Technical Memorandum

TO:	Matthew Morris, PE, Washington State Department of Ecology
CC:	Amy Sikora, Washington State Department of Natural Resources
FROM:	Sierra Mott and Eric Weber, LHG, CWRE
DATE:	April 29, 2020
RE:	**First Quarter 2020 Groundwater Monitoring Results** **Webster Nursery Site, Site ID 3380** **Tumwater, Washington** **Project No. 0774006.040.046**

Introduction

This technical memorandum summarizes the results of quarterly groundwater monitoring completed by Landau Associates, Inc. (LAI) at the Washington State Department of Natural Resources Webster Nursery site, a former pesticide-storage warehouse in Tumwater, Washington (site; Figure 1). The site is associated with past releases of organochlorine pesticides to soil and groundwater. Constituents of concern include the organochlorine pesticides heptachlor epoxide (HE; breakdown product of heptachlor) and technical chlordane.

Remedial action excavation and disposal of HE-contaminated soil were completed in August 2018. A summary of the remedial action is provided in a draft Cleanup Action Completion Report (LAI 2018).

Groundwater Monitoring Summary

First quarter 2020 (1Q20) groundwater monitoring was completed on February 21, 2020. Groundwater monitoring was completed in accordance with the framework established by Washington State Department of Ecology (Ecology) Agreed Order No. DE 00TCP-SR295, the Remedial Action Work Plan (LAI 2017), and the Compliance Monitoring Plan (LAI 2019). Groundwater samples were collected from two wells (SW-10R and SW-11R). Analytical Resources, Inc. of Tukwila, Washington analyzed the groundwater samples for organochlorine pesticides using U.S. Environmental Protection Agency Method 8081A low-level.

Groundwater samples were collected with a peristaltic pump and dedicated tubing using low-flow groundwater sampling procedures. Low-flow groundwater monitoring consists of measuring the depth-to-water with an electronic groundwater level indicator, monitoring field parameters with a YSI 554 multi-parameter probe, and measuring turbidity with a handheld meter. One duplicate sample (SW-99 at SW-11R) was collected for quality control purposes.

Groundwater Monitoring Results

Groundwater monitoring results are summarized below:

- The reporting limit for HE was elevated above the cleanup level (CUL) at SW-10R (not detected at a concentration of 1.00 micrograms/liter [µg/L]). The elevated reporting limit is due to matrix interferences, as indicated by the laboratory. The sample was originally analyzed with a lower reporting limit for HE; however, the original analysis results are not considered reliable due to a laboratory error regarding the solvent used during the analysis
- HE was detected in SW-11R at a concentration of 0.0040 µg/L, below the CUL. HE was detected in the SW-11R duplicate sample at a concentration of 0.0046 µg/L, also below the CUL
- No analytes other than HE were detected in either well during 1Q20 groundwater monitoring.

February 2020 organochlorine pesticide data are provided in Table 1, and the laboratory data package is provided in Attachment 1. Time series data of recent HE concentrations in groundwater at SW-10R and SW-11R (dating back to January 2010) are presented on Figure 3.

Groundwater elevations at SW-10R and SW-11R were 188.81 and 188.68 feet mean sea level, respectively. This represents an approximate 8 foot variation from the previous monitoring event, completed in November 2019. Depth-to-water and groundwater elevation data are provided in Table 2 and SW-10R groundwater elevation data collected since the remedial action is shown on Figure 3.

Environmental Information Management Submittal

An Environmental Information Management submittal is required. The submittal will be completed in spring 2020, after this technical memorandum has been submitted to Ecology.

LANDAU ASSOCIATES, INC.

Sierra Mott
Senior Project Scientist

Eric Weber, LHG, CWRE
Principal

SMM/EFW/kjg
[Y:\774\006\R\QUARTERLY GW MONITORING REPORTS\2020_02_1Q20\WEBSTER NURSERY 1Q20 GW MONITORING TECHNICAL MEMORANDUM.DOCX]

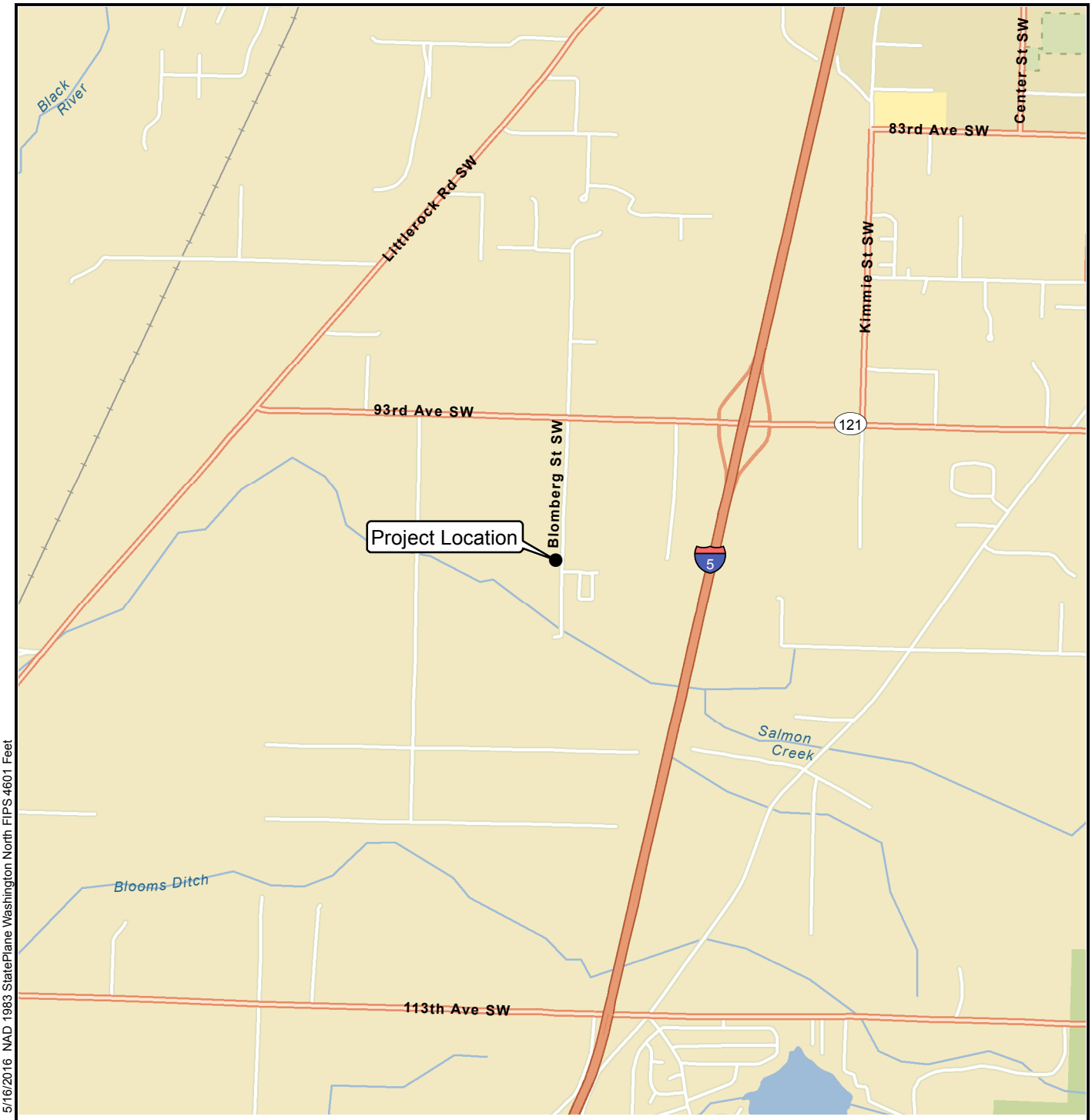
Attachments: Figure 1. Vicinity Map
Figure 2. Monitoring Well Network
Figure 3. Heptachlor Epoxide and Groundwater Elevation Time Series, SW-10(R) and SW-11(R)
Table 1. Groundwater Analytical Results
Table 2. Groundwater Level Measurements
Attachment 1. February 2020 Laboratory Data Package

References

LAI. 2019. Compliance Monitoring Plan, Washington State Department of Natural Resources Webster Nursery, Tumwater, Washington. Landau Associates, Inc. July 24.

LAI. 2018. Draft Cleanup Action Completion Report, Washington State Department of Natural Resources Webster Nursery, Tumwater, Washington. Landau Associates, Inc. October 12.

LAI. 2017. Remedial Action Work Plan, Webster Nursery, 9805 Blomberg Street SW, Tumwater, Washington. Landau Associates, Inc. October 31.



N

0 0.5 1

Miles

Data Source: Esri 2012

G:\Projects\774\006\020\026\FSIF01 VicinityMap.mxd 5/16/2016 NAD 1983 StatePlane Washington North FIPS 4601 Feet

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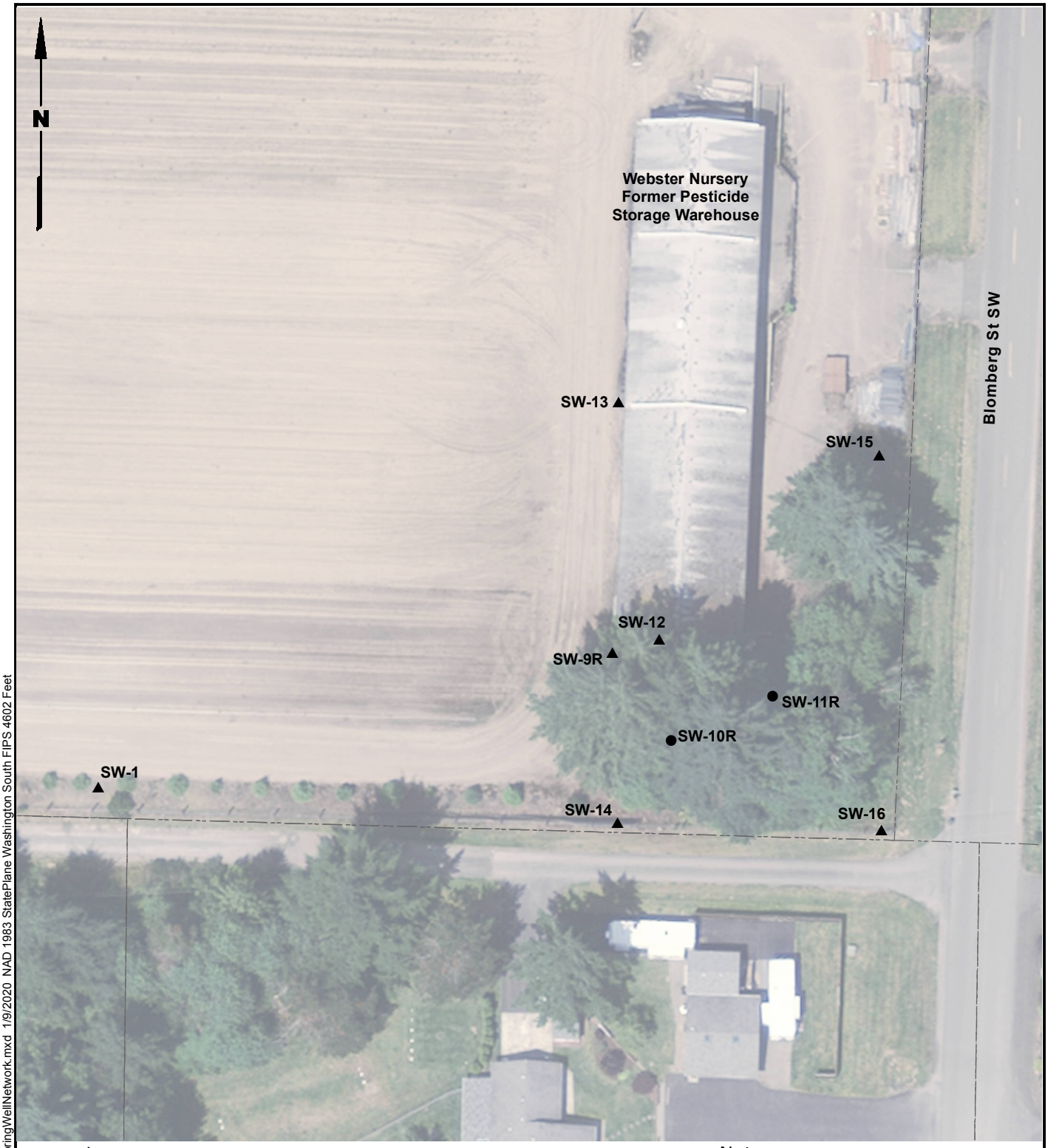
Webster Nursery Site Tumwater, Washington	**Vicinity Map**	Figure 1



G:\Projects\774\006\040\045\F02MonitoringWellNetwork.mxd 1/9/2020 NAD 1983 StatePlane Washington South FIPS 4602 Feet

Legend

- Pesticide Monitoring Well
- Other Monitoring Well
- Tax Parcels

0 50 100

Scale in Feet

Notes

1. SW-9R, SW-10R, and SW-11R are new (replacement) wells.
2. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: Thurston County GIS; WA DNR Survey, 2018.

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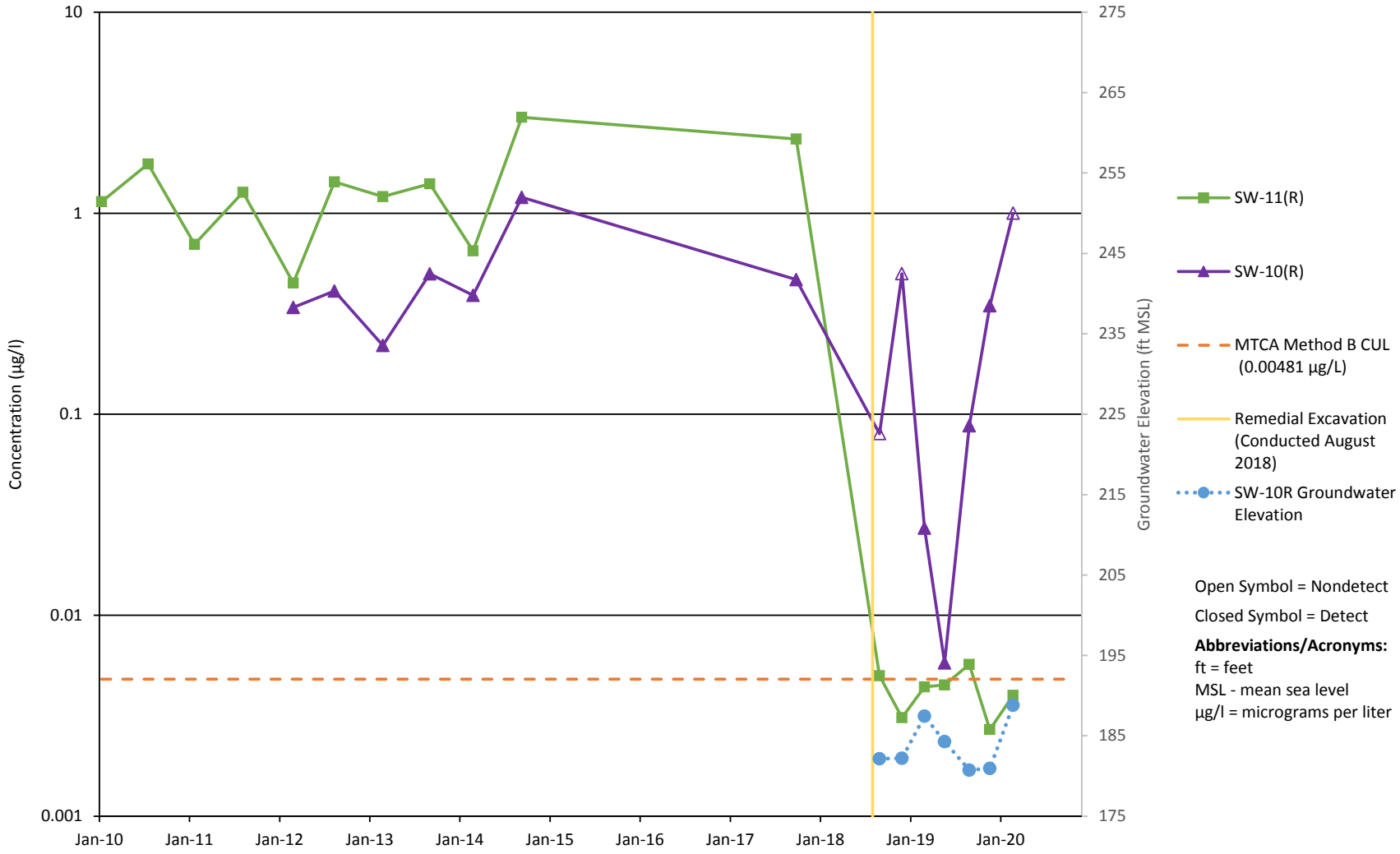
Webster Nursery Site Tumwater, Washington	**Monitoring Well Network**	Figure 2

\\tacoma3\PROJECT\774\006\R\Quarterly GW Monitoring Reports\2020_02_1Q20\Figures\F03_HE and GWE Timeseries



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Webster Nursery Site
Tumwater, Washington

Heptachlor Epoxide and Groundwater Elevation Time Series SW-10(R) and SW-11(R)

Figure
3

Table 1
Groundwater Analytical Results
Webster Nursery
Tumwater, Washington

Analyte	MTCA Method B Cleanup Levels Cancerous	Sample Location, Sample ID, Laboratory SDG, Sample Date, and Sample Type SW-10R SW-10R-20200221 20B0269 2/21/2020 N	 SW-11R SW-11R-20200221 20B0269 2/21/2020 N	 SW-11R SW-99-20200221 20B0269 2/21/2020 FD
Pesticides (µg/L; SW-846 8081B)				
4,4'-DDD	--	0.0013 UJ	0.0013 UJ	0.0013 UJ
4,4'-DDE	--	0.0013 UJ	0.0013 UJ	0.0013 UJ
4,4'-DDT	--	0.0013 UJ	0.0013 UJ	0.0013 UJ
Aldrin	--	0.0006 UJ	0.0006 UJ	0.0006 UJ
alpha-BHC	--	0.0006 UJ	0.0006 UJ	0.0006 UJ
beta-BHC	--	0.0006 UJ	0.0006 UJ	0.0006 UJ
Chlordane	0.25	0.0050 UJ	0.0050 UJ	0.0050 UJ
cis-Chlordane	--	0.0006 UJ	0.0006 UJ	0.0006 UJ
delta-BHC	--	0.0006 UJ	0.0006 UJ	0.0006 UJ
Dieldrin	--	0.0013 UJ	0.0013 UJ	0.0013 UJ
Endosulfan I	--	0.0006 UJ	0.0006 UJ	0.0006 UJ
Endosulfan II	--	0.0013 UJ	0.0013 UJ	0.0013 UJ
Endosulfan Sulfate	--	0.0013 UJ	0.0013 UJ	0.0013 UJ
Endrin	--	0.0013 UJ	0.0013 UJ	0.0013 UJ
Endrin Aldehyde	--	0.0013 UJ	0.0013 UJ	0.0013 UJ
Endrin Ketone	--	0.0013 UJ	0.0013 UJ	0.0013 UJ
gamma-BHC	--	0.0006 UJ	0.0006 UJ	0.0006 UJ
Heptachlor	0.0194	0.0006 UJ	0.0006 UJ	0.0006 UJ
Heptachlor Epoxide	0.00481	1.00 UJ	**0.0040 J**	**0.0046 J**
Methoxychlor	--	0.0063 UJ	0.0063 UJ	0.0063 UJ
Toxaphene	--	0.0625 UJ	0.0625 UJ	0.0625 UJ
trans-Chlordane	--	0.0006 UJ	1.00 UJ	1.00 UJ

Notes:

-- = cleanup level not applicable

Bold text = Indicates detected analyte.

Green Box = Detected concentration is greater than the cleanup level

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ = The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Abbreviations and Acronyms:

FD = field duplicate

ID = identification

µg/L = micrograms per liter

MTCA = Model Toxics Control Act

N = primary sample

SDG = sample delivery group

Table 2
Groundwater Level Measurements
Webster Nursery
Tumwater, Washington

Well ID	Top of Casing Elevation (ft)	Depth to Water (ft bgs)	Groundwater Elevation (ft)
SW-10R	193.41	4.60	188.81
SW-11R	192.50	3.82	188.68

Notes:

Groundwater elevation data was collected February 21, 2020.

Abbreviations:

bgs = below ground surface
ft = feet
ID = identification

ATTACHMENT 1

February 2020 Laboratory Data Package

Analytical Resources, Incorporated
Analytical Chemists and Consultants

18 March 2020

Sierra Mott
Landau Associates, Inc. - Tacoma
2107 South C Street
Tacoma, WA 98402

RE: Webster Nursery

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
20B0269	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

Kelly Bottem, Client Services Manager

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

Cert# 100006-012

PJLA Testing
Accreditation # 66169

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

20B0269

LANDAU ASSOCIATES

Chain-of-Custody Record

☐ Seattle/Edmonds (425) 778-0907 ☐ Spokane (509) 327-9737
☒ Tacoma (253) 926-2493 ☐ Portland (503) 542-1080
☐ _____

Date 2/21/2020
Page 1 of 1

Turnaround Time:
(Standard)
Accelerated

Project Name Webster Nursery Project No. 774006.040.045
Project Location/Event Olympia, WA/Quarterly Sampling
Sampler's Name Katie Gaughitz
Project Contact Sierra Mott
Send Results To S. Mott, E. Weber, D. Jorgensen

Testing Parameters

Sample I.D.	Date	Time	Matrix	No. of Containers	Pesticides - Organochlorine EPA 8081B
SW-10R-20200221	2/21/20	1025	Aq	2	X
SW-11R-20200221	"	1110	Aq	2	X
SW-99-20200221	"	1112	Aq	2	X

Special Handling Requirements:

Shipment Method:

Stored on ice: (Yes) No

Observations/Comments

__ Allow water samples to settle, collect aliquot from clear portion ☐

__ NWTPH-Dx - Acid wash cleanup ☐
- Silica gel cleanup ☐

__ Dissolved metal samples were field filtered

Other

Relinquished by	Received by	Relinquished by	Received by
Signature Katie Gaughitz	Signature	Signature	Signature
Printed Name Katie Gaughitz	Printed Name Kenny Dang	Printed Name	Printed Name
Company Landau Associates	Company ARI	Company	Company
Date 2/21/2020 Time 1345	Date 2/21/2020 Time 1345	Date Time	Date Time

WHITE COPY - Laboratory YELLOW COPY - Project File PINK COPY - Client Representative

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Landau Assoc. Project Name: Webster Nursery

COC No(s): (NA) Delivered by: Fed-Ex UPS Courier Hand Delivered Other:

Assigned ARI Job No: 20B0269 Tracking No: (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1345 3.3

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: DOO 52.06

Cooler Accepted by: KO Date: 2/21/2020 Time: 1345

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? ...	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
How were bottles sealed in plastic bags?	Individually	Grouped	(Not)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Were the sample(s) split by ARI? (NA) YES Date/Time: Equipment: Split by:

Samples Logged by: KO Date: 2/21/2020 Time: 1535 Labels checked by: KO

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Landau Associates, Inc. - Tacoma	Project:	Webster Nursery	
2107 South C Street	Project Number:	Webster Nursery	**Reported:**
Tacoma , WA 98402	Project Manager:	Sierra Mott	03/18/2020 09:55

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
20B0269-01	SW-10R-20200221	Water	02/21/20 10:25	02/21/20 13:45
20B0269-02	SW-11R-20200221	Water	02/21/20 11:10	02/21/20 13:45
20B0269-03	SW-99-20200221	Water	02/21/20 11:12	02/21/20 13:45

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	18-Mar-2020 09:55

Case Narrative

Pesticides - EPA Method SW8081B

The sample(s) were extracted and analyzed originally within the recommended holding times. The samples were re-extracted and re-analyzed outside of the holding times due to solvent contamination.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The LCS/LCSD percent recoveries and RPDs were within control limits.

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	18-Mar-2020 09:55

Case Narrative

QUALIFIERS AND NOTES

Qualifier	Definition
Y1	Raised reporting limit due to interference
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
NRS	This surrogate not reported due to chromatographic interference
H	Hold time violation - Hold time was exceeded.
*	Flagged value is not within established control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Dual Column

SW-10R-20200221

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma				
Project:	Webster Nursery				
Matrix:	Water	Laboratory ID:	20B0269-01 A	File ID:	20030912.D
Sampled:	02/21/20 10:25	Prepared:	02/26/20 15:09	Analyzed:	03/09/20 14:43
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BIB0534	Sequence:	SIC0103	Calibration:	DC00017
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLP2

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	1	1	0.0006	0.00009	0.0006	U
319-85-7	beta-BHC	1	1	0.0006	0.0001	0.0006	U
58-89-9	gamma-BHC (Lindane)	1	1	0.0006	0.0001	0.0006	U
319-86-8	delta-BHC	1	1	0.0006	0.0001	0.0006	U
76-44-8	Heptachlor	1	1	0.0006	0.0002	0.0006	U
309-00-2	Aldrin	1	1	0.0006	0.0002	0.0006	U
1024-57-3	Heptachlor Epoxide	1	1	0.0006	0.0002	0.0006	U
5103-74-2	trans-Chlordane (beta-Chlordane)	1	1	0.0006	0.0002	0.0006	U
5103-71-9	cis-Chlordane (alpha-chlordane)	1	1	0.0006	0.0001	0.0006	U
959-98-8	Endosulfan I	1	1	0.0006	0.0001	0.0006	U
72-55-9	4,4'-DDE	1	1	0.0013	0.0003	0.0013	U
60-57-1	Dieldrin	1	1	0.0013	0.0004	0.0013	U
72-20-8	Endrin	1	1	0.0013	0.0001	0.0013	U
33213-65-9	Endosulfan II	1	1	0.0013	0.0002	0.0013	U
72-54-8	4,4'-DDD	1	1	0.0013	0.0002	0.0013	U
7421-93-4	Endrin Aldehyde	1	1	0.0013	0.0004	0.0013	U
50-29-3	4,4'-DDT	1	1	0.0013	0.0004	0.0013	U
1031-07-8	Endosulfan Sulfate	1	1	0.0013	0.0003	0.0013	U
53494-70-5	Endrin Ketone	1	1	0.0013	0.0003	0.0013	U
72-43-5	Methoxychlor	1	1	0.0063	0.0021	0.0063	U
8001-35-2	Toxaphene	1	1	0.0625	0.0625	0.0625	U
57-74-9	Chlordane (NOS)	1	1	0.0050	0.0050	0.0050	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0170*	*84.8*	*30 - 160*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0154*	*76.9*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030912.D
Data file 2: /20200309.b/20200309.b/20030912.D
Method: \20200309.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: 20B0269-01
Client ID:
Injection Date: 09-MAR-2020 14:43
Report Date: 03/09/2020 16:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			5.380	-0.005	463	0.00	0.28	---	alpha-BHC
----			5.888	-0.000	532	0.00	0.71	---	beta-BHC
----			6.259	0.007	1743	0.00	1.24	---	delta-BHC
----			5.795	-0.008	547	0.00	0.37	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			6.747	0.017	398	0.00	0.31	---	Aldrin
----			7.353	-0.006	3396	0.00	2.98	---	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			----			0.00	0.00	---	Dieldrin
----			7.854	0.001	340	0.00	0.34	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
----			8.448	0.000	281	0.00	5.59	---	4,4'-DDD
----			9.190	-0.003	665	0.00	13.14	---	Endosulfan sulfate
----			8.778	0.018	1192	0.00	24.66	---	4,4'-DDT
----			9.385	-0.002	720	0.00	29.29	---	Methoxychlor
----			9.750	-0.004	758	0.00	13.08	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
6.487	-0.008	9305	7.563	-0.001	725	5.84	0.74	155.3*	trans-Chlordane
----			7.715	-0.001	410	0.00	0.47	---	cis-Chlordane
2.483	-0.032	151762	----			58.02	0.00	---	Hexachlorobutadiene
----			----			0.00	0.00	---	Hexachlorobenzene
----			7.227	-0.017	2817	0.00	3.26	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			7.652	0.008	612	0.00	15.88	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.761	-0.013	15166	1.681	0.005	6467	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.069	-0.002	31072	4.717	-0.001	28819	30.77	25.93	17.1	Tetrachloro-m-xylene
9.599	-0.003	69393	11.073	-0.002	30927	33.91	757.08	182.9*	Decachlorobiphenyl M

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	76.9	64.8	64.8~	130- 0
Decachlorobiphenyl	84.8	1892.7	84.8~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	103787	-45.2
Hexabromobiphenyl	177311	162607	-8.3

Column 2

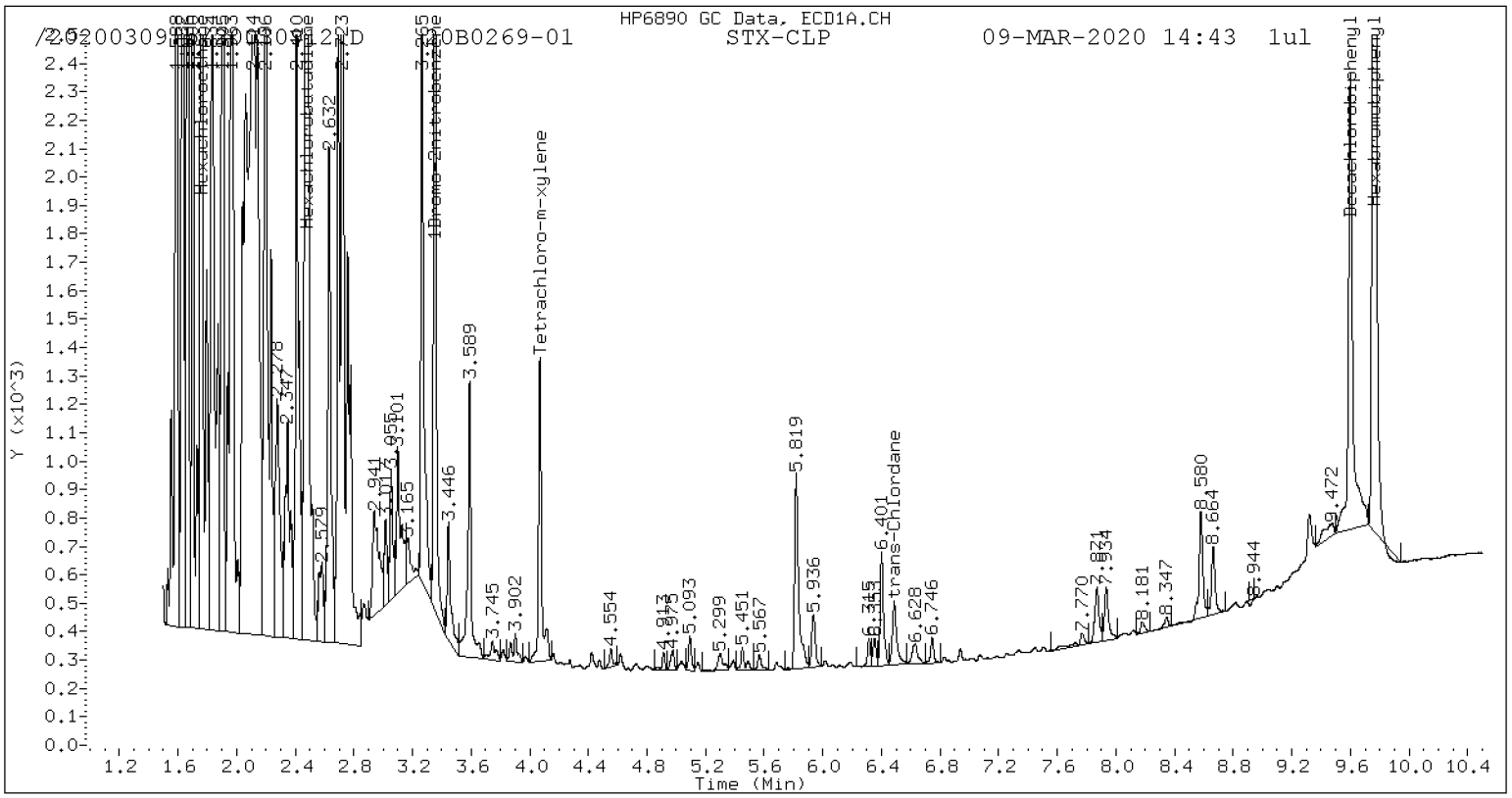
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	93659	-37.2
Hexabromobiphenyl	80212	2701	-96.6 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	8.023	-0.016	273	268.4
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	8.906	-0.019	419	198.1
Toxaphene	5	---			0.000	5	9.433	-0.007	206	127.1
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: 197.863			

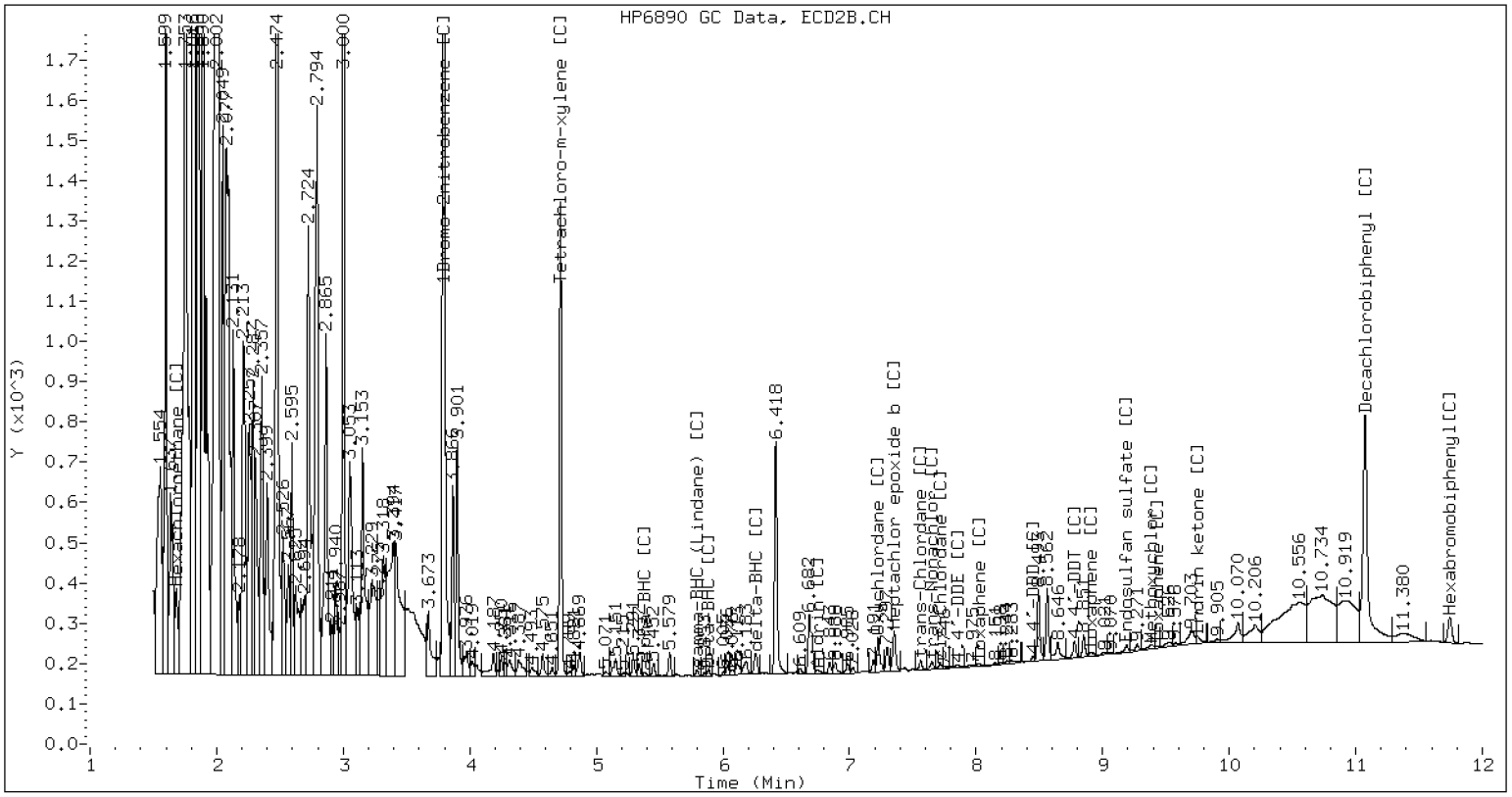
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

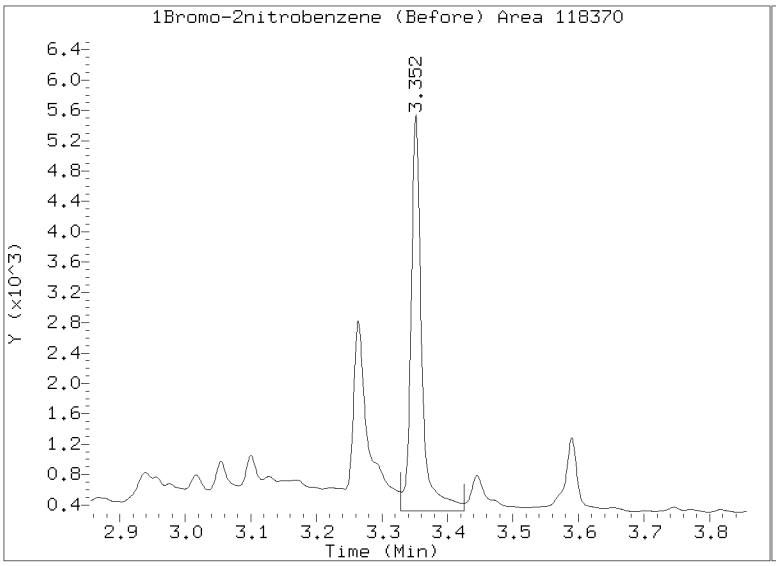
/20200309.b/20200309.b/20030912.D 20B0269-01 CLP2

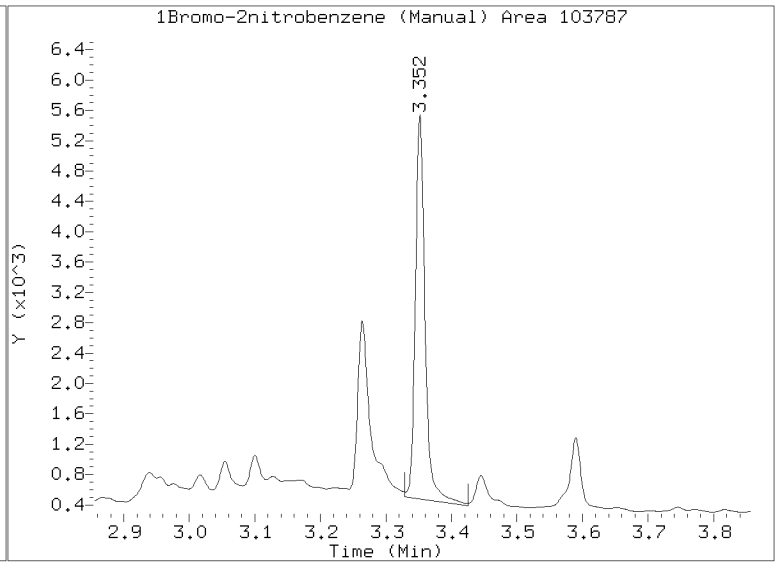


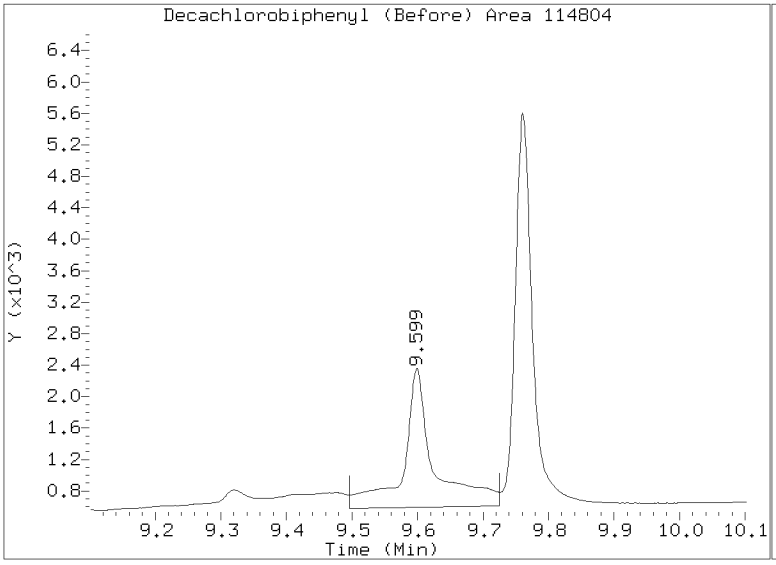
CLP-2 Manual Integration: NO

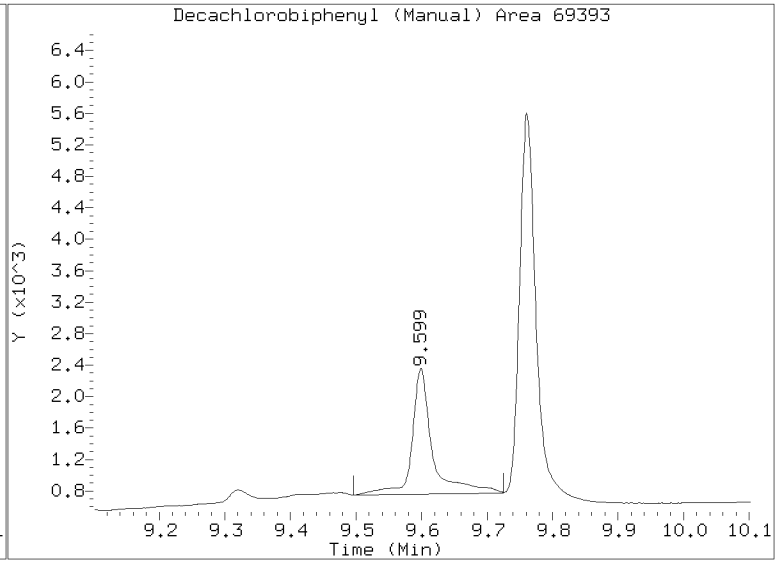
Manual Peak Adjustment Report, STX-CLP

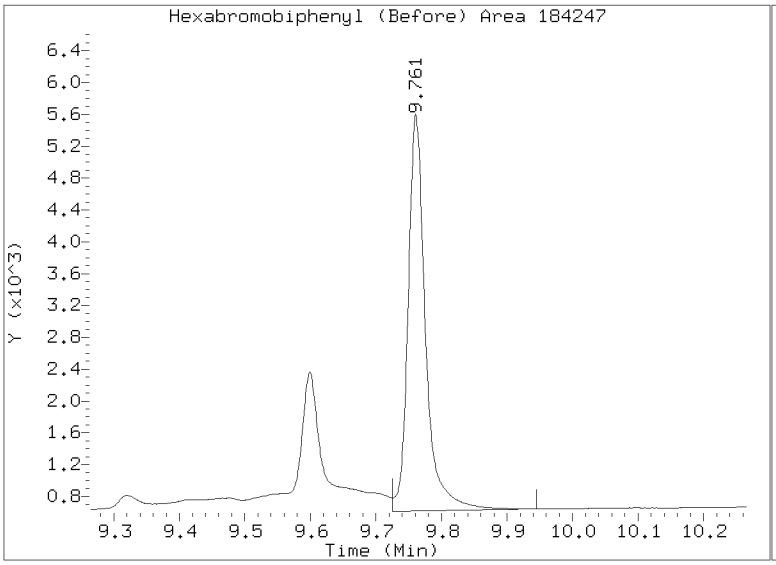
Datafile: /20200309.b/20030912.D
Injection Date: 09-MAR-2020 14:43
Lab ID:20B0269-01 Client ID:
Report Date: 03/09/2020 16:21

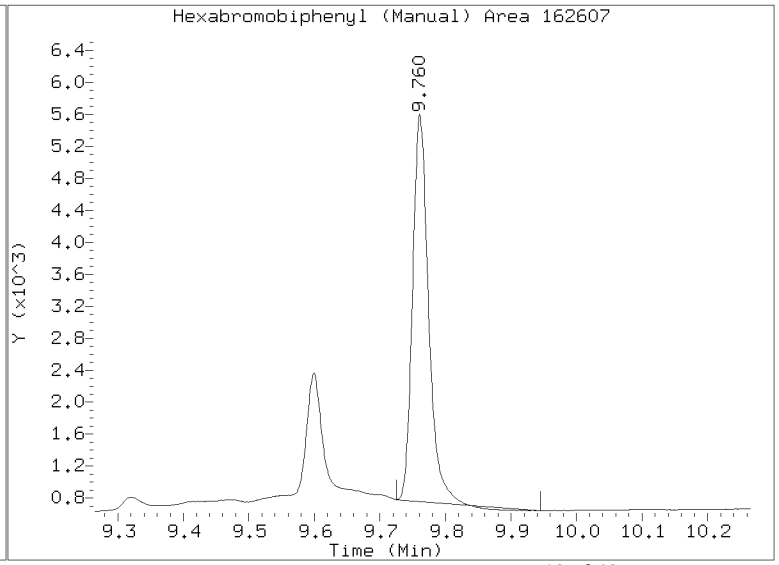












Dual Column

SW-10R-20200221

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma				
Project:	Webster Nursery				
Matrix:	Water	Laboratory ID:	20B0269-01RE1 B	File ID:	20031312.D
Sampled:	02/21/20 10:25	Prepared:	03/11/20 19:56	Analyzed:	03/13/20 15:01
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BIC0215	Sequence:	SIC0178	Calibration:	DC00017
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLP2

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	1	1	0.0006	0.00009	0.0006	H, U
319-85-7	beta-BHC	1	1	0.0006	0.0001	0.0006	H, U
58-89-9	gamma-BHC (Lindane)	1	1	0.0006	0.0001	0.0006	H, U
319-86-8	delta-BHC	1	1	0.0006	0.0001	0.0006	H, U
76-44-8	Heptachlor	1	1	0.0006	0.0002	0.0006	H, U
309-00-2	Aldrin	1	1	0.0006	0.0002	0.0006	H, U
1024-57-3	Heptachlor Epoxide	1	1	1.00	1.00	1.00	H, Y1, U
5103-74-2	trans-Chlordane (beta-Chlordane)	1	1	0.0006	0.0002	0.0006	H, U
5103-71-9	cis-Chlordane (alpha-chlordane)	1	1	0.0006	0.0001	0.0006	H, U
959-98-8	Endosulfan I	1	1	0.0006	0.0001	0.0006	H, U
72-55-9	4,4'-DDE	1	1	0.0013	0.0003	0.0013	H, U
60-57-1	Dieldrin	1	1	0.0013	0.0004	0.0013	H, U
72-20-8	Endrin	1	1	0.0013	0.0001	0.0013	H, U
33213-65-9	Endosulfan II	1	1	0.0013	0.0002	0.0013	H, U
72-54-8	4,4'-DDD	1	1	0.0013	0.0002	0.0013	H, U
7421-93-4	Endrin Aldehyde	1	1	0.0013	0.0004	0.0013	H, U
50-29-3	4,4'-DDT	1	1	0.0013	0.0004	0.0013	H, U
1031-07-8	Endosulfan Sulfate	1	1	0.0013	0.0003	0.0013	H, U
53494-70-5	Endrin Ketone	1	1	0.0013	0.0003	0.0013	H, U
72-43-5	Methoxychlor	1	1	0.0063	0.0021	0.0063	H, U
8001-35-2	Toxaphene	1	1	0.0625	0.0625	0.0625	H, U
57-74-9	Chlordane (NOS)	1	1	0.0050	0.0050	0.0050	H, U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0191*	*95.4*	*30 - 160*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0148*	*74.2*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031312.D
Data file 2: /20200313.b/20200313.b/20031312.D
Method: \20200313.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: 20B0269-01
Client ID:
Injection Date: 13-MAR-2020 15:01
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.552	-0.025	3490	----			1.14	0.00	---	alpha-BHC
----			----			0.00	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
5.340	-0.035	1928	----			0.66	0.00	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
6.349	-0.005	3540	7.347	-0.008	5822	1.43	2.05	35.7	Heptachlor epoxide b N
----			----			0.00	0.00	---	Endosulfan I
----			----			0.00	0.00	---	Dieldrin
----			----			0.00	0.00	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
----			----			0.00	0.00	---	4,4'-DDD
----			----			0.00	0.00	---	Endosulfan sulfate
----			----			0.00	0.00	---	4,4'-DDT
----			----			0.00	0.00	---	Methoxychlor
----			----			0.00	0.00	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
6.484	-0.012	16350	----			6.75	0.00	---	trans-Chlordane
----			----			0.00	0.00	---	cis-Chlordane
2.483	-0.034	39131	----			9.83	0.00	---	Hexachlorobutadiene
4.421	-0.001	3039	----			1.41	0.00	---	Hexachlorobenzene
----			----			0.00	0.00	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
6.626	0.003	3035	----			1.63	0.00	---	trans-Nonachlor
6.901	0.004	2079	----			1.63	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.762	-0.012	20506	1.686	0.010	1646	0.00	0.00	---	Hexachloroethane
----			7.347	0.011	5822	0.00	0.00	---	Kepone
4.068	-0.006	45615	4.714	-0.002	43685	29.68	15.78	61.2*	Tetrachloro-m-xylene
9.597	-0.004	69040	11.065	-0.002	32107	38.15	47.72	22.3	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	74.2	39.4	39.4~	130- 0
Decachlorobiphenyl	95.4	119.3	95.4~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	157955	-16.6
Hexabromobiphenyl	177311	143777	-18.9

Column 2

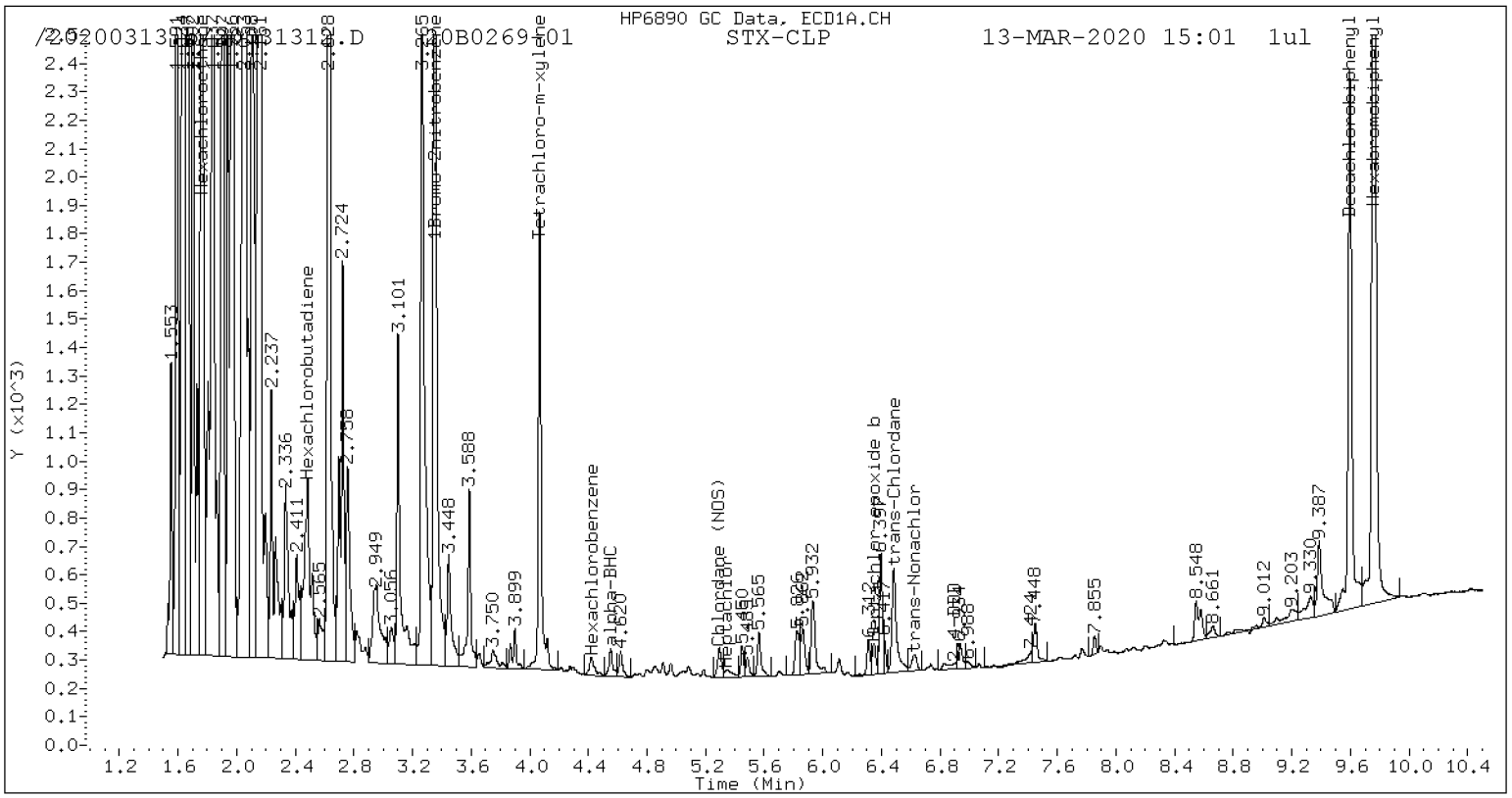
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	233293	56.3
Hexabromobiphenyl	80212	44487	-44.5

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks				CLP2Ave: <3 Quant Peaks				

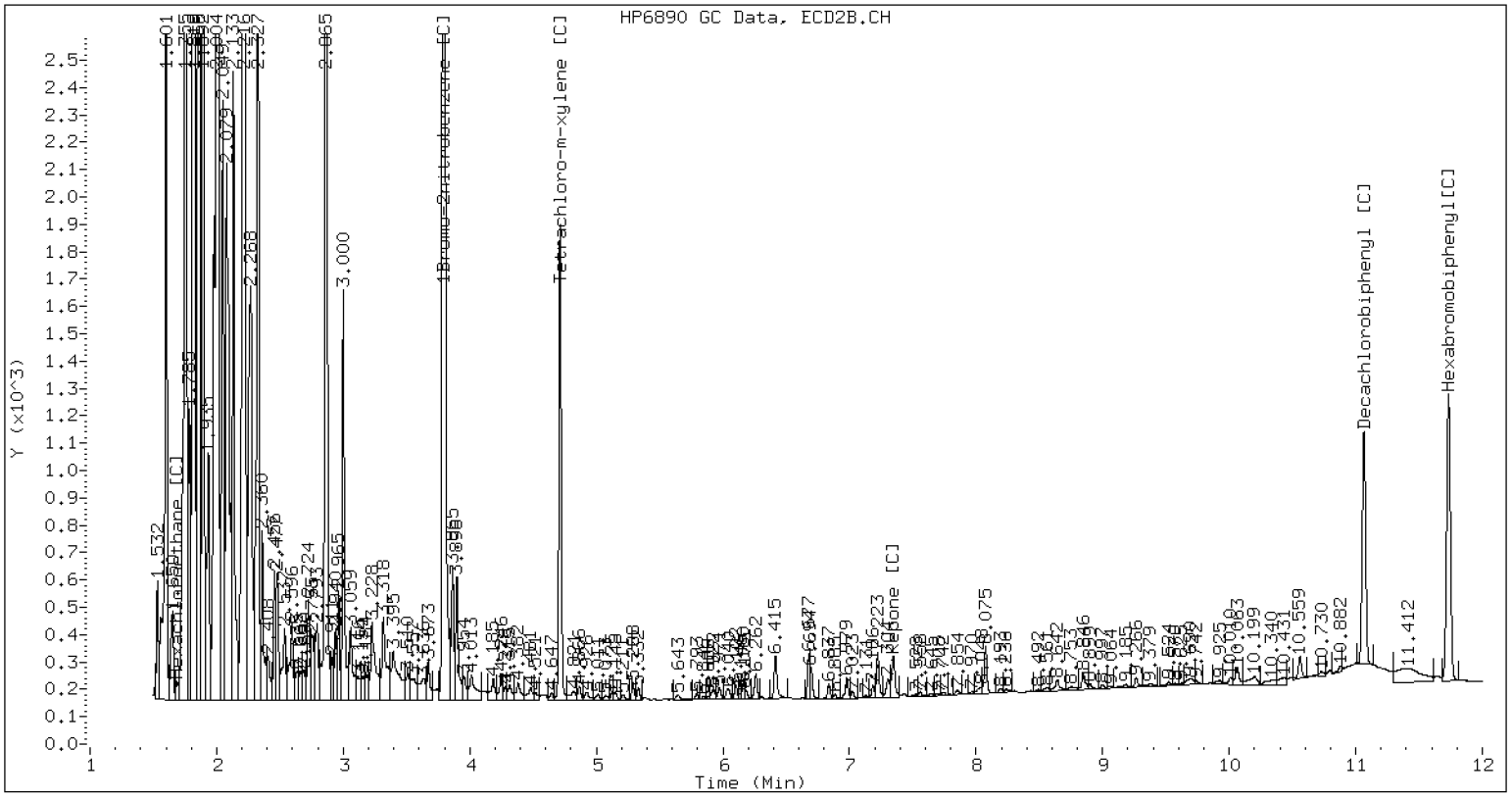
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.293	0.009	4204	58.2	1	---			0.0
Chlordane (NOS)	2	6.484	-0.010	16350	67.1	2	---			0.0
Chlordane (NOS)	3	6.626	-0.003	3035	7.5	3	---			0.0
		Total STX-CLPAve (3 peaks): 44.249				CLP2Ave: <3 Quant Peaks				

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

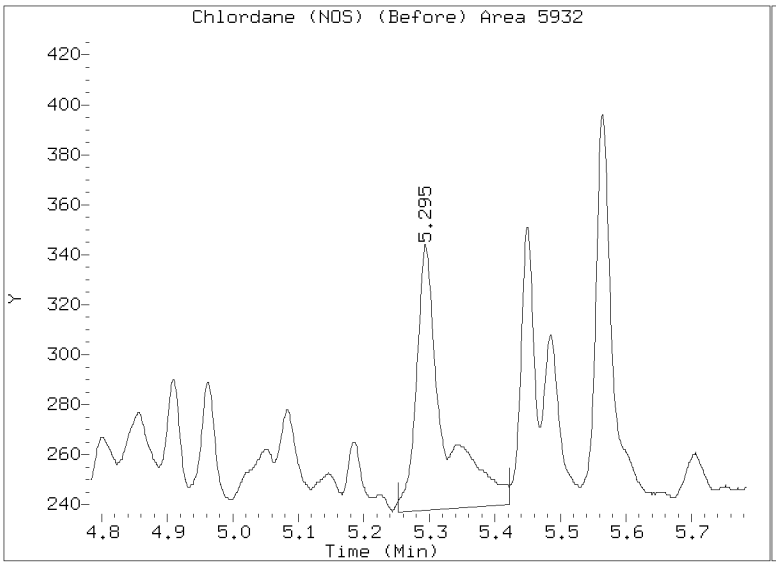
/20200313.b/20200313.b/20031312.D 20B0269-01 CLP2

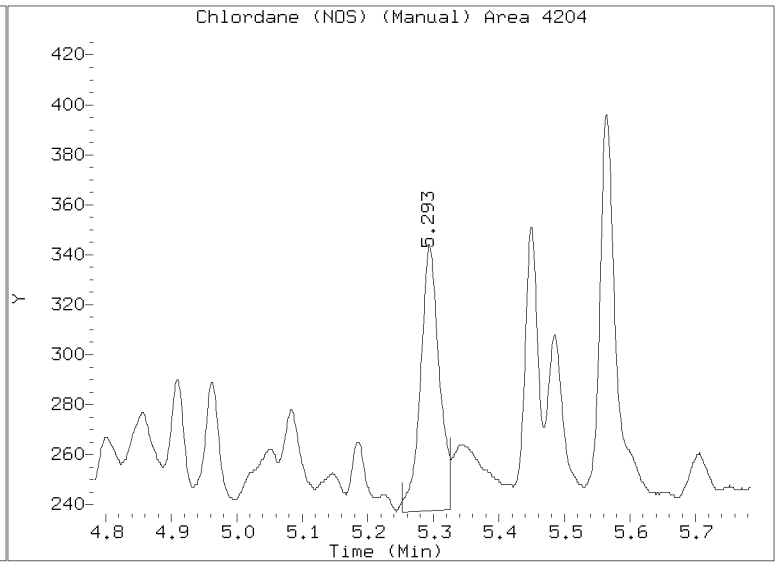


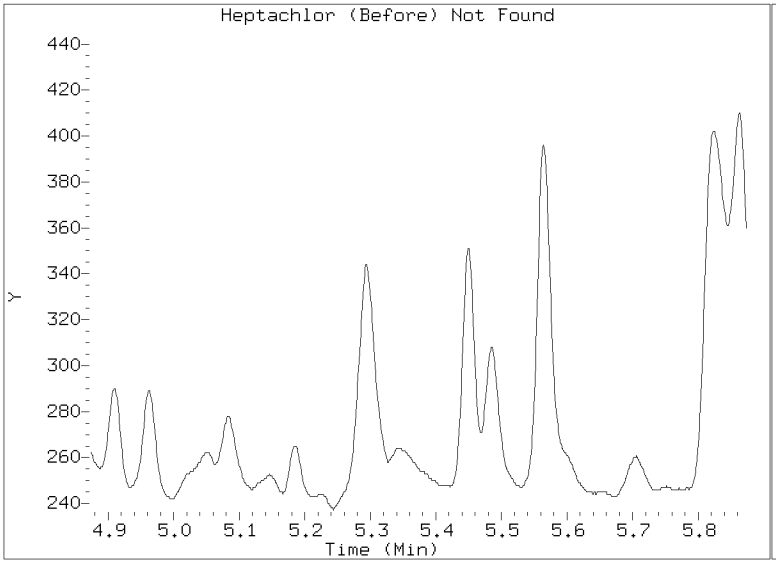
CLP-2 Manual Integration: YES

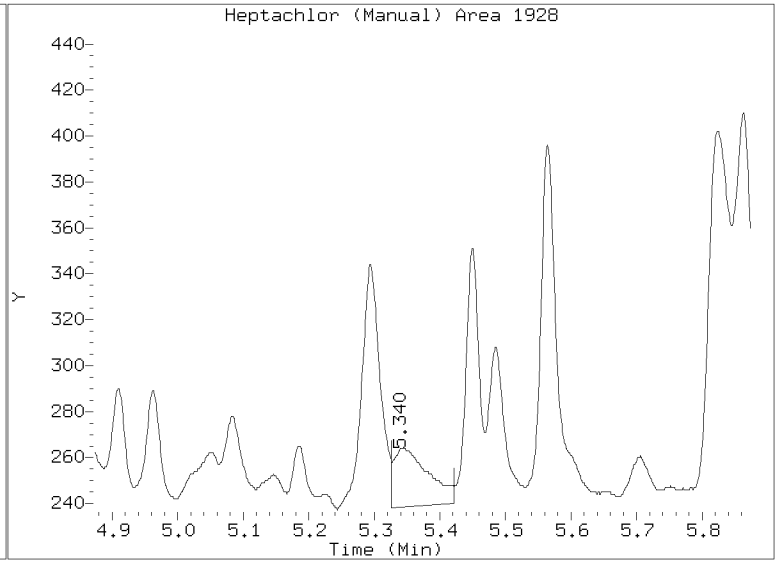
Manual Peak Adjustment Report, STX-CLP

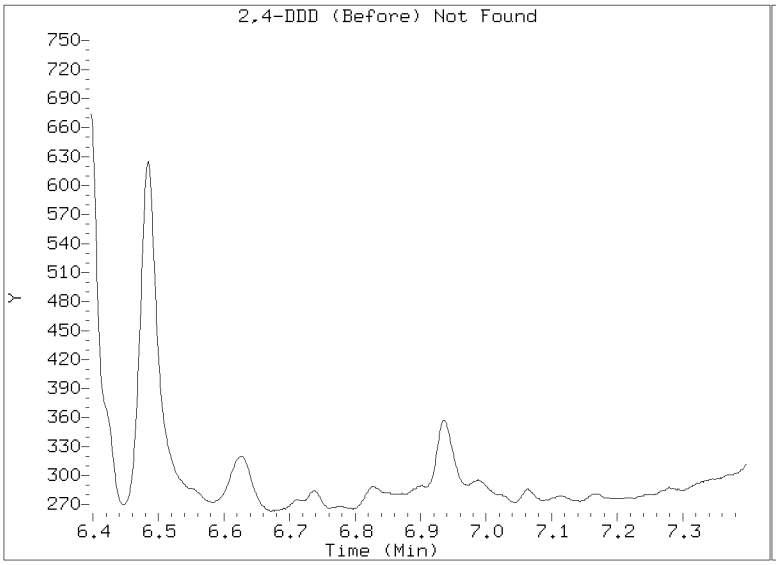
Datafile: /20200313.b/20031312.D
Injection Date: 13-MAR-2020 15:01
Lab ID:20B0269-01 Client ID:
Report Date: 03/14/2020 13:42

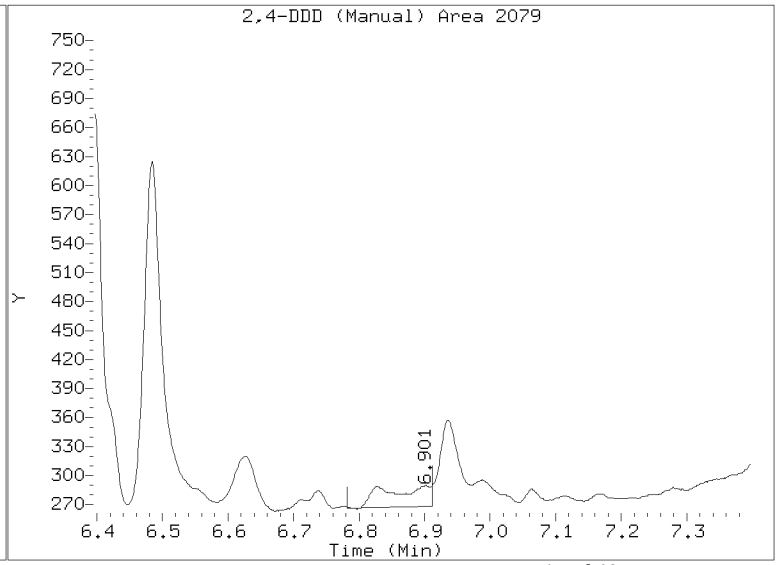






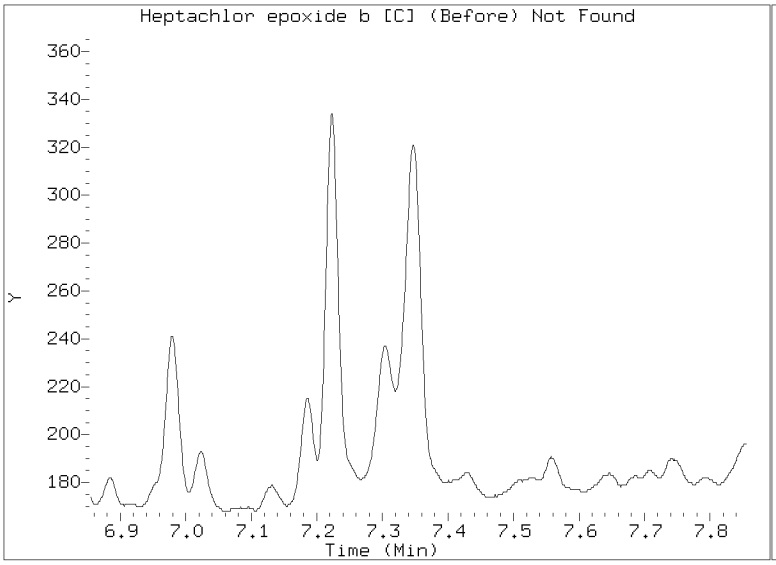


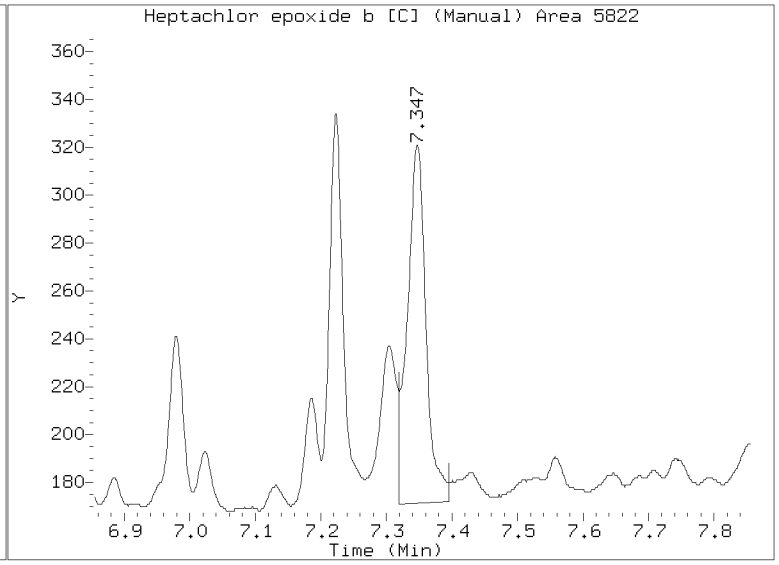


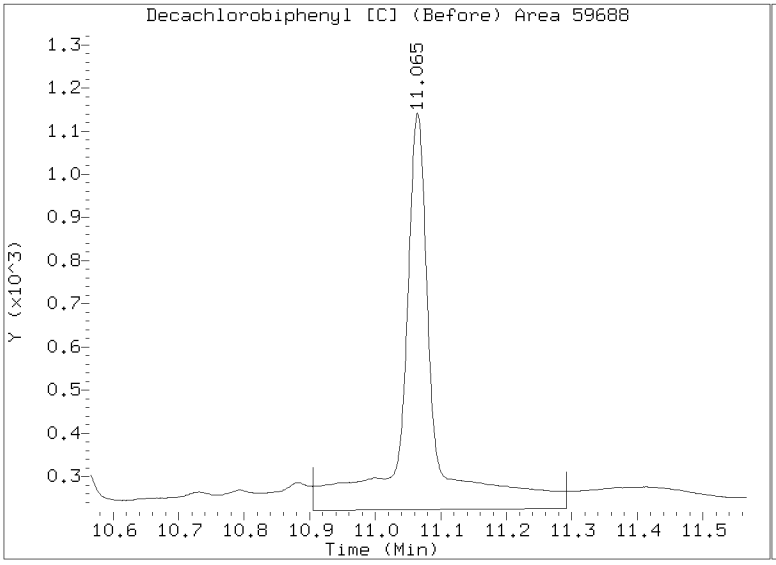


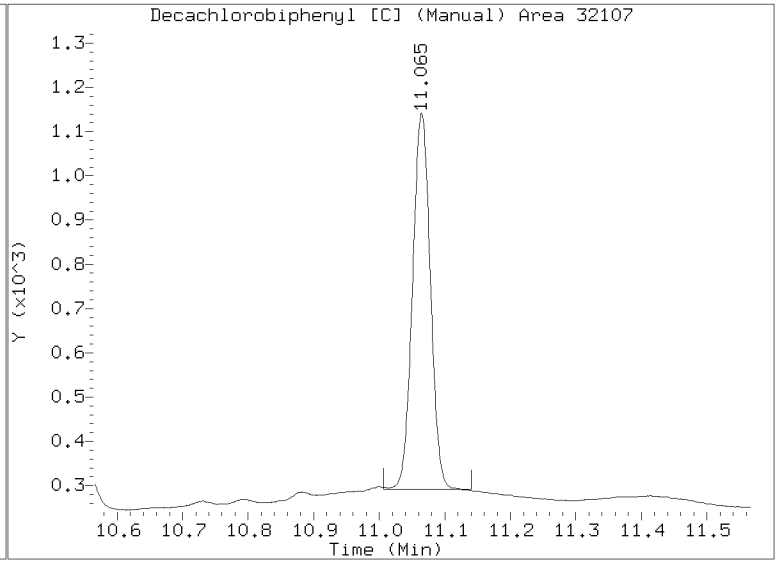
Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031312.D
Injection Date: 13-MAR-2020 15:01
Lab ID:20B0269-01 Client ID:









Dual Column

SW-11R-20200221

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma				
Project:	Webster Nursery				
Matrix:	Water	Laboratory ID:	20B0269-02 A	File ID:	20030913.D
Sampled:	02/21/20 11:10	Prepared:	02/26/20 15:09	Analyzed:	03/09/20 15:01
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BIB0534	Sequence:	SIC0103	Calibration:	DC00017
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLP2

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	1	1	0.0006	0.00009	0.0006	U
319-85-7	beta-BHC	1	1	0.0006	0.0001	0.0006	U
58-89-9	gamma-BHC (Lindane)	1	1	0.0006	0.0001	0.0006	U
319-86-8	delta-BHC	1	1	0.0006	0.0001	0.0006	U
76-44-8	Heptachlor	1	1	0.0006	0.0002	0.0006	U
309-00-2	Aldrin	1	1	0.0006	0.0002	0.0006	U
1024-57-3	Heptachlor Epoxide	1	1	0.0042	0.0002	0.0006	P1
5103-74-2	trans-Chlordane (beta-Chlordane)	1	1	0.0034	0.0002	0.0006	
5103-71-9	cis-Chlordane (alpha-chlordane)	1	1	0.0006	0.0001	0.0006	U
959-98-8	Endosulfan I	1	1	0.0006	0.0001	0.0006	U
72-55-9	4,4'-DDE	1	1	0.0013	0.0003	0.0013	U
60-57-1	Dieldrin	1	1	0.0013	0.0004	0.0013	U
72-20-8	Endrin	1	1	0.0013	0.0001	0.0013	U
33213-65-9	Endosulfan II	1	1	0.0013	0.0002	0.0013	U
72-54-8	4,4'-DDD	1	1	0.0013	0.0002	0.0013	U
7421-93-4	Endrin Aldehyde	1	1	0.0013	0.0004	0.0013	U
50-29-3	4,4'-DDT	1	1	0.0013	0.0004	0.0013	U
1031-07-8	Endosulfan Sulfate	1	1	0.0013	0.0003	0.0013	U
53494-70-5	Endrin Ketone	1	1	0.0013	0.0003	0.0013	U
72-43-5	Methoxychlor	1	1	0.0063	0.0021	0.0063	U
8001-35-2	Toxaphene	1	1	0.0625	0.0625	0.0625	U
57-74-9	Chlordane (NOS)	1	1	0.0050	0.0050	0.0050	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0161*	*80.4*	*30 - 160*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0124*	*61.9*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030913.D
Data file 2: /20200309.b/20200309.b/20030913.D
Method: \20200309.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: 20B0269-02
Client ID:
Injection Date: 09-MAR-2020 15:01
Report Date: 03/09/2020 16:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	alpha-BHC
----			5.890	0.001	411	0.00	1.16	---	beta-BHC
----			6.262	0.010	3010	0.00	4.55	---	delta-BHC
----			5.801	-0.002	178	0.00	0.26	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
6.355	0.001	15812	7.360	0.000	10157	8.44	19.01	77.0*	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			8.082	0.002	2161	0.00	6.28	---	Dieldrin
----			7.860	0.007	259	0.00	0.55	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			8.605	-0.002	238	0.00	4.12	---	Endosulfan II
----			----			0.00	0.00	---	4,4'-DDD
----			9.192	-0.002	2988	0.00	47.98	---	Endosulfan sulfate
----			8.780	0.020	1020	0.00	17.15	---	4,4'-DDT
----			9.385	-0.002	2061	0.00	68.13	---	Methoxychlor
----			----			0.00	0.00	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
6.492	-0.003	12619	7.565	0.001	3324	6.89	7.20	4.4	trans-Chlordane
----			7.717	0.000	737	0.00	1.80	---	cis-Chlordane
2.485	-0.029	151654	----			50.38	0.00	---	Hexachlorobutadiene
4.425	-0.013	2798	----			1.71	0.00	---	Hexachlorobenzene
----			7.229	-0.015	2924	0.00	7.22	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			7.655	0.011	629	0.00	13.27	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.761	-0.013	17307	1.682	0.006	5976	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.071	0.000	28798	4.719	0.001	26365	24.78	50.63	68.6*	Tetrachloro-m-xylene
9.601	-0.001	74717	11.075	-0.001	36081	32.16	717.71	182.8*	Decachlorobiphenyl M

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	61.9	126.6	61.9~	130- 0
Decachlorobiphenyl	80.4	1794.3	80.4~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	119447	-36.9
Hexabromobiphenyl	177311	184615	4.1

Column 2

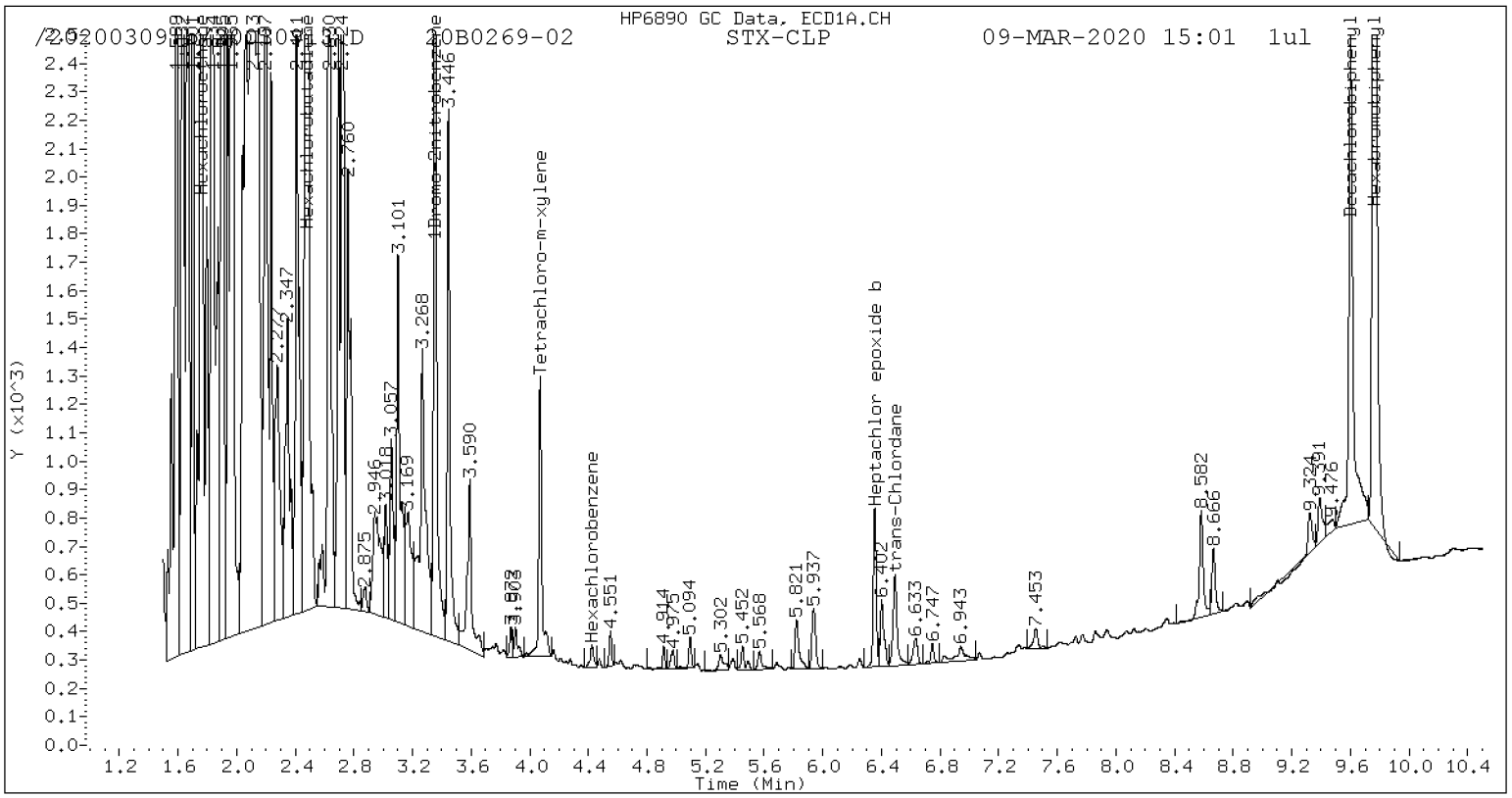
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	43877	-70.6 <-
Hexabromobiphenyl	80212	3324	-95.9 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	8.023	-0.016	640	511.3
Toxaphene	2	---			0.000	2	8.565	-0.024	1175	568.2
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	8.906	-0.019	974	374.2
Toxaphene	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: 484.569				

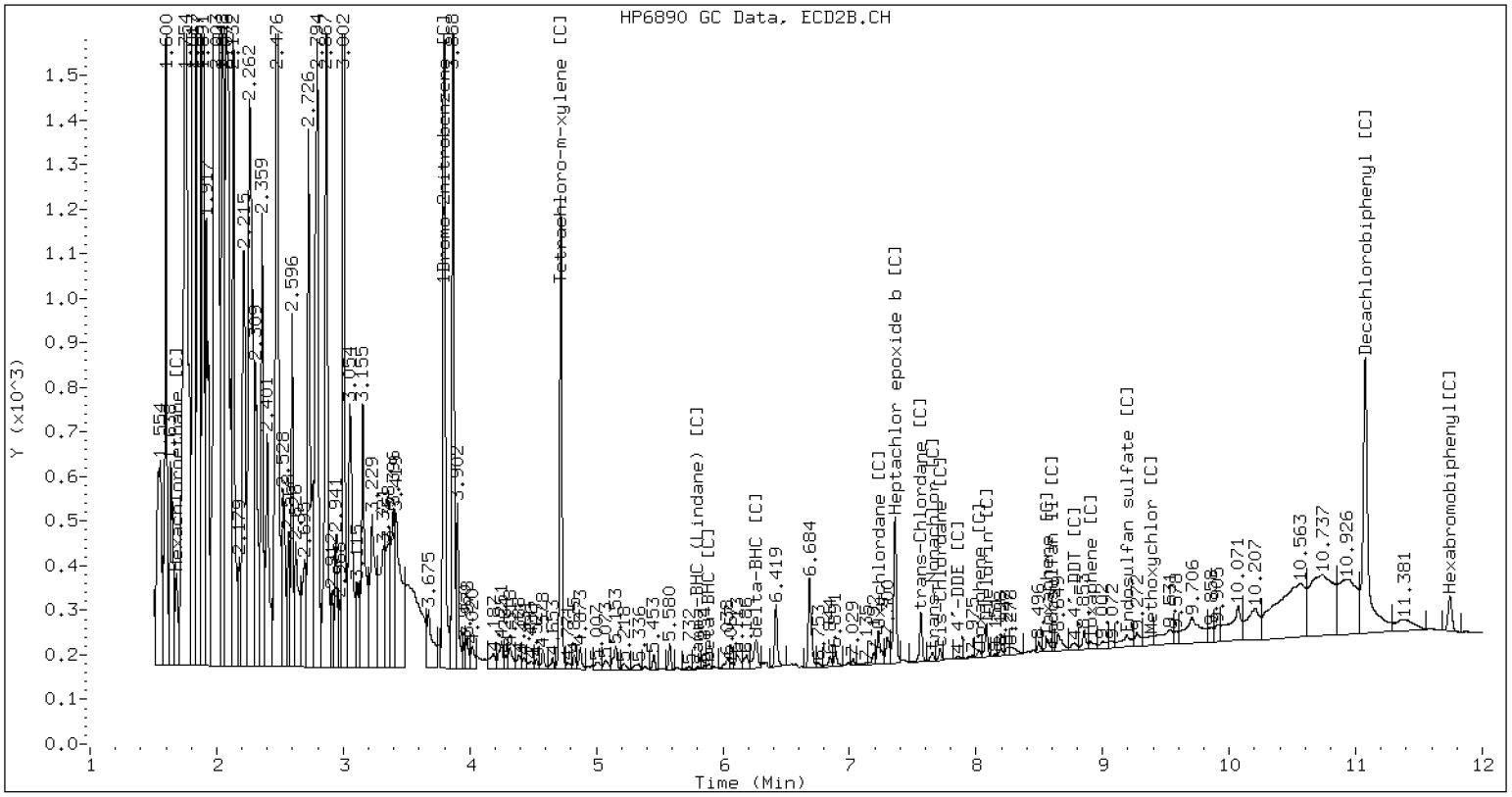
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

/20200309.b/20200309.b/20030913.D 20B0269-02 CLP2



CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, STX-CLP

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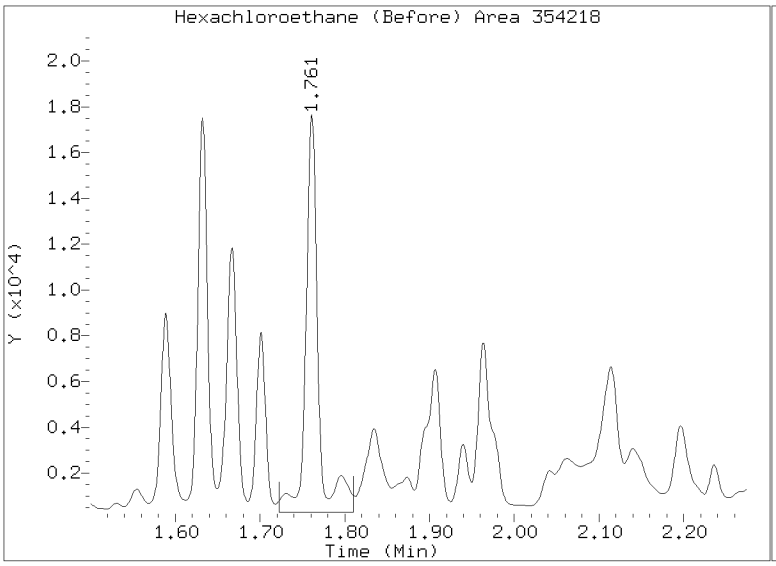
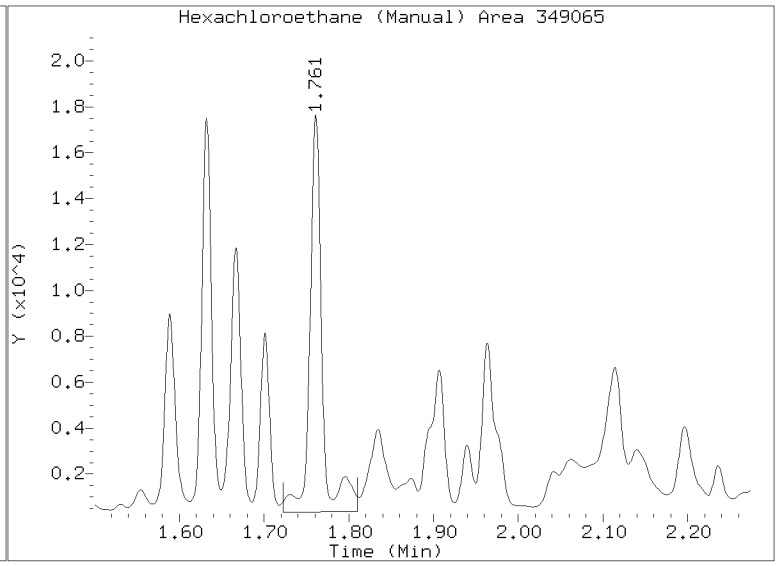
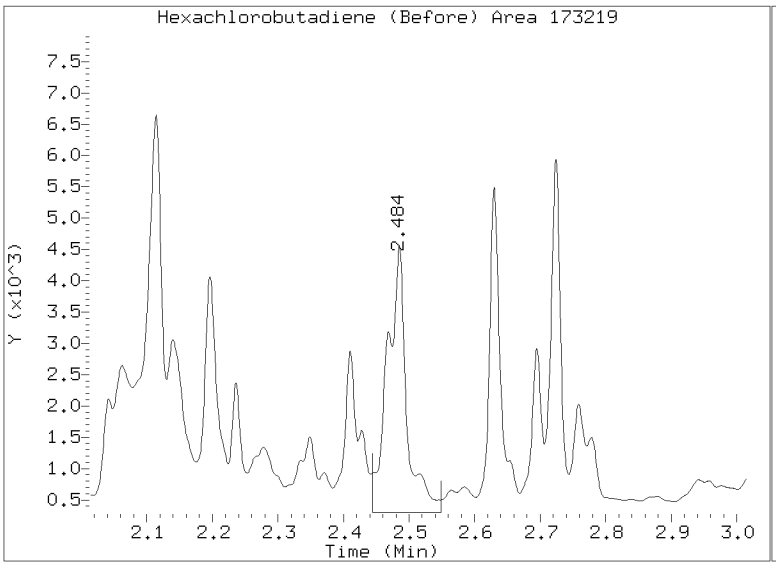
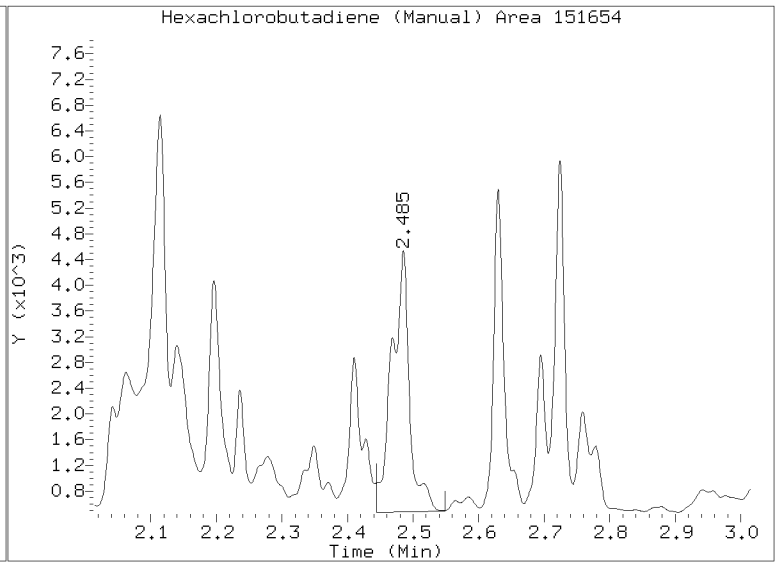
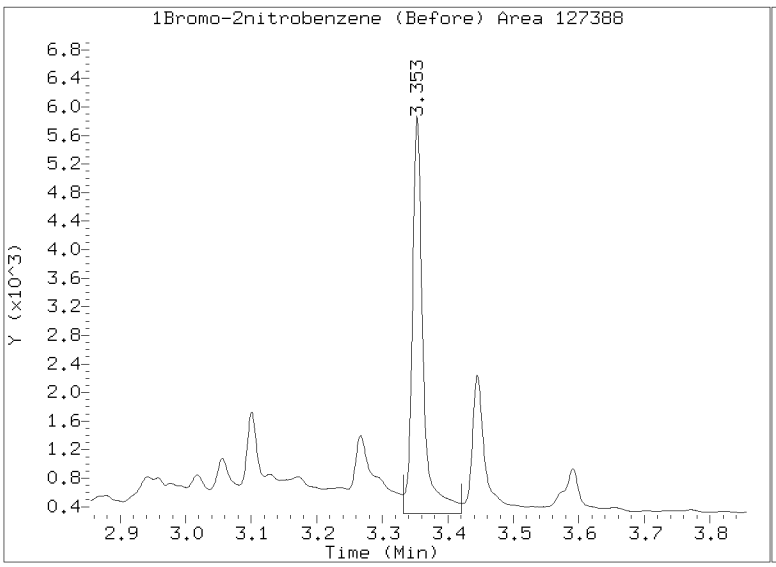
Injection Date: 09-MAR-2020 15:01
Lab ID:20B0269-02 Client ID:
Report Date: 03/09/2020 16:21

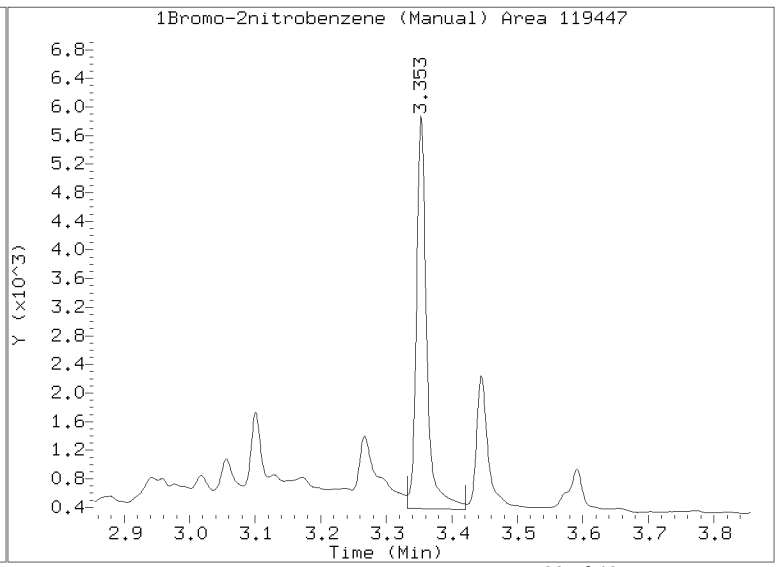












Manual Peak Adjustment Report, STX-CLP

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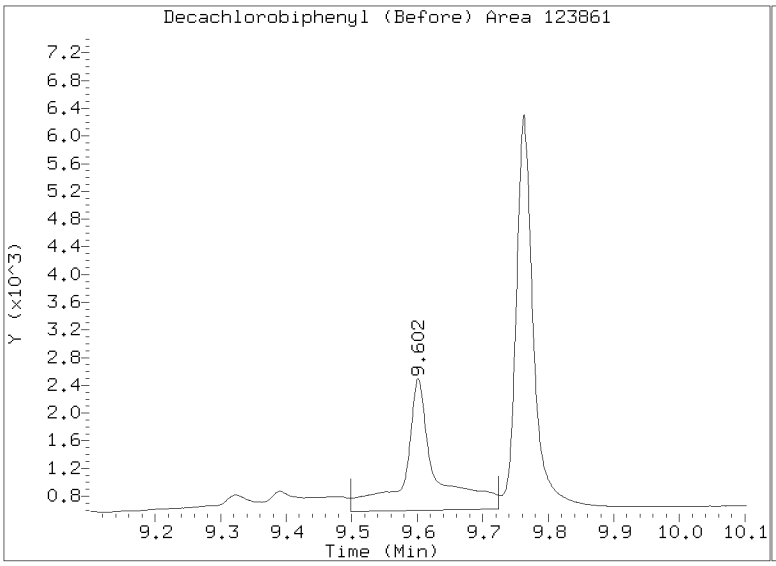
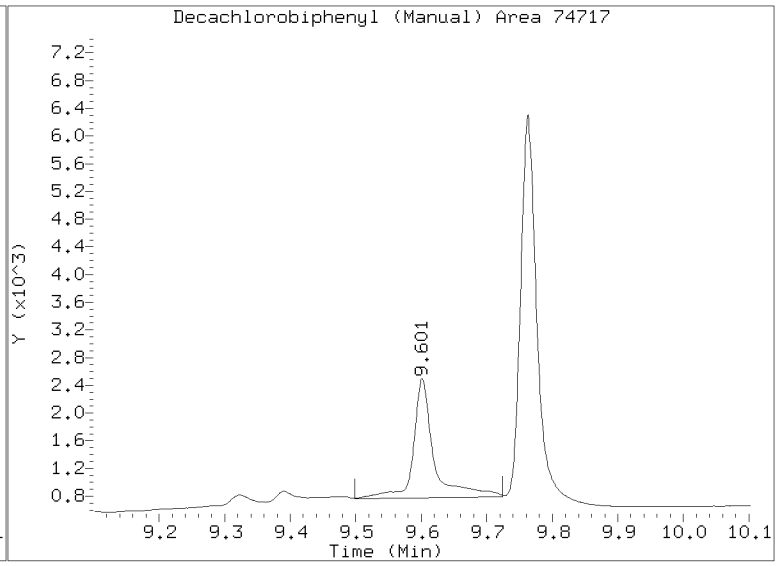
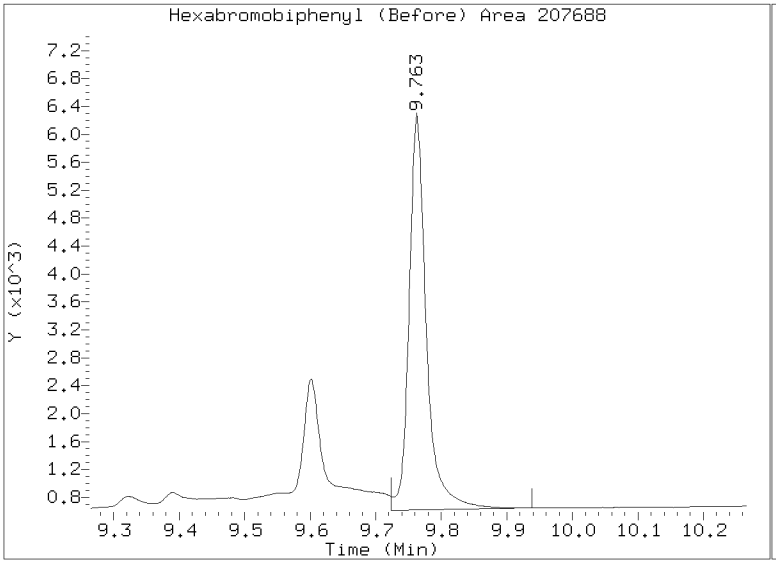
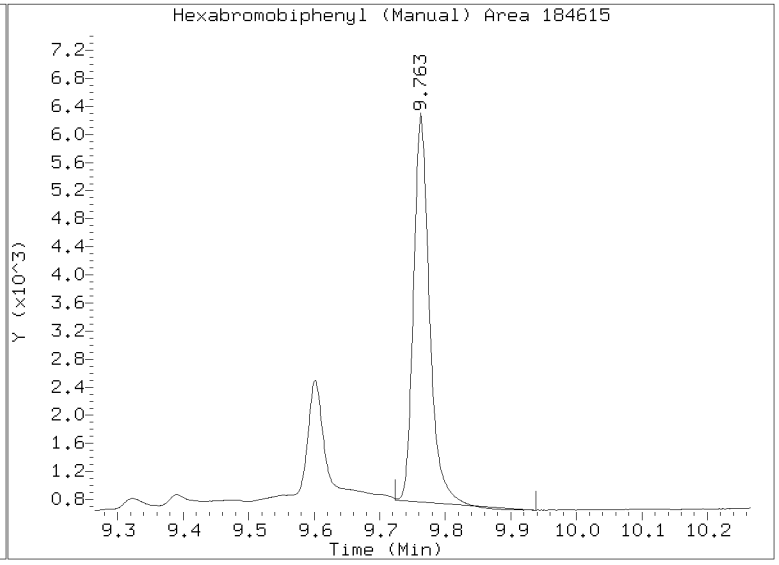
Injection Date: 09-MAR-2020 15:01
Lab ID:20B0269-02 Client ID:
Report Date: 03/09/2020 16:21









Dual Column

SW-11R-20200221

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma				
Project:	Webster Nursery				
Matrix:	Water	Laboratory ID:	20B0269-02RE1 B	File ID:	20031313.D
Sampled:	02/21/20 11:10	Prepared:	03/11/20 19:56	Analyzed:	03/13/20 15:19
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BIC0215	Sequence:	SIC0178	Calibration:	DC00017
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLP2

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	1	1	0.0006	0.00009	0.0006	H, U
319-85-7	beta-BHC	1	1	0.0006	0.0001	0.0006	H, U
58-89-9	gamma-BHC (Lindane)	1	1	0.0006	0.0001	0.0006	H, U
319-86-8	delta-BHC	1	1	0.0006	0.0001	0.0006	H, U
76-44-8	Heptachlor	1	1	0.0006	0.0002	0.0006	H, U
309-00-2	Aldrin	1	1	0.0006	0.0002	0.0006	H, U
1024-57-3	Heptachlor Epoxide	2	1	0.0040	0.0002	0.0006	H
5103-74-2	trans-Chlordane (beta-Chlordane)	1	1	1.00	1.00	1.00	H, Y1, U
5103-71-9	cis-Chlordane (alpha-chlordane)	1	1	0.0006	0.0001	0.0006	H, U
959-98-8	Endosulfan I	1	1	0.0006	0.0001	0.0006	H, U
72-55-9	4,4'-DDE	1	1	0.0013	0.0003	0.0013	H, U
60-57-1	Dieldrin	1	1	0.0013	0.0004	0.0013	H, U
72-20-8	Endrin	1	1	0.0013	0.0001	0.0013	H, U
33213-65-9	Endosulfan II	1	1	0.0013	0.0002	0.0013	H, U
72-54-8	4,4'-DDD	1	1	0.0013	0.0002	0.0013	H, U
7421-93-4	Endrin Aldehyde	1	1	0.0013	0.0004	0.0013	H, U
50-29-3	4,4'-DDT	1	1	0.0013	0.0004	0.0013	H, U
1031-07-8	Endosulfan Sulfate	1	1	0.0013	0.0003	0.0013	H, U
53494-70-5	Endrin Ketone	1	1	0.0013	0.0003	0.0013	H, U
72-43-5	Methoxychlor	1	1	0.0063	0.0021	0.0063	H, U
8001-35-2	Toxaphene	1	1	0.0625	0.0625	0.0625	H, U
57-74-9	Chlordane (NOS)	1	1	0.0050	0.0050	0.0050	H, U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0187*	*93.6*	*30 - 160*	
Decachlorobiphenyl	*2*	*0.020000*	*0.0219*	*110*	*30 - 160*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0152*	*75.8*	*30 - 160*	
Tetrachlorometaxylene	*2*	*0.020000*	*0.0144*	*72.2*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031313.D
Data file 2: /20200313.b/20200313.b/20031313.D
Method: \20200313.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: 20B0269-02
Client ID:
Injection Date: 13-MAR-2020 15:19
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	alpha-BHC
----			----			0.00	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
----			6.334	-0.003	598	0.00	0.32	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
6.348	-0.005	17321	7.353	-0.002	12150	7.38	7.98	7.9	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			8.075	-0.001	3102	0.00	3.17	---	Dieldrin
----			----			0.00	0.00	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
----			----			0.00	0.00	---	4,4'-DDD
----			----			0.00	0.00	---	Endosulfan sulfate
----			----			0.00	0.00	---	4,4'-DDT
----			----			0.00	0.00	---	Methoxychlor
----			----			0.00	0.00	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
6.486	-0.011	18515	7.557	-0.003	3992	8.06	3.03	90.7*	trans-Chlordane M
6.628	-0.011	4275	----			1.99	0.00	---	cis-Chlordane
2.484	-0.033	34582	2.865	-0.024	213505	9.17	86.36	161.6*	Hexachlorobutadiene
4.421	-0.001	2994	5.210	-0.035	580	1.46	0.34	124.3*	Hexachlorobenzene
----			----			0.00	0.00	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			----			0.00	0.00	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.762	-0.012	15242	----			0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.068	-0.006	44165	4.714	-0.003	42853	30.33	28.88	4.9	Tetrachloro-m-xylene
9.595	-0.006	68282	11.064	-0.003	31931	37.45	43.81	15.7	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	75.8	72.2	72.2~	130- 0
Decachlorobiphenyl	93.6	109.5	93.6~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	149672	-20.9
Hexabromobiphenyl	177311	144890	-18.3

Column 2

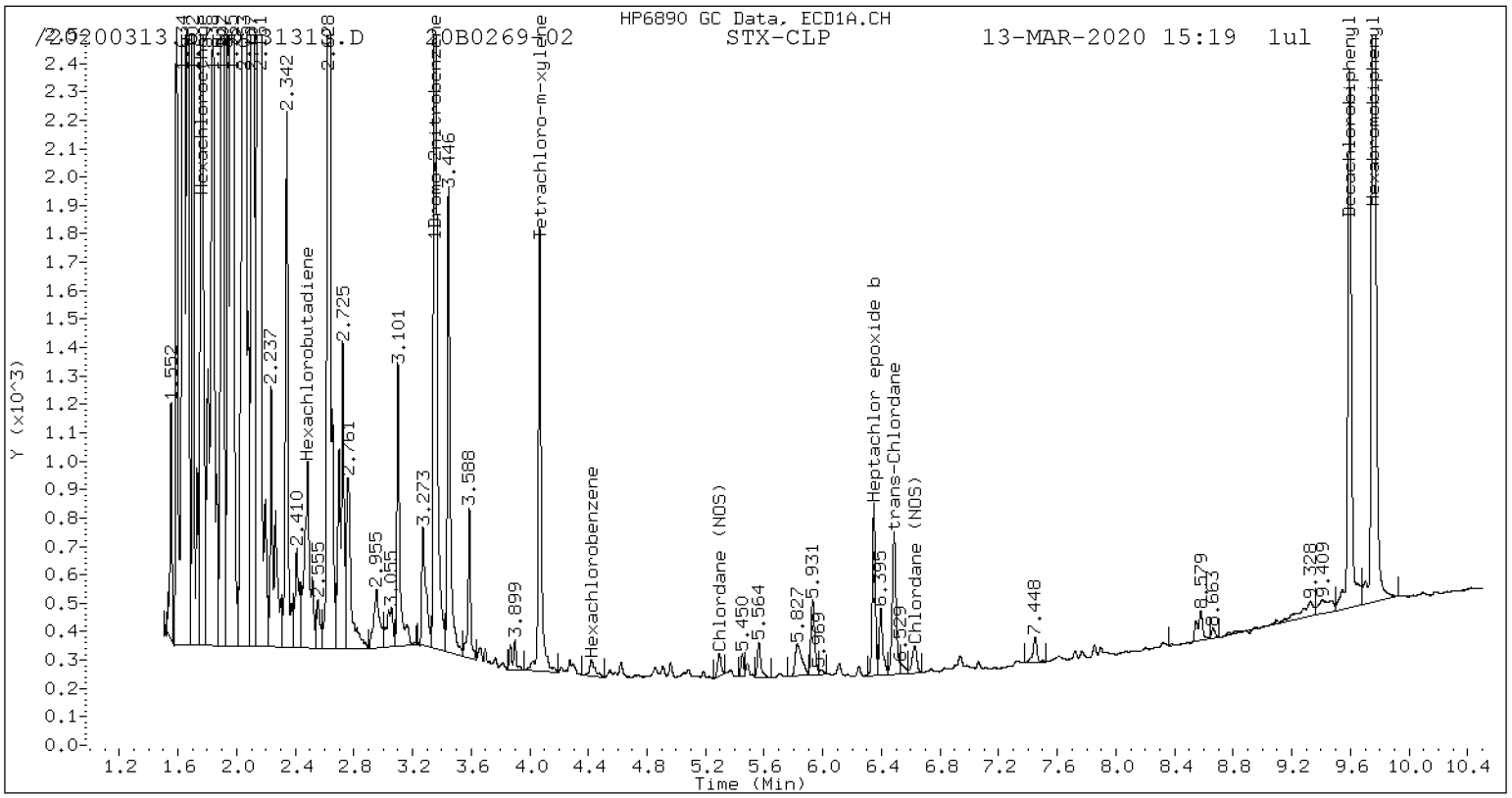
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	125040	-16.2
Hexabromobiphenyl	80212	48188	-39.9

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

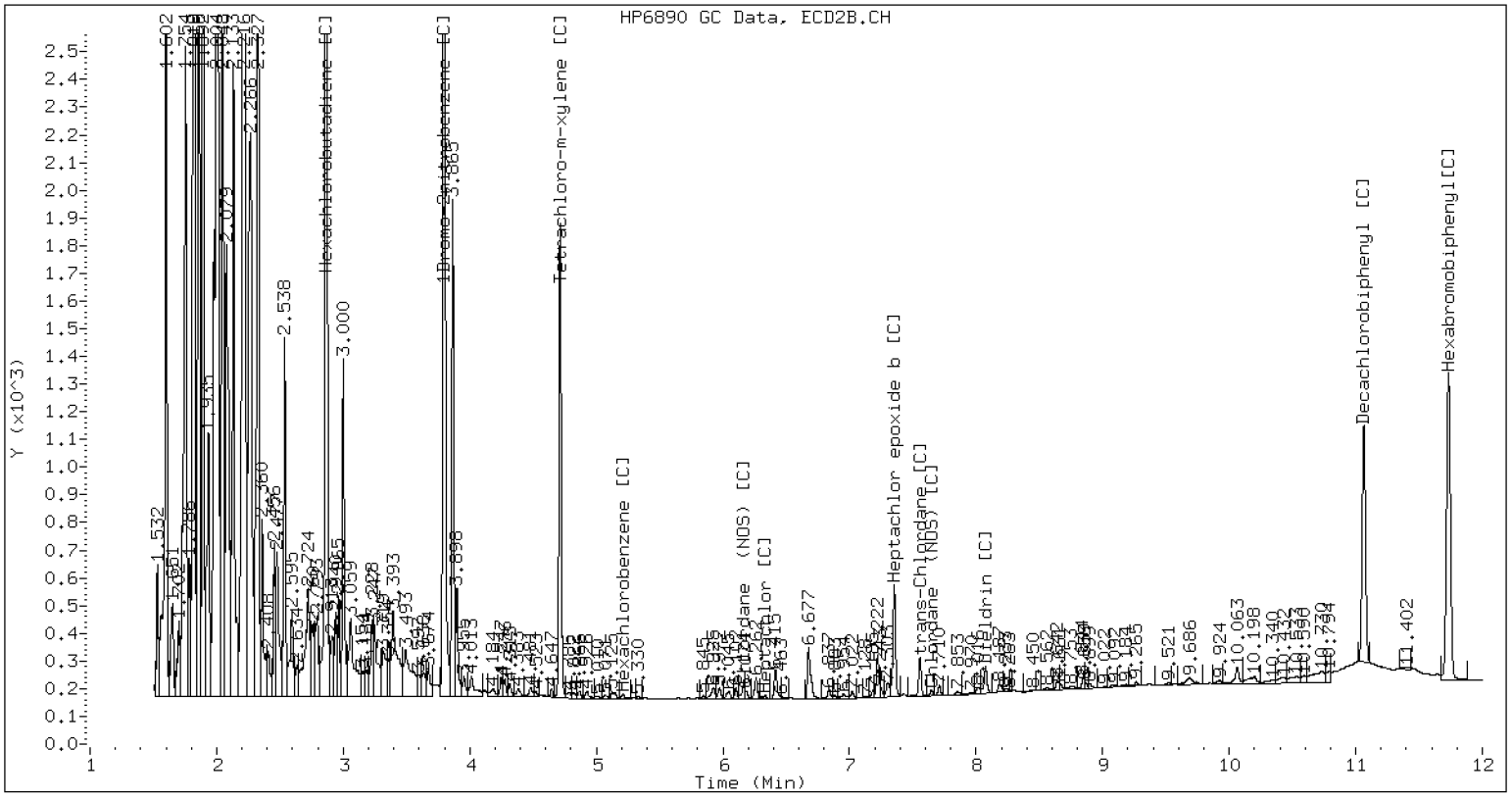
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.294	0.010	2535	37.0	1	6.161	-0.002	1705	34.1
Chlordane (NOS)	2	6.486	-0.009	18515	80.1	2	7.557	-0.002	3992	30.0
Chlordane (NOS)	3	6.628	-0.001	4275	11.1	3	7.648	-0.002	574	4.2
		Total STX-CLPAve (3 peaks): 42.766				Total CLP2Ave (3 peaks): 22.757			RPD = 61*	
		Corrected Ave: < 3 Peaks				Corrected Ave (3 peaks): 22.757				

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

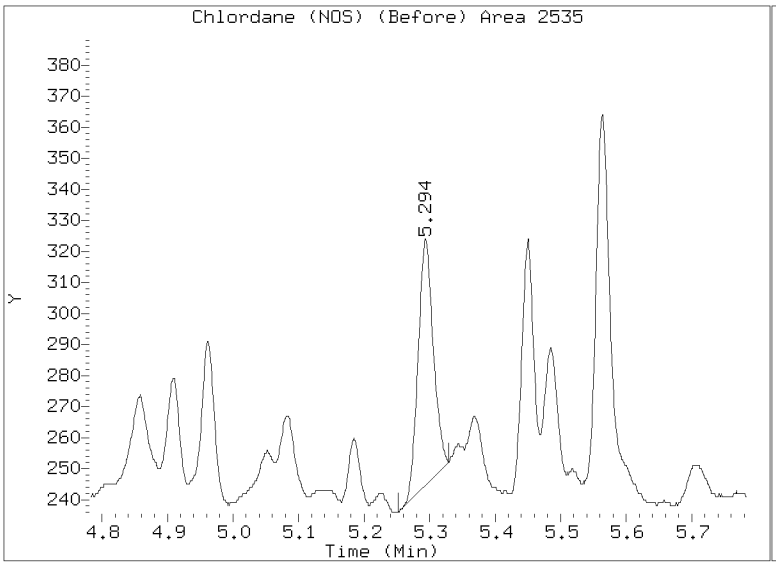
/20200313.b/20200313.b/20031313.D 20B0269-02 CLP2

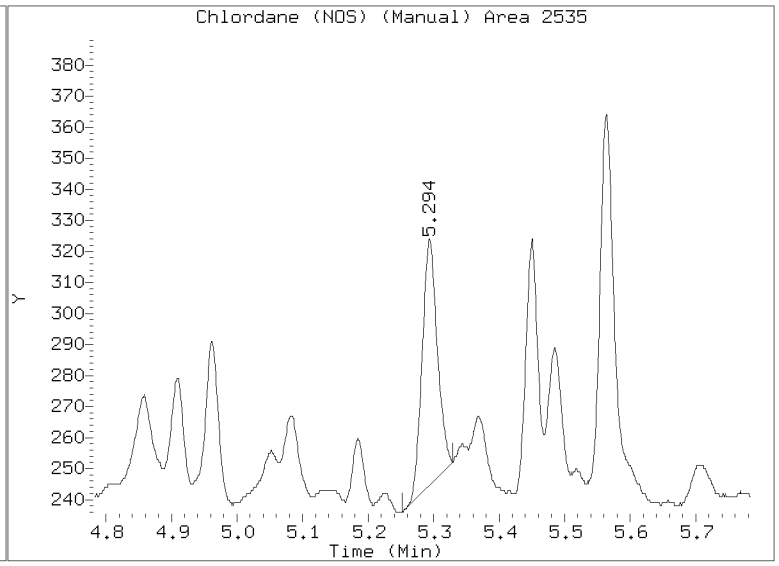


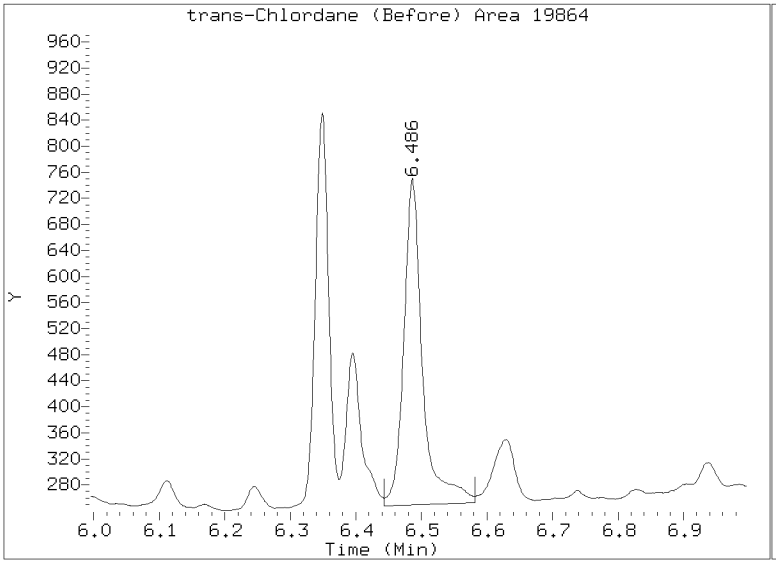
CLP-2 Manual Integration: YES

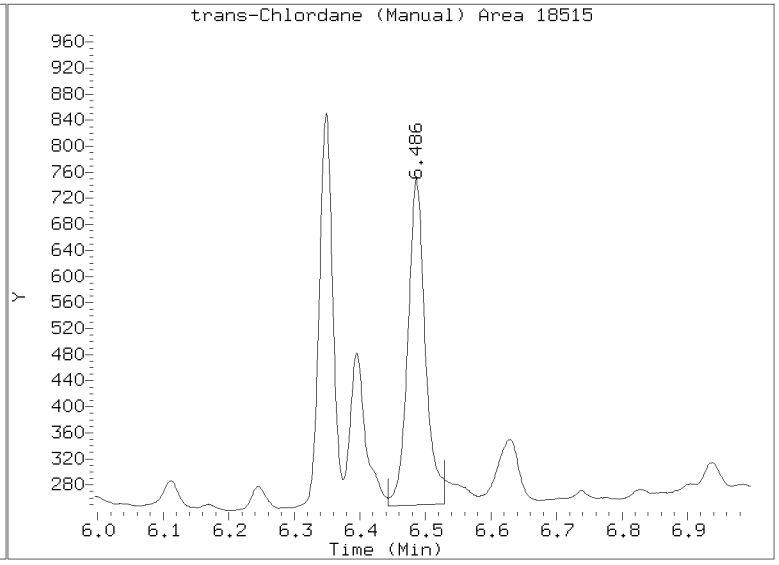
Manual Peak Adjustment Report, STX-CLP

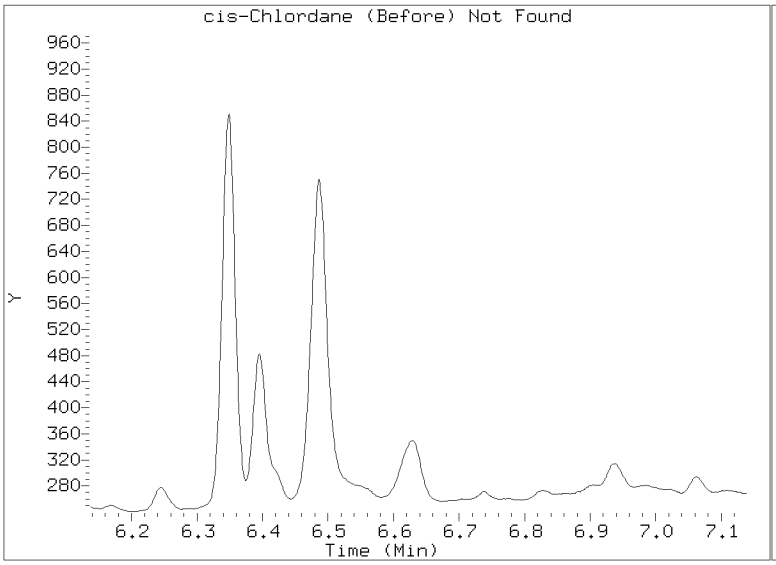
Datafile: /20200313.b/20031313.D
Injection Date: 13-MAR-2020 15:19
Lab ID:20B0269-02 Client ID:
Report Date: 03/14/2020 13:42

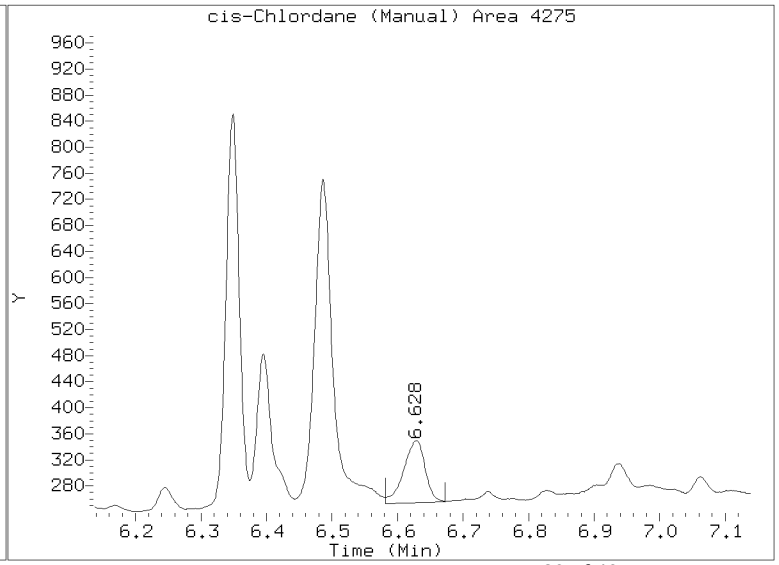






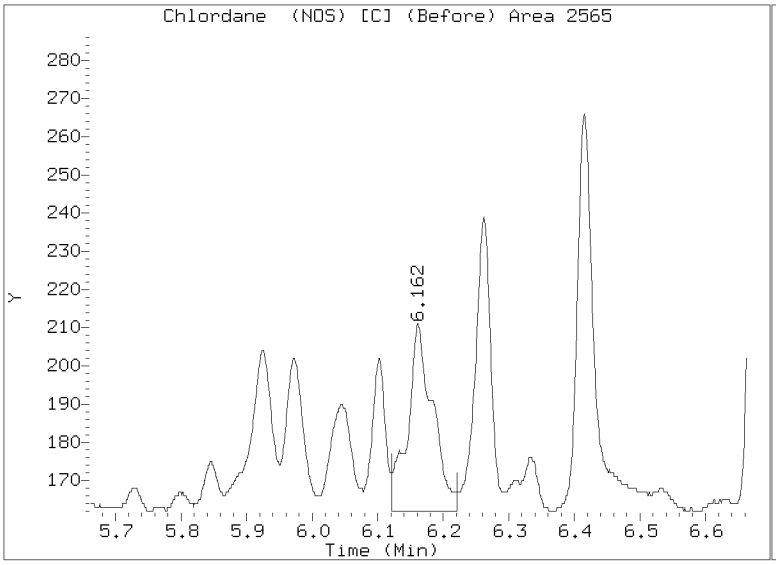


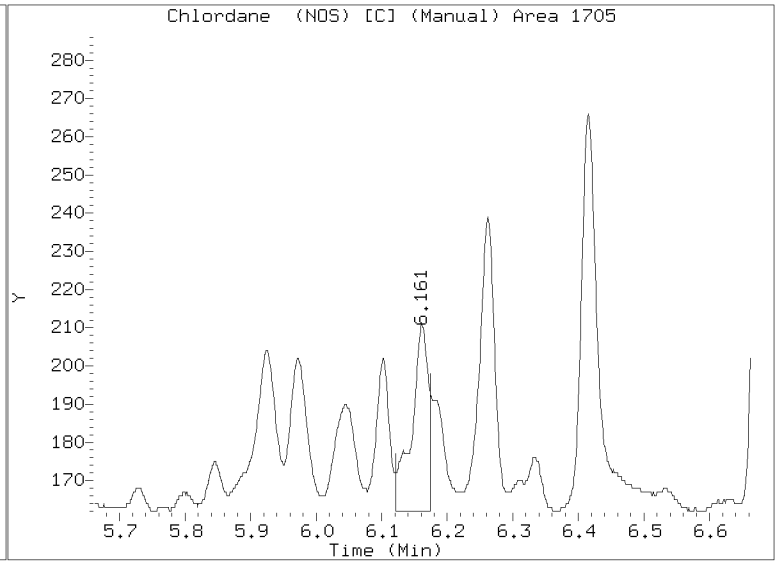


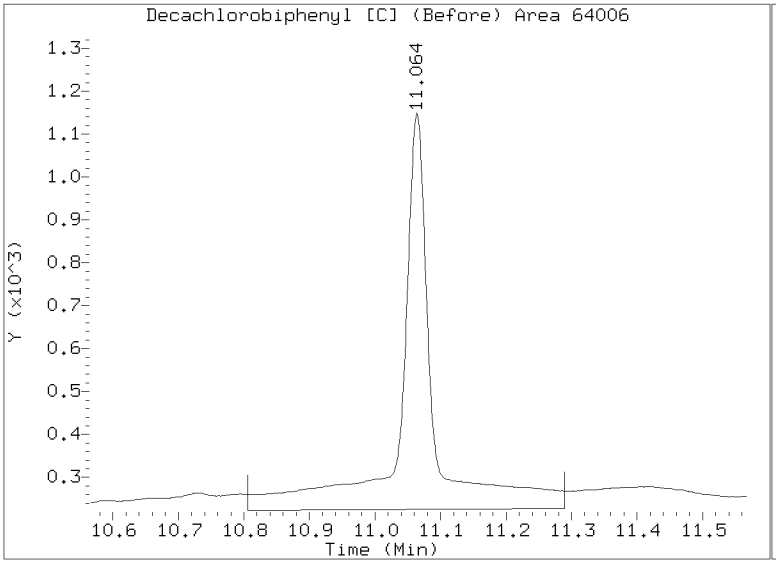


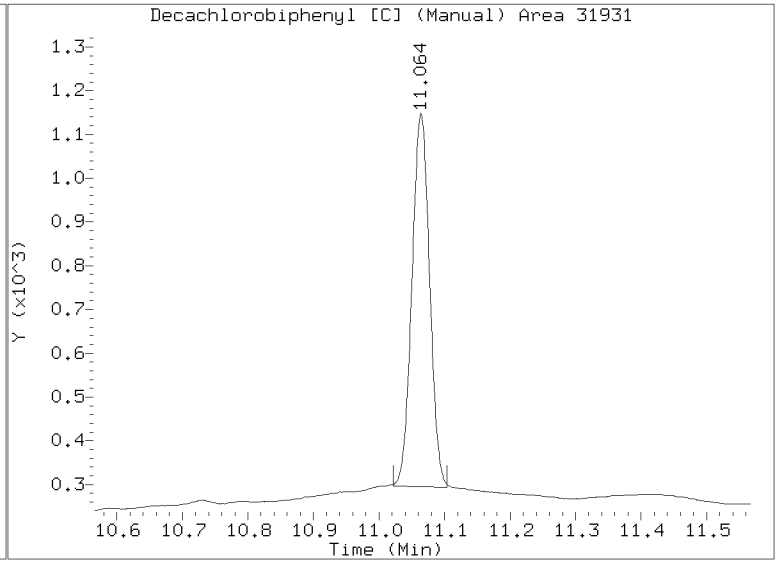
Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031313.D
Injection Date: 13-MAR-2020 15:19
Lab ID:20B0269-02 Client ID:









Dual Column

SW-99-20200221

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma				
Project:	Webster Nursery				
Matrix:	Water	Laboratory ID:	20B0269-03 A	File ID:	20030914.D
Sampled:	02/21/20 11:12	Prepared:	02/26/20 15:09	Analyzed:	03/09/20 15:19
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BIB0534	Sequence:	SIC0103	Calibration:	DC00017
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLP2

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	1	1	0.0006	0.00009	0.0006	U
319-85-7	beta-BHC	1	1	0.0006	0.0001	0.0006	U
58-89-9	gamma-BHC (Lindane)	1	1	0.0006	0.0001	0.0006	U
319-86-8	delta-BHC	1	1	0.0006	0.0001	0.0006	U
76-44-8	Heptachlor	1	1	0.0006	0.0002	0.0006	U
309-00-2	Aldrin	1	1	0.0006	0.0002	0.0006	U
1024-57-3	Heptachlor Epoxide	1	1	0.0050	0.0002	0.0006	P1
5103-74-2	trans-Chlordane (beta-Chlordane)	1	1	0.0042	0.0002	0.0006	P1
5103-71-9	cis-Chlordane (alpha-chlordane)	1	1	0.0015	0.0001	0.0006	
959-98-8	Endosulfan I	1	1	0.0006	0.0001	0.0006	U
72-55-9	4,4'-DDE	1	1	0.0013	0.0003	0.0013	U
60-57-1	Dieldrin	1	1	0.0013	0.0004	0.0013	U
72-20-8	Endrin	1	1	0.0013	0.0001	0.0013	U
33213-65-9	Endosulfan II	1	1	0.0013	0.0002	0.0013	U
72-54-8	4,4'-DDD	1	1	0.0013	0.0002	0.0013	U
7421-93-4	Endrin Aldehyde	1	1	0.0013	0.0004	0.0013	U
50-29-3	4,4'-DDT	1	1	0.0013	0.0004	0.0013	U
1031-07-8	Endosulfan Sulfate	1	1	0.0013	0.0003	0.0013	U
53494-70-5	Endrin Ketone	1	1	0.0013	0.0003	0.0013	U
72-43-5	Methoxychlor	1	1	0.0063	0.0021	0.0063	U
8001-35-2	Toxaphene	1	1	0.0625	0.0625	0.0625	U
57-74-9	Chlordane (NOS)	1	1	0.0050	0.0050	0.0050	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0187*	*93.6*	*30 - 160*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0150*	*74.8*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030914.D
Data file 2: /20200309.b/20200309.b/20030914.D
Method: \20200309.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: 20B0269-03
Client ID:
Injection Date: 09-MAR-2020 15:19
Report Date: 03/09/2020 16:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			5.383	-0.002	552	0.00	1.46	---	alpha-BHC
----			5.891	0.002	228	0.00	1.32	---	beta-BHC
----			6.264	0.012	2030	0.00	6.29	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
----			6.340	-0.001	408	0.00	1.27	---	Heptachlor
----			6.749	0.019	518	0.00	1.77	---	Aldrin
6.355	0.002	16524	7.360	0.001	10003	10.03	38.34	117.0*	Heptachlor epoxide b
----			7.782	-0.013	173	0.00	0.88	---	Endosulfan I
----			----			0.00	0.00	---	Dieldrin
----			7.859	0.005	301	0.00	1.30	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
----			8.450	0.003	317	0.00	9.48	---	4,4'-DDD
----			9.191	-0.002	458	0.00	13.59	---	Endosulfan sulfate
----			8.779	0.020	1364	0.00	42.38	---	4,4'-DDT
----			----			0.00	0.00	---	Methoxychlor
----			----			0.00	0.00	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
6.493	-0.002	13528	7.564	0.000	3276	8.40	14.53	53.5*	trans-Chlordane
6.633	-0.005	4516	7.716	0.000	769	2.99	3.84	24.9	cis-Chlordane
2.484	-0.031	164117	----			62.05	0.00	---	Hexachlorobutadiene
4.425	-0.013	2150	----			1.50	0.00	---	Hexachlorobenzene
----			7.229	-0.016	3361	0.00	17.00	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			7.655	0.011	596	0.00	23.22	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.762	-0.012	15779	1.683	0.007	4994	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.071	-0.000	30556	4.719	0.002	25168	29.92	99.00	107.2*	Tetrachloro-m-xylene
9.601	-0.001	78702	11.075	-0.001	19233	37.45	706.88	179.9*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	74.8	247.5	74.8˜	130- 0
Decachlorobiphenyl	93.6	1767.2	93.6˜	130- 0

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	104950	-44.6
Hexabromobiphenyl	177311	166988	-5.8

Column 2

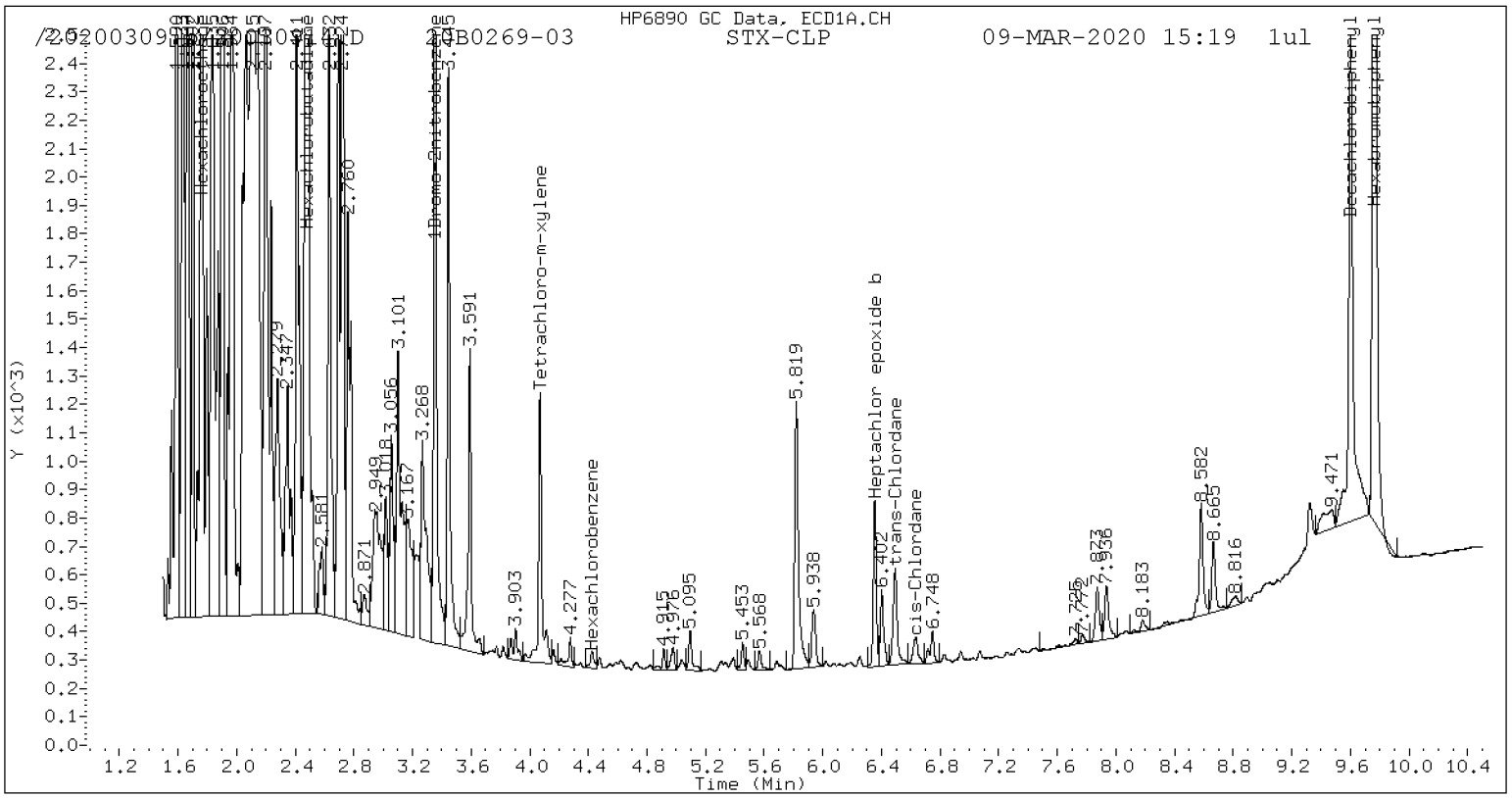
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	21420	-85.6 <-
Hexabromobiphenyl	80212	1799	-97.8 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	8.020	-0.019	475	701.2
Toxaphene	2	---			0.000	2	8.564	-0.025	5422	4844.5
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	8.906	-0.019	391	277.5
Toxaphene	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: 1941.092				

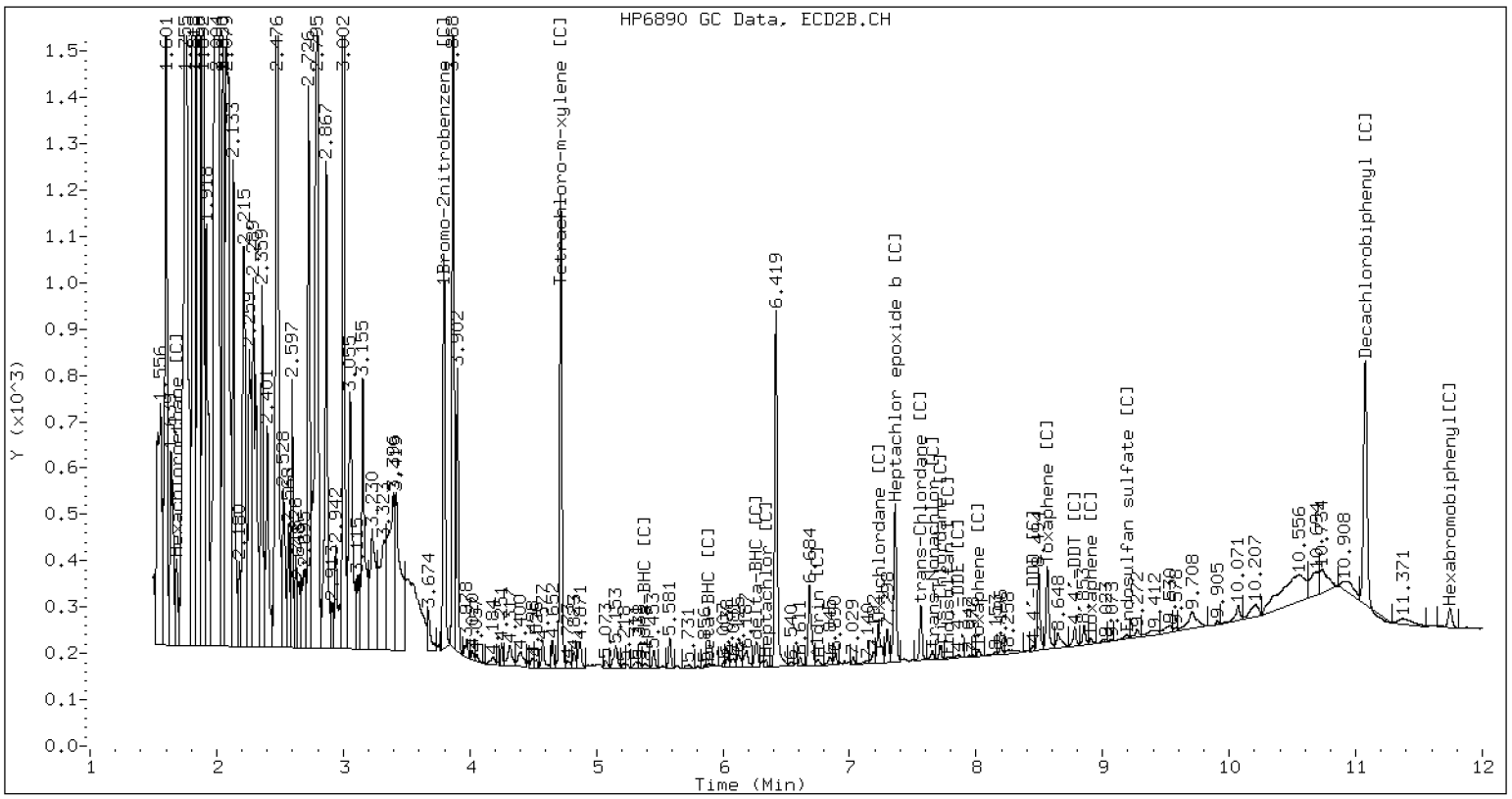
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200309.b/20200309.b/20030914.D 20B0269-03 CLP2



CLP-2 Manual Integration: NO

Dual Column

SW-99-20200221

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma				
Project:	Webster Nursery				
Matrix:	Water	Laboratory ID:	20B0269-03RE1 B	File ID:	20031315.D
Sampled:	02/21/20 11:12	Prepared:	03/11/20 19:56	Analyzed:	03/13/20 16:01
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BIC0215	Sequence:	SIC0178	Calibration:	DC00017
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLP2

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	1	1	0.0006	0.00009	0.0006	H, U
319-85-7	beta-BHC	1	1	0.0006	0.0001	0.0006	H, U
58-89-9	gamma-BHC (Lindane)	1	1	0.0006	0.0001	0.0006	H, U
319-86-8	delta-BHC	1	1	0.0006	0.0001	0.0006	H, U
76-44-8	Heptachlor	1	1	0.0006	0.0002	0.0006	H, U
309-00-2	Aldrin	1	1	0.0006	0.0002	0.0006	H, U
1024-57-3	Heptachlor Epoxide	2	1	0.0046	0.0002	0.0006	H
5103-74-2	trans-Chlordane (beta-Chlordane)	1	1	1.00	1.00	1.00	H, Y1, U
5103-71-9	cis-Chlordane (alpha-chlordane)	1	1	0.0006	0.0001	0.0006	H, U
959-98-8	Endosulfan I	1	1	0.0006	0.0001	0.0006	H, U
72-55-9	4,4'-DDE	1	1	0.0013	0.0003	0.0013	H, U
60-57-1	Dieldrin	1	1	0.0013	0.0004	0.0013	H, U
72-20-8	Endrin	1	1	0.0013	0.0001	0.0013	H, U
33213-65-9	Endosulfan II	1	1	0.0013	0.0002	0.0013	H, U
72-54-8	4,4'-DDD	1	1	0.0013	0.0002	0.0013	H, U
7421-93-4	Endrin Aldehyde	1	1	0.0013	0.0004	0.0013	H, U
50-29-3	4,4'-DDT	1	1	0.0013	0.0004	0.0013	H, U
1031-07-8	Endosulfan Sulfate	1	1	0.0013	0.0003	0.0013	H, U
53494-70-5	Endrin Ketone	1	1	0.0013	0.0003	0.0013	H, U
72-43-5	Methoxychlor	1	1	0.0063	0.0021	0.0063	H, U
8001-35-2	Toxaphene	1	1	0.0625	0.0625	0.0625	H, U
57-74-9	Chlordane (NOS)	1	1	0.0050	0.0050	0.0050	H, U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0192*	*95.9*	*30 - 160*	
Decachlorobiphenyl	*2*	*0.020000*	*0.0206*	*103*	*30 - 160*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0148*	*73.8*	*30 - 160*	
Tetrachlorometaxylene	*2*	*0.020000*	*0.0161*	*80.7*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031315.D
Data file 2: /20200313.b/20200313.b/20031315.D
Method: \20200313.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: 20B0269-03
Client ID:
Injection Date: 13-MAR-2020 16:01
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	alpha-BHC
----			----			0.00	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
6.351	-0.002	17552	7.355	-0.001	11925	7.44	9.12	20.3	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			----			0.00	0.00	---	Dieldrin
----			----			0.00	0.00	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
----			----			0.00	0.00	---	4,4'-DDD
----			----			0.00	0.00	---	Endosulfan sulfate
----			----			0.00	0.00	---	4,4'-DDT
----			----			0.00	0.00	---	Methoxychlor
----			----			0.00	0.00	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
6.488	-0.009	21696	7.559	-0.001	4193	9.40	3.71	86.9*	trans-Chlordane
6.629	-0.009	4353	7.711	-0.001	1130	2.01	1.13	56.5*	cis-Chlordane
2.484	-0.033	24129	----			6.37	0.00	---	Hexachlorobutadiene
----			----			0.00	0.00	---	Hexachlorobenzene
----			----			0.00	0.00	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			----			0.00	0.00	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.763	-0.011	14485	----			0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.069	-0.005	43200	4.715	-0.002	41169	29.52	32.29	9.0	Tetrachloro-m-xylene
9.599	-0.002	70897	11.065	-0.002	32996	38.36	41.25	7.2	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	73.8	80.7	73.8~	130- 0
Decachlorobiphenyl	95.9	103.1	95.9~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	150378	-20.6
Hexabromobiphenyl	177311	146852	-17.2

Column 2

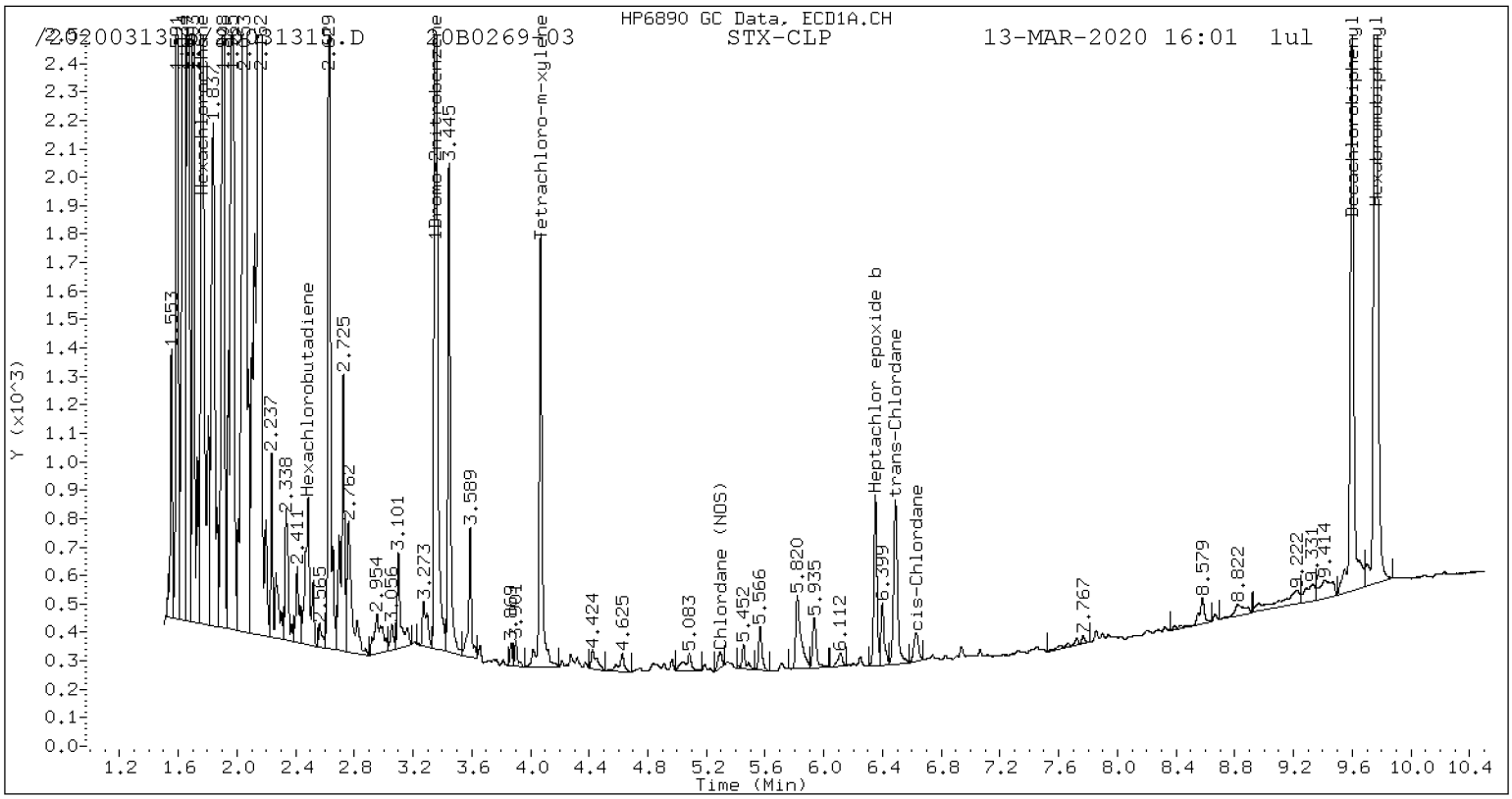
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	107419	-28.0
Hexabromobiphenyl	80212	52895	-34.1

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

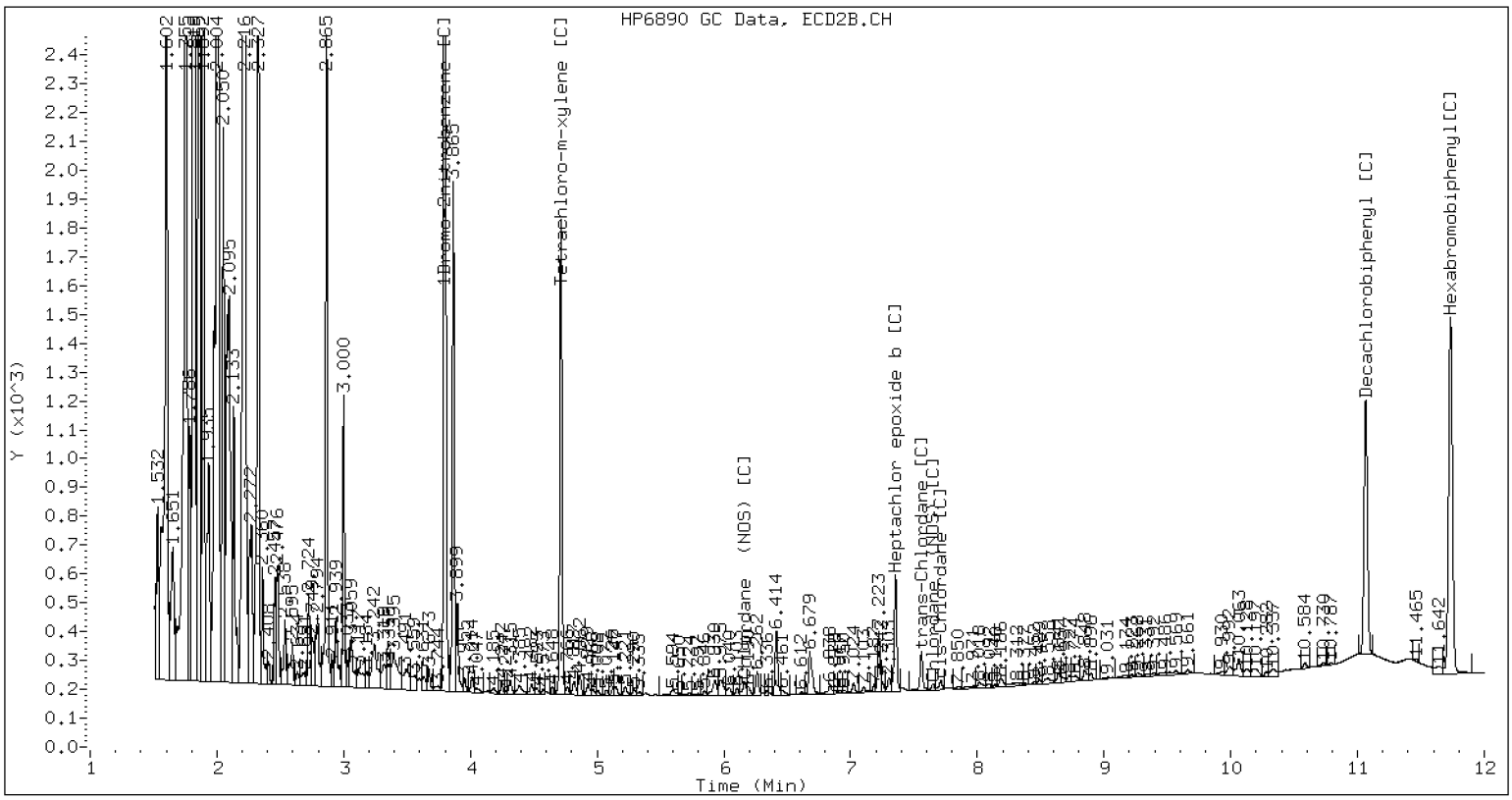
		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.293	0.009	2217	32.2	1	6.161	-0.002	1730	40.2
Chlordane (NOS)	2	6.488	-0.007	21696	93.5	2	7.559	-0.000	4193	36.7
Chlordane (NOS)	3	6.629	0.001	4353	11.3	3	7.650	0.000	694	5.9
		Total STX-CLPAve (3 peaks): 45.658				Total CLP2Ave (3 peaks): 27.609			RPD = 49*	
		Corrected Ave: < 3 Peaks				Corrected Ave (3 peaks): 27.609				

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

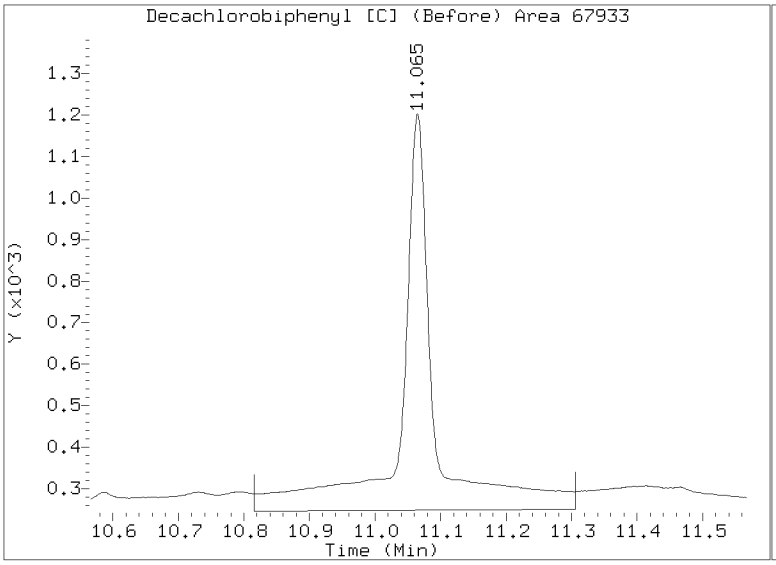
/20200313.b/20200313.b/20031315.D 20B0269-03 CLP2

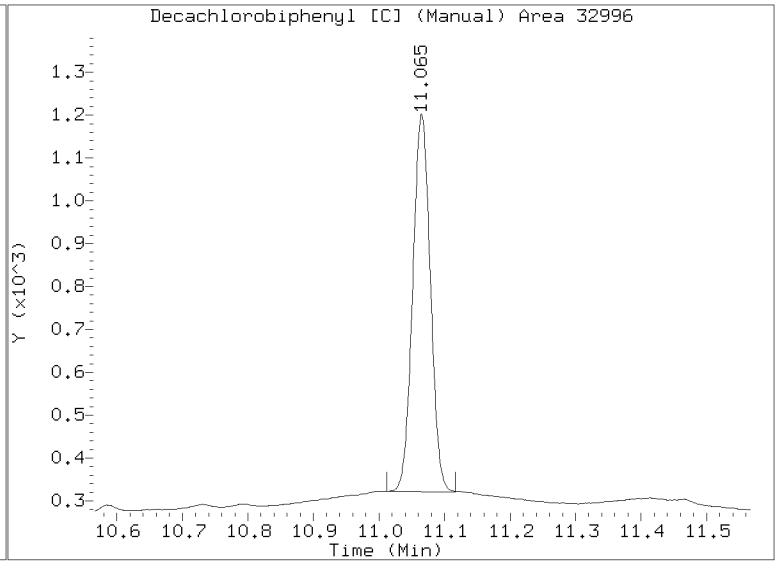


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031315.D
Injection Date: 13-MAR-2020 16:01
Lab ID:20B0269-03 Client ID:





PREPARATION BATCH SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc. SDG: 20B0269

Client: Landau Associates, Inc. - Tacoma Project: Webster Nursery

Batch: BIB0534 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SW-10R-20200221	20B0269-01	20030912.D	02/26/20 15:09	
SW-11R-20200221	20B0269-02	20030913.D	02/26/20 15:09	
SW-99-20200221	20B0269-03	20030914.D	02/26/20 15:09	
Blank	BIB0534-BLK1	20030908.D	02/26/20 15:09	
LCS	BIB0534-BS1	20030909.D	02/26/20 15:09	
LCS	BIB0534-BS2	20030911.D	02/26/20 15:09	
LCS Dup	BIB0534-BSD1	20030910.D	02/26/20 15:09	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BIB0534

Prepared using: EPA 3510C SepF

8081B Pest (Low Level H2O) in Water (Version:List has toxaphene and NOS Chlordane)

Matrix: Water **Date Prepared:** 2/26/24 **Balance ID:** N/A **Set Up By:** RcsM 2/25/2020

Analysis: 8081B Pest (Low Level H2O)

Lab Number & Container	Initial (mL) Actual	(REQ) Sulfur C/U 3.5mL+0.5mL Ethyl Acetate (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
20B0269-01 A	(1,000.000) 1000.00	(4mL) (1:1)	1mL (1:1)	0.5	0.5	
20B0269-02 A	(1,000.000)	(4mL) (1:1)	1mL (1:1)	0.5	0.5	
20B0269-03 A	(1,000.000)	(4mL) (1:1)	1mL (1:1)	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	(REQ) Sulfur C/U 3.5mL+0.5mL Ethyl Acetate (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
BIB0534-BLK1	(1,000.000) 1000.00	(4mL) (1:1)	1mL (1:1)	0.5	0.5	
BIB0534-BS1	(1,000.000)	(4mL) (1:1)	1mL (1:1)	0.5	0.5	
BIB0534-BSD1	(1,000.000)	(4mL) (1:1)	1mL (1:1)	0.5	0.5	
BIB0534-BSD2	(1,000.000)	(4mL) (1:1)	1mL (1:1)	0.5	0.5	I001858 Spike only

SH 2/26/24
Client ID verified By Date

as 2/29/20
Preparation Reviewed By Date

Φ2/26/24 15:Φ9
Extraction Date and Time

Printed 2/25/2020 12:57:26PM

3306I

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BIB0534

Prepared using: EPA 3510C SepF

8081B Pest (Low Level H2O) in Water (Version:List has toxaphene and NOS Chlordane)

Prep Steps	Reagents Used		Surrogates & Spike Standards Used

Verify pH is 5-9

(Y) / N

SH 2/26/20
Analyst/Date

KD 100°C
Hexane Exchange
(2 X 20 mL Hexane)
100°C

1 2 3 (4) (5) 6

BH 2/27/20
Analyst/Date

TurboVap
Pre Cleanups

(1) (2) 3 4 5

AT 2/27/20
Analyst/Date

TurboVap
Post Cleanups

~~(1)~~ (2) 3 4 5

AT 2/27/20
Analyst/Date

Vialing

AT 2/27/20
Analyst/Date

Station/Reagent	Standard ID
Separatory Funnel Analyst: SH Date: 2/26/20	
90/10 Hexane/Methylene Chloride	I4◊1887
Anhydrous Sodium Sulfate	I◊◊1314
KD Analyst: BH Date: 2/27/20	
Hexane	I◊◊◊585
Vialing Analyst: AT Date: 2/27/20	
Hexane	I000585
Ethyl Acetate	B00090◊
Tetrabutylammonium hydrogensulfate (TBAS)	I001483
Sodium Sulfite	H009014
Silica Gel (SPE) Darts	HA11452

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Diluted Surrogate 0.2µg ml	D (I000243) Exp 08/20/2020	100µL	SH	✓
Low Level Spike 0.25-2.5µg ml	QLS 10 (I007357) Exp 07/09/2020	40µL	SH	✓

(V) indicates a virtual standard combining two or more physical standards In these cases the Standard ID refers to the virtual standard, not the parent standards

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s)

		Vol	Analyst	Witness
Tech Chlor.	54 (I001858)	40uL	SH	✓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: LLPEST Extraction Batch: BIBQ534

Total Solids Batch: N/A Work Order(s): 20BQ269

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☒ No Anomalies	SH 2/26/24
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Prepared using: EPA 3510C SepF

8081B Pest (Low Level H2O) in Water (Version:List has toxaphene and NOS Chlordane)

Prep Instructions	Cleaning Instructions
SPECIAL INSTRUCTIONS: 1. Rinse all non scratched glassware with DCM. 2. Verify pH is 5-9. 3. Adjust pH (if necessary=Analyst Notes). 4. Add surr/spike. 5. Extract 3X with 60mL 90:10 Hexane/DCM. 6. Non-scratched KD (NO Drying Column) at 100°. 7. Exchange (2 X with 20mL) Hexane at 100°. 8. TurboVap. 9. Clean-ups Required=(1:1)Transfer Rinse. 10.Hexane exchange with 3mL Hexane post SPE. 11. TurboVap. 12. Vial in Hexane. Archive: Y, N	Vessel Cleaning Procedure: 1. Use only non-scratched glassware. 2. Rinse all glassware with DCM.

PREPARATION BATCH SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc. SDG: 20B0269

Client: Landau Associates, Inc. - Tacoma Project: Webster Nursery

Batch: BIC0215 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SW-10R-20200221	20B0269-01RE1	20031312.D	03/11/20 19:56	From BIB0534 by WPW on 11-Mar-2020
SW-11R-20200221	20B0269-02RE1	20031313.D	03/11/20 19:56	From BIB0534 by WPW on 11-Mar-2020
SW-99-20200221	20B0269-03RE1	20031315.D	03/11/20 19:56	From BIB0534 by WPW on 11-Mar-2020
Blank	BIC0215-BLK1	20031307.D	03/11/20 19:56	
LCS	BIC0215-BS1	20031308.D	03/11/20 19:56	
LCS	BIC0215-BS2	20031309.D	03/11/20 19:56	
LCS Dup	BIC0215-BSD1	20031310.D	03/11/20 19:56	
LCS Dup	BIC0215-BSD2	20031311.D	03/11/20 19:56	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Rush

ORGANICS PREPARATION BENCH SHEET

Batch: BIC0215

Prepared using: EPA 3510C SepF

8081B Pest (Low Level H2O) in Water (Version:List has toxaphene and NOS Chlordane)

Matrix: Water **Date Prepared:** 03/11/20 **Balance ID:** N/A **Set Up By:** WW 3/11/2020

From BIB0534 on 3/11/2020 by WPW

Analysis: 8081B Pest (Low Level H2O)

Lab Number & Container	Initial (mL) Actual	(REQ) Sulfur C/U 3.5mL+0.5mL Ethyl Acetate (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
20B0269-01RE1 B	(1,000.000 1000.00	(4mL) (1:1)	1mL (1:1)	0.5	0.5	
20B0269-02RE1 B	(1,000.000 ↓	(4mL) (1:1)	1mL (1:1)	0.5	0.5	
20B0269-03RE1 B	(1,000.000 ↓	(4mL) (1:1)	1mL (1:1)	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual SM 03/11/20	(REQ) Sulfur C/U 3.5mL+0.5mL Ethyl Acetate (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
BIC0215-BLK1	(1,000.000 ~~500.00~~ 1000.00	(4mL) (1:1)	1mL (1:1)	0.5	0.5	
BIC0215-BS1	(1,000.000 ↓	(4mL) (1:1)	1mL (1:1)	0.5	0.5	~~40uL~~ QLS 10
BIC0215-BS2	(1,000.000 ↓	(4mL) (1:1)	1mL (1:1)	0.5	0.5	10uL Spike S4
BIC0215-BSD1	(1,000.000 ↓	(4mL) (1:1)	1mL (1:1)	0.5	0.5	40uL QLS10
BIC0215-BSD2	(1,000.000 ↓	(4mL) (1:1)	1mL (1:1)	0.5	0.5	10uL Spike S4

SM 03/11/20
Client ID verified By Date

RD 3-12-20
Preparation Reviewed By Date

3-11-20 19:56
Extraction Date and Time

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BIC0215

Prepared using: EPA 3510C SepF

8081B Pest (Low Level H2O) in Water (Version:List has toxaphene and NOS Chlordane)

Prep Steps

Verify pH is 5-9
(Y)/N
SH 03/11/20
Analyst/Date

KD 100°C
Hexane Exchange
(2 X 20 mL Hexane)
100°C
1 2 3 4 (5) 6
MP 03/12/20
Analyst/Date

TurboVap
Pre Cleanups
(1) 2 3 4 5
RD 3-12-20
Analyst/Date

TurboVap
Post Cleanups
1 2 (3) 4 5
RD 3-12-20
Analyst/Date

Vialing
RD 3-12-20
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: SH Date: 03/11/20	
90:10 Hexane/Methylene Chloride	I0023 43
Anhydrous Sodium Sulfate	I0017 00
KD Analyst: MP/CT Date: 03/12/20	
Hexane	I000585
Vialing Analyst: RD Date: 3-12-20	
Hexane	I000585
Ethyl Acetate	B000908
Tetrabutylammonium hydrogensulfate (TBAS)	I001483
Sodium Sulfite	H009014
Silica Gel (SPE) Darts	I002239

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Diluted Surrogate 0.2µg/mL	D (I000243) Exp: 08/20/2020	100µL	SH	DM
Low Level Spike BS1, BSd1 0.25-2.5µg/mL	QLS 10 (H007357) Exp: 07/09/2020	40µL	SH	DM

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

BS2, BSd2
Tech Chlor. Spike 54 (I001858) 10µL GT DM
7-25-20
Exp

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: Low Post (Rx) Extraction Batch BIC0215

Total Solids Batch: _____ Work Order(s): 20B0269

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☒ Turbid/Color= 269 -01, 02, 03 slight turbid	SH 03/11/20
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions).	
BSD1- 10% or 3rd Shake Spill	SH 03/11/20
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

REQUEST FOR RE-EXTRACTION / RE-ANALYSIS
(Organic Analyses)

Todays Date: 03/11/2020
Turn Around Time: _____
Work Order: 20B0269
Sample Matrix: H2O
Element Batch: BIB0534
Analysis: Pest Low Level

Reason for Re-extract

Unacceptable Blank: ☐
Instrument Problem: ☐
Unacceptable Duplicate: ☐
Client Request: ☐
Unacceptable Spike: ☐
Other: ☑
Unacceptable Surrogate: ☐
Frozen/ HT Remaining (Y/N) ☐

** Must Check One **

*REMOVE from original batch: ☐
Copy to batch as Re-extract: ☐

(Analyst – delete data from DET and take out of sequence)

Optional Info

Re-Extract In Holding: ☐
Re-Extract Out of Holding: ☐

Details of Problem / Recommended Corrective Action

Wrong solvent used.

Samples Affected

All

Corrective Action Taken

Re-extract all

Analyst: YZ
Date: 03/11/20
Supervisor: _____
Date: _____

PM Approval: _____
Date: _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BIB0534

Prepared using: EPA 3510C SepF

8081B Pest (Low Level H2O) in Water (Version:List has toxaphene and NOS Chlordane)

Matrix: Water **Date Prepared:** 2/26/24 **Balance ID:** N/A **Set Up By:** RcsM 2/25/2020

Analysis: 8081B Pest (Low Level H2O)

Lab Number & Container	Initial (mL) Actual	(REQ) Sulfur C/U 3.5mL+0.5mL Ethyl Acetate (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
20B0269-01 A	1000.00	(4mL) (1:1)	1ml (1:1)	0.5	0.5	
20B0269-02 A	"	(4mL) (1:1)	1ml (1:1)	0.5	0.5	
20B0269-03 A	"	(4mL) (1:1)	1ml (1:1)	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	(REQ) Sulfur C/U 3.5mL+0.5mL Ethyl Acetate (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
BIB0534-BLK1	1000.00	(4mL) (1:1)	1ml (1:1)	0.5	0.5	
BIB0534-BS1	"	(4mL) (1:1)	1ml (1:1)	0.5	0.5	
BIB0534-BSD1	"	(4mL) (1:1)	1ml (1:1)	0.5	0.5	
BIB0534-BSD2	"	(4mL) (1:1)	1ml (1:1)	0.5	0.5	I001858 Spike only

GH 2/26/24
Client ID verified By Date

ac 2/29/20
Preparation Reviewed By Date

02/26/24 15:09
Extraction Date and Time

Printed 2/25/2020 12:57:26PM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BIB0534

Prepared using: EPA 3510C SepF

8081B Pest (Low Level H2O) in Water (Version:List has toxaphene and NOS Chlordane)

Prep Steps

Verify pH is 5-9

(Y) / N

SH 2/26/20
Analyst/Date

KD 100°C
Hexane Exchange
(2 X 20 mL Hexane)
100°C

1 2 3 (4) (5) 6

BH 2/27/20
Analyst/Date

TurboVap
Pre Cleanups

(1) (2) 3 4 5

AT 2/27/20
Analyst/Date

TurboVap
Post Cleanups

~~(1)~~ (2) 3 4 5

AT 2/27/20
Analyst/Date

Vialing

AT 2/27/20
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: SH Date: 2/26/20	
90/10 Hexane/Methylene Chloride	I000188
Anhydrous Sodium Sulfate	I000314
KD Analyst: BH Date: 2/27/20	
Hexane	I000585
Vialing Analyst: AT Date: 2/27/20	
Hexane	I000585
Ethyl Acetate	B000908
Tetrabutylammonium hydrogensulfate (TBAS)	I001483
Sodium Sulfite	H000914
Silica Gel (SPE) Darts	HA11452

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Diluted Surrogate 0.2ug/ml	D (I000243) Exp 08/20/2020	100uL	SH	
Low Level Spike 0.25-2.5ng/ml	QLS 10 (I001357) Exp 07/09/2020	40uL	SH	

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

		Vol	Analyst	Witness
Tech Chlor.	54 (I001858)	40uL	SH	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: LL PEST Extraction Batch: 21BQ534

Total Solids Batch: N/A Work Order(s): 21BQ269

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☒ No Anomalies	SH 2/26/24
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Prepared using: EPA 3510C SepF

8081B Pest (Low Level H2O) in Water (Version:List has toxaphene and NOS Chlordane)

Prep Instructions	Cleaning Instructions
SPECIAL INSTRUCTIONS: 1. Rinse all non scratched glassware with DCM. 2. Verify pH is 5-9. 3. Adjust pH (if necessary=Analyst Notes). 4. Add surr/spike. 5. Extract 3X with 60mL 90:10 Hexane/DCM. 6. Non-scratched KD (NO Drying Column) at 100°. 7. Exchange (2 X with 20mL) Hexane at 100°. 8. TurboVap. 9. Clean-ups Required=(1:1)Transfer Rinse. 10.Hexane exchange with 3mL Hexane post SPE. 11. TurboVap. 12. Vial in Hexane. Archive: Y N	Vessel Cleaning Procedure: 1. Use only non-scratched glassware. 2. Rinse all glassware with DCM.

Prepared using: EPA 3510C SepF

8081B Pest (Low Level H2O) in Water (Version:List has toxaphene and NOS Chlordane)

Prep Instructions	Cleaning Instructions
SPECIAL INSTRUCTIONS: 1. Rinse all non scratched glassware with DCM. 2. Verify pH is 5-9. 3. Adjust pH (if necessary=Analyst Notes). 4. Add surr/spike. 5. Extract 3X with 60mL 90:10 Hexane/DCM. 6. Non-scratched KD (NO Drying Column) at 100°. 7. Exchange (2 X with 20mL) Hexane at 100°. 8. TurboVap. 9. Clean-ups Required=(1:1)Transfer Rinse. 10.Hexane exchange with 3mL Hexane post SPE. 11. TurboVap. 12. Vial in Hexane. Archive: Y / N Mark as Consumed	Vessel Cleaning Procedure: 1. Use only non-scratched glassware. 2. Rinse all glassware with DCM.

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Cleanup Batch:	CIB0180	Cleanup Type:	Sulfur
Cleanup Method:	EPA 3660B Sulfur Cleanup	Analysis:	EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BIB0534-BLK1	20030908.D	02/27/2020	
LCS	BIB0534-BS1	20030909.D	02/27/2020	
SW-10R-20200221	20B0269-01	20030912.D	02/27/2020	
SW-99-20200221	20B0269-03	20030914.D	02/27/2020	
SW-11R-20200221	20B0269-02	20030913.D	02/27/2020	
LCS Dup	BIB0534-BSD1	20030910.D	02/27/2020	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CIB0180

Matrix: Water **Cleanup using: Organics - EPA 3660B Sulfur Cleanup** **Printed: 2/27/2020 8:37:03PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
20B0269-01	A	SW-10R-20200221	A 01	0.5	0.5	8081B Pest (Low Level H2O)	2/27/2020	CCT	
20B0269-02	A	SW-11R-20200221	A 01	0.5	0.5	8081B Pest (Low Level H2O)	2/27/2020	CCT	
20B0269-03	A	SW-99-20200221	A 01	0.5	0.5	8081B Pest (Low Level H2O)	2/27/2020	CCT	
BIB0534-BLK1	-	Blank	-	0.5	0.5	-	2/27/2020	CCT	
BIB0534-BS1	-	LCS	-	0.5	0.5	-	2/27/2020	CCT	
BIB0534-BSD1	-	LCS Dup	-	0.5	0.5	-	2/27/2020	CCT	
BIB0534-BSD2	-	LCS Dup	-	0.5	0.5	-	2/27/2020	CCT	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Cleanup Batch:	CIB0181	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SW-11R-20200221	20B0269-02	20030913.D	02/27/2020	
SW-10R-20200221	20B0269-01	20030912.D	02/27/2020	
SW-99-20200221	20B0269-03	20030914.D	02/27/2020	
Blank	BIB0534-BLK1	20030908.D	02/27/2020	
LCS	BIB0534-BS1	20030909.D	02/27/2020	
LCS Dup	BIB0534-BSD1	20030910.D	02/27/2020	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CIB0181

Matrix: Water **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 2/27/2020 8:38:04PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
20B0269-01	A	SW-10R-20200221	A 01	0.5	0.5	8081B Pest (Low Level H2O)	2/27/2020	CCT	
20B0269-02	A	SW-11R-20200221	A 01	0.5	0.5	8081B Pest (Low Level H2O)	2/27/2020	CCT	
20B0269-03	A	SW-99-20200221	A 01	0.5	0.5	8081B Pest (Low Level H2O)	2/27/2020	CCT	
BIB0534-BLK1	-	Blank	-	0.5	0.5	-	2/27/2020	CCT	
BIB0534-BS1	-	LCS	-	0.5	0.5	-	2/27/2020	CCT	
BIB0534-BSD1	-	LCS Dup	-	0.5	0.5	-	2/27/2020	CCT	
BIB0534-BSD2	-	LCS Dup	-	0.5	0.5	-	2/27/2020	CCT	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Cleanup Batch:	CIC0074	Cleanup Type:	Sulfur
Cleanup Method:	EPA 3660B Sulfur Cleanup	Analysis:	EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SW-99-20200221	20B0269-03RE1	20031315.D	03/12/2020	
SW-11R-20200221	20B0269-02RE1	20031313.D	03/12/2020	
SW-10R-20200221	20B0269-01RE1	20031312.D	03/12/2020	
Blank	BIC0215-BLK1	20031307.D	03/12/2020	
LCS	BIC0215-BS1	20031308.D	03/12/2020	
LCS	BIC0215-BS2	20031309.D	03/12/2020	
LCS Dup	BIC0215-BSD1	20031310.D	03/12/2020	
LCS Dup	BIC0215-BSD2	20031311.D	03/12/2020	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CIC0074

Matrix: Water **Cleanup using: Organics - EPA 3660B Sulfur Cleanup** **Printed: 3/12/2020 2:28:32PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
20B0269-01RE1	B	SW-10R-20200221	B 01	0.5	0.5	8081B Pest (Low Level H2O)	3/12/2020	RD	
20B0269-02RE1	B	SW-11R-20200221	B 01	0.5	0.5	8081B Pest (Low Level H2O)	3/12/2020	RD	
20B0269-03RE1	B	SW-99-20200221	B 01	0.5	0.5	8081B Pest (Low Level H2O)	3/12/2020	RD	
BIC0215-BLK1	-	Blank	-	0.5	0.5	-	3/12/2020	RD	
BIC0215-BS1	-	LCS	-	0.5	0.5	-	3/12/2020	RD	
BIC0215-BS2	-	LCS	-	0.5	0.5	-	3/12/2020	RD	
BIC0215-BSD1	-	LCS Dup	-	0.5	0.5	-	3/12/2020	RD	
BIC0215-BSD2	-	LCS Dup	-	0.5	0.5	-	3/12/2020	RD	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Cleanup Batch:	CIC0075	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SW-11R-20200221	20B0269-02RE1	20031313.D	03/12/2020	
LCS Dup	BIC0215-BSD2	20031311.D	03/12/2020	
Blank	BIC0215-BLK1	20031307.D	03/12/2020	
SW-99-20200221	20B0269-03RE1	20031315.D	03/12/2020	
SW-10R-20200221	20B0269-01RE1	20031312.D	03/12/2020	
LCS	BIC0215-BS2	20031309.D	03/12/2020	
LCS	BIC0215-BS1	20031308.D	03/12/2020	
LCS Dup	BIC0215-BSD1	20031310.D	03/12/2020	

Form I

METHOD BLANK DATA SHEET

EPA 8081B

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma			Project:	Webster Nursery
Matrix:	Water	Laboratory ID:	BIB0534-BLK1	File ID:	20030906.D
Sampled:	N/A	Prepared:	02/26/20 15:09	Analyzed:	03/09/20 12:55
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BIB0534	Sequence:	SIC0103	Calibration:	DC00017
Instrument:	ECD6	Column:	STX-CLP	Cleanups:	Silica Gel, Sulfur

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
319-84-6	alpha-BHC	1	0.0006	U	0.00009	0.0006
319-85-7	beta-BHC	1	0.0006	U	0.0001	0.0006
58-89-9	gamma-BHC (Lindane)	1	0.0006	U	0.0001	0.0006
319-86-8	delta-BHC	1	0.0006	U	0.0001	0.0006
76-44-8	Heptachlor	1	0.0006	U	0.0002	0.0006
309-00-2	Aldrin	1	0.0006	U	0.0002	0.0006
1024-57-3	Heptachlor Epoxide	1	0.0006	U	0.0002	0.0006
5103-74-2	trans-Chlordane (beta-Chlordane)	1	0.0006	U	0.0002	0.0006
5103-71-9	cis-Chlordane (alpha-chlordane)	1	0.0006	U	0.0001	0.0006
959-98-8	Endosulfan I	1	0.0006	U	0.0001	0.0006
72-55-9	4,4'-DDE	1	0.0013	U	0.0003	0.0013
60-57-1	Dieldrin	1	0.0013	U	0.0004	0.0013
72-20-8	Endrin	1	0.0013	U	0.0001	0.0013
33213-65-9	Endosulfan II	1	0.0013	U	0.0002	0.0013
72-54-8	4,4'-DDD	1	0.0013	U	0.0002	0.0013
7421-93-4	Endrin Aldehyde	1	0.0013	U	0.0004	0.0013
50-29-3	4,4'-DDT	1	0.0013	U	0.0004	0.0013
1031-07-8	Endosulfan Sulfate	1	0.0013	U	0.0003	0.0013
53494-70-5	Endrin Ketone	1	0.0013	U	0.0003	0.0013
72-43-5	Methoxychlor	1	0.0063	U	0.0021	0.0063
8001-35-2	Toxaphene	1	0.0625	U	0.0625	0.0625
57-74-9	Chlordane (NOS)	1	0.0050	U	0.0050	0.0050

SURROGATES	ADDED (ug/L)	CONC. (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	0.020000	0.0140	69.8	30 - 160	
Decachlorobiphenyl [2C]	0.020000	0.0140	69.8	30 - 160	
Tetrachlorometaxylene	0.020000	0.0124	62.2	30 - 160	
Tetrachlorometaxylene [2C]	0.020000	0.380	1900	30 - 160	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030906.D
Data file 2: /20200309.b/20200309.b/20030906.D
Method: \20200309.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIB0534-BLK1
Client ID:
Injection Date: 09-MAR-2020 12:55
Report Date: 03/09/2020 16:22
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			5.401	0.016	1596	0.00	26.21	---	alpha-BHC
----			5.889	0.001	678	0.00	24.36	---	beta-BHC
----			6.259	0.007	2524	0.00	48.51	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			6.749	0.019	530	0.00	11.21	---	Aldrin
----			----			0.00	0.00	---	Heptachlor epoxide b
----			7.797	0.002	239	0.00	7.53	---	Endosulfan I
----			8.095	0.015	167	0.00	6.17	---	Dieldrin
----			7.850	-0.003	258	0.00	6.93	---	4,4'-DDE
----			8.407	0.006	352	0.00	15.32	---	Endrin
----			8.604	-0.002	298	0.00	9.10	---	Endosulfan II
----			8.446	-0.002	353	0.00	10.06	---	4,4'-DDD
----			9.189	-0.004	592	0.00	16.75	---	Endosulfan sulfate
----			8.779	0.019	1502	0.00	44.51	---	4,4'-DDT
----			----			0.00	0.00	---	Methoxychlor
----			9.753	-0.001	774	0.00	19.13	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
6.486	-0.010	7511	7.564	-0.000	749	9.48	20.60	73.9*	trans-Chlordane
----			7.714	-0.002	245	0.00	7.59	---	cis-Chlordane
2.482	-0.033	157830	----			121.32	0.00	---	Hexachlorobutadiene
4.424	-0.014	3933	----			5.57	0.00	---	Hexachlorobenzene
----			7.227	-0.018	3104	0.00	97.34	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			7.636	-0.008	485	0.00	18.03	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.760	-0.014	14672	1.681	0.005	6873	0.00	0.00	---	Hexachloroethane
----			7.342	0.006	772	0.00	0.00	---	Kepone
4.069	-0.002	30316	4.716	-0.001	31204	60.35	760.96	170.6*	Tetrachloro-m-xylene
9.599	-0.003	70843	11.073	-0.002	22737	64.47	797.11	170.1*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	150.9	1902.4	150.9~	130- 0
Decachlorobiphenyl	161.2	1992.8	161.2~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	51625	-72.7 <-
Hexabromobiphenyl	177311	87312	-50.8 <-

Column 2

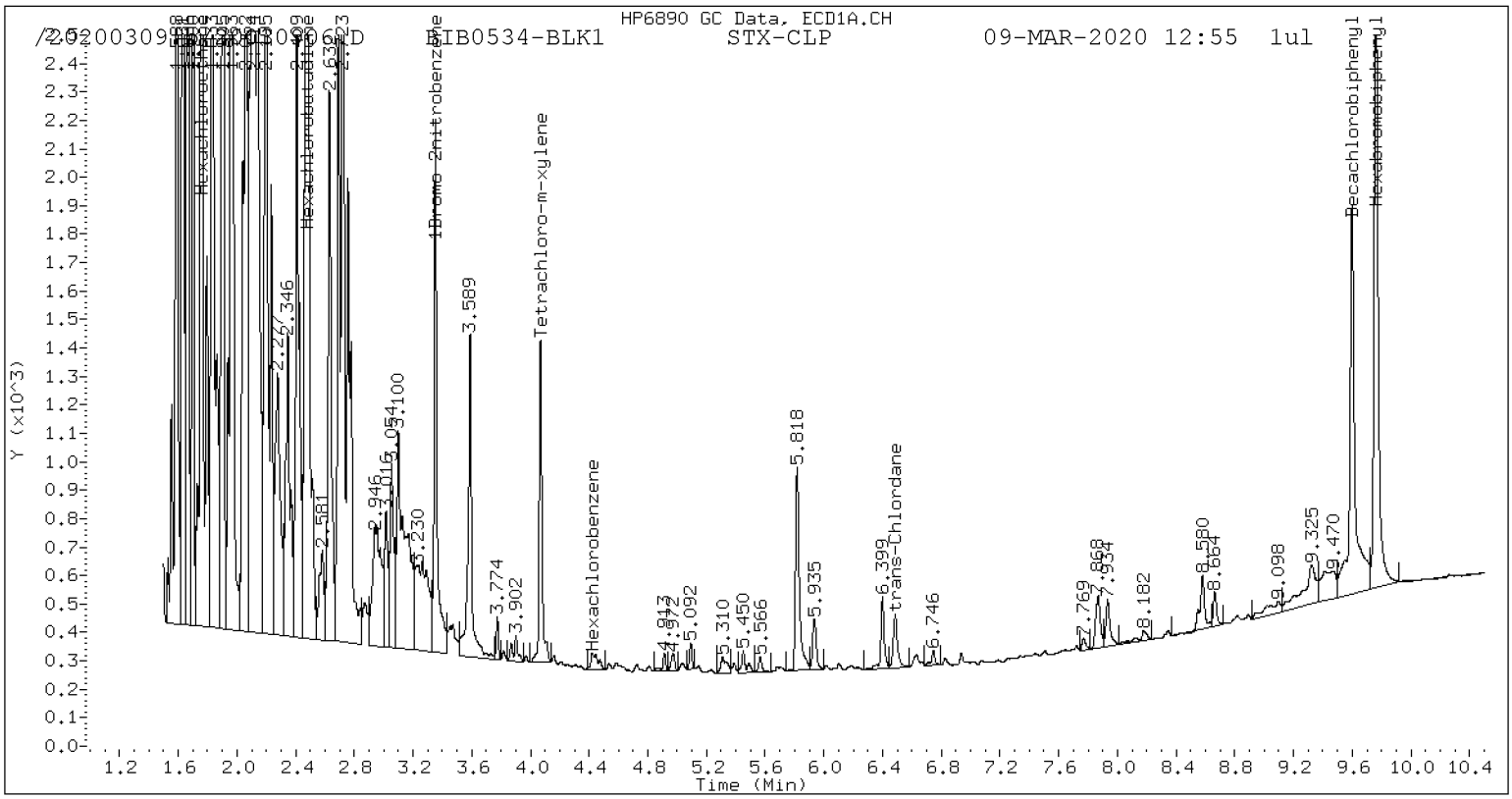
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	3455	-97.7 <-
Hexabromobiphenyl	80212	1886	-97.6 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	8.030	-0.009	318	447.8
Toxaphene	2	---			0.000	2	8.563	-0.026	4595	3916.2
Toxaphene	3	---			0.000	3	8.685	0.002	376	199.6
Toxaphene	4	---			0.000	4	8.906	-0.020	538	364.3
Toxaphene	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks						CLP2Ave: 1231.962			

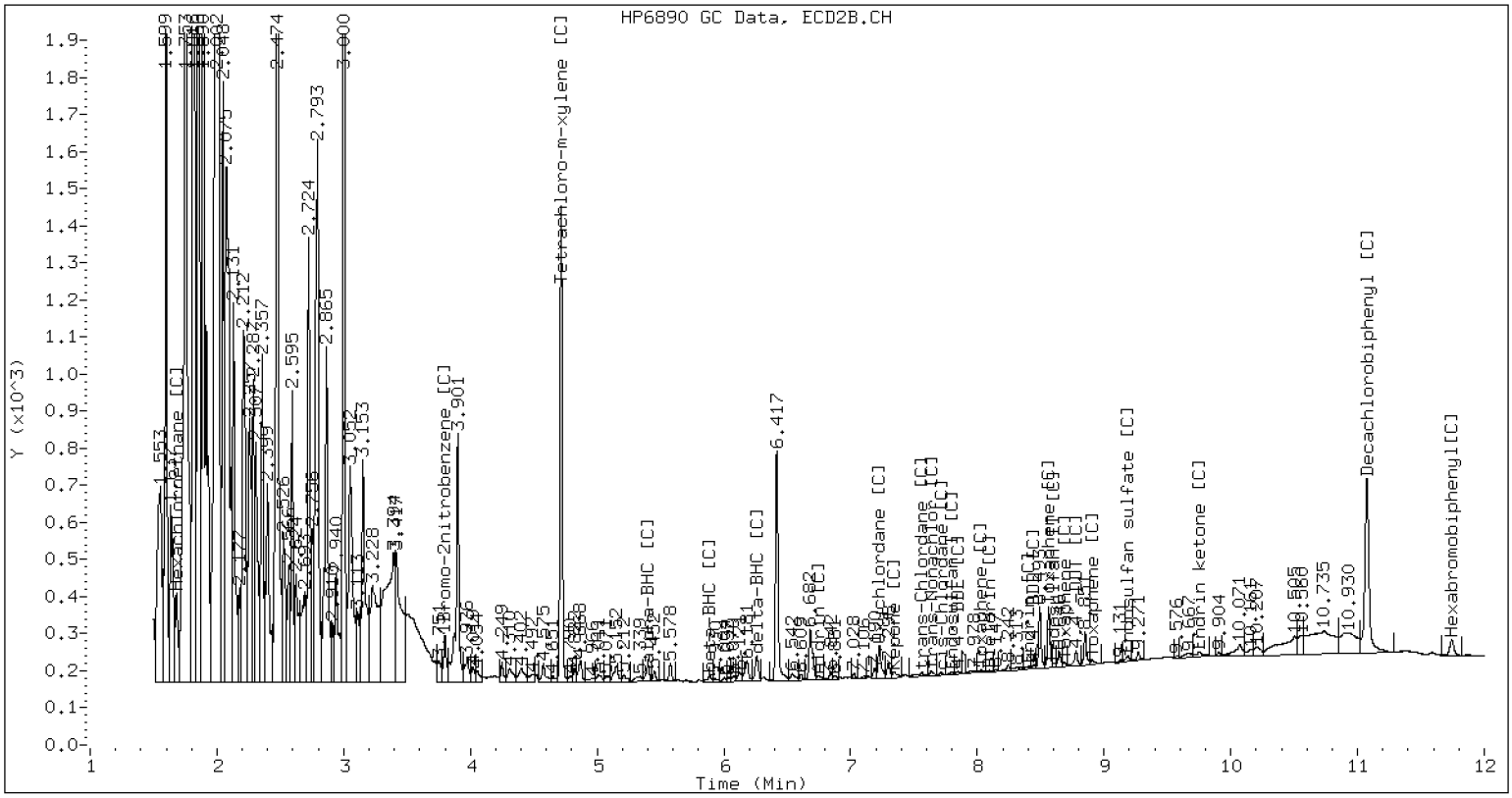
Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000
	STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks			

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200309.b/20200309.b/20030906.D BIB0534-BLK1 CLP2



CLP-2 Manual Integration: NO

Form I

METHOD BLANK DATA SHEET

EPA 8081B

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma			Project:	Webster Nursery
Matrix:	Water	Laboratory ID:	BIC0215-BLK1	File ID:	20031307.D
Sampled:	N/A	Prepared:	03/11/20 19:56	Analyzed:	03/13/20 13:31
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BIC0215	Sequence:	SIC0178	Calibration:	DC00017
Instrument:	ECD6	Column:	STX-CLP	Cleanups:	Silica Gel, Sulfur

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
319-84-6	alpha-BHC	1	0.0006	U	0.00009	0.0006
319-85-7	beta-BHC	1	0.0006	U	0.0001	0.0006
58-89-9	gamma-BHC (Lindane)	1	0.0006	U	0.0001	0.0006
319-86-8	delta-BHC	1	0.0006	U	0.0001	0.0006
76-44-8	Heptachlor	1	0.0006	U	0.0002	0.0006
309-00-2	Aldrin	1	0.0006	U	0.0002	0.0006
1024-57-3	Heptachlor Epoxide	1	0.0006	U	0.0002	0.0006
5103-74-2	trans-Chlordane (beta-Chlordane)	1	0.0006	U	0.0002	0.0006
5103-71-9	cis-Chlordane (alpha-chlordane)	1	0.0006	U	0.0001	0.0006
959-98-8	Endosulfan I	1	0.0006	U	0.0001	0.0006
72-55-9	4,4'-DDE	1	0.0013	U	0.0003	0.0013
60-57-1	Dieldrin	1	0.0013	U	0.0004	0.0013
72-20-8	Endrin	1	0.0013	U	0.0001	0.0013
33213-65-9	Endosulfan II	1	0.0013	U	0.0002	0.0013
72-54-8	4,4'-DDD	1	0.0013	U	0.0002	0.0013
7421-93-4	Endrin Aldehyde	1	0.0013	U	0.0004	0.0013
50-29-3	4,4'-DDT	1	0.0013	U	0.0004	0.0013
1031-07-8	Endosulfan Sulfate	1	0.0013	U	0.0003	0.0013
53494-70-5	Endrin Ketone	1	0.0013	U	0.0003	0.0013
72-43-5	Methoxychlor	1	0.0063	U	0.0021	0.0063
8001-35-2	Toxaphene	1	0.0625	U	0.0625	0.0625
57-74-9	Chlordane (NOS)	1	0.0050	U	0.0050	0.0050

SURROGATES	ADDED (ug/L)	CONC. (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	0.020000	0.0170	85.2	30 - 160	
Decachlorobiphenyl [2C]	0.020000	0.0185	92.7	30 - 160	
Tetrachlorometaxylene	0.020000	0.0137	68.3	30 - 160	
Tetrachlorometaxylene [2C]	0.020000	0.0174	86.8	30 - 160	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031307.D
Data file 2: /20200313.b/20200313.b/20031307.D
Method: \20200313.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIC0215-BLK1
Client ID:
Injection Date: 13-MAR-2020 13:31
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	alpha-BHC
----			----			0.00	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
----			----			0.00	0.00	---	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			----			0.00	0.00	---	Dieldrin
----			----			0.00	0.00	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
----			----			0.00	0.00	---	4,4'-DDD
----			9.186	-0.002	256	0.00	0.26	---	Endosulfan sulfate
----			8.755	-0.001	1230	0.00	1.29	---	4,4'-DDT
----			9.380	-0.002	305	0.00	0.63	---	Methoxychlor
----			9.745	-0.003	776	0.00	0.68	---	Endrin ketone
----			8.899	-0.026	726	0.00	0.87	---	Endrin aldehyde
6.486	-0.011	14328	7.558	-0.002	256	5.71	0.23	184.6*	trans-Chlordane
----			7.685	-0.027	409	0.00	0.41	---	cis-Chlordane
2.484	-0.032	36155	2.865	-0.025	196873	8.77	93.26	165.6*	Hexachlorobutadiene
----			5.211	-0.034	787	0.00	0.54	---	Hexachlorobenzene
----			----			0.00	0.00	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			----			0.00	0.00	---	trans-Nonachlor
----			8.076	0.007	3868	0.00	5.50	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.761	-0.013	14256	1.686	0.010	2182	0.00	0.00	---	Hexachloroethane
----			7.337	0.001	801	0.00	0.00	---	Kepone
4.069	-0.005	43511	4.714	-0.002	43998	27.33	34.72	23.8	Tetrachloro-m-xylene N
9.597	-0.004	63946	11.064	-0.002	29869	34.07	37.10	8.5	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	68.3	86.8	68.3~	130- 0
Decachlorobiphenyl	85.2	92.7	85.2~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	163647	-13.6
Hexabromobiphenyl	177311	149141	-15.9

Column 2

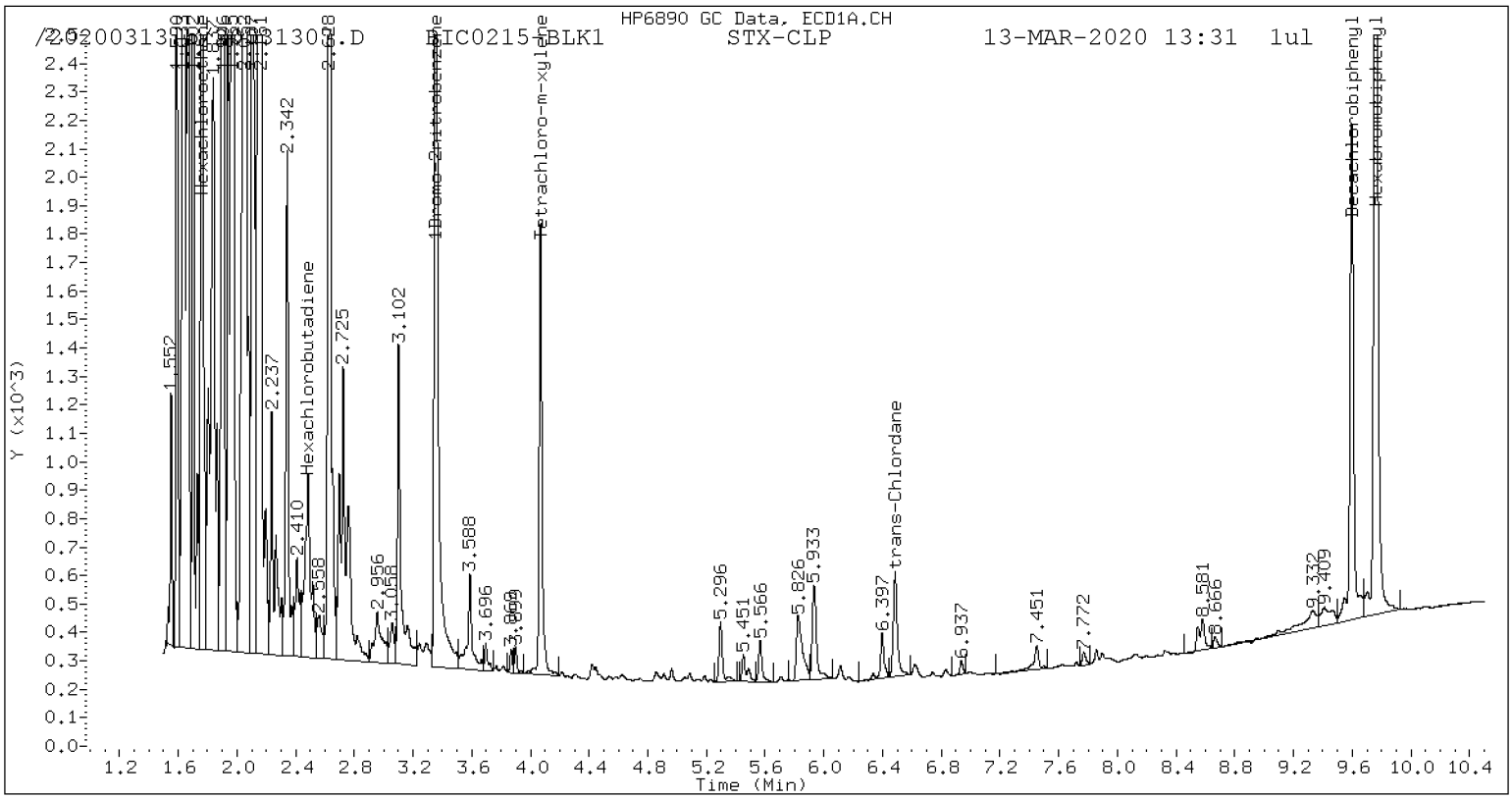
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	106765	-28.5
Hexabromobiphenyl	80212	53239	-33.6

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

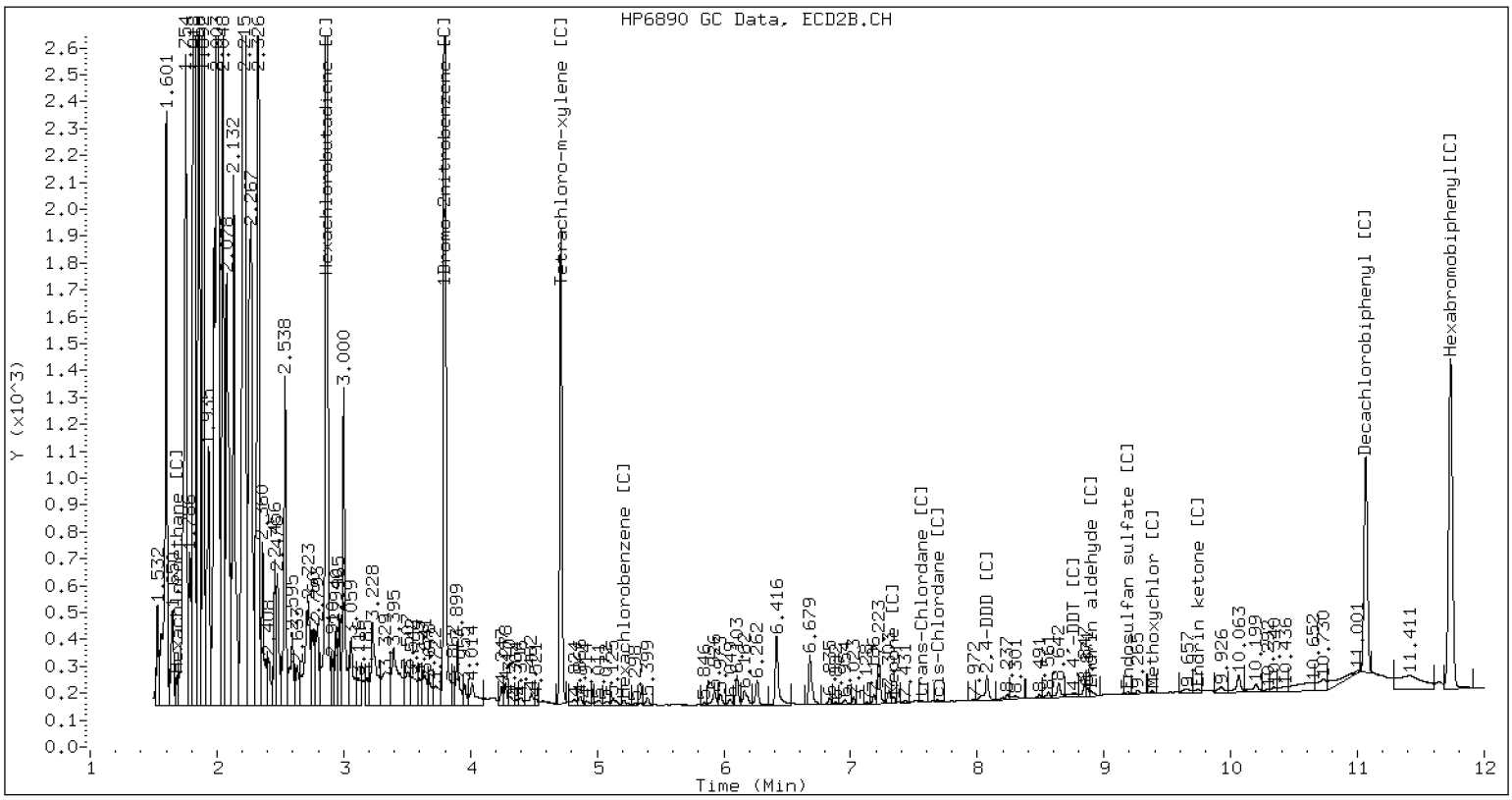
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

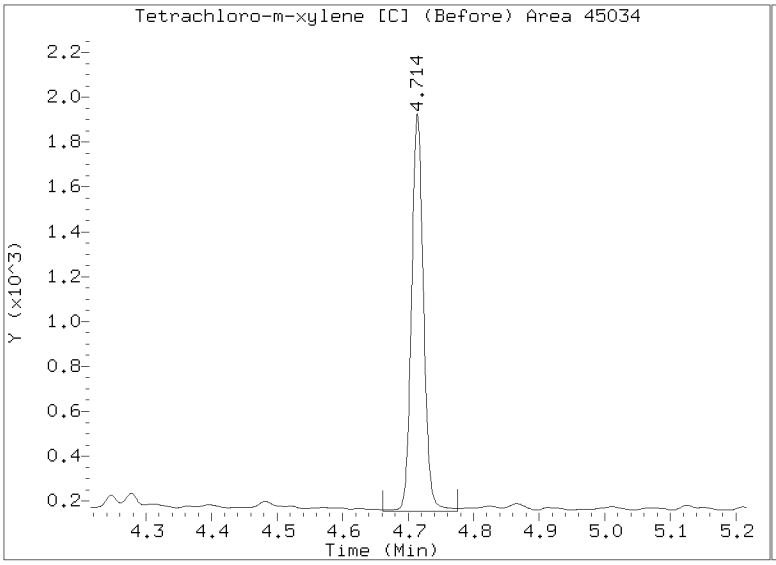
/20200313.b/20200313.b/20031307.D BIC0215-BLK1 CLP2

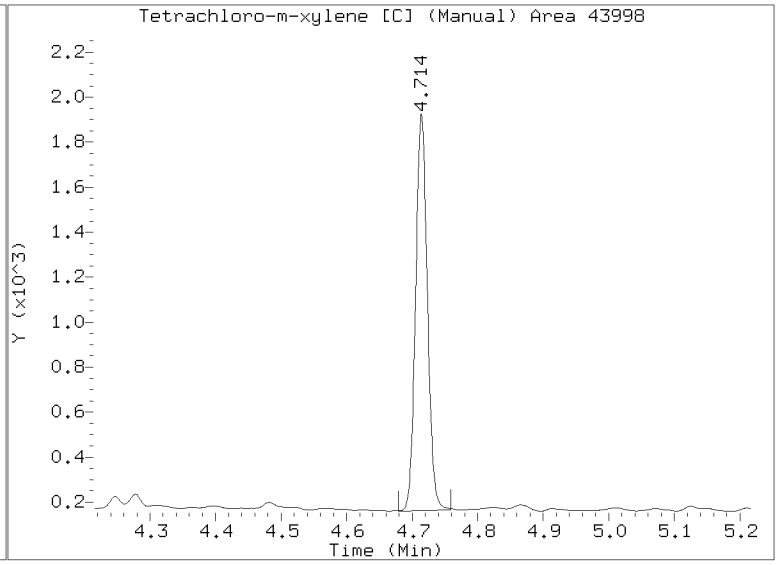


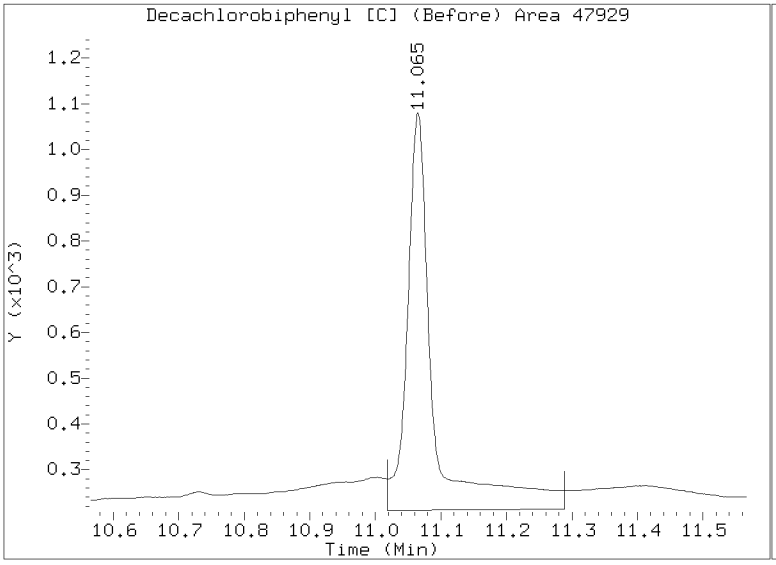
CLP-2 Manual Integration: YES

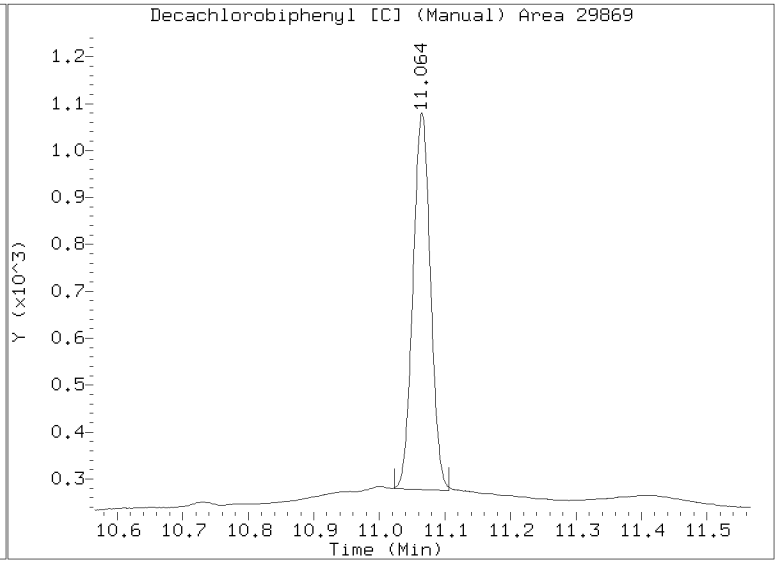
Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031307.D
Injection Date: 13-MAR-2020 13:31
Lab ID:BIC0215-BLK1 Client ID:









LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Matrix:	Water	Analyzed:	03/09/20 13:13
Batch:	BIB0534	Laboratory ID:	BIB0534-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	1000 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
alpha-BHC	0.0100	0.0098		98.2	30 - 160
beta-BHC	0.0100	0.0092		91.5	30 - 160
gamma-BHC (Lindane)	0.0100	0.0100		99.5	30 - 160
delta-BHC	0.0100	0.0092		92.3	30 - 160
Heptachlor	0.0100	0.0081		81.1	30 - 160
Aldrin	0.0100	0.0073		73.2	30 - 160
Heptachlor Epoxide	0.0100	0.0098		97.8	30 - 160
trans-Chlordane (beta-Chlordane)	0.0100	0.0102		102	30 - 160
cis-Chlordane (alpha-chlordane)	0.0100	0.0088		88.3	30 - 160
Endosulfan I	0.0100	0.0086		86.0	30 - 160
4,4'-DDE	0.0200	0.0187		93.4	30 - 160
Dieldrin	0.0200	0.0186		93.0	30 - 160
Endrin	0.0200	0.0114		56.8	30 - 160
Endosulfan II	0.0200	0.0124		62.2	30 - 160
4,4'-DDD	0.0200	0.0131		65.3	30 - 160
Endrin Aldehyde	0.0200	0.0074		36.8	30 - 160
4,4'-DDT	0.0200	0.0116		58.2	30 - 160
Endosulfan Sulfate	0.0200	0.0120		59.9	30 - 160
Endrin Ketone	0.0200	0.0123		61.3	30 - 160
Methoxychlor	0.100	0.0611		61.1	30 - 160

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
alpha-BHC	0.0100	0.0089		88.9	9.96	30	30 - 160
beta-BHC	0.0100	0.0089		89.0	2.80	30	30 - 160
gamma-BHC (Lindane)	0.0100	0.0094		94.2	5.48	30	30 - 160
delta-BHC	0.0100	0.0089		89.0	3.55	30	30 - 160
Heptachlor	0.0100	0.0073		73.3	10.1	30	30 - 160
Aldrin	0.0100	0.0064		64.5	12.7	30	30 - 160
Heptachlor Epoxide	0.0100	0.0091		91.3	6.91	30	30 - 160
trans-Chlordane (beta-Chlordane)	0.0100	0.0094		94.4	7.45	30	30 - 160
cis-Chlordane (alpha-chlordane)	0.0100	0.0084		84.4	4.56	30	30 - 160

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Matrix:	Water	Analyzed:	03/09/20 14:07
Batch:	BIB0534	Laboratory ID:	BIB0534-BSD1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS Dup
Initial/Final:	1000 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Endosulfan I	0.0100	0.0084		83.6	2.76	30	30 - 160
4,4'-DDE	0.0200	0.0169		84.6	9.91	30	30 - 160
Dieldrin	0.0200	0.0176		87.8	5.75	30	30 - 160
Endrin	0.0200	0.0104		51.8	9.21	30	30 - 160
Endosulfan II	0.0200	0.0115		57.4	8.00	30	30 - 160
4,4'-DDD	0.0200	0.0124		61.9	5.39	30	30 - 160
Endrin Aldehyde	0.0200	0.0079		39.5	7.00	30	30 - 160
4,4'-DDT	0.0200	0.0108		53.9	7.75	30	30 - 160
Endosulfan Sulfate	0.0200	0.0114		56.9	5.15	30	30 - 160
Endrin Ketone	0.0200	0.0115		57.7	6.13	30	30 - 160
Methoxychlor	0.100	0.0566		56.6	7.78	30	30 - 160

* Indicates values outside of QC limits

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030909.D
Data file 2: /20200309.b/20200309.b/20030909.D
Method: \20200309.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIB0534-BS1
Client ID:
Injection Date: 09-MAR-2020 13:49
Report Date: 03/09/2020 16:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.574	-0.003	48273	5.384	-0.001	29380	19.64	174.69	159.6*	alpha-BHC
4.962	-0.003	18032	5.887	-0.002	12925	18.30	168.16	160.7*	beta-BHC
5.146	-0.004	40274	6.250	-0.001	29164	18.45	202.96	166.7*	delta-BHC
4.878	-0.003	43263	5.802	-0.002	24803	19.91	163.67	156.6*	gamma-BHC (Lindane)
5.372	-0.002	38151	6.339	-0.001	22939	16.22	160.18	163.2*	Heptachlor
5.698	-0.002	32255	6.729	-0.001	19789	14.64	151.58	164.8*	Aldrin
6.351	-0.002	38882	7.358	-0.001	23857	19.56	205.31	165.2*	Heptachlor epoxide b
6.780	-0.002	33453	7.794	-0.002	19167	17.19	218.53	170.8*	Endosulfan I
7.033	-0.003	57837	8.079	-0.001	35176	37.18	470.47	170.7*	Dieldrin
6.709	-0.004	66237	7.851	-0.002	41132	37.37	399.92	165.8*	4,4'-DDE
7.279	-0.002	50691	8.399	-0.001	23536	22.72	645.41	186.4*	Endrin
7.506	-0.002	61098	8.605	-0.001	33660	24.86	647.43	185.2*	Endosulfan II
7.336	-0.004	60900	8.446	-0.001	40001	26.12	718.42	186.0*	4,4'-DDD
8.345	-0.002	62408	9.191	-0.002	36998	23.98	659.61	186.0*	Endosulfan sulfate
7.626	-0.004	56837	8.758	-0.002	23891	23.28	445.98	180.2*	4,4'-DDT
8.110	-0.003	152734	9.385	-0.002	54133	122.29	1986.74	176.8*	Methoxychlor
8.629	-0.002	75628	9.752	-0.002	27206	24.53	423.52	178.1*	Endrin ketone
7.919	-0.003	32231	8.928	-0.002	19260	14.72	409.42	186.1*	Endrin aldehyde
6.492	-0.003	39552	7.563	-0.001	20940	20.35	208.53	164.4*	trans-Chlordane
6.636	-0.003	32194	7.715	-0.001	19094	17.66	214.18	169.5*	cis-Chlordane
2.482	-0.033	175847	2.888	-0.001	20594	55.08	109.16	65.9*	Hexachlorobutadiene
4.434	-0.004	31593	5.244	-0.002	20395	18.25	157.48	158.5*	Hexachlorobenzene
----			7.226	-0.018	3090	0.00	35.09	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			7.643	-0.001	1243	0.00	29.10	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.760	-0.014	15933	1.681	0.005	5306	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.068	-0.003	32329	4.716	-0.001	31572	26.23	278.81	165.6*	Tetrachloro-m-xylene
9.598	-0.005	73645	11.074	-0.002	32587	32.51	719.65	182.7*	Decachlorobiphenyl M

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	65.6	697.0	65.6˜	130- 0
Decachlorobiphenyl	81.3	1799.1	81.3˜	130- 0

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	126681	-33.1
Hexabromobiphenyl	177311	179981	1.5

Column 2

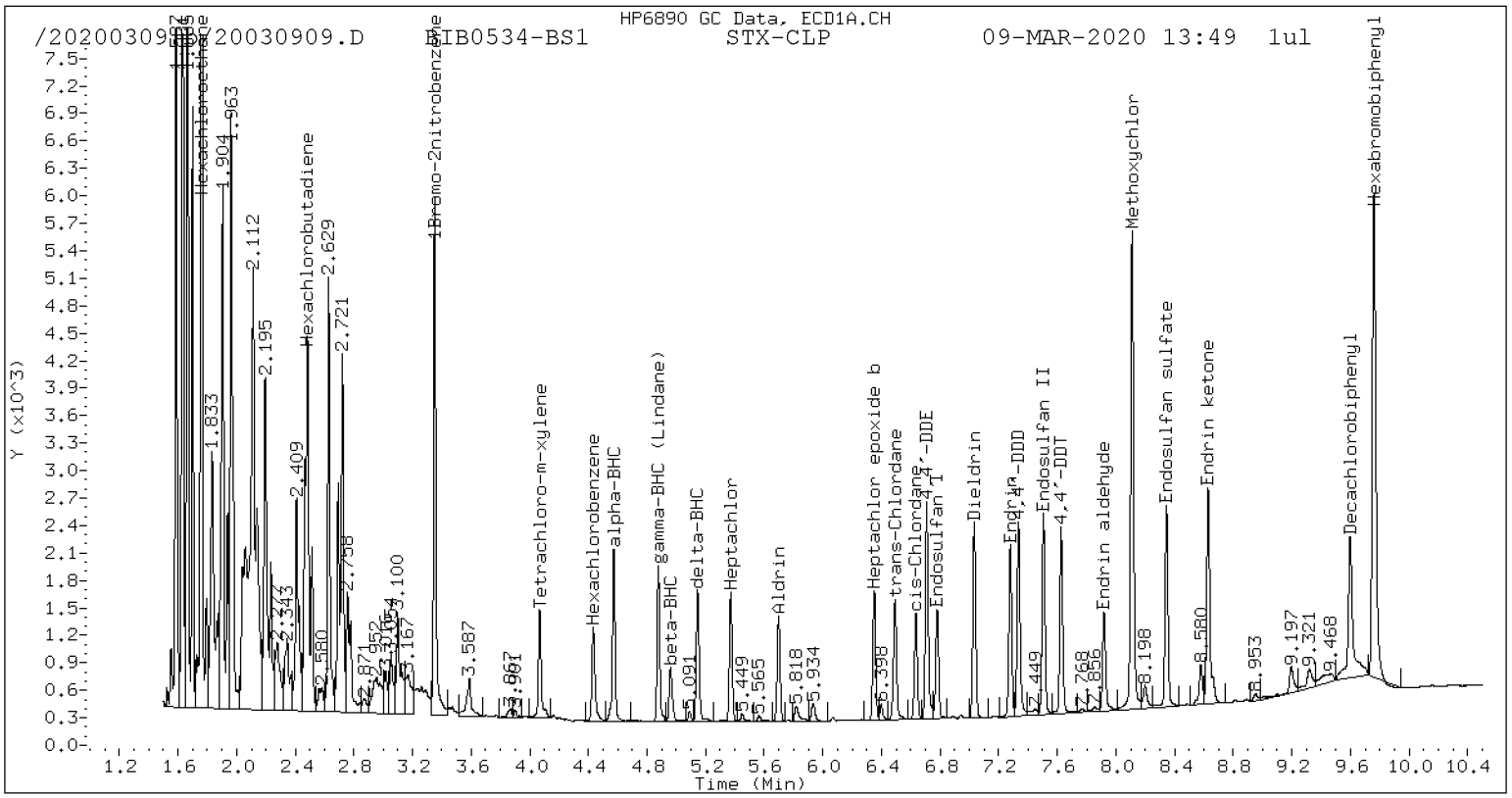
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	9541	-93.6 <-
Hexabromobiphenyl	80212	2994	-96.3 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				

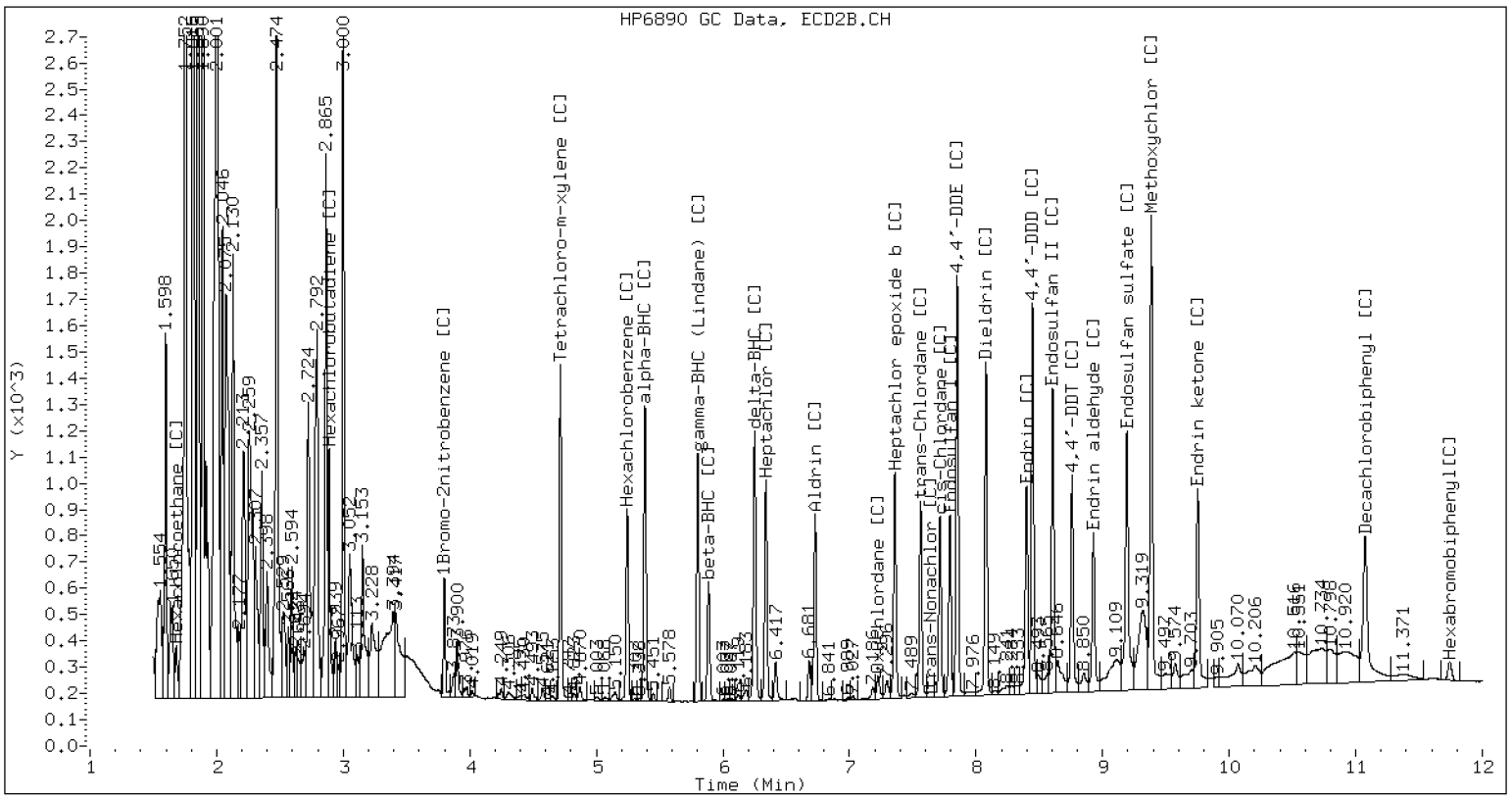
Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

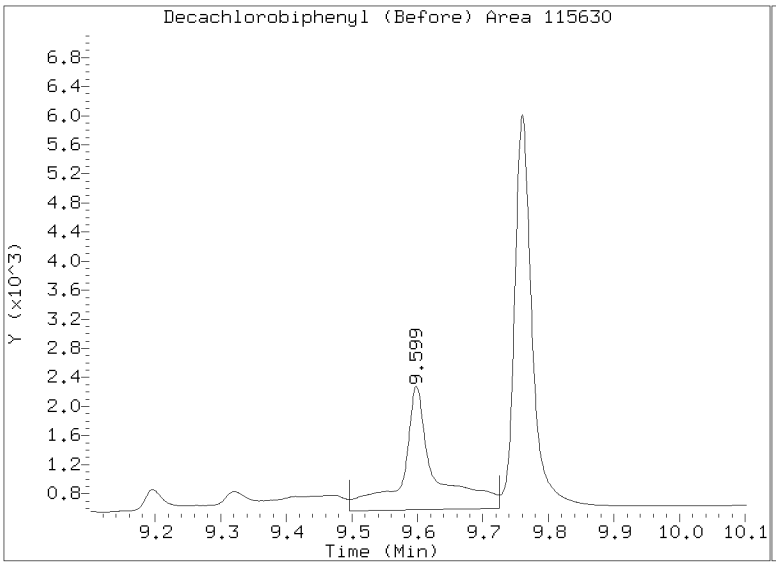
/20200309.b/20200309.b/20030909.D BIB0534-BS1 CLP2

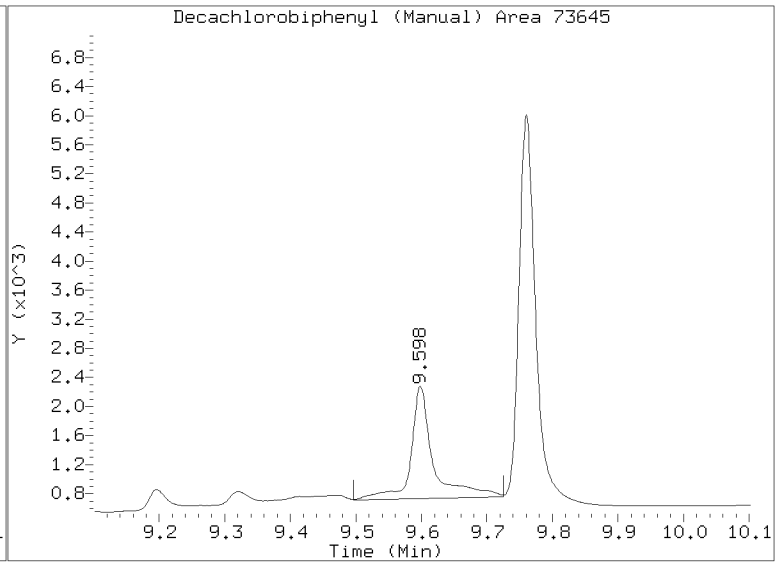


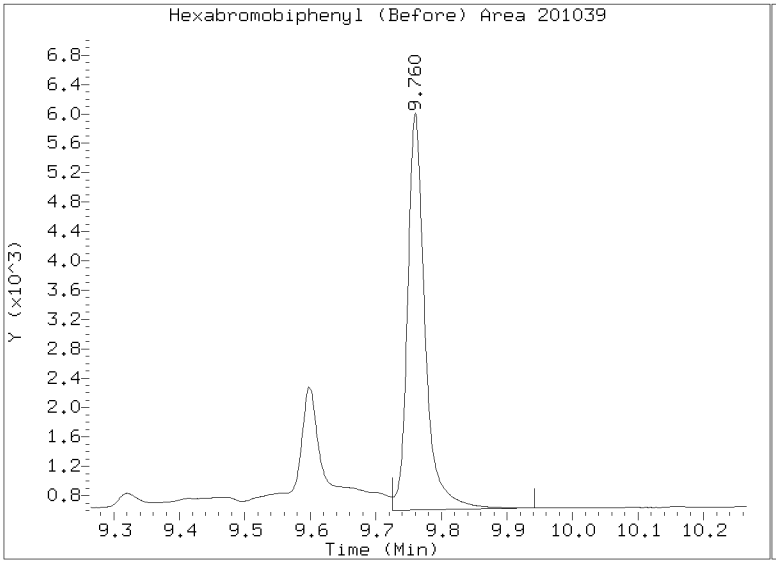
CLP-2 Manual Integration: NO

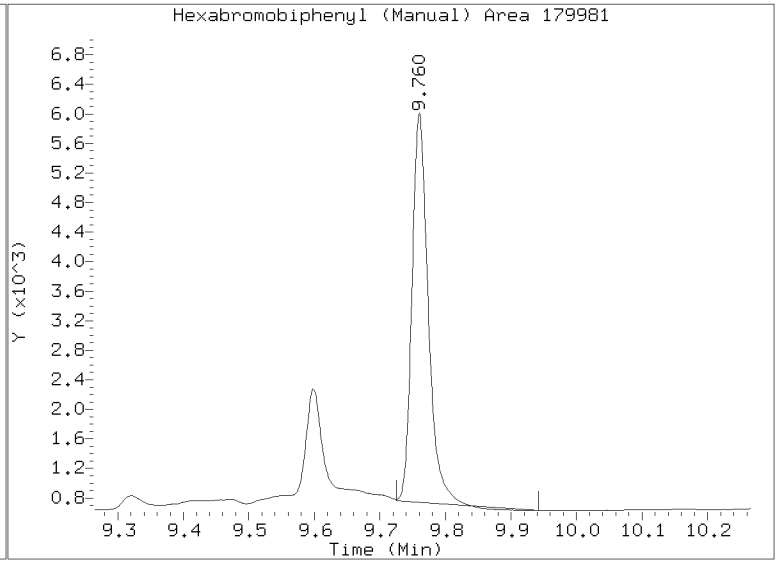
Manual Peak Adjustment Report, STX-CLP

Datafile: /20200309.b/20030909.D
Injection Date: 09-MAR-2020 13:49
Lab ID:BIB0534-BS1 Client ID:
Report Date: 03/09/2020 16:21









Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030910.D
Data file 2: /20200309.b/20200309.b/20030910.D
Method: \20200309.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIB0534-BSD1
Client ID:
Injection Date: 09-MAR-2020 14:07
Report Date: 03/09/2020 16:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.573	-0.003	43446	5.384	-0.001	27695	17.78	144.33	156.1*	alpha-BHC
4.962	-0.003	17435	5.887	-0.001	12552	17.80	143.13	155.8*	beta-BHC
5.146	-0.004	38649	6.251	-0.001	27754	17.81	169.28	161.9*	delta-BHC
4.878	-0.003	40724	5.802	-0.001	23512	18.84	135.98	151.3*	gamma-BHC (Lindane)
5.372	-0.002	34303	6.340	-0.001	21036	14.66	128.75	159.1*	Heptachlor
5.698	-0.003	28252	6.729	-0.001	17787	12.89	119.41	161.0*	Aldrin
6.351	-0.002	36079	7.358	-0.001	22314	18.25	168.30	160.9*	Heptachlor epoxide b
6.780	-0.003	32360	7.794	-0.001	17865	16.72	178.52	165.7*	Endosulfan I
7.034	-0.002	54294	8.079	-0.001	30601	35.10	358.71	164.3*	Dieldrin
6.709	-0.004	59644	7.852	-0.001	36895	33.84	314.40	161.1*	4,4'-DDE
7.279	-0.003	47105	8.399	-0.001	23181	20.72	499.26	184.1*	Endrin
7.506	-0.002	57471	8.606	-0.001	31478	22.95	475.54	181.6*	Endosulfan II
7.336	-0.003	58800	8.446	-0.001	36820	24.75	519.38	181.8*	4,4'-DDD
8.345	-0.002	60402	9.192	-0.002	35565	22.77	498.00	182.5*	Endosulfan sulfate
7.627	-0.003	53595	8.758	-0.002	23868	21.54	349.94	176.8*	4,4'-DDT
8.110	-0.003	143988	9.385	-0.002	53634	113.14	1546.03	172.7*	Methoxychlor
8.629	-0.002	72479	9.752	-0.002	27847	23.07	340.48	174.6*	Endrin ketone
7.921	-0.001	35225	8.927	-0.002	17750	15.79	296.35	179.8*	Endrin aldehyde
6.492	-0.003	36505	7.563	-0.001	19156	18.89	167.19	159.4*	trans-Chlordane
6.636	-0.003	30585	7.715	-0.001	17757	16.88	174.58	164.7*	cis-Chlordane
----			2.888	-0.001	18596	0.00	86.39	---	Hexachlorobutadiene
4.434	-0.004	29247	5.244	-0.002	19963	16.99	135.10	155.3*	Hexachlorobenzene
----			7.226	-0.019	3378	0.00	33.62	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			7.656	0.012	1013	0.00	18.63	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.760	-0.014	15050	1.682	0.006	5626	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.068	-0.003	28602	4.716	-0.002	27785	23.34	215.05	160.8*	Tetrachloro-m-xylene
9.599	-0.003	68821	11.073	-0.002	33303	29.82	577.64	180.4*	Decachlorobiphenyl M

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	58.3	537.6	58.3˜	130- 0
Decachlorobiphenyl	74.5	1444.1	74.5˜	130- 0

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	125966	-33.5
Hexabromobiphenyl	177311	183401	3.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	10886	-92.7 <-
Hexabromobiphenyl	80212	3812	-95.2 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

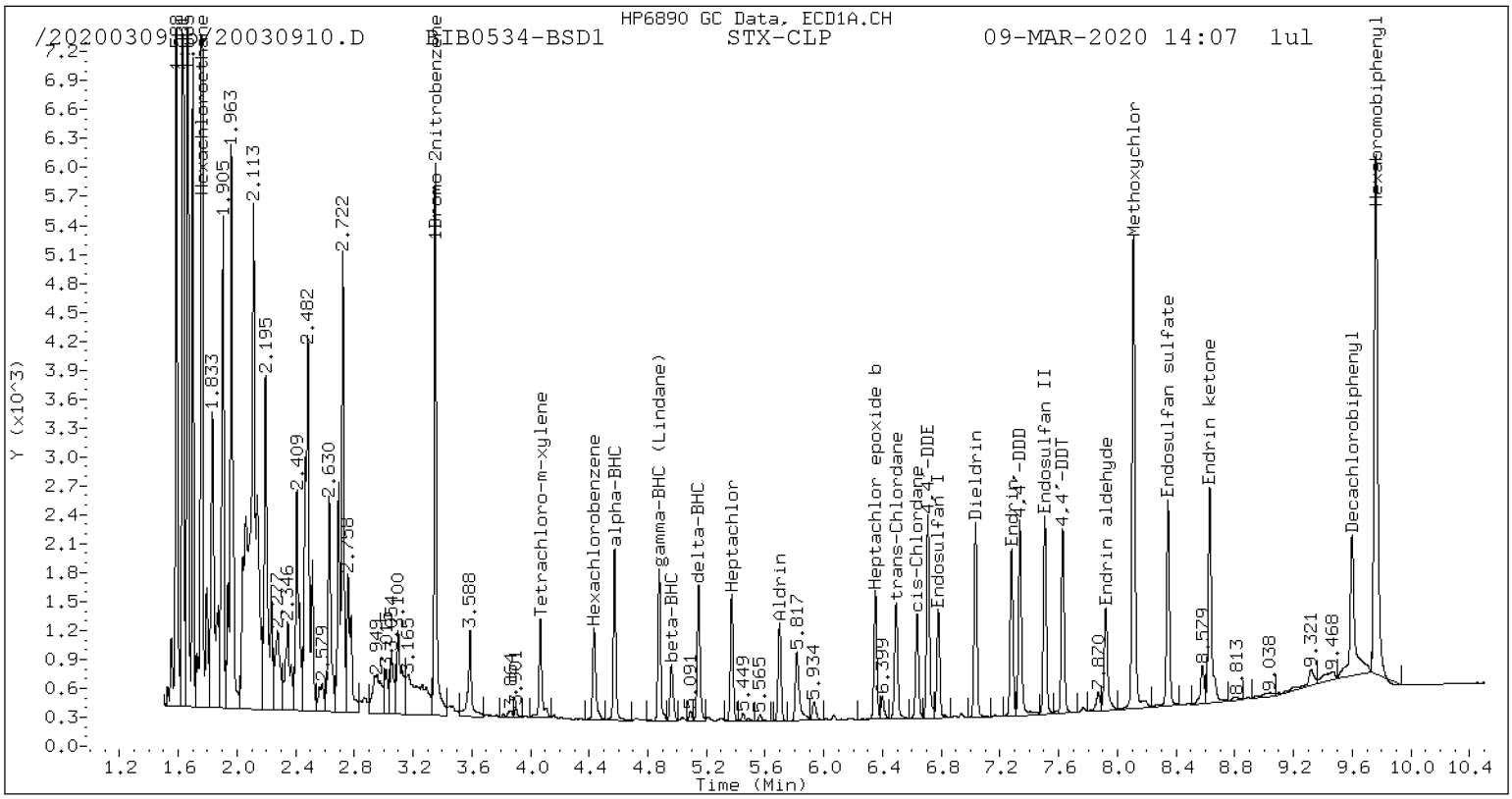
Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000

STX-CLPAve: <3 Quant Peaks CLP2Ave: <3 Quant Peaks

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000

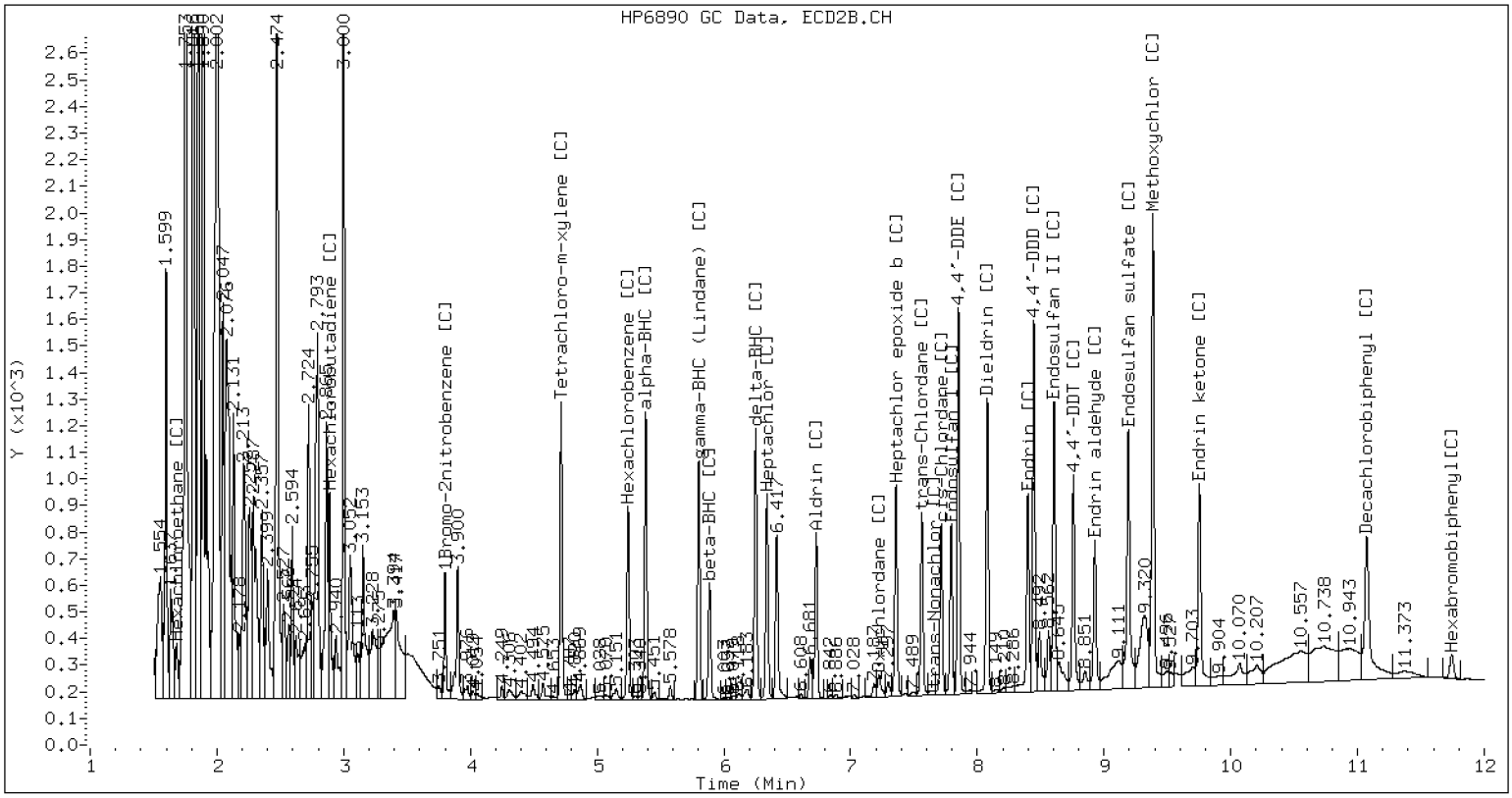
STX-CLPAve: <3 Quant Peaks CLP2Ave: <3 Quant Peaks

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

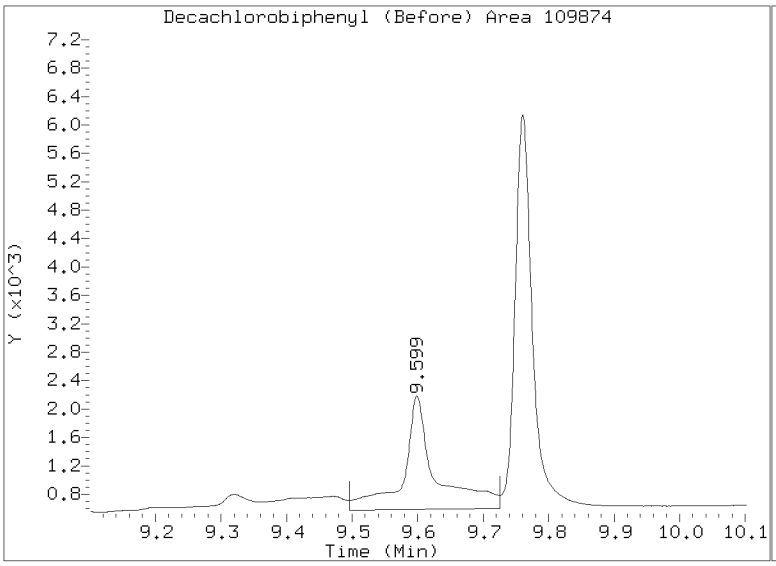
/20200309.b/20200309.b/20030910.D BIB0534-BSD1 CLP2

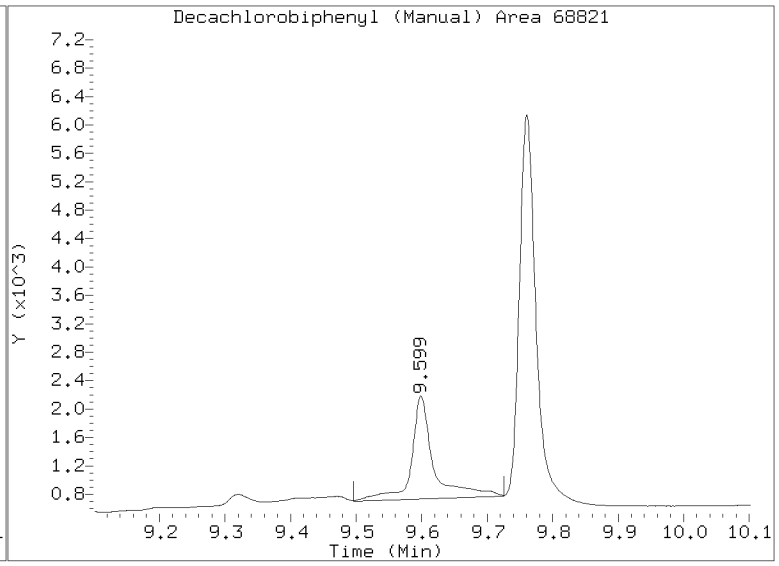


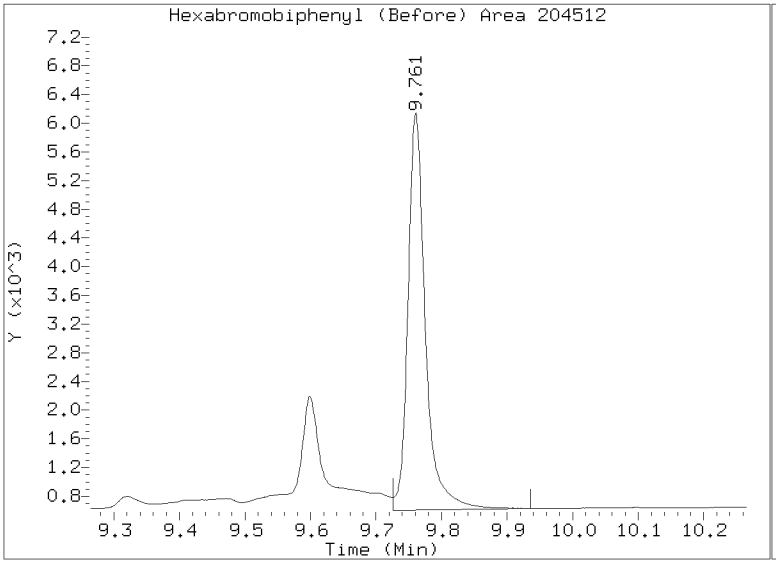
CLP-2 Manual Integration: NO

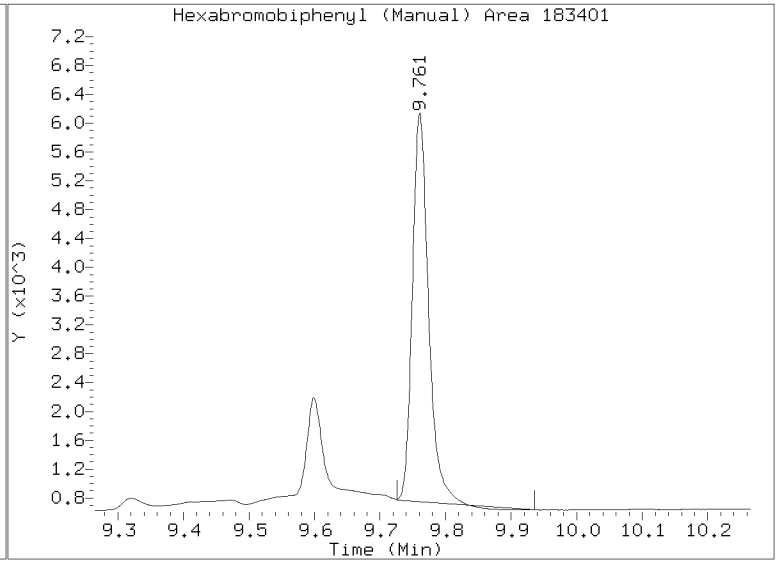
Manual Peak Adjustment Report, STX-CLP

Datafile: /20200309.b/20030910.D
Injection Date: 09-MAR-2020 14:07
Lab ID:BIB0534-BSD1 Client ID:
Report Date: 03/09/2020 16:21









LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Matrix:	Water	Analyzed:	03/09/20 14:25
Batch:	BIB0534	Laboratory ID:	BIB0534-BS2
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	1000 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Chlordane (NOS)	0.400	0.339		84.8	0 - 200

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030911.D
Data file 2: /20200309.b/20200309.b/20030911.D
Method: \20200309.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIB0534-BSD2
Client ID:
Injection Date: 09-MAR-2020 14:25
Report Date: 03/09/2020 16:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	alpha-BHC
----			5.888	-0.000	1073	0.00	15.00	---	beta-BHC
----			6.253	0.001	4164	0.00	31.15	---	delta-BHC
----			5.814	0.011	673	0.00	4.77	---	gamma-BHC (Lindane)
----			6.340	-0.001	29640	0.00	222.46	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
----			----			0.00	0.00	---	Heptachlor epoxide b
----			7.802	0.007	1271	0.00	15.58	---	Endosulfan I
----			8.082	0.002	7592	0.00	109.14	---	Dieldrin
----			7.855	0.001	2263	0.00	23.65	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			8.619	0.012	2119	0.00	42.12	---	Endosulfan II
----			8.456	0.009	17656	0.00	327.72	---	4,4'-DDD
----			9.191	-0.002	953	0.00	17.56	---	Endosulfan sulfate
----			8.752	-0.008	1442	0.00	27.82	---	4,4'-DDT
----			9.382	-0.005	845	0.00	32.05	---	Methoxychlor
----			9.750	-0.004	902	0.00	14.51	---	Endrin ketone
----			8.929	-0.001	846	0.00	18.59	---	Endrin aldehyde
----			7.563	-0.001	70826	0.00	758.06	---	trans-Chlordane
----			7.716	-0.001	50909	0.00	613.78	---	cis-Chlordane
2.482	-0.032	146078	----			50.84	0.00	---	Hexachlorobutadiene
----			----			0.00	0.00	---	Hexachlorobenzene
----			7.227	-0.017	3400	0.00	41.50	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			7.654	0.010	71289	0.00	1725.04	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			8.364	-0.014	4131	0.00	112.31	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.760	-0.014	15003	1.682	0.006	4929	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.069	-0.002	26670	4.716	-0.001	26401	24.04	250.58	165.0*	Tetrachloro-m-xylene
9.600	-0.003	107536	11.075	-0.001	29501	45.59	673.31	174.6*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	60.1	626.5	60.1˜	130- 0
Decachlorobiphenyl	114.0	1683.3	114.0˜	130- 0

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	114018	-39.8
Hexabromobiphenyl	177311	187434	5.7

Column 2

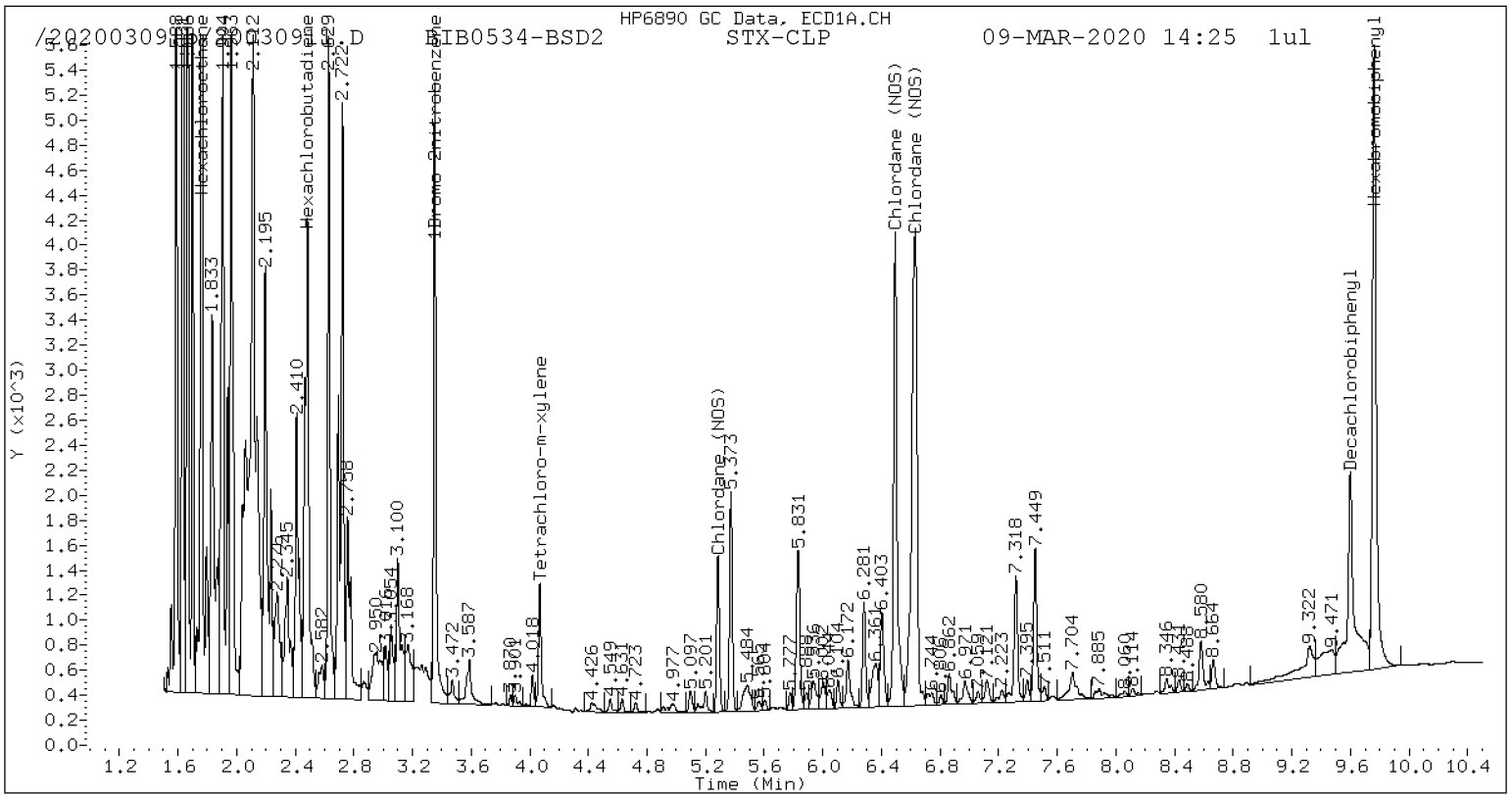
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	8877	-94.1 <-
Hexabromobiphenyl	80212	2897	-96.4 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

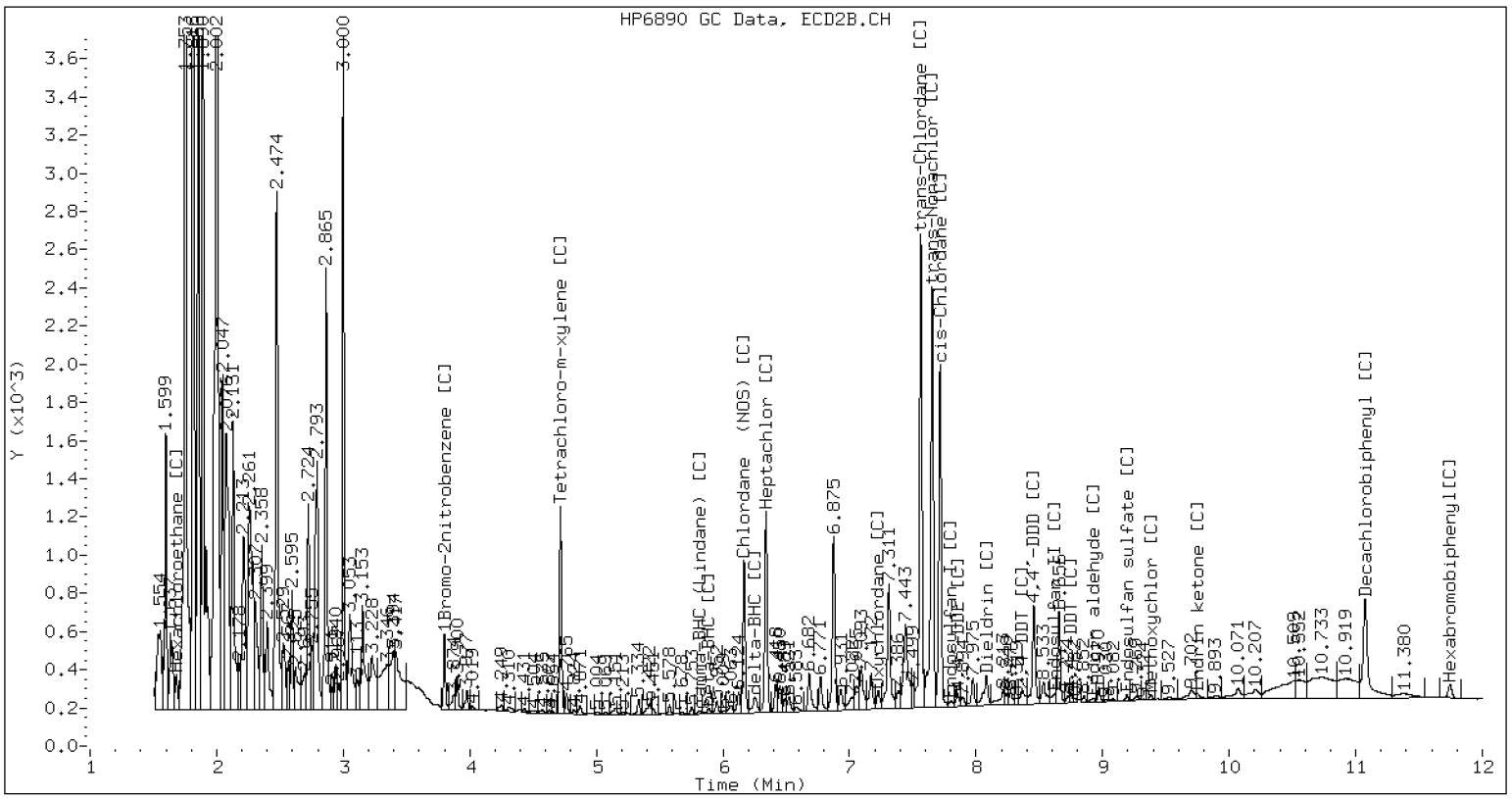
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.285	-0.001	32961	632.3	1	6.167	-0.000	22116	6223.2
Chlordane (NOS)	2	6.494	-0.001	127112	722.2	2	7.563	-0.000	70826	7509.8
Chlordane (NOS)	3	6.628	-0.001	199467	680.9	3	7.654	-0.001	71289	7280.2
		Total STX-CLPAve (3 peaks): 678.467				Total CLP2Ave (3 peaks): 7004.376				RPD = 165*
		Corrected Ave (3 peaks): 678.467				Corrected Ave (3 peaks): 7004.376				RPD = 165*

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200309.b/20200309.b/20030911.D   BIB0534-BSD2   CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030910.D
Data file 2: /20200309.b/20200309.b/20030910.D
Method: \20200309.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIB0534-BSD1
Client ID:
Injection Date: 09-MAR-2020 14:07
Report Date: 03/09/2020 16:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.573	-0.003	43446	5.384	-0.001	27695	17.78	144.33	156.1*	alpha-BHC
4.962	-0.003	17435	5.887	-0.001	12552	17.80	143.13	155.8*	beta-BHC
5.146	-0.004	38649	6.251	-0.001	27754	17.81	169.28	161.9*	delta-BHC
4.878	-0.003	40724	5.802	-0.001	23512	18.84	135.98	151.3*	gamma-BHC (Lindane)
5.372	-0.002	34303	6.340	-0.001	21036	14.66	128.75	159.1*	Heptachlor
5.698	-0.003	28252	6.729	-0.001	17787	12.89	119.41	161.0*	Aldrin
6.351	-0.002	36079	7.358	-0.001	22314	18.25	168.30	160.9*	Heptachlor epoxide b
6.780	-0.003	32360	7.794	-0.001	17865	16.72	178.52	165.7*	Endosulfan I
7.034	-0.002	54294	8.079	-0.001	30601	35.10	358.71	164.3*	Dieldrin
6.709	-0.004	59644	7.852	-0.001	36895	33.84	314.40	161.1*	4,4'-DDE
7.279	-0.003	47105	8.399	-0.001	23181	20.72	499.26	184.1*	Endrin
7.506	-0.002	57471	8.606	-0.001	31478	22.95	475.54	181.6*	Endosulfan II
7.336	-0.003	58800	8.446	-0.001	36820	24.75	519.38	181.8*	4,4'-DDD
8.345	-0.002	60402	9.192	-0.002	35565	22.77	498.00	182.5*	Endosulfan sulfate
7.627	-0.003	53595	8.758	-0.002	23868	21.54	349.94	176.8*	4,4'-DDT
8.110	-0.003	143988	9.385	-0.002	53634	113.14	1546.03	172.7*	Methoxychlor
8.629	-0.002	72479	9.752	-0.002	27847	23.07	340.48	174.6*	Endrin ketone
7.921	-0.001	35225	8.927	-0.002	17750	15.79	296.35	179.8*	Endrin aldehyde
6.492	-0.003	36505	7.563	-0.001	19156	18.89	167.19	159.4*	trans-Chlordane
6.636	-0.003	30585	7.715	-0.001	17757	16.88	174.58	164.7*	cis-Chlordane
----			2.888	-0.001	18596	0.00	86.39	---	Hexachlorobutadiene
4.434	-0.004	29247	5.244	-0.002	19963	16.99	135.10	155.3*	Hexachlorobenzene
----			7.226	-0.019	3378	0.00	33.62	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			7.656	0.012	1013	0.00	18.63	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.760	-0.014	15050	1.682	0.006	5626	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.068	-0.003	28602	4.716	-0.002	27785	23.34	215.05	160.8*	Tetrachloro-m-xylene
9.599	-0.003	68821	11.073	-0.002	33303	29.82	577.64	180.4*	Decachlorobiphenyl M

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	58.3	537.6	58.3˜	130- 0
Decachlorobiphenyl	74.5	1444.1	74.5˜	130- 0

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	125966	-33.5
Hexabromobiphenyl	177311	183401	3.4

Column 2

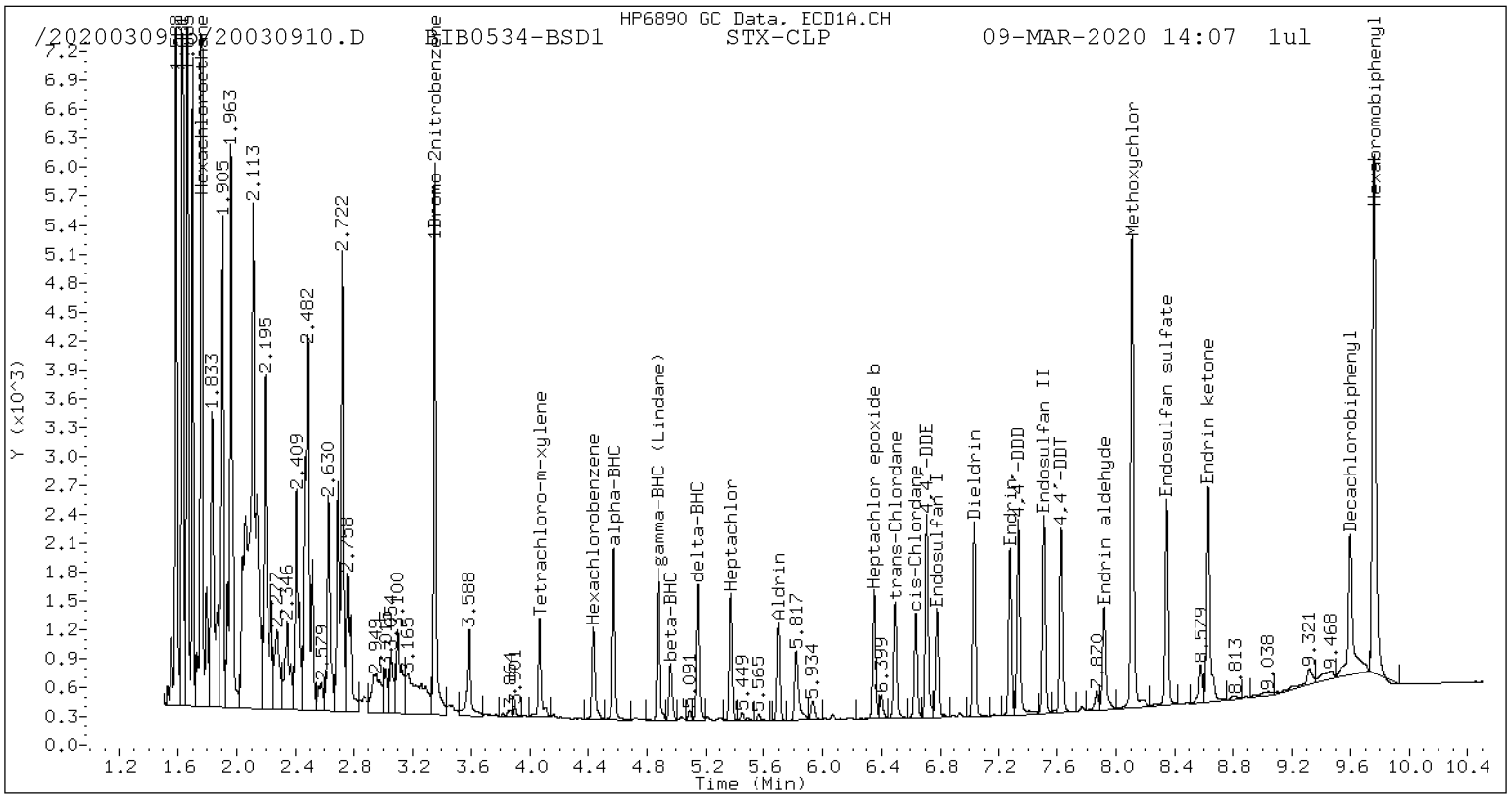
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	10886	-92.7 <-
Hexabromobiphenyl	80212	3812	-95.2 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				

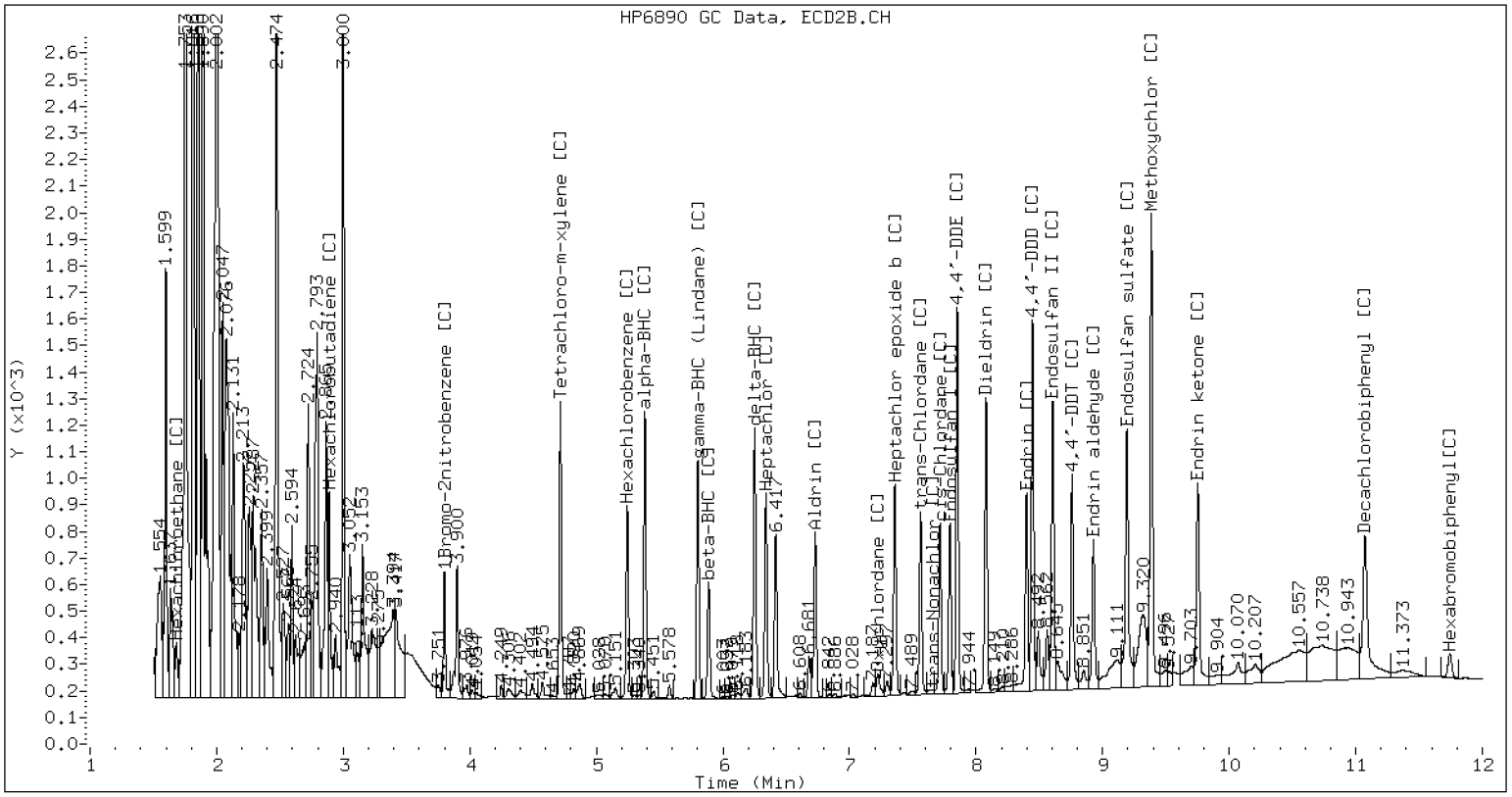
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000
STX-CLPAve: <3 Quant Peaks						CLP2Ave: <3 Quant Peaks				

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

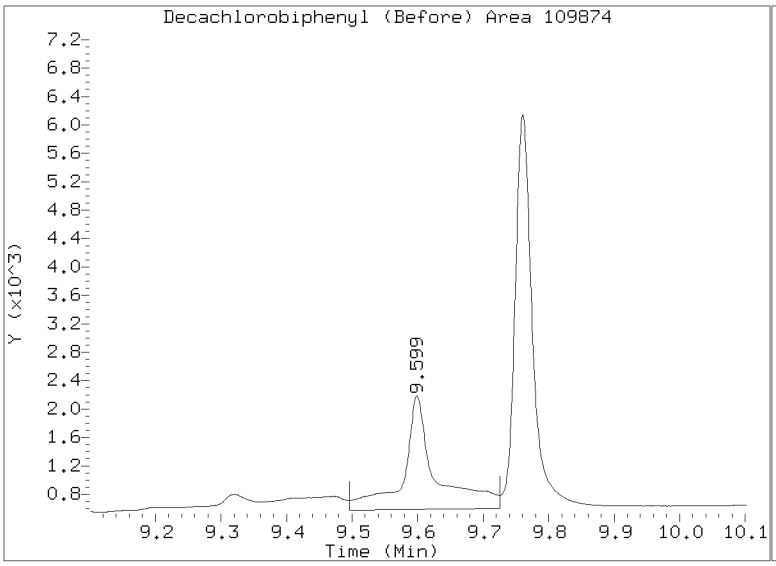
/20200309.b/20200309.b/20030910.D BIB0534-BSD1 CLP2

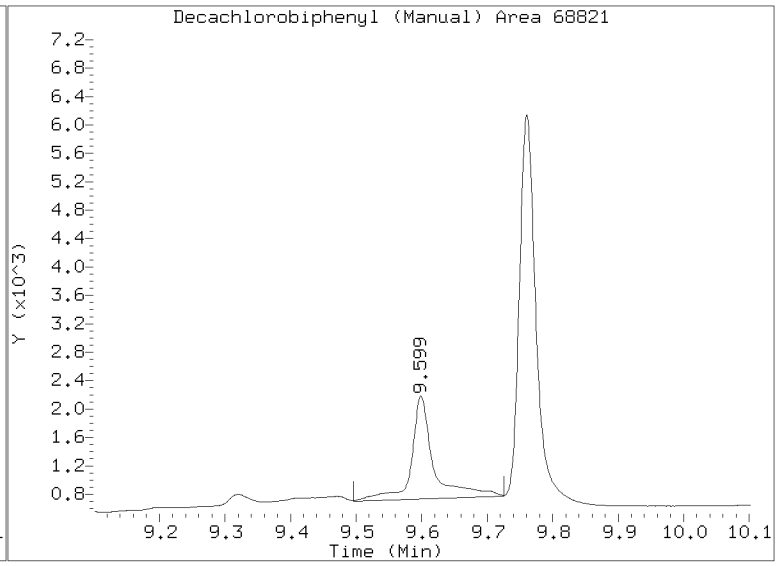


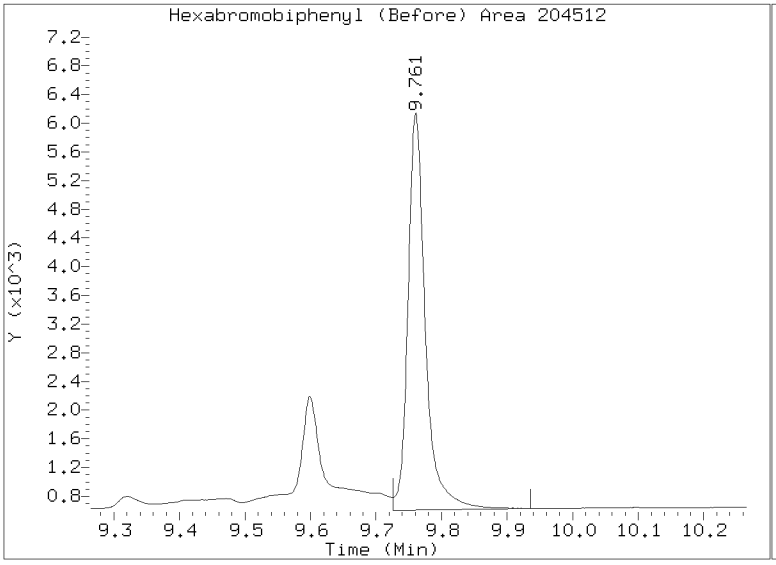
CLP-2 Manual Integration: NO

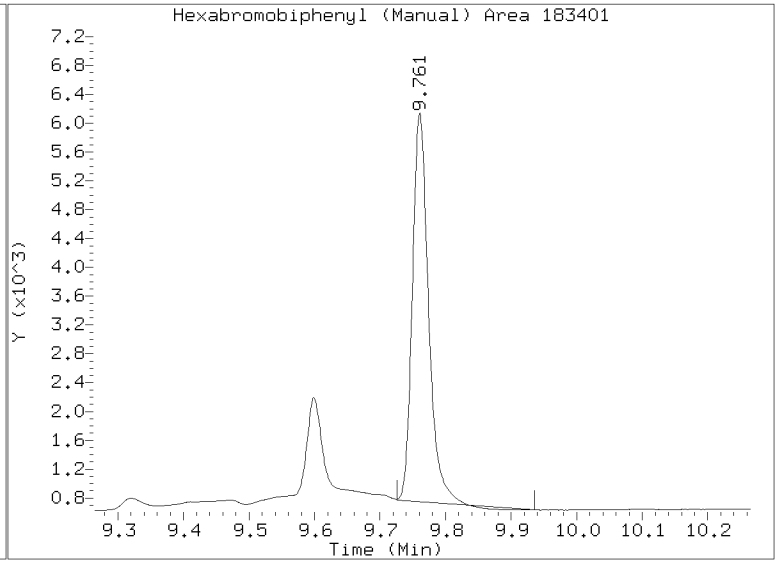
Manual Peak Adjustment Report, STX-CLP

Datafile: /20200309.b/20030910.D
Injection Date: 09-MAR-2020 14:07
Lab ID:BIB0534-BSD1 Client ID:
Report Date: 03/09/2020 16:21









LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Matrix:	Water	Analyzed:	03/13/20 13:49
Batch:	BIC0215	Laboratory ID:	BIC0215-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	1000 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
alpha-BHC [2C]	0.0100	0.0109		109	30 - 160
beta-BHC [2C]	0.0100	0.0104		104	30 - 160
gamma-BHC (Lindane) [2C]	0.0100	0.0110		110	30 - 160
delta-BHC [2C]	0.0100	0.0117		117	30 - 160
Heptachlor [2C]	0.0100	0.0102		102	30 - 160
Aldrin [2C]	0.0100	0.0104		104	30 - 160
Heptachlor Epoxide [2C]	0.0100	0.0112		112	30 - 160
trans-Chlordane (beta-Chlordane) [2C]	0.0100	0.0108		108	30 - 160
cis-Chlordane (alpha-chlordane) [2C]	0.0100	0.0110		110	30 - 160
Endosulfan I [2C]	0.0100	0.0110		110	30 - 160
4,4'-DDE [2C]	0.0200	0.0210		105	30 - 160
Dieldrin [2C]	0.0200	0.0258	P1	129	30 - 160
Endrin [2C]	0.0200	0.0216		108	30 - 160
Endosulfan II [2C]	0.0200	0.0224		112	30 - 160
4,4'-DDD [2C]	0.0200	0.0232		116	30 - 160
Endrin Aldehyde [2C]	0.0200	0.0106		53.1	30 - 160
4,4'-DDT [2C]	0.0200	0.0219		110	30 - 160
Endosulfan Sulfate [2C]	0.0200	0.0229		114	30 - 160
Endrin Ketone [2C]	0.0200	0.0203		101	30 - 160
Methoxychlor [2C]	0.100	0.103		103	30 - 160

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
alpha-BHC [2C]	0.0100	0.0124		124	13.2	30	30 - 160
beta-BHC [2C]	0.0100	0.0119		119	13.5	30	30 - 160
gamma-BHC (Lindane) [2C]	0.0100	0.0126		126	13.5	30	30 - 160
delta-BHC [2C]	0.0100	0.0136		136	14.4	30	30 - 160
Heptachlor [2C]	0.0100	0.0118		118	14.2	30	30 - 160
Aldrin [2C]	0.0100	0.0118		118	12.8	30	30 - 160
Heptachlor Epoxide [2C]	0.0100	0.0126		126	12.0	30	30 - 160
trans-Chlordane (beta-Chlordane) [2C]	0.0100	0.0123		123	13.1	30	30 - 160
cis-Chlordane (alpha-chlordane) [2C]	0.0100	0.0126		126	13.1	30	30 - 160

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Matrix:	Water	Analyzed:	03/13/20 14:25
Batch:	BIC0215	Laboratory ID:	BIC0215-BSD1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS Dup
Initial/Final:	1000 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Endosulfan I [2C]	0.0100	0.0127	P1	127	13.8	30	30 - 160
4,4'-DDE [2C]	0.0200	0.0242		121	14.3	30	30 - 160
Dieldrin [2C]	0.0200	0.0257		128	0.515	30	30 - 160
Endrin [2C]	0.0200	0.0257	P1	129	17.2	30	30 - 160
Endosulfan II [2C]	0.0200	0.0268	P1	134	17.7	30	30 - 160
4,4'-DDD [2C]	0.0200	0.0269		134	14.5	30	30 - 160
Endrin Aldehyde [2C]	0.0200	0.0101		50.6	4.69	30	30 - 160
4,4'-DDT [2C]	0.0200	0.0257		129	16.1	30	30 - 160
Endosulfan Sulfate [2C]	0.0200	0.0272	P1	136	17.4	30	30 - 160
Endrin Ketone [2C]	0.0200	0.0233		116	13.7	30	30 - 160
Methoxychlor [2C]	0.100	0.120		120	15.2	30	30 - 160

* Indicates values outside of QC limits

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031308.D
Data file 2: /20200313.b/20200313.b/20031308.D
Method: \20200313.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIC0215-BS1
Client ID:
Injection Date: 13-MAR-2020 13:49
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.573	-0.004	53860	5.381	-0.002	38966	17.97	21.73	18.9	alpha-BHC
4.962	0.014	20231	5.884	-0.002	17089	16.84	20.85	21.3	beta-BHC
5.146	-0.007	47073	6.248	-0.002	36011	17.69	23.50	28.2	delta-BHC
4.877	-0.005	49033	5.799	-0.001	35453	18.50	21.94	17.0	gamma-BHC (Lindane)
5.371	-0.004	47829	6.336	-0.001	31273	16.67	20.48	20.5	Heptachlor
5.697	-0.004	43077	6.726	-0.001	28981	16.03	20.82	26.0	Aldrin
6.349	-0.004	40673	7.355	-0.001	27797	16.78	22.43	28.8	Heptachlor epoxide b
6.778	-0.004	35138	7.790	-0.001	20619	14.81	22.04	39.3	Endosulfan I
7.032	-0.004	60508	8.075	-0.001	41175	31.90	51.64	47.2*	Dieldrin
6.709	-0.008	71353	7.848	-0.002	46063	33.01	42.00	24.0	4,4'-DDE
7.277	-0.004	54988	8.395	-0.001	26847	31.35	43.29	32.0	Endrin
7.505	-0.005	66156	8.602	-0.001	39642	34.25	44.83	26.8	Endosulfan II
7.336	-0.009	63266	8.442	-0.002	43991	34.51	46.45	29.5	4,4'-DDD N
8.344	-0.004	68652	9.188	-0.000	43647	33.55	45.75	30.8	Endosulfan sulfate
7.627	-0.005	66479	8.754	-0.001	39938	34.63	43.83	23.5	4,4'-DDT
8.109	-0.006	162386	9.381	-0.001	95844	165.39	206.82	22.3	Methoxychlor
8.627	-0.005	80613	9.748	-0.000	44310	33.26	40.56	19.8	Endrin ketone
7.918	-0.004	27903	8.924	-0.001	16978	16.21	21.22	26.8	Endrin aldehyde
6.491	-0.006	46355	7.559	-0.001	23079	19.56	21.55	9.7	trans-Chlordane
6.634	-0.005	33897	7.712	-0.000	21005	15.25	22.09	36.6	cis-Chlordane
2.515	-0.001	82665	2.865	-0.025	234275	21.24	116.44	138.3*	Hexachlorobutadiene
4.435	0.013	37409	5.242	-0.003	28962	17.72	20.97	16.8	Hexachlorobenzene
----			----			0.00	0.00	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			----			0.00	0.00	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.761	-0.013	16253	1.685	0.009	1842	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.069	-0.006	42855	4.714	-0.002	44912	28.51	37.19	26.4	Tetrachloro-m-xylene
9.597	-0.004	62813	11.065	-0.002	28841	35.27	37.45	6.0	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	71.3	93.0	71.3~	130- 0
Decachlorobiphenyl	88.2	93.6	88.2~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	154466	-18.4
Hexabromobiphenyl	177311	141494	-20.2

Column 2

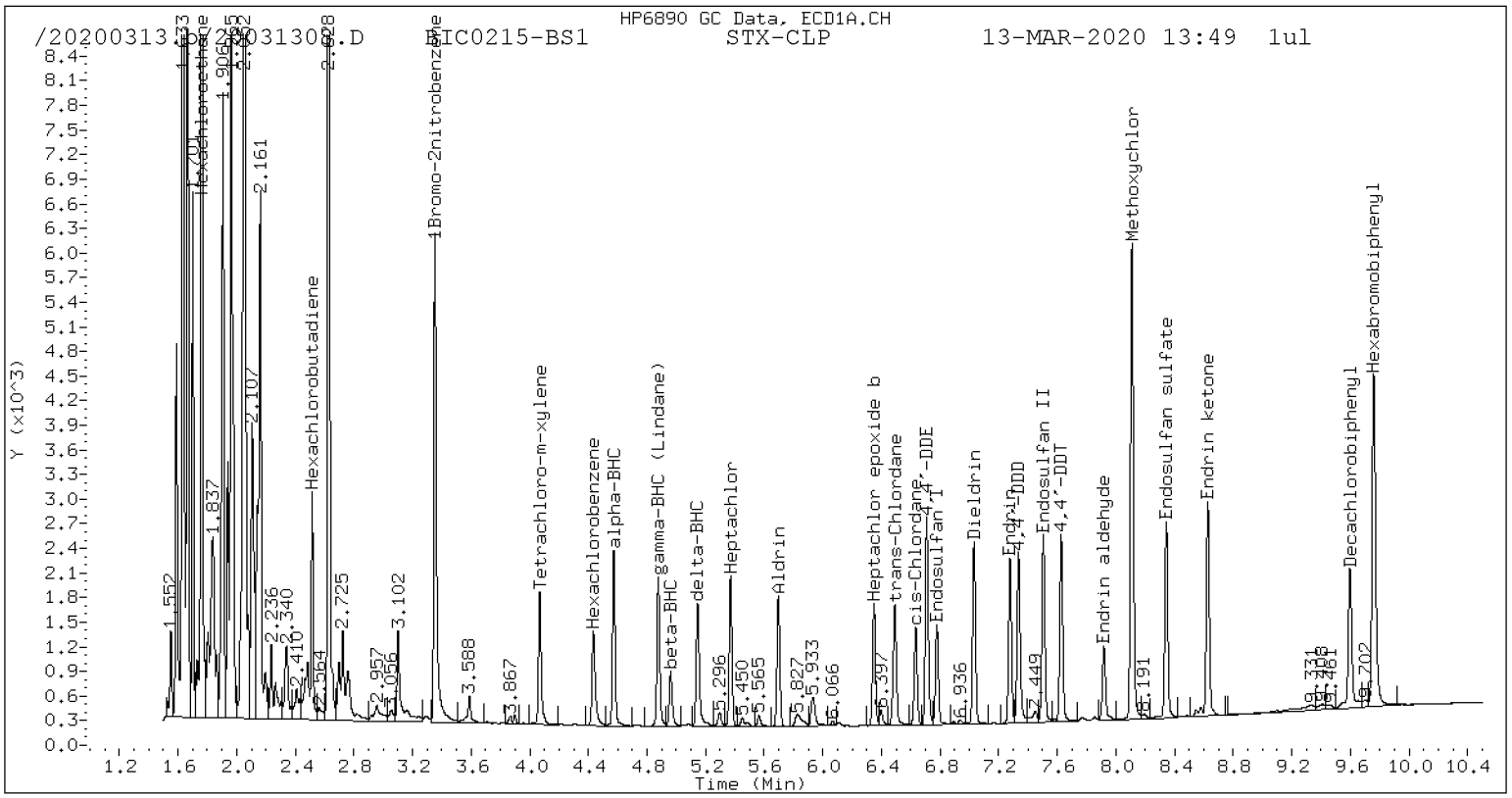
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	101751	-31.8
Hexabromobiphenyl	80212	50921	-36.5

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	8.602	0.016	39642	1251.4
Toxaphene	3	---			0.000	3	8.677	-0.004	1221	24.0
Toxaphene	4	---			0.000	4	8.924	0.003	16978	425.8
Toxaphene	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: 567.046				

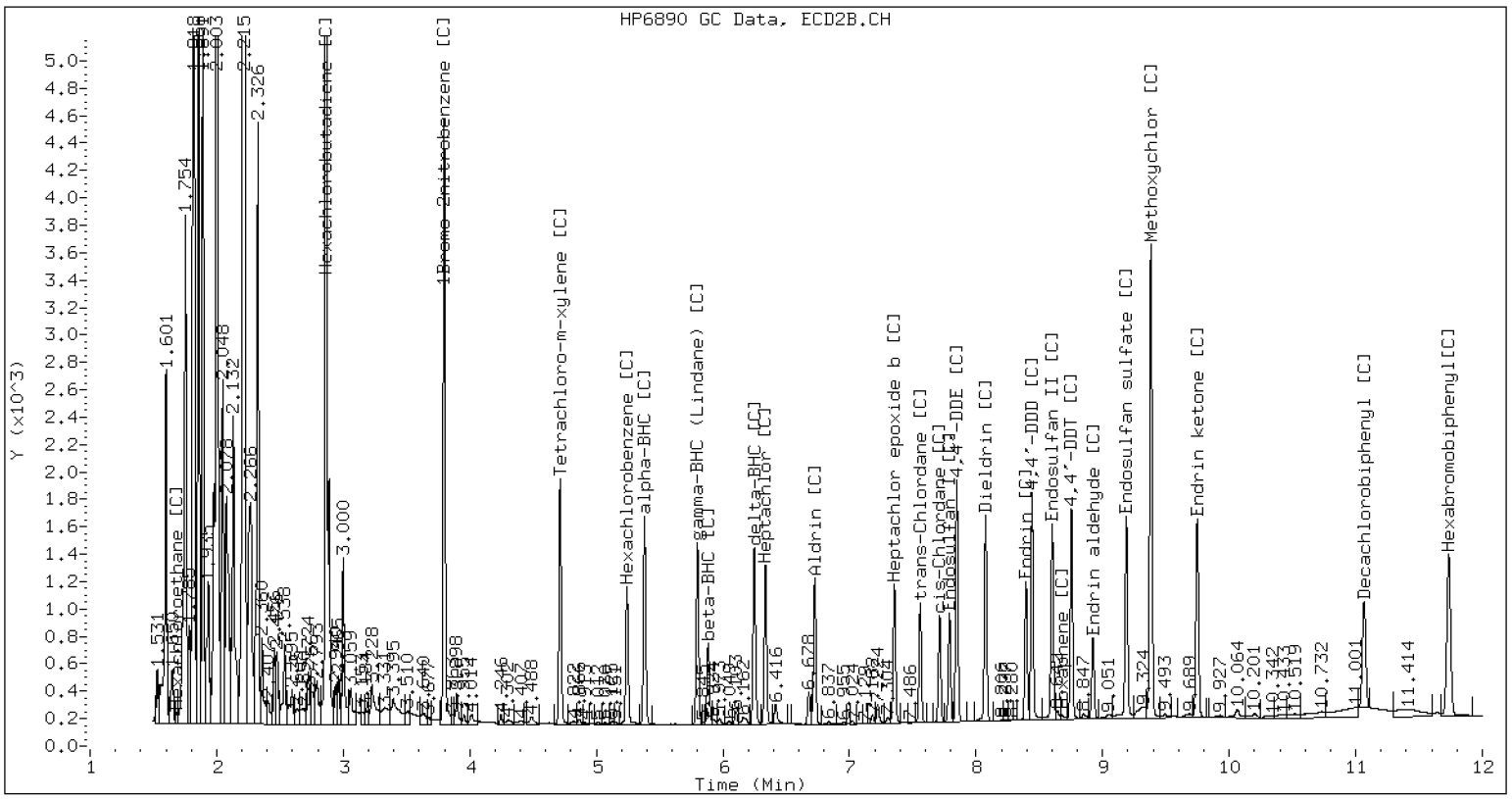
		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

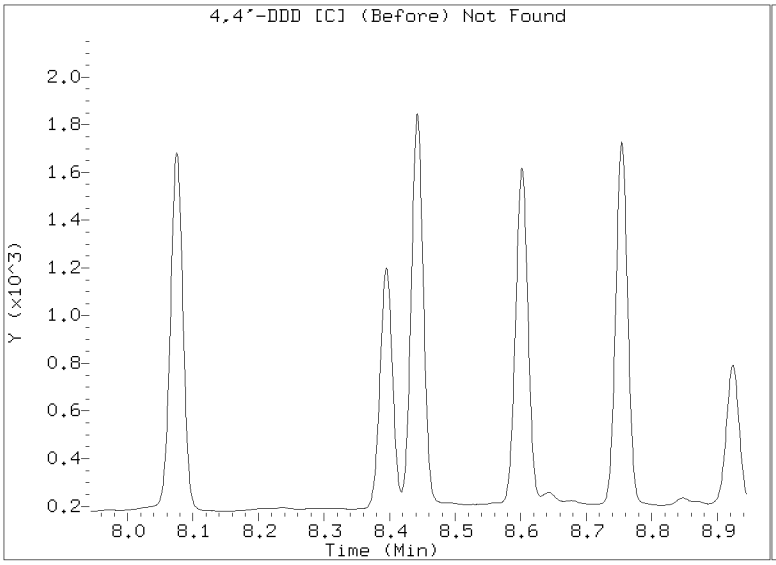
/20200313.b/20200313.b/20031308.D BIC0215-BS1 CLP2

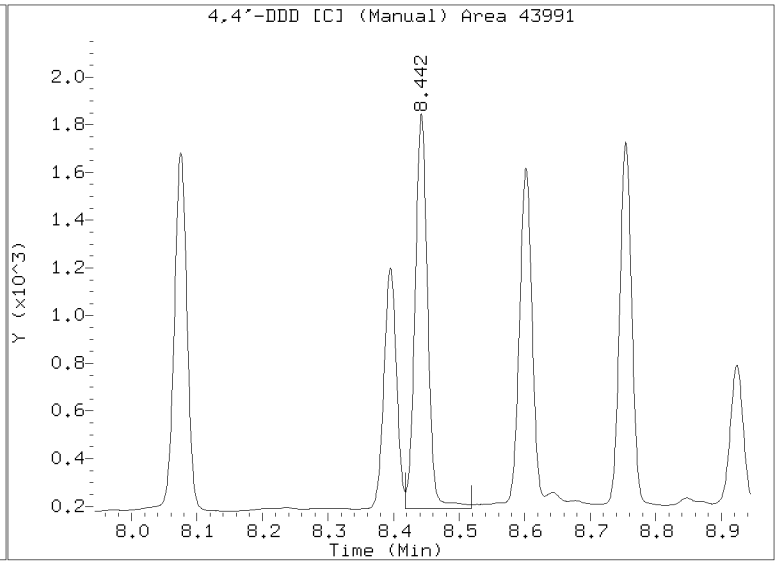


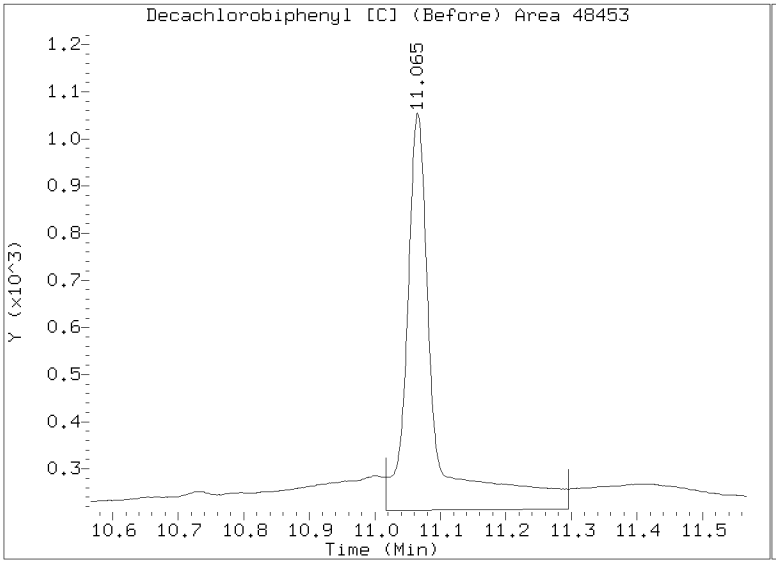
CLP-2 Manual Integration: YES

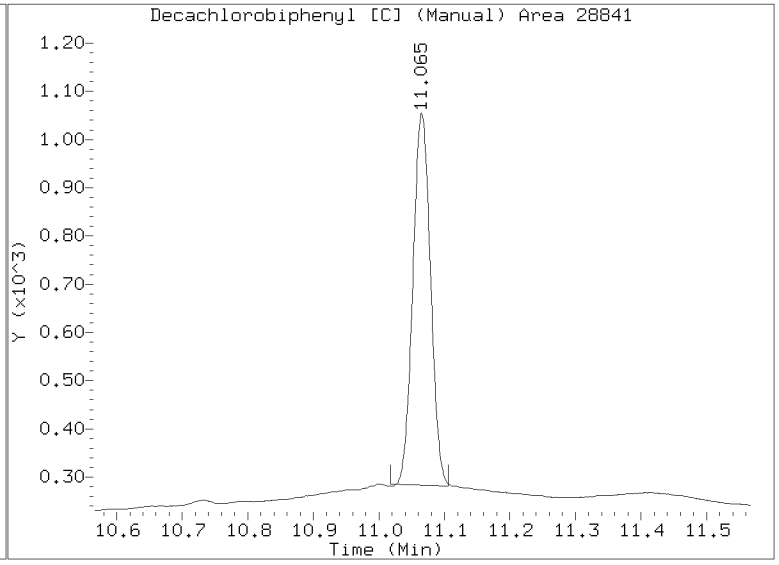
Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031308.D
Injection Date: 13-MAR-2020 13:49
Lab ID:BIC0215-BS1 Client ID:









Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031310.D
Data file 2: /20200313.b/20200313.b/20031310.D
Method: \20200313.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIC0215-BSD1
Client ID:
Injection Date: 13-MAR-2020 14:25
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.574	-0.004	55969	5.381	-0.001	40204	20.06	24.81	21.1	alpha-BHC
4.962	0.014	21097	5.884	-0.002	17669	18.86	23.86	23.4	beta-BHC
5.147	-0.006	49756	6.247	-0.002	37589	20.08	27.15	29.9	delta-BHC
4.878	-0.004	50680	5.799	-0.001	36660	20.54	25.10	20.0	gamma-BHC (Lindane)
5.372	-0.003	50789	6.336	-0.001	32588	19.02	23.62	21.6	Heptachlor
5.698	-0.003	44387	6.726	-0.001	29756	17.75	23.65	28.5	Aldrin
6.350	-0.004	42710	7.354	-0.001	28318	18.93	25.29	28.8	Heptachlor epoxide b
6.778	-0.004	36136	7.790	-0.001	21402	16.36	25.32	43.0*	Endosulfan I
7.032	-0.003	62559	8.075	-0.001	37013	35.43	51.37	36.7	Dieldrin
6.709	-0.009	73797	7.847	-0.003	48046	36.67	48.48	27.7	4,4'-DDE
7.277	-0.004	56727	8.395	-0.001	28385	32.75	51.42	44.4*	Endrin
7.504	-0.005	67456	8.601	-0.002	42149	35.36	53.56	40.9*	Endosulfan II
7.336	-0.009	66319	8.442	-0.003	45288	36.63	53.74	37.9	4,4'-DDD N
8.344	-0.004	71711	9.187	-0.001	46249	35.48	54.47	42.2*	Endosulfan sulfate
7.627	-0.005	68032	8.755	-0.001	41751	35.89	51.49	35.7	4,4'-DDT
8.109	-0.006	168656	9.380	-0.002	99326	173.92	240.84	32.3	Methoxychlor
8.628	-0.004	84419	9.747	-0.001	45226	35.26	46.51	27.5	Endrin ketone
7.919	-0.004	22979	8.923	-0.002	14417	13.52	20.25	39.9	Endrin aldehyde
6.491	-0.006	51143	7.559	-0.002	23785	23.18	24.58	5.9	trans-Chlordane
6.634	-0.004	35704	7.711	-0.001	21633	17.26	25.18	37.4	cis-Chlordane
2.516	-0.000	74881	2.865	-0.024	55226	20.66	30.38	38.1	Hexachlorobutadiene
4.436	0.014	40000	5.242	-0.003	29075	20.36	23.30	13.5	Hexachlorobenzene
----			----			0.00	0.00	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			----			0.00	0.00	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.762	-0.012	13320	1.686	0.010	1663	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.069	-0.005	41713	4.714	-0.002	43182	29.81	39.57	28.1	Tetrachloro-m-xylene
9.597	-0.004	63433	11.065	-0.002	28675	36.07	41.84	14.8	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	74.5	98.9	74.5~	130- 0
Decachlorobiphenyl	90.2	104.6	90.2~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	143799	-24.0
Hexabromobiphenyl	177311	139745	-21.2

Column 2

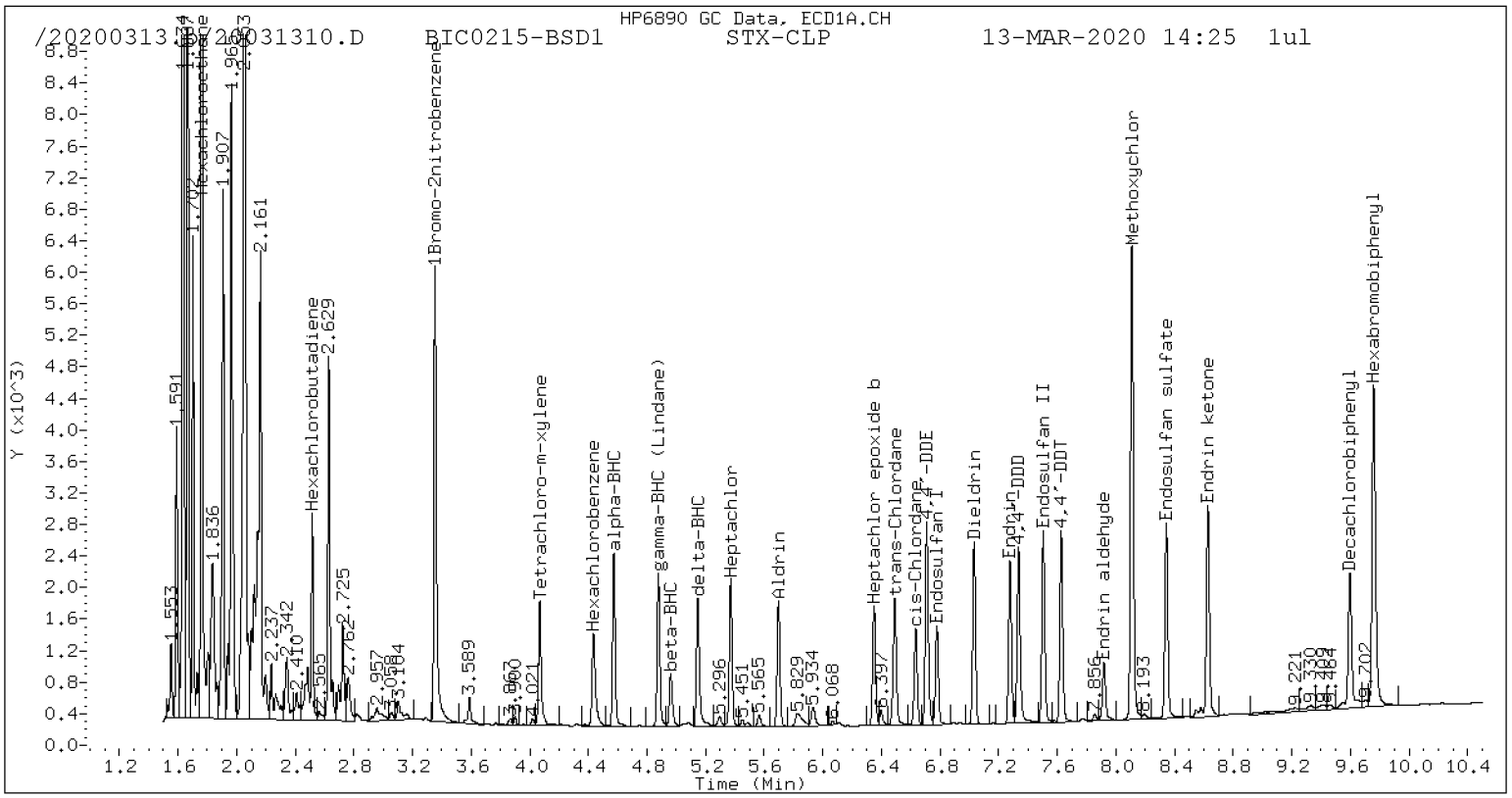
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	91938	-38.4
Hexabromobiphenyl	80212	45318	-43.5

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

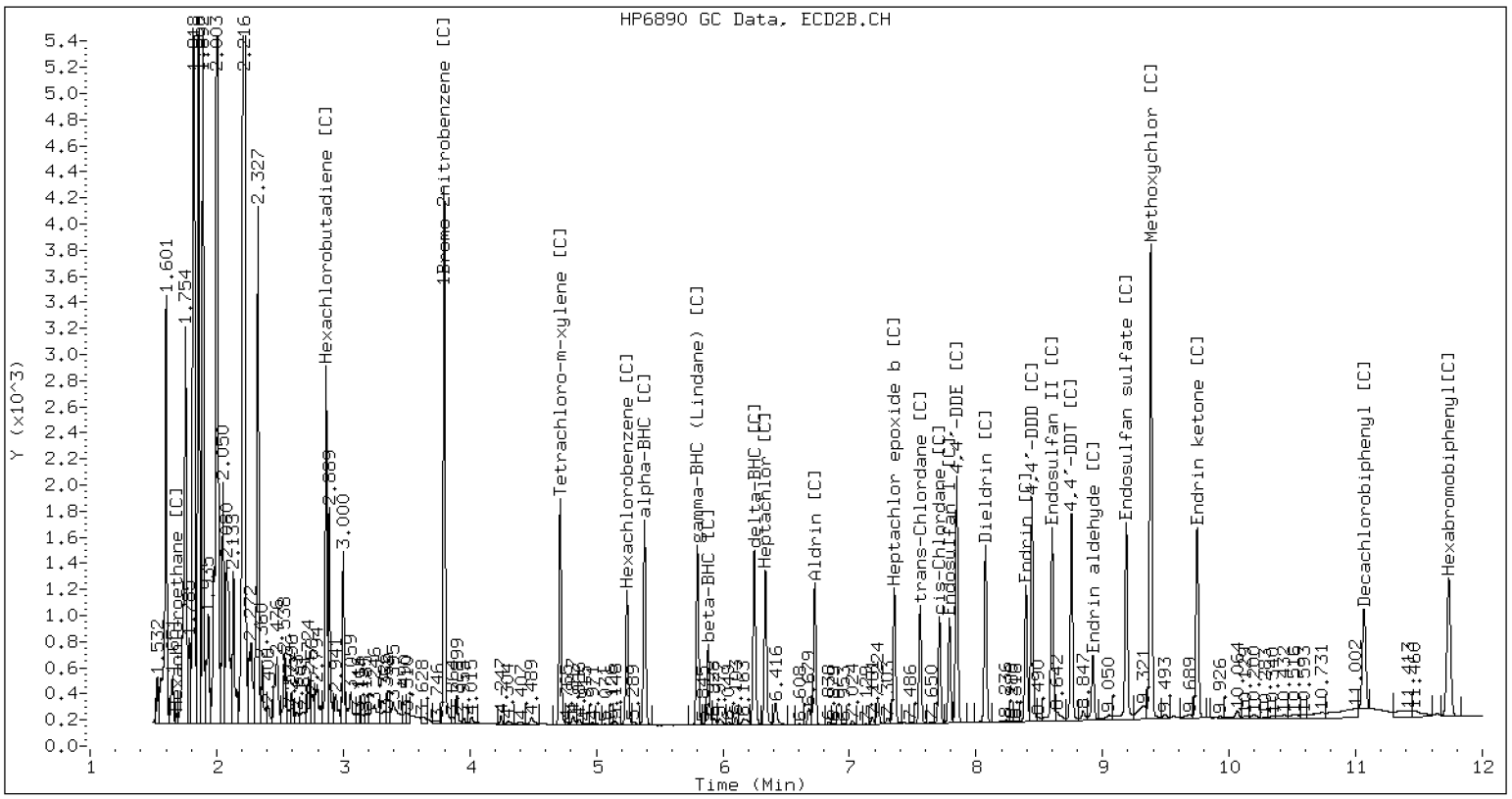
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	---			0.000	1	---			0.000
Chlordane (NOS)	2	---			0.000	2	---			0.000
Chlordane (NOS)	3	---			0.000	3	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

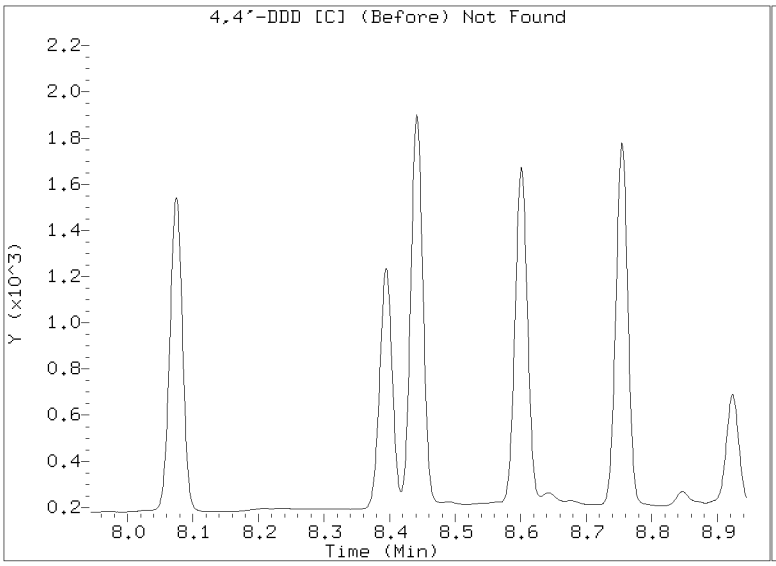
/20200313.b/20200313.b/20031310.D BIC0215-BSD1 CLP2

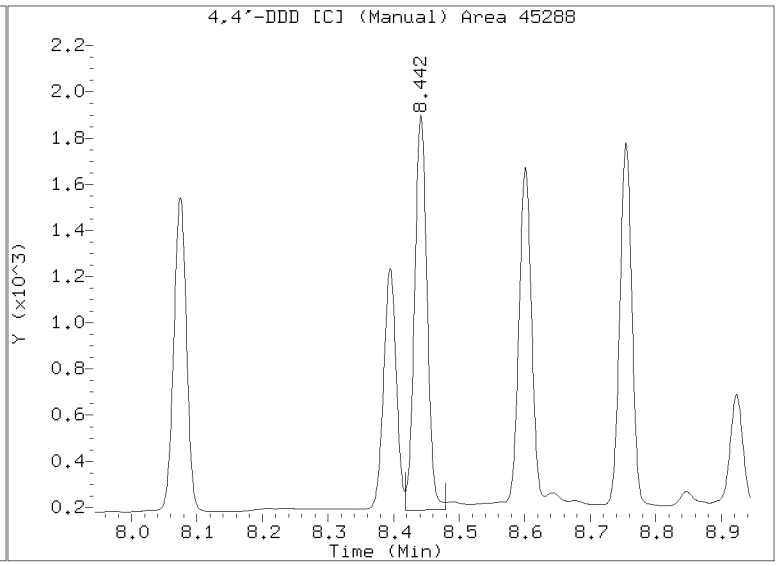


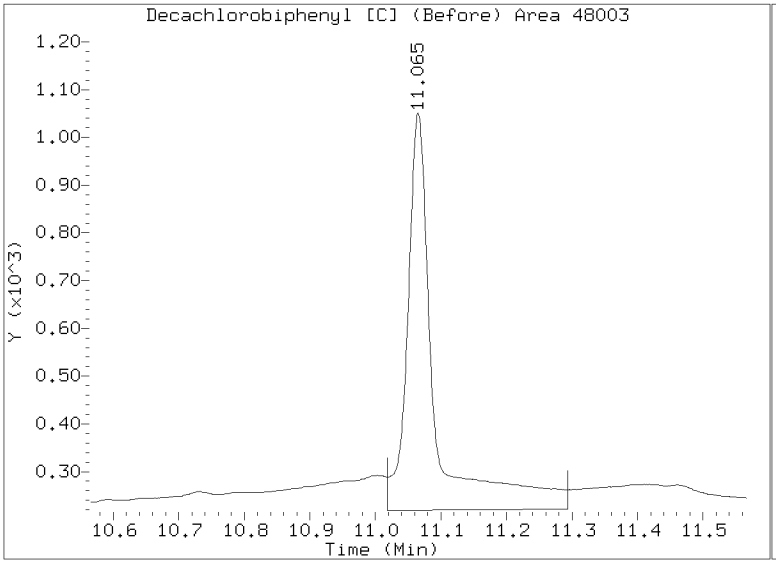
CLP-2 Manual Integration: YES

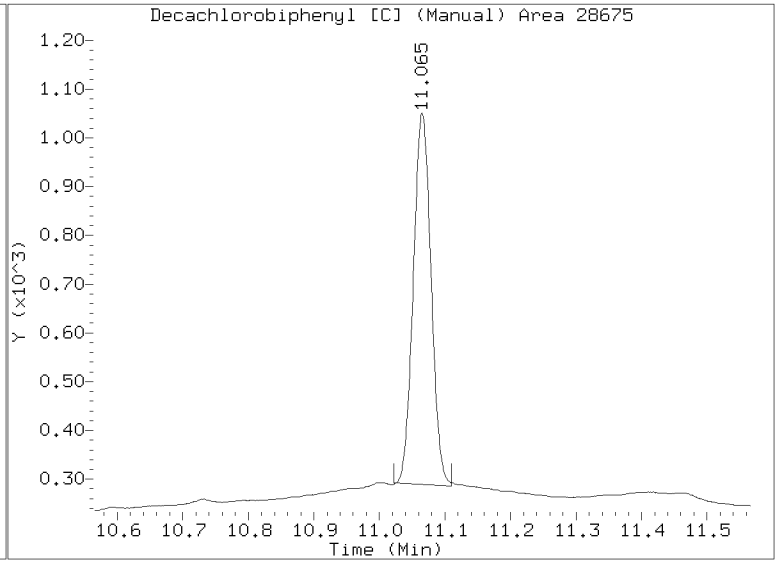
Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031310.D
Injection Date: 13-MAR-2020 14:25
Lab ID:BIC0215-BSD1 Client ID:









LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Matrix:	Water	Analyzed:	03/13/20 14:07
Batch:	BIC0215	Laboratory ID:	BIC0215-BS2
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	1000 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Chlordane (NOS) [2C]	0.100	0.113		113	0 - 200

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Chlordane (NOS) [2C]	0.100	0.0998		99.8	12.8	200	0 - 200

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031309.D
Data file 2: /20200313.b/20200313.b/20031309.D
Method: \20200313.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIC0215-BS2
Client ID:
Injection Date: 13-MAR-2020 14:07
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	alpha-BHC
----			----			0.00	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
----			----			0.00	0.00	---	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			----			0.00	0.00	---	Dieldrin
----			----			0.00	0.00	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
----			----			0.00	0.00	---	4,4'-DDD
----			----			0.00	0.00	---	Endosulfan sulfate
----			----			0.00	0.00	---	4,4'-DDT
----			----			0.00	0.00	---	Methoxychlor
----			----			0.00	0.00	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
----			----			0.00	0.00	---	trans-Chlordane
----			----			0.00	0.00	---	cis-Chlordane
2.483	-0.033	33112	----			8.60	0.00	---	Hexachlorobutadiene
----			----			0.00	0.00	---	Hexachlorobenzene
----			----			0.00	0.00	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			----			0.00	0.00	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.761	-0.013	13230	----			0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.069	-0.006	39598	4.714	-0.002	41232	26.65	37.08	32.7	Tetrachloro-m-xylene
9.597	-0.005	64758	11.066	-0.001	28453	35.25	40.14	13.0	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	66.6	92.7	66.6~	130- 0
Decachlorobiphenyl	88.1	100.3	88.1~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	152719	-19.3
Hexabromobiphenyl	177311	145971	-17.7

Column 2

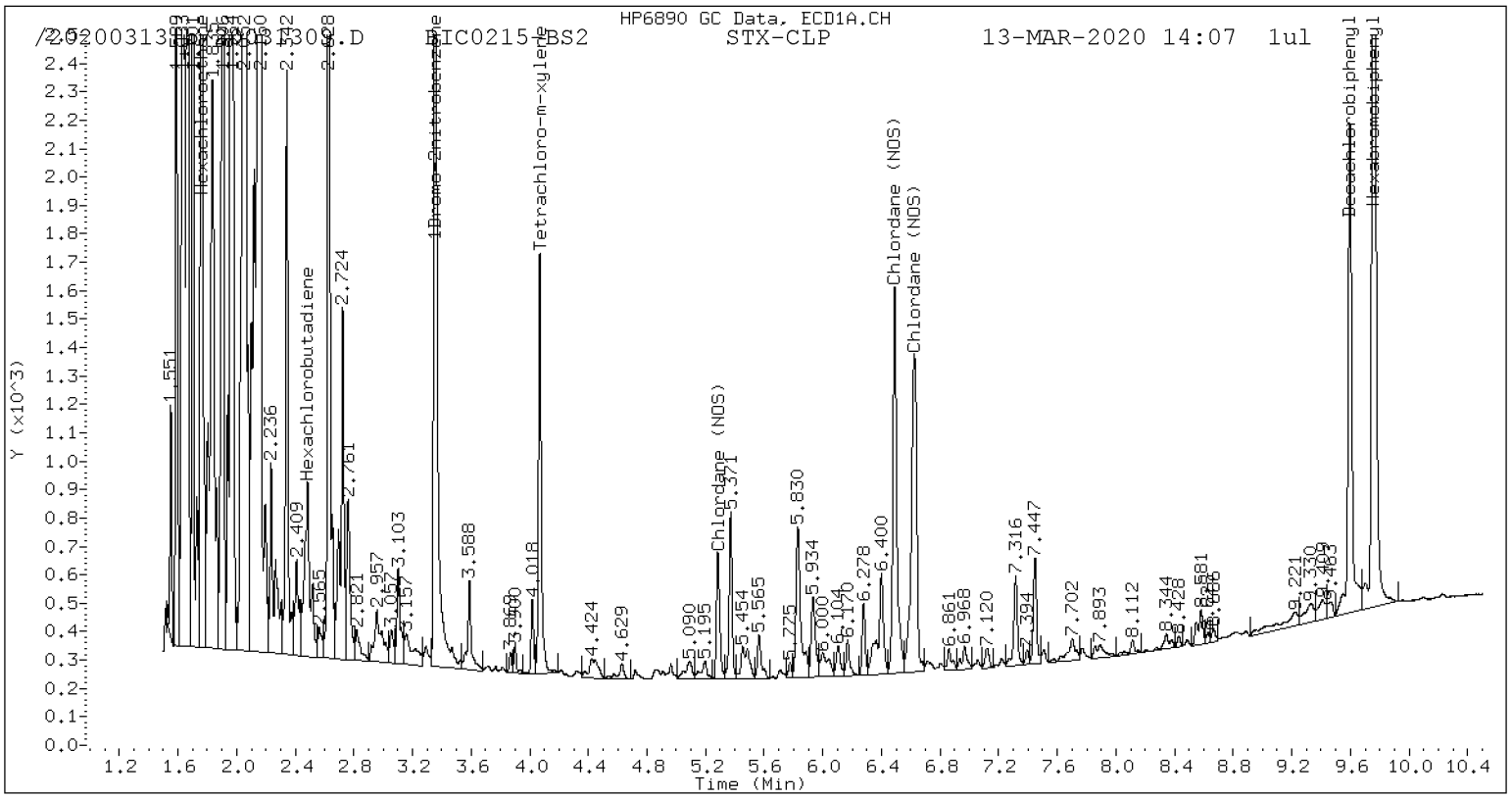
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	93684	-37.2
Hexabromobiphenyl	80212	46870	-41.6

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
		STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks			

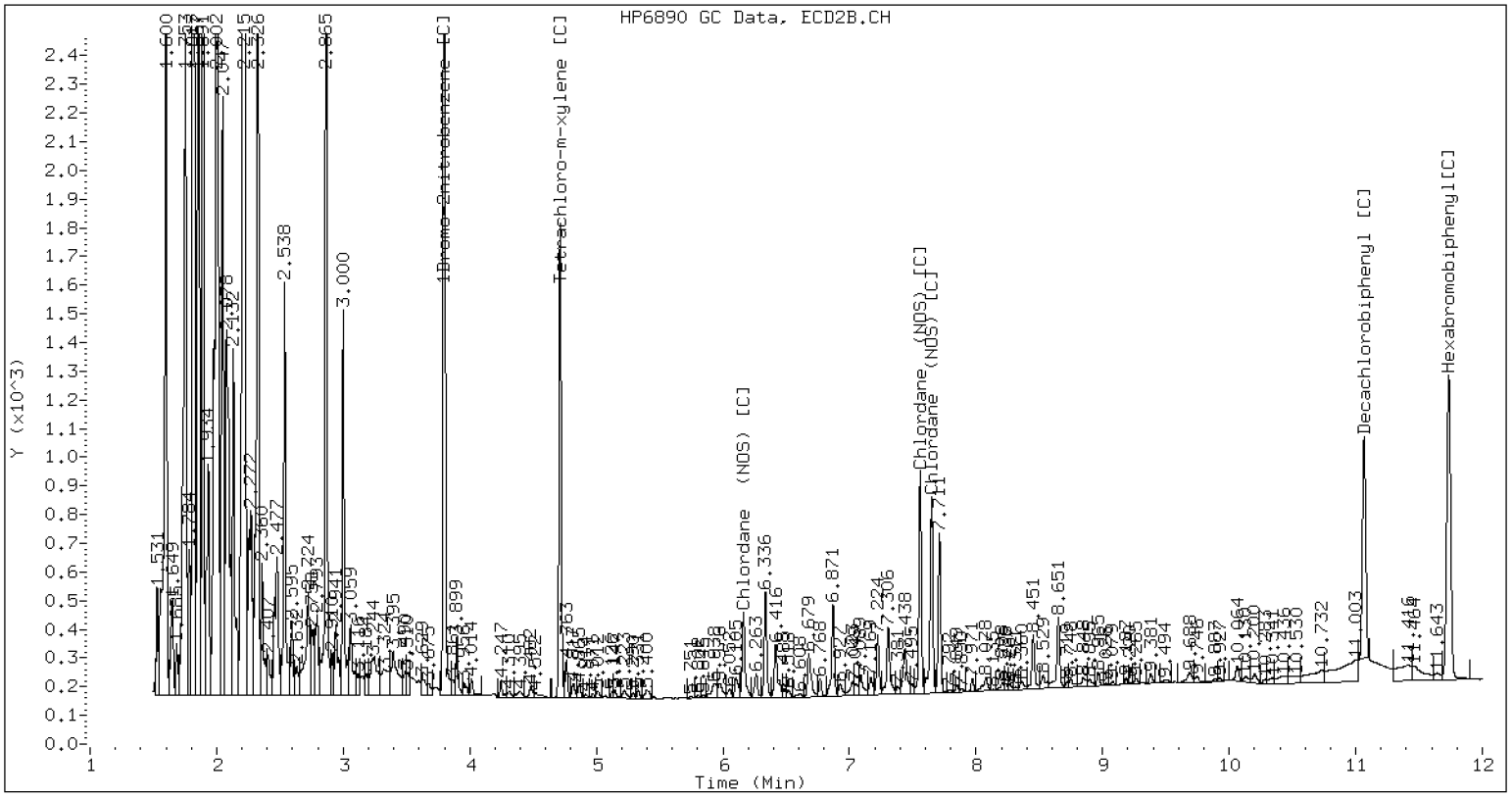
		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.284	0.000	14229	203.8	1	6.162	-0.001	9519	253.8
Chlordane (NOS)	2	6.490	-0.004	50662	214.9	2	7.559	-0.001	21410	215.1
Chlordane (NOS)	3	6.625	-0.004	59314	151.2	3	7.649	-0.000	21917	212.1
		Total STX-CLPAve (3 peaks): 189.951				Total CLP2Ave (3 peaks): 226.997			RPD = 18	
		Corrected Ave (3 peaks): 189.951				Corrected Ave (3 peaks): 226.997			RPD = 18	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

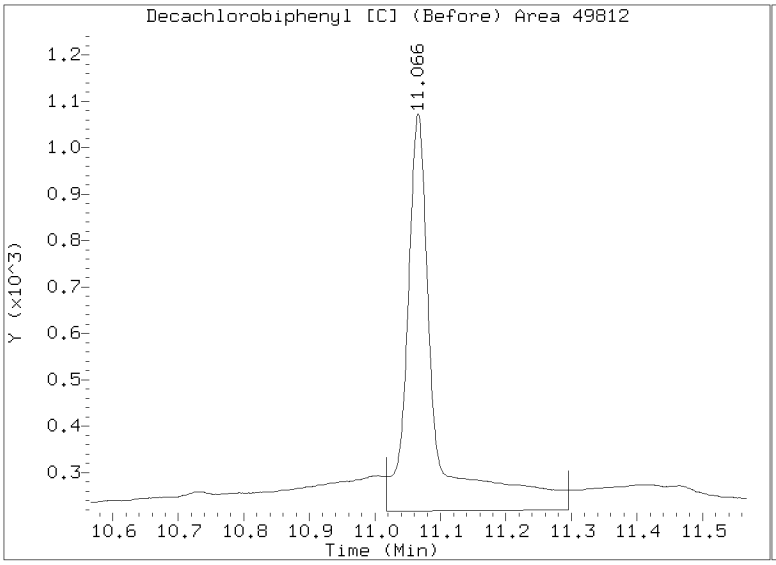
/20200313.b/20200313.b/20031309.D BIC0215-BS2 CLP2

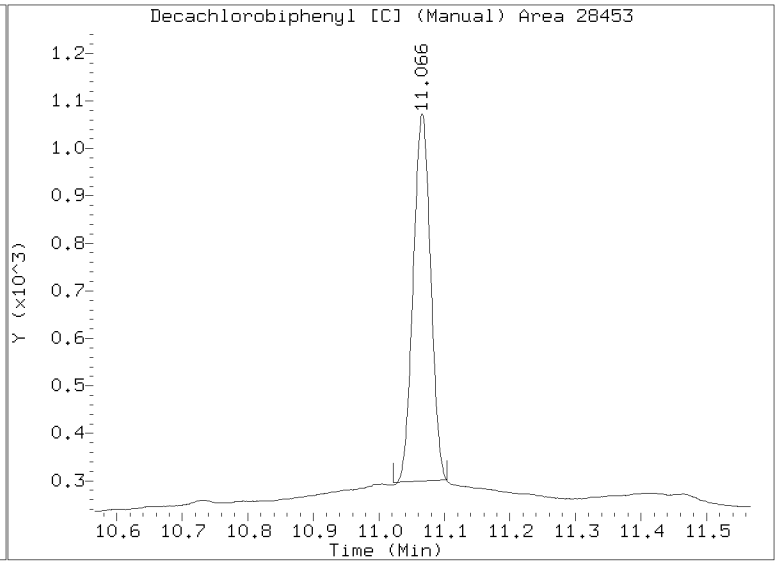


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031309.D
Injection Date: 13-MAR-2020 14:07
Lab ID:BIC0215-BS2 Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031311.D
Data file 2: /20200313.b/20200313.b/20031311.D
Method: \20200313.b\PEST.m
Compound Sublist: wpest.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: BIC0215-BSD2
Client ID:
Injection Date: 13-MAR-2020 14:43
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	alpha-BHC
----			----			0.00	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
----			----			0.00	0.00	---	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			----			0.00	0.00	---	Dieldrin
----			----			0.00	0.00	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
----			----			0.00	0.00	---	4,4'-DDD
----			----			0.00	0.00	---	Endosulfan sulfate
----			----			0.00	0.00	---	4,4'-DDT
----			----			0.00	0.00	---	Methoxychlor
----			----			0.00	0.00	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
----			----			0.00	0.00	---	trans-Chlordane
----			----			0.00	0.00	---	cis-Chlordane
2.484	-0.033	40031	2.865	-0.024	250424	9.84	121.40	170.0*	Hexachlorobutadiene
----			----			0.00	0.00	---	Hexachlorobenzene
----			----			0.00	0.00	---	Oxychlordane
----			----			0.00	0.00	---	2,4-DDE
----			----			0.00	0.00	---	trans-Nonachlor
----			----			0.00	0.00	---	2,4-DDD
----			----			0.00	0.00	---	2,4-DDT
----			----			0.00	0.00	---	cis-Nonachlor
----			----			0.00	0.00	---	Mirex
1.762	-0.012	17792	1.686	0.010	1555	0.00	0.00	---	Hexachloroethane
----			----			0.00	0.00	---	Kepone
4.069	-0.005	40007	4.714	-0.002	40897	25.47	33.03	25.8	Tetrachloro-m-xylene
9.597	-0.005	63792	11.065	-0.002	29197	34.87	38.45	9.8	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	63.7	82.6	63.7~	130- 0
Decachlorobiphenyl	87.2	96.1	87.2~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	161413	-14.7
Hexabromobiphenyl	177311	145366	-18.0

Column 2

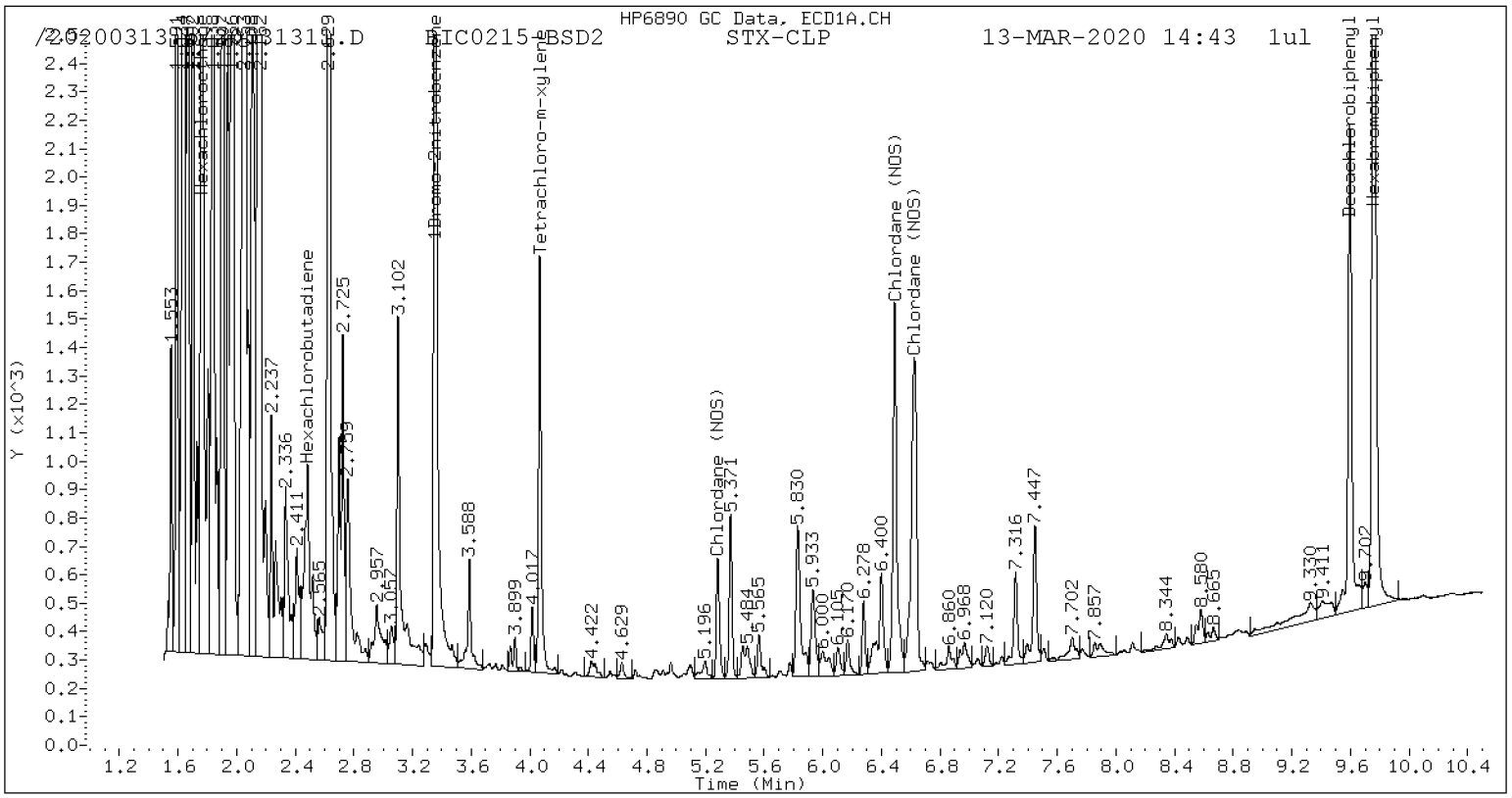
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	104326	-30.1
Hexabromobiphenyl	80212	50206	-37.4

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Toxaphene	1	---			0.000	1	---			0.000
Toxaphene	2	---			0.000	2	---			0.000
Toxaphene	3	---			0.000	3	---			0.000
Toxaphene	4	---			0.000	4	---			0.000
Toxaphene	5	---			0.000	5	---			0.000
	STX-CLPAve: <3 Quant Peaks					CLP2Ave: <3 Quant Peaks				

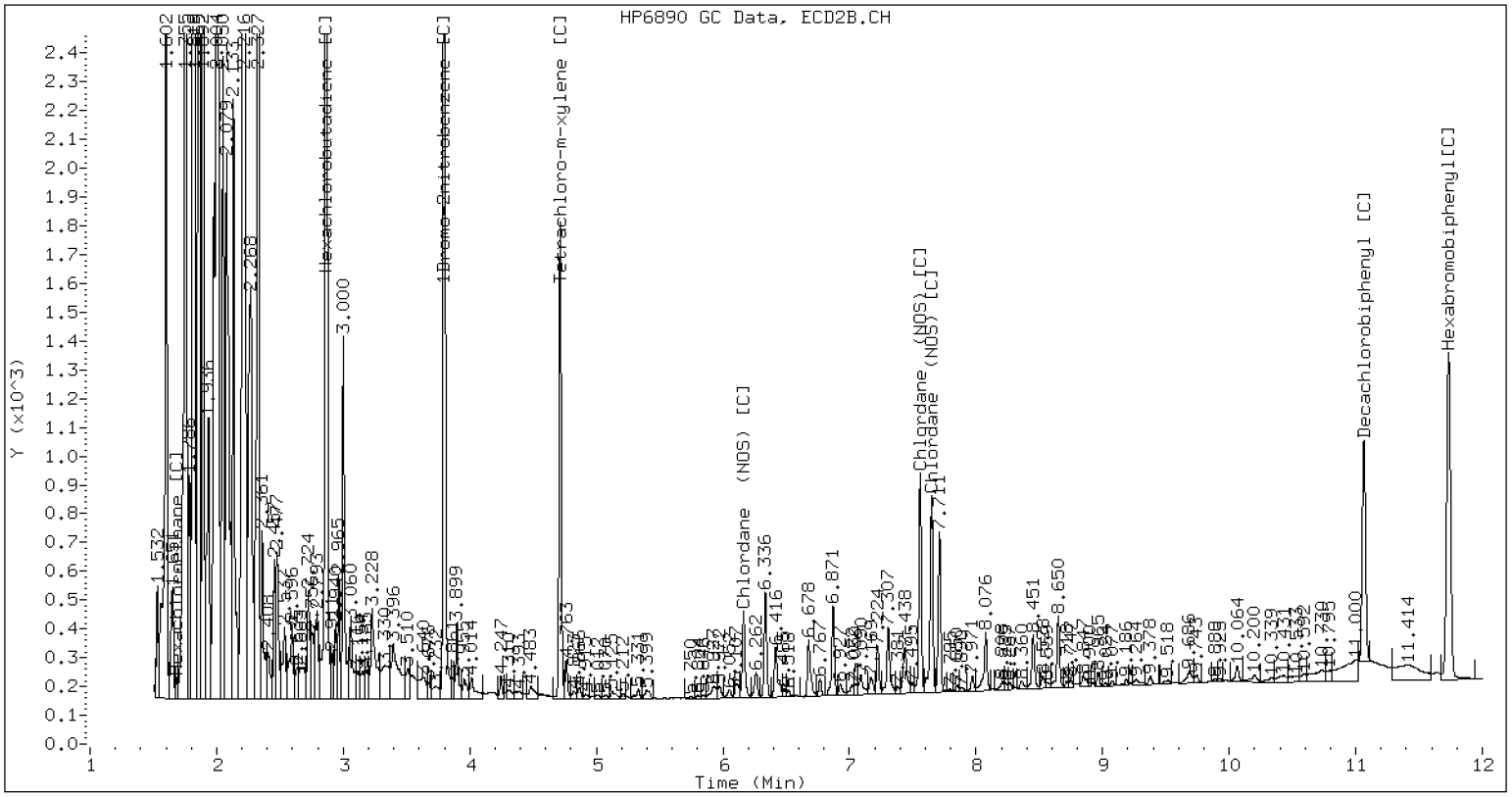
Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.283	-0.001	12879	174.5	1	6.163	-0.000	9132	218.6
Chlordane (NOS)	2	6.490	-0.004	48150	193.2	2	7.559	-0.000	21233	191.6
Chlordane (NOS)	3	6.625	-0.004	59063	142.4	3	7.649	-0.001	21719	188.7
	Total STX-CLPAve (3 peaks): 170.059					Total CLP2Ave (3 peaks): 199.647				RPD = 16
	Corrected Ave (3 peaks): 170.059					Corrected Ave (3 peaks): 199.647				RPD = 16

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

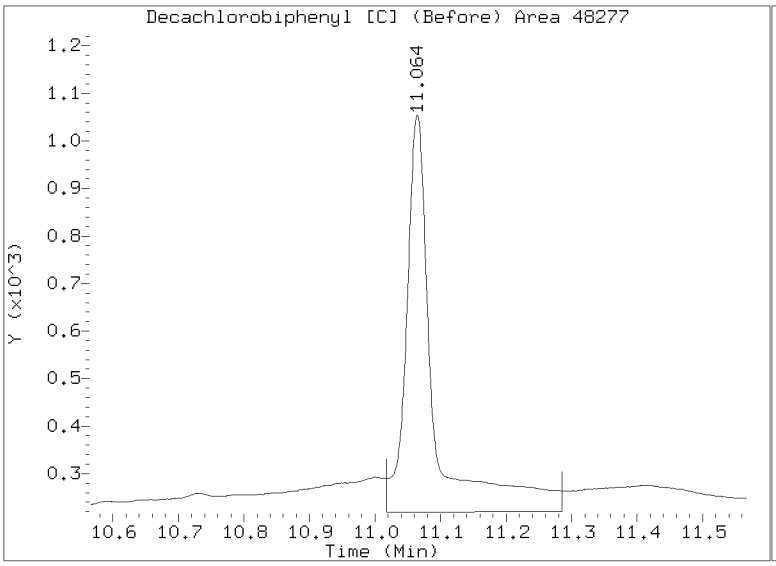
/20200313.b/20200313.b/20031311.D BIC0215-BSD2 CLP2

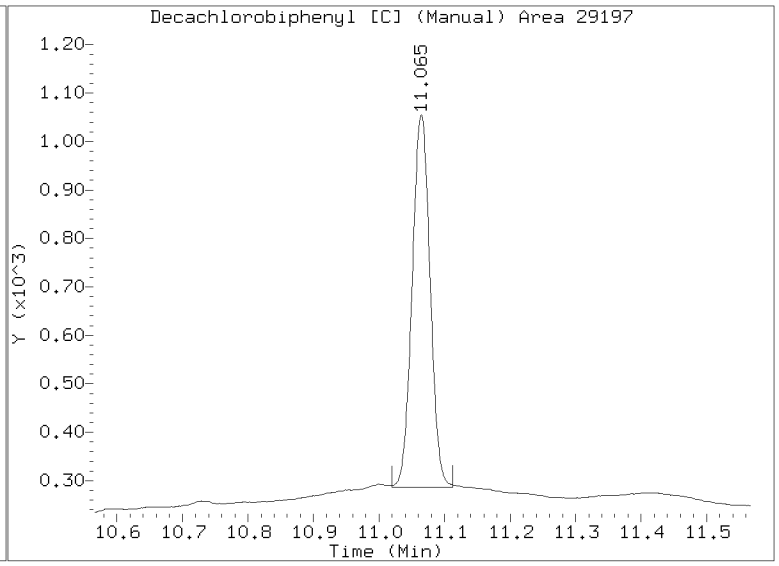


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031311.D
Injection Date: 13-MAR-2020 14:43
Lab ID:BIC0215-BSD2 Client ID:





INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (1):	STX-CLP

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		**RRF**		**RRF**		**RRF**		**RRF**		**RRF**
alpha-BHC	1.25	1.576439	2.5	1.486349	5	1.522162	10	1.493887	20	1.59932	40	1.594146
beta-BHC	1.25		2.5	0.669973	5	0.6748372	10	0.6355422	20	0.6102476	40	0.5867219
gamma-BHC (Lindane)	1.25	1.379747	2.5	1.376679	5	1.351731	10	1.3449	20	1.399355	40	1.379226
delta-BHC	1.25	1.36886	2.5	1.322195	5	1.37954	10	1.370904	20	1.369566	40	1.41891
Heptachlor	1.25	1.592406	2.5	1.503748	5	1.492922	10	1.440874	20	1.489524	40	1.451401
Aldrin	1.25	1.52527	2.5	1.406908	5	1.397066	10	1.357968	20	1.383108	40	1.349404
Heptachlor Epoxide	1.25	1.414222	2.5	1.288099	5	1.401626	10	1.211516	20	1.224678	40	1.143814
trans-Chlordane (beta-Chlordane)	1.25	1.560471	2.5	1.299171	5	1.326426	10	1.163922	20	1.145558	40	1.067963
cis-Chlordane (alpha-chlordane)	1.25	1.562648	2.5	1.281069	5	1.19668	10	1.063972	20	1.042354	40	0.9773985
Endosulfan I	1.25	1.564463	2.5	1.29302	5	1.347707	10	1.139448	20	1.163601	40	1.082337
4,4'-DDE	2.5	1.279586	5	1.134314	10	1.129349	20	1.072865	40	1.107847	80	1.067595
Dieldrin	2.5	1.097229	5	1.003905	10	1.05008	20	0.9515651	40	0.9650932	80	0.9234762
Endrin	2.5	1.188451	5	1.051931	10	1.047021	20	0.9625172	40	0.9474877	80	0.8949853
Endosulfan II	2.5	1.267442	5	1.156644	10	1.092669	20	1.058058	40	1.029344	80	1.035348
4,4'-DDD	2.5	1.124259	5	1.037918	10	1.052684	20	1.009226	40	1.016474	80	1.011604
Endrin Aldehyde	2.5	1.11606	5	1.14791	10	1.018949	20	0.9189334	40	0.8777459	80	0.8780503
4,4'-DDT	2.5	1.288439	5	1.097041	10	1.077681	20	1.028764	40	1.040116	80	1.031038
Endosulfan Sulfate	2.5	1.392626	5	1.261933	10	1.173566	20	1.100473	40	1.058592	80	1.063997
Endrin Ketone	2.5	1.68179	5	1.455715	10	1.451945	20	1.335234	40	1.248202	80	1.222163
Methoxychlor	12.5	0.6294013	25	0.5917494	50	0.5521783	100	0.5338884	200	0.5268664	400	0.5256014
Decachlorobiphenyl	2.5	1.159655	5	1.090706	10	1.045312	20	1.019603	40	0.9549323	80	0.9066017
Tetrachlorometaxylene	2.5	0.9867258	5	0.7814009	10	0.7855814	20	0.7364108	40	0.7349696	80	0.7217651

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (1):	STX-CLP

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RRF		RRF		RRF		RRF		RRF		RRF
alpha-BHC	80	1.591613										
beta-BHC	80	0.5557506										
gamma-BHC (Lindane)	80	1.375604										
delta-BHC	80	1.418321										
Heptachlor	80	1.428973										
Aldrin	80	1.320871										
Heptachlor Epoxide	80	1.103206										
trans-Chlordane (beta-Chlordane)	80	1.027993										
cis-Chlordane (alpha-chlordane)	80	0.9330596										
Endosulfan I	80	1.012131										
4,4'-DDE	160	1.044748										
Dieldrin	160	0.8844369										
Endrin	160	0.8492559										
Endosulfan II	160	1.006094										
4,4'-DDD	160	1.003012										
Endrin Aldehyde	160	0.8548647										
4,4'-DDT	160	1.033768										
Endosulfan Sulfate	160	1.047825										
Endrin Ketone	160	1.198254										
Methoxychlor	800	0.5262581										
Decachlorobiphenyl	160	0.8709875										
Tetrachlorometaxylene	160	0.7021513										

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (1):	STX-CLP

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
		RRF		RRF		RRF		RRF		RRF		RRF
Toxaphene					125	4.140829E-02	250	4.572191E-02	500	4.698091E-02	1000	4.818091E-02

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (1):	STX-CLP

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
		RRF		RRF		RRF		RRF		RRF		RRF
Toxaphene	2500	0.0474412	5000	0.0644872	10000	4.653054E-02						
Chlordane (NOS)							12.5	0.1262089	25	0.1196546	50	0.1264774

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (1):	STX-CLP

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
		RRF		RRF		RRF		RRF		RRF		RRF
Chlordane (NOS)	100	0.1235345	200	0.1168701	400	0.1185241	800	0.1218346				

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (1):	STX-CLP

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
alpha-BHC	1.551988	3.2			RSD (20)	
beta-BHC	0.6221788	7.6			RSD (20)	
gamma-BHC (Lindane)	1.372463	1.3			RSD (20)	
delta-BHC	1.378328	2.4			RSD (20)	
Heptachlor	1.485693	3.7			RSD (20)	
Aldrin	1.391514	4.7			RSD (20)	
Heptachlor Epoxide	1.255309	9.5			RSD (20)	
trans-Chlordane (beta-Chlordane)	1.227358	14.9			RSD (20)	
cis-Chlordane (alpha-chlordane)	1.151026	19.0			RSD (20)	
Endosulfan I	1.228958	15.3			RSD (20)	
4,4'-DDE	1.119472	7.0			RSD (20)	
Dieldrin	0.9822551	7.5			RSD (20)	
Endrin	0.9916642	11.5			RSD (20)	
Endosulfan II	1.092228	8.4			RSD (20)	
4,4'-DDD	1.036454	4.1			RSD (20)	
Endrin Aldehyde	0.9732162	12.5			RSD (20)	
4,4'-DDT	1.085264	8.6			RSD (20)	
Endosulfan Sulfate	1.157002	11.2			RSD (20)	
Endrin Ketone	1.370472	12.6			RSD (20)	
Methoxychlor	0.5551348	7.3			RSD (20)	
Toxaphene	4.867871E-02	15.0			RSD (20)	
Toxaphene	4.867871E-02	15.0			RSD (20)	
Chlordane (NOS)	0.121872	3.1			RSD (20)	
Decachlorobiphenyl	1.006828	10.2			RSD (20)	
Tetrachlorometaxylene	0.7784293	12.4			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (2):	STX-CLP2

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		RRF		RRF		RRF		RRF		RRF
alpha-BHC [2C]	1.25	1.657596	2.5	1.341542	5	1.350716	10	1.342164	20	1.389776	40	1.414055
beta-BHC [2C]	1.25	0.7747557	2.5	0.6955901	5	0.6646958	10	0.6280161	20	0.6036831	40	0.5884746
gamma-BHC (Lindane) [2C]	1.25	1.3506	2.5	1.263791	5	1.251919	10	1.237732	20	1.29124	40	1.269837
delta-BHC [2C]	1.25	1.326985	2.5	1.166052	5	1.168662	10	1.164914	20	1.18032	40	1.224586
Heptachlor [2C]	1.25	1.344242	2.5	1.207783	5	1.191915	10	1.160312	20	1.200182	40	1.173816
Aldrin [2C]	1.25	1.187565	2.5	1.097086	5	1.084725	10	1.052483	20	1.103093	40	1.086433
Heptachlor Epoxide [2C]	1.25	1.148964	2.5	1.005498	5	0.9673253	10	0.9286003	20	0.9515896	40	0.9280848
trans-Chlordane (beta-Chlordane) [2C]	1.25	1.107637	2.5	0.8199046	5	0.8070496	10	0.7848831	20	0.8100306	40	0.7952219
cis-Chlordane (alpha-chlordane) [2C]	1.25	0.8855649	2.5	0.7526957	5	0.7218642	10	0.7143669	20	0.7359674	40	0.7234504
Endosulfan I [2C]	1.25	0.8365182	2.5	0.7313909	5	0.7186882	10	0.7072441	20	0.7325095	40	0.7222574
4,4'-DDE [2C]	2.5	0.9398341	5	0.8618552	10	0.8629703	20	0.8538104	40	0.8731839	80	0.8487379
Dieldrin [2C]	2.5	0.695282	5	0.6338721	10	0.6304402	20	0.5982645	40	0.6225406	80	0.6143845
Endrin [2C]	2.5	1.225526	5	1.072534	10	1.001658	20	0.9313112	40	0.9198374	80	0.865821
Endosulfan II [2C]	2.5	1.61577	5	1.459237	10	1.401603	20	1.368822	40	1.349274	80	1.311471
4,4'-DDD [2C]	2.5	1.625125	5	1.51084	10	1.483897	20	1.459054	40	1.484267	80	1.467186
Endrin Aldehyde [2C]	2.5	1.50529	5	1.335689	10	1.280174	20	1.232525	40	1.182716	80	1.169515
4,4'-DDT [2C]	2.5	1.585923	5	1.449601	10	1.417258	20	1.39839	40	1.421658	80	1.403869
Endosulfan Sulfate [2C]	2.5	1.899543	5	1.62668	10	1.525316	20	1.42859	40	1.371117	80	1.365665
Endrin Ketone [2C]	2.5	1.995322	5	1.83609	10	1.757521	20	1.684846	40	1.627986	80	1.602915
Methoxychlor [2C]	12.5	0.8887404	25	0.7945185	50	0.7489496	100	0.7058148	200	0.6855832	400	0.6584819
Decachlorobiphenyl [2C]	2.5	1.42243	5	1.343397	10	1.286805	20	1.223934	40	1.140902	80	1.070767
Tetrachlorometaxylene [2C]	2.5	1.136929	5	0.9603624	10	0.952863	20	0.9146559	40	0.9402777	80	0.896461

INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (2):	STX-CLP2

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RRF		RRF		RRF		RRF		RRF		RRF
alpha-BHC [2C]	80	1.375407										
beta-BHC [2C]	80	0.5562095										
gamma-BHC (Lindane) [2C]	80	1.229714										
delta-BHC [2C]	80	1.202578										
Heptachlor [2C]	80	1.12695										
Aldrin [2C]	80	1.05121										
Heptachlor Epoxide [2C]	80	0.8902295										
trans-Chlordane (beta-Chlordane) [2C]	80	0.7692906										
cis-Chlordane (alpha-chlordane) [2C]	80	0.6985041										
Endosulfan I [2C]	80	0.6992958										
4,4'-DDE [2C]	160	0.7963566										
Dieldrin [2C]	160	0.5936626										
Endrin [2C]	160	0.8041288										
Endosulfan II [2C]	160	1.218085										
4,4'-DDD [2C]	160	1.383952										
Endrin Aldehyde [2C]	160	1.092849										
4,4'-DDT [2C]	160	1.343105										
Endosulfan Sulfate [2C]	160	1.274335										
Endrin Ketone [2C]	160	1.510292										
Methoxychlor [2C]	800	0.6142465										
Decachlorobiphenyl [2C]	160	0.9812805										
Tetrachlorometaxylene [2C]	160	0.844901										

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (2):	STX-CLP2

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
		RRF		RRF		RRF		RRF		RRF		RRF
Toxaphene [2C]					125	5.850485E-02	250	5.526173E-02	500	5.475211E-02	1000	0.0542462

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (2):	STX-CLP2

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
		RRF		RRF		RRF		RRF		RRF		RRF
Toxaphene [2C]	2500	4.963399E-02	5000	6.221784E-02	10000	4.404611E-02						
Chlordane (NOS) [2C]							12.5	7.853723E-02	25	6.891953E-02	50	6.540636E-02

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (2):	STX-CLP2

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
		RRF		RRF		RRF		RRF		RRF		RRF
Chlordane (NOS) [2C]	100	6.707186E-02	200	6.583239E-02	400	6.682415E-02	800	6.636982E-02				

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Calibration:	DC00017	Instrument:	ECD6
Calibration Date:	03/09/2020	Column (2):	STX-CLP2

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
alpha-BHC [2C]	1.410179	8.0			RSD (20)	
beta-BHC [2C]	0.6444893	11.5			RSD (20)	
gamma-BHC (Lindane) [2C]	1.27069	3.2			RSD (20)	
delta-BHC [2C]	1.204871	4.8			RSD (20)	
Heptachlor [2C]	1.200743	5.7			RSD (20)	
Aldrin [2C]	1.094656	4.2			RSD (20)	
Heptachlor Epoxide [2C]	0.9743274	8.7			RSD (20)	
trans-Chlordane (beta-Chlordane) [2C]	0.8420025	14.1			RSD (20)	
cis-Chlordane (alpha-chlordane) [2C]	0.7474877	8.5			RSD (20)	
Endosulfan I [2C]	0.7354149	6.3			RSD (20)	
4,4'-DDE [2C]	0.8623926	4.9			RSD (20)	
Dieldrin [2C]	0.6269209	5.4			RSD (20)	
Endrin [2C]	0.9744023	14.5			RSD (20)	
Endosulfan II [2C]	1.38918	9.0			RSD (20)	
4,4'-DDD [2C]	1.48776	4.9			RSD (20)	
Endrin Aldehyde [2C]	1.256965	10.7			RSD (20)	
4,4'-DDT [2C]	1.431401	5.3			RSD (20)	
Endosulfan Sulfate [2C]	1.498749	14.1			RSD (20)	
Endrin Ketone [2C]	1.716425	9.5			RSD (20)	
Methoxychlor [2C]	0.7280478	12.6			RSD (20)	
Toxaphene [2C]	5.409469E-02	10.9			RSD (20)	
Toxaphene [2C]	5.409469E-02	10.9			RSD (20)	
Chlordane (NOS) [2C]	6.842305E-02	6.7			RSD (20)	
Decachlorobiphenyl [2C]	1.209931	12.9			RSD (20)	
Tetrachlorometaxylene [2C]	0.9494929	9.6			RSD (20)	

Printed: 3/9/2020 3:01:52PM

ANALYSIS SEQUENCE

SIC0095

Instrument: ECD6 Element Column ID: e000312/f0048
Calibration ID: DC00017 Tune File:
EM Voltage:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIC0095-PEM1	DS1	QC		1	H006695	I001800	
SIC0095-CAL1	INDAA	QC		2	I001322	I001800	
SIC0095-CAL2	INDAB	QC		3	I001321	I001800	
SIC0095-CAL3	INDAC	QC		4	I001320	I001800	
SIC0095-CAL4	INDAD	QC		5	I001319	I001800	
SIC0095-CAL5	INDAE	QC		6	I001318	I001800	
SIC0095-CAL6	INDAF	QC		7	I001317	I001800	
SIC0095-CAL7	INDAG	QC		8	H010055	I001800	
SIC0095-SCV1	INDAESCV	QC		9	H006561	I001800	
SIC0095-CAL8	WNDA	QC		10	H007160	I001800	
SIC0095-CAL9	WNDB	QC		11	H007159	I001800	
SIC0095-CALA	WNDC	QC		12	H007158	I001800	
SIC0095-CALB	WNDD	QC		13	H007157	I001800	
SIC0095-CALC	WNDE	QC		14	H007156	I001800	
SIC0095-CALD	WNDF	QC		15	H007155	I001800	
SIC0095-CALE	WNDG	QC		16	H005926	I001800	
SIC0095-SCV2	WNDSCV	QC		17	I001323	I001800	
SIC0095-CALF	TOXAPH1	QC		18	H007166	I001800	
SIC0095-CALG	TOXAPH2	QC		19	H007165	I001800	
SIC0095-CALH	TOXAPH3	QC		20	H007164	I001800	
SIC0095-CALI	TOXAPH4	QC		21	H007163	I001800	
SIC0095-CALJ	TOXAPH5	QC		22	H007162	I001800	

ANALYSIS SEQUENCE

SIC0095

Instrument: ECD6 Element Column ID: e000312/f0048
Calibration ID: DC00017 Tune File:
EM Voltage:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIC0095-CALK	TOXAPH6	QC		23	H007161	I001800	
SIC0095-CALL	TOXAPH7	QC		24	H006563	I001800	
SIC0095-CALM	NOS1	QC		25	H007172	I001800	
SIC0095-CALN	NOS2	QC		26	H007171	I001800	
SIC0095-CALO	NOS3	QC		27	H007170	I001800	
SIC0095-CALP	NOS4	QC		28	H007169	I001800	
SIC0095-CALQ	NOS5	QC		29	H007168	I001800	
SIC0095-CALR	NOS6	QC		30	H007167	I001800	
SIC0095-CALS	NOS7	QC		31	H004000	I001800	

GC LOG SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200307.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	07-MAR-2020 09:51	20030705.D	1	SIC0095-PEM1	
2	07-MAR-2020 10:09	20030706.D	1	SIC0095-CAL1	
3	07-MAR-2020 10:27	20030707.D	1	SIC0095-CAL2	
4	07-MAR-2020 10:45	20030708.D	1	SIC0095-CAL3	
5	07-MAR-2020 11:03	20030709.D	1	SIC0095-CAL4	
6	07-MAR-2020 11:21	20030710.D	1	SIC0095-CAL5	
7	07-MAR-2020 11:39	20030711.D	1	SIC0095-CAL6	
8	07-MAR-2020 11:56	20030712.D	1	SIC0095-CAL7	
9	07-MAR-2020 12:14	20030713.D	1	SIC0095-SCV1	
10	07-MAR-2020 12:32	20030714.D	1	SIC0095-CAL8	
11	07-MAR-2020 12:50	20030715.D	1	SIC0095-CAL9	
12	07-MAR-2020 13:08	20030716.D	1	SIC0095-CALA	
13	07-MAR-2020 13:26	20030717.D	1	SIC0095-CALB	
14	07-MAR-2020 13:44	20030718.D	1	SIC0095-CALC	
15	07-MAR-2020 14:02	20030719.D	1	SIC0095-CALD	
16	07-MAR-2020 14:20	20030720.D	1	SIC0095-CALE	
17	07-MAR-2020 14:38	20030721.D	1	SIC0095-SCV2	
18	07-MAR-2020 14:56	20030722.D	1	SIC0095-CALF	
19	07-MAR-2020 15:14	20030723.D	1	SIC0095-CALG	
20	07-MAR-2020 15:32	20030724.D	1	SIC0095-CALH	
21	07-MAR-2020 15:49	20030725.D	1	SIC0095-CALI	
22	07-MAR-2020 16:07	20030726.D	1	SIC0095-CALJ	
23	07-MAR-2020 16:25	20030727.D	1	SIC0095-CALK	
24	07-MAR-2020 16:43	20030728.D	1	SIC0095-CALL	
25	07-MAR-2020 17:01	20030729.D	1	SIC0095-CALM	
26	07-MAR-2020 17:19	20030730.D	1	SIC0095-CALN	
27	07-MAR-2020 17:37	20030731.D	1	SIC0095-CALO	
28	07-MAR-2020 17:55	20030732.D	1	SIC0095-CALP	
29	07-MAR-2020 18:13	20030733.D	1	SIC0095-CALQ	
30	07-MAR-2020 18:30	20030734.D	1	SIC0095-CALR	
31	07-MAR-2020 18:48	20030735.D	1	SIC0095-CALS	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200307.b

ARI Job No.: SIC0 Method: PEST.m Instrument: ecd6.i Date: 07-MAR-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0951	20030705.D	SIC0095-PEM1		1	4,4'-DDE, Endrin, 4,4'-DDD,
1009	20030706.D	SIC0095-CAL1		1	Endrin aldehyde, Decachlorobiphenyl,
1027	20030707.D	SIC0095-CAL2		1	Decachlorobiphenyl,
1045	20030708.D	SIC0095-CAL3		1	Decachlorobiphenyl,
1103	20030709.D	SIC0095-CAL4		1	NO MANUAL INTEGRATION
1121	20030710.D	SIC0095-CAL5		1	NO MANUAL INTEGRATION
1139	20030711.D	SIC0095-CAL6		1	NO MANUAL INTEGRATION
1156	20030712.D	SIC0095-CAL7		1	NO MANUAL INTEGRATION
1214	20030713.D	SIC0095-SCV1		1	NO MANUAL INTEGRATION
1232	20030714.D	SIC0095-CAL8		1	Oxychlordane, 2,4-DDE, trans-Nonachlor, 2,4-DDD, 2,4-DDT, cis-Nonachlor, Mirex,
1250	20030715.D	SIC0095-CAL9		1	NO MANUAL INTEGRATION
1308	20030716.D	SIC0095-CALA		1	NO MANUAL INTEGRATION
1326	20030717.D	SIC0095-CALB		1	NO MANUAL INTEGRATION
1344	20030718.D	SIC0095-CALC		1	NO MANUAL INTEGRATION
1402	20030719.D	SIC0095-CALD		1	NO MANUAL INTEGRATION
1420	20030720.D	SIC0095-CALE		1	NO MANUAL INTEGRATION
1438	20030721.D	SIC0095-SCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200307.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1456	20030722.D	SIC0095-CALF		1	NO MANUAL INTEGRATION
1514	20030723.D	SIC0095-CALG		1	NO MANUAL INTEGRATION
1532	20030724.D	SIC0095-CALH		1	NO MANUAL INTEGRATION
1549	20030725.D	SIC0095-CALI		1	NO MANUAL INTEGRATION
1607	20030726.D	SIC0095-CALJ		1	NO MANUAL INTEGRATION
1625	20030727.D	SIC0095-CALK		1	NO MANUAL INTEGRATION
1643	20030728.D	SIC0095-CALL		1	Toxaphene,
1701	20030729.D	SIC0095-CALM		1	Chlordane (NOS),
1719	20030730.D	SIC0095-CALN		1	NO MANUAL INTEGRATION
1737	20030731.D	SIC0095-CALO		1	NO MANUAL INTEGRATION
1755	20030732.D	SIC0095-CALP		1	NO MANUAL INTEGRATION
1813	20030733.D	SIC0095-CALQ		1	NO MANUAL INTEGRATION
1830	20030734.D	SIC0095-CALR		1	NO MANUAL INTEGRATION
1848	20030735.D	SIC0095-CALS		1	Chlordane (NOS),

Security Status Report

Date: 09-Mar-2020 15:15

20030705.D	Data Locked	yev, 09-Mar-2020 15:15
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20030734.D	Data Locked	yev, 09-Mar-2020 15:15
20030735.D	Data Locked	yev, 09-Mar-2020 15:15

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-MAR-2020 10:09
End Cal Date : 07-MAR-2020 18:48
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m
Last Edit : 09-Mar-2020 12:04 ecd6.i
Curve Type : Average

Calibration File Names:
Level 1: \\Target\share\chem4\ecd6.i\20200307.b\20030729.D
Level 2: \\Target\share\chem4\ecd6.i\20200307.b\20030730.D
Level 3: \\Target\share\chem4\ecd6.i\20200307.b\20030731.D
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Level 5: \\Target\share\chem4\ecd6.i\20200307.b\20030733.D
Level 6: \\Target\share\chem4\ecd6.i\20200307.b\20030734.D
Level 7: \\Target\share\chem4\ecd6.i\20200307.b\20030735.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
1 Hexachlorobutadiene	2.73627	2.37654	2.05000	1.76507	1.77742	1.73514	1.67176	2.01603	19.915
5 Hexachlorobenzene	1.23205	1.17931	1.15877	1.06821	1.05811	0.99792	0.95823	1.09323	9.158
6 alpha-BHC	1.57644	1.48635	1.52216	1.49389	1.59932	1.59415	1.59161	1.55199	3.196
7 gamma-BHC (Lindane)	1.37975	1.37668	1.35173	1.34490	1.39935	1.37923	1.37560	1.37246	1.343

8 beta-BHC	+++++	0.66997	0.67484	0.63554	0.61025	0.58672		
	0.55575						0.62218	7.555
9 delta-BHC	1.36886	1.32219	1.37954	1.37090	1.36957	1.41891		
	1.41832						1.37833	2.410
10 Heptachlor	1.59241	1.50375	1.49292	1.44087	1.48952	1.45140		
	1.42897						1.48569	3.705
11 Aldrin	1.52527	1.40691	1.39707	1.35797	1.38311	1.34940		
	1.32087						1.39151	4.741

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-MAR-2020 10:09
End Cal Date : 07-MAR-2020 18:48
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m
Last Edit : 09-Mar-2020 12:04 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
12 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Heptachlor epoxide b	1.41422	1.28810	1.40163	1.21152	1.22468	1.14381	1.10321	1.25531	9.546
15 cis-Chlordane	1.56265	1.28107	1.19668	1.06397	1.04235	0.97740	0.93306	1.15103	18.951
16 trans-Chlordane	1.56047	1.29917	1.32643	1.16392	1.14556	1.06796	1.02799	1.22736	14.942
17 Endosulfan I	1.56446	1.29302	1.34771	1.13945	1.16360	1.08234	1.01213	1.22896	15.279
18 4,4'-DDE	1.27959	1.13431	1.12935	1.07287	1.10785	1.06760	1.04475	1.11947	6.971
19 Dieldrin	1.09723	1.00391	1.05008	0.95157	0.96509	0.92348			

	0.88444					0.98226	7.498	
20 Endrin	1.18845	1.05193	1.04702	0.96252	0.94749	0.89499		
	0.84926					0.99166	11.487	
21 4,4'-DDD	1.12426	1.03792	1.05268	1.00923	1.01647	1.01160		
	1.00301					1.03645	4.103	
22 Endosulfan II	1.26744	1.15664	1.09267	1.05806	1.02934	1.03535		
	1.00609					1.09223	8.410	

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-MAR-2020 10:09
End Cal Date : 07-MAR-2020 18:48
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m
Last Edit : 09-Mar-2020 12:04 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
23 4,4'-DDT	1.28844	1.09704	1.07768	1.02876	1.04012	1.03104	1.03377	1.08526	8.603
24 Endrin aldehyde	1.11606	1.14791	1.01895	0.91893	0.87775	0.87805	0.85486	0.97322	12.454
25 Methoxychlor	0.62940	0.59175	0.55218	0.53389	0.52687	0.52560	0.52626	0.55513	7.288
26 Endosulfan sulfate	1.39263	1.26193	1.17357	1.10047	1.05859	1.06400	1.04783	1.15700	11.172
27 Endrin ketone	1.68179	1.45571	1.45194	1.33523	1.24820	1.22216	1.19825	1.37047	12.592
29 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++			

	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
30 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-MAR-2020 10:09
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Last Edit : 09-Mar-2020 12:04 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
31 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		

	+++++						+++++	+++++
32 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
	+++++	+++++	+++++	+++++	+++++	+++++		
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
	+++++	+++++	+++++	+++++	+++++	+++++		
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Last Edit : 09-Mar-2020 12:04 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(6)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
33 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		

	+++++						+++++	+++++
34 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
	+++++	+++++	+++++	+++++	+++++	+++++		
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
	+++++	+++++	+++++	+++++	+++++	+++++		
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

ARI Labs, Inc.

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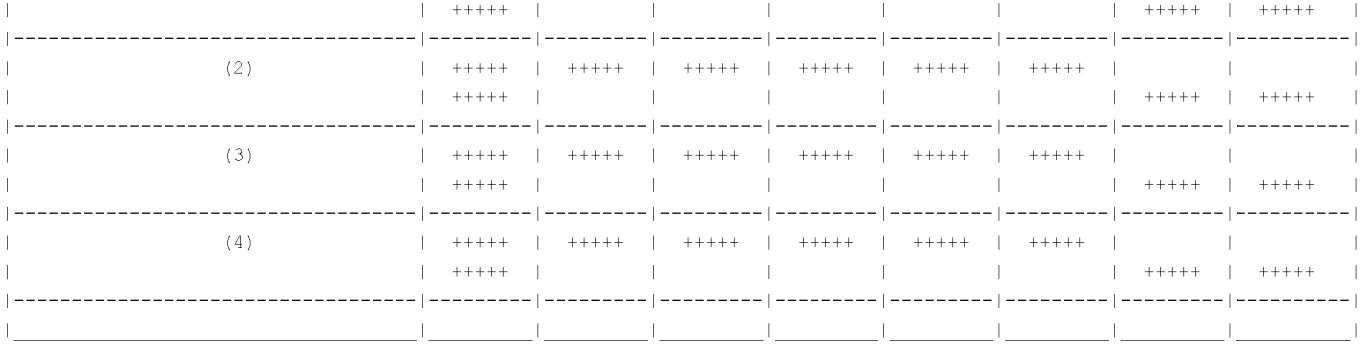
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
35 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
36 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		



ARI Labs, Inc.

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Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
37 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
38 Toxaphene(1)	0.04091	0.04359	0.04647	0.04690	0.04531	0.06114		
	0.04357						0.04684	14.146
(2)	0.06214	0.07091	0.06777	0.06892	0.06825	0.09246		

	0.06604					0.07093	13.930	
(3)	0.03040	0.03307	0.03603	0.03682	0.03416	0.04720		
	0.03483					0.03607	14.791	
(4)	0.04065	0.04560	0.04713	0.05110	0.05293	0.07210		
	0.05147					0.05157	19.365	
(5)	0.03294	0.03544	0.03751	0.03718	0.03655	0.04954		
	0.03674					0.03798	14.006	

ARI Labs, Inc.

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Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
39 2,4-DDE	0.86058	0.80435	0.77831	0.72286	0.70165	0.68868	0.64776	0.74346	9.971
40 2,4-DDD	0.76288	0.74716	0.75007	0.72145	0.64331	0.67593	0.66598	0.70954	6.675
41 2,4-DDT	0.85560	0.82716	0.80158	0.76815	0.75179	0.73379	0.73156	0.78138	6.140
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Oxychlordane	1.14815	1.06308	1.01644	0.95980	0.92544	0.89944	0.89358	0.98656	9.575
44 trans-Nonachlor	1.34433	1.01191	1.07423	1.00274	0.95727	0.92462	0.91583	1.03299	14.315
45 cis-Nonachlor	1.40621	1.30113	1.26007	1.19538	1.17810	1.14547	1.14298	1.23276	7.807
46 Mirex	1.10274	0.77404	0.77300	0.80725	0.76813	0.70847			

	0.68954					0.80331	17.206	
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
48 Chlordane (NOS)(1)	0.03996	0.03658	0.03730	0.03620	0.03569	0.03458		
	0.03573					0.03657	4.683	
(2)	0.12774	0.12168	0.12692	0.12414	0.12062	0.11926		
	0.12414					0.12350	2.564	

ARI Labs, Inc.

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Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m
Last Edit : 09-Mar-2020 12:04 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(3)	0.21093	0.20071	0.21522	0.21027	0.19430	0.20174		
	0.20564						0.20554	3.492
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		

	+++++						+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
$ 4 Tetrachloro-m-xylene	0.98673	0.78140	0.78558	0.73641	0.73497	0.72177		
	0.70215						0.77843	12.425

ARI Labs, Inc.

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Integrator : HP Genie
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m
Last Edit : 09-Mar-2020 12:04 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
$ 28 Decachlorobiphenyl	1.15966	1.09071	1.04531	1.01960	0.95493	0.90660	0.87099	1.00683	10.196

ARI Labs, Inc.

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Integrator : HP Genie
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m\PESTB.m
Last Edit : 09-Mar-2020 12:03 ecd6.i
Curve Type : Average

Calibration File Names:
Level 1: \\Target\share\chem4\ecd6.i\20200307.b\20200307.b\20030729.D
Level 2: \\Target\share\chem4\ecd6.i\20200307.b\20200307.b\20030730.D
Level 3: \\Target\share\chem4\ecd6.i\20200307.b\20200307.b\20030731.D
Level 4: \\Target\share\chem4\ecd6.i\20200307.b\20200307.b\20030732.D
Level 5: \\Target\share\chem4\ecd6.i\20200307.b\20200307.b\20030733.D
Level 6: \\Target\share\chem4\ecd6.i\20200307.b\20200307.b\20030734.D
Level 7: \\Target\share\chem4\ecd6.i\20200307.b\20200307.b\20030735.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
1 Hexachlorobutadiene [C]	1.94416	1.77511	1.56782	1.47662	1.52418	1.42463	1.36023	1.58182	13.085
5 Hexachlorobenzene [C]	1.31972	1.17132	1.12579	1.04865	1.03608	0.98034	0.91950	1.08591	12.255
6 alpha-BHC [C]	1.65760	1.34154	1.35072	1.34216	1.38978	1.41406	1.37541	1.41018	7.967
7 gamma-BHC (Lindane) [C]	1.35060	1.26379	1.25192	1.23773	1.29124	1.26984	1.22971	1.27069	3.209

8 beta-BHC [C]	0.77476	0.69559	0.66470	0.62802	0.60368	0.58847			
	0.55621						0.64449	11.482	
9 delta-BHC [C]	1.32698	1.16605	1.16866	1.16491	1.18032	1.22459			
	1.20258						1.20487	4.830	
10 Heptachlor [C]	1.34424	1.20778	1.19192	1.16031	1.20018	1.17382			
	1.12695						1.20074	5.742	
11 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	

ARI Labs, Inc.

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Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
12 Aldrin [C]	1.18757	1.09709	1.08472	1.05248	1.10309	1.08643		
	1.05121						1.09466	4.177
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
14 Heptachlor epoxide b [C]	1.14896	1.00550	0.96733	0.92860	0.95159	0.92808		
	0.89023						0.97433	8.723
15 cis-Chlordane [C]	0.88556	0.75270	0.72186	0.71437	0.73597	0.72345		
	0.69850						0.74749	8.453
16 trans-Chlordane [C]	1.10764	0.81990	0.80705	0.78488	0.81003	0.79522		
	0.76929						0.84200	14.055
17 Endosulfan I [C]	0.83652	0.73139	0.71869	0.70724	0.73251	0.72226		
	0.69930						0.73541	6.280
18 4,4'-DDE [C]	0.93983	0.86186	0.86297	0.85381	0.87318	0.84874		
	0.79636						0.86239	4.905
19 Dieldrin [C]	0.69528	0.63387	0.63044	0.59826	0.62254	0.61438		

	0.59366					0.62692	5.385	
20 Endrin [C]	1.22553	1.07253	1.00166	0.93131	0.91984	0.86582		
	0.80413					0.97440	14.456	
21 4,4'-DDD [C]	1.62513	1.51084	1.48390	1.45905	1.48427	1.46719		
	1.38395					1.48776	4.867	
22 Endosulfan II [C]	1.61577	1.45924	1.40160	1.36882	1.34927	1.31147		
	1.21808					1.38918	8.997	

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Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
23 4,4'-DDT [C]	1.58592	1.44960	1.41726	1.39839	1.42166	1.40387		
	1.34310						1.43140	5.270
24 Endrin aldehyde [C]	1.50529	1.33569	1.28017	1.23252	1.18272	1.16952		
	1.09285						1.25697	10.728
25 Endosulfan sulfate [C]	1.89954	1.62668	1.52532	1.42859	1.37112	1.36566		
	1.27434						1.49875	14.075
26 Methoxychlor [C]	0.88874	0.79452	0.74895	0.70581	0.68558	0.65848		
	0.61425						0.72805	12.634
27 Endrin ketone [C]	1.99532	1.83609	1.75752	1.68485	1.62799	1.60291		
	1.51029						1.71642	9.454
29 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		

	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
30 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

ARI Labs, Inc.

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Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
31 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		

	+++++						+++++	+++++
32 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
	+++++	+++++	+++++	+++++	+++++	+++++		
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
	+++++	+++++	+++++	+++++	+++++	+++++		
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

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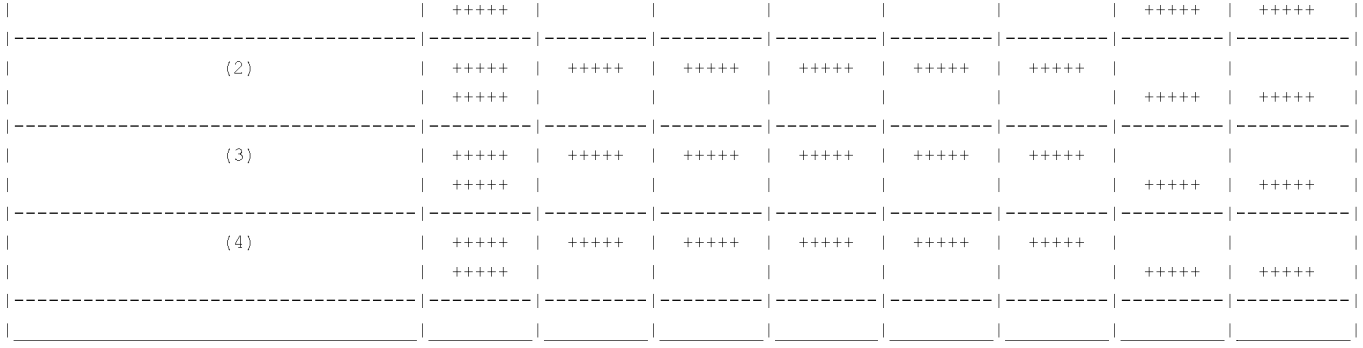
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m\PESTB.m
Last Edit : 09-Mar-2020 12:03 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
33 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
34 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		



ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-MAR-2020 10:09
End Cal Date : 07-MAR-2020 18:48
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m\PESTB.m
Last Edit : 09-Mar-2020 12:03 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
35 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
36 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		

	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-MAR-2020 10:09
End Cal Date : 07-MAR-2020 18:48
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m\PESTB.m
Last Edit : 09-Mar-2020 12:03 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
37 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
38 Toxaphene [C](1)	0.03592	0.03328	0.03336	0.03269	0.02377	0.03017		
	0.02168						0.03012	17.787
(2)	0.05569	0.05307	0.05266	0.05218	0.04872	0.05050		
	0.03556						0.04977	13.316
(3)	0.08787	0.08164	0.07984	0.07797	0.07218	0.09397		

	0.06595					0.07992	11.678	
(4)	0.06388	0.06145	0.06131	0.06154	0.05865	0.07710		
	0.05460					0.06265	11.201	
(5)	0.04917	0.04686	0.04659	0.04684	0.04486	0.05935		
	0.04244					0.04801	11.267	
39 2,4-DDE [C]	0.61276	0.57678	0.54707	0.51303	0.46892	0.45698		
	0.41894					0.51350	13.564	

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-MAR-2020 10:09
End Cal Date : 07-MAR-2020 18:48
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m\PESTB.m
Last Edit : 09-Mar-2020 12:03 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
40 2,4-DDD [C]	1.29661	1.18480	1.09228	1.02026	0.97629	0.94339		
	0.89004						1.05767	13.572
41 2,4-DDT [C]	1.14753	1.09981	1.05679	0.99604	0.96546	0.94412		
	0.90053						1.01575	8.754
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
43 Oxychlordane [C]	0.85492	0.78980	0.73263	0.71560	0.70971	0.68809		
	0.67757						0.73833	8.535
44 trans-Nonachlor [C]	1.25871	1.21021	1.18958	1.10856	1.08929	1.08028		
	1.05181						1.14121	6.823
45 cis-Nonachlor [C]	1.73330	1.66638	1.59972	1.52225	1.48375	1.44185		
	1.37667						1.54628	8.198
46 Mirex [C]	1.36483	1.24937	1.09015	1.06699	0.99200	0.94638		
	0.90338						1.08759	15.316
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++		

	+++++						+++++	+++++
48 Chlordane (NOS) [C](1)	0.03775	0.03450	0.03247	0.03074	0.02984	0.02976		
	0.02912						0.03203	9.797
(2)	0.09133	0.08558	0.08183	0.08317	0.08324	0.08494		
	0.08486						0.08499	3.626
(3)	0.10653	0.08667	0.08192	0.08731	0.08442	0.08577		
	0.08512						0.08825	9.345

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-MAR-2020 10:09
End Cal Date : 07-MAR-2020 18:48
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\Target\share\chem4\ecd6.i\20200307.b\PEST.m\PESTB.m
Last Edit : 09-Mar-2020 12:03 ecd6.i
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++			

	+++++						+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
$ 4 Tetrachloro-m-xylene [C]	1.13693	0.96036	0.95286	0.91466	0.94028	0.89646		
	0.84490						0.94949	9.644
$ 28 Decachlorobiphenyl [C]	1.42243	1.34340	1.28681	1.22393	1.14090	1.07077		
	0.98128						1.20993	12.870

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SIC0095-PEM1 InstID,Data File: ecd6.i, 20030705.D

Analysis Date: 07-MAR-2020 09:51 Init. Calib. Date: 07-MAR-2020

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.700	647
Endrin	7.267	162621
4,4'-DDD	7.328	4322
4,4'-DDT	7.617	168471
Endrin ketone	8.621	6996
Endrin aldehyde	7.911	6548

DDT Percent Breakdown = 2.9 %
((647+4322) * 100)/(647+4322+168471)

Endrin Percent Breakdown = 7.7 %
((6548+6996) * 100)/(6548+6996+162621)

GC Column: STX-CLP2 ID: 0.53(mm)

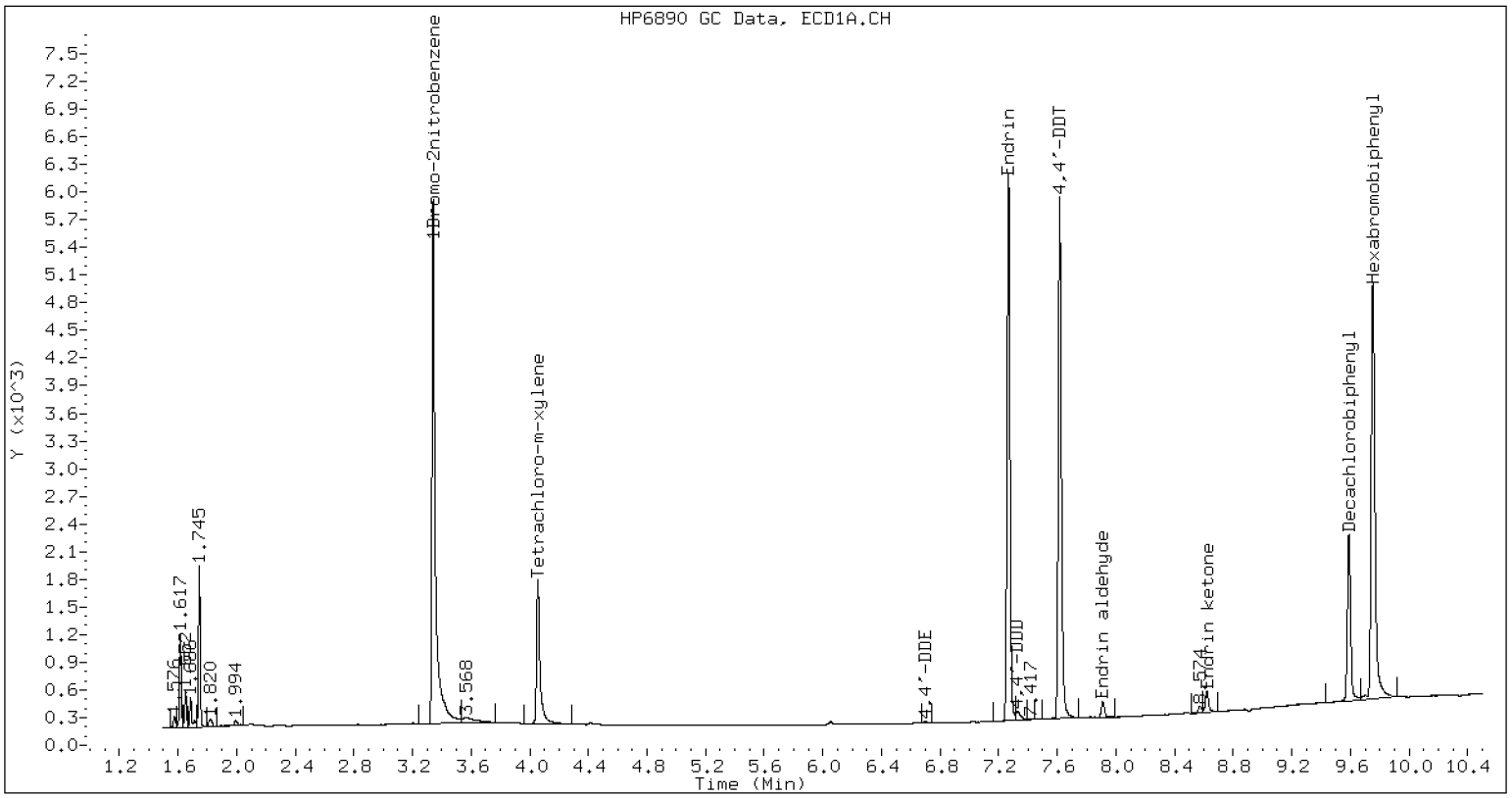
COMPOUND	RT	AREA
4,4'-DDE [C]	7.842	426
Endrin [C]	8.390	73551
4,4'-DDD [C]	8.439	5757
4,4'-DDT [C]	8.751	106577
Endrin ketone [C]	9.746	3740
Endrin aldehyde [C]	8.921	3097

DDT Percent Breakdown = 5.5 %
((426+5757) * 100)/(426+5757+106577)

Endrin Percent Breakdown = 8.5 %
((3097+3740) * 100)/(3097+3740+73551)

Form VII Pest-1

/20200307.b/20030705.D SIC0095-PEM1 STX-CLP 07-MAR-2020 09:51 1ul



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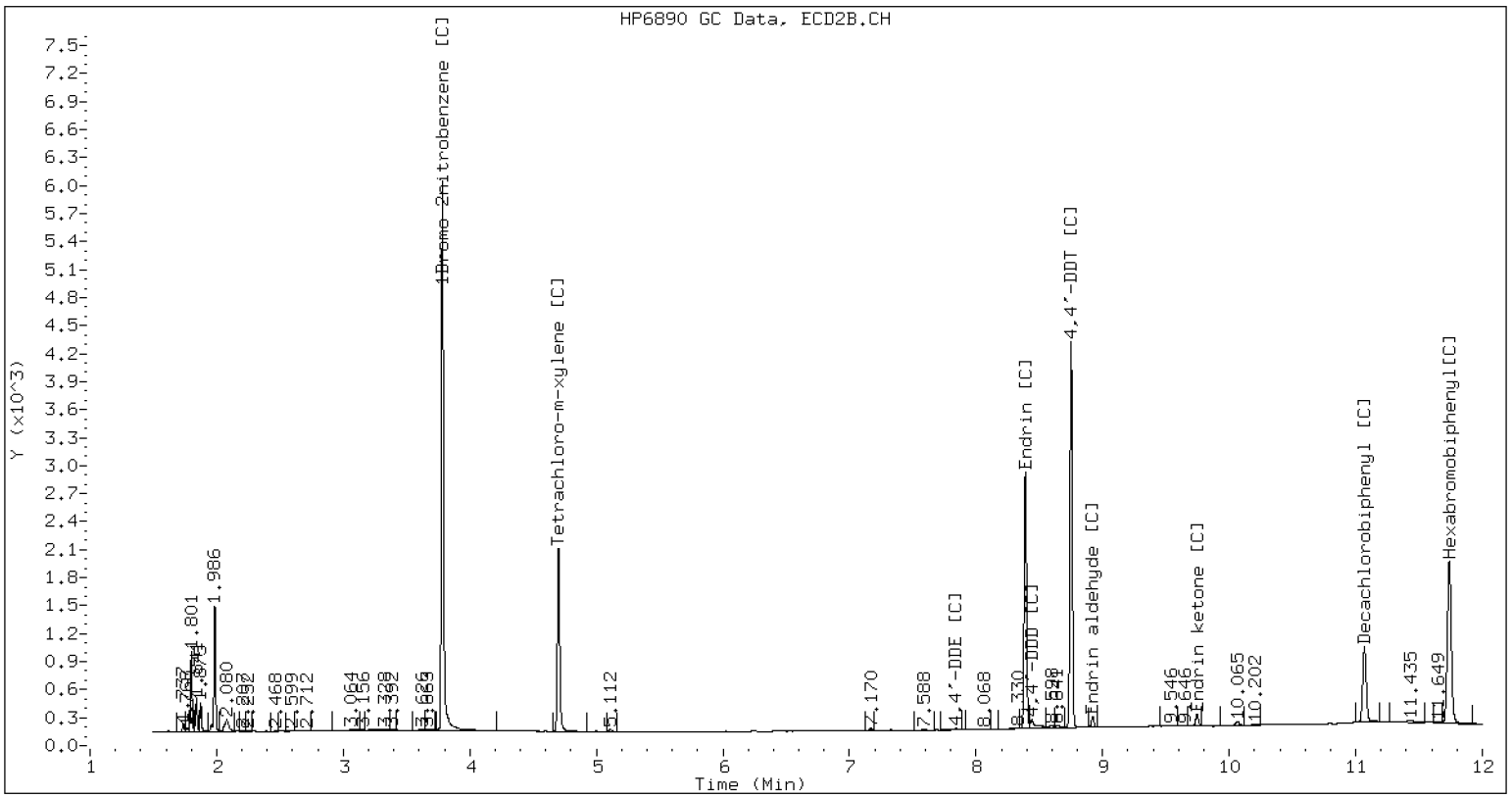
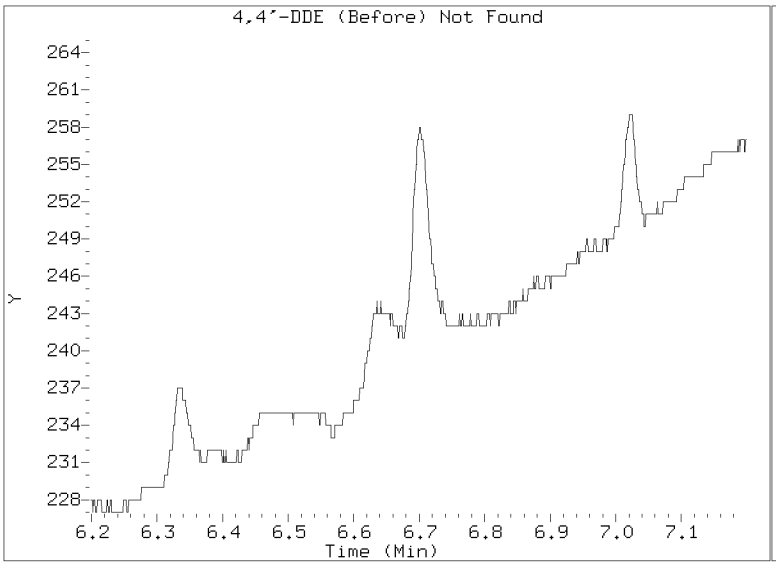
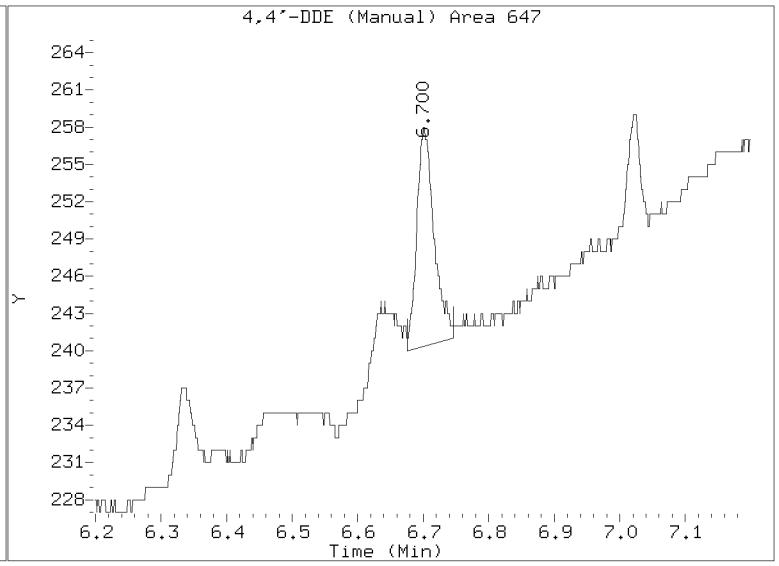
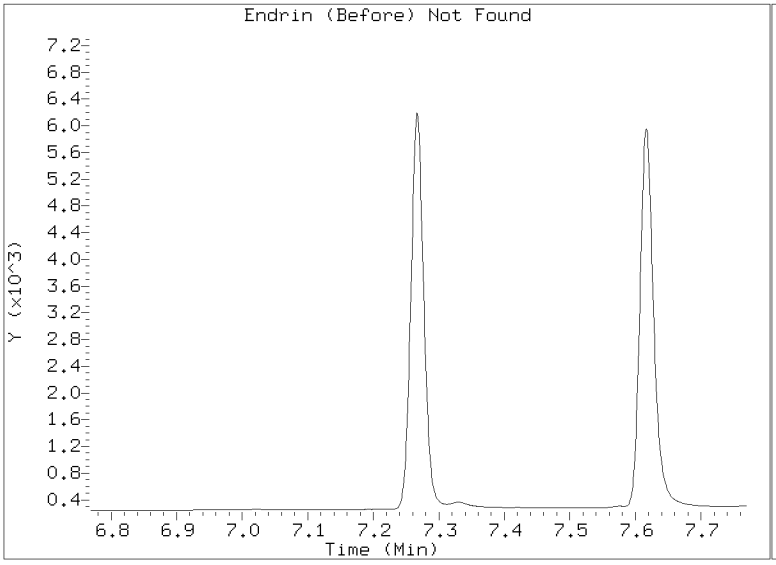


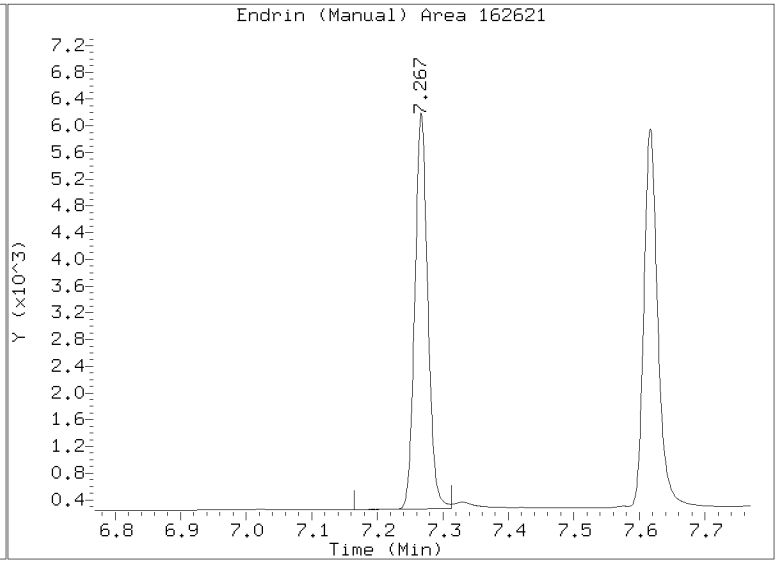
Manual Peak Adjustment Report, STX-CLP

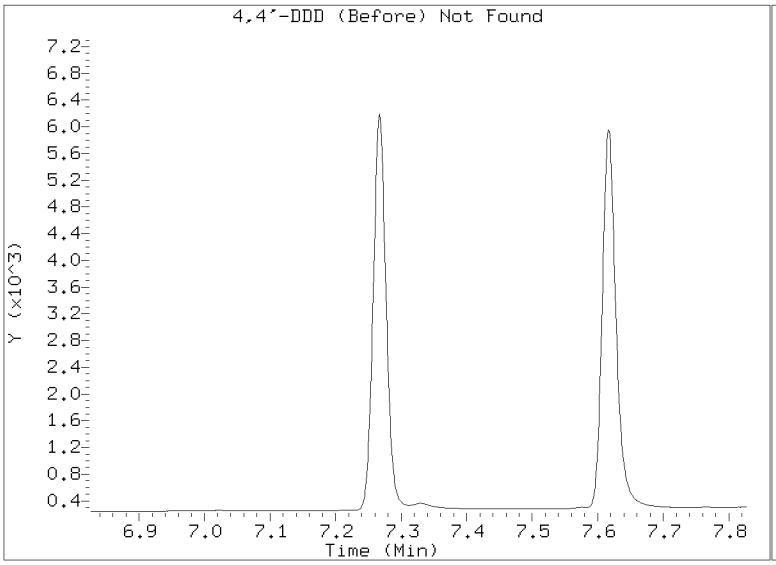
Datafile: /20200307.b/20030705.D
Injection Date: 07-MAR-2020 09:51
Lab ID:SIC0095-PEM1 Client ID:
Report Date: 03/09/2020 12:36

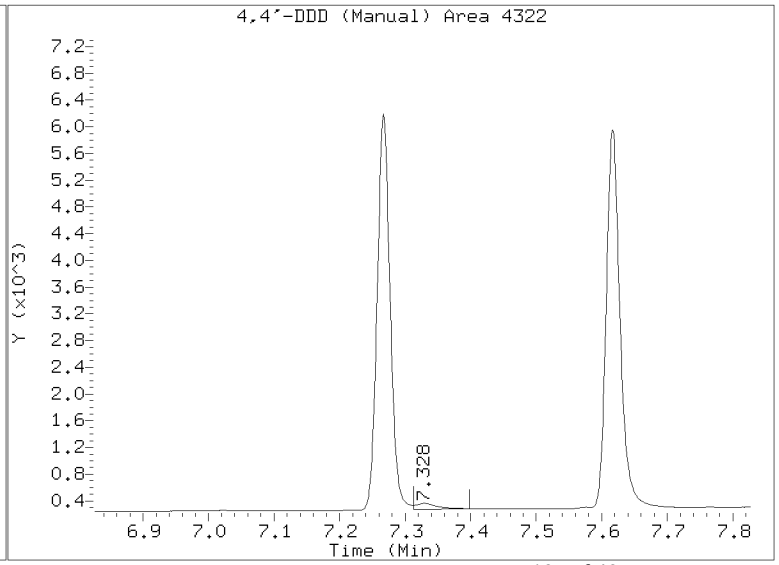












Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030706.D
Data file 2: /20200307.b/20200307.b/20030706.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CAL1
Client ID:
Injection Date: 07-MAR-2020 10:09
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.561	-0.000	4344	5.368	0.000	3650	1.27	1.47	14.6	alpha-BHC
----			5.873	0.003	1706	0.00	1.50	---	beta-BHC
5.138	0.005	3772	6.237	0.002	2922	1.24	1.38	10.3	delta-BHC
4.866	0.000	3802	5.787	0.001	2974	1.26	1.33	5.6	gamma-BHC (Lindane)
5.357	-0.002	4388	6.324	0.001	2960	1.34	1.40	4.4	Heptachlor
5.683	-0.001	4203	6.715	0.001	2615	1.37	1.36	1.0	Aldrin
6.337	-0.002	3897	7.345	0.000	2530	1.41	1.47	4.6	Heptachlor epoxide b
6.767	-0.002	4311	7.782	0.001	1842	1.59	1.42	11.2	Endosulfan I
7.022	-0.001	6047	8.068	0.001	3062	2.79	2.77	0.7	Dieldrin
6.700	0.001	7052	7.841	0.001	4139	2.86	2.72	4.8	4,4'-DDE
7.268	-0.002	5943	8.389	0.001	2751	3.00	3.14	4.8	Endrin
7.495	-0.001	6338	8.596	0.002	3627	2.90	2.91	0.2	Endosulfan II
7.330	0.003	5622	8.438	0.003	3648	2.71	2.73	0.7	4,4'-DDD
8.337	-0.001	6964	9.184	0.002	4264	3.01	3.17	5.2	Endosulfan sulfate
7.620	0.001	6443	8.751	0.002	3560	2.97	2.77	6.9	4,4'-DDT
8.103	0.001	15737	9.379	0.001	9975	14.17	15.26	7.4	Methoxychlor
8.621	-0.001	8410	9.746	0.002	4479	3.07	2.91	5.4	Endrin ketone
7.910	-0.001	5581	8.920	0.002	3379	2.87	2.99	4.3	Endrin aldehyde M
6.480	-0.002	4300	7.550	0.000	2439	1.59	1.64	3.4	trans-Chlordane
6.623	-0.001	4306	7.704	0.001	1950	1.70	1.48	13.6	cis-Chlordane
2.500	-0.001	7540	2.872	-0.002	4281	1.70	1.54	9.9	Hexachlorobutadiene
4.427	0.005	3395	5.231	0.002	2906	1.41	1.52	7.5	Hexachlorobenzene
4.060	0.004	5438	4.702	0.002	5007	3.17	2.99	5.7	Tetrachloro-m-xylene
9.587	-0.005	5799	11.068	0.002	3193	2.88	2.94	2.0	Decachlorobiphenyl MN

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	7.9	7.5	7.5~	115- 0
Decachlorobiphenyl	7.2	7.3	7.2~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

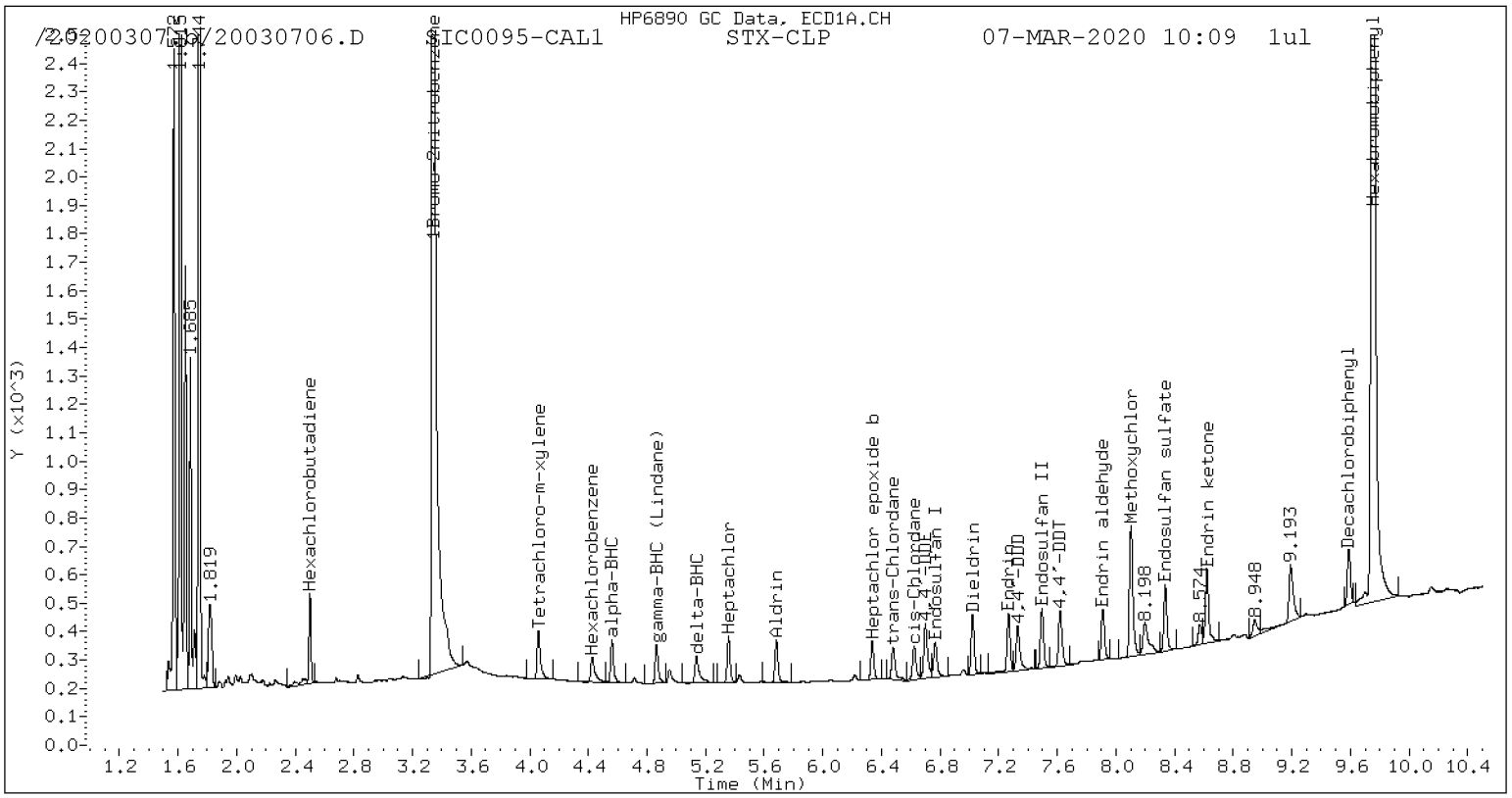
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	176357	-6.9
Hexabromobiphenyl	177311	160020	-9.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	140927	-5.6
Hexabromobiphenyl	80212	71832	-10.4

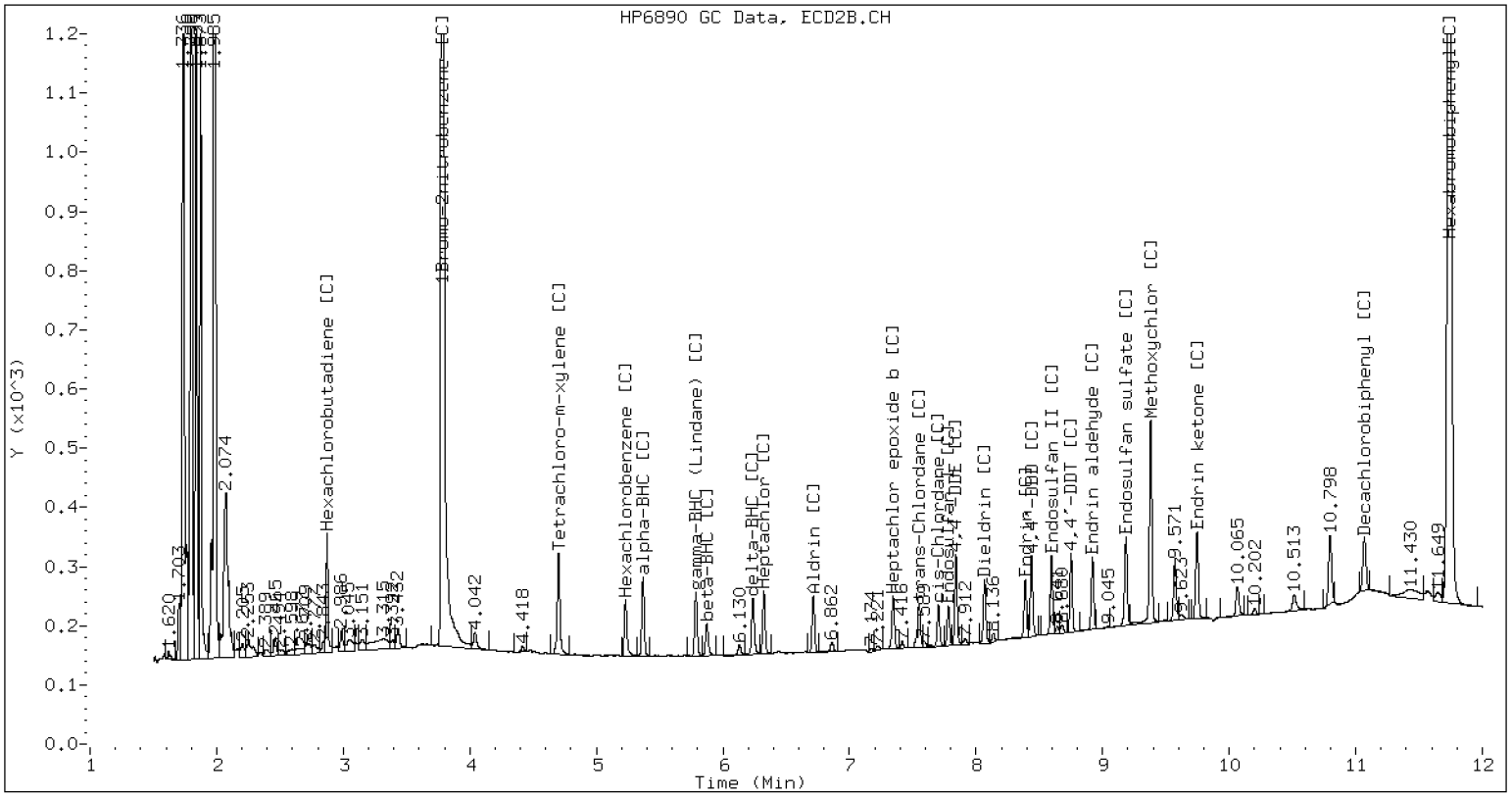
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

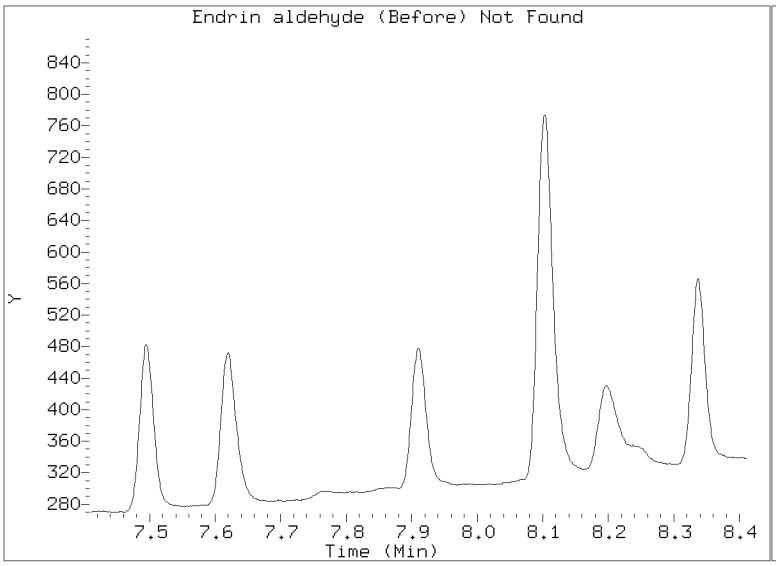
/20200307.b/20200307.b/20030706.D SIC0095-CAL1 CLP2

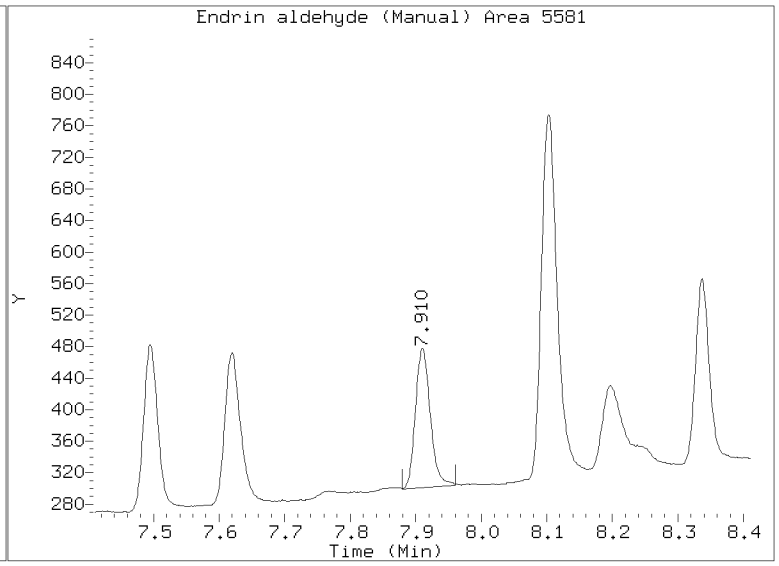


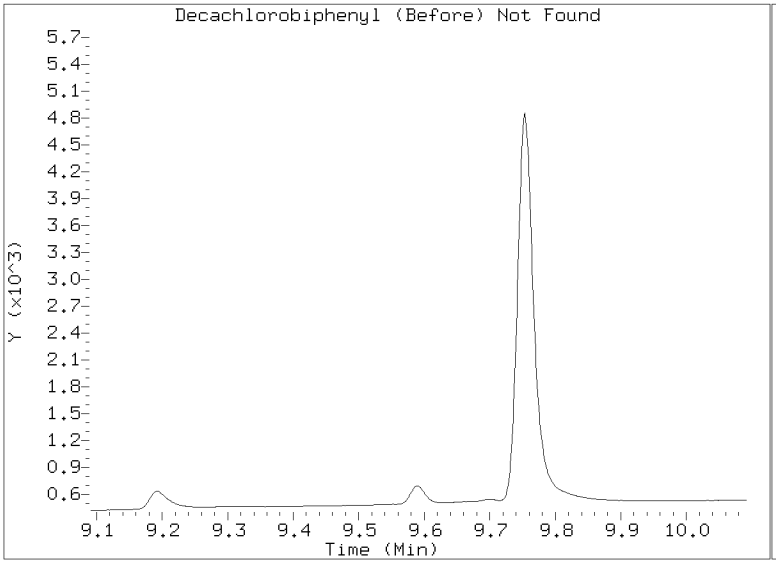
CLP-2 Manual Integration: YES

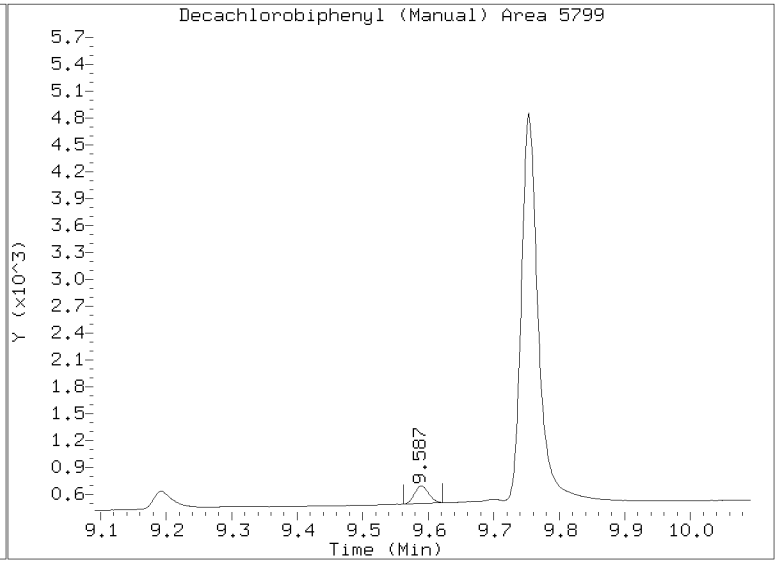
Manual Peak Adjustment Report, STX-CLP

Datafile: /20200307.b/20030706.D
Injection Date: 07-MAR-2020 10:09
Lab ID:SIC0095-CAL1 Client ID:
Report Date: 03/09/2020 12:23



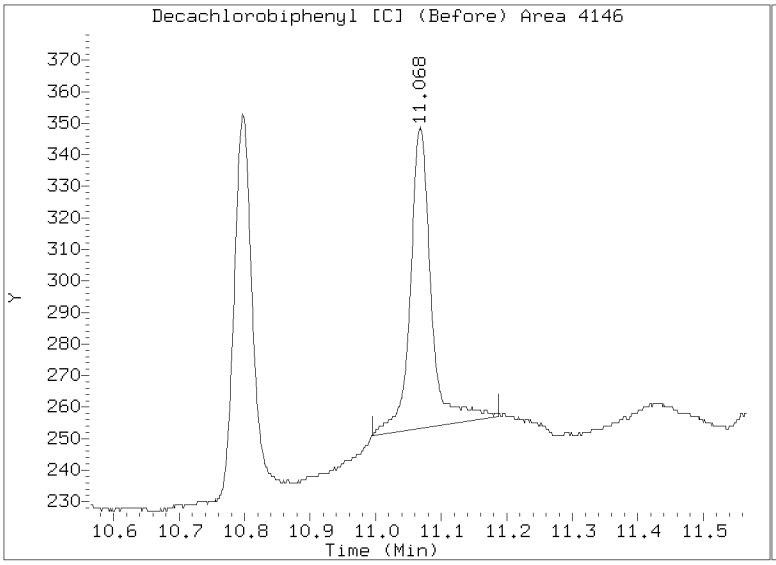


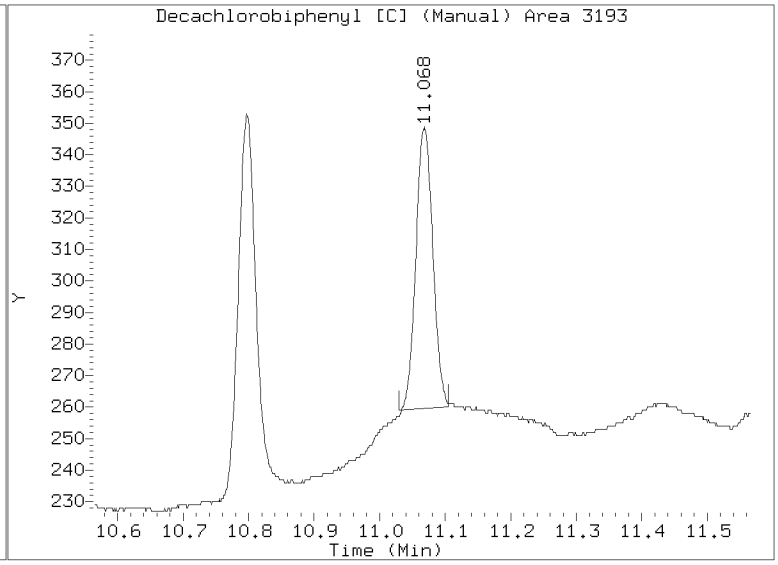




Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030706.D
Injection Date: 07-MAR-2020 10:09
Lab ID:SIC0095-CAL1 Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030707.D
Data file 2: /20200307.b/20200307.b/20030707.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CAL2
Client ID:
Injection Date: 07-MAR-2020 10:27
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.561	-0.001	8457	5.367	-0.000	6108	2.39	2.38	0.7	alpha-BHC
4.953	0.005	3812	5.873	0.003	3167	2.69	2.70	0.2	beta-BHC
5.137	0.004	7523	6.236	0.001	5309	2.40	2.42	0.9	delta-BHC
4.865	-0.000	7833	5.786	0.000	5754	2.51	2.49	0.9	gamma-BHC (Lindane)
5.357	-0.002	8556	6.324	0.000	5499	2.53	2.51	0.6	Heptachlor
5.683	-0.002	8005	6.714	0.000	4995	2.53	2.51	0.9	Aldrin
6.337	-0.002	7329	7.346	0.001	4578	2.57	2.58	0.6	Heptachlor epoxide b
6.767	-0.002	7357	7.782	0.001	3330	2.63	2.49	5.6	Endosulfan I
7.021	-0.002	11424	8.068	0.002	5772	5.11	5.06	1.1	Dieldrin
6.700	0.001	12908	7.842	0.002	7848	5.07	5.00	1.4	4,4'-DDE
7.268	-0.002	10960	8.389	0.001	5009	5.30	5.50	3.7	Endrin
7.495	-0.001	12051	8.596	0.002	6815	5.29	5.25	0.8	Endosulfan II
7.330	0.003	10814	8.438	0.003	7056	5.01	5.08	1.4	4,4'-DDD
8.338	-0.000	13148	9.184	0.002	7597	5.45	5.43	0.5	Endosulfan sulfate
7.619	0.000	11430	8.751	0.002	6770	5.05	5.06	0.2	4,4'-DDT
8.103	0.001	30827	9.380	0.002	18553	26.65	27.28	2.3	Methoxychlor
8.622	-0.001	15167	9.746	0.002	8575	5.31	5.35	0.7	Endrin ketone
7.910	-0.001	11960	8.920	0.002	6238	5.90	5.31	10.4	Endrin aldehyde
6.480	-0.002	7392	7.551	0.001	3733	2.65	2.43	8.3	trans-Chlordane
6.623	-0.002	7289	7.704	0.001	3427	2.78	2.52	10.0	cis-Chlordane
2.501	-0.001	13522	2.873	-0.001	8082	2.95	2.81	4.9	Hexachlorobutadiene
4.426	0.004	6710	5.230	0.002	5333	2.70	2.70	0.0	Hexachlorobenzene
4.058	0.003	8892	4.701	0.001	8745	5.02	5.06	0.8	Tetrachloro-m-xylene
9.591	-0.001	11364	11.069	0.002	6274	5.42	5.55	2.5	Decachlorobiphenyl MN

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	12.5	12.6	12.5~	115- 0
Decachlorobiphenyl	13.5	13.9	13.5~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

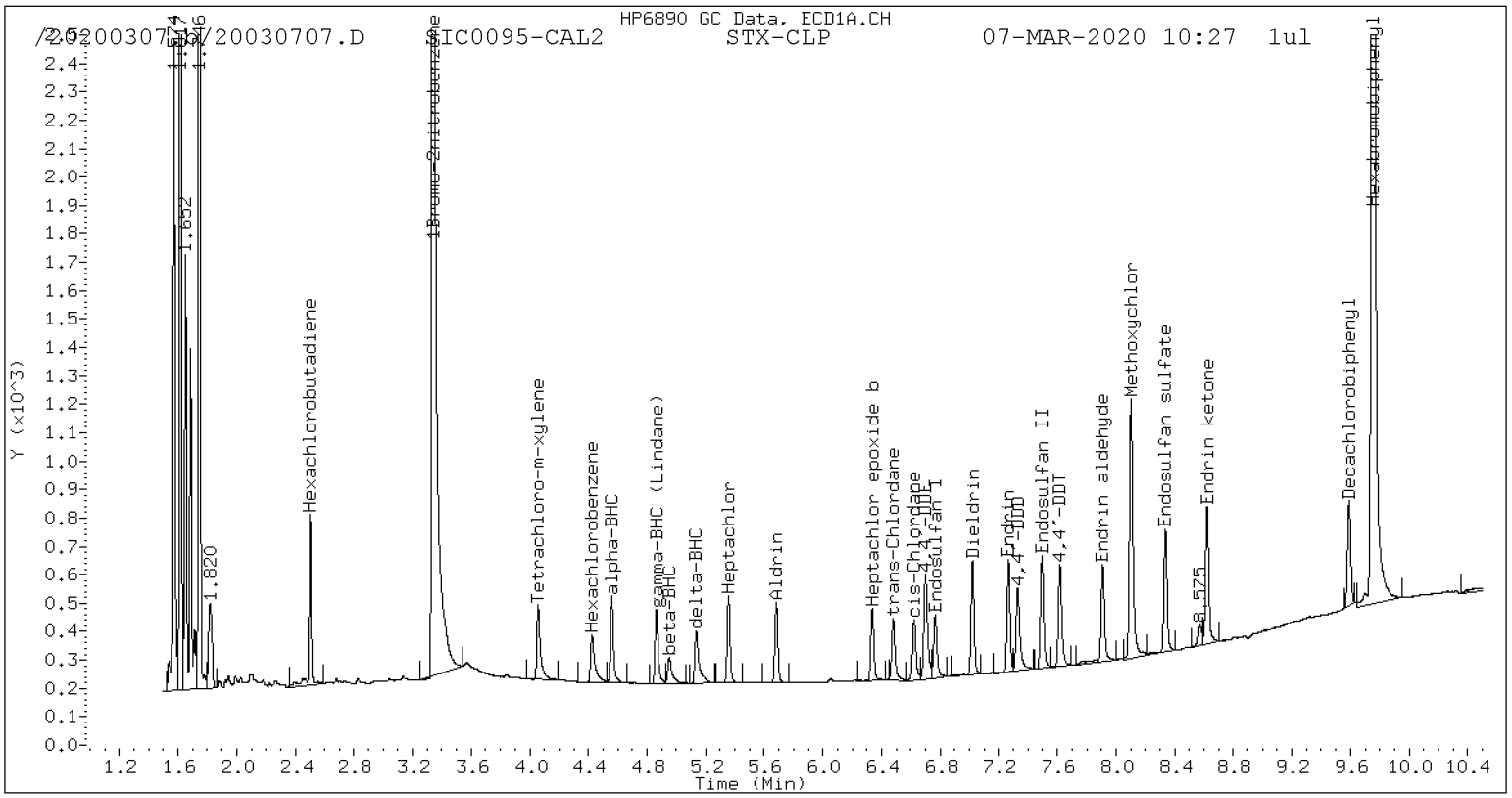
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	182073	-3.8
Hexabromobiphenyl	177311	166703	-6.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	145695	-2.4
Hexabromobiphenyl	80212	74724	-6.8

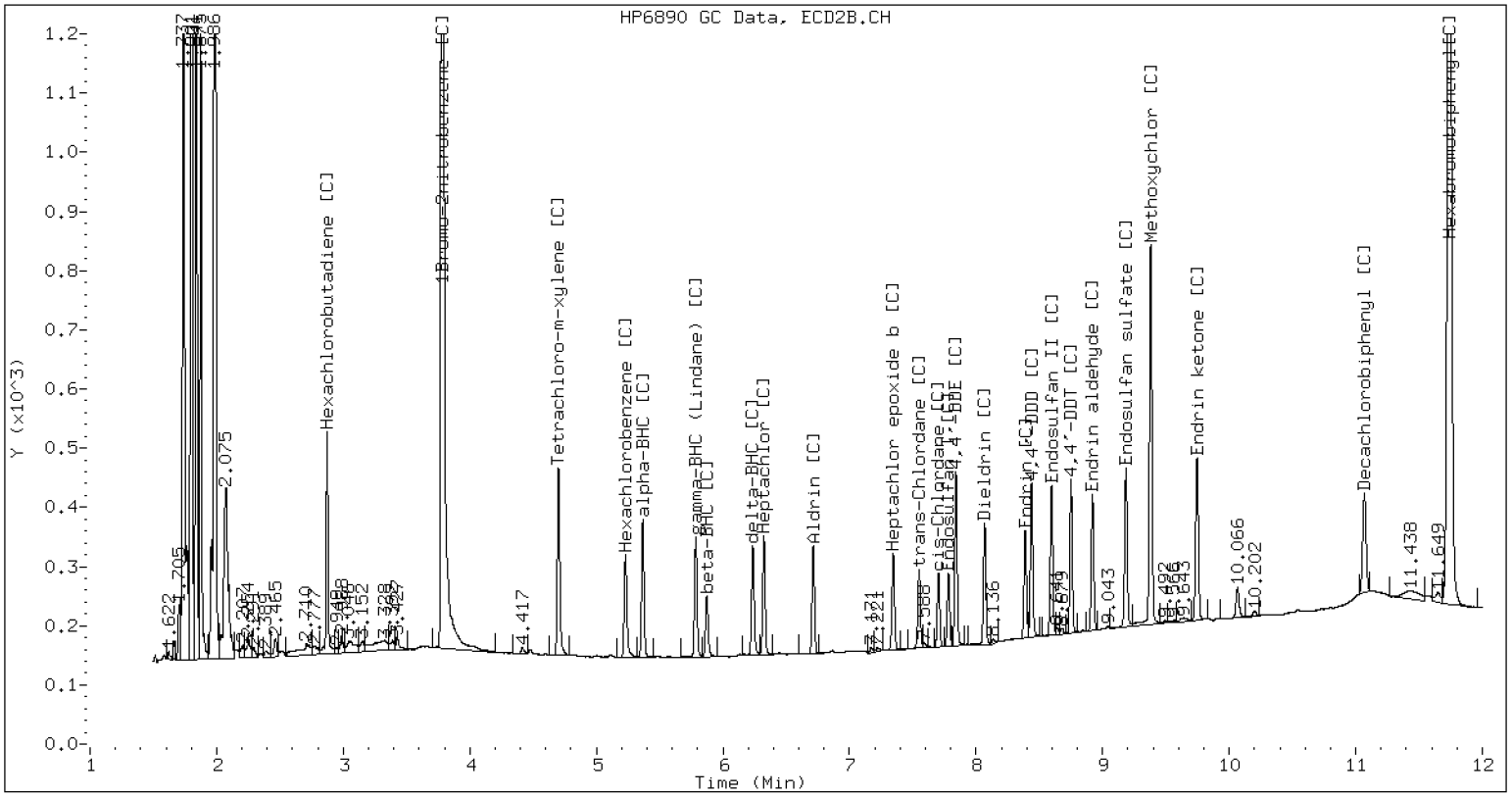
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

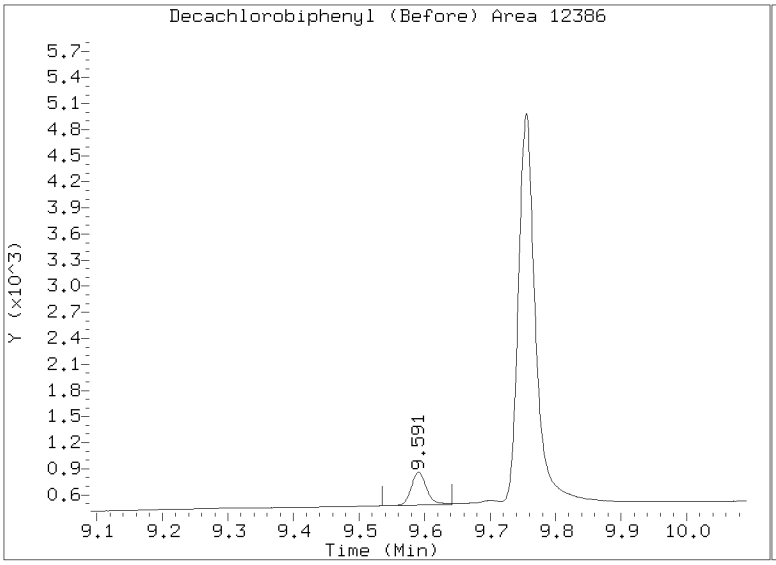
/20200307.b/20200307.b/20030707.D SIC0095-CAL2 CLP2

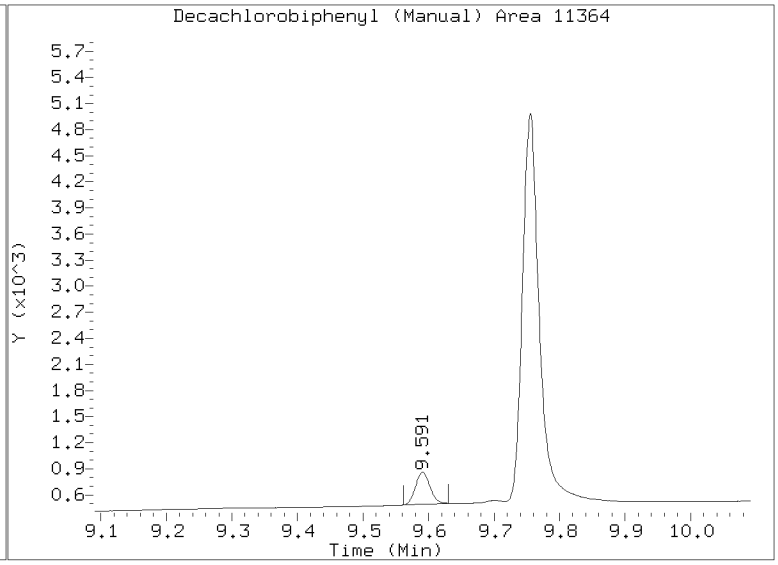


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, STX-CLP

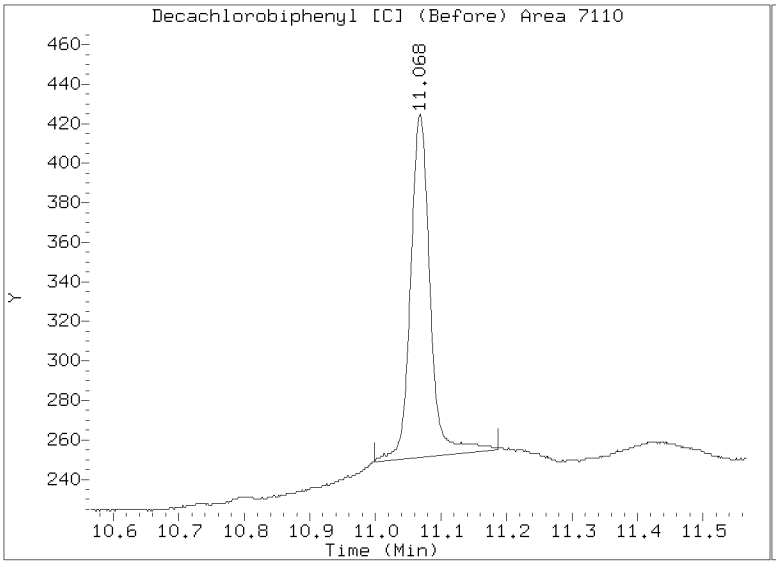
Datafile: /20200307.b/20030707.D
Injection Date: 07-MAR-2020 10:27
Lab ID:SIC0095-CAL2 Client ID:
Report Date: 03/09/2020 12:23

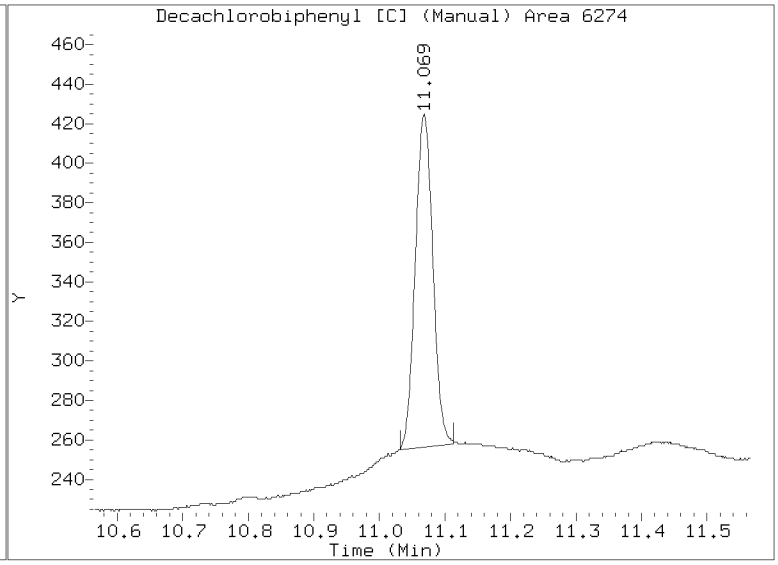




Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030707.D
Injection Date: 07-MAR-2020 10:27
Lab ID:SIC0095-CAL2 Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030708.D
Data file 2: /20200307.b/20200307.b/20030708.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CAL3
Client ID:
Injection Date: 07-MAR-2020 10:45
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.564	0.002	17023	5.371	0.003	11908	4.90	4.79	2.4	alpha-BHC
4.956	0.008	7547	5.875	0.005	5860	5.42	5.16	5.0	beta-BHC
5.140	0.007	15428	6.240	0.005	10303	5.00	4.85	3.1	delta-BHC
4.869	0.003	15117	5.789	0.004	11037	4.92	4.93	0.0	gamma-BHC (Lindane)
5.361	0.002	16696	6.327	0.004	10508	5.02	4.96	1.2	Heptachlor
5.688	0.003	15624	6.718	0.003	9563	5.02	4.95	1.3	Aldrin
6.342	0.003	15675	7.348	0.003	8528	5.58	4.96	11.7	Heptachlor epoxide b
6.772	0.003	15072	7.784	0.003	6336	5.48	4.89	11.5	Endosulfan I
7.026	0.003	23487	8.070	0.004	11116	10.69	10.06	6.1	Dieldrin
6.705	0.006	25260	7.844	0.004	15216	10.09	10.01	0.8	4,4'-DDE
7.272	0.003	21446	8.391	0.004	9214	10.56	10.28	2.7	Endrin
7.499	0.003	22381	8.599	0.004	12893	10.00	10.09	0.8	Endosulfan II
7.333	0.007	21562	8.440	0.005	13650	10.16	9.97	1.8	4,4'-DDD
8.341	0.004	24038	9.186	0.003	14031	10.14	10.18	0.3	Endosulfan sulfate
7.623	0.004	22074	8.753	0.004	13037	9.93	9.90	0.3	4,4'-DDT
8.106	0.004	56551	9.381	0.003	34447	49.73	51.44	3.4	Methoxychlor
8.625	0.003	29740	9.747	0.003	16167	10.59	10.24	3.4	Endrin ketone
7.914	0.003	20871	8.922	0.004	11776	10.47	10.18	2.8	Endrin aldehyde
6.484	0.003	14834	7.553	0.004	7115	5.40	4.79	12.0	trans-Chlordane
6.628	0.003	13383	7.706	0.004	6364	5.20	4.83	7.4	cis-Chlordane
2.503	0.001	22926	2.875	0.001	13822	5.08	4.96	2.6	Hexachlorobutadiene
4.429	0.007	12959	5.233	0.004	9925	5.30	5.18	2.2	Hexachlorobenzene
4.060	0.005	17571	4.704	0.004	16801	10.09	10.04	0.6	Tetrachloro-m-xylene
9.594	0.002	21411	11.068	0.002	11837	10.38	10.64	2.4	Decachlorobiphenyl MN

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	25.2	25.1	25.1~	115- 0
Decachlorobiphenyl	26.0	26.6	26.0~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

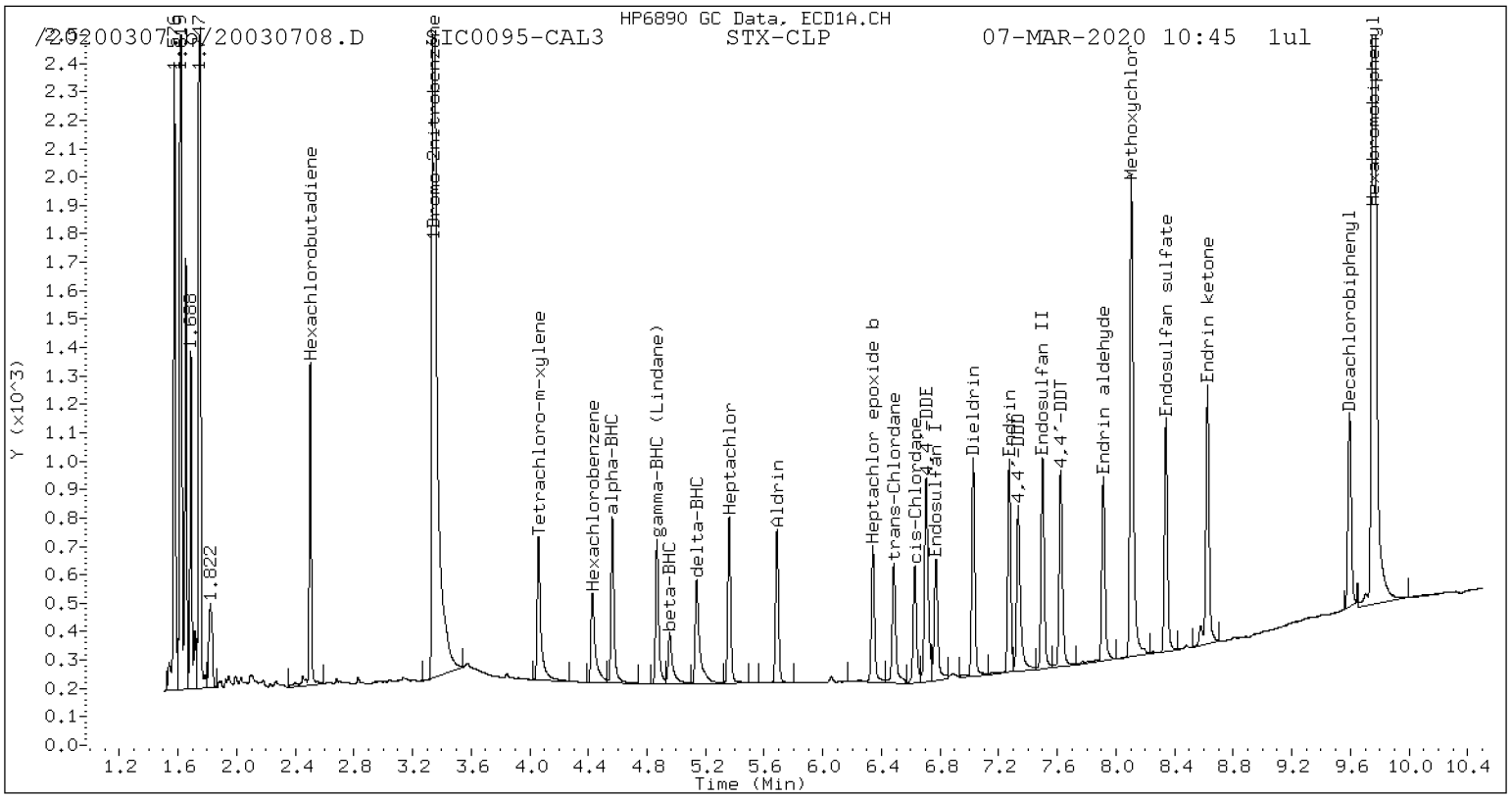
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	178935	-5.5
Hexabromobiphenyl	177311	163863	-7.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	141057	-5.5
Hexabromobiphenyl	80212	73590	-8.3

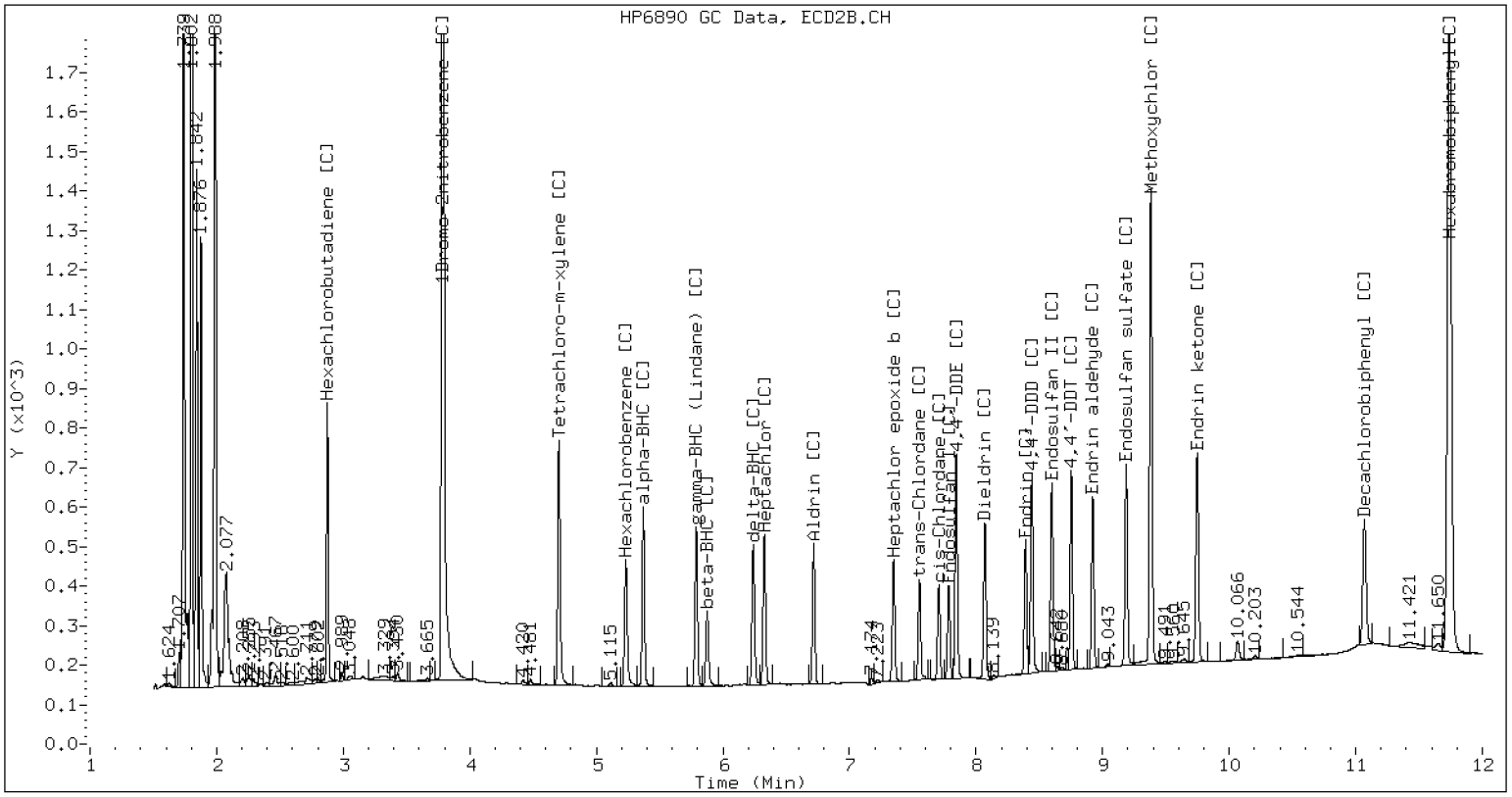
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

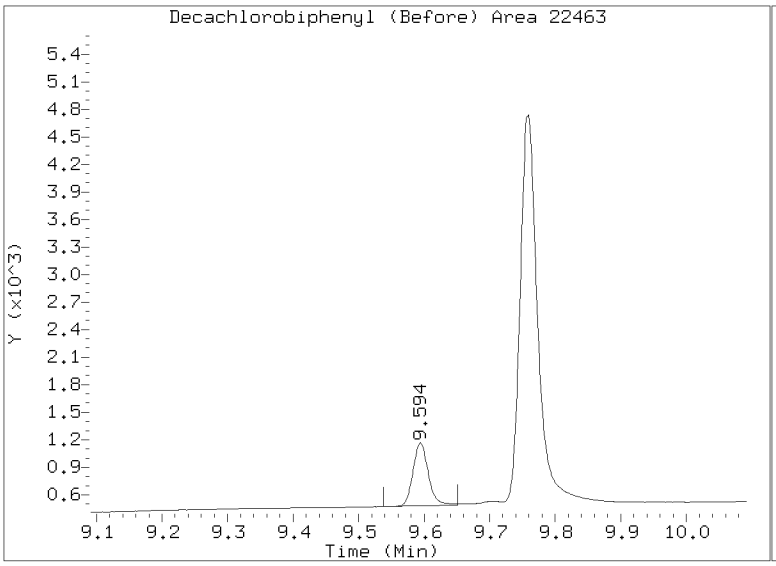
/20200307.b/20200307.b/20030708.D SIC0095-CAL3 CLP2

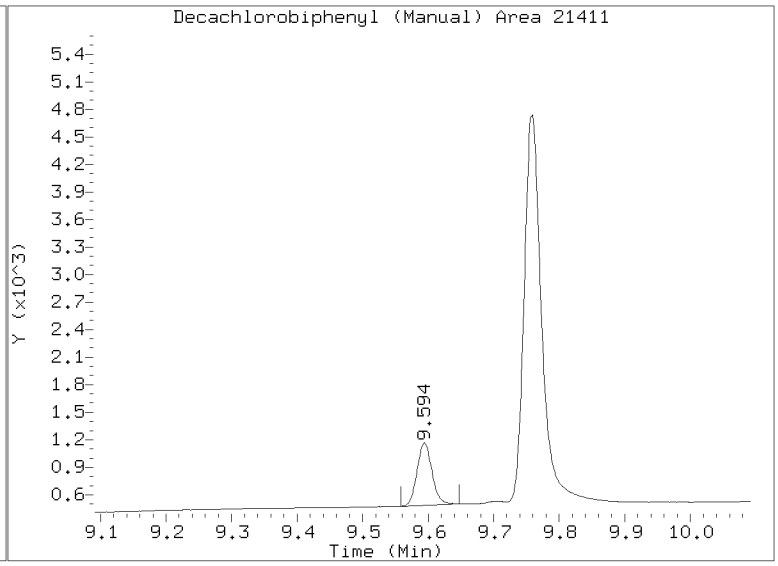


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, STX-CLP

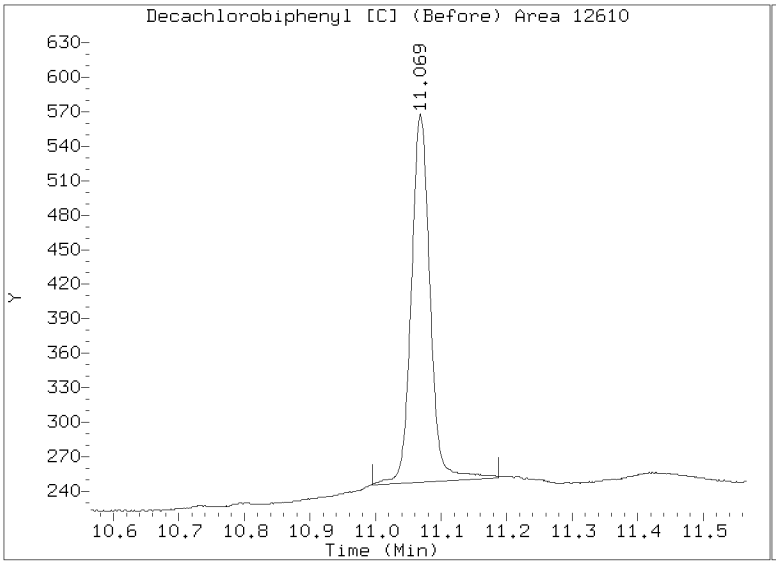
Datafile: /20200307.b/20030708.D
Injection Date: 07-MAR-2020 10:45
Lab ID:SIC0095-CAL3 Client ID:
Report Date: 03/09/2020 12:23

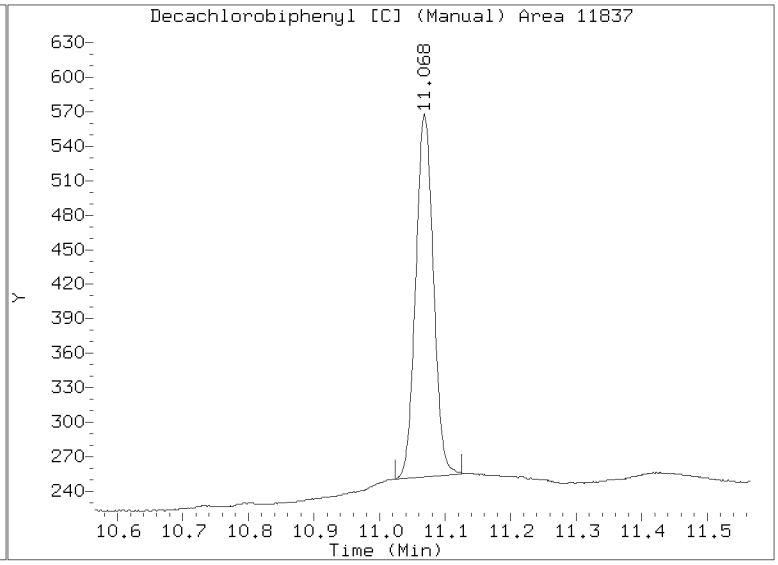




Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030708.D
Injection Date: 07-MAR-2020 10:45
Lab ID:SIC0095-CAL3 Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030709.D
Data file 2: /20200307.b/20200307.b/20030709.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CAL4
Client ID:
Injection Date: 07-MAR-2020 11:03
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.562	0.000	34182	5.368	0.001	24496	9.63	9.52	1.1	alpha-BHC
4.953	0.004	14542	5.872	0.002	11462	10.21	9.74	4.7	beta-BHC
5.137	0.003	31368	6.237	0.002	21261	9.95	9.67	2.8	delta-BHC
4.866	0.001	30773	5.786	0.001	22590	9.80	9.74	0.6	gamma-BHC (Lindane)
5.358	-0.001	32969	6.325	0.001	21177	9.70	9.66	0.4	Heptachlor
5.684	-0.001	31072	6.715	0.001	19209	9.76	9.61	1.5	Aldrin
6.339	-0.001	27721	7.346	0.001	16948	9.65	9.53	1.3	Heptachlor epoxide b
6.769	-0.000	26072	7.782	0.001	12908	9.27	9.62	3.7	Endosulfan I
7.024	0.000	43546	8.068	0.001	21838	19.38	19.09	1.5	Dieldrin
6.702	0.002	49097	7.841	0.001	31166	19.17	19.80	3.3	4,4'-DDE
7.269	-0.000	40348	8.389	0.001	17670	19.41	19.12	1.5	Endrin
7.497	0.001	44353	8.596	0.001	25971	19.37	19.71	1.7	Endosulfan II
7.330	0.003	42306	8.437	0.002	27683	19.47	19.61	0.7	4,4'-DDD
8.339	0.002	46131	9.184	0.001	27105	19.02	19.06	0.2	Endosulfan sulfate
7.621	0.002	43125	8.750	0.002	26532	18.96	19.54	3.0	4,4'-DDT
8.104	0.003	111901	9.379	0.001	66958	96.17	96.95	0.8	Methoxychlor
8.624	0.001	55972	9.745	0.001	31967	19.49	19.63	0.7	Endrin ketone
7.912	0.001	38521	8.919	0.001	23385	18.88	19.61	3.8	Endrin aldehyde
6.481	-0.001	26632	7.551	0.001	14325	9.48	9.32	1.7	trans-Chlordane
6.625	0.000	24345	7.704	0.001	13038	9.24	9.56	3.3	cis-Chlordane
2.502	-0.000	40387	2.874	-0.000	26950	8.76	9.33	6.4	Hexachlorobutadiene
4.425	0.003	24442	5.230	0.002	19139	9.77	9.66	1.2	Hexachlorobenzene
4.057	0.002	33700	4.701	0.002	33387	18.92	19.27	1.8	Tetrachloro-m-xylene
9.593	0.001	42741	11.067	0.001	23222	20.25	20.23	0.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	47.3	48.2	47.3~	115- 0
Decachlorobiphenyl	50.6	50.6	50.6~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

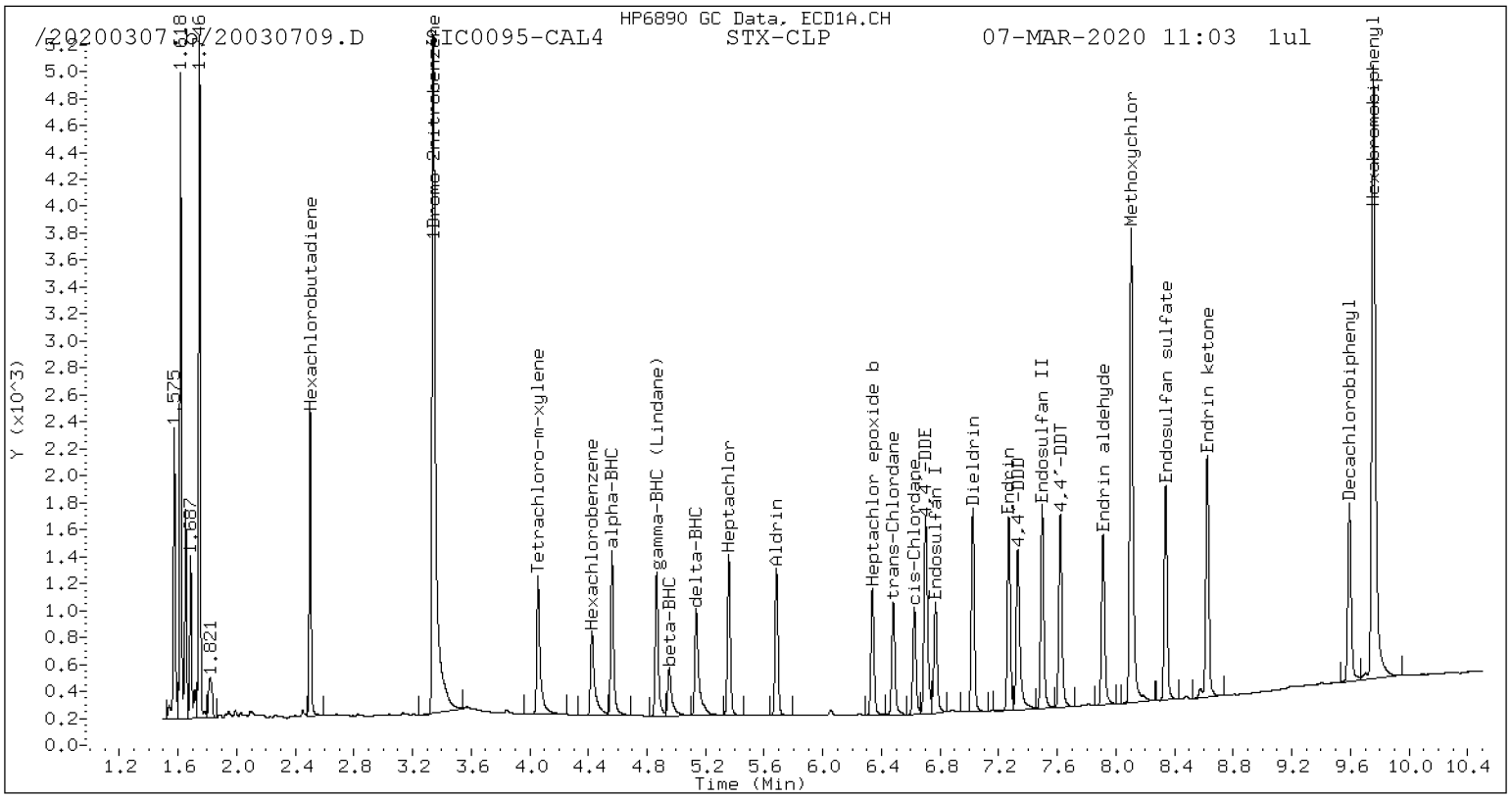
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	183050	-3.3
Hexabromobiphenyl	177311	167677	-5.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	146009	-2.2
Hexabromobiphenyl	80212	75893	-5.4

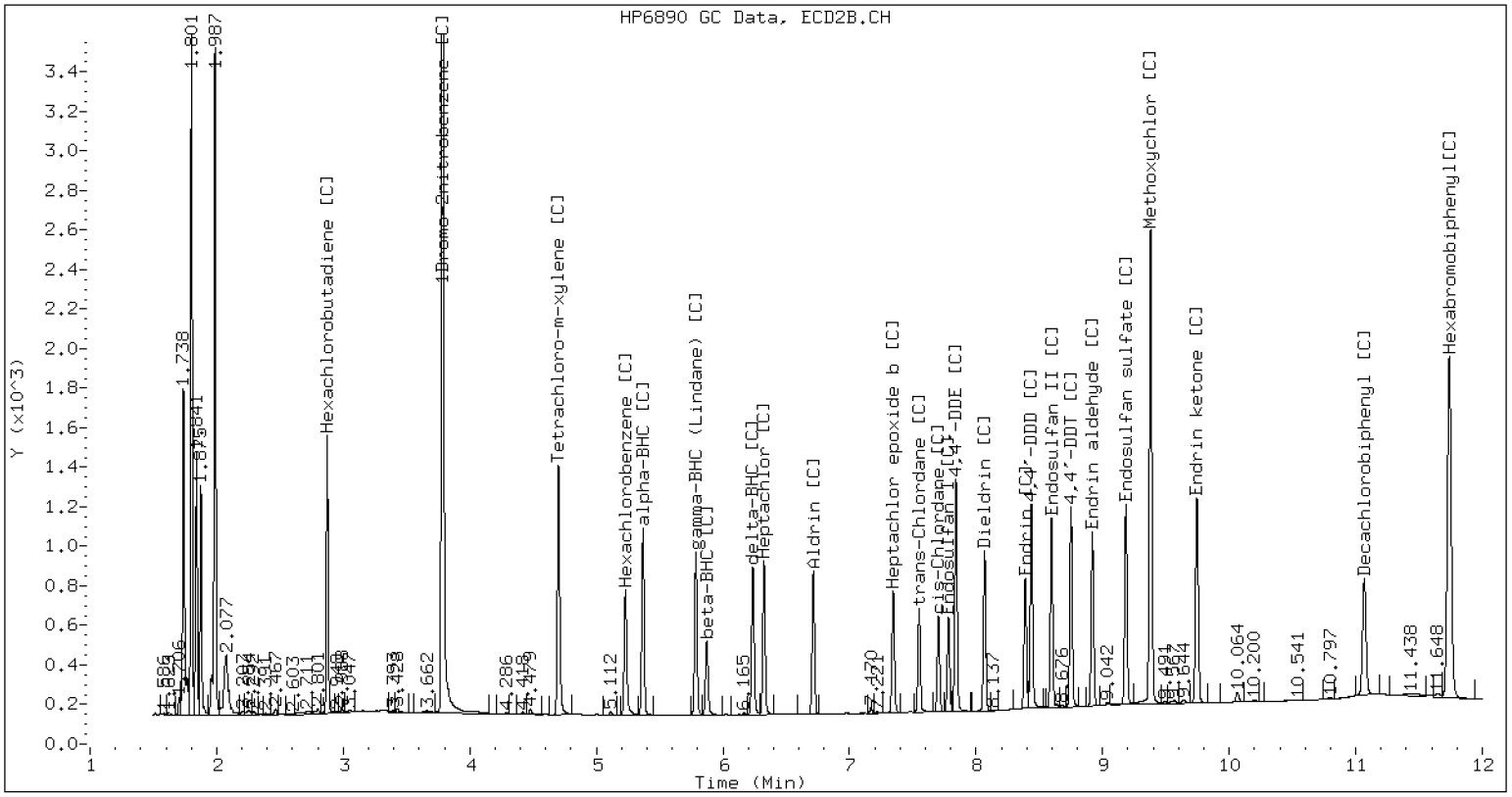
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030709.D SIC0095-CAL4 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030710.D
Data file 2: /20200307.b/20200307.b/20030710.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CAL5
Client ID:
Injection Date: 07-MAR-2020 11:21
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.562	-0.000	75701	5.368	0.000	51847	20.61	19.71	4.5	alpha-BHC
4.951	0.003	28885	5.872	0.002	22521	19.62	18.73	4.6	beta-BHC
5.136	0.003	64826	6.236	0.001	44033	19.87	19.59	1.4	delta-BHC
4.866	0.001	66236	5.786	0.001	48171	20.39	20.32	0.3	gamma-BHC (Lindane)
5.358	-0.001	70504	6.325	0.001	44774	20.05	19.99	0.3	Heptachlor
5.684	-0.001	65467	6.715	0.001	41152	19.88	20.15	1.4	Aldrin
6.339	-0.000	57968	7.345	0.000	35500	19.51	19.53	0.1	Heptachlor epoxide b
6.769	-0.000	55077	7.781	0.000	27327	18.94	19.92	5.1	Endosulfan I
7.023	-0.000	91362	8.067	0.001	46449	39.30	39.72	1.1	Dieldrin
6.701	0.001	104876	7.841	0.001	65150	39.58	40.50	2.3	4,4'-DDE
7.269	-0.000	84000	8.388	0.001	36891	38.22	37.76	1.2	Endrin
7.497	0.000	91257	8.596	0.001	54114	37.70	38.85	3.0	Endosulfan II
7.329	0.002	90116	8.437	0.001	59528	39.23	39.91	1.7	4,4'-DDD
8.339	0.001	93850	9.183	0.000	54990	36.60	36.59	0.0	Endosulfan sulfate
7.619	0.000	92212	8.750	0.001	57017	38.34	39.73	3.6	4,4'-DDT
8.103	0.001	233548	9.378	-0.000	137480	189.82	188.33	0.8	Methoxychlor
8.623	0.000	110660	9.744	0.000	65292	36.43	37.94	4.1	Endrin ketone
7.911	0.001	77817	8.919	0.000	47434	36.08	37.64	4.2	Endrin aldehyde
6.481	-0.000	54223	7.550	0.000	30219	18.67	19.24	3.0	trans-Chlordane
6.625	-0.000	49338	7.703	0.001	27456	18.11	19.69	8.4	cis-Chlordane
2.502	0.000	84131	2.874	-0.000	56861	17.63	19.27	8.9	Hexachlorobutadiene
4.424	0.002	50084	5.229	0.001	38652	19.36	19.08	1.4	Hexachlorobenzene
4.057	0.002	69577	4.701	0.001	70156	37.77	39.61	4.8	Tetrachloro-m-xylene
9.592	0.001	84660	11.066	-0.000	45757	37.94	37.72	0.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	94.4	99.0	94.4~	115- 0
Decachlorobiphenyl	94.8	94.3	94.3~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

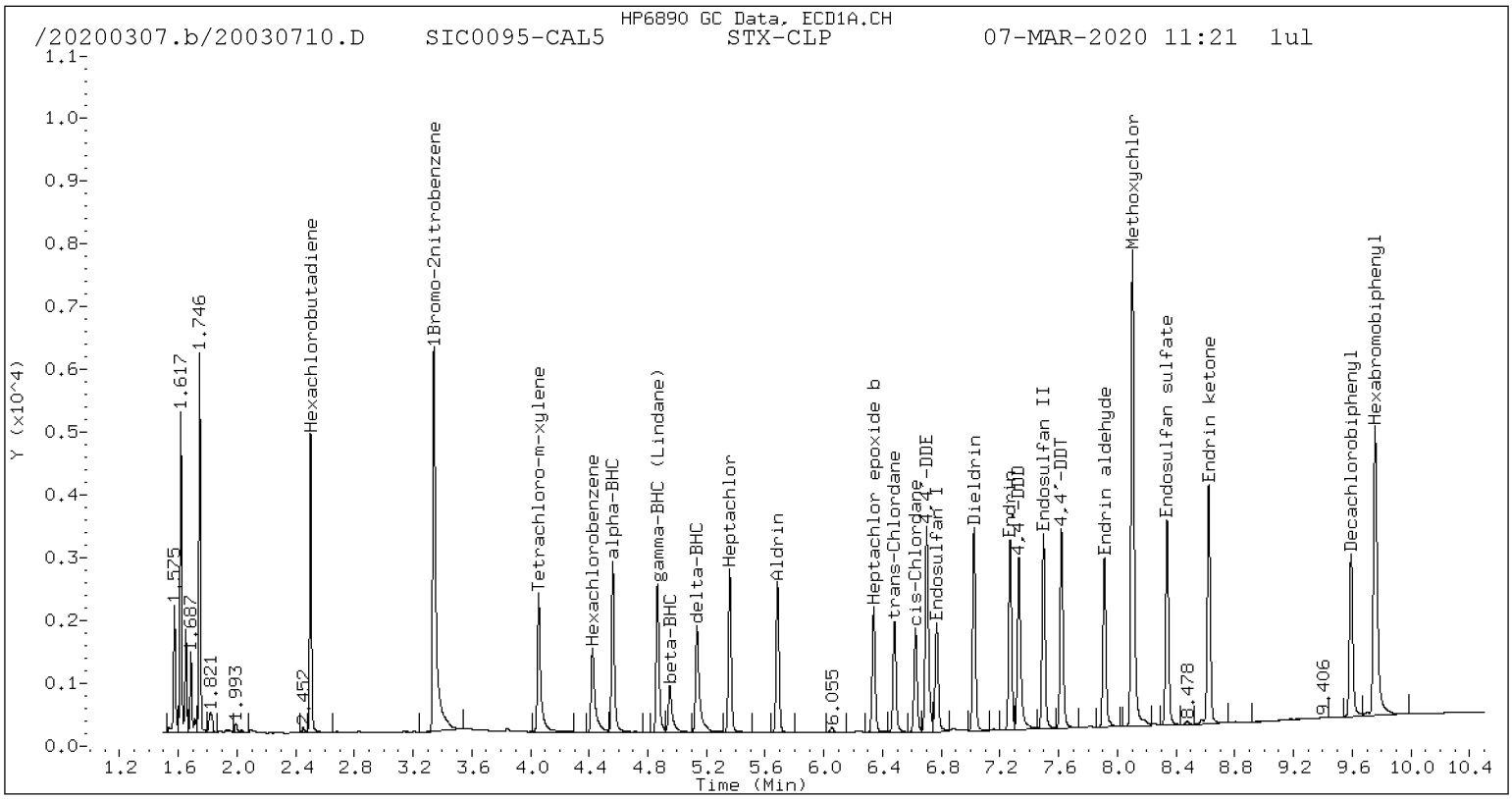
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	189333	0.0
Hexabromobiphenyl	177311	177311	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	149224	0.0
Hexabromobiphenyl	80212	80212	0.0

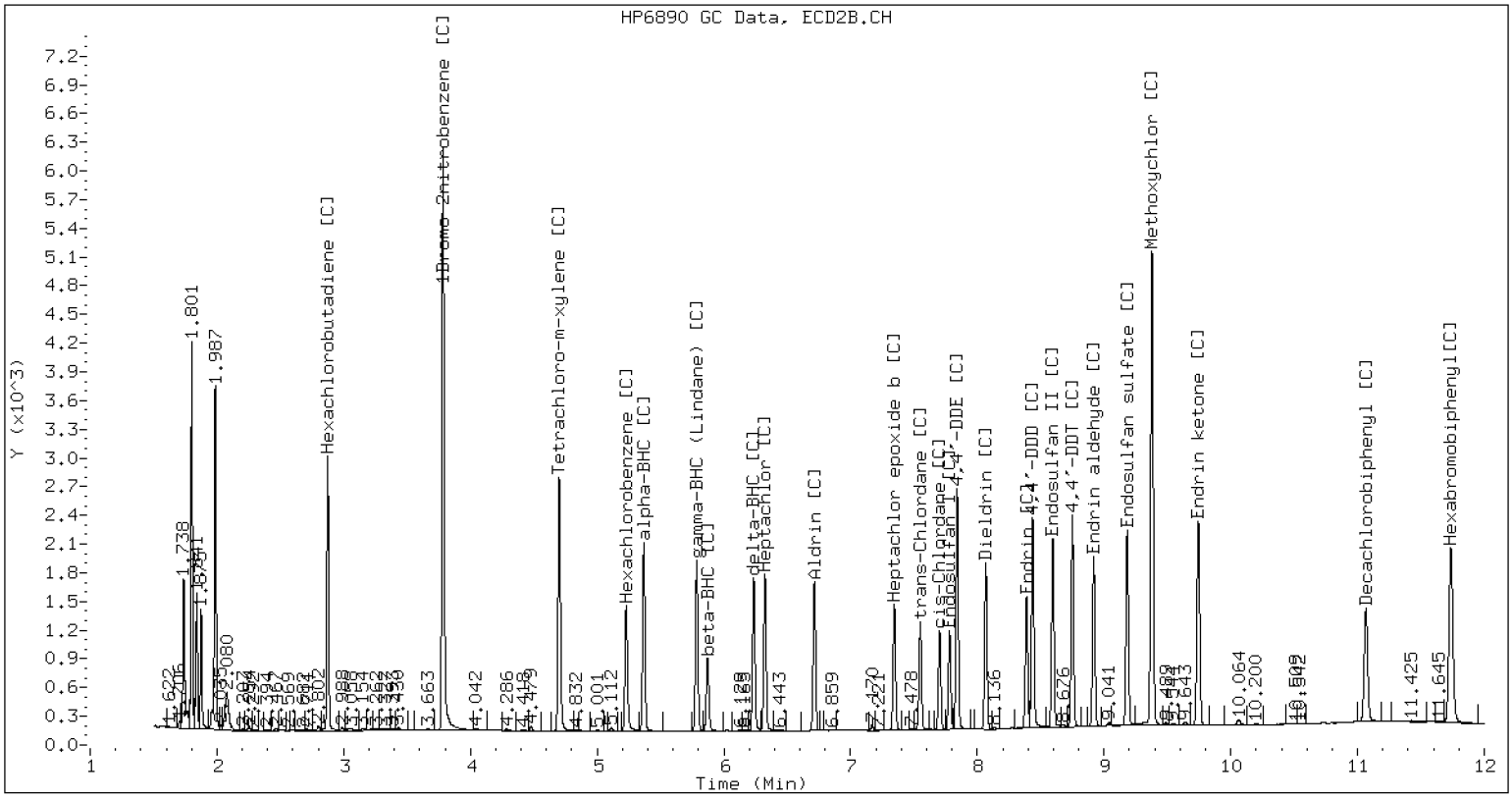
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030710.D SIC0095-CAL5 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030711.D
Data file 2: /20200307.b/20200307.b/20030711.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CAL6
Client ID:
Injection Date: 07-MAR-2020 11:39
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.562	0.000	140960	5.368	0.000	98373	41.09	40.11	2.4	alpha-BHC
4.950	0.002	51880	5.871	0.001	40939	37.72	36.52	3.2	beta-BHC
5.135	0.001	125465	6.236	0.001	85192	41.18	40.65	1.3	delta-BHC
4.866	0.000	121956	5.786	0.000	88340	40.20	39.97	0.6	gamma-BHC (Lindane)
5.358	-0.001	128338	6.324	0.001	81660	39.08	39.10	0.1	Heptachlor
5.685	-0.000	119319	6.715	0.001	75581	38.79	39.70	2.3	Aldrin
6.338	-0.001	101140	7.345	0.000	64565	36.45	38.10	4.4	Heptachlor epoxide b
6.769	-0.000	95704	7.782	0.001	50246	35.23	39.28	10.9	Endosulfan I
7.023	-0.001	163314	8.068	0.001	85483	75.21	78.40	4.2	Dieldrin
6.700	0.000	188801	7.841	0.001	118090	76.29	78.73	3.1	4,4'-DDE
7.269	-0.001	145385	8.388	0.001	63682	72.20	71.09	1.6	Endrin
7.496	-0.000	168186	8.595	0.001	96460	75.83	75.52	0.4	Endosulfan II
7.328	0.001	164329	8.436	0.001	107913	78.08	78.89	1.0	4,4'-DDD
8.338	0.000	172840	9.183	-0.000	100446	73.57	72.90	0.9	Endosulfan sulfate
7.619	0.000	167486	8.749	0.001	103256	76.00	78.46	3.2	4,4'-DDT
8.102	0.001	426904	9.377	-0.001	242160	378.72	361.78	4.6	Methoxychlor
8.622	-0.000	198533	9.743	-0.000	117896	71.34	74.71	4.6	Endrin ketone
7.911	0.001	142634	8.918	0.000	86019	72.18	74.43	3.1	Endrin aldehyde
6.481	-0.001	94433	7.550	0.001	55322	34.81	37.78	8.2	trans-Chlordane
6.624	-0.001	86425	7.703	0.001	50329	33.97	38.71	13.1	cis-Chlordane
2.502	0.000	153427	2.874	0.000	99109	34.43	36.03	4.5	Hexachlorobutadiene
4.423	0.001	88240	5.229	0.001	68200	36.51	36.11	1.1	Hexachlorobenzene
4.056	0.001	127642	4.700	0.001	124730	74.18	75.53	1.8	Tetrachloro-m-xylene
9.592	-0.000	147272	11.065	-0.001	78756	72.04	70.80	1.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	185.4	188.8	185.4~	115- 0
Decachlorobiphenyl	180.1	177.0	177.0~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

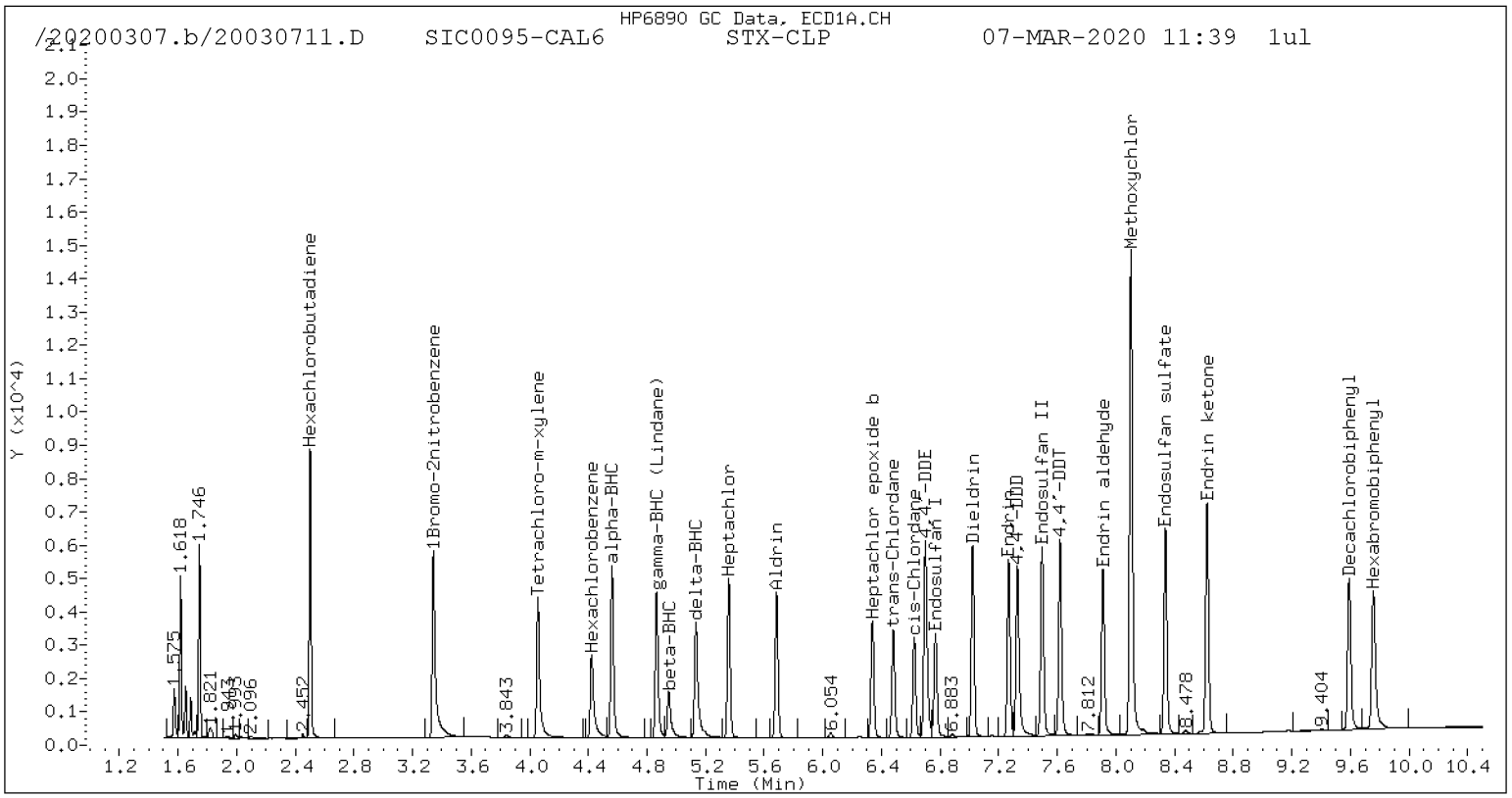
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	176847	-6.6
Hexabromobiphenyl	177311	162444	-8.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	139136	-6.8
Hexabromobiphenyl	80212	73551	-8.3

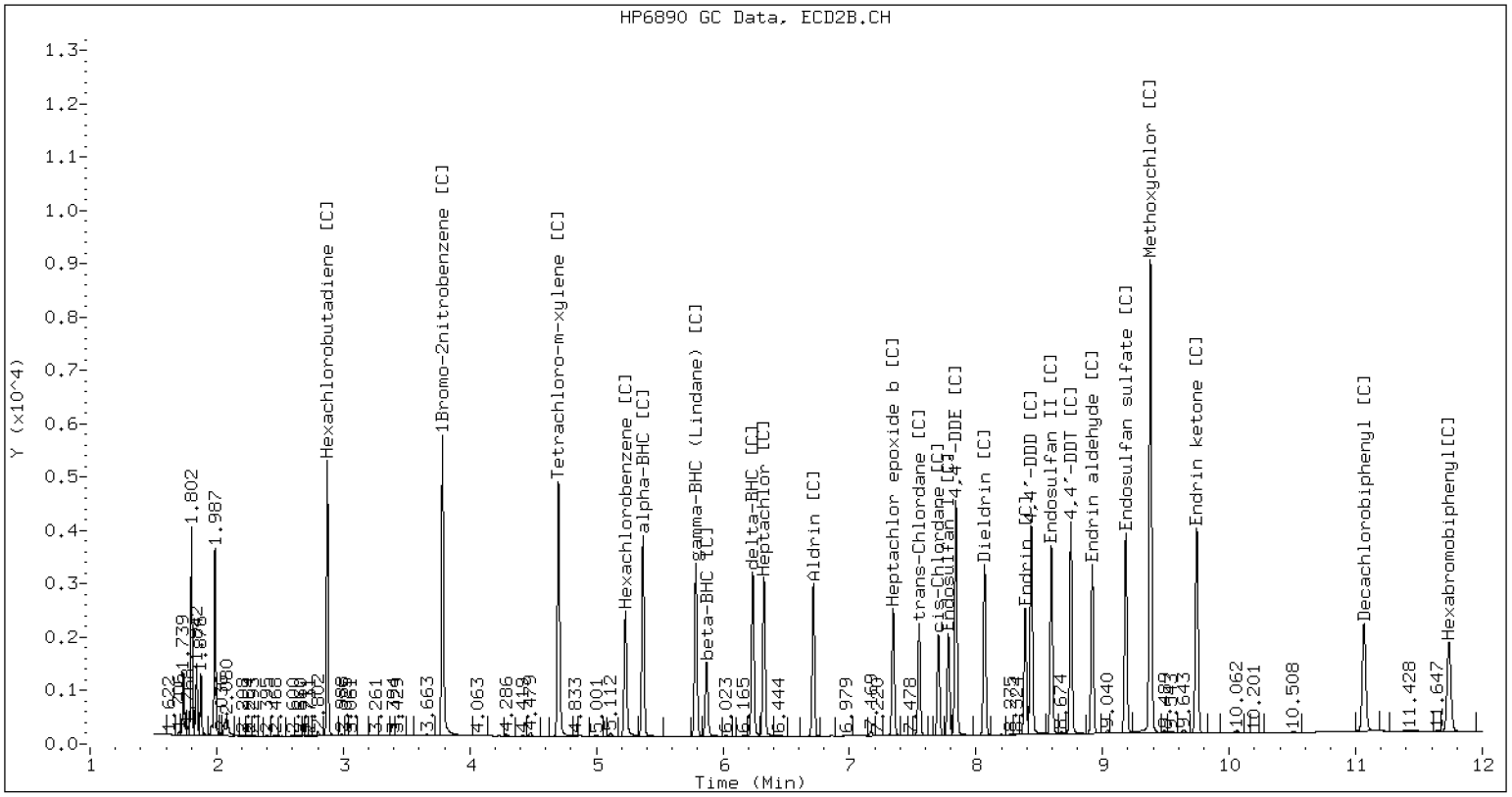
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030711.D SIC0095-CAL6 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030712.D
Data file 2: /20200307.b/20200307.b/20030712.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CAL7
Client ID:
Injection Date: 07-MAR-2020 11:56
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.562	0.000	288386	5.368	0.000	196305	82.04	78.03	5.0	alpha-BHC
4.948	0.000	100697	5.870	0.000	79385	71.46	69.04	3.4	beta-BHC
5.134	0.000	256987	6.235	0.000	171638	82.32	79.85	3.1	delta-BHC
4.865	0.000	249247	5.785	0.000	175511	80.18	77.42	3.5	gamma-BHC (Lindane)
5.359	0.000	258917	6.324	0.000	160844	76.95	75.08	2.4	Heptachlor
5.685	0.000	239330	6.714	0.000	150034	75.94	76.82	1.2	Aldrin
6.339	0.000	199891	7.345	0.000	127058	70.31	73.09	3.9	Heptachlor epoxide b
6.769	0.000	183389	7.781	0.000	99807	65.89	76.07	14.4	Endosulfan I
7.023	0.000	320504	8.066	0.000	169461	144.07	151.51	5.0	Dieldrin
6.699	0.000	378598	7.840	0.000	227320	149.32	147.75	1.1	4,4'-DDE
7.269	0.000	279964	8.388	0.000	122427	137.02	132.04	3.7	Endrin
7.496	0.000	331667	8.595	0.000	185451	147.38	140.29	4.9	Endosulfan II
7.327	0.000	330651	8.436	0.000	210704	154.84	148.84	4.0	4,4'-DDD
8.338	0.000	345424	9.183	0.000	194015	144.90	136.04	6.3	Endosulfan sulfate
7.619	0.000	340790	8.749	0.000	204485	152.41	150.13	1.5	4,4'-DDT
8.102	0.000	867426	9.378	0.000	467589	758.39	674.95	11.6	Methoxychlor
8.622	0.000	395014	9.744	0.000	229939	139.89	140.78	0.6	Endrin ketone
7.911	0.000	281813	8.918	0.000	166384	140.54	139.11	1.0	Endrin aldehyde
6.482	0.000	186263	7.550	0.000	109797	67.01	73.09	8.7	trans-Chlordane
6.625	0.000	169062	7.702	0.000	99694	64.85	74.76	14.2	cis-Chlordane
2.502	0.000	302908	2.874	0.000	194139	66.34	68.79	3.6	Hexachlorobutadiene
4.422	0.000	173622	5.228	0.000	131236	70.12	67.74	3.5	Hexachlorobenzene
4.055	0.000	254447	4.700	0.000	241177	144.32	142.38	1.4	Tetrachloro-m-xylene
9.592	0.000	287128	11.066	0.000	149398	138.41	129.76	6.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	360.8	355.9	355.9~	115- 0
Decachlorobiphenyl	346.0	324.4	324.4~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

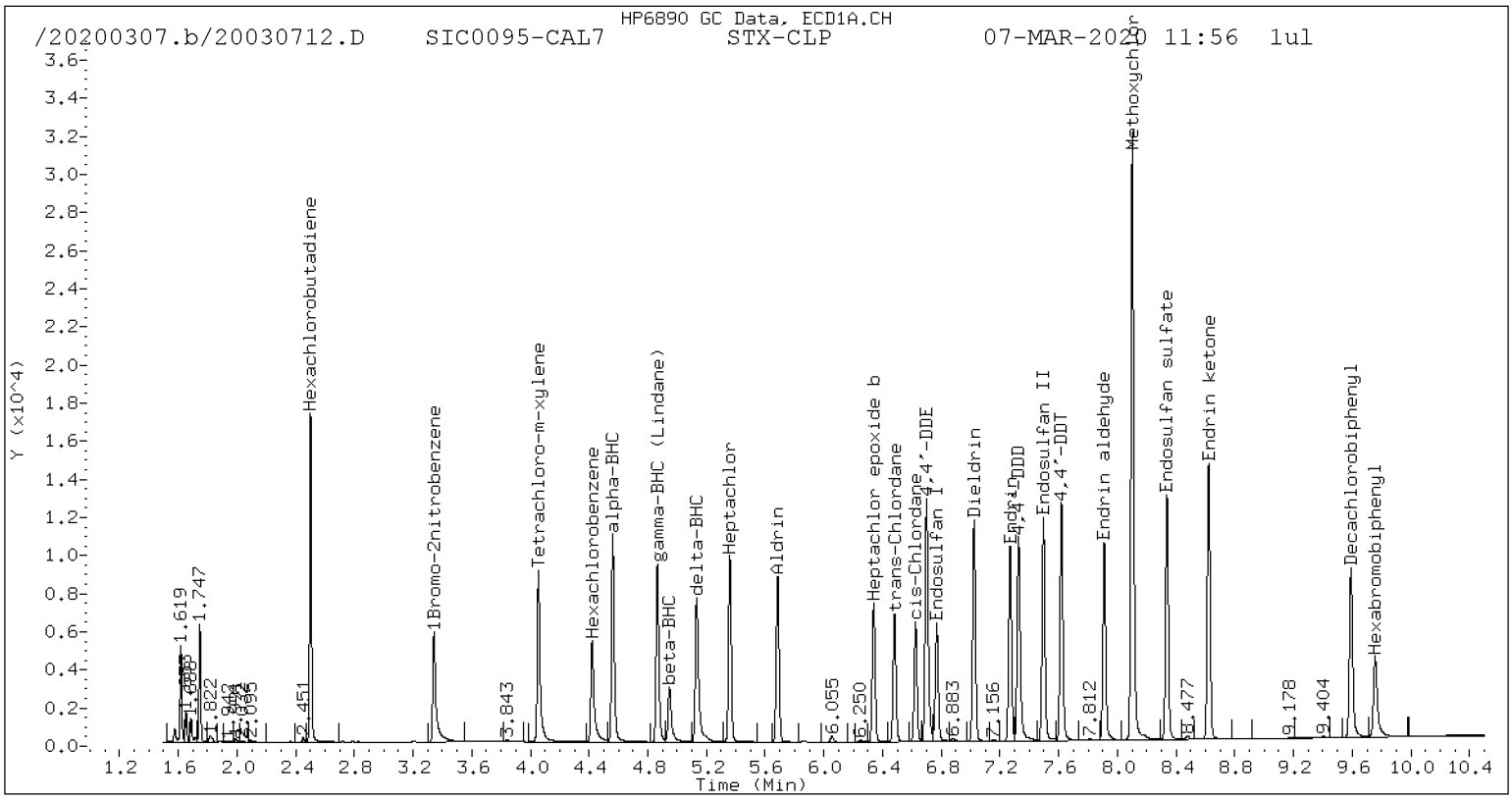
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	181191	-4.3
Hexabromobiphenyl	177311	164829	-7.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	142725	-4.4
Hexabromobiphenyl	80212	76124	-5.1

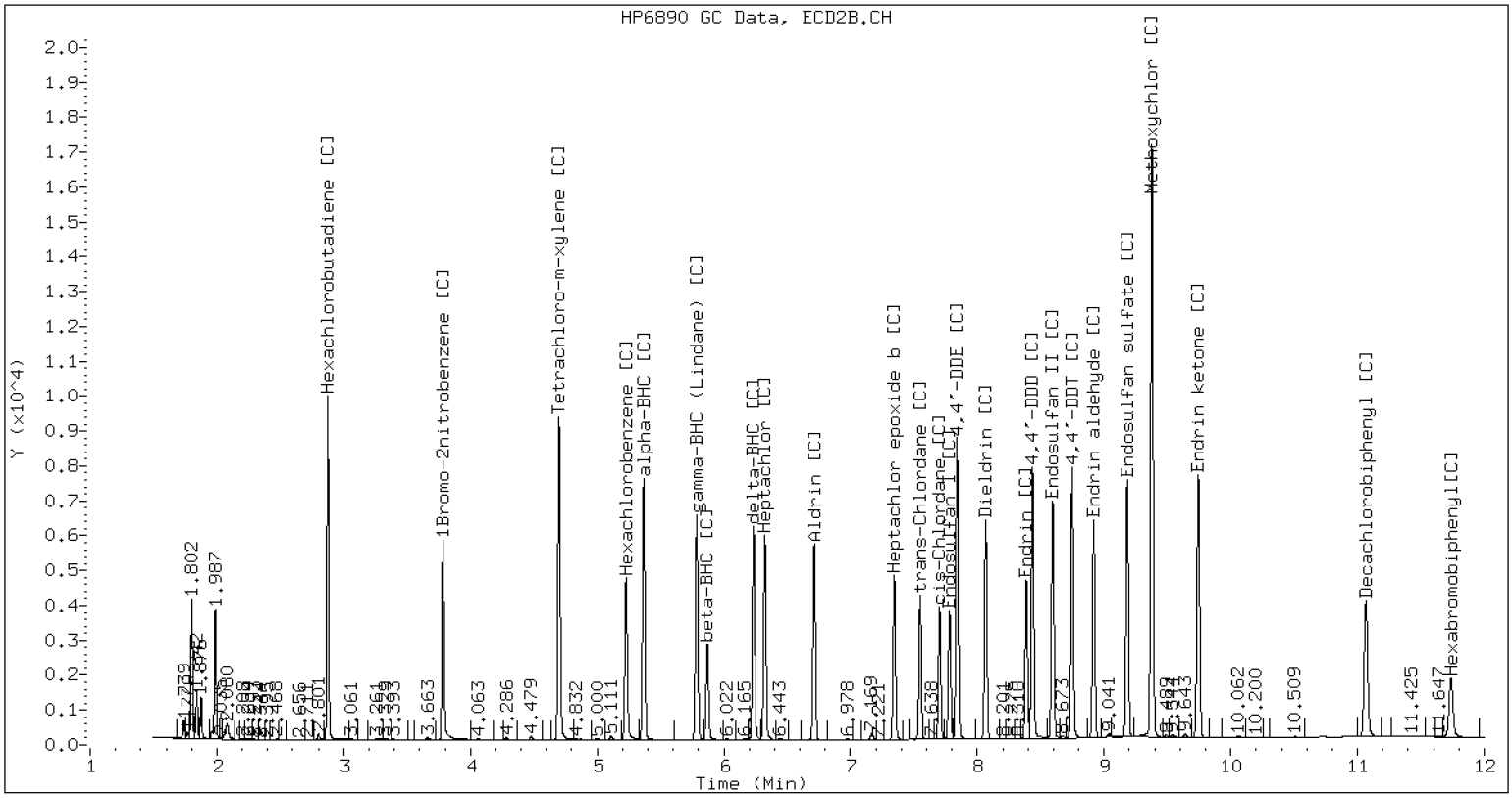
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030712.D SIC0095-CAL7 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030713.D
Data file 2: /20200307.b/20200307.b/20030713.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-SCV1
Client ID:
Injection Date: 07-MAR-2020 12:14
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.562	0.000	137403	5.368	0.000	94310	40.25	38.79	3.7	alpha-BHC
4.950	0.001	50460	5.872	0.002	39946	36.87	35.95	2.5	beta-BHC
5.135	0.001	127616	6.236	0.001	86712	42.09	41.75	0.8	delta-BHC
4.866	0.000	119990	5.786	0.001	86746	39.74	39.60	0.4	gamma-BHC (Lindane)
5.358	-0.001	126231	6.324	0.000	79191	38.62	38.26	1.0	Heptachlor
5.685	-0.000	117870	6.715	0.001	74314	38.51	39.38	2.2	Aldrin
6.339	-0.001	102230	7.345	0.000	63343	37.02	37.71	1.8	Heptachlor epoxide b
6.769	-0.000	92209	7.782	0.001	48781	34.11	38.48	12.0	Endosulfan I
7.023	-0.000	83251	8.068	0.001	41702	38.53	38.58	0.1	Dieldrin
6.702	0.002	92692	7.841	0.001	58364	37.64	39.26	4.2	4,4'-DDE
7.269	-0.001	72882	8.388	0.001	31537	35.66	34.59	3.0	Endrin
7.496	-0.000	87434	8.596	0.001	51384	38.84	39.53	1.8	Endosulfan II
7.330	0.003	79685	8.437	0.001	52661	37.30	37.83	1.4	4,4'-DDD
8.338	0.000	82343	9.183	0.000	47482	34.53	33.86	2.0	Endosulfan sulfate
7.620	0.001	82442	8.750	0.001	50090	36.85	37.40	1.5	4,4'-DDT
8.105	0.003	44108	9.379	0.001	25593	38.55	37.57	2.6	Methoxychlor
8.622	-0.000	103181	9.744	0.001	60242	36.53	37.51	2.7	Endrin ketone
7.911	0.000	72826	8.919	0.001	43737	36.30	37.18	2.4	Endrin aldehyde
6.481	-0.001	93532	7.550	0.000	53718	34.64	37.01	6.6	trans-Chlordane
6.624	-0.000	85776	7.703	0.001	49035	33.88	38.05	11.6	cis-Chlordane
----			2.874	-0.000	97	0.00	0.04	---	Hexachlorobutadiene
----			----			0.00	0.00	---	Hexachlorobenzene
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			11.071	0.005	195	0.00	0.17	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	115- 0
Decachlorobiphenyl	0.0	0.4	0.0~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

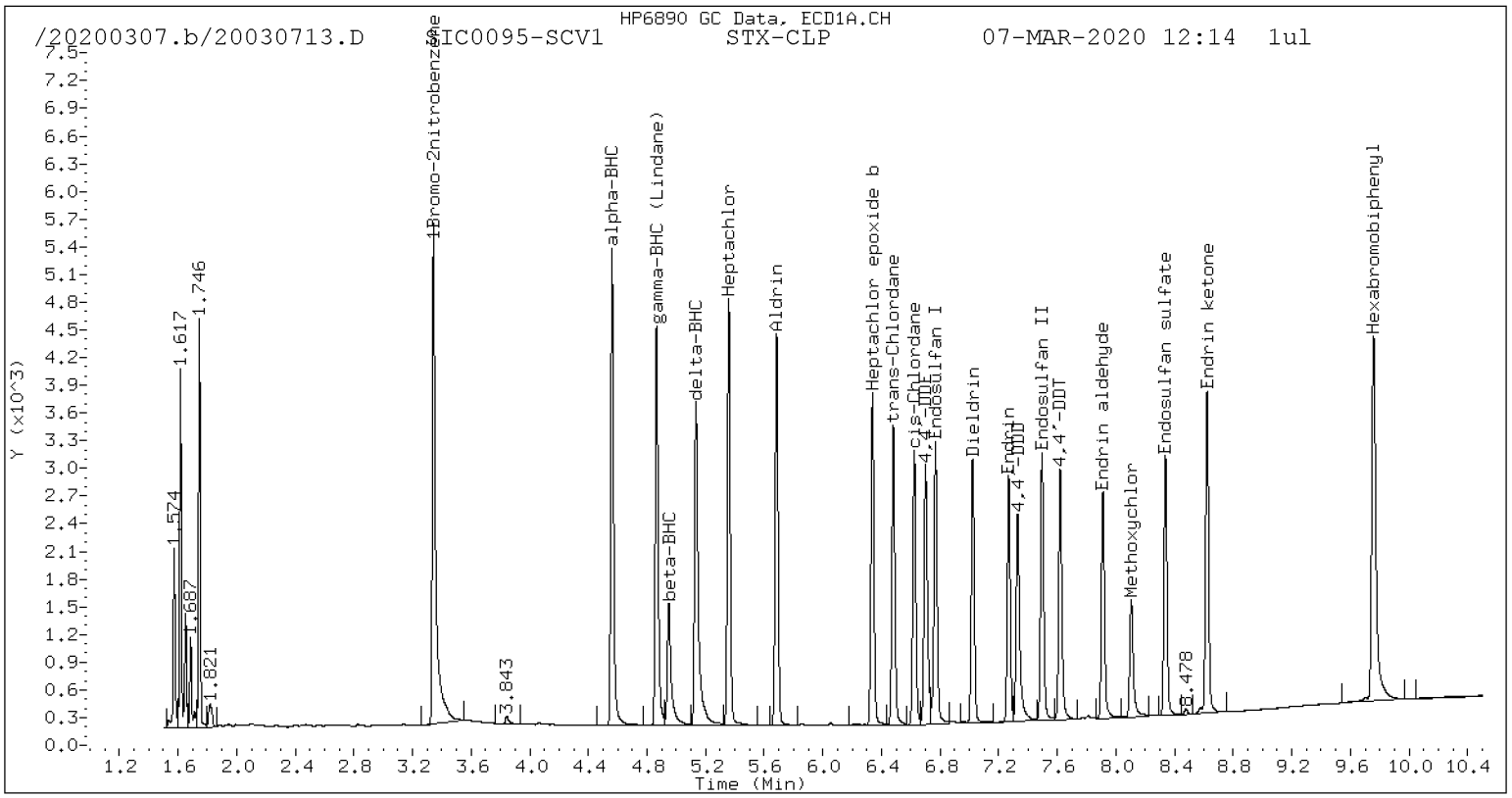
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	175981	-7.1
Hexabromobiphenyl	177311	164898	-7.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	137918	-7.6
Hexabromobiphenyl	80212	74860	-6.7

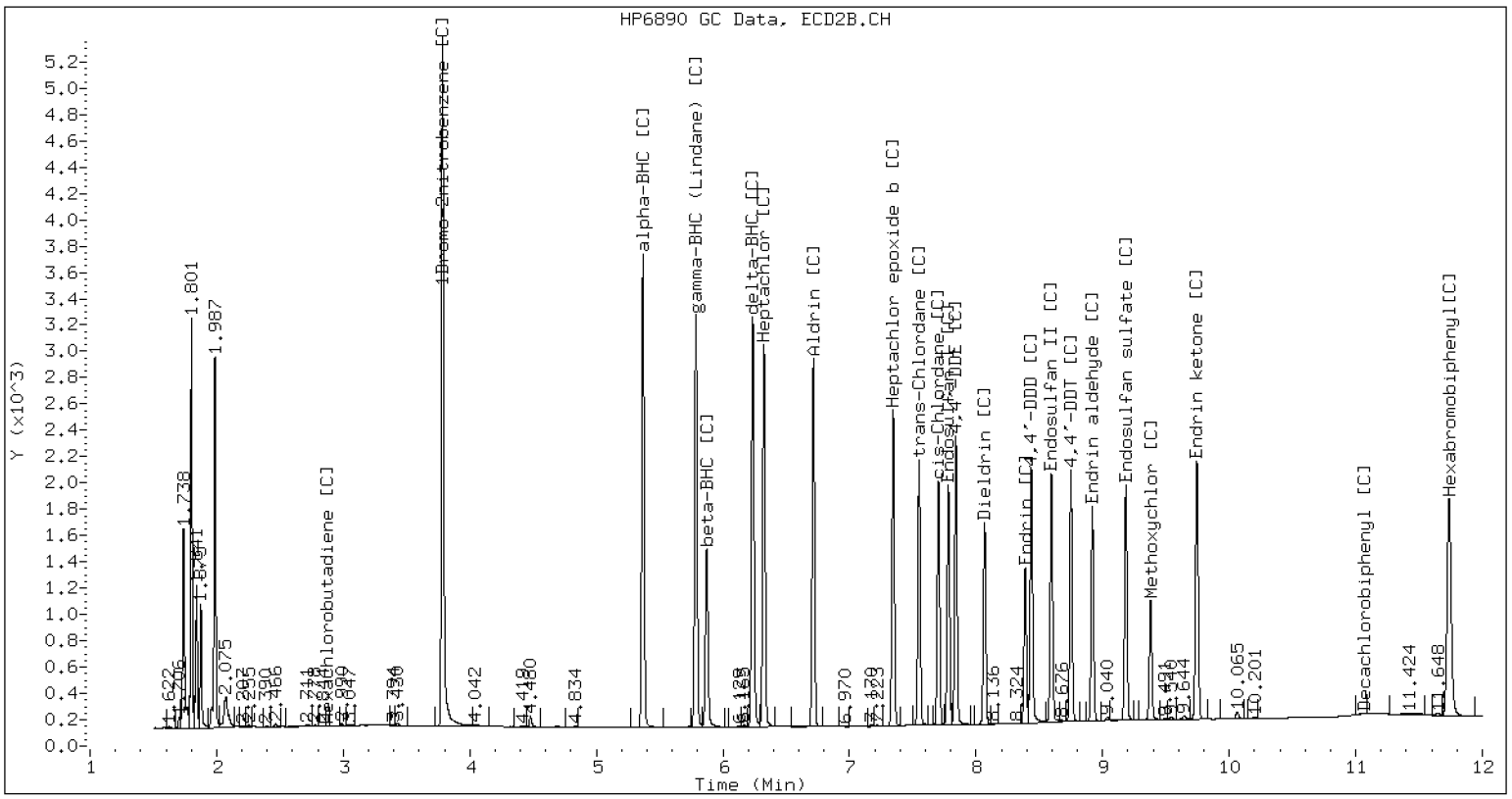
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030713.D SIC0095-SCV1 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030714.D
Data file 2: /20200307.b/20200307.b/20030714.D
Method: \20200307.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CAL8
Client ID:
Injection Date: 07-MAR-2020 12:32
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.234	-0.001	5993	7.241	-0.003	3767	2.91	2.89	0.5	Oxychlordane MN
6.333	-0.000	4492	7.519	-0.002	2700	2.89	2.98	3.0	2,4-DDE M
6.611	-0.001	7017	7.641	-0.003	2989	3.25	2.76	16.5	trans-Nonachlor M
6.887	0.000	3982	8.061	-0.001	3079	2.69	3.06	13.1	2,4-DDD M
7.158	-0.001	4466	8.377	-0.001	2725	2.74	2.82	3.1	2,4-DDT M
7.309	-0.001	7340	8.445	-0.002	4116	2.85	2.80	1.7	cis-Nonachlor M
8.292	-0.001	5756	9.726	-0.003	3241	3.43	3.14	9.0	Mirex M
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	150- 0
Decachlorobiphenyl	0.0	0.0	0.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

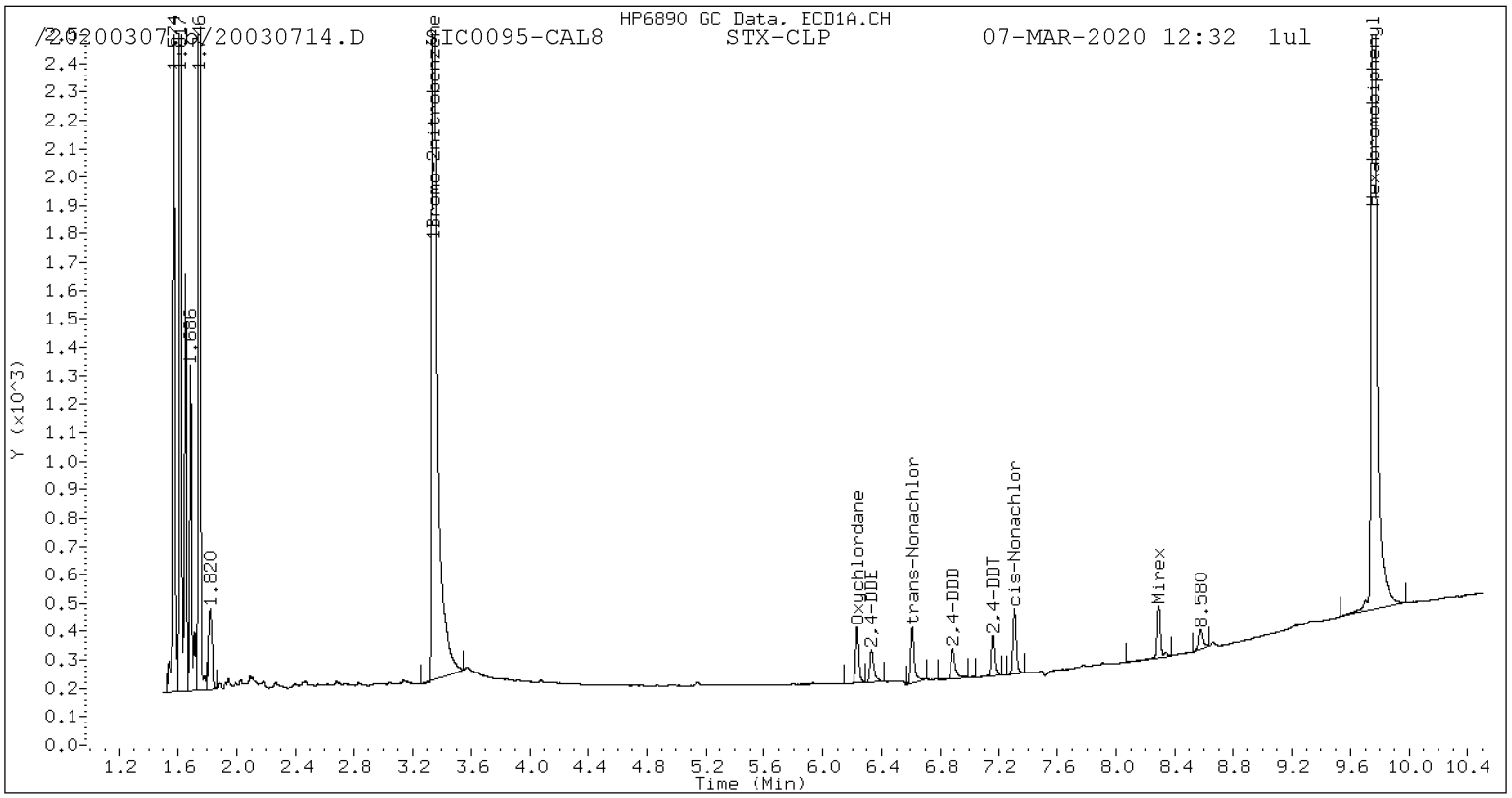
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	178583	-5.7
Hexabromobiphenyl	177311	167031	-5.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	141001	-5.5
Hexabromobiphenyl	80212	75989	-5.3

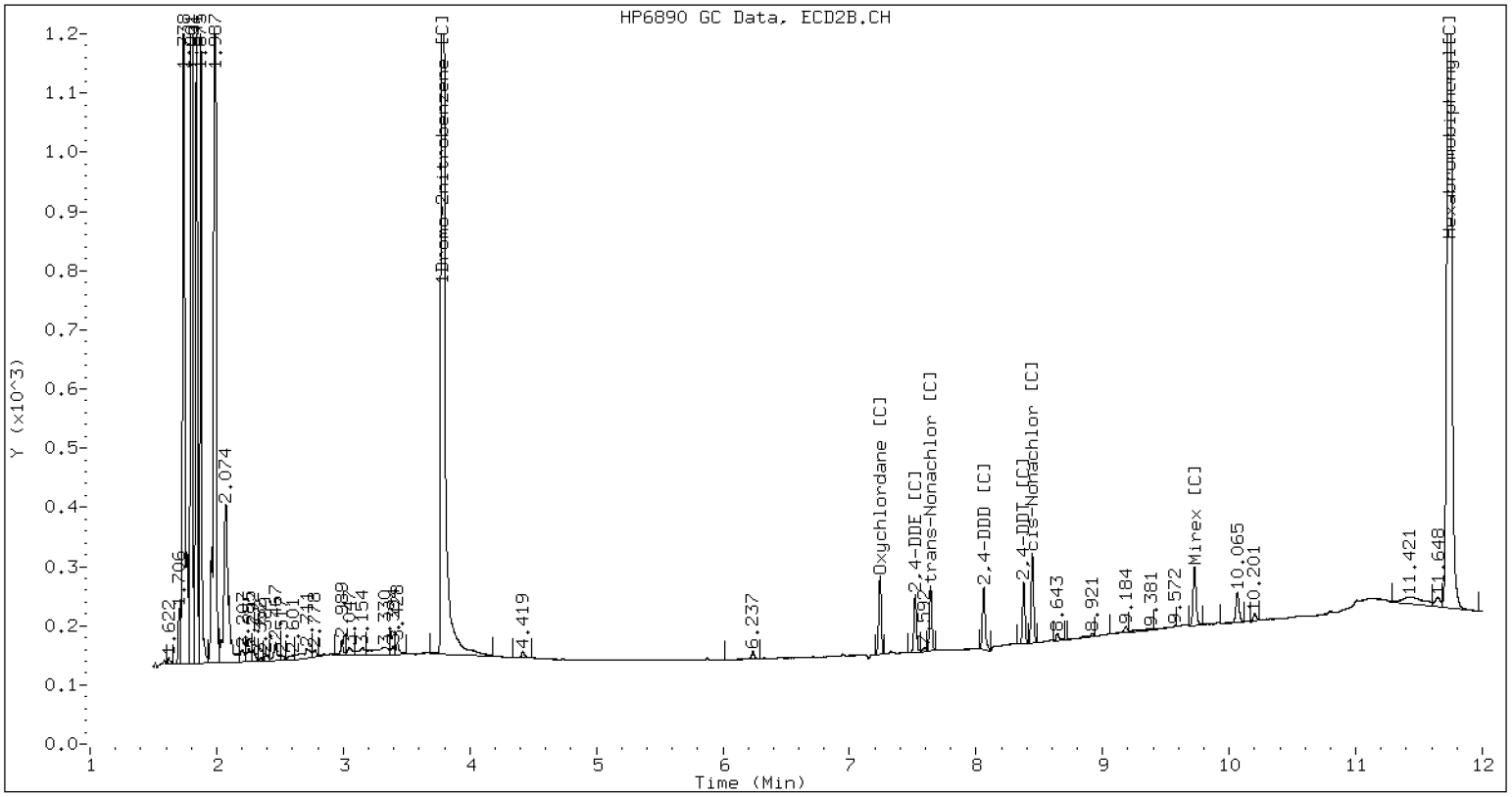
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

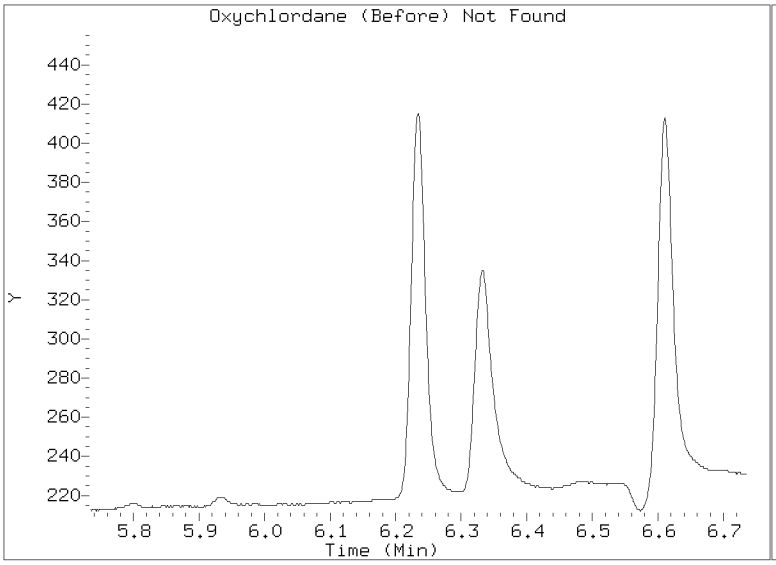
/20200307.b/20200307.b/20030714.D SIC0095-CAL8 CLP2

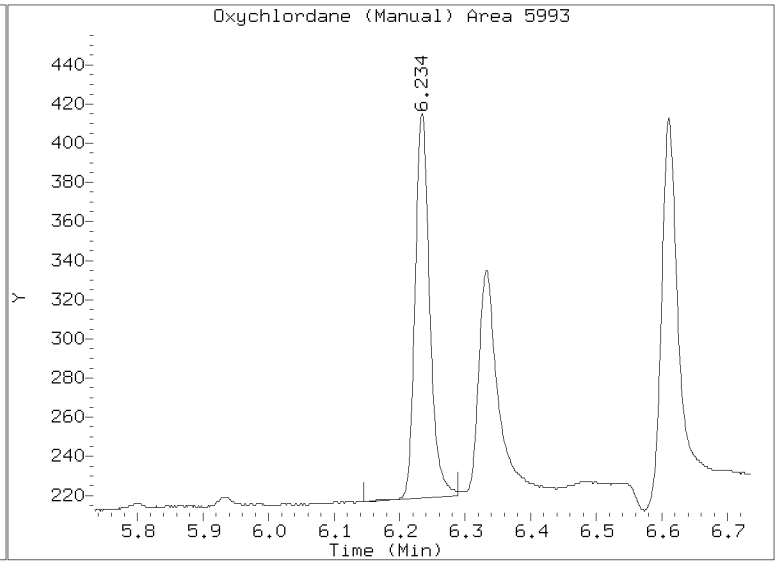


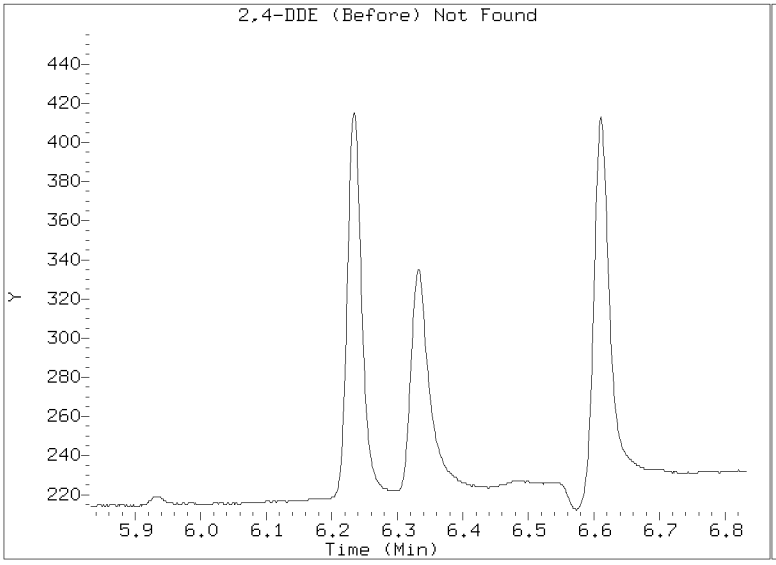
CLP-2 Manual Integration: YES

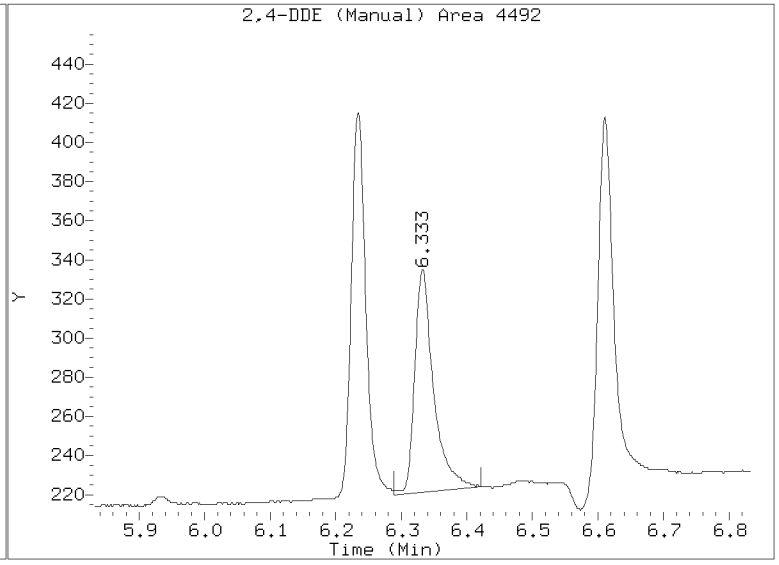
Manual Peak Adjustment Report, STX-CLP

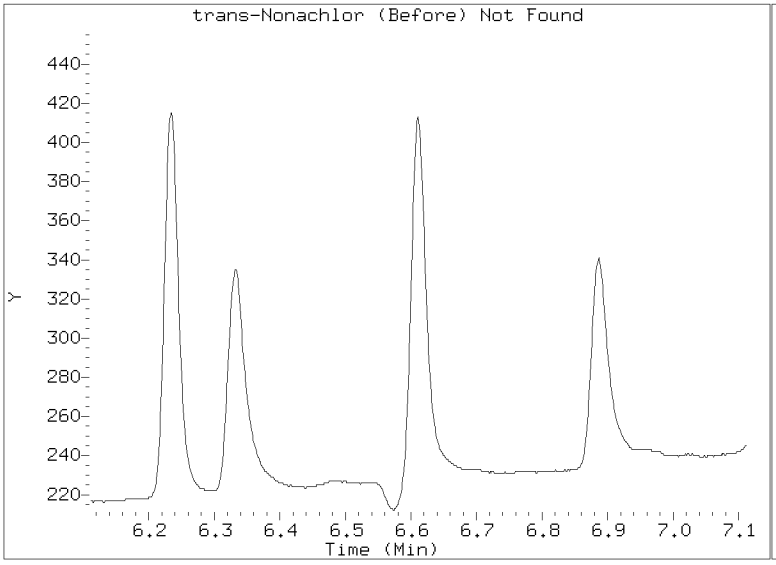
Datafile: /20200307.b/20030714.D
Injection Date: 07-MAR-2020 12:32
Lab ID:SIC0095-CAL8 Client ID:
Report Date: 03/09/2020 12:23

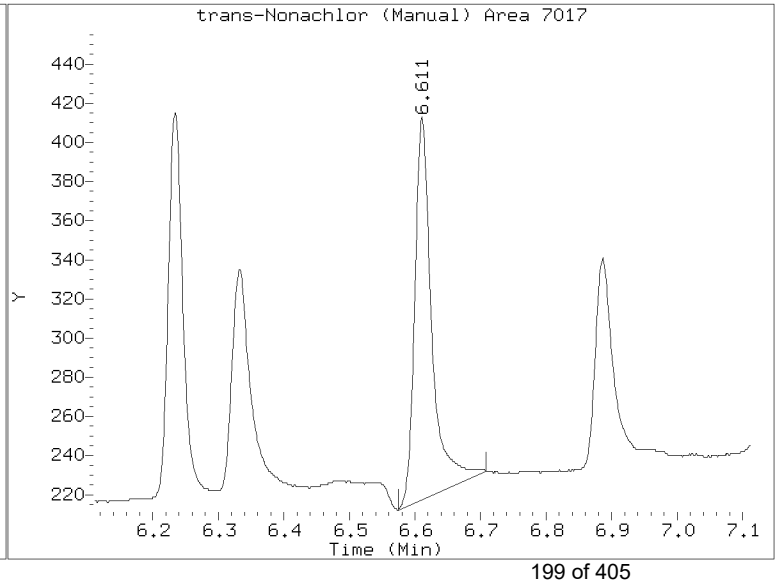






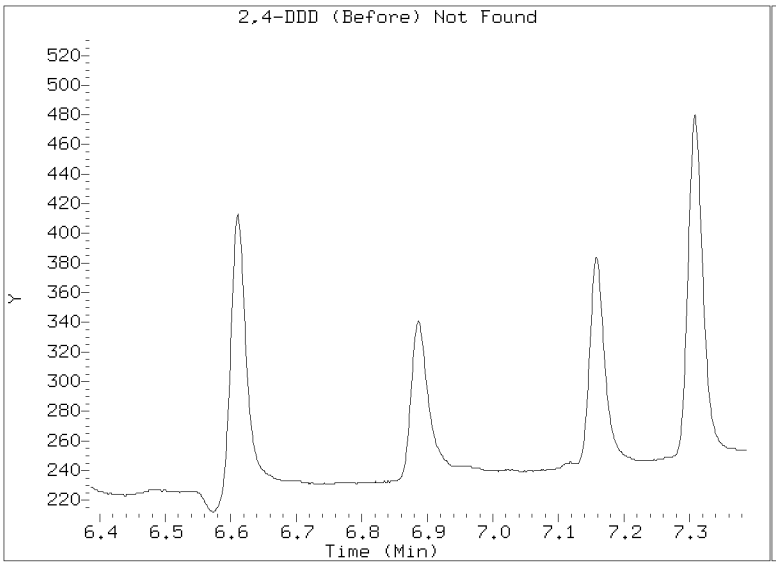


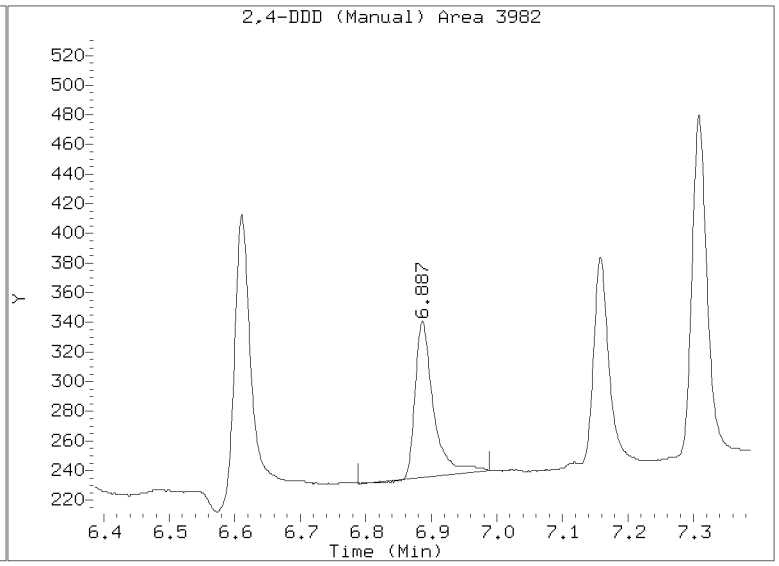


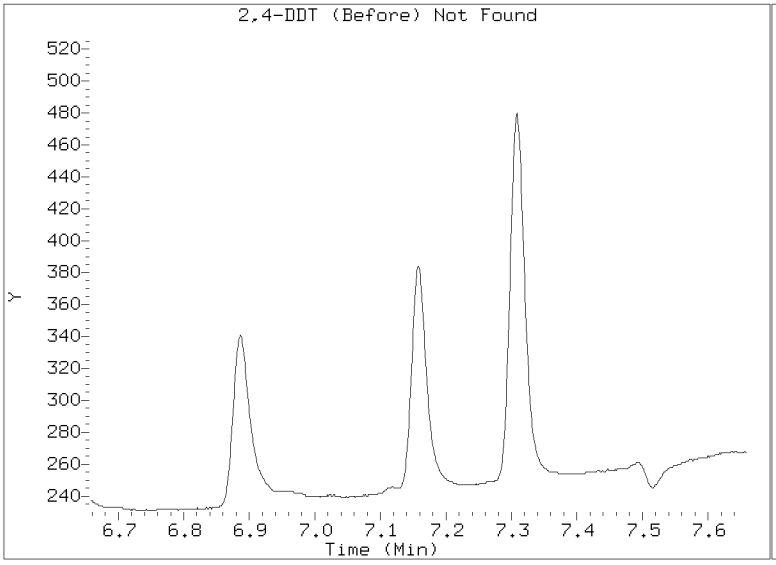


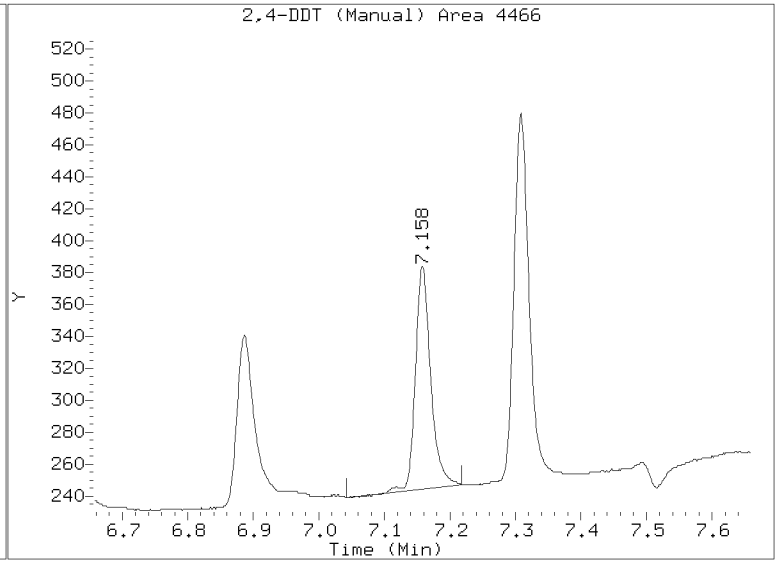
Manual Peak Adjustment Report, STX-CLP

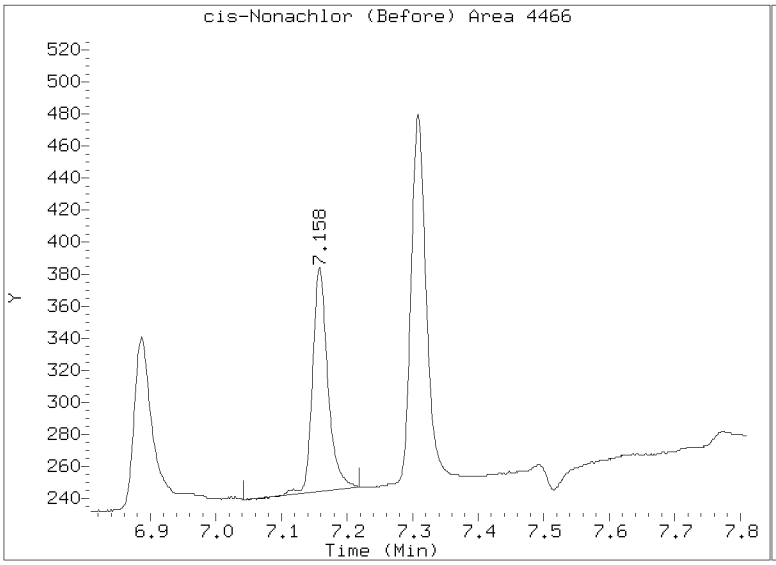
Datafile: /20200307.b/20030714.D
Injection Date: 07-MAR-2020 12:32
Lab ID:SIC0095-CAL8 Client ID:
Report Date: 03/09/2020 12:23

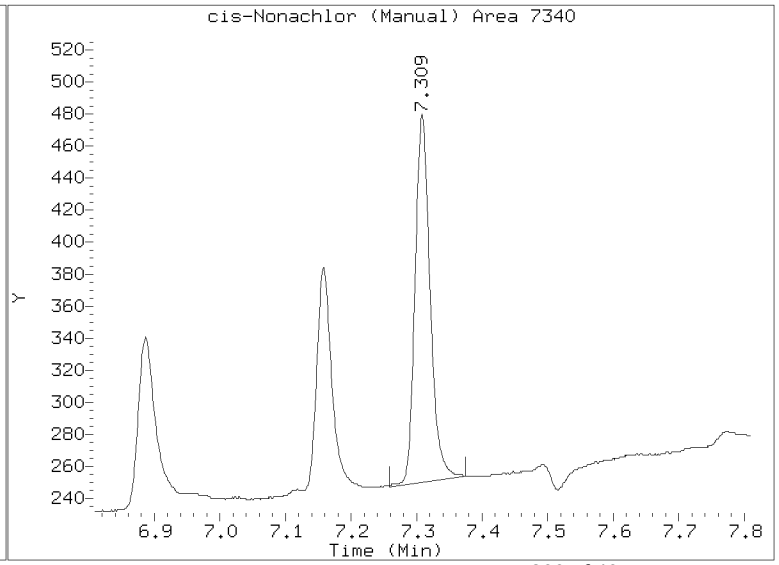






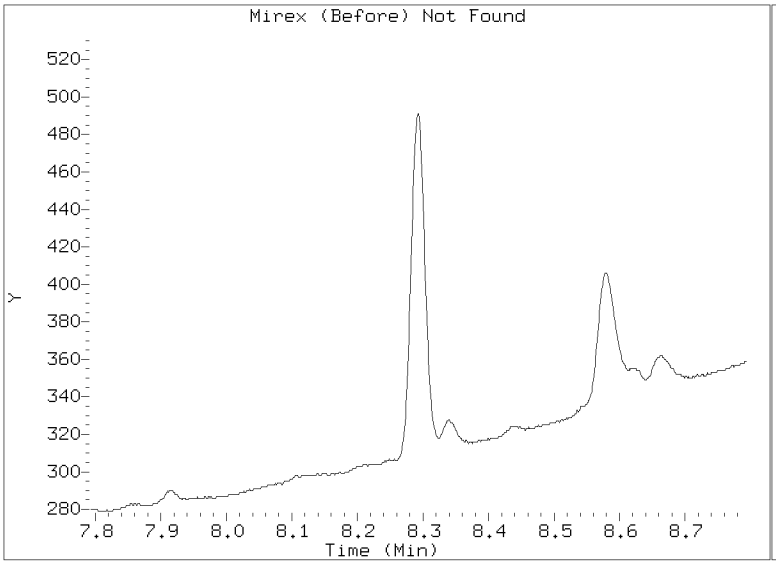


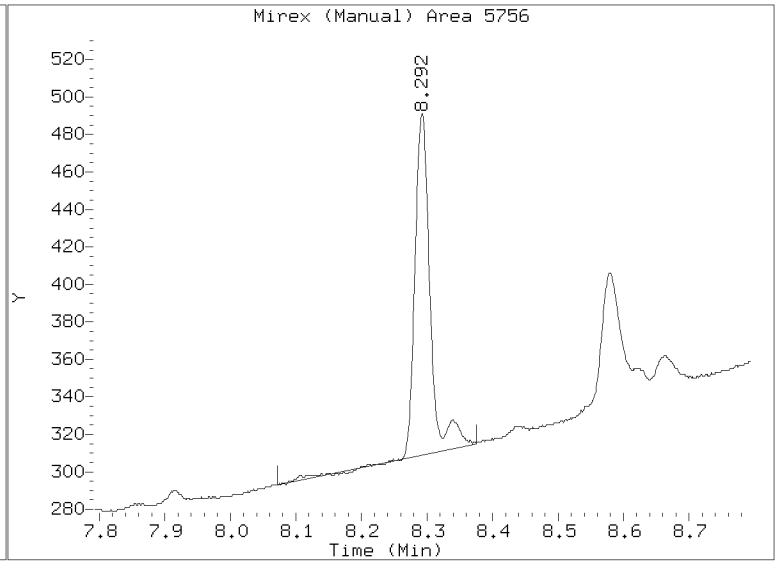




Manual Peak Adjustment Report, STX-CLP

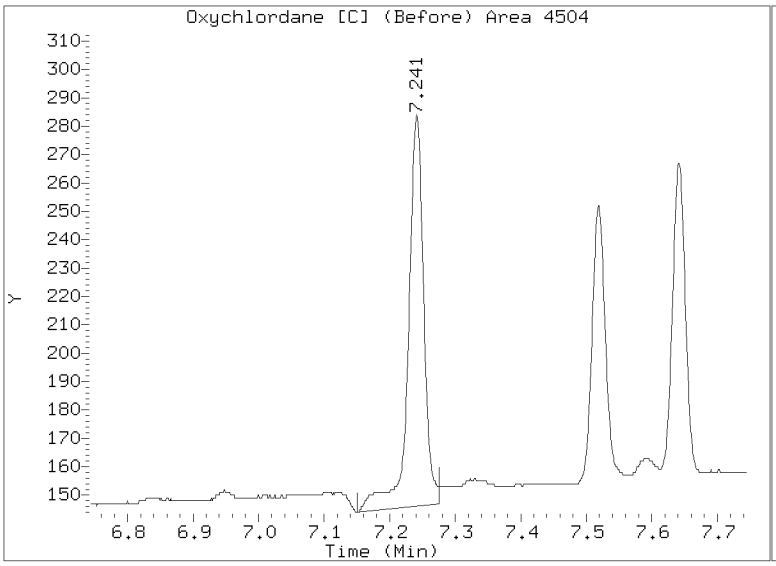
Datafile: /20200307.b/20030714.D
Injection Date: 07-MAR-2020 12:32
Lab ID:SIC0095-CAL8 Client ID:
Report Date: 03/09/2020 12:23

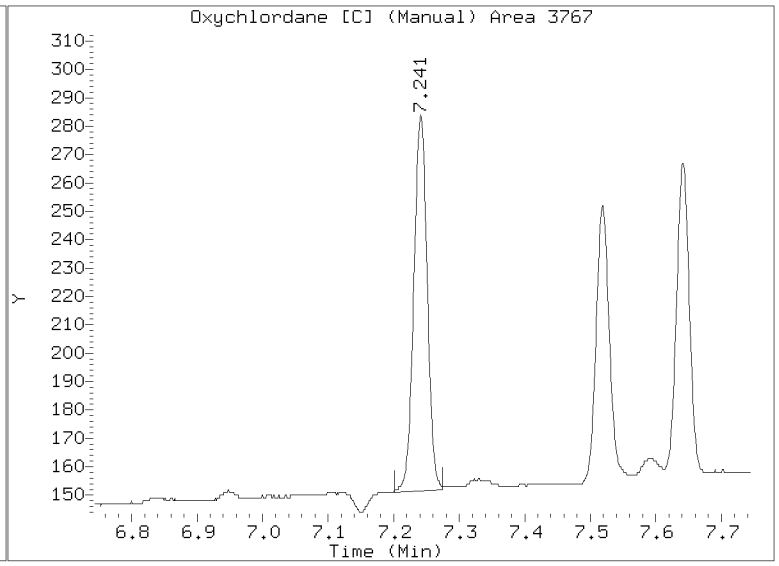




Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030714.D
Injection Date: 07-MAR-2020 12:32
Lab ID:SIC0095-CAL8 Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030715.D
Data file 2: /20200307.b/20200307.b/20030715.D
Method: \20200307.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CAL9
Client ID:
Injection Date: 07-MAR-2020 12:50
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.234	-0.001	11468	7.242	-0.003	7052	5.39	5.35	0.7	Oxychlordane N
6.332	-0.001	8677	7.519	-0.002	5150	5.41	5.62	3.7	2,4-DDE
6.611	-0.001	10916	7.642	-0.002	5810	4.90	5.30	7.9	trans-Nonachlor
6.886	-0.001	8060	8.061	-0.001	5688	5.27	5.60	6.2	2,4-DDD
7.158	-0.001	8923	8.377	-0.001	5280	5.29	5.41	2.3	2,4-DDT
7.309	-0.001	14036	8.445	-0.002	8000	5.28	5.39	2.1	cis-Nonachlor
8.293	-0.001	8350	9.726	-0.003	5998	4.82	5.74	17.5	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	150- 0
Decachlorobiphenyl	0.0	0.0	0.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

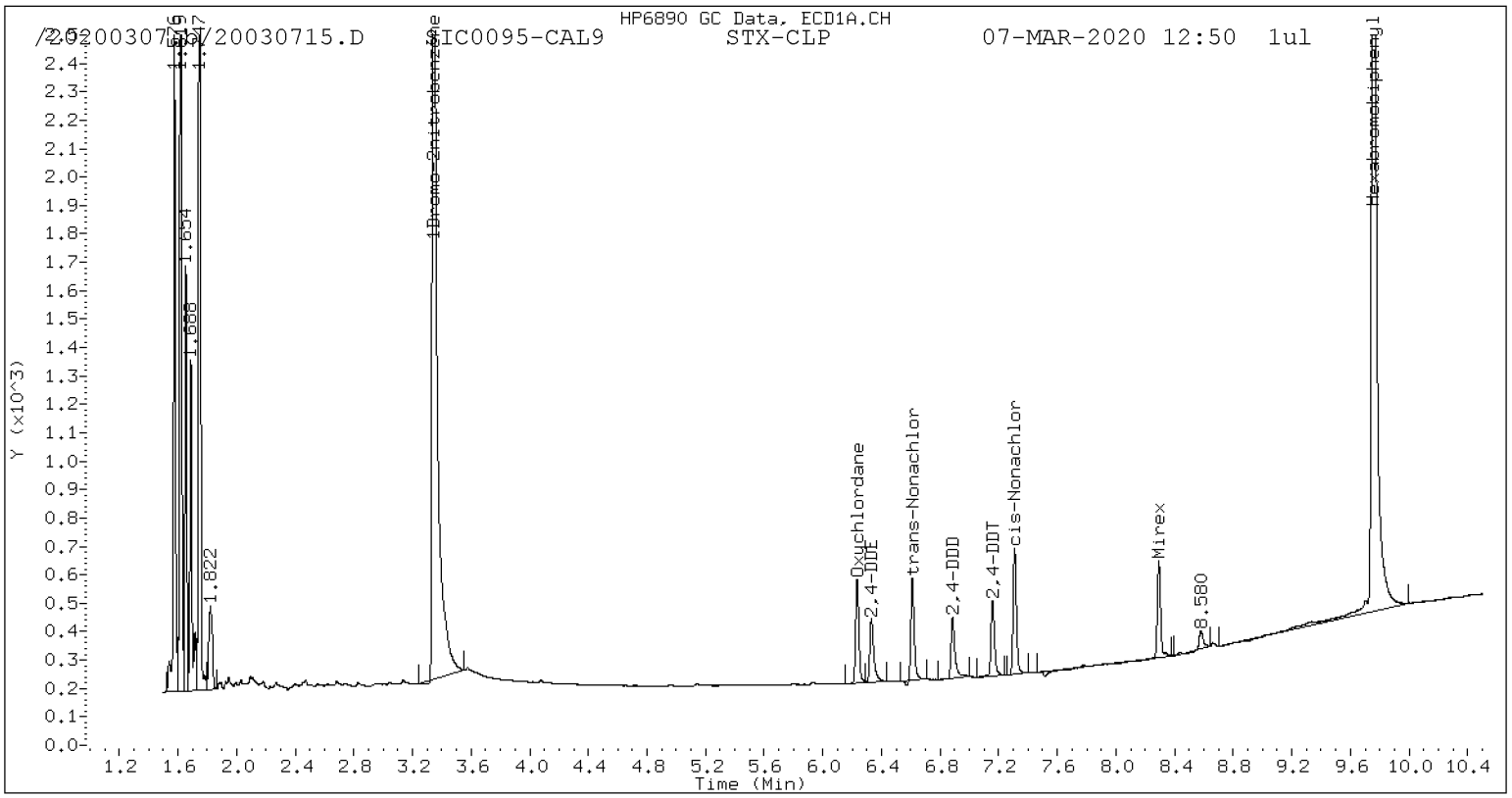
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	178396	-5.8
Hexabromobiphenyl	177311	172601	-2.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	142862	-4.3
Hexabromobiphenyl	80212	76813	-4.2

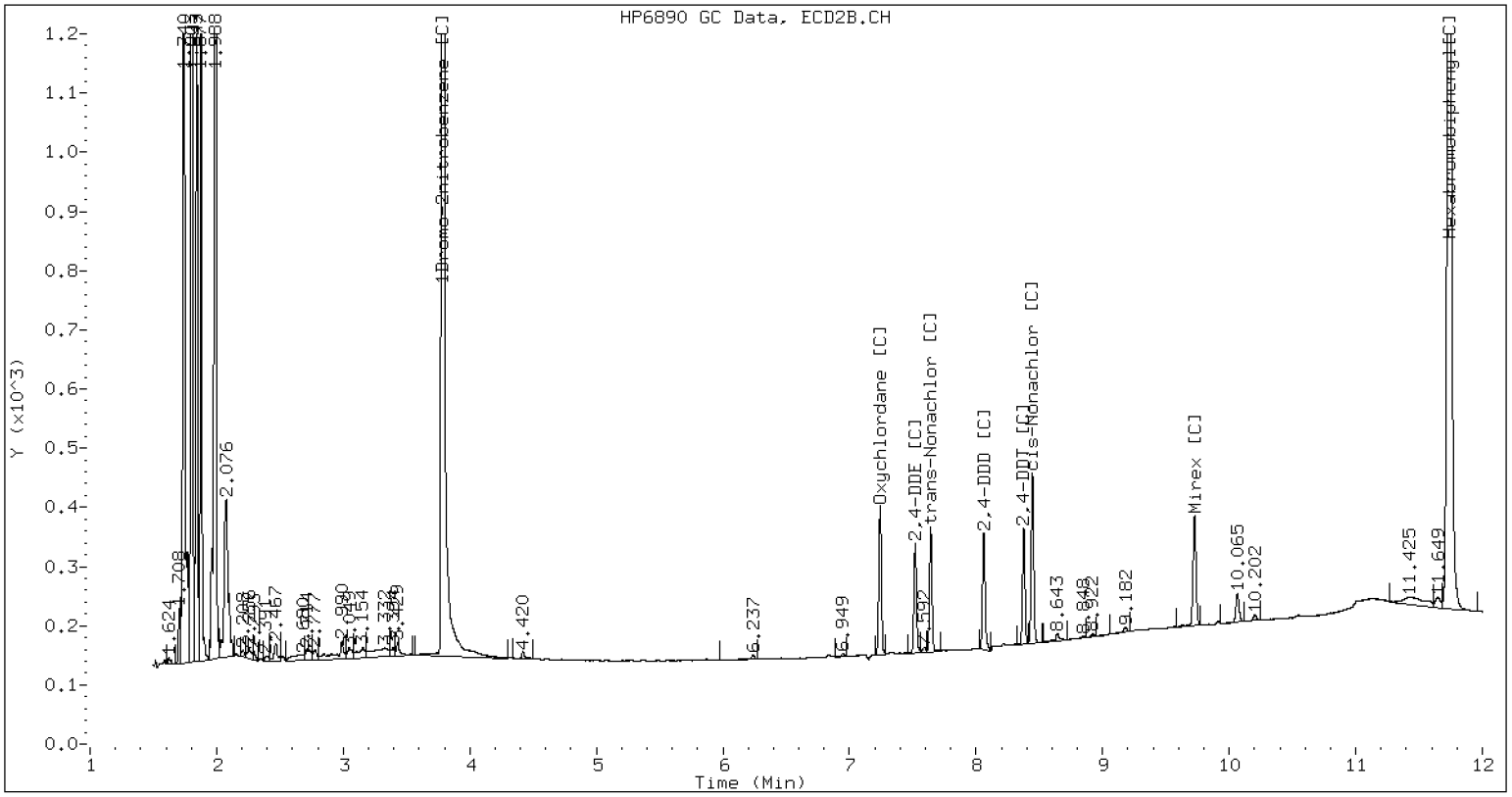
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

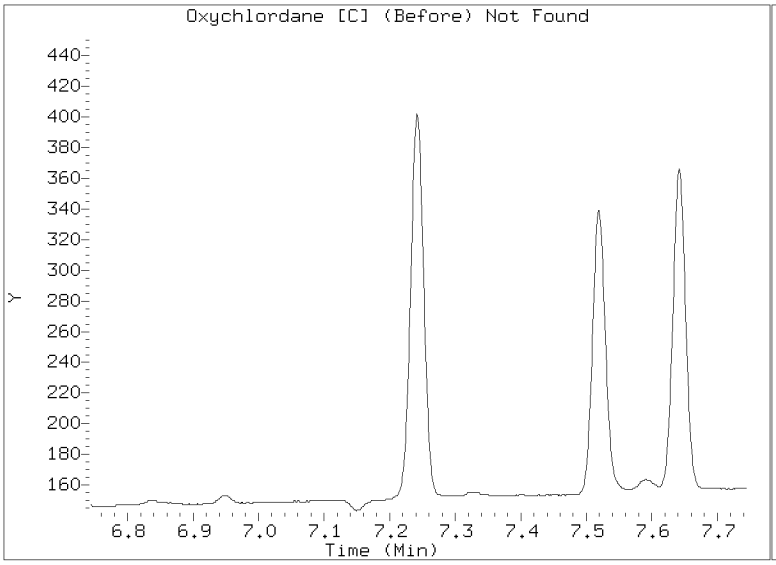
/20200307.b/20200307.b/20030715.D SIC0095-CAL9 CLP2

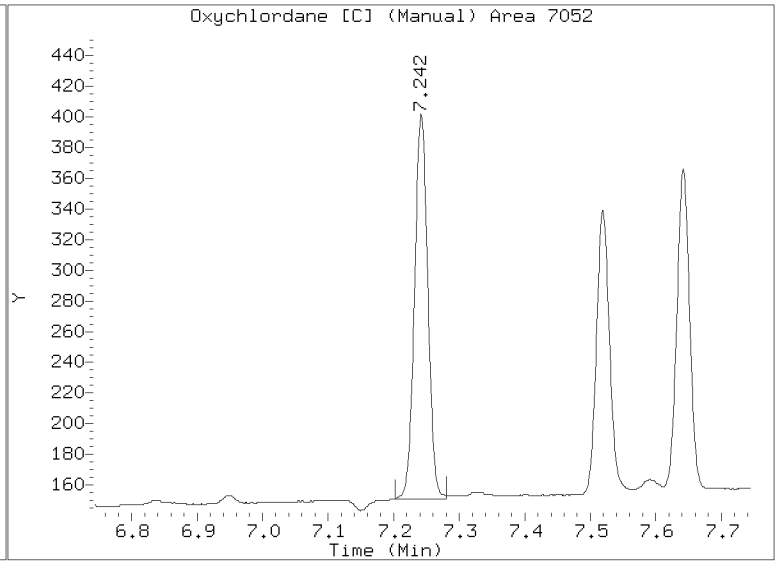


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030715.D
Injection Date: 07-MAR-2020 12:50
Lab ID:SIC0095-CAL9 Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030716.D
Data file 2: /20200307.b/20200307.b/20030716.D
Method: \20200307.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALA
Client ID:
Injection Date: 07-MAR-2020 13:08
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.235	0.000	21052	7.243	-0.001	12922	10.30	9.92	3.8	Oxychlordane N
6.333	0.000	16120	7.520	-0.001	9649	10.47	10.65	1.8	2,4-DDE
6.612	0.000	22249	7.643	-0.001	11126	10.40	10.42	0.2	trans-Nonachlor
6.887	0.000	15535	8.062	-0.000	10216	10.57	10.33	2.3	2,4-DDD
7.159	0.000	16602	8.377	-0.001	9884	10.26	10.40	1.4	2,4-DDT
7.310	0.000	26098	8.446	-0.001	14962	10.22	10.35	1.2	cis-Nonachlor
8.294	0.000	16010	9.726	-0.002	10196	9.62	10.02	4.1	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	150- 0
Decachlorobiphenyl	0.0	0.0	0.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

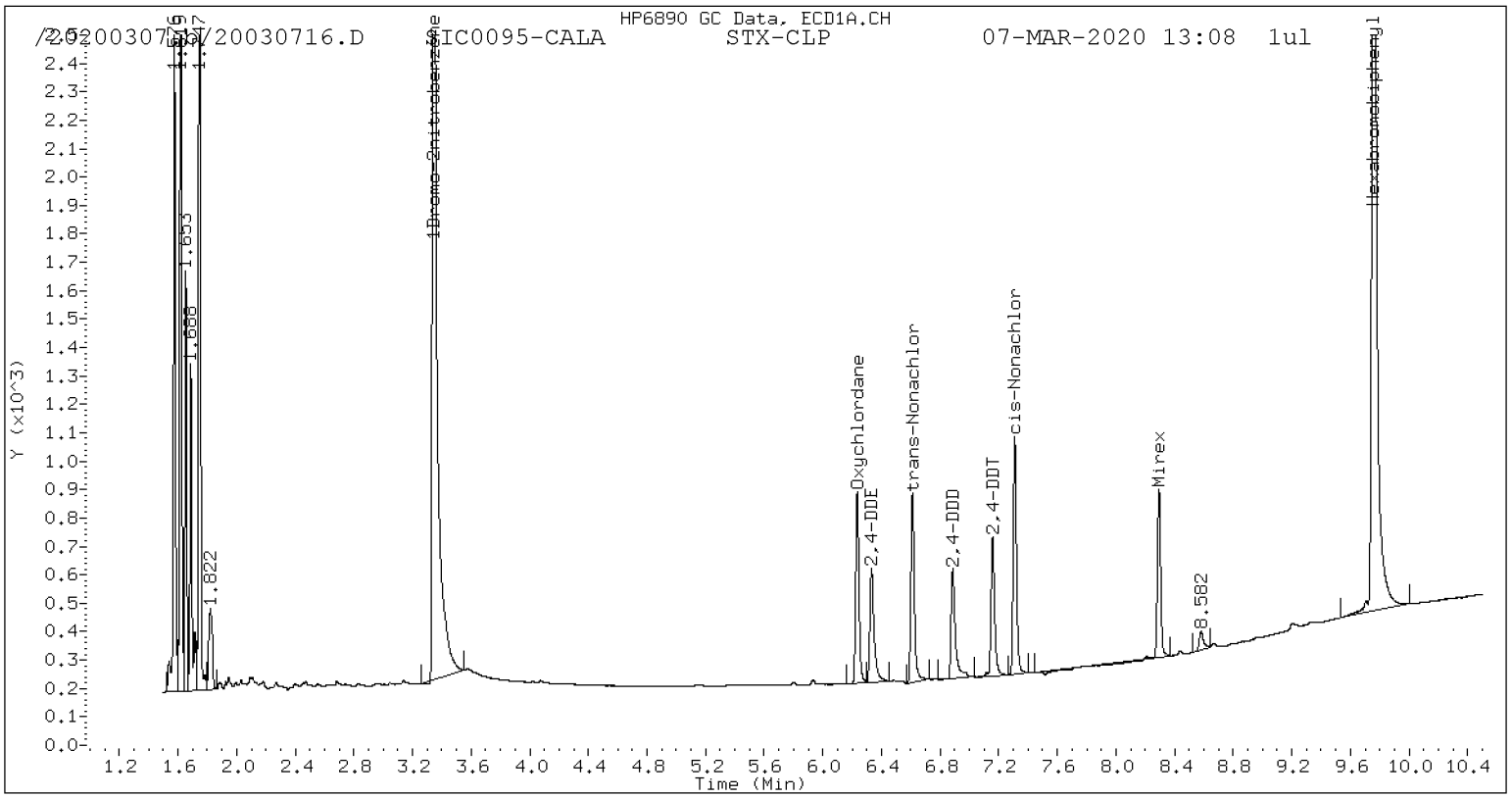
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	176313	-6.9
Hexabromobiphenyl	177311	165692	-6.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	141102	-5.4
Hexabromobiphenyl	80212	74823	-6.7

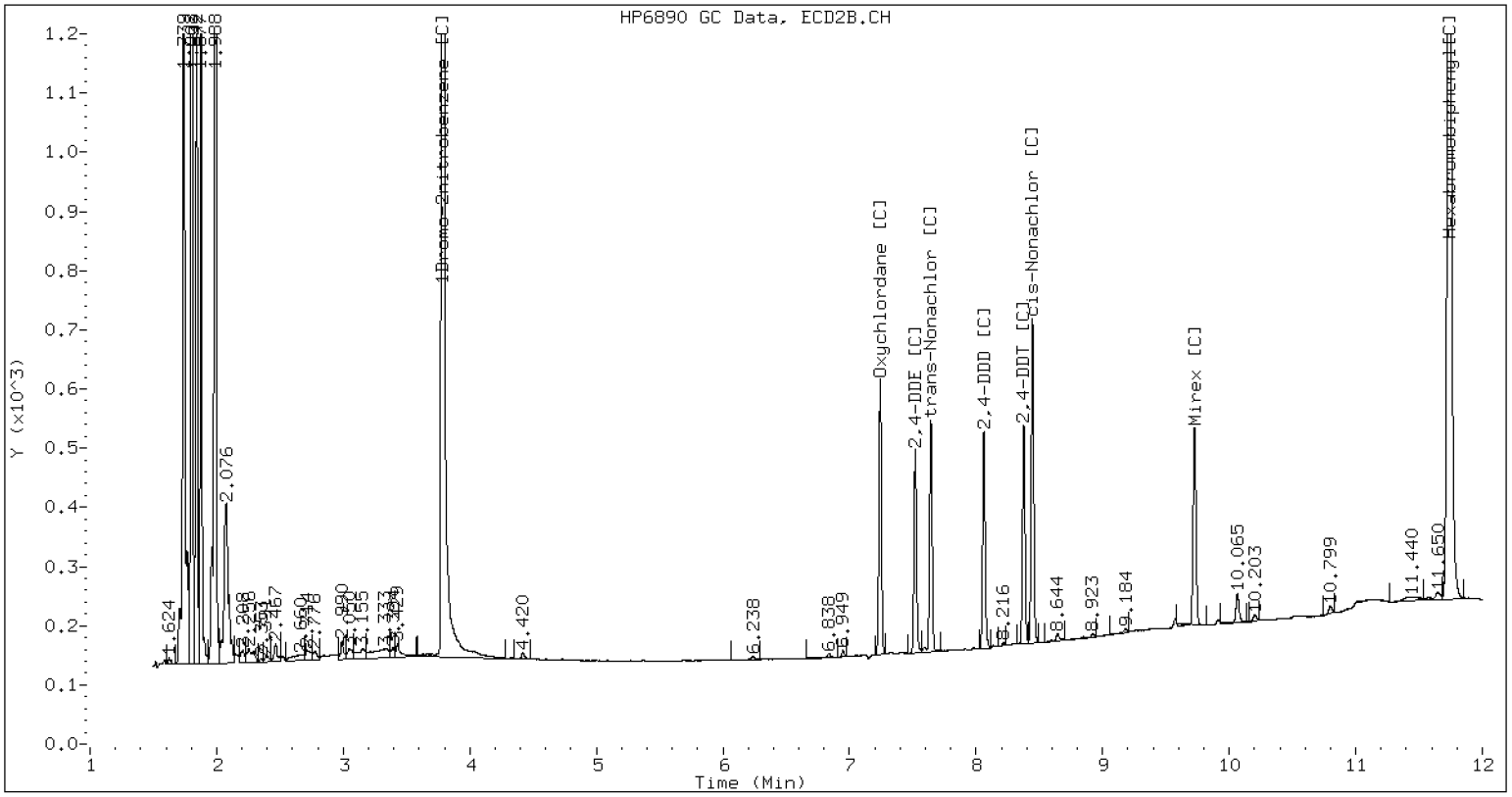
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

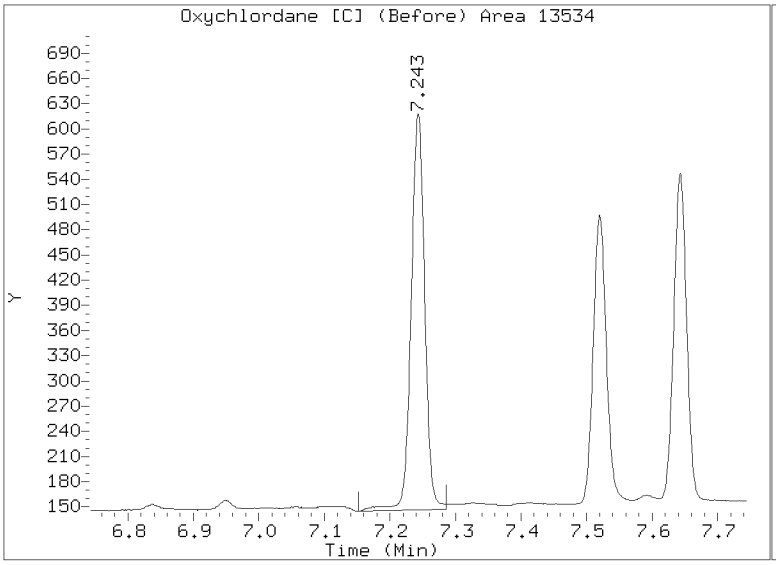
/20200307.b/20200307.b/20030716.D SIC0095-CALA CLP2

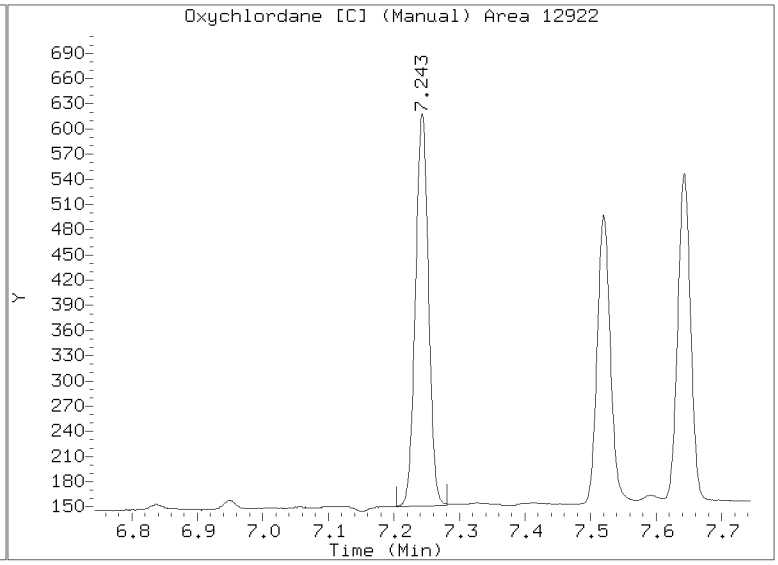


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030716.D
Injection Date: 07-MAR-2020 13:08
Lab ID:SIC0095-CALA Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030717.D
Data file 2: /20200307.b/20200307.b/20030717.D
Method: \20200307.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALB
Client ID:
Injection Date: 07-MAR-2020 13:26
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.234	-0.001	40751	7.243	-0.002	25432	19.46	19.38	0.4	Oxychlordane N
6.331	-0.002	30691	7.519	-0.002	18233	19.45	19.98	2.7	2,4-DDE
6.610	-0.002	42574	7.642	-0.002	21467	19.41	19.43	0.1	trans-Nonachlor
6.885	-0.002	30631	8.061	-0.001	19757	20.34	19.29	5.3	2,4-DDD
7.158	-0.001	32614	8.377	-0.001	19288	19.66	19.61	0.3	2,4-DDT
7.309	-0.001	50753	8.446	-0.002	29478	19.39	19.69	1.5	cis-Nonachlor
8.292	-0.001	34274	9.726	-0.003	20662	20.10	19.62	2.4	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	150- 0
Decachlorobiphenyl	0.0	0.0	0.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

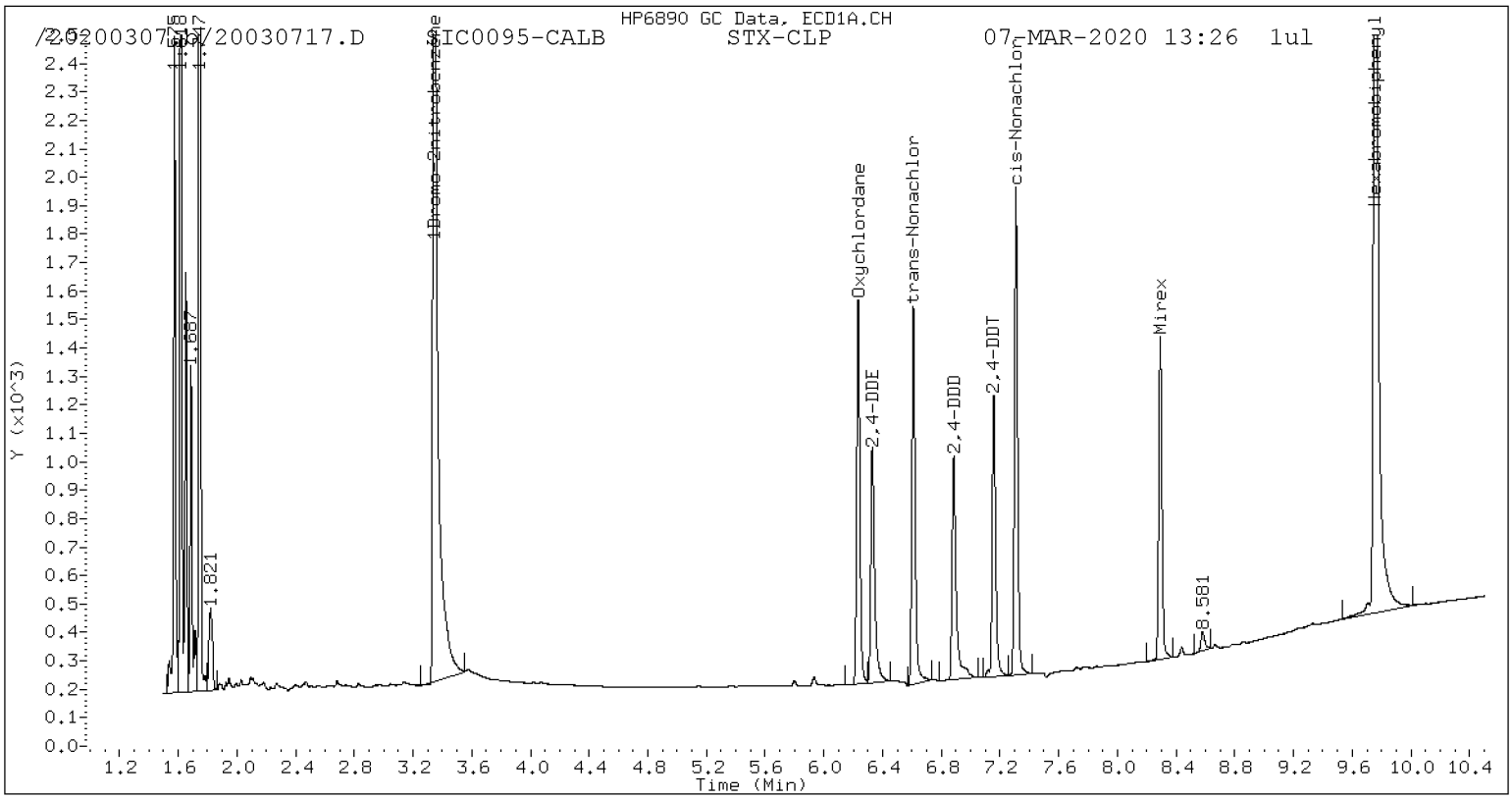
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	180593	-4.6
Hexabromobiphenyl	177311	169831	-4.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	142158	-4.7
Hexabromobiphenyl	80212	77459	-3.4

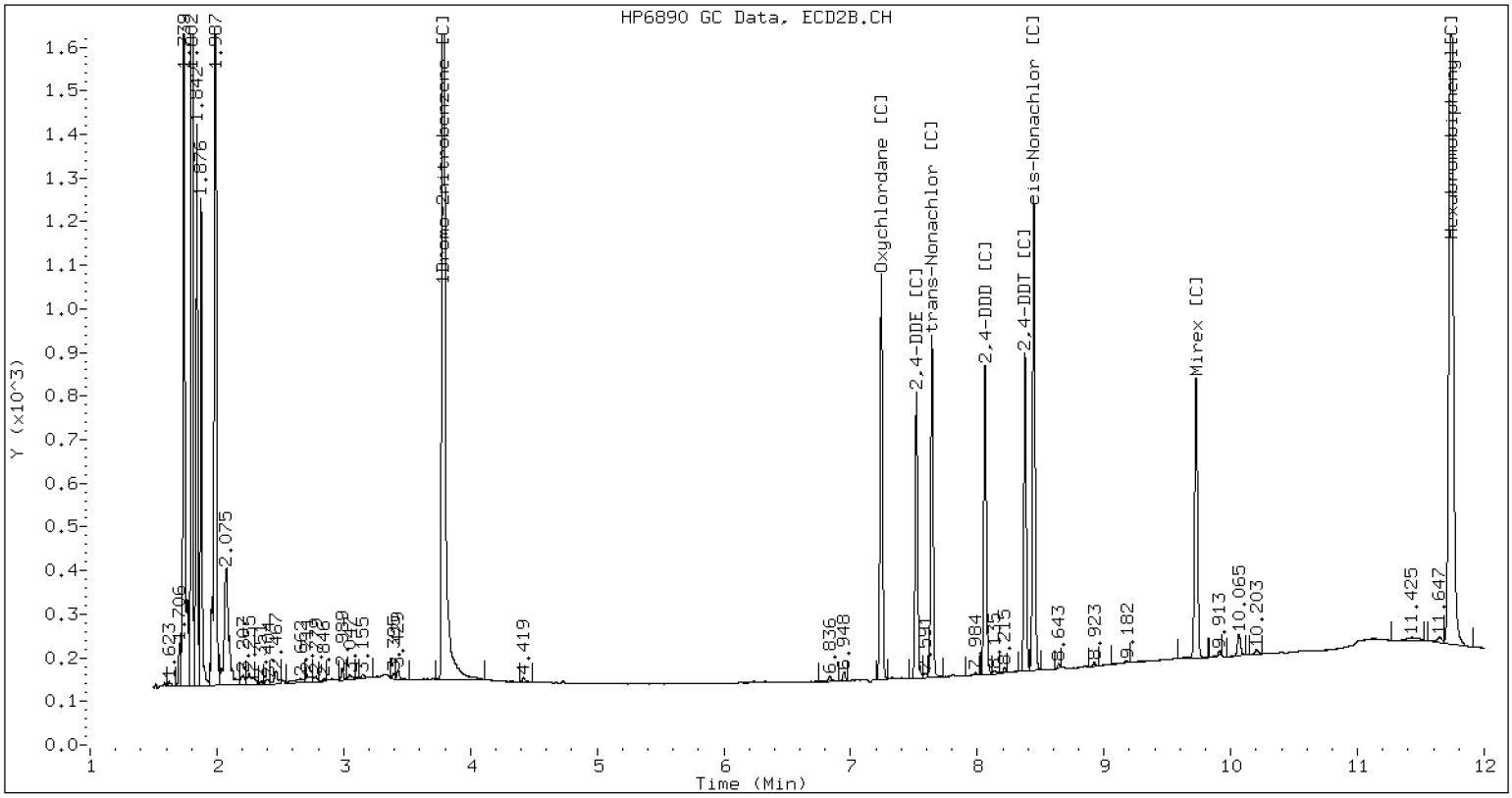
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

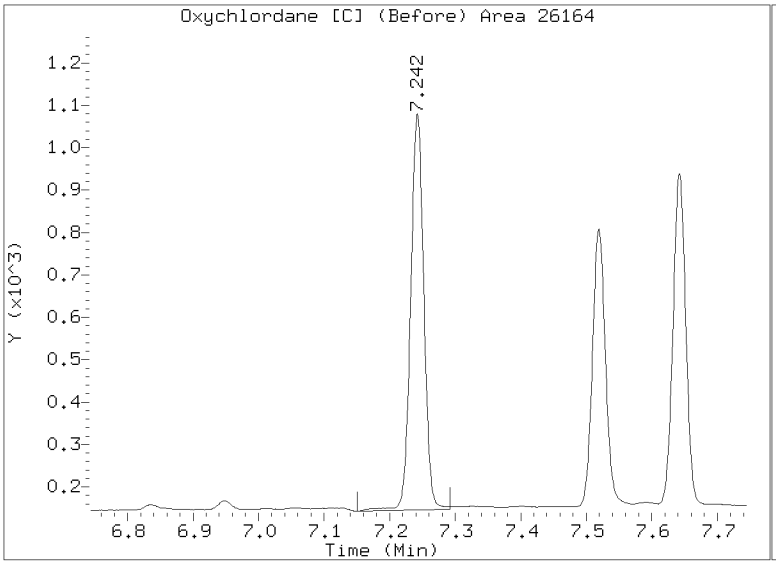
/20200307.b/20200307.b/20030717.D SIC0095-CALB CLP2

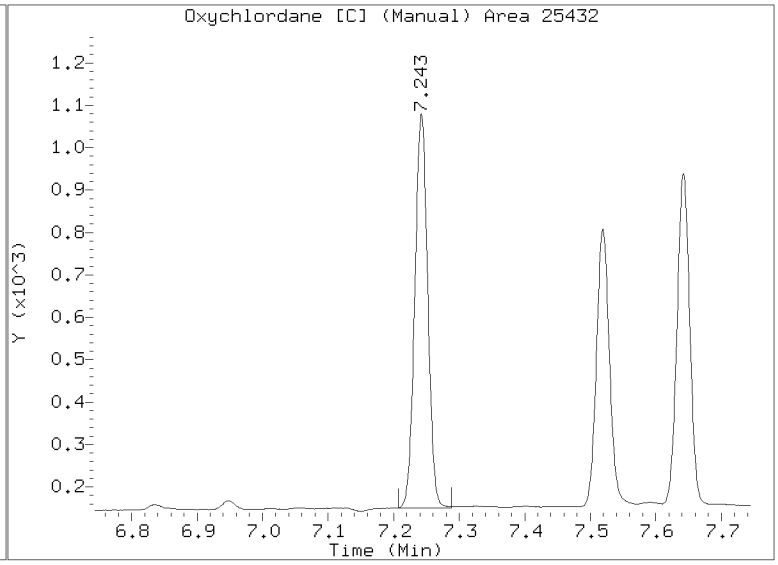


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030717.D
Injection Date: 07-MAR-2020 13:26
Lab ID:SIC0095-CALB Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030718.D
Data file 2: /20200307.b/20200307.b/20030718.D
Method: \20200307.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALC
Client ID:
Injection Date: 07-MAR-2020 13:44
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.237	0.001	84188	7.243	-0.001	53661	37.52	38.45	2.4	Oxychlordane N
6.332	-0.001	63829	7.521	0.001	35455	37.75	36.53	3.3	2,4-DDE
6.612	0.000	87083	7.644	0.000	45760	37.07	38.18	3.0	trans-Nonachlor
6.886	-0.001	58522	8.063	0.001	41013	36.27	36.92	1.8	2,4-DDD
7.158	-0.001	68391	8.379	0.000	40558	38.49	38.02	1.2	2,4-DDT
7.310	0.000	107172	8.447	0.000	62331	38.23	38.38	0.4	cis-Nonachlor
8.294	0.000	69877	9.728	-0.000	41673	38.25	36.48	4.7	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			11.046	-0.020	358	0.00	0.28	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	150- 0
Decachlorobiphenyl	0.0	0.7	0.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

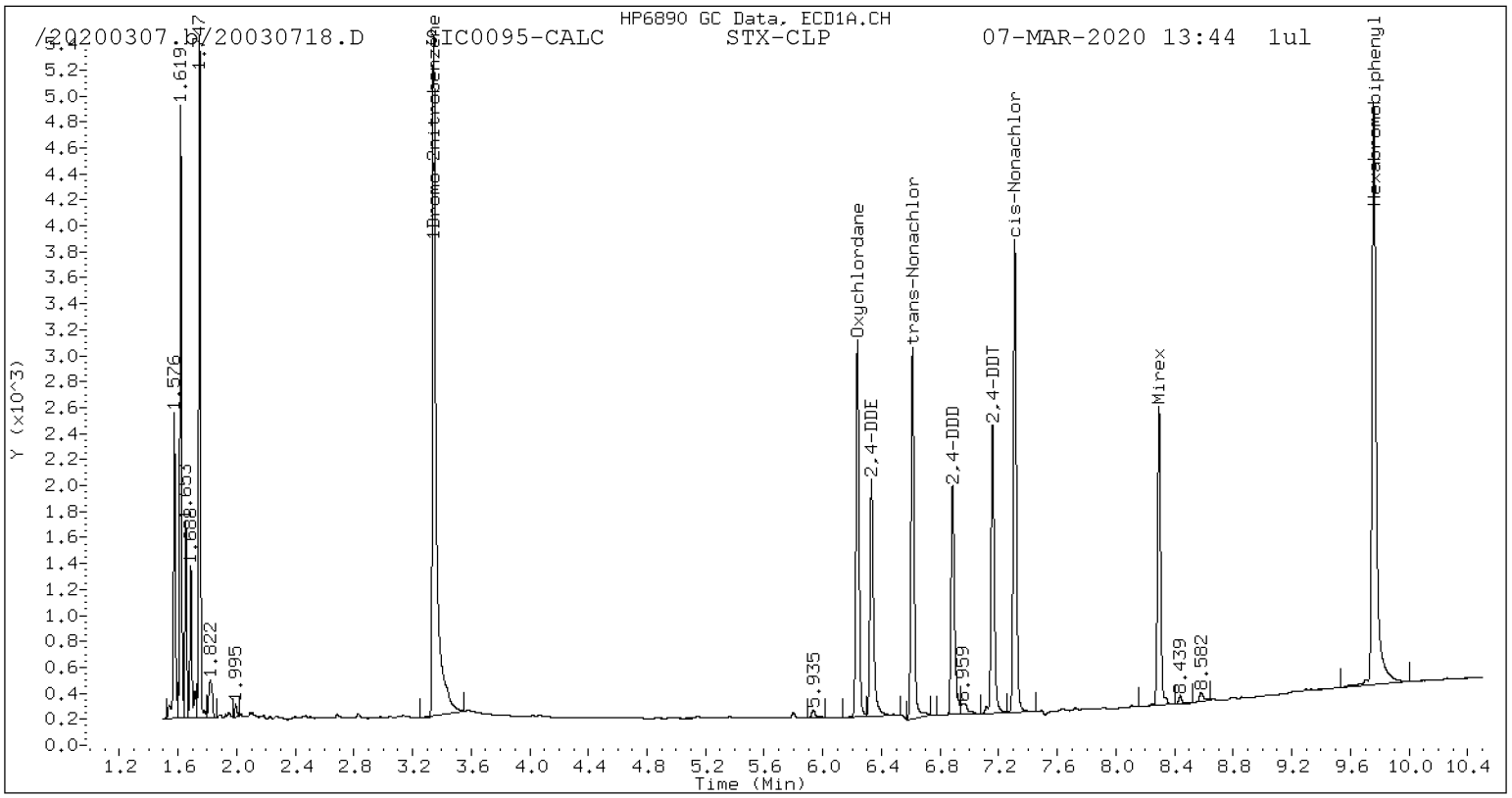
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	193359	2.1
Hexabromobiphenyl	177311	181941	2.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	151219	1.3
Hexabromobiphenyl	80212	84018	4.7

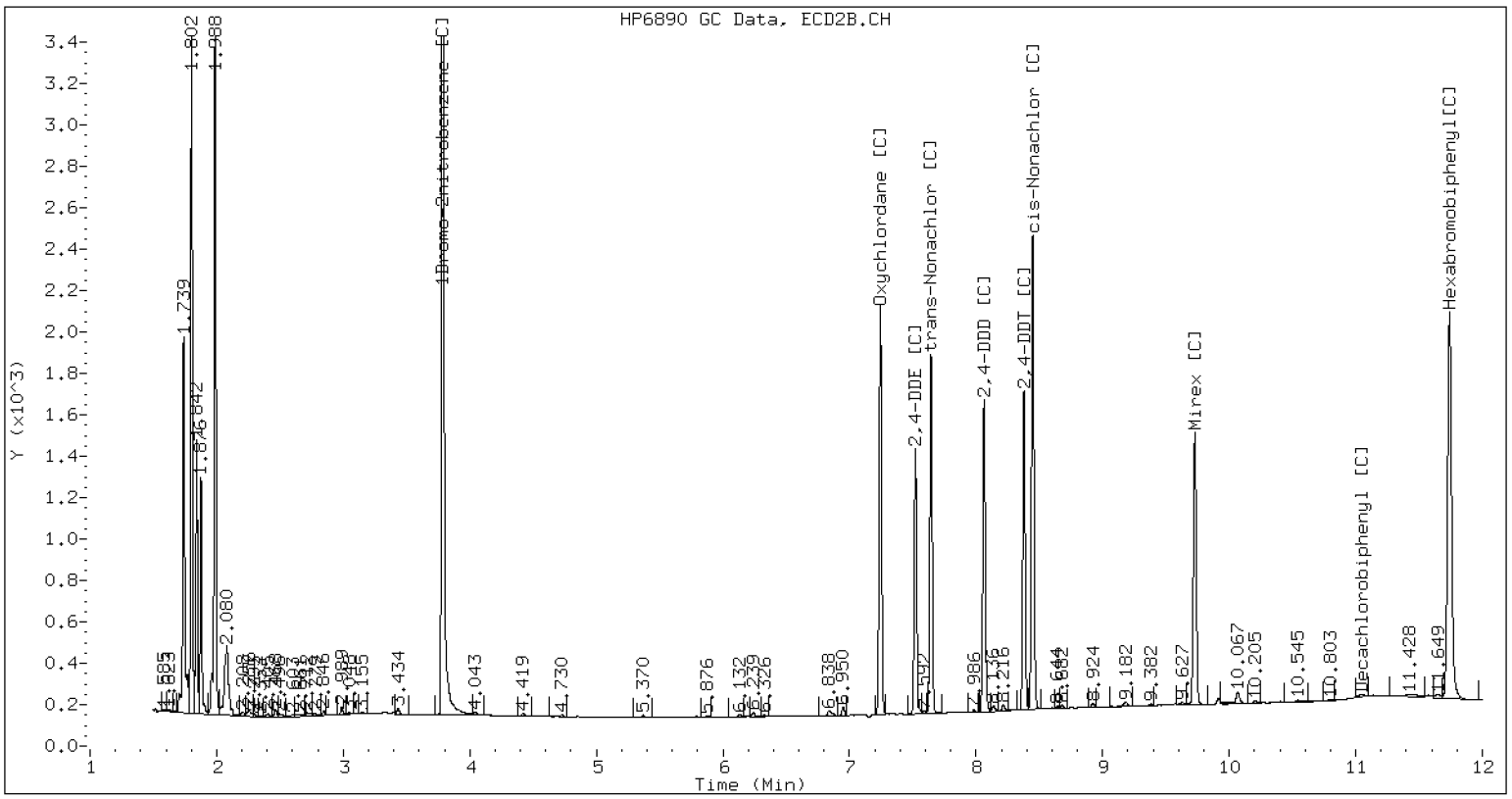
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

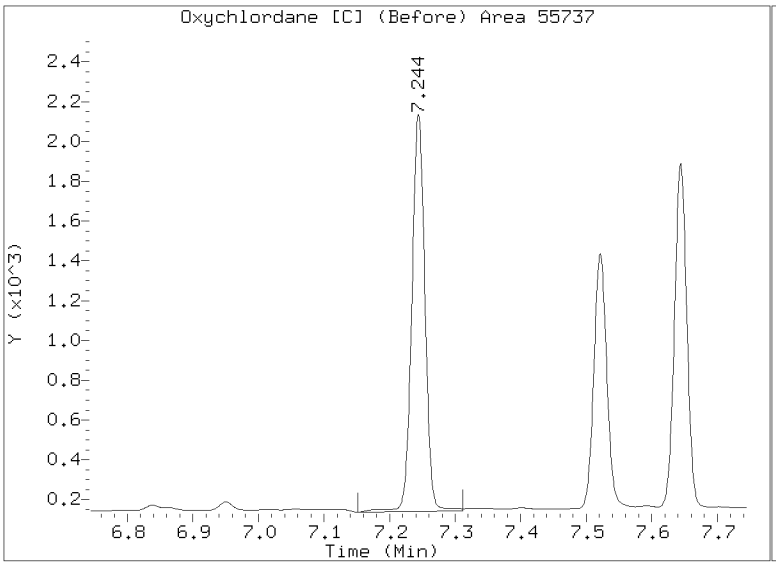
/20200307.b/20200307.b/20030718.D SIC0095-CALC CLP2

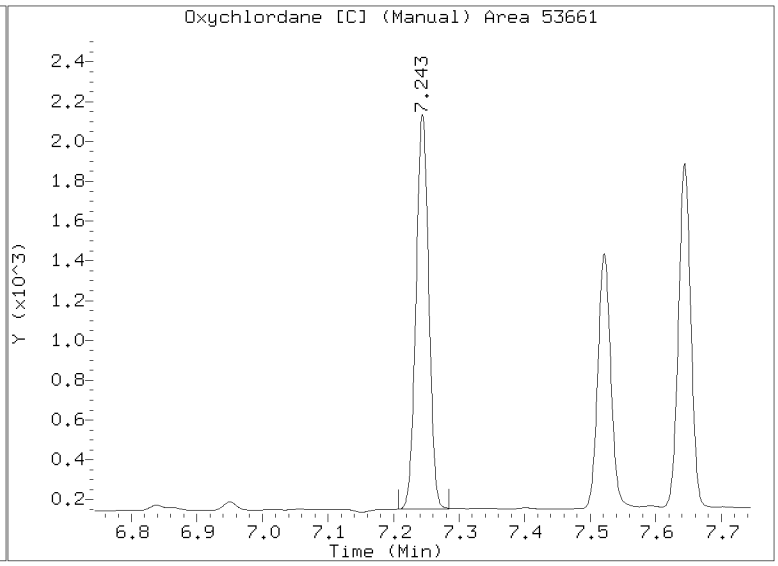


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030718.D
Injection Date: 07-MAR-2020 13:44
Lab ID:SIC0095-CALC Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030719.D
Data file 2: /20200307.b/20200307.b/20030719.D
Method: \20200307.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALD
Client ID:
Injection Date: 07-MAR-2020 14:02
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.235	-0.000	152989	7.243	-0.001	97593	72.94	74.56	2.2	Oxychlordane
6.330	-0.003	117139	7.520	-0.000	64814	74.11	71.19	4.0	2,4-DDE
6.611	-0.001	157272	7.643	-0.001	84938	71.61	75.73	5.6	trans-Nonachlor
6.884	-0.002	114971	8.062	-0.000	74175	76.21	71.36	6.6	2,4-DDD
7.157	-0.002	124813	8.378	-0.000	74232	75.13	74.36	1.0	2,4-DDT
7.309	-0.001	194836	8.447	-0.000	113367	74.34	74.60	0.4	cis-Nonachlor
8.293	-0.001	120506	9.728	-0.001	74410	70.56	69.61	1.3	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	150- 0
Decachlorobiphenyl	0.0	0.0	0.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

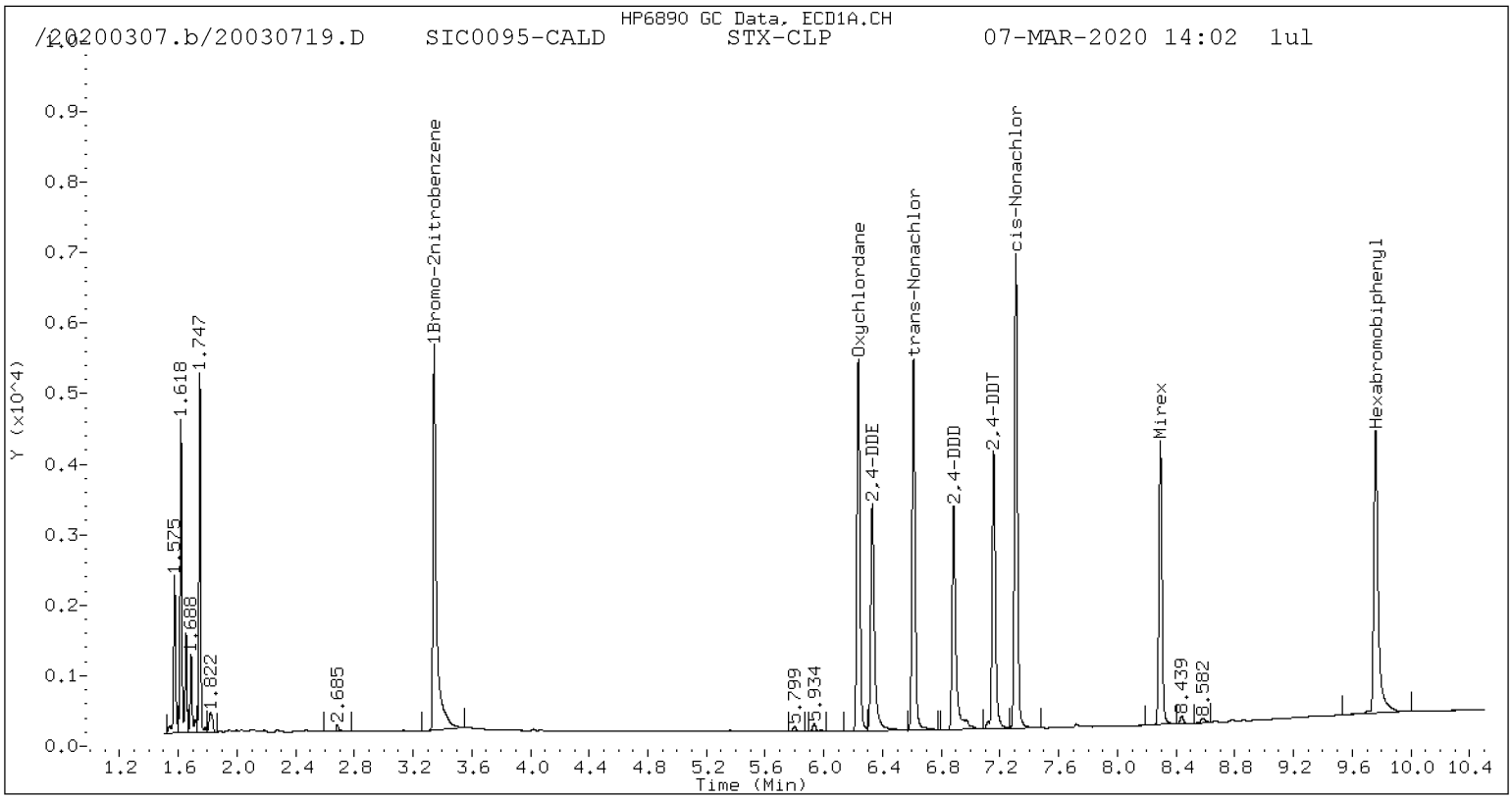
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	179835	-5.0
Hexabromobiphenyl	177311	170093	-4.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	141832	-5.0
Hexabromobiphenyl	80212	78626	-2.0

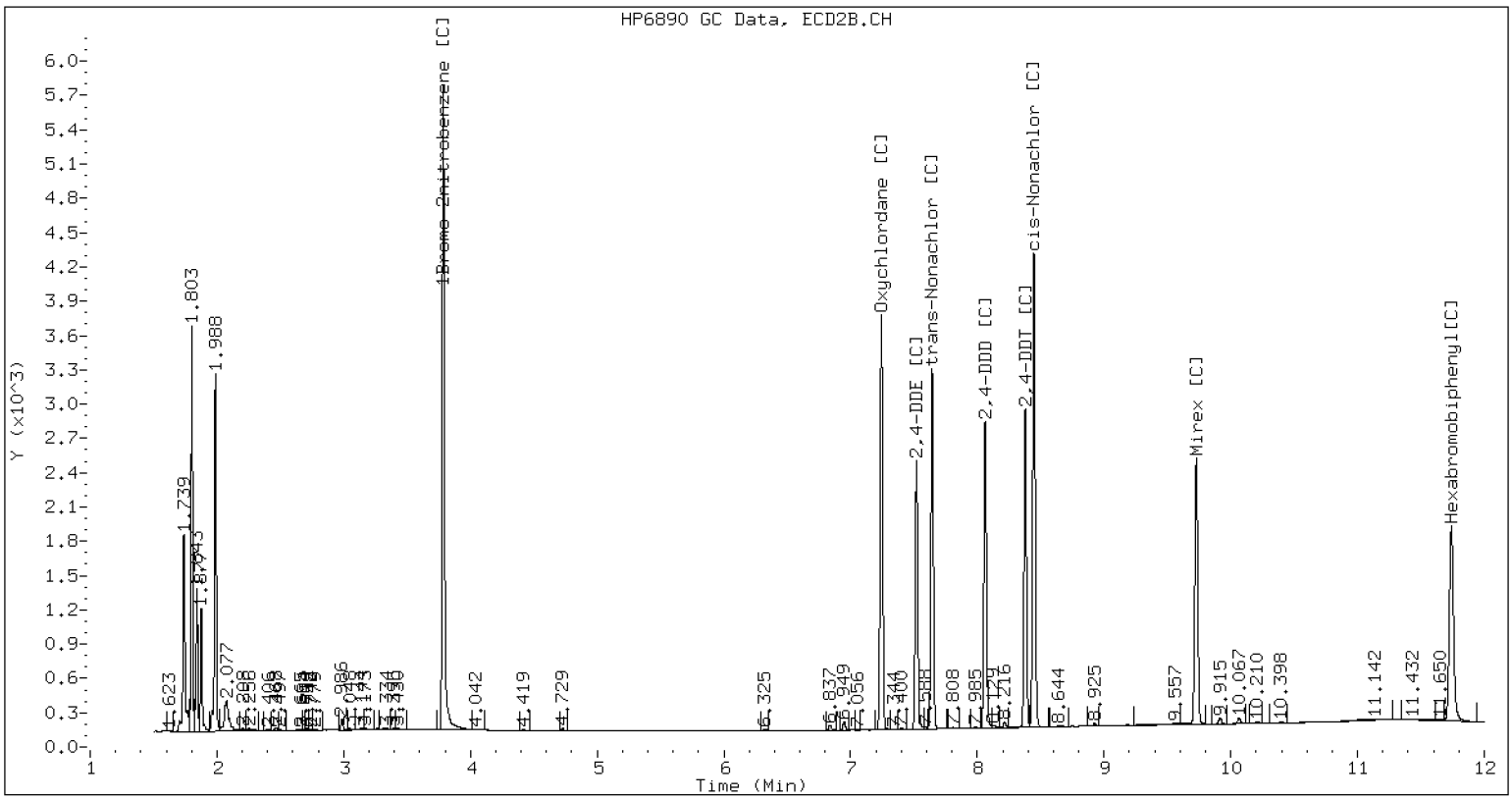
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030719.D SIC0095-CALD CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030720.D
Data file 2: /20200307.b/20200307.b/20030720.D
Method: \20200307.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALE
Client ID:
Injection Date: 07-MAR-2020 14:20
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.235	0.000	295376	7.244	0.000	185987	144.92	146.83	1.3	Oxychlordane
6.330	-0.002	214119	7.521	0.000	114996	139.41	130.54	6.6	2,4-DDE
6.611	-0.001	302731	7.644	0.000	164855	141.85	147.47	3.9	trans-Nonachlor
6.884	-0.003	220140	8.062	0.000	139500	150.18	134.64	10.9	2,4-DDD
7.157	-0.002	241817	8.378	0.000	141143	149.80	141.85	5.5	2,4-DDT
7.309	-0.001	377815	8.447	0.000	215771	148.35	142.45	4.1	cis-Nonachlor
8.294	-0.000	227928	9.729	0.000	141591	137.34	132.90	3.3	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	150- 0
Decachlorobiphenyl	0.0	0.0	0.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

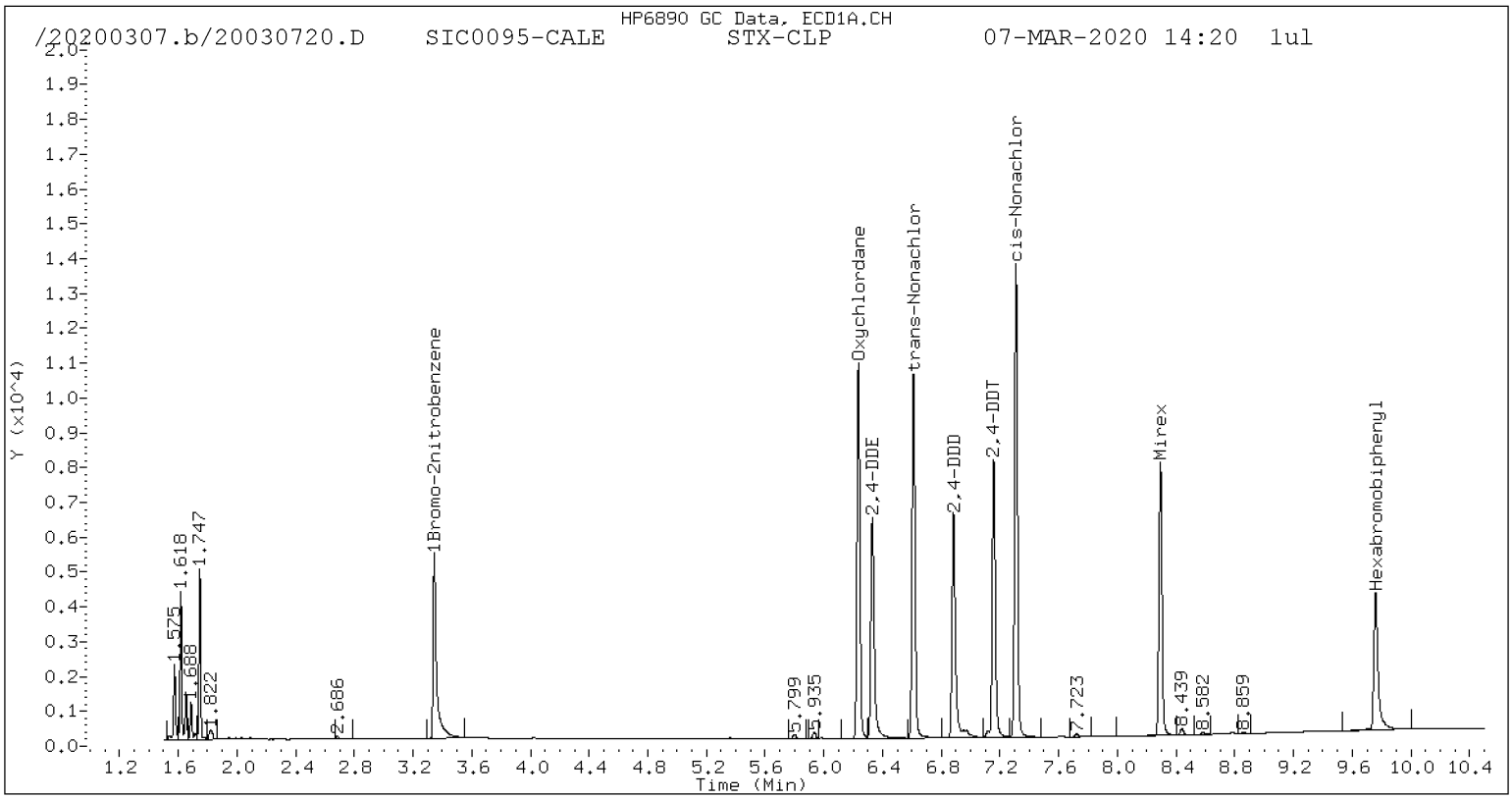
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	175041	-7.5
Hexabromobiphenyl	177311	165276	-6.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	137245	-8.0
Hexabromobiphenyl	80212	78367	-2.3

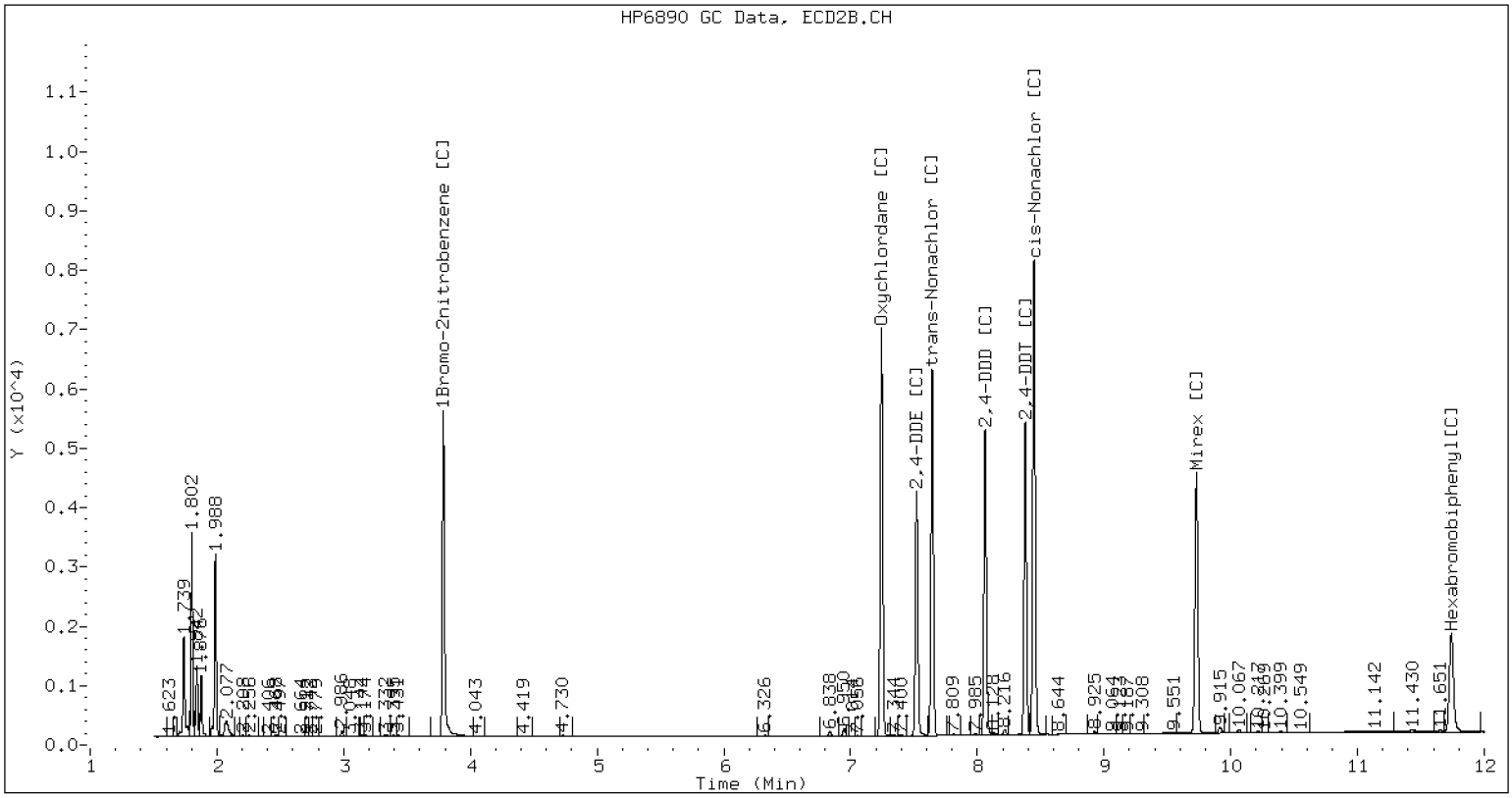
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030720.D SIC0095-CALE CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030721.D
Data file 2: /20200307.b/20200307.b/20030721.D
Method: \20200307.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-SCV2
Client ID:
Injection Date: 07-MAR-2020 14:38
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.235	-0.001	55865	7.243	-0.001	34683	31.35	31.57	0.7	Oxychlordane N
6.331	-0.001	34141	7.520	-0.001	21018	25.43	27.50	7.8	2,4-DDE
6.611	-0.001	50031	7.643	-0.001	25839	26.82	26.88	0.2	trans-Nonachlor
6.886	-0.001	32650	8.062	0.001	21619	25.48	24.27	4.9	2,4-DDD
7.158	-0.001	38658	8.378	-0.000	23515	27.39	27.49	0.3	2,4-DDT
7.309	-0.001	59128	8.447	-0.000	34194	26.56	26.26	1.1	cis-Nonachlor
8.293	-0.001	39074	9.727	-0.001	23682	26.93	25.85	4.1	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	150- 0
Decachlorobiphenyl	0.0	0.0	0.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

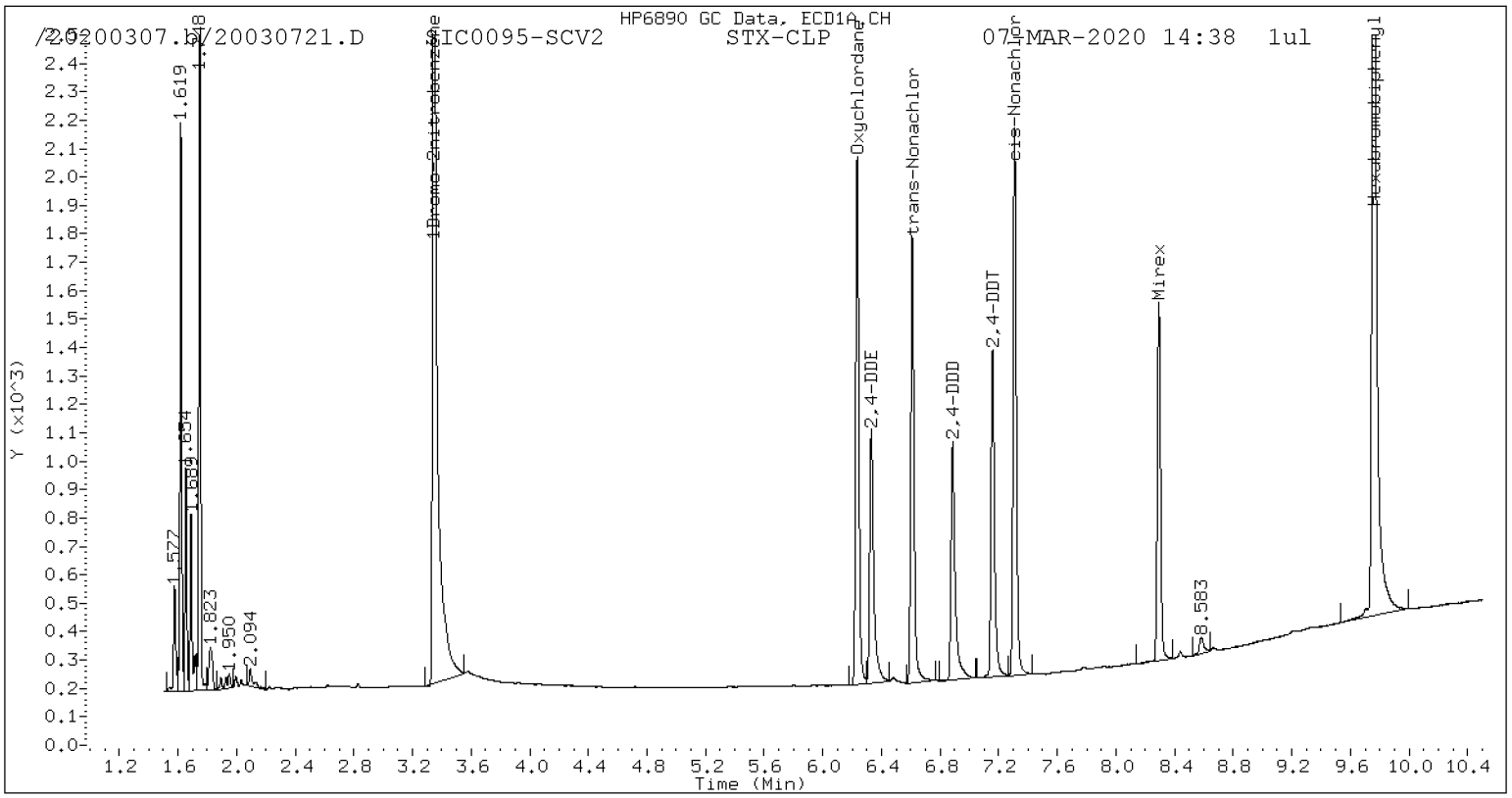
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	149191	-21.2
Hexabromobiphenyl	177311	144480	-18.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	119055	-20.2
Hexabromobiphenyl	80212	67379	-16.0

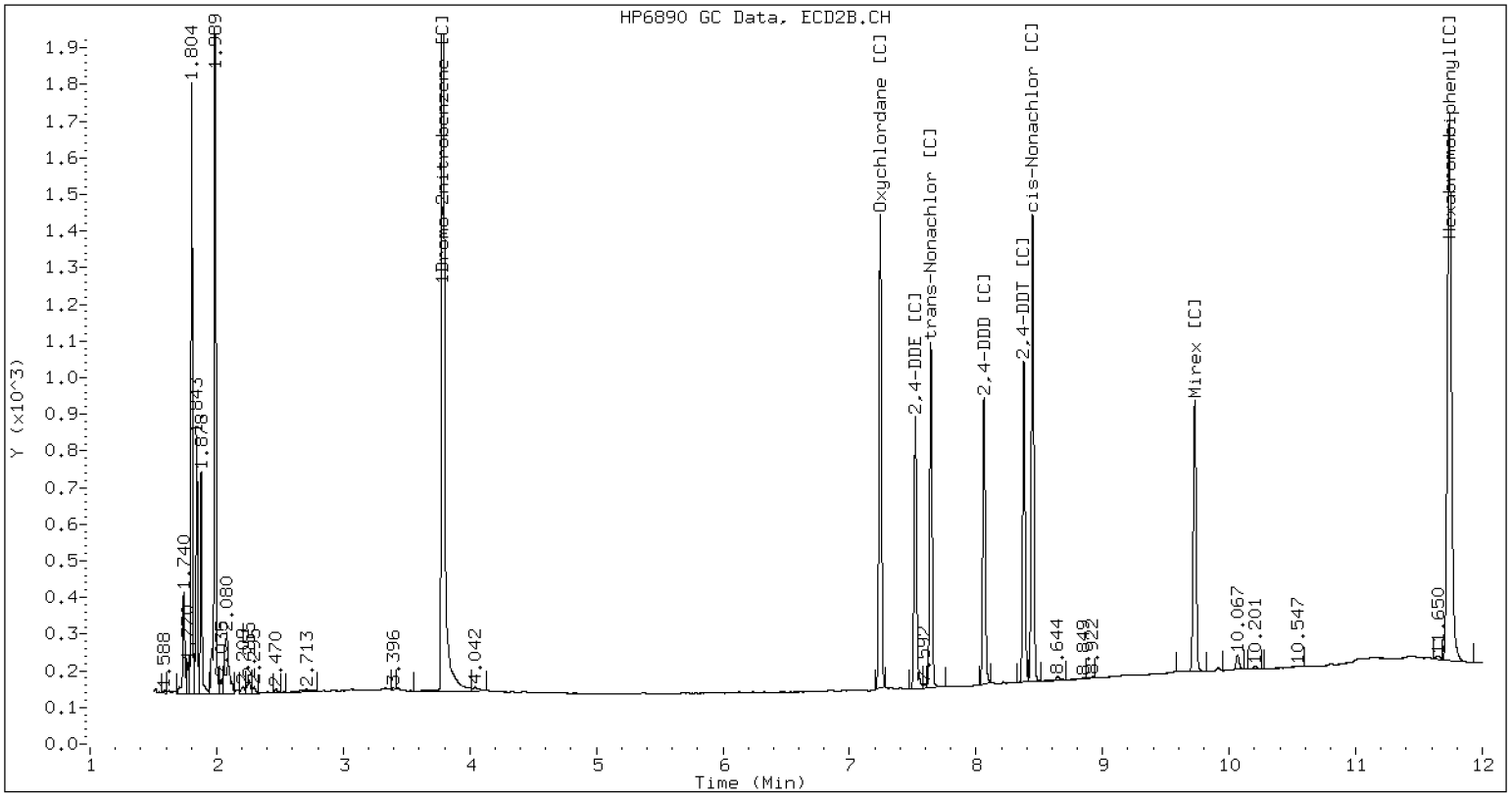
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

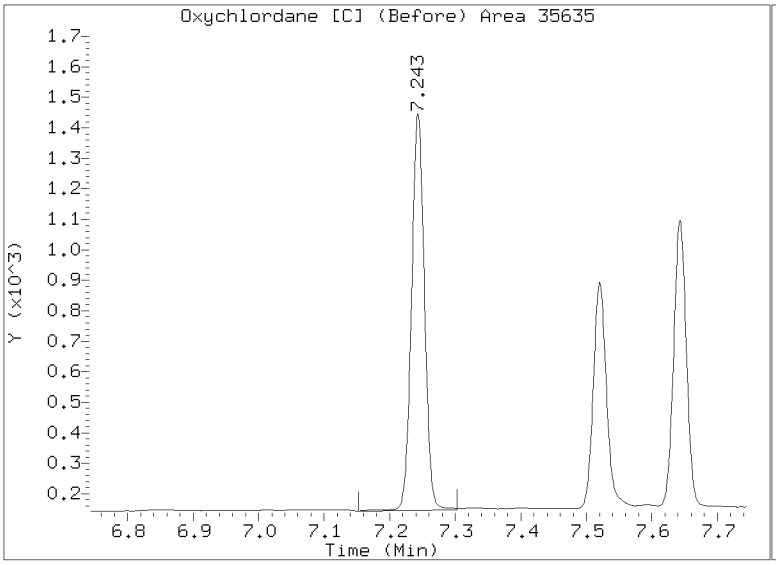
/20200307.b/20200307.b/20030721.D SIC0095-SCV2 CLP2

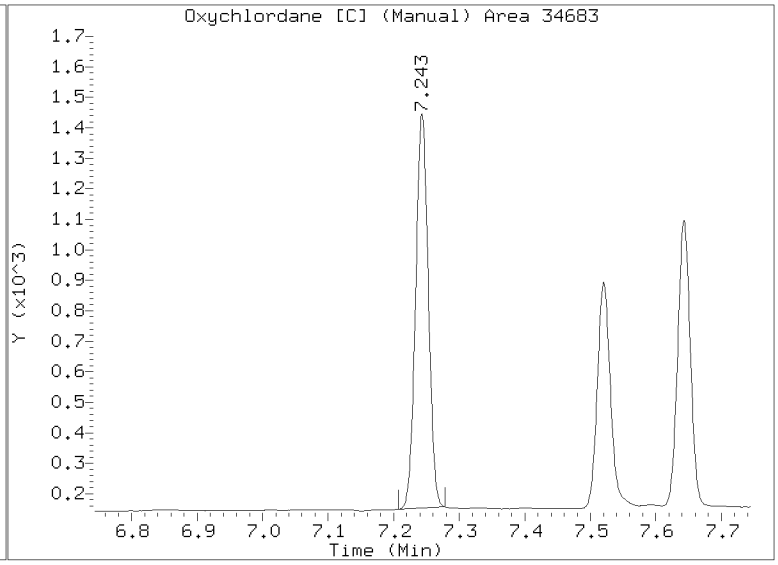


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030721.D
Injection Date: 07-MAR-2020 14:38
Lab ID:SIC0095-SCV2 Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030722.D
Data file 2: /20200307.b/20200307.b/20030722.D
Method: \20200307.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALF
Client ID:
Injection Date: 07-MAR-2020 14:56
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			4.704	0.004	1960	0.00	1.20	---	Tetrachloro-m-xylene
9.595	0.004	4423	11.068	0.002	3235	2.15	2.80	26.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	6.0	0.0~	150- 0
Decachlorobiphenyl	5.4	7.0	5.4~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	184733	-2.4
Hexabromobiphenyl	177311	163801	-7.6

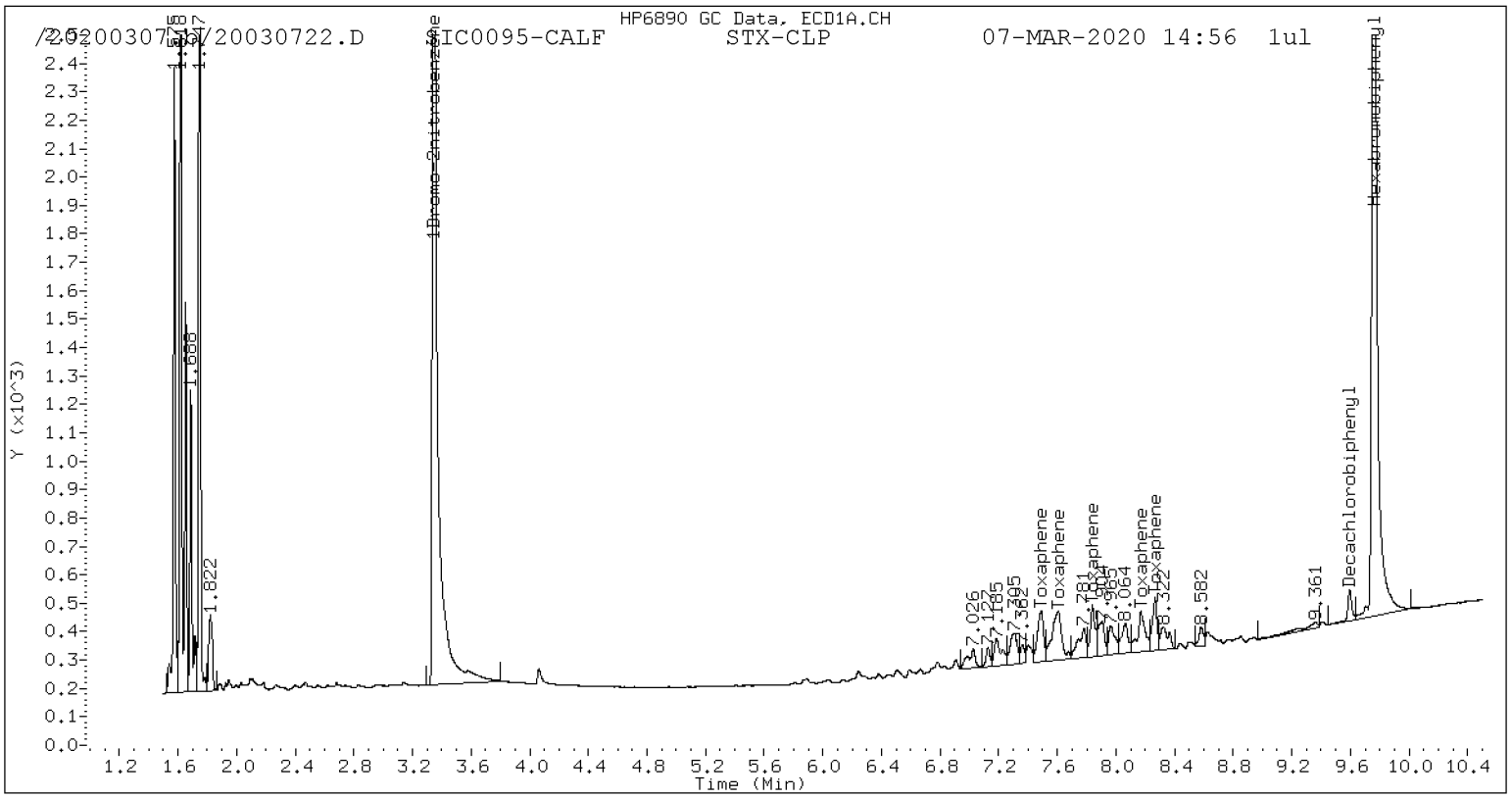
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	137081	-8.1
Hexabromobiphenyl	80212	76367	-4.8

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

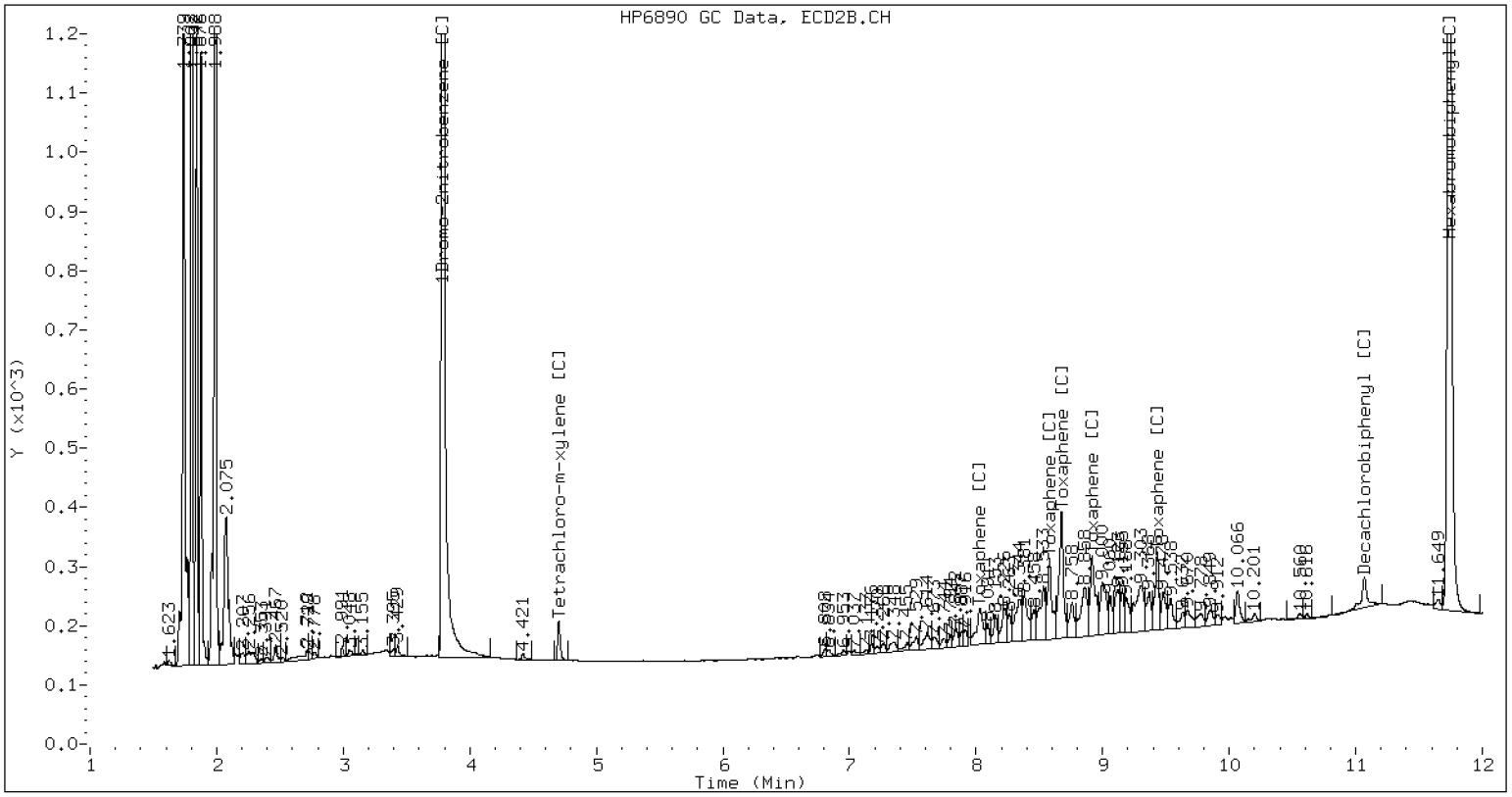
		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.488	0.002	10471	109.2	1	8.029	-0.004	4286	149.0
Toxaphene	2	7.604	0.002	15905	109.5	2	8.581	-0.002	6645	139.9
Toxaphene	3	7.840	0.001	7780	105.3	3	8.675	-0.003	10485	137.4
Toxaphene	4	8.172	0.000	10403	98.5	4	8.917	-0.003	7622	127.5
Toxaphene	5	8.267	0.002	8431	108.4	5	9.433	-0.002	5867	128.0
Total STX-CLPAve (5 peaks): 106.192						Total CLP2Ave (5 peaks): 136.362				RPD = 25
Corrected Ave (5 peaks): 106.192						Corrected Ave (5 peaks): 136.362				RPD = 25

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030722.D SIC0095-CALF CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030723.D
Data file 2: /20200307.b/20200307.b/20030723.D
Method: \20200307.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALG
Client ID:
Injection Date: 07-MAR-2020 15:14
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.064	0.008	3801	4.704	0.005	3751	2.07	2.28	9.4	Tetrachloro-m-xylene
9.595	0.003	6804	11.069	0.003	8399	3.24	7.19	75.7*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	10.4	11.4	10.4~	150- 0
Decachlorobiphenyl	8.1	18.0	8.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	188458	-0.5
Hexabromobiphenyl	177311	166666	-6.0

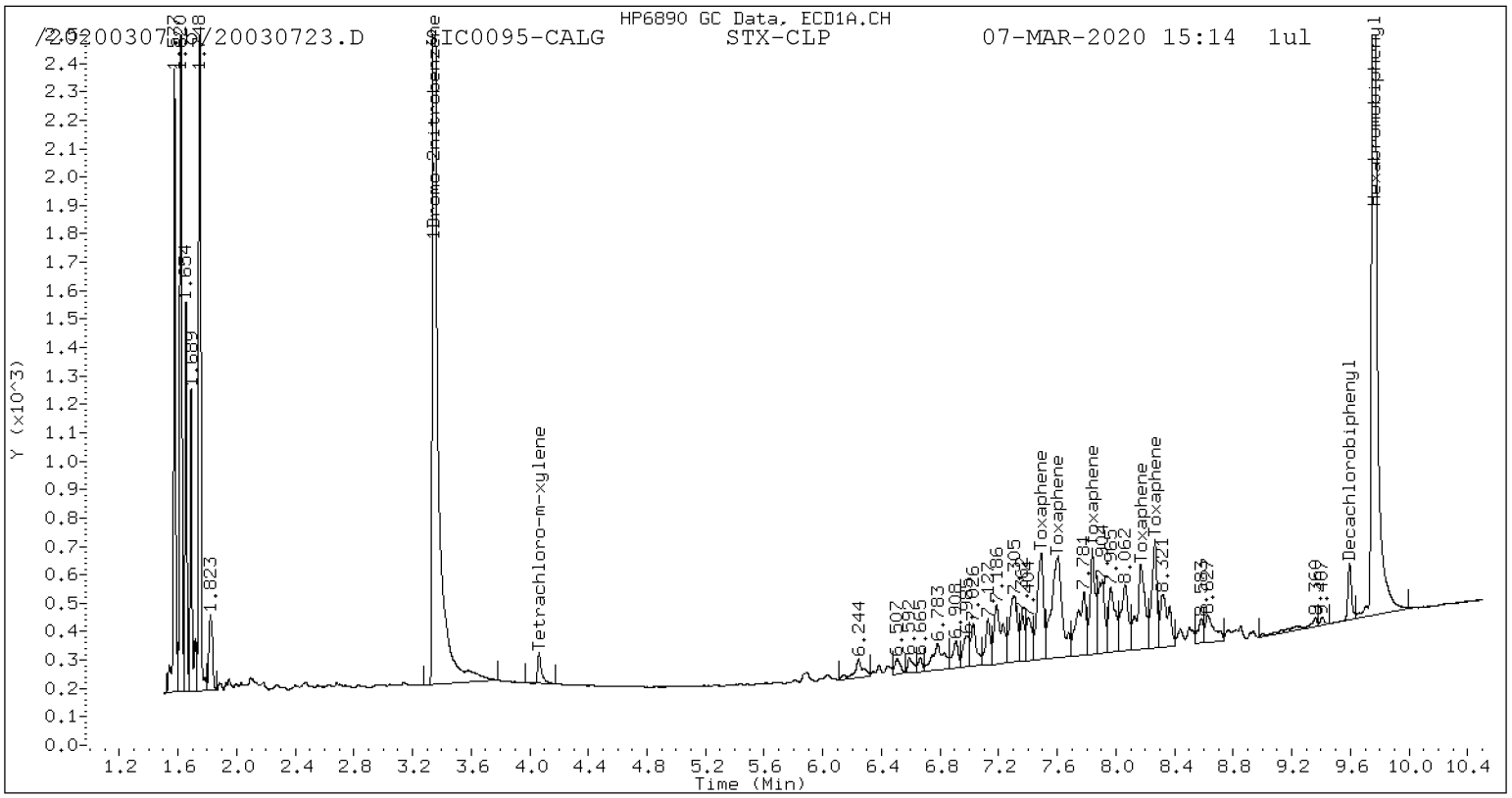
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	138782	-7.0
Hexabromobiphenyl	80212	77218	-3.7

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

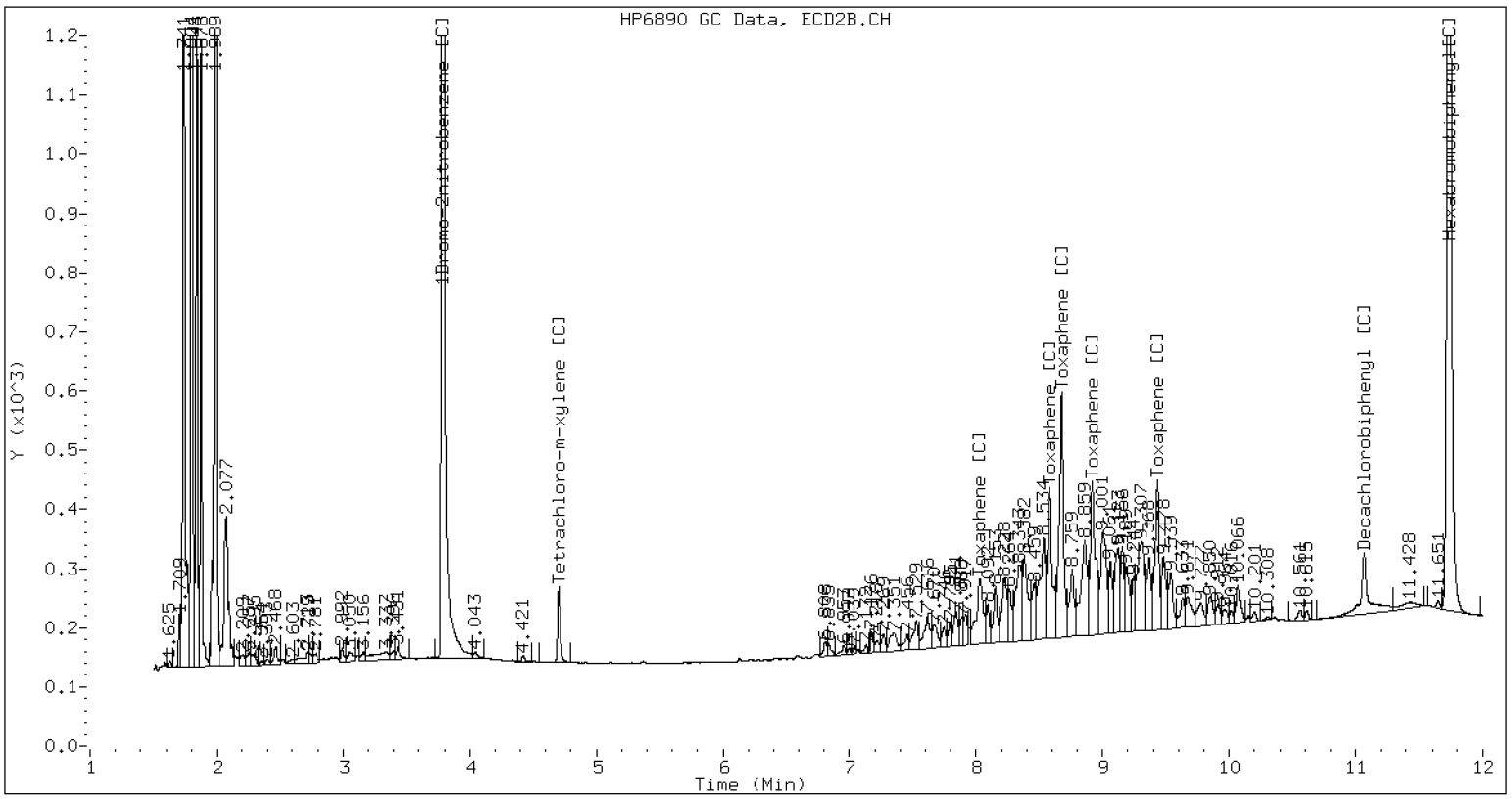
		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.488	0.002	22704	232.7	1	8.030	-0.003	8030	276.2
Toxaphene	2	7.602	0.000	36930	249.9	2	8.582	-0.001	12807	266.6
Toxaphene	3	7.839	0.001	17224	229.2	3	8.677	-0.001	19701	255.4
Toxaphene	4	8.171	-0.000	23749	221.1	4	8.918	-0.001	14829	245.2
Toxaphene	5	8.266	0.001	18460	233.3	5	9.433	-0.001	11308	244.0
Total STX-CLPAve (5 peaks): 233.221						Total CLP2Ave (5 peaks): 257.478				RPD = 10
Corrected Ave (5 peaks): 233.221						Corrected Ave (5 peaks): 257.478				RPD = 10

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030723.D SIC0095-CALG CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030724.D
Data file 2: /20200307.b/20200307.b/20030724.D
Method: \20200307.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALH
Client ID:
Injection Date: 07-MAR-2020 15:32
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.063	0.008	7547	4.705	0.005	7298	4.42	4.44	0.2	Tetrachloro-m-xylene
9.593	0.001	14127	11.068	0.002	9662	6.80	8.27	19.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	22.1	22.2	22.1~	150- 0
Decachlorobiphenyl	17.0	20.7	17.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	175285	-7.4
Hexabromobiphenyl	177311	165183	-6.8

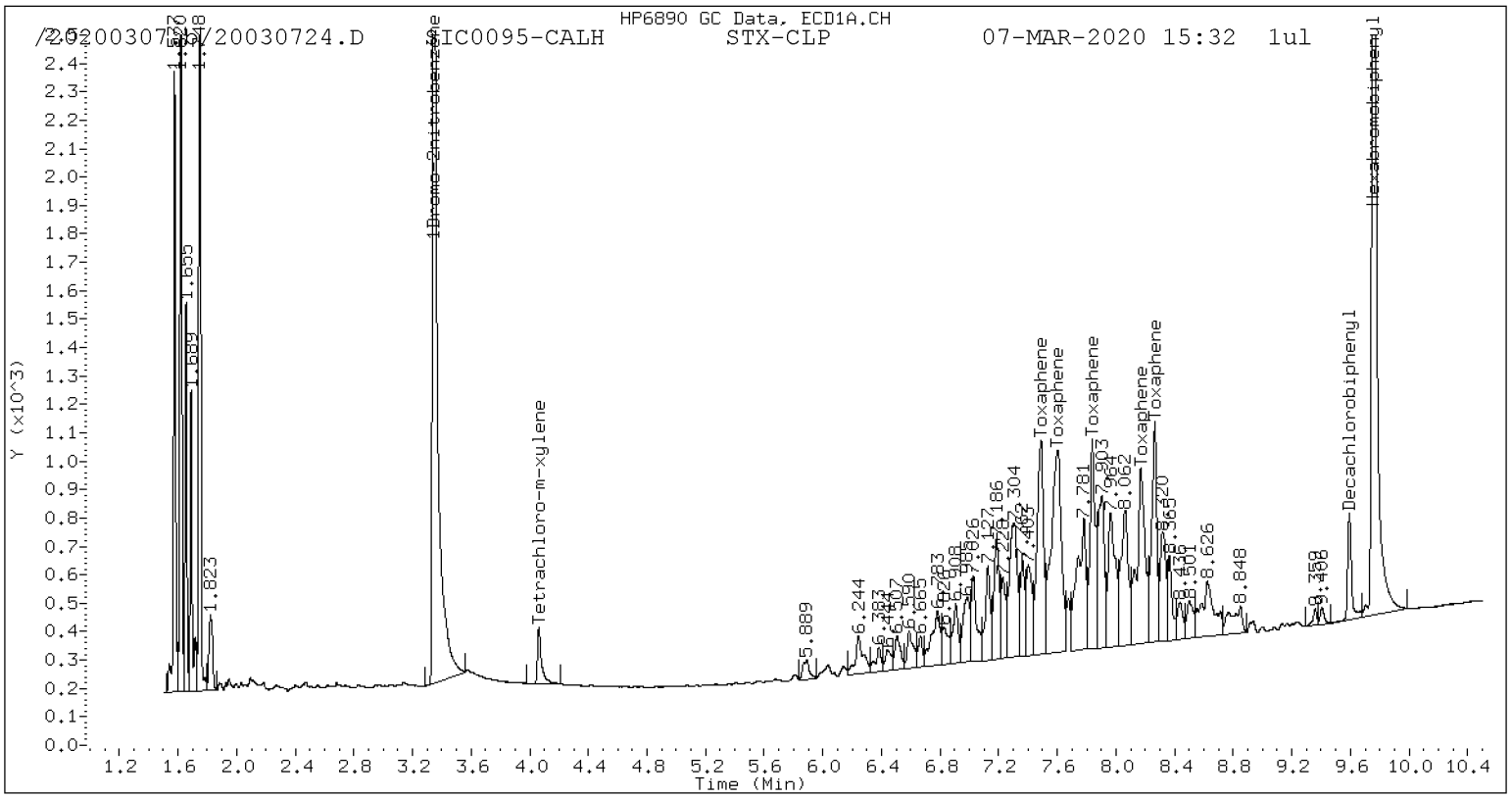
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	138622	-7.1
Hexabromobiphenyl	80212	77212	-3.7

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

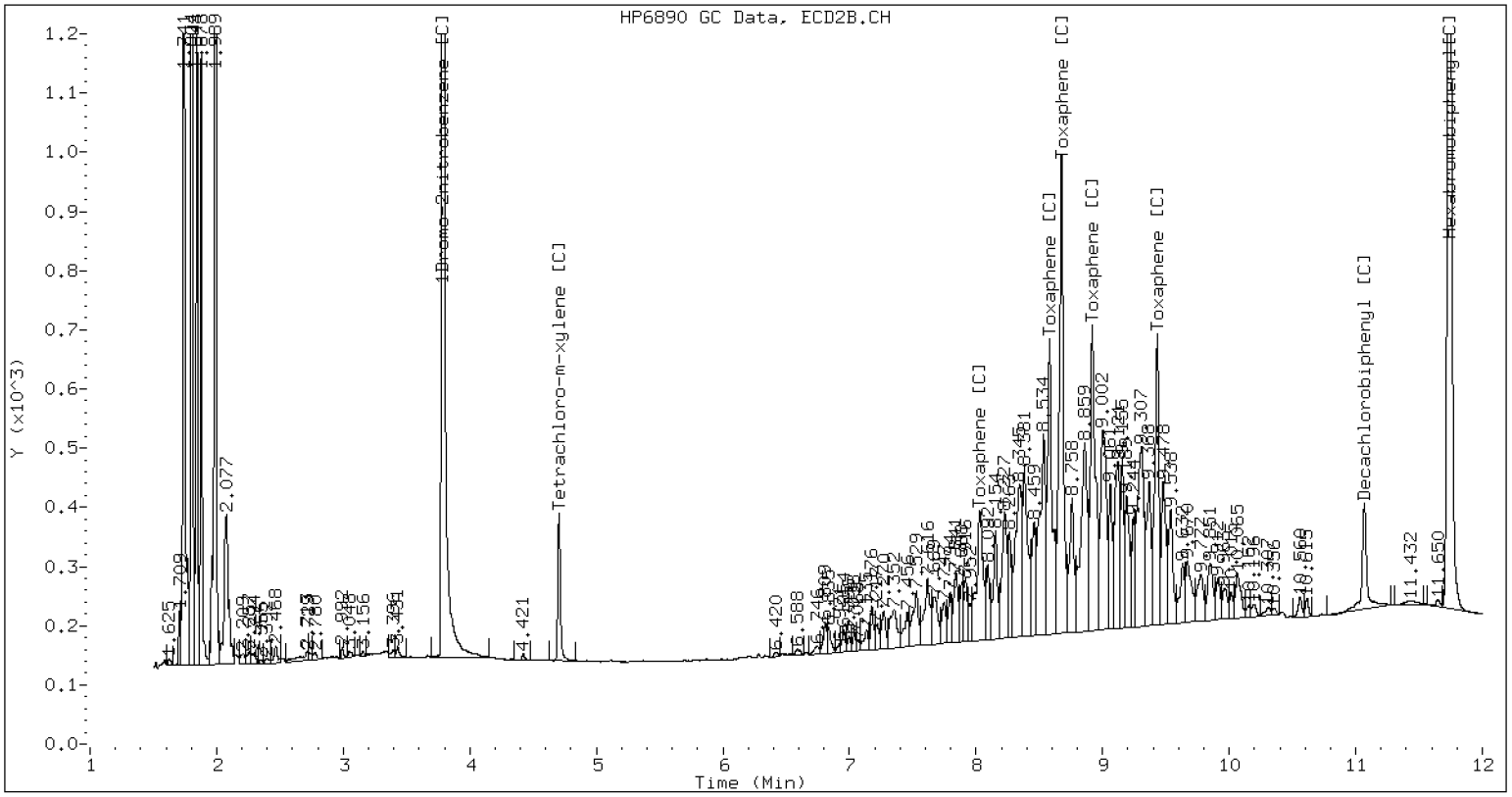
		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.487	0.001	47980	496.1	1	8.029	-0.004	16100	553.8
Toxaphene	2	7.602	-0.000	69961	477.7	2	8.581	-0.002	25412	529.0
Toxaphene	3	7.839	0.000	37199	499.4	3	8.676	-0.002	38528	499.5
Toxaphene	4	8.171	-0.001	48654	457.0	4	8.917	-0.002	29589	489.4
Toxaphene	5	8.265	-0.000	38720	493.7	5	9.432	-0.002	22481	485.1
Total STX-CLPAve (5 peaks): 484.772						Total CLP2Ave (5 peaks): 511.353				RPD = 5
Corrected Ave (5 peaks): 484.772						Corrected Ave (5 peaks): 511.353				RPD = 5

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030724.D SIC0095-CALH CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030725.D
Data file 2: /20200307.b/20200307.b/20030725.D
Method: \20200307.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALI
Client ID:
Injection Date: 07-MAR-2020 15:49
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.062	0.007	14849	4.705	0.005	14354	8.09	8.67	7.0	Tetrachloro-m-xylene
9.594	0.002	26053	11.068	0.002	16900	12.35	14.28	14.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	40.4	43.4	40.4~	150- 0
Decachlorobiphenyl	30.9	35.7	30.9~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	188661	-0.4
Hexabromobiphenyl	177311	167684	-5.4

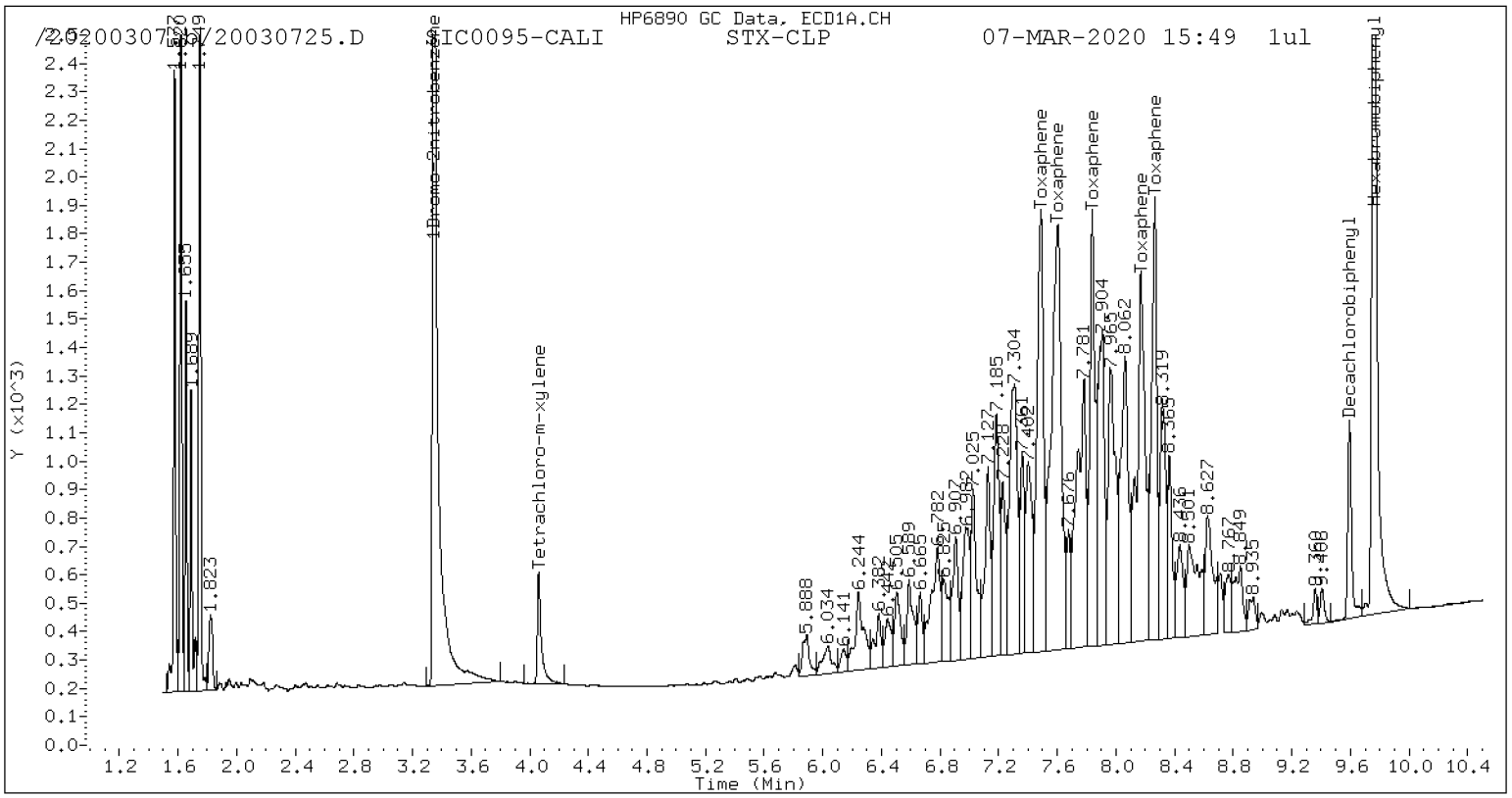
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	139448	-6.6
Hexabromobiphenyl	80212	78230	-2.5

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

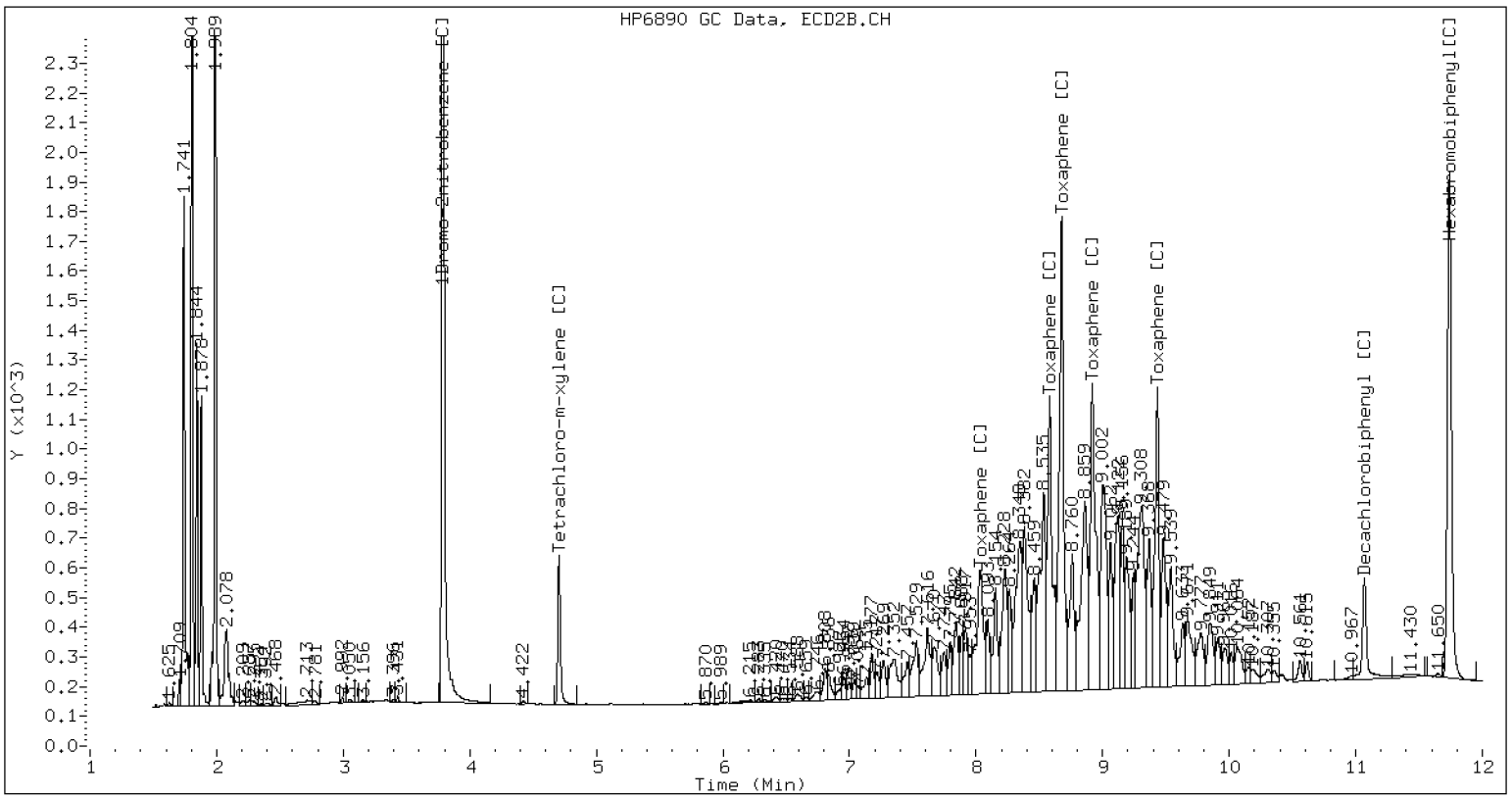
		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.487	0.001	98298	1001.2	1	8.031	-0.002	31963	1085.0
Toxaphene	2	7.603	0.000	144455	971.7	2	8.581	-0.001	51027	1048.5
Toxaphene	3	7.838	-0.000	77172	1020.6	3	8.676	-0.002	76249	975.7
Toxaphene	4	8.171	-0.000	107102	990.9	4	8.918	-0.001	60183	982.4
Toxaphene	5	8.265	0.000	77921	978.7	5	9.433	-0.001	45808	975.6
Total STX-CLPAve (5 peaks): 992.612						Total CLP2Ave (5 peaks): 1013.443				RPD = 2
Corrected Ave (5 peaks): 992.612						Corrected Ave (5 peaks): 1013.443				RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030725.D SIC0095-CALI CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030726.D
Data file 2: /20200307.b/20200307.b/20030726.D
Method: \20200307.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALJ
Client ID:
Injection Date: 07-MAR-2020 16:07
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.061	0.005	35764	4.704	0.005	35514	19.12	22.00	14.0	Tetrachloro-m-xylene
9.593	0.001	60863	11.068	0.002	33307	28.61	27.50	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	95.6	110.0	95.6~	150- 0
Decachlorobiphenyl	71.5	68.8	68.8~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	192203	1.5
Hexabromobiphenyl	177311	169036	-4.7

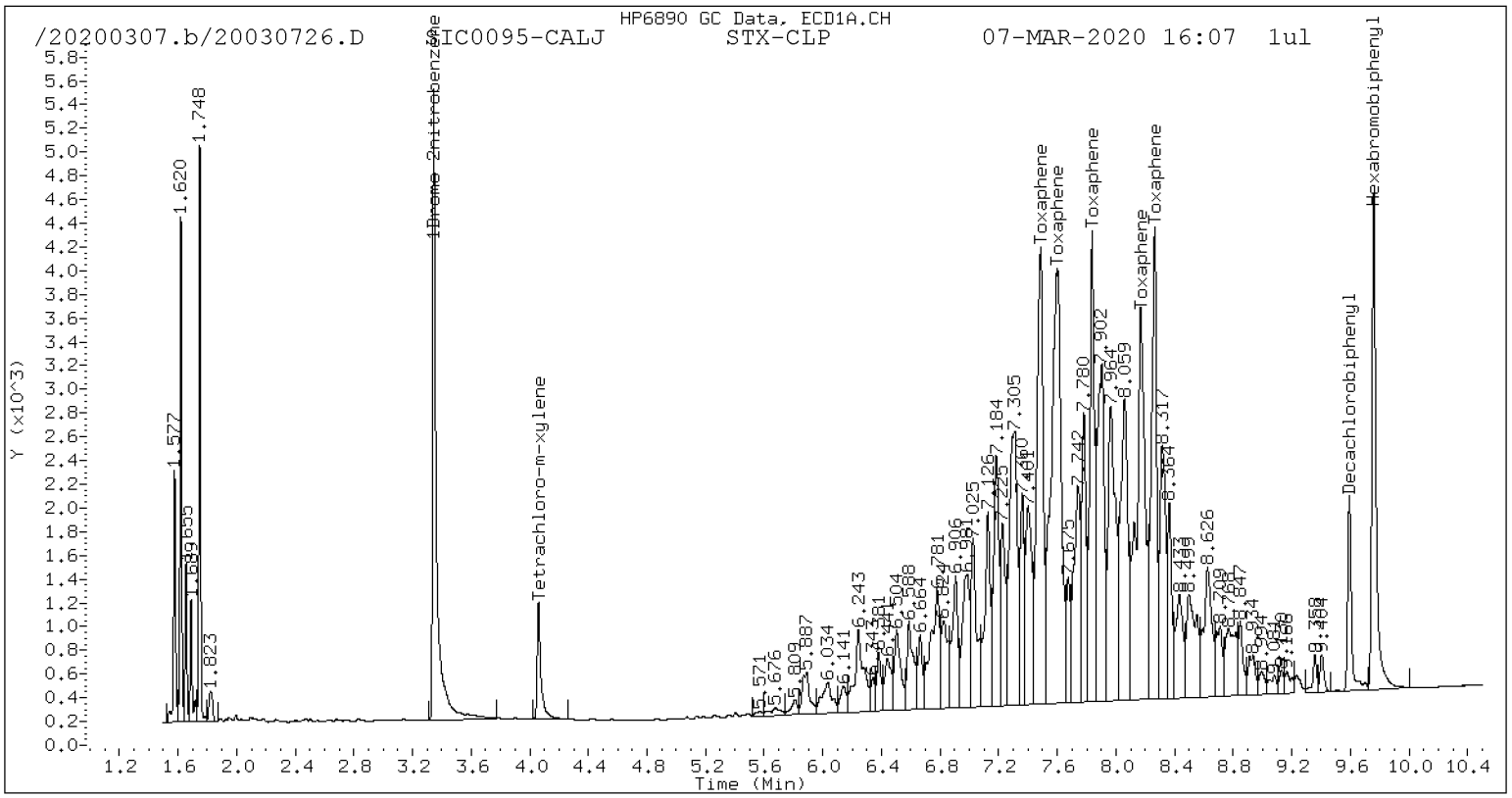
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	135987	-8.9
Hexabromobiphenyl	80212	80073	-0.2

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

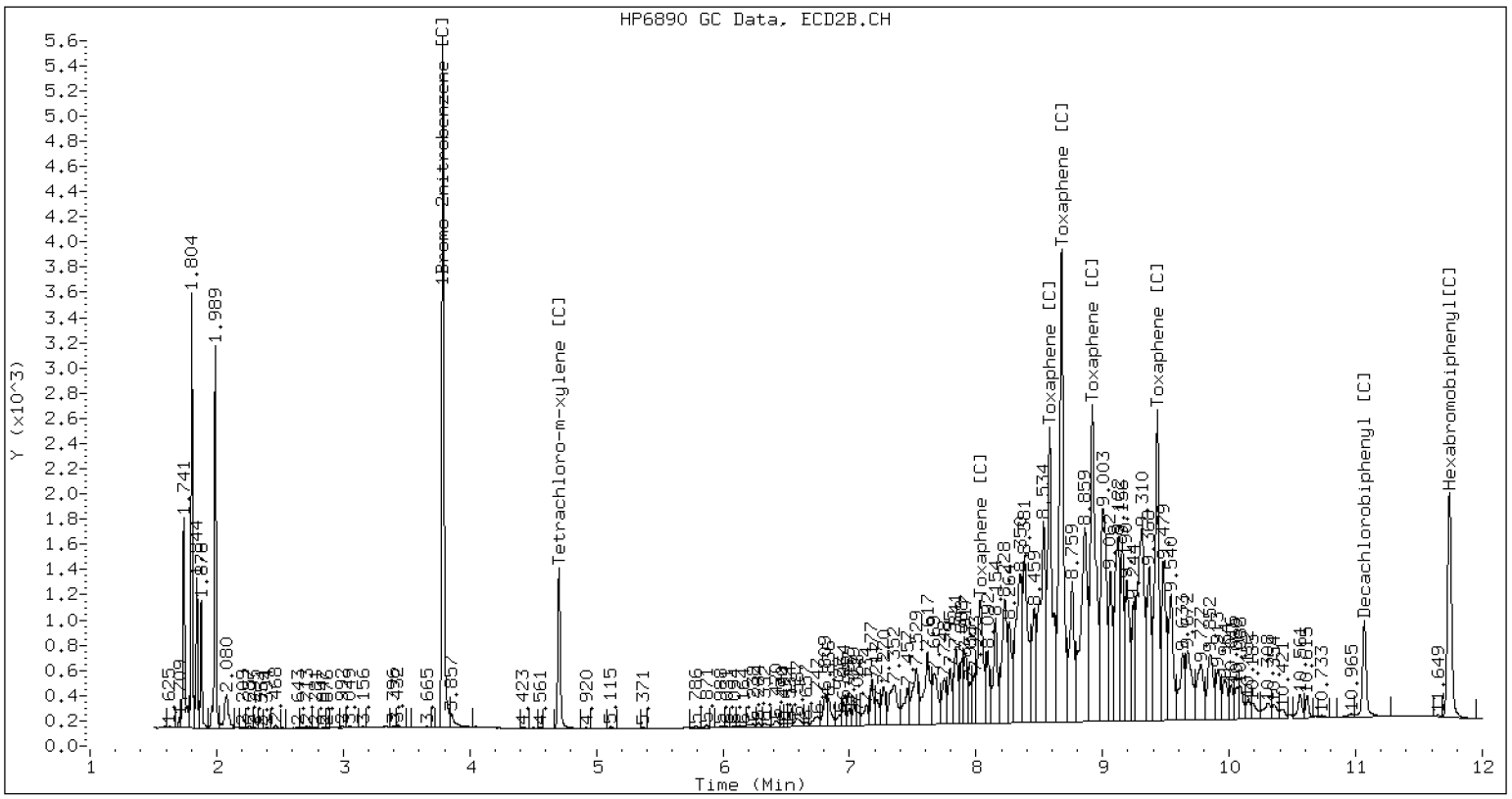
	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.485	-0.001	239320	2418.0	1	8.031	-0.002	59471	1972.4
Toxaphene	2	7.600	-0.002	360547	2405.8	2	8.581	-0.001	121917	2447.4
Toxaphene	3	7.837	-0.001	180464	2367.6	3	8.677	-0.002	180603	2257.8
Toxaphene	4	8.170	-0.002	279611	2566.2	4	8.918	-0.001	146747	2340.3
Toxaphene	5	8.264	-0.001	193069	2405.6	5	9.433	-0.001	112253	2335.7
Total STX-CLPAve (5 peaks): 2432.643						Total CLP2Ave (5 peaks): 2270.728				RPD = 7
Corrected Ave (5 peaks): 2432.643						Corrected Ave (5 peaks): 2270.728				RPD = 7

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030726.D SIC0095-CALJ CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030727.D
Data file 2: /20200307.b/20200307.b/20030727.D
Method: \20200307.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALK
Client ID:
Injection Date: 07-MAR-2020 16:25
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.061	0.005	67040	4.705	0.005	67314	51.97	57.57	10.2	Tetrachloro-m-xylene
9.594	0.002	110871	11.069	0.003	59189	72.20	66.78	7.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	259.8	287.9	259.8~	150- 0
Decachlorobiphenyl	180.5	166.9	166.9~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	132584	-30.0
Hexabromobiphenyl	177311	122009	-31.2

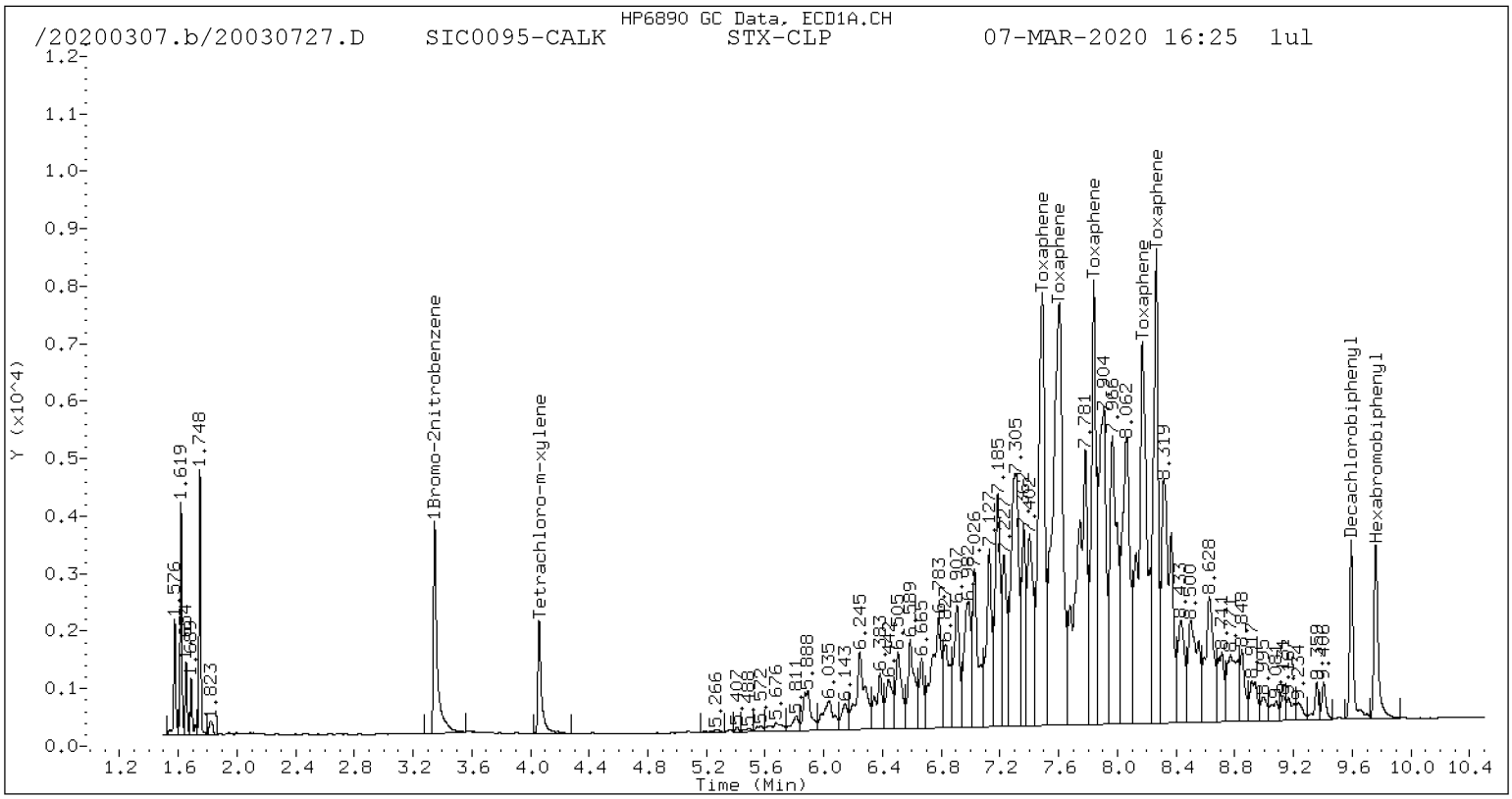
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	98515	-34.0
Hexabromobiphenyl	80212	58604	-26.9

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

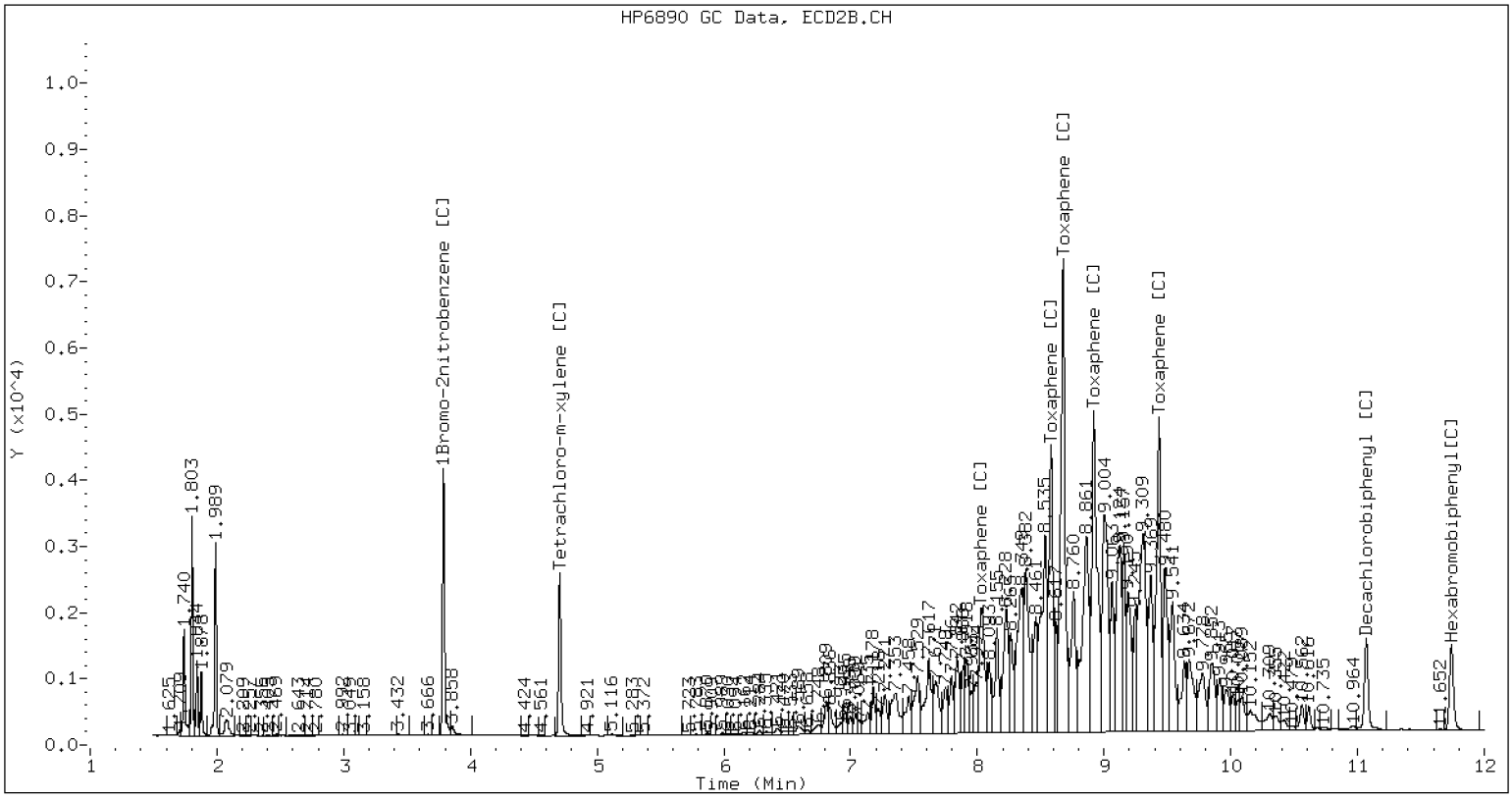
	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.487	0.001	466251	6526.5	1	8.030	-0.003	110522	5008.4
Toxaphene	2	7.603	0.001	705031	6517.8	2	8.582	-0.001	184964	5073.2
Toxaphene	3	7.839	0.001	359939	6542.4	3	8.677	-0.001	344198	5879.4
Toxaphene	4	8.171	-0.000	549801	6990.9	4	8.919	-0.000	282381	6153.1
Toxaphene	5	8.265	-0.000	377734	6520.5	5	9.434	-0.000	217377	6180.2
Total STX-CLPAve (5 peaks): 6619.605						Total CLP2Ave (5 peaks): 5658.852				RPD = 16
Corrected Ave (5 peaks): 6619.605						Corrected Ave (5 peaks): 5658.852				RPD = 16

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

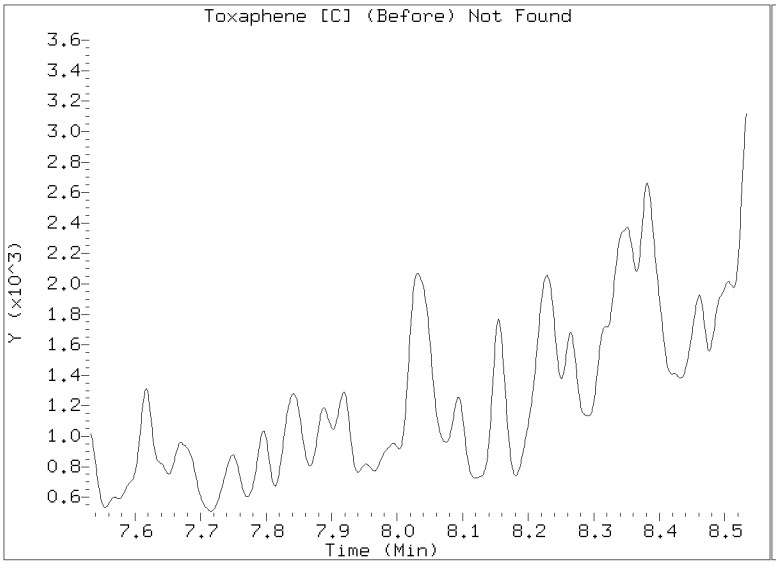
/20200307.b/20200307.b/20030727.D SIC0095-CALK CLP2

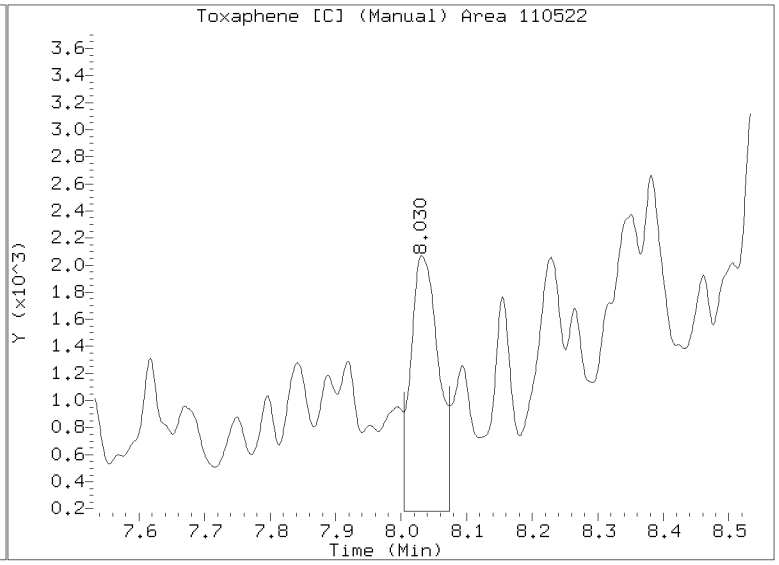


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030727.D
Injection Date: 07-MAR-2020 16:25
Lab ID:SIC0095-CALK Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030728.D
Data file 2: /20200307.b/20200307.b/20030728.D
Method: \20200307.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALL
Client ID:
Injection Date: 07-MAR-2020 16:43
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.061	0.006	126678	4.706	0.006	125687	73.70	81.03	9.5	Tetrachloro-m-xylene
9.593	0.001	187883	11.069	0.003	108868	91.51	93.45	2.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	368.5	405.2	368.5~	150- 0
Decachlorobiphenyl	228.8	233.6	228.8~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	176654	-6.7
Hexabromobiphenyl	177311	163140	-8.0

Column 2

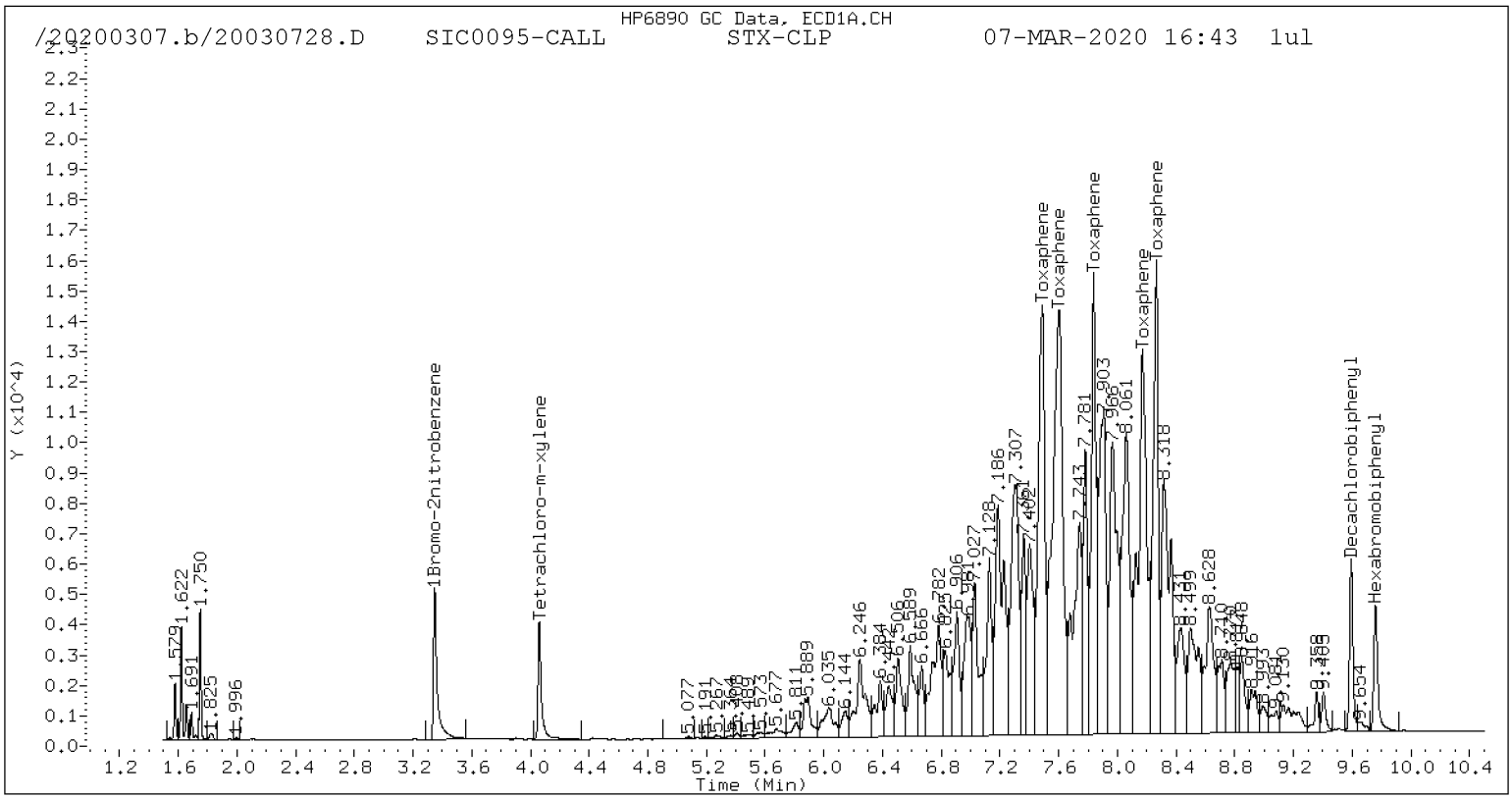
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	130689	-12.4
Hexabromobiphenyl	80212	77028	-4.0

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.486	0.000	888564	9302.1	1	8.033	0.000	208769	7197.7
Toxaphene	2	7.602	0.000	1346724	9311.1	2	8.583	0.000	342431	7145.8
Toxaphene	3	7.838	0.000	710363	9656.4	3	8.678	0.000	634980	8252.0
Toxaphene	4	8.172	0.000	1049546	9980.7	4	8.919	0.000	525719	8715.5
Toxaphene	5	8.265	0.000	749173	9671.9	5	9.434	0.000	408591	8838.0

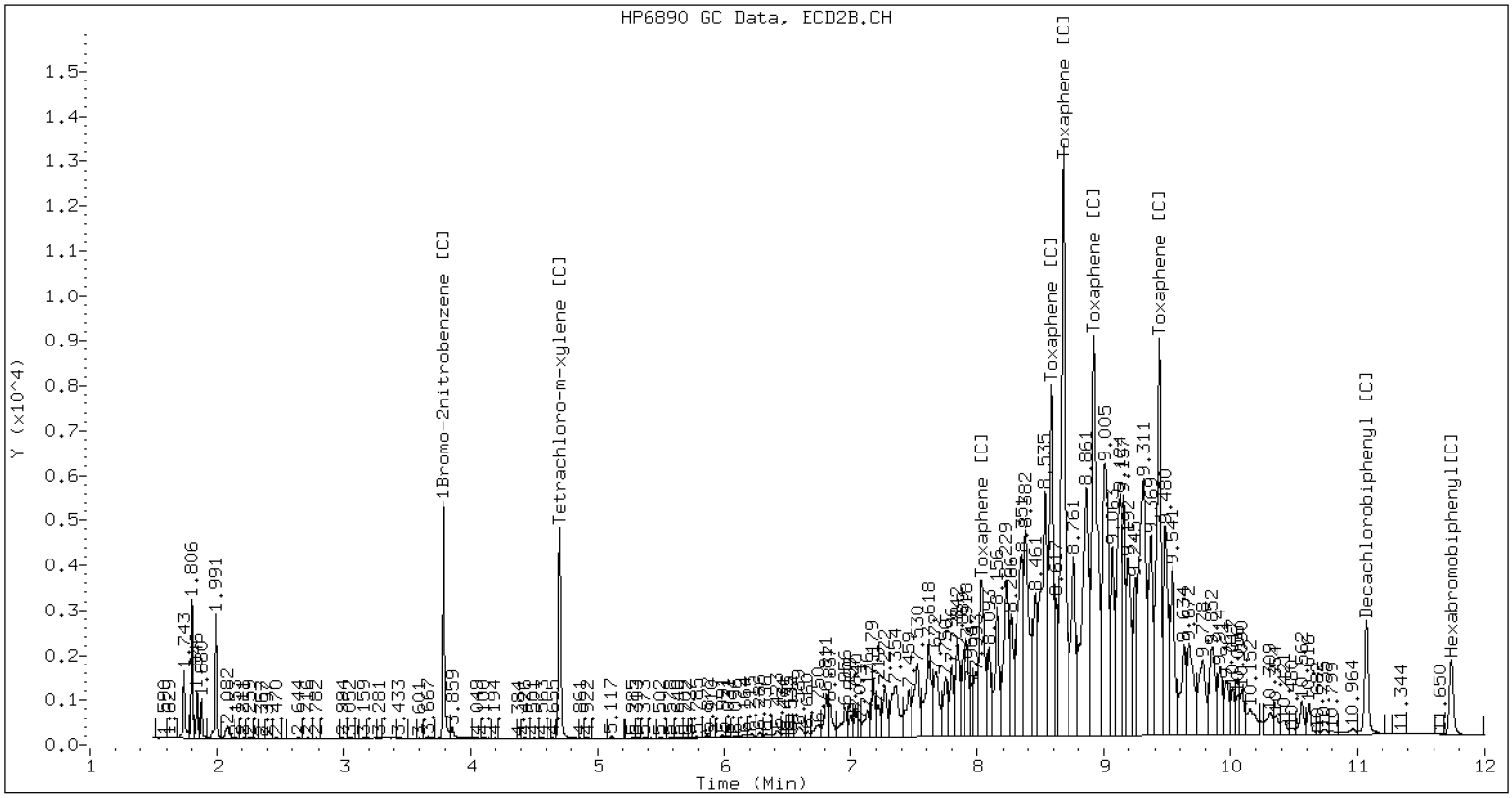
Total STX-CLPAve (5 peaks): 9584.429 Total CLP2Ave (5 peaks): 8029.797 RPD = 18
Corrected Ave (5 peaks): 9584.429 Corrected Ave (5 peaks): 8029.797 RPD = 18

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

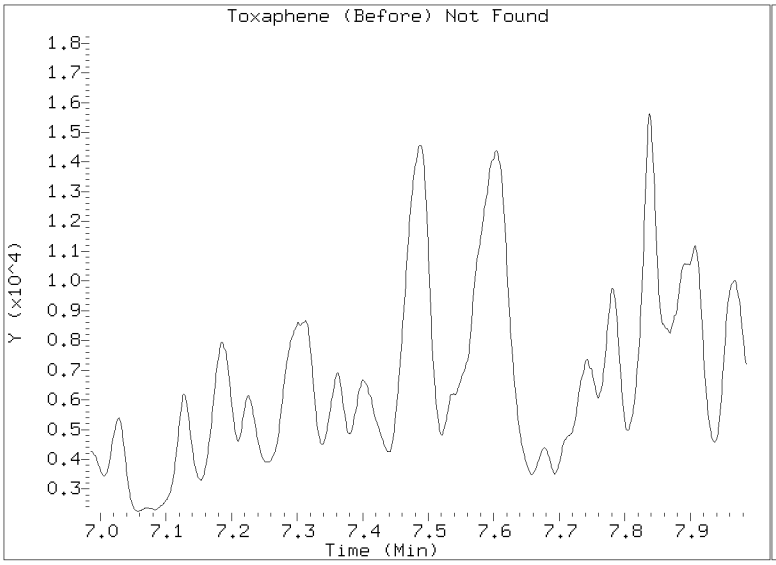
/20200307.b/20200307.b/20030728.D SIC0095-CALL CLP2

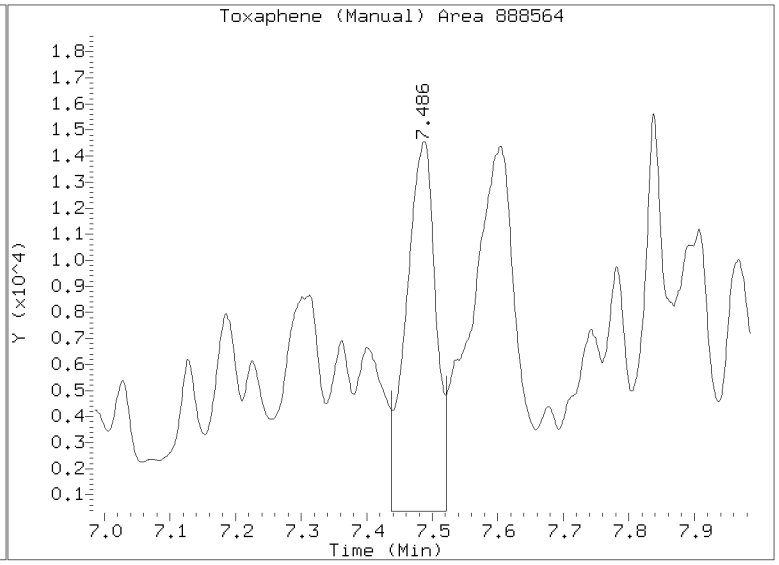


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, STX-CLP

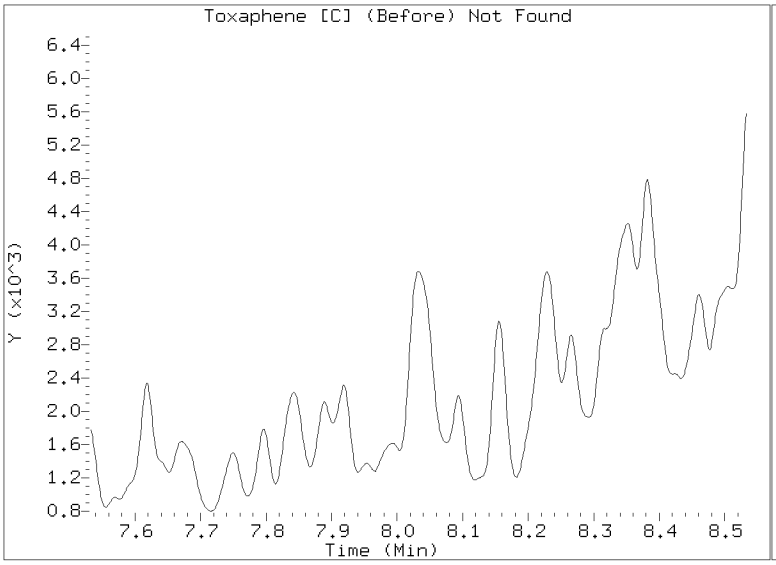
Datafile: /20200307.b/20030728.D
Injection Date: 07-MAR-2020 16:43
Lab ID:SIC0095-CALL Client ID:
Report Date: 03/09/2020 12:23

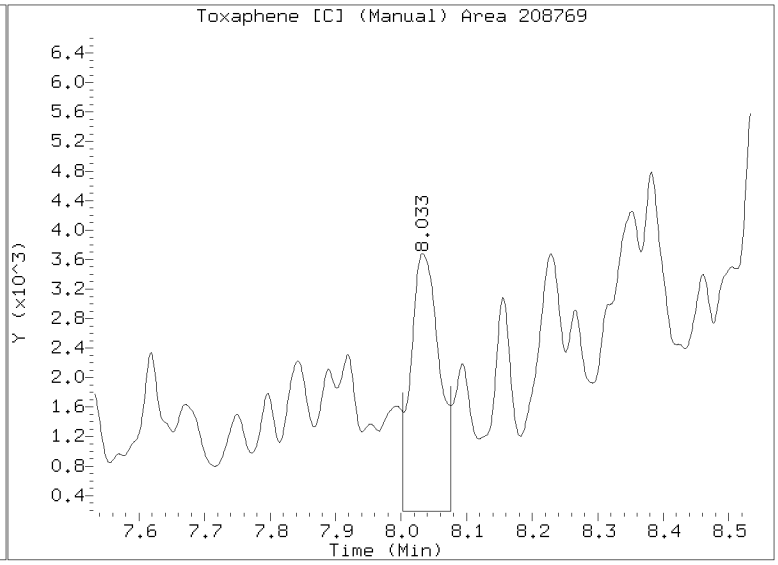




Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030728.D
Injection Date: 07-MAR-2020 16:43
Lab ID:SIC0095-CALL Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030729.D
Data file 2: /20200307.b/20200307.b/20030729.D
Method: \20200307.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALM
Client ID:
Injection Date: 07-MAR-2020 17:01
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	172779	-8.7
Hexabromobiphenyl	177311	186121	5.0

Column 2

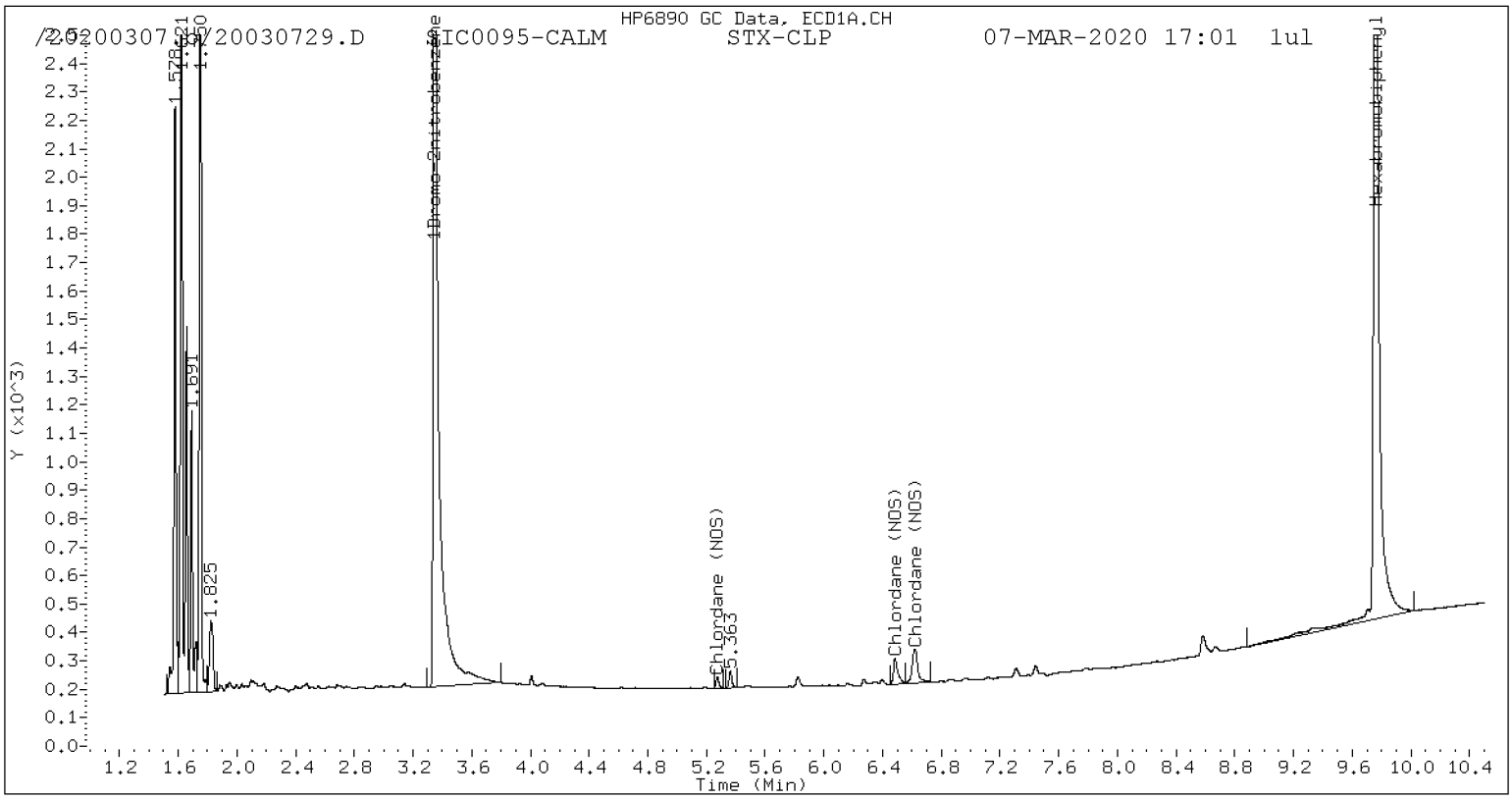
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	81286	-45.5
Hexabromobiphenyl	80212	139864	74.4

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.272	-0.002	1162	13.7	1	6.155	-0.001	825	14.7	
Chlordane (NOS)	2	6.486	0.002	3715	12.9	2	7.554	0.000	1996	13.4	
Chlordane (NOS)	3	6.620	0.003	6134	12.8	3	7.645	0.000	2328	15.1	

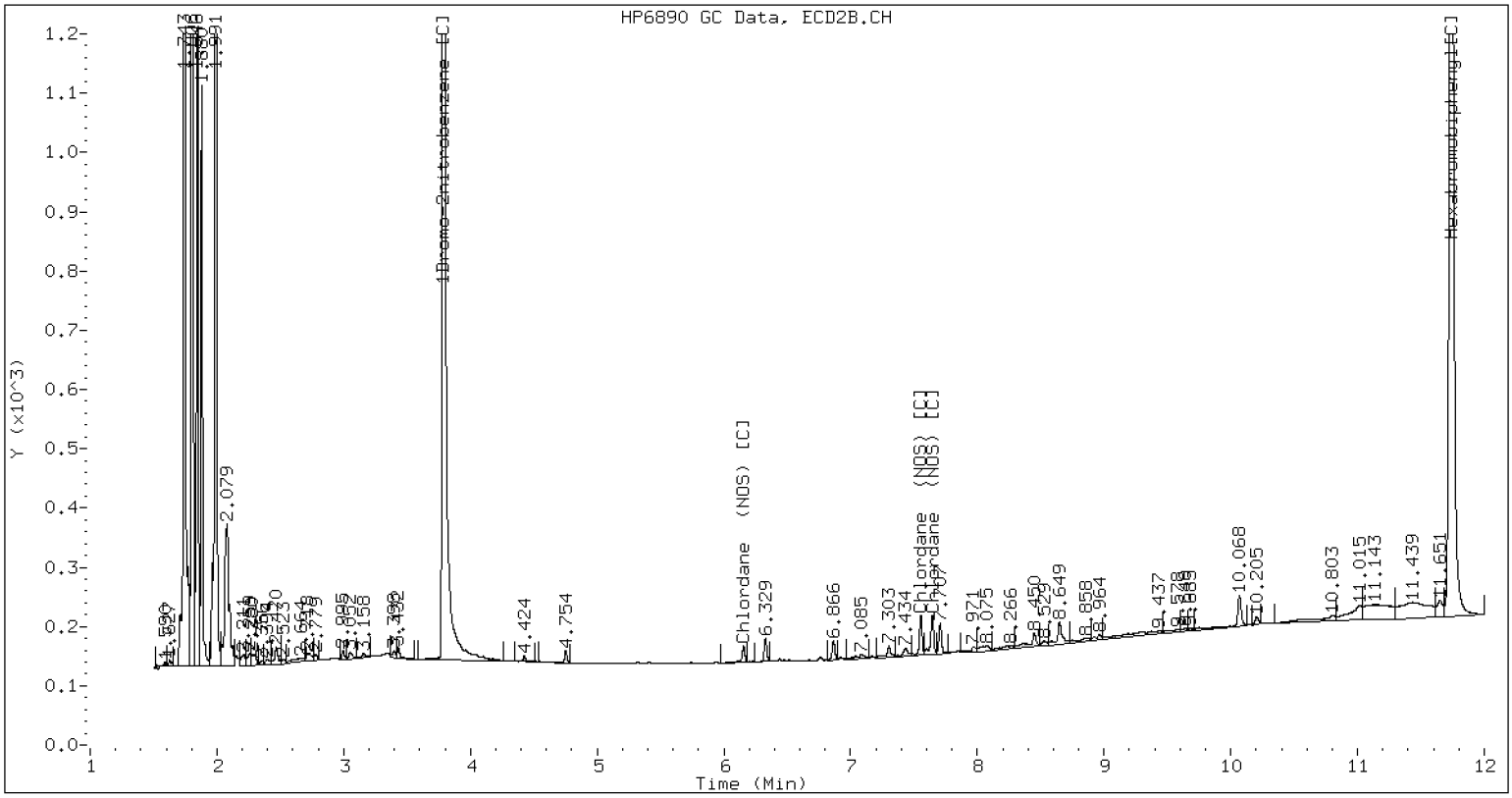
Total STX-CLPAve (3 peaks): 13.138 Total CLP2Ave (3 peaks): 14.418 RPD = 9
Corrected Ave (3 peaks): 13.138 Corrected Ave (3 peaks): 14.418 RPD = 9

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

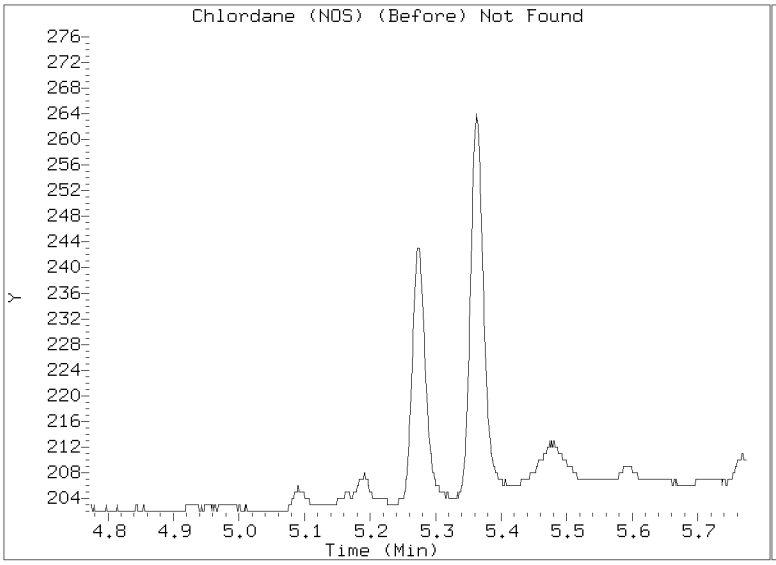
/20200307.b/20200307.b/20030729.D SIC0095-CALM CLP2

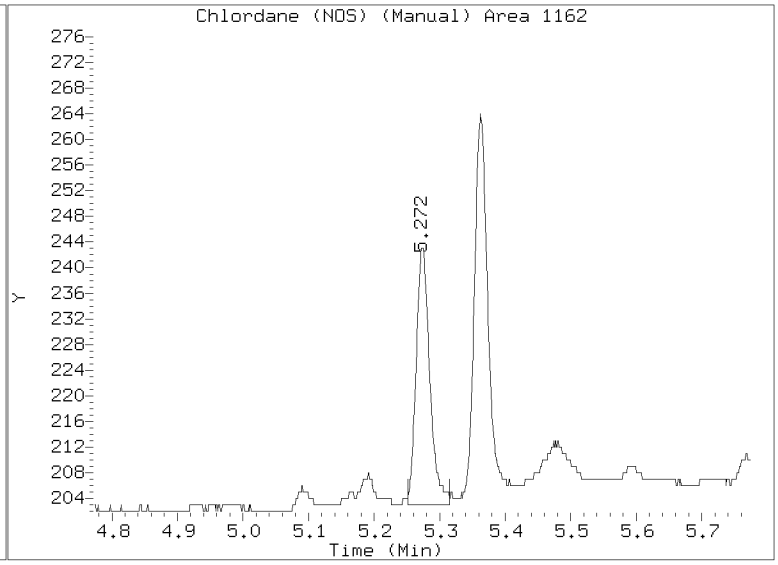


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, STX-CLP

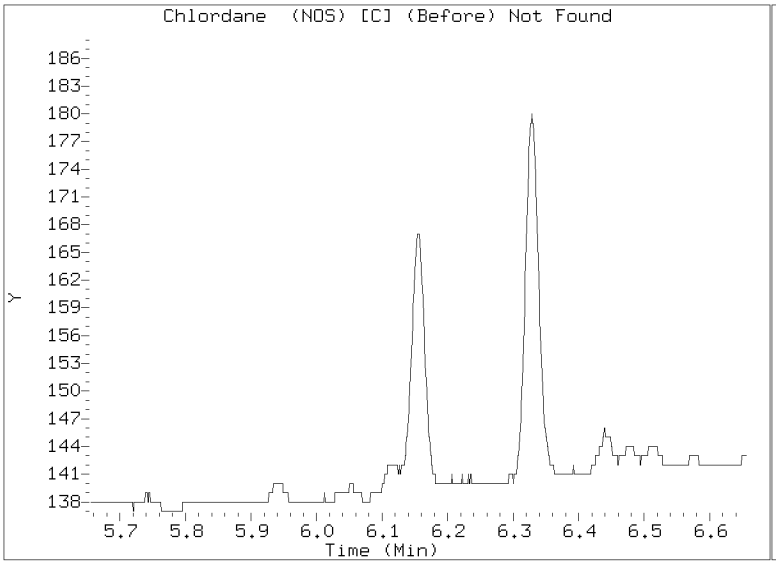
Datafile: /20200307.b/20030729.D
Injection Date: 07-MAR-2020 17:01
Lab ID:SIC0095-CALM Client ID:
Report Date: 03/09/2020 12:23

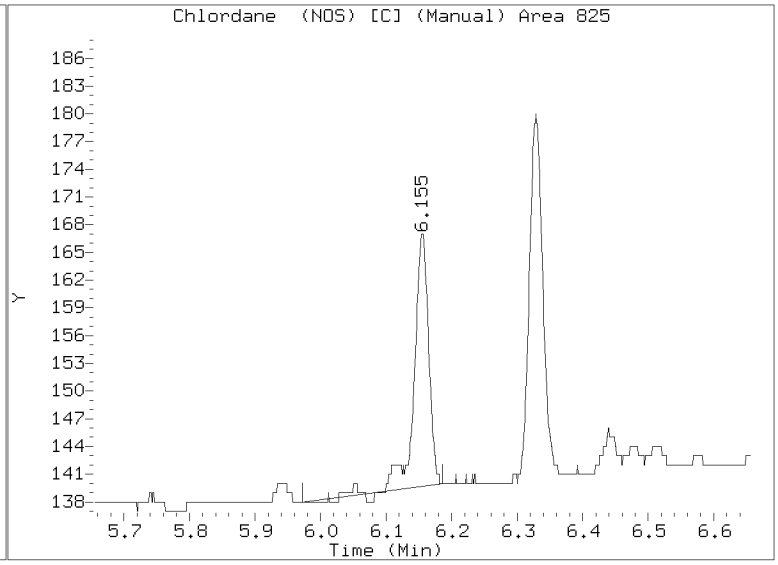




Manual Peak Adjustment Report, CLP-2

Datafile: /20200307.b/20200307.b/20030729.D
Injection Date: 07-MAR-2020 17:01
Lab ID:SIC0095-CALM Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030730.D
Data file 2: /20200307.b/20200307.b/20030730.D
Method: \20200307.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALN
Client ID:
Injection Date: 07-MAR-2020 17:19
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	172248	-9.0
Hexabromobiphenyl	177311	184228	3.9

Column 2

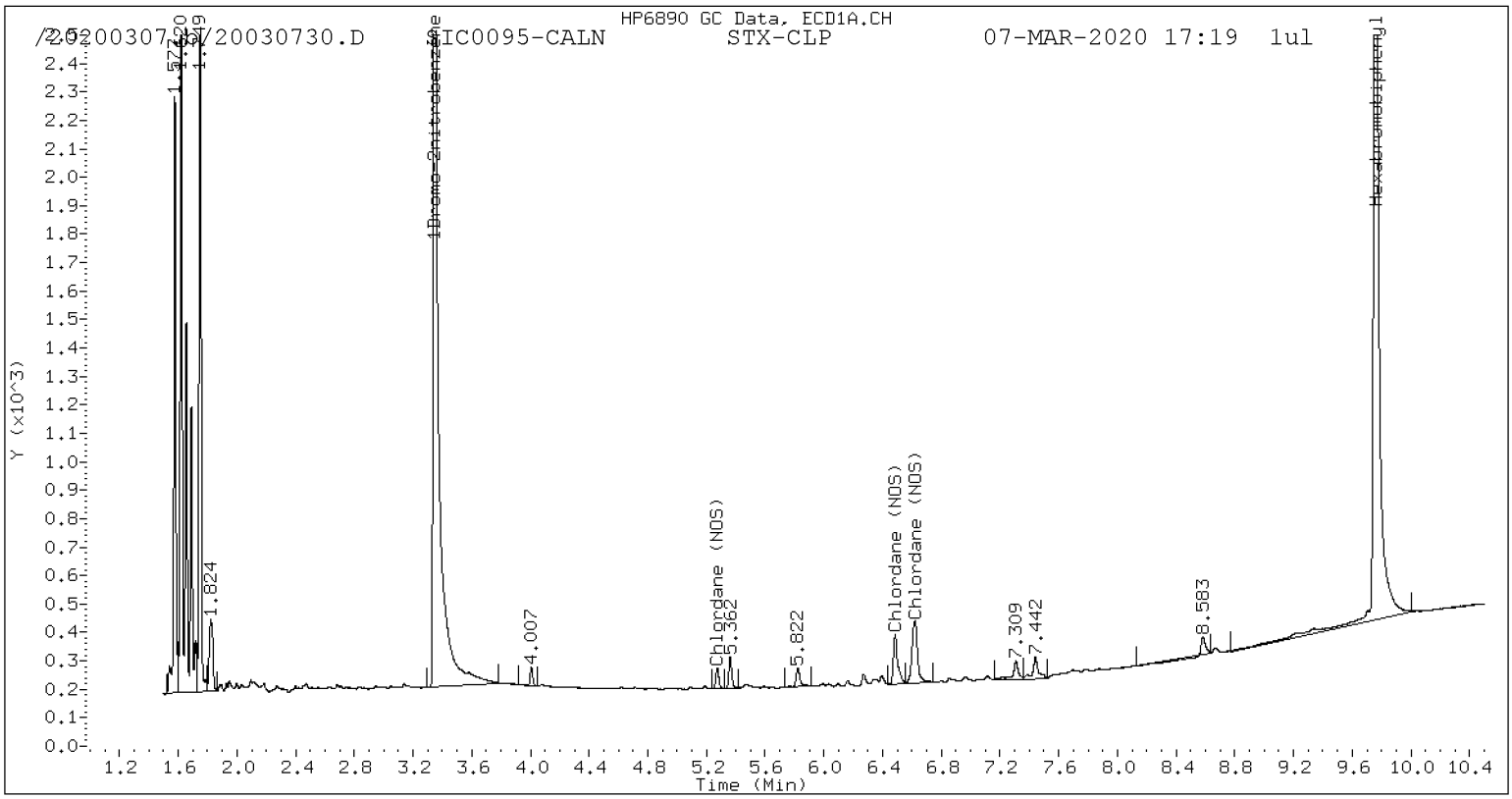
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	78274	-47.5
Hexabromobiphenyl	80212	135501	68.9

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.273	-0.002	2106	25.0	1	6.155	-0.001	1461	26.9	
Chlordane (NOS)	2	6.485	0.001	7005	24.6	2	7.553	-0.001	3624	25.2	
Chlordane (NOS)	3	6.619	0.002	11555	24.4	3	7.644	-0.001	3670	24.6	

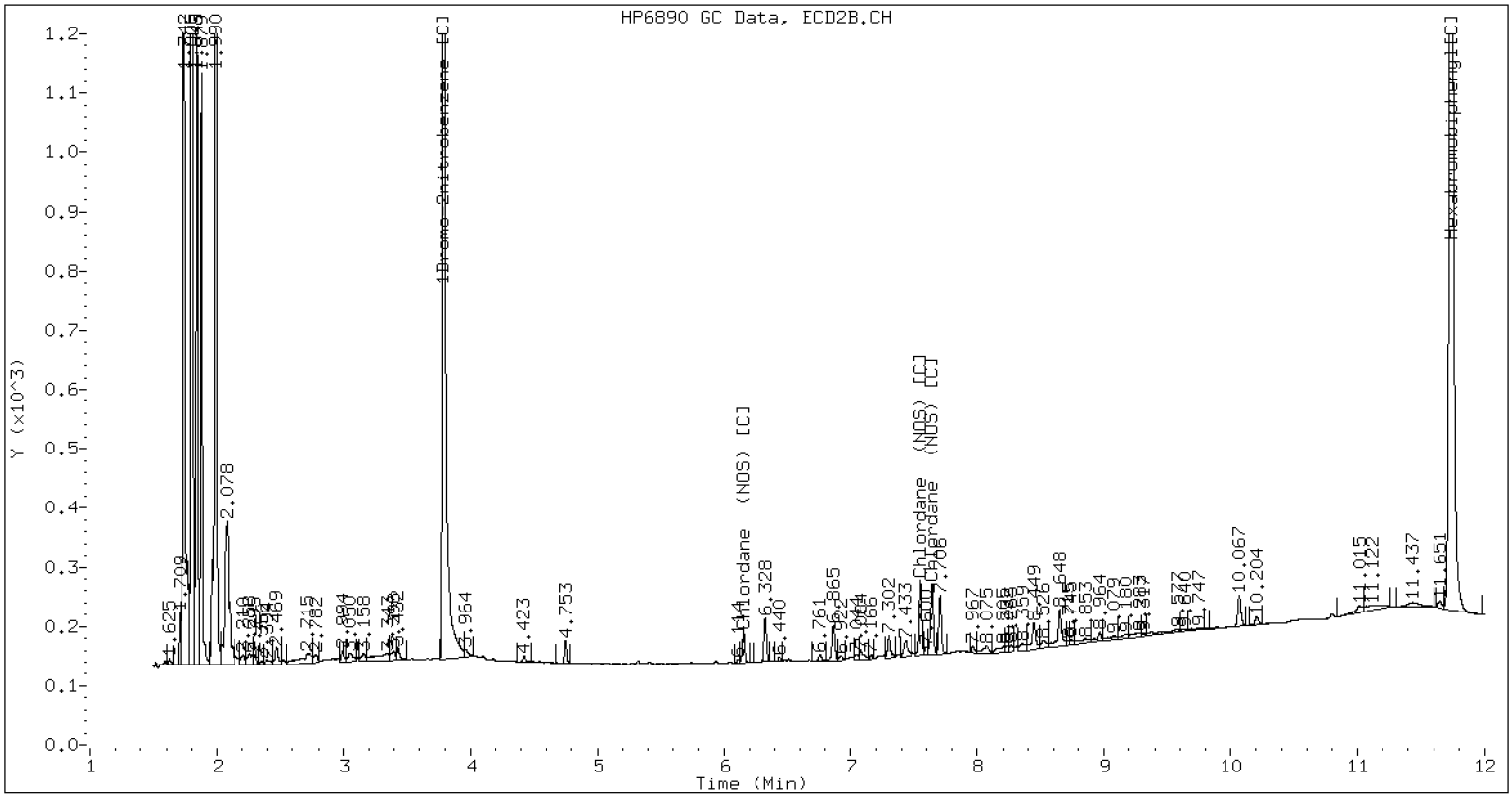
Total STX-CLPAve (3 peaks): 24.682 Total CLP2Ave (3 peaks): 25.553 RPD = 3
Corrected Ave (3 peaks): 24.682 Corrected Ave (3 peaks): 25.553 RPD = 3

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030730.D SIC0095-CALN CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030731.D
Data file 2: /20200307.b/20200307.b/20030731.D
Method: \20200307.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALO
Client ID:
Injection Date: 07-MAR-2020 17:37
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	177398	-6.3
Hexabromobiphenyl	177311	174779	-1.4

Column 2

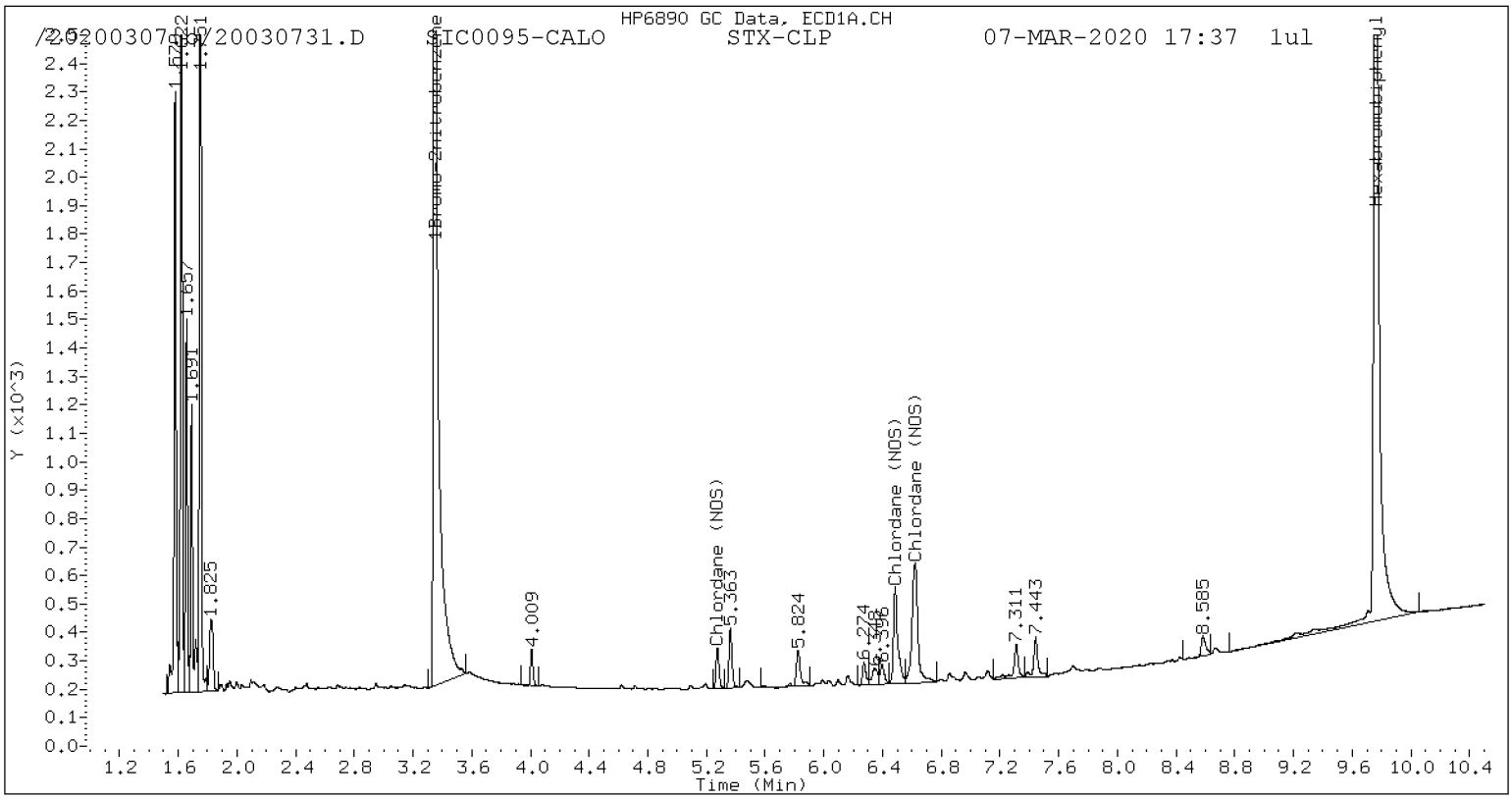
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	79274	-46.9
Hexabromobiphenyl	80212	137691	71.7

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.274	-0.000	4074	51.0	1	6.157	0.001	2794	50.7	
Chlordane (NOS)	2	6.486	0.002	13864	51.4	2	7.555	0.002	7042	48.1	
Chlordane (NOS)	3	6.621	0.003	23510	52.4	3	7.647	0.002	7050	46.4	

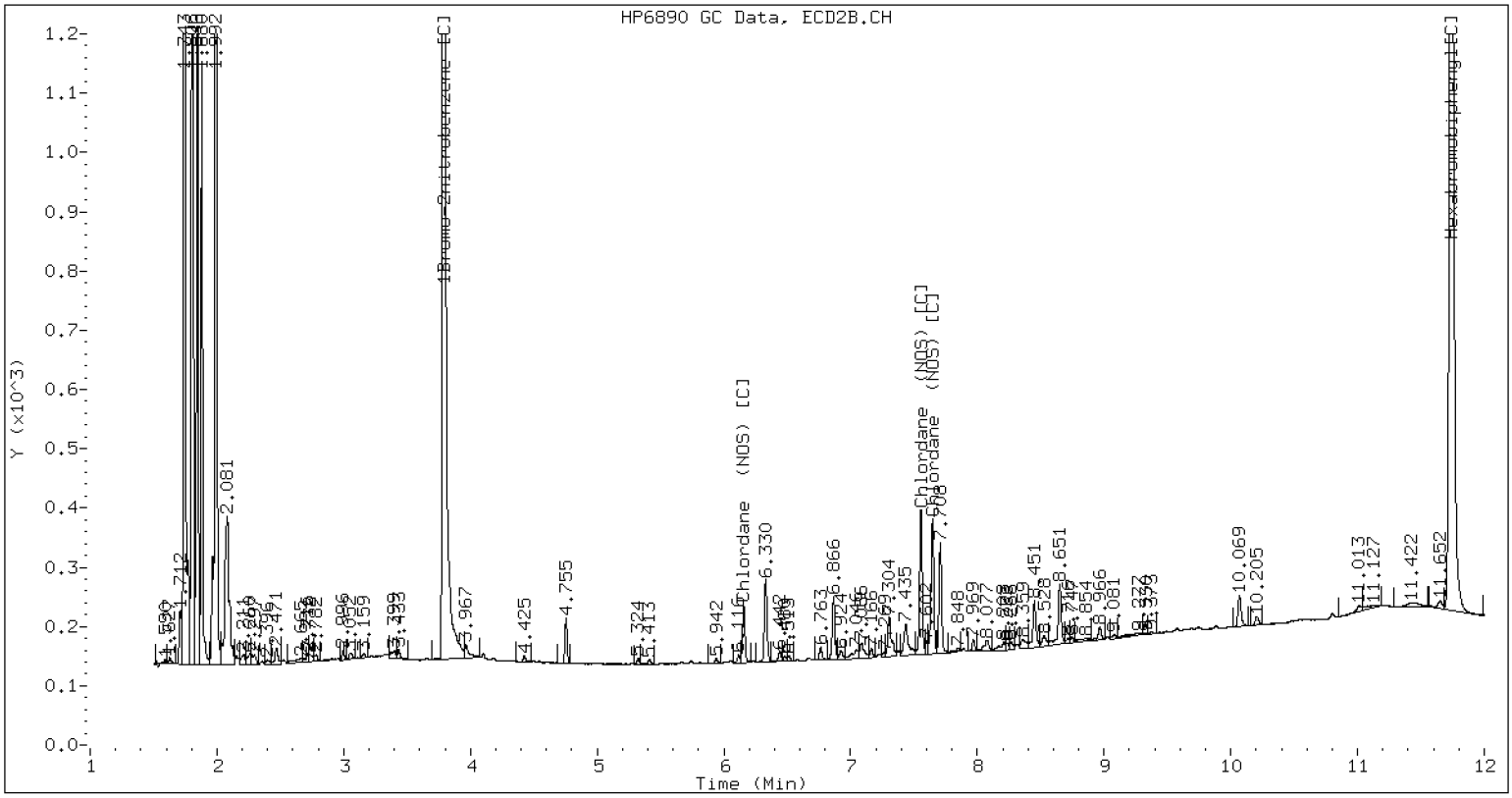
Total STX-CLPAve (3 peaks): 51.574 Total CLP2Ave (3 peaks): 48.414 RPD = 6
Corrected Ave (3 peaks): 51.574 Corrected Ave (3 peaks): 48.414 RPD = 6

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030731.D SIC0095-CALO CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030732.D
Data file 2: /20200307.b/20200307.b/20030732.D
Method: \20200307.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALP
Client ID:
Injection Date: 07-MAR-2020 17:55
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	170155	-10.1
Hexabromobiphenyl	177311	171312	-3.4

Column 2

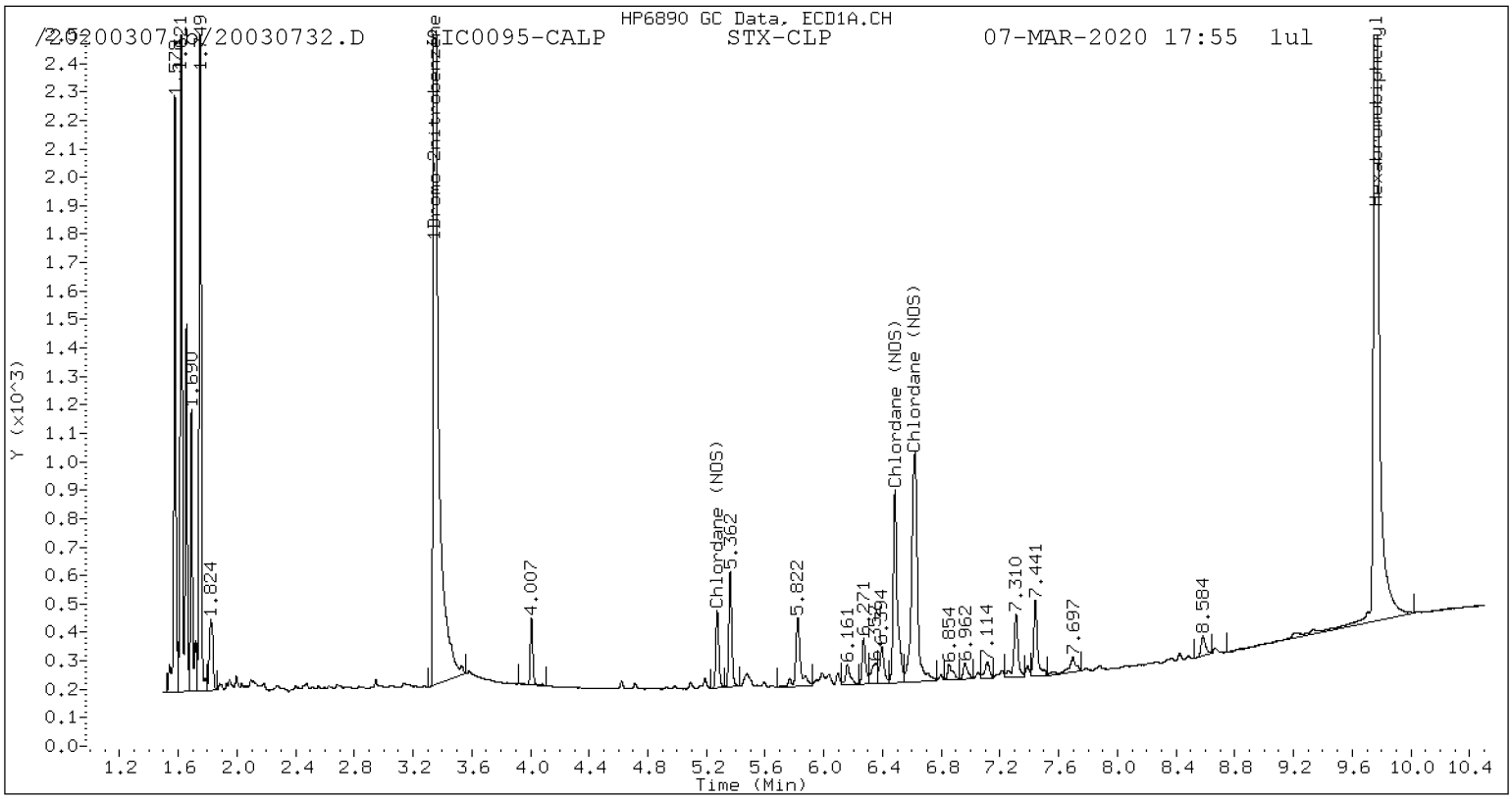
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	78563	-47.4
Hexabromobiphenyl	80212	134423	67.6

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.273	-0.001	7751	99.0	1	6.155	-0.001	5165	96.0	
Chlordane (NOS)	2	6.484	0.000	26583	100.5	2	7.553	-0.000	13975	97.9	
Chlordane (NOS)	3	6.618	0.000	45027	102.3	3	7.644	-0.000	14670	98.9	

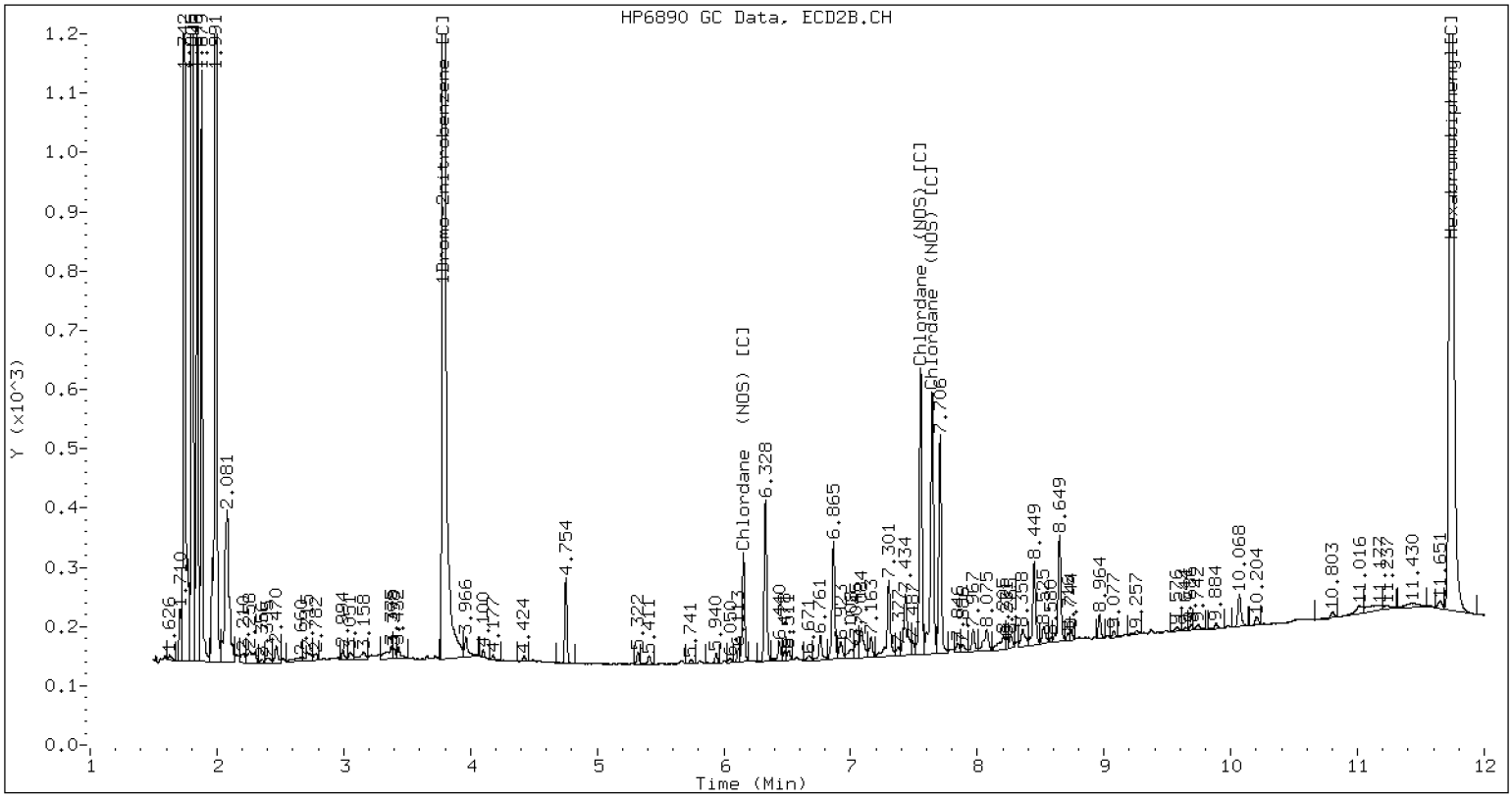
Total STX-CLPAve (3 peaks): 100.594 Total CLP2Ave (3 peaks): 97.588 RPD = 3
Corrected Ave (3 peaks): 100.594 Corrected Ave (3 peaks): 97.588 RPD = 3

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030732.D SIC0095-CALP CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030733.D
Data file 2: /20200307.b/20200307.b/20030733.D
Method: \20200307.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALQ
Client ID:
Injection Date: 07-MAR-2020 18:13
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	179538	-5.2
Hexabromobiphenyl	177311	183876	3.7

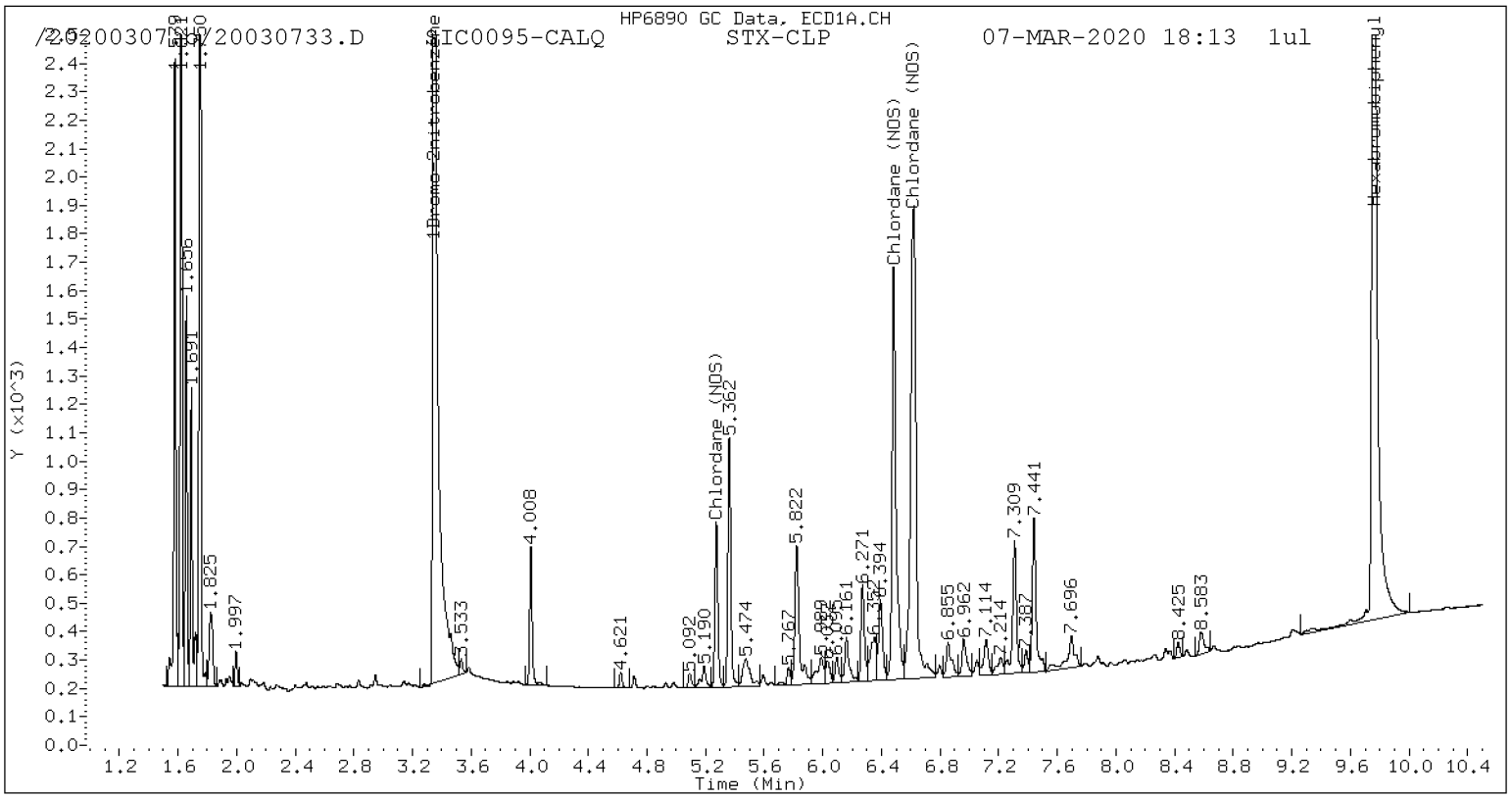
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	84095	-43.6
Hexabromobiphenyl	80212	144954	80.7

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

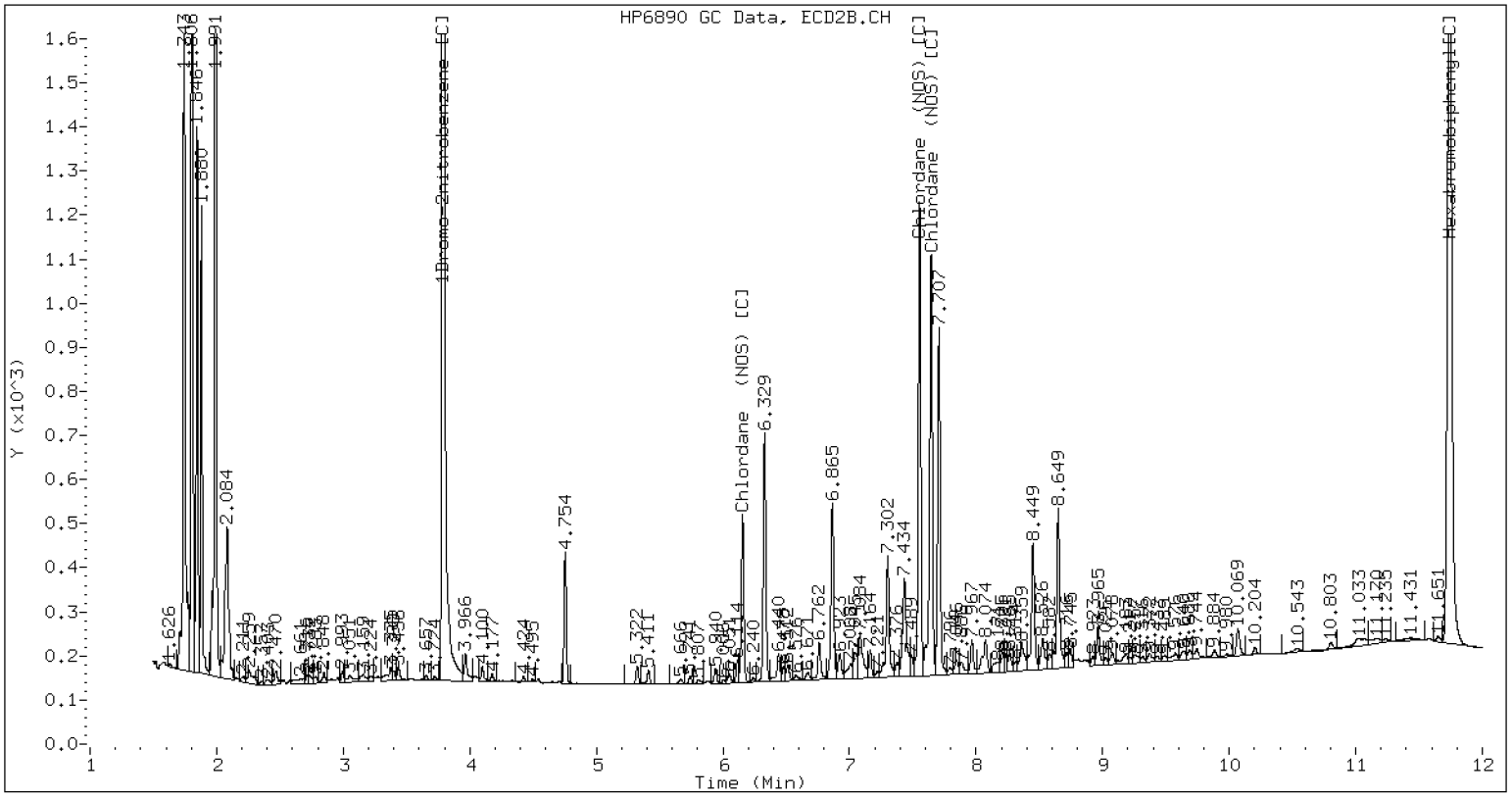
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.273	-0.001	16406	195.2	1	6.155	-0.001	10815	186.4	
Chlordane (NOS)	2	6.484	-0.000	55447	195.3	2	7.554	0.000	30164	195.9	
Chlordane (NOS)	3	6.618	0.000	89319	189.1	3	7.645	0.000	30591	191.3	
Total STX-CLPAve (3 peaks): 193.186						Total CLP2Ave (3 peaks): 191.183				RPD = 1	
Corrected Ave (3 peaks): 193.186						Corrected Ave (3 peaks): 191.183				RPD = 1	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030733.D SIC0095-CALQ CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030734.D
Data file 2: /20200307.b/20200307.b/20030734.D
Method: \20200307.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALR
Client ID:
Injection Date: 07-MAR-2020 18:30
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	165363	-12.7
Hexabromobiphenyl	177311	172626	-2.6

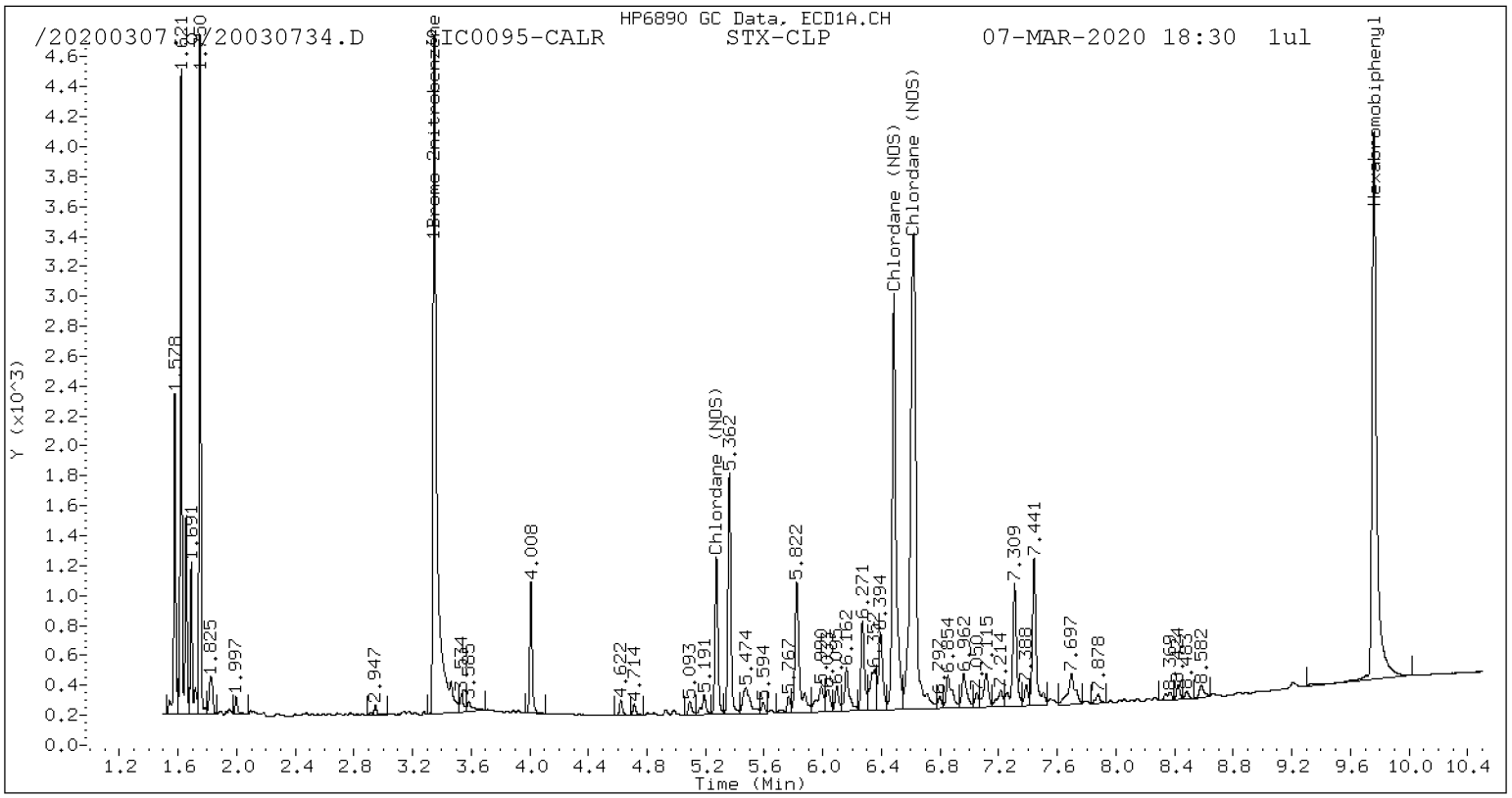
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	78131	-47.6
Hexabromobiphenyl	80212	132930	65.7

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

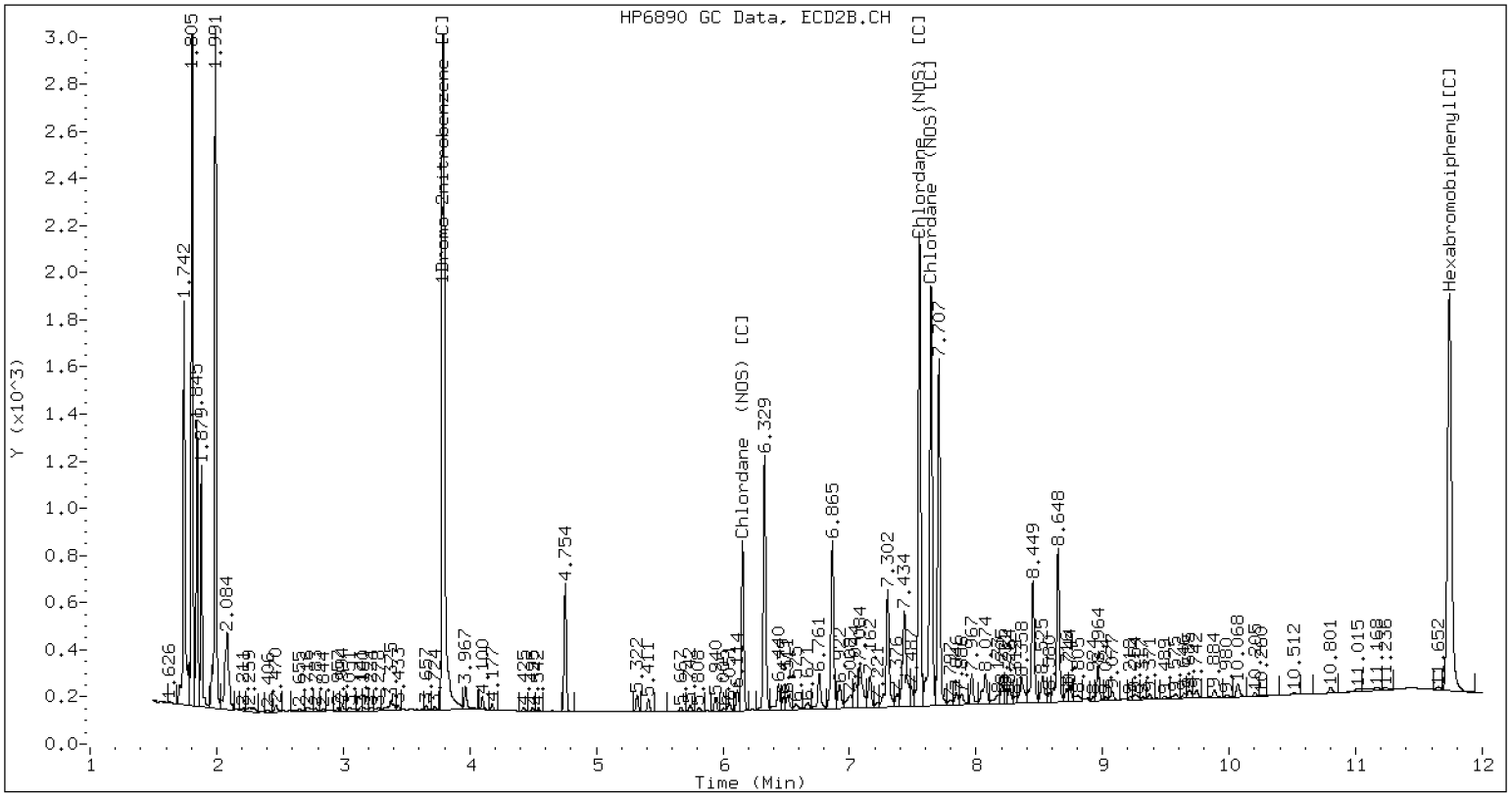
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.274	-0.001	29843	378.1	1	6.155	-0.001	19782	371.7	
Chlordane (NOS)	2	6.485	0.001	102933	386.3	2	7.554	-0.000	56456	399.7	
Chlordane (NOS)	3	6.618	0.000	174129	392.6	3	7.645	-0.000	57006	388.8	
Total STX-CLPAve (3 peaks): 385.666						Total CLP2Ave (3 peaks): 386.744				RPD = 0	
Corrected Ave (3 peaks): 385.666						Corrected Ave (3 peaks): 386.744				RPD = 0	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030734.D SIC0095-CALR CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030735.D
Data file 2: /20200307.b/20200307.b/20030735.D
Method: \20200307.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-CALS
Client ID:
Injection Date: 07-MAR-2020 18:48
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	167780	-11.4
Hexabromobiphenyl	177311	160261	-9.6

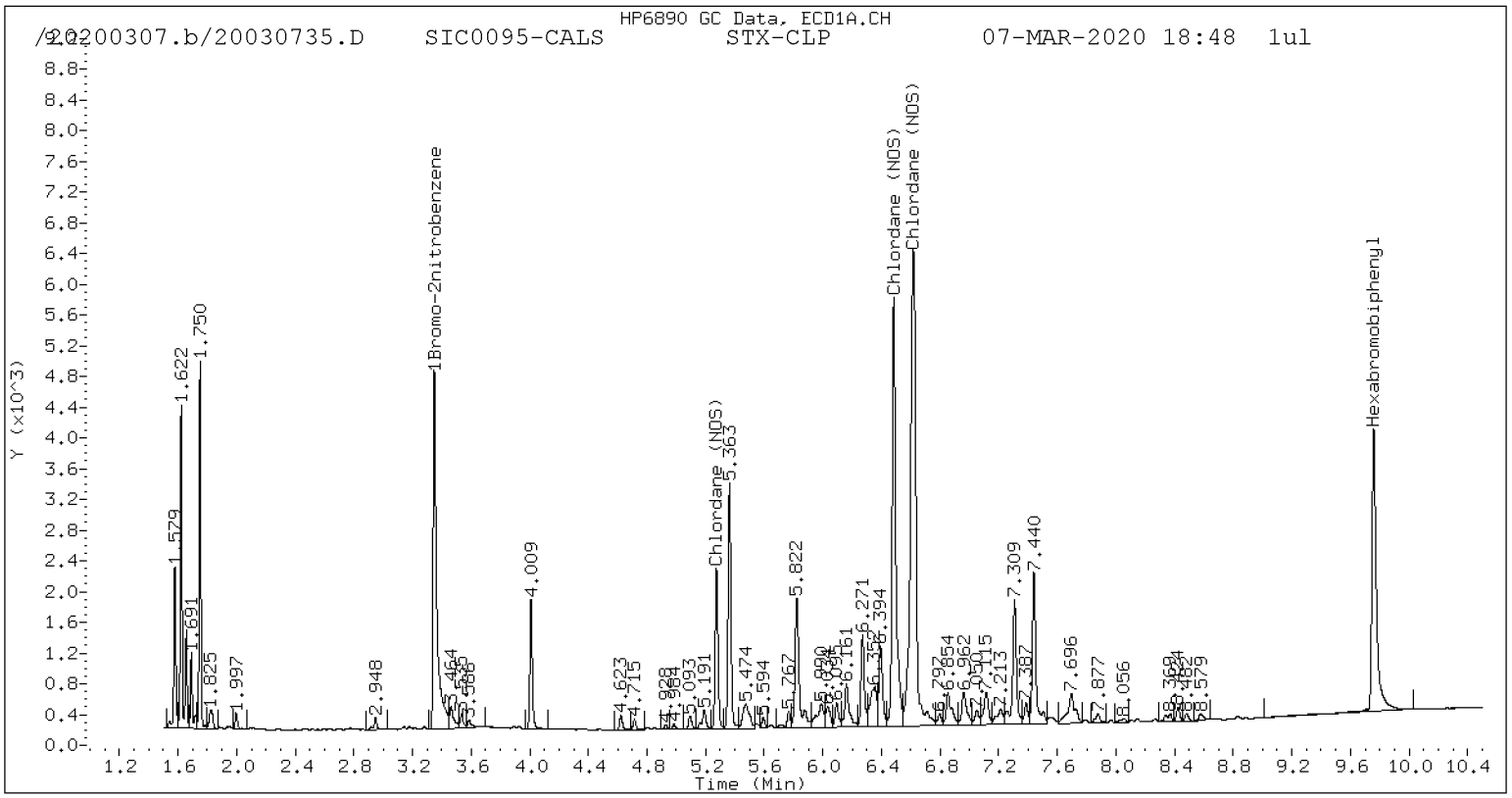
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	76828	-48.5
Hexabromobiphenyl	80212	131606	64.1

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

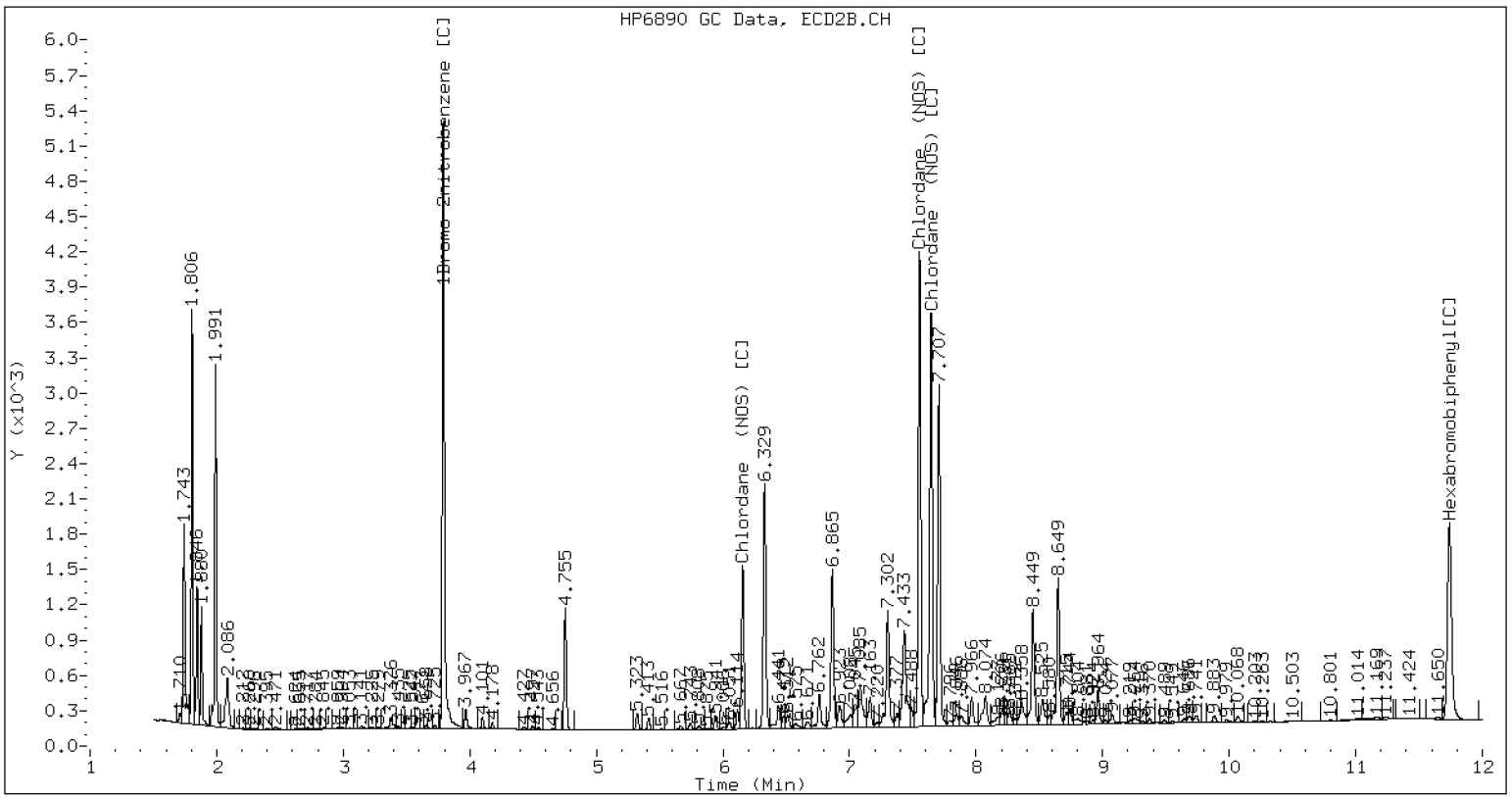
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.275	0.000	57256	781.5	1	6.156	0.000	38329	727.5	
Chlordane (NOS)	2	6.484	0.000	198945	804.1	2	7.554	0.000	111683	798.8	
Chlordane (NOS)	3	6.618	0.000	329559	800.4	3	7.645	0.000	112028	771.7	
Total STX-CLPAve (3 peaks): 795.326						Total CLP2Ave (3 peaks): 765.972				RPD = 4	
Corrected Ave (3 peaks): 795.326						Corrected Ave (3 peaks): 765.972				RPD = 4	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

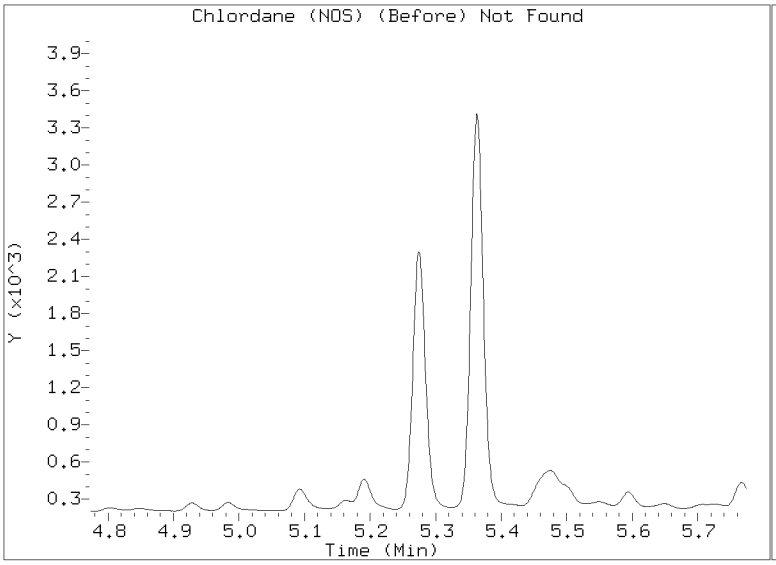
/20200307.b/20200307.b/20030735.D SIC0095-CALS CLP2

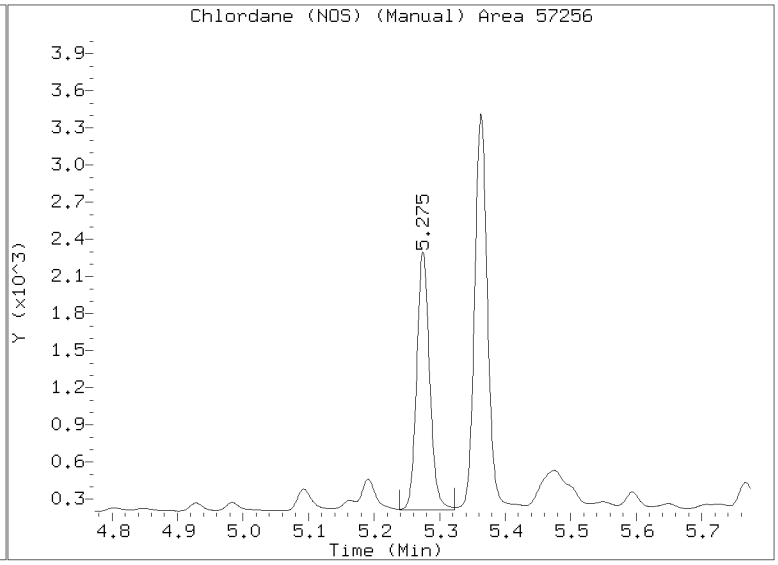


CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, STX-CLP

Datafile: /20200307.b/20030735.D
Injection Date: 07-MAR-2020 18:48
Lab ID:SIC0095-CALS Client ID:
Report Date: 03/09/2020 12:23





SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Calibration: DC00017
Laboratory ID: SIC0095-SCV1
Sequence: SIC0095
Sequence Name: INDAESCV
Standard ID: H006561

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
alpha-BHC	40.000	40.2	0.6	20.00
alpha-BHC [2C]	40.000	38.8	-3.0	20.00
beta-BHC	40.000	36.9	-7.8	20.00
beta-BHC [2C]	40.000	36.0	-10.1	20.00
gamma-BHC (Lindane)	40.000	39.7	-0.6	20.00
gamma-BHC (Lindane) [2C]	40.000	39.6	-1.0	20.00
delta-BHC	40.000	42.1	5.2	20.00
delta-BHC [2C]	40.000	41.7	4.4	20.00
Heptachlor	40.000	38.6	-3.4	20.00
Heptachlor [2C]	40.000	38.3	-4.4	20.00
Aldrin	40.000	38.5	-3.7	20.00
Aldrin [2C]	40.000	39.4	-1.6	20.00
Heptachlor Epoxide	40.000	37.0	-7.4	20.00
Heptachlor Epoxide [2C]	40.000	37.7	-5.7	20.00
trans-Chlordane (beta-Chlordane)	40.000	34.6	-13.4	20.00
trans-Chlordane (beta-Chlordane) [2C]	40.000	37.0	-7.5	20.00
cis-Chlordane (alpha-chlordane)	40.000	33.9	-15.3	20.00
cis-Chlordane (alpha-chlordane) [2C]	40.000	38.1	-4.9	20.00
Endosulfan I	40.000	34.1	-14.7	20.00
Endosulfan I [2C]	40.000	38.5	-3.8	20.00
4,4'-DDE	40.000	37.6	-5.9	20.00
4,4'-DDE [2C]	40.000	39.3	-1.9	20.00
Dieldrin	40.000	38.5	-3.7	20.00
Dieldrin [2C]	40.000	38.6	-3.5	20.00
Endrin	40.000	35.7	-10.9	20.00
Endrin [2C]	40.000	34.6	-13.5	20.00
Endosulfan II	40.000	38.8	-2.9	20.00
Endosulfan II [2C]	40.000	39.5	-1.2	20.00
4,4'-DDD	40.000	37.3	-6.8	20.00
4,4'-DDD [2C]	40.000	37.8	-5.4	20.00
Endrin Aldehyde	40.000	36.3	-9.2	20.00
Endrin Aldehyde [2C]	40.000	37.2	-7.0	20.00
4,4'-DDT	40.000	36.9	-7.9	20.00
4,4'-DDT [2C]	40.000	37.4	-6.5	20.00
Endosulfan Sulfate	40.000	34.5	-13.7	20.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Calibration: DC00017
Laboratory ID: SIC0095-SCV1
Sequence: SIC0095
Sequence Name: INDAESCV
Standard ID: H006561

Endosulfan Sulfate [2C]	40.000	33.9	-15.4	20.00
Endrin Ketone	40.000	36.5	-8.7	20.00
Endrin Ketone [2C]	40.000	37.5	-6.2	20.00
Methoxychlor	40.000	38.5	-3.6	20.00
Methoxychlor [2C]	40.000	37.6	-6.1	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030713.D
Data file 2: /20200307.b/20200307.b/20030713.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-SCV1
Client ID:
Injection Date: 07-MAR-2020 12:14
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.562	0.000	137403	5.368	0.000	94310	40.25	38.79	3.7	alpha-BHC
4.950	0.001	50460	5.872	0.002	39946	36.87	35.95	2.5	beta-BHC
5.135	0.001	127616	6.236	0.001	86712	42.09	41.75	0.8	delta-BHC
4.866	0.000	119990	5.786	0.001	86746	39.74	39.60	0.4	gamma-BHC (Lindane)
5.358	-0.001	126231	6.324	0.000	79191	38.62	38.26	1.0	Heptachlor
5.685	-0.000	117870	6.715	0.001	74314	38.51	39.38	2.2	Aldrin
6.339	-0.001	102230	7.345	0.000	63343	37.02	37.71	1.8	Heptachlor epoxide b
6.769	-0.000	92209	7.782	0.001	48781	34.11	38.48	12.0	Endosulfan I
7.023	-0.000	83251	8.068	0.001	41702	38.53	38.58	0.1	Dieldrin
6.702	0.002	92692	7.841	0.001	58364	37.64	39.26	4.2	4,4'-DDE
7.269	-0.001	72882	8.388	0.001	31537	35.66	34.59	3.0	Endrin
7.496	-0.000	87434	8.596	0.001	51384	38.84	39.53	1.8	Endosulfan II
7.330	0.003	79685	8.437	0.001	52661	37.30	37.83	1.4	4,4'-DDD
8.338	0.000	82343	9.183	0.000	47482	34.53	33.86	2.0	Endosulfan sulfate
7.620	0.001	82442	8.750	0.001	50090	36.85	37.40	1.5	4,4'-DDT
8.105	0.003	44108	9.379	0.001	25593	38.55	37.57	2.6	Methoxychlor
8.622	-0.000	103181	9.744	0.001	60242	36.53	37.51	2.7	Endrin ketone
7.911	0.000	72826	8.919	0.001	43737	36.30	37.18	2.4	Endrin aldehyde
6.481	-0.001	93532	7.550	0.000	53718	34.64	37.01	6.6	trans-Chlordane
6.624	-0.000	85776	7.703	0.001	49035	33.88	38.05	11.6	cis-Chlordane
----			2.874	-0.000	97	0.00	0.04	---	Hexachlorobutadiene
----			----			0.00	0.00	---	Hexachlorobenzene
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			11.071	0.005	195	0.00	0.17	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	115- 0
Decachlorobiphenyl	0.0	0.4	0.0~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

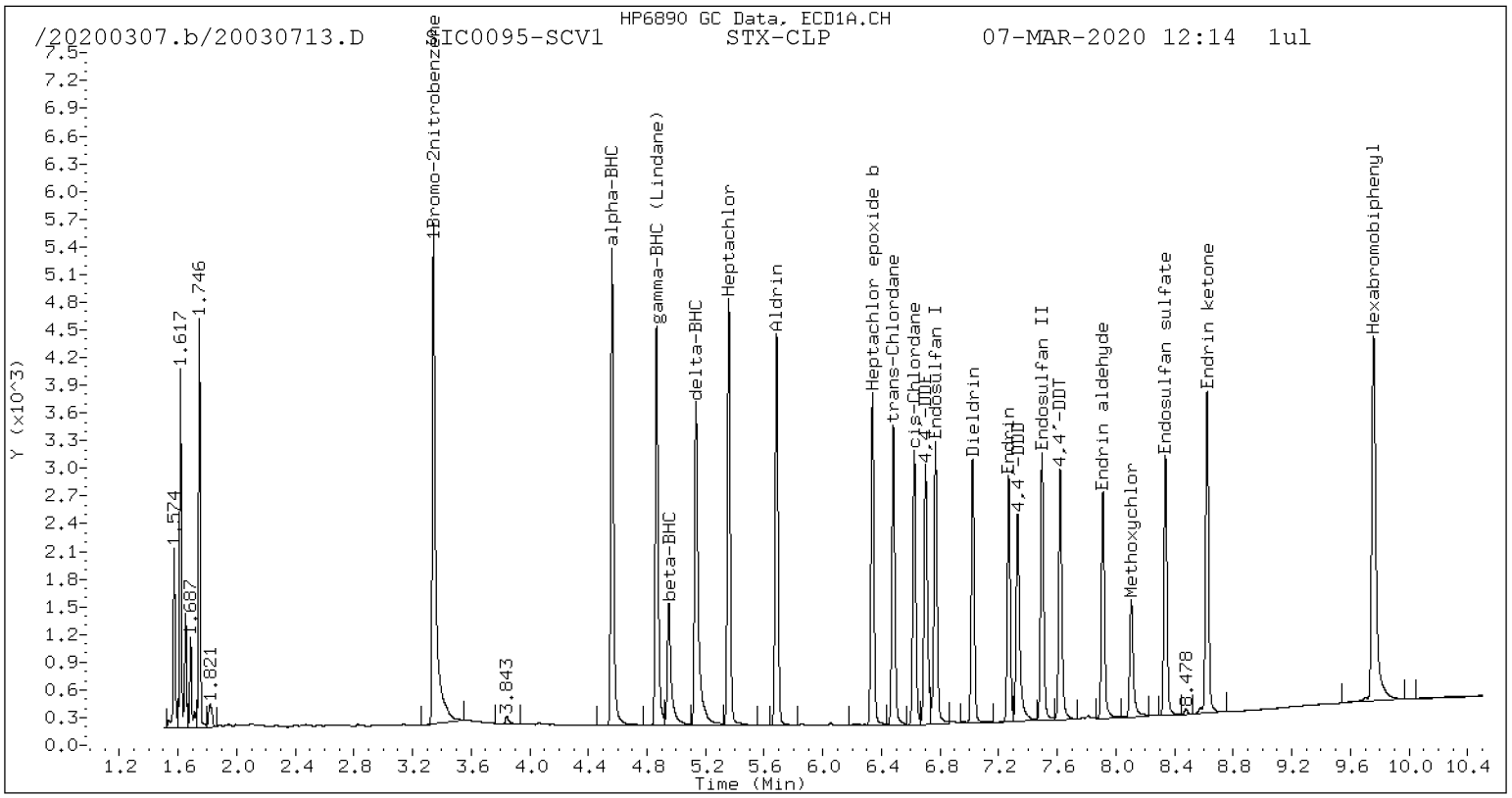
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	175981	-7.1
Hexabromobiphenyl	177311	164898	-7.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	137918	-7.6
Hexabromobiphenyl	80212	74860	-6.7

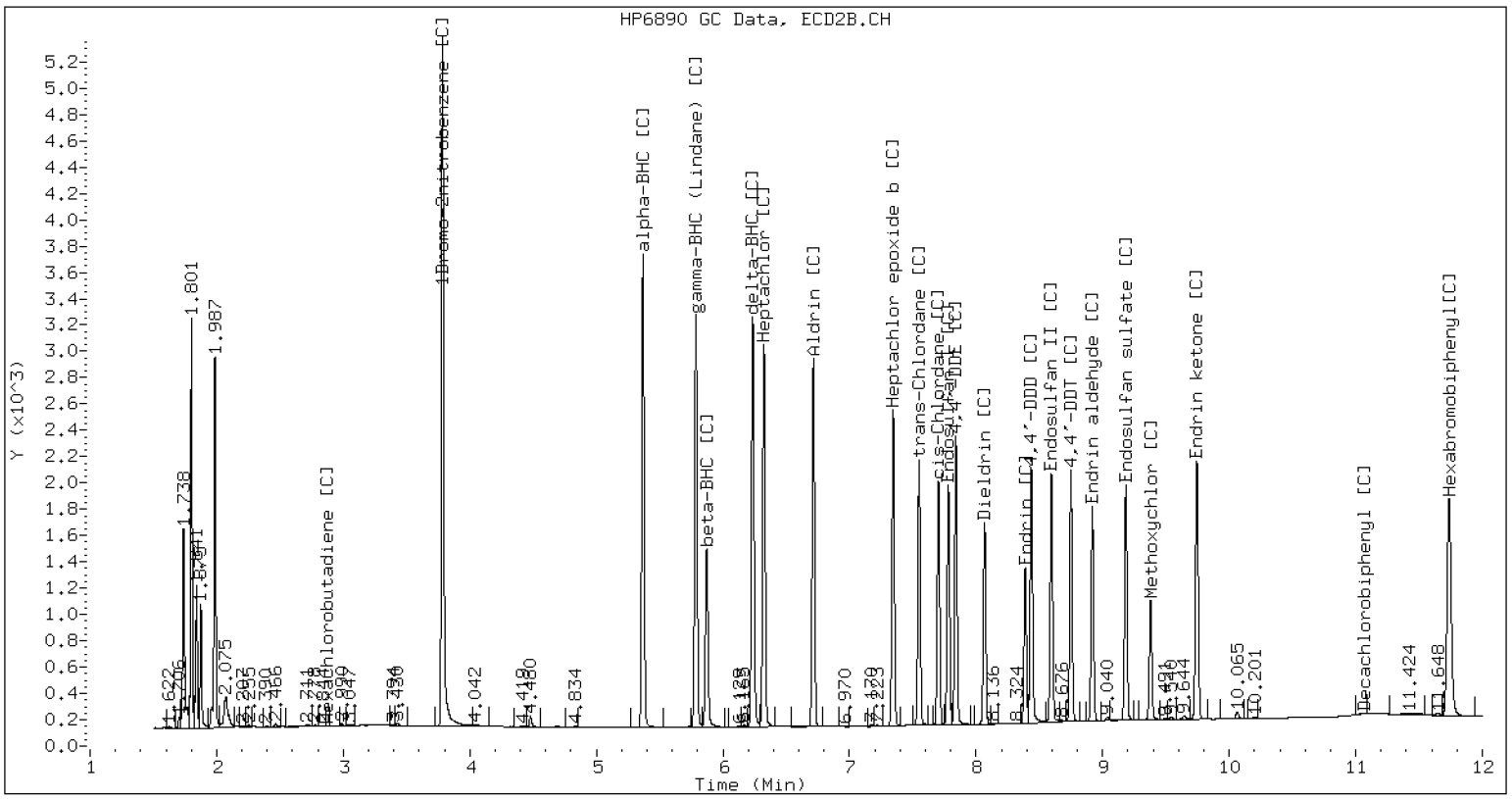
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030713.D SIC0095-SCV1 CLP2



CLP-2 Manual Integration: NO

INITIAL CALIBRATION CHECK

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030903.D	Calibration Date:	03/09/2020
Sequence:	SIC0103	Injection Date:	03/09/20
Lab Sample ID:	SIC0103-ICV1	Injection Time:	12:01
Sequence Name:	INDA1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
alpha-BHC	A	20.000	20.0	1.5519880	1.5483250		0.0	+/-20
alpha-BHC [2C]	A	20.000	19.2	1.4101790	1.3523330		-4.0	+/-20
beta-BHC	A	20.000	17.7	0.6221788	0.5507500		-11.5	+/-20
beta-BHC [2C]	A	20.000	17.7	0.6444893	0.5704392		-11.5	+/-20
gamma-BHC (Lindane)	A	20.000	19.7	1.3724630	1.3512600		-1.5	+/-20
gamma-BHC (Lindane) [2C]	A	20.000	19.5	1.2706900	1.2411330		-2.5	+/-20
delta-BHC	A	20.000	18.3	1.3783280	1.2612410		-8.5	+/-20
delta-BHC [2C]	A	20.000	18.4	1.2048710	1.1077810		-8.0	+/-20
Heptachlor	A	20.000	18.8	1.4856930	1.3988190		-6.0	+/-20
Heptachlor [2C]	A	20.000	18.6	1.2007430	1.1145090		-7.0	+/-20
Aldrin	A	20.000	18.8	1.3915140	1.3072390		-6.0	+/-20
Aldrin [2C]	A	20.000	19.6	1.0946560	1.0706630		-2.0	+/-20
Heptachlor Epoxide	A	20.000	17.9	1.2553090	1.1255270		-10.5	+/-20
Heptachlor Epoxide [2C]	A	20.000	19.7	0.9743274	0.9595508		-1.5	+/-20
trans-Chlordane (beta-Chlordane)	A	20.000	17.6	1.2273580	1.0789		-12.0	+/-20
trans-Chlordane (beta-Chlordane) [2C]	A	20.000	19.5	0.8420025	0.8218074		-2.5	+/-20
cis-Chlordane (alpha-chlordane)	A	20.000	17.3	1.1510260	0.9948922		-13.5	+/-20
cis-Chlordane (alpha-chlordane) [2C]	A	20.000	19.8	0.7474877	0.7394453		-1.0	+/-20
Endosulfan I	A	20.000	17.3	1.2289580	1.0609800		-13.5	+/-20
Endosulfan I [2C]	A	20.000	19.8	0.7354149	0.7270801		-1.0	+/-20
4,4'-DDE	A	40.000	37.4	1.1194720	1.0477490		-6.5	+/-20
4,4'-DDE [2C]	A	40.000	38.0	0.8623926	0.8199613		-5.0	+/-20
Dieldrin	A	40.000	36.5	0.9822551	0.8954657		-8.8	+/-20
Dieldrin [2C]	A	40.000	40.4	0.6269209	0.6332157		1.0	+/-20
Endrin	A	40.000	36.9	0.9916642	0.9145241		-7.8	+/-20
Endrin [2C]	A	40.000	41.5	0.9744023	1.0109500		3.8	+/-20
Endosulfan II	A	40.000	35.9	1.0922280	0.9805592		-10.3	+/-20
Endosulfan II [2C]	A	40.000	42.6	1.3891800	1.4787990		6.5	+/-20
4,4'-DDD	A	40.000	39.2	1.0364540	1.0165550		-2.0	+/-20
4,4'-DDD [2C]	A	40.000	45.0	1.4877600	1.6746890		12.5	+/-20
Endrin Aldehyde	A	40.000	33.3	0.9732162	0.8093048		-16.8	+/-20

* Values outside of QC limits

INITIAL CALIBRATION CHECK

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030903.D	Calibration Date:	03/09/2020
Sequence:	SIC0103	Injection Date:	03/09/20
Lab Sample ID:	SIC0103-ICV1	Injection Time:	12:01
Sequence Name:	INDA1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Endrin Aldehyde [2C]	A	40.000	39.8	1.2569650	1.2514330		-0.5	+/-20
4,4'-DDT	A	40.000	37.4	1.0852640	1.0159170		-6.5	+/-20
4,4'-DDT [2C]	A	40.000	42.0	1.4314010	1.5047530		5.0	+/-20
Endosulfan Sulfate	A	40.000	35.8	1.1570020	1.0349740		-10.5	+/-20
Endosulfan Sulfate [2C]	A	40.000	42.5	1.4987490	1.5929360		6.3	+/-20
Endrin Ketone	A	40.000	34.9	1.3704720	1.1954300		-12.8	+/-20
Endrin Ketone [2C]	A	40.000	40.5	1.7164250	1.7368720		1.3	+/-20
Methoxychlor	A	200.00	185	0.5551348	0.5140593		-7.5	+/-20
Methoxychlor [2C]	A	200.00	202	0.7280478	0.7364615		1.0	+/-20
Decachlorobiphenyl	A	40.000	39.0	1.0068280	0.9814996		-2.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.5	1.2099310	1.2553940		3.8	+/-20
Tetrachlorometaxylene	A	40.000	36.4	0.7784293	0.7077036		-9.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.1	0.9494929	0.9278731		-2.3	+/-20
1-Bromo-2-Nitrobenzene	A	80.000	80.0	2232.8960	1.0000		0.0	
Hexabromobiphenyl	A	80.000	80.0	2088.4340	1.0000		0.0	
1-Bromo-2-Nitrobenzene [2C]	A	80.000	80.0	1731.3770	1.0000		0.0	
Hexabromobiphenyl [2C]	A	80.000	80.0	961.2518	1.0000		0.0	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030903.D
Data file 2: /20200309.b/20200309.b/20030903.D
Method: \20200309.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0103-ICV1
Client ID:
Injection Date: 09-MAR-2020 12:01
Report Date: 03/09/2020 16:22
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.576	0.000	81390	5.385	0.000	61901	19.95	19.18	4.0	alpha-BHC
4.965	0.000	28951	5.888	0.000	26111	17.70	17.70	0.0	beta-BHC
5.150	0.000	66299	6.252	0.000	50707	18.30	18.39	0.5	delta-BHC
4.881	0.000	71031	5.803	0.000	56811	19.69	19.53	0.8	gamma-BHC (Lindane)
5.374	0.000	73531	6.341	0.000	51015	18.83	18.56	1.4	Heptachlor
5.701	0.000	68717	6.730	0.000	49008	18.79	19.56	4.0	Aldrin
6.354	0.000	59165	7.359	0.000	43922	17.93	19.70	9.4	Heptachlor epoxide b
6.782	0.000	55772	7.795	0.000	33281	17.27	19.77	13.5	Endosulfan I
7.036	0.000	94143	8.080	0.000	57969	36.47	40.40	10.2	Dieldrin
6.713	0.000	110153	7.853	0.000	75065	37.44	38.03	1.6	4,4'-DDE
7.281	0.000	84604	8.400	0.000	43392	36.89	41.50	11.8	Endrin
7.508	0.000	90713	8.607	0.000	63473	35.91	42.58	17.0	Endosulfan II
7.339	0.000	94043	8.447	0.000	71881	39.23	45.03	13.8	4,4'-DDD
8.348	0.000	95747	9.193	0.000	68372	35.78	42.51	17.2	Endosulfan sulfate
7.630	0.000	93984	8.760	0.000	64587	37.44	42.05	11.6	4,4'-DDT
8.113	0.000	237782	9.387	0.000	158052	185.20	202.31	8.8	Methoxychlor
8.631	0.000	110591	9.754	0.000	74550	34.89	40.48	14.8	Endrin ketone
7.922	0.000	74870	8.929	0.000	53714	33.26	39.82	18.0	Endrin aldehyde
6.496	0.000	56714	7.564	0.000	37617	17.58	19.52	10.5	trans-Chlordane
6.638	0.000	52298	7.716	0.000	33847	17.29	19.78	13.5	cis-Chlordane
2.515	0.000	90691	2.889	0.000	69104	17.12	19.09	10.9	Hexachlorobutadiene
4.438	0.000	53667	5.246	0.000	46149	18.68	18.57	0.6	Hexachlorobenzene
4.071	0.000	74403	4.717	0.000	84944	36.37	39.09	7.2	Tetrachloro-m-xylene
9.602	0.000	90800	11.075	0.000	53884	38.99	41.50	6.2	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	90.9	97.7	90.9~	115- 0
Decachlorobiphenyl	97.5	103.8	97.5~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

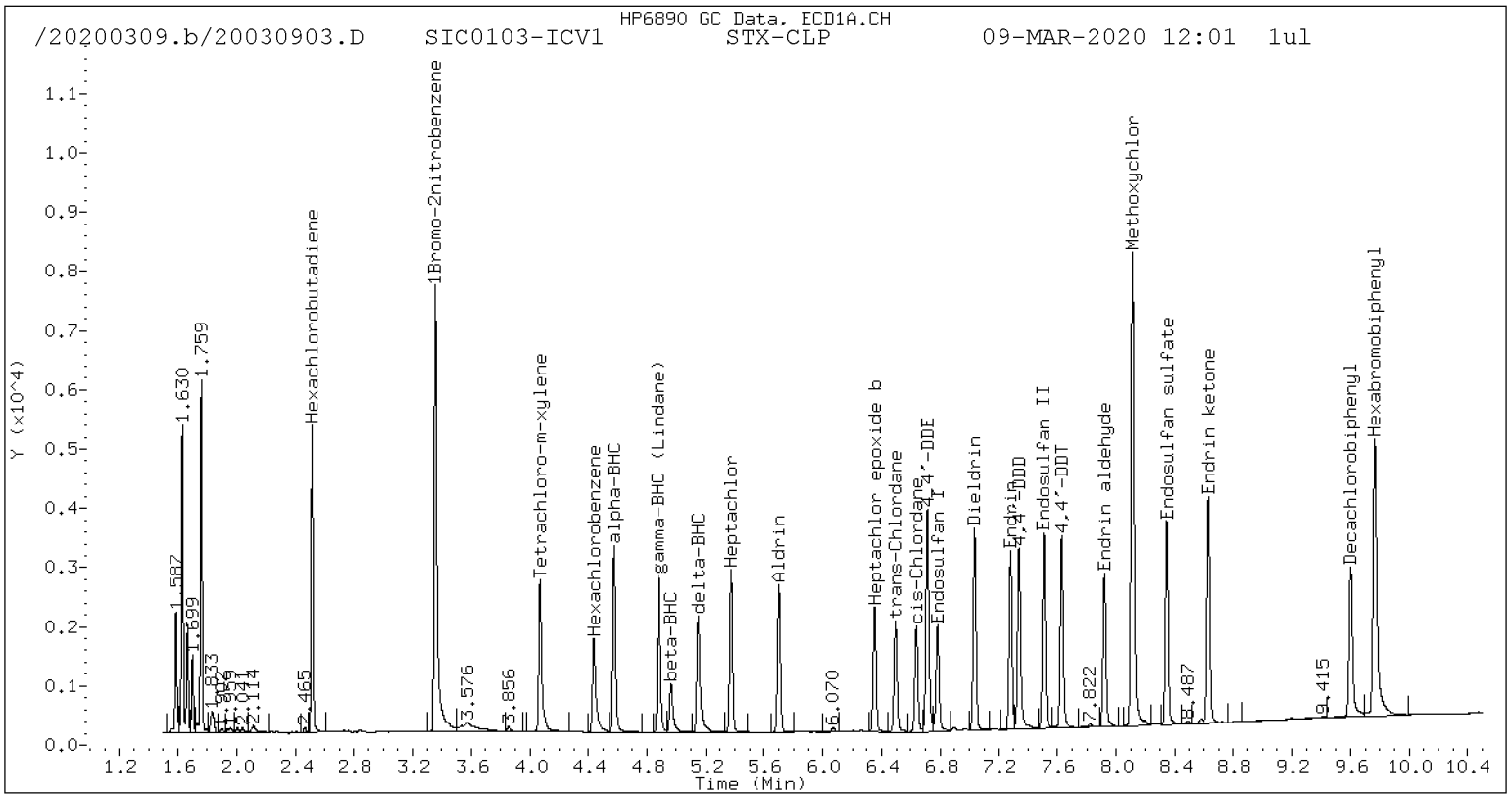
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	210266	11.1
Hexabromobiphenyl	177311	185023	4.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	183094	22.7
Hexabromobiphenyl	80212	85844	7.0

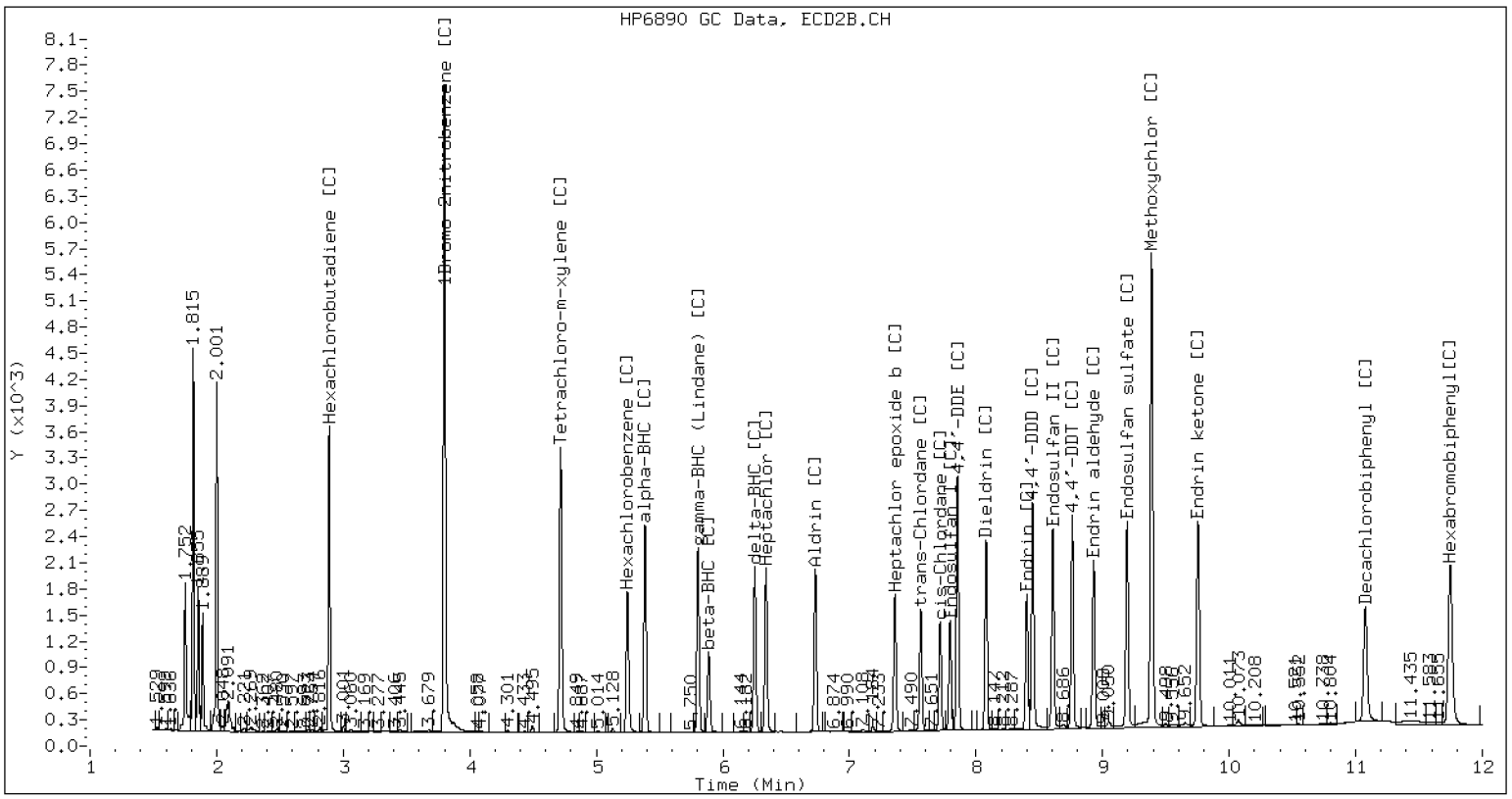
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

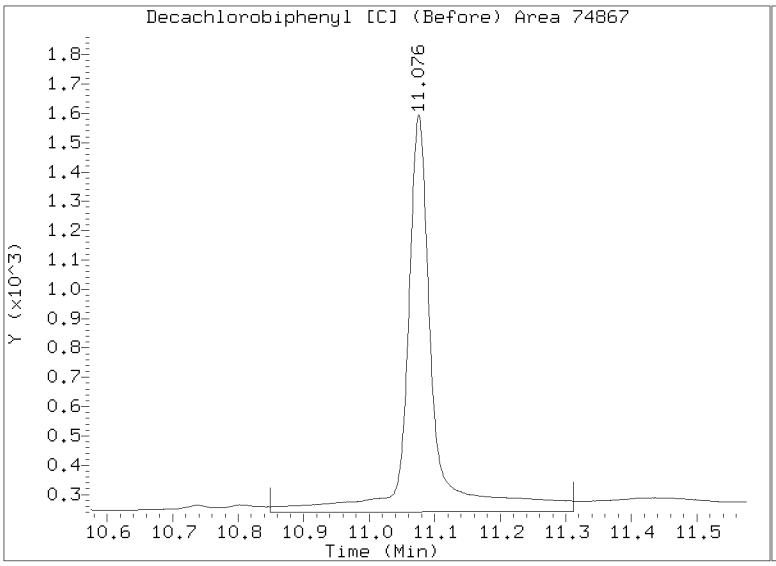
/20200309.b/20200309.b/20030903.D SIC0103-ICV1 CLP2

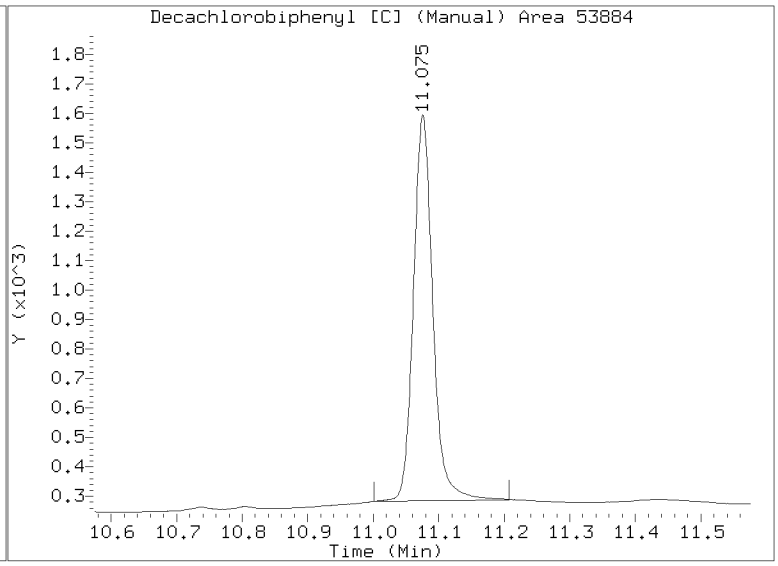


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200309.b/20200309.b/20030903.D
Injection Date: 09-MAR-2020 12:01
Lab ID:SIC0103-ICV1 Client ID:





INITIAL CALIBRATION CHECK

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030904.D	Calibration Date:	03/09/2020
Sequence:	SIC0103	Injection Date:	03/09/20
Lab Sample ID:	SIC0103-ICV3	Injection Time:	12:19
Sequence Name:	TOXAPH1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Toxaphene	A	2500.0	2430	0.0486787	0.0473682		-2.8	+/-20
Toxaphene [2C]	A	2500.0	2540	0.0540947	0.0554770		1.7	+/-20
1-Bromo-2-Nitrobenzene	A	80.000	80.0	2232.8960	1.0000		0.0	
Hexabromobiphenyl	A	80.000	80.0	2088.4340	1.0000		0.0	
1-Bromo-2-Nitrobenzene [2C]	A	80.000	80.0	1731.3770	1.0000		0.0	
Hexabromobiphenyl [2C]	A	80.000	80.0	961.2518	1.0000		0.0	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030904.D
Data file 2: /20200309.b/20200309.b/20030904.D
Method: \20200309.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0103-ICV3
Client ID:
Injection Date: 09-MAR-2020 12:19
Report Date: 03/09/2020 16:22
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.071	0.000	39223	4.716	-0.001	44022	18.93	21.88	14.4	Tetrachloro-m-xylene
9.601	-0.001	65102	11.075	-0.000	47069	28.63	37.18	26.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	94.7	109.4	94.7~	150- 0
Decachlorobiphenyl	71.6	93.0	71.6~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	212933	12.5
Hexabromobiphenyl	177311	180661	1.9

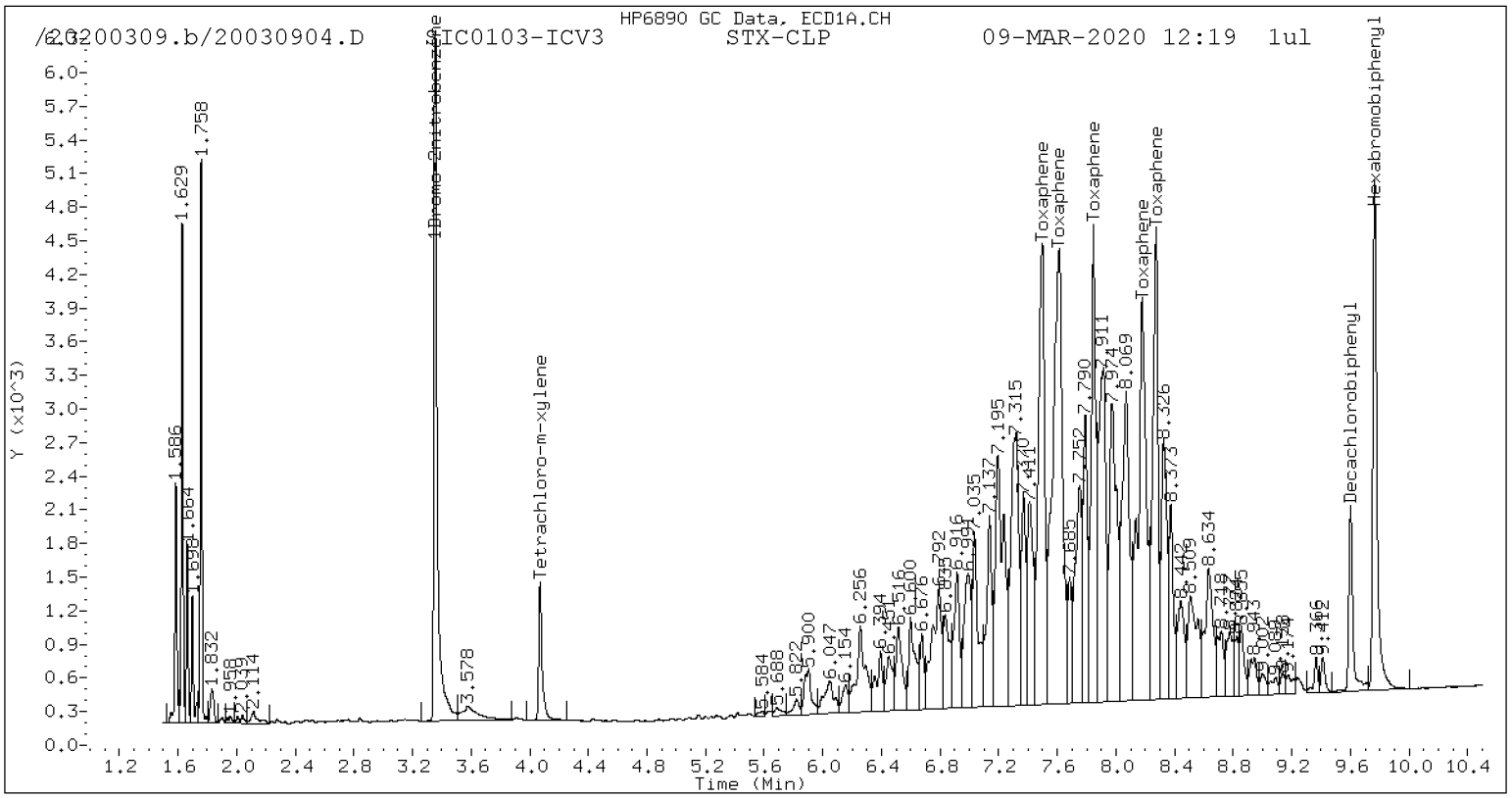
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	169539	13.6
Hexabromobiphenyl	80212	83702	4.4

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

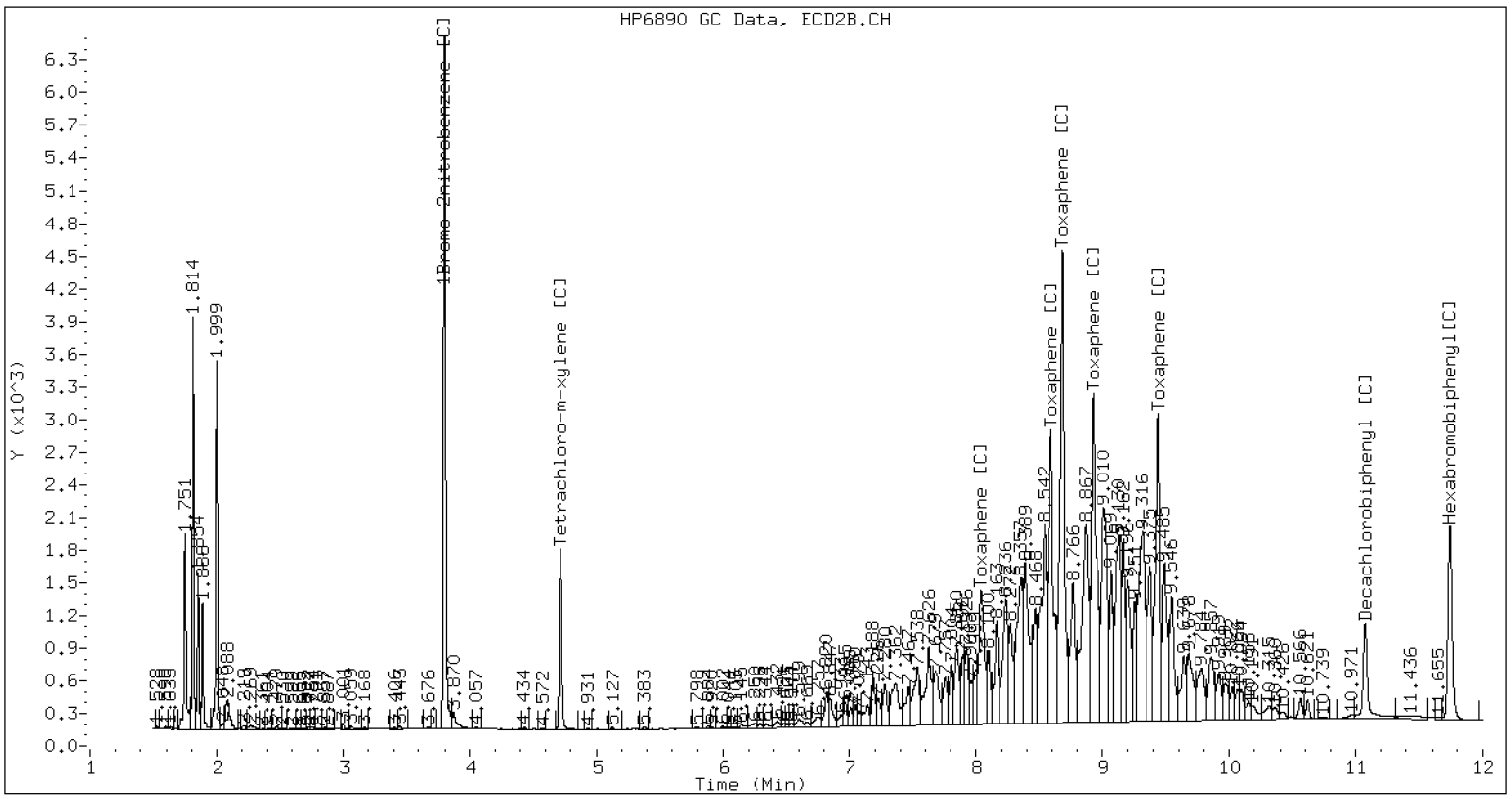
	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.496	0.000	254763	2408.4	1	8.039	0.000	72023	2285.1
Toxaphene	2	7.611	0.000	386378	2412.3	2	8.589	0.000	140920	2706.2
Toxaphene	3	7.847	0.000	194599	2388.8	3	8.684	0.000	209991	2511.4
Toxaphene	4	8.179	0.000	295896	2540.9	4	8.925	0.000	173371	2645.0
Toxaphene	5	8.273	0.000	205486	2395.6	5	9.440	0.000	129248	2572.8
Total STX-CLPAve (5 peaks): 2429.184						Total CLP2Ave (5 peaks): 2544.103				RPD = 5
Corrected Ave (5 peaks): 2429.184						Corrected Ave (5 peaks): 2544.103				RPD = 5

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200309.b/20200309.b/20030904.D SIC0103-ICV3 CLP2



CLP-2 Manual Integration: NO

INITIAL CALIBRATION CHECK

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030905.D	Calibration Date:	03/09/2020
Sequence:	SIC0103	Injection Date:	03/09/20
Lab Sample ID:	SIC0103-ICV4	Injection Time:	12:37
Sequence Name:	NOS		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Chlordane (NOS)	A	200.00	179	0.1218720	0.1078295		-10.5	
Chlordane (NOS) [2C]	A	200.00	195	0.0684231	0.0677837		-2.5	
1-Bromo-2-Nitrobenzene	A	80.000	80.0	2232.8960	1.0000		0.0	
Hexabromobiphenyl	A	80.000	80.0	2088.4340	1.0000		0.0	
1-Bromo-2-Nitrobenzene [2C]	A	80.000	80.0	1731.3770	1.0000		0.0	
Hexabromobiphenyl [2C]	A	80.000	80.0	961.2518	1.0000		0.0	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030905.D
Data file 2: /20200309.b/20200309.b/20030905.D
Method: \20200309.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0103-ICV4
Client ID:
Injection Date: 09-MAR-2020 12:37
Report Date: 03/09/2020 16:22
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	214454	13.3
Hexabromobiphenyl	177311	234987	32.5

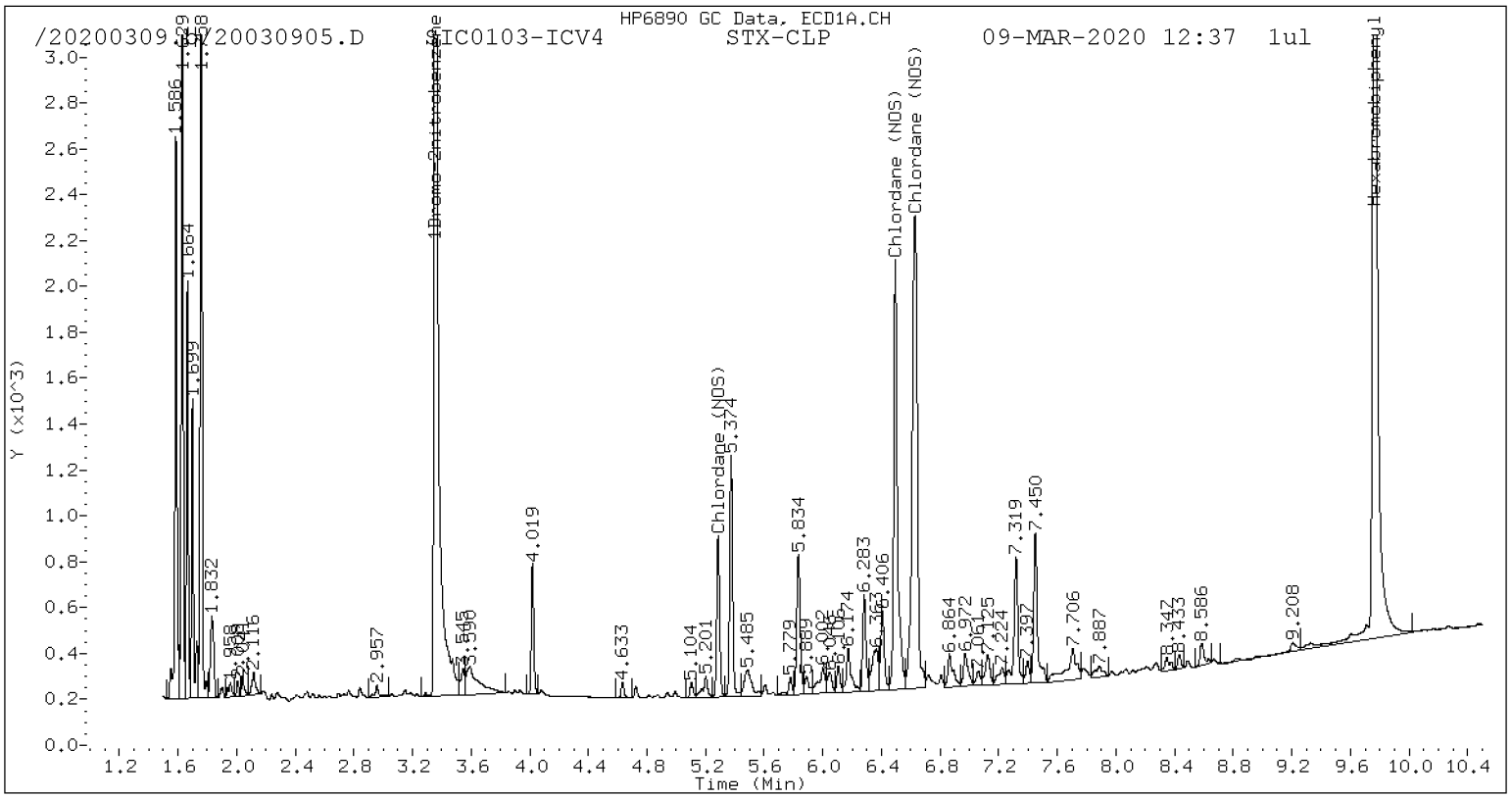
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	91438	-38.7
Hexabromobiphenyl	80212	189066	135.7 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

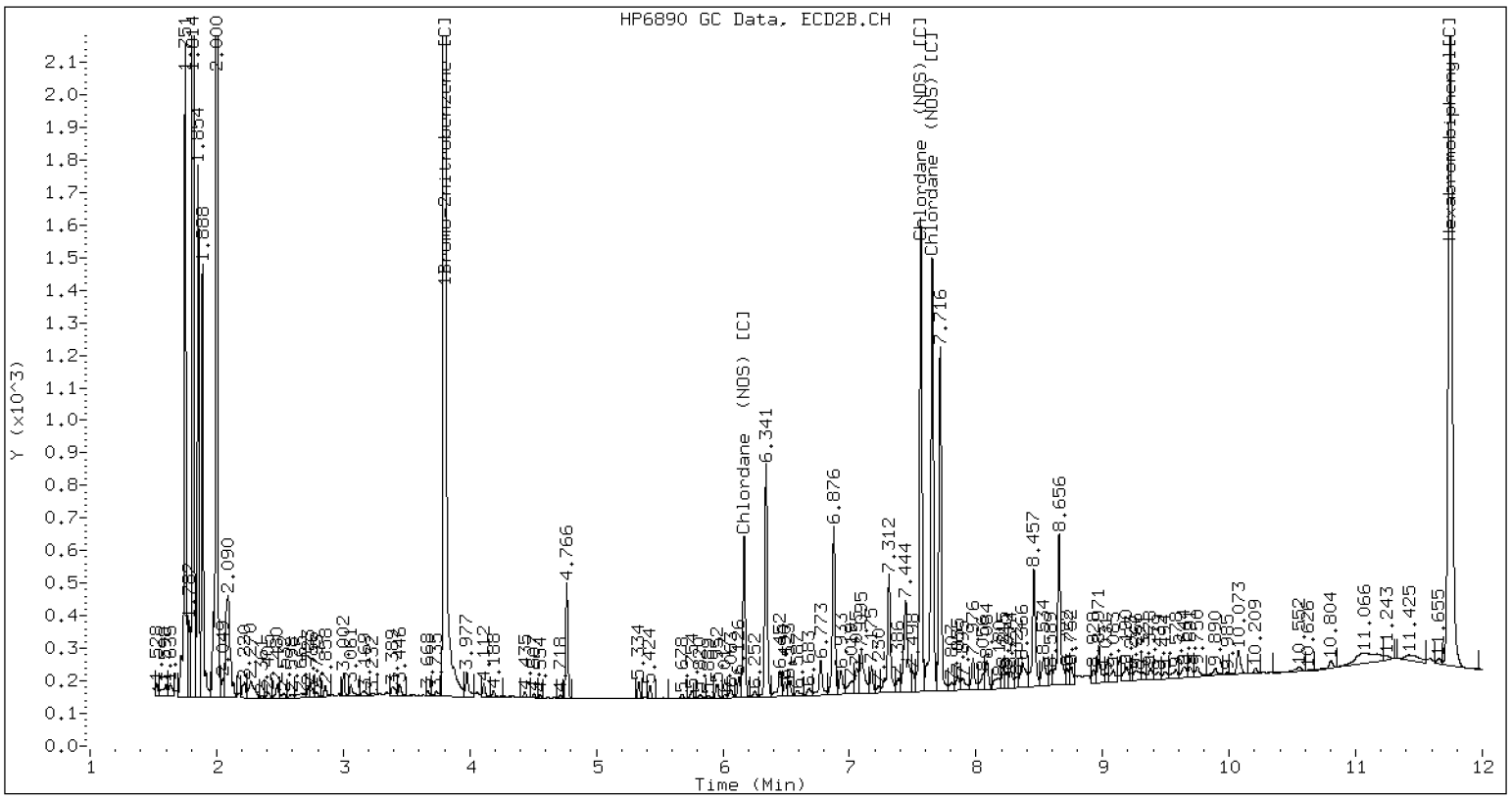
	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.286	0.000	19561	182.1	1	6.167	0.000	13747	181.6
Chlordane (NOS)	2	6.495	0.000	66282	182.7	2	7.564	0.000	40750	202.9
Chlordane (NOS)	3	6.629	0.000	104196	172.6	3	7.654	0.000	41620	199.6
Total STX-CLPAve (3 peaks): 179.126						Total CLP2Ave (3 peaks): 194.683				RPD = 8
Corrected Ave (3 peaks): 179.126						Corrected Ave (3 peaks): 194.683				RPD = 8

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200309.b/20200309.b/20030905.D SIC0103-ICV4 CLP2



CLP-2 Manual Integration: NO

INITIAL CALIBRATION CHECK

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20031303.D	Calibration Date:	03/09/2020
Sequence:	SIC0178	Injection Date:	03/13/20
Lab Sample ID:	SIC0178-ICV1	Injection Time:	12:19
Sequence Name:	INDA1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
alpha-BHC	A	20.000	19.9	1.5519880	1.5450300		-0.5	+/-20
alpha-BHC [2C]	A	20.000	20.6	1.4101790	1.4522180		3.0	+/-20
beta-BHC	A	20.000	20.0	0.6221788	0.6205638		-0.3	+/-20
beta-BHC [2C]	A	20.000	19.2	0.6444893	0.6178651		-4.0	+/-20
gamma-BHC (Lindane)	A	20.000	18.8	1.3724630	1.2870500		-6.0	+/-20
gamma-BHC (Lindane) [2C]	A	20.000	20.3	1.2706900	1.2872190		1.5	+/-20
delta-BHC	A	20.000	19.0	1.3783280	1.3093		-5.0	+/-20
delta-BHC [2C]	A	20.000	19.2	1.2048710	1.1560110		-4.0	+/-20
Heptachlor	A	20.000	19.1	1.4856930	1.4207060		-4.5	+/-20
Heptachlor [2C]	A	20.000	20.2	1.2007430	1.2126880		1.0	+/-20
Aldrin	A	20.000	19.1	1.3915140	1.3271470		-4.5	+/-20
Aldrin [2C]	A	20.000	20.8	1.0946560	1.1384670		4.0	+/-20
Heptachlor Epoxide	A	20.000	18.2	1.2553090	1.1395810		-9.0	+/-20
Heptachlor Epoxide [2C]	A	20.000	19.9	0.9743274	0.9705955		-0.5	+/-20
trans-Chlordane (beta-Chlordane)	A	20.000	17.0	1.2273580	1.0408550		-15.0	+/-20
trans-Chlordane (beta-Chlordane) [2C]	A	20.000	19.1	0.8420025	0.8055350		-4.5	+/-20
cis-Chlordane (alpha-chlordane)	A	20.000	16.9	1.1510260	0.9740795		-15.5	+/-20
cis-Chlordane (alpha-chlordane) [2C]	A	20.000	20.0	0.7474877	0.7458302		0.0	+/-20
Endosulfan I	A	20.000	20.0	1.2289580	1.2264170		0.0	+/-20
Endosulfan I [2C]	A	20.000	20.0	0.7354149	0.7365641		0.0	+/-20
4,4'-DDE	A	40.000	34.5	1.1194720	0.9656172		-13.8	+/-20
4,4'-DDE [2C]	A	40.000	42.8	0.8623926	0.9230448		7.0	+/-20
Dieldrin	A	40.000	38.6	0.9822551	0.9468870		-3.5	+/-20
Dieldrin [2C]	A	40.000	41.5	0.6269209	0.6507289		3.8	+/-20
Endrin	A	40.000	39.2	0.9916642	0.9725352		-2.0	+/-20
Endrin [2C]	A	40.000	37.6	0.9744023	0.9163656		-6.0	+/-20
Endosulfan II	A	40.000	41.2	1.0922280	1.1238730		3.0	+/-20
Endosulfan II [2C]	A	40.000	39.2	1.3891800	1.3627810		-2.0	+/-20
4,4'-DDD	A	40.000	39.2	1.0364540	1.0147800		-2.0	+/-20
4,4'-DDD [2C]	A	40.000	39.5	1.4877600	1.4685020		-1.3	+/-20
Endrin Aldehyde	A	40.000	37.2	0.9732162	0.9042747		-7.0	+/-20

* Values outside of QC limits

INITIAL CALIBRATION CHECK

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20031303.D	Calibration Date:	03/09/2020
Sequence:	SIC0178	Injection Date:	03/13/20
Lab Sample ID:	SIC0178-ICV1	Injection Time:	12:19
Sequence Name:	INDA1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Endrin Aldehyde [2C]	A	40.000	38.4	1.2569650	1.2083060		-4.0	+/-20
4,4'-DDT	A	40.000	38.6	1.0852640	1.0479410		-3.5	+/-20
4,4'-DDT [2C]	A	40.000	39.2	1.4314010	1.4027920		-2.0	+/-20
Endosulfan Sulfate	A	40.000	39.3	1.1570020	1.1356880		-1.8	+/-20
Endosulfan Sulfate [2C]	A	40.000	39.2	1.4987490	1.4703010		-2.0	+/-20
Endrin Ketone	A	40.000	37.6	1.3704720	1.2886770		-6.0	+/-20
Endrin Ketone [2C]	A	40.000	37.8	1.7164250	1.6209530		-5.5	+/-20
Methoxychlor	A	200.00	191	0.5551348	0.5296874		-4.5	+/-20
Methoxychlor [2C]	A	200.00	182	0.7280478	0.6622991		-9.0	+/-20
Decachlorobiphenyl	A	40.000	38.6	1.0068280	0.9723851		-3.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.6	1.2099310	1.2269190		1.5	+/-20
Tetrachlorometaxylene	A	40.000	36.8	0.7784293	0.7152696		-8.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.0	0.9494929	0.9508587		0.0	+/-20
1-Bromo-2-Nitrobenzene	A	80.000	80.0	2232.8960	1.0000		0.0	
Hexabromobiphenyl	A	80.000	80.0	2088.4340	1.0000		0.0	
1-Bromo-2-Nitrobenzene [2C]	A	80.000	80.0	1731.3770	1.0000		0.0	
Hexabromobiphenyl [2C]	A	80.000	80.0	961.2518	1.0000		0.0	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031303.D
Data file 2: /20200313.b/20200313.b/20031303.D
Method: \20200313.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0178-ICV1
Client ID:
Injection Date: 13-MAR-2020 12:19
Report Date: 03/14/2020 14:29
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.578	0.000	58608	5.383	0.000	47017	19.91	20.60	3.4	alpha-BHC
4.969	0.000	23540	5.886	0.000	20004	19.95	19.17	4.0	beta-BHC M
5.153	0.000	49666	6.250	0.000	37427	19.00	19.19	1.0	delta-BHC
4.882	0.000	48822	5.800	0.000	41675	18.76	20.26	7.7	gamma-BHC (Lindane)
5.374	0.000	53892	6.337	0.000	39262	19.13	20.20	5.5	Heptachlor
5.701	0.000	50343	6.727	0.000	36859	19.07	20.80	8.7	Aldrin
6.353	0.000	43228	7.356	0.000	31424	18.16	19.92	9.3	Heptachlor epoxide b
6.783	0.000	46522	7.791	0.000	23847	19.96	20.03	0.4	Endosulfan I
7.036	0.000	71837	8.076	0.000	42136	38.56	41.52	7.4	Dieldrin
6.717	0.000	73258	7.850	0.000	59769	34.50	42.81	21.5	4,4'-DDE
7.282	0.000	64783	8.396	0.000	32591	39.23	37.62	4.2	Endrin
7.509	0.000	74864	8.603	0.000	48468	41.16	39.24	4.8	Endosulfan II
7.345	0.000	67597	8.445	0.000	52228	39.16	39.48	0.8	4,4'-DDD
8.348	0.000	75651	9.188	0.000	52292	39.26	39.24	0.1	Endosulfan sulfate
7.632	0.000	69806	8.756	0.000	49891	38.62	39.20	1.5	4,4'-DDT
8.115	0.000	176419	9.382	0.000	117775	190.83	181.94	4.8	Methoxychlor
8.632	0.000	85842	9.748	0.000	57650	37.61	37.78	0.4	Endrin ketone
7.922	0.000	60236	8.925	0.000	42974	37.17	38.45	3.4	Endrin aldehyde
6.496	0.000	39483	7.560	0.000	26080	16.96	19.13	12.0	trans-Chlordane
6.639	0.000	36950	7.712	0.000	24147	16.93	19.96	16.4	cis-Chlordane
2.516	0.000	68222	2.889	0.000	50891	17.84	19.87	10.8	Hexachlorobutadiene
4.442	0.000	38648	5.245	0.000	34144	18.64	19.42	4.1	Hexachlorobenzene M
4.074	0.000	54265	4.716	0.000	61570	36.75	40.06	8.6	Tetrachloro-m-xylene
9.601	0.000	64773	11.067	0.000	43636	38.63	40.56	4.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	91.9	100.1	91.9~	115- 0
Decachlorobiphenyl	96.6	101.4	96.6~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

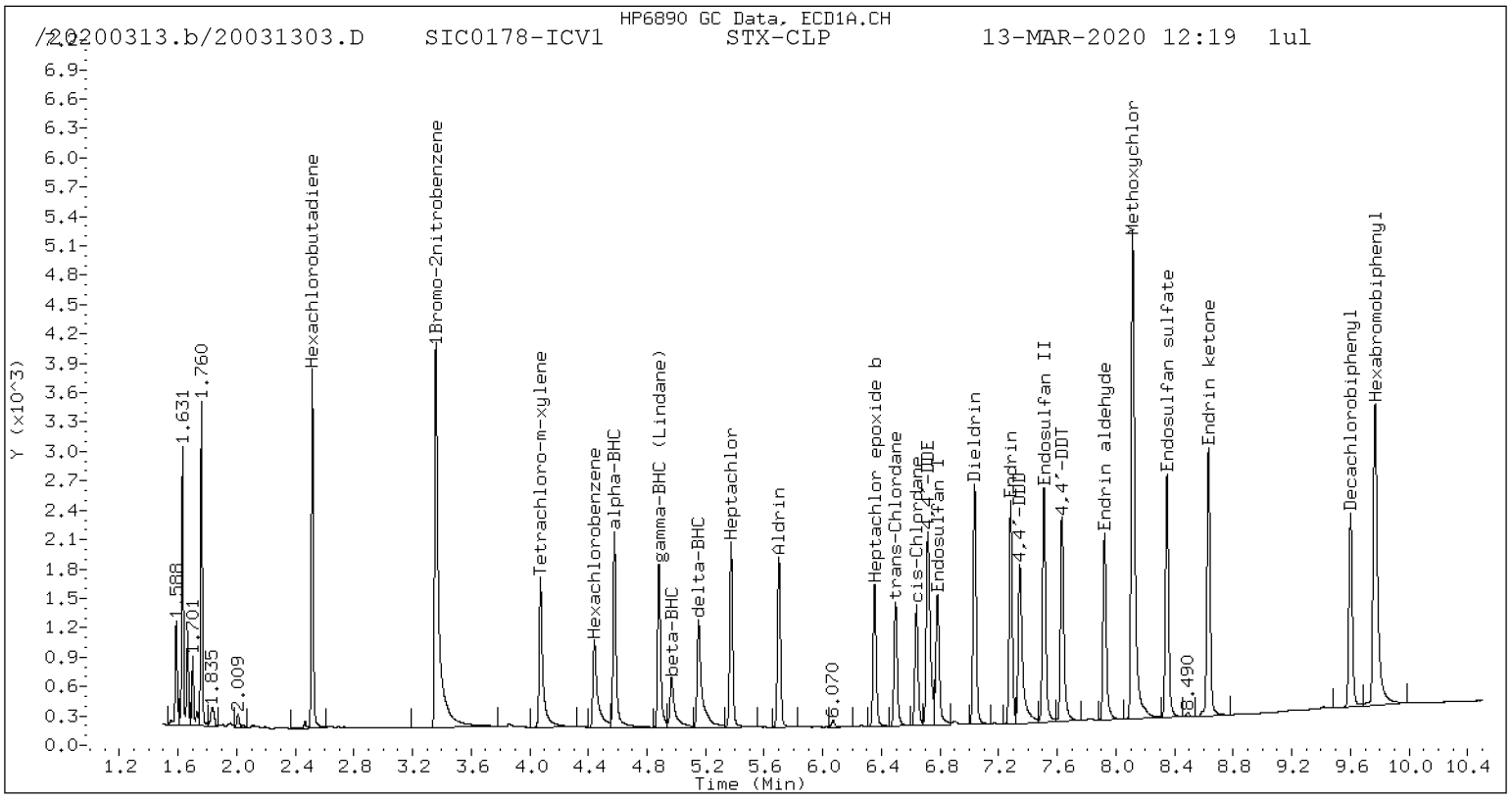
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	151733	-19.9
Hexabromobiphenyl	177311	133225	-24.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	129504	-13.2
Hexabromobiphenyl	80212	71131	-11.3

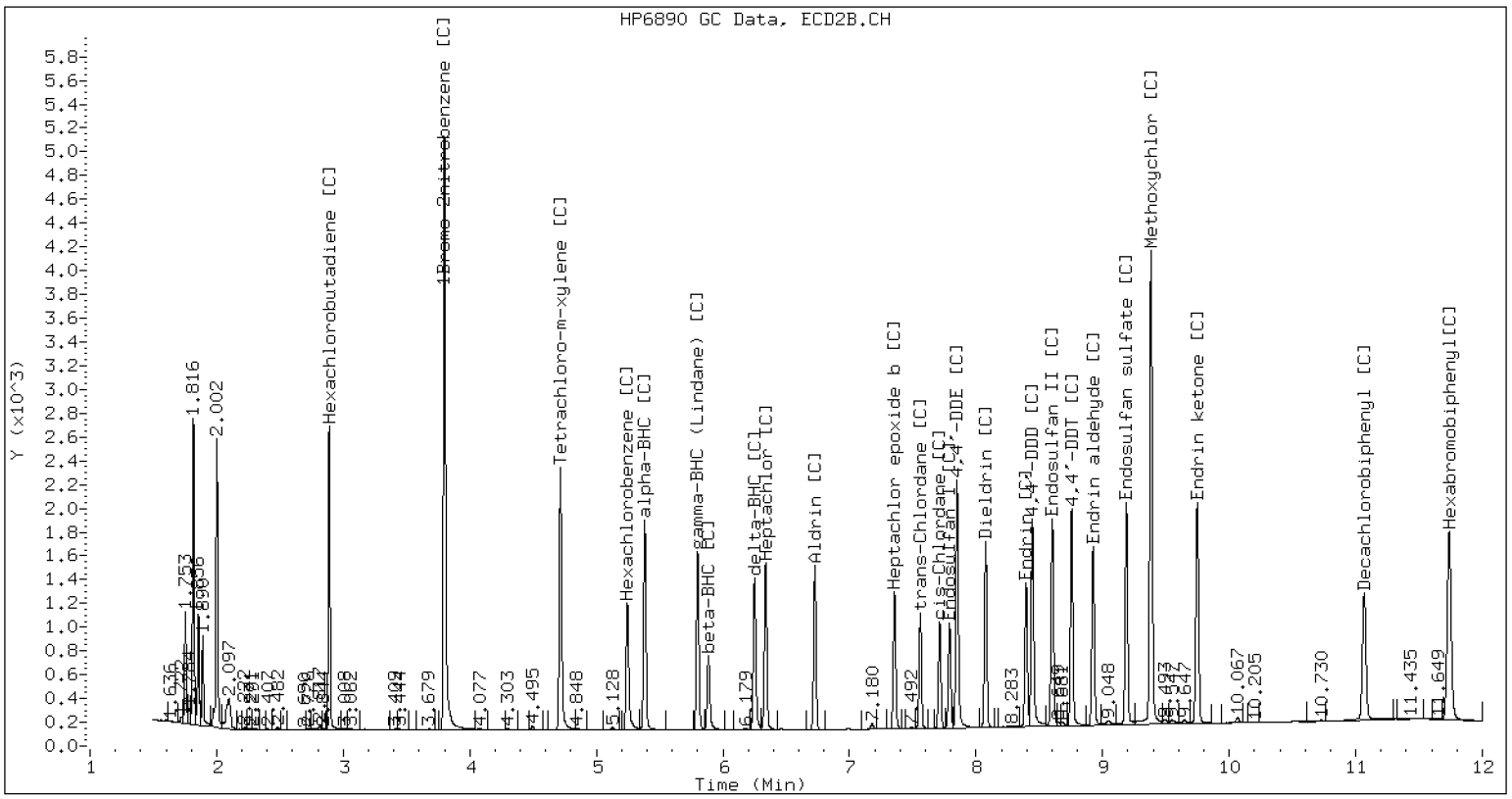
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

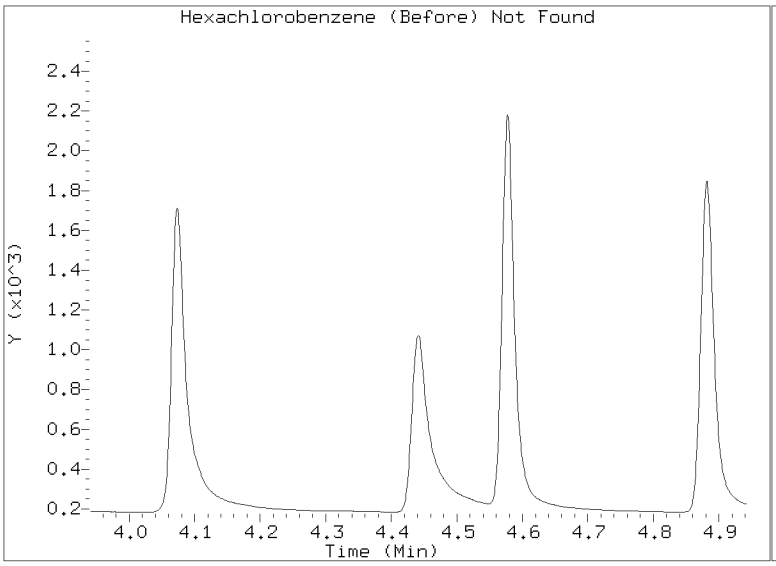
/20200313.b/20200313.b/20031303.D SIC0178-ICV1 CLP2

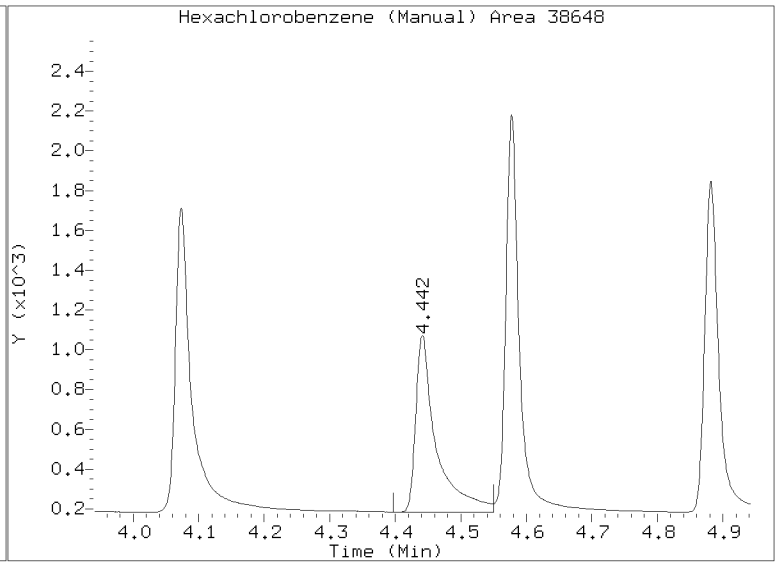


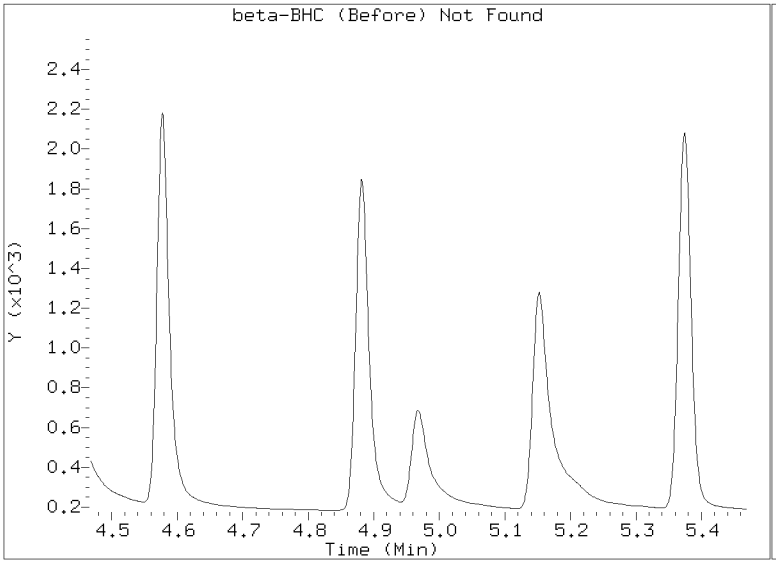
CLP-2 Manual Integration: NO

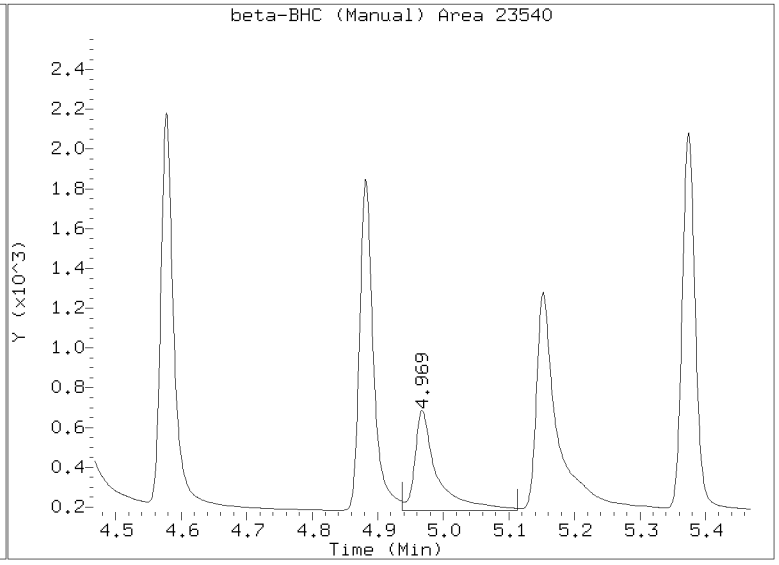
Manual Peak Adjustment Report, STX-CLP

Datafile: /20200313.b/20031303.D
Injection Date: 13-MAR-2020 12:19
Lab ID:SIC0178-ICV1 Client ID:
Report Date: 03/14/2020 14:29









INITIAL CALIBRATION CHECK

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20031305.D	Calibration Date:	03/09/2020
Sequence:	SIC0178	Injection Date:	03/13/20
Lab Sample ID:	SIC0178-ICV3	Injection Time:	12:55
Sequence Name:	TOXAPH1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Toxaphene	A	2500.0	2250	0.0486787	0.0441539		-10.0	+/-20
Toxaphene [2C]	A	2500.0	2210	0.0540947	0.0472070		-11.7	+/-20
1-Bromo-2-Nitrobenzene	A	80.000	80.0	2232.8960	1.0000		0.0	
Hexabromobiphenyl	A	80.000	80.0	2088.4340	1.0000		0.0	
1-Bromo-2-Nitrobenzene [2C]	A	80.000	80.0	1731.3770	1.0000		0.0	
Hexabromobiphenyl [2C]	A	80.000	80.0	961.2518	1.0000		0.0	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031305.D
Data file 2: /20200313.b/20200313.b/20031305.D
Method: \20200313.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0178-ICV3
Client ID:
Injection Date: 13-MAR-2020 12:55
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			4.717	0.001	30592	0.00	18.39	---	Tetrachloro-m-xylene
9.600	-0.001	42884	11.065	-0.001	27602	22.97	24.07	4.7	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	91.9	0.0~	150- 0
Decachlorobiphenyl	57.4	60.2	57.4~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	172788	-8.7
Hexabromobiphenyl	177311	148342	-16.3

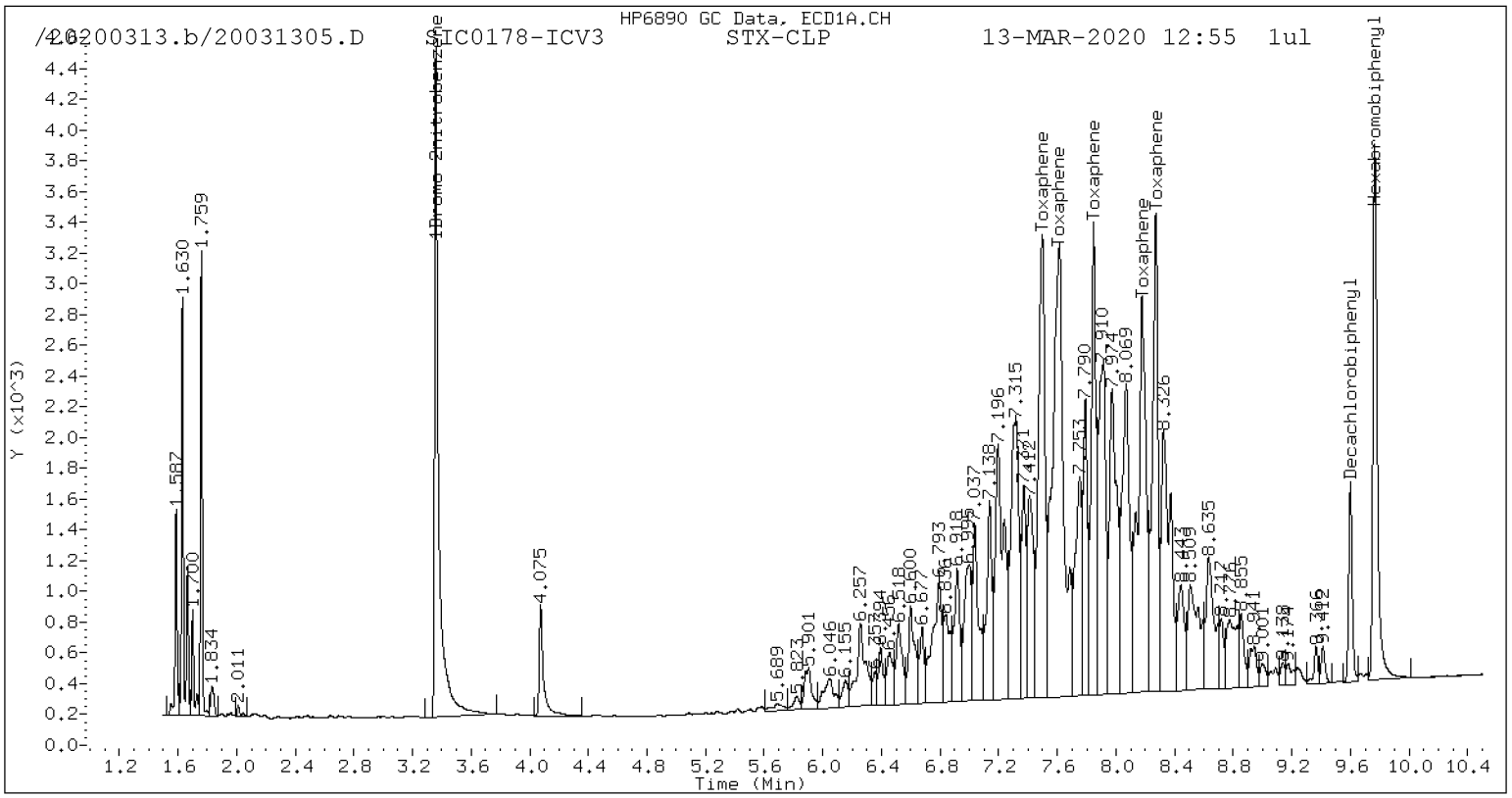
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	140161	-6.1
Hexabromobiphenyl	80212	75813	-5.5

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

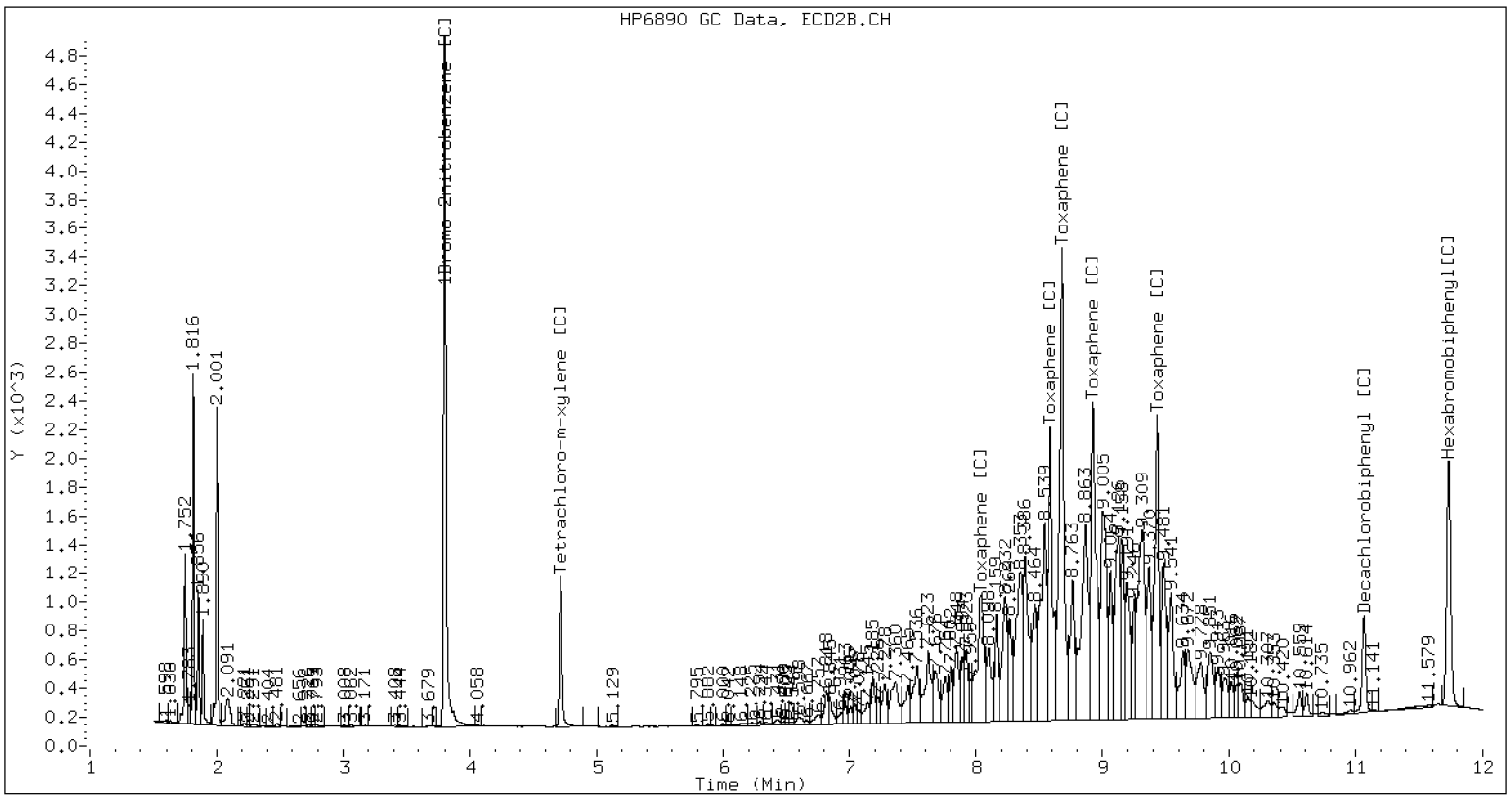
	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.496	0.000	193471	2227.4	1	8.036	0.000	68718	2407.1
Toxaphene	2	7.612	0.000	316014	2402.8	2	8.585	0.000	105402	2234.8
Toxaphene	3	7.848	0.000	143426	2144.2	3	8.681	0.000	160613	2120.7
Toxaphene	4	8.179	0.000	208482	2180.3	4	8.921	0.000	127555	2148.5
Toxaphene	5	8.272	0.000	162026	2300.4	5	9.434	0.000	96916	2129.9
Total STX-CLPAve (5 peaks): 2251.042						Total CLP2Ave (5 peaks): 2208.219				RPD = 2
Corrected Ave (5 peaks): 2251.042						Corrected Ave (5 peaks): 2208.219				RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

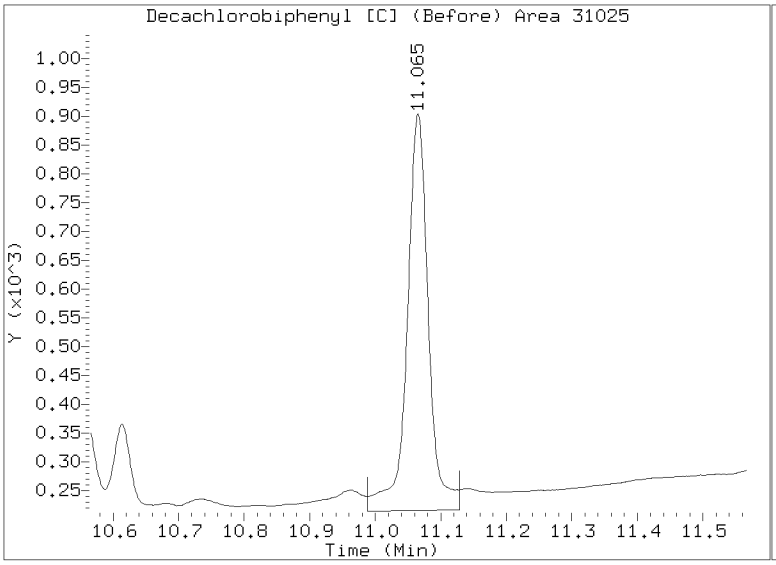
/20200313.b/20200313.b/20031305.D SIC0178-ICV3 CLP2

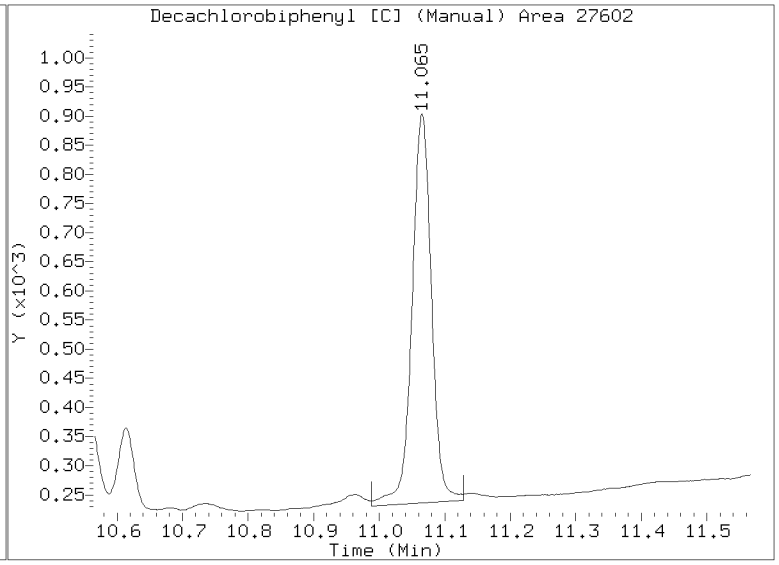


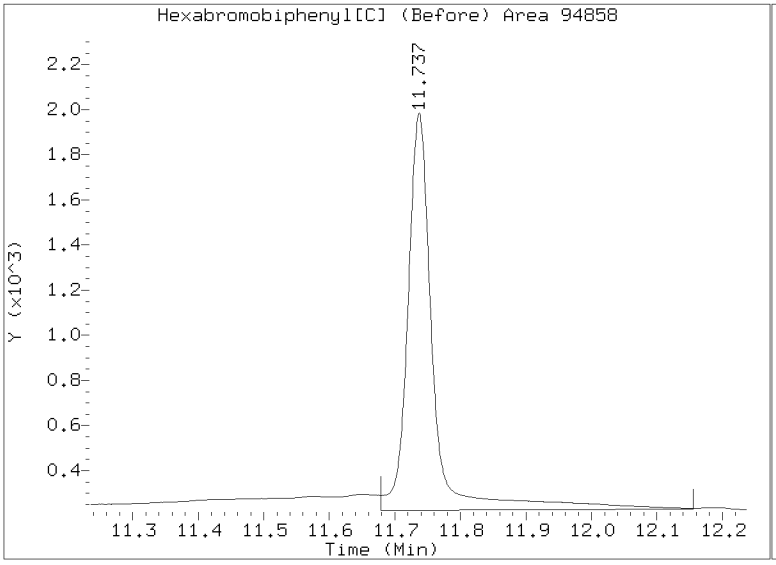
CLP-2 Manual Integration: YES

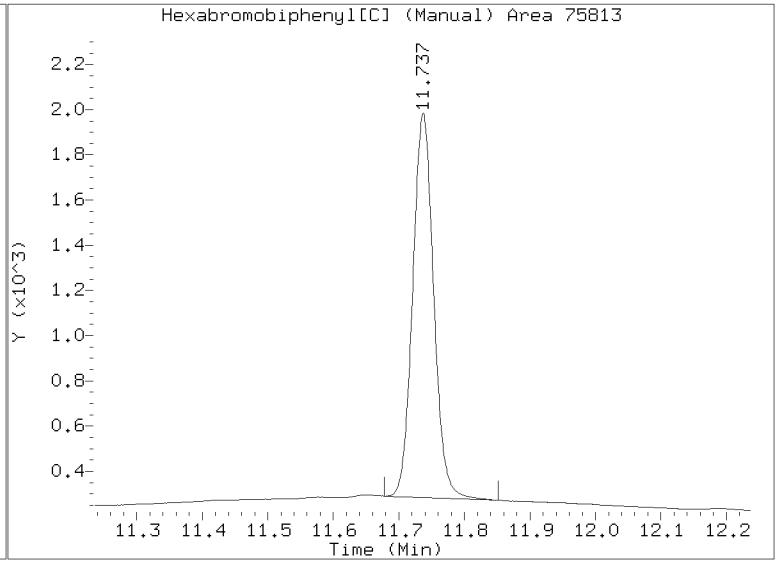
Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031305.D
Injection Date: 13-MAR-2020 12:55
Lab ID:SIC0178-ICV3 Client ID:









INITIAL CALIBRATION CHECK

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20031306.D	Calibration Date:	03/09/2020
Sequence:	SIC0178	Injection Date:	03/13/20
Lab Sample ID:	SIC0178-ICV4	Injection Time:	13:13
Sequence Name:	NOS		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Chlordane (NOS)	A	200.00	165	0.1218720	0.1014079		-17.5	
Chlordane (NOS) [2C]	A	200.00	164	0.0684231	0.0562037		-18.2	
1-Bromo-2-Nitrobenzene	A	80.000	80.0	2232.8960	1.0000		0.0	
Hexabromobiphenyl	A	80.000	80.0	2088.4340	1.0000		0.0	
1-Bromo-2-Nitrobenzene [2C]	A	80.000	80.0	1731.3770	1.0000		0.0	
Hexabromobiphenyl [2C]	A	80.000	80.0	961.2518	1.0000		0.0	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031306.D
Data file 2: /20200313.b/20200313.b/20031306.D
Method: \20200313.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0178-ICV4
Client ID:
Injection Date: 13-MAR-2020 13:13
Report Date: 03/14/2020 13:42
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	155108	-18.1
Hexabromobiphenyl	177311	170773	-3.7

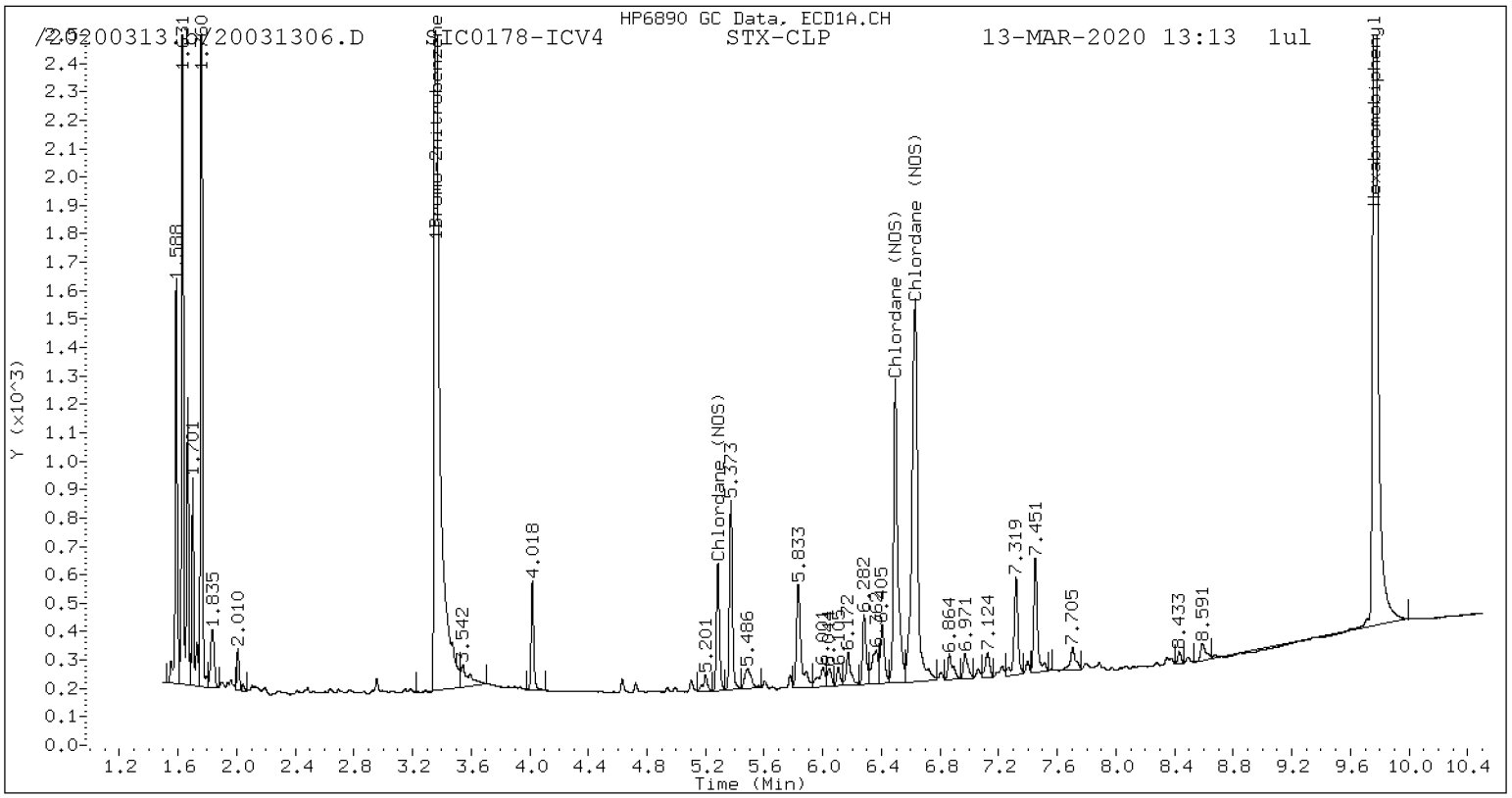
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	81752	-45.2
Hexabromobiphenyl	80212	143191	78.5

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

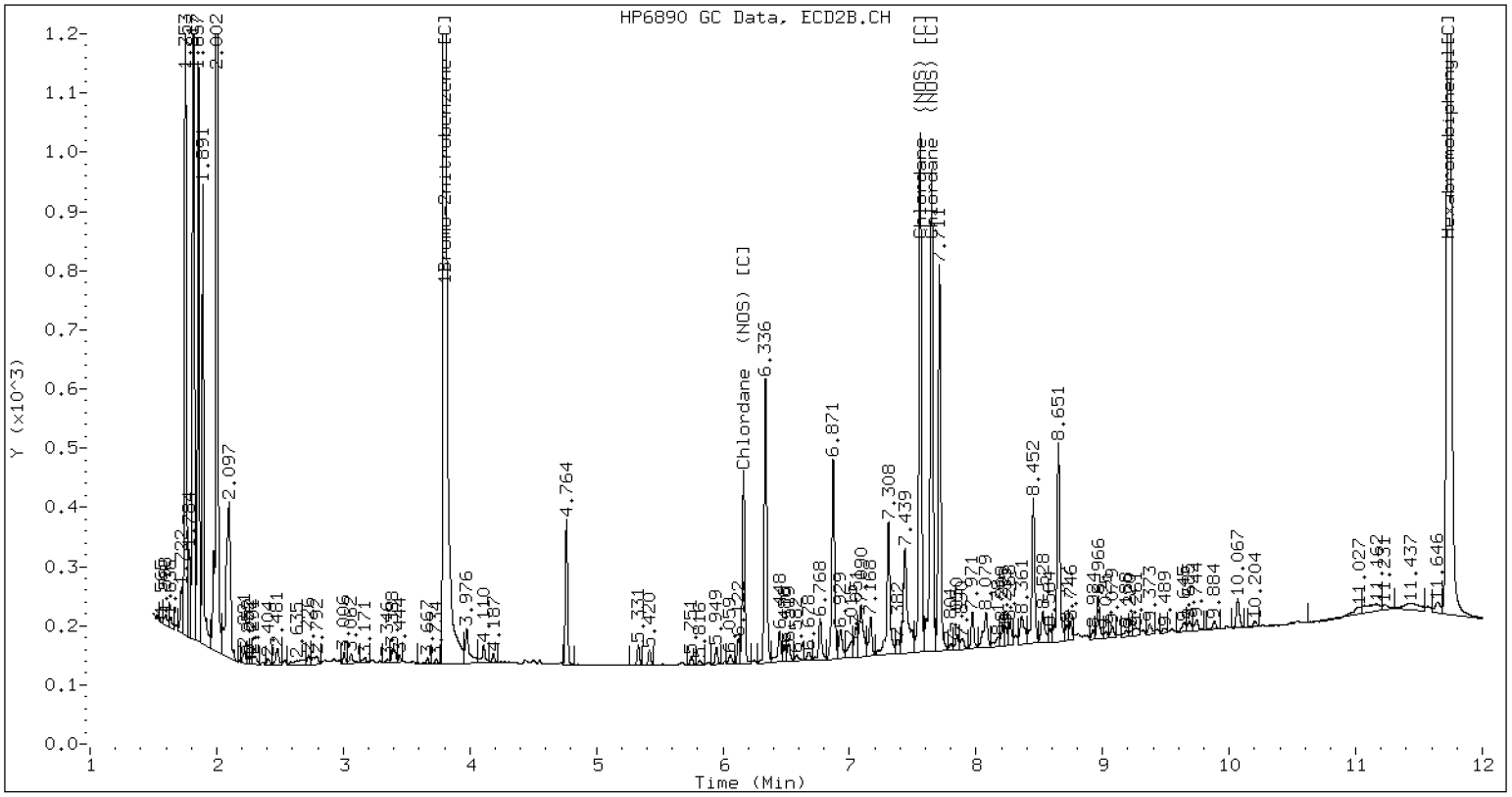
	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.284	0.000	12818	164.2	1	6.163	0.000	9315	162.5
Chlordane (NOS)	2	6.495	0.000	42751	162.2	2	7.559	0.000	24962	164.1
Chlordane (NOS)	3	6.629	0.000	74314	169.4	3	7.649	0.000	26082	165.1
Total STX-CLPAve (3 peaks): 165.238						Total CLP2Ave (3 peaks): 163.901				RPD = 1
Corrected Ave (3 peaks): 165.238						Corrected Ave (3 peaks): 163.901				RPD = 1

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200313.b/20200313.b/20031306.D SIC0178-ICV4 CLP2



CLP-2 Manual Integration: NO

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030713.D	Calibration Date:	03/09/2020
Sequence:	SIC0095	Injection Date:	03/07/20
Lab Sample ID:	SIC0095-SCV1	Injection Time:	12:14
Sequence Name:	INDAESCV		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
alpha-BHC	A	40.000	40.2	1.5519880	1.5615660		0.6	+/-20
alpha-BHC [2C]	A	40.000	38.8	1.4101790	1.3676240		-3.0	+/-20
beta-BHC	A	40.000	36.9	0.6221788	0.5734710		-7.8	+/-20
beta-BHC [2C]	A	40.000	36.0	0.6444893	0.5792717		-10.1	+/-20
gamma-BHC (Lindane)	A	40.000	39.7	1.3724630	1.3636700		-0.6	+/-20
gamma-BHC (Lindane) [2C]	A	40.000	39.6	1.2706900	1.2579360		-1.0	+/-20
delta-BHC	A	40.000	42.1	1.3783280	1.4503380		5.2	+/-20
delta-BHC [2C]	A	40.000	41.7	1.2048710	1.2574430		4.4	+/-20
Heptachlor	A	40.000	38.6	1.4856930	1.4345980		-3.4	+/-20
Heptachlor [2C]	A	40.000	38.3	1.2007430	1.1483780		-4.4	+/-20
Aldrin	A	40.000	38.5	1.3915140	1.3395760		-3.7	+/-20
Aldrin [2C]	A	40.000	39.4	1.0946560	1.0776550		-1.6	+/-20
Heptachlor Epoxide	A	40.000	37.0	1.2553090	1.1618300		-7.4	+/-20
Heptachlor Epoxide [2C]	A	40.000	37.7	0.9743274	0.9185603		-5.7	+/-20
trans-Chlordane (beta-Chlordane)	A	40.000	34.6	1.2273580	1.0629780		-13.4	+/-20
trans-Chlordane (beta-Chlordane) [2C]	A	40.000	37.0	0.8420025	0.7789846		-7.5	+/-20
cis-Chlordane (alpha-chlordane)	A	40.000	33.9	1.1510260	0.9748325		-15.3	+/-20
cis-Chlordane (alpha-chlordane) [2C]	A	40.000	38.1	0.7474877	0.7110747		-4.9	+/-20
Endosulfan I	A	40.000	34.1	1.2289580	1.0479430		-14.7	+/-20
Endosulfan I [2C]	A	40.000	38.5	0.7354149	0.7073913		-3.8	+/-20
4,4'-DDE	A	40.000	37.6	1.1194720	1.0534320		-5.9	+/-20
4,4'-DDE [2C]	A	40.000	39.3	0.8623926	0.8463580		-1.9	+/-20
Dieldrin	A	40.000	38.5	0.9822551	0.9461362		-3.7	+/-20
Dieldrin [2C]	A	40.000	38.6	0.6269209	0.6047361		-3.5	+/-20
Endrin	A	40.000	35.7	0.9916642	0.8839646		-10.9	+/-20
Endrin [2C]	A	40.000	34.6	0.9744023	0.8425594		-13.5	+/-20
Endosulfan II	A	40.000	38.8	1.0922280	1.0604620		-2.9	+/-20
Endosulfan II [2C]	A	40.000	39.5	1.3891800	1.3728030		-1.2	+/-20
4,4'-DDD	A	40.000	37.3	1.0364540	0.9664762		-6.8	+/-20
4,4'-DDD [2C]	A	40.000	37.8	1.4877600	1.4069200		-5.4	+/-20
Endrin Aldehyde	A	40.000	36.3	0.9732162	0.8832854		-9.2	+/-20
Endrin Aldehyde [2C]	A	40.000	37.2	1.2569650	1.1685010		-7.0	+/-20
4,4'-DDT	A	40.000	36.9	1.0852640	0.9999151		-7.9	+/-20
4,4'-DDT [2C]	A	40.000	37.4	1.4314010	1.3382310		-6.5	+/-20

* Values outside of QC limits

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030713.D	Calibration Date:	03/09/2020
Sequence:	SIC0095	Injection Date:	03/07/20
Lab Sample ID:	SIC0095-SCV1	Injection Time:	12:14
Sequence Name:	INDAESCV		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Endosulfan Sulfate	A	40.000	34.5	1.1570020	0.9987144		-13.7	+/-20
Endosulfan Sulfate [2C]	A	40.000	33.9	1.4987490	1.2685550		-15.4	+/-20
Endrin Ketone	A	40.000	36.5	1.3704720	1.2514520		-8.7	+/-20
Endrin Ketone [2C]	A	40.000	37.5	1.7164250	1.6094580		-6.2	+/-20
Methoxychlor	A	40.000	38.5	0.5551348	0.5349731		-3.6	+/-20
Methoxychlor [2C]	A	40.000	37.6	0.7280478	0.6837563		-6.1	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200307.b/20030713.D
Data file 2: /20200307.b/20200307.b/20030713.D
Method: \20200307.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0095-SCV1
Client ID:
Injection Date: 07-MAR-2020 12:14
Report Date: 03/09/2020 12:23
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.562	0.000	137403	5.368	0.000	94310	40.25	38.79	3.7	alpha-BHC
4.950	0.001	50460	5.872	0.002	39946	36.87	35.95	2.5	beta-BHC
5.135	0.001	127616	6.236	0.001	86712	42.09	41.75	0.8	delta-BHC
4.866	0.000	119990	5.786	0.001	86746	39.74	39.60	0.4	gamma-BHC (Lindane)
5.358	-0.001	126231	6.324	0.000	79191	38.62	38.26	1.0	Heptachlor
5.685	-0.000	117870	6.715	0.001	74314	38.51	39.38	2.2	Aldrin
6.339	-0.001	102230	7.345	0.000	63343	37.02	37.71	1.8	Heptachlor epoxide b
6.769	-0.000	92209	7.782	0.001	48781	34.11	38.48	12.0	Endosulfan I
7.023	-0.000	83251	8.068	0.001	41702	38.53	38.58	0.1	Dieldrin
6.702	0.002	92692	7.841	0.001	58364	37.64	39.26	4.2	4,4'-DDE
7.269	-0.001	72882	8.388	0.001	31537	35.66	34.59	3.0	Endrin
7.496	-0.000	87434	8.596	0.001	51384	38.84	39.53	1.8	Endosulfan II
7.330	0.003	79685	8.437	0.001	52661	37.30	37.83	1.4	4,4'-DDD
8.338	0.000	82343	9.183	0.000	47482	34.53	33.86	2.0	Endosulfan sulfate
7.620	0.001	82442	8.750	0.001	50090	36.85	37.40	1.5	4,4'-DDT
8.105	0.003	44108	9.379	0.001	25593	38.55	37.57	2.6	Methoxychlor
8.622	-0.000	103181	9.744	0.001	60242	36.53	37.51	2.7	Endrin ketone
7.911	0.000	72826	8.919	0.001	43737	36.30	37.18	2.4	Endrin aldehyde
6.481	-0.001	93532	7.550	0.000	53718	34.64	37.01	6.6	trans-Chlordane
6.624	-0.000	85776	7.703	0.001	49035	33.88	38.05	11.6	cis-Chlordane
----			2.874	-0.000	97	0.00	0.04	---	Hexachlorobutadiene
----			----			0.00	0.00	---	Hexachlorobenzene
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			11.071	0.005	195	0.00	0.17	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.0	0.0	0.0~	115- 0
Decachlorobiphenyl	0.0	0.4	0.0~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

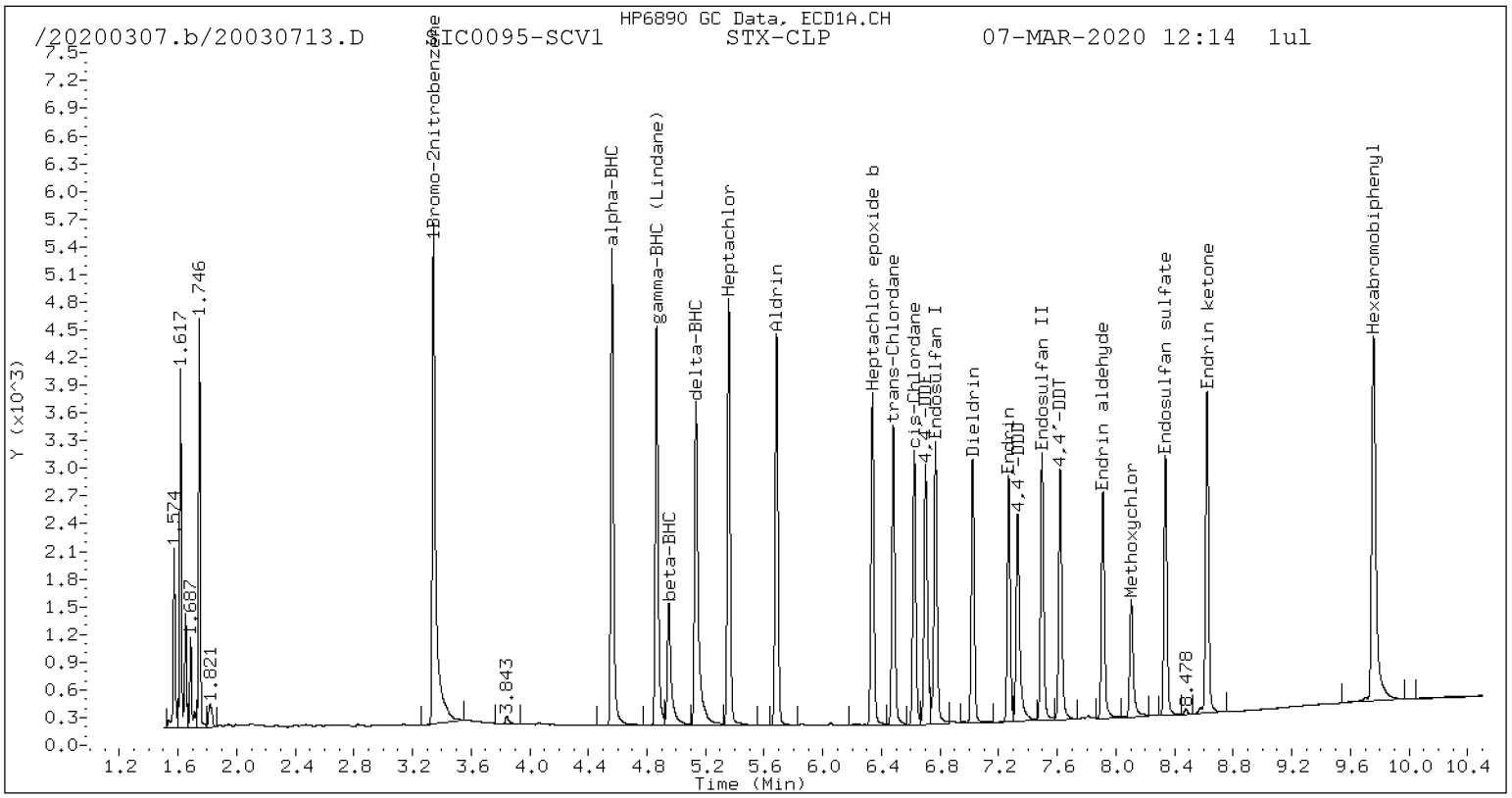
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	175981	-7.1
Hexabromobiphenyl	177311	164898	-7.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	137918	-7.6
Hexabromobiphenyl	80212	74860	-6.7

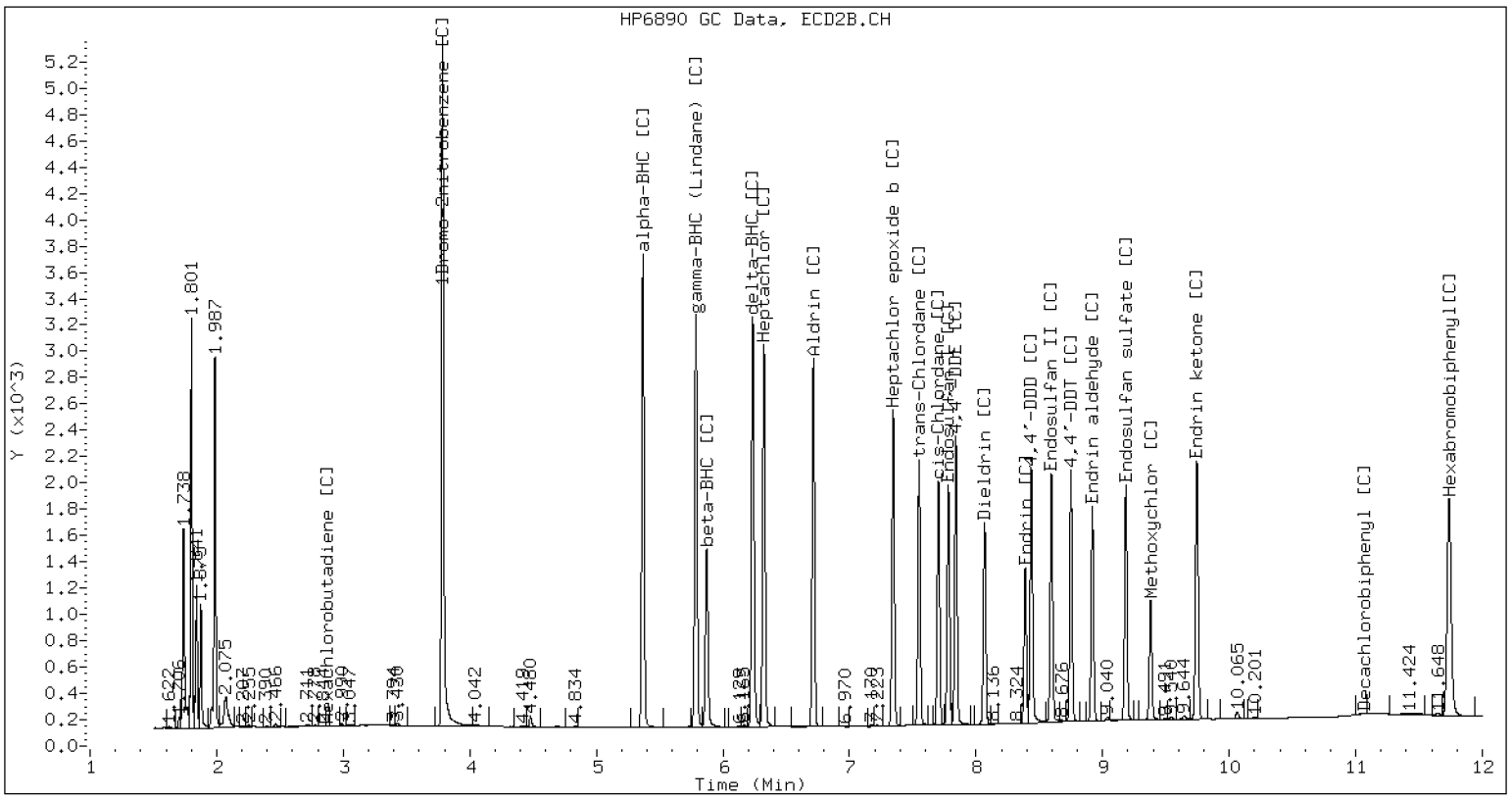
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200307.b/20200307.b/20030713.D SIC0095-SCV1 CLP2



CLP-2 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030916.D	Calibration Date:	03/09/2020
Sequence:	SIC0103	Injection Date:	03/09/20
Lab Sample ID:	SIC0103-CCV1	Injection Time:	15:54
Sequence Name:	INDAE		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
alpha-BHC	A	20.000	19.9	1.5519880	1.5429220		-0.6	+/-20	
alpha-BHC [2C]	A	20.000	20.1	1.4101790	1.4138720		0.3	+/-20	
beta-BHC	A	20.000	18.4	0.6221788	0.5709956		-8.2	+/-20	
beta-BHC [2C]	A	20.000	18.6	0.6444893	0.5996103		-7.0	+/-20	
gamma-BHC (Lindane)	A	20.000	19.8	1.3724630	1.3604630		-0.9	+/-20	
gamma-BHC (Lindane) [2C]	A	20.000	20.5	1.2706900	1.3051510		2.7	+/-20	
delta-BHC	A	20.000	18.0	1.3783280	1.2438930		-9.8	+/-20	
delta-BHC [2C]	A	20.000	18.4	1.2048710	1.1099260		-7.9	+/-20	
Heptachlor	A	20.000	19.0	1.4856930	1.4148050		-4.8	+/-20	
Heptachlor [2C]	A	20.000	20.2	1.2007430	1.2135060		1.1	+/-20	
Aldrin	A	20.000	19.3	1.3915140	1.3433770		-3.5	+/-20	
Aldrin [2C]	A	20.000	20.8	1.0946560	1.1359140		3.8	+/-20	
Heptachlor Epoxide	A	20.000	18.4	1.2553090	1.1546030		-8.0	+/-20	
Heptachlor Epoxide [2C]	A	20.000	20.5	0.9743274	0.9984121		2.5	+/-20	
trans-Chlordane (beta-Chlordane)	A	20.000	18.1	1.2273580	1.1124200		-9.4	+/-20	
trans-Chlordane (beta-Chlordane) [2C]	A	20.000	20.5	0.8420025	0.8621899		2.4	+/-20	
cis-Chlordane (alpha-chlordane)	A	20.000	17.6	1.1510260	1.0156790		-11.8	+/-20	
cis-Chlordane (alpha-chlordane) [2C]	A	20.000	20.9	0.7474877	0.7825971		4.7	+/-20	
Endosulfan I	A	20.000	18.2	1.2289580	1.1201060		-8.9	+/-20	
Endosulfan I [2C]	A	20.000	20.9	0.7354149	0.7682652		4.5	+/-20	
4,4'-DDE	A	40.000	38.1	1.1194720	1.0659620		-4.8	+/-20	
4,4'-DDE [2C]	A	40.000	40.7	0.8623926	0.8776967		1.8	+/-20	
Dieldrin	A	40.000	38.0	0.9822551	0.9325317		-5.1	+/-20	
Dieldrin [2C]	A	40.000	42.4	0.6269209	0.6649527		6.1	+/-20	
Endrin	A	40.000	35.0	0.9916642	0.8666372		-12.6	+/-20	
Endrin [2C]	A	40.000	53.9	0.9744023	1.3118740		34.6	+/-20	*
Endosulfan II	A	40.000	37.4	1.0922280	1.0216950		-6.5	+/-20	
Endosulfan II [2C]	A	40.000	61.5	1.3891800	2.1347160		53.7	+/-20	*
4,4'-DDD	A	40.000	40.2	1.0364540	1.0411120		0.4	+/-20	
4,4'-DDD [2C]	A	40.000	64.8	1.4877600	2.4092920		61.9	+/-20	*
Endrin Aldehyde	A	40.000	35.6	0.9732162	0.8666578		-10.9	+/-20	
Endrin Aldehyde [2C]	A	40.000	60.3	1.2569650	1.8939640		50.7	+/-20	*
4,4'-DDT	A	40.000	38.4	1.0852640	1.0413790		-4.0	+/-20	
4,4'-DDT [2C]	A	40.000	64.4	1.4314010	2.3046190		61.0	+/-20	*

* Values outside of QC limits

CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030916.D	Calibration Date:	03/09/2020
Sequence:	SIC0103	Injection Date:	03/09/20
Lab Sample ID:	SIC0103-CCV1	Injection Time:	15:54
Sequence Name:	INDAE		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Endosulfan Sulfate	A	40.000	36.1	1.1570020	1.0446940		-9.7	+/-20	
Endosulfan Sulfate [2C]	A	40.000	61.5	1.4987490	2.3039380		53.7	+/-20	*
Endrin Ketone	A	40.000	36.9	1.3704720	1.2631230		-7.8	+/-20	
Endrin Ketone [2C]	A	40.000	60.9	1.7164250	2.6127120		52.2	+/-20	*
Methoxychlor	A	200.00	185	0.5551348	0.5145616		-7.3	+/-20	
Methoxychlor [2C]	A	200.00	304	0.7280478	1.1053140		51.8	+/-20	*
Decachlorobiphenyl	A	40.000	41.4	1.0068280	1.0415740		3.5	+/-20	
Decachlorobiphenyl [2C]	A	40.000	59.5	1.2099310	1.7998500		48.8	+/-20	*
Tetrachlorometaxylene	A	40.000	37.2	0.7784293	0.7240014		-7.0	+/-20	
Tetrachlorometaxylene [2C]	A	40.000	40.8	0.9494929	0.9677708		1.9	+/-20	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030916.D
Data file 2: /20200309.b/20200309.b/20030916.D
Method: \20200309.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0103-CCV1
Client ID:
Injection Date: 09-MAR-2020 15:54
Report Date: 03/09/2020 16:21
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.579	0.002	85518	5.387	0.003	60770	19.88	20.05	0.8	alpha-BHC
4.967	0.002	31648	5.891	0.003	25772	18.35	18.61	1.4	beta-BHC
5.152	0.002	68944	6.255	0.003	47706	18.05	18.42	2.1	delta-BHC
4.883	0.002	75405	5.805	0.002	56097	19.83	20.54	3.6	gamma-BHC (Lindane)
5.376	0.002	78417	6.343	0.002	52158	19.05	20.21	5.9	Heptachlor
5.702	0.002	74458	6.732	0.002	48823	19.31	20.75	7.2	Aldrin
6.355	0.001	63995	7.362	0.002	42913	18.40	20.49	10.8	Heptachlor epoxide b
6.784	0.001	62083	7.797	0.002	33021	18.23	20.89	13.6	Endosulfan I
7.037	0.001	103373	8.081	0.001	57161	37.98	42.43	11.1	Dieldrin
6.715	0.002	118164	7.855	0.002	75449	38.09	40.71	6.7	4,4'-DDE
7.283	0.001	84446	8.402	0.001	38514	34.96	53.85	42.6*	Endrin
7.509	0.001	99555	8.608	0.002	62671	37.42	61.47	48.6*	Endosulfan II
7.341	0.002	101447	8.449	0.002	70732	40.18	64.78	46.9*	4,4'-DDD
8.349	0.001	101796	9.194	0.001	67639	36.12	61.49	52.0*	Endosulfan sulfate
7.631	0.001	101473	8.761	0.001	67659	38.38	64.40	50.6*	4,4'-DDT
8.115	0.002	250697	9.388	0.001	162249	185.38	303.64	48.4*	Methoxychlor
8.632	0.001	123080	9.755	0.000	76704	36.87	60.89	49.1*	Endrin ketone
7.923	0.000	84448	8.930	0.001	55603	35.62	60.27	51.4*	Endrin aldehyde
6.497	0.001	61657	7.565	0.001	37058	18.13	20.48	12.2	trans-Chlordane
6.640	0.002	56295	7.718	0.002	33637	17.65	20.94	17.1	cis-Chlordane
2.516	0.002	98538	2.891	0.002	68037	17.64	20.01	12.6	Hexachlorobutadiene
4.441	0.003	57490	5.249	0.003	45370	18.98	19.44	2.4	Hexachlorobenzene
4.073	0.003	80257	4.720	0.002	83192	37.20	40.77	9.1	Tetrachloro-m-xylene
9.602	-0.000	101492	11.076	0.000	52840	41.38	59.50	35.9	Decachlorobiphenyl N

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	93.0	101.9	93.0~	115- 0
Decachlorobiphenyl	103.5	148.8	103.5~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

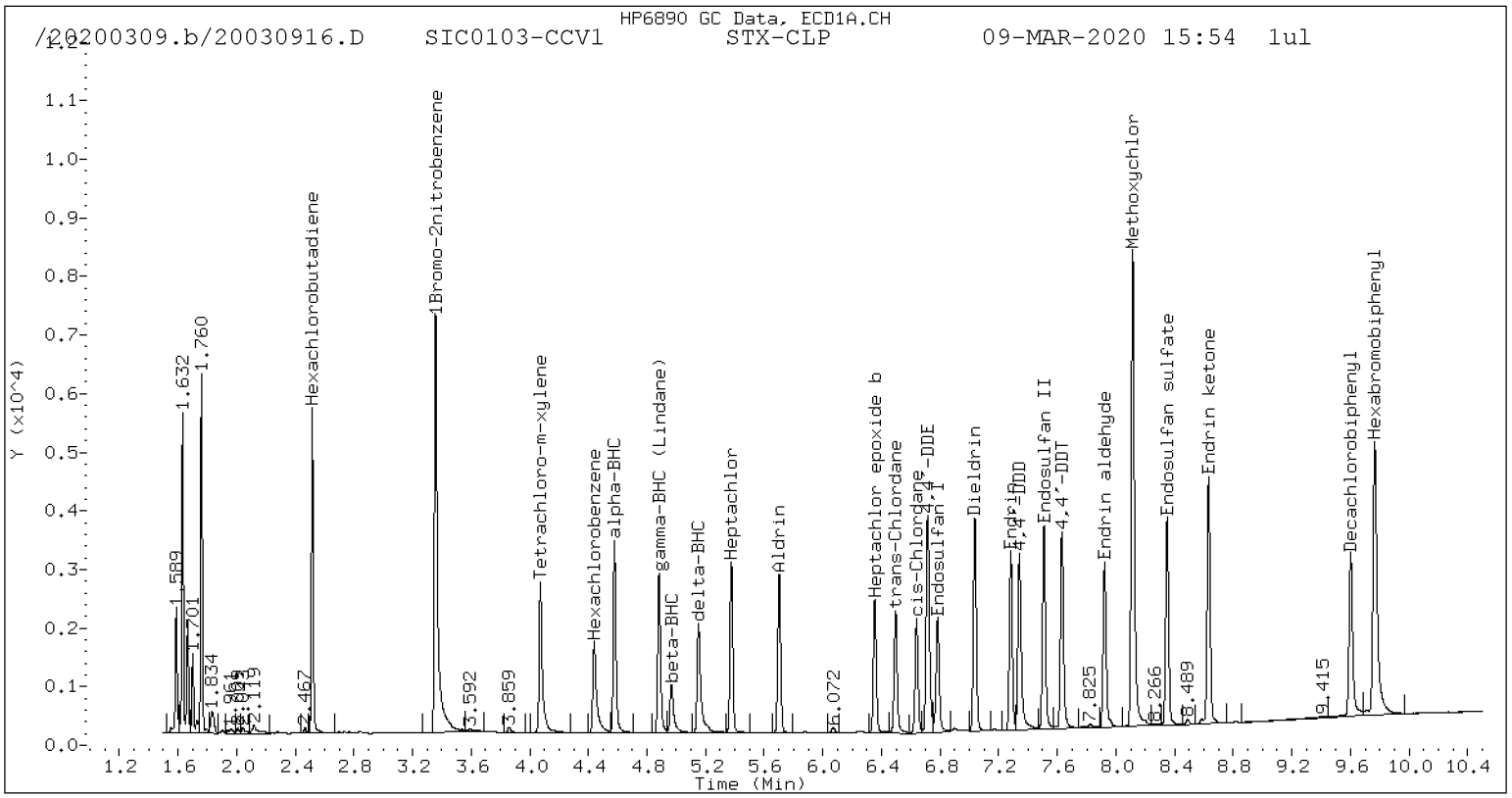
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	221704	17.1
Hexabromobiphenyl	177311	194882	9.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	171925	15.2
Hexabromobiphenyl	80212	58716	-26.8

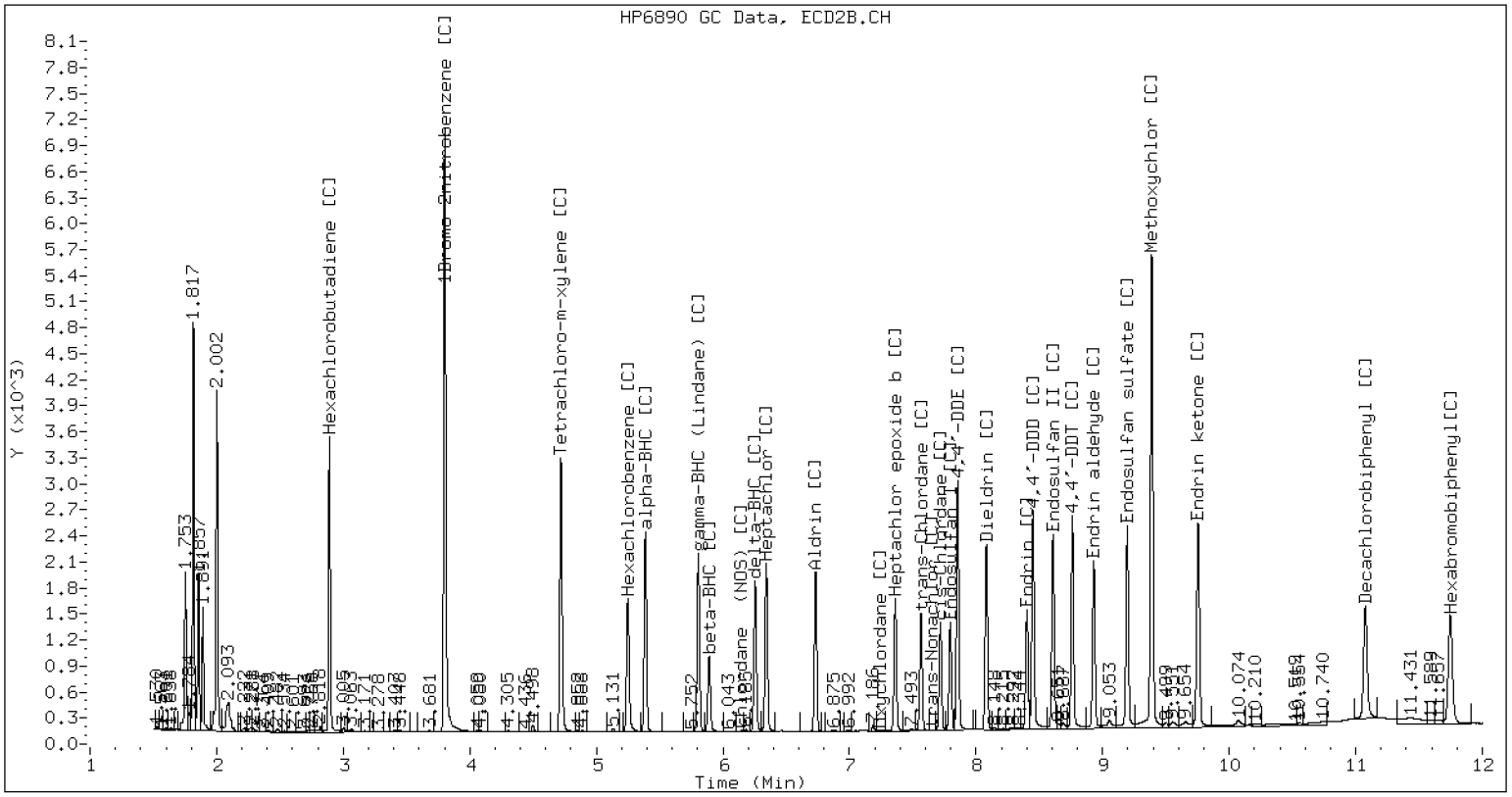
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

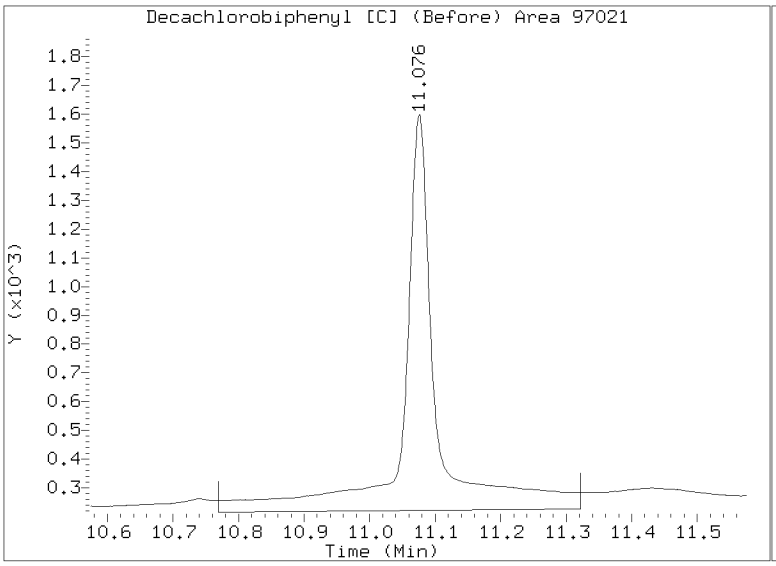
/20200309.b/20200309.b/20030916.D SIC0103-CCV1 CLP2

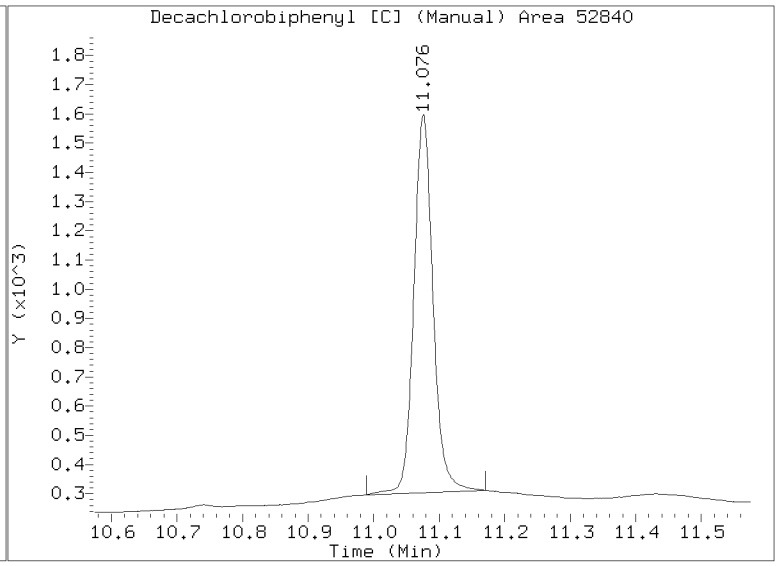


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20200309.b/20200309.b/20030916.D
Injection Date: 09-MAR-2020 15:54
Lab ID:SIC0103-CCV1 Client ID:





CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030917.D	Calibration Date:	03/09/2020
Sequence:	SIC0103	Injection Date:	03/09/20
Lab Sample ID:	SIC0103-CCV3	Injection Time:	16:12
Sequence Name:	TOXAPH2		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Toxaphene	A	2500.0	2500	0.0486787	0.0487147		-0.02	+/-20	
Toxaphene [2C]	A	2500.0	3500	0.0540947	0.0747233		40.2	+/-20	*

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030917.D
Data file 2: /20200309.b/20200309.b/20030917.D
Method: \20200309.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0103-CCV3
Client ID:
Injection Date: 09-MAR-2020 16:12
Report Date: 03/11/2020 11:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.075	0.005	42654	4.720	0.003	43849	19.44	22.22	13.3	Tetrachloro-m-xylene
9.603	0.001	69086	11.075	-0.001	63495	29.25	64.34	75.0*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	97.2	111.1	97.2~	150- 0
Decachlorobiphenyl	73.1	160.8	73.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	225447	19.1
Hexabromobiphenyl	177311	187647	5.8

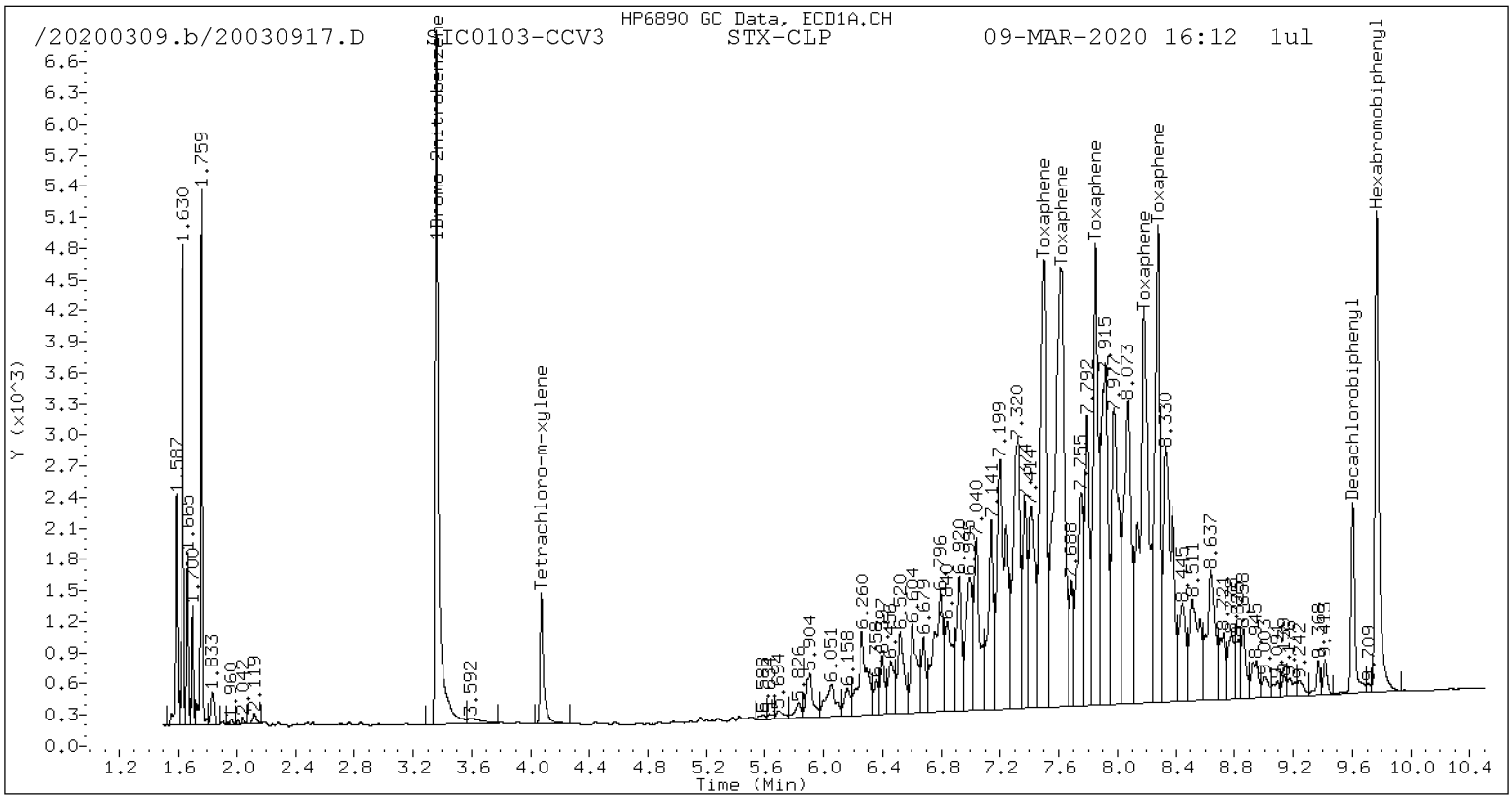
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	166264	11.4
Hexabromobiphenyl	80212	65254	-18.6

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

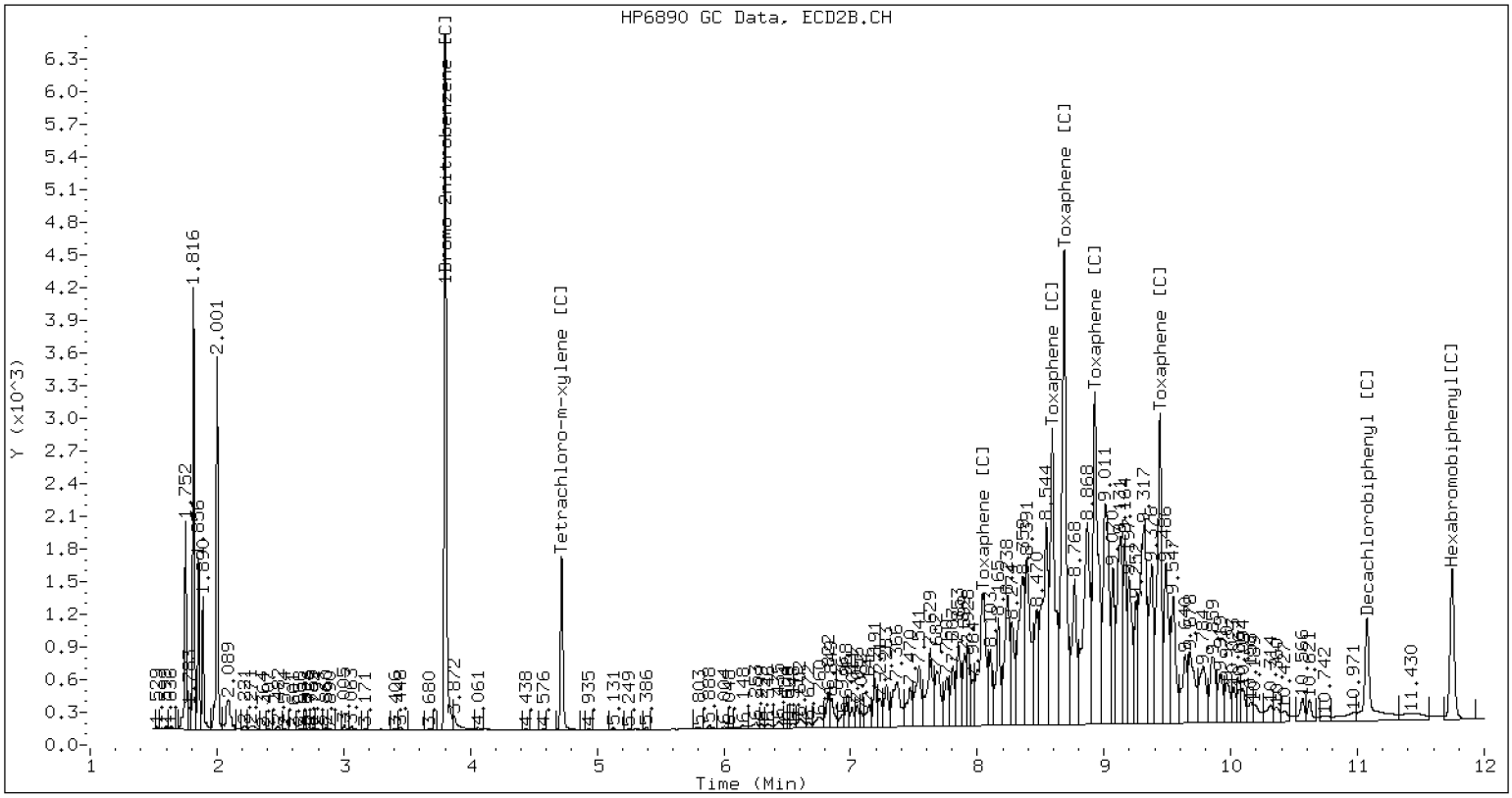
		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.498	0.002	270788	2464.6	1	8.043	0.004	94684	3853.4
Toxaphene	2	7.614	0.003	410976	2470.3	2	8.591	0.002	144429	3557.7
Toxaphene	3	7.850	0.004	210324	2485.7	3	8.686	0.002	214522	3290.9
Toxaphene	4	8.182	0.003	318295	2631.5	4	8.927	0.002	176482	3453.7
Toxaphene	5	8.276	0.003	217925	2446.0	5	9.441	0.001	131757	3364.2
Total STX-CLPAve (5 peaks): 2499.617						Total CLP2Ave (5 peaks): 3503.976				RPD = 33
Corrected Ave (5 peaks): 2499.617						Corrected Ave (5 peaks): 3503.976				RPD = 33

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200309.b/20200309.b/20030917.D SIC0103-CCV3 CLP2



CLP-2 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20030918.D	Calibration Date:	03/09/2020
Sequence:	SIC0103	Injection Date:	03/09/20
Lab Sample ID:	SIC0103-CCV4	Injection Time:	16:30
Sequence Name:	NOS		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Chlordane (NOS)	A	200.00	183	0.1218720	0.1104452		-8.6	
Chlordane (NOS) [2C]	A	200.00	197	0.0684231	0.0683260		-1.6	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200309.b/20030918.D
Data file 2: /20200309.b/20200309.b/20030918.D
Method: \20200309.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0103-CCV4
Client ID:
Injection Date: 09-MAR-2020 16:30
Report Date: 03/11/2020 11:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	220350	16.4
Hexabromobiphenyl	177311	245967	38.7

Column 2

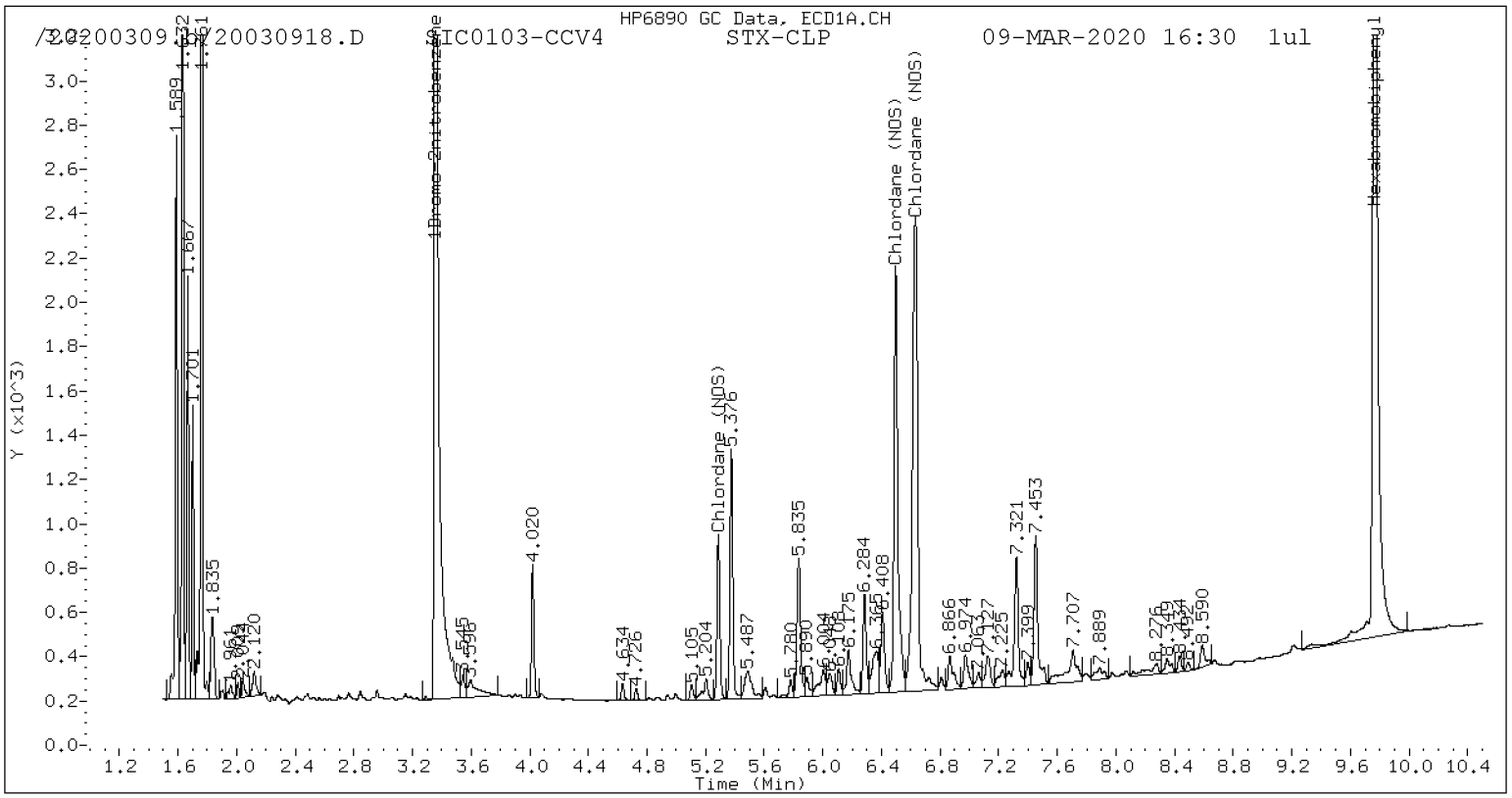
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	76529	-48.7
Hexabromobiphenyl	80212	188272	134.7 <-

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.287	0.002	20774	184.7	1	6.169	0.002	14033	186.2
Chlordane (NOS)	2	6.497	0.002	70296	185.1	2	7.565	0.001	40889	204.4
Chlordane (NOS)	3	6.631	0.002	112674	178.3	3	7.655	0.001	41557	200.1

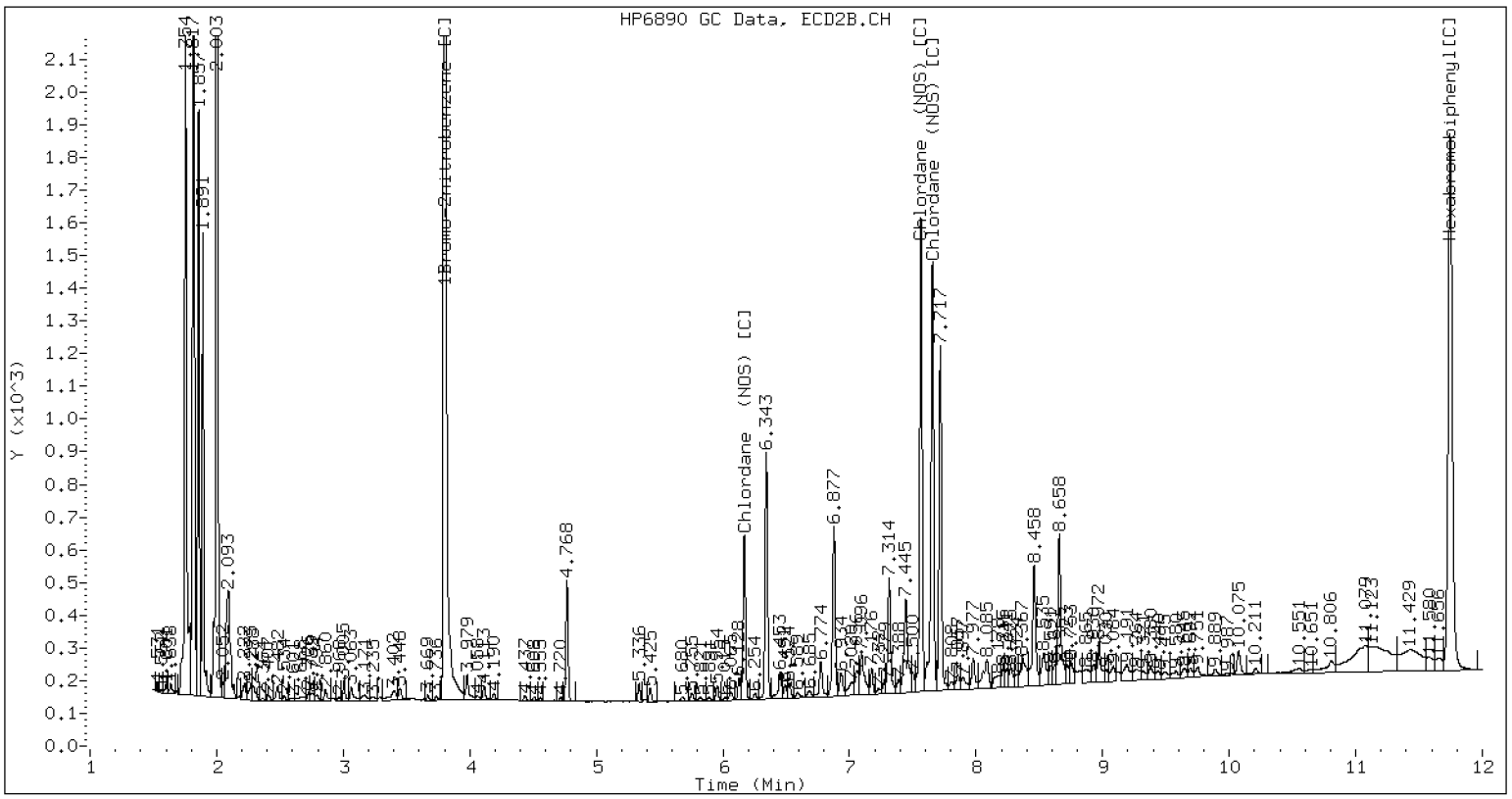
Total STX-CLPAve (3 peaks): 182.721 Total CLP2Ave (3 peaks): 196.900 RPD = 7
Corrected Ave (3 peaks): 182.721 Corrected Ave (3 peaks): 196.900 RPD = 7

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200309.b/20200309.b/20030918.D SIC0103-CCV4 CLP2



CLP-2 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20031324.D	Calibration Date:	03/09/2020
Sequence:	SIC0178	Injection Date:	03/13/20
Lab Sample ID:	SIC0178-CCV1	Injection Time:	18:42
Sequence Name:	INDAE		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
alpha-BHC	A	20.000	19.8	1.5519880	1.5400420		-0.8	+/-20
alpha-BHC [2C]	A	20.000	20.6	1.4101790	1.4519990		3.0	+/-20
beta-BHC	A	20.000	19.3	0.6221788	0.6008222		-3.4	+/-20
beta-BHC [2C]	A	20.000	19.3	0.6444893	0.6208861		-3.7	+/-20
gamma-BHC (Lindane)	A	20.000	19.4	1.3724630	1.3300210		-3.1	+/-20
gamma-BHC (Lindane) [2C]	A	20.000	20.4	1.2706900	1.2983060		2.2	+/-20
delta-BHC	A	20.000	19.6	1.3783280	1.3507060		-2.0	+/-20
delta-BHC [2C]	A	20.000	20.2	1.2048710	1.2181270		1.1	+/-20
Heptachlor	A	20.000	18.8	1.4856930	1.3930770		-6.2	+/-20
Heptachlor [2C]	A	20.000	19.8	1.2007430	1.1869280		-1.2	+/-20
Aldrin	A	20.000	18.9	1.3915140	1.3121240		-5.7	+/-20
Aldrin [2C]	A	20.000	20.4	1.0946560	1.1166060		2.0	+/-20
Heptachlor Epoxide	A	20.000	17.7	1.2553090	1.1109440		-11.5	+/-20
Heptachlor Epoxide [2C]	A	20.000	19.5	0.9743274	0.9519496		-2.3	+/-20
trans-Chlordane (beta-Chlordane)	A	20.000	16.6	1.2273580	1.0160740		-17.2	+/-20
trans-Chlordane (beta-Chlordane) [2C]	A	20.000	18.8	0.8420025	0.7900260		-6.2	+/-20
cis-Chlordane (alpha-chlordane)	A	20.000	16.4	1.1510260	0.9420792		-18.2	+/-20
cis-Chlordane (alpha-chlordane) [2C]	A	20.000	19.4	0.7474877	0.7246793		-3.1	+/-20
Endosulfan I	A	20.000	17.2	1.2289580	1.0545130		-14.2	+/-20
Endosulfan I [2C]	A	20.000	19.5	0.7354149	0.7179542		-2.4	+/-20
4,4'-DDE	A	40.000	35.8	1.1194720	1.0030500		-10.4	+/-20
4,4'-DDE [2C]	A	40.000	41.2	0.8623926	0.8891056		3.1	+/-20
Dieldrin	A	40.000	37.1	0.9822551	0.9099315		-7.4	+/-20
Dieldrin [2C]	A	40.000	40.3	0.6269209	0.6322941		0.9	+/-20
Endrin	A	40.000	39.1	0.9916642	0.9696037		-2.2	+/-20
Endrin [2C]	A	40.000	36.5	0.9744023	0.8881146		-8.9	+/-20
Endosulfan II	A	40.000	40.4	1.0922280	1.1028010		1.0	+/-20
Endosulfan II [2C]	A	40.000	37.6	1.3891800	1.3041040		-6.1	+/-20
4,4'-DDD	A	40.000	40.3	1.0364540	1.0434440		0.7	+/-20
4,4'-DDD [2C]	A	40.000	38.8	1.4877600	1.4438910		-2.9	+/-20
Endrin Aldehyde	A	40.000	37.2	0.9732162	0.9057320		-6.9	+/-20
Endrin Aldehyde [2C]	A	40.000	36.2	1.2569650	1.1385710		-9.4	+/-20
4,4'-DDT	A	40.000	38.8	1.0852640	1.0525570		-3.0	+/-20
4,4'-DDT [2C]	A	40.000	37.5	1.4314010	1.3429010		-6.2	+/-20

* Values outside of QC limits

CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20031324.D	Calibration Date:	03/09/2020
Sequence:	SIC0178	Injection Date:	03/13/20
Lab Sample ID:	SIC0178-CCV1	Injection Time:	18:42
Sequence Name:	INDAE		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Endosulfan Sulfate	A	40.000	39.2	1.1570020	1.1344330		-2.0	+/-20
Endosulfan Sulfate [2C]	A	40.000	37.9	1.4987490	1.4214370		-5.2	+/-20
Endrin Ketone	A	40.000	37.1	1.3704720	1.2705710		-7.3	+/-20
Endrin Ketone [2C]	A	40.000	36.9	1.7164250	1.5822410		-7.8	+/-20
Methoxychlor	A	200.00	192	0.5551348	0.5327359		-4.0	+/-20
Methoxychlor [2C]	A	200.00	179	0.7280478	0.6518445		-10.5	+/-20
Decachlorobiphenyl	A	40.000	37.9	1.0068280	0.9531456		-5.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	42.2	1.2099310	1.2767820		5.5	+/-20
Tetrachlorometaxylene	A	40.000	37.0	0.7784293	0.7205958		-7.4	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.1	0.9494929	0.9528248		0.4	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031324.D
Data file 2: /20200313.b/20200313.b/20031324.D
Method: \20200313.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0178-CCV1
Client ID:
Injection Date: 13-MAR-2020 18:42
Report Date: 03/14/2020 13:43
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.575	-0.003	64624	5.382	-0.000	47284	19.85	20.59	3.7	alpha-BHC
4.963	0.015	25212	5.886	-0.000	20219	19.31	19.27	0.2	beta-BHC
5.148	-0.005	56679	6.249	-0.001	39668	19.60	20.22	3.1	delta-BHC
4.878	-0.004	55811	5.800	-0.000	42279	19.38	20.43	5.3	gamma-BHC (Lindane)
5.372	-0.003	58457	6.337	-0.000	38652	18.75	19.77	5.3	Heptachlor
5.697	-0.003	55060	6.726	-0.001	36362	18.86	20.40	7.9	Aldrin
6.350	-0.003	46618	7.355	-0.001	31000	17.70	19.54	9.9	Heptachlor epoxide b
6.779	-0.003	44250	7.790	-0.001	23380	17.16	19.53	12.9	Endosulfan I
7.033	-0.003	76366	8.075	-0.001	41181	37.05	40.34	8.5	Dieldrin
6.712	-0.006	84181	7.849	-0.001	57907	35.84	41.24	14.0	4,4'-DDE
7.278	-0.004	70225	8.395	-0.001	32116	39.11	36.46	7.0	Endrin
7.505	-0.004	79872	8.601	-0.001	47159	40.39	37.55	7.3	Endosulfan II
7.338	-0.007	75573	8.443	-0.002	52214	40.27	38.82	3.7	4,4'-DDD
8.344	-0.004	82163	9.187	-0.000	51402	39.22	37.94	3.3	Endosulfan sulfate
7.628	-0.004	76233	8.755	-0.001	48562	38.79	37.53	3.3	4,4'-DDT
8.110	-0.005	192921	9.381	-0.001	117860	191.93	179.07	6.9	Methoxychlor
8.628	-0.004	92023	9.747	-0.001	57217	37.08	36.87	0.6	Endrin ketone
7.919	-0.004	65599	8.924	-0.001	41173	37.23	36.23	2.7	Endrin aldehyde
6.492	-0.004	42637	7.559	-0.001	25727	16.56	18.77	12.5	trans-Chlordane
6.635	-0.004	39532	7.712	-0.001	23599	16.37	19.39	16.9	cis-Chlordane
2.516	-0.001	74552	2.890	0.001	50918	17.63	19.77	11.5	Hexachlorobutadiene
4.437	0.015	43591	5.244	-0.001	34226	19.00	19.36	1.8	Hexachlorobenzene
4.070	-0.004	60476	4.716	-0.001	62057	37.03	40.14	8.1	Tetrachloro-m-xylene
9.597	-0.005	69033	11.065	-0.002	46171	37.87	42.21	10.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	92.6	100.4	92.6~	115- 0
Decachlorobiphenyl	94.7	105.5	94.7~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

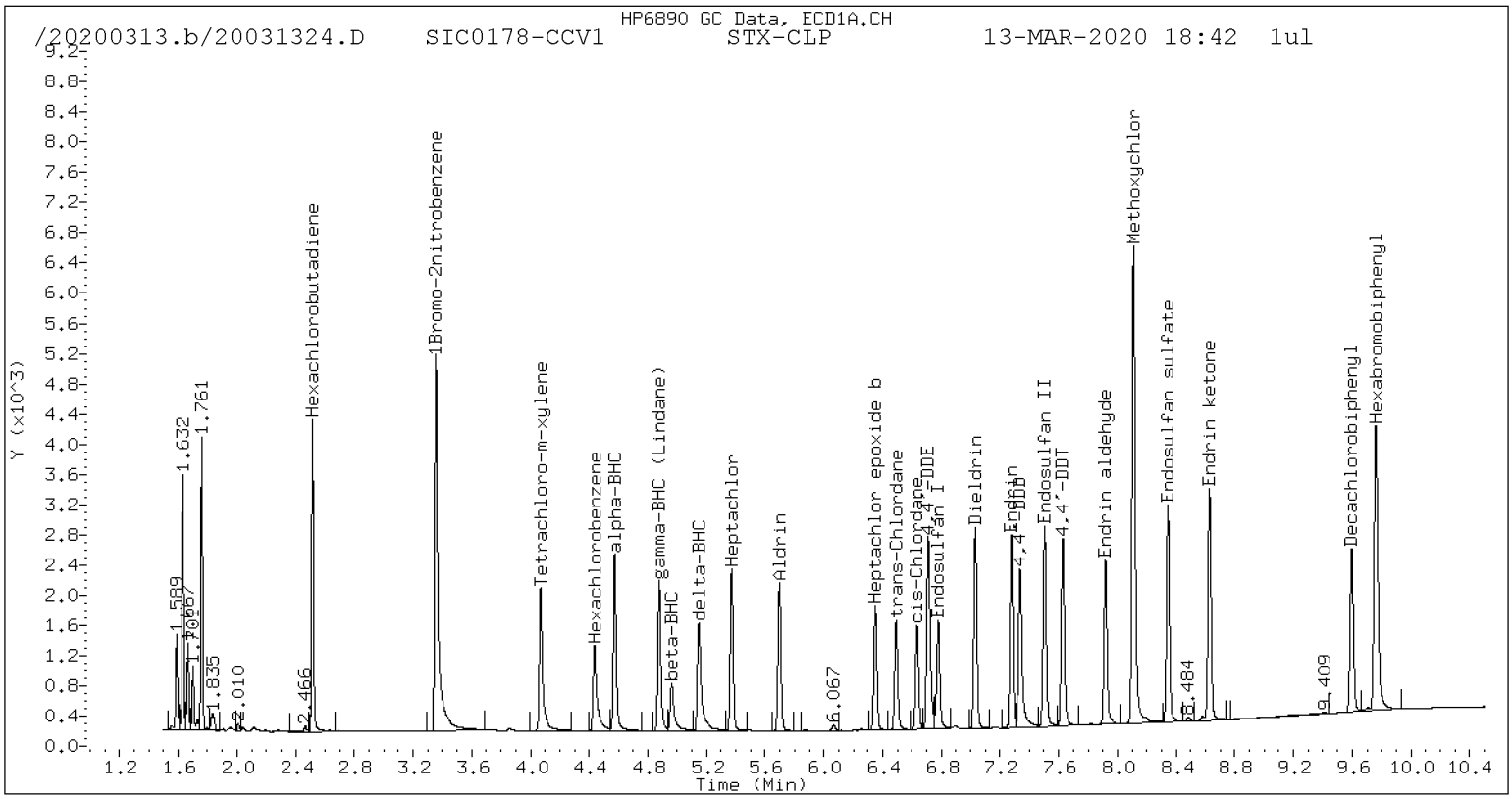
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	167850	-11.3
Hexabromobiphenyl	177311	144853	-18.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	130259	-12.7
Hexabromobiphenyl	80212	72324	-9.8

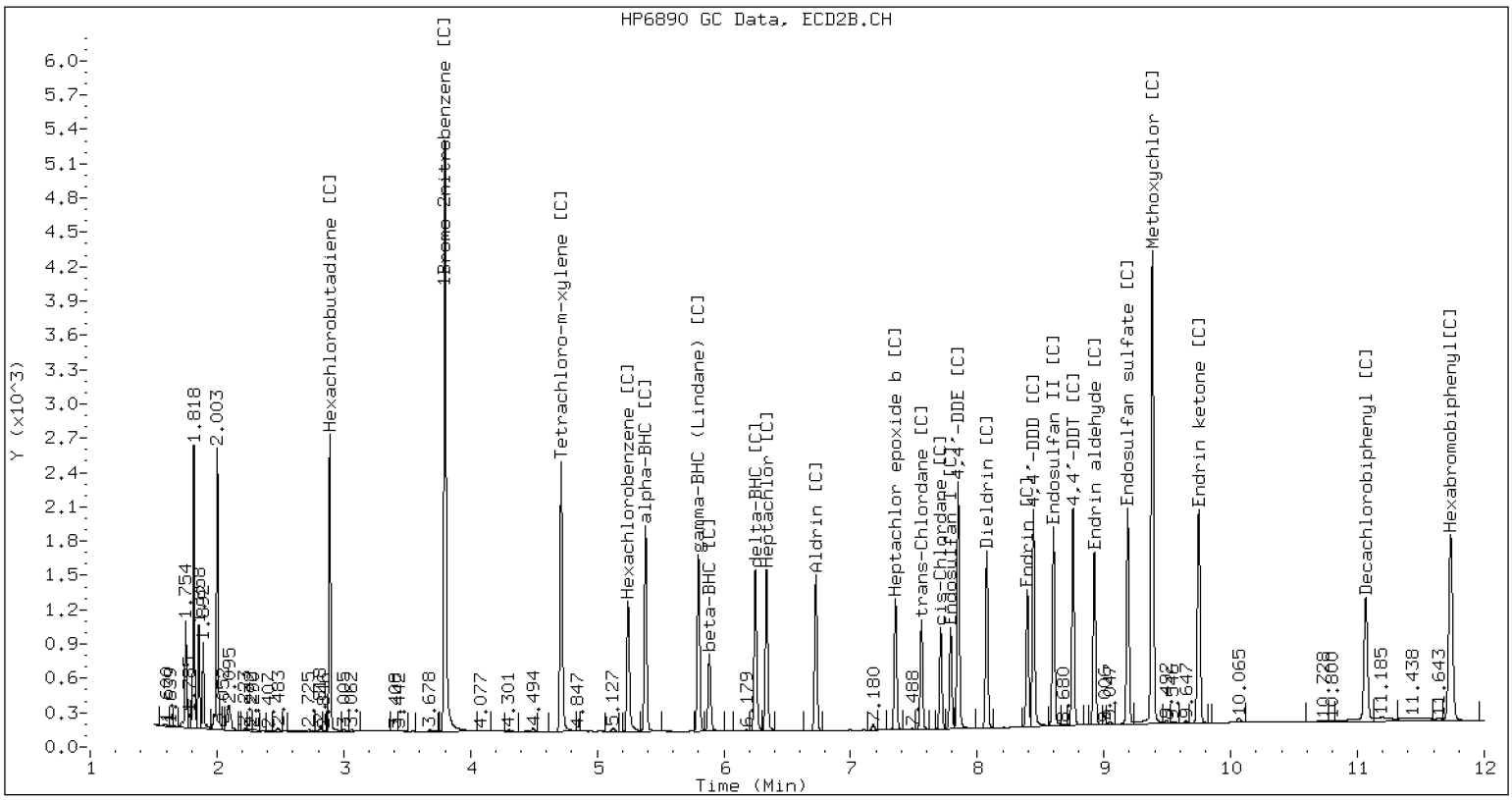
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200313.b/20200313.b/20031324.D SIC0178-CCV1 CLP2



CLP-2 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20031326.D	Calibration Date:	03/09/2020
Sequence:	SIC0178	Injection Date:	03/13/20
Lab Sample ID:	SIC0178-CCV3	Injection Time:	19:18
Sequence Name:	TOXAPH2		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Toxaphene	A	2500.0	2140	0.0486787	0.0417012		-14.3	+/-20
Toxaphene [2C]	A	2500.0	2110	0.0540947	0.0451749		-15.7	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031326.D
Data file 2: /20200313.b/20200313.b/20031326.D
Method: \20200313.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0178-CCV3
Client ID:
Injection Date: 13-MAR-2020 19:18
Report Date: 03/14/2020 13:43
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.072	-0.002	30930	4.716	0.000	31414	16.76	19.10	13.0	Tetrachloro-m-xylene
9.596	-0.005	46460	11.065	-0.002	28108	22.85	23.36	2.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	83.8	95.5	83.8~	150- 0
Decachlorobiphenyl	57.1	58.4	57.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	189630	0.2
Hexabromobiphenyl	177311	161590	-8.9

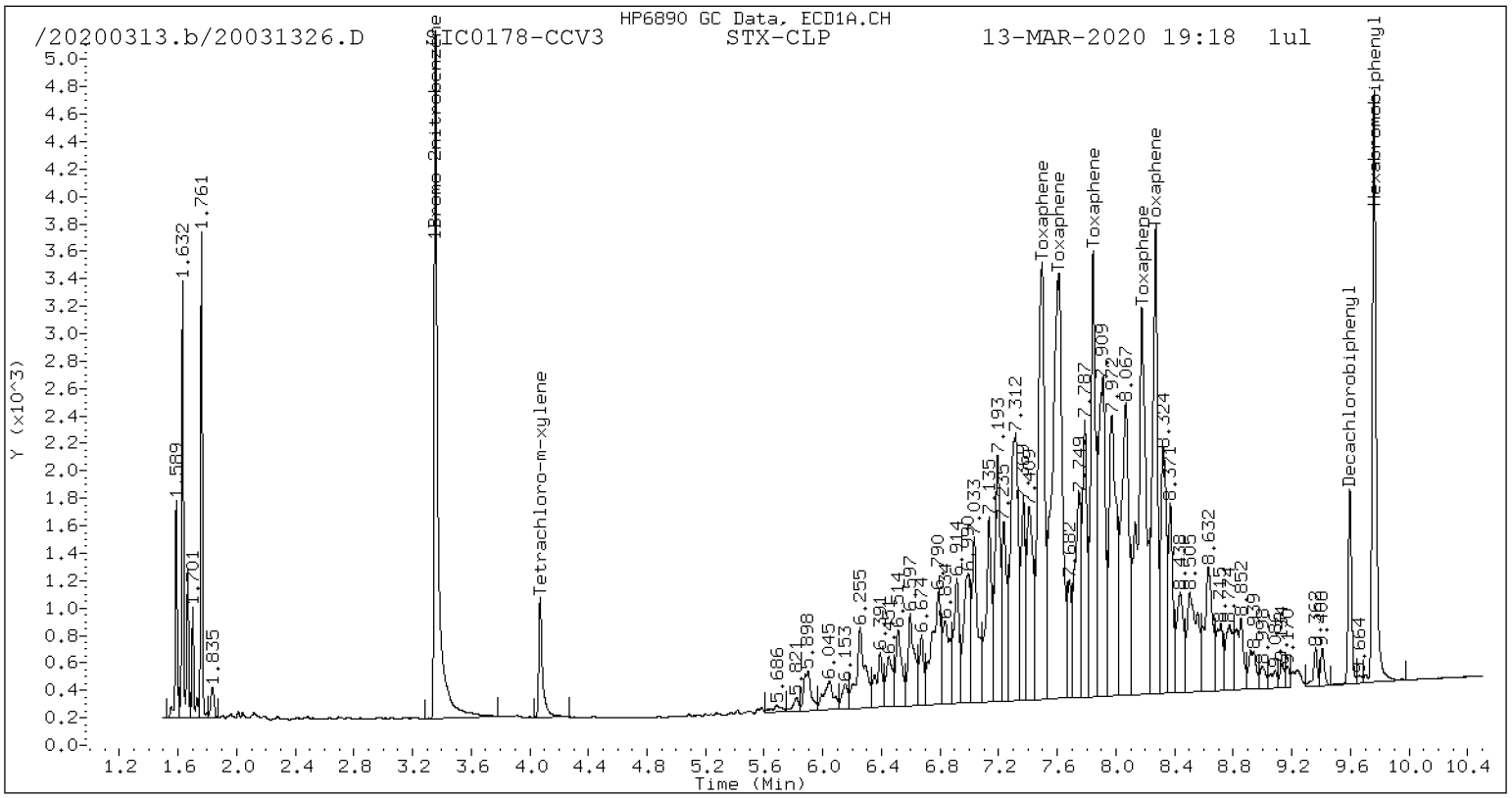
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	138607	-7.1
Hexabromobiphenyl	80212	79545	-0.8

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

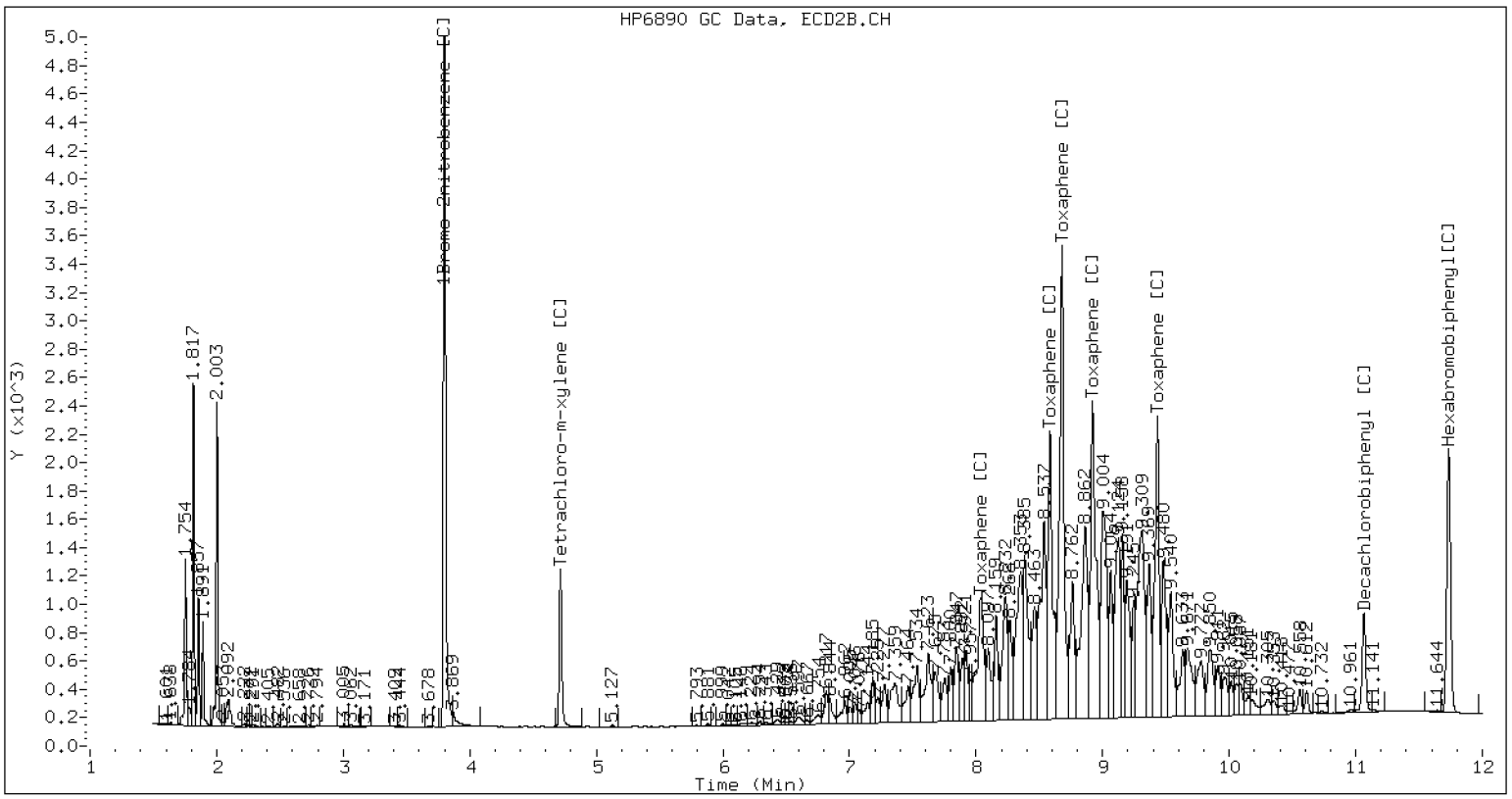
	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.494	-0.002	203284	2148.5	1	8.036	0.000	66831	2231.2
Toxaphene	2	7.608	-0.003	303294	2117.1	2	8.584	-0.001	106895	2160.1
Toxaphene	3	7.844	-0.004	156456	2147.2	3	8.679	-0.002	160486	2019.6
Toxaphene	4	8.177	-0.003	228642	2195.1	4	8.920	-0.001	128770	2067.2
Toxaphene	5	8.270	-0.002	161215	2101.3	5	9.434	-0.001	98492	2063.0
Total STX-CLPAve (5 peaks): 2141.836						Total CLP2Ave (5 peaks): 2108.234				RPD = 2
Corrected Ave (5 peaks): 2141.836						Corrected Ave (5 peaks): 2108.234				RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20200313.b/20200313.b/20031326.D SIC0178-CCV3 CLP2



CLP-2 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Instrument ID:	ECD6	Calibration:	DC00017
Lab File ID:	20031327.D	Calibration Date:	03/09/2020
Sequence:	SIC0178	Injection Date:	03/13/20
Lab Sample ID:	SIC0178-CCV4	Injection Time:	19:36
Sequence Name:	NOS		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Chlordane (NOS)	A	200.00	163	0.1218720	0.0993366		-18.3	
Chlordane (NOS) [2C]	A	200.00	166	0.0684231	0.0555308		-17.2	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20200313.b/20031327.D
Data file 2: /20200313.b/20200313.b/20031327.D
Method: \20200313.b\PEST.m
Compound Sublist: TECHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: YZ/JGR

ARI ID: SIC0178-CCV4
Client ID:
Injection Date: 13-MAR-2020 19:36
Report Date: 03/14/2020 13:43
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	189333	172001	-9.2
Hexabromobiphenyl	177311	180531	1.8

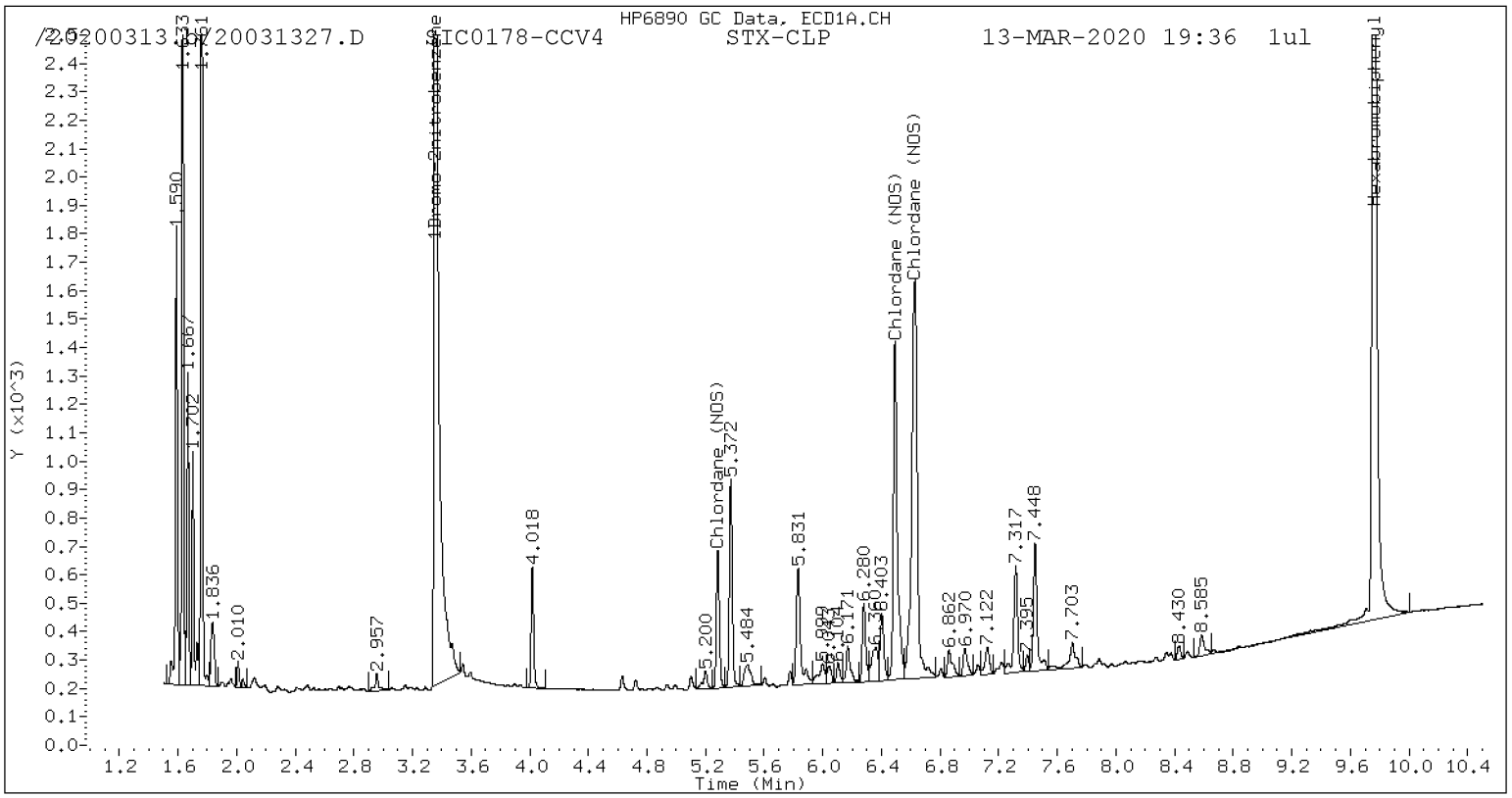
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	149224	83657	-43.9
Hexabromobiphenyl	80212	147577	84.0

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 07-MAR-2020
<- Indicates standard response outside Limits (-50 to +100%)

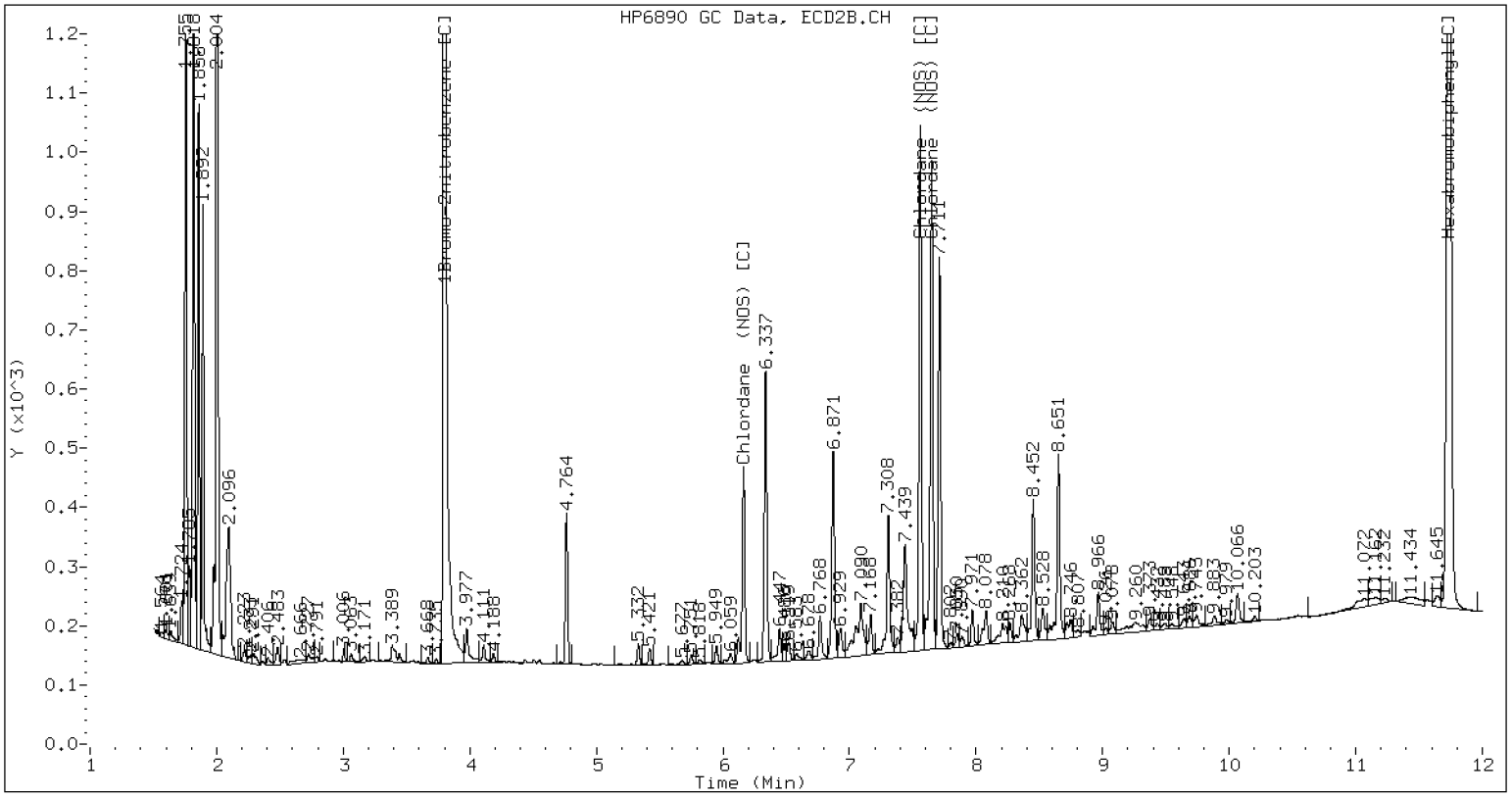
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.283	-0.001	13688	165.8	1	6.163	0.000	10516	178.0	
Chlordane (NOS)	2	6.493	-0.002	44750	160.6	2	7.559	-0.000	25161	160.5	
Chlordane (NOS)	3	6.627	-0.002	76062	164.0	3	7.649	-0.000	25786	158.4	
Total STX-CLPAve (3 peaks): 163.467						Total CLP2Ave (3 peaks): 165.622				RPD = 1	
Corrected Ave (3 peaks): 163.467						Corrected Ave (3 peaks): 165.622				RPD = 1	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

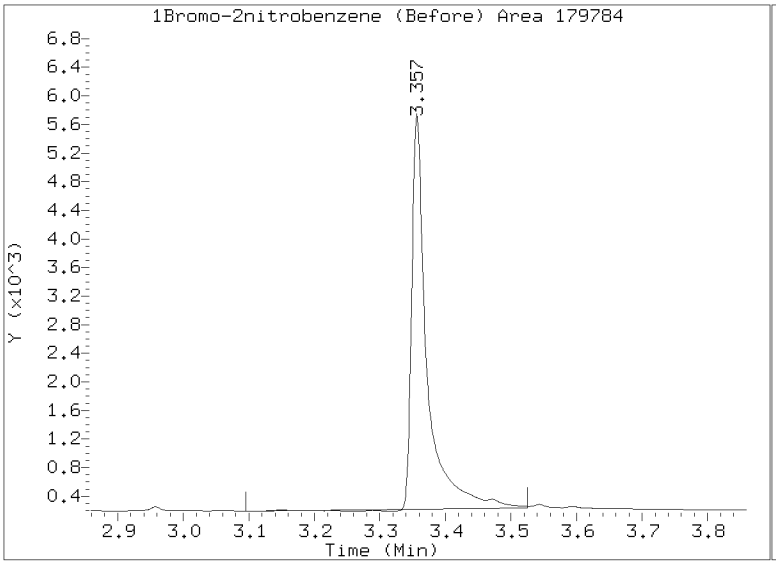
/20200313.b/20200313.b/20031327.D SIC0178-CCV4 CLP2

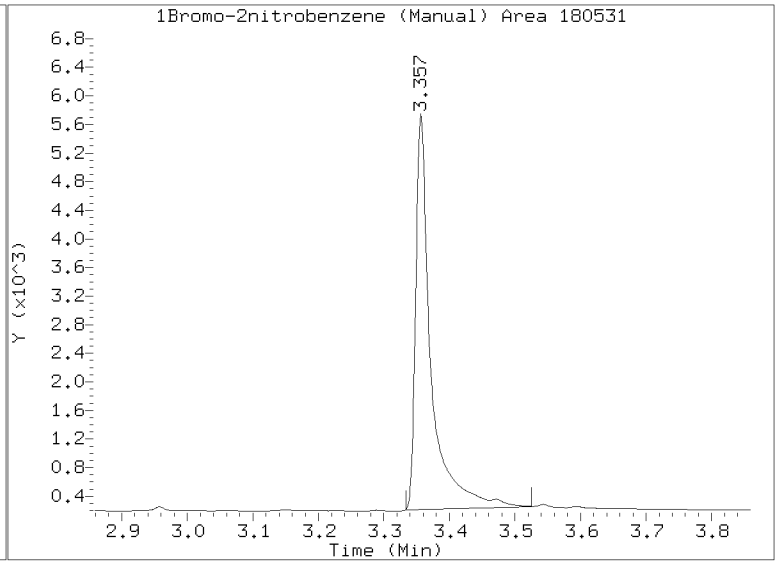


CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, STX-CLP

Datafile: /20200313.b/20031327.D
Injection Date: 13-MAR-2020 19:36
Lab ID:SIC0178-CCV4 Client ID:
Report Date: 03/14/2020 13:43





Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0095-PEM1 | File ID: 20030705.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/07/2020 | Sequence: SIC0095

SDG: 20B0269 | Calibration: DC00017 | Column: 1

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	7.27	0.70	0.80	0.079	0.100	-20.9
4,4'-DDT	7.62	0.73	0.83	0.075	0.100	-25.1

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0095-PEM1 | File ID: 20030705.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/07/2020 | Sequence: SIC0095

SDG: 20B0269 | Calibration: DC00017 | Column: 2

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	8.39	0.66	0.76	0.080	0.100	-20.4
4,4'-DDT	8.75	0.70	0.80	0.078	0.100	-21.5

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SIC0095-PEM1 InstID,Data File: ecd6.i, 20030705.D

Analysis Date: 07-MAR-2020 09:51 Init. Calib. Date: 07-MAR-2020

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.700	647
Endrin	7.267	162621
4,4'-DDD	7.328	4322
4,4'-DDT	7.617	168471
Endrin ketone	8.621	6996
Endrin aldehyde	7.911	6548

DDT Percent Breakdown = 2.9 %
((647+4322) * 100)/(647+4322+168471)

Endrin Percent Breakdown = 7.7 %
((6548+6996) * 100)/(6548+6996+162621)

GC Column: STX-CLP2 ID: 0.53(mm)

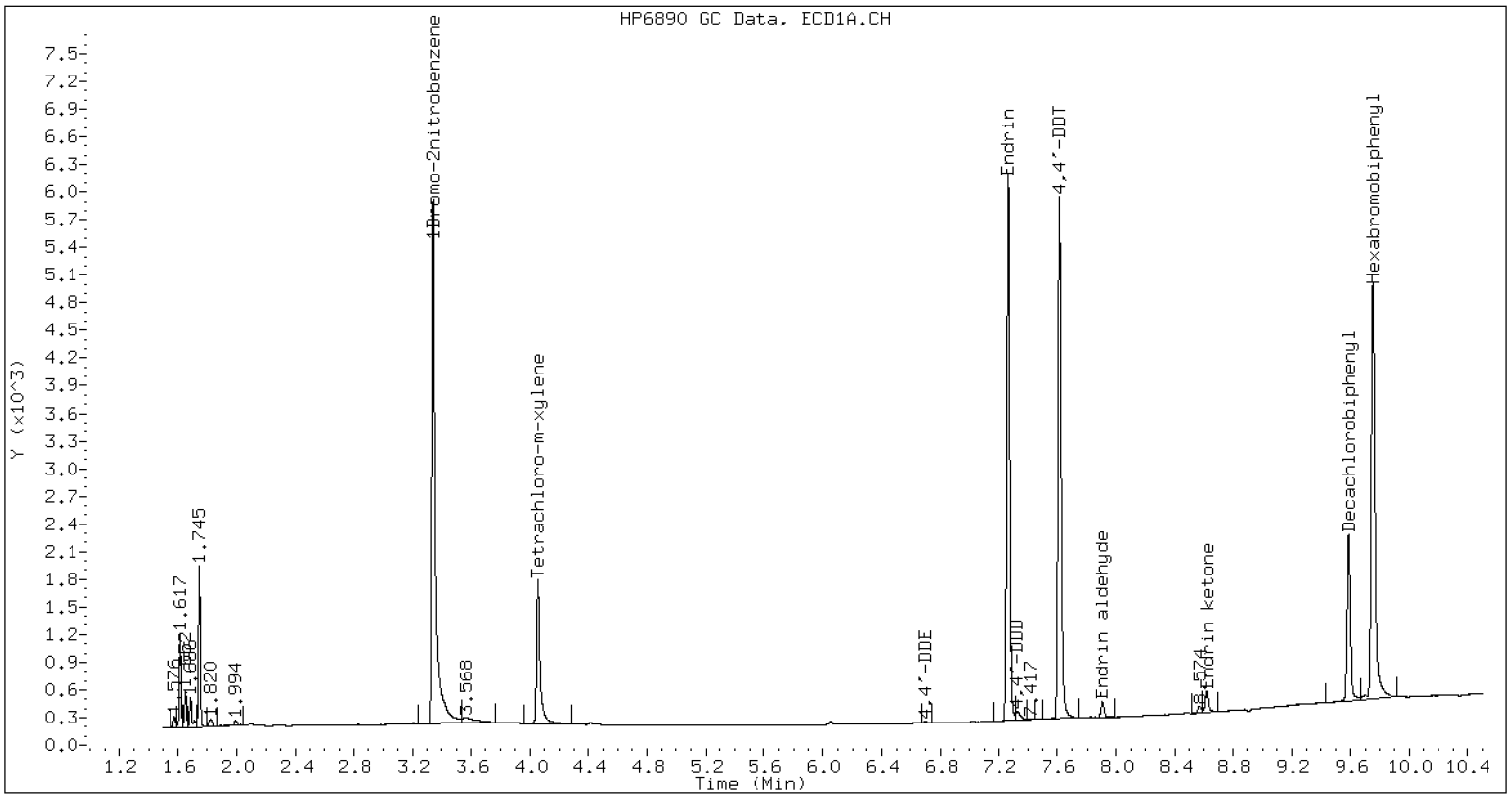
COMPOUND	RT	AREA
4,4'-DDE [C]	7.842	426
Endrin [C]	8.390	73551
4,4'-DDD [C]	8.439	5757
4,4'-DDT [C]	8.751	106577
Endrin ketone [C]	9.746	3740
Endrin aldehyde [C]	8.921	3097

DDT Percent Breakdown = 5.5 %
((426+5757) * 100)/(426+5757+106577)

Endrin Percent Breakdown = 8.5 %
((3097+3740) * 100)/(3097+3740+73551)

Form VII Pest-1

/20200307.b/20030705.D SIC0095-PEM1 STX-CLP 07-MAR-2020 09:51 1ul



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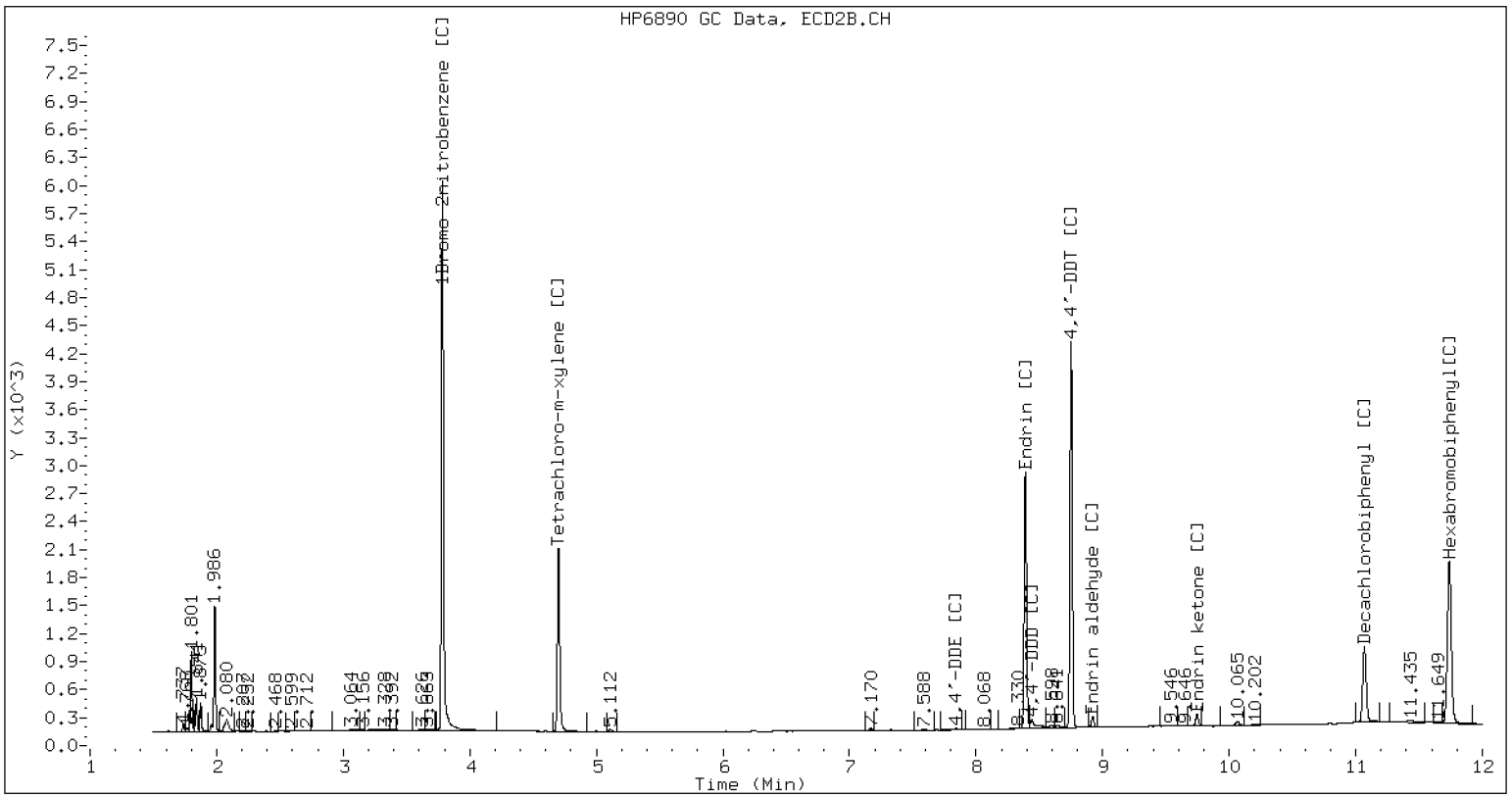
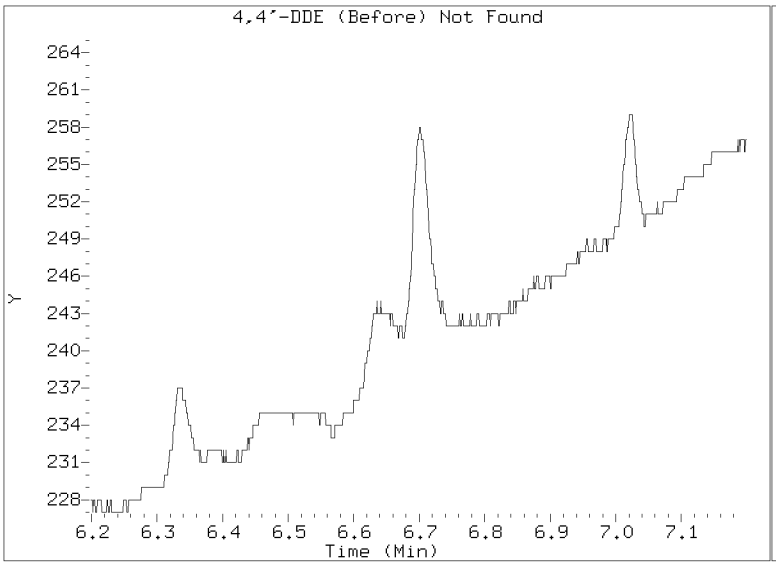
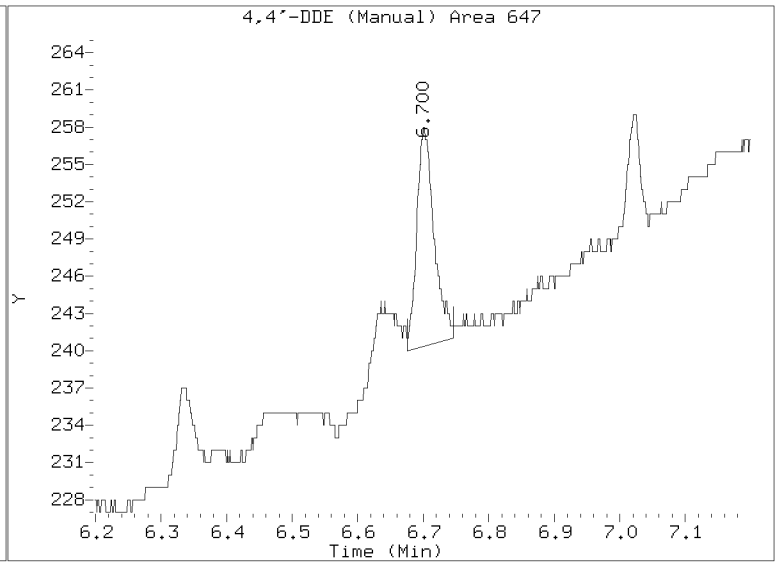
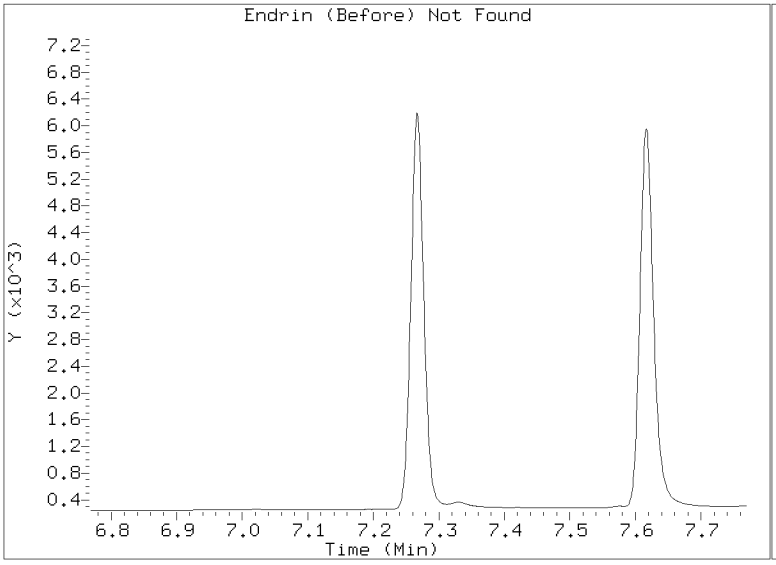


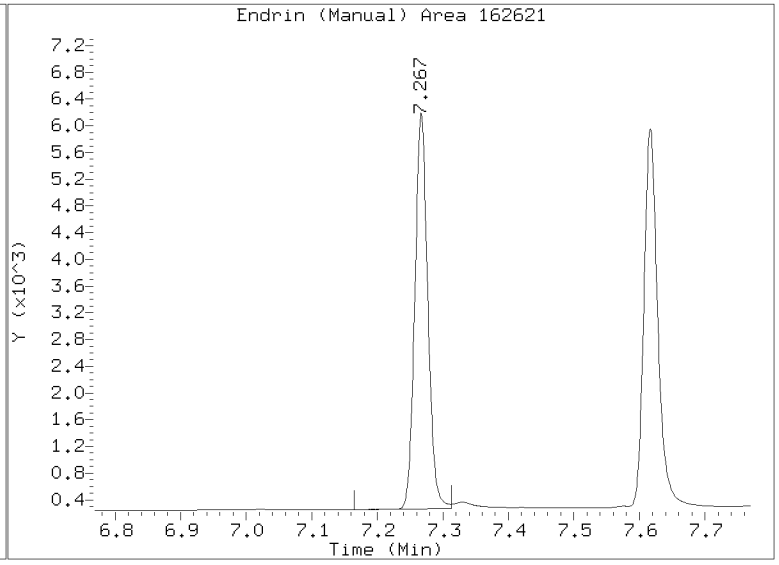
Manual Peak Adjustment Report, STX-CLP

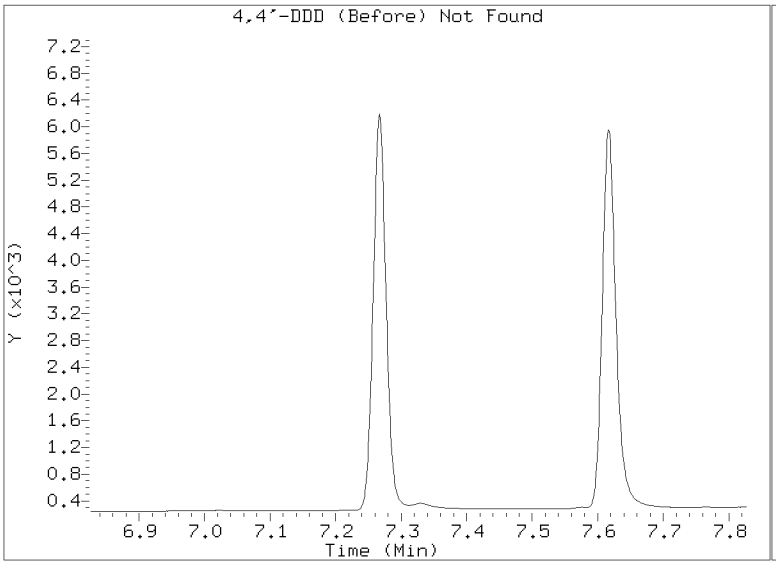
Datafile: /20200307.b/20030705.D
Injection Date: 07-MAR-2020 09:51
Lab ID:SIC0095-PEM1 Client ID:
Report Date: 03/09/2020 12:36

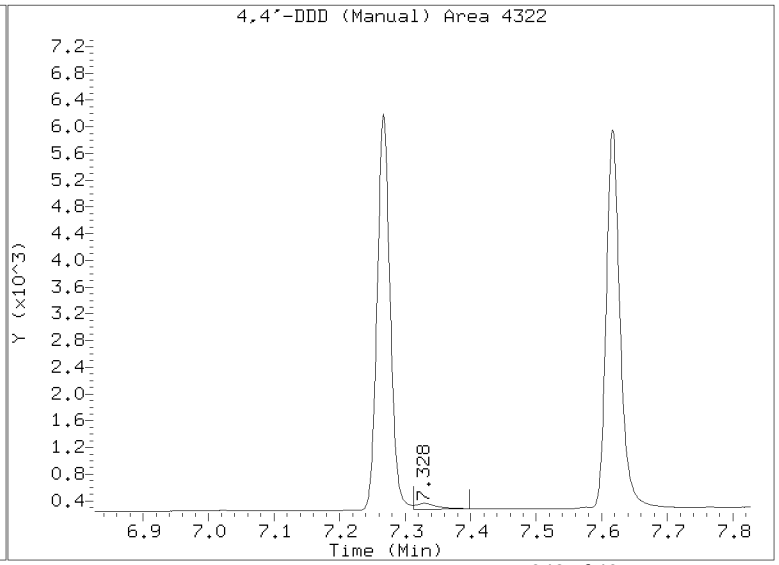












Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0103-PEM1 | File ID: 20030902.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/09/2020 | Sequence: SIC0103

SDG: 20B0269 | Calibration: DC00017 | Column: 1

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	7.29	0.70	0.80	0.074	0.100	-26.4
4,4'-DDT	7.64	0.73	0.83	0.070	0.100	-30.0

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0103-PEM1 | File ID: 20030902.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/09/2020 | Sequence: SIC0103

SDG: 20B0269 | Calibration: DC00017 | Column: 2

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	8.40	0.66	0.76	0.093	0.100	-7.2
4,4'-DDT	8.76	0.70	0.80	0.080	0.100	-20.1

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SIC0103-PEM1 InstID,Data File: ecd6.i, 20030902.D

Analysis Date: 09-MAR-2020 11:43 Init. Calib. Date: 07-MAR-2020

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.718	5028
Endrin	7.286	156313
4,4'-DDD	7.345	4974
4,4'-DDT	7.635	162659
Endrin ketone	8.637	3737
Endrin aldehyde	7.929	1661

DDT Percent Breakdown = 5.8 %
((5028+4974) * 100)/(5028+4974+162659)

Endrin Percent Breakdown = 3.3 %
((1661+3737) * 100)/(1661+3737+156313)

GC Column: STX-CLP2 ID: 0.53(mm)

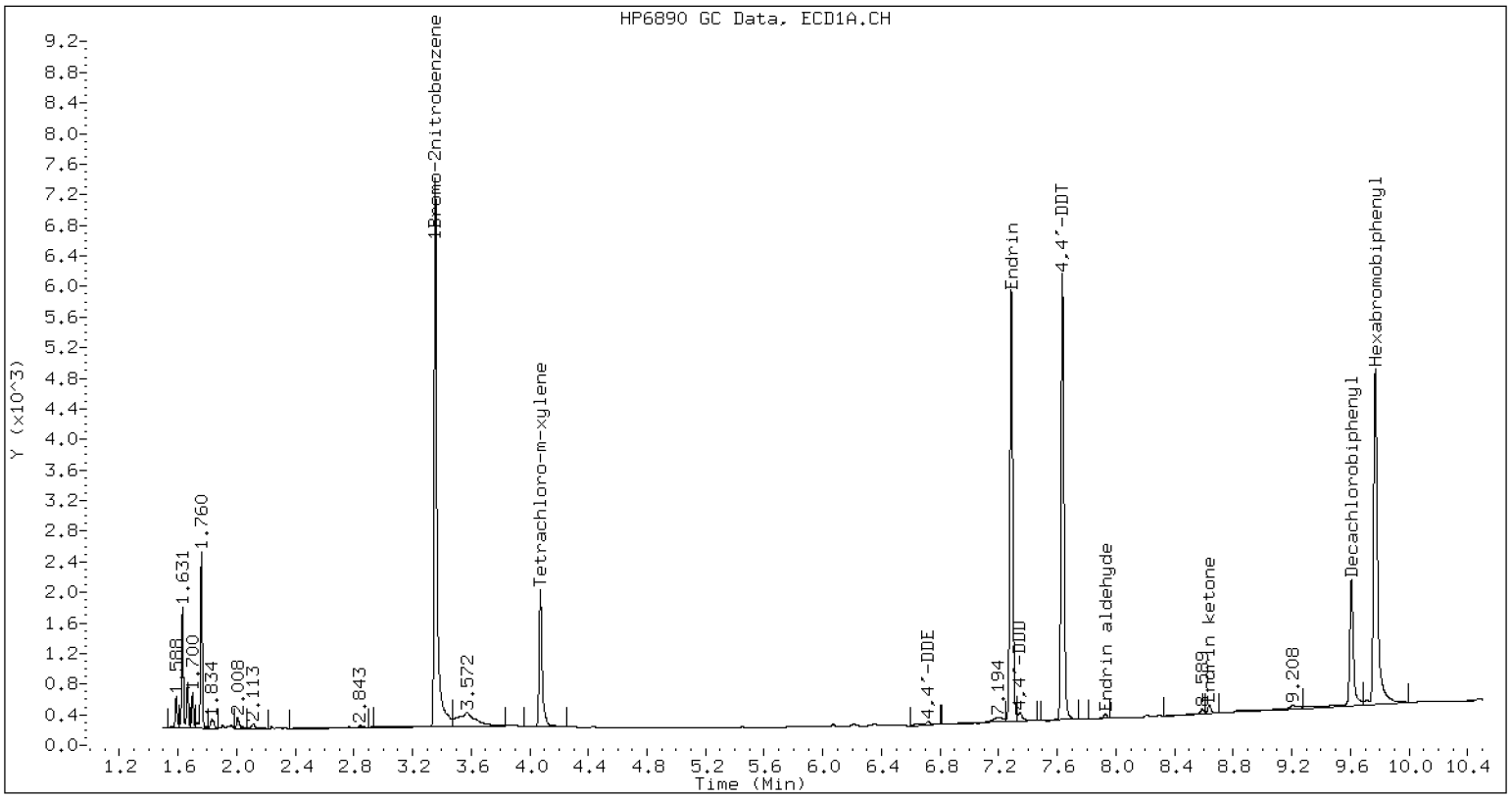
COMPOUND	RT	AREA
4,4'-DDE [C]	7.853	1025
Endrin [C]	8.401	91093
4,4'-DDD [C]	8.447	----
4,4'-DDT [C]	8.760	115245
Endrin ketone [C]	9.755	3150
Endrin aldehyde [C]	8.930	2327

DDT Percent Breakdown = 0.9 %
((1025+0) * 100)/(1025+0+115245)

Endrin Percent Breakdown = 5.7 %
((2327+3150) * 100)/(2327+3150+91093)

Form VII Pest-1

/20200309.b/20030902.D SIC0103-PEM1 STX-CLP 09-MAR-2020 11:43 1ul



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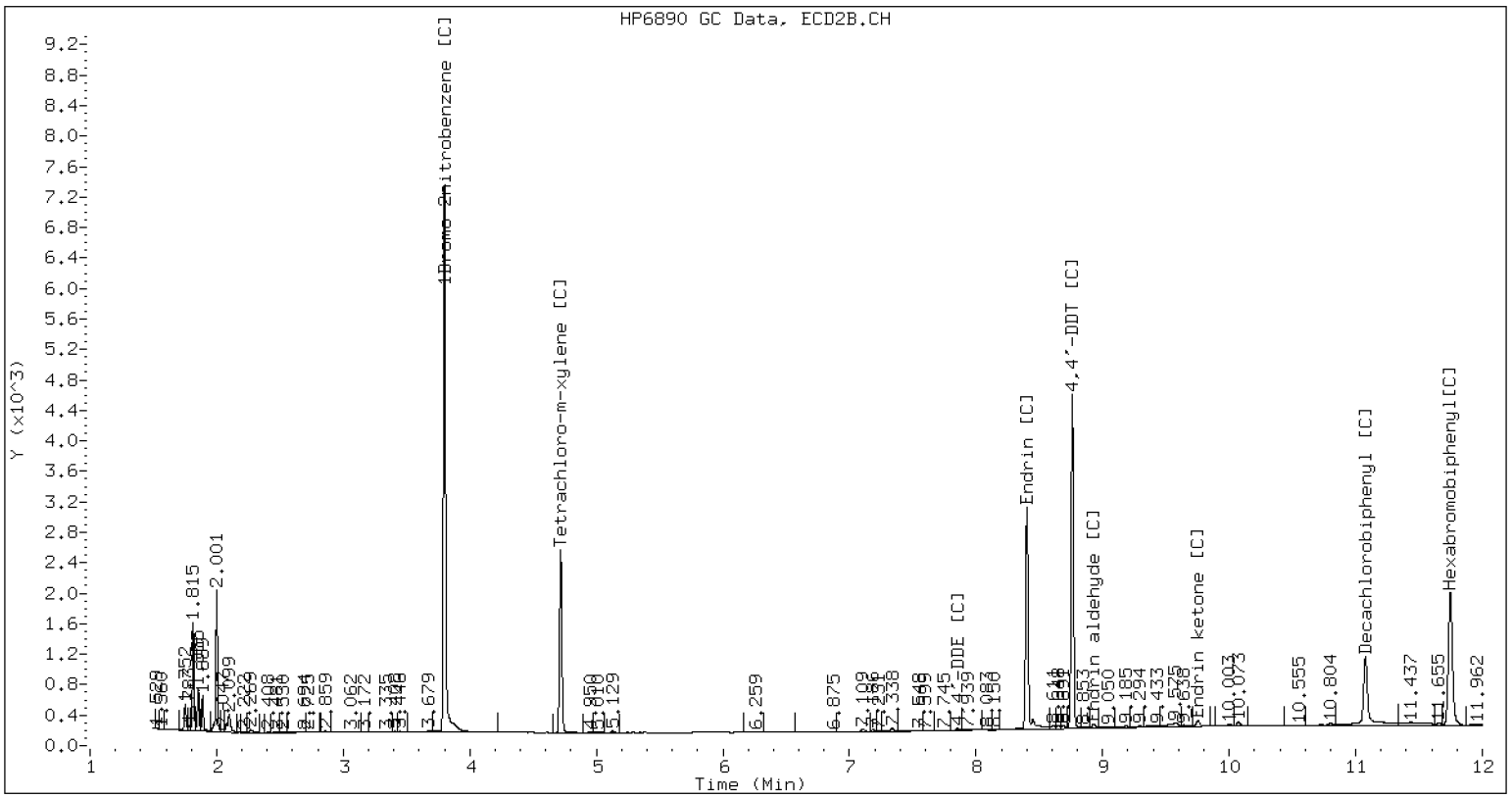


Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS2

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0103-PEM2 | File ID: 20030915.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/09/2020 | Sequence: SIC0103

SDG: 20B0269 | Calibration: DC00017 | Column: 1

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	7.28	0.70	0.80	0.072	0.100	-28.2
4,4'-DDT	7.63	0.73	0.83	0.076	0.100	-24.2

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS2

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0103-PEM2 | File ID: 20030915.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/09/2020 | Sequence: SIC0103

SDG: 20B0269 | Calibration: DC00017 | Column: 2

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	8.40	0.66	0.76	0.150	0.100	50.0
4,4'-DDT	8.76	0.70	0.80	0.164	0.100	64.3

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SIC0103-PEM2 InstID,Data File: ecd6.i, 20030915.D

Analysis Date: 09-MAR-2020 15:36 Init. Calib. Date: 07-MAR-2020

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.719	3047
Endrin	7.283	158194
4,4'-DDD	7.345	7968
4,4'-DDT	7.632	182797
Endrin ketone	8.634	12168
Endrin aldehyde	7.925	10966

DDT Percent Breakdown = 5.7 %
((3047+7968) * 100)/(3047+7968+182797)

Endrin Percent Breakdown = 12.8 %
((10966+12168) * 100)/(10966+12168+158194)

GC Column: STX-CLP2 ID: 0.53(mm)

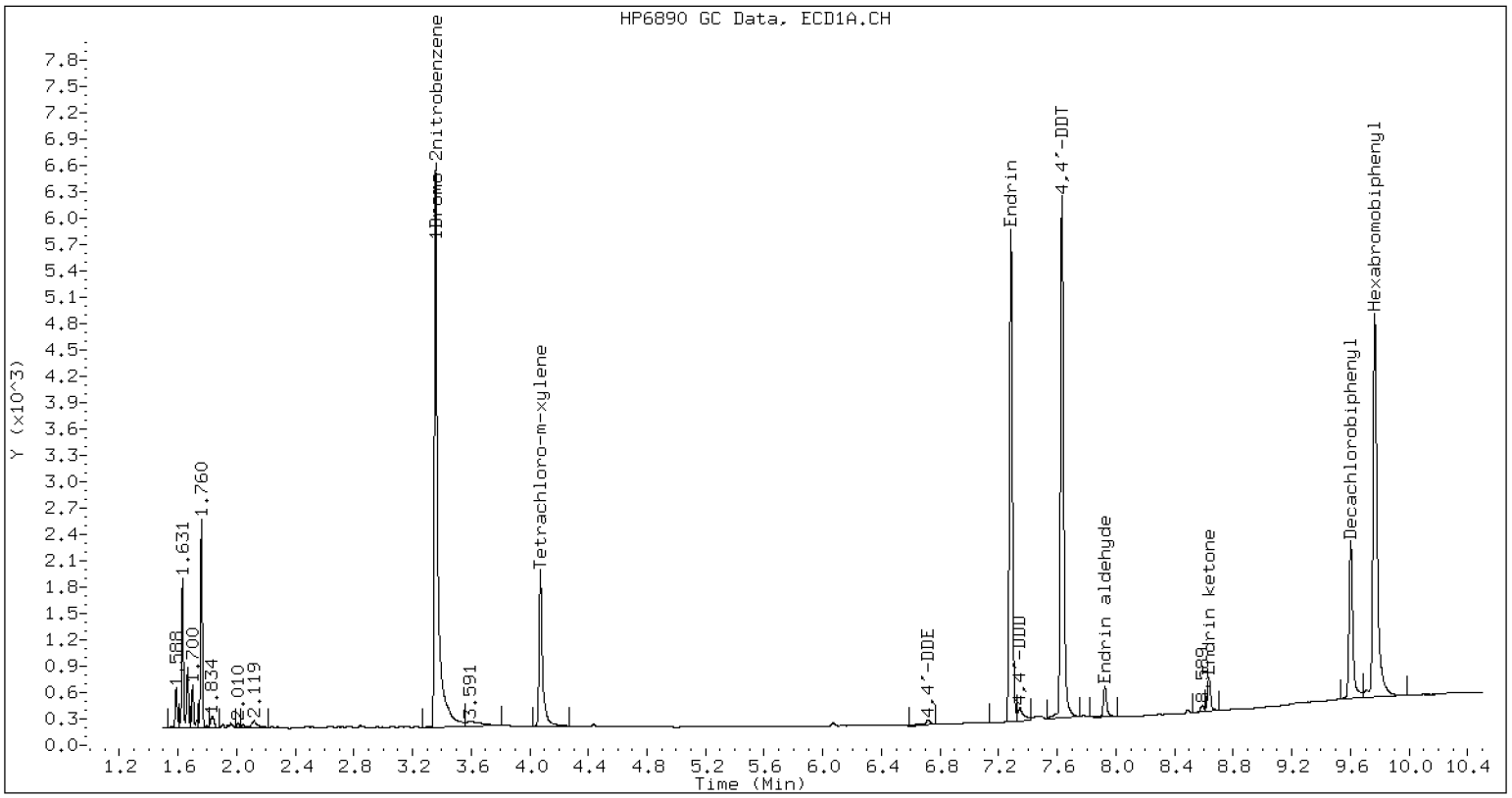
COMPOUND	RT	AREA
4,4'-DDE [C]	7.855	1414
Endrin [C]	8.401	69652
4,4'-DDD [C]	8.450	4044
4,4'-DDT [C]	8.761	112104
Endrin ketone [C]	9.754	7292
Endrin aldehyde [C]	8.930	6754

DDT Percent Breakdown = 4.6 %
((1414+4044) * 100)/(1414+4044+112104)

Endrin Percent Breakdown = 16.8 %
((6754+7292) * 100)/(6754+7292+69652)

Form VII Pest-1

/20200309.b/20030915.D SIC0103-PEM2 STX-CLP 09-MAR-2020 15:36 1ul



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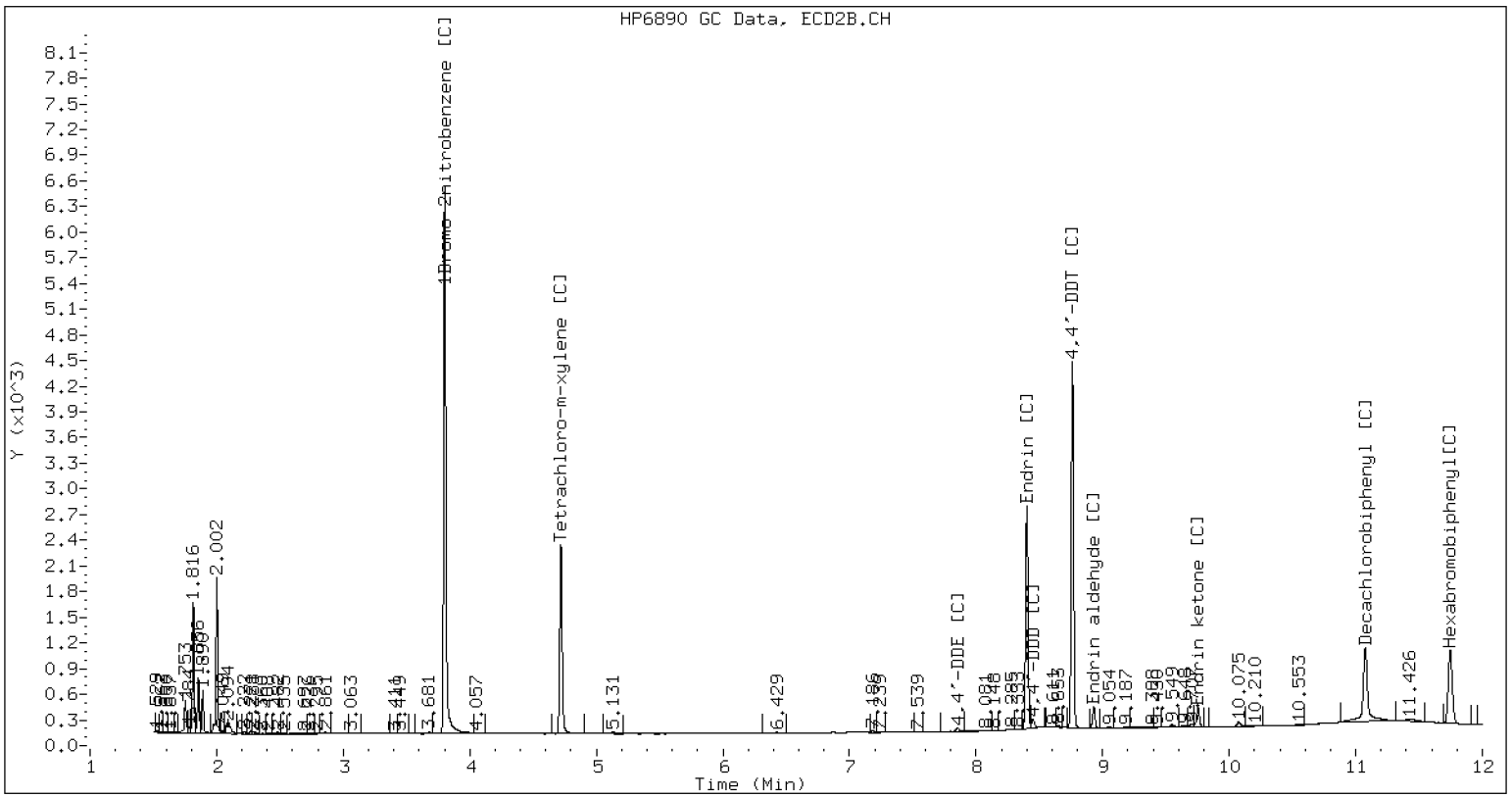


Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0178-PEM1 | File ID: 20031302.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/13/2020 | Sequence: SIC0178

SDG: 20B0269 | Calibration: DC00017 | Column: 1

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	7.29	0.70	0.80	0.096	0.100	-4.1
4,4'-DDT	7.64	0.73	0.83	0.089	0.100	-10.9

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0178-PEM1 | File ID: 20031302.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/13/2020 | Sequence: SIC0178

SDG: 20B0269 | Calibration: DC00017 | Column: 2

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	8.40	0.66	0.76	0.090	0.100	-9.6
4,4'-DDT	8.76	0.70	0.80	0.085	0.100	-14.8

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SIC0178-PEM1 InstID,Data File: ecd6.i, 20031302.D

Analysis Date: 13-MAR-2020 12:01 Init. Calib. Date: 07-MAR-2020

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.726	1046
Endrin	7.286	140647
4,4'-DDD	7.348	4551
4,4'-DDT	7.637	143084
Endrin ketone	8.636	8540
Endrin aldehyde	7.929	9345

DDT Percent Breakdown = 3.8 %
((1046+4551) * 100)/(1046+4551+143084)

Endrin Percent Breakdown = 11.3 %
((9345+8540) * 100)/(9345+8540+140647)

GC Column: STX-CLP2 ID: 0.53(mm)

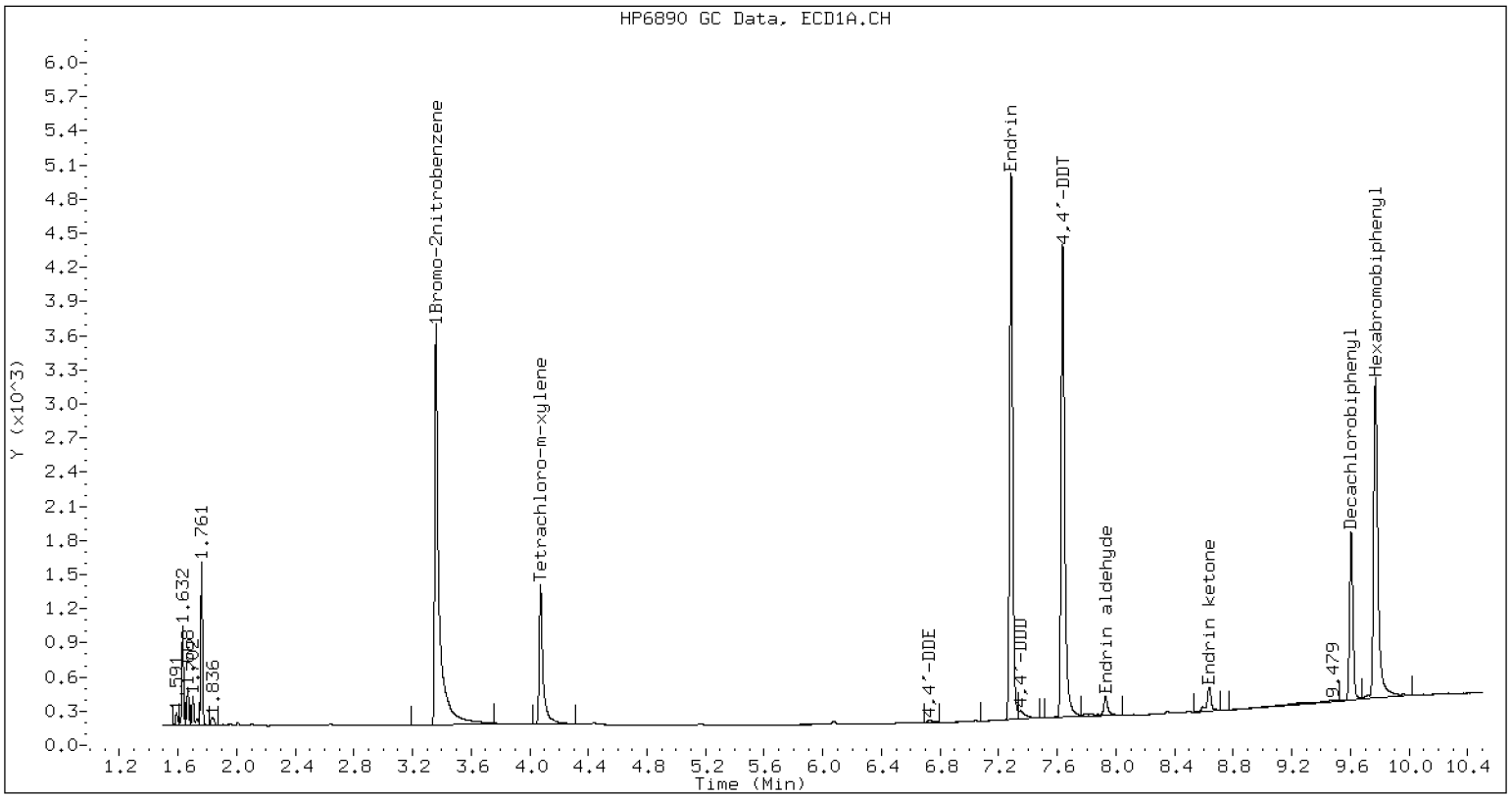
COMPOUND	RT	AREA
4,4'-DDE [C]	7.852	704
Endrin [C]	8.397	74080
4,4'-DDD [C]	8.446	6627
4,4'-DDT [C]	8.757	102491
Endrin ketone [C]	9.749	4802
Endrin aldehyde [C]	8.926	3987

DDT Percent Breakdown = 6.7 %
((704+6627) * 100)/(704+6627+102491)

Endrin Percent Breakdown = 10.6 %
((3987+4802) * 100)/(3987+4802+74080)

Form VII Pest-1

/20200313.b/20031302.D SIC0178-PEM1 STX-CLP 13-MAR-2020 12:01 1ul



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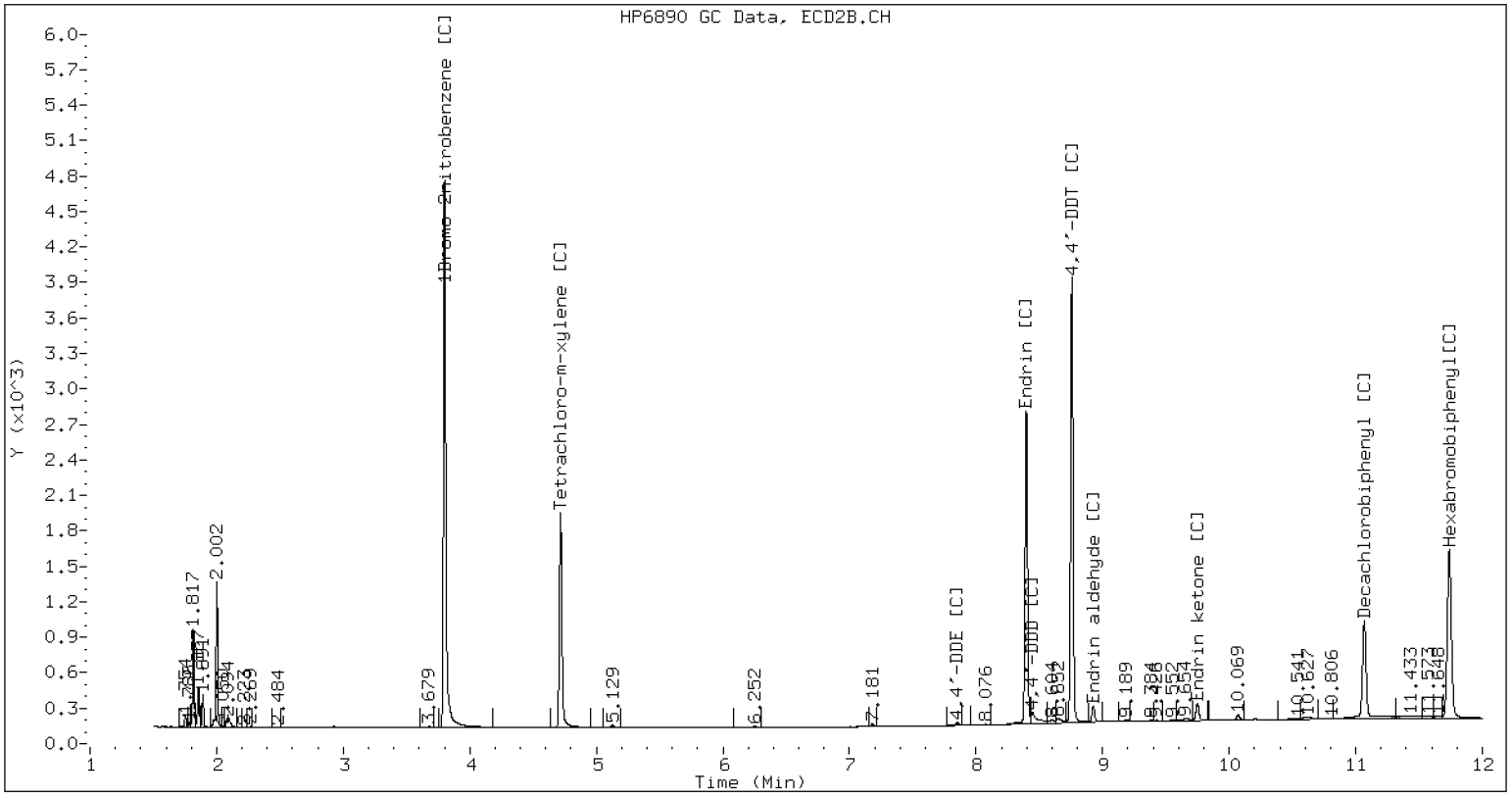
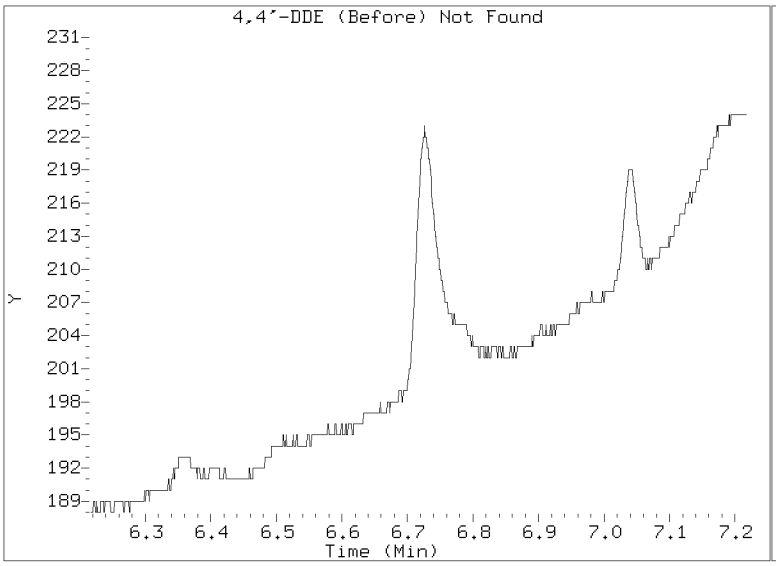
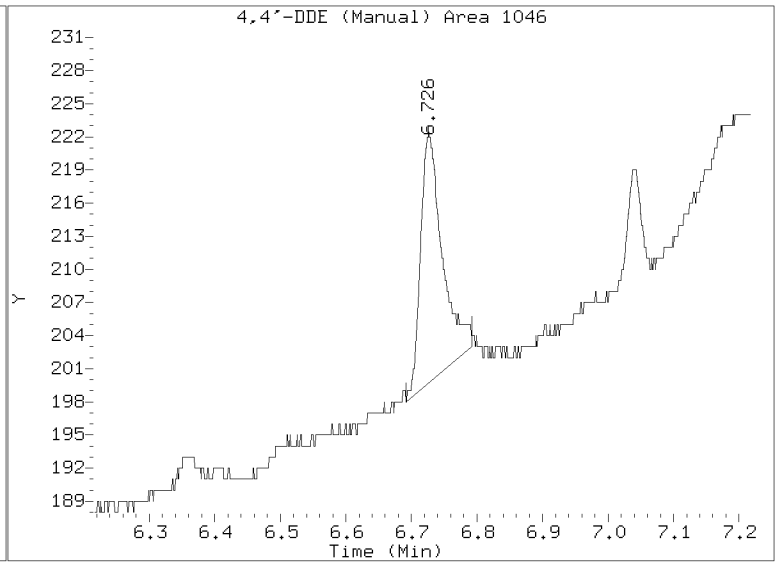
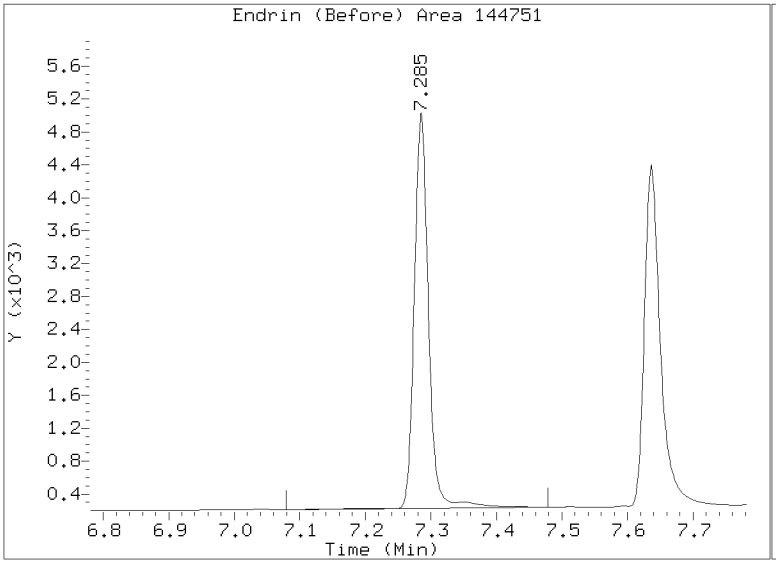


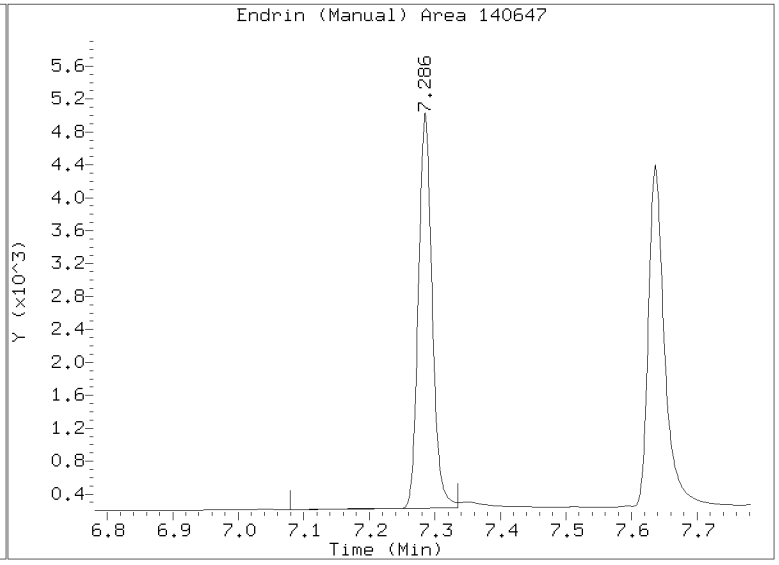
Manual Peak Adjustment Report, STX-CLP

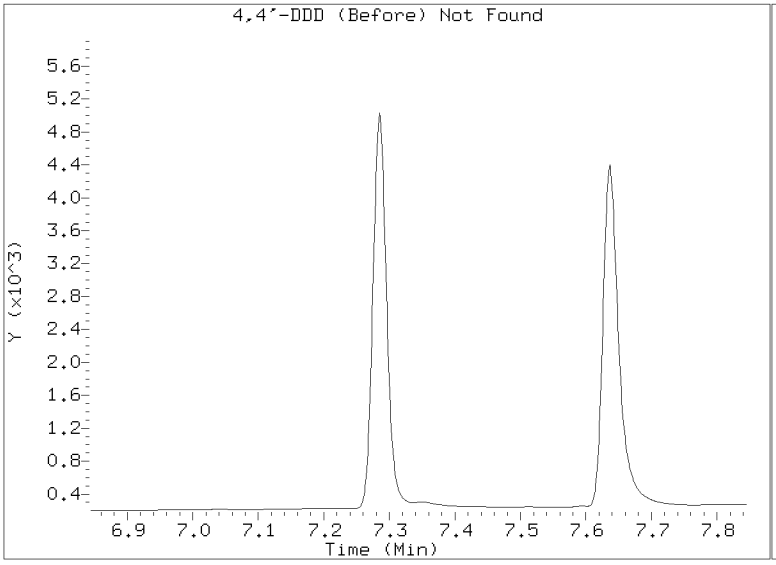
Datafile: /20200313.b/20031302.D
Injection Date: 13-MAR-2020 12:01
Lab ID:SIC0178-PEM1 Client ID:
Report Date: 03/14/2020 13:42

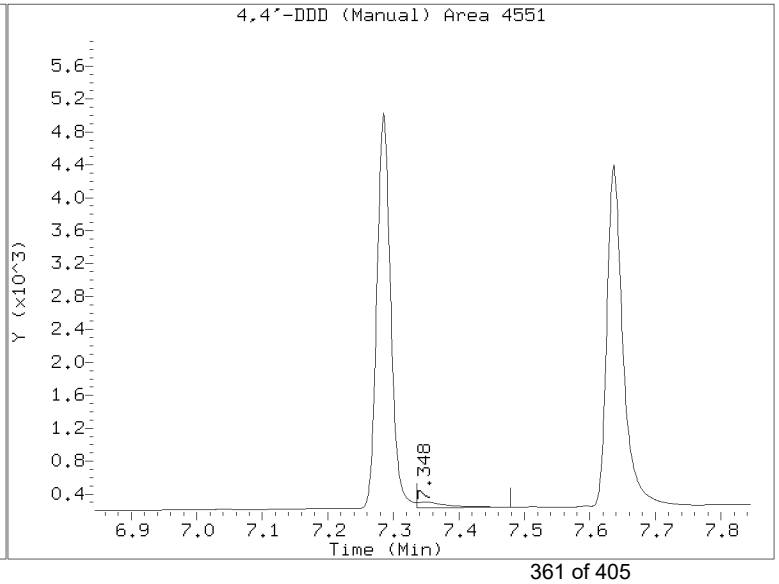












Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS2

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0178-PEM2 | File ID: 20031323.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/13/2020 | Sequence: SIC0178

SDG: 20B0269 | Calibration: DC00017 | Column: 1

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	7.28	0.70	0.80	0.082	0.100	-17.6
4,4'-DDT	7.63	0.73	0.83	0.079	0.100	-21.0

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS2

EPA 8081B

Laboratory: Analytical Resources, Inc. | Laboratory ID: SIC0178-PEM2 | File ID: 20031323.D

Client: Landau Associates, Inc. - Tacon | Matrix: Water | Instrument: ECD6

Project: Webster Nursery | Analyzed: 03/13/2020 | Sequence: SIC0178

SDG: 20B0269 | Calibration: DC00017 | Column: 2

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	8.40	0.66	0.76	0.089	0.100	-10.7
4,4'-DDT	8.75	0.70	0.80	0.083	0.100	-16.8

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SIC0178-PEM2 InstID,Data File: ecd6.i, 20031323.D

Analysis Date: 13-MAR-2020 18:25 Init. Calib. Date: 07-MAR-2020

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.714	676
Endrin	7.279	147081
4,4'-DDD	7.341	4119
4,4'-DDT	7.628	154196
Endrin ketone	8.630	7851
Endrin aldehyde	7.921	5539

DDT Percent Breakdown = 3.0 %
((676+4119) * 100)/(676+4119+154196)

Endrin Percent Breakdown = 8.3 %
((5539+7851) * 100)/(5539+7851+147081)

GC Column: STX-CLP2 ID: 0.53(mm)

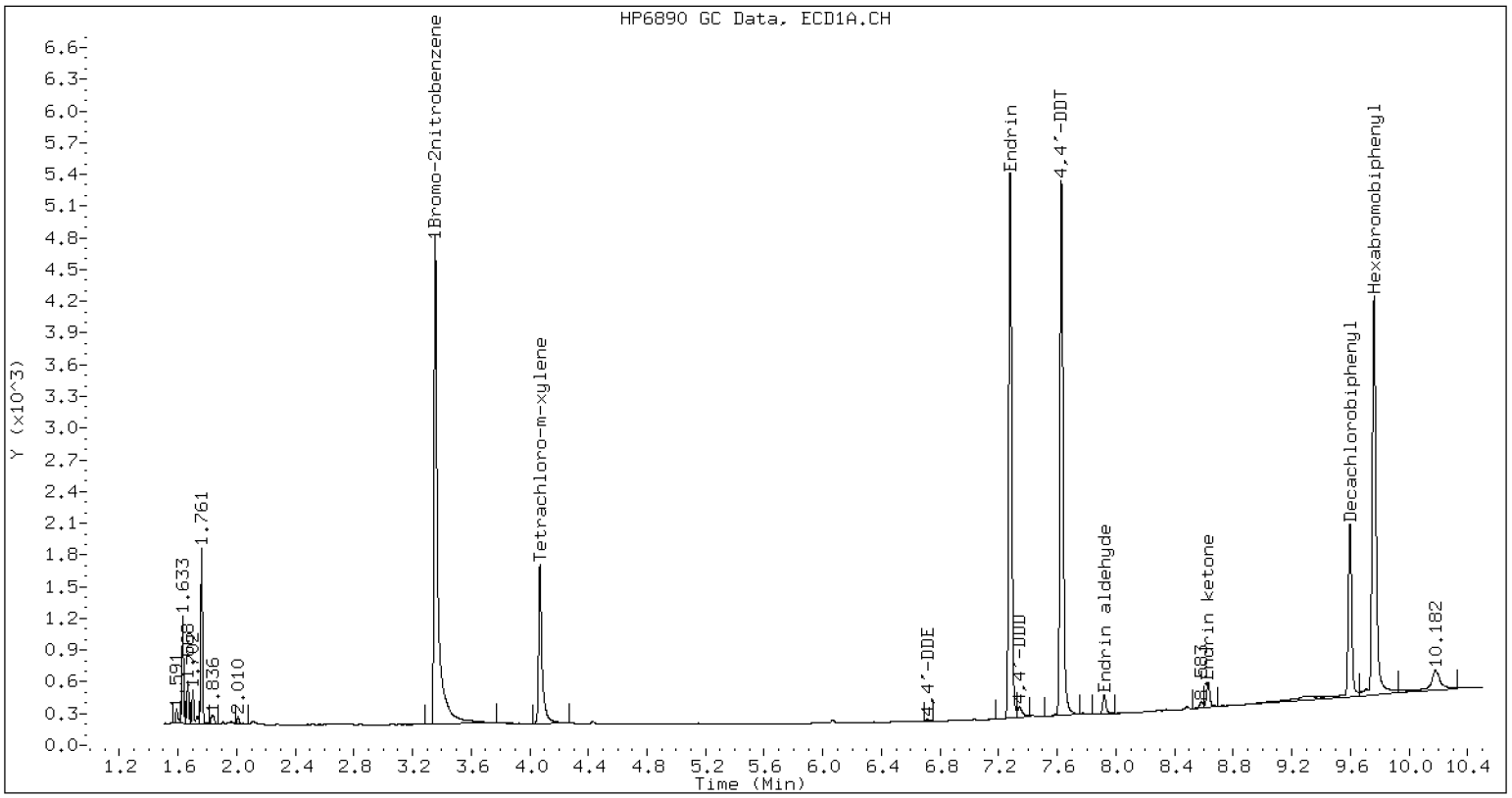
COMPOUND	RT	AREA
4,4'-DDE [C]	7.849	386
Endrin [C]	8.396	68521
4,4'-DDD [C]	8.442	6886
4,4'-DDT [C]	8.755	102732
Endrin ketone [C]	9.747	5436
Endrin aldehyde [C]	8.924	5227

DDT Percent Breakdown = 6.6 %
((386+6886) * 100)/(386+6886+102732)

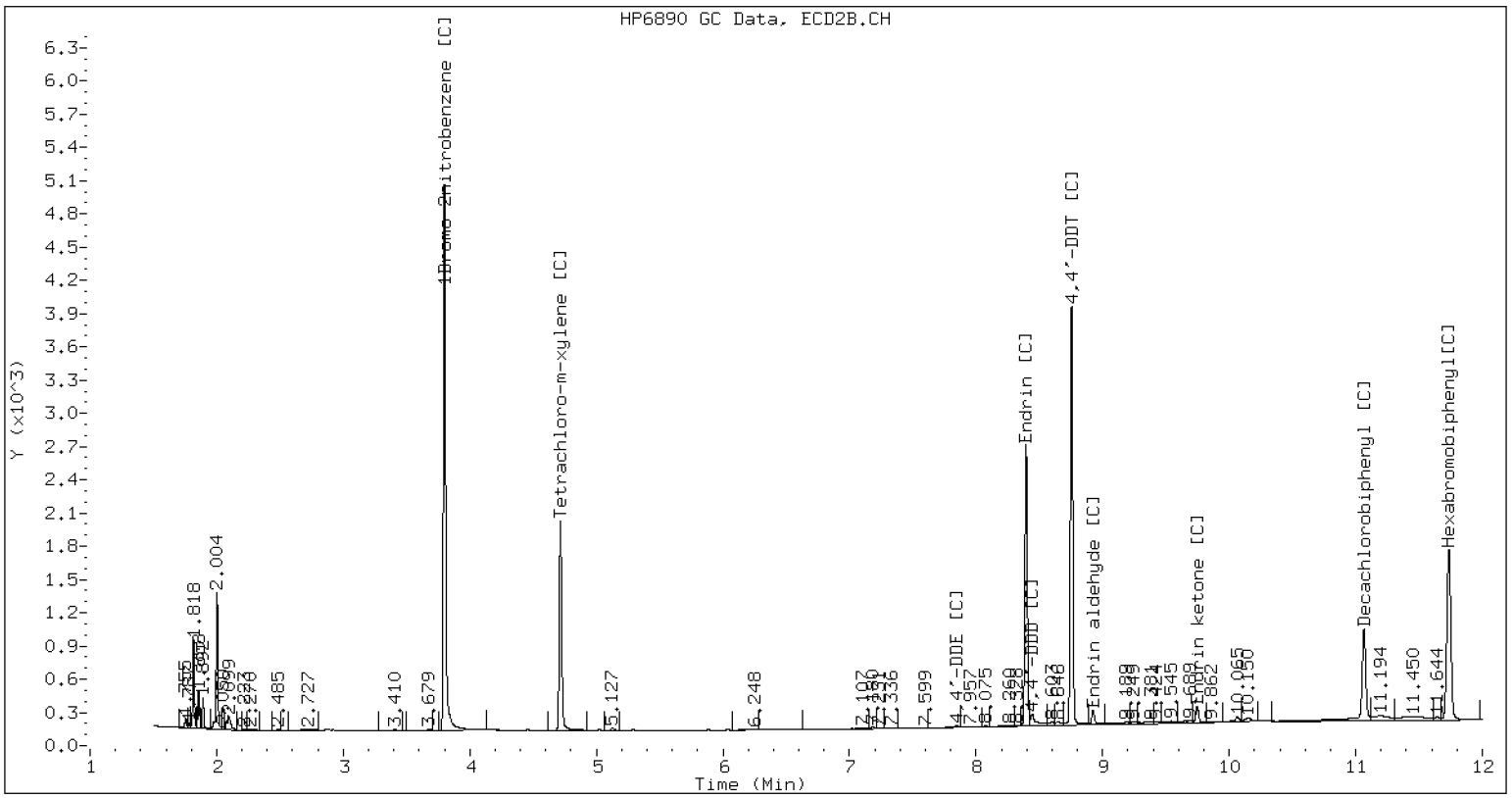
Endrin Percent Breakdown = 13.5 %
((5227+5436) * 100)/(5227+5436+68521)

Form VII Pest-1

/20200313.b/20031323.D SIC0178-PEM2 STX-CLP 13-MAR-2020 18:25 1ul

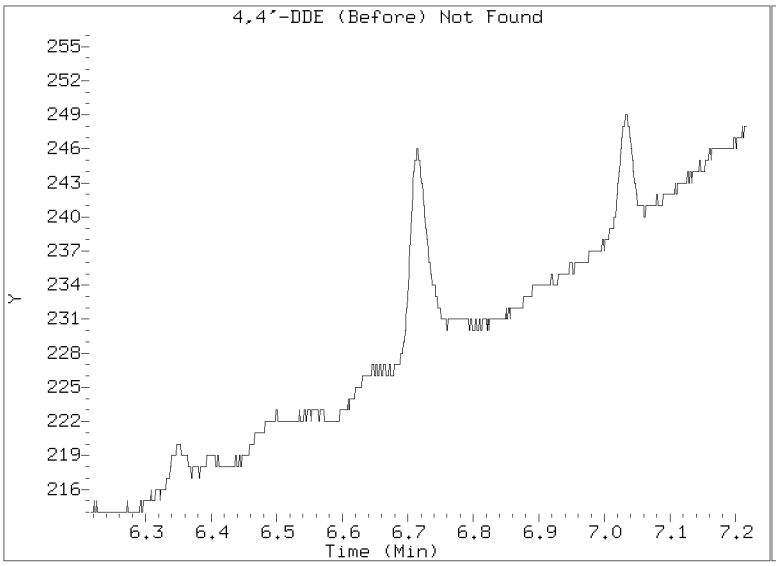


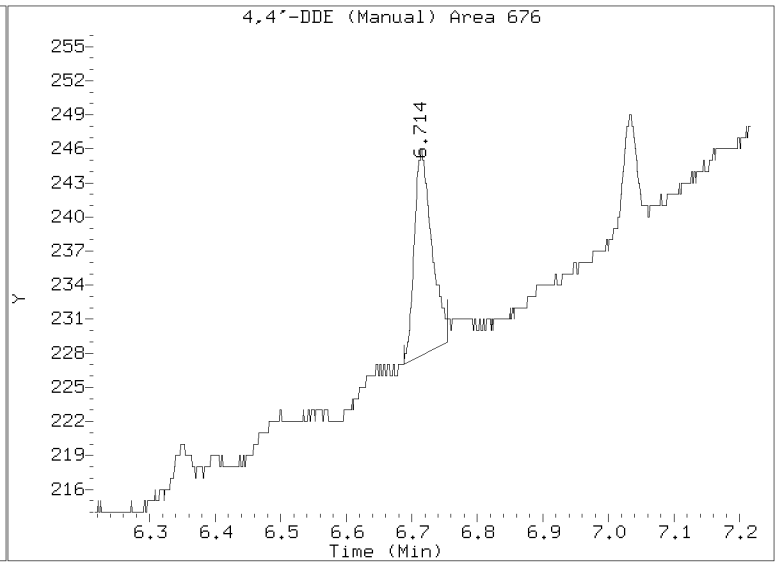
/20200313.b/20200313.b/20031323.D SIC0178-PEM2 CLP2 13-MAR-2020 1



Manual Peak Adjustment Report, STX-CLP

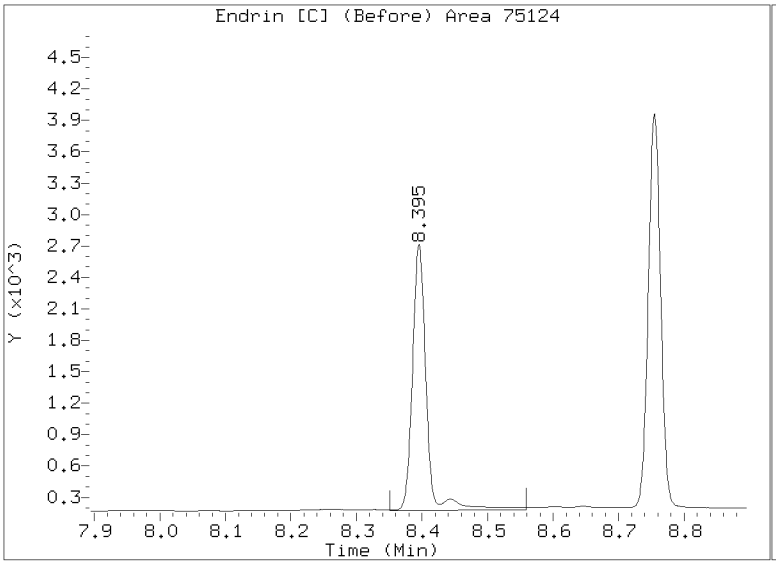
Datafile: /20200313.b/20031323.D
Injection Date: 13-MAR-2020 18:25
Lab ID:SIC0178-PEM2 Client ID:
Report Date: 03/14/2020 14:37

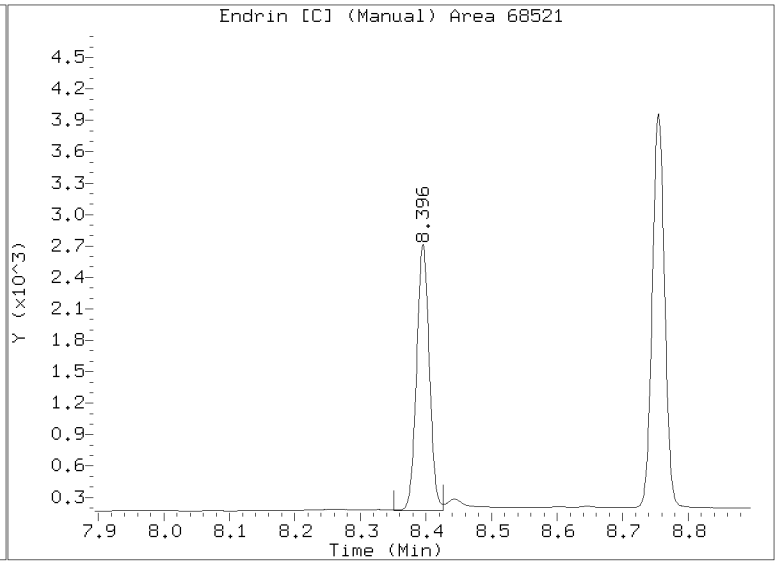


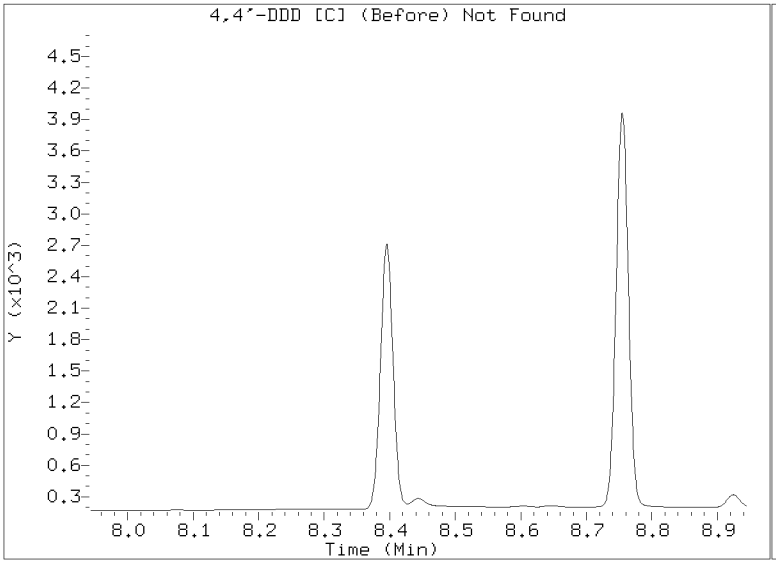


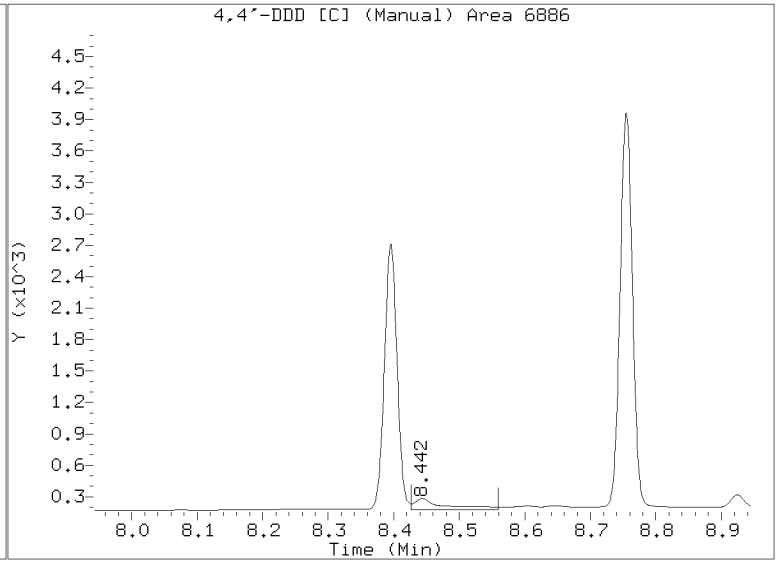
Manual Peak Adjustment Report, CLP-2

Datafile: /20200313.b/20200313.b/20031323.D
Injection Date: 13-MAR-2020 18:25
Lab ID:SIC0178-PEM2 Client ID:









Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0095
Instrument: ECD6
Calibration: DC00017

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Performance Mix	SIC0095-PEM1	20030705.D	20030705.D	NA	03/07/20 09:51
Cal Standard	SIC0095-CAL1	20030706.D	20030706.D	NA	03/07/20 10:09
Cal Standard	SIC0095-CAL2	20030707.D	20030707.D	NA	03/07/20 10:27
Cal Standard	SIC0095-CAL3	20030708.D	20030708.D	NA	03/07/20 10:45
Cal Standard	SIC0095-CAL4	20030709.D	20030709.D	NA	03/07/20 11:03
Cal Standard	SIC0095-CAL5	20030710.D	20030710.D	NA	03/07/20 11:21
Cal Standard	SIC0095-CAL6	20030711.D	20030711.D	NA	03/07/20 11:39
Cal Standard	SIC0095-CAL7	20030712.D	20030712.D	NA	03/07/20 11:56
Secondary Cal Check	SIC0095-SCV1	20030713.D	20030713.D	NA	03/07/20 12:14
Cal Standard	SIC0095-CALF	20030722.D	20030722.D	NA	03/07/20 14:56
Cal Standard	SIC0095-CALG	20030723.D	20030723.D	NA	03/07/20 15:14
Cal Standard	SIC0095-CALH	20030724.D	20030724.D	NA	03/07/20 15:32
Cal Standard	SIC0095-CALI	20030725.D	20030725.D	NA	03/07/20 15:49
Cal Standard	SIC0095-CALJ	20030726.D	20030726.D	NA	03/07/20 16:07
Cal Standard	SIC0095-CALK	20030727.D	20030727.D	NA	03/07/20 16:25
Cal Standard	SIC0095-CALL	20030728.D	20030728.D	NA	03/07/20 16:43
Cal Standard	SIC0095-CALM	20030729.D	20030729.D	NA	03/07/20 17:01
Cal Standard	SIC0095-CALN	20030730.D	20030730.D	NA	03/07/20 17:19
Cal Standard	SIC0095-CALO	20030731.D	20030731.D	NA	03/07/20 17:37
Cal Standard	SIC0095-CALP	20030732.D	20030732.D	NA	03/07/20 17:55
Cal Standard	SIC0095-CALQ	20030733.D	20030733.D	NA	03/07/20 18:13
Cal Standard	SIC0095-CALR	20030734.D	20030734.D	NA	03/07/20 18:30
Cal Standard	SIC0095-CALS	20030735.D	20030735.D	NA	03/07/20 18:48

Printed: 3/9/2020 3:01:52PM

ANALYSIS SEQUENCE

SIC0095

Instrument: ECD6 Element Column ID: e000312/f0048
Calibration ID: DC00017 Tune File:
EM Voltage:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIC0095-PEM1	DS1	QC		1	H006695	I001800	
SIC0095-CAL1	INDAA	QC		2	I001322	I001800	
SIC0095-CAL2	INDAB	QC		3	I001321	I001800	
SIC0095-CAL3	INDAC	QC		4	I001320	I001800	
SIC0095-CAL4	INDAD	QC		5	I001319	I001800	
SIC0095-CAL5	INDAE	QC		6	I001318	I001800	
SIC0095-CAL6	INDAF	QC		7	I001317	I001800	
SIC0095-CAL7	INDAG	QC		8	H010055	I001800	
SIC0095-SCV1	INDAESCV	QC		9	H006561	I001800	
SIC0095-CAL8	WNDA	QC		10	H007160	I001800	
SIC0095-CAL9	WNDB	QC		11	H007159	I001800	
SIC0095-CALA	WNDC	QC		12	H007158	I001800	
SIC0095-CALB	WNDD	QC		13	H007157	I001800	
SIC0095-CALC	WNDE	QC		14	H007156	I001800	
SIC0095-CALD	WNDF	QC		15	H007155	I001800	
SIC0095-CALE	WNDG	QC		16	H005926	I001800	
SIC0095-SCV2	WNDSCV	QC		17	I001323	I001800	
SIC0095-CALF	TOXAPH1	QC		18	H007166	I001800	
SIC0095-CALG	TOXAPH2	QC		19	H007165	I001800	
SIC0095-CALH	TOXAPH3	QC		20	H007164	I001800	
SIC0095-CALI	TOXAPH4	QC		21	H007163	I001800	
SIC0095-CALJ	TOXAPH5	QC		22	H007162	I001800	

Printed: 3/9/2020 3:01:52PM

ANALYSIS SEQUENCE

SIC0095

Instrument: ECD6 Element Column ID: e000312/f0048
Calibration ID: DC00017 Tune File:
EM Voltage:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIC0095-CALK	TOXAPH6	QC		23	H007161	I001800	
SIC0095-CALL	TOXAPH7	QC		24	H006563	I001800	
SIC0095-CALM	NOS1	QC		25	H007172	I001800	
SIC0095-CALN	NOS2	QC		26	H007171	I001800	
SIC0095-CALO	NOS3	QC		27	H007170	I001800	
SIC0095-CALP	NOS4	QC		28	H007169	I001800	
SIC0095-CALQ	NOS5	QC		29	H007168	I001800	
SIC0095-CALR	NOS6	QC		30	H007167	I001800	
SIC0095-CALS	NOS7	QC		31	H004000	I001800	

GC LOG SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200307.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	07-MAR-2020 09:51	20030705.D	1	SIC0095-PEM1	
2	07-MAR-2020 10:09	20030706.D	1	SIC0095-CAL1	
3	07-MAR-2020 10:27	20030707.D	1	SIC0095-CAL2	
4	07-MAR-2020 10:45	20030708.D	1	SIC0095-CAL3	
5	07-MAR-2020 11:03	20030709.D	1	SIC0095-CAL4	
6	07-MAR-2020 11:21	20030710.D	1	SIC0095-CAL5	
7	07-MAR-2020 11:39	20030711.D	1	SIC0095-CAL6	
8	07-MAR-2020 11:56	20030712.D	1	SIC0095-CAL7	
9	07-MAR-2020 12:14	20030713.D	1	SIC0095-SCV1	
10	07-MAR-2020 12:32	20030714.D	1	SIC0095-CAL8	
11	07-MAR-2020 12:50	20030715.D	1	SIC0095-CAL9	
12	07-MAR-2020 13:08	20030716.D	1	SIC0095-CALA	
13	07-MAR-2020 13:26	20030717.D	1	SIC0095-CALB	
14	07-MAR-2020 13:44	20030718.D	1	SIC0095-CALC	
15	07-MAR-2020 14:02	20030719.D	1	SIC0095-CALD	
16	07-MAR-2020 14:20	20030720.D	1	SIC0095-CALE	
17	07-MAR-2020 14:38	20030721.D	1	SIC0095-SCV2	
18	07-MAR-2020 14:56	20030722.D	1	SIC0095-CALF	
19	07-MAR-2020 15:14	20030723.D	1	SIC0095-CALG	
20	07-MAR-2020 15:32	20030724.D	1	SIC0095-CALH	
21	07-MAR-2020 15:49	20030725.D	1	SIC0095-CALI	
22	07-MAR-2020 16:07	20030726.D	1	SIC0095-CALJ	
23	07-MAR-2020 16:25	20030727.D	1	SIC0095-CALK	
24	07-MAR-2020 16:43	20030728.D	1	SIC0095-CALL	
25	07-MAR-2020 17:01	20030729.D	1	SIC0095-CALM	
26	07-MAR-2020 17:19	20030730.D	1	SIC0095-CALN	
27	07-MAR-2020 17:37	20030731.D	1	SIC0095-CALO	
28	07-MAR-2020 17:55	20030732.D	1	SIC0095-CALP	
29	07-MAR-2020 18:13	20030733.D	1	SIC0095-CALQ	
30	07-MAR-2020 18:30	20030734.D	1	SIC0095-CALR	
31	07-MAR-2020 18:48	20030735.D	1	SIC0095-CALS	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200307.b

ARI Job No.: SIC0 Method: PEST.m Instrument: ecd6.i Date: 07-MAR-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0951	20030705.D	SIC0095-PEM1		1	4,4'-DDE, Endrin, 4,4'-DDD,
1009	20030706.D	SIC0095-CAL1		1	Endrin aldehyde, Decachlorobiphenyl,
1027	20030707.D	SIC0095-CAL2		1	Decachlorobiphenyl,
1045	20030708.D	SIC0095-CAL3		1	Decachlorobiphenyl,
1103	20030709.D	SIC0095-CAL4		1	NO MANUAL INTEGRATION
1121	20030710.D	SIC0095-CAL5		1	NO MANUAL INTEGRATION
1139	20030711.D	SIC0095-CAL6		1	NO MANUAL INTEGRATION
1156	20030712.D	SIC0095-CAL7		1	NO MANUAL INTEGRATION
1214	20030713.D	SIC0095-SCV1		1	NO MANUAL INTEGRATION
1232	20030714.D	SIC0095-CAL8		1	Oxychlordane, 2,4-DDE, trans-Nonachlor, 2,4-DDD, 2,4-DDT, cis-Nonachlor, Mirex,
1250	20030715.D	SIC0095-CAL9		1	NO MANUAL INTEGRATION
1308	20030716.D	SIC0095-CALA		1	NO MANUAL INTEGRATION
1326	20030717.D	SIC0095-CALB		1	NO MANUAL INTEGRATION
1344	20030718.D	SIC0095-CALC		1	NO MANUAL INTEGRATION
1402	20030719.D	SIC0095-CALD		1	NO MANUAL INTEGRATION
1420	20030720.D	SIC0095-CALE		1	NO MANUAL INTEGRATION
1438	20030721.D	SIC0095-SCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200307.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1456	20030722.D	SIC0095-CALF		1	NO MANUAL INTEGRATION
1514	20030723.D	SIC0095-CALG		1	NO MANUAL INTEGRATION
1532	20030724.D	SIC0095-CALH		1	NO MANUAL INTEGRATION
1549	20030725.D	SIC0095-CALI		1	NO MANUAL INTEGRATION
1607	20030726.D	SIC0095-CALJ		1	NO MANUAL INTEGRATION
1625	20030727.D	SIC0095-CALK		1	NO MANUAL INTEGRATION
1643	20030728.D	SIC0095-CALL		1	Toxaphene,
1701	20030729.D	SIC0095-CALM		1	Chlordane (NOS),
1719	20030730.D	SIC0095-CALN		1	NO MANUAL INTEGRATION
1737	20030731.D	SIC0095-CALO		1	NO MANUAL INTEGRATION
1755	20030732.D	SIC0095-CALP		1	NO MANUAL INTEGRATION
1813	20030733.D	SIC0095-CALQ		1	NO MANUAL INTEGRATION
1830	20030734.D	SIC0095-CALR		1	NO MANUAL INTEGRATION
1848	20030735.D	SIC0095-CALS		1	Chlordane (NOS),

Security Status Report

Date: 09-Mar-2020 15:15

20030705.D	Data Locked	yev, 09-Mar-2020 15:15
20030706.D	Data Locked	yev, 09-Mar-2020 15:15
20030707.D	Data Locked	yev, 09-Mar-2020 15:15
20030708.D	Data Locked	yev, 09-Mar-2020 15:15
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20030710.D	Data Locked	yev, 09-Mar-2020 15:15
20030711.D	Data Locked	yev, 09-Mar-2020 15:15
20030712.D	Data Locked	yev, 09-Mar-2020 15:15
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20030732.D	Data Locked	yev, 09-Mar-2020 15:15
20030733.D	Data Locked	yev, 09-Mar-2020 15:15
20030734.D	Data Locked	yev, 09-Mar-2020 15:15
20030735.D	Data Locked	yev, 09-Mar-2020 15:15

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0103
Instrument: ECD6
Calibration: DC00017

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Performance Mix	SIC0103-PEM1	20030902.D	20030902.D	NA	03/09/20 11:43
Initial Cal Check	SIC0103-ICV1	20030903.D	20030903.D	NA	03/09/20 12:01
Initial Cal Check	SIC0103-ICV3	20030904.D	20030904.D	NA	03/09/20 12:19
Initial Cal Check	SIC0103-ICV4	20030905.D	20030905.D	NA	03/09/20 12:37
Blank	BIB0534-BLK1	20030906.D	20030906.D	Water	03/09/20 12:55
Blank	BIB0534-BLK1	20030906.D	20030908.D	Water	03/09/20 12:55
Blank	BIB0534-BLK1	20030908.D	20030908.D	Water	03/09/20 12:55
Blank	BIB0534-BLK1	20030908.D	20030906.D	Water	03/09/20 12:55
LCS	BIB0534-BS1	20030907.D	20030909.D	Water	03/09/20 13:13
LCS	BIB0534-BS1	20030907.D	20030907.D	Water	03/09/20 13:13
LCS	BIB0534-BS1	20030909.D	20030909.D	Water	03/09/20 13:13
LCS	BIB0534-BS1	20030909.D	20030907.D	Water	03/09/20 13:13
LCS Dup	BIB0534-BSD1	20030910.D	20030910.D	Water	03/09/20 14:07
LCS	BIB0534-BS2	20030911.D	20030911.D	Water	03/09/20 14:25
SW-10R-20200221	20B0269-01	20030912.D	20030912.D	Water	03/09/20 14:43
SW-11R-20200221	20B0269-02	20030913.D	20030913.D	Water	03/09/20 15:01
SW-99-20200221	20B0269-03	20030914.D	20030914.D	Water	03/09/20 15:19
Performance Mix	SIC0103-PEM2	20030915.D	20030915.D	NA	03/09/20 15:36
Calibration Check	SIC0103-CCV1	20030916.D	20030916.D	NA	03/09/20 15:54
Calibration Check	SIC0103-CCV3	20030917.D	20030917.D	NA	03/09/20 16:12
Calibration Check	SIC0103-CCV4	20030918.D	20030918.D	NA	03/09/20 16:30

Printed: 3/9/2020 4:10:26PM

ANALYSIS SEQUENCE

SIC0103

Instrument: ECD6 Element Column ID: e000312/f0048
Calibration ID: DC00017 Tune File:
EM Voltage:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIC0103-PEM1	DS1	QC		1	H006695	I001800	
SIC0103-ICV1	INDA1	QC		2	H010142	I001800	
SIC0103-ICV3	TOXAPH1	QC		3	H007162	I001800	
SIC0103-ICV4	NOS	QC		4	H004942	I001800	
BIB0534-BLK1	Blank	QC		5		I001800	
BIB0534-BS1	LCS	QC		6		I001800	
BIB0534-BSD1	LCS Dup	QC		7		I001800	
BIB0534-BS2	LCS	QC		8			
20B0269-01	SW-10R-20200221	8081B Pest (Low Level H2O)	A 01	9		I001800	
20B0269-02	SW-11R-20200221	8081B Pest (Low Level H2O)	A 01	10		I001800	
20B0269-03	SW-99-20200221	8081B Pest (Low Level H2O)	A 01	11		I001800	
SIC0103-PEM2	DS2	QC		12	H006695	I001800	
SIC0103-CCV1	INDAE	QC		13	H010142	I001800	
SIC0103-CCV3	TOXAPH2	QC		14	H007162	I001800	
SIC0103-CCV4	NOS	QC		15	H004942	I001800	

GC LOG SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200309.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	09-MAR-2020 11:43	20030902.D	1	SIC0103-PEM1	
2	09-MAR-2020 12:01	20030903.D	1	SIC0103-ICV1	
3	09-MAR-2020 12:19	20030904.D	1	SIC0103-ICV3	
4	09-MAR-2020 12:37	20030905.D	1	SIC0103-ICV4	
5	09-MAR-2020 12:55	20030906.D	1	BIB0534-BLK1	
6	09-MAR-2020 13:13	20030907.D	1	BIB0534-BS1	
7	09-MAR-2020 13:31	20030908.D	1	BIB0534-BLK1	
8	09-MAR-2020 13:49	20030909.D	1	BIB0534-BS1	
9	09-MAR-2020 14:07	20030910.D	1	BIB0534-BSD1	
10	09-MAR-2020 14:25	20030911.D	1	BIB0534-BSD2	
11	09-MAR-2020 14:43	20030912.D	1	20B0269-01	
12	09-MAR-2020 15:01	20030913.D	1	20B0269-02	
13	09-MAR-2020 15:19	20030914.D	1	20B0269-03	
14	09-MAR-2020 15:36	20030915.D	1	SIC0103-PEM2	
15	09-MAR-2020 15:54	20030916.D	1	SIC0103-CCV1	
16	09-MAR-2020 16:12	20030917.D	1	SIC0103-ICV3	
17	09-MAR-2020 16:30	20030918.D	1	SIC0103-ICV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200309.b

ARI Job No.: SIC0 Method: PEST.m Instrument: ecd6.i Date: 09-MAR-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1143	20030902.D	SIC0103-PEM1		1	NO MANUAL INTEGRATION
1201	20030903.D	SIC0103-ICV1		1	NO MANUAL INTEGRATION
1219	20030904.D	SIC0103-ICV3		1	NO MANUAL INTEGRATION
1237	20030905.D	SIC0103-ICV4		1	NO MANUAL INTEGRATION
1255	20030906.D	BIB0534-BLK1		1	NO MANUAL INTEGRATION
1313	20030907.D	BIB0534-BS1		1	NO MANUAL INTEGRATION
1331	20030908.D	BIB0534-BLK1		1	Hexabromobiphenyl, Decachlorobiphenyl,
1349	20030909.D	BIB0534-BS1		1	Hexabromobiphenyl, Decachlorobiphenyl,
1407	20030910.D	BIB0534-BSD1		1	Hexabromobiphenyl, Decachlorobiphenyl,
1425	20030911.D	BIB0534-BSD2		1	NO MANUAL INTEGRATION
1443	20030912.D	20B0269-01		1	1Bromo-2nitrobenzene, Hexabromobiphenyl, Decachlorobiphenyl,
1501	20030913.D	20B0269-02		1	1Bromo-2nitrobenzene, Hexachlorobutadiene, Hexabromobiphenyl, Hexachloroethane, Decachlorobiphenyl,
1519	20030914.D	20B0269-03		1	NO MANUAL INTEGRATION
1536	20030915.D	SIC0103-PEM2		1	NO MANUAL INTEGRATION
1554	20030916.D	SIC0103-CCV1		1	NO MANUAL INTEGRATION
1612	20030917.D	SIC0103-ICV3		1	NO MANUAL INTEGRATION
1630	20030918.D	SIC0103-ICV4		1	NO MANUAL INTEGRATION

Security Status Report

Date: 09-Mar-2020 17:20

20030902.D	Data Locked	yev, 09-Mar-2020 17:20
20030903.D	Data Locked	yev, 09-Mar-2020 17:20
20030904.D	Data Locked	yev, 09-Mar-2020 17:20
20030905.D	Data Locked	yev, 09-Mar-2020 17:20
20030906.D	Data Locked	yev, 09-Mar-2020 17:20
20030907.D	Data Locked	yev, 09-Mar-2020 17:20
20030908.D	Data Locked	yev, 09-Mar-2020 17:20
20030909.D	Data Locked	yev, 09-Mar-2020 17:20
20030910.D	Data Locked	yev, 09-Mar-2020 17:20
20030911.D	Data Locked	yev, 09-Mar-2020 17:20
20030912.D	Data Locked	yev, 09-Mar-2020 17:20
20030913.D	Data Locked	yev, 09-Mar-2020 17:20
20030914.D	Data Locked	yev, 09-Mar-2020 17:20
20030915.D	Data Locked	yev, 09-Mar-2020 17:20
20030916.D	Data Locked	yev, 09-Mar-2020 17:20
20030917.D	Data Locked	yev, 09-Mar-2020 17:20
20030918.D	Data Locked	yev, 09-Mar-2020 17:20

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0178
Instrument: ECD6
Calibration: DC00017

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Performance Mix	SIC0178-PEM1	20031302.D	20031302.D	NA	03/13/20 12:01
Initial Cal Check	SIC0178-ICV1	20031303.D	20031303.D	NA	03/13/20 12:19
Initial Cal Check	SIC0178-ICV3	20031305.D	20031305.D	NA	03/13/20 12:55
Initial Cal Check	SIC0178-ICV4	20031306.D	20031306.D	NA	03/13/20 13:13
Blank	BIC0215-BLK1	20031307.D	20031307.D	Water	03/13/20 13:31
LCS	BIC0215-BS1	20031308.D	20031308.D	Water	03/13/20 13:49
LCS	BIC0215-BS2	20031309.D	20031309.D	Water	03/13/20 14:07
LCS Dup	BIC0215-BSD1	20031310.D	20031310.D	Water	03/13/20 14:25
LCS Dup	BIC0215-BSD2	20031311.D	20031311.D	Water	03/13/20 14:43
SW-10R-20200221	20B0269-01RE1	20031312.D	20031312.D	Water	03/13/20 15:01
SW-11R-20200221	20B0269-02RE1	20031313.D	20031313.D	Water	03/13/20 15:19
SW-99-20200221	20B0269-03RE1	20031315.D	20031315.D	Water	03/13/20 16:01
Performance Mix	SIC0178-PEM2	20031323.D	20031323.D	NA	03/13/20 18:25
Calibration Check	SIC0178-CCV1	20031324.D	20031324.D	NA	03/13/20 18:42
Calibration Check	SIC0178-CCV3	20031326.D	20031326.D	NA	03/13/20 19:18
Calibration Check	SIC0178-CCV4	20031327.D	20031327.D	NA	03/13/20 19:36

Printed: 3/14/2020 12:21:02PM

ANALYSIS SEQUENCE

SIC0178

Instrument: ECD6 Element Column ID: e000312/f0000
Calibration ID: DC00017 Tune File:
EM Voltage:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIC0178-PEM1	DS1	QC		1	H006695	I001800	
SIC0178-ICV1	INDA1	QC		2	H010142	I001800	
SIC0178-ICV2	WNDE1	QC		3	H007156	I001800	
SIC0178-ICV3	TOXAPH1	QC		4	H007162	I001800	
SIC0178-ICV4	NOS	QC		5	H004942	I001800	
BIC0215-BLK1	Blank	QC		6		I001800	
BIC0215-BS1	LCS	QC		7		I001800	
BIC0215-BS2	LCS	QC		8		I001800	
BIC0215-BSD1	LCS Dup	QC		9		I001800	
BIC0215-BSD2	LCS Dup	QC		10		I001800	
20B0269-01RE1	SW-10R-20200221	8081B Pest (Low Level H2O)	B 01	11		I001800	From BIB0534 by WPW on 11-Mar-2020
20B0269-02RE1	SW-11R-20200221	8081B Pest (Low Level H2O)	B 01	12		I001800	From BIB0534 by WPW on 11-Mar-2020
20B0269-03RE1	SW-99-20200221	8081B Pest (Low Level H2O)	B 01	13		I001800	From BIB0534 by WPW on 11-Mar-2020
BIC0119-BLK1	Blank	QC		14		I001800	
BIC0119-BS1	LCS	QC		15		I001800	
20C0054-01	B1	8081B Pest	A 05	16		I001800	
20C0054-02	B2	8081B Pest	A 05	17		I001800	
20C0054-03	B3	8081B Pest	A 05	18		I001800	
20C0054-04	B4	8081B Pest	A 05	19		I001800	
20C0054-05	B5	8081B Pest	A 05	20		I001800	
SIC0178-PEM2	DS2	QC		21	H006695	I001800	
SIC0178-CCV1	INDAE	QC		22	H010142	I001800	

Printed: 3/14/2020 12:21:02PM

ANALYSIS SEQUENCE

SIC0178

Instrument: ECD6 Element Column ID: e000312/f0000
Calibration ID: DC00017 Tune File:
EM Voltage:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIC0178-CCV2	WNDE2	QC		23	H007156	I001800	
SIC0178-CCV3	TOXAPH2	QC		24	H007162	I001800	
SIC0178-CCV4	NOS	QC		25	H004942	I001800	

GC LOG SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200313.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	13-MAR-2020 12:01	20031302.D	1	SIC0178-PEM1	
2	13-MAR-2020 12:19	20031303.D	1	SIC0178-ICV1	
3	13-MAR-2020 12:37	20031304.D	1	SIC0178-ICV2	
4	13-MAR-2020 12:55	20031305.D	1	SIC0178-ICV3	
5	13-MAR-2020 13:13	20031306.D	1	SIC0178-ICV4	
6	13-MAR-2020 13:31	20031307.D	1	BIC0215-BLK1	
7	13-MAR-2020 13:49	20031308.D	1	BIC0215-BS1	
8	13-MAR-2020 14:07	20031309.D	1	BIC0215-BS2	
9	13-MAR-2020 14:25	20031310.D	1	BIC0215-BSD1	
10	13-MAR-2020 14:43	20031311.D	1	BIC0215-BSD2	
11	13-MAR-2020 15:01	20031312.D	1	20B0269-01	
12	13-MAR-2020 15:19	20031313.D	1	20B0269-02	
13	13-MAR-2020 15:43	20031314.D	1	20B0269-03	
14	13-MAR-2020 16:01	20031315.D	1	20B0269-03	
15	13-MAR-2020 16:19	20031316.D	1	BIC0119-BLK1	
16	13-MAR-2020 16:37	20031317.D	1	BIC0119-BS1	
17	13-MAR-2020 16:55	20031318.D	1	20C0054-01	
18	13-MAR-2020 17:13	20031319.D	1	20C0054-02	
19	13-MAR-2020 17:31	20031320.D	1	20C0054-03	
20	13-MAR-2020 17:49	20031321.D	1	20C0054-04	
21	13-MAR-2020 18:07	20031322.D	1	20C0054-05	
22	13-MAR-2020 18:25	20031323.D	1	SIC0178-PEM2	
23	13-MAR-2020 18:42	20031324.D	1	SIC0178-CCV1	
24	13-MAR-2020 19:00	20031325.D	1	SIC0178-CCV2	
25	13-MAR-2020 19:18	20031326.D	1	SIC0178-CCV3	
26	13-MAR-2020 19:36	20031327.D	1	SIC0178-CCV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200313.b

ARI Job No.: SIC0 Method: PEST.m Instrument: ecd6.i Date: 13-MAR-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1201	20031302.D	SIC0178-PEM1		1	4,4'-DDE, Endrin, 4,4'-DDD,
1219	20031303.D	SIC0178-ICV1		1	beta-BHC, Hexachlorobenzene,
1237	20031304.D	SIC0178-ICV2		1	NO MANUAL INTEGRATION
1255	20031305.D	SIC0178-ICV3		1	NO MANUAL INTEGRATION
1313	20031306.D	SIC0178-ICV4		1	NO MANUAL INTEGRATION
1331	20031307.D	BIC0215-BLK1		1	NO MANUAL INTEGRATION
1349	20031308.D	BIC0215-BS1		1	NO MANUAL INTEGRATION
1407	20031309.D	BIC0215-BS2		1	NO MANUAL INTEGRATION
1425	20031310.D	BIC0215-BSD1		1	NO MANUAL INTEGRATION
1443	20031311.D	BIC0215-BSD2		1	NO MANUAL INTEGRATION
1501	20031312.D	20B0269-01		1	Heptachlor, 2,4-DDD, Chlordane (NOS),
1519	20031313.D	20B0269-02		1	trans-Chlordane, cis-Chlordane, Chlordane (NOS),
1543	20031314.D	20B0269-03		1	NO MANUAL INTEGRATION
1601	20031315.D	20B0269-03		1	NO MANUAL INTEGRATION
1619	20031316.D	BIC0119-BLK1		1	NO MANUAL INTEGRATION
1637	20031317.D	BIC0119-BS1		1	NO MANUAL INTEGRATION
1655	20031318.D	20C0054-01		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\Target\share\chem4\ecd6.i\20200313.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1713	20031319.D	20C0054-02		1	NO MANUAL INTEGRATION
1731	20031320.D	20C0054-03		1	NO MANUAL INTEGRATION
1749	20031321.D	20C0054-04		1	NO MANUAL INTEGRATION
1807	20031322.D	20C0054-05		1	NO MANUAL INTEGRATION
1825	20031323.D	SIC0178-PEM2		1	4,4'-DDE,
1842	20031324.D	SIC0178-CCV1		1	NO MANUAL INTEGRATION
1900	20031325.D	SIC0178-CCV2		1	NO MANUAL INTEGRATION
1918	20031326.D	SIC0178-CCV3		1	NO MANUAL INTEGRATION
1936	20031327.D	SIC0178-CCV4		1	1Bromo-2nitrobenzene,

Security Status Report

Date: 14-Mar-2020 15:03

20031302.D	Data Locked	yev, 14-Mar-2020 15:03
20031303.D	Data Locked	yev, 14-Mar-2020 15:03
20031304.D	Data Locked	yev, 14-Mar-2020 15:03
20031305.D	Data Locked	yev, 14-Mar-2020 15:03
20031306.D	Data Locked	yev, 14-Mar-2020 15:03
20031307.D	Data Locked	yev, 14-Mar-2020 15:03
20031308.D	Data Locked	yev, 14-Mar-2020 15:03
20031309.D	Data Locked	yev, 14-Mar-2020 15:03
20031310.D	Data Locked	yev, 14-Mar-2020 15:03
20031311.D	Data Locked	yev, 14-Mar-2020 15:03
20031312.D	Data Locked	yev, 14-Mar-2020 15:03
20031313.D	Data Locked	yev, 14-Mar-2020 15:03
20031314.D	Data Locked	yev, 14-Mar-2020 15:03
20031315.D	Data Locked	yev, 14-Mar-2020 15:03
20031316.D	Data Locked	yev, 14-Mar-2020 15:03
20031317.D	Data Locked	yev, 14-Mar-2020 15:03
20031318.D	Data Locked	yev, 14-Mar-2020 15:03
20031319.D	Data Locked	yev, 14-Mar-2020 15:03
20031320.D	Data Locked	yev, 14-Mar-2020 15:03
20031321.D	Data Locked	yev, 14-Mar-2020 15:03
20031322.D	Data Locked	yev, 14-Mar-2020 15:03
20031323.D	Data Locked	yev, 14-Mar-2020 15:03
20031324.D	Data Locked	yev, 14-Mar-2020 15:03
20031325.D	Data Locked	yev, 14-Mar-2020 15:03
20031326.D	Data Locked	yev, 14-Mar-2020 15:03
20031327.D	Data Locked	yev, 14-Mar-2020 15:03

SURROGATE RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG/WO:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Sequence:	SIC0095	Instrument:	ECD6
Calibration:	DC00017	Calibration Date:	03/07/2020

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SIC0095-PEM1 (Water)				Lab File ID: 20030705.D			Analyzed: 03/07/20 09:51	
Decachlorobiphenyl	40.000	67.5	0 - 200	9.59	9.591286	-0.0013	+/-0.1	
Decachlorobiphenyl [2C]	40.000	68.5	0 - 200	11.068	11.06686	0.0011	+/-0.1	
Tetrachlorometaxylene	40.000	68.7	0 - 200	4.056	4.057429	-0.0014	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	75.2	0 - 200	4.7	4.700857	-0.0009	+/-0.1	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG/WO: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0103
Instrument: ECD6
Calibration: DC00017
Calibration Date: 03/07/2020

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SIC0103-PEM1 (Water)			Lab File ID: 20030902.D				Analyzed: 03/09/20 11:43	
Decachlorobiphenyl	40.000	73.2	0 - 200	9.606	9.591286	0.0147	+/-0.1	
Decachlorobiphenyl [2C]	40.000	116	0 - 200	11.076	11.06686	0.0091	+/-0.1	
Tetrachlorometaxylene	40.000	66.5	0 - 200	4.073	4.057429	0.0156	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	70.8	0 - 200	4.717	4.700857	0.0161	+/-0.1	
SIC0103-ICV1 (Water)			Lab File ID: 20030903.D				Analyzed: 03/09/20 12:01	
Decachlorobiphenyl	40.000	97.5	80 - 120	9.602	9.591286	0.0107	+/-0.1	
Decachlorobiphenyl [2C]	40.000	104	80 - 120	11.075	11.06686	0.0081	+/-0.1	
Tetrachlorometaxylene	40.000	91.0	80 - 120	4.07	4.057429	0.0126	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	97.8	80 - 120	4.717	4.700857	0.0161	+/-0.1	
BIB0534-BLK1 (Water)			Lab File ID: 20030908.D				Analyzed: 03/09/20 12:55	
Decachlorobiphenyl	0.020000	69.8	30 - 160	9.599	9.591286	0.0077	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	69.8	30 - 160	11.073	11.06686	0.0061	+/-0.1	
Tetrachlorometaxylene	0.020000	62.2	30 - 160	4.069	4.057429	0.0116	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	1900	30 - 160	4.716	4.700857	0.0151	+/-0.1	
BIB0534-BS1 (Water)			Lab File ID: 20030909.D				Analyzed: 03/09/20 13:13	
Decachlorobiphenyl	0.020000	81.3	30 - 160	9.597	9.591286	0.0057	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	81.3	30 - 160	11.073	11.06686	0.0061	+/-0.1	
Tetrachlorometaxylene	0.020000	65.6	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	65.6	30 - 160	4.716	4.700857	0.0151	+/-0.1	
BIB0534-BSD1 (Water)			Lab File ID: 20030910.D				Analyzed: 03/09/20 14:07	
Decachlorobiphenyl	0.020000	74.5	30 - 160	9.599	9.591286	0.0077	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	74.5	30 - 160	11.073	11.06686	0.0061	+/-0.1	
Tetrachlorometaxylene	0.020000	58.3	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	58.3	30 - 160	4.715	4.700857	0.0141	+/-0.1	
BIB0534-BS2 (Water)			Lab File ID: 20030911.D				Analyzed: 03/09/20 14:25	
Decachlorobiphenyl	0.020000	114	30 - 160	9.599	9.591286	0.0077	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	114	30 - 160	11.074	11.06686	0.0071	+/-0.1	
Tetrachlorometaxylene	0.020000	114	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	114	30 - 160	4.716	4.700857	0.0151	+/-0.1	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG/WO: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0103
Instrument: ECD6
Calibration: DC00017
Calibration Date: 03/07/2020

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
20B0269-01 (Water)				Lab File ID: 20030912.D			Analyzed: 03/09/20 14:43	
Decachlorobiphenyl	0.020000	84.8	30 - 160	9.599	9.591286	0.0077	+/-0.1	
Decachlorobiphenyl [2C]	0.020000		30 - 160	11.073	11.06686	0.0061	+/-0.1	NRS
Tetrachlorometaxylene	0.020000	76.9	30 - 160	4.069	4.057429	0.0116	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	64.8	30 - 160	4.716	4.700857	0.0151	+/-0.1	
20B0269-02 (Water)				Lab File ID: 20030913.D			Analyzed: 03/09/20 15:01	
Decachlorobiphenyl	0.020000	80.4	30 - 160	9.601	9.591286	0.0097	+/-0.1	
Decachlorobiphenyl [2C]	0.020000		30 - 160	11.074	11.06686	0.0071	+/-0.1	NRS
Tetrachlorometaxylene	0.020000	61.9	30 - 160	4.071	4.057429	0.0136	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000		30 - 160	4.718	4.700857	0.0171	+/-0.1	NRS
20B0269-03 (Water)				Lab File ID: 20030914.D			Analyzed: 03/09/20 15:19	
Decachlorobiphenyl	0.020000	93.6	30 - 160	9.601	9.591286	0.0097	+/-0.1	
Decachlorobiphenyl [2C]	0.020000		30 - 160	11.074	11.06686	0.0071	+/-0.1	NRS
Tetrachlorometaxylene	0.020000	74.8	30 - 160	4.07	4.057429	0.0126	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000		30 - 160	4.718	4.700857	0.0171	+/-0.1	NRS
SIC0103-PEM2 (Water)				Lab File ID: 20030915.D			Analyzed: 03/09/20 15:36	
Decachlorobiphenyl	40.000	72.8	0 - 200	9.602	9.591286	0.0107	+/-0.1	
Decachlorobiphenyl [2C]	40.000	206	0 - 200	11.075	11.06686	0.0081	+/-0.1	*
Tetrachlorometaxylene	40.000	70.7	0 - 200	4.073	4.057429	0.0156	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	77.2	0 - 200	4.719	4.700857	0.0181	+/-0.1	
SIC0103-CCV1 (Water)				Lab File ID: 20030916.D			Analyzed: 03/09/20 15:54	
Decachlorobiphenyl	40.000	103	80 - 120	9.601	9.591286	0.0097	+/-0.1	
Decachlorobiphenyl [2C]	40.000	149	80 - 120	11.075	11.06686	0.0081	+/-0.1	*
Tetrachlorometaxylene	40.000	93.0	80 - 120	4.073	4.057429	0.0156	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	102	80 - 120	4.719	4.700857	0.0181	+/-0.1	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG/WO: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0178
Instrument: ECD6
Calibration: DC00017
Calibration Date: 03/07/2020

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SIC0178-PEM1 (Water)			Lab File ID: 20031302.D			Analyzed: 03/13/20 12:01		
Decachlorobiphenyl	40.000	80.9	0 - 200	9.605	9.591286	0.0137	+/-0.1	
Decachlorobiphenyl [2C]	40.000	103	0 - 200	11.067	11.06686	0.0001	+/-0.1	
Tetrachlorometaxylene	40.000	79.5	0 - 200	4.074	4.057429	0.0166	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	86.7	0 - 200	4.717	4.700857	0.0161	+/-0.1	
SIC0178-ICV1 (Water)			Lab File ID: 20031303.D			Analyzed: 03/13/20 12:19		
Decachlorobiphenyl	40.000	96.5	80 - 120	9.601	9.591286	0.0097	+/-0.1	
Decachlorobiphenyl [2C]	40.000	102	80 - 120	11.066	11.06686	-0.0009	+/-0.1	
Tetrachlorometaxylene	40.000	92.0	80 - 120	4.074	4.057429	0.0166	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	100	80 - 120	4.716	4.700857	0.0151	+/-0.1	
BIC0215-BLK1 (Water)			Lab File ID: 20031307.D			Analyzed: 03/13/20 13:31		
Decachlorobiphenyl	0.020000	85.2	30 - 160	9.597	9.591286	0.0057	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	92.7	30 - 160	11.064	11.06686	-0.0029	+/-0.1	
Tetrachlorometaxylene	0.020000	68.3	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	86.8	30 - 160	4.714	4.700857	0.0131	+/-0.1	
BIC0215-BS1 (Water)			Lab File ID: 20031308.D			Analyzed: 03/13/20 13:49		
Decachlorobiphenyl	0.020000	88.2	30 - 160	9.597	9.591286	0.0057	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	93.6	30 - 160	11.065	11.06686	-0.0019	+/-0.1	
Tetrachlorometaxylene	0.020000	71.3	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	93.0	30 - 160	4.713	4.700857	0.0121	+/-0.1	
BIC0215-BS2 (Water)			Lab File ID: 20031309.D			Analyzed: 03/13/20 14:07		
Decachlorobiphenyl	0.020000	88.1	30 - 160	9.596	9.591286	0.0047	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	100	30 - 160	11.065	11.06686	-0.0019	+/-0.1	
Tetrachlorometaxylene	0.020000	66.6	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	92.7	30 - 160	4.714	4.700857	0.0131	+/-0.1	
BIC0215-BSD1 (Water)			Lab File ID: 20031310.D			Analyzed: 03/13/20 14:25		
Decachlorobiphenyl	0.020000	90.2	30 - 160	9.597	9.591286	0.0057	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	105	30 - 160	11.065	11.06686	-0.0019	+/-0.1	
Tetrachlorometaxylene	0.020000	74.5	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	98.9	30 - 160	4.714	4.700857	0.0131	+/-0.1	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG/WO: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0178
Instrument: ECD6
Calibration: DC00017
Calibration Date: 03/07/2020

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BIC0215-BSD2 (Water)				Lab File ID: 20031311.D			Analyzed: 03/13/20 14:43	
Decachlorobiphenyl	0.020000	87.2	30 - 160	9.596	9.591286	0.0047	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	96.1	30 - 160	11.064	11.06686	-0.0029	+/-0.1	
Tetrachlorometaxylene	0.020000	63.7	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	82.6	30 - 160	4.714	4.700857	0.0131	+/-0.1	
20B0269-01RE1 (Water)				Lab File ID: 20031312.D			Analyzed: 03/13/20 15:01	
Decachlorobiphenyl	0.020000	95.4	30 - 160	9.596	9.591286	0.0047	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	119	30 - 160	11.064	11.06686	-0.0029	+/-0.1	
Tetrachlorometaxylene	0.020000	74.2	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	39.4	30 - 160	4.713	4.700857	0.0121	+/-0.1	
20B0269-02RE1 (Water)				Lab File ID: 20031313.D			Analyzed: 03/13/20 15:19	
Decachlorobiphenyl	0.020000	93.6	30 - 160	9.594	9.591286	0.0027	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	110	30 - 160	11.064	11.06686	-0.0029	+/-0.1	
Tetrachlorometaxylene	0.020000	75.8	30 - 160	4.068	4.057429	0.0106	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	72.2	30 - 160	4.713	4.700857	0.0121	+/-0.1	
20B0269-03RE1 (Water)				Lab File ID: 20031315.D			Analyzed: 03/13/20 16:01	
Decachlorobiphenyl	0.020000	95.9	30 - 160	9.598	9.591286	0.0067	+/-0.1	
Decachlorobiphenyl [2C]	0.020000	103	30 - 160	11.064	11.06686	-0.0029	+/-0.1	
Tetrachlorometaxylene	0.020000	73.8	30 - 160	4.069	4.057429	0.0116	+/-0.1	
Tetrachlorometaxylene [2C]	0.020000	80.7	30 - 160	4.714	4.700857	0.0131	+/-0.1	
SIC0178-PEM2 (Water)				Lab File ID: 20031323.D			Analyzed: 03/13/20 18:25	
Decachlorobiphenyl	40.000	89.1	0 - 200	9.597	9.591286	0.0057	+/-0.1	
Decachlorobiphenyl [2C]	40.000	95.1	0 - 200	11.065	11.06686	-0.0019	+/-0.1	
Tetrachlorometaxylene	40.000	77.0	0 - 200	4.07	4.057429	0.0126	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	85.4	0 - 200	4.716	4.700857	0.0151	+/-0.1	
SIC0178-CCV1 (Water)				Lab File ID: 20031324.D			Analyzed: 03/13/20 18:42	
Decachlorobiphenyl	40.000	94.7	80 - 120	9.596	9.591286	0.0047	+/-0.1	
Decachlorobiphenyl [2C]	40.000	106	80 - 120	11.064	11.06686	-0.0029	+/-0.1	
Tetrachlorometaxylene	40.000	92.6	80 - 120	4.07	4.057429	0.0126	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	100	80 - 120	4.715	4.700857	0.0141	+/-0.1	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory:	Analytical Resources, Inc.	SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma	Project:	Webster Nursery
Sequence:	SIC0095	Instrument:	ECD6
		Calibration:	DC00017

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Performance Mix (SIC0095-PEM1)		(Water)		Lab File ID: 20030705.D			Analyzed: 03/07/20 09:51		
1-Bromo-2-Nitrobenzene	185704	3.341	189333	3.342	98	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	165810	9.753	177311	9.756	94	50 - 200	-0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	145711	3.783	149224	3.783	98	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	75856	11.739	80212	11.737	95	50 - 200	0.002	+/-0.50	
Secondary Cal Check (SIC0095-SCV1)		(Water)		Lab File ID: 20030713.D			Analyzed: 03/07/20 12:14		
1-Bromo-2-Nitrobenzene	175981	3.343	189333	3.342	93	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	164898	9.757	177311	9.756	93	50 - 200	0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	137918	3.784	149224	3.783	92	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	74860	11.737	80212	11.737	93	50 - 200	0.000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0103
Instrument: ECD6
Calibration: DC00017

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Performance Mix (SIC0103-PEM1)		(Water)		Lab File ID: 20030902.D				Analyzed: 03/09/20 11:43	
1-Bromo-2-Nitrobenzene	198670	3.356	212933	3.354	93	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	171263	9.769	180661	9.765	95	50 - 200	0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	182811	3.799	169539	3.798	108	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	80576	11.747	83702	11.746	96	50 - 200	0.001	+/-0.50	
Initial Cal Check (SIC0103-ICV1)		(Water)		Lab File ID: 20030903.D				Analyzed: 03/09/20 12:01	
1-Bromo-2-Nitrobenzene	210266	3.355	234987	3.356	89	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	185023	9.766	214454	9.765	86	50 - 200	0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	183094	3.799	189066	3.799	97	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	85844	11.746	91438	11.745	94	50 - 200	0.001	+/-0.50	
Initial Cal Check (SIC0103-ICV3)		(Water)		Lab File ID: 20030904.D				Analyzed: 03/09/20 12:19	
1-Bromo-2-Nitrobenzene	212933	3.354	212933	3.354	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	180661	9.765	180661	9.765	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	169539	3.798	169539	3.798	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	83702	11.746	83702	11.746	100	50 - 200	0.000	+/-0.50	
Initial Cal Check (SIC0103-ICV4)		(Water)		Lab File ID: 20030905.D				Analyzed: 03/09/20 12:37	
1-Bromo-2-Nitrobenzene	234987	3.356	234987	3.356	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	214454	9.765	214454	9.765	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	189066	3.799	189066	3.799	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	91438	11.745	91438	11.745	100	50 - 200	0.000	+/-0.50	
Blank (BIB0534-BLK1)		(Water)		Lab File ID: 20030908.D				Analyzed: 03/09/20 12:55	
1-Bromo-2-Nitrobenzene	125820	3.352	210266	3.355	60	50 - 200	-0.003	+/-0.50	
Hexabromobiphenyl	177091	9.761	185023	9.766	96	50 - 200	-0.005	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	8702	3.801	183094	3.799	5	50 - 200	0.002	+/-0.50	*
Hexabromobiphenyl [2C]	3674	11.743	85844	11.746	4	50 - 200	-0.003	+/-0.50	*
LCS (BIB0534-BS1)		(Water)		Lab File ID: 20030909.D				Analyzed: 03/09/20 13:13	
1-Bromo-2-Nitrobenzene	126681	3.351	234987	3.356	54	50 - 200	-0.005	+/-0.50	
Hexabromobiphenyl	179981	9.76	214454	9.765	84	50 - 200	-0.005	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	9541	3.799	189066	3.799	5	50 - 200	0.000	+/-0.50	*
Hexabromobiphenyl [2C]	2994	11.742	91438	11.745	3	50 - 200	-0.003	+/-0.50	*

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0103
Instrument: ECD6
Calibration: DC00017

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS Dup (BIB0534-BSD1)		(Water)		Lab File ID: 20030910.D			Analyzed: 03/09/20 14:07		
1-Bromo-2-Nitrobenzene	125966	3.351	212933	3.354	59	50 - 200	-0.003	+/-0.50	
Hexabromobiphenyl	183401	9.76	180661	9.765	102	50 - 200	-0.005	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	10886	3.799	169539	3.798	6	50 - 200	0.001	+/-0.50	*
Hexabromobiphenyl [2C]	3812	11.743	83702	11.746	5	50 - 200	-0.003	+/-0.50	*
LCS (BIB0534-BS2)		(Water)		Lab File ID: 20030911.D			Analyzed: 03/09/20 14:25		
1-Bromo-2-Nitrobenzene	114018	3.352	234987	3.356	49	50 - 200	-0.004	+/-0.50	*
Hexabromobiphenyl	187434	9.761	214454	9.765	87	50 - 200	-0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	8877	3.799	189066	3.799	5	50 - 200	0.000	+/-0.50	*
Hexabromobiphenyl [2C]	2897	11.744	91438	11.745	3	50 - 200	-0.001	+/-0.50	*
SW-10R-20200221 (20B0269-01)		(Water)		Lab File ID: 20030912.D			Analyzed: 03/09/20 14:43		
1-Bromo-2-Nitrobenzene	103787	3.351	210266	3.355	49	50 - 200	-0.004	+/-0.50	*
Hexabromobiphenyl	162607	9.76	185023	9.766	88	50 - 200	-0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	93659	3.791	183094	3.799	51	50 - 200	-0.008	+/-0.50	
Hexabromobiphenyl [2C]	2701	11.742	85844	11.746	3	50 - 200	-0.004	+/-0.50	*
SW-11R-20200221 (20B0269-02)		(Water)		Lab File ID: 20030913.D			Analyzed: 03/09/20 15:01		
1-Bromo-2-Nitrobenzene	119447	3.352	210266	3.355	57	50 - 200	-0.003	+/-0.50	
Hexabromobiphenyl	184615	9.762	185023	9.766	100	50 - 200	-0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	43877	3.795	183094	3.799	24	50 - 200	-0.004	+/-0.50	*
Hexabromobiphenyl [2C]	3324	11.744	85844	11.746	4	50 - 200	-0.002	+/-0.50	*
SW-99-20200221 (20B0269-03)		(Water)		Lab File ID: 20030914.D			Analyzed: 03/09/20 15:19		
1-Bromo-2-Nitrobenzene	104950	3.353	210266	3.355	50	50 - 200	-0.002	+/-0.50	*
Hexabromobiphenyl	166988	9.762	185023	9.766	90	50 - 200	-0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	21420	3.796	183094	3.799	12	50 - 200	-0.003	+/-0.50	*
Hexabromobiphenyl [2C]	1799	11.744	85844	11.746	2	50 - 200	-0.002	+/-0.50	*
Performance Mix (SIC0103-PEM2)		(Water)		Lab File ID: 20030915.D			Analyzed: 03/09/20 15:36		
1-Bromo-2-Nitrobenzene	207695	3.358	210266	3.355	99	50 - 200	0.003	+/-0.50	
Hexabromobiphenyl	177735	9.766	185023	9.766	96	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	161577	3.801	183094	3.799	88	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	38124	11.746	85844	11.746	44	50 - 200	0.000	+/-0.50	*

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0103
Instrument: ECD6
Calibration: DC00017

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (SIC0103-CCV1)		(Water)		Lab File ID: 20030916.D				Analyzed: 03/09/20 15:54	
1-Bromo-2-Nitrobenzene	221704	3.358	234987	3.356	94	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	194882	9.766	214454	9.765	91	50 - 200	0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	171925	3.801	189066	3.799	91	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	58716	11.746	91438	11.745	64	50 - 200	0.001	+/-0.50	
Calibration Check (SIC0103-CCV3)		(Water)		Lab File ID: 20030917.D				Analyzed: 03/09/20 16:12	
1-Bromo-2-Nitrobenzene	225447	3.358	212933	3.354	106	50 - 200	0.004	+/-0.50	
Hexabromobiphenyl	187647	9.766	180661	9.765	104	50 - 200	0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	166264	3.801	169539	3.798	98	50 - 200	0.003	+/-0.50	
Hexabromobiphenyl [2C]	65254	11.746	83702	11.746	78	50 - 200	0.000	+/-0.50	
Calibration Check (SIC0103-CCV4)		(Water)		Lab File ID: 20030918.D				Analyzed: 03/09/20 16:30	
1-Bromo-2-Nitrobenzene	245967	3.357	210266	3.355	117	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	220350	9.766	185023	9.766	119	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	188272	3.801	183094	3.799	103	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	76529	11.746	85844	11.746	89	50 - 200	0.000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0178
Instrument: ECD6
Calibration: DC00017

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Performance Mix (SIC0178-PEM1)		(Water)		Lab File ID: 20031302.D			Analyzed: 03/13/20 12:01		
1-Bromo-2-Nitrobenzene	143493	3.361	172788	3.36	83	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	118334	9.77	148342	9.766	80	50 - 200	0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	126261	3.799	140161	3.799	90	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	67252	11.739	75813	11.737	89	50 - 200	0.002	+/-0.50	
Initial Cal Check (SIC0178-ICV1)		(Water)		Lab File ID: 20031303.D			Analyzed: 03/13/20 12:19		
1-Bromo-2-Nitrobenzene	151733	3.36	151733	3.36	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	133225	9.768	133225	9.768	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	129504	3.799	129504	3.799	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	71131	11.738	71131	11.738	100	50 - 200	0.000	+/-0.50	
Initial Cal Check (SIC0178-ICV3)		(Water)		Lab File ID: 20031305.D			Analyzed: 03/13/20 12:55		
1-Bromo-2-Nitrobenzene	172788	3.36	172788	3.36	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	148342	9.766	148342	9.766	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	140161	3.799	140161	3.799	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	75813	11.737	75813	11.737	100	50 - 200	0.000	+/-0.50	
Initial Cal Check (SIC0178-ICV4)		(Water)		Lab File ID: 20031306.D			Analyzed: 03/13/20 13:13		
1-Bromo-2-Nitrobenzene	170773	3.359	170773	3.359	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	155108	9.766	155108	9.766	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	143191	3.799	143191	3.799	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	81752	11.737	81752	11.737	100	50 - 200	0.000	+/-0.50	
Blank (BIC0215-BLK1)		(Water)		Lab File ID: 20031307.D			Analyzed: 03/13/20 13:31		
1-Bromo-2-Nitrobenzene	163647	3.353	172788	3.36	95	50 - 200	-0.007	+/-0.50	
Hexabromobiphenyl	149141	9.76	148342	9.766	101	50 - 200	-0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	106765	3.797	140161	3.799	76	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	53239	11.734	75813	11.737	70	50 - 200	-0.003	+/-0.50	
LCS (BIC0215-BS1)		(Water)		Lab File ID: 20031308.D			Analyzed: 03/13/20 13:49		
1-Bromo-2-Nitrobenzene	154466	3.353	149860	3.359	103	50 - 200	-0.006	+/-0.50	
Hexabromobiphenyl	141494	9.758	134663	9.767	105	50 - 200	-0.009	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	101751	3.797	125248	3.799	81	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	50921	11.734	70455	11.738	72	50 - 200	-0.004	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0178
Instrument: ECD6
Calibration: DC00017

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (BIC0215-BS2)		(Water)		Lab File ID: 20031309.D			Analyzed: 03/13/20 14:07		
1-Bromo-2-Nitrobenzene	152719	3.353	172788	3.36	88	50 - 200	-0.007	+/-0.50	
Hexabromobiphenyl	145971	9.759	148342	9.766	98	50 - 200	-0.007	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	93684	3.797	140161	3.799	67	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	46870	11.734	75813	11.737	62	50 - 200	-0.003	+/-0.50	
LCS Dup (BIC0215-BSD1)		(Water)		Lab File ID: 20031310.D			Analyzed: 03/13/20 14:25		
1-Bromo-2-Nitrobenzene	143799	3.354	172788	3.36	83	50 - 200	-0.006	+/-0.50	
Hexabromobiphenyl	139745	9.758	148342	9.766	94	50 - 200	-0.008	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	91938	3.798	140161	3.799	66	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	45318	11.734	75813	11.737	60	50 - 200	-0.003	+/-0.50	
LCS Dup (BIC0215-BSD2)		(Water)		Lab File ID: 20031311.D			Analyzed: 03/13/20 14:43		
1-Bromo-2-Nitrobenzene	161413	3.353	151733	3.36	106	50 - 200	-0.007	+/-0.50	
Hexabromobiphenyl	145366	9.759	133225	9.768	109	50 - 200	-0.009	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	104326	3.797	129504	3.799	81	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	50206	11.733	71131	11.738	71	50 - 200	-0.005	+/-0.50	
SW-10R-20200221 (20B0269-01RE1)		(Water)		Lab File ID: 20031312.D			Analyzed: 03/13/20 15:01		
1-Bromo-2-Nitrobenzene	157955	3.351	170773	3.359	92	50 - 200	-0.008	+/-0.50	
Hexabromobiphenyl	143777	9.758	155108	9.766	93	50 - 200	-0.008	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	233293	3.793	143191	3.799	163	50 - 200	-0.006	+/-0.50	
Hexabromobiphenyl [2C]	44487	11.733	81752	11.737	54	50 - 200	-0.004	+/-0.50	
SW-11R-20200221 (20B0269-02RE1)		(Water)		Lab File ID: 20031313.D			Analyzed: 03/13/20 15:19		
1-Bromo-2-Nitrobenzene	149672	3.352	170773	3.359	88	50 - 200	-0.007	+/-0.50	
Hexabromobiphenyl	144890	9.758	155108	9.766	93	50 - 200	-0.008	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	125040	3.796	143191	3.799	87	50 - 200	-0.003	+/-0.50	
Hexabromobiphenyl [2C]	48188	11.732	81752	11.737	59	50 - 200	-0.005	+/-0.50	
SW-99-20200221 (20B0269-03RE1)		(Water)		Lab File ID: 20031315.D			Analyzed: 03/13/20 16:01		
1-Bromo-2-Nitrobenzene	150378	3.353	170773	3.359	88	50 - 200	-0.006	+/-0.50	
Hexabromobiphenyl	146852	9.76	155108	9.766	95	50 - 200	-0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	107419	3.797	143191	3.799	75	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	52895	11.733	81752	11.737	65	50 - 200	-0.004	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, Inc.
SDG: 20B0269
Client: Landau Associates, Inc. - Tacoma
Project: Webster Nursery
Sequence: SIC0178
Instrument: ECD6
Calibration: DC00017

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Performance Mix (SIC0178-PEM2)		(Water)		Lab File ID: 20031323.D				Analyzed: 03/13/20 18:25	
1-Bromo-2-Nitrobenzene	164994	3.356	151733	3.36	109	50 - 200	-0.004	+/-0.50	
Hexabromobiphenyl	143927	9.761	133225	9.768	108	50 - 200	-0.007	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	126653	3.799	129504	3.799	98	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	69035	11.735	71131	11.738	97	50 - 200	-0.003	+/-0.50	
Calibration Check (SIC0178-CCV1)		(Water)		Lab File ID: 20031324.D				Analyzed: 03/13/20 18:42	
1-Bromo-2-Nitrobenzene	167850	3.356	172788	3.36	97	50 - 200	-0.004	+/-0.50	
Hexabromobiphenyl	144853	9.761	148342	9.766	98	50 - 200	-0.005	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	130259	3.799	140161	3.799	93	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	72324	11.735	75813	11.737	95	50 - 200	-0.002	+/-0.50	
Calibration Check (SIC0178-CCV3)		(Water)		Lab File ID: 20031326.D				Analyzed: 03/13/20 19:18	
1-Bromo-2-Nitrobenzene	189630	3.357	149860	3.359	127	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	161590	9.76	134663	9.767	120	50 - 200	-0.007	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	138607	3.799	125248	3.799	111	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	79545	11.734	70455	11.738	113	50 - 200	-0.004	+/-0.50	
Calibration Check (SIC0178-CCV4)		(Water)		Lab File ID: 20031327.D				Analyzed: 03/13/20 19:36	
1-Bromo-2-Nitrobenzene	180531	3.356	151733	3.36	119	50 - 200	-0.004	+/-0.50	
Hexabromobiphenyl	172001	9.761	133225	9.768	129	50 - 200	-0.007	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	147577	3.8	129504	3.799	114	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	83657	11.735	71131	11.738	118	50 - 200	-0.003	+/-0.50	

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma			Project:	Webster Nursery
Matrix:	Water	Laboratory ID:	20B0269-02	File ID:	20030913.D
Sampled:	02/21/20 11:10	Prepared:	02/26/20 15:09	Analyzed:	03/09/20 15:01
Solids:		Preparation:	EPA 3510C SepF	Instrument:	ECD6
Batch:	BIB0534	Sequence:	SIC0103		
GC Column(1):	STX-CLP			GC Column(2):	STX-CLP2

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Heptachlor Epoxide	* 1	6.354	6.338429	0.0156	15812	0.0042	77.4
	2	7.359	7.345428	0.0136	10157	0.0095	
trans-Chlordane (beta-Chlordane)	* 1	6.492	6.481	0.011	12619	0.0034	5.7
	2	7.564	7.550143	0.0139	3324	0.0036	

* Column used for quantitation

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma			Project:	Webster Nursery
Matrix:	Water	Laboratory ID:	20B0269-03	File ID:	20030914.D
Sampled:	02/21/20 11:12	Prepared:	02/26/20 15:09	Analyzed:	03/09/20 15:19
Solids:		Preparation:	EPA 3510C SepF	Instrument:	ECD6
Batch:	BIB0534	Sequence:	SIC0103		
GC Column(1):	STX-CLP			GC Column(2):	STX-CLP2

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
cis-Chlordane (alpha-chlordane)	* 1	6.633	6.623857	0.00914	4516	0.0015	23.5
	2	7.716	7.703	0.013	769	0.0019	
Heptachlor Epoxide	* 1	6.355	6.338429	0.0166	16524	0.0050	117.4
	2	7.36	7.345428	0.0146	10003	0.0192	
trans-Chlordane (beta-Chlordane)	* 1	6.493	6.481	0.012	13528	0.0042	53.9
	2	7.564	7.550143	0.0139	3276	0.0073	

* Column used for quantitation

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma			Project:	Webster Nursery
Matrix:	Water	Laboratory ID:	20B0269-02RE1	File ID:	20031313.D
Sampled:	02/21/20 11:10	Prepared:	03/11/20 19:56	Analyzed:	03/13/20 15:19
Solids:		Preparation:	EPA 3510C SepF	Instrument:	ECD6
Batch:	BIC0215	Sequence:	SIC0178		
GC Column(1):	STX-CLP			GC Column(2):	STX-CLP2

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Heptachlor Epoxide	1	6.348	6.338429	0.00957	17321	0.0037	7.8
	* 2	7.353	7.345428	0.00757	12150	0.0040	

* Column used for quantitation

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, Inc.			SDG:	20B0269
Client:	Landau Associates, Inc. - Tacoma			Project:	Webster Nursery
Matrix:	Water	Laboratory ID:	20B0269-03RE1	File ID:	20031315.D
Sampled:	02/21/20 11:12	Prepared:	03/11/20 19:56	Analyzed:	03/13/20 16:01
Solids:		Preparation:	EPA 3510C SepF	Instrument:	ECD6
Batch:	BIC0215	Sequence:	SIC0178		
GC Column(1):	STX-CLP			GC Column(2):	STX-CLP2

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Heptachlor Epoxide	1	6.351	6.338429	0.0126	17552	0.0037	21.7
	* 2	7.354	7.345428	0.00857	11925	0.0046	

* Column used for quantitation

HOLDING TIME SUMMARY

Analysis: EPA 8081B

Laboratory: Analytical Resources, Inc. SDG: 20B0269

Client: Landau Associates, Inc. - Tacoma Project: Webster Nursery

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
SW-10R-20200221 20B0269-01	02/21/20 10:25	02/21/20 13:45	02/26/20 15:09	5	7	03/09/20 14:43	12	40	
SW-10R-20200221 20B0269-01RE1	02/21/20 10:25	02/21/20 13:45	03/11/20 19:56	19	7	03/13/20 15:01	2	40	*
SW-11R-20200221 20B0269-02	02/21/20 11:10	02/21/20 13:45	02/26/20 15:09	5	7	03/09/20 15:01	12	40	
SW-11R-20200221 20B0269-02RE1	02/21/20 11:10	02/21/20 13:45	03/11/20 19:56	19	7	03/13/20 15:19	2	40	*
SW-99-20200221 20B0269-03	02/21/20 11:12	02/21/20 13:45	02/26/20 15:09	5	7	03/09/20 15:19	12	40	
SW-99-20200221 20B0269-03RE1	02/21/20 11:12	02/21/20 13:45	03/11/20 19:56	19	7	03/13/20 16:01	2	40	*

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: Analytical Resources, Inc. SDG: 20B0269

Client: Landau Associates, Inc. - Tacoma Project: Webster Nursery

Matrix: Water Instrument: ECD6

Analyte	MDL	RL	Units
alpha-BHC	0.00009	0.0006	ug/L
alpha-BHC [2C]	0.00009	0.0006	ug/L
beta-BHC	0.0001	0.0006	ug/L
beta-BHC [2C]	0.0001	0.0006	ug/L
gamma-BHC (Lindane)	0.0001	0.0006	ug/L
gamma-BHC (Lindane) [2C]	0.0001	0.0006	ug/L
delta-BHC	0.0001	0.0006	ug/L
delta-BHC [2C]	0.0001	0.0006	ug/L
Heptachlor	0.0002	0.0006	ug/L
Heptachlor [2C]	0.0002	0.0006	ug/L
Aldrin	0.0002	0.0006	ug/L
Aldrin [2C]	0.0002	0.0006	ug/L
Heptachlor Epoxide	0.0002	0.0006	ug/L
Heptachlor Epoxide [2C]	0.0002	0.0006	ug/L
trans-Chlordane (beta-Chlordane)	0.0002	0.0006	ug/L
trans-Chlordane (beta-Chlordane) [2C]	0.0002	0.0006	ug/L
cis-Chlordane (alpha-chlordane)	0.0001	0.0006	ug/L
cis-Chlordane (alpha-chlordane) [2C]	0.0001	0.0006	ug/L
Endosulfan I	0.0001	0.0006	ug/L
Endosulfan I [2C]	0.0001	0.0006	ug/L
4,4'-DDE	0.0003	0.0013	ug/L
4,4'-DDE [2C]	0.0003	0.0013	ug/L
Dieldrin	0.0004	0.0013	ug/L
Dieldrin [2C]	0.0004	0.0013	ug/L
Endrin	0.0001	0.0013	ug/L
Endrin [2C]	0.0001	0.0013	ug/L
Endosulfan II	0.0002	0.0013	ug/L
Endosulfan II [2C]	0.0002	0.0013	ug/L
4,4'-DDD	0.0002	0.0013	ug/L
4,4'-DDD [2C]	0.0002	0.0013	ug/L
Endrin Aldehyde	0.0004	0.0013	ug/L
Endrin Aldehyde [2C]	0.0004	0.0013	ug/L
4,4'-DDT	0.0004	0.0013	ug/L
4,4'-DDT [2C]	0.0004	0.0013	ug/L
Endosulfan Sulfate	0.0003	0.0013	ug/L
Endosulfan Sulfate [2C]	0.0003	0.0013	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: Analytical Resources, Inc. SDG: 20B0269

Client: Landau Associates, Inc. - Tacoma Project: Webster Nursery

Matrix: Water Instrument: ECD6

Analyte	MDL	RL	Units
Endrin Ketone	0.0003	0.0013	ug/L
Endrin Ketone [2C]	0.0003	0.0013	ug/L
Methoxychlor	0.0021	0.0063	ug/L
Methoxychlor [2C]	0.0021	0.0063	ug/L
Toxaphene	0.0625	0.0625	ug/L
Toxaphene [2C]	0.0625	0.0625	ug/L
Chlordane (NOS)	0.0050	0.0050	ug/L
Chlordane (NOS) [2C]	0.0050	0.0050	ug/L