CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID:	P1747	**OrderDate:**	3/13/2024 12:28:00 PM
Client:	LiRo Engineers, Inc.	**Project:**	Walter Gladwin Recreation Center, Bronx, NY
Contact:	Steve Frank	**Location:**	I21,I31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P1747-01	**MW-01**	**WATER**			**03/12/24**			**03/13/24**
			PCB	8082A		03/14/24	03/14/24	
			Pesticide-TCL	8081B		03/14/24	03/14/24	
P1747-02	**MW-01-DUP**	**WATER**			**03/12/24**			**03/13/24**
			PCB	8082A		03/14/24	03/14/24	
			Pesticide-TCL	8081B		03/14/24	03/14/24	
P1747-03	**MW-01**	**WATER**			**03/13/24**			**03/13/24**
			PCB	608.3		03/14/24	03/15/24	
P1747-04	**MW-02**	**WATER**			**03/12/24**			**03/13/24**
			PCB	8082A		03/14/24	03/14/24	
			Pesticide-TCL	8081B		03/14/24	03/14/24	
P1747-05	**MW-04**	**WATER**			**03/12/24**			**03/13/24**
			PCB	8082A		03/14/24	03/14/24	
			Pesticide-TCL	8081B		03/14/24	03/14/24	

CHEMTECH

Hit Summary Sheet
SW-846

SDG No.: P1747 **Order ID:** P1747

Client: LiRo Engineers, Inc. **Project ID:** Walter Gladwin Recreation Center, Bı

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :								
			Total Concentration:	0.000				

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QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: P1747

Client: LiRo Engineers, Inc.

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL088549.D	PIBLK-PL088549.D	Decachlorobiphenyl	1	20	18.9	95		27	142
		Tetrachloro-m-xylene	1	20	19.6	98		35	148
		Decachlorobiphenyl	2	20	19.7	98		27	142
		Tetrachloro-m-xylene	2	20	19.7	98		35	148
I.BLK-PL088606.D	PIBLK-PL088606.D	Decachlorobiphenyl	1	20	21.2	106		27	142
		Tetrachloro-m-xylene	1	20	22.1	110		35	148
		Decachlorobiphenyl	2	20	21.4	107		27	142
		Tetrachloro-m-xylene	2	20	21.7	108		35	148
PB159588BL	PB159588BL	Decachlorobiphenyl	1	20	19.7	99		27	142
		Tetrachloro-m-xylene	1	20	22.1	111		35	148
		Decachlorobiphenyl	2	20	20.9	105		27	142
		Tetrachloro-m-xylene	2	20	21.0	105		35	148
PB159588BS	PB159588BS	Decachlorobiphenyl	1	20	19.5	98		27	142
		Tetrachloro-m-xylene	1	20	21.1	106		35	148
		Decachlorobiphenyl	2	20	20.2	101		27	142
		Tetrachloro-m-xylene	2	20	20.6	103		35	148
PB159588BSD	PB159588BSD	Decachlorobiphenyl	1	20	18.6	93		27	142
		Tetrachloro-m-xylene	1	20	20.2	101		35	148
		Decachlorobiphenyl	2	20	19.4	97		27	142
		Tetrachloro-m-xylene	2	20	19.7	99		35	148
P1747-01	MW-01	Decachlorobiphenyl	1	20	15.8	79		27	142
		Tetrachloro-m-xylene	1	20	18.7	94		35	148
		Decachlorobiphenyl	2	20	16.4	82		27	142
		Tetrachloro-m-xylene	2	20	20.2	101		35	148
P1747-02	MW-01-DUP	Decachlorobiphenyl	1	20	11.5	58		27	142
		Tetrachloro-m-xylene	1	20	18.1	91		35	148
		Decachlorobiphenyl	2	20	12.2	61		27	142
		Tetrachloro-m-xylene	2	20	19.3	97		35	148
P1747-04	MW-02	Decachlorobiphenyl	1	20	14.4	72		27	142
		Tetrachloro-m-xylene	1	20	22.2	111		35	148
		Decachlorobiphenyl	2	20	15.6	78		27	142
		Tetrachloro-m-xylene	2	20	21.5	107		35	148
P1747-05	MW-04	Decachlorobiphenyl	1	20	18.2	91		27	142
		Tetrachloro-m-xylene	1	20	22.0	110		35	148
		Decachlorobiphenyl	2	20	18.8	94		27	142
		Tetrachloro-m-xylene	2	20	21.4	107		35	148
I.BLK-PL088622.D	PIBLK-PL088622.D	Decachlorobiphenyl	1	20	21.3	107		27	142
		Tetrachloro-m-xylene	1	20	22.2	111		35	148
		Decachlorobiphenyl	2	20	22.3	111		27	142
		Tetrachloro-m-xylene	2	20	22.2	111		35	148

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P1747

Client: LiRo Engineers, Inc.

Analytical Method: 8081B **Datafile :** PL088616.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB159588BS	alpha-BHC	0.5	0.51	ug/L	102				85	130	
	beta-BHC	0.5	0.49	ug/L	98				83	126	
	delta-BHC	0.5	0.46	ug/L	93				69	141	
	gamma-BHC (Lindane)	0.5	0.50	ug/L	99				82	129	
	Heptachlor	0.5	0.51	ug/L	101				79	127	
	Aldrin	0.5	0.49	ug/L	98				79	126	
	Heptachlor epoxide	0.5	0.50	ug/L	100				81	124	
	Endosulfan I	0.5	0.50	ug/L	101				85	122	
	Dieldrin	0.5	0.51	ug/L	101				83	125	
	4,4'-DDE	0.5	0.51	ug/L	101				80	127	
	Endrin	0.5	0.50	ug/L	101				81	128	
	Endosulfan II	0.5	0.50	ug/L	100				82	123	
	4,4'-DDD	0.5	0.50	ug/L	100				77	131	
	Endosulfan sulfate	0.5	0.50	ug/L	99				76	129	
	4,4'-DDT	0.5	0.51	ug/L	102				80	133	
	Methoxychlor	0.5	0.48	ug/L	96				76	137	
	Endrin ketone	0.5	0.50	ug/L	100				80	131	
	Endrin aldehyde	0.5	0.52	ug/L	103				82	127	
	alpha-Chlordane	0.5	0.51	ug/L	103				82	125	
	gamma-Chlordane	0.5	0.53	ug/L	105				82	125	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P1747

Client: LiRo Engineers, Inc.

Analytical Method: 8081B **Datafile :** PL088617.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB159588BSD	alpha-BHC	0.5	0.48	ug/L	97	5			85	130	20
	beta-BHC	0.5	0.47	ug/L	94	4			83	126	20
	delta-BHC	0.5	0.44	ug/L	89	4			69	141	20
	gamma-BHC (Lindane)	0.5	0.47	ug/L	95	4			82	129	20
	Heptachlor	0.5	0.49	ug/L	97	4			79	127	20
	Aldrin	0.5	0.47	ug/L	94	4			79	126	20
	Heptachlor epoxide	0.5	0.48	ug/L	96	4			81	124	20
	Endosulfan I	0.5	0.48	ug/L	97	4			85	122	20
	Dieldrin	0.5	0.49	ug/L	97	4			83	125	20
	4,4'-DDE	0.5	0.48	ug/L	97	4			80	127	20
	Endrin	0.5	0.48	ug/L	96	5			81	128	20
	Endosulfan II	0.5	0.48	ug/L	96	4			82	123	20
	4,4'-DDD	0.5	0.48	ug/L	96	4			77	131	20
	Endosulfan sulfate	0.5	0.48	ug/L	96	3			76	129	20
	4,4'-DDT	0.5	0.49	ug/L	98	4			80	133	20
	Methoxychlor	0.5	0.46	ug/L	93	3			76	137	20
	Endrin ketone	0.5	0.48	ug/L	96	4			80	131	20
	Endrin aldehyde	0.5	0.50	ug/L	100	3			82	127	20
	alpha-Chlordane	0.5	0.49	ug/L	99	4			82	125	20
	gamma-Chlordane	0.5	0.50	ug/L	101	4			82	125	20

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB159588BL

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P1747 SAS No.: P1747 SDG NO.: P1747

Lab Sample ID: PB159588BL Lab File ID: PL088615.D

Matrix: (soil/water) WATER Extraction: (Type)

Sulfur Cleanup: (Y/N) N Date Extracted: 03/14/2024

Date Analyzed (1): 03/14/2024 Date Analyzed (2): 03/14/2024

Time Analyzed (1): 18:21 Time Analyzed (2): 18:21

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR2 ID: 0.32 (mm) GC Column (2): ZB-MR1 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB159588BS	PB159588BS	PL088616.D	03/14/2024	03/14/2024
PB159588BSD	PB159588BSD	PL088617.D	03/14/2024	03/14/2024
MW-01	P1747-01	PL088618.D	03/14/2024	03/14/2024
MW-01-DUP	P1747-02	PL088619.D	03/14/2024	03/14/2024
MW-02	P1747-04	PL088620.D	03/14/2024	03/14/2024
MW-04	P1747-05	PL088621.D	03/14/2024	03/14/2024

COMMENTS:

CHEMTECH

SAMPLE DATA

Raw Data: **PL088618.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01	SDG No.:	P1747
Lab Sample ID:	P1747-01	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	970 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088618.D	1	03/14/24 10:51	03/14/24 19:02	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.052	U	0.0063	0.052	ug/L
319-85-7	beta-BHC	0.052	U	0.014	0.052	ug/L
319-86-8	delta-BHC	0.052	U	0.016	0.052	ug/L
58-89-9	gamma-BHC (Lindane)	0.052	U	0.0051	0.052	ug/L
76-44-8	Heptachlor	0.052	U	0.0056	0.052	ug/L
309-00-2	Aldrin	0.052	U	0.0045	0.052	ug/L
1024-57-3	Heptachlor epoxide	0.052	U	0.0093	0.052	ug/L
959-98-8	Endosulfan I	0.052	U	0.0052	0.052	ug/L
60-57-1	Dieldrin	0.052	U	0.0048	0.052	ug/L
72-55-9	4,4-DDE	0.052	U	0.0046	0.052	ug/L
72-20-8	Endrin	0.052	U	0.0044	0.052	ug/L
33213-65-9	Endosulfan II	0.052	U	0.0077	0.052	ug/L
72-54-8	4,4-DDD	0.052	U	0.0095	0.052	ug/L
1031-07-8	Endosulfan Sulfate	0.052	U	0.0036	0.052	ug/L
50-29-3	4,4-DDT	0.052	U	0.0045	0.052	ug/L
72-43-5	Methoxychlor	0.052	U	0.011	0.052	ug/L
53494-70-5	Endrin ketone	0.052	U	0.010	0.052	ug/L
7421-93-4	Endrin aldehyde	0.052	U	0.010	0.052	ug/L
5103-71-9	alpha-Chlordane	0.052	U	0.0062	0.052	ug/L
5103-74-2	gamma-Chlordane	0.052	U	0.0062	0.052	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	16.4		27 - 142	82%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.2		35 - 148	101%	SPK: 20

Raw Data: **PL088618.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01	SDG No.:	P1747
Lab Sample ID:	P1747-01	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	970 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088618.D	1	03/14/24 10:51	03/14/24 19:02	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Sample Results: **PL088618.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088618.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:02
Operator : AR\AJ
Sample : P1747-01
Misc :
ALS Vial : 27 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
MW-01

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:26:46 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.850	49618596	26893331	18.724	20.179m
28)	SA Decachlor...	9.300	8.080	39070106	22195818	15.806	16.370
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088618.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:02
Operator : AR\AJ
Sample : P1747-01
Misc :
ALS Vial : 27 Sample Multiplier: 1

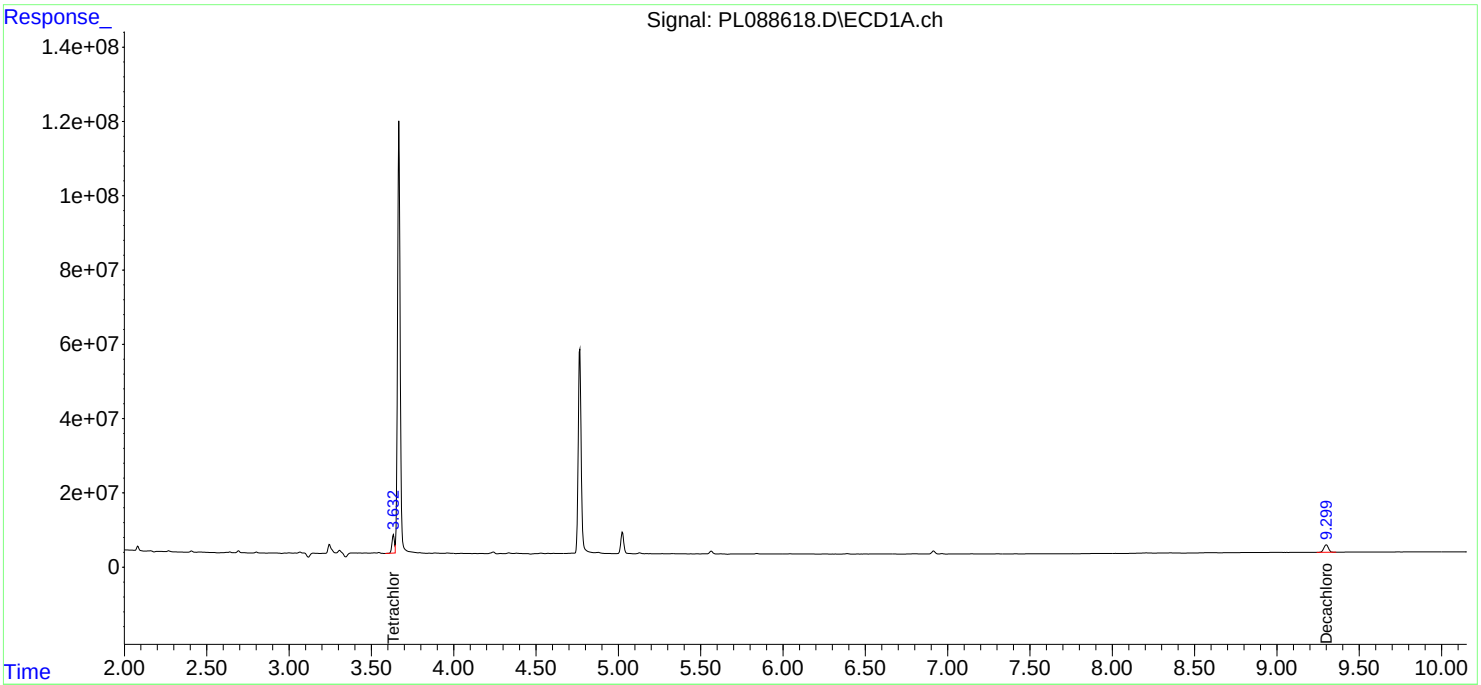
Instrument :
ECD_L
ClientSampleId :
MW-01

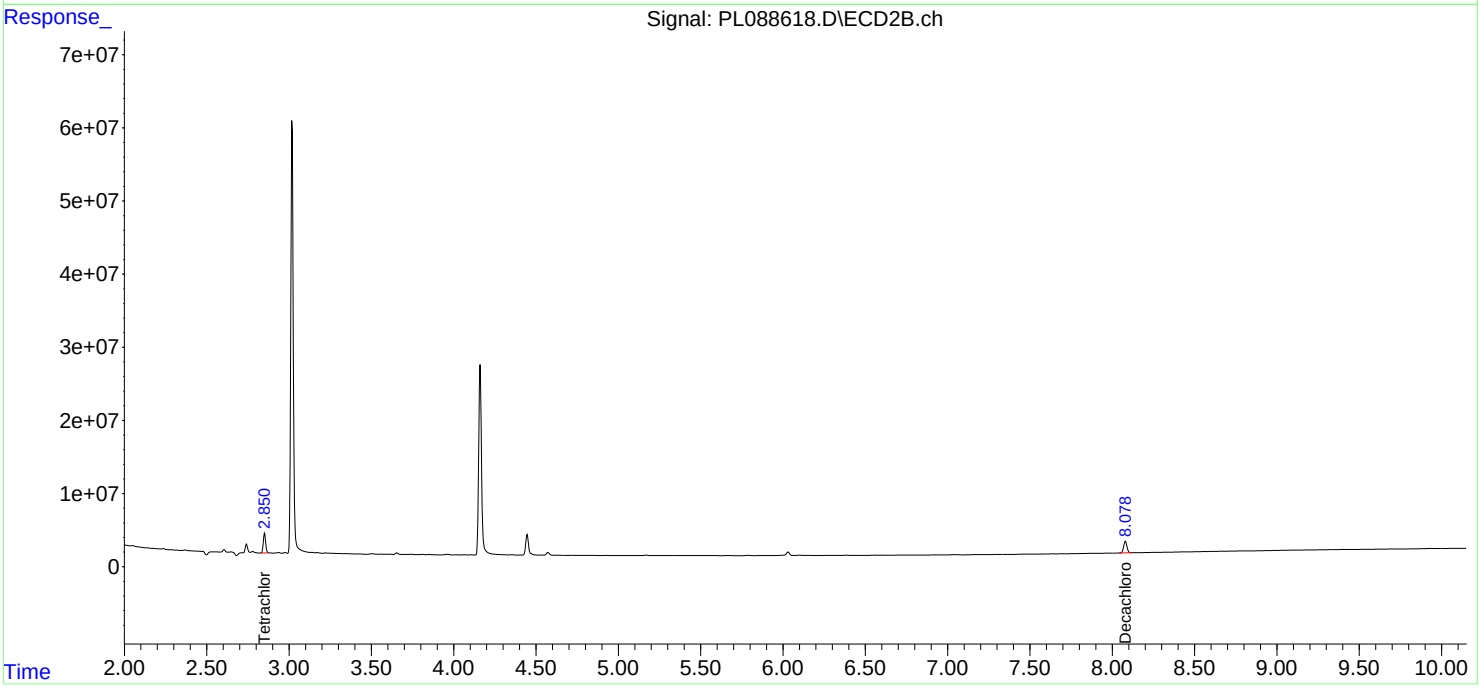
Manual Integrations APPROVED

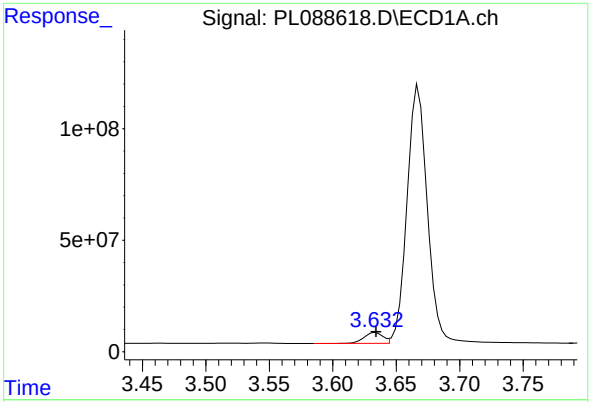
Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:26:46 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm







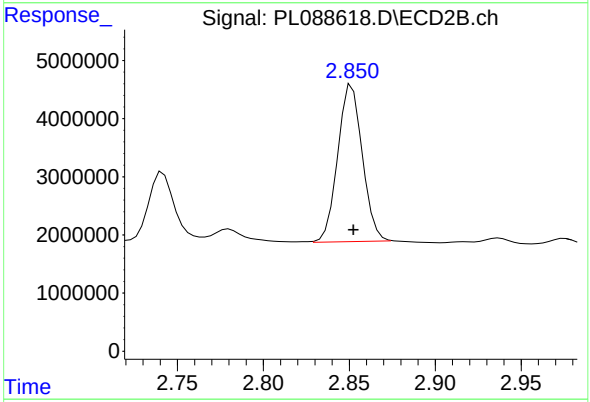
#1 Tetrachloro-m-xylene

R.T.: 3.634 min
Delta R.T.: 0.000 min
Response: 49618596
Conc: 18.72 ng/ml

Instrument :
ECD_L
ClientSampleId :
MW-01

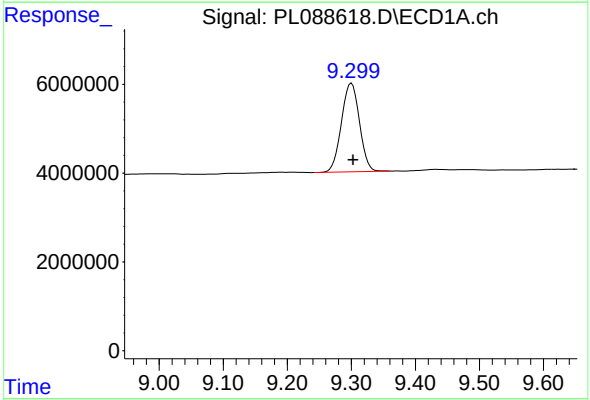
Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024



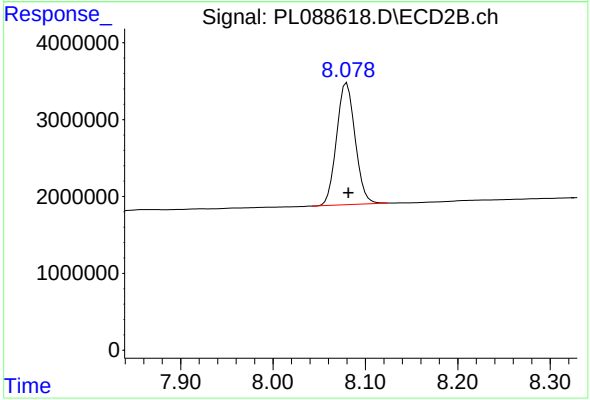
#1 Tetrachloro-m-xylene

R.T.: 2.850 min
Delta R.T.: -0.002 min
Response: 26893331
Conc: 20.18 ng/ml m



#28 Decachlorobiphenyl

R.T.: 9.300 min
Delta R.T.: -0.002 min
Response: 39070106
Conc: 15.81 ng/ml



#28 Decachlorobiphenyl

R.T.: 8.080 min
Delta R.T.: -0.002 min
Response: 22195818
Conc: 16.37 ng/ml

Raw Data: **PL088619.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01-DUP	SDG No.:	P1747
Lab Sample ID:	P1747-02	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	970 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088619.D	1	03/14/24 10:51	03/14/24 19:16	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.052	U	0.0063	0.052	ug/L
319-85-7	beta-BHC	0.052	U	0.014	0.052	ug/L
319-86-8	delta-BHC	0.052	U	0.016	0.052	ug/L
58-89-9	gamma-BHC (Lindane)	0.052	U	0.0051	0.052	ug/L
76-44-8	Heptachlor	0.052	U	0.0056	0.052	ug/L
309-00-2	Aldrin	0.052	U	0.0045	0.052	ug/L
1024-57-3	Heptachlor epoxide	0.052	U	0.0093	0.052	ug/L
959-98-8	Endosulfan I	0.052	U	0.0052	0.052	ug/L
60-57-1	Dieldrin	0.052	U	0.0048	0.052	ug/L
72-55-9	4,4-DDE	0.052	U	0.0046	0.052	ug/L
72-20-8	Endrin	0.052	U	0.0044	0.052	ug/L
33213-65-9	Endosulfan II	0.052	U	0.0077	0.052	ug/L
72-54-8	4,4-DDD	0.052	U	0.0095	0.052	ug/L
1031-07-8	Endosulfan Sulfate	0.052	U	0.0036	0.052	ug/L
50-29-3	4,4-DDT	0.052	U	0.0045	0.052	ug/L
72-43-5	Methoxychlor	0.052	U	0.011	0.052	ug/L
53494-70-5	Endrin ketone	0.052	U	0.010	0.052	ug/L
7421-93-4	Endrin aldehyde	0.052	U	0.010	0.052	ug/L
5103-71-9	alpha-Chlordane	0.052	U	0.0062	0.052	ug/L
5103-74-2	gamma-Chlordane	0.052	U	0.0062	0.052	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	12.2		27 - 142	61%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.3		35 - 148	97%	SPK: 20

Raw Data: **PL088619.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-01-DUP	SDG No.:	P1747
Lab Sample ID:	P1747-02	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	970 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088619.D	1	03/14/24 10:51	03/14/24 19:16	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Sample Results: **PL088619.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088619.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:16
Operator : AR\AJ
Sample : P1747-02
Misc :
ALS Vial : 28 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
MW-01-DUP

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:27:25 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.850	48095488	25769944	18.149	19.336m
28)	SA Decachlor...	9.299	8.080	28511440	16565855	11.534	12.217
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sample Results: **PL088619.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088619.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:16
Operator : AR\AJ
Sample : P1747-02
Misc :
ALS Vial : 28 Sample Multiplier: 1

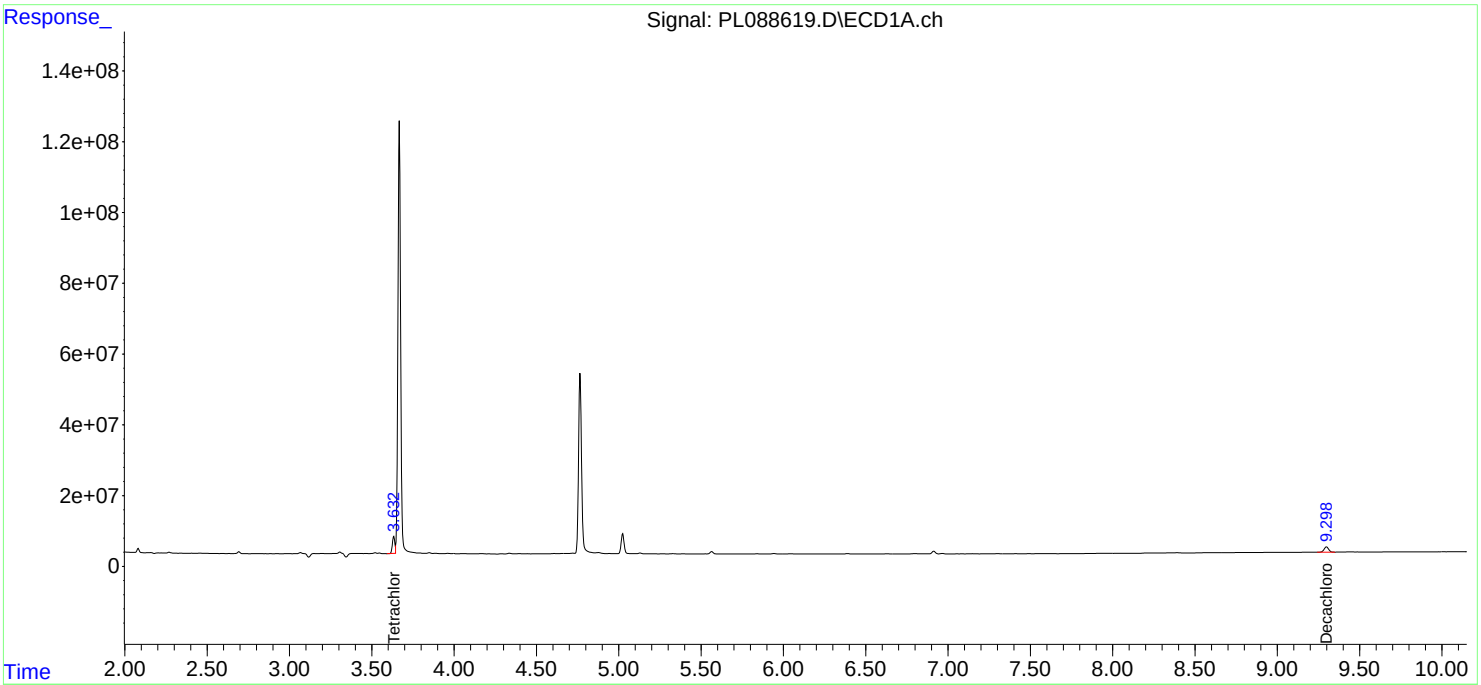
Instrument :
ECD_L
ClientSampleId :
MW-01-DUP

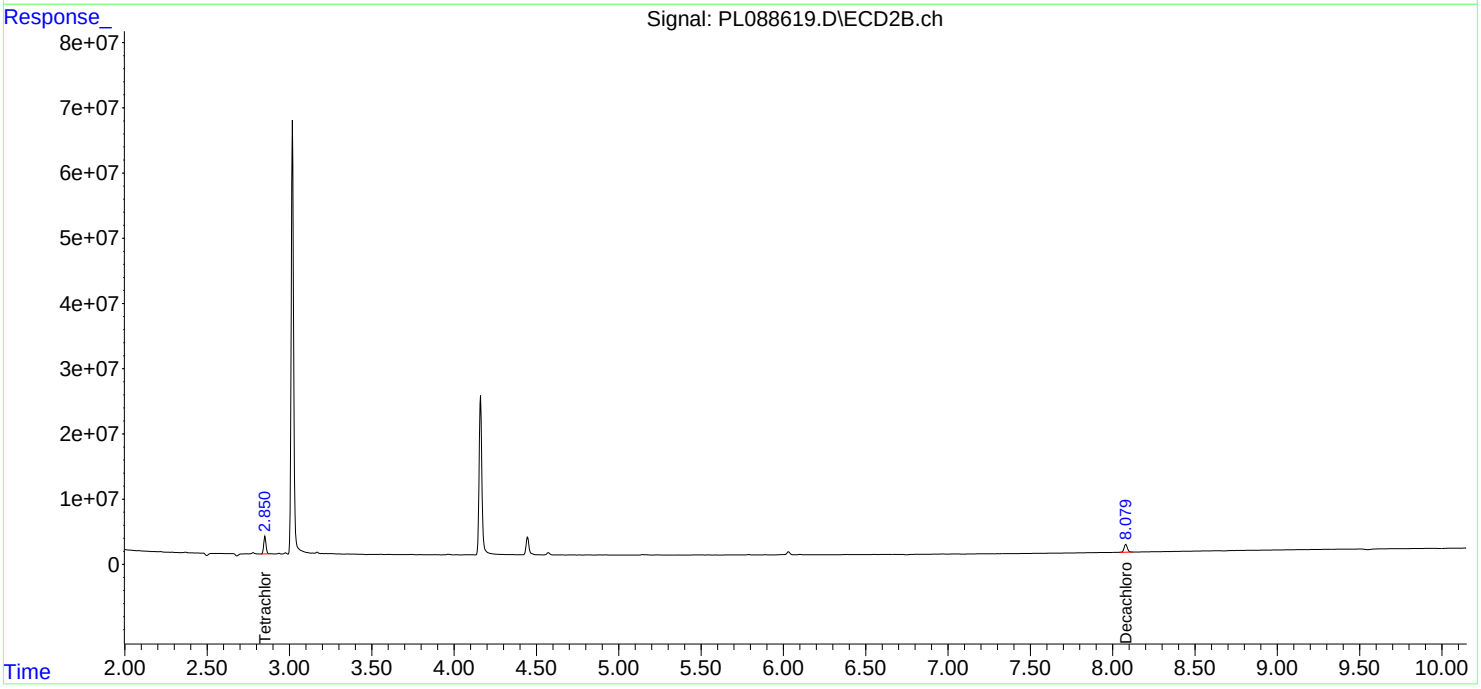
Manual Integrations APPROVED

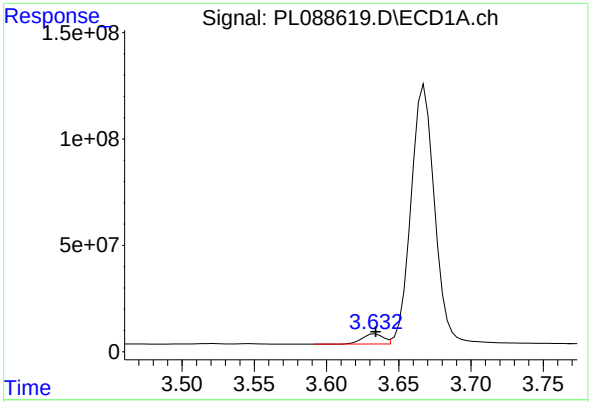
Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:27:25 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm







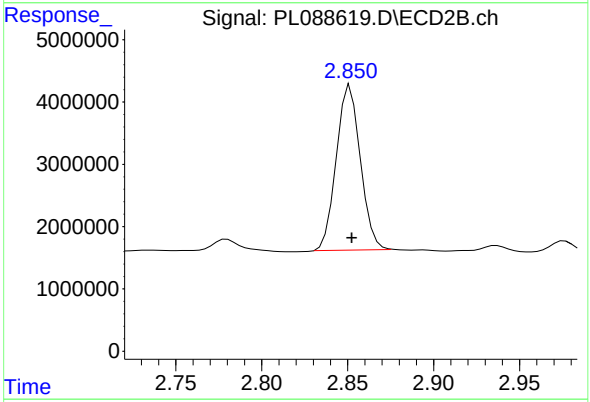
#1 Tetrachloro-m-xylene

R.T.: 3.634 min
Delta R.T.: 0.000 min
Response: 48095488
Conc: 18.15 ng/ml

Instrument :
ECD_L
ClientSampleId :
MW-01-DUP

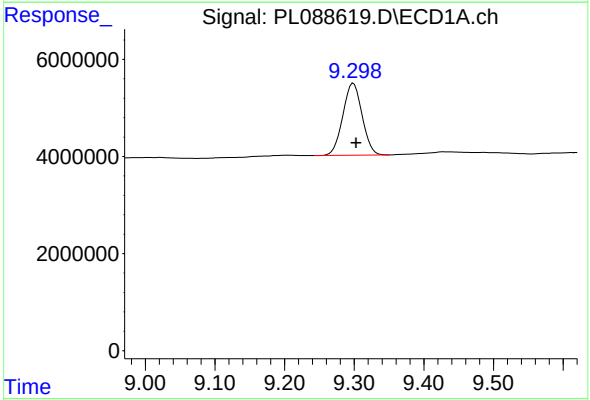
Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024



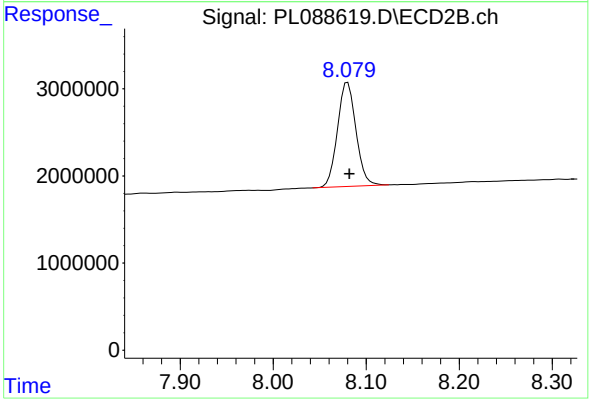
#1 Tetrachloro-m-xylene

R.T.: 2.850 min
Delta R.T.: -0.002 min
Response: 25769944
Conc: 19.34 ng/ml m



#28 Decachlorobiphenyl

R.T.: 9.299 min
Delta R.T.: -0.004 min
Response: 28511440
Conc: 11.53 ng/ml



#28 Decachlorobiphenyl

R.T.: 8.080 min
Delta R.T.: -0.002 min
Response: 16565855
Conc: 12.22 ng/ml

Raw Data: **PL088620.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-02	SDG No.:	P1747
Lab Sample ID:	P1747-04	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	980 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088620.D	1	03/14/24 10:51	03/14/24 19:30	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.051	U	0.0062	0.051	ug/L
319-85-7	beta-BHC	0.051	U	0.014	0.051	ug/L
319-86-8	delta-BHC	0.051	U	0.015	0.051	ug/L
58-89-9	gamma-BHC (Lindane)	0.051	U	0.0050	0.051	ug/L
76-44-8	Heptachlor	0.051	U	0.0055	0.051	ug/L
309-00-2	Aldrin	0.051	U	0.0045	0.051	ug/L
1024-57-3	Heptachlor epoxide	0.051	U	0.0092	0.051	ug/L
959-98-8	Endosulfan I	0.051	U	0.0051	0.051	ug/L
60-57-1	Dieldrin	0.051	U	0.0048	0.051	ug/L
72-55-9	4,4-DDE	0.051	U	0.0046	0.051	ug/L
72-20-8	Endrin	0.051	U	0.0044	0.051	ug/L
33213-65-9	Endosulfan II	0.051	U	0.0077	0.051	ug/L
72-54-8	4,4-DDD	0.051	U	0.0094	0.051	ug/L
1031-07-8	Endosulfan Sulfate	0.051	U	0.0036	0.051	ug/L
50-29-3	4,4-DDT	0.051	U	0.0045	0.051	ug/L
72-43-5	Methoxychlor	0.051	U	0.011	0.051	ug/L
53494-70-5	Endrin ketone	0.051	U	0.0099	0.051	ug/L
7421-93-4	Endrin aldehyde	0.051	U	0.010	0.051	ug/L
5103-71-9	alpha-Chlordane	0.051	U	0.0061	0.051	ug/L
5103-74-2	gamma-Chlordane	0.051	U	0.0061	0.051	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	15.6		27 - 142	78%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.2		35 - 148	111%	SPK: 20

Raw Data: **PL088620.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-02	SDG No.:	P1747
Lab Sample ID:	P1747-04	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	980 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088620.D	1	03/14/24 10:51	03/14/24 19:30	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Sample Results: **PL088620.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088620.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:30
Operator : AR\AJ
Sample : P1747-04
Misc :
ALS Vial : 29 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
MW-02

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:28:05 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	58796738	28644191	22.188	21.493
28)	SA Decachlor...	9.301	8.080	35624590	21079450	14.412	15.546
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

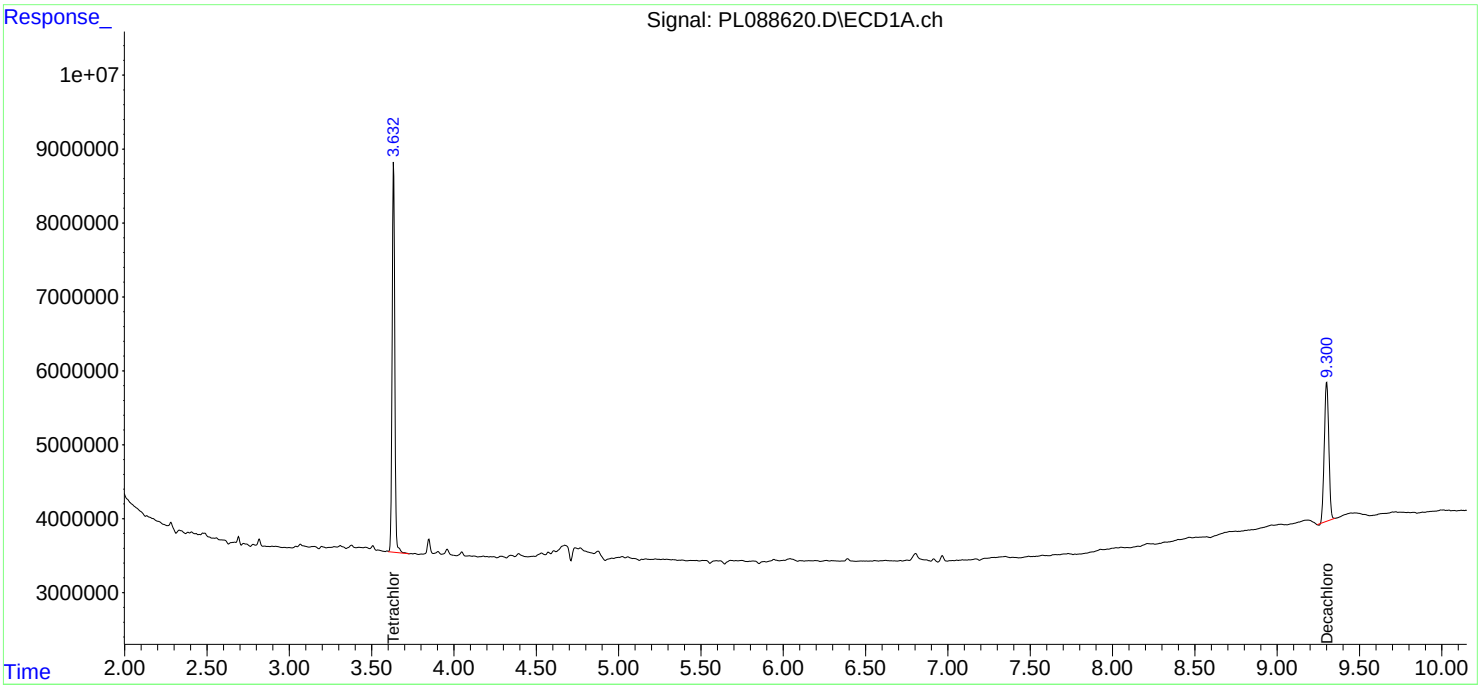
Sample Results: **PL088620.D**

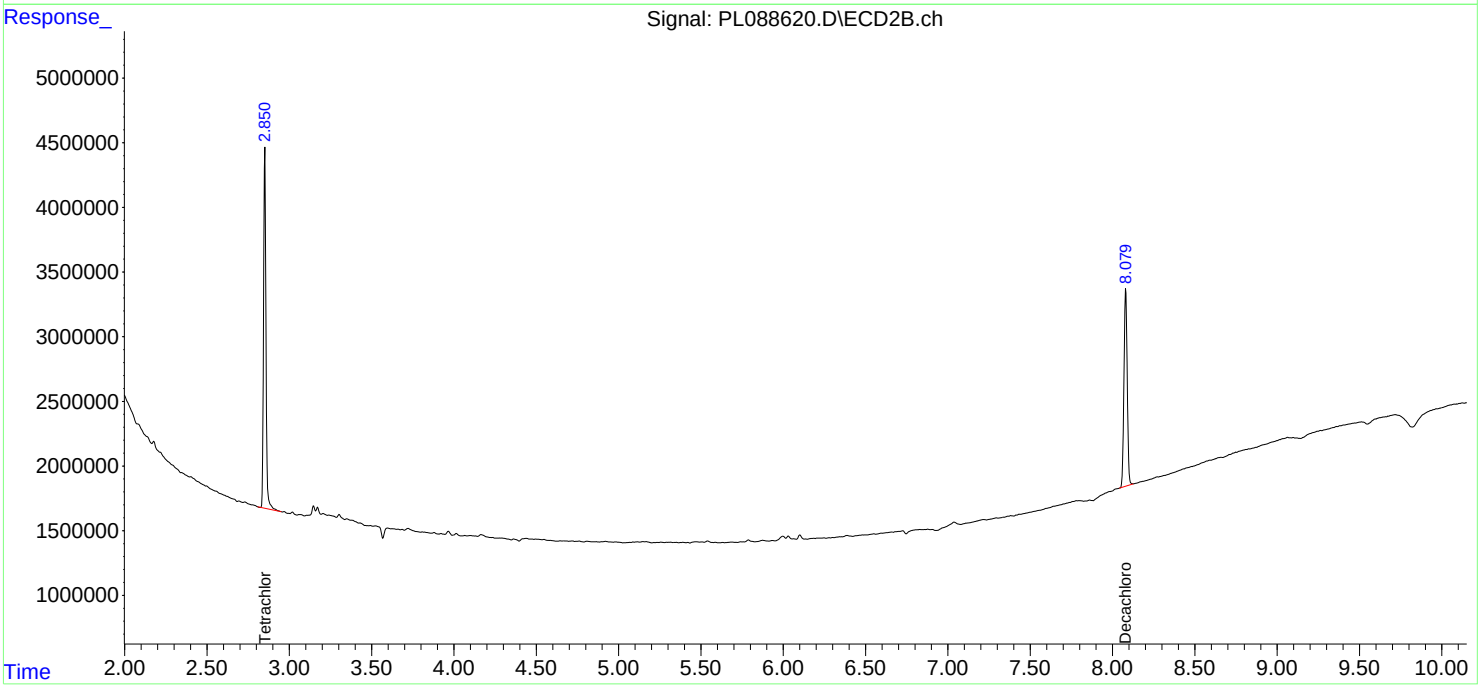
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088620.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:30
Operator : AR\AJ
Sample : P1747-04
Misc :
ALS Vial : 29 Sample Multiplier: 1

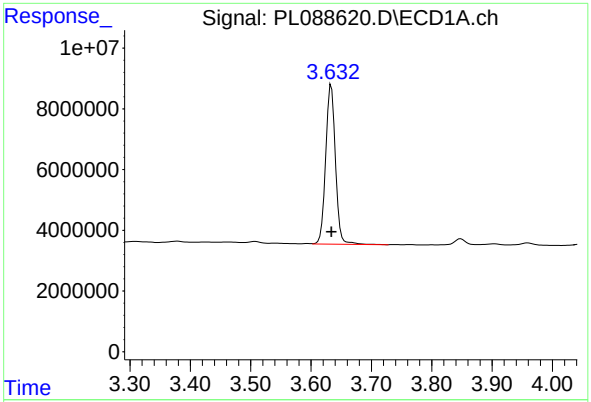
Instrument :
ECD_L
ClientSampleId :
MW-02

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:28:05 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm



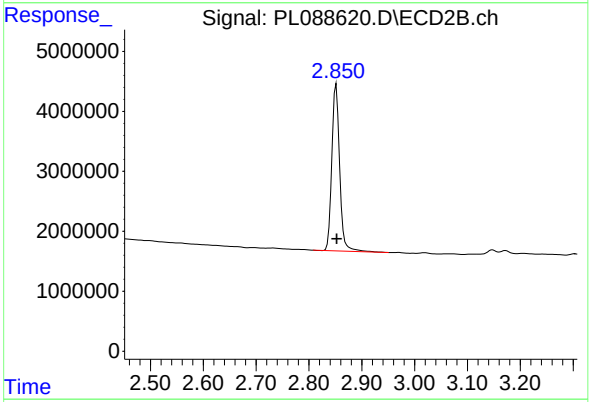




#1 Tetrachloro-m-xylene

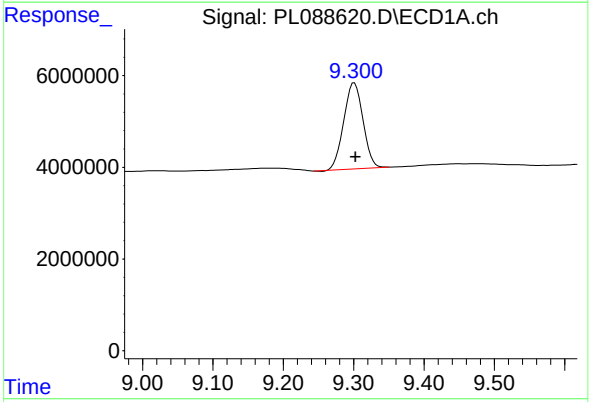
R.T.: 3.634 min
Delta R.T.: 0.000 min
Response: 58796738
Conc: 22.19 ng/ml

Instrument :
ECD_L
ClientSampleId :
MW-02



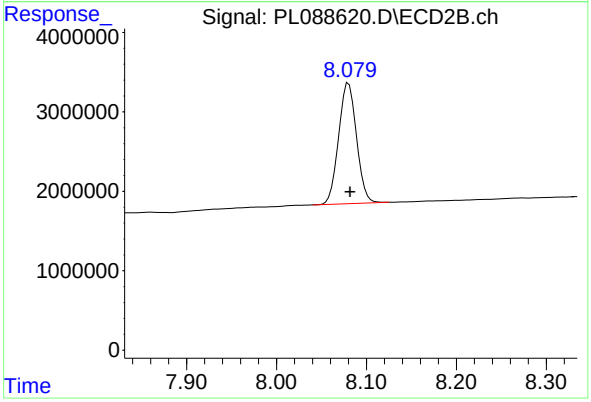
#1 Tetrachloro-m-xylene

R.T.: 2.852 min
Delta R.T.: 0.000 min
Response: 28644191
Conc: 21.49 ng/ml



#28 Decachlorobiphenyl

R.T.: 9.301 min
Delta R.T.: -0.002 min
Response: 35624590
Conc: 14.41 ng/ml



#28 Decachlorobiphenyl

R.T.: 8.080 min
Delta R.T.: -0.002 min
Response: 21079450
Conc: 15.55 ng/ml

Raw Data: **PL088621.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-04	SDG No.:	P1747
Lab Sample ID:	P1747-05	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	970 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088621.D	1	03/14/24 10:51	03/14/24 19:44	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.052	U	0.0063	0.052	ug/L
319-85-7	beta-BHC	0.052	U	0.014	0.052	ug/L
319-86-8	delta-BHC	0.052	U	0.016	0.052	ug/L
58-89-9	gamma-BHC (Lindane)	0.052	U	0.0051	0.052	ug/L
76-44-8	Heptachlor	0.052	U	0.0056	0.052	ug/L
309-00-2	Aldrin	0.052	U	0.0045	0.052	ug/L
1024-57-3	Heptachlor epoxide	0.052	U	0.0093	0.052	ug/L
959-98-8	Endosulfan I	0.052	U	0.0052	0.052	ug/L
60-57-1	Dieldrin	0.052	U	0.0048	0.052	ug/L
72-55-9	4,4-DDE	0.052	U	0.0046	0.052	ug/L
72-20-8	Endrin	0.052	U	0.0044	0.052	ug/L
33213-65-9	Endosulfan II	0.052	U	0.0077	0.052	ug/L
72-54-8	4,4-DDD	0.052	U	0.0095	0.052	ug/L
1031-07-8	Endosulfan Sulfate	0.052	U	0.0036	0.052	ug/L
50-29-3	4,4-DDT	0.052	U	0.0045	0.052	ug/L
72-43-5	Methoxychlor	0.052	U	0.011	0.052	ug/L
53494-70-5	Endrin ketone	0.052	U	0.010	0.052	ug/L
7421-93-4	Endrin aldehyde	0.052	U	0.010	0.052	ug/L
5103-71-9	alpha-Chlordane	0.052	U	0.0062	0.052	ug/L
5103-74-2	gamma-Chlordane	0.052	U	0.0062	0.052	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	18.8		27 - 142	94%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.0		35 - 148	110%	SPK: 20

Raw Data: **PL088621.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/12/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	MW-04	SDG No.:	P1747
Lab Sample ID:	P1747-05	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	970 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088621.D	1	03/14/24 10:51	03/14/24 19:44	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Sample Results: **PL088621.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088621.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:44
Operator : AR\AJ
Sample : P1747-05
Misc :
ALS Vial : 30 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
MW-04

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:28:43 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.633	2.851	58392771	28574486	22.035	21.440
28)	SA Decachlor...	9.300	8.080	45003477	25499004	18.206	18.806
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

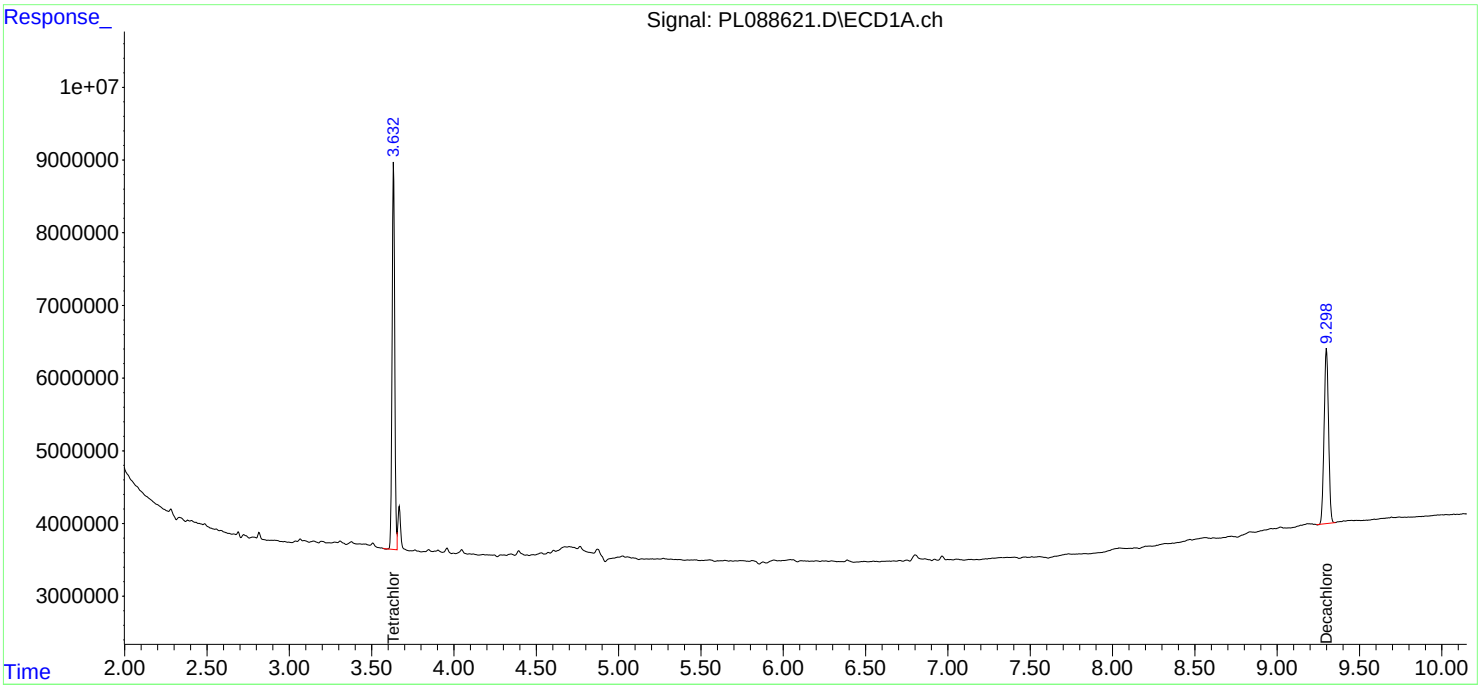
Sample Results: **PL088621.D**

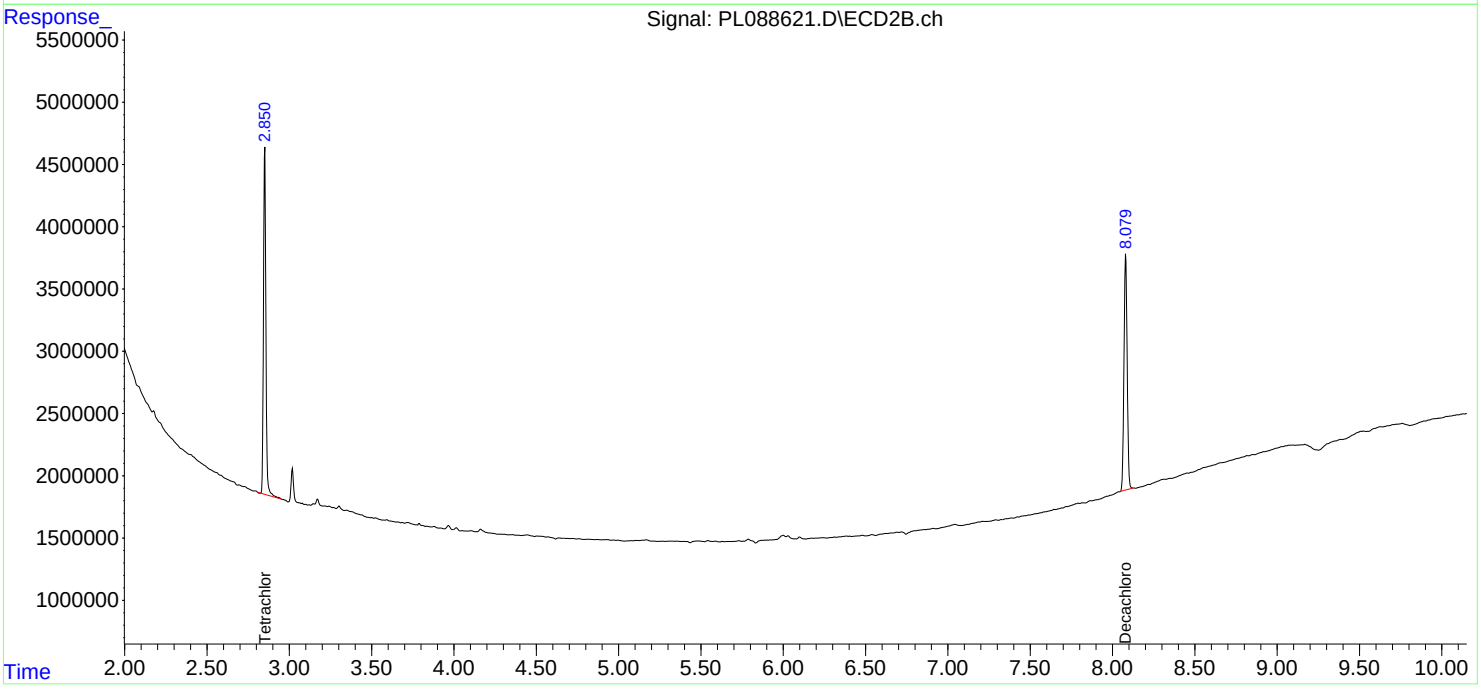
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088621.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:44
Operator : AR\AJ
Sample : P1747-05
Misc :
ALS Vial : 30 Sample Multiplier: 1

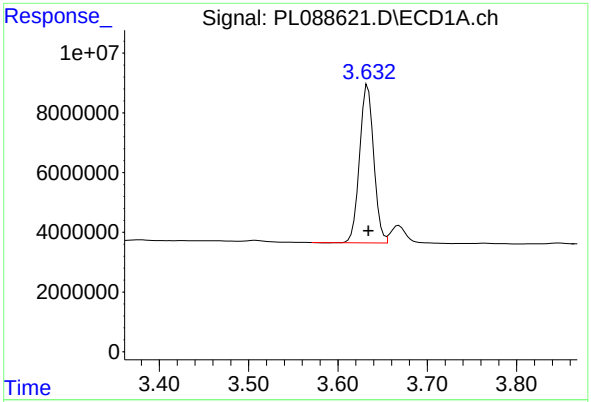
Instrument :
ECD_L
ClientSampleId :
MW-04

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:28:43 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm



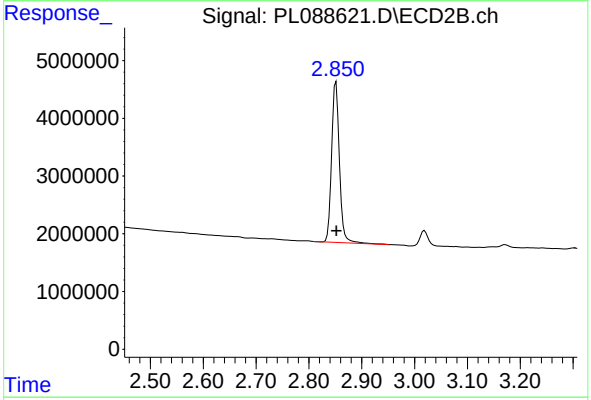




#1 Tetrachloro-m-xylene

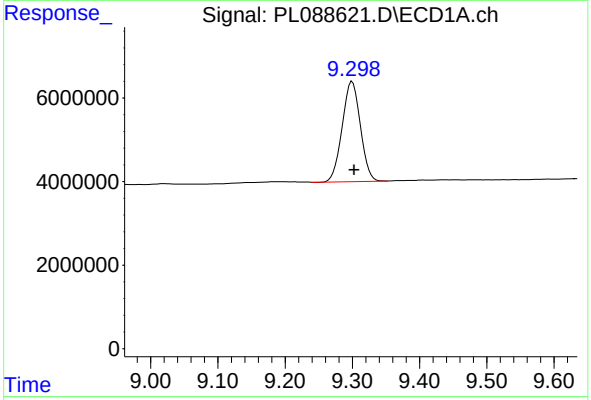
R.T.: 3.633 min
Delta R.T.: 0.000 min
Response: 58392771
Conc: 22.04 ng/ml

Instrument :
ECD_L
ClientSampleId :
MW-04



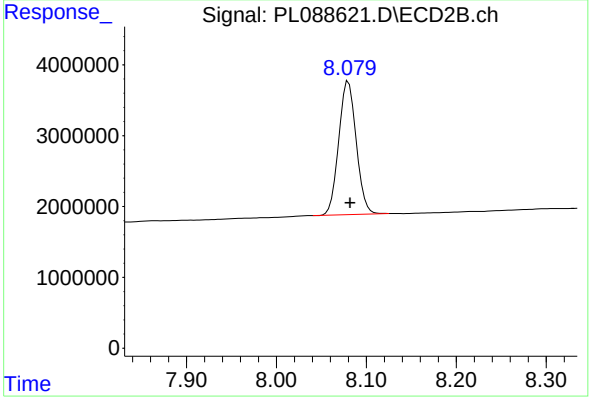
#1 Tetrachloro-m-xylene

R.T.: 2.851 min
Delta R.T.: -0.001 min
Response: 28574486
Conc: 21.44 ng/ml



#28 Decachlorobiphenyl

R.T.: 9.300 min
Delta R.T.: -0.003 min
Response: 45003477
Conc: 18.21 ng/ml



#28 Decachlorobiphenyl

R.T.: 8.080 min
Delta R.T.: -0.002 min
Response: 25499004
Conc: 18.81 ng/ml

CHEMTECH

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

RETENTION TIMES OF INITIAL CALIBRATION

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Instrument ID: ECD_L **Calibration Date(s):** 03/13/2024 03/13/2024

Calibration Times: 11:35 12:30

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: **RT 100 =** PL088552.D **RT 075 =** PL088553.D

RT 050 = PL088554.D **RT 025 =** PL088555.D **RT 005 =** PL088556.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	6.85	6.85	6.85	6.85	6.85	6.85	6.75	6.95
4,4'-DDE	6.33	6.33	6.33	6.33	6.33	6.33	6.23	6.43
4,4'-DDT	7.17	7.17	7.17	7.17	7.17	7.17	7.07	7.27
Aldrin	5.39	5.38	5.39	5.39	5.38	5.38	5.28	5.48
alpha-BHC	4.10	4.10	4.10	4.10	4.10	4.10	4.00	4.20
alpha-Chlordane	6.16	6.16	6.16	6.16	6.16	6.16	6.06	6.26
beta-BHC	4.64	4.64	4.64	4.64	4.63	4.63	4.53	4.73
Decachlorobiphenyl	9.30	9.30	9.30	9.30	9.30	9.30	9.20	9.40
delta-BHC	4.89	4.89	4.89	4.89	4.89	4.89	4.79	4.99
Dieldrin	6.49	6.49	6.49	6.49	6.49	6.49	6.39	6.59
Endosulfan I	6.21	6.21	6.21	6.21	6.21	6.21	6.11	6.31
Endosulfan II	6.94	6.94	6.94	6.94	6.94	6.94	6.84	7.04
Endosulfan sulfate	7.31	7.31	7.31	7.31	7.31	7.31	7.21	7.41
Endrin	6.72	6.72	6.72	6.72	6.72	6.72	6.62	6.82
Endrin aldehyde	7.07	7.07	7.07	7.07	7.07	7.07	6.97	7.17
Endrin ketone	7.80	7.80	7.80	7.80	7.80	7.80	7.70	7.90
gamma-BHC (Lindane)	4.44	4.44	4.44	4.44	4.44	4.44	4.34	4.54
gamma-Chlordane	6.08	6.08	6.08	6.08	6.08	6.08	5.98	6.18
Heptachlor	5.04	5.04	5.04	5.04	5.04	5.04	4.94	5.14
Heptachlor epoxide	5.82	5.82	5.82	5.82	5.82	5.82	5.72	5.92
Methoxychlor	7.65	7.65	7.65	7.65	7.65	7.65	7.55	7.75
Tetrachloro-m-xylene	3.63	3.63	3.63	3.63	3.63	3.63	3.53	3.73

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

RETENTION TIMES OF INITIAL CALIBRATION

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Instrument ID: ECD_L **Calibration Date(s):** 03/13/2024 03/13/2024

Calibration Times: 11:35 12:30

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: **RT 100 =** PL088552.D **RT 075 =** PL088553.D

RT 050 = PL088554.D **RT 025 =** PL088555.D **RT 005 =** PL088556.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
4,4'-DDD	5.92	5.92	5.92	5.92	5.92	5.92	5.82	6.02
4,4'-DDE	5.36	5.36	5.36	5.36	5.36	5.36	5.26	5.46
4,4'-DDT	6.18	6.18	6.18	6.18	6.18	6.18	6.08	6.28
Aldrin	4.34	4.34	4.34	4.34	4.34	4.34	4.24	4.44
alpha-BHC	3.37	3.37	3.37	3.37	3.37	3.37	3.27	3.47
alpha-Chlordane	5.17	5.17	5.17	5.17	5.17	5.17	5.07	5.27
beta-BHC	4.01	4.01	4.01	4.01	4.01	4.01	3.91	4.11
Decachlorobiphenyl	8.08	8.08	8.08	8.08	8.08	8.08	7.98	8.18
delta-BHC	4.24	4.24	4.24	4.24	4.24	4.24	4.14	4.34
Dieldrin	5.49	5.49	5.49	5.49	5.49	5.49	5.39	5.59
Endosulfan I	5.22	5.23	5.22	5.22	5.22	5.22	5.12	5.32
Endosulfan II	6.07	6.07	6.07	6.07	6.07	6.07	5.97	6.17
Endosulfan sulfate	6.48	6.48	6.48	6.48	6.48	6.48	6.38	6.58
Endrin	5.77	5.77	5.77	5.77	5.77	5.77	5.67	5.87
Endrin aldehyde	6.25	6.25	6.25	6.25	6.25	6.25	6.15	6.35
Endrin ketone	6.99	6.99	6.99	6.99	6.99	6.99	6.89	7.09
gamma-BHC (Lindane)	3.70	3.70	3.70	3.70	3.70	3.70	3.60	3.80
gamma-Chlordane	5.10	5.10	5.10	5.10	5.10	5.10	5.00	5.20
Heptachlor	4.05	4.05	4.05	4.05	4.05	4.05	3.95	4.15
Heptachlor epoxide	4.85	4.85	4.85	4.85	4.85	4.85	4.75	4.95
Methoxychlor	6.76	6.76	6.76	6.76	6.76	6.76	6.66	6.86
Tetrachloro-m-xylene	2.85	2.85	2.85	2.85	2.85	2.85	2.75	2.95

Raw Data

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Instrument ID: ECD_L **Calibration Date(s):** 03/13/2024 03/13/2024

Calibration Times: 11:35 12:30

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL088552.D **CF 075 =** PL088553.D

CF 050 = PL088554.D **CF 025 =** PL088555.D **CF 005 =** PL088556.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	2605150000	2531380000	2454770000	2481810000	2660630000	2546750000	3
4,4'-DDE	3178230000	3063290000	2943150000	2934560000	2819300000	2987700000	5
4,4'-DDT	2748570000	2675830000	2612300000	2652290000	2638400000	2665480000	2
Aldrin	3842560000	3737850000	3597040000	3618370000	3526580000	3664480000	3
alpha-BHC	4339720000	4205870000	3969030000	3909040000	3534820000	3991700000	8
alpha-Chlordane	3376150000	3308060000	3240100000	3339840000	3356100000	3324050000	2
beta-BHC	1684100000	1687030000	1663320000	1806370000	2026390000	1773440000	9
Decachlorobiphenyl	2436610000	2426940000	2397780000	2509440000	2588810000	2471910000	3
delta-BHC	4214440000	4094390000	3928370000	3942460000	3961320000	4028190000	3
Dieldrin	3371550000	3284380000	3180230000	3214960000	3162200000	3242670000	3
Endosulfan I	3084770000	3033680000	2967760000	3061750000	3134370000	3056470000	2
Endosulfan II	2845570000	2805120000	2769760000	2873890000	3026640000	2864190000	3
Endosulfan sulfate	2735040000	2700270000	2673160000	2789900000	2908110000	2761300000	3
Endrin	2848980000	2769640000	2685100000	2723910000	2640970000	2733720000	3
Endrin aldehyde	2079410000	2015110000	2025620000	2093370000	2225670000	2087840000	4
Endrin ketone	2970920000	2937250000	2897030000	2988880000	2987910000	2956400000	1
gamma-BHC (Lindane)	4137770000	4022900000	3836800000	3839840000	3553780000	3878220000	6
gamma-Chlordane	3417730000	3335520000	3245830000	3326580000	3328420000	3330820000	2
Heptachlor	3906610000	3822660000	3706760000	3791550000	3759620000	3797440000	2
Heptachlor epoxide	3430270000	3379140000	3332490000	3460650000	3572360000	3434980000	3
Methoxychlor	1464350000	1467990000	1470780000	1549630000	1579820000	1506510000	4
Tetrachloro-m-xylene	2686870000	2646600000	2568650000	2665410000	2682310000	2649970000	2

Raw Data

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Instrument ID: ECD_L **Calibration Date(s):** 03/13/2024 03/13/2024

Calibration Times: 11:35 12:30

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL088552.D **CF 075 =** PL088553.D

CF 050 = PL088554.D **CF 025 =** PL088555.D **CF 005 =** PL088556.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
4,4'-DDD	1308210000	1278550000	1213180000	1224370000	1202550000	1245370000	4
4,4'-DDE	1572130000	1526800000	1437960000	1431260000	1324780000	1458590000	7
4,4'-DDT	1405410000	1379020000	1315320000	1332390000	1278840000	1342200000	4
Aldrin	1919490000	1882120000	1778160000	1777990000	1677600000	1807070000	5
alpha-BHC	2149490000	2111870000	1981390000	1973940000	1830590000	2009460000	6
alpha-Chlordane	1699950000	1675420000	1609760000	1653860000	1660680000	1659930000	2
beta-BHC	833598000	836044000	821970000	871810000	922789000	857242000	5
Decachlorobiphenyl	1307600000	1305320000	1293970000	1392670000	1480040000	1355920000	6
delta-BHC	2068040000	2016000000	1906440000	1877220000	1697630000	1913070000	8
Dieldrin	1709850000	1674230000	1590530000	1604530000	1541610000	1624150000	4
Endosulfan I	1538420000	1524800000	1463270000	1502090000	1487660000	1503250000	2
Endosulfan II	1441390000	1426250000	1384750000	1438120000	1498920000	1437890000	3
Endosulfan sulfate	1384330000	1372290000	1336020000	1397660000	1446900000	1387440000	3
Endrin	1494730000	1474680000	1401130000	1423990000	1412630000	1441430000	3
Endrin aldehyde	1040410000	1017290000	1005900000	1052090000	1124040000	1047950000	4
Endrin ketone	1645070000	1641730000	1597450000	1659920000	1709370000	1650710000	2
gamma-BHC (Lindane)	2052130000	2006750000	1902480000	1885370000	1748880000	1919120000	6
gamma-Chlordane	1715080000	1683250000	1606330000	1642720000	1634210000	1656320000	3
Heptachlor	1878290000	1848380000	1763450000	1785060000	1723470000	1799730000	4
Heptachlor epoxide	1681450000	1663240000	1599880000	1645050000	1632870000	1644500000	2
Methoxychlor	768511000	775219000	768675000	823757000	874190000	802071000	6
Tetrachloro-m-xylene	1356550000	1339940000	1298670000	1341820000	1326710000	1332740000	2

Raw Data

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Instrument ID: ECD_L **Date(s) Analyzed:** 03/13/2024 03/13/2024

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	5.99	5.89	6.09	15819600
		2	6.58	6.48	6.68	45191500
		3	7.21	7.11	7.31	123592000
		4	7.30	7.20	7.40	90671800
		5	7.73	7.63	7.83	68270000

Raw Data

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Instrument ID: ECD_L **Date(s) Analyzed:** 03/13/2024 03/13/2024

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	500	1	5.46	5.36	5.56	13114100
		2	5.82	5.72	5.92	13971000
		3	6.75	6.65	6.85	45709900
		4	6.88	6.78	6.98	62869100
		5	7.20	7.10	7.30	26040400

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088552.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 11:35
Operator : AR\AJ
Sample : PSTDICC100
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDICC100

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:27:57 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	268.7E6	135.7E6	104.602	104.457
28)	SA Decachlor...	9.302	8.082	243.7E6	130.8E6	101.620	101.053
	Target Compounds						
2)	A alpha-BHC	4.099	3.367	434.0E6	214.9E6	109.340	108.484
3)	MA gamma-BHC...	4.437	3.703	413.8E6	205.2E6	107.844	107.866
4)	MA Heptachlor	5.038	4.052	390.7E6	187.8E6	105.392	106.512
5)	MB Aldrin	5.386	4.337	384.3E6	191.9E6	106.826	107.948
6)	B beta-BHC	4.635	4.005	168.4E6	83359771	101.249	101.415
7)	B delta-BHC	4.887	4.240	421.4E6	206.8E6	107.282	108.477
8)	B Heptachlo...	5.817	4.848	343.0E6	168.1E6	102.934	105.099
9)	A Endosulfan I	6.208	5.224	308.5E6	153.8E6	103.943	105.136
10)	B gamma-Chl...	6.076	5.103	341.8E6	171.5E6	105.296	106.770
11)	B alpha-Chl...	6.157	5.168	337.6E6	170.0E6	104.199	105.603
12)	B 4,4'-DDE	6.332	5.360	317.8E6	157.2E6	107.987	109.331
13)	MA Dieldrin	6.487	5.493	337.2E6	171.0E6	106.016	107.502
14)	MA Endrin	6.719	5.772	284.9E6	149.5E6	106.104	106.680
15)	B Endosulfa...	6.940	6.070	284.6E6	144.1E6	102.737	104.090
16)	A 4,4'-DDD	6.854	5.922	260.5E6	130.8E6	106.126	107.833
17)	MA 4,4'-DDT	7.173	6.178	274.9E6	140.5E6	105.216	106.849
18)	B Endrin al...	7.071	6.252	207.9E6	104.0E6	102.656	103.432
19)	B Endosulfa...	7.308	6.478	273.5E6	138.4E6	102.315	103.615
20)	A Methoxychlor	7.653	6.761	146.4E6	76851081	99.563	99.979
21)	B Endrin ke...	7.800	6.990	297.1E6	164.5E6	102.550	102.981
22)	Mirex	8.282	7.176	220.7E6	127.1E6	98.063	99.409

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

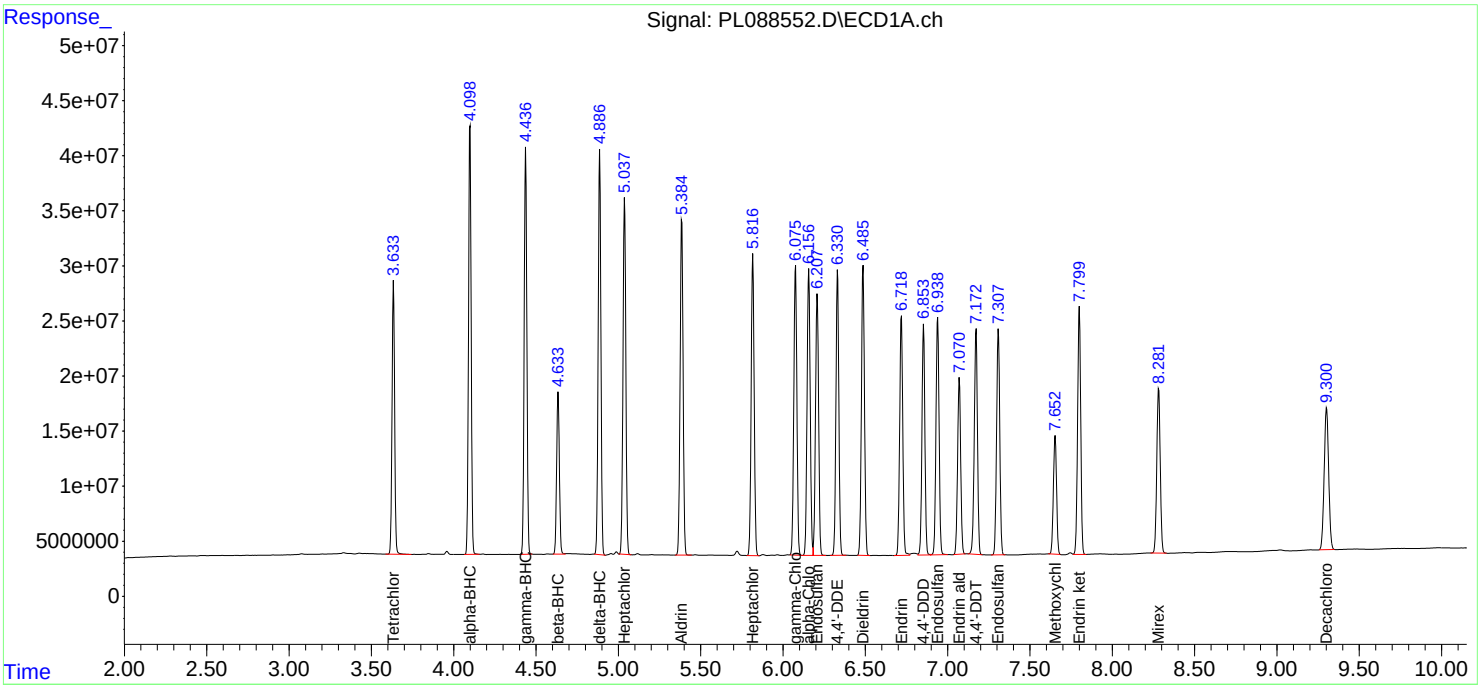
ICAL Form

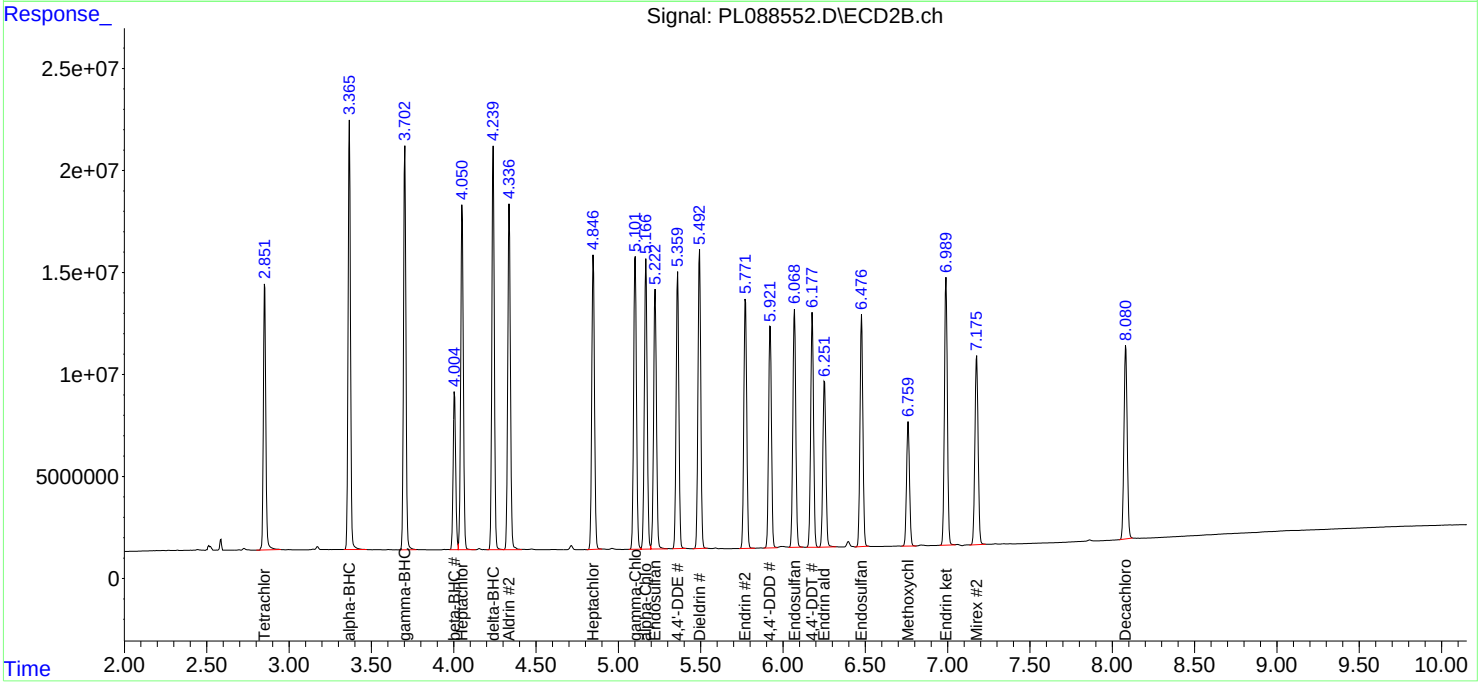
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088552.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 11:35
Operator : AR\AJ
Sample : PSTDICC100
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDICC100

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:27:57 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088553.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 11:49
Operator : AR\AJ
Sample : PSTDICC075
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDICC075

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:28:15 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	198.5E6	100.5E6	77.276	77.383
28)	SA Decachlor...	9.303	8.081	182.0E6	97899314	75.912	75.658
	Target Compounds						
2)	A alpha-BHC	4.099	3.367	315.4E6	158.4E6	79.475	79.939
3)	MA gamma-BHC...	4.437	3.704	301.7E6	150.5E6	78.638	79.111
4)	MA Heptachlor	5.038	4.052	286.7E6	138.6E6	77.345	78.612
5)	MB Aldrin	5.384	4.338	280.3E6	141.2E6	77.936	79.385
6)	B beta-BHC	4.635	4.005	126.5E6	62703318	76.069	76.284
7)	B delta-BHC	4.887	4.241	307.1E6	151.2E6	78.170	79.310
8)	B Heptachlo...	5.817	4.848	253.4E6	124.7E6	76.050	77.970
9)	A Endosulfan I	6.208	5.225	227.5E6	114.4E6	76.666	78.154
10)	B gamma-Chl...	6.075	5.102	250.2E6	126.2E6	77.072	78.591
11)	B alpha-Chl...	6.157	5.168	248.1E6	125.7E6	76.573	78.059
12)	B 4,4'-DDE	6.331	5.361	229.7E6	114.5E6	78.062	79.634
13)	MA Dieldrin	6.486	5.493	246.3E6	125.6E6	77.456	78.947
14)	MA Endrin	6.719	5.772	207.7E6	110.6E6	77.361	78.937
15)	B Endosulfa...	6.939	6.070	210.4E6	107.0E6	75.958	77.248
16)	A 4,4'-DDD	6.854	5.922	189.9E6	95891288	77.341	79.041
17)	MA 4,4'-DDT	7.172	6.177	200.7E6	103.4E6	76.824	78.632
18)	B Endrin al...	7.071	6.252	151.1E6	76296728	74.611	75.850
19)	B Endosulfa...	7.308	6.477	202.5E6	102.9E6	75.761	77.036
20)	A Methoxychlor	7.653	6.760	110.1E6	58141459	74.858	75.639
21)	B Endrin ke...	7.799	6.990	220.3E6	123.1E6	76.041	77.079
22)	Mirex	8.281	7.175	166.4E6	95794609	73.915	74.937

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

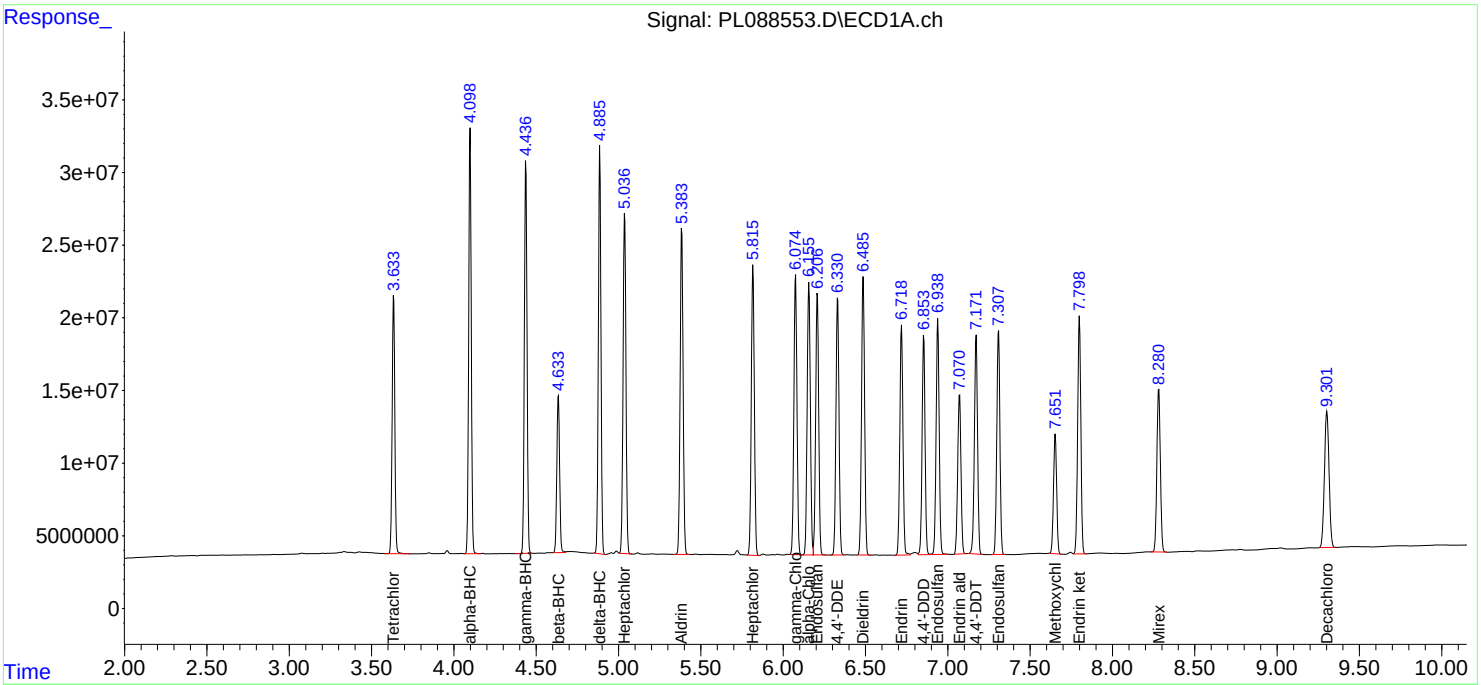
ICAL Form

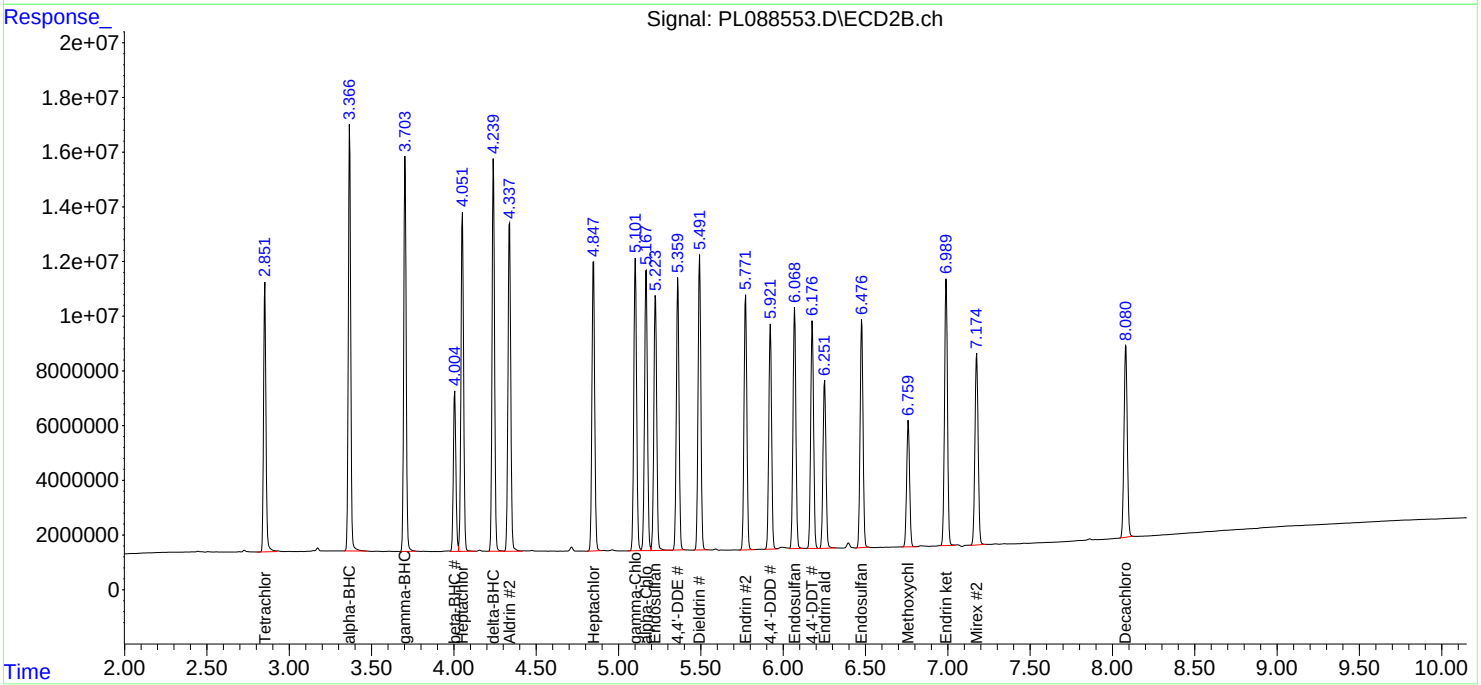
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088553.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 11:49
Operator : AR\AJ
Sample : PSTDICC075
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDICC075

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:28:15 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088554.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 12:03
Operator : AR\AJ
Sample : PSTDICC050
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDICC050

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:28:33 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1) SA	Tetrachlo...	3.634	2.852	128.4E6	64933738	50.000	50.000
28) SA	Decachlor...	9.303	8.082	119.9E6	64698709	50.000	50.000
	Target Compounds						
2) A	alpha-BHC	4.099	3.367	198.5E6	99069285	50.000	50.000
3) MA	gamma-BHC...	4.438	3.704	191.8E6	95124084	50.000	50.000
4) MA	Heptachlor	5.038	4.052	185.3E6	88172523	50.000	50.000
5) MB	Aldrin	5.385	4.338	179.9E6	88907842	50.000	50.000
6) B	beta-BHC	4.635	4.006	83165895	41098505	50.000	50.000
7) B	delta-BHC	4.887	4.241	196.4E6	95322156	50.000	50.000
8) B	Heptachlo...	5.817	4.849	166.6E6	79994037	50.000	50.000
9) A	Endosulfan I	6.207	5.224	148.4E6	73163437	50.000	50.000
10) B	gamma-Chl...	6.076	5.103	162.3E6	80316517	50.000	50.000
11) B	alpha-Chl...	6.157	5.168	162.0E6	80487888	50.000	50.000
12) B	4,4'-DDE	6.332	5.361	147.2E6	71897950	50.000	50.000
13) MA	Dieldrin	6.487	5.493	159.0E6	79526418	50.000	50.000
14) MA	Endrin	6.719	5.773	134.3E6	70056380	50.000	50.000
15) B	Endosulfa...	6.940	6.070	138.5E6	69237695	50.000	50.000
16) A	4,4'-DDD	6.854	5.923	122.7E6	60659125	50.000	50.000
17) MA	4,4'-DDT	7.173	6.178	130.6E6	65766232	50.000	50.000
18) B	Endrin al...	7.071	6.252	101.3E6	50294767	50.000	50.000
19) B	Endosulfa...	7.309	6.478	133.7E6	66801136	50.000	50.000
20) A	Methoxychlor	7.653	6.760	73538832	38433760	50.000	50.000
21) B	Endrin ke...	7.800	6.990	144.9E6	79872336	50.000	50.000
22)	Mirex	8.282	7.176	112.5E6	63916824	50.000	50.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

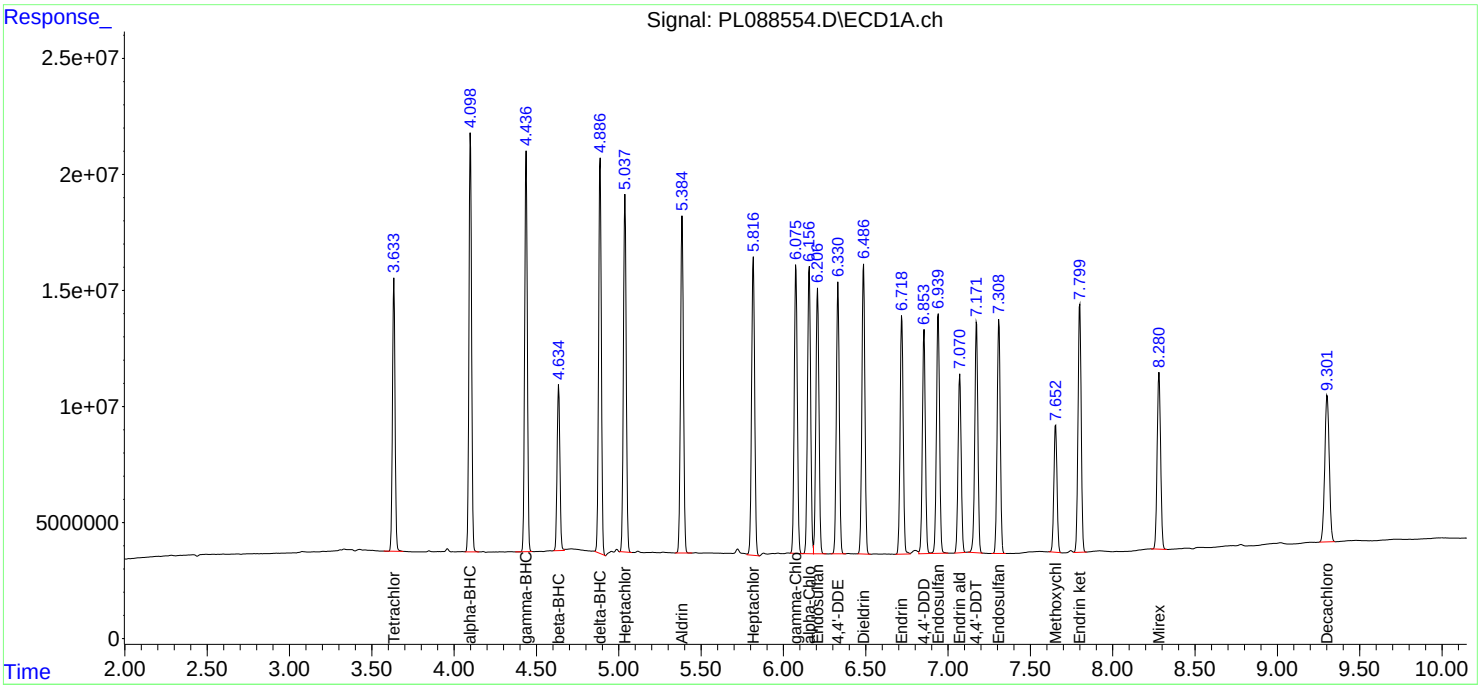
ICAL Form

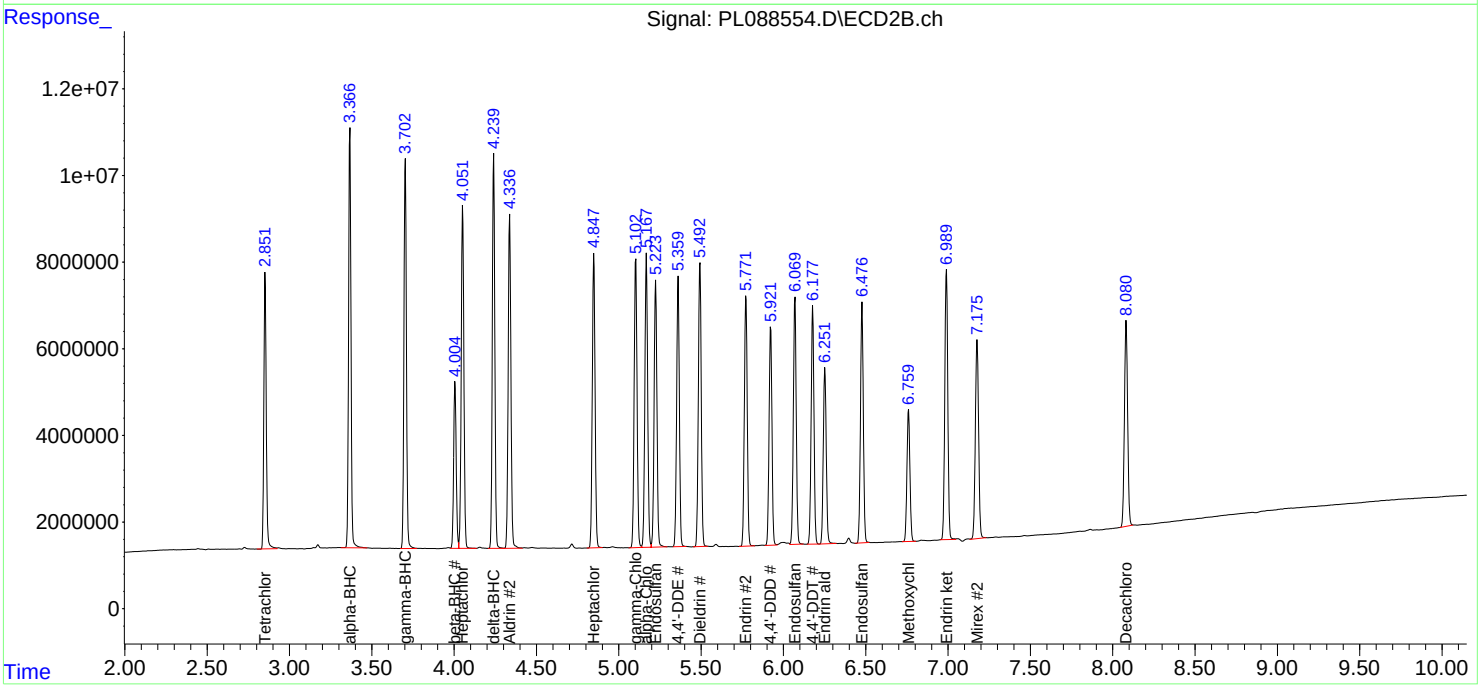
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088554.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 12:03
Operator : AR\AJ
Sample : PSTDICC050
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDICC050

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:28:33 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088555.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 12:17
Operator : AR\AJ
Sample : PSTDICC025
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDICC025

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:28:53 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	66635164	33545434	25.942	25.831
28)	SA Decachlor...	9.303	8.082	62735978	34816830	26.164	26.907
	Target Compounds						
2)	A alpha-BHC	4.099	3.366	97726054	49348400	24.622	24.906
3)	MA gamma-BHC...	4.438	3.704	95996016	47134126	25.020	24.775
4)	MA Heptachlor	5.038	4.052	94788837	44626408	25.572	25.306
5)	MB Aldrin	5.385	4.337	90459183	44449656	25.148	24.998
6)	B beta-BHC	4.635	4.005	45159285	21795252	27.150	26.516
7)	B delta-BHC	4.887	4.240	98561527	46930600	25.090	24.617
8)	B Heptachlo...	5.817	4.848	86516213	41126273	25.961	25.706
9)	A Endosulfan I	6.207	5.224	76543705	37552150	25.792	25.663
10)	B gamma-Chl...	6.076	5.103	83164617	41067988	25.622	25.566
11)	B alpha-Chl...	6.157	5.168	83496037	41346593	25.770	25.685
12)	B 4,4'-DDE	6.331	5.360	73364029	35781514	24.927	24.884
13)	MA Dieldrin	6.487	5.493	80374107	40113325	25.273	25.220
14)	MA Endrin	6.719	5.772	68097736	35599646	25.361	25.408
15)	B Endosulfa...	6.939	6.070	71847254	35953005	25.940	25.963
16)	A 4,4'-DDD	6.854	5.922	62045201	30609153	25.275	25.230
17)	MA 4,4'-DDT	7.173	6.178	66307192	33309626	25.383	25.324
18)	B Endrin al...	7.071	6.252	52334271	26302310	25.836	26.148
19)	B Endosulfa...	7.309	6.478	69747620	34941602	26.092	26.153
20)	A Methoxychlor	7.653	6.761	38740793	20593928	26.340	26.791
21)	B Endrin ke...	7.799	6.990	74721886	41497929	25.793	25.978
22)	Mirex	8.281	7.177	60599536	34887690	26.925	27.291

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

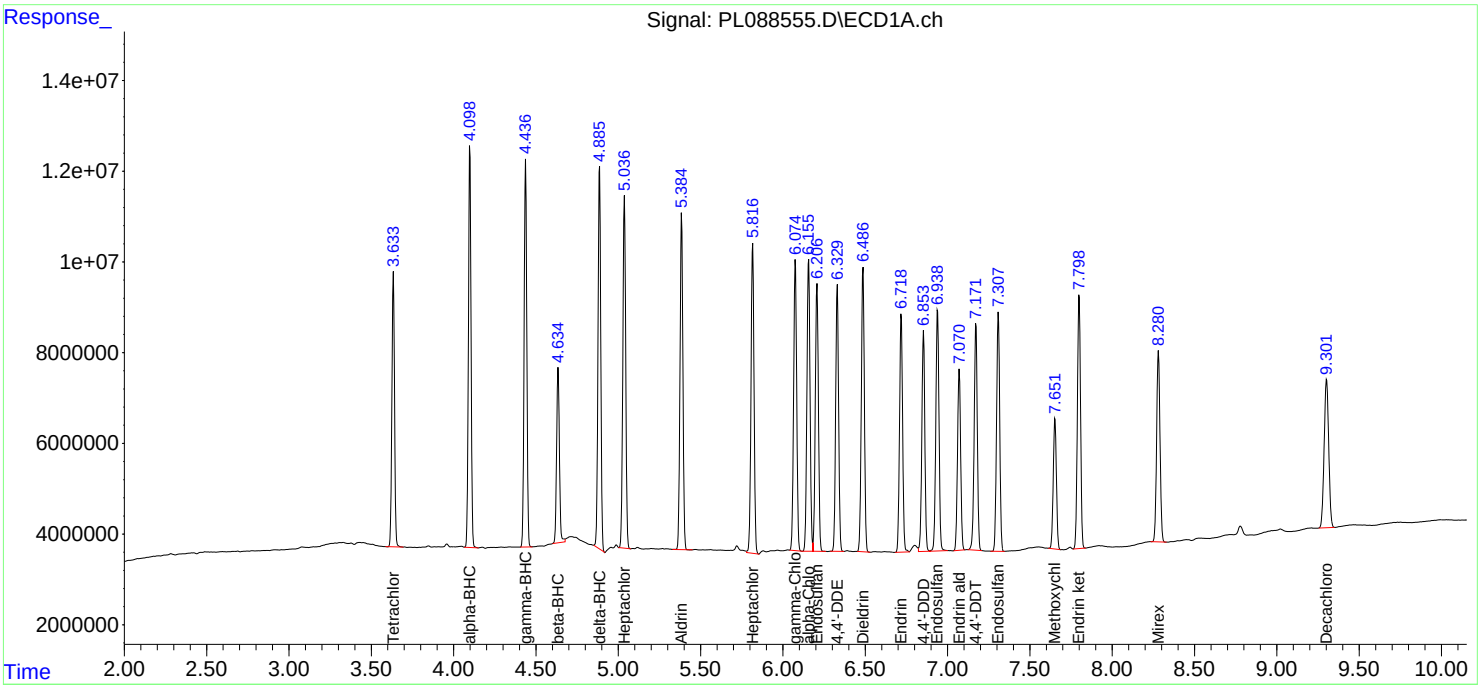
ICAL Form

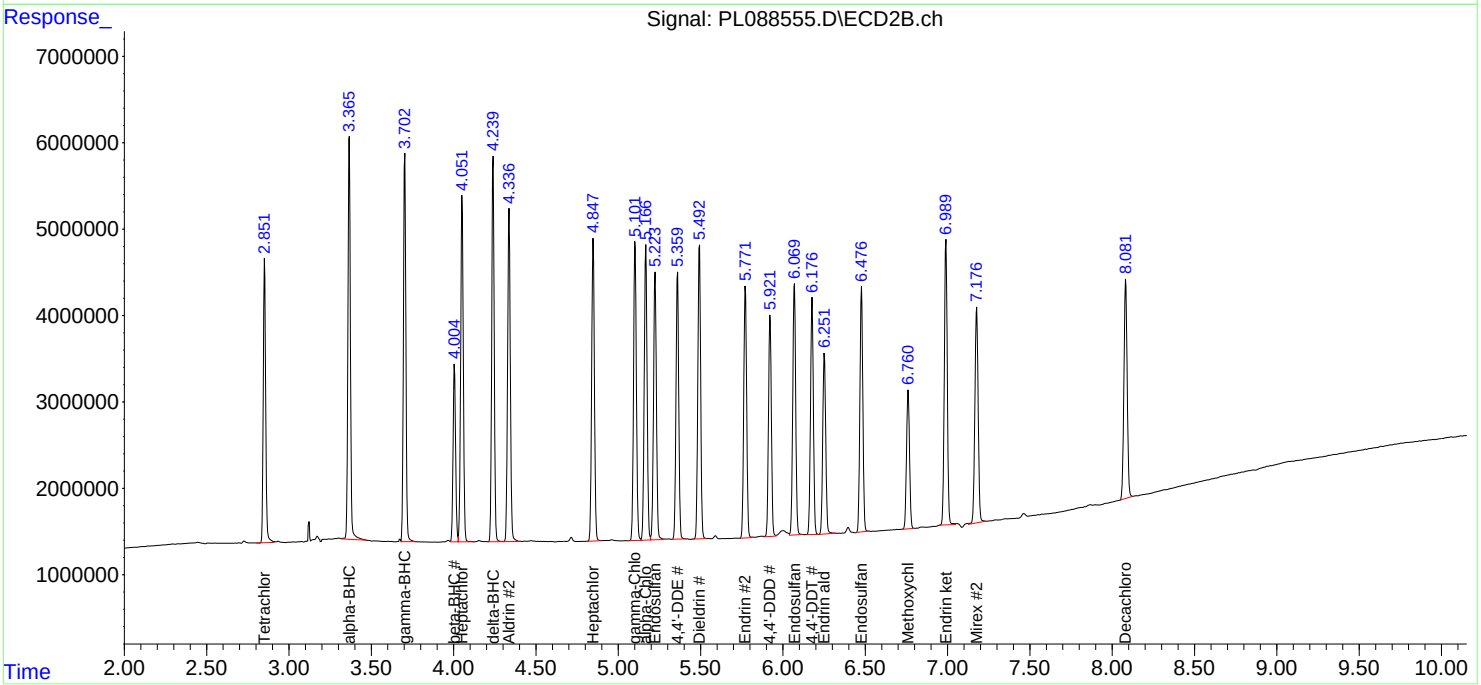
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088555.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 12:17
Operator : AR\AJ
Sample : PSTDICC025
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDICC025

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:28:53 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088556.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 12:30
Operator : AR\AJ
Sample : PSTDICC005
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDICC005

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/14/2024
Supervised By :Ankita Jodhani 03/14/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:29:12 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.633	2.852	13411569	6633568	5.221	5.108
28)	SA Decachlor...	9.302	8.081	12944026	7400175	5.398	5.719
	Target Compounds						
2)	A alpha-BHC	4.098	3.366	17674087	9152970	4.453	4.619
3)	MA gamma-BHC...	4.437	3.703	17768924	8744416	4.631	4.596
4)	MA Heptachlor	5.037	4.051	18798084	8617363	5.071	4.887
5)	MB Aldrin	5.384	4.337	17632898	8388017	4.902	4.717
6)	B beta-BHC	4.634	4.005	10131945	4613943	6.091	5.613
7)	B delta-BHC	4.885	4.240	19806600	8488168	5.042m	4.452
8)	B Heptachlo...	5.815	4.848	17861813	8164356	5.360m	5.103
9)	A Endosulfan I	6.207	5.224	15671873	7438318	5.281	5.083
10)	B gamma-Chl...	6.075	5.102	16642089	8171039	5.127	5.087
11)	B alpha-Chl...	6.156	5.167	16780517	8303382	5.179	5.158
12)	B 4,4'-DDE	6.331	5.360	14096507	6623919	4.790	4.606
13)	MA Dieldrin	6.486	5.493	15811020	7708048	4.972	4.846
14)	MA Endrin	6.717	5.772	13204841	7063158	4.918m	5.041
15)	B Endosulfa...	6.938	6.070	15133188	7494581	5.464m	5.412
16)	A 4,4'-DDD	6.853	5.922	13303172	6012769	5.419	4.956
17)	MA 4,4'-DDT	7.172	6.177	13191986	6394176	5.050	4.861
18)	B Endrin al...	7.071	6.252	11128348	5620219	5.494	5.587
19)	B Endosulfa...	7.308	6.477	14540543	7234482	5.439	5.415
20)	A Methoxychlor	7.653	6.761	7899107	4370950	5.371	5.686
21)	B Endrin ke...	7.799	6.990	14939558	8546854	5.157	5.350
22)	Mirex	8.282	7.175	13112981	7601258	5.826	5.946m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088556.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 12:30
Operator : AR\AJ
Sample : PSTDICC005
Misc :
ALS Vial : 9 Sample Multiplier: 1

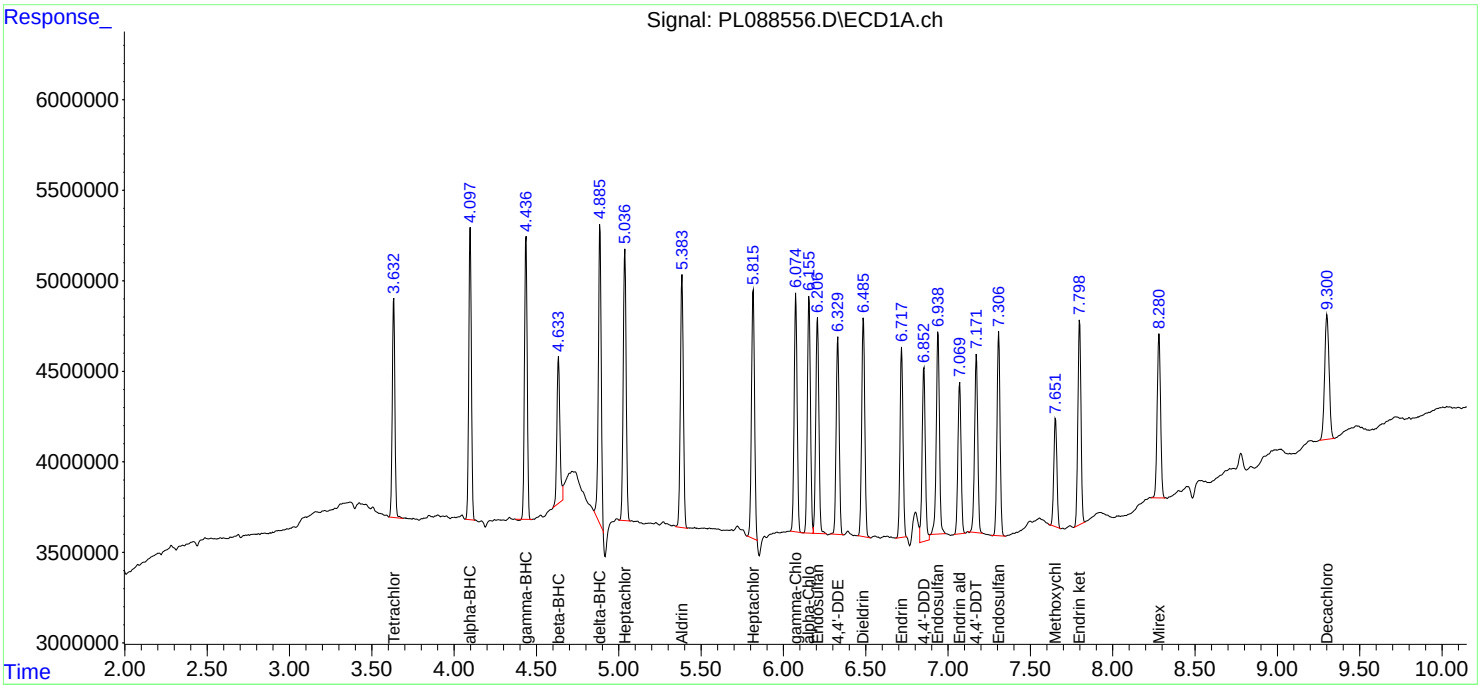
Instrument :
ECD_L
ClientSampleId :
PSTDICC005

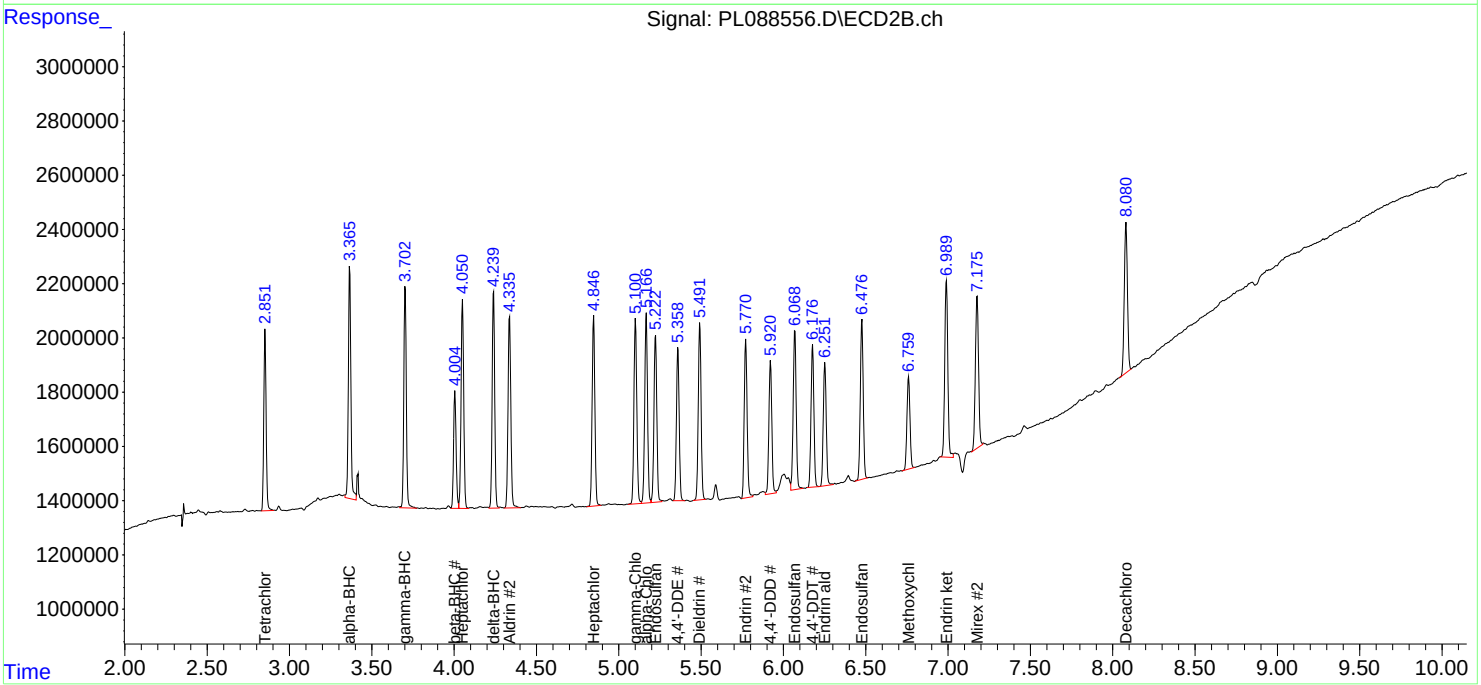
Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/14/2024
Supervised By :Ankita Jodhani 03/14/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:29:12 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:27:40 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088559.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 13:12
Operator : AR\AJ
Sample : PCHLORICC500
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PCHLORICC500

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:38:18 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:37:30 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	135.5E6	82785125	50.000	50.000
28)	SA Decachlor...	9.302	8.081	120.0E6	68565645	50.000	50.000
	Target Compounds						
23)	Chlordane-1	4.819	3.874	57801407	23958054	500.000	500.000
24)	Chlordane-2	5.355	4.462	63801940	29802915	500.000	500.000
25)	Chlordane-3	6.076	5.102	245.5E6	85284750	500.000	500.000
26)	Chlordane-4	6.160	5.167	295.9E6	79508777	500.000	500.000
27)	Chlordane-5	7.019	5.843	52035485	25048666	500.000	500.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

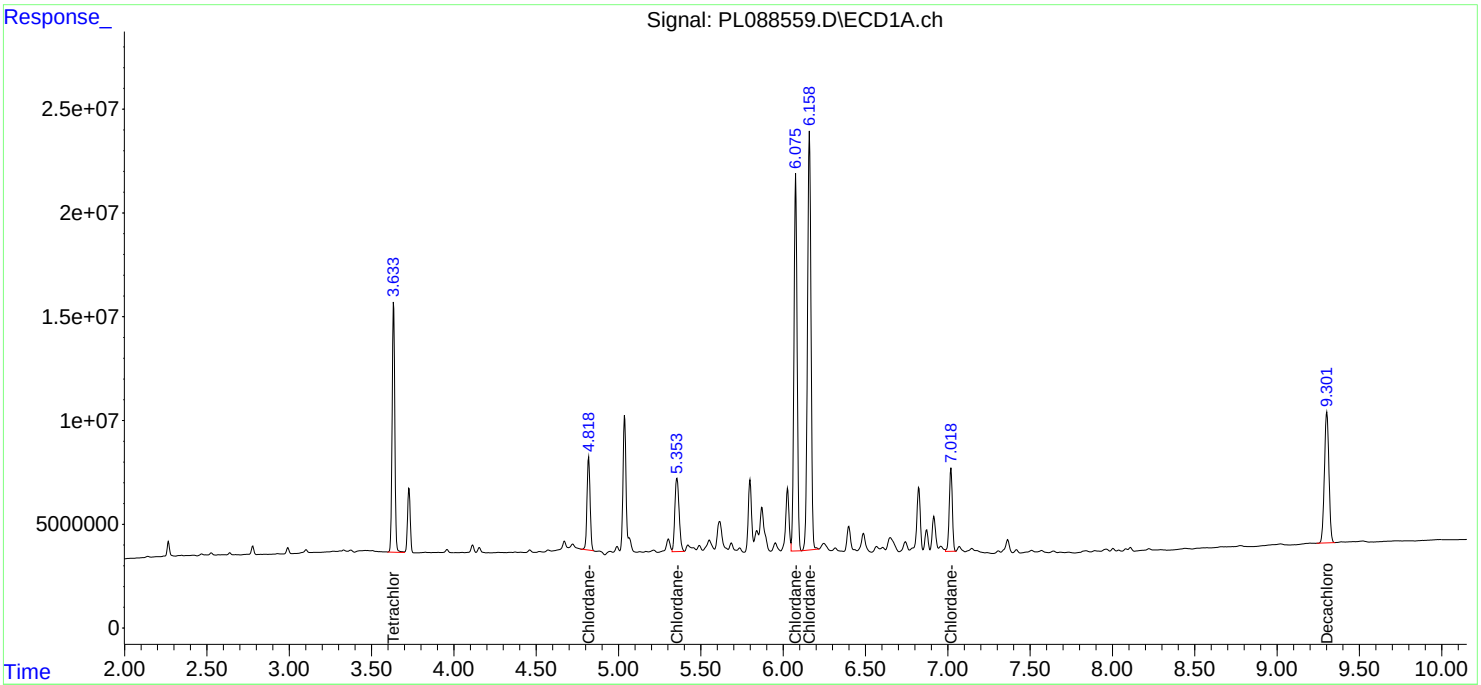
ICAL Form

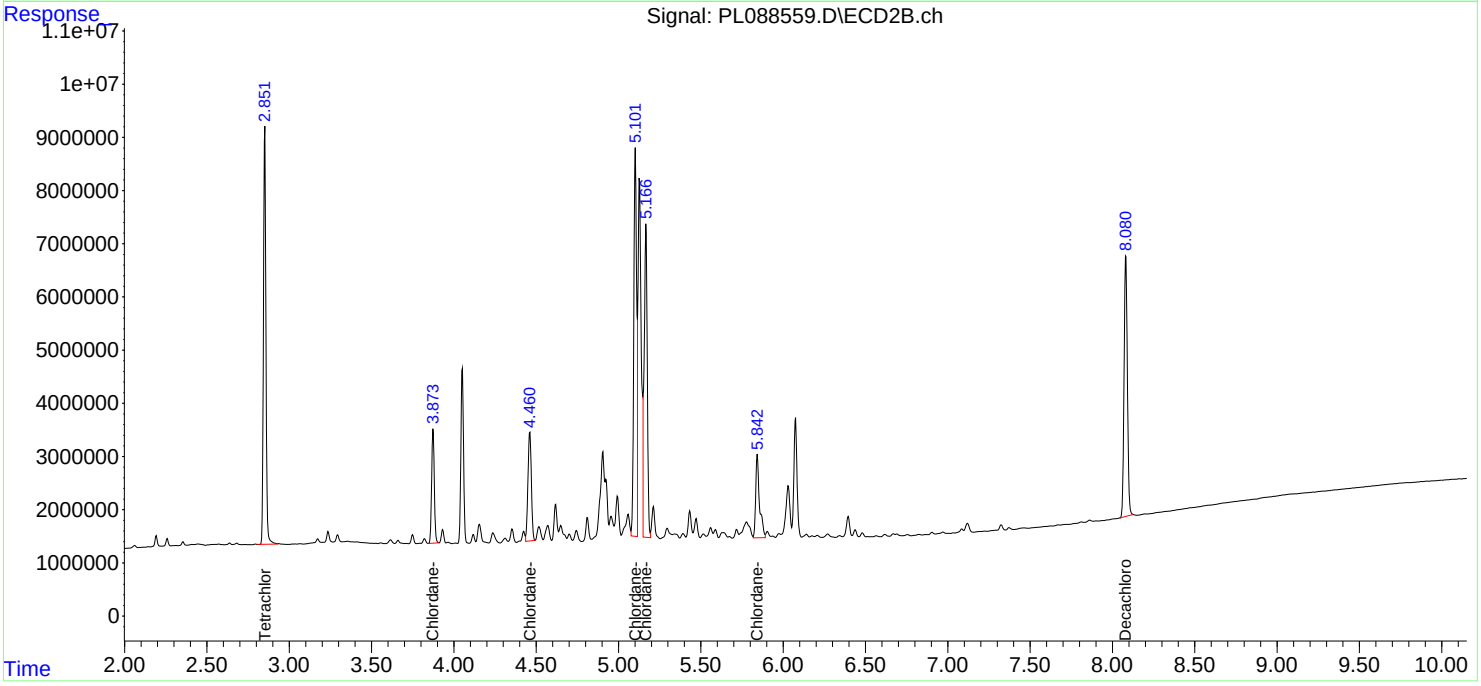
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088559.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 13:12
Operator : AR\AJ
Sample : PCHLORICC500
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PCHLORICC500

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:38:18 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:37:30 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088564.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 14:21
Operator : AR\AJ
Sample : PTOXICC500
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PTOXICC500

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:58:51 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\LTX031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:58:02 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : Rtx-CLPesticide 1 Signal #2 Phase: Rtx-CLPesticide 1
Signal #1 Info : 30M x 0.32mm x0.3 Signal #2 Info : 30M x 0.32mm x 0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1) SA	Tetrachlo...	3.633	2.852	182.4E6	91492393	50.000	50.000
7) SA	Decachlor...	9.301	8.081	160.4E6	89640572	50.000	50.000
	Target Compounds						
2)	Toxaphene-1	5.985	5.456	7909800	6557055	500.000	500.000
3)	Toxaphene-2	6.583	5.821	22595750	6985475	500.000	500.000
4)	Toxaphene-3	7.207	6.748	61796137	22854954	500.000	500.000
5)	Toxaphene-4	7.300	6.876	45335915	31434557	500.000	500.000
6)	Toxaphene-5	7.725	7.196	34135004	13020224	500.000	500.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

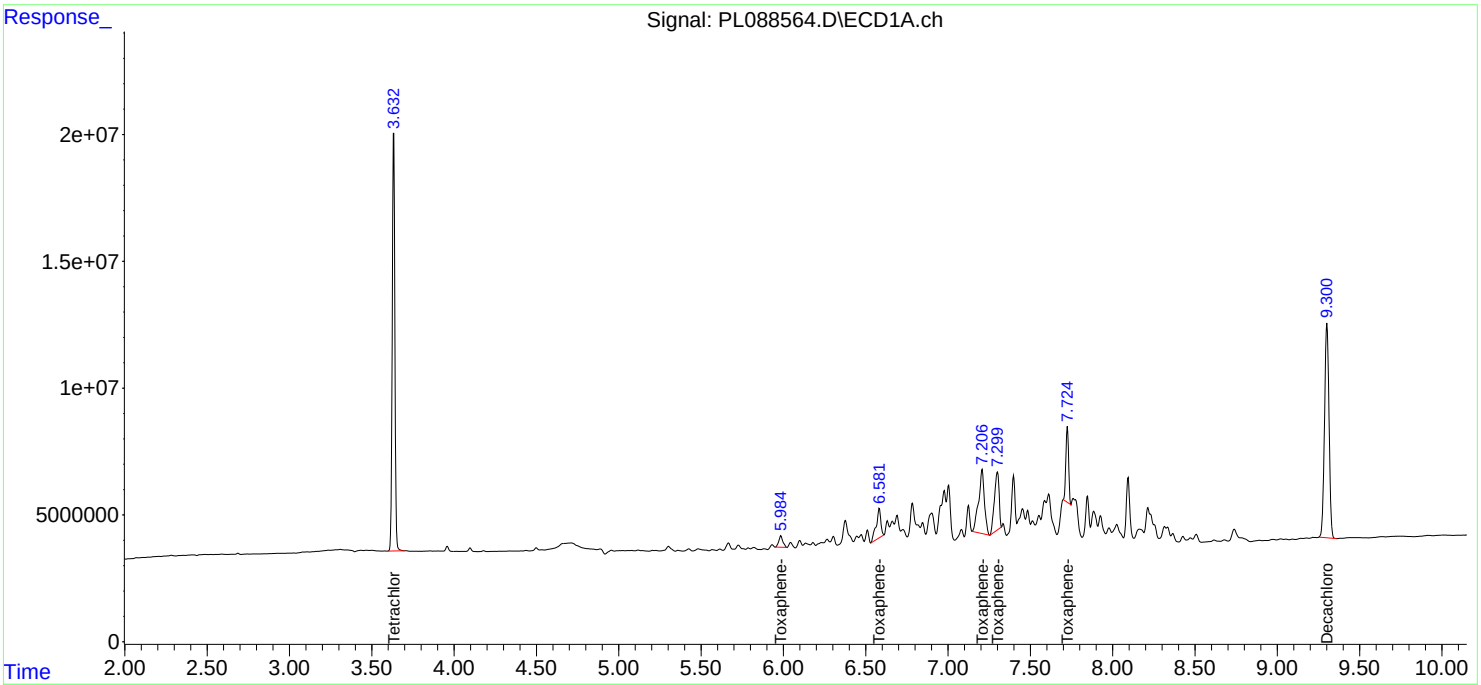
ICAL Form

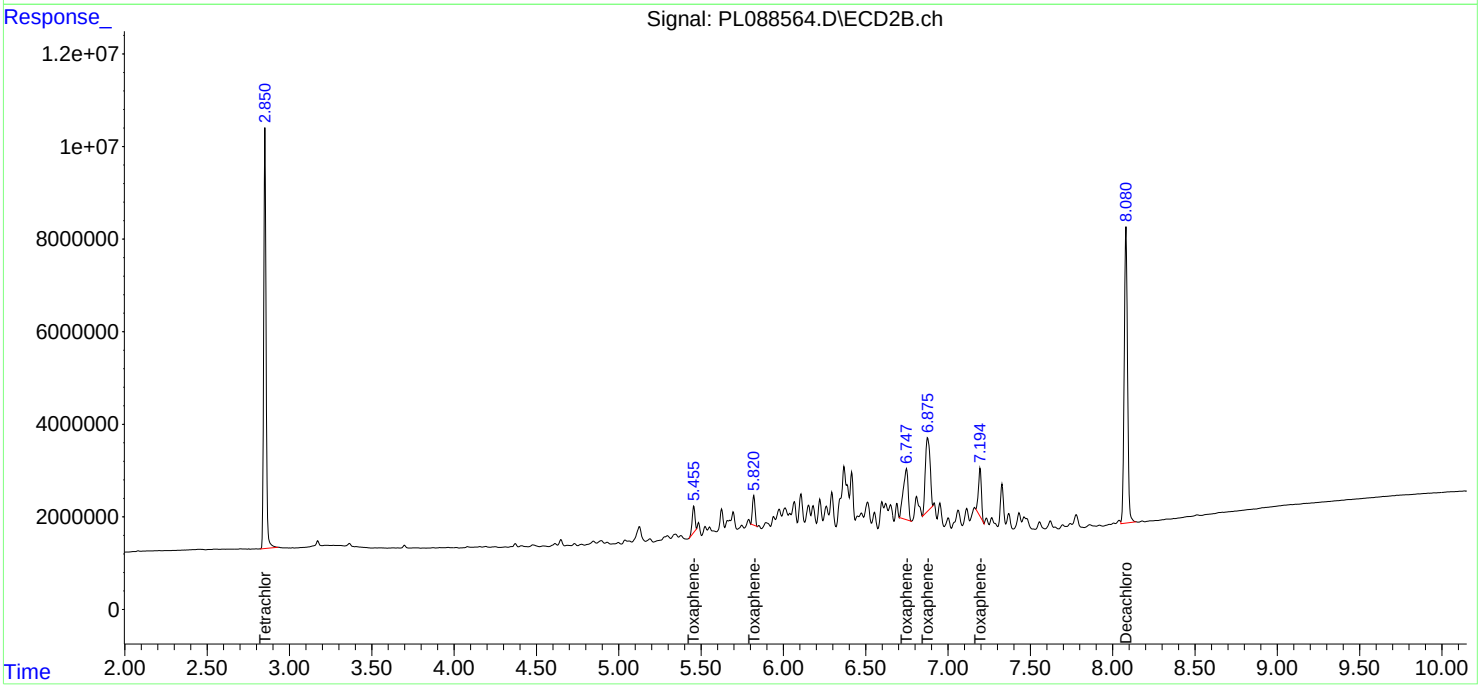
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088564.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 14:21
Operator : AR\AJ
Sample : PTOXICC500
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PTOXICC500

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:58:51 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\LTX031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:58:02 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : Rtx-CLPesticide 1 Signal #2 Phase: Rtx-CLPesticide 1
Signal #1 Info : 30M x 0.32mm x0.3 Signal #2 Info : 30M x 0.32mm x 0.25µm





Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088567.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 15:02
Operator : AR\AJ
Sample : PSTDICV050
Misc :
ALS Vial : 20 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
ICVPL031424

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:35:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:33:12 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1) SA	Tetrachlo...	3.634	2.852	135.6E6	67560657	51.165	50.693
28) SA	Decachlor...	9.303	8.082	119.5E6	65136867	48.344	48.039
	Target Compounds						
2) A	alpha-BHC	4.099	3.366	209.1E6	103.2E6	52.372	51.334
3) MA	gamma-BHC...	4.438	3.703	202.2E6	99165912	52.127	51.673
4) MA	Heptachlor	5.038	4.052	194.5E6	91334210	51.207	50.749
5) MB	Aldrin	5.385	4.337	189.8E6	91850274	51.791	50.828
6) B	beta-BHC	4.635	4.005	89249747	42684658	50.326	49.793
7) B	delta-BHC	4.887	4.240	206.7E6	98850948	51.308	51.671
8) B	Heptachlo...	5.817	4.848	175.8E6	82588262	51.169	50.221
9) A	Endosulfan I	6.208	5.224	156.6E6	75765091	51.238	50.401
10) B	gamma-Chl...	6.076	5.103	171.4E6	83580904	51.444	50.462
11) B	alpha-Chl...	6.157	5.168	171.1E6	82903424	51.471	49.944
12) B	4,4'-DDE	6.332	5.361	154.9E6	73804161	51.847	50.600
13) MA	Dieldrin	6.487	5.494	168.0E6	81900162	51.797	50.427
14) MA	Endrin	6.720	5.772	142.4E6	72610154	52.078	50.374
15) B	Endosulfa...	6.940	6.070	145.8E6	71282176	50.915	49.574
16) A	4,4'-DDD	6.854	5.922	129.4E6	62634400	50.813	50.294
17) MA	4,4'-DDT	7.173	6.177	137.9E6	67646455	51.749	50.400
18) B	Endrin al...	7.071	6.252	109.3E6	53504998	52.365	51.057
19) B	Endosulfa...	7.308	6.478	141.2E6	69049647	51.127	49.768
20) A	Methoxychlor	7.654	6.761	77574968	39635862	51.493	49.417
21) B	Endrin ke...	7.800	6.990	153.1E6	82280839	51.791	49.846
22)	Mirex	8.282	7.177	118.7E6	65487534	50.645	48.566

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

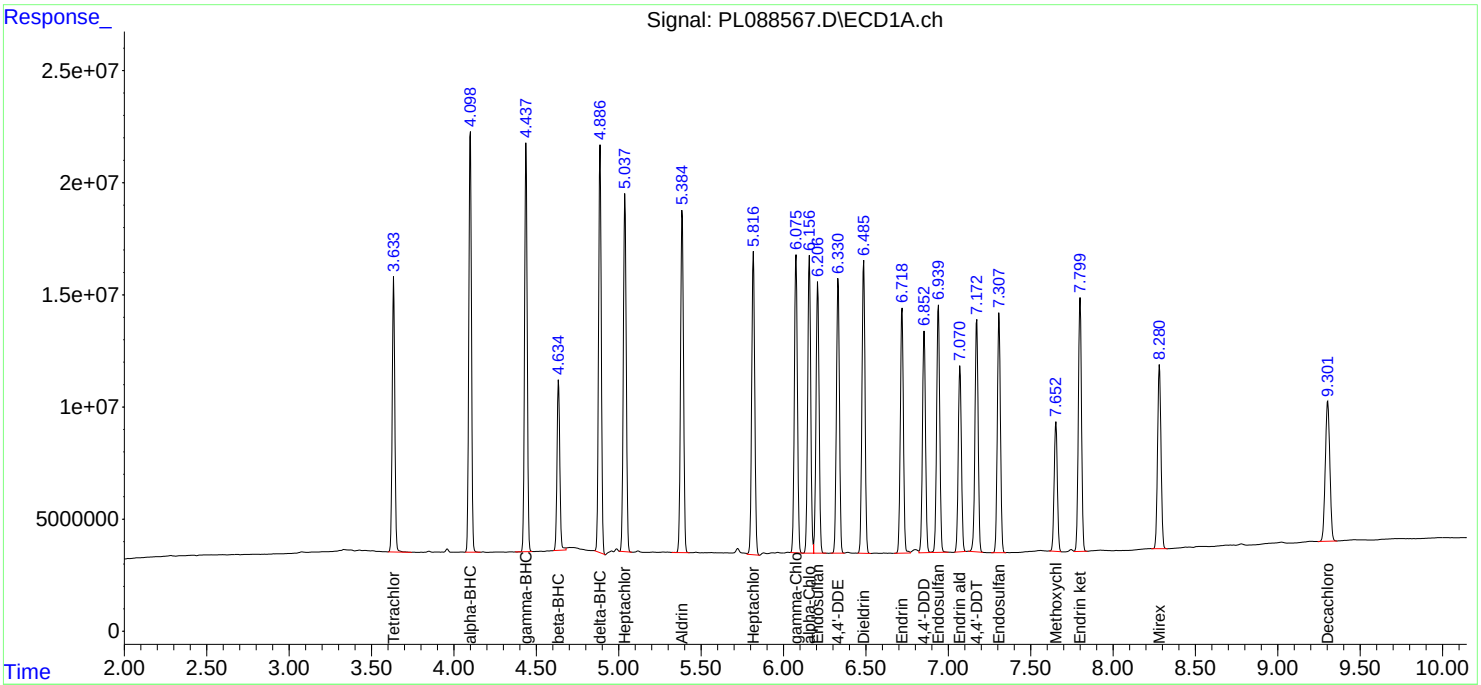
ICAL Form

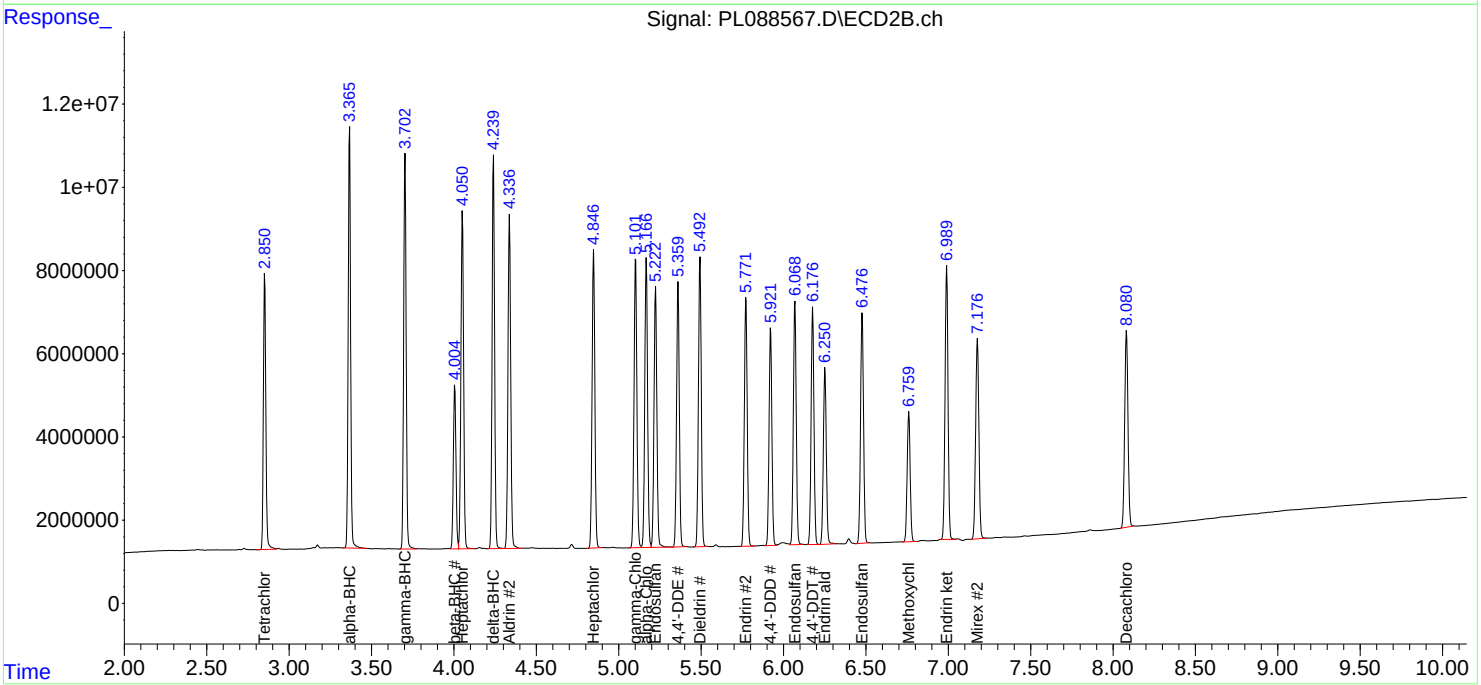
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088567.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 15:02
Operator : AR\AJ
Sample : PSTDICV050
Misc :
ALS Vial : 20 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
ICVPL031424

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:35:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:33:12 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088568.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 15:16
Operator : AR\AJ
Sample : PCHLORICV500
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
ICVPL031424

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:44:12 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:37:30 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.851	141.7E6	85598130	51.481	50.629
28)	SA Decachlor...	9.304	8.081	124.1E6	68254860	50.169	48.818
	Target Compounds						
23)	Chlordane-1	4.819	3.874	59876372	24489591	514.918	504.365
24)	Chlordane-2	5.355	4.461	66371156	30368054	504.845	500.171
25)	Chlordane-3	6.076	5.103	255.5E6	85871706	513.853	503.143
26)	Chlordane-4	6.160	5.167	306.9E6	80138084	511.596	502.308
27)	Chlordane-5	7.020	5.843	54096038	25261739	511.769	498.108

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

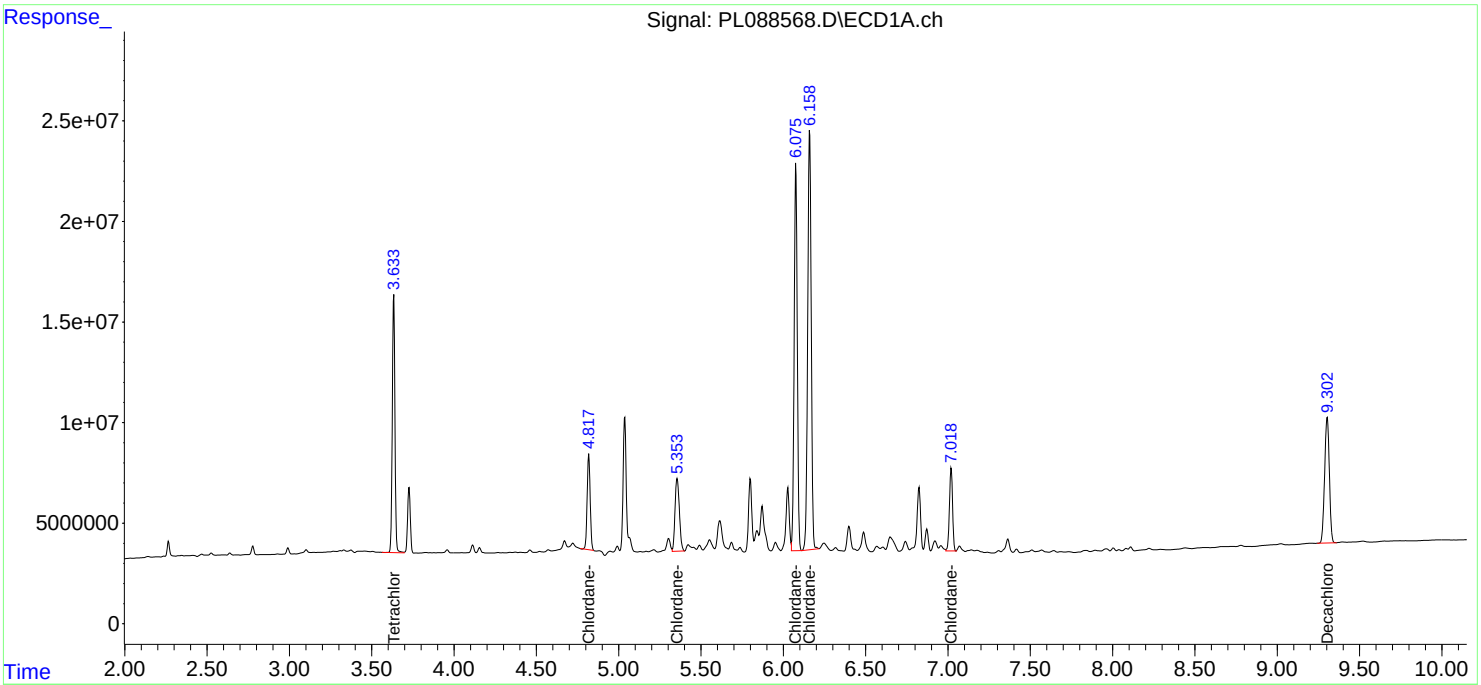
ICAL Form

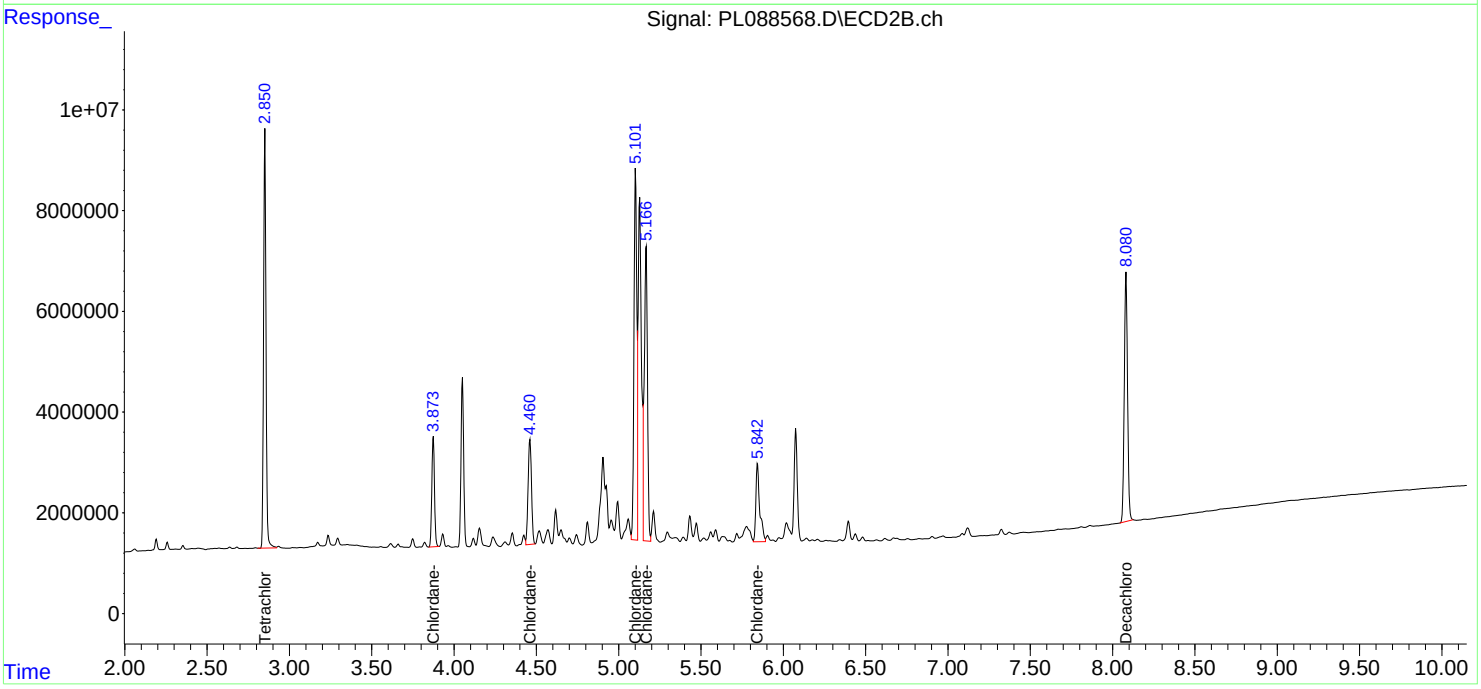
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088568.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 15:16
Operator : AR\AJ
Sample : PCHLORICV500
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
ICVPL031424

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 15:44:12 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:37:30 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088569.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 15:30
Operator : AR\AJ
Sample : PTOXICV500
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
ICVPL031424

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 16:01:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\LTX031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 16:00:44 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : Rtx-CLPesticide 1 Signal #2 Phase: Rtx-CLPesticide 1
Signal #1 Info : 30M x 0.32mm x0.3 Signal #2 Info : 30M x 0.32mm x 0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1) SA	Tetrachlo...	3.635	2.852	162.1E6	81021886	54.509	54.250
7) SA	Decachlor...	9.303	8.082	142.1E6	80067433	53.350	53.761
	Target Compounds						
2)	Toxaphene-1	5.986	5.458	7069308	5780574	550.158	554.138
3)	Toxaphene-2	6.583	5.822	20380902	6226742	542.492	558.649
4)	Toxaphene-3	7.208	6.750	55231553	19717837	540.734	534.572
5)	Toxaphene-4	7.301	6.878	40440178	27426671	542.242	533.733
6)	Toxaphene-5	7.726	7.196	29899432	11511670	538.801	542.788

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

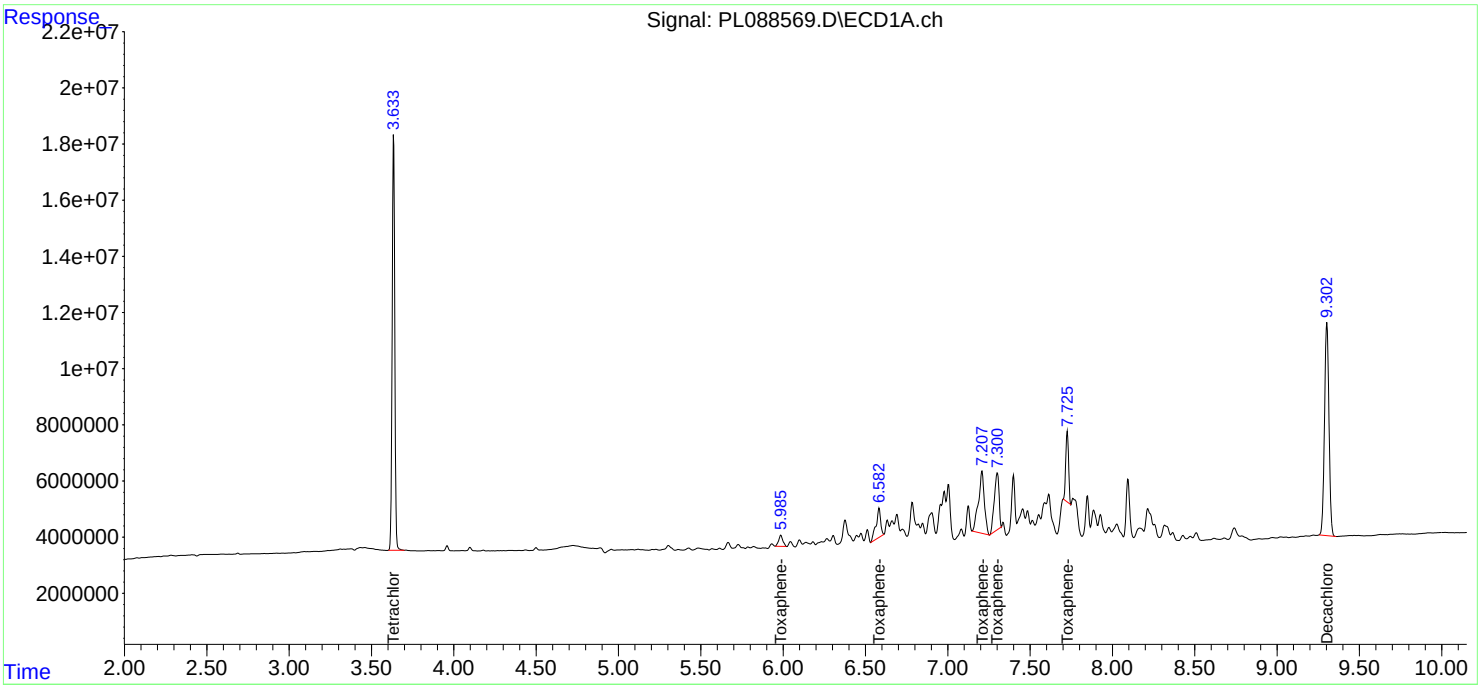
ICAL Form

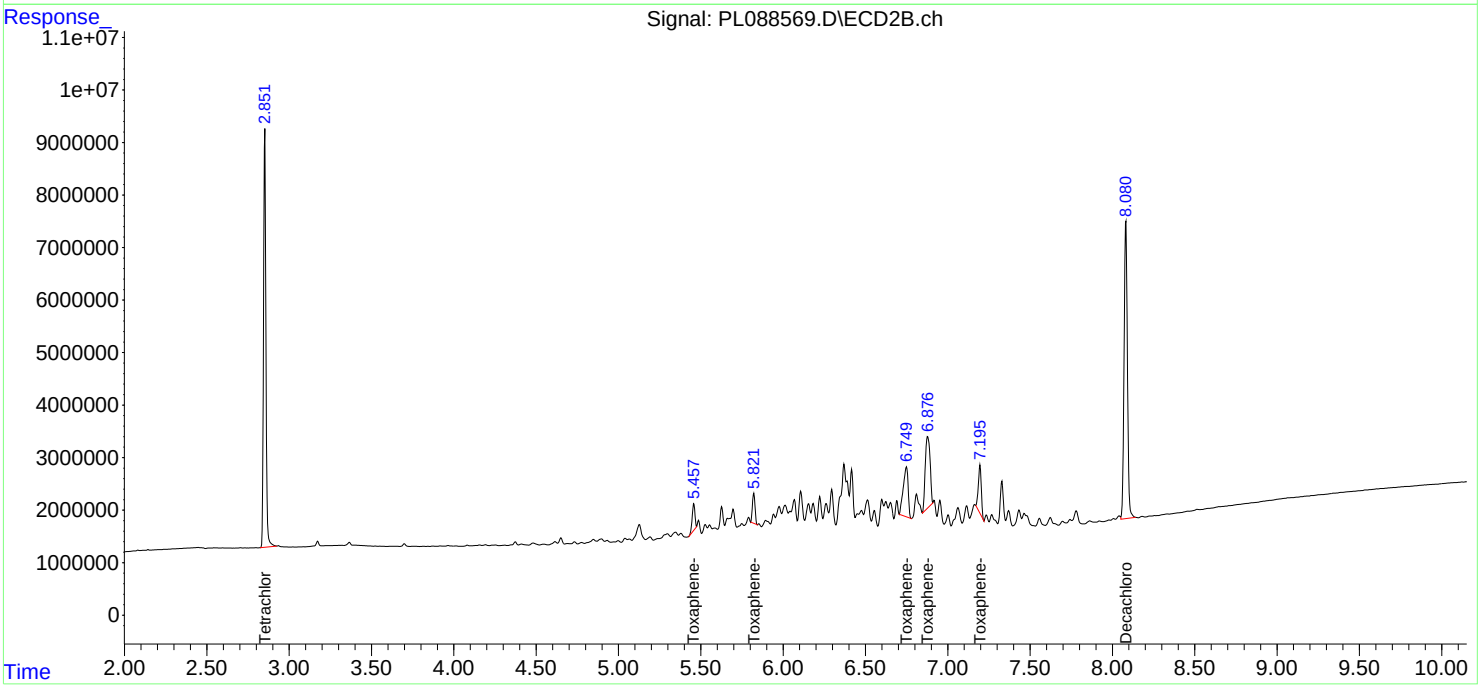
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088569.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 15:30
Operator : AR\AJ
Sample : PTOXICV500
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
ICVPL031424

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 16:01:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\LTX031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 16:00:44 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : Rtx-CLPesticide 1 Signal #2 Phase: Rtx-CLPesticide 1
Signal #1 Info : 30M x 0.32mm x0.3 Signal #2 Info : 30M x 0.32mm x 0.25µm





CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Continuing Calib Date: 03/14/2024 **Initial Calibration Date(s):** 03/13/2024 03/13/2024

Continuing Calib Time: 16:44 **Initial Calibration Time(s):** 11:35 12:30

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.30	9.30	9.20	9.40	0.00
Tetrachloro-m-xylene	3.63	3.63	3.53	3.73	0.00
alpha-BHC	4.10	4.10	4.00	4.20	0.00
beta-BHC	4.64	4.64	4.54	4.74	0.00
delta-BHC	4.89	4.89	4.79	4.99	0.00
gamma-BHC (Lindane)	4.44	4.44	4.34	4.54	0.00
Heptachlor	5.04	5.04	4.94	5.14	0.00
Aldrin	5.38	5.39	5.29	5.49	0.01
Heptachlor epoxide	5.82	5.82	5.72	5.92	0.00
Endosulfan I	6.21	6.21	6.11	6.31	0.00
Dieldrin	6.49	6.49	6.39	6.59	0.00
4,4'-DDE	6.33	6.33	6.23	6.43	0.00
Endrin	6.72	6.72	6.62	6.82	0.00
Endosulfan II	6.94	6.94	6.84	7.04	0.00
4,4'-DDD	6.85	6.85	6.75	6.95	0.00
Endosulfan sulfate	7.31	7.31	7.21	7.41	0.00
4,4'-DDT	7.17	7.17	7.07	7.27	0.00
Methoxychlor	7.65	7.65	7.55	7.75	0.00
Endrin ketone	7.80	7.80	7.70	7.90	0.00
Endrin aldehyde	7.07	7.07	6.97	7.17	0.00
alpha-Chlordane	6.16	6.16	6.06	6.26	0.00
gamma-Chlordane	6.07	6.08	5.98	6.18	0.01

Raw Data: **PL088608.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Continuing Calib Date: 03/14/2024 **Initial Calibration Date(s):** 03/13/2024 03/13/2024

Continuing Calib Time: 16:44 **Initial Calibration Time(s):** 11:35 12:30

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	8.08	8.08	7.98	8.18	0.00
Tetrachloro-m-xylene	2.85	2.85	2.75	2.95	0.00
alpha-BHC	3.37	3.37	3.27	3.47	0.00
beta-BHC	4.01	4.01	3.91	4.11	0.00
delta-BHC	4.24	4.24	4.14	4.34	0.00
gamma-BHC (Lindane)	3.70	3.70	3.60	3.80	0.00
Heptachlor	4.05	4.05	3.95	4.15	0.00
Aldrin	4.34	4.34	4.24	4.44	0.00
Heptachlor epoxide	4.85	4.85	4.75	4.95	0.00
Endosulfan I	5.22	5.22	5.12	5.32	0.00
Dieldrin	5.49	5.49	5.39	5.59	0.00
4,4'-DDE	5.36	5.36	5.26	5.46	0.00
Endrin	5.77	5.77	5.67	5.87	0.00
Endosulfan II	6.07	6.07	5.97	6.17	0.00
4,4'-DDD	5.92	5.92	5.82	6.02	0.00
Endosulfan sulfate	6.48	6.48	6.38	6.58	0.00
4,4'-DDT	6.18	6.18	6.08	6.28	0.00
Methoxychlor	6.76	6.76	6.66	6.86	0.00
Endrin ketone	6.99	6.99	6.89	7.09	0.00
Endrin aldehyde	6.25	6.25	6.15	6.35	0.00
alpha-Chlordane	5.17	5.17	5.07	5.27	0.00
gamma-Chlordane	5.10	5.10	5.00	5.20	0.00

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 03/13/2024 03/13/2024

Client Sample No.: CCAL01 **Date Analyzed:** 03/14/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL088608.D **Time Analyzed:** 16:44

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.852	6.754	6.954	50.080	50.000	0.2
4,4'-DDE	6.331	6.232	6.432	51.720	50.000	3.4
4,4'-DDT	7.172	7.073	7.273	48.630	50.000	-2.7
Aldrin	5.384	5.285	5.485	52.000	50.000	4.0
alpha-BHC	4.099	3.999	4.199	52.830	50.000	5.7
alpha-Chlordane	6.156	6.057	6.257	52.140	50.000	4.3
beta-BHC	4.635	4.535	4.735	50.330	50.000	0.7
Decachlorobiphenyl	9.302	9.203	9.403	47.210	50.000	-5.6
delta-BHC	4.887	4.787	4.987	51.410	50.000	2.8
Dieldrin	6.486	6.387	6.587	51.700	50.000	3.4
Endosulfan I	6.207	6.107	6.307	51.370	50.000	2.7
Endosulfan II	6.939	6.840	7.040	51.100	50.000	2.2
Endosulfan sulfate	7.307	7.209	7.409	50.780	50.000	1.6
Endrin	6.719	6.619	6.819	52.020	50.000	4.0
Endrin aldehyde	7.069	6.971	7.171	51.580	50.000	3.2
Endrin ketone	7.799	7.700	7.900	51.420	50.000	2.8
gamma-BHC (Lindane)	4.437	4.338	4.538	52.630	50.000	5.3
gamma-Chlordane	6.074	5.976	6.176	51.780	50.000	3.6
Heptachlor	5.037	4.938	5.138	50.210	50.000	0.4
Heptachlor epoxide	5.816	5.717	5.917	52.220	50.000	4.4
Methoxychlor	7.652	7.553	7.753	46.980	50.000	-6.0
Tetrachloro-m-xylene	3.634	3.534	3.734	51.830	50.000	3.7

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 03/13/2024 03/13/2024

Client Sample No.: CCAL01 **Date Analyzed:** 03/14/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL088608.D **Time Analyzed:** 16:44

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.922	5.823	6.023	50.450	50.000	0.9
4,4'-DDE	5.360	5.261	5.461	50.660	50.000	1.3
4,4'-DDT	6.177	6.078	6.278	47.090	50.000	-5.8
Aldrin	4.337	4.238	4.438	50.910	50.000	1.8
alpha-BHC	3.367	3.267	3.467	51.580	50.000	3.2
alpha-Chlordane	5.167	5.068	5.268	49.860	50.000	-0.3
beta-BHC	4.005	3.906	4.106	49.980	50.000	0.0
Decachlorobiphenyl	8.081	7.982	8.182	47.840	50.000	-4.3
delta-BHC	4.240	4.141	4.341	51.760	50.000	3.5
Dieldrin	5.493	5.393	5.593	50.560	50.000	1.1
Endosulfan I	5.223	5.124	5.324	49.640	50.000	-0.7
Endosulfan II	6.069	5.970	6.170	49.300	50.000	-1.4
Endosulfan sulfate	6.477	6.378	6.578	49.480	50.000	-1.0
Endrin	5.772	5.673	5.873	50.370	50.000	0.7
Endrin aldehyde	6.252	6.152	6.352	50.580	50.000	1.2
Endrin ketone	6.990	6.890	7.090	49.710	50.000	-0.6
gamma-BHC (Lindane)	3.703	3.604	3.804	51.570	50.000	3.1
gamma-Chlordane	5.102	5.003	5.203	50.020	50.000	0.0
Heptachlor	4.052	3.952	4.152	49.580	50.000	-0.8
Heptachlor epoxide	4.848	4.749	4.949	50.160	50.000	0.3
Methoxychlor	6.761	6.660	6.860	45.470	50.000	-9.1
Tetrachloro-m-xylene	2.852	2.752	2.952	51.370	50.000	2.7

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088608.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 16:44
Operator : AR\AJ
Sample : PSTDCCC050
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDCCC050

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:20:06 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	137.4E6	68456644	51.831	51.365
28)	SA Decachlor...	9.302	8.081	116.7E6	64867600	47.210	47.840
	Target Compounds						
2)	A alpha-BHC	4.099	3.367	210.9E6	103.7E6	52.832	51.585
3)	MA gamma-BHC...	4.437	3.703	204.1E6	98970094	52.626	51.571
4)	MA Heptachlor	5.037	4.052	190.7E6	89225083	50.210	49.577
5)	MB Aldrin	5.384	4.337	190.6E6	92007007	52.001	50.915
6)	B beta-BHC	4.635	4.005	89258974	42846288	50.331	49.982
7)	B delta-BHC	4.887	4.240	207.1E6	99029079	51.414	51.764
8)	B Heptachlo...	5.816	4.848	179.4E6	82480881	52.223	50.156
9)	A Endosulfan I	6.207	5.223	157.0E6	74620445	51.373	49.640
10)	B gamma-Chl...	6.074	5.102	172.5E6	82843824	51.776m	50.017
11)	B alpha-Chl...	6.156	5.167	173.3E6	82766059	52.143	49.861
12)	B 4,4'-DDE	6.331	5.360	154.5E6	73890286	51.724	50.659
13)	MA Dieldrin	6.486	5.493	167.7E6	82110996	51.702	50.556
14)	MA Endrin	6.719	5.772	142.2E6	72609659	52.023	50.373
15)	B Endosulfa...	6.939	6.069	146.4E6	70894235	51.104	49.304
16)	A 4,4'-DDD	6.852	5.922	127.5E6	62834284	50.083m	50.454
17)	MA 4,4'-DDT	7.172	6.177	129.6E6	63202097	48.626	47.089
18)	B Endrin al...	7.069	6.252	107.7E6	53003781	51.584m	50.579
19)	B Endosulfa...	7.307	6.477	140.2E6	68654431	50.777	49.483
20)	A Methoxychlor	7.652	6.761	70776333	36467519	46.980	45.467
21)	B Endrin ke...	7.799	6.990	152.0E6	82050817	51.422	49.707
22)	Mirex	8.280	7.174	117.6E6	64804185	50.159	48.059m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sample Results: **PL088608.D**

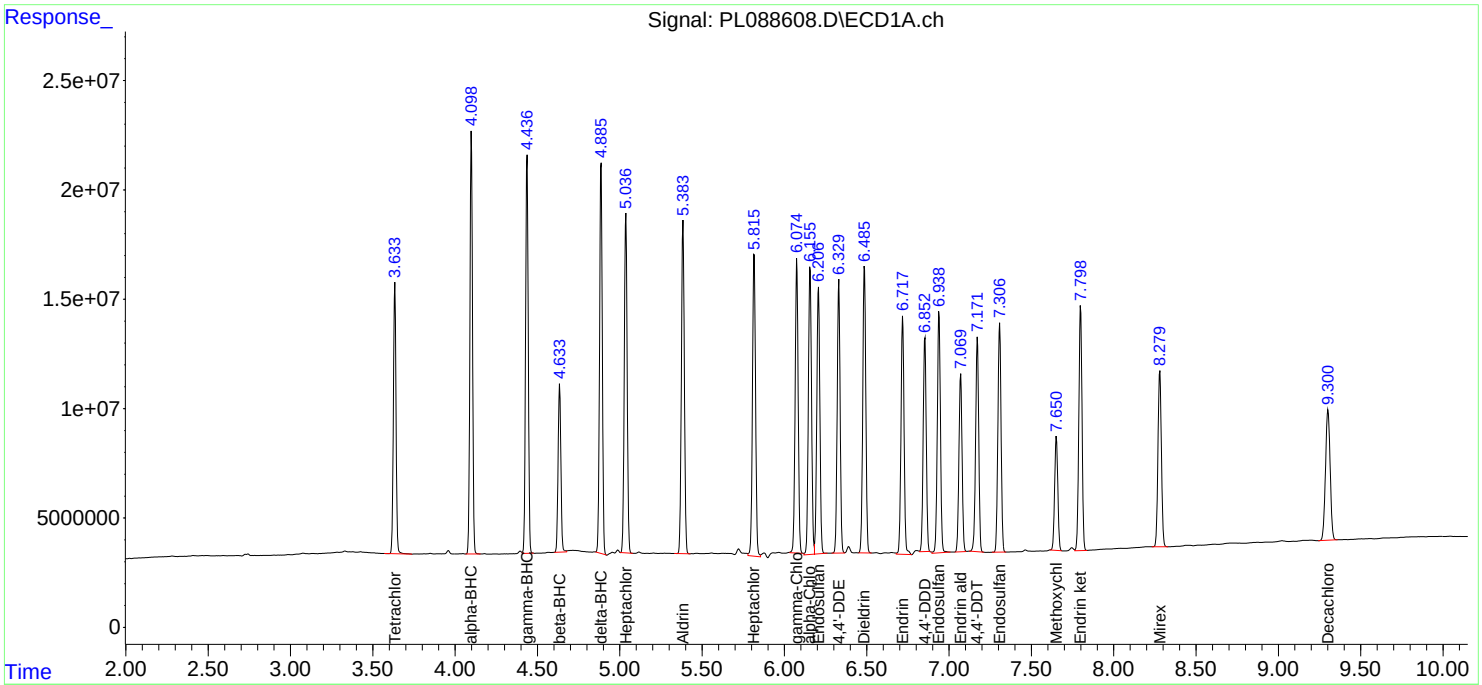
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088608.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 16:44
Operator : AR\AJ
Sample : PSTDCCC050
Misc :
ALS Vial : 4 Sample Multiplier: 1

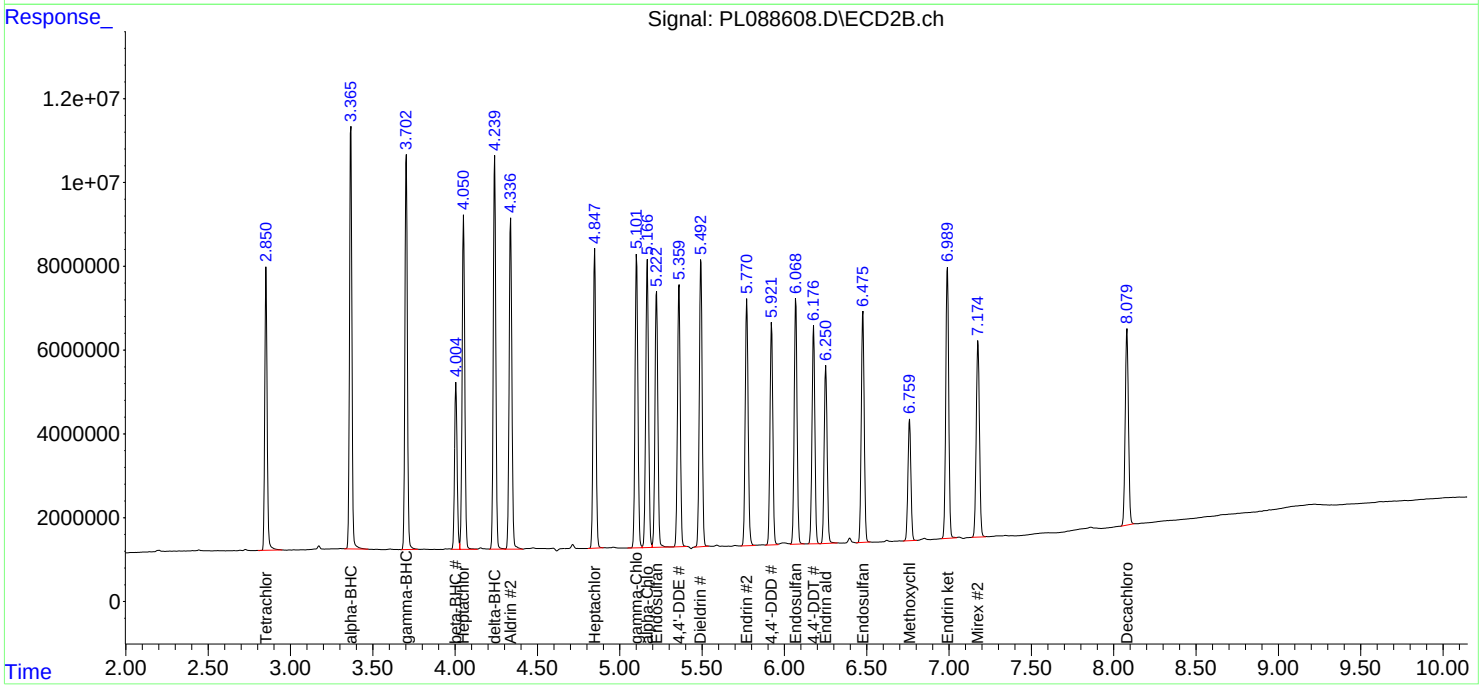
Instrument :
ECD_L
ClientSampleId :
PSTDCCC050

Manual Integrations APPROVED
Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:20:06 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Raw Data: **PL088623.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Continuing Calib Date: 03/14/2024 **Initial Calibration Date(s):** 03/13/2024 03/13/2024

Continuing Calib Time: 20:11 **Initial Calibration Time(s):** 11:35 12:30

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.30	9.30	9.20	9.40	0.00
Tetrachloro-m-xylene	3.63	3.63	3.53	3.73	0.00
alpha-BHC	4.10	4.10	4.00	4.20	0.00
beta-BHC	4.63	4.64	4.54	4.74	0.01
delta-BHC	4.89	4.89	4.79	4.99	0.00
gamma-BHC (Lindane)	4.44	4.44	4.34	4.54	0.00
Heptachlor	5.04	5.04	4.94	5.14	0.00
Aldrin	5.39	5.39	5.29	5.49	0.00
Heptachlor epoxide	5.82	5.82	5.72	5.92	0.00
Endosulfan I	6.21	6.21	6.11	6.31	0.00
Dieldrin	6.49	6.49	6.39	6.59	0.00
4,4'-DDE	6.33	6.33	6.23	6.43	0.00
Endrin	6.72	6.72	6.62	6.82	0.00
Endosulfan II	6.94	6.94	6.84	7.04	0.00
4,4'-DDD	6.85	6.85	6.75	6.95	0.00
Endosulfan sulfate	7.31	7.31	7.21	7.41	0.00
4,4'-DDT	7.17	7.17	7.07	7.27	0.00
Methoxychlor	7.65	7.65	7.55	7.75	0.00
Endrin ketone	7.80	7.80	7.70	7.90	0.00
Endrin aldehyde	7.07	7.07	6.97	7.17	0.00
alpha-Chlordane	6.16	6.16	6.06	6.26	0.00
gamma-Chlordane	6.07	6.08	5.98	6.18	0.01

Raw Data: **PL088623.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Continuing Calib Date: 03/14/2024 **Initial Calibration Date(s):** 03/13/2024 03/13/2024

Continuing Calib Time: 20:11 **Initial Calibration Time(s):** 11:35 12:30

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	8.08	8.08	7.98	8.18	0.00
Tetrachloro-m-xylene	2.85	2.85	2.75	2.95	0.00
alpha-BHC	3.37	3.37	3.27	3.47	0.00
beta-BHC	4.00	4.01	3.91	4.11	0.01
delta-BHC	4.24	4.24	4.14	4.34	0.00
gamma-BHC (Lindane)	3.70	3.70	3.60	3.80	0.00
Heptachlor	4.05	4.05	3.95	4.15	0.00
Aldrin	4.34	4.34	4.24	4.44	0.00
Heptachlor epoxide	4.85	4.85	4.75	4.95	0.00
Endosulfan I	5.22	5.22	5.12	5.32	0.00
Dieldrin	5.49	5.49	5.39	5.59	0.00
4,4'-DDE	5.36	5.36	5.26	5.46	0.00
Endrin	5.77	5.77	5.67	5.87	0.00
Endosulfan II	6.07	6.07	5.97	6.17	0.00
4,4'-DDD	5.92	5.92	5.82	6.02	0.00
Endosulfan sulfate	6.48	6.48	6.38	6.58	0.00
4,4'-DDT	6.18	6.18	6.08	6.28	0.00
Methoxychlor	6.76	6.76	6.66	6.86	0.00
Endrin ketone	6.99	6.99	6.89	7.09	0.00
Endrin aldehyde	6.25	6.25	6.15	6.35	0.00
alpha-Chlordane	5.17	5.17	5.07	5.27	0.00
gamma-Chlordane	5.10	5.10	5.00	5.20	0.00

Raw Data: **PL088623.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 03/13/2024 03/13/2024

Client Sample No.: CCAL02 **Date Analyzed:** 03/14/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL088623.D **Time Analyzed:** 20:11

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	6.853	6.754	6.954	52.650	50.000	5.3
4,4'-DDE	6.330	6.232	6.432	52.910	50.000	5.8
4,4'-DDT	7.171	7.073	7.273	50.310	50.000	0.6
Aldrin	5.385	5.285	5.485	53.160	50.000	6.3
alpha-BHC	4.099	3.999	4.199	53.900	50.000	7.8
alpha-Chlordane	6.156	6.057	6.257	53.130	50.000	6.3
beta-BHC	4.634	4.535	4.735	51.690	50.000	3.4
Decachlorobiphenyl	9.300	9.203	9.403	48.280	50.000	-3.4
delta-BHC	4.886	4.787	4.987	52.950	50.000	5.9
Dieldrin	6.485	6.387	6.587	52.950	50.000	5.9
Endosulfan I	6.207	6.107	6.307	52.480	50.000	5.0
Endosulfan II	6.938	6.840	7.040	52.350	50.000	4.7
Endosulfan sulfate	7.306	7.209	7.409	52.210	50.000	4.4
Endrin	6.718	6.619	6.819	52.100	50.000	4.2
Endrin aldehyde	7.069	6.971	7.171	52.960	50.000	5.9
Endrin ketone	7.798	7.700	7.900	53.150	50.000	6.3
gamma-BHC (Lindane)	4.437	4.338	4.538	53.610	50.000	7.2
gamma-Chlordane	6.073	5.976	6.176	52.950	50.000	5.9
Heptachlor	5.037	4.938	5.138	51.940	50.000	3.9
Heptachlor epoxide	5.816	5.717	5.917	52.610	50.000	5.2
Methoxychlor	7.651	7.553	7.753	49.040	50.000	-1.9
Tetrachloro-m-xylene	3.634	3.534	3.734	52.690	50.000	5.4

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 03/13/2024 03/13/2024

Client Sample No.: CCAL02 **Date Analyzed:** 03/14/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL088623.D **Time Analyzed:** 20:11

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
4,4'-DDD	5.921	5.823	6.023	52.580	50.000	5.2
4,4'-DDE	5.360	5.261	5.461	52.920	50.000	5.8
4,4'-DDT	6.176	6.078	6.278	49.460	50.000	-1.1
Aldrin	4.337	4.238	4.438	52.920	50.000	5.8
alpha-BHC	3.366	3.267	3.467	53.060	50.000	6.1
alpha-Chlordane	5.166	5.068	5.268	51.810	50.000	3.6
beta-BHC	4.004	3.906	4.106	51.750	50.000	3.5
Decachlorobiphenyl	8.080	7.982	8.182	49.710	50.000	-0.6
delta-BHC	4.239	4.141	4.341	53.870	50.000	7.7
Dieldrin	5.492	5.393	5.593	52.350	50.000	4.7
Endosulfan I	5.223	5.124	5.324	51.600	50.000	3.2
Endosulfan II	6.069	5.970	6.170	51.280	50.000	2.6
Endosulfan sulfate	6.477	6.378	6.578	51.710	50.000	3.4
Endrin	5.771	5.673	5.873	51.530	50.000	3.1
Endrin aldehyde	6.251	6.152	6.352	52.930	50.000	5.9
Endrin ketone	6.990	6.890	7.090	52.040	50.000	4.1
gamma-BHC (Lindane)	3.703	3.604	3.804	53.460	50.000	6.9
gamma-Chlordane	5.101	5.003	5.203	52.000	50.000	4.0
Heptachlor	4.051	3.952	4.152	52.160	50.000	4.3
Heptachlor epoxide	4.847	4.749	4.949	52.200	50.000	4.4
Methoxychlor	6.760	6.660	6.860	48.000	50.000	-4.0
Tetrachloro-m-xylene	2.852	2.752	2.952	52.980	50.000	6.0

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088623.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 20:11
Operator : AR\AJ
Sample : PSTDCCC050
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PSTDCCC050

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 15 00:21:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	139.6E6	70614522	52.689	52.984
28)	SA Decachlor...	9.300	8.080	119.3E6	67408697	48.278	49.714
	Target Compounds						
2)	A alpha-BHC	4.099	3.366	215.2E6	106.6E6	53.904	53.057
3)	MA gamma-BHC...	4.437	3.703	207.9E6	102.6E6	53.614	53.461
4)	MA Heptachlor	5.037	4.051	197.2E6	93871644	51.937	52.159
5)	MB Aldrin	5.385	4.337	194.8E6	95625893	53.157	52.918
6)	B beta-BHC	4.634	4.004	91677402	44363676	51.695	51.752
7)	B delta-BHC	4.886	4.239	213.3E6	103.1E6	52.953	53.873
8)	B Heptachlo...	5.816	4.847	180.7E6	85834744	52.612	52.195
9)	A Endosulfan I	6.207	5.223	160.4E6	77566235	52.481	51.599
10)	B gamma-Chl...	6.073	5.101	176.4E6	86125301	52.953m	51.998
11)	B alpha-Chl...	6.156	5.166	176.6E6	85994652	53.134	51.806
12)	B 4,4'-DDE	6.330	5.360	158.1E6	77182607	52.909	52.916
13)	MA Dieldrin	6.485	5.492	171.7E6	85028732	52.947	52.353
14)	MA Endrin	6.718	5.771	142.4E6	74279891	52.104	51.532
15)	B Endosulfa...	6.938	6.069	149.9E6	73738367	52.349	51.282
16)	A 4,4'-DDD	6.853	5.921	134.1E6	65485472	52.651	52.583
17)	MA 4,4'-DDT	7.171	6.176	134.1E6	66385742	50.310	49.461
18)	B Endrin al...	7.069	6.251	110.6E6	55469081	52.956m	52.931
19)	B Endosulfa...	7.306	6.477	144.2E6	71749250	52.211	51.713
20)	A Methoxychlor	7.651	6.760	73885402	38497007	49.044	47.997
21)	B Endrin ke...	7.798	6.990	157.1E6	85904950	53.145	52.041
22)	Mirex	8.279	7.174	121.0E6	67530901	51.625	50.081m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sample Results: **PL088623.D**

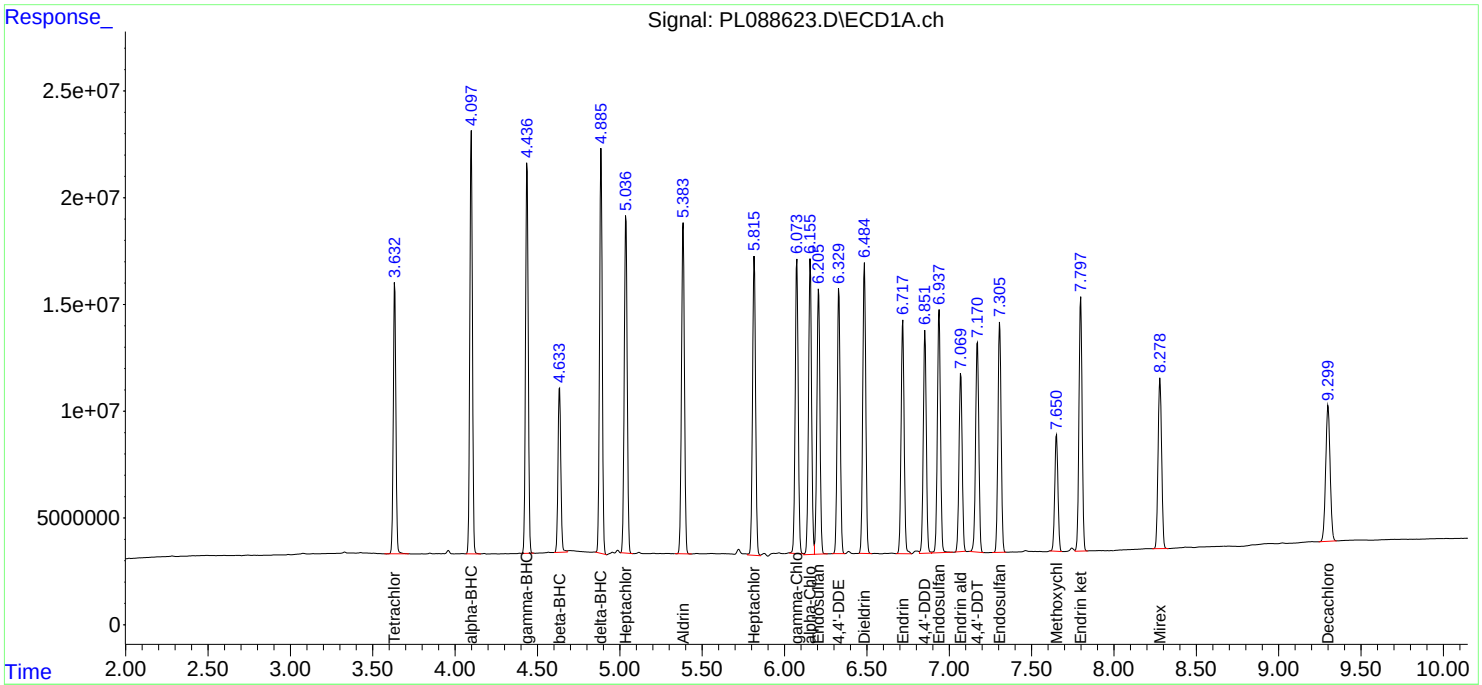
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088623.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 20:11
Operator : AR\AJ
Sample : PSTDCCC050
Misc :
ALS Vial : 4 Sample Multiplier: 1

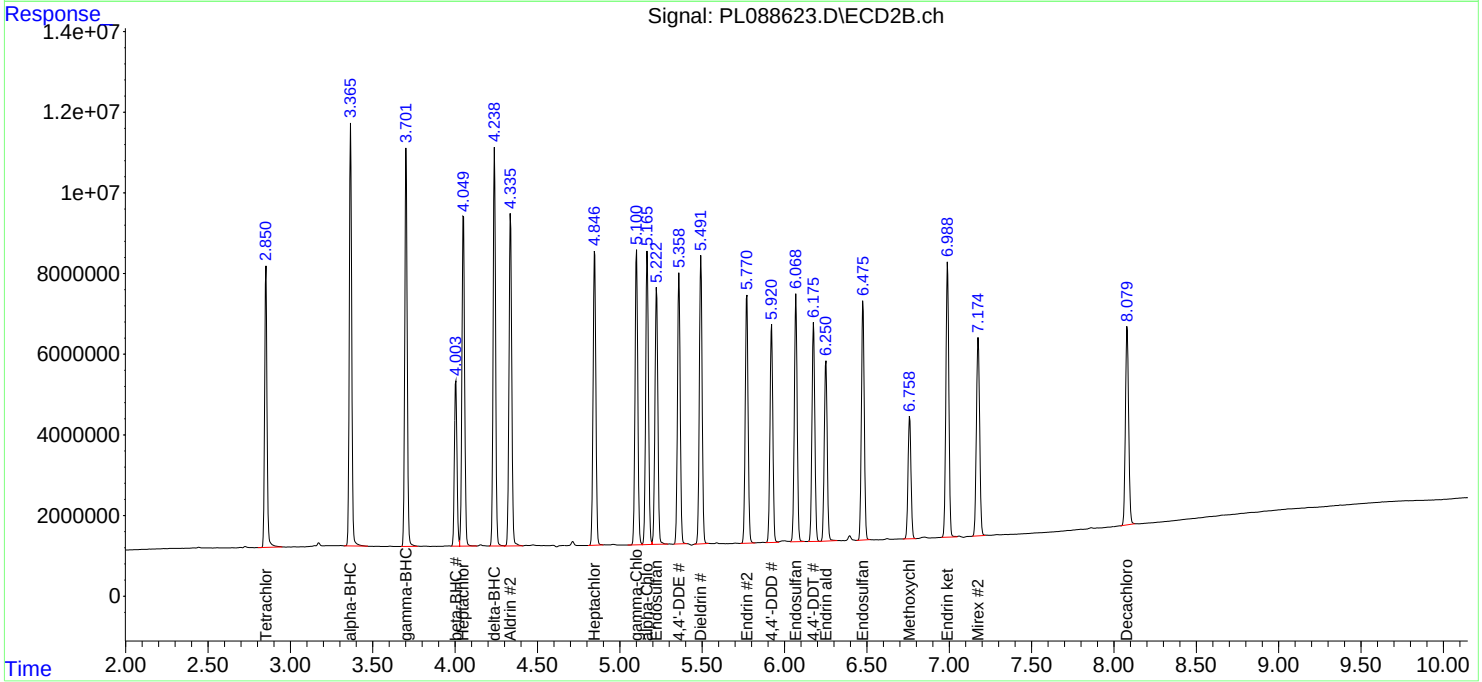
Instrument :
ECD_L
ClientSampleId :
PSTDCCC050

Manual Integrations APPROVED
Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 15 00:21:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 03/13/2024 03/13/2024

Client Sample No. (PEM): PEM - PL088550.D **Date Analyzed:** 03/13/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:08

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.300	9.200	9.400	21.690	20.000	8.5
Tetrachloro-m-xylene	3.634	3.580	3.680	20.100	20.000	0.5
alpha-BHC	4.099	4.050	4.150	9.190	10.000	-8.1
beta-BHC	4.634	4.580	4.680	10.480	10.000	4.8
gamma-BHC (Lindane)	4.437	4.390	4.490	9.290	10.000	-7.1
Endrin	6.719	6.650	6.790	46.980	50.000	-6.0
4,4'-DDT	7.173	7.100	7.240	102.990	100.000	3.0
Methoxychlor	7.654	7.580	7.720	245.930	250.000	-1.6

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 03/13/2024 03/13/2024

Client Sample No. (PEM): PEM - PL088550.D **Date Analyzed:** 03/13/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 11:08

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	8.081	7.980	8.180	21.120	20.000	5.6
Tetrachloro-m-xylene	2.852	2.800	2.900	20.140	20.000	0.7
alpha-BHC	3.366	3.320	3.420	8.990	10.000	-10.1
beta-BHC	4.005	3.950	4.060	10.630	10.000	6.3
gamma-BHC (Lindane)	3.703	3.650	3.750	8.990	10.000	-10.1
Endrin	5.773	5.700	5.840	47.930	50.000	-4.1
4,4'-DDT	6.178	6.110	6.250	106.860	100.000	6.9
Methoxychlor	6.761	6.690	6.830	237.820	250.000	-4.9

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088550.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 11:08
Operator : AR\AJ
Sample : PEM
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PEM

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/14/2024
Supervised By :Ankita Jodhani 03/14/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 16:02:24 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	53269722	26841520	20.102	20.140
28)	SA Decachlor...	9.300	8.081	53623432	28631228	21.693	21.116
	Target Compounds						
2)	A alpha-BHC	4.099	3.366	36693594	18061111	9.192	8.988
3)	MA gamma-BHC...	4.437	3.703	36043016	17259839	9.294	8.994
6)	B beta-BHC	4.634	4.005	18587688	9114539	10.481	10.632
14)	MA Endrin	6.719	5.773	128.4E6	69082460	46.982	47.926
16)	A 4,4'-DDD	6.853	5.923	715286	701614	0.281m	0.563m#
17)	MA 4,4'-DDT	7.173	6.178	274.5E6	143.4E6	102.993	106.856
18)	B Endrin al...	7.071	6.253	2272613	1902160	1.089	1.815 #
20)	A Methoxychlor	7.654	6.761	370.5E6	190.8E6	245.928	237.824
21)	B Endrin ke...	7.799	6.990	5555680	3776639	1.879	2.288

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088550.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 11:08
Operator : AR\AJ
Sample : PEM
Misc :
ALS Vial : 3 Sample Multiplier: 1

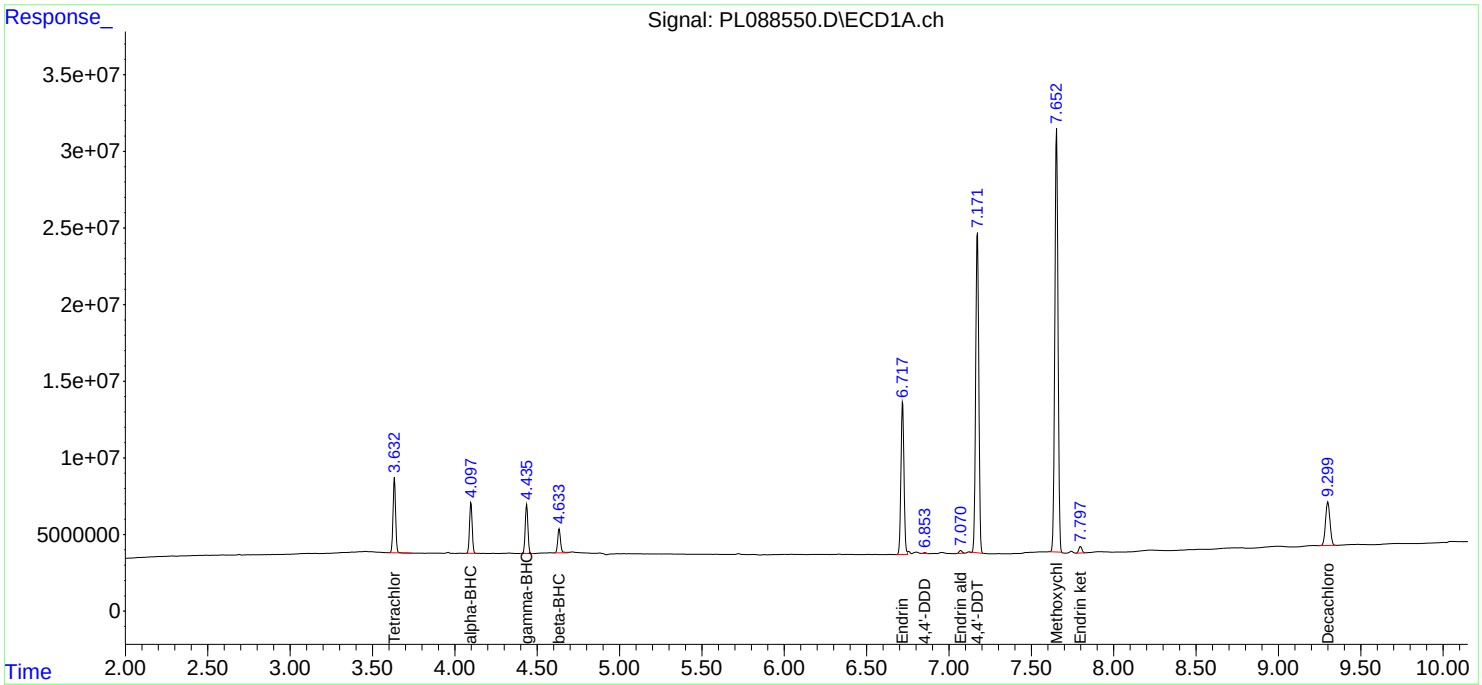
Instrument :
ECD_L
ClientSampleId :
PEM

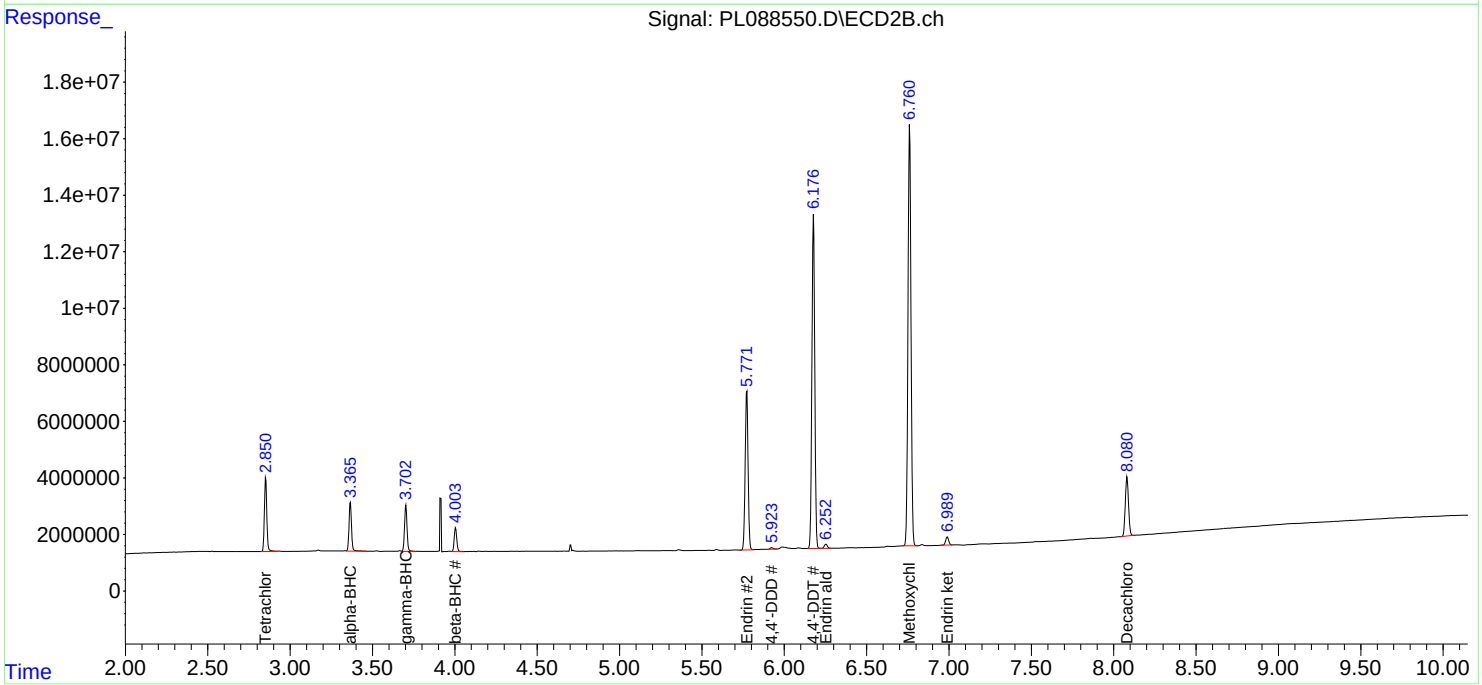
Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/14/2024
Supervised By :Ankita Jodhani 03/14/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 16:02:24 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 03/13/2024 03/13/2024

Client Sample No. (PEM): PEM - PL088607.D **Date Analyzed:** 03/14/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 16:31

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.300	9.200	9.400	21.490	20.000	7.5
Tetrachloro-m-xylene	3.634	3.580	3.680	22.310	20.000	11.6
alpha-BHC	4.098	4.050	4.150	10.230	10.000	2.3
beta-BHC	4.634	4.580	4.680	12.310	10.000	23.1
gamma-BHC (Lindane)	4.437	4.390	4.490	10.300	10.000	3.0
Endrin	6.716	6.650	6.790	50.490	50.000	1.0
4,4'-DDT	7.171	7.100	7.240	106.000	100.000	6.0
Methoxychlor	7.651	7.580	7.720	245.850	250.000	-1.7

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 03/13/2024 03/13/2024

Client Sample No. (PEM): PEM - PL088607.D **Date Analyzed:** 03/14/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 16:31

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	8.080	7.980	8.180	21.730	20.000	8.7
Tetrachloro-m-xylene	2.851	2.800	2.900	21.910	20.000	9.6
alpha-BHC	3.366	3.320	3.420	9.700	10.000	-3.0
beta-BHC	4.004	3.950	4.050	12.630	10.000	26.3
gamma-BHC (Lindane)	3.703	3.650	3.750	9.640	10.000	-3.6
Endrin	5.771	5.700	5.840	50.780	50.000	1.6
4,4'-DDT	6.177	6.110	6.250	107.710	100.000	7.7
Methoxychlor	6.760	6.690	6.830	232.260	250.000	-7.1

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088607.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 16:31
Operator : AR\AJ
Sample : PEM
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PEM

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 15 11:31:13 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.851	59123736	29206109	22.311	21.914
28)	SA Decachlor...	9.300	8.080	53123357	29459235	21.491	21.726
	Target Compounds						
2)	A alpha-BHC	4.098	3.366	40844949	19484847	10.232	9.697
3)	MA gamma-BHC...	4.437	3.703	39936258	18507160	10.298	9.644
6)	B beta-BHC	4.634	4.004	21826708	10830131	12.308	12.634
12)	B 4,4'-DDE	6.328	5.359	348959	284234	0.117m	0.195m#
14)	MA Endrin	6.716	5.771	138.0E6	73200530	50.488m	50.783
16)	A 4,4'-DDD	6.851	5.922	3684692	1762641	1.447m	1.415
17)	MA 4,4'-DDT	7.171	6.177	282.5E6	144.6E6	105.996	107.707
18)	B Endrin al...	7.069	6.252	2682412	2088314	1.285	1.993 #
20)	A Methoxychlor	7.651	6.760	370.4E6	186.3E6	245.850	232.264
21)	B Endrin ke...	7.798	6.989	7535310	4750500	2.549	2.878

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

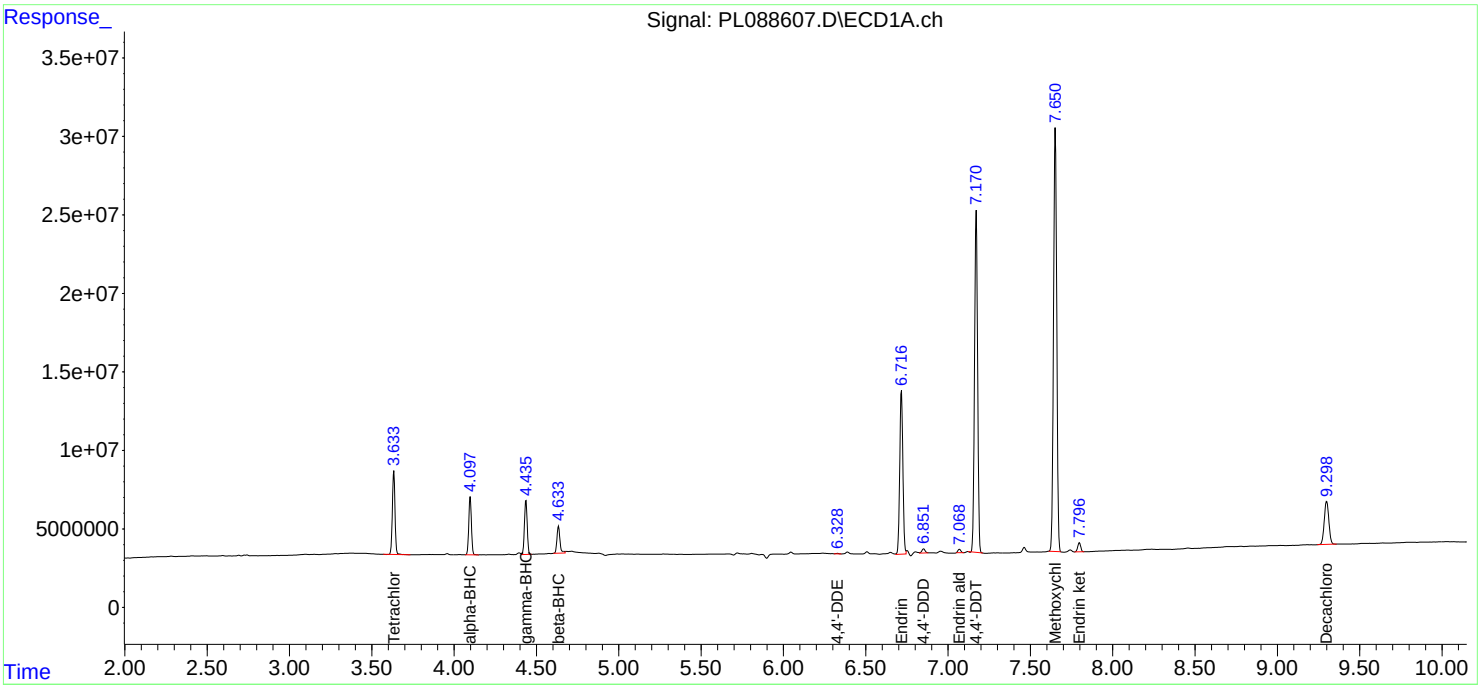
Quantitation Report (QT Reviewed)

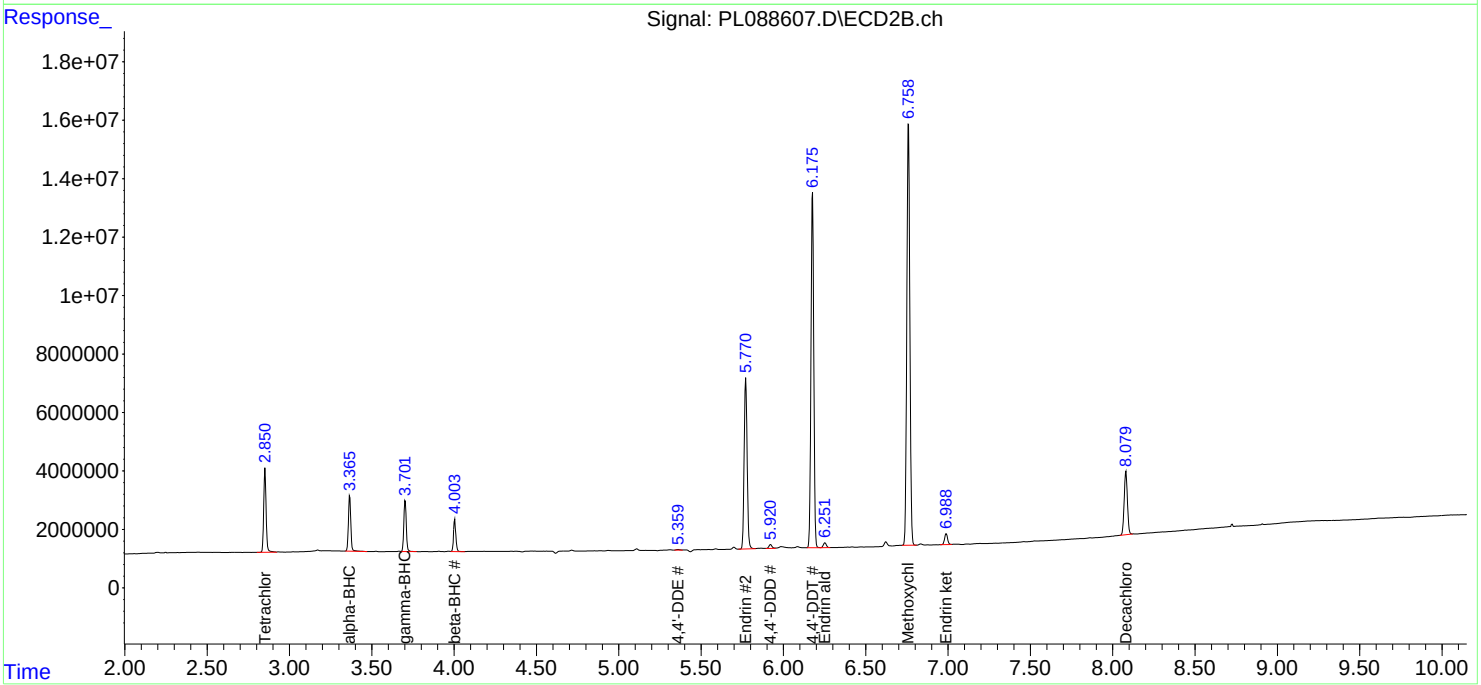
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088607.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 16:31
Operator : AR\AJ
Sample : PEM
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PEM

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 15 11:31:13 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Analytical Sequence

Client: LiRo Engineers, Inc. **SDG No.:** P1747

Project: Walter Gladwin Recreation Center, Bronx, N **Instrument ID:** ECD_L

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 03/13/2024 03/13/2024

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	03/13/2024	10:54	PL088549.D	9.30	3.63
PEM	PEM	03/13/2024	11:08	PL088550.D	9.30	3.63
RESCHK	RESCHK	03/13/2024	11:21	PL088551.D	9.30	3.63
PSTDICC100	PSTDICC100	03/13/2024	11:35	PL088552.D	9.30	3.63
PSTDICC075	PSTDICC075	03/13/2024	11:49	PL088553.D	9.30	3.63
PSTDICC050	PSTDICC050	03/13/2024	12:03	PL088554.D	9.30	3.63
PSTDICC025	PSTDICC025	03/13/2024	12:17	PL088555.D	9.30	3.63
PSTDICC005	PSTDICC005	03/13/2024	12:30	PL088556.D	9.30	3.63
PCHLORICC500	PCHLORICC500	03/13/2024	13:12	PL088559.D	9.30	3.63
PTOXICC500	PTOXICC500	03/13/2024	14:21	PL088564.D	9.30	3.63
I.BLK	I.BLK	03/14/2024	16:17	PL088606.D	9.30	3.63
PEM	PEM	03/14/2024	16:31	PL088607.D	9.30	3.63
PSTDCCC050	PSTDCCC050	03/14/2024	16:44	PL088608.D	9.30	3.63
PB159588BL	PB159588BL	03/14/2024	18:21	PL088615.D	9.30	3.63
PB159588BS	PB159588BS	03/14/2024	18:35	PL088616.D	9.30	3.63
PB159588BSD	PB159588BSD	03/14/2024	18:49	PL088617.D	9.30	3.63
MW-01	P1747-01	03/14/2024	19:02	PL088618.D	9.30	3.63
MW-01-DUP	P1747-02	03/14/2024	19:16	PL088619.D	9.30	3.63
MW-02	P1747-04	03/14/2024	19:30	PL088620.D	9.30	3.63
MW-04	P1747-05	03/14/2024	19:44	PL088621.D	9.30	3.63
I.BLK	I.BLK	03/14/2024	19:58	PL088622.D	9.30	3.63
PSTDCCC050	PSTDCCC050	03/14/2024	20:11	PL088623.D	9.30	3.63

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Analytical Sequence

Client: LiRo Engineers, Inc. **SDG No.:** P1747

Project: Walter Gladwin Recreation Center, Bronx, N **Instrument ID:** ECD_L

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 03/13/2024 03/13/2024

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	03/13/2024	10:54	PL088549.D	8.08	2.85
PEM	PEM	03/13/2024	11:08	PL088550.D	8.08	2.85
RESCHK	RESCHK	03/13/2024	11:21	PL088551.D	8.08	2.85
PSTDICC100	PSTDICC100	03/13/2024	11:35	PL088552.D	8.08	2.85
PSTDICC075	PSTDICC075	03/13/2024	11:49	PL088553.D	8.08	2.85
PSTDICC050	PSTDICC050	03/13/2024	12:03	PL088554.D	8.08	2.85
PSTDICC025	PSTDICC025	03/13/2024	12:17	PL088555.D	8.08	2.85
PSTDICC005	PSTDICC005	03/13/2024	12:30	PL088556.D	8.08	2.85
PCHLORICC500	PCHLORICC500	03/13/2024	13:12	PL088559.D	8.08	2.85
PTOXICC500	PTOXICC500	03/13/2024	14:21	PL088564.D	8.08	2.85
I.BLK	I.BLK	03/14/2024	16:17	PL088606.D	8.08	2.85
PEM	PEM	03/14/2024	16:31	PL088607.D	8.08	2.85
PSTDCCC050	PSTDCCC050	03/14/2024	16:44	PL088608.D	8.08	2.85
PB159588BL	PB159588BL	03/14/2024	18:21	PL088615.D	8.08	2.85
PB159588BS	PB159588BS	03/14/2024	18:35	PL088616.D	8.08	2.85
PB159588BSD	PB159588BSD	03/14/2024	18:49	PL088617.D	8.08	2.85
MW-01	P1747-01	03/14/2024	19:02	PL088618.D	8.08	2.85
MW-01-DUP	P1747-02	03/14/2024	19:16	PL088619.D	8.08	2.85
MW-02	P1747-04	03/14/2024	19:30	PL088620.D	8.08	2.85
MW-04	P1747-05	03/14/2024	19:44	PL088621.D	8.08	2.85
I.BLK	I.BLK	03/14/2024	19:58	PL088622.D	8.08	2.85
PSTDCCC050	PSTDCCC050	03/14/2024	20:11	PL088623.D	8.08	2.85

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB159588BS

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Lab Sample ID: PB159588BS **Date(s) Analyzed:** 03/14/2024 03/14/2024

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.94	6.89	6.99	0.50	1.5
	2	6.07	6.02	6.12	0.49	
4,4'-DDD	1	6.85	6.80	6.90	0.50	1.3
	2	5.92	5.87	5.97	0.50	
4,4'-DDT	1	7.17	7.12	7.22	0.51	4.6
	2	6.18	6.13	6.23	0.49	
Endrin aldehyde	1	7.07	7.02	7.12	0.52	0
	2	6.25	6.20	6.30	0.52	
Endosulfan sulfate	1	7.31	7.26	7.36	0.50	1.8
	2	6.48	6.43	6.53	0.49	
Methoxychlor	1	7.65	7.60	7.70	0.48	3
	2	6.76	6.71	6.81	0.47	
Endrin ketone	1	7.80	7.75	7.85	0.50	3
	2	6.99	6.94	7.04	0.49	
alpha-BHC	1	4.10	4.05	4.15	0.51	4.5
	2	3.37	3.32	3.42	0.49	
gamma-BHC (Lindane)	1	4.44	4.39	4.49	0.50	3.5
	2	3.70	3.65	3.75	0.48	
Heptachlor	1	5.04	4.99	5.09	0.51	1.8
	2	4.05	4.00	4.10	0.50	
Aldrin	1	5.38	5.33	5.43	0.49	2.8
	2	4.34	4.29	4.39	0.48	
beta-BHC	1	4.63	4.58	4.68	0.49	3.1
	2	4.01	3.96	4.06	0.48	
delta-BHC	1	4.89	4.84	4.94	0.46	2.2
	2	4.24	4.19	4.29	0.45	
Heptachlor epoxide	1	5.82	5.77	5.87	0.50	3.4
	2	4.85	4.80	4.90	0.48	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB159588BS

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Lab Sample ID: PB159588BS **Date(s) Analyzed:** 03/14/2024 03/14/2024

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan I	1	6.21	6.16	6.26	0.50	2.6
	2	5.22	5.17	5.27	0.49	
gamma-Chlordane	1	6.08	6.03	6.13	0.53	5.6
	2	5.10	5.05	5.15	0.50	
alpha-Chlordane	1	6.16	6.11	6.21	0.51	3.8
	2	5.17	5.12	5.22	0.49	
4,4'-DDE	1	6.33	6.28	6.38	0.51	1
	2	5.36	5.31	5.41	0.50	
Dieldrin	1	6.49	6.44	6.54	0.51	2.8
	2	5.49	5.44	5.54	0.49	
Endrin	1	6.72	6.67	6.77	0.50	0.5
	2	5.77	5.72	5.82	0.50	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB159588BSD

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Lab Sample ID: PB159588BSD **Date(s) Analyzed:** 03/14/2024 03/14/2024

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan II	1	6.94	6.89	6.99	0.48	2.3
	2	6.07	6.02	6.12	0.47	
4,4'-DDD	1	6.85	6.80	6.90	0.48	2.2
	2	5.92	5.87	5.97	0.47	
4,4'-DDT	1	7.17	7.12	7.22	0.49	5.7
	2	6.18	6.13	6.23	0.46	
Endrin aldehyde	1	7.07	7.02	7.12	0.50	1.1
	2	6.25	6.20	6.30	0.49	
Endosulfan sulfate	1	7.31	7.26	7.36	0.48	2.2
	2	6.48	6.43	6.53	0.47	
Methoxychlor	1	7.65	7.60	7.70	0.46	3.5
	2	6.76	6.71	6.81	0.45	
Endrin ketone	1	7.80	7.75	7.85	0.48	3.6
	2	6.99	6.94	7.04	0.46	
alpha-BHC	1	4.10	4.05	4.15	0.48	4.8
	2	3.37	3.32	3.42	0.46	
gamma-BHC (Lindane)	1	4.44	4.39	4.49	0.47	3.6
	2	3.70	3.65	3.75	0.46	
Heptachlor	1	5.04	4.99	5.09	0.49	2
	2	4.05	4.00	4.10	0.48	
Aldrin	1	5.38	5.33	5.43	0.47	3.1
	2	4.34	4.29	4.39	0.46	
beta-BHC	1	4.63	4.58	4.68	0.47	3
	2	4.01	3.96	4.06	0.46	
delta-BHC	1	4.89	4.84	4.94	0.44	2.3
	2	4.24	4.19	4.29	0.43	
Heptachlor epoxide	1	5.82	5.77	5.87	0.48	4.1
	2	4.85	4.80	4.90	0.46	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB159588BSD

Contract: LIRO01

Lab Code: CHEM **Case No.:** P1747 **SAS No.:** P1747 **SDG NO.:** P1747

Lab Sample ID: PB159588BSD **Date(s) Analyzed:** 03/14/2024 03/14/2024

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Endosulfan I	1	6.21	6.16	6.26	0.48	3.3
	2	5.22	5.17	5.27	0.47	
gamma-Chlordane	1	6.08	6.03	6.13	0.50	6
	2	5.10	5.05	5.15	0.47	
alpha-Chlordane	1	6.16	6.11	6.21	0.49	4.5
	2	5.17	5.12	5.22	0.47	
4,4'-DDE	1	6.33	6.28	6.38	0.48	1.5
	2	5.36	5.31	5.41	0.48	
Dieldrin	1	6.49	6.44	6.54	0.49	3.7
	2	5.49	5.44	5.54	0.47	
Endrin	1	6.72	6.67	6.77	0.48	0.4
	2	5.77	5.72	5.82	0.48	

CHEMTECH

QC SAMPLE DATA

Raw Data: **PL088615.D**

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	PB159588BL	SDG No.:	P1747
Lab Sample ID:	PB159588BL	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088615.D	1	03/14/24 10:51	03/14/24 18:21	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.9		27 - 142	105%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.1		35 - 148	111%	SPK: 20

Raw Data: **PL088615.D**

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	PB159588BL	SDG No.:	P1747
Lab Sample ID:	PB159588BL	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088615.D	1	03/14/24 10:51	03/14/24 18:21	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Sample Results: **PL088615.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088615.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 18:21
Operator : AR\AJ
Sample : PB159588BL
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PB159588BL

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:24:48 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.633	2.852	58586979	27930539	22.109	20.957
28)	SA Decachlor...	9.301	8.080	48790466	28376612	19.738	20.928
	Target Compounds						

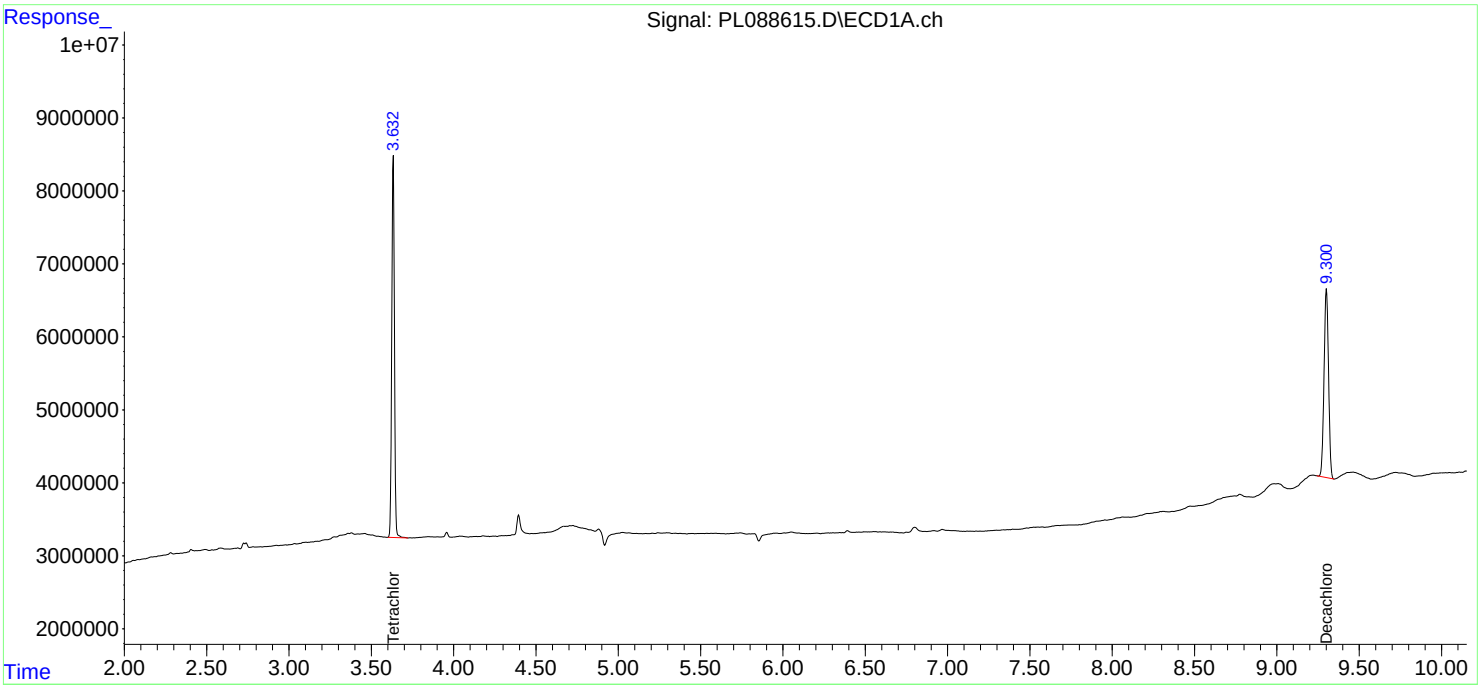
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

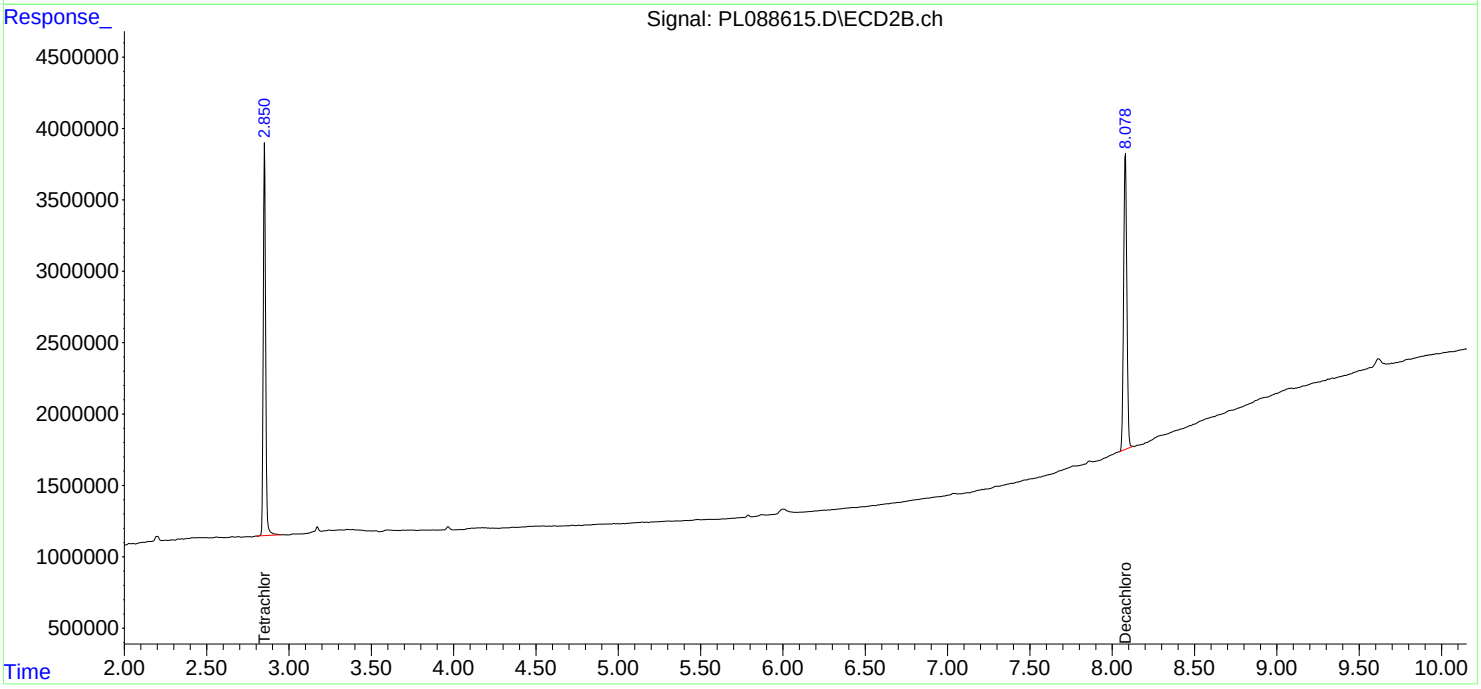
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088615.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 18:21
Operator : AR\AJ
Sample : PB159588BL
Misc :
ALS Vial : 24 Sample Multiplier: 1

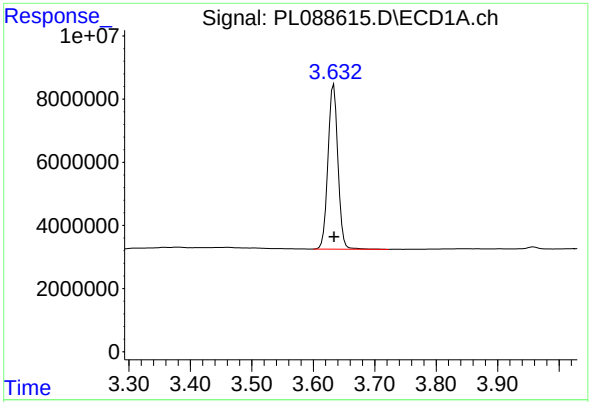
Instrument :
ECD_L
ClientSampleId :
PB159588BL

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:24:48 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm



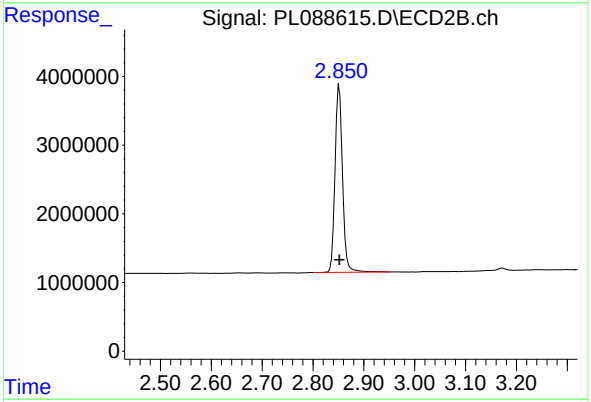




#1 Tetrachloro-m-xylene

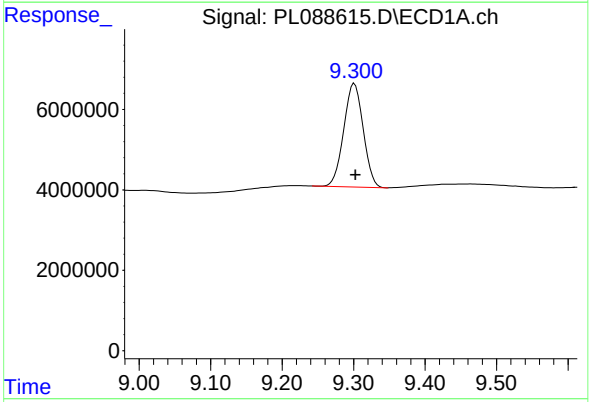
R.T.: 3.633 min
Delta R.T.: 0.000 min
Response: 58586979
Conc: 22.11 ng/ml

Instrument :
ECD_L
ClientSampleId :
PB159588BL



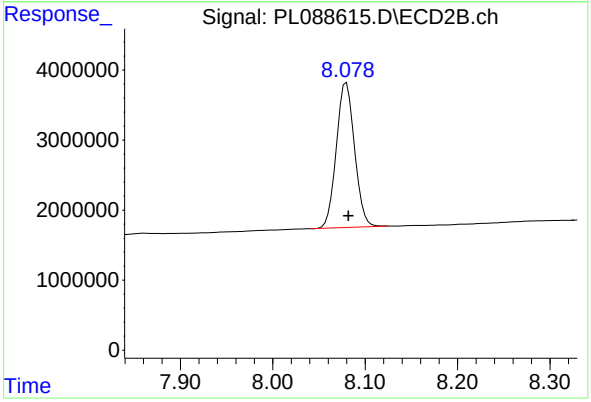
#1 Tetrachloro-m-xylene

R.T.: 2.852 min
Delta R.T.: 0.000 min
Response: 27930539
Conc: 20.96 ng/ml



#28 Decachlorobiphenyl

R.T.: 9.301 min
Delta R.T.: -0.001 min
Response: 48790466
Conc: 19.74 ng/ml



#28 Decachlorobiphenyl

R.T.: 8.080 min
Delta R.T.: -0.002 min
Response: 28376612
Conc: 20.93 ng/ml

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/13/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	PIBLK-PL088549.D	SDG No.:	P1747
Lab Sample ID:	I.BLK-PL088549.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088549.D	1		03/13/24	pl031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.7		27 - 142	98%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.7		35 - 148	98%	SPK: 20

Raw Data: **PL088549.D**

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/13/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/13/24
Client Sample ID:	PIBLK-PL088549.D	SDG No.:	P1747
Lab Sample ID:	I.BLK-PL088549.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088549.D	1		03/13/24	pl031424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088549.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 10:54
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 16:02:04 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	51840911	26219867	19.563	19.674
28)	SA Decachlor...	9.302	8.082	46746051	26684426	18.911	19.680
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

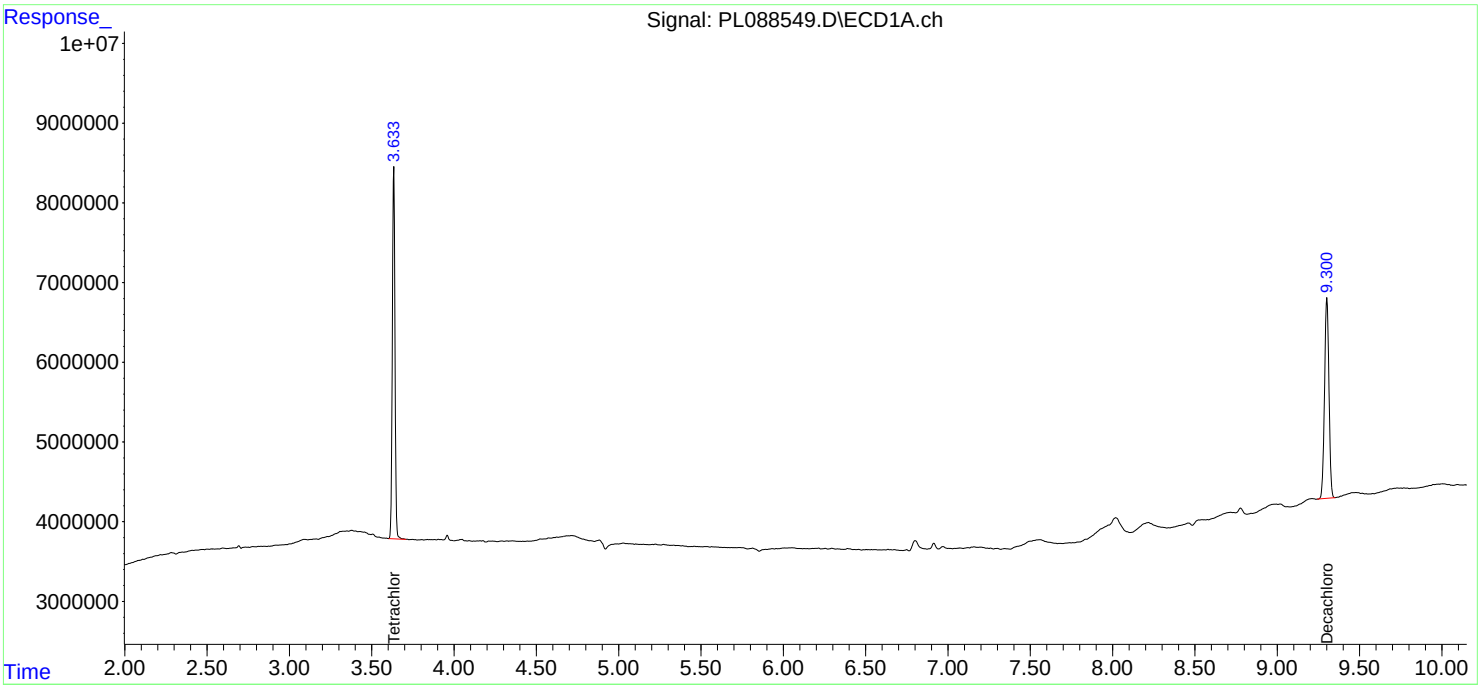
Sample Results: **PL088549.D**

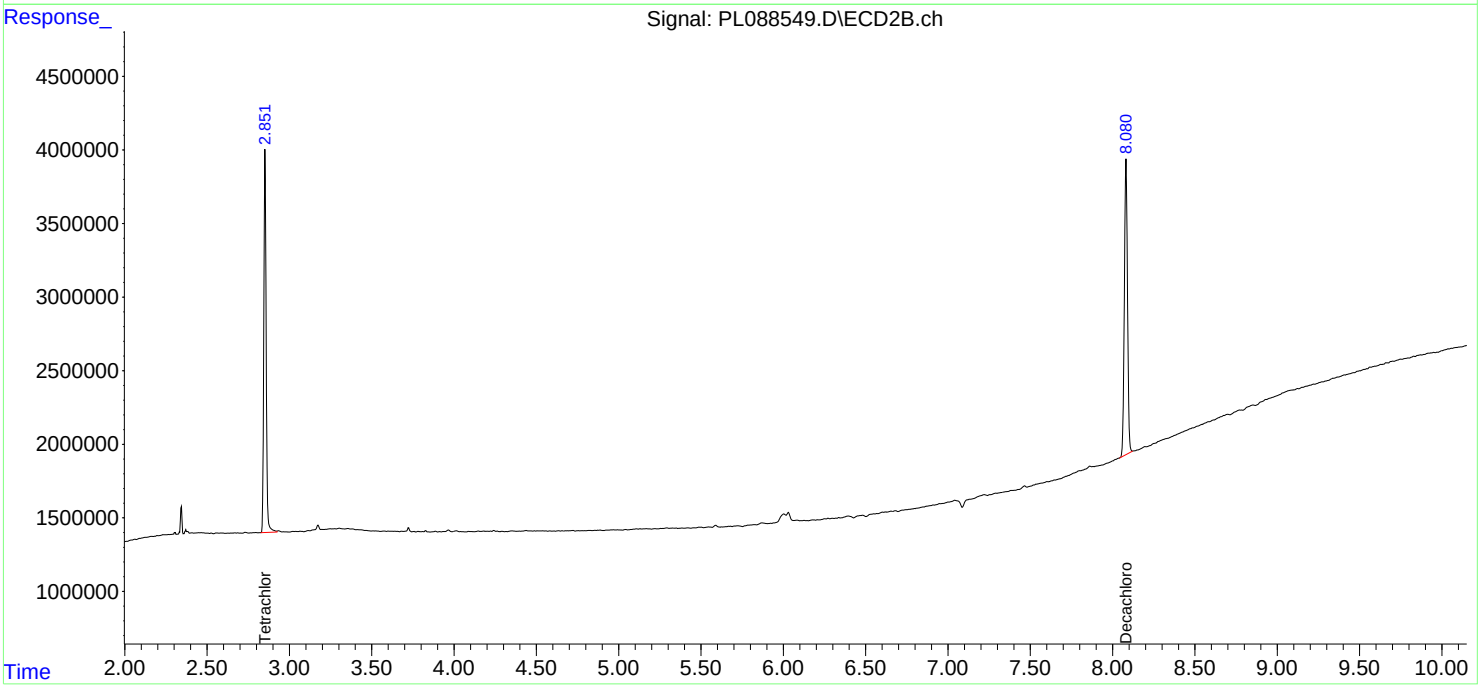
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031424\
Data File : PL088549.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Mar 2024 10:54
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

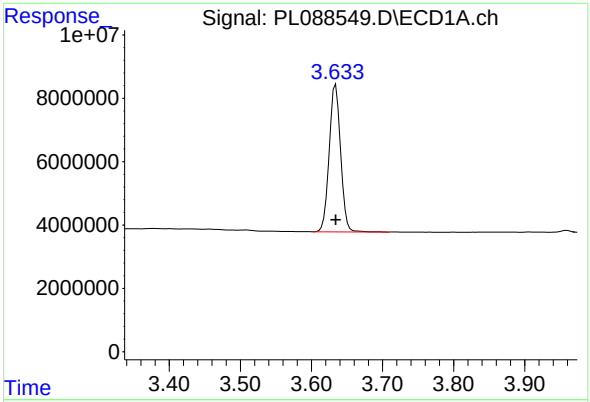
Instrument :
ECD_L
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 13 16:02:04 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm



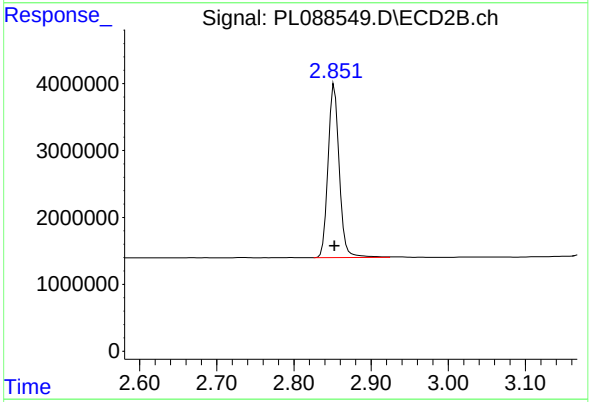




#1 Tetrachloro-m-xylene

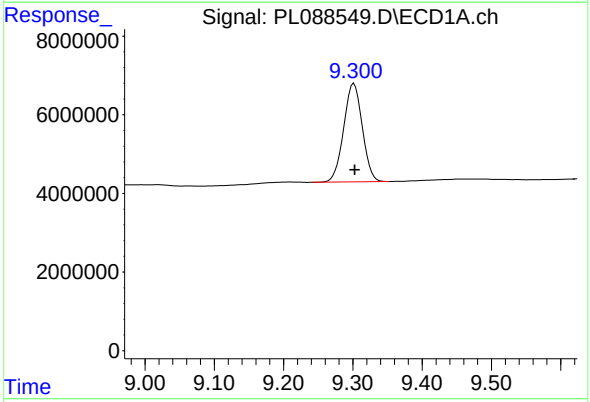
R.T.: 3.634 min
Delta R.T.: 0.000 min
Response: 51840911
Conc: 19.56 ng/ml

Instrument :
ECD_L
ClientSampleId :
I.BLK



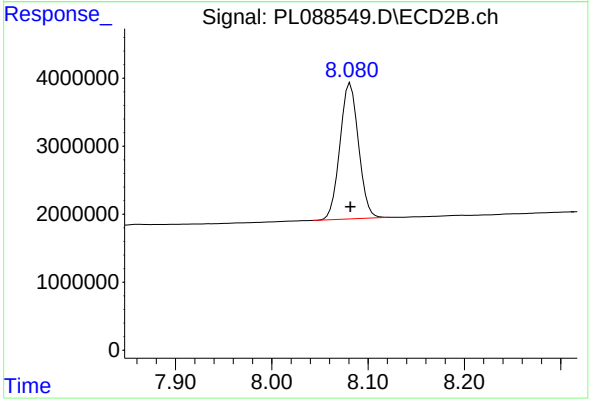
#1 Tetrachloro-m-xylene

R.T.: 2.852 min
Delta R.T.: 0.000 min
Response: 26219867
Conc: 19.67 ng/ml



#28 Decachlorobiphenyl

R.T.: 9.302 min
Delta R.T.: -0.001 min
Response: 46746051
Conc: 18.91 ng/ml



#28 Decachlorobiphenyl

R.T.: 8.082 min
Delta R.T.: 0.000 min
Response: 26684426
Conc: 19.68 ng/ml

Raw Data: **PL088606.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/14/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/14/24
Client Sample ID:	PIBLK-PL088606.D	SDG No.:	P1747
Lab Sample ID:	I.BLK-PL088606.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088606.D	1		03/14/24	PL031524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.4		27 - 142	107%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.1		35 - 148	110%	SPK: 20

Raw Data: **PL088606.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/14/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/14/24
Client Sample ID:	PIBLK-PL088606.D	SDG No.:	P1747
Lab Sample ID:	I.BLK-PL088606.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088606.D	1		03/14/24	PL031524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Sample Results: **PL088606.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088606.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 16:17
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:18:46 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.634	2.852	58537891	28866477	22.090	21.659
28)	SA Decachlor...	9.301	8.080	52477428	28983688	21.229	21.376
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

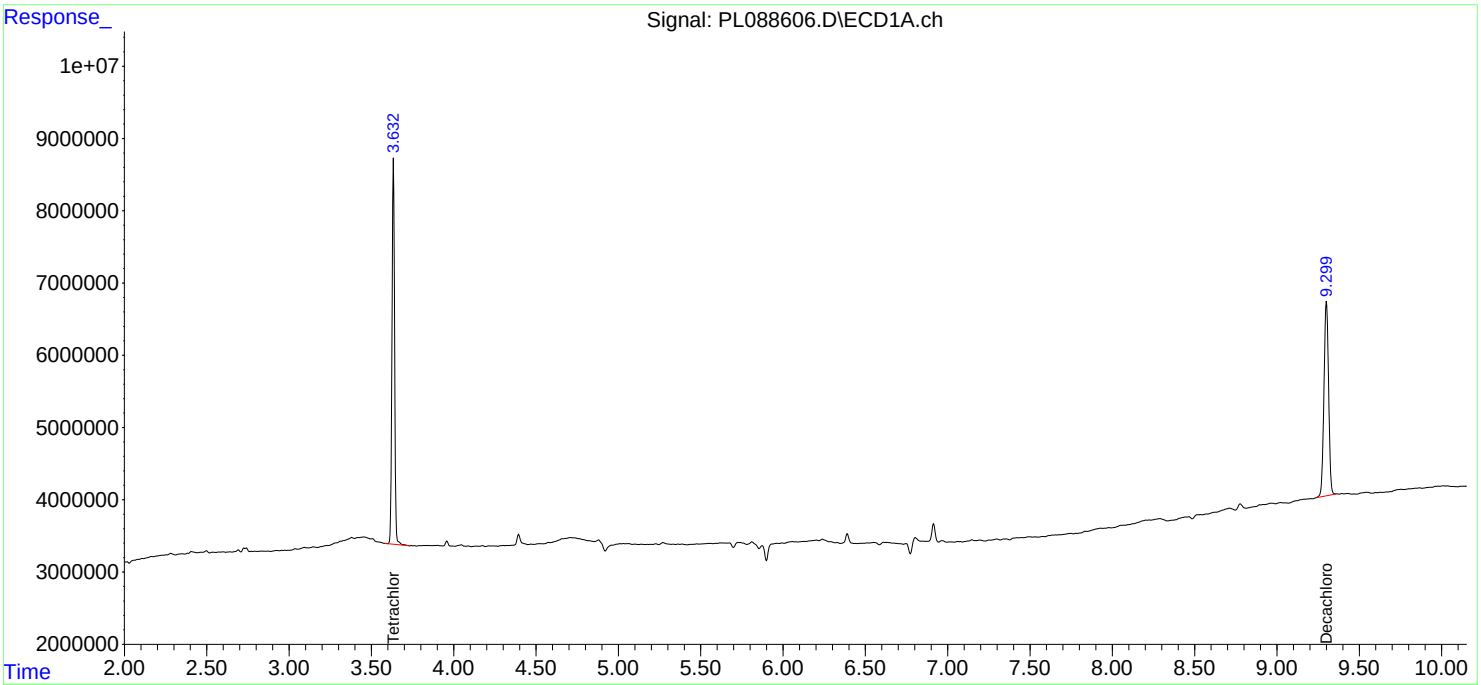
Sample Results: **PL088606.D**

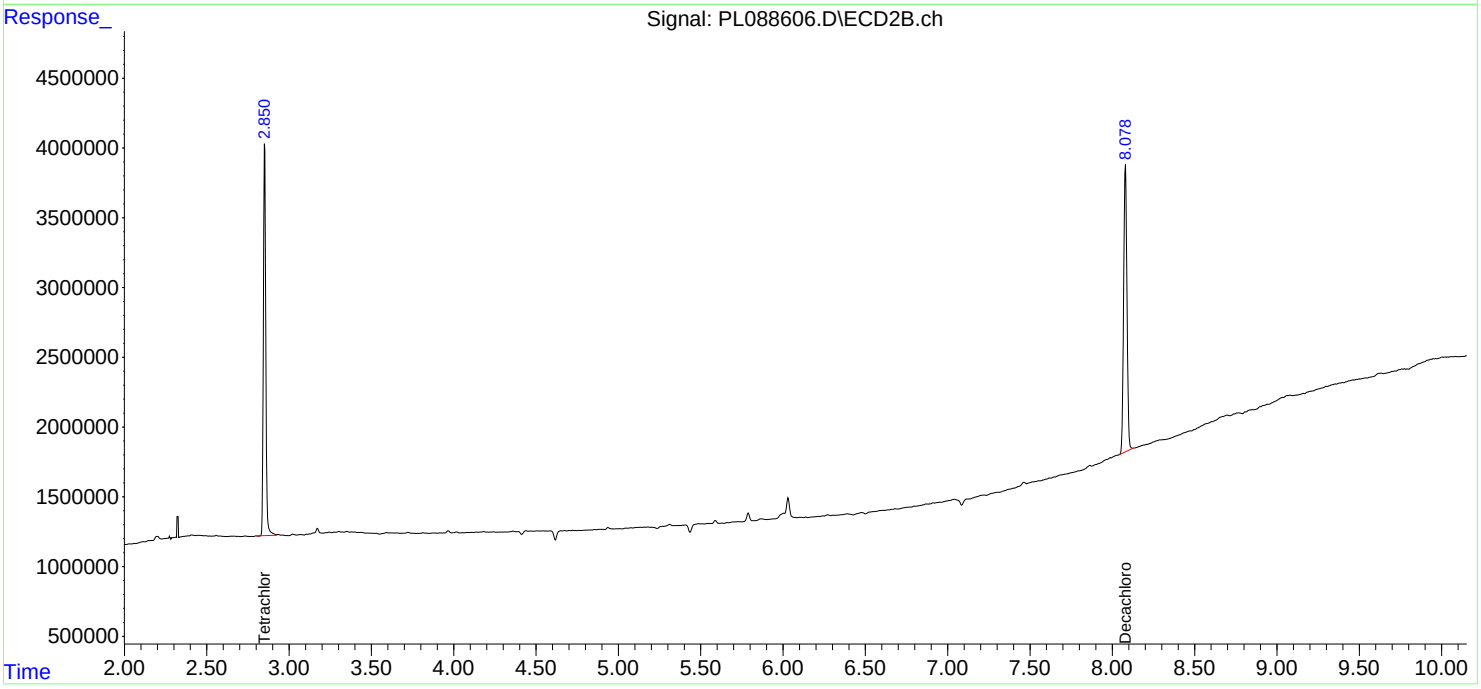
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088606.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 16:17
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

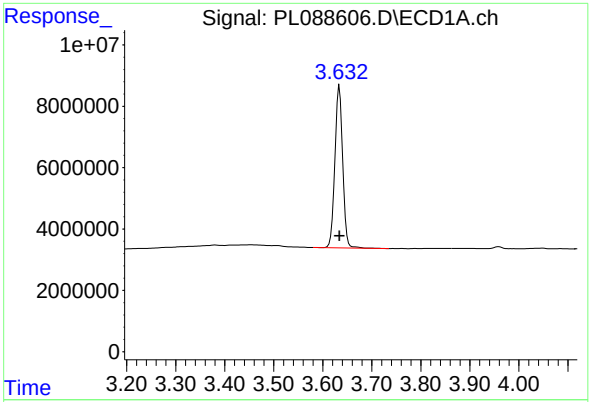
Instrument :
ECD_L
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:18:46 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm



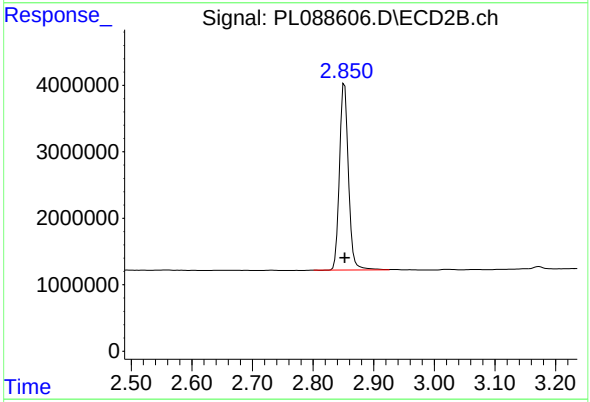




#1 Tetrachloro-m-xylene

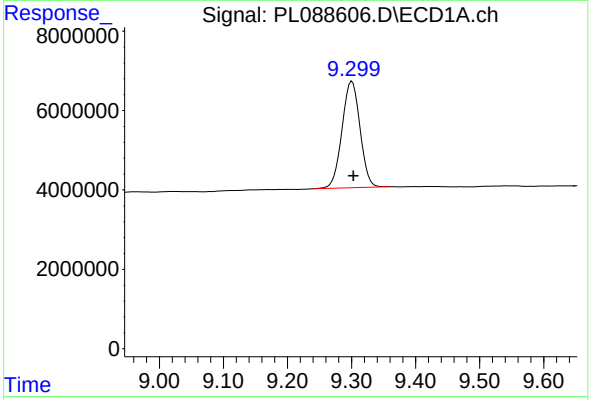
R.T.: 3.634 min
Delta R.T.: 0.000 min
Response: 58537891
Conc: 22.09 ng/ml

Instrument :
ECD_L
ClientSampleId :
I.BLK



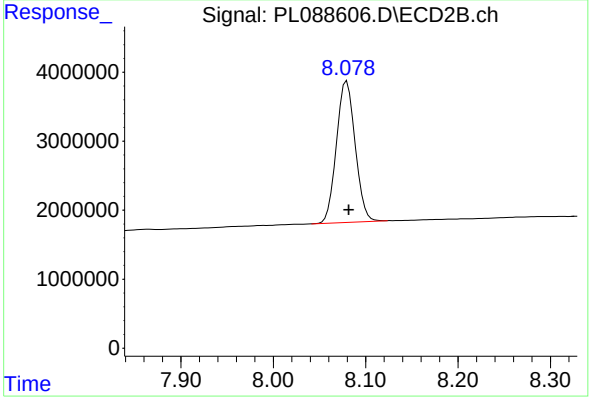
#1 Tetrachloro-m-xylene

R.T.: 2.852 min
Delta R.T.: 0.000 min
Response: 28866477
Conc: 21.66 ng/ml



#28 Decachlorobiphenyl

R.T.: 9.301 min
Delta R.T.: -0.002 min
Response: 52477428
Conc: 21.23 ng/ml



#28 Decachlorobiphenyl

R.T.: 8.080 min
Delta R.T.: -0.002 min
Response: 28983688
Conc: 21.38 ng/ml

Raw Data: **PL088622.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/14/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/14/24
Client Sample ID:	PIBLK-PL088622.D	SDG No.:	P1747
Lab Sample ID:	I.BLK-PL088622.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088622.D	1		03/14/24	PL031524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.050	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.050	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.050	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.050	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.050	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.050	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.050	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.050	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.050	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.050	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.050	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.050	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.050	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.050	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.050	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.050	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.050	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.050	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.050	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.3		27 - 142	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.2		35 - 148	111%	SPK: 20

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	03/14/24
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	03/14/24
Client Sample ID:	PIBLK-PL088622.D	SDG No.:	P1747
Lab Sample ID:	I.BLK-PL088622.D	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088622.D	1		03/14/24	PL031524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Sample Results: **PL088622.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088622.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:58
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 15 00:20:45 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.633	2.851	58931604	29551542	22.239	22.174
28)	SA Decachlor...	9.300	8.080	52666409	30213960	21.306	22.283
	Target Compounds						

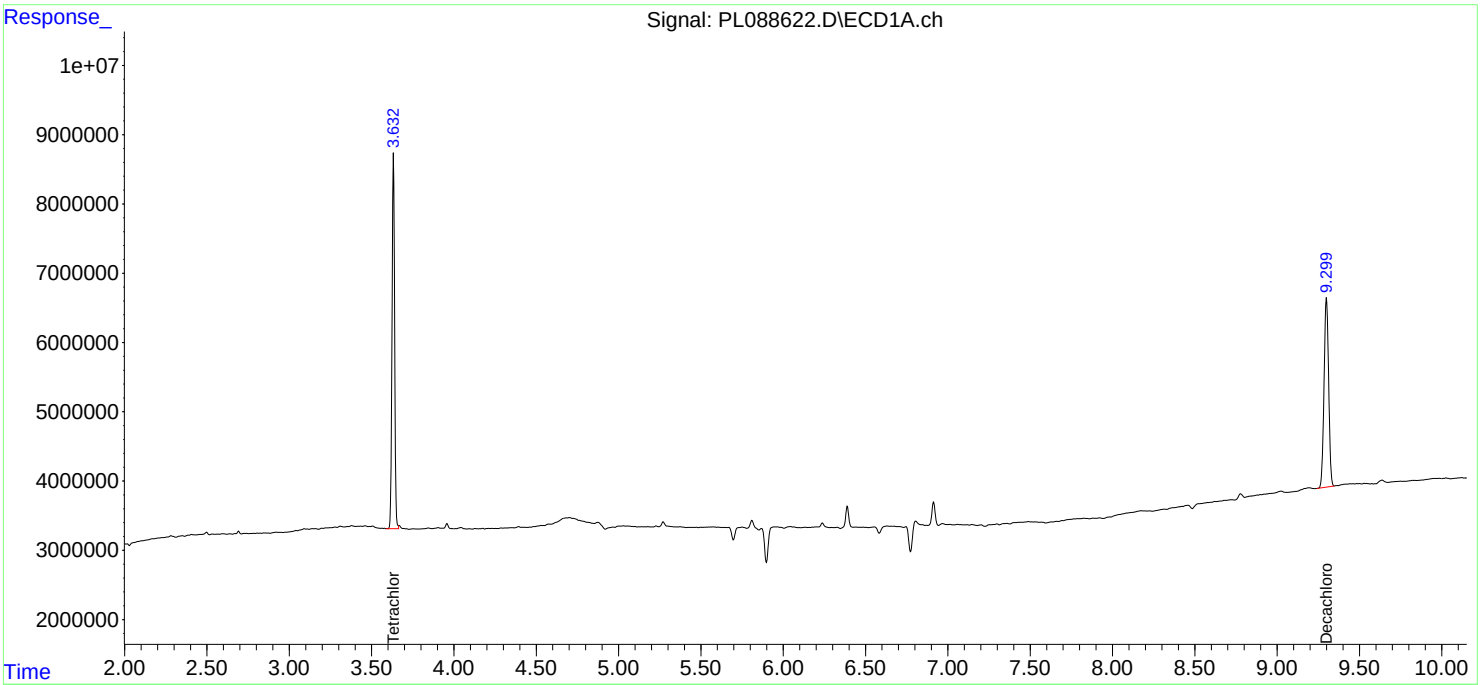
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

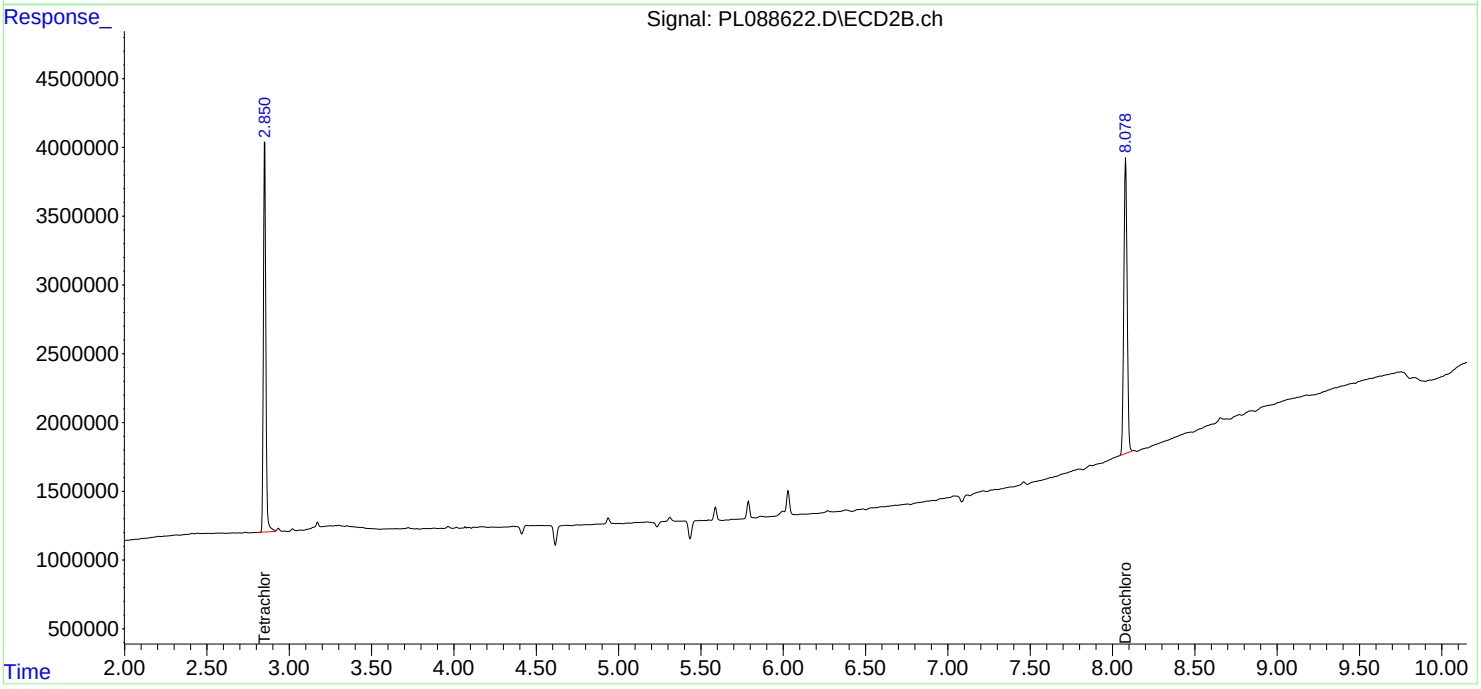
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088622.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 19:58
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

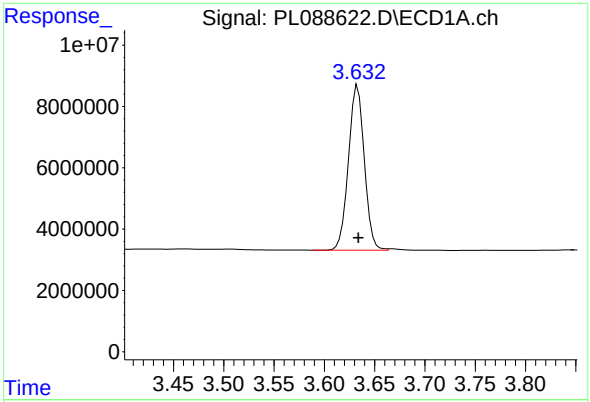
Instrument :
ECD_L
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 15 00:20:45 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm



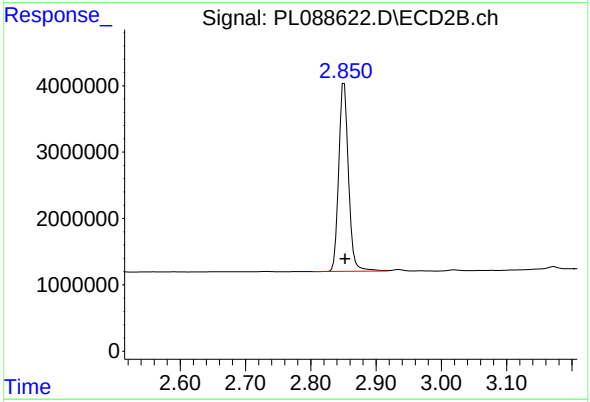




#1 Tetrachloro-m-xylene

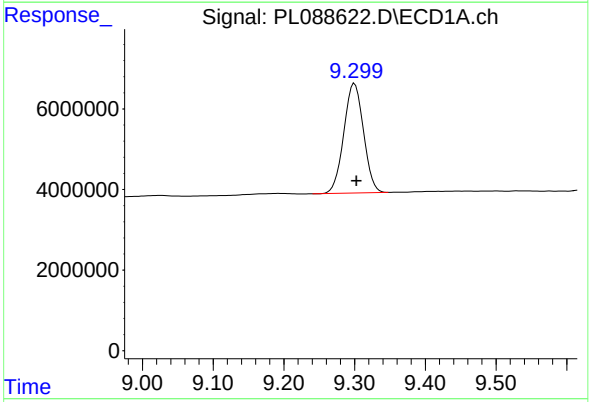
R.T.: 3.633 min
Delta R.T.: 0.000 min
Response: 58931604
Conc: 22.24 ng/ml

Instrument :
ECD_L
ClientSampleId :
I.BLK



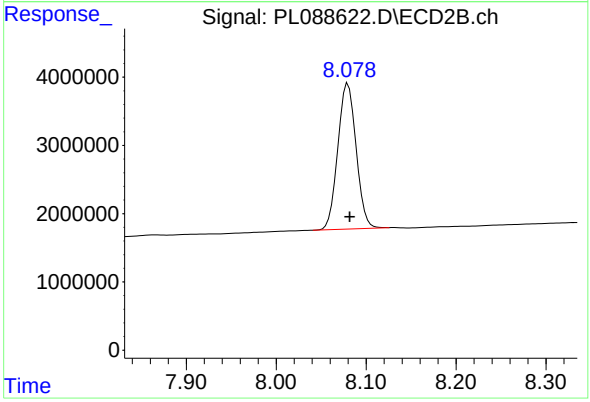
#1 Tetrachloro-m-xylene

R.T.: 2.851 min
Delta R.T.: -0.001 min
Response: 29551542
Conc: 22.17 ng/ml



#28 Decachlorobiphenyl

R.T.: 9.300 min
Delta R.T.: -0.003 min
Response: 52666409
Conc: 21.31 ng/ml



#28 Decachlorobiphenyl

R.T.: 8.080 min
Delta R.T.: -0.002 min
Response: 30213960
Conc: 22.28 ng/ml

Raw Data: **PL088616.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	PB159588BS	SDG No.:	P1747
Lab Sample ID:	PB159588BS	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088616.D	1	03/14/24 10:51	03/14/24 18:35	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.51		0.0061	0.050	ug/L
319-85-7	beta-BHC	0.49		0.014	0.050	ug/L
319-86-8	delta-BHC	0.46		0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.50		0.0049	0.050	ug/L
76-44-8	Heptachlor	0.51		0.0054	0.050	ug/L
309-00-2	Aldrin	0.49		0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.50		0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.50		0.0050	0.050	ug/L
60-57-1	Dieldrin	0.51		0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.51		0.0045	0.050	ug/L
72-20-8	Endrin	0.50		0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.50		0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.50		0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.50		0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.51		0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.48		0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.50		0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.52		0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.51		0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.53		0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.2		27 - 142	101%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.1		35 - 148	106%	SPK: 20

Raw Data: **PL088616.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	PB159588BS	SDG No.:	P1747
Lab Sample ID:	PB159588BS	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088616.D	1	03/14/24 10:51	03/14/24 18:35	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088616.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 18:35
Operator : AR\AJ
Sample : PB159588BS
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PB159588BS

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:25:27 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1) SA	Tetrachlo...	3.634	2.851	56045930	27520016	21.150	20.649
28) SA	Decachlor...	9.301	8.080	48249726	27444406	19.519	20.240
	Target Compounds						
2) A	alpha-BHC	4.098	3.366	202.6E6	97488832	50.756	48.515
3) MA	gamma-BHC...	4.437	3.703	192.5E6	91999643	49.645	47.938
4) MA	Heptachlor	5.037	4.051	192.1E6	89428077	50.575	49.690
5) MB	Aldrin	5.384	4.337	179.6E6	86171190	49.017	47.686
6) B	beta-BHC	4.634	4.005	87069947	40824009	49.097	47.622
7) B	delta-BHC	4.886	4.240	187.3E6	87033858	46.493	45.494
8) B	Heptachlo...	5.816	4.847	171.8E6	79531357	50.008	48.362
9) A	Endosulfan I	6.207	5.224	153.6E6	73661662	50.265	49.002
10) B	gamma-Chl...	6.075	5.102	175.0E6	82337868	52.545	49.711
11) B	alpha-Chl...	6.156	5.167	170.5E6	81958104	51.279	49.374
12) B	4,4'-DDE	6.330	5.360	150.9E6	72951242	50.506	50.015
13) MA	Dieldrin	6.486	5.493	164.1E6	79928313	50.616	49.212
14) MA	Endrin	6.717	5.771	137.3E6	72734024	50.227m	50.460
15) B	Endosulfa...	6.939	6.069	142.6E6	70529382	49.799	49.051
16) A	4,4'-DDD	6.852	5.922	127.9E6	61730764	50.210	49.568
17) MA	4,4'-DDT	7.171	6.177	135.6E6	65258376	50.890	48.621
18) B	Endrin al...	7.068	6.251	107.8E6	54083996	51.635m	51.609
19) B	Endosulfa...	7.307	6.477	137.3E6	67724312	49.706	48.812
20) A	Methoxychlor	7.652	6.760	72576392	37506024	48.175	46.762
21) B	Endrin ke...	7.798	6.990	148.0E6	80168868	50.058	48.566
22)	Mirex	8.280	7.175	115.8E6	64790491	49.382	48.049

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sample Results: **PL088616.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088616.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 18:35
Operator : AR\AJ
Sample : PB159588BS
Misc :
ALS Vial : 25 Sample Multiplier: 1

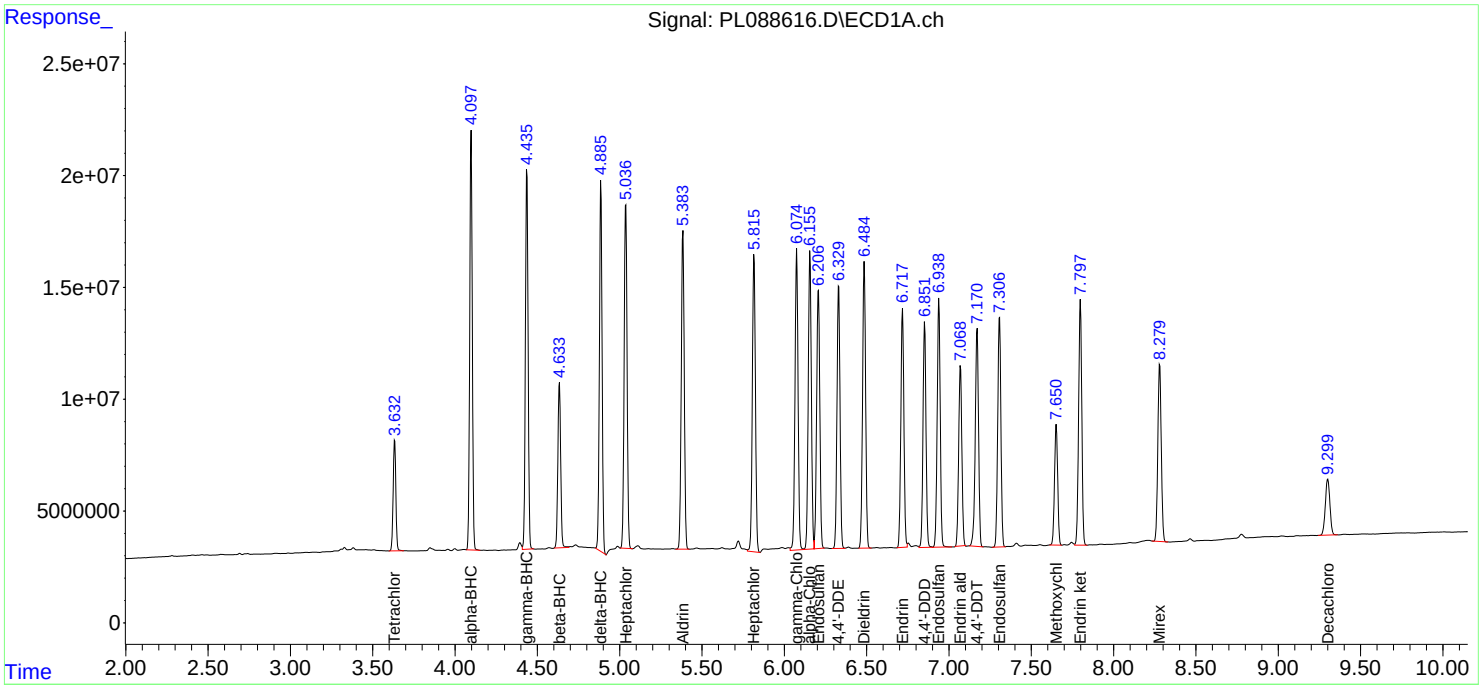
Instrument :
ECD_L
ClientSampleId :
PB159588BS

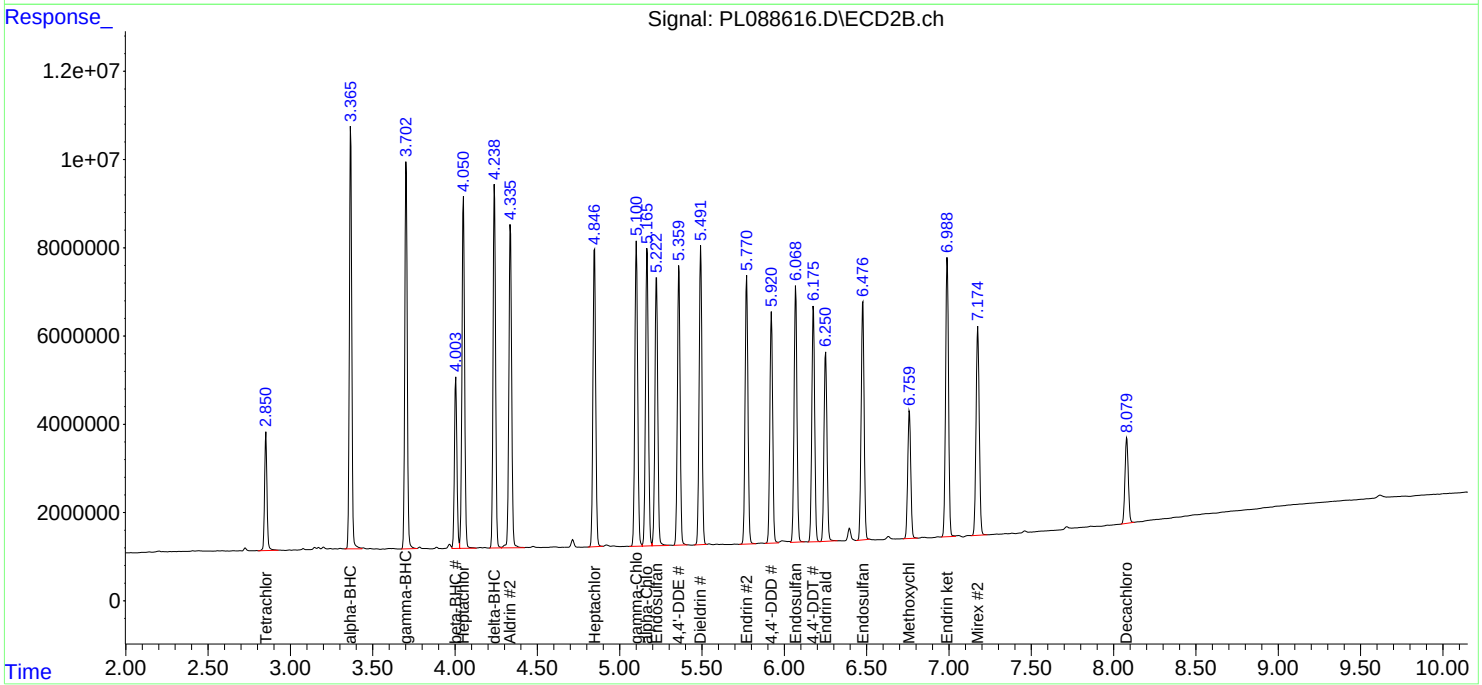
Manual Integrations APPROVED

Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:25:27 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





Raw Data: **PL088617.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	PB159588BSD	SDG No.:	P1747
Lab Sample ID:	PB159588BSD	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088617.D	1	03/14/24 10:51	03/14/24 18:49	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.48		0.0061	0.050	ug/L
319-85-7	beta-BHC	0.47		0.014	0.050	ug/L
319-86-8	delta-BHC	0.44		0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.47		0.0049	0.050	ug/L
76-44-8	Heptachlor	0.49		0.0054	0.050	ug/L
309-00-2	Aldrin	0.47		0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.48		0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.48		0.0050	0.050	ug/L
60-57-1	Dieldrin	0.49		0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.48		0.0045	0.050	ug/L
72-20-8	Endrin	0.48		0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.48		0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.48		0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.48		0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.49		0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.46		0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.48		0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.50		0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.49		0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.50		0.0060	0.050	ug/L
8001-35-2	Toxaphene	1.00	U	0.15	1.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.4		27 - 142	97%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.2		35 - 148	101%	SPK: 20

Raw Data: **PL088617.D**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	Walter Gladwin Recreation Center, Bronx, NY	Date Received:	
Client Sample ID:	PB159588BSD	SDG No.:	P1747
Lab Sample ID:	PB159588BSD	Matrix:	WATER
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL088617.D	1	03/14/24 10:51	03/14/24 18:49	PB159588

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Sample Results: **PL088617.D**

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088617.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 18:49
Operator : AR\AJ
Sample : PB159588BSD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
ECD_L
ClientSampleId :
PB159588BSD

Manual Integrations APPROVED
Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:26:06 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1) SA	Tetrachlo...	3.634	2.852	53635680	26264537	20.240	19.707
28) SA	Decachlor...	9.301	8.081	45998741	26299142	18.609	19.396
	Target Compounds						
2) A	alpha-BHC	4.099	3.366	193.4E6	92802988	48.454	46.183
3) MA	gamma-BHC...	4.437	3.703	184.0E6	87805783	47.435	45.753
4) MA	Heptachlor	5.037	4.051	184.5E6	85710847	48.589	47.624
5) MB	Aldrin	5.384	4.336	172.1E6	82254602	46.967	45.518
6) B	beta-BHC	4.634	4.005	83403404	39141166	47.029	45.659
7) B	delta-BHC	4.886	4.239	179.2E6	83208666	44.481	43.495
8) B	Heptachlo...	5.816	4.847	165.0E6	75849916	48.032	46.123
9) A	Endosulfan I	6.207	5.223	147.7E6	70289191	48.331	46.758
10) B	gamma-Chl...	6.075	5.101	167.8E6	78571040	50.375	47.437
11) B	alpha-Chl...	6.156	5.166	163.8E6	78195908	49.283	47.108
12) B	4,4'-DDE	6.330	5.360	144.3E6	69386051	48.303	47.571
13) MA	Dieldrin	6.485	5.492	157.4E6	75976085	48.539	46.779
14) MA	Endrin	6.717	5.771	131.4E6	68994579	48.078m	47.865
15) B	Endosulfa...	6.938	6.069	137.0E6	67158707	47.816	46.707
16) A	4,4'-DDD	6.853	5.921	122.7E6	58737228	48.195	47.164
17) MA	4,4'-DDT	7.172	6.177	131.1E6	62388308	49.191	46.482
18) B	Endrin al...	7.069	6.251	104.1E6	51655015	49.856m	49.292
19) B	Endosulfa...	7.308	6.477	132.0E6	64847285	47.803	46.739
20) A	Methoxychlor	7.652	6.760	69904847	35947282	46.402	44.818
21) B	Endrin ke...	7.799	6.990	142.0E6	76492599	48.035	46.339
22)	Mirex	8.281	7.176	111.1E6	62315586	47.405	46.214

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Sample Results: **PL088617.D**

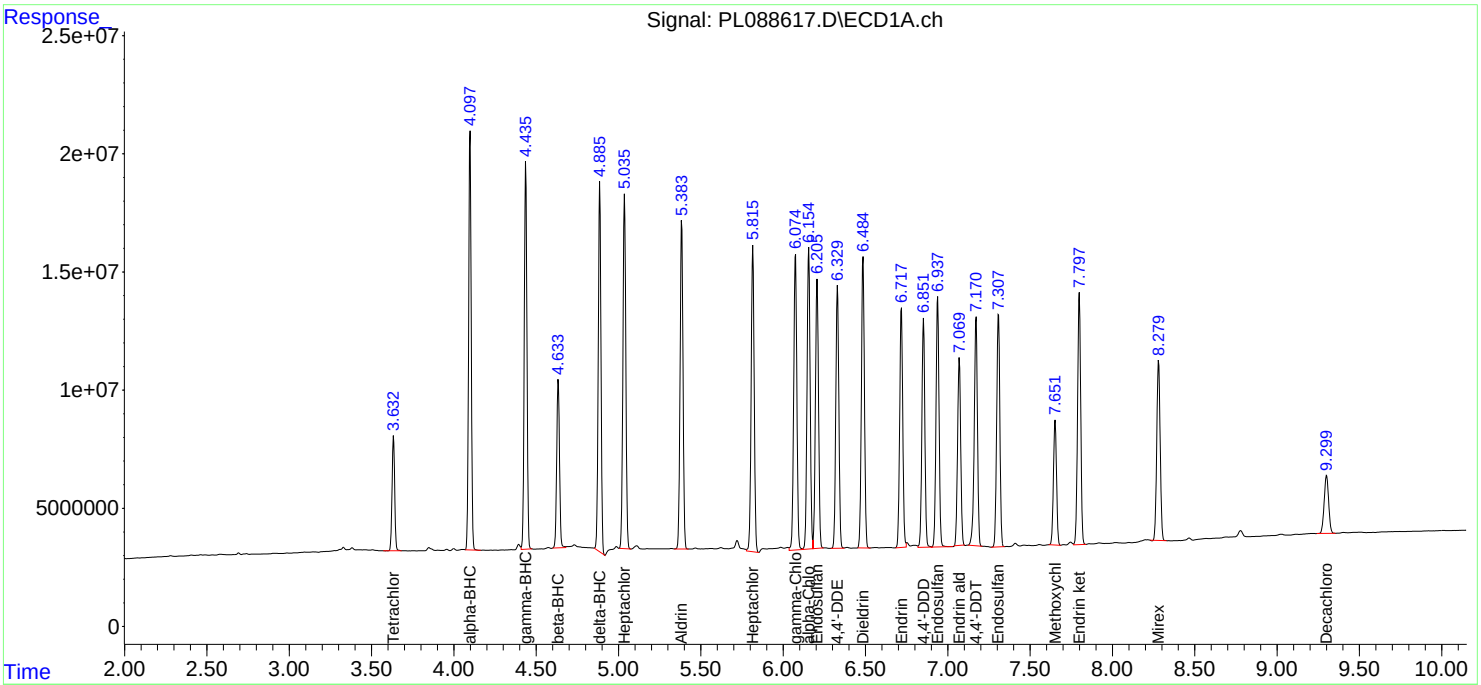
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_L\Data\PL031524\
Data File : PL088617.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Mar 2024 18:49
Operator : AR\AJ
Sample : PB159588BSD
Misc :
ALS Vial : 26 Sample Multiplier: 1

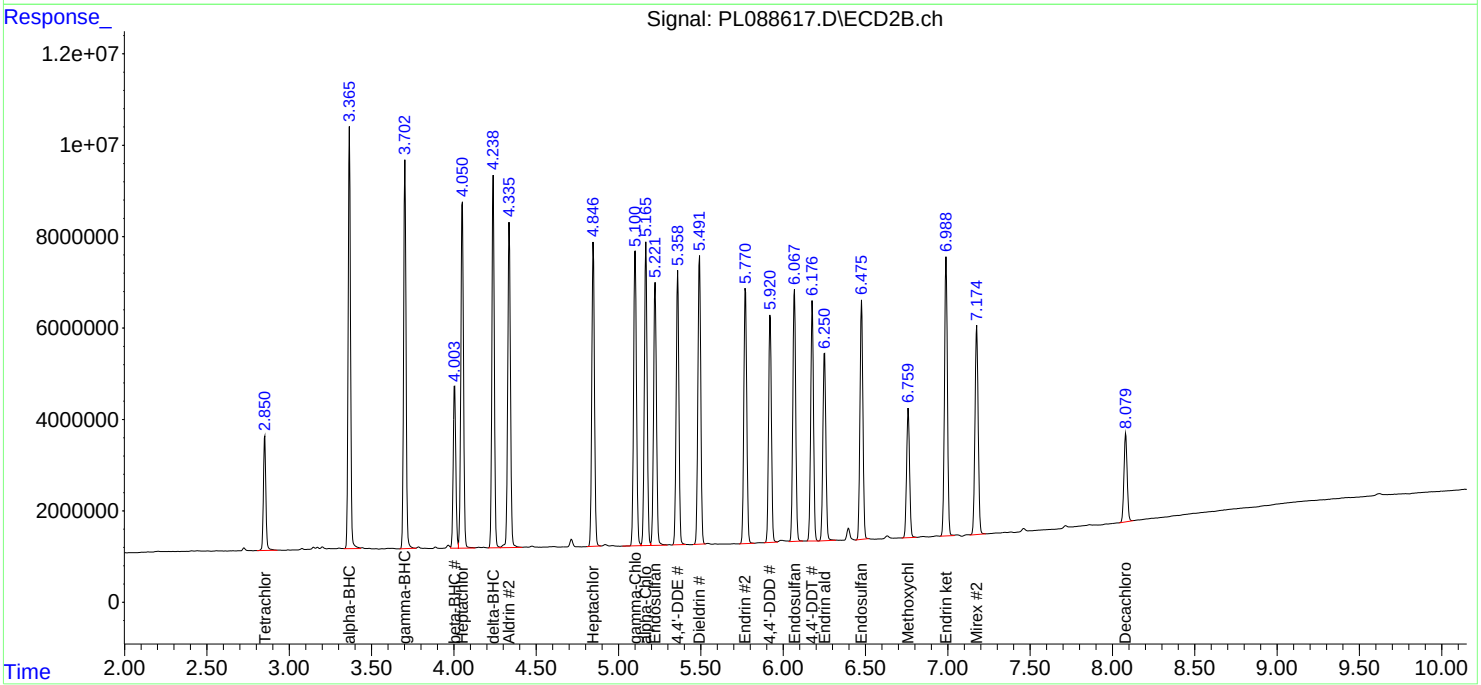
Instrument :
ECD_L
ClientSampleId :
PB159588BSD

Manual Integrations APPROVED
Reviewed By :Abdul Mirza 03/15/2024
Supervised By :Ankita Jodhani 03/15/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Mar 14 20:26:06 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_L\methods\PL031324.M
Quant Title : GC Extractables
QLast Update : Wed Mar 13 15:45:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x0.5µm





CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	pl031424	Instrument	ECD_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
PEM	PL088550.D	4,4"-DDD	Abdul	3/14/2024 10:06:21 AM	Ankita	3/14/2024 10:50:46	Peak Integrated by Software
PEM	PL088550.D	4,4"-DDD #2	Abdul	3/14/2024 10:06:21 AM	Ankita	3/14/2024 10:50:46	Peak Integrated by Software
PSTDICC005	PL088556.D	delta-BHC	Abdul	3/14/2024 10:06:25 AM	Ankita	3/14/2024 10:50:48	Peak Integrated by Software
PSTDICC005	PL088556.D	Endosulfan II	Abdul	3/14/2024 10:06:25 AM	Ankita	3/14/2024 10:50:48	Peak Integrated by Software
PSTDICC005	PL088556.D	Endrin	Abdul	3/14/2024 10:06:25 AM	Ankita	3/14/2024 10:50:48	Peak Integrated by Software
PSTDICC005	PL088556.D	Heptachlor epoxide	Abdul	3/14/2024 10:06:25 AM	Ankita	3/14/2024 10:50:48	Peak Integrated by Software
PSTDICC005	PL088556.D	Mirex #2	Abdul	3/14/2024 10:06:25 AM	Ankita	3/14/2024 10:50:48	Peak Integrated by Software
PEM	PL088571.D	4,4"-DDD	Abdul	3/14/2024 10:03:57 AM	Ankita	3/14/2024 10:50:50	Peak Integrated by Software
PEM	PL088571.D	alpha-BHC #2	Abdul	3/14/2024 10:03:57 AM	Ankita	3/14/2024 10:50:50	Peak Integrated by Software
PEM	PL088571.D	gamma-BHC (Lindane)	Abdul	3/14/2024 10:03:57 AM	Ankita	3/14/2024 10:50:50	Peak Integrated by Software
PEM	PL088571.D	Tetrachloro-m-xylene	Abdul	3/14/2024 10:03:57 AM	Ankita	3/14/2024 10:50:50	Peak Integrated by Software
PEM	PL088571.D	Tetrachloro-m-xylene #2	Abdul	3/14/2024 10:03:57 AM	Ankita	3/14/2024 10:50:50	Peak Integrated by Software
PSTDCCC050	PL088572.D	Endrin aldehyde	Abdul	3/14/2024 10:04:02 AM	Ankita	3/14/2024 10:50:51	Peak Integrated by Software

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	pl031424	Instrument	ECD_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
PSTDCCC050	PL088572.D	gamma-BHC (Lindane)	Abdul	3/14/2024 10:04:02 AM	Ankita	3/14/2024 10:50:51	Peak Integrated by Software
PEM	PL088581.D	4,4"-DDD	Abdul	3/14/2024 10:04:55 AM	Ankita	3/14/2024 10:51:04	Peak Integrated by Software
PEM	PL088581.D	4,4"-DDD #2	Abdul	3/14/2024 10:04:55 AM	Ankita	3/14/2024 10:51:04	Peak Integrated by Software
PEM	PL088581.D	4,4"-DDT	Abdul	3/14/2024 10:04:55 AM	Ankita	3/14/2024 10:51:04	Peak Integrated by Software
PEM	PL088581.D	alpha-BHC #2	Abdul	3/14/2024 10:04:55 AM	Ankita	3/14/2024 10:51:04	Peak Integrated by Software
PEM	PL088581.D	Tetrachloro-m-xylene #2	Abdul	3/14/2024 10:04:55 AM	Ankita	3/14/2024 10:51:04	Peak Integrated by Software
PSTDCCC050	PL088582.D	alpha-BHC #2	Abdul	3/14/2024 10:04:58 AM	Ankita	3/14/2024 10:51:05	Peak Integrated by Software
PSTDCCC050	PL088582.D	Endrin aldehyde	Abdul	3/14/2024 10:04:58 AM	Ankita	3/14/2024 10:51:05	Peak Integrated by Software
PSTDCCC050	PL088582.D	gamma-Chlordane	Abdul	3/14/2024 10:04:58 AM	Ankita	3/14/2024 10:51:05	Peak Integrated by Software
PSTDCCC050	PL088582.D	Tetrachloro-m-xylene	Abdul	3/14/2024 10:04:58 AM	Ankita	3/14/2024 10:51:05	Peak Integrated by Software
PSTDCCC050	PL088588.D	Endrin aldehyde	Abdul	3/14/2024 10:06:01 AM	Ankita	3/14/2024 10:51:14	Peak Integrated by Software

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Manual Integration Report

Sequence:	PL031524	Instrument	ECD_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
PEM	PL088591.D	4,4"-DDD	Abdul	3/15/2024 2:29:03 PM	Ankita	3/15/2024 2:40:19	Peak Integrated by Software
PEM	PL088591.D	4,4"-DDE	Abdul	3/15/2024 2:29:03 PM	Ankita	3/15/2024 2:40:19	Peak Integrated by Software
PEM	PL088591.D	4,4"-DDE #2	Abdul	3/15/2024 2:29:03 PM	Ankita	3/15/2024 2:40:19	Peak Integrated by Software
PEM	PL088591.D	Endrin	Abdul	3/15/2024 2:29:03 PM	Ankita	3/15/2024 2:40:19	Peak Integrated by Software
PSTDCCC050	PL088592.D	Endrin aldehyde	Abdul	3/15/2024 11:13:38 AM	Ankita	3/15/2024 11:19:57	Peak Integrated by Software
PEM	PL088607.D	4,4"-DDD	Abdul	3/15/2024 2:28:46 PM	Ankita	3/15/2024 2:40:24	Peak Integrated by Software
PEM	PL088607.D	4,4"-DDE	Abdul	3/15/2024 2:28:46 PM	Ankita	3/15/2024 2:40:24	Peak Integrated by Software
PEM	PL088607.D	4,4"-DDE #2	Abdul	3/15/2024 2:28:46 PM	Ankita	3/15/2024 2:40:24	Peak Integrated by Software
PEM	PL088607.D	Endrin	Abdul	3/15/2024 2:28:46 PM	Ankita	3/15/2024 2:40:24	Peak Integrated by Software
PSTDCCC050	PL088608.D	4,4"-DDD	Abdul	3/15/2024 11:14:28 AM	Ankita	3/15/2024 11:20:23	Peak Integrated by Software
PSTDCCC050	PL088608.D	Endrin aldehyde	Abdul	3/15/2024 11:14:28 AM	Ankita	3/15/2024 11:20:23	Peak Integrated by Software
PSTDCCC050	PL088608.D	gamma-Chlordane	Abdul	3/15/2024 11:14:28 AM	Ankita	3/15/2024 11:20:23	Peak Integrated by Software
PSTDCCC050	PL088608.D	Mirex #2	Abdul	3/15/2024 11:14:28 AM	Ankita	3/15/2024 11:20:23	Peak Integrated by Software

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Manual Integration Report

Sequence:	PL031524	Instrument	ECD_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
PB159588BS	PL088616.D	Endrin	Abdul	3/15/2024 11:14:57 AM	Ankita	3/15/2024 11:20:36	Peak Integrated by Software
PB159588BS	PL088616.D	Endrin aldehyde	Abdul	3/15/2024 11:14:57 AM	Ankita	3/15/2024 11:20:36	Peak Integrated by Software
PB159588BSD	PL088617.D	Endrin	Abdul	3/15/2024 11:15:01 AM	Ankita	3/15/2024 11:20:38	Peak Integrated by Software
PB159588BSD	PL088617.D	Endrin aldehyde	Abdul	3/15/2024 11:15:01 AM	Ankita	3/15/2024 11:20:38	Peak Integrated by Software
P1747-01	PL088618.D	Tetrachloro-m-xylene #2	Abdul	3/15/2024 11:15:06 AM	Ankita	3/15/2024 11:20:39	Peak Integrated by Software
P1747-02	PL088619.D	Tetrachloro-m-xylene #2	Abdul	3/15/2024 11:15:26 AM	Ankita	3/15/2024 11:20:41	Peak Integrated by Software
PSTDCCC050	PL088623.D	Endrin aldehyde	Abdul	3/15/2024 11:15:30 AM	Ankita	3/15/2024 11:20:42	Peak Integrated by Software
PSTDCCC050	PL088623.D	gamma-Chlordane	Abdul	3/15/2024 11:15:30 AM	Ankita	3/15/2024 11:20:42	Peak Integrated by Software
PSTDCCC050	PL088623.D	Mirex #2	Abdul	3/15/2024 11:15:30 AM	Ankita	3/15/2024 11:20:42	Peak Integrated by Software

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Instrument ID: ECD_L

Daily Analysis Runlog For Sequence/QCBatch ID # PL031424

Review By	Abdul	Review On	3/14/2024 10:07:20 AM		
Supervise By	Ankita	Supervise On	3/14/2024 10:51:30 AM		
SubDirectory	PL031424	HP Acquire Method		HP Processing Method	pl031424 8081

STD. NAME	STD REF.#
Tune/Reschk	PP22638,PP23074
Initial Calibration Stds	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,PP22973,PP22974
CCC	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP2
Internal Standard/PEM	
ICV/I.BLK	PP22964,PP22969,PP22974
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	HEXANE	PL088548.D	13 Mar 2024 10:40	AR\AJ	Ok
2	I.BLK	PL088549.D	13 Mar 2024 10:54	AR\AJ	Ok
3	PEM	PL088550.D	13 Mar 2024 11:08	AR\AJ	Ok,M
4	RESCHK	PL088551.D	13 Mar 2024 11:21	AR\AJ	Ok
5	PSTDICC100	PL088552.D	13 Mar 2024 11:35	AR\AJ	Ok
6	PSTDICC075	PL088553.D	13 Mar 2024 11:49	AR\AJ	Ok
7	PSTDICC050	PL088554.D	13 Mar 2024 12:03	AR\AJ	Ok
8	PSTDICC025	PL088555.D	13 Mar 2024 12:17	AR\AJ	Ok
9	PSTDICC005	PL088556.D	13 Mar 2024 12:30	AR\AJ	Ok,M
10	PCHLORICC1000	PL088557.D	13 Mar 2024 12:44	AR\AJ	Ok
11	PCHLORICC750	PL088558.D	13 Mar 2024 12:58	AR\AJ	Ok
12	PCHLORICC500	PL088559.D	13 Mar 2024 13:12	AR\AJ	Ok
13	PCHLORICC250	PL088560.D	13 Mar 2024 13:26	AR\AJ	Ok
14	PCHLORICC050	PL088561.D	13 Mar 2024 13:39	AR\AJ	Ok
15	PTOXICC1000	PL088562.D	13 Mar 2024 13:53	AR\AJ	Ok
16	PTOXICC750	PL088563.D	13 Mar 2024 14:07	AR\AJ	Ok
17	PTOXICC500	PL088564.D	13 Mar 2024 14:21	AR\AJ	Ok
18	PTOXICC250	PL088565.D	13 Mar 2024 14:34	AR\AJ	Ok
19	PTOXICC100	PL088566.D	13 Mar 2024 14:48	AR\AJ	Ok
20	PSTDICV050	PL088567.D	13 Mar 2024 15:02	AR\AJ	Ok
21	PCHLORICV500	PL088568.D	13 Mar 2024 15:16	AR\AJ	Ok
22	PTOXICV500	PL088569.D	13 Mar 2024 15:30	AR\AJ	Ok
23	I.BLK	PL088570.D	13 Mar 2024 16:00	AR\AJ	Ok

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Instrument ID: ECD_L

Daily Analysis Runlog For Sequence/QCBatch ID # PL031424

Review By	Abdul	Review On	3/14/2024 10:07:20 AM		
Supervise By	Ankita	Supervise On	3/14/2024 10:51:30 AM		
SubDirectory	PL031424	HP Acquire Method		HP Processing Method	pl031424 8081

STD. NAME	STD REF.#
Tune/Reschk	PP22638,PP23074
Initial Calibration Stds	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,PP22973,PP22974
CCC	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP2
Internal Standard/PEM	
ICV/I.BLK	PP22964,PP22969,PP22974
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

24	PEM	PL088571.D	13 Mar 2024 16:14	AR\AJ	Ok,M
25	PSTDCCC050	PL088572.D	13 Mar 2024 16:28	AR\AJ	Ok,M
26	PB159567BL	PL088573.D	13 Mar 2024 16:42	AR\AJ	Ok
27	PB159567BS	PL088574.D	13 Mar 2024 16:55	AR\AJ	Ok,M
28	P1733-01	PL088575.D	13 Mar 2024 17:09	AR\AJ	Ok,M
29	P1733-01MS	PL088576.D	13 Mar 2024 17:23	AR\AJ	Ok,M
30	P1733-01MSD	PL088577.D	13 Mar 2024 17:37	AR\AJ	Ok,M
31	P1733-05	PL088578.D	13 Mar 2024 17:51	AR\AJ	Ok,M
32	P1733-09	PL088579.D	13 Mar 2024 18:04	AR\AJ	Ok,M
33	I.BLK	PL088580.D	13 Mar 2024 18:18	AR\AJ	Ok
34	PEM	PL088581.D	13 Mar 2024 18:32	AR\AJ	Ok,M
35	PSTDCCC050	PL088582.D	13 Mar 2024 18:46	AR\AJ	Ok,M
36	SOIL IDOC-1	PL088583.D	13 Mar 2024 19:00	AR\AJ	Ok,M
37	SOIL IDOC-2	PL088584.D	13 Mar 2024 19:13	AR\AJ	Ok,M
38	SOIL IDOC-3	PL088585.D	13 Mar 2024 19:27	AR\AJ	Ok,M
39	SOIL IDOC-4	PL088586.D	13 Mar 2024 19:41	AR\AJ	Ok,M
40	I.BLK	PL088587.D	13 Mar 2024 19:55	AR\AJ	Ok
41	PSTDCCC050	PL088588.D	13 Mar 2024 20:09	AR\AJ	Ok,M

M : Manual Integration

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Instrument ID: ECD_L

Daily Analysis Runlog For Sequence/QCBatch ID # PL031524

Review By	Abdul	Review On	3/15/2024 11:15:53 AM		
Supervise By	Ankita	Supervise On	3/15/2024 11:21:05 AM		
SubDirectory	PL031524	HP Acquire Method		HP Processing Method	pl031424 8081

STD. NAME	STD REF.#
Tune/Reschk	PP22638,PP23074
Initial Calibration Stds	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,PP22973,PP22974
CCC	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP2
Internal Standard/PEM	
ICV/I.BLK	PP22964,PP22969,PP22974
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	HEXANE	PL088589.D	14 Mar 2024 09:33	AR\AJ	Ok
2	I.BLK	PL088590.D	14 Mar 2024 09:47	AR\AJ	Ok
3	PEM	PL088591.D	14 Mar 2024 10:01	AR\AJ	Ok,M
4	PSTDCCC050	PL088592.D	14 Mar 2024 10:14	AR\AJ	Ok,M
5	PB159583BL	PL088593.D	14 Mar 2024 13:16	AR\AJ	Ok
6	PB159583BS	PL088594.D	14 Mar 2024 13:31	AR\AJ	Ok,M
7	P1744-01	PL088595.D	14 Mar 2024 13:45	AR\AJ	Ok,M
8	P1744-01MS	PL088596.D	14 Mar 2024 13:59	AR\AJ	Ok,M
9	P1744-01MSD	PL088597.D	14 Mar 2024 14:13	AR\AJ	Ok,M
10	P1746-01	PL088598.D	14 Mar 2024 14:26	AR\AJ	Ok,M
11	P1746-02	PL088599.D	14 Mar 2024 14:40	AR\AJ	Ok,M
12	P1746-03	PL088600.D	14 Mar 2024 14:54	AR\AJ	Ok,M
13	P1746-04	PL088601.D	14 Mar 2024 15:08	AR\AJ	Dilution
14	P1746-06	PL088602.D	14 Mar 2024 15:22	AR\AJ	Dilution
15	P1746-08	PL088603.D	14 Mar 2024 15:35	AR\AJ	Ok,M
16	P1746-09	PL088604.D	14 Mar 2024 15:49	AR\AJ	Ok,M
17	P1746-11	PL088605.D	14 Mar 2024 16:03	AR\AJ	Ok,M
18	I.BLK	PL088606.D	14 Mar 2024 16:17	AR\AJ	Ok
19	PEM	PL088607.D	14 Mar 2024 16:31	AR\AJ	Ok,M
20	PSTDCCC050	PL088608.D	14 Mar 2024 16:44	AR\AJ	Ok,M
21	P1746-12	PL088609.D	14 Mar 2024 16:58	AR\AJ	Ok
22	P1746-13	PL088610.D	14 Mar 2024 17:12	AR\AJ	Ok,M
23	P1746-15	PL088611.D	14 Mar 2024 17:26	AR\AJ	Not Ok

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Instrument ID: ECD_L

Daily Analysis Runlog For Sequence/QCBatch ID # PL031524

Review By	Abdul	Review On	3/15/2024 11:15:53 AM		
Supervise By	Ankita	Supervise On	3/15/2024 11:21:05 AM		
SubDirectory	PL031524	HP Acquire Method		HP Processing Method	pl031424 8081

STD. NAME	STD REF.#
Tune/Reschk	PP22638,PP23074
Initial Calibration Stds	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,PP22973,PP22974
CCC	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP2
Internal Standard/PEM	
ICV/I.BLK	PP22964,PP22969,PP22974
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

24	P1746-16	PL088612.D	14 Mar 2024 17:40	AR\AJ	Not Ok
25	P1746-17	PL088613.D	14 Mar 2024 17:54	AR\AJ	Ok,M
26	P1746-19	PL088614.D	14 Mar 2024 18:07	AR\AJ	Ok,M
27	PB159588BL	PL088615.D	14 Mar 2024 18:21	AR\AJ	Ok
28	PB159588BS	PL088616.D	14 Mar 2024 18:35	AR\AJ	Ok,M
29	PB159588BSD	PL088617.D	14 Mar 2024 18:49	AR\AJ	Ok,M
30	P1747-01	PL088618.D	14 Mar 2024 19:02	AR\AJ	Ok,M
31	P1747-02	PL088619.D	14 Mar 2024 19:16	AR\AJ	Ok,M
32	P1747-04	PL088620.D	14 Mar 2024 19:30	AR\AJ	Ok
33	P1747-05	PL088621.D	14 Mar 2024 19:44	AR\AJ	Ok
34	I.BLK	PL088622.D	14 Mar 2024 19:58	AR\AJ	Ok
35	PSTDCCC050	PL088623.D	14 Mar 2024 20:11	AR\AJ	Ok,M

M : Manual Integration

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Instrument ID: ECD_L

Daily Analysis Runlog For Sequence/QCBatch ID # PL031424

Review By	Abdul	Review On	3/14/2024 10:07:20 AM		
Supervise By	Ankita	Supervise On	3/14/2024 10:51:30 AM		
SubDirectory	PL031424	HP Acquire Method		HP Processing Method	pl031424 8081

STD. NAME	STD REF.#
Tune/Reschk	PP22638,PP23074
Initial Calibration Stds	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,PP22973,PP22974
CCC	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,
Internal Standard/PEM	
ICV/I.BLK	PP22964,PP22969,PP22974
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	HEXANE	HEXANE	PL088548.D	13 Mar 2024 10:40		AR\AJ	Ok
2	I.BLK	I.BLK	PL088549.D	13 Mar 2024 10:54		AR\AJ	Ok
3	PEM	PEM	PL088550.D	13 Mar 2024 11:08		AR\AJ	Ok,M
4	RESCHK	RESCHK	PL088551.D	13 Mar 2024 11:21		AR\AJ	Ok
5	PSTDICC100	PSTDICC100	PL088552.D	13 Mar 2024 11:35		AR\AJ	Ok
6	PSTDICC075	PSTDICC075	PL088553.D	13 Mar 2024 11:49		AR\AJ	Ok
7	PSTDICC050	PSTDICC050	PL088554.D	13 Mar 2024 12:03		AR\AJ	Ok
8	PSTDICC025	PSTDICC025	PL088555.D	13 Mar 2024 12:17		AR\AJ	Ok
9	PSTDICC005	PSTDICC005	PL088556.D	13 Mar 2024 12:30		AR\AJ	Ok,M
10	PCHLORICC1000	PCHLORICC1000	PL088557.D	13 Mar 2024 12:44		AR\AJ	Ok
11	PCHLORICC750	PCHLORICC750	PL088558.D	13 Mar 2024 12:58		AR\AJ	Ok
12	PCHLORICC500	PCHLORICC500	PL088559.D	13 Mar 2024 13:12		AR\AJ	Ok
13	PCHLORICC250	PCHLORICC250	PL088560.D	13 Mar 2024 13:26		AR\AJ	Ok
14	PCHLORICC050	PCHLORICC050	PL088561.D	13 Mar 2024 13:39		AR\AJ	Ok
15	PTOXICC1000	PTOXICC1000	PL088562.D	13 Mar 2024 13:53		AR\AJ	Ok
16	PTOXICC750	PTOXICC750	PL088563.D	13 Mar 2024 14:07		AR\AJ	Ok
17	PTOXICC500	PTOXICC500	PL088564.D	13 Mar 2024 14:21		AR\AJ	Ok
18	PTOXICC250	PTOXICC250	PL088565.D	13 Mar 2024 14:34		AR\AJ	Ok
19	PTOXICC100	PTOXICC100	PL088566.D	13 Mar 2024 14:48		AR\AJ	Ok

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Instrument ID: ECD_L

Daily Analysis Runlog For Sequence/QCBatch ID # PL031424

Review By	Abdul	Review On	3/14/2024 10:07:20 AM		
Supervise By	Ankita	Supervise On	3/14/2024 10:51:30 AM		
SubDirectory	PL031424	HP Acquire Method		HP Processing Method	pl031424 8081

STD. NAME	STD REF.#
Tune/Reschk	PP22638,PP23074
Initial Calibration Stds	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,PP22973,PP22974
CCC	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,
Internal Standard/PEM	
ICV/I.BLK	PP22964,PP22969,PP22974
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

20	PSTDICV050	ICVPL031424	PL088567.D	13 Mar 2024 15:02		AR\AJ	Ok
21	PCHLORICV500	ICVPL031424	PL088568.D	13 Mar 2024 15:16		AR\AJ	Ok
22	PTOXICV500	ICVPL031424	PL088569.D	13 Mar 2024 15:30		AR\AJ	Ok
23	I.BLK	I.BLK	PL088570.D	13 Mar 2024 16:00		AR\AJ	Ok
24	PEM	PEM	PL088571.D	13 Mar 2024 16:14		AR\AJ	Ok,M
25	PSTDCCC050	PSTDCCC050	PL088572.D	13 Mar 2024 16:28		AR\AJ	Ok,M
26	PB159567BL	PB159567BL	PL088573.D	13 Mar 2024 16:42		AR\AJ	Ok
27	PB159567BS	PB159567BS	PL088574.D	13 Mar 2024 16:55		AR\AJ	Ok,M
28	P1733-01	WC-1	PL088575.D	13 Mar 2024 17:09		AR\AJ	Ok,M
29	P1733-01MS	WC-1MS	PL088576.D	13 Mar 2024 17:23		AR\AJ	Ok,M
30	P1733-01MSD	WC-1MSD	PL088577.D	13 Mar 2024 17:37		AR\AJ	Ok,M
31	P1733-05	WC-2	PL088578.D	13 Mar 2024 17:51		AR\AJ	Ok,M
32	P1733-09	WC-3	PL088579.D	13 Mar 2024 18:04		AR\AJ	Ok,M
33	I.BLK	I.BLK	PL088580.D	13 Mar 2024 18:18		AR\AJ	Ok
34	PEM	PEM	PL088581.D	13 Mar 2024 18:32		AR\AJ	Ok,M
35	PSTDCCC050	PSTDCCC050	PL088582.D	13 Mar 2024 18:46		AR\AJ	Ok,M
36	SOIL IDOC-1	SOIL IDOC-1	PL088583.D	13 Mar 2024 19:00		AR\AJ	Ok,M
37	SOIL IDOC-2	SOIL IDOC-2	PL088584.D	13 Mar 2024 19:13		AR\AJ	Ok,M
38	SOIL IDOC-3	SOIL IDOC-3	PL088585.D	13 Mar 2024 19:27		AR\AJ	Ok,M
39	SOIL IDOC-4	SOIL IDOC-4	PL088586.D	13 Mar 2024 19:41		AR\AJ	Ok,M

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Instrument ID: ECD_L

Daily Analysis Runlog For Sequence/QCBatch ID # PL031424

Review By	Abdul	Review On	3/14/2024 10:07:20 AM		
Supervise By	Ankita	Supervise On	3/14/2024 10:51:30 AM		
SubDirectory	PL031424	HP Acquire Method		HP Processing Method	pl031424 8081

STD. NAME	STD REF.#
Tune/Reschk	PP22638,PP23074
Initial Calibration Stds	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,PP22973,PP22974
CCC	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,
Internal Standard/PEM	
ICV/I.BLK	PP22964,PP22969,PP22974
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

40	I.BLK	I.BLK	PL088587.D	13 Mar 2024 19:55		AR\AJ	Ok
41	PSTDCCC050	PSTDCCC050	PL088588.D	13 Mar 2024 20:09		AR\AJ	Ok,M

M : Manual Integration

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Instrument ID: ECD_L

Daily Analysis Runlog For Sequence/QCBatch ID # PL031524

Review By	Abdul	Review On	3/15/2024 11:15:53 AM		
Supervise By	Ankita	Supervise On	3/15/2024 11:21:05 AM		
SubDirectory	PL031524	HP Acquire Method		HP Processing Method	pl031424 8081

STD. NAME	STD REF.#
Tune/Reschk	PP22638,PP23074
Initial Calibration Stds	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,PP22973,PP22974
CCC	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,
Internal Standard/PEM	
ICV/I.BLK	PP22964,PP22969,PP22974
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	HEXANE	HEXANE	PL088589.D	14 Mar 2024 09:33		AR\AJ	Ok
2	I.BLK	I.BLK	PL088590.D	14 Mar 2024 09:47		AR\AJ	Ok
3	PEM	PEM	PL088591.D	14 Mar 2024 10:01		AR\AJ	Ok,M
4	PSTDCCC050	PSTDCCC050	PL088592.D	14 Mar 2024 10:14		AR\AJ	Ok,M
5	PB159583BL	PB159583BL	PL088593.D	14 Mar 2024 13:16		AR\AJ	Ok
6	PB159583BS	PB159583BS	PL088594.D	14 Mar 2024 13:31		AR\AJ	Ok,M
7	P1744-01	RT-3488	PL088595.D	14 Mar 2024 13:45		AR\AJ	Ok,M
8	P1744-01MS	RT-3488MS	PL088596.D	14 Mar 2024 13:59	compound #18 recovery fail	AR\AJ	Ok,M
9	P1744-01MSD	RT-3488MSD	PL088597.D	14 Mar 2024 14:13	compound #18 recovery fail	AR\AJ	Ok,M
10	P1746-01	SB-01-0-2.0	PL088598.D	14 Mar 2024 14:26		AR\AJ	Ok,M
11	P1746-02	SB-01-4.0-6.0	PL088599.D	14 Mar 2024 14:40		AR\AJ	Ok,M
12	P1746-03	SB-01-4.0-6.0-DUP	PL088600.D	14 Mar 2024 14:54		AR\AJ	Ok,M
13	P1746-04	SB-01-7.0-9.5	PL088601.D	14 Mar 2024 15:08	need 2x dilution	AR\AJ	Dilution
14	P1746-06	SB-02-0-2.0	PL088602.D	14 Mar 2024 15:22	need 3x dilution	AR\AJ	Dilution
15	P1746-08	SB-03-0-2.0	PL088603.D	14 Mar 2024 15:35		AR\AJ	Ok,M
16	P1746-09	SB-03-2.0-3.0	PL088604.D	14 Mar 2024 15:49		AR\AJ	Ok,M
17	P1746-11	SB-04-0-2.0	PL088605.D	14 Mar 2024 16:03		AR\AJ	Ok,M
18	I.BLK	I.BLK	PL088606.D	14 Mar 2024 16:17		AR\AJ	Ok
19	PEM	PEM	PL088607.D	14 Mar 2024 16:31		AR\AJ	Ok,M

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Instrument ID: ECD_L

Daily Analysis Runlog For Sequence/QCBatch ID # PL031524

Review By	Abdul	Review On	3/15/2024 11:15:53 AM		
Supervise By	Ankita	Supervise On	3/15/2024 11:21:05 AM		
SubDirectory	PL031524	HP Acquire Method		HP Processing Method	pl031424 8081

STD. NAME	STD REF.#
Tune/Reschk	PP22638,PP23074
Initial Calibration Stds	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,PP22973,PP22974
CCC	PP22951,PP22952,PP22960,PP22961,PP22962,PP22963,PP22964,PP22954,PP22965,PP22966,PP22967,PP22968,PP22969,PP22956,PP22970,PP22971,PP22972,
Internal Standard/PEM	
ICV/I.BLK	PP22964,PP22969,PP22974
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

20	PSTDCCC050	PSTDCCC050	PL088608.D	14 Mar 2024 16:44		AR\AJ	Ok,M
21	P1746-12	SB-04-2.0-4.0	PL088609.D	14 Mar 2024 16:58		AR\AJ	Ok
22	P1746-13	SB-04-4.0-6.0	PL088610.D	14 Mar 2024 17:12		AR\AJ	Ok,M
23	P1746-15	SB-05-0-2.0	PL088611.D	14 Mar 2024 17:26	will be reanalzyed for confirmation	AR\AJ	Not Ok
24	P1746-16	SB-05-0-2.0-DUP	PL088612.D	14 Mar 2024 17:40	will be reanalzyed for confirmation	AR\AJ	Not Ok
25	P1746-17	SB-05-2.0-4.5	PL088613.D	14 Mar 2024 17:54		AR\AJ	Ok,M
26	P1746-19	SB-06-0-2.0	PL088614.D	14 Mar 2024 18:07		AR\AJ	Ok,M
27	PB159588BL	PB159588BL	PL088615.D	14 Mar 2024 18:21		AR\AJ	Ok
28	PB159588BS	PB159588BS	PL088616.D	14 Mar 2024 18:35		AR\AJ	Ok,M
29	PB159588BSD	PB159588BSD	PL088617.D	14 Mar 2024 18:49		AR\AJ	Ok,M
30	P1747-01	MW-01	PL088618.D	14 Mar 2024 19:02		AR\AJ	Ok,M
31	P1747-02	MW-01-DUP	PL088619.D	14 Mar 2024 19:16		AR\AJ	Ok,M
32	P1747-04	MW-02	PL088620.D	14 Mar 2024 19:30		AR\AJ	Ok
33	P1747-05	MW-04	PL088621.D	14 Mar 2024 19:44		AR\AJ	Ok
34	I.BLK	I.BLK	PL088622.D	14 Mar 2024 19:58		AR\AJ	Ok
35	PSTDCCC050	PSTDCCC050	PL088623.D	14 Mar 2024 20:11		AR\AJ	Ok,M

M : Manual Integration

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EXTRACTION LOGPAGE

PB159588

SOP ID:	M3510C,3580A-Extraction Pesticide-16				
Clean Up SOP #:	Florisil			**Extraction Start Date :**	03/14/2024
Matrix :	Water			**Extraction Start Time :**	10:51
Weigh By:	N/A	**Extraction By:**	RS	**Extraction End Date :**	03/14/2024
Balance check:	N/A	**Filter By:**	RP	**Extraction End Time :**	15:45
Balance ID:	N/A	**pH Meter ID:**	N/A	**Concentration By:**	RS
pH Strip Lot#:	E3574	**Hood ID:**	4,5,6,7	**Supervisor By :**	rajesh

Extraction Method: ☑ Seperatory Funnel ☐ Continious Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☐ Soxhlet

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	500 PPB	PP23066
Surrogate	1.0ML	200 PPB	PP23117
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3707
Baked Na2SO4	N/A	EP2458
Hexane	N/A	E3709
Florisil	N/A	E3675
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

40 ML Vial lot# 03-40 BTS721.

KD Bath ID:	WATER BATH-1	**Envap ID:**	NE VAP-02
KD Bath Temperature:	60 °C	**Envap Temperature:**	40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
03/14/24	RP (Extn Tech)	ATI/EST PCA Cooler
15:50	**Preparation Group**	**Analysis Group**

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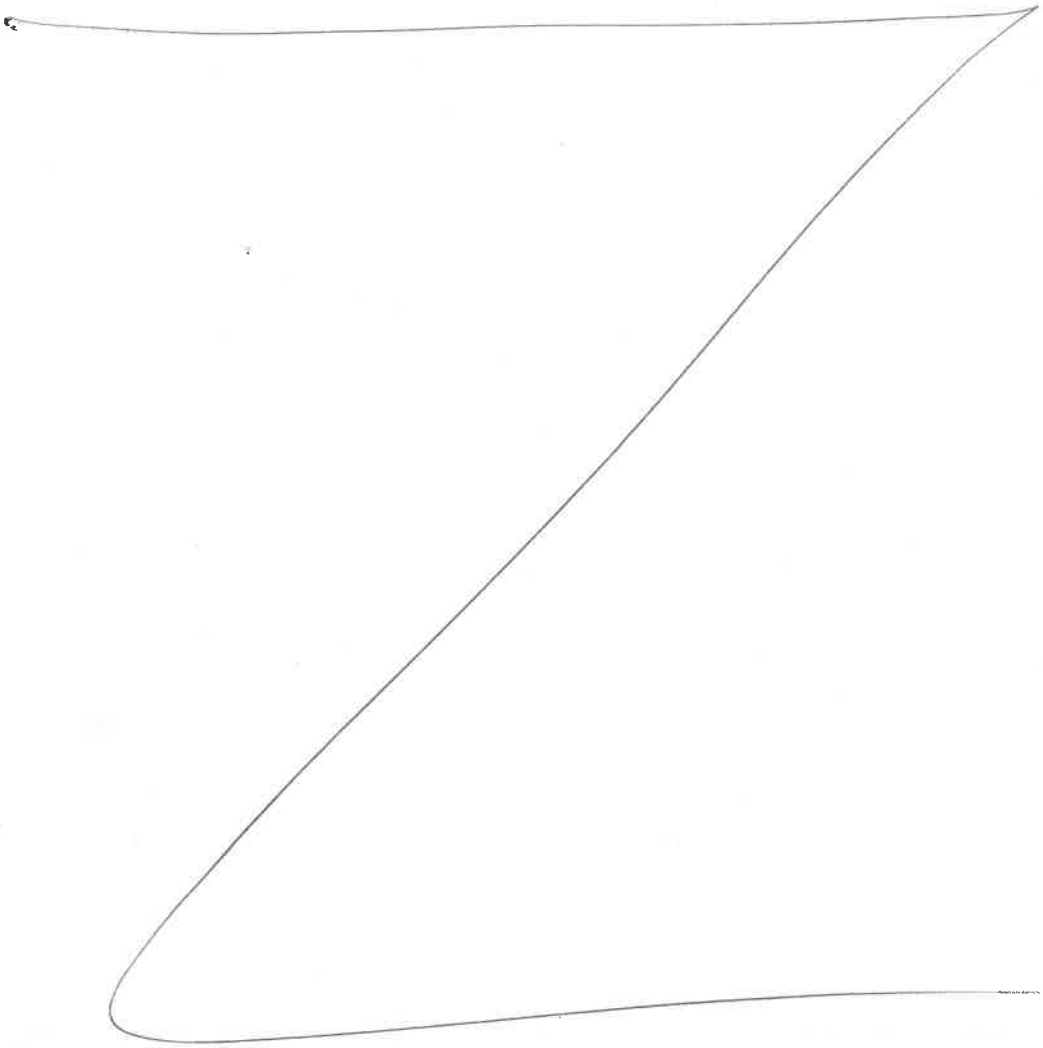
EXTRACTION LOGPAGE

PrepBatch ID : PB159588

Analytical Method: M3510C,3580A-Extraction Pesticide-16

Concentration Date: 03/14/2024

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB159588BL	PBLK588	Pesticide-TCL	1000	6	RUPESH	rajesh	10			SEP-01
PB159588BS	PLCS588	Pesticide-TCL	1000	6	RUPESH	rajesh	10			2
PB159588BSD	PLCSD588	Pesticide-TCL	1000	6	RUPESH	rajesh	10			3
P1747-01	MW-01	Pesticide-TCL	970	6	RUPESH	rajesh	10	F		4
P1747-02	MW-01-DUP	Pesticide-TCL	970	6	RUPESH	rajesh	10	F		5
P1747-04	MW-02	Pesticide-TCL	980	6	RUPESH	rajesh	10	F		6
P1747-05	MW-04	Pesticide-TCL	970	6	RUPESH	rajesh	10	F		7



* **Extracts relinguished on the same date as received.**

3/14/24

WORKLIST(Hardcopy Internal Chain)

WorkList Name : P1747 **WorkList ID :** 178575 **Department :** Extraction **Date :** 03-14-2024 10:08:57

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P1747-01	MW-01	Water	PCB	Cool 4 deg C	LIRO01	I21	03/12/2024	8082A
P1747-01	MW-01	Water	Pesticide-TCL	Cool 4 deg C	LIRO01	I21	03/12/2024	8081B
P1747-02	MW-01-DUP	Water	PCB	Cool 4 deg C	LIRO01	I21	03/12/2024	8082A
P1747-02	MW-01-DUP	Water	Pesticide-TCL	Cool 4 deg C	LIRO01	I21	03/12/2024	8081B
P1747-04	MW-02	Water	PCB	Cool 4 deg C	LIRO01	I21	03/12/2024	8082A
P1747-04	MW-02	Water	Pesticide-TCL	Cool 4 deg C	LIRO01	I21	03/12/2024	8081B
P1747-05	MW-04	Water	PCB	Cool 4 deg C	LIRO01	I21	03/12/2024	8082A
P1747-05	MW-04	Water	Pesticide-TCL	Cool 4 deg C	LIRO01	I21	03/12/2024	8081B

Date/Time 03/14/24
Raw Sample Received by: RP (Eat Lab)
Raw Sample Relinquished by: Rm Sm

Date/Time 03/14/24
Raw Sample Received by: Rm Sm
Raw Sample Relinquished by: RP (Eat lab

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Prep Standard - Chemical Standard Summary

Order ID : P1747

Test : Pesticide-TCL

Prepbatch ID : PB159588,

Sequence ID/Qc Batch ID: PL031524,

Standard ID :
EP2458,PP22638,PP22946,PP22947,PP22948,PP22949,PP22950,PP22951,PP22952,PP22954,PP22955,PP22956,PP22957,PP22958,PP22960,PP22961,PP22962,PP22963,PP22964,PP22965,PP22966,PP22967,PP22968,PP22969,PP22970,PP22971,PP22972,PP22973,PP22974,PP23066,PP23074,PP23117,

Chemical ID :
E3551,E3585,E3670,E3672,E3674,E3675,E3677,E3699,E3707,E3709,P11064,P11144,P11393,P11746,P11748,P11792,P11814,P11893,P12301,P12302,P12598,P13034,P13243,P9050,

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Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2458	03/08/2024	07/03/2024	Rajesh Parikh	Extraction_SCALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 03/08/2024

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
758	PEM Mix w/Surr	PP22638	10/16/2023	04/09/2024	Abdul Mirza	None	None	Ankita Jodhani 10/17/2023

FROM 1.00000ml of P11792 + 99.00000ml of E3585 = Final Quantity: 100.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
84	Pest/PCB Surrogate Stock 20 PPM	PP22946	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 1.00000ml of P11746 + 9.00000ml of E3672 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3629	20 PPM PEST stock Solution 1st source(RESTEK)	PP22947	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 1.00000ml of P11064 + 9.00000ml of E3672 = Final Quantity: 10.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1472	20 PPM Pest Stock Solution 2nd Source	PP22948	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 1.00000ml of P13034 + 9.00000ml of E3672 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1273	20 PPM Mirex Stock (Primary Source)	PP22949	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 0.20000ml of P9050 + 9.80000ml of E3672 = Final Quantity: 10.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3663	20 PPM MIREX Stock STD (Secondary source)	PP22950	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 0.20000ml of P11144 + 9.80000ml of E3672 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3630	100/100 PPB PEST Working std.1st Source(RESTEK)	PP22951	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 98.50000ml of E3672 + 0.50000ml of PP22946 + 0.50000ml of PP22947 + 0.50000ml of PP22949 = Final Quantity: 100.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
80	100/100 PPB Pesticide Working Solution 2nd Source	PP22952	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 98.50000ml of E3672 + 0.50000ml of PP22946 + 0.50000ml of PP22948 + 0.50000ml of PP22950 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
386	1000/100 PPB Chlordane STD (Restek)	PP22954	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 0.10000ml of P11893 + 99.40000ml of E3672 + 0.50000ml of PP22946 = Final Quantity: 100.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3746	1000/100 ppb Chlordane STD-RESTEK 2ND SOURCE	PP22955	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 0.10000ml of P12598 + 99.40000ml of E3672 + 0.50000ml of PP22946 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
777	20 PPM DRO I.BLK	PP22956	12/28/2023	06/20/2024	Yogesh Patel	None	None	Ankita Jodhani 12/28/2023

FROM 1.00000ml of P12301 + 1.00000ml of P12302 + 98.00000ml of E3670 = Final Quantity: 100.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
383	1000/100 PPB Toxaphene STD (Restek)	PP22957	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 0.10000ml of P11393 + 99.40000ml of E3672 + 0.50000ml of PP22946 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3669	1000/100 PPB TOXAPHENE STD 2nd source (RESTEK)	PP22958	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/28/2023

FROM 0.10000ml of P11814 + 99.40000ml of E3672 + 0.50000ml of PP22946 = Final Quantity: 100.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3631	75 PPB ICAL PEST STD(RESTEK)	PP22960	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.25000ml of E3672 + 0.75000ml of PP22951 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3632	50 PPB ICAL PEST STD(RESTEK)	PP22961	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.50000ml of E3672 + 0.50000ml of PP22951 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3633	25 PPB ICAL PEST STD(RESTEK)	PP22962	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.75000ml of E3672 + 0.25000ml of PP22951 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3634	5 PPB ICAL PEST STD(RESTEK)	PP22963	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.90000ml of E3672 + 0.10000ml of PP22961 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3988	50 PPB PEST ICV STD(RESTEK)	PP22964	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.50000ml of E3672 + 0.50000ml of PP22952 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
528	CHLOR 750 PPB STD	PP22965	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.25000ml of E3672 + 0.75000ml of PP22954 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
529	CHLOR 500 PPB STD	PP22966	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.50000ml of E3672 + 0.50000ml of PP22954 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
530	CHLOR 250 PPB STD	PP22967	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.75000ml of E3672 + 0.25000ml of PP22954 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3408	CHLOR 50 PPB STD	PP22968	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.90000ml of E3672 + 0.10000ml of PP22966 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
532	CHLOR 500 PPB ICV STD	PP22969	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.50000ml of E3672 + 0.50000ml of PP22955 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
528	CHLOR 750 PPB STD	PP22970	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.25000ml of E3672 + 0.75000ml of PP22954 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
529	CHLOR 500 PPB STD	PP22971	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.50000ml of E3672 + 5.00000ml of PP22954 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
535	TOX 250 PPB STD	PP22972	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.75000ml of E3672 + 0.25000ml of PP22957 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2217	TOX 100 PPB STD	PP22973	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.90000ml of E3672 + 0.10000ml of PP22957 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3670	TOX 500 PPB ICV std (RESTEK)	PP22974	12/28/2023	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 12/29/2023

FROM 0.50000ml of E3672 + 0.50000ml of PP22958 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
79	500 PPB Pesticide Spike Solution	PP23066	02/02/2024	06/23/2024	Abdul Mirza	None	None	Ankita Jodhani 02/07/2024

FROM 95.00000ml of E3674 + 2.50000ml of PP22948 + 2.50000ml of PP22950 = Final Quantity: 100.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4027	Pesticide resolution Check Mixture 8081	PP23074	02/09/2024	07/22/2024	Abdul Mirza	None	None	Ankita Jodhani 02/12/2024

FROM 1.00000ml of P13243 + 99.00000ml of E3677 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
465	200 PPB Pest/PCB Surrogate Spike	PP23117	02/29/2024	08/21/2024	Abdul Mirza	None	None	Ankita Jodhani 03/01/2024

FROM 1.00000ml of P11748 + 999.00000ml of E3699 = Final Quantity: 1000.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	07/03/2024	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	23C2462011	04/09/2024	10/09/2023 / Rajesh	10/05/2023 / Rajesh	E3585

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	23j1162022	06/20/2024	12/20/2023 / Rajesh	12/15/2023 / Rajesh	E3670

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	23G1262009	06/23/2024	12/23/2023 / Rajesh	12/21/2023 / Rajesh	E3672

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	23H1462005	07/03/2024	01/03/2024 / Rajesh	01/03/2024 / Rajesh	E3674

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Agela Technologies Inc.	FS0006 / Cleanert Florisil cartridge	Y0307-2	04/13/2024	11/13/2023 / Rajesh	11/13/2023 / Rajesh	E3675

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	23G1262009	07/22/2024	01/22/2024 / Rajesh	01/16/2024 / Rajesh	E3677

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	23H14626005	08/21/2024	02/21/2024 / RUPESH	02/14/2024 / RUPESH	E3699

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24A1562007	08/28/2024	02/28/2024 / Rajesh	02/19/2024 / Rajesh	E3707

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	23G1262009	09/01/2024	03/01/2024 / Rajesh	03/01/2024 / Rajesh	E3709

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32291 / Pesticide Mix, CLP method, organochlorine Std AB#1, 200ug/mL, hexane/toluene, 1mL/ampul	A0168439	06/28/2024	12/28/2023 / Abdul	09/29/2021 / Abdul	P11064

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	79136 / Mirex, 1000 ug/ml	102821	06/28/2024	12/28/2023 / Abdul	10/29/2021 / Abdul	P11144

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32005 / Toxaphene Standard	A0176614	06/28/2024	12/28/2023 / Abdul	02/09/2022 / Ankita	P11393

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32000 / Pesticide Mix, CLP method, Pesticide Surrogate Mix, 200ug/mL, Acetone, 1mL	A0179404	06/28/2024	12/28/2023 / Abdul	05/27/2022 / Sohil	P11746

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32000 / Pesticide Mix, CLP method, Pesticide Surrogate Mix, 200ug/mL, Acetone, 1mL	A0179404	08/29/2024	02/29/2024 / Abdul	05/27/2022 / Sohil	P11748

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32074 / Pesticide Performance Evaluation Mix w/Surrogate	A0183168	04/16/2024	10/16/2023 / Abdul	05/27/2022 / Sohil	P11792

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32005 / Toxaphene Standard	A0177326	06/28/2024	12/28/2023 / Abdul	06/17/2022 / Ankita	P11814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32021 / Chlordane Std.	A0181737	06/28/2024	12/28/2023 / Abdul	06/17/2022 / Abdul	P11893

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	06/28/2024	12/28/2023 / yogesh	02/22/2023 / Yogesh	P12301

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	06/28/2024	12/28/2023 / yogesh	02/22/2023 / Yogesh	P12302

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32021 / Chlordane Std.	A0193299	06/28/2024	12/28/2023 / Abdul	07/03/2023 / Abdul	P12598

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32291 / Pesticide Mix, CLP method, organochlorine Std AB#1, 200ug/mL, hexane/toluene, 1mL/ampul	A0200423	06/28/2024	12/28/2023 / Abdul	12/26/2023 / Abdul	P13034

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	19161 / 8081 pesticide resolution check mixture	013124	08/09/2024	02/09/2024 / Abdul	02/09/2024 / Abdul	P13243

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	79136 / Mirex, 1000 ug/ml	112018	06/28/2024	12/28/2023 / Abdul	11/01/2019 / Stephen	P9050

(7)

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

P12596 (7)
↓
P12602

7/3/2023

Catalog No. : 32021 **Lot No.:** A0193299

Description : Chlordane Standard

Chlordane Standard 1000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2029 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Chlordane 10% trans-Chlordane; 9% cis-Chlordane; 81% other isomers	57-74-9	978545	----%	1,010.0 µg/mL	+/- 56.0475

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Tech Tips:
CAS #57-74-9 nomenclature is based on EPA method 8081B.

Quality Confirmation Test

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

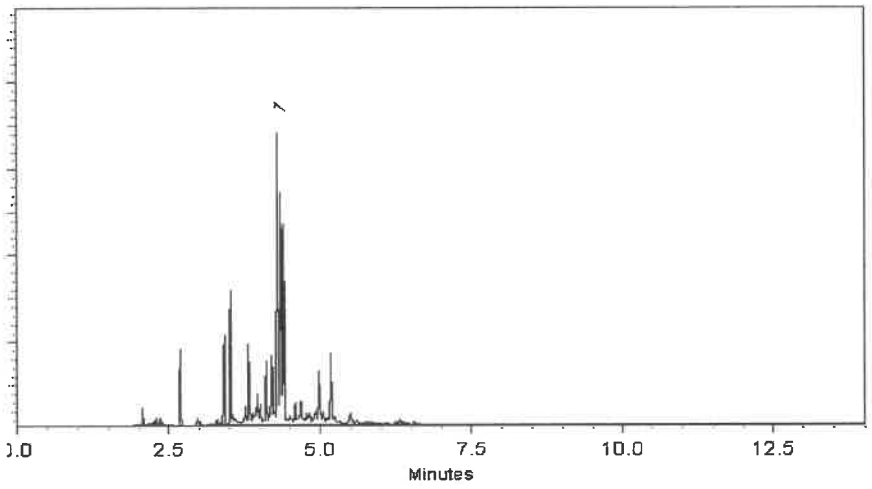
Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
300 ml/min.

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 06-Jan-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-Jan-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

PRODUCTOS QUIMICOS MONTERREY, S.A. DE C.V.

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_2SO_4
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO_4)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreing matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

RG-02-01, Ed. 3

Recd. by RB on 7/24/23 E3551

Hexanes (95% n-hexane)
BAKER RESI-ANALYZED® Reagent

avantor™ | J.T.Baker®

Material No.: 9262-03
Batch No.: 23C2462011
Manufactured Date: 2023-03-10
Expiration Date: 2024-06-08
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	< 1
Assay (Total Saturated C_6 Isomers) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	97 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Substances Darkened by H_2SO_4	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	< 0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 10/5/23

E 3585

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker®

Material No.: 9254-03
Batch No.: 23H1462005
Manufactured Date: 2023-07-26
Expiration Date: 2026-07-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected for water)	≥ 99.4 %	99.7 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	≤ 0.3	0.1
Titrable Base (µeq/g)	≤ 0.6	< 0.1
Water (H_2O)	≤ 0.5 %	0.3 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 1/3/24

E367H

Ken Koehnlein
Sr. Manager, Quality Assurance

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700


Cleanert Floris
1g/6ml 30/pkg
E 3675
LOT#:Y0307-2
MFG#:F00549
CAT# FS0006
Made in China
Agela Technologies

Hexanes (95% n-hexane)
BAKER RESI-ANALYZED® Reagent

avantor™ | J.T.Baker®

Material No.: 9262-03
Batch No.: 23G1262009
Manufactured Date: 2023-06-01
Expiration Date: 2024-08-30
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	3
Assay (Total Saturated C_6 Isomers) (by GC, corrected for water)	≥ 99.5 %	99.6 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Substances Darkened by H_2SO_4	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 1/16/24

E 3677

Ken Koehnlein
Sr. Manager, Quality Assurance

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker®

Material No.: 9254-03
Batch No.: 23H1462005
Manufactured Date: 2023-07-26
Expiration Date: 2026-07-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected for water)	≥ 99.4 %	99.7 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	≤ 0.3	0.1
Titrable Base (µeq/g)	≤ 0.6	< 0.1
Water (H_2O)	≤ 0.5 %	0.3 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

RS
2/14.

E3699

Ken Koehnlein
Sr. Manager, Quality Assurance

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™ | J.T.Baker®

Material No.: 9266-A4
Batch No.: 24A1562007
Manufactured Date: 2023-12-14
Expiration Date: 2025-03-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	< 1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	≥ 99.8 %	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Titrable Acid (µeq/g)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	≤ 0.02 %	< 0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC
Manufacturer source batch: MG23L14152

E 3707

Ken Koehnlein
Sr. Manager, Quality Assurance

Hexanes (95% n-hexane)
BAKER RESI-ANALYZED® Reagent

avantor™ | J.T.Baker®

Material No.: 9262-03
Batch No.: 23G1262009
Manufactured Date: 2023-06-01
Expiration Date: 2024-08-30
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	3
Assay (Total Saturated C_6 Isomers) (by GC, corrected for water)	≥ 99.5 %	99.6 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Substances Darkened by H_2SO_4	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 03/01/24

E 3709

Ken Koehnlein
Sr. Manager, Quality Assurance

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32021 **Lot No.:** A0181737

Description : Chlordane Standard

Chlordane Standard 1000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Chlordane	1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 57-74-9 (Lot 978545)		+/- 31.8975	µg/mL	Unstressed
	Purity ----%		+/- 41.6615	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

P 11892 ↓ P 11896 (5)

06/17/2022

Tech Tips:
CAS #57-74-9 nomenclature is based on EPA method 8081B.

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

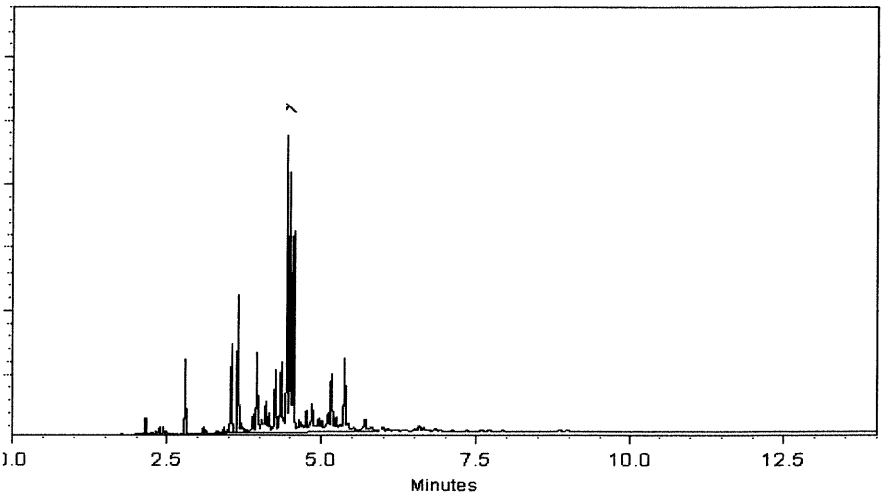
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

Date Mixed: 11-Feb-2022 **Balance:** B442140311

Marlina Cowan - Operations Tech I

Date Passed: 24-Feb-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

P 11892 | (5)
↓
P 11896
1

06/17/2022

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

P11061
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P11065
AR 9/30/2024

Catalog No. : 32291 **Lot No.:** A0168439

Description : Organochlorine Pesticide Mix AB #1

Organochlorine Pesticide Mix AB #1 200µg/mL, Hexane/Toluene(50:50), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	alpha-BHC		200.5 µg/mL	+/- 1.4217 µg/mL	Gravimetric
	CAS # 319-84-6	(Lot 0012018BHC)		+/- 9.1674 µg/mL	Unstressed
	Purity 99%			+/- 13.2104 µg/mL	Stressed
2	gamma-BHC (Lindane)		200.8 µg/mL	+/- 1.4238 µg/mL	Gravimetric
	CAS # 58-89-9	(Lot 10972000)		+/- 9.1807 µg/mL	Unstressed
	Purity 97%			+/- 13.2295 µg/mL	Stressed
3	beta-BHC		200.0 µg/mL	+/- 1.4182 µg/mL	Gravimetric
	CAS # 319-85-7	(Lot SL210106)		+/- 9.1446 µg/mL	Unstressed
	Purity 99%			+/- 13.1774 µg/mL	Stressed
4	delta-BHC		199.9 µg/mL	+/- 1.4176 µg/mL	Gravimetric
	CAS # 319-86-8	(Lot ER02101401)		+/- 9.1409 µg/mL	Unstressed
	Purity 98%			+/- 13.1722 µg/mL	Stressed
5	Heptachlor		200.0 µg/mL	+/- 1.4182 µg/mL	Gravimetric
	CAS # 76-44-8	(Lot 0006540595)		+/- 9.1446 µg/mL	Unstressed
	Purity 99%			+/- 13.1774 µg/mL	Stressed
6	Aldrin		199.8 µg/mL	+/- 1.4169 µg/mL	Gravimetric
	CAS # 309-00-2	(Lot 11129800)		+/- 9.1363 µg/mL	Unstressed
	Purity 97%			+/- 13.1656 µg/mL	Stressed
7	Heptachlor epoxide (isomer B)		200.5 µg/mL	+/- 1.4217 µg/mL	Gravimetric
	CAS # 1024-57-3	(Lot 10039000)		+/- 9.1674 µg/mL	Unstressed
	Purity 99%			+/- 13.2104 µg/mL	Stressed

8	trans-Chlordane		200.5	µg/mL	+/-	1.4217	µg/mL	Gravimetric
	CAS # 5103-74-2	(Lot 32095)			+/-	9.1674	µg/mL	Unstressed
	Purity 99%				+/-	13.2104	µg/mL	Stressed
9	cis-Chlordane		200.0	µg/mL	+/-	1.4182	µg/mL	Gravimetric
	CAS # 5103-71-9	(Lot 31707)			+/-	9.1446	µg/mL	Unstressed
	Purity 99%				+/-	13.1774	µg/mL	Stressed
10	Endosulfan I		200.5	µg/mL	+/-	1.4217	µg/mL	Gravimetric
	CAS # 959-98-8	(Lot BCBS8631)			+/-	9.1674	µg/mL	Unstressed
	Purity 99%				+/-	13.2104	µg/mL	Stressed
11	4,4'-DDE		200.0	µg/mL	+/-	1.4182	µg/mL	Gravimetric
	CAS # 72-55-9	(Lot GHYQG)			+/-	9.1446	µg/mL	Unstressed
	Purity 99%				+/-	13.1774	µg/mL	Stressed
12	Dieldrin		200.4	µg/mL	+/-	1.4211	µg/mL	Gravimetric
	CAS # 60-57-1	(Lot 10714300)			+/-	9.1633	µg/mL	Unstressed
	Purity 98%				+/-	13.2045	µg/mL	Stressed
13	Endrin		199.9	µg/mL	+/-	1.4176	µg/mL	Gravimetric
	CAS # 72-20-8	(Lot 11129700)			+/-	9.1409	µg/mL	Unstressed
	Purity 98%				+/-	13.1722	µg/mL	Stressed
14	4,4'-DDD		200.5	µg/mL	+/-	1.4217	µg/mL	Gravimetric
	CAS # 72-54-8	(Lot HAN02)			+/-	9.1674	µg/mL	Unstressed
	Purity 99%				+/-	13.2104	µg/mL	Stressed
15	Endosulfan II		201.0	µg/mL	+/-	1.4253	µg/mL	Gravimetric
	CAS # 33213-65-9	(Lot 11129400)			+/-	9.1903	µg/mL	Unstressed
	Purity 99%				+/-	13.2433	µg/mL	Stressed
16	4,4'-DDT		200.0	µg/mL	+/-	1.4182	µg/mL	Gravimetric
	CAS # 50-29-3	(Lot S37912V)			+/-	9.1446	µg/mL	Unstressed
	Purity 99%				+/-	13.1774	µg/mL	Stressed
17	Endrin aldehyde		200.9	µg/mL	+/-	1.4245	µg/mL	Gravimetric
	CAS # 7421-93-4	(Lot 30455)			+/-	9.1857	µg/mL	Unstressed
	Purity 98%				+/-	13.2367	µg/mL	Stressed
18	Endosulfan sulfate		200.0	µg/mL	+/-	1.4182	µg/mL	Gravimetric
	CAS # 1031-07-8	(Lot BCCB0424)			+/-	9.1446	µg/mL	Unstressed
	Purity 99%				+/-	13.1774	µg/mL	Stressed
19	Methoxychlor		199.8	µg/mL	+/-	1.4169	µg/mL	Gravimetric
	CAS # 72-43-5	(Lot 10720900)			+/-	9.1363	µg/mL	Unstressed
	Purity 97%				+/-	13.1656	µg/mL	Stressed
20	Endrin ketone		199.8	µg/mL	+/-	1.4169	µg/mL	Gravimetric
	CAS # 53494-70-5	(Lot 11129600)			+/-	9.1363	µg/mL	Unstressed
	Purity 97%				+/-	13.1656	µg/mL	Stressed

Solvent: Hexane/Toluene (50:50)
CAS # 110-54-3/108-88-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

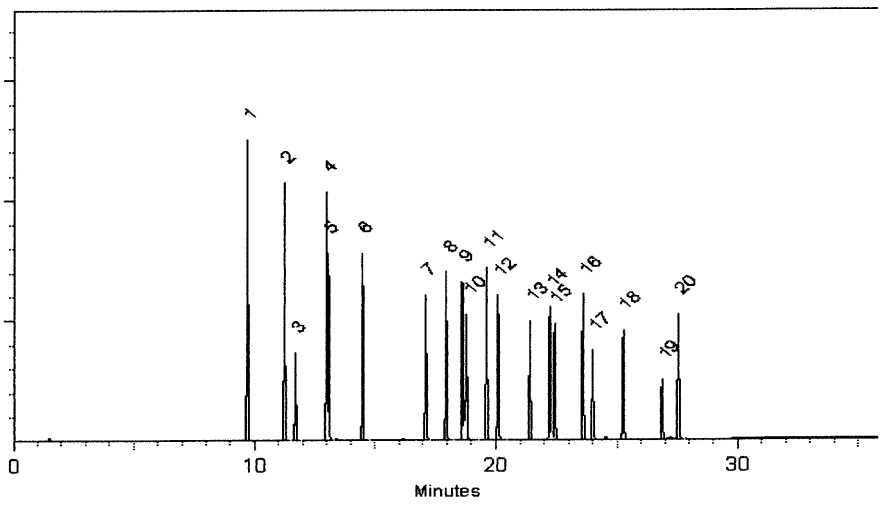
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 25-Jan-2021 **Balance:** 1128342314

Marlina Cowan - Operations Tech I

Date Passed: 29-Jan-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

P11061
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P11065

AR 9/30/2021

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 79136
Lot Number: 102821
Description: Mirex

Expiration Date: 102826
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

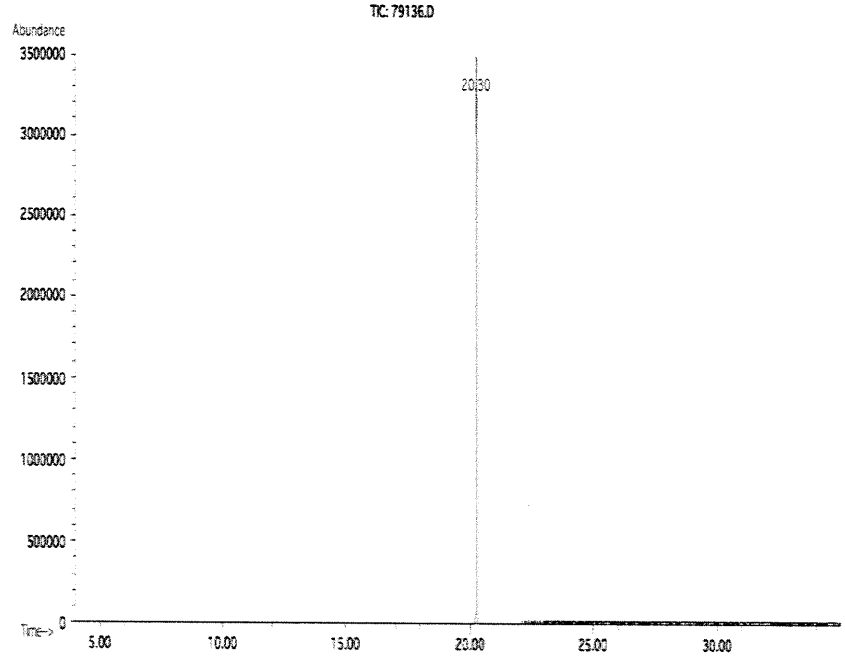
Solvent(s): **Lot#**
Acetone 81025

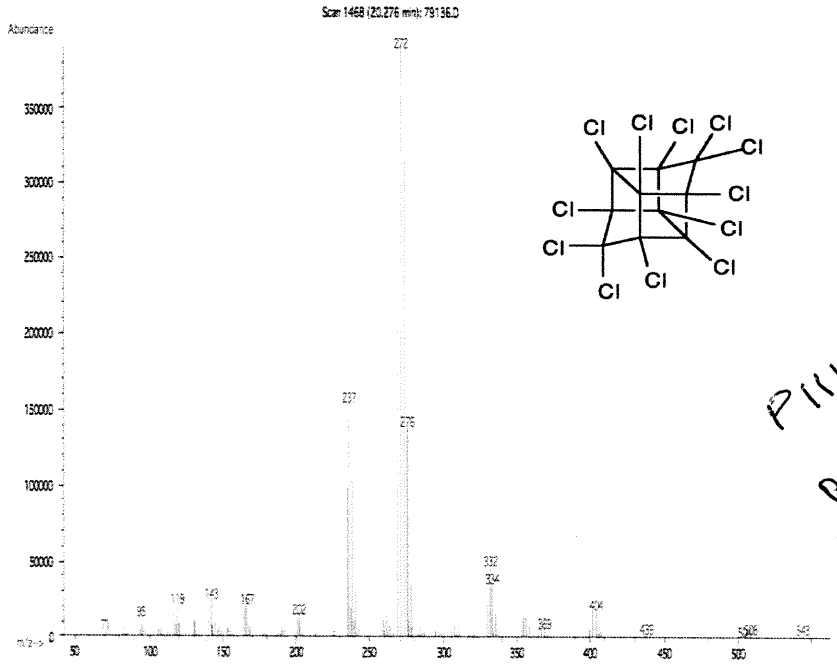
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.006 Flask Uncertainty

Eli Aliaga	102821
Formulated By: Eli Aliaga	DATE
Pedro Rentas	102821
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Mirex	437	9492400	1000	99.4	0.5	0.05034	0.05039	1000.9	10.3	2385-85-5	N/A	orl-rat 306mg/kg

Method GC7MSD-1.M: Column: SPB-608 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 150°C (4min.), Temp 2 = 290°C (13.5 min.), Rate = 8°C/min., Injector B= 200°C, Detector B = 290°C. Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.





P11142 To P11146
AR 11/02/21

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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P11364 AJ
J.
P11393 02/09/22

Catalog No. : 32005 **Lot No.:** A0176614

Description : Toxaphene Standard

Toxaphene Standard 1000 µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Toxaphene	1,005.3 µg/mL	+/- 5.9714	µg/mL	Gravimetric
	CAS # 8001-35-2 (Lot 1051817)		+/- 31.8763	µg/mL	Unstressed
	Purity ----%		+/- 41.6339	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

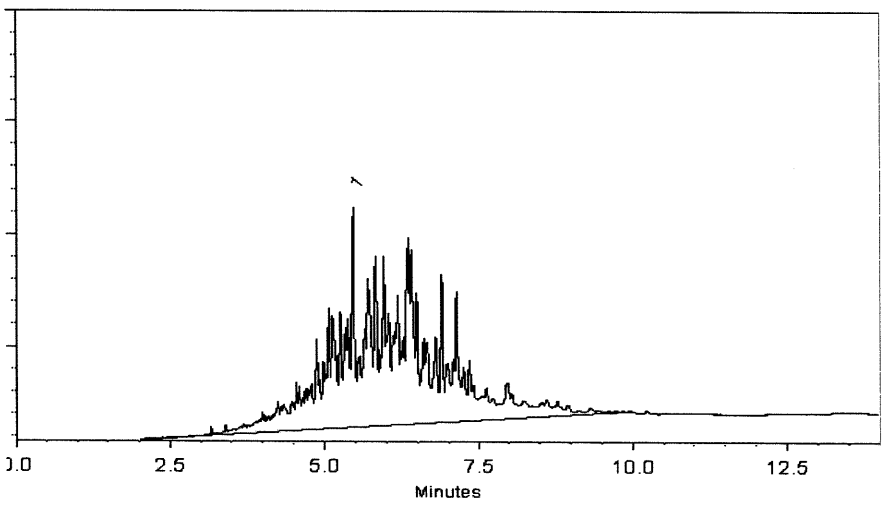
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bradley Meyer
Bradley Meyer - Mix Technician

Date Mixed: 21-Sep-2021 **Balance:** 1128360905

Marlina Cowan
Marlina Cowan - Operations Tech I

Date Passed: 22-Sep-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

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Certificate of Analysis

P11739 to P11748

Received by SJ 5/27/2022

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0179404

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2,4,5,6-Tetrachloro-m-xylene	200.7 µg/mL	+/- 1.1840	µg/mL	Gravimetric
	CAS # 877-09-8 (Lot 0052481)		+/- 6.3622	µg/mL	Unstressed
	Purity 98%		+/- 8.3106	µg/mL	Stressed
2	Decachlorobiphenyl (BZ# 209)	200.8 µg/mL	+/- 1.1845	µg/mL	Gravimetric
	CAS # 2051-24-3 (Lot 30679)		+/- 6.3653	µg/mL	Unstressed
	Purity 99%		+/- 8.3146	µg/mL	Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

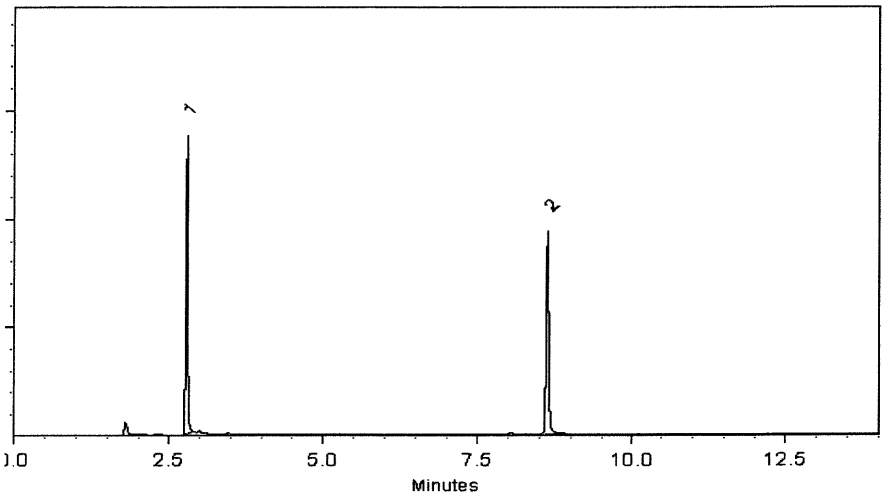
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 09-Dec-2021 **Balance:** 1127510105

Clara Windle - Operations Technician I

Date Passed: 14-Dec-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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CERTIFIED REFERENCE MATERIAL

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ACCREDITED
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Certificate #3222.02

Certificate of Analysis

P11739 to P11748

Received by SJ 5/27/2022

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0179404

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2,4,5,6-Tetrachloro-m-xylene	200.7 µg/mL	+/- 1.1840	µg/mL	Gravimetric
	CAS # 877-09-8 (Lot 0052481)		+/- 6.3622	µg/mL	Unstressed
	Purity 98%		+/- 8.3106	µg/mL	Stressed
2	Decachlorobiphenyl (BZ# 209)	200.8 µg/mL	+/- 1.1845	µg/mL	Gravimetric
	CAS # 2051-24-3 (Lot 30679)		+/- 6.3653	µg/mL	Unstressed
	Purity 99%		+/- 8.3146	µg/mL	Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

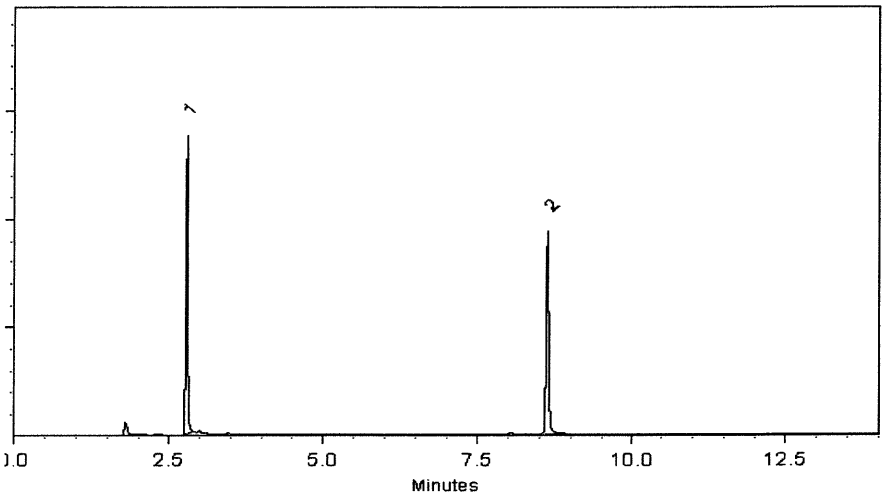
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 09-Dec-2021 **Balance:** 1127510105

Clara Windle - Operations Technician I

Date Passed: 14-Dec-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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Testing Laboratory
Certificate #3222.02

Certificate of Analysis

P11789 to P11793

Received by SJ 5/27/2022

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32074 **Lot No.:** A0183168

Description : Pesticide Performance Eval Mix w/Surrogate

Performance Evaluation Std. 3/90 SOW w/surrogates 1-25µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2026 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2,4,5,6-Tetrachloro-m-xylene	2.0 µg/mL	+/- 0.1220	µg/mL	Gravimetric
	CAS # 877-09-8 (Lot 0052481)		+/- 0.1523	µg/mL	Unstressed
	Purity 98%		+/- 0.1799	µg/mL	Stressed
2	alpha-BHC	1.0 µg/mL	+/- 0.0610	µg/mL	Gravimetric
	CAS # 319-84-6 (Lot 12469000)		+/- 0.0762	µg/mL	Unstressed
	Purity 99%		+/- 0.0900	µg/mL	Stressed
3	gamma-BHC (Lindane)	1.0 µg/mL	+/- 0.0610	µg/mL	Gravimetric
	CAS # 58-89-9 (Lot 12642100)		+/- 0.0762	µg/mL	Unstressed
	Purity 99%		+/- 0.0900	µg/mL	Stressed
4	beta-BHC	1.0 µg/mL	+/- 0.0610	µg/mL	Gravimetric
	CAS # 319-85-7 (Lot BCCC6425)		+/- 0.0762	µg/mL	Unstressed
	Purity 99%		+/- 0.0900	µg/mL	Stressed
5	Endrin	5.1 µg/mL	+/- 0.3045	µg/mL	Gravimetric
	CAS # 72-20-8 (Lot 13000500)		+/- 0.3805	µg/mL	Unstressed
	Purity 99%		+/- 0.4496	µg/mL	Stressed
6	4,4'-DDT	10.1 µg/mL	+/- 0.6090	µg/mL	Gravimetric
	CAS # 50-29-3 (Lot 210916JLM)		+/- 0.7609	µg/mL	Unstressed
	Purity 99%		+/- 0.8992	µg/mL	Stressed
7	Methoxychlor	25.2 µg/mL	+/- 1.5221	µg/mL	Gravimetric
	CAS # 72-43-5 (Lot 12555700)		+/- 1.9018	µg/mL	Unstressed
	Purity 98%		+/- 2.2475	µg/mL	Stressed

8	Decachlorobiphenyl (BZ# 209)		2.0	µg/mL	+/-	0.1221	µg/mL	Gravimetric
	CAS # 2051-24-3	(Lot 30679)			+/-	0.1524	µg/mL	Unstressed
	Purity 99%				+/-	0.1800	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

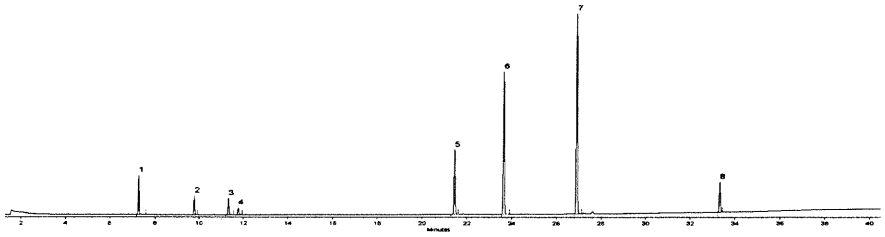
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brittany Federinko - Operations Tech I

Date Mixed: 22-Mar-2022 **Balance:** 1128360905

John Lidgett - AD Chemist

Date Passed: 24-Mar-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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Certificate #3222.02

Certificate of Analysis

P11794 to P11798

Received by SJ 5/27/2022

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32074 **Lot No.:** A0183168

Description : Pesticide Performance Eval Mix w/Surrogate

Performance Evaluation Std. 3/90 SOW w/surrogates 1-25µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2026 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2,4,5,6-Tetrachloro-m-xylene	2.0 µg/mL	+/- 0.1220 µg/mL	Gravimetric
	CAS # 877-09-8 (Lot 0052481)		+/- 0.1523 µg/mL	Unstressed
	Purity 98%		+/- 0.1799 µg/mL	Stressed
2	alpha-BHC	1.0 µg/mL	+/- 0.0610 µg/mL	Gravimetric
	CAS # 319-84-6 (Lot 12469000)		+/- 0.0762 µg/mL	Unstressed
	Purity 99%		+/- 0.0900 µg/mL	Stressed
3	gamma-BHC (Lindane)	1.0 µg/mL	+/- 0.0610 µg/mL	Gravimetric
	CAS # 58-89-9 (Lot 12642100)		+/- 0.0762 µg/mL	Unstressed
	Purity 99%		+/- 0.0900 µg/mL	Stressed
4	beta-BHC	1.0 µg/mL	+/- 0.0610 µg/mL	Gravimetric
	CAS # 319-85-7 (Lot BCCC6425)		+/- 0.0762 µg/mL	Unstressed
	Purity 99%		+/- 0.0900 µg/mL	Stressed
5	Endrin	5.1 µg/mL	+/- 0.3045 µg/mL	Gravimetric
	CAS # 72-20-8 (Lot 13000500)		+/- 0.3805 µg/mL	Unstressed
	Purity 99%		+/- 0.4496 µg/mL	Stressed
6	4,4'-DDT	10.1 µg/mL	+/- 0.6090 µg/mL	Gravimetric
	CAS # 50-29-3 (Lot 210916JLM)		+/- 0.7609 µg/mL	Unstressed
	Purity 99%		+/- 0.8992 µg/mL	Stressed
7	Methoxychlor	25.2 µg/mL	+/- 1.5221 µg/mL	Gravimetric
	CAS # 72-43-5 (Lot 12555700)		+/- 1.9018 µg/mL	Unstressed
	Purity 98%		+/- 2.2475 µg/mL	Stressed

8	Decachlorobiphenyl (BZ# 209)		2.0	µg/mL	+/-	0.1221	µg/mL	Gravimetric
	CAS # 2051-24-3	(Lot 30679)			+/-	0.1524	µg/mL	Unstressed
	Purity 99%				+/-	0.1800	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

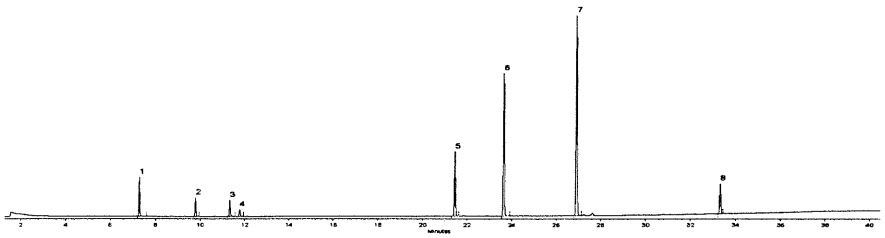
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brittany Federinko - Operations Tech I

Date Mixed: 22-Mar-2022 **Balance:** 1128360905

John Lidgett - AD Chemist

Date Passed: 24-Mar-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
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Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

P11811 ↓ P11819 AJ 06/17/22

Catalog No. : 32005 **Lot No.:** A0177326

Description : Toxaphene Standard

Toxaphene Standard 1000 µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Toxaphene	1,004.7 µg/mL	+/- 5.9674	µg/mL	Gravimetric
	CAS # 8001-35-2 (Lot 1051817)		+/- 31.8552	µg/mL	Unstressed
	Purity -----%		+/- 41.6063	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

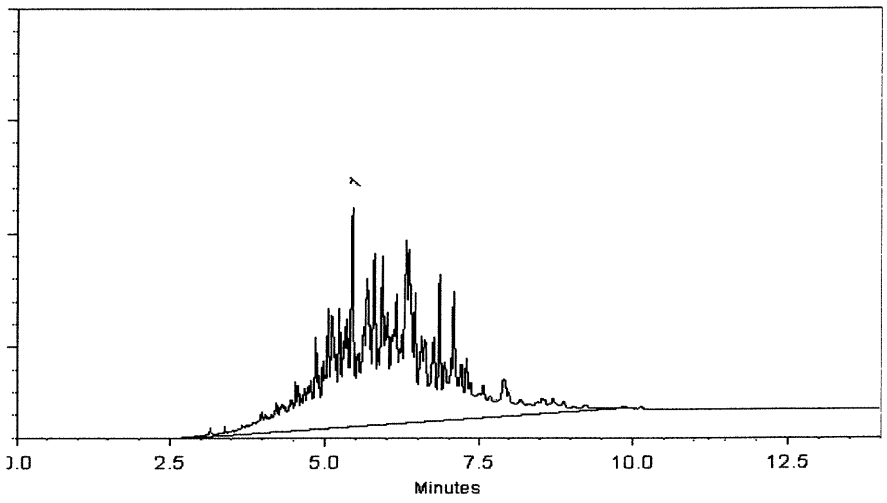
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 11-Oct-2021 **Balance:** B442140311

Marlina Cowan - Operations Tech I

Date Passed: 14-Oct-2021

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 72072
Lot Number: 101122
Description: n-Tetracosane-d50

Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s):	Lot#
Methylene chloride	105345

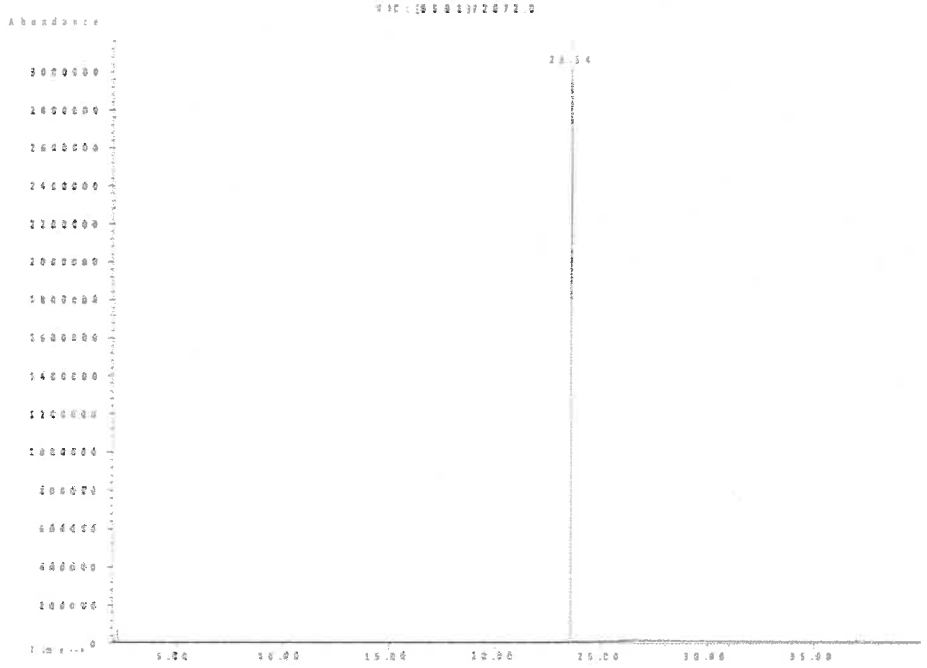
P12291 & P12310 } Y.P. 02/22/23

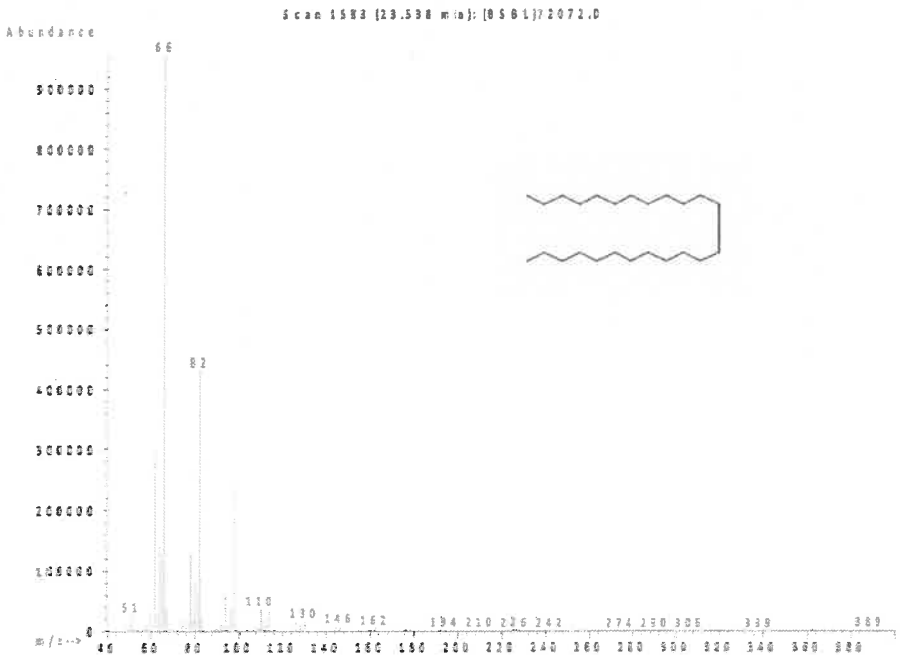
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

5E-05	Balance Uncertainty		
0.058	Flask Uncertainty		
200.0	Weight(s) shown below were combined and diluted to (mL):		

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHYLENE CHLORIDE**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H302	**Harmful if swallowed.**	**H315,H320**	**Causes skin and eye irritation.**
H351	**Suspected of causing cancer.**	**H335**	**May cause respiratory irritation.**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**


Signal Word: WARNING

Section III - Composition

Components:		CAS#:	OSHA PEL (TWA)	LD50 orl-rat	% (optional)
Dichloromethane	Methylene chloride	75-09-2	50 ppm	> 2,000 mg/kg	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methylene chloride 75-09-2 TWA 50 ppm
Potential for skin absorption, ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	40°C	Specific Gravity (H2O = 1)	1.325

Vapor Pressure (mm Hg)	353	Melting Point	-97°C
Vapor Density (AIR = 1)	2.93	Evaporation rate (Butyl Acetate = 1)	0.71

Solubility in Water Slightly soluble

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions No data available
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Alkali metals, Aluminum, Oxidizing agents, Bases, Amines, Magnesium, Acids, Vinyl compounds
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat - > 2,000 mg/kg
LC50 Inhalation - Rat - 52,000 mg/m3
LD50 Dermal - Rat - > 2,000 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 1000 lbs.

LC50 193.00 mg/l - 96 h
EC50 1,682.00 mg/l - 48 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1593 Class: 6.1 Packing group: III
Proper shipping name: Dichloromethane
Reportable Quantity (RQ): 1000 lbs

IATA
UN number: 1593 Class: 6.1 Packing group: III
Proper shipping name: Dichloromethane

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within +/- 0.5% of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: U_{CRM} is the expanded uncertainty which utilizes a K = 2 (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

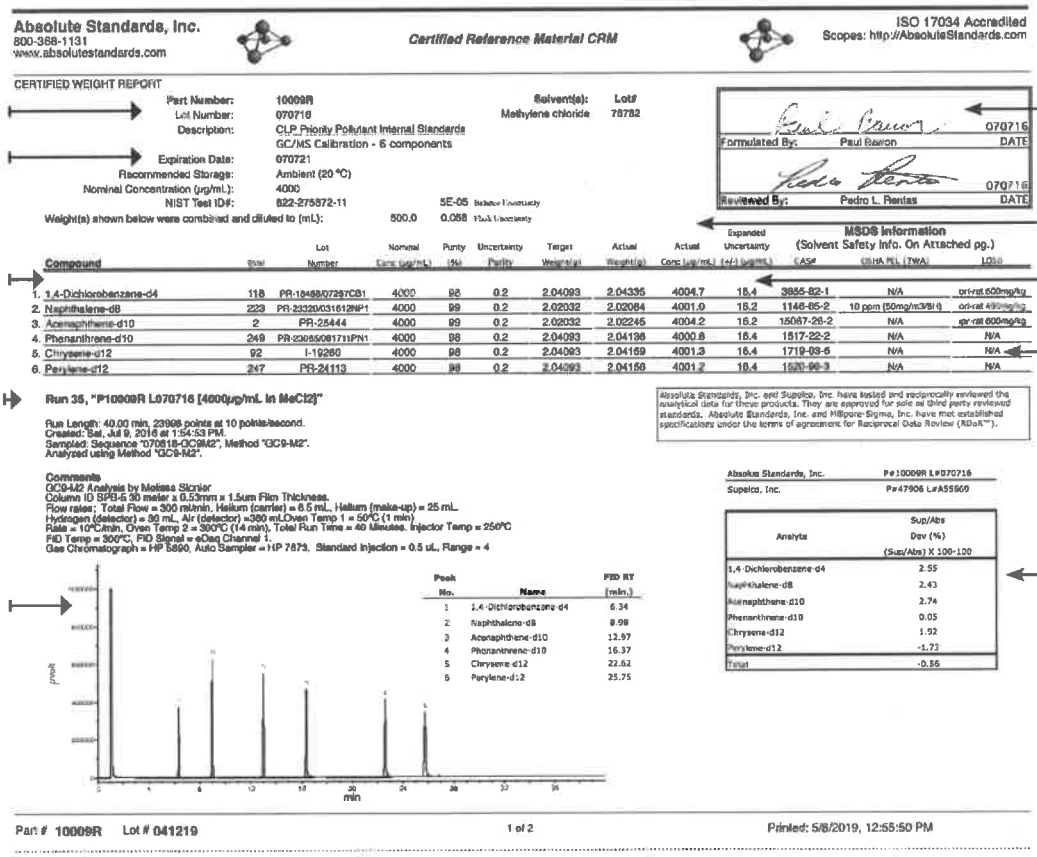
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11
Solvent(s): Methylene chloride
Lot#: 78782
Weight(s) shown below were combined and diluted to (mL): 500.0
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By: Paul Baron 070716 DATE
Reviewed By: Pedro L. Rentas 070716 DATE

MSDS Information (Solvent Safety Info. On Attached pg.)

Compound	Mass	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-184880/7287CB1	4000	98	0.2	2.04093	2.04335	4004.7	18.4	3855-82-1	N/A	orl-rat 500mg/kg
2. Naphthalene-d8	223	PR-233200/031612NP1	4000	99	0.2	2.02032	2.02084	4001.0	18.2	1146-65-2	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	18.2	15067-26-2	N/A	spr-rat 600mg/kg
4. Phenanthrene-d10	249	PR-230850/071711PN1	4000	98	0.2	2.04093	2.04196	4000.8	18.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19260	4000	98	0.2	2.04093	2.04169	4001.3	18.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04156	4001.2	18.4	1520-96-3	N/A	N/A

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Run 36, "P10009R L070716 [4000µg/mL in MeCl2]"

Run Length: 40.00 min, 23936 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070618-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL
Hydrogen (detector) = 30 mL, Air (detector) =300 mLOven Temp 1 = 50°C (1 min)
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. P#10009R L#070716
Supelco, Inc. P#47906 L#A55609

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	2.74
Phenanthrene-d10	0.05
Chrysene-d12	1.52
Perylene-d12	-1.73
Total	-0.56

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # — Part Number / Lot Number
Shelf Life — Expiration Date
Formulator / Reviewer — Formulated By / Reviewed By
Actual Concentration — Actual Conc (µg/mL)
Target Compounds — Compound
Uncertainty Values — Expanded Uncertainty (+/-) (µg/mL)
Health & Safety — CAS# / OSHA PEL (TWA) / LD50
Method of Analysis — Run 36, "P10009R L070716 [4000µg/mL in MeCl2]"
Qualitative / Quantitative — Peak No. / Name / FID RT (min.)
3rd Party Comparison — Sup/Abs Dev (%) (Sup/Abs) X 100-100

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 72072
Lot Number: 101122
Description: n-Tetracosane-d50

Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s):	Lot#
Methylene chloride	105345

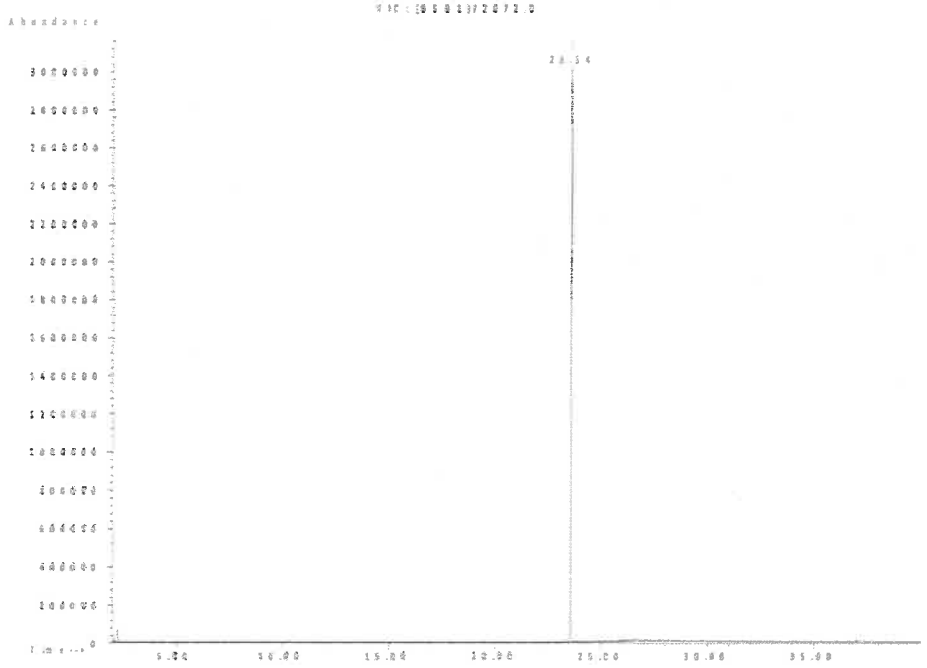
P12291 & P12310 } Y.P. 02/22/23

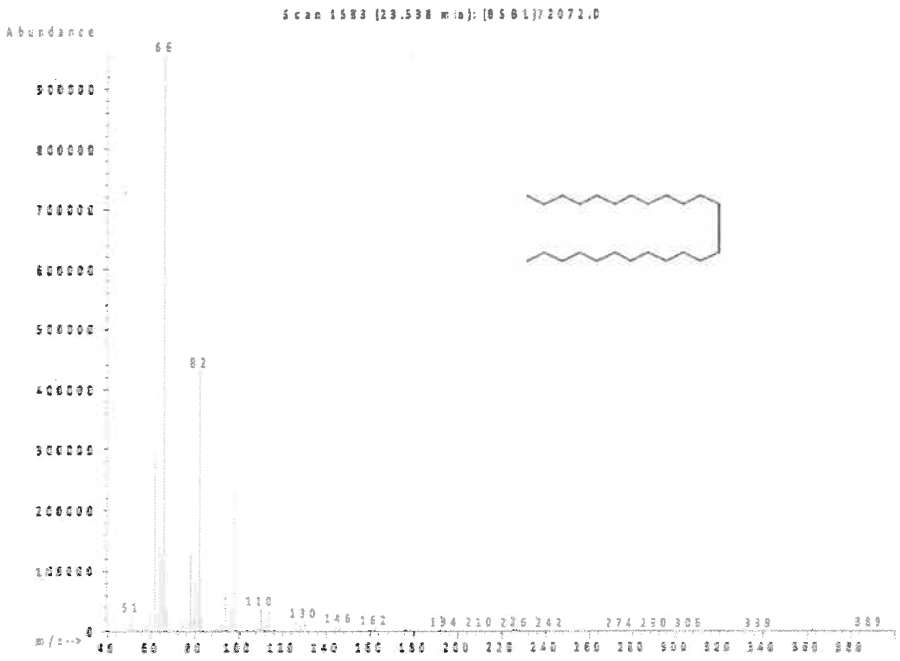
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

5E-05	Balance Uncertainty		
0.058	Flask Uncertainty		
200.0	Weight(s) shown below were combined and diluted to (mL):		

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHYLENE CHLORIDE**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2022

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H302	**Harmful if swallowed.**	**H315,H320**	**Causes skin and eye irritation.**
H351	**Suspected of causing cancer.**	**H335**	**May cause respiratory irritation.**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**


Signal Word: WARNING

Section III - Composition

Components:		CAS#:	OSHA PEL (TWA)	LD50 orl-rat	% (optional)
Dichloromethane	Methylene chloride	75-09-2	50 ppm	> 2,000 mg/kg	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methylene chloride 75-09-2 TWA 50 ppm
Potential for skin absorption, ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	40°C	Specific Gravity (H2O = 1)	1.325

Vapor Pressure (mm Hg)	353	Melting Point	-97°C
Vapor Density (AIR = 1)	2.93	Evaporation rate (Butyl Acetate = 1)	0.71

Solubility in Water Slightly soluble

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions No data available
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Alkali metals, Aluminum, Oxidizing agents, Bases, Amines, Magnesium, Acids, Vinyl compounds
Hazardous decomposition products - No data available

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LD50 Oral - Rat - > 2,000 mg/kg
LC50 Inhalation - Rat - 52,000 mg/m3
LD50 Dermal - Rat - > 2,000 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

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LC50 193.00 mg/l - 96 h
EC50 1,682.00 mg/l - 48 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1593 Class: 6.1 Packing group: III
Proper shipping name: Dichloromethane
Reportable Quantity (RQ): 1000 lbs

IATA
UN number: 1593 Class: 6.1 Packing group: III
Proper shipping name: Dichloromethane

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

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Health & Safety: See the attached SDS & Certified Weight Report before use.

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Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

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Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

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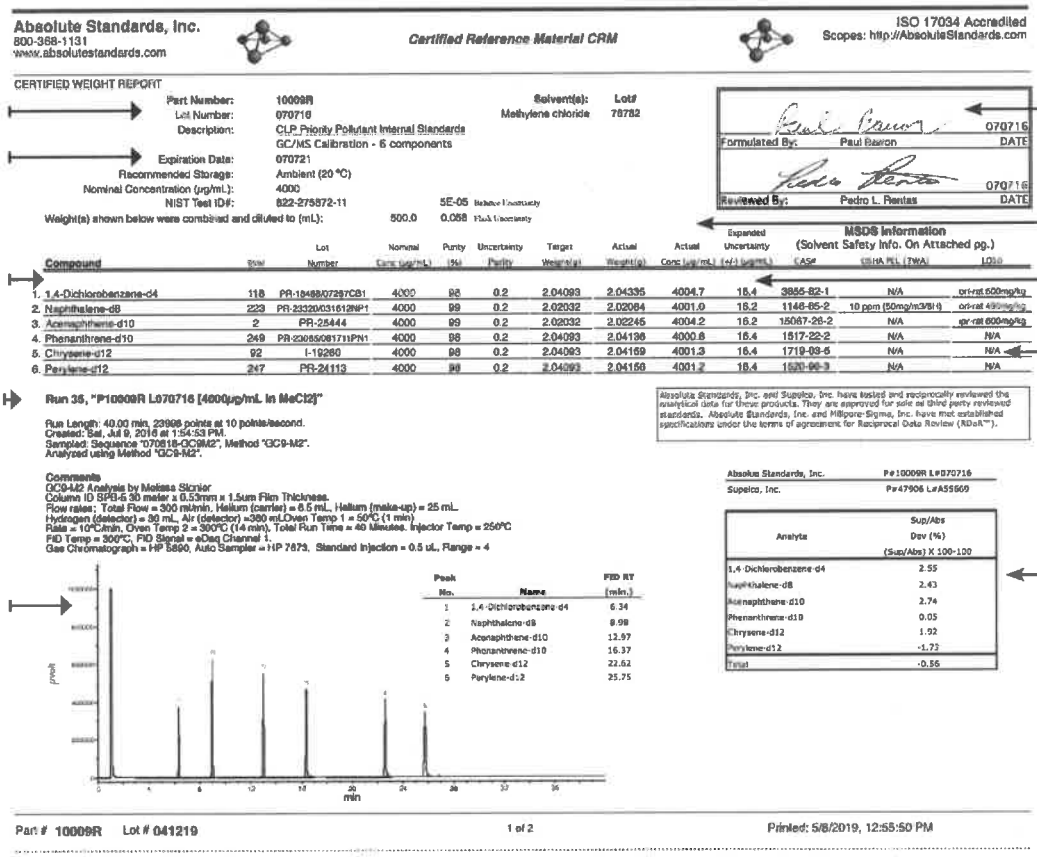

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11
Solvent(s): Methylene chloride
Lot#: 78782
Weight(s) shown below were combined and diluted to (mL): 500.0
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By: Paul Baron 070716 DATE
Reviewed By: Pedro L. Rentas 070716 DATE

MSDS Information (Solvent Safety Info. On Attached pg.)

Compound	Mass	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-184880/7287CB1	4000	98	0.2	2.04093	2.04335	4004.7	18.4	3855-82-1	N/A	orl-rat 500mg/kg
2. Naphthalene-d8	223	PR-233200/031612NP1	4000	99	0.2	2.02032	2.02084	4001.0	18.2	1146-65-2	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	18.2	15067-26-2	N/A	spr-rat 600mg/kg
4. Phenanthrene-d10	249	PR-230850/071711PN1	4000	98	0.2	2.04093	2.04196	4000.8	18.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19260	4000	98	0.2	2.04093	2.04169	4001.3	18.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04156	4001.2	18.4	1520-96-3	N/A	N/A

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Run 36, "P10009R L070716 [4000µg/mL in MeCl2]"

Run Length: 40.00 min, 23936 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070618-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL
Hydrogen (detector) = 30 mL, Air (detector) =300 mLOven Temp 1 = 50°C (1 min)
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. P#10009R L#070716
Supelco, Inc. P#47906 L#A55609

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	2.74
Phenanthrene-d10	0.05
Chrysene-d12	1.52
Perylene-d12	-1.73
Total	-0.56

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # — Part Number / Lot Number
Shelf Life — Expiration Date
Formulator / Reviewer — Formulated By / Reviewed By
Actual Concentration — Actual Conc (µg/mL)
Target Compounds — Compound
Uncertainty Values — Expanded Uncertainty (+/-) (µg/mL)
Health & Safety — CAS# / OSHA PEL (TWA) / LD50
Method of Analysis — Run 36, "P10009R L070716 [4000µg/mL in MeCl2]"
Qualitative / Quantitative — Peak No. / Name / FID RT (min.)
3rd Party Comparison — Sup/Abs Dev (%) (Sup/Abs) X 100-100

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

P 13034 ↓ P 13038 5

12.26.2023

Catalog No. : 32291 **Lot No.:** A0200423

Description : Organochlorine Pesticide Mix AB #1

Organochlorine Pesticide Mix AB #1 200µg/mL, Hexane/Toluene(50:50), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	alpha-BHC	319-84-6	14434500	99%	200.5 µg/mL	+/- 8.9956
2	gamma-BHC (Lindane)	58-89-9	14184400	98%	199.9 µg/mL	+/- 8.9696
3	beta-BHC	319-85-7	BCCC6425	99%	200.0 µg/mL	+/- 8.9732
4	delta-BHC	319-86-8	14450800	98%	199.9 µg/mL	+/- 8.9696
5	Heptachlor	76-44-8	813251	99%	202.0 µg/mL	+/- 9.0629
6	Aldrin	309-00-2	14389400	98%	200.9 µg/mL	+/- 9.0136
7	Heptachlor epoxide (isomer B)	1024-57-3	14448800	99%	200.0 µg/mL	+/- 8.9732
8	trans-Chlordane	5103-74-2	34616	99%	200.5 µg/mL	+/- 8.9956
9	cis-Chlordane	5103-71-9	31766	98%	201.4 µg/mL	+/- 9.0356
10	Endosulfan I	959-98-8	BCCF4060	99%	200.0 µg/mL	+/- 8.9732
11	4,4'-DDE	72-55-9	GHYQG	99%	201.5 µg/mL	+/- 9.0405
12	Dieldrin	60-57-1	14515000	98%	199.9 µg/mL	+/- 8.9696
13	Endrin	72-20-8	14485300	98%	200.4 µg/mL	+/- 8.9916
14	4,4'-DDD	72-54-8	HAN02	99%	200.5 µg/mL	+/- 8.9956
15	Endosulfan II	33213-65-9	14374700	99%	200.0 µg/mL	+/- 8.9732
16	4,4'-DDT	50-29-3	230410JLMA	98%	201.9 µg/mL	+/- 9.0575

17	Endrin aldehyde	7421-93-4	30720	98%	201.4	µg/mL	+/- 9.0356
18	Endosulfan sulfate	1031-07-8	BCCH9010	99%	200.5	µg/mL	+/- 8.9956
19	Methoxychlor	72-43-5	14563200	98%	200.9	µg/mL	+/- 9.0136
20	Endrin ketone	53494-70-5	14537700	98%	199.9	µg/mL	+/- 8.9696

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane/Toluene (50:50)
CAS # 110-54-3/108-88-3
Purity 99%

P13034) 5
↓
P13038 1

12/26/2023

Quality Confirmation Test

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

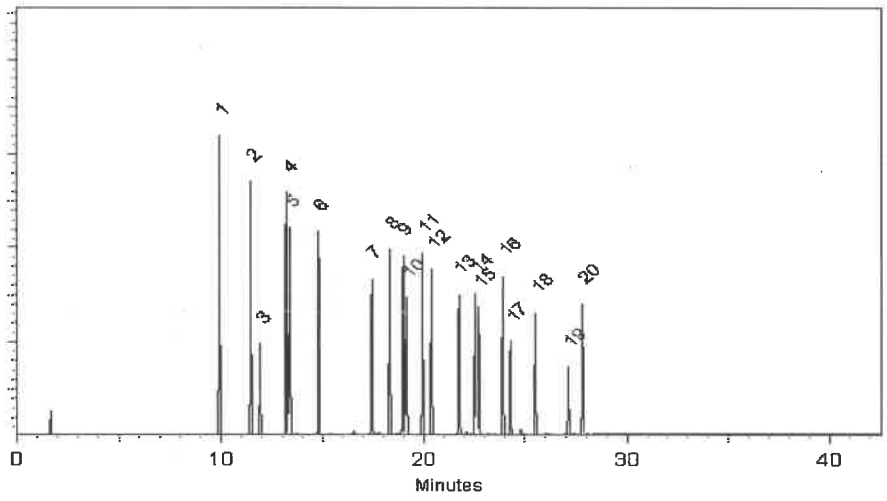
Inj. Temp:
200°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
Split ratio 50:1

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 31-Jul-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 19161
Lot Number: 013124
Description: CLP Pesticides & PCB's Resolution Check Standard
9 components

Solvent(s):	Lot#	
Hexane	273615	(50%)
Toluene	28508	(50%)

Expiration Date: 013129
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Volume(s) shown below were combined and diluted to (mL): 100.0 ± 0.021 Flask Uncertainty

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	013124 DATE
Reviewed By:	Pedro L. Rentas	013124 DATE

	Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	trans-Chlordane	19361	013124	0.010	1.00	0.004	101.3	1.0	0.02	5103-74-2	0.5mg/m3 (skin)	orl-rat 500mg/kg
2.	Endosulfan I	19361	013124	0.010	1.00	0.004	101.3	1.0	0.02	959-98-8	0.1mg/m3 (skin)	orl-rat 18mg/kg
3.	4,4'-DDE	19361	013124	0.010	1.00	0.004	201.6	2.0	0.03	72-55-9	N/A	orl-rat 880mg/kg
4.	Dieldrin	19361	013124	0.010	1.00	0.004	202.8	2.0	0.03	60-57-1	0.25mg/m3 (skin)	orl-rat 38300ug/kg
5.	Endosulfan sulfate	19361	013124	0.010	1.00	0.004	204.2	2.0	0.03	1031-07-8	N/A	orl-rat 18mg/kg
6.	Endrin ketone	19361	013124	0.010	1.00	0.004	202.6	2.0	0.03	53494-70-5	N/A	N/A
7.	4,4'-Methoxychlor	19361	013124	0.010	1.00	0.004	1000.7	10.0	0.09	72-43-5	10mg/m3	orl-rat 6000mg/kg
8.	2,4,5,6-Tetrachloro-m-xylene	19361	013124	0.010	1.00	0.004	202.6	2.0	0.03	877-09-8	N/A	N/A
9.	Decachlorobiphenyl (209)	19361	013124	0.010	1.00	0.004	202.0	2.0	0.03	2051-24-3	N/A	N/A

P13243 } (5)
thru
P13247

02/9/2024

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 72072
Lot Number: 112018
Description: n-Tetracosane-d50

Expiration Date: 112028
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 2684186
Weight(s) shown below were combined and diluted to (mL): 200.0

Solvent(s): **Lot#**
Methylene chloride 102669

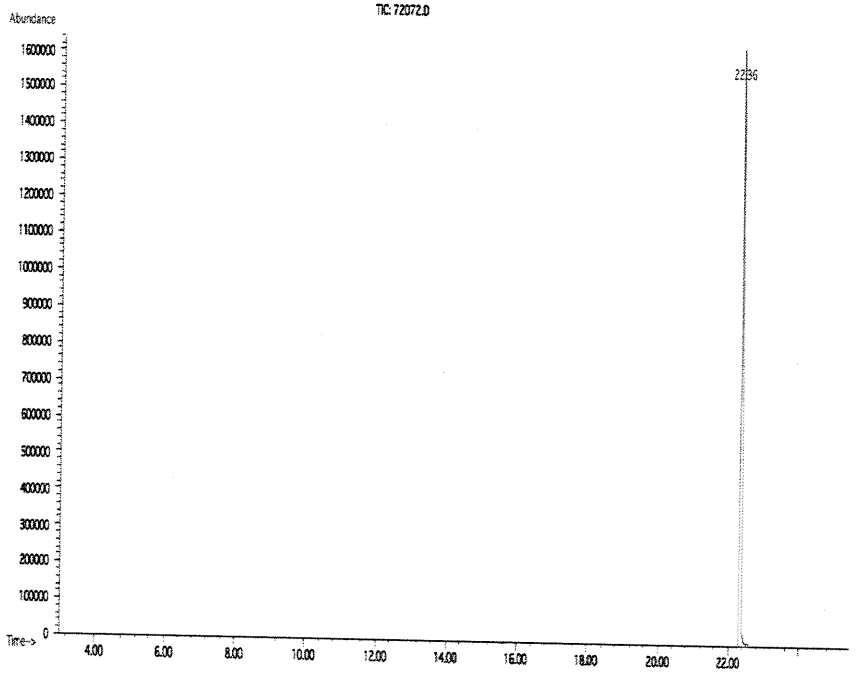
Received by SG on 11/1/19
P9044 - P9053

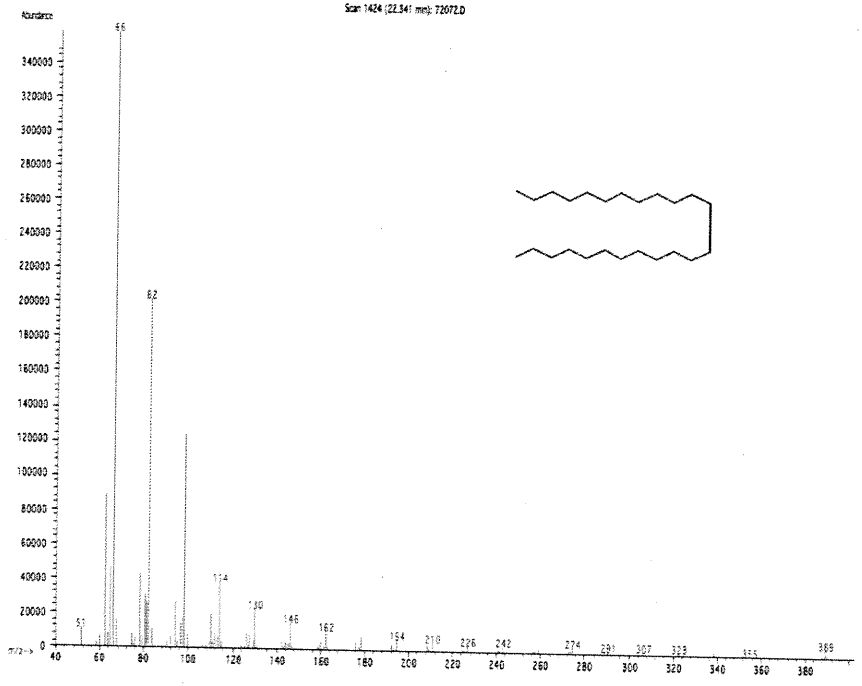
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Prashant Chauhan	112018 DATE
Reviewed By:	Pedro Rentas	112018 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. n-Tetracosane-d50	2072	PR-17753/09216TC1	1000	98	0.2	0.20411	0.20415	1000.2	4.2	16416-32-3	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





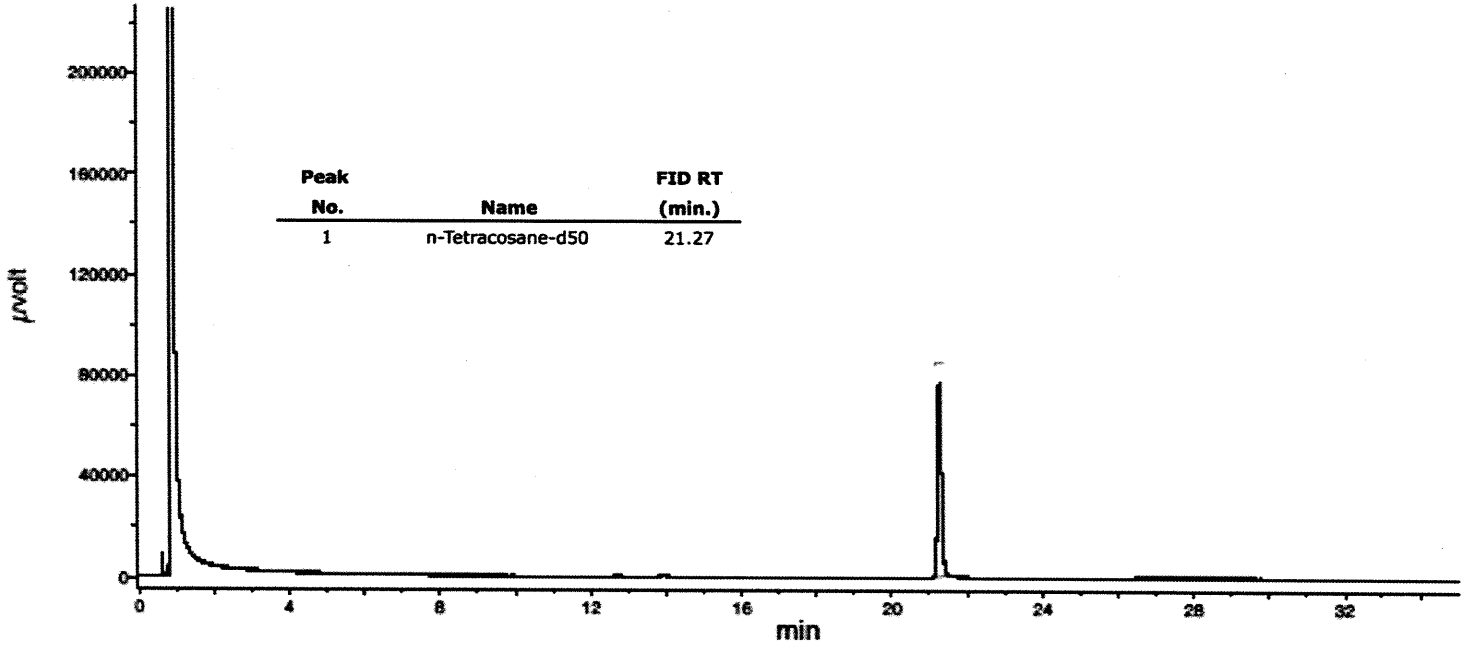
- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Run 40, "P72072 L112018 [1000µg/mL in MeCl2]"

Run Length: 35.00 min, 20999 points at 10 points/second.
Created: Thu, Nov 22, 2018 at 7:23:18 AM.
Sampled: Sequence "112018-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments

GC4-M1 Analysis by Melissa Stonier
Column ID SPB5 L#60062-01A : 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 3



Peak No.	Name	FID RT (min.)
1	n-Tetracosane-d50	21.27

CHEMTECH

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.
QUOTE NO. P1747
COC Number 2043853

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: LiRo Engineers, Inc.
ADDRESS: 703 Fourimer street
CITY Brooklyn STATE: NY ZIP: 11211
ATTENTION: Steve Frank / Amy Hewson
PHONE: 716 882-5476 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Walter Gladwin Park Rec. Center
PROJECT NO.: 19-294-0265.01 LOCATION: Bronx, NY
PROJECT MANAGER: Steve Frank
e-mail: franks@liro-hill.com
PHONE: 716 882-5476 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS: Same
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: 5 day TAT DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☒ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC + Raw Data) ☐ NYS ASP A ☐ NYS ASP B
☐ Other
☐ EDD FORMAT

ANALYSIS

1 TCL VOCs
2 SVOCs
3 PCBs
4 Pesticides
5 TAL metals*
6
7 NYCDEP Sanitary or Combined Sewer Discharge Parameters
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								A	D	B	→	→	→	~	~		← Specify Preservatives
1.	MW-01	GW		X	3/12/24	0800	7	X	X	X	X	X					A-HCl D-NaOH
2.	MW-01 DUP	GW		X	↓	0830	7	X	X	X	X	X					B-HN03 E-ICE
3.	MW-01	GW		X	3/13/24	1000	14							X	X		C-H2SO4 F-OTHER
4.	MW-02	GW		X	3/12/24	1200	7	X	X	X	X	X					
5.	TWP-04	GW		X	↓	1100	7	X	X	X	X	X					
6.	Trip Blank #1	DI Water		X	—	—	2	X									
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Eva Hu	3/13/24 1220	1. 3-13-24
2.		2.
3.	3-13-24 1630	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.4 °C
Comments: * TAL Metals (Filtered & Unfiltered)

Page 1 of 1
CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☒ Picked Up ☐ Field Sampling
Shipment Complete ☐ YES ☐ NO

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Maine	2022022
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-21-00137
Texas	T104704488-23-16

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P1747 LIRO01
Client Name : LiRo Engineers, Inc.
Client Contact : Steve Frank
Invoice Name : LiRo Engineers, Inc.
Invoice Contact : Steve Frank

Order Date : 3/13/2024 12:28:00 PM
Project Name : Walter Gladwin Recreation
Receive DateTime : 3/13/2024 ~~12:00:00 AM~~ 16:30
Purchase Order :

Project Mgr :
Report Type : NYS ASP A
EDD Type : NYSDEC EDD V-3
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P1747-01	MW-01	Water	03/12/2024	08:00					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
P1747-02	MW-01-DUP	Water	03/12/2024	08:30					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
P1747-03	MW-01	Water	03/13/2024	10:00					
					VOC-NYCD	NYCDischarge	624.1		5 Bus. Days
P1747-04	MW-02	Water	03/12/2024	12:00					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
P1747-05	MW-04	Water	03/12/2024	11:00					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
P1747-06	TRIP-BLANK	Water	03/12/2024	00:00					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days

Relinguished By :
Date / Time : 3-14-24 0903

Received By :
Date / Time : 3/14/24 09:03

Storage Area : **VOA Refridgerator Room**

Ref #4
Ref #5