United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

December 03, 2013

Mia Pasquerella - Mail Code OSRR02-2
US EPA New England R1

Project Number: 13110054
Project: Turkey Brook - Litchfield, CT
Analysis: PCBs in Oils
EPA Chemist: Paul Carroll

Date Samples Received by the Laboratory: 11/25/2013

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, PCBOIL1.SOP.

The SOP is based on EPA SW-846 Method 8082

PCBs or Aroclors were extracted from oil and solvent soluble samples using a waste dilution technique using hexane as a solvent. Samples were then purified to reduce interferences by using a sulfuric acid clean-up followed by a florisil column elution. Sample extracts were directly injected into an Agilent 6890 gas chromatograph system equipped with dual 30M x 0.25mm capillary columns DB-5 and DB-1701. Detection is by electron capture detectors, and quantitation is performed using an external standard calibration method. This procedure follows EPA SW-846 Method 8082, Rev 0, December 1996.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8340 .

Sincerely,

Digitally signed by Dan Boudreau
DN: cn=Dan Boudreau, o=EPA, ou=EIA, email=boudreau.dan@epa.gov, c=US
Date: 2013.12.03 11:31:01 -05'00'

13110054$PCBP

Qualifiers:

RL Reporting limit
ND Not Detected above reporting limit
NA Not Applicable
NC Not calculated since analyte concentration is ND
J1 Estimated value due to MS recovery outside accceptance criteria
J2 Estimated value due to LFB result outside acceptance criteria
J3 Estimated value due to RPD result outside acceptance criteria
J4 Estimated value due to LCS result outside acceptance criteria
B Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R No recovery was calculated since the analyte concentration is greater than four times the spike level.

Turkey Brook - Litchfield, CT

PCBs in Oils

Client Sample ID:	13090009-0001	Lab Sample ID:	AB45642
Date of Collection:	11/22/2013	Matrix:	PRODUCT
Date of Preparation:	11/25/2013	Amount Prepared:	N/A
Date of Analysis:	11/26/2013	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	0.116 grams	pH:	N/A

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	9.0	
11104-28-2	Aroclor-1221	ND	9.0	
11141-16-5	Aroclor-1232	ND	9.0	
53469-21-9	Aroclor-1242	ND	9.0	
12672-29-6	Aroclor-1248	ND	9.0	
11097-69-1	Aroclor-1254	ND	9.0	
11096-82-5	Aroclor-1260	ND	9.0	
11100-14-4	Aroclor-1262	ND	9.0	
37324-23-5	Aroclor-1268	ND	9.0	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	84	59 - 108
Decachlorobiphenyl	85	54 - 100

Comments:

Turkey Brook - Litchfield, CT

Laboratory Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	PRODUCT
Date of Preparation:	11/25/2013	Amount Prepared:	N/A
Date of Analysis:	11/26/2013	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	0.100 grams	pH:	N/A

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	10	
11104-28-2	Aroclor-1221	ND	10	
11141-16-5	Aroclor-1232	ND	10	
53469-21-9	Aroclor-1242	ND	10	
12672-29-6	Aroclor-1248	ND	10	
11097-69-1	Aroclor-1254	ND	10	
11096-82-5	Aroclor-1260	ND	10	
11100-14-4	Aroclor-1262	ND	10	
37324-23-5	Aroclor-1268	ND	10	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	82	55 - 106
Decachlorobiphenyl	103	47 - 120

Comments:

Turkey Brook - Litchfield, CT

MATRIX SPIKE (MS) RECOVERY

Sample ID: AB45642

PARAMETER	SPIKE ADDED mg/Kg	SAMPLE CONCENTRATION mg/Kg	MS CONCENTRATION mg/Kg	MS % REC	QC LIMITS (% REC)
Aroclor-1016	52.2	ND	43.1	83	70 - 130
Aroclor-1260	52.2	ND	36.6	70	50 - 127

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MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Sample ID:AB45642

PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION mg/Kg	MSD % REC	RPD %	QC LIMITS RPD
Aroclor-1016	54.5	46.9	86	4	50
Aroclor-1260	54.5	45.4	83	17	50

Turkey Brook - Litchfield, CT

Laboratory Duplicate Results

Sample ID: AB45642

PARAMETER	SAMPLE RESULT mg/Kg	SAMPLE DUPLICATE RESULT mg/Kg	PRECISION RPD %	QC LIMITS
Aroclor-1016	ND	ND		50
Aroclor-1221	ND	ND		50
Aroclor-1232	ND	ND		50
Aroclor-1242	ND	ND		50
Aroclor-1248	ND	ND		50
Aroclor-1254	ND	ND		50
Aroclor-1260	ND	ND		50
Aroclor-1262	ND	ND		50
Aroclor-1268	ND	ND		50

Turkey Brook - Litchfield, CT

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED mg/kg	LFB RESULT mg/kg	LFB RECOVERY %	QC LIMITS %
Aroclor-1016	60	68.5	114	70 - 130
Aroclor-1260	60	69.0	115	70 - 130

Comments:

Samples in Batch: AB45642

13110054

CHAIN OF CUSTODY RECORD

Turkey Brook

Contact Name: Mia Pasquerella

Contact Phone: 6179181120

No: 11/22/13-0001

Cooler #:

Lab: US EPA NERL

Lab Phone:

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	MS/MSD
	13090009-0001	MW-6	Oil ID, VOA, Metals, PCB	Product	11/22/2013	09:30	3	40 ml VOA	None	

Special Instructions: Please forward results to OSC Pasquerella and OSC Bazenas

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
Delivery	Eric D. Cor	11/25/13	[illegible]	11/25/13	0710						
			D Edwood	11/25/13	8:00						

13110054$VOAHS
13110054$XRF
13110054OILID

13110054$PCBP