APPENDIX C
LAB REPORTS

APPENDIX C-1:
EVENT 1 LAB REPORTS

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Supplemental Report 1

Additional requested analyses have been added to the original report.

WORK ORDER NUMBER: 14-12-1034

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weston Solutions

Client Project Name: POLB/POLA Low Detection Limit Water Column Study Ph.2

Attention: Sheila Holt
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Approved for release on 03/16/2015 by:
Danielle Gonsman
Project Manager

ResultLink

Email your PM

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Client Project Name: POLB/POLA Low Detection Limit Water Column Study Ph.2
Work Order Number: 14-12-1034

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Work Order Narrative

Work Order: 14-12-1034 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/10/14. They were assigned to Work Order 14-12-1034.

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.

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CASE NARRATIVE

Project Name: POLB/POLA LDL Water Column Study

Particle Size could not be reported for all samples due to insufficient solids to attain data on the Particle Size Analyzer.

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Sample Summary

Client: Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Work Order: 14-12-1034
Project Name: POLB/POLA Low Detection Limit Water Column Study Ph.2
PO Number:
Date/Time Received: 12/10/14 18:45
Number of Containers: 67

Attn: Sheila Holt

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
CP-RW-01-G-M-20141210	14-12-1034-1	12/10/14 08:00	7	Sea Water
FH-RW-01-G-M-20141210	14-12-1034-2	12/10/14 10:05	7	Sea Water
IA-RW-01-G-M-20141210	14-12-1034-3	12/10/14 11:40	7	Sea Water
CS-RW-01-G-M-20141210	14-12-1034-4	12/10/14 12:45	7	Sea Water
CS-RW-01-G-B-20141210	14-12-1034-5	12/10/14 14:00	7	Sea Water
IB-RW-01-G-M-20141210	14-12-1034-6	12/10/14 14:00	18	Sea Water
IB-RW-01-G-B-20141210	14-12-1034-7	12/10/14 14:00	7	Sea Water
IB-RW-1001-G-M-20141210	14-12-1034-8	12/10/14 14:00	7	Sea Water

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Analytical Report

Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Date Received: 12/10/14
Work Order: 14-12-1034
Preparation: N/A
Method: SM 2540 D
Units: mg/L

Project: POLB/POLA Low Detection Limit Water Column Study Ph.2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-RW-01-G-M-20141210	**14-12-1034-1-F**	**12/10/14 08:00**	**Sea Water**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	5.4	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FH-RW-01-G-M-20141210	**14-12-1034-2-F**	**12/10/14 10:05**	**Sea Water**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA-RW-01-G-M-20141210	**14-12-1034-3-F**	**12/10/14 11:40**	**Sea Water**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CS-RW-01-G-M-20141210	**14-12-1034-4-F**	**12/10/14 12:45**	**Sea Water**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CS-RW-01-G-B-20141210	**14-12-1034-5-F**	**12/10/14 14:00**	**Sea Water**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	4.8	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-01-G-M-20141210	**14-12-1034-6-Q**	**12/10/14 14:00**	**Sea Water**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	1.8	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-01-G-B-20141210	**14-12-1034-7-F**	**12/10/14 14:00**	**Sea Water**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	2.8	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-1001-G-M-20141210	**14-12-1034-8-D**	**12/10/14 14:00**	**Sea Water**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	1.2	1.0	1.00	

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

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Analytical Report

Weston Solutions		Date Received:	12/10/14
5817 Dryden Place, Suite 101		Work Order:	14-12-1034
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 2540 D
		Units:	mg/L
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			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	**099-09-010-6945**	**N/A**	**Aqueous**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

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

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Analytical Report

Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Date Received: 12/10/14
Work Order: 14-12-1034
Preparation: N/A
Method: SM 5310 D
Units: mg/L

Project: POLB/POLA Low Detection Limit Water Column Study Ph.2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-RW-01-G-M-20141210	**14-12-1034-1-E**	**12/10/14 08:00**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FH-RW-01-G-M-20141210	**14-12-1034-2-E**	**12/10/14 10:05**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA-RW-01-G-M-20141210	**14-12-1034-3-E**	**12/10/14 11:40**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CS-RW-01-G-M-20141210	**14-12-1034-4-E**	**12/10/14 12:45**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CS-RW-01-G-B-20141210	**14-12-1034-5-E**	**12/10/14 14:00**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-01-G-M-20141210	**14-12-1034-6-E**	**12/10/14 14:00**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-01-G-B-20141210	**14-12-1034-7-E**	**12/10/14 14:00**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-115-1379**	**N/A**	**Aqueous**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	ND	0.50	1.00	

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

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Quality Control - Spike/Spike Duplicate

Weston Solutions		Date Received:	12/10/14
5817 Dryden Place, Suite 101		Work Order:	14-12-1034
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 5310 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IB-RW-01-G-M-20141210	**Sample**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCS1**
IB-RW-01-G-M-20141210	**Matrix Spike**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCS1**
IB-RW-01-G-M-20141210	**Matrix Spike Duplicate**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Dissolved Organic	15.30	50.00	49.00	67	48.80	67	31-145	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Weston Solutions		Date Received:	12/10/14
5817 Dryden Place, Suite 101		Work Order:	14-12-1034
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 2540 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-12-1167-1	**Sample**	**Aqueous**	**N/A**	**12/17/14 00:00**	**12/17/14 14:40**	**E1217TSSD2**
14-12-1167-1	**Sample Duplicate**	**Aqueous**	**N/A**	**12/17/14 00:00**	**12/17/14 14:40**	**E1217TSSD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Suspended	30.00	32.70	9	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Weston Solutions		Date Received:	12/10/14
5817 Dryden Place, Suite 101		Work Order:	14-12-1034
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 2540 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-09-010-6945	**LCS**	**Aqueous**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**
099-09-010-6945	**LCSD**	**Aqueous**	**N/A**	**12/17/14**	**12/17/14 14:40**	**E1217TSSB2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Suspended	100.0	85.00	85	81.00	81	80-120	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Weston Solutions	Date Received: 12/10/14
5817 Dryden Place, Suite 101	Work Order: 14-12-1034
Carlsbad, CA 92008-9999	Preparation: N/A
	Method: SM 5310 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2	Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-115-1379	**LCS**	**Aqueous**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**
099-05-115-1379	**LCSD**	**Aqueous**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Dissolved Organic	5.000	5.210	104	5.280	106	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 14-12-1034 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.
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.

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Danielle Gonsman

From: Holt, Sheila [Sheila.Holt@WestonSolutions.com]
Sent: Tuesday, December 16, 2014 1:18 PM
To: Danielle Gonsman
Cc: Virendra Patel
Subject: RE: POLB/LA LDL Study COC

Hi Danielle,

I just noticed that the two COCs that we sent you last week for the LDL Study had the incorrect date of collection on it. It shows 9/12/2014 and 10/12/2014. They should read 12/9/2014 and 12/10/2014. Hopefully the dates on the sample bottles were correct ☺.

Sheila

From: Holt, Sheila
Sent: Thursday, December 11, 2014 12:28 PM
To: 'Danielle Gonsman'; RobertStearns@eurofinsUS.com
Cc: Virendra Patel; Owen, Damon
Subject: POLB/LA LDL Study COC

Hi Bob,

Here is the updated COC for yesterday's samples. Please let me know if the COC does not match what Damon gave to you or if you have any questions regarding the sample splits between Eurofins and Marine Science Institute. Please let your staff know that we would like an EQUIS EDD format used when you send the sample results.

Thanks,

Sheila Holt
Project Manager
Weston Solutions, Inc.
5817 Dryden Place, Suite 101
Carlsbad, CA 92008
760-795-6914 (direct)
760-497-3537 (cell)
Sheila.Holt@westonsolutions.com

From: Danielle Gonsman [mailto:DanielleGonsman@eurofinsUS.com]
Sent: Thursday, December 11, 2014 11:04 AM
To: Holt, Sheila
Cc: Virendra Patel
Subject: TMDL

Sheila, please copy Virendra on the new CoC form you are sending over.

Thanks,

Bob

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THIS COC WAS RECEIVED FROM SHEILA HOLT (WESTON) ON 12/11/14 @ 12:29pm – VIRENDRA (ECI)

14-12-1034

WESTON SOLUTIONS

☒ 5817 Dryden Place, Ste 101 • Carlsbad, CA 92008 • (760) 795-6900, FAX 931-1580
☐ 1340 Treat Blvd, Ste 210 • Walnut Creek, CA 94597 • (925) 948-2600, FAX 948-2601

CHAIN OF CUSTODY

36874

DATE 10 DEC 2014 PAGE 1 OF 1

PROJECT NAME / SURVEY / PROJECT NUMBER: POLB/POLA Low Detection Limit Water Column Study Phase 2
PROJECT MANAGER / CONTACT: Sheila Holt
CLIENT: Weston Solutions
ADDRESS: See above
PHONE / FAX / EMAIL:

SITE ID (Location)	SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE / VOLUME	TOTAL NUMBER OF CONTAINER	TOC	DOC	POC	TSS	Particle Size				PRESERVED HOW	SAMPLE TEMP. (°C) UPON RECEIPT	WESTON LAB ID
	CP-RW-01-G-M-20141210	10/12/14	0800	SLT	P&G / Various	7	X	X	X	X	X				ICE		1
	FH-RW-01-G-M-20141210	↓	1005	↓	↓	7	↓	↓	↓	↓	↓				↓		2
	IA-RW-01-G-M-20141210	↓	1140	↓	↓	7	↓	↓	↓	↓	↓				↓		3
	CS-RW-01-G-M-20141210	↓	1245	↓	↓	7	↓	↓	↓	↓	↓				↓		4
	CS-RW-01-G-B-20141210	↓	1245	↓	↓	7	↓	↓	↓	↓	↓				↓		5
*	IB-RW-01-G-M-20141210	↓	1400	↓	↓	18	↓	↓	↓	↓	↓				↓		6
	IB-RW-01-G-B-20141210	↓	1400	↓	↓	7	↓	↓	↓	↓	↓				↓		7
	IB-RW-1001-G-M-20141210	↓	1400	↓	↓	4	↓	↓	↓	X					↓		8

Sample Matrix Codes: FW= fresh water GW=ground water SLT=salt water SW=storm water WW=waste water SED=sediment A=air BIO=biologic SS=soil T=tissue O=other (specify) ______

Container Code: G=glass P=plastic B=bags ☐ O=other ______

Shipped By: ☐ Courier ☐ UPS ☐ FedEx ☐ USPS ☐ Client drop off ☐ Other ______

Turnaround Time: ☐ 2-day ☐ 5-day ☐ 7-day ☐ 10-day ☐ 14-day ☐ Standard ☐ Other ______

Reporting Requirements: ☐ PDF ☐ EDD ☐ Hard Copy ☐ Email ☐ Other ______

SAMPLED BY: PRINT Damon Owen, Nick Cochran SIGNATURE [signature]

COMMENTS / SPECIAL INSTRUCTIONS
* 11 extra bottles for QA samples for Eurofins and MSI see attached form for analysis. No TOC archive sample for Eurofins was collected for dup.

RELINQUISHED BY				RECEIVED BY			
Print Name	Signature	Firm	Date/Time	Print Name	Signature	Firm	Date/Time
1. Damon Owen	[signature]	Weston	10/12/14 1758				
2.							
3.							
4.							
5.							
6.							

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

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THIS DOCUMENT WAS RECEIVED FROM SHEILA HOLT (WESTON) ON 12/11/14 @ 12:29pm — VIRENDRA (ECI)

Location	Sample ID*	Depth Targeted	Analytical Lab and Analyses
Consolidated Slip	CS-RW-01-G-M-201412DD	Mid-Depth	Marine Science Institute: TOC, DOC, POC Eurofins: TOC (no analysis, archive only), DOC, TSS, Particle Size (Eurofins will receive 7 bottles total per sample. Eurofins will ship designated samples to MSI.) DOC and POC will be filtered by Eurofins
Consolidated Slip	CS-RW-01-G-B-201412DD	Bottom	
Long Beach Outer Harbor	OB-RW-01-G-M-201412DD	Mid-Depth	
Long Beach Outer Harbor	OB-RW-01-G-B-201412DD	Bottom	
Reference Station	REF-RW-01-G-M-201412DD	Mid-Depth	
Los Angeles River Estuary	LARE-RW-01-G-M-201412DD	Mid-Depth	
Eastern San Pedro Bay	SP-RW-01-G-M-201412DD	Mid-Depth	
Cabrillo Pier vicinity	CP-RW-01-G-M-201412DD	Mid-Depth	
LA Inner Harbor	IA-RW-01-G-M-201412DD	Mid-Depth	
LB Inner Harbor	IB-RW-01-G-M-201412DD	Mid-Depth	
LB Inner Harbor	IB-RW-01-G-B-201412DD	Bottom	
Fish Harbor	FH-RW-01-G-M-201412DD	Mid-Depth	
LB Inner Harbor ~~TBD~~	Field Duplicate ~~(sample TBD)~~ IB-RW-1001-G-M-20141210	Mid-depth ~~TBD~~	Marine Science Institute: TOC, DOC, POC Eurofins: TSS, ~~TOC (no analysis, archive only)~~ TOC archive not collected (Eurofins will receive 5 bottles total. Eurofins will ship designated samples to MSI.)
	Equipment Rinse Blank		Marine Science Institute: TOC, DOC, POC (Eurofins will ship 3 samples to MSI.)

*DD = Day of sample collection; To be determined

QA samples: See QA tab in this excel file. Refer to analyses highlighted in yellow.
QA samples apply to all samples run by Eurofins and Marine Science Institute

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THIS DOCUMENT WAS RECEIVED FROM SHEILA HOM (WESTON) ON 12/11/14 @ 12:29 pm - VIRENDRA (ECI)

Table 6. Laboratory Quality Assurance/Quality Control Analysis Summary
Ports of Los Angeles and Long Beach
San Pedro and Long Beach, California

Analysis Type	Initial Calibration [1,2]	Continuing Calibration Verification	LCS or SRM [3]	Replicates	Matrix Spikes	Matrix Spike Duplicates	Method Blanks	Surrogate Spikes	Internal Standard
Total solids	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
Particle size	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
TSS	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
TOC/DOC	As needed	1 per 10 analytical runs	1 per 20 samples or 1 per batch	NA	1 per 20 samples or 1 per batch	1 per 20 samples or 1 per batch	Each batch	NA	NA
POC	Daily or each batch	1 per 16 samples	1 per 20 samples	1 per 20 samples	NA	NA	Each batch	NA	NA
PCB congeners by high-resolution method	As needed	Every 12 hours	1 per 20 samples	NA	NA4	NA4	1 per 20 samples	NA [4]	Every sample
Organochlorine pesticides by high-resolution method	As needed	Every 12 hours	1 per 20 samples	NA	NA4	NA4	1 per 20 samples	NA [4]	Every sample

Notes:
1.) For physical tests, calibration and certification of drying ovens and weighing scales are conducted annually.
2.) Calibrations should be conducted per analytical methods or instrument manufacturers specifications.
3.) When SRM is not available, a LCS will be analyzed.
4.) Isotope dilution quantitation technique accounts for matrix interferences; thus, matrix spike/matrix spike duplicate are not required.
5.) Values should have relative percent differences less than 40 percent or they are P flagged. ICALS = 20 percent or less and CCALS = 15 percent or less.
6.) Abbreviations:

DOC = dissolved organic carbon
LCS = Laboratory control sample
NA = not applicable
PCB = polychlorinated biphenyl
POC = particulate organic carbon
SRM = standard reference material
TOC = total organic carbon
TSS = total suspended solids

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WESTON SOLUTIONS

☑ 5817 Dryden Place, Ste 101 • Carlsbad, CA 92008 • (760) 795-6900, FAX 931-1580
☐ 1340 Treat Blvd, Ste 210 • Walnut Creek, CA 94597 • (925) 948-2600, FAX 948-2601

CHAIN OF CUSTODY

36872

14-12-1034

DATE 10 Dec 2014 PAGE 1 OF 1

PROJECT NAME / SURVEY / PROJECT NUMBER: POLB/POLA Low Detection Limit Water Column Study, Ph 2

PROJECT MANAGER / CONTACT: Sheila Holt

CLIENT: Weston Solutions

ADDRESS: See Above

PHONE / FAX / EMAIL: " "

SITE ID (Location)	SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE / VOLUME	TOTAL NUMBER OF CONTAINER	TOC	DOC	POC	TSS	Particle Size	PRESERVED HOW	SAMPLE TEMP. (°C) UPON RECEIPT	WESTON LAB ID
	CP-01	10.12.14	0800	SLT	P/G / varied	7	X	X	X	X	X	Ice/H₂SO₄		1
	FH-01	↓	1005	↓	↓	↓	↓	↓	↓	↓	↓	↓		2
	IA-01	↓	1140	↓	↓	↓	↓	↓	↓	↓	↓	↓		3
	CS-01	↓	1245	↓	↓	↓	↓	↓	↓	↓	↓	↓		4
	IB-01*	↓	1400	↓	↓	14	↓	↓	↓	↓	↓	↓		5
						~~14~~	(DS)							

Sample Matrix Codes: FW= fresh water GW=ground water SLT=salt water SW=storm water WW=waste water SED=sediment A=air BIO=biologic SS=soil T=tissue O=other (specify) _____

Container Code: G=glass P=plastic B=bags ☐ O=other _____

Shipped By: ☐ Courier ☐ UPS ☐ FedEx ☐ USPS ☐ Client drop off ☐ Other _____

Turnaround Time: ☐ 2-day ☐ 5-day ☐ 7-day ☐ 10-day ☐ 14-day ☐ Standard ☐ Other _____

Reporting Requirements: ☐ PDF ☐ EDD ☐ Hard Copy ☐ Email ☐ Other _____

SAMPLED BY: PRINT: Damon Owen, Nick Cochran SIGNATURE: [signature]

COMMENTS / SPECIAL INSTRUCTIONS: *Extra bottles for QA samples see attached form
IB-RW-1001-G-M-201412-TOC archive not collected

	RELINQUISHED BY Print Name	Signature	Firm	Date/Time	RECEIVED BY Print Name	Signature	Firm	Date/Time
1.	Damon Owen	[signature]	Weston	12-12-14/1758	P. Irawan	[signature]	ECI	12/10/14 1758
2.	[signature]	D. Irawan	ECI	12/10/14 /18:45	Yam Ciao	[signature]	ECF	12/10/14 1845
3.								
4.								
5.								
6.								

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

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Table 6. Laboratory Quality Assurance/Quality Control Analysis Summary
Ports of Los Angeles and Long Beach
San Pedro and Long Beach, California

1034

Analysis Type	Initial Calibration [1,2]	Continuing Calibration Verification	LCS or SRM [3]	Replicates	Matrix Spikes	Matrix Spike Duplicates	Method Blanks	Surrogate Spikes	Internal Standard
Total solids	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
Particle size	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
TSS	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
TOC/DOC	As needed	1 per 10 analytical runs	1 per 20 samples or 1 per batch	NA	1 per 20 samples or 1 per batch	1 per 20 samples or 1 per batch	Each batch	NA	NA
POC	Daily or each batch	1 per 16 samples	1 per 20 samples	1 per 20 samples	NA	NA	Each batch	NA	NA
PCB congeners by high-resolution method	As needed	Every 12 hours	1 per 20 samples	NA	NA4	NA4	1 per 20 samples	NA [4]	Every sample
Organochlorine pesticides by high-resolution method	As needed	Every 12 hours	1 per 20 samples	NA	NA4	NA4	1 per 20 samples	NA [4]	Every sample

Notes:
1.) For physical tests, calibration and certification of drying ovens and weighing scales are conducted annually.
2.) Calibrations should be conducted per analytical methods or instrument manufacturers specifications.
3.) When SRM is not available, a LCS will be analyzed.
4.) Isotope dilution quantitation technique accounts for matrix interferences; thus, matrix spike/matrix spike duplicate are not required.
5.) Values should have relative percent differences less than 40 percent or they are P flagged. ICALS = 20 percent or less and CCALS = 15 percent or less.
6.) Abbreviations:

DOC = dissolved organic carbon
LCS = Laboratory control sample
NA = not applicable
PCB = polychlorinated biphenyl
POC = particulate organic carbon
SRM = standard reference material
TOC = total organic carbon
TSS = total suspended solids

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ENVIRON

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Location	Sample ID*	Depth Targeted	Analytical Lab and Analyses
Consolidated Slip	CS-RW-01-G-M-201412DD	Mid-Depth	Marine Science Institute: TOC, DOC, POC Eurofins: TOC (no analysis, archive only), DOC, TSS, Particle Size (Eurofins will receive 7 bottles total per sample. Eurofins will ship designated samples to MSI.) DOC and POC will be filtered by Eurofins
Consolidated Slip	CS-RW-01-G-B-201412DD	Bottom	
Long Beach Outer Harbor	OB-RW-01-G-M-201412DD	Mid-Depth	
Long Beach Outer Harbor	OB-RW-01-G-B-201412DD	Bottom	
Reference Station	REF-RW-01-G-M-201412DD	Mid-Depth	
Los Angeles River Estuary	LARE-RW-01-G-M-201412DD	Mid-Depth	
Eastern San Pedro Bay	SP-RW-01-G-M-201412DD	Mid-Depth	
Cabrillo Pier vicinity	CP-RW-01-G-M-201412DD	Mid-Depth	
LA Inner Harbor	IA-RW-01-G-M-201412DD	Mid-Depth	
LB Inner Harbor	IB-RW-01-G-M-201412DD	Mid-Depth	
LB Inner Harbor	IB-RW-01-G-B-201412DD	Bottom	
Fish Harbor	FH-RW-01-G-M-201412DD	Mid-Depth	
TBD	Field Duplicate (sample TBD)	TBD	Marine Science Institute: TOC, DOC, POC Eurofins: TSS, ~~TOC~~ (no analysis, archive only) unpreserved bottles (Eurofins will receive 5 bottles total. Eurofins will ship designated samples to MSI.)
	Equipment Rinse Blank		Marine Science Institute: TOC, DOC, POC (Eurofins will ship 3 samples to MSI.)

*DD = Day of sample collection; To be determined

QA samples: See QA tab in this excel file. Refer to analyses highlighted in yellow.
QA samples apply to all samples run by Eurofins and Marine Science Institute

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WORK ORDER #: 14-12-1034

SAMPLE RECEIPT FORM

Cooler 1 of 4

CLIENT: WESTON DATE: 12/10/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 4.4 °C - 0.2 °C (CF) = 4.2 °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.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑ 689 12/10/14	☑	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOAh ☐VOA**na**$_2$ ☐125AGB ☐125AGBh ☐125AGBp ☑1AGB ☐1AGB**na**$_2$ ☐1AGBs

☐500AGB ☐500AGJ ☐500AGJs ☑250AGB (2) ☐250CGB ☑250CGBs ☑1PB ☐1PBna ☐500PB

☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJ**na**$_2$ ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 965

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 689

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 689

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WORK ORDER #: 14-12-1034

SAMPLE RECEIPT FORM

Cooler 2 of 4

CLIENT: WESTON DATE: 12/10/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 4.3 °C - 0.2 °C (CF) = 4.1 °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.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑ 6RY 12/10/14	☑	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 965

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 689

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 689

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WORK ORDER #: 14-12-1034

SAMPLE RECEIPT FORM

Cooler 3 of 4

CLIENT: WESTON DATE: 12/10/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 4.5 °C - 0.2 °C (CF) = 4.3 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☑1AGB ☐1AGBna_2 ☐1AGBs

☐500AGB ☐500AGJ ☐500AGJs ☑250AGB ☐250CGB ☑250CGBs ☑1PB ☐1PBna ☐500PB

☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 965

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 689

Preservative: **h:** HCL **n:** HNO_3 **na_2:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 689

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WORK ORDER #: 14-12-1034

SAMPLE RECEIPT FORM

Cooler 4 of 4

CLIENT: WESTON DATE: 12/10/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 4.6 °C - 0.2 °C (CF) = 4.4 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 965

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 6by

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 6by

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WORK ORDER #: 14-12-1034

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☑ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

Comments:

(-5) Collection time per label is 14:30.

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: brg 12/10/14

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	Sample Batch:	Danielle Gonsman	AL 4750 P1	Run Date:	9-Mar-15
Sample Id	Container ID	Carbon (µg)	Volume Liters	Concentration µg/L	Flags
CP-RW-01-G-M-20141210	14-12-1034-1E	129	1.040	124	
FH-RW-01-G-M-20141210	14-12-1034-2E	331	1.040	318	
IA-RW-01-G-M-20141210	14-12-1034-3E	122	1.000	122	
CS-RW-01-G-M-20141210	14-12-1034-4E	145	1.040	140	
CS-RW-01-G-M-B-20141210	14-12-1034-5E	198	1.040	190	
IB-RW-01-G-M-20141210	14-12-1034-6E	146	1.020	143	
IB-RW-01-G-M-20141210	14-12-1034-6P	50.9	1.040	48.9	
IB-RW-01-G-B-20141210	14-12-1034-7E	42.9	1.040	41.2	
IB-RW-1001-G-M-20141210	14-12-1034-8C	123	1.040	118	
	pocblank	18.5	1.000	18.5	

Method: CHN EPA 440
Project Number: 14-12-1034

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	R-Z	Avg K	DL ug
Carbon	71	22.91	**3.11**

	BC	Standards	KC
Blanks and spacers	36		23.06
	26		22.97
	32		22.97
	23		22.91
	30		22.86
	35		22.68
	17		
	40		
	98		
Stdev =	24	Mean =	22.91
3*stdev =	71		
Average =	37		

	Known Carbon %	Measured Carbon %	% Recovery
Control	71.09%	71.08%	100%
Check Std 1	71.09%	70.92%	99.8%
Check Std 2	71.09%	70.92%	99.8%
Check Std 3	71.09%	70.54%	99.2%

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Sample ID	µg C/L	Sd	µmol C/L	Sd	%CV
CP-RW-01-G-M-20150108	1006.91	12.73	83.83	1.06	1.3
REF-RW-01-G-M-20150108	932.88	4.56	77.67	0.38	0.5
SP-RW-01-G-M-20150108	999.68	10.26	83.23	0.85	1.0
LARE-RW-01-G-M-20150108	1148.46	12.14	95.62	1.01	1.1
OB-RW-01-G-B-20150108	981.91	14.81	81.75	1.23	1.5
OB-RW-01-G-M-20150108	952.96	3.23	79.34	0.27	0.3
IB-RW-01-G-B-20150108	1014.44	11.47	84.46	0.96	1.1
IB-RW-01-G-M-20150108 (1/3)	1023.60	20.33	85.22	1.69	2.0
IB-RW-01-G-M-20150108 (2/3) MSD	6119.42	68.49	509.50	5.70	1.1
IB-RW-01-G-M-20150108 (3/3) MSD	6216.04	19.51	517.54	1.62	0.3
IB-RW-1001-G-M-20150108	1252.62	14.25	104.29	1.19	1.1
CS-RW-01-G-B-20150108	1081.96	15.78	90.08	1.31	1.5
CS-RW-01-G-M-20150108	1029.37	5.22	85.70	0.43	0.5
IA-RW-01-G-M-20150108	1044.64	1.55	86.98	0.13	0.1
FH-RW-01-G-M-20150108	1079.59	10.63	89.89	0.88	1.0
EB-20150108	110.66	2.26	9.21	0.19	2.0
Filter Blank	71.75	8.54	5.97	0.71	11.9
Filter Blank (1/2/15)*	58.27	7.65	4.85	0.64	13.1
REF-RW-01-G-M-20141209	960.86	14.79	80.00	1.23	1.5
REF-RW-01-G-M-20141209	1326.93	20.94	110.48	1.74	1.6
OB-RW-01-G-M-20141209	1305.17	11.10	108.67	0.92	0.9
OB-RW-01-G-M-20141209	1185.24	13.34	98.68	1.11	1.1
OB-RW-01-G-B-20141209	1059.39	5.52	88.20	0.46	0.5
OB-RW-01-G-B-20141209	1433.54	26.40	119.36	2.20	1.8
SP-RW-01-G-M-20141209	1362.18	16.84	113.41	1.40	1.2
SP-RW-01-G-M-20141209	1253.47	20.76	104.36	1.73	1.7
LARE-RW-01-G-M-20141209	1487.51	31.34	123.85	2.61	2.1
LARE-RW-01-G-M-20141209	1607.18	39.71	133.81	3.31	2.5
EB-20141209	294.88	15.15	24.55	1.26	5.1
EB-20141209	201.53	6.56	16.78	0.55	3.3
CP-RW-01-G-M-20141210	1103.90	7.51	91.91	0.63	0.7
CP-RW-01-G-M-20141210	1145.72	22.02	95.39	1.83	1.9
FH-RW-01-G-M-20141210	1167.87	9.16	97.24	0.76	0.8
FH-RW-01-G-M-20141210	1154.17	30.50	96.09	2.54	2.6
IA-RW-01-G-M-20141210	1102.90	18.36	91.83	1.53	1.7
IA-RW-01-G-M-20141210	1195.29	6.93	99.52	0.58	0.6
CS-RW-01-G-M-20141210	1238.41	22.55	103.11	1.88	1.8
CS-RW-01-G-M-20141210	1336.07	19.60	111.24	1.63	1.5
CS-RW-01-G-B-20141210	1197.86	9.14	99.73	0.76	0.8
CS-RW-01-G-B-20141210	1220.62	16.21	101.63	1.35	1.3

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IB-RW-01-G-M-20141210 (6E)	1159.82	3.70	96.57	0.31	0.3
IB-RW-01-G-M-20141210 (6E)	1224.40	17.19	101.94	1.43	1.4
IB-RW-01-G-M-20141210 (6E) MSD	6364.27	25.39	529.88	2.11	0.4
IB-RW-01-G-M-20141210 (6E) MSD	6409.27	74.41	533.63	6.20	1.2
IB-RW-01-G-M-20141210 (6P)	1363.48	32.23	113.52	2.68	2.4
IB-RW-01-G-M-20141210 (6P)	1231.36	10.58	102.52	0.88	0.9
IB-RW-01-G-M-20141210 (6P) MSD	6405.63	44.90	533.33	3.74	0.7
IB-RW-01-G-M-20141210 (6P) MSD	6410.26	87.06	533.71	7.25	1.4
IB-RW-01-G-B-20141210	1304.30	24.46	108.59	2.04	1.9
IB-RW-01-G-B-20141210	1238.72	23.16	103.13	1.93	1.9
IB-RW-1001-G-M-20141210	1249.55	16.98	104.04	1.41	1.4
IB-RW-1001-G-M-20141210	1248.34	12.15	103.94	1.01	1.0
REF-RW-01-G-M-20141209	1230.12	16.68	102.42	1.39	1.4
OB-RW-01-G-M-20141209	1325.52	19.84	110.36	1.65	1.5
OB-RW-01-G-B-20141209	1342.13	14.06	111.74	1.17	1.0
SP-RW-01-G-M-201412	1381.74	28.02	115.04	2.33	2.0
LARE-RW-01-G-M-20141209	1495.46	23.11	124.51	1.92	1.5
EB-20141209	379.15	21.39	31.57	1.78	5.6
CP-RW-01-G-M-20141210	1331.91	23.87	110.89	1.99	1.8
FH-RW-01-G-M-20141210	1377.91	9.98	114.72	0.83	0.7
IA-RW-01-G-M-20141210	1360.87	23.05	113.30	1.92	1.7
CS-RW-01-G-M-20141210	1427.74	36.57	118.87	3.04	2.6
CS-RW-01-G-B-20141210	1388.98	21.62	115.65	1.80	1.6
IB-RW-01-G-M-20141210 (bottle 6C)	1427.74	7.67	118.87	0.64	0.5
IB-RW-01-G-M-20141210 (bottle 6D)	1377.48	7.70	114.69	0.64	0.6
IB-RW-01-G-M-20141210 (bottle 6L)	1371.09	19.64	114.16	1.64	1.4
IB-RW-01-G-B-20141210	1352.78	26.20	112.63	2.18	1.9
IB-RW-1001-G-M-20141210	1380.04	32.86	114.90	2.74	2.4
CP-RW-01-G-M-20150108	1202.09	22.23	100.09	1.85	1.8
REF-RW-01-G-M-20150108	1385.57	18.43	115.36	1.53	1.3
SP-RW-01-G-M-20150108	1282.50	26.51	106.78	2.21	2.1
LARE-RW-01-G-M-20150108	1495.89	19.85	124.55	1.65	1.3
OB-RW-01-G-B-20150108	1294.00	11.59	107.74	0.97	0.9
OB-RW-01-G-M-20150108	1287.61	10.64	107.21	0.89	0.8
IB-RW-01-G-B-20150108	1268.02	8.38	105.57	0.70	0.7
IB-RW-01-G-M-20150108	1213.02	48.01	100.99	4.00	4.0
IB-RW-1001-G-M-20150108	1263.34	24.72	105.18	2.06	2.0
CS-RW-01-G-B-20150108	1205.67	16.76	100.38	1.40	1.4
CS-RW-01-G-M-20150108	1273.13	6.64	106.00	0.55	0.5
IA-RW-01-G-M-20150108	1266.32	16.68	105.43	1.39	1.3
EH-RW-01-G-M-20150108	1377.48	19.97	114.69	1.66	1.4

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EB-20150108	360.79	6.21	30.04	0.52	1.7

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To: UC Santa Barbara, Bldg 520 Rm 4001
Bldg 520 Rm 4001 FL
Santa Barbara, CA 93106-6150

CHAIN OF CUSTODY RECORD

DATE: 12/11/2014

PAGE: 1 OF 1

LABORATORY CLIENT:
Calscience Environmental Laboratories, Inc.

ADDRESS:
7440 Lincoln Way
Garden Grove, CA 92841-1427

TEL: 714-895-5494

E-MAIL: DanielleGonsman@eurofinsUS.com

CLIENT PROJECT NAME / NUMBER:
14-12-1034

PROJECT CONTACT:
Danielle Gonsman

SAMPLER(S): (SIGNATURE)

P.O. NO.:

LAB USE ONLY

COELT LOG CODE

COOLER RECEIPT Temp = °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ LOCUS EIM53 EDD ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MAT-RIX	NO. OF CONT.	Total Organic Carbon Low level	Dissolved Organic Carbon Low level	Particulate Organic Carbon	Duplicate for POC	MS/MSD - TOC	MS/MSD-DOC	CONTAINER TYPE
	CP-RW-01-G-M-20141210	12/10/14	08:00	Water /Filter	4	X	X	X				14-12-1034-1
	FH-RW-01-G-M-20141210	12/10/14	10:05	Water /Filter	4	X	X	X				-2
	IA-RW-01-G-M-20141210	12/10/14	11:40	Water /Filter	4	X	X	X				-3
	CS-RW-01-G-M-20141210	12/10/14	12:45	Water /Filter	4	X	X	X				-4
	CS-RW-01-G-M-B-20141210	12/10/14	12:45	Water /Filter	4	X	X	X				-5
	IB-RW-01-G-M-20141210	12/10/14	14:00	Water /Filter	13	X	X	X	X	X	X	-6
	IB-RW-01-G-B-20141210	12/10/14	14:00	Water /Filter	4	X	X	X				-7
	IB-RW-1001-G-M-20141210	12/10/14	14:00	Water /Filter	4	X	X	X				-8

Relinquished by: (Signature) ECL	Received by: (Signature) GSO AB # 10789598	Date: 12/15/14	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

COPY

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Supplemental Report 2

The original report has been revised/corrected.

WORK ORDER NUMBER: 14-12-0896

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weston Solutions

Client Project Name: POLB/POLA Low Detection Limit Water Column Study Ph.2

Attention: Sheila Holt
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Approved for release on 03/13/2015 by:
Danielle Gonsman
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: POLB/POLA Low Detection Limit Water Column Study Ph.2
Work Order Number: 14-12-0896

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Work Order Narrative

Work Order: 14-12-0896 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/09/14. They were assigned to Work Order 14-12-0896.

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.

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CASE NARRATIVE

Project Name: POLB/POLA LDL Water Column Study

Particle Size could not be reported for all samples due to insufficient solids to attain data on the Particle Size Analyzer.

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Sample Summary

Client:	Weston Solutions 5817 Dryden Place, Suite 101 Carlsbad, CA 92008-9999	Work Order:	14-12-0896
		Project Name:	POLB/POLA Low Detection Limit Water Column Study Ph.2
		PO Number:	
		Date/Time Received:	12/09/14 17:56
		Number of Containers:	38
Attn:	Sheila Holt		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
Ref-RW-01-G-M-20141209	14-12-0896-1	12/09/14 08:40	7	Sea Water
OB-RW-01-G-M-20141209	14-12-0896-2	12/09/14 09:45	7	Sea Water
OB-RW-01-G-B-20141209	14-12-0896-3	12/09/14 09:45	7	Sea Water
SP-RW-01-G-M-20141209	14-12-0896-4	12/09/14 10:45	7	Sea Water
LARE-RW-01-G-M-20141209	14-12-0896-5	12/09/14 13:00	7	Sea Water
EB-20141209	14-12-0896-6	12/09/14 15:30	3	Aqueous

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Analytical Report

Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Date Received: 12/09/14
Work Order: 14-12-0896
Preparation: N/A
Method: SM 2540 D
Units: mg/L

Project: POLB/POLA Low Detection Limit Water Column Study Ph.2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Ref-RW-01-G-M-20141209	**14-12-0896-1-F**	**12/09/14 08:40**	**Sea Water**	**N/A**	**12/15/14**	**12/16/14 09:30**	**E1216TSSL1**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-RW-01-G-M-20141209	**14-12-0896-2-E**	**12/09/14 09:45**	**Sea Water**	**N/A**	**12/15/14**	**12/16/14 09:30**	**E1216TSSL1**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-RW-01-G-B-20141209	**14-12-0896-3-F**	**12/09/14 09:45**	**Sea Water**	**N/A**	**12/15/14**	**12/16/14 09:30**	**E1216TSSL1**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-RW-01-G-M-20141209	**14-12-0896-4-F**	**12/09/14 10:45**	**Sea Water**	**N/A**	**12/15/14**	**12/16/14 09:30**	**E1216TSSL1**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	2.3	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LARE-RW-01-G-M-20141209	**14-12-0896-5-F**	**12/09/14 13:00**	**Sea Water**	**N/A**	**12/15/14**	**12/16/14 09:30**	**E1216TSSL1**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	2.0	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-09-010-6934**	**N/A**	**Aqueous**	**N/A**	**12/15/14**	**12/16/14 09:30**	**E1216TSSL1**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

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

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Analytical Report

Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Date Received: 12/09/14
Work Order: 14-12-0896
Preparation: N/A
Method: SM 5310 D
Units: mg/L

Project: POLB/POLA Low Detection Limit Water Column Study Ph.2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Ref-RW-01-G-M-20141209	**14-12-0896-1-G**	**12/09/14 08:40**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-RW-01-G-M-20141209	**14-12-0896-2-G**	**12/09/14 09:45**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-RW-01-G-B-20141209	**14-12-0896-3-G**	**12/09/14 09:45**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-RW-01-G-M-20141209	**14-12-0896-4-G**	**12/09/14 10:45**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LARE-RW-01-G-M-20141209	**14-12-0896-5-G**	**12/09/14 13:00**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	17	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-115-1379**	**N/A**	**Aqueous**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	ND	0.50	1.00	

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

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Quality Control - Spike/Spike Duplicate

Weston Solutions		Date Received:	12/09/14
5817 Dryden Place, Suite 101		Work Order:	14-12-0896
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 5310 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-12-1034-6	**Sample**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCS1**
14-12-1034-6	**Matrix Spike**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCS1**
14-12-1034-6	**Matrix Spike Duplicate**	**Sea Water**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Dissolved Organic	15.30	50.00	49.00	67	48.80	67	31-145	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Weston Solutions		Date Received:	12/09/14
5817 Dryden Place, Suite 101		Work Order:	14-12-0896
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 2540 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-12-0851-1	**Sample**	**Aqueous**	**N/A**	**12/15/14 00:00**	**12/16/14 09:30**	**E1216TSSD1**
14-12-0851-1	**Sample Duplicate**	**Aqueous**	**N/A**	**12/15/14 00:00**	**12/16/14 09:30**	**E1216TSSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Suspended	1.600	1.500	6	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Weston Solutions		Date Received:	12/09/14
5817 Dryden Place, Suite 101		Work Order:	14-12-0896
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 2540 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-09-010-6934	**LCS**	**Aqueous**	**N/A**	**12/15/14**	**12/16/14 09:30**	**E1216TSSL1**
099-09-010-6934	**LCSD**	**Aqueous**	**N/A**	**12/15/14**	**12/16/14 09:30**	**E1216TSSL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Suspended	100.0	84.00	84	85.00	85	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Weston Solutions	Date Received: 12/09/14
5817 Dryden Place, Suite 101	Work Order: 14-12-0896
Carlsbad, CA 92008-9999	Preparation: N/A
	Method: SM 5310 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2	Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-115-1379	**LCS**	**Aqueous**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**
099-05-115-1379	**LCSD**	**Aqueous**	**TOC 6**	**12/12/14**	**12/13/14 04:29**	**E1212DOCL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Dissolved Organic	5.000	5.210	104	5.280	106	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 14-12-0896 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.
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.

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Danielle Gonsman

From: Holt, Sheila [Sheila.Holt@WestonSolutions.com]
Sent: Tuesday, December 16, 2014 1:18 PM
To: Danielle Gonsman
Cc: Virendra Patel
Subject: RE: POLB/LA LDL Study COC

Hi Danielle,

I just noticed that the two COCs that we sent you last week for the LDL Study had the incorrect date of collection on it. It shows 9/12/2014 and 10/12/2014. They should read 12/9/2014 and 12/10/2014. Hopefully the dates on the sample bottles were correct ☺.

Sheila

From: Holt, Sheila
Sent: Thursday, December 11, 2014 12:28 PM
To: 'Danielle Gonsman'; RobertStearns@eurofinsUS.com
Cc: Virendra Patel; Owen, Damon
Subject: POLB/LA LDL Study COC

Hi Bob,

Here is the updated COC for yesterday's samples. Please let me know if the COC does not match what Damon gave to you or if you have any questions regarding the sample splits between Eurofins and Marine Science Institute. Please let your staff know that we would like an EQUIS EDD format used when you send the sample results.

Thanks,

Sheila Holt
Project Manager
Weston Solutions, Inc.
5817 Dryden Place, Suite 101
Carlsbad, CA 92008
760-795-6914 (direct)
760-497-3537 (cell)
Sheila.Holt@westonsolutions.com

From: Danielle Gonsman [mailto:DanielleGonsman@eurofinsUS.com]
Sent: Thursday, December 11, 2014 11:04 AM
To: Holt, Sheila
Cc: Virendra Patel
Subject: TMDL

Sheila, please copy Virendra on the new CoC form you are sending over.

Thanks,

Bob

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CHAIN OF CUSTODY

WESTON SOLUTIONS

☒ 5817 Dryden Place, Ste 101 • Carlsbad, CA 92008 • (760) 795-6900, FAX 931-1580
☐ 1340 Treat Blvd, Ste 210 • Walnut Creek, CA 94597 • (925) 948-2600, FAX 948-2601

36873

DATE 9 DEC 2014 PAGE 1 OF 1

PROJECT NAME / SURVEY / PROJECT NUMBER: POTB/POLA Low Detection Limit Water Column Study Ph.2
PROJECT MANAGER / CONTACT: Sheila Holt
CLIENT: Weston Solutions
ADDRESS: Sue Abbs
PHONE / FAX / EMAIL:

FOR WESTON USE ONLY: 14-12-0896

SITE ID (Location)	SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE / VOLUME	TOTAL NUMBER OF CONTAINER	ANALYSIS/TEST REQUESTED: *TOC	*DOC	**POC	TSS	Particle Size	PRESERVED HOW	SAMPLE TEMP. (°C) UPON RECEIPT	WESTON LAB ID
	Ref-RW-01-G-M-20141209	9.12.14	0840	SLT	G/Amber	7	X	X	X	X	X	ICE/H2SO4		1
	JB-RW-01-G-M-20141209		0945			7								2
	SB-RW-01-G-B-20141209		0945			7								3
	SP-RW-01-G-M-20141209		1045			7								4
	LARE-RW-01-G-M-20141209		1300			7								5
	EB-20141209		1530			3	X	X	X					6

Sample Matrix Codes: FW= fresh water GW=ground water SLT=salt water SW=storm water WW=waste water SED=sediment A=air BIO=biologic SS=soil T=tissue O=other (specify) _____

Container Code: G=glass P=plastic B=bags ☐ O=other _____

Shipped By: ☐ Courier ☐ UPS ☐ FedEx ☐ USPS ☐ Client drop off ☐ Other _____

Turnaround Time: ☐ 2-day ☐ 5-day ☐ 7-day ☐ 10-day ☐ 14-day ☐ Standard ☐ Other _____

Reporting Requirements: ☐ PDF ☐ EDD ☐ Hard Copy ☐ Email ☐ Other _____

SAMPLED BY: PRINT Damon Owen **SIGNATURE**

COMMENTS / SPECIAL INSTRUCTIONS * DOC + POC to be filtered by Eurofins. 2 bottle for each analyte. Please ship 1-DOC + 1-POC to MSI after filter **POC to be shipped to MST. * EB-20141209-POC + DOC to be split

RELINQUISHED BY

	Print Name	Signature	Firm	Date/Time
1.	Damon Owen		Weston	9.12.14/1756
2.	DENNY IRAWAN		ECI	12/09/14 18.45
3.				
4.				
5.				
6.				

RECEIVED BY

Print Name	Signature	Firm	Date/Time
Denny Irawan		ECI	12/09/14 17.56

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

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* EB-20141209 POC + DOC to be filtered by Eurofins - All EB-20141209 → MST

0896

Location	Sample ID*	Depth Targeted	Analytical Lab and Analyses
Consolidated Slip	~~CS-RW-01-G-M-201412DD~~	~~Mid-Depth~~	Marine Science Institute: TOC, DOC, POC Eurofins: TOC (no analysis, archive only), DOC, TSS, Particle Size (Eurofins will receive 7 bottles total per sample. Eurofins will ship designated samples to MSI.) DOC and POC will be filtered by Eurofins
Consolidated Slip	~~CS-RW-01-G-B-201412DD~~	~~Bottom~~	
✓ Long Beach Outer Harbor	OB-RW-01-G-M-201412DD	Mid-Depth	
✓ Long Beach Outer Harbor	OB-RW-01-G-B-201412DD	Bottom	
✓ Reference Station	REF-RW-01-G-M-201412DD	Mid-Depth	
✓ Los Angeles River Estuary	LARE-RW-01-G-M-201412DD	Mid-Depth	
✓ Eastern San Pedro Bay	SP-RW-01-G-M-201412DD	Mid-Depth	
Cabrillo Pier vicinity	~~CP-RW-01-G-M-201412DD~~	~~Mid-Depth~~	
LA Inner Harbor	~~IA-RW-01-G-M-201412DD~~	~~Mid-Depth~~	
LB Inner Harbor	~~IB-RW-01-G-M-201412DD~~	~~Mid-Depth~~	
LB Inner Harbor	~~IB-RW-01-G-B-201412DD~~	~~Bottom~~	
Fish Harbor	~~FH-RW-01-G-M-201412DD~~	~~Mid-Depth~~	
TBD	~~Field Duplicate (sample TBD)~~	~~TBD~~	Marine Science Institute: TOC, DOC, POC Eurofins: TSS, TOC (no analysis, archive only) (Eurofins will receive 5 bottles total. Eurofins will ship designated samples to MSI.)
	EB-20141209 Equipment Rinse Blank	0930	Marine Science Institute: TOC, DOC, POC (Eurofins will ship 3 samples to MSI.)

*DD = Day of sample collection; To be determined

QA samples: See QA tab in this excel file. Refer to analyses highlighted in yellow.
QA samples apply to all samples run by Eurofins and Marine Science Institute

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Table 6. Laboratory Quality Assurance/Quality Control Analysis Summary
Ports of Los Angeles and Long Beach
San Pedro and Long Beach, California

Analysis Type	Initial Calibration [1,2]	Continuing Calibration Verification	LCS or SRM [3]	Replicates	Matrix Spikes	Matrix Spike Duplicates	Method Blanks	Surrogate Spikes	Internal Standard
Total solids	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
Particle size	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
TSS	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
TOC/DOC	As needed	1 per 10 analytical runs	1 per 20 samples or 1 per batch	NA	1 per 20 samples or 1 per batch	1 per 20 samples or 1 per batch	Each batch	NA	NA
POC	Daily or each batch	1 per 16 samples	1 per 20 samples	1 per 20 samples	NA	NA	Each batch	NA	NA
PCB congeners by high-resolution method	As needed	Every 12 hours	1 per 20 samples	NA	NA4	NA4	1 per 20 samples	NA [4]	Every sample
Organochlorine pesticides by high-resolution method	As needed	Every 12 hours	1 per 20 samples	NA	NA4	NA4	1 per 20 samples	NA [4]	Every sample

Notes:
1.) For physical tests, calibration and certification of drying ovens and weighing scales are conducted annually.
2.) Calibrations should be conducted per analytical methods or instrument manufacturers specifications.
3.) When SRM is not available, a LCS will be analyzed.
4.) Isotope dilution quantitation technique accounts for matrix interferences; thus, matrix spike/matrix spike duplicate are not required.
5.) Values should have relative percent differences less than 40 percent or they are P flagged. ICALS = 20 percent or less and CCALS = 15 percent or less.
6.) Abbreviations:

DOC = dissolved organic carbon
LCS = Laboratory control sample
NA = not applicable
PCB = polychlorinated biphenyl
POC = particulate organic carbon
SRM = standard reference material
TOC = total organic carbon
TSS = total suspended solids

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WORK ORDER #: 14-12-0896

SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: WESTON SOLUTIONS DATE: 12/09/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 4.2 °C - 0.2 °C (CF) = 4.0 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: BOY

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: BOY

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 920

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☐	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑(2)250AGB ☐250CGB ☑(2)250CGB**s** ☑(2)1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** 92c

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** 689

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** 689

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WORK ORDER #: 14-12-0896

SAMPLE RECEIPT FORM

Cooler 2 of 2

CLIENT: WESTON SOLUTIONS DATE: 12/09/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 4.5 °C - 0.2 °C (CF) = 4.2 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 92c

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☐	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 92c

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 6R4

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 6R4

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Subcontractor Analysis Report

Work Order: 14-12-0896 Page 1 of 1

One or more samples in this work order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1. Marine Science Institute - Santa Barbara,CA
   Particulate Organic Carbon, TOC, DOC

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Sample ID	µg C/L	Sd	µmol C/L	Sd	%CV
CP-RW-01-G-M-20150108	1006.91	12.73	83.83	1.06	1.3
REF-RW-01-G-M-20150108	932.88	4.56	77.67	0.38	0.5
SP-RW-01-G-M-20150108	999.68	10.26	83.23	0.85	1.0
LARE-RW-01-G-M-20150108	1148.46	12.14	95.62	1.01	1.1
OB-RW-01-G-B-20150108	981.91	14.81	81.75	1.23	1.5
OB-RW-01-G-M-20150108	952.96	3.23	79.34	0.27	0.3
IB-RW-01-G-B-20150108	1014.44	11.47	84.46	0.96	1.1
IB-RW-01-G-M-20150108 (1/3)	1023.60	20.33	85.22	1.69	2.0
IB-RW-01-G-M-20150108 (2/3) MSD	6119.42	68.49	509.50	5.70	1.1
IB-RW-01-G-M-20150108 (3/3) MSD	6216.04	19.51	517.54	1.62	0.3
IB-RW-1001-G-M-20150108	1252.62	14.25	104.29	1.19	1.1
CS-RW-01-G-B-20150108	1081.96	15.78	90.08	1.31	1.5
CS-RW-01-G-M-20150108	1029.37	5.22	85.70	0.43	0.5
IA-RW-01-G-M-20150108	1044.64	1.55	86.98	0.13	0.1
FH-RW-01-G-M-20150108	1079.59	10.63	89.89	0.88	1.0
EB-20150108	110.66	2.26	9.21	0.19	2.0
Filter Blank	71.75	8.54	5.97	0.71	11.9
Filter Blank (1/2/15)*	58.27	7.65	4.85	0.64	13.1
REF-RW-01-G-M-20141209	960.86	14.79	80.00	1.23	1.5
REF-RW-01-G-M-20141209	1326.93	20.94	110.48	1.74	1.6
OB-RW-01-G-M-20141209	1305.17	11.10	108.67	0.92	0.9
OB-RW-01-G-M-20141209	1185.24	13.34	98.68	1.11	1.1
OB-RW-01-G-B-20141209	1059.39	5.52	88.20	0.46	0.5
OB-RW-01-G-B-20141209	1433.54	26.40	119.36	2.20	1.8
SP-RW-01-G-M-20141209	1362.18	16.84	113.41	1.40	1.2
SP-RW-01-G-M-20141209	1253.47	20.76	104.36	1.73	1.7
LARE-RW-01-G-M-20141209	1487.51	31.34	123.85	2.61	2.1
LARE-RW-01-G-M-20141209	1607.18	39.71	133.81	3.31	2.5
EB-20141209	294.88	15.15	24.55	1.26	5.1
EB-20141209	201.53	6.56	16.78	0.55	3.3
CP-RW-01-G-M-20141210	1103.90	7.51	91.91	0.63	0.7
CP-RW-01-G-M-20141210	1145.72	22.02	95.39	1.83	1.9
FH-RW-01-G-M-20141210	1167.87	9.16	97.24	0.76	0.8
FH-RW-01-G-M-20141210	1154.17	30.50	96.09	2.54	2.6
IA-RW-01-G-M-20141210	1102.90	18.36	91.83	1.53	1.7
IA-RW-01-G-M-20141210	1195.29	6.93	99.52	0.58	0.6
CS-RW-01-G-M-20141210	1238.41	22.55	103.11	1.88	1.8
CS-RW-01-G-M-20141210	1336.07	19.60	111.24	1.63	1.5
CS-RW-01-G-B-20141210	1197.86	9.14	99.73	0.76	0.8
CS-RW-01-G-B-20141210	1220.62	16.21	101.63	1.35	1.3

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IB-RW-01-G-M-20141210 (6E)	1159.82	3.70	96.57	0.31	0.3
IB-RW-01-G-M-20141210 (6E)	1224.40	17.19	101.94	1.43	1.4
IB-RW-01-G-M-20141210 (6E) MSD	6364.27	25.39	529.88	2.11	0.4
IB-RW-01-G-M-20141210 (6E) MSD	6409.27	74.41	533.63	6.20	1.2
IB-RW-01-G-M-20141210 (6P)	1363.48	32.23	113.52	2.68	2.4
IB-RW-01-G-M-20141210 (6P)	1231.36	10.58	102.52	0.88	0.9
IB-RW-01-G-M-20141210 (6P) MSD	6405.63	44.90	533.33	3.74	0.7
IB-RW-01-G-M-20141210 (6P) MSD	6410.26	87.06	533.71	7.25	1.4
IB-RW-01-G-B-20141210	1304.30	24.46	108.59	2.04	1.9
IB-RW-01-G-B-20141210	1238.72	23.16	103.13	1.93	1.9
IB-RW-1001-G-M-20141210	1249.55	16.98	104.04	1.41	1.4
IB-RW-1001-G-M-20141210	1248.34	12.15	103.94	1.01	1.0
REF-RW-01-G-M-20141209	1230.12	16.68	102.42	1.39	1.4
OB-RW-01-G-M-20141209	1325.52	19.84	110.36	1.65	1.5
OB-RW-01-G-B-20141209	1342.13	14.06	111.74	1.17	1.0
SP-RW-01-G-M-201412	1381.74	28.02	115.04	2.33	2.0
LARE-RW-01-G-M-20141209	1495.46	23.11	124.51	1.92	1.5
EB-20141209	379.15	21.39	31.57	1.78	5.6
CP-RW-01-G-M-20141210	1331.91	23.87	110.89	1.99	1.8
FH-RW-01-G-M-20141210	1377.91	9.98	114.72	0.83	0.7
IA-RW-01-G-M-20141210	1360.87	23.05	113.30	1.92	1.7
CS-RW-01-G-M-20141210	1427.74	36.57	118.87	3.04	2.6
CS-RW-01-G-B-20141210	1388.98	21.62	115.65	1.80	1.6
IB-RW-01-G-M-20141210 (bottle 6C)	1427.74	7.67	118.87	0.64	0.5
IB-RW-01-G-M-20141210 (bottle 6D)	1377.48	7.70	114.69	0.64	0.6
IB-RW-01-G-M-20141210 (bottle 6L)	1371.09	19.64	114.16	1.64	1.4
IB-RW-01-G-B-20141210	1352.78	26.20	112.63	2.18	1.9
IB-RW-1001-G-M-20141210	1380.04	32.86	114.90	2.74	2.4
CP-RW-01-G-M-20150108	1202.09	22.23	100.09	1.85	1.8
REF-RW-01-G-M-20150108	1385.57	18.43	115.36	1.53	1.3
SP-RW-01-G-M-20150108	1282.50	26.51	106.78	2.21	2.1
LARE-RW-01-G-M-20150108	1495.89	19.85	124.55	1.65	1.3
OB-RW-01-G-B-20150108	1294.00	11.59	107.74	0.97	0.9
OB-RW-01-G-M-20150108	1287.61	10.64	107.21	0.89	0.8
IB-RW-01-G-B-20150108	1268.02	8.38	105.57	0.70	0.7
IB-RW-01-G-M-20150108	1213.02	48.01	100.99	4.00	4.0
IB-RW-1001-G-M-20150108	1263.34	24.72	105.18	2.06	2.0
CS-RW-01-G-B-20150108	1205.67	16.76	100.38	1.40	1.4
CS-RW-01-G-M-20150108	1273.13	6.64	106.00	0.55	0.5
IA-RW-01-G-M-20150108	1266.32	16.68	105.43	1.39	1.3
EH-RW-01-G-M-20150108	1377.48	19.97	114.69	1.66	1.4

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EB-20150108	360.79	6.21	30.04	0.52	1.7

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	Sample Batch:	Danielle Gonsman	AL 4748 P1	Run Date:	9-Mar-15
Sample Id	Container ID	Carbon (µg)	Volume Liters	Concentration µg/L	Flags
Ref-RW-01-G-M-20141209	14-12-0896-01	78.8	1.050	75.1	
OB-RW-01-G-M-20141209	14-12-0896-02	210	1.060	198	
OB-RW-01-G-B-20141209	14-12-0896-03	151	1.000	151	
SP-RW-01-G-M-20141209	14-12-0896-04	82.0	1.000	82.0	
LARE-RW-01-G-M-20141209	14-12-0896-05	337	1.000	337	
EB-20141209	14-12-0896-06	20.5	1.020	20.1	

Method: CHN EPA 440
Project Number: 14-03-2060

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	R-Z	Avg K	DL ug
Carbon	71	22.91	**3.11**

	BC	Standards	KC
Blanks and spacers	36		23.06
	26		22.97
	32		22.97
	23		22.91
	30		22.86
	35		22.68
	17		
	40		
	98		
Stdev =	24	Mean =	22.91
3*stdev =	71		
Average =	37		

	Known Carbon %	Measured Carbon %	% Recovery
Control	71.09%	71.08%	100%
Check Std 1	71.09%	70.92%	99.8%
Check Std 2	71.09%	70.92%	99.8%
Check Std 3	71.09%	70.54%	99.2%

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To: UC Santa Barbara, Bldg 520 Rm 4001
Bldg 520 Rm 4001 FL
Santa Barbara, CA 93106-6150

CHAIN OF CUSTODY RECORD

DATE: 12/11/2014

PAGE: 1 OF 1

LABORATORY CLIENT:
Calscience Environmental Laboratories, Inc.

ADDRESS:
7440 Lincoln Way
Garden Grove, CA 92841-1427

TEL: **714-895-5494**

E-MAIL: DanielleGonsman@eurofinsUS.com

CLIENT PROJECT NAME / NUMBER:
14-12-0896

PROJECT CONTACT:
Danielle Gonsman

SAMPLER(S): (SIGNATURE)

COELT LOG CODE

P.O. NO.:

LAB USE ONLY:

COOLER RECEIPT
Temp = °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ LOCUS EIM53 EDD ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MAT-RIX	NO. OF CONT.	Total Organic Carbon Low level	Dissolved Organic Carbon Low level	Particulate Organic Carbon	CONTAINER TYPE
	Ref-RW-01-G-M-20141209	12/09/14	08:40	Water/ Filter	4	X	X	X	
	OB-RW-01-G-M-20141209	12/09/14	09:45	Water/ Filter	4	X	X	X	
	OB-RW-01-G-B-20141209	12/09/14	09:45	Water/ Filter	4	X	X	X	
	SP-RW-01-G-M-20141209	12/09/14	10:45	Water/ Filter	4	X	X	X	
	LARE-RW-01-G-M-20141209	12/09/14	13:00	Water/ Filter	4	X	X	X	
	EB-20141209	12/09/14	15:30	Water/ Filter	4	X	X	X	

Relinquished by: (Signature) ECL — Received by: (Signature) GSO AB# 107895978 — Date: 12/15/14 — Time: 1600

Relinquished by: (Signature) — Received by: (Signature) Ann L. Weaver MSI Analytical Lab — Date: 12/17/14 — Time: 3:00

Relinquished by: (Signature) — Received by: (Signature) — Date: — Time:

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Supplemental Report 1

Additional requested analyses have been added to the original report.

WORK ORDER NUMBER: 15-01-0408

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weston Solutions

Client Project Name: POLB/POLA Low Detection Limit Water Column Study Ph.2

Attention: Sheila Holt
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Approved for release on 03/19/2015 by:
Danielle Gonsman
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: POLB/POLA Low Detection Limit Water Column Study Ph.2
Work Order Number: 15-01-0408

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Work Order Narrative

Work Order: 15-01-0408 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/08/15. They were assigned to Work Order 15-01-0408.

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.

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CASE NARRATIVE

Project Name: POLB/POLA LDL Water Column Study

Particle Size could not be reported for all samples due to insufficient solids to attain data on the Particle Size Analyzer.

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Sample Summary

Client: Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Work Order: 15-01-0408
Project Name: POLB/POLA Low Detection Limit Water Column Study Ph.2
PO Number:
Date/Time Received: 01/08/15 18:10
Number of Containers: 98

Attn: Sheila Holt

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
CP-RW-01-G-M-20150108	15-01-0408-1	01/08/15 06:45	7	Sea Water
REF-RW-01-G-M-20150108	15-01-0408-2	01/08/15 08:00	7	Sea Water
SP-RW-01-G-M-20150108	15-01-0408-3	01/08/15 08:30	7	Sea Water
LARE-RW-01-G-M-20150108	15-01-0408-4	01/08/15 09:05	7	Sea Water
OB-RW-01-G-B-20150108	15-01-0408-5	01/08/15 09:45	7	Sea Water
OB-RW-01-G-M-20150108	15-01-0408-6	01/08/15 09:50	7	Sea Water
IB-RW-01-G-B-20150108	15-01-0408-7	01/08/15 10:35	7	Sea Water
IB-RW-01-G-M-20150108	15-01-0408-8	01/08/15 10:45	18	Sea Water
IB-RW-1001-G-M-20150108	15-01-0408-9	01/08/15 10:45	4	Sea Water
CS-RW-01-G-B-20150108	15-01-0408-10	01/08/15 12:10	7	Sea Water
CS-RW-01-G-M-20150108	15-01-0408-11	01/08/15 12:05	7	Sea Water
IA-RW-01-G-M-20150108	15-01-0408-12	01/08/15 12:50	7	Sea Water
FH-RW-01-G-M-20150108	15-01-0408-13	01/08/15 13:35	3	Sea Water
EB-20150108	15-01-0408-14	01/08/15 14:30	3	Sea Water

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Analytical Report

Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Date Received: 01/08/15
Work Order: 15-01-0408
Preparation: N/A
Method: SM 2540 D
Units: mg/L

Project: POLB/POLA Low Detection Limit Water Column Study Ph.2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-RW-01-G-M-20150108	**15-01-0408-1-G**	**01/08/15 06:45**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
REF-RW-01-G-M-20150108	**15-01-0408-2-F**	**01/08/15 08:00**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-RW-01-G-M-20150108	**15-01-0408-3-F**	**01/08/15 08:30**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LARE-RW-01-G-M-20150108	**15-01-0408-4-F**	**01/08/15 09:05**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	1.6	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-RW-01-G-B-20150108	**15-01-0408-5-F**	**01/08/15 09:45**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	2.2	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-RW-01-G-M-20150108	**15-01-0408-6-F**	**01/08/15 09:50**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-01-G-B-20150108	**15-01-0408-7-F**	**01/08/15 10:35**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-01-G-M-20150108	**15-01-0408-8-F**	**01/08/15 10:45**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

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

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Analytical Report

Weston Solutions		Date Received:	01/08/15
5817 Dryden Place, Suite 101		Work Order:	15-01-0408
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 2540 D
		Units:	mg/L
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-1001-G-M-20150108	**15-01-0408-9-D**	**01/08/15 10:45**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CS-RW-01-G-B-20150108	**15-01-0408-10-F**	**01/08/15 12:10**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CS-RW-01-G-M-20150108	**15-01-0408-11-F**	**01/08/15 12:05**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA-RW-01-G-M-20150108	**15-01-0408-12-F**	**01/08/15 12:50**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FH-RW-01-G-M-20150108	**15-01-0408-13-F**	**01/08/15 13:35**	**Sea Water**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	1.3	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-09-010-7006**	**N/A**	**Aqueous**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Result	RL	DF	Qualifiers
Solids, Total Suspended	ND	1.0	1.00	

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

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Analytical Report

Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Date Received: 01/08/15
Work Order: 15-01-0408
Preparation: N/A
Method: SM 5310 D
Units: mg/L

Project: POLB/POLA Low Detection Limit Water Column Study Ph.2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-RW-01-G-M-20150108	**15-01-0408-1-E**	**01/08/15 06:45**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
REF-RW-01-G-M-20150108	**15-01-0408-2-E**	**01/08/15 08:00**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-RW-01-G-M-20150108	**15-01-0408-3-E**	**01/08/15 08:30**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LARE-RW-01-G-M-20150108	**15-01-0408-4-E**	**01/08/15 09:05**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-RW-01-G-B-20150108	**15-01-0408-5-E**	**01/08/15 09:45**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-RW-01-G-M-20150108	**15-01-0408-6-E**	**01/08/15 09:50**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-01-G-B-20150108	**15-01-0408-7-E**	**01/08/15 10:35**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IB-RW-01-G-M-20150108	**15-01-0408-8-E**	**01/08/15 10:45**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

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

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Analytical Report

Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Date Received: 01/08/15
Work Order: 15-01-0408
Preparation: N/A
Method: SM 5310 D
Units: mg/L

Project: POLB/POLA Low Detection Limit Water Column Study Ph.2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CS-RW-01-G-B-20150108	**15-01-0408-10-E**	**01/08/15 12:10**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CS-RW-01-G-M-20150108	**15-01-0408-11-E**	**01/08/15 12:05**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA-RW-01-G-M-20150108	**15-01-0408-12-E**	**01/08/15 12:50**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	15	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FH-RW-01-G-M-20150108	**15-01-0408-13-E**	**01/08/15 13:35**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	16	5.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-115-1409**	**N/A**	**Aqueous**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Dissolved Organic	ND	0.50	1.00	

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

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Quality Control - Spike/Spike Duplicate

Weston Solutions		Date Received:	01/08/15
5817 Dryden Place, Suite 101		Work Order:	15-01-0408
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 5310 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IB-RW-01-G-M-20150108	**Sample**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCS1**
IB-RW-01-G-M-20150108	**Matrix Spike**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCS1**
IB-RW-01-G-M-20150108	**Matrix Spike Duplicate**	**Sea Water**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Dissolved Organic	15.00	50.00	46.00	62	46.80	64	31-145	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Weston Solutions		Date Received:	01/08/15
5817 Dryden Place, Suite 101		Work Order:	15-01-0408
Carlsbad, CA 92008-9999		Preparation:	N/A
		Method:	SM 2540 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
IB-RW-01-G-M-20150108	**Sample**	**Sea Water**	**N/A**	**01/12/15 00:00**	**01/12/15 15:00**	**F0112TSSD2**
IB-RW-01-G-M-20150108	**Sample Duplicate**	**Sea Water**	**N/A**	**01/12/15 00:00**	**01/12/15 15:00**	**F0112TSSD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Suspended	ND	ND	N/A	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Weston Solutions
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-9999

Date Received: 01/08/15
Work Order: 15-01-0408
Preparation: N/A
Method: SM 2540 D

Project: POLB/POLA Low Detection Limit Water Column Study Ph.2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-09-010-7006	**LCS**	**Aqueous**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**
099-09-010-7006	**LCSD**	**Aqueous**	**N/A**	**01/12/15**	**01/12/15 15:00**	**F0112TSSL2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Suspended	100.0	87.00	87	87.00	87	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Weston Solutions	Date Received: 01/08/15
5817 Dryden Place, Suite 101	Work Order: 15-01-0408
Carlsbad, CA 92008-9999	Preparation: N/A
	Method: SM 5310 D
Project: POLB/POLA Low Detection Limit Water Column Study Ph.2	Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-115-1409	**LCS**	**Aqueous**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**
099-05-115-1409	**LCSD**	**Aqueous**	**TOC 6**	**01/12/15**	**01/13/15 04:47**	**F0112DOCL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Dissolved Organic	5.000	5.140	103	5.260	105	80-120	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 15-01-0408 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.
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.

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CHAIN OF CUSTODY

WESTON SOLUTIONS

5817 Dryden Place, Ste 101 • Carlsbad, CA 92008 • (760) 795-6900, FAX 931-1580
1340 Treat Blvd, Ste 210 • Walnut Creek, CA 94597 • (925) 948-2600, FAX 948-2601

36875

DATE 8 JAN 2015 PAGE 1 OF 1

FOR WESTON USE ONLY

15-01-0408

PROJECT NAME / SURVEY / PROJECT NUMBER: POLB/POLA Low Detection Limit Water Column Study Phase 2
PROJECT MANAGER / CONTACT: Sheila Holt
CLIENT: Weston Solutions
ADDRESS: See Above
PHONE / FAX / EMAIL: " "

SITE ID (Location)	SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE / VOLUME	TOTAL NUMBER OF CONTAINER	TOC	DOC	POC	TSS	Particle Size	PRESERVED HOW	SAMPLE TEMP. (°C) UPON RECEIPT	WESTON LAB ID
	CP-RW-01-G-M-20150108		0645	SLT	P+G/Jars	7	X	X	X	X	X	Ice		1
	REF-RW-01-G-M-20150108		0800											2
	SP-RW-01-G-M-20150108		0830											3
	LARE-RW-01-G-M-20150108		0905											4
	OB-RW-01-G-B-20150108		0945											5
	OB-RW-01-G-M-20150108		0950											6
	IB-RW-01-G-B-20150108		1035											7
*	IB-RW-01-G-M-20150108		1045			18								8
	~~IB-RW-DUP~~ (DS)													
	IB-RW-1001-G-M-20150108		1045			4						Ice		9
	CS-RW-01-G-B-20150108		1210			7								10
	CS-RW-01-G-M-20150108		1205											11
	IA-RW-01-G-M-20150108		1250											12
	FH-RW-01-G-M-20150108		1335											13
	EB-20150108		1430			3								14

Sample Matrix Codes: FW= fresh water GW=ground water SLT=salt water SW=storm water WW=waste water SED=sediment A=air BIO=biologic SS=soil T=tissue O=other (specify) _____

Container Code: G=glass P=plastic B=bags ☐ O=other _____

Shipped By: ☐ Courier ☐ UPS ☐ FedEx ☐ USPS ☐ Client drop off ☐ Other _____

Turnaround Time: ☐ 2-day ☐ 5-day ☐ 7-day ☐ 10-day ☐ 14-day ☐ Standard ☐ Other _____

Reporting Requirements: ☐ PDF ☐ EDD ☐ Hard Copy ☐ Email ☐ Other _____

SAMPLED BY: PRINT Damon Owen, Nick Cochran

SIGNATURE D-Q

COMMENTS / SPECIAL INSTRUCTIONS
* 11 extra bottles for QA samples for Eurofins + MSI
Please see attached list for analyses

RELINQUISHED BY

	Print Name	Signature	Firm	Date/Time
1.	Damon Owen / D. IRAWAN	D-Q	Weston ECI	8 JAN 15/1645
2.				01/08/15 18:10
3.				
4.				
5.				
6.				

RECEIVED BY

Print Name	Signature	Firm	Date/Time
D. IRAWAN		ECI	01/8/15 1645
Yan Liaw		ECI	1/8/15 1810

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

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Location	Sample ID*	Depth Targeted	Analytical Lab and Analyses
Consolidated Slip	CS-RW-01-G-M-201501DD	Mid-Depth	Marine Science Institute: TOC, DOC, POC Eurofins: TOC (no analysis, archive only), DOC, TSS, Particle Size (Eurofins will receive 7 bottles total per sample. Eurofins will ship designated samples to MSI.) DOC and POC will be filtered by Eurofins
Consolidated Slip	CS-RW-01-G-B-201501DD	Bottom	
Long Beach Outer Harbor	OB-RW-01-G-M-201501DD	Mid-Depth	
Long Beach Outer Harbor	OB-RW-01-G-B-201501DD	Bottom	
Reference Station	REF-RW-01-G-M-201501DD	Mid-Depth	
Los Angeles River Estuary	LARE-RW-01-G-M-201501DD	Mid-Depth	
Eastern San Pedro Bay	SP-RW-01-G-M-201501DD	Mid-Depth	
Cabrillo Pier vicinity	CP-RW-01-G-M-201501DD	Mid-Depth	
LA Inner Harbor	IA-RW-01-G-M-201501DD	Mid-Depth	
LB Inner Harbor	IB-RW-01-G-M-201501DD	Mid-Depth	
LB Inner Harbor	IB-RW-01-G-B-201501DD	Bottom	
Fish Harbor	FH-RW-01-G-M-201501DD	Mid-Depth	
TBD	Field Duplicate (sample TBD)	TBD	Marine Science Institute: TOC, DOC, POC Eurofins: TSS, TOC (no analysis, archive only) (Eurofins will receive 5 bottles total. Eurofins will ship designated samples to MSI.)
	Equipment Rinse Blank		Marine Science Institute: TOC, DOC, POC (Eurofins will ship 3 san

*DD = Day of sample collection; To be determined

QA samples: See QA tab in this excel file. Refer to analyses highlighted in yellow.
QA samples apply to all samples run by Eurofins and Marine Science Institute

LIST FOR LAB

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Table 6. Laboratory Quality Assurance/Quality Control Analysis Summary
Ports of Los Angeles and Long Beach
San Pedro and Long Beach, California

0408

Analysis Type	Initial Calibration [1,2]	Continuing Calibration Verification	LCS or SRM [3]	Replicates	Matrix Spikes	Matrix Spike Duplicates	Method Blanks	Surrogate Spikes	Internal Standard
Total solids	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
Particle size	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
TSS	Daily or each batch	NA	NA	1 per 20 samples	NA	NA	NA	NA	NA
TOC/DOC	As needed	1 per 10 analytical runs	1 per 20 samples or 1 per batch	NA	1 per 20 samples or 1 per batch	1 per 20 samples or 1 per batch	Each batch	NA	NA
POC	Daily or each batch	1 per 16 samples	1 per 20 samples	1 per 20 samples	NA	NA	Each batch	NA	NA
PCB congeners by high-resolution method	As needed	Every 12 hours	1 per 20 samples	NA	NA4	NA4	1 per 20 samples	NA [4]	Every sample
Organochlorine pesticides by high-resolution method	As needed	Every 12 hours	1 per 20 samples	NA	NA4	NA4	1 per 20 samples	NA [4]	Every sample

Notes:
1.) For physical tests, calibration and certification of drying ovens and weighing scales are conducted annually.
2.) Calibrations should be conducted per analytical methods or instrument manufacturers specifications.
3.) When SRM is not available, a LCS will be analyzed.
4.) Isotope dilution quantitation technique accounts for matrix interferences; thus, matrix spike/matrix spike duplicate are not required.
5.) Values should have relative percent differences less than 40 percent or they are P flagged. ICALS = 20 percent or less and CCALS = 15 percent or less.
6.) Abbreviations:

DOC = dissolved organic carbon
LCS = Laboratory control sample
NA = not applicable
PCB = polychlorinated biphenyl
POC = particulate organic carbon
SRM = standard reference material
TOC = total organic carbon
TSS = total suspended solids

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WORK ORDER #: 15-01-0408

SAMPLE RECEIPT FORM

Cooler 1 of 6

CLIENT: WESTON SOLUTIONS

DATE: 01/08/15

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.9 °C + 0.2 °C (CF) = 4.1 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels. (-1) to (-14) 1/8/15			
☑ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑(2)250AGB ☐250CGB ☑(2)250CGB**s** ☑(2)1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 862

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 681

Preservative: h: HCL n: HNO_3 na$_2$: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered Scanned by: 681

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WORK ORDER #: 15-01-0408

SAMPLE RECEIPT FORM

Cooler 2 of 6

CLIENT: WESTON SOLUTIONS

DATE: 01/08/15

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 4.0 °C + 0.2 °C (CF) = 4.2 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☑ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 862

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 681

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 681

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WORK ORDER #: 15-01-0408

SAMPLE RECEIPT FORM

Cooler 3 of 6

CLIENT: WESTON SOLUTIONS

DATE: 01/08/15

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 4.2 °C + 0.2 °C (CF) = 4.4 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☑ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 862

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 681

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 681

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WORK ORDER #: 15-01-0408

SAMPLE RECEIPT FORM

Cooler 4 of 6

CLIENT: WESTON SOLUTIONS

DATE: 01/08/15

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.8 °C + 0.2 °C (CF) = 4.0 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: BCY

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: BCY

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: BCY

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☑ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: BCY

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 681

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 681

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WORK ORDER #: 15-01-0408

SAMPLE RECEIPT FORM

Cooler 5 of 6

CLIENT: WESTON SOLUTIONS

DATE: 01/08/15

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.7 °C + 0.2 °C (CF) = 3.9 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☑ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 862

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 681

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 681

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WORK ORDER #: 15-01-0408

SAMPLE RECEIPT FORM

Cooler 6 of 6

CLIENT: WESTON SOLUTIONS

DATE: 01/08/15

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 4.1 °C + 0.2 °C (CF) = 4.3 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 804

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☑ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☑250AGB ☐250CGB ☑250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 862

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 681

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 681

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WORK ORDER #: 15-01-0406

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☑ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

Comments:

(-9) Received 5 containers instead of 4.
2-250 clear glass bottles w/ H_2SO_4
1-250 amber glass bottle unpreserved
1-1liter amber glass bottle unpreserved
1-1liter plastic bottle unpreserved

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: BC2 01/8/15

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Subcontractor Analysis Report

Work Order: 15-01-0408 Page 1 of 1

One or more samples in this work order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1. Marine Science Institute - Santa Barbara,CA
   Particulate Organic Carbon, Total Organic Carbon, Dissolved Organic Carbon

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	Sample Batch:	Danielle Gonsman	AL 4774 P1	Run Date:	16-Mar-15
Sample Id	Container ID	Carbon (µg)	Volume Liters	Concentration µg/L	Flags
CP-RW-01-G-M-20150108	15-01-0408-1E	13.6	1.06	12.8	
REF-RW-01-G-M-20150108	15-01-0408-2E	137	1.05	130	
SP-RW-01-G-M-20150108	15-01-0408-3E	18.9	1.04	18.2	
LARE-RW-01-G-M-20150108	15-01-0408-4E	198	1.02	194	
OB-RW-01-G-B-20150108	15-01-0408-5E	37.2	1.05	35.5	
OB-RW-01-G-M-20150108	15-01-0408-6E	21.1	1.06	19.9	
IB-RW-01-G-B-20150108	15-01-0408-7E	22.0	1.05	20.9	
IB-RW-01-G-M-20150108	15-01-0408-8E	29.3	1.05	27.9	
IB-RW-1001-G-M-20150108	15-01-0408-9E	15.8	1.04	15.2	
CS-RW-01-G-B-20150108	15-01-0408-10E	15.8	1.05	15.0	
CS-RW-01-G-M-20150108	15-01-0408-11E	146	1.06	137	
IA-RW-01-G-M-20150108	15-01-0408-12E	128	1.06	121	
FH-RW-01-G-M-20150108	15-01-0408-13E	101	1.05	96.3	
EB-20150108	15-01-0408-14C	7.99	1.05	7.61	
Filter Blank	15-01-0408-15B	6.28	1.00	6.28	

Method: CHN EPA 440
Project Number: 15-01-0408

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	R-Z	Avg K	DL ug
Carbon	33	22.91	**1.43**

	BC	Standards	KC
Blanks and spacers	31		22.92
	28		22.90
	46		22.95
	20		22.91
	29		22.86
	14		
Stdev =	11	Mean =	22.91
3*stdev =	33		
Average =	28		

	Known Carbon %	Measured Carbon %	% Recovery
Control	71.09%	71.02%	100%
Check Std 1	71.09%	71.07%	100%
Check Std 2	71.09%	70.94%	99.8%

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Sample ID	µg C/L	Sd	µmol C/L	Sd	%CV
CP-RW-01-G-M-20150108	1006.91	12.73	83.83	1.06	1.3
REF-RW-01-G-M-20150108	932.88	4.56	77.67	0.38	0.5
SP-RW-01-G-M-20150108	999.68	10.26	83.23	0.85	1.0
LARE-RW-01-G-M-20150108	1148.46	12.14	95.62	1.01	1.1
OB-RW-01-G-B-20150108	981.91	14.81	81.75	1.23	1.5
OB-RW-01-G-M-20150108	952.96	3.23	79.34	0.27	0.3
IB-RW-01-G-B-20150108	1014.44	11.47	84.46	0.96	1.1
IB-RW-01-G-M-20150108 (1/3)	1023.60	20.33	85.22	1.69	2.0
IB-RW-01-G-M-20150108 (2/3) MSD	6119.42	68.49	509.50	5.70	1.1
IB-RW-01-G-M-20150108 (3/3) MSD	6216.04	19.51	517.54	1.62	0.3
IB-RW-1001-G-M-20150108	1252.62	14.25	104.29	1.19	1.1
CS-RW-01-G-B-20150108	1081.96	15.78	90.08	1.31	1.5
CS-RW-01-G-M-20150108	1029.37	5.22	85.70	0.43	0.5
IA-RW-01-G-M-20150108	1044.64	1.55	86.98	0.13	0.1
FH-RW-01-G-M-20150108	1079.59	10.63	89.89	0.88	1.0
EB-20150108	110.66	2.26	9.21	0.19	2.0
Filter Blank	71.75	8.54	5.97	0.71	11.9
Filter Blank (1/2/15)*	58.27	7.65	4.85	0.64	13.1
REF-RW-01-G-M-20141209	960.86	14.79	80.00	1.23	1.5
REF-RW-01-G-M-20141209	1326.93	20.94	110.48	1.74	1.6
OB-RW-01-G-M-20141209	1305.17	11.10	108.67	0.92	0.9
OB-RW-01-G-M-20141209	1185.24	13.34	98.68	1.11	1.1
OB-RW-01-G-B-20141209	1059.39	5.52	88.20	0.46	0.5
OB-RW-01-G-B-20141209	1433.54	26.40	119.36	2.20	1.8
SP-RW-01-G-M-20141209	1362.18	16.84	113.41	1.40	1.2
SP-RW-01-G-M-20141209	1253.47	20.76	104.36	1.73	1.7
LARE-RW-01-G-M-20141209	1487.51	31.34	123.85	2.61	2.1
LARE-RW-01-G-M-20141209	1607.18	39.71	133.81	3.31	2.5
EB-20141209	294.88	15.15	24.55	1.26	5.1
EB-20141209	201.53	6.56	16.78	0.55	3.3
CP-RW-01-G-M-20141210	1103.90	7.51	91.91	0.63	0.7
CP-RW-01-G-M-20141210	1145.72	22.02	95.39	1.83	1.9
FH-RW-01-G-M-20141210	1167.87	9.16	97.24	0.76	0.8
FH-RW-01-G-M-20141210	1154.17	30.50	96.09	2.54	2.6
IA-RW-01-G-M-20141210	1102.90	18.36	91.83	1.53	1.7
IA-RW-01-G-M-20141210	1195.29	6.93	99.52	0.58	0.6
CS-RW-01-G-M-20141210	1238.41	22.55	103.11	1.88	1.8
CS-RW-01-G-M-20141210	1336.07	19.60	111.24	1.63	1.5
CS-RW-01-G-B-20141210	1197.86	9.14	99.73	0.76	0.8
CS-RW-01-G-B-20141210	1220.62	16.21	101.63	1.35	1.3

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IB-RW-01-G-M-20141210 (6E)	1159.82	3.70	96.57	0.31	0.3
IB-RW-01-G-M-20141210 (6E)	1224.40	17.19	101.94	1.43	1.4
IB-RW-01-G-M-20141210 (6E) MSD	6364.27	25.39	529.88	2.11	0.4
IB-RW-01-G-M-20141210 (6E) MSD	6409.27	74.41	533.63	6.20	1.2
IB-RW-01-G-M-20141210 (6P)	1363.48	32.23	113.52	2.68	2.4
IB-RW-01-G-M-20141210 (6P)	1231.36	10.58	102.52	0.88	0.9
IB-RW-01-G-M-20141210 (6P) MSD	6405.63	44.90	533.33	3.74	0.7
IB-RW-01-G-M-20141210 (6P) MSD	6410.26	87.06	533.71	7.25	1.4
IB-RW-01-G-B-20141210	1304.30	24.46	108.59	2.04	1.9
IB-RW-01-G-B-20141210	1238.72	23.16	103.13	1.93	1.9
IB-RW-1001-G-M-20141210	1249.55	16.98	104.04	1.41	1.4
IB-RW-1001-G-M-20141210	1248.34	12.15	103.94	1.01	1.0
REF-RW-01-G-M-20141209	1230.12	16.68	102.42	1.39	1.4
OB-RW-01-G-M-20141209	1325.52	19.84	110.36	1.65	1.5
OB-RW-01-G-B-20141209	1342.13	14.06	111.74	1.17	1.0
SP-RW-01-G-M-201412	1381.74	28.02	115.04	2.33	2.0
LARE-RW-01-G-M-20141209	1495.46	23.11	124.51	1.92	1.5
EB-20141209	379.15	21.39	31.57	1.78	5.6
CP-RW-01-G-M-20141210	1331.91	23.87	110.89	1.99	1.8
FH-RW-01-G-M-20141210	1377.91	9.98	114.72	0.83	0.7
IA-RW-01-G-M-20141210	1360.87	23.05	113.30	1.92	1.7
CS-RW-01-G-M-20141210	1427.74	36.57	118.87	3.04	2.6
CS-RW-01-G-B-20141210	1388.98	21.62	115.65	1.80	1.6
IB-RW-01-G-M-20141210 (bottle 6C)	1427.74	7.67	118.87	0.64	0.5
IB-RW-01-G-M-20141210 (bottle 6D)	1377.48	7.70	114.69	0.64	0.6
IB-RW-01-G-M-20141210 (bottle 6L)	1371.09	19.64	114.16	1.64	1.4
IB-RW-01-G-B-20141210	1352.78	26.20	112.63	2.18	1.9
IB-RW-1001-G-M-20141210	1380.04	32.86	114.90	2.74	2.4
CP-RW-01-G-M-20150108	1202.09	22.23	100.09	1.85	1.8
REF-RW-01-G-M-20150108	1385.57	18.43	115.36	1.53	1.3
SP-RW-01-G-M-20150108	1282.50	26.51	106.78	2.21	2.1
LARE-RW-01-G-M-20150108	1495.89	19.85	124.55	1.65	1.3
OB-RW-01-G-B-20150108	1294.00	11.59	107.74	0.97	0.9
OB-RW-01-G-M-20150108	1287.61	10.64	107.21	0.89	0.8
IB-RW-01-G-B-20150108	1268.02	8.38	105.57	0.70	0.7
IB-RW-01-G-M-20150108	1213.02	48.01	100.99	4.00	4.0
IB-RW-1001-G-M-20150108	1263.34	24.72	105.18	2.06	2.0
CS-RW-01-G-B-20150108	1205.67	16.76	100.38	1.40	1.4
CS-RW-01-G-M-20150108	1273.13	6.64	106.00	0.55	0.5
IA-RW-01-G-M-20150108	1266.32	16.68	105.43	1.39	1.3
EH-RW-01-G-M-20150108	1377.48	19.97	114.69	1.66	1.4

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EB-20150108	360.79	6.21	30.04	0.52	1.7

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7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO:

Paradis Lab
Marine Science Institute
Bldg.520, Rm 4001 FL 4L
University of California
Santa Barbara, CA 93106-6150

CHAIN OF CUSTODY RECORD

DATE: 01/13/15

PAGE: 1 OF 1

LABORATORY CLIENT: Eurofins Calscience, Inc.

ADDRESS: 7440 Lincoln Way

CITY: Garden Grove, CA 92841-1427

TEL: (714) 895-5494

E-MAIL: DanielleGonsman@EurofinsUS.com

CLIENT PROJECT NAME / NUMBER: 15-01-0408

PROJECT CONTACT: Danielle Gonsman

SAMPLER(S): (PRINT)

P.O. NO.: 15-01-0408

TEMP BLANK:

LAB USE ONLY:

TURNAROUND TIME

___SAME DAY ___24 HR ___48HR ___72 HR __5 DAYS _x_STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

Samples preserved with HCl

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	EPA 440 Particulate Organic Carbon	Volume Filtered (mL)
15-01-0408-1	CP-RW-01-G-M-20150108	01/08/15	0645	F	1	X	1060
15-01-0408-2	REF-RW-01-G-M-20150108	01/08/15	0800	F	1	X	1050
15-01-0408-3	SP-RW-01-G-M-20150108	01/08/15	0830	F	1	X	1040
15-01-0408-4	LARE-RW-01-G-M-20150108	01/08/15	0905	F	1	X	1020
15-01-0408-5	OB-RW-01-G-B-20150108	01/08/15	0945	F	1	X	1050
15-01-0408-6	OB-RW-01-G-M-20150108	01/08/15	0950	F	1	X	1060
15-01-0408-7	IB-RW-01-G-B-20150108	01/08/15	1035	F	1	X	1050
15-01-0408-8	IB-RW-01-G-M-20150108	01/08/15	1045	F	3	X	1050
15-01-0408-9	IB-RW-1001-G-M-20150108	01/08/15	1045	F	1	X	1040
15-01-0408-10	CS-RW-01-G-B-20150108	01/08/15	1210	F	1	X	1050
15-01-0408-11	CS-RW-01-G-M-20150108	01/08/15	1205	F	1	X	1060
15-01-0408-12	IA-RW-01-G-M-20150108	01/08/15	1250	F	1	X	1060
15-01-0408-13	FH-RW-01-G-M-20150108	01/08/15	1335	F	1	X	1050
15-01-0408-14	EB-20150108	01/08/15	1430	F	1	X	1050
15-01-0408-15	Filter Blank	01/09/15	0000	F	1	X	1000

Relinquished by: (Signature) (Eurofins Calscience)	Received by / Affiliation: (Signature) GSO # 526641921	Date: 1/14/15	Time: 1500
Relinquished by: (Signature)	Received by / Affiliation: (Signature) Ann T. Weaver MSI Analytical Lab	Date: 1/15/15	Time: 1325
Relinquished by: (Signature)	Received by / Affiliation: (Signature)	Date:	Time:

eurofins | Calscience

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: Carlson Lab
Marine Science Institute
Bldg.520, Rm 4001 FL 4L
University of California
Santa Barbara, CA 93106-6150

CHAIN OF CUSTODY RECORD

DATE: 01/13/15
PAGE: 1 OF 1

LABORATORY CLIENT: Eurofins Calscience, Inc.
ADDRESS: 7440 Lincoln Way
CITY: Garden Grove, CA 92841-1427
TEL: (714) 895-5494
E-MAIL: DanielleGonsman@EurofinsUS.com

CLIENT PROJECT NAME / NUMBER: 15-01-0408
PROJECT CONTACT: Danielle Gonsman
SAMPLER(S): (PRINT)

P.O. NO.: 15-01-0408
TEMP BLANK:
LAB USE ONLY

TURNAROUND TIME
___SAME DAY ___24 HR ___48HR ___72 HR __5 DAYS _x_STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
Samples have been filtered and preserved with HCl

Two additional bottles provided for sample IB-RW-01-G-M-20150108 as matrix spikes.
MS and MSD spike concentration= 5ppm; report as percent recovery.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	Dissolved Organic Carbon	MS/MSD*
15-01-0408-1	CP-RW-01-G-M-20150108	01/08/15	0645	sw	1	X	
15-01-0408-2	REF-RW-01-G-M-20150108	01/08/15	0800	sw	1	X	
15-01-0408-3	SP-RW-01-G-M-20150108	01/08/15	0830	sw	1	X	
15-01-0408-4	LARE-RW-01-G-M-20150108	01/08/15	0905	sw	1	X	
15-01-0408-5	OB-RW-01-G-B-20150108	01/08/15	0945	sw	1	X	
15-01-0408-6	OB-RW-01-G-M-20150108	01/08/15	0950	sw	1	X	
15-01-0408-7	IB-RW-01-G-B-20150108	01/08/15	1035	sw	1	X	
15-01-0408-8	IB-RW-01-G-M-20150108	01/08/15	1045	sw	3	X	X
15-01-0408-9	IB-RW-1001-G-M-20150108	01/08/15	1045	sw	1	X	
15-01-0408-10	CS-RW-01-G-B-20150108	01/08/15	1210	sw	1	X	
15-01-0408-11	CS-RW-01-G-M-20150108	01/08/15	1205	sw	1	X	
15-01-0408-12	IA-RW-01-G-M-20150108	01/08/15	1250	sw	1	X	
15-01-0408-13	FH-RW-01-G-M-20150108	01/08/15	1335	sw	1	X	
15-01-0408-14	EB-20150108	01/08/15	1430	sw	1	X	
15-01-0408-15	Filter Blank			w	1	X	

Relinquished by: (Signature)	Received by / Affiliation: (Signature)	Date:	Time:
(Eurofins Calscience)	GSO 526641921	1/14/15	1500

Calscience

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO:
Carlson Lab
Marine Science Institute
Bldg.520, Rm 4001 FL 4L
University of California
Santa Barbara, CA 93106-6150

CHAIN OF CUSTODY RECORD

DATE: 01/21/15
PAGE: 1 OF 1

LABORATORY CLIENT: Eurofins Calscience, Inc.		CLIENT PROJECT NAME / NUMBER: 15-01-0408	P.O. NO.: 15-01-0408
ADDRESS: 7440 Lincoln Way		PROJECT CONTACT: Danielle Gonsman	TEMP BLANK:
CITY: Garden Grove, CA 92841-1427		SAMPLER(S): (PRINT)	LAB USE ONLY
TEL: (714) 895-5494	E-MAIL: DanielleGonsman@EurofinsUS.com		

TURNAROUND TIME
___SAME DAY ___24 HR ___48HR ___72 HR __5 DAYS x STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
Samples preserved w/ HCl / H_2SO_4

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	TOC	MS/MSD*
15-01-0408-1	CP-RW-01-G-M-20150108	01/08/15	0645	sw	1	X	
15-01-0408-2	REF-RW-01-G-M-20150108	01/08/15	0800	sw	1	X	
15-01-0408-3	SP-RW-01-G-M-20150108	01/08/15	0830	sw	1	X	
15-01-0408-4	LARE-RW-01-G-M-20150108	01/08/15	0905	sw	1	X	
15-01-0408-5	OB-RW-01-G-B-20150108	01/08/15	0945	sw	1	X	
15-01-0408-6	OB-RW-01-G-M-20150108	01/08/15	0950	sw	1	X	
15-01-0408-7	IB-RW-01-G-B-20150108	01/08/15	1035	sw	1	X	
15-01-0408-8	IB-RW-01-G-M-20150108	01/08/15	1045	sw	1	X	
15-01-0408-9	IB-RW-1001-G-M-20150108	01/08/15	1045	sw	1	X	
15-01-0408-10	CS-RW-01-G-B-20150108	01/08/15	1210	sw	1	X	
15-01-0408-11	CS-RW-01-G-M-20150108	01/08/15	1205	sw	1	X	
15-01-0408-12	IA-RW-01-G-M-20150108	01/08/15	1250	sw	1	X	
15-01-0408-13	FH-RW-01-G-M-20150108	01/08/15	1335	sw	1	X	
15-01-0408-14	EB-20150108	01/08/15	1430	sw	1	X	
~~15-01-0408-15~~	~~Filter Blank~~	~~01/09/15~~		w	1	X	DG 1/20/15

Relinquished by: (Signature)		Received by / Affiliation: (Signature)	Date:	Time:
	(Eurofins Calscience)	GSO 526722707	1/22/15	1530
Relinquished by: (Signature)		Received by / Affiliation: (Signature)	Date:	Time:
Relinquished by: (Signature)		Received by / Affiliation: (Signature)	Date:	Time:

COPY

March 06, 2015

Vista Project I.D.: 1500015

Dr. David Moore
Environ
18100 Von Karman Ave. Suite 600
Irvine, CA 92612

Dear Dr. Moore,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on January 08, 2015. This sample set was analyzed on a standard turn-around time, under your Project Name '0433310A 11'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Work Order No. 1500015
Case Narrative

Sample Condition on Receipt:

Twenty-four SPME fibers were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The twelve samples designated for analysis by EPA Method 1699 were assigned to Vista Work Order #1500018. As requested, this report was amended to change the ID for sample 1500015-10.

Analytical Notes:

Upon receipt, each vial was weighed and hexane was added to each vial, covering the SPME. A table containing the initial and final weights is included with the datasheets.

EPA Method 1668C

The samples were extracted and analyzed for 209 PCB congeners by EPA Method 1668C using a ZB-1 GC column. The concentrations of the PRCs are listed following the PCB total concentrations on each datasheet. The PRC solution was not added to the Method Blank or OPR.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limit in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1500015-01	CP-RW-01-S-M-20150107	VIAL19	07-Jan-15 08:39	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-02	REF-RW-01-S-M-20150107	VIAL 9	07-Jan-15 09:46	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-03	REF-RW-01-S-M-PRC-20150107	VIAL 11	07-Jan-15 09:46	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-04	OB-RW-01-S-M-20150107	VIAL 5	07-Jan-15 11:15	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-05	OB-RW-01-S-B-20150107	VIAL 7	07-Jan-15 11:15	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-06	SP-RW-01-S-M-20150107	VIAL 17	07-Jan-15 12:45	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-07	LARE-RW-01-S-M-20150107	VIAL 13	07-Jan-15 13:45	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-08	IB-RW-01-S-M-20150107	VIAL 25	07-Jan-15 15:30	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-09	IB-RW-01-S-B-20150107	VIAL 29	07-Jan-15 15:30	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-10	CS-RW-01-S-M-PRC-20150107	VIAL 27	07-Jan-15 16:05	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-11	CS-RW-01-S-M-20150107	VIAL 1	07-Jan-15 16:05	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500015-12	CS-RW-01-S-B-20150107	VIAL 3	07-Jan-15 16:05	08-Jan-15 09:05	Amber VOA Vial, 60mL

Vista Project: 1500015

Client Project: 0433310A11

ANALYTICAL RESULTS

Sample ID: Method Blank — EPA Method 1668C

Matrix: SPME
QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32
Lab Sample: B5A0107-BLK1
Date Analyzed: 29-Jan-15 19:46 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	6.23			PCB-43/49	ND	3.07		
PCB-2	ND	6.68			PCB-44	ND	3.84		
PCB-3	ND	6.67			PCB-45	ND	3.36		
PCB-4/10	ND	6.05			PCB-46	ND	3.68		
PCB-5/8	ND	5.00			PCB-47	ND		6.76	
PCB-6	ND	5.14			PCB-48/75	ND	2.52		
PCB-7/9	ND	5.08			PCB-50	ND	3.41		
PCB-11	ND	5.15			PCB-51	ND	3.01		
PCB-12/13	ND	5.21			PCB-52/69	ND	2.71		
PCB-14	ND	4.49			PCB-53	ND	3.07		
PCB-15	ND	4.59			PCB-54	ND	2.59		
PCB-16/32	ND	2.30			PCB-55	ND	2.13		
PCB-17	ND	2.52			PCB-56/60	ND	2.37		
PCB-18	ND	2.72			PCB-57	ND	2.30		
PCB-19	ND	2.80			PCB-58	ND	2.27		
PCB-20/21/33	ND	2.20			PCB-61/70	ND	2.29		
PCB-22	ND	2.19			PCB-62	ND	2.46		
PCB-23	ND	2.10			PCB-63	ND	2.22		
PCB-24/27	ND	1.85			PCB-65	ND	2.54		
PCB-25	ND	2.32			PCB-66/76	ND	2.19		
PCB-26	ND	2.05			PCB-67	ND	2.36		
PCB-28	ND	2.05			PCB-68	ND	2.08		
PCB-29	ND	2.10			PCB-73	ND	2.48		
PCB-30	ND	1.77			PCB-74	ND	2.13		
PCB-31	ND	2.03			PCB-77	ND	2.21		
PCB-34	ND	1.95			PCB-78	ND	2.27		
PCB-35	ND	2.17			PCB-79	ND	2.26		
PCB-36	ND	2.10			PCB-80	ND	1.98		
PCB-37	ND	2.02			PCB-81	ND	2.07		
PCB-38	ND	2.20			PCB-82	ND	7.13		
PCB-39	ND	2.16			PCB-83	ND	4.07		
PCB-40	ND	3.90			PCB-84/92	ND	5.79		
PCB-41/64/71/72	ND	2.50			PCB-85/116	ND	4.85		
PCB-42/59	ND	2.71			PCB-86	ND	6.54		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank — EPA Method 1668C

Matrix: SPME
QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32
Lab Sample: B5A0107-BLK1
Date Analyzed: 29-Jan-15 19:46 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-87/117/125	ND	4.25			PCB-133/142	ND	2.99		
PCB-88/91	ND	6.01			PCB-134/143	ND	2.92		
PCB-89	ND	6.23			PCB-135	ND	6.86		
PCB-90/101	ND	5.14			PCB-136	ND	4.79		
PCB-93	ND	6.36			PCB-137	ND	2.59		
PCB-94	ND	5.98			PCB-138/163/164	ND	2.22		
PCB-95/98/102	ND	5.24			PCB-139/149	ND	6.28		
PCB-96	ND	4.40			PCB-140	ND	7.04		
PCB-97	ND	5.21			PCB-141	ND	2.64		
PCB-99	ND	4.96			PCB-144	ND	6.39		
PCB-100	ND	4.99			PCB-145	ND	5.00		
PCB-103	ND	4.96			PCB-146/165	ND	2.52		
PCB-104	ND	3.80			PCB-147	ND	7.02		
PCB-105	ND	3.51			PCB-148	ND	6.69		
PCB-106/118	ND	3.95			PCB-150	ND	4.85		
PCB-107/109	ND	3.96			PCB-151	ND	6.69		
PCB-108/112	ND	4.80			PCB-152	ND	4.68		
PCB-110	ND	3.97			PCB-153	ND	2.27		
PCB-111/115	ND	3.64			PCB-154	ND	6.14		
PCB-113	ND	4.63			PCB-155	ND	4.58		
PCB-114	ND	3.87			PCB-156	ND	2.30		
PCB-119	ND	3.60			PCB-157	ND	2.40		
PCB-120	ND	3.40			PCB-158/160	ND	2.08		
PCB-121	ND	3.84			PCB-159	ND	2.24		
PCB-122	ND	4.61			PCB-166	ND	2.40		
PCB-123	ND	4.23			PCB-167	ND	2.21		
PCB-124	ND	4.06			PCB-168	ND	2.01		
PCB-126	ND	4.43			PCB-169	ND	2.72		
PCB-127	ND	4.08			PCB-170	ND	3.58		
PCB-128/162	ND	2.65			PCB-171	ND	3.62		
PCB-129	ND	3.10			PCB-172	ND	3.89		
PCB-130	ND	3.31			PCB-173	ND	4.77		
PCB-131	ND	3.22			PCB-174	ND	4.08		
PCB-132/161	ND	2.43			PCB-175	ND	3.42		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32

Lab Sample: B5A0107-BLK1
Date Analyzed: 29-Jan-15 19:46 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-176	ND	2.46		
PCB-177	ND	4.16		
PCB-178	ND	3.33		
PCB-179	ND	2.58		
PCB-180	ND	3.63		
PCB-181	ND	3.90		
PCB-182/187	ND	3.15		
PCB-183	ND	2.93		
PCB-184	ND	2.68		
PCB-185	ND	3.75		
PCB-186	ND	2.46		
PCB-188	ND	2.36		
PCB-189	ND	2.95		
PCB-190	ND	2.66		
PCB-191	ND	2.83		
PCB-192	ND	3.03		
PCB-193	ND	2.84		
PCB-194	ND	3.56		
PCB-195	ND	4.03		
PCB-196/203	ND	6.77		
PCB-197	ND	4.81		
PCB-198	ND	7.45		
PCB-199	ND	7.57		
PCB-200	ND	5.43		
PCB-201	ND	5.12		
PCB-202	ND	5.50		
PCB-204	ND	5.23		
PCB-205	ND	2.86		
PCB-206	ND	5.69		
PCB-207	ND	2.96		
PCB-208	ND	3.00		
PCB-209	ND	4.27		
Total monoCB	ND	6.68		
Total diCB	ND	6.05		
Total triCB	ND	2.80		
Total tetraCB	ND		6.76	
Total pentaCB	ND	7.13		
Total hexaCB	ND	7.04		
Total heptaCB	ND	4.77		
Total octaCB	ND	7.57		
Total nonaCB	ND	5.69		
DecaCB	ND	4.27		
Total PCB	ND			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32

Lab Sample: B5A0107-BLK1
Date Analyzed: 29-Jan-15 19:46 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	82.2	5 - 145	
	13C-PCB-3	79.3	5 - 145	
	13C-PCB-4	68.6	5 - 145	
	13C-PCB-11	70.4	5 - 145	
	13C-PCB-9	68.7	5 - 145	
	13C-PCB-19	75.1	5 - 145	
	13C-PCB-28	77.1	5 - 145	
	13C-PCB-32	74.8	5 - 145	
	13C-PCB-37	85.8	5 - 145	
	13C-PCB-47	78.0	5 - 145	
	13C-PCB-52	81.0	5 - 145	
	13C-PCB-54	70.5	5 - 145	
	13C-PCB-70	80.6	5 - 145	
	13C-PCB-77	81.1	10 - 145	
	13C-PCB-80	79.0	10 - 145	
	13C-PCB-81	79.5	10 - 145	
	13C-PCB-95	80.4	10 - 145	
	13C-PCB-97	84.0	10 - 145	
	13C-PCB-101	79.9	10 - 145	
	13C-PCB-104	79.7	10 - 145	
	13C-PCB-105	105	10 - 145	
	13C-PCB-114	98.4	10 - 145	
	13C-PCB-118	80.9	10 - 145	
	13C-PCB-123	81.3	10 - 145	
	13C-PCB-126	103	10 - 145	
	13C-PCB-127	103	10 - 145	
	13C-PCB-138	90.5	10 - 145	
	13C-PCB-141	89.8	10 - 145	
	13C-PCB-153	89.9	10 - 145	
	13C-PCB-155	59.8	10 - 145	
	13C-PCB-156	83.0	10 - 145	
	13C-PCB-157	83.7	10 - 145	
	13C-PCB-159	84.6	10 - 145	
	13C-PCB-167	85.6	10 - 145	
	13C-PCB-169	77.8	10 - 145	
	13C-PCB-170	70.2	10 - 145	
	13C-PCB-180	69.2	10 - 145	
	13C-PCB-188	78.6	10 - 145	
	13C-PCB-189	62.6	10 - 145	
	13C-PCB-194	83.9	10 - 145	
	13C-PCB-202	56.0	10 - 145	
	13C-PCB-206	75.5	10 - 145	
	13C-PCB-208	74.7	10 - 145	
	13C-PCB-209	59.9	10 - 145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OPR

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32

Lab Sample: B5A0107-BS1
Date Analyzed: 29-Jan-15 17:38 Column: ZB-1 Analyst: DMS

Analyte	Amt Found (pg/Sample)	Spike Amt	%R	Limits
PCB-1	1470	2000	73.5	60 - 135
PCB-3	1470	2000	73.3	60 - 135
PCB-4/10	3120	4000	78.0	60 - 135
PCB-15	1600	2000	80.1	60 - 135
PCB-19	1860	2000	92.8	60 - 135
PCB-37	1770	2000	88.7	60 - 135
PCB-54	1930	2000	96.5	60 - 135
PCB-77	1880	2000	94.0	60 - 135
PCB-81	1910	2000	95.7	60 - 135
PCB-104	1760	2000	87.8	60 - 135
PCB-105	1570	2000	78.3	60 - 135
PCB-106/118	3570	4000	89.2	60 - 135
PCB-114	1600	2000	80.1	60 - 135
PCB-123	1770	2000	88.7	60 - 135
PCB-126	1650	2000	82.3	60 - 135
PCB-155	1890	2000	94.3	60 - 135
PCB-156	1850	2000	92.4	60 - 135
PCB-157	1780	2000	88.9	60 - 135
PCB-167	1780	2000	89.1	60 - 135
PCB-169	1850	2000	92.6	60 - 135
PCB-188	1780	2000	89.2	60 - 135
PCB-189	1800	2000	90.2	60 - 135
PCB-202	1910	2000	95.7	60 - 135
PCB-205	1770	2000	88.3	60 - 135
PCB-206	1810	2000	90.3	60 - 135
PCB-208	1840	2000	92.1	60 - 135
PCB-209	1790	2000	89.7	60 - 135

	Labeled Standard	%R	LCL-UCL
IS	13C-PCB-1	54.7	15 - 145
IS	13C-PCB-3	63.6	15 - 145
IS	13C-PCB-4	57.8	15 - 145
IS	13C-PCB-11	70.8	15 - 145
IS	13C-PCB-9	60.0	15 - 145
IS	13C-PCB-19	67.8	15 - 145
IS	13C-PCB-28	77.6	15 - 145
IS	13C-PCB-32	73.9	15 - 145
IS	13C-PCB-37	88.7	15 - 145
IS	13C-PCB-47	79.7	15 - 145
IS	13C-PCB-52	81.5	15 - 145
IS	13C-PCB-54	72.8	15 - 145
IS	13C-PCB-70	85.7	15 - 145
IS	13C-PCB-77	86.0	40 - 145
IS	13C-PCB-80	85.7	40 - 145
IS	13C-PCB-81	82.6	40 - 145
IS	13C-PCB-95	83.3	40 - 145
IS	13C-PCB-97	86.7	40 - 145
IS	13C-PCB-101	82.8	40 - 145
IS	13C-PCB-104	82.1	40 - 145
IS	13C-PCB-105	113	40 - 145
IS	13C-PCB-114	97.1	40 - 145
IS	13C-PCB-118	82.1	40 - 145
IS	13C-PCB-123	82.7	40 - 145
IS	13C-PCB-126	108	40 - 145
IS	13C-PCB-127	107	40 - 145
IS	13C-PCB-138	91.0	40 - 145
IS	13C-PCB-141	91.9	40 - 145
IS	13C-PCB-153	94.1	40 - 145
IS	13C-PCB-155	63.0	40 - 145
IS	13C-PCB-156	85.4	40 - 145
IS	13C-PCB-157	85.3	40 - 145
IS	13C-PCB-159	87.0	40 - 145
IS	13C-PCB-167	87.7	40 - 145
IS	13C-PCB-169	79.8	40 - 145
IS	13C-PCB-170	68.9	40 - 145
IS	13C-PCB-180	72.9	40 - 145
IS	13C-PCB-188	81.0	40 - 145
IS	13C-PCB-189	71.9	40 - 145
IS	13C-PCB-194	86.9	40 - 145

Sample ID: OPR

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32

Lab Sample: B5A0107-BS1
Date Analyzed: 29-Jan-15 17:38 Column: ZB-1 Analyst: DMS

Analyte	Amt Found (pg/Sample)	Spike Amt	%R	Limits

	Labeled Standard	%R	LCL-UCL
IS	13C-PCB-202	58.9	40 - 145
IS	13C-PCB-206	84.1	40 - 145
IS	13C-PCB-208	78.2	40 - 145
IS	13C-PCB-209	65.8	40 - 145

LCL-UCL - Lower control limit - upper control limit

Sample ID: CP-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 8:39

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-01 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 20:50 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	4.56		
PCB-2	ND	4.41		
PCB-3	ND	4.40		
PCB-4/10	ND	4.55		
PCB-5/8	46.5			
PCB-6	ND	3.51		
PCB-7/9	ND	3.46		
PCB-11	134			
PCB-12/13	ND	3.32		
PCB-14	ND	2.86		
PCB-15	15.9			
PCB-16/32	152			
PCB-17	83.4			
PCB-18	181			
PCB-19	25.0			
PCB-20/21/33	110			
PCB-22	73.8			
PCB-23	ND	2.54		
PCB-24/27	22.5			
PCB-25	28.4			
PCB-26	38.6			
PCB-28	349			
PCB-29	ND	2.54		
PCB-30	ND	1.84		
PCB-31	195			
PCB-34	ND	2.36		
PCB-35	7.21			
PCB-36	5.77			
PCB-37	37.3			
PCB-38	8.76			
PCB-39	ND	2.61		
PCB-40	114			
PCB-41/64/71/72	528			
PCB-42/59	216			
PCB-43/49	685			
PCB-44	624			
PCB-45	92.7			
PCB-46	52.1			
PCB-47	270			
PCB-48/75	119			
PCB-50	4.54			J
PCB-51	85.1			
PCB-52/69	902			
PCB-53	180			
PCB-54	15.1			
PCB-55	10.7			
PCB-56/60	287			
PCB-57	5.27			
PCB-58	2.29			J
PCB-61/70	539			
PCB-62	ND	3.49		
PCB-63	ND		22.9	
PCB-65	ND	3.60		
PCB-66/76	537			
PCB-67	20.5			
PCB-68	ND		5.21	
PCB-73	ND		2.78	
PCB-74	267			
PCB-77	33.9			
PCB-78	ND	3.48		
PCB-79	16.4			
PCB-80	ND	2.81		
PCB-81	1.89			J
PCB-82	115			
PCB-83	ND	2.65		
PCB-84/92	464			
PCB-85/116	147			
PCB-86	6.06			
PCB-87/117/125	298			
PCB-88/91	182			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CP-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 8:39

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-01 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 20:50 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	14.9			
PCB-90/101	1030			
PCB-93	ND	4.11		
PCB-94	10.1			
PCB-95/98/102	951			
PCB-96	16.9			
PCB-97	299			
PCB-99	515			
PCB-100	17.6			
PCB-103	ND		22.3	
PCB-104	4.36			J
PCB-105	175			
PCB-106/118	617			
PCB-107/109	50.2			
PCB-108/112	46.8			
PCB-110	879			
PCB-111/115	15.3			
PCB-113	ND	2.91		
PCB-114	8.04			
PCB-119	30.3			
PCB-120	4.95			J
PCB-121	ND	2.48		
PCB-122	ND		5.66	
PCB-123	12.3			
PCB-124	27.5			
PCB-126	3.58			J
PCB-127	ND	1.28		
PCB-128/162	78.1			
PCB-129	21.6			
PCB-130	41.0			
PCB-131	ND	4.20		
PCB-132/161	150			
PCB-133/142	18.6			
PCB-134/143	37.6			
PCB-135	126			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	108			
PCB-137	21.1			
PCB-138/163/164	535			
PCB-139/149	598			
PCB-140	ND	5.47		
PCB-141	87.3			
PCB-144	30.9			
PCB-145	ND	3.89		
PCB-146/165	93.3			
PCB-147	24.5			
PCB-148	ND	5.20		
PCB-150	ND	3.77		
PCB-151	174			
PCB-152	ND	3.64		
PCB-153	552			
PCB-154	19.3			
PCB-155	ND	3.55		
PCB-156	32.0			
PCB-157	7.92			
PCB-158/160	50.7			
PCB-159	ND	2.76		
PCB-166	3.04			J
PCB-167	18.9			
PCB-168	ND	2.62		
PCB-169	ND	3.33		
PCB-170	55.6			
PCB-171	23.5			
PCB-172	13.5			
PCB-173	ND	4.59		
PCB-174	88.7			
PCB-175	4.84			J
PCB-176	11.3			
PCB-177	51.8			
PCB-178	23.0			
PCB-179	50.4			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CP-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 8:39

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-01 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 20:50 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	135			
PCB-181	ND	3.76		
PCB-182/187	132			
PCB-183	41.8			
PCB-184	ND	2.60		
PCB-185	9.93			
PCB-186	ND	2.39		
PCB-188	ND	2.29		
PCB-189	ND	2.65		
PCB-190	ND		11.7	
PCB-191	4.79			J
PCB-192	ND	2.92		
PCB-193	10.5			
PCB-194	18.7			
PCB-195	ND		9.13	
PCB-196/203	26.7			
PCB-197	ND	3.49		
PCB-198	ND	5.41		
PCB-199	34.9			
PCB-200	ND	3.94		
PCB-201	ND		5.49	
PCB-202	11.3			
PCB-204	ND	3.80		
PCB-205	ND	2.17		
PCB-206	ND		6.17	
PCB-207	ND	2.25		
PCB-208	ND	2.29		
PCB-209	6.27			
Total monoCB	ND	4.56		
Total diCB	197			
Total triCB	1320			
Total tetraCB	5610		5640	
Total pentaCB	5940		5970	
Total hexaCB	2830			
Total heptaCB	657		669	

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
Total octaCB	91.6		106	
Total nonaCB	ND		6.17	
DecaCB	6.27			
Total PCB	16600			
13C-PCB-8	ND			
13C-PCB-31	ND			
13C-PCB-79	ND			
13C-PCB-133	ND			
13C-PCB-178	ND			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CP-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 8:39

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-01 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 20:50 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	69.0	5 -145	
	13C-PCB-3	75.8	5 -145	
	13C-PCB-4	67.6	5 -145	
	13C-PCB-11	82.7	5 -145	
	13C-PCB-9	74.2	5 -145	
	13C-PCB-19	79.7	5 -145	
	13C-PCB-28	97.4	5 -145	
	13C-PCB-32	81.9	5 -145	
	13C-PCB-37	108	5 -145	
	13C-PCB-47	92.5	5 -145	
	13C-PCB-52	92.7	5 -145	
	13C-PCB-54	82.4	5 -145	
	13C-PCB-70	91.6	5 -145	
	13C-PCB-77	89.2	10 -145	
	13C-PCB-80	92.6	10 -145	
	13C-PCB-81	87.7	10 -145	
	13C-PCB-95	89.2	10 -145	
	13C-PCB-97	91.0	10 -145	
	13C-PCB-101	88.1	10 -145	
	13C-PCB-104	87.8	10 -145	
	13C-PCB-105	121	10 -145	
	13C-PCB-114	115	10 -145	
	13C-PCB-118	85.8	10 -145	
	13C-PCB-123	90.0	10 -145	
	13C-PCB-126	120	10 -145	
	13C-PCB-127	121	10 -145	
	13C-PCB-138	97.3	10 -145	
	13C-PCB-141	98.0	10 -145	
	13C-PCB-153	99.3	10 -145	
	13C-PCB-155	61.0	10 -145	
	13C-PCB-156	93.0	10 -145	
	13C-PCB-157	91.3	10 -145	
	13C-PCB-159	95.8	10 -145	
	13C-PCB-167	94.0	10 -145	
	13C-PCB-169	88.7	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	71.0	10 -145	
13C-PCB-180	73.4	10 -145	
13C-PCB-188	81.4	10 -145	
13C-PCB-189	67.2	10 -145	
13C-PCB-194	92.2	10 -145	
13C-PCB-202	54.8	10 -145	
13C-PCB-206	81.1	10 -145	
13C-PCB-208	78.6	10 -145	
13C-PCB-209	64.6	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: REF-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-02 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 21:54 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	4.91		
PCB-2	ND	4.19		
PCB-3	ND	4.18		
PCB-4/10	ND	4.00		
PCB-5/8	37.2			
PCB-6	ND	2.98		
PCB-7/9	ND	2.94		
PCB-11	84.9			
PCB-12/13	ND	2.62		
PCB-14	ND	2.26		
PCB-15	ND	2.30		
PCB-16/32	88.0			
PCB-17	46.1			
PCB-18	78.6			
PCB-19	ND		8.75	
PCB-20/21/33	79.6			
PCB-22	38.1			
PCB-23	ND	1.76		
PCB-24/27	9.03			J
PCB-25	ND		14.5	
PCB-26	ND		15.2	
PCB-28	199			
PCB-29	ND	1.76		
PCB-30	ND	1.66		
PCB-31	82.1			
PCB-34	ND	1.63		
PCB-35	3.97			J
PCB-36	5.72			
PCB-37	17.2			
PCB-38	6.05			
PCB-39	ND	1.74		
PCB-40	63.1			
PCB-41/64/71/72	284			
PCB-42/59	124			
PCB-43/49	380			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	306			
PCB-45	39.9			
PCB-46	25.6			
PCB-47	180			
PCB-48/75	78.6			
PCB-50	ND	2.95		
PCB-51	27.4			
PCB-52/69	362			
PCB-53	60.0			
PCB-54	ND		2.20	
PCB-55	7.07			
PCB-56/60	171			
PCB-57	ND		2.16	
PCB-58	3.34			J
PCB-61/70	296			
PCB-62	ND	2.05		
PCB-63	ND		14.9	
PCB-65	ND	2.11		
PCB-66/76	361			
PCB-67	11.8			
PCB-68	8.47			
PCB-73	1.70			J
PCB-74	160			
PCB-77	19.2			
PCB-78	ND	2.00		
PCB-79	10.4			
PCB-80	ND	1.70		
PCB-81	ND	1.82		
PCB-82	58.7			
PCB-83	ND	2.63		
PCB-84/92	230			
PCB-85/116	95.8			
PCB-86	ND	4.23		
PCB-87/117/125	140			
PCB-88/91	117			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: REF-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-02 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 21:54 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND		8.47	
PCB-90/101	557			
PCB-93	ND	3.75		
PCB-94	6.05			
PCB-95/98/102	425			
PCB-96	8.75			
PCB-97	175			
PCB-99	368			
PCB-100	6.67			
PCB-103	11.8			
PCB-104	ND	2.34		
PCB-105	105			
PCB-106/118	363			
PCB-107/109	37.4			
PCB-108/112	29.2			
PCB-110	454			
PCB-111/115	4.64			J
PCB-113	3.42			J
PCB-114	4.92			J
PCB-119	ND		18.3	
PCB-120	4.44			J
PCB-121	ND	2.26		
PCB-122	3.58			J
PCB-123	ND		8.29	
PCB-124	15.9			
PCB-126	ND		2.11	
PCB-127	ND	2.80		
PCB-128/162	57.7			
PCB-129	13.7			
PCB-130	30.6			
PCB-131	ND	2.05		
PCB-132/161	92.2			
PCB-133/142	9.87			J
PCB-134/143	25.3			
PCB-135	69.5			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	61.4			
PCB-137	11.3			
PCB-138/163/164	390			
PCB-139/149	354			
PCB-140	ND		2.92	
PCB-141	41.2			
PCB-144	14.6			
PCB-145	ND	3.69		
PCB-146/165	71.8			
PCB-147	ND		10.0	
PCB-148	2.21			J
PCB-150	ND	3.57		
PCB-151	92.0			
PCB-152	ND	3.45		
PCB-153	405			
PCB-154	13.3			
PCB-155	ND	3.36		
PCB-156	24.6			
PCB-157	6.71			
PCB-158/160	32.3			
PCB-159	ND	1.37		
PCB-166	ND	1.46		
PCB-167	12.6			
PCB-168	ND	1.28		
PCB-169	ND	1.56		
PCB-170	47.4			
PCB-171	16.5			
PCB-172	8.34			
PCB-173	ND	3.18		
PCB-174	64.9			
PCB-175	ND	2.34		
PCB-176	7.85			
PCB-177	51.8			
PCB-178	21.8			
PCB-179	42.7			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: REF-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-02 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 21:54 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	97.7			
PCB-181	ND	2.60		
PCB-182/187	120			
PCB-183	30.6			
PCB-184	ND	1.83		
PCB-185	4.96			J
PCB-186	ND	1.68		
PCB-188	ND	1.61		
PCB-189	2.65			J
PCB-190	9.39			
PCB-191	ND	1.88		
PCB-192	ND	2.02		
PCB-193	ND		8.11	
PCB-194	17.4			
PCB-195	ND		7.15	
PCB-196/203	ND		21.6	
PCB-197	ND	4.83		
PCB-198	ND	7.47		
PCB-199	ND		28.3	
PCB-200	ND	5.44		
PCB-201	ND	5.14		
PCB-202	ND	5.52		
PCB-204	ND	5.24		
PCB-205	ND	2.06		
PCB-206	ND		11.1	
PCB-207	ND	2.24		
PCB-208	ND		4.20	
PCB-209	ND		4.65	
Total monoCB	ND	4.91		
Total diCB	122			
Total triCB	653		692	
Total tetraCB	2980		3000	
Total pentaCB	3220		3260	
Total hexaCB	1830		1840	
Total heptaCB	526		534	

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
Total octaCB	17.4		74.5	
Total nonaCB	ND		15.3	
DecaCB	ND		4.65	J
Total PCB	9350			
13C-PCB-8	ND			
13C-PCB-31	ND			
13C-PCB-79	ND			
13C-PCB-133	ND			
13C-PCB-178	ND			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: REF-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-02 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 21:54 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	46.4	5 -145	
	13C-PCB-3	59.6	5 -145	
	13C-PCB-4	55.3	5 -145	
	13C-PCB-11	78.5	5 -145	
	13C-PCB-9	64.7	5 -145	
	13C-PCB-19	72.7	5 -145	
	13C-PCB-28	91.9	5 -145	
	13C-PCB-32	78.9	5 -145	
	13C-PCB-37	103	5 -145	
	13C-PCB-47	90.5	5 -145	
	13C-PCB-52	91.8	5 -145	
	13C-PCB-54	76.9	5 -145	
	13C-PCB-70	88.1	5 -145	
	13C-PCB-77	88.7	10 -145	
	13C-PCB-80	89.2	10 -145	
	13C-PCB-81	86.9	10 -145	
	13C-PCB-95	89.9	10 -145	
	13C-PCB-97	92.9	10 -145	
	13C-PCB-101	89.2	10 -145	
	13C-PCB-104	87.6	10 -145	
	13C-PCB-105	122	10 -145	
	13C-PCB-114	115	10 -145	
	13C-PCB-118	88.5	10 -145	
	13C-PCB-123	89.8	10 -145	
	13C-PCB-126	121	10 -145	
	13C-PCB-127	124	10 -145	
	13C-PCB-138	99.2	10 -145	
	13C-PCB-141	99.9	10 -145	
	13C-PCB-153	101	10 -145	
	13C-PCB-155	62.8	10 -145	
	13C-PCB-156	93.3	10 -145	
	13C-PCB-157	91.0	10 -145	
	13C-PCB-159	98.4	10 -145	
	13C-PCB-167	97.5	10 -145	
	13C-PCB-169	91.0	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	73.2	10 -145	
13C-PCB-180	74.9	10 -145	
13C-PCB-188	82.8	10 -145	
13C-PCB-189	66.4	10 -145	
13C-PCB-194	93.6	10 -145	
13C-PCB-202	55.8	10 -145	
13C-PCB-206	81.4	10 -145	
13C-PCB-208	78.9	10 -145	
13C-PCB-209	64.5	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: REF-RW-01-S-M-PRC-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-03 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 22:58 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	3.33		
PCB-2	ND	3.53		
PCB-3	ND	3.52		
PCB-4/10	ND	5.29		
PCB-5/8	ND	11.9		
PCB-6	ND	4.36		
PCB-7/9	ND	4.31		
PCB-11	ND	22.7		
PCB-12/13	ND	4.32		
PCB-14	ND	3.72		
PCB-15	ND	3.80		
PCB-16/32	14.0			
PCB-17	ND	4.67		
PCB-18	12.4			
PCB-19	ND	5.26		
PCB-20/21/33	11.2			J
PCB-22	5.26			
PCB-23	ND	1.95		
PCB-24/27	ND	3.44		
PCB-25	ND		2.34	
PCB-26	3.54			J
PCB-28	25.3			
PCB-29	ND	1.95		
PCB-30	ND	3.33		
PCB-31	12.8			
PCB-34	ND	1.82		
PCB-35	ND	1.91		
PCB-36	ND	1.85		
PCB-37	ND	1.78		
PCB-38	ND	1.93		
PCB-39	ND	1.90		
PCB-40	10.2			
PCB-41/64/71/72	40.2			
PCB-42/59	14.2			
PCB-43/49	47.6			
PCB-44	40.4			
PCB-45	ND		4.18	
PCB-46	ND	3.51		
PCB-47	21.8			
PCB-48/75	9.94			J
PCB-50	ND	3.12		
PCB-51	ND		3.61	
PCB-52/69	45.8			
PCB-53	7.25			
PCB-54	ND	2.37		
PCB-55	ND	1.92		
PCB-56/60	20.6			
PCB-57	ND	2.12		
PCB-58	ND	2.09		
PCB-61/70	37.4			
PCB-62	ND	2.24		
PCB-63	ND	2.04		
PCB-65	ND	2.31		
PCB-66/76	45.1			
PCB-67	ND	2.18		
PCB-68	ND	1.89		
PCB-73	ND	2.36		
PCB-74	20.5			
PCB-77	ND	2.03		
PCB-78	ND	2.13		
PCB-79	ND	2.04		
PCB-80	ND	1.79		
PCB-81	ND	1.95		
PCB-82	ND	5.47		
PCB-83	ND	3.23		
PCB-84/92	33.9			
PCB-85/116	11.3			
PCB-86	ND	5.20		
PCB-87/117/125	16.8			
PCB-88/91	13.5			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: REF-RW-01-S-M-PRC-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-03 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 22:58 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND	4.87		
PCB-90/101	63.6			
PCB-93	ND	4.69		
PCB-94	ND	4.41		
PCB-95/98/102	ND		48.1	
PCB-96	ND	3.44		
PCB-97	21.9			
PCB-99	43.2			
PCB-100	ND	3.90		
PCB-103	ND	3.88		
PCB-104	ND	2.96		
PCB-105	13.7			
PCB-106/118	46.4			
PCB-107/109	5.59			J
PCB-108/112	ND	3.82		
PCB-110	53.7			
PCB-111/115	ND		4.26	
PCB-113	ND	3.62		
PCB-114	ND	3.48		
PCB-119	3.89			J
PCB-120	ND	2.70		
PCB-121	ND	2.83		
PCB-122	ND	4.14		
PCB-123	ND	3.24		
PCB-124	ND	3.12		
PCB-126	ND	3.90		
PCB-127	ND	3.58		
PCB-128/162	7.36			J
PCB-129	ND	4.38		
PCB-130	4.16			J
PCB-131	ND	4.48		
PCB-132/161	11.7			
PCB-133/142	ND	4.16		
PCB-134/143	4.59			J
PCB-135	ND	7.79		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	ND	5.44		
PCB-137	ND		1.68	
PCB-138/163/164	44.5			
PCB-139/149	46.6			
PCB-140	ND	7.99		
PCB-141	6.45			
PCB-144	ND	7.26		
PCB-145	ND	5.68		
PCB-146/165	10.6			
PCB-147	ND	7.97		
PCB-148	ND	7.60		
PCB-150	ND	5.51		
PCB-151	ND		10.3	
PCB-152	ND	5.32		
PCB-153	48.7			
PCB-154	ND	6.98		
PCB-155	ND	5.17		
PCB-156	3.03			J
PCB-157	ND	3.33		
PCB-158/160	3.21			J
PCB-159	ND	3.05		
PCB-166	ND	3.26		
PCB-167	ND	3.14		
PCB-168	ND	2.79		
PCB-169	ND	3.80		
PCB-170	6.24			
PCB-171	ND	3.55		
PCB-172	ND	3.82		
PCB-173	ND	4.68		
PCB-174	ND		7.39	
PCB-175	ND	3.45		
PCB-176	ND	2.48		
PCB-177	ND		6.40	
PCB-178	ND	3.36		
PCB-179	ND		5.57	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: REF-RW-01-S-M-PRC-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-03 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 22:58 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	16.4			
PCB-181	ND	3.83		
PCB-182/187	16.4			
PCB-183	ND	2.95		
PCB-184	ND	2.70		
PCB-185	ND	3.68		
PCB-186	ND	2.48		
PCB-188	ND	2.38		
PCB-189	ND	3.12		
PCB-190	ND	2.98		
PCB-191	ND	2.78		
PCB-192	ND	2.98		
PCB-193	ND	2.79		
PCB-194	5.84			
PCB-195	ND	3.30		
PCB-196/203	ND	6.88		
PCB-197	ND	4.88		
PCB-198	ND	7.56		
PCB-199	ND	7.69		
PCB-200	ND	5.51		
PCB-201	ND	5.20		
PCB-202	ND	5.57		
PCB-204	ND	5.31		
PCB-205	ND	2.33		
PCB-206	ND	4.66		
PCB-207	ND	2.69		
PCB-208	ND	2.72		
PCB-209	ND	3.26		
Total monoCB	ND	3.53		
Total diCB	ND	22.7		
Total triCB	84.4		86.8	
Total tetraCB	361		369	
Total pentaCB	328		380	
Total hexaCB	191		203	
Total heptaCB	39.0		58.4	
Total octaCB	5.84			
Total nonaCB	ND	4.66		
DecaCB	ND	3.26		
Total PCB	1010			
13C-PCB-8	14.2			
13C-PCB-31	523			
13C-PCB-79	3130			
13C-PCB-133	6570			
13C-PCB-178	6560			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: REF-RW-01-S-M-PRC-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-03 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 29-Jan-15 22:58 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	89.5	5 -145	
	13C-PCB-3	88.8	5 -145	
	13C-PCB-4	77.4	5 -145	
	13C-PCB-11	85.8	5 -145	
	13C-PCB-9	79.8	5 -145	
	13C-PCB-19	89.0	5 -145	
	13C-PCB-28	101	5 -145	
	13C-PCB-32	91.0	5 -145	
	13C-PCB-37	110	5 -145	
	13C-PCB-47	99.1	5 -145	
	13C-PCB-52	100	5 -145	
	13C-PCB-54	89.0	5 -145	
	13C-PCB-70	99.5	5 -145	
	13C-PCB-77	99.7	10 -145	
	13C-PCB-80	99.9	10 -145	
	13C-PCB-81	97.3	10 -145	
	13C-PCB-95	96.2	10 -145	
	13C-PCB-97	98.4	10 -145	
	13C-PCB-101	96.5	10 -145	
	13C-PCB-104	92.9	10 -145	
	13C-PCB-105	133	10 -145	
	13C-PCB-114	124	10 -145	
	13C-PCB-118	93.2	10 -145	
	13C-PCB-123	96.3	10 -145	
	13C-PCB-126	132	10 -145	
	13C-PCB-127	133	10 -145	
	13C-PCB-138	110	10 -145	
	13C-PCB-141	109	10 -145	
	13C-PCB-153	112	10 -145	
	13C-PCB-155	68.9	10 -145	
	13C-PCB-156	103	10 -145	
	13C-PCB-157	100	10 -145	
	13C-PCB-159	106	10 -145	
	13C-PCB-167	107	10 -145	
	13C-PCB-169	93.1	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	74.5	10 -145	
13C-PCB-180	80.2	10 -145	
13C-PCB-188	94.6	10 -145	
13C-PCB-189	69.4	10 -145	
13C-PCB-194	104	10 -145	
13C-PCB-202	61.4	10 -145	
13C-PCB-206	90.9	10 -145	
13C-PCB-208	83.2	10 -145	
13C-PCB-209	73.9	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OB-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-04 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 00:02 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	4.69			J
PCB-2	ND	3.86		
PCB-3	ND	3.85		
PCB-4/10	30.2			
PCB-5/8	104			
PCB-6	20.8			
PCB-7/9	ND	3.54		
PCB-11	186			
PCB-12/13	ND	3.42		
PCB-14	ND	2.94		
PCB-15	24.8			
PCB-16/32	210			
PCB-17	126			
PCB-18	263			
PCB-19	32.2			
PCB-20/21/33	176			
PCB-22	92.9			
PCB-23	ND	1.91		
PCB-24/27	27.5			
PCB-25	39.2			
PCB-26	50.8			
PCB-28	425			
PCB-29	2.92			J
PCB-30	ND	1.42		
PCB-31	231			
PCB-34	4.31			J
PCB-35	7.50			
PCB-36	7.41			
PCB-37	44.8			
PCB-38	8.57			
PCB-39	ND	1.98		
PCB-40	104			
PCB-41/64/71/72	484			
PCB-42/59	208			
PCB-43/49	659			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	568			
PCB-45	85.7			
PCB-46	46.0			
PCB-47	259			
PCB-48/75	117			
PCB-50	ND		3.10	
PCB-51	48.8			
PCB-52/69	733			
PCB-53	141			
PCB-54	6.40			
PCB-55	ND		6.26	
PCB-56/60	253			
PCB-57	4.08			J
PCB-58	3.06			J
PCB-61/70	493			
PCB-62	ND	1.98		
PCB-63	23.3			
PCB-65	ND	2.04		
PCB-66/76	506			
PCB-67	18.1			
PCB-68	6.08			
PCB-73	2.63			J
PCB-74	235			
PCB-77	26.0			
PCB-78	ND	1.87		
PCB-79	ND		11.7	
PCB-80	ND	1.56		
PCB-81	ND		1.17	
PCB-82	86.2			
PCB-83	ND	3.81		
PCB-84/92	388			
PCB-85/116	131			
PCB-86	ND	6.13		
PCB-87/117/125	230			
PCB-88/91	162			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OB-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-04 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 00:02 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	10.2			
PCB-90/101	871			
PCB-93	ND	5.85		
PCB-94	8.99			
PCB-95/98/102	713			
PCB-96	10.8			
PCB-97	254			
PCB-99	473			
PCB-100	ND		7.98	
PCB-103	19.4			
PCB-104	ND	3.31		
PCB-105	152			
PCB-106/118	533			
PCB-107/109	51.5			
PCB-108/112	41.5			
PCB-110	718			
PCB-111/115	12.7			
PCB-113	5.91			
PCB-114	10.1			
PCB-119	28.4			
PCB-120	4.26			J
PCB-121	ND	3.52		
PCB-122	6.27			
PCB-123	9.77			
PCB-124	24.7			
PCB-126	2.70			J
PCB-127	ND	1.60		
PCB-128/162	72.2			
PCB-129	19.0			
PCB-130	37.5			
PCB-131	ND	4.67		
PCB-132/161	144			
PCB-133/142	17.6			
PCB-134/143	33.6			
PCB-135	99.2			
PCB-136	96.5			
PCB-137	19.8			
PCB-138/163/164	560			
PCB-139/149	552			
PCB-140	ND	7.18		
PCB-141	79.8			
PCB-144	28.9			
PCB-145	ND	5.11		
PCB-146/165	99.9			
PCB-147	19.0			
PCB-148	ND	6.83		
PCB-150	ND	4.95		
PCB-151	165			
PCB-152	ND	4.78		
PCB-153	584			
PCB-154	14.6			
PCB-155	ND	4.66		
PCB-156	33.7			
PCB-157	9.93			
PCB-158/160	45.7			
PCB-159	ND	3.13		
PCB-166	ND	3.35		
PCB-167	17.5			
PCB-168	ND	2.91		
PCB-169	ND	3.85		
PCB-170	74.5			
PCB-171	ND		23.8	
PCB-172	ND		13.6	
PCB-173	ND	3.99		
PCB-174	112			
PCB-175	5.57			
PCB-176	14.9			
PCB-177	75.5			
PCB-178	28.2			
PCB-179	63.9			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OB-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-04 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 00:02 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	189			
PCB-181	ND	3.27		
PCB-182/187	169			
PCB-183	58.4			
PCB-184	ND	2.29		
PCB-185	9.61			
PCB-186	ND	2.11		
PCB-188	ND	2.02		
PCB-189	ND		3.00	
PCB-190	16.3			
PCB-191	4.21			J
PCB-192	ND	2.54		
PCB-193	12.8			
PCB-194	29.3			
PCB-195	11.9			
PCB-196/203	37.3			
PCB-197	ND	5.22		
PCB-198	ND	8.08		
PCB-199	36.6			
PCB-200	8.02			
PCB-201	7.71			
PCB-202	15.3			
PCB-204	ND	5.67		
PCB-205	2.61			J
PCB-206	16.6			
PCB-207	ND	1.92		
PCB-208	ND		5.75	
PCB-209	7.16			
Total monoCB	4.69			J
Total diCB	365			
Total triCB	1750			
Total tetraCB	5030		5050	
Total pentaCB	4960		4970	
Total hexaCB	2750			
Total heptaCB	834		874	

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
Total octaCB	149			
Total nonaCB	16.6		22.4	
DecaCB	7.16			
Total PCB	15900			
13C-PCB-8	28.2			
13C-PCB-31	1270			
13C-PCB-79	4390			
13C-PCB-133	7410			
13C-PCB-178	7190			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OB-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-04 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 00:02 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	91.1	5 -145	
	13C-PCB-3	92.1	5 -145	
	13C-PCB-4	78.2	5 -145	
	13C-PCB-11	88.6	5 -145	
	13C-PCB-9	81.7	5 -145	
	13C-PCB-19	86.6	5 -145	
	13C-PCB-28	105	5 -145	
	13C-PCB-32	88.1	5 -145	
	13C-PCB-37	113	5 -145	
	13C-PCB-47	97.0	5 -145	
	13C-PCB-52	95.4	5 -145	
	13C-PCB-54	87.5	5 -145	
	13C-PCB-70	96.3	5 -145	
	13C-PCB-77	93.8	10 -145	
	13C-PCB-80	98.5	10 -145	
	13C-PCB-81	95.5	10 -145	
	13C-PCB-95	94.9	10 -145	
	13C-PCB-97	97.4	10 -145	
	13C-PCB-101	94.5	10 -145	
	13C-PCB-104	95.3	10 -145	
	13C-PCB-105	123	10 -145	
	13C-PCB-114	119	10 -145	
	13C-PCB-118	90.4	10 -145	
	13C-PCB-123	93.2	10 -145	
	13C-PCB-126	122	10 -145	
	13C-PCB-127	124	10 -145	
	13C-PCB-138	101	10 -145	
	13C-PCB-141	103	10 -145	
	13C-PCB-153	103	10 -145	
	13C-PCB-155	64.2	10 -145	
	13C-PCB-156	92.9	10 -145	
	13C-PCB-157	91.6	10 -145	
	13C-PCB-159	99.0	10 -145	
	13C-PCB-167	97.0	10 -145	
	13C-PCB-169	87.7	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	67.0	10 -145	
13C-PCB-180	73.0	10 -145	
13C-PCB-188	81.2	10 -145	
13C-PCB-189	62.4	10 -145	
13C-PCB-194	94.2	10 -145	
13C-PCB-202	53.9	10 -145	
13C-PCB-206	78.9	10 -145	
13C-PCB-208	75.1	10 -145	
13C-PCB-209	61.9	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OB-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-05 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 07:43 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	4.65			J
PCB-2	ND	4.33		
PCB-3	ND	4.32		
PCB-4/10	24.6			
PCB-5/8	86.0			
PCB-6	19.1			
PCB-7/9	ND	3.05		
PCB-11	158			
PCB-12/13	ND	2.86		
PCB-14	ND	2.46		
PCB-15	ND		20.4	
PCB-16/32	227			
PCB-17	135			
PCB-18	268			
PCB-19	35.4			
PCB-20/21/33	146			
PCB-22	81.3			
PCB-23	ND	2.52		
PCB-24/27	31.8			
PCB-25	33.2			
PCB-26	45.5			
PCB-28	369			
PCB-29	1.93			J
PCB-30	ND	1.73		
PCB-31	231			
PCB-34	ND		3.07	
PCB-35	7.35			
PCB-36	6.00			
PCB-37	34.0			
PCB-38	15.6			
PCB-39	1.27			J
PCB-40	96.2			
PCB-41/64/71/72	440			
PCB-42/59	180			
PCB-43/49	629			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	504			
PCB-45	77.1			
PCB-46	43.6			
PCB-47	252			
PCB-48/75	125			
PCB-50	3.54			J
PCB-51	45.5			
PCB-52/69	701			
PCB-53	119			
PCB-54	6.00			
PCB-55	11.4			
PCB-56/60	233			
PCB-57	ND		3.38	
PCB-58	3.41			J
PCB-61/70	467			
PCB-62	ND	2.58		
PCB-63	22.5			
PCB-65	ND	2.66		
PCB-66/76	516			
PCB-67	17.3			
PCB-68	7.07			
PCB-73	ND		1.51	
PCB-74	222			
PCB-77	25.1			
PCB-78	ND	2.54		
PCB-79	21.2			
PCB-80	ND	2.19		
PCB-81	3.42			J
PCB-82	99.7			
PCB-83	ND	4.21		
PCB-84/92	422			
PCB-85/116	150			
PCB-86	ND	6.78		
PCB-87/117/125	251			
PCB-88/91	182			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OB-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-05 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 07:43 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND		9.29	
PCB-90/101	976			
PCB-93	ND	6.17		
PCB-94	ND		7.37	
PCB-95/98/102	853			
PCB-96	12.6			
PCB-97	296			
PCB-99	534			
PCB-100	9.53			
PCB-103	19.3			
PCB-104	ND	3.66		
PCB-105	167			
PCB-106/118	597			
PCB-107/109	55.1			
PCB-108/112	ND		42.2	
PCB-110	809			
PCB-111/115	ND	3.77		
PCB-113	ND	4.62		
PCB-114	8.90			
PCB-119	27.5			
PCB-120	3.71			J
PCB-121	ND	3.72		
PCB-122	4.03			J
PCB-123	13.5			
PCB-124	28.3			
PCB-126	ND	3.01		
PCB-127	ND	2.78		
PCB-128/162	75.9			
PCB-129	19.1			
PCB-130	39.2			
PCB-131	ND	5.15		
PCB-132/161	138			
PCB-133/142	21.0			
PCB-134/143	35.2			
PCB-135	107			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	108			
PCB-137	16.1			
PCB-138/163/164	565			
PCB-139/149	590			
PCB-140	6.96			
PCB-141	79.5			
PCB-144	28.1			
PCB-145	ND	4.99		
PCB-146/165	103			
PCB-147	ND		16.7	
PCB-148	ND	6.67		
PCB-150	ND	4.83		
PCB-151	177			
PCB-152	ND	4.66		
PCB-153	606			
PCB-154	22.6			
PCB-155	ND	4.55		
PCB-156	34.0			
PCB-157	8.16			
PCB-158/160	45.2			
PCB-159	ND	3.56		
PCB-166	ND	3.81		
PCB-167	17.9			
PCB-168	ND	3.21		
PCB-169	ND	4.20		
PCB-170	72.9			
PCB-171	24.9			
PCB-172	17.3			
PCB-173	ND	4.95		
PCB-174	113			
PCB-175	ND		3.99	
PCB-176	14.4			
PCB-177	73.5			
PCB-178	32.1			
PCB-179	64.5			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OB-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-05 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 07:43 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	174			
PCB-181	ND	4.05		
PCB-182/187	167			
PCB-183	60.1			
PCB-184	ND	2.84		
PCB-185	13.4			
PCB-186	ND	2.61		
PCB-188	ND	2.50		
PCB-189	ND		2.52	
PCB-190	14.0			
PCB-191	ND	2.93		
PCB-192	ND	3.14		
PCB-193	8.17			
PCB-194	25.7			
PCB-195	11.1			
PCB-196/203	42.2			
PCB-197	ND	4.17		
PCB-198	ND	6.45		
PCB-199	45.0			
PCB-200	5.86			
PCB-201	ND	4.44		
PCB-202	13.6			
PCB-204	ND	4.52		
PCB-205	ND	2.68		
PCB-206	17.9			
PCB-207	ND	2.84		
PCB-208	5.94			
PCB-209	ND		5.95	
Total monoCB	4.65			J
Total diCB	288		308	
Total triCB	1670			
Total tetraCB	4770		4780	
Total pentaCB	5520		5580	
Total hexaCB	2840		2860	
Total heptaCB	850		856	
Total octaCB	144			
Total nonaCB	23.8			
DecaCB	ND		5.95	
Total PCB	16100			
13C-PCB-8	34.0			
13C-PCB-31	947			
13C-PCB-79	2990			
13C-PCB-133	4110			
13C-PCB-178	3830			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OB-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-05 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 07:43 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	63.7	5 -145	
	13C-PCB-3	69.4	5 -145	
	13C-PCB-4	66.9	5 -145	
	13C-PCB-11	81.7	5 -145	
	13C-PCB-9	72.6	5 -145	
	13C-PCB-19	67.7	5 -145	
	13C-PCB-28	83.0	5 -145	
	13C-PCB-32	75.2	5 -145	
	13C-PCB-37	73.3	5 -145	
	13C-PCB-47	91.7	5 -145	
	13C-PCB-52	93.0	5 -145	
	13C-PCB-54	83.8	5 -145	
	13C-PCB-70	86.4	5 -145	
	13C-PCB-77	84.3	10 -145	
	13C-PCB-80	88.5	10 -145	
	13C-PCB-81	85.3	10 -145	
	13C-PCB-95	89.9	10 -145	
	13C-PCB-97	90.2	10 -145	
	13C-PCB-101	89.8	10 -145	
	13C-PCB-104	93.1	10 -145	
	13C-PCB-105	92.7	10 -145	
	13C-PCB-114	94.9	10 -145	
	13C-PCB-118	84.7	10 -145	
	13C-PCB-123	89.3	10 -145	
	13C-PCB-126	96.8	10 -145	
	13C-PCB-127	98.7	10 -145	
	13C-PCB-138	98.1	10 -145	
	13C-PCB-141	98.7	10 -145	
	13C-PCB-153	102	10 -145	
	13C-PCB-155	64.2	10 -145	
	13C-PCB-156	91.1	10 -145	
	13C-PCB-157	88.9	10 -145	
	13C-PCB-159	92.7	10 -145	
	13C-PCB-167	94.9	10 -145	
	13C-PCB-169	84.8	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	68.2	10 -145	
13C-PCB-180	73.8	10 -145	
13C-PCB-188	79.1	10 -145	
13C-PCB-189	62.4	10 -145	
13C-PCB-194	88.7	10 -145	
13C-PCB-202	53.2	10 -145	
13C-PCB-206	79.1	10 -145	
13C-PCB-208	76.2	10 -145	
13C-PCB-209	70.8	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: SP-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 12:45

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-06 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 08:47 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	3.79			J
PCB-2	ND	5.68		
PCB-3	ND	5.66		
PCB-4/10	22.9			
PCB-5/8	120			
PCB-6	18.0			
PCB-7/9	ND	4.92		
PCB-11	172			
PCB-12/13	ND	4.62		
PCB-14	ND	3.98		
PCB-15	ND	4.06		
PCB-16/32	268			
PCB-17	166			
PCB-18	302			
PCB-19	32.2			
PCB-20/21/33	213			
PCB-22	93.2			
PCB-23	ND	3.72		
PCB-24/27	31.8			
PCB-25	44.6			
PCB-26	44.6			
PCB-28	441			
PCB-29	2.83			J
PCB-30	ND	2.45		
PCB-31	238			
PCB-34	6.32			
PCB-35	8.02			
PCB-36	8.24			
PCB-37	13.9			
PCB-38	18.9			
PCB-39	ND	4.05		
PCB-40	118			
PCB-41/64/71/72	596			
PCB-42/59	243			
PCB-43/49	725			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	662			
PCB-45	87.1			
PCB-46	51.2			
PCB-47	304			
PCB-48/75	173			
PCB-50	3.11			J
PCB-51	59.3			
PCB-52/69	751			
PCB-53	132			
PCB-54	5.23			
PCB-55	13.1			
PCB-56/60	311			
PCB-57	6.48			
PCB-58	3.55			J
PCB-61/70	560			
PCB-62	ND	3.23		
PCB-63	30.4			
PCB-65	ND	3.33		
PCB-66/76	621			
PCB-67	17.5			
PCB-68	8.42			
PCB-73	4.15			J
PCB-74	267			
PCB-77	24.9			
PCB-78	ND	2.89		
PCB-79	25.7			
PCB-80	ND	2.53		
PCB-81	3.69			J
PCB-82	122			
PCB-83	ND	4.24		
PCB-84/92	458			
PCB-85/116	182			
PCB-86	ND	6.83		
PCB-87/117/125	295			
PCB-88/91	214			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: SP-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 12:45

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-06 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 08:47 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND		15.6	
PCB-90/101	1090			
PCB-93	ND	6.40		
PCB-94	10.9			
PCB-95/98/102	868			
PCB-96	15.9			
PCB-97	353			
PCB-99	685			
PCB-100	9.84			
PCB-103	22.6			
PCB-104	ND	4.03		
PCB-105	195			
PCB-106/118	696			
PCB-107/109	75.2			
PCB-108/112	58.1			
PCB-110	930			
PCB-111/115	12.9			
PCB-113	3.60			J
PCB-114	10.7			
PCB-119	39.8			
PCB-120	5.30			
PCB-121	ND	3.86		
PCB-122	6.83			
PCB-123	17.9			
PCB-124	29.8			
PCB-126	5.86			
PCB-127	ND	3.07		
PCB-128/162	106			
PCB-129	26.9			
PCB-130	49.4			
PCB-131	ND	3.61		
PCB-132/161	178			
PCB-133/142	ND		21.5	
PCB-134/143	43.7			
PCB-135	119			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	109			
PCB-137	21.8			
PCB-138/163/164	666			
PCB-139/149	630			
PCB-140	9.00			
PCB-141	82.5			
PCB-144	27.2			
PCB-145	ND	7.52		
PCB-146/165	131			
PCB-147	23.4			
PCB-148	ND	10.1		
PCB-150	ND	7.29		
PCB-151	177			
PCB-152	ND	7.03		
PCB-153	699			
PCB-154	ND		19.5	
PCB-155	ND	6.84		
PCB-156	40.3			
PCB-157	9.77			
PCB-158/160	54.0			
PCB-159	ND	2.40		
PCB-166	2.44			J
PCB-167	21.3			
PCB-168	ND	2.25		
PCB-169	ND	3.07		
PCB-170	79.5			
PCB-171	31.0			
PCB-172	23.1			
PCB-173	ND	6.44		
PCB-174	124			
PCB-175	3.87			J
PCB-176	13.0			
PCB-177	88.3			
PCB-178	35.0			
PCB-179	64.1			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: SP-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 12:45

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-06 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 08:47 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	169			
PCB-181	ND	5.27		
PCB-182/187	191			
PCB-183	62.1			
PCB-184	ND	3.31		
PCB-185	12.9			
PCB-186	ND	3.04		
PCB-188	ND	2.91		
PCB-189	ND	3.92		
PCB-190	ND		16.4	
PCB-191	ND	3.82		
PCB-192	ND	4.10		
PCB-193	14.1			
PCB-194	28.9			
PCB-195	12.0			
PCB-196/203	37.9			
PCB-197	ND	8.27		
PCB-198	ND	12.8		
PCB-199	45.2			
PCB-200	ND	9.33		
PCB-201	ND	8.83		
PCB-202	ND		14.5	
PCB-204	ND	8.98		
PCB-205	ND		1.16	
PCB-206	ND		13.2	
PCB-207	ND	3.13		
PCB-208	4.20			J
PCB-209	ND	8.56		
Total monoCB	3.79			J
Total diCB	333			
Total triCB	1930			
Total tetraCB	5810			
Total pentaCB	6420		6430	
Total hexaCB	3230		3270	
Total heptaCB	912		929	
Total octaCB	124		140	
Total nonaCB	4.20		17.4	
DecaCB	ND	8.56		
Total PCB	18800			
13C-PCB-8	8.29			
13C-PCB-31	594			
13C-PCB-79	3360			
13C-PCB-133	5380			
13C-PCB-178	5160			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: SP-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 12:45

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-06 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 08:47 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	63.4	5 -145	
	13C-PCB-3	66.2	5 -145	
	13C-PCB-4	65.9	5 -145	
	13C-PCB-11	80.6	5 -145	
	13C-PCB-9	72.7	5 -145	
	13C-PCB-19	59.6	5 -145	
	13C-PCB-28	80.3	5 -145	
	13C-PCB-32	68.2	5 -145	
	13C-PCB-37	74.3	5 -145	
	13C-PCB-47	85.5	5 -145	
	13C-PCB-52	87.3	5 -145	
	13C-PCB-54	75.3	5 -145	
	13C-PCB-70	89.7	5 -145	
	13C-PCB-77	86.6	10 -145	
	13C-PCB-80	90.2	10 -145	
	13C-PCB-81	90.0	10 -145	
	13C-PCB-95	88.7	10 -145	
	13C-PCB-97	91.2	10 -145	
	13C-PCB-101	89.6	10 -145	
	13C-PCB-104	87.4	10 -145	
	13C-PCB-105	102	10 -145	
	13C-PCB-114	103	10 -145	
	13C-PCB-118	85.7	10 -145	
	13C-PCB-123	88.7	10 -145	
	13C-PCB-126	102	10 -145	
	13C-PCB-127	100	10 -145	
	13C-PCB-138	98.5	10 -145	
	13C-PCB-141	99.9	10 -145	
	13C-PCB-153	97.9	10 -145	
	13C-PCB-155	64.6	10 -145	
	13C-PCB-156	89.4	10 -145	
	13C-PCB-157	88.2	10 -145	
	13C-PCB-159	94.6	10 -145	
	13C-PCB-167	94.2	10 -145	
	13C-PCB-169	78.5	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	58.5	10 -145	
13C-PCB-180	67.5	10 -145	
13C-PCB-188	83.3	10 -145	
13C-PCB-189	59.5	10 -145	
13C-PCB-194	92.9	10 -145	
13C-PCB-202	50.8	10 -145	
13C-PCB-206	78.6	10 -145	
13C-PCB-208	75.2	10 -145	
13C-PCB-209	75.0	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: LARE-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 13:45

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-07 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 09:51 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	6.99			
PCB-2	ND	5.23		
PCB-3	ND	5.21		
PCB-4/10	49.1			
PCB-5/8	205			
PCB-6	46.7			
PCB-7/9	16.1			
PCB-11	141			
PCB-12/13	ND	4.59		
PCB-14	ND	3.95		
PCB-15	25.0			
PCB-16/32	604			
PCB-17	407			
PCB-18	949			
PCB-19	86.2			
PCB-20/21/33	480			
PCB-22	263			
PCB-23	ND	2.88		
PCB-24/27	78.6			
PCB-25	97.7			
PCB-26	153			
PCB-28	907			
PCB-29	ND		5.13	
PCB-30	ND	2.31		
PCB-31	661			
PCB-34	7.75			
PCB-35	8.29			
PCB-36	3.73			J
PCB-37	64.2			
PCB-38	27.5			
PCB-39	ND	2.98		
PCB-40	254			
PCB-41/64/71/72	1200			
PCB-42/59	462			
PCB-43/49	1230			
PCB-44	1460			
PCB-45	260			
PCB-46	125			
PCB-47	498			
PCB-48/75	314			
PCB-50	7.92			
PCB-51	112			
PCB-52/69	1630			
PCB-53	321			
PCB-54	9.14			
PCB-55	17.1			
PCB-56/60	519			
PCB-57	7.89			
PCB-58	4.12			J
PCB-61/70	946			
PCB-62	ND	3.20		
PCB-63	45.3			
PCB-65	ND	3.30		
PCB-66/76	800			
PCB-67	33.5			
PCB-68	13.2			
PCB-73	ND	3.33		
PCB-74	437			
PCB-77	36.7			
PCB-78	ND	3.06		
PCB-79	21.8			
PCB-80	ND	2.47		
PCB-81	5.24			
PCB-82	167			
PCB-83	ND	4.29		
PCB-84/92	603			
PCB-85/116	196			
PCB-86	ND	6.91		
PCB-87/117/125	393			
PCB-88/91	245			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: LARE-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 13:45

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-07 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 09:51 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	23.9			
PCB-90/101	1160			
PCB-93	ND	5.97		
PCB-94	13.8			
PCB-95/98/102	1250			
PCB-96	26.1			
PCB-97	363			
PCB-99	524			
PCB-100	8.76			
PCB-103	19.2			
PCB-104	ND	3.51		
PCB-105	231			
PCB-106/118	671			
PCB-107/109	61.2			
PCB-108/112	59.9			
PCB-110	1210			
PCB-111/115	16.7			
PCB-113	4.05			J
PCB-114	14.4			
PCB-119	26.5			
PCB-120	4.34			J
PCB-121	ND	3.60		
PCB-122	8.96			
PCB-123	ND		14.0	
PCB-124	ND		31.0	
PCB-126	5.26			
PCB-127	ND	1.45		
PCB-128/162	94.5			
PCB-129	25.8			
PCB-130	46.9			
PCB-131	ND	5.45		
PCB-132/161	207			
PCB-133/142	19.1			
PCB-134/143	43.5			
PCB-135	98.8			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	120			
PCB-137	24.5			
PCB-138/163/164	637			
PCB-139/149	610			
PCB-140	ND	8.54		
PCB-141	117			
PCB-144	42.8			
PCB-145	ND	6.08		
PCB-146/165	91.4			
PCB-147	ND		16.9	
PCB-148	ND	8.13		
PCB-150	ND	5.89		
PCB-151	186			
PCB-152	ND	5.68		
PCB-153	563			
PCB-154	8.72			
PCB-155	ND	5.54		
PCB-156	37.9			
PCB-157	10.8			
PCB-158/160	64.5			
PCB-159	ND	3.80		
PCB-166	3.09			J
PCB-167	20.8			
PCB-168	ND	3.39		
PCB-169	ND	5.08		
PCB-170	85.7			
PCB-171	29.8			
PCB-172	23.0			
PCB-173	ND	6.71		
PCB-174	147			
PCB-175	ND		5.28	
PCB-176	15.4			
PCB-177	75.4			
PCB-178	29.7			
PCB-179	63.6			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: LARE-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 13:45

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-07 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 09:51 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	216			
PCB-181	ND	5.49		
PCB-182/187	157			
PCB-183	59.7			
PCB-184	ND	3.43		
PCB-185	17.0			
PCB-186	ND	3.15		
PCB-188	ND	3.02		
PCB-189	ND	4.33		
PCB-190	17.4			
PCB-191	3.70			J
PCB-192	ND	4.26		
PCB-193	14.1			
PCB-194	29.0			
PCB-195	11.0			
PCB-196/203	32.3			
PCB-197	ND	5.82		
PCB-198	ND	9.00		
PCB-199	34.6			
PCB-200	ND		3.85	
PCB-201	ND	6.19		
PCB-202	14.6			
PCB-204	ND	6.32		
PCB-205	ND	2.64		
PCB-206	15.0			
PCB-207	ND	3.40		
PCB-208	7.27			
PCB-209	9.29			
Total monoCB	6.99			
Total diCB	483			
Total triCB	4800			
Total tetraCB	10800			
Total pentaCB	7300		7340	
Total hexaCB	3070		3090	
Total heptaCB	955		961	

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
Total octaCB	121		125	
Total nonaCB	22.3			
DecaCB	9.29			
Total PCB	27500			
13C-PCB-8	ND			
13C-PCB-31	ND			
13C-PCB-79	ND			
13C-PCB-133	ND			
13C-PCB-178	ND			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: LARE-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 13:45

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-07 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 09:51 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	65.4	5 -145	
	13C-PCB-3	69.3	5 -145	
	13C-PCB-4	66.7	5 -145	
	13C-PCB-11	77.2	5 -145	
	13C-PCB-9	71.5	5 -145	
	13C-PCB-19	65.5	5 -145	
	13C-PCB-28	75.3	5 -145	
	13C-PCB-32	66.7	5 -145	
	13C-PCB-37	73.6	5 -145	
	13C-PCB-47	79.4	5 -145	
	13C-PCB-52	81.8	5 -145	
	13C-PCB-54	74.5	5 -145	
	13C-PCB-70	82.5	5 -145	
	13C-PCB-77	81.6	10 -145	
	13C-PCB-80	81.5	10 -145	
	13C-PCB-81	76.1	10 -145	
	13C-PCB-95	81.8	10 -145	
	13C-PCB-97	82.5	10 -145	
	13C-PCB-101	81.3	10 -145	
	13C-PCB-104	84.2	10 -145	
	13C-PCB-105	88.5	10 -145	
	13C-PCB-114	89.6	10 -145	
	13C-PCB-118	73.0	10 -145	
	13C-PCB-123	79.7	10 -145	
	13C-PCB-126	87.4	10 -145	
	13C-PCB-127	85.7	10 -145	
	13C-PCB-138	88.1	10 -145	
	13C-PCB-141	88.1	10 -145	
	13C-PCB-153	89.3	10 -145	
	13C-PCB-155	58.7	10 -145	
	13C-PCB-156	80.1	10 -145	
	13C-PCB-157	76.7	10 -145	
	13C-PCB-159	84.0	10 -145	
	13C-PCB-167	82.3	10 -145	
	13C-PCB-169	67.2	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	51.8	10 -145	
13C-PCB-180	58.5	10 -145	
13C-PCB-188	71.9	10 -145	
13C-PCB-189	47.0	10 -145	
13C-PCB-194	80.1	10 -145	
13C-PCB-202	44.2	10 -145	
13C-PCB-206	71.9	10 -145	
13C-PCB-208	64.8	10 -145	
13C-PCB-209	63.2	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IB-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 15:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-08 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 10:55 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	3.91			J
PCB-2	ND	3.00		
PCB-3	ND	2.98		
PCB-4/10	28.5			
PCB-5/8	57.5			
PCB-6	12.2			
PCB-7/9	ND	3.10		
PCB-11	142			
PCB-12/13	ND	3.14		
PCB-14	ND	2.71		
PCB-15	26.8			
PCB-16/32	305			
PCB-17	161			
PCB-18	356			
PCB-19	56.6			
PCB-20/21/33	144			
PCB-22	92.6			
PCB-23	ND	1.75		
PCB-24/27	50.6			
PCB-25	32.8			
PCB-26	49.2			
PCB-28	450			
PCB-29	ND		2.35	
PCB-30	ND	1.05		
PCB-31	250			
PCB-34	ND		3.19	
PCB-35	11.5			
PCB-36	ND		5.76	
PCB-37	68.5			
PCB-38	19.5			
PCB-39	ND	1.93		
PCB-40	138			
PCB-41/64/71/72	665			
PCB-42/59	269			
PCB-43/49	827			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	786			
PCB-45	125			
PCB-46	77.8			
PCB-47	321			
PCB-48/75	153			
PCB-50	3.97			J
PCB-51	83.0			
PCB-52/69	1160			
PCB-53	241			
PCB-54	16.0			
PCB-55	ND		14.0	
PCB-56/60	335			
PCB-57	6.29			
PCB-58	3.90			J
PCB-61/70	610			
PCB-62	ND	1.57		
PCB-63	28.0			
PCB-65	ND	1.63		
PCB-66/76	648			
PCB-67	21.8			
PCB-68	ND		7.23	
PCB-73	ND		2.72	
PCB-74	281			
PCB-77	51.2			
PCB-78	ND	3.90		
PCB-79	27.8			
PCB-80	ND	3.43		
PCB-81	4.11			J
PCB-82	167			
PCB-83	ND	4.56		
PCB-84/92	764			
PCB-85/116	202			
PCB-86	ND	7.34		
PCB-87/117/125	539			
PCB-88/91	264			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IB-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 15:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-08 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 10:55 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	19.6			
PCB-90/101	2500			
PCB-93	ND	6.55		
PCB-94	14.7			
PCB-95/98/102	2150			
PCB-96	21.1			
PCB-97	461			
PCB-99	734			
PCB-100	ND		17.3	
PCB-103	31.9			
PCB-104	ND	3.79		
PCB-105	276			
PCB-106/118	1090			
PCB-107/109	81.4			
PCB-108/112	69.4			
PCB-110	1840			
PCB-111/115	19.6			
PCB-113	3.83			J
PCB-114	18.4			
PCB-119	40.4			
PCB-120	11.8			
PCB-121	ND	3.95		
PCB-122	8.27			
PCB-123	18.9			
PCB-124	59.8			
PCB-126	ND		8.22	
PCB-127	ND	5.01		
PCB-128/162	189			
PCB-129	48.7			
PCB-130	115			
PCB-131	ND	7.45		
PCB-132/161	623			
PCB-133/142	53.1			
PCB-134/143	128			
PCB-135	366			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	480			
PCB-137	27.8			
PCB-138/163/164	2290			
PCB-139/149	2530			
PCB-140	ND	9.88		
PCB-141	521			
PCB-144	176			
PCB-145	ND	7.03		
PCB-146/165	324			
PCB-147	31.1			
PCB-148	ND	9.40		
PCB-150	9.05			
PCB-151	845			
PCB-152	ND	6.57		
PCB-153	2560			
PCB-154	ND		26.0	
PCB-155	ND	6.42		
PCB-156	123			
PCB-157	15.6			
PCB-158/160	208			
PCB-159	ND	4.65		
PCB-166	ND	4.98		
PCB-167	60.0			
PCB-168	ND	4.65		
PCB-169	ND	4.39		
PCB-170	451			
PCB-171	145			
PCB-172	66.1			
PCB-173	ND		11.1	
PCB-174	598			
PCB-175	21.7			
PCB-176	74.3			
PCB-177	321			
PCB-178	110			
PCB-179	273			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IB-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 15:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-08 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 10:55 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	1060			
PCB-181	ND	3.66		
PCB-182/187	636			
PCB-183	316			
PCB-184	ND	2.75		
PCB-185	60.9			
PCB-186	ND	2.52		
PCB-188	ND	2.41		
PCB-189	15.3			
PCB-190	89.4			
PCB-191	16.5			
PCB-192	ND	2.84		
PCB-193	45.3			
PCB-194	93.6			
PCB-195	45.7			
PCB-196/203	125			
PCB-197	ND		5.72	
PCB-198	ND	10.4		
PCB-199	114			
PCB-200	16.9			
PCB-201	19.2			
PCB-202	ND		27.3	
PCB-204	ND	7.32		
PCB-205	4.88			J
PCB-206	25.7			
PCB-207	3.07			J
PCB-208	8.96			
PCB-209	ND		9.55	
Total monoCB	3.91			J
Total diCB	267			
Total triCB	2050		2060	
Total tetraCB	6890		6910	
Total pentaCB	11400			
Total hexaCB	11700			
Total heptaCB	4300		4310	

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
Total octaCB	419		453	
Total nonaCB	37.8			
DecaCB	ND		9.55	
Total PCB	37100			
13C-PCB-8	26.4			
13C-PCB-31	1120			
13C-PCB-79	6660			
13C-PCB-133	9740			
13C-PCB-178	9920			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IB-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 15:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-08 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 10:55 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	82.5	5 -145	
	13C-PCB-3	85.2	5 -145	
	13C-PCB-4	81.2	5 -145	
	13C-PCB-11	87.5	5 -145	
	13C-PCB-9	83.5	5 -145	
	13C-PCB-19	72.7	5 -145	
	13C-PCB-28	93.8	5 -145	
	13C-PCB-32	71.1	5 -145	
	13C-PCB-37	80.0	5 -145	
	13C-PCB-47	97.2	5 -145	
	13C-PCB-52	101	5 -145	
	13C-PCB-54	91.1	5 -145	
	13C-PCB-70	90.0	5 -145	
	13C-PCB-77	91.5	10 -145	
	13C-PCB-80	90.0	10 -145	
	13C-PCB-81	91.5	10 -145	
	13C-PCB-95	94.3	10 -145	
	13C-PCB-97	93.5	10 -145	
	13C-PCB-101	92.8	10 -145	
	13C-PCB-104	96.3	10 -145	
	13C-PCB-105	93.8	10 -145	
	13C-PCB-114	95.7	10 -145	
	13C-PCB-118	86.9	10 -145	
	13C-PCB-123	91.2	10 -145	
	13C-PCB-126	93.5	10 -145	
	13C-PCB-127	99.9	10 -145	
	13C-PCB-138	98.2	10 -145	
	13C-PCB-141	97.6	10 -145	
	13C-PCB-153	96.5	10 -145	
	13C-PCB-155	67.2	10 -145	
	13C-PCB-156	91.1	10 -145	
	13C-PCB-157	91.1	10 -145	
	13C-PCB-159	97.3	10 -145	
	13C-PCB-167	94.5	10 -145	
	13C-PCB-169	84.0	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	73.7	10 -145	
13C-PCB-180	78.0	10 -145	
13C-PCB-188	80.4	10 -145	
13C-PCB-189	66.5	10 -145	
13C-PCB-194	94.4	10 -145	
13C-PCB-202	57.2	10 -145	
13C-PCB-206	73.5	10 -145	
13C-PCB-208	84.3	10 -145	
13C-PCB-209	70.2	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IB-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 15:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-09 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 11:59 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	4.68			J
PCB-2	ND	3.42		
PCB-3	ND	3.42		
PCB-4/10	25.2			
PCB-5/8	67.0			
PCB-6	16.1			
PCB-7/9	ND	8.47		
PCB-11	145			
PCB-12/13	ND	7.65		
PCB-14	ND	6.59		
PCB-15	28.0			
PCB-16/32	273			
PCB-17	151			
PCB-18	343			
PCB-19	50.3			
PCB-20/21/33	149			
PCB-22	94.6			
PCB-23	ND	3.30		
PCB-24/27	47.2			
PCB-25	29.7			
PCB-26	45.6			
PCB-28	412			
PCB-29	ND	3.30		
PCB-30	ND	1.61		
PCB-31	234			
PCB-34	ND	3.07		
PCB-35	9.57			
PCB-36	6.34			
PCB-37	65.3			
PCB-38	18.1			
PCB-39	ND	2.88		
PCB-40	125			
PCB-41/64/71/72	571			
PCB-42/59	219			
PCB-43/49	711			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	661			
PCB-45	107			
PCB-46	61.7			
PCB-47	289			
PCB-48/75	133			
PCB-50	4.71			J
PCB-51	74.2			
PCB-52/69	989			
PCB-53	201			
PCB-54	12.7			
PCB-55	13.9			
PCB-56/60	321			
PCB-57	ND		4.34	
PCB-58	3.13			J
PCB-61/70	533			
PCB-62	ND	1.59		
PCB-63	23.5			
PCB-65	ND	1.63		
PCB-66/76	559			
PCB-67	16.5			
PCB-68	6.85			
PCB-73	ND		3.50	
PCB-74	244			
PCB-77	37.8			
PCB-78	ND	0.774		
PCB-79	23.3			
PCB-80	ND	0.750		
PCB-81	3.78			J
PCB-82	140			
PCB-83	ND	4.27		
PCB-84/92	659			
PCB-85/116	187			
PCB-86	ND	6.86		
PCB-87/117/125	450			
PCB-88/91	226			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IB-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 15:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-09 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 11:59 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	18.9			
PCB-90/101	1960			
PCB-93	ND	6.14		
PCB-94	ND		11.6	
PCB-95/98/102	1680			
PCB-96	21.3			
PCB-97	384			
PCB-99	652			
PCB-100	14.6			
PCB-103	30.5			
PCB-104	ND	3.79		
PCB-105	233			
PCB-106/118	906			
PCB-107/109	68.6			
PCB-108/112	61.8			
PCB-110	1510			
PCB-111/115	16.6			
PCB-113	ND	4.66		
PCB-114	13.8			
PCB-119	36.7			
PCB-120	9.79			
PCB-121	ND	3.70		
PCB-122	ND	5.37		
PCB-123	14.6			
PCB-124	48.7			
PCB-126	7.61			
PCB-127	ND	5.40		
PCB-128/162	149			
PCB-129	39.3			
PCB-130	74.9			
PCB-131	ND	9.38		
PCB-132/161	443			
PCB-133/142	ND		33.9	
PCB-134/143	88.4			
PCB-135	291			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	351			
PCB-137	23.0			
PCB-138/163/164	1600			
PCB-139/149	1790			
PCB-140	6.14			
PCB-141	339			
PCB-144	117			
PCB-145	ND	8.10		
PCB-146/165	236			
PCB-147	28.5			
PCB-148	ND	10.8		
PCB-150	ND	7.85		
PCB-151	603			
PCB-152	ND	7.58		
PCB-153	1780			
PCB-154	26.8			
PCB-155	ND	7.39		
PCB-156	85.8			
PCB-157	10.6			
PCB-158/160	151			
PCB-159	ND	6.27		
PCB-166	ND	6.71		
PCB-167	44.1			
PCB-168	ND	5.85		
PCB-169	ND	7.71		
PCB-170	299			
PCB-171	103			
PCB-172	50.2			
PCB-173	11.0			
PCB-174	443			
PCB-175	15.9			
PCB-176	52.7			
PCB-177	249			
PCB-178	69.1			
PCB-179	190			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IB-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 15:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-09 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 11:59 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	734			
PCB-181	ND	1.49		
PCB-182/187	461			
PCB-183	214			
PCB-184	ND	1.02		
PCB-185	48.2			
PCB-186	ND	0.935		
PCB-188	ND	0.896		
PCB-189	9.41			
PCB-190	59.2			
PCB-191	11.5			
PCB-192	ND	1.15		
PCB-193	31.3			
PCB-194	67.5			
PCB-195	31.9			
PCB-196/203	71.9			
PCB-197	ND		2.76	
PCB-198	ND	8.56		
PCB-199	69.5			
PCB-200	12.2			
PCB-201	11.2			
PCB-202	ND		20.8	
PCB-204	ND	6.00		
PCB-205	2.91			J
PCB-206	18.2			
PCB-207	ND	3.82		
PCB-208	8.19			
PCB-209	10.7			
Total monoCB	4.68			J
Total diCB	281			
Total triCB	1930			
Total tetraCB	5940		5950	
Total pentaCB	9350		9360	
Total hexaCB	8280		8320	
Total heptaCB	3050			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
Total octaCB	267		291	
Total nonaCB	26.4			
DecaCB	10.7			
Total PCB	29200			
13C-PCB-8	25.8			
13C-PCB-31	681			
13C-PCB-79	3280			
13C-PCB-133	4180			
13C-PCB-178	3750			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IB-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 15:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-09 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 11:59 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	48.9	5 -145	
	13C-PCB-3	62.5	5 -145	
	13C-PCB-4	61.3	5 -145	
	13C-PCB-11	84.0	5 -145	
	13C-PCB-9	70.7	5 -145	
	13C-PCB-19	67.3	5 -145	
	13C-PCB-28	84.6	5 -145	
	13C-PCB-32	68.6	5 -145	
	13C-PCB-37	77.3	5 -145	
	13C-PCB-47	92.1	5 -145	
	13C-PCB-52	93.2	5 -145	
	13C-PCB-54	80.7	5 -145	
	13C-PCB-70	88.9	5 -145	
	13C-PCB-77	94.2	10 -145	
	13C-PCB-80	87.5	10 -145	
	13C-PCB-81	94.1	10 -145	
	13C-PCB-95	93.1	10 -145	
	13C-PCB-97	94.3	10 -145	
	13C-PCB-101	93.5	10 -145	
	13C-PCB-104	94.7	10 -145	
	13C-PCB-105	98.3	10 -145	
	13C-PCB-114	104	10 -145	
	13C-PCB-118	87.3	10 -145	
	13C-PCB-123	90.7	10 -145	
	13C-PCB-126	102	10 -145	
	13C-PCB-127	98.3	10 -145	
	13C-PCB-138	100	10 -145	
	13C-PCB-141	100	10 -145	
	13C-PCB-153	101	10 -145	
	13C-PCB-155	66.6	10 -145	
	13C-PCB-156	91.2	10 -145	
	13C-PCB-157	90.8	10 -145	
	13C-PCB-159	96.6	10 -145	
	13C-PCB-167	96.0	10 -145	
	13C-PCB-169	83.7	10 -145	
	13C-PCB-170	63.8	10 -145	
	13C-PCB-180	71.1	10 -145	
	13C-PCB-188	80.2	10 -145	
	13C-PCB-189	57.7	10 -145	
	13C-PCB-194	95.6	10 -145	
	13C-PCB-202	53.8	10 -145	
	13C-PCB-206	84.1	10 -145	
	13C-PCB-208	77.1	10 -145	
	13C-PCB-209	77.2	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-M-PRC-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-10 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 13:03 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	5.31		
PCB-2	ND	5.07		
PCB-3	ND	5.06		
PCB-4/10	ND	6.04		
PCB-5/8	ND	4.85		
PCB-6	ND	4.98		
PCB-7/9	ND	4.92		
PCB-11	21.8			
PCB-12/13	ND	4.40		
PCB-14	ND	3.79		
PCB-15	ND	3.87		
PCB-16/32	50.3			
PCB-17	19.6			
PCB-18	44.8			
PCB-19	10.1			
PCB-20/21/33	29.9			
PCB-22	24.8			
PCB-23	ND	2.91		
PCB-24/27	9.43			J
PCB-25	7.71			
PCB-26	13.1			
PCB-28	64.7			
PCB-29	ND	2.91		
PCB-30	ND	1.93		
PCB-31	32.9			
PCB-34	ND	2.71		
PCB-35	ND	3.05		
PCB-36	ND	2.95		
PCB-37	10.8			
PCB-38	ND		4.84	
PCB-39	ND	3.04		
PCB-40	21.4			
PCB-41/64/71/72	127			
PCB-42/59	43.5			
PCB-43/49	220			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	115			
PCB-45	20.5			
PCB-46	12.8			
PCB-47	82.0			
PCB-48/75	21.7			
PCB-50	ND	2.51		
PCB-51	144			
PCB-52/69	333			
PCB-53	120			
PCB-54	21.3			
PCB-55	3.59			J
PCB-56/60	56.5			
PCB-57	4.76			J
PCB-58	ND	2.91		
PCB-61/70	98.4			
PCB-62	ND	3.18		
PCB-63	ND		3.16	
PCB-65	ND	3.29		
PCB-66/76	99.8			
PCB-67	ND	3.04		
PCB-68	ND	2.69		
PCB-73	ND		4.81	
PCB-74	43.4			
PCB-77	ND		9.00	
PCB-78	ND	2.77		
PCB-79	5.39			
PCB-80	ND	2.40		
PCB-81	ND	2.53		
PCB-82	26.6			
PCB-83	ND	3.13		
PCB-84/92	119			
PCB-85/116	27.9			
PCB-86	ND	5.03		
PCB-87/117/125	64.8			
PCB-88/91	70.8			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-M-PRC-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-10 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 13:03 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND		3.96	
PCB-90/101	295			
PCB-93	ND	4.67		
PCB-94	14.1			
PCB-95/98/102	360			
PCB-96	13.1			
PCB-97	56.8			
PCB-99	172			
PCB-100	27.7			
PCB-103	29.0			
PCB-104	8.38			
PCB-105	36.2			
PCB-106/118	132			
PCB-107/109	10.7			
PCB-108/112	11.0			
PCB-110	208			
PCB-111/115	ND		5.68	
PCB-113	ND	3.34		
PCB-114	ND		3.73	
PCB-119	ND		16.0	
PCB-120	ND	2.62		
PCB-121	ND	2.82		
PCB-122	ND	5.32		
PCB-123	ND	3.23		
PCB-124	8.01			
PCB-126	ND	4.68		
PCB-127	ND	4.48		
PCB-128/162	16.8			
PCB-129	ND	5.54		
PCB-130	ND		7.69	
PCB-131	ND	5.75		
PCB-132/161	47.2			
PCB-133/142	6.61			J
PCB-134/143	11.1			
PCB-135	42.8			
PCB-136	54.5			
PCB-137	5.04			
PCB-138/163/164	153			
PCB-139/149	260			
PCB-140	ND	12.3		
PCB-141	29.2			
PCB-144	9.33			
PCB-145	ND	8.76		
PCB-146/165	33.9			
PCB-147	27.2			
PCB-148	ND	11.7		
PCB-150	ND		7.17	
PCB-151	95.5			
PCB-152	ND	8.20		
PCB-153	212			
PCB-154	30.8			
PCB-155	ND	7.97		
PCB-156	8.49			
PCB-157	ND	4.15		
PCB-158/160	14.7			
PCB-159	ND	3.68		
PCB-166	ND	3.94		
PCB-167	4.58			J
PCB-168	ND	3.57		
PCB-169	ND	4.93		
PCB-170	ND		15.8	
PCB-171	11.7			
PCB-172	8.98			
PCB-173	ND	5.11		
PCB-174	47.9			
PCB-175	ND	3.46		
PCB-176	7.69			
PCB-177	24.1			
PCB-178	14.2			
PCB-179	29.9			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-M-PRC-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-10 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 13:03 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	60.8			
PCB-181	ND	4.18		
PCB-182/187	69.2			
PCB-183	20.2			
PCB-184	ND	2.71		
PCB-185	ND	4.01		
PCB-186	ND	2.49		
PCB-188	ND	2.38		
PCB-189	ND	3.38		
PCB-190	6.60			
PCB-191	ND	3.03		
PCB-192	ND	3.24		
PCB-193	ND		5.16	
PCB-194	11.0			
PCB-195	ND		4.19	
PCB-196/203	9.89			J
PCB-197	ND	6.50		
PCB-198	ND	10.1		
PCB-199	ND		9.17	
PCB-200	ND	7.33		
PCB-201	ND	6.92		
PCB-202	ND	7.44		
PCB-204	ND	7.06		
PCB-205	ND	3.36		
PCB-206	ND	5.49		
PCB-207	ND	2.92		
PCB-208	ND		5.31	
PCB-209	ND		8.40	
Total monoCB	ND	5.31		
Total diCB	21.8			
Total triCB	318		323	
Total tetraCB	1600		1610	
Total pentaCB	1690		1720	
Total hexaCB	1060		1080	
Total heptaCB	301		322	

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
Total octaCB	20.9		34.3	
Total nonaCB	ND		5.31	
DecaCB	ND		8.40	
Total PCB	5010			
13C-PCB-8	20.1			
13C-PCB-31	382			
13C-PCB-79	2720			
13C-PCB-133	4170			
13C-PCB-178	4270			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-M-PRC-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-10 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 13:03 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	46.6	5 -145	
	13C-PCB-3	52.6	5 -145	
	13C-PCB-4	52.9	5 -145	
	13C-PCB-11	66.3	5 -145	
	13C-PCB-9	56.5	5 -145	
	13C-PCB-19	53.0	5 -145	
	13C-PCB-28	63.2	5 -145	
	13C-PCB-32	59.0	5 -145	
	13C-PCB-37	53.1	5 -145	
	13C-PCB-47	70.2	5 -145	
	13C-PCB-52	71.8	5 -145	
	13C-PCB-54	69.3	5 -145	
	13C-PCB-70	72.9	5 -145	
	13C-PCB-77	73.7	10 -145	
	13C-PCB-80	74.3	10 -145	
	13C-PCB-81	74.0	10 -145	
	13C-PCB-95	73.5	10 -145	
	13C-PCB-97	76.9	10 -145	
	13C-PCB-101	74.7	10 -145	
	13C-PCB-104	72.5	10 -145	
	13C-PCB-105	75.1	10 -145	
	13C-PCB-114	71.1	10 -145	
	13C-PCB-118	69.4	10 -145	
	13C-PCB-123	73.1	10 -145	
	13C-PCB-126	75.9	10 -145	
	13C-PCB-127	74.8	10 -145	
	13C-PCB-138	77.2	10 -145	
	13C-PCB-141	79.3	10 -145	
	13C-PCB-153	79.1	10 -145	
	13C-PCB-155	54.6	10 -145	
	13C-PCB-156	74.5	10 -145	
	13C-PCB-157	72.3	10 -145	
	13C-PCB-159	76.5	10 -145	
	13C-PCB-167	78.2	10 -145	
	13C-PCB-169	63.5	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	50.6	10 -145	
13C-PCB-180	57.2	10 -145	
13C-PCB-188	70.9	10 -145	
13C-PCB-189	49.0	10 -145	
13C-PCB-194	75.0	10 -145	
13C-PCB-202	44.1	10 -145	
13C-PCB-206	71.3	10 -145	
13C-PCB-208	69.1	10 -145	
13C-PCB-209	63.5	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-11 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 14:07 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	2.35			J
PCB-2	ND	3.91		
PCB-3	ND	3.91		
PCB-4/10	ND		23.3	
PCB-5/8	51.2			
PCB-6	13.4			
PCB-7/9	ND	3.14		
PCB-11	160			
PCB-12/13	ND	3.14		
PCB-14	ND	2.70		
PCB-15	31.5			
PCB-16/32	378			
PCB-17	161			
PCB-18	379			
PCB-19	69.0			
PCB-20/21/33	249			
PCB-22	203			
PCB-23	ND	3.42		
PCB-24/27	58.5			
PCB-25	ND		43.4	
PCB-26	115			
PCB-28	536			
PCB-29	2.23			J
PCB-30	ND	1.72		
PCB-31	366			
PCB-34	8.50			
PCB-35	11.1			
PCB-36	5.13			
PCB-37	87.7			
PCB-38	36.2			
PCB-39	ND	3.20		
PCB-40	156			
PCB-41/64/71/72	1010			
PCB-42/59	301			
PCB-43/49	1600			
PCB-44	933			
PCB-45	158			
PCB-46	118			
PCB-47	621			
PCB-48/75	162			
PCB-50	7.84			
PCB-51	986			
PCB-52/69	2340			
PCB-53	901			
PCB-54	173			
PCB-55	29.7			
PCB-56/60	437			
PCB-57	15.1			
PCB-58	6.98			
PCB-61/70	773			
PCB-62	ND	2.34		
PCB-63	26.3			
PCB-65	ND	2.41		
PCB-66/76	748			
PCB-67	25.4			
PCB-68	12.4			
PCB-73	26.8			
PCB-74	348			
PCB-77	69.0			
PCB-78	ND	2.27		
PCB-79	43.8			
PCB-80	ND	1.98		
PCB-81	5.42			
PCB-82	183			
PCB-83	ND	2.28		
PCB-84/92	827			
PCB-85/116	213			
PCB-86	ND	3.66		
PCB-87/117/125	496			
PCB-88/91	533			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-11 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 14:07 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	19.4			
PCB-90/101	2200			
PCB-93	ND	3.42		
PCB-94	84.5			
PCB-95/98/102	2520			
PCB-96	84.7			
PCB-97	444			
PCB-99	1200			
PCB-100	179			
PCB-103	199			
PCB-104	51.7			
PCB-105	279			
PCB-106/118	1000			
PCB-107/109	78.5			
PCB-108/112	73.4			
PCB-110	1610			
PCB-111/115	21.9			
PCB-113	5.22			
PCB-114	18.2			
PCB-119	124			
PCB-120	9.98			
PCB-121	ND	2.06		
PCB-122	8.28			
PCB-123	17.2			
PCB-124	48.4			
PCB-126	7.43			
PCB-127	ND	3.11		
PCB-128/162	117			
PCB-129	31.2			
PCB-130	57.3			
PCB-131	ND	5.70		
PCB-132/161	290			
PCB-133/142	ND		39.6	
PCB-134/143	85.2			
PCB-135	277			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	370			
PCB-137	ND		36.3	
PCB-138/163/164	1070			
PCB-139/149	1790			
PCB-140	6.61			
PCB-141	217			
PCB-144	70.7			
PCB-145	ND	2.75		
PCB-146/165	241			
PCB-147	152			
PCB-148	9.61			
PCB-150	33.9			
PCB-151	659			
PCB-152	25.6			
PCB-153	1490			
PCB-154	190			
PCB-155	ND		4.68	
PCB-156	57.8			
PCB-157	11.4			
PCB-158/160	99.9			
PCB-159	ND	3.75		
PCB-166	ND	4.02		
PCB-167	30.5			
PCB-168	5.68			
PCB-169	ND	4.58		
PCB-170	156			
PCB-171	53.6			
PCB-172	32.8			
PCB-173	6.24			
PCB-174	296			
PCB-175	15.3			
PCB-176	40.5			
PCB-177	154			
PCB-178	81.3			
PCB-179	195			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-11 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 14:07 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	443			
PCB-181	ND	4.01		
PCB-182/187	470			
PCB-183	140			
PCB-184	ND	2.82		
PCB-185	32.5			
PCB-186	ND	2.58		
PCB-188	5.34			
PCB-189	ND		4.88	
PCB-190	36.8			
PCB-191	9.91			
PCB-192	ND	3.11		
PCB-193	29.3			
PCB-194	50.4			
PCB-195	ND		20.0	
PCB-196/203	70.1			
PCB-197	ND	6.24		
PCB-198	ND	9.66		
PCB-199	76.8			
PCB-200	10.5			
PCB-201	12.3			
PCB-202	25.7			
PCB-204	ND	6.76		
PCB-205	ND	3.87		
PCB-206	16.6			
PCB-207	3.53			J
PCB-208	4.84			J
PCB-209	5.50			
Total monoCB	2.35			J
Total diCB	256		279	
Total triCB	2660		2710	
Total tetraCB	12000			
Total pentaCB	12500			
Total hexaCB	7390		7470	
Total heptaCB	2200			
Total octaCB	246		266	
Total nonaCB	25.0			
DecaCB	5.50			
Total PCB	37400			
13C-PCB-8	ND			
13C-PCB-31	ND			
13C-PCB-79	ND			
13C-PCB-133	ND			
13C-PCB-178	ND			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-M-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-11 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 14:07 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	69.3	5 -145	
	13C-PCB-3	70.9	5 -145	
	13C-PCB-4	70.5	5 -145	
	13C-PCB-11	79.4	5 -145	
	13C-PCB-9	74.8	5 -145	
	13C-PCB-19	62.3	5 -145	
	13C-PCB-28	73.6	5 -145	
	13C-PCB-32	67.4	5 -145	
	13C-PCB-37	75.5	5 -145	
	13C-PCB-47	89.3	5 -145	
	13C-PCB-52	88.9	5 -145	
	13C-PCB-54	85.4	5 -145	
	13C-PCB-70	89.8	5 -145	
	13C-PCB-77	85.2	10 -145	
	13C-PCB-80	88.4	10 -145	
	13C-PCB-81	85.9	10 -145	
	13C-PCB-95	85.8	10 -145	
	13C-PCB-97	85.9	10 -145	
	13C-PCB-101	85.9	10 -145	
	13C-PCB-104	85.7	10 -145	
	13C-PCB-105	88.7	10 -145	
	13C-PCB-114	89.4	10 -145	
	13C-PCB-118	79.5	10 -145	
	13C-PCB-123	84.5	10 -145	
	13C-PCB-126	86.4	10 -145	
	13C-PCB-127	86.6	10 -145	
	13C-PCB-138	91.6	10 -145	
	13C-PCB-141	90.1	10 -145	
	13C-PCB-153	90.7	10 -145	
	13C-PCB-155	63.1	10 -145	
	13C-PCB-156	83.1	10 -145	
	13C-PCB-157	82.7	10 -145	
	13C-PCB-159	87.5	10 -145	
	13C-PCB-167	88.5	10 -145	
	13C-PCB-169	75.0	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	61.0	10 -145	
13C-PCB-180	67.4	10 -145	
13C-PCB-188	75.7	10 -145	
13C-PCB-189	54.4	10 -145	
13C-PCB-194	85.3	10 -145	
13C-PCB-202	53.0	10 -145	
13C-PCB-206	79.0	10 -145	
13C-PCB-208	70.5	10 -145	
13C-PCB-209	71.0	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-12 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 15:11 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	4.67		
PCB-2	ND	4.68		
PCB-3	ND	4.67		
PCB-4/10	21.6			
PCB-5/8	60.0			
PCB-6	15.6			
PCB-7/9	ND	4.25		
PCB-11	179			
PCB-12/13	ND	4.08		
PCB-14	ND	3.51		
PCB-15	36.0			
PCB-16/32	482			
PCB-17	196			
PCB-18	435			
PCB-19	79.1			
PCB-20/21/33	255			
PCB-22	260			
PCB-23	ND	4.20		
PCB-24/27	73.6			
PCB-25	58.9			
PCB-26	122			
PCB-28	562			
PCB-29	ND	4.21		
PCB-30	ND	2.05		
PCB-31	303			
PCB-34	10.7			
PCB-35	11.7			
PCB-36	ND		6.09	
PCB-37	92.2			
PCB-38	57.5			
PCB-39	ND	4.56		
PCB-40	158			
PCB-41/64/71/72	1210			
PCB-42/59	335			
PCB-43/49	2330			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	933			
PCB-45	156			
PCB-46	121			
PCB-47	938			
PCB-48/75	161			
PCB-50	ND		9.08	
PCB-51	1630			
PCB-52/69	3520			
PCB-53	1220			
PCB-54	314			
PCB-55	34.6			
PCB-56/60	488			
PCB-57	27.4			
PCB-58	20.9			
PCB-61/70	831			
PCB-62	ND	1.46		
PCB-63	34.0			
PCB-65	ND	1.50		
PCB-66/76	836			
PCB-67	20.8			
PCB-68	12.8			
PCB-73	52.8			
PCB-74	394			
PCB-77	72.5			
PCB-78	ND	1.40		
PCB-79	56.7			
PCB-80	ND	1.18		
PCB-81	6.89			
PCB-82	201			
PCB-83	ND	2.74		
PCB-84/92	1040			
PCB-85/116	229			
PCB-86	ND		7.98	
PCB-87/117/125	551			
PCB-88/91	743			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-12 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 15:11 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND		14.7	
PCB-90/101	2860			
PCB-93	ND	4.08		
PCB-94	136			
PCB-95/98/102	3520			
PCB-96	150			
PCB-97	515			
PCB-99	1660			
PCB-100	307			
PCB-103	329			
PCB-104	87.9			
PCB-105	313			
PCB-106/118	1060			
PCB-107/109	96.0			
PCB-108/112	79.3			
PCB-110	1820			
PCB-111/115	31.7			
PCB-113	14.0			
PCB-114	23.6			
PCB-119	187			
PCB-120	10.9			
PCB-121	ND	2.46		
PCB-122	12.4			
PCB-123	20.6			
PCB-124	59.7			
PCB-126	ND		7.05	
PCB-127	ND	4.49		
PCB-128/162	133			
PCB-129	39.6			
PCB-130	74.6			
PCB-131	ND	5.30		
PCB-132/161	399			
PCB-133/142	55.7			
PCB-134/143	112			
PCB-135	374			
PCB-136	520			
PCB-137	43.3			
PCB-138/163/164	1380			
PCB-139/149	2610			
PCB-140	ND	9.77		
PCB-141	279			
PCB-144	92.8			
PCB-145	ND	6.96		
PCB-146/165	334			
PCB-147	240			
PCB-148	23.1			
PCB-150	64.9			
PCB-151	995			
PCB-152	39.8			
PCB-153	2180			
PCB-154	316			
PCB-155	6.78			
PCB-156	69.8			
PCB-157	13.9			
PCB-158/160	127			
PCB-159	ND	3.59		
PCB-166	ND	3.84		
PCB-167	38.2			
PCB-168	9.26			
PCB-169	ND	4.32		
PCB-170	214			
PCB-171	79.7			
PCB-172	51.0			
PCB-173	5.84			
PCB-174	425			
PCB-175	16.6			
PCB-176	51.9			
PCB-177	205			
PCB-178	108			
PCB-179	287			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-12 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 15:11 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	627			
PCB-181	ND	3.21		
PCB-182/187	685			
PCB-183	181			
PCB-184	ND	2.20		
PCB-185	47.6			
PCB-186	ND	2.02		
PCB-188	10.1			
PCB-189	6.81			
PCB-190	49.2			
PCB-191	11.9			
PCB-192	ND	2.49		
PCB-193	42.4			
PCB-194	77.6			
PCB-195	30.5			
PCB-196/203	94.9			
PCB-197	ND	6.13		
PCB-198	ND	9.49		
PCB-199	109			
PCB-200	ND		17.0	
PCB-201	19.3			
PCB-202	36.1			
PCB-204	ND	6.67		
PCB-205	ND		3.49	
PCB-206	19.6			
PCB-207	4.59			J
PCB-208	5.20			
PCB-209	6.57			
Total monoCB	ND	4.68		
Total diCB	313			
Total triCB	3000			
Total tetraCB	15900			
Total pentaCB	16100			
Total hexaCB	10600			
Total heptaCB	3110			
Total octaCB	367		388	
Total nonaCB	29.4			
DecaCB	6.57			
Total PCB	49400			
13C-PCB-8	10.5			
13C-PCB-31	406			
13C-PCB-79	3410			
13C-PCB-133	6230			
13C-PCB-178	6480			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: CS-RW-01-S-B-20150107

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500015-12 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 15:11 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	60.4	5 -145	
	13C-PCB-3	67.2	5 -145	
	13C-PCB-4	67.0	5 -145	
	13C-PCB-11	81.7	5 -145	
	13C-PCB-9	74.3	5 -145	
	13C-PCB-19	65.8	5 -145	
	13C-PCB-28	81.5	5 -145	
	13C-PCB-32	65.2	5 -145	
	13C-PCB-37	64.3	5 -145	
	13C-PCB-47	88.7	5 -145	
	13C-PCB-52	91.7	5 -145	
	13C-PCB-54	80.4	5 -145	
	13C-PCB-70	85.5	5 -145	
	13C-PCB-77	83.0	10 -145	
	13C-PCB-80	84.7	10 -145	
	13C-PCB-81	84.2	10 -145	
	13C-PCB-95	87.1	10 -145	
	13C-PCB-97	89.5	10 -145	
	13C-PCB-101	87.5	10 -145	
	13C-PCB-104	88.2	10 -145	
	13C-PCB-105	90.4	10 -145	
	13C-PCB-114	92.6	10 -145	
	13C-PCB-118	83.0	10 -145	
	13C-PCB-123	87.4	10 -145	
	13C-PCB-126	93.9	10 -145	
	13C-PCB-127	86.8	10 -145	
	13C-PCB-138	90.7	10 -145	
	13C-PCB-141	92.0	10 -145	
	13C-PCB-153	92.2	10 -145	
	13C-PCB-155	62.7	10 -145	
	13C-PCB-156	83.3	10 -145	
	13C-PCB-157	83.7	10 -145	
	13C-PCB-159	88.5	10 -145	
	13C-PCB-167	85.5	10 -145	
	13C-PCB-169	76.7	10 -145	
	13C-PCB-170	60.3	10 -145	
	13C-PCB-180	68.2	10 -145	
	13C-PCB-188	77.9	10 -145	
	13C-PCB-189	54.2	10 -145	
	13C-PCB-194	86.7	10 -145	
	13C-PCB-202	49.6	10 -145	
	13C-PCB-206	74.6	10 -145	
	13C-PCB-208	72.3	10 -145	
	13C-PCB-209	68.6	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Vial Masses

Vial Number	Lab ID	Initial Mass (g)	Final Mass (g)	Hexane Volume (mL)
19	1500015-01	37.5984	41.5892	62
9	1500015-02	37.4977	41.9197	62
11	1500015-03	37.8790	39.0285	62
5	1500015-04	37.6945	42.6480	64
7	1500015-05	38.0138	42.7080	65
17	1500015-06	37.4544	42.2116	63
13	1500015-07	37.6081	42.1858	64
25	1500015-08	37.5787	42.8186	64
29	1500015-09	37.3851	42.0347	64
27	1500015-10	37.6207	38.9660	66
1	1500015-11	37.5446	41.8237	62
3	1500015-12	37.6515	42.5341	64

Please note that the final masses include additional vial labels.

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
H	**Recovery was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**Method Detection Limit as determined by 40 CFR 136, Appendix B.**
EMPC	**Estimated Maximum Possible Concentration**
M	**Estimated Maximum Possible Concentration (CA Region 2)**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Michigan Department of Natural Resources	9932
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
North Carolina Department of Health & Human Services	06700
Oregon Laboratory Accreditation Program	4042-003
Pennsylvania Department of Environmental Protection	011
South Carolina Department of Health	87002001
Tennessee Department of Environment & Conservation	TN02996
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	3138
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

ENVIRON — CHAIN-of-CUSTODY № 10743

☐ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

1500015

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: POLA/POLB Phase 2 DLWC Study

PROJECT NUMBER: 043331.0A11 DATE: 1/7/15

PROJECT LOCATION: San Pedro/Long Beach

FIELD PERSON: M. Green

PROJECT MANAGER: D Moore

LABORATORY: Vista Analytical

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: _____

SAMPLER: M Green

SIGNATURE:

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2015)	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: VSEPA 1668B PCB01-209 PLUS PRCs	VSEPA 1699 ODX PLUS PRCs	COMMENTS
CP-RW-01-S-M-20150107	1/7	8:39	NA	NA	Fiber	1	U	No	X		Vial 19
* CP-RW-01-S-M-20150107		8:39								X	Vial 20
REF-RW-01-S-M-20150107		9:46							X		Vial 9
* REF-RW-01-S-M-20150107		9:46								X	Vial 10
REF-RW-01-S-M-PRC-20150107		9:46							X		Vial 11
* REF-RW-01-S-M-PRC-20150107		9:46								X	Vial 12
OB-RW-01-S-M-20150107		11:15							X		Vial 5
* OB-RW-01-S-M-20150107		11:15								X	Vial 6
OB-RW-01-S-B-20150107		11:15							X		Vial 7
* OB-RW-01-S-B-20150107		11:15								X	Vial 8
SP-RW-01-S-M-20150107		12:45							X		Vial 17
* SP-RW-01-S-M-20150107		12:45								X	Vial 18
LARE-RW-01-S-M-20150107		13:45	N						X		Vial 13
TOTAL	X	X	X			13			7	6	

O = OTHER; NO = NONE; U = UNKNOWN; S = H_2SO_4; N = HNO_3; H = HCl;

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
	18:30 1/7/15	Bettie Boncelet (COMPANY): Vista Analytical	1/8/15 0914
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY; 24 HOURS; 48 HOURS; 72 HOURS; 5 DAYS; NORMAL

SAMPLE INTEGRITY — INTACT: Y N Temp_____

IF SEALED, SEAL INTEGRITY — INTACT: Y N

WO# 1500015

FILE: LOG FORMS\Chain_of_Custody

ENVIRON — CHAIN-of-CUSTODY № 10744

1500015 -0.2°C

PAGE 1 of 2

☐ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

PROJECT NAME / FACILITY ID: POLA/POLB Phase2 LDL WC Study
MSA#: — WO#: —
PROJECT NUMBER: 043331OA11 DATE: 1/7/15
FIELD PERSON: M. Grower
PROJECT LOCATION: San Pedro/ Long Beach CA
PROJECT MANAGER: D. Moore
LABORATORY: Vista Analytical
IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #:

SAMPLER: M. Grower
SIGNATURE:

	SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2015)	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: USEPA 1668 PCBs-209 plus ARCs	USEPA 1699 DDx plus ARCs	COMMENTS
*	LARE-RW-01-S-M-20150107	1/7	13:45	NA	NA	Fiber	1	U	No		X	Vial 14
	IB-RW-01-S-M-20150107		15:30							X		Vial 25
*	IB-RW-01-S-M-20150107		15:30								X	Vial 26
	IB-RW-01-S-B-20150107		15:30							X		Vial 29
*	IB-RW-01-S-B-20150107		15:30								X	Vial 30
	CS-01-RW-S-M-PRC-20150107		16:05							X		Vial 27
*	CS-01-RW-S-M-PRC-20150107		16:05								X	Vial 28
	CS-RW-01-S-M-20150107		16:05							X		Vial 1
*	CS-RW-01-S-M-20150107		16:05								X	Vial 2
	CS-RW-01-S-B-20150107		16:05							X		Vial 3
*	CS-RW-01-S-B-20150107		16:05								X	Vial 4
	* WO# 1500018											
	TOTAL	X	X	X			11			5	6	

O = OTHER; NO = NONE; U = UNKNOWN; S = H_2SO_4; N = HNO_3; H = HCL;

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
[signature]	18:00 / 1/7/15	Bettina Benedict (COMPANY): Vista Analytical	1/8/15 0914
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY / 24 HOURS / 48 HOURS / 72 HOURS / 5 DAYS / NORMAL

SAMPLE INTEGRITY — INTACT: Y N Temp____

IF SEALED, SEAL INTEGRITY — INTACT: Y N

FILE: LOG FORMS\Chain_of_Custody

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 1500015 **TAT** Std

Samples Arrival:	**Date/Time** 1/8/15 0905	**Initials:** VBB	**Location:** WR-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 1/8/15 0950	**Initials:** VBB	**Location:** R1 **Shelf/Rack:** NA

Delivered By:	(FedEx)	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice	Dry Ice	None		
Temp °C: -0.3 (uncorrected) **Temp °C:** -0.2 (corrected)	**Time:** 0913		**Thermometer ID:** IR-1			

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Shipping Documentation Present?	✓		
Airbill Trk # 8664 1962 7751	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact? VBB 1/8/15	✓		✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?	✓		
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented? NA	COC	Sample Container	None		
Shipping Container	(Vista)	Client	(Retain)	Return	Dispose

Comments:

Sample label : CS-01-S-M-PRC-20150107 Vial 27

COC ID : CS-01-RW-S-M-PRC-20150107

Sample Login 11/2013 ckt

Chain of Custody Anomaly/Sample Acceptance Form

Vista Analytical Laboratory

Client: Environ
Contact: David Moore
Email: DMoore@environcorp.com
Phone: (949) 798-3604

Workorder Number: 1500015
Date Received: 08-Jan-15 09:05
Documented by/date: B.Benedict 01/08/2015

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

Thank you,

Martha Maier
mmaier@vista-analytical.com
916-673-1520

The following information or item is needed to proceed with analysis:

- ☐ Complete Chain-of-Custody
- ☐ Test Method Requested
- ☐ Analyte List Requested
- ☐ Other:
- ☐ Preservative
- ☐ Sample Identification
- ☐ Sample Collection Date and/or Time
- ☐ Collector's Name
- ☐ Sample Type
- ☐ Sample Location

The following anomalies were noted. Authorization is needed to proceed with analysis.

☐ Temperature outside < 6°C Range Samples Affected: _____

Temperature _____°C Ice Present? Yes No Melted

- ☒ Sample ID Discrepancy: See Comments
- ☐ Sample Holding Time Missed
- ☐ Custody Seals Broken
- ☐ Insufficient Sample Size
- ☐ Sample Container(s) Broken
- ☐ Incorrect Container Type

Comments: Label ID: CS-01-S-M-PRC-20150107 VIAL27
COC ID: CS-01-**RW**-S-M-PRC-20150107 VIAL27

Client Authorization

Proceed with Analysis: (YES) NO Signature and Date MM Stelis

Client Comments/Instructions per email from M. Grover, COC ID is correct.

March 03, 2015

Vista Project I.D.: 1400924

Dr. David Moore
Environ
18100 Von Karman Ave. Suite 600
Irvine, CA 92612

Dear Dr. Moore,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on December 10, 2014. This sample set was analyzed on a standard turn-around time, under your Project Name '0433310A 11'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Work Order No. 1400924
Case Narrative

Sample Condition on Receipt:

Ten SPME fibers were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. This report was amended to include the vial weights and correct "J" flags.

Analytical Notes:

Upon receipt, each vial was weighed, and 62mL of hexane was added to each of Vials 33 through 40. A table containing the initial and final weights is included with the datasheets.

EPA Method 1668C

Four samples were extracted and analyzed for 209 PCB congeners by EPA Method 1668C using a ZB-1 GC column. The concentrations of the PRCs are listed following the PCB total concentrations on each datasheet. The Method Blank, OPR and sample "FB-20141209_1522" did not contain PRCs.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limit in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

EPA Method 1699

Four samples were extracted and analyzed for the DDX list of chlorinated pesticides by EPA Method 1699 using a ZB-50 GC column. The concentrations of the PRCs are listed following the results for 4,4'-DDMU on each datasheet. The PRCs were not added to the Method Blank or OPR.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. The PRC "d8-4,4'-DDE" was detected in the Method Blank. No other analytes were detected in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1400924-01	FB-20141209_1522	09-Dec-14 15:22	10-Dec-14 09:05	Amber VOA Vial, 60mL
1400924-02	FB-20141209_1531	09-Dec-14 15:31	10-Dec-14 09:05	Amber VOA Vial, 60mL
1400924-03	FBPRC1-20141209	09-Dec-14 15:41	10-Dec-14 09:05	Amber VOA Vial, 60mL
1400924-04	FBPRC2-20141209	09-Dec-14 15:42	10-Dec-14 09:05	Amber VOA Vial, 60mL
1400924-05	FBPRC3-20141209	09-Dec-14 15:42	10-Dec-14 09:05	Amber VOA Vial, 60mL
1400924-06	FBPRC4-20141209	09-Dec-14 15:43	10-Dec-14 09:05	Amber VOA Vial, 60mL
1400924-07	FBPRC5-20141209	09-Dec-14 15:43	10-Dec-14 09:05	Amber VOA Vial, 60mL
1400924-08	FBPRC6-20141209	09-Dec-14 15:44	10-Dec-14 09:05	Amber VOA Vial, 60mL
1400924-09	LENGTH-01-20141209	09-Dec-14 16:20	10-Dec-14 09:05	Amber VOA Vial, 60mL
1400924-10	LENGTH-02-20141209	09-Dec-14 16:20	10-Dec-14 09:05	Amber VOA Vial, 60mL

Vista Project: 1400924

Client Project: 0433310A11

ANALYTICAL RESULTS

Sample ID: Method Blank — EPA Method 1668C

Matrix: SPME

QC Batch: B5A0025
Date Extracted: 19-Dec-2014 8:15

Lab Sample: B5A0025-BLK1
Date Analyzed: 15-Jan-15 04:58 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	2.75			PCB-43/49	ND	3.26		
PCB-2	ND	2.57			PCB-44	ND	3.75		
PCB-3	ND	2.49			PCB-45	ND	3.75		
PCB-4/10	ND	6.11			PCB-46	ND	3.81		
PCB-5/8	ND	4.89			PCB-47	ND	3.11		
PCB-6	ND	4.78			PCB-48/75	ND	2.70		
PCB-7/9	ND	4.75			PCB-50	ND	3.03		
PCB-11	6.81			J	PCB-51	ND	3.14		
PCB-12/13	ND	4.90			PCB-52/69	ND	2.83		
PCB-14	ND	4.37			PCB-53	ND	3.05		
PCB-15	ND	4.45			PCB-54	ND	2.44		
PCB-16/32	ND	1.35			PCB-55	ND	2.43		
PCB-17	ND	1.54			PCB-56/60	ND	2.48		
PCB-18	ND		3.55		PCB-57	ND	2.69		
PCB-19	ND	1.60			PCB-58	ND	2.72		
PCB-20/21/33	ND	2.39			PCB-61/70	ND	2.78		
PCB-22	ND	2.37			PCB-62	ND	2.73		
PCB-23	ND	2.39			PCB-63	ND	2.68		
PCB-24/27	ND	1.18			PCB-65	ND	2.64		
PCB-25	ND	2.33			PCB-66/76	ND	2.64		
PCB-26	ND	2.42			PCB-67	ND	2.79		
PCB-28	ND	2.27			PCB-68	ND	2.37		
PCB-29	ND	2.35			PCB-73	ND	2.64		
PCB-30	ND	1.13			PCB-74	ND	2.49		
PCB-31	ND	2.20			PCB-77	ND	2.50		
PCB-34	ND	2.48			PCB-78	ND	2.79		
PCB-35	ND	2.82			PCB-79	ND	2.40		
PCB-36	ND	2.82			PCB-80	ND	2.11		
PCB-37	ND	2.79			PCB-81	ND	2.50		
PCB-38	ND	2.87			PCB-82	ND	5.84		
PCB-39	ND	2.73			PCB-83	ND	4.26		
PCB-40	ND	4.30			PCB-84/92	ND	5.35		
PCB-41/64/71/72	ND	2.69			PCB-85/116	ND	4.98		
PCB-42/59	ND	2.90			PCB-86	ND	6.34		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank — EPA Method 1668C

Matrix: SPME
QC Batch: B5A0025
Date Extracted: 19-Dec-2014 8:15
Lab Sample: B5A0025-BLK1
Date Analyzed: 15-Jan-15 04:58 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-87/117/125	ND	4.16			PCB-133/142	ND	2.84		
PCB-88/91	ND	6.09			PCB-134/143	ND	2.90		
PCB-89	ND	5.53			PCB-135	ND	4.46		
PCB-90/101	ND	4.73			PCB-136	ND	3.20		
PCB-93	ND	5.49			PCB-137	ND	2.65		
PCB-94	ND	5.60			PCB-138/163/164	4.00			J
PCB-95/98/102	ND	5.11			PCB-139/149	ND	4.12		
PCB-96	ND	4.28			PCB-140	ND	4.43		
PCB-97	ND	5.19			PCB-141	ND	2.91		
PCB-99	ND	4.37			PCB-144	ND	4.24		
PCB-100	ND	4.66			PCB-145	ND	3.18		
PCB-103	ND	5.01			PCB-146/165	ND	2.32		
PCB-104	ND	3.72			PCB-147	ND	4.19		
PCB-105	ND	2.17			PCB-148	ND	4.69		
PCB-106/118	ND	3.66			PCB-150	ND	3.27		
PCB-107/109	ND	3.53			PCB-151	ND	4.30		
PCB-108/112	ND	5.03			PCB-152	ND	3.16		
PCB-110	ND	3.85			PCB-153	2.66			J
PCB-111/115	ND	3.70			PCB-154	ND	3.93		
PCB-113	ND	4.16			PCB-155	ND	3.06		
PCB-114	ND	2.19			PCB-156	ND	2.08		
PCB-119	ND	3.76			PCB-157	ND	2.12		
PCB-120	ND	3.64			PCB-158/160	ND	2.28		
PCB-121	ND	3.26			PCB-159	ND	2.26		
PCB-122	ND	2.40			PCB-166	ND	2.36		
PCB-123	ND	3.54			PCB-167	ND	2.18		
PCB-124	ND	3.26			PCB-168	ND	1.96		
PCB-126	ND	2.48			PCB-169	ND	2.20		
PCB-127	ND	2.44			PCB-170	ND	2.01		
PCB-128/162	ND	2.58			PCB-171	ND	1.90		
PCB-129	ND	3.19			PCB-172	ND	2.04		
PCB-130	ND	3.35			PCB-173	ND	2.15		
PCB-131	ND	2.94			PCB-174	ND	1.87		
PCB-132/161	ND	2.41			PCB-175	ND	1.85		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank — EPA Method 1668C

Matrix: SPME

QC Batch: B5A0025
Date Extracted: 19-Dec-2014 8:15

Lab Sample: B5A0025-BLK1
Date Analyzed: 15-Jan-15 04:58 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-176	ND	1.31		
PCB-177	ND	2.01		
PCB-178	ND	1.91		
PCB-179	ND	1.37		
PCB-180	ND	1.75		
PCB-181	ND	1.83		
PCB-182/187	ND	1.76		
PCB-183	ND	1.65		
PCB-184	ND	1.45		
PCB-185	ND	1.86		
PCB-186	ND	1.40		
PCB-188	ND	1.27		
PCB-189	ND	1.35		
PCB-190	ND	1.50		
PCB-191	ND	1.49		
PCB-192	ND	1.64		
PCB-193	ND	1.51		
PCB-194	ND	2.25		
PCB-195	ND	2.34		
PCB-196/203	ND	2.88		
PCB-197	ND	2.08		
PCB-198	ND	2.99		
PCB-199	ND	3.05		
PCB-200	ND	2.19		
PCB-201	ND	2.02		
PCB-202	ND	2.14		
PCB-204	ND	2.24		
PCB-205	ND	1.98		
PCB-206	ND	2.97		
PCB-207	ND	1.79		
PCB-208	ND	1.70		
PCB-209	ND	2.30		
Total monoCB	ND	2.75		
Total diCB	6.81			J
Total triCB	ND		3.55	
Total tetraCB	ND	4.30		
Total pentaCB	ND	6.34		
Total hexaCB	6.66			J
Total heptaCB	ND	2.15		
Total octaCB	ND	3.05		
Total nonaCB	ND	2.97		
DecaCB	ND	2.30		
Total PCB	13.5			J

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0025
Date Extracted: 19-Dec-2014 8:15

Lab Sample: B5A0025-BLK1
Date Analyzed: 15-Jan-15 04:58 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	65.1	5 - 145	
	13C-PCB-3	75.4	5 - 145	
	13C-PCB-4	73.8	5 - 145	
	13C-PCB-11	80.0	5 - 145	
	13C-PCB-9	77.0	5 - 145	
	13C-PCB-19	73.0	5 - 145	
	13C-PCB-28	84.0	5 - 145	
	13C-PCB-32	74.4	5 - 145	
	13C-PCB-37	91.2	5 - 145	
	13C-PCB-47	82.0	5 - 145	
	13C-PCB-52	88.8	5 - 145	
	13C-PCB-54	86.9	5 - 145	
	13C-PCB-70	81.3	5 - 145	
	13C-PCB-77	89.2	10 - 145	
	13C-PCB-80	87.6	10 - 145	
	13C-PCB-81	85.3	10 - 145	
	13C-PCB-95	71.2	10 - 145	
	13C-PCB-97	71.0	10 - 145	
	13C-PCB-101	73.5	10 - 145	
	13C-PCB-104	68.6	10 - 145	
	13C-PCB-105	84.7	10 - 145	
	13C-PCB-114	82.9	10 - 145	
	13C-PCB-118	76.5	10 - 145	
	13C-PCB-123	78.5	10 - 145	
	13C-PCB-126	84.6	10 - 145	
	13C-PCB-127	81.3	10 - 145	
	13C-PCB-138	88.9	10 - 145	
	13C-PCB-141	90.6	10 - 145	
	13C-PCB-153	90.1	10 - 145	
	13C-PCB-155	80.9	10 - 145	
	13C-PCB-156	90.7	10 - 145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-157	93.3	10 - 145	
13C-PCB-159	87.2	10 - 145	
13C-PCB-167	89.2	10 - 145	
13C-PCB-169	91.5	10 - 145	
13C-PCB-170	92.5	10 - 145	
13C-PCB-180	93.8	10 - 145	
13C-PCB-188	92.1	10 - 145	
13C-PCB-189	92.6	10 - 145	
13C-PCB-194	76.5	10 - 145	
13C-PCB-202	104	10 - 145	
13C-PCB-206	90.8	10 - 145	
13C-PCB-208	91.8	10 - 145	
13C-PCB-209	102	10 - 145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OPR

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0025
Date Extracted: 19-Dec-2014 8:15

Lab Sample: B5A0025-BS1
Date Analyzed: 15-Jan-15 02:49 Column: ZB-1 Analyst: DMS

Analyte	Amt Found (pg/Sample)	Spike Amt	%R	Limits
PCB-1	2240	2000	112	60 - 135
PCB-3	2290	2000	115	60 - 135
PCB-4/10	8620	8000	108	60 - 135
PCB-15	4500	4000	113	60 - 135
PCB-19	2170	2000	108	60 - 135
PCB-37	2280	2000	114	60 - 135
PCB-54	1850	2000	92.3	60 - 135
PCB-77	2040	2000	102	60 - 135
PCB-81	2070	2000	104	60 - 135
PCB-104	1920	2000	96.2	60 - 135
PCB-105	2290	2000	115	60 - 135
PCB-106/118	3980	4000	99.4	60 - 135
PCB-114	2190	2000	109	60 - 135
PCB-123	2020	2000	101	60 - 135
PCB-126	2290	2000	115	60 - 135
PCB-155	2160	2000	108	60 - 135
PCB-156	2280	2000	114	60 - 135
PCB-157	2260	2000	113	60 - 135
PCB-167	2220	2000	111	60 - 135
PCB-169	2360	2000	118	60 - 135
PCB-188	2160	2000	108	60 - 135
PCB-189	2310	2000	115	60 - 135
PCB-202	2180	2000	109	60 - 135
PCB-205	2330	2000	116	60 - 135
PCB-206	2140	2000	107	60 - 135
PCB-208	2120	2000	106	60 - 135
PCB-209	2400	2000	120	60 - 135

	Labeled Standard	%R	LCL-UCL
IS	13C-PCB-1	17.1	15 - 145
IS	13C-PCB-3	22.5	15 - 145
IS	13C-PCB-4	25.5	15 - 145
IS	13C-PCB-11	40.6	15 - 145
IS	13C-PCB-9	30.1	15 - 145
IS	13C-PCB-19	31.6	15 - 145
IS	13C-PCB-28	47.8	15 - 145
IS	13C-PCB-32	39.9	15 - 145
IS	13C-PCB-37	63.5	15 - 145
IS	13C-PCB-47	58.3	15 - 145
IS	13C-PCB-52	60.5	15 - 145
IS	13C-PCB-54	48.7	15 - 145
IS	13C-PCB-70	68.2	15 - 145
IS	13C-PCB-77	81.4	40 - 145
IS	13C-PCB-80	68.5	40 - 145
IS	13C-PCB-81	80.5	40 - 145
IS	13C-PCB-95	54.0	40 - 145
IS	13C-PCB-97	61.1	40 - 145
IS	13C-PCB-101	59.9	40 - 145
IS	13C-PCB-104	49.5	40 - 145
IS	13C-PCB-105	73.0	40 - 145
IS	13C-PCB-114	71.0	40 - 145
IS	13C-PCB-118	66.8	40 - 145
IS	13C-PCB-123	67.4	40 - 145
IS	13C-PCB-126	73.3	40 - 145
IS	13C-PCB-127	72.3	40 - 145
IS	13C-PCB-138	85.2	40 - 145
IS	13C-PCB-141	82.7	40 - 145
IS	13C-PCB-153	81.2	40 - 145
IS	13C-PCB-155	64.6	40 - 145
IS	13C-PCB-156	85.2	40 - 145
IS	13C-PCB-157	85.5	40 - 145
IS	13C-PCB-159	83.0	40 - 145
IS	13C-PCB-167	83.2	40 - 145
IS	13C-PCB-169	82.0	40 - 145
IS	13C-PCB-170	86.2	40 - 145
IS	13C-PCB-180	87.6	40 - 145
IS	13C-PCB-188	83.5	40 - 145
IS	13C-PCB-189	85.2	40 - 145
IS	13C-PCB-194	67.9	40 - 145

Sample ID: OPR

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0025
Date Extracted: 19-Dec-2014 8:15

Lab Sample: B5A0025-BS1
Date Analyzed: 15-Jan-15 02:49 Column: ZB-1 Analyst: DMS

Analyte	Amt Found (pg/Sample)	Spike Amt	%R	Limits

	Labeled Standard	%R	LCL-UCL
IS	13C-PCB-202	95.1	40 - 145
IS	13C-PCB-206	83.7	40 - 145
IS	13C-PCB-208	82.2	40 - 145
IS	13C-PCB-209	96.9	40 - 145

LCL-UCL - Lower control limit - upper control limit

Sample ID: FB-20141209_1522

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:22

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-01 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 06:03 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	6.62			J
PCB-2	ND		1.32	
PCB-3	2.92			J
PCB-4/10	ND	16.0		
PCB-5/8	30.6			J
PCB-6	ND	12.6		
PCB-7/9	ND	12.5		
PCB-11	24.9			J, B
PCB-12/13	ND	12.6		
PCB-14	ND	11.3		
PCB-15	7.23			J
PCB-16/32	16.3			J
PCB-17	9.75			J
PCB-18	24.1			
PCB-19	ND	2.76		
PCB-20/21/33	12.4			J
PCB-22	7.40			J
PCB-23	ND	3.04		
PCB-24/27	ND	1.90		
PCB-25	ND	2.97		
PCB-26	ND		3.41	
PCB-28	16.9			
PCB-29	ND	3.00		
PCB-30	ND	1.95		
PCB-31	14.5			
PCB-34	ND	3.16		
PCB-35	ND	3.66		
PCB-36	ND	3.66		
PCB-37	ND	3.62		
PCB-38	ND	3.72		
PCB-39	ND	3.54		
PCB-40	ND	4.34		
PCB-41/64/71/72	5.75			J
PCB-42/59	ND	2.92		
PCB-43/49	ND		2.99	

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	ND		5.19	
PCB-45	ND	4.02		
PCB-46	ND	4.08		
PCB-47	6.70			J
PCB-48/75	ND	2.73		
PCB-50	ND	3.20		
PCB-51	ND	3.37		
PCB-52/69	ND		5.76	
PCB-53	ND	3.27		
PCB-54	ND	2.59		
PCB-55	ND	2.40		
PCB-56/60	ND	2.45		
PCB-57	ND	2.53		
PCB-58	ND	2.56		
PCB-61/70	6.22			J
PCB-62	ND	2.75		
PCB-63	ND	2.53		
PCB-65	ND	2.67		
PCB-66/76	ND	2.48		
PCB-67	ND	2.63		
PCB-68	ND	2.39		
PCB-73	ND	2.83		
PCB-74	ND	2.35		
PCB-77	ND	2.48		
PCB-78	ND	2.57		
PCB-79	ND	2.37		
PCB-80	ND	2.08		
PCB-81	ND	2.30		
PCB-82	ND	5.73		
PCB-83	ND	4.01		
PCB-84/92	ND	5.06		
PCB-85/116	ND	4.68		
PCB-86	ND	5.96		
PCB-87/117/125	ND	3.91		
PCB-88/91	ND	5.79		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FB-20141209_1522

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:22

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-01 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 06:03 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND	5.23		
PCB-90/101	ND	4.47		
PCB-93	ND	5.22		
PCB-94	ND	5.33		
PCB-95/98/102	ND	4.86		
PCB-96	ND	4.03		
PCB-97	ND	4.88		
PCB-99	ND	4.13		
PCB-100	ND	4.39		
PCB-103	ND	4.72		
PCB-104	ND	3.50		
PCB-105	ND	5.12		
PCB-106/118	ND	3.44		
PCB-107/109	ND	3.46		
PCB-108/112	ND	4.73		
PCB-110	ND	3.63		
PCB-111/115	ND	3.48		
PCB-113	ND	3.94		
PCB-114	ND	5.03		
PCB-119	ND	3.54		
PCB-120	ND	3.42		
PCB-121	ND	3.10		
PCB-122	ND	5.52		
PCB-123	ND	3.47		
PCB-124	ND	3.20		
PCB-126	ND	5.89		
PCB-127	ND	5.72		
PCB-128/162	ND	4.97		
PCB-129	ND	6.28		
PCB-130	ND	7.05		
PCB-131	ND	6.25		
PCB-132/161	ND	5.13		
PCB-133/142	ND	6.04		
PCB-134/143	ND	6.16		
PCB-135	ND	4.09		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	ND	2.94		
PCB-137	ND	5.58		
PCB-138/163/164	ND	4.74		
PCB-139/149	ND	3.78		
PCB-140	ND	4.06		
PCB-141	ND	6.13		
PCB-144	ND	3.89		
PCB-145	ND	2.92		
PCB-146/165	ND	4.94		
PCB-147	ND	3.85		
PCB-148	ND	4.31		
PCB-150	ND	3.00		
PCB-151	ND	3.94		
PCB-152	ND	2.90		
PCB-153	ND		5.26	
PCB-154	ND	3.61		
PCB-155	ND	2.81		
PCB-156	ND	4.38		
PCB-157	ND	4.72		
PCB-158/160	ND	4.50		
PCB-159	ND	4.35		
PCB-166	ND	4.54		
PCB-167	ND	4.45		
PCB-168	ND	4.17		
PCB-169	ND	4.67		
PCB-170	ND	4.16		
PCB-171	ND	4.26		
PCB-172	ND	4.58		
PCB-173	ND	4.82		
PCB-174	ND	4.18		
PCB-175	ND	4.38		
PCB-176	ND	3.12		
PCB-177	ND	4.51		
PCB-178	ND	4.53		
PCB-179	ND	3.25		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FB-20141209_1522

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:22

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-01 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 06:03 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	ND	3.92		
PCB-181	ND	4.11		
PCB-182/187	ND	4.18		
PCB-183	ND	3.92		
PCB-184	ND	3.43		
PCB-185	ND	4.17		
PCB-186	ND	3.33		
PCB-188	ND	3.02		
PCB-189	ND	2.91		
PCB-190	ND	3.10		
PCB-191	ND	3.35		
PCB-192	ND	3.67		
PCB-193	ND	3.38		
PCB-194	ND	2.79		
PCB-195	ND	2.90		
PCB-196/203	ND	6.20		
PCB-197	ND	4.47		
PCB-198	ND	6.45		
PCB-199	ND	6.58		
PCB-200	ND	4.71		
PCB-201	ND	4.35		
PCB-202	ND	4.61		
PCB-204	ND	4.82		
PCB-205	ND	2.46		
PCB-206	ND	3.25		
PCB-207	ND	2.08		
PCB-208	ND	1.98		
PCB-209	ND	2.00		
Total monoCB	9.55		10.9	
Total diCB	62.7			B
Total triCB	101		105	
Total tetraCB	18.7		32.6	
Total pentaCB	ND	5.96		
Total hexaCB	ND		5.26	
Total heptaCB	ND	4.82		
Total octaCB	ND	6.58		
Total nonaCB	ND	3.25		
DecaCB	ND	2.00		
Total PCB	192			B

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FB-20141209_1522

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:22

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-01 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 06:03 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	47.2	5 -145	
	13C-PCB-3	58.5	5 -145	
	13C-PCB-4	58.9	5 -145	
	13C-PCB-11	65.2	5 -145	
	13C-PCB-9	62.0	5 -145	
	13C-PCB-19	55.1	5 -145	
	13C-PCB-28	62.4	5 -145	
	13C-PCB-32	60.4	5 -145	
	13C-PCB-37	66.3	5 -145	
	13C-PCB-47	74.0	5 -145	
	13C-PCB-52	74.1	5 -145	
	13C-PCB-54	74.1	5 -145	
	13C-PCB-70	77.3	5 -145	
	13C-PCB-77	80.8	10 -145	
	13C-PCB-80	82.7	10 -145	
	13C-PCB-81	81.5	10 -145	
	13C-PCB-95	65.1	10 -145	
	13C-PCB-97	66.7	10 -145	
	13C-PCB-101	67.9	10 -145	
	13C-PCB-104	63.9	10 -145	
	13C-PCB-105	76.8	10 -145	
	13C-PCB-114	78.8	10 -145	
	13C-PCB-118	71.0	10 -145	
	13C-PCB-123	71.8	10 -145	
	13C-PCB-126	77.0	10 -145	
	13C-PCB-127	73.4	10 -145	
	13C-PCB-138	88.2	10 -145	
	13C-PCB-141	86.5	10 -145	
	13C-PCB-153	84.2	10 -145	
	13C-PCB-155	74.2	10 -145	
	13C-PCB-156	86.7	10 -145	
	13C-PCB-157	85.6	10 -145	
	13C-PCB-159	89.6	10 -145	
	13C-PCB-167	87.0	10 -145	
	13C-PCB-169	86.3	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	93.6	10 -145	
13C-PCB-180	92.3	10 -145	
13C-PCB-188	87.4	10 -145	
13C-PCB-189	95.7	10 -145	
13C-PCB-194	66.8	10 -145	
13C-PCB-202	100	10 -145	
13C-PCB-206	85.1	10 -145	
13C-PCB-208	79.4	10 -145	
13C-PCB-209	91.6	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC1-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:41

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-03 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 07:07 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	4.82		
PCB-2	ND	4.06		
PCB-3	ND	3.93		
PCB-4/10	ND	12.7		
PCB-5/8	9.27			J
PCB-6	ND	10.1		
PCB-7/9	ND	10.0		
PCB-11	18.9			J, B
PCB-12/13	ND	9.96		
PCB-14	ND	8.89		
PCB-15	ND	9.06		
PCB-16/32	ND	1.77		
PCB-17	ND	2.03		
PCB-18	8.14			J
PCB-19	ND	2.22		
PCB-20/21/33	ND	4.33		
PCB-22	ND	4.29		
PCB-23	ND	4.33		
PCB-24/27	ND	1.55		
PCB-25	ND	4.23		
PCB-26	ND	4.39		
PCB-28	ND		6.90	
PCB-29	ND	4.27		
PCB-30	ND	1.57		
PCB-31	5.91			J
PCB-34	ND	4.50		
PCB-35	ND	3.82		
PCB-36	ND	3.82		
PCB-37	ND	3.77		
PCB-38	ND	3.88		
PCB-39	ND	3.70		
PCB-40	ND	6.58		
PCB-41/64/71/72	ND	4.11		
PCB-42/59	ND	4.43		
PCB-43/49	ND	5.36		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	ND	5.74		
PCB-45	ND	6.17		
PCB-46	ND	6.27		
PCB-47	ND	4.76		
PCB-48/75	ND	4.13		
PCB-50	ND	4.77		
PCB-51	ND	5.17		
PCB-52/69	ND	4.66		
PCB-53	ND	5.02		
PCB-54	ND	3.85		
PCB-55	ND	3.58		
PCB-56/60	ND	3.65		
PCB-57	ND	3.78		
PCB-58	ND	3.82		
PCB-61/70	ND	3.90		
PCB-62	ND	4.17		
PCB-63	ND	3.77		
PCB-65	ND	4.04		
PCB-66/76	ND	3.71		
PCB-67	ND	3.92		
PCB-68	ND	3.63		
PCB-73	ND	4.34		
PCB-74	ND	3.50		
PCB-77	ND	3.40		
PCB-78	ND	3.75		
PCB-79	ND	3.53		
PCB-80	ND	3.11		
PCB-81	ND	3.36		
PCB-82	ND	7.34		
PCB-83	ND	5.21		
PCB-84/92	ND	6.31		
PCB-85/116	ND	6.09		
PCB-86	ND	7.76		
PCB-87/117/125	ND	5.09		
PCB-88/91	ND	7.70		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC1-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:41

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-03 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 07:07 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND	6.52		
PCB-90/101	ND	5.57		
PCB-93	ND	6.94		
PCB-94	ND	7.08		
PCB-95/98/102	ND	6.46		
PCB-96	ND	5.52		
PCB-97	ND	6.35		
PCB-99	ND	5.15		
PCB-100	ND	6.01		
PCB-103	ND	6.46		
PCB-104	ND	4.79		
PCB-105	ND	5.56		
PCB-106/118	ND	4.48		
PCB-107/109	ND	4.44		
PCB-108/112	ND	6.16		
PCB-110	ND	4.72		
PCB-111/115	ND	4.52		
PCB-113	ND	4.91		
PCB-114	ND	5.28		
PCB-119	ND	4.61		
PCB-120	ND	4.45		
PCB-121	ND	4.12		
PCB-122	ND	5.78		
PCB-123	ND	4.45		
PCB-124	ND	4.10		
PCB-126	ND	6.60		
PCB-127	ND	6.12		
PCB-128/162	ND	4.17		
PCB-129	ND	5.28		
PCB-130	ND	5.67		
PCB-131	ND	4.97		
PCB-132/161	ND	4.08		
PCB-133/142	ND	4.81		
PCB-134/143	ND	4.90		
PCB-135	ND	9.48		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	ND	6.81		
PCB-137	ND	4.48		
PCB-138/163/164	ND	3.98		
PCB-139/149	ND	8.76		
PCB-140	ND	9.41		
PCB-141	ND	4.93		
PCB-144	ND	9.01		
PCB-145	ND	6.76		
PCB-146/165	ND	3.93		
PCB-147	ND	8.92		
PCB-148	ND	9.97		
PCB-150	ND	6.94		
PCB-151	ND	9.13		
PCB-152	ND	6.73		
PCB-153	ND	3.86		
PCB-154	ND	8.36		
PCB-155	ND	6.51		
PCB-156	ND	3.48		
PCB-157	ND	3.64		
PCB-158/160	ND	3.78		
PCB-159	ND	3.65		
PCB-166	ND	3.81		
PCB-167	ND	3.73		
PCB-168	ND	3.32		
PCB-169	ND	3.71		
PCB-170	ND	2.81		
PCB-171	ND	2.82		
PCB-172	ND	3.02		
PCB-173	ND	3.19		
PCB-174	ND	2.76		
PCB-175	ND	2.89		
PCB-176	ND	2.05		
PCB-177	ND	2.98		
PCB-178	ND	2.98		
PCB-179	ND	2.14		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC1-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:41

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-03 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 07:07 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	ND	2.59		
PCB-181	ND	2.72		
PCB-182/187	ND	2.76		
PCB-183	ND	2.58		
PCB-184	ND	2.26		
PCB-185	ND	2.75		
PCB-186	ND	2.19		
PCB-188	ND	1.99		
PCB-189	ND	1.86		
PCB-190	ND	2.09		
PCB-191	ND	2.21		
PCB-192	ND	2.42		
PCB-193	ND	2.24		
PCB-194	ND	2.54		
PCB-195	ND	2.64		
PCB-196/203	ND	4.44		
PCB-197	ND	3.20		
PCB-198	ND	4.61		
PCB-199	ND	4.71		
PCB-200	ND	3.37		
PCB-201	ND	3.11		
PCB-202	ND	3.30		
PCB-204	ND	3.45		
PCB-205	ND	2.24		
PCB-206	ND	3.04		
PCB-207	ND	1.90		
PCB-208	ND	1.81		
PCB-209	ND	2.58		
Total monoCB	ND	4.82		
Total diCB	28.2			B
Total triCB	14.0		20.9	
Total tetraCB	ND	6.58		
Total pentaCB	ND	7.76		
Total hexaCB	ND	9.97		
Total heptaCB	ND	3.19		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
Total octaCB	ND	4.71		
Total nonaCB	ND	3.04		
DecaCB	ND	2.58		
Total PCB	42.2			B
13C-PCB-8	4570			
13C-PCB-31	4210			
13C-PCB-79	6000			
13C-PCB-133	4340			
13C-PCB-178	3960			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC1-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:41

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-03 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 07:07 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	44.4	5 -145	
	13C-PCB-3	58.4	5 -145	
	13C-PCB-4	58.9	5 -145	
	13C-PCB-11	67.3	5 -145	
	13C-PCB-9	63.2	5 -145	
	13C-PCB-19	56.0	5 -145	
	13C-PCB-28	47.7	5 -145	
	13C-PCB-32	59.6	5 -145	
	13C-PCB-37	73.8	5 -145	
	13C-PCB-47	71.8	5 -145	
	13C-PCB-52	72.9	5 -145	
	13C-PCB-54	73.3	5 -145	
	13C-PCB-70	76.6	5 -145	
	13C-PCB-77	87.7	10 -145	
	13C-PCB-80	81.8	10 -145	
	13C-PCB-81	82.7	10 -145	
	13C-PCB-95	58.3	10 -145	
	13C-PCB-97	61.6	10 -145	
	13C-PCB-101	63.7	10 -145	
	13C-PCB-104	55.2	10 -145	
	13C-PCB-105	76.4	10 -145	
	13C-PCB-114	74.8	10 -145	
	13C-PCB-118	65.2	10 -145	
	13C-PCB-123	65.1	10 -145	
	13C-PCB-126	72.1	10 -145	
	13C-PCB-127	70.7	10 -145	
	13C-PCB-138	86.3	10 -145	
	13C-PCB-141	85.0	10 -145	
	13C-PCB-153	86.1	10 -145	
	13C-PCB-155	68.0	10 -145	
	13C-PCB-156	88.0	10 -145	
	13C-PCB-157	88.2	10 -145	
	13C-PCB-159	89.0	10 -145	
	13C-PCB-167	85.3	10 -145	
	13C-PCB-169	87.5	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	94.6	10 -145	
13C-PCB-180	93.3	10 -145	
13C-PCB-188	86.2	10 -145	
13C-PCB-189	93.7	10 -145	
13C-PCB-194	66.1	10 -145	
13C-PCB-202	99.2	10 -145	
13C-PCB-206	83.5	10 -145	
13C-PCB-208	83.4	10 -145	
13C-PCB-209	98.7	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC2-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:42

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-04 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 08:12 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	8.40		
PCB-2	ND	7.14		
PCB-3	ND	6.92		
PCB-4/10	ND	15.8		
PCB-5/8	ND	11.7		
PCB-6	ND	11.4		
PCB-7/9	ND	11.3		
PCB-11	ND	8.53		
PCB-12/13	ND	8.99		
PCB-14	ND	8.02		
PCB-15	ND	8.18		
PCB-16/32	ND	2.26		
PCB-17	ND	2.59		
PCB-18	ND	2.71		
PCB-19	ND	3.29		
PCB-20/21/33	ND	3.52		
PCB-22	ND	3.49		
PCB-23	ND	3.52		
PCB-24/27	ND	1.98		
PCB-25	ND	3.43		
PCB-26	ND	3.57		
PCB-28	ND	3.35		
PCB-29	ND	3.47		
PCB-30	ND	2.33		
PCB-31	ND	3.25		
PCB-34	ND	3.66		
PCB-35	ND	3.68		
PCB-36	ND	3.68		
PCB-37	ND	3.64		
PCB-38	ND	3.74		
PCB-39	ND	3.57		
PCB-40	ND	4.72		
PCB-41/64/71/72	ND	2.95		
PCB-42/59	ND	3.18		
PCB-43/49	ND	3.95		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	ND	4.11		
PCB-45	ND	4.54		
PCB-46	ND	4.61		
PCB-47	ND	3.41		
PCB-48/75	ND	2.96		
PCB-50	ND	3.94		
PCB-51	ND	3.81		
PCB-52/69	ND	3.43		
PCB-53	ND	3.69		
PCB-54	ND	3.18		
PCB-55	ND	2.32		
PCB-56/60	ND	2.37		
PCB-57	ND	2.44		
PCB-58	ND	2.46		
PCB-61/70	ND	2.51		
PCB-62	ND	2.99		
PCB-63	ND	2.43		
PCB-65	ND	2.90		
PCB-66/76	ND	2.39		
PCB-67	ND	2.53		
PCB-68	ND	2.60		
PCB-73	ND	3.20		
PCB-74	ND	2.26		
PCB-77	ND	2.38		
PCB-78	ND	2.54		
PCB-79	ND	2.29		
PCB-80	ND	2.02		
PCB-81	ND	2.27		
PCB-82	ND	5.77		
PCB-83	ND	4.02		
PCB-84/92	ND	5.34		
PCB-85/116	ND	4.69		
PCB-86	ND	5.97		
PCB-87/117/125	ND	3.92		
PCB-88/91	ND	6.19		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC2-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
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Sample Data
Matrix: SPME

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Lab Sample: 1400924-04 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 08:12 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND	5.53		
PCB-90/101	ND	4.72		
PCB-93	ND	5.58		
PCB-94	ND	5.69		
PCB-95/98/102	ND	5.19		
PCB-96	ND	4.84		
PCB-97	ND	4.89		
PCB-99	ND	4.36		
PCB-100	ND	5.27		
PCB-103	ND	5.66		
PCB-104	ND	4.20		
PCB-105	ND	5.05		
PCB-106/118	ND	3.62		
PCB-107/109	ND	3.49		
PCB-108/112	ND	4.74		
PCB-110	ND	3.63		
PCB-111/115	ND		4.53	
PCB-113	ND	4.16		
PCB-114	ND	4.83		
PCB-119	ND	3.55		
PCB-120	ND	3.43		
PCB-121	ND	3.31		
PCB-122	ND	5.29		
PCB-123	ND	3.50		
PCB-124	ND	3.22		
PCB-126	ND	5.64		
PCB-127	ND	5.66		
PCB-128/162	ND	3.47		
PCB-129	ND	4.13		
PCB-130	ND	4.75		
PCB-131	ND	4.33		
PCB-132/161	ND	3.56		
PCB-133/142	ND	4.19		
PCB-134/143	ND	4.27		
PCB-135	ND	4.92		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	ND	3.54		
PCB-137	ND	3.76		
PCB-138/163/164	5.07			J, B
PCB-139/149	ND	4.55		
PCB-140	ND	4.89		
PCB-141	ND	4.13		
PCB-144	ND	4.68		
PCB-145	ND	3.51		
PCB-146/165	ND	3.42		
PCB-147	ND	4.63		
PCB-148	ND	5.18		
PCB-150	ND	3.61		
PCB-151	ND	4.74		
PCB-152	ND	3.49		
PCB-153	ND	3.36		
PCB-154	ND	4.34		
PCB-155	ND	3.38		
PCB-156	ND	2.81		
PCB-157	ND	3.00		
PCB-158/160	ND	2.96		
PCB-159	ND	3.03		
PCB-166	ND	3.17		
PCB-167	ND	2.92		
PCB-168	ND	2.89		
PCB-169	ND	2.99		
PCB-170	ND	2.40		
PCB-171	ND	2.36		
PCB-172	ND	2.53		
PCB-173	ND	2.67		
PCB-174	ND	2.32		
PCB-175	ND	2.41		
PCB-176	ND	1.72		
PCB-177	ND	2.50		
PCB-178	ND	2.49		
PCB-179	ND	1.79		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC2-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:42

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-04 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 08:12 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	ND	2.17		
PCB-181	ND	2.28		
PCB-182/187	ND	2.30		
PCB-183	ND	2.16		
PCB-184	ND	1.89		
PCB-185	ND	2.31		
PCB-186	ND	1.83		
PCB-188	ND	1.66		
PCB-189	ND	1.57		
PCB-190	ND	1.78		
PCB-191	ND	1.85		
PCB-192	ND	2.03		
PCB-193	ND	1.87		
PCB-194	ND	2.54		
PCB-195	ND	2.64		
PCB-196/203	ND	3.64		
PCB-197	ND	2.62		
PCB-198	ND	3.78		
PCB-199	ND	3.86		
PCB-200	ND	2.76		
PCB-201	ND	2.55		
PCB-202	ND	2.70		
PCB-204	ND	2.83		
PCB-205	ND	2.24		
PCB-206	ND	2.94		
PCB-207	ND	1.68		
PCB-208	ND	1.60		
PCB-209	ND	2.56		
Total monoCB	ND	8.40		
Total diCB	ND	15.8		
Total triCB	ND	3.74		
Total tetraCB	ND	4.72		
Total pentaCB	ND		4.53	J
Total hexaCB	5.07			J, B
Total heptaCB	ND	2.67		
Total octaCB	ND	3.86		
Total nonaCB	ND	2.94		
DecaCB	ND	2.56		
Total PCB	5.07			J, B
13C-PCB-8	2990			
13C-PCB-31	3700			
13C-PCB-79	6320			
13C-PCB-133	4560			
13C-PCB-178	4330			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC2-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:42

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-04 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 08:12 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	25.4	5 -145	
	13C-PCB-3	32.4	5 -145	
	13C-PCB-4	36.0	5 -145	
	13C-PCB-11	54.7	5 -145	
	13C-PCB-9	41.7	5 -145	
	13C-PCB-19	39.1	5 -145	
	13C-PCB-28	44.7	5 -145	
	13C-PCB-32	49.4	5 -145	
	13C-PCB-37	59.8	5 -145	
	13C-PCB-47	70.4	5 -145	
	13C-PCB-52	66.5	5 -145	
	13C-PCB-54	63.8	5 -145	
	13C-PCB-70	82.3	5 -145	
	13C-PCB-77	89.3	10 -145	
	13C-PCB-80	88.1	10 -145	
	13C-PCB-81	84.7	10 -145	
	13C-PCB-95	58.6	10 -145	
	13C-PCB-97	66.4	10 -145	
	13C-PCB-101	63.8	10 -145	
	13C-PCB-104	52.5	10 -145	
	13C-PCB-105	82.6	10 -145	
	13C-PCB-114	80.5	10 -145	
	13C-PCB-118	68.7	10 -145	
	13C-PCB-123	69.2	10 -145	
	13C-PCB-126	79.8	10 -145	
	13C-PCB-127	75.4	10 -145	
	13C-PCB-138	96.3	10 -145	
	13C-PCB-141	90.3	10 -145	
	13C-PCB-153	88.4	10 -145	
	13C-PCB-155	69.3	10 -145	
	13C-PCB-156	96.1	10 -145	
	13C-PCB-157	94.5	10 -145	
	13C-PCB-159	94.0	10 -145	
	13C-PCB-167	95.7	10 -145	
	13C-PCB-169	94.5	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	98.8	10 -145	
13C-PCB-180	98.3	10 -145	
13C-PCB-188	92.4	10 -145	
13C-PCB-189	97.6	10 -145	
13C-PCB-194	80.7	10 -145	
13C-PCB-202	105	10 -145	
13C-PCB-206	92.4	10 -145	
13C-PCB-208	99.1	10 -145	
13C-PCB-209	113	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC3-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:42

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-05 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 09:17 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	4.38		
PCB-2	ND	3.45		
PCB-3	ND	3.35		
PCB-4/10	ND	12.3		
PCB-5/8	ND	8.46		
PCB-6	ND	9.25		
PCB-7/9	ND	9.19		
PCB-11	15.6			J, B
PCB-12/13	ND	9.49		
PCB-14	ND	8.47		
PCB-15	ND	8.63		
PCB-16/32	4.57			J
PCB-17	ND	1.76		
PCB-18	5.53			J
PCB-19	ND	1.94		
PCB-20/21/33	ND	2.69		
PCB-22	ND	2.66		
PCB-23	ND	2.69		
PCB-24/27	ND	1.35		
PCB-25	ND	2.62		
PCB-26	ND	2.73		
PCB-28	ND	2.56		
PCB-29	ND	2.65		
PCB-30	ND	1.38		
PCB-31	ND	2.48		
PCB-34	ND	2.79		
PCB-35	ND	2.68		
PCB-36	ND	2.68		
PCB-37	ND	2.65		
PCB-38	ND	2.72		
PCB-39	ND	2.60		
PCB-40	ND	3.59		
PCB-41/64/71/72	ND	2.24		
PCB-42/59	ND	2.41		
PCB-43/49	ND	2.86		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	ND	3.12		
PCB-45	ND	3.29		
PCB-46	ND	3.34		
PCB-47	ND	2.59		
PCB-48/75	ND	2.25		
PCB-50	ND	2.71		
PCB-51	ND	2.76		
PCB-52/69	ND	2.49		
PCB-53	ND	2.68		
PCB-54	ND	2.19		
PCB-55	ND	1.95		
PCB-56/60	ND	1.99		
PCB-57	ND	1.96		
PCB-58	ND	1.98		
PCB-61/70	ND	2.03		
PCB-62	ND	2.27		
PCB-63	ND	1.96		
PCB-65	ND	2.20		
PCB-66/76	ND	1.92		
PCB-67	ND	2.04		
PCB-68	ND	1.98		
PCB-73	ND	2.32		
PCB-74	ND	1.82		
PCB-77	ND	1.95		
PCB-78	ND	1.90		
PCB-79	ND	1.92		
PCB-80	ND	1.69		
PCB-81	ND	1.70		
PCB-82	ND	4.85		
PCB-83	ND	3.32		
PCB-84/92	8.09			J
PCB-85/116	ND	3.88		
PCB-86	ND	4.94		
PCB-87/117/125	ND	3.24		
PCB-88/91	ND	4.79		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC3-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:42

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-05 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 09:17 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND	4.37		
PCB-90/101	ND	3.73		
PCB-93	ND	4.32		
PCB-94	ND	4.41		
PCB-95/98/102	ND	4.02		
PCB-96	ND	3.43		
PCB-97	ND	4.04		
PCB-99	ND	3.45		
PCB-100	ND	3.74		
PCB-103	ND	4.02		
PCB-104	ND	2.98		
PCB-105	ND	5.11		
PCB-106/118	ND	2.85		
PCB-107/109	ND	2.93		
PCB-108/112	ND	3.92		
PCB-110	ND	3.00		
PCB-111/115	8.40			J
PCB-113	ND	3.29		
PCB-114	ND	4.79		
PCB-119	ND	2.93		
PCB-120	ND	2.83		
PCB-121	ND	2.56		
PCB-122	ND	5.25		
PCB-123	ND	2.94		
PCB-124	ND	2.71		
PCB-126	ND	5.60		
PCB-127	ND	5.21		
PCB-128/162	ND	3.17		
PCB-129	ND	3.87		
PCB-130	ND	3.96		
PCB-131	ND	3.72		
PCB-132/161	ND	3.05		
PCB-133/142	ND	3.60		
PCB-134/143	ND	3.67		
PCB-135	ND	3.80		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	ND	2.73		
PCB-137	ND	3.13		
PCB-138/163/164	ND	2.92		
PCB-139/149	ND	3.50		
PCB-140	ND	3.77		
PCB-141	ND	3.44		
PCB-144	ND	3.61		
PCB-145	ND	2.71		
PCB-146/165	ND	2.94		
PCB-147	ND	3.57		
PCB-148	ND	3.99		
PCB-150	ND	2.78		
PCB-151	ND	3.66		
PCB-152	ND	2.69		
PCB-153	ND	2.88		
PCB-154	ND	3.35		
PCB-155	ND	2.61		
PCB-156	ND	2.59		
PCB-157	ND	2.75		
PCB-158/160	ND	2.77		
PCB-159	ND	2.77		
PCB-166	ND	2.90		
PCB-167	ND	2.72		
PCB-168	ND	2.48		
PCB-169	ND	2.71		
PCB-170	ND	2.11		
PCB-171	ND	2.15		
PCB-172	ND	2.31		
PCB-173	ND	2.44		
PCB-174	ND	2.11		
PCB-175	ND	2.18		
PCB-176	ND	1.55		
PCB-177	ND	2.28		
PCB-178	ND	2.26		
PCB-179	ND	1.62		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC3-20141209

EPA Method 1668C

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:42

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-05 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 09:17 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	ND	1.98		
PCB-181	ND	2.08		
PCB-182/187	ND	2.09		
PCB-183	ND	1.95		
PCB-184	ND	1.71		
PCB-185	ND	2.11		
PCB-186	ND	1.66		
PCB-188	ND	1.51		
PCB-189	ND	1.40		
PCB-190	ND	1.57		
PCB-191	ND	1.69		
PCB-192	ND	1.85		
PCB-193	ND	1.71		
PCB-194	3.46			J
PCB-195	ND	2.41		
PCB-196/203	ND	2.95		
PCB-197	ND	2.12		
PCB-198	ND	3.06		
PCB-199	ND	3.12		
PCB-200	ND	2.24		
PCB-201	ND	2.07		
PCB-202	ND	2.19		
PCB-204	ND	2.29		
PCB-205	ND	2.04		
PCB-206	ND	2.46		
PCB-207	ND	1.59		
PCB-208	ND	1.52		
PCB-209	ND	2.05		
Total monoCB	ND	4.38		
Total diCB	15.6			J, B
Total triCB	10.1			
Total tetraCB	ND	3.59		
Total pentaCB	16.5			
Total hexaCB	ND	3.99		
Total heptaCB	ND	2.44		
Total octaCB	3.46			J
Total nonaCB	ND	2.46		
DecaCB	ND	2.05		
Total PCB	45.6			B
13C-PCB-8	4810			
13C-PCB-31	5100			
13C-PCB-79	7100			
13C-PCB-133	5800			
13C-PCB-178	5410			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FBPRC3-20141209

EPA Method 1668C

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Name: Environ
Project: 0433310A11
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Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-05 Date Received: 10-Dec-2014 9:05
QC Batch: B5A0025 Date Extracted: 19-Dec-2014 8:15
Date Analyzed : 15-Jan-15 09:17 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	37.9	5 -145	
	13C-PCB-3	50.3	5 -145	
	13C-PCB-4	54.8	5 -145	
	13C-PCB-11	63.7	5 -145	
	13C-PCB-9	59.5	5 -145	
	13C-PCB-19	51.3	5 -145	
	13C-PCB-28	46.9	5 -145	
	13C-PCB-32	56.2	5 -145	
	13C-PCB-37	64.5	5 -145	
	13C-PCB-47	65.8	5 -145	
	13C-PCB-52	64.7	5 -145	
	13C-PCB-54	65.1	5 -145	
	13C-PCB-70	71.4	5 -145	
	13C-PCB-77	76.1	10 -145	
	13C-PCB-80	73.5	10 -145	
	13C-PCB-81	77.0	10 -145	
	13C-PCB-95	53.3	10 -145	
	13C-PCB-97	57.6	10 -145	
	13C-PCB-101	56.6	10 -145	
	13C-PCB-104	52.3	10 -145	
	13C-PCB-105	73.5	10 -145	
	13C-PCB-114	75.3	10 -145	
	13C-PCB-118	59.4	10 -145	
	13C-PCB-123	59.4	10 -145	
	13C-PCB-126	73.6	10 -145	
	13C-PCB-127	73.3	10 -145	
	13C-PCB-138	83.9	10 -145	
	13C-PCB-141	85.1	10 -145	
	13C-PCB-153	82.7	10 -145	
	13C-PCB-155	62.4	10 -145	
	13C-PCB-156	83.0	10 -145	
	13C-PCB-157	82.6	10 -145	
	13C-PCB-159	81.4	10 -145	
	13C-PCB-167	81.6	10 -145	
	13C-PCB-169	84.0	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	87.6	10 -145	
13C-PCB-180	87.4	10 -145	
13C-PCB-188	84.0	10 -145	
13C-PCB-189	88.9	10 -145	
13C-PCB-194	64.7	10 -145	
13C-PCB-202	95.1	10 -145	
13C-PCB-206	85.2	10 -145	
13C-PCB-208	80.4	10 -145	
13C-PCB-209	92.0	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank — EPA Method 1699

Matrix: SPME

QC Batch: B4L0110
Date Extracted: 19-Dec-2014 8:23

Lab Sample: B4L0110-BLK1
Date Analyzed: 20-Dec-14 01:41 Column: ZB-50 Analyst: CVG
23-Dec-14 17:58 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	ND	3.45		
4,4'-DDE	ND	5.75		
2,4'-DDD	ND	2.70		
2,4'-DDT	ND	5.81		
4,4'-DDD	ND	3.28		
4,4'-DDT	ND	6.39		
4,4'-DDMU	ND	23.9		
d8-4,4'-DDD	ND	2.96		
d8-4,4'-DDT	ND	5.34		
d8-2,4'-DDE	ND	3.14		
d8-4,4'-DDE	9.36			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	90.0	47 - 160	
IS	13C12-4,4'-DDE	67.7	47 - 160	
IS	13C12-2,4'-DDD	99.0	5 - 199	
IS	13C12-4,4'-DDD	91.8	5 - 120	
IS	13C12-4,4'-DDT	94.0	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Sample ID: OPR

EPA Method 1699

Matrix: SPME

QC Batch: B4L0110
Date Extracted: 19-Dec-2014 8:23

Lab Sample: B4L0110-BS1
Date Analyzed: 19-Dec-14 23:02 Column: ZB-50 Analyst: CVG

Analyte	Amt Found (pg/Sam	Spike Amt	%R	Limits
2,4'-DDE	2270	2000	114	24 - 123
4,4'-DDE	2180	2000	109	50 - 120
2,4'-DDD	2220	2000	111	50 - 120
2,4'-DDT	2330	2000	116	50 - 120
4,4'-DDD	2200	2000	110	42 - 120
4,4'-DDT	2170	2000	109	50 - 120
4,4'-DDMU	22900	20000	115	50 - 120

	Labeled Standard	%R	LCL-UCL
IS	13C12-2,4'-DDE	85.0	26 - 169
IS	13C12-4,4'-DDE	64.2	26 - 169
IS	13C12-2,4'-DDD	95.8	14 - 200
IS	13C12-4,4'-DDD	93.4	14 - 200
IS	13C12-4,4'-DDT	99.1	13 - 200

LCL-UCL - Lower control limit - upper control limit

Sample ID: FB-20141209_1531 — EPA Method 1699

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:31

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-02 Date Received: 10-Dec-2014 9:05
QC Batch: B4L0110 Date Extracted: 19-Dec-2014 8:23
Date Analyzed: 20-Dec-14 03:28 Column: ZB-50 Analyst: CVG
23-Dec-14 18:51 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	ND	2.78		
4,4'-DDE	ND		11.4	
2,4'-DDD	ND	2.23		
2,4'-DDT	ND	4.00		
4,4'-DDD	ND	2.26		
4,4'-DDT	11.4			J
4,4'-DDMU	ND	6.53		
d8-4,4'-DDD	5.70			
d8-4,4'-DDT	ND			
d8-2,4'-DDE	8.72			
d8-4,4'-DDE	15.1			B

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	88.5	47 - 160	
IS	13C12-4,4'-DDE	67.2	47 - 160	
IS	13C12-2,4'-DDD	110	5 - 199	
IS	13C12-4,4'-DDD	111	5 - 120	
IS	13C12-4,4'-DDT	110	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: FBPRC4-20141209 — EPA Method 1699

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:43

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-06 Date Received: 10-Dec-2014 9:05
QC Batch: B4L0110 Date Extracted: 19-Dec-2014 8:23
Date Analyzed: 20-Dec-14 04:21 Column: ZB-50 Analyst: CVG
23-Dec-14 19:44 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	ND	3.05		
4,4'-DDE	ND		8.14	
2,4'-DDD	ND	2.33		
2,4'-DDT	ND	4.63		
4,4'-DDD	ND	2.62		
4,4'-DDT	ND		8.44	
4,4'-DDMU	ND	8.67		
d8-4,4'-DDD	74200			
d8-4,4'-DDT	55900			
d8-2,4'-DDE	76500			
d8-4,4'-DDE	72400			B

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	82.7	47 - 160	
IS	13C12-4,4'-DDE	66.3	47 - 160	
IS	13C12-2,4'-DDD	97.9	5 - 199	
IS	13C12-4,4'-DDD	100	5 - 120	
IS	13C12-4,4'-DDT	95.5	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: FBPRC5-20141209 — EPA Method 1699

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:43

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-07 Date Received: 10-Dec-2014 9:05
QC Batch: B4L0110 Date Extracted: 19-Dec-2014 8:23
Date Analyzed: 20-Dec-14 05:14 Column: ZB-50 Analyst: CVG
23-Dec-14 20:37 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	ND	3.27		
4,4'-DDE	ND	5.64		
2,4'-DDD	ND	2.58		
2,4'-DDT	ND	4.29		
4,4'-DDD	ND	2.42		
4,4'-DDT	7.21			J
4,4'-DDMU	ND	23.1		
d8-4,4'-DDD	95000			
d8-4,4'-DDT	71400			
d8-2,4'-DDE	89400			
d8-4,4'-DDE	86900			B

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	82.6	47 - 160	
IS	13C12-4,4'-DDE	58.7	47 - 160	
IS	13C12-2,4'-DDD	99.9	5 - 199	
IS	13C12-4,4'-DDD	108	5 - 120	
IS	13C12-4,4'-DDT	109	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: FBPRC6-20141209 — EPA Method 1699

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 09-Dec-2014 15:44

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1400924-08 Date Received: 10-Dec-2014 9:05
QC Batch: B4L0110 Date Extracted: 19-Dec-2014 8:23
Date Analyzed: 20-Dec-14 06:07 Column: ZB-50 Analyst: CVG
23-Dec-14 21:30 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	ND	3.01		
4,4'-DDE	ND	4.40		
2,4'-DDD	ND	1.89		
2,4'-DDT	ND	3.16		
4,4'-DDD	ND	1.78		
4,4'-DDT	ND	3.61		
4,4'-DDMU	ND	22.7		
d8-4,4'-DDD	100000			
d8-4,4'-DDT	76900			
d8-2,4'-DDE	101000			
d8-4,4'-DDE	98500			B

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	78.4	47 - 160	
IS	13C12-4,4'-DDE	70.0	47 - 160	
IS	13C12-2,4'-DDD	95.7	5 - 199	
IS	13C12-4,4'-DDD	114	5 - 120	
IS	13C12-4,4'-DDT	115	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Vial Masses

Vial Number	Lab ID	Initial Mass (g)	Final Mass (g)	Hexane Volume (mL)
33	1400924-01	37.7540	42.0267	62
34	1400924-02	37.4845	41.7666	62
35	1400924-03	37.6678	38.7105	62
36	1400924-04	37.6520	38.6975	62
37	1400924-05	37.4893	38.5446	62
38	1400924-06	37.6886	38.7490	62
39	1400924-07	37.7380	38.7933	62
40	1400924-08	37.0690	38.1238	62
41	1400924-09	37.5713	39.6459	NA
42	1400924-10	37.8528	39.4694	NA

Please note that the final masses include additional vial labels.

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
H	**Recovery was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**Method Detection Limit as determined by 40 CFR 136, Appendix B.**
EMPC	**Estimated Maximum Possible Concentration**
M	**Estimated Maximum Possible Concentration (CA Region 2)**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Michigan Department of Natural Resources	9932
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
North Carolina Department of Health & Human Services	06700
Oregon Laboratory Accreditation Program	4042-003
Pennsylvania Department of Environmental Protection	011
South Carolina Department of Health	87002001
Tennessee Department of Environment & Conservation	TN02996
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	3138
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

ENVIRON — CHAIN-of-CUSTODY № 10725

☒ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

1400924 1.5°C

PAGE 1 of 1

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: POLA/POLB Phase 2 LDL WC Study

PROJECT NUMBER: 043331011 DATE: 12-9-14

PROJECT LOCATION: San Pedro / Long Beach, CA

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #: _____

FIELD PERSON: M. Grover

PROJECT MANAGER: D. Moore

LABORATORY: Vista Analytical

SAMPLER: M. Grover

SIGNATURE: M. Grover

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2014)	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: USEPA 1668B PCB01-209 plus PRCs	USEPA1699 DDx plus PRCs	Length to mass determination	COMMENTS
FB-20141209	12/9	15:22	NA	NA	Fiber	1	U	NO	X			Contact
FB-20141209		15:31								X		David Moore at
FBPRC1-20141209		15:41							X			dmoore@environcorp.com
FBPRC2-20141209		15:42							X			
FBPRC3-20141209		15:43							X			
FBPRC4-20141209		15:43								X		
FBPRC5-20141209		15:43								X		
FBPRC10-20141209		15:44								X		
LENGTH-01-20141209		16:20									X	
LENGTH-02-20141209	↓	16:37	↓	↓	↓	↓	↓	↓			X	
TOTAL	X	X	X									

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
M. Grover	16:39 / 12-09-14	(COMPANY): Vista	12/10/14 0912
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY — INTACT: Y N Temp_____

IF SEALED, SEAL INTEGRITY — INTACT: Y N

O = OTHER; NO = NONE; U = UNKNOWN; S = H_2SO_4; N = HNO_3; H = HCL;

FILE: LOG FORMS\Chain_of_Custody

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 1400924 **TAT** Std

Samples Arrival:	**Date/Time** 12/10/14 0905		**Initials:** UBB		**Location:** WR-2 **Shelf/Rack:** NA	
Logged In:	**Date/Time** 12/11/14 0741		**Initials:** UBB		**Location:** R1 **Shelf/Rack:** NA	
Delivered By:	(FedEx)	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice		Dry Ice	None	
Temp °C: 1.5 (uncorrected)		**Time:** 0909		**Thermometer ID:** IR-1		
Temp °C: 1.5 (corrected)						

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Shipping Documentation Present?	✓		
Airbill — Trk # 8664 1962 7740	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented? NA	COC	Sample Container	None		
Shipping Container	(Vista)	Client	(Retain)	Return	Dispose

Comments:

FB-20141209 Vial 34
Vial 33
↓
FBPRC4-20141209 Vial 38
3 2 1 6 5
37 36 35 40 39

Length-02-20141209 Vial 42
↓ 01 ↓
41

Sample Login 11/2013 ckt

February 10, 2015

Vista Project I.D.: 1500018

Dr. David Moore
Environ
18100 Von Karman Ave. Suite 600
Irvine, CA 92612

Dear Dr. Moore,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on January 08, 2015. This sample set was analyzed on a standard turn-around time, under your Project Name '0433310A 11'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Work Order No. 1500018
Case Narrative

Sample Condition on Receipt:

Twenty-four SPME fibers were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The twelve samples designated for analysis by EPA Method 1668C were assigned to Vista Work Order #1500015.

Analytical Notes:

Upon receipt, each vial was weighed and hexane was added to each vial, covering the SPME. A table containing the initial and final weights is included with the datasheets.

Analytical Notes:

EPA Method 1699

These samples were extracted and analyzed for the DDX list of chlorinated pesticides by EPA Method 1699 using a ZB-50 GC column. The concentrations of the PRCs are listed following the results for 4,4'-DDMU on each datasheet. The PRCs were not added to the Method Blank or OPR.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limit in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1500018-01	CP-RW-01-S-M-20150107	07-Jan-15 08:39	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-02	REF-RW-01-S-M-20150107	07-Jan-15 09:46	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-03	REF-RW-01-S-M-PRC-20150107	07-Jan-15 09:46	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-04	OB-RW-01-S-M-20150107	07-Jan-15 11:15	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-05	OB-RW-01-S-B-20150107	07-Jan-15 11:15	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-06	SP-RW-01-S-M-20150107	07-Jan-15 12:45	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-07	LARE-RW-01-S-M-20150107	07-Jan-15 13:45	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-08	IB-RW-01-S-M-20150107	07-Jan-15 15:30	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-09	IB-RW-01-S-B-20150107	07-Jan-15 15:30	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-10	CS-01-RW-S-M-PRC-20150107	07-Jan-15 16:05	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-11	CS-RW-01-S-M-20150107	07-Jan-15 16:05	08-Jan-15 09:05	Amber VOA Vial, 60mL
1500018-12	CS-RW-01-S-B-20150107	07-Jan-15 16:05	08-Jan-15 09:05	Amber VOA Vial, 60mL

Vista Project: 1500018

Client Project: 0433310A11

ANALYTICAL RESULTS

Sample ID: Method Blank — EPA Method 1699

Matrix: SPME

QC Batch: B5A0057
Date Extracted: 14-Jan-2015 8:25

Lab Sample: B5A0057-BLK1
Date Analyzed: 17-Jan-15 01:13 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	ND	2.27		
4,4'-DDE	ND	3.00		
2,4'-DDD	ND	2.71		
2,4'-DDT	ND	4.58		
4,4'-DDD	ND	3.18		
4,4'-DDT	ND	5.77		
4,4'-DDMU	ND	34.0		

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	100	47 - 160	
IS	13C12-4,4'-DDE	108	47 - 160	
IS	13C12-2,4'-DDD	114	5 - 199	
IS	13C12-4,4'-DDD	114	5 - 120	
IS	13C12-4,4'-DDT	113	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Sample ID: OPR

EPA Method 1699

Matrix: SPME

QC Batch: B5A0057
Date Extracted: 14-Jan-2015 8:25

Lab Sample: B5A0057-BS1
Date Analyzed: 16-Jan-15 22:37 Column: ZB-50 Analyst: CVG

Analyte	Amt Found (pg/Sam	Spike Amt	%R	Limits
2,4'-DDE	1870	2000	93.3	24 - 123
4,4'-DDE	1910	2000	95.3	50 - 120
2,4'-DDD	2030	2000	102	50 - 120
2,4'-DDT	1940	2000	96.8	50 - 120
4,4'-DDD	2060	2000	103	42 - 120
4,4'-DDT	2290	2000	114	50 - 120
4,4'-DDMU	17200	20000	86.0	50 - 120

	Labeled Standard	%R	LCL-UCL
IS	13C12-2,4'-DDE	105	26 - 169
IS	13C12-4,4'-DDE	93.4	26 - 169
IS	13C12-2,4'-DDD	89.1	14 - 200
IS	13C12-4,4'-DDD	75.3	14 - 200
IS	13C12-4,4'-DDT	60.7	13 - 200

LCL-UCL - Lower control limit - upper control limit

Sample ID: CP-RW-01-S-M-20150107 — EPA Method 1699

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 8:39

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500018-01 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 06-Feb-15 18:40 Column: ZB-50 Analyst: WJL
23-Jan-15 18:00 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	5050			
4,4'-DDE	35400			D
2,4'-DDD	523			
2,4'-DDT	386			D
4,4'-DDD	1020			
4,4'-DDT	1450			
4,4'-DDMU	3530			
d8-4,4'-DDD	ND	3.82		
d8-4,4'-DDT	ND		24.9	
d8-2,4'-DDE	43.5			
d8-4,4'-DDE	44.9			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	100	47 - 160	
IS	13C12-4,4'-DDE	72.2	47 - 160	D
IS	13C12-2,4'-DDD	93.0	5 - 199	
IS	13C12-4,4'-DDD	77.8	5 - 120	
IS	13C12-4,4'-DDT	72.4	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: REF-RW-01-S-M-20150107

EPA Method 1699

Client Data

Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data

Matrix: SPME

Laboratory Data

Lab Sample: 1500018-02 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 06-Feb-15 19:32 Column: ZB-50 Analyst: WJL
27-Jan-15 10:45 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	4810			
4,4'-DDE	29400			D
2,4'-DDD	239			
2,4'-DDT	48.3			
4,4'-DDD	578			
4,4'-DDT	236			
4,4'-DDMU	5430			
d8-4,4'-DDD	ND	22.4		
d8-4,4'-DDT	ND	95.4		
d8-2,4'-DDE	ND	34.4		
d8-4,4'-DDE	ND	41.9		

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	112	47 - 160	
IS	13C12-4,4'-DDE	72.3	47 - 160	
IS	13C12-2,4'-DDD	119	5 - 199	
IS	13C12-4,4'-DDD	103	5 - 120	
IS	13C12-4,4'-DDT	98.0	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Sample ID: REF-RW-01-S-M-PRC-20150107 — EPA Method 1699

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 9:46

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500018-03 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 09:06 Column: ZB-50 Analyst: CVG
24-Jan-15 11:26 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	539			
4,4'-DDE	3040			
2,4'-DDD	28.8			J
2,4'-DDT	ND	7.75		
4,4'-DDD	59.7			
4,4'-DDT	33.9			J
4,4'-DDMU	538			
d8-4,4'-DDD	5020			
d8-4,4'-DDT	48900			
d8-2,4'-DDE	32300			
d8-4,4'-DDE	32400			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	112	47 - 160	
IS	13C12-4,4'-DDE	97.6	47 - 160	
IS	13C12-2,4'-DDD	103	5 - 199	
IS	13C12-4,4'-DDD	90.3	5 - 120	
IS	13C12-4,4'-DDT	82.3	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: OB-RW-01-S-M-20150107 — EPA Method 1699

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500018-04 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 09:58 Column: ZB-50 Analyst: CVG
26-Jan-15 12:18 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	4170			
4,4'-DDE	24000			
2,4'-DDD	352			
2,4'-DDT	ND	7.27		
4,4'-DDD	767			
4,4'-DDT	348			
4,4'-DDMU	3510			
d8-4,4'-DDD	8490			
d8-4,4'-DDT	66600			
d8-2,4'-DDE	43300			
d8-4,4'-DDE	36200			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	100	47 - 160	
IS	13C12-4,4'-DDE	92.5	47 - 160	
IS	13C12-2,4'-DDD	99.3	5 - 199	
IS	13C12-4,4'-DDD	100	5 - 120	
IS	13C12-4,4'-DDT	94.6	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: OB-RW-01-S-B-20150107 — EPA Method 1699

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 11:15

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500018-05 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 10:50 Column: ZB-50 Analyst: CVG
26-Jan-15 13:10 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	4770			
4,4'-DDE	23100			
2,4'-DDD	300			
2,4'-DDT	ND	2.18		
4,4'-DDD	658			
4,4'-DDT	272			
4,4'-DDMU	3740			
d8-4,4'-DDD	14800			
d8-4,4'-DDT	88800			
d8-2,4'-DDE	51100			
d8-4,4'-DDE	33900			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	99.5	47 - 160	
IS	13C12-4,4'-DDE	104	47 - 160	
IS	13C12-2,4'-DDD	105	5 - 199	
IS	13C12-4,4'-DDD	106	5 - 120	
IS	13C12-4,4'-DDT	107	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: SP-RW-01-S-M-20150107

EPA Method 1699

Client Data

Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 12:45

Sample Data

Matrix: SPME

Laboratory Data

Lab Sample: 1500018-06 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 11:42 Column: ZB-50 Analyst: CVG
26-Jan-15 14:02 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	3150			
4,4'-DDE	17000			
2,4'-DDD	261			
2,4'-DDT	76.5			
4,4'-DDD	673			
4,4'-DDT	310			
4,4'-DDMU	2820			
d8-4,4'-DDD	4860			
d8-4,4'-DDT	75900			
d8-2,4'-DDE	53800			
d8-4,4'-DDE	33700			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	113	47 - 160	
IS	13C12-4,4'-DDE	103	47 - 160	
IS	13C12-2,4'-DDD	115	5 - 199	
IS	13C12-4,4'-DDD	99.6	5 - 120	
IS	13C12-4,4'-DDT	97.7	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Sample ID: LARE-RW-01-S-M-20150107 — EPA Method 1699

Client Data
Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 13:45

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500018-07 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 12:34 Column: ZB-50 Analyst: CVG
26-Jan-15 14:54 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	1220			
4,4'-DDE	9510			
2,4'-DDD	602			
2,4'-DDT	168			
4,4'-DDD	1710			
4,4'-DDT	712			
4,4'-DDMU	1310			
d8-4,4'-DDD	ND	4.74		
d8-4,4'-DDT	ND	11.5		
d8-2,4'-DDE	11.0			
d8-4,4'-DDE	10.6			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	98.1	47 - 160	
IS	13C12-4,4'-DDE	88.2	47 - 160	
IS	13C12-2,4'-DDD	99.6	5 - 199	
IS	13C12-4,4'-DDD	95.1	5 - 120	
IS	13C12-4,4'-DDT	88.7	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: IB-RW-01-S-M-20150107

EPA Method 1699

Client Data

Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 15:30

Sample Data

Matrix: SPME

Laboratory Data

Lab Sample: 1500018-08 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 13:26 Column: ZB-50 Analyst: CVG
26-Jan-15 15:46 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	2990			
4,4'-DDE	16100			
2,4'-DDD	590			
2,4'-DDT	290			
4,4'-DDD	1210			
4,4'-DDT	1100			
4,4'-DDMU	2250			
d8-4,4'-DDD	17200			
d8-4,4'-DDT	133000			
d8-2,4'-DDE	87700			
d8-4,4'-DDE	59500			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	108	47 - 160	
IS	13C12-4,4'-DDE	84.7	47 - 160	
IS	13C12-2,4'-DDD	113	5 - 199	
IS	13C12-4,4'-DDD	97.8	5 - 120	
IS	13C12-4,4'-DDT	98.5	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Sample ID: IB-RW-01-S-B-20150107 — EPA Method 1699

Client Data

Name:	Environ
Project:	0433310A11
Date Collected:	07-Jan-2015 15:30

Sample Data

Matrix:	SPME

Laboratory Data

Lab Sample:	1500018-09	Date Received:	08-Jan-2015 9:05
QC Batch:	B5A0057	Date Extracted:	14-Jan-2015 8:25
Date Analyzed:	10-Feb-15 08:56 Column: ZB-50 Analyst: WJL		
	26-Jan-15 16:37 Column: ZB-50 Analyst: CVG		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	2860			
4,4'-DDE	15200			
2,4'-DDD	585			
2,4'-DDT	298			D
4,4'-DDD	1100			
4,4'-DDT	760			
4,4'-DDMU	2310			
d8-4,4'-DDD	13200			
d8-4,4'-DDT	55200			
d8-2,4'-DDE	37700			
d8-4,4'-DDE	25800			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	110	47 - 160	
IS	13C12-4,4'-DDE	108	47 - 160	
IS	13C12-2,4'-DDD	111	5 - 199	
IS	13C12-4,4'-DDD	106	5 - 120	
IS	13C12-4,4'-DDT	116	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Sample ID: CS-01-RW-S-M-PRC-20150107 — EPA Method 1699

Client Data

Name:	Environ
Project:	0433310A11
Date Collected:	07-Jan-2015 16:05

Sample Data

Matrix:	SPME

Laboratory Data

Lab Sample:	1500018-10	Date Received:	08-Jan-2015 9:05
QC Batch:	B5A0057	Date Extracted:	14-Jan-2015 8:25
Date Analyzed:	17-Jan-15 15:10 Column: ZB-50 Analyst: CVG		
	26-Jan-15 17:29 Column: ZB-50 Analyst: CVG		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	251			
4,4'-DDE	1760			
2,4'-DDD	132			
2,4'-DDT	78.0			
4,4'-DDD	317			
4,4'-DDT	343			
4,4'-DDMU	196			J
d8-4,4'-DDD	11700			
d8-4,4'-DDT	74600			
d8-2,4'-DDE	47500			
d8-4,4'-DDE	31600			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	86.1	47 - 160	
IS	13C12-4,4'-DDE	68.9	47 - 160	
IS	13C12-2,4'-DDD	86.0	5 - 199	
IS	13C12-4,4'-DDD	74.9	5 - 120	
IS	13C12-4,4'-DDT	62.9	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Sample ID: CS-RW-01-S-M-20150107 — EPA Method 1699

Client Data

Name:	Environ
Project:	0433310A11
Date Collected:	07-Jan-2015 16:05

Sample Data

Matrix:	SPME

Laboratory Data

Lab Sample:	1500018-11	Date Received:	08-Jan-2015 9:05
QC Batch:	B5A0057	Date Extracted:	14-Jan-2015 8:25
Date Analyzed:	17-Jan-15 16:02 Column: ZB-50 Analyst: CVG		
	26-Jan-15 18:21 Column: ZB-50 Analyst: CVG		

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	2400			
4,4'-DDE	15300			
2,4'-DDD	1200			
2,4'-DDT	610			
4,4'-DDD	2910			
4,4'-DDT	2470			
4,4'-DDMU	1940			
d8-4,4'-DDD	7540			
d8-4,4'-DDT	63700			
d8-2,4'-DDE	46800			
d8-4,4'-DDE	32700			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	98.3	47 - 160	
IS	13C12-4,4'-DDE	84.6	47 - 160	
IS	13C12-2,4'-DDD	103	5 - 199	
IS	13C12-4,4'-DDD	89.9	5 - 120	
IS	13C12-4,4'-DDT	81.7	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Sample ID: CS-RW-01-S-B-20150107

EPA Method 1699

Client Data

Name: Environ
Project: 0433310A11
Date Collected: 07-Jan-2015 16:05

Sample Data

Matrix: SPME

Laboratory Data

Lab Sample: 1500018-12 Date Received: 08-Jan-2015 9:05
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 02:57 Column: ZB-50 Analyst: CVG
23-Jan-15 17:08 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	2250			
4,4'-DDE	14800			
2,4'-DDD	1230			
2,4'-DDT	826			
4,4'-DDD	2840			
4,4'-DDT	3200			
4,4'-DDMU	1790			
d8-4,4'-DDD	143			
d8-4,4'-DDT	1030			
d8-2,4'-DDE	1010			
d8-4,4'-DDE	331			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	101	47 - 160	
IS	13C12-4,4'-DDE	94.2	47 - 160	
IS	13C12-2,4'-DDD	94.5	5 - 199	
IS	13C12-4,4'-DDD	88.9	5 - 120	
IS	13C12-4,4'-DDT	86.5	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Vial Masses

Vial Number	Lab ID	Initial Mass (g)	Final Mass (g)	Hexane Volume (mL)
20	1500018-01	37.5044	41.5892	62
10	1500018-02	37.5490	41.7537	62
12	1500018-03	37.5464	38.5625	64
6	1500018-04	37.7004	42.4229	65
8	1500018-05	37.6259	42.3017	64
18	1500018-06	37.7175	42.4258	64
14	1500018-07	37.6620	42.0801	64
26	1500018-08	37.4372	42.4713	64
30	1500018-09	37.4264	42.3090	63
28	1500018-10	37.5034	38.5729	67
2	1500018-11	37.7867	41.8603	64
4	1500018-12	37.5919	42.5890	62

Please note that the final masses include additional vial labels.

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
H	**Recovery was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**Method Detection Limit as determined by 40 CFR 136, Appendix B.**
EMPC	**Estimated Maximum Possible Concentration**
M	**Estimated Maximum Possible Concentration (CA Region 2)**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Michigan Department of Natural Resources	9932
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
North Carolina Department of Health & Human Services	06700
Oregon Laboratory Accreditation Program	4042-003
Pennsylvania Department of Environmental Protection	011
South Carolina Department of Health	87002001
Tennessee Department of Environment & Conservation	TN02996
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	3138
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

ENVIRON

CHAIN-of-CUSTODY №10743

1500018 -0.2°C

PAGE 1 of 2

☐ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: ______ WO#: —

PROJECT NAME / FACILITY ID: POLA/POLB Phase 2 2DLWC Study

FIELD PERSON: M. Gran

PROJECT NUMBER: 0433310A11 DATE: 1/7/15

PROJECT MANAGER: R Moore

PROJECT LOCATION: San Pedro/Long Beach

LABORATORY: Vista Analytical

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: ______

SAMPLER: M Gran

SIGNATURE: [signature]

YEAR: 2015

SAMPLE I.D. NUMBER	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: USEPA 1668B PCB01-209 plus PRCs	USEPA 1699 ODX plus PRCs	COMMENTS
CP-RW-01-S-M-20150107	1/7	8:39	NA	NA	Fiber	1	U	No	X		Vial 19
CP-RW-01-S-M-20150107	↓	8:39	↓	↓	↓	↓	↓	↓		X	Vial 20
REF-RW-01-S-M-20150107		9:46							X		Vial 9
REF-RW-01-S-M-20150107		9:46								X	Vial 10
REF-RW-01-S-M-PRC-20150107		9:46							X		Vial 11
REF-RW-01-S-M-PRC-20150107		9:46								X	Vial 12
OB-RW-01-S-M-20150107		11:15							X		Vial 5
OB-RW-01-S-M-20150107		11:15								X	Vial 6
OB-RW-01-S-B-20150107		11:15							X		Vial 7
OB-RW-01-S-B-20150107		11:15								X	Vial 8
SP-RW-01-S-M-20150107		12:45							X		Vial 17
SP-RW-01-S-M-20150107		12:45								X	Vial 18
LARE-RW-01-S-M-20150107	↓	13:45	↓	↓	↓	↓	↓	↓	X		Vial 13
TOTAL	X	X	X			13			7	6	

RELINQUISHED BY: [signature] TIME/DATE: 18:00 1/7/15
RECEIVED BY: Beth Bondat TIME/DATE: 1/8/15 0914
(COMPANY): Vista Analytical

RELINQUISHED BY: TIME/DATE:
RECEIVED BY: TIME/DATE:
(COMPANY):

RELINQUISHED BY: TIME/DATE:
RECEIVED BY: TIME/DATE:
(COMPANY):

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY — INTACT: Y N Temp ______

IF SEALED, SEAL INTEGRITY — INTACT: Y N

H = HCL; N = HNO3; S = H2SO4; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

ENVIRON **CHAIN-of-CUSTODY** № 10744

1500018

PAGE 2 of 2

☐ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: — WO#: —

PROJECT NAME / FACILITY ID: POLA/POLB Phase2 LDL WC Study

FIELD PERSON: M. Graver

PROJECT NUMBER: 0433310A11 DATE: 1/7/15

PROJECT MANAGER: D. Moore

PROJECT LOCATION: San Pedro/ Long Beach CA

LABORATORY: Vista Analytical

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #:

SAMPLER: M. Graver

SIGNATURE: [signature]

YEAR: 2015

SAMPLE I.D. NUMBER	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: USEPA1668B PCB01-209	USEPA1699 DDx plus PRCs									COMMENTS
LARE-RW-01-S-M-20150107	1/7	13:45	NA	NA	Fiber	1	U	No		X									Vial 14
> IB-RW-01-S-M-20150107	↓	15:30	↓	↓	↓	↓	↓	↓	X										Vial 25
IB-RW-01-S-M-20150107		15:30								X									Vial 26
> IB-RW-01-S-B-20150107		15:30							X										Vial 29
IB-RW-01-S-B-20150107		15:30								X									Vial 30
> CS-01-RW-S-M-PRC-20150107		16:05							X										Vial 27
CS-01-RW-S-M-PRC-20150107		16:05								X									Vial 28
> CS-RW-01-S-M-20150107		16:05							X										Vial 1
CS-RW-01-S-M-20150107		16:05								X									Vial 2
> CS-RW-01-S-B-20150107		16:05							X										Vial 3
CS-RW-01-S-B-20150107	↓	16:05	↓	↓	↓	↓	↓	↓		X									Vial 4
> WO# 1500015																			
TOTAL	X	X	X			11			5	6									

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
[signature]	18:00 / 1/7/15	Bettina Benedict (COMPANY): Vista Analytical	1/8/15 0914
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, (NORMAL)

SAMPLE INTEGRITY — INTACT: Y N Temp____

IF SEALED, SEAL INTEGRITY — INTACT: Y N

H = HCL; N = HNO3; S = H2SO4; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 1500018 TAT Std

Samples Arrival:	**Date/Time** 1/8/15 0905	**Initials:** UBB	**Location:** WR-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 1/8/15 1013	**Initials:** UBB	**Location:** R1 **Shelf/Rack:** NA

Delivered By:	(FedEx)	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice		Dry Ice		None

Temp °C: -0.3 (uncorrected)	**Time:** 0913	**Thermometer ID:** IR-1
Temp °C: -0.2 (corrected)		

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Shipping Documentation Present?	✓		
Airbill Trk # 8664 1962 7751	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact? BOB 1/8/15	✓		✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	

If Chlorinated or Drinking Water Samples, Acceptable Preservation?					✓
$Na_2S_2O_3$ Preservation Documented? NA	COC		Sample Container		None
Shipping Container	(Vista)	Client	(Retain)	Return	Dispose

Comments:

Sample Login 11/2013 ckt

February 10, 2015

Vista Project I.D.: 1500035

Dr. David Moore
Environ
18100 Von Karman Ave. Suite 600
Irvine, CA 92612

Dear Dr. Moore,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on January 09, 2015. This sample set was analyzed on a standard turn-around time, under your Project Name '043330A 11'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Work Order No. 1500035
Case Narrative

Sample Condition on Receipt:

Six SPME fibers were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The three samples designated for analysis by EPA Method 1668A were assigned to Vista Work Order #1500034.

Analytical Notes:

Upon receipt, each vial was weighed and hexane was added to each vial, covering the SPME. A table containing the initial and final weights is included with the datasheets.

Analytical Notes:

EPA Method 1699

These samples were extracted and analyzed for the DDX list of chlorinated pesticides by EPA Method 1699 using a ZB-50 GC column. The concentrations of the PRCs are listed following the results for 4,4'-DDMU on each datasheet. The PRCs were not added to the Method Blank or OPR.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limit in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1500035-01	IA-RW-01-S-M-20150108	VIAL 22	08-Jan-15 08:30	09-Jan-15 10:20	Amber VOA Vial, 60mL
1500035-02	IA-RW-01-S-M-PRC-20150108	VIAL24	08-Jan-15 08:30	09-Jan-15 10:20	Amber VOA Vial, 60mL
1500035-03	FH-RW-01-S-M-20150108	VIAL32	08-Jan-15 09:24	09-Jan-15 10:20	Amber VOA Vial, 60mL

Vista Project: 1500035

Client Project: 043330A11

ANALYTICAL RESULTS

Sample ID: Method Blank — EPA Method 1699

Matrix: SPME

QC Batch: B5A0057
Date Extracted: 14-Jan-2015 8:25

Lab Sample: B5A0057-BLK1
Date Analyzed: 17-Jan-15 01:13 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	ND	2.27		
4,4'-DDE	ND	3.00		
2,4'-DDD	ND	2.71		
2,4'-DDT	ND	4.58		
4,4'-DDD	ND	3.18		
4,4'-DDT	ND	5.77		
4,4'-DDMU	ND	34.0		

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	100	47 - 160	
IS	13C12-4,4'-DDE	108	47 - 160	
IS	13C12-2,4'-DDD	114	5 - 199	
IS	13C12-4,4'-DDD	114	5 - 120	
IS	13C12-4,4'-DDT	113	5 - 120	

DL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

Sample ID: OPR

EPA Method 1699

Matrix: SPME

QC Batch: B5A0057
Date Extracted: 14-Jan-2015 8:25

Lab Sample: B5A0057-BS1
Date Analyzed: 16-Jan-15 22:37 Column: ZB-50 Analyst: CVG

Analyte	Amt Found (pg/Sam	Spike Amt	%R	Limits
2,4'-DDE	1870	2000	93.3	24 - 123
4,4'-DDE	1910	2000	95.3	50 - 120
2,4'-DDD	2030	2000	102	50 - 120
2,4'-DDT	1940	2000	96.8	50 - 120
4,4'-DDD	2060	2000	103	42 - 120
4,4'-DDT	2290	2000	114	50 - 120
4,4'-DDMU	17200	20000	86.0	50 - 120

	Labeled Standard	%R	LCL-UCL
IS	13C12-2,4'-DDE	105	26 - 169
IS	13C12-4,4'-DDE	93.4	26 - 169
IS	13C12-2,4'-DDD	89.1	14 - 200
IS	13C12-4,4'-DDD	75.3	14 - 200
IS	13C12-4,4'-DDT	60.7	13 - 200

LCL-UCL - Lower control limit - upper control limit

Sample ID: IA-RW-01-S-M-20150108 — EPA Method 1699

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500035-01 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 16:53 Column: ZB-50 Analyst: CVG
26-Jan-15 19:13 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	1980			
4,4'-DDE	11000			
2,4'-DDD	453			
2,4'-DDT	287			
4,4'-DDD	1120			
4,4'-DDT	1200			
4,4'-DDMU	1530			
d8-4,4'-DDD	ND	7.17		
d8-4,4'-DDT	ND	17.4		
d8-2,4'-DDE	5.03			
d8-4,4'-DDE	11.9			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	93.5	47 - 160	
IS	13C12-4,4'-DDE	86.4	47 - 160	
IS	13C12-2,4'-DDD	96.7	5 - 199	
IS	13C12-4,4'-DDD	81.4	5 - 120	
IS	13C12-4,4'-DDT	69.8	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: IA-RW-01-S-M-PRC-20150108 — EPA Method 1699

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500035-02 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 17:45 Column: ZB-50 Analyst: CVG
24-Jan-15 11:38 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	373			
4,4'-DDE	1910			
2,4'-DDD	77.3			
2,4'-DDT	ND	8.08		
4,4'-DDD	211			
4,4'-DDT	ND	39.7		
4,4'-DDMU	ND	368		
d8-4,4'-DDD	9780			
d8-4,4'-DDT	43300			
d8-2,4'-DDE	47400			
d8-4,4'-DDE	53600			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	83.3	47 - 160	
IS	13C12-4,4'-DDE	78.4	47 - 160	
IS	13C12-2,4'-DDD	87.0	5 - 199	
IS	13C12-4,4'-DDD	84.5	5 - 120	
IS	13C12-4,4'-DDT	70.8	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Sample ID: FH-RW-01-S-M-20150108 — EPA Method 1699

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 9:24

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500035-03 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0057 Date Extracted: 14-Jan-2015 8:25
Date Analyzed: 17-Jan-15 23:03 Column: ZB-50 Analyst: CVG
24-Jan-15 12:30 Column: ZB-50 Analyst: CVG

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
2,4'-DDE	3000			
4,4'-DDE	22300			
2,4'-DDD	293			
2,4'-DDT	22.8			J
4,4'-DDD	603			
4,4'-DDT	73.7			
4,4'-DDMU	1560			
d8-4,4'-DDD	9160			
d8-4,4'-DDT	26200			
d8-2,4'-DDE	35900			
d8-4,4'-DDE	34900			

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C12-2,4'-DDE	104	47 - 160	
IS	13C12-4,4'-DDE	93.6	47 - 160	
IS	13C12-2,4'-DDD	106	5 - 199	
IS	13C12-4,4'-DDD	91.2	5 - 120	
IS	13C12-4,4'-DDT	76.8	5 - 120	

DL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
LCL-UCL - Lower control limit - upper control limit

Vial Masses

Vial Number	Lab ID	Initial Mass (g)	Final Mass (g)	Hexane Volume (mL)
22	1500035-01	37.5372	41.4089	60
24	1500035-02	37.6346	38.5713	64
32	1500035-03	37.3563	41.9461	62

Please note that the final masses include additional vial labels.

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
H	**Recovery was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**Method Detection Limit as determined by 40 CFR 136, Appendix B.**
EMPC	**Estimated Maximum Possible Concentration**
M	**Estimated Maximum Possible Concentration (CA Region 2)**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Michigan Department of Natural Resources	9932
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
North Carolina Department of Health & Human Services	06700
Oregon Laboratory Accreditation Program	4042-003
Pennsylvania Department of Environmental Protection	011
South Carolina Department of Health	87002001
Tennessee Department of Environment & Conservation	TN02996
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	3138
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

ENVIRON

CHAIN-of-CUSTODY № 10745

1500035 0.2°C

PAGE 1 of 1

- ☐ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
- ☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
- ☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: ______ WO#: ______

PROJECT NAME / FACILITY ID: POLA/POLB Phase 2 LDLWC Study

FIELD PERSON: M. Grover

PROJECT NUMBER: 04333OA11 DATE: 1/8/15

PROJECT MANAGER: D. Moore

PROJECT LOCATION: San Pedro/Long Beach

LABORATORY: Vista Analytical

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: ______

SAMPLER: M. Grover

SIGNATURE: M. G[signature]

YEAR: 2015

Analysis required: US EPA 1668B PCB01-209 plus PRCs | USEPA 1699 DDX plus PRCs

SAMPLE I.D. NUMBER	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	US EPA 1668B PCB01-209 plus PRCs	USEPA 1699 DDX plus PRCs	COMMENTS
* IA-RW-01-S+M-20150108	1/8	8:30	NA	NA	Fiber	1	U	No	X		Vial 21
IA-RW-01-S-M-20150108	↓	↓	↓	↓	↓	↓	↓	↓		X	Vial 22
* IA-RW-01-S-M-PRC-20150108	↓	↓	↓	↓	↓	↓	↓	↓	X		Vial 23
IA-RW-01-S-M-PRC-20150108	↓	↓	↓	↓	↓	↓	↓	↓		X	Vial 24
* FH-RW-01-S-M-20150108	↓	1:24	↓	↓	↓	↓	↓	↓	X		Vial 31
FH-RW-01-S-M-20150108	↓	↓	↓	↓	↓	↓	↓	↓		X	Vial 32
*WO 1500034											
TOTAL	X	X	X			6			3	3	

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
M. G[signature]	1/8/15 11:25	Beth Hruda (COMPANY): Vista	1/9/15 1043
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY: INTACT: Y N Temp______

IF SEALED, SEAL INTEGRITY: INTACT: Y N

H = HCL; N = HNO3; S = H2SO4; U = UNKNOWN; NO = NONE; O = OTHER

FILE: LOG FORMS\Chain_of_Custody

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 1500035 **TAT** Std

Samples Arrival:	**Date/Time** 1/9/15 1020	**Initials:** UBB	**Location:** WR-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 1/9/15 1253	**Initials:** UBB	**Location:** R1 **Shelf/Rack:** NA

Delivered By:	(FedEx)	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice	Dry Ice	None		

Temp °C: 0.1 (uncorrected)	**Time:** 1042	**Thermometer ID:** IR-1	
Temp °C: 0.2 (corrected)			

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		✓
Shipping Documentation Present?	✓		
Airbill Trk # 772512324229	✓		
Sample Container Intact?			✓
Sample Custody Seals Intact?	✓		
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented? NA	COC	Sample Container	None		
Shipping Container	Vista	(Client)	Retain	(Return)	Dispose

Comments:

Sample Login 11/2013 ckt

February 05, 2015

Vista Project I.D.: 1500034

Dr. David Moore
Environ
18100 Von Karman Ave. Suite 600
Irvine, CA 92612

Dear Dr. Moore,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on January 09, 2015. This sample set was analyzed on a standard turn-around time, under your Project Name '043330A11'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Work Order No. 1500034
Case Narrative

Sample Condition on Receipt:

Six SPME fibers were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The three samples designated for analysis by EPA Method 1699 were assigned to Vista Work Order #1500035.

Analytical Notes:

Upon receipt, each vial was weighed and hexane was added to each vial, covering the SPME. A table containing the initial and final weights is included with the datasheets.

EPA Method 1668C

The samples were extracted and analyzed for 209 PCB congeners by EPA Method 1668C using a ZB-1 GC column. The concentrations of the PRCs are listed following the PCB total concentrations on each datasheet. The PRC solution was not added to the Method Blank or OPR.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limit in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1500034-01	IA-RW-01-S-M-20150108	VIAL 21	08-Jan-15 08:30	09-Jan-15 10:20	Amber VOA Vial, 60mL
1500034-02	IA-RW-01-S-M-PRC-20150108	VIAL23	08-Jan-15 08:30	09-Jan-15 10:20	Amber VOA Vial, 60mL
1500034-03	FH-RW-01-S-M-20150108	VIAL31	08-Jan-15 09:24	09-Jan-15 10:20	Amber VOA Vial, 60mL

Vista Project: 1500034

ANALYTICAL RESULTS

Sample ID: Method Blank — EPA Method 1668C

Matrix: SPME
QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32
Lab Sample: B5A0107-BLK1
Date Analyzed: 29-Jan-15 19:46 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	6.23			PCB-43/49	ND	3.07		
PCB-2	ND	6.68			PCB-44	ND	3.84		
PCB-3	ND	6.67			PCB-45	ND	3.36		
PCB-4/10	ND	6.05			PCB-46	ND	3.68		
PCB-5/8	ND	5.00			PCB-47	ND		6.76	
PCB-6	ND	5.14			PCB-48/75	ND	2.52		
PCB-7/9	ND	5.08			PCB-50	ND	3.41		
PCB-11	ND	5.15			PCB-51	ND	3.01		
PCB-12/13	ND	5.21			PCB-52/69	ND	2.71		
PCB-14	ND	4.49			PCB-53	ND	3.07		
PCB-15	ND	4.59			PCB-54	ND	2.59		
PCB-16/32	ND	2.30			PCB-55	ND	2.13		
PCB-17	ND	2.52			PCB-56/60	ND	2.37		
PCB-18	ND	2.72			PCB-57	ND	2.30		
PCB-19	ND	2.80			PCB-58	ND	2.27		
PCB-20/21/33	ND	2.20			PCB-61/70	ND	2.29		
PCB-22	ND	2.19			PCB-62	ND	2.46		
PCB-23	ND	2.10			PCB-63	ND	2.22		
PCB-24/27	ND	1.85			PCB-65	ND	2.54		
PCB-25	ND	2.32			PCB-66/76	ND	2.19		
PCB-26	ND	2.05			PCB-67	ND	2.36		
PCB-28	ND	2.05			PCB-68	ND	2.08		
PCB-29	ND	2.10			PCB-73	ND	2.48		
PCB-30	ND	1.77			PCB-74	ND	2.13		
PCB-31	ND	2.03			PCB-77	ND	2.21		
PCB-34	ND	1.95			PCB-78	ND	2.27		
PCB-35	ND	2.17			PCB-79	ND	2.26		
PCB-36	ND	2.10			PCB-80	ND	1.98		
PCB-37	ND	2.02			PCB-81	ND	2.07		
PCB-38	ND	2.20			PCB-82	ND	7.13		
PCB-39	ND	2.16			PCB-83	ND	4.07		
PCB-40	ND	3.90			PCB-84/92	ND	5.79		
PCB-41/64/71/72	ND	2.50			PCB-85/116	ND	4.85		
PCB-42/59	ND	2.71			PCB-86	ND	6.54		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank — EPA Method 1668C

Matrix: SPME
QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32
Lab Sample: B5A0107-BLK1
Date Analyzed: 29-Jan-15 19:46 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-87/117/125	ND	4.25			PCB-133/142	ND	2.99		
PCB-88/91	ND	6.01			PCB-134/143	ND	2.92		
PCB-89	ND	6.23			PCB-135	ND	6.86		
PCB-90/101	ND	5.14			PCB-136	ND	4.79		
PCB-93	ND	6.36			PCB-137	ND	2.59		
PCB-94	ND	5.98			PCB-138/163/164	ND	2.22		
PCB-95/98/102	ND	5.24			PCB-139/149	ND	6.28		
PCB-96	ND	4.40			PCB-140	ND	7.04		
PCB-97	ND	5.21			PCB-141	ND	2.64		
PCB-99	ND	4.96			PCB-144	ND	6.39		
PCB-100	ND	4.99			PCB-145	ND	5.00		
PCB-103	ND	4.96			PCB-146/165	ND	2.52		
PCB-104	ND	3.80			PCB-147	ND	7.02		
PCB-105	ND	3.51			PCB-148	ND	6.69		
PCB-106/118	ND	3.95			PCB-150	ND	4.85		
PCB-107/109	ND	3.96			PCB-151	ND	6.69		
PCB-108/112	ND	4.80			PCB-152	ND	4.68		
PCB-110	ND	3.97			PCB-153	ND	2.27		
PCB-111/115	ND	3.64			PCB-154	ND	6.14		
PCB-113	ND	4.63			PCB-155	ND	4.58		
PCB-114	ND	3.87			PCB-156	ND	2.30		
PCB-119	ND	3.60			PCB-157	ND	2.40		
PCB-120	ND	3.40			PCB-158/160	ND	2.08		
PCB-121	ND	3.84			PCB-159	ND	2.24		
PCB-122	ND	4.61			PCB-166	ND	2.40		
PCB-123	ND	4.23			PCB-167	ND	2.21		
PCB-124	ND	4.06			PCB-168	ND	2.01		
PCB-126	ND	4.43			PCB-169	ND	2.72		
PCB-127	ND	4.08			PCB-170	ND	3.58		
PCB-128/162	ND	2.65			PCB-171	ND	3.62		
PCB-129	ND	3.10			PCB-172	ND	3.89		
PCB-130	ND	3.31			PCB-173	ND	4.77		
PCB-131	ND	3.22			PCB-174	ND	4.08		
PCB-132/161	ND	2.43			PCB-175	ND	3.42		

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank — EPA Method 1668C

Matrix: SPME

QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32

Lab Sample: B5A0107-BLK1
Date Analyzed: 29-Jan-15 19:46 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-176	ND	2.46		
PCB-177	ND	4.16		
PCB-178	ND	3.33		
PCB-179	ND	2.58		
PCB-180	ND	3.63		
PCB-181	ND	3.90		
PCB-182/187	ND	3.15		
PCB-183	ND	2.93		
PCB-184	ND	2.68		
PCB-185	ND	3.75		
PCB-186	ND	2.46		
PCB-188	ND	2.36		
PCB-189	ND	2.95		
PCB-190	ND	2.66		
PCB-191	ND	2.83		
PCB-192	ND	3.03		
PCB-193	ND	2.84		
PCB-194	ND	3.56		
PCB-195	ND	4.03		
PCB-196/203	ND	6.77		
PCB-197	ND	4.81		
PCB-198	ND	7.45		
PCB-199	ND	7.57		
PCB-200	ND	5.43		
PCB-201	ND	5.12		
PCB-202	ND	5.50		
PCB-204	ND	5.23		
PCB-205	ND	2.86		
PCB-206	ND	5.69		
PCB-207	ND	2.96		
PCB-208	ND	3.00		
PCB-209	ND	4.27		
Total monoCB	ND	6.68		
Total diCB	ND	6.05		
Total triCB	ND	2.80		
Total tetraCB	ND		6.76	
Total pentaCB	ND	7.13		
Total hexaCB	ND	7.04		
Total heptaCB	ND	4.77		
Total octaCB	ND	7.57		
Total nonaCB	ND	5.69		
DecaCB	ND	4.27		
Total PCB	ND			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32

Lab Sample: B5A0107-BLK1
Date Analyzed: 29-Jan-15 19:46 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	82.2	5 - 145	
	13C-PCB-3	79.3	5 - 145	
	13C-PCB-4	68.6	5 - 145	
	13C-PCB-11	70.4	5 - 145	
	13C-PCB-9	68.7	5 - 145	
	13C-PCB-19	75.1	5 - 145	
	13C-PCB-28	77.1	5 - 145	
	13C-PCB-32	74.8	5 - 145	
	13C-PCB-37	85.8	5 - 145	
	13C-PCB-47	78.0	5 - 145	
	13C-PCB-52	81.0	5 - 145	
	13C-PCB-54	70.5	5 - 145	
	13C-PCB-70	80.6	5 - 145	
	13C-PCB-77	81.1	10 - 145	
	13C-PCB-80	79.0	10 - 145	
	13C-PCB-81	79.5	10 - 145	
	13C-PCB-95	80.4	10 - 145	
	13C-PCB-97	84.0	10 - 145	
	13C-PCB-101	79.9	10 - 145	
	13C-PCB-104	79.7	10 - 145	
	13C-PCB-105	105	10 - 145	
	13C-PCB-114	98.4	10 - 145	
	13C-PCB-118	80.9	10 - 145	
	13C-PCB-123	81.3	10 - 145	
	13C-PCB-126	103	10 - 145	
	13C-PCB-127	103	10 - 145	
	13C-PCB-138	90.5	10 - 145	
	13C-PCB-141	89.8	10 - 145	
	13C-PCB-153	89.9	10 - 145	
	13C-PCB-155	59.8	10 - 145	
	13C-PCB-156	83.0	10 - 145	
	13C-PCB-157	83.7	10 - 145	
	13C-PCB-159	84.6	10 - 145	
	13C-PCB-167	85.6	10 - 145	
	13C-PCB-169	77.8	10 - 145	
	13C-PCB-170	70.2	10 - 145	
	13C-PCB-180	69.2	10 - 145	
	13C-PCB-188	78.6	10 - 145	
	13C-PCB-189	62.6	10 - 145	
	13C-PCB-194	83.9	10 - 145	
	13C-PCB-202	56.0	10 - 145	
	13C-PCB-206	75.5	10 - 145	
	13C-PCB-208	74.7	10 - 145	
	13C-PCB-209	59.9	10 - 145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: OPR

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32

Lab Sample: B5A0107-BS1
Date Analyzed: 29-Jan-15 17:38 Column: ZB-1 Analyst: DMS

Analyte	Amt Found (pg/Sample)	Spike Amt	%R	Limits
PCB-1	1470	2000	73.5	60 - 135
PCB-3	1470	2000	73.3	60 - 135
PCB-4/10	3120	4000	78.0	60 - 135
PCB-15	1600	2000	80.1	60 - 135
PCB-19	1860	2000	92.8	60 - 135
PCB-37	1770	2000	88.7	60 - 135
PCB-54	1930	2000	96.5	60 - 135
PCB-77	1880	2000	94.0	60 - 135
PCB-81	1910	2000	95.7	60 - 135
PCB-104	1760	2000	87.8	60 - 135
PCB-105	1570	2000	78.3	60 - 135
PCB-106/118	3570	4000	89.2	60 - 135
PCB-114	1600	2000	80.1	60 - 135
PCB-123	1770	2000	88.7	60 - 135
PCB-126	1650	2000	82.3	60 - 135
PCB-155	1890	2000	94.3	60 - 135
PCB-156	1850	2000	92.4	60 - 135
PCB-157	1780	2000	88.9	60 - 135
PCB-167	1780	2000	89.1	60 - 135
PCB-169	1850	2000	92.6	60 - 135
PCB-188	1780	2000	89.2	60 - 135
PCB-189	1800	2000	90.2	60 - 135
PCB-202	1910	2000	95.7	60 - 135
PCB-205	1770	2000	88.3	60 - 135
PCB-206	1810	2000	90.3	60 - 135
PCB-208	1840	2000	92.1	60 - 135
PCB-209	1790	2000	89.7	60 - 135

	Labeled Standard	%R	LCL-UCL
IS	13C-PCB-1	54.7	15 - 145
IS	13C-PCB-3	63.6	15 - 145
IS	13C-PCB-4	57.8	15 - 145
IS	13C-PCB-11	70.8	15 - 145
IS	13C-PCB-9	60.0	15 - 145
IS	13C-PCB-19	67.8	15 - 145
IS	13C-PCB-28	77.6	15 - 145
IS	13C-PCB-32	73.9	15 - 145
IS	13C-PCB-37	88.7	15 - 145
IS	13C-PCB-47	79.7	15 - 145
IS	13C-PCB-52	81.5	15 - 145
IS	13C-PCB-54	72.8	15 - 145
IS	13C-PCB-70	85.7	15 - 145
IS	13C-PCB-77	86.0	40 - 145
IS	13C-PCB-80	85.7	40 - 145
IS	13C-PCB-81	82.6	40 - 145
IS	13C-PCB-95	83.3	40 - 145
IS	13C-PCB-97	86.7	40 - 145
IS	13C-PCB-101	82.8	40 - 145
IS	13C-PCB-104	82.1	40 - 145
IS	13C-PCB-105	113	40 - 145
IS	13C-PCB-114	97.1	40 - 145
IS	13C-PCB-118	82.1	40 - 145
IS	13C-PCB-123	82.7	40 - 145
IS	13C-PCB-126	108	40 - 145
IS	13C-PCB-127	107	40 - 145
IS	13C-PCB-138	91.0	40 - 145
IS	13C-PCB-141	91.9	40 - 145
IS	13C-PCB-153	94.1	40 - 145
IS	13C-PCB-155	63.0	40 - 145
IS	13C-PCB-156	85.4	40 - 145
IS	13C-PCB-157	85.3	40 - 145
IS	13C-PCB-159	87.0	40 - 145
IS	13C-PCB-167	87.7	40 - 145
IS	13C-PCB-169	79.8	40 - 145
IS	13C-PCB-170	68.9	40 - 145
IS	13C-PCB-180	72.9	40 - 145
IS	13C-PCB-188	81.0	40 - 145
IS	13C-PCB-189	71.9	40 - 145
IS	13C-PCB-194	86.9	40 - 145

Sample ID: OPR

EPA Method 1668C

Matrix: SPME

QC Batch: B5A0107
Date Extracted: 28-Jan-2015 8:32

Lab Sample: B5A0107-BS1
Date Analyzed: 29-Jan-15 17:38 Column: ZB-1 Analyst: DMS

Analyte	Amt Found (pg/Sample)	Spike Amt	%R	Limits

	Labeled Standard	%R	LCL-UCL
IS	13C-PCB-202	58.9	40 - 145
IS	13C-PCB-206	84.1	40 - 145
IS	13C-PCB-208	78.2	40 - 145
IS	13C-PCB-209	65.8	40 - 145

LCL-UCL - Lower control limit - upper control limit

Sample ID: IA-RW-01-S-M-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-01 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 01:06 Column: ZB-1 Analyst: MAS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	2.81		
PCB-2	ND	2.72		
PCB-3	ND	2.72		
PCB-4/10	19.0			J
PCB-5/8	44.8			
PCB-6	9.81			J
PCB-7/9	ND	5.04		
PCB-11	181			
PCB-12/13	ND	9.74		
PCB-14	ND	8.39		
PCB-15	20.7			
PCB-16/32	180			
PCB-17	92.0			
PCB-18	221			
PCB-19	34.1			
PCB-20/21/33	129			
PCB-22	84.5			
PCB-23	ND	2.49		
PCB-24/27	29.3			
PCB-25	29.9			
PCB-26	49.5			
PCB-28	372			
PCB-29	1.72			J
PCB-30	ND	1.49		
PCB-31	205			
PCB-34	1.72			J
PCB-35	8.22			
PCB-36	3.61			J
PCB-37	47.5			
PCB-38	6.83			
PCB-39	ND	2.50		
PCB-40	102			
PCB-41/64/71/72	521			
PCB-42/59	198			
PCB-43/49	648			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	597			
PCB-45	92.1			
PCB-46	55.6			
PCB-47	253			
PCB-48/75	104			
PCB-50	3.97			J
PCB-51	129			
PCB-52/69	949			
PCB-53	213			
PCB-54	21.7			
PCB-55	10.6			
PCB-56/60	273			
PCB-57	2.88			J
PCB-58	2.71			J
PCB-61/70	528			
PCB-62	ND	3.06		
PCB-63	21.5			
PCB-65	ND	3.15		
PCB-66/76	502			
PCB-67	17.3			
PCB-68	5.70			
PCB-73	4.61			J
PCB-74	233			
PCB-77	37.2			
PCB-78	ND	2.92		
PCB-79	ND		13.3	
PCB-80	ND	2.47		
PCB-81	1.50			J
PCB-82	117			
PCB-83	1.18			J
PCB-84/92	479			
PCB-85/116	150			
PCB-86	ND	7.18		
PCB-87/117/125	331			
PCB-88/91	188			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IA-RW-01-S-M-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-01 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 01:06 Column: ZB-1 Analyst: MAS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND		12.2	
PCB-90/101	1150			
PCB-93	ND	6.81		
PCB-94	11.4			
PCB-95/98/102	1030			
PCB-96	19.7			
PCB-97	313			
PCB-99	519			
PCB-100	ND		19.4	
PCB-103	33.1			
PCB-104	5.48			
PCB-105	196			
PCB-106/118	659			
PCB-107/109	51.7			
PCB-108/112	50.5			
PCB-110	1010			
PCB-111/115	15.1			
PCB-113	4.61			J
PCB-114	ND		7.33	
PCB-119	33.7			
PCB-120	4.01			J
PCB-121	ND	4.11		
PCB-122	6.13			
PCB-123	ND		11.3	
PCB-124	31.7			
PCB-126	3.50			J
PCB-127	ND	1.89		
PCB-128/162	85.8			
PCB-129	27.2			
PCB-130	44.1			
PCB-131	ND	2.62		
PCB-132/161	188			
PCB-133/142	21.1			
PCB-134/143	45.4			
PCB-135	125			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	129			
PCB-137	21.4			
PCB-138/163/164	592			
PCB-139/149	683			
PCB-140	3.78			J
PCB-141	95.7			
PCB-144	43.7			
PCB-145	ND	4.96		
PCB-146/165	107			
PCB-147	26.2			
PCB-148	ND	6.64		
PCB-150	ND		4.27	
PCB-151	211			
PCB-152	ND		2.60	
PCB-153	597			
PCB-154	27.1			
PCB-155	ND	4.53		
PCB-156	34.5			
PCB-157	10.2			
PCB-158/160	59.6			
PCB-159	ND	1.69		
PCB-166	ND	1.81		
PCB-167	18.9			
PCB-168	1.85			J
PCB-169	ND	2.25		
PCB-170	59.8			
PCB-171	22.6			
PCB-172	13.2			
PCB-173	ND	4.99		
PCB-174	101			
PCB-175	6.15			
PCB-176	13.9			
PCB-177	61.0			
PCB-178	24.1			
PCB-179	62.4			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IA-RW-01-S-M-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-01 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 01:06 Column: ZB-1 Analyst: MAS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	155			
PCB-181	ND	4.08		
PCB-182/187	142			
PCB-183	52.4			
PCB-184	ND	2.81		
PCB-185	9.22			
PCB-186	ND	2.58		
PCB-188	ND	2.47		
PCB-189	ND		2.86	
PCB-190	ND		11.3	
PCB-191	2.76			J
PCB-192	ND	3.17		
PCB-193	10.5			
PCB-194	15.3			
PCB-195	7.77			
PCB-196/203	22.4			
PCB-197	ND	6.02		
PCB-198	ND	9.31		
PCB-199	28.0			
PCB-200	ND	6.79		
PCB-201	4.66			J
PCB-202	ND		8.06	
PCB-204	ND	6.53		
PCB-205	ND	1.45		
PCB-206	8.75			
PCB-207	ND	2.46		
PCB-208	4.33			J
PCB-209	ND	3.54		
Total monoCB	ND	2.81		
Total diCB	276			
Total triCB	1500			
Total tetraCB	5530		5540	
Total pentaCB	6420		6470	
Total hexaCB	3200		3210	
Total heptaCB	737		751	

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
Total octaCB	78.2		86.2	
Total nonaCB	13.1			
DecaCB	ND	3.54		
Total PCB	17700			
13C-PCB-8	ND			
13C-PCB-31	ND			
13C-PCB-79	9.33			
13C-PCB-133	ND			
13C-PCB-178	ND			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IA-RW-01-S-M-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-01 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 01:06 Column: ZB-1 Analyst: MAS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	75.8	5 -145	
	13C-PCB-3	82.9	5 -145	
	13C-PCB-4	70.1	5 -145	
	13C-PCB-11	83.4	5 -145	
	13C-PCB-9	74.8	5 -145	
	13C-PCB-19	79.3	5 -145	
	13C-PCB-28	95.4	5 -145	
	13C-PCB-32	83.5	5 -145	
	13C-PCB-37	103	5 -145	
	13C-PCB-47	89.8	5 -145	
	13C-PCB-52	90.7	5 -145	
	13C-PCB-54	80.6	5 -145	
	13C-PCB-70	86.7	5 -145	
	13C-PCB-77	87.8	10 -145	
	13C-PCB-80	88.8	10 -145	
	13C-PCB-81	88.0	10 -145	
	13C-PCB-95	90.0	10 -145	
	13C-PCB-97	92.0	10 -145	
	13C-PCB-101	88.8	10 -145	
	13C-PCB-104	89.5	10 -145	
	13C-PCB-105	115	10 -145	
	13C-PCB-114	111	10 -145	
	13C-PCB-118	85.4	10 -145	
	13C-PCB-123	90.1	10 -145	
	13C-PCB-126	119	10 -145	
	13C-PCB-127	118	10 -145	
	13C-PCB-138	96.7	10 -145	
	13C-PCB-141	98.2	10 -145	
	13C-PCB-153	97.7	10 -145	
	13C-PCB-155	61.7	10 -145	
	13C-PCB-156	90.6	10 -145	
	13C-PCB-157	86.1	10 -145	
	13C-PCB-159	95.7	10 -145	
	13C-PCB-167	94.2	10 -145	
	13C-PCB-169	77.5	10 -145	
	13C-PCB-170	61.3	10 -145	
	13C-PCB-180	68.3	10 -145	
	13C-PCB-188	77.9	10 -145	
	13C-PCB-189	56.7	10 -145	
	13C-PCB-194	89.0	10 -145	
	13C-PCB-202	49.9	10 -145	
	13C-PCB-206	77.6	10 -145	
	13C-PCB-208	73.7	10 -145	
	13C-PCB-209	62.1	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IA-RW-01-S-M-PRC-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-02 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 02:10 Column: ZB-1 Analyst: MAS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	2.41		
PCB-2	ND	2.54		
PCB-3	ND	2.54		
PCB-4/10	ND	4.56		
PCB-5/8	ND	8.58		
PCB-6	ND	8.81		
PCB-7/9	ND	8.70		
PCB-11	22.2			
PCB-12/13	ND	8.78		
PCB-14	ND	7.56		
PCB-15	ND	7.72		
PCB-16/32	26.3			
PCB-17	13.0			
PCB-18	30.0			
PCB-19	ND		3.46	
PCB-20/21/33	19.1			
PCB-22	11.5			
PCB-23	ND	2.02		
PCB-24/27	ND	3.79		
PCB-25	4.76			J
PCB-26	7.35			
PCB-28	53.1			
PCB-29	ND	2.02		
PCB-30	ND	1.48		
PCB-31	29.0			
PCB-34	ND	1.88		
PCB-35	ND	2.09		
PCB-36	ND	2.02		
PCB-37	6.85			
PCB-38	ND		1.25	
PCB-39	ND	2.08		
PCB-40	14.4			
PCB-41/64/71/72	79.2			
PCB-42/59	33.2			
PCB-43/49	104			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-44	94.0			
PCB-45	16.8			
PCB-46	9.43			
PCB-47	40.1			
PCB-48/75	16.8			
PCB-50	ND	2.95		
PCB-51	20.2			
PCB-52/69	157			
PCB-53	34.0			
PCB-54	3.46			J
PCB-55	2.58			J
PCB-56/60	44.5			
PCB-57	ND	2.16		
PCB-58	ND	2.13		
PCB-61/70	79.5			
PCB-62	ND	2.31		
PCB-63	4.01			J
PCB-65	ND	2.39		
PCB-66/76	75.7			
PCB-67	2.88			J
PCB-68	1.23			J
PCB-73	ND	2.35		
PCB-74	36.2			
PCB-77	5.26			
PCB-78	ND	2.22		
PCB-79	2.85			J
PCB-80	ND	1.81		
PCB-81	ND	2.75		
PCB-82	19.5			
PCB-83	ND	3.37		
PCB-84/92	83.5			
PCB-85/116	25.9			
PCB-86	ND	5.42		
PCB-87/117/125	51.6			
PCB-88/91	34.0			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IA-RW-01-S-M-PRC-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-02 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 02:10 Column: ZB-1 Analyst: MAS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	ND		2.52	
PCB-90/101	187			
PCB-93	ND	4.74		
PCB-94	3.19			J
PCB-95/98/102	165			
PCB-96	2.69			J
PCB-97	50.4			
PCB-99	83.8			
PCB-100	3.02			J
PCB-103	4.44			J
PCB-104	ND	2.78		
PCB-105	34.3			
PCB-106/118	102			
PCB-107/109	6.92			J
PCB-108/112	9.60			J
PCB-110	163			
PCB-111/115	6.35			J
PCB-113	ND	3.67		
PCB-114	ND	3.32		
PCB-119	5.73			
PCB-120	ND	2.82		
PCB-121	ND	2.86		
PCB-122	ND	3.96		
PCB-123	ND	3.40		
PCB-124	5.51			
PCB-126	ND	3.88		
PCB-127	ND	3.60		
PCB-128/162	15.0			
PCB-129	ND		4.20	
PCB-130	8.47			
PCB-131	ND	3.44		
PCB-132/161	32.6			
PCB-133/142	5.93			J
PCB-134/143	ND		7.49	
PCB-135	18.0			
PCB-136	19.4			
PCB-137	3.11			J
PCB-138/163/164	102			
PCB-139/149	109			
PCB-140	3.40			J
PCB-141	16.6			
PCB-144	ND		2.56	
PCB-145	ND	3.14		
PCB-146/165	19.7			
PCB-147	4.50			J
PCB-148	ND	4.20		
PCB-150	ND	3.05		
PCB-151	36.4			
PCB-152	ND	2.94		
PCB-153	103			
PCB-154	ND		4.47	
PCB-155	ND	2.87		
PCB-156	5.22			
PCB-157	1.90			J
PCB-158/160	9.80			J
PCB-159	ND	2.48		
PCB-166	ND	2.65		
PCB-167	3.47			J
PCB-168	ND	2.14		
PCB-169	ND	3.16		
PCB-170	13.5			
PCB-171	4.92			J
PCB-172	4.26			J
PCB-173	ND	5.11		
PCB-174	21.1			
PCB-175	ND	3.15		
PCB-176	ND	2.27		
PCB-177	ND		8.26	
PCB-178	3.89			J
PCB-179	8.93			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IA-RW-01-S-M-PRC-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-02 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 02:10 Column: ZB-1 Analyst: MAS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	ND		23.6	
PCB-181	ND	4.18		
PCB-182/187	21.7			
PCB-183	10.1			
PCB-184	ND	2.47		
PCB-185	ND	4.02		
PCB-186	ND	2.26		
PCB-188	ND	2.17		
PCB-189	ND	2.79		
PCB-190	ND	2.86		
PCB-191	ND	3.03		
PCB-192	ND	3.25		
PCB-193	ND	3.05		
PCB-194	5.08			
PCB-195	ND	3.05		
PCB-196/203	ND	7.28		
PCB-197	ND	5.17		
PCB-198	ND	8.00		
PCB-199	ND	8.14		
PCB-200	ND	5.83		
PCB-201	ND	5.50		
PCB-202	ND	5.92		
PCB-204	ND	5.61		
PCB-205	ND	2.16		
PCB-206	ND		3.44	
PCB-207	ND	2.66		
PCB-208	ND	2.70		
PCB-209	ND	3.65		
Total monoCB	ND	2.54		
Total diCB	22.2			
Total triCB	201		206	
Total tetraCB	878			
Total pentaCB	1050			
Total hexaCB	518		537	
Total heptaCB	88.3		120	
Total octaCB	5.08			
Total nonaCB	ND		3.44	J
DecaCB	ND	3.65		
Total PCB	2760			
13C-PCB-8	26.8			
13C-PCB-31	697			
13C-PCB-79	3060			
13C-PCB-133	4510			
13C-PCB-178	3930			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: IA-RW-01-S-M-PRC-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 8:30

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-02 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 02:10 Column: ZB-1 Analyst: MAS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	93.4	5 -145	
	13C-PCB-3	94.5	5 -145	
	13C-PCB-4	80.3	5 -145	
	13C-PCB-11	87.2	5 -145	
	13C-PCB-9	82.4	5 -145	
	13C-PCB-19	92.7	5 -145	
	13C-PCB-28	102	5 -145	
	13C-PCB-32	92.5	5 -145	
	13C-PCB-37	103	5 -145	
	13C-PCB-47	92.6	5 -145	
	13C-PCB-52	94.0	5 -145	
	13C-PCB-54	91.1	5 -145	
	13C-PCB-70	92.8	5 -145	
	13C-PCB-77	89.7	10 -145	
	13C-PCB-80	92.2	10 -145	
	13C-PCB-81	89.3	10 -145	
	13C-PCB-95	92.0	10 -145	
	13C-PCB-97	91.4	10 -145	
	13C-PCB-101	91.3	10 -145	
	13C-PCB-104	92.9	10 -145	
	13C-PCB-105	124	10 -145	
	13C-PCB-114	122	10 -145	
	13C-PCB-118	85.8	10 -145	
	13C-PCB-123	88.6	10 -145	
	13C-PCB-126	122	10 -145	
	13C-PCB-127	126	10 -145	
	13C-PCB-138	101	10 -145	
	13C-PCB-141	102	10 -145	
	13C-PCB-153	104	10 -145	
	13C-PCB-155	65.7	10 -145	
	13C-PCB-156	89.4	10 -145	
	13C-PCB-157	86.3	10 -145	
	13C-PCB-159	95.5	10 -145	
	13C-PCB-167	94.1	10 -145	
	13C-PCB-169	81.7	10 -145	

Labeled Standard	%R	LCL-UCL	Qualifiers
13C-PCB-170	65.0	10 -145	
13C-PCB-180	65.5	10 -145	
13C-PCB-188	86.1	10 -145	
13C-PCB-189	65.0	10 -145	
13C-PCB-194	94.7	10 -145	
13C-PCB-202	48.6	10 -145	
13C-PCB-206	80.6	10 -145	
13C-PCB-208	75.1	10 -145	
13C-PCB-209	66.5	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FH-RW-01-S-M-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 9:24

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-03 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 06:39 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-1	ND	5.50		
PCB-2	ND	5.19		
PCB-3	ND	5.17		
PCB-4/10	54.5			
PCB-5/8	74.5			
PCB-6	21.1			
PCB-7/9	ND	4.19		
PCB-11	83.0			
PCB-12/13	ND	3.99		
PCB-14	ND	3.43		
PCB-15	85.6			
PCB-16/32	600			
PCB-17	313			
PCB-18	785			
PCB-19	145			
PCB-20/21/33	234			
PCB-22	149			
PCB-23	ND	3.85		
PCB-24/27	110			
PCB-25	109			
PCB-26	153			
PCB-28	978			
PCB-29	ND		1.74	
PCB-30	ND	2.04		
PCB-31	581			
PCB-34	ND		2.32	
PCB-35	13.4			
PCB-36	ND		3.74	
PCB-37	133			
PCB-38	42.5			
PCB-39	2.01			J
PCB-40	315			
PCB-41/64/71/72	1620			
PCB-42/59	652			
PCB-43/49	1970			
PCB-44	1850			
PCB-45	271			
PCB-46	162			
PCB-47	809			
PCB-48/75	327			
PCB-50	ND		9.34	
PCB-51	149			
PCB-52/69	2650			
PCB-53	461			
PCB-54	18.2			
PCB-55	33.7			
PCB-56/60	916			
PCB-57	11.1			
PCB-58	7.61			
PCB-61/70	1580			
PCB-62	ND	4.23		
PCB-63	63.8			
PCB-65	ND	4.36		
PCB-66/76	1680			
PCB-67	47.0			
PCB-68	16.3			
PCB-73	5.95			
PCB-74	814			
PCB-77	129			
PCB-78	ND	3.86		
PCB-79	51.2			
PCB-80	ND	3.32		
PCB-81	6.42			
PCB-82	356			
PCB-83	ND	5.27		
PCB-84/92	1220			
PCB-85/116	460			
PCB-86	ND		8.88	
PCB-87/117/125	874			
PCB-88/91	538			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FH-RW-01-S-M-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 9:24

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-03 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 06:39 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-89	44.3			
PCB-90/101	2970			
PCB-93	ND	8.19		
PCB-94	26.3			
PCB-95/98/102	2450			
PCB-96	41.1			
PCB-97	943			
PCB-99	1460			
PCB-100	24.4			
PCB-103	43.2			
PCB-104	ND	5.00		
PCB-105	601			
PCB-106/118	1860			
PCB-107/109	144			
PCB-108/112	142			
PCB-110	2720			
PCB-111/115	48.2			
PCB-113	ND	5.90		
PCB-114	29.7			
PCB-119	65.3			
PCB-120	8.23			
PCB-121	ND	4.94		
PCB-122	17.6			
PCB-123	38.0			
PCB-124	76.6			
PCB-126	9.83			
PCB-127	ND	2.98		
PCB-128/162	187			
PCB-129	45.6			
PCB-130	97.6			
PCB-131	ND	4.75		
PCB-132/161	344			
PCB-133/142	38.9			
PCB-134/143	ND		70.2	
PCB-135	196			

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-136	211			
PCB-137	51.9			
PCB-138/163/164	1140			
PCB-139/149	1180			
PCB-140	ND		8.37	
PCB-141	167			
PCB-144	65.4			
PCB-145	ND	5.37		
PCB-146/165	191			
PCB-147	49.8			
PCB-148	ND	7.18		
PCB-150	ND		7.18	
PCB-151	330			
PCB-152	ND	5.02		
PCB-153	1050			
PCB-154	34.4			
PCB-155	ND	4.91		
PCB-156	81.7			
PCB-157	22.2			
PCB-158/160	116			
PCB-159	ND	3.26		
PCB-166	ND		3.42	
PCB-167	39.7			
PCB-168	ND	2.96		
PCB-169	ND	3.78		
PCB-170	98.8			
PCB-171	38.2			
PCB-172	21.5			
PCB-173	ND	3.63		
PCB-174	148			
PCB-175	ND		5.66	
PCB-176	22.4			
PCB-177	87.8			
PCB-178	41.4			
PCB-179	89.0			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FH-RW-01-S-M-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 9:24

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-03 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 06:39 Column: ZB-1 Analyst: DMS

Analyte	Conc. (pg/Sample)	DL	EMPC	Qualifiers
PCB-180	256			
PCB-181	ND	2.97		
PCB-182/187	246			
PCB-183	81.8			
PCB-184	ND	2.27		
PCB-185	16.7			
PCB-186	ND	2.09		
PCB-188	2.58			J
PCB-189	3.07			J
PCB-190	20.8			
PCB-191	4.13			J
PCB-192	ND	2.31		
PCB-193	16.1			
PCB-194	34.4			
PCB-195	ND		9.14	
PCB-196/203	50.5			
PCB-197	ND	5.33		
PCB-198	ND	8.25		
PCB-199	66.1			
PCB-200	ND		8.73	
PCB-201	9.36			
PCB-202	ND		17.3	
PCB-204	ND	5.79		
PCB-205	ND	2.16		
PCB-206	19.1			
PCB-207	ND		2.45	
PCB-208	ND		7.60	
PCB-209	7.58			
Total monoCB	ND	5.50		
Total diCB	319			
Total triCB	4350		4360	
Total tetraCB	16600			
Total pentaCB	17200			
Total hexaCB	5640		5730	
Total heptaCB	1190		1200	
Total octaCB	160		196	
Total nonaCB	19.1		29.1	
DecaCB	7.58			
Total PCB	45500			
13C-PCB-8	30.9			
13C-PCB-31	908			
13C-PCB-79	4240			
13C-PCB-133	5270			
13C-PCB-178	4930			

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample ID: FH-RW-01-S-M-20150108

EPA Method 1668C

Client Data
Name: Environ
Project: 043330A11
Date Collected: 08-Jan-2015 9:24

Sample Data
Matrix: SPME

Laboratory Data
Lab Sample: 1500034-03 Date Received: 09-Jan-2015 10:20
QC Batch: B5A0107 Date Extracted: 28-Jan-2015 8:32
Date Analyzed : 30-Jan-15 06:39 Column: ZB-1 Analyst: DMS

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C-PCB-1	64.4	5 -145	
	13C-PCB-3	73.5	5 -145	
	13C-PCB-4	66.3	5 -145	
	13C-PCB-11	82.1	5 -145	
	13C-PCB-9	72.6	5 -145	
	13C-PCB-19	67.0	5 -145	
	13C-PCB-28	86.9	5 -145	
	13C-PCB-32	73.0	5 -145	
	13C-PCB-37	81.4	5 -145	
	13C-PCB-47	93.2	5 -145	
	13C-PCB-52	94.0	5 -145	
	13C-PCB-54	81.4	5 -145	
	13C-PCB-70	93.7	5 -145	
	13C-PCB-77	94.3	10 -145	
	13C-PCB-80	93.1	10 -145	
	13C-PCB-81	94.4	10 -145	
	13C-PCB-95	89.8	10 -145	
	13C-PCB-97	93.5	10 -145	
	13C-PCB-101	89.7	10 -145	
	13C-PCB-104	89.1	10 -145	
	13C-PCB-105	92.5	10 -145	
	13C-PCB-114	90.8	10 -145	
	13C-PCB-118	89.2	10 -145	
	13C-PCB-123	90.8	10 -145	
	13C-PCB-126	95.3	10 -145	
	13C-PCB-127	93.4	10 -145	
	13C-PCB-138	98.4	10 -145	
	13C-PCB-141	97.3	10 -145	
	13C-PCB-153	100	10 -145	
	13C-PCB-155	65.1	10 -145	
	13C-PCB-156	92.1	10 -145	
	13C-PCB-157	92.9	10 -145	
	13C-PCB-159	94.7	10 -145	
	13C-PCB-167	95.8	10 -145	
	13C-PCB-169	85.4	10 -145	
	13C-PCB-170	74.0	10 -145	
	13C-PCB-180	76.0	10 -145	
	13C-PCB-188	79.9	10 -145	
	13C-PCB-189	68.7	10 -145	
	13C-PCB-194	92.0	10 -145	
	13C-PCB-202	55.6	10 -145	
	13C-PCB-206	79.0	10 -145	
	13C-PCB-208	85.0	10 -145	
	13C-PCB-209	68.6	10 -145	

DL - Sample specifc estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Vial Masses

Vial Number	Lab ID	Initial Mass (g)	Final Mass (g)	Hexane Volume (mL)
21	1500034-01	37.4663	42.4947	62
23	1500034-02	37.6588	38.6009	62
31	1500034-03	37.5302	42.0588	64

Please note that the final masses include additional vial labels.

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
H	**Recovery was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**Method Detection Limit as determined by 40 CFR 136, Appendix B.**
EMPC	**Estimated Maximum Possible Concentration**
M	**Estimated Maximum Possible Concentration (CA Region 2)**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Michigan Department of Natural Resources	9932
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
North Carolina Department of Health & Human Services	06700
Oregon Laboratory Accreditation Program	4042-003
Pennsylvania Department of Environmental Protection	011
South Carolina Department of Health	87002001
Tennessee Department of Environment & Conservation	TN02996
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	3138
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

ENVIRON — CHAIN-of-CUSTODY № 10745

1500034 0.2°C

☐ 18100 Von Karman Ave., Suite 600, Irvine, CA 92612, (949) 261-5151, (949) 261-6202 (fax)
☐ 707 Wilshire Blvd., Suite 4950, Los Angeles, Calif. 90017, (213) 943-6300, (213) 943-6301 (fax)
☐ 1702 E Highland Avenue, Suite 412, Phoenix, AZ 85016, (602) 734-7700, (602) 734-7701 (fax)

MSA#: _____ WO#: _____

PROJECT NAME / FACILITY ID: POLA/POLB Phase 2 LDL We Study

PROJECT NUMBER: 043330A11 DATE: 1/8/15

PROJECT LOCATION: San Pedro/ Long Beach

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: _____

FIELD PERSON: M. Grover

PROJECT MANAGER: D. Moore

LABORATORY: Vista Analytical

SAMPLER: M. Grover

SIGNATURE: M. Grover

YEAR 2015

SAMPLE I.D. NUMBER	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH (ft)	AIR SAMPLE VOLUME (L)	MATRIX (A) AIR (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: US EPA 1668B PCBs 1-209 plus PAHs	USEPA 1699 DDx plus PAHs	COMMENTS
1A-RW-01-S-M-20150108	1/8	8:30	NA	NA	Fiber	1	U	No	X		Vial 21
> 1A-RW-01-S-M-20150108										X	Vial 22
1A-RW-01-S-M-PRC-20150108									X		Vial 23
> 1A-RW-01-S-M-PRC-20150108		↓								X	Vial 24
FH-RW-01-S-M-20150108		9:24							X		Vial 31
> FH-RW-01-S-M-20150108	↓	↓	↓	↓	↓	↓	↓	↓		X	Vial 32
> WO# 1500035											
TOTAL	X	X	X			6			3	3	

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
M. Grover	1/8/15 11:25	(COMPANY): Vista Betty Kendrick	1/9/15 1043
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAME DAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY — INTACT: Y N Temp_____

IF SEALED, SEAL INTEGRITY — INTACT: Y N

O = OTHER; NO = NONE; U = UNKNOWN; S = H_2SO_3; N = HNO_3; H = HCl;

FILE: LOG FORMS\Chain_of_Custody

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 1500034 **TAT** Std

Samples Arrival:	**Date/Time** 1/9/15 1020		**Initials:** JBB		**Location:** WR-2 **Shelf/Rack:** NA		
Logged In:	**Date/Time** 1/9/15 1231		**Initials:** JBB		**Location:** R1 **Shelf/Rack:** NA		
Delivered By:	(FedEx)	UPS	On Trac	DHL	Hand Delivered	Other	
Preservation:	(Ice)	Blue Ice	Dry Ice	None			
Temp °C: 0.1 (uncorrected) **Temp °C:** 0.2 (corrected)		**Time:** 1042		**Thermometer ID:** IR-1			

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Shipping Documentation Present?	✓		
Airbill Trk # 7725 1232 4229	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented? ~~NA~~	COC	Sample Container	None		
Shipping Container	Vista	(Client)	Retain	(Return)	Dispose

Comments:

Sample Login 11/2013 ckt