%

VV48 · 00020

6a
EPH ALIPHATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client: APEX LAB

Instrument: FID8.I Project: A12L108

Calibration Date: 15-NOV-2012 SDG No.: VV42

Aliphatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	22122	22590	22292	22347	22591	22389	0.9
C10-C12	20590	20824	20742	20894	21111	20832	0.9
C12-C16	20070	20224	20097	20323	20506	20244	0.9
C16-C21	19826	19810	19528	19525	19495	19637	0.8
C21-C34	18176	18373	18799	19227	19569	18829	3.1

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1115A014.D	15-NOV-2012 15:24
1115A015.D	15-NOV-2012 15:49
1115A016.D	15-NOV-2012 16:14
1115A017.D	15-NOV-2012 16:40
1115A018.D	15-NOV-2012 17:05
	15-NOV-2012 17:05

6a
EPH AROMATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client: APEX LAB

Instrument: FID8.I Project: A12L108

Calibration Date: 20-OCT-2012 SDG No.: VV42

Aromatics EPH Range	RF1 20	RF2 50	RF3 100	RF4 150	RF5 200	Ave RF	%RSD
C8-C10	24574	27109	26493	26423	25002	25920	4.2
C10-C12	25377	26558	27646	27627	24857	26413	4.8
C12-C16	25763	27037	28118	28085	25343	26869	4.8
C16-C21	28891	30105	30909	30502	29034	29888	3.0
C21-C34	25904	27180	27537	26943	26133	26739	2.6

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Calibration Files	Analysis Time
1020A013.D	20-OCT-2012 13:10
1020A014.D	20-OCT-2012 13:35
1020A015.D	20-OCT-2012 14:00
1020A016.D	20-OCT-2012 14:26
1020A017.D	20-OCT-2012 14:51
	20-OCT-2012 14:51

7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AR#5

ICal Date: 20-OCT-2012 Client ID: A12L108

CCal Date: 11-DEC-2012 Instrument: FID8.I

Analysis Time: 18:11 Lab File Name: 1210A074.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	5589121	215.6	200	7.8
C10-C12	Arom.	2802283	106.1	100	6.1
C12-C16	Arom.	2697089	100.4	100	0.4
C16-C21	Arom.	2896593	96.9	100	-3.1
C21-C34	Arom.	2616338	97.8	100	-2.2
Surrogate		2606943	94.0	100	-6.0

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AR#6

ICal Date: 20-OCT-2012 Client ID: A12L108

CCal Date: 11-DEC-2012 Instrument: FID8.I

Analysis Time: 22:48 Lab File Name: 1210A085.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	5645950	217.8	200	8.9
C10-C12	Arom.	2833625	107.3	100	7.3
C12-C16	Arom.	2732619	101.7	100	1.7
C16-C21	Arom.	3280651	109.8	100	9.8
C21-C34	Arom.	2322156	86.8	100	-13.2
Surrogate		2761113	99.6	100	-0.4

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a

EPH AROMATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AR#7

ICal Date: 20-OCT-2012 Client ID: A12L108

CCal Date: 12-DEC-2012 Instrument: FID8.I

Analysis Time: 02:08 Lab File Name: 1210A093.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Arom.	5766325	222.5	200	11.2
C10-C12	Arom.	2901836	109.9	100	9.9
C12-C16	Arom.	2802264	104.3	100	4.3
C16-C21	Arom.	3265086	109.2	100	9.2
C21-C34	Arom.	2556318	95.6	100	-4.4
Surrogate		2838711	102.4	100	2.4

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

7a
EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AL#5

ICal Date: 15-NOV-2012 Client ID: A12L108

CCal Date: 12-DEC-2012 Instrument: FID8.I

Analysis Time: 02:33 Lab File Name: 1210A094.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	4112875	183.8	200	-8.1
C10-C12	Aliph.	1905083	91.4	100	-8.6
C12-C16	Aliph.	1840812	90.9	100	-9.1
C16-C21	Aliph.	1873306	95.4	100	-4.6
C21-C34	Aliph.	2071389	110.0	100	10.0
Surrogate		2088617	93.8	100	-6.2

* From Range Reference Peak(s)
<- Indicates an RPD outside 20% QC limits

7a

EPH ALIPHATIC CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: AL#6

ICal Date: 15-NOV-2012 Client ID: A12L108

CCal Date: 12-DEC-2012 Instrument: FID8.I

Analysis Time: 07:07 Lab File Name: 1210A105.D

Quant Range		Area*	Conc	Nom Conc	RPD
C8-C10	Aliph.	3880034	173.4	200	-13.3
C10-C12	Aliph.	1808477	86.8	100	-13.2
C12-C16	Aliph.	1740050	86.0	100	-14.0
C16-C21	Aliph.	1749348	89.1	100	-10.9
C21-C34	Aliph.	1967555	104.5	100	4.5
Surrogate		1944074	87.3	100	-12.7

* From Range Reference Peak(s)

<- Indicates an RPD outside 20% QC limits

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV42 Project: A12L108

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.80

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01		ALIB	11/15/12	1458	6.79	
02		20PPMALIPH	11/15/12	1524	6.78	
03		50PPMALIPH	11/15/12	1549	6.78	
04		100PPMALIPH	11/15/12	1614	6.78	
05		150PPMALIPH	11/15/12	1640	6.79	
06		200PPMALIPH	11/15/12	1705	6.80	
07		ALIPH ICV	11/15/12	1730	6.79	

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV42 Project: A12L108

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.08

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01	ZZZZZ	ZZZZZ	10/20/12	1245	6.08
02	20PPMAROM	20PPMAROM	10/20/12	1310	6.08
03	50PPMAROM	50PPMAROM	10/20/12	1335	6.08
04	100PPMAROM	100PPMAROM	10/20/12	1400	6.08
05	150PPMAROM	150PPMAROM	10/20/12	1426	6.09
06	200PPMAROM	200PPMAROM	10/20/12	1451	6.09
07	AROMICV	AROMICV	10/20/12	1516	6.09

QC LIMITS

S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

UUUR 00029

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV42 Project: A12L108

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.09

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01	AR#5	AR#5	12/11/12	1811	6.09
02	VV42MBS1	VV42MBS1	12/11/12	1836	6.09
03	VV42LCSS1	VV42LCSS1	12/11/12	1901	6.09
04	VV42LCSDS1	VV42LCSDS1	12/11/12	1927	6.09
05	AQ-ILF-02-6-	VV42A	12/11/12	1952	6.09
06	AQ-ILF-03-8-	VV42B	12/11/12	2017	6.10
07	AQ-ILF-04-12	VV42C	12/11/12	2042	6.10
08	AQ-ILF-05-10	VV42D	12/11/12	2107	6.09
09	AQ-FSL-02-14	VV42E	12/11/12	2132	6.09
10	AQ-IFL-03-0-	VV48A	12/11/12	2157	6.09
11	AQ-IFL-05-0-	VV48B	12/11/12	2223	6.09
12	AR#6	AR#6	12/11/12	2248	6.08
13	AQ-ILF-02-6-	VV42A	12/11/12	2313	6.08
14	AQ-ILF-03-8-	VV42B	12/11/12	2338	6.08
15	AQ-ILF-04-12	VV42C	12/12/12	0003	6.08
16	AQ-ILF-05-10	VV42D	12/12/12	0028	6.08
17	AQ-FSL-02-14	VV42E	12/12/12	0053	6.07
18	AQ-IFL-03-0-	VV4BA	12/12/12	0118	6.08
19	AQ-IFL-05-0-	VV48B	12/12/12	0143	6.08
20	AR#7	AR#7	12/12/12	0208	6.08

QC LIMITS
S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: APEX LAB

SDG No.: VV42 Project: A12L108

Instrument ID: FID8 GC Column: ZB-5

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.80

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01	AL#5	AL#5	12/12/12	0233	6.79	
02	VV42MBS1	VV42MBS1	12/12/12	0258	6.79	
03	VV42LCSS1	VV42LCSS1	12/12/12	0323	6.79	
04	VV42LCSDS1	VV42LCSDS1	12/12/12	0348	6.79	
05	AQ-ILF-02-6-	VV42A	12/12/12	0413	6.79	
06	AQ-ILF-03-8-	VV42B	12/12/12	0438	6.80	
07	AQ-ILF-04-12	VV42C	12/12/12	0503	6.79	
08	AQ-ILF-05-10	VV42D	12/12/12	0528	6.79	
09	AQ-FSL-02-14	VV42E	12/12/12	0553	6.80	
10	AQ-IFL-03-0-	VV48A	12/12/12	0618	6.80	
11	AQ-IFL-05-0-	VV48B	12/12/12	0642	6.80	
12	AL#6	AL#6	12/12/12	0707	6.80	

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

Total Solids

ARI Job ID: VV48

VV48 : 00032

Extractions Total Solids-extts
Data By: Nhon Luu
Created: 12/ 8/12

Worklist: 1567
Analyst: RVR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	VV48A 12-24277 AQ-IFL-03-0-12	1.17	11.80	9.88	81.9	NR
2.	VV48B 12-24278 AQ-IFL-05-0-14	1.17	11.53	9.89	84.2	NR

VV48 · 00033

Extractions Total Solids-extts
Data By: Nhon Luu
Created: 12/ 8/12

Worklist: 1567
Analyst: NL
Comments:

Oven ID: Φ15

Balance ID: B14642614

Samples In: Date: 12/8/12 Time: 0755 Temp: 96°C Analyst: NL

Samples Out: Date: 12/10/12 Time: 07:00 Temp: 99° Analyst: RR

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	VV48A 12-24277 AQ-IFL-03-0-12	1.17	11.84	9.88		NR
2.	VV48B 12-24278 AQ-IFL-05-0-14	1.17	11.53	9.89		NR

UVUR : 00003U

BIOASSAY TESTING OF LANDFILL AND FILL DEPOSIT SAMPLES

Six archived landfill and fill deposit samples were submitted to the CH2M Hill laboratory in Corvallis, Oregon, for acute fish bioassay testing. The testing was performed using Washington State Department of Ecology (Ecology) testing protocols for Dangerous Waste designation under Washington Administrative Code (WAC) 173-303 and Ecology's test methods. The six samples submitted for testing are listed in Table 1. The samples were collected as part of Remedial Investigation/Feasibility Study (RI/FS) activities from existing landfill and fill deposits managed in place at the former Reynolds Metals Reduction Plant (Reynolds Facility).

The testing described in this memorandum is not intended to represent a formal waste designation for off-site disposal, as the materials remain managed in place and have not been generated. Rather, this screening-level test of archived samples was performed to supplement previous bioassay testing that has been performed on similar materials at the Reynolds Facility. This testing is intended to inform the RI/FS regarding the characteristics of the landfill and fill deposit materials and to provide an indication of whether potential future waste designations performed under WAC 173-303 could require application of the Washington State waste designation of WT-02. Fish bioassay testing can be used as part of this designation process.

Table 1
Summary of Samples for Hazardous Waste Designation Testing

Sample Type	Sample ID	Collection Date
Residual Carbon	AQ-ECA-03-1-7	October 19, 2012
Residual Carbon	AQ-BMD-08-2-4	October 23, 2012
Residual Carbon	AQ-BMP-05-1.5-15.5	October 23, 2012
Spent Lime	AQ-WMP-04-2-8	October 24, 2012
Landfill Debris (industrial)	AQ-ILF-03-0-12	October 17, 2012
Landfill Debris (floor sweeps)	AQ-FSL-01-0-12	October 18, 2012

Samples were shipped by Anchor QEA, LLC (Anchor QEA), via Apex Laboratories, Longview, Washington, in coolers with ice. Samples were received by the CH2M Hill laboratory on March 14, 2013, and were stored at 4 degrees Celsius (°C) until testing. For

each sample, approximately 3 grams of material was required for testing. The remaining sample material is currently archived at the CH2M Hill laboratory in the original sample jars and stored at 4°C.

Test Methods and Quality Assurance/Quality Control

All six samples were prepared and tested in accordance with the Ecology static acute fish toxicity test for the designation of dangerous waste (Biological Testing Methods 80-12; www.ecy.wa.gov/biblio/8012.html; Ecology 2009). Rainbow trout (*Oncorhynchus mykiss*) for the test were obtained from the Thomas Fish Company, Anderson, California. The samples were tested at the waste concentration of 100 milligrams per liter (mg/L). The threshold for a sample to be designated as Dangerous Waste is a median lethal concentration (LC50) of less than or equal to 100 mg/L.

The 2013 CH2M Hill (2013) bioassay report provides the details of the bioassays, including exposure conditions, test methods, monitoring of water quality parameters (e.g., hardness, alkalinity, pH conductivity, ammonia, and dissolved oxygen), and reference toxicant texts. The CH2M Hill bioassay report is provided in Appendix F.

The screening-level testing program utilized archived landfill and fill deposit samples to provide an indication of the results of a formal designation process. The original samples were collected and archived in October 2012; hold times were, therefore, greater than the 45-day holding times specified for use in formal waste designations. This limitation is consistent with the screening-level use of the current testing program. Analytical chemistry results for the samples are provided in Appendix F of the RI.

Bioassay testing met the quality assurance/quality control requirements of the method. All water quality parameters were within method-established ranges. The fish were acclimated as required and were reported to be vigorous and in good condition prior to testing. A reference toxicant test was conducted using potassium chloride, and the LC50 (1.14 grams per liter [g/L]) was within established control chart limits of 0.07 to 3.54 g/L. Therefore, the test organisms were suitable for testing without qualification.

Test Results

Trout survival was 100 percent in all of the 100 mg/L treatments for samples AQ-ECA-03-1-7, AQ-BMD-08-2-4, AQ-BMP-05-1.5-15.5, AQ-WMP-04-2-8, AQ-ILF-03-0-12, and AQ-FSL-01-0-12 (see Table 2). Therefore, the screening-level tests indicate that the landfill and fill deposit materials are unlikely to be designated as a WT02 Dangerous Waste using Ecology's fish bioassay testing protocols.

As noted in Section 1.1, the testing data were not intended to formally designate the materials for disposal because the landfill and fill deposits remain managed in-place within the Reynolds Facility. If generated for disposal in the future, a formal waste designation would need to be made at that time. That designation process may include bioassay testing, along with other factors.

Table 2
Summary of March 2013 Hazardous Waste Designation Bioassay Results

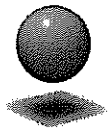
Sample Type	Sample ID	Test Date	Test Concentration (mg/L)	Mortality (mortality/total)
Residual Carbon	AQ-ECA-03-1-7	3/20/2013	100	0/30
Residual Carbon	AQ-BMD-08-2-4	3/20/2013	100	0/30
Residual Carbon	AQ-BMP-05-1.5-15.5	3/20/2013	100	0/30
Spent Lime	AQ-WMP-04-2-8	3/20/2013	100	0/30
Landfill Debris (industrial)	AQ-ILF-03-0-12	3/20/2013	100	0/30
Landfill Debris (floor sweeps)	AQ-FSL-01-0-12	3/20/2013	100	0/30

BIOASSAY REPORT
96-HOUR STATIC
WDOE HAZARDOUS WASTE DESIGNATION
BIOASSAYS CONDUCTED
March 20 through 24, 2013

Prepared for

ANCHOR QEA
LONGVIEW, WASHINGTON

Prepared by



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INTRODUCTION

CH2M HILL conducted a series of six 96-hour Washington State Hazardous Waste Regulation bioassays using concentrations of 100 mg/L on samples provided by Anchor QEA (via APEX Labs), Longview, Washington. The tests were conducted from March 20 through 24, 2013. The organisms tested were rainbow trout (*Oncorhynchus mykiss*).

The samples were labeled:

- AQ-ECA-030107
- AQ-BMD-08-2-4
- AQ-BMP-05-1.5-15.5
- AQ-WMP-04-2-8
- AQ-ILF-03-0-12
- AQ-FSL-01-0-12

METHODS AND MATERIALS

TEST METHODS

The test was performed according to: *Biological Testing Methods*, Washington State Department of Ecology, DOE 80-12, Revised June 2009.

DEVIATIONS FROM PROTOCOLS

Deviations from required procedures in the test methods:

- None noted.

Deviations from recommended procedures in the test methods:

- None noted.

TEST ORGANISMS

The rainbow trout used in the test were obtained from Thomas Fish Company, Anderson, California, and were 37 days old at test initiation. All test organisms were acclimated to dilution water for 13 days, appeared vigorous and in good condition prior to testing, and were not treated for any disease.

DILUTION WATER

The water used for acclimation and dilution water during the static testing was reconstituted moderately hard water with a hardness of 80 to 100 mg/L as $CaCO_3$ and an alkalinity of 60 to 70 mg/L as $CaCO_3$.

TEST CONDITIONS

The test concentrations tested were 100 mg/L of sample with dilution water alone for the control. The bioassay was tested in 2.5 gallon glass aquaria, with a volume of 7 liters. The sample was tested in triplicate with 10 organisms per replicate. The photoperiod was 16 hours light, 8 hours dark, and the temperature was 12±1°C, unless noted, throughout the testing period. Loading of test organisms was 0.51 g wet fish weight per liter. The test was initiated by adding organisms to test chambers within 30 minutes after adding test substances. Mortality was measured by lack of response to tactile stimulation and lack of respiratory movement.

SAMPLE COLLECTION AND DESCRIPTION

The samples were collected on between October 17 and 24, 2012. The samples were received by Apex Labs in Troutdale Oregon within 36 hours of sample collection.

The samples were shipped from Apex Labs on March 13, 2013. The samples were received by CH2M HILL on March 14, 2013.

Following receipt, the samples were stored at 0 to 6°C in the dark until test initiation. A copy of the chain of custody record is provided in Appendix C.

MONITORING OF BIOASSAYS

The static test was analyzed at initiation for hardness, alkalinity, pH, conductivity, ammonia, and dissolved oxygen, and every 24 hours thereafter for mortality, dissolved oxygen, and pH. Temperature was monitored in the test chambers daily and in the incubator or waterbath continuously throughout the testing period. Conductivity, hardness, and alkalinity were again taken at test termination.

RESULTS AND DISCUSSION

WDOE DEFINITION

Extremely Hazardous Waste: 96 hr LC_{50} concentration less than or equal to 10 mg/L.
Dangerous waste: 96 hr LC_{50} concentration less than or equal to 100 mg/L.

STATIC BIOASSAYS

The raw data sheets are presented in Appendix A.

The results of the tests are summarized in Tables 1 through 6.

Table 1
Test Start Date: March 20, 2013

Sample	Concentration (mg/L)	Number Dead/ Number Tested
Control	0	0/30
"AQ-ECA-030107"	100	0/30

According to the definitions listed above, the "AQ-ECA-030107" sample should not be classified as a "Dangerous Waste".

The dissolved oxygen concentration remained at 6.0 mg/L or greater throughout the testing period. Test temperatures remained in the range of 12±1°C. The test proceeded without any interruption that could have affected test results.

Table 2
Test Start Date: March 20, 2013

Sample	Concentration (mg/L)	Number Dead/ Number Tested
Control	0	0/30
"AQ-BMD-08-2-4"	100	0/30

According to the definitions listed above, the "AQ-BMD-08-2-4" sample should not be classified as a "Dangerous Waste".

The dissolved oxygen concentration remained at 6.0 mg/L or greater throughout the testing period. Test temperatures remained in the range of 12±1°C. The test proceeded without any interruption that could have affected test results.

Table 3 Test Start Date: March 20, 2013		
Sample	**Concentration (mg/L)**	**Number Dead/ Number Tested**
Control	0	0/30
"AQ-BMP-05-1.5-15.5"	100	0/30

According to the definitions listed above, the "AQ-BMP-05-1.5-15.5" sample should not be classified as a "Dangerous Waste".

The dissolved oxygen concentration remained at 6.0 mg/L or greater throughout the testing period. Test temperatures remained in the range of 12±1°C. The test proceeded without any interruption that could have affected test results.

Table 4 Test Start Date: March 20, 2013		
Sample	**Concentration (mg/L)**	**Number Dead/ Number Tested**
Control	0	0/30
"AQ-WMP-04-2-8"	100	0/30

According to the definitions listed above, the "AQ-WMP-04-2-8" sample should not be classified as a "Dangerous Waste".

The dissolved oxygen concentration remained at 6.0 mg/L or greater throughout the testing period. Test temperatures remained in the range of 12±1°C. The test proceeded without any interruption that could have affected test results.

Table 5 Test Start Date: March 20, 2013		
Sample	**Concentration (mg/L)**	**Number Dead/ Number Tested**
Control	0	0/30
"AQ-ILF-03-0-12"	100	0/30

According to the definitions listed above, the "AQ-ILF-03-0-12" sample should not be classified as a "Dangerous Waste".

The dissolved oxygen concentration remained at 6.0 mg/L or greater throughout the testing period. Test temperatures remained in the range of 12±1°C. The test proceeded without any interruption that could have affected test results.

Table 6 Test Start Date: March 20, 2013		
Sample	**Concentration (mg/L)**	**Number Dead/ Number Tested**
Control	0	0/30
"AQ-FSL-01-0-12"	100	0/30

According to the definitions listed above, the "AQ-FSL-01-0-12" sample should not be classified as a "Dangerous Waste".

The dissolved oxygen concentration remained at 6.0 mg/L or greater throughout the testing period. Test temperatures remained in the range of 12±1°C. The test proceeded without any interruption that could have affected test results.

REFERENCE TOXICANT TEST

Reference toxicant (reftox) testing is performed to document both initial and ongoing laboratory performance of the test method(s). While the health of the test organisms is primarily evaluated by the performance of the laboratory control, reftox test results also may be used to assess the health and sensitivity of the test organisms. Reftox test results within their respective cumulative summary (cusum) chart limits are indicative of consistent laboratory performance and normal test organism sensitivity.

The results of the reftox tests conducted using potassium chloride indicate that the test organisms were within their respective cusum chart range based on EPA guidelines.

The data sheets for the reference toxicant tests are provided in Appendix B.

Table 7 summarizes the reference toxicant test results and Cusum chart limits.

Table 7 Reference Toxicant Test (g/L)		
Species	**LC_{50}**	**Control Chart limits**
Oncorhynchus mykiss	1.41	0.07 to 3.54

APPENDIX A

RAW DATA SHEETS

CH2M HILL **FRESHWATER TOXICITY TEST: SAMPLE AND DILUTION WATER DATA**

Client: Anchor QEA SDG # B 2913 Test Initiation: Date 3-20-2013

Contact: Dan Hennessy 360-715-2704 Test Termination: Date 3-24-2013

Sample ID Number	Field ID	Collected Date (mm/dd/yy)	Collected Time (Pacific Zone)	Date Received	Temp (°C) as Rec'vd	Sample Concentration (mg/L)	Ammonia NH_3-N 0 hrs	Hardness (mg/l as $CaCO_3$) 0 hrs	Hardness (mg/l as $CaCO_3$) 96 hrs	Alkalinity (mg/l as $CaCO_3$) 0 hrs	Alkalinity (mg/l as $CaCO_3$) 96 hrs
B2913 -01	AQ-ECA-03-1-7	10/19/12	10:19	3/14/13	5.6	100 mg/L	-	93	95	63	69
-02	AQ-BMD-08-2-4	10/23/12	09:09	3/14/13	5.6	100 mg/L	-	92	93	64	72
-03	AQ-BMP-05-1.5-15.5	10/23/12	14:40	3/14/13	5.6	100 mg/L	-	93	93	65	70
-04	AQ-WMP-04-2-8	10/24/12	15:35	3/14/13	5.6	100 mg/L	-	94	108	67	87
-05	AQ-ILF-03-0-12	10/17/12	16:10	3/14/13	5.6	100 mg/L	-	90	92	65	70
-06	AQ-FSL-01-0-12	10/18/12	15:45	3/14/13	5.6	100 mg/L	-	93	94	65	67
			Reporting Limits:		na	na	0.10 mg/L	4 mg/L		4 mg/L	

Note: "-" Indicates data collection or dechlorination not needed. Any other adjustments to samples prior to use are documented in Comments below or on Dilutions page.

Dilution Water	ID#	Hardness (mg/l as $CaCO_3$) 0 hrs	Hardness (mg/l as $CaCO_3$) 96 hrs	Alkalinity (mg/l as $CaCO_3$) 0 hrs	Alkalinity (mg/l as $CaCO_3$) 96 hrs
Recon MH (FHM)	3829	92	96	66	68
↓	3830	86	-	64	-

Comments: ☑ Indicates the action was taken, (☐= action not taken):

" - " = sample not dechlorinated, or analyte not collected/needed.

Water Quality Meters Used/ID#: Dissolved Oxygen # 3 pH # 4 Conductivity # 2

CH2M HILL *FRESHWATER TOXICITY TEST: TEST ORGANISM INFORMATION*

Client Anchor QEA Sample Designation (SDG): B 2913

Test Species Information	RBT # 316 *Oncorhynchus mykiss* Acute				
Organism Age at Initiation	37 Days				
Test Container Size	2½ gallon				
Test Volume	7 L				
Feeding: Type and Amount	*TetraMin* during acclimation				
Aeration: In Test Chambers via Slow Bubble :	☒ None ☐ Prior to use ☐ @ _____ hrs				
Acclimation Period	13 Days				
Organism Source	Thomas Fish				
Size	37 ± 2 mm				
Loading Rate g/L	0.5				

Dissolved Oxygen aeration justifications (in test chambers):

Test(s): ☐ All ☐ _____

Date:

Comments:

SAMPLE WEIGHT

Client: Anchor QEA

Tumbling Start Date: 3-19-13 Time: 11:30 AM Initials: DW

Client ID#	Lab ID#	Concentration (mg/L)		Target Weight (g)	Actual Weight (g)
AQ-ECA-03-1-7	B2913-01	100 mg/L	A	0.700	0.70081
		100 mg/L	B	0.700	0.70164
		100 mg/L	C	0.700	0.70024
AQ-BMD-08-2-4	B2913-02	100 mg/L	A	0.700	0.70183
		100 mg/L	B	0.700	0.70226
		100 mg/L	C	0.700	0.70093
AQ-BMP-05-1.5-15.5	B2913-03	100 mg/L	A	0.700	0.70119
		100 mg/L	B	0.700	0.70234
		100 mg/L	C	0.700	0.70157
AQ-WMP-04-2-8	B2913-04	100 mg/L	A	0.700	0.70211
		100 mg/L	B	0.700	0.70013
		100 mg/L	C	0.700	0.70085
AQ-ILF-03-0-12	B2913-05	100 mg/L	A	0.700	0.70347
		100 mg/L	B	0.700	0.70196
		100 mg/L	C	0.700	0.70214
AQ-FSL-01-0-12	B2913-06	100 mg/L	A	0.700	0.70085
		100 mg/L	B	0.700	0.70311
		100 mg/L	C	0.700	0.70056

CH2M HILL

96 HOUR FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Waterbath/Incubator Used: # 8 | SDG's # B 2913 | Sample Description: see below

Test Initiation Date: 3/20/2013 Time: 11:15

Termination Date: 3/24/2013 Time: 12:00

Also collect: Hardness and Alkalinity in 100 mg/L @ 0 hrs. AND Hard & Alk in both Control & 100 mg/L @ 96 hrs (or when survival = 0%)

Client: Anchor QEA

Test Species: *Oncorhynchus mykiss* ID# RBT 316

	0 hr	24 hr	48 hr	72 hr	96 hr
Technician	DW	DW	DW	DW	JW
Time	11:15	10:30	10:25	13:00	12:00
Therm. ID#	# 184	# 184	# 184	# 184	# 184

Concentration	Test Container Number	Number of Live Organisms					Dissolved Oxygen (mg/l)					pH					Temperature (°C)					Conductivity (µmohs/cm)				
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96
Control	A	10	10	10	10	10	9.3	8.1	7.9	8.0	7.9	7.8	7.2	7.0	7.2	7.1	11.8	11.8	11.7	11.5	12.1	305 313 DW QC				307
	B	10	10	10	10	10	9.3	8.2	7.9	8.1	8.0	7.8	7.2	7.1	7.2	7.2										
	C	10	10	10	10	10	9.3	8.2	8.1	8.0	8.1	7.8	7.2	7.1	7.2	7.2										
-01 100 mg/L AQ-ECA-03-1-7	A	10	10	10	10	10	9.3	8.1	8.2	8.2	8.0	7.8	7.2	7.0	7.2	7.2	12.6	11.9	11.8	11.7	12.3	312				324
	B	10	10	10	10	10	9.3	8.2	8.2	8.1	8.2	7.8	7.2	7.0	7.2	7.2										
	C	10	10	10	10	10	9.3	8.3	8.2	8.2	8.2	7.8	7.2	7.0	7.2	7.2										
-02 100 mg/L AQ-BMD-08-2-4	A	10	10	10	10	10	9.3	8.2	8.2	8.3	8.2	7.9	7.2	7.0	7.2	7.2	12.4	12.4	12.4	11.9	12.3	314				326
	B	10	10	10	10	10	9.3	8.2	8.2	8.2	8.2	7.9	7.2	7.1	7.2	7.2										
	C	10	10	10	10	10	9.3	8.2	8.2	8.2	8.2	7.9	7.2	7.1	7.2	7.2										
-03 100 mg/L AQ-BMP-05-1.5-15.5	A	10	10	10	10	10	9.4	8.2	8.2	8.1	8.2	7.7	7.2	7.1	7.2	7.2	12.5	12.3	12.2	12.1	12.1	317				326
	B	10	10	10	10	10	9.4	8.3	8.2	8.2	8.2	7.7	7.2	7.1	7.2	7.2										
	C	10	10	10	10	10	9.4	8.3	8.2	8.2	8.2	7.7	7.2	7.0	7.2	7.2										

CH2M HILL

96 HOUR FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Waterbath/Incubator Used: # 8 | SDG's # B 2913 | Sample Description see below

Test Initiation Date: 3/20/2013 Time: 11:15

Termination Date: 3/24/2013 Time: 12:00

Also collect: Hardness and Alkalinity in 100 mg/L @ 0 hrs. AND Hard & Alk in both Control & 100 mg/L @ 96 hrs (or when survival = 0%)

Client: Anchor QEA

Test Species: *Oncorhynchus mykiss* ID# RBT 316

	0 hr	24 hr	48 hr	72 hr	96 hr
Technician	DW	Dw	Dw	JW	JW
Time	11:15	10:30	10:30	13:00	12:00
Therm. ID#	# 184	# 184	# 184	# 184	# 184

Concentration	Test Container Number	Number of Live Organisms					Dissolved Oxygen (mg/l)					pH					Temperature (°C)					Conductivity (µmohs/cm)				
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96
-04 100 mg/L AQ-WMP-04-2-8	A	10	10	10	10	10	9.4	8.2	8.1	8.2	8.2	8.1	7.4	7.1	7.3	7.3	12.6	12.4	12.3	12.1	11.9	313 ~~305~~ DW 9/06				352
	B	10	10	10	10	10	9.4	8.3	8.2	8.2	8.1	8.1	7.5	7.2	7.3	7.3										
	C	10	10	10	10	10	9.4	8.2	8.1	8.1	8.2	8.1	7.5	7.2	7.3	7.3										
-05 100 mg/L AQ-ILF-03-0-12	A	10	10	10	10	10	9.4	8.1	8.1	8.3	8.2	7.5	7.3	7.1	7.3	7.3	12.4	12.5	12.4	12.5	12.3	311				334
	B	10	10	10	10	10	9.4	8.2	8.2	8.1	8.2	7.5	7.2	7.1	7.3	7.3										
	C	10	10	10	10	10	9.4	8.2	8.1	8.1	8.3	7.5	7.3	7.1	7.2	7.3										
-06 100 mg/L AQ-FSL-01-0-12	A	10	10	10	10	10	9.4	8.3	8.1	8.2	8.2	7.4	7.2	7.1	7.2	7.2	12.6	12.6	12.2	12.3	12.0	312				333
	B	10	10	10	10	10	9.4	8.3	8.2	8.2	8.2	7.4	7.2	7.0	7.2	7.2										
	C	10	10	10	10	10	9.4	8.3	8.2	8.2	8.2	7.4	7.2	7.0	7.2	7.2										

Summary of Test Results						
for		Anchor QEA				
LabID:	B2913-01		Start Date:	03/20/13		
	Control		10 mg/L		100 mg/L	
Replicate	Number Dead	Proport. Dead	Number Dead	Proport. Dead	Number Dead	Proport. Dead
A	0	0.0000	n/a	n/a	0	0.0000
B	0	0.0000	n/a	n/a	0	0.0000
C	0	0.0000	n/a	n/a	0	0.0000
Mean		0.0000		n/a		0.0000
Variance		0.0000		n/a		0.0000

	F statistic for variance test	
	10 mg/L	100 mg/L
Calculated F statistic	n/a	Equal Variance
Critical F degrees of freedom (Numerator, Denominator)	2 , 2	2 , 2
Cricital F (See Table 2 WDOE 80-12)	39	39
Equal Variance?	n/a	Yes

	t-Test (Modified t-Test if Unequal Variance)	
	10 mg/L	100 mg/L
Calculated t staistic	n/a	n/a
Critical t degrees of freedom	n/a	4
Critical t value (See Table 3 WDOE 80-12)	n/a	-1.53
Does Waste Designate ...	**... as an Extremely Hazardous Waste ?** **n/a**	**... as a Dangerous Waste ?** **No**

Summary of Test Results						
for		Anchor QEA				
LabID:	B2913-02		Start Date:	03/20/13		
	Control		10 mg/L		100 mg/L	
Replicate	Number Dead	Proport. Dead	Number Dead	Proport. Dead	Number Dead	Proport. Dead
A	0	0.0000	n/a	n/a	0	0.0000
B	0	0.0000	n/a	n/a	0	0.0000
C	0	0.0000	n/a	n/a	0	0.0000
Mean		0.0000		n/a		0.0000
Variance		0.0000		n/a		0.0000

	F statistic for variance test	
	10 mg/L	100 mg/L
Calculated F statistic	n/a	Equal Variance
Critical F degrees of freedom (Numerator, Denominator)	2 , 2	2 , 2
Cricital F (See Table 2 WDOE 80-12)	39	39
Equal Variance?	n/a	Yes

	t-Test (Modified t-Test if Unequal Variance)	
	10 mg/L	100 mg/L
Calculated t staistic	n/a	n/a
Critical t degrees of freedom	n/a	4
Critical t value (See Table 3 WDOE 80-12)	n/a	-1.53
Does Waste Designate ...	**... as an Extremely Hazardous Waste ?** **n/a**	**... as a Dangerous Waste ?** **No**

Summary of Test Results						
for		Anchor QEA				
LabID:	B2913-03		Start Date:	03/20/13		
	Control		10 mg/L		100 mg/L	
Replicate	Number Dead	Proport. Dead	Number Dead	Proport. Dead	Number Dead	Proport. Dead
A	0	0.0000	n/a	n/a	0	0.0000
B	0	0.0000	n/a	n/a	0	0.0000
C	0	0.0000	n/a	n/a	0	0.0000
Mean		0.0000		n/a		0.0000
Variance		0.0000		n/a		0.0000

	F statistic for variance test	
	10 mg/L	100 mg/L
Calculated F statistic	n/a	Equal Variance
Critical F degrees of freedom (Numerator, Denominator)	2 , 2	2 , 2
Cricital F (See Table 2 WDOE 80-12)	39	39
Equal Variance?	n/a	Yes

	t-Test (Modified t-Test if Unequal Variance)	
	10 mg/L	100 mg/L
Calculated t staistic	n/a	n/a
Critical t degrees of freedom	n/a	4
Critical t value (See Table 3 WDOE 80-12)	n/a	-1.53
Does Waste Designate ...	**... as an Extremely Hazardous Waste ?**	**... as a Dangerous Waste ?**
	n/a	**No**

Summary of Test Results						
for		Anchor QEA				
LabID:	B2913-04		Start Date:	03/20/13		
	Control		10 mg/L		100 mg/L	
Replicate	Number Dead	Proport. Dead	Number Dead	Proport. Dead	Number Dead	Proport. Dead
A	0	0.0000	n/a	n/a	0	0.0000
B	0	0.0000	n/a	n/a	0	0.0000
C	0	0.0000	n/a	n/a	0	0.0000
Mean		0.0000		n/a		0.0000
Variance		0.0000		n/a		0.0000

	F statistic for variance test	
	10 mg/L	100 mg/L
Calculated F statistic	n/a	Equal Variance
Critical F degrees of freedom (Numerator, Denominator)	2 , 2	2 , 2
Cricital F (See Table 2 WDOE 80-12)	39	39
Equal Variance?	n/a	Yes

	t-Test (Modified t-Test if Unequal Variance)	
	10 mg/L	100 mg/L
Calculated t staistic	n/a	n/a
Critical t degrees of freedom	n/a	4
Critical t value (See Table 3 WDOE 80-12)	n/a	-1.53
Does Waste Designate ...	**... as an Extremely Hazardous Waste ?** **n/a**	**... as a Dangerous Waste ?** **No**

Summary of Test Results						
for		Anchor QEA				
LabID:	B2913-05		Start Date:	03/20/13		
	Control		10 mg/L		100 mg/L	
Replicate	Number Dead	Proport. Dead	Number Dead	Proport. Dead	Number Dead	Proport. Dead
A	0	0.0000	n/a	n/a	0	0.0000
B	0	0.0000	n/a	n/a	0	0.0000
C	0	0.0000	n/a	n/a	0	0.0000
Mean		0.0000		n/a		0.0000
Variance		0.0000		n/a		0.0000

	F statistic for variance test	
	10 mg/L	100 mg/L
Calculated F statistic	n/a	Equal Variance
Critical F degrees of freedom (Numerator, Denominator)	2 , 2	2 , 2
Cricital F (See Table 2 WDOE 80-12)	39	39
Equal Variance?	n/a	Yes

	t-Test (Modified t-Test if Unequal Variance)	
	10 mg/L	100 mg/L
Calculated t staistic	n/a	n/a
Critical t degrees of freedom	n/a	4
Critical t value (See Table 3 WDOE 80-12)	n/a	-1.53
Does Waste Designate ...	**... as an Extremely Hazardous Waste ?**	**... as a Dangerous Waste ?**
	n/a	**No**

Summary of Test Results						
for		Anchor QEA				
LabID:		B2913-06		Start Date:	03/20/13	
	Control		10 mg/L		100 mg/L	
Replicate	Number Dead	Proport. Dead	Number Dead	Proport. Dead	Number Dead	Proport. Dead
A	0	0.0000	n/a	n/a	0	0.0000
B	0	0.0000	n/a	n/a	0	0.0000
C	0	0.0000	n/a	n/a	0	0.0000
Mean		0.0000		n/a		0.0000
Variance		0.0000		n/a		0.0000

	F statistic for variance test	
	10 mg/L	100 mg/L
Calculated F statistic	n/a	Equal Variance
Critical F degrees of freedom (Numerator, Denominator)	2 , 2	2 , 2
Cricital F (See Table 2 WDOE 80-12)	39	39
Equal Variance?	n/a	Yes

	t-Test (Modified t-Test if Unequal Variance)	
	10 mg/L	100 mg/L
Calculated t staistic	n/a	n/a
Critical t degrees of freedom	n/a	4
Critical t value (See Table 3 WDOE 80-12)	n/a	-1.53
Does Waste Designate ...	**... as an Extremely Hazardous Waste ?** **n/a**	**... as a Dangerous Waste ?** **No**

APPENDIX B

REFERENCE TOXICANT DATA SHEETS

REFERENCE TOXICANT DATA SHEET

Client: QA / QC | Reference Toxicant: KCl | Test Begin: Date 03/11/2013 Time 1505
Test Organism: *Oncorhynchus mykiss* | Stock Solution: 50 g/L | Test End: Date 3-13-13 Time 1545
Source: THOMAS FISH | Solvent: Milli-Q water | Reagent Log ID #: 2B036-03
ID#: RBT #316 | *Dilution Water Type: Recon MH (RBT) | Dilution Water ID#: 3826
**Age: 28 days ASU | Total Hardness as $CaCO_3$: 94 | Total Alkalinity as $CaCO_3$: tb
Organism size: 37±2 mm | Conductivity (µmhos/cm): 314 | Temperature (°C): 12 ± 1 °C
Loading rate: 0.80 g/L | Technician: 0 hr ~~DW~~/BW | 24 hr MH | 48 hr MH/DW
Test Chamber Size: 2½ gal. | Time: 0 hr 1505 | 24 hr 1245 | 48 hr 1545
Volume per Replicate: 5 L | Therm. ID #: 0 hr 124 | 24 hr 184 | 48 hr 176

Toxicant Concentration (g/L)	Test Chamber Number	Number of Live Organisms			Dissolved Oxygen (mg/l)			pH			Temperature (°C)			Conductivity (µS)		
		0	24	48	0	24	48	0	24	48	0	24	48	0	24	48
Control	A	10	10	10	9.6	7.8	7.8	8.0	7.3	7.3	12.5	11.8	12.4	322		324
0.5	A	10	10	10	9.6	8.0	7.9	8.1	7.4	7.4	12.5	12.1	12.7	1210		1192
1.0	A	10	10	10	9.7	8.0	7.9	8.1	7.4	7.4	12.6	12.6	13.2	2100		2070
2.0	A	10	2	0	9.7	7.2	7.9	8.1	7.3	7.4	12.8	12.7	14.0	3900		3820
4.0	A	10	0	—	9.7	7.7	-	8.1	7.4	—	12.9	12.7	—	6920	6780	~~3849~~ 6780
8.0	A	10	0	—	9.8	8.1	—	8.2	7.4	—	12.9	12.7	—	13590	13270	
Test Acceptability Criteria:		Survival in Controls: > or = 90%			(@ 12°C): >6.0 and <10.8			pH: > 6.0 and < 9.0			Temperature ± 1 °C					

3/12/13

*Dilution Water Code
Recon. - reconstituted water
MH - moderately hard

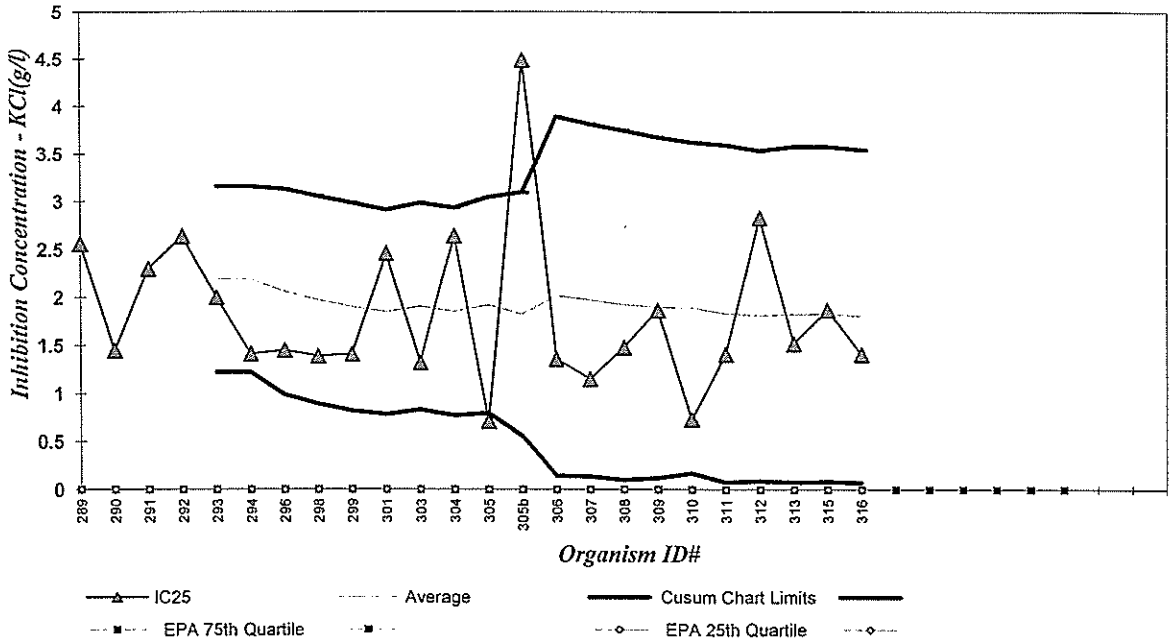
**Age
ASU = After Swim Up

48 Hour LC_{50}: 1.41
Cusum Chart Limits: 0.07 to 3.54
Statistical Method: Spearman Karber

We verify this data is true and correct.
Task Manager
Project Manager: Doug Winn
QA Officer: Eric Collins

REFTOX - RBT acute.xlsm
ASL680-0811

REFERENCE TOXICANT CUMLATIVE SUMMARY (CUSUM) CHART
Oncorhynchus mykiss Acute Survival - LC50 Values



Oncorhynchus mykiss **- ACUTE (EPA Test Method 2019.0)**

POTASIUM CHLORIDE (g/L)

Organism age: 15 to 90 days

Endpoint: 48 hour Survival

Stats Method: Probit, Spearman-Karber, Linear Interpolation

Test Conditions: Recon MH, 12 oC

From EPA 833-R-00-003:

10th Quartile CV (*control limit*) = na

25th Quartile CV (*warning limit*) = na

75th Quartile CV (*warning limit*) = na

90th Quartile CV (*control limit*) = na

As per EPA 833-R-00-003, section B.2.1, the quartiles listed above are from just a few labs (5) and therefore not to be considered typical or representative. Cusum limits are based on ASL data only.

Event #	RBT ID #	Test Start Date	LC50	Running Average	Running SD	Cusum Chart Limits AVG-2SD	Cusum Chart Limits AVG+2SD	Intralab CV
8	298	12/30/2011	1.39	1.97	0.54	0.89	3.06	0.27
9	299	2/1/2012	1.41	1.90	0.54	0.82	2.98	0.29
10	301	2/28/2012	2.46	1.85	0.53	0.78	2.91	0.29
11	303	7/19/2012	1.32	1.91	0.54	0.83	2.98	0.28
12	304	7/25/2012	2.64	1.85	0.54	0.77	2.93	0.29
13	305	8/23/2012	0.71	1.92	0.56	0.79	3.05	0.29
14	305b	9/7/2012	4.49	1.83	0.63	0.56	3.10	0.35
15	306	9/21/2012	1.36	2.02	0.94	0.14	3.89	0.46
16	307	10/3/2012	1.15	1.97	0.92	0.13	3.81	0.47
17	308	10/20/2012	1.48	1.92	0.91	0.10	3.74	0.47
18	309	11/1/2012	1.87	1.90	0.89	0.12	3.67	0.47
19	310	11/1/2012	0.73	1.89	0.86	0.17	3.62	0.46
20	311	11/21/2012	1.41	1.83	0.88	0.07	3.59	0.48
21	312	12/27/2012	2.83	1.81	0.86	0.09	3.53	0.48
22	313	1/9/2013	1.52	1.82	0.88	0.07	3.58	0.48
23	315	2/22/2013	1.87	1.83	0.87	0.08	3.58	0.48
24	316	3/11/2013	1.41	1.81	0.87	0.07	3.54	0.49
25								
26								

APPENDIX C

CHAIN OF CUSTODY

From: (503) 718-2323
Sample Control
Apex Labs
12232 SW Garden Place

Tigard, OR 97223

Origin ID: BNOA

FedEx Express

J13101212190326

Ship Date: 13MAR13
ActWgt: 38.0 LB
CAD: 4716258/INET3370

Delivery Address Bar Code

SHIP TO: (541) 768-3160 BILL SENDER

Doug Winn
CH2M Hill Applied Sciences Lab
1100 NE Circle Boulevard
Suite 300
CORVALLIS, OR 97330

Ref #
Invoice #
PO #
Dept #

THU - 14 MAR 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7992 7457 4270

86 CVOA

97330
OR-US
PDX

518G2/DCF8/93AB

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

AQ-ECA-03-1-7 → B2913-01 (4 jars)
AQ-BMD-08-2-4 → B2913-02 (1 jar)
AQ-BMP-05-1.5-15.5 → B2913-03 (1 jar)
AQ-WMP-04-2-8 → B2913-04 (1 jar)
AQ-ILF-03-0-12 → B2913-05 (1 jar)
AQ-FSL-01-0-12 → B2913-06 (1 jar)
Recvd. by Doug Winn 3-14-13 @ 11:30

AI40534

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

If there are any questions, call Amy (719) 659 6308

TAT: 7-10 business days (standard) AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com

Lab Contact: Darwin Thomas	Project: Former Reynolds Metals Reduction Plant RI/FS
Lab: APEX Laboratories	Project No.: 110730-02.01
Address: 12232 SW Garden Place	Sampler(s): JL, AT
City, State, Zip: : Tigard, OR 97223	Shipping Method: Courier
Phone: 503.718.2323	
Darwin Mobile: 503.784.7477	

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	Analyses Requested: Fluoride	Cyanide (WAD and Total)	Total Metals (13 PP – see note)	TCLP Metals (13 PP – see note)	SIM PAHs	SVOCs	PCB Aroclors (Low Level)	Sb, As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn	Total Solids	VOCs	NWTPH-Dx	HOLD	
AQ-ECA-03-1-3	10/19/2012	0930	SO	1												X	
AQ-ECA-03-3-5		0940		1												X	
AQ-ECA-03-5-7		0950		1				9[illegible]								X	
AQ-ECA-03-1-7		1019		4	X	X	X	[illegible]	X	X	X					X	2
AQ-ECA-03-5-7		1007		4										X	X		
AQ-ECA-01-2-4		1309		1												X	
AQ-ECA-01-4-5		1320		1												X	
AQ-ECA-01-2-5		1347		4	X	X	X		X							X	
AQ-ECA-04-2-4		1112		1												X	
AQ-ECA-04-4-6		1125		1												X	
AQ-ECA-04-6-8		1133		1				9[illegible]		9[illegible]	9[illegible]					X	
AQ-ECA-04-2-8		1200		4	X	X	X	[illegible]	X	[illegible]						X	
AQ-ECA-02-1-3		1420		1												X	
AQ-ECA-02-3-5		1430		1				9[illegible]		9[illegible]	9[illegible]					X	
AQ-ECA-02-1-5	V	1500	V	4	X	X	X	[illegible]	X	[illegible]						X	

Relinquished: (Signature) Amy Thatcher	Relinquished: (Signature)	Relinquished: (Signature)	Special Instructions/Notes: Total and TCLP Metals include the 13 Priority Pollutant Metals: Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn. Trip blank included for VOCs
Printed Name: Amy Thatcher	Printed Name: Cam O'Brien	Printed Name:	
Company: Anchor QEA, LLC	Company: Apex	Company:	
Date/Time: 10/19/2012 1640	Date/Time: 3/13/13 1500	Date/Time:	
Received By:	Received By: Doug Winn	Received By:	
Printed Name: RKomaroff	Printed Name: Doug Winn	Printed Name:	
Company: APEX	Company: CH2MHILL Bioassay	Company:	# of Coolers: / Cooler Temp(s):
Date/Time: 10/19/12 16:40	Date/Time: 3-14-13 / 11:30	Date/Time:	COC Seals Intact? / Bottles Intact?

RI12J515

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

TAT: 7-10 business days (standard) AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com

Lab Contact: Darwin Thomas	Project: Former Reynolds Metals Reduction Plant RI/FS
Lab: APEX Laboratories	Project No.: 110730-02.01
Address: 12232 SW Garden Place	Sampler(s): JL, AT
City, State, Zip: : Tigard, OR 97223	Shipping Method: Courier
Phone: 503.718.2323	
Darwin Mobile: 503.784.7477	

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	Fluoride	Cyanide (WAD and Total)	Total Metals (13 PP – see note)	TCLP Metals (13 PP – see note)	SIM PAHs	SVOCs	PCB Aroclors (Low Level)	Sb, As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn	Total Solids	VOCs	NWTPH-Dx	HOLD
AQ-ILF-05-0-2	10/18/2012	850	SO	1												X
AQ-ILF-05-2-4		900		1												X
AQ-ILF-05-4-6		906		1												X
AQ-ILF-05-6-8		913		1												X
AQ-ILF-05-8-10		920		1												X
AQ-ILF-05-10-12		930		1												X
AQ-ILF-05-12-14		945		1												X
AQ-ILF-05-0-14		1006		4	X	X	X	X		X	X					X
AQ-ILF-05-10-12		1005		4										X	X	
AQ-FSL-02-0-2		1117		1												X
AQ-FSL-02-2-4		1125		1												X
AQ-FSL-02-4-6		1133		1												X
AQ-FSL-02-6-8		1140		1												X
AQ-FSL-02-8-10		1152		1												X
AQ-FSL-02-10-12		1207		1												X

Relinquished: (Signature)	Relinquished: (Signature)	Relinquished: (Signature)	**Special Instructions/Notes:** Total and TCLP Metals include the 13 Priority Pollutant Metals: Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn 1 Trip Blank submitted for VOCs
Printed Name: Julia Labadie	Printed Name: Cam O'Brien	Printed Name:	
Company: Anchor QEA, LLC	Company: Apex	Company:	
Date/Time: 10/19/2012 800	Date/Time: 3/13/13 1500	Date/Time:	
Received By:	Received By: Doug Winn	Received By:	
Printed Name: R Komorow	Printed Name: Doug Winn	Printed Name:	
Company: APEX	Company: CH2M Hill / Bioassay	Company:	# of Coolers: 3 / Cooler Temp(s):
Date/Time: 10/19/12 8:00	Date/Time: 3-14-13 / 11:30	Date/Time:	COC Seals Intact? / Bottles Intact?

AT12J504

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

TAT: 7-10 business days (standard) AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com

Lab Contact: Darwin Thomas	Project: Former Reynolds Metals Reduction Plant RI/FS
Lab: APEX Laboratories	
Address: 12232 SW Garden Place	Project No.: 110730-02.01
City, State, Zip: : Tigard, OR 97223	Sampler(s): JL, AT
Phone: 503.718.2323	Shipping Method: Courier
Darwin Mobile: 503.784.7477	

Analyses Requested

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	Fluoride	Cyanide (WAD and Total)	Total Metals (13 PP – see note)	TCLP Metals (13 PP – see note)	SIM PAHs	SVOCs	PCB Aroclors (Low Level)	Sb, As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn	Total Solids	VOCs	NWTPH-Dx	HOLD
AQ-1LF-01-0-2	10/17/12	0945	SO	1												X
AQ-1LF-01-2-4		1000		1												X
AQ-1LF-01-4-6		1010		1												X
AQ-1LF-01-6-8		1017		1												X
AQ-1LF-01-8-10		1025		1												X
AQ-1LF-01-10-11		1045		1												X
AQ-1LF-01-0-11		1055		3	X	X	X	X		X	X					
AQ-1LF-02-0-2		1125		1												X
AQ-1LF-02-2-4		1140		1												X
AQ-1LF-02-4-6		1150		1												X
AQ-1LF-02-6-8		1205		1												X
AQ-1LF-02-8-10		1220		1												X
AQ-1LF-02-10-12		1245		1												X
AQ-1LF-02-0-12		1315		4	X	X	X	X		X	X					X
AQ-1LF-02-RPM-04		1230		1												X

Relinquished: (Signature) [signature]	Relinquished: (Signature) [signature]	Relinquished: (Signature)	Special Instructions/Notes: Total and TCLP Metals include the 13 Priority Pollutant Metals: Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn
Printed Name: Julia Labadie	Printed Name: Cam O'Brien	Printed Name:	
Company: Anchor QEA, LLC	Company: Apex	Company:	4 ~~temperature~~ gy
Date/Time: 10/18/2012 0800	Date/Time: 3/13/13 1500	Date/Time:	1 trip blank per cooler submitted
Received By: [signature]	Received By: Doug Winn	Received By:	
Printed Name: R Komorow	Printed Name: Doug Winn	Printed Name:	
Company: APEX	Company: CH2MHILL Bioassay	Company:	# of Coolers: 2 / Cooler Temp(s):
Date/Time: 10/18/12 08:00	Date/Time: 3-14-13 / 11:30	Date/Time:	COC Seals Intact? / Bottles Intact?

1112J671

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

TAT: 7-10 business days (standard) AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com Page 1 of 3

Lab Contact: Darwin Thomas	Project: Former Reynolds
Lab: APEX Laboratories	Metals Reduction Plant RI/FS
Address: 12232 SW Garden Place	Project No.: 110730-02.01
City, State, Zip: : Tigard, OR 97223	Sampler(s): JL, AT
Phone: 503.718.2323	Shipping Method: Courier
Darwin Mobile: 503.784.7477	

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	Analyses Requested: Fluoride	Cyanide (WAD and Total)	Total Metals (13 PP – see note)	TCLP Metals (13 PP – see note)	SIM PAHs	SVOCs	PCB Aroclors (Low Level)	Sb, As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn	~~Total Solids~~ TOC	VOCs	NWTPH-Dx	HOLD
AQ-BMP-02-1-3	10/24/2012	0915	SO	1												X
AQ-BMP-02-3-5		0920		1												X
AQ-BMP-02-5-7		0925		1												X
AQ-BMP-02-7-9		0930		1												X
AQ-BMP-02-9-11		0940		1												X
AQ-BMP-02-11-13		0950		1												X
AQ-BMP-02-13-15		1000		1												X
AQ-BMP-02-11-13		1008		3												X
AQ-BMP-02-1-15		1012		4	X	X	X		X				X			X
AQ-BMP-01-2-4		1110		1												X
AQ-BMP-01-4-6		1115		1												X
AQ-BMP-01-6-8		1120		1												X
AQ-BMP-01-8-10		1125		1												X
AQ-BMP-01-10-12		1135		1												X
AQ-BMP-01-12-14	↓	1138	↓	1												X

Relinquished: (Signature)	Relinquished: (Signature)	Relinquished: (Signature)	Special Instructions/Notes:
Amy Thatcher	Cam O'Brien		Total and TCLP Metals include the 13 Priority Pollutant Metals: Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn
Printed Name: Amy Thatcher	Printed Name: Cam O'Brien	Printed Name:	
Company: Anchor QEA, LLC	Company: Apex	Company:	
Date/Time: 10/25/2012 12:15	Date/Time: 3/13/13 1500	Date/Time:	
Received By:	Received By: Doug Winn	Received By:	
Printed Name: RKomorow	Printed Name: Doug Winn	Printed Name:	
Company: APEX	Company: CH2MHILL/Bioassay	Company:	# of Coolers: 3 / Cooler Temp(s):
Date/Time: 10/25/12 12:15	Date/Time: 3-14-13/11:30	Date/Time:	COC Seals Intact? / Bottles Intact?

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC A12JG21
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

TAT Requested: ~~15~~ 7-10 business days (standard)

Julia Labadie (719) 659-6308
AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com

Lab Contact: Darwin Thomas	Project: Former Reynolds Metals Reduction Plant RI/FS
Lab: APEX Laboratories	Proj. No.: 110730-02.01
Address: 12232 SW Garden Place	Sampler(s): JL/AT
City, etc: : Tigard, OR 97223	Shipping Method: Courier
Phone: 503.718.2323	
Darwin Mobile: 503.784.7477	

Analyses Requested

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	Fluoride	Cyanide (WAD + Total)	Total Metals (13PP)	SIM PAHs	SVOCs	PCB Aroclors (low level)	TOC			Hold	Notes:
AQ-BMP-08-2-4	10/23/2012	0909	SO	4										X	
AQ-BMP-08-2-4		0920		4	X	X	X	X			X			X	1
AQ-BMP-04-1.5-3.5		1105		1										X	
AQ-BMP-04-3.5-5.5		1115		1										X	
AQ-BMP-04-5.5-7.5		1122		1										X	
AQ-BMP-04-7.5-9.5		1135		1										X	
AQ-BMP-04-9.5-11.5		1147		1										X	
AQ-BMP-04-11.5-13.5		1210		1										X	
AQ-BMP-04-13.5-13.5		1215		4										X	
AQ-BMP-04-1.5-13.5		1245		4	X	X	X	X	X	X	X			X	
AQ-BMP-05-1.5-3.5		1344		1										X	
AQ-BMP-05-3.5-5.5		1348		1										X	
AQ-BMP-05-5.5-7.5		1352		1										X	
AQ-BMP-05-7.5-9.5		1400		1										X	
AQ-BMP-05-9.5-11.5		1407		1										X	

Relinquished:	Relinquished: (Signature)	Relinquished: (Signature)	Special Instructions/Notes:
[signature]	[signature]		Trip blank included in cooler w/ VOC samples.
Printed Name: Julia Labadie	Printed Name: Cam O'Brien	Printed Name:	
Company: Anchor QEA, LLC	Company: Apex	Company:	
Date/Time: 10/24/2012 752	Date/Time: 3/13/13 1500	Date/Time:	
Received By: [signature]	Received By: Doug Winn	Received By:	
Printed Name: R Komorow	Printed Name: Doug Winn	Printed Name:	
Company: APEX	Company: CH2M Hill / Bioassay	Company:	# of Coolers: 2 / Cooler Temp(s):
Date/Time: 10/24/12 7:52	Date/Time: 3-14-13 / 11:30	Date/Time:	COC Seals Intact? / Bottles Intact?

ANCHOR QEA

720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131
www.anchorqea.com

LABORATORY WORK ORDER – ATTACHMENT A

Client/Project:	Millennium Bulk Terminals – Longview, LLC / Former Reynolds Metals Reduction Plant RI/FS
Project Number:	130730-01.01
Anchor QEA Contact:	Dan Hennessy (360.715.2704)
Anchor QEA QA Representative:	Cindy Fields (206.903.3394)
Subcontractor:	CH2M Hill Applied Sciences Laboratory, Corvallis, Oregon
Subcontractor Contact:	Brett Muckey (541.768.3112)
Date:	March 13, 2013

Services to be Performed/Provided

In accordance with the Laboratory Services Subcontract Agreement between CH2M Hill Applied Sciences Laboratory (CH2M Hill) and Anchor QEA, LLC (Anchor QEA) dated March 13, 2013, this Work Order describes the Scope of Services, Schedule, and Price and Payment Terms for Bioassay Testing as part of the Former Reynolds Metals Reduction Plant RI/FS.

The scope of services provides for bioassay testing. A total of 6 landfill deposit samples will be submitted under chain of custody to CH2M Hill. These samples will be designated:

- AQ-ECA-03-1-7 B2913-01 → 4 jars
- AQ-BMD-08-2-4 B2913-02 → 1 jar
- AQ-BMP-05-1.5-15.5 B2913-03 → 1 jar
- AQ-WMP-04-2-8 B2913-04 → 1 jar
- AQ-ILF-03-0-12 B2913-05 → 1 jar
- AQ-FSL-01-0-12 B2913-06 → 1 jar

Arrival temp. 5.6°C

The Washington State Department of Ecology static acute fish toxicity test for the designation of dangerous waste will be performed on all six samples. Additional samples may be sent throughout the following twelve months.

MD 03.14.2013

Sampling and Analysis

1. Sample containers will be and shipped to the CH2M Hill laboratory in coolers with ice. Upon receipt, samples will be logged-in, custody will be documented, and sample containers will be stored at 4°C.
2. For each sample, approximately 3 grams of material will be required for testing. The remaining sample material shall be retained in the original sample jar and stored at 4°C.
3. Samples will be prepared and tested in accordance with the Washington State Department of Ecology static acute fish toxicity test for the designation of dangerous waste (Biological Testing Methods 80-12; www.ecy.wa.gov/biblio/8012.html; Ecology 2009).
4. Samples will be tested at the waste concentration of 100 mg/L.
5. Test results will be reported in accordance with method protocols (Biological Testing Methods 80-12; Ecology 2009).
6. Remaining sample material shall be archived at the CH2M Hill laboratory until after the approval of final test results by Anchor QEA. Sample handling and cost arrangements for shipping or disposal of any samples shall be coordinated with Anchor QEA.

Deliverables and Schedule:

Samples will be shipped to CH2M Hill the week of March 11, 2013. Testing will commence as soon as possible after the test organisms are properly acclimated according to the static acute fish toxicity test methods (Ecology 2009). Preliminary testing results will be submitted to Anchor QEA as soon as possible after final counts are made. A PDF of the report is due within 30 days after completion of the last test. A hard copy deliverable of final results and summary data package will be in accordance with dangerous waste testing protocols (Ecology 2009) and include case narrative, data quality assessment, chain of custody forms, sample condition forms, and data tables. Submit original reports to Cindy Fields at labdata@anchorqea.com.

QA/QC Criteria:

All work is to be performed in compliance of all federal, state, and local laws and regulations. Test QA/QC will be in accordance with the dangerous waste testing protocols

(Ecology 2009). Any problems, modifications, or deviations from test protocols will be communicated to the Anchor QEA Contact within 2 days of observed modification, if possible (see Table 1).

Provisions:

CH2M Hill, by formal acknowledgement and/or by performance of the analysis, agrees to the following testing warranty:

- CH2M Hill agrees to perform a second test if Anchor QEA has provided sufficient sample volume and adequate time for a sample retest after a laboratory performance error or test species performance has rendered an initial test invalid. CH2M Hill will be paid only for second test if properly conducted. No payment will be received for the initial test. CH2M Hill is responsible for test species performance.
- Should sample volume requirements allow only one laboratory test, no payment by Anchor QEA will be required in the event of a laboratory performance error under these circumstances.
- CH2M Hill may make a determination prior to initiating any tests that physical and biological conditions prevailing at the time of the test may result in test species performance failure. CH2M Hill has the option of informing Anchor QEA of these conditions and not proceeding with the test.

Table 1. Laboratory Testing and Warranty Conditions

Scenario	Test 1	Test 2	Condition
1	Successful test	n/a	Payment
2	Species failure[1]	Successful test	Payment
3	Lab performance error	Successful test	Payment
4	Species failure[1]	Species failure[1]	No payment
5	Species failure[1]	Lab performance error	No payment
6	Lab performance error	Lab performance error	No payment
7	Lab performance error	Species failure[1]	No payment

Notes:

1. Due to negligence by CH2M Hill

Costs

Analytical costs associated with this Work Order are $800 per sample, as provided in a verbal quote to Dan Hennessy (Anchor QEA) on March 4, 2013 by Brett Muckey (CH2M Hill). The total cost for analysis of the six samples is $4,800. Costs for additional services, including archiving and shipping, must be pre-approved by Anchor QEA.

Invoices

Please submit invoices to:
Cindy Fields
Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

Penalties

Anchor QEA may assess a penalty for late deliverables (PDF) of 1% of the total invoice per day, with the cumulative penalties not to exceed 25% of the total invoice. Anchor QEA will not be responsible for payment of analyses performed past recommended holding times due to laboratory oversight or error. If lateness is due to unexpected field schedule changes (greater than 1 week or significant increase in sample numbers) penalties will be negotiable.

Acceptance of the terms of this Work Order is acknowledged by the following signatures of the Authorized Representatives of the parties to the Agreement. This Work Order consists of this document and any supplemental pages attached and referenced hereto.

Approval and Acceptance:

Anchor QEA, LLC

Signature

JON BOYCE

Name

Date: 3-15-13

CH2M Hill Applied Sciences Laboratory

Signature V.P. Director, Applied Sciences Lab CH2M Hill, Inc

Mark Spaulding-Leimert

Name

Date: March 14, 2013

Report

of

Test No. 840-1

Assessment of Freshwater Sediments as part of the NPDES Sediment Sampling – Millennium Bulk Terminals – Longview, LLC Project (Project No. 110730-02.01), using a 10-day amphipod, *Hyalella azteca*, Sediment Bioassay.

Submitted to

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

Submitted by

Northwestern Aquatic Sciences
3814 Yaquina Bay Road
P.O. Box 1437
Newport, OR 97365

March 15, 2013

TOXICITY TEST REPORT

TEST IDENTIFICATION

Test No.: 840-1

Title: Toxicity of freshwater sediments using a 10-day Amphipod, *Hyalella azteca*, sediment bioassay as part of the NPDES Sediment Sampling – Millennium Bulk Terminals – Longview, LLC Project (Project No. 110730-02.01).

Protocol No.: NAS-XXX-HA4b, April 7, 1998. Revision 1 (10-27-03). Based on ASTM 2001 (Standard test methods for measuring the toxicity of sediment-associated contaminants with fresh water invertebrates, E1706-00), Am. Soc. Test. Mat., Phila., PA, and EPA Method 100.1 (Methods for measuring the toxicity and bioaccumulation of sediment-associated contaminants with freshwater invertebrates, EPA/600/R-99/064).

STUDY MANAGEMENT

Study Sponsor: Anchor QEA, LLC., 720 Olive Way, Suite 1900, Seattle, WA 98101

Sponsor's Study Monitor: Ms. Cindy Fields

Testing Laboratory: Northwestern Aquatic Sciences, P.O. Box 1437, Newport, OR 97365

Test Location: Newport laboratory

Laboratory's Study Personnel: G.J. Irissarri, B.S., Proj. Man./Study Dir.; L.K. Nemeth, B.A., M.B.A., QA Officer; R.S. Caldwell, PhD, Sr. Toxicologist; G.A. Buhler, B.S., Aq. Toxicologist; Y. Nakahama, Sr.Tech.

Study Schedule:

Test Beginning: 2-15-13, 1045 hrs.

Test Ending: 2-25-13, 1030 hrs.

Disposition of Study Records: All raw data, reports and other study records are stored at Northwestern Aquatic Sciences, 3814 Yaquina Bay Rd., Newport, OR 97365.

Statement of Quality Assurance: The test data were reviewed by the Quality Assurance Unit to assure that the study was performed in accordance with the protocol and standard operating procedures. This report is an accurate reflection of the raw data.

TEST MATERIAL

Test Sediments: Freshwater test sediments collected as part of the NPDES Sediment Sampling – Millennium Bulk Terminals – Longview, LLC Project (Project No. 110730-02.01). Details are as follows:

NAS Sample No.	4280G	4281G	4290G
Description	MBTL12-SS-09-10	MBTL12-SS-10-10	MBTL12-SS-12-10
Collection Date	12/11/12	12/11/12	12/13/12
Receipt Date	12/14/12	12/14/12	12/14/12

Control Sediment: The negative control sediment (NAS#4346G) was collected on 2-11-13 from an area approximately one mile east of the Hwy. 101 bridge at Beaver Creek, approx. 8 miles south of Newport, OR.

Treatments: Homogenized at test set up by mixing using stainless steel implements.

Storage: All test, reference, and control sediments were stored at 4°C in the dark in sealed containers until used.

TEST WATER

Source: Dechlorinated municipal tap water.

Date of Preparation: Two batches of test water were collected on: 2/12/13, 2/22/13

Water Quality (mean ± S.D.):

pH: 7.8, 7.3

conductivity: 96, 101 µmhos/cm (n=6)

hardness: 26, 26 mg/L as $CaCO_3$ (n=6)

alkalinity: 30, 30 mg/L as $CaCO_3$. (n=6)

total chlorine: All batches were < 0.02 mg/L (n=2)

Pretreatment: Dechlorinated and aerated ≥24 hr.

TEST ORGANISMS

Species: *Hyalella azteca,* amphipod.
Age/Size: 7-8 days old
Source: Chesapeake Cultures, Hayes, VA; received 2-13-13
Acclimation: Holding conditions for the two days prior to testing averaged: Temperature, 19.4 ± 2.3 °C; dissolved oxygen, 10.8 ± 3.7 mg/L; pH, 8.0 ± 0.5; conductivity, 351 ± 131 µmhos/cm; hardness, 125 ± 54 mg/L as $CaCO_3$; and alkalinity, 137 ± 64 mg/L as $CaCO_3$. Photoperiod, 16:8, L:D. Half of the water was replaced daily with dechlorinated municipal tap water during holding. Animals were fed YTC daily during holding.

TEST PROCEDURES AND CONDITIONS

The following is an abbreviated statement of the test procedures and a statement of the test conditions actually employed. See the test protocol (Appendix I) for a more detailed description of the test procedures used in this study.

Test Chambers: 300 ml high-form glass beakers
Test Volumes: 100 ml sediment layer; 175 ml test water.
Replicates/Treatment: 8
Organisms/Treatment: 80
Water Volume Changes: 2 water volumes per day
Aeration: None.
Feeding: Animals are fed 1.0 ml of YTC suspension per beaker daily.
Effects Criteria: survival after 10 days. Death is defined as no visible movement or response to tactile stimulation. Missing organisms were considered to be dead.
Water Quality and Other Test Conditions: The temperature, dissolved oxygen, conductivity, pH, hardness, alkalinity, and ammonia-nitrogen were measured in the overlying water of one replicate test container per treatment on days 0 and 10 of the test. Temperature and dissolved oxygen were measured daily in the overlying water of one replicate test container per treatment. Hardness and alkalinity were measured with titrimetric methods. Total ammonia and pH were measured in the pore water from the bulk sediment prior to test initiation. Interstitial water samples were obtained by centrifugation. Ammonia-N was measured using Hach reagents based on the salicylate (Clin. Chim. Acta 14:403, 1996) colorimetric method; samples were not distilled prior to analysis. The photoperiod was 16:8, L:D.

DATA ANALYSIS METHODS

Survival and mortality were calculated for each replicate as follows:

percent survival = 100 x (number surviving/initial number tested)
percent mortality = 100 x (number dead/initial number tested)

Means and standard deviations for the biological endpoints described above, and for water quality data, were computed using Microsoft Excel 2000.

PROTOCOL DEVIATIONS

None

REFERENCE TOXICANT TEST

The reference toxicant test is a multi-concentration toxicity test using potassium chloride, to evaluate the performance of the test organisms used in the sediment toxicity test. The performance is evaluated by comparing the results of this test with historical results obtained at the laboratory. A summary of the reference toxicant test result is given below. The reference toxicant test raw data are found in Appendix III.

Test No.: 999-3135
Reference Toxicant and Source: Potassium Chloride (KCl), Fisher Lot #073280.
Test Date: 2-15-13.
Dilution Water Used: Moderately hard synthetic water prepared from Milli-Q® deionized water.

Result: 96-hr LC50, 0.31 g/L. The LC50 results are slightly below the laboratory's control chart warning limits (0.32 – 0.46) but within the action limits (0.28 – 0.50). Control limits of ± 2 SD will be exceeded 5% of the time by chance alone, and there was no evidence that these organisms were unusual in any way. Therefore we believe this was a valid test.

TEST RESULTS

Observations of water quality in the overlying water throughout the test are summarized in Table 1. A detailed tabulation of the water quality results by sample and test day can be found in Appendix II. Interstitial ammonia measurements and pH of bulk sediments are listed in Table 2. The means and standard deviations of percent mortality of *Hyalella* exposed for 10 days to sediments are summarized in Table 3. Detailed data organized by sample and replicate, and summary statistics for these observations, are given in Appendix II.

Water quality observations of overlying water temperature and dissolved oxygen were within the protocol specified ranges. Ammonia-N in the overlying water ranged between <0.1 and 0.2 mg/L for all day 0 and day 10 measurements. Interstitial bulk sediment values for ammonia-N ranged from <0.5 to 2.6 mg/L.

The test met the survival acceptability criteria specified in the test protocol with 0% mean control mortality. The reference toxicant test results were not within the control chart lower warning limit of 0.32 g/L KCl, but were within the lower action limit of 0.28 g/L KCl. No problems could be found with the test organisms or the testing procedure. It is concluded, therefore, that the test has developed fully acceptable data for use in making management decisions.

STUDY APPROVAL

Gerald Alasiani 3-14-13
Project Manager/Study Director Date

Julie R. Fiore 3-14-13
Quality Assurance Unit Date

Linda K. Nemeth 3/14/13
Assistant Laboratory Director Date

Table 1. Summary of water quality conditions during tests of the amphipod, *Hyalella azteca*, exposed to freshwater sediments.

Water Quality Parameter	Mean ± S.D.	Minimum	Maximum	N
Temperature (°C)	22.3 ± 0.2	22.0	22.7	44
Dissolved oxygen (mg/L)	7.3 ± 0.4	6.6	7.9	44
Conductivity (µmhos/cm)	112 ± 14	101	134	8
pH	7.1 ± 0.2	6.8	7.5	8
Hardness (mg/L as $CaCO_3$)	33 ± 8	26	43	8
Alkalinity (mg/L as $CaCO_3$)	38 ± 10	30	50	8
Total ammonia (mg/L)	---	<0.1	0.2	8

Table 2. Interstitial ammonia-N and pH in test sediments porewater prior to test initiation.

NAS Sample No.	Sample Description	pH	Ammonia (mg/L)
4346G	Control	6.9	<0.5
4280G	MBTL12-SS-09-10	8.5	2.4
4281G	MBTL12-SS-10-10	8.1	2.6
4290G	MBTL12-SS-12-10	8.1	1.6

Table 3. Mortality and growth results of *Hyalella azteca* 10-day sediment toxicity test.

NAS Sample No.	Sample Description	Percent mortality (Mean ± SD)
4346G	Control	0.0 ± 0.0
4280G	MBTL12-SS-09-10	36.3 ± 16.0
4281G	MBTL12-SS-10-10	1.3 ± 3.5
4290G	MBTL12-SS-12-10	3.8 ± 5.2

APPENDIX I

PROTOCOL

TEST PROTOCOL

FRESHWATER AMPHIPOD, *HYALELLA AZTECA*, 10-DAY SEDIMENT TOXICITY TEST

1. INTRODUCTION

1.1 Purpose of Study: The purpose of this study is to characterize the toxicity of freshwater sediments based on survival and, optionally, growth using the amphipod, *Hyalella azteca*.

1.2 Referenced Method: This protocol is based on EPA Method 100.1 (EPA/600/R-99/064) and ASTM Method E 1706-00 (ASTM 2001).

1.3 Summary of Method: A summary of test conditions for the amphipod 10-day sediment toxicity test is tabulated below. The 10-day sediment toxicity test with *Hyalella azteca* is conducted at 23 ± 1°C with a 16L:8D photoperiod at an illuminance of about 100 to 1000 lux. Test chambers are 300-mL high-form lipless beakers containing 100 mL of sediment and 175 mL of overlying water. Ten 7-14 day old amphipods (1 to 2 day range in age) are used in each replicate. The number of replicates/treatment depends on the objective of the test. Eight replicates are recommended for routine testing. Amphipods in each test chamber are fed 1.0 mL of a YCT food daily. Each chamber receives two volume additions per day of overlying water. Overlying water can be culture water, well water, surface water, site water, or reconstituted water. Test endpoints include survival and/or growth.

2. STUDY MANAGEMENT

2.1 Sponsor's Name and Address:

_____
_____
_____
_____

2.2 Sponsor's Study Monitor:

_____

2.3 Name of Testing Laboratory:
Northwestern Aquatic Sciences
3814 Yaquina Bay Road, P.O. Box 1437
Newport, OR 97365.

2.4 Test Location: _____

2.5 Laboratory's Personnel to be Assigned to the Study:
Study Director: _____
Quality Assurance Unit: _____
Aquatic Toxicologist: _____
Aquatic Toxicologist: _____

2.6 Proposed Testing Schedule: Tests are to begin within 14 days of sample collection unless otherwise specified. Reference toxicant test to be run concurrently.

2.7 Good Laboratory Practices: The test is conducted following the principles of Good Laboratory Practices (GLP) as defined in the EPA/TSCA Good Laboratory Practice regulations revised August 17, 1989 (40 CFR Part 792).

3. TEST MATERIAL

The test materials are freshwater sediments. The control, reference, and test sediments are placed in solvent cleaned 1 L glass jars fitted with PTFE-lined screw caps. At the laboratory the samples are stored at 4°C in the dark. The original sealed containers may be stored for up to 14 days prior to testing. If jars are not not full when received or if sediment is removed for testing, headspaces should be filled with nitrogen to retard deterioration. A negative control sediment is collected from a clean site. In addition, a reference sediment, a clean sediment with physical characteristics similar to the test sediments, may be employed as a comparison station.

4. TEST WATER

Test water (overlying water) at NAS is normally moderately hard synthetic water at a hardness of 80-100 mg/L as $CaCO_3$ and alkalinity of 60-70 mg/L as $CaCO_3$. Dilution water is prepared from Milli-Q reagent grade water and reagent grade chemicals. Test water may also be well water, surface water or site water, depending on the study design.

5. TEST ORGANISMS

5.1 Species: amphipod, *Hyalella azteca*.

5.2 Source: Cultured at NAS or purchased from a reputable commercial supplier.

5.3 Age: 7-14 days old at start of test; with 1 to 2 day range in age.

5.4 Acclimation and Pretest Observation: Test organisms must be cultured and tested at 23°C . Ideally they should be cultured in the same water that will be the test water. However, acclimation to test water is not required. Isolated young should be held similarly to mass cultures for at least two days (eliminate the feeding instructions) before starting the test to eliminate animals injured during handling

6. DESCRIPTION OF TEST SYSTEM

6.1 Test Chambers and Environmental Control: Test chambers used in the toxicity test are 300-mL high-form lipless glass beakers. Test chambers are maintained at constant temperature by partial immersion in a temperature-controlled water bath or by placement in a temperature-controlled room. Aeration is not employed unless dissolved oxygen drops below 2.5 mg/L. The test is conducted under an illuminance of 100 to 1000 lx with a 16L:8D photoperiod.

6.2 Cleaning: All laboratory glassware, including test chambers, is cleaned as described in EPA/600/4-90/027F. New glassware and test systems are soaked 15 minutes in tap water and scrubbed with detergent (or cleaned in automatic dishwasher); rinsed twice with tap water; carefully rinsed once with fresh, dilute (10%, V:V) hydrochloric or nitric acid to remove scale, metals, and bases; rinsed twice with deionized water; rinsed once with acetone to remove organic compounds (using a fume hood or canopy); and rinsed three times with deionized water. Test systems and chambers are rinsed again with dilution water just before use.

7. EXPERIMENTAL DESIGN AND TEST PROCEDURES

7.1 Experimental Design: The test involves exposure of amphipods to test, control, and reference sediments. The sediments are placed on the bottom of the test containers and are overlain with test water. The test exposure is for 10 days. The renewal of overlying water consists of two volume additions per day, either continuous or

intermittent. Each treatment consists of eight replicate test containers, each containing 10 organisms. Test chamber positions are completely randomized. Test organisms are randomly distributed to the test chambers. Blind testing is normally used.

7.2 Setup of Test Containers: Sediments are homogenized and placed in test chambers on the day before addition of test organisms. Sediment (100 ml) is placed into each of eight replicate beakers. After addition of the sediment, 175 ml of test water is gently added to each beaker in a manner to prevent resuspension. The overlying water is replaced twice daily. The test begins when amphipods are introduced to the test chambers. Initial water quality measurements are taken prior to the addition of test organisms.

7.3 Effect Criterion: The effect criterion used in the amphipod bioassay is mortality, defined as the lack of movement of body or appendages on response to tactile stimulation. The optional sublethal effect criterion is growth which is determined by using dry weight measurements or body length measurements.

7.4 Test Conditions: No aeration is employed unless dissoved oxygen falls below 2.5 mg/L. The test temperature employed is 23 ± 1°C. A 16:8, L:D photoperiod is used. Illumination is supplied by daylight fluorescent lamps at 100 to 1000 lux. The overlying water is replaced twice daily.

7.5 Beginning the Test: On the day the test begins, amphipods are impartially counted into small containers of test water (10/container). The test is begun by rinsing test organisms into the equilibrated test containers. If the optional growth endpoint is to be used. Twenty organisms are archived for length determination or 80 organisms for dry weight.

7.6 Feeding: Amphipods are fed 1.0 mL of YCT daily per test chamber. A feeding may be skipped if there is a build up of excess food. However, all beakers must be treated similarly.

7.7 Test Duration, Type and Frequency of Observations, and Methods: The duration of the acute toxicity test is 10 days. The type and frequency of observations to be made are summarized as follows:

TYPE OF OBSERVATION	TIMES OF OBSERVATION
BIOLOGICAL DATA	
Survival, growth	Day 10
PHYSICAL AND CHEMICAL DATA	
Hardness, alkalinity, ammonia-N, conductivity, pH, dissolved oxygen, and temperature	Beginning and end of test in overlying water of one replicate beaker from each treatment.
Dissolved oxygen, temperature	Daily in overlying water of one replicate beaker from each treatment.

Dissolved oxygen is measured using a polarographic oxygen probe calibrated according to the manufacturer's recommendations. The pH is measured using a pH probe and a properly calibrated meter with scale divisions of 0.1 pH units. Temperature is measured with a calibrated mercury thermometer or telethermometer. Conductivity is measured with a conductivity meter. Hardness and alkalinity are measured using titrometric methods. Ammonia-nitrogen is measured using the salicylate colerimetric method (Clin. Chim. Acta 14:403, 1996).

Overlying water should be sampled just before water renewal from about 1 to 2 cm above the sediment surface using a pipet. It may be necessay to pool water samples from individual replicates. The pipet should be checked to make sure no organisms are removed during sampling of overlying water.

7.8 Growth Measurement: Growth is measured as average dry weight of animals in a test replicate at the end of the test on day 10 or average total length of preserved animals. Pooled animals from each test replicate are rinsed with deionized water and placed into tared aluminum weigh pans. The pans are dried at 60-90°C to constant weight. The dried amphipods are placed into a dessicator and weighed as soon as possible to the nearest 0.01 mg (desirable

to use 0.001 mg). The total weight of the dried amphipods in each pan is divided by the number of amphipods weighed to obtain an average dry weight per surviving amphipod per replicate.

If the length growth endpoint is to be used, either in place of or along with the weight endpoint, amphipods from each replicate are pooled and preserved in vials. Later, the preserved amphipods from one vial are carefully stretched out on a glass microscope slide and quickly measured using a dissecting microscope fitted with a calibrated ocular micrometer. Then, if weight is to be determined, the animals are quickly transferred to tared aluminum foil cups. Fine-tipped forceps or fine brushes are required for these handling operations.

If both measurements are to be used, total length measurements are taken first, then the animals are transferred to tared aluminum foil cups for weighing.

8. CRITERIA OF TEST ACCEPTANCE

The test results are acceptable if the minimum survival of organisms in the control treatment at the end of the test is at least 80%. For the growth endpoint, the test results are acceptable if there is measureable growth of test organisms in the control sediment.

9. DATA ANALYSIS

The endpoints of the toxicity test are survival and growth (optional). Survival is obtained as a direct count of living organisms in each test container at the end of the test. Average amphipod dry weight, also measured at the end of the test, may be used to compare growth between treatment sediments and the control or reference sediment. Body length may be used instead of dry weight. Ordinarily the following data analysis is performed. Due to special requirements, alternative methods may be used. The means and standard deviations are calculated for each treatment level. Identification of toxic sediments is established by statistical comparison of test endpoints between test and control or reference sediments. Between treatment comparisons may be made using a Student's t-test or Wilcoxon's Two-Sample test, where each treatment is compared to the control or the reference sediment. An arcsine-square root transformation of proportional data, and tests for normality and heterogeneity of variances, are performed prior to statistical comparisons.

10. REPORTING

The final report of the test results must include all of the following standard information at a minimum: name and identification of the test; the investigator and laboratory; date and time of test beginning and end; information on the test material; information on the source and quality of the overlying/test water; detailed information about the test organisms including acclimation conditions; a description of the experimental design and test chambers and other test conditions including feeding, if any, and water quality; definition of the effect criteria and other observations; responses, if any, in the control treatment; tabulation and statistical analysis of measured responses and a summary table of endpoints; a description of the statistical methods used; any unusual information about the test or deviations from procedures; reference toxicant testing information.

11. STUDY DESIGN ALTERATION

Amendments made to the protocol must be approved by the sponsor and study director and should include a description of the change, the reason for the change, the date the change took effect and the dated signatures of the study director and sponsor. Any deviations in the protocol must be described and recorded in the study raw data.

12. REFERENCE TOXICANT

The reference toxicant test is a standard multi-concentration toxicity test using a specified chemical toxicant to evaluate the performance of test organisms used in the study. Reference toxicant tests are 96-hour, water only exposures, not 10-day sediment exposures. The reference toxicant test is run concurrently. Performance is evaluated by comparing the results of the reference toxicant test with historical results (e.g., control charts) obtained at the laboratory.

13. REFERENCED GUIDELINES

ASTM. 2001. Standard Test Methods for Measuring the Toxicity of Sediment-Associated Contaminants with Fresh Water Invertebrates. ASTM Standard Method No. E 1706-00. Am. Soc. Test. Mat., Philadelphia, PA.

U.S. EPA. 2000. Section 11, Test Method 100.1, *Hyalella azteca* 10-d Survival and Growth Test for Sediments, pp. 47-54 In: Methods for Measuring the Toxicity and Bioaccumulation of Sediment-associated Contaminants with Freshwater Invertebrates (Second Edition). EPA/600/R-99/064.

Weber, C.I. (Ed.) 1993. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fourth Edition). EPA/600/4-90/027F.

14. APPROVALS

_____ for _____
Name Date

_____ for **Northwestern Aquatic Sciences**
Name Date

Appendix A
Test Conditions Summary

1. Test type	whole sediment toxicity test with renewal of overlying water
2. Test duration	10 days
3. Temperature	23 ± 1°C
4. Light quality	daylight flourescent light
5. Illuminance	100 - 1000 lux
6. Photoperiod	16L:8D
7. Test chamber size	300-mL high-form lipless beakers, (Pyrex® 1040 or equivalent)
8. Sediment volume	100 mL
9. Overlying water volume	175 mL
10. Renewal overlying water	2 volume additions/day (continuous or intermittent)
11. Age of test organisms	7-14 days old at test initiation (1 to 2 day range in age)
12. Organisms per test chamber	10
13. Replicates per treatment	8 recommended for routine testing (depends on design)
14. Organisms per treatment	80
15. Feeding regime	YCT food, fed 1.0 mL daily/chamber
16. Cleaning	if screens are used, clean as needed
17. Aeration	None, unless DO falls below 2.5 mg/L
18. Overlying (test) water	Culture water, well water, surface water, site water or reconstituted water
19. Water quality	Hardness, alkalinity, conductivity, pH, ammonia-N beginning and end; temperature and dissolved oxygen daily
20. Endpoints	Survival (optional, growth by dry weight or length)
21. Test acceptability criteria	Minimum control survival of 80%
22. Sample holding	14 days at 4°C in the dark
23. Sample volume required	1L (800 mL per sediment)
24. Reference toxicant	Concurrent testing required

APPENDIX II

RAW DATA

TEST DESCRIPTION, MONITORING, AND RESULTS BENCHSHEETS

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

REVIEWED PAGES 1-22 -GJI

Test No. 840-1 Client Anchor QEA Investigator

STUDY MANAGEMENT

Client: Anchor QEA, 720 Olive Way, Suite 1900, Seattle, WA 98101

Client's Study Monitor: Ms. Cindy Fields

Testing Laboratory: Northwestern Aquatic Sciences

Test Location: Newport Laboratory

Laboratory's Study Personnel:

Proj. Man./Study Dir. G.J. Irissarri GJI

QA Officer L.K. Nemeth

1. GABuyler GB
2. Yves Nakalamaya
3.
4. C.S. Caldwell DSC
5.
6.
7.
8.

Study Schedule:

Test Beginning: 2-15-13 1045 Test Ending: 2-25-13 1030

TEST MATERIAL

General description (see sample logbook/chain-of-custody for details):

NAS Sample No.:	4346G	4280G	4281G	4290G
Description:	Control	MBTL12-SS-09-10	MBTL12-SS-10-10	MBTL12-SS-12-10
Collection Date:	2/11/13	12/11/12	12/11/12	~~12/11/12~~ 12-13-12
Receipt Date:	2/11/13	12/14/12	12/14/12	12/14/12 GJI 3-13-13
:				
NAS Sample No.:				
Description:				
Collection Date:				
Receipt Date:				
:				
NAS Sample No.:				
Description:				
Collection Date:				
Receipt Date:				
:				
NAS Sample No.:				
Description:				
Collection Date:				
Receipt Date:				
:				
NAS Sample No.:				
Description:				
Collection Date:				
Receipt Date:				
:				

Error codes: 1) correction of handwriting error
2) written in wrong location; entry deleted
3) wrong date deleted, replaced with corrrect date
4) error found in measurement; measurement repeated

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-1 Client Anchor QEA Investigator

SEDIMENT DESCRIPTIONS -- SUPPLEMENTAL NOTES

Sample No.	Description
4346G	BROWN FINE MUD
4280G	Grey fine sandy sediment, slight hydrocarbon odor
4281G	Fine brown sandy sediment w/ corbicula
4290G	GRAY MUDDY SAND w/ CORBICULA SHELLS

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-1 Client Anchor QEA Investigator _____

Test conducted in (circle one): (room 1) room 2 trailer water bath other:_____

Randomization chart: TOP SHELF

5	10	15	20	25	30				
4	9	14	19	24	29				
3	8	13	18	23	28				
2	7	12	17	22	27	32			
1	6	11	16	21	26	31			

Randomization chart: FRONT

Randomization chart:

Randomization chart:

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-1 Client Anchor QEA Investigator

TEST WATER

Source: Dechlorinated Newport, OR tap water

Date of Collection: 2-12-13, 2-22-13

pH 7.8, 7.3

Cond (umhos/cm²) 96, 101

Hardness (mg/L) 26, 26

Alkalinity (mg/L) 30, 30

Total Chlorine (mg/L) <0.02, <0.02

Treatments: Aerated ≥ 24 hrs

TEST ORGANISMS

Species: *Hyalella azteca* Age: 7-8 DAYS Date received: 2-13-13

Source: Chesapeake Cultures, Hayes, VA

Acclimation Data:

Date	Temp. (deg.C)	pH	DO (mg/L)	Cond umhos/cm	Feeding amount	Feeding description	Water changes	Hardness (mg/L)	Alkalinity (mg/L)
2-13-13	16.7	7.4	>15.0	502	10 mL	YTC	YES	188	210
2-14-13	20.3	8.3	8.7	282	–	–	–	94	100
2-15-13	21.1	9.2	8.6	269	–	–	–	94	100
Mean	19.4	9.0	10.8	351				125	137
S.D.	2.3	0.5	3.7	131				54	64
(N)	3	3	3	3				3	3

Photoperiod during acclimation: 16:8 L:D

TEST PROCEDURES AND CONDITIONS

Test chambers: 300 ml glass beakers

Test volumes: 100 ml of test sediment; 275 ml total volume

Replicates/treatment: (8) 8 Organisms/treatment: (80) 80 (10/REP)

Test water changes: Twice daily

Aeration: only if DO falls below 2.5 mg/L

Feeding: everyday beginning with day zero

Test temperature (deg.C): 23

Beaker placement: Total randomization

Photoperiod: 16:8, L:D

Control Sediment:

Source: From an area approximately one mile east of the Hwy. 101 bridge at Beaver Creek, approx. 8 miles south of Newport, OR.

Date collected: 2/11/13

Sieved through 0.5 -mm screen

Storage: 4°C in the dark in closed containers.

4346 G

NAS# ~~42468~~ 601 3-12-13

MISCELLANEOUS NOTES

Light Intensity:

Date	Location	Light Intensity (ft-candles*)	Initials

*To convert ft-candles to lux multiply by 10.76

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No 840-1 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 0 (2/15/13) GB/GJ 1547

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond.* (umhos/cm)	pH* 7.0	Hardness* (mg/L)	Alkalinity* (mg/L)	NH3* (ppm)	Comments
4	22.5	7.6	109	6.9	34	30		Each beaker fed 1.0 ml
16	22.2	7.6	134	7.2	43	50		YTC suspension
17	22.2	7.4	125	7.2	43	50		Initials: GB
24	22.3	7.5	125	7.5	43	50		
								Water changed in all
								beakers.
								Time: 0515
								Initials: GB
								Water changed in all
								beakers.
								Time: 1615
								Initials: GB

*Water quality measurements to be taken.

Day 1 (2/16/13) GB

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
4	22.6	7.8						Each beaker fed 1.0 ml
16	22.6	7.9						YTC suspension
17	22.4	7.7						Initials: GB
24	22.6	7.8						
								Water changed in all
								beakers.
								Time: 0510
								Initials: GB
								Water changed in all
								beakers.
								Time: 1710
								Initials: GJ

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No 840-1 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 2 (2/19/13) GJL

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
4	22.4	7.5						Each beaker fed 1.0 ml
16	22.2	7.8						YTC suspension
17	22.1	7.8						Initials: GJL
24	22.2	7.9						
								Water changed in all
								beakers.
								Time: 0615
								Initials: GJL
								Water changed in all
								beakers.
								Time: 1650
								Initials: GJL

*Water quality measurements to be taken.

Day 3 (2/20/13) Y

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
4	22.4	7.2						Each beaker fed 1.0 ml
16	22.0	7.3						YTC suspension
17	22.0	7.5						Initials: GJL
24	22.1	7.4						
								Water changed in all
								beakers.
								Time: 0605
								Initials: Y
								Water changed in all
								beakers.
								Time: 1700
								Initials: GJL

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No 840-1 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 4 (2/19/13) GB

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
4	22.4	7.7						Each beaker fed 1.0 ml
16	22.2	7.8						YTC suspension
17	22.1	7.6						Initials: GB
24	22.2	7.8						
								Water changed in all
								beakers.
								Time: 0520
								Initials: GB
								Water changed in all
								beakers.
								Time: 1620
								Initials: YC

*Water quality measurements to be taken.

Day 5 (2/20/13) GB

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
4	22.4	7.0						Each beaker fed 1.0 ml
16	22.1	6.6						YTC suspension
17	22.0	7.0						Initials: GB
24	22.2	7.0						
								Water changed in all
								beakers.
								Time: 0525
								Initials: GB
								Water changed in all
								beakers.
								Time: 1610
								Initials: YC

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No 840-1 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 6 (2/21/13) GJ

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
4	22.6	7.3						Each beaker fed 1.0 ml
16	22.2	7.1						YTC suspension
17	22.2	7.4						Initials: GJ
24	22.4	7.3						
								Water changed in all
								beakers.
								Time: 0510
								Initials: GJ
								Water changed in all
								beakers.
								Time: 1615
								Initials: GJ

*Water quality measurements to be taken.

Day 7 (2/22/13) YC

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
4	22.7	7.1		6.7				Each beaker fed 1.0 ml
16	22.4	6.7		6.8				YTC suspension
17	22.3	7.1		6.9				Initials: GJ
24	22.6	7.1		7.1				
								Water changed in all
								beakers.
								Time: 0615
								Initials: GJ
								Water changed in all
								beakers.
								Time: 1715
								Initials: YC

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No 840-1 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 8 (2 /23/12) GJ

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
4	22.5	7.2						Each beaker fed 1.0 ml
16	22.2	7.0						YTC suspension
17	22.1	7.0						Initials: GJ
24	22.4	6.6						
								Water changed in all
								beakers.
								Time: 0615
								Initials: GJ
								Water changed in all
								beakers.
								Time: 1630
								Initials: GJ

*Water quality measurements to be taken.

Day 9 (2/24/13) GB

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
4	22.6	7.1						Each beaker fed 1.0 ml
16	22.4	6.9						YTC suspension
17	22.2	7.2						Initials: GB
24	22.5	7.0						
								Water changed in all
								beakers.
								Time: 0510
								Initials: GP
								Water changed in all
								beakers.
								Time: 1605
								Initials: GB

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No 840-1 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 10 (2/25/13) GJ

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond.* (umhos/cm)	pH*	Hardness* (mg/L)	Alkalinity* (mg/L)	NH3* (ppm)	Comments
4	22.5	7.0	101	6.8	26	30		Each beaker fed 1.0 ml
16	22.1	6.9	102	6.8	26	30		YTC suspension
17	22.0	6.9	101	7.0	26	30		Initials: GJ 2-25-13
24	22.4	6.8	101	7.0	26	30		
								Water changed in all
								beakers.
								Time: 1260515 2-25-13
								Initials: GJ
								Water changed in all
								beakers.
								Time: —
								Initials: —

*Water quality measurements to be taken.

Day _____(/ /)

Beaker No.	Temp. (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
								Each beaker fed 1.0 ml
								YTC suspension
								Initials:
								Water changed in all
								beakers.
								Time:
								Initials:
								Water changed in all
								beakers.
								Time:
								Initials:

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-HA4b

HYALELLA AZTECA 10-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-1 Client Anchor QEA Investigator

DAY 10 TEST TERMINATION SHEET

Beaker No.	Number of survivors	Initials
1	10	GJL
2	7	GJL
3	10	GJL
4	10	GJL
5	10	GJL
6	9	GJL
7	10	GJL
8	10	GJL
9	9	GJL
10	10	GJL
11	9	GJL
12	10	GJL
13	10	GJL
14	10	GJL
15	10	GJL
16	10	GJL
17	10	GJL
18	5	GJL
19	6	GJL
20	5	GJL
21	6	GJL
22	10	GJL
23	10	GJL
24	9	GJL
25	10	GJL
26	6	GJL
27	6	GJL
28	10	GJL
29	10	GJL
30	10	GJL
31	10	GJL
32	10	GJL
33		
34		
35		
36		
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45		

Beaker No.	Number of survivors	Initials
46		
47		
48		
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Chesapeake Cultures

P.O. Box 507 Hayes, VA 23072 (804)693-4046 (804)694-4704 fax
www.c-cultures.com
growfish@c-cultures.com

NAS

Shipment Information

Species Hyalella azteca Date 2/12/13

Age ~ 4-5 days on shipment 1.5mm P.O. No. verbal

Quantity 550+ Invoice No. 7442

Temperature 23.5°C Salinity _____ pH 7.95

Notes Rcvd 2-13-13 JK

Biologist SR

Please inspect shipment and report any problem immediately

TEST DATA ANALYSIS RECORDS

Test Number: 840-1

Freshwater Sediment Test
10-Day Hyalella azteca

BKR	NAS SMPL	CLIENT DESCRIP	REPL	
23	4346G	Control	1	
8	4346G	Control	2	
5	4346G	Control	3	
25	4346G	Control	4	
28	4346G	Control	5	
10	4346G	Control	6	
3	4346G	Control	7	
4	4346G	Control	8	wq replicate
21	4280G	MBTL12-SS-09-10	1	
2	4280G	MBTL12-SS-09-10	2	
20	4280G	MBTL12-SS-09-10	3	
18	4280G	MBTL12-SS-09-10	4	
26	4280G	MBTL12-SS-09-10	5	
19	4280G	MBTL12-SS-09-10	6	
27	4280G	MBTL12-SS-09-10	7	
16	4280G	MBTL12-SS-09-10	8	wq replicate
13	4281G	MBTL12-SS-10-10	1	
32	4281G	MBTL12-SS-10-10	2	
22	4281G	MBTL12-SS-10-10	3	
31	4281G	MBTL12-SS-10-10	4	
30	4281G	MBTL12-SS-10-10	5	
15	4281G	MBTL12-SS-10-10	6	
29	4281G	MBTL12-SS-10-10	7	
24	4281G	MBTL12-SS-10-10	8	wq replicate
9	4290G	MBTL12-SS-12-10	1	
12	4290G	MBTL12-SS-12-10	2	
1	4290G	MBTL12-SS-12-10	3	
7	4290G	MBTL12-SS-12-10	4	
14	4290G	MBTL12-SS-12-10	5	
11	4290G	MBTL12-SS-12-10	6	
6	4290G	MBTL12-SS-12-10	7	
17	4290G	MBTL12-SS-12-10	8	wq replicate

Freshwater Sediment Test
10-Day Hyalella azteca

data entry verified against laboratory bench sheets 3-12-13 JRK

Endpoints Data Entry and Calculations File

BKR=beaker number
INIT=initial number
SURV=number survivors
MORT=number dead=INIT-SURV
PSURV=%survival=100(SURV/INIT)
PMORT=%mortality=100(MORT/INIT)

INDEX	BKR	NAS SMPL	CLIENT DESCRIP	REPL		INIT	SURV	MORT	PSURV	PMORT			SURV	MORT	PSURV	PMORT
1	23	4346G	Control	1		10	10	0	100.0	0.0						
2	8	4346G	Control	2		10	10	0	100.0	0.0						
3	5	4346G	Control	3		10	10	0	100.0	0.0						
4	25	4346G	Control	4		10	10	0	100.0	0.0						
5	28	4346G	Control	5		10	10	0	100.0	0.0		Mean	10.0	0.0	100.0	0.0
6	10	4346G	Control	6		10	10	0	100.0	0.0		SD	0.0	0.0	0.0	0.0
7	3	4346G	Control	7		10	10	0	100.0	0.0		n	8	8	8	8
8	4	4346G	Control	8	wq replicate	10	10	0	100.0	0.0						
9	21	4280G	MBTL12-SS-09-10	1		10	6	4	60.0	40.0						
10	2	4280G	MBTL12-SS-09-10	2		10	7	3	70.0	30.0						
11	20	4280G	MBTL12-SS-09-10	3		10	5	5	50.0	50.0						
12	18	4280G	MBTL12-SS-09-10	4		10	5	5	50.0	50.0						
13	26	4280G	MBTL12-SS-09-10	5		10	6	4	60.0	40.0		Mean	6.4	3.6	63.8	36.3
14	19	4280G	MBTL12-SS-09-10	6		10	6	4	60.0	40.0		SD	1.6	1.6	16.0	16.0
15	27	4280G	MBTL12-SS-09-10	7		10	6	4	60.0	40.0		n	8	8	8	8
16	16	4280G	MBTL12-SS-09-10	8	wq replicate	10	10	0	100.0	0.0						
17	13	4281G	MBTL12-SS-10-10	1		10	10	0	100.0	0.0						
18	32	4281G	MBTL12-SS-10-10	2		10	10	0	100.0	0.0						
19	22	4281G	MBTL12-SS-10-10	3		10	10	0	100.0	0.0						
20	31	4281G	MBTL12-SS-10-10	4		10	10	0	100.0	0.0						
21	30	4281G	MBTL12-SS-10-10	5		10	10	0	100.0	0.0		Mean	9.9	0.1	98.8	1.3
22	15	4281G	MBTL12-SS-10-10	6		10	10	0	100.0	0.0		SD	0.4	0.4	3.5	3.5
23	29	4281G	MBTL12-SS-10-10	7		10	10	0	100.0	0.0		n	8	8	8	8
24	24	4281G	MBTL12-SS-10-10	8	wq replicate	10	9	1	90.0	10.0						
25	9	4290G	MBTL12-SS-12-10	1		10	9	1	90.0	10.0						
26	12	4290G	MBTL12-SS-12-10	2		10	10	0	100.0	0.0						
27	1	4290G	MBTL12-SS-12-10	3		10	10	0	100.0	0.0						
28	7	4290G	MBTL12-SS-12-10	4		10	10	0	100.0	0.0						
29	14	4290G	MBTL12-SS-12-10	5		10	10	0	100.0	0.0		Mean	9.6	0.4	96.3	3.8
30	11	4290G	MBTL12-SS-12-10	6		10	9	1	90.0	10.0		SD	0.5	0.5	5.2	5.2
31	6	4290G	MBTL12-SS-12-10	7		10	9	1	90.0	10.0		n	8	8	8	8
32	17	4290G	MBTL12-SS-12-10	8	wq replicate	10	10	0	100.0	0.0						

data entry verified against laboratory bench sheets 3-12-13 JRF

Test Number: 840-1

Freshwater Sediment Test
Hyalella azteca

Water Quality Data

NAS SMPL	CLIENT DESCRIP	DAY	Interstitial water pH	Interstitial water NH3
4346G	Control	-1	6.9	<0.5
4280G	MBTL12-SS-09-10	-1	8.5	2.4
4281G	MBTL12-SS-10-10	-1	8.1	2.6
4290G	MBTL12-SS-12-10	-1	8.1	1.6

BKR	NAS SMPL	CLIENT DESCRIP	REPL	DAY	Overlying water TEMP	DO	COND	pH	NH3	HARD	ALK
4	4346G	Control	8	0	22.5	7.6	109	7.1	<0.1	34	30
16	4280G	MBTL12-SS-09-10	8	0	22.2	7.6	134	7.2	0.1	43	50
17	4290G	MBTL12-SS-12-10	8	0	22.2	7.4	125	7.2	0.1	43	50
24	4281G	MBTL12-SS-10-10	8	0	22.3	7.5	125	7.5	0.2	43	50
4	4346G	Control	8	1	22.6	7.8					
16	4280G	MBTL12-SS-09-10	8	1	22.6	7.9					
17	4290G	MBTL12-SS-12-10	8	1	22.4	7.7					
24	4281G	MBTL12-SS-10-10	8	1	22.6	7.8					
4	4346G	Control	8	2	22.4	7.5					
16	4280G	MBTL12-SS-09-10	8	2	22.2	7.8					
17	4290G	MBTL12-SS-12-10	8	2	22.1	7.8					
24	4281G	MBTL12-SS-10-10	8	2	22.2	7.9					
4	4346G	Control	8	3	22.4	7.2					
16	4280G	MBTL12-SS-09-10	8	3	22.0	7.3					
17	4290G	MBTL12-SS-12-10	8	3	22.0	7.5					
24	4281G	MBTL12-SS-10-10	8	3	22.1	7.4					
4	4346G	Control	8	4	22.4	7.7					
16	4280G	MBTL12-SS-09-10	8	4	22.2	7.8					
17	4290G	MBTL12-SS-12-10	8	4	22.1	7.6					
24	4281G	MBTL12-SS-10-10	8	4	22.2	7.8					
4	4346G	Control	8	5	22.4	7.0					
16	4280G	MBTL12-SS-09-10	8	5	22.1	6.6					
17	4290G	MBTL12-SS-12-10	8	5	22.0	7.0					
24	4281G	MBTL12-SS-10-10	8	5	22.2	7.0					
4	4346G	Control	8	6	22.6	7.3					
16	4280G	MBTL12-SS-09-10	8	6	22.2	7.1					
17	4290G	MBTL12-SS-12-10	8	6	22.2	7.4					
24	4281G	MBTL12-SS-10-10	8	6	22.4	7.3					
4	4346G	Control	8	7	22.7	7.1					
16	4280G	MBTL12-SS-09-10	8	7	22.4	6.7					
17	4290G	MBTL12-SS-12-10	8	7	22.3	7.1					
24	4281G	MBTL12-SS-10-10	8	7	22.6	7.1					
4	4346G	Control	8	8	22.5	7.2					
16	4280G	MBTL12-SS-09-10	8	8	22.2	7.0					
17	4290G	MBTL12-SS-12-10	8	8	22.1	7.0					
24	4281G	MBTL12-SS-10-10	8	8	22.4	6.6					
4	4346G	Control	8	9	22.6	7.1					
16	4280G	MBTL12-SS-09-10	8	9	22.4	6.9					
17	4290G	MBTL12-SS-12-10	8	9	22.2	7.2					
24	4281G	MBTL12-SS-10-10	8	9	22.5	7.0					
4	4346G	Control	8	10	22.5	7.0	101	6.8	<0.1	26	30
16	4280G	MBTL12-SS-09-10	8	10	22.1	6.9	102	6.8	<0.1	26	30
17	4290G	MBTL12-SS-12-10	8	10	22.0	6.9	101	7.0	<0.1	26	30
24	4281G	MBTL12-SS-10-10	8	10	22.4	6.8	101	7.0	<0.1	26	30
				Mean	22.3	7.3	112	7.1	—	33	38
				SD	0.2	0.4	14	0.2	—	8	10
				n	44	44	8	8	8	8	8
				Min	22.0	6.6	101	6.8	<0.1	26	30
				Max	22.7	7.9	134	7.5	0.2	43	50

Interstitial water pH	Interstitial water NH3
7.9	—
0.7	—
4	4
6.9	<0.5
8.5	2.6

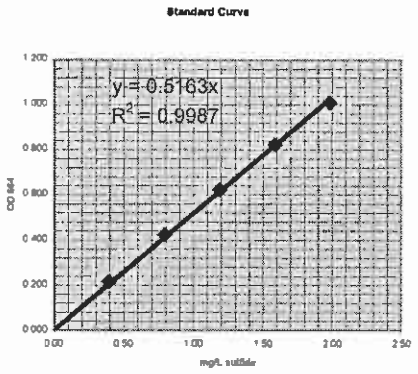
AMMONIA AND SULFIDE EXPOSURE BENCHSHEETS AND ANALYSIS

Dissolved Sulfide in Water: Computation Worksheet
Methylene Blue Method (SOP #5550)

Standardization	1	2	3
uL PAO titrant employed:	78	75	75
Working Std. Conc. (mg/L):		1.984	

Result

	Sample description	Dilution factor	OD664	Sulfide (mg/L)
	Blank	-----	-----	-----
	1.0 mL working sulfide std.	-----	0.215	0.40
	2.0 mL working sulfide std.	-----	0.422	0.79
	3.0 mL working sulfide std.	-----	0.622	1.19
	4.0 mL working sulfide std.	-----	0.823	1.59
	5.0 mL working sulfide std.	-----	1.010	1.98
	3.0 mL spike	-----	0.628	1.22
	3.0 mL spike dupl.	-----	0.610	1.18
1.	4279G	5	0.005	ND
2.	4280G	5	0.000	ND
3.	4281G	5	0.008	ND
4.	4282G	5	0.000	ND
5.	4283G	5	0.008	ND
6.	4284G	5	0.001	ND
7.	4285G	5	0.007	ND
8.	4286G	*	*	######
9.	4287G	*	*	######
10.	4288G	5	0.007	ND
11.	4289G	5	0.010	ND
12.	4290G	5	0.006	ND
13.	4291G	5	0.007	ND
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.	* Could not obtain porewater for analysis			
22.				
23.				
24.				
25.				
26.				
27.				
28				
29.				
30.				
31.				
32.				
33.				
34.				
35.				
36.				



Reporting limit (mg/L) = 0.1

Recovery (%) = 100.7
Precision (RPD) = 2.91

Sample volume (ml): 1.00
Dilution factor 5

Sample Set Description:
Test No.: P840
Test Day: N/A
Species: N/A

Bulk Porewater

Analyst: RSC
Date analysed: 12/17/2012

Dissolved Sulfide in Water: Computation Worksheet
Methylene Blue Method (SOP #5550)

Standardization	1	2	3
uL PAO titrant employed:	78	75	75
Working Std. Conc. (mg/L):		3.2	

Result

	Sample description	Dilution factor	OD664	Sulfide (mg/L)
	Blank	-----	-----	-----
	1.0 mL working sulfide std.	-----	.215	0.64
	2.0 mL working sulfide std.	-----	.422	1.28
	3.0 mL working sulfide std.	-----	.622	1.92
	4.0 mL working sulfide std.	-----	.823	2.56
	5.0 mL working sulfide std.	-----	1.01	3.20
	3.0 mL spike	-----	.628	
	3.0 mL spike dupl.	-----	.610	
1.	4279G	5	.005	
2.	4280G	5	.000	
3.	4281G	5	.008	
4.	4282G	5	.000	
5.	4283G	5	.008	
6.	4284G	5	.001	
7.	4285G	5	.007	
8.	4286G	*	*	######
9.	4287G	*	*	######
10.	4288G	5	.007	
11.	4289G	5	.010	
12.	4290G	5	.006	
13.	4291G	5	.007	
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.	* Could not obtain porewater for analysis			
22.				
23.				
24.				
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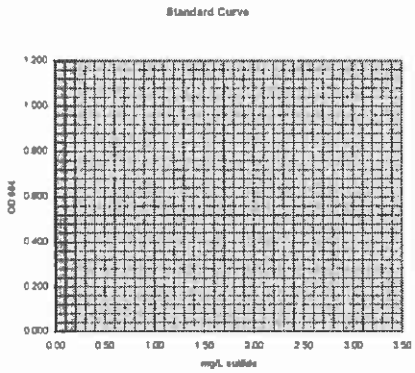
36.				



Reporting limit (mg/L) = 0.1

Recovery (%) = #VALUE!
Precision (RPD) = #VALUE!

Sample volume (ml): 1.00
Dilution factor 5

Sample Set Description:
Test No.: P840
Test Day: N/A
Species: N/A

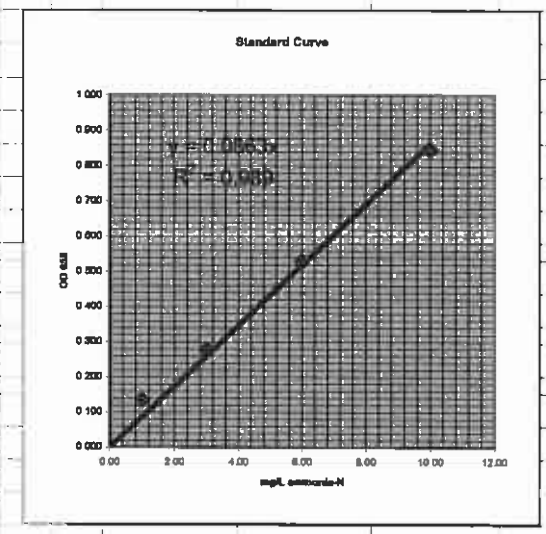
Bulk Porewater

Analyst: RSC
Date analysed: 12/17/2012

Total Ammonia-N in Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description	Dilution factor	OD_{655}	NH_3-N (mg/L)
	Blank	——	-----	——
	1.0 mg/L NH_3-N Std.	-----	0.135	1.00
	3.0 mg/L NH_3-N Std.	——	0.278	3.00
	6.0 mg/L NH_3-N Std.	-----	0.530	6.00
	10.0 mg/L NH_3-N Std.	-----	0.845	10.00
	3.0 mg/L spike	——	0.282	3.26
	3.0 mg/L spike dupl.	——	0.281	3.25
	5.0 mg/L 2nd source	-----	0.450	5.20
1.	4346G	5	0.000	ND
2.	4280G	5	0.042	2.43
3.	4281G	5	0.045	2.60
4.	4290G	5	0.028	1.62



Reporting limit (mg/L) =	0.5
Recovery (%) =	108.4
Precision (RPD) =	0.36
2nd source (%) =	104.0
Sample volume (ml):	0.10
Dilution factor	5

Sample Set Description:
Test No.: P840
Species: *Hyalella azteca* & *Chironomus dilutus*
Bulk sediment porewaters

Analyst: GJI
Date analysed: 03/11/13

Total Ammonia-N in Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description		Dilution factor	OD655	NH3-N (mg/L)
	Blank		---	---	---
	1.0 mg/L NH3-N Std.		---	0.135	1.00
	3.0 mg/L NH3-N Std.		----	0.278	3.00
	6.0 mg/L NH3-N Std.		----	0.530	6.00
	10.0 mg/L NH3-N Std.		-----	0.845	10.00
	3.0 mg/L spike		----	0.282	
	3.0 mg/L spike dupl.		----	0.291	
	5.0 mg/L 2nd source		----	0.450	
		pH			
1.	4346G	6.9	5	0.000	
2.	4280G	8.5	5	0.042	
3.	4281G	8.1	5	0.045	
4.	4290G	8.1	5	0.028	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
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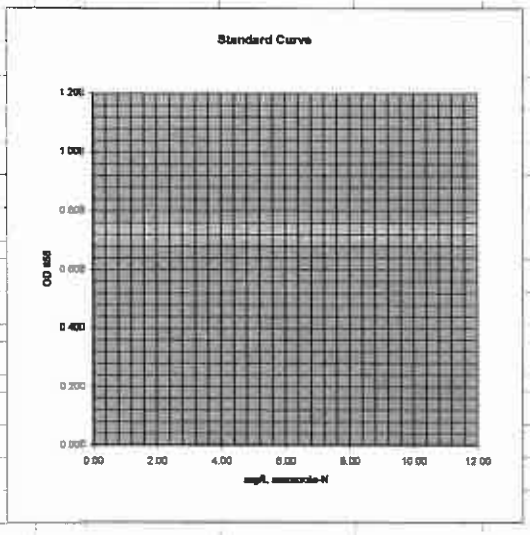

Reporting limit (mg/L) =	0.5
Recovery (%) =	#VALUE!
Precision (RPD) =	#VALUE!
2nd source (%) =	#VALUE!
Sample volume (ml):	0.10
Dilution factor	5

Sample Set Description:

Test No.: P840

Species: *Hyalella azteca & Chironomus dilutus*

Bulk sediment porewaters

Analyst: GJI GJI

Date analysed: 03/11/13

Total Ammonia-N in Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description	Dilution factor	OD655	NH3-N (mg/L)
	Blank	---	-----	---
	1.0 mg/L NH3-N Std.	---	0.135	1.00
	3.0 mg/L NH3-N Std.	---	0.278	3.00
	6.0 mg/L NH3-N Std.	---	0.530	6.00
	10.0 mg/L NH3-N Std.	---	0.845	10.00
	3.0 mg/L spike	---	0.282	3.26
	3.0 mg/L spike dupl.	---	0.281	3.25
	5.0 mg/L 2nd source	---	0.450	5.20
1.	Day 0			
2.	4	1	0.000	ND
3.	16	1	0.012	0.14
4.	17	1	0.010	0.12
5.	24	1	0.018	0.21
6.				
7.				
8.	Day 10			
9.	4	1	0.000	ND
10.	16	1	0.000	ND
11.	17	1	0.000	ND
12.	24	1	0.000	ND
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
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35.				
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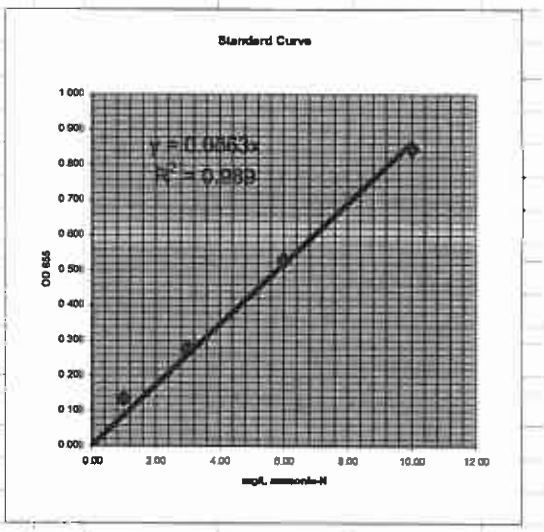

Reporting limit (mg/L) =	0.1
Recovery (%) =	108.4
Precision (RPD) =	0.36
2nd source (%) =	104.0
Sample volume (ml):	0.50
Dilution factor	1

Sample Set Description:
Test No.: P840-1
Species: *Chironomus dilutus*
Overlying water

Days 0 & 10

Analyst: GJI
Date analysed: 03/11/13

Total Ammonia-N in Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description	Dilution factor	OD655	NH3-N (mg/L)
	Blank	----	-----	-----
	1.0 mg/L NH3-N Std.	----	0.135	1.00
	3.0 mg/L NH3-N Std.	----	0.278	3.00
	6.0 mg/L NH3-N Std.	----	0.530	6.00
	10.0 mg/L NH3-N Std.	----	0.845	10.00
	3.0 mg/L spike	----	0.282	
	3.0 mg/L spike dupl.	----	0.281	
	5.0 mg/L 2nd source	----	0.450	
1.	Day 0			
2.	4	1	0.000	
3.	16	1	0.012	
4.	17	1	0.010	
5.	24	1	0.018	
6.				
7.				
8.	Day 10			
9.	4	1	0.000	
10.	16	1	0.000	
11.	17	1	0.000	
12.	24	1	0.000	
13.				
14.				
15.				
16.				
17.				
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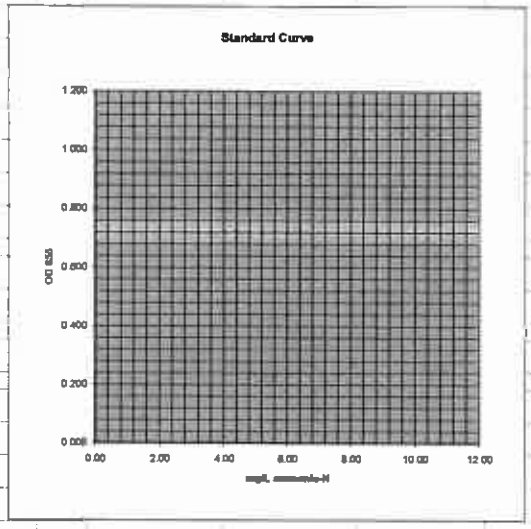


Reporting limit (mg/L) =	0.1
Recovery (%) =	#VALUE!
Precision (RPD) =	#VALUE!
2nd source (%) =	#VALUE!
Sample volume (ml):	0.50
Dilution factor	1

Sample Set Description:

Test No.: P840-1
Species: *Hyalella azteca*
Overlying water

Days 0 & 10

Analyst: GJI GJI
Date analysed: 03/11/13

CHAIN-OF-CUSTODY RECORDS

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

TAT:

AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com

Lab Contact: Gerald Irissarri	Project: Millennium Bulk Terminals
Lab: Northwest Aquatic Sciences	
Address: 3814 Yaquina Bay Road	Project No.: 110730-02.01
City, State, Zip: : Newport, OR 97365	Sampler(s): DG, NB, AT
Phone: 541.265.7225	Shipping Method: Courier

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	Analyses Requested: Bioassay											HOLD
MBTL12-SS-01-10	12/11/2012	1238	SE	2		NAS #	42796									X
MBTL12-SS-09-10		1001					42806									X
MBTL12-SS-10-10		1119					42816									X
MBTL12-SS-02-10		1357					42826									X
MBTL12-SS-04-10	12/12/2012	0918					42836									X
MBTL12-SS-08-10		1010					42846									X
MBTL12-SS-01-10		1111					42856									X
MBTL12-SS-03-10		1225					42866									X
MBTL12-SS-06-10		1408					42876									X
MBTL12-SS05-10	12/13/2012	E939					42886									X
MBTL12-SS11-10		1037					42896									X
MBTL12-SS-12-10		1139					42906									X
MBTL12-SS-13-10		1254					42916									X

Relinquished: (Signature)	Relinquished: (Signature)	Relinquished: (Signature)	Special Instructions/Notes:
Printed Name: Amy Thatcher	Printed Name: Bob Mowry	Printed Name:	Bioassays will be triggered pending review of chemical results
Company: Anchor QEA, LLC	Company: Red-EYE	Company:	
Date/Time: 12/14/2012 0128	Date/Time: 12/14/12 11:30	Date/Time:	
Received By: Bob Mowry	Received By: Gary Bubler	Received By:	
Printed Name: BOB MOWRY	Printed Name: GARY Bubler	Printed Name:	
Company: Red EYE Delivery	Company: Northwest Aquatic	Company:	# of Coolers: / Cooler Temp(s):
Date/Time: 12-14-12 7:30	Date/Time: 12-14-12 1130	Date/Time:	COC Seals Intact? / Bottles Intact?

APPENDIX III

RAW DATA – REFERENCE TOXICANT TEST

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS- _____

ACUTE TOXICITY TEST (ALL SPECIES)

REVIEWED PAGES 1-7 -631

Test No. 999-3135 Client: QC Test Investigator _____

Test Type (rangefinding/definitive) Test Length (hr) 96

Species *Hyalella azteca*

STUDY MANAGEMENT

Client: QC test

Client's Study Monitor: QC test

Testing Laboratory: Northwestern Aquatic Sciences

Test Location: Newport Laboratory

Laboratory's Study Personnel:

Proj. Man./Study Dir. G.J. Irissarri GJI

QA Officer L. K. Nemeth

1. GA Butler GD 2. Yves Nalakama Y

3. 4.

Test Beginning: 2-15-13 1035 Test Ending: 2-19-13 1140

TEST MATERIAL

Description: Potassium Chloride Crystals - Lot No.: FISHER Ø7328Ø

NAS Sample No.				
Date of Collection:				
Date of Receipt:				
Temperature (deg C):				
Dissolved oxygen (mg/L):				
pH:				
Conductivity (umhos/cm):				
Hardness (mg/L):				
Alkalinity (mg/L):				
Salinity (ppt):				
Total chlorine (mg/L):				
Total ammonia-N (mg/L):				
:				

DILUTION WATER

Description: Moderately hard synthetic water

Date of Preparation/Collection: 2-5-13

Water Quality: Cond. (umhos/cm): 264 Salinity (ppt) [redacted] pH 7.8

Hardness (mg/L as $CaCO_3$): 94 Alkalinity (mg/L as $CaCO_3$): 70

Treatments: Aerated ≥ 24 hrs

TEST LOCATION

Test conducted in (circle one): room 1 room 2 trailer water bath other: _____

Randomization chart:

0.25	1.0	0.125	0.063	Ø	0.5				
0.25	0.063	Ø	0.5	0.125	1.0				

Error codes: 1) Correction of handwriting error
2) Written in wrong location; entry deleted
3) Wrong date deleted; replaced with correct date
4) Error found in measurement; measurement repeated

Revised 12-5-01

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-_____

ACUTE TOXICITY TEST (ALL SPECIES)

Test No. 999-3135 Client QC Test Investigator _____

TEST ORGANISMS

Species: *Hyalella azteca* Age: 7-8 DAYS Size: _____

Source: Chesapeake Cultures, Hayes, VA Date received: 2-13-13

Acclimation Data:

Date	Temp. (deg.C)	pH	Cond. umhos/cm	DO (mg/L)	Hardness (mg/L)	Alkalinity (mg/L)	Feeding Amount	Feeding description	Water changes
2-13-13	16.7	7.4	502	>15.0	188	210	10 mL	YTC	YES
2-14-13	20.3	8.3	282	9.7	94	100	–	–	–
2-15-13	21.1	8.2	269	8.6	94	100	–	–	–
Mean	19.4	8.0	351	10.8	125	137			
S.D.	2.3	0.5	131	3.7	54	64			
(N)	3	3	3	3	3	3			

Photoperiod during acclimation: 16:8, L:D

TEST PROCEDURES AND CONDITIONS

Test concentrations (50% series recommended): 1, 0.5, 0.25, 0.125, 0.063 0 g/L

Test chamber: 250 ml glass beakers Test volume: 100 ml

Replicates/treatment: 2 Organisms/treatment: 20 (10/rep)

Test water changes: None Aeration during test: None

Feeding: 0.5 ml YTC suspension per beaker on days 0 and 2

Duration: 24-hr, 48-hr, 96-hr Test temperature (deg.C): 23 ± 1 or 20 ± 1

Beaker placement: Stratified randomization Photoperiod: 16:8, L:D

MISCELLANEOUS NOTES

Test solution preparation:

Working stock: Dissolve 0.5g KCl crystals in dilution water and dilute to 500 mL.
Final conc.: 1.0 g/L.

Test concentration (g/L)	KCl working stock (ml/200ml)	Dilution water
1	200	Brought up to final volume of 200 ml with dilution water and distributed evenly between two replicates
0.5	100	
0.25	50	
0.125	25	
0.063	12.5	
0	0	

GB 2-15-13

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-_____

ACUTE TOXICITY TEST (ALL SPECIES)

Test No. 999-3135 Client QC Test

DAILY RECORD SHEET

Day 0 (2/15/13) GB / GSL

Conc. (g/L)	Temp. (deg.C)	pH	Cond. (umhos/cm)	DO (ppm)	Hardness (mg/L)	Alkalinity (mg/L)	Survivors A	Survivors B
1. 1	23.3	7.7	1890	8.3	86	70	10	10
2. 0.5	23.3	7.9	1098	8.4			10	10
3. 0.25	23.4	8.0	678	8.4			10	10
4. 0.125	23.4	8.0	472	8.5			10	10
5. 0.063	23.5	8.0	367	8.4			10	10
6. 0	23.3	8.1	261	8.4	86	70	10	10

All animals fed 0.5 ml YTC suspension. Initials: GB

Day 1 (2/16/13) GB / GSL

Conc. (g/L)	Temp. (deg.C)	pH	Cond. (umhos/cm)	DO (ppm)	Hardness (mg/L)	Alkalinity (mg/L)	Survivors A	Survivors B
1. 1	23.3	7.5	1880	8.2			4(6D)	7(3D)
2. 0.5	23.4	7.6	1075	8.1			9(1D)	9(1D)
3. 0.25	23.3	7.6	678	8.3			10	10
4. 0.125	23.3	7.7	465	8.2			10	10
5. 0.063	23.4	7.7	353	8.3			10	10
6. 0	23.4	7.8	252	8.2			10	10

Day 2 (2 /17/13) GSL

Conc. (g/L)	Temp. (deg.C)	pH	Cond. (umhos/cm)	DO (ppm)	Hardness (mg/L)	Alkalinity (mg/L)	Survivors A	Survivors B
1. 1	23.5	7.6	1971	7.8			∅(4D)	∅(7D)
2. 0.5	23.4	7.7	1191	8.0			3(6D)	4(5D)
3. 0.25	23.4	7.7	766	8.0			10	10
4. 0.125	23.6	7.8	519	8.1			10	10
5. 0.063	23.6	7.8	403	8.1			10	10
6. 0	23.4	7.8	290	8.0			9(1D)	10

All animals fed 0.5 ml YTC suspension. Initials: GSL

Day 3 (2 / 18/13) Y- / GSL

Conc. (g/L)	Temp. (deg.C)	pH	Cond. (umhos/cm)	DO (ppm)	Hardness (mg/L)	Alkalinity (mg/L)	Survivors A	Survivors B
1. 1	—	—	—	—			∅	∅
2. 0.5	23.3	8.0	1168	7.9			2(1D)	2(2D)
3. 0.25	23.2	8.0	769	8.0			9(1D)	10
4. 0.125	23.5	7.9	487	8.0			10	10
5. 0.063	23.6	7.9	369	8.0			10	10
6. 0	23.4	7.9	271	8.1			9	10

Day 4 (2 19 13) KM / GSL

Conc. (g/L)	Temp. (deg.C)	pH	Cond. (umhos/cm)	DO (ppm)	Hardness (mg/L)	Alkalinity (mg/L)	Survivors A	Survivors B
1. 1	—	—	—	—	—	—	∅	∅
2. 0.5	23.6	7.8	1195	7.8			∅(2D)	1(1D)
3. 0.25	23.7	7.9	810	7.9			7(2D)	8(2D)
4. 0.125	23.6	8.0	505	7.9			10	10
5. 0.063	23.7	7.9	395	8.0			10	10
6. 0	23.6	7.9	287	8.0	86	70	9	10
Mean	23.4	7.8	∅ / —	8.1	86	70		
SD	0.1	0.2	272 / 1914	0.2	0	0		
n	28	28	16 / 5C	28	3	3		
			5 / 3					

Chesapeake Cultures

P.O. Box 507 Hayes, VA 23072 (804)693-4046 (804)694-4704 fax
www.c-cultures.com
growfish@c-cultures.com

~~NRS~~

Shipment Information

Species Hyalella azteca Date 2/12/13

Age ~ 4-5 days on shipment 1.5mm P.O. No. verbal

Quantity 350 + Invoice No. 7442

Temperature 23.5°C Salinity _____ pH 7.95

Notes Rcvd 2-13-13 JK

Biologist SR

Please inspect shipment and report any problem immediately

Acute 96-hr Toxicity Test-96 Hr Survival

Start Date:	2/15/2013 10:35	Test ID:	999-3135	Sample ID:	REF-Ref Toxicant
End Date:	2/19/2013 11:40	Lab ID:	ORNAS-Northwestern Aquati	Sample Type:	KCL-Potassium chloride
Sample Date:		Protocol:	EPAA 91-EPA Acute	Test Species:	HA-Hyalella azteca
Comments:					

Conc-gm/L	1	2
D-Control	0.9000	1.0000
0.063	1.0000	1.0000
0.125	1.0000	1.0000
0.25	0.7000	0.8000
0.5	0.0000	0.1000
1	0.0000	0.0000

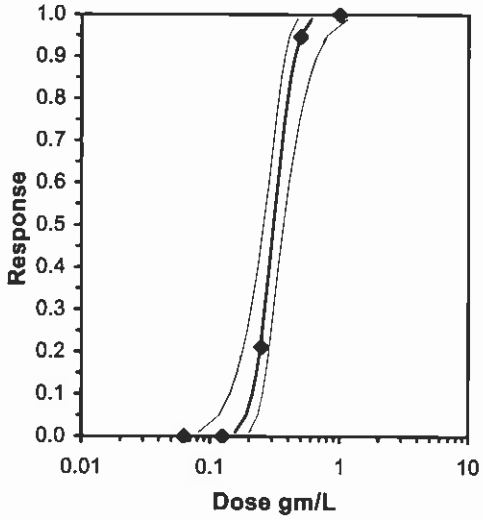
			Transform: Arcsin Square Root					Number	Total
Conc-gm/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Resp	Number
D-Control	0.9500	1.0000	1.3305	1.2490	1.4120	8.661	2	1	20
0.063	1.0000	1.0526	1.4120	1.4120	1.4120	0.000	2	0	20
0.125	1.0000	1.0526	1.4120	1.4120	1.4120	0.000	2	0	20
0.25	0.7500	0.7895	1.0492	0.9912	1.1071	7.818	2	5	20
0.5	0.0500	0.0526	0.2403	0.1588	0.3218	47.963	2	19	20
1	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Normality of the data set cannot be confirmed				
Equality of variance cannot be confirmed				

Maximum Likelihood-Probit

Parameter	Value	SE	95% Fiducial Limits		Control	Chi-Sq	Critical	P-value	Mu	Sigma	Iter
Slope	7.90839	1.90912	4.16651	11.6503	0.05	0.70362	7.81472	0.87	-0.5099	0.12645	4
Intercept	9.03282	1.00829	7.05657	11.0091							
TSCR	0.01675	0.01681	-0.0162	0.04969							

Point	Probits	gm/L	95% Fiducial Limits	
EC01	2.674	0.157	0.08204	0.20249
EC05	3.355	0.19146	0.11808	0.2346
EC10	3.718	0.21282	0.1428	0.25478
EC15	3.964	0.22856	0.16188	0.27013
EC20	4.158	0.2419	0.17842	0.28366
EC25	4.326	0.25396	0.1935	0.29649
EC40	4.747	0.28709	0.23417	0.33605
EC50	5.000	0.30907	0.25925	0.36708
EC60	5.253	0.33273	0.28376	0.40559
EC75	5.674	0.37614	0.32243	0.48958
EC80	5.842	0.39489	0.33723	0.53062
EC85	6.036	0.41794	0.35434	0.58448
EC90	6.282	0.44886	0.3759	0.66221
EC95	6.645	0.49894	0.40845	0.8004
EC99	7.326	0.60844	0.47345	1.15141

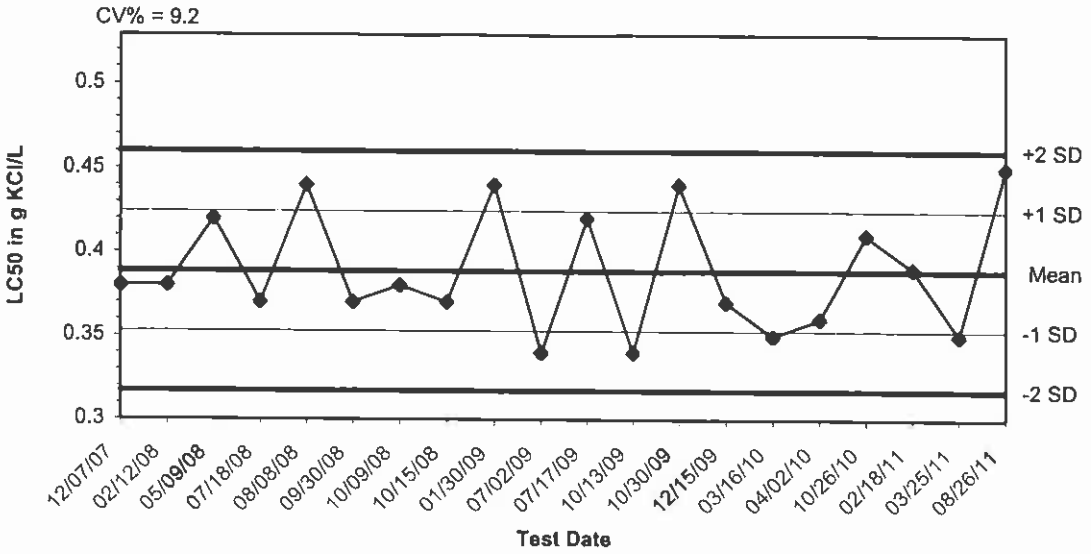


Test: AT-Acute 96-hr Toxicity Test | Test ID: 999-3135
Species: HA-Hyalella azteca | Protocol: EPAA 91-EPA Acute
Sample ID: REF-Ref Toxicant | Sample Type: KCL-Potassium chloride
Start Date: 2/15/2013 10:35 | End Date: 2/19/2013 11:4 | Lab ID: ORNAS-Northwestern Aquatic Sciences

Pos	ID	Rep	Group	Start	24 Hr	48 Hr	72 Hr	96 Hr	Notes
	1	1	D-Control	10	10	9	9	9	
	2	2	D-Control	10	10	10	10	10	
	3	1	0.063	10	10	10	10	10	
	4	2	0.063	10	10	10	10	10	
	5	1	0.125	10	10	10	10	10	
	6	2	0.125	10	10	10	10	10	
	7	1	0.250	10	10	10	9	7	
	8	2	0.250	10	10	10	10	8	
	9	1	0.500	10	9	3	2	0	
	10	2	0.500	10	9	4	2	1	
	11	1	1.000	10	4	0	0	0	
	12	2	1.000	10	7	0	0	0	

Comments: data entry verified against laboratory bench sheets 3-12-13 JRF

Amphipod, Hyalella azteca, acute reference toxicant test



Dates	Values	Mean	-1 SD	-2 SD	+1 SD	+2 SD
12/07/07	0.3800	0.3885	0.3528	0.3170	0.4242	0.4600
02/12/08	0.3800	0.3885	0.3528	0.3170	0.4242	0.4600
05/09/08	0.4200	0.3885	0.3528	0.3170	0.4242	0.4600
07/18/08	0.3700	0.3885	0.3528	0.3170	0.4242	0.4600
08/08/08	0.4400	0.3885	0.3528	0.3170	0.4242	0.4600
09/30/08	0.3700	0.3885	0.3528	0.3170	0.4242	0.4600
10/09/08	0.3800	0.3885	0.3528	0.3170	0.4242	0.4600
10/15/08	0.3700	0.3885	0.3528	0.3170	0.4242	0.4600
01/30/09	0.4400	0.3885	0.3528	0.3170	0.4242	0.4600
07/02/09	0.3400	0.3885	0.3528	0.3170	0.4242	0.4600
07/17/09	0.4200	0.3885	0.3528	0.3170	0.4242	0.4600
10/13/09	0.3400	0.3885	0.3528	0.3170	0.4242	0.4600
10/30/09	0.4400	0.3885	0.3528	0.3170	0.4242	0.4600
12/15/09	0.3700	0.3885	0.3528	0.3170	0.4242	0.4600
03/16/10	0.3500	0.3885	0.3528	0.3170	0.4242	0.4600
04/02/10	0.3600	0.3885	0.3528	0.3170	0.4242	0.4600
10/26/10	0.4100	0.3885	0.3528	0.3170	0.4242	0.4600
02/18/11	0.3900	0.3885	0.3528	0.3170	0.4242	0.4600
03/25/11	0.3500	0.3885	0.3528	0.3170	0.4242	0.4600
08/26/11	0.4500	0.3885	0.3528	0.3170	0.4242	0.4600

12-7-11

Report

of

Test No. 840-2

Assessment of Freshwater Sediments as part of the NPDES Sediment Sampling – Millennium Bulk Terminals – Longview, LLC Project (Project No. 110730-02.01), using a 20-day midge, *Chironomus dilutus*, Sediment Bioassay.

Submitted to

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

Submitted by

Northwestern Aquatic Sciences
3814 Yaquina Bay Road
P.O. Box 1437
Newport, OR 97365

March 15, 2013

TOXICITY TEST REPORT

TEST IDENTIFICATION

Test No.: 840-2

Title: Toxicity of freshwater sediments using a 20-day Midge, *Chironomus dilutus*, sediment bioassay as part of the NPDES Sediment Sampling – Millennium Bulk Terminals – Longview, LLC Project (Project No. 110730-02.01).

Protocol No.: NAS-XXX-CT4c, October 18, 2000. Revision 1 (11-08-03). Based on ASTM 2001 (Standard test methods for measuring the toxicity of sediment-associated contaminants with fresh water invertebrates, E1706-00), Am. Soc. Test. Mat., Phila., PA, and EPA Method 100.2 (Methods for measuring the toxicity and bioaccumulation of sediment-associated contaminants with freshwater invertebrates, EPA/600/R-99/064).

STUDY MANAGEMENT

Study Sponsor: Anchor QEA, LLC., 720 Olive Way, Suite 1900, Seattle, WA 98101
Sponsor's Study Monitor: Ms. Cindy Fields
Testing Laboratory: Northwestern Aquatic Sciences, P.O. Box 1437, Newport, OR 97365
Test Location: Newport laboratory
Laboratory's Study Personnel: G.J. Irissarri, B.S., Proj. Man./Study Dir.; L.K. Nemeth, B.A., M.B.A., QA Officer; R.S. Caldwell, PhD, Sr. Toxicologist; G.A. Buhler, B.S., Aq. Toxicologist; Y. Nakahama, Sr.Tech.; L. Meyers, M.A., Tech.
Study Schedule:
Test Beginning: 2-15-13, 1015 hrs.
Test Ending: 3-7-13, 1030 hrs.
Disposition of Study Records: All raw data, reports and other study records are stored at Northwestern Aquatic Sciences, 3814 Yaquina Bay Rd., Newport, OR 97365.
Statement of Quality Assurance: The test data were reviewed by the Quality Assurance Unit to assure that the study was performed in accordance with the protocol and standard operating procedures. This report is an accurate reflection of the raw data.

Test Sediments: Freshwater test sediments collected as part of the NPDES Sediment Sampling – Millennium Bulk Terminals – Longview, LLC Project (Project No. 110730-02.01). Details are as follows:

NAS Sample No.	4280G	4281G	4290G
Description	MBTL12-SS-09-10	MBTL12-SS-10-10	MBTL12-SS-12-10
Collection Date	12/11/12	12/11/12	12/13/12
Receipt Date	12/14/12	12/14/12	12/14/12

Control Sediment: The negative control sediment (NAS#4346G) was collected on 2-11-13 from an area approximately one mile east of the Hwy. 101 bridge at Beaver Creek, approx. 8 miles south of Newport, OR.
Treatments: Homogenized at test set up by mixing using stainless steel implements.
Storage: All test and control sediments were stored at 4°C in the dark in sealed containers until used.

TEST WATER

Source: Dechlorinated municipal tap water.
Date of Preparation: Two batches of test water were collected on: 2/12/13, 2/22/13
Water Quality (mean ± S.D.):
pH: 7.8, 7.3
conductivity: 96, 101 µmhos/cm (n=6)
hardness: 26, 26 mg/L as $CaCO_3$ (n=6)
alkalinity: 30, 30 mg/L as $CaCO_3$. (n=6)
total chlorine: All batches were < 0.02 mg/L (n=2)
Pretreatment: Dechlorinated and aerated ≥24 hr.

TEST ORGANISMS

Species: *Chironomus dilutus* (formerly *C. tentans*), midge.
Size: 1st instar
Source: NAS cultures, originally obtained from EPA, Duluth, MN.
Acclimation: Holding conditions for the four days prior to testing averaged: Temperature, 20.1 ± 1.9 °C; dissolved oxygen, 8.4 ± 0.3 mg/L; pH, 7.7 ± 0.1; conductivity, 138 ± 28 µmhos/cm; hardness, 34 mg/L as $CaCO_3$; and alkalinity, 35 mg/L as $CaCO_3$. Photoperiod was 16:8, L:D. Half of the water in culture tanks was replaced twice weekly with dechlorinated municipal tap water during holding. Animals were fed Tetra Fin suspension and *Selenastrum*.

TEST PROCEDURES AND CONDITIONS

The following is an abbreviated statement of the test procedures and a statement of the test conditions actually employed. See the test protocol (Appendix I) for a more detailed description of the test procedures used in this study.

Test Chambers: 300 ml high-form glass beakers
Test Volumes: 100 ml sediment layer; 175 ml test water.
Replicates/Treatment: 8
Organisms/Treatment: 80
Water Volume Changes: 2 water volumes per day
Aeration: None.
Feeding: Animals were fed 1.5 ml of Tetra Fin suspension (1.5 ml contains 6 mg dry solids) per beaker daily.
Effects Criteria: 1) survival after 20 days, and 2) average individual biomass (based on ash-free dry weight) after 20 days. Death is defined as no visible movement or response to tactile stimulation. Missing organisms were considered to be dead.
Water Quality and Other Test Conditions: The temperature, dissolved oxygen, conductivity, pH, hardness, alkalinity and ammonia-nitrogen were measured in the overlying water of one replicate test container per treatment on days 0 and 20 of the test. Temperature was measured daily, pH and dissolved oxygen three times per week, and conductivity weekly, in the overlying water of one replicate test container per treatment. Hardness and alkalinity were measured with titrimetric methods. Total ammonia and pH were measured in the pore water from the bulk sediment at test initiation. Interstitial water samples were obtained by centrifugation. Ammonia-N was measured using Hach reagents based on the salicylate (Clin. Chim. Acta 14:403, 1996) colorimetric method; samples were not distilled prior to analysis. The photoperiod was 16:8, L:D.

DATA ANALYSIS METHODS

Survival and individual biomass were calculated for each replicate as follows:

percent survival = 100 x (number surviving/initial number tested)
average individual ash-free dry wt. = (ash-free dry wt.)/number weighed,
where:
ash-free dry wt. = dry weight of organisms recovered on day 10 – ashed dry weight, in mg

Means and standard deviations for the biological endpoints described above, and for water quality data, were computed using Microsoft Excel 2000.

PROTOCOL DEVIATIONS

The temperature (21.7 °C) in one beaker on day 17 was slightly below the protocol requirements of 23.0 ± 1.0 °C.

REFERENCE TOXICANT TEST

The reference toxicant test is a multi-concentration toxicity test using potassium chloride, to evaluate the performance of the test organisms used in the sediment toxicity test. The performance is evaluated by comparing the results of this test with historical results obtained at the laboratory. A summary of the reference toxicant test result is given below. The reference toxicant test raw data are found in Appendix III.

Test No.: 999-3136
Reference Toxicant and Source: Potassium Chloride (KCl), Fisher Lot #073280.
Test Date: 2-15-13.
Dilution Water Used: Moderately hard synthetic water prepared from Milli-Q® deionized water.
Result: 96-hr LC50, 2.94 g/L. This result is within the laboratory's control chart warning limits (1.52 – 3.62 g/L).

TEST RESULTS

Observations of water quality in the overlying water throughout the test are summarized in Table 1. A detailed tabulation of the water quality results by sample and test day can be found in Appendix II. Interstitial ammonia and pH measurements are listed in Table 2. The means and standard deviations of percent mortality and growth (ash-free dry wt.) of midges exposed for 20 days to sediments are summarized in Table 3. Detailed data organized by sample and replicate, and summary statistics for these observations, are given in Appendix II.

Except as noted above, all water quality observations of overlying water temperature and dissolved oxygen were within the protocol specified ranges. Ammonia-N in the overlying water ranged between <0.1 and 0.1 mg/L for all day 0 and day 20 measurements. Interstitial bulk sediment values for ammonia-N ranged from <0.5 to 2.6 mg/L.

The test met the survival and weight acceptability criteria specified in the test protocol with 16.3% mean control mortality (≤30% required) and a control individual mean ash-free dry weight of 1.40 mg per larvae (0.48 mg required). The reference toxicant (positive control) EC50 result was within the laboratory's control chart limits (2.94 g/L; control chart mean ± 2 S.D. = 2.57 ± 1.05). It is concluded, therefore, that the test has developed fully acceptable data for use in making management decisions.

STUDY APPROVAL

Project Manager/Study Director — Date: 3-14-13

Quality Assurance Unit — Date: 3-14-13

Assistant Laboratory Director — Date: 3-14-13

Table 1. Summary of water quality conditions during tests of the midge, *Chironomus dilutus*, exposed to freshwater sediments.

Water Quality Parameter	Mean ± S.D.	Minimum	Maximum	N
Temperature (°C)	22.6 ± 0.4	21.7	23.4	84
Dissolved oxygen (mg/L)	6.1 ± 0.8	4.3	7.5	40
Conductivity (µmhos/cm)	114 ± 8	98	131	20
pH	6.7 ± 0.4	6.2	7.5	40
Hardness (mg/L as $CaCO_3$)	33 ± 8	26	43	8
Alkalinity (mg/L as $CaCO_3$)	38 ± 10	30	50	8
Total ammonia (mg/L)	--	<0.1	0.1	8

Table 2. Interstitial ammonia-N and pH in test sediments porewater prior to test initiation.

NAS Sample No.	Sample Description	pH	Ammonia (mg/L)
4346G	Control	6.9	<0.5
4280G	MBTL12-SS-09-10	8.5	2.4
4281G	MBTL12-SS-10-10	8.1	2.6
4290G	MBTL12-SS-12-10	8.1	1.6

Table 3. Mortality and growth results of *Chironomus dilutus* 20-day sediment toxicity test

NAS Sample No.	Sample Description	Percent mortality (Mean ± SD)	Average ash-free dry wt/midge (mg)* (Mean ± SD)
4346G	Control	16.3 ± 7.4	1.40 ± 0.22
4280G	MBTL12-SS-09-10	100.0 ± 0.0	N/A
4281G	MBTL12-SS-10-10	28.8 ± 15.5	1.55 ± 0.20
4290G	MBTL12-SS-12-10	21.3 ± 15.5	1.36 ± 0.13

*Pupae were not included in the sample to estimate ash-free dry weight (as per EPA/600/R-99/064, p. 59, section 12.3.8.2)

APPENDIX I

PROTOCOL

TEST PROTOCOL

FRESHWATER MIDGE, *CHIRONOMUS TENTANS*, 20-DAY SEDIMENT TOXICITY TEST

1. INTRODUCTION

1.1 Purpose of Study: The purpose of this study is to characterize the toxicity of freshwater sediments based on midge survival and growth using the midge, *Chironomus tentans*.

1.2 Referenced Method: This protocol is based on EPA Method 100.5 (EPA/600/R-99/064) and ASTM Method E 1706-00 (ASTM 2001).

1.3 Summary of Method: A summary of test conditions for the midge 20-day sediment toxicity test is tabulated below. The 20-day sediment toxicity test with *Chironomus tentans* is conducted at 23°C with a 16L:8D photoperiod at an illuminance of about 100-1000 lux. Test chambers are 300-mL high-form lipless beakers containing 100 mL of sediment and 175 mL of overlying water. Ten <24 hour-old (first-instar) midge larvae are used in each replicate. The number of replicates/treatment depends on the objective of the test. Eight replicates are recommended for routine testing. Midges in each test chamber are fed 1.5 mL (conatins 6.0 mg of dry solids) of fish food flakes suspension daily. Each chamber receives two volume additions per day of overlying water. Overlying water can be culture water, well water, surface water, site water, or reconstituted water. Test endpoints include survival and growth (dry weight or ash-free dry weight (AFDW)).

2. STUDY MANAGEMENT

2.1 Sponsor's Name and Address:

_____
_____
_____
_____

2.2 Sponsor's Study Monitor:

_____

2.3 Name of Testing Laboratory:
Northwestern Aquatic Sciences
3814 Yaquina Bay Road, P.O. Box 1437
Newport, OR 97365.

2.4 Test Location: _____

2.5 Laboratory's Personnel to be Assigned to the Study:
Study Director: _____
Quality Assurance Unit: _____
Aquatic Toxicologist: _____
Aquatic Toxicologist: _____

2.6 Proposed Testing Schedule: Sediments should be tested sometime between sediment collection and 8 weeks storage. Sediments that contain high concentrations of labile chemicals such as ammonia and volatile organics should be tested as soon as possible after collection, but no later than within two weeks. A 96-hr, water-only reference toxicant test may be run concurrently, or periodic reference toxicant tests run on cultures may be used to assess organism sensitivity.

2.7 Good Laboratory Practices: The test is conducted following the principles of Good Laboratory Practices (GLP) as defined in the EPA/TSCA Good Laboratory Practice regulations revised August 17, 1989 (40 CFR Part 792).

3. TEST MATERIAL

The test materials are freshwater sediments. The control, reference, and test sediments are placed in solvent cleaned 1 L glass jars fitted with PTFE-lined screw caps. At the laboratory the samples are stored at 4°C in the dark. The original sealed containers may be stored for up to 8 weeks prior to testing, depending on the testing requirements. If jars are not full when received or if sediment is removed for testing, headspaces may be filled with nitrogen to retard deterioration, depending on testing requirements. A negative control sediment is collected from a clean site. In addition, a reference sediment, a clean sediment with physical characteristics similar to the test sediments, is normally employed as a comparison station. Test sediments should be homogenized before use in a test.

4. TEST WATER

Test water (overlying water) at NAS is normally *C. tentans* culture water, which is moderately hard synthetic water at a hardness of 80-100 mg/L as $CaCO_3$ and alkalinity of 60-70 mg/L as $CaCO_3$. Dilution water is prepared from Milli-Q reagent grade water and reagent grade chemicals. Test water may also be well water, surface water or site water depending on the study design.

5. TEST ORGANISMS

5.1 Species: midge, *Chironomus tentans.*

5.2 Source: Cultured at NAS (originally obtained from U.S. EPA Environmental Research Lab, Duluth, MN) or purchased from a reputable commercial supplier.

5.3 Age: < 24 hour-old (first instar) larvae

5.4 Acclimation and Pretest Observation: Cultures are maintained at approximately 23°C under a 16:8 L:D photoperiod. The culture water is moderately hard synthetic water. Midges are fed *Selenastrum* algae and finely ground Tetrafin flakes in suspension (10g Tetrafin in 100 mL Milli-Q water).

6. DESCRIPTION OF TEST SYSTEM

6.1 Test Chambers and Environmental Control: Test chambers used in the toxicity test are 300-mL high-form lipless glass beakers (Pyrex® 1040 or equivalent). Test chambers are maintained at constant temperature by partial immersion in a temperature-controlled water bath or by placement in a temperature-controlled room. Aeration is not empolyed unless dissolved oxygen drops below 2.5 mg/L. The test is conducted under an illuminance of 100-1000 lux with a 16L:8D photoperiod.

6.2 Cleaning: All laboratory glassware, including test chambers, is cleaned as described in EPA/600/4-90/027F. New glassware and test systems are soaked 15 minutes in tap water and scrubbed with detergent (or cleaned in automatic dishwasher); rinsed twice with tap water; carefully rinsed once with fresh, dilute (10%, V:V) hydrochloric or nitric acid to remove scale, metals, and bases; rinsed twice with deionized water; rinsed once with acetone to remove organic compounds (using a fume hood or canopy); and rinsed three times with deionized water. Test systems and chambers are rinsed again with dilution water just before use.

7. EXPERIMENTAL DESIGN AND TEST PROCEDURES

7.1 Experimental Design: The test involves exposure of midge larvae to test, control, and reference sediments. The sediments are placed on the bottom of the test containers and are overlain with test water. The test exposure is for 20 days. The renewal of overlying water consists of two volume additions per day, either continuous or intermittent. Each treatment consists of eight replicate test containers, each containing 10 organisms. Test chamber positions are completely randomized. Test organisms are randomly distributed to the test chambers. Blind testing is normally used.

7.2 Setup of Test Containers: Sediments are homogenized and placed in test chambers on the day before addition of test organisms. Sediment (100 ml) is placed into each of eight replicate beakers. After addition of the sediment, 175 ml of test water is gently added to each beaker in a manner to prevent resuspension. The overlying water is replaced twice daily. The test begins when midges are introduced to the test chambers. Initial water quality measurements are taken prior to the addition of test organisms.

7.3 Effect Criteria: The effect criteria used in the midge bioassay are survival (mortality) and growth. Mortality is defined as the lack of movement of body or appendages on response to tactile stimulation. Growth is determined by using either dry weight or ash-free dry weight measurements.

7.4 Test Conditions: No aeration is employed unless dissoved oxygen falls below 2.5 mg/L. The test temperature employed is 23°C (range of ± 1°C). A 16:8, L:D photoperiod is used. Illumination is supplied by daylight fluorescent lamps at 100-1000 lux. The overlying water is replaced twice daily.

7.5 Beginning the Test: The test is begun by adding the organisms to the equilibrated test containers as previously described.

7.6 Feeding: Midge larvae are fed 1.5 mL daily per test chamber (1.5 mL contains 6.0 mg of dry solids). A feeding may be skipped if there is a build up of excess food. However, all beakers must be treated similarly.

7.7 Test Duration, Type and Frequency of Observations, and Methods: The duration of the toxicity test is 20 days. The type and frequency of observations to be made are summarized as follows:

Type Of Observation	Times Of Observation
Biological Data	
Survival, growth	Day 20
Physical And Chemical Data	
Hardness, alkalinity, ammonia-N, conductivity, pH, dissolved oxygen, and temperature	Beginning and end of test in overlying water of one replicate beaker from each treatment.
Temperature	Daily
DO & pH	3X/week
Conductivity	Weekly

Dissolved oxygen is measured using a polarographic oxygen probe calibrated according to the manufacturer's recommendations. The pH is measured using a pH probe and a properly calibrated meter with scale divisions of 0.1 pH units. Temperature is measured with a calibrated mercury thermometer or telethermometer. Conductivity is measured with a conductivity meter. Hardness and alkalinity are measured using titrometric methods. Ammonia-nitrogen is measured using the salicylate colerimetric method (Clin. Chim. Acta 14:403, 1996).

7.8 Growth Measurement: Growth is measured as ash-free dry weight (AFDW) of animals in a test replicate at the end of the test on day 10. Pooled animals from each test replicate are rinsed with deionized water, gently blotted and placed into tared aluminum weigh pans. The pans are dried at 60-90°C to constant weight. The dried organisms are placed into a dessicator and weighed as soon as possible to the nearest 0.01 mg (desirable to use 0.001 mg). The total weight of the dried midge in each pan is divided by the number of midge weighed to obtain an

average dry weight per midge. The dried larvae in the pan are then ashed at 550°C for two hours. The pan with tthe ashed larvae is then reweighed and the tissue mass of the larvae is determined as teh difference between the weight of the dried larvae plus pan and the weight of the ashed larvae plus pan. Pupae or adult organisms are not included in the sample to estimate AFDW.

8. CRITERIA OF TEST ACCEPTANCE

The test results are acceptable if the minimum survival of organisms in the control treatment at the end of the test is at least 70% and the average dry weight of *C. tentans* in the surviving controls is at least 0.6 mg (or 0.48mg/surviving organism as AFDW).

9. DATA ANALYSIS

The endpoints of the toxicity test are survival and growth. Survival is obtained as a direct count of living organisms in each test container at the end of the test. Average midge dry weight or ash-free dry weight, also measured at the end of the test, may be used to compare growth between treatment sediments and the control or reference sediment. Ordinarily the following data analysis is performed. Due to special requirements, alternative methods may be used. The means and standard deviations are calculated for each treatment level. Identification of toxic sediments is established by statistical comparison of test endpoints between test and control or reference sediments. Between treatment comparisons may be made using a Student's t-test or Wilcoxon's Two-Sample test, where each treatment is compared to the control or the reference sediment. An arcsine-square root transformation of proportional data, and tests for normality and heterogeneity of variances, are performed prior to statistical comparisons.

10. REPORTING

The final report of the test results must include all of the following standard information at a minimum: name and identification of the test; the investigator and laboratory; date and time of test beginning and end; information on the test material; information on the source and quality of the overlying/test water; detailed information about the test organisms including acclimation conditions; a description of the experimental design and test chambers and other test conditions including feeding, if any, and water quality; definition of the effect criteria and other observations; responses, if any, in the control treatment; tabulation and statistical analysis of measured responses and a summary table of endpoints; a description of the statistical methods used; any unusual information about the test or deviations from procedures; reference toxicant testing information.

11. STUDY DESIGN ALTERATION

Amendments made to the protocol must be approved by the sponsor and study director and should include a description of the change, the reason for the change, the date the change took effect and the dated signatures of the study director and sponsor. Any deviations in the protocol must be described and recorded in the study raw data.

12. REFERENCE TOXICANT

The reference toxicant test is a standard multi-concentration toxicity test using a specified chemical toxicant to evaluate the performance of test organisms used in the study. Reference toxicant tests are 96-hour, water only exposures, not 20-day sediment exposures. The reference toxicant test is normally run concurrently; however, for this 20-day test periodic reference toxicant tests run on the cultures may be used to evaluate organism sensitivity. Performance is evaluated by comparing the results of the reference toxicant test with historical results (e.g., control charts) obtained at the laboratory.

13. REFERENCED GUIDELINES

ASTM. 2001. Standard Test Methods for Measuring the Toxicity of Sediment-associated Contaminants with Freshwater Invertebrates. ASTM Standard Method No. E 1706-00. Am. Soc. Test. Mat., Philadelphia, PA.

U.S. EPA. 2000. Test Method 100.5, Life-cycle Test for measuring the Effects of Sediment-associated Contaminants on *Chironomus tentans*, pp. 84-91. In: Methods for Measuring the Toxicity and Bioaccumulation of Sediment-associated Contaminants with Freshwater Invertebrates. Second edition. EPA/600/R-99/064.

Weber, C.I. (Ed.) 1993. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fourth Edition). EPA/600/4-90/027F.

14. APPROVALS

_____ for _____
Name Date

_____ for Northwestern Aquatic Sciences
Name Date

Appendix A
Test Conditions Summary

1. Test type	whole sediment toxicity test with renewal of overlying water
2. Test duration	20 days
3. Temperature	23 ± 1°C
4. Light quality	daylight flourescent light
5. Illuminance	100-1000 lux
6. Photoperiod	16L:8D
7. Test chamber size	300-mL high-form lipless beakers (Pyrex® 1040 or equivalent)
8. Sediment volume	100 mL
9. Overlying water volume	175 mL
10. Renewal overlying water	2 volume additions/day (continuous or intermittent)
11. Age of test organisms	< 24 hour-old (first instar) larvae
12. Organisms per test chamber	10
13. Replicates per treatment	8 recommended for routine testing (depends on design)
14. Organisms per treatment	80
15. Feeding regime	Fish food flakes, fed 1.5 mL daily/chamber (1.5 mL contains 6.0 mg of dry solids)
16. Aeration	None, unless DO falls below 2.5 mg/L
17. Overlying (test) water	Culture water, well water, surface water, site water or reconstituted water
18. Water quality	Hardness, alkalinity, conductivity, and ammonia-N beginning and end; temperature daily; dissolved oxygen, pH 3X/week and conductivity weekly
19. Endpoints	Survival and growth (ash-free dry weight.)
20. Test acceptability criteria	Minimum control survival of 70%; mean AFDW of surviving control organisms = 0.48 mg
21. Sample holding	up to 8 weeks at 4°C in the dark (14 days when volatiles in sediments)
22. Sample volume required	1L (800 mL per sediment)
23. Reference toxicant	KCl

APPENDIX II

RAW DATA

TEST DESCRIPTION, MONITORING, AND RESULTS BENCHSHEETS

NORTHWESTERN AQUATIC SCIENCES — PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

REVIEWED PAGES 1-28 GJI

Test No. 840-2 Client Anchor QEA Investigator

STUDY MANAGEMENT

Client: Anchor QEA, 720 Olive Way, Suite 1900, Seattle, WA 98101

Client's Study Monitor: Ms. Cindy Fields

Testing Laboratory: Northwestern Aquatic Sciences

Test Location: Newport Laboratory

Laboratory's Study Personnel:

Proj. Man./Study Dir. G.J. Irissarri GJI

QA Officer L.K. Nemeth

1. [illegible] 2. [illegible]
3. LORNA MYERS LM 4. [illegible]
5. 6.
7. 8.

Study Schedule:

Test Beginning: 2-15-13 1015 Test Ending: 3-7-13 1030

TEST MATERIAL

General description (see sample logbook/chain-of-custody for details):

NAS Sample No.:	4346G	4280G	4281G	4290G
Description:	Control	MBTL12-SS-09-10	MBTL12-SS-10-10	MBTL12-SS-12-10
Collection Date:	2/11/13	12/11/12	12/11/12	12/13/12 GJI 3-13-13
Receipt Date:	2/11/13	12/14/12	12/14/12	12/14/12
_____:				
NAS Sample No.:				
Description:				
Collection Date:				
Receipt Date:				
_____:				
NAS Sample No.:				
Description:				
Collection Date:				
Receipt Date:				
_____:				
NAS Sample No.:				
Description:				
Collection Date:				
Receipt Date:				
_____:				
NAS Sample No.:				
Description:				
Collection Date:				
Receipt Date:				
_____:				

Error codes: 1) correction of handwriting error
2) written in wrong location; entry deleted
3) wrong date deleted, replaced with correct date
4) error found in measurement; measurement repeated

Test No. 840-2 Client Anchor QEA Investigator

SEDIMENT DESCRIPTIONS – SUPPLEMENTAL NOTES

Sample No.	Description
4346G	BROWN FINE MUD
4280G	GRAY FINE SANDY SEDIMENT, SLIGHT HYDRCCARBON ODOR
4281G	FINE BROWN SANDY SEDIMENT W/ CORBICULA
4290G	GRAY MUDDY SAND W/ CORBICULA SHELLS

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator _____

Test conducted in (circle one): (room 1) room 2 trailer water bath other:_____

Randomization chart: TOP SHELF

6	12	18	24	30					
5	11	17	23	29					
4	10	16	22	28					
3	9	15	21	27					
2	8	14	20	26	32				
1	7	13	19	25	31				

FRONT

Randomization chart:

Randomization chart:

CHIRONOMUS DILUTUS. 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator ____

TEST WATER

Source: Dechlorinated Newport, OR tap water

Date of Collection: 2-12-13, 2-22-13

pH 7.8, 7.3

Cond (umhos/cm2) 96, 101

Hardness (mg/L) 26, 26

Alkalinity (mg/L) 30, 30

Total Chlorine (mg/L) <0.02, <0.02

Treatments: AERATED ≥ 24 HRS

TEST ORGANISMS

Species: *Chironomus dilutus* Age: 1st instar

Source: NAS CULTURES Date received: N/A

Acclimation Data:

Date	Temp. (deg.C)	pH	DO (mg/L)	Cond. umhos/cm	Hardness (mg/L)	Alkalinity (mg/L)	Feeding	Water changes
2-12-13	19.0	7.8	8.6	110	34	30	Animals fed Tetra Fin	
2-13-13	19.3	7.7	8.6	133	~~34~~ GJI 2-13	–	and *Selenastrum*	
2-14-13	19.0	7.6	8.5	132	~~34~~ GJI	–	Details recorded on	
2-15-13	22.9	7.7	8.0	176	34	40	Chironomid culture	
							data sheets	
							NOT FED	
Mean	20.1	7.7	8.4	138	34	35		
S.D.	1.9	0.1	0.3	28	–	–		
(N)	4	4	4	4	2	2		

Photoperiod during acclimation: 16:8, L:D

TEST PROCEDURES AND CONDITIONS

Test chambers: 300 ml glass beakers

Test volumes: 100 ml of test sediment; 275 ml total volume

Replicates/treatment: (8) 8 Organisms/treatment: (80) 80 (10/REP)

Test water changes: Twice daily

Aeration: only if DO falls below 2.5 mg/L

Beaker placement: Total randomization

Feeding: everyday beginning with day zero

Photoperiod: 16:8, L:D

Test temperature (°C): 23 ± 1

Control Sediment:

Source: From an area approximately one mile east of the Hwy. 101 bridge at Beaver Creek, approx. 8 miles south of Newport, OR.

Date collected: 2/11/13

Sieved through 0.5 -mm screen

Storage: 4°C in the dark in closed containers. NAS# ~~4246G~~ 4346G GJI

MISCELLANEOUS NOTES

Light intensity:

Date	Location	Light Intensity (ft-candles*)	Initials

*To convert ft-candles to lux multiply by 10.76

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator

DAILY RECORD SHEET

Day 0 (2/15/13) BD

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond.* (umhos/cm)	pH*	Hardness* (mg/L)	Alkalinity* (mg/L)	NH3* (ppm)	Comments
9	22.3	7.5	105	7.0	34	30		Each beaker fed 1.5 ml
16	22.5	7.4	123	7.4	43	50		Tetra Fin suspension
21	22.7	7.4	131	7.5	43	50		Initials: GJJ
32	23.2	7.2	130	7.5	43	50		
								Water changed in all
								beakers.
								Time: 0515
								Initials: GB
								Water changed in all
								beakers.
								Time: —
								Initials: —

*Water quality measurements to be taken.

Day 1 (2/16/13) BD

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.5							Each beaker fed 1.5 ml
16	22.7							Tetra Fin suspension
21	22.8							Initials: GB
32	23.1							
								Water changed in all
								beakers.
								Time: 0510
								Initials: GB
								Water changed in all
								beakers.
								Time: 1710
								Initials: GJJ

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator

DAILY RECORD SHEET

Day 2 (2/17/13) GSL

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.1							Each beaker fed 1.5 ml
16	22.3							Tetra Fin suspension
21	22.4							Initials: GSL
32	22.9							
								Water changed in all
								beakers.
								Time: 0615
								Initials: GSL
								Water changed in all
								beakers.
								Time: 1650
								Initials: GSL

*Water quality measurements to be taken.

Day 3 (2/18/13) ✓

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH*	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.1	7.1		7.1				Each beaker fed 1.5 ml
16	22.3	6.9		7.2				Tetra Fin suspension
21	22.5	6.9		7.2				Initials: GSL
32	23.0	6.7		7.3				
								Water changed in all
								beakers.
								Time: 0600
								Initials: ✓
								Water changed in all
								beakers.
								Time: 1700
								Initials: GSL

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES
PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 4 (2/19/13) GB

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.1							Each beaker fed 1.5 ml
16	22.2							Tetra Fin suspension
21	22.3							Initials: GB
32	22.5							
								Water changed in all
								beakers.
								Time: 0520
								Initials: GB
								Water changed in all
								beakers.
								Time: 1620
								Initials: Y

*Water quality measurements to be taken.

Day 5 (2/20/13) CJI

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond.* (umhos/cm)	pH*	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.1	6.6	98	7.0				Each beaker fed 1.5 ml
16	22.1	6.1	103	7.0				Tetra Fin suspension
21	22.3	6.2	105	7.1				Initials: GB
32	22.7	6.0	109	7.2				
								Water changed in all
								beakers.
								Time: 0525
								Initials: GB
								Water changed in all
								beakers.
								Time: 1610
								Initials: Y

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator

DAILY RECORD SHEET

Day 6 (2/24/13) GJL

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.3							Each beaker fed 1.5 ml
16	22.6							Tetra Fin suspension
21	22.7							Initials: GJL
32	23.1							
								Water changed in all
								beakers.
								Time: 0510
								Initials: GJL
								Water changed in all
								beakers.
								Time: 1630
								Initials: GJL

*Water quality measurements to be taken.

Day 7 (2/25/13) YC

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH*	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.4	6.9		6.8				Each beaker fed 1.5 ml
16	22.7	6.1		6.9				Tetra Fin suspension
21	22.8	6.1		6.8				Initials: GJL
32	23.4	5.3		6.8				
								Water changed in all
								beakers.
								Time: 0615
								Initials: GJL
								Water changed in all
								beakers.
								Time: 1715
								Initials: Y

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 8 (2/23/13) 631

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.3							Each beaker fed 1.5 ml
16	22.6							Tetra Fin suspension
21	22.5							Initials: 631
32	22.8							
								Water changed in all
								beakers.
								Time: 0615
								Initials: 631
								Water changed in all
								beakers.
								Time: 1630
								Initials: 631

*Water quality measurements to be taken.

Day 9 (2/24/13) 631

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.8							Each beaker fed 1.5 ml
16	22.9							Tetra Fin suspension
21	22.7							Initials: 631
32	22.9							
								Water changed in all
								beakers.
								Time: 0510
								Initials: 631
								Water changed in all
								beakers.
								Time: 1605
								Initials: BB

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES
PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 10 (2/25/13) GSL

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH*	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.1	5.7		6.6				Each beaker fed 1.5 ml
16	22.5	5.6		6.7				Tetra Fin suspension
21	22.4	5.6		6.7				Initials: KB
32	23.0	5.0		6.6				
								Water changed in all
								beakers.
								Time: 0515
								Initials: KB
								Water changed in all
								beakers.
								Time: 1610
								Initials: K

*Water quality measurements to be taken.

Day 11 (2/26/13) KB/GSL

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.2							Each beaker fed 1.5 ml
16	22.5							Tetra Fin suspension
21	22.6							Initials: KB
32	23.0							
								Water changed in all
								beakers.
								Time: 0520
								Initials: KB
								Water changed in all
								beakers.
								Time: 1650
								Initials: GSL

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 12 (2/27/13) LM

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond.* (umhos/cm)	pH*	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.2	5.2	115	6.2				Each beaker fed 1.5 ml
16	22.4	4.8	111	6.3				Tetra Fin suspension
21	22.7	4.8	113	6.5				Initials: LM
32	23.1	4.3	117	6.4				
								Water changed in all
								beakers.
								Time: 0515
								Initials: KRJ
								Water changed in all
								beakers.
								Time: 1620
								Initials: GSL

*Water quality measurements to be taken.

Day 13 (2/28/13) GS

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.5							Each beaker fed 1.5 ml
16	22.6							Tetra Fin suspension
21	22.6							Initials: GAS
32	23.2							
								Water changed in all
								beakers.
								Time: 0510
								Initials: GAS
								Water changed in all
								beakers.
								Time: 1610
								Initials: LM

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES
PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 14 (3/1/13) /LM

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	pH*	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.6	5.7		6.7				Each beaker fed 1.5 ml
16	22.8	5.7		6.6				Tetra Fin suspension
21	22.9	6.0		6.7				Initials: BMS
32	23.4	6.0		6.6				
								Water changed in all
								beakers.
								Time: 0505
								Initials: BMS
								Water changed in all
								beakers.
								Time: 1600
								Initials:

*Water quality measurements to be taken.

Day 15 (3/2/13) BMS

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.9							Each beaker fed 1.5 ml
16	22.8							Tetra Fin suspension
21	23.0							Initials: BMS
32	23.3							
								Water changed in all
								beakers.
								Time: 0570
								Initials: BMS
								Water changed in all
								beakers.
								Time: 1610
								Initials: BMS

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 16 (3/13/13) GJ

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.1	(						Each beaker fed 1.5 ml
16	22.3							Tetra Fin suspension
21	22.4							Initials: GJ
32	22.9							
								Water changed in all
								beakers.
								Time: 0605
								Initials: GJ
								Water changed in all
								beakers.
								Time: 1720
								Initials: GJ

*Water quality measurements to be taken.

Day 17 (3/14/13) LM

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond. (umhos/cm)	Ph*	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	21.7	6.9		6.3				Each beaker fed 1.5 ml
16	22.0	6.3		6.3				Tetra Fin suspension
21	22.1	6.8		6.4				Initials: GJ
32	22.7	6.3		6.3				
								Water changed in all
								beakers.
								Time: 0615
								Initials: GJ
								Water changed in all
								beakers.
								Time: 1620
								Initials: LM

*Water quality measurements to be taken.

Test No. 840-2 Client Anchor QEA Investigator

DAILY RECORD SHEET

Day 18 (3/5/13) LD/YL

Beaker No.	Temp.* (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.2							Each beaker fed 1.5 ml
16	22.4							Tetra Fin suspension
21	22.5							Initials: GB
32	23.0							
								Water changed in all
								beakers.
								Time: 0515
								Initials: GB
								Water changed in all
								beakers.
								Time: 1605
								Initials: YL

*Water quality measurements to be taken.

Day 19 (3/6/13) YL LM

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond.* (umhos/cm)	Ph*	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
9	22.1	6.2	112	6.4				Each beaker fed 1.5 ml
16	22.3	5.3	110	6.4				Tetra Fin suspension
21	22.5	5.6	112	6.5				Initials: YL
32	23.0	4.6	113	6.4				
								Water changed in all
								beakers.
								Time: 0545
								Initials: YL
								Water changed in all
								beakers.
								Time: 1615
								Initials: LM

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator _____

DAILY RECORD SHEET

Day 20 (3 / 7/13) CS

Beaker No.	Temp.* (deg.C)	DO* (ppm)	Cond.* (umhos/cm)	Ph*	Hardness* (mg/L)	Alkalinity* (mg/L)	NH3* (ppm)	Comments
9	22.1	6.4	117	6.6	26	30		Each beaker fed 1.5 ml
16	22.2	6.0	115	6.5	26	30		Tetra Fin suspension
21	22.5	5.6	115	6.5	26	30		Initials: —
32	23.1	5.5	119	6.5	26	30		
								Water changed in all
								beakers.
								Time: 0510
								Initials: CD
								Water changed in all
								beakers.
								Time: —
								Initials: —

*Water quality measurements to be taken.

Day _____(/ /)

Beaker No.	Temp. (deg.C)	DO (ppm)	Cond. (umhos/cm)	Ph	Hardness (mg/L)	Alkalinity (mg/L)	NH3 (ppm)	Comments
								Each beaker fed 1.5 ml
								Tetra Fin suspension
								Initials:
								Water changed in all
								beakers.
								Time:
								Initials:
								Water changed in all
								beakers.
								Time:
								Initials:

*Water quality measurements to be taken.

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator

DAY 20 TEST TERMINATION SHEET

Beaker No.	Number of survivors	Initials	
1	Ø	GJL	
2	7	GJL	
3	Ø	GJL	
4	Ø	GJL	
5	9	GJL	
6	9	GJL	
7	7	GJL	
8	8	GJL	
9	9	GJL	
10	Ø	GJL	
11	8	GJL	
12	9	GJL	
13	Ø	GJL	
14	Ø	GJL	
15	7	GJL	+ 1 PUPAE
16	8	GJL	
17	10	GJL	
18	3	GJL	+ 2 PUPA
19	4	GJL	+ 2 PUPA
20	9	GJL	
21	Ø	GJL	
22	8	GJL	
23	7	GJL	
24	7	GJL	+ 1 PUPA
25	Ø	GJL	
26	8	GJL	
27	5	GJL	+ 2 PUPA
28	9	GJL	
29	7	GJL	
30	8	GJL	
31	9	GJL	
32	3	GJL	+ 1 PUPA
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			

Beaker No.	Number of survivors	Initials
46		
47		
48		
49		
50		
51		
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NORTHWESTERN AQUATIC SCIENCES — PROTOCOL NO. NAS-XXX-CT4c

CHIRONOMUS DILUTUS 20-DAY SOLID PHASE SEDIMENT TEST

Test No. 840-2 Client Anchor QEA Investigator

WEIGHING DATA SHEET

Tare:	Date 2-21-13	Oven temp (C.) 550	Drying time (hr.) 2	Initials JRF
	Standard Weights:	10 mg: 10.007	100mg: 100.012	
Final #1:	Date 3-10-13	Oven temp (C.) 61	Drying time (hr.) 24	Initials GJL
	Standard Weights:	10 mg: 10.005	100mg: 100.013	
Final #2:	Date 3-11-13	Oven temp (C.) 62	Drying time (hr.) 24	Initials JRF
	Standard Weights:	10 mg: 10.007	100mg: 100.014	
Final #3:	Date 3-12-13	Oven temp (C.) 550	Drying time (hr.) 2	Initials JRF
	Standard Weights:	10 mg: 10.003	100mg: 100.014	

Equip. used: Oven BLUE M #1, FISHER ISOTEMP MUFFLE FURNACE Balance Sartorius M3P

(Dry overnight at 60-90 degrees C) **(Final ashing is at 550 degrees C for 2 hours)**

Bkr. #	Pan #	Tare wt. (mg)	Dry total wt. (mg) 1	Dry total wt. (mg) 2	no. weighed	put into pans-initials	Ash weight (mg)	
1	1	93.97	—	—	0	YR	—	
2	2	93.98	110.40	110.19	7	YR	99.36	
3	3	93.13	—	—	0	YR	—	
4	4	92.57	—	—	0	YR	—	
5	5	93.19	108.93	108.69	9	YR	96.48	
6	6	91.43	106.48	106.29	9	YR	95.19	
7	7	89.72	105.03	104.84	7	YR	93.75	
8	8	94.66	112.44	112.21	8	YR	100.05	
9	9	95.20	109.72	109.53	9	YR	97.74	
10	10	90.41	—	—	0	YR	—	
11	11	90.71	105.53	105.38	8	YR	94.15	
12	12	105.04	117.57	117.41	9	YR	106.06	
13	13	95.41	—	—	0	YR	—	
14	14	86.38	—	—	0	YR	—	
15	15	97.57	113.13	112.96	7	YR	101.37	
16	16	101.23	117.06	116.93	8	YR	105.96	
17	17	90.52	109.96	109.80	10	YR	97.42	
18	18	98.02	~~109.46~~ 109.03	107.94	3	YR	101.22	
19	19	96.34	~~108.03~~ 109.09	108.96	4	YR	99.85	
20	20	96.26	115.49	115.35	9	YR	103.43	
21	21	89.42	—	—	0	YR	—	
22	22	92.07	109.12	108.88	8	YR	95.89	
23	23	93.77	102.80	102.66	7	YR	94.51	
24	24	93.87	106.09	105.90	7	YR	96.12	
25	25	95.56	—	—	0	YR	—	
26	26	93.37	111.69	111.45	8	YR	97.11	
27	27	83.46	95.51	95.39	5	YR	87.38	
28	28	93.10	112.94	112.79	9	YR	100.47	
29	29	94.89	113.35	113.18	7	YR	100.75	
30	30	95.88	113.63	113.44	8	YR	100.79	
31	31	93.49	110.37	110.18	9	YR	97.05	
32	32	97.76	107.17	107.09	3	YR	99.60	
33	33							

@ GJL 3-10-13

TEST DATA ANALYSIS RECORDS

Test Number: 840-2

Freshwater Sediment Test
20-Day Chironomus dilutus

BKR	NAS SMPL	CLIENT DESCRIP	REPL	
12	4346G	Control	1	
24	4346G	Control	2	
22	4346G	Control	3	
5	4346G	Control	4	
23	4346G	Control	5	
26	4346G	Control	6	
31	4346G	Control	7	
9	4346G	Control	8	wq replicate
4	4280G	MBTL12-SS-09-10	1	
25	4280G	MBTL12-SS-09-10	2	
3	4280G	MBTL12-SS-09-10	3	
14	4280G	MBTL12-SS-09-10	4	
1	4280G	MBTL12-SS-09-10	5	
13	4280G	MBTL12-SS-09-10	6	
10	4280G	MBTL12-SS-09-10	7	
21	4280G	MBTL12-SS-09-10	8	wq replicate
7	4281G	MBTL12-SS-10-10	1	
29	4281G	MBTL12-SS-10-10	2	
6	4281G	MBTL12-SS-10-10	3	
11	4281G	MBTL12-SS-10-10	4	
15	4281G	MBTL12-SS-10-10	5	
30	4281G	MBTL12-SS-10-10	6	
19	4281G	MBTL12-SS-10-10	7	
32	4281G	MBTL12-SS-10-10	8	wq replicate
27	4290G	MBTL12-SS-12-10	1	
2	4290G	MBTL12-SS-12-10	2	
18	4290G	MBTL12-SS-12-10	3	
20	4290G	MBTL12-SS-12-10	4	
8	4290G	MBTL12-SS-12-10	5	
28	4290G	MBTL12-SS-12-10	6	
17	4290G	MBTL12-SS-12-10	7	
16	4290G	MBTL12-SS-12-10	8	wq replicate

Endpoints Data Entry and Calculations File

BKR=beaker number
INIT=intial number
SURV=number survivors
MORT=number dead=INIT-SURV
PSURV=%survival=100(SURV/INIT)
PMORT=%mortality=100(MORT/INIT)

TARE WT= ashed weight of pan used for that replicate at test termination (mg), or dry weight of pan if ash-free dry weight is not an endpoint
WT COUNT= number of test organisms weighed at test end
DRY WT= TARE WT + dry weight of test organisms recovered at test termination (mg)
TWT=total biomass=DRY WT-TARE WT
WT=average individual biomass=TWT/WT COUNT

ASHED DRY WT= weight of ashed pan + weight of ashed test organisms recovered at test termination
TAFDW=DRY WT - ASHED DRY WT= total ash-free organism weight for given replicate
AFDW=average individual ash-free biomass=TAFDW/WT COUNT

INDEX	BKR	NAS SMPL	CLIENT DESCRIP	REPL		INIT	SURV	MORT	PSURV	PMORT	TARE WT (mg)	WT COUNT	DRY WT (mg)	ASHED DRY WT (mg)	TWT (mg)	WT (mg)	TAFDW (mg)	AFDW (mg)		SURV	MORT	PSURV	PMORT	WT	AFDW
1	12	4346G	Control	1		10	9	1	90.0	10.0	105.04	9	117.41	108.06	12.37	1.37	11.35	1.26							
2	24	4346G	Control	2		10	8	2	80.0	20.0	93.87	8	105.90	96.12	12.03	1.50	9.78	1.22							
3	22	4346G	Control	3		10	8	2	80.0	20.0	92.07	8	108.88	95.69	16.81	2.10	12.99	1.62							
4	5	4346G	Control	4		10	9	1	90.0	10.0	93.19	9	108.69	96.48	15.50	1.72	12.21	1.36							
5	23	4346G	Control	5		10	7	3	70.0	30.0	93.77	7	102.66	94.51	8.89	1.27	8.15	1.16	Mean	8.4	1.6	83.8	16.3	1.71	1.40
6	26	4346G	Control	6		10	8	2	80.0	20.0	93.37	8	111.45	97.11	18.08	2.26	14.34	1.79	SD	0.7	0.7	7.4	7.4	0.35	0.22
7	31	4346G	Control	7		10	9	1	90.0	10.0	93.49	9	110.18	97.05	16.69	1.85	13.13	1.46	n	8	8	8	8	8	8
8	9	4346G	Control	8	wq replicate	10	9	1	90.0	10.0	95.20	9	109.53	97.74	14.33	1.59	11.79	1.31							
9	4	4280G	MBTL12-SS-09-10	1		10	0	10	0.0	100.0	92.57	0			-92.57	#DIV/0!	0.00	#DIV/0!							
10	25	4280G	MBTL12-SS-09-10	2		10	0	10	0.0	100.0	95.56	0			-95.56	#DIV/0!	0.00	#DIV/0!							
11	3	4280G	MBTL12-SS-09-10	3		10	0	10	0.0	100.0	93.13	0			-93.13	#DIV/0!	0.00	#DIV/0!							
12	14	4280G	MBTL12-SS-09-10	4		10	0	10	0.0	100.0	86.38	0			-86.38	#DIV/0!	0.00	#DIV/0!							
13	1	4280G	MBTL12-SS-09-10	5		10	0	10	0.0	100.0	93.97	0			-93.97	#DIV/0!	0.00	#DIV/0!	Mean	0.0	10.0	0.0	100.0		
14	13	4280G	MBTL12-SS-09-10	6		10	0	10	0.0	100.0	95.41	0			-95.41	#DIV/0!	0.00	#DIV/0!	SD	0.0	0.0	0.0	0.0		
15	10	4280G	MBTL12-SS-09-10	7		10	0	10	0.0	100.0	90.41	0			-90.41	#DIV/0!	0.00	#DIV/0!	n	8	8	8	8	0	0
16	21	4280G	MBTL12-SS-09-10	8	wq replicate	10	0	10	0.0	100.0	89.42	0			-89.42	#DIV/0!	0.00	#DIV/0!							
17	7	4281G	MBTL12-SS-10-10	1		10	7	3	70.0	30.0	89.72	7	104.84	93.78	15.12	2.16	11.06	1.58							
18	29	4281G	MBTL12-SS-10-10	2		10	7	3	70.0	30.0	94.89	7	113.18	100.75	18.29	2.61	12.43	1.78							
19	6	4281G	MBTL12-SS-10-10	3		10	9	1	90.0	10.0	91.43	9	106.29	95.19	14.86	1.65	11.10	1.23							
20	11	4281G	MBTL12-SS-10-10	4		10	8	2	80.0	20.0	90.71	8	105.38	94.15	14.67	1.83	11.23	1.40							
21	15	4281G	MBTL12-SS-10-10	5		10	8	2	80.0	20.0	97.57	8	112.96	101.37	15.39	1.92	11.59	1.45	Mean	7.1	2.9	71.3	28.8	2.10	1.55
22	30	4281G	MBTL12-SS-10-10	6		10	8	2	80.0	20.0	95.88	8	113.44	100.79	17.56	2.20	12.65	1.58	SD	1.6	1.6	15.5	15.5	0.30	0.20
23	19	4281G	MBTL12-SS-10-10	7		10	6	4	60.0	40.0	96.34	6	108.96	99.85	12.62	2.10	9.11	1.52	n	8	8	8	8	8	8
24	32	4281G	MBTL12-SS-10-10	8	wq replicate	10	4	6	40.0	60.0	97.76	4	107.09	99.60	9.33	2.33	7.49	1.87							
25	27	4290G	MBTL12-SS-12-10	1		10	7	3	70.0	30.0	83.48	7	95.39	87.38	11.93	1.70	8.01	1.14							
26	2	4290G	MBTL12-SS-12-10	2		10	7	3	70.0	30.0	93.98	7	110.19	99.38	16.21	2.32	10.83	1.55							
27	18	4290G	MBTL12-SS-12-10	3		10	5	5	50.0	50.0	98.02	5	107.94	101.22	9.92	1.98	6.72	1.34							
28	20	4290G	MBTL12-SS-12-10	4		10	9	1	90.0	10.0	96.26	9	115.35	103.43	19.09	2.12	11.92	1.32							
29	8	4290G	MBTL12-SS-12-10	5		10	8	2	80.0	20.0	94.66	8	112.21	100.05	17.55	2.19	12.16	1.52	Mean	7.9	2.1	78.8	21.3	2.05	1.36
30	28	4290G	MBTL12-SS-12-10	6		10	9	1	90.0	10.0	93.10	9	112.79	100.47	19.69	2.19	12.32	1.37	SD	1.6	1.6	15.5	15.5	0.19	0.13
31	17	4290G	MBTL12-SS-12-10	7		10	10	0	100.0	0.0	90.52	10	109.80	97.42	19.28	1.93	12.38	1.24	n	8	8	8	8	8	8
32	16	4290G	MBTL12-SS-12-10	8	wq replicate	10	8	2	80.0	20.0	101.23	8	116.93	105.96	15.70	1.96	10.97	1.37							

data entry verified against laboratory bench sheets 3-13-13 JNF

Test Number: 840-2

Freshwater Sediment Test
20-day Chironomus dilutus

Water Quality Data

NAS SMPL	CLIENT DESCRIP	DAY	Interstitial water pH	Interstitial water NH3
4346G	Control	-1	6.9	<0.5
4280G	MBTL12-SS-09-10	-1	8.5	2.4
4281G	MBTL12-SS-10-10	-1	8.1	2.6
4290G	MBTL12-SS-12-10	-1	8.1	1.6

BKR	NAS SMPL	CLIENT DESCRIP	REPL	DAY	Overlying water TEMP	DO	COND	pH	NH3	HARD	ALK
9	4346G	Control	8	0	22.3	7.5	105	7.0	<0.1	34	30
16	4280G	MBTL12-SS-09-10	8	0	22.5	7.4	123	7.4	<0.1	43	50
21	4281G	MBTL12-SS-10-10	8	0	22.7	7.4	131	7.5	0.1	43	50
32	4290G	MBTL12-SS-12-10	8	0	23.2	7.2	130	7.5	0.1	43	50
9	4346G	Control	8	1	22.5						
16	4280G	MBTL12-SS-09-10	8	1	22.7						
21	4281G	MBTL12-SS-10-10	8	1	22.8						
32	4290G	MBTL12-SS-12-10	8	1	23.1						
9	4346G	Control	8	2	22.1						
16	4280G	MBTL12-SS-09-10	8	2	22.3						
21	4281G	MBTL12-SS-10-10	8	2	22.4						
32	4290G	MBTL12-SS-12-10	8	2	22.9						
9	4346G	Control	8	3	22.1	7.1		7.1			
16	4280G	MBTL12-SS-09-10	8	3	22.3	6.9		7.2			
21	4281G	MBTL12-SS-10-10	8	3	22.5	6.9		7.2			
32	4290G	MBTL12-SS-12-10	8	3	23.0	6.7		7.3			
9	4346G	Control	8	4	22.1						
16	4280G	MBTL12-SS-09-10	8	4	22.2						
21	4281G	MBTL12-SS-10-10	8	4	22.3						
32	4290G	MBTL12-SS-12-10	8	4	22.5						
9	4346G	Control	8	5	22.1	6.6	98	7.0			
16	4280G	MBTL12-SS-09-10	8	5	22.1	6.1	103	7.0			
21	4281G	MBTL12-SS-10-10	8	5	22.3	6.2	105	7.1			
32	4290G	MBTL12-SS-12-10	8	5	22.7	6.0	109	7.2			
9	4346G	Control	8	6	22.3						
16	4280G	MBTL12-SS-09-10	8	6	22.6						
21	4281G	MBTL12-SS-10-10	8	6	22.7						
32	4290G	MBTL12-SS-12-10	8	6	23.1						
9	4346G	Control	8	7	22.4	6.9		6.8			
16	4280G	MBTL12-SS-09-10	8	7	22.7	6.1		6.9			
21	4281G	MBTL12-SS-10-10	8	7	22.8	6.1		6.8			
32	4290G	MBTL12-SS-12-10	8	7	23.4	5.3		6.8			
9	4346G	Control	8	8	22.3						
16	4280G	MBTL12-SS-09-10	8	8	22.6						
21	4281G	MBTL12-SS-10-10	8	8	22.5						
32	4290G	MBTL12-SS-12-10	8	8	22.8						
9	4346G	Control	8	9	22.8						
16	4280G	MBTL12-SS-09-10	8	9	22.9						
21	4281G	MBTL12-SS-10-10	8	9	22.7						
32	4290G	MBTL12-SS-12-10	8	9	22.9						
9	4346G	Control	8	10	22.1	5.7		6.6			
16	4280G	MBTL12-SS-09-10	8	10	22.5	5.6		6.7			
21	4281G	MBTL12-SS-10-10	8	10	22.4	5.6		6.7			
32	4290G	MBTL12-SS-12-10	8	10	23.0	5.0		6.6			
9	4346G	Control	8	11	22.2						
16	4280G	MBTL12-SS-09-10	8	11	22.5						
21	4281G	MBTL12-SS-10-10	8	11	22.6						

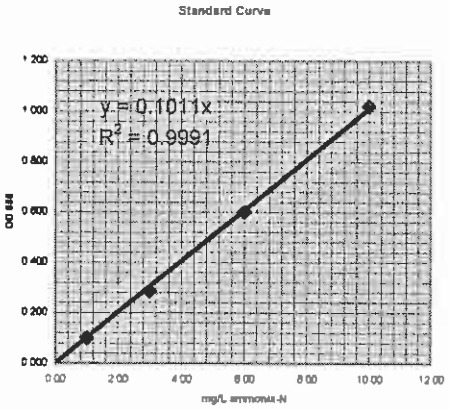
32	4290G	MBTL12-SS-12-10	8	11	23.0									
9	4346G	Control	8	12	22.2	5.2	115	6.2						
16	4280G	MBTL12-SS-09-10	8	12	22.4	4.8	111	6.3						
21	4281G	MBTL12-SS-10-10	8	12	22.7	4.8	113	6.5						
32	4290G	MBTL12-SS-12-10	8	12	23.1	4.3	117	6.4						
9	4346G	Control	8	13	22.5									
16	4280G	MBTL12-SS-09-10	8	13	22.6									
21	4281G	MBTL12-SS-10-10	8	13	22.6									
32	4290G	MBTL12-SS-12-10	8	13	23.2									
9	4346G	Control	8	14	22.6	5.7		6.7						
16	4280G	MBTL12-SS-09-10	8	14	22.8	5.7		6.6						
21	4281G	MBTL12-SS-10-10	8	14	22.9	6.0		6.7						
32	4290G	MBTL12-SS-12-10	8	14	23.4	6.0		6.6						
9	4346G	Control	8	15	22.9									
16	4280G	MBTL12-SS-09-10	8	15	22.8									
21	4281G	MBTL12-SS-10-10	8	15	23.0									
32	4290G	MBTL12-SS-12-10	8	15	23.3									
9	4346G	Control	8	16	22.1									
16	4280G	MBTL12-SS-09-10	8	16	22.3									
21	4281G	MBTL12-SS-10-10	8	16	22.4									
32	4290G	MBTL12-SS-12-10	8	16	22.9									
9	4346G	Control	8	17	21.7	6.9		6.3						
16	4280G	MBTL12-SS-09-10	8	17	22.0	6.3		6.3						
21	4281G	MBTL12-SS-10-10	8	17	22.1	6.8		6.4						
32	4290G	MBTL12-SS-12-10	8	17	22.7	6.3		6.3						
9	4346G	Control	8	18	22.2									
16	4280G	MBTL12-SS-09-10	8	18	22.4									
21	4281G	MBTL12-SS-10-10	8	18	22.5									
32	4290G	MBTL12-SS-12-10	8	18	23.0									
9	4346G	Control	8	19	22.1	6.2	112	6.4						
16	4280G	MBTL12-SS-09-10	8	19	22.3	5.3	110	6.4						
21	4281G	MBTL12-SS-10-10	8	19	22.5	5.6	112	6.5						
32	4290G	MBTL12-SS-12-10	8	19	23.0	4.6	113	6.4						
9	4346G	Control	8	20	22.1	6.4	117	6.6	<0.1	26	30			
16	4280G	MBTL12-SS-09-10	8	20	22.2	6.0	115	6.5	<0.1	26	30			
21	4281G	MBTL12-SS-10-10	8	20	22.5	5.6	115	6.5	<0.1	26	30			
32	4290G	MBTL12-SS-12-10	8	20	23.1	5.5	119	6.5	<0.1	26	30			
				Mean	22.6	6.1	114	6.7	---	33	38	7.9	---	
				SD	0.4	0.8	8	0.4	---	8	10	0.7	---	
				n	84	40	20	40	8	8	8	4	4	
				Min	21.7	4.3	98	6.2	<0.1	26	30	6.9	<0.5	
				Max	23.4	7.5	131	7.5	0.1	43	50	8.5	2.6	

AMMONIA AND SULFIDE EXPOSURE BENCHSHEETS AND ANALYSIS

Total Ammonia-N in Sediment Pore Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description	Dilution factor	OD655	NH3-N (mg/L)	pH	Salinity (ppt)
	Blank	-----	-----	----		
	1.0 mg/L NH3-N Std.	-----	0.100	1.00		
	3.0 mg/L NH3-N Std.	-----	0.285	3.00		
	6.0 mg/L NH3-N Std.	-----	0.600	6.00		
	10.0 mg/L NH3-N Std.	-----	1.020	10.00		
	3.0 mg/L spike	-----	0.300	2.97		
	3.0 mg/L spike dupl.	-----	0.305	3.02		
	5.0 mg/L 2nd source		0.532	5.26		
1.	4279G	5	0.027	1.34		
2.	4280G	5	0.010	ND		
3.	4281G	5	0.020	0.99		
4.	4282G	5	0.049	2.42		
5.	4283G	5	0.089	4.40		
6.	4284G	5	0.030	1.48		
7.	4285G	5	0.007	ND		
8.	4286G	*	*	######		
9.	4287G	*	*	######		
10.	4288G	5	0.010	ND		
11.	4289G	5	0.012	0.59		
12.	4290G	5	0.017	0.84		
13.	4291G	5	0.014	0.69		
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.	* Could not obtain porewater for analysis					
24.						
25.						
26.						
27.						
28.						
29.						
30.						
31.						
32.						
33						
34						
35						
36						



Reporting limit (mg/L) =	0.5
Recovery (%) =	99.7
Precision (RPD) =	-1.65
2nd source (%) =	105.2
Sample volume (ml):	0.10
Dilution factor	5

Sample Set Description:
Proj.No.: P840
Test Day: N/A
Species: N/A

Bulk Porewater

Analyst: RSC
Date analysed: 12/17/2012

Total Ammonia-N in Sediment Pore Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description	Dilution factor	OD655	NH3-N (mg/L)	pH	Salinity (ppt)
	Blank	-----	-----	-----		
	1.0 mg/L NH3-N Std.	----	.100	1.00		
	3.0 mg/L NH3-N Std.	----	.285	3.00		
	6.0 mg/L NH3-N Std.	-----	.600	6.00		
	10.0 mg/L NH3-N Std.	-----	1.02	10.00		
	3.0 mg/L spike	-----	.300			
	3.0 mg/L spike dupl.	-----	.305			
	5.0 mg/L 2nd source		.532			
1.	4279G	5	.027		6.4	0
2.	4280G	5	.010		6.9	0
3.	4281G	5	.020		7.0	0
4.	4282G	5	.049		6.9	0
5.	4283G	5	.089		6.7	0
6.	4284G	5	.030		6.7	0
7.	4285G	5	.007		6.9	0
8.	4286G	*	*	######		
9.	4287G	*	*	######		
10.	4288G	5	.010		7.0	0
11.	4289G	5	.012		7.0	0
12.	4290G	5	.017		7.1	0
13.	4291G	5	.014		7.1	0
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.	* Could not obtain porewater for analysis					
24.						
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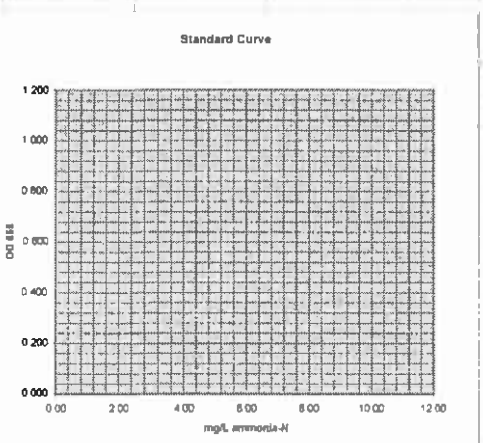
36						



Reporting limit (mg/L) = 0.5

Recovery (%) = #VALUE!
Precision (RPD) = #VALUE!
2nd source (%) = #VALUE!

Sample volume (ml): 0.10
Dilution factor 5

Sample Set Description:
Proj.No.: P840
Test Day: N/A
Species: N/A

Bulk Porewater

Analyst: RSC
Date analysed: 12/17/2012

Total Ammonia-N in Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description	Dilution factor	OD_{655}	NH_3-N (mg/L)
	Blank	---	-----	-----
	1.0 mg/L NH_3-N Std.	-----	0.135	1.00
	3.0 mg/L NH_3-N Std.	-----	0.278	3.00
	6.0 mg/L NH_3-N Std.	-----	0.530	6.00
	10.0 mg/L NH_3-N Std.	-----	0.845	10.00
	3.0 mg/L spike	---	0.282	3.26
	3.0 mg/L spike dupl.	-----	0.281	3.25
	5.0 mg/L 2nd source	-----	0.450	5.20
1.	4346G	5	0.000	ND
2.	4280G	5	0.042	2.43
3.	4281G	5	0.045	2.60
4.	4290G	5	0.028	1.62
5.				
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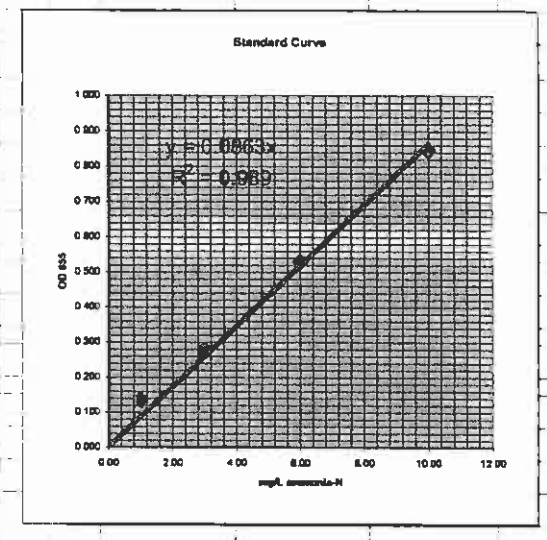

Reporting limit (mg/L) =	0.5
Recovery (%) =	108.4
Precision (RPD) =	0.36
2nd source (%) =	104.0
Sample volume (ml):	0.10
Dilution factor	5

Sample Set Description:

Test No.: P840

Species: *Hyalella azteca & Chironomus dilutus*

Bulk sediment porewaters

Analyst: GJI

Date analysed: 03/11/13

Total Ammonia-N in Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description		Dilution factor	OD655	NH3-N (mg/L)
	Blank		-----	-----	-----
	1.0 mg/L NH3-N Std.		-----	0.135	1.00
	3.0 mg/L NH3-N Std.		-----	0.278	3.00
	6.0 mg/L NH3-N Std.		-----	0.530	6.00
	10.0 mg/L NH3-N Std.		-----	0.845	10.00
	3.0 mg/L spike		-----	0.282	
	3.0 mg/L spike dupl.		-----	0.281	
	5.0 mg/L 2nd source		-----	0.450	
		pH			
1.	4346G	6.9	5	0.000	
2.	4280G	8.5	5	0.042	
3.	4281G	8.1	5	0.045	
4.	4290G	8.1	5	0.028	
5.					
6.					
7.					
8.					
9.					
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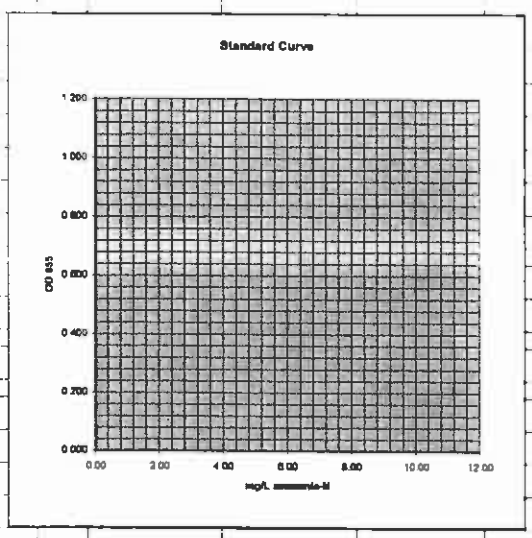
36.					



Reporting limit (mg/L) =	0.5
Recovery (%) =	#VALUE!
Precision (RPD) =	#VALUE!
2nd source (%) =	#VALUE!
Sample volume (ml):	0.10
Dilution factor	5

Sample Set Description:

Test No.: P840

Species: *Hyalella azteca & Chironomus dilutus*

Bulk sediment porewaters

Analyst: GJI GJI

Date analysed: 03/11/13

Total Ammonia-N in Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description	Dilution factor	OD_{655}	NH_3-N (mg/L)
	Blank	——	——	——
	1.0 mg/L NH_3-N Std.	——	0.135	1.00
	3.0 mg/L NH_3-N Std.	——	0.278	3.00
	6.0 mg/L NH_3-N Std.	——	0.530	6.00
	10.0 mg/L NH_3-N Std.	——	0.845	10.00
	3.0 mg/L spike	——	0.282	3.26
	3.0 mg/L spike dupl.	——	0.281	3.25
	5.0 mg/L 2nd source	——	0.450	5.20
1.	Day 0			
2.	9	1	0.000	ND
3.	16	1	0.008	ND
4.	21	1	0.010	0.12
5.	32	1	0.012	0.14
6.				
7.				
8.	Day 10			
9.	9	1	0.006	ND
10.	16	1	0.000	ND
11.	21	1	0.000	ND
12.	32	1	0.000	ND
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
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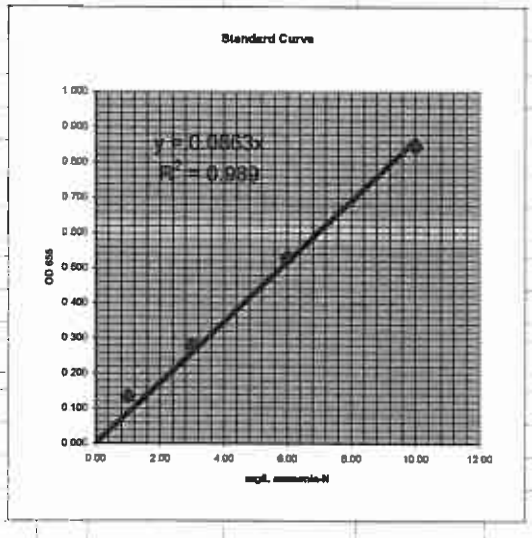
35.				
36.				



Reporting limit (mg/L) =	0.1
Recovery (%) =	108.4
Precision (RPD) =	0.36
2nd source (%) =	104.0
Sample volume (ml):	0.50
Dilution factor	1

Sample Set Description:
Test No.: P840-2
Species: *Chironomus dilutus*
Overlying water
Days 0 & 20

Analyst: GJI
Date analysed: 03/11/13

Total Ammonia-N in Water: Computation Worksheet
Salicylate Method (SOP #5492)

Result

	Sample description	Dilution factor	OD655	NH3-N (mg/L)
	Blank	----	---	---
	1.0 mg/L NH3-N Std.	----	0.135	1.00
	3.0 mg/L NH3-N Std.	----	0.278	3.00
	6.0 mg/L NH3-N Std.	----	0.530	6.00
	10.0 mg/L NH3-N Std.	----	0.845	10.00
	3.0 mg/L spike	----	0.282	
	3.0 mg/L spike dupl.	----	0.281	
	5.0 mg/L 2nd source	----	0.450	
1.	Day 0			
2.	9	1	0.000	
3.	16	1	0.008	
4.	21	1	0.010	
5.	32	1	0.012	
6.				
7.				
8.	Day 10			
9.	9	1	0.006	
10.	16	1	0.000	
11.	21	1	0.000	
12.	32	1	0.000	
13.				
14.				
15.				
16.				
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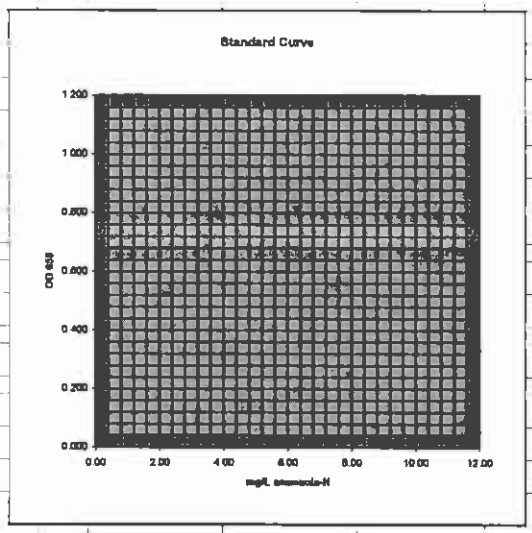


Reporting limit (mg/L) =	0.1
Recovery (%) =	#VALUE!
Precision (RPD) =	#VALUE!
2nd source (%) =	#VALUE!
Sample volume (ml):	0.50
Dilution factor	1

Sample Set Description:

Test No.: P840-2
Species: *Chironomus dilutus*
Overlying water

Days 0 & 20

Analyst: GJI GJI
Date analysed: 03/11/13

CHAIN-OF-CUSTODY RECORDS

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

TAT:

AQ Contact: Cindy Fields (206) 903-3394 / labdata@anchorqea.com

Page 1 of 1

Lab Contact: Gerald Irissarri	Project: Millennium Bulk Terminals
Lab: Northwest Aquatic Sciences	Project No.: 110730-02.01
Address: 3814 Yaquina Bay Road	Sampler(s): DG, NB, AT
City, State, Zip: : Newport, OR 97365	Shipping Method: Courier
Phone: 541.265.7225	

Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Jars	Analyses Requested: Bioassay											HOLD
MBTL12-SS-01-10	12/11/2012	1238	SE	2				NAS # 42796								X
MBTL12-SS-09-10		1001						42806								X
MBTL12-SS-10-10		1119						42816								X
MBTL12-SS-02-10		1357						42826								X
MBTL12-SS-04-10	12/12/2012	0918						42836								X
MBTL12-SS-08-10		1020						42846								X
MBTL12-SS-07-10		1111						42856								X
MBTL12-SS-03-10		1225						42866								X
MBTL12-SS-06-10		1408						42876								X
MBTL12-SS05-10	12/13/2012	0939						42886								X
MBTL12-SS11-10		1037						42896								X
MBTL12-SS-12-10		1139						42906								X
MBTL12-SS-13-10		1254						42916								X

Relinquished: (Signature) Amy Thatcher	Relinquished: (Signature) Bob Mowry	Relinquished: (Signature)	Special Instructions/Notes: Bioassays will be triggered pending review of chemical results
Printed Name: Amy Thatcher	Printed Name: Bob Mowry	Printed Name:	
Company: Anchor QEA, LLC	Company: Red-Eye	Company:	
Date/Time: 12/14/2012 0720	Date/Time: 12/14/12 11:30	Date/Time:	
Received By: Bob Mowry	Received By: Gary Butler	Received By:	
Printed Name: Bob Mowry	Printed Name: Gary Butler	Printed Name:	
Company: Red Eye Delivery	Company: Northwest Aquatic	Company:	# of Coolers: / Cooler Temp(s):
Date/Time: 12-14-12 7:30	Date/Time: 12-14-12 1130	Date/Time:	COC Seals Intact? / Bottles Intact?

APPENDIX III

RAW DATA – REFERENCE TOXICANT TEST

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS- _____

ACUTE TOXICITY TEST (ALL SPECIES)

REVIEWED PAGES 1-7 GJI

Test No. 999-3136 Client: QC Test Investigator _____

Test Type (rangefinding/definitive) Definitive Test Length (hr) 96

Species *Chironomus dilutus*

STUDY MANAGEMENT

Client: QC test

Client's Study Monitor: QC test

Testing Laboratory: Northwestern Aquatic Sciences

Test Location: Newport Laboratory

Laboratory's Study Personnel:

Proj. Man./Study Dir. G.J. IRISSARRI GJI

QA Officer L. K. Nemeth

1. GA Butler GAB 2. Yves Nalakawa Y

3. _____ 4. _____

Study Schedule:

Test Beginning: 2-15-13 1040 Test Ending: 2-19-13 1215

TEST MATERIAL

Description: Potassium Chloride Crystals - Lot No.: FISHER 873280

NAS Sample No.				
Date of Collection:				
Date of Receipt:				
Temperature (deg C):				
Dissolved oxygen (mg/L):				
pH:				
Conductivity (umhos/cm):				
Hardness (mg/L):				
Alkalinity (mg/L):				
Salinity (ppt):				
Total chlorine (mg/L):				
Total ammonia-N (mg/L):				
_____:				

DILUTION WATER

Description: Moderately hard synthetic water

Date of Preparation/Collection: 2-5-13

Water Quality: Cond. (umhos/cm): 264 Salinity (ppt) _____ pH 7.8

Hardness (mg/L as $CaCO_3$): 94 Alkalinity (mg/L as $CaCO_3$): 70

Treatments: Aerated ≥ 24 hrs

TEST LOCATION

Test conducted in (circle one): room 1 room 2 trailer water bath other: _____

Randomization chart:

Ø	10	0.63	1.25	5	10	1.25	2.5	10	2.5
0.63	5	2.5	2.5	Ø	Ø	5	5	Ø	10
1.25	Ø	1.25	0.63	2.5	2.5	2.5	0.63	2.5	1.25
2.5	1.25	5	5	1.25	0.63	Ø	10	5	Ø
5	2.5	Ø	10	10	1.25	0.63	1.25	0.63	5
10	0.63	10	Ø	0.63	5	10	Ø	1.25	0.63

Error codes: 1) Correction of handwriting error
2) Written in wrong location; entry deleted
3) Wrong date deleted; replaced with correct date
4) Error found in measurement; measurement repeated

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-_____

ACUTE TOXICITY TEST (ALL SPECIES)

Test No. 999-3136 Client QC Test Investigator _____

TEST ORGANISMS

Species: *Chironomus dilutus* Age: _____ Size: 1st instar

Source: NAS cultures

Acclimation Data:

Date	Temp. (deg.C)	pH	DO (mg/L)	Cond umhos/cm	Feeding amount	Feeding description	Water changes	Hardness (mg/L)	Alkalinity (mg/L)
2-12-13	19.0	7.8	8.6	110	NOT	FED	NONE	34	30
2-13-13	19.3	7.7	8.6	133		↓	↓	—	—
2-14-13	19.0	7.6	8.5	132		↓	↓	—	—
2-15-13	22.9	7.7	8.0	176		↓	↓	34	40
Mean	20.1	7.7	8.4	138				34	35
S.D.	1.9	0.1	0.3	28				—	—
(N)	4	4	4	4				2	2

Photoperiod during acclimation: 16:8, L:D

TEST PROCEDURES AND CONDITIONS

Test concentrations (50% series recommended): 10, 5, 2.5, 1.25, 0.63, 0 g/L

Test chamber: 30 ml plastic cups Test volume: 20 ml

Replicates/treatment: 10 Organisms/treatment: 10 (1/rep)

Test water changes: None Aeration during test: None

Feeding: 0.25 ml Tetra Fin (4g/L) suspension per cup on days 0 and 2

Duration: 24-hr, 48-hr, 96-hr Test temperature (deg.C): 23 ± 1

Beaker placement: Stratified randomization Photoperiod: 16:8, L:D

MISCELLANEOUS NOTES

Test solution preparation:

Working stock: Dissolve 5g KCl crystals in dilution water and dilute to 500 mL.
Final conc.: 10 g/L.

Test concentration (g/L)	KCl working stock (ml/200ml)	ml of dilution water per 200 ml
10	200	0
5	100	100
2.5	50	150
1.25	25	175
0.63	12.5	187.5
0	0	200

2-15-13 OB

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-_____

ACUTE TOXICITY TEST (ALL SPECIES)

Test No. 999-3136 Client _____ QC Test

DAILY RECORD SHEET

Day 0 (2/15/13) CB Temp Beaker (°C): 23.1

Conc. (g/L)	Temp. (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	Comments
1. 10	23.0	8.3	12050	7.6	94	70	
2. 5	23.0	8.3	7680	7.6			
3. 2.5	23.1	8.4	4080	7.7			
4. 1.25	23.0	8.4	2220	7.7			
5. 0.63	23.1	8.5	1290	7.8			
6. 0	23.2	8.5	267	8.2	86	70	
All animals fed 0.25 ml Tetra Fin suspension. Initials: GSL							

Day 1 (2/16/13) CB Temp Beaker (°C): 23.0

Conc. (g/L)	Temp. (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	Comments
1. 10							
2. 5							
3. 2.5							
4. 1.25							
5. 0.63							
6. 0							

Day 2 (2/17/13) GSL Temp Beaker (°C): 22.8

Conc. (g/L)	Temp. (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	Comments
1. 10							
2. 5							
3. 2.5							
4. 1.25							
5. 0.63							
6. 0							
All animals fed 0.25 ml Tetra Fin suspension. Initials: GSL							

Day 3 (2/18/13) CB Temp Beaker (°C): 22.7

Conc. (g/L)	Temp. (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	Comments
1. 10							
2. 5							
3. 2.5							
4. 1.25							
5. 0.63							
6. 0							

Day 4 (2/19/13) CB/GSL Temp Beaker (°C): 22.7

Conc. (g/L)	Temp. (deg.C)	DO (ppm)	Cond. (umhos/cm)	pH	Hardness (mg/L)	Alkalinity (mg/L)	Comments
1. 10	—	—	—	—	—	—	
2. 5	—	—	—	—			
3. 2.5	23.5	7.8	5070	7.9			
4. 1.25	23.5	7.8	2660	7.9			
5. 0.63	23.4	8.1	1562	7.9			
6. 0	23.2	8.0	342	7.9	86	80	
Mean	23.2	8.2	CONTROL	7.8	89	73	
SD	0.2	0.3	305	0.2	5	6	
n	10	10	— 2	10	3	3	

NORTHWESTERN AQUATIC SCIENCES PROTOCOL NO. NAS-_____

ACUTE TOXICITY TEST (ALL SPECIES)

Test No. 999-3136 Client QC Test Investigator _____

DAILY RECORD SHEET - Survivors

Day 0 (2/15/13) 6SL

Conc. (g/L)	Survivors in Replicate: 1	2	3	4	5	6	7	8	9	10	Total
1. 10	1	1	1	1	1	1	1	1	1	1	10
2. 5	1	1	1	1	1	1	1	1	1	1	10
3. 2.5	1	1	1	1	1	1	1	1	1	1	10
4. 1.25	1	1	1	1	1	1	1	1	1	1	10
5. 0.63	1	1	1	1	1	1	1	1	1	1	10
6. 0	1	1	1	1	1	1	1	1	1	1	10

Day 1 (2/16/13) 6SL

Conc. (g/L)	Survivors in Replicate: 1	2	3	4	5	6	7	8	9	10	Total
1. 10	0	0	0	0	0	0	0	0	0	0	0 (10)
2. 5	1	1	0	1	1	1	1	1	0	1	8 (2D)
3. 2.5	1	1	1	1	1	1	1	1	1	1	10
4. 1.25	1	1	1	1	1	1	1	1	1	1	10
5. 0.63	1	1	1	1	1	1	1	1	1	1	10
6. 0	1	1	1	1	1	1	1	1	1	1	10

Day 2 (2/17/13) 6SL

Conc. (g/L)	Survivors in Replicate: 1	2	3	4	5	6	7	8	9	10	Total
1. 10	0	0	0	0	0	0	0	0	0	0	0
2. 5	0	1	0	0	1	1	1	1	0	0	5 (3D)
3. 2.5	1	1	1	1	1	1	1	1	1	1	10
4. 1.25	1	1	1	1	1	1	1	1	1	1	10
5. 0.63	1	1	1	1	1	1	1	1	1	1	10
6. 0	1	1	1	1	1	1	1	1	1	1	10

Day 3 (2/18/13) 6SL

Conc. (g/L)	Survivors in Replicate: 1	2	3	4	5	6	7	8	9	10	Total
1. 10	0	0	0	0	0	0	0	0	0	0	0
2. 5	0	0	0	0	0	0	0	1	0	0	1 (4D)
3. 2.5	1	1	1	1	1	1	1	1	0	1	9 (1D)
4. 1.25	1	0	1	1	1	1	1	1	1	1	9 (1D)
5. 0.63	1	1	1	1	1	1	1	1	1	1	10
6. 0	1	1	1	1	1	1	1	1	1	1	10

Day 4 (2/19/13) 6SL

Conc. (g/L)	Survivors in Replicate: 1	2	3	4	5	6	7	8	9	10	Total
1. 10	0	0	0	0	0	0	0	0	0	0	0
2. 5	0	0	0	0	0	0	0	0	0	0	0
3. 2.5	1	1	1	1	1	1	1	1	0	1	9
4. 1.25	1	0	1	1	1	1	1	1	1	1	9
5. 0.63	1	1	1	1	1	1	1	1	1	1	10
6. 0	1	1	1	1	1	1	1	1	1	1	10

Acute 96-hr Toxicity Test-96 Hr Survival

Start Date:	2/15/2013 10:40	Test ID:	999-3136	Sample ID:	REF-Ref Toxicant
End Date:	2/19/2013 12:15	Lab ID:	ORNAS-Northwestern Aquati	Sample Type:	KCL-Potassium chloride
Sample Date:		Protocol:	EPAF 91-EPA Freshwater	Test Species:	CT-Chironomus dilutus
Comments:					

Conc-gm/L	1
D-Control	1.0000
0.63	1.0000
1.25	0.9000
2.5	0.9000
5	0.0000
10	0.0000

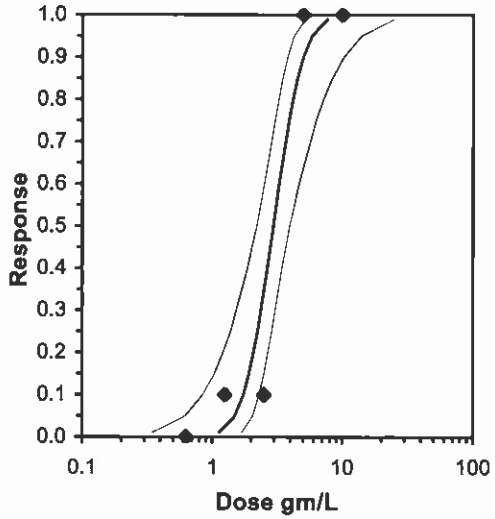
Conc-gm/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Number Resp	Total Number
D-Control	1.0000	1.0000	0	10	10	1			0	10
0.63	1.0000	1.0000	0	10	10	1	1.0000	0.0500	0	10
1.25	0.9000	0.9000	1	9	10	1	0.5000	0.0500	1	10
2.5	0.9000	0.9000	1	9	10	1	0.5000	0.0500	1	10
*5	0.0000	0.0000	10	0	10	1	0.0000	0.0500	10	10
*10	0.0000	0.0000	10	0	10	1	0.0000	0.0500	10	10

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	2.5	5	3.53553	

Maximum Likelihood-Probit

Parameter	Value	SE	95% Fiducial Limits		Control	Chi-Sq	Critical	P-value	Mu	Sigma	Iter
Slope	5.60233	1.54785	2.56854	8.63612	0	7.41044	7.81472	0.06	0.46887	0.1785	8
Intercept	2.37322	0.78839	0.82797	3.91847							
TSCR											

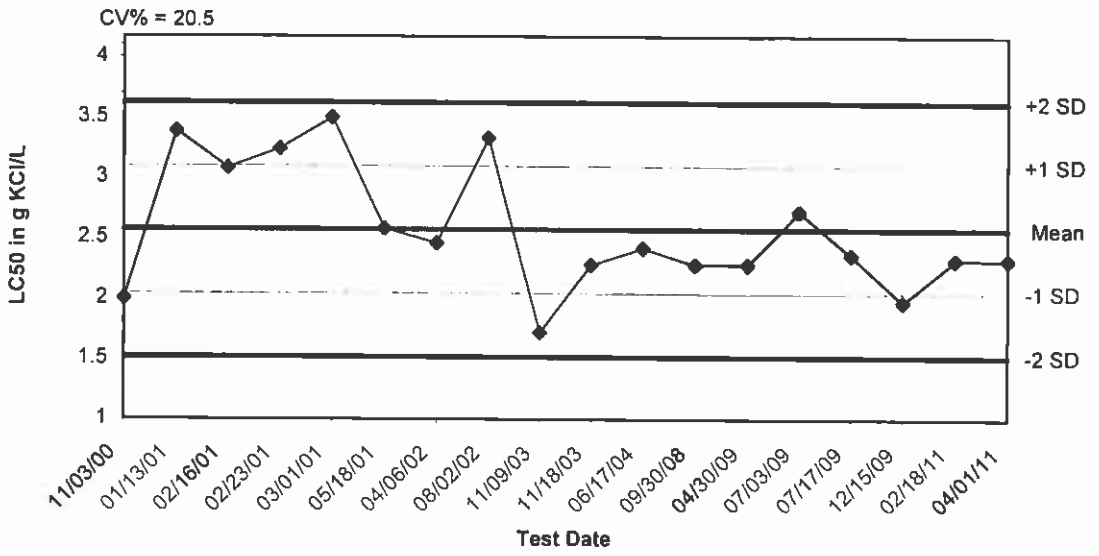
Point	Probits	gm/L	95% Fiducial Limits	
EC01	2.674	1.13143	0.3451	1.67557
EC05	3.355	1.49717	0.62276	2.05129
EC10	3.718	1.73828	0.84718	2.3008
EC15	3.964	1.92253	1.03761	2.49826
EC20	4.158	2.08279	1.21389	2.67851
EC25	4.326	2.23089	1.38311	2.85521
EC40	4.747	2.65247	1.87365	3.43981
EC50	5.000	2.94356	2.19505	3.9423
EC60	5.253	3.26659	2.51725	4.61569
EC75	5.674	3.88389	3.03497	6.24793
EC80	5.842	4.16006	3.23582	7.11751
EC85	6.036	4.50685	3.46989	8.32531
EC90	6.282	4.98455	3.76825	10.1951
EC95	6.645	5.78728	4.22722	13.8671
EC99	7.326	7.65807	5.17581	25.0207



Test: AT-Acute 96-hr Toxicity Test						Test ID: 999-3136			
Species: CT-Chironomus dilutus						Protocol: EPAF 91-EPA Freshwater			
Sample ID: REF-Ref Toxicant						Sample Type: KCL-Potassium chloride			
Start Date: 2/15/2013 10:40				End Date: 2/19/2013 12:1		Lab ID: ORNAS-Northwestern Aquatic Sciences			
Pos	ID	Rep	Group	Start	24 Hr	48 Hr	72 Hr	96 Hr	Notes
	1	1	D-Control	10	10	10	10	10	
	2	1	0.630	10	10	10	10	10	
	3	1	1.250	10	10	10	9	9	
	4	1	2.500	10	10	10	9	9	
	5	1	5.000	10	8	5	1	0	
	6	1	10.000	10	0	0	0	0	

Comments: data entry verified against laboratory bench sheets 3-13-13 JRF

First instar midge larvae, Chironomus dilutus, reference toxicant test



Dates	Values	Mean	-1 SD	-2 SD	+1 SD	+2 SD
11/03/00	2.0000	2.5694	2.0431	1.5167	3.0958	3.6222
01/13/01	3.3900	2.5694	2.0431	1.5167	3.0958	3.6222
02/16/01	3.0800	2.5694	2.0431	1.5167	3.0958	3.6222
02/23/01	3.2400	2.5694	2.0431	1.5167	3.0958	3.6222
03/01/01	3.5000	2.5694	2.0431	1.5167	3.0958	3.6222
05/18/01	2.5800	2.5694	2.0431	1.5167	3.0958	3.6222
04/06/02	2.4600	2.5694	2.0431	1.5167	3.0958	3.6222
08/02/02	3.3300	2.5694	2.0431	1.5167	3.0958	3.6222
11/09/03	1.7200	2.5694	2.0431	1.5167	3.0958	3.6222
11/18/03	2.2800	2.5694	2.0431	1.5167	3.0958	3.6222
06/17/04	2.4200	2.5694	2.0431	1.5167	3.0958	3.6222
09/30/08	2.2800	2.5694	2.0431	1.5167	3.0958	3.6222
04/30/09	2.2800	2.5694	2.0431	1.5167	3.0958	3.6222
07/03/09	2.7200	2.5694	2.0431	1.5167	3.0958	3.6222
07/17/09	2.3600	2.5694	2.0431	1.5167	3.0958	3.6222
12/15/09	1.9700	2.5694	2.0431	1.5167	3.0958	3.6222
02/18/11	2.3200	2.5694	2.0431	1.5167	3.0958	3.6222
04/01/11	2.3200	2.5694	2.0431	1.5167	3.0958	3.6222

GMP
5-13-11