eurofins | Calscience

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

WORK ORDER NUMBER: 17-03-0589

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Andersen Environmental

Client Project Name: Burbank Airport / 9836002041

Attention: Brian Martasin
5261 West Imperial Highway
Los Angeles, CA 90045-6231

Approved for release on 04/26/2017 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

eurofins | Calscience

Contents

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0589

1 Work Order Narrative. 3

2 Sample Summary. 4

3 Detections Summary. 5

4 Client Sample Data. 6
4.1 ASTM D-2216 (M) Moisture Content (Solid). 6
4.2 EPA 8015B (M) Diesel and Motor Oil Ranges (Solid). 7
4.3 EPA 6010B/7471A CAC Title 22 Metals (Solid). 9
4.4 EPA 7471A Mercury (Solid). 13
4.5 EPA 8082 PCB Aroclors (Solid). 14
4.6 EPA 8270C SIM PAHs (Solid). 16

5 Quality Control Sample Data. 20
5.1 MS/MSD. 20
5.2 Sample Duplicate. 25
5.3 LCS/LCSD. 26

6 Sample Analysis Summary. 31

7 Glossary of Terms and Qualifiers. 32

8 Chain-of-Custody/Sample Receipt Form. 33

9 Level III Data Package - Case Narrative. 45

9.1 ASTM D-2216 (M) Moisture Content (Solid). 50

9.2 EPA 8015B (M) Diesel + Motor Oil (Solid). 60

9.3 EPA 6010B ICP Metals (Solid). 151

9.4 EPA 7471A Mercury (Solid). 219

9.5 EPA 8082 PCB (Solid). 246

9.6 EPA 8270C SIM PAH (Solid). 322

eurofins | Calscience

Work Order Narrative

Work Order: 17-03-0589 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 03/07/17. They were assigned to Work Order 17-03-0589.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Andersen Environmental 5261 West Imperial Highway Los Angeles, CA 90045-6231	Work Order:	17-03-0589
		Project Name:	Burbank Airport / 9836002041
		PO Number:	
		Date/Time Received:	03/07/17 17:50
		Number of Containers:	30
Attn:	Brian Martasin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
D-DU1-S-SG-01-03S	17-03-0589-1	03/02/17 11:05	1	Solid
D-DU1-S-SG-02-03S	17-03-0589-2	03/02/17 10:24	1	Solid
D-DU1-S-SG-03-03S	17-03-0589-3	03/02/17 08:58	1	Solid
D-DU1-S-SG-04-03S	17-03-0589-4	03/02/17 08:09	1	Solid
D-DU1-S-SG-05-03S	17-03-0589-5	03/02/17 09:35	1	Solid
D-DU1-S-SG-06-03S	17-03-0589-6	03/03/17 08:57	1	Solid
D-DU1-S-SG-07-03S	17-03-0589-7	03/03/17 10:00	1	Solid
D-DU1-S-SG-08-03S	17-03-0589-8	03/03/17 07:20	1	Solid
D-DU1-S-SG-09-3S	17-03-0589-9	03/02/17 14:30	1	Solid
D-DU1-S-02-3	17-03-0589-10	03/07/17 10:30	1	Solid
D-DU1-S-03-3	17-03-0589-11	03/07/17 09:55	1	Solid
D-DU1-S-04-3	17-03-0589-12	03/07/17 13:05	1	Solid
D-DU1-S-05-3	17-03-0589-13	03/07/17 12:40	1	Solid
D-DU1-S-06-3	17-03-0589-14	03/07/17 09:30	1	Solid
D-DU1-S-07-3	17-03-0589-15	03/07/17 13:33	1	Solid
D-DU1-S-08-3	17-03-0589-16	03/07/17 13:55	1	Solid
D-DU1-S-09-3	17-03-0589-17	03/07/17 14:13	1	Solid
D-DU1-S-10-3	17-03-0589-18	03/07/17 14:38	1	Solid
D-DU1-S-11-3	17-03-0589-19	03/07/17 09:05	1	Solid
D-DU1-S-01-3	17-03-0589-20	03/07/17 14:50	1	Solid
COMPOSITE	17-03-0589-21	03/02/17 00:00	1	Solid
D-DU1-ISM1-3	17-03-0589-22	03/02/17 00:00	1	Solid
D-DU1-ISM2-3	17-03-0589-23	03/02/17 00:00	1	Solid
D-DU1-ISM3-3	17-03-0589-24	03/02/17 00:00	1	Solid
D-DU1-ISM1-3	17-03-0589-25	03/02/17 00:00	1	Solid
D-DU1-ISM2-3	17-03-0589-26	03/02/17 00:00	1	Solid
D-DU1-ISM3-3	17-03-0589-27	03/02/17 00:00	1	Solid
D-DU1-ISM1-3	17-03-0589-28	03/02/17 00:00	1	Solid
D-DU1-ISM2-3	17-03-0589-29	03/02/17 00:00	1	Solid
D-DU1-ISM3-3	17-03-0589-30	03/02/17 00:00	1	Solid

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Andersen Environmental	Work Order:	17-03-0589
	5261 West Imperial Highway	Project Name:	Burbank Airport / 9836002041
	Los Angeles, CA 90045-6231	Received:	03/07/17
Attn:	Brian Martasin		

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
D-DU1-ISM1-3 (17-03-0589-25)						
Moisture	5.8		0.10	%	ASTM D-2216 (M)	N/A
D-DU1-ISM2-3 (17-03-0589-26)						
Moisture	5.8		0.10	%	ASTM D-2216 (M)	N/A
D-DU1-ISM3-3 (17-03-0589-27)						
Moisture	5.2		0.10	%	ASTM D-2216 (M)	N/A
Mercury	0.0860		0.0851	mg/kg	EPA 7471A	EPA 7471A Total
D-DU1-ISM1-3 (17-03-0589-28)						
Barium	84.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.79		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.10		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	9.44		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.00		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.19		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	39.3		1.00	mg/kg	EPA 6010B	EPA 3050B
D-DU1-ISM2-3 (17-03-0589-29)						
Barium	78.1		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.06		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.57		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	8.63		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	2.93		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.70		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	21.4		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	38.1		1.02	mg/kg	EPA 6010B	EPA 3050B
D-DU1-ISM3-3 (17-03-0589-30)						
Arsenic	1.02		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	83.0		0.493	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.80		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.04		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	9.46		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	2.99		0.493	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.10		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.8		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	41.2		0.985	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Return to Contents

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	N/A
		Method:	ASTM D-2216 (M)
		Units:	%
Project: Burbank Airport / 9836002041			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM1-3	**17-03-0589-25-A**	**03/02/17 00:00**	**Solid**	**N/A**	**03/09/17**	**03/09/17 21:00**	**H0309MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.8	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM2-3	**17-03-0589-26-A**	**03/02/17 00:00**	**Solid**	**N/A**	**03/09/17**	**03/09/17 21:00**	**H0309MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.8	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM3-3	**17-03-0589-27-A**	**03/02/17 00:00**	**Solid**	**N/A**	**03/09/17**	**03/09/17 21:00**	**H0309MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.2	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-014-6734**	**N/A**	**Solid**	**N/A**	**03/09/17**	**03/09/17 21:00**	**H0309MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	ND	0.10	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM1-3	**17-03-0589-25-A**	**03/02/17 00:00**	**Solid**	**GC 48**	**03/10/17**	**03/10/17 23:07**	**170310B02A**

Comment(s): - Results are reported on a dry weight basis.
- Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.3	1.00	
TPH as Motor Oil	ND	5.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

D-DU1-ISM2-3	**17-03-0589-26-A**	**03/02/17 00:00**	**Solid**	**GC 48**	**03/10/17**	**03/10/17 23:27**	**170310B02A**

Comment(s): - Results are reported on a dry weight basis.
- Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.3	1.00	
TPH as Motor Oil	ND	5.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	61-145	

D-DU1-ISM3-3	**17-03-0589-27-A**	**03/02/17 00:00**	**Solid**	**GC 48**	**03/10/17**	**03/10/17 23:48**	**170310B02A**

Comment(s): - Results are reported on a dry weight basis.
- Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.2	1.00	
TPH as Motor Oil	ND	5.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-353-7**	**N/A**	**Solid**	**GC 48**	**03/10/17**	**03/10/17 15:37**	**170310B02A**

Comment(s): - Motor Oil Range Organics (C17-C44) uses a Diesel Range Organics (C10-C28) standard for quantitation and quality control.

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	
TPH as Motor Oil	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	84	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM1-3	**17-03-0589-28-A**	**03/02/17 00:00**	**Solid**	**ICP 7300**	**03/20/17**	**03/20/17 17:16**	**170320L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	84.5	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	7.79	0.250	1.00	
Cobalt	7.10	0.250	1.00	
Copper	9.44	0.500	1.00	
Lead	3.00	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	6.19	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	23.7	0.250	1.00	
Zinc	39.3	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM2-3	**17-03-0589-29-A**	**03/02/17 00:00**	**Solid**	**ICP 7300**	**03/20/17**	**03/20/17 17:17**	**170320L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	ND	0.765	1.02	
Barium	78.1	0.510	1.02	
Beryllium	ND	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	7.06	0.255	1.02	
Cobalt	6.57	0.255	1.02	
Copper	8.63	0.510	1.02	
Lead	2.93	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	5.70	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	21.4	0.255	1.02	
Zinc	38.1	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM3-3	**17-03-0589-30-A**	**03/02/17 00:00**	**Solid**	**ICP 7300**	**03/20/17**	**03/20/17 17:18**	**170320L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	1.02	0.739	0.985	
Barium	83.0	0.493	0.985	
Beryllium	ND	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	7.80	0.246	0.985	
Cobalt	7.04	0.246	0.985	
Copper	9.46	0.493	0.985	
Lead	2.99	0.493	0.985	
Molybdenum	ND	0.246	0.985	
Nickel	6.10	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	23.8	0.246	0.985	
Zinc	41.2	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-24458**	**N/A**	**Solid**	**ICP 7300**	**03/20/17**	**03/20/17 17:02**	**170320L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	ND	0.728	0.971	
Barium	ND	0.485	0.971	
Beryllium	ND	0.243	0.971	
Cadmium	ND	0.485	0.971	
Chromium	ND	0.243	0.971	
Cobalt	ND	0.243	0.971	
Copper	ND	0.485	0.971	
Lead	ND	0.485	0.971	
Molybdenum	ND	0.243	0.971	
Nickel	ND	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	ND	0.243	0.971	
Zinc	ND	0.971	0.971	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM1-3	**17-03-0589-25-a**	**03/02/17 00:00**	**Solid**	**Mercury 07**	**03/13/17**	**03/13/17 15:15**	**170313L01**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0856	1.00	

D-DU1-ISM2-3	**17-03-0589-26-a**	**03/02/17 00:00**	**Solid**	**Mercury 07**	**03/13/17**	**03/13/17 15:22**	**170313L01**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0843	1.00	

D-DU1-ISM3-3	**17-03-0589-27-a**	**03/02/17 00:00**	**Solid**	**Mercury 07**	**03/13/17**	**03/13/17 15:24**	**170313L01**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Mercury	0.0860	0.0851	1.00	

Method Blank	**099-16-272-2868**	**N/A**	**Solid**	**Mercury 07**	**03/13/17**	**03/13/17 15:10**	**170313L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8082
		Units:	ug/kg
Project: Burbank Airport / 9836002041			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM1-3	**17-03-0589-28-A**	**03/02/17 00:00**	**Solid**	**GC 66**	**03/13/17**	**03/16/17 07:05**	**170313L11**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	78	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

D-DU1-ISM2-3	**17-03-0589-29-A**	**03/02/17 00:00**	**Solid**	**GC 66**	**03/13/17**	**03/16/17 07:22**	**170313L11**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	78	24-168	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8082
		Units:	ug/kg
Project: Burbank Airport / 9836002041			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM3-3	**17-03-0589-30-A**	**03/02/17 00:00**	**Solid**	**GC 66**	**03/13/17**	**03/16/17 07:40**	**170313L11**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	72	24-168	
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	

Method Blank	**099-12-535-4095**	**N/A**	**Solid**	**GC 66**	**03/13/17**	**03/16/17 02:37**	**170313L11**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	75	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM1-3	**17-03-0589-25-A**	**03/02/17 00:00**	**Solid**	**GC/MS AAA**	**03/10/17**	**03/13/17 21:05**	**170310L04**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.011	1.00	
2-Methylnaphthalene	ND	0.011	1.00	
1-Methylnaphthalene	ND	0.011	1.00	
Acenaphthylene	ND	0.011	1.00	
Acenaphthene	ND	0.011	1.00	
Fluorene	ND	0.011	1.00	
Phenanthrene	ND	0.011	1.00	
Anthracene	ND	0.011	1.00	
Fluoranthene	ND	0.011	1.00	
Pyrene	ND	0.011	1.00	
Benzo (a) Anthracene	ND	0.011	1.00	
Chrysene	ND	0.011	1.00	
Benzo (k) Fluoranthene	ND	0.011	1.00	
Benzo (b) Fluoranthene	ND	0.011	1.00	
Benzo (a) Pyrene	ND	0.011	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.011	1.00	
Dibenz (a,h) Anthracene	ND	0.011	1.00	
Benzo (g,h,i) Perylene	ND	0.011	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	75	13-127	
Nitrobenzene-d5	88	17-137	
p-Terphenyl-d14	94	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM2-3	**17-03-0589-26-A**	**03/02/17 00:00**	**Solid**	**GC/MS AAA**	**03/10/17**	**03/13/17 21:25**	**170310L04**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.011	1.00	
2-Methylnaphthalene	ND	0.011	1.00	
1-Methylnaphthalene	ND	0.011	1.00	
Acenaphthylene	ND	0.011	1.00	
Acenaphthene	ND	0.011	1.00	
Fluorene	ND	0.011	1.00	
Phenanthrene	ND	0.011	1.00	
Anthracene	ND	0.011	1.00	
Fluoranthene	ND	0.011	1.00	
Pyrene	ND	0.011	1.00	
Benzo (a) Anthracene	ND	0.011	1.00	
Chrysene	ND	0.011	1.00	
Benzo (k) Fluoranthene	ND	0.011	1.00	
Benzo (b) Fluoranthene	ND	0.011	1.00	
Benzo (a) Pyrene	ND	0.011	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.011	1.00	
Dibenz (a,h) Anthracene	ND	0.011	1.00	
Benzo (g,h,i) Perylene	ND	0.011	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	13-127	
Nitrobenzene-d5	73	17-137	
p-Terphenyl-d14	86	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
D-DU1-ISM3-3	**17-03-0589-27-A**	**03/02/17 00:00**	**Solid**	**GC/MS AAA**	**03/10/17**	**03/13/17 21:45**	**170310L04**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.011	1.00	
2-Methylnaphthalene	ND	0.011	1.00	
1-Methylnaphthalene	ND	0.011	1.00	
Acenaphthylene	ND	0.011	1.00	
Acenaphthene	ND	0.011	1.00	
Fluorene	ND	0.011	1.00	
Phenanthrene	ND	0.011	1.00	
Anthracene	ND	0.011	1.00	
Fluoranthene	ND	0.011	1.00	
Pyrene	ND	0.011	1.00	
Benzo (a) Anthracene	ND	0.011	1.00	
Chrysene	ND	0.011	1.00	
Benzo (k) Fluoranthene	ND	0.011	1.00	
Benzo (b) Fluoranthene	ND	0.011	1.00	
Benzo (a) Pyrene	ND	0.011	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.011	1.00	
Dibenz (a,h) Anthracene	ND	0.011	1.00	
Benzo (g,h,i) Perylene	ND	0.011	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	71	13-127	
Nitrobenzene-d5	83	17-137	
p-Terphenyl-d14	100	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: Burbank Airport / 9836002041			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-035-380**	**N/A**	**Solid**	**GC/MS AAA**	**03/10/17**	**03/13/17 17:09**	**170310L04**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.010	1.00	
2-Methylnaphthalene	ND	0.010	1.00	
1-Methylnaphthalene	ND	0.010	1.00	
Acenaphthylene	ND	0.010	1.00	
Acenaphthene	ND	0.010	1.00	
Fluorene	ND	0.010	1.00	
Phenanthrene	ND	0.010	1.00	
Anthracene	ND	0.010	1.00	
Fluoranthene	ND	0.010	1.00	
Pyrene	ND	0.010	1.00	
Benzo (a) Anthracene	ND	0.010	1.00	
Chrysene	ND	0.010	1.00	
Benzo (k) Fluoranthene	ND	0.010	1.00	
Benzo (b) Fluoranthene	ND	0.010	1.00	
Benzo (a) Pyrene	ND	0.010	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.010	1.00	
Dibenz (a,h) Anthracene	ND	0.010	1.00	
Benzo (g,h,i) Perylene	ND	0.010	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	55	13-127	
Nitrobenzene-d5	61	17-137	
p-Terphenyl-d14	74	4-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: Burbank Airport / 9836002041			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-0680-1	**Sample**	**Solid**	**GC 48**	**03/10/17**	**03/13/17 19:16**	**170310S02**
17-03-0680-1	**Matrix Spike**	**Solid**	**GC 48**	**03/10/17**	**03/10/17 16:17**	**170310S02**
17-03-0680-1	**Matrix Spike Duplicate**	**Solid**	**GC 48**	**03/10/17**	**03/10/17 16:38**	**170310S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	986.6	400.0	1092	26	1040	13	64-130	5	0-15	3

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: Burbank Airport / 9836002041			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-1125-3	**Sample**	**Solid**	**ICP 7300**	**03/20/17**	**03/20/17 17:35**	**170320S02**
17-03-1125-3	**Matrix Spike**	**Solid**	**ICP 7300**	**03/20/17**	**03/20/17 17:36**	**170320S02**
17-03-1125-3	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**03/20/17**	**03/20/17 17:37**	**170320S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	4.426	18	8.488	34	50-115	63	0-20	3,4
Arsenic	13.02	25.00	39.52	106	40.95	112	75-125	4	0-20	
Barium	239.2	25.00	266.3	4X	266.3	4X	75-125	4X	0-20	Q
Beryllium	1.100	25.00	29.02	112	28.98	112	75-125	0	0-20	
Cadmium	0.7784	25.00	25.99	101	26.91	105	75-125	3	0-20	
Chromium	18.30	25.00	42.72	98	41.88	94	75-125	2	0-20	
Cobalt	8.668	25.00	33.13	98	34.01	101	75-125	3	0-20	
Copper	22.20	25.00	48.61	106	48.17	104	75-125	1	0-20	
Lead	23.77	25.00	49.81	104	50.22	106	75-125	1	0-20	
Molybdenum	0.3626	25.00	21.24	84	22.85	90	75-125	7	0-20	
Nickel	19.61	25.00	43.79	97	44.84	101	75-125	2	0-20	
Selenium	ND	25.00	26.10	104	30.09	120	75-125	14	0-20	
Silver	ND	12.50	13.59	109	14.09	113	75-125	4	0-20	
Thallium	ND	25.00	21.82	87	23.51	94	75-125	7	0-20	
Vanadium	32.85	25.00	55.11	89	54.14	85	75-125	2	0-20	
Zinc	76.41	25.00	101.8	102	111.5	140	75-125	9	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: Burbank Airport / 9836002041			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
D-DU1-ISM1-3	**Sample**	**Solid**	**Mercury 07**	**03/13/17**	**03/13/17 15:15**	**170313S01**
D-DU1-ISM1-3	**Matrix Spike**	**Solid**	**Mercury 07**	**03/13/17**	**03/13/17 15:17**	**170313S01**
D-DU1-ISM1-3	**Matrix Spike Duplicate**	**Solid**	**Mercury 07**	**03/13/17**	**03/13/17 15:19**	**170313S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7799	93	0.7487	90	71-137	4	0-14	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8082
Project: Burbank Airport / 9836002041			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-0642-30	**Sample**	**Solid**	**GC 66**	**03/13/17**	**03/16/17 03:48**	**170313S11**
17-03-0642-30	**Matrix Spike**	**Solid**	**GC 66**	**03/13/17**	**03/16/17 03:13**	**170313S11**
17-03-0642-30	**Matrix Spike Duplicate**	**Solid**	**GC 66**	**03/13/17**	**03/16/17 03:31**	**170313S11**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	83.00	83	82.50	82	50-135	1	0-20	
Aroclor-1260	ND	100.0	84.50	84	85.00	85	50-135	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
Project: Burbank Airport / 9836002041			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-0641-26	**Sample**	**Solid**	**GC/MS AAA**	**03/10/17**	**03/13/17 19:46**	**170310S04**
17-03-0641-26	**Matrix Spike**	**Solid**	**GC/MS AAA**	**03/10/17**	**03/14/17 12:30**	**170310S04**
17-03-0641-26	**Matrix Spike Duplicate**	**Solid**	**GC/MS AAA**	**03/10/17**	**03/13/17 18:08**	**170310S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	0.1000	0.09218	92	0.08516	85	20-150	8	0-33	
2-Methylnaphthalene	ND	0.1000	0.1045	104	0.09445	94	29-137	10	0-31	
1-Methylnaphthalene	ND	0.1000	0.09569	96	0.08605	86	34-136	11	0-29	
Acenaphthylene	ND	0.1000	0.08040	80	0.07537	75	29-131	6	0-32	
Acenaphthene	ND	0.1000	0.08276	83	0.07798	78	29-137	6	0-28	
Fluorene	ND	0.1000	0.08493	85	0.07855	79	36-132	8	0-27	
Phenanthrene	ND	0.1000	0.09732	97	0.09182	92	20-144	6	0-27	
Anthracene	ND	0.1000	0.1009	101	0.09138	91	26-134	10	0-27	
Fluoranthene	ND	0.1000	0.09398	94	0.08904	89	20-151	5	0-26	
Pyrene	ND	0.1000	0.1040	104	0.09233	92	20-150	12	0-32	
Benzo (a) Anthracene	ND	0.1000	0.09475	95	0.09013	90	24-150	5	0-24	
Chrysene	ND	0.1000	0.09979	100	0.08850	88	25-145	12	0-28	
Benzo (k) Fluoranthene	ND	0.1000	0.1023	102	0.09310	93	28-148	9	0-26	
Benzo (b) Fluoranthene	ND	0.1000	0.08982	90	0.08694	87	21-153	3	0-26	
Benzo (a) Pyrene	ND	0.1000	0.09441	94	0.08980	90	29-149	5	0-22	
Indeno (1,2,3-c,d) Pyrene	ND	0.1000	0.08802	88	0.08785	88	20-154	0	0-25	
Dibenz (a,h) Anthracene	ND	0.1000	0.08938	89	0.08940	89	20-132	0	0-26	
Benzo (g,h,i) Perylene	ND	0.1000	0.08732	87	0.09140	91	20-148	5	0-27	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Sample Duplicate

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	N/A
		Method:	ASTM D-2216 (M)
Project: Burbank Airport / 9836002041			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
D-DU1-ISM1-3	**Sample**	**Solid**	**N/A**	**03/09/17 00:00**	**03/09/17 21:00**	**H0309MOID1**
D-DU1-ISM1-3	**Sample Duplicate**	**Solid**	**N/A**	**03/09/17 00:00**	**03/09/17 21:00**	**H0309MOID1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Moisture	5.800	6.100	5	0-10	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: Burbank Airport / 9836002041			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-353-7	**LCS**	**Solid**	**GC 48**	**03/10/17**	**03/10/17 15:57**	**170310B02A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	386.2	97	61-145	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: Burbank Airport / 9836002041			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-24458	**LCS**	**Solid**	**ICP 7300**	**03/20/17**	**03/20/17 17:03**	**170320L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	23.13	93	80-120	73-127	
Arsenic	25.00	23.03	92	80-120	73-127	
Barium	25.00	24.13	97	80-120	73-127	
Beryllium	25.00	23.03	92	80-120	73-127	
Cadmium	25.00	23.07	92	80-120	73-127	
Chromium	25.00	23.23	93	80-120	73-127	
Cobalt	25.00	24.53	98	80-120	73-127	
Copper	25.00	22.93	92	80-120	73-127	
Lead	25.00	24.03	96	80-120	73-127	
Molybdenum	25.00	23.15	93	80-120	73-127	
Nickel	25.00	24.49	98	80-120	73-127	
Selenium	25.00	23.22	93	80-120	73-127	
Silver	12.50	10.81	86	80-120	73-127	
Thallium	25.00	23.85	95	80-120	73-127	
Vanadium	25.00	21.96	88	80-120	73-127	
Zinc	25.00	23.73	95	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: Burbank Airport / 9836002041			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2868	**LCS**	**Solid**	**Mercury 07**	**03/13/17**	**03/13/17 15:12**	**170313L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8022	96	85-121	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8082
Project: Burbank Airport / 9836002041			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-4095	**LCS**	**Solid**	**GC 66**	**03/13/17**	**03/16/17 02:55**	**170313L11**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	100.0	84.00	84	50-135	
Aroclor-1260	100.0	85.00	85	50-135	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Andersen Environmental		Date Received:	03/07/17
5261 West Imperial Highway		Work Order:	17-03-0589
Los Angeles, CA 90045-6231		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
Project: Burbank Airport / 9836002041			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-035-380	**LCS**	**Solid**	**GC/MS AAA**	**03/10/17**	**03/13/17 17:28**	**170310L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Naphthalene	0.1000	0.06679	67	51-129	38-142	
2-Methylnaphthalene	0.1000	0.07206	72	50-127	37-140	
1-Methylnaphthalene	0.1000	0.06639	66	54-132	41-145	
Acenaphthylene	0.1000	0.05763	58	50-123	38-135	
Acenaphthene	0.1000	0.05903	59	53-125	41-137	
Fluorene	0.1000	0.06071	61	55-127	43-139	
Phenanthrene	0.1000	0.07239	72	50-122	38-134	
Anthracene	0.1000	0.07105	71	50-132	36-146	
Fluoranthene	0.1000	0.07754	78	55-127	43-139	
Pyrene	0.1000	0.07831	78	50-134	36-148	
Benzo (a) Anthracene	0.1000	0.08311	83	50-133	36-147	
Chrysene	0.1000	0.08263	83	51-129	38-142	
Benzo (k) Fluoranthene	0.1000	0.08987	90	49-150	32-167	
Benzo (b) Fluoranthene	0.1000	0.08263	83	50-142	35-157	
Benzo (a) Pyrene	0.1000	0.08523	85	50-134	36-148	
Indeno (1,2,3-c,d) Pyrene	0.1000	0.08255	83	50-148	34-164	
Dibenz (a,h) Anthracene	0.1000	0.08511	85	50-133	36-147	
Benzo (g,h,i) Perylene	0.1000	0.08546	85	50-130	37-143	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 17-03-0589

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-2216 (M)	N/A	1009	N/A	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 7471A	EPA 7471A Total	868	Mercury 07	1
EPA 8015B (M)	EPA 3550B	972	GC 48	1
EPA 8082	EPA 3545	669	GC 66	1
EPA 8270C SIM PAHs	EPA 3545	907	GC/MS AAA	1

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 17-03-0589 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

EFI Global

EFI Global
5261 West Imperial Highway, Los Angeles CA 90045
Tel: (310) 854-6300 Fax: (310) 854-0199 www.AndersenEnviro.com

Chain-oD-Custody Record

Analytical Laboratory:	Calscience	Job # 9836002041
Project Name:	Burbank Airport	NA
Project Address:	2627 N. Hollywood Way, Burbank	
Project Manager:	B. Martasin	
Sampled by:	G. Baader	
Phone/Email:	310-854-6300, brian_martasin@efiglobal.com	
Phone/Email:	Robert Cheung, 510-529-5948, RCheung@Geosyntec.com	

Number	Sample ID	Lab ID	Type: Grab	Type: Composite	Matrix: Water	Matrix: Soil	Matrix: Vapor	Matrix: Other	Preservative: Cold (4° C)	Preservative: HNO3	Preservative: NaHSO4	Preservative: HCl	Sampling Information: Date	Sampling Information: Time	Method: VOCs, EPA Method 8260B	Method: PAHs, EPA Method 8270C	Method: Metals, EPA Method 6010B/7470A	Method: Lead, EPA Method 6010B	Method: Arsenic, EPA Method 6010B	Method: STLC Lead EPA Method	Method: TCLP Lead EPA Method	Method: PCBs, EPA Method 8082	Method: TPH full chain, EPA Method 8015M	Method: ERPH, EPA Method 8015M	Method: Composite	Method: Hold	Container: 4- or 8-ounce Glass	Container: VOA	Container: EZ Draw (EPA 5035)	Container: Acetate Liner	Container: Amber Bottle	Turnaround Time: 24 hours	Turnaround Time: Normal	Turnaround Time: 48 Hours
1	D-DU1-ISM1-3			X		X			X				3/2,3/3, 3/7			X	X					X		X	X					X			X	
2	D-DU1-ISM2-3			X		X			X				3/2,3/3, 3/7			X	X					X		X	X					X			X	
3	D-DU1-ISM3-3			X		X			X				3/2,3/3, 3/7			X	X					X		X	X					X			X	
4	D-DU1-ISM1-8			X		X			X				3/2,3/3, 3/7			X	X					X		X	X					X			X	
5	D-DU1-ISM2-8			X		X			X				3/2,3/3, 3/7			X	X					X		X	X					X			X	
6	D-DU1-ISM3-8			X		X			X				3/2,3/3, 3/7			X	X					X		X	X					X			X	
7	D-DU1-ISM1-15			X		X			X				3/2,3/3, 3/7													X				X				
8	D-DU1-ISM2-15			X		X			X				3/2,3/3, 3/7													X				X				
9	D-DU1-ISM3-15			X		X			X				3/2,3/3, 3/7													X				X				
10																																		
11																																		
12																																		
13																																		
14																																		
15																																		
16																																		
17																																		
18																																		
19																																		
20																																		

Relinquished by	Date	Time	Received by	Date	Time	Remarks
	03/08/17			03/08/17		Sample condition (circle): Chilled Intact
						15-footers on hold pending results of shallow samples
						Original samples for ISM previously submitted

Return to Contents

17-03-0589

LAB_SDG	LAB_SAMPLE_NUMBER	FIELD_SAMPLE	SAMPLING_DATE	SAMPLING_TIME	MATRIX	DEPTH	PROJECT_ID
17-03-0219	17-03-0219-1	D-DU1-S-SG-01-03S	20170302	11:05:00	Soil	3	Burbank Airport / 9836002041
17-03-0219	17-03-0219-4	D-DU1-S-SG-02-03S	20170302	10:24:00	Soil	3	Burbank Airport / 9836002041
17-03-0219	17-03-0219-7	D-DU1-S-SG-03-03S	20170302	08:58:00	Soil	3	Burbank Airport / 9836002041
17-03-0219	17-03-0219-10	D-DU1-S-SG-04-03S	20170302	08:09:00	Soil	3	Burbank Airport / 9836002041
17-03-0219	17-03-0219-13	D-DU1-S-SG-05-03S	20170302	09:35:00	Soil	3	Burbank Airport / 9836002041
17-03-0335	17-03-0335-1	D-DU1-S-SG-06-03S	20170303	08:57:00	Soil	3	Burbank Airport / 9836002041
17-03-0335	17-03-0335-5	D-DU1-S-SG-07-03S	20170303	10:00:00	Soil	3	Burbank Airport / 9836002041
17-03-0335	17-03-0335-9	D-DU1-S-SG-08-03S	20170303	07:20:00	Soil	3	Burbank Airport / 9836002041
17-03-0335	17-03-0335-13	D-DU1-S-SG-09-3S	20170302	14:30:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-1	D-DU1-S-02-3	20170307	10:30:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-4	D-DU1-S-03-3	20170307	09:55:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-7	D-DU1-S-04-3	20170307	13:05:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-10	D-DU1-S-05-3	20170307	12:40:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-13	D-DU1-S-06-3	20170307	09:30:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-16	D-DU1-S-07-3	20170307	13:33:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-20	D-DU1-S-08-3	20170307	13:55:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-23	D-DU1-S-09-3	20170307	14:13:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-27	D-DU1-S-10-3	20170307	14:38:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-30	D-DU1-S-11-3	20170307	09:05:00	Soil	3	Burbank Airport / 9836002041
17-03-0531	17-03-0531-33	D-DU1-S-01-3	20170307	14:50:00	Soil	3	Burbank Airport / 9836002041

D-DU1-ISM1-3
D-DU1-ISM2-3
D-DU1-ISM3-3

Return to Contents

EFI Global

EFI Global
5261 West Imperial Highway, Los Angeles CA 90045
Tel: (310) 854-6300 Fax: (310) 854-0199 www.AndersenEnviro.com

Chain-of-Custody Record

17-03-0219

Analytical Laboratory:	Calscience
Job #	9836002041
Project Name:	Burbank Airport
	NA
Project Address:	2627 N. Hollywood Way, Burbank
Project Manager:	B. Martasin
Sampled by:	G. Baader
Phone/Email:	310-854-6300, brian_martasin@efiglobal.com
Phone/Email:	Robert Cheung, 510-529-5948, RCheung@Geosyntec.com

Number	Sample ID	Lab ID	Type: Grab	Type: Discrete	Matrix: Water	Matrix: Soil	Matrix: Vapor	Matrix: Other	Preservative: Cold (4° C)	Preservative: HNO3	Preservative: NaHSO4	Preservative: HCl	Sampling Information: Date	Sampling Information: Time	Method: VOCs, EPA Method 8260B	Method: PAHs, EPA Method 8270C SIM	Method: Metals, EPA Method 6010B/7471A	Method: Lead, EPA Method 6010B	Method: Arsenic, EPA Method 6010B	Method: STLC Lead EPA Method	Method: TCLP Lead EPA Method	Method: PCBs, EPA Method 8082	Method: TPH full chain, EPA Method 8015M	Method: TPHd, TPHmo, EPA Method 8015M	Method: Composite	Method: Hold	Container: 4- or 8-ounce Glass	Container: 250-ml Poly Bottle	Container: EZ Draw (EPA 5035)	Container: Acetate Liner	Container: 1-l Amber Bottle	Turnaround Time: 24 hours	Turnaround Time: 48 hours	Turnaround Time: Normal
1	D-DU1-S-SG-01-035	1		X		X			X				3/2/17	11:05		~~X~~	~~X~~	~~X~~				X		X		X								X
2	-085	2		X		X			X					11:10												X								
3	-155	3		X		X			X					11:13												X								
4	D-DU1-S-SG-02-035	4		X		X			X					10:24												X								
5	-085	5		X		X			X					10:29												X								
6	-155	6		X		X			X					10:35												X								
7	D-DU1-S-SG-03-035	7		X		X			X					8:58												X								
8	-085	8		X		X			X					9:03												X								
9	-155	9		X		X			X					9:05												X								
10	D-DU1-S-SG-04-035	10		X		X			X					8:09												X								
11	-085	11		X		X			X					8:13												X								
12	-155	12		X		X			X					8:26												X								
13	D-DU1-S-SG-05-035	13		X		X			X					9:35												X								
14	-085	14		X		X			X					9:42												X								
15	-155	15		X		X			X					9:49												X								
16																																		
17																																		
18																																		
19																																		
20																																		

Relinquished by	Date	Time	Received by	Date	Time
[signature]	3/2/17	1545	[signature]	3/2/17	1545
[signature]	3/2/17	1734	[signature]	3/2/17	1734

Remarks

Sample condition (circle): Chilled Intact

Hold until all D-DU1 are received for 1st composition

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 17-03- 0249

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Andersen

DATE: 03 / 2 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 1.8 °C (w/ CF): 1.8 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 1091

CUSTODY SEAL:

Cooler	☑ Present and Intact	☐ Present but Not Intact	☐ Not Present	☐ N/A	Checked by: 1091
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 300

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number: _____)**

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (P) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 300

Reviewed by: 836

Return to Contents

EFI Global

EFI Global
5261 West Imperial Highway, Los Angeles CA 90045
Tel: (310) 854-6300 Fax: (310) 854-0199 www.AndersenEnviro.com

Chain-of-Custody Record

Analytical Laboratory:	Calscience	Job # 9836002041
Project Name:	Burbank Airport	NA
Project Address:	2627 N. Hollywood Way, Burbank	
Project Manager:	B. Martasin	
Sampled by:	G. Baader	
Phone/Email:	310-854-6300, brian_martasin@efiglobal.com	
Phone/Email:	Robert Cheung, 510-529-5948, RCheung@Geosyntec.com	

Number	Sample ID	Lab ID	Type: Grab	Type: Discrete	Matrix: Water	Matrix: Soil	Matrix: Vapor	Matrix: Other	Preservative: Cold (4° C)	Preservative: HNO3	Preservative: NaHSO4	Preservative: HCl	Sampling Information: Date	Sampling Information: Time	Method: OCPs, EPA Method 8081A	Method: PAHs, EPA Method 8270C SIM	Method: Metals, EPA Method 6010B/7471A	Method: Lead, EPA Method 6010B	Method: Arsenic, EPA Method 6010B	Method: STLC Lead EPA Method	Method: TCLP Lead EPA Method	Method: PCBs, EPA Method 8082	Method: TPH full chain, EPA Method 8015M	Method: TPHd, TPHmo, EPA Method 8015M	Method: Composite	Method: Hold	Container: 4- or 8-ounce Glass	Container: 250-ml Poly Bottle	Container: EZ Draw (EPA 5035)	Container: Acetate Liner	Container: 1-l Amber Bottle	Turnaround Time: 24 hours	Turnaround Time: 48 hours	Turnaround Time: Normal
1	D-DU1-SSG-06-035			X		X			X				3/3/17	8:57		~~X~~	~~X~~	~~B~~				~~X~~		~~X~~		X								~~X~~ B
2	-085												"	9:03									B											
3	-155												"	9:08		X	X					X		X										X
4	-255												"	9:15		X	X					X		X						3/3/17				X
5	D-DU1-SSG-07-035												"	10:00																				
6	-085												"	10:02																				
7	-155												"	10:18		X	X					X		X										X
8	-255												"	10:55		X	X					X		X						3/3/17				X
9	D-DU1-SSG-08-035												"	7:20																				
10	-085												"	7:25																				
11	-155												"	7:42		X	X					X		X										X
12	-255												"	7:55		X	X					X		X						3/3/17	X			
13	D-DU1-S-SG-09-3S			X		X			X				3/2/17	14:30																				
14	D-DU1-S-SG-09-8S			X		X			X				3/2/17	14:50																				
15	D-DU1-S-SG-09-15S 3/3/17			X		X			X				3/2/17	14:58		X	X					X		X										X
16	D-DU1-S-SG-09-25S			X		X			X				3/2/17	16:10		X	X					X		X										X

Relinquished by	Date	Time	Received by	Date	Time
	3/3/17			3/3/17	

Remarks: 3' and 8' samples 3/3/17
Sample condition (circle): Chilled Intact
Hold until all D-DU1 samples received for 15ft composites.
Then take sample from each liner in center unless otherwise indicated on liner

Hold remaining portions of 15-foot samples (after extraction) pending results of the shallower ISM samples

Return to Contents

EFI Global

EFI Global
5261 West Imperial Highway, Los Angeles C., 90045
Tel: (310) 854-6300 Fax: (310) 854-0199 www.AndersenEnviro.com

Chain-of-Custody Record

Analytical Laboratory:	Calscience	Job # 9836002041
Project Name:	Burbank Airport	NA
Project Address:	2627 N. Hollywood Way, Burbank	
Project Manager:	B. Martasin	
Sampled by:	G. Baader	
Phone/Email:	310-854-6300, brian_martasin@efiglobal.com	
Phone/Email:	Robert Cheung, 510-529-5948, RCheung@Geosyntec.com	

17-03-0335

Number	Sample ID	Lab ID	Type: Grab	Type: Discrete	Matrix: Water	Matrix: Soil	Matrix: Vapor	Matrix: Other	Preservative: Cold (4° C)	Preservative: HNO3	Preservative: NaHSO4	Preservative: HCl	Sampling Information: Date	Sampling Information: Time	Method: OCPs, EPA Method 8081A	Method: PAHs, EPA Method 8270C SIM	Method: Metals, EPA Method 6010B/7471A	Method: Lead, EPA Method 6010B	Method: Arsenic, EPA Method 6010B	Method: STLC Lead EPA Method	Method: TCLP Lead EPA Method	Method: PCBs, EPA Method 8082	Method: TPH full chain, EPA Method 8015M	Method: TPHd, TPHmo, EPA Method 8015M	Method: Composite	Method: Hold	Container: 4- or 8-ounce Glass	Container: 250-ml Poly Bottle	Container: EZ Draw (EPA 5035)	Container: Acetate Liner	Container: 1-l Amber Bottle	Turnaround Time: 24 hours	Turnaround Time: 48 hours	Turnaround Time: Normal
1	D-DU1-SS6-06-035	1		X		X			X				3/3/17	8:57		X	X	B				X		X		X				X				X B
2	-085	2											"	9:03									B											
3	-155	3											"	9:08																				
4	-255	4											"	9:15																				
5	D-DU1-SS6-07-035	5											"	10:00																				
6	-085	6											"	10:02																				
7	-155	7											"	10:18																				
8	-255	8											"	10:55																				
9	D-DU1-SS6-08-035	9											"	7:20																				
10	-085	10											"	7:25																				
11	-155	11											"	7:42																				
12	-255	12											"	7:55																				

Relinquished by	Date	Time	Received by	Date	Time	Remarks
	3/3/17	16.00	EG	3/3/17	16.00	Sample condition (circle): Chilled Intact
	3/03/17	18.45		3/3/17	1845	Hold until all D-DU1 samples received for 15th composites.

Then take sample from each liner in center unless otherwise indicated on liner

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 17-03- 0335

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: EFI/ANDERSEN

DATE: 03 / 03 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 3.3 °C (w/ CF): 3.3 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 804

CUSTODY SEAL:

Cooler	☑ Present and Intact	☐ Present but Not Intact	☐ Not Present	☐ N/A	Checked by: 804
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 1110

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB ☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s** ☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (P) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1110

Reviewed by: 1017

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 17-03- 0335

SAMPLE ANOMALY REPORT

DATE: 03 / 03 / 2017

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☑ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

Received sleeve not listed on CoC
(-13) D-DU1-5-5G-09-35
03/02/2017 — 14:30
(-14) D-DU1-5-5G-09-85
03/02/2017 — 14:50
(-15) D-DU1-5-5G-09-155
03/02/2017 — 14:58
(-16) D-DU1-5-5G-09-255
03/02/2017 — 16:10

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments:

Reported by: 1110

Reviewed by: 1017

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

EFI Global

EFI Global
5261 West Imperial Highway, Los Angeles C. 90045
Tel: (310) 854-6300 Fax: (310) 854-0199 www.AndersenEnviro.com

Chain-of-Custody Record

17-03-0531

Analytical Laboratory:	Calscience	Job # 9836002041
Project Name:	Burbank Airport	NA
Project Address:	2627 N. Hollywood Way, Burbank	
Project Manager:	B. Martasin	
Sampled by:	G. Baader	
Phone/Email:	310-854-6300, brian_martasin@efiglobal.com	
Phone/Email:	Robert Cheung, 510-529-5948, RCheung@Geosyntec.com	

Number	Sample ID	Lab ID	Type: Grab	Type: Discrete	Matrix: Water	Matrix: Soil	Matrix: Vapor	Matrix: Other	Preservative: Cold (4° C)	Preservative: HNO3	Preservative: NaHSO4	Preservative: HCl	Sampling Information: Date	Sampling Information: Time	Method: OCPs, EPA Method 8081A	Method: PAHs, EPA Method 8270C SIM	Method: Metals, EPA Method 6010B/7471A	Method: Lead, EPA Method 6010B	Method: Arsenic, EPA Method 6010B	Method: STLC Lead EPA Method	Method: TCLP Lead EPA Method	Method: PCBs, EPA Method 8082	Method: TPH full chain, EPA Method 8015M	Method: TPHd, TPHmo, EPA Method 8015M	Method: Composite	Method: Hold	Container: 4- or 8-ounce Glass	Container: 250-ml Poly Bottle	Container: EZ Draw (EPA 5035)	Container: Acetate Liner	Container: 1-l Amber Bottle	Turnaround Time: 24 hours	Turnaround Time: 48 hours	Turnaround Time: Normal
1	D-DU1-S-02-3	1		X		X							3/7/17	10:30		X	X					X		X		X				X				X
2	-8	2												10:32												X								
3	-15	3												10:38												X								
4	D-DU1-S-03-3	4												9:55												X								
5	-8	5												10:02												X								
6	-15	6												10:15												X								
7	D-DU1-S-04-3	7												13:05												X								
8	-8	8												13:10												X								
9	-15	9												13:15												X								
10	D-DU1-S-05-3	10												12:40												X								
11	-8	11												12:45												X								
12	-15	12												12:50												X								
13	D-DU1-S-06-3	13												9:30												X								
14	-8	14												9:32												X								
15	15	15												9:38												X								
16	D-DU1-S-07-3	16												13:33												X								
17	-8	17												13:40												X								
18	-15	18												13:45												X								
19	D-DU1-S-08-1	19												13:55	X																			X
20	-3	20												13:55												X								

Relinquished by	Date	Time	Received by	Date	Time
[signature]	3/7/17	1600	[signature]	3/7/17	1600
[signature]	3/7/17	1750	Dannyle [illegible]	3/7/17	17:50

Remarks

Sample condition (circle): Chilled Intact

Hold until all 8 D-DU1 samples received for 15th composites.

Take samples from center of line unless otherwise indicated on line.

Return to Contents

EFI Global

EFI Global
5261 West Imperial Highway, Los Angeles C. 90045
Tel: (310) 854-6300 Fax: (310) 854-0199 www.AndersenEnviro.com

Chain-of-Custody Record

Page 22 of 22

Analytical Laboratory:	Calscience	Job # 9836002041
Project Name:	Burbank Airport	NA
Project Address:	2627 N. Hollywood Way, Burbank	
Project Manager:	B. Martasin	
Sampled by:	G. Baader	
Phone/Email:	310-854-6300, brian_martasin@efiglobal.com	
Phone/Email:	Robert Cheung, 510-529-5948, RCheung@Geosyntec.com	

0531

Number	Sample ID	Lab ID	Type: Grab	Type: Discrete	Matrix: Water	Matrix: Soil	Matrix: Vapor	Matrix: Other	Preservative: Cold (4° C)	Preservative: HNO3	Preservative: NaHSO4	Preservative: HCl	Sampling Information: Date	Sampling Information: Time	Method: OCPs, EPA Method 8081A	Method: PAHs, EPA Method 8270C SIM	Method: Metals, EPA Method 6010B/7471A	Method: Lead, EPA Method 6010B	Method: Arsenic, EPA Method 6010B	Method: STLC Lead EPA Method	Method: TCLP Lead EPA Method	Method: PCBs, EPA Method 8082	Method: TPH full chain, EPA Method 8015M	Method: TPHd, TPHmo, EPA Method 8015M	Method: Composite	Method: Hold	Container: 4- or 8-ounce Glass	Container: 250-ml Poly Bottle	Container: EZ Draw (EPA 5035)	Container: Acetate Liner	Container: 1-l Amber Bottle	Turnaround Time: 24 hours	Turnaround Time: 48 hours	Turnaround Time: Normal
21	D-DU1-S-08-8	21		X		X			X				3/7/17	14:00		X	X					X	X	X		X								X
22	-15	22		X		X			X				3/7/17	14:03		X	X					X				X								
23	D-DU1-S-09-3	23		X		X			X					14:13												X								
24	-8	24		X		X			X					14:20												X								
25	-15	25		X		X			X					14:25												X								
26	D-DU1-S-10-1	26		X		X			X					14:38	X																			X
27	-3	27		X		X			X					14:38												X								
28	-8	28		X		X			X					14:40												X								
29	-15	29		X		X			X					14:43												X								
30	D-DU1-S-11-3	30		X		X			X					9:05												X								
31	-8	31		X		X			X					9:08												X								
32	-15	32		X		X			X					9:18												X								
33	D-DU1-S-01-3	33		X		X			X					14:50												X								
34	-8	34		X		X			X					14:55												X								
35	-15	35		X		X			X					15:05												X								
36		-																																

Relinquished by	Date	Time	Received by	Date	Time
[signature]	3/7/17	1600	[signature]	3/7/17	1600
[signature]	3/7/17	1750	Danny Lee	3/7/17	17:50

Remarks

Sample condition (circle): Chilled Intact

See page 1 for notes

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 17-03- 0531

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Andersen

DATE: 03 / 7 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 2.2 °C (w/ CF): 2.2 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☑ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 1091

CUSTODY SEAL:

Cooler	☑ Present and Intact	☐ Present but Not Intact	☐ Not Present	☐ N/A	Checked by: 1091
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 1110

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC NO	☑ 3/7/17	☑ 3/7/17	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (P) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1110

Reviewed by: 689

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 17-03- 0531

SAMPLE ANOMALY REPORT

DATE: 03 / 07 / 2017

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☑ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☑ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

Collection time per label
(-8) time 13:15
(-9) time 13:10

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments:

Reported by: 1140

Reviewed by: 629

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

eurofins | Calscience

Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0589

CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received (20) solid samples on March 2-3 and 7, 2017. A total of (20) containers were received in good condition and at temperatures of 1.8°C, 3.3°C and 2.2°C, which were within the recommended temperature of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
D-DU1-S-SG-01-03S	17-03-0589-1	03/02/17 11:05	03/07/17 17:50
D-DU1-S-SG-02-03S	17-03-0589-2	03/02/17 10:24	03/07/17 17:50
D-DU1-S-SG-03-03S	17-03-0589-3	03/02/17 08:58	03/07/17 17:50
D-DU1-S-SG-04-03S	17-03-0589-4	03/02/17 08:09	03/07/17 17:50
D-DU1-S-SG-05-03S	17-03-0589-5	03/02/17 09:35	03/07/17 17:50
D-DU1-S-SG-06-03S	17-03-0589-6	03/03/17 08:57	03/07/17 17:50
D-DU1-S-SG-07-03S	17-03-0589-7	03/03/17 10:00	03/07/17 17:50
D-DU1-S-SG-08-03S	17-03-0589-8	03/03/17 07:20	03/07/17 17:50
D-DU1-S-SG-09-3S	17-03-0589-9	03/02/17 14:30	03/07/17 17:50
D-DU1-S-02-3	17-03-0589-10	03/07/17 10:30	03/07/17 17:50
D-DU1-S-03-3	17-03-0589-11	03/07/17 09:55	03/07/17 17:50
D-DU1-S-04-3	17-03-0589-12	03/07/17 13:05	03/07/17 17:50
D-DU1-S-05-3	17-03-0589-13	03/07/17 12:40	03/07/17 17:50
D-DU1-S-06-3	17-03-0589-14	03/07/17 09:30	03/07/17 17:50
D-DU1-S-07-3	17-03-0589-15	03/07/17 13:33	03/07/17 17:50
D-DU1-S-08-3	17-03-0589-16	03/07/17 13:55	03/07/17 17:50
D-DU1-S-09-3	17-03-0589-17	03/07/17 14:13	03/07/17 17:50
D-DU1-S-10-3	17-03-0589-18	03/07/17 14:38	03/07/17 17:50
D-DU1-S-11-3	17-03-0589-19	03/07/17 09:05	03/07/17 17:50
D-DU1-S-01-3	17-03-0589-20	03/07/17 14:50	03/07/17 17:50
COMPOSITE	17-03-0589-21	03/02/17 00:00	03/07/17 17:50
D-DU1-ISM1-3	17-03-0589-22	03/02/17 00:00	03/07/17 17:50
D-DU1-ISM2-3	17-03-0589-23	03/02/17 00:00	03/07/17 17:50
D-DU1-ISM3-3	17-03-0589-24	03/02/17 00:00	03/07/17 17:50
D-DU1-ISM1-3	17-03-0589-25	03/02/17 00:00	03/07/17 17:50
D-DU1-ISM2-3	17-03-0589-26	03/02/17 00:00	03/07/17 17:50
D-DU1-ISM3-3	17-03-0589-27	03/02/17 00:00	03/07/17 17:50
D-DU1-ISM1-3	17-03-0589-28	03/02/17 00:00	03/07/17 17:50
D-DU1-ISM2-3	17-03-0589-29	03/02/17 00:00	03/07/17 17:50
D-DU1-ISM3-3	17-03-0589-30	03/02/17 00:00	03/07/17 17:50

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

eurofins | Calscience

Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0589

DATA SUMMARY:

As per the chain of custody (COC), the samples were analyzed using one or more of the following methodologies:

- ASTM D-2216 (M) Moisture Content (Solid)
- EPA 6010B Title 22 Metals (Solid)
- EPA 7471A Mercury (Solid)
- EPA 8015B (M) Diesel and Motor Oil Ranges (Solid)
- EPA 8082 PCB Aroclors (Solid)
- EPA 8270C SIM PAHs (Solid)

The samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

The sample data is reported in dry weight. The instrument printouts do not reflect the correction for dry weight.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Manual integrations made to the data will be noted in the following narrative. The before and amended chromatograms have been included in the data package.

All sample and analytical QC are within acceptance criteria unless otherwise noted.

ASTM D-2216 (M) Moisture Content (Solid):

Samples -25 through -27 were analyzed for % Moisture by ASTM D-2216 (M). The samples were prepared and analyzed on 03/09/17 in batch #s H0309MOIB1 / H0309MOID1.

Balance Calibration/Verification:

All values were within acceptance criteria.

Sample and QC:

Sample -25 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Return to Contents

eurofins | Calscience

Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0589

EPA 6010B Title 22 Metals (Solid):

Samples -28 through -30 were analyzed for Metals by EPA 6010B. The samples were prepared and analyzed on 03/20/17 in batch #s 170320L02 / 170320S02 on ICP 7300.

Initial Calibration, Initial Calibration Verification, and Initial Calibration Blank:

All values were within acceptance criteria.

Continuing Calibration Verification and Continuing Calibration Blank:

All values were within acceptance criteria.

ICS A/AB:

All values were within acceptance criteria.

Sample and QC:

The method blank was non-detect and the LCS was within acceptance criteria.

A non-client sample was used for the MS/MSD; refer to the MS/MSD summary form for further information.

EPA 7471A Mercury (Solid):

Samples -25 through -27 were analyzed for Mercury by EPA 7471A. The samples were prepared and analyzed on 03/13/17 in batch #s 170313L01 / 170313S01 on Mercury 07.

Initial Calibration, Initial Calibration Verification, and Initial Calibration Blank:

All values were within acceptance criteria.

Continuing Calibration Verification and Continuing Calibration Blank:

All values were within acceptance criteria.

Sample and QC:

Sample -25 was used for the MS/MSD. The method blank was non-detect; the LCS and MS/MSD were within acceptance criteria.

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

eurofins | Calscience

Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0589

EPA 8015B (M) Diesel and Motor Oil Ranges (Solid):

Samples -25 through -27 were analyzed for Diesel and Motor Oil Ranges by EPA 8015B (M). The samples were prepared and analyzed on 03/10/17 in batch #s 170310B02A / 170310S02 on GC 48.

Initial Calibration and Initial Calibration Verification:

The initial calibration was performed on 02/13/17 on GC 48. The ICAL was within the 20% RSD acceptance criteria and the ICV was within the 30% D acceptance criteria.

For the Diesel and Motor Oil Ranges, Diesel is used for the initial calibration and spiking standards. The surrogate recoveries for the samples and QC were calculated from the 5-point surrogate curve analyzed with the Diesel ICAL.

Continuing Calibration Verification:

All values were within the 20% D acceptance criteria.

Sample and QC:

The method blank was non-detect; the LCS and all surrogate recoveries were within acceptance criteria.

A non-client sample was used for the MS/MSD; refer to the MS/MSD summary form for further information.

Manual integration was performed on the MS/MSD and MS/MSD parent sample to correct the peak and/or baseline integration.

EPA 8082 PCB Aroclors (Solid):

Samples -28 through -30 were analyzed for Polychlorinated Biphenyls Aroclors by EPA 8082. The samples were prepared on 03/13/17 and analyzed on 03/16/17 in batch #s 170313L11 / 170313S11 on GC 66.

Initial Calibration and Initial Calibration Verification:

The initial calibration was performed on 02/22/17 on GC 66. The ICAL was within the 20% RSD acceptance criteria and the ICV was within the 15% D acceptance criteria for Aroclors 1016 and 1260. Single point response factors were generated for all other Aroclors.

Continuing Calibration Verification:

All values were within the 15% D acceptance criteria.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Return to Contents

eurofins | Calscience

Case Narrative

Client Project Name: Burbank Airport / 9836002041
Work Order Number: 17-03-0589

Sample and QC:

A sample from a different work order was used for the MS/MSD. The method blank was non-detect; the LCS, MS/MSD and all surrogate recoveries were within acceptance criteria.

EPA 8270C SIM PAHs (Solid):

Samples -25 through -27 were analyzed for Polynuclear Aromatic Hydrocarbons by EPA 8270C SIM. The samples were prepared on 03/10/17 and analyzed on 03/13/17 in batch #s 170310L04 / 170310S04 on GC/MS AAA.

Initial Calibration and Initial Calibration Verification:

The initial calibration was performed on 03/13/17 on GC/MS AAA. The ICAL was within the 15% RSD acceptance criteria and the ICV was within the 20% D acceptance criteria.

Continuing Calibration Verification:

All values were within the 20% D acceptance criteria.

Tuning Standards:

All instrument tuning standards (DFTPP) were within acceptance criteria.

Sample and QC:

A sample from another work order was used for the MS/MSD. The method blank was non-detect; the LCS, MS/MSD, all surrogate and internal standard recoveries were within acceptance criteria.

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

ASTM D-2216 (M)
Moisture Content
(Solid)

RAW DATA

Return to Contents

RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)

WORK ORDER: **17-03-0589**
INSTRUMENT: N/A
EXTRACTION : N/A
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-09 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-10 15:18

DATA FILE: NONE

 # 25 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM1-3**

LCS/MB BATCH: H0309MOIB1
MS/MSD BATCH: H0309MOID1
UNITS: %

SAMPLE VOLUME / WEIGHT: DEFAULT: 1.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 1.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	5.80	1.00	5.80	0.10	

RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)

WORK ORDER: **17-03-0589**
INSTRUMENT: N/A
EXTRACTION : N/A
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-09 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-10 15:18

DATA FILE: NONE

 # 26 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM2-3**

LCS/MB BATCH: H0309MOIB1
MS/MSD BATCH: H0309MOID1
UNITS: %

SAMPLE VOLUME / WEIGHT: DEFAULT: 1.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 1.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	5.80	1.00	5.80	0.10	

Return to Contents

RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)

WORK ORDER: **17-03-0589**
INSTRUMENT: N/A
EXTRACTION : N/A
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-09 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-10 15:18

DATA FILE: NONE

 # 27 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM3-3**

LCS/MB BATCH: H0309MOIB1
MS/MSD BATCH: H0309MOID1
UNITS: %

SAMPLE VOLUME / WEIGHT: DEFAULT: 1.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 1.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	5.20	1.00	5.20	0.10	

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: ASTM D-2216 (M)

MB SAMPLE ID: **099-05-014-6734**
MB BATCH ID: H0309MOIB1
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-03-09 00:00

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-09 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-10 15:18
MATRIX: Soil

DATA FILE: NONE

CLIENT WORK ORDER: 17-03-0589

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
25		D-DU1-ISM1-3	2017-03-09 21:00	NONE
26		D-DU1-ISM2-3	2017-03-09 21:00	NONE
27		D-DU1-ISM3-3	2017-03-09 21:00	NONE

Return to Contents

RAW DATA SHEET
FOR METHOD: ASTM D-2216 (M)

WORK ORDER: **099-05-014**
INSTRUMENT: N/A
EXTRACTION : N/A
D/T EXTRACTED: 2017-03-09 00:00

DATA FILE: NONE

ANALYZED BY: 1,009
D/T ANALYZED: 2017-03-09 21:00
REVIEWED BY: 1,009
D/T REVIEWED: 2017-03-10 15:18

 # MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: H0309MOIB1
MS/MSD BATCH:
UNITS: %

SAMPLE VOLUME / WEIGHT: DEFAULT: 1.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 1.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Moisture	0.000	1.00	ND	0.10	

Return to Contents

DUPLICATE REPORT
FOR METHOD: ASTM D-2216 (M)

DUP SAMPLE ID: **17-03-0589-25**
DUP BATCH : H0309MOID1
INSTRUMENTS:
SAMPLE: N/A
DUP SAMPLE: N/A

EXTRACTION : N/A
D/T EXTRACTED :
SAMPLE: 2017-03-09 00:00
DUP SAMPLE: 2017-03-09 00:00

ANALYZED BY: 1,009
D/T ANALYZED
SAMPLE: 2017-03-09 21:00
DUP SAMPLE: 2017-03-09 21:00
REVIEWED BY: 1,009
D/T REVIEWED 2017-03-10 15:18

COMPOUND	SAMPLE CONC	DUP CONC	% RPD	CONTROL LIMIT	STATUS	QUALIFIERS
Moisture	5.800	6.100	5	0-10	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
SDP	NONE	

Moisture Content Raw Data Logbook

METHOD	MATRIX	DATE	ANALYST(S)	BATCH NUMBER
ASTM D2216(M)	☑ Solid ☐ Sediment ☐ Other_____	Preparation: 3/9/17 Analysis: ↓	1050 / 1009 ↓	MB: H0309MOIB1 Sample Duplicate: ↓ D1

CEL ID #	MASS (g) DISH	DRY DISH	MOISTURE	% MOISTURE	RL (%)	COMMENTS	ALUMINUM DISH SUPPLY ID
MB	1.86	1.86	0.00	0.00	0-10		G007-66.15

CEL ID #	% MOISTURE	RPD	CONTROL LIMIT	OVEN ID	THERMOMETER ID / CF (°C)	OVEN TEMP (°C)	BATCH PREP TIME (hh:mm)
Sample 17-03-0589-25A	5.8	5	0 – 10	☑ IO 07	☑ TSS IO7A CF: ~~-8~~ -2	Start: 103	Start: 1300
Duplicate ↓	6.1			☐ IO 08	☐ TSS IO8A CF: 1009 3/9/17	End: 103	End: 2100
Instructions: CEL ID consists of Work Order Number and Container ID				☐ _____	☐ _____ CF: _____		

CEL ID #	MASS (g) DISH	DISH + SAMPLE (as-received)	SAMPLE (as-received)	DISH + SAMPLE (oven-dried)	MOISTURE	% MOISTURE WET-BASED	% MOISTURE DRY-BASED	BALANCE ID #	RL (%)	QUAL	COMMENTS
Duplicate 17-03-0589-25A	1.86	12.81	10.95	12.14	0.67	6.1		63	0-10		
17-03-0589-25A	1.85	12.77	10.92	12.14	0.63	5.8		↓	↓		
-26A	1.88	12.57	10.69	11.95	0.62	5.8					
↓ -27A	1.85	12.78	10.93	12.21	0.57	5.2					
17-03-0590-25A	1.85	12.83	10.98	12.31	0.52	4.7					
-26A	1.86	12.74	10.88	12.25	0.49	4.5					
↓ -27A	1.86	12.02	10.16	11.56	0.46	4.5					
17-03-0591-25A	1.85	12.95	11.10	12.48	0.47	4.2					
-26A	1.86	12.90	11.04	12.42	0.48	4.3					
↓ -27A	1.88	12.69	10.81	12.23	0.46	4.3		✓	✓		

BATCH TIME
Time (24 Hr): 2100
Initials: 1050/1009

Drying / Weighing Cycle Raw Data Logbook

Analyte: ☑ Moisture Content, ☐ Solids Content, ☐ Total Dissolved Solids (TDS), ☐ Total Suspended Solids (TSS), ☐ Volatile Solids (VS), ☐ Volatile Suspended Solids (VSS), ☐ Lipid Content, ☐ Mobility Extraction (TCLP/SPLP/STLC), ☐ Other (Specified) _____

METHOD				MASS CHANGE CONTROL LIMIT	COMMENTS
☑ ASTM D2216(M)	☐ EPA 160.4	☐ SM 2540 C	☐ WET (STLC)	Moisture/Solids Content: < 0.1% of previous mass	BATCH TIME Time (24 Hr): 2100 Initials: 1050/1009
☐ EPA 160.1	☐ EPA 1311	☐ SM 2540 D	☐ Other	TDS/TSS/VS/VSS: < 4% of previous mass or 0.5 mg, whichever is less	
☐ EPA 160.2	☐ EPA 1312	☐ SM 2540 E		TCLP/SPLP/STLC: within ± 1% of previous mass	
☐ EPA 160.3	☐ SM 2540 B	☐ SOP-M489			

MATRIX	DATE	ANALYST(S)	BATCH NUMBER		COMMENTS
Solid	Preparation: 03/09/17	1050/1009	MB: H0309 ~~M~~ MOI B,	LCS/LCSD: NA	
	Analysis: ↓	↓	Sample Duplicate: ↓ 1009 3/9/17 D1	Sample Duplicate or MS/MSD: NA	

ECI ID #	OVEN ID #	CONTAINER + RESIDUE (OVEN-DRIED) CYCLE 1 MASS (g)	CYCLE 1 TIME (hh:mm) IN	CYCLE 1 TIME (hh:mm) OUT	CYCLE 2 MASS (g)	CYCLE 2 TIME (hh:mm) IN	CYCLE 2 TIME (hh:mm) OUT	CYCLE 3 MASS (g)	CYCLE 3 TIME (hh:mm) IN	CYCLE 3 TIME (hh:mm) OUT	FINAL MASS CHANGE WITHIN LIMITS	BALANCE ID #	COMMENTS
MB	10-07	1.86	1400	1800	1.86	1900	2000				(Y) N	63	
LCS											Y N		
LCSD											Y N		
MS											Y N		
MSD/Duplicate											Y N		
Duplicate 17-03-0589-25A	10-07	12.14	1400	1800	12.14	1900	2000				(Y) N	63	
17-03-0589-25A	↓	12.14	↓	↓	12.14	↓	↓				(Y) N	↓	
26A	↓	11.95	↓	↓	11.95	↓	↓				(Y) N	↓	
27A	↓	12.21	↓	↓	12.21	↓	↓				(Y) N	↓	
17-03-0590-25A	↓	12.31	↓	↓	12.31	↓	↓				(Y) N	↓	
26A	↓	12.25	↓	↓	12.25	↓	↓				(Y) N	↓	
27A	↓	11.56	↓	↓	11.56	↓	↓				(Y) N	↓	
17-03-0591-25A	↓	12.48	↓	↓	12.48	↓	↓				(Y) N	↓	
26A	↓	12.42	↓	↓	12.42	↓	↓				(Y) N	↓	
27A	↓	12.23	↓	↓	12.23	↓	↓				(Y) N	↓	
											Y N		
											Y N		
											Y N		
											Y N		
											Y N		
											Y N		
											Y N		
											Y N		
											Y N		
											Y N		
											Y N		

BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 3/9/17 Initials: 1111

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (If not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	Y N	IO Lab
	100	100.01	98.00 - 102.00	Y N	
	500	500.03	498.00 - 502.00	Y N	
62	0.002	.0025	0.00180 - 0.00220	Y N	IO Lab
	1	99.9969	0.99900 - 1.00100	Y N	
	100	1.0001	99.90000 - 100.10000	Y N	
26	1	1.01	0.98 - 1.02	Y N	IO Lab
	100	100.00	98.00 - 102.00	Y N	
55	1	1.01	0.98 - 1.02	Y N	IO Lab
	100	99.97	98.00 - 102.00	Y N	
	500	499.85	498.00 - 502.00	Y N	
11	1	1.00	0.98 - 1.02	Y N	IO Lab
	100	100.01	98.00 - 102.00	Y N	
66	0.002	.0020	0.00180 - 0.00220	Y N	Metals
	1	.9993	0.99900 - 1.00100	Y N	
	100	100.0011	99.90000 - 100.10000	Y N	
53	0.1	.10	0.09 - 0.11	Y N	Extractions
	1	1.00	0.98 - 1.02	Y N	
	100	99.99	98.00 - 102.00	Y N	
	500	499.95	498 - 502	Y N	
~~20~~ 76	1	1.10	0.98 - 1.02	Y N	Extractions
	100	99.83	98.00 - 102.00	Y N	
	500	499.18	498.00 - 502.00	Y N	
57	100	100.0	98.0-102.0	Y N	Extractions
	1000	1000.0	998.0-1002.0	Y N	
	2000	2000.0	1998.0-2002.0	Y N	
52	0.002	.0020	0.0018 - 0.0022	Y N	Extractions
	1	.9995	0.9990 - 1.0010	Y N	
	100	99.9969	99.9000 - 100.1000	Y N	
71	0.002	.0019 ~~.9993~~ 1111	0.0018 - 0.0022	Y N	BOD Room
	1	.9994	0.9990 - 1.0010	Y N	
	100	99.9965	99.9000 - 100.1000	Y N	
63	0.1	.10	0.09 - 0.11	Y N	BOD Room
	100	100.01	98.00 - 102.00	Y N	
64	1	1.00	0.98 - 1.02	Y N	Metals Clean Room
	10	10.00	9.8 - 10.2	Y N	
	100	100.00	98.00 - 102.00	Y N	
72	0.002	.0019	0.0018 - 0.0022	Y N	Oil & Grease Room
	1	.9993	0.9990 - 1.0010	Y N	
	100	100.0010	99.9000 - 100.1000	Y N	
30	1	.99	0.98 - 1.02	Y N	Oil & Grease Room
	100	99.97	98.00 - 102.00	Y N	

Return to Contents

EPA 8015B (M)

Diesel + Motor Oil

RAW DATA

Return to Contents

EPA 8015B (M)

Diesel + Motor Oil

INITIAL CALIBRATION

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8015B (M)

ICAL WORK ORDER: 099-14-354-32-5901
ICAL BATCH ID: 170213I006
INSTRUMENT: GC 48

ANALYZED BY: 972
ICAL D/T ANALYZED: 2017-02-13 13:59
REVIEWED BY:
D/T REVIEWED:

COMPOUND	COMP. TYPE	CALIB. MODEL	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD CL	R or R^2	R or R^2 CL	STATUS
TPH as Diesel	C	Avg RF	892.699	857.105	847.770	863.164	853.773					862.902	0.00	2	0-20			PASS

Data Files:

Level #	D/T Analyzed	Data File
1	2017-02-13 13:59	T:\GC_48\GC_48_data\2017\170213\17021305.d\Report.txt17021305
2	2017-02-13 14:20	T:\GC_48\GC_48_data\2017\170213\17021306.d\Report.txt17021306
3	2017-02-13 14:40	T:\GC_48\GC_48_data\2017\170213\17021307.d\Report.txt17021307
4	2017-02-13 15:01	T:\GC_48\GC_48_data\2017\170213\17021308.d\Report.txt17021308
5	2017-02-13 15:22	T:\GC_48\GC_48_data\2017\170213\17021309.d\Report.txt17021309

LR - E: Linear Regression (Equal Weight) LR - IC: Linear Regression (Inverse Concentration Weight) LR - ISC: Linear Regression (Inverse Square Concentration Weight)
Avg RF: Average Response Factor QR - E: Quadratic Regression (Equal Weight)

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8015B (M)

ICV WORK ORDER: **099-14-354-32-5901**
INITIAL BATCH: 170213I006
INSTRUMENT: GC 48

ANALYZED BY: 972
D/T ANALYZED:
INITIAL: 2017-02-13 13:59
ICV: 2017-02-13 15:43
REVIEWED BY:
D/T REVIEWED:

DATA FILE: T:\GC_48\GC_48_data\2017\170213\17021310.d\Report.txt17021310

COMPOUND NAME	COMP TYPE	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
TPH as Diesel	C	Avg Resp	0.00	862.902	831.854	-		4	0-30	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

Report Date : 14-Feb-2017 09:51

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 17-JAN-2017 12:12
End Cal Date : 13-FEB-2017 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_48.i/170213.b/8015d.m
Cal Date : 14-Feb-2017 09:51 uj3k
Curve Type : Average

Calibration File Names:
Level 1: /chem1/SVOA/GC_48.i/170118.b/17011805.d
Level 2: /chem1/SVOA/GC_48.i/170118.b/17011806.d
Level 3: /chem1/SVOA/GC_48.i/170118.b/17011807.d
Level 4: /chem1/SVOA/GC_48.i/170118.b/17011808.d
Level 5: /chem1/SVOA/GC_48.i/170118.b/17011809.d

Compound	5.000 Level 1	200.000 Level 2	400.000 Level 3	800.000 Level 4	1600.000 Level 5	RRF	% RSD
S 15 TPH as Diesel rf	892699	857105	847770	863164	853773	862902	2

Return to Contents

Report Date : 20-Feb-2017 13:26 Page 2

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 17-JAN-2017 12:12
End Cal Date : 13-FEB-2017 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_48.i/170213.b/8015d.m
Cal Date : 20-Feb-2017 13:26 uj3k
Curve Type : Average

Compound	5.000 Level 1	200.000 Level 2	400.000 Level 3	800.000 Level 4	1600.000 Level 5	RRF	% RSD
S 28 Diesel Range Organics rf	741689	785171	777652	804387	795931	780966	3
S 34 Oil Range Organics rf	800427	801093	747522	785349	765303	779939	3
S 38 TPH as Motor Oil rf	867299	810674	749678	787600	766738	796398	6

Return to Contents

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 17-JAN-2017 12:12
End Cal Date : 13-FEB-2017 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_48.i/170213.b/8015d.m
Cal Date : 14-Feb-2017 09:51 uj3k
Curve Type : Average

Compound	5.000 Level 1	200.000 Level 2	400.000 Level 3	800.000 Level 4	1600.000 Level 5	RRF	% RSD
S 203 Micro Motor Oil rf	614884	800734	774541	745070	769736	740993	10
$ 93 n-Octacosane	1039842	882244	860299	871137	862226	903149	9

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021310.d
Report Date: 02/14/2017 09:44

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_48.i
Sample Name: ICV D400 C28 50 L102516G
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_48.i/170213.b/8015d.m

Injection Date and Time: 13-FEB-2017 15:43
Initial Calibration Date(s): 17-JAN-2017 13-FEB-2017
Initial Calibration Time(s): 12:12 17:25

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
TPH as Diesel	862902.091	831854.003	0.00	4	15	Averaged
Diesel Range Organics	780965.983	789098.883	0.00	-1	15	Averaged

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
n-Octacosane	903149.426	858396.120	0.00	5	20	Averaged

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021305.d
Report Date: 14-Feb-2017 09:37

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170213.b/17021305.d
Lab Smp Id:
Inj Date : 13-FEB-2017 13:59
Operator : 421 Inst ID: GC_48.i
Smp Info : ICAL D5 C28 0.625 L102516B
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170213.b/8015d.m
Meth Date : 14-Feb-2017 09:36 uj3k Quant Type: ESTD
Cal Date : 18-JAN-2017 14:13 Cal File: 17011805.d
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ICAL_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.917	8.292		4463495	5.00000	5.172
S 28 Diesel Range Organics	2.588	8.292		3708445	5.00000	4.748(a)
$ 93 n-Octacosane	8.094	8.096	-0.002	649901	0.62500	0.719

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021305.d
Date : 13-FEB-2017 13:59
Client ID:
Sample Info: ICAL D5 C28 0.625 L102516B

Instrument: GC_48.i

Operator: 421
Column diameter: 2.00

Column phase:

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021306.d
Report Date: 14-Feb-2017 09:37

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170213.b/17021306.d
Lab Smp Id:
Inj Date : 13-FEB-2017 14:20
Operator : 421 Inst ID: GC_48.i
Smp Info : ICAL D200 C28 25 L102516C
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170213.b/8015d.m
Meth Date : 14-Feb-2017 09:36 uj3k Quant Type: ESTD
Cal Date : 18-JAN-2017 14:33 Cal File: 17011806.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ICAL_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.917-8.292			171420918	200.000	198.656
S 28 Diesel Range Organics	2.588-8.292			157034186	200.000	201.076
$ 93 n-Octacosane	8.097	8.094	0.003	22056092	25.0000	24.421

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021306.d
Date : 13-FEB-2017 14:20
Client ID:
Sample Info: ICAL D200 C28 25 L102516C

Instrument: GC_48.i

Operator: 421
Column diameter: 2.00

Column phase:

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021307.d
Report Date: 14-Feb-2017 09:37

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170213.b/17021307.d
Lab Smp Id:
Inj Date : 13-FEB-2017 14:40
Operator : 421 Inst ID: GC_48.i
Smp Info : ICAL D400 C28 50 L102516D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170213.b/8015d.m
Meth Date : 14-Feb-2017 09:36 uj3k Quant Type: ESTD
Cal Date : 18-JAN-2017 14:54 Cal File: 17011807.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ICAL_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.917	-8.292		339108003	400.000	392.985
S 28 Diesel Range Organics	2.588	-8.292		311060790	400.000	398.302
$ 93 n-Octacosane	8.100	8.097	0.003	43014960	50.0000	47.627

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021307.d
Date : 13-FEB-2017 14:40
Client ID:
Sample Info: ICAL D400 C28 50 L102516D

Column phase:

Instrument: GC_48.i

Operator: 421
Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021308.d
Report Date: 14-Feb-2017 09:37

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170213.b/17021308.d
Lab Smp Id:
Inj Date : 13-FEB-2017 15:01
Operator : 421 Inst ID: GC_48.i
Smp Info : ICAL D800 C28 100 L102516E
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170213.b/8015d.m
Meth Date : 14-Feb-2017 09:36 uj3k Quant Type: ESTD
Cal Date : 18-JAN-2017 15:14 Cal File: 17011808.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ICAL_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.917-8.292			690531280	800.000	800.242
S 28 Diesel Range Organics	2.588-8.292			643509899	800.000	823.992
$ 93 n-Octacosane	8.106	8.100	0.006	87113694	100.000	96.455

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021308.d
Date : 13-FEB-2017 15:01
Client ID:
Sample Info: ICAL D800 C28 100 L102516E

Instrument: GC_48.i

Operator: 421
Column diameter: 2.00

Column phase:

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021309.d
Report Date: 14-Feb-2017 09:37

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170213.b/17021309.d
Lab Smp Id:
Inj Date : 13-FEB-2017 15:22
Operator : 421 Inst ID: GC_48.i
Smp Info : ICAL D1600 C28 200 L102516F
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170213.b/8015d.m
Meth Date : 14-Feb-2017 09:36 uj3k Quant Type: ESTD
Cal Date : 18-JAN-2017 15:35 Cal File: 17011809.d
Als bottle: 9 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ICAL_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.917-8.292			1366036416	1600.00	1583.072
S 28 Diesel Range Organics	2.588-8.292			1273489020	1600.00	1630.658(A)
$ 93 n-Octacosane	8.116	8.106	0.010	172445142	200.000	190.937

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021309.d
Date : 13-FEB-2017 15:22
Client ID:
Sample Info: ICAL D1600 C28 200 L102516F

Instrument: GC_48.i

Operator: 421
Column diameter: 2.00

Column phase:

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021310.d
Report Date: 14-Feb-2017 09:37

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170213.b/17021310.d
Lab Smp Id:
Inj Date : 13-FEB-2017 15:43
Operator : 421 Inst ID: GC_48.i
Smp Info : ICV D400 C28 50 L102516G
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170213.b/8015d.m
Meth Date : 14-Feb-2017 09:36 uj3k Quant Type: ESTD
Cal Date : 18-JAN-2017 15:35 Cal File: 17011809.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.917	8.292		332741601	400.000	385.607
S 28 Diesel Range Organics	2.588	8.292		315639553	400.000	404.165
$ 93 n-Octacosane	8.100	8.116	-0.016	42919806	50.0000	47.522

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021310.d
Date : 13-FEB-2017 15:43
Client ID:
Sample Info: ICV D400 C28 50 L102516G

Instrument: GC_48.i

Operator: 421
Column diameter: 2.00

Column phase:

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170213/17021302.d
Page Number :
Operator : 421
Instrument : GC 48
Sample Name : C6-C44 L110816A

Acquired on : 13 FEB 17 12:58
Report Created on: 14-FEB-17 09:53
Software Revision: Target 3.50

Vial Number : Vial 2
Injection Number : 2
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170213.b/17021302.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
0.917	4.301	3.384	2374798.00	0.00	C6-Hexane
1.132	4.301	3.169	4094950.00	0.00	C7-Heptane
1.578	4.301	2.723	5199619.00	0.00	C8-Octane
2.079	4.301	2.222	5350982.00	0.00	C9-Nonane
2.588	4.301	1.713	5472234.00	0.00	C10-Decane
3.065	4.301	1.236	5575503.00	0.00	C11-Undecane
3.508	4.301	0.793	5494648.00	0.00	C12-Dodecane
3.921	4.301	0.380	5685179.00	0.00	C13-Tridecane
4.308	4.301	-0.007	5449794.00	0.00	C14-Tetradecane
4.673	4.301	-0.372	5525864.00	0.00	C15-pentadecane
5.017	4.301	-0.716	6558176.00	0.00	C16-Hexadecane
5.343	4.301	-1.042	8348624.00	0.00	C17-Heptadecane
5.653	4.301	-1.352	9092591.00	0.00	C18-Octadecane
5.947	4.301	-1.646	9433963.00	0.00	C19-Nonadecane
6.227	4.301	-1.926	9787308.00	0.00	C20-Eicosane
6.496	4.301	-2.195	9672856.00	0.00	C21-Heneicosane
6.753	4.301	-2.452	9897117.00	0.00	C22-Docosane
7.000	4.301	-2.699	9785563.00	0.00	C23-Tricosane
7.237	4.301	-2.936	9965238.00	0.00	C24-Tetracosane
7.464	4.301	-3.163	9879363.00	0.00	C25-Pentacosane
7.682	4.301	-3.381	10270719.00	0.00	C26-Hexacosane
7.893	4.301	-3.592	10045131.00	0.00	C27-Heptacosane
8.096	4.301	-3.795	10369215.00	11.48	n-Octacosane
8.292	4.301	-3.991	10296448.00	0.00	C29-Nonacosane
8.482	4.301	-4.181	10431148.00	0.00	C30-Triacontane
8.665	4.301	-4.364	10698502.00	0.00	C31-Hentriacontane
8.844	4.301	-4.543	10842135.00	0.00	C32-Dotricacontane
9.016	4.301	-4.715	10759149.00	0.00	C33-Tritriacontane
9.185	4.301	-4.884	9866602.00	0.00	C34-Tetratriacontane
9.375	4.301	-5.074	8704463.00	0.00	C35-Pentatriacontane
9.593	4.301	-5.292	7648213.00	0.00	C36-Hexatriacontane
9.846	4.301	-5.545	5761120.00	0.00	C37-Heptatriacontane
10.140	4.301	-5.839	4371797.00	0.00	C38-Octatriacontane
10.484	4.301	-6.183	2916715.00	0.00	C39-Nonatriacontane
10.892	4.301	-6.591	1708051.00	0.00	C40-Tetracontane
13.421	4.301	-9.120	702481.00	0.00	C44-Tetratetracontane

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170213.b/17021302.d
Date : 13-FEB-2017 12:58
Client ID:
Sample Info: C6-C44 L110816A

Instrument: GC_48.i

Operator: 421
Column diameter: 2.00

Column phase:

Return to Contents

EPA 8015B (M)

Diesel + Motor Oil

SAMPLE DATA

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8015B (M)

WORK ORDER: **17-03-0589**
INSTRUMENT: GC 48
EXTRACTION : EPA 3550B
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-10 23:07
REVIEWED BY:
D/T REVIEWED: M

DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031042.d\Report.txt17031042

 # 25 **CLIENT SAMPLE NUMBER: D-DU1-ISM1-3**

LCS/MB BATCH: 170310B02A
MS/MSD BATCH: 170310S02
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 10.00 g / ACTUAL: 9.99 g
FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
TPH as Diesel	0.610	1.00	ND	5.0	
TPH as Motor Oil	0.560	1.00	ND	5.0	

Return to Contents

```
==============================================================================
                            External Standard Report
==============================================================================

Data File Name    : /chem1/SVOA/GC_48/170310/17031042.d
Page Number       :
Operator          : 682                          Vial Number      : Vial 42
Instrument        : GC 48                        Injection Number : 42
Sample Name       : 17-03-0589-25                Sequence Line    : 0
                                                 Instrument Method: 8015d.m
Acquired on       : 10 MAR 17  23:07
Report Created on: 15-MAR-17  18:08              Compound Sublist : all
Software Revision: Target 3.50

Sig. 1 in  /chem1/SVOA/GC_48.i/170310.b/17031042.d
RT Range       Exp RT    DLT RT    Response            ppm                Compound
|-------------|---------|---------|------------------|---------------|---------------------|
        8.079     4.301    -3.778        39574268.00           43.82  n-Octacosane
 2.572- 8.272                              526354.19            0.61  TPH as Diesel
 5.322-13.306                              480936.23            0.56  TPH as Motor Oil
End of File
```

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031042.d

Date : 10-MAR-2017 23:07

Client ID:

Sample Info: 17-03-0589-25

Column phase:

Instrument: GC_48.i

Operator: 682

Column diameter: 2.00

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8015B (M)

WORK ORDER:	**17-03-0589**	ANALYZED BY:	972
INSTRUMENT:	GC 48	D/T ANALYZED:	2017-03-10 23:27
EXTRACTION :	EPA 3550B	REVIEWED BY:	
D/T EXTRACTED:	2017-03-10 00:00	D/T REVIEWED:	

DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031043.d\Report.txt17031043

 # 26 **CLIENT SAMPLE NUMBER: D-DU1-ISM2-3**

LCS/MB BATCH:	170310B02A	SAMPLE VOLUME / WEIGHT:	DEFAULT: 10.00 g / ACTUAL: 10.10 g
MS/MSD BATCH:	170310S02	FINAL VOLUME / WEIGHT:	DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
UNITS:	mg/kg	ADJUSTMENT RATIO TO PF:	0.99

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
TPH as Diesel	0.770	1.00	ND	5.0	
TPH as Motor Oil	0.620	1.00	ND	5.0	

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170310/17031043.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : 17-03-0589-26

Vial Number : Vial 43
Injection Number : 43
Sequence Line : 0
Instrument Method: 8015d.m

Acquired on : 10 MAR 17 23:27
Report Created on: 15-MAR-17 18:08
Software Revision: Target 3.50

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170310.b/17031043.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
8.079	4.301	-3.778	40866238.00	45.25	n-Octacosane
2.572- 8.272			662009.40	0.77	TPH as Diesel
5.322-13.306			533166.96	0.62	TPH as Motor Oil

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031043.d

Page 1

Date : 10-MAR-2017 23:27

Client ID:

Instrument: GC_48.i

Sample Info: 17-03-0589-26

Operator: 682

Column phase:

Column diameter: 2.00

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8015B (M)

WORK ORDER: **17-03-0589**
INSTRUMENT: GC 48
EXTRACTION : EPA 3550B
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-10 23:48
REVIEWED BY:
D/T REVIEWED:

DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031044.d\Report.txt17031044

 # 27 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM3-3**

LCS/MB BATCH: 170310B02A
MS/MSD BATCH: 170310S02
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 10.00 g / ACTUAL: 10.20 g
FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
ADJUSTMENT RATIO TO PF: 0.98

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
TPH as Diesel	0.730	1.00	ND	4.9	
TPH as Motor Oil	0.650	1.00	ND	4.9	

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170310/17031044.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : 17-03-0589-27

Acquired on : 10 MAR 17 23:48
Report Created on: 15-MAR-17 18:10
Software Revision: Target 3.50

Vial Number : Vial 44
Injection Number : 44
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170310.b/17031044.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
8.079	4.301	-3.778	43016371.00	47.63	n-Octacosane
2.572- 8.272			629088.41	0.73	TPH as Diesel
5.322-13.306			560137.84	0.65	TPH as Motor Oil

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031044.d

Date : 10-MAR-2017 23:48

Client ID:

Sample Info: 17-03-0589-27

Column phase:

Instrument: GC_48.i

Operator: 682

Column diameter: 2.00

Return to Contents

EPA 8015B (M)

Diesel + Motor Oil

QUALITY CONTROL

Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 8015B (M)

MB SAMPLE ID: **099-14-353-7**
MB BATCH ID: 170310B02A
INSTRUMENT: GC 48
EXTRACTION: EPA 3550B
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-10 15:37
REVIEWED BY: M
D/T REVIEWED:
MATRIX: Soil

DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031020.d\Report.txt17031020

CLIENT WORK ORDER: 17-03-0589

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
25		D-DU1-ISM1-3	2017-03-10 23:07	T:\GC_48\GC_48_data\2017\170310\17031042.d\Report.txt17031042
26		D-DU1-ISM2-3	2017-03-10 23:27	T:\GC_48\GC_48_data\2017\170310\17031043.d\Report.txt17031043
27		D-DU1-ISM3-3	2017-03-10 23:48	T:\GC_48\GC_48_data\2017\170310\17031044.d\Report.txt17031044

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8015B (M)

WORK ORDER: **099-14-353**
INSTRUMENT: GC 48
EXTRACTION : EPA 3550B
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-10 15:37
REVIEWED BY:
D/T REVIEWED: M

DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031020.d\Report.txt17031020

 # MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: 170310B02A
MS/MSD BATCH:
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 10.00 g / ACTUAL: 10.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
TPH as Diesel	0.470	1.00	ND	5.0	
TPH as Motor Oil	0.460	1.00	ND	5.0	

LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 8015B (M)

LCS SAMPLE ID: **099-14-353- 7**
LCS/MB BATCH ID: 170310B02A
INSTRUMENT: GC 48

EXTRACTION : EPA 3550B
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 972
D/T ANALYZED: 2017-03-10 15:57
REVIEWED BY:
D/T REVIEWED: M

DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031021.d\Report.txt17031021

COMPOUND NAME	CONC ADDED	CONC REC	%RECOVERY	%REC CONTROL LIMIT	STATUS	QUALIFIERS
TPH as Diesel	400.0	386.2	97	61-145	PASS	

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 8015B (M)

SPIKED SAMPLE ID: **17-03-0680-1**
MS/MSD BATCH: 170310S02
INSTRUMENTS:
SAMPLE: GC 48
MS: GC 48
MSD: GC 48

EXTRACTION: EPA 3550B
D/T EXTRACTED:
SAMPLE: 2017-03-10 00:00
MS: 2017-03-10 00:00
MSD: 2017-03-10 00:00

ANALYZED BY: 972
D/T ANALYZED:
SAMPLE: 2017-03-13 19:16
MS: 2017-03-10 16:17
MSD: 2017-03-10 16:38
REVIEWED BY: 27
D/T REVIEWED: 2017-03-14 14:05

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
TPH as Diesel	**986.6**	**400.0**	**400.0**	**1092**	**26**	**1040**	**13**	**64-130**	**5**	**0-15**	**FAIL**	**3G**

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17031022	T:\GC_48\GC_48_data\2017\170310\17031022.d\Report.txt
MSD	17031023	T:\GC_48\GC_48_data\2017\170310\17031023.d\Report.txt

SURROGATE RECOVERIES
FOR METHOD: EPA 8015B (M)

WORK ORDER: 17-03-0589
BATCH ID:
LCS/MB: 170310B02A
MS: 170310S02
EXTRACTION : EPA 3550B

REVIEWED BY: M
D/T REVIEWED:

25 CLIENT SAMPLE NUMBER : D-DU1-ISM1-3

INSTRUMENT: GC 48
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031042.d\Report.txt17031042

ANALYZED BY: 972
D/T ANALYZED 2017-03-10 23:07

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	88	61-145	PASS	

26 CLIENT SAMPLE NUMBER : D-DU1-ISM2-3

INSTRUMENT: GC 48
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031043.d\Report.txt17031043

ANALYZED BY: 972
D/T ANALYZED 2017-03-10 23:27

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	90	61-145	PASS	

27 CLIENT SAMPLE NUMBER : D-DU1-ISM3-3

INSTRUMENT: GC 48
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031044.d\Report.txt17031044

ANALYZED BY: 972
D/T ANALYZED 2017-03-10 23:48

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	95	61-145	PASS	

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC 48
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031020.d\Report.txt17031020

ANALYZED BY: 972
D/T ANALYZED 2017-03-10 15:37

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	84	61-145	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8015B (M)

WORK ORDER: 17-03-0589
BATCH ID:
LCS/MB: 170310B02A
MS:
EXTRACTION : EPA 3550B

REVIEWED BY:
D/T REVIEWED:

LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC 48
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031021.d\Report.txt17031021

ANALYZED BY: 972
D/T ANALYZED 2017-03-10 15:57

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	86	61-145	PASS	

MS CLIENT SAMPLE NUMBER : Matrix Spike

INSTRUMENT: GC 48
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031022.d\Report.txt17031022

ANALYZED BY: 972
D/T ANALYZED 2017-03-10 16:17

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	91	61-145	PASS	

MSD CLIENT SAMPLE NUMBER : Matrix Spike Duplicate

INSTRUMENT: GC 48
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031023.d\Report.txt17031023

ANALYZED BY: 972
D/T ANALYZED 2017-03-10 16:38

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
n-Octacosane	97	61-145	PASS	

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170310/17031020.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : MB 17031002/03

Acquired on : 10 MAR 17 15:37
Report Created on: 15-MAR-17 18:07
Software Revision: Target 3.50

Vial Number : Vial 20
Injection Number : 20
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170310.b/17031020.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
8.079	4.301	-3.778	38057045.00	42.14	n-Octacosane
2.572- 8.272			407075.18	0.47	TPH as Diesel
5.322-13.306			400229.50	0.46	TPH as Motor Oil

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031020.d

Page 1

Date : 10-MAR-2017 15:37

Client ID:

Instrument: GC_48.i

Sample Info: MB 17031002/03

Operator: 682

Column phase:

Column diameter: 2.00

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170310/17031021.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : LCS 17031002

Acquired on : 10 MAR 17 15:57
Report Created on: 13-MAR-17 10:16
Software Revision: Target 3.50

Vial Number : Vial 21
Injection Number : 21
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170310.b/17031021.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
8.079	4.301	-3.778	38727362.00	42.88	n-Octacosane
0.899- 8.272			333248250.49	386.19	TPH as Diesel
2.572- 8.272			316592109.57	405.39	Diesel Range Organics

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031021.d

Page 1

Date : 10-MAR-2017 15:57

Client ID:

Instrument: GC_48.i

Sample Info: LCS 17031002

Operator: 682

Column phase:

Column diameter: 2.00

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170310/17031022.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : MS 17-03-0680-1

Acquired on : 10 MAR 17 16:17
Report Created on: 13-MAR-17 10:16
Software Revision: Target 3.50

Vial Number : Vial 22
Injection Number : 22
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170310.b/17031022.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
8.080	4.301	-3.779	41283856.00	45.71	n-Octacosane
0.899- 8.272			942488913.92	1092.23	TPH as Diesel
5.322-13.306			806904525.79	1194.09	TPH as Motor Oil
5.322-13.306			806904525.79	1194.09	TPH as Motor Oil Range
5.632-10.830			726820015.07	1092.72	Oil Range Organics

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031022.d

Page 1

Date : 10-MAR-2017 16:17

Client ID:

Instrument: GC_48.i

Sample Info: MS 17-03-0680-1

Operator: 682

Column phase:

Column diameter: 2.00

Return to Contents

Manually Integrated Data File

Reason for manual integration: Signal not integrated by automation

Analyst responsible for change: Digitally signed by Minhchi Doan on 03/13/2017 at 10:16. Target 3.5 esignature user ID: umd6

Audit/management approval: JD

Original Data File

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170310/17031023.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : MSD 17-03-0680-1

Acquired on : 10 MAR 17 16:38
Report Created on: 13-MAR-17 10:17
Software Revision: Target 3.50

Vial Number : Vial 23
Injection Number : 23
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170310.b/17031023.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
8.083	4.301	-3.782	43846287.00	48.55	n-Octacosane
0.899- 8.272			897157152.57	1039.70	TPH as Diesel
5.322-13.306			736868923.96	1090.45	TPH as Motor Oil
5.322-13.306			736868923.96	1090.45	TPH as Motor Oil Range
5.632-10.830			662429920.66	995.91	Oil Range Organics

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031023.d

Page 1

Date : 10-MAR-2017 16:38

Client ID:

Instrument: GC_48.i

Sample Info: MSD 17-03-0680-1

Operator: 682

Column phase:

Column diameter: 2.00

Return to Contents

Manually Integrated Data File

Reason for manual integration: Signal not integrated by automation

Analyst responsible for change: Digitally signed by Minhchi Doan on 03/13/2017 at 10:17. Target 3.5 esignature user ID: umd6

Audit/management approval: JD

Original Data File

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170310/17031035.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : 17-03-0680-1

Acquired on : 10 MAR 17 20:44
Report Created on: 13-MAR-17 10:39
Software Revision: Target 3.50

Vial Number : Vial 35
Injection Number : 35
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170310.b/17031035.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
8.083	4.301	-3.782	43732734.00	48.42	n-Octacosane
0.899- 8.272			629252364.15	729.23	TPH as Diesel
5.322-13.306			694076993.95	1027.12	TPH as Motor Oil
5.322-13.306			694076993.95	1027.12	TPH as Motor Oil Range
5.632-10.830			650061664.71	977.32	Oil Range Organics

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031035.d

Date : 10-MAR-2017 20:44

Client ID:

Sample Info: 17-03-0680-1

Column phase:

Instrument: GC_48.i

Operator: 682

Column diameter: 2.00

Return to Contents

Manually Integrated Data File

Reason for manual integration: Signal not integrated by automation

Analyst responsible for change: Digitally signed by Minhchi Doan on 03/13/2017 at 10:38. Target 3.5 esignature user ID: umd6

Audit/management approval: JD

Original Data File

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170313/17031322.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : 17-03-0680-1 5X RB

Vial Number : Vial 22
Injection Number : 22
Sequence Line : 0
Instrument Method: 8015d.m

Acquired on : 13 MAR 17 19:16
Report Created on: 14-MAR-17 11:00
Software Revision: Target 3.50

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170313.b/17031322.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
8.073	4.301	-3.772	9555194.00	10.58	n-Octacosane
0.905- 8.271			168056068.23	194.76	TPH as Diesel
5.322-13.312			183793135.41	271.98	TPH as Motor Oil
5.322-13.312			183793135.41	271.98	TPH as Motor Oil Range
5.632-10.832			170763927.49	256.73	Oil Range Organics

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170313.b/17031322.d

Date : 13-MAR-2017 19:16

Client ID:

Sample Info: 17-03-0680-1 5X RB

Column phase:

Instrument: GC_48.i

Operator: 682

Column diameter: 2.00

Return to Contents

Manually Integrated Data File

Reason for manual integration: Signal not integrated by automation

Analyst responsible for change: Digitally signed by Minhchi Doan on 03/14/2017 at 11:00. Target 3.5 esignature user ID: umd6

Audit/management approval: JD

Original Data File

Return to Contents

EPA 8015B (M)

Diesel + Motor Oil

CONTINUING CALIBRATION

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8015B (M)

CCV WORK ORDER: **099-14-354-34-5901**
BATCH ID:
INITIAL: 170213I006
CCV: 170310A047
INSTRUMENT: GC 48

DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031017.d\Report.txt17031017

ANALYZED BY: 972
D/T ANALYZED:
INITIAL: 2017-02-13 13:59
CCV: 2017-03-10 14:55
REVIEWED BY:
D/T REVIEWED:

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
TPH as Diesel	C	Avg Resp	0.00	862.902	847.352			2	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Page 1 of 1
Page 1 of 1

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031017.d
Report Date: 03/13/2017 10:16

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_48.i
Sample Name: CCV D400 C28 50 L102516D
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_48.i/170310.b/8015d.m

Injection Date and Time: 10-MAR-2017 14:55
Initial Calibration Date(s): 17-JAN-2017 20-FEB-2017
Initial Calibration Time(s): 12:12 18:33

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
TPH as Diesel	862902.091	847351.960	0.00	2	15	Averaged
Diesel Range Organics	780965.983	778698.130	0.00	0	15	Averaged

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
n-Octacosane	903149.426	747344.980	0.00	17	20	Averaged

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031017.d
Report Date: 13-Mar-2017 10:01

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170310.b/17031017.d
Lab Smp Id:
Inj Date : 10-MAR-2017 14:55
Operator : 682 Inst ID: GC_48.i
Smp Info : CCV D400 C28 50 L102516D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170310.b/8015d.m
Meth Date : 13-Mar-2017 10:01 umd6 Quant Type: ESTD
Cal Date : 18-JAN-2017 15:35 Cal File: 17011809.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.899-8.272			338940784	400.000	392.791
S 28 Diesel Range Organics	2.572-8.272			311479252	400.000	398.838
$ 93 n-Octacosane	8.079	8.079	0.000	37367249	50.0000	41.374

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031017.d

Date : 10-MAR-2017 14:55

Client ID:

Sample Info: CCV D400 C28 50 L102516D

Column phase:

Instrument: GC_48.i

Operator: 682

Column diameter: 2.00

Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8015B (M)

BATCH ID: **170310A048**
INSTRUMENT: GC 48

ANALYZED BY: 972

WORK ORDER: **099-14-354**
MATRIX: Water

REVIEWED BY: 27
D/T REVIEWED: 2017-03-15 18:44

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
33	Daily Calibration	2017-03-10 21:25	T:\GC_48\GC_48_data\2017\170310\17031037.d\Report.txt17031037

WORK ORDER: **17-03-0589**
MATRIX: Soil

REVIEWED BY: 27
D/T REVIEWED: 2017-03-15 18:45

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
25	D-DU1-ISM1-3	2017-03-10 23:07	T:\GC_48\GC_48_data\2017\170310\17031042.d\Report.txt17031042
26	D-DU1-ISM2-3	2017-03-10 23:27	T:\GC_48\GC_48_data\2017\170310\17031043.d\Report.txt17031043
27	D-DU1-ISM3-3	2017-03-10 23:48	T:\GC_48\GC_48_data\2017\170310\17031044.d\Report.txt17031044

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8015B (M)

CCV WORK ORDER: **099-14-354-33-5901**
BATCH ID:
INITIAL: 170213I006
CCV: 170310A048
INSTRUMENT: GC 48

DATA FILE: T:\GC_48\GC_48_data\2017\170310\17031037.d\Report.txt17031037

ANALYZED BY: 972
D/T ANALYZED:
INITIAL: 2017-02-13 13:59
CCV: 2017-03-10 21:25
REVIEWED BY: 21
D/T REVIEWED:

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
TPH as Diesel	C	Avg Resp	0.00	862.902	887.748			-3	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Data File: /chem1/SVOA/GC_48.i/170310.b/17031037.d
Report Date: 03/13/2017 10:39

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_48.i
Sample Name: CCV D400 C28 50 L102516D
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_48.i/170310.b/8015d.m

Injection Date and Time: 10-MAR-2017 21:25
Initial Calibration Date(s): 17-JAN-2017 20-FEB-2017
Initial Calibration Time(s): 12:12 18:33

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
TPH as Diesel	862902.091	887747.828	0.00	-3	15	Averaged
Diesel Range Organics	780965.983	815665.728	0.00	-4	15	Averaged

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
n-Octacosane	903149.426	780376.800	0.00	14	20	Averaged

Return to Contents

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170310.b/17031037.d
Lab Smp Id:
Inj Date : 10-MAR-2017 21:25
Operator : 682 Inst ID: GC_48.i
Smp Info : CCV D400 C28 50 L102516D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170310.b/8015d.m
Meth Date : 13-Mar-2017 10:08 umd6 Quant Type: ESTD
Cal Date : 18-JAN-2017 15:35 Cal File: 17011809.d
Als bottle: 37 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.899-8.272			355099131	400.000	411.517
S 28 Diesel Range Organics	2.572-8.272			326266291	400.000	417.772
$ 93 n-Octacosane	8.079	8.079	0.000	39018840	50.0000	43.203

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031037.d

Page 1

Date : 10-MAR-2017 21:25

Client ID:

Instrument: GC_48.i

Sample Info: CCV D400 C28 50 L102516D

Operator: 682

Column phase:

Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031045.d
Report Date: 03/13/2017 11:03

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_48.i
Sample Name: CCV D400 C28 50 L102516D
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_48.i/170310.b/8015d.m

Injection Date and Time: 11-MAR-2017 00:28
Initial Calibration Date(s): 17-JAN-2017 20-FEB-2017
Initial Calibration Time(s): 12:12 18:33

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
TPH as Diesel	862902.091	885796.795	0.00	-3	15	Averaged
Diesel Range Organics	780965.983	813997.143	0.00	-4	15	Averaged

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
n-Octacosane	903149.426	790221.480	0.00	13	20	Averaged

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031045.d
Report Date: 13-Mar-2017 10:53

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170310.b/17031045.d
Lab Smp Id:
Inj Date : 11-MAR-2017 00:28
Operator : 682 Inst ID: GC_48.i
Smp Info : CCV D400 C28 50 L102516D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170310.b/8015d.m
Meth Date : 13-Mar-2017 10:53 umd6 Quant Type: ESTD
Cal Date : 18-JAN-2017 15:35 Cal File: 17011809.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.898	8.273		354318718	400.000	410.612
S 28 Diesel Range Organics	2.572	8.273		325598857	400.000	416.918
$ 93 n-Octacosane	8.078	8.078	0.000	39511074	50.0000	43.748

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031045.d

Date : 11-MAR-2017 00:28

Client ID:

Sample Info: CCV D400 C28 50 L102516D

Column phase:

Instrument: GC_48.i

Operator: 682

Column diameter: 2.00

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8015B (M)

CCV WORK ORDER: **099-15-295-7843-6169**
BATCH ID:
INITIAL: 170213I006
CCV: 170313A046
INSTRUMENT: GC 48

ANALYZED BY: 972
D/T ANALYZED:
INITIAL: 2017-02-13 13:59
CCV: 2017-03-13 16:56
REVIEWED BY: 27
D/T REVIEWED: 2017-03-14 14:04

DATA FILE: T:\GC_48\GC_48_data\2017\170313\17031317.d\Report.txt17031317

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
TPH as Diesel	C	Avg Resp	0.00	862.902	932.818			-8	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170313.b/17031317.d
Report Date: 03/14/2017 11:00

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_48.i
Sample Name: CCV D400 C28 50 L102516D
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_48.i/170313.b/8015d.m

Injection Date and Time: 13-MAR-2017 16:56
Initial Calibration Date(s): 17-JAN-2017 20-FEB-2017
Initial Calibration Time(s): 12:12 18:33

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
TPH as Diesel	862902.091	932817.583	0.00	-8	15	Averaged
Diesel Range Organics	780965.983	858294.638	0.00	-10	15	Averaged

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
n-Octacosane	903149.426	975655.980	0.00	-8	20	Averaged

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170313.b/17031317.d
Report Date: 14-Mar-2017 10:56

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170313.b/17031317.d
Lab Smp Id:
Inj Date : 13-MAR-2017 16:56
Operator : 682 Inst ID: GC_48.i
Smp Info : CCV D400 C28 50 L102516D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170313.b/8015d.m
Meth Date : 14-Mar-2017 10:56 umd6 Quant Type: ESTD
Cal Date : 18-JAN-2017 15:35 Cal File: 17011809.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.905	-8.271		373127033	400.000	432.409
S 28 Diesel Range Organics	2.573	-8.271		343317855	400.000	439.606
$ 93 n-Octacosane	8.080	8.080	0.000	48782799	50.0000	54.014

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170313.b/17031317.d
Date : 13-MAR-2017 16:56
Client ID:
Sample Info: CCV D400 C28 50 L102516D

Instrument: GC_48.i

Operator: 682
Column diameter: 2.00

Column phase:

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170313.b/17031323.d
Report Date: 03/14/2017 11:00

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_48.i
Sample Name: CCV D400 C28 50 L102516D
Sublist used: CCV_D-DRO.sub
Method used: /chem1/SVOA/GC_48.i/170313.b/8015d.m

Injection Date and Time: 13-MAR-2017 19:36
Initial Calibration Date(s): 17-JAN-2017 20-FEB-2017
Initial Calibration Time(s): 12:12 18:33

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
TPH as Diesel	862902.091	885955.550	0.00	-3	15	Averaged
Diesel Range Organics	780965.983	814978.725	0.00	-4	15	Averaged

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
n-Octacosane	903149.426	906139.320	0.00	0	20	Averaged

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170313.b/17031323.d
Report Date: 14-Mar-2017 10:57

Eurofins Calscience

EPA 8015B(M)

Data file : /chem1/SVOA/GC_48.i/170313.b/17031323.d
Lab Smp Id:
Inj Date : 13-MAR-2017 19:36
Operator : 682 Inst ID: GC_48.i
Smp Info : CCV D400 C28 50 L102516D
Misc Info :
Comment :
Method : /chem1/SVOA/GC_48.i/170313.b/8015d.m
Meth Date : 14-Mar-2017 10:57 umd6 Quant Type: ESTD
Cal Date : 18-JAN-2017 15:35 Cal File: 17011809.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV_D-DRO.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppm)	AMOUNTS ON-COL (ppm)
S 15 TPH as Diesel	0.905	8.271		354382220	400.000	410.686
S 28 Diesel Range Organics	2.573	8.271		325991490	400.000	417.420
$ 93 n-Octacosane	8.078	8.078	0.000	45306966	50.0000	50.165

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170313.b/17031323.d

Date : 13-MAR-2017 19:36

Client ID:

Sample Info: CCV D400 C28 50 L102516D

Column phase:

Instrument: GC_48.i

Operator: 682

Column diameter: 2.00

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170310/17031002.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : C6-C44 L110816A

Acquired on : 10 MAR 17 09:48
Report Created on: 10-MAR-17 13:52
Software Revision: Target 3.50

Vial Number : Vial 2
Injection Number : 2
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170310.b/17031002.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
0.899	4.301	3.402	2039345.00	0.00	C6-Hexane
1.113	4.301	3.188	4818578.00	0.00	C7-Heptane
1.561	4.301	2.740	9035289.00	0.00	C8-Octane
2.064	4.301	2.237	11681915.00	0.00	C9-Nonane
2.572	4.301	1.729	13427329.00	0.00	C10-Decane
3.048	4.301	1.253	14151780.00	0.00	C11-Undecane
3.490	4.301	0.811	14298501.00	0.00	C12-Dodecane
3.901	4.301	0.400	15949240.00	0.00	C13-Tridecane
4.289	4.301	0.012	14308243.00	0.00	C14-Tetradecane
4.653	4.301	-0.352	14321479.00	0.00	C15-pentadecane
4.997	4.301	-0.696	14339999.00	0.00	C16-Hexadecane
5.322	4.301	-1.021	14554701.00	0.00	C17-Heptadecane
5.632	4.301	-1.331	14429015.00	0.00	C18-Octadecane
5.927	4.301	-1.626	14552356.00	0.00	C19-Nonadecane
6.208	4.301	-1.907	14938161.00	0.00	C20-Eicosane
6.477	4.301	-2.176	14641406.00	0.00	C21-Heneicosane
6.734	4.301	-2.433	14950451.00	0.00	C22-Docosane
6.980	4.301	-2.679	14644639.00	0.00	C23-Tricosane
7.217	4.301	-2.916	14791212.00	0.00	C24-Tetracosane
7.444	4.301	-3.143	14487274.00	0.00	C25-Pentacosane
7.662	4.301	-3.361	14895870.00	0.00	C26-Hexacosane
7.873	4.301	-3.572	14514684.00	0.00	C27-Heptacosane
8.076	4.301	-3.775	14195694.00	15.72	n-Octacosane
8.272	4.301	-3.971	13549506.00	0.00	C29-Nonacosane
8.461	4.301	-4.160	12977038.00	0.00	C30-Triacontane
8.645	4.301	-4.344	12528301.00	0.00	C31-Hentriacontane
8.822	4.301	-4.521	11654112.00	0.00	C32-Dotricacontane
8.994	4.301	-4.693	10440553.00	0.00	C33-Tritriacontane
9.162	4.301	-4.861	8573428.00	0.00	C34-Tetratriacontane
9.348	4.301	-5.047	6793986.00	0.00	C35-Pentatriacontane
9.562	4.301	-5.261	5536465.00	0.00	C36-Hexatriacontane
9.807	4.301	-5.506	4226606.00	0.00	C37-Heptatriacontane
10.095	4.301	-5.794	3295080.00	0.00	C38-Octatriacontane
10.434	4.301	-6.133	2413111.00	0.00	C39-Nonatriacontane
10.830	4.301	-6.529	1919950.00	0.00	C40-Tetracontane
13.306	4.301	-9.005	3063795.00	0.00	C44-Tetratetracontane

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/17031002.d

Page 1

Date : 10-MAR-2017 09:48

Client ID:

Instrument: GC_48.i

Sample Info: C6-C44 L110816A

Operator: 682

Column phase:

Column diameter: 2.00

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170310/1703100201.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : C6-C44 L110816A

Acquired on : 11 MAR 17 00:08
Report Created on: 13-MAR-17 10:45
Software Revision: Target 3.50

Vial Number : Vial 2
Injection Number : 2
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170310.b/1703100201.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
0.898	4.301	3.403	1797501.00	0.00	C6-Hexane
1.113	4.301	3.188	4995721.00	0.00	C7-Heptane
1.561	4.301	2.740	10965926.00	0.00	C8-Octane
2.064	4.301	2.237	15580443.00	0.00	C9-Nonane
2.572	4.301	1.729	18586334.00	0.00	C10-Decane
3.047	4.301	1.254	19920736.00	0.00	C11-Undecane
3.490	4.301	0.811	20174957.00	0.00	C12-Dodecane
3.901	4.301	0.400	22999102.00	0.00	C13-Tridecane
4.289	4.301	0.012	20171156.00	0.00	C14-Tetradecane
4.653	4.301	-0.352	20230857.00	0.00	C15-pentadecane
4.998	4.301	-0.697	20191828.00	0.00	C16-Hexadecane
5.323	4.301	-1.022	20504476.00	0.00	C17-Heptadecane
5.633	4.301	-1.332	20328865.00	0.00	C18-Octadecane
5.928	4.301	-1.627	20501847.00	0.00	C19-Nonadecane
6.209	4.301	-1.908	21061557.00	0.00	C20-Eicosane
6.477	4.301	-2.176	20543291.00	0.00	C21-Heneicosane
6.735	4.301	-2.434	21054446.00	0.00	C22-Docosane
6.980	4.301	-2.679	20493850.00	0.00	C23-Tricosane
7.217	4.301	-2.916	20725088.00	0.00	C24-Tetracosane
7.444	4.301	-3.143	20209625.00	0.00	C25-Pentacosane
7.663	4.301	-3.362	20794386.00	0.00	C26-Hexacosane
7.874	4.301	-3.573	20254117.00	0.00	C27-Heptacosane
8.076	4.301	-3.775	19796461.00	21.92	n-Octacosane
8.273	4.301	-3.972	18840352.00	0.00	C29-Nonacosane
8.463	4.301	-4.162	18160203.00	0.00	C30-Triacontane
8.645	4.301	-4.344	17627628.00	0.00	C31-Hentriacontane
8.822	4.301	-4.521	16551796.00	0.00	C32-Dotricacontane
8.995	4.301	-4.694	15023385.00	0.00	C33-Tritriacontane
9.163	4.301	-4.862	12542457.00	0.00	C34-Tetratriacontane
9.348	4.301	-5.047	10159446.00	0.00	C35-Pentatriacontane
9.562	4.301	-5.261	8496943.00	0.00	C36-Hexatriacontane
9.808	4.301	-5.507	6614018.00	0.00	C37-Heptatriacontane
10.096	4.301	-5.795	5190549.00	0.00	C38-Octatriacontane
10.432	4.301	-6.131	3813094.00	0.00	C39-Nonatriacontane
10.830	4.301	-6.529	2946997.00	0.00	C40-Tetracontane
13.302	4.301	-9.001	4123977.00	0.00	C44-Tetratetracontane

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170310.b/1703100201.d

Page 1

Date : 11-MAR-2017 00:08

Client ID:

Instrument: GC_48.i

Sample Info: C6-C44 L110816A

Operator: 682

Column phase:

Column diameter: 2.00

Return to Contents

External Standard Report

Data File Name : /chem1/SVOA/GC_48/170313/17031302.d
Page Number :
Operator : 682
Instrument : GC 48
Sample Name : C6-C44 L110816A

Acquired on : 13 MAR 17 10:22
Report Created on: 13-MAR-17 12:52
Software Revision: Target 3.50

Vial Number : Vial 2
Injection Number : 2
Sequence Line : 0
Instrument Method: 8015d.m

Compound Sublist : all

Sig. 1 in /chem1/SVOA/GC_48.i/170313.b/17031302.d

RT Range	Exp RT	DLT RT	Response	ppm	Compound
0.905	4.301	3.396	2141063.00	0.00	C6-Hexane
1.118	4.301	3.183	4108934.00	0.00	C7-Heptane
1.564	4.301	2.737	5445839.00	0.00	C8-Octane
2.065	4.301	2.236	5859893.00	0.00	C9-Nonane
2.573	4.301	1.728	5940027.00	0.00	C10-Decane
3.048	4.301	1.253	6102547.00	0.00	C11-Undecane
3.490	4.301	0.811	6077378.00	0.00	C12-Dodecane
3.901	4.301	0.400	6904241.00	0.00	C13-Tridecane
4.289	4.301	0.012	7543941.00	0.00	C14-Tetradecane
4.653	4.301	-0.352	8511914.00	0.00	C15-pentadecane
4.997	4.301	-0.696	8950150.00	0.00	C16-Hexadecane
5.322	4.301	-1.021	9316945.00	0.00	C17-Heptadecane
5.632	4.301	-1.331	9458131.00	0.00	C18-Octadecane
5.927	4.301	-1.626	9511329.00	0.00	C19-Nonadecane
6.207	4.301	-1.906	9840812.00	0.00	C20-Eicosane
6.476	4.301	-2.175	10227324.00	0.00	C21-Heneicosane
6.733	4.301	-2.432	9867408.00	0.00	C22-Docosane
6.980	4.301	-2.679	10266339.00	0.00	C23-Tricosane
7.215	4.301	-2.914	9631423.00	0.00	C24-Tetracosane
7.443	4.301	-3.142	9523737.00	0.00	C25-Pentacosane
7.661	4.301	-3.360	9767308.00	0.00	C26-Hexacosane
7.871	4.301	-3.570	9545901.00	0.00	C27-Heptacosane
8.075	4.301	-3.774	9485924.00	10.50	n-Octacosane
8.271	4.301	-3.970	9239075.00	0.00	C29-Nonacosane
8.460	4.301	-4.159	8828600.00	0.00	C30-Triacontane
8.644	4.301	-4.343	8264094.00	0.00	C31-Hentriacontane
8.821	4.301	-4.520	7560732.00	0.00	C32-Dotricacontane
8.994	4.301	-4.693	6518461.00	0.00	C33-Tritriacontane
9.161	4.301	-4.860	5102016.00	0.00	C34-Tetratriacontane
9.346	4.301	-5.045	3693353.00	0.00	C35-Pentatriacontane
9.560	4.301	-5.259	2583599.00	0.00	C36-Hexatriacontane
9.808	4.301	-5.507	1660864.00	0.00	C37-Heptatriacontane
10.095	4.301	-5.794	1290261.00	0.00	C38-Octatriacontane
10.431	4.301	-6.130	969421.00	0.00	C39-Nonatriacontane
10.832	4.301	-6.531	951353.00	0.00	C40-Tetracontane
13.312	4.301	-9.011	582843.00	0.00	C44-Tetratetracontane

End of File

Return to Contents

Data File: /chem1/SVOA/GC_48.i/170313.b/17031302.d

Page 1

Date : 13-MAR-2017 10:22

Client ID:

Instrument: GC_48.i

Sample Info: C6-C44 L110816A

Operator: 682

Column phase:

Column diameter: 2.00

Return to Contents

EPA 8015B (M)

Diesel + Motor Oil

RUN LOGS

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\170213.S
Table: Rear DataPath: W:\GC_48\DATA\GC48\2017\170213\

Line	Vial	File	Name	Method	InjVolume	Acquired
1	1	17021301	BLANK	8015D		13-Feb-17, 12:38:18
2	2	17021302	C6-C44 L110816A	8015D		13-Feb-17, 12:58:51
3	3	17021303	CCV D400 C28 50 L102516D	8015D		13-Feb-17, 13:19:11
4	4	17021304	CCV MO400 L090716D	8015D		13-Feb-17, 13:39:33
5	5	17021305	ICAL D5 C28 0.625 L102516B	8015D		13-Feb-17, 13:59:53
6	6	17021306	ICAL D200 C28 25 L102516C	8015D		13-Feb-17, 14:20:16
7	7	17021307	ICAL D400 C28 50 L102516D	8015D		13-Feb-17, 14:40:56
8	8	17021308	ICAL D800 C28 100 L102516E	8015D		13-Feb-17, 15:01:59
9	9	17021309	ICAL D1600 C28 200 L102516F	8015D		13-Feb-17, 15:22:44
10	10	17021310	ICV D400 C28 50 L102516G	8015D		13-Feb-17, 15:43:18
11	11	17021311	ICAL MO25 L090716B	8015D		13-Feb-17, 16:03:36
12	12	17021312	ICAL MO200 L090716C	8015D		13-Feb-17, 16:23:56
13	13	17021313	ICAL MO400 L090716D	8015D		13-Feb-17, 16:44:35
14	14	17021314	ICAL MO600 L090716E	8015D		13-Feb-17, 17:05:09
15	15	17021315	ICAL MO800 L090716F	8015D		13-Feb-17, 17:25:49
16	16	17021316	ICV MO400 L090716G	8015D		13-Feb-17, 17:46:13
17	17	17021317	CCV D400 C28 50 L102516D	8015D		13-Feb-17, 18:06:46
18	18	17021318	CCV MO400 L090716D	8015D		13-Feb-17, 18:27:23
19	19	17021319	17-02-0610-3	8015D		13-Feb-17, 18:59:39
20	20	17021320	17-02-0610-4	8015D		13-Feb-17, 19:20:11
21	21	17021321	17-02-0610-5	8015D		13-Feb-17, 19:40:20
22	22	17021322	17-02-0610-6	8015D		13-Feb-17, 20:00:44
23	23	17021323	17-02-0610-8	8015D		13-Feb-17, 20:21:26
24	24	17021324	17-02-0610-9	8015D		13-Feb-17, 20:42:06
25	25	17021325	MB 17021304/05	8015D		13-Feb-17, 21:02:16
26	26	17021326	LCS 17021304	8015D		13-Feb-17, 21:22:44
27	27	17021327	MOLCS 17021305	8015D		13-Feb-17, 21:43:34
28	28	17021328	CCV D400 C28 50 L102516D	8015D		13-Feb-17, 22:03:57
29	29	17021329	CCV MO400 L090716D	8015D		13-Feb-17, 22:24:22
30	30	17021330	17-02-1096-5 5X	8015D		13-Feb-17, 22:44:41
31	31	17021331	MS 17-02-1096-5 5X	8015D		13-Feb-17, 23:05:26
32	32	17021332	MSD 17-02-1096-5 5X	8015D		13-Feb-17, 23:26:17
33	33	17021333	MOMS 17-02-1096-5 5X	8015D		13-Feb-17, 23:46:30
34	34	17021334	MOMSD 17-02-1096-5 5X	8015D		14-Feb-17, 00:06:50
35	35	17021335	CCV D400 C28 50 L102516D	8015D		14-Feb-17, 00:27:12
36	36	17021336	CCV MO400 L090716D	8015D		14-Feb-17, 00:47:35

IOVO

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\170310.S
Table: Rear DataPath: W:\GC_48\DATA\GC48\2017\170310\

Line	Vial	File	Name	Method	InjVolume	Acquired
1	1	17031000	BLANK	8015D		10-Mar-17, 09:07:29
2	1	17031001	BLANK	8015D		10-Mar-17, 09:27:33
3	2	17031002	C6-C44 L110816A	8015D		10-Mar-17, 09:48:02
4	3	17031003	CCV D400 C28 50 L102516D A021	8015D		10-Mar-17, 10:08:53
5	4	17031004	CCV MO400 L030317D	8015D		10-Mar-17, 10:29:39
6	5	17031005	MB 7031001	8015D		10-Mar-17, 10:50:02
7	6	17031006	LCS 7031001	8015D		10-Mar-17, 11:10:16
8	7	17031007	MS 17-03-0760-1 5X	8015D		10-Mar-17, 11:30:50
9	8	17031008	MSD 17-03-0760-1 5X	8015D		10-Mar-17, 11:51:33
10	9	17031009	17-03-0760-1 5X	8015D		10-Mar-17, 12:12:21
11	10	17031010	CARRYOVER BLK	8015D		10-Mar-17, 12:32:49
12	11	17031011	MB 17030911 @ c/o	8015D		10-Mar-17, 12:53:06
13	12	17031012	LCS 17030911	8015D		10-Mar-17, 13:13:21
14	13	17031013	LCSD 17030911	8015D		10-Mar-17, 13:33:56
15	14	17031014	17-03-0674-1	8015D		10-Mar-17, 13:54:32
16	15	17031015	17-03-0674-2	8015D		10-Mar-17, 14:15:09
17	16	17031016	17-03-0674-5	8015D		10-Mar-17, 14:35:33
18	17	17031017	CCV D400 C28 50 L102516D A047	8015D		10-Mar-17, 14:55:49
19	19	17031019	CCV MO400 L030317D	8015D		10-Mar-17, 15:16:33
20	20	17031020	MB 17031002/03	8015D		10-Mar-17, 15:37:04
21	21	17031021	LCS 17031002	8015D		10-Mar-17, 15:57:16
22	22	17031022	MS 17-03-0680-1	8015D		10-Mar-17, 16:17:53
23	23	17031023	MSD 17-03-0680-1	8015D		10-Mar-17, 16:38:45
24	24	17031024	MOLCS 17031003	8015D		10-Mar-17, 16:59:00
25	25	17031025	MOMS 17-03-0680-1	8015D		10-Mar-17, 17:19:11
26	26	17031026	MOMSD 17-03-0680-1	8015D		10-Mar-17, 17:39:57
27	27	17031027	17-03-0591-25	8015D		10-Mar-17, 18:00:33
28	28	17031028	17-03-0591-26	8015D		10-Mar-17, 18:20:57
29	29	17031029	17-03-0591-27	8015D		10-Mar-17, 18:41:26
30	30	17031030	17-03-0556-1	8015D		10-Mar-17, 19:01:50
31	31	17031031	17-03-0556-2	8015D		10-Mar-17, 19:22:35
32	32	17031032	17-03-0556-3	8015D		10-Mar-17, 19:43:06
33	33	17031033	17-03-0464-3 50X	8015D		10-Mar-17, 20:03:31
34	34	17031034	17-03-0694-1	8015D		10-Mar-17, 20:23:43
35	35	17031035	17-03-0680-1	8015D		10-Mar-17, 20:44:21
36	36	17031036	17-03-0756-25	8015D		10-Mar-17, 21:05:00
37	37	17031037	CCV D400 C28 50 L102516D A048	8015D		10-Mar-17, 21:25:13
38	38	17031038	CCV MO400 L030317D	8015D		10-Mar-17, 21:45:28
39	39	17031039	17-03-0594-4 10X RB	8015D		10-Mar-17, 22:05:52
40	40	17031040	17-03-0594-14 5X RB	8015D		10-Mar-17, 22:26:43
41	41	17031041	17-03-0594-5 10X RB	8015D		10-Mar-17, 22:47:14
42	42	17031042	17-03-0589-25	8015D		10-Mar-17, 23:07:19
43	43	17031043	17-03-0589-26	8015D		10-Mar-17, 23:27:37
44	44	17031044	17-03-0589-27	8015D		10-Mar-17, 23:48:03
45	2	1703100201	C6-C44 L110816A	8015D		11-Mar-17, 00:08:24
46	45	17031045	CCV D400 C28 50 L102516D A049	8015D		11-Mar-17, 00:28:44
47	46	17031046	CCV MO400 L030317D	8015D		11-Mar-17, 00:49:12
48	47	17031047	MB 17031004/05/06/07/11	8015D		11-Mar-17, 01:09:39
49	48	17031048	LCS 17031004/05/07	8015D		11-Mar-17, 01:30:23
50	49	17031049	LCSD 17031004/05/07	8015D		11-Mar-17, 01:50:55
51	50	17031050	MO LCS 17031006/11	8015D		11-Mar-17, 02:11:05
52	51	17031051	MO LCSD 17031006/11	8015D		11-Mar-17, 02:31:30
53	52	17031052	MB 17031004 S	8015D		11-Mar-17, 02:52:11
54	53	17031053	LCS 17031004 S	8015D		11-Mar-17, 03:12:52
55	54	17031054	LCSD 17031004 S	8015D		11-Mar-17, 03:33:19
56	55	17031055	17-03-0786-1	8015D		11-Mar-17, 03:53:44
57	56	17031056	17-03-0761-1	8015D		11-Mar-17, 04:13:57
58	57	17031057	17-03-0673-1	8015D		11-Mar-17, 04:34:11
59	58	17031058	17-03-0673-2	8015D		11-Mar-17, 04:54:34
60	59	17031059	17-03-0673-3	8015D		11-Mar-17, 05:14:49

Reviewed/Assign to Logbook Date: 3/13/17
Chemist ID: 682
Analysis: 8015
Instrument ID: 48
Logbook Page: 44

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\170313.S
Table: Rear DataPath: W:\GC_48\DATA\GC48\2017\170313\

Line	Vial	File	Name	Method	InjVolume	Acquired
1	1	17031300	BLANK	8015D		13-Mar-17, 09:41:25
2	1	17031301	BLANK	8015D		13-Mar-17, 10:02:04
3	2	17031302	C6-C44 L110816A	8015D		13-Mar-17, 10:22:22
4	3	17031303	CCV D400 C28 50 L102516D A021	8015D		13-Mar-17, 10:42:48
5	4	17031304	CCV MO400 L030317D	8015D		13-Mar-17, 11:02:58
6	5	17031305	MB 17030911 RB	8015D		13-Mar-17, 11:23:22
7	6	17031306	MB 17031105	8015D		13-Mar-17, 11:44:04
8	7	17031307	LCS 17031105	8015D		13-Mar-17, 12:04:42
9	8	17031308	17-03-0786-1 5X RB	8015D		13-Mar-17, 12:25:06
10	9	17031309	BLK	8015D		13-Mar-17, 12:45:33
11	10	17031310	17-03-0594-3 2X RB @ 5X total 10X	8015D		13-Mar-17, 13:05:50
12	12	17031312	17-03-0761-1 5X RB	8015D		13-Mar-17, 14:07:42
13	11	17031311	17-03-0594-14 10X RB	8015D		13-Mar-17, 14:30:14
14	15	17031315	17-03-0772-1 RB	8015D		13-Mar-17, 14:50:46
15	16	17031316	17-03-0594-3 10X RB	8015D		13-Mar-17, 16:36:45
16	17	17031317	CCV D400 C28 50 L102516D A046	8015D		13-Mar-17, 16:56:44
17	18	17031318	CCV MO400 L030317D	8015D		13-Mar-17, 17:17:01
18	19	17031319	17-03-0773-1 RB	8015D		13-Mar-17, 17:37:43
19	20	17031320	17-03-0773-2 RB	8015D		13-Mar-17, 17:58:13
20	21	17031321	17-03-0773-3 RB	8015D		13-Mar-17, 18:18:26
21	22	17031322	17-03-0680-1 5X RB	8015D		13-Mar-17, 19:16:43
22	23	17031323	CCV D400 C28 50 L102516D A044	8015D		13-Mar-17, 19:36:44
23	24	17031324	CCV MO400 L030317D	8015D		13-Mar-17, 19:57:00
24	25	17031325	MB 17031314/15	8015D		13-Mar-17, 20:19:03
25	26	17031326	LCS 17031314	8015D		13-Mar-17, 20:39:40
26	27	17031327	MOLCS 17031315	8015D		13-Mar-17, 21:00:02
27	28	17031328	MS 17-03-0719-6	8015D		13-Mar-17, 21:20:24
28	29	17031329	MSD 17-03-0719-6	8015D		13-Mar-17, 21:40:43
29	30	17031330	MOMS 17-03-0719-6	8015D		13-Mar-17, 22:01:20
30	31	17031331	MOMSD 17-03-0719-6	8015D		13-Mar-17, 22:22:11
31	32	17031332	17-03-0719-1 50X	8015D		13-Mar-17, 22:42:33
32	33	17031333	17-03-0719-2 50X	8015D		13-Mar-17, 23:02:51
33	34	17031334	17-03-0719-3 50X	8015D		13-Mar-17, 23:23:19
34	35	17031335	17-03-0719-4 50X	8015D		13-Mar-17, 23:43:33
35	36	17031336	17-03-0719-5 50X	8015D		14-Mar-17, 00:03:48
36	37	17031337	17-03-0719-6	8015D		14-Mar-17, 00:24:18
37	38	17031338	17-03-0719-7 50X	8015D		14-Mar-17, 00:44:52
38	39	17031339	17-03-0719-8 50X	8015D		14-Mar-17, 01:05:34
39	40	17031340	17-03-0719-9 20X	8015D		14-Mar-17, 01:26:07
40	41	17031341	17-03-0719-10 50X	8015D		14-Mar-17, 01:46:27
41	42	17031342	CCV D400 C28 50 L102516D A045	8015D		14-Mar-17, 02:06:36
42	43	17031343	CCV MO400 L030317D	8015D		14-Mar-17, 02:26:58
43	44	17031344	17-03-0719-11 20X	8015D		14-Mar-17, 02:47:18
44	45	17031345	17-03-0719-12 50X	8015D		14-Mar-17, 03:07:44
45	46	17031346	17-03-0597-1 20X	8015D		14-Mar-17, 03:28:25
46	47	17031347	17-03-0597-2 20X	8015D		14-Mar-17, 03:49:04
47	48	17031348	17-03-0597-3 20X	8015D		14-Mar-17, 04:09:43
48	49	17031349	17-03-0597-4 20X	8015D		14-Mar-17, 04:30:30
49	50	17031350	17-03-0799-1 20X	8015D		14-Mar-17, 04:51:01
50	51	17031351	17-03-0799-2 50X	8015D		14-Mar-17, 05:11:26
51	52	17031352	17-03-0799-3 50X	8015D		14-Mar-17, 05:31:52
52	53	17031353	17-03-0799-4 20X	8015D		14-Mar-17, 05:52:09
53	54	17031354	CCV D400 C28 50 L102516D	8015D		14-Mar-17, 06:12:28
54	55	17031355	CCV MO400 L030317D	8015D		14-Mar-17, 06:32:55

Analysis 8015 40
Chemist ID 682 48
Instrument ID
Logbook Page
3/14/17

Return to Contents

EPA 8015B (M)

Diesel + Motor Oil

PREPARATION LOGS

Return to Contents

Analysis Method (EPA Method): ☒ TPH 8015 ☐ NWTPH 8015

Extraction Method (EPA Method): ☐ 3510 ☐ 3511 ☒ 3550

Analyst ID#: Measuring Sample- 1158 Start Extraction- 605 Blow Down- Clean Up-

Matrix: ☒ Solid ☐ Aqueous ☐ Oil ☐ Wipe / Filter | Balance ID#: 15 Sand or Filter ID#: L6-19-20

Extraction Start Date & Time: 03/10/17 8:40 Extractions End Date & Time: 3-10-17 18:50

Drying Agent & ID#: ☒ Na_2SO_4 L6-23-20 | Spike Added to: ☒ LCS ☐ LCSD ☒ MS ☐ MSD

Surrogate Std ID# & Volume Added (mL): L011717A 0.5

Spike Std ID# & Volume Added (mL): ☒ D: L102416B 0.2 ☒ MO: L030317A 0.2 ☐ ☐ ☐

Extraction Solvent & ID#: ☒ $MeCl_2$ 507-55-1 | Elution Solvent ID# & Volume (mL): 10

Reverse Surrogate ID#: & Volume Added (mL):

Clean Up Start Date & Time: Clean Up End Date & Time:

SGC Clean Up: ☐ 1. CEL 0.5g ☐ 2. 3630 - 2g ☐ 3. 3630 – 10g | SPE Cartridge ID#:

Clean Up Solvent ID#: 1027 3/7/17 | Silica Gel ID#:

QC Batch #: ~~170310 02/03~~ Cel ID#: 170310 02/03	Test Analyte	Sample W (g) / V (mL) Initial	Final	SCG Clean Up	Comments
MB	D/MO	10.0	10	☐ NA ☐ 1 ☐ 2 ☐ 3	
LCS	D	10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
MOLCS	MO	10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
MS 17-03-0680-1A	D	10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
MSD		10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
MOMS	MO	10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
MOMSD		10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0680-1A	D/MO	9.87		☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0556-1A		10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
-2		9.99		☐ NA ☐ 1 ☐ 2 ☐ 3	
-3		10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0464-3	MO	9.99		☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0694-1	D/MO	10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0591-25	D+MO	10.1		☐ NA ☐ 1 ☐ 2 ☐ 3	
-26		10.2		☐ NA ☐ 1 ☐ 2 ☐ 3	
-27		10.0		☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0756-25A	D	10.1		☐ NA ☐ 1 ☐ 2 ☐ 3	
17-03-0589-25	D+MO	9.95		☐ NA ☐ 1 ☐ 2 ☐ 3	
-26		10.1		☐ NA ☐ 1 ☐ 2 ☐ 3	
-27		10.2		☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	
				☐ NA ☐ 1 ☐ 2 ☐ 3	

Peer Reviewed by: 605 Peer Reviewed Date: 3-10-17 Revision Date: 10/24/16

Return to Contents

EPA 6010B ICP Metals (Solid)

RAW DATA

Return to Contents

EPA 6010B ICP Metals

(Solid)

Initial Calibration

ICV/ICB
CCV/CCB
ICSA/B

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Verification

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte Name	Initial Calibration Verification				
		ICV-1		Control	
	True	Observed	%D	Limit	Comment
Silver	0.500000	0.507193	-1	+/-10	
Arsenic	5.000000	4.769165	5	+/-10	
Barium	1.000000	0.999533	0	+/-10	
Beryllium	0.500000	0.487585	2	+/-10	
Cadmium	1.500000	1.546304	-3	+/-10	
Cobalt	1.000000	1.065456	-7	+/-10	
Chromium	0.400000	0.408967	-2	+/-10	
Copper	1.000000	1.025621	-3	+/-10	
Molybdenum	2.500000	2.383715	5	+/-10	
Nickel	0.400000	0.418948	-5	+/-10	
Lead	5.000000	5.205077	-4	+/-10	
Antimony	2.000000	1.901992	5	+/-10	
Selenium	2.000000	1.906362	5	+/-10	
Thallium	2.000000	1.924998	4	+/-10	
Vanadium	1.000000	1.015628	-2	+/-10	
Zinc	1.500000	1.566558	-4	+/-10	

Report Time: 3/21/2017 9:19:17 AM

ICV-1 File: ICV-M072816C Analysis Time: 3/20/2017 10:11:01 AM

Note: Note: %D= (True-Observed) / True x 100%

01/22/2014 Revision

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Blank

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

	Initial Calibration Blank		
Analyte	ICB-1	RL	Comment
Silver	0.000798	0.005000	
Arsenic	-0.003019	0.010000	
Barium	0.000088	0.010000	
Beryllium	0.000092	0.010000	
Cadmium	0.000101	0.010000	
Cobalt	0.000280	0.010000	
Chromium	0.000640	0.010000	
Copper	-0.000199	0.010000	
Molybdenum	0.002407	0.010000	
Nickel	-0.000098	0.010000	
Lead	-0.001893	0.010000	
Antimony	0.000573	0.015000	
Selenium	0.001457	0.015000	
Thallium	0.011152	0.015000	
Vanadium	-0.000357	0.010000	
Zinc	-0.001724	0.010000	

Report Time: 3/21/2017 9:19:17 AM

ICB-1 File: ICB-R12091601 Analysis Time: 3/20/2017 10:11:58 AM

01/22/2014 Revision

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Interference Check

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Interference Check						
	ICS-A-1		ICS-AB-1				Comment
	Observed	Control Limit	True	Observed	%D	Control Limit	
Silver	-0.000369	0.005000	0.300000	0.311146	-4	+/-20	
Arsenic	0.005414	0.010000	1.000000	0.990938	1	+/-20	
Barium	0.002865	0.010000	0.300000	0.299460	0	+/-20	
Beryllium	-0.000122	0.010000	0.100000	0.101754	-2	+/-20	
Cadmium	0.001829	0.010000	0.300000	0.303771	-1	+/-20	
Cobalt	0.001128	0.010000	0.300000	0.309671	-3	+/-20	
Chromium	-0.000546	0.010000	0.300000	0.306295	-2	+/-20	
Copper	0.002198	0.010000	0.300000	0.315768	-5	+/-20	
Molybdenum	0.000461	0.010000	0.300000	0.291059	3	+/-20	
Nickel	0.000180	0.010000	0.300000	0.311197	-4	+/-20	
Lead	-0.007802	0.010000	1.000000	1.005781	-1	+/-20	
Antimony	-0.011962	0.015000	1.000000	0.940184	6	+/-20	
Selenium	-0.004081	0.015000	0.500000	0.495416	1	+/-20	
Thallium	-0.001133	0.015000	1.000000	0.986393	1	+/-20	
Vanadium	0.001677	0.010000	0.300000	0.303227	-1	+/-20	
Zinc	0.003566	0.010000	0.300000	0.310764	-4	+/-20	

Report Time: 3/21/2017 9:19:17 AM

ICS-A-1 File: ICS_A - M110116B Analysis Time: 3/20/2017 10:14:33 AM

ICS-AB-1 File: ICS_AB - M110116A Analysis Time: 3/20/2017 10:15:24 AM

01/22/2014 Revision

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Verification

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte Name	Initial Calibration Verification				
	True	ICV-2		Control Limit	Comment
		Observed	%D		
Silver	0.500000	0.502252	0	+/-10	
Arsenic	5.000000	4.995696	0	+/-10	
Barium	1.000000	1.031920	-3	+/-10	
Beryllium	0.500000	0.518831	-4	+/-10	
Cadmium	1.500000	1.507281	0	+/-10	
Cobalt	1.000000	1.037660	-4	+/-10	
Chromium	0.400000	0.401154	0	+/-10	
Copper	1.000000	1.012308	-1	+/-10	
Molybdenum	2.500000	2.479921	1	+/-10	
Nickel	0.400000	0.409503	-2	+/-10	
Lead	5.000000	5.118256	-2	+/-10	
Antimony	2.000000	1.982458	1	+/-10	
Selenium	2.000000	1.999486	0	+/-10	
Thallium	2.000000	2.007820	0	+/-10	
Vanadium	1.000000	0.995452	0	+/-10	
Zinc	1.500000	1.531690	-2	+/-10	

Report Time: 3/21/2017 9:19:17 AM

ICV-2 File: ICV-M072816C Analysis Time: 3/20/2017 2:25:33 PM

Note: Note: %D= (True-Observed) / True x 100%

01/22/2014 Revision

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Initial Calibration Blank

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

	Initial Calibration Blank		
Analyte	ICB-2	RL	Comment
Silver	0.000596	0.005000	
Arsenic	0.001085	0.010000	
Barium	-0.000031	0.010000	
Beryllium	0.000054	0.010000	
Cadmium	0.000289	0.010000	
Cobalt	0.000168	0.010000	
Chromium	0.001398	0.010000	
Copper	-0.000667	0.010000	
Molybdenum	-0.000468	0.010000	
Nickel	-0.000854	0.010000	
Lead	0.002883	0.010000	
Antimony	0.009094	0.015000	
Selenium	0.004188	0.015000	
Thallium	-0.002828	0.015000	
Vanadium	0.000074	0.010000	
Zinc	0.001645	0.010000	

Report Time: 3/21/2017 9:19:17 AM

ICB-2 File: ICB-R12091601 Analysis Time: 3/20/2017 2:26:30 PM

01/22/2014 Revision

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-1		CCV-2		Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.361932	3	0.365834	2	+/-10	
Arsenic	3.750000	3.773792	-1	3.826395	-2	+/-10	
Barium	7.500000	7.730295	-3	7.791315	-4	+/-10	
Beryllium	0.562500	0.577659	-3	0.580584	-3	+/-10	
Cadmium	0.750000	0.759659	-1	0.764762	-2	+/-10	
Cobalt	1.875000	1.911624	-2	1.923164	-3	+/-10	
Chromium	0.600000	0.596956	1	0.602950	0	+/-10	
Copper	0.937500	0.913673	3	0.922725	2	+/-10	
Molybdenum	0.600000	0.595268	1	0.604187	-1	+/-10	
Nickel	0.600000	0.599758	0	0.604752	-1	+/-10	
Lead	3.750000	3.847749	-3	3.871509	-3	+/-10	
Antimony	4.500000	4.470056	1	4.524202	-1	+/-10	
Selenium	1.500000	1.524924	-2	1.542518	-3	+/-10	
Thallium	1.500000	1.520978	-1	1.540376	-3	+/-10	
Vanadium	1.875000	1.849408	1	1.861369	1	+/-10	
Zinc	2.500000	2.577827	-3	2.573945	-3	+/-10	

Report Time: 3/21/2017 9:19:17 AM

CCV-1 File: CCV= STD3x0.5 Analysis Time: 3/20/2017 4:51:58 PM

CCV-2 File: CCV= STD3x0.5 Analysis Time: 3/20/2017 5:11:39 PM

Note: Note: %D= (True-Observed) / True x 100%

01/22/2014 Revision

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-1	CCB-2	RL	Qualifier
Silver	0.000766	0.001222	0.005000	
Arsenic	-0.001891	0.005521	0.010000	
Barium	0.001737	0.002318	0.010000	
Beryllium	0.000118	0.000184	0.010000	
Cadmium	0.000014	0.000134	0.010000	
Cobalt	0.000912	0.000761	0.010000	
Chromium	0.000921	-0.000445	0.010000	
Copper	-0.001663	-0.001972	0.010000	
Molybdenum	0.000477	0.000851	0.010000	
Nickel	0.000208	0.000165	0.010000	
Lead	0.001475	-0.000480	0.010000	
Antimony	0.007448	0.008346	0.015000	
Selenium	0.010424	0.006791	0.015000	
Thallium	-0.000544	-0.006504	0.015000	
Vanadium	-0.000674	-0.000167	0.010000	
Zinc	-0.002649	-0.002759	0.010000	

Report Time: 3/21/2017 9:19:17 AM

CCB-1 File: CCB-R12091601 Analysis Time: 3/20/2017 4:52:51 PM

CCB-2 File: CCB-R12091601 Analysis Time: 3/20/2017 5:12:31 PM

01/22/2014 Revision

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-3		CCV-4		Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.364199	3	0.362112	3	+/-10	
Arsenic	3.750000	3.809620	-2	3.841077	-2	+/-10	
Barium	7.500000	7.744009	-3	7.727838	-3	+/-10	
Beryllium	0.562500	0.576495	-2	0.576946	-3	+/-10	
Cadmium	0.750000	0.755971	-1	0.756172	-1	+/-10	
Cobalt	1.875000	1.901307	-1	1.900603	-1	+/-10	
Chromium	0.600000	0.597547	0	0.595962	1	+/-10	
Copper	0.937500	0.917568	2	0.918214	2	+/-10	
Molybdenum	0.600000	0.607123	-1	0.610490	-2	+/-10	
Nickel	0.600000	0.608385	-1	0.612748	-2	+/-10	
Lead	3.750000	3.816266	-2	3.813598	-2	+/-10	
Antimony	4.500000	4.528657	-1	4.563130	-1	+/-10	
Selenium	1.500000	1.522839	-2	1.548501	-3	+/-10	
Thallium	1.500000	1.524778	-2	1.546261	-3	+/-10	
Vanadium	1.875000	1.856578	1	1.844643	2	+/-10	
Zinc	2.500000	2.540282	-2	2.534839	-1	+/-10	

Report Time: 3/21/2017 9:19:17 AM

CCV-3 File: CCV= STD3x0.5 Analysis Time: 3/20/2017 5:22:23 PM

CCV-4 File: CCV= STD3x0.5 Analysis Time: 3/20/2017 5:32:37 PM

Note: Note: %D= (True-Observed) / True x 100%

01/22/2014 Revision

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-3	CCB-4	RL	Qualifier
Silver	0.001069	0.001095	0.005000	
Arsenic	-0.006128	-0.008417	0.010000	
Barium	0.001612	0.002091	0.010000	
Beryllium	0.000119	0.000143	0.010000	
Cadmium	0.000142	0.000039	0.010000	
Cobalt	0.000422	0.000701	0.010000	
Chromium	0.000068	0.000001	0.010000	
Copper	-0.001626	-0.002521	0.010000	
Molybdenum	0.001053	-0.000038	0.010000	
Nickel	-0.000006	0.000049	0.010000	
Lead	0.001154	0.003105	0.010000	
Antimony	0.006573	0.007478	0.015000	
Selenium	0.000445	0.000293	0.015000	
Thallium	-0.005152	-0.007250	0.015000	
Vanadium	-0.000503	-0.000012	0.010000	
Zinc	-0.002675	-0.002241	0.010000	

Report Time: 3/21/2017 9:19:17 AM

CCB-3 File: CCB-R12091601 Analysis Time: 3/20/2017 5:23:15 PM

CCB-4 File: CCB-R12091601 Analysis Time: 3/20/2017 5:33:30 PM

01/22/2014 Revision

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Verification

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

Analyte	Continuing Calibration Verification						
	True	CCV-5				Control Limit	Comment
		Observed	%D	Observed	%D		
Silver	0.375000	0.366451	2			+/-10	
Arsenic	3.750000	3.859270	-3			+/-10	
Barium	7.500000	7.777706	-4			+/-10	
Beryllium	0.562500	0.582568	-4			+/-10	
Cadmium	0.750000	0.764717	-2			+/-10	
Cobalt	1.875000	1.914689	-2			+/-10	
Chromium	0.600000	0.600526	0			+/-10	
Copper	0.937500	0.924253	1			+/-10	
Molybdenum	0.600000	0.613108	-2			+/-10	
Nickel	0.600000	0.616365	-3			+/-10	
Lead	3.750000	3.855622	-3			+/-10	
Antimony	4.500000	4.587906	-2			+/-10	
Selenium	1.500000	1.555711	-4			+/-10	
Thallium	1.500000	1.546741	-3			+/-10	
Vanadium	1.875000	1.865159	1			+/-10	
Zinc	2.500000	2.561951	-2			+/-10	

Report Time: 3/21/2017 9:19:17 AM

CCV-5 File: CCV= STD3x0.5 Analysis Time: 3/20/2017 5:42:43 PM

Note: Note: %D= (True-Observed) / True x 100%

01/22/2014 Revision

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

EPA Method 6010B

Continuing Calibration Blank

Work Order No: 17-03-0589

Instrument ID: ICP 7300

Concentration Unit: mg/L

	Continuing Calibration Blank			
Analyte	CCB-5		RL	Qualifier
Silver	0.000583		0.005000	
Arsenic	-0.002723		0.010000	
Barium	0.001789		0.010000	
Beryllium	0.000118		0.010000	
Cadmium	-0.000077		0.010000	
Cobalt	0.000665		0.010000	
Chromium	-0.000149		0.010000	
Copper	-0.001513		0.010000	
Molybdenum	0.000812		0.010000	
Nickel	-0.000040		0.010000	
Lead	0.001970		0.010000	
Antimony	0.006870		0.015000	
Selenium	0.005414		0.015000	
Thallium	-0.006366		0.015000	
Vanadium	-0.000417		0.010000	
Zinc	-0.002378		0.010000	

Report Time: 3/21/2017 9:19:17 AM

CCB-5 File: CCB-R12091601 Analysis Time: 3/20/2017 5:43:36 PM

01/22/2014 Revision

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Method: iCal-6010b+200.7 EPA Page 1 Date: 3/20/2017 10:09:49 AM

Analysis Begun

Start Time: 3/20/2017 10:08:48 AM
Logged In Analyst: Oscar Gomez 935
Spectrometer: Optima 7300 DV, S/N 77c8120401

Plasma On Time: 3/20/2017 9:11:12 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Sample Information\17032001.sif
Batch ID:
Results Data Set: 170320C1
Results Library: W:\pe\7300\Results\results.mdb

Sequence No.: 1
Sample ID: Cal blankR12091601_935
Analyst:
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 3/20/2017 10:08:59 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Cal blankR12091601_935

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Tb 384	77967.7	643.24	0.83%	100.00	%
Tb 350	126426.2	1641.44	1.30%	100.0	%
Ag 328.068*†	-1016.5	26.40	2.60%	[0.00]	mg/L
Al 308.215*†	-2553.8	32.92	1.29%	[0.00]	mg/L
As 188.979†	4.0	8.10	201.72%	[0.00]	mg/L
As 193.696*†	1.9	4.27	220.13%	[0.00]	mg/L
B 249.677*†	370.9	10.49	2.83%	[0.00]	mg/L
Ba 233.527*†	-305.9	17.70	5.79%	[0.00]	mg/L
Be 313.042*†	-914.9	39.48	4.32%	[0.00]	mg/L
Ca 317.933*†	47.3	11.67	24.65%	[0.00]	mg/L
Cd 226.502*†	45.3	14.32	31.63%	[0.00]	mg/L
Cd 228.802†	23.1	2.85	12.37%	[0.00]	mg/L
Co 228.616*†	-93.0	7.92	8.51%	[0.00]	mg/L
Cr 267.716*†	418.7	87.35	20.86%	[0.00]	mg/L
Cu 324.752*†	3379.1	141.21	4.18%	[0.00]	mg/L
Fe 273.955*†	-384.6	6.59	1.71%	[0.00]	mg/L
K 766.490*†	993.7	298.97	30.09%	[0.00]	mg/L
Mg 279.077*†	-7739.1	91.89	1.19%	[0.00]	mg/L
Mn 257.610*†	-307.2	4.08	1.33%	[0.00]	mg/L
Mo 202.031*†	-48.1	5.85	12.16%	[0.00]	mg/L
Na 589.592*†	504.1	132.49	26.28%	[0.00]	mg/L
Ni 231.604*†	-69.4	4.30	6.19%	[0.00]	mg/L
P 213.617*†	-145.7	27.05	18.57%	[0.00]	mg/L
P 214.914†	-33.8	9.05	26.73%	[0.00]	mg/L
Pb 220.353*†	15.6	5.93	38.13%	[0.00]	mg/L
Sb 206.836†	24.6	2.66	10.82%	[0.00]	mg/L
Sb 217.582*†	1.7	3.48	202.87%	[0.00]	mg/L
Se 196.026*†	4.2	6.09	146.66%	[0.00]	mg/L
Si 251.611*†	1355.9	63.01	4.65%	[0.00]	mg/L
Sn 189.927*†	-96.0	7.67	7.99%	[0.00]	mg/L
Sn 242.170†	-402.6	20.68	5.14%	[0.00]	mg/L
Sr 407.771*†	153.8	20.02	13.01%	[0.00]	mg/L
Ti 334.940†	28816.2	95.81	0.33%	[0.00]	mg/L
Ti 336.121*†	-1266.7	30.32	2.39%	[0.00]	mg/L
Tl 190.801*†	-6.5	6.38	97.78%	[0.00]	mg/L
V 292.402*†	166.1	37.21	22.40%	[0.00]	mg/L
Zn 206.200*†	1031.2	11.70	1.13%	[0.00]	mg/L
Zn 213.857*†	2098.8	20.60	0.98%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M111116A_935_ICP7300
Analyst:
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 2
Date Collected: 3/20/2017 10:10:05 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: STD3-M111116A_935_ICP7300

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Tb 384	66726.0	225.47	0.34%	85.58	%
Tb 350	111418.3	1323.73	1.19%	88.13	%
Ag 328.068*†	136531.0	235.87	0.17%	[0.75]	mg/L
Al 308.215*†	458632.6	603.82	0.13%	[27.0]	mg/L
As 188.979†	15798.6	376.51	2.38%	[7.50]	mg/L
As 193.696*†	10991.9	246.41	2.24%	[7.50]	mg/L
B 249.677*†	345596.0	5027.35	1.45%	[7.50]	mg/L
Ba 233.527*†	2258715.7	42790.12	1.89%	[15.0]	mg/L
Be 313.042*†	4209385.1	71883.33	1.71%	[1.125]	mg/L
Ca 317.933*†	117176.5	2373.27	2.03%	[60.0]	mg/L
Cd 226.502*†	110246.7	110.93	0.10%	[1.50]	mg/L
Cd 228.802†	56324.2	151.09	0.27%	[1.50]	mg/L
Co 228.616*†	100604.9	662.77	0.66%	[3.75]	mg/L
Cr 267.716*†	130599.7	224.24	0.17%	[1.20]	mg/L
Cu 324.752*†	452629.6	66.62	0.01%	[1.875]	mg/L
Fe 273.955*†	170018.1	670.48	0.39%	[7.50]	mg/L
K 766.490*†	158982.4	2584.41	1.63%	[54.0]	mg/L
Mg 279.077*†	273567.8	379.26	0.14%	[15.0]	mg/L
Mn 257.610*†	962216.3	18873.82	1.96%	[1.50]	mg/L
Mo 202.031*†	11175.5	249.52	2.23%	[1.20]	mg/L
Na 589.592*†	307201.5	5891.74	1.92%	[72.0]	mg/L
Ni 231.604*†	27831.3	177.08	0.64%	[1.20]	mg/L
P 213.617*†	23648.2	492.77	2.08%	[12.0]	mg/L
P 214.914†	15020.6	359.02	2.39%	[12.0]	mg/L
Pb 220.353*†	56907.7	234.52	0.41%	[7.50]	mg/L
Sb 206.836†	17078.1	263.48	1.54%	[9.0]	mg/L
Sb 217.582*†	16933.6	301.01	1.78%	[9.0]	mg/L
Se 196.026*†	6615.9	155.71	2.35%	[3.0]	mg/L
Si 251.611*†	448317.1	2607.94	0.58%	[12.0]	mg/L
Sn 189.927*†	36348.4	749.75	2.06%	[6.0]	mg/L
Sn 242.170†	10542.3	214.87	2.04%	[6.0]	mg/L
Sr 407.771*†	194174.9	3390.68	1.75%	[0.60]	mg/L
Ti 334.940†	997927.8	18985.56	1.90%	[1.20]	mg/L
Ti 336.121*†	685948.9	260.32	0.04%	[1.20]	mg/L
Tl 190.801*†	5529.9	112.35	2.03%	[3.0]	mg/L
V 292.402*†	488145.8	1498.42	0.31%	[3.75]	mg/L
Zn 206.200*†	194478.2	28.50	0.01%	[5.0]	mg/L
Zn 213.857*†	337401.8	116.45	0.03%	[5.0]	mg/L

Return to Contents

Sequence No.: 3
Sample ID: ICV-M072816C
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

Autosampler Location: 10
Date Collected: 3/20/2017 10:11:01 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICV-M072816C

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	71694.7	91.95	%	1.117				1.21%
Tb 350	119142.0	94.24	%	0.812				0.86%
Ag 328.068*†	92330.1	0.5072	mg/L	0.00486	0.5072	mg/L	0.00486	0.96%
QC value within limits for Ag 328.068* Recovery = 101.44%								
Al 308.215*†	71364.1	4.201	mg/L	0.0612	4.201	mg/L	0.0612	1.46%
QC value within limits for Al 308.215* Recovery = 105.03%								
As 188.979†	10046.9	4.770	mg/L	0.0291	4.770	mg/L	0.0291	0.61%
QC value within limits for As 188.979 Recovery = 95.39%								
As 193.696*†	6989.6	4.769	mg/L	0.0597	4.769	mg/L	0.0597	1.25%
QC value within limits for As 193.696* Recovery = 95.38%								
B 249.677*†	121374.4	2.634	mg/L	0.0101	2.634	mg/L	0.0101	0.38%
QC value within limits for B 249.677* Recovery = 105.36%								
Ba 233.527*†	150510.7	0.9995	mg/L	0.01152	0.9995	mg/L	0.01152	1.15%
QC value within limits for Ba 233.527* Recovery = 99.95%								
Be 313.042*†	1824385.9	0.4876	mg/L	0.02117	0.4876	mg/L	0.02117	4.34%
QC value within limits for Be 313.042* Recovery = 97.52%								
Ca 317.933*†	38879.8	19.91	mg/L	0.083	19.91	mg/L	0.083	0.42%
QC value within limits for Ca 317.933* Recovery = 99.54%								
Cd 226.502*†	113650.0	1.546	mg/L	0.0197	1.546	mg/L	0.0197	1.27%
QC value within limits for Cd 226.502* Recovery = 103.09%								
Cd 228.802†	56915.0	1.516	mg/L	0.0123	1.516	mg/L	0.0123	0.81%
Co 228.616*†	28584.0	1.065	mg/L	0.0180	1.065	mg/L	0.0180	1.69%
QC value within limits for Co 228.616* Recovery = 106.55%								
Cr 267.716*†	44509.1	0.4090	mg/L	0.00529	0.4090	mg/L	0.00529	1.29%
QC value within limits for Cr 267.716* Recovery = 102.24%								
Cu 324.752*†	247587.3	1.026	mg/L	0.0110	1.026	mg/L	0.0110	1.07%
QC value within limits for Cu 324.752* Recovery = 102.56%								
Fe 273.955*†	2333139.8	102.9	mg/L	3.48	102.9	mg/L	3.48	3.38%
QC value within limits for Fe 273.955* Recovery = 102.92%								
K 766.490*†	23248.5	7.897	mg/L	0.0106	7.897	mg/L	0.0106	0.13%
QC value within limits for K 766.490* Recovery = 98.71%								
Mg 279.077*†	187407.2	10.28	mg/L	0.095	10.28	mg/L	0.095	0.92%
QC value within limits for Mg 279.077* Recovery = 102.76%								
Mn 257.610*†	636313.5	0.9919	mg/L	0.01213	0.9919	mg/L	0.01213	1.22%
QC value within limits for Mn 257.610* Recovery = 99.19%								
Mo 202.031*†	22199.3	2.384	mg/L	0.0145	2.384	mg/L	0.0145	0.61%
QC value within limits for Mo 202.031* Recovery = 95.35%								
Na 589.592*†	236704.6	55.48	mg/L	0.055	55.48	mg/L	0.055	0.10%
QC value within limits for Na 589.592* Recovery = 102.74%								
Ni 231.604*†	9716.6	0.4189	mg/L	0.00466	0.4189	mg/L	0.00466	1.11%
QC value within limits for Ni 231.604* Recovery = 104.74%								
P 213.617*†	9234.9	4.686	mg/L	0.0585	4.686	mg/L	0.0585	1.25%
QC value within limits for P 213.617* Recovery = 93.72%								
P 214.914†	6081.1	4.858	mg/L	0.0462	4.858	mg/L	0.0462	0.95%
Pb 220.353*†	39494.5	5.205	mg/L	0.0685	5.205	mg/L	0.0685	1.32%
QC value within limits for Pb 220.353* Recovery = 104.10%								
Sb 206.836†	3589.9	1.892	mg/L	0.0031	1.892	mg/L	0.0031	0.17%
QC value within limits for Sb 206.836 Recovery = 94.59%								
Sb 217.582*†	3578.6	1.902	mg/L	0.0138	1.902	mg/L	0.0138	0.72%
QC value within limits for Sb 217.582* Recovery = 95.10%								
Se 196.026*†	4204.1	1.906	mg/L	0.0195	1.906	mg/L	0.0195	1.02%
QC value within limits for Se 196.026* Recovery = 95.32%								
Si 251.611*†	367951.5	9.849	mg/L	0.1082	9.849	mg/L	0.1082	1.10%
QC value within limits for Si 251.611* Recovery = 98.49%								
Sn 189.927*†	14780.4	2.440	mg/L	0.0245	2.440	mg/L	0.0245	1.00%
QC value within limits for Sn 189.927* Recovery = 97.59%								
Sn 242.170†	4797.9	2.731	mg/L	0.0161	2.731	mg/L	0.0161	0.59%
Sr 407.771*†	65506.5	0.2024	mg/L	0.00053	0.2024	mg/L	0.00053	0.26%
QC value within limits for Sr 407.771* Recovery = 101.21%								

Return to Contents

Ti 334.940†	3930517.6	4.726	mg/L	0.1379	4.726	mg/L	0.1379	2.92%
Ti 336.121*†	2791950.5	4.884	mg/L	0.1408	4.884	mg/L	0.1408	2.88%
QC value within limits for Ti 336.121* Recovery = 97.68%								
Tl 190.801*†	3548.3	1.925	mg/L	0.0051	1.925	mg/L	0.0051	0.26%
QC value within limits for Tl 190.801* Recovery = 96.25%								
V 292.402*†	132426.3	1.016	mg/L	0.0107	1.016	mg/L	0.0107	1.05%
QC value within limits for V 292.402* Recovery = 101.56%								
Zn 206.200*†	60932.3	1.567	mg/L	0.0145	1.567	mg/L	0.0145	0.93%
QC value within limits for Zn 206.200* Recovery = 104.44%								
Zn 213.857*†	105856.5	1.560	mg/L	0.0186	1.560	mg/L	0.0186	1.19%
QC value within limits for Zn 213.857* Recovery = 104.01%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 4
Sample ID: ICB-R12091601
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

Autosampler Location: 1
Date Collected: 3/20/2017 10:11:58 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	80115.6	102.8	%	0.31				0.31%
Tb 350	130585.0	103.3	%	1.36				1.32%
Ag 328.068*†	145.3	0.0008	mg/L	0.00042	0.0008	mg/L	0.00042	52.95%
Al 308.215*†	161.7	0.0095	mg/L	0.00147	0.0095	mg/L	0.00147	15.45%
As 188.979†	12.2	0.0058	mg/L	0.00271	0.0058	mg/L	0.00271	46.93%
As 193.696*†	-4.4	-0.0030	mg/L	0.00566	-0.0030	mg/L	0.00566	187.62%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	2799.8	0.0608	mg/L	0.00282	0.0608	mg/L	0.00282	4.65%
QC value greater than the upper limit for B 249.677* Recovery = Not calculated								
Ba 233.527*†	13.2	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	50.46%
Be 313.042*†	342.7	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	10.89%
Ca 317.933*†	4.4	0.0023	mg/L	0.00152	0.0023	mg/L	0.00152	66.93%
Cd 226.502*†	7.5	0.0001	mg/L	0.00013	0.0001	mg/L	0.00013	129.73%
Cd 228.802†	11.0	0.0003	mg/L	0.00023	0.0003	mg/L	0.00023	80.14%
Co 228.616*†	7.5	0.0003	mg/L	0.00045	0.0003	mg/L	0.00045	159.39%
Cr 267.716*†	69.7	0.0006	mg/L	0.00065	0.0006	mg/L	0.00065	101.02%
Cu 324.752*†	-48.1	-0.0002	mg/L	0.00067	-0.0002	mg/L	0.00067	337.42%
Fe 273.955*†	676.5	0.0298	mg/L	0.00398	0.0298	mg/L	0.00398	13.35%
K 766.490*†	111.8	0.0380	mg/L	0.08314	0.0380	mg/L	0.08314	218.90%
Mg 279.077*†	-67.5	-0.0037	mg/L	0.01784	-0.0037	mg/L	0.01784	482.13%
Mn 257.610*†	118.6	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	4.23%
Mo 202.031*†	22.4	0.0024	mg/L	0.00014	0.0024	mg/L	0.00014	5.96%
Na 589.592*†	-7.8	-0.0018	mg/L	0.00202	-0.0018	mg/L	0.00202	110.25%
Ni 231.604*†	-2.3	-0.0001	mg/L	0.00059	-0.0001	mg/L	0.00059	602.83%
P 213.617*†	14.6	0.0074	mg/L	0.00102	0.0074	mg/L	0.00102	13.77%
P 214.914†	-8.2	-0.0065	mg/L	0.00731	-0.0065	mg/L	0.00731	111.87%
Pb 220.353*†	-14.4	-0.0019	mg/L	0.00243	-0.0019	mg/L	0.00243	128.42%
QC value within limits for Pb 220.353* Recovery = Not calculated								
Sb 206.836†	8.1	0.0043	mg/L	0.00255	0.0043	mg/L	0.00255	59.44%
Sb 217.582*†	1.1	0.0006	mg/L	0.00097	0.0006	mg/L	0.00097	169.49%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	3.2	0.0015	mg/L	0.00473	0.0015	mg/L	0.00473	324.48%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	245.5	0.0066	mg/L	0.00075	0.0066	mg/L	0.00075	11.34%
QC value within limits for Si 251.611* Recovery = Not calculated								
Sn 189.927*†	55.0	0.0091	mg/L	0.00053	0.0091	mg/L	0.00053	5.87%
Sn 242.170†	21.1	0.0120	mg/L	0.00310	0.0120	mg/L	0.00310	25.78%
Sr 407.771*†	16.9	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	18.09%
Ti 334.940†	2048.1	0.0025	mg/L	0.00069	0.0025	mg/L	0.00069	28.08%
Ti 336.121*†	1701.1	0.0030	mg/L	0.00015	0.0030	mg/L	0.00015	5.19%
Tl 190.801*†	20.6	0.0112	mg/L	0.00263	0.0112	mg/L	0.00263	23.62%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	-46.4	-0.0004	mg/L	0.00003	-0.0004	mg/L	0.00003	8.40%
Zn 206.200*†	-67.1	-0.0017	mg/L	0.00006	-0.0017	mg/L	0.00006	3.73%
Zn 213.857*†	-133.0	-0.0020	mg/L	0.00018	-0.0020	mg/L	0.00018	9.33%

QC Failed. Retry.

Sequence No.: 5
Sample ID: ICB-R12091601
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

1012
3/21/17

Autosampler Location: 1
Date Collected: 3/20/2017 10:12:43 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD

Return to Contents

Sequence No.: 7
Sample ID: ICS_A - M110116B
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 8
Date Collected: 3/20/2017 10:14:33 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICS_A - M110116B

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	68368.3	87.69	%	0.685				0.78%
Tb 350	112746.9	89.18	%	0.968				1.09%
Ag 328.068*†	-67.2	-0.0004	mg/L	0.00212	-0.0004	mg/L	0.00212	573.85%
Al 308.215*†	420773.5	24.77	mg/L	0.177	24.77	mg/L	0.177	0.71%
As 188.979†	10.9	0.0052	mg/L	0.00234	0.0052	mg/L	0.00234	45.35%
As 193.696*†	7.9	0.0054	mg/L	0.00212	0.0054	mg/L	0.00212	39.15%
B 249.677*†	342.4	0.0074	mg/L	0.00119	0.0074	mg/L	0.00119	15.95%
Ba 233.527*†	431.4	0.0029	mg/L	0.00007	0.0029	mg/L	0.00007	2.48%
Be 313.042*†	-457.2	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	16.07%
Ca 317.933*†	232067.2	118.8	mg/L	2.38	118.8	mg/L	2.38	2.00%
Cd 226.502*†	134.4	0.0018	mg/L	0.00015	0.0018	mg/L	0.00015	8.43%
Cd 228.802†	-16.0	-0.0004	mg/L	0.00014	-0.0004	mg/L	0.00014	32.58%
Co 228.616*†	30.3	0.0011	mg/L	0.00023	0.0011	mg/L	0.00023	20.53%
Cr 267.716*†	-59.5	-0.0005	mg/L	0.00026	-0.0005	mg/L	0.00026	46.87%
Cu 324.752*†	530.5	0.0022	mg/L	0.00062	0.0022	mg/L	0.00062	28.02%
Fe 273.955*†	2187654.1	96.50	mg/L	1.610	96.50	mg/L	1.610	1.67%
K 766.490*†	-27.2	-0.0093	mg/L	0.05293	-0.0093	mg/L	0.05293	571.93%
Mg 279.077*†	1099261.9	60.27	mg/L	1.283	60.27	mg/L	1.283	2.13%
Mn 257.610*†	71.4	0.0001	mg/L	0.00017	0.0001	mg/L	0.00017	150.89%
Mo 202.031*†	4.3	0.0005	mg/L	0.00060	0.0005	mg/L	0.00060	130.70%
Na 589.592*†	90659.6	21.25	mg/L	0.262	21.25	mg/L	0.262	1.23%
Ni 231.604*†	4.2	0.0002	mg/L	0.00050	0.0002	mg/L	0.00050	280.63%
P 213.617*†	-291.2	-0.1477	mg/L	0.01804	-0.1477	mg/L	0.01804	12.21%
P 214.914†	42.2	0.0337	mg/L	0.01493	0.0337	mg/L	0.01493	44.26%
Pb 220.353*†	-59.2	-0.0078	mg/L	0.00062	-0.0078	mg/L	0.00062	7.96%
Sb 206.836†	4.4	0.0023	mg/L	0.00782	0.0023	mg/L	0.00782	340.77%
Sb 217.582*†	-22.5	-0.0120	mg/L	0.00550	-0.0120	mg/L	0.00550	46.00%
Se 196.026*†	-9.0	-0.0041	mg/L	0.00120	-0.0041	mg/L	0.00120	29.30%
Si 251.611*†	138.5	0.0037	mg/L	0.00324	0.0037	mg/L	0.00324	87.37%
Sn 189.927*†	13.1	0.0022	mg/L	0.00038	0.0022	mg/L	0.00038	17.74%
Sn 242.170†	489.1	0.2784	mg/L	0.00682	0.2784	mg/L	0.00682	2.45%
Sr 407.771*†	1073.5	0.0033	mg/L	0.00028	0.0033	mg/L	0.00028	8.52%
Ti 334.940†	-1389.9	-0.0017	mg/L	0.00026	-0.0017	mg/L	0.00026	15.48%
Ti 336.121*†	-471.7	-0.0008	mg/L	0.00000	-0.0008	mg/L	0.00000	0.33%
Tl 190.801*†	-2.1	-0.0011	mg/L	0.00669	-0.0011	mg/L	0.00669	590.60%
V 292.402*†	424.4	0.0017	mg/L	0.00016	0.0017	mg/L	0.00016	9.34%
Zn 206.200*†	138.7	0.0036	mg/L	0.00035	0.0036	mg/L	0.00035	9.91%
Zn 213.857*†	775.1	0.0035	mg/L	0.00059	0.0035	mg/L	0.00059	16.94%

Return to Contents

Sequence No.: 8
Sample ID: ICS_AB - M110116A
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 9
Date Collected: 3/20/2017 10:15:24 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICS_AB - M110116A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	68304.9	87.61	%	1.658				1.89%
Tb 350	115473.2	91.34	%	1.435				1.57%
Ag 328.068*†	56641.5	0.3111	mg/L	0.00158	0.3111	mg/L	0.00158	0.51%
Al 308.215*†	417171.1	24.56	mg/L	0.159	24.56	mg/L	0.159	0.65%
As 188.979†	2093.3	0.9937	mg/L	0.00940	0.9937	mg/L	0.00940	0.95%
As 193.696*†	1452.3	0.9909	mg/L	0.00151	0.9909	mg/L	0.00151	0.15%
B 249.677*†	22806.1	0.4949	mg/L	0.00853	0.4949	mg/L	0.00853	1.72%
Ba 233.527*†	45093.1	0.2995	mg/L	0.00157	0.2995	mg/L	0.00157	0.52%
Be 313.042*†	380732.3	0.1018	mg/L	0.00055	0.1018	mg/L	0.00055	0.54%
Ca 317.933*†	231034.7	118.3	mg/L	0.56	118.3	mg/L	0.56	0.47%
Cd 226.502*†	22326.5	0.3038	mg/L	0.00135	0.3038	mg/L	0.00135	0.45%
Cd 228.802†	11273.5	0.3002	mg/L	0.00144	0.3002	mg/L	0.00144	0.48%
Co 228.616*†	8307.8	0.3097	mg/L	0.00164	0.3097	mg/L	0.00164	0.53%
Cr 267.716*†	33335.0	0.3063	mg/L	0.00089	0.3063	mg/L	0.00089	0.29%
Cu 324.752*†	76227.1	0.3158	mg/L	0.00209	0.3158	mg/L	0.00209	0.66%
Fe 273.955*†	2184227.4	96.35	mg/L	0.661	96.35	mg/L	0.661	0.69%
K 766.490*†	62456.5	21.21	mg/L	0.063	21.21	mg/L	0.063	0.30%
Mg 279.077*†	1091358.7	59.84	mg/L	0.417	59.84	mg/L	0.417	0.70%
Mn 257.610*†	126907.7	0.1978	mg/L	0.00147	0.1978	mg/L	0.00147	0.74%
Mo 202.031*†	2710.6	0.2911	mg/L	0.00234	0.2911	mg/L	0.00234	0.80%
Na 589.592*†	88550.7	20.75	mg/L	0.082	20.75	mg/L	0.082	0.40%
Ni 231.604*†	7217.5	0.3112	mg/L	0.00112	0.3112	mg/L	0.00112	0.36%
P 213.617*†	-215.1	-0.1092	mg/L	0.01403	-0.1092	mg/L	0.01403	12.85%
P 214.914†	38.0	0.0303	mg/L	0.00339	0.0303	mg/L	0.00339	11.17%
Pb 220.353*†	7631.6	1.006	mg/L	0.0030	1.006	mg/L	0.0030	0.30%
Sb 206.836†	1802.0	0.9496	mg/L	0.00320	0.9496	mg/L	0.00320	0.34%
Sb 217.582*†	1769.0	0.9402	mg/L	0.00763	0.9402	mg/L	0.00763	0.81%
Se 196.026*†	1092.5	0.4954	mg/L	0.00601	0.4954	mg/L	0.00601	1.21%
Si 251.611*†	7744.4	0.2073	mg/L	0.00124	0.2073	mg/L	0.00124	0.60%
Sn 189.927*†	-27.7	-0.0046	mg/L	0.00028	-0.0046	mg/L	0.00028	6.08%
Sn 242.170†	453.8	0.2583	mg/L	0.00068	0.2583	mg/L	0.00068	0.26%
Sr 407.771*†	782.3	0.0024	mg/L	0.00019	0.0024	mg/L	0.00019	7.97%
Ti 334.940†	810442.5	0.9746	mg/L	0.00638	0.9746	mg/L	0.00638	0.65%
Ti 336.121*†	574598.3	1.005	mg/L	0.0052	1.005	mg/L	0.0052	0.51%
Tl 190.801*†	1818.2	0.9864	mg/L	0.00511	0.9864	mg/L	0.00511	0.52%
V 292.402*†	39677.4	0.3032	mg/L	0.00271	0.3032	mg/L	0.00271	0.89%
Zn 206.200*†	12087.4	0.3108	mg/L	0.00119	0.3108	mg/L	0.00119	0.38%
Zn 213.857*†	21396.5	0.3091	mg/L	0.00185	0.3091	mg/L	0.00185	0.60%

Return to Contents

Method: iCal-6010b+200.7 EPA Page 1 Date: 3/20/2017 2:24:21 PM

==========

Analysis Begun

Start Time: 3/20/2017 2:23:20 PM
Logged In Analyst: Oscar Gomez 935
Spectrometer: Optima 7300 DV, S/N 77c8120401

Plasma On Time: 3/20/2017 2:17:47 PM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Sample Information\17032001.sif
Batch ID:
Results Data Set: 170320C1
Results Library: W:\pe\7300\Results\results.mdb

==========

Sequence No.: 1
Sample ID: Cal blankR12091601_935
Analyst:
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 3/20/2017 2:23:32 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Cal blankR12091601_935

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Tb 384	75248.3	394.53	0.52%	100.0	%
Tb 350	123048.1	456.45	0.37%	100.0	%
Ag 328.068*†	-1166.5	251.99	21.60%	[0.00]	mg/L
Al 308.215*†	-2497.6	48.31	1.93%	[0.00]	mg/L
As 188.979†	1.2	6.23	541.56%	[0.00]	mg/L
As 193.696*†	7.9	0.12	1.46%	[0.00]	mg/L
B 249.677*†	545.6	83.40	15.29%	[0.00]	mg/L
Ba 233.527*†	73.7	1.43	1.94%	[0.00]	mg/L
Be 313.042*†	-409.2	50.36	12.31%	[0.00]	mg/L
Ca 317.933*†	66.1	8.52	12.87%	[0.00]	mg/L
Cd 226.502*†	41.3	0.93	2.26%	[0.00]	mg/L
Cd 228.802†	12.2	0.52	4.28%	[0.00]	mg/L
Co 228.616*†	-68.9	6.05	8.78%	[0.00]	mg/L
Cr 267.716*†	415.8	37.35	8.98%	[0.00]	mg/L
Cu 324.752*†	2496.7	139.01	5.57%	[0.00]	mg/L
Fe 273.955*†	-320.8	3.25	1.01%	[0.00]	mg/L
K 766.490*†	1297.4	173.92	13.41%	[0.00]	mg/L
Mg 279.077*†	-7761.6	152.85	1.97%	[0.00]	mg/L
Mn 257.610*†	-96.2	48.55	50.47%	[0.00]	mg/L
Mo 202.031*†	-46.4	8.44	18.18%	[0.00]	mg/L
Na 589.592*†	966.9	41.48	4.29%	[0.00]	mg/L
Ni 231.604*†	-52.8	11.19	21.21%	[0.00]	mg/L
P 213.617*†	-143.3	4.40	3.07%	[0.00]	mg/L
P 214.914†	-44.5	4.58	10.30%	[0.00]	mg/L
Pb 220.353*†	-26.9	13.28	49.44%	[0.00]	mg/L
Sb 206.836†	23.6	0.30	1.27%	[0.00]	mg/L
Sb 217.582*†	-14.9	8.82	59.23%	[0.00]	mg/L
Se 196.026*†	-1.1	9.12	841.95%	[0.00]	mg/L
Si 251.611*†	1786.7	79.26	4.44%	[0.00]	mg/L
Sn 189.927*†	-75.0	30.99	41.33%	[0.00]	mg/L
Sn 242.170†	-404.5	23.06	5.70%	[0.00]	mg/L
Sr 407.771*†	199.8	4.11	2.06%	[0.00]	mg/L
Ti 334.940†	28179.5	270.86	0.96%	[0.00]	mg/L
Ti 336.121*†	-847.1	35.64	4.21%	[0.00]	mg/L
Tl 190.801*†	5.5	3.96	72.50%	[0.00]	mg/L
V 292.402*†	346.8	156.37	45.09%	[0.00]	mg/L
Zn 206.200*†	142.6	0.98	0.69%	[0.00]	mg/L
Zn 213.857*†	620.6	21.07	3.40%	[0.00]	mg/L

Return to Contents

Sequence No.: 2
Sample ID: STD3-M111116A_935_ICP7300
Analyst:
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 2
Date Collected: 3/20/2017 2:24:37 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: STD3-M111116A_935_ICP7300

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Tb 384	66887.9	1220.83	1.83%	88.89	%
Tb 350	112508.2	1780.16	1.58%	91.43	%
Ag 328.068*†	134112.6	297.18	0.22%	[0.75]	mg/L
Al 308.215*†	444297.2	436.68	0.10%	[27.0]	mg/L
As 188.979†	14249.1	214.64	1.51%	[7.50]	mg/L
As 193.696*†	9921.0	177.50	1.79%	[7.50]	mg/L
B 249.677*†	344710.1	205.90	0.06%	[7.50]	mg/L
Ba 233.527*†	2088263.1	67434.02	3.23%	[15.0]	mg/L
Be 313.042*†	3861912.9	88910.07	2.30%	[1.125]	mg/L
Ca 317.933*†	106198.2	765.23	0.72%	[60.0]	mg/L
Cd 226.502*†	108601.4	774.80	0.71%	[1.50]	mg/L
Cd 228.802†	55575.1	69.10	0.12%	[1.50]	mg/L
Co 228.616*†	99258.0	296.63	0.30%	[3.75]	mg/L
Cr 267.716*†	128245.0	68.28	0.05%	[1.20]	mg/L
Cu 324.752*†	440931.8	1921.97	0.44%	[1.875]	mg/L
Fe 273.955*†	165462.1	170.00	0.10%	[7.50]	mg/L
K 766.490*†	146659.2	1635.80	1.12%	[54.0]	mg/L
Mg 279.077*†	266496.3	1397.61	0.52%	[15.0]	mg/L
Mn 257.610*†	885407.7	29749.49	3.36%	[1.50]	mg/L
Mo 202.031*†	10310.5	132.96	1.29%	[1.20]	mg/L
Na 589.592*†	288922.8	2814.96	0.97%	[72.0]	mg/L
Ni 231.604*†	26696.7	157.74	0.59%	[1.20]	mg/L
P 213.617*†	20660.9	219.21	1.06%	[12.0]	mg/L
P 214.914†	13657.5	204.45	1.50%	[12.0]	mg/L
Pb 220.353*†	55556.8	190.86	0.34%	[7.50]	mg/L
Sb 206.836†	15586.8	250.53	1.61%	[9.0]	mg/L
Sb 217.582*†	15545.0	232.24	1.49%	[9.0]	mg/L
Se 196.026*†	6029.1	97.71	1.62%	[3.0]	mg/L
Si 251.611*†	428066.1	1449.92	0.34%	[12.0]	mg/L
Sn 189.927*†	32910.2	493.98	1.50%	[6.0]	mg/L
Sn 242.170†	9720.3	134.60	1.38%	[6.0]	mg/L
Sr 407.771*†	177983.9	1212.13	0.68%	[0.60]	mg/L
Ti 334.940†	916747.9	29262.33	3.19%	[1.20]	mg/L
Ti 336.121*†	663691.0	512.04	0.08%	[1.20]	mg/L
Tl 190.801*†	5110.2	91.85	1.80%	[3.0]	mg/L
V 292.402*†	481689.0	788.38	0.16%	[3.75]	mg/L
Zn 206.200*†	188103.1	933.37	0.50%	[5.0]	mg/L
Zn 213.857*†	334438.2	690.30	0.21%	[5.0]	mg/L

Return to Contents

Sequence No.: 3
Sample ID: ICV-M072816C
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

Autosampler Location: 10
Date Collected: 3/20/2017 2:25:33 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICV-M072816C

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	69271.7	92.06	%	1.272				1.38%
Tb 350	115879.4	94.17	%	0.601				0.64%
Ag 328.068*†	89811.0	0.5023	mg/L	0.00263	0.5023	mg/L	0.00263	0.52%
QC value within limits for Ag 328.068* Recovery = 100.45%								
Al 308.215*†	68804.9	4.181	mg/L	0.0145	4.181	mg/L	0.0145	0.35%
QC value within limits for Al 308.215* Recovery = 104.53%								
As 188.979†	9545.6	5.024	mg/L	0.1530	5.024	mg/L	0.1530	3.04%
QC value within limits for As 188.979 Recovery = 100.49%								
As 193.696*†	6608.3	4.996	mg/L	0.1480	4.996	mg/L	0.1480	2.96%
QC value within limits for As 193.696* Recovery = 99.91%								
B 249.677*†	116415.6	2.533	mg/L	0.0409	2.533	mg/L	0.0409	1.61%
QC value within limits for B 249.677* Recovery = 101.32%								
Ba 233.527*†	143661.3	1.032	mg/L	0.0054	1.032	mg/L	0.0054	0.52%
QC value within limits for Ba 233.527* Recovery = 103.19%								
Be 313.042*†	1781048.4	0.5188	mg/L	0.00149	0.5188	mg/L	0.00149	0.29%
QC value within limits for Be 313.042* Recovery = 103.77%								
Ca 317.933*†	35568.2	20.10	mg/L	0.326	20.10	mg/L	0.326	1.62%
QC value within limits for Ca 317.933* Recovery = 100.48%								
Cd 226.502*†	109128.5	1.507	mg/L	0.0093	1.507	mg/L	0.0093	0.62%
QC value within limits for Cd 226.502* Recovery = 100.49%								
Cd 228.802†	55504.5	1.498	mg/L	0.0120	1.498	mg/L	0.0120	0.80%
Co 228.616*†	27465.6	1.038	mg/L	0.0027	1.038	mg/L	0.0027	0.26%
QC value within limits for Co 228.616* Recovery = 103.77%								
Cr 267.716*†	42871.7	0.4012	mg/L	0.00179	0.4012	mg/L	0.00179	0.45%
QC value within limits for Cr 267.716* Recovery = 100.29%								
Cu 324.752*†	238058.1	1.012	mg/L	0.0065	1.012	mg/L	0.0065	0.64%
QC value within limits for Cu 324.752* Recovery = 101.23%								
Fe 273.955*†	2305641.8	104.5	mg/L	0.89	104.5	mg/L	0.89	0.85%
QC value within limits for Fe 273.955* Recovery = 104.51%								
K 766.490*†	22188.4	8.170	mg/L	0.0195	8.170	mg/L	0.0195	0.24%
QC value within limits for K 766.490* Recovery = 102.12%								
Mg 279.077*†	179221.4	10.09	mg/L	0.026	10.09	mg/L	0.026	0.26%
QC value within limits for Mg 279.077* Recovery = 100.88%								
Mn 257.610*†	608962.4	1.032	mg/L	0.0037	1.032	mg/L	0.0037	0.36%
QC value within limits for Mn 257.610* Recovery = 103.17%								
Mo 202.031*†	21307.6	2.480	mg/L	0.0585	2.480	mg/L	0.0585	2.36%
QC value within limits for Mo 202.031* Recovery = 99.20%								
Na 589.592*†	227216.2	56.62	mg/L	0.791	56.62	mg/L	0.791	1.40%
QC value within limits for Na 589.592* Recovery = 104.86%								
Ni 231.604*†	9110.3	0.4095	mg/L	0.01050	0.4095	mg/L	0.01050	2.56%
QC value within limits for Ni 231.604* Recovery = 102.38%								
P 213.617*†	8469.8	4.919	mg/L	0.1399	4.919	mg/L	0.1399	2.84%
QC value within limits for P 213.617* Recovery = 98.39%								
P 214.914†	5788.8	5.086	mg/L	0.1703	5.086	mg/L	0.1703	3.35%
Pb 220.353*†	37913.9	5.118	mg/L	0.0286	5.118	mg/L	0.0286	0.56%
QC value within limits for Pb 220.353* Recovery = 102.37%								
Sb 206.836†	3413.2	1.971	mg/L	0.0504	1.971	mg/L	0.0504	2.56%
QC value within limits for Sb 206.836 Recovery = 98.54%								
Sb 217.582*†	3424.1	1.982	mg/L	0.0409	1.982	mg/L	0.0409	2.07%
QC value within limits for Sb 217.582* Recovery = 99.12%								
Se 196.026*†	4018.3	1.999	mg/L	0.0695	1.999	mg/L	0.0695	3.47%
QC value within limits for Se 196.026* Recovery = 99.97%								
Si 251.611*†	348398.4	9.767	mg/L	0.0550	9.767	mg/L	0.0550	0.56%
QC value within limits for Si 251.611* Recovery = 97.67%								
Sn 189.927*†	14062.2	2.564	mg/L	0.0662	2.564	mg/L	0.0662	2.58%
QC value within limits for Sn 189.927* Recovery = 102.55%								
Sn 242.170†	4579.4	2.827	mg/L	0.0700	2.827	mg/L	0.0700	2.48%
Sr 407.771*†	61300.2	0.2066	mg/L	0.00246	0.2066	mg/L	0.00246	1.19%
QC value within limits for Sr 407.771* Recovery = 103.32%								

Return to Contents

Ti 334.940†	3846958.5	5.036	mg/L	0.0330	5.036	mg/L	0.0330	0.66%
Ti 336.121*†	2749498.7	4.971	mg/L	0.0307	4.971	mg/L	0.0307	0.62%
QC value within limits for Ti 336.121* Recovery = 99.43%								
Tl 190.801*†	3420.1	2.008	mg/L	0.0517	2.008	mg/L	0.0517	2.57%
QC value within limits for Tl 190.801* Recovery = 100.39%								
V 292.402*†	128086.4	0.9955	mg/L	0.00831	0.9955	mg/L	0.00831	0.83%
QC value within limits for V 292.402* Recovery = 99.55%								
Zn 206.200*†	57623.1	1.532	mg/L	0.0129	1.532	mg/L	0.0129	0.84%
QC value within limits for Zn 206.200* Recovery = 102.11%								
Zn 213.857*†	102303.8	1.521	mg/L	0.0045	1.521	mg/L	0.0045	0.30%
QC value within limits for Zn 213.857* Recovery = 101.39%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 4
Sample ID: ICB-R12091601
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

Autosampler Location: 1
Date Collected: 3/20/2017 2:26:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	76388.5	101.5	%	2.40				2.37%
Tb 350	126175.4	102.5	%	2.90				2.83%
Ag 328.068*†	106.6	0.0006	mg/L	0.00074	0.0006	mg/L	0.00074	123.88%
Al 308.215*†	-33.1	-0.0020	mg/L	0.00289	-0.0020	mg/L	0.00289	143.96%
As 188.979†	3.9	0.0021	mg/L	0.00381	0.0021	mg/L	0.00381	185.23%
As 193.696*†	1.4	0.0011	mg/L	0.00001	0.0011	mg/L	0.00001	1.17%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	2153.9	0.0469	mg/L	0.00177	0.0469	mg/L	0.00177	3.77%
QC value greater than the upper limit for B 249.677* Recovery = Not calculated								
Ba 233.527*†	-4.3	-0.0000	mg/L	0.00004	-0.0000	mg/L	0.00004	117.05%
Be 313.042*†	184.1	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	53.18%
Ca 317.933*†	-10.9	-0.0061	mg/L	0.00085	-0.0061	mg/L	0.00085	13.89%
Cd 226.502*†	20.9	0.0003	mg/L	0.00000	0.0003	mg/L	0.00000	0.53%
Cd 228.802†	14.9	0.0004	mg/L	0.00014	0.0004	mg/L	0.00014	35.05%
Co 228.616*†	4.4	0.0002	mg/L	0.00018	0.0002	mg/L	0.00018	108.98%
Cr 267.716*†	149.4	0.0014	mg/L	0.00004	0.0014	mg/L	0.00004	2.83%
Cu 324.752*†	-156.9	-0.0007	mg/L	0.00001	-0.0007	mg/L	0.00001	2.02%
Fe 273.955*†	13.5	0.0006	mg/L	0.00012	0.0006	mg/L	0.00012	18.83%
K 766.490*†	-183.9	-0.0677	mg/L	0.03017	-0.0677	mg/L	0.03017	44.55%
Mg 279.077*†	91.6	0.0052	mg/L	0.00624	0.0052	mg/L	0.00624	121.00%
Mn 257.610*†	43.9	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	29.07%
Mo 202.031*†	-4.0	-0.0005	mg/L	0.00010	-0.0005	mg/L	0.00010	22.00%
Na 589.592*†	-106.1	-0.0264	mg/L	0.00097	-0.0264	mg/L	0.00097	3.67%
Ni 231.604*†	-19.0	-0.0009	mg/L	0.00062	-0.0009	mg/L	0.00062	72.07%
P 213.617*†	-19.7	-0.0115	mg/L	0.01468	-0.0115	mg/L	0.01468	128.13%
P 214.914†	17.5	0.0154	mg/L	0.00473	0.0154	mg/L	0.00473	30.67%
Pb 220.353*†	21.4	0.0029	mg/L	0.00247	0.0029	mg/L	0.00247	85.58%
QC value within limits for Pb 220.353* Recovery = Not calculated								
Sb 206.836†	2.1	0.0012	mg/L	0.01080	0.0012	mg/L	0.01080	894.86%
Sb 217.582*†	15.7	0.0091	mg/L	0.00341	0.0091	mg/L	0.00341	37.49%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	8.4	0.0042	mg/L	0.00470	0.0042	mg/L	0.00470	112.32%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	190.6	0.0053	mg/L	0.00183	0.0053	mg/L	0.00183	34.19%
QC value within limits for Si 251.611* Recovery = Not calculated								
Sn 189.927*†	16.4	0.0030	mg/L	0.00151	0.0030	mg/L	0.00151	50.29%
Sn 242.170†	0.8	0.0005	mg/L	0.01818	0.0005	mg/L	0.01818	>999.9%
Sr 407.771*†	-12.8	-0.0000	mg/L	0.00000	-0.0000	mg/L	0.00000	2.38%
Ti 334.940†	403.7	0.0005	mg/L	0.00015	0.0005	mg/L	0.00015	27.64%
Ti 336.121*†	156.7	0.0003	mg/L	0.00028	0.0003	mg/L	0.00028	99.10%
Tl 190.801*†	-4.8	-0.0028	mg/L	0.00443	-0.0028	mg/L	0.00443	156.81%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	9.5	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	26.18%
Zn 206.200*†	61.9	0.0016	mg/L	0.00019	0.0016	mg/L	0.00019	11.74%
Zn 213.857*†	63.1	0.0009	mg/L	0.00001	0.0009	mg/L	0.00001	1.46%

QC Failed. Retry.

Sequence No.: 5
Sample ID: ICB-R12091601
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

1012
3/21/17

Autosampler Location: 1
Date Collected: 3/20/2017 2:27:16 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: ICB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD

Return to Contents

Sequence No.: 20
Sample ID: CCV= STD3x0.5
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 20

Autosampler Location: 3
Date Collected: 3/20/2017 4:51:58 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	76259.4	101.3	%	3.49				3.45%
Tb 350	129618.1	105.3	%	3.67				3.48%
Ag 328.068*†	64719.5	0.3619	mg/L	0.00229	0.3619	mg/L	0.00229	0.63%
QC value within limits for Ag 328.068* Recovery = 96.52%								
Al 308.215*†	220012.8	13.37	mg/L	0.051	13.37	mg/L	0.051	0.38%
QC value within limits for Al 308.215* Recovery = 99.04%								
As 188.979†	7227.9	3.804	mg/L	0.1001	3.804	mg/L	0.1001	2.63%
QC value within limits for As 188.979 Recovery = 101.45%								
As 193.696*†	4992.0	3.774	mg/L	0.0980	3.774	mg/L	0.0980	2.60%
QC value within limits for As 193.696* Recovery = 100.63%								
B 249.677*†	173958.9	3.785	mg/L	0.0273	3.785	mg/L	0.0273	0.72%
QC value within limits for B 249.677* Recovery = 100.93%								
Ba 233.527*†	1076192.7	7.730	mg/L	0.0053	7.730	mg/L	0.0053	0.07%
QC value within limits for Ba 233.527* Recovery = 103.07%								
Be 313.042*†	1982995.5	0.5777	mg/L	0.00696	0.5777	mg/L	0.00696	1.20%
QC value within limits for Be 313.042* Recovery = 102.69%								
Ca 317.933*†	56112.4	31.70	mg/L	1.564	31.70	mg/L	1.564	4.93%
QC value within limits for Ca 317.933* Recovery = 105.67%								
Cd 226.502*†	55000.0	0.7597	mg/L	0.00606	0.7597	mg/L	0.00606	0.80%
QC value within limits for Cd 226.502* Recovery = 101.29%								
Cd 228.802†	27833.5	0.7512	mg/L	0.00173	0.7512	mg/L	0.00173	0.23%
Co 228.616*†	50598.4	1.912	mg/L	0.0086	1.912	mg/L	0.0086	0.45%
QC value within limits for Co 228.616* Recovery = 101.95%								
Cr 267.716*†	63797.2	0.5970	mg/L	0.00200	0.5970	mg/L	0.00200	0.34%
QC value within limits for Cr 267.716* Recovery = 99.49%								
Cu 324.752*†	214862.6	0.9137	mg/L	0.00099	0.9137	mg/L	0.00099	0.11%
QC value within limits for Cu 324.752* Recovery = 97.46%								
Fe 273.955*†	83835.5	3.800	mg/L	0.0242	3.800	mg/L	0.0242	0.64%
QC value within limits for Fe 273.955* Recovery = 101.33%								
K 766.490*†	73938.1	27.22	mg/L	1.476	27.22	mg/L	1.476	5.42%
QC value within limits for K 766.490* Recovery = 100.83%								
Mg 279.077*†	137734.2	7.753	mg/L	0.0576	7.753	mg/L	0.0576	0.74%
QC value within limits for Mg 279.077* Recovery = 103.37%								
Mn 257.610*†	455615.8	0.7719	mg/L	0.00342	0.7719	mg/L	0.00342	0.44%
QC value within limits for Mn 257.610* Recovery = 102.92%								
Mo 202.031*†	5114.6	0.5953	mg/L	0.02011	0.5953	mg/L	0.02011	3.38%
QC value within limits for Mo 202.031* Recovery = 99.21%								
Na 589.592*†	149823.7	37.34	mg/L	1.852	37.34	mg/L	1.852	4.96%
QC value within limits for Na 589.592* Recovery = 103.71%								
Ni 231.604*†	13342.9	0.5998	mg/L	0.01858	0.5998	mg/L	0.01858	3.10%
QC value within limits for Ni 231.604* Recovery = 99.96%								
P 213.617*†	10478.1	6.086	mg/L	0.1529	6.086	mg/L	0.1529	2.51%
QC value within limits for P 213.617* Recovery = 101.43%								
P 214.914†	6931.6	6.090	mg/L	0.1551	6.090	mg/L	0.1551	2.55%
Pb 220.353*†	28502.5	3.848	mg/L	0.0472	3.848	mg/L	0.0472	1.23%
QC value within limits for Pb 220.353* Recovery = 102.61%								
Sb 206.836†	7786.9	4.496	mg/L	0.1423	4.496	mg/L	0.1423	3.17%
QC value within limits for Sb 206.836 Recovery = 99.92%								
Sb 217.582*†	7720.8	4.470	mg/L	0.1535	4.470	mg/L	0.1535	3.43%
QC value within limits for Sb 217.582* Recovery = 99.33%								
Se 196.026*†	3064.6	1.525	mg/L	0.0304	1.525	mg/L	0.0304	1.99%
QC value within limits for Se 196.026* Recovery = 101.66%								
Si 251.611*†	216296.4	6.063	mg/L	0.0252	6.063	mg/L	0.0252	0.42%
QC value within limits for Si 251.611* Recovery = 101.06%								
Sn 189.927*†	16844.1	3.071	mg/L	0.0922	3.071	mg/L	0.0922	3.00%
QC value within limits for Sn 189.927* Recovery = 102.36%								
Sn 242.170†	4869.7	3.006	mg/L	0.0586	3.006	mg/L	0.0586	1.95%
Sr 407.771*†	92174.2	0.3107	mg/L	0.01490	0.3107	mg/L	0.01490	4.79%
QC value within limits for Sr 407.771* Recovery = 103.58%								

Return to Contents

Ti 334.940†	463930.5	0.6073	mg/L	0.00029	0.6073	mg/L	0.00029	0.05%
Ti 336.121*†	329570.0	0.5959	mg/L	0.00086	0.5959	mg/L	0.00086	0.14%
QC value within limits for Ti 336.121* Recovery = 99.31%								
Tl 190.801*†	2590.8	1.521	mg/L	0.0412	1.521	mg/L	0.0412	2.71%
QC value within limits for Tl 190.801* Recovery = 101.40%								
V 292.402*†	237565.2	1.849	mg/L	0.0094	1.849	mg/L	0.0094	0.51%
QC value within limits for V 292.402* Recovery = 98.64%								
Zn 206.200*†	96979.5	2.578	mg/L	0.0356	2.578	mg/L	0.0356	1.38%
QC value within limits for Zn 206.200* Recovery = 103.11%								
Zn 213.857*†	167849.7	2.509	mg/L	0.0228	2.509	mg/L	0.0228	0.91%
QC value within limits for Zn 213.857* Recovery = 100.36%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 21
Sample ID: CCB-R12091601
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 1
Date Collected: 3/20/2017 4:52:51 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Tb 384	83719.6	111.3	%	0.16				0.15%
Tb 350	138446.1	112.5	%	0.70				0.62%
Ag 328.068*†	136.9	0.0008	mg/L	0.00028	0.0008	mg/L	0.00028	36.82%
QC value within limits for Ag 328.068* Recovery = Not calculated								
Al 308.215*†	85.2	0.0052	mg/L	0.00673	0.0052	mg/L	0.00673	129.96%
As 188.979†	6.0	0.0032	mg/L	0.00094	0.0032	mg/L	0.00094	29.63%
As 193.696*†	-2.5	-0.0019	mg/L	0.00296	-0.0019	mg/L	0.00296	156.39%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	1411.7	0.0307	mg/L	0.00285	0.0307	mg/L	0.00285	9.27%
Ba 233.527*†	241.9	0.0017	mg/L	0.00001	0.0017	mg/L	0.00001	0.51%
Be 313.042*†	405.6	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	16.42%
Ca 317.933*†	14.2	0.0080	mg/L	0.00110	0.0080	mg/L	0.00110	13.71%
Cd 226.502*†	1.0	0.0000	mg/L	0.00028	0.0000	mg/L	0.00028	>999.9%
Cd 228.802†	10.0	0.0003	mg/L	0.00008	0.0003	mg/L	0.00008	29.46%
Co 228.616*†	24.1	0.0009	mg/L	0.00018	0.0009	mg/L	0.00018	19.53%
Cr 267.716*†	98.4	0.0009	mg/L	0.00021	0.0009	mg/L	0.00021	22.61%
Cu 324.752*†	-391.0	-0.0017	mg/L	0.00060	-0.0017	mg/L	0.00060	35.86%
Fe 273.955*†	7.7	0.0003	mg/L	0.00059	0.0003	mg/L	0.00059	168.69%
K 766.490*†	-186.8	-0.0688	mg/L	0.05218	-0.0688	mg/L	0.05218	75.85%
Mg 279.077*†	436.0	0.0245	mg/L	0.00384	0.0245	mg/L	0.00384	15.64%
Mn 257.610*†	106.6	0.0002	mg/L	0.00008	0.0002	mg/L	0.00008	42.23%
Mo 202.031*†	4.1	0.0005	mg/L	0.00048	0.0005	mg/L	0.00048	100.13%
Na 589.592*†	549.1	0.1368	mg/L	0.03380	0.1368	mg/L	0.03380	24.70%
Ni 231.604*†	4.6	0.0002	mg/L	0.00050	0.0002	mg/L	0.00050	238.37%
P 213.617*†	25.6	0.0149	mg/L	0.00622	0.0149	mg/L	0.00622	41.81%
P 214.914†	9.4	0.0083	mg/L	0.00217	0.0083	mg/L	0.00217	26.20%
Pb 220.353*†	10.9	0.0015	mg/L	0.00163	0.0015	mg/L	0.00163	110.39%
Sb 206.836†	8.1	0.0047	mg/L	0.00451	0.0047	mg/L	0.00451	96.47%
Sb 217.582*†	12.9	0.0074	mg/L	0.00151	0.0074	mg/L	0.00151	20.28%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	20.9	0.0104	mg/L	0.00392	0.0104	mg/L	0.00392	37.60%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	-375.8	-0.0105	mg/L	0.00230	-0.0105	mg/L	0.00230	21.79%
Sn 189.927*†	13.2	0.0024	mg/L	0.00236	0.0024	mg/L	0.00236	97.61%
Sn 242.170†	34.7	0.0214	mg/L	0.00242	0.0214	mg/L	0.00242	11.28%
Sr 407.771*†	21.1	0.0001	mg/L	0.00007	0.0001	mg/L	0.00007	92.65%
Ti 334.940†	622.5	0.0008	mg/L	0.00013	0.0008	mg/L	0.00013	15.38%
Ti 336.121*†	248.7	0.0004	mg/L	0.00049	0.0004	mg/L	0.00049	108.91%
Tl 190.801*†	-0.9	-0.0005	mg/L	0.00566	-0.0005	mg/L	0.00566	>999.9%
V 292.402*†	-86.5	-0.0007	mg/L	0.00064	-0.0007	mg/L	0.00064	95.61%
Zn 206.200*†	-99.7	-0.0026	mg/L	0.00025	-0.0026	mg/L	0.00025	9.42%
QC value within limits for Zn 206.200* Recovery = Not calculated								
Zn 213.857*†	-177.7	-0.0027	mg/L	0.00025	-0.0027	mg/L	0.00025	9.43%
QC value within limits for Zn 213.857* Recovery = Not calculated								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 11
Sample ID: CCV= STD3x0.5
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 3
Date Collected: 3/20/2017 5:11:39 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	74993.6	99.66	%	1.914				1.92%
Tb 350	127755.1	103.8	%	0.79				0.76%
Ag 328.068*†	65417.2	0.3658	mg/L	0.00427	0.3658	mg/L	0.00427	1.17%
QC value within limits for Ag 328.068* Recovery = 97.56%								
Al 308.215*†	222301.9	13.51	mg/L	0.057	13.51	mg/L	0.057	0.42%
QC value within limits for Al 308.215* Recovery = 100.07%								
As 188.979†	7309.3	3.847	mg/L	0.0103	3.847	mg/L	0.0103	0.27%
QC value within limits for As 188.979 Recovery = 102.59%								
As 193.696*†	5061.6	3.826	mg/L	0.0018	3.826	mg/L	0.0018	0.05%
QC value within limits for As 193.696* Recovery = 102.04%								
B 249.677*†	173944.0	3.785	mg/L	0.1092	3.785	mg/L	0.1092	2.89%
QC value within limits for B 249.677* Recovery = 100.92%								
Ba 233.527*†	1084687.8	7.791	mg/L	0.0525	7.791	mg/L	0.0525	0.67%
QC value within limits for Ba 233.527* Recovery = 103.88%								
Be 313.042*†	1993036.4	0.5806	mg/L	0.00978	0.5806	mg/L	0.00978	1.69%
QC value within limits for Be 313.042* Recovery = 103.21%								
Ca 317.933*†	57003.8	32.21	mg/L	0.870	32.21	mg/L	0.870	2.70%
QC value within limits for Ca 317.933* Recovery = 107.35%								
Cd 226.502*†	55369.5	0.7648	mg/L	0.01226	0.7648	mg/L	0.01226	1.60%
QC value within limits for Cd 226.502* Recovery = 101.97%								
Cd 228.802†	27923.2	0.7537	mg/L	0.00472	0.7537	mg/L	0.00472	0.63%
Co 228.616*†	50903.8	1.923	mg/L	0.0164	1.923	mg/L	0.0164	0.85%
QC value within limits for Co 228.616* Recovery = 102.57%								
Cr 267.716*†	64437.8	0.6030	mg/L	0.00657	0.6030	mg/L	0.00657	1.09%
QC value within limits for Cr 267.716* Recovery = 100.49%								
Cu 324.752*†	216991.2	0.9227	mg/L	0.00954	0.9227	mg/L	0.00954	1.03%
QC value within limits for Cu 324.752* Recovery = 98.42%								
Fe 273.955*†	84396.4	3.825	mg/L	0.0181	3.825	mg/L	0.0181	0.47%
QC value within limits for Fe 273.955* Recovery = 102.01%								
K 766.490*†	75149.3	27.67	mg/L	0.843	27.67	mg/L	0.843	3.05%
QC value within limits for K 766.490* Recovery = 102.48%								
Mg 279.077*†	138643.4	7.804	mg/L	0.0836	7.804	mg/L	0.0836	1.07%
QC value within limits for Mg 279.077* Recovery = 104.05%								
Mn 257.610*†	459052.1	0.7777	mg/L	0.00539	0.7777	mg/L	0.00539	0.69%
QC value within limits for Mn 257.610* Recovery = 103.69%								
Mo 202.031*†	5191.2	0.6042	mg/L	0.00083	0.6042	mg/L	0.00083	0.14%
QC value within limits for Mo 202.031* Recovery = 100.70%								
Na 589.592*†	151701.9	37.80	mg/L	0.931	37.80	mg/L	0.931	2.46%
QC value within limits for Na 589.592* Recovery = 105.01%								
Ni 231.604*†	13454.0	0.6048	mg/L	0.00066	0.6048	mg/L	0.00066	0.11%
QC value within limits for Ni 231.604* Recovery = 100.79%								
P 213.617*†	10556.6	6.131	mg/L	0.0288	6.131	mg/L	0.0288	0.47%
QC value within limits for P 213.617* Recovery = 102.19%								
P 214.914†	6999.9	6.150	mg/L	0.0048	6.150	mg/L	0.0048	0.08%
Pb 220.353*†	28678.5	3.872	mg/L	0.0416	3.872	mg/L	0.0416	1.07%
QC value within limits for Pb 220.353* Recovery = 103.24%								
Sb 206.836†	7892.3	4.557	mg/L	0.0144	4.557	mg/L	0.0144	0.32%
QC value within limits for Sb 206.836 Recovery = 101.27%								
Sb 217.582*†	7814.3	4.524	mg/L	0.0040	4.524	mg/L	0.0040	0.09%
QC value within limits for Sb 217.582* Recovery = 100.54%								
Se 196.026*†	3100.0	1.543	mg/L	0.0021	1.543	mg/L	0.0021	0.13%
QC value within limits for Se 196.026* Recovery = 102.83%								
Si 251.611*†	216677.8	6.074	mg/L	0.0739	6.074	mg/L	0.0739	1.22%
QC value within limits for Si 251.611* Recovery = 101.24%								
Sn 189.927*†	17035.3	3.106	mg/L	0.0042	3.106	mg/L	0.0042	0.13%
QC value within limits for Sn 189.927* Recovery = 103.53%								
Sn 242.170†	4907.0	3.029	mg/L	0.0197	3.029	mg/L	0.0197	0.65%
Sr 407.771*†	93459.9	0.3151	mg/L	0.00712	0.3151	mg/L	0.00712	2.26%
QC value within limits for Sr 407.771* Recovery = 105.02%								

Return to Contents

Ti 334.940†	467648.1	0.6121	mg/L	0.00551	0.6121	mg/L	0.00551	0.90%
Ti 336.121*†	333257.0	0.6026	mg/L	0.00367	0.6026	mg/L	0.00367	0.61%
QC value within limits for Ti 336.121* Recovery = 100.43%								
Tl 190.801*†	2623.9	1.540	mg/L	0.0043	1.540	mg/L	0.0043	0.28%
QC value within limits for Tl 190.801* Recovery = 102.69%								
V 292.402*†	239101.7	1.861	mg/L	0.0265	1.861	mg/L	0.0265	1.42%
QC value within limits for V 292.402* Recovery = 99.27%								
Zn 206.200*†	96833.4	2.574	mg/L	0.0331	2.574	mg/L	0.0331	1.29%
QC value within limits for Zn 206.200* Recovery = 102.96%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 12
Sample ID: CCB-R12091601
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 1
Date Collected: 3/20/2017 5:12:31 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	85123.2	113.1	%	0.80				0.71%
Tb 350	140797.7	114.4	%	1.21				1.06%
Ag 328.068*†	218.5	0.0012	mg/L	0.00076	0.0012	mg/L	0.00076	62.29%
Al 308.215*†	66.4	0.0040	mg/L	0.00320	0.0040	mg/L	0.00320	79.27%
As 188.979†	13.3	0.0070	mg/L	0.00037	0.0070	mg/L	0.00037	5.30%
As 193.696*†	7.3	0.0055	mg/L	0.00136	0.0055	mg/L	0.00136	24.71%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	941.6	0.0205	mg/L	0.00294	0.0205	mg/L	0.00294	14.35%
Ba 233.527*†	322.7	0.0023	mg/L	0.00017	0.0023	mg/L	0.00017	7.19%
Be 313.042*†	630.5	0.0002	mg/L	0.00004	0.0002	mg/L	0.00004	21.60%
Ca 317.933*†	6.8	0.0038	mg/L	0.00238	0.0038	mg/L	0.00238	62.48%
Cd 226.502*†	9.7	0.0001	mg/L	0.00012	0.0001	mg/L	0.00012	89.88%
Cd 228.802†	14.7	0.0004	mg/L	0.00015	0.0004	mg/L	0.00015	38.77%
Co 228.616*†	20.1	0.0008	mg/L	0.00014	0.0008	mg/L	0.00014	17.79%
Cr 267.716*†	-47.5	-0.0004	mg/L	0.00080	-0.0004	mg/L	0.00080	179.98%
Cu 324.752*†	-463.8	-0.0020	mg/L	0.00006	-0.0020	mg/L	0.00006	3.19%
Fe 273.955*†	11.4	0.0005	mg/L	0.00034	0.0005	mg/L	0.00034	65.49%
K 766.490*†	-523.8	-0.1929	mg/L	0.03368	-0.1929	mg/L	0.03368	17.46%
Mg 279.077*†	494.6	0.0278	mg/L	0.00275	0.0278	mg/L	0.00275	9.87%
Mn 257.610*†	146.2	0.0002	mg/L	0.00000	0.0002	mg/L	0.00000	0.30%
Mo 202.031*†	7.3	0.0009	mg/L	0.00055	0.0009	mg/L	0.00055	65.16%
Na 589.592*†	172.5	0.0430	mg/L	0.01171	0.0430	mg/L	0.01171	27.25%
Ni 231.604*†	3.7	0.0002	mg/L	0.00078	0.0002	mg/L	0.00078	475.24%
P 213.617*†	12.2	0.0071	mg/L	0.01465	0.0071	mg/L	0.01465	206.51%
P 214.914†	15.1	0.0133	mg/L	0.01354	0.0133	mg/L	0.01354	102.05%
Pb 220.353*†	-3.6	-0.0005	mg/L	0.00063	-0.0005	mg/L	0.00063	131.08%
Sb 206.836†	4.5	0.0026	mg/L	0.00151	0.0026	mg/L	0.00151	58.71%
Sb 217.582*†	14.4	0.0083	mg/L	0.00413	0.0083	mg/L	0.00413	49.53%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	13.6	0.0068	mg/L	0.00146	0.0068	mg/L	0.00146	21.56%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	-438.4	-0.0123	mg/L	0.00115	-0.0123	mg/L	0.00115	9.37%
Sn 189.927*†	29.2	0.0053	mg/L	0.00047	0.0053	mg/L	0.00047	8.76%
Sn 242.170†	8.3	0.0052	mg/L	0.02211	0.0052	mg/L	0.02211	429.13%
Sr 407.771*†	31.2	0.0001	mg/L	0.00008	0.0001	mg/L	0.00008	74.64%
Ti 334.940†	456.1	0.0006	mg/L	0.00008	0.0006	mg/L	0.00008	13.97%
Ti 336.121*†	-64.2	-0.0001	mg/L	0.00073	-0.0001	mg/L	0.00073	626.01%
Tl 190.801*†	-11.1	-0.0065	mg/L	0.00061	-0.0065	mg/L	0.00061	9.31%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	-21.4	-0.0002	mg/L	0.00020	-0.0002	mg/L	0.00020	118.22%
Zn 206.200*†	-103.8	-0.0028	mg/L	0.00022	-0.0028	mg/L	0.00022	7.87%
QC value within limits for Zn 206.200* Recovery = Not calculated								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 23
Sample ID: CCV= STD3x0.5
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 3
Date Collected: 3/20/2017 5:22:23 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Tb 384	75809.7	100.7	%	1.33				1.32%
Tb 350	127574.7	103.7	%	0.97				0.94%
Ag 328.068*†	65124.9	0.3642	mg/L	0.00270	0.3642	mg/L	0.00270	0.74%
QC value within limits for Ag 328.068* Recovery = 97.12%								
Al 308.215*†	221676.8	13.47	mg/L	0.013	13.47	mg/L	0.013	0.09%
QC value within limits for Al 308.215* Recovery = 99.79%								
As 188.979†	7279.8	3.832	mg/L	0.0135	3.832	mg/L	0.0135	0.35%
QC value within limits for As 188.979 Recovery = 102.18%								
As 193.696*†	5039.4	3.810	mg/L	0.0421	3.810	mg/L	0.0421	1.10%
QC value within limits for As 193.696* Recovery = 101.59%								
B 249.677*†	170821.8	3.717	mg/L	0.0805	3.717	mg/L	0.0805	2.17%
QC value within limits for B 249.677* Recovery = 99.11%								
Ba 233.527*†	1078101.9	7.744	mg/L	0.0435	7.744	mg/L	0.0435	0.56%
QC value within limits for Ba 233.527* Recovery = 103.25%								
Be 313.042*†	1978997.7	0.5765	mg/L	0.00688	0.5765	mg/L	0.00688	1.19%
QC value within limits for Be 313.042* Recovery = 102.49%								
Ca 317.933*†	53617.2	30.29	mg/L	0.019	30.29	mg/L	0.019	0.06%
QC value within limits for Ca 317.933* Recovery = 100.98%								
Cd 226.502*†	54733.0	0.7560	mg/L	0.00927	0.7560	mg/L	0.00927	1.23%
QC value within limits for Cd 226.502* Recovery = 100.80%								
Cd 228.802†	27636.2	0.7459	mg/L	0.01024	0.7459	mg/L	0.01024	1.37%
Co 228.616*†	50325.3	1.901	mg/L	0.0139	1.901	mg/L	0.0139	0.73%
QC value within limits for Co 228.616* Recovery = 101.40%								
Cr 267.716*†	63860.3	0.5975	mg/L	0.00564	0.5975	mg/L	0.00564	0.94%
QC value within limits for Cr 267.716* Recovery = 99.59%								
Cu 324.752*†	215778.6	0.9176	mg/L	0.00348	0.9176	mg/L	0.00348	0.38%
QC value within limits for Cu 324.752* Recovery = 97.87%								
Fe 273.955*†	83727.2	3.795	mg/L	0.0413	3.795	mg/L	0.0413	1.09%
QC value within limits for Fe 273.955* Recovery = 101.20%								
K 766.490*†	71718.1	26.41	mg/L	0.103	26.41	mg/L	0.103	0.39%
QC value within limits for K 766.490* Recovery = 97.80%								
Mg 279.077*†	136790.4	7.699	mg/L	0.0710	7.699	mg/L	0.0710	0.92%
QC value within limits for Mg 279.077* Recovery = 102.66%								
Mn 257.610*†	456291.0	0.7730	mg/L	0.00538	0.7730	mg/L	0.00538	0.70%
QC value within limits for Mn 257.610* Recovery = 103.07%								
Mo 202.031*†	5216.4	0.6071	mg/L	0.00672	0.6071	mg/L	0.00672	1.11%
QC value within limits for Mo 202.031* Recovery = 101.19%								
Na 589.592*†	144332.1	35.97	mg/L	0.155	35.97	mg/L	0.155	0.43%
QC value within limits for Na 589.592* Recovery = 99.91%								
Ni 231.604*†	13534.9	0.6084	mg/L	0.00342	0.6084	mg/L	0.00342	0.56%
QC value within limits for Ni 231.604* Recovery = 101.40%								
P 213.617*†	10584.0	6.147	mg/L	0.0030	6.147	mg/L	0.0030	0.05%
QC value within limits for P 213.617* Recovery = 102.45%								
P 214.914†	6984.4	6.137	mg/L	0.0724	6.137	mg/L	0.0724	1.18%
Pb 220.353*†	28269.3	3.816	mg/L	0.0479	3.816	mg/L	0.0479	1.26%
QC value within limits for Pb 220.353* Recovery = 101.77%								
Sb 206.836†	7858.7	4.538	mg/L	0.0530	4.538	mg/L	0.0530	1.17%
QC value within limits for Sb 206.836 Recovery = 100.84%								
Sb 217.582*†	7822.0	4.529	mg/L	0.0458	4.529	mg/L	0.0458	1.01%
QC value within limits for Sb 217.582* Recovery = 100.64%								
Se 196.026*†	3060.4	1.523	mg/L	0.0059	1.523	mg/L	0.0059	0.38%
QC value within limits for Se 196.026* Recovery = 101.52%								
Si 251.611*†	215775.3	6.049	mg/L	0.0639	6.049	mg/L	0.0639	1.06%
QC value within limits for Si 251.611* Recovery = 100.81%								
Sn 189.927*†	16976.0	3.095	mg/L	0.0217	3.095	mg/L	0.0217	0.70%
QC value within limits for Sn 189.927* Recovery = 103.17%								
Sn 242.170†	4938.0	3.048	mg/L	0.0180	3.048	mg/L	0.0180	0.59%
Sr 407.771*†	89382.1	0.3013	mg/L	0.00117	0.3013	mg/L	0.00117	0.39%
QC value within limits for Sr 407.771* Recovery = 100.44%								

Return to Contents

Ti 334.940†	470906.0	0.6164	mg/L	0.00377	0.6164	mg/L	0.00377	0.61%
Ti 336.121*†	334567.8	0.6049	mg/L	0.00305	0.6049	mg/L	0.00305	0.50%
QC value within limits for Ti 336.121* Recovery = 100.82%								
Tl 190.801*†	2597.3	1.525	mg/L	0.0250	1.525	mg/L	0.0250	1.64%
QC value within limits for Tl 190.801* Recovery = 101.65%								
V 292.402*†	238486.3	1.857	mg/L	0.0112	1.857	mg/L	0.0112	0.61%
QC value within limits for V 292.402* Recovery = 99.02%								
Zn 206.200*†	95567.0	2.540	mg/L	0.0361	2.540	mg/L	0.0361	1.42%
QC value within limits for Zn 206.200* Recovery = 101.61%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 24
Sample ID: CCB-R12091601
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 1
Date Collected: 3/20/2017 5:23:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	83124.2	110.5	%	1.23				1.11%
Tb 350	138736.3	112.7	%	1.51				1.34%
Ag 328.068*†	191.2	0.0011	mg/L	0.00076	0.0011	mg/L	0.00076	71.40%
Al 308.215*†	135.9	0.0083	mg/L	0.00150	0.0083	mg/L	0.00150	18.17%
As 188.979†	-2.2	-0.0011	mg/L	0.00043	-0.0011	mg/L	0.00043	37.61%
As 193.696*†	-8.1	-0.0061	mg/L	0.00810	-0.0061	mg/L	0.00810	132.14%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	881.3	0.0192	mg/L	0.00241	0.0192	mg/L	0.00241	12.56%
Ba 233.527*†	224.4	0.0016	mg/L	0.00036	0.0016	mg/L	0.00036	22.11%
Be 313.042*†	408.9	0.0001	mg/L	0.00000	0.0001	mg/L	0.00000	0.49%
Ca 317.933*†	5.9	0.0033	mg/L	0.00055	0.0033	mg/L	0.00055	16.53%
Cd 226.502*†	10.2	0.0001	mg/L	0.00029	0.0001	mg/L	0.00029	203.15%
Cd 228.802†	1.4	0.0000	mg/L	0.00033	0.0000	mg/L	0.00033	863.35%
Co 228.616*†	11.2	0.0004	mg/L	0.00039	0.0004	mg/L	0.00039	91.78%
Cr 267.716*†	7.2	0.0001	mg/L	0.00044	0.0001	mg/L	0.00044	651.04%
Cu 324.752*†	-382.3	-0.0016	mg/L	0.00061	-0.0016	mg/L	0.00061	37.22%
Fe 273.955*†	81.0	0.0037	mg/L	0.00386	0.0037	mg/L	0.00386	105.15%
K 766.490*†	-403.2	-0.1484	mg/L	0.02183	-0.1484	mg/L	0.02183	14.71%
Mg 279.077*†	565.1	0.0318	mg/L	0.00406	0.0318	mg/L	0.00406	12.75%
Mn 257.610*†	100.4	0.0002	mg/L	0.00007	0.0002	mg/L	0.00007	40.05%
Mo 202.031*†	9.0	0.0011	mg/L	0.00051	0.0011	mg/L	0.00051	48.81%
Na 589.592*†	380.9	0.0949	mg/L	0.00229	0.0949	mg/L	0.00229	2.41%
Ni 231.604*†	-0.1	-0.0000	mg/L	0.00071	-0.0000	mg/L	0.00071	>999.9%
P 213.617*†	11.8	0.0068	mg/L	0.00785	0.0068	mg/L	0.00785	114.90%
P 214.914†	17.2	0.0151	mg/L	0.00338	0.0151	mg/L	0.00338	22.38%
Pb 220.353*†	8.6	0.0012	mg/L	0.00014	0.0012	mg/L	0.00014	12.34%
Sb 206.836†	-2.3	-0.0013	mg/L	0.00503	-0.0013	mg/L	0.00503	383.00%
Sb 217.582*†	11.4	0.0066	mg/L	0.00161	0.0066	mg/L	0.00161	24.53%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	0.9	0.0004	mg/L	0.00254	0.0004	mg/L	0.00254	570.16%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	-377.5	-0.0106	mg/L	0.00102	-0.0106	mg/L	0.00102	9.66%
Sn 189.927*†	15.2	0.0028	mg/L	0.00014	0.0028	mg/L	0.00014	5.18%
Sn 242.170†	53.2	0.0328	mg/L	0.00599	0.0328	mg/L	0.00599	18.23%
Sr 407.771*†	22.5	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	52.34%
Ti 334.940†	723.0	0.0009	mg/L	0.00062	0.0009	mg/L	0.00062	65.90%
Ti 336.121*†	453.9	0.0008	mg/L	0.00094	0.0008	mg/L	0.00094	115.07%
Tl 190.801*†	-8.8	-0.0052	mg/L	0.00168	-0.0052	mg/L	0.00168	32.53%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	-64.6	-0.0005	mg/L	0.00062	-0.0005	mg/L	0.00062	123.29%
Zn 206.200*†	-100.6	-0.0027	mg/L	0.00017	-0.0027	mg/L	0.00017	6.51%
QC value within limits for Zn 206.200* Recovery = Not calculated								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 35
Sample ID: CCV= STD3x0.5
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 3
Date Collected: 3/20/2017 5:32:37 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	76493.5	101.7	%	0.40				0.40%
Tb 350	129201.3	105.0	%	0.25				0.24%
Ag 328.068*†	64751.7	0.3621	mg/L	0.00002	0.3621	mg/L	0.00002	0.01%
QC value within limits for Ag 328.068* Recovery = 96.56%								
Al 308.215*†	220710.7	13.41	mg/L	0.011	13.41	mg/L	0.011	0.08%
QC value within limits for Al 308.215* Recovery = 99.35%								
As 188.979†	7345.8	3.866	mg/L	0.0025	3.866	mg/L	0.0025	0.06%
QC value within limits for As 188.979 Recovery = 103.11%								
As 193.696*†	5081.0	3.841	mg/L	0.0082	3.841	mg/L	0.0082	0.21%
QC value within limits for As 193.696* Recovery = 102.43%								
B 249.677*†	171392.4	3.729	mg/L	0.0223	3.729	mg/L	0.0223	0.60%
QC value within limits for B 249.677* Recovery = 99.44%								
Ba 233.527*†	1075850.6	7.728	mg/L	0.0084	7.728	mg/L	0.0084	0.11%
QC value within limits for Ba 233.527* Recovery = 103.04%								
Be 313.042*†	1980547.8	0.5769	mg/L	0.00185	0.5769	mg/L	0.00185	0.32%
QC value within limits for Be 313.042* Recovery = 102.57%								
Ca 317.933*†	55950.1	31.61	mg/L	0.151	31.61	mg/L	0.151	0.48%
QC value within limits for Ca 317.933* Recovery = 105.37%								
Cd 226.502*†	54747.5	0.7562	mg/L	0.00059	0.7562	mg/L	0.00059	0.08%
QC value within limits for Cd 226.502* Recovery = 100.82%								
Cd 228.802†	27534.8	0.7432	mg/L	0.00501	0.7432	mg/L	0.00501	0.67%
Co 228.616*†	50306.7	1.901	mg/L	0.0074	1.901	mg/L	0.0074	0.39%
QC value within limits for Co 228.616* Recovery = 101.37%								
Cr 267.716*†	63691.0	0.5960	mg/L	0.00082	0.5960	mg/L	0.00082	0.14%
QC value within limits for Cr 267.716* Recovery = 99.33%								
Cu 324.752*†	215930.6	0.9182	mg/L	0.00245	0.9182	mg/L	0.00245	0.27%
QC value within limits for Cu 324.752* Recovery = 97.94%								
Fe 273.955*†	83902.5	3.803	mg/L	0.0006	3.803	mg/L	0.0006	0.02%
QC value within limits for Fe 273.955* Recovery = 101.42%								
K 766.490*†	73165.1	26.94	mg/L	0.132	26.94	mg/L	0.132	0.49%
QC value within limits for K 766.490* Recovery = 99.78%								
Mg 279.077*†	136862.3	7.703	mg/L	0.0145	7.703	mg/L	0.0145	0.19%
QC value within limits for Mg 279.077* Recovery = 102.71%								
Mn 257.610*†	455970.3	0.7725	mg/L	0.00146	0.7725	mg/L	0.00146	0.19%
QC value within limits for Mn 257.610* Recovery = 103.00%								
Mo 202.031*†	5245.4	0.6105	mg/L	0.00232	0.6105	mg/L	0.00232	0.38%
QC value within limits for Mo 202.031* Recovery = 101.75%								
Na 589.592*†	148111.2	36.91	mg/L	0.153	36.91	mg/L	0.153	0.42%
QC value within limits for Na 589.592* Recovery = 102.53%								
Ni 231.604*†	13631.9	0.6127	mg/L	0.00007	0.6127	mg/L	0.00007	0.01%
QC value within limits for Ni 231.604* Recovery = 102.12%								
P 213.617*†	10718.3	6.225	mg/L	0.0124	6.225	mg/L	0.0124	0.20%
QC value within limits for P 213.617* Recovery = 103.75%								
P 214.914†	7027.3	6.174	mg/L	0.0114	6.174	mg/L	0.0114	0.19%
Pb 220.353*†	28249.5	3.814	mg/L	0.0203	3.814	mg/L	0.0203	0.53%
QC value within limits for Pb 220.353* Recovery = 101.70%								
Sb 206.836†	7942.1	4.586	mg/L	0.0030	4.586	mg/L	0.0030	0.07%
QC value within limits for Sb 206.836 Recovery = 101.91%								
Sb 217.582*†	7881.5	4.563	mg/L	0.0194	4.563	mg/L	0.0194	0.43%
QC value within limits for Sb 217.582* Recovery = 101.40%								
Se 196.026*†	3112.0	1.549	mg/L	0.0022	1.549	mg/L	0.0022	0.14%
QC value within limits for Se 196.026* Recovery = 103.23%								
Si 251.611*†	219612.3	6.156	mg/L	0.0259	6.156	mg/L	0.0259	0.42%
QC value within limits for Si 251.611* Recovery = 102.61%								
Sn 189.927*†	17156.8	3.128	mg/L	0.0122	3.128	mg/L	0.0122	0.39%
QC value within limits for Sn 189.927* Recovery = 104.26%								
Sn 242.170†	4949.9	3.055	mg/L	0.0152	3.055	mg/L	0.0152	0.50%
Sr 407.771*†	91534.5	0.3086	mg/L	0.00166	0.3086	mg/L	0.00166	0.54%
QC value within limits for Sr 407.771* Recovery = 102.86%								

Return to Contents

Ti 334.940†	471412.9	0.6171	mg/L	0.00031	0.6171	mg/L	0.00031	0.05%
Ti 336.121*†	334852.9	0.6054	mg/L	0.00037	0.6054	mg/L	0.00037	0.06%
QC value within limits for Ti 336.121* Recovery = 100.91%								
Tl 190.801*†	2633.9	1.546	mg/L	0.0039	1.546	mg/L	0.0039	0.26%
QC value within limits for Tl 190.801* Recovery = 103.08%								
V 292.402*†	236953.2	1.845	mg/L	0.0008	1.845	mg/L	0.0008	0.04%
QC value within limits for V 292.402* Recovery = 98.38%								
Zn 206.200*†	95362.2	2.535	mg/L	0.0101	2.535	mg/L	0.0101	0.40%
QC value within limits for Zn 206.200* Recovery = 101.39%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 36
Sample ID: CCB-R12091601
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 1
Date Collected: 3/20/2017 5:33:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	84379.6	112.1	%	0.02				0.02%
Tb 350	139898.8	113.7	%	0.65				0.57%
Ag 328.068*†	195.8	0.0011	mg/L	0.00077	0.0011	mg/L	0.00077	70.78%
Al 308.215*†	165.9	0.0101	mg/L	0.01667	0.0101	mg/L	0.01667	165.31%
As 188.979†	9.2	0.0049	mg/L	0.00288	0.0049	mg/L	0.00288	59.29%
As 193.696*†	-11.1	-0.0084	mg/L	0.00124	-0.0084	mg/L	0.00124	14.71%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	631.0	0.0137	mg/L	0.00364	0.0137	mg/L	0.00364	26.55%
Ba 233.527*†	291.1	0.0021	mg/L	0.00027	0.0021	mg/L	0.00027	13.00%
Be 313.042*†	491.8	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	25.68%
Ca 317.933*†	11.0	0.0062	mg/L	0.00302	0.0062	mg/L	0.00302	48.72%
Cd 226.502*†	2.8	0.0000	mg/L	0.00010	0.0000	mg/L	0.00010	265.39%
Cd 228.802†	16.0	0.0004	mg/L	0.00020	0.0004	mg/L	0.00020	47.34%
Co 228.616*†	18.6	0.0007	mg/L	0.00012	0.0007	mg/L	0.00012	17.35%
Cr 267.716*†	0.1	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007	>999.9%
Cu 324.752*†	-592.9	-0.0025	mg/L	0.00008	-0.0025	mg/L	0.00008	3.16%
Fe 273.955*†	685.5	0.0311	mg/L	0.03241	0.0311	mg/L	0.03241	104.31%
K 766.490*†	-287.3	-0.1058	mg/L	0.05127	-0.1058	mg/L	0.05127	48.47%
Mg 279.077*†	641.9	0.0361	mg/L	0.00142	0.0361	mg/L	0.00142	3.93%
Mn 257.610*†	460.8	0.0008	mg/L	0.00069	0.0008	mg/L	0.00069	87.98%
Mo 202.031*†	-0.3	-0.0000	mg/L	0.00072	-0.0000	mg/L	0.00072	>999.9%
Na 589.592*†	268.9	0.0670	mg/L	0.00732	0.0670	mg/L	0.00732	10.93%
Ni 231.604*†	1.1	0.0000	mg/L	0.00049	0.0000	mg/L	0.00049	992.32%
P 213.617*†	13.1	0.0076	mg/L	0.01472	0.0076	mg/L	0.01472	193.98%
P 214.914†	13.0	0.0114	mg/L	0.00258	0.0114	mg/L	0.00258	22.53%
Pb 220.353*†	23.0	0.0031	mg/L	0.00144	0.0031	mg/L	0.00144	46.39%
Sb 206.836†	6.1	0.0035	mg/L	0.00026	0.0035	mg/L	0.00026	7.44%
Sb 217.582*†	12.9	0.0075	mg/L	0.00075	0.0075	mg/L	0.00075	10.07%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	0.6	0.0003	mg/L	0.00065	0.0003	mg/L	0.00065	222.54%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	17.3	0.0005	mg/L	0.00088	0.0005	mg/L	0.00088	181.90%
Sn 189.927*†	13.6	0.0025	mg/L	0.00148	0.0025	mg/L	0.00148	59.68%
Sn 242.170†	56.2	0.0347	mg/L	0.01168	0.0347	mg/L	0.01168	33.66%
Sr 407.771*†	33.9	0.0001	mg/L	0.00006	0.0001	mg/L	0.00006	51.61%
Ti 334.940†	873.1	0.0011	mg/L	0.00098	0.0011	mg/L	0.00098	86.01%
Ti 336.121*†	608.5	0.0011	mg/L	0.00074	0.0011	mg/L	0.00074	67.54%
Tl 190.801*†	-12.3	-0.0072	mg/L	0.00794	-0.0072	mg/L	0.00794	109.53%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	-1.5	-0.0000	mg/L	0.00017	-0.0000	mg/L	0.00017	>999.9%
Zn 206.200*†	-84.3	-0.0022	mg/L	0.00054	-0.0022	mg/L	0.00054	24.14%
QC value within limits for Zn 206.200* Recovery = Not calculated								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 47
Sample ID: CCV= STD3x0.5
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 3
Date Collected: 3/20/2017 5:42:43 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCV= STD3x0.5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	76007.7	101.0	%	0.03				0.03%
Tb 350	127957.8	104.0	%	0.16				0.16%
Ag 328.068*†	65527.7	0.3665	mg/L	0.00053	0.3665	mg/L	0.00053	0.14%
QC value within limits for Ag 328.068* Recovery = 97.72%								
Al 308.215*†	222866.4	13.54	mg/L	0.065	13.54	mg/L	0.065	0.48%
QC value within limits for Al 308.215* Recovery = 100.32%								
As 188.979†	7384.0	3.887	mg/L	0.0205	3.887	mg/L	0.0205	0.53%
QC value within limits for As 188.979 Recovery = 103.64%								
As 193.696*†	5105.0	3.859	mg/L	0.0157	3.859	mg/L	0.0157	0.41%
QC value within limits for As 193.696* Recovery = 102.91%								
B 249.677*†	173397.5	3.773	mg/L	0.0664	3.773	mg/L	0.0664	1.76%
QC value within limits for B 249.677* Recovery = 100.60%								
Ba 233.527*†	1082793.2	7.778	mg/L	0.0378	7.778	mg/L	0.0378	0.49%
QC value within limits for Ba 233.527* Recovery = 103.70%								
Be 313.042*†	1999846.1	0.5826	mg/L	0.00375	0.5826	mg/L	0.00375	0.64%
QC value within limits for Be 313.042* Recovery = 103.57%								
Ca 317.933*†	56858.7	32.12	mg/L	0.060	32.12	mg/L	0.060	0.19%
QC value within limits for Ca 317.933* Recovery = 107.08%								
Cd 226.502*†	55366.2	0.7647	mg/L	0.00359	0.7647	mg/L	0.00359	0.47%
QC value within limits for Cd 226.502* Recovery = 101.96%								
Cd 228.802†	27877.4	0.7524	mg/L	0.00475	0.7524	mg/L	0.00475	0.63%
Co 228.616*†	50679.5	1.915	mg/L	0.0120	1.915	mg/L	0.0120	0.63%
QC value within limits for Co 228.616* Recovery = 102.12%								
Cr 267.716*†	64178.7	0.6005	mg/L	0.00232	0.6005	mg/L	0.00232	0.39%
QC value within limits for Cr 267.716* Recovery = 100.09%								
Cu 324.752*†	217350.6	0.9243	mg/L	0.00232	0.9243	mg/L	0.00232	0.25%
QC value within limits for Cu 324.752* Recovery = 98.59%								
Fe 273.955*†	84458.4	3.828	mg/L	0.0038	3.828	mg/L	0.0038	0.10%
QC value within limits for Fe 273.955* Recovery = 102.09%								
K 766.490*†	75311.9	27.73	mg/L	0.009	27.73	mg/L	0.009	0.03%
QC value within limits for K 766.490* Recovery = 102.70%								
Mg 279.077*†	138014.1	7.768	mg/L	0.0150	7.768	mg/L	0.0150	0.19%
QC value within limits for Mg 279.077* Recovery = 103.58%								
Mn 257.610*†	458781.8	0.7772	mg/L	0.00307	0.7772	mg/L	0.00307	0.40%
QC value within limits for Mn 257.610* Recovery = 103.63%								
Mo 202.031*†	5267.9	0.6131	mg/L	0.00161	0.6131	mg/L	0.00161	0.26%
QC value within limits for Mo 202.031* Recovery = 102.18%								
Na 589.592*†	152804.9	38.08	mg/L	0.034	38.08	mg/L	0.034	0.09%
QC value within limits for Na 589.592* Recovery = 105.78%								
Ni 231.604*†	13712.4	0.6164	mg/L	0.00190	0.6164	mg/L	0.00190	0.31%
QC value within limits for Ni 231.604* Recovery = 102.73%								
P 213.617*†	10736.6	6.236	mg/L	0.0280	6.236	mg/L	0.0280	0.45%
QC value within limits for P 213.617* Recovery = 103.93%								
P 214.914†	7092.7	6.232	mg/L	0.0373	6.232	mg/L	0.0373	0.60%
Pb 220.353*†	28560.8	3.856	mg/L	0.0189	3.856	mg/L	0.0189	0.49%
QC value within limits for Pb 220.353* Recovery = 102.82%								
Sb 206.836†	7979.7	4.608	mg/L	0.0310	4.608	mg/L	0.0310	0.67%
QC value within limits for Sb 206.836 Recovery = 102.39%								
Sb 217.582*†	7924.3	4.588	mg/L	0.0153	4.588	mg/L	0.0153	0.33%
QC value within limits for Sb 217.582* Recovery = 101.95%								
Se 196.026*†	3126.5	1.556	mg/L	0.0270	1.556	mg/L	0.0270	1.74%
QC value within limits for Se 196.026* Recovery = 103.71%								
Si 251.611*†	217555.7	6.099	mg/L	0.0496	6.099	mg/L	0.0496	0.81%
QC value within limits for Si 251.611* Recovery = 101.65%								
Sn 189.927*†	17221.3	3.140	mg/L	0.0370	3.140	mg/L	0.0370	1.18%
QC value within limits for Sn 189.927* Recovery = 104.66%								
Sn 242.170†	4977.8	3.073	mg/L	0.0206	3.073	mg/L	0.0206	0.67%
Sr 407.771*†	93263.3	0.3144	mg/L	0.00128	0.3144	mg/L	0.00128	0.41%
QC value within limits for Sr 407.771* Recovery = 104.80%								

Return to Contents

Ti 334.940†	470550.0	0.6159	mg/L	0.00265	0.6159	mg/L	0.00265	0.43%
Ti 336.121*†	333761.3	0.6035	mg/L	0.00312	0.6035	mg/L	0.00312	0.52%
QC value within limits for Ti 336.121* Recovery = 100.58%								
Tl 190.801*†	2634.7	1.547	mg/L	0.0084	1.547	mg/L	0.0084	0.54%
QC value within limits for Tl 190.801* Recovery = 103.12%								
V 292.402*†	239588.5	1.865	mg/L	0.0106	1.865	mg/L	0.0106	0.57%
QC value within limits for V 292.402* Recovery = 99.48%								
Zn 206.200*†	96382.2	2.562	mg/L	0.0163	2.562	mg/L	0.0163	0.64%
QC value within limits for Zn 206.200* Recovery = 102.48%								

All analyte(s) passed QC.

Return to Contents

Sequence No.: 48
Sample ID: CCB-R12091601
Analyst: 935 icp 7300
Initial Sample Wt:
Dilution:
Wash Time: 15

Autosampler Location: 1
Date Collected: 3/20/2017 5:43:36 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Mean Data: CCB-R12091601

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	84107.8	111.8	%	1.61				1.44%
Tb 350	138586.4	112.6	%	1.80				1.60%
Ag 328.068*†	104.3	0.0006	mg/L	0.00051	0.0006	mg/L	0.00051	87.96%
Al 308.215*†	94.2	0.0057	mg/L	0.00411	0.0057	mg/L	0.00411	71.90%
As 188.979†	11.8	0.0062	mg/L	0.00144	0.0062	mg/L	0.00144	23.08%
As 193.696*†	-3.6	-0.0027	mg/L	0.00968	-0.0027	mg/L	0.00968	355.47%
QC value within limits for As 193.696* Recovery = Not calculated								
B 249.677*†	900.0	0.0196	mg/L	0.00063	0.0196	mg/L	0.00063	3.22%
Ba 233.527*†	249.1	0.0018	mg/L	0.00023	0.0018	mg/L	0.00023	12.70%
Be 313.042*†	404.7	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	41.22%
Ca 317.933*†	34.5	0.0195	mg/L	0.00338	0.0195	mg/L	0.00338	17.36%
Cd 226.502*†	-5.6	-0.0001	mg/L	0.00006	-0.0001	mg/L	0.00006	78.17%
Cd 228.802†	2.4	0.0001	mg/L	0.00007	0.0001	mg/L	0.00007	109.39%
Co 228.616*†	17.6	0.0007	mg/L	0.00021	0.0007	mg/L	0.00021	32.26%
Cr 267.716*†	-15.9	-0.0001	mg/L	0.00079	-0.0001	mg/L	0.00079	527.82%
Cu 324.752*†	-355.8	-0.0015	mg/L	0.00030	-0.0015	mg/L	0.00030	19.66%
Fe 273.955*†	176.0	0.0080	mg/L	0.00063	0.0080	mg/L	0.00063	7.96%
K 766.490*†	-34.1	-0.0126	mg/L	0.01618	-0.0126	mg/L	0.01618	128.88%
Mg 279.077*†	422.5	0.0238	mg/L	0.00011	0.0238	mg/L	0.00011	0.47%
Mn 257.610*†	195.4	0.0003	mg/L	0.00001	0.0003	mg/L	0.00001	3.06%
Mo 202.031*†	7.0	0.0008	mg/L	0.00118	0.0008	mg/L	0.00118	145.81%
Na 589.592*†	397.2	0.0990	mg/L	0.01239	0.0990	mg/L	0.01239	12.52%
Ni 231.604*†	-0.9	-0.0000	mg/L	0.00070	-0.0000	mg/L	0.00070	>999.9%
P 213.617*†	7.3	0.0042	mg/L	0.00270	0.0042	mg/L	0.00270	63.94%
P 214.914†	15.0	0.0131	mg/L	0.00535	0.0131	mg/L	0.00535	40.71%
Pb 220.353*†	14.6	0.0020	mg/L	0.00099	0.0020	mg/L	0.00099	50.42%
Sb 206.836†	1.9	0.0011	mg/L	0.00123	0.0011	mg/L	0.00123	113.87%
Sb 217.582*†	11.9	0.0069	mg/L	0.00049	0.0069	mg/L	0.00049	7.11%
QC value within limits for Sb 217.582* Recovery = Not calculated								
Se 196.026*†	10.9	0.0054	mg/L	0.00315	0.0054	mg/L	0.00315	58.20%
QC value within limits for Se 196.026* Recovery = Not calculated								
Si 251.611*†	-373.0	-0.0105	mg/L	0.00126	-0.0105	mg/L	0.00126	12.09%
Sn 189.927*†	-6.6	-0.0012	mg/L	0.00577	-0.0012	mg/L	0.00577	480.02%
Sn 242.170†	29.3	0.0181	mg/L	0.00770	0.0181	mg/L	0.00770	42.55%
Sr 407.771*†	39.5	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	9.20%
Ti 334.940†	642.0	0.0008	mg/L	0.00028	0.0008	mg/L	0.00028	33.31%
Ti 336.121*†	110.1	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	15.55%
Tl 190.801*†	-10.8	-0.0064	mg/L	0.00031	-0.0064	mg/L	0.00031	4.93%
QC value within limits for Tl 190.801* Recovery = Not calculated								
V 292.402*†	-53.5	-0.0004	mg/L	0.00049	-0.0004	mg/L	0.00049	117.37%
Zn 206.200*†	-89.4	-0.0024	mg/L	0.00026	-0.0024	mg/L	0.00026	11.14%
QC value within limits for Zn 206.200* Recovery = Not calculated								

All analyte(s) passed QC.

Return to Contents

EPA 6010B ICP Metals (Solid)

Sample Data

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 6010B

WORK ORDER: **17-03-0589**
INSTRUMENT: ICP 7300
EXTRACTION : EPA 3050B
D/T EXTRACTED: 2017-03-20 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-20 17:16
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170320C1\17-03-0589-28 MIS.icp

 # 28 **CLIENT SAMPLE NUMBER: D-DU1-ISM1-3**

LCS/MB BATCH: 170320L02
MS/MSD BATCH: 170320S02
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Antimony	0.0104	1.00	ND	0.750	
Arsenic	0.0112	1.00	ND	0.750	
Barium	1.69	1.00	84.5	0.500	
Beryllium	0.00405	1.00	ND	0.250	
Cadmium	0.00604	1.00	ND	0.500	
Chromium	0.156	1.00	7.79	0.250	
Cobalt	0.142	1.00	7.10	0.250	
Copper	0.189	1.00	9.44	0.500	
Lead	0.0601	1.00	3.00	0.500	
Molybdenum	-0.00134	1.00	ND	0.250	
Nickel	0.124	1.00	6.19	0.250	
Selenium	0.00164	1.00	ND	0.750	
Silver	-0.00178	1.00	ND	0.250	
Thallium	-0.0233	1.00	ND	0.750	
Vanadium	0.475	1.00	23.7	0.250	
Zinc	0.785	1.00	39.3	1.00	

Return to Contents

Sequence No.: 16
Sample ID: 17-03-0589-28 MIS
Analyst: 935 icp 7300
Initial Sample Wt: 2 g
Dilution:
Wash Time: 20

Autosampler Location: 144
Date Collected: 3/20/2017 5:16:24 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0589-28 MIS

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	61535.5	81.78	%	0.025				0.03%
Tb 350	119980.2	97.51	%	0.756				0.77%
Ag 328.068*†	-318.0	-0.0018	mg/L	0.00044	-0.0889	mg/kg	0.02195	24.69%
Al 308.215*†	2814946.9	171.1	mg/L	3.35	8553	mg/kg	167.65	1.96%
As 188.979†	71.7	0.0377	mg/L	0.00054	1.887	mg/kg	0.0272	1.44%
As 193.696*†	14.8	0.0112	mg/L	0.00286	0.5599	mg/kg	0.14293	25.53%
B 249.677*†	-98.0	-0.0021	mg/L	0.00250	-0.1066	mg/kg	0.12509	117.36%
Ba 233.527*†	235241.5	1.690	mg/L	0.0055	84.49	mg/kg	0.273	0.32%
Be 313.042*†	13896.5	0.0040	mg/L	0.00004	0.2024	mg/kg	0.00190	0.94%
Ca 317.933*†	170603.5	96.39	mg/L	2.120	4819	mg/kg	106.01	2.20%
Cd 226.502*†	437.0	0.0060	mg/L	0.00001	0.3018	mg/kg	0.00075	0.25%
Cd 228.802†	11.0	0.0003	mg/L	0.00018	0.0148	mg/kg	0.00907	61.11%
Co 228.616*†	3756.9	0.1419	mg/L	0.00067	7.097	mg/kg	0.0336	0.47%
Cr 267.716*†	16653.6	0.1558	mg/L	0.00107	7.791	mg/kg	0.0536	0.69%
Cu 324.752*†	44384.9	0.1887	mg/L	0.00043	9.437	mg/kg	0.0215	0.23%
Fe 273.955*†	5401771.1	244.8	mg/L	6.36	12240	mg/kg	317.88	2.60%
K 766.490*†	153631.9	56.57	mg/L	0.803	2828	mg/kg	40.13	1.42%
Mg 279.077*†	1499675.0	84.41	mg/L	0.230	4221	mg/kg	11.52	0.27%
Mn 257.610*†	2405762.8	4.076	mg/L	0.0102	203.8	mg/kg	0.51	0.25%
Mo 202.031*†	-11.5	-0.0013	mg/L	0.00047	-0.0670	mg/kg	0.02368	35.35%
Na 589.592*†	22547.4	5.619	mg/L	0.0842	280.9	mg/kg	4.21	1.50%
Ni 231.604*†	2756.1	0.1239	mg/L	0.00204	6.194	mg/kg	0.1019	1.64%
P 213.617*†	29403.0	17.08	mg/L	0.147	853.9	mg/kg	7.37	0.86%
P 214.914†	20000.1	17.57	mg/L	0.186	878.6	mg/kg	9.28	1.06%
Pb 220.353*†	445.1	0.0601	mg/L	0.00166	3.004	mg/kg	0.0832	2.77%
Sb 206.836†	4.0	0.0023	mg/L	0.00594	0.1161	mg/kg	0.29682	255.67%
Sb 217.582*†	18.0	0.0104	mg/L	0.00714	0.5213	mg/kg	0.35702	68.48%
Se 196.026*†	3.3	0.0016	mg/L	0.00818	0.0818	mg/kg	0.40900	499.94%
Si 251.611*†	389458.1	10.92	mg/L	0.054	545.9	mg/kg	2.72	0.50%
Sn 189.927*†	-607.4	-0.1107	mg/L	0.00234	-5.537	mg/kg	0.1170	2.11%
Sn 242.170†	1076.9	0.6647	mg/L	0.04672	33.24	mg/kg	2.336	7.03%
Sr 407.771*†	282730.9	0.9531	mg/L	0.01401	47.66	mg/kg	0.701	1.47%
Ti 334.940†	13419998.5	17.57	mg/L	0.388	878.3	mg/kg	19.38	2.21%
Ti 336.121*†	9603758.0	17.36	mg/L	0.368	868.2	mg/kg	18.39	2.12%
Tl 190.801*†	-39.7	-0.0233	mg/L	0.00975	-1.165	mg/kg	0.4875	41.85%
V 292.402*†	61512.9	0.4749	mg/L	0.00032	23.74	mg/kg	0.016	0.07%
Zn 206.200*†	29545.0	0.7853	mg/L	0.00834	39.27	mg/kg	0.417	1.06%

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 6010B

WORK ORDER: **17-03-0589**
INSTRUMENT: ICP 7300
EXTRACTION : EPA 3050B
D/T EXTRACTED: 2017-03-20 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-20 17:17
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170320C1\17-03-0589-29 MIS.icp

 # 29 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM2-3**

LCS/MB BATCH: 170320L02
MS/MSD BATCH: 170320S02
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Antimony	0.00569	1.02	ND	0.765	D
Arsenic	0.0105	1.02	ND	0.765	D
Barium	1.53	1.02	78.1	0.510	D
Beryllium	0.00374	1.02	ND	0.255	D
Cadmium	0.00561	1.02	ND	0.510	D
Chromium	0.138	1.02	7.06	0.255	D
Cobalt	0.129	1.02	6.57	0.255	D
Copper	0.169	1.02	8.63	0.510	D
Lead	0.0574	1.02	2.93	0.510	D
Molybdenum	-0.000665	1.02	ND	0.255	D
Nickel	0.112	1.02	5.70	0.255	D
Selenium	-0.00383	1.02	ND	0.765	D
Silver	-0.00225	1.02	ND	0.255	D
Thallium	-0.0189	1.02	ND	0.765	D
Vanadium	0.420	1.02	21.4	0.255	D
Zinc	0.746	1.02	38.1	1.02	D

Return to Contents

Sequence No.: 17
Sample ID: 17-03-0589-29 MIS
Analyst: 935 icp 7300
Initial Sample Wt: 1.96 g
Dilution:
Wash Time: 15

Autosampler Location: 145
Date Collected: 3/20/2017 5:17:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0589-29 MIS

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	59882.2	79.58	%	0.746				0.94%
Tb 350	119355.2	97.00	%	0.353				0.36%
Ag 328.068*†	-401.6	-0.0022	mg/L	0.00078	-0.1146	mg/kg	0.03974	34.68%
Al 308.215*†	2525799.6	153.5	mg/L	1.42	7831	mg/kg	72.21	0.92%
As 188.979†	65.1	0.0343	mg/L	0.00014	1.748	mg/kg	0.0071	0.40%
As 193.696*†	13.9	0.0105	mg/L	0.00625	0.5366	mg/kg	0.31873	59.40%
B 249.677*†	-741.4	-0.0161	mg/L	0.00156	-0.8230	mg/kg	0.07961	9.67%
Ba 233.527*†	213020.5	1.530	mg/L	0.0134	78.07	mg/kg	0.685	0.88%
Be 313.042*†	12826.6	0.0037	mg/L	0.00000	0.1906	mg/kg	0.00025	0.13%
Ca 317.933*†	151108.6	85.37	mg/L	1.691	4356	mg/kg	86.30	1.98%
Cd 226.502*†	406.1	0.0056	mg/L	0.00018	0.2862	mg/kg	0.00895	3.13%
Cd 228.802†	10.9	0.0003	mg/L	0.00026	0.0151	mg/kg	0.01325	87.97%
Co 228.616*†	3408.7	0.1288	mg/L	0.00035	6.571	mg/kg	0.0181	0.27%
Cr 267.716*†	14787.3	0.1384	mg/L	0.00113	7.059	mg/kg	0.0575	0.81%
Cu 324.752*†	39756.3	0.1691	mg/L	0.00220	8.625	mg/kg	0.1122	1.30%
Fe 273.955*†	4847371.6	219.7	mg/L	3.45	11210	mg/kg	175.82	1.57%
K 766.490*†	139164.8	51.24	mg/L	0.717	2614	mg/kg	36.56	1.40%
Mg 279.077*†	1370767.7	77.15	mg/L	0.683	3936	mg/kg	34.84	0.89%
Mn 257.610*†	2207526.0	3.740	mg/L	0.0356	190.8	mg/kg	1.82	0.95%
Mo 202.031*†	-5.7	-0.0007	mg/L	0.00056	-0.0339	mg/kg	0.02867	84.46%
Na 589.592*†	19195.4	4.784	mg/L	0.0842	244.1	mg/kg	4.29	1.76%
Ni 231.604*†	2486.8	0.1118	mg/L	0.00051	5.703	mg/kg	0.0261	0.46%
P 213.617*†	25091.8	14.57	mg/L	0.378	743.5	mg/kg	19.28	2.59%
P 214.914†	17150.3	15.07	mg/L	0.032	768.8	mg/kg	1.63	0.21%
Pb 220.353*†	425.2	0.0574	mg/L	0.00074	2.929	mg/kg	0.0377	1.29%
Sb 206.836†	-13.4	-0.0077	mg/L	0.00617	-0.3936	mg/kg	0.31484	79.99%
Sb 217.582*†	9.8	0.0057	mg/L	0.00157	0.2902	mg/kg	0.07991	27.54%
Se 196.026*†	-7.7	-0.0038	mg/L	0.01236	-0.1952	mg/kg	0.63083	323.19%
Si 251.611*†	377728.9	10.59	mg/L	0.065	540.2	mg/kg	3.32	0.61%
Sn 189.927*†	-532.5	-0.0971	mg/L	0.00302	-4.953	mg/kg	0.1539	3.11%
Sn 242.170†	952.6	0.5880	mg/L	0.05708	30.00	mg/kg	2.912	9.71%
Sr 407.771*†	242349.0	0.8170	mg/L	0.01123	41.68	mg/kg	0.573	1.37%
Ti 334.940†	12278873.6	16.07	mg/L	0.213	820.0	mg/kg	10.86	1.32%
Ti 336.121*†	8797939.4	15.91	mg/L	0.228	811.6	mg/kg	11.65	1.44%
Tl 190.801*†	-32.1	-0.0189	mg/L	0.00922	-0.9627	mg/kg	0.47017	48.84%
V 292.402*†	54460.8	0.4204	mg/L	0.00458	21.45	mg/kg	0.234	1.09%
Zn 206.200*†	28062.8	0.7459	mg/L	0.00496	38.06	mg/kg	0.253	0.67%

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 6010B

WORK ORDER: **17-03-0589**
INSTRUMENT: ICP 7300
EXTRACTION : EPA 3050B
D/T EXTRACTED: 2017-03-20 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-20 17:18
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170320C1\17-03-0589-30 MIS.icp

 # 30 **CLIENT SAMPLE NUMBER: D-DU1-ISM3-3**

LCS/MB BATCH: 170320L02
MS/MSD BATCH: 170320S02
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Antimony	0.00227	0.985	ND	0.739	
Arsenic	0.0207	0.985	1.02	0.739	
Barium	1.69	0.985	83.0	0.493	
Beryllium	0.00408	0.985	ND	0.246	
Cadmium	0.00607	0.985	ND	0.493	
Chromium	0.158	0.985	7.80	0.246	
Cobalt	0.143	0.985	7.04	0.246	
Copper	0.192	0.985	9.46	0.493	
Lead	0.0607	0.985	2.99	0.493	
Molybdenum	-0.0000103	0.985	ND	0.246	
Nickel	0.124	0.985	6.10	0.246	
Selenium	-0.00186	0.985	ND	0.739	
Silver	-0.00106	0.985	ND	0.246	
Thallium	-0.0277	0.985	ND	0.739	
Vanadium	0.482	0.985	23.8	0.246	
Zinc	0.836	0.985	41.2	0.985	

Return to Contents

Sequence No.: 18
Sample ID: 17-03-0589-30 MIS
Analyst: 935 icp 7300
Initial Sample Wt: 2.03 g
Dilution:
Wash Time: 15

Autosampler Location: 146
Date Collected: 3/20/2017 5:18:06 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-0589-30 MIS

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	61720.5	82.02	%	0.350				0.43%
Tb 350	120461.9	97.90	%	0.632				0.65%
Ag 328.068*†	-188.9	-0.0011	mg/L	0.00160	-0.0520	mg/kg	0.07884	151.49%
Al 308.215*†	2766193.0	168.1	mg/L	0.56	8281	mg/kg	27.42	0.33%
As 188.979†	72.3	0.0381	mg/L	0.00948	1.875	mg/kg	0.4669	24.91%
As 193.696*†	27.4	0.0207	mg/L	0.00899	1.022	mg/kg	0.4430	43.34%
B 249.677*†	-649.4	-0.0141	mg/L	0.00204	-0.6960	mg/kg	0.10030	14.41%
Ba 233.527*†	234629.3	1.685	mg/L	0.0004	83.02	mg/kg	0.018	0.02%
Be 313.042*†	14009.4	0.0041	mg/L	0.00001	0.2010	mg/kg	0.00036	0.18%
Ca 317.933*†	164239.6	92.79	mg/L	1.043	4571	mg/kg	51.40	1.12%
Cd 226.502*†	439.7	0.0061	mg/L	0.00018	0.2991	mg/kg	0.00881	2.95%
Cd 228.802†	5.5	0.0001	mg/L	0.00016	0.0073	mg/kg	0.00768	105.90%
Co 228.616*†	3780.4	0.1428	mg/L	0.00009	7.036	mg/kg	0.0044	0.06%
Cr 267.716*†	16929.6	0.1584	mg/L	0.00028	7.804	mg/kg	0.0136	0.17%
Cu 324.752*†	45137.0	0.1919	mg/L	0.00121	9.455	mg/kg	0.0595	0.63%
Fe 273.955*†	5424382.1	245.9	mg/L	0.31	12110	mg/kg	15.28	0.13%
K 766.490*†	154119.6	56.75	mg/L	0.643	2795	mg/kg	31.68	1.13%
Mg 279.077*†	1500639.4	84.46	mg/L	0.260	4161	mg/kg	12.82	0.31%
Mn 257.610*†	2428984.5	4.115	mg/L	0.0187	202.7	mg/kg	0.92	0.45%
Mo 202.031*†	-0.1	-0.0000	mg/L	0.00018	-0.0005	mg/kg	0.00864	>999.9%
Na 589.592*†	20170.5	5.027	mg/L	0.0162	247.6	mg/kg	0.80	0.32%
Ni 231.604*†	2754.8	0.1238	mg/L	0.00070	6.100	mg/kg	0.0346	0.57%
P 213.617*†	27737.1	16.11	mg/L	0.207	793.6	mg/kg	10.19	1.28%
P 214.914†	18810.7	16.53	mg/L	0.058	814.2	mg/kg	2.85	0.35%
Pb 220.353*†	449.3	0.0607	mg/L	0.00167	2.988	mg/kg	0.0822	2.75%
Sb 206.836†	-5.1	-0.0029	mg/L	0.00364	-0.1447	mg/kg	0.17940	123.96%
Sb 217.582*†	3.9	0.0023	mg/L	0.00341	0.1116	mg/kg	0.16782	150.35%
Se 196.026*†	-3.7	-0.0019	mg/L	0.00158	-0.0914	mg/kg	0.07770	85.00%
Si 251.611*†	355530.9	9.967	mg/L	0.0440	491.0	mg/kg	2.17	0.44%
Sn 189.927*†	-583.7	-0.1064	mg/L	0.00345	-5.242	mg/kg	0.1701	3.25%
Sn 242.170†	1032.2	0.6372	mg/L	0.00036	31.39	mg/kg	0.018	0.06%
Sr 407.771*†	257620.6	0.8685	mg/L	0.00555	42.78	mg/kg	0.274	0.64%
Ti 334.940†	13695194.6	17.93	mg/L	0.013	883.1	mg/kg	0.66	0.07%
Ti 336.121*†	9816513.5	17.75	mg/L	0.028	874.3	mg/kg	1.39	0.16%
Tl 190.801*†	-47.2	-0.0277	mg/L	0.00478	-1.366	mg/kg	0.2355	17.24%
V 292.402*†	62490.2	0.4825	mg/L	0.00051	23.77	mg/kg	0.025	0.11%
Zn 206.200*†	31469.0	0.8365	mg/L	0.00193	41.21	mg/kg	0.095	0.23%

Return to Contents

EPA 6010B ICP Metals

(Solid)

Quality Control

Method Blank
LCS/LCSD
MS/MSD
PDS/PDSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 6010B

MB SAMPLE ID: **097-01-002-24458**
MB BATCH ID: 170320L02
INSTRUMENT: ICP 7300
EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-20 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-20 17:02
REVIEWED BY:
D/T REVIEWED:
MATRIX: Soil

DATA FILE: W:\ICP-DATA\170320C1\170320-b-02__335.icp

CLIENT WORK ORDER: 17-03-0589

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
28		D-DU1-ISM1-3	2017-03-20 17:16	W:\ICP-DATA\170320C1\17-03-0589-28 MIS.icp
29		D-DU1-ISM2-3	2017-03-20 17:17	W:\ICP-DATA\170320C1\17-03-0589-29 MIS.icp
30		D-DU1-ISM3-3	2017-03-20 17:18	W:\ICP-DATA\170320C1\17-03-0589-30 MIS.icp

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 6010B

WORK ORDER: **097-01-002**
INSTRUMENT: ICP 7300
EXTRACTION : EPA 3050B
D/T EXTRACTED: 2017-03-20 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-20 17:02
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170320C1\170320-b-02__335.icp

 # MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: 170320L02
MS/MSD BATCH:
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 2.00 g / ACTUAL: 2.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml / ACTUAL: 100.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Antimony	0.00808	0.971	ND	0.728	
Arsenic	-0.00555	0.971	ND	0.728	
Barium	-0.00267	0.971	ND	0.485	
Beryllium	-0.000174	0.971	ND	0.243	
Cadmium	-0.000378	0.971	ND	0.485	
Chromium	0.000188	0.971	ND	0.243	
Cobalt	-0.000844	0.971	ND	0.243	
Copper	-0.00199	0.971	ND	0.485	
Lead	-0.00203	0.971	ND	0.485	
Molybdenum	-0.000147	0.971	ND	0.243	
Nickel	-0.000700	0.971	ND	0.243	
Selenium	-0.00150	0.971	ND	0.728	
Silver	-0.000247	0.971	ND	0.243	
Thallium	-0.00782	0.971	ND	0.728	
Vanadium	-0.00122	0.971	ND	0.243	
Zinc	0.00149	0.971	ND	0.971	

Return to Contents

LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

LCS SAMPLE ID: **097-01-002-24458**
LCS/MB BATCH ID: 170320L02
INSTRUMENT: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-20 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-20 17:03
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170320C1\170320-I-02__336.icp

COMPOUND	CONC	CONC REC	%REC	%REC CL	ME CL	STATUS	QUALIFIERS
Antimony	25.00	23.13	93	80-120	73-127	PASS	
Arsenic	25.00	23.03	92	80-120	73-127	PASS	
Barium	25.00	24.13	97	80-120	73-127	PASS	
Beryllium	25.00	23.03	92	80-120	73-127	PASS	
Cadmium	25.00	23.07	92	80-120	73-127	PASS	
Chromium	25.00	23.23	93	80-120	73-127	PASS	
Cobalt	25.00	24.53	98	80-120	73-127	PASS	
Copper	25.00	22.93	92	80-120	73-127	PASS	
Lead	25.00	24.03	96	80-120	73-127	PASS	
Molybdenum	25.00	23.15	93	80-120	73-127	PASS	
Nickel	25.00	24.49	98	80-120	73-127	PASS	
Phosphorus	25.00	24.65	99	80-120	73-127	PASS	
Selenium	25.00	23.22	93	80-120	73-127	PASS	
Silver	12.50	10.81	86	80-120	73-127	PASS	
Thallium	25.00	23.85	95	80-120	73-127	PASS	
Vanadium	25.00	21.96	88	80-120	73-127	PASS	
Zinc	25.00	23.73	95	80-120	73-127	PASS	
Aluminum	25.00	24.28	97	80-120	73-127	PASS	
Calcium	25.00	24.45	98	80-120	73-127	PASS	
Iron	25.00	23.31	93	80-120	73-127	PASS	
Magnesium	25.00	24.45	98	80-120	73-127	PASS	
Manganese	25.00	23.86	95	80-120	73-127	PASS	
Potassium	250.0	223.5	89	80-120	73-127	PASS	
Sodium	250.0	237.3	95	80-120	73-127	PASS	
Strontium	25.00	24.34	97	80-120	73-127	PASS	
Tin	25.00	24.11	96	80-120	73-127	PASS	
Titanium	25.00	22.89	92	80-120	73-127	PASS	
Boron	25.00	20.82	83	80-120	73-127	PASS	
Silicon	25.00	22.36	89	80-120	73-127	PASS	

Compounds listed in bold are required to be reported.

Return to Contents

LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

LCS SAMPLE ID: **097-01-002-24458**
LCS/MB BATCH ID: 170320L02
INSTRUMENT: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED: 2017-03-20 00:00

ANALYZED BY: 935
D/T ANALYZED: 2017-03-20 17:03
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\ICP-DATA\170320C1\170320-I-02__336.icp

COMPOUND	CONC	CONC REC	%REC	%REC CL	ME CL	STATUS	QUALIFIERS

Total number of LCS compounds: 29
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Compounds listed in bold are required to be reported.

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

SPIKED SAMPLE ID: **17-03-1125-3**
MS/MSD BATCH: 170320S02
INSTRUMENTS:
SAMPLE: ICP 7300
MS: ICP 7300
MSD: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED:
SAMPLE: 2017-03-20 00:00
MS: 2017-03-20 00:00
MSD: 2017-03-20 00:00

ANALYZED BY: 935
D/T ANALYZED:
SAMPLE: 2017-03-20 17:35
MS: 2017-03-20 17:36
MSD: 2017-03-20 17:37
REVIEWED BY:
D/T REVIEWED:

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Antimony	**ND**	**0.5000**	**25.00**	**4.426**	**18**	**8.488**	**34**	**50-115**	**63**	**0-20**	**FAIL**	**3G4**
Arsenic	13.02	0.5000	25.00	39.52	106	40.95	112	75-125	4	0-20	PASS	
Barium	239.2	0.5000	25.00	266.3	4x	266.3	4x	75-125	4x	0-20	PASS	Q
Beryllium	1.100	0.5000	25.00	29.02	112	28.98	112	75-125	0	0-20	PASS	
Cadmium	0.7784	0.5000	25.00	25.99	101	26.91	105	75-125	3	0-20	PASS	
Chromium	18.30	0.5000	25.00	42.72	98	41.88	94	75-125	2	0-20	PASS	
Cobalt	8.668	0.5000	25.00	33.13	98	34.01	101	75-125	3	0-20	PASS	
Copper	22.20	0.5000	25.00	48.61	106	48.17	104	75-125	1	0-20	PASS	
Lead	23.77	0.5000	25.00	49.81	104	50.22	106	75-125	1	0-20	PASS	
Molybdenum	0.3626	0.5000	25.00	21.24	84	22.85	90	75-125	7	0-20	PASS	
Nickel	19.61	0.5000	25.00	43.79	97	44.84	101	75-125	2	0-20	PASS	
Phosphorus	898.6	0.5000	25.00	926.4	4x	942.8	4x	75-125	4x	0-20	PASS	Q
Selenium	ND	0.5000	25.00	26.10	104	30.09	120	75-125	14	0-20	PASS	
Silver	ND	0.2500	12.50	13.59	109	14.09	113	75-125	4	0-20	PASS	
Thallium	ND	0.5000	25.00	21.82	87	23.51	94	75-125	7	0-20	PASS	
Vanadium	32.85	0.5000	25.00	55.11	89	54.14	85	75-125	2	0-20	PASS	
Zinc	**76.41**	**0.5000**	**25.00**	**101.8**	**102**	**111.5**	**140**	**75-125**	**9**	**0-20**	**FAIL**	**3F**
Aluminum	16950	0.5000	25.00	15720	4x	13900	4x	75-125	4x	0-20	PASS	Q
Calcium	56880	0.5000	25.00	57470	4x	57410	4x	75-125	4x	0-20	PASS	Q
Iron	19300	0.5000	25.00	18000	4x	17550	4x	75-125	4x	0-20	PASS	Q
Magnesium	15700	0.5000	25.00	15420	4x	14870	4x	75-125	4x	0-20	PASS	Q
Manganese	485.9	0.5000	25.00	500.1	4x	495.1	4x	75-125	4x	0-20	PASS	Q
Potassium	6272	5.000	250.0	6170	4x	5616	4x	75-125	4x	0-20	PASS	Q
Sodium	10350	5.000	250.0	10200	4x	10350	4x	75-125	4x	0-20	PASS	Q
Strontium	336.0	0.5000	25.00	368.1	4x	367.5	4x	75-125	4x	0-20	PASS	Q
Tin	ND	0.5000	25.00	25.05	100	25.84	103	75-125	3	0-20	PASS	
Titanium	**72.93**	**0.5000**	**25.00**	**69.76**	**0**	**63.49**	**0**	**75-125**	**9**	**0-20**	**FAIL**	**3G**
Boron	**17.93**	**0.5000**	**25.00**	**39.00**	**84**	**36.45**	**74**	**75-125**	**7**	**0-20**	**FAIL**	**3G**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 6010B

SPIKED SAMPLE ID: **17-03-1125-3**
MS/MSD BATCH: 170320S02
INSTRUMENTS:
SAMPLE: ICP 7300
MS: ICP 7300
MSD: ICP 7300

EXTRACTION: EPA 3050B
D/T EXTRACTED:
SAMPLE: 2017-03-20 00:00
MS: 2017-03-20 00:00
MSD: 2017-03-20 00:00

ANALYZED BY: 935
D/T ANALYZED:
SAMPLE: 2017-03-20 17:35
MS: 2017-03-20 17:36
MSD: 2017-03-20 17:37
REVIEWED BY:
D/T REVIEWED:

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Silicon	923.5	0.5000	25.00	841.4	4x	759.9	4x	75-125	4x	0-20	PASS	Q

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17-03-1125-3 ms.icp	W:\ICP-DATA\170320C1\
MSD	17-03-1125-3 msd.icp	W:\ICP-DATA\170320C1\

Analysis Begun

Start Time: 3/20/2017 5:02:06 PM
Logged In Analyst: Oscar Gomez 935
Spectrometer: Optima 7300 DV, S/N 77c8120401

Plasma On Time: 3/20/2017 2:17:47 PM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Sample Information\17032002.sif

Batch ID:
Results Data Set: 170320C1
Results Library: W:\pe\7300\Results\results.mdb

Sequence No.: 1
Sample ID: 170320-b-02
Analyst: 935 icp 7300
Initial Sample Wt: 2.06 g
Dilution:
Wash Time:

Autosampler Location: 110
Date Collected: 3/20/2017 5:02:20 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: 170320-b-02

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Tb 384	85323.1	113.4	%	0.14				0.12%
Tb 350	141466.2	115.0	%	0.53				0.46%
Ag 328.068*†	-44.1	-0.0002	mg/L	0.00007	-0.0120	mg/kg	0.00352	29.37%
Al 308.215*†	33.2	0.0020	mg/L	0.00572	0.0981	mg/kg	0.27772	283.18%
As 188.979†	8.1	0.0043	mg/L	0.00003	0.2076	mg/kg	0.00141	0.68%
As 193.696*†	-7.3	-0.0056	mg/L	0.00251	-0.2694	mg/kg	0.12184	45.22%
B 249.677*†	-830.6	-0.0181	mg/L	0.00045	-0.8773	mg/kg	0.02197	2.50%
Ba 233.527*†	-371.3	-0.0027	mg/L	0.00002	-0.1295	mg/kg	0.00110	0.85%
Be 313.042*†	-596.0	-0.0002	mg/L	0.00000	-0.0084	mg/kg	0.00006	0.73%
Ca 317.933*†	3.2	0.0018	mg/L	0.00539	0.0889	mg/kg	0.26149	294.12%
Cd 226.502*†	-27.4	-0.0004	mg/L	0.00029	-0.0184	mg/kg	0.01429	77.83%
Cd 228.802†	-3.5	-0.0001	mg/L	0.00017	-0.0046	mg/kg	0.00817	176.30%
Co 228.616*†	-22.3	-0.0008	mg/L	0.00014	-0.0410	mg/kg	0.00658	16.06%
Cr 267.716*†	20.1	0.0002	mg/L	0.00102	0.0091	mg/kg	0.04962	543.55%
Cu 324.752*†	-467.7	-0.0020	mg/L	0.00006	-0.0965	mg/kg	0.00294	3.04%
Fe 273.955*†	-40.0	-0.0018	mg/L	0.00104	-0.0881	mg/kg	0.05065	57.51%
K 766.490*†	-565.2	-0.2081	mg/L	0.01804	-10.10	mg/kg	0.876	8.67%
Mg 279.077*†	280.1	0.0158	mg/L	0.00091	0.7652	mg/kg	0.04436	5.80%
Mn 257.610*†	-107.5	-0.0002	mg/L	0.00001	-0.0088	mg/kg	0.00044	4.95%
Mo 202.031*†	-1.3	-0.0001	mg/L	0.00106	-0.0071	mg/kg	0.05151	720.75%
Na 589.592*†	176.8	0.0441	mg/L	0.02363	2.139	mg/kg	1.1469	53.61%
Ni 231.604*†	-15.6	-0.0007	mg/L	0.00030	-0.0340	mg/kg	0.01461	43.01%
P 213.617*†	-12.9	-0.0075	mg/L	0.00449	-0.3637	mg/kg	0.21811	59.97%
P 214.914†	1.9	0.0017	mg/L	0.01016	0.0804	mg/kg	0.49342	613.97%
Pb 220.353*†	-15.1	-0.0020	mg/L	0.00046	-0.0987	mg/kg	0.02231	22.60%
Sb 206.836†	12.0	0.0070	mg/L	0.00253	0.3374	mg/kg	0.12296	36.44%
Sb 217.582*†	14.0	0.0081	mg/L	0.00561	0.3921	mg/kg	0.27249	69.49%
Se 196.026*†	-3.0	-0.0015	mg/L	0.00458	-0.0730	mg/kg	0.22242	304.49%
Si 251.611*†	-720.3	-0.0202	mg/L	0.00132	-0.9802	mg/kg	0.06400	6.53%
Sn 189.927*†	-16.9	-0.0031	mg/L	0.00188	-0.1492	mg/kg	0.09146	61.31%
Sn 242.170†	53.4	0.0329	mg/L	0.01111	1.599	mg/kg	0.5394	33.74%
Sr 407.771*†	-18.8	-0.0001	mg/L	0.00004	-0.0031	mg/kg	0.00188	61.02%
Ti 334.940†	128.1	0.0002	mg/L	0.00031	0.0081	mg/kg	0.01488	182.74%
Ti 336.121*†	-172.6	-0.0003	mg/L	0.00007	-0.0151	mg/kg	0.00355	23.47%
Tl 190.801*†	-13.3	-0.0078	mg/L	0.00432	-0.3795	mg/kg	0.20982	55.28%
V 292.402*†	-156.4	-0.0012	mg/L	0.00009	-0.0591	mg/kg	0.00416	7.04%
Zn 206.200*†	56.2	0.0015	mg/L	0.00031	0.0725	mg/kg	0.01502	20.72%

Return to Contents

Sequence No.: 2
Sample ID: 170320-1-02
Analyst: 935 icp 7300
Initial Sample Wt: 2.08 g
Dilution:
Wash Time: 15

Autosampler Location: 111
Date Collected: 3/20/2017 5:03:25 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 170320-1-02

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	81142.7	107.8	%	0.36				0.33%
Tb 350	135727.9	110.3	%	0.85				0.77%
Ag 328.068*†	40200.4	0.2248	mg/L	0.00004	10.81	mg/kg	0.002	0.02%
Al 308.215*†	8310.3	0.5050	mg/L	0.01273	24.28	mg/kg	0.612	2.52%
As 188.979†	925.3	0.4870	mg/L	0.01142	23.41	mg/kg	0.549	2.34%
As 193.696*†	633.7	0.4790	mg/L	0.00676	23.03	mg/kg	0.325	1.41%
B 249.677*†	19908.0	0.4331	mg/L	0.00233	20.82	mg/kg	0.112	0.54%
Ba 233.527*†	69868.6	0.5019	mg/L	0.00174	24.13	mg/kg	0.083	0.35%
Be 313.042*†	1644132.1	0.4789	mg/L	0.00081	23.03	mg/kg	0.039	0.17%
Ca 317.933*†	900.1	0.5086	mg/L	0.01889	24.45	mg/kg	0.908	3.72%
Cd 226.502*†	34743.2	0.4799	mg/L	0.00154	23.07	mg/kg	0.074	0.32%
Cd 228.802†	17456.6	0.4712	mg/L	0.00461	22.65	mg/kg	0.222	0.98%
Co 228.616*†	13505.2	0.5102	mg/L	0.00651	24.53	mg/kg	0.313	1.28%
Cr 267.716*†	51633.7	0.4831	mg/L	0.00113	23.23	mg/kg	0.055	0.23%
Cu 324.752*†	112165.4	0.4770	mg/L	0.00038	22.93	mg/kg	0.018	0.08%
Fe 273.955*†	10698.5	0.4849	mg/L	0.00524	23.31	mg/kg	0.252	1.08%
K 766.490*†	12624.0	4.648	mg/L	0.1004	223.5	mg/kg	4.83	2.16%
Mg 279.077*†	9035.1	0.5085	mg/L	0.00541	24.45	mg/kg	0.260	1.06%
Mn 257.610*†	292903.5	0.4962	mg/L	0.00163	23.86	mg/kg	0.079	0.33%
Mo 202.031*†	4136.7	0.4815	mg/L	0.00691	23.15	mg/kg	0.332	1.44%
Na 589.592*†	19802.8	4.935	mg/L	0.0487	237.3	mg/kg	2.34	0.99%
Ni 231.604*†	11331.6	0.5094	mg/L	0.00634	24.49	mg/kg	0.305	1.25%
P 213.617*†	882.8	0.5127	mg/L	0.00468	24.65	mg/kg	0.225	0.91%
P 214.914†	554.2	0.4869	mg/L	0.01025	23.41	mg/kg	0.493	2.11%
Pb 220.353*†	3702.4	0.4998	mg/L	0.00828	24.03	mg/kg	0.398	1.66%
Sb 206.836†	824.4	0.4760	mg/L	0.01911	22.88	mg/kg	0.919	4.01%
Sb 217.582*†	830.8	0.4810	mg/L	0.01043	23.13	mg/kg	0.501	2.17%
Se 196.026*†	970.5	0.4829	mg/L	0.00030	23.22	mg/kg	0.014	0.06%
Si 251.611*†	16589.4	0.4651	mg/L	0.00272	22.36	mg/kg	0.131	0.59%
Sn 189.927*†	2750.3	0.5014	mg/L	0.00548	24.11	mg/kg	0.263	1.09%
Sn 242.170†	838.5	0.5176	mg/L	0.01543	24.88	mg/kg	0.742	2.98%
Sr 407.771*†	150182.6	0.5063	mg/L	0.00519	24.34	mg/kg	0.249	1.02%
Ti 334.940†	369169.1	0.4832	mg/L	0.00104	23.23	mg/kg	0.050	0.21%
Ti 336.121*†	263301.8	0.4761	mg/L	0.00041	22.89	mg/kg	0.020	0.09%
Tl 190.801*†	845.0	0.4961	mg/L	0.01201	23.85	mg/kg	0.578	2.42%
V 292.402*†	58674.3	0.4568	mg/L	0.00040	21.96	mg/kg	0.019	0.09%
Zn 206.200*†	18566.0	0.4935	mg/L	0.00662	23.73	mg/kg	0.318	1.34%

Return to Contents

Sequence No.: 40
Sample ID: 17-03-1125-3 ms
Analyst: 935 icp 7300
Initial Sample Wt: 2.06 g
Dilution:
Wash Time: 20

Autosampler Location: 124
Date Collected: 3/20/2017 5:36:44 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-1125-3 ms

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	46264.2	61.48	%	0.206				0.33%
Tb 350	108753.5	88.38	%	0.125				0.14%
Ag 328.068*†	50058.1	0.2799	mg/L	0.00229	13.59	mg/kg	0.111	0.82%
Al 308.215*†	5327848.8	323.8	mg/L	2.10	15720	mg/kg	102.12	0.65%
As 188.979†	1503.9	0.7916	mg/L	0.00311	38.43	mg/kg	0.151	0.39%
As 193.696*†	1077.0	0.8142	mg/L	0.03174	39.52	mg/kg	1.541	3.90%
B 249.677*†	36924.9	0.8034	mg/L	0.01257	39.00	mg/kg	0.610	1.56%
Ba 233.527*†	763678.3	5.486	mg/L	0.0476	266.3	mg/kg	2.31	0.87%
Be 313.042*†	2052027.4	0.5978	mg/L	0.00617	29.02	mg/kg	0.300	1.03%
Ca 317.933*†	2095498.5	1184	mg/L	27.35	57470	mg/kg	1327.69	2.31%
Cd 226.502*†	38770.4	0.5355	mg/L	0.00071	25.99	mg/kg	0.035	0.13%
Cd 228.802†	20629.2	0.5568	mg/L	0.00181	27.03	mg/kg	0.088	0.32%
Co 228.616*†	18066.8	0.6826	mg/L	0.00030	33.13	mg/kg	0.015	0.04%
Cr 267.716*†	94048.6	0.8800	mg/L	0.01147	42.72	mg/kg	0.557	1.30%
Cu 324.752*†	235500.5	1.001	mg/L	0.0066	48.61	mg/kg	0.323	0.66%
Fe 273.955*†	8181771.7	370.9	mg/L	3.35	18000	mg/kg	162.85	0.90%
K 766.490*†	345220.6	127.1	mg/L	2.61	6170	mg/kg	126.49	2.05%
Mg 279.077*†	5642459.5	317.6	mg/L	3.50	15420	mg/kg	169.83	1.10%
Mn 257.610*†	6081178.8	10.30	mg/L	0.095	500.1	mg/kg	4.59	0.92%
Mo 202.031*†	3759.6	0.4376	mg/L	0.00662	21.24	mg/kg	0.321	1.51%
Na 589.592*†	842800.4	210.0	mg/L	4.04	10200	mg/kg	195.89	1.92%
Ni 231.604*†	20070.2	0.9021	mg/L	0.00268	43.79	mg/kg	0.130	0.30%
P 213.617*†	32857.3	19.08	mg/L	0.130	926.4	mg/kg	6.33	0.68%
P 214.914†	22510.1	19.78	mg/L	0.045	960.1	mg/kg	2.19	0.23%
Pb 220.353*†	7600.1	1.026	mg/L	0.0055	49.81	mg/kg	0.269	0.54%
Sb 206.836†	375.5	0.2168	mg/L	0.01982	10.52	mg/kg	0.962	9.14%
Sb 217.582*†	157.5	0.0912	mg/L	0.03227	4.426	mg/kg	1.5663	35.39%
Se 196.026*†	1080.5	0.5376	mg/L	0.02377	26.10	mg/kg	1.154	4.42%
Si 251.611*†	618295.9	17.33	mg/L	0.199	841.4	mg/kg	9.67	1.15%
Sn 189.927*†	2830.8	0.5161	mg/L	0.01224	25.05	mg/kg	0.594	2.37%
Sn 242.170†	2393.0	1.477	mg/L	0.0297	71.70	mg/kg	1.441	2.01%
Sr 407.771*†	2249172.0	7.582	mg/L	0.1224	368.1	mg/kg	5.94	1.61%
Ti 334.940†	1100445.1	1.440	mg/L	0.0102	69.92	mg/kg	0.494	0.71%
Ti 336.121*†	794854.5	1.437	mg/L	0.0079	69.76	mg/kg	0.384	0.55%
Tl 190.801*†	765.7	0.4495	mg/L	0.01345	21.82	mg/kg	0.653	2.99%
V 292.402*†	146611.6	1.135	mg/L	0.0070	55.11	mg/kg	0.338	0.61%
Zn 206.200*†	78904.9	2.097	mg/L	0.0025	101.8	mg/kg	0.12	0.12%

Return to Contents

Sequence No.: 41
Sample ID: 17-03-1125-3 msd
Analyst: 935 icp 7300
Initial Sample Wt: 2 g
Dilution:
Wash Time: 20

Autosampler Location: 125
Date Collected: 3/20/2017 5:37:31 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-1125-3 msd

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	46483.3	61.77	%	0.094				0.15%
Tb 350	108866.3	88.47	%	0.115				0.13%
Ag 328.068*†	50387.6	0.2818	mg/L	0.00074	14.09	mg/kg	0.037	0.26%
Al 308.215*†	4573139.0	277.9	mg/L	8.83	13900	mg/kg	441.70	3.18%
As 188.979†	1511.6	0.7956	mg/L	0.02012	39.78	mg/kg	1.006	2.53%
As 193.696*†	1083.4	0.8190	mg/L	0.06186	40.95	mg/kg	3.093	7.55%
B 249.677*†	33506.0	0.7290	mg/L	0.00227	36.45	mg/kg	0.113	0.31%
Ba 233.527*†	741449.2	5.326	mg/L	0.0260	266.3	mg/kg	1.30	0.49%
Be 313.042*†	1989408.5	0.5795	mg/L	0.00258	28.98	mg/kg	0.129	0.45%
Ca 317.933*†	2032393.7	1148	mg/L	33.66	57410	mg/kg	1683.16	2.93%
Cd 226.502*†	38971.5	0.5383	mg/L	0.00559	26.91	mg/kg	0.280	1.04%
Cd 228.802†	20688.1	0.5584	mg/L	0.00521	27.92	mg/kg	0.260	0.93%
Co 228.616*†	18001.9	0.6801	mg/L	0.00588	34.01	mg/kg	0.294	0.86%
Cr 267.716*†	89508.7	0.8375	mg/L	0.00751	41.88	mg/kg	0.375	0.90%
Cu 324.752*†	226570.9	0.9635	mg/L	0.00272	48.17	mg/kg	0.136	0.28%
Fe 273.955*†	7745305.5	351.1	mg/L	12.93	17550	mg/kg	646.73	3.68%
K 766.490*†	305030.7	112.3	mg/L	3.36	5616	mg/kg	168.23	3.00%
Mg 279.077*†	5282996.6	297.4	mg/L	12.20	14870	mg/kg	610.09	4.10%
Mn 257.610*†	5845086.5	9.902	mg/L	0.3604	495.1	mg/kg	18.02	3.64%
Mo 202.031*†	3927.1	0.4571	mg/L	0.00250	22.85	mg/kg	0.125	0.55%
Na 589.592*†	830849.6	207.0	mg/L	6.11	10350	mg/kg	305.45	2.95%
Ni 231.604*†	19952.8	0.8969	mg/L	0.01219	44.84	mg/kg	0.610	1.36%
P 213.617*†	32465.2	18.86	mg/L	0.145	942.8	mg/kg	7.24	0.77%
P 214.914†	22293.1	19.59	mg/L	0.206	979.4	mg/kg	10.32	1.05%
Pb 220.353*†	7440.5	1.004	mg/L	0.0210	50.22	mg/kg	1.051	2.09%
Sb 206.836†	427.3	0.2467	mg/L	0.01590	12.34	mg/kg	0.795	6.45%
Sb 217.582*†	293.2	0.1698	mg/L	0.02327	8.488	mg/kg	1.1635	13.71%
Se 196.026*†	1209.4	0.6018	mg/L	0.02238	30.09	mg/kg	1.119	3.72%
Si 251.611*†	542133.1	15.20	mg/L	0.054	759.9	mg/kg	2.72	0.36%
Sn 189.927*†	2834.5	0.5168	mg/L	0.00147	25.84	mg/kg	0.073	0.28%
Sn 242.170†	2453.7	1.515	mg/L	0.0880	75.73	mg/kg	4.399	5.81%
Sr 407.771*†	2180387.8	7.350	mg/L	0.2234	367.5	mg/kg	11.17	3.04%
Ti 334.940†	969222.4	1.269	mg/L	0.0025	63.43	mg/kg	0.123	0.19%
Ti 336.121*†	702318.9	1.270	mg/L	0.0031	63.49	mg/kg	0.154	0.24%
Tl 190.801*†	800.8	0.4701	mg/L	0.01223	23.51	mg/kg	0.611	2.60%
V 292.402*†	139819.3	1.083	mg/L	0.0039	54.14	mg/kg	0.197	0.36%
Zn 206.200*†	83872.4	2.229	mg/L	0.0385	111.5	mg/kg	1.92	1.73%

Return to Contents

Sequence No.: 39
Sample ID: 17-03-1125-3
Analyst: 935 icp 7300
Initial Sample Wt: 2.02 g
Dilution:
Wash Time: 15

Autosampler Location: 123
Date Collected: 3/20/2017 5:35:58 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Mean Data: 17-03-1125-3

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Tb 384	46171.6	61.36	%	1.247				2.03%
Tb 350	107755.7	87.57	%	1.715				1.96%
Ag 328.068*†	461.7	0.0026	mg/L	0.00055	0.1278	mg/kg	0.02742	21.46%
Al 308.215*†	5634763.9	342.4	mg/L	5.32	16950	mg/kg	263.33	1.55%
As 188.979†	426.5	0.2245	mg/L	0.00766	11.11	mg/kg	0.379	3.41%
As 193.696*†	347.8	0.2629	mg/L	0.04879	13.02	mg/kg	2.415	18.56%
B 249.677*†	16644.8	0.3621	mg/L	0.00438	17.93	mg/kg	0.217	1.21%
Ba 233.527*†	672777.8	4.833	mg/L	0.0073	239.2	mg/kg	0.36	0.15%
Be 313.042*†	76299.2	0.0222	mg/L	0.00023	1.100	mg/kg	0.0112	1.02%
Ca 317.933*†	2033619.9	1149	mg/L	38.60	56880	mg/kg	1911.11	3.36%
Cd 226.502*†	1138.5	0.0157	mg/L	0.00049	0.7784	mg/kg	0.02421	3.11%
Cd 228.802†	275.7	0.0074	mg/L	0.00103	0.3683	mg/kg	0.05081	13.79%
Co 228.616*†	4634.5	0.1751	mg/L	0.00699	8.668	mg/kg	0.3461	3.99%
Cr 267.716*†	39510.4	0.3697	mg/L	0.01248	18.30	mg/kg	0.618	3.38%
Cu 324.752*†	105456.2	0.4484	mg/L	0.00334	22.20	mg/kg	0.165	0.75%
Fe 273.955*†	8602724.9	389.9	mg/L	4.31	19300	mg/kg	213.51	1.11%
K 766.490*†	344081.9	126.7	mg/L	4.48	6272	mg/kg	221.56	3.53%
Mg 279.077*†	5635773.3	317.2	mg/L	2.36	15700	mg/kg	116.93	0.74%
Mn 257.610*†	5793082.7	9.814	mg/L	0.1214	485.9	mg/kg	6.01	1.24%
Mo 202.031*†	62.9	0.0073	mg/L	0.00004	0.3626	mg/kg	0.00205	0.57%
Na 589.592*†	839142.6	209.1	mg/L	8.02	10350	mg/kg	396.87	3.83%
Ni 231.604*†	8810.5	0.3960	mg/L	0.01633	19.61	mg/kg	0.808	4.12%
P 213.617*†	31254.1	18.15	mg/L	0.706	898.6	mg/kg	34.96	3.89%
P 214.914†	21438.9	18.84	mg/L	0.702	932.5	mg/kg	34.77	3.73%
Pb 220.353*†	3557.1	0.4802	mg/L	0.02488	23.77	mg/kg	1.232	5.18%
Sb 206.836†	50.1	0.0289	mg/L	0.01966	1.433	mg/kg	0.9731	67.92%
Sb 217.582*†	-135.3	-0.0784	mg/L	0.03157	-3.879	mg/kg	1.5626	40.29%
Se 196.026*†	6.3	0.0031	mg/L	0.01840	0.1557	mg/kg	0.91104	585.23%
Si 251.611*†	665475.5	18.66	mg/L	0.091	923.5	mg/kg	4.50	0.49%
Sn 189.927*†	-88.1	-0.0161	mg/L	0.00967	-0.7953	mg/kg	0.47867	60.18%
Sn 242.170†	1554.1	0.9593	mg/L	0.06295	47.49	mg/kg	3.116	6.56%
Sr 407.771*†	2013302.9	6.787	mg/L	0.2667	336.0	mg/kg	13.21	3.93%
Ti 334.940†	1120709.9	1.467	mg/L	0.0004	72.62	mg/kg	0.022	0.03%
Ti 336.121*†	814815.1	1.473	mg/L	0.0027	72.93	mg/kg	0.133	0.18%
Tl 190.801*†	-39.0	-0.0229	mg/L	0.00906	-1.135	mg/kg	0.4486	39.54%
V 292.402*†	86050.3	0.6635	mg/L	0.00013	32.85	mg/kg	0.007	0.02%
Zn 206.200*†	58067.5	1.544	mg/L	0.0606	76.41	mg/kg	2.998	3.92%

Return to Contents

EPA 6010B ICP Metals (Solid)

Run Logs

Return to Contents

170320C1

M006-032-05 0.050 ml

INT STD M120716A PDS/PDSD 10 ml

R.B. R12091602 M006-032-06 0.050 ml

Carrier/wash sol R12091604/R12091603

No.	File Name	Date	Time	Analyst Name	A/S Location	
1	Cal blankR12091601_935	3/20/2017	10:02:39 AM	935 icp 7300	1	
2	Cal blankR12091601_935	3/20/2017	10:03:53 AM	935 icp 7300	1	
3	STD3-M111116A_935_ICP7300	3/20/2017	10:04:59 AM	935 icp 7300	2	
4	ICV-M072816C	3/20/2017	10:05:55 AM	935 icp 7300	10	
5	ICB-R12091601	3/20/2017	10:06:52 AM	935 icp 7300	1	
6	Cal blankR12091601_935	3/20/2017	10:08:59 AM	935 icp 7300	1	
7	STD3-M111116A_935_ICP7300	3/20/2017	10:10:05 AM	935 icp 7300	2	
8	ICV-M072816C	3/20/2017	10:11:01 AM	935 icp 7300	10	
9	ICB-R12091601	3/20/2017	10:11:58 AM	935 icp 7300	1	B > RL
10	ICB-R12091601	3/20/2017	10:12:43 AM	935 icp 7300	1	
11	ICB-R12091601	3/20/2017	10:13:31 AM	935 icp 7300	1	
12	ICS_A - M110116B	3/20/2017	10:14:33 AM	935 icp 7300	8	
13	ICS_AB - M110116A	3/20/2017	10:15:24 AM	935 icp 7300	9	
14	CCV= STD3x0.5	3/20/2017	10:16:14 AM	935 icp 7300	3	
15	CCB-R12091601	3/20/2017	10:17:05 AM	935 icp 7300	1	
16	LLCV-M082616A	3/20/2017	10:56:30 AM	935 icp 7300	101	Mn, As, Pb, Sb, Zn out
17	LLCV--M082616A	3/20/2017	10:57:36 AM	935 icp 7300	102	
18	17-03-0858-4 UTC	3/20/2017	10:58:35 AM	935 icp 7300	110	
19	LCS-JN-1012-1	3/20/2017	10:59:33 AM	935 icp 7300	103	
20	LCS-JN-1012-2	3/20/2017	11:00:26 AM	935 icp 7300	104	
21	LCS-JN-1012-3	3/20/2017	11:01:17 AM	935 icp 7300	105	
22	LCS-JN-1012-4	3/20/2017	11:02:08 AM	935 icp 7300	106	
23	LLCV-M082616A	3/20/2017	11:02:58 AM	935 icp 7300	101	Mn,
24	ICS_A - M110116B	3/20/2017	11:03:59 AM	935 icp 7300	8	

Reviewed/Assign to Logbook Date: 3/20/17
Analysis: 200.7/6010 Chemist ID: 102
Logbook Page: 83 Instrument ID: 1097

No.	File Name	Date	Time	Analyst Name	A/S Location	
185	17-03-1223-1	3/20/2017	1:38:27 PM	935 icp 7300	203	
186	CCV= STD3x0.5	3/20/2017	1:39:18 PM	935 icp 7300	3	
187	CCB-R12091601	3/20/2017	1:40:11 PM	935 icp 7300	1	
188	17-03-1223-1 ms	3/20/2017	1:41:11 PM	935 icp 7300	204	
189	17-03-1223-1 msd	3/20/2017	1:42:05 PM	935 icp 7300	205	
190	17-03-1223-2	3/20/2017	1:42:56 PM	935 icp 7300	206	
191	17-03-1223-3	3/20/2017	1:43:47 PM	935 icp 7300	207	
192	17-03-1223-4	3/20/2017	1:44:38 PM	935 icp 7300	208	
193	17-03-1223-5	3/20/2017	1:45:29 PM	935 icp 7300	209	
194	17-03-0485-7 MIS	3/20/2017	1:46:20 PM	935 icp 7300	210	
195	17-03-0485-8 MIS	3/20/2017	1:47:03 PM	935 icp 7300	211	
196	17-03-0485-9 MIS	3/20/2017	1:47:46 PM	935 icp 7300	212	
197	17-03-0884-1	3/20/2017	1:48:29 PM	935 icp 7300	213	
198	CCV= STD3x0.5	3/20/2017	1:49:15 PM	935 icp 7300	3	
199	CCB-R12091601	3/20/2017	1:50:07 PM	935 icp 7300	1	
200	17-03-0884-1 ms	3/20/2017	1:51:07 PM	935 icp 7300	214	
201	17-03-0884-1 msd	3/20/2017	1:51:55 PM	935 icp 7300	215	
202	CCV= STD3x0.5 *	3/20/2017	1:52:41 PM	935 icp 7300	3	* T22 + minerals (6010B Soil)
203	CCB-R12091601 *	3/20/2017	1:53:34 PM	935 icp 7300	1	
204	CCV= STD3x0.5 **	3/20/2017	1:54:25 PM	935 icp 7300	3	** T22 + minerals (6010B Water)
205	CCB-R12091601 **	3/20/2017	1:55:23 PM	935 icp 7300	1	
206	170320-ba-2	3/20/2017	1:56:14 PM	935 icp 7300	216	No solution
207	170320-la-2	3/20/2017	1:57:20 PM	935 icp 7300	217	
208	17-03-1178-1	3/20/2017	1:58:19 PM	935 icp 7300	218	
209	17-03-1178-2	3/20/2017	1:59:11 PM	935 icp 7300	219	
210	17-03-1178-3	3/20/2017	1:59:58 PM	935 icp 7300	220	
211	17-03-1113-1	3/20/2017	2:00:51 PM	935 icp 7300	221	
212	17-03-1153-2	3/20/2017	2:10:51 PM	935 icp 7300	224	
213	Cal blankR12091601_935	3/20/2017	2:19:17 PM	935 icp 7300	1	
214	STD3-M111116A_935_ICP7300	3/20/2017	2:20:22 PM	935 icp 7300	2	
215	ICV-M072816C	3/20/2017	2:21:18 PM	935 icp 7300	10	out
216	Cal blankR12091601_935	3/20/2017	2:23:32 PM	935 icp 7300	1	

Reviewed/Assign to Logbook Date: 3/21/17
Analysis: 2007/6010 Chemist ID: 1012
Logbook Page: 89 Instrument ID: 1997

No.	File Name	Date	Time	Analyst Name	A/S Location
217	STD3-M111116A_935_ICP7300	3/20/2017	2:24:37 PM	935 icp 7300	2
218	ICV-M072816C	3/20/2017	2:25:33 PM	935 icp 7300	10
219	ICB-R12091601	3/20/2017	2:26:30 PM	935 icp 7300	1
220	ICB-R12091601	3/20/2017	2:27:16 PM	935 icp 7300	1
221	ICB-R12091601	3/20/2017	2:28:04 PM	935 icp 7300	1
222	CCV= STD3x0.5	3/20/2017	2:29:07 PM	935 icp 7300	3
223	CCB-R12091601	3/20/2017	2:29:58 PM	935 icp 7300	1
224	170320-ba-2	3/20/2017	2:30:49 PM	935 icp 7300	216
225	170320-ba-2	3/20/2017	2:33:11 PM	935 icp 7300	216
226	170320-la-2	3/20/2017	2:34:16 PM	935 icp 7300	217
227	CCV= STD3x0.5	3/20/2017	2:35:06 PM	935 icp 7300	3
228	CCB-R12091601	3/20/2017	2:35:59 PM	935 icp 7300	1
229	17-03-1178-1	3/20/2017	2:36:50 PM	935 icp 7300	218
230	17-03-1178-2	3/20/2017	2:37:49 PM	935 icp 7300	219
231	17-03-1178-3	3/20/2017	2:38:36 PM	935 icp 7300	220
232	17-03-1113x5-1	3/20/2017	2:39:29 PM	935 icp 7300	221
233	17-03-1113x5-1 ms	3/20/2017	2:40:23 PM	935 icp 7300	222
234	17-03-1113x5-1 msd	3/20/2017	2:41:17 PM	935 icp 7300	223
235	17-03-1153-2	3/20/2017	2:42:11 PM	935 icp 7300	224
236	17-03-1153-3	3/20/2017	2:43:03 PM	935 icp 7300	225
237	17-03-1153-4	3/20/2017	2:43:55 PM	935 icp 7300	226
238	17-03-1153-5	3/20/2017	2:44:48 PM	935 icp 7300	227
239	CCV= STD3x0.5	3/20/2017	2:45:41 PM	935 icp 7300	3
240	CCB-R12091601	3/20/2017	2:46:34 PM	935 icp 7300	1
241	17-03-1153-6	3/20/2017	2:47:34 PM	935 icp 7300	228
242	17-03-1153-7	3/20/2017	2:48:30 PM	935 icp 7300	229
243	17-03-1153-8	3/20/2017	2:49:23 PM	935 icp 7300	230
244	17-03-1153-9	3/20/2017	2:50:16 PM	935 icp 7300	231
245	17-03-1153-10	3/20/2017	2:51:09 PM	935 icp 7300	232
246	17-03-1153-11	3/20/2017	2:52:01 PM	935 icp 7300	233
247	17-03-1153-12	3/20/2017	2:52:53 PM	935 icp 7300	234
248	17-03-1153-13	3/20/2017	2:53:46 PM	935 icp 7300	235

B > RL

Reviewed/Assign to Logbook Date: 3/24/17
Analysis: 200.7/ 6010 Chemist ID: 1012
Logbook Page: 90 Instrument ID: 1917

No.	File Name	Date	Time	Analyst Name	A/S Location
313	CCB-R12091601	3/20/2017	4:33:17 PM	935 icp 7300	1
314	17-03-1282-1	3/20/2017	4:35:00 PM	935 icp 7300	450
315	17-03-1352-3	3/20/2017	4:36:01 PM	935 icp 7300	451
316	17-03-1352-4	3/20/2017	4:36:55 PM	935 icp 7300	452
317	17-03-1352-5	3/20/2017	4:37:50 PM	935 icp 7300	453
318	17-03-1352-6	3/20/2017	4:38:43 PM	935 icp 7300	454
319	17-03-1352-7	3/20/2017	4:39:35 PM	935 icp 7300	455
320	17-03-1352-8	3/20/2017	4:40:22 PM	935 icp 7300	456
321	17-03-1352-9	3/20/2017	4:41:15 PM	935 icp 7300	457
322	17-03-1352-10	3/20/2017	4:42:08 PM	935 icp 7300	458
323	17-03-1392-1	3/20/2017	4:43:01 PM	935 icp 7300	459
324	CCV= STD3x0.5	3/20/2017	4:43:58 PM	935 icp 7300	3
325	CCB-R12091601	3/20/2017	4:44:51 PM	935 icp 7300	1
326	17-03-1392-f-1	3/20/2017	4:45:51 PM	935 icp 7300	103
327	17-03-1392-f-1 ms	3/20/2017	4:46:48 PM	935 icp 7300	104
328	17-03-1392-f-1 msd	3/20/2017	4:47:44 PM	935 icp 7300	105
329	17-03-1300-1	3/20/2017	4:48:40 PM	935 icp 7300	106
330	17-03-1300-2	3/20/2017	4:49:27 PM	935 icp 7300	107
331	17-03-1361-1	3/20/2017	4:50:14 PM	935 icp 7300	108
332	17-03-1361-2	3/20/2017	4:51:06 PM	935 icp 7300	109
333	CCV= STD3x0.5	3/20/2017	4:51:58 PM	935 icp 7300	3
334	CCB-R12091601	3/20/2017	4:52:51 PM	935 icp 7300	1
335	170320-b-02	3/20/2017	5:02:20 PM	935 icp 7300	110
336	170320-l-02	3/20/2017	5:03:25 PM	935 icp 7300	111
337	170320-b-03	3/20/2017	5:04:17 PM	935 icp 7300	112
338	170320-l-03	3/20/2017	5:05:16 PM	935 icp 7300	113
339	170320-b-04	3/20/2017	5:06:06 PM	935 icp 7300	114
340	170320-l-04	3/20/2017	5:07:05 PM	935 icp 7300	115
341	170320-b-05	3/20/2017	5:07:57 PM	935 icp 7300	116
342	170320-l-05	3/20/2017	5:08:56 PM	935 icp 7300	117
343	170320-b-06	3/20/2017	5:09:48 PM	935 icp 7300	118
344	170320-l-06	3/20/2017	5:10:47 PM	935 icp 7300	119

Return to Contents

Reviewed/Assign to Logbook Date: 3/21/17
Analysis: 200.7/6010 Chemist ID: 1012
Logbook Page: 98 Instrument ID: 1097

No.	File Name	Date	Time	Analyst Name	A/S Location
345	CCV= STD3x0.5	3/20/2017	5:11:39 PM	935 icp 7300	3
346	CCB-R12091601	3/20/2017	5:12:31 PM	935 icp 7300	1
347	17-03-0486-7 MIS	3/20/2017	5:13:31 PM	935 icp 7300	141
348	17-03-0486-8 MIS	3/20/2017	5:14:30 PM	935 icp 7300	142
349	17-03-0486-9 MIS	3/20/2017	5:15:27 PM	935 icp 7300	143
350	17-03-0589-28 MIS	3/20/2017	5:16:24 PM	935 icp 7300	144
351	17-03-0589-29 MIS	3/20/2017	5:17:15 PM	935 icp 7300	145
352	17-03-0589-30 MIS	3/20/2017	5:18:06 PM	935 icp 7300	146
353	17-03-0590-28 MIS	3/20/2017	5:18:59 PM	935 icp 7300	147
354	17-03-0590-29 MIS	3/20/2017	5:19:50 PM	935 icp 7300	148
355	17-03-0590-30 MIS	3/20/2017	5:20:41 PM	935 icp 7300	149
356	17-03-0641-30 MIS	3/20/2017	5:21:32 PM	935 icp 7300	150
357	CCV= STD3x0.5	3/20/2017	5:22:23 PM	935 icp 7300	3
358	CCB-R12091601	3/20/2017	5:23:15 PM	935 icp 7300	1
359	17-03-0641-31 MIS	3/20/2017	5:24:15 PM	935 icp 7300	151
360	17-03-0641-32 MIS	3/20/2017	5:25:10 PM	935 icp 7300	152
361	17-03-0641-33 MIS	3/20/2017	5:26:01 PM	935 icp 7300	153
362	17-03-0642-30 MIS	3/20/2017	5:26:52 PM	935 icp 7300	154
363	17-03-0642-31 MIS	3/20/2017	5:27:43 PM	935 icp 7300	155
364	17-03-0642-32 MIS	3/20/2017	5:28:34 PM	935 icp 7300	156
365	17-03-0642-33 MIS	3/20/2017	5:29:25 PM	935 icp 7300	157
366	17-03-1273-1	3/20/2017	5:30:16 PM	935 icp 7300	160
367	17-03-0986-1	3/20/2017	5:31:00 PM	935 icp 7300	402
368	17-03-1256-1	3/20/2017	5:31:53 PM	935 icp 7300	120
369	CCV= STD3x0.5	3/20/2017	5:32:37 PM	935 icp 7300	3
370	CCB-R12091601	3/20/2017	5:33:30 PM	935 icp 7300	1
371	17-03-1256-1 ms	3/20/2017	5:34:30 PM	935 icp 7300	121
372	17-03-1256-1 msd	3/20/2017	5:35:15 PM	935 icp 7300	122
373	17-03-1125-3	3/20/2017	5:35:58 PM	935 icp 7300	123
374	17-03-1125-3 ms	3/20/2017	5:36:44 PM	935 icp 7300	124
375	17-03-1125-3 msd	3/20/2017	5:37:31 PM	935 icp 7300	125
376	17-03-1125-8	3/20/2017	5:38:18 PM	935 icp 7300	126

Reviewed/Assign to Logbook Date: 3/21/17
Analysis: 2007/6010 Chemist ID: 1012
Logbook Page: 94 Instrument ID: 1C97

No.	File Name	Date	Time	Analyst Name	A/S Location
377	17-03-1125-13	3/20/2017	5:39:16 PM	935 icp 7300	127
378	17-03-1125-18	3/20/2017	5:40:14 PM	935 icp 7300	128
379	17-03-1185-1	3/20/2017	5:41:11 PM	935 icp 7300	129
380	17-03-1185-1 ms	3/20/2017	5:42:02 PM	935 icp 7300	130
381	CCV= STD3x0.5	3/20/2017	5:42:43 PM	935 icp 7300	3
382	CCB-R12091601	3/20/2017	5:43:36 PM	935 icp 7300	1
383	17-03-1185-1 msd	3/20/2017	5:44:36 PM	935 icp 7300	131
384	17-03-1188-1	3/20/2017	5:45:30 PM	935 icp 7300	132
385	17-03-1188-1 ms	3/20/2017	5:46:21 PM	935 icp 7300	133
386	17-03-1188-1 msd	3/20/2017	5:47:02 PM	935 icp 7300	134
387	17-03-1189-1	3/20/2017	5:47:43 PM	935 icp 7300	135
388	17-03-1189-1 ms	3/20/2017	5:48:26 PM	935 icp 7300	136
389	17-03-1189-1 msd	3/20/2017	5:49:13 PM	935 icp 7300	137
390	17-03-1260-2	3/20/2017	5:50:00 PM	935 icp 7300	138
391	17-03-1260-2 ms	3/20/2017	5:50:51 PM	935 icp 7300	139
392	17-03-1260-2 msd	3/20/2017	5:51:32 PM	935 icp 7300	140
393	CCV= STD3x0.5	3/20/2017	5:52:13 PM	935 icp 7300	3
394	CCB-R12091601	3/20/2017	5:53:05 PM	935 icp 7300	1
395	ICS_A - M110116B	3/20/2017	5:54:05 PM	935 icp 7300	8
396	ICS_AB - M110116A	3/20/2017	5:54:56 PM	935 icp 7300	9
397	CCV= STD3x0.5	3/20/2017	5:55:46 PM	935 icp 7300	3
398	CCB-R12091601	3/20/2017	5:56:37 PM	935 icp 7300	1

Didn't take sample

Return to Contents

Reviewed/Assign to Logbook Date: 3/21/17
Analysis: 200.7/6010 Chemist ID: 1012
Logbook Page: 95 Instrument ID: ICPT

EPA 6010B ICP Metals (Solid)

Preparation Logs

Return to Contents

Metals Sample Preparation Logbook (Solid / Other)

METHOD	MATRIX	EQUIPMENT ID #	REAGENT ID #	STANDARD ID #
☑ EPA 3050B	☑ Solid	Thermometer HP16 (CF -2.0 °C)	HNO_3 R0131701 20 mL	Spike 1 M022017A
☐ EPA 200.7	☐ Other (Specify)	Block Digester 8	HCl R12301602 15 mL	Spike 2 M020617C
☐ EPA 200.8		Pipetter / Dispenser P-072 / D-027 / D-028	H_2O_2 M006-040-13 3.0 mL	Spike 3

BATCH NUMBER	SUPPLY LOT #	BALANCE ID #	QUALITY SYSTEM MATRIX ID #	SAMPLE HANDLING
MS/MSD 170320-S02	Tube / Container 170104	65	Teflon Chip M006-035-15	1 = Composite 2 = Subsample
(Specify)	Filter		(Specify)	3 = Homogenize 4 = None

DIGESTION															
	START			END							SAMPLE		SPIKE STANDARD		
DATE	TIME	TEMP W/O CF (°C)	PREP TECH ID #	TIME	TEMP W/O CF (°C)	PREP TECH ID #	SAMPLE HANDLING	ECI ID #	ANALYTE(S)	INITIAL (g)	FINAL (mL)	1 (µL)	2 (µL)	3 (µL)
3/20/17	11:10	95	1080	12:40	95	1080	4	MS 17-03-1125-3A	metals	2.06	100	500	500	
								MSD		2.00				
								LCS 17-0320-L02		2.08				
								LCSD / MB -B02		2.06				
								17-03-1125-8A		2.04				
								-3A		2.02				
								-13A		2.00				
								-18A		2.08				
								17-03-0589-28A		1.99				
								-28B		2.00				
								-28C		1.99				
								-28D		1.97				
								-28E		2.03				
								-29A		1.98				
								-29B		1.97				
								-29C		1.95				
								-29D		1.97				
								-29E		1.95				
								-30A		2.08				
								-30B		2.07				
								-30C		1.96				
								-30D		2.06				
								-30E		1.96				

COMMENTS:

Return to Contents

EPA 7471A Mercury (Solid)

RAW DATA

Return to Contents

EPA 7471A Mercury

(Solid)

Initial Calibration

ICV/ICB

CCV/CCB

Sample Data

Quality Control

Method Blank

LCS/LCSD

MS/MSD

PDS/PDSD

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 7471A
Initial Calibration Verification

Work Order No.: 17-03-0589

Instrument ID: HG 7 (G)

Concentration Unit: µg/L

Test Method: EPA 7471A

Analyte	Initial Calibration Verification			
	True	ICV-1		Control Limit
		Observed	%D	
Mercury	5.000000	5.000468	0	0 – 10

03/15/2017 14:49

ICV-1 File: ICV M030617B 03/13/2017 12:30:57 PM

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 7470A
Continuing Calibration Verification

Work Order No.: 17-03-0589
Instrument ID: HG 7 (G)
Concentration Unit: µg/L
Test Method: EPA 7471A

Analyte	Continuing Calibration Verification					
		CCV-1		CCV-2		Control
	True	Observed	%D	Observed	%D	Limit
Mercury	2.000000	1.993148	0	2.010152	1	0 – 20

03/15/2017 14:49

CCV-1 File: CCV 0.2x10ppb 03/13/2017 01:41:00 PM
CCV-2 File: CCV 0.2x10ppb 03/13/2017 03:33:23 PM

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Return to Contents

Calscience Environmental Laboratories, Inc.

EPA Method 7471A
Initial and Continuing Calibration Blanks

Work Order No.: 17-03-0589
Instrument ID: HG 7 (G)
Concentration Unit: µg/L
Test Method: EPA 7471A

Analyte	Initial and Continuing Calibration Blanks			
	ICB-1	CCB-1	CCB-2	RL (No PF)
Mercury	-0.017762	-0.009598	-0.018182	0.500000

03/15/2017 14:49

ICB-1 File: ICB 03/13/2017 12:33:13 PM
CCB-1 File: CCB 03/13/2017 01:43:17 PM
CCB-2 File: CCB 03/13/2017 03:35:40 PM
Note: Preparation factor (PF) = 167 L/kg

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 7471A

WORK ORDER: **17-03-0589**
INSTRUMENT: Mercury 07
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-13 15:15
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\MERCURY_DATA\TEMP\170313G1\17-03-0589-25.icp

 # 25 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM1-3**

LCS/MB BATCH: 170313L01
MS/MSD BATCH: 170313S01
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 0.60 g / ACTUAL: 0.62 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml
ADJUSTMENT RATIO TO PF: 0.97

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Mercury	0.000432	1.00	ND	0.0806	

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 7471A

WORK ORDER: **17-03-0589**
INSTRUMENT: Mercury 07
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-13 15:22
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\MERCURY_DATA\TEMP\170313G1\17-03-0589-26.icp

 # 26 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM2-3**

LCS/MB BATCH: 170313L01
MS/MSD BATCH: 170313S01
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 0.60 g / ACTUAL: 0.63 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml
ADJUSTMENT RATIO TO PF: 0.95

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Mercury	0.000371	1.00	ND	0.0794	

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 7471A

WORK ORDER: **17-03-0589**
INSTRUMENT: Mercury 07
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-13 15:24
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\MERCURY_DATA\TEMP\170313G1\17-03-0589-27.icp

 # 27 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM3-3**

LCS/MB BATCH: 170313L01
MS/MSD BATCH: 170313S01
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 0.60 g / ACTUAL: 0.62 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml
ADJUSTMENT RATIO TO PF: 0.97

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Mercury	0.000505	1.00	0.0815	0.0806	

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 7471A

MB SAMPLE ID: **099-16-272-2868**
MB BATCH ID: 170313L01
INSTRUMENT: Mercury 07
EXTRACTION: EPA 7471A Total
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-13 15:10
REVIEWED BY:
D/T REVIEWED:
MATRIX: Soil

DATA FILE: W:\MERCURY_DATA\TEMP\170313G1\170313-B-01.icp

CLIENT WORK ORDER: 17-03-0589

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
25		D-DU1-ISM1-3	2017-03-13 15:15	W:\MERCURY_DATA\TEMP\170313G1\17-03-0589-25.icp
26		D-DU1-ISM2-3	2017-03-13 15:22	W:\MERCURY_DATA\TEMP\170313G1\17-03-0589-26.icp
27		D-DU1-ISM3-3	2017-03-13 15:24	W:\MERCURY_DATA\TEMP\170313G1\17-03-0589-27.icp

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 7471A

WORK ORDER: **099-16-272**
INSTRUMENT: Mercury 07
EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-13 15:10
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\MERCURY_DATA\TEMP\170313G1\170313-B-01.icp

 # MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: 170313L01
MS/MSD BATCH:
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 0.60 g / ACTUAL: 0.60 g
FINAL VOLUME / WEIGHT: DEFAULT: 100.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Mercury	-0.0000160	1.00	ND	0.0833	

Return to Contents

LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 7471A

LCS SAMPLE ID: **099-16-272- 2868**
LCS/MB BATCH ID: 170313L01
INSTRUMENT: Mercury 07

EXTRACTION : EPA 7471A Total
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 868
D/T ANALYZED: 2017-03-13 15:12
REVIEWED BY:
D/T REVIEWED:

DATA FILE: W:\MERCURY_DATA\TEMP\170313G1\170313-L-01.icp

COMPOUND NAME	CONC ADDED	CONC REC	%RECOVERY	%REC CONTROL LIMIT	STATUS	QUALIFIERS
Mercury	0.8350	0.8022	96	85-121	PASS	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 7471A

SPIKED SAMPLE ID: **17-03-0589-25**
MS/MSD BATCH: 170313S01
INSTRUMENTS:
SAMPLE: Mercury 07
MS: Mercury 07
MSD: Mercury 07

EXTRACTION: EPA 7471A Total
D/T EXTRACTED:
SAMPLE: 2017-03-13 00:00
MS: 2017-03-13 00:00
MSD: 2017-03-13 00:00

ANALYZED BY: 868
D/T ANALYZED:
SAMPLE: 2017-03-13 15:15
MS: 2017-03-13 15:17
MSD: 2017-03-13 15:19
REVIEWED BY:
D/T REVIEWED:

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Mercury	ND	0.005000	0.8350	0.7799	93	0.7487	90	71-137	4	0-14	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17-03-0589-25 MS.icp	W:\MERCURY_DATA\TEMP\170313G1\
MSD	17-03-0589-25 MSD.icp	W:\MERCURY_DATA\TEMP\170313G1\

Analysis Begun

Logged In Analyst: US26_SVC_INSTRUMENT
Spectrometer: FIMS-400, S/N B050-9560
Technique: AA FIMS-MHS
Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\170313G1.sifx
Batch ID:
Results Data Set: 170313G1
Results Library: U:\MERCURY_7\Data\Results\results.mdb

Sequence No.: 1
Sample ID: Calib blank_868
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0
Autosampler Location: 1
Date Collected: 3/13/2017 12:07:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: Calib blank_868
Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0002	-0.0002	0.0002	12:08:20 PM	Yes
2		[0.00]	0.0002	-0.0004	0.0002	12:09:06 PM	Yes
Mean:		[0.00]	0.0002				
SD:		0.0000	0.0000				
%RSD:		0.00%	14.65				

Auto-zero performed.

Sequence No.: 2
Sample ID: 0.025ppb 0.005x5ppb
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0
Autosampler Location: 2
Date Collected: 3/13/2017 12:09:31 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 0.025ppb 0.005x5ppb
Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.025]	0.0003	-0.0001	0.0004	12:10:35 PM	Yes
2		[0.025]	-0.0002	-0.0014	0.0000	12:11:21 PM	Yes
Mean:		[0.025]	0.0001				
SD:		0.00000	0.0003				
%RSD:		0.00%	562.25				

Standard number 1 applied. [0.025]
Correlation Coef.: 1.000000 Slope: 0.00221 Intercept: 0.00000

Sequence No.: 3
Sample ID: 0.10ppb M030617AX0.0001
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0
Autosampler Location: 3
Date Collected: 3/13/2017 12:11:47 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 0.10ppb M030617AX0.0001
Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.100]	0.0010	0.0032	0.0012	12:12:51 PM	Yes
2		[0.100]	0.0010	0.0032	0.0012	12:13:37 PM	Yes
Mean:		[0.100]	0.0010				
SD:		0.00000	0.0000				
%RSD:		0.00%	1.35				

Standard number 2 applied. [0.100]
Correlation Coef.: 0.981036 Slope: 0.01099 Intercept: -0.00009

Return to Contents

Sequence No.: 4
Sample ID: 1.00ppb M030617AX0.0001
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 4
Date Collected: 3/13/2017 12:14:03 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 1.00ppb M030617AX0.0001 Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1.000]	0.0101	0.0384	0.0103	12:15:08 PM	Yes
2		[1.000]	0.0100	0.0380	0.0102	12:15:54 PM	Yes
Mean:		[1.000]	0.0101				
SD:		0.00000	0.0001				
%RSD:		0.00%	0.52				

Standard number 3 applied. [1.000]
Correlation Coef.: 0.999795 Slope: 0.01015 Intercept: -0.00006

Sequence No.: 5
Sample ID: 2.00ppb M030617AX0.002
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 5
Date Collected: 3/13/2017 12:16:20 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 2.00ppb M030617AX0.002 Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.000]	0.0204	0.0784	0.0206	12:17:26 PM	Yes
2		[2.000]	0.0203	0.0775	0.0204	12:18:11 PM	Yes
Mean:		[2.000]	0.0203				
SD:		0.00000	0.0001				
%RSD:		0.00%	0.41				

Standard number 4 applied. [2.000]
Correlation Coef.: 0.999952 Slope: 0.01019 Intercept: -0.00007

Sequence No.: 6
Sample ID: 5.00ppb M030617AX0.005
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 6
Date Collected: 3/13/2017 12:18:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 5.00ppb M030617AX0.005 Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.000]	0.0507	0.1975	0.0509	12:19:42 PM	Yes
2		[5.000]	0.0502	0.1976	0.0504	12:20:27 PM	Yes
Mean:		[5.000]	0.0505				
SD:		0.00000	0.0003				
%RSD:		0.00%	0.66				

Standard number 5 applied. [5.000]
Correlation Coef.: 0.999986 Slope: 0.01011 Intercept: -0.00003

Sequence No.: 7
Sample ID: 10.0ppb M030617AX0.01
Analyst: 868
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 7
Date Collected: 3/13/2017 12:20:53 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 10.0ppb M030617AX0.01 Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Return to Contents

1	[10.00]	0.0986	0.3894	0.0987	12:21:57 PM	Yes
2	[10.00]	0.0985	0.3877	0.0986	12:22:43 PM	Yes
Mean:	[10.00]	0.0985				
SD:	0.0000	0.0001				
%RSD:	0.00%	0.09				

Standard number 6 applied. [10.00]
Correlation Coef.: 0.999919 Slope: 0.00988 Intercept: 0.00020

Calibration data for Hg 253.7 Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib blank_868	0.0000	0	-0.019862	0.00	14.65
0.025ppb 0.005x5ppb	0.0001	0.025	-0.014258	0.00	562.25
0.10ppb M030617AX0.0001	0.0010	0.100	0.085016	0.00	1.35
1.00ppb M030617AX0.0001	0.0101	1.000	1.000851	0.00	0.52
2.00ppb M030617AX0.002	0.0203	2.000	2.037533	0.00	0.41
5.00ppb M030617AX0.005	0.0505	5.000	5.086128	0.00	0.66
10.0ppb M030617AX0.01	0.0985	10.00	9.949592	0.00	0.09

Correlation Coef.: 0.999919 Slope: 0.00988 Intercept: 0.00020

Return to Contents

Analysis Begun

Logged In Analyst: US26_SVC_INSTRUMENT
Technique: AA FIMS-MHS
Spectrometer: FIMS-400, S/N B050-9560
Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\170313G1.sifx
Batch ID:
Results Data Set: 170313G1
Results Library: U:\MERCURY_7\Data\Results\results.mdb

Sequence No.: 1
Autosampler Location: 8
Sample ID: ICV M030617B
Date Collected: 3/13/2017 12:29:06 PM
Analyst: 868 HG-7
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:
Wash Time (before sample): 0
Auto Dilution Factor: 1.0000

Replicate Data: ICV M030617B
Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00502	5.02	0.0498	0.1942	0.0500	12:30:11 PM	Yes
2	0.00498	4.98	0.0494	0.1934	0.0496	12:30:57 PM	Yes
Mean:	0.00500	5.00	0.0496				
SD:	0.000025	0.025	0.0002				
%RSD:	0.50%	0.50%	0.50				

QC value within limits for Hg 253.7 Recovery = 100.01%
All analyte(s) passed QC.

Sequence No.: 2
Autosampler Location: 1
Sample ID: ICB
Date Collected: 3/13/2017 12:31:23 PM
Analyst: 868 HG-7
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:
Wash Time (before sample): 0
Auto Dilution Factor: 1.0000

Replicate Data: ICB
Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000020	-0.0197	0.0000	-0.0009	0.0002	12:32:27 PM	Yes
2	-0.000016	-0.0158	0.0000	0.0000	0.0002	12:33:13 PM	Yes
Mean:	-0.000018	-0.0178	0.0000				
SD:	0.0000027	0.00275	0.0000				
%RSD:	15.47%	15.47%	130.87				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 3
Autosampler Location: 9
Sample ID: CRQL 0.25
Date Collected: 3/13/2017 12:33:38 PM
Analyst: 868 HG-7
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution: 2X
Sample Prep Vol:
Wash Time (before sample): 0
Auto Dilution Factor: 1

Replicate Data: CRQL 0.25
Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000528	0.264	0.0028	0.0106	0.0030	12:34:43 PM	Yes
2	0.000518	0.259	0.0028	0.0102	0.0029	12:35:29 PM	Yes
Mean:	0.000523	0.262	0.0028				
SD:	0.0000076	0.0038	0.0000				
%RSD:	1.45%	1.45%	1.35				

Return to Contents

Analysis Begun

Logged In Analyst: US26_SVC_INSTRUMENT
Spectrometer: FIMS-400, S/N B050-9560
Technique: AA FIMS-MHS
Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\170313G1.sifx
Batch ID:
Results Data Set: 170313G1
Results Library: U:\MERCURY_7\Data\Results\results.mdb

Sequence No.: 1
Sample ID: 17-03-0491-1 10X
Analyst: 868 HG-7
Initial Sample Wt: 0.62 g
Dilution: 10X
Wash Time (before sample): 0
Autosampler Location: 139
Date Collected: 3/13/2017 1:32:08 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0491-1 10X
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.31	2.05	0.0205	0.0810	0.0206	1:33:15 PM	Yes
2	3.26	2.02	0.0202	0.0805	0.0203	1:34:01 PM	Yes
Mean:	3.28	2.03	0.0203				
SD:	0.035	0.022	0.0002				
%RSD:	1.06%	1.06%	1.05				

Sequence No.: 2
Sample ID: 17-03-0464-3
Analyst: 868 HG-7
Initial Sample Wt: 0.63 g
Dilution:
Wash Time (before sample): 0
Autosampler Location: 140
Date Collected: 3/13/2017 1:34:29 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 17-03-0464-3
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		0.285	0.0030	0.0131	0.0032	1:35:35 PM	Yes
2		0.286	0.0030	0.0129	0.0032	1:36:21 PM	Yes
Mean:		0.285	0.0030				
SD:		0.0011	0.0000				
%RSD:		0.39%	0.36				

Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.

Sequence No.: 3
Sample ID: 17-03-0297-1
Analyst: 868 HG-7
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0
Autosampler Location: 141
Date Collected: 3/13/2017 1:36:49 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: 17-03-0297-1
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		-0.00391	0.0002	0.0016	0.0003	1:37:55 PM	Yes
2		-0.00741	0.0001	0.0010	0.0003	1:38:41 PM	Yes
Mean:		-0.00566	0.0001				
SD:		0.002479	0.0000				
%RSD:		43.80%	17.46				

Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.

Sequence No.: 4
Sample ID: CCV 0.2x10ppb
Autosampler Location: 5
Date Collected: 3/13/2017 1:39:09 PM

Return to Contents

Analyst: 868 HG-7
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000

Replicate Data: CCV 0.2x10ppb

Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00199	1.99	0.0199	0.0793	0.0201	1:40:15 PM	Yes
2	0.00199	1.99	0.0199	0.0790	0.0200	1:41:00 PM	Yes
Mean:	0.00199	1.99	0.0199				
SD:	0.000002	0.002	0.0000				
%RSD:	0.11%	0.11%	0.10				

QC value within limits for Hg 253.7 Recovery = 99.66%
All analyte(s) passed QC.

Sequence No.: 5
Sample ID: CCB
Analyst: 868 HG-7
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Autosampler Location: 1
Date Collected: 3/13/2017 1:41:27 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000

Replicate Data: CCB

Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000010	-0.00964	0.0001	0.0012	0.0003	1:42:32 PM	Yes
2	-0.000010	-0.00956	0.0001	0.0008	0.0003	1:43:17 PM	Yes
Mean:	-0.000010	-0.00960	0.0001				
SD:	0.0000001	0.000054	0.0000				
%RSD:	0.57%	0.57%	0.53				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Return to Contents

Analysis Begun

Logged In Analyst: US26_SVC_INSTRUMENT
Technique: AA FIMS-MHS
Spectrometer: FIMS-400, S/N B050-9560
Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer Syngistix\AA\Data\Sample Information\170313G1.sifx
Batch ID:
Results Data Set: 170313G1
Results Library: U:\MERCURY_7\Data\Results\results.mdb

Sequence No.: 1
Autosampler Location: 10
Sample ID: 170313-B-01
Date Collected: 3/13/2017 3:08:51 PM
Analyst: 868 HG-7
Data Type: Original
Initial Sample Wt: 0.6 g
Initial Sample Vol:
Dilution:
Sample Prep Vol: 100 mL
Wash Time (before sample): 0
Auto Dilution Factor: 1

Replicate Data: 170313-B-01
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.00242	-0.0145	0.0001	0.0018	0.0002	3:09:56 PM	Yes
2	-0.00293	-0.0176	0.0000	0.0011	0.0002	3:10:41 PM	Yes
Mean:	-0.00267	-0.0160	0.0000				
SD:	0.000361	0.00217	0.0000				
%RSD:	13.52%	13.52%	56.82				

Sequence No.: 2
Autosampler Location: 11
Sample ID: 170313-L-01
Date Collected: 3/13/2017 3:11:08 PM
Analyst: 868 HG-7
Data Type: Original
Initial Sample Wt: 0.6 g
Initial Sample Vol:
Dilution:
Sample Prep Vol: 100 mL
Wash Time (before sample): 0
Auto Dilution Factor: 1

Replicate Data: 170313-L-01
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.797	4.78	0.0475	0.1960	0.0476	3:12:13 PM	Yes
2	0.807	4.84	0.0480	0.1951	0.0482	3:12:58 PM	Yes
Mean:	0.802	4.81	0.0478				
SD:	0.0067	0.040	0.0004				
%RSD:	0.84%	0.84%	0.84				

Sequence No.: 3
Autosampler Location: 12
Sample ID: 17-03-0589-25
Date Collected: 3/13/2017 3:13:25 PM
Analyst: 868 HG-7
Data Type: Original
Initial Sample Wt: 0.62 g
Initial Sample Vol:
Dilution:
Sample Prep Vol: 100 mL
Wash Time (before sample): 0
Auto Dilution Factor: 1

Replicate Data: 17-03-0589-25
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0695	0.431	0.0045	0.0185	0.0046	3:14:29 PM	Yes
2	0.0698	0.433	0.0045	0.0186	0.0046	3:15:15 PM	Yes
Mean:	0.0696	0.432	0.0045				
SD:	0.00022	0.0014	0.0000				
%RSD:	0.32%	0.32%	0.30				

Sequence No.: 4
Autosampler Location: 13
Sample ID: 17-03-0589-25 MS
Date Collected: 3/13/2017 3:15:42 PM
Analyst: 868 HG-7
Data Type: Original
Initial Sample Wt: 0.62 g
Initial Sample Vol:

Return to Contents

Dilution:
Wash Time (before sample): 0
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0589-25 MS
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.778	4.82	0.0478	0.1952	0.0480	3:16:47 PM	Yes
2	0.782	4.85	0.0481	0.1963	0.0483	3:17:33 PM	Yes
Mean:	0.780	4.84	0.0480				
SD:	0.0031	0.019	0.0002				
%RSD:	0.40%	0.40%	0.40				

==========

Sequence No.: 5
Sample ID: 17-03-0589-25 MSD
Analyst: 868 HG-7
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0
Autosampler Location: 14
Date Collected: 3/13/2017 3:18:00 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0589-25 MSD
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.753	4.67	0.0463	0.1877	0.0465	3:19:04 PM	Yes
2	0.745	4.62	0.0458	0.1867	0.0460	3:19:50 PM	Yes
Mean:	0.749	4.64	0.0461				
SD:	0.0059	0.036	0.0004				
%RSD:	0.78%	0.78%	0.78				

==========

Sequence No.: 6
Sample ID: 17-03-0589-26
Analyst: 868 HG-7
Initial Sample Wt: 0.63 g
Dilution:
Wash Time (before sample): 0
Autosampler Location: 15
Date Collected: 3/13/2017 3:20:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0589-26
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0576	0.363	0.0038	0.0154	0.0040	3:21:19 PM	Yes
2	0.0602	0.379	0.0039	0.0142	0.0041	3:22:05 PM	Yes
Mean:	0.0589	0.371	0.0039				
SD:	0.00180	0.0113	0.0001				
%RSD:	3.05%	3.05%	2.90				

==========

Sequence No.: 7
Sample ID: 17-03-0589-27
Analyst: 868 HG-7
Initial Sample Wt: 0.62 g
Dilution:
Wash Time (before sample): 0
Autosampler Location: 16
Date Collected: 3/13/2017 3:22:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0589-27
Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0813	0.504	0.0052	0.0201	0.0053	3:23:34 PM	Yes
2	0.0817	0.506	0.0052	0.0200	0.0054	3:24:20 PM	Yes
Mean:	0.0815	0.505	0.0052				
SD:	0.00025	0.0015	0.0000				
%RSD:	0.30%	0.30%	0.29				

==========

Sequence No.: 8
Sample ID: 17-03-0893-1
Analyst: 868 HG-7
Initial Sample Wt: 0.61 g
Autosampler Location: 17
Date Collected: 3/13/2017 3:24:46 PM
Data Type: Original
Initial Sample Vol:

Return to Contents

Dilution:
Wash Time (before sample): 0
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0893-1 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00490	0.0299	0.0005	0.0017	0.0007	3:25:50 PM	Yes
2	0.00494	0.0301	0.0005	0.0017	0.0007	3:26:36 PM	Yes
Mean:	0.00492	0.0300	0.0005				
SD:	0.000030	0.00018	0.0000				
%RSD:	0.60%	0.60%	0.36				

Sequence No.: 9
Sample ID: 17-03-0899-1
Analyst: 868 HG-7
Initial Sample Wt: 0.61 g
Dilution:
Wash Time (before sample): 0
Autosampler Location: 18
Date Collected: 3/13/2017 3:27:01 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0899-1 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0523	0.319	0.0033	0.0132	0.0035	3:28:05 PM	Yes
2	0.0526	0.321	0.0034	0.0139	0.0035	3:28:51 PM	Yes
Mean:	0.0525	0.320	0.0034				
SD:	0.00024	0.0015	0.0000				
%RSD:	0.46%	0.46%	0.43				

Sequence No.: 10
Sample ID: 17-03-0899-2
Analyst: 868 HG-7
Initial Sample Wt: 0.59 g
Dilution:
Wash Time (before sample): 0
Autosampler Location: 19
Date Collected: 3/13/2017 3:29:16 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0899-2 Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0606	0.357	0.0037	0.0155	0.0039	3:30:20 PM	Yes
2	0.0608	0.359	0.0037	0.0146	0.0039	3:31:06 PM	Yes
Mean:	0.0607	0.358	0.0037				
SD:	0.00019	0.0011	0.0000				
%RSD:	0.32%	0.32%	0.30				

Sequence No.: 11
Sample ID: CCV 0.2x10ppb
Analyst: 868 HG-7
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0
Autosampler Location: 5
Date Collected: 3/13/2017 3:31:32 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000

Replicate Data: CCV 0.2x10ppb Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00200	2.00	0.0200	0.0804	0.0201	3:32:37 PM	Yes
2	0.00202	2.02	0.0202	0.0795	0.0203	3:33:23 PM	Yes
Mean:	0.00201	2.01	0.0201				
SD:	0.000015	0.015	0.0001				
%RSD:	0.74%	0.74%	0.73				

QC value within limits for Hg 253.7 Recovery = 100.51%
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: CCB
Autosampler Location: 1
Date Collected: 3/13/2017 3:33:49 PM

Return to Contents

Analyst: 868 HG-7
Initial Sample Wt:
Dilution:
Wash Time (before sample): 0

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1.0000

Replicate Data: CCB

Analyte: Hg 253.7

Repl #	SampleConc mg/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000020	-0.0204	-0.0000	-0.0006	0.0002	3:34:54 PM	Yes
2	-0.000016	-0.0160	0.0000	-0.0004	0.0002	3:35:40 PM	Yes
Mean:	-0.000018	-0.0182	0.0000				
SD:	0.0000031	0.00314	0.0000				
%RSD:	17.25%	17.25%	186.83				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 13
Sample ID: 17-03-0757-1
Analyst: 868 HG-7
Initial Sample Wt: 0.6 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 20
Date Collected: 3/13/2017 3:36:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0757-1

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0340	0.204	0.0022	0.0085	0.0024	3:37:10 PM	Yes
2	0.0349	0.209	0.0023	0.0090	0.0024	3:37:55 PM	Yes
Mean:	0.0344	0.206	0.0022				
SD:	0.00062	0.0037	0.0000				
%RSD:	1.81%	1.81%	1.65				

Sequence No.: 14
Sample ID: 17-03-0485-4
Analyst: 868 HG-7
Initial Sample Wt: 0.61 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 21
Date Collected: 3/13/2017 3:38:21 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0485-4

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0349	0.213	0.0023	0.0089	0.0025	3:39:26 PM	Yes
2	0.0338	0.206	0.0022	0.0086	0.0024	3:40:13 PM	Yes
Mean:	0.0343	0.209	0.0023				
SD:	0.00080	0.0049	0.0000				
%RSD:	2.34%	2.34%	2.14				

Sequence No.: 15
Sample ID: 17-03-0485-5
Analyst: 868 HG-7
Initial Sample Wt: 0.61 g
Dilution:
Wash Time (before sample): 0

Autosampler Location: 22
Date Collected: 3/13/2017 3:40:39 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL
Auto Dilution Factor: 1

Replicate Data: 17-03-0485-5

Analyte: Hg 253.7

Repl #	SampleConc mg/kg	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.00727	0.0443	0.0006	0.0014	0.0008	3:41:44 PM	Yes
2	0.00347	0.0211	0.0004	0.0009	0.0006	3:42:30 PM	Yes
Mean:	0.00537	0.0327	0.0005				
SD:	0.002686	0.01638	0.0002				
%RSD:	50.05%	50.05%	31.15				

Return to Contents

EPA 7471A Mercury (Solid)

Run Logs

Return to Contents

170313G1

Carrier solution R07141602 **Reducting Agent R07141603**

Sample ID	Analyst Name	Initial Sample Wt	Analyte Name	Date	Time	Conc (Calib)	Units (Calib)	Conc (Samp)	Units (Samp)	Corr Coef
Calib blank_868	868 HG-7		Hg 253.7	3/13/2017	12:09:06 PM		ug/L		mg/L	
0.025ppb 0.005x5ppb	868 HG-7		Hg 253.7	3/13/2017	12:11:21 PM		ug/L		mg/L	
0.10ppb M030617AX0.0001	868 HG-7		Hg 253.7	3/13/2017	12:13:37 PM		ug/L		mg/L	
1.00ppb M030617AX0.0001	868 HG-7		Hg 253.7	3/13/2017	12:15:54 PM		ug/L		mg/L	
2.00ppb M030617AX0.002	868 HG-7		Hg 253.7	3/13/2017	12:18:11 PM		ug/L		mg/L	
5.00ppb M030617AX0.005	868 HG-7		Hg 253.7	3/13/2017	12:20:27 PM		ug/L		mg/L	
10.0ppb M030617AX0.01	868 HG-7		Hg 253.7	3/13/2017	12:22:43 PM		ug/L		mg/L	
ICV M030617B	868 HG-7		Hg 253.7	3/13/2017	12:30:57 PM	5.000468	ug/L	0.005	mg/L	0.999919
ICB	868 HG-7		Hg 253.7	3/13/2017	12:33:13 PM	-0.01776	ug/L	-1.78E-05	mg/L	0.999919
CRQL 0.25	868 HG-7		Hg 253.7	3/13/2017	12:35:29 PM	0.261548	ug/L	0.000523	mg/L	0.999919
CCV 0.2x10ppb	868 HG-7		Hg 253.7	3/13/2017	12:37:47 PM	2.019598	ug/L	0.00202	mg/L	0.999919
CCB	868 HG-7		Hg 253.7	3/13/2017	12:40:05 PM	-0.0147	ug/L	-1.47E-05	mg/L	0.999919
17-03-0491-1 10X	868 HG-7	0.62	Hg 253.7	3/13/2017	1:34:01 PM	2.034844	ug/L	0.322991	mg/kg	0.999919
17-03-0464-3	868 HG-7	0.63	Hg 253.7	3/13/2017	1:36:21 PM	0.285441	ug/L	0.045308	mg/kg	0.999919
17-03-0297-1	868 HG-7	0.6	Hg 253.7	3/13/2017	1:38:41 PM	-0.00566	ug/L	-0.00094	mg/kg	0.999919
CCV 0.2x10ppb	868 HG-7		Hg 253.7	3/13/2017	1:41:00 PM	1.993148	ug/L	0.001993	mg/L	0.999919
CCB	868 HG-7		Hg 253.7	3/13/2017	1:43:17 PM	-0.0096	ug/L	-9.60E-06	mg/L	0.999919
170313-B-01	868 HG-7	0.6	Hg 253.7	3/13/2017	3:10:41 PM	-0.01604	ug/L	-0.00267	mg/kg	0.999919
170313-L-01	868 HG-7	0.6	Hg 253.7	3/13/2017	3:12:58 PM	4.81309	ug/L	0.802182	mg/kg	0.999919
17-03-0589-25	868 HG-7	0.62	Hg 253.7	3/13/2017	3:15:15 PM	0.431762	ug/L	0.069639	mg/kg	0.999919
17-03-0589-25 MS	868 HG-7	0.62	Hg 253.7	3/13/2017	3:17:33 PM	4.835607	ug/L	0.779937	mg/kg	0.999919
17-03-0589-25 MSD	868 HG-7	0.62	Hg 253.7	3/13/2017	3:19:50 PM	4.641641	ug/L	0.748652	mg/kg	0.999919
17-03-0589-26	868 HG-7	0.63	Hg 253.7	3/13/2017	3:22:05 PM	0.371061	ug/L	0.058899	mg/kg	0.999919
17-03-0589-27	868 HG-7	0.62	Hg 253.7	3/13/2017	3:24:20 PM	0.505376	ug/L	0.081512	mg/kg	0.999919
17-03-0893-1	868 HG-7	0.61	Hg 253.7	3/13/2017	3:26:36 PM	0.03002	ug/L	0.004921	mg/kg	0.999919

Reviewed/Assign to Logbook Date: 03/13/17
Analysis: Hg Chemist ID: 771
Logbook Page: 1 Instrument ID: Hg 7

Return to Contents

Sample ID	Analyst Name	Initial Sample Wt	Analyte Name	Date	Time	Conc (Calib)	Units (Calib)	Conc (Samp)	Units (Samp)	Corr Coef
17-03-0899-1	868 HG-7	0.61	Hg 253.7	3/13/2017	3:28:51 PM	0.319968	ug/L	0.052454	mg/kg	0.999919
17-03-0899-2	868 HG-7	0.59	Hg 253.7	3/13/2017	3:31:06 PM	0.358203	ug/L	0.060712	mg/kg	0.999919
CCV 0.2x10ppb	868 HG-7		Hg 253.7	3/13/2017	3:33:23 PM	2.010152	ug/L	0.00201	mg/L	0.999919
CCB	868 HG-7		Hg 253.7	3/13/2017	3:35:40 PM	-0.01818	ug/L	-1.82E-05	mg/L	0.999919
17-03-0757-1	868 HG-7	0.6	Hg 253.7	3/13/2017	3:37:55 PM	0.206494	ug/L	0.034416	mg/kg	0.999919
17-03-0485-4	868 HG-7	0.61	Hg 253.7	3/13/2017	3:40:13 PM	0.209453	ug/L	0.034337	mg/kg	0.999919
17-03-0485-5 *	868 HG-7	0.61	Hg 253.7	3/13/2017	3:42:30 PM	0.032734	ug/L	0.005366	mg/kg	0.999919
17-03-0485-6	868 HG-7	0.62	Hg 253.7	3/13/2017	3:44:48 PM	0.018219	ug/L	0.002939	mg/kg	0.999919
17-03-0486-4	868 HG-7	0.57	Hg 253.7	3/13/2017	3:47:06 PM	-0.03525	ug/L	-0.00618	mg/kg	0.999919
17-03-0486-5	868 HG-7	0.6	Hg 253.7	3/13/2017	3:49:24 PM	-0.03554	ug/L	-0.00592	mg/kg	0.999919
17-03-0486-6	868 HG-7	0.62	Hg 253.7	3/13/2017	3:51:41 PM	-0.03613	ug/L	-0.00583	mg/kg	0.999919
17-03-0464-2	868 HG-7	0.61	Hg 253.7	3/13/2017	3:53:59 PM	-0.03593	ug/L	-0.00589	mg/kg	0.999919
17-03-0466-1	868 HG-7		Hg 253.7	3/13/2017	3:56:16 PM	-0.03805	ug/L	-7.61E-05	mg/L	0.999919
17-03-0602-1	868 HG-7	0.63	Hg 253.7	3/13/2017	3:58:34 PM	-0.03608	ug/L	-0.00573	mg/kg	0.999919
CCV 0.2x10ppb	868 HG-7		Hg 253.7	3/13/2017	4:00:52 PM	-0.03552	ug/L	-3.55E-05	mg/L	0.999919

* Tubing out. Data not reportable

Reviewed/Assign to Logbook Date: 03/13/17
Analysis: Hg Chemist ID: 771
Logbook Page: 2 Instrument ID: Hg7

Return to Contents

EPA 7471A Mercury (Solid)

Preparation Logs

Return to Contents

Mercury Sample Preparation Logbook (Solid / Other)

METHOD	MATRIX	EQUIPMENT ID #	REAGENT ID #	STANDARD ID #
☑ EPA 7471A	☑ Solid	Thermometer G-104 (CF-2.0 °C)	Aqua Regia R047916 10 mL	Spike M636617 A
☐ EPA 7471B	☐ Other (Specify)	Block Digester 3	5% $KMnO_4$ R166616 L	IC A
		Pipetter / Dispenser P-171/8	NaCl-H_3NO-HCl R1026166 mL	ICV B

BATCH NUMBER	SUPPLY LOT #	BALANCE ID #	QUALITY SYSTEM MATRIX ID #	SAMPLE HANDLING
MS/MSD 170313-561	Tube / Container 160975	36	Teflon Chip M006-35-15	1 = Composite 2 = Subsample
(Specify)	Filter		(Specify)	3 = Homogenize 4 = None

DIGESTION													
	START			END						SAMPLE		5% $KMNO_4$	SPIKE OR IC/ICV
DATE	TIME	TEMP W/O CF (°C)	PREP TECH ID #	TIME	TEMP W/O CF (°C)	PREP TECH ID #	SAMPLE HANDLING	ECI ID #	INITIAL (g)	FINAL (mL)	V (mL)	V (µL)
3/13/17	11:00	99	8015	11:45	95	8018	4	MS 17-03-0589-25A	0.62	100	7.5	500
								MSD	0.62			
								LCS 170303-B01	0.66			
								LCSD / MB 170313-L01	0.60			
								17-03-0589-25A	0.62			
								26	0.63			
								27	0.62			
								17-03-0893-1A	0.61			
								17-03-899-1A	0.61			
								2A	0.59			
							3	17-03-0757-1AA	0.60			
							4	17-03-0485-4A	0.61			
								5	0.61			
								6	0.62			
								17-03-0486-4A	0.57			
								5	0.60			
								6	0.62			
								17-03-0464-2A	0.61			
								17-03-0602-1A	0.63			
								17-03-0588-1A	0.63			
								MS 17-03-0757-1AA	0.63			
								MSD 1AA	0.63			
								IC				
								ICV				
								CB				

COMMENTS: 1 D-065 | MD-043 | D-058

Return to Contents

EPA METHOD 8082
PCB

RAW DATA

Return to Contents

EPA METHOD 8082
PCB

Initial Calibration

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8082

ICAL WORK ORDER: 099-12-532-9351-5154
ICAL BATCH ID: 170222I003
INSTRUMENT: GC 66

ANALYZED BY: 669
ICAL D/T ANALYZED: 2017-02-22 17:27
REVIEWED BY: 27
D/T REVIEWED: 2017-02-24 16:33

COMPOUND	COMP. TYPE	CALIB. MODEL	1	2	3	4	5	6	7	8	9	Avg. RF	Min. RF	%RSD	%RSD CL	R or R^2	R or R^2 CL	STATUS
Aroclor-1016	C	Avg RF	975,287	941,045	882,730	864,861	802,600					893,304	0.00	8	0-20			PASS
Aroclor-1260	C	Avg RF	1,012,414	995,847	939,916	914,296	876,433					947,781	0.00	6	0-20			PASS

Data Files:

Level #	D/T Analyzed	Data File
1	2017-02-22 17:27	/chem1/SVOA/GC_66/170222A/b1702220117022201
2	2017-02-22 17:45	/chem1/SVOA/GC_66/170222A/b1702220217022202
3	2017-02-22 18:03	/chem1/SVOA/GC_66/170222A/b1702220317022203
4	2017-02-22 18:21	/chem1/SVOA/GC_66/170222A/b1702220417022204
5	2017-02-22 18:38	/chem1/SVOA/GC_66/170222A/b1702220517022205

LR - E: Linear Regression (Equal Weight)
Avg RF: Average Response Factor
LR - IC: Linear Regression (Inverse Concentration Weight)
QR - E: Quadratic Regression (Equal Weight)
LR - ISC: Linear Regression (Inverse Square Concentration Weight)

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

ICV WORK ORDER: **099-12-532-9351-5154**
INITIAL BATCH: 170222I003
INSTRUMENT: GC 66

DATA FILE: /chem1/SVOA/GC_66/170222A/b1702220617022206

ANALYZED BY: 669
D/T ANALYZED:
INITIAL: 2017-02-22 17:27
ICV: 2017-02-22 18:56
REVIEWED BY: 27
D/T REVIEWED: 2017-02-24 16:33

COMPOUND NAME	COMP TYPE	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV CONC	ICV %D	ICV %D CL	STATUS
Aroclor-1016	C	Avg Resp	0.00	893304.438	1007962.398			-13	0-15	PASS
Aroclor-1260	C	Avg Resp	0.00	947781.003	1078849.128			-14	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Report Date : 03-Mar-2017 10:49

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2017 17:27
End Cal Date : 22-FEB-2017 20:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Cal Date : 03-Mar-2017 10:49 uhhn
Curve Type : Average

Calibration File Names:
Level 1: /chem1/SVOA/GC_66.i/170222A.b/b17022201.d
Level 2: /chem1/SVOA/GC_66.i/170222A.b/b17022202.d
Level 3: /chem1/SVOA/GC_66.i/170222A.b/b17022210.d
Level 4: /chem1/SVOA/GC_66.i/170222A.b/b17022204.d
Level 5: /chem1/SVOA/GC_66.i/170222A.b/b17022205.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	750.000 Level 4	2000.000 Level 5	RRF	% RSD
M 2 Aroclor-1016	975287	941045	882730	864861	802600	893304	8
3 Aroclor 1016 (1)	101963	96557	88889	85902	76867	90036	11
4 Aroclor 1016 (2)	177940	169399	157230	152953	139805	159465	9
5 Aroclor 1016 (3)	368139	367391	353292	350925	334872	354924	4
6 Aroclor 1016 (4)	185303	173132	158540	153765	139752	162098	11
7 Aroclor 1016 (5)	141942	134567	124778	121316	111304	126781	9
M 8 Aroclor-1260	1012414	995847	939916	914296	876433	947781	6
9 Aroclor 1260 (1)	295733	284622	266899	258701	245467	270285	7
10 Aroclor 1260 (2)	233964	225940	211260	204056	194563	213956	7
11 Aroclor 1260 (3)	244538	243699	232324	225188	219576	233065	5
12 Aroclor 1260 (4)	84774	85815	81119	85251	78652	83122	4
13 Aroclor 1260 (5)	153405	155772	148314	141098	138176	147353	5
M 14 Aroclor-1221	+++++	+++++	293209	+++++	+++++	293209	0
15 Aroclor 1221 (1)	+++++	+++++	43149	+++++	+++++	43149	0
16 Aroclor 1221 (2)	+++++	+++++	55578	+++++	+++++	55578	0
17 Aroclor 1221 (3)	+++++	+++++	34870	+++++	+++++	34870	0
18 Aroclor 1221 (4)	+++++	+++++	138535	+++++	+++++	138535	0
19 Aroclor 1221 (5)	+++++	+++++	21077	+++++	+++++	21077	0
M 20 Aroclor-1232	+++++	+++++	461201	+++++	+++++	461201	0
21 Aroclor 1232 (1)	+++++	+++++	93661	+++++	+++++	93661	0
22 Aroclor 1232 (2)	+++++	+++++	75982	+++++	+++++	75982	0
23 Aroclor 1232 (3)	+++++	+++++	160461	+++++	+++++	160461	0

Return to Contents

Report Date : 03-Mar-2017 10:49

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2017 17:27
End Cal Date : 22-FEB-2017 20:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Cal Date : 03-Mar-2017 10:49 uhhn
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	750.000 Level 4	2000.000 Level 5	RRF	% RSD
	24 Aroclor 1232 (4)	+++++	+++++	74085	+++++	+++++	74085	0
	25 Aroclor 1232 (5)	+++++	+++++	57013	+++++	+++++	57013	0
M	26 Aroclor-1242	+++++	+++++	721392	+++++	+++++	721392	0
	27 Aroclor 1242 (1)	+++++	+++++	71280	+++++	+++++	71280	0
	28 Aroclor 1242 (2)	+++++	+++++	129507	+++++	+++++	129507	0
	29 Aroclor 1242 (3)	+++++	+++++	287006	+++++	+++++	287006	0
	30 Aroclor 1242 (4)	+++++	+++++	130903	+++++	+++++	130903	0
	31 Aroclor 1242 (5)	+++++	+++++	102696	+++++	+++++	102696	0
M	32 Aroclor-1248	+++++	+++++	698713	+++++	+++++	698713	0
	33 Aroclor 1248 (1)	+++++	+++++	185195	+++++	+++++	185195	0
	34 Arcolor 1248 (2)	+++++	+++++	103145	+++++	+++++	103145	0
	35 Aroclor 1248 (3)	+++++	+++++	76812	+++++	+++++	76812	0
	36 Aroclor 1248 (4)	+++++	+++++	152023	+++++	+++++	152023	0
	37 Aroclor 1248 (5)	+++++	+++++	181538	+++++	+++++	181538	0
M	38 Aroclor-1254	+++++	+++++	1318858	+++++	+++++	1318858	0
	39 Aroclor 1254 (1)	+++++	+++++	265379	+++++	+++++	265379	0
	40 Aroclor 1254 (2)	+++++	+++++	186148	+++++	+++++	186148	0
	41 Arcolor 1254 (3)	+++++	+++++	350152	+++++	+++++	350152	0
	42 Aroclor 1254 (4)	+++++	+++++	239737	+++++	+++++	239737	0
	43 Aroclor 1254 (5)	+++++	+++++	277442	+++++	+++++	277442	0
M	44 Aroclor-1262	+++++	+++++	1059164	+++++	+++++	1059164	0
	45 Aroclor 1262 (1)	+++++	+++++	199559	+++++	+++++	199559	0
	46 Aroclor 1262 (2)	+++++	+++++	285769	+++++	+++++	285769	0
	47 Aroclor 1262 (3)	+++++	+++++	264628	+++++	+++++	264628	0
	48 Aroclor 1262 (4)	+++++	+++++	89771	+++++	+++++	89771	0
	49 Aroclor 1262 (5)	+++++	+++++	219437	+++++	+++++	219437	0
M	50 Aroclor-1268	+++++	+++++	4264652	+++++	+++++	4264652	0
	51 Aroclor 1268 (1)	+++++	+++++	707347	+++++	+++++	707347	0
	52 Aroclor 1268 (2)	+++++	+++++	709040	+++++	+++++	709040	0

Return to Contents

Report Date : 03-Mar-2017 10:49

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2017 17:27
End Cal Date : 22-FEB-2017 20:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Cal Date : 03-Mar-2017 10:49 uhhn
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	750.000 Level 4	2000.000 Level 5	___ RRF	% RSD
53 Aroclor 1268 (3)	+++++	+++++	580421	+++++	+++++	580421	0
54 Aroclor 1268 (4)	+++++	+++++	255277	+++++	+++++	255277	0
55 Aroclor 1268 (5)	+++++	+++++	2012567	+++++	+++++	2012567	0
$ 1 2,4,5,6-Tetrachloro-m-xylene	5417720	5823446	5836705	5879203	5752252	5741865	3
$ 56 Decachlorobiphenyl	5382862	5603807	5539339	5351948	5420179	5459627	2

Return to Contents

Report Date : 03-Mar-2017 10:49

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2017 17:27
End Cal Date : 22-FEB-2017 20:07
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Cal Date : 03-Mar-2017 10:49 uhhn
Curve Type : Average

```
|Average %RSD Results.                          |
|===============================================|
|Calculated Average %RSD =    6.53024           |
|Maximun Average %RSD    =   20.00000           |
|* Passed Average %RSD Test.                    |
|_______________________________________________|
```

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022206.d
Report Date: 02/23/2017 09:52

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_66.i
Sample Name: PCB ICV P021517H 500PPB
Sublist used: p1016_1260.sub
Method used: /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m

Injection Date and Time: 22-FEB-2017 18:56
Initial Calibration Date(s): 17-OCT-2016 22-FEB-2017
Initial Calibration Time(s): 20:04 20:07

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type	
Aroclor 1260 (1)	270284.532	318239.382	0.01	-18	15	Averaged	<-Failed
Aroclor 1260 (2)	213956.488	237968.342	0.01	-11	15	Averaged	
Aroclor 1260 (3)	233064.808	267435.304	0.01	-15	15	Averaged	
Aroclor 1260 (4)	83122.167	83559.856	0.01	-1	15	Averaged	
Aroclor-1260	947781.003	1078849.128	0.01	-14	15	Averaged	
Aroclor-1016	893304.438	1007962.398	0.01	-13	15	Averaged	
Aroclor 1016 (1)	90035.625	99898.782	0.01	-11	15	Averaged	
Aroclor 1016 (2)	159465.395	177206.146	0.01	-11	15	Averaged	
Aroclor 1016 (3)	354923.864	406965.954	0.01	-15	15	Averaged	
Aroclor 1016 (4)	162098.269	181154.002	0.01	-12	15	Averaged	
Aroclor 1016 (5)	126781.283	142737.514	0.01	-13	15	Averaged	
Aroclor 1260 (5)	147353.008	171646.244	0.01	-16	15	Averaged	<-Failed

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
2,4,5,6-Tetrachloro-m-xylene	5741865.170	5554897.950	0.01	3	15	Averaged
Decachlorobiphenyl	5459627.040	5505849.720	0.01	-1	15	Averaged

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022201.d
Report Date: 23-Feb-2017 09:41

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022201.d
Lab Smp Id:
Inj Date : 22-FEB-2017 17:27
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB ICAL1 P021517F 100PPB
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 22-FEB-2017 17:27 Cal File: b17022201.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.694	4.694	0.000	108354401	20.0000	18.9(a)
M	2 Aroclor-1016				97528686	100.000	109
	3 Aroclor 1016 (1)	5.539	5.533	0.006	10196308	100.000	113
	4 Aroclor 1016 (2)	6.168	6.165	0.003	17794023	100.000	112
	5 Aroclor 1016 (3)	6.852	6.844	0.008	36813879	100.000	104
	6 Aroclor 1016 (4)	7.050	7.043	0.007	18530301	100.000	114
	7 Aroclor 1016 (5)	7.204	7.194	0.010	14194175	100.000	112
M	8 Aroclor-1260				101241371	100.000	107
	9 Aroclor 1260 (1)	9.753	9.749	0.004	29573320	100.000	109
	10 Aroclor 1260 (2)	10.352	10.348	0.004	23396360	100.000	109
	11 Aroclor 1260 (3)	10.745	10.742	0.003	24453781	100.000	105
	12 Aroclor 1260 (4)	12.119	12.115	0.004	8477403	100.000	102
	13 Aroclor 1260 (5)	12.340	12.337	0.003	15340507	100.000	104
$	56 Decachlorobiphenyl	13.107	13.103	0.004	107657233	20.0000	19.7(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022201.d

Page 1

Date : 22-FEB-2017 17:27

Client ID:

Instrument: GC_66.i

Sample Info: PCB ICAL1 P021517F 100PPB

Operator: 944

Column phase:

Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022202.d Page 1
Report Date: 23-Feb-2017 09:42

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022202.d
Lab Smp Id:
Inj Date : 22-FEB-2017 17:45
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB ICAL2 P021517E 250PPB
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 22-FEB-2017 17:45 Cal File: b17022202.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
Compounds		RT	EXP RT	DLT RT	RESPONSE		
$	1 2,4,5,6-Tetrachloro-m-xylene	4.693	4.694	-0.001	291172299	50.0000	50.7
M	2 Aroclor-1016				235261233	250.000	263
	3 Aroclor 1016 (1)	5.536	5.539	-0.003	24139170	250.000	268
	4 Aroclor 1016 (2)	6.166	6.168	-0.002	42349726	250.000	266
	5 Aroclor 1016 (3)	6.848	6.852	-0.004	91847697	250.000	259
	6 Aroclor 1016 (4)	7.046	7.050	-0.004	43282979	250.000	267
	7 Aroclor 1016 (5)	7.198	7.204	-0.006	33641661	250.000	265
M	8 Aroclor-1260				248961695	250.000	263
	9 Aroclor 1260 (1)	9.751	9.753	-0.002	71155515	250.000	263
	10 Aroclor 1260 (2)	10.349	10.352	-0.003	56484954	250.000	264
	11 Aroclor 1260 (3)	10.743	10.745	-0.002	60924633	250.000	261
	12 Aroclor 1260 (4)	12.116	12.119	-0.003	21453649	250.000	258
	13 Aroclor 1260 (5)	12.339	12.340	-0.001	38942944	250.000	264
$	56 Decachlorobiphenyl	13.105	13.107	-0.002	280190360	50.0000	51.3

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022202.d
Date : 22-FEB-2017 17:45
Client ID:
Sample Info: PCB ICAL2 P021517E 250PPB

Column phase:

Instrument: GC_66.i

Operator: 944
Column diameter: 2.00

Return to Contents

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022203.d
Lab Smp Id:
Inj Date : 22-FEB-2017 18:03
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB ICAL3 P021517D 500PPB
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 27-JAN-2017 13:18 Cal File: b17012710.d
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.692	4.693	-0.001	583670480	100.000	102
M	2 Aroclor-1016				441364860	500.000	494
	3 Aroclor 1016 (1)	5.533	5.536	-0.003	44444648	500.000	494
	4 Aroclor 1016 (2)	6.164	6.166	-0.002	78615211	500.000	493
	5 Aroclor 1016 (3)	6.844	6.848	-0.004	176646127	500.000	498
	6 Aroclor 1016 (4)	7.043	7.046	-0.003	79269778	500.000	489
	7 Aroclor 1016 (5)	7.195	7.198	-0.003	62389096	500.000	492
M	8 Aroclor-1260				469957779	500.000	496
	9 Aroclor 1260 (1)	9.749	9.751	-0.002	133449409	500.000	494
	10 Aroclor 1260 (2)	10.348	10.349	-0.001	105630017	500.000	494
	11 Aroclor 1260 (3)	10.742	10.743	-0.001	116161904	500.000	498
	12 Aroclor 1260 (4)	12.115	12.116	-0.001	40559632	500.000	488
	13 Aroclor 1260 (5)	12.337	12.339	-0.002	74156817	500.000	503
$	56 Decachlorobiphenyl	13.105	13.105	0.000	553933911	100.000	101

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022203.d

Page 1

Date : 22-FEB-2017 18:03

Client ID:

Instrument: GC_66.i

Sample Info: PCB ICAL3 P021517D 500PPB

Operator: 944

Column phase:

Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022204.d
Report Date: 23-Feb-2017 09:42

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022204.d
Lab Smp Id:
Inj Date : 22-FEB-2017 18:21
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB ICAL4 P021517C 750PPB
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 22-FEB-2017 18:21 Cal File: b17022204.d
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
$ 1 2,4,5,6-Tetrachloro-m-xylene	4.691	4.692	-0.001	881880457	150.000	154
M 2 Aroclor-1016				648645686	750.000	726
3 Aroclor 1016 (1)	5.530	5.533	-0.003	64426684	750.000	716
4 Aroclor 1016 (2)	6.163	6.164	-0.001	114714592	750.000	719
5 Aroclor 1016 (3)	6.842	6.844	-0.002	263194053	750.000	742
6 Aroclor 1016 (4)	7.041	7.043	-0.002	115323393	750.000	711
7 Aroclor 1016 (5)	7.192	7.195	-0.003	90986964	750.000	718
M 8 Aroclor-1260				685721676	750.000	724
9 Aroclor 1260 (1)	9.748	9.749	-0.001	194025997	750.000	718
10 Aroclor 1260 (2)	10.348	10.348	0.000	153042314	750.000	715
11 Aroclor 1260 (3)	10.742	10.742	0.000	168891068	750.000	725
12 Aroclor 1260 (4)	12.113	12.115	-0.002	63938532	750.000	769
13 Aroclor 1260 (5)	12.336	12.337	-0.001	105823765	750.000	718
$ 56 Decachlorobiphenyl	13.104	13.105	-0.001	802792169	150.000	147

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022204.d
Date : 22-FEB-2017 18:21
Client ID:
Sample Info: PCB ICAL4 P021517C 750PPB

Column phase:

Instrument: GC_66.i

Operator: 944
Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022205.d
Report Date: 23-Feb-2017 09:42

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022205.d
Lab Smp Id:
Inj Date : 22-FEB-2017 18:38
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB ICAL5 P021517B 2000PPB
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 22-FEB-2017 18:38 Cal File: b17022205.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
Compounds		RT	EXP RT	DLT RT	RESPONSE		
$	1 2,4,5,6-Tetrachloro-m-xylene	4.693	4.691	0.002	2300900796	400.000	401(A)
M	2 Aroclor-1016				1605199523	2000.00	1800
	3 Aroclor 1016 (1)	5.530	5.530	0.000	153733649	2000.00	1710
	4 Aroclor 1016 (2)	6.163	6.163	0.000	279609263	2000.00	1750
	5 Aroclor 1016 (3)	6.839	6.842	-0.003	669744171	2000.00	1890
	6 Aroclor 1016 (4)	7.041	7.041	0.000	279504681	2000.00	1720
	7 Aroclor 1016 (5)	7.190	7.192	-0.002	222607759	2000.00	1760
M	8 Aroclor-1260				1752866795	2000.00	1850
	9 Aroclor 1260 (1)	9.747	9.748	-0.001	490934501	2000.00	1820
	10 Aroclor 1260 (2)	10.347	10.348	-0.001	389125144	2000.00	1820
	11 Aroclor 1260 (3)	10.742	10.742	0.000	439151601	2000.00	1880
	12 Aroclor 1260 (4)	12.114	12.113	0.001	157303133	2000.00	1890
	13 Aroclor 1260 (5)	12.336	12.336	0.000	276352416	2000.00	1880
$	56 Decachlorobiphenyl	13.104	13.104	0.000	2168071770	400.000	397

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022205.d
Date : 22-FEB-2017 18:38
Client ID:
Sample Info: PCB ICAL5 P021517B 2000PPB

Instrument: GC_66.i

Operator: 944
Column diameter: 2.00

Column phase:

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022206.d
Report Date: 23-Feb-2017 09:42

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022206.d
Lab Smp Id:
Inj Date : 22-FEB-2017 18:56
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB ICV P021517H 500PPB
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 22-FEB-2017 18:38 Cal File: b17022205.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
Compounds		RT	EXP RT	DLT RT	RESPONSE		
$	1 2,4,5,6-Tetrachloro-m-xylene	4.694	4.693	0.001	555489795	100.000	96.7
M	2 Aroclor-1016				503981199	500.000	564
	3 Aroclor 1016 (1)	5.533	5.530	0.003	49949391	500.000	555
	4 Aroclor 1016 (2)	6.165	6.163	0.002	88603073	500.000	556
	5 Aroclor 1016 (3)	6.844	6.839	0.005	203482977	500.000	573
	6 Aroclor 1016 (4)	7.043	7.041	0.002	90577001	500.000	559
	7 Aroclor 1016 (5)	7.194	7.190	0.004	71368757	500.000	563
M	8 Aroclor-1260				539424564	500.000	569
	9 Aroclor 1260 (1)	9.749	9.747	0.002	159119691	500.000	589
	10 Aroclor 1260 (2)	10.348	10.347	0.001	118984171	500.000	556
	11 Aroclor 1260 (3)	10.742	10.742	0.000	133717652	500.000	574
	12 Aroclor 1260 (4)	12.115	12.114	0.001	41779928	500.000	503
	13 Aroclor 1260 (5)	12.337	12.336	0.001	85823122	500.000	582
$	56 Decachlorobiphenyl	13.103	13.104	-0.001	550584972	100.000	101

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022206.d
Date : 22-FEB-2017 18:56
Client ID:
Sample Info: PCB ICV P021517H 500PPB

Column phase:

Instrument: GC_66.i

Operator: 944
Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022207.d
Report Date: 23-Feb-2017 09:42

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022207.d
Lab Smp Id:
Inj Date : 22-FEB-2017 19:14
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB 1221/54 500PPB P120616I
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 27-JAN-2017 13:18 Cal File: b17012710.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1221_1254.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
M 14 Aroclor-1221				146604462	500.000	500
15 Aroclor 1221 (1)	3.949	3.949	0.000	21574609	500.000	500
16 Aroclor 1221 (2)	5.209	5.209	0.000	27788962	500.000	500
17 Aroclor 1221 (3)	5.436	5.436	0.000	17435037	500.000	500
18 Aroclor 1221 (4)	5.532	5.532	0.000	69267403	500.000	500
19 Aroclor 1221 (5)	6.166	6.166	0.000	10538451	500.000	500
M 38 Aroclor-1254				659429043	500.000	500
39 Aroclor 1254 (1)	8.300	8.300	0.000	132689273	500.000	500
40 Aroclor 1254 (2)	8.658	8.658	0.000	93074176	500.000	500
41 Arcolor 1254 (3)	9.199	9.199	0.000	175076127	500.000	500
42 Aroclor 1254 (4)	9.513	9.513	0.000	119868437	500.000	500
43 Aroclor 1254 (5)	9.976	9.976	0.000	138721030	500.000	500

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022207.d
Date : 22-FEB-2017 19:14
Client ID:
Sample Info: PCB 1221/54 500PPB P120616I

Column phase:

Instrument: GC_66.i

Operator: 944
Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022208.d
Report Date: 23-Feb-2017 09:42

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022208.d
Lab Smp Id:
Inj Date : 22-FEB-2017 19:32
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB 1232/62 500PPB P120616J
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 27-JAN-2017 13:18 Cal File: b17012710.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1232_1262.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
M 20 Aroclor-1232				230600593	500.000	500
21 Aroclor 1232 (1)	5.533	5.533	0.000	46830292	500.000	500
22 Aroclor 1232 (2)	6.164	6.164	0.000	37990961	500.000	500
23 Aroclor 1232 (3)	6.846	6.846	0.000	80230398	500.000	500
24 Aroclor 1232 (4)	7.045	7.045	0.000	37042341	500.000	500
25 Aroclor 1232 (5)	7.198	7.198	0.000	28506601	500.000	500
M 44 Aroclor-1262				529581884	500.000	500
45 Aroclor 1262 (1)	9.749	9.749	0.000	99779332	500.000	500
46 Aroclor 1262 (2)	10.347	10.347	0.000	142884711	500.000	500
47 Aroclor 1262 (3)	10.742	10.742	0.000	132313903	500.000	500
48 Aroclor 1262 (4)	12.118	12.118	0.000	44885518	500.000	500
49 Aroclor 1262 (5)	12.337	12.337	0.000	109718420	500.000	500

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022208.d

Date : 22-FEB-2017 19:32

Client ID:

Sample Info: PCB 1232/62 500PPB P120616J

Column phase:

Instrument: GC_66.i

Operator: 944

Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022209.d
Report Date: 23-Feb-2017 09:43

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022209.d
Lab Smp Id:
Inj Date : 22-FEB-2017 19:50
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB 1248/68 500PPB P120616K
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 27-JAN-2017 13:18 Cal File: b17012710.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1248_1268.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
M 32 Aroclor-1248				349356650	500.000	500
33 Aroclor 1248 (1)	6.845	6.164	0.681	92597659	500.000	500
34 Arcolor 1248 (2)	7.397	7.397	0.000	51572554	500.000	500
35 Aroclor 1248 (3)	7.445	7.445	0.000	38405884	500.000	500
36 Aroclor 1248 (4)	7.715	7.715	0.000	76011522	500.000	500
37 Aroclor 1248 (5)	7.888	7.888	0.000	90769029	500.000	500
M 50 Aroclor-1268				2132325871	500.000	500
51 Aroclor 1268 (1)	11.554	11.554	0.000	353673525	500.000	500
52 Aroclor 1268 (2)	11.615	11.615	0.000	354519915	500.000	500
53 Aroclor 1268 (3)	11.948	11.948	0.000	290210573	500.000	500
54 Aroclor 1268 (4)	12.334	12.334	0.000	127638418	500.000	500
55 Aroclor 1268 (5)	12.764	12.764	0.000	1006283437	500.000	500

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022209.d
Date : 22-FEB-2017 19:50
Client ID:
Sample Info: PCB 1248/68 500PPB P120616K

Column phase:

Instrument: GC_66.i

Operator: 944
Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022210.d
Report Date: 23-Feb-2017 09:43

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170222A.b/b17022210.d
Lab Smp Id:
Inj Date : 22-FEB-2017 20:07
Operator : 944 Inst ID: GC_66.i
Smp Info : PCB 1242 500PPB P120616L
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170222A.b/b8082d-n2.m
Meth Date : 23-Feb-2017 09:41 uj3k Quant Type: ESTD
Cal Date : 27-JAN-2017 13:18 Cal File: b17012710.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1242-ical.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
M 26 Aroclor-1242				360695998	500.000	500
27 Aroclor 1242 (1)	5.534	5.534	0.000	35639904	500.000	500
28 Aroclor 1242 (2)	6.164	6.164	0.000	64753688	500.000	500
29 Aroclor 1242 (3)	6.844	6.844	0.000	143503184	500.000	500
30 Aroclor 1242 (4)	7.044	7.044	0.000	65451422	500.000	500
31 Aroclor 1242 (5)	7.195	7.195	0.000	51347800	500.000	500

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170222A.b/b17022210.d

Page 1

Date : 22-FEB-2017 20:07

Client ID:

Instrument: GC_66.i

Sample Info: PCB 1242 500PPB P120616L

Operator: 944

Column phase:

Column diameter: 2.00

Return to Contents

EPA METHOD 8082
PCB

Sample Data

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8082

WORK ORDER: **17-03-0589**
INSTRUMENT: GC 66
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 669
D/T ANALYZED: 2017-03-16 07:05
REVIEWED BY: 421
D/T REVIEWED: 2017-03-22 17:30

DATA FILE: /chem1/SVOA/GC_66/170316/b1703161717031617

 # 28 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM1-3**

LCS/MB BATCH: 170313L11
MS/MSD BATCH: 170313S11
UNITS: ug/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g
FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031617.d
Report Date: 16-Mar-2017 09:40

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031617.d
Lab Smp Id:
Inj Date : 16-MAR-2017 07:05
Operator : 669 Inst ID: GC_66.i
Smp Info : 17-03-0589-28
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:39 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.692	4.692	0.000	397075680	69.1545	69.2
M	2 Aroclor-1016	Compound Not Detected.					
	3 Aroclor 1016 (1)	Compound Not Detected.					
	4 Aroclor 1016 (2)	Compound Not Detected.					
	5 Aroclor 1016 (3)	Compound Not Detected.					
	6 Aroclor 1016 (4)	Compound Not Detected.					
	7 Aroclor 1016 (5)	Compound Not Detected.					
M	8 Aroclor-1260	Compound Not Detected.					
	9 Aroclor 1260 (1)	Compound Not Detected.					
	10 Aroclor 1260 (2)	Compound Not Detected.					
	11 Aroclor 1260 (3)	Compound Not Detected.					
	12 Aroclor 1260 (4)	Compound Not Detected.					
	13 Aroclor 1260 (5)	Compound Not Detected.					
M	14 Aroclor-1221	Compound Not Detected.					
	15 Aroclor 1221 (1)	Compound Not Detected.					
	16 Aroclor 1221 (2)	Compound Not Detected.					
	17 Aroclor 1221 (3)	Compound Not Detected.					
	18 Aroclor 1221 (4)	Compound Not Detected.					
	19 Aroclor 1221 (5)	Compound Not Detected.					
M	20 Aroclor-1232	Compound Not Detected.					
	21 Aroclor 1232 (1)	Compound Not Detected.					

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031617.d
Report Date: 16-Mar-2017 09:40

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
	22 Aroclor 1232 (2)	Compound Not Detected.					
	23 Aroclor 1232 (3)	Compound Not Detected.					
	24 Aroclor 1232 (4)	Compound Not Detected.					
	25 Aroclor 1232 (5)	Compound Not Detected.					
M	26 Aroclor-1242	Compound Not Detected.					
	27 Aroclor 1242 (1)	Compound Not Detected.					
	28 Aroclor 1242 (2)	Compound Not Detected.					
	29 Aroclor 1242 (3)	Compound Not Detected.					
	30 Aroclor 1242 (4)	Compound Not Detected.					
	31 Aroclor 1242 (5)	Compound Not Detected.					
M	32 Aroclor-1248	Compound Not Detected.					
	33 Aroclor 1248 (1)	Compound Not Detected.					
	34 Arcolor 1248 (2)	Compound Not Detected.					
	35 Aroclor 1248 (3)	Compound Not Detected.					
	36 Aroclor 1248 (4)	Compound Not Detected.					
	37 Aroclor 1248 (5)	Compound Not Detected.					
M	38 Aroclor-1254	Compound Not Detected.					
	39 Aroclor 1254 (1)	Compound Not Detected.					
	40 Aroclor 1254 (2)	Compound Not Detected.					
	41 Arcolor 1254 (3)	Compound Not Detected.					
	42 Aroclor 1254 (4)	Compound Not Detected.					
	43 Aroclor 1254 (5)	Compound Not Detected.					
M	44 Aroclor-1262	Compound Not Detected.					
	45 Aroclor 1262 (1)	Compound Not Detected.					
	46 Aroclor 1262 (2)	Compound Not Detected.					
	47 Aroclor 1262 (3)	Compound Not Detected.					
	48 Aroclor 1262 (4)	Compound Not Detected.					
	49 Aroclor 1262 (5)	Compound Not Detected.					
M	50 Aroclor-1268	Compound Not Detected.					
	51 Aroclor 1268 (1)	Compound Not Detected.					
	52 Aroclor 1268 (2)	Compound Not Detected.					
	53 Aroclor 1268 (3)	Compound Not Detected.					
	54 Aroclor 1268 (4)	Compound Not Detected.					
	55 Aroclor 1268 (5)	Compound Not Detected.					
$	56 Decachlorobiphenyl	13.099	13.102	-0.003	427509311	78.3038	78.3

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031617.d
Date : 16-MAR-2017 07:05
Client ID:
Sample Info: 17-03-0589-28

Column phase:

Instrument: GC_66.i

Operator: 669
Column diameter: 2.00

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8082

WORK ORDER: **17-03-0589**
INSTRUMENT: GC 66
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 669
D/T ANALYZED: 2017-03-16 07:22
REVIEWED BY: 421
D/T REVIEWED: 2017-03-22 17:30

DATA FILE: /chem1/SVOA/GC_66/170316/b1703161817031618

 # 29 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM2-3**

LCS/MB BATCH: 170313L11
MS/MSD BATCH: 170313S11
UNITS: ug/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.20 g
FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
ADJUSTMENT RATIO TO PF: 0.99

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031618.d
Report Date: 16-Mar-2017 09:40

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031618.d
Lab Smp Id:
Inj Date : 16-MAR-2017 07:22
Operator : 669 Inst ID: GC_66.i
Smp Info : 17-03-0589-29
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:39 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ug/Kg)
$ 1 2,4,5,6-Tetrachloro-m-xylene	4.693	4.692	0.001	385716929	67.1762	67.2
M 2 Aroclor-1016	Compound Not Detected.					
3 Aroclor 1016 (1)	Compound Not Detected.					
4 Aroclor 1016 (2)	Compound Not Detected.					
5 Aroclor 1016 (3)	Compound Not Detected.					
6 Aroclor 1016 (4)	Compound Not Detected.					
7 Aroclor 1016 (5)	Compound Not Detected.					
M 8 Aroclor-1260	Compound Not Detected.					
9 Aroclor 1260 (1)	Compound Not Detected.					
10 Aroclor 1260 (2)	Compound Not Detected.					
11 Aroclor 1260 (3)	Compound Not Detected.					
12 Aroclor 1260 (4)	Compound Not Detected.					
13 Aroclor 1260 (5)	Compound Not Detected.					
M 14 Aroclor-1221	Compound Not Detected.					
15 Aroclor 1221 (1)	Compound Not Detected.					
16 Aroclor 1221 (2)	Compound Not Detected.					
17 Aroclor 1221 (3)	Compound Not Detected.					
18 Aroclor 1221 (4)	Compound Not Detected.					
19 Aroclor 1221 (5)	Compound Not Detected.					
M 20 Aroclor-1232	Compound Not Detected.					
21 Aroclor 1232 (1)	Compound Not Detected.					

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031618.d
Report Date: 16-Mar-2017 09:40

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
	22 Aroclor 1232 (2)	Compound Not Detected.					
	23 Aroclor 1232 (3)	Compound Not Detected.					
	24 Aroclor 1232 (4)	Compound Not Detected.					
	25 Aroclor 1232 (5)	Compound Not Detected.					
M	26 Aroclor-1242	Compound Not Detected.					
	27 Aroclor 1242 (1)	Compound Not Detected.					
	28 Aroclor 1242 (2)	Compound Not Detected.					
	29 Aroclor 1242 (3)	Compound Not Detected.					
	30 Aroclor 1242 (4)	Compound Not Detected.					
	31 Aroclor 1242 (5)	Compound Not Detected.					
M	32 Aroclor-1248	Compound Not Detected.					
	33 Aroclor 1248 (1)	Compound Not Detected.					
	34 Arcolor 1248 (2)	Compound Not Detected.					
	35 Aroclor 1248 (3)	Compound Not Detected.					
	36 Aroclor 1248 (4)	Compound Not Detected.					
	37 Aroclor 1248 (5)	Compound Not Detected.					
M	38 Aroclor-1254	Compound Not Detected.					
	39 Aroclor 1254 (1)	Compound Not Detected.					
	40 Aroclor 1254 (2)	Compound Not Detected.					
	41 Arcolor 1254 (3)	Compound Not Detected.					
	42 Aroclor 1254 (4)	Compound Not Detected.					
	43 Aroclor 1254 (5)	Compound Not Detected.					
M	44 Aroclor-1262	Compound Not Detected.					
	45 Aroclor 1262 (1)	Compound Not Detected.					
	46 Aroclor 1262 (2)	Compound Not Detected.					
	47 Aroclor 1262 (3)	Compound Not Detected.					
	48 Aroclor 1262 (4)	Compound Not Detected.					
	49 Aroclor 1262 (5)	Compound Not Detected.					
M	50 Aroclor-1268	Compound Not Detected.					
	51 Aroclor 1268 (1)	Compound Not Detected.					
	52 Aroclor 1268 (2)	Compound Not Detected.					
	53 Aroclor 1268 (3)	Compound Not Detected.					
	54 Aroclor 1268 (4)	Compound Not Detected.					
	55 Aroclor 1268 (5)	Compound Not Detected.					
$	56 Decachlorobiphenyl	13.099	13.102	-0.003	424482362	77.7493	77.7

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031618.d
Date : 16-MAR-2017 07:22
Client ID:
Sample Info: 17-03-0589-29

Column phase:

Instrument: GC_66.i

Operator: 669
Column diameter: 2.00

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8082

WORK ORDER: **17-03-0589**
INSTRUMENT: GC 66
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 669
D/T ANALYZED: 2017-03-16 07:40
REVIEWED BY: 421
D/T REVIEWED: 2017-03-22 17:30

DATA FILE: /chem1/SVOA/GC_66/170316/b1703161917031619

 # 30 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM3-3**

LCS/MB BATCH: 170313L11
MS/MSD BATCH: 170313S11
UNITS: ug/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 10.00 ml / ACTUAL: 10.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031619.d
Report Date: 16-Mar-2017 09:40

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031619.d
Lab Smp Id:
Inj Date : 16-MAR-2017 07:40
Operator : 669 Inst ID: GC_66.i
Smp Info : 17-03-0589-30
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:39 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.692	4.692	0.000	370769275	64.5730	64.6
M	2 Aroclor-1016	Compound Not Detected.					
	3 Aroclor 1016 (1)	Compound Not Detected.					
	4 Aroclor 1016 (2)	Compound Not Detected.					
	5 Aroclor 1016 (3)	Compound Not Detected.					
	6 Aroclor 1016 (4)	Compound Not Detected.					
	7 Aroclor 1016 (5)	Compound Not Detected.					
M	8 Aroclor-1260	Compound Not Detected.					
	9 Aroclor 1260 (1)	Compound Not Detected.					
	10 Aroclor 1260 (2)	Compound Not Detected.					
	11 Aroclor 1260 (3)	Compound Not Detected.					
	12 Aroclor 1260 (4)	Compound Not Detected.					
	13 Aroclor 1260 (5)	Compound Not Detected.					
M	14 Aroclor-1221	Compound Not Detected.					
	15 Aroclor 1221 (1)	Compound Not Detected.					
	16 Aroclor 1221 (2)	Compound Not Detected.					
	17 Aroclor 1221 (3)	Compound Not Detected.					
	18 Aroclor 1221 (4)	Compound Not Detected.					
	19 Aroclor 1221 (5)	Compound Not Detected.					
M	20 Aroclor-1232	Compound Not Detected.					
	21 Aroclor 1232 (1)	Compound Not Detected.					

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031619.d
Report Date: 16-Mar-2017 09:40

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	CONCENTRATIONS FINAL (ug/Kg)
	22 Aroclor 1232 (2)	Compound Not Detected.					
	23 Aroclor 1232 (3)	Compound Not Detected.					
	24 Aroclor 1232 (4)	Compound Not Detected.					
	25 Aroclor 1232 (5)	Compound Not Detected.					
M	26 Aroclor-1242	Compound Not Detected.					
	27 Aroclor 1242 (1)	Compound Not Detected.					
	28 Aroclor 1242 (2)	Compound Not Detected.					
	29 Aroclor 1242 (3)	Compound Not Detected.					
	30 Aroclor 1242 (4)	Compound Not Detected.					
	31 Aroclor 1242 (5)	Compound Not Detected.					
M	32 Aroclor-1248	Compound Not Detected.					
	33 Aroclor 1248 (1)	Compound Not Detected.					
	34 Arcolor 1248 (2)	Compound Not Detected.					
	35 Aroclor 1248 (3)	Compound Not Detected.					
	36 Aroclor 1248 (4)	Compound Not Detected.					
	37 Aroclor 1248 (5)	Compound Not Detected.					
M	38 Aroclor-1254	Compound Not Detected.					
	39 Aroclor 1254 (1)	Compound Not Detected.					
	40 Aroclor 1254 (2)	Compound Not Detected.					
	41 Arcolor 1254 (3)	Compound Not Detected.					
	42 Aroclor 1254 (4)	Compound Not Detected.					
	43 Aroclor 1254 (5)	Compound Not Detected.					
M	44 Aroclor-1262	Compound Not Detected.					
	45 Aroclor 1262 (1)	Compound Not Detected.					
	46 Aroclor 1262 (2)	Compound Not Detected.					
	47 Aroclor 1262 (3)	Compound Not Detected.					
	48 Aroclor 1262 (4)	Compound Not Detected.					
	49 Aroclor 1262 (5)	Compound Not Detected.					
M	50 Aroclor-1268	Compound Not Detected.					
	51 Aroclor 1268 (1)	Compound Not Detected.					
	52 Aroclor 1268 (2)	Compound Not Detected.					
	53 Aroclor 1268 (3)	Compound Not Detected.					
	54 Aroclor 1268 (4)	Compound Not Detected.					
	55 Aroclor 1268 (5)	Compound Not Detected.					
$	56 Decachlorobiphenyl	13.099	13.102	-0.003	393031407	71.9887	72.0

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031619.d

Date : 16-MAR-2017 07:40

Client ID:

Sample Info: 17-03-0589-30

Column phase:

Instrument: GC_66.i

Operator: 669

Column diameter: 2.00

Return to Contents

EPA METHOD 8082
PCB

Quality Control

Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 8082

MB SAMPLE ID: **099-12-535-4095**
MB BATCH ID: 170313L11
INSTRUMENT: GC 66
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 669
D/T ANALYZED: 2017-03-16 02:37
REVIEWED BY: M
D/T REVIEWED:
MATRIX: Soil

DATA FILE: /chem1/SVOA/GC_66/170316/b1703160217031602

CLIENT WORK ORDER: 17-03-0589

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
28		D-DU1-ISM1-3	2017-03-16 07:05	/chem1/SVOA/GC_66/170316/b1703161717031617
29		D-DU1-ISM2-3	2017-03-16 07:22	/chem1/SVOA/GC_66/170316/b1703161817031618
30		D-DU1-ISM3-3	2017-03-16 07:40	/chem1/SVOA/GC_66/170316/b1703161917031619

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8082

WORK ORDER: **099-12-535**
INSTRUMENT: GC 66
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 669
D/T ANALYZED: 2017-03-16 02:37
REVIEWED BY:
D/T REVIEWED:

DATA FILE: /chem1/SVOA/GC_66/170316/b1703160217031602

 # MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: 170313L11
MS/MSD BATCH:
UNITS: ug/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 1.00 / ACTUAL: 1.00
FINAL VOLUME / WEIGHT: DEFAULT: 1.00 ml / ACTUAL: 1.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Aroclor-1016	0.000	1.00	ND	50	
Aroclor-1221	0.000	1.00	ND	50	
Aroclor-1232	0.000	1.00	ND	50	
Aroclor-1242	0.000	1.00	ND	50	
Aroclor-1248	0.000	1.00	ND	50	
Aroclor-1254	0.000	1.00	ND	50	
Aroclor-1260	0.000	1.00	ND	50	
Aroclor-1262	0.000	1.00	ND	50	
Aroclor-1268	0.000	1.00	ND	50	

Return to Contents

LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

LCS SAMPLE ID: **099-12-535- 4095**
LCS/MB BATCH ID: 170313L11
INSTRUMENT: GC 66

EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-13 00:00

ANALYZED BY: 669
D/T ANALYZED: 2017-03-16 02:55
REVIEWED BY:
D/T REVIEWED:

DATA FILE: /chem1/SVOA/GC_66/170316/b1703160317031603

COMPOUND NAME	CONC ADDED	CONC REC	%RECOVERY	%REC CONTROL LIMIT	STATUS	QUALIFIERS
Aroclor-1016	100.0	84.00	84	50-135	PASS	
Aroclor-1260	100.0	85.00	85	50-135	PASS	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

SPIKED SAMPLE ID: **17-03-0642-30**
MS/MSD BATCH: 170313S11
INSTRUMENTS:
SAMPLE: GC 66
MS: GC 66
MSD: GC 66

EXTRACTION: EPA 3545
D/T EXTRACTED:
SAMPLE: 2017-03-13 00:00
MS: 2017-03-13 00:00
MSD: 2017-03-13 00:00

ANALYZED BY: 669
D/T ANALYZED:
SAMPLE: 2017-03-16 03:48
MS: 2017-03-16 03:13
MSD: 2017-03-16 03:31
REVIEWED BY:
D/T REVIEWED:

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Aroclor-1016	ND	200.0	100.0	83.00	83	82.50	82	50-135	1	0-20	PASS	
Aroclor-1260	ND	200.0	100.0	84.50	84	85.00	85	50-135	1	0-20	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	17031604	/chem1/SVOA/GC_66/170316/b17031604
MSD	17031605	/chem1/SVOA/GC_66/170316/b17031605

SURROGATE RECOVERIES
FOR METHOD: EPA 8082

WORK ORDER: 17-03-0589
BATCH ID:
LCS/MB: 170313L11
MS: 170313S11
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

28 CLIENT SAMPLE NUMBER : D-DU1-ISM1-3

INSTRUMENT: GC 66
D/T EXTRACTED: 2017-03-13 00:00
DATA FILE: /chem1/SVOA/GC_66/170316/b1703161717031617

ANALYZED BY: 669
D/T ANALYZED 2017-03-16 07:05

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	78	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	PASS	

29 CLIENT SAMPLE NUMBER : D-DU1-ISM2-3

INSTRUMENT: GC 66
D/T EXTRACTED: 2017-03-13 00:00
DATA FILE: /chem1/SVOA/GC_66/170316/b1703161817031618

ANALYZED BY: 669
D/T ANALYZED 2017-03-16 07:22

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	78	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	PASS	

30 CLIENT SAMPLE NUMBER : D-DU1-ISM3-3

INSTRUMENT: GC 66
D/T EXTRACTED: 2017-03-13 00:00
DATA FILE: /chem1/SVOA/GC_66/170316/b1703161917031619

ANALYZED BY: 669
D/T ANALYZED 2017-03-16 07:40

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	72	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	PASS	

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC 66
D/T EXTRACTED: 2017-03-13 00:00
DATA FILE: /chem1/SVOA/GC_66/170316/b1703160217031602

ANALYZED BY: 669
D/T ANALYZED 2017-03-16 02:37

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	75	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8082

WORK ORDER: 17-03-0589
BATCH ID:
LCS/MB: 170313L11
MS:
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC 66
D/T EXTRACTED: 2017-03-13 00:00
DATA FILE: /chem1/SVOA/GC_66/170316/b1703160317031603

ANALYZED BY: 669
D/T ANALYZED 2017-03-16 02:55

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	76	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	68	25-145	PASS	

MS CLIENT SAMPLE NUMBER : Matrix Spike

INSTRUMENT: GC 66
D/T EXTRACTED: 2017-03-13 00:00
DATA FILE: /chem1/SVOA/GC_66/170316/b1703160417031604

ANALYZED BY: 669
D/T ANALYZED 2017-03-16 03:13

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	75	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	68	25-145	PASS	

MSD CLIENT SAMPLE NUMBER : Matrix Spike Duplicate

INSTRUMENT: GC 66
D/T EXTRACTED: 2017-03-13 00:00
DATA FILE: /chem1/SVOA/GC_66/170316/b1703160517031605

ANALYZED BY: 669
D/T ANALYZED 2017-03-16 03:31

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
Decachlorobiphenyl	76	24-168	PASS	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	PASS	

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031602.d
Report Date: 16-Mar-2017 09:39

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031602.d
Lab Smp Id:
Inj Date : 16-MAR-2017 02:37
Operator : 669 Inst ID: GC_66.i
Smp Info : MB 170313L11
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:39 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.692	4.692	0.000	394803974	68.7588	68.8
M	2 Aroclor-1016	Compound Not Detected.					
	3 Aroclor 1016 (1)	Compound Not Detected.					
	4 Aroclor 1016 (2)	Compound Not Detected.					
	5 Aroclor 1016 (3)	Compound Not Detected.					
	6 Aroclor 1016 (4)	Compound Not Detected.					
	7 Aroclor 1016 (5)	Compound Not Detected.					
M	8 Aroclor-1260	Compound Not Detected.					
	9 Aroclor 1260 (1)	Compound Not Detected.					
	10 Aroclor 1260 (2)	Compound Not Detected.					
	11 Aroclor 1260 (3)	Compound Not Detected.					
	12 Aroclor 1260 (4)	Compound Not Detected.					
	13 Aroclor 1260 (5)	Compound Not Detected.					
M	14 Aroclor-1221	Compound Not Detected.					
	15 Aroclor 1221 (1)	Compound Not Detected.					
	16 Aroclor 1221 (2)	Compound Not Detected.					
	17 Aroclor 1221 (3)	Compound Not Detected.					
	18 Aroclor 1221 (4)	Compound Not Detected.					
	19 Aroclor 1221 (5)	Compound Not Detected.					
M	20 Aroclor-1232	Compound Not Detected.					
	21 Aroclor 1232 (1)	Compound Not Detected.					

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031602.d
Report Date: 16-Mar-2017 09:39

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
	22 Aroclor 1232 (2)	Compound Not Detected.					
	23 Aroclor 1232 (3)	Compound Not Detected.					
	24 Aroclor 1232 (4)	Compound Not Detected.					
	25 Aroclor 1232 (5)	Compound Not Detected.					
M	26 Aroclor-1242	Compound Not Detected.					
	27 Aroclor 1242 (1)	Compound Not Detected.					
	28 Aroclor 1242 (2)	Compound Not Detected.					
	29 Aroclor 1242 (3)	Compound Not Detected.					
	30 Aroclor 1242 (4)	Compound Not Detected.					
	31 Aroclor 1242 (5)	Compound Not Detected.					
M	32 Aroclor-1248	Compound Not Detected.					
	33 Aroclor 1248 (1)	Compound Not Detected.					
	34 Arcolor 1248 (2)	Compound Not Detected.					
	35 Aroclor 1248 (3)	Compound Not Detected.					
	36 Aroclor 1248 (4)	Compound Not Detected.					
	37 Aroclor 1248 (5)	Compound Not Detected.					
M	38 Aroclor-1254	Compound Not Detected.					
	39 Aroclor 1254 (1)	Compound Not Detected.					
	40 Aroclor 1254 (2)	Compound Not Detected.					
	41 Arcolor 1254 (3)	Compound Not Detected.					
	42 Aroclor 1254 (4)	Compound Not Detected.					
	43 Aroclor 1254 (5)	Compound Not Detected.					
M	44 Aroclor-1262	Compound Not Detected.					
	45 Aroclor 1262 (1)	Compound Not Detected.					
	46 Aroclor 1262 (2)	Compound Not Detected.					
	47 Aroclor 1262 (3)	Compound Not Detected.					
	48 Aroclor 1262 (4)	Compound Not Detected.					
	49 Aroclor 1262 (5)	Compound Not Detected.					
M	50 Aroclor-1268	Compound Not Detected.					
	51 Aroclor 1268 (1)	Compound Not Detected.					
	52 Aroclor 1268 (2)	Compound Not Detected.					
	53 Aroclor 1268 (3)	Compound Not Detected.					
	54 Aroclor 1268 (4)	Compound Not Detected.					
	55 Aroclor 1268 (5)	Compound Not Detected.					
$	56 Decachlorobiphenyl	13.101	13.102	-0.001	409460756	74.9979	75.0

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031602.d
Date : 16-MAR-2017 02:37
Client ID:
Sample Info: MB 170313L11

Column phase:

Instrument: GC_66.i

Operator: 669
Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031603.d
Report Date: 16-Mar-2017 09:39

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031603.d
Lab Smp Id:
Inj Date : 16-MAR-2017 02:55
Operator : 669 Inst ID: GC_66.i
Smp Info : LCS 170313L11
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:39 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.693	4.692	0.001	392010377	68.2723	68.3
M	2 Aroclor-1016				149699541	167.580	168
	3 Aroclor 1016 (1)	5.540	5.535	0.005	16209045	180.029	180
	4 Aroclor 1016 (2)	6.165	6.164	0.001	27261897	170.958	171
	5 Aroclor 1016 (3)	6.852	6.846	0.006	56331026	158.713	159
	6 Aroclor 1016 (4)	7.049	7.046	0.003	28344591	174.861	175
	7 Aroclor 1016 (5)	7.203	7.197	0.006	21552982	170.001	170
M	8 Aroclor-1260				161569753	170.472	170
	9 Aroclor 1260 (1)	9.748	9.748	0.000	47960963	177.446	177
	10 Aroclor 1260 (2)	10.347	10.347	0.000	38254424	178.795	179
	11 Aroclor 1260 (3)	10.740	10.741	-0.001	37955501	162.854	163
	12 Aroclor 1260 (4)	12.115	12.116	-0.001	11135467	133.965	134
	13 Aroclor 1260 (5)	12.334	12.335	-0.001	26263398	178.235	178
$	56 Decachlorobiphenyl	13.100	13.102	-0.002	413893821	75.8099	75.8

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031603.d
Date : 16-MAR-2017 02:55
Client ID:
Sample Info: LCS 170313L11

Instrument: GC_66.i

Operator: 669
Column diameter: 2.00

Column phase:

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031604.d
Report Date: 16-Mar-2017 09:39

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031604.d
Lab Smp Id:
Inj Date : 16-MAR-2017 03:13
Operator : 669 Inst ID: GC_66.i
Smp Info : MS 17-03-0642-30 170313S11
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:39 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.692	4.692	0.000	391758120	68.2284	68.2
M	2 Aroclor-1016				147932078	165.601	166
	3 Aroclor 1016 (1)	5.538	5.535	0.003	16166680	179.559	180
	4 Aroclor 1016 (2)	6.166	6.164	0.002	26761260	167.819	168
	5 Aroclor 1016 (3)	6.850	6.846	0.004	55807556	157.238	157
	6 Aroclor 1016 (4)	7.048	7.046	0.002	28023615	172.880	173
	7 Aroclor 1016 (5)	7.200	7.197	0.003	21172967	167.004	167
M	8 Aroclor-1260				160522866	169.367	169
	9 Aroclor 1260 (1)	9.749	9.748	0.001	47494181	175.719	176
	10 Aroclor 1260 (2)	10.346	10.347	-0.001	37930713	177.282	177
	11 Aroclor 1260 (3)	10.741	10.741	0.000	37740248	161.930	162
	12 Aroclor 1260 (4)	12.116	12.116	0.000	11218175	134.960	135
	13 Aroclor 1260 (5)	12.334	12.335	-0.001	26139549	177.394	177
$	56 Decachlorobiphenyl	13.101	13.102	-0.001	407340932	74.6097	74.6

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031604.d
Date : 16-MAR-2017 03:13
Client ID:
Sample Info: MS 17-03-0642-30 170313S11

Instrument: GC_66.i

Operator: 669
Column diameter: 2.00

Column phase:

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031605.d
Report Date: 16-Mar-2017 09:39

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031605.d
Lab Smp Id:
Inj Date : 16-MAR-2017 03:31
Operator : 669 Inst ID: GC_66.i
Smp Info : MSD 17-03-0642-30 170313S11
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:39 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.691	4.692	-0.001	386391515	67.2937	67.3
M	2 Aroclor-1016				147703155	165.345	165
	3 Aroclor 1016 (1)	5.537	5.535	0.002	16101587	178.836	179
	4 Aroclor 1016 (2)	6.165	6.164	0.001	26507276	166.226	166
	5 Aroclor 1016 (3)	6.851	6.846	0.005	56093492	158.044	158
	6 Aroclor 1016 (4)	7.048	7.046	0.002	27978865	172.604	173
	7 Aroclor 1016 (5)	7.201	7.197	0.004	21021935	165.813	166
M	8 Aroclor-1260				160678733	169.531	170
	9 Aroclor 1260 (1)	9.747	9.748	-0.001	47637382	176.249	176
	10 Aroclor 1260 (2)	10.346	10.347	-0.001	37698861	176.199	176
	11 Aroclor 1260 (3)	10.738	10.741	-0.003	38124388	163.578	164
	12 Aroclor 1260 (4)	12.114	12.116	-0.002	11254981	135.403	135
	13 Aroclor 1260 (5)	12.333	12.335	-0.002	25963121	176.197	176
$	56 Decachlorobiphenyl	13.099	13.102	-0.003	412287604	75.5157	75.5

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031605.d
Date : 16-MAR-2017 03:31
Client ID:
Sample Info: MSD 17-03-0642-30 170313S11

Column phase:

Instrument: GC_66.i

Operator: 669
Column diameter: 2.00

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031606.d
Report Date: 16-Mar-2017 09:39

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031606.d
Lab Smp Id:
Inj Date : 16-MAR-2017 03:48
Operator : 669 Inst ID: GC_66.i
Smp Info : 17-03-0642-30
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:39 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.691	4.692	-0.001	396892431	69.1226	69.1
M	2 Aroclor-1016	Compound Not Detected.					
	3 Aroclor 1016 (1)	Compound Not Detected.					
	4 Aroclor 1016 (2)	Compound Not Detected.					
	5 Aroclor 1016 (3)	Compound Not Detected.					
	6 Aroclor 1016 (4)	Compound Not Detected.					
	7 Aroclor 1016 (5)	Compound Not Detected.					
M	8 Aroclor-1260	Compound Not Detected.					
	9 Aroclor 1260 (1)	Compound Not Detected.					
	10 Aroclor 1260 (2)	Compound Not Detected.					
	11 Aroclor 1260 (3)	Compound Not Detected.					
	12 Aroclor 1260 (4)	Compound Not Detected.					
	13 Aroclor 1260 (5)	Compound Not Detected.					
M	14 Aroclor-1221	Compound Not Detected.					
	15 Aroclor 1221 (1)	Compound Not Detected.					
	16 Aroclor 1221 (2)	Compound Not Detected.					
	17 Aroclor 1221 (3)	Compound Not Detected.					
	18 Aroclor 1221 (4)	Compound Not Detected.					
	19 Aroclor 1221 (5)	Compound Not Detected.					
M	20 Aroclor-1232	Compound Not Detected.					
	21 Aroclor 1232 (1)	Compound Not Detected.					

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031606.d
Report Date: 16-Mar-2017 09:39

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb)	FINAL (ug/Kg)
	22 Aroclor 1232 (2)	Compound Not Detected.					
	23 Aroclor 1232 (3)	Compound Not Detected.					
	24 Aroclor 1232 (4)	Compound Not Detected.					
	25 Aroclor 1232 (5)	Compound Not Detected.					
M	26 Aroclor-1242	Compound Not Detected.					
	27 Aroclor 1242 (1)	Compound Not Detected.					
	28 Aroclor 1242 (2)	Compound Not Detected.					
	29 Aroclor 1242 (3)	Compound Not Detected.					
	30 Aroclor 1242 (4)	Compound Not Detected.					
	31 Aroclor 1242 (5)	Compound Not Detected.					
M	32 Aroclor-1248	Compound Not Detected.					
	33 Aroclor 1248 (1)	Compound Not Detected.					
	34 Arcolor 1248 (2)	Compound Not Detected.					
	35 Aroclor 1248 (3)	Compound Not Detected.					
	36 Aroclor 1248 (4)	Compound Not Detected.					
	37 Aroclor 1248 (5)	Compound Not Detected.					
M	38 Aroclor-1254	Compound Not Detected.					
	39 Aroclor 1254 (1)	Compound Not Detected.					
	40 Aroclor 1254 (2)	Compound Not Detected.					
	41 Arcolor 1254 (3)	Compound Not Detected.					
	42 Aroclor 1254 (4)	Compound Not Detected.					
	43 Aroclor 1254 (5)	Compound Not Detected.					
M	44 Aroclor-1262	Compound Not Detected.					
	45 Aroclor 1262 (1)	Compound Not Detected.					
	46 Aroclor 1262 (2)	Compound Not Detected.					
	47 Aroclor 1262 (3)	Compound Not Detected.					
	48 Aroclor 1262 (4)	Compound Not Detected.					
	49 Aroclor 1262 (5)	Compound Not Detected.					
M	50 Aroclor-1268	Compound Not Detected.					
	51 Aroclor 1268 (1)	Compound Not Detected.					
	52 Aroclor 1268 (2)	Compound Not Detected.					
	53 Aroclor 1268 (3)	Compound Not Detected.					
	54 Aroclor 1268 (4)	Compound Not Detected.					
	55 Aroclor 1268 (5)	Compound Not Detected.					
$	56 Decachlorobiphenyl	13.099	13.102	-0.003	414797331	75.9754	76.0

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031606.d
Date : 16-MAR-2017 03:48
Client ID:
Sample Info: 17-03-0642-30

Instrument: GC_66.i

Operator: 669
Column diameter: 2.00

Column phase:

Return to Contents

EPA METHOD 8082
PCB

Continuing Calibration

Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8082

BATCH ID: **170316A020**
INSTRUMENT: GC 66

ANALYZED BY: 669

WORK ORDER: **099-12-532**
MATRIX: Water

REVIEWED BY:
D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
9440	Daily Calibration	2017-03-16 02:19	/chem1/SVOA/GC_66/170316/b1703160117031601
9441	Daily Calibration		

WORK ORDER: **17-03-0589**
MATRIX: Soil

REVIEWED BY:
D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
28	D-DU1-ISM1-3	2017-03-16 07:05	/chem1/SVOA/GC_66/170316/b1703161717031617
29	D-DU1-ISM2-3	2017-03-16 07:22	/chem1/SVOA/GC_66/170316/b1703161817031618
30	D-DU1-ISM3-3	2017-03-16 07:40	/chem1/SVOA/GC_66/170316/b1703161917031619

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

CCV WORK ORDER: **099-12-532-9440-5154**
BATCH ID:
INITIAL: 170222I003
CCV: 170316A020
INSTRUMENT: GC 66

DATA FILE: /chem1/SVOA/GC_66/170316/b1703160117031601

ANALYZED BY: 669
D/T ANALYZED:
INITIAL: 2017-02-22 17:27
CCV: 2017-03-16 02:19
REVIEWED BY:
D/T REVIEWED:

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Aroclor-1016	C	Avg Resp	0.00	893304.438	838691.902			6	0-15	PASS
Aroclor-1260	C	Avg Resp	0.00	947781.003	921272.452			3	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031601.d
Report Date: 03/16/2017 10:06

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_66.i
Sample Name: PCB CCV P021517I 500PPB
Sublist used: p1016_1260.sub
Method used: /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m

Injection Date and Time: 16-MAR-2017 02:19
Initial Calibration Date(s): 22-FEB-2017 22-FEB-2017
Initial Calibration Time(s): 17:27 20:07

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type	
Aroclor 1260 (1)	270284.532	261311.072	0.01	3	15	Averaged	
Aroclor 1260 (2)	213956.488	217726.262	0.01	-2	15	Averaged	
Aroclor 1260 (3)	233064.808	217223.318	0.01	7	15	Averaged	
Aroclor 1260 (4)	83122.167	66454.886	0.01	20	15	Averaged	<-Failed
Aroclor-1260	947781.003	921272.452	0.01	3	15	Averaged	
Aroclor-1016	893304.438	838691.902	0.01	6	15	Averaged	
Aroclor 1016 (1)	90035.625	85510.550	0.01	5	15	Averaged	
Aroclor 1016 (2)	159465.395	150722.344	0.01	5	15	Averaged	
Aroclor 1016 (3)	354923.864	331584.622	0.01	7	15	Averaged	
Aroclor 1016 (4)	162098.269	151984.626	0.01	6	15	Averaged	
Aroclor 1016 (5)	126781.283	118889.760	0.01	6	15	Averaged	
Aroclor 1260 (5)	147353.008	158556.914	0.01	-8	15	Averaged	

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
2,4,5,6-Tetrachloro-m-xylene	5741865.174	5523862.840	0.01	4	15	Averaged
Decachlorobiphenyl	5459627.036	5410297.090	0.01	1	15	Averaged

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031601.d
Report Date: 16-Mar-2017 09:39

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031601.d
Lab Smp Id:
Inj Date : 16-MAR-2017 02:19
Operator : 669 Inst ID: GC_66.i
Smp Info : PCB CCV P021517I 500PPB
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:39 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
$	1 2,4,5,6-Tetrachloro-m-xylene	4.692	4.692	0.000	552386284	100.000	96.2
M	2 Aroclor-1016				419345951	500.000	469
	3 Aroclor 1016 (1)	5.535	5.535	0.000	42755275	500.000	475
	4 Aroclor 1016 (2)	6.164	6.164	0.000	75361172	500.000	472
	5 Aroclor 1016 (3)	6.846	6.846	0.000	165792311	500.000	467
	6 Aroclor 1016 (4)	7.046	7.046	0.000	75992313	500.000	469
	7 Aroclor 1016 (5)	7.197	7.197	0.000	59444880	500.000	469
M	8 Aroclor-1260				460636226	500.000	486
	9 Aroclor 1260 (1)	9.748	9.748	0.000	130655536	500.000	483
	10 Aroclor 1260 (2)	10.347	10.347	0.000	108863131	500.000	509
	11 Aroclor 1260 (3)	10.741	10.741	0.000	108611659	500.000	466
	12 Aroclor 1260 (4)	12.116	12.116	0.000	33227443	500.000	400
	13 Aroclor 1260 (5)	12.335	12.335	0.000	79278457	500.000	538
$	56 Decachlorobiphenyl	13.102	13.102	0.000	541029709	100.000	99.1

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031601.d
Date : 16-MAR-2017 02:19
Client ID:
Sample Info: PCB CCV P021517I 500PPB

Instrument: GC_66.i

Operator: 669
Column diameter: 2.00

Column phase:

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8082

CCV WORK ORDER: **099-12-532-9442-5154**
BATCH ID:
INITIAL: 170222I003
CCV: 170316A021
INSTRUMENT: GC 66

DATA FILE: /chem1/SVOA/GC_66/170316/b1703162217031622

ANALYZED BY: 669
D/T ANALYZED:
INITIAL: 2017-02-22 17:27
CCV: 2017-03-16 08:34
REVIEWED BY:
D/T REVIEWED:

COMPOUND NAME	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Aroclor-1016	C	Avg Resp	0.00	893304.438	845781.252			5	0-15	PASS
Aroclor-1260	C	Avg Resp	0.00	947781.003	892972.092			6	0-15	PASS

MIN RF: Method Specified Minimum Response Factor

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031622.d
Report Date: 03/16/2017 10:06

Eurofins CalScience
Calibration Verification Report

Instrument ID: GC_66.i
Sample Name: PCB CCV P021517I 500PPB
Sublist used: p1016_1260.sub
Method used: /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m

Injection Date and Time: 16-MAR-2017 08:34
Initial Calibration Date(s): 22-FEB-2017 22-FEB-2017
Initial Calibration Time(s): 17:27 20:07

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type	
Aroclor 1260 (1)	270284.532	255217.226	0.01	6	15	Averaged	
Aroclor 1260 (2)	213956.488	211749.022	0.01	1	15	Averaged	
Aroclor 1260 (3)	233064.808	211936.784	0.01	9	15	Averaged	
Aroclor 1260 (4)	83122.167	64326.602	0.01	23	15	Averaged	<-Failed
Aroclor-1260	947781.003	892972.092	0.01	6	15	Averaged	
Aroclor-1016	893304.438	845781.252	0.01	5	15	Averaged	
Aroclor 1016 (1)	90035.625	86228.788	0.01	4	15	Averaged	
Aroclor 1016 (2)	159465.395	151793.146	0.01	5	15	Averaged	
Aroclor 1016 (3)	354923.864	337878.302	0.01	5	15	Averaged	
Aroclor 1016 (4)	162098.269	151802.942	0.01	6	15	Averaged	
Aroclor 1016 (5)	126781.283	118078.074	0.01	7	15	Averaged	
Aroclor 1260 (5)	147353.008	149742.458	0.01	-2	15	Averaged	

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
2,4,5,6-Tetrachloro-m-xylene	5741865.174	5689242.590	0.01	1	15	Averaged
Decachlorobiphenyl	5459627.036	5450682.520	0.01	0	15	Averaged

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031622.d
Report Date: 16-Mar-2017 09:40

Eurofins Calscience

EPA 8082/A PCB analysis

Data file : /chem1/SVOA/GC_66.i/170316.b/b17031622.d
Lab Smp Id:
Inj Date : 16-MAR-2017 08:34
Operator : 669 Inst ID: GC_66.i
Smp Info : PCB CCV P021517I 500PPB
Misc Info :
Comment : Rtx-CLPesticide II
Method : /chem1/SVOA/GC_66.i/170316.b/b8082d-n2.m
Meth Date : 16-Mar-2017 09:40 uhhn Quant Type: ESTD
Cal Date : 22-FEB-2017 20:07 Cal File: b17022210.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: p1016_1260.sub
Target Version: 3.50
Processing Host: US26TAR4

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS CAL-AMT (ppb)	AMOUNTS ON-COL (ppb)
Compounds		RT	EXP RT	DLT RT	RESPONSE		
$	1 2,4,5,6-Tetrachloro-m-xylene	4.691	4.691	0.000	568924259	100.000	99.1
M	2 Aroclor-1016				422890626	500.000	473
	3 Aroclor 1016 (1)	5.532	5.532	0.000	43114394	500.000	479
	4 Aroclor 1016 (2)	6.163	6.163	0.000	75896573	500.000	476
	5 Aroclor 1016 (3)	6.843	6.843	0.000	168939151	500.000	476
	6 Aroclor 1016 (4)	7.042	7.042	0.000	75901471	500.000	468
	7 Aroclor 1016 (5)	7.193	7.193	0.000	59039037	500.000	466
M	8 Aroclor-1260				446486046	500.000	471
	9 Aroclor 1260 (1)	9.745	9.745	0.000	127608613	500.000	472
	10 Aroclor 1260 (2)	10.344	10.344	0.000	105874511	500.000	495
	11 Aroclor 1260 (3)	10.738	10.738	0.000	105968392	500.000	455
	12 Aroclor 1260 (4)	12.112	12.112	0.000	32163301	500.000	387
	13 Aroclor 1260 (5)	12.332	12.332	0.000	74871229	500.000	508
$	56 Decachlorobiphenyl	13.099	13.099	0.000	545068252	100.000	99.8

Return to Contents

Data File: /chem1/SVOA/GC_66.i/170316.b/b17031622.d
Date : 16-MAR-2017 08:34
Client ID:
Sample Info: PCB CCV P021517I 500PPB

Instrument: GC_66.i

Operator: 669
Column diameter: 2.00

Column phase:

Return to Contents

EPA METHOD 8082
PCB

Run Logs

Return to Contents

Sequence: C:\CHEM32\1\SEQUENCE\170222A.S
Table: Front DataPath: W:\GC_66\DATA\2017\170222A\

Line	Vial	File	Name	Method	InjVolume	Acquired
1	100	17022200	IB S007-044-07	8082D-N2		22-Feb-17, 17:09:45
2	1	17022201	PCB ICAL1 P021517F 100PPB	8082D-N2		22-Feb-17, 17:27:32
3	2	17022202	PCB ICAL2 P021517E 250PPB	8082D-N2		22-Feb-17, 17:45:20
4	3	17022203	PCB ICAL3 P021517D 500PPB	8082D-N2		22-Feb-17, 18:03:10
5	4	17022204	PCB ICAL4 P021517C 750PPB	8082D-N2		22-Feb-17, 18:21:00
6	5	17022205	PCB ICAL5 P021517B 2000PPB	8082D-N2	1003	22-Feb-17, 18:38:49
7	6	17022206	PCB ICV P021517H 500PPB	8082D-N2		22-Feb-17, 18:56:37
8	7	17022207	PCB 1221/54 500PPB P120616I	8082D-N2		22-Feb-17, 19:14:26
9	8	17022208	PCB 1232/62 500PPB P120616J	8082D-N2		22-Feb-17, 19:32:18
10	9	17022209	PCB 1248/68 500PPB P120616K	8082D-N2		22-Feb-17, 19:50:07
11	10	17022210	PCB 1242 500PPB P120616L	8082D-N2		22-Feb-17, 20:07:55

Return to Contents

Line	Vial	File	Name	Method	InjVolume	Acquired
1	150	17031600	S007-46-21	8082D-N2		16-Mar-17, 02:01:53
2	1	17031601	PCB CCV P021517I 500PPB	8082D-N2	A020	16-Mar-17, 02:19:41
3	2	17031602	MB 170313L11	8082D-N2		16-Mar-17, 02:37:27
4	3	17031603	LCS 170313L11	8082D-N2		16-Mar-17, 02:55:14
5	4	17031604	MS 17-03-0642-30 170313S11	8082D-N2		16-Mar-17, 03:13:09
6	5	17031605	MSD 17-03-0642-30 170313S11	8082D-N2		16-Mar-17, 03:31:04
7	6	17031606	17-03-0642-30	8082D-N2		16-Mar-17, 03:48:56
8	7	17031607	17-03-0642-31	8082D-N2		16-Mar-17, 04:06:43
9	8	17031608	17-03-0642-32	8082D-N2		16-Mar-17, 04:24:35
10	9	17031609	17-03-0642-33	8082D-N2		16-Mar-17, 04:42:26
11	10	17031610	17-03-0641-30	8082D-N2		16-Mar-17, 05:00:16
12	11	17031611	17-03-0641-31	8082D-N2		16-Mar-17, 05:18:05
13	12	17031612	17-03-0641-32	8082D-N2		16-Mar-17, 05:35:59
14	13	17031613	17-03-0641-33	8082D-N2		16-Mar-17, 05:53:50
15	14	17031614	17-03-0590-28	8082D-N2		16-Mar-17, 06:11:37
16	15	17031615	17-03-0590-29	8082D-N2		16-Mar-17, 06:29:29
17	16	17031616	17-03-0590-30	8082D-N2		16-Mar-17, 06:47:21
18	17	17031617	17-03-0589-28	8082D-N2		16-Mar-17, 07:05:08
19	18	17031618	17-03-0589-29	8082D-N2		16-Mar-17, 07:22:58
20	19	17031619	17-03-0589-30	8082D-N2		16-Mar-17, 07:40:46
21	20	17031620	17-03-0486-7 Hg	8082D-N2		16-Mar-17, 07:58:37
22	21	17031621	17-03-0486-8 Hg	8082D-N2		16-Mar-17, 08:16:26
23	22	17031622	PCB CCV P021517I 500PPB	8082D-N2	A021	16-Mar-17, 08:34:16
24	23	17031623	17-03-0486-9 Hg	8082D-N2		16-Mar-17, 08:52:05
25	24	17031624	MB 170315L06	8082D-N2		16-Mar-17, 09:09:59
26	25	17031625	LCS 170315L06	8082D-N2		16-Mar-17, 09:27:50
27	26	17031626	MS 17-03-0966-1 170315S06	8082D-N2		
28	27	17031627	MSD 17-03-0966-1 170315S06	8082D-N2		
29	28	17031628	17-03-0966-1	8082D-N2		
30	29	17031629	LCS 170314L12	8082D-N2		
31	30	17031630	MB 170314L12	8082D-N2		
32	31	17031631	MS 17-03-0683-1 170314S12	8082D-N2		
33	32	17031632	MSD 17-03-0683-1 170314S12	8082D-N2		
34	33	17031633	17-03-0683-1	8082D-N2		
35	34	17031634	17-03-0683-2	8082D-N2		
36	35	17031635	17-03-0683-4	8082D-N2		
37	36	17031636	17-03-0683-5	8082D-N2		
38	37	17031637	17-03-0683-6	8082D-N2		
39	38	17031638	17-03-0683-7	8082D-N2		
40	39	17031639	17-03-0683-9	8082D-N2		
41	40	17031640	17-03-0683-10	8082D-N2		
42	41	17031641	17-03-0683-11	8082D-N2		
43	42	17031642	17-03-0683-12	8082D-N2	A022	
44	43	17031643	PCB CCV P021517I 500PPB	8082D-N2		
45	44	17031644	17-03-0683-14	8082D-N2		
46	45	17031645	17-03-0683-15	8082D-N2		
47	46	17031646	17-03-0683-16	8082D-N2		
48	47	17031647	17-03-0683-17	8082D-N2	A023	
49	43	17031648	PCB CCV P021517I 500PPB	8082D-N2		

Return to Contents

EPA METHOD 8082
PCB

Preparation Logs

Return to Contents

Analysis Method (EPA Method): □ 608 □ 8081 ☒ 8082 □ 8141 □ 8310 □ TO-13 □ TO-4
□ 8270 (□ Soil □ Soil SIM SUPER □ PAH □ SIM PAH □ SIM Pest □ SIM PCB cong. □ SIM FL)

Extraction Method (EPA Method): □ 3510 □ 3520 □ 3540 □ 3541 ☒ 3545 □ 3550 □ 3580

Analyst ID#: Measuring Sample- 1002 Start Extraction- 1002 Blow Down- 1084 Clean Up- 1084

Matrix: ☒ Soil □ Aqueous □ Oil □ Wipe □ Filter □ Tissue □ Air

Balance ID#: 53 Filter ID#: S07-17-17 ASE ID#: 7, 10 Soxtherm ID#: Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 03/13/2017 16:00 Ext. End Date/Time: 3/13/2017 19:10

Sand or Wipe ID#: S07-19-19

Drying Agent: ☒ Na_2SO_4 ☒ Diatomaceous Earth

Drying Agent(s) ID#: S07-44-18 / S07-22-03

Surrogate Std ID# & Volume Added (mL): S101316A 0.5

Spike Std ID# & Volume Added (mL): S0203 17A 0.5 Spike Added to: ☒ LCS □ LCSD ☒ MS ☒ MSD

Extraction Solvent: □ $MeCl_2$ ☒ 1:1 Hexane-Acetone □ 1:1 $MeCl_2$-Acetone □ 9:1 Hexane-Diethyl-ether □ Acetonitrile

Extraction Solvent ID#: S07-44-07/S07-44-08 Exchange Solvent (☒ Hexane □ Acetonitrile) ID#: S07-42-09

Clean Up Start Date & Time: 03/14/2017 8:00 Clean Up End Date & Time: 03/14/2017 8:30

Clean Up: □ 3620 Florisil □ 3630 SGC □ 3660 Sulfur ☒ 3665 Acid □ Other Cartridge ID#:

Clean Up Reagent ID#: S07-52-12 Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 170313L11

Cel ID#:	Sample W (g) / V (mL) Initial	Final	Clean Up Performed	Comments
MB	20.0	10	☒	
LCS	20.0	10	☒	
LCSD /	/	/	□	
MS 17-03-0642-30A	20.0	10	☒	
MSD V -30A	20.0	10	☒	
17-03-0486-7A	10.1	5	☒	
-8A	10.0	5	☒	
-9A	10.1	5	☒	
17-03-0589-28A	20.1	10	☒	
-29A	20.2	10	☒	
-30A	20.0	10	☒	
17-03-0590-28A	20.1	10	☒	
-29A	20.0	10	☒	
-30A	20.2	10	☒	
17-03-0591-28A	20.2	10	☒	
-29A	20.1	10	☒	
-30A	20.1	10	☒	
17-03-0641-30A	20.1	10	☒	
-31A	20.2	10	☒	
-32A	20.0	10	☒	
-33A	20.1	10	☒	
17-03-0642-30A	20.1	10	☒	
-31A	20.1	10	☒	
-32A	20.0	10	☒	
-33A	20.2	10	☒	

Peer Reviewed by: JJ7 Peer Reviewed Date: 03/14/17

Return to Contents

EPA METHOD 8270C
PAHSIM

RAW DATA

Return to Contents

EPA METHOD 8270C
PAHSIM

Initial Calibration

Return to Contents

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8270C SIM PAHs

ICAL WORK ORDER: 099-06-009-4976-4741
ICAL BATCH ID: 170313I002
INSTRUMENT: GC/MS AAA

ANALYZED BY: 907
ICAL D/T ANALYZED: 2017-03-13 13:34
REVIEWED BY: 262
D/T REVIEWED: 2017-03-13 16:33

COMPOUND	COMP. TYPE	CALIB. MODEL	1	2	3	4	5	6	7	8	9	AVG. RF	MIN. RF	%RSD	%R SD CL	R or R^2	R or R^2 CL	STATUS
Naphthalene		Avg RF	1.094	0.977	1.072	1.081	1.037					1.052	0.00	4	0-15	4.489		PASS
2-Methylnaphthalene		Avg RF	0.686	0.637	0.698	0.718	0.691					0.686	0.00	4	0-15	4.366		PASS
1-Methylnaphthalene		Avg RF	0.683	0.635	0.698	0.707	0.671					0.679	0.00	4	0-15	4.137		PASS
Acenaphthylene		Avg RF	2.278	2.113	2.302	2.378	2.279					2.270	0.00	4	0-15	4.271		PASS
Acenaphthene	C	Avg RF	1.342	1.216	1.330	1.355	1.306					1.310	0.00	4	0-15	4.240		PASS
Fluorene		Avg RF	1.499	1.409	1.562	1.599	1.543					1.522	0.00	5	0-15	4.776		PASS
Phenanthrene		Avg RF	1.068	0.987	1.088	1.131	1.090					1.073	0.00	5	0-15	4.958		PASS
Anthracene		Avg RF	1.120	1.028	0.999	1.176	1.134					1.092	0.00	7	0-15	6.822		PASS
Fluoranthene	C	Avg RF	1.282	1.196	1.325	1.412	1.351					1.313	0.00	6	0-15	6.115		PASS
Pyrene		Avg RF	1.404	1.295	1.439	1.484	1.450					1.414	0.00	5	0-15	5.128		PASS
Benzo (a) Anthracene		Avg RF	1.402	1.189	1.285	1.352	1.345					1.315	0.00	6	0-15	6.202		PASS
Chrysene		Avg RF	1.270	1.142	1.260	1.265	1.240					1.236	0.00	4	0-15	4.313		PASS
Benzo (k) Fluoranthene		Avg RF	1.421	1.349	1.493	1.512	1.440					1.443	0.00	4	0-15	4.481		PASS
Benzo (b) Fluoranthene		Avg RF	1.307	1.150	1.459	1.401	1.408					1.345	0.00	9	0-15	9.070		PASS
Benzo (a) Pyrene	C	Avg RF	1.297	1.177	1.304	1.346	1.279					1.281	0.00	5	0-15	4.912		PASS
Indeno (1,2,3-c,d) Pyrene		Avg RF	1.444	1.339	1.563	1.553	1.529					1.485	0.00	6	0-15	6.354		PASS
Dibenz (a,h) Anthracene		Avg RF	1.123	1.067	1.237	1.227	1.191					1.169	0.00	6	0-15	6.186		PASS
Benzo (g,h,i) Perylene		Avg RF	1.204	1.097	1.257	1.257	1.229					1.209	0.00	5	0-15	5.484		PASS

Data Files:

LR - E: Linear Regression (Equal Weight)
Avg RF: Average Response Factor

LR - IC: Linear Regression (Inverse Concentration Weight)
QR - E: Quadratic Regression (Equal Weight)

LR - ISC: Linear Regression (Inverse Square Concentration Weight)

INITIAL CALIBRATION QUALITY CONTROL SUMMARY
FOR METHOD: EPA 8270C SIM PAHs

ICAL WORK ORDER: 099-06-009-4976-4741
ICAL BATCH ID: 170313I002
INSTRUMENT: GC/MS AAA

ANALYZED BY: 907
ICAL D/T ANALYZED: 2017-03-13 13:34
REVIEWED BY: 262
D/T REVIEWED: 2017-03-13 16:33

LEVEL #	D/T ANALYZED	DATA FILE
1	2017-03-13 13:34	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar008.d\13mar008.rr
2	2017-03-13 13:15	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar007.d\13mar007.rr
3	2017-03-13 12:55	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar006.d\13mar006.rr
4	2017-03-13 12:35	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar005.d\13mar005.rr
5	2017-03-13 12:16	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar004.d\13mar004.rr

LR - E: Linear Regression (Equal Weight)
Avg RF: Average Response Factor

LR - IC: Linear Regression (Inverse Concentration Weight)
QR - E: Quadratic Regression (Equal Weight)

LR - ISC: Linear Regression (Inverse Square Concentration Weight)

INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C SIM PAHs

ICV WORK ORDER: **099-06-009-4976-4741**
INITIAL BATCH ID: 170313I002
INSTRUMENT: GC/MS AAA

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar009.d\13mar009.rr

ANALYZED BY: 907
D/T ANALYZED:
INITIAL: 2017-03-13 13:34
ICV: 2017-03-13 13:54
REVIEWED BY: 262
D/T REVIEWED: 2017-03-13 16:33

COMPOUND	COMP TYPE	CALIB MODEL	MIN RF	AVG RF	ICV RF	AMOUNT	ICV	ICV %D	ICV %D CL	STATUS
Naphthalene		Avg Resp	0.00	1.052	1.119			-6	0-20	PASS
2-Methylnaphthalene		Avg Resp	0.00	0.686	0.796			-16	0-20	PASS
1-Methylnaphthalene		Avg Resp	0.00	0.679	0.730			-8	0-20	PASS
Acenaphthylene		Avg Resp	0.00	2.270	2.398			-6	0-20	PASS
Acenaphthene	C	Avg Resp	0.00	1.310	1.440			-10	0-20	PASS
Fluorene		Avg Resp	0.00	1.522	1.679			-10	0-20	PASS
Phenanthrene		Avg Resp	0.00	1.073	1.225			-14	0-20	PASS
Anthracene		Avg Resp	0.00	1.092	1.199			-10	0-20	PASS
Fluoranthene	C	Avg Resp	0.00	1.313	1.434			-9	0-20	PASS
Pyrene		Avg Resp	0.00	1.414	1.534			-8	0-20	PASS
Benzo (a) Anthracene		Avg Resp	0.00	1.315	1.364			-4	0-20	PASS
Chrysene		Avg Resp	0.00	1.236	1.288			-4	0-20	PASS
Benzo (k) Fluoranthene		Avg Resp	0.00	1.443	1.584			-10	0-20	PASS
Benzo (b) Fluoranthene		Avg Resp	0.00	1.345	1.393			-4	0-20	PASS
Benzo (a) Pyrene	C	Avg Resp	0.00	1.281	1.337			-4	0-20	PASS
Indeno (1,2,3-c,d) Pyrene		Avg Resp	0.00	1.485	1.541			-4	0-20	PASS
Dibenz (a,h) Anthracene		Avg Resp	0.00	1.169	1.231			-5	0-20	PASS
Benzo (g,h,i) Perylene		Avg Resp	0.00	1.209	1.309			-8	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

Report Date : 13-Mar-2017 14:55 Page 1

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2016 17:28
End Cal Date : 13-MAR-2017 13:34
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m
Cal Date : 13-Mar-2017 14:53 ev7p
Curve Type : Average

Calibration File Names:
Level 1: /chem/SVOA/GCMS_AAA.i/170313.b/13mar008.d
Level 2: /chem/SVOA/GCMS_AAA.i/170313.b/13mar007.d
Level 3: /chem/SVOA/GCMS_AAA.i/170313.b/13mar006.d
Level 4: /chem/SVOA/GCMS_AAA.i/170313.b/13mar005.d
Level 5: /chem/SVOA/GCMS_AAA.i/170313.b/13mar004.d

Compound	0.10000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	5.000 Level 5	___ RRF	% RSD
4 Naphthalene	1.09385	0.97659	1.07180	1.08137	1.03681	1.05209	4
5 2-Methylnaphthalene	0.68554	0.63704	0.69835	0.71775	0.69148	0.68603	4
6 1-Methylnaphthalene	0.68289	0.63479	0.69764	0.70688	0.67130	0.67870	4
8 Biphenyl	2.16644	1.96594	2.16003	2.14549	2.03227	2.09403	4
9 2,6-Dimethylnaphthalene	1.55347	1.41005	1.53941	1.55897	1.49704	1.51179	4
10 Acenaphthylene	2.27806	2.11290	2.30165	2.37847	2.27903	2.27002	4
12 Acenaphthene	1.34190	1.21569	1.33044	1.35456	1.30570	1.30966	4
13 Dibenzofuran	1.87476	1.77796	1.96814	2.01585	1.94706	1.91675	5
14 1,6,7-Trimethylnaphthalene	1.52468	1.38537	1.51994	1.55698	1.48361	1.49412	4
15 Fluorene	1.49915	1.40934	1.56234	1.59858	1.54302	1.52249	5
16 Dibenzothiophene	2.79109	2.56641	2.83728	2.97282	2.91846	2.81721	6
18 Phenanthrene	1.06827	0.98692	1.08813	1.13110	1.08972	1.07283	5
19 Anthracene	1.12039	1.02844	0.99944	1.17551	1.13440	1.09164	7
20 1-Methylphenanthrene	1.08036	0.99436	1.09406	1.14905	1.13790	1.09115	6
21 Fluoranthene	1.28248	1.19637	1.32488	1.41151	1.35059	1.31317	6
22 Pyrene	1.40416	1.29495	1.43927	1.48368	1.44973	1.41436	5
24 Benzo (a) Anthracene	1.40151	1.18890	1.28510	1.35219	1.34547	1.31463	6
26 Chrysene	1.26972	1.14244	1.26018	1.26546	1.24029	1.23562	4
27 Benzo (b) Fluoranthene	1.30658	1.15032	1.45930	1.40137	1.40753	1.34502	9
28 Benzo (k) Fluoranthene	1.42096	1.34890	1.49348	1.51245	1.43970	1.44310	4
29 Benzo (e) pyrene	1.58081	1.42277	1.65604	1.63617	1.60280	1.57972	6
30 Benzo (a) Pyrene	1.29689	1.17692	1.30373	1.34597	1.27947	1.28059	5

Return to Contents

Eurofins Calscience

INITIAL CALIBRATION DATA

Start Cal Date : 06-DEC-2016 17:28
End Cal Date : 13-MAR-2017 13:34
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m
Cal Date : 13-Mar-2017 14:53 ev7p
Curve Type : Average

Compound	0.10000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	5.000 Level 5	___ RRF	% RSD
32 Perylene	1.62127	1.42943	1.59538	1.61256	1.56628	1.56498	5
33 Indeno (1,2,3-c,d) Pyrene	1.44353	1.33902	1.56310	1.55254	1.52914	1.48547	6
34 Dibenz (a,h) Anthracene	1.12332	1.06671	1.23658	1.22659	1.19081	1.16880	6
35 Benzo (g,h,i) Perylene	1.20375	1.09684	1.25672	1.25676	1.22913	1.20864	5
$ 2 Nitrobenzene-d5	0.33991	0.34002	0.39373	0.40003	0.39476	0.37369	8
$ 7 2-Fluorobiphenyl	1.66075	1.54110	1.68248	1.66836	1.54430	1.61940	4
$ 23 p-Terphenyl-d14	0.72431	0.67710	0.75455	0.77989	0.77847	0.74286	6

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar009.d
Report Date: 03/13/2017 14:54

Eurofins CalScience
Calibration Verification Report

Instrument ID: GCMS_AAA.i
Sample Name: ICV S010317I 1PPM
Sublist used: all.sub
Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m

Injection Date and Time: 13-MAR-2017 13:54
Initial Calibration Date(s): 06-DEC-2016 13-MAR-2017
Initial Calibration Time(s): 17:28 13:34

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Naphthalene	1.052	1.119	0.00	-6	20	Averaged
2-Methylnaphthalene	0.686	0.796	0.00	-16	20	Averaged
1-Methylnaphthalene	0.679	0.730	0.00	-8	20	Averaged
Acenaphthylene	2.270	2.398	0.00	-6	20	Averaged
Acenaphthene	1.310	1.440	0.00	-10	20	Averaged
Fluorene	1.522	1.679	0.00	-10	20	Averaged
Phenanthrene	1.073	1.225	0.00	-14	20	Averaged
Anthracene	1.092	1.199	0.00	-10	20	Averaged
Fluoranthene	1.313	1.434	0.00	-9	20	Averaged
Pyrene	1.414	1.534	0.00	-8	20	Averaged
Benzo (a) Anthracene	1.315	1.364	0.00	-4	20	Averaged
Chrysene	1.236	1.288	0.00	-4	20	Averaged
Benzo (b) Fluoranthene	1.345	1.393	0.00	-4	20	Averaged
Benzo (k) Fluoranthene	1.443	1.584	0.00	-10	20	Averaged
Benzo (a) Pyrene	1.281	1.337	0.00	-4	20	Averaged
Indeno (1,2,3-c,d) Pyrene	1.485	1.541	0.00	-4	20	Averaged
Dibenz (a,h) Anthracene	1.169	1.231	0.00	-5	20	Averaged
Benzo (g,h,i) Perylene	1.209	1.309	0.00	-8	20	Averaged
Biphenyl	2.094	1.920	0.00	8	20	Averaged
2,6-Dimethylnaphthalene	1.512	1.369	0.00	9	20	Averaged
1,6,7-Trimethylnaphthalene	1.494	1.312	0.00	12	20	Averaged
Dibenzothiophene	2.817	2.588	0.00	8	20	Averaged
1-Methylphenanthrene	1.091	0.986	0.00	10	20	Averaged
Benzo (e) pyrene	1.580	1.416	0.00	10	20	Averaged
Perylene	1.565	1.359	0.00	13	20	Averaged
Dibenzofuran	1.917	2.112	0.00	-10	20	Averaged

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Nitrobenzene-d5	0.374	0.442	0.00	-18	20	Averaged
2-Fluorobiphenyl	1.619	1.908	0.00	-18	20	Averaged
p-Terphenyl-d14	0.743	0.855	0.00	-15	20	Averaged

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar004.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 12:16 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-1 S010317D 5PPM Misc Info: 170313I002
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	108994	5.000	0.00
3)*Naphthalene-d8	(2)	4.937	136	329494	5.000	0.00
11)*Acenaphthene-d10	(3)	6.834	164	163934	5.000	0.00
17)*Phenanthrene-d10	(4)	8.437	188	323816	5.000	0.00
31)*Perylene-d12	(6)	13.009	264	282888	5.000	0.00
25)*Chrysene-d12	(5)	11.375	240	308710	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.241	82	130072	5.282	0.00
SpikedAmount 5.000	Recovery = 526.869					
7)$2-Fluorobiphenyl	(3)	6.115	172	253163	4.768	0.00
SpikedAmount 5.000	Recovery = 485.891					
23)$p-Terphenyl-d14	(5)	10.229	244	240321	5.240	0.00
SpikedAmount 5.000	Recovery = 520.854					
Target Compounds						QValue
4) Naphthalene	(2)	4.959	128	341623	4.927	100
5) 2-Methylnaphthalene	(2)	5.690	142	227840	5.040	100
6) 1-Methylnaphthalene	(2)	5.803	142	221189	4.945	99
10) Acenaphthylene	(3)	6.664	152	373610	5.020	100
12) Acenaphthene	(3)	6.865	153	214048	4.985	100
15) Fluorene	(3)	7.420	166	252954	5.067	99
18) Phenanthrene	(4)	8.461	178	352869	5.079	100
19) Anthracene	(4)	8.510	178	367338	5.196	99
21) Fluoranthene	(4)	9.777	202	437343	5.143	99
22) Pyrene	(5)	10.019	202	447546	5.125	99
24) Benzo (a) Anthracene	(5)	11.354	228	415359	5.117	100
26) Chrysene	(5)	11.399	228	382889	5.019	100
27) Benzo (b) Fluoranthene	(6)	12.585	252	398174	5.232	99
28) Benzo (k) Fluoranthene	(6)	12.609	252	407273	4.988	97
30) Benzo (a) Pyrene	(6)	12.944	252	361946	4.996	98
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.187	276	432575	5.147	99
34) Dibenz (a,h) Anthracene	(6)	14.207	278	336867	5.094	99
35) Benzo (g,h,i) Perylene	(6)	14.494	276	347707	5.085	99
8) Biphenyl	(3)	6.207	154	333158	4.853	100
9) 2,6-Dimethylnaphthalene	(3)	6.367	156	245415	4.951	99
14) 1,6,7-Trimethylnaphthalene	(3)	7.297	170	243214	4.965	99
16) Dibenzothiophene	(3)	8.324	184	478435	5.180	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar004.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 12:16 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-1 S010317D 5PPM Misc Info: 170313I002
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.151	192	351280	5.214	100
29) Benzo (e) pyrene	(6)	12.888	252	453412	5.073	99
32) Perylene	(6)	13.037	252	443082	5.004	100
13) Dibenzofuran	(3)	7.042	168	319189	5.079	80

Return to Contents

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar004.d
Date : 13-MAR-2017 12:16
Client ID:
Sample Info: ICAL-1 S010317D 5PPM
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i

Operator: 907
Column diameter: 0.18

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar005.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 12:35 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-2 S010317E 2PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	116724	5.000	0.00
3)*Naphthalene-d8	(2)	4.937	136	358355	5.000	0.00
11)*Acenaphthene-d10	(3)	6.833	164	178488	5.000	0.00
17)*Phenanthrene-d10	(4)	8.437	188	349171	5.000	0.00
31)*Perylene-d12	(6)	13.005	264	302694	5.000	0.00
25)*Chrysene-d12	(5)	11.370	240	340071	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.240	82	57341	2.141	0.00
SpikedAmount 2.000	Recovery = 213.561					
7)$2-Fluorobiphenyl	(3)	6.115	172	119113	2.060	0.00
SpikedAmount 2.000	Recovery = 209.970					
23)$p-Terphenyl-d14	(5)	10.228	244	106087	2.100	0.00
SpikedAmount 2.000	Recovery = 208.722					
Target Compounds						QValue
4) Naphthalene	(2)	4.956	128	155006	2.056	99
5) 2-Methylnaphthalene	(2)	5.690	142	102884	2.092	100
6) 1-Methylnaphthalene	(2)	5.803	142	101325	2.083	99
10) Acenaphthylene	(3)	6.663	152	169811	2.096	100
12) Acenaphthene	(3)	6.865	153	96709	2.069	100
15) Fluorene	(3)	7.420	166	114131	2.100	100
18) Phenanthrene	(4)	8.461	178	157979	2.109	100
19) Anthracene	(4)	8.509	178	164181	2.154	99
21) Fluoranthene	(4)	9.772	202	197143	2.150	100
22) Pyrene	(5)	10.014	202	201823	2.098	100
24) Benzo (a) Anthracene	(5)	11.350	228	183936	2.057	100
26) Chrysene	(5)	11.399	228	172138	2.048	100
27) Benzo (b) Fluoranthene	(6)	12.581	252	169675	2.084	100
28) Benzo (k) Fluoranthene	(6)	12.609	252	183124	2.096	99
30) Benzo (a) Pyrene	(6)	12.940	252	162967	2.102	99
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.179	276	187978	2.090	99
34) Dibenz (a,h) Anthracene	(6)	14.203	278	148513	2.099	99
35) Benzo (g,h,i) Perylene	(6)	14.485	276	152166	2.080	99
8) Biphenyl	(3)	6.203	154	153178	2.049	100
9) 2,6-Dimethylnaphthalene	(3)	6.367	156	111303	2.062	100
14) 1,6,7-Trimethylnaphthalene	(3)	7.294	170	111161	2.084	99
16) Dibenzothiophene	(3)	8.324	184	212245	2.110	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar005.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 12:35 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-2 S010317E 2PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.151	192	156304	2.106	99
29) Benzo (e) pyrene	(6)	12.883	252	198103	2.071	100
32) Perylene	(6)	13.033	252	195245	2.061	99
13) Dibenzofuran	(3)	7.041	168	143922	2.103	99

Return to Contents

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar005.d
Date : 13-MAR-2017 12:35
Client ID:
Sample Info: ICAL-2 S010317E 2PPM
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i

Operator: 907
Column diameter: 0.18

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar006.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 12:55 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-3 S010317F 1PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1) *1,4-Dichlorobenzene-d4	(1)	3.686	152	120202	5.000	0.00
3) *Naphthalene-d8	(2)	4.937	136	373417	5.000	0.00
11) *Acenaphthene-d10	(3)	6.833	164	184044	5.000	0.00
17) *Phenanthrene-d10	(4)	8.437	188	359556	5.000	0.00
31) *Perylene-d12	(6)	13.004	264	295234	5.000	0.00
25) *Chrysene-d12	(5)	11.370	240	345241	5.000	0.00
System Monitoring Compounds						
2) $Nitrobenzene-d5	(2)	4.240	82	29405	1.054	0.00
SpikedAmount 1.000	Recovery = 105.098					
7) $2-Fluorobiphenyl	(3)	6.115	172	61930	1.039	0.00
SpikedAmount 1.000	Recovery = 105.873					
23) $p-Terphenyl-d14	(5)	10.224	244	52100	1.016	0.00
SpikedAmount 1.000	Recovery = 100.970					
Target Compounds						QValue
4) Naphthalene	(2)	4.955	128	80046	1.019	100
5) 2-Methylnaphthalene	(2)	5.690	142	52155	1.018	100
6) 1-Methylnaphthalene	(2)	5.803	142	52102	1.028	100
10) Acenaphthylene	(3)	6.663	152	84721	1.014	100
12) Acenaphthene	(3)	6.865	153	48972	1.016	100
15) Fluorene	(3)	7.416	166	57508	1.026	100
18) Phenanthrene	(4)	8.461	178	78249	1.014	100
19) Anthracene	(4)	8.509	178	71871	0.916	100
21) Fluoranthene	(4)	9.772	202	95274	1.009	100
22) Pyrene	(5)	10.014	202	99379	1.018	100
24) Benzo (a) Anthracene	(5)	11.350	228	88734	0.978	100
26) Chrysene	(5)	11.394	228	87013	1.020	100
27) Benzo (b) Fluoranthene	(6)	12.577	252	86167	1.085	100
28) Benzo (k) Fluoranthene	(6)	12.605	252	88185	1.035	100
30) Benzo (a) Pyrene	(6)	12.936	252	76981	1.018	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.179	276	92296	1.052	100
34) Dibenz (a,h) Anthracene	(6)	14.199	278	73016	1.058	100
35) Benzo (g,h,i) Perylene	(6)	14.481	276	74205	1.040	100
8) Biphenyl	(3)	6.203	154	79508	1.032	100
9) 2,6-Dimethylnaphthalene	(3)	6.367	156	56664	1.018	100
14) 1,6,7-Trimethylnaphthalene	(3)	7.293	170	55947	1.017	100
16) Dibenzothiophene	(3)	8.324	184	104437	1.007	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar006.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 12:55 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-3 S010317F 1PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.151	192	75543	1.003	100
29) Benzo (e) pyrene	(6)	12.883	252	97784	1.048	100
32) Perylene	(6)	13.029	252	94202	1.019	100
13) Dibenzofuran	(3)	7.041	168	72445	1.027	100

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar006.d
Date : 13-MAR-2017 12:55
Client ID:
Sample Info: ICAL-3 S010317F 1PPM
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i
Operator: 907
Column diameter: 0.18

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar007.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 13:15 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-4 S010317G 0.5PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.683	152	115396	5.000	0.00
3)*Naphthalene-d8	(2)	4.937	136	363775	5.000	0.00
11)*Acenaphthene-d10	(3)	6.833	164	183525	5.000	0.00
17)*Phenanthrene-d10	(4)	8.437	188	357842	5.000	0.00
31)*Perylene-d12	(6)	13.004	264	307948	5.000	0.00
25)*Chrysene-d12	(5)	11.370	240	343317	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.243	82	12369	0.455	0.00
SpikedAmount 0.500	Recovery =	45.387				
7)$2-Fluorobiphenyl	(3)	6.115	172	28283	0.476	0.00
SpikedAmount 0.500	Recovery =	47.463				
23)$p-Terphenyl-d14	(5)	10.228	244	23246	0.456	0.00
SpikedAmount 0.500	Recovery =	45.034				
Target Compounds						QValue
4) Naphthalene	(2)	4.955	128	35526	0.464	100
5) 2-Methylnaphthalene	(2)	5.690	142	23174	0.464	99
6) 1-Methylnaphthalene	(2)	5.803	142	23092	0.468	100
10) Acenaphthylene	(3)	6.663	152	38777	0.465	100
12) Acenaphthene	(3)	6.865	153	22311	0.464	99
15) Fluorene	(3)	7.420	166	25865	0.463	100
18) Phenanthrene	(4)	8.461	178	35316	0.460	100
19) Anthracene	(4)	8.509	178	36802	0.471	99
21) Fluoranthene	(4)	9.776	202	42811	0.456	100
22) Pyrene	(5)	10.014	202	44458	0.458	100
24) Benzo (a) Anthracene	(5)	11.350	228	40817	0.452	100
26) Chrysene	(5)	11.398	228	39222	0.462	99
27) Benzo (b) Fluoranthene	(6)	12.581	252	35424	0.428	99
28) Benzo (k) Fluoranthene	(6)	12.609	252	41539	0.467	99
30) Benzo (a) Pyrene	(6)	12.940	252	36243	0.460	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.183	276	41235	0.451	100
34) Dibenz (a,h) Anthracene	(6)	14.207	278	32849	0.456	99
35) Benzo (g,h,i) Perylene	(6)	14.485	276	33777	0.454	99
8) Biphenyl	(3)	6.203	154	36080	0.469	100
9) 2,6-Dimethylnaphthalene	(3)	6.367	156	25878	0.466	100
14) 1,6,7-Trimethylnaphthalene	(3)	7.293	170	25425	0.464	100
16) Dibenzothiophene	(3)	8.324	184	47100	0.455	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar007.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 13:15 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-4 S010317G 0.5PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.151	192	34138	0.456	100
29) Benzo (e) pyrene	(6)	12.883	252	43814	0.450	100
32) Perylene	(6)	13.033	252	44019	0.457	99
13) Dibenzofuran	(3)	7.041	168	32630	0.464	100

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar007.d
Date : 13-MAR-2017 13:15
Client ID:
Sample Info: ICAL-4 S0103170 0.5PPM
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i
Operator: 907
Column diameter: 0.18

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar008.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 13:34 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-5 S010317H 0.1PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	112975	5.000	0.00
3)*Naphthalene-d8	(2)	4.937	136	358185	5.000	0.00
11)*Acenaphthene-d10	(3)	6.830	164	184104	5.000	0.00
17)*Phenanthrene-d10	(4)	8.433	188	357823	5.000	0.00
31)*Perylene-d12	(6)	13.001	264	299024	5.000	0.01
25)*Chrysene-d12	(5)	11.366	240	339563	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.247	82	2435	0.091	-0.01
SpikedAmount 0.100	Recovery =	9.077				
7)$2-Fluorobiphenyl	(3)	6.115	172	6115	0.103	0.00
SpikedAmount 0.100	Recovery =	10.231				
23)$p-Terphenyl-d14	(5)	10.224	244	4919	0.098	0.00
SpikedAmount 0.100	Recovery =	9.635				
Target Compounds						QValue
4) Naphthalene	(2)	4.956	128	7836	0.104	100
5) 2-Methylnaphthalene	(2)	5.690	142	4911	0.100	100
6) 1-Methylnaphthalene	(2)	5.803	142	4892	0.101	99
10) Acenaphthylene	(3)	6.663	152	8388	0.100	99
12) Acenaphthene	(3)	6.865	153	4941	0.102	99
15) Fluorene	(3)	7.417	166	5520	0.098	99
18) Phenanthrene	(4)	8.457	178	7645	0.100	98
19) Anthracene	(4)	8.509	178	8018	0.103	99
21) Fluoranthene	(4)	9.772	202	9178	0.098	100
22) Pyrene	(5)	10.015	202	9536	0.099	100
24) Benzo (a) Anthracene	(5)	11.350	228	9518	0.107	97
26) Chrysene	(5)	11.395	228	8623	0.103	100
27) Benzo (b) Fluoranthene	(6)	12.577	252	7814	0.097	91
28) Benzo (k) Fluoranthene	(6)	12.605	252	8498	0.098	99
30) Benzo (a) Pyrene	(6)	12.936	252	7756	0.101	94
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.183	276	8633	0.097	99
34) Dibenz (a,h) Anthracene	(6)	14.207	278	6718	0.096	96
35) Benzo (g,h,i) Perylene	(6)	14.486	276	7199	0.100	99
8) Biphenyl	(3)	6.203	154	7977	0.103	99
9) 2,6-Dimethylnaphthalene	(3)	6.367	156	5720	0.103	98
14) 1,6,7-Trimethylnaphthalene	(3)	7.294	170	5614	0.102	100
16) Dibenzothiophene	(3)	8.324	184	10277	0.099	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar008.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 13:34 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 13:57
Date, time and analyst ID of latest file update: 13-Mar-2017 13:57 ev7p

Sample Name: ICAL-5 S010317H 0.1PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.151	192	7337	0.099	99
29) Benzo (e) pyrene	(6)	12.880	252	9454	0.100	98
32) Perylene	(6)	13.029	252	9696	0.104	94
13) Dibenzofuran	(3)	7.042	168	6903	0.098	97

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar008.d
Date : 13-MAR-2017 13:34
Client ID:
Sample Info: ICAL-5 S010317H 0.1PPM
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i
Operator: 907
Column diameter: 0.18

Page 1

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar009.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 13:54 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 14:17
Date, time and analyst ID of latest file update: 13-Mar-2017 14:17 ev7p

Sample Name: ICV S010317I 1PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	97964	5.000	0.00
3)*Naphthalene-d8	(2)	4.933	136	304263	5.000	0.00
11)*Acenaphthene-d10	(3)	6.830	164	151183	5.000	0.00
17)*Phenanthrene-d10	(4)	8.437	188	297682	5.000	0.00
31)*Perylene-d12	(6)	13.004	264	253681	5.000	0.00
25)*Chrysene-d12	(5)	11.370	240	285311	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.237	82	26885	1.182	0.00
SpikedAmount 1.000	Recovery = 118.231					
7)$2-Fluorobiphenyl	(3)	6.115	172	57697	1.178	0.00
SpikedAmount 1.000	Recovery = 117.834					
23)$p-Terphenyl-d14	(5)	10.228	244	48767	1.150	0.00
SpikedAmount 1.000	Recovery = 115.047					
Target Compounds						QValue
4) Naphthalene	(2)	4.952	128	68108	1.064	100
5) 2-Methylnaphthalene	(2)	5.686	142	48456	1.161	100
6) 1-Methylnaphthalene	(2)	5.800	142	44438	1.076	100
10) Acenaphthylene	(3)	6.660	152	72498	1.056	100
12) Acenaphthene	(3)	6.865	153	43530	1.099	100
15) Fluorene	(3)	7.416	166	50760	1.103	100
18) Phenanthrene	(4)	8.457	178	72924	1.142	100
19) Anthracene	(4)	8.509	178	71357	1.098	100
21) Fluoranthene	(4)	9.772	202	85398	1.092	100
22) Pyrene	(5)	10.014	202	87549	1.085	100
24) Benzo (a) Anthracene	(5)	11.350	228	77856	1.038	100
26) Chrysene	(5)	11.398	228	73521	1.043	100
27) Benzo (b) Fluoranthene	(6)	12.581	252	70652	1.035	100
28) Benzo (k) Fluoranthene	(6)	12.609	252	80385	1.098	100
30) Benzo (a) Pyrene	(6)	12.940	252	67815	1.044	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.183	276	78202	1.038	100
34) Dibenz (a,h) Anthracene	(6)	14.203	278	62444	1.053	100
35) Benzo (g,h,i) Perylene	(6)	14.485	276	66434	1.083	100
8) Biphenyl	(3)	6.203	154	58069	0.917	100
9) 2,6-Dimethylnaphthalene	(3)	6.367	156	41405	0.906	100
14) 1,6,7-Trimethylnaphthalene	(3)	7.293	170	39662	0.878	100
16) Dibenzothiophene	(3)	8.324	184	78239	0.918	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar009.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 13:54 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 14:17
Date, time and analyst ID of latest file update: 13-Mar-2017 14:17 ev7p

Sample Name: ICV S010317I 1PPM Misc Info:
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.151	192	56269	0.904	100
29) Benzo (e) pyrene	(6)	12.883	252	71830	0.896	100
32) Perylene	(6)	13.033	252	68970	0.869	100
13) Dibenzofuran	(3)	7.041	168	63853	1.102	100

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar009.d
Date : 13-MAR-2017 13:54
Client ID:
Sample Info: ICV S0103171 1PPM
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i
Operator: 907
Column diameter: 0.18

Return to Contents

EPA METHOD 8270C
PAHSIM

Sample Data

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: **17-03-0589**
INSTRUMENT: GC/MS AAA
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-13 21:05
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar031.d\13mar031.rr

 # 25 **CLIENT SAMPLE NUMBER: D-DU1-ISM1-3**

LCS/MB BATCH: 170310L04
MS/MSD BATCH: 170310S04
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.10 g
FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.000	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar031.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 21:05 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:56 ev7p

Sample Name: 17-03-0589-25 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	122698	5.000	0.00
3)*Naphthalene-d8	(2)	4.933	136	387766	5.000	0.00
11)*Acenaphthene-d10	(3)	6.830	164	224403	5.000	0.00
17)*Phenanthrene-d10	(4)	8.437	188	394088	5.000	0.00
31)*Perylene-d12	(6)	13.009	264	342525	5.000	0.00
25)*Chrysene-d12	(5)	11.370	240	375636	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.240	82	25614	0.884	0.00
SpikedAmount 1.000	Recovery =	88.383				
7)$2-Fluorobiphenyl	(3)	6.112	172	54498	0.750	0.00
SpikedAmount 1.000	Recovery =	74.984				
23)$p-Terphenyl-d14	(5)	10.228	244	52233	0.936	0.00
SpikedAmount 1.000	Recovery =	93.592				
Target Compounds						QValue
4) Naphthalene	(2)	0.000		0	N.D.	
5) 2-Methylnaphthalene	(2)	0.000		0	N.D.	
6) 1-Methylnaphthalene	(2)	0.000		0	N.D.	
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	0.000		0	N.D.	
19) Anthracene	(4)	0.000		0	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	0.000		0	N.D.	
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0D	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	0.000		0	N.D.	
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0	N.D.	
16) Dibenzothiophene	(3)	0.000		0	N.D.	

D = Compound was deleted.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar031.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 21:05 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:56 ev7p

Sample Name: 17-03-0589-25 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	13.033	252	1333	0.012	1
13) Dibenzofuran	(3)	0.000		0	N.D.	

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar031.d

Page 1

Date : 13-MAR-2017 21:05

Client ID:

Instrument: GCMS_AAA.i

Sample Info: 17-03-0589-25

Volume Injected (uL): 10.0

Operator: 907

Column phase: J&W DB-5MS

Column diameter: 0.18

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: **17-03-0589**
INSTRUMENT: GC/MS AAA
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-13 21:25
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar032.d\13mar032.rr

 # 26 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM2-3**

LCS/MB BATCH: 170310L04
MS/MSD BATCH: 170310S04
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.20 g
FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
ADJUSTMENT RATIO TO PF: 0.99

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Naphthalene	0.0271	1.00	ND	0.0099	
2-Methylnaphthalene	0.0441	1.00	ND	0.0099	
1-Methylnaphthalene	0.0253	1.00	ND	0.0099	
Acenaphthylene	0.000	1.00	ND	0.0099	
Acenaphthene	0.000	1.00	ND	0.0099	
Fluorene	0.000	1.00	ND	0.0099	
Phenanthrene	0.0127	1.00	ND	0.0099	
Anthracene	0.000	1.00	ND	0.0099	
Fluoranthene	0.000	1.00	ND	0.0099	
Pyrene	0.000	1.00	ND	0.0099	
Benzo (a) Anthracene	0.000	1.00	ND	0.0099	
Chrysene	0.000	1.00	ND	0.0099	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.0099	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.0099	
Benzo (a) Pyrene	0.000	1.00	ND	0.0099	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.0099	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.0099	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.0099	

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar032.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 21:25 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:56 ev7p

Sample Name: 17-03-0589-26 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	111168	5.000	0.00
3)*Naphthalene-d8	(2)	4.933	136	353865	5.000	0.00
11)*Acenaphthene-d10	(3)	6.833	164	203456	5.000	0.00
17)*Phenanthrene-d10	(4)	8.437	188	358122	5.000	0.00
31)*Perylene-d12	(6)	13.004	264	298016	5.000	0.00
25)*Chrysene-d12	(5)	11.370	240	326477	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.240	82	19378	0.733	0.00
SpikedAmount 1.000	Recovery =	73.271				
7)$2-Fluorobiphenyl	(3)	6.115	172	43793	0.665	0.00
SpikedAmount 1.000	Recovery =	66.459				
23)$p-Terphenyl-d14	(5)	10.228	244	41925	0.864	0.00
SpikedAmount 1.000	Recovery =	86.433				
Target Compounds						QValue
4) Naphthalene	(2)	4.955	128	2019	0.027	97
5) 2-Methylnaphthalene	(2)	5.690	142	2139	0.044	97
6) 1-Methylnaphthalene	(2)	5.803	142	1215	0.025	98
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	8.461	178	977	0.013	94
19) Anthracene	(4)	0.000		0D	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	0.000		0	N.D.	
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0D	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	6.373	156	1230	0.020	99
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0D	N.D.	
16) Dibenzothiophene	(3)	0.000		0	N.D.	

D = Compound was deleted.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar032.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 21:25 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:56 ev7p

Sample Name: 17-03-0589-26 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0D	N.D.	
32) Perylene	(6)	0.000		0	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar032.d

Page 1

Date : 13-MAR-2017 21:25

Client ID:

Instrument: GCMS_AAA.i

Sample Info: 17-03-0589-26

Volume Injected (uL): 10.0

Operator: 907

Column phase: J&W DB-5MS

Column diameter: 0.18

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: **17-03-0589**
INSTRUMENT: GC/MS AAA
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-13 21:45
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar033.d\13mar033.rr

 # 27 **CLIENT SAMPLE NUMBER:** **D-DU1-ISM3-3**

LCS/MB BATCH: 170310L04
MS/MSD BATCH: 170310S04
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.000	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar033.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 21:45 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:57 ev7p

Sample Name: 17-03-0589-27 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	113732	5.000	0.00
3)*Naphthalene-d8	(2)	4.934	136	363167	5.000	0.00
11)*Acenaphthene-d10	(3)	6.831	164	209219	5.000	0.00
17)*Phenanthrene-d10	(4)	8.433	188	372618	5.000	0.00
31)*Perylene-d12	(6)	13.005	264	310311	5.000	0.00
25)*Chrysene-d12	(5)	11.367	240	344165	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.241	82	22539	0.830	0.00
SpikedAmount 1.000	Recovery =	83.040				
7)$2-Fluorobiphenyl	(3)	6.112	172	48057	0.709	0.00
SpikedAmount 1.000	Recovery =	70.921				
23)$p-Terphenyl-d14	(5)	10.225	244	51057	0.999	0.00
SpikedAmount 1.000	Recovery =	99.850				

Target Compounds				QValue
4) Naphthalene	(2)	0.000	0	N.D.
5) 2-Methylnaphthalene	(2)	0.000	0	N.D.
6) 1-Methylnaphthalene	(2)	0.000	0	N.D.
10) Acenaphthylene	(3)	0.000	0	N.D.
12) Acenaphthene	(3)	0.000	0	N.D.
15) Fluorene	(3)	0.000	0	N.D.
18) Phenanthrene	(4)	0.000	0	N.D.
19) Anthracene	(4)	0.000	0	N.D.
21) Fluoranthene	(4)	0.000	0	N.D.
22) Pyrene	(5)	0.000	0	N.D.
24) Benzo (a) Anthracene	(5)	0.000	0D	N.D.
26) Chrysene	(5)	0.000	0D	N.D.
27) Benzo (b) Fluoranthene	(6)	0.000	0	N.D.
28) Benzo (k) Fluoranthene	(6)	0.000	0	N.D.
30) Benzo (a) Pyrene	(6)	0.000	0D	N.D.
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000	0	N.D.
34) Dibenz (a,h) Anthracene	(6)	0.000	0	N.D.
35) Benzo (g,h,i) Perylene	(6)	0.000	0	N.D.
8) Biphenyl	(3)	0.000	0	N.D.
9) 2,6-Dimethylnaphthalene	(3)	0.000	0	N.D.
14) 1,6,7-Trimethylnaphthalene	(3)	0.000	0	N.D.
16) Dibenzothiophene	(3)	0.000	0D	N.D.

D = Compound was deleted.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar033.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 21:45 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:57 ev7p

Sample Name: 17-03-0589-27 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0D	N.D.	
32) Perylene	(6)	0.000		0D	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar033.d
Date : 13-MAR-2017 21:45
Client ID:
Sample Info: 17-03-0589-27
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i

Operator: 907
Column diameter: 0.18

Return to Contents

EPA METHOD 8270C
PAHSIM

Quality Control

Method Blank
LCS/LCSD
MS/MSD

Return to Contents

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: EPA 8270C SIM PAHs

MB SAMPLE ID: **099-14-035-380**
MB BATCH ID: 170310L04
INSTRUMENT: GC/MS AAA
EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-13 17:09
REVIEWED BY:
D/T REVIEWED:
MATRIX: Soil

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar019.d\13mar019.rr

CLIENT WORK ORDER: 17-03-0589

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
25		D-DU1-ISM1-3	2017-03-13 21:05	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar031.d\13mar031.rr
26		D-DU1-ISM2-3	2017-03-13 21:25	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar032.d\13mar032.rr
27		D-DU1-ISM3-3	2017-03-13 21:45	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar033.d\13mar033.rr

Return to Contents

RAW DATA SHEET
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: **099-14-035**
INSTRUMENT: GC/MS AAA
EXTRACTION : EPA 3545
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-13 17:09
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar019.d\13mar019.rr

 # MB **CLIENT SAMPLE NUMBER:** **Method Blank**

LCS/MB BATCH: 170310L04
MS/MSD BATCH:
UNITS: mg/kg

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g / ACTUAL: 20.00 g
FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml / ACTUAL: 2.00 ml
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
Naphthalene	0.000	1.00	ND	0.010	
2-Methylnaphthalene	0.000	1.00	ND	0.010	
1-Methylnaphthalene	0.000	1.00	ND	0.010	
Acenaphthylene	0.000	1.00	ND	0.010	
Acenaphthene	0.000	1.00	ND	0.010	
Fluorene	0.000	1.00	ND	0.010	
Phenanthrene	0.000	1.00	ND	0.010	
Anthracene	0.000	1.00	ND	0.010	
Fluoranthene	0.000	1.00	ND	0.010	
Pyrene	0.000	1.00	ND	0.010	
Benzo (a) Anthracene	0.000	1.00	ND	0.010	
Chrysene	0.000	1.00	ND	0.010	
Benzo (k) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (b) Fluoranthene	0.000	1.00	ND	0.010	
Benzo (a) Pyrene	0.000	1.00	ND	0.010	
Indeno (1,2,3-c,d) Pyrene	0.000	1.00	ND	0.010	
Dibenz (a,h) Anthracene	0.000	1.00	ND	0.010	
Benzo (g,h,i) Perylene	0.000	1.00	ND	0.010	

Return to Contents

LCS QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C SIM PAHs

LCS SAMPLE ID: **099-14-035-380**
LCS/MB BATCH ID: 170310L04
INSTRUMENT: GC/MS AAA

EXTRACTION: EPA 3545
D/T EXTRACTED: 2017-03-10 00:00

ANALYZED BY: 907
D/T ANALYZED: 2017-03-13 17:28
REVIEWED BY:
D/T REVIEWED:

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar020.d\13mar020.rr

COMPOUND	CONC	CONC REC	%REC	%REC CL	ME CL	STATUS	QUALIFIERS
Naphthalene	0.1000	0.06679	67	51-129	38-142	PASS	
2-Methylnaphthalene	0.1000	0.07206	72	50-127	37-140	PASS	
1-Methylnaphthalene	0.1000	0.06639	66	54-132	41-145	PASS	
Acenaphthylene	0.1000	0.05763	58	50-123	38-135	PASS	
Acenaphthene	0.1000	0.05903	59	53-125	41-137	PASS	
Fluorene	0.1000	0.06071	61	55-127	43-139	PASS	
Phenanthrene	0.1000	0.07239	72	50-122	38-134	PASS	
Anthracene	0.1000	0.07105	71	50-132	36-146	PASS	
Fluoranthene	0.1000	0.07754	78	55-127	43-139	PASS	
Pyrene	0.1000	0.07831	78	50-134	36-148	PASS	
Benzo (a) Anthracene	0.1000	0.08311	83	50-133	36-147	PASS	
Chrysene	0.1000	0.08263	83	51-129	38-142	PASS	
Benzo (k) Fluoranthene	0.1000	0.08987	90	49-150	32-167	PASS	
Benzo (b) Fluoranthene	0.1000	0.08263	83	50-142	35-157	PASS	
Benzo (a) Pyrene	0.1000	0.08523	85	50-134	36-148	PASS	
Indeno (1,2,3-c,d) Pyrene	0.1000	0.08255	83	50-148	34-164	PASS	
Dibenz (a,h) Anthracene	0.1000	0.08511	85	50-133	36-147	PASS	
Benzo (g,h,i) Perylene	0.1000	0.08546	85	50-130	37-143	PASS	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Compounds listed in bold are required to be reported.

Return to Contents

MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C SIM PAHs

SPIKED SAMPLE ID: **17-03-0641-26**
MS/MSD BATCH: 170310S04
INSTRUMENTS:
SAMPLE: GC/MS AAA
MS: GC/MS AAA
MSD: GC/MS AAA

EXTRACTION: EPA 3545
D/T EXTRACTED:
SAMPLE: 2017-03-10 00:00
MS: 2017-03-10 00:00
MSD: 2017-03-10 00:00

ANALYZED BY: 907
D/T ANALYZED:
SAMPLE: 2017-03-13 19:46
MS: 2017-03-14 12:30
MSD: 2017-03-13 18:08
REVIEWED BY: 262
D/T REVIEWED: 2017-03-23 17:18

COMMENT:

COMPOUND NAME	SAMPLE	INITIAL	FINAL	MS CONC	% MS.REC	MSD CONC	% MSD.REC	% REC CL	RPD	RPD CL	STATUS	QUALIFIERS
Naphthalene	ND	1.000	0.1000	0.09218	92	0.08516	85	20-150	8	0-33	PASS	
2-Methylnaphthalene	ND	1.000	0.1000	0.1045	104	0.09445	94	29-137	10	0-31	PASS	
1-Methylnaphthalene	ND	1.000	0.1000	0.09569	96	0.08605	86	34-136	11	0-29	PASS	
Acenaphthylene	ND	1.000	0.1000	0.08040	80	0.07537	75	29-131	6	0-32	PASS	
Acenaphthene	ND	1.000	0.1000	0.08276	83	0.07798	78	29-137	6	0-28	PASS	
Fluorene	ND	1.000	0.1000	0.08493	85	0.07855	79	36-132	8	0-27	PASS	
Phenanthrene	ND	1.000	0.1000	0.09732	97	0.09182	92	20-144	6	0-27	PASS	
Anthracene	ND	1.000	0.1000	0.1009	101	0.09138	91	26-134	10	0-27	PASS	
Fluoranthene	ND	1.000	0.1000	0.09398	94	0.08904	89	20-151	5	0-26	PASS	
Pyrene	ND	1.000	0.1000	0.1040	104	0.09233	92	20-150	12	0-32	PASS	
Benzo (a) Anthracene	ND	1.000	0.1000	0.09475	95	0.09013	90	24-150	5	0-24	PASS	
Chrysene	ND	1.000	0.1000	0.09979	100	0.08850	88	25-145	12	0-28	PASS	
Benzo (k) Fluoranthene	ND	1.000	0.1000	0.1023	102	0.09310	93	28-148	9	0-26	PASS	
Benzo (b) Fluoranthene	ND	1.000	0.1000	0.08982	90	0.08694	87	21-153	3	0-26	PASS	
Benzo (a) Pyrene	ND	1.000	0.1000	0.09441	94	0.08980	90	29-149	5	0-22	PASS	
Indeno (1,2,3-c,d) Pyrene	ND	1.000	0.1000	0.08802	88	0.08785	88	20-154	0	0-25	PASS	
Dibenz (a,h) Anthracene	ND	1.000	0.1000	0.08938	89	0.08940	89	20-132	0	0-26	PASS	
Benzo (g,h,i) Perylene	ND	1.000	0.1000	0.08732	87	0.09140	91	20-148	5	0-27	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH
MS	14mar007.rr	Z:\GCMS_AAA\GCMS_AAA_data\2017\170314\14mar007.d\
MSD	13mar022.rr	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar022.d\

SURROGATE RECOVERIES
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0589
BATCH ID:
LCS/MB: 170310L04
MS: 170310S04
EXTRACTION : EPA 3545

REVIEWED BY:
D/T REVIEWED:

25 CLIENT SAMPLE NUMBER : D-DU1-ISM1-3

INSTRUMENT: GC/MS AAA
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar031.d\13mar031.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-13 21:05

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	75	13-127	PASS	
Nitrobenzene-d5	88	17-137	PASS	
p-Terphenyl-d14	94	4-160	PASS	

26 CLIENT SAMPLE NUMBER : D-DU1-ISM2-3

INSTRUMENT: GC/MS AAA
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar032.d\13mar032.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-13 21:25

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	86	4-160	PASS	
Nitrobenzene-d5	73	17-137	PASS	
2-Fluorobiphenyl	66	13-127	PASS	

27 CLIENT SAMPLE NUMBER : D-DU1-ISM3-3

INSTRUMENT: GC/MS AAA
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar033.d\13mar033.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-13 21:45

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	71	13-127	PASS	
Nitrobenzene-d5	83	17-137	PASS	
p-Terphenyl-d14	100	4-160	PASS	

Return to Contents

SURROGATE RECOVERIES
FOR METHOD: EPA 8270C SIM PAHs

WORK ORDER: 17-03-0589
BATCH ID:
LCS/MB: 170310L04
MS:
EXTRACTION : EPA 3545

REVIEWED BY: 262
D/T REVIEWED: 2017-03-15 12:31

MB CLIENT SAMPLE NUMBER : Method Blank

INSTRUMENT: GC/MS AAA
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar019.d\13mar019.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-13 17:09

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	55	13-127	PASS	
Nitrobenzene-d5	61	17-137	PASS	
p-Terphenyl-d14	74	4-160	PASS	

LCS CLIENT SAMPLE NUMBER : Lab Control Sample

INSTRUMENT: GC/MS AAA
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar020.d\13mar020.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-13 17:28

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	82	4-160	PASS	
Nitrobenzene-d5	70	17-137	PASS	
2-Fluorobiphenyl	59	13-127	PASS	

MS CLIENT SAMPLE NUMBER : Matrix Spike

INSTRUMENT: GC/MS AAA
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170314\14mar007.d\14mar007.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-14 12:30

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
p-Terphenyl-d14	102	4-160	PASS	
Nitrobenzene-d5	92	17-137	PASS	
2-Fluorobiphenyl	80	13-127	PASS	

MSD CLIENT SAMPLE NUMBER : Matrix Spike Duplicate

INSTRUMENT: GC/MS AAA
D/T EXTRACTED: 2017-03-10 00:00
DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar022.d\13mar022.rr

ANALYZED BY: 907
D/T ANALYZED 2017-03-13 18:08

COMMENT:

COMPOUND	% REC	% REC CL	STATUS	QUALIFIERS
2-Fluorobiphenyl	76	13-127	PASS	
Nitrobenzene-d5	86	17-137	PASS	
p-Terphenyl-d14	88	4-160	PASS	

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar019.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 17:09 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:49 ev7p

Sample Name: MB 170310 L04 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	128497	5.000	0.00
3)*Naphthalene-d8	(2)	4.933	136	411882	5.000	0.00
11)*Acenaphthene-d10	(3)	6.830	164	237794	5.000	0.00
17)*Phenanthrene-d10	(4)	8.436	188	424517	5.000	0.00
31)*Perylene-d12	(6)	13.008	264	371587	5.000	0.00
25)*Chrysene-d12	(5)	11.370	240	403685	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.240	82	18820	0.611	0.00
SpikedAmount 1.000	Recovery =	61.137				
7)$2-Fluorobiphenyl	(3)	6.115	172	42720	0.555	0.00
SpikedAmount 1.000	Recovery =	55.469				
23)$p-Terphenyl-d14	(5)	10.228	244	44192	0.737	0.00
SpikedAmount 1.000	Recovery =	73.682				
Target Compounds						QValue
4) Naphthalene	(2)	0.000		0	N.D.	
5) 2-Methylnaphthalene	(2)	0.000		0	N.D.	
6) 1-Methylnaphthalene	(2)	0.000		0	N.D.	
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	0.000		0	N.D.	
19) Anthracene	(4)	0.000		0	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	0.000		0	N.D.	
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0D	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	0.000		0	N.D.	
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0	N.D.	
16) Dibenzothiophene	(3)	0.000		0D	N.D.	

D = Compound was deleted.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar019.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 17:09 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:49 ev7p

Sample Name: MB 170310 L04 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	0.000		0	N.D.	
29) Benzo (e) pyrene	(6)	0.000		0	N.D.	
32) Perylene	(6)	0.000		0	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar019.d
Date : 13-MAR-2017 17:09
Client ID:
Sample Info: MB 170310 L04
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i

Operator: 907
Column diameter: 0.18

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar020.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 17:28 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 13-Mar-2017 17:51 Unknown

Sample Name: LCS 170310 L04 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.683	152	121322	5.000	0.00
3)*Naphthalene-d8	(2)	4.934	136	381080	5.000	0.00
11)*Acenaphthene-d10	(3)	6.834	164	215883	5.000	0.00
17)*Phenanthrene-d10	(4)	8.437	188	389406	5.000	0.00
31)*Perylene-d12	(6)	13.005	264	338055	5.000	0.00
25)*Chrysene-d12	(5)	11.370	240	372921	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.240	82	19848	0.697	0.00
SpikedAmount 1.000	Recovery =	69.689				
7)$2-Fluorobiphenyl	(3)	6.115	172	41547	0.594	0.00
SpikedAmount 1.000	Recovery =	59.422				
23)$p-Terphenyl-d14	(5)	10.228	244	45181	0.815	0.00
SpikedAmount 1.000	Recovery =	81.546				
Target Compounds						QValue
4) Naphthalene	(2)	4.956	128	53555	0.668	99
5) 2-Methylnaphthalene	(2)	5.687	142	37676	0.721	99
6) 1-Methylnaphthalene	(2)	5.803	142	34343	0.664	100
10) Acenaphthylene	(3)	6.663	152	56482	0.576	99
12) Acenaphthene	(3)	6.865	153	33377	0.590	100
15) Fluorene	(3)	7.420	166	39907	0.607	100
18) Phenanthrene	(4)	8.461	178	60481	0.724	99
19) Anthracene	(4)	8.509	178	60407	0.711	99
21) Fluoranthene	(4)	9.776	202	79297	0.775	99
22) Pyrene	(5)	10.014	202	82610	0.783	100
24) Benzo (a) Anthracene	(5)	11.350	228	81492	0.831	100
26) Chrysene	(5)	11.399	228	76147	0.826	100
27) Benzo (b) Fluoranthene	(6)	12.581	252	75142	0.826	100
28) Benzo (k) Fluoranthene	(6)	12.609	252	87687	0.899	99
30) Benzo (a) Pyrene	(6)	12.940	252	73794	0.852	99
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.183	276	82911	0.826	99
34) Dibenz (a,h) Anthracene	(6)	14.203	278	67257	0.851	99
35) Benzo (g,h,i) Perylene	(6)	14.486	276	69837	0.855	99
8) Biphenyl	(3)	6.203	154	51200	0.566	100
9) 2,6-Dimethylnaphthalene	(3)	6.367	156	36329	0.557	99
14) 1,6,7-Trimethylnaphthalene	(3)	7.294	170	35439	0.549	99
16) Dibenzothiophene	(3)	8.324	184	72060	0.592	99

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar020.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 17:28 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 13-Mar-2017 17:51 Unknown

Sample Name: LCS 170310 L04 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.151	192	56611	0.696	99
29) Benzo (e) pyrene	(6)	12.883	252	86628	0.811	99
32) Perylene	(6)	13.033	252	86459	0.817	99
13) Dibenzofuran	(3)	7.042	168	49673	0.600	100

Return to Contents

Page 1

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar020.d
Date : 13-MAR-2017 17:28
Client ID:
Sample Info: LCS 170310 L04
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i

Operator: 907
Column diameter: 0.18

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170314.b/14mar007.d Instrument ID: GCMS_AAA.i
Injection date and time: 14-MAR-2017 12:30 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170314.b/simpah-extra.m Sublist used: all
Calibration date and time: 14-MAR-2017 11:17
Date, time and analyst ID of latest file update: 14-Mar-2017 12:52 Unknown

Sample Name: 17-03-0641-26 MS RB Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1) *1,4-Dichlorobenzene-d4	(1)	3.677	152	98844	5.000	0.00
3) *Naphthalene-d8	(2)	4.921	136	307556	5.000	0.00
11) *Acenaphthene-d10	(3)	6.821	164	180156	5.000	0.00
17) *Phenanthrene-d10	(4)	8.425	188	312346	5.000	0.00
31) *Perylene-d12	(6)	12.997	264	232750	5.000	0.00
25) *Chrysene-d12	(5)	11.362	240	268408	5.000	0.00
System Monitoring Compounds						
2) $Nitrobenzene-d5	(2)	4.228	82	21186	0.922	0.00
SpikedAmount 1.000	Recovery = 92.173					
7) $2-Fluorobiphenyl	(3)	6.103	172	46763	0.801	0.00
SpikedAmount 1.000	Recovery = 80.145					
23) $p-Terphenyl-d14	(5)	10.220	244	40841	1.024	0.00
SpikedAmount 1.000	Recovery = 102.417					
Target Compounds						QValue
4) Naphthalene	(2)	4.943	128	59651	0.922	100
5) 2-Methylnaphthalene	(2)	5.674	142	44091	1.045	100
6) 1-Methylnaphthalene	(2)	5.791	142	39948	0.957	98
10) Acenaphthylene	(3)	6.651	152	65760	0.804	100
12) Acenaphthene	(3)	6.856	153	39054	0.828	100
15) Fluorene	(3)	7.407	166	46592	0.849	99
18) Phenanthrene	(4)	8.449	178	65225	0.973	99
19) Anthracene	(4)	8.501	178	68782	1.009	98
21) Fluoranthene	(4)	9.765	202	77092	0.940	99
22) Pyrene	(5)	10.007	202	78927	1.040	99
24) Benzo (a) Anthracene	(5)	11.342	228	66869	0.948	100
26) Chrysene	(5)	11.391	228	66189	0.998	99
27) Benzo (b) Fluoranthene	(6)	12.573	252	56239	0.898	99
28) Benzo (k) Fluoranthene	(6)	12.601	252	68738	1.023	96
30) Benzo (a) Pyrene	(6)	12.932	252	56276	0.944	97
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.175	276	60865	0.880	98
34) Dibenz (a,h) Anthracene	(6)	14.195	278	48629	0.894	97
35) Benzo (g,h,i) Perylene	(6)	14.478	276	49130	0.873	97
8) Biphenyl	(3)	6.194	154	59211	0.785	100
9) 2,6-Dimethylnaphthalene	(3)	6.355	156	42600	0.782	98
14) 1,6,7-Trimethylnaphthalene	(3)	7.284	170	42387	0.787	98
16) Dibenzothiophene	(3)	8.312	184	79137	0.780	99

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170314.b/14mar007.d Instrument ID: GCMS_AAA.i
Injection date and time: 14-MAR-2017 12:30 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170314.b/simpah-extra.m Sublist used: all
Calibration date and time: 14-MAR-2017 11:17
Date, time and analyst ID of latest file update: 14-Mar-2017 12:52 Unknown

Sample Name: 17-03-0641-26 MS RB Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.143	192	59246	1.011	98
29) Benzo (e) pyrene	(6)	12.876	252	65720	0.894	95
32) Perylene	(6)	13.025	252	65907	0.905	77
13) Dibenzofuran	(3)	7.032	168	58392	0.845	98

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170314.b/14mar007.d
Date : 14-MAR-2017 12:30
Client ID:
Sample Info: 17-03-0641-26 MS RB
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i

Operator: 907
Column diameter: 0.18

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar022.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 18:08 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 13-Mar-2017 18:30 Unknown

Sample Name: 17-03-0641-26 MSD Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1) *1,4-Dichlorobenzene-d4	(1)	3.686	152	113728	5.000	0.00
3) *Naphthalene-d8	(2)	4.934	136	353701	5.000	0.00
11) *Acenaphthene-d10	(3)	6.834	164	198392	5.000	0.00
17) *Phenanthrene-d10	(4)	8.437	188	352891	5.000	0.00
31) *Perylene-d12	(6)	13.005	264	300339	5.000	0.00
25) *Chrysene-d12	(5)	11.370	240	324694	5.000	0.00
System Monitoring Compounds						
2) $Nitrobenzene-d5	(2)	4.237	82	22723	0.860	0.00
SpikedAmount 1.000	Recovery =	85.960				
7) $2-Fluorobiphenyl	(3)	6.112	172	48520	0.755	0.00
SpikedAmount 1.000	Recovery =	75.512				
23) $p-Terphenyl-d14	(5)	10.228	244	42512	0.881	0.00
SpikedAmount 1.000	Recovery =	88.126				
Target Compounds						QValue
4) Naphthalene	(2)	4.953	128	63381	0.852	99
5) 2-Methylnaphthalene	(2)	5.687	142	45837	0.945	99
6) 1-Methylnaphthalene	(2)	5.800	142	41316	0.861	99
10) Acenaphthylene	(3)	6.664	152	67890	0.754	100
12) Acenaphthene	(3)	6.865	153	40522	0.780	99
15) Fluorene	(3)	7.417	166	47449	0.785	99
18) Phenanthrene	(4)	8.461	178	69524	0.918	99
19) Anthracene	(4)	8.509	178	70407	0.914	99
21) Fluoranthene	(4)	9.773	202	82520	0.890	99
22) Pyrene	(5)	10.015	202	84801	0.923	99
24) Benzo (a) Anthracene	(5)	11.350	228	76948	0.901	100
26) Chrysene	(5)	11.399	228	71010	0.885	99
27) Benzo (b) Fluoranthene	(6)	12.581	252	70238	0.869	99
28) Benzo (k) Fluoranthene	(6)	12.609	252	80699	0.931	99
30) Benzo (a) Pyrene	(6)	12.940	252	69075	0.898	99
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.183	276	78391	0.879	98
34) Dibenz (a,h) Anthracene	(6)	14.207	278	62762	0.894	96
35) Benzo (g,h,i) Perylene	(6)	14.490	276	66356	0.914	100
8) Biphenyl	(3)	6.204	154	62476	0.752	100
9) 2,6-Dimethylnaphthalene	(3)	6.367	156	43983	0.733	99
14) 1,6,7-Trimethylnaphthalene	(3)	7.294	170	43027	0.726	99
16) Dibenzothiophene	(3)	8.324	184	83210	0.744	99

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar022.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 18:08 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 13-Mar-2017 18:30 Unknown

Sample Name: 17-03-0641-26 MSD Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.151	192	62302	0.879	100
29) Benzo (e) pyrene	(6)	12.884	252	80671	0.850	99
32) Perylene	(6)	13.033	252	81044	0.862	96
13) Dibenzofuran	(3)	7.042	168	60424	0.794	99

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar022.d
Date : 13-MAR-2017 18:08
Client ID:
Sample Info: 17-03-0641-26 MSD
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i
Operator: 907
Column diameter: 0.18

Page 1

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar027.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 19:46 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:55 ev7p

Sample Name: 17-03-0641-26 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	121223	5.000	0.00
3)*Naphthalene-d8	(2)	4.934	136	377476	5.000	0.00
11)*Acenaphthene-d10	(3)	6.831	164	216433	5.000	0.00
17)*Phenanthrene-d10	(4)	8.437	188	386679	5.000	0.00
31)*Perylene-d12	(6)	13.005	264	334402	5.000	0.00
25)*Chrysene-d12	(5)	11.370	240	363542	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.237	82	21928	0.777	0.00
SpikedAmount 1.000	Recovery =	77.726				
7)$2-Fluorobiphenyl	(3)	6.115	172	50547	0.721	0.00
SpikedAmount 1.000	Recovery =	72.109				
23)$p-Terphenyl-d14	(5)	10.228	244	46838	0.867	0.00
SpikedAmount 1.000	Recovery =	86.717				
Target Compounds						QValue
4) Naphthalene	(2)	0.000		0	N.D.	
5) 2-Methylnaphthalene	(2)	0.000		0	N.D.	
6) 1-Methylnaphthalene	(2)	0.000		0	N.D.	
10) Acenaphthylene	(3)	0.000		0	N.D.	
12) Acenaphthene	(3)	0.000		0	N.D.	
15) Fluorene	(3)	0.000		0	N.D.	
18) Phenanthrene	(4)	0.000		0	N.D.	
19) Anthracene	(4)	0.000		0	N.D.	
21) Fluoranthene	(4)	0.000		0	N.D.	
22) Pyrene	(5)	0.000		0	N.D.	
24) Benzo (a) Anthracene	(5)	0.000		0D	N.D.	
26) Chrysene	(5)	0.000		0D	N.D.	
27) Benzo (b) Fluoranthene	(6)	0.000		0	N.D.	
28) Benzo (k) Fluoranthene	(6)	0.000		0	N.D.	
30) Benzo (a) Pyrene	(6)	0.000		0D	N.D.	
33) Indeno (1,2,3-c,d) Pyrene	(6)	0.000		0	N.D.	
34) Dibenz (a,h) Anthracene	(6)	0.000		0	N.D.	
35) Benzo (g,h,i) Perylene	(6)	0.000		0	N.D.	
8) Biphenyl	(3)	0.000		0	N.D.	
9) 2,6-Dimethylnaphthalene	(3)	0.000		0	N.D.	
14) 1,6,7-Trimethylnaphthalene	(3)	0.000		0	N.D.	
16) Dibenzothiophene	(3)	0.000		0	N.D.	

D = Compound was deleted.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar027.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 19:46 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 16:28
Date, time and analyst ID of latest file update: 14-Mar-2017 09:55 ev7p

Sample Name: 17-03-0641-26 Misc Info: S101716B 10UL
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	0.000		0	~~N.D.~~	
29) Benzo (e) pyrene	(6)	0.000		0D	N.D.	
32) Perylene	(6)	0.000		0	N.D.	
13) Dibenzofuran	(3)	0.000		0	N.D.	

D = Compound was deleted.

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar027.d
Date : 13-MAR-2017 19:46
Client ID:
Sample Info: 17-03-0641-26
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i

Operator: 907
Column diameter: 0.18

Return to Contents

EPA METHOD 8270C
PAHSIM

Continuing Calibration

Return to Contents

CCV ASSOCIATION SUMMARY
FOR METHOD: EPA 8270C SIM PAHs

BATCH ID: **170313A004**
INSTRUMENT: GC/MS AAA

ANALYZED BY: 907

WORK ORDER: **099-06-009**
MATRIX: Water

REVIEWED BY: 262
D/T REVIEWED: 2017-03-13 16:33

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
4977	Daily Calibration	2017-03-13 14:31	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar011.d\13mar011.r

WORK ORDER: **17-03-0589**
MATRIX: Soil

REVIEWED BY:
D/T REVIEWED:

CEL SAMPLE #	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
25	D-DU1-ISM1-3	2017-03-13 21:05	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar031.d\13mar031.r
26	D-DU1-ISM2-3	2017-03-13 21:25	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar032.d\13mar032.r
27	D-DU1-ISM3-3	2017-03-13 21:45	Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar033.d\13mar033.r

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C SIM PAHs

CCV WORK ORDER: **099-06-009-4977-4741**
INSTRUMENT: GC/MS AAA
BATCH ID:
INITIAL: 170313I002
CCV: 170313A004

ANALYZED BY: 907
D/T ANALYZED:
INITIAL: 2017-03-13 13:34
CCV: 2017-03-13 14:31
REVIEWED BY: 262
D/T REVIEWED: 2017-03-13 16:33

Data File: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar011.d\13mar011.rr

COMPOUND	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Naphthalene		Avg Resp	0.00	1.052	1.066			-1	0-20	PASS
2-Methylnaphthalene		Avg Resp	0.00	0.686	0.704			-3	0-20	PASS
1-Methylnaphthalene		Avg Resp	0.00	0.679	0.690			-2	0-20	PASS
Acenaphthylene		Avg Resp	0.00	2.270	2.288			-1	0-20	PASS
Acenaphthene	C	Avg Resp	0.00	1.310	1.328			-1	0-20	PASS
Fluorene		Avg Resp	0.00	1.522	1.584			-4	0-20	PASS
Phenanthrene		Avg Resp	0.00	1.073	1.084			-1	0-20	PASS
Anthracene		Avg Resp	0.00	1.092	0.995			9	0-20	PASS
Fluoranthene	C	Avg Resp	0.00	1.313	1.337			-2	0-20	PASS
Pyrene		Avg Resp	0.00	1.414	1.409			0	0-20	PASS
Benzo (a) Anthracene		Avg Resp	0.00	1.315	1.264			4	0-20	PASS
Chrysene		Avg Resp	0.00	1.236	1.239			0	0-20	PASS
Benzo (k) Fluoranthene		Avg Resp	0.00	1.443	1.630			-13	0-20	PASS
Benzo (b) Fluoranthene		Avg Resp	0.00	1.345	1.341			0	0-20	PASS
Benzo (a) Pyrene	C	Avg Resp	0.00	1.281	1.291			-1	0-20	PASS
Indeno (1,2,3-c,d) Pyrene		Avg Resp	0.00	1.485	1.527			-3	0-20	PASS
Dibenz (a,h) Anthracene		Avg Resp	0.00	1.169	1.214			-4	0-20	PASS
Benzo (g,h,i) Perylene		Avg Resp	0.00	1.209	1.226			-1	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

INTERNAL STANDARD COMPOUNDS AREA REPORT
FOR METHOD: EPA 8270C SIM PAHs

ICAL BATCH ID: 170313I002 CCV BATCH ID: 170313A004

ICAL MIDPOINT

SAMPLE ID: 099-06-009-4976 D/T ANALYZED: 2017-03-13 12:55

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar006.d\13mar006.rr

COMPOUND	AREA	RETENTION TIME
1,4-Dichlorobenzene-d4	120202	3.69
Naphthalene-d8	373417	4.94
Acenaphthene-d10	184044	6.83
Phenanthrene-d10	359556	8.44
Chrysene-d12	345241	11.37
Perylene-d12	295234	13.00

ICV

SAMPLE ID 099-06-009-4976 D/T ANALYZED: 2017-03-13 13:54

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar009.d\13mar009.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	97964	60101	240404	3.69	PASS
Naphthalene-d8	304263	186708	746834	4.93	PASS
Acenaphthene-d10	151183	92022	368088	6.83	PASS
Phenanthrene-d10	297682	179778	719112	8.44	PASS
Chrysene-d12	285311	172620	690482	11.37	PASS
Perylene-d12	253681	147617	590468	13.00	PASS

CCV

SAMPLE ID 099-06-009-4977 D/T ANALYZED: 2017-03-13 14:31

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar011.d\13mar011.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	132361	60101	240404	3.69	PASS
Naphthalene-d8	400020	186708	746834	4.94	PASS
Acenaphthene-d10	198190	92022	368088	6.83	PASS
Phenanthrene-d10	397335	179778	719112	8.44	PASS
Chrysene-d12	392940	172620	690482	11.37	PASS
Perylene-d12	330656	147617	590468	13.01	PASS

MB

SAMPLE ID 099-14-035-380 D/T ANALYZED: 2017-03-13 17:09

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar019.d\13mar019.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	128497	66180	264722	3.69	PASS
Naphthalene-d8	411882	200010	800040	4.93	PASS
Acenaphthene-d10	237794	99095	396380	6.83	PASS
Phenanthrene-d10	424517	198668	794670	8.44	PASS
Chrysene-d12	403685	196470	785880	11.37	PASS
Perylene-d12	371587	165328	661312	13.01	PASS

Return to Contents

LCS

SAMPLE ID 099-14-035-380 D/T ANALYZED: 2017-03-13 17:28

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar020.d\13mar020.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	121322	66180	264722	3.68	PASS
Naphthalene-d8	381080	200010	800040	4.93	PASS
Acenaphthene-d10	215883	99095	396380	6.83	PASS
Phenanthrene-d10	389406	198668	794670	8.44	PASS
Chrysene-d12	372921	196470	785880	11.37	PASS
Perylene-d12	338055	165328	661312	13.00	PASS

MSD

SAMPLE ID 17-03-0641-26 D/T ANALYZED: 2017-03-13 18:08

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar022.d\13mar022.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	113728	66180	264722	3.69	PASS
Naphthalene-d8	353701	200010	800040	4.93	PASS
Acenaphthene-d10	198392	99095	396380	6.83	PASS
Phenanthrene-d10	352891	198668	794670	8.44	PASS
Chrysene-d12	324694	196470	785880	11.37	PASS
Perylene-d12	300339	165328	661312	13.00	PASS

CS

SAMPLE ID 17-03-0589-25 D/T ANALYZED: 2017-03-13 21:05

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar031.d\13mar031.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	122698	66180	264722	3.69	PASS
Naphthalene-d8	387766	200010	800040	4.93	PASS
Acenaphthene-d10	224403	99095	396380	6.83	PASS
Phenanthrene-d10	394088	198668	794670	8.44	PASS
Chrysene-d12	375636	196470	785880	11.37	PASS
Perylene-d12	342525	165328	661312	13.01	PASS

CS

SAMPLE ID 17-03-0589-26 D/T ANALYZED: 2017-03-13 21:25

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar032.d\13mar032.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	111168	66180	264722	3.69	PASS
Naphthalene-d8	353865	200010	800040	4.93	PASS
Acenaphthene-d10	203456	99095	396380	6.83	PASS
Phenanthrene-d10	358122	198668	794670	8.44	PASS
Chrysene-d12	326477	196470	785880	11.37	PASS
Perylene-d12	298016	165328	661312	13.00	PASS

Return to Contents

CS

SAMPLE ID 17-03-0589-27

D/T ANALYZED: 2017-03-13 21:45

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar033.d\13mar033.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	113732	66180	264722	3.69	PASS
Naphthalene-d8	363167	200010	800040	4.93	PASS
Acenaphthene-d10	209219	99095	396380	6.83	PASS
Phenanthrene-d10	372618	198668	794670	8.43	PASS
Chrysene-d12	344165	196470	785880	11.37	PASS
Perylene-d12	310311	165328	661312	13.00	PASS

Notes:
For all samples including QC, all internal standard area responses must be within 50% to 200% of the mean area response in the initial calibration.

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar011.d
Report Date: 03/13/2017 14:54

Eurofins CalScience
Calibration Verification Report

Instrument ID: GCMS_AAA.i
Sample Name: CCV S101716G 1PPM
Sublist used: all.sub
Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m

Injection Date and Time: 13-MAR-2017 14:31
Initial Calibration Date(s): 06-DEC-2016 13-MAR-2017
Initial Calibration Time(s): 17:28 13:34

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Naphthalene	1.052	1.066	0.00	-1	20	Averaged
2-Methylnaphthalene	0.686	0.704	0.00	-3	20	Averaged
1-Methylnaphthalene	0.679	0.690	0.00	-2	20	Averaged
Acenaphthylene	2.270	2.288	0.00	-1	20	Averaged
Acenaphthene	1.310	1.328	0.00	-1	20	Averaged
Fluorene	1.522	1.584	0.00	-4	20	Averaged
Phenanthrene	1.073	1.084	0.00	-1	20	Averaged
Anthracene	1.092	0.995	0.00	9	20	Averaged
Fluoranthene	1.313	1.337	0.00	-2	20	Averaged
Pyrene	1.414	1.409	0.00	0	20	Averaged
Benzo (a) Anthracene	1.315	1.264	0.00	4	20	Averaged
Chrysene	1.236	1.239	0.00	0	20	Averaged
Benzo (b) Fluoranthene	1.345	1.341	0.00	0	20	Averaged
Benzo (k) Fluoranthene	1.443	1.630	0.00	-13	20	Averaged
Benzo (a) Pyrene	1.281	1.291	0.00	-1	20	Averaged
Indeno (1,2,3-c,d) Pyrene	1.485	1.527	0.00	-3	20	Averaged
Dibenz (a,h) Anthracene	1.169	1.214	0.00	-4	20	Averaged
Benzo (g,h,i) Perylene	1.209	1.226	0.00	-1	20	Averaged
Biphenyl	2.094	2.176	0.00	-4	20	Averaged
2,6-Dimethylnaphthalene	1.512	1.549	0.00	-2	20	Averaged
1,6,7-Trimethylnaphthalene	1.494	1.524	0.00	-2	20	Averaged
Dibenzothiophene	2.817	2.929	0.00	-4	20	Averaged
1-Methylphenanthrene	1.091	1.077	0.00	1	20	Averaged
Benzo (e) pyrene	1.580	1.654	0.00	-5	20	Averaged
Perylene	1.565	1.607	0.00	-3	20	Averaged
Dibenzofuran	1.917	2.008	0.00	-5	20	Averaged

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Nitrobenzene-d5	0.374	0.385	0.00	-3	20	Averaged
2-Fluorobiphenyl	1.619	1.709	0.00	-6	20	Averaged
p-Terphenyl-d14	0.743	0.743	0.00	0	20	Averaged

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar011.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 14:31 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 14:53
Date, time and analyst ID of latest file update: 13-Mar-2017 14:53 ev7p

Sample Name: CCV S101716G 1PPM Misc Info: 170313A004
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1)*1,4-Dichlorobenzene-d4	(1)	3.686	152	132361	5.000	0.00
3)*Naphthalene-d8	(2)	4.937	136	400020	5.000	0.00
11)*Acenaphthene-d10	(3)	6.831	164	198190	5.000	0.00
17)*Phenanthrene-d10	(4)	8.437	188	397335	5.000	0.00
31)*Perylene-d12	(6)	13.009	264	330656	5.000	0.00
25)*Chrysene-d12	(5)	11.370	240	392940	5.000	0.00
System Monitoring Compounds						
2)$Nitrobenzene-d5	(2)	4.240	82	30834	1.031	0.00
SpikedAmount 1.000	Recovery = 103.136					
7)$2-Fluorobiphenyl	(3)	6.115	172	67751	1.055	0.00
SpikedAmount 1.000	Recovery = 105.548					
23)$p-Terphenyl-d14	(5)	10.228	244	58421	1.001	0.00
SpikedAmount 1.000	Recovery = 100.071					
Target Compounds						QValue
4) Naphthalene	(2)	4.956	128	85260	1.013	100
5) 2-Methylnaphthalene	(2)	5.687	142	56339	1.026	100
6) 1-Methylnaphthalene	(2)	5.803	142	55191	1.016	100
10) Acenaphthylene	(3)	6.664	152	90699	1.008	100
12) Acenaphthene	(3)	6.865	153	52628	1.014	100
15) Fluorene	(3)	7.417	166	62771	1.040	100
18) Phenanthrene	(4)	8.461	178	86154	1.011	100
19) Anthracene	(4)	8.509	178	79073	0.912	100
21) Fluoranthene	(4)	9.777	202	106232	1.018	100
22) Pyrene	(5)	10.015	202	110725	0.996	100
24) Benzo (a) Anthracene	(5)	11.354	228	99352	0.962	100
26) Chrysene	(5)	11.399	228	97380	1.003	100
27) Benzo (b) Fluoranthene	(6)	12.581	252	88690	0.997	100
28) Benzo (k) Fluoranthene	(6)	12.609	252	107823	1.130	100
30) Benzo (a) Pyrene	(6)	12.940	252	85351	1.008	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.183	276	100951	1.028	100
34) Dibenz (a,h) Anthracene	(6)	14.207	278	80292	1.039	100
35) Benzo (g,h,i) Perylene	(6)	14.490	276	81076	1.014	100
8) Biphenyl	(3)	6.203	154	86237	1.039	100
9) 2,6-Dimethylnaphthalene	(3)	6.367	156	61381	1.024	100
14) 1,6,7-Trimethylnaphthalene	(3)	7.294	170	60424	1.020	100
16) Dibenzothiophene	(3)	8.324	184	116112	1.040	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar011.d Instrument ID: GCMS_AAA.i
Injection date and time: 13-MAR-2017 14:31 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170313.b/simpah-extra.m Sublist used: all
Calibration date and time: 13-MAR-2017 14:53
Date, time and analyst ID of latest file update: 13-Mar-2017 14:53 ev7p

Sample Name: CCV S101716G 1PPM Misc Info: 170313A004
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.151	192	84636	0.987	100
29) Benzo (e) pyrene	(6)	12.884	252	109380	1.047	100
32) Perylene	(6)	13.033	252	106248	1.027	100
13) Dibenzofuran	(3)	7.042	168	79598	1.048	100

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170313.b/13mar011.d
Date : 13-MAR-2017 14:31
Client ID:
Sample Info: CCV S101716G 1PPM
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i

Operator: 907
Column diameter: 0.18

Return to Contents

CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET
FOR METHOD: EPA 8270C SIM PAHs

CCV WORK ORDER: **099-06-009-4982-4741**
INSTRUMENT: GC/MS AAA
BATCH ID:
INITIAL: 170313I002
CCV: 170314A011

ANALYZED BY: 907
D/T ANALYZED:
INITIAL: 2017-03-13 13:34
CCV: 2017-03-14 10:52
REVIEWED BY: 262
D/T REVIEWED: 2017-03-14 15:45

Data File: Z:\GCMS_AAA\GCMS_AAA_data\2017\170314\14mar002.d\14mar002.rr

COMPOUND	TYPE	CALIB MODEL	MIN RF	AVG RF	CCV RF	AMOUNT	CCV CONC	CCV %D	CCV %D CL	STATUS
Naphthalene		Avg Resp	0.00	1.052	1.129			-7	0-20	PASS
2-Methylnaphthalene		Avg Resp	0.00	0.686	0.754			-10	0-20	PASS
1-Methylnaphthalene		Avg Resp	0.00	0.679	0.747			-10	0-20	PASS
Acenaphthylene		Avg Resp	0.00	2.270	2.450			-8	0-20	PASS
Acenaphthene	C	Avg Resp	0.00	1.310	1.412			-8	0-20	PASS
Fluorene		Avg Resp	0.00	1.522	1.630			-7	0-20	PASS
Phenanthrene		Avg Resp	0.00	1.073	1.149			-7	0-20	PASS
Anthracene		Avg Resp	0.00	1.092	1.042			5	0-20	PASS
Fluoranthene	C	Avg Resp	0.00	1.313	1.347			-3	0-20	PASS
Pyrene		Avg Resp	0.00	1.414	1.641			-16	0-20	PASS
Benzo (a) Anthracene		Avg Resp	0.00	1.315	1.330			-1	0-20	PASS
Chrysene		Avg Resp	0.00	1.236	1.359			-10	0-20	PASS
Benzo (k) Fluoranthene		Avg Resp	0.00	1.443	1.708			-18	0-20	PASS
Benzo (b) Fluoranthene		Avg Resp	0.00	1.345	1.489			-11	0-20	PASS
Benzo (a) Pyrene	C	Avg Resp	0.00	1.281	1.374			-7	0-20	PASS
Indeno (1,2,3-c,d) Pyrene		Avg Resp	0.00	1.485	1.513			-2	0-20	PASS
Dibenz (a,h) Anthracene		Avg Resp	0.00	1.169	1.180			-1	0-20	PASS
Benzo (g,h,i) Perylene		Avg Resp	0.00	1.209	1.230			-2	0-20	PASS

MIN RF: Method Specified Minimum Response Factor

INTERNAL STANDARD COMPOUNDS AREA REPORT
FOR METHOD: EPA 8270C SIM PAHs

ICAL BATCH ID: 170313I002 **CCV BATCH ID:** 170314A011

ICAL MIDPOINT

SAMPLE ID: 099-06-009-4976 D/T ANALYZED: 2017-03-13 12:55

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar006.d\13mar006.rr

COMPOUND	AREA	RETENTION TIME
1,4-Dichlorobenzene-d4	120202	3.69
Naphthalene-d8	373417	4.94
Acenaphthene-d10	184044	6.83
Phenanthrene-d10	359556	8.44
Chrysene-d12	345241	11.37
Perylene-d12	295234	13.00

ICV

SAMPLE ID 099-06-009-4976 D/T ANALYZED: 2017-03-13 13:54

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170313\13mar009.d\13mar009.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	97964	60101	240404	3.69	PASS
Naphthalene-d8	304263	186708	746834	4.93	PASS
Acenaphthene-d10	151183	92022	368088	6.83	PASS
Phenanthrene-d10	297682	179778	719112	8.44	PASS
Chrysene-d12	285311	172620	690482	11.37	PASS
Perylene-d12	253681	147617	590468	13.00	PASS

CCV

SAMPLE ID 099-06-009-4982 D/T ANALYZED: 2017-03-14 10:52

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170314\14mar002.d\14mar002.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	108769	60101	240404	3.67	PASS
Naphthalene-d8	322404	186708	746834	4.92	PASS
Acenaphthene-d10	153007	92022	368088	6.82	PASS
Phenanthrene-d10	285156	179778	719112	8.42	PASS
Chrysene-d12	242173	172620	690482	11.36	PASS
Perylene-d12	192520	147617	590468	12.99	PASS

MS

SAMPLE ID 17-03-0641-26 D/T ANALYZED: 2017-03-14 12:30

DATA FILE: Z:\GCMS_AAA\GCMS_AAA_data\2017\170314\14mar007.d\14mar007.rr

COMPOUND	AREA	LOWER AREA LIMIT	UPPER AREA LIMIT	RETENTION TIME	STATUS
1,4-Dichlorobenzene-d4	98844	54384	217538	3.68	PASS
Naphthalene-d8	307556	161202	644808	4.92	PASS
Acenaphthene-d10	180156	76504	306014	6.82	PASS
Phenanthrene-d10	312346	142578	570312	8.42	PASS
Chrysene-d12	268408	121086	484346	11.36	PASS
Perylene-d12	232750	96260	385040	13.00	PASS

Return to Contents

Notes:
For all samples including QC, all internal standard area responses must be within 50% to 200% of the mean area response in the initial calibration.

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170314.b/14mar002.d
Report Date: 03/14/2017 12:58

Eurofins CalScience
Calibration Verification Report

Instrument ID: GCMS_AAA.i
Sample Name: CCV S101716G 1PPM
Sublist used: all.sub
Method used: /chem/SVOA/GCMS_AAA.i/170314.b/simpah-extra.m

Injection Date and Time: 14-MAR-2017 10:52
Initial Calibration Date(s): 06-DEC-2016 13-MAR-2017
Initial Calibration Time(s): 17:28 13:34

Target Compounds	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Naphthalene	1.052	1.129	0.00	-7	20	Averaged
2-Methylnaphthalene	0.686	0.754	0.00	-10	20	Averaged
1-Methylnaphthalene	0.679	0.747	0.00	-10	20	Averaged
Acenaphthylene	2.270	2.450	0.00	-8	20	Averaged
Acenaphthene	1.310	1.412	0.00	-8	20	Averaged
Fluorene	1.522	1.630	0.00	-7	20	Averaged
Phenanthrene	1.073	1.149	0.00	-7	20	Averaged
Anthracene	1.092	1.042	0.00	5	20	Averaged
Fluoranthene	1.313	1.347	0.00	-3	20	Averaged
Pyrene	1.414	1.641	0.00	-16	20	Averaged
Benzo (a) Anthracene	1.315	1.330	0.00	-1	20	Averaged
Chrysene	1.236	1.359	0.00	-10	20	Averaged
Benzo (b) Fluoranthene	1.345	1.489	0.00	-11	20	Averaged
Benzo (k) Fluoranthene	1.443	1.708	0.00	-18	20	Averaged
Benzo (a) Pyrene	1.281	1.374	0.00	-7	20	Averaged
Indeno (1,2,3-c,d) Pyrene	1.485	1.513	0.00	-2	20	Averaged
Dibenz (a,h) Anthracene	1.169	1.180	0.00	-1	20	Averaged
Benzo (g,h,i) Perylene	1.209	1.230	0.00	-2	20	Averaged
Biphenyl	2.094	2.332	0.00	-11	20	Averaged
2,6-Dimethylnaphthalene	1.512	1.644	0.00	-9	20	Averaged
1,6,7-Trimethylnaphthalene	1.494	1.609	0.00	-8	20	Averaged
Dibenzothiophene	2.817	2.878	0.00	-2	20	Averaged
1-Methylphenanthrene	1.091	1.285	0.00	-18	20	Averaged
Benzo (e) pyrene	1.580	1.790	0.00	-13	20	Averaged
Perylene	1.565	1.734	0.00	-11	20	Averaged
Dibenzofuran	1.917	2.070	0.00	-8	20	Averaged

Surrogate Standards	ICAL RRF or Amount	ICV RRF	Min. RRF	%D / %Drift	Max%D /Drift	Curve Type
Nitrobenzene-d5	0.374	0.436	0.00	-17	20	Averaged
2-Fluorobiphenyl	1.619	1.825	0.00	-13	20	Averaged
p-Terphenyl-d14	0.743	0.836	0.00	-13	20	Averaged

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170314.b/14mar002.d Instrument ID: GCMS_AAA.i
Injection date and time: 14-MAR-2017 10:52 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170314.b/simpah-extra.m Sublist used: all
Calibration date and time: 14-MAR-2017 11:17
Date, time and analyst ID of latest file update: 14-Mar-2017 11:17 ev7p

Sample Name: CCV S101716G 1PPM Misc Info: 170314A011
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	DEV(Min)
Internal Standards						
1) *1,4-Dichlorobenzene-d4	(1)	3.673	152	108769	5.000	0.00
3) *Naphthalene-d8	(2)	4.924	136	322404	5.000	0.00
11) *Acenaphthene-d10	(3)	6.821	164	153007	5.000	0.00
17) *Phenanthrene-d10	(4)	8.424	188	285156	5.000	0.00
31) *Perylene-d12	(6)	12.992	264	192520	5.000	0.00
25) *Chrysene-d12	(5)	11.358	240	242173	5.000	0.00
System Monitoring Compounds						
2) $Nitrobenzene-d5	(2)	4.231	82	28123	1.167	0.00
SpikedAmount 1.000	Recovery = 116.716					
7) $2-Fluorobiphenyl	(3)	6.102	172	55851	1.127	0.00
SpikedAmount 1.000	Recovery = 112.705					
23) $p-Terphenyl-d14	(5)	10.220	244	40490	1.125	0.00
SpikedAmount 1.000	Recovery = 112.535					
Target Compounds						QValue
4) Naphthalene	(2)	4.946	128	72818	1.073	100
5) 2-Methylnaphthalene	(2)	5.677	142	48634	1.099	100
6) 1-Methylnaphthalene	(2)	5.790	142	48146	1.100	100
10) Acenaphthylene	(3)	6.651	152	74988	1.079	100
12) Acenaphthene	(3)	6.855	153	43218	1.078	100
15) Fluorene	(3)	7.407	166	49865	1.070	100
18) Phenanthrene	(4)	8.449	178	65530	1.071	100
19) Anthracene	(4)	8.501	178	59425	0.955	100
21) Fluoranthene	(4)	9.764	202	76834	1.026	100
22) Pyrene	(5)	10.006	202	79475	1.160	100
24) Benzo (a) Anthracene	(5)	11.342	228	64434	1.012	100
26) Chrysene	(5)	11.390	228	65844	1.100	100
27) Benzo (b) Fluoranthene	(6)	12.573	252	57318	1.107	100
28) Benzo (k) Fluoranthene	(6)	12.597	252	65767	1.184	100
30) Benzo (a) Pyrene	(6)	12.932	252	52897	1.073	100
33) Indeno (1,2,3-c,d) Pyrene	(6)	14.171	276	58267	1.019	100
34) Dibenz (a,h) Anthracene	(6)	14.191	278	45422	1.009	100
35) Benzo (g,h,i) Perylene	(6)	14.473	276	47373	1.018	100
8) Biphenyl	(3)	6.194	154	71370	1.114	100
9) 2,6-Dimethylnaphthalene	(3)	6.358	156	50295	1.087	100
14) 1,6,7-Trimethylnaphthalene	(3)	7.284	170	49224	1.077	100
16) Dibenzothiophene	(3)	8.315	184	88075	1.022	100

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Return to Contents

Quant Report Target Revision 3.5

Data File: /chem/SVOA/GCMS_AAA.i/170314.b/14mar002.d Instrument ID: GCMS_AAA.i
Injection date and time: 14-MAR-2017 10:52 Analyst ID: 907

Method used: /chem/SVOA/GCMS_AAA.i/170314.b/simpah-extra.m Sublist used: all
Calibration date and time: 14-MAR-2017 11:17
Date, time and analyst ID of latest file update: 14-Mar-2017 11:17 ev7p

Sample Name: CCV S101716G 1PPM Misc Info: 170314A011
Response via Initial Calibration

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (mg/L)	QValue
20) 1-Methylphenanthrene	(5)	9.143	192	62232	1.178	100
29) Benzo (e) pyrene	(6)	12.875	252	68923	1.133	100
32) Perylene	(6)	13.020	252	66773	1.108	100
13) Dibenzofuran	(3)	7.032	168	63348	1.080	100

Return to Contents

Data File: /chem/SVOA/GCMS_AAA.i/170314.b/14mar002.d
Date : 14-MAR-2017 10:52
Client ID:
Sample Info: CCV S101716G 1PPM
Volume Injected (uL): 10.0
Column phase: J&W DB-5MS

Instrument: GCMS_AAA.i

Operator: 907
Column diameter: 0.18

Return to Contents

EPA METHOD 8270C
PAHSIM

Tuning Reports

Return to Contents

DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

Report Generated Time Mon Mar 13 14:56:03 2017

Data File : /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d
ALS Vial : 1
Acq on : 13-MAR-2017 10:50
Sample : DFTPP S101716A
Misc :
Integrator Type : HP RTE
Last Update : 02-SEP-2016 11:58

Operator : 907
Inst : GCMS_AAA
Multiplier : 1

Tune	*** PASSED ***
Pentachlorophenol Tailing	*** PASSED ***
Benzidine Tailing	*** PASSED ***
DDT degradation	*** PASSED ***

Tuning Sample, /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d ,* PASSED ***

Return to Contents

Report Generated Time Mon Mar 13 14:56:03 2017

Data File : /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d
ALS Vial : 1
Acq on : 13-MAR-2017 10:50 Operator : 907
Sample : DFTPP S101716A Inst : GCMS_AAA
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_AAA.i/170313.b/dftpptune.m
Last Update : 02-SEP-2016 11:58

DFTPP Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Response	Test
198	Base Peak, 100% relative abundance	100.00	1263156	PASS
51	30 - 60% of mass 198	31.54	398398	PASS
68	Less than 2% of mass 69	0.00	0	PASS
69	Less than mass 198	28.69	362441	PASS
70	Less than 2% of mass 69	0.45	1640	PASS
127	40 - 60% of mass 198	41.70	526678	PASS
197	0 - 1% of mass 198	0.00	0	PASS
199	5 - 9% of mass 198	6.76	85354	PASS
275	10 - 30% of mass 198	27.46	346858	PASS
365	1 - 100% of mass 198	3.26	41157	PASS
441	Present, but less than mass 443	78.20	228864	PASS
442	40 - 200% of mass 198	118.36	1495040	PASS
443	17 - 23% of mass 442	19.57	292650	PASS

Return to Contents

Report Generated Time Mon Mar 13 14:56:03 2017

Data File	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d		
ALS Vial	: 3		
Acq on	: 13-MAR-2017 10:50	Operator	: 907
Sample	: DFTPP S101716A	Inst	: GCMS_AAA
Misc	:	Multiplier	: 1
Integrator Type	: HP RTE		
Method	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d/resolut.m		
Last Update	: 13-MAR-2017 14:55		

Pentachlorophenol
==========
Exp. RT = 7.110
Found RT = 6.968

Mass	Area	Ratio
266	615097	100.00
264	388944	63.23
268	376091	61.14

Peak baseline front width (sec) : 0.610
Peak baseline tail width (sec) : 0.915
Tail Factor = 0.915/ 0.610

Tailing factor for Pentachlorophenol OK

Tail Factor = 1.500 Maximum Allowed = 3.0

Return to Contents

Report Generated Time Mon Mar 13 14:56:03 2017

Data File : /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d
ALS Vial : 3
Acq on : 13-MAR-2017 10:50 Operator : 907
Sample : DFTPP S101716A Inst : GCMS_AAA
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d/resolut.m
Last Update : 13-MAR-2017 14:55

Benzidine
=========
Exp. RT = 8.565
Found RT = 8.412

Mass	Area	Ratio
184	2056132	100.00
92	134562	6.54
185	279715	13.60

Peak baseline front width (sec) : 0.813
Peak baseline tail width (sec) : 1.466
Tail Factor = 1.466/ 0.813

Tailing factor for Benzidine OK

Tail Factor = 1.803 Maximum Allowed = 3.0

Return to Contents

Report Generated Time Mon Mar 13 14:56:03 2017

Data File : /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d
ALS Vial : 3
Acq on : 13-MAR-2017 10:50 Operator : 907
Sample : DFTPP S101716A Inst : GCMS_AAA
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d/resolut.m
Last Update : 13-MAR-2017 14:55

4,4'-DDE
========
Exp. RT = 8.636
Found RT = 8.636

Mass	Area	Ratio
246	9077	100.00
248	5291	58.29
176	4633	51.04

Return to Contents

Report Generated Time Mon Mar 13 14:56:03 2017

Data File : /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d
ALS Vial : 3
Acq on : 13-MAR-2017 10:50 Operator : 907
Sample : DFTPP S101716A Inst : GCMS_AAA
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d/resolut.m
Last Update : 13-MAR-2017 14:55

4,4'-DDD
========
Exp. RT = 8.991
Found RT = 8.991

Mass	Area	Ratio
235	54109	100.00
237	34225	63.25
165	28483	52.64

Return to Contents

Report Generated Time Mon Mar 13 14:56:03 2017

Data File	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d		
ALS Vial	: 3		
Acq on	: 13-MAR-2017 10:50	Operator	: 907
Sample	: DFTPP S101716A	Inst	: GCMS_AAA
Misc	:	Multiplier	: 1
Integrator Type	: HP RTE		
Method	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar001.d/resolut.m		
Last Update	: 13-MAR-2017 14:55		

4,4'-DDT
========
Exp. RT = 9.395
Found RT = 9.250

Mass	Area	Ratio
235	2624611	100.00
237	1692228	64.48
165	1118106	42.60

Return to Contents

Compound: 4,4'-DDE
Quant Mass: 246
RT: 8.636
Area: 9077

Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.991
Area: 54109

Compound: 4,4'-DDT
Quant Mass: 235
RT: 9.250
Area: 2624611

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2624611			N/A
4,4-DDE	9077	0.34	20.0	PASS
4,4-DDD	54109	2.02	20.0	PASS
4,4-DDD + DDE	63186	2.4	20.0	PASS

****
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

Return to Contents

DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

Report Generated Time Mon Mar 13 14:34:55 2017

Data File : /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d
ALS Vial : 1
Acq on : 13-MAR-2017 14:16
Sample : DFTPP S101716A
Misc :
Integrator Type : HP RTE
Last Update : 02-SEP-2016 11:58

Operator : 907
Inst : GCMS_AAA
Multiplier : 1

Tune	*** PASSED ***
Pentachlorophenol Tailing	*** PASSED ***
Benzidine Tailing	*** PASSED ***
DDT degradation	*** PASSED ***

Tuning Sample, /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d ,* PASSED ***

Return to Contents

Report Generated Time Mon Mar 13 14:34:55 2017

Data File : /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d
ALS Vial : 1
Acq on : 13-MAR-2017 14:16
Sample : DFTPP S101716A
Misc :
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_AAA.i/170313.b/dftpptune.m
Last Update : 02-SEP-2016 11:58

Operator : 907
Inst : GCMS_AAA
Multiplier : 1

DFTPP Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Response	Test
198	Base Peak, 100% relative abundance	100.00	1004202	PASS
51	30 - 60% of mass 198	36.93	370875	PASS
68	Less than 2% of mass 69	0.00	0	PASS
69	Less than mass 198	32.13	322666	PASS
70	Less than 2% of mass 69	0.50	1619	PASS
127	40 - 60% of mass 198	43.76	439424	PASS
197	0 - 1% of mass 198	0.00	0	PASS
199	5 - 9% of mass 198	6.88	69098	PASS
275	10 - 30% of mass 198	26.15	262613	PASS
365	1 - 100% of mass 198	2.95	29634	PASS
441	Present, but less than mass 443	78.45	161962	PASS
442	40 - 200% of mass 198	104.85	1052906	PASS
443	17 - 23% of mass 442	19.61	206442	PASS

Return to Contents

Report Generated Time Mon Mar 13 14:34:55 2017

Data File : /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d
ALS Vial : 3
Acq on : 13-MAR-2017 14:16 Operator : 907
Sample : DFTPP S101716A Inst : GCMS_AAA
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d/resolut.m
Last Update : 13-MAR-2017 14:33

Pentachlorophenol
==========
Exp. RT = 7.110
Found RT = 6.948

Mass	Area	Ratio
266	913684	100.00
264	584406	63.96
268	566684	62.02

Peak baseline front width (sec) : 0.844
Peak baseline tail width (sec) : 0.498
Tail Factor = 0.498/ 0.844

Tailing factor for Pentachlorophenol OK

Tail Factor = 0.590 Maximum Allowed = 3.0

Return to Contents

Report Generated Time Mon Mar 13 14:34:55 2017

Data File	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d		
ALS Vial	: 3		
Acq on	: 13-MAR-2017 14:16	Operator	: 907
Sample	: DFTPP S101716A	Inst	: GCMS_AAA
Misc	:	Multiplier	: 1
Integrator Type	: HP RTE		
Method	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d/resolut.m		
Last Update	: 13-MAR-2017 14:33		

Benzidine
=========
Exp. RT = 8.565
Found RT = 8.395

Mass	Area	Ratio
184	3047845	100.00
92	228654	7.50
185	435001	14.27

Peak baseline front width (sec) : 1.068
Peak baseline tail width (sec) : 0.610
Tail Factor = 0.610/ 1.068

Tailing factor for Benzidine OK

Tail Factor = 0.571 Maximum Allowed = 3.0

Return to Contents

Report Generated Time Mon Mar 13 14:34:55 2017

Data File	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d		
ALS Vial	: 3		
Acq on	: 13-MAR-2017 14:16	Operator	: 907
Sample	: DFTPP S101716A	Inst	: GCMS_AAA
Misc	:	Multiplier	: 1
Integrator Type	: HP RTE		
Method	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d/resolut.m		
Last Update	: 13-MAR-2017 14:33		

4,4'-DDE
=======

Exp. RT = 8.522
Found RT = 8.613

Mass	Area	Ratio
246	4873	100.00
248	3125	64.13
176	2417	49.61

Return to Contents

Report Generated Time Mon Mar 13 14:34:55 2017

Data File	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d		
ALS Vial	: 3		
Acq on	: 13-MAR-2017 14:16	Operator	: 907
Sample	: DFTPP S101716A	Inst	: GCMS_AAA
Misc	:	Multiplier	: 1
Integrator Type	: HP RTE		
Method	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d/resolut.m		
Last Update	: 13-MAR-2017 14:33		

4,4'-DDD
========

Exp. RT = 8.875
Found RT = 8.969

Mass	Area	Ratio
235	44885	100.00
237	28720	63.99
165	23976	53.42

Return to Contents

Report Generated Time Mon Mar 13 14:34:55 2017

Data File	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d		
ALS Vial	: 3		
Acq on	: 13-MAR-2017 14:16	Operator	: 907
Sample	: DFTPP S101716A	Inst	: GCMS_AAA
Misc	:	Multiplier	: 1
Integrator Type	: HP RTE		
Method	: /chem/SVOA/GCMS_AAA.i/170313.b/13mar010.d/resolut.m		
Last Update	: 13-MAR-2017 14:33		

4,4'-DDT
========

Exp. RT = 9.395
Found RT = 9.227

Mass	Area	Ratio
235	2403086	100.00
237	1546943	64.37
165	1048928	43.65

Return to Contents

Compound: 4,4'-DDE
Quant Mass: 246
RT: 8.613
Area: 4873

Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.969
Area: 44885

Compound: 4,4'-DDT
Quant Mass: 235
RT: 9.227
Area: 2403086

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2403086			N/A
4,4-DDE	4873	0.20	20.0	PASS
4,4-DDD	44885	1.83	20.0	PASS
4,4-DDD + DDE	49758	2.0	20.0	PASS

****
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

Return to Contents

DFTPP TUNE/TAILING FACTOR/DEGRADATION SAMPLE AND GRAPHIC REPORT

Report Generated Time Tue Mar 14 10:56:43 2017

Data File : /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d
ALS Vial : 36
Acq on : 14-MAR-2017 10:36
Sample : DFTPP S101716A
Misc :
Integrator Type : HP RTE
Last Update : 02-SEP-2016 11:58

Operator : 907
Inst : GCMS_AAA
Multiplier : 1

Tune	*** PASSED ***
Pentachlorophenol Tailing	*** PASSED ***
Benzidine Tailing	*** PASSED ***
DDT degradation	*** PASSED ***

Tuning Sample, /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d ,* PASSED ***

Return to Contents

Report Generated Time Tue Mar 14 10:56:43 2017

Data File : /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d
ALS Vial : 36
Acq on : 14-MAR-2017 10:36
Sample : DFTPP S101716A
Misc :
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_AAA.i/170314.b/dftpptune.m
Last Update : 02-SEP-2016 11:58

Operator : 907
Inst : GCMS_AAA
Multiplier : 1

DFTPP Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Response	Test
198	Base Peak, 100% relative abundance	100.00	920597	PASS
51	30 - 60% of mass 198	39.76	366033	PASS
68	Less than 2% of mass 69	0.00	0	PASS
69	Less than mass 198	33.51	308484	PASS
70	Less than 2% of mass 69	0.54	1674	PASS
127	40 - 60% of mass 198	44.33	408128	PASS
197	0 - 1% of mass 198	0.00	0	PASS
199	5 - 9% of mass 198	6.90	63517	PASS
275	10 - 30% of mass 198	25.58	235456	PASS
365	1 - 100% of mass 198	2.92	26861	PASS
441	Present, but less than mass 443	78.44	145416	PASS
442	40 - 200% of mass 198	102.69	945365	PASS
443	17 - 23% of mass 442	19.61	185386	PASS

Return to Contents

Report Generated Time Tue Mar 14 10:56:43 2017

Data File : /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d
ALS Vial : 3
Acq on : 14-MAR-2017 10:36 Operator : 907
Sample : DFTPP S101716A Inst : GCMS_AAA
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d/resolut.m
Last Update : 14-MAR-2017 10:53

Pentachlorophenol
==========
Exp. RT = 7.110
Found RT = 6.940

Mass	Area	Ratio
266	667286	100.00
264	415158	62.22
268	407437	61.06

Peak baseline front width (sec) : 0.740
Peak baseline tail width (sec) : 0.762
Tail Factor = 0.762/ 0.740

Tailing factor for Pentachlorophenol OK

Tail Factor = 1.030 Maximum Allowed = 3.0

Return to Contents

Report Generated Time Tue Mar 14 10:56:43 2017

Data File	: /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d		
ALS Vial	: 3		
Acq on	: 14-MAR-2017 10:36	Operator	: 907
Sample	: DFTPP S101716A	Inst	: GCMS_AAA
Misc	:	Multiplier	: 1
Integrator Type	: HP RTE		
Method	: /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d/resolut.m		
Last Update	: 14-MAR-2017 10:53		

Benzidine
=========

Exp. RT = 8.565
Found RT = 8.383

Mass	Area	Ratio
184	1763533	100.00
92	124152	7.04
185	242738	13.76

Peak baseline front width (sec) : 0.812
Peak baseline tail width (sec) : 0.983
Tail Factor = 0.983/ 0.812

Tailing factor for Benzidine OK

Tail Factor = 1.211 Maximum Allowed = 3.0

Return to Contents

Report Generated Time Tue Mar 14 10:56:43 2017

Data File	: /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d		
ALS Vial	: 3		
Acq on	: 14-MAR-2017 10:36	Operator	: 907
Sample	: DFTPP S101716A	Inst	: GCMS_AAA
Misc	:	Multiplier	: 1
Integrator Type	: HP RTE		
Method	: /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d/resolut.m		
Last Update	: 14-MAR-2017 10:53		

4,4'-DDE
========

Exp. RT = 8.636
Found RT = 8.608

Mass	Area	Ratio
246	4116	100.00
248	2813	68.35
176	2199	53.44

Return to Contents

Report Generated Time Tue Mar 14 10:56:43 2017

Data File	: /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d		
ALS Vial	: 3		
Acq on	: 14-MAR-2017 10:36	Operator	: 907
Sample	: DFTPP S101716A	Inst	: GCMS_AAA
Misc	:	Multiplier	: 1
Integrator Type	: HP RTE		
Method	: /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d/resolut.m		
Last Update	: 14-MAR-2017 10:53		

4,4'-DDD
=======
Exp. RT = 8.991
Found RT = 8.963

Mass	Area	Ratio
235	37618	100.00
237	24330	64.68
165	21821	58.01

Return to Contents

Report Generated Time Tue Mar 14 10:56:43 2017

Data File : /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d
ALS Vial : 3
Acq on : 14-MAR-2017 10:36 Operator : 907
Sample : DFTPP S101716A Inst : GCMS_AAA
Misc : Multiplier : 1
Integrator Type : HP RTE
Method : /chem/SVOA/GCMS_AAA.i/170314.b/14mar001.d/resolut.m
Last Update : 14-MAR-2017 10:53

4,4'-DDT
========
Exp. RT = 9.395
Found RT = 9.219

Mass	Area	Ratio
235	2052488	100.00
237	1322608	64.44
165	921440	44.89

Return to Contents

Compound: 4,4'-DDE
Quant Mass: 246
RT: 8.608
Area: 4116

Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.963
Area: 37618

Compound: 4,4'-DDT
Quant Mass: 235
RT: 9.219
Area: 2052488

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2052488			N/A
4,4-DDE	4116	0.20	20.0	PASS
4,4-DDD	37618	1.80	20.0	PASS
4,4-DDD + DDE	41734	2.0	20.0	PASS

****
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

Return to Contents

EPA METHOD 8270C
PAHSIM

Run Logs

Return to Contents

Injection Log

Directory: W:\GCMS_AAA\GCMS_AAA_DATA\2017\170313

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13mar001.d	1.	DFTPP S101716A		13 Mar 2017 10:50
2	2	13mar002.d	1.	CCV S101716G 1PPM — Dev > 30%	170313A004	13 Mar 2017 11:36
3	3	13mar003.d	1.	BLANK	S101716B 10UL	13 Mar 2017 11:56
4	27	13mar004.d	1.	ICAL-1 S010317D 5PPM	170313I002	13 Mar 2017 12:16
5	28	13mar005.d	1.	ICAL-2 S010317E 2PPM		13 Mar 2017 12:35
6	29	13mar006.d	1.	ICAL-3 S010317F 1PPM		13 Mar 2017 12:55
7	30	13mar007.d	1.	ICAL-4 S010317G 0.5PPM		13 Mar 2017 13:15
8	31	13mar008.d	1.	ICAL-5 S010317H 0.1PPM		13 Mar 2017 13:34
9	32	13mar009.d	1.	ICV S010317I 1PPM		13 Mar 2017 13:54
10	1	13mar010.d	1.	DFTPP S101716A		13 Mar 2017 14:16
11	2	13mar011.d	1.	CCV S101716G 1PPM	170313A004	13 Mar 2017 14:31
12		13mar012.d	1.	No MS or GC data present		

Return to Contents

Injection Log

Directory: W:\GCMS_AAA\GCMS_AAA_DATA\2017\170313

ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	1	13mar001.d	1.	DFTPP S101716A		13 Mar 2017 10:50
	2	13mar002.d	1.	CCV S101716G 1PPM – Dev > 30%	170313A004	13 Mar 2017 11:36
	3	13mar003.d	1.	BLANK	S101716B 10UL	13 Mar 2017 11:56
	27	13mar004.d	1.	ICAL-1 S010317D 5PPM	170313I002	13 Mar 2017 12:16
	28	13mar005.d	1.	ICAL-2 S010317E 2PPM		13 Mar 2017 12:35
	29	13mar006.d	1.	ICAL-3 S010317F 1PPM		13 Mar 2017 12:55
	30	13mar007.d	1.	ICAL-4 S010317G 0.5PPM		13 Mar 2017 13:15
	31	13mar008.d	1.	ICAL-5 S010317H 0.1PPM		13 Mar 2017 13:34
	32	13mar009.d	1.	ICV S010317I 1PPM		13 Mar 2017 13:54
0	1	13mar010.d	1.	DFTPP S101716A		13 Mar 2017 14:16
1	2	13mar011.d	1.	CCV S101716G 1PPM	170313A004	13 Mar 2017 14:31
2	21	13mar012.d	1.	MB 170310 L13	S101716B 10UL	13 Mar 2017 14:51
3	22	13mar013.d	1.	LCS 170310 L13	S101716B 10UL	13 Mar 2017 15:11
4	23	13mar014.d	1.	LCSD 170310 L13	S101716B 10UL	13 Mar 2017 15:30
5	24	13mar015.d	1.	17-03-0761-1	S101716B 10UL	13 Mar 2017 15:50
6	35	13mar016.d	1.	17-03-0761-1 10X	S101716B 10UL	13 Mar 2017 16:10
7	25	13mar017.d	1.	16-12-1370-12 50X	S101716B 10UL	13 Mar 2017 16:29
8	26	13mar018.d	1.	16-12-1370-13 50X	S101716B 10UL	13 Mar 2017 16:49
9	3	13mar019.d	1.	MB 170310 L04	S101716B 10UL	13 Mar 2017 17:09
:0	4	13mar020.d	1.	LCS 170310 L04	S101716B 10UL	13 Mar 2017 17:28
:1	5	13mar021.d	1.	17-03-0641-26 MS – + I.S.	S101716B 10UL	13 Mar 2017 17:48
:2	6	13mar022.d	1.	17-03-0641-26 MSD	S101716B 10UL	13 Mar 2017 18:08
:3	7	13mar023.d	1.	17-03-0642-26	S101716B 10UL	13 Mar 2017 18:28
:4	8	13mar024.d	1.	17-03-0642-27	S101716B 10UL	13 Mar 2017 18:47
:5	9	13mar025.d	1.	17-03-0642-28	S101716B 10UL	13 Mar 2017 19:07
:6	10	13mar026.d	1.	17-03-0642-29	S101716B 10UL	13 Mar 2017 19:27
:7	11	13mar027.d	1.	17-03-0641-26	S101716B 10UL	13 Mar 2017 19:46
:8	12	13mar028.d	1.	17-03-0641-27	S101716B 10UL	13 Mar 2017 20:06
:9	13	13mar029.d	1.	17-03-0641-28	S101716B 10UL	13 Mar 2017 20:26
0	14	13mar030.d	1.	17-03-0641-29 – + surr	S101716B 10UL	13 Mar 2017 20:46
1	15	13mar031.d	1.	17-03-0589-25	S101716B 10UL	13 Mar 2017 21:05
2	16	13mar032.d	1.	17-03-0589-26	S101716B 10UL	13 Mar 2017 21:25
3	17	13mar033.d	1.	17-03-0589-27	S101716B 10UL	13 Mar 2017 21:45
4	18	13mar034.d	1.	17-03-0590-25	S101716B 10UL	13 Mar 2017 22:05
5	19	13mar035.d	1.	17-03-0590-26	S101716B 10UL	13 Mar 2017 22:24
6	20	13mar036.d	1.	17-03-0590-27	S101716B 10UL	13 Mar 2017 22:44
7	33	13mar037.d	1.	17-03-0153-1 MSD RB	S101716B 10UL	13 Mar 2017 23:04
8	34	13mar038.d	1.	17-03-0153-1 RB	S101716B 10UL	13 Mar 2017 23:24

Return to Contents

Injection Log

Directory: W:\GCMS_AAA\GCMS_AAA_DATA\2017\170314

ine	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	36	14mar001.d	1.	DFTPP S101716A		14 Mar 2017 10:36
	37	14mar002.d	1.	CCV S101716G 1PPM	170314A011	14 Mar 2017 10:52
	38	14mar003.d	1.	16-12-1370-12 MS 5X RB	S101716B 10UL	14 Mar 2017 11:11
	39	14mar004.d	1.	16-12-1370-12 MSD 5X RB	S101716B 10UL	14 Mar 2017 11:31
	40	14mar005.d	1.	16-12-1370-12 5X RB	S101716B 10UL	14 Mar 2017 11:51
	41	14mar006.d	1.	16-12-1370-13 5X RB	S101716B 10UL	14 Mar 2017 12:11
	42	14mar007.d	1.	17-03-0641-26 MS RB	S101716B 10UL	14 Mar 2017 12:30

Return to Contents

EPA METHOD 8270C
PAHSIM

Sample Preparation Logs

Return to Contents

Analysis Method (EPA Method): ☐ 608 ☐ 8081 ☐ 8082 ☐ 8141 ☐ 8310 ☐ TO-13 ☐ TO-4
☑ 8270 (☐ Soil ☐ Soil SIM SUPER ☐ PAH ☑ SIM PAH ☐ SIM Pest ☐ SIM PCB cong. ☐ SIM FL)

Extraction Method (EPA Method): ☐ 3510 ☐ 3520 ☐ 3540 ☐ 3541 ☑ 3545 ☐ 3550 ☐ 3580

Analyst ID#: Measuring Sample- 785 Start Extraction- 610 / 787 Blow Down- 1084 Clean Up-

Matrix: ☑ Soil ☐ Aqueous ☐ Oil ☐ Wipe ☐ Filter ☐ Tissue ☐ Air

Balance ID#: 53 Filter ID#: S07-17-17 ASE ID#: 7 Soxtherm ID#: Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 03/10/17 7:45 Ext. End Date/Time: 03/10/17 12:45

Sand or Wipe ID#: S07-19-19

Drying Agent: ☑ Na_2SO_4 ☑ Diatomaceous Earth

Drying Agent(s) ID#: S07-44-18 / S07-22-03

Surrogate Std ID# & Volume Added (mL): S020117C 0.5

Spike Std ID# & Volume Added (mL): S100716A 0.5 Spike Added to: ☑ LCS ☐ LCSD ☑ MS ☑ MSD

Extraction Solvent: ☐ $MeCl_2$ ☐ 1:1 Hexane-Acetone ☑ 1:1 $MeCl_2$-Acetone ☐ 9:1 Hexane-Diethyl-ether ☐ Acetonitrile

Extraction Solvent ID#: S07-55-01 / S07-44-08 Exchange Solvent (☐ Hexane ☐ Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up: ☐ 3620 Florisil ☐ 3630 SGC ☐ 3660 Sulfur ☐ 3665 Acid ☐ Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 1703 10L04

Cel ID#:	Sample W (g) / V (mL) Initial	Final	Clean Up Performed	Comments
MB	20.0	2	☐	
LCS	20.0	2	☐	
LCSD NA	—	—	☐	
MS 17-03-0641-26 ms A	20.0	2	☐	
MSD " " 26 msd A	20.1	2	☐	
17-03-0641-26 A	20.1	2	☐	
27 A	20.0	2	☐	
28 A	20.0	2	☐	
29 A	20.1	2	☐	
17-03-0589-25 A	20.1	2	☐	
26 A	20.2	2	☐	
27 A	20.0	2	☐	
17-03-0590-25 A	20.1	2	☐	
26 A	20.0	2	☐	
27 A	20.1	2	☐	
17-03-0642-26 A	20.0	2	☐	
27 A	20.1	2	☐	
28 A	20.0	2	☐	
29 A	20.0	2	☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	

Peer Reviewed by: MP Peer Reviewed Date: 03/10/17 Revision Date: 10/20/16

Return to Contents