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Final
Site 17 (Building 95)
Monitoring Event 26 Report
September 2007

Contract No. N62472-02-D-0810
Contract Task Order No. 007

Naval Air Station
Brunswick, Maine

Prepared by:

ECC
33 Boston Post Road West, Suite 340
Marlborough, MA 01752

Prepared for:
Department of the Navy
Naval Facilities Engineering Command
BRAC Program Management Office - Northeast
4911 South Broad Street
Philadelphia, Pennsylvania 19112-1303

November 2008

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Alexander Easterday, PG
Senior Project Manager

11/25/08
Date

Gina M. Calderone, PG, CPG
Project Manager/State of Maine Licensed Professional Geologist

11/25/08
Date

QUALITY REVIEW STATEMENT

Contract No. N62472-02-D-0810 ECC Project No.: 5700.007
Contract Task Order No. 007
Activity: Naval Air Station, Brunswick, Maine

Description of Final Report/Deliverable:

Final Monitoring Event 26 Report – September 2007 for Site 17 (Building 95), Naval Air Station, Brunswick, Maine

ECC CTO Senior Project Manager: Alexander C. Easterday, P.G.

As per State of Maine Department of Professional and Financial Regulations, Title 32 Chapter 73, Law, the sections of this document related to geology and geologic data interpretation have been reviewed for its technical content by the undersigned State of Maine Certified Geologist.

This document has been reviewed by the undersigned for their geological interpretive content. This statement is based upon the review of the undersigned conducted during the preparation of this report, as dated below.

State of Maine Geologist Reviewer:

STATE OF MAINE
GINA M. CALDERONE
No. GE442
CERTIFIED GEOLOGIST

11/25/08

Gina M. Calderone, P.G., C.P.G. Date
State of Maine Certified Geologist (No. GE442)
ECC Project Manager/Hydrogeologist

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LIST OF ABBREVIATIONS AND ACRONYMS

4,4'-DDT	dichlorodiphenyltrichloroethane
4,4'-DDD	dichlorodiphenyldichloroethane
AMSL	above Mean Sea Level
°C	degrees Celsius
EPA	U.S. Environmental Protection Agency
LTMP	Long-Term Monitoring Plan
MCL	Maximum Contaminant Level
MDL	method detection limit
MEG	maximum exposure guideline
MRL	method reporting limit
µg/L	micrograms per liter
µS/cm	microsiemens per centimeter
mg/L	milligrams per liter
mV	millivolt
NAS	Naval Air Station
NTU	nephelometric turbidity units
ORP	oxidation reduction potential
PRG	Preliminary Remediation Goal
PVC	polyvinyl chloride
QAPP	Quality Assurance Project Plan
TCL	Target Compound List

1.0 PROJECT ACTIVITIES AND MONITORING EVENT RESULTS

Under Contract Number N62472-02-D-0810, Contract Task Order No. 007, Engineering Field Activity Northeast, Naval Facilities Engineering Command contracted with ECC to perform long-term monitoring at Site 17 (Building 95), Naval Air Station (NAS), Brunswick, Maine (Figure 1-1).

At Site 17 (Figure 1-2), the Navy is currently performing long-term monitoring in accordance with the November 2004 Long-Term Monitoring Plan (LTMP) (EA Engineering, Science and Technology [EA] 2004). The Site 17 LTMP well designation and sample parameters are summarized in Table 1-1. Laboratory analysis and the validation of analytical data are performed as specified in the Final Base-Wide Quality Assurance Project Plan (QAPP) for the Long-Term Monitoring Program, Naval Air Station, Brunswick, Maine (EA/ECC 2006).

This report provides a summary of the monitoring and sampling completed during Monitoring Event 26 (September 2007). The appendices provide supporting information. Appendix A contains a history of the site, Appendix B contains field data, Appendix C contains the analytical data quality review, Appendix D provides the data validation reports, Appendix E provides the laboratory reports of analysis (Form I's), Appendix F provides the engineering inspection report, Appendix G provides trend graphs, Appendix H provides the historical trend tables, and Appendix I contains the Navy response to comments from the regulators.

1.1 Site History

Appendix A provides a brief historical summary of the site. For a detailed history of this Installation Restoration Program Site, please refer to the 2nd Five-Year Review for NAS Brunswick (ECC/EA 2005).

1.2 Measurement of Water Level Elevations

Water level measurements were obtained on September 4, 2007 at six groundwater monitoring wells (MW-NASB-065, MW-NASB-066, MW-NASB-067, MW-NASB-068, MW-NASB-097, and MW-NASB-098) located at Site 17. Water level gauging data and historical water level trends are summarized in Table 1-2, and the field monitoring well gauging field data are included in Appendix B. The gauging measurements were used to interpret the groundwater potentiometric surface for Site 17 (Figure 1-3).

1.3 Groundwater Monitoring, Sampling, and Analysis

The Site 17 sampling program was performed on September 11 and 12, 2007. Groundwater samples were collected from well MW-NASB-067, MW-NASB-097, and MW-NASB-098 using a dedicated submersible pumping system. The low-flow sampling technique presented in the LTMP (EA 2004) was followed. Water quality indicator parameters including pH, specific conductance, temperature, dissolved oxygen, oxidation-reduction potential, and turbidity were monitored and recorded during well purging to ensure that these parameters were stable before samples were collected (Table 1-3). The Low Flow/Low Stress Groundwater Sampling Forms for the September 2007 sampling event can be found in Appendix B.

Groundwater samples were submitted to Accutest Laboratory located in Marlborough, Massachusetts for analysis of QAPP Target Compound List (TCL) pesticides by the U.S. Environmental Protection Agency (EPA) Method 8081A. Accutest is a Navy-certified laboratory. The sample cooler was delivered to the laboratory by a sample courier with chain of custody intact.

In accordance with the QAPP, the analytical results reported as non-detect were evaluated against the method detection limit (MDL), which is the lowest limit of qualitative detection for a compound. By convention, non-detect sample results are reported using the higher method reporting limit (MRL) and assigned the non-detect qualifier (U). For the following compounds, the MRL is higher than the project action limits but the MDL is less than the project action limits:

- Aldrin (Maine Maximum Exposure Guideline [MEG] = 0.02 µg/L, MDL = 0.007 µg/L, and MRL = 0.050 µg/L); and
- Dieldrin (MEG = 0.02 µg/L, MDL = 0.009 µg/L, and MRL = 0.050 µg/L).
- Heptachlor epxoide (MEG = 0.04 ug/L, MDL = 0.008, and MRL = 0.05 ug/L)

1.4 Quality Assurance and Quality Control

The data obtained during the September 2007 sampling event were determined to be of sufficient quality to be used to evaluate groundwater quality at Site 17. One field duplicate sample was collected from well MW-NASB-067 (BN-95-26-XD1) and analyzed as a field quality control sample. Table 1-4 provides a summary of analytical results for groundwater samples collected at Site 17 on September 11 and 12, 2007. The data quality evaluation is included in Appendix C (Analytical Data Quality Review), Appendix D (Data Validation Reports) and Appendix E (Laboratory Reports of Analysis – Forms I's). Pesticides data are usable based on the quality review for precision and accuracy and reconciliation with project data quality objectives.

1.5 Visual Inspection

Site inspection activities were completed in accordance with the Final LTMP (EA 2004) on September 4, 2007 (Appendix F). Inspection of the area confirmed no exposures of the geotextile marker fabric at the ground surface. The six on-site monitoring wells were found to be intact. Groundwater monitoring wells MW-NASB-065, MW-NASB-066, MW-NASB-067, MW-NASB-068, MW-NASB-097, and MW-NASB-098 were adequately labeled, capped, and locked. The road box for groundwater monitoring well MW-NASB-097 had minor damage due to snow plowing activities from the past winter. It was cracked and broken and the cast iron cap could not be bolted down or sealed. To repair the damage, the asphalt was cut back about two square feet around the road box. The road box was removed and replaced with a new box/lid set that is slightly recessed to protect it from future plow damage. Then, the old asphalt was replaced with concrete. The PVC well riser inside the street box wasn't disturbed, so the top of casing elevation did not change. There was no indication of vandalism of any of the six on-site wells. The existing vegetation consists of well-established grasses and small to medium growth pine trees. No stressed vegetation was observed during this site inspection. Some browning vegetation had been observed previously at Site 17 during the September 2005 sampling event, which may be attributable to the fall season, part sun exposure, and competition for water and nutrients with dense tree growth. Some thinning of dense tree growth at the well sites was recommended to facilitate well access.

2.0 OBSERVATIONS AND TEMPORAL TRENDS

The following sections present field and analytical results and data trends observed during Monitoring Event 26 conducted in September 2007.

2.1 Groundwater Levels

The results of the groundwater level gauging program (Table 1-2 and Appendix B) indicate that the groundwater flow direction in the immediate area of Site 17 is generally towards the southeast (Figure 1-3). The hydraulic gradient between wells MW-NASB-066 and MW-NASB-098 was approximately 0.0055 in September 2007 (as compared to 0.0047 in April 2007 and 0.0067 in September 2006). In general, the hydraulic gradient across Site 17 is relatively flat. The groundwater levels at Site 17 demonstrate a definite seasonal component with higher levels occurring during the spring monitoring events and lower levels occurring during the fall monitoring events (refer to the historical groundwater level graph accompanying Table 1-2). The average water level fluctuation between spring and fall monitoring events is 2.52 feet. Water levels measured in September 2007 were lower than the average fall water levels.

2.2 Field Water Quality Parameters

Water quality parameters, including pH, specific conductance, oxidation-reduction potential (ORP), temperature, dissolved oxygen, and turbidity, were measured during well purging and were recorded on the field sampling forms (Appendix B). Per the LTMP, the ECC Field Team Leader reviewed the pre- and post-sampling field equipment calibration records and the field data forms for accuracy. Table 1-3 presents the results of field water quality measurements and includes historical trend graphs (with calculated averages indicated) for those parameters. The following observations about the September 2007 data are noted:

- **MW-NASB-067**: All field parameters were below average.
- **MW-NASB-097**: Specific conductance, dissolved oxygen, turbidity, and ORP were below average. pH and temperature were above average.
- **MW-NASB-098**: Specific conductance, dissolved oxygen, turbidity, and ORP were below average. pH and temperature were above average.

2.3 Analytical Results

Pesticides results for the three sampled Site 17 monitoring wells in Monitoring Event 26 (September 2007) were non-detect with the exception of a detection of dichlorodiphenyldichloroethane (4,4'-DDD) in the sample and duplicate sample from MW-NASB-067 (0.056 J µg/L and 0.058 µg/L). Appendix G provides trend graphs of analytical results through Monitoring Event 26.

The following historical detections of pesticides are noted for reference:

- **Monitoring Well MW-NASB-067** – 4,4'-DDD was detected during Monitoring Event 26 (0.058 μg/L). 4,4'-DDD compound has no MEG or MCL. For comparison 4,4'-DDD does have a Region IX Preliminary Remediation Goal (PRG) of 0.28 μg/L, but the PRG is not a QAPP or LTMP requirement. The detected concentration was below this value. 4,4'-DDT was detected during Monitoring Events 18 through 20 and again during Event 24; however, these detections were at levels well below the MEG (1 μg/L). 4,4'-DDT was not detected in Monitoring Event 25 or 26.

- **Monitoring Well MW-NASB-097** – Heptachlor epoxide and alpha-chlordane exceeded the Maine MEGs (0.04 micrograms per liter [μg/L] and 0.27 μg/L, respectively) from 2000 through 2003 during all sampling events. Since the April 2004 sampling event, heptachlor epoxide no longer exceeded the State MEG, and it was not detected during Monitoring Events 21 through 26. In addition, alpha-chlordane, which reached a maximum observed concentration of 0.72 μg/L in October 2001, has shown a steadily decreasing trend below the State MEG (0.3 μg/L), and it was not detected during the last seven monitoring events.

  Other pesticide compounds were not detected or were detected at levels below corresponding MEGs and MCLs, since well MW-NASB-097 was installed and first sampled in March 2000. 4,4'-DDD was detected from Monitoring Event 14 through Monitoring Event 20. Concentrations have been below the comparative PRG (0.28 ug/L) since 2002. Exceedance of the PRG occurred during Monitoring Event 14 (0.44 μg/L). 4,4'-DDT was detected in MW-NASB-097 during Monitoring Event 25 below the MEG (1 μg/L) in both the original and duplicate samples (0.023 J μg/L and 0.036 J μg/L).

- **Monitoring Well MW-NASB-098** – Pesticide compounds were not detected in this well during Monitoring Events 1 through 18 or 20 through 26. During Monitoring Event 19 in April 2004, 4,4'-DDT was detected at an estimated concentration of 0.0090 J μg/L.

3.0 LONG-TERM MONITORING OBJECTIVES AND RECOMMENDATIONS

The following sections list the objectives specified in the Site 17 LTMP and provide conclusions as to whether the long-term monitoring event was successful in achieving these objectives or whether changes to the monitoring program are recommended.

3.1 Long-Term Monitoring Objectives

- ***LTMP Objective** – Monitor and assess trends in the groundwater quality with emphasis on contaminants of concern to verify that the soil and debris removal action was effective.*

  During Monitoring Event 26, the concentrations of pesticides reported for each of the three sampled wells (MW-NASB-067, MW-NASB-097, and MW-NASB-098) were non-detect for QAPP pesticides, except for a low concentration of 4,4'-DDD (0.058 µg/L) in MW-NASB-067. During the past six monitoring events (3 years), pesticides have not exceeded any Federal MCL or State MEGs.

  Heptachlor epoxide and alpha-chlordane exceeded the State MEGs in the past at well MW-NASB-097; however, heptachlor epoxide fell below the State MEG (0.04 µg/L) during Monitoring Event 19, and alpha-chlordane has been below the State MEG (0.3 µg/L) since Monitoring Event 17. Since these events, heptachlor epoxide and alpha-chlordane have continued to decrease in concentration and were not detected during the last seven monitoring events.

  From Monitoring Event 18 through Monitoring Event 20, 4,4'-DDT was detected at monitoring well MW-NASB-067 at levels well below the MEG (1 µg/L). 4,4'-DDT was reported as non-detect for Monitoring Events 21 through 23 and 25. 4,4'-DDD was detected during Monitoring Event 24 at levels well below the MEG.

  Long-term monitoring shows that the soil and debris removal action was effective.

- ***LTMP Objective**—Assess the potential for adverse environmental impacts by monitoring for evidence of stressed vegetation.*

  For the June 2006 through September 2007 monitoring events, all vegetation appeared to be healthy and very well watered. The condition of vegetation in the area will continue to be monitored.

- ***LTMP Objective**—Monitor and maintain the structural integrity of the groundwater monitoring wells.*

  The integrity of the groundwater monitoring wells was evaluated during this monitoring event. The six on-site monitoring wells were found to be intact and were adequately labeled, capped, and locked. The road box for groundwater monitoring well MW-NASB-097 which had minor damage due to snow plowing activities from this past winter has been repaired. No other issues concerning integrity of the monitoring wells were identified.

3.2 Recommendations

Because the results from the last six monitoring events (3 years) have been non-detect or below MEGs and MCLs for each compound, Navy is recommending that the long term monitoring of the three monitoring wells at Site 17 be discontinued. On November 7 – 9, 2007, the Navy and Project Stakeholders held a Data Quality Objectives meeting for the Remedial Investigation process at Site 17. The Draft Final version of the Remedial Investigation Work Plan is being prepared by TtNUS. The Navy intends to complete the Remedial Investigation at Site 17 in 2008 and will use the results to delineate the extent of contamination and determine if there is an unacceptable current or future risk to humans or ecological receptors.

4.0 REFERENCES

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TABLES

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Table 1-1
Summary of the Long-Term Monitoring Program – Site 17 (Building 95)
Naval Air Station, Brunswick, Maine

Well Designation	Sample Parameters			
	Sampling Frequency[a]	Target Compound List Pesticides[b]	Bi-Annual Gauging	Field Parameters[c]
MW-NASB-065	Bi-Annual	NR	X	NR
MW-NASB-066	Bi-Annual	NR	X	NR
MW-NASB-067	Bi-Annual	X	X	X
MW-NASB-068	Bi-Annual	NR	X	NR
MW-NASB-097	Bi-Annual	X	X	X
MW-NASB-098	Bi-Annual	X	X	X

NOTES:

(a) Bi-annual samples are collected in April and September of each year.
(b) Pesticide Target Compound List (TCL) for SW-846 8081A: Lindane and 4,4'-DDT (LTMP 2004); however, other non-TCL SW-846 Method 8081A pesticides are reported
(c) Determination of field parameters in accordance with U.S. Environmental Protection Agency/600/4-79/020 using the following methods: pH (Method 150.1), temperature (Method 170.1), specific conductance (Method 120.1), and turbidity (180.1); optional field parameters, including dissolved oxygen (Method 360.1) and oxidation-reduction potential (ORP), as $ORP_{Ag/AgCl}$, are also recorded.

NR = Not required

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Table 1-2
Monitoring Well Gauging Summary – Site 17 (Building 95)
Monitoring Event 26 (September 2007)
Naval Air Station, Brunswick, Maine

Well Designation	Well Riser Elevation (feet AMSL)	Depth to Well Bottom (feet below top of PVC well riser)	Monitoring Event 26 Gauging Data (4 September 2007)	
			Depth to Water (feet below top of PVC well riser)	Water Table Elevation (feet above AMSL)
MW-NASB-065	74.29	15.50	5.95	68.34
MW-NASB-066	78.79	19.79	9.87	68.92
MW-NASB-067	74.30	15.00	5.88	68.42
MW-NASB-068	74.86	15.05	6.67	68.19
MW-NASB-097	73.41	9.70	5.17	68.24
MW-NASB-098	76.53	15.70	8.68	67.85

NOTE: AMSL = Above Mean sea level
PVC = Polyvinyl chloride

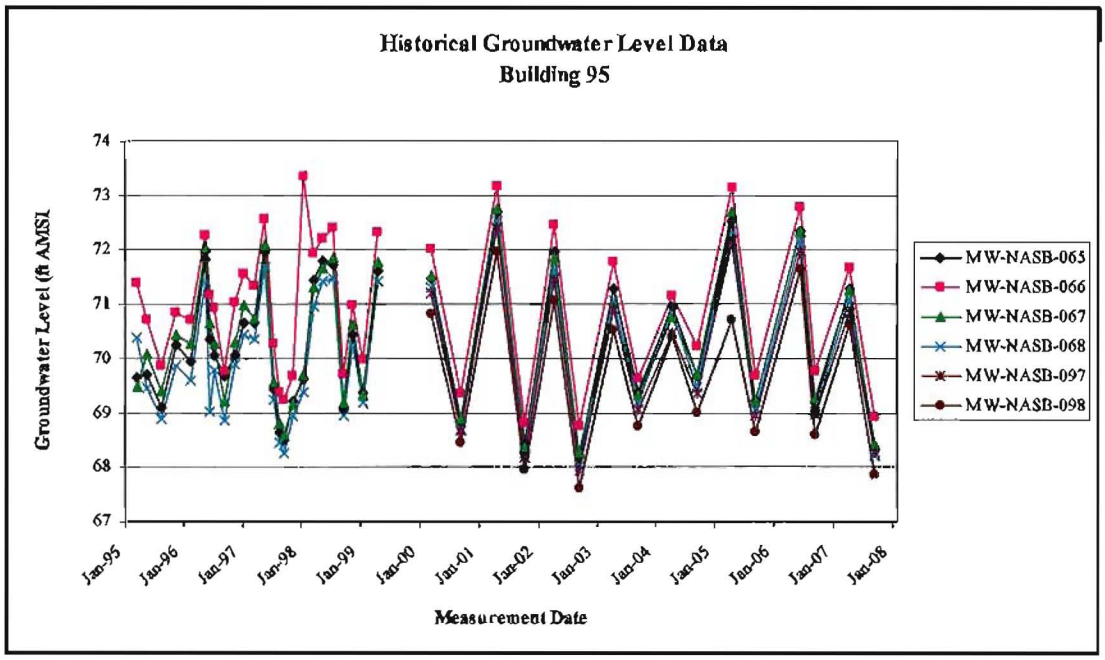

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Table 1-3
Summary of Water Quality Indicator Parameters in Groundwater Samples – Site 17 (Building 95)
Monitoring Event 26 (September 2007)
Naval Air Station, Brunswick, Maine

Well Designation	Sample Date	pH	Temperature (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	$ORP_{Ag/AgCl}$ (mV)
MW-NASB-067	9/11/07	5.66	14.18	193	0.11	2	-58.2
MW-NASB-097	9/12/07	6.13	16.52	49	0.52	6	58
MW-NASB-098	9/12/07	6.00	18.49	117	0.06	4	-14.8

NOTES: NTU = mephelometric turbidity unit
$ORP_{Ag/AgCl}$ = Oxidation/Reduction Potential
°C = degrees Celsius
µS/cm = microsiemens per centimeter
mV = millivolt
mg/L = milligram per liter
The dotted lines in the figures below indicate the average of the water quality indicators from March 1995 through September 2007.

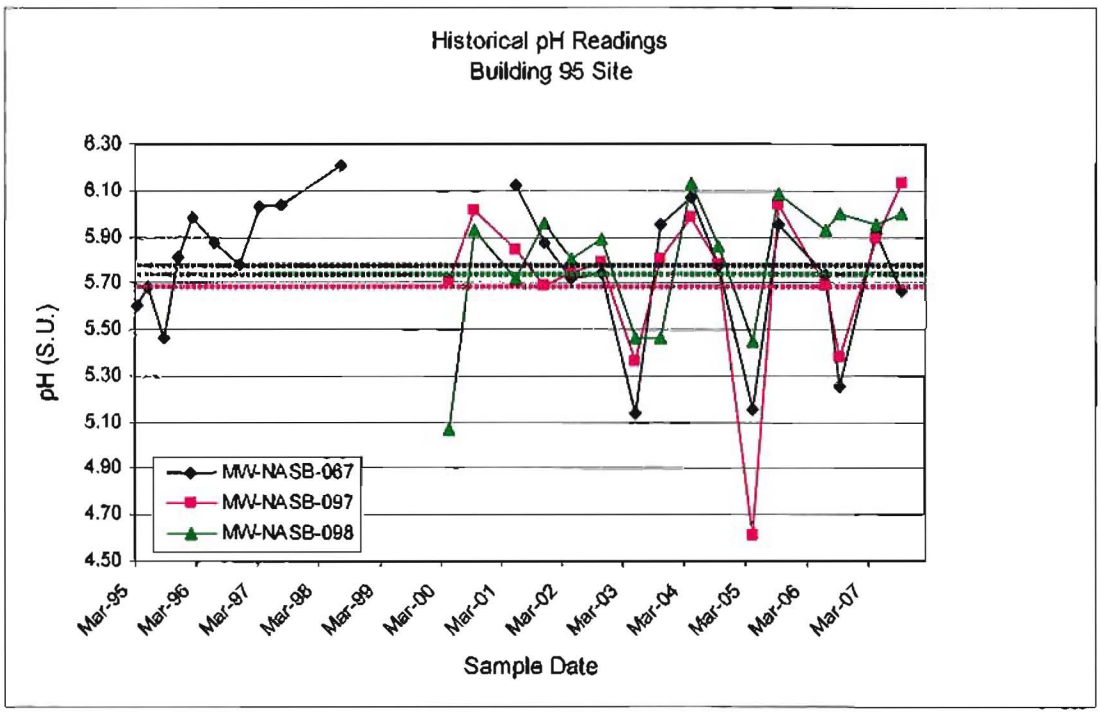
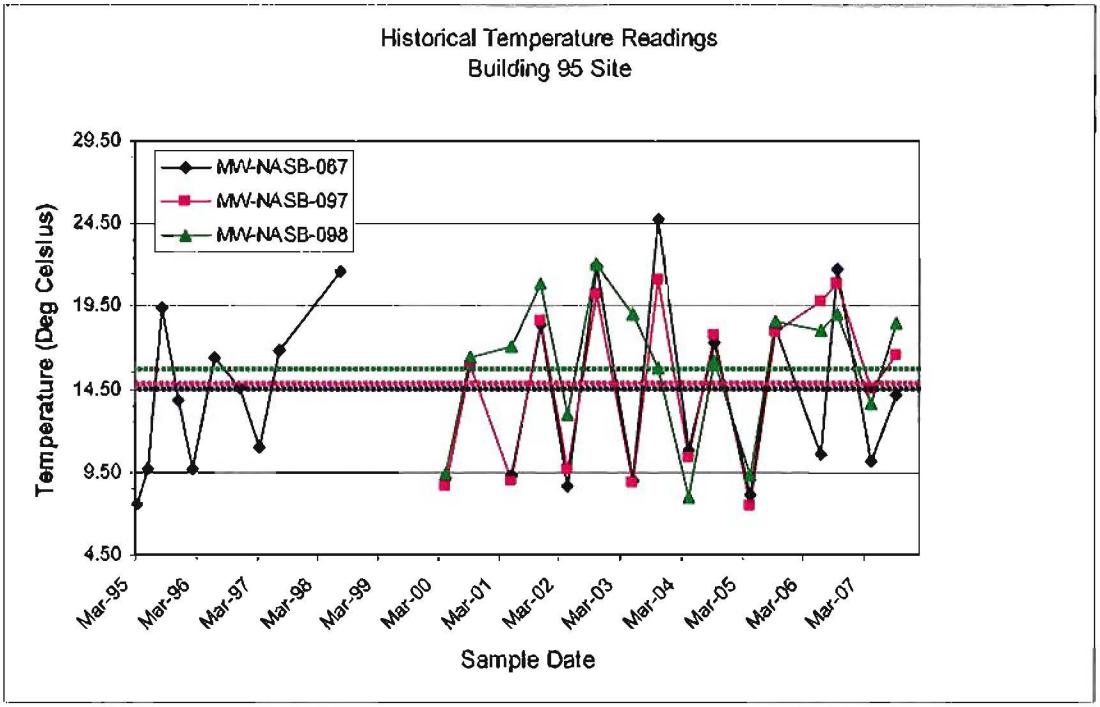


Table 1-3
Summary of Water Quality Indicator Parameters in Groundwater Samples – Site 17 (Building 95)
Monitoring Event 26 (September 2007)
Naval Air Station, Brunswick, Maine



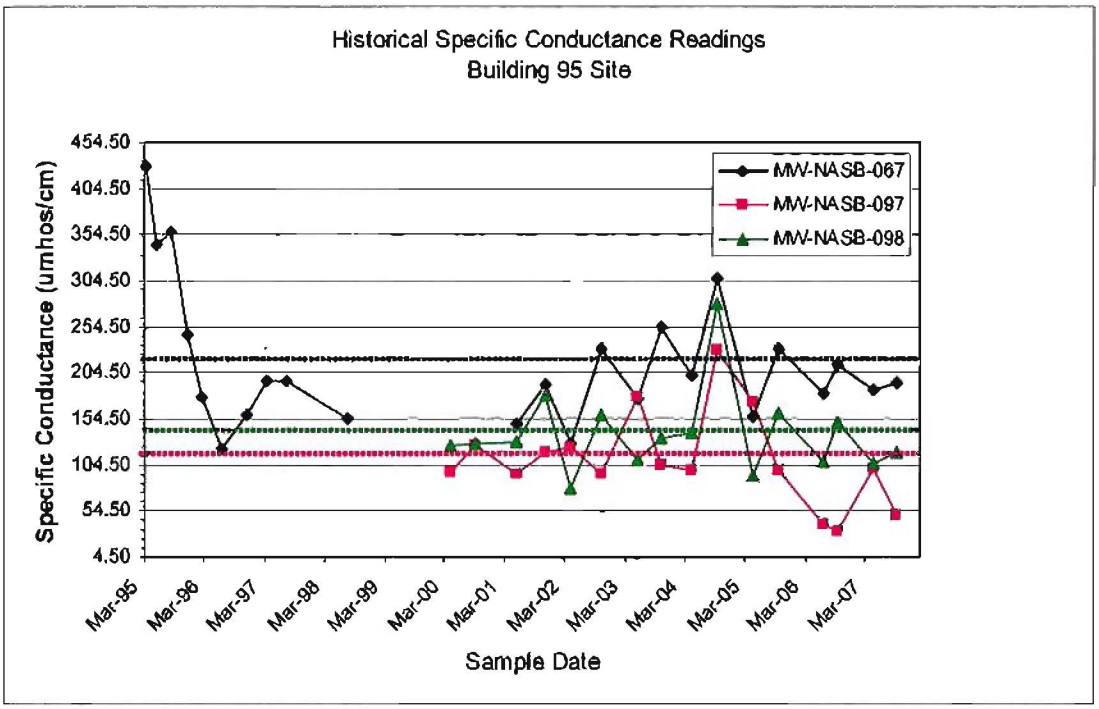
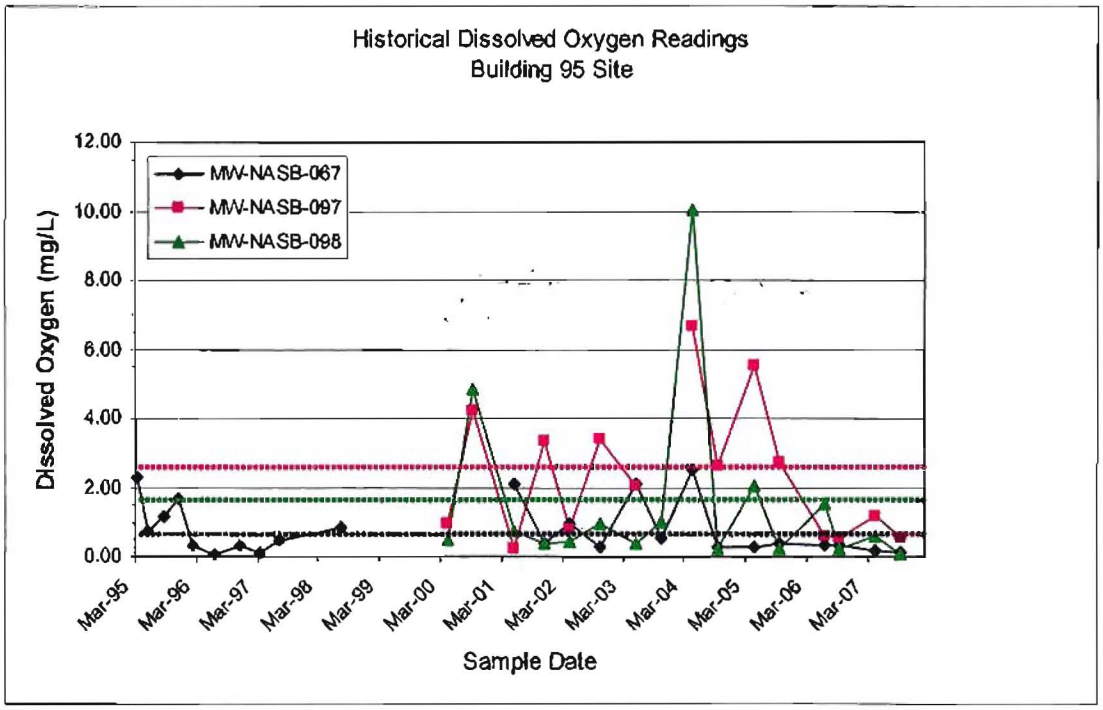


Table 1-3
Summary of Water Quality Indicator Parameters in Groundwater Samples – Site 17 (Building 95)
Monitoring Event 26 (September 2007)
Naval Air Station, Brunswick, Maine



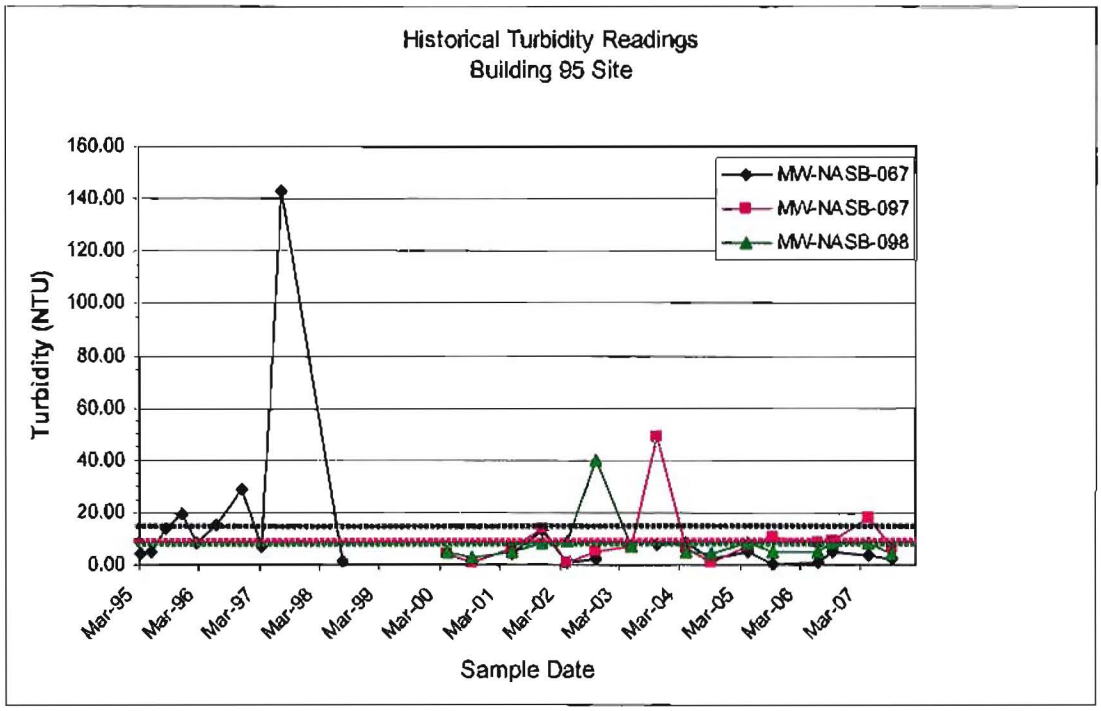


Table 1-3
Summary of Water Quality Indicator Parameters in Groundwater Samples – Site 17 (Building 95)
Monitoring Event 26 (September 2007)
Naval Air Station, Brunswick, Maine

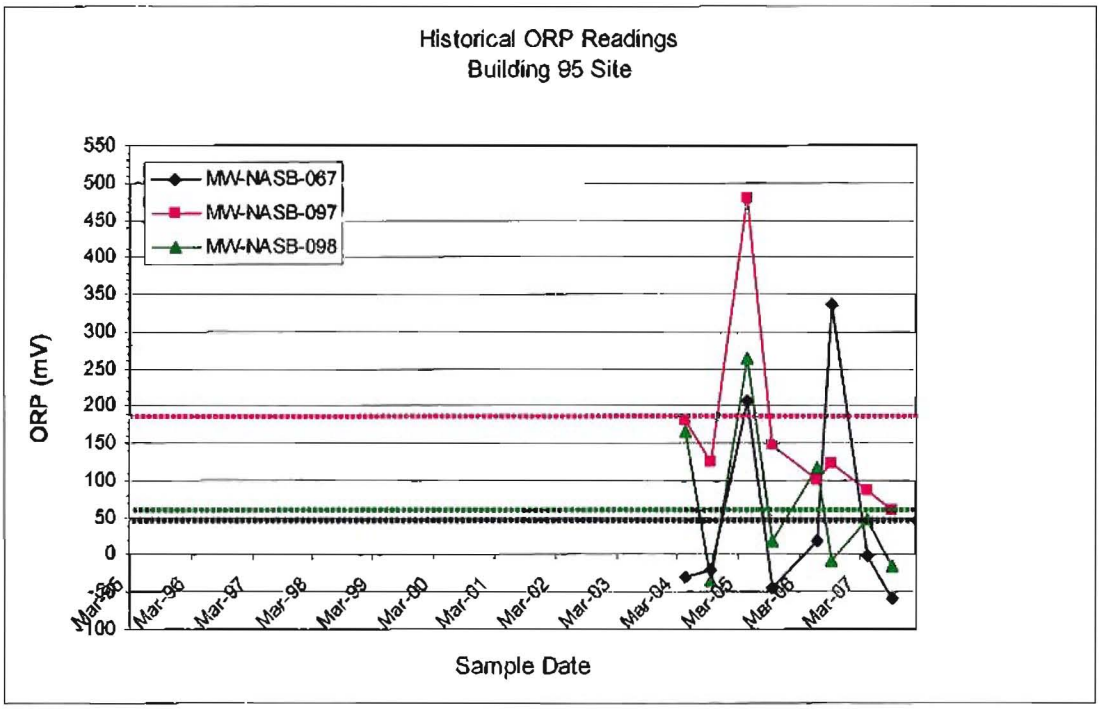


Table 1-4
Summary of Groundwater Results - Site 17
Monitoring Event 26 (September 2007)
Naval Air Station, Brunswick, Maine

Site Name: Site 17 (Building 95)

			Station ID:	MW-NASB-067	MW-NASB-067	MW-NASB-097	MW-NASB-098	
			Field Sample ID*:	MW067	MW-XD1	MW097	MW098	
			Lab Sample ID:	M67604-1	M67604-2	M67676-1	M67676-2	
			Sample Date:	9/11/2007	9/11/2007	9/12/2007	9/12/2007	
			Lab Name:	Accutest	Accutest	Accutest	Accutest	
			Field QC:	Original data	Field duplicates	Original data	Original data	
			Sampling Method:	Low-Flow	Low-Flow	Low-Flow	Low-Flow	
	Units	Federal MCL	Maine MEG					
Pesticides								
4,4'-DDD	ug/l	NA	NA	0.056 J	0.058	0.014 U	0.014 U	-
4,4'-DDE	ug/l	NA	NA	0.009 U	0.009 U	0.009 U	0.009 U	-
4,4'-DDT	ug/l	NA	1	0.026 UJ	0.026 UJ	0.026 UJ	0 026 UJ	-
Aldrin	ug/l	NA	0.02	0.007 U	0.007 U	0.007 U	0.007 U	-
Alpha-BHC	ug/l	NA	NA	0.007 U	0 007 U	0.007 U	0.007 U	-
Alpha-chlordane	ug/l	NA	NA	0.016 U	0 016 U	0.016 U	0.016 U	-
Beta-BHC	ug/l	NA	NA	0.01 UJ	0.01 UJ	0.01 UJ	0 01 UJ	-
Delta-BHC	ug/l	NA	NA	0.011 U	0.011 U	0.011 U	0.011 U	-
Dieldrin	ug/l	NA	0.02	0.009 U	0.009 U	0.009 U	0.009 U	-
Endosulfan I	ug/l	NA	42	0.015 U	0.015 U	0.015 U	0.015 U	-
Endosulfan II	ug/l	NA	42	0.014 UJ	0.014 UJ	0.014 UJ	0.014 UJ	-
Endosulfan Sulfate	ug/l	NA	42	0.021 U	0.021 U	0.021 U	0.021 U	-
Endrin	ug/l	2	2	0.011 U	0.011 U	0.011 U	0.011 U	-
Endrin Aldehyde	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	-
Endrin Ketone	ug/l	NA	NA	0.018 UJ	0 018 UJ	0.018 UJ	0.018 UJ	-
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.007 U	0.007 U	0.007 U	0.007 U	-
Gamma-Chlordane	ug/l	NA	NA	0.008 U	0.008 U	0.008 U	0.008 U	-
Heptachlor	ug/l	0.4	0.08	0.016 UJ	0.016 UJ	0.016 UJ	0.016 UJ	-
Heptachlor Epoxide	ug/l	0.2	0.04	0.008 U	0.008 U	0.008 U	0.008 U	-
Methoxychlor	ug/l	40	35	0.019 UJ	0.019 UJ	0.019 UJ	0.019 UJ	-

Table 1-4

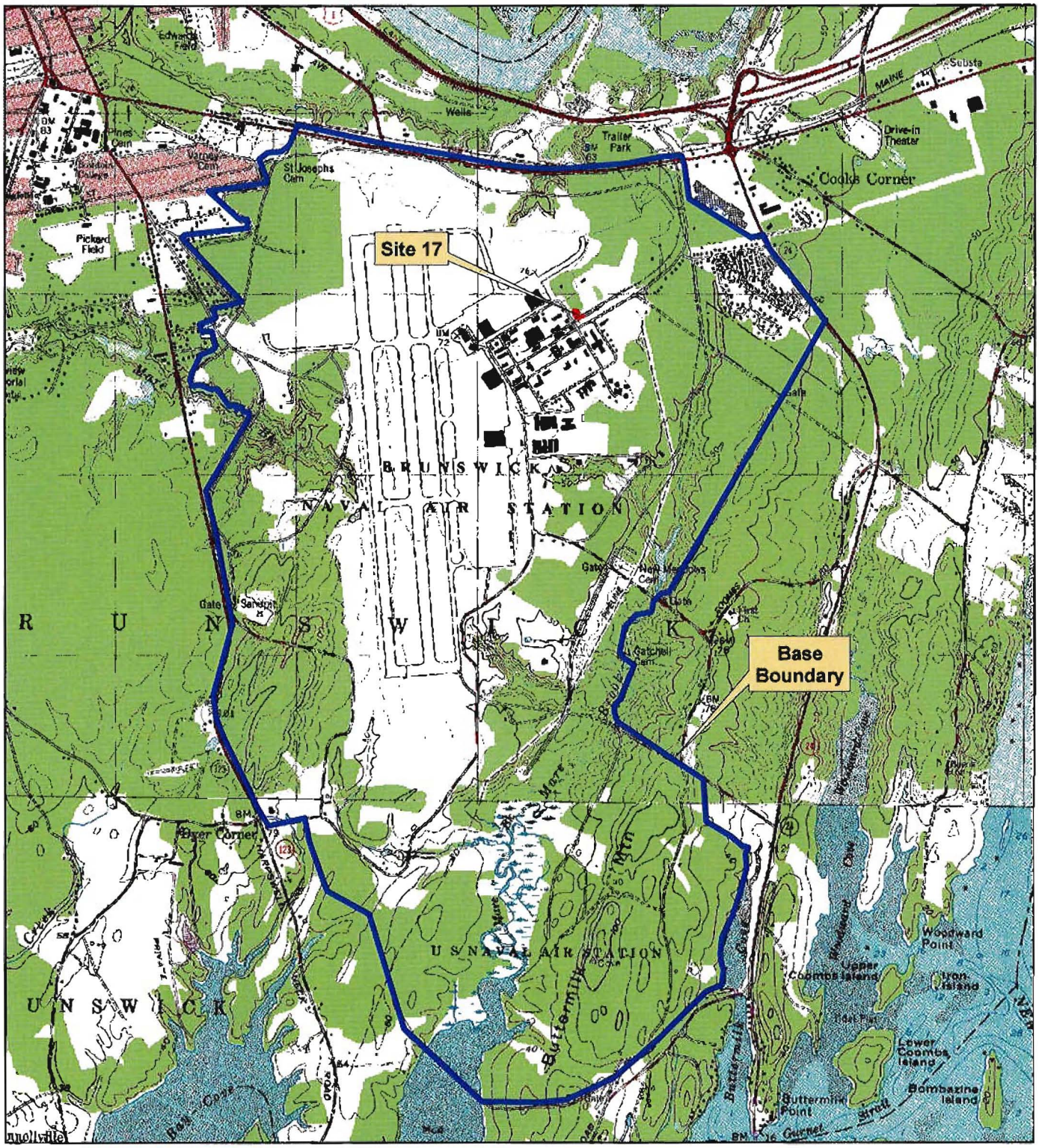
Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
* Field Sample IDs begin with **BN-95-26-** for samples collected at Site 17 (Building 95) during Monitoring Event 26.

NA	Criteria not applicable
ug/L	micrograms per liter
-	Not sampled
U	Not detected down to the method detection limit (MDL). MDLs are provided in Appendix C (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Method detection limit is estimated.
R	Value rejected by data validator

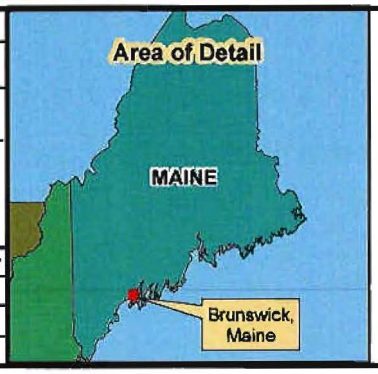
Highlighted concentrations indicate exceedance of an MEG or MCL. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

FIGURES



Contract No.	N62472-02-D-0810
Description	Site 17 Site Location
Coordinate system	NAD 1983, UTM, Zone 19 N in meter
Sources	Naval Base Boundary provided by Navy. Orrs Island (1978) and Brunswick (1960) 7.5 minute quadrangles provided by USGS.

Date	29-JUL-2007	Rev.	Date	App. By
DB	C. Guido			
CB	G. Calderone			
AB				



Legend

- NAS Brunswick Boundary
- Site 17 Site Location

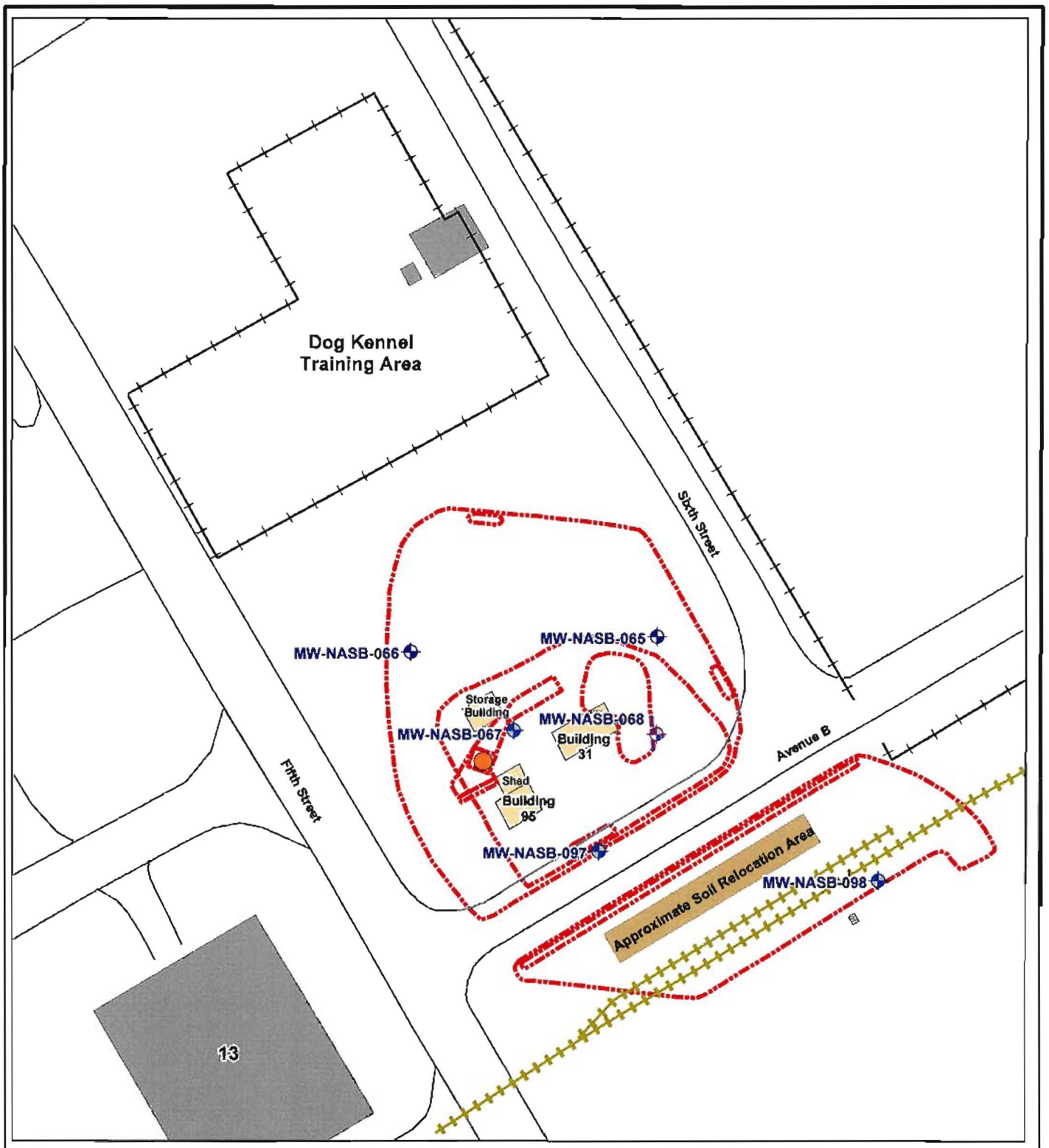
Figure 1-1

Site 17
Site Location Map

Naval Air Station
Brunswick, Maine

ECC GIS
C:\NAVY_GIS\TO07_Brunswick\Bldg95\
MapDocuments\Fig 1-1_Bldg95_SiteLocs.mxd

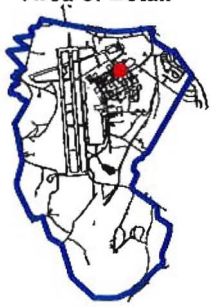
0 800 1,600 3,200 Feet



Contract No.	N62472-02-D-0810
Description	Site 17 Site Map
Coordinate system	NAD 1983, UTM, Zone 19 N in meter
Sources	Naval base boundary provided by Navy.

Date	29-JUL-2007	Rev.	Date	App. By
DB	C. Guido			
CB	G. Calderone			
AB				

Area of Detail



Legend

- Monitoring Well
- Former Location of Septic Tank
- Fence
- Rail Road Track (Abandoned)
- Excavation Boundary (Approximate)
- Former Building
- Building

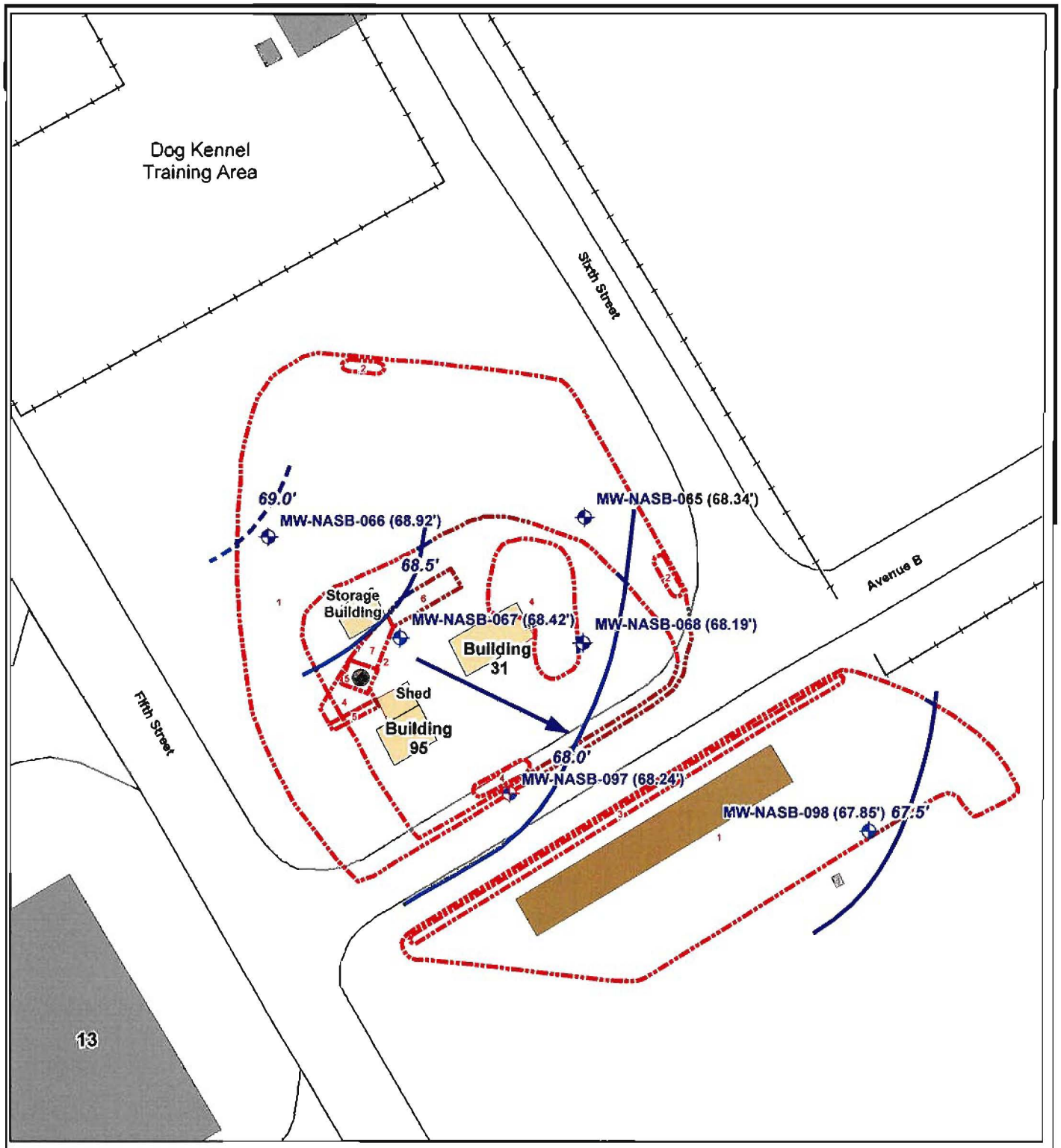
Figure 1-2

Site 17
Site Plan

Naval Air Station
Brunswick, Maine

ECC Marlborough, MA
GIS C:\NAVY_GIS\TO07_Brunswick\Bldg95\
MapDocument\Fig 1-2_Bldg95_SitePlan.mxd

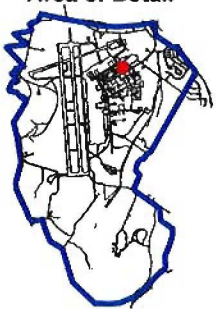
0 15 30 60 Feet



Contract No.	N62472-02-D-0810
Description	Site 17 Contour Map
Coordinate system	NAD 1983, UTM, Zone 19 N in meters
Sources	Naval Base Boundary provided by Navy.

Date	28-NOV-2007	Rev.	Date	App. By
DB	J. Kim			
CB	M. Johanson			
AB				

Area of Detail



Legend

- Monitoring Well
- Former Location of Septic Tank
- Groundwater Contour (ft MSL) - Sep.'07
- Inferred Groundwater Contour (ft MSL) - Sep.'07
- Soil Relocation Area (Approximate)
- Excavation Boundary (Approximate)
- Former Building
- Inferred Groundwater Flow Direction
- 1 Soil Excavation Depth Limits (ft)

Figure 1-3

Site 17
Inferred Groundwater Contour Map
September 2007

Naval Air Station
Brunswick, Maine

ECC Marlborough, MA
GIS C:\NAVY_GIS\TO07_Brunswick\Bldg95
MapDocuments\Fig1-3_Bldg95_GWcontour.mxd

0 10 20 40 Feet

APPENDIX A

APPENDIX A

HISTORICAL SUMMARY OF SITE 17

A.1 INTRODUCTION

Site 17 and surrounding structures were the pesticide/herbicide storage area and distribution center for NAS Brunswick until 1985. These structures were demolished by the Navy, and currently the site is grassed over. The site has level topography and no surface water drainage features. Previous investigations identified the presence of several herbicides and pesticides, including 4,4'-DDT and pyrethrins (an insecticide), in the soil and on structures at the site. Additionally, in 1993, low concentrations of pesticides and inorganics were reported in groundwater samples (ABB-ES 1993[1]).

Site 17 (Building 95) is the designated tracking name for this former pesticide building. The site is not part of the National Priorities List and, therefore, is not subject to Comprehensive Environmental Response, Compensation, and Liability Act Five-Year Reviews. At Site 17, the Navy is currently performing long-term monitoring, maintenance, and corrective measures as part of the long-term remedial actions required by the Action Memorandum dated April 1993 (ABB-ES 1993), and in accordance with the May 2000 Long-Term Monitoring Plan (LTMP) (EA 2000[2]).

In October 2003, under Contract No. N62472-02-D-0810, Contract Task Order No. 009, Environmental Chemical Corporation began to perform long-term monitoring at Site 17 at Naval Air Station (NAS), Brunswick, Maine. Prior to October 2003 Site 17 has been monitored since March 1995. NAS Brunswick is located south of the Androscoggin River between Brunswick and Cooks Corner, Maine.

A.2 SITE BACKGROUND

In 1994, a LTMP was established for Building 95 (ABB-ES 1994[3]). On 23 June 1994, the Navy received approval of the original LTMP from the U.S. Environmental Protection Agency (EPA) and State of Maine Department of Environmental Protection (MEDEP). During November-December 1994, corrective measures were taken at the site by ABB-ES following the completion of a baseline risk assessment. The remedial measures included: excavation of the upper 1-7 ft of soil, placement of permeable geotextile liner at the bottom of the excavation to act as a marker of the limit of excavation, and the addition of clean backfill.

In June 1996, due to the low detections of site contaminants, the sampling frequency was reduced from quarterly to tri-annual following approval by MEDEP and EPA (EA 1997[4]). Monitoring Event 9 began the initiation of annual sampling at this site.

---

1. ABB Environmental Services (ABB-ES). 1993. Action Memorandum, Building 95. April.
2. EA Engineering, Science, and Technology, Inc. 2000. Final Long-Term Monitoring Plan, Building 95, Naval Air Station, Brunswick, Maine. May.
3. ABB-ES. 1994. Final Long-Term Monitoring Plan Building 95, Sites 1 and 3 and Eastern Plume. August.
4. EA Engineering, Science, and Technology, Inc. 1997. Final Monitoring Event 9 – August 1997, Building 95,

In May 2000, the LTMP was revised based upon discussions with MEDEP, EPA, and members of the Restoration Advisory Board. The May 2000 LTMP addressed changes to the sampling locations, frequency of sample collection, collection method, and analytical methods, and the revisions were based on previously collected data; as a result, the sampling frequency was reduced based on results of the monitoring event data collected to date. The sampling frequency was changed to bi-annual sampling to occur in April and September of each year.

In April 2001, groundwater monitoring well MW-NASB-067 was returned to the long-term monitoring sampling program at the request of MEDEP. Beginning with Monitoring Event 13 (April 2001), rotenone was added to the LTMP analyte list.

In July 2001, MEDEP agreed to eliminate the pesticide avitrol as a potential second round analyte from the groundwater sampling program at Building 95 based on historical site information and analytical data (non-detect in groundwater and soil samples since 1992).

Beginning in April 2002, MEDEP and Navy agreed to eliminate Target Compound List volatile organic compounds by EPA Method 8260B, Target Compound List semivolatile compounds by EPA Method 8270C, Target Analyte List Metals by EPA Method 6000/7000 Series, and rotenone by EPA Method 635 from the groundwater monitoring program. The Navy would continue to collect and analyze groundwater samples for Target Compound List pesticides by EPA 8081A and maleic hydrazide by EPA Method 632 Modified.

In August 2002, the Navy made a request to MEDEP and EPA that the pesticide maleic hydrazide be eliminated from the LTMP at Building 95. On 13 September 2002, the EPA agreed to the elimination of maleic hydrazide from the Building 95 LTMP. However, MEDEP requested additional rounds of sampling for maleic hydrazide.

During the Fall 2002 Long-Term Monitoring Program, samples were collected and analyzed for maleic hydrazide from each of the three wells (MW-NASB-067, MW-NASB-097, and MW-NASB-098). No maleic hydrazide was detected in the samples collected from the Building 95 monitoring wells.

In Spring 2003, as a result of discussions between MEDEP and Navy, it was determined well MW-NASB-097 would be sampled for maleic hydrazide, but only after the water level had reached 71.5 ft mean sea level or higher elevation, which represented seasonal high groundwater conditions.

In April 2003, the water level had reached the 71.5 ft mean sea level and was sampled for maleic hydrazide at well MW-NASB-097. No maleic hydrazide was detected in the sample collected from well MW-NASB-097.

On 5 September 2003, the Navy issued a letter to MEDEP requesting that maleic hydrazide be eliminated from the LTMP at Building 95. MEDEP concurred to the Navy's 5 September 2003 request on 16 September 2003.

Naval Air Station, Brunswick, Maine. November.

Since the April 2004 monitoring episode, LTM has been continued to determine trends that may indicate an impact due to the residual contamination at the Building 95 site (Site 17). Monitoring has been continued according to the LTMP (updated in November 2004). After the September 2006 sampling episode it was recommended that LTM of the three monitoring wells at Site 17 be discontinued or reduced to annual sampling due to the continued results of no contamination exceeding regulatory standards and the Navy plans for an Remedial Investigation of soils at the Site, after which an evaluation of results will decide the need for continued LTM. In April 2007 the LTMP objectives were reviewed and the Navy recommended suspension of LTM of the three monitoring wells at Site 17 due to the continued results of no contamination exceeding regulatory standards for more than 2 years.

On November 7 – 9, 2007, the Navy and Project Stakeholders held a Data Quality Objectives meeting for the Remedial Investigation process at Site 17. The Draft Final version of the Remedial Investigation Work Plan is being prepared by TtNUS. The Navy intends to complete the Remedial Investigation at Site 17 in 2008 and will use the results to delineate the extent of contamination and determine if there is an unacceptable current or future risk to humans or ecological receptors.

APPENDIX B

8/23/07 D Comeau emailed to say PDBs were ordered should be here in 5 days

Sent list of wells + depths

8/29/07 - PDBs arrive

8/30 - Made up PDBs - installed @ Site 9 + Northend of EP.

8/31 Teleconference
1135 - Booted out of weps, Early lunch, for the holiday weekend

9/4/07 - Finished placing PDBs in EP + S 1+3. Still need to put 1 @ S9 - Car parked on top
Called Dale about car parked on MW-027 S-9
Gauged Bldg 95 + Site 7

9/6/07 Gauged Site 9/Nex
Received gear from Pine

9/6/07 Received Glassware for Site 7, Bldg 95 + Site 2 MWs

9/7 - Sampled 7 wells @ S-7

9/10 - Finished last 3 wells @ Site 7 - Prepped for Bldg 95

9/11 Sampled Bldg 95 MW-067 Halfway through 097 torrential rains flooded street + well. Aborted, low flow. Rains continued unabated all afternoon

Shipped all of Site 7, Sept GWETS Dioxs and MW-067 (MS/MSD) + XDI via fedex

9/12 - Finished last 2 wells @ Bldg 95

Gauged S-7 - started 1 well but was asked to leave weapons. Calibrated instruments for an early start tommorrow

9/13/07 - Finished Site 2 MWs
Kicked out of weps @ 1315 for
BlueAngels practice.

Packed + shipped 3 St. 2 wells
and last Bldg 95 Samples

9/14/07 - Gauged S1+3

9/17/07 - Gauged all of E.P. (whew!)

CHAIN OF CUSTODY

NEL Job #:

NEL Control #:

Client Information

Name: ECC

Address: 33 Boston Post Rd. West, Suite 340

City: Marlborough, MA State: 01752 Zip:

Send Report to: Jackson Kiker

Phone #: 508-229-2270

Facility Information

Project Name: Building 95 Event 26

Location: NASB Brunswick, Maine

Project No.: 5700.007.016.500

JKiker@ecc.net

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2So4	None	Pesticides
BN-95-24-MW097	9/12/07	1115	MAC	GW	2					x	X
BN-95-26-MW098	9/12/07	1230	MAC	GW	2					x	X

Turnaround Information

- [ ] 21 Day Standard — Approved By:
- [x] 14 Day
- [ ] 7 Days *EMERGENCY*
- [ ] Other _____ (Days)

RUSH TAT is for FAX data

Data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [ ] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] ASP Category B
- [ ] State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Mark A. Carver	9/13/2007 1600	1	2		2
3		3	4		4
5		5			

Seal #: Preserved where applica ☐ On Ice: ☐

CHAIN OF CUSTODY

NEL Job #:

NEL Control #:

Client Information

Name: ECC

Address: 33 Boston Post Rd. West, Suite 340

City: Marlborough, MA State: 01752 Zip:

Send Report to: Jackson Kiker

Phone #: 508-229-2270

Facility Information

Project Name: Building 95

Location: NASB Brunswick, Maine

Project No.: 5700.007.016.500

JKiker@ecc.net

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2So4	None	Pesticides	ms/msd
BN-95-24-MW067	9/11/07	1055	MAC	GW	6					x	X	ms/msd
BN-95-26-MW-XD1	9/11/07	0000	MAC	GW	2					x	X	

Turnaround Information

- [ ] 21 Day Standard — Approved By:
- [x] 14 Day
- [ ] 7 Days *EMERGENCY*
- [ ] Other _____ (Days)

RUSH TAT is for FAX data

Data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [ ] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify) _____
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] ASP Category B
- [ ] State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Mark C. Carver	9/11/2007 1600	1	2		2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by Sampler: 5	Date Time:	Received By: 5	Seal #	Preserved where applica ☐	On Ice: ☐

FIELD RECORD OF WELL GAUGING

Project Name:	NASB LTM Bld 95 Event 26	Weather	Clear/ Warm/ Breezy	Gauge Date:	9/4/2007
Project Number:	5700.007.016.500	Equipt.	slope indicator	Gauge Time:	1345- 1400
ECC Personnel:	MAC				

Well Identification Number	Well Lock Status	Stick Up or F.M.	Well Physical Condition	Protective Casing Elevation (ft)	PVC Casing Elevation (ft)	Well Diameter (inches)	Total Depth of Well (ft)	Depth to Water (ft)	Depth to to Liquid (ft)	Water Table Elevation (ft)	Dedicated Pump
Bld 95											
MW-NASB-065	Good	Stick Up	Good		74.29	2	15.50	5.95	ND	68.34	Pump
MW-NASB-066	Good	Stick Up	Good		78.79	2	19.79	9.87	ND	68.92	Pump
MW-NASB-067	Good	Stick Up	Good		74.30	2	15.00	5.88	ND	68.42	Pump
MW-NASB-068	Good	Stick Up	Good		74.86	2	15.05	6.67	ND	68.19	Pump
MW-NASB-097	None	F.M.	Good		73.41	2	11.05	5.17	ND	68.24	Pump
MW-NASB-098	Good	Stick Up	Good		76.53	2	16.00	8.68	ND	67.85	Pump
ONFF											
MW-NASB-209R	None	F.M.	Good		72.94	2	10.00	6.12	ND	66.82	No
MW-NASB-210	Good	Stick Up	Good		77.55	2	16.69	8.84	ND	68.71	No

Comments:

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Site 17 (BLDG 95) Event 26
Location: NASB, Brunswick, ME
Well ID: MW-067

Date: 9/11/07
Sampler: MAC
PID Reading:

Start Time: 1005 **End Time:**
Well Construction: 2" PVC
Well Depth: 14.92
Depth To Water: 6.06
Water Column: .86
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1013 AE
YSI	600-XL-B-M	02B0815 AC
Lamotte	2020	5289-3504

Time	Volume Removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1005	-	200	6.06	12.11	8.50	205	4.97	-80.8	16
1010	1.0	200	6.08	13.58	6.67	209	3.74	-64.1	7
1015	2.0	200	6.08	16.25	6.40	210	3.19	-78.4	7
1025	3.0	200	6.08	22.45	6.11	212	2.25	-84.3	5
1035	4.0	200	6.12	17.48	5.89	209	0.60	-66.7	8
1040	5.0	200	6.12	17.84	5.82	206	0.50	-66.2	6
1045	6.5	300	6.17	18.17	5.88	207	0.15	-72.8	5
1048	7.4	300	6.17	17.08	5.72	200	0.11	-63.1	4
1051	8.3	300	6.18	14.25	5.72	195	0.10	-61.3	2
1054	9.2	300	6.18	14.18	5.66	193	0.11	-58.2	
Acceptance Criteria:					10%	10%	10%	10%	<10

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1055	BN-95-26-MW 067	950 ml Amber glass	6	None	Pesticide MS/MSD
0000	BN-95-26-MW-XD1	950ML Amber	2	NONE	Pesticides

Comments Cycled pump - flow dropping - water level steady. 10/30 - pulled pump to inspect - Nothing visibly wrong - Not warm to touch

Mild H_2S odor!

Signature: Mark A. Co

Date: 9/11/07

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Site 17 (BLDG 95) Event 26
Location: NASB, Brunswick, ME
Well ID: MW-097

Date: 9/11/07
Sampler: MAC
PID Reading:

Start Time: 1215 **End Time:**
Well Construction: 2" PVC
Well Depth: 9.34
Depth To Water: 5.37
Water Column: 3.97
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1013 AE
YSI	600-XL-B-M	02B0815 AC
Lamotte	2020	5289-3504

Time	Volume Removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1215	—	200	5.37	20.26	6.14	189	4.41	-37.1	>1000
1220	1.0	200	5.63	19.43	6.09	184	1.14	-53.1	750
1230	3.0	200	5.67	17.44	6.13	168	0.45	-63.2	198
1240	5.0	200	5.69	16.46	6.20	159	0.28	-59.1	88
1250	7.0	200	5.71	16.05	6.17	153	0.19	-49.3	69
1310	11.0	200	5.73	15.57	6.12	140	0.17	-17.9	43
1320	13.0	200	5.74	15.42	6.10	138	0.17	-23.4	30
1340	15.0	200		17.97	5.48	19			
Acceptance Criteria:					10%	10%	10%	10%	<10

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
	BN-95-26-MW097	950 ml Amber glass	2	None	Pesticides

Comments Water color - black — 1350 torrential rains - street + well flooded Aborted!

Signature

9/11/07
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Site 17 (BLDG 95) Event 26
Location: NASB, Brunswick, ME
Well ID: MW-097

Date: 9/12/07
Sampler: MAC
PID Reading:

Start Time: 1005 **End Time:** 1115
Well Construction: 2" PVC
Well Depth: 9.33
Depth To Water: 4.98
Water Column: 4.35
Total Volume Removed (L) 14.8

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1013 AE
YSI	600-XL-B-M	02B0815 AC
Lamotte	2020	5289-3504

Time	Volume Removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1005	–	200	4.98	16.40	8.91	127	3.25	237.9	43
1010	1.0	200	5.31	16.73	7.84	85	2.81	234.6	31
1025	4.0	200	5.34	16.59	6.66	50	1.13	57.8	16
1035	6.0	200	5.35	16.27	6.41	48	0.87	20.4	11
1045	8.0	200	5.36	16.18	6.31	47	0.72	10.1	9
1055	10.0	200	5.39	16.50	6.26	47	0.60	3.9	8
1105	12.0	200	5.39	16.52	6.20	48	0.53	5.3	7
1108	12.6	200	5.39	16.48	6.16	48	0.53	5.0	6
1111	13.2	200	5.39	16.51	6.15	49	0.52	6.0	6
1114	13.8	200	5.40	16.52	6.13	49	0.52	5.8	6
Acceptance Criteria:					10%	10%	10%	10%	<10

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1115	BNJ-95-26-MW-097	950 ml Amber glass	2	None	Pesticides
~~1115~~ MAC					

Comments Well flooded during rainstorm while low flowing yesterday

Mark A. Co
Signature

9/12/07
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Site 17 (BLDG 95) Event 26

Location: NASB, Brunswick, ME

Well ID: MW-09S

Date: 9/12/07

Sampler: MAC

PID Reading:

Start Time: 1135 **End Time:** 1230

Well Construction: 2" PVC

Well Depth: 15.75

Depth To Water: 8.42

Water Column: 7.33

Total Volume Removed (L) 11.8

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1013 AE
YSI	600-XL-B-M	02B0815 AC
Lamotte	2020	5289-3504

Time	Volume Removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1135	—	200	8.42	17.01	6.11	247	1.32	-28.5	131
1140	1.0	200	8.53	18.25	6.09	253	1.09	-37.8	78
1150	3.0	200	8.55	23.41	6.41	247	0.37	-59.2	46
1200	5.0	200	8.55	24.16	6.45	228	0.16	-63.8	36
1210	7.0	200	8.59	17.60	6.10	162	0.07	-33.5	15
1220	9.0	200	8.64	17.30	6.10	124	0.07	-17.9	8
1223	9.6	200	8.64	16.83	6.03	119	0.06	-16.8	5
1226	10.2	200	8.66	17.41	6.01	119	0.06	-15.0	4
1229	10.8	200	8.66	18.49	6.00	117	0.06	-14.8	4
Acceptance Criteria:					10%	10%	10%	10%	<10

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1230	BN-95-26-MW 01	950 ml Amber glass	2	None	Pesticides

Comments Water rusty/yellow color

Signature

9/12/07
Date

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB BLDG 95 **Date** 9/12/07 **Weather** clear/breezy

Calibrated By MAC **Instrument** YSI 650 MDS / YSI 600 XL-M-M **Serial Number** 02H1013 AE / 02B0815 AC

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1396	1413	19.47	
pH (7)	6.91	7.00	19.27	
pH (4)	3.82	4.00	19.26	
pH (10)	9.82	9.98	19.12	
ORP	238.8	240.0	19.47	
Dissolved Oxygen	100.7	98.6	19.41	Zero DO soln = 0.03 mg/L
Barometric Pressure	749 ~~MB~~ MMHG			

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB BLDG 95 (Site 17) **Date** 9/10/07 **Weather** Cloudy/Misty

Calibrated By MAC **Instrument** YSI 650 MDS / YSI 600 XL-M-M **Serial Number** 02H1013 AE / 02B0815 AC

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1399	1413	19.69	
pH (7)	7.27	7.00	19.88	
pH (4)	4.01	4.06	19.94	
pH (10)	9.80	9.96	19.99	
ORP	240.4	240.0	20.01	
Dissolved Oxygen	100.0	100.2	19.10	ODO soln = 0.05 mg/L
Barometric Pressure	762 mmHg			

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB- Site 17 (Building 95) **Calibrated By** MAC

Instrument/Serial Number	Pre-cal 1.0 (NTU)	Pre-cal 10 (NTU)	Post-cal 1.0 (NTU)	Post-cal 10 (NTU)	Date
Lamotte Turbidimeter 5289-3504	0.95	10.07	1.00	9.99	9/10/07
Lamotte Turbidimeter 5289-3504	0.96	10.07	1.01	10.01	
Lamotte Turbidimeter 5289-3504					
Lamotte Turbidimeter 5289-3504					
Lamotte Turbidimeter 5289-3504					
Lamotte Turbidimeter 5289-3504					
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Lamotte Turbidimeter 5289-3504					
Lamotte Turbidimeter 5289-3504					
Lamotte Turbidimeter 5289-3504					

APPENDIX C

APPENDIX C

Analytical Data Quality Review
Site 17

September 2007 Sampling Event

APPENDIX C
Analytical Data Quality Review
Site 17

C.1 INTRODUCTION:

This project utilized both field and analytical laboratory quality control measures to ensure that the data quality objectives presented in the Base-Wide Quality Assurance Project Plan (QAPP) (ECC/EA 2006) were met.

For the combined analyses for these sites, the laboratory was provided with all field samples. Field sample duplicates were collected at the frequency required by the QAPP. The samples were sent to Accutest Laboratories in Marlborough, Massachusetts which is NFESC and NELAC certified.

Analytical quality control was reviewed for compliance against the measurement performance criteria for precision and accuracy for each sample and analysis type, including field sample duplicates, as presented in the QAPP. Analytical precision for organics was based upon the relative percent difference (RPD) of the matrix spike/matrix spike duplicates (MS/MSD). Accuracy for organics was based upon the reported spike recoveries for the laboratory control samples (LCS), MS/MSD, and surrogate system monitoring compound (SMC) recoveries (for organic analysis).

The ability of the laboratory to extract organic compounds was confirmed by the recoveries of the surrogate spikes. MS/MSD and surrogate spike recoveries measure the effect of the sample matrix and extraction on organic sample preparation and measurement methodology. During the MS/MSD process, known quantities of target compounds are spiked into the sample matrix, and recoveries are used to measure potential bias due to matrix effects. The MS/MSD RPD or laboratory replicate RPD is used to determine analytical precision, and the field duplicate RPD is used to determine overall precision. The accuracy of the LCS spike recoveries is used in conjunction with MS/MSD when evaluating organic analyses. Field completeness was quantified by reviewing the scheduled number of samples to the number of samples actually collected. Data completeness was quantified by determining the ratio of the number of non-rejected analyte measurements to the total number of analyte measurements.

For clarity, the following terms are defined for use throughout this appendix:

- ***Method Detection Limit*** – The method detection limit (MDL) refers to the minimum concentration that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero. The method detection limits are summarized at the end of this report.

- ***Practical Quantitation Limit*** – The practical quantitation limit (PQL) is defined

as the lowest concentration that can be reasonably achieved within specified units of precision and accuracy during routine laboratory operating conditions.

- ***Method Reporting Limit*** – The method reporting limit (MRL) is defined as the Project Quantitation Limit adjusted for any necessary sample dilutions, percent moisture, sample volume deviations, and/or extract/digestate volume deviations.

- ***Measurement Performance Criteria***—The measurement performance criteria (MPC) define the acceptable performance for the data quality indicators- accuracy and precision. The LTMP QAPP specifies the project MPC for LCS, surrogates, MS/MSD, and MS/MSD RPD quality control checks.

- ***Precision*** - Precision is evaluated by comparing the relative percent difference (RPD) of the MS/MSD or laboratory replicate sample pairs to the QAPP RPD limits. If the RPD is outside the measurement performance criteria, the positive detect or non-detect is qualified for the affected compound in the un-spiked sample (U.S. EPA 1996). The overall precision is determined by comparing the field duplicate RPD to the QAPP RPD limits.

- ***Accuracy***- Accuracy is evaluated by comparing MS/MSD recoveries, surrogate spike recoveries, and LCS recoveries to QAPP MPC.

- ***J*** – Data qualifier indicating that the analyte was positively identified; however, the concentration is approximate.

- ***UJ*** - Data qualifier indicating that the analyte was not detected above the MRL, and the reporting limit is approximate.

- ***U*** - The parameter was analyzed, but was not detected above the sample MDL.

- ***R*** - The sample result was rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

C.2 LABORATORY ANALYTICAL QUALITY CONTROL PROGRAM:

Aqueous samples collected from the monitoring wells were analyzed for LTMP parameters:

- LTMP Target Compound List Pesticides by EPA SW-846 Method 8081A.

The quality control measures specified in the EPA SW-846 methodology (MS/MSD, surrogates, and LCS), as well as those in the QAPP, were performed at the proper frequency by the laboratory and established proper analytical quality control. The range of results for the accuracy and precision data quality objectives are discussed in the subsections below.

C.2.1 LABORATORY ACCURACY EVALUATION

C.2.1.1 Evaluating Matrix Spike/Matrix Spike Duplicate Recoveries for Accuracy

Generally, no action is taken based on the MS/MSD recoveries alone to qualify an entire sample delivery group. The qualification is limited to the un-spiked sample associated with the MS/MSD. However, professional judgment may be used to qualify samples across a particular sample delivery group (i.e., all associated samples). Standard procedures for qualifying field sample results for MS/MSD recoveries are summarized below.

- If the spike recovery is greater than the upper control limit (UCL), then detects are estimated (J) and the non-detects are not impacted for the affected compounds in the unspiked sample.

- If the spike recovery is greater than or equal to 10 percent, but less than the lower control limit (LCL), then detects are estimated (J) and the non-detects are estimated (UJ) for the affected compounds in the un-spiked sample.

- If the spike recovery is less than 10 percent, then detects are estimated (J) and the non-detects are rejected (R) for the affected compounds in the un-spiked sample.

C.2.1.2 Evaluating Surrogate Recoveries for Accuracy

Procedures for qualifying field sample results for surrogate recoveries are summarized below. Surrogate recovery assessments are sample-specific.

- If the surrogate recovery is greater than the UCL, all detects are estimated (J) and the non-detects are not affected (U.S. EPA 1996).
- If the surrogate recovery is greater than or equal to 10 percent, but less than the LCL, then all detects are estimated (J) and all non-detects are estimated (UJ).
- If the surrogate recovery is less than 10 percent, then detects are estimated (J) and all non-detects are rejected (R).

C.2.1.3 Evaluating Laboratory Control Sample Recoveries for

Accuracy

Procedures for qualifying field samples for LCS recoveries are summarized below. LCS assessments are generally applied to an entire sample batch.

- If the LCS recovery is greater than the UCL, detects are estimated (J) and the non-detects are not affected (U.S. EPA 1996).
- If the LCS recovery is greater than or equal to 10 percent, but less than the LCL, detects are estimated (J) and the non-detects are estimated (UJ).
- If the LCS recovery is less than 10 percent, detects are estimated (J) and the non-detects are rejected (R).

C.2.1.4 Evaluating Laboratory Method Blanks for Accuracy

Procedures for qualifying field samples for method blank results are summarized below. Method blank assessments are generally applied to an entire sample batch.

- Method blank results should not have any analyte detections greater than the MRL.
- Analytes detected in field samples are evaluated at a five or ten times (for common laboratory cross-contaminants) the detections of those analytes in the associated method blank.
- Field samples associated with the method blank, which have detected analyte levels less than five or ten times (for common laboratory cross-contaminants) the corresponding analyte level in the method blank, are qualified as non-detect (U) for that analyte.
- Field samples associated with the method blank, which have detected analyte levels greater than five or ten times (for common laboratory cross-contaminants) the corresponding analyte level in the method blank, are not qualified.

C.2.2 LABORATORY ACCURACY ASSESSMENT

Project-specific assessment of laboratory accuracy is detailed in this section.

C.2.2.1 LTMP Pesticides

Accuracy assessment for pesticides compounds is detailed in this section.

C.2.2.1.1 Surrogates

Two surrogates were used to measure the ability of the

laboratory to extract the target compounds from the environmental samples. The control limits identified in the QAPP and used by the laboratory were the same for the two surrogates. The monitoring well sample surrogate recoveries were within the QAPP MPC. Sample extraction was acceptable and without bias.

C.2.2.1.2 MS/MSD

One set of MS/MSD analysis was performed with pesticides in the 24 monitoring event.

SDG: M67604

MS and MSD were performed on sample BN-95-24-MW067. The following compounds recovered above the QC limits: Alpha-BHC, Beta-BHC, Gamma-BHC, Alpha-Chlordane, Gamma-Chlordane, Dieldrin, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Endrin, Endrin Aldehyde, Endrin Ketone, Endosulfan-I, Endosulfan-II, Heptachlor epoxide and Methoxychlor. 4,4'-DDD was qualified as estimated (J).

C.2.2.1.3 LCS/LCSD

The LCS/LCSD analyzed in association with SDG: M67676 and SDG: M67604 had high percent recoveries for the following compounds:
Beta-BHC, 4,4'-DDE, 4,4'-DDT, Endrin, Endosulfan sulfate, Endrin Aldehyde, Endrin Ketone, Endosulfan-I, Heptachlor Epoxide and Methoxychlor.
No qualifications were required because these compounds were not detected in the associated site samples.

C.2.2.1.4 Method Blank:

One method blank (MB) was associated with SDG: M67676 and M67604. No qualifications were required because the MB had non-detects for the Pesticides compounds.

C.2.3 LABORATORY PRECISION EVALUATION

C.2.3.1 Evaluating Matrix Spike/Matrix Spike Duplicate Relative Percent Differences for Laboratory Precision

Generally, no action is taken based on the MS/MSD RPD's alone to qualify an entire sample delivery group. The qualification is limited to the un-spiked sample associated with the MS/MSD. However, professional judgment may be used to qualify samples across a particular sample delivery group (i.e., all associated samples). All QAPP pesticide compounds are used to assess the MS/MSD RPD's.

If the MS/MSD RPD is greater than 20%, the result for the outlier compound is qualified as estimated (J for detects and UJ for non-detects) in the native sample.

C.2.3.2 Evaluating Laboratory Replicate Relative Percent Differences for Laboratory Precision

Procedures for qualifying field samples for laboratory replicate RPD's are summarized below.

If the laboratory replicate RPD is greater than QC limits and if the analyte concentration is greater than the MRL, then sample results are qualified as estimated (J for detects and UJ for non-detects).

Laboratory replicates are generally analyzed for inorganic analyses.

C.2.4 LABORATORY PRECISION ASSESSMENT

Project-specific assessment of precision is detailed in this section.

C.2.4.1 Pesticides

Precision assessment for Pesticides compounds is detailed in this section.

C.2.4.1.1 MS/MSD RPD's

All MS/MSD RPD's associated with SDG: M67604 were all acceptable. No qualifications were required.

C.3 FIELD SAMPLING PROGRAM QUALITY CONTROL:

A field duplicate was collected and analyzed for the same parameters as the environmental samples to determine field sampling precision.

C.3.1 FIELD PRECISION EVALUATION

C.3.1.1 Field Duplicate Sample Precision Evaluation

Field duplicate samples are used to evaluate the overall precision of both the field and laboratory. EPA Region I criteria for evaluating field duplicates, the following guideline were used to review the field duplicate collected and analyzed during the sampling event.

- Field sample and field duplicate sample results greater than twice the MRL were evaluated and the RPD was calculated.
- A detect greater than the MRL in one but non-detect in another sample of the field duplicate pair were qualified as estimated for detects and non-detect results were qualified as estimated non-detect.
- The overall precision was evaluated as being acceptable if less than 30 percent.

C.3.2 FIELD PRECISION ASSESSMENT

Field precision assessment for volatiles and metals analyses detailed in this section. Field duplicate criteria are 30% for water.

One field sample and corresponding field duplicate sample, listed in the table below, was collected during September monitoring event.

Site Sample	Duplicate Sample	Collection Date	SDG	Lab ID	Analyses
BN-95-24-MW067	BN-95-24-MW-XD1	09/11/2007	M67604	M67604-1/2	Pesticides

Field duplicate sample results for each sample set are discussed below:

C.3.2.1 Field Duplicate BN-95-24-MW-067

One field duplicate set was collected from monitoring well MW-067, and were identified as BN-95-24-MW067 (site sample) and BN-95-24-MW-XD1 (field duplicate). The following table lists the set of field duplicate ground water

sample results that are associated with sample delivery group: M67604.

C.3.2.1.1 Field Duplicate RPD's

Field Sample	Analyte	Analytical Method	Result	Units	Field Duplicate	Result	Units	RPD	Qualifier
BN-95-24-MW067	4,4'-DDD	SW-846 8081	0.056	µg/L	BN-95-24-MW-XD1	0.058	µg/L	3.5	

C.3.3 FIELD ACCURACY EVALUATION

Procedures for assessment of field accuracy are detailed in this section.

C.3.3.1 Evaluating Rinsate Blanks for Field Accuracy

Procedures for qualifying field samples for rinsate blank results are summarized below. Equipment blank qualifications are specific to the samples for which a rinsate blank is considered representative. Analysis of a rinsate blank collected from non-dedicated and/or non-disposable equipment is used to evaluate potential field cross contamination.

- Rinsate blank results should not have any analyte detections greater than the MRL.
- Analytes detected in field samples are evaluated at five or ten times (for common laboratory cross-contaminants) the detections of those analytes the associated rinsate blank.
- Field samples associated with the rinsate blank, which have detected analyte levels less than five or ten times (for common laboratory cross-contaminants) the corresponding analyte level in the rinsate blank, are qualified as non-detect (U) for that analyte.
- Field samples associated with the rinsate blank, which have detected analyte levels greater than five or ten times (for common laboratory cross-contaminants) the corresponding analyte level in the rinsate blank, are not qualified.

C.3.3.2 Field Blank / Source Water Blank

No source water blanks were collected in this round of

sampling.

C.3.4 FIELD ACCURACY ASSESSMENT.

Project-specific assessment of field accuracy is detailed in this section.

C.3.4.1 Pesticides Compounds

Field accuracy assessment for pesticides compounds is detailed in this section.

C.3.4.1.1 Rinsate Blanks

Rinsate blanks were not collected during this monitoring event as dedicated or disposable sampling equipment was used for sample collection.

C.4 OVERALL EVALUATION OF DATA AND USABILITY RECOMMENDATION:

The following is a summary table of the findings for the data quality review performed and discussed in detail in this appendix:

Data Quality Review		Holding Time	Field/Method Blank Contamination	Precision		Accuracy			Completeness	
				Laboratory	Field	Surrogate	MS/MSD	LCS	Analytical	Field
Matrix: Aqueous	TCL Pesticides – 8081A	√	√	√	√	√	J	√	100%	100%
NOTE: √ = The data are usable as reported based on the data quality review of this quality measurement.										

Field sample collected and analyzed as part of Building 95 Monitoring Events 24 and 26 validated and found to meet the data quality objectives established in the QAPP for data usability.

C.5 COMPLETENESS:

Analytes were reviewed for method and QAPP compliance, and the data were determined to be usable because no data were rejected for this sampling event. Therefore, the percent analytical completeness for field samples is 100 percent. The planned number of field samples and the corresponding quality control

samples (duplicate) was collected, resulting in a percent field completeness of 100 percent.

C.6 METHOD DETECTION LIMITS FOR AQUEOUS SAMPLES:

The following table provides the MDLs for aqueous samples. The MDL represents the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero.

Values were compared to the Maximum Exposure Guidelines [1] (MEGs) for the State of Maine by the validator, and the MDLs for these compounds are less than the MEGs

Analytical Method	Matrix	Analyte	MDL	Units
SW8468081	Aqueous	Heptachlor epoxide	0.0080	ug/l
SW8468081	Aqueous	Endosulfan sulfate	0.021	ug/l
SW8468081	Aqueous	Aldrin	0.0070	ug/l
SW8468081	Aqueous	alpha-BHC	0.0070	ug/l
SW8468081	Aqueous	beta-BHC	0.010	ug/l
SW8468081	Aqueous	delta-BHC	0.011	ug/l
SW8468081	Aqueous	Endosulfan-II	0.014	ug/l
SW8468081	Aqueous	4,4'-DDT	0.026	ug/l
SW8468081	Aqueous	alpha-Chlordane	0.016	ug/l
SW8468081	Aqueous	gamma-Chlordane	0.0080	ug/l
SW8468081	Aqueous	Endrin ketone	0.018	ug/l
SW8468081	Aqueous	gamma-BHC (Lindane)	0.0070	ug/l
SW8468081	Aqueous	Dieldrin	0.0090	ug/l
SW8468081	Aqueous	Endrin	0.011	ug/l
SW8468081	Aqueous	Methoxychlor	0.019	ug/l
SW8468081	Aqueous	4,4'-DDD	0.014	ug/l
SW8468081	Aqueous	4,4'-DDE	0.0090	ug/l
SW8468081	Aqueous	Endrin aldehyde	0.050	ug/l
SW8468081	Aqueous	Heptachlor	0.016	ug/l
SW8468081	Aqueous	Endosulfan-I	0.015	ug/l

1 Maine Department of Human Services, Environmental and Occupational Health Program, Center for Disease Control, "Maine CDC Maximum Exposure Guidelines (MEGs) for drinking water," (August 7, 2006).

APPENDIX D

DATA VALIDATION MEMORANDUM
BRUNSWICK NAVAL AIR STATION
BUILDING 95 (Site 17)
DATA VALIDATION MEMORANDUM
SEPTEMBER 2007
EVENT 26
(SDG: M67676)

TO:	MR. JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA
FROM:	SAMIR A. NAGUIB, H&S ENVIRONMENTAL SENIOR QUALITY ASSURANCE CHEMIST, FRAMINGHAM, MA
SUBJECT:	BRUNSWICK NAS BUILDING 95
CLIENT NUMBER:	5700.007.016.500
DATE:	OCTOBER 17, 2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Base-wide QAPP (Jan 2006). The QAPP MPC and validation guidelines are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Presented in this Master Data Validation Memorandum are the data validation reports for the Sample Data Groups (SDG's) presented in Table I. Data validation reports are presented for each SDG. The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Acronym and abbreviations used in the data validation reports are presented in Table II.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. Ancillary qualifiers are noted on the data validation worksheets. Data qualifiers are defined in Table III. The final and ranking assigned data qualifier for an analyte is presented in Table IV- Data Summary Table.

SAMPLE DATA GROUP (SDG)

The Pesticides data were validated according to USEPA Region I Tier II criteria. All QC parameters applicable to the method and Tier II criteria were validated and documented in the data worksheets.

Laboratory: The samples were analyzed by ACCUTEST Laboratories, Marlborough, MA. Sample Matrix: Ground Water (GW). The project's analytical samples were grouped in the SDG and analyzed for the parameters listed in Table 1.

Table I: Sample Data Group

FIELD SAMPLE NAME	LAB SAMPLE ID	PESTICIDES
BN-95-24-MW097	M67676-1	X
BN-95-26-MW098	M67676-2	X

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Table II: Acronyms and Abbreviations

Acronym / Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
Ug/L	Microgram per liter
BEHP/2-BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verification
COC	Chain of custody
COPC	Contaminants of potential concern
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
MDL	Method detection limit

Acronym / Abbreviation	Definition
MeCl	Methylene chloride
MS	Matrix spike
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TMX	Tetrachloro-m-xylene
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following qualifiers listed in Table III:

Table III: Data Qualifiers

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: ACCUTEST Laboratories
SDG: M67676
EPA-NE DV TIER LEVEL: II
SITE NAME: Brunswick NAS-Building 95 (Site 17)

# of SAMPLES/MATRIX: 2 Ground Water
VALIDATION CONTRACTOR: H&S Environmental, Inc.
VALIDATOR'S NAME: Samir A. Naguib
DV Completion Date: 10/17/2007
Date Sampled: 09/12/2007

ANALYTICAL DATA QUALITY SUMMARY

		Pesticides
1	Preservation and HT	O
2	Instrument Performance Check	-
3	Initial Calibration:	O
4	Continuing Calibration:	M
5	Blanks:	O
6	Surrogate Compounds:	O
7	Internal Standards	-
8	Matrix Spike/Matrix Spike Duplicate:	-
9	Sensitivity Check:	O
10	PE Samples- Accuracy Check	-
11	Target Compound Identification:	-
12	Compound Quantitation and Reported QLs	O
13	Tentatively Identified Compounds:	-
14	Semivolatile/Pesticide/PCB Cleanup:	-
15	Data Completeness	O
16	Overall Evaluation of Data:	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): no action items.

AREAS OF CONCERN: (M items):

Pesticides:

1. Initial Calibration Verification (ICV):

Laboratory Sample ID	Compound	Action
1 -2	Beta-BHC	UJ

2. Continuing Calibration Verification (CCV):

Laboratory Sample ID	Compound	Action
1 -2	Heptachlor	UJ
	Endosulfan-II	UJ
	4,4'-DDT	UJ
	Methoxychlor	UJ
	Endrin Ketone	UJ

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 26
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	Ground Water	-	One (1) sample cooler was received by ACCUTEST on 09/14/2007 at 3.3°C	ACCUTEST Laboratories, Marlborough, MA 01752	M67676

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number	Sample Status
BN-95-24-MW097	M67676-1	
BN-95-26-MW098	M67676-2	

Note: Samples are described below in the data worksheets by reference to the last two digits of the Lab Sample Number

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 26
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inv en-tory	QUAL	BIAS
COC, Sample Delivery Group Form.	1. Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R –non-detects preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures < 6 ^{o}C in all the coolers. Sample preservation using ice adequate. Sample custody transferred from Field Team Leader to lab sample courier in person. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 7 to extract, 40 Days to analysis 2) J –detects, UJ or R –nondetects (function of time) 3) *check transcription errors	Collected Date: 09/12/2007 Extracted on: 09/18/2007 Analyzed on: 09/22/2007 Samples extracted and analyzed within holding times. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	No result outside the calibration range. No samples qualified.	X	-	
Equipment Blank	< 5x (<10x common) contaminants for aqueous samples – for soil indicate EB (X rules don't apply)	Not applicable. Not collected/analyzed with this SDG as equipment was dedicated.	-	-	
Surrogates	Surrogate acceptance limits not specified in the LTMP. Use laboratory statistical limits. TMX: 30-132% DCB: 30-126% Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	1. All surrogate recoveries within LTMP limits for field samples. No qualifications were required.	X	-	
Laboratory Blanks (method blanks)	1) < 5x contaminants – U 2) analytes <lab PQL (contract lab) 3) if linear range is exceeded, verify if a instrument blank was performed 4) *verify accurate transcription of times, Ids, are reported on forms 5) *verify from the raw data if the instrument blank was performed in the same vessel 6) *verify, RRT, and surrogate %R 7) *check 10% of raw chromatograms for false +/-, check for transcription errors recalculate surrogate recovery (10% of them)	1. Method blank (OP14345-MB) associated with the samples in this SDG was free of contaminations. No qualifications were required.	X	-	

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 26
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

<table>
<tr><th>REVIEW ITEMS</th><th>ACCEPTANCE CRITERIA</th><th>SAMPLES AFFECTED Narrative (samples listed on attached sheets)</th><th>Inv en-tory</th><th>QUAL</th><th>BIAS</th></tr>
<tr><td>Laboratory Control Sample (LCS) Recovery</td><td>1) All Pesticide compounds
2) LTMP limits – Table 7-3 S-17
10% and <LCL% J detects, UJ –NDs
>UCL% J detects <10% R NDs, J-detects
3) *Recalculate the concentrations for one compound in the LCS
4) * Recalculate the %R (within 10% of lab)
Note: Tier guidance as a zero blind</td><td>LCS and LCSD (OP14345-BS/BSD) were analyzed on 09/22/2007. All LCS and LCSD %REC's were within QC limits with the following exceptions:
<table>
<tr><th>Compound</th><th>%REC/%REC/RPD</th><th>Action(1)</th></tr>
<tr><td>Beta-BHC</td><td>145/A/A</td><td>None</td></tr>
<tr><td>4,4'-DDE</td><td>150/A/A</td><td>None</td></tr>
<tr><td>4,4'-DDT</td><td>190/180/A</td><td>None</td></tr>
<tr><td>Endrin</td><td>145/A/A</td><td>None</td></tr>
<tr><td>Endosulfan sulfate</td><td>145/A/A</td><td>None</td></tr>
<tr><td>Endrin Aldehyde</td><td>195/180/A</td><td>None</td></tr>
<tr><td>Endrin Ketone</td><td>155/A/A</td><td>None</td></tr>
<tr><td>Endosulfan-I</td><td>150/155/A</td><td>None</td></tr>
<tr><td>Heptachlor Epoxide</td><td>145/A/A</td><td>None</td></tr>
<tr><td>Methoxychlor</td><td>190/175/A</td><td>None</td></tr>
</table>
A=Acceptable

(1) All %REC's were above the QC limits. No qualifications were required.</td><td>X</td><td>-</td><td></td></tr>
<tr><td>Matrix Spike/.Matrix Spike Duplicate (MS/MSD) Recovery</td><td>1) LTMP limits–Table 7-3 S17 (if MS > 4X native levels)
Qualification of MS sample: <10% J detects, R NDs
>10% and <70% J detects, UJ –NDs
>130% J detects</td><td>1. MS and MSD source sample was associated with a different SDG</td><td>-</td><td>-</td><td></td></tr>
<tr><td>MS/MSD RPD</td><td>RPD ≤30%, 40% for concentrated extracts J – detects in MS sample
UJ-non detects
*recalculate one RPD</td><td>1. MS/MSD RPD can not be evaluated due to association with a different SDG.</td><td>-</td><td>-</td><td></td></tr>
<tr><td>Field Duplicate RPD</td><td>1) RPD ≤ 50% soil and <30% waters for Results >2X PQL (FD pair only) J-detects (both > X PQL)
2) If one >2X PQL, other ND, J-detections, UJ non-detect
Other conditions use judgment</td><td>1. Field Duplicate was not submitted with this SDG.</td><td>-</td><td>-</td><td></td></tr>
</table>

H&S Environmental Region I Data Review Worksheet **Pesticide: SW-846 Methods 3510C/ 8081A**

Project Location: Brunswick Naval Air Station, Brunswick, ME **Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)**
Project Name: Building 95, Event 26
ECC Job No.: 5700.007.016.500

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inv en-tory	QUAL	BIAS
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL or QAPP limits 5) *tgt and surrogate 80-120% R *check and recalculate %RSD and %R for one arochlor for 10% of them (criteria within 10% of lab)	NA	-	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 3) %R <10 ND- ® , J- detects 4) 10%> but <80% , judgement 5) %R>120% J-detects 6) QC, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortified blank (see VOA/SV Part II – section X). *Check and recalculate %RSDs and %R for three compounds (with 10% of lab)	Sensitivity acceptable, no sample qualifications.	X	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 2) *Matrix effects- MS/MSD, surrogated, PDS. 3) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * calculate %RPD 1 and 2 columns	RPDs between two columns for detections within limits. No samples qualified.	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 2) PES > acceptance criteria – Detects in samples J, 3) PES<acceptance criteria – Detects J, NDs –R 4) VOA/SV-XI14 other criteria 5) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Degradation Check	<15% Endrin and DDT breakdown.	Breakdown within limits. No samples qualified.	X	-	

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 26
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inv en-tory	QUAL	BIAS
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	Within MPC limits. No samples qualified.	X	-	
Initial Cal (Linearity)	%RSD < 20% use average RF for calibration %RSD> 20% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20 for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte	1. Instrument: GCBB-GC23 Date: 09/20/2007 Calibration linear. %RSD criteria met for both columns for all compounds of concern. No samples qualified.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 20%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs *Calculate %D ICV/ICAL	Instrument ID: GCBB-GC23 Date: 09/21/2007 **Compound** / **Column A %D** / **Column B %D** Beta-BHC / 15.4 / 17.7	X	Beta-BHC in samples 1 and 2 qualified UJ.	

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 26
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

<table>
<tr><th>REVIEW ITEMS</th><th>ACCEPTANCE CRITERIA</th><th>SAMPLES AFFECTED Narrative (samples listed on attached sheets)</th><th>Inv en-tory</th><th>QUAL</th><th>BIAS</th></tr>
<tr><td>CCV</td><td>1) 15% of initial calib. curve
2) Qualification-J detects, R or UJ NDs
3) *verify same instrument and parameters
4) *Recalculate RRF for one tgt cmpd (within 10%)
5) *Recalculate %D for one tgt cmpd (within 10%)
6) *option-review preparation logs to ensure cal stds are traceable to NIST stds.
7) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)</td><td>Instrument: GCBB-GC23
Data: 09/22/2007 @ 04:10AM
<table>
<tr><th>Compound</th><th>Column A %D</th><th>Column B %D</th></tr>
<tr><td>Heptachlor</td><td>34.8</td><td>A</td></tr>
<tr><td>Endosulfan-II</td><td>A</td><td>15.3</td></tr>
<tr><td>4,4’-DDT</td><td>38.1</td><td>42.4</td></tr>
<tr><td>Methoxychlor</td><td>35.3</td><td>29.1</td></tr>
<tr><td>Endrin Ketone</td><td>A</td><td>23.3</td></tr>
</table>
A= Acceptable %D

Instrument: GCBB-GC23
Data: 09/24/2007 @ 09:37AM
<table>
<tr><th>Compound</th><th>Column A %D</th><th>Column B %D</th></tr>
<tr><td>4,4’-DDT</td><td>25.2</td><td>25.6</td></tr>
<tr><td>Methoxychlor</td><td>23.8</td><td>17.1</td></tr>
</table>
A= Acceptable %D

The following action were taken:
<table>
<tr><th>Laboratory Sample ID</th><th>Compound</th><th>Action</th></tr>
<tr><td>1 -2</td><td>Heptachlor
Endosulfan-II
4,4’-DDT
Methoxychlor
Endrin Ketone</td><td>UJ
UJ
UJ
UJ
UJ</td></tr>
</table></td><td>X</td><td>Refer to Table</td><td></td></tr>
<tr><td>Compound Quantitation</td><td>1) Check sensitivy (MDL< 1/3 PQL or per QAPP
2) %D <25% primary and secondary column identification and quantitation
3) Target compounds by 8081</td><td>1. No QC deviations were observed.</td><td>X</td><td></td><td></td></tr>
</table>

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 26
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inv en-tory	QUAL	BIAS
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5%, symmetrical peakshape. GPC check with interferants. Good surrogate recovery, GPC blank check – no carryover.(VOA/SV-IX-I6). Sulfur and High MW compounds removed. SW-846 clean-up not required	NA			
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Errors: 1. ICAL: within MPC limits. 2. ICV: within with the exception of Beta-BHC. This compound in samples 1 and 2 was qualified UJ. 3. CCV: %D's within with the QC limit with exception of the following: Heptachlor, Endosulfan-II, 4,4'-DDT Methoxychlor and Endrin Ketone. These compounds were qualified UJ in samples 1 and2. 4. Method blank was non-detect for all compounds of concern. 5. LCS/LCSD: Several compounds recovered above the QC limits Sampling errors: 1. Sampling precision was not evaluated. No applicable field duplicate submitted with this SDG.	X	-	

(*asterisk sections Tier III only) Completeness Check: Inventory Check Sheet: X

Sample Quantitation Calculations on attached sheet (TIER III ONLY).

BRUNSWICK NAS
BUILDING 95
SEPTEMBER 2007
EVENT 26
DATA SUMMARY TABLE
AQUEOUS
SDG: M67676

Sample Name	Lab ID	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	RL
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Heptachlor epoxide		ug/l	U	0.0080	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Endosulfan sulfate		ug/l	U	0.021	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Aldrin		ug/l	U	0.0070	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	alpha-BHC		ug/l	U	0.0070	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	beta-BHC		ug/l	UJ	0.010	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	delta-BHC		ug/l	U	0.011	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Endosulfan-II		ug/l	UJ	0.014	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	4,4'-DDT		ug/l	UJ	0.026	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	alpha-Chlordane		ug/l	U	0.016	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	gamma-Chlordane		ug/l	U	0.0080	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Endrin ketone		ug/l	UJ	0.018	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	gamma-BHC (Lindane)		ug/l	U	0.0070	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Dieldrin		ug/l	U	0.0090	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Endrin		ug/l	U	0.011	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Methoxychlor		ug/l	UJ	0.019	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	4,4'-DDD		ug/l	U	0.014	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	4,4'-DDE		ug/l	U	0.0090	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Endrin aldehyde		ug/l	U	0.050	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Heptachlor		ug/l	UJ	0.016	0.050
BN-95-24-MW097	M67676-1	SW8468081	09/12/07	1	Endosulfan-I		ug/l	U	0.015	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Heptachlor epoxide		ug/l	U	0.0080	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Endosulfan sulfate		ug/l	U	0.021	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Aldrin		ug/l	U	0.0070	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	alpha-BHC		ug/l	U	0.0070	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	beta-BHC		ug/l	UJ	0.010	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	delta-BHC		ug/l	U	0.011	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Endosulfan-II		ug/l	UJ	0.014	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	4,4'-DDT		ug/l	UJ	0.026	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	alpha-Chlordane		ug/l	U	0.016	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	gamma-Chlordane		ug/l	U	0.0080	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Endrin ketone		ug/l	UJ	0.018	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	gamma-BHC (Lindane)		ug/l	U	0.0070	0.050

BRUNSWICK NAS
BUILDING 95
SEPTEMBER 2007
EVENT 26
DATA SUMMARY TABLE
AQUEOUS
SDG: M67676

Sample Name	Lab ID	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	RL
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Dieldrin		ug/l	U	0.0090	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Endrin		ug/l	U	0.011	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Methoxychlor		ug/l	UJ	0.019	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	4,4'-DDD		ug/l	U	0.014	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	4,4'-DDE		ug/l	U	0.0090	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Endrin aldehyde		ug/l	U	0.050	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Heptachlor		ug/l	UJ	0.016	0.050
BN-95-26-MW098	M67676-2	SW8468081	09/12/07	1	Endosulfan-I		ug/l	U	0.015	0.050

DATA VALIDATION MEMORANDUM
BRUNSWICK NAVAL AIR STATION
BUILDING 95
DATA VALIDATION MEMORANDUM
SEPTEMBER 2007
EVENT 26
(SDG: M67604)

TO:	MR. JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA
FROM:	SAMIR A. NAGUIB, H&S ENVIRONMENTAL SENIOR QUALITY ASSURANCE CHEMIST, FRAMINGHAM, MA
SUBJECT:	BRUNSWICK NAS BUILDING 95
CLIENT NUMBER:	5700.007.016.500
DATE:	OCTOBER 17, 2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Basewide QAPP (Jan 2006). The QAPP MPC and validation guidelines are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Presented in this Master Data Validation Memorandum are the data validation reports for the Sample Data Groups (SDG's) presented in Table I. Data validation reports are presented for each SDG. The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Acronym and abbreviations used in the data validation reports are presented in Table II.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. Ancillary qualifiers are noted on the data validation worksheets. Data qualifiers are defined in Table III. The final and ranking assigned data qualifier for an analyte is presented in Table IV- Data Summary Table.

SAMPLE DATA GROUP (SDG)

The Pesticides data were validated according to USEPA Region I Tier II criteria. All QC parameters applicable to the method and Tier II criteria were validated and documented in the data worksheets.

Laboratory: The samples were analyzed by ACCUTEST Laboratories, Marlborough, MA. Sample Matrix: Ground Water (GW).

The project's analytical samples were grouped in the SDG and analyzed for the parameters listed in Table 1.

Table I: Sample Data Group

FIELD SAMPLE NAME	LAB SAMPLE ID	PESTICIDES
BN-95-24-MW067	M6704-1	X
BN-95-24-MW-XD1	M6704-2	X

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Table II: Acronyms and Abbreviations

Acronym / Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
Ug/L	Microgram per liter
BEHP/2-BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verification
COC	Chain of custody
COPC	Contaminants of potential concern
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time

Acronym / Abbreviation	Definition
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
MDL	Method detection limit
MeCl	Methylene chloride
MS	Matrix spike
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TMX	Tetrachloro-m-xylene
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following qualifiers listed in Table III:

Table III Data Qualifiers

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: ACCUTEST Laboratories
SDG: M67604
EPA-NE DV TIER LEVEL: II
SITE NAME: Brunswick NAS-Building 95(Site 17)

# of SAMPLES/MATRIX: 1 Ground Water and 1 Field Duplicate
VALIDATION CONTRACTOR: H&S Environmental, Inc.
VALIDATOR'S NAME: Samir A. Naguib
DV Completion Date: 10/17/2007
Date Sampled: 09/11/2007

ANALYTICAL DATA QUALITY SUMMARY

		Pesticides
1	Preservation and HT	O
2	Instrument Performance Check	-
3	Initial Calibration:	O
4	Continuing Calibration:	M
5	Blanks:	O
6	Surrogate Compounds:	O
7	Internal Standards	-
8	Matrix Spike/Matrix Spike Duplicate:	M
9	Sensitivity Check:	O
10	PE Samples- Accuracy Check	-
11	Target Compound Identification:	-
12	Compound Quantitation and Reported QLs	O
13	Tentatively Identified Compounds:	-
14	Semivolatile/Pesticide/PCB Cleanup:	-
15	Data Completeness	O
16	Overall Evaluation of Data:	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): no action items.

AREAS OF CONCERN: (M items):

Pesticides:

1. Matrix Spike/ Matrix Spike Duplicate (MS/MSD):

   4,4'-DDD in sample 1 qualified J.

2. Initial Calibration Verification (ICV):

Laboratory Sample ID	Compound	Action
1 -2	Beta-BHC	UJ

3. Continuing Calibration Verification (CCV):

Laboratory Sample ID	Compound	Action
1 -2	Heptachlor	UJ
	Endosulfan-II	UJ
	4,4'-DDT	UJ
	Methoxychlor	UJ
	Endrin Ketone	UJ

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 24
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and LTMP (June 2006)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	Ground Water	-	One (1) sample cooler was received by ACCUTEST on 09/12/2007 at 2.2°C	ACCUTEST Laboratories, Marlborough, MA 01752	M67604

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number	Sample Status
BN-95-24-MW067	M6704-1	
BN-95-24-MW-XD1	M6704-2	Field duplicate of Sample BN-95-24-MW067

Note: Samples are described below in the data worksheets by reference to the last two digits of the Lab Sample Number

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 24
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inv en-tory	QUAL	BIAS
COC, Sample Delivery Group Form.	1) Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R –nondetects preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures < 6 ^{o}C in all the coolers. Sample preservation using ice adequate. Sample custody transferred from Field Team Leader to lab sample courier in person. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 7 to extract, 40 Days to analysis 2) J –detects, UJ or R –nondetects (function of time) 3) *check transcription errors	Collected Date: 09/11/2007 Extracted on: 09/18/2007 Analyzed on: 09/22/2007 Samples extracted and analyzed within holding times. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	No result outside the calibration range. No samples qualified.	X	-	
Equipment Blank	< 5x (<10x common) contaminants for aqueous samples – for soil indicate EB (X rules don't apply)	Not applicable. Not collected/analyzed with this SDG as equipment was dedicated.	-	-	
Surrogates	Surrogate acceptance limits not specified in the LTMP. Use laboratory statistical limits. TMX: 30-132% DCB: 30-126% Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	1. All surrogate recoveries within LTMP limits for field samples. No qualifications were required.	X	-	
Laboratory Blanks (method blanks)	1) < 5x contaminants – U 2) analytes <lab PQL (contract lab) 3) if linear range is exceeded, verify if a instrument blank was performed 4) *verify accurate transcription of times, Ids, are reported on forms 5) *verify from the raw data if the instrument blank was performed in the same vessel 6) *verify, RRT, and surrogate %R 7) *check 10% of raw chromatograms for false +/-, check for transcription errors recalculate surrogate recovery (10% of them)	1. Method blank (OP14345-MB) associated with the samples in this SDG was free of contaminations. No qualifications were required.	X	-	

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 24
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and and QAPP (Jan 2006)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inv en-tory	QUAL	BIAS
Laboratory Control Sample (LCS) Recovery	1) All Pesticide compounds 2) LTMP limits – Table 7-3 S-17 10% and <LCL% J detects, UJ –NDs >UCL% J detects <10% R NDs, J-detects 3) *Recalculate the concentrations for one compound in the LCS 4) * Recalculate the %R (within 10% of lab) Note: Tier guidance as a zero blind	LCS and LCSD (OP14345-BS/BSD) were analyzed on 09/22/2007. All LCS and LCSD %REC's were within QC limits with the following exceptions:	X	-	

Compound	%REC/%REC/RPD	Action (1)
Beta-BHC	145/A/A	None
4,4'-DDE	150/A/A	None
4,4'-DDT	190/180/A	None
Endrin	145/A/A	None
Endosulfan sulfate	145/A/A	None
Endrin Aldehyde	195/180/A	None
Endrin Ketone	155/A/A	None
Endosulfan-I	150/155/A	None
Heptachlor epoxide	145/A/A	None
Methoxychlor	190/175/A	None

A=Acceptable

1. All %REC's were above the QC limits. No qualifications were required.

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 24
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

<table>
<tr><th>REVIEW ITEMS</th><th>ACCEPTANCE CRITERIA</th><th>SAMPLES AFFECTED Narrative (samples listed on attached sheets)</th><th>Inv en-tory</th><th>QUAL</th><th>BIAS</th></tr>
<tr><td>Matrix Spike/.Matrix Spike Duplicate (MS/MSD) Recovery</td><td>1) LTMP limits–Table 7-3 S17 (if MS > 4X native levels)
Qualification of MS sample: <10% J detects, R NDs
>10% and <70% J detects, UJ –NDs
>130% J detects</td><td>3) MS and MSD were performed on sample BN-95-24-MW067 (1). All %REC's were within the QC limits with the following exceptions:
<table><tr><th>Compound</th><th>%REC/%REC/RPD</th><th>Action (1)</th></tr><tr><td>Alpha-BHC</td><td>140/140/A</td><td>None</td></tr><tr><td>Beta-BHC</td><td>140/150/A</td><td>None</td></tr><tr><td>Gamma-BHC</td><td>140/145/A</td><td>None</td></tr><tr><td>Alpha-Chlordane</td><td>140/145/A</td><td>None</td></tr><tr><td>Gamma-Chlordane</td><td>140/145/A</td><td>None</td></tr><tr><td>Dieldrin</td><td>140/145/A</td><td>None</td></tr><tr><td>4,4'-DDD</td><td>142/152/A</td><td>J</td></tr><tr><td>4,4'-DDE</td><td>A/150/A</td><td>None</td></tr><tr><td>4,4'-DDT</td><td>195/200/A</td><td>None</td></tr><tr><td>Endrin</td><td>A/155/A</td><td>None</td></tr><tr><td>Endrin Aldehyde</td><td>170/175/A</td><td>None</td></tr><tr><td>Endrin Ketone</td><td>A/160/A</td><td>None</td></tr><tr><td>Endosulfan-I</td><td>170/175/A</td><td>None</td></tr><tr><td>Endosulfan-II</td><td>A/145/A</td><td>None</td></tr><tr><td>Heptachlor epoxide</td><td>145/150/A</td><td>None</td></tr><tr><td>Methoxychlor</td><td>180/185/A</td><td>None</td></tr></table>A=Acceptable

1. All %REC's were above the QC limits.</td><td>X</td><td>4,4'-DDD in sample 1 qualified J.</td><td></td></tr>
<tr><td>MS/MSD RPD</td><td>RPD ≤30%, 40% for concentrated extracts J – detects in MS sample
UJ-non detects
*recalculate one RPD</td><td>1. All MS/MSD RPD's were within the QC limit. No qualifications were required.</td><td>X</td><td>-</td><td></td></tr>
<tr><td>Field Duplicate RPD</td><td>1) RPD ≤ 50% soil and <30% waters for Results >2X PQL (FD pair only) J-detects (both > X PQL)
2) If one >2X PQL, other ND, J-detections, UJ non-detect
Other conditions use judgment</td><td>1 Sample BN-95-24-MW-XD1 (2) was collected as field duplicate for sample BN-95-24-MW067 (1). All RPD's were within the QC limits. No qualifications were required.

Please refer to Field Duplicate Summary Table.</td><td>X</td><td>-</td><td></td></tr>
</table>

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 24
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inv en-tory	QUAL	BIAS
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL or QAPP limits 5) *tgt and surrogate 80-120% R *check and recalculate %RSD and %R for one arochlor for 10% of them (criteria within 10% of lab)	NA	-	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 4) %R <10 ND- ® , J- detects 5) 10%> but <80% , judgement 6) %R>120% J-detects 7) QC, RRT meet criteria, 8) %RSD < 20% 9) MDL< MQL (3x less ideal) 10) Lab fortitied blank (see VOA/SV Part II – section X). *Check and recalculate %RSDs and %R for three compounds (with 10% of lab)	Sensitivity acceptable, no sample qualifications.	X	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 2) *Matrix effects- MS/MSD, surrogated, PDS. 3) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * calculate %RPD 1 and 2 columns	RPDs between two columns for detections within limits. No samples qualified.	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 2) PES > acceptance criteria – Detects in samples J, 3) PES<acceptance criteria – Detects J, NDs –R 4) VOA/SV-XI14 other criteria 5) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 24
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inv en-tory	QUAL	BIAS
Degradation Check	<15% Endrin and DDT breakdown.	Breakdown within limits. No samples qualified.	X	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	Within MPC limits. No samples qualified.	X	-	
Initial Cal (Linearity)	%RSD < 20% use average RF for calibration %RSD> 20% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20 for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte	1. Instrument: GCBB-GC23 Date: 09/20/2007 Calibration linear. %RSD criteria met for both columns for all compounds of concern. No samples qualified.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 20%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs *Calculate %D ICV/ICAL	Instrument ID: GCBB-GC23 Date: 09/21/2007 **Compound** / **Column A %D** / **Column B %D** Beta-BHC / 15.4 / 17.7	X	Beta-BHC in samples 1 and 2 qualified UJ.	

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 24
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

<table>
<tr><th>REVIEW ITEMS</th><th>ACCEPTANCE CRITERIA</th><th>SAMPLES AFFECTED Narrative (samples listed on attached sheets)</th><th>Inv en-tory</th><th>QUAL</th><th>BIAS</th></tr>
<tr><td>CCV</td><td>1) 15% of initial calib. curve
2) Qualification-J detects, R or UJ NDs
3) *verify same instrument and parameters
4) *Recalculate RRF for one tgt cmpd (within 10%)
5) *Recalculate %D for one tgt cmpd (within 10%)
6) *option-review preparation logs to ensure cal stds are traceable to NIST stds.
7) *option-recalculate cal std concentration of one std. Must agree within 10% of lab
(option if information is in data package)</td><td>Instrument: GCBB-GC23
Data: 09/22/2007 @ 04:10
<table>
<tr><th>Compound</th><th>Column A %D</th><th>Colum n B %D</th></tr>
<tr><td>Heptachlor</td><td>34.8</td><td>A</td></tr>
<tr><td>Endosulfan-II</td><td>A</td><td>15.3</td></tr>
<tr><td>4,4’-DDT</td><td>38.1</td><td>42.4</td></tr>
<tr><td>Methoxychlor</td><td>35.3</td><td>29.1</td></tr>
<tr><td>Endrin Ketone</td><td>A</td><td>23.3</td></tr>
</table>
A= Acceptable %D

Instrument: GCBB-GC23
Data: 09/24/2007 @ 09:37AM
<table>
<tr><th>Compound</th><th>Column A %D</th><th>Column B %D</th></tr>
<tr><td>4,4’-DDT</td><td>25.2</td><td>25.6</td></tr>
<tr><td>Methoxychlor</td><td>23.8</td><td>17.1</td></tr>
</table>
The following action were taken:
<table>
<tr><th>Laboratory Sample ID</th><th>Compound</th><th>Action</th></tr>
<tr><td>1 -2</td><td>Heptachlor
Endosulfan-II
4,4’-DDT
Methoxychlor
Endrin Ketone</td><td>UJ
UJ
UJ
UJ
UJ</td></tr>
</table></td><td>X</td><td>Refer to Table</td><td></td></tr>
<tr><td>Compound Quantitation</td><td>1) Check sensitivy (MDL< 1/3 PQL or per QAPP
2) %D <25% primary and secondary column identification and quantitation
3) Target compounds by 8081</td><td>1. No QC deviations were observed.</td><td>X</td><td></td><td></td></tr>
</table>

H&S Environmental Region I Data Review Worksheet

Pesticide: SW-846 Methods 3510C/ 8081A

Project Location: Brunswick Naval Air Station, Brunswick, ME
Project Name: Building 95, Event 24
ECC Job No.: 5700.007.016.500

Review Criteria: Region I Tier II Guidance and QAPP (Jan 2006)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inv en-tory	QUAL	BIAS
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5%, symmetrical peak shape. GPC check with interferants. Good surrogate recovery, GPC blank check – no carryover.(VOA/SV-IX-I6). Sulfur and High MW compounds removed. SW-846 clean-up not required	NA			
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Errors: 1. ICAL: within MPC limits. 2. ICV: within with the exception of Beta-BHC. This compound in samples 1 and 2 was qualified UJ. 3. CCV: %D's within with the QC limit with exception of the following: Heptachlor, Endosulfan-II, 4,4'-DDT Methoxychlor and Endrin Ketone. These compounds were qualified UJ. 4. Method blank was non-detect for all compounds of concern. 5. LCS/LCSD: Several compounds recovered above the QC limits. No qualifications were required. 6. MS/MSD: Several compounds recovered above the QC limits. Only 4,4'-DDD in sample 1 qualified J. Sampling errors: 1. Sampling precision was acceptable.	X	-	

(*asterisk sections Tier III only) Completeness Check: Inventory Check Sheet: X

Sample Quantitation Calculations on attached sheet (TIER III ONLY).

Field Duplicate Worksheet
SDG: M67604
Naval Air Station, Brunswick, ME
Building 95 (Site 17)
Event 26

Field Sample	Analyte	Analytical Method	Result	Units	Field Duplicate	Result	Units	RPD	Qualifier
BN-95-24-MW067	4,4'-DDD	SW-846 8081	0.056	µg/L	BN-95-24-MW-XD1	0.058	µg/L	3.5	

BRUNSWICK NAS
BUILDING 95
SEPTEMBER 2007
EVENT 26
DATA SUMMARY TABLE
AQUEOUS
SDG:M6704

Sample Name	Lab ID	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	RL
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Heptachlor epoxide		ug/l	U	0.0080	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Endosulfan sulfate		ug/l	U	0.021	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Aldrin		ug/l	U	0.0070	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	alpha-BHC		ug/l	U	0.0070	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	beta-BHC		ug/l	UJ	0.010	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	delta-BHC		ug/l	U	0.011	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Endosulfan-II		ug/l	UJ	0.014	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	4,4'-DDT		ug/l	UJ	0.026	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	alpha-Chlordane		ug/l	U	0.016	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	gamma-Chlordane		ug/l	U	0.0080	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Endrin ketone		ug/l	UJ	0.018	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	gamma-BHC (Lindane)		ug/l	U	0.0070	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Dieldrin		ug/l	U	0.0090	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Endrin		ug/l	U	0.011	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Methoxychlor		ug/l	UJ	0.019	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	4,4'-DDD	0.056	ug/l	J	0.014	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	4,4'-DDE		ug/l	U	0.0090	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Endrin aldehyde		ug/l	U	0.050	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Heptachlor		ug/l	UJ	0.016	0.050
BN-95-24-MW067	M67604-1	SW8468081	09/11/07	1	Endosulfan-I		ug/l	U	0.015	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Heptachlor epoxide		ug/l	U	0.0080	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Endosulfan sulfate		ug/l	U	0.021	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Aldrin		ug/l	U	0.0070	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	alpha-BHC		ug/l	U	0.0070	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	beta-BHC		ug/l	UJ	0.010	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	delta-BHC		ug/l	U	0.011	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Endosulfan-II		ug/l	UJ	0.014	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	4,4'-DDT		ug/l	UJ	0.026	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	alpha-Chlordane		ug/l	U	0.016	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	gamma-Chlordane		ug/l	U	0.0080	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Endrin ketone		ug/l	UJ	0.018	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	gamma-BHC (Lindane)		ug/l	U	0.0070	0.050

BRUNSWICK NAS
BUILDING 95
SEPTEMBER 2007
EVENT 26
DATA SUMMARY TABLE
AQUEOUS
SDG:M6704

Sample Name	Lab ID	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	RL
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Dieldrin		ug/l	U	0.0090	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Endrin		ug/l	U	0.011	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Methoxychlor		ug/l	UJ	0.019	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	4,4'-DDD	0.058	ug/l		0.014	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	4,4'-DDE		ug/l	U	0.0090	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Endrin aldehyde		ug/l	U	0.050	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Heptachlor		ug/l	UJ	0.016	0.050
BN-95-24-MW-XD1	M67604-2	SW8468081	09/11/07	1	Endosulfan-I		ug/l	U	0.015	0.050

APPENDIX E

New England ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

10/01/07

Technical Report for

Environmental Chemical Corporation

Brunswick Naval Air Station, Brunswick, ME

BUILDING 95

Accutest Job Number: M67604

Sampling Date: 09/11/07

Report to:

Environmental Chemical Corporation
33 Boston Post Road West
Suite 340
Marlborough, MA 01752

ATTN: Jackson Kiker

Total number of pages in report: **256**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Pand
Lab Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579) NY (23346) NJ (MA926) NAVY USACE

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Test results relate only to samples analyzed.

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Sample Summary

Environmental Chemical Corporation

Job No: M67604

Brunswick Naval Air Station, Brunswick, ME
Project No: BUILDING 95

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M67604-1	09/11/07	10:55 MAC	09/12/07	AQ	Ground Water	BN-95-24-MW067
M67604-1D	09/11/07	10:55 MAC	09/12/07	AQ	Water Dup/MSD	BN-95-24-MW067 MSD
M67604-1S	09/11/07	10:55 MAC	09/12/07	AQ	Water Matrix Spike	BN-95-24-MW067 MS
M67604-2	09/11/07	00:00 MAC	09/12/07	AQ	Ground Water	BN-95-24-MW-XD1

ACCUTEST Laboratories

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Environmental Chemical Corporation — Job No M67604

Site: Brunswick Naval Air Station, Brunswick, ME — Report Date 9/28/2007 4:39:54 PM

2 Sample(s) were collected on 09/11/2007 and were received at Accutest on 09/12/2007 properly preserved, at 2.2 Deg. C and intact. These Samples received an Accutest job number of M67604. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GC By Method SW846 8081

Matrix AQ — Batch ID: OP14345

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M67604-1MS, M67604-1MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 4,4'-DDE, 4,4'-DDT, beta-BHC, Endosulfan sulfate, Endosulfan-I, Endrin, Endrin aldehyde, Endrin ketone, Heptachlor epoxide, Methoxychlor are outside control limits. Associated samples are non-detect for this compound.
- Matrix Spike Recovery(s) for 4,4'-DDT, Aldrin, alpha-BHC, alpha-Chlordane, Endosulfan-I, Endrin aldehyde, gamma-BHC (Lindane), gamma-Chlordane, Heptachlor epoxide, Methoxychlor are outside control limits. Associated samples are non-detect for this compound.
- Matrix Spike Duplicate Recovery(s) for 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, alpha-BHC, alpha-Chlordane, beta-BHC, Dieldrin, Endosulfan-I, Endosulfan-II, Endrin, Endrin aldehyde, Endrin ketone, gamma-BHC (Lindane), gamma-Chlordane, Heptachlor epoxide, Methoxychlor are outside control limits. Associated samples are non-detect for this compound.
- Blank Spike Duplicate Recovery(s) for 4,4'-DDT, Endosulfan-I, Endrin aldehyde, Methoxychlor are outside control limits. Associated samples are non-detect for this compound.
- OP14345-BSD for alpha-Chlordane, gamma-Chlordane, Dieldrin, Endrin ketone, Heptachlor, Heptachlor epoxide: Outside DoD control limits, but within in-house control limits. Associated samples are non-detect for this compound.
- OP14345-BS, OP14345-BSD, OP14345-MS for 4,4'-DDD: Outside DoD control limits, but within in-house control limits.
- M67604-2 for 4,4'-DDD: Confirmed by re-extraction.
- OP14345-BS for alpha-Chlordane, gamma-Chlordane, Dieldrin, Heptachlor: Outside DoD control limits, but within in-house control limits. Associated samples are non-detect for this compound.
- M67604-1 for 4,4'-DDD: Confirmed by re-extraction.
- OP14345-MB for Decachlorobiphenyl: Recovery satisfactory for signal 2.
- MS for Dieldrin, Endrin, Endrin ketone, Heptachlor is outside DoD control limits, but within in-house control limits. Associated samples are non-detect for this compound.
- MSD for Heptachlor is outside DoD control limits, but within in-house control limits. Associated samples are non-detect for this compound.
- Matrix Spike Duplicate Recovery(s) for 4,4'-DDD are outside control limits. Posative sample results confirmed by re-extraction.
- Continuing calibration check standard in batch GBB668, file BB15972A, signal #1 for Heptachlor, 4,4-DDT, Methoxychlor, DCB outside criteria (response bias high).Associated sample are non-detect for target compound.
- Continuing calibration check standard in batch GBB668, file BB15985, signal #1 for 4,4-DDT, Methoxychlor, DCB outside criteria (response bias high). Associated sample are non-detect for target compound.

All work evaluated according to DoD QAPP.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M67604).

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	BN-95-24-MW067		
Lab Sample ID:	M67604-1	**Date Sampled:**	09/11/07
Matrix:	AQ - Ground Water	**Date Received:**	09/12/07
Method:	SW846 8081 SW846 3510C	**Percent Solids:**	n/a
Project:	Brunswick Naval Air Station, Brunswick, ME		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB15979.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.050	0.0070	ug/l	
319-84-6	alpha-BHC	ND	0.050	0.0070	ug/l	
319-85-7	beta-BHC	ND	0.050	0.010	ug/l	
319-86-8	delta-BHC	ND	0.050	0.011	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	0.0070	ug/l	
5103-71-9	alpha-Chlordane	ND	0.050	0.016	ug/l	
5103-74-2	gamma-Chlordane	ND	0.050	0.0080	ug/l	
60-57-1	Dieldrin	ND	0.050	0.0090	ug/l	
72-54-8	4,4'-DDD [a]	0.056	0.050	0.014	ug/l	
72-55-9	4,4'-DDE	ND	0.050	0.0090	ug/l	
50-29-3	4,4'-DDT	ND	0.050	0.026	ug/l	
72-20-8	Endrin	ND	0.050	0.011	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.050	0.021	ug/l	
7421-93-4	Endrin aldehyde	ND	0.050	0.050	ug/l	
53494-70-5	Endrin ketone	ND	0.050	0.018	ug/l	
959-98-8	Endosulfan-I	ND	0.050	0.015	ug/l	
33213-65-9	Endosulfan-II	ND	0.050	0.014	ug/l	
76-44-8	Heptachlor	ND	0.050	0.016	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	0.0080	ug/l	
72-43-5	Methoxychlor	ND	0.050	0.019	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		30-132%
877-09-8	Tetrachloro-m-xylene	95%		30-132%
2051-24-3	Decachlorobiphenyl	94%		30-126%
2051-24-3	Decachlorobiphenyl	90%		30-126%

(a) Confirmed by re-extraction.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	BN-95-24-MW-XD1		
Lab Sample ID:	M67604-2	**Date Sampled:**	09/11/07
Matrix:	AQ - Ground Water	**Date Received:**	09/12/07
Method:	SW846 8081 SW846 3510C	**Percent Solids:**	n/a
Project:	Brunswick Naval Air Station, Brunswick, ME		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB15980.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.050	0.0070	ug/l	
319-84-6	alpha-BHC	ND	0.050	0.0070	ug/l	
319-85-7	beta-BHC	ND	0.050	0.010	ug/l	
319-86-8	delta-BHC	ND	0.050	0.011	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	0.0070	ug/l	
5103-71-9	alpha-Chlordane	ND	0.050	0.016	ug/l	
5103-74-2	gamma-Chlordane	ND	0.050	0.0080	ug/l	
60-57-1	Dieldrin	ND	0.050	0.0090	ug/l	
72-54-8	4,4'-DDD [a]	0.058	0.050	0.014	ug/l	
72-55-9	4,4'-DDE	ND	0.050	0.0090	ug/l	
50-29-3	4,4'-DDT	ND	0.050	0.026	ug/l	
72-20-8	Endrin	ND	0.050	0.011	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.050	0.021	ug/l	
7421-93-4	Endrin aldehyde	ND	0.050	0.050	ug/l	
53494-70-5	Endrin ketone	ND	0.050	0.018	ug/l	
959-98-8	Endosulfan-I	ND	0.050	0.015	ug/l	
33213-65-9	Endosulfan-II	ND	0.050	0.014	ug/l	
76-44-8	Heptachlor	ND	0.050	0.016	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	0.0080	ug/l	
72-43-5	Methoxychlor	ND	0.050	0.019	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		30-132%
877-09-8	Tetrachloro-m-xylene	97%		30-132%
2051-24-3	Decachlorobiphenyl	101%		30-126%
2051-24-3	Decachlorobiphenyl	96%		30-126%

(a) Confirmed by re-extraction.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

CHAIN OF CUSTODY

NEL Job #: M67604
NEL Control #:

Client Information

Name: ECC
Address: 33 Boston Post Rd. West, Suite 340
City: Marlborough, MA State: Zip: 01752
Send Report to: Jackson Kiker
Phone #: 508-229-2270

Facility Information

Project Name: Building 95
Location: NASB Brunswick, Maine
Project No.: 5700.007.016.500
JKiker@ecc.net
FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	HCL	NaOH	HNO3	H2SO4	None	Pesticides										
BN-95-24-MW067 - 1,15,1D	9/11/07	1055	MAC	GW	6					x	X	ms/msd									
BN-95-26-MW-XD1 - 2	9/11/07	0000	MAC	GW	2					x	X										

Turnaround Information

- [ ] 21 Day Standard
- [x] 14 Day
- [ ] 7 Days EMERGENCY
- [ ] Other _____ (Days)

Approved By:

RUSH TAT is for FAX date
Data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [ ] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify) _____
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] ASP Category B
- [ ] State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Mark A. Carver	9/11/2007 1600	1 FedEx	2 FedEx	9/12/07 9:15	2 Ryan Sweeney
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by Sampler: 5	Date Time:	Received By: 5	Seal #	Preserved where applies ☐	On Ice: ☑ 2.2°c

4.1 4

M67604: Chain of Custody
Page 1 of 2

ACCUTEST

Sample Receipt Form

Client: ECC

Reviewed By: 10

Accutest Job No.: M67604

Date/Time Received: 9-12-07 @ 9:15

1. Coolers received by: ☐ Accutest Courier ☑ Federal Express ☐ Client: _____ ☐ Other: _____

2. Custody Seal: ☑ Intact ☐ Broken ☐ Absent

3. Cooler Receipt Temperature: ☑ Temperature blank: 2.2°C ☐ Infrared Temp. gun: _____

4. Are samples on ice? yes

Comments:

5. Condition of Samples: ☑ Intact ☐ Broken/Leaking (list samples):

6. All containers accounted for: ☑ Yes ☐ No (explain):

7. Does the COC agree with the sample labels? ☑ Yes ☐ No (explain):

8. Are the appropriate containers used? ☑ Yes ☐ No (list samples):

9. Are the samples properly preserved? ☑ Yes ☐ No (list samples):

10. Are the samples within holding times? ☑ Yes ☐ No (list samples):

11. Is the COC filled out entirely/legibly in indelible ink? ☑ Yes ☐ No (explain):

12. Date/Time client contacted for any anomalies: _____

QA101-01

4.1 4

M67604: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Environmental Chemical Corporation

Job No: M67604

Brunswick Naval Air Station, Brunswick, ME
Project No: BUILDING 95

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M67604-1	Collected: 11-SEP-07 10:55 By: MAC		Received: 12-SEP-07 By: RS			
BN-95-24-MW067						
M67604-1	SW846 8081	22-SEP-07 11:46	CZ	18-SEP-07	ME	P8081PESTTCL
M67604-2	Collected: 11-SEP-07 00:00 By: MAC		Received: 12-SEP-07 By: RS			
BN-95-24-MW-XD1						
M67604-2	SW846 8081	22-SEP-07 12:51	CZ	18-SEP-07	ME	P8081PESTTCL

Accutest Internal Chain of Custody

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME
Received: 09/12/07

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M67604-1.1	Walk In Ref #9	Agron Jana	09/21/07 16:00	Retrieve from Storage
M67604-1.1	Agron Jana		09/22/07 07:42	Depleted
M67604-1.2	Walk In Ref #9	Agron Jana	09/21/07 16:00	Retrieve from Storage
M67604-1.2	Agron Jana		09/22/07 07:42	Depleted
M67604-1.3	Walk In Ref #9	Agron Jana	09/21/07 16:00	Retrieve from Storage
M67604-1.3	Agron Jana		09/22/07 07:42	Depleted
M67604-1.4	Walk In Ref #9	Francesco Gulla	09/18/07 10:12	Retrieve from Storage
M67604-1.4	Francesco Gulla		09/24/07 07:25	Depleted
M67604-1.5	Walk In Ref #9	Francesco Gulla	09/18/07 10:16	Retrieve from Storage
M67604-1.5	Francesco Gulla		09/24/07 07:25	Depleted
M67604-1.6	Walk In Ref #9	Francesco Gulla	09/18/07 10:16	Retrieve from Storage
M67604-1.6	Francesco Gulla		09/24/07 07:25	Depleted
M67604-2.1	Walk In Ref #9	Francesco Gulla	09/18/07 10:12	Retrieve from Storage
M67604-2.1	Francesco Gulla		09/24/07 07:25	Depleted
M67604-2.2	Walk In Ref #9	Agron Jana	09/21/07 16:00	Retrieve from Storage
M67604-2.2	Agron Jana		09/22/07 07:42	Depleted

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- DDT/Endrin Breakdown Checks
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14345-MB	BB15974.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668

The QC reported here applies to the following samples: **Method:** SW846 8081

M67604-1, M67604-2

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.050	0.0070	ug/l	
319-84-6	alpha-BHC	ND	0.050	0.0070	ug/l	
319-85-7	beta-BHC	ND	0.050	0.010	ug/l	
319-86-8	delta-BHC	ND	0.050	0.011	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	0.0070	ug/l	
5103-71-9	alpha-Chlordane	ND	0.050	0.016	ug/l	
5103-74-2	gamma-Chlordane	ND	0.050	0.0080	ug/l	
60-57-1	Dieldrin	ND	0.050	0.0090	ug/l	
72-54-8	4,4'-DDD	ND	0.050	0.014	ug/l	
72-55-9	4,4'-DDE	ND	0.050	0.0090	ug/l	
50-29-3	4,4'-DDT	ND	0.050	0.026	ug/l	
72-20-8	Endrin	ND	0.050	0.011	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.050	0.021	ug/l	
7421-93-4	Endrin aldehyde	ND	0.050	0.050	ug/l	
53494-70-5	Endrin ketone	ND	0.050	0.018	ug/l	
959-98-8	Endosulfan-I	ND	0.050	0.015	ug/l	
33213-65-9	Endosulfan-II	ND	0.050	0.014	ug/l	
76-44-8	Heptachlor	ND	0.050	0.016	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	0.0080	ug/l	
72-43-5	Methoxychlor	ND	0.050	0.019	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	110%	30-132%
877-09-8	Tetrachloro-m-xylene	104%	30-132%
2051-24-3	Decachlorobiphenyl	130%* [a]	30-126%
2051-24-3	Decachlorobiphenyl	125%	30-126%

(a) Recovery satisfactory for signal 2.

Blank Spike/Blank Spike Duplicate Summary

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14345-BS	BB15975.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
OP14345-BSD	BB15976.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668

The QC reported here applies to the following samples: **Method:** SW846 8081

M67604-1, M67604-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	0.2	0.26	130	0.26	130	0	30-132/20
319-84-6	alpha-BHC	0.2	0.27	135	0.27	135	0	30-140/20
319-85-7	beta-BHC	0.2	0.29	145* [a]	0.28	140	4	30-140/20
319-86-8	delta-BHC	0.2	0.19	95	0.19	95	0	30-140/20
58-89-9	gamma-BHC (Lindane)	0.2	0.27	135	0.27	135	0	30-140/20
5103-71-9	alpha-Chlordane	0.2	0.28	140	0.27	135	4	42-140/20
5103-74-2	gamma-Chlordane	0.2	0.28	140	0.27	135	4	42-140/20
60-57-1	Dieldrin	0.2	0.28	140	0.28	140	0	30-140/20
72-54-8	4,4'-DDD	0.2	0.29	145	0.27	135	7	30-150/20
72-55-9	4,4'-DDE	0.2	0.30	150* [a]	0.28	140	7	30-140/20
50-29-3	4,4'-DDT	0.2	0.38	190* [a]	0.36	180* [a]	5	30-140/20
72-20-8	Endrin	0.2	0.29	145* [a]	0.28	140	4	30-140/20
1031-07-8	Endosulfan sulfate	0.2	0.29	145* [a]	0.28	140	4	30-140/20
7421-93-4	Endrin aldehyde	0.2	0.39	195* [a]	0.36	180* [a]	8	30-140/20
53494-70-5	Endrin ketone	0.2	0.31	155* [a]	0.29	145	7	30-150/20
959-98-8	Endosulfan-I	0.2	0.30	150* [a]	0.31	155* [a]	3	30-138/20
33213-65-9	Endosulfan-II	0.2	0.28	140	0.27	135	4	30-140/20
76-44-8	Heptachlor	0.2	0.28	140	0.28	140	0	30-140/20
1024-57-3	Heptachlor epoxide	0.2	0.29	145* [a]	0.28	140	4	30-140/20
72-43-5	Methoxychlor	0.2	0.38	190* [a]	0.35	175* [a]	8	30-140/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	105%	102%	30-132%
877-09-8	Tetrachloro-m-xylene	101%	97%	30-132%
2051-24-3	Decachlorobiphenyl	104%	96%	30-126%
2051-24-3	Decachlorobiphenyl	99%	91%	30-126%

(a) Outside control limits. Associated samples are non-detect for this compound.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14345-MS	BB15977.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
OP14345-MSD	BB15978.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
M67604-1	BB15979.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668

The QC reported here applies to the following samples: **Method:** SW846 8081

M67604-1, M67604-2

CAS No.	Compound	M67604-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND		0.2	0.26	130* a	0.25	125	4	30-127/30
319-84-6	alpha-BHC	ND		0.2	0.28	140* a	0.28	140* a	0	30-129/30
319-85-7	beta-BHC	ND		0.2	0.28	140	0.30	150* a	7	30-140/30
319-86-8	delta-BHC	ND		0.2	0.20	100	0.19	95	5	30-135/30
58-89-9	gamma-BHC (Lindane)	ND		0.2	0.28	140* a	0.29	145* a	4	30-139/30
5103-71-9	alpha-Chlordane	ND		0.2	0.28	140* a	0.29	145* a	4	47-137/30
5103-74-2	gamma-Chlordane	ND		0.2	0.28	140* a	0.29	145* a	4	47-134/30
60-57-1	Dieldrin	ND		0.2	0.28	140	0.29	145* a	4	30-142/30
72-54-8	4,4'-DDD	0.056		0.2	0.34	142	0.36	152* b	6	30-150/30
72-55-9	4,4'-DDE	ND		0.2	0.28	140	0.30	150* a	7	30-144/30
50-29-3	4,4'-DDT	ND		0.2	0.39	195* a	0.40	200* a	3	30-150/30
72-20-8	Endrin	ND		0.2	0.30	150	0.31	155* a	3	30-150/30
1031-07-8	Endosulfan sulfate	ND		0.2	0.29	145	0.30	150	3	30-150/30
7421-93-4	Endrin aldehyde	ND		0.2	0.34	170* a	0.35	175* a	3	30-147/30
53494-70-5	Endrin ketone	ND		0.2	0.30	150	0.32	160* a	6	30-150/30
959-98-8	Endosulfan-I	ND		0.2	0.34	170* a	0.35	175* a	3	30-136/30
33213-65-9	Endosulfan-II	ND		0.2	0.28	140	0.29	145* a	4	30-143/30
76-44-8	Heptachlor	ND		0.2	0.27	135	0.27	135	0	30-150/30
1024-57-3	Heptachlor epoxide	ND		0.2	0.29	145* a	0.30	150* a	3	30-139/30
72-43-5	Methoxychlor	ND		0.2	0.36	180* a	0.37	185* a	3	30-150/30

CAS No.	Surrogate Recoveries	MS	MSD	M67604-1	Limits
877-09-8	Tetrachloro-m-xylene	111%	112%	101%	30-132%
877-09-8	Tetrachloro-m-xylene	102%	103%	95%	30-132%
2051-24-3	Decachlorobiphenyl	105%	106%	94%	30-126%
2051-24-3	Decachlorobiphenyl	98%	101%	90%	30-126%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Posative sample results confirmed by re-extraction.

DDT/Endrin Breakdown Check

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample: GBB667-DDT
Lab File ID: BB15939.D
Instrument ID: GCBB
Injection Date: 09/20/07
Injection Time: 16:17

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	126440	404397
4,4'-DDE	8190	17806
4,4'-DDT	3965209	12665469
DDT Breakdown [a]	3.3 %	3.2 %
Endrin aldehyde	25314	12604
Endrin ketone	38616	106983
Endrin	2829610	9545120
Endrin Breakdown [b]	2.2 %	1.2 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GBB667-IC667	BB15940.D	09/20/07	17:35	01:18	Initial cal 1000
GBB667-IC667	BB15941.D	09/20/07	18:40	02:23	Initial cal 500
GBB667-ICC667	BB15942.D	09/20/07	19:46	03:28	Initial cal 100
GBB667-IC667	BB15943.D	09/20/07	20:51	04:33	Initial cal 50
GBB667-IC667	BB15944.D	09/20/07	21:56	05:39	Initial cal 10
GBB667-IC667	BB15945.D	09/20/07	23:01	06:43	Initial cal 5
GBB667-IC667	BB15946.D	09/21/07	00:06	07:48	Initial cal 400
GBB667-IC667	BB15947.D	09/21/07	01:11	08:54	Initial cal 200
GBB667-ICV667	BB15948.D	09/21/07	02:16	09:59	Initial cal verification 100
M67704-1	BB15950.D	09/21/07	04:26	12:09	(used for QC only; not part of job M67604)
ZZZZZZ	BB15951.D	09/21/07	05:31	13:14	(unrelated sample)
ZZZZZZ	BB15952.D	09/21/07	06:36	14:19	(unrelated sample)
ZZZZZZ	BB15953.D	09/21/07	07:42	15:24	(unrelated sample)
ZZZZZZ	BB15954.D	09/21/07	08:47	16:29	(unrelated sample)
ZZZZZZ	BB15955.D	09/21/07	10:04	17:46	(unrelated sample)
ZZZZZZ	BB15956.D	09/21/07	11:13	18:55	(unrelated sample)
ZZZZZZ	BB15957.D	09/21/07	12:16	19:58	(unrelated sample)
ZZZZZZ	BB15958.D	09/21/07	13:21	21:03	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample: GBB667-DDT
Lab File ID: BB15971.D
Instrument ID: GCBB
Injection Date: 09/22/07
Injection Time: 03:05

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	426456	1476238
4,4'-DDE	24826	55593
4,4'-DDT	7300531	22141493
DDT Breakdown [a]	5.8 %	6.5 %
Endrin aldehyde	199374	359143
Endrin ketone	256970	576550
Endrin	4235598	13567490
Endrin Breakdown [b]	9.7 %	6.5 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP14345-MB	BB15974.D	09/22/07	06:21	03:15	Method Blank
OP14345-BS	BB15975.D	09/22/07	07:26	04:21	Blank Spike
OP14345-BSD	BB15976.D	09/22/07	08:31	05:26	Blank Spike Duplicate
OP14345-MS	BB15977.D	09/22/07	09:36	06:31	Matrix Spike
OP14345-MSD	BB15978.D	09/22/07	10:41	07:35	Matrix Spike Duplicate
M67604-1	BB15979.D	09/22/07	11:46	08:40	BN-95-24-MW067
M67604-2	BB15980.D	09/22/07	12:51	09:45	BN-95-24-MW-XD1
ZZZZZZ	BB15981.D	09/22/07	13:56	10:51	(unrelated sample)
ZZZZZZ	BB15982.D	09/22/07	15:02	11:56	(unrelated sample)

Semivolatile Surrogate Recovery Summary

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Method: SW846 8081 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
M67604-1	BB15979.D	101.0	95.0	94.0	90.0
M67604-2	BB15980.D	104.0	97.0	101.0	96.0
OP14345-BS	BB15975.D	105.0	101.0	104.0	99.0
OP14345-BSD	BB15976.D	102.0	97.0	96.0	91.0
OP14345-MB	BB15974.D	110.0	104.0	130.0* [c]	125.0
OP14345-MS	BB15977.D	111.0	102.0	105.0	98.0
OP14345-MSD	BB15978.D	112.0	103.0	106.0	101.0

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	30-132%
S2 = Decachlorobiphenyl	30-126%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2
(c) Recovery satisfactory for signal 2.

GC Surrogate Retention Time Summary

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Check Std:	GBB668-CC667	**Injection Date:**	09/22/07
Lab File ID:	BB15972A.D	**Injection Time:**	04:10
Instrument ID:	GCBB	**Method:**	SW846 8081

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	12.21	5.64	50.97	25.00

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP14345-MB	BB15974.D	09/22/07	06:21	12.22	5.64	50.96	25.00
OP14345-BS	BB15975.D	09/22/07	07:26	12.21	5.64	50.96	25.01
OP14345-BSD	BB15976.D	09/22/07	08:31	12.22	5.64	50.95	25.00
OP14345-MS	BB15977.D	09/22/07	09:36	12.22	5.64	50.96	25.00
OP14345-MSD	BB15978.D	09/22/07	10:41	12.21	5.64	50.97	25.00
M67604-1	BB15979.D	09/22/07	11:46	12.22	5.64	50.97	25.00
M67604-2	BB15980.D	09/22/07	12:51	12.22	5.64	50.96	25.00
ZZZZZZ	BB15981.D	09/22/07	13:56	12.22	5.64	50.97	25.00
ZZZZZZ	BB15982.D	09/22/07	15:02	12.22	5.64	50.99	25.01

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: M67604 **Sample:** GBB667-ICC667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15942.D
Project: Brunswick Naval Air Station, Brunswick, ME

Response Factor Report GCBB-gc23

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration

Calibration Files
1 =BB15940.D 2 =BB15941.D 3 =BB15942.D 4 =BB15943.D
5 =BB15944.D 6 =BB15945.D 7 =BB15946.D 8 =BB15947.D

Compound	1	2	3	4	5	6	7	8	Avg	%RSD
1) TCMX	3.687	3.819	4.068	4.013	4.446	4.098	4.070	4.213	4.052 E4	5.70
2) Chlordane-A							1.745	1.858	1.801 E3	4.46
3) Chlordane-B							2.676	2.857	2.766 E3	4.61
4) Chlordane-C							1.521	1.623	1.572 E4	4.60
5) Toxaphene-A							1.392	1.440	1.416 E3	2.38
6) Toxaphene-B							6.838	6.931	6.884 E2	0.95
7) Toxaphene-C							2.374	2.436	2.405 E3	1.82
8) Hexachlorobe	4.656	4.905	4.739	4.730	5.413	5.849			5.049 E4	9.48
9) alpha-BHC	6.411	6.443	5.829	6.945	5.818	5.821			6.211 E4	7.50
10) gamma-BHC	5.483	5.374	4.906	6.263	5.073	5.155			5.376 E4	8.96
11) beta-BHC	2.365	2.127	2.109	3.919	2.586	2.603			2.618 E4	25.67
Linear regr.,Force(0,0)for beta-BHC										
Coefficient = 0.9958										
Response Ratio = 0.00000 + 23191.98172 *A										
12) Heptachlor	3.654	3.765	3.472	3.264	3.847	4.084			3.681 E4	7.83
13) delta-BHC	5.589	5.466	4.996	7.071	5.169	4.840			5.522 E4	14.65
14) Alachlor	4.461	4.467	4.696	6.402	6.206	6.685			5.486 E3	19.13
15) Aldrin	4.574	4.783	4.433	4.427	4.822	5.141			4.697 E4	5.85
16) Heptachlor E	3.913	4.014	3.802	4.231	4.429	4.617			4.168 E4	7.57
17) gamma-Chlord	3.834	3.928	3.685	4.034	4.191	4.453			4.021 E4	6.79
18) alpha-Chlord	3.439	3.576	3.362	3.636	4.009	4.167			3.698 E4	8.68
19) Endosulfan-I	3.358	3.558	3.267	3.437	3.782	4.027			3.572 E4	8.01
20) 4,4'-DDE	3.386	3.519	3.243	3.247	3.619	3.679			3.449 E4	5.41
21) Dieldrin	3.709	3.812	3.515	3.747	3.950	4.046			3.796 E4	4.93
22) Endrin	2.912	2.966	2.744	2.889	3.030	3.240			2.964 E4	5.59
23) 4,4'-DDD	2.744	2.770	2.624	3.159	2.995	2.978			2.878 E4	6.89
24) Endosulfan-I	3.023	3.042	2.974	3.715	3.566	3.674			3.332 E4	10.62
25) 4,4'-DDT	2.190	2.067	1.886	1.922	1.964	1.948			1.996 E4	5.64
26) Endrin aldeh	2.598	2.253	2.233	4.406	2.868	2.836			2.866 E4	28.01
Linear regr.,Force(0,0)for Endrin aldehyde										
Coefficient = 0.9935										
Response Ratio = 0.00000 + 25300.45825 *A										
27) Endosulfan s	2.884	2.643	2.637	4.641	3.352	3.223			3.230 E4	23.25
Linear regr.,Force(0,0)for Endosulfan sulfate										
Coefficient = 0.9969										
Response Ratio = 0.00000 + 28379.86926 *A										
28) Methoxychlor	1.051	1.037	1.049	1.203	1.258	1.217			1.136 E4	8.84
29) Endrin keton	3.109	2.998	2.983	4.184	3.798	3.650			3.454 E4	14.40
30) AR1016-A									0.000	-1.00
31) AR1016-B									0.000	-1.00
32) AR1016-C									0.000	-1.00
33) AR1260-A									0.000	-1.00
34) AR1260-B									0.000	-1.00
35) AR1260-C									0.000	-1.00

Initial Calibration Summary

Job Number: M67604 **Sample:** GBB667-ICC667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15942.D
Project: Brunswick Naval Air Station, Brunswick, ME

36)	AR1260-D									0.000		-1.00
37)	AR1260-E									0.000		-1.00
38)	DCB	2.820	3.155	3.534	3.383	4.194	3.712	3.467	3.827	3.512	E4	11.94

Signal #2

1)	TCMX	0.979	1.017	1.043	1.034	1.164	1.091	1.019	1.082	1.054	E5	5.44
2)	Chlordane-A							3.584	3.519	3.552	E3	1.30
3)	Chlordane-B							5.153	5.472	5.312	E3	4.24
4)	Chlordane-C							2.823	2.872	2.847	E4	1.22
5)	Toxaphene-A							2.218	2.270	2.244	E3	1.62
6)	Toxaphene-B							4.030	3.960	3.995	E3	1.24
7)	Toxaphene-C							1.880	1.848	1.864	E3	1.24
8)	Hexachlorobe	1.080	1.120	1.115	1.141	1.364	1.463			1.214	E5	13.11
9)	alpha-BHC	1.387	1.309	1.231	1.468	1.311	1.352			1.343	E5	6.00
10)	gamma-BHC	1.278	1.221	1.141	1.453	1.191	1.204			1.248	E5	8.81
11)	beta-BHC	5.666	4.911	5.006	9.118	5.945	5.821			6.078	E4	25.50

Linear regr.,Force(0,0)for beta-BHC
Coefficient = 0.9939
Response Ratio = 0.00000 + 55181.28427 *A

12)	Heptachlor	1.011	1.031	0.985	0.999	1.046	1.102			1.029	E5	4.09
13)	delta-BHC	1.255	1.212	1.141	1.556	1.146	1.110			1.237	E5	13.36
14)	Alachlor	0.864	0.855	0.966	1.345	1.387	1.497			1.152	E4	25.06

Linear regr.,Force(0,0)for Alachlor
Coefficient = 0.9994
Response Ratio = 0.00000 + 8639.93922 *A

15)	Aldrin	1.025	1.078	1.032	1.009	1.085	1.118			1.058	E5	3.96
16)	Heptachlor E	0.933	0.985	0.988	1.072	1.058	1.089			1.021	E5	5.98
17)	gamma-Chlord	1.006	1.047	1.002	1.064	1.065	1.068			1.042	E5	2.91
18)	alpha-Chlord	1.002	1.030	0.985	1.047	1.047	1.086			1.033	E5	3.48
19)	Endosulfan-I	0.823	0.889	0.900	0.926	0.990	1.009			0.923	E5	7.44
20)	4,4'-DDE	0.951	1.018	0.981	0.973	0.992	0.999			0.986	E5	2.31
21)	Dieldrin	0.983	1.043	1.030	1.071	1.058	1.054			1.040	E5	2.98
22)	Endrin	0.884	0.946	0.930	0.958	0.993	1.045			0.959	E5	5.73
23)	4,4'-DDD	0.811	0.855	0.866	1.043	0.910	0.904			0.898	E5	8.85
24)	Endosulfan-I	0.811	0.855	0.866	1.043	0.910	0.894			0.896	E5	8.86
25)	4,4'-DDT	6.780	6.545	5.863	5.698	5.208	4.989			5.847	E4	12.16
26)	Endrin aldeh	0.710	0.632	0.637	1.273	0.706	0.641			0.766	E5	32.70

Linear regr.,Force(0,0)for Endrin aldehyde
Coefficient = 0.9946
Response Ratio = 0.00000 + 69463.40086 *A

27)	Endosulfan s	0.834	0.803	0.826	1.403	0.937	0.881			0.947	E5	24.08

Linear regr.,Force(0,0)for Endosulfan sulfate
Coefficient = 0.9983
Response Ratio = 0.00000 + 82901.77879 *A

28)	Methoxychlor	3.331	3.341	3.364	3.851	3.752	3.420			3.510	E4	6.56
29)	Endrin keton	0.787	0.782	0.789	1.091	0.866	0.799			0.852	E5	14.19
30)	AR1016-A									0.000		-1.00
31)	AR1016-B									0.000		-1.00
32)	AR1016-C									0.000		-1.00
33)	AR1260-A									0.000		-1.00
34)	AR1260-B									0.000		-1.00
35)	AR1260-C									0.000		-1.00
36)	AR1260-D									0.000		-1.00
37)	AR1260-E									0.000		-1.00
38)	DCB	0.810	0.909	1.017	0.980	1.203	1.062	0.984	1.076	1.005	E5	11.65

Initial Calibration Summary

Job Number: M67604 **Sample:** GBB667-ICC667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15942.D
Project: Brunswick Naval Air Station, Brunswick, ME

(#) = Out of Range ### Number of calibration levels exceeded format ###

PT092007.M Fri Sep 21 11:31:59 2007 GC23PRN

5.7 5

Initial Calibration Verification

Job Number: M67604 **Sample:** GBB667-ICV667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15948.D
Project: Brunswick Naval Air Station, Brunswick, ME

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\BB15948.D\ECD1B.CH Vial: 99
Signal #2 : C:\MSDCHEM\1\DATA\BB15948.D\ECD2A.CH
Acq On : 9-21-07 02:16:29 AM Operator: caobinz
Sample : icv667-100,pest 100 icv Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 s	TCMX	40.518	40.721 E3	-0.5	100	0.00
8	Hexachlorobenzene	50.486	49.867 E3	1.2	105	0.00
9	alpha-BHC	62.111	63.319 E3	-1.9	109	0.00
10	gamma-BHC	53.757	53.257 E3	0.9	109	0.00
11	beta-BHC	26.183	22.161 E3	15.4#	105	0.00
12	Heptachlor	36.811	38.845 E3	-5.5	112	0.00
13	delta-BHC	55.218	54.594 E3	1.1	109	0.00
14	Alachlor	5.486	5.067 E3	7.6	108	0.00
15	Aldrin	46.967	48.520 E3	-3.3	109	0.00
16	Heptachlor Epoxide	41.676	41.380 E3	0.7	109	0.00
17	gamma-Chlordane	40.210	39.068 E3	2.8	106	0.00
18	alpha-Chlordane	36.979	36.370 E3	1.6	108	0.00
19	Endosulfan-I	35.715	36.879 E3	-3.3	113	0.00
20	4,4'-DDE	34.487	35.144 E3	-1.9	108	0.00
21	Dieldrin	37.964	38.079 E3	-0.3	108	0.00
22	Endrin	29.635	30.103 E3	-1.6	110	0.00
23	4,4'-DDD	28.785	28.212 E3	2.0	108	0.00
24	Endosulfan-II	33.323	31.631 E3	5.1	106	0.00
25	4,4'-DDT	19.961	22.219 E3	-11.3	118#	0.00
26	Endrin aldehyde	28.655	25.416 E3	11.3	114	0.00
27	Endosulfan sulfate	32.298	28.287 E3	12.4	107	0.00
28	Methoxychlor	11.358	12.316 E3	-8.4	117#	0.00
29	Endrin ketone	34.537	32.641 E3	5.5	109	0.00
38 s	DCB	35.116	35.316 E3	-0.6	100	-0.02

Signal #2

1 s	TCMX	105.351	103.742 E3	1.5	99	0.00
8	Hexachlorobenzene	121.402	114.133 E3	6.0	102	0.00
9	alpha-BHC	134.277	126.367 E3	5.9	103	0.00
10	gamma-BHC	124.812	118.387 E3	5.1	104	0.00
11	beta-BHC	60.779	49.993 E3	17.7#	100	0.00
12	Heptachlor	102.896	104.365 E3	-1.4	106	0.00
13	delta-BHC	123.677	117.823 E3	4.7	103	0.00
14	Alachlor	11.523	10.109 E3	12.3	105	0.00
15	Aldrin	105.769	107.039 E3	-1.2	104	0.00
16	Heptachlor Epoxide	102.097	102.195 E3	-0.1	103	0.00
17	gamma-Chlordane	104.214	101.596 E3	2.5	101	0.00
18	alpha-Chlordane	103.286	103.297 E3	-0.0	105	0.00
19	Endosulfan-I	92.282	93.275 E3	-1.1	104	0.00
20	4,4'-DDE	98.574	99.763 E3	-1.2	102	0.00

Initial Calibration Verification

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample: GBB667-ICV667
Lab FileID: BB15948.D

21	Dieldrin	103.992	105.752	E3	-1.7	103	0.00
22	Endrin	95.926	97.356	E3	-1.5	105	0.00
23	4,4'-DDD	89.799	90.052	E3	-0.3	104	0.00
24	Endosulfan-II	89.633	90.052	E3	-0.5	104	0.00
25	4,4'-DDT	58.471	66.566	E3	-13.8	114	0.00
26	Endrin aldehyde	76.649	71.103	E3	7.2	112	0.00
27	Endosulfan sulfate	94.738	84.954	E3	10.3	103	0.00
28	Methoxychlor	35.096	37.522	E3	-6.9	112	0.00
29	Endrin ketone	85.232	83.582	E3	1.9	106	0.00
38 s	DCB	100.511	99.096	E3	1.4	97	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #1 : C:\MSDCHEM\1\DATA\BB15948.D\ECD1B.CH Vial: 99
Signal #2 : C:\MSDCHEM\1\DATA\BB15948.D\ECD2A.CH
Acq On : 9-21-07 02:16:29 AM Operator: caobinz
Sample : icv667-100,pest 100 icv Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
2	Chlordane-A	1.801	0.000	E3	100.0#	0#	-17.32#
3	Chlordane-B	2.766	0.000	E3	100.0#	0#	-17.96#
4	Chlordane-C	15.718	0.000	E3	100.0#	0#	-21.99#
5	Toxaphene-A	1.416	0.000	E3	100.0#	0#	-26.41#
6	Toxaphene-B	688.439	0.000		100.0#	0#	-29.09#
7	Toxaphene-C	2.405	0.000	E3	100.0#	0#	-31.45#
30	AR1016-A	0.000	0.000		0.0	0#	-11.64#
31	AR1016-B	0.000	0.000		0.0	0#	-14.13#
32	AR1016-C	0.000	0.000		0.0	0#	-15.69#
33	AR1260-A	0.000	0.000		0.0	0#	-22.24#
34	AR1260-B	0.000	0.000		0.0	0#	-22.91#
35	AR1260-C	0.000	0.000		0.0	0#	-24.57#
36	AR1260-D	0.000	0.000		0.0	0#	-27.63#
37	AR1260-E	0.000	0.000		0.0	0#	-30.23#

Signal #2

2	Chlordane-A	3.552	0.000	E3	100.0#	0#	-9.98#
3	Chlordane-B	5.312	0.000	E3	100.0#	0#	-10.50#
4	Chlordane-C	28.472	0.000	E3	100.0#	0#	-15.11#
5	Toxaphene-A	2.244	0.000	E3	100.0#	0#	-19.29#
6	Toxaphene-B	3.995	0.000	E3	100.0#	0#	-20.51#
7	Toxaphene-C	1.864	0.000	E3	100.0#	0#	-21.29#
30	AR1016-A	0.000	0.000		0.0	0#	-7.23#
31	AR1016-B	0.000	0.000		0.0	0#	-8.56#
32	AR1016-C	0.000	0.000		0.0	0#	-10.25#
33	AR1260-A	0.000	0.000		0.0	0#	-15.96#
34	AR1260-B	0.000	0.000		0.0	0#	-17.04#
35	AR1260-C	0.000	0.000		0.0	0#	-17.90#

Initial Calibration Verification

Job Number: M67604 **Sample:** GBB667-ICV667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15948.D
Project: Brunswick Naval Air Station, Brunswick, ME

36	AR1260-D	0.000	0.000	0.0	0# -20.19#
37	AR1260-E	0.000	0.000	0.0	0# -21.26#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB15942.D PT092007.M Fri Sep 21 11:39:11 2007 GC23PRN

5.7 5

Continuing Calibration Summary

Job Number: M67604 **Sample:** GBB668-CC667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15972A.D
Project: Brunswick Naval Air Station, Brunswick, ME

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD1B.CH        Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD2A.CH
Acq On    : 9-22-07 04:10:56 AM                    Operator: caobinz
Sample    : cc667-100,pest 100,icv fresh           Inst    : GCBB-gc23
Misc      : op14345,gbb668,1000,,,5,,water         Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p

Method        : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title         : P8081pest,w/CT-PCB
Last Update   : Fri Sep 21 11:29:17 2007
Response via  : Multiple Level Calibration

Min. RRF      :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev  :  15%     Max. Rel. Area : 115%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	s	TCMX	40.518	44.570 E3	-10.0	110	0.00
8		Hexachlorobenzene	50.486	54.200 E3	-7.4	114	0.00
9		alpha-BHC	62.111	70.044 E3	-12.8	120#	0.00
10		gamma-BHC	53.757	59.474 E3	-10.6	121#	0.00
11		beta-BHC	26.183	24.605 E3	6.0	117#	0.00
12		Heptachlor	36.811	49.623 E3	-34.8#	143#	0.00
13		delta-BHC	55.218	57.305 E3	-3.8	115	0.00
14		Alachlor	5.486	5.549 E3	-1.1	118#	0.00
15		Aldrin	46.967	52.859 E3	-12.5	119#	0.00
16		Heptachlor Epoxide	41.676	45.635 E3	-9.5	120#	0.00
17		gamma-Chlordane	40.210	43.201 E3	-7.4	117#	0.00
18		alpha-Chlordane	36.979	41.533 E3	-12.3	124#	0.00
19		Endosulfan-I	35.715	39.098 E3	-9.5	120#	0.00
20		4,4'-DDE	34.487	39.163 E3	-13.6	121#	-0.01
21		Dieldrin	37.964	42.047 E3	-10.8	120#	-0.01
22		Endrin	29.635	32.887 E3	-11.0	120#	-0.02
23		4,4'-DDD	28.785	32.743 E3	-13.8	125#	-0.02
24		Endosulfan-II	33.323	35.987 E3	-8.0	121#	-0.02
25		4,4'-DDT	19.961	27.566 E3	-38.1#	146#	-0.02
26		Endrin aldehyde	28.655	29.951 E3	-4.5	134#	-0.02
27		Endosulfan sulfate	32.298	33.156 E3	-2.7	126#	-0.02
28		Methoxychlor	11.358	15.367 E3	-35.3#	146#	-0.03
29		Endrin ketone	34.537	39.520 E3	-14.4	132#	-0.03
38	s	DCB	35.116	41.337 E3	-17.7#	117#	-0.07

Signal #2

1	s	TCMX	105.351	112.873 E3	-7.1	108	0.00
8		Hexachlorobenzene	121.402	121.039 E3	0.3	109	0.00
9		alpha-BHC	134.277	141.308 E3	-5.2	115	0.00
10		gamma-BHC	124.812	129.393 E3	-3.7	113	0.00
11		beta-BHC	60.779	55.646 E3	8.4	111	0.00
12		Heptachlor	102.896	116.160 E3	-12.9	118#	0.00
13		delta-BHC	123.677	132.006 E3	-6.7	116#	0.00
14		Alachlor	11.523	10.589 E3	8.1	110	0.00
15		Aldrin	105.769	115.913 E3	-9.6	112	0.00
16		Heptachlor Epoxide	102.097	112.011 E3	-9.7	113	0.00
17		gamma-Chlordane	104.214	113.477 E3	-8.9	113	0.00
18		alpha-Chlordane	103.286	113.537 E3	-9.9	115#	0.00
19		Endosulfan-I	92.282	103.132 E3	-11.8	115	0.00
20		4,4'-DDE	98.574	112.180 E3	-13.8	114	0.00

Continuing Calibration Summary

Job Number: M67604 **Sample:** GBB668-CC667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15972A.D
Project: Brunswick Naval Air Station, Brunswick, ME

21	Dieldrin	103.992	118.319	E3	-13.8	115	0.00
22	Endrin	95.926	106.063	E3	-10.6	114	0.00
23	4,4'-DDD	89.799	103.307	E3	-15.0#	119#	0.00
24	Endosulfan-II	89.633	103.307	E3	-15.3#	119#	0.00
25	4,4'-DDT	58.471	83.241	E3	-42.4#	142#	0.00
26	Endrin aldehyde	76.649	85.650	E3	-11.7	134#	0.00
27	Endosulfan sulfate	94.738	100.106	E3	-5.7	121#	0.00
28	Methoxychlor	35.096	45.293	E3	-29.1#	135#	0.00
29	Endrin ketone	85.232	105.050	E3	-23.3#	133#	0.00
38 s	DCB	100.511	115.904	E3	-15.3#	114	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #1 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD1B.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD2A.CH
Acq On : 9-22-07 04:10:56 AM Operator: caobinz
Sample : cc667-100,pest 100,icv fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
2	Chlordane-A	1.801	0.000	E3	100.0#	0#	-17.32#
3	Chlordane-B	2.766	0.000	E3	100.0#	0#	-17.96#
4	Chlordane-C	15.718	0.000	E3	100.0#	0#	-21.99#
5	Toxaphene-A	1.416	0.000	E3	100.0#	0#	-26.41#
6	Toxaphene-B	688.439	0.000		100.0#	0#	-29.09#
7	Toxaphene-C	2.405	0.000	E3	100.0#	0#	-31.45#
30	AR1016-A	0.000	0.000		0.0	0#	-11.64#
31	AR1016-B	0.000	0.000		0.0	0#	-14.13#
32	AR1016-C	0.000	0.000		0.0	0#	-15.69#
33	AR1260-A	0.000	0.000		0.0	0#	-22.24#
34	AR1260-B	0.000	0.000		0.0	0#	-22.91#
35	AR1260-C	0.000	0.000		0.0	0#	-24.57#
36	AR1260-D	0.000	0.000		0.0	0#	-27.63#
37	AR1260-E	0.000	0.000		0.0	0#	-30.23#

Signal #2

2	Chlordane-A	3.552	0.000	E3	100.0#	0#	-9.98#
3	Chlordane-B	5.312	0.000	E3	100.0#	0#	-10.50#
4	Chlordane-C	28.472	0.000	E3	100.0#	0#	-15.11#
5	Toxaphene-A	2.244	0.000	E3	100.0#	0#	-19.29#
6	Toxaphene-B	3.995	0.000	E3	100.0#	0#	-20.51#
7	Toxaphene-C	1.864	0.000	E3	100.0#	0#	-21.29#
30	AR1016-A	0.000	0.000		0.0	0#	-7.23#
31	AR1016-B	0.000	0.000		0.0	0#	-8.56#
32	AR1016-C	0.000	0.000		0.0	0#	-10.25#
33	AR1260-A	0.000	0.000		0.0	0#	-15.96#
34	AR1260-B	0.000	0.000		0.0	0#	-17.04#
35	AR1260-C	0.000	0.000		0.0	0#	-17.90#

Continuing Calibration Summary

Job Number: M67604
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample: GBB668-CC667
Lab FileID: BB15972A.D

36	AR1260-D	0.000	0.000	0.0	0# -20.19#
37	AR1260-E	0.000	0.000	0.0	0# -21.26#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB15942.D PT092007.M Tue Sep 25 10:16:21 2007 GC23PRN

5.7

5

GC Semi-volatiles

Raw Data

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15979.D\ECD1B.CH Vial: 81
Signal #2 : C:\MSDCHEM\1\DATA\BB15979.D\ECD2A.CH
Acq On : 22 Sep 2007 11:46 am Operator: caobinz
Sample : m67604-1 Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:51:48 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	1629949	3983321	40.227	37.810
	Spiked Amount 40.000			Recovery	=	100.57%	94.53%
38) s	DCB	50.97	25.00	1326603	3609311	37.778m	35.910
	Spiked Amount 40.000			Recovery	=	94.45%	89.77%
	Target Compounds						
23)	4,4'-DDD	25.58	18.27	319616	828247	11.104	9.223
25)	4,4'-DDT	27.23	18.80	65827	142128	3.298m	2.431 #

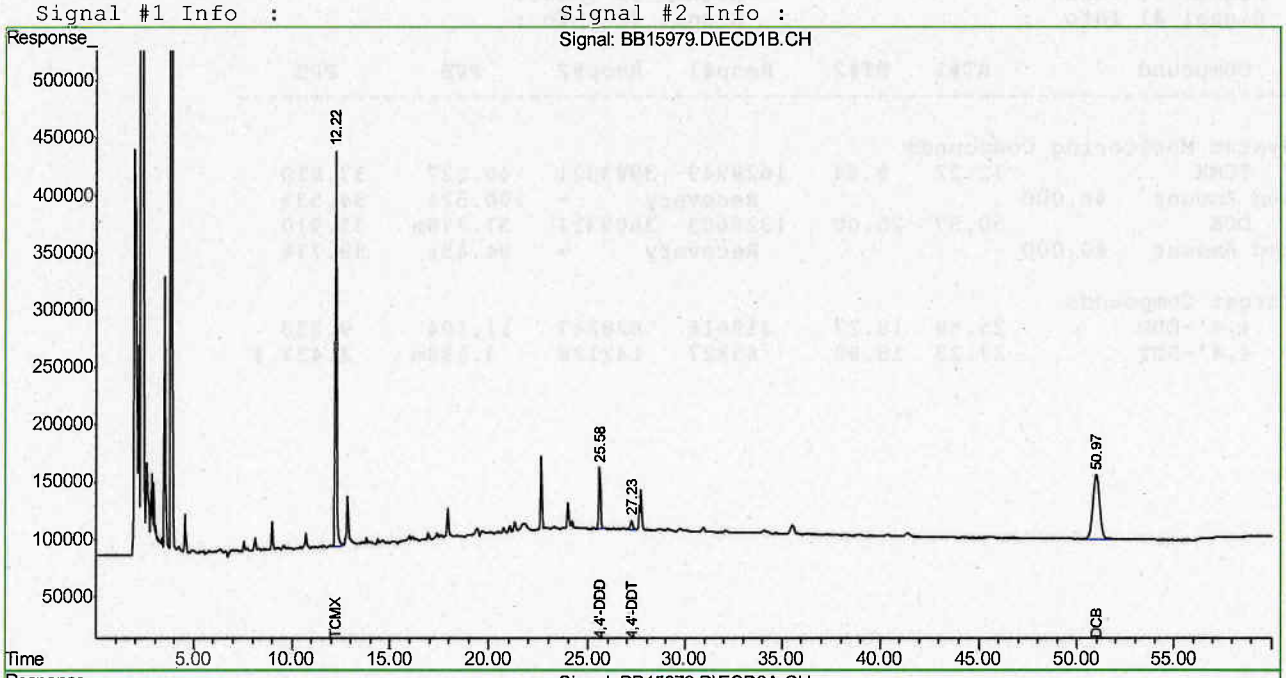
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15979.D PT092007.M Tue Sep 25 10:03:17 2007 GC23PRN

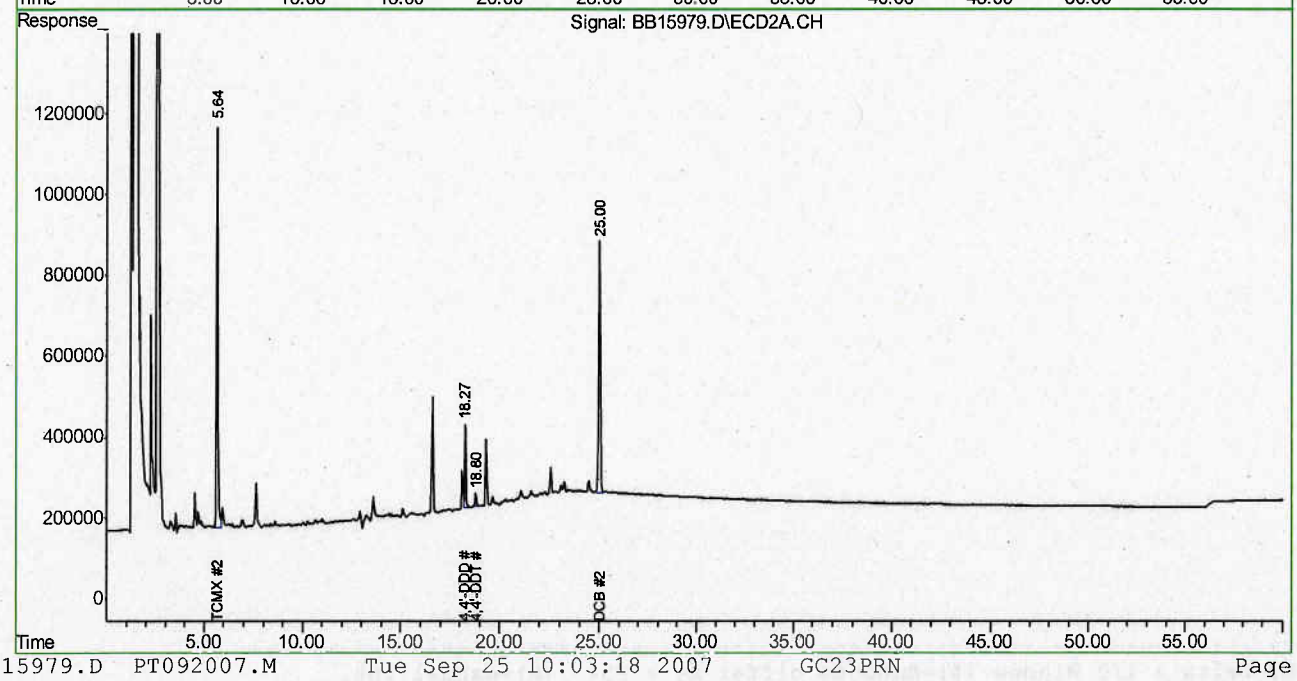
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15979.D\ECD1B.CH Vial: 81
Signal #2 : C:\MSDCHEM\1\DATA\BB15979.D\ECD2A.CH
Acq On : 22 Sep 2007 11:46 am Operator: caobinz
Sample : m67604-1 Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:27 2007 Quant Results File: PT092007.RES

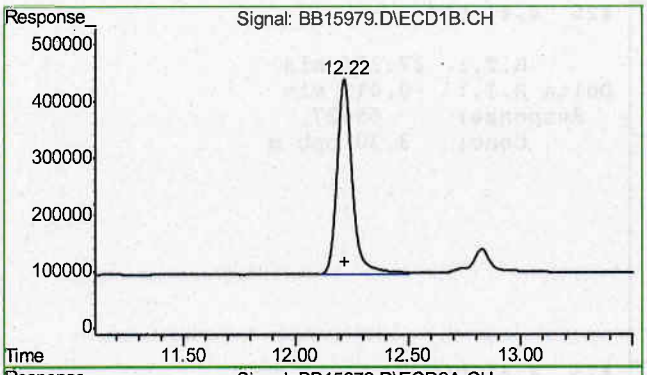
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



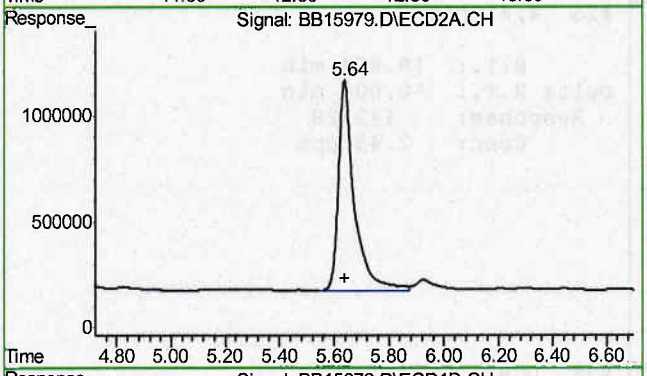


ACCUTEST Laboratories M67604



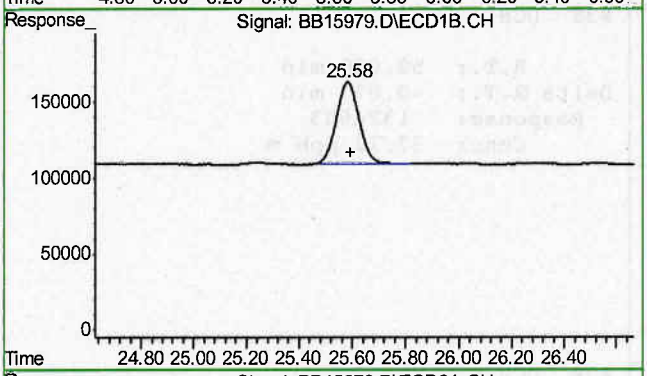
#1 TCMX

R.T.: 12.216 min
Delta R.T.: -0.005 min
Response: 1629949
Conc: 40.23 ppb



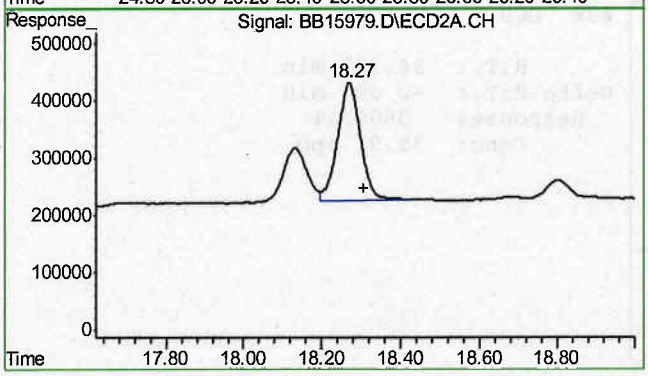
#1 TCMX

R.T.: 5.637 min
Delta R.T.: -0.003 min
Response: 3983321
Conc: 37.81 ppb



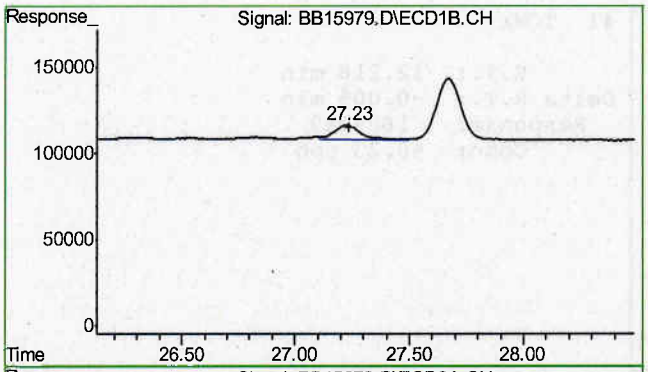
#23 4,4'-DDD

R.T.: 25.581 min
Delta R.T.: -0.014 min
Response: 319616
Conc: 11.10 ppb



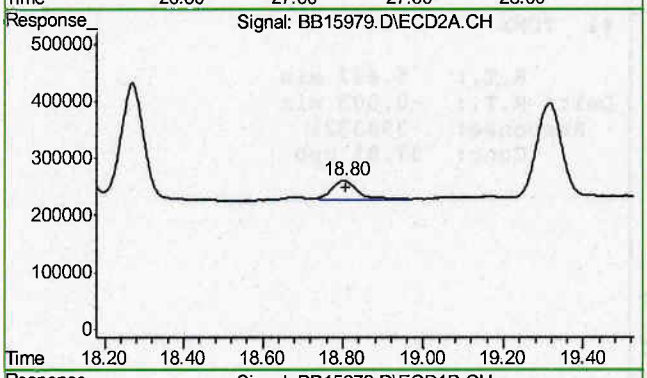
#23 4,4'-DDD

R.T.: 18.269 min
Delta R.T.: -0.037 min
Response: 828247
Conc: 9.22 ppb



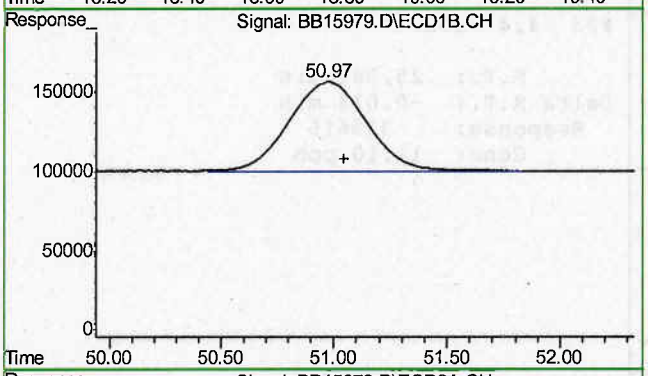
#25 4,4'-DDT

R.T.: 27.226 min
Delta R.T.: -0.012 min
Response: 65827
Conc: 3.30 ppb m



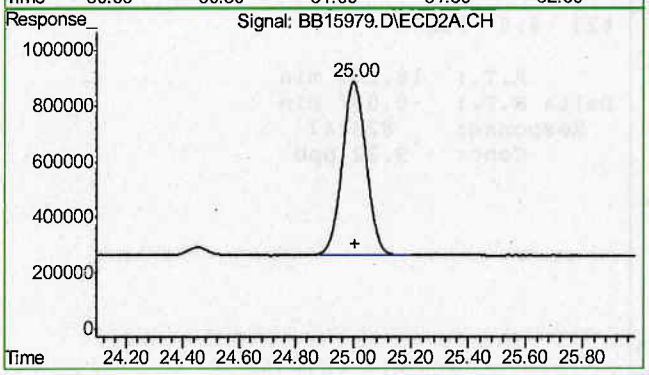
#25 4,4'-DDT

R.T.: 18.804 min
Delta R.T.: -0.004 min
Response: 142128
Conc: 2.43 ppb



#38 DCB

R.T.: 50.968 min
Delta R.T.: -0.077 min
Response: 1326603
Conc: 37.78 ppb m



#38 DCB

R.T.: 24.999 min
Delta R.T.: -0.007 min
Response: 3609311
Conc: 35.91 ppb

6.1.1

6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15980.D\ECD1B.CH Vial: 82
Signal #2 : C:\MSDCHEM\1\DATA\BB15980.D\ECD2A.CH
Acq On : 22 Sep 2007 12:51 pm Operator: caobinz
Sample : m67604-2 Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:52:50 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.22	5.64	1685583	4091634	41.600	38.838
Spiked Amount 40.000			Recovery	=	104.00%	97.09%
38) s DCB	50.96	25.00	1416895	3869692	40.349m	38.500
Spiked Amount 40.000			Recovery	=	100.87%	96.25%
Target Compounds						
23) 4,4'-DDD	25.58	18.27	333325	840927	11.580m	9.364
25) 4,4'-DDT	27.22	18.80	103488	241496	5.185m	4.130m

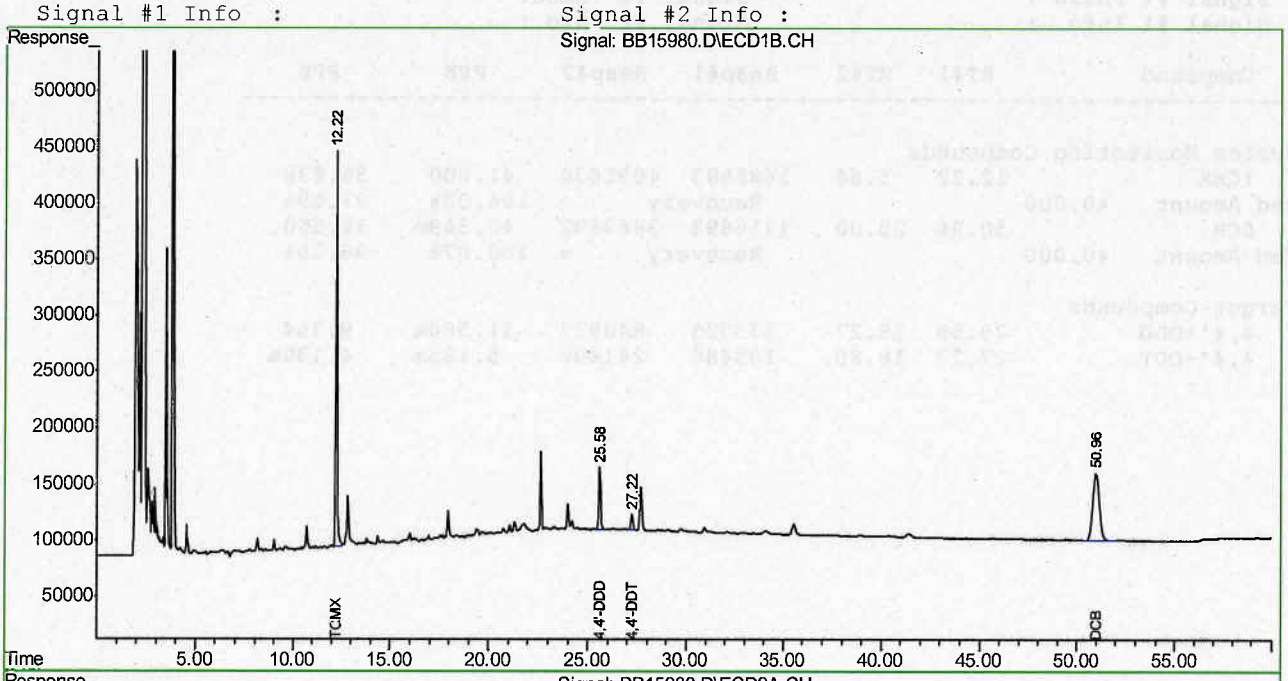
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15980.D PT092007.M Tue Sep 25 10:03:27 2007 GC23PRN

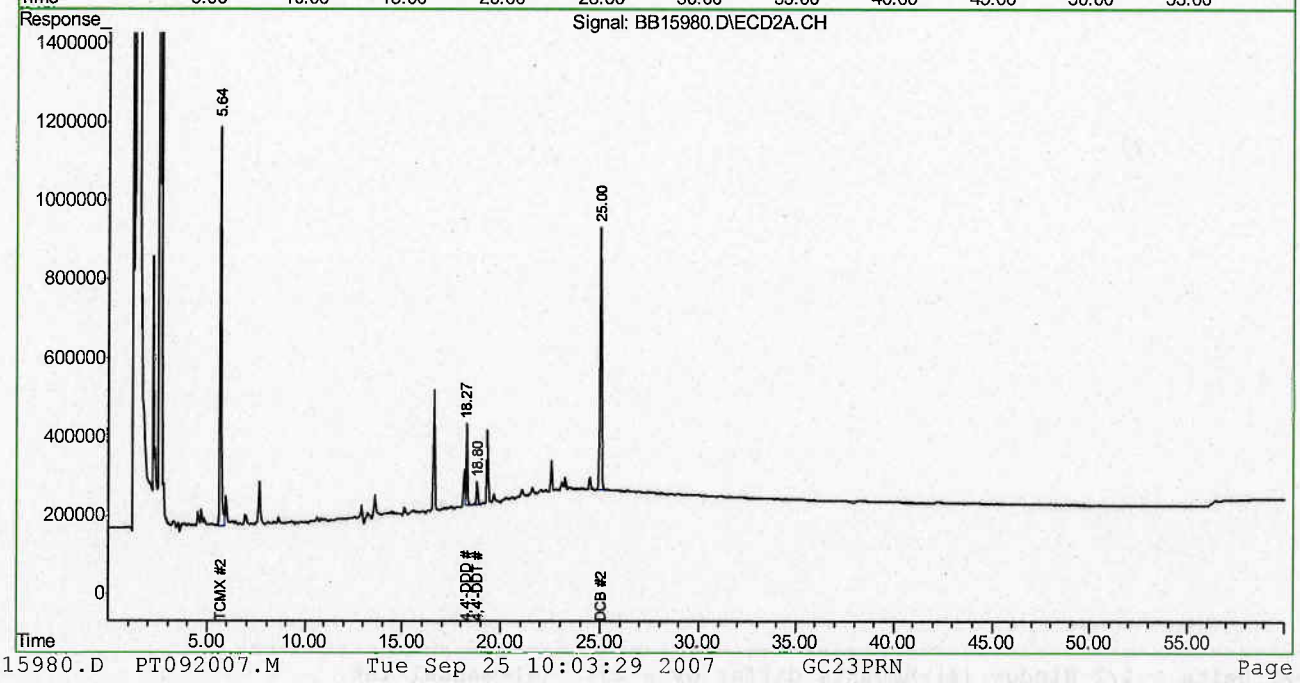
Quantitation Report (QT Reviewed)

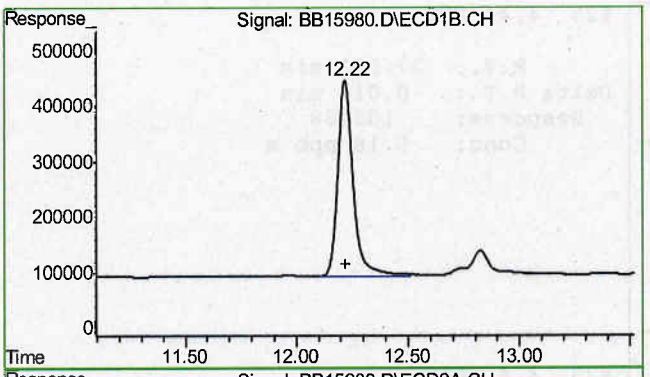
Signal #1 : C:\MSDCHEM\1\DATA\BB15980.D\ECD1B.CH Vial: 82
Signal #2 : C:\MSDCHEM\1\DATA\BB15980.D\ECD2A.CH
Acq On : 22 Sep 2007 12:51 pm Operator: caobinz
Sample : m67604-2 Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:28 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

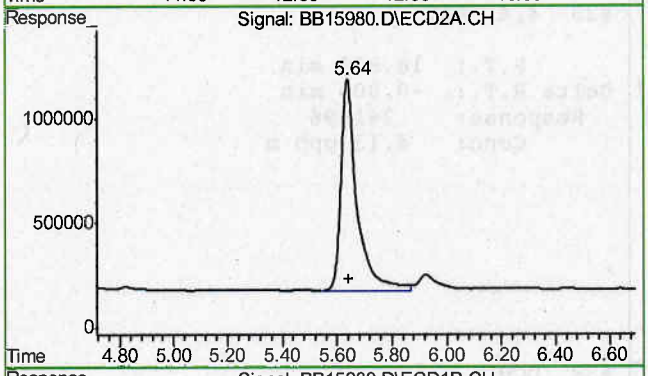






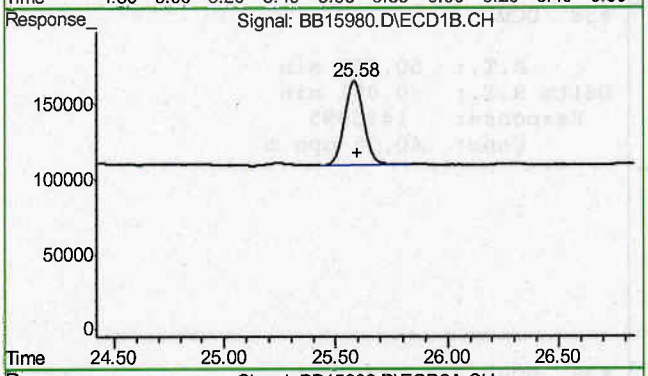
#1 TCMX

R.T.: 12.218 min
Delta R.T.: -0.003 min
Response: 1685583
Conc: 41.60 ppb



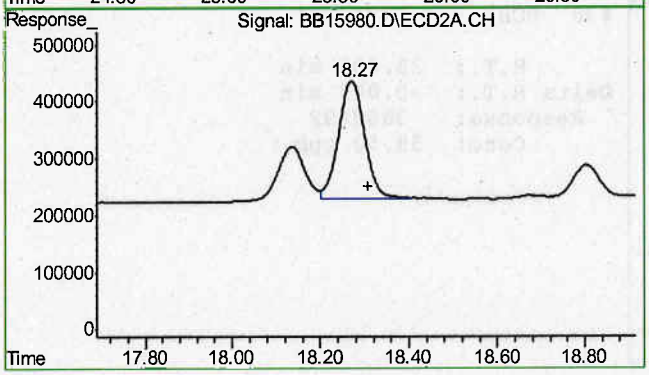
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.003 min
Response: 4091634
Conc: 38.84 ppb



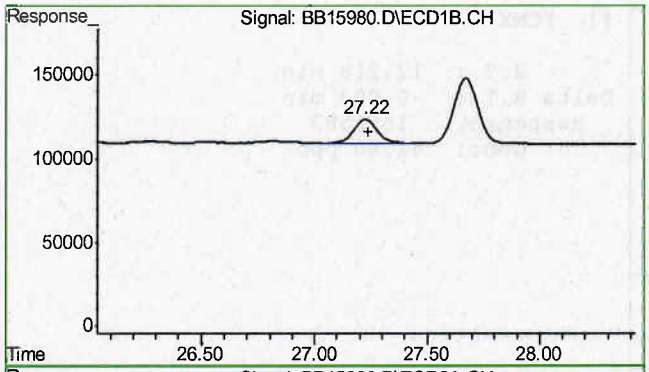
#23 4,4'-DDD

R.T.: 25.581 min
Delta R.T.: -0.014 min
Response: 333325
Conc: 11.58 ppb m



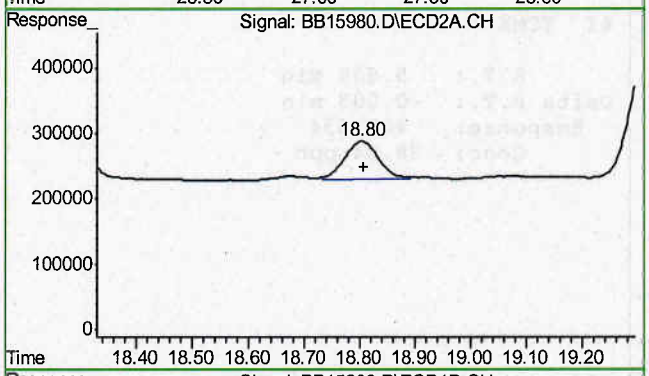
#23 4,4'-DDD

R.T.: 18.271 min
Delta R.T.: -0.035 min
Response: 840927
Conc: 9.36 ppb



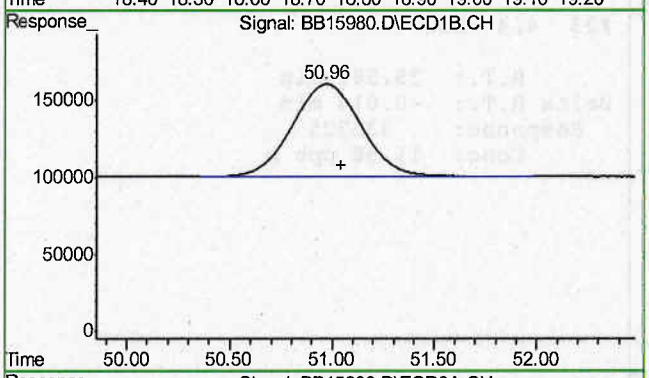
#25 4,4'-DDT

R.T.: 27.221 min
Delta R.T.: -0.017 min
Response: 103488
Conc: 5.18 ppb m



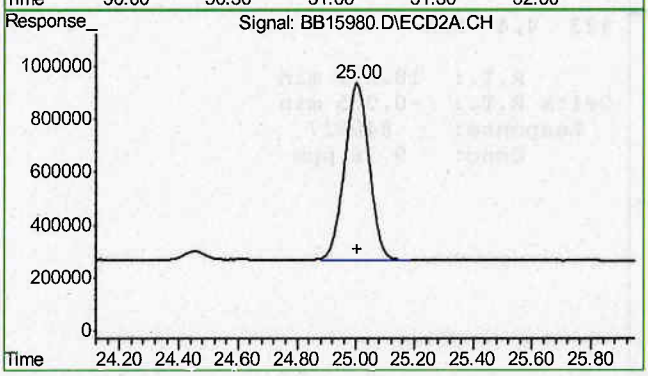
#25 4,4'-DDT

R.T.: 18.803 min
Delta R.T.: -0.005 min
Response: 241496
Conc: 4.13 ppb m



#38 DCB

R.T.: 50.963 min
Delta R.T.: -0.081 min
Response: 1416895
Conc: 40.35 ppb m



#38 DCB

R.T.: 25.001 min
Delta R.T.: -0.005 min
Response: 3869692
Conc: 38.50 ppb

6.1.2 6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BB15974.D\ECD1B.CH          Vial: 76
Signal #2 : C:\MSDCHEM\1\DATA\BB15974.D\ECD2A.CH
Acq On    : 9-22-07 06:21:17 AM                      Operator: caobinz
Sample    : op14345-mb                               Inst    : GCBB-gc23
Misc      : op14345,gbb668,1000,,,5,,water           Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:46:57 2007  Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title        : P8081pest,w/CT-PCB
Last Update  : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.22	5.64	1778114	4373322	43.884	41.512m
Spiked Amount 40.000			Recovery	=	109.71%	103.78%
38) s DCB	50.96	25.00	1829685	5025216	52.104m	49.997m
Spiked Amount 40.000			Recovery	=	130.26%	124.99%
Target Compounds						

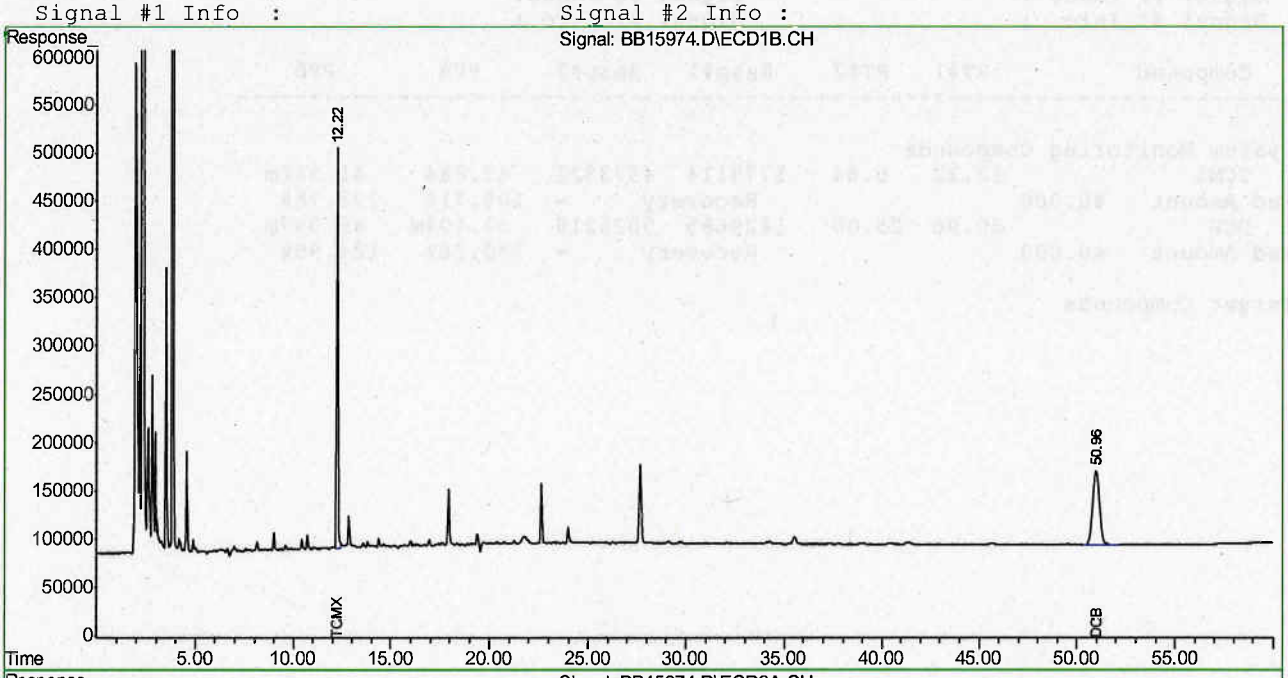
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

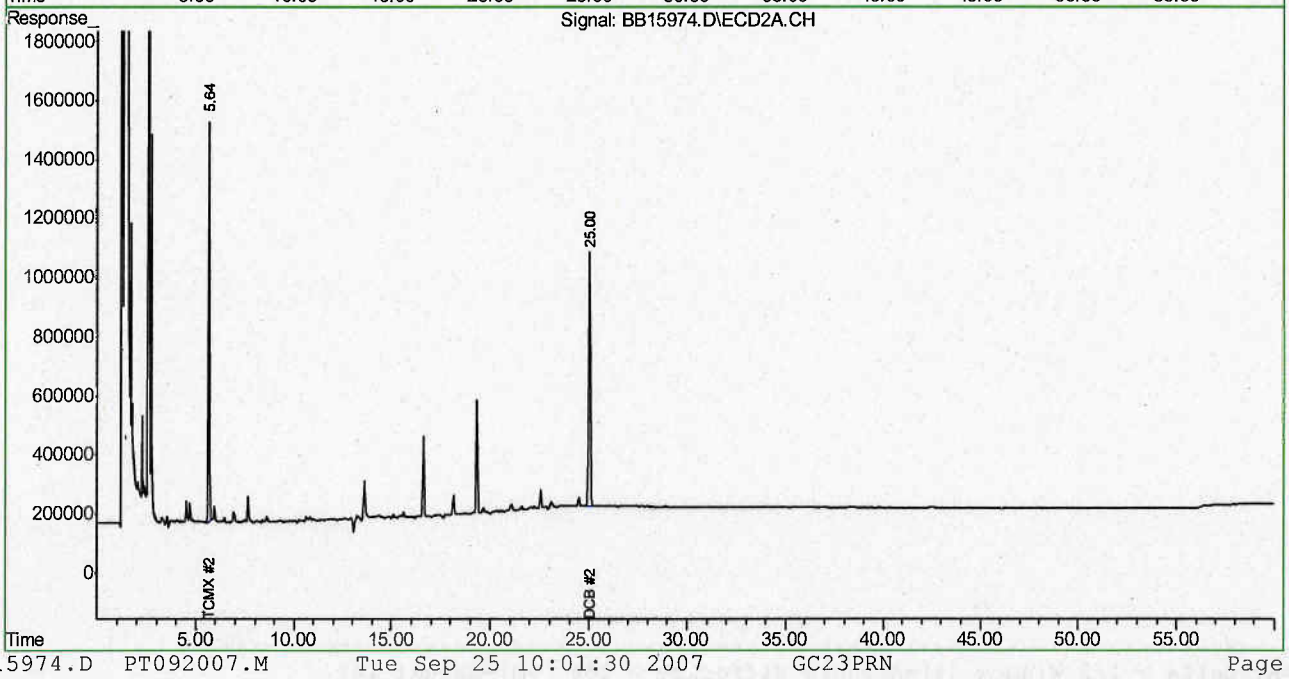
Quantitation Report (QT Reviewed)

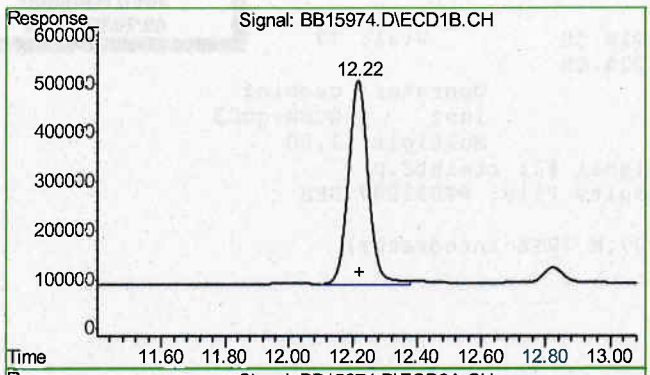
Signal #1 : C:\MSDCHEM\1\DATA\BB15974.D\ECD1B.CH Vial: 76
Signal #2 : C:\MSDCHEM\1\DATA\BB15974.D\ECD2A.CH
Acq On : 9-22-07 06:21:17 AM Operator: caobinz
Sample : op14345-mb Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:18 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

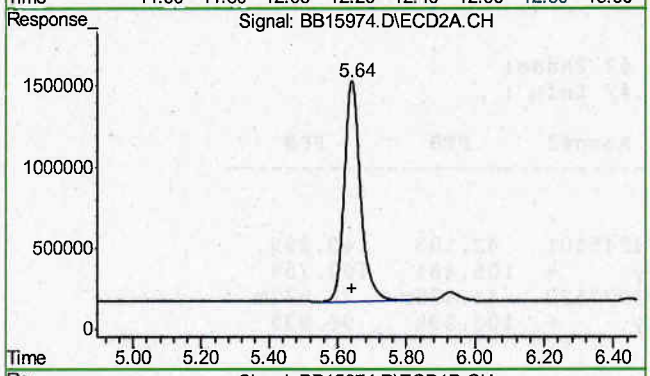






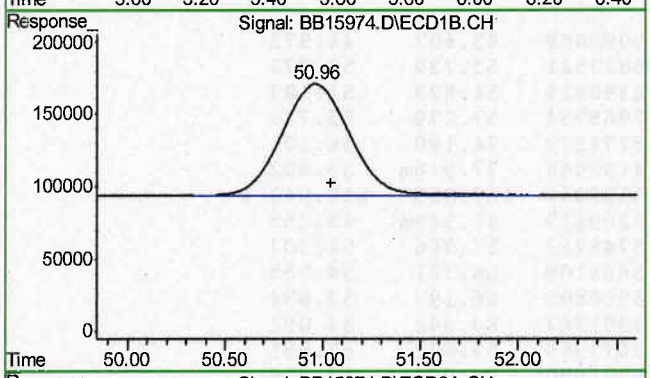
#1 TCMX

R.T.: 12.216 min
Delta R.T.: -0.005 min
Response: 1778114
Conc: 43.88 ppb



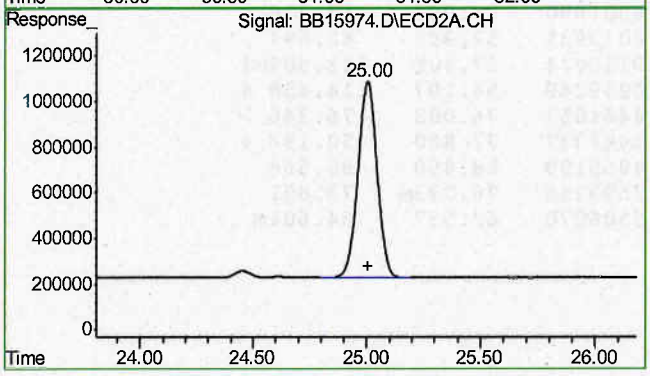
#1 TCMX

R.T.: 5.641 min
Delta R.T.: 0.000 min
Response: 4373322
Conc: 41.51 ppb m



#38 DCB

R.T.: 50.958 min
Delta R.T.: -0.087 min
Response: 1829685
Conc: 52.10 ppb m



#38 DCB

R.T.: 25.002 min
Delta R.T.: -0.003 min
Response: 5025216
Conc: 50.00 ppb m

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15975.D\ECD1B.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BB15975.D\ECD2A.CH
Acq On : 9-22-07 07:26:23 AM Operator: caobinz
Sample : op14345-bs Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:47:43 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.21	5.64	1709579	4245501	42.193	40.299
	Spiked Amount 40.000			Recovery	=	105.48%	100.75%
38) s	DCB	50.96	25.01	1455029	3977522	41.435m	39.573m
	Spiked Amount 40.000			Recovery	=	103.59%	98.93%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	2201547	5095868	43.607	41.975
9)	alpha-BHC	14.87	8.52	3337809	6817521	53.739	50.772
10)	gamma-BHC	16.39	9.86	2947112	6388819	54.823	51.187
11)	beta-BHC	16.62	12.58	1328419	2965734	57.279	53.745
12)	Heptachlor	17.96	10.50	2731016	5772572	74.190	56.101
13)	delta-BHC	18.03	13.34	2093669	4192868	37.916m	33.902
14)	Alachlor	18.32	11.95	2687413	5339831	489.855	618.040 #
15)	Aldrin	19.26	11.41	2440826	5209619	51.969m	49.255
16)	Heptachlor Epoxi	21.27	13.78	2390770	5748762	57.366	56.307
17)	gamma-Chlordane	21.98	14.92	2262256	5654109	56.261	54.255
18)	alpha-Chlordane	22.54	15.11	2078103	5560292	56.197	53.834
19)	Endosulfan-I	22.64	14.66	2176553	4991767	60.942	54.092
20)	4,4'-DDE	23.27	15.53	2035514	5675989	59.022	57.581
21)	Dieldrin	23.75	15.94	2163450	6001990	56.986	57.716
22)	Endrin	25.22	16.60	1718351	6013931	57.983	62.694
23)	4,4'-DDD	25.58	18.30	1652416	10110024	57.406	112.584m#
24)	Endosulfan-II	26.04	18.30	1869652	10259249	56.107	114.458 #
25)	4,4'-DDT	27.22	18.81	1517098	4464057	76.003	76.346
26)	Endrin aldehyde	27.63	19.73	1968380	3482337	77.800	50.132 #
27)	Endosulfan sulfa	28.58	20.80	1671536	4855199	58.899	58.566
28)	Methoxychlor	32.75	20.99	864286	2593258	76.093m	73.891
29)	Endrin ketone	33.89	22.07	2159830	5506070	62.537	64.601m

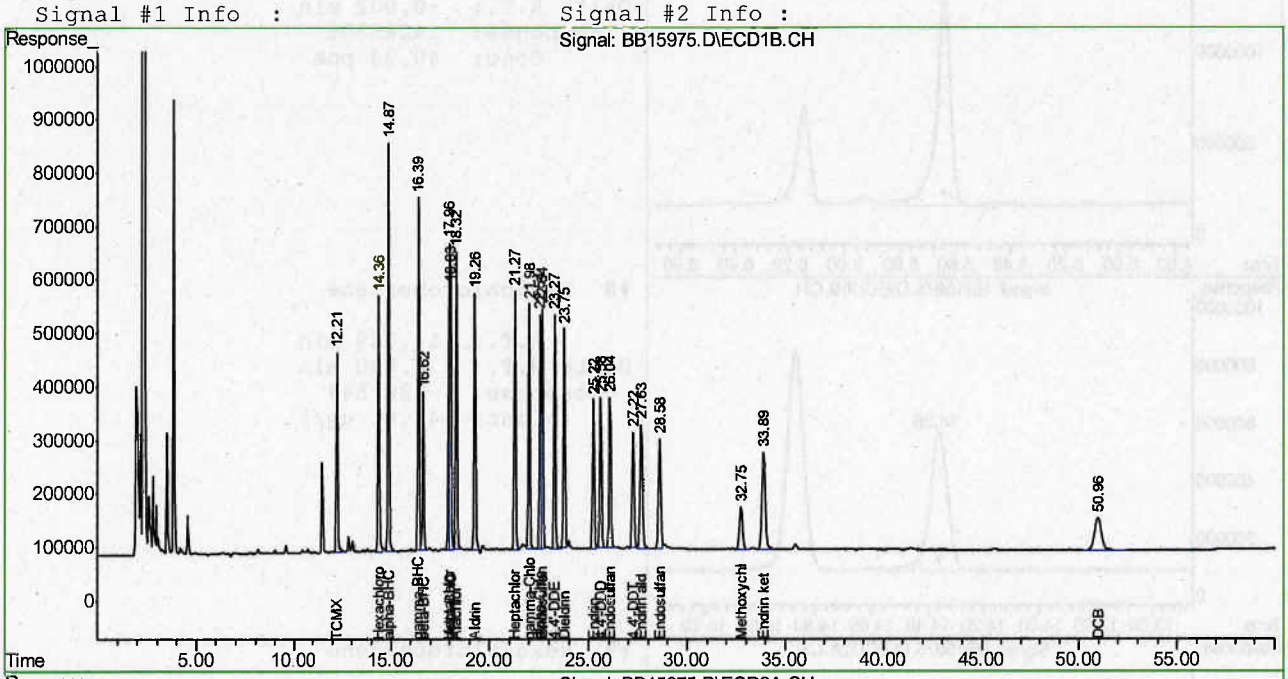
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15975.D PT092007.M Tue Sep 25 10:01:38 2007 GC23PRN

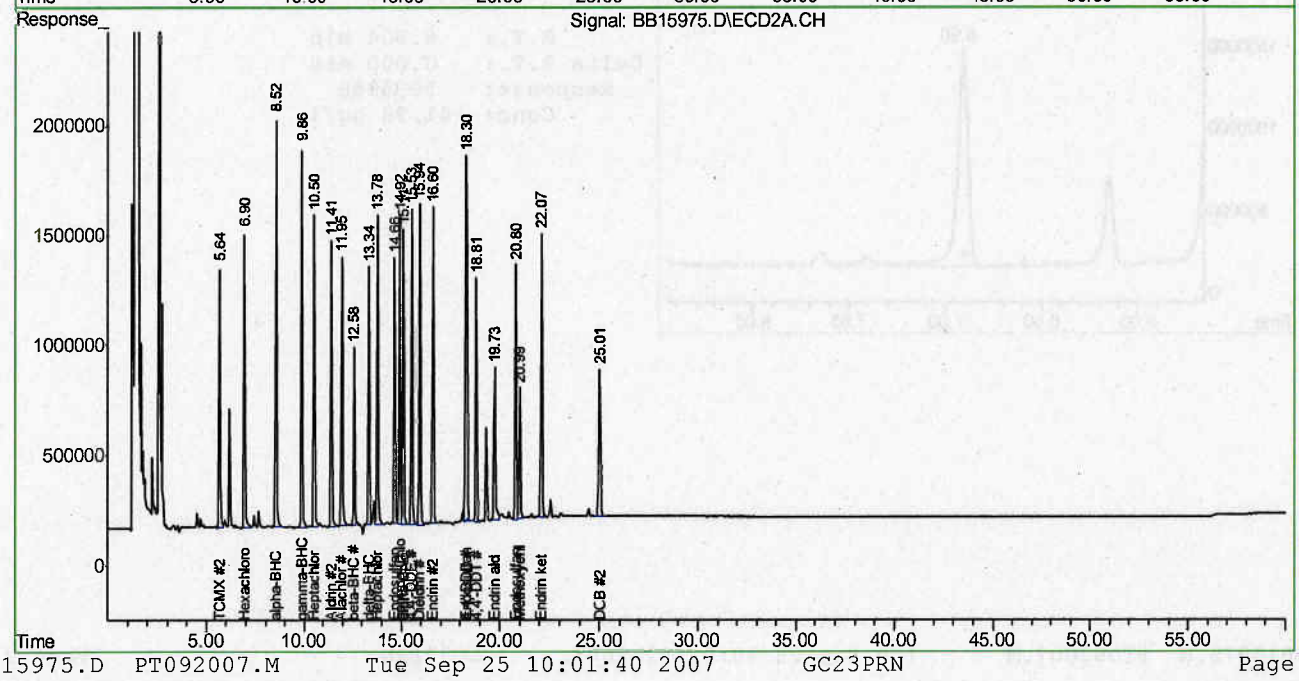
Quantitation Report (QT Reviewed)

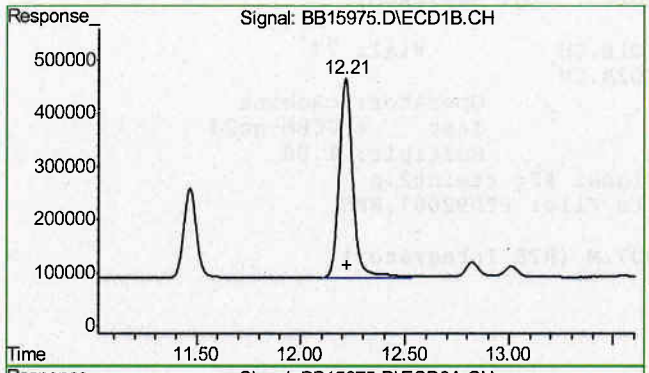
Signal #1 : C:\MSDCHEM\1\DATA\BB15975.D\ECD1B.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BB15975.D\ECD2A.CH
Acq On : 9-22-07 07:26:23 AM Operator: caobinz
Sample : op14345-bs Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:20 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

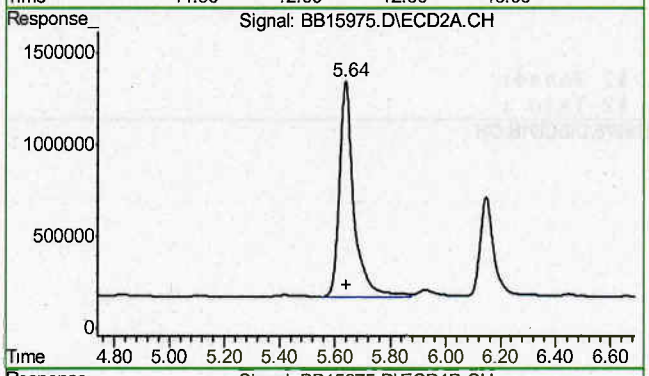






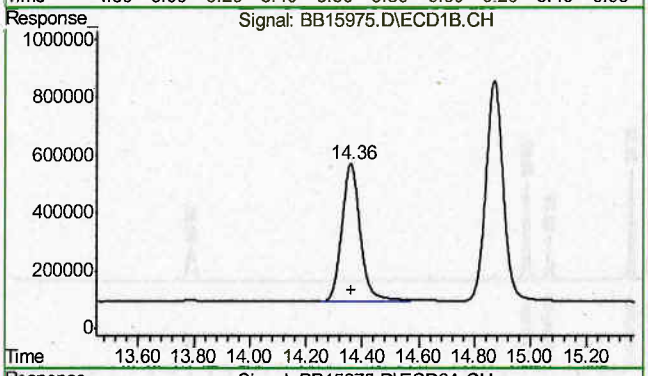
#1 TCMX

R.T.: 12.214 min
Delta R.T.: -0.007 min
Response: 1709579
Conc: 42.19 ppb



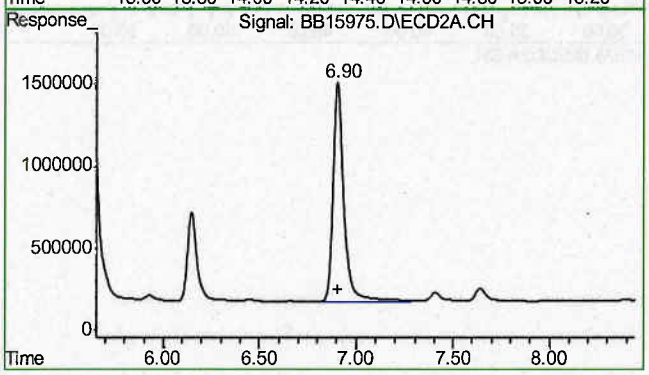
#1 TCMX

R.T.: 5.639 min
Delta R.T.: -0.002 min
Response: 4245501
Conc: 40.30 ppb



#8 Hexachlorobenzene

R.T.: 14.359 min
Delta R.T.: 0.000 min
Response: 2201547
Conc: 43.61 ug/l

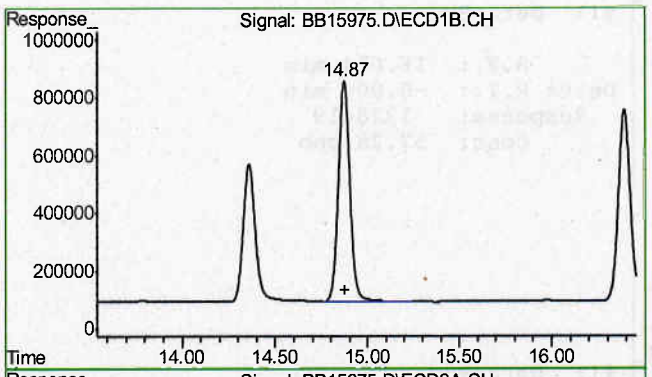


#8 Hexachlorobenzene

R.T.: 6.904 min
Delta R.T.: 0.000 min
Response: 5095868
Conc: 41.98 ug/l

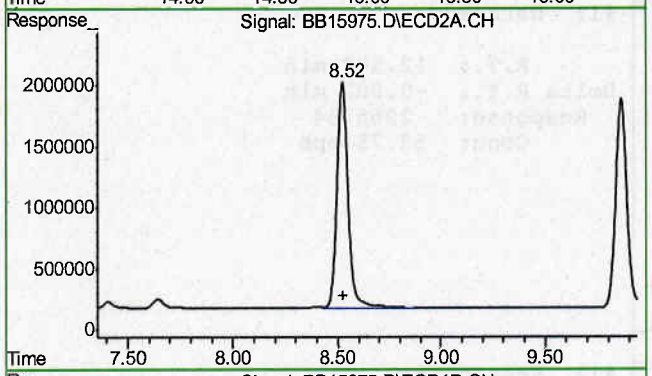
6.3.1 6

ACCUTEST Laboratories M67604



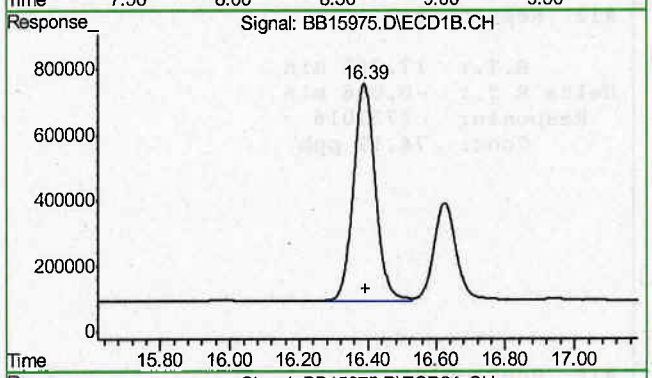
#9 alpha-BHC

R.T.: 14.871 min
Delta R.T.: -0.002 min
Response: 3337809
Conc: 53.74 ppb



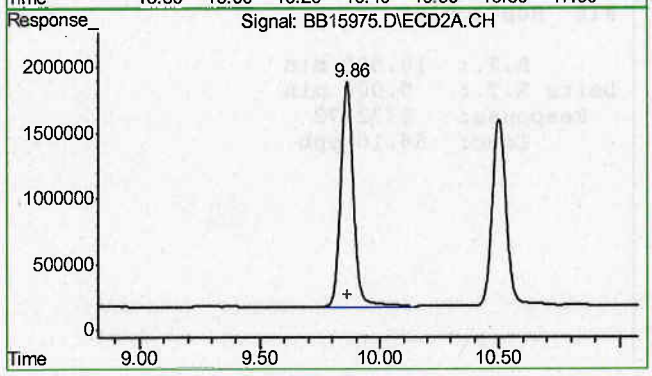
#9 alpha-BHC

R.T.: 8.520 min
Delta R.T.: -0.002 min
Response: 6817521
Conc: 50.77 ppb



#10 gamma-BHC

R.T.: 16.387 min
Delta R.T.: -0.004 min
Response: 2947112
Conc: 54.82 ppb

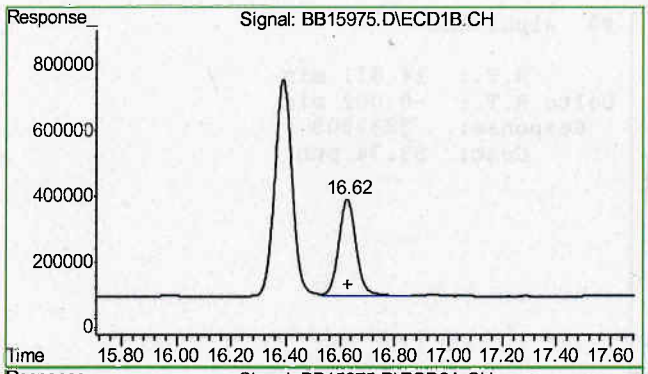


#10 gamma-BHC

R.T.: 9.860 min
Delta R.T.: 0.000 min
Response: 6388819
Conc: 51.19 ppb

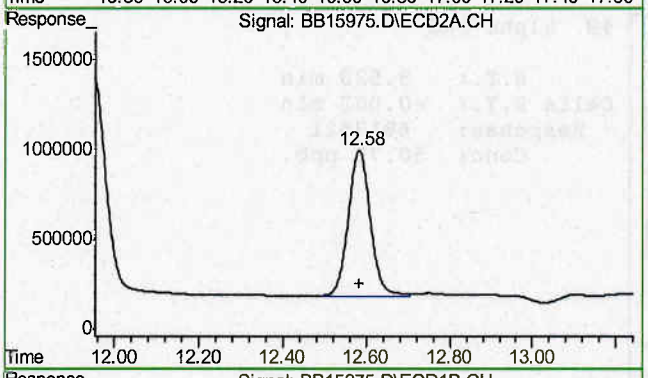
6.3.1

6



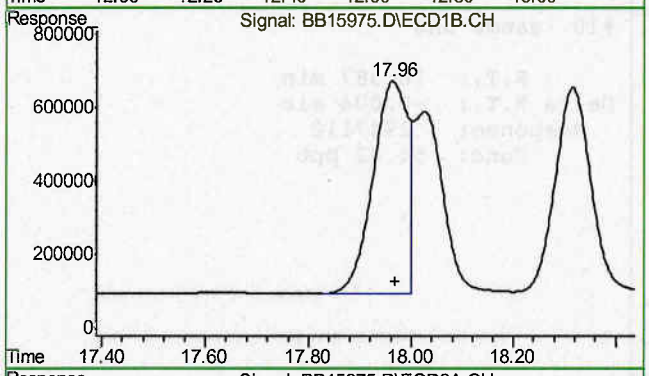
#11 beta-BHC

R.T.: 16.624 min
Delta R.T.: -0.004 min
Response: 1328419
Conc: 57.28 ppb



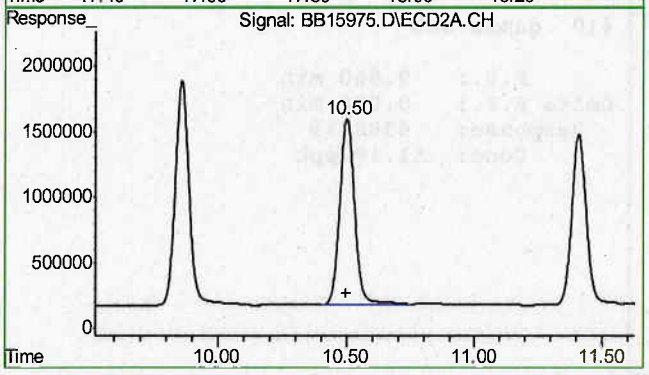
#11 beta-BHC

R.T.: 12.582 min
Delta R.T.: -0.002 min
Response: 2965734
Conc: 53.75 ppb



#12 Heptachlor

R.T.: 17.962 min
Delta R.T.: -0.006 min
Response: 2731016
Conc: 74.19 ppb



#12 Heptachlor

R.T.: 10.500 min
Delta R.T.: 0.000 min
Response: 5772572
Conc: 56.10 ppb

6.3.1

6

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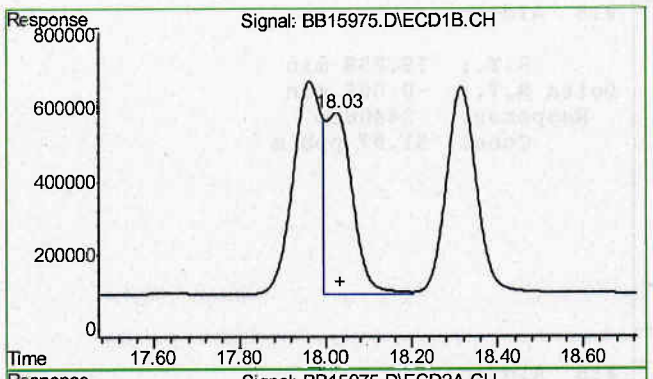
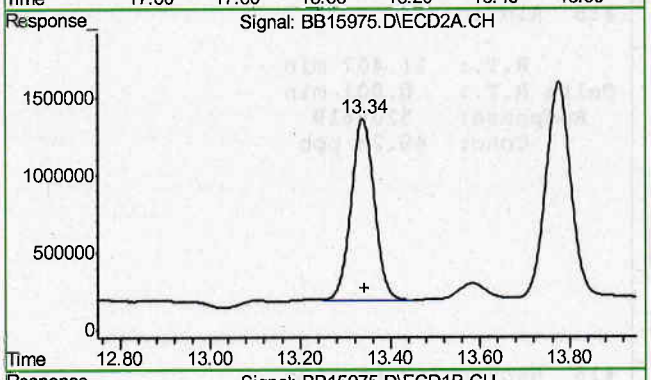


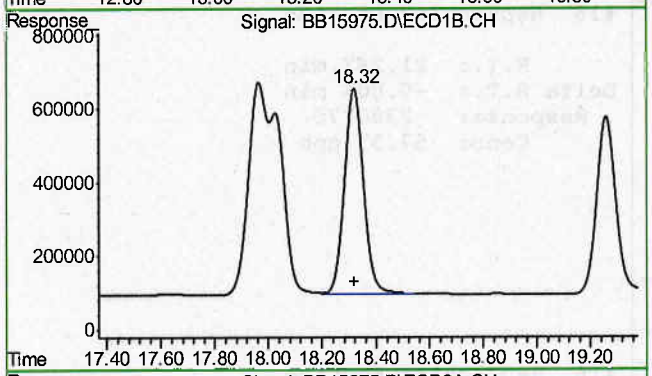
#13 delta-BHC

R.T.: 18.026 min
Delta R.T.: -0.007 min
Response: 2093669
Conc: 37.92 ppb m



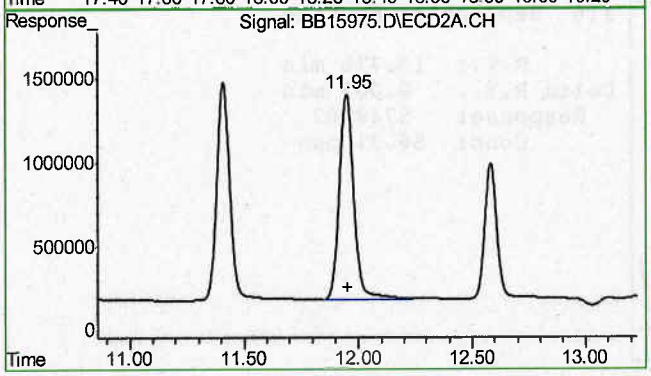
#13 delta-BHC

R.T.: 13.337 min
Delta R.T.: -0.004 min
Response: 4192868
Conc: 33.90 ppb



#14 Alachlor

R.T.: 18.316 min
Delta R.T.: -0.002 min
Response: 2687413
Conc: 489.85 ug/l



#14 Alachlor

R.T.: 11.947 min
Delta R.T.: -0.004 min
Response: 5339831
Conc: 618.04 ug/l

6.3.1

6

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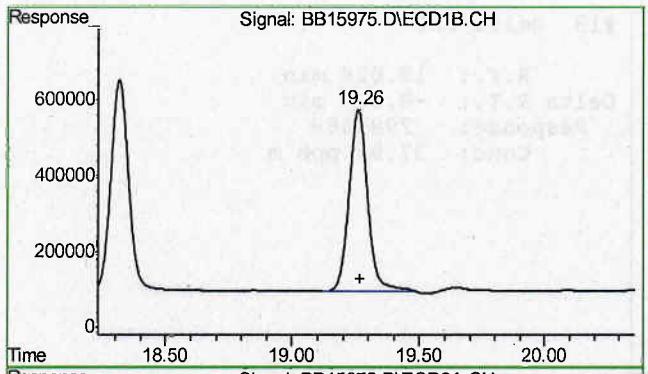
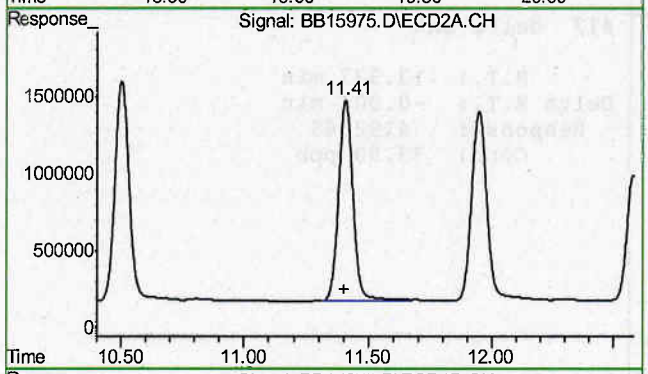


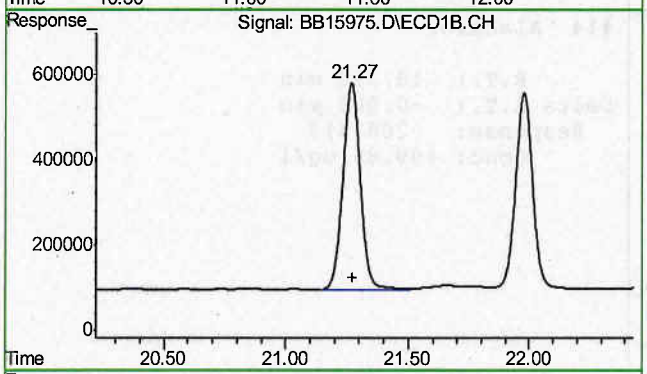
#15 Aldrin

R.T.: 19.259 min
Delta R.T.: -0.006 min
Response: 2440826
Conc: 51.97 ppb m



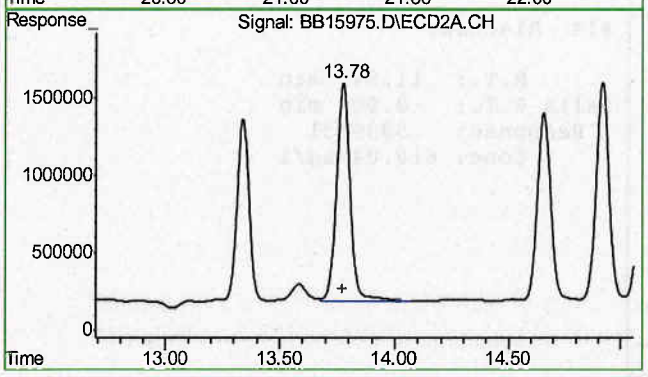
#15 Aldrin

R.T.: 11.407 min
Delta R.T.: 0.001 min
Response: 5209619
Conc: 49.25 ppb



#16 Heptachlor Epoxide

R.T.: 21.267 min
Delta R.T.: -0.007 min
Response: 2390770
Conc: 57.37 ppb



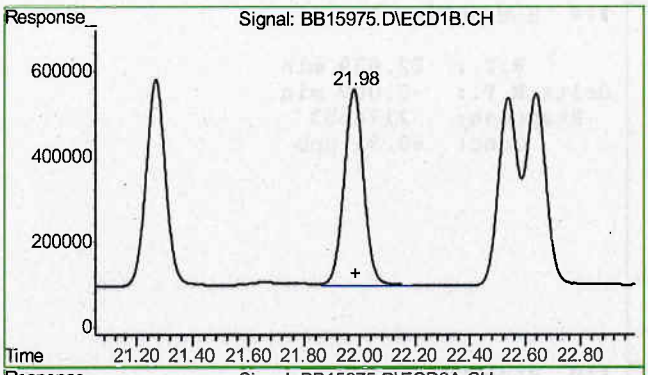
#16 Heptachlor Epoxide

R.T.: 13.775 min
Delta R.T.: 0.003 min
Response: 5748762
Conc: 56.31 ppb

6.3.1

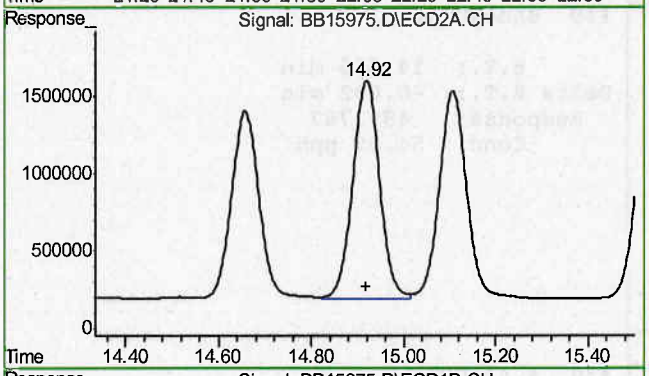
6

ACCUTEST Laboratories M67604



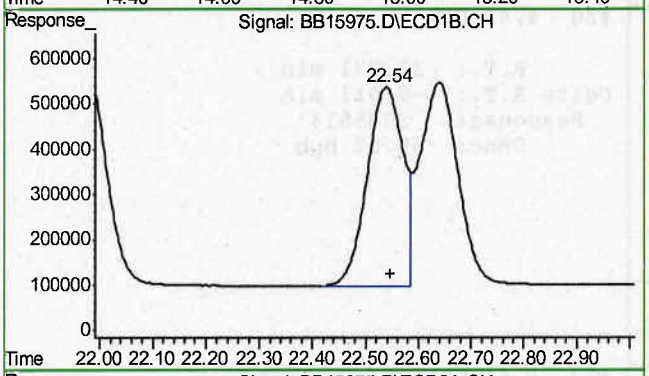
#17 gamma-Chlordane

R.T.: 21.977 min
Delta R.T.: -0.007 min
Response: 2262256
Conc: 56.26 ppb



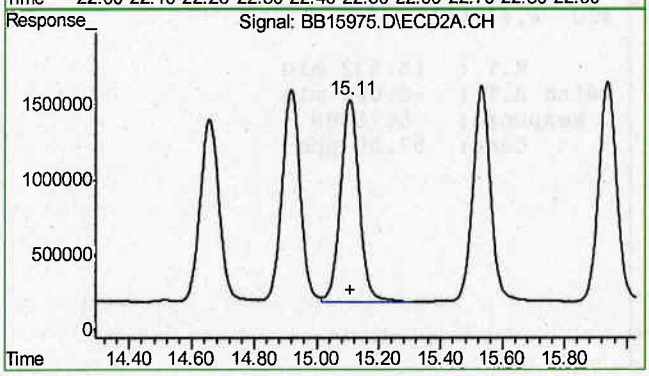
#17 gamma-Chlordane

R.T.: 14.917 min
Delta R.T.: 0.000 min
Response: 5654109
Conc: 54.25 ppb



#18 alpha-Chlordane

R.T.: 22.539 min
Delta R.T.: -0.007 min
Response: 2078103
Conc: 56.20 ppb

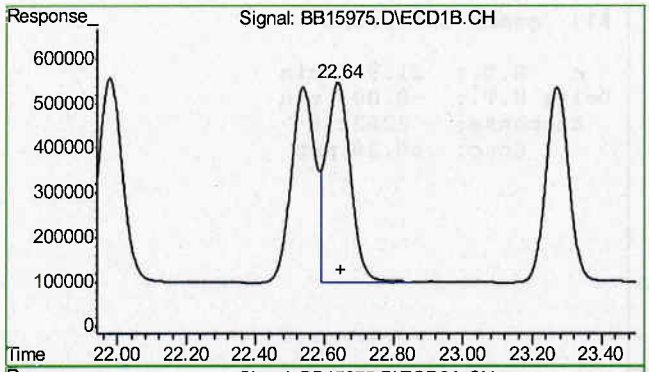


#18 alpha-Chlordane

R.T.: 15.107 min
Delta R.T.: -0.002 min
Response: 5560292
Conc: 53.83 ppb

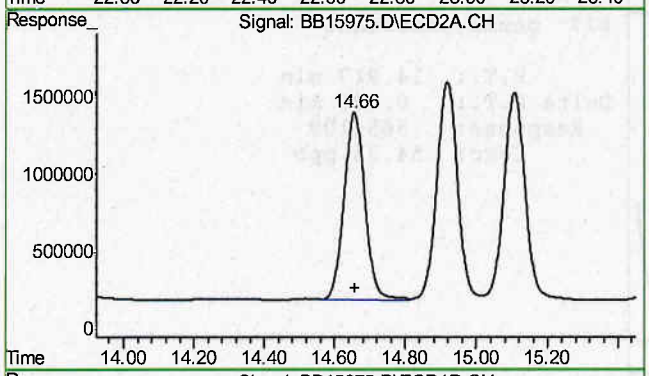
6.3.1

6



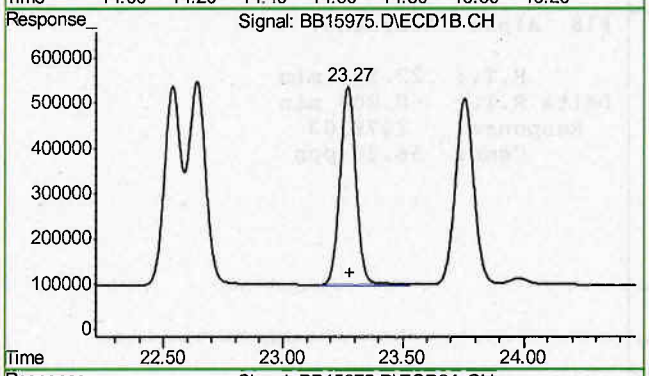
#19 Endosulfan-I

R.T.: 22.639 min
Delta R.T.: -0.009 min
Response: 2176553
Conc: 60.94 ppb



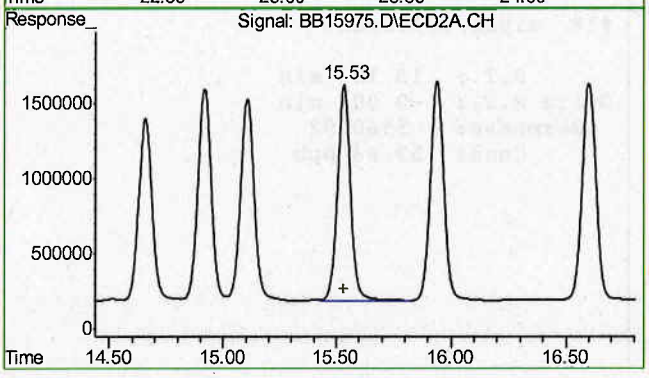
#19 Endosulfan-I

R.T.: 14.655 min
Delta R.T.: -0.002 min
Response: 4991767
Conc: 54.09 ppb



#20 4,4'-DDE

R.T.: 23.271 min
Delta R.T.: -0.011 min
Response: 2035514
Conc: 59.02 ppb

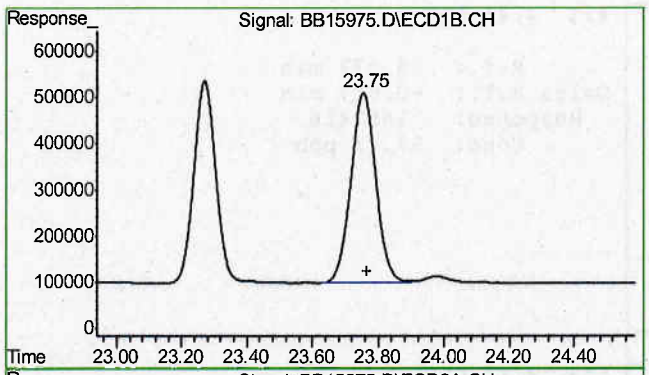


#20 4,4'-DDE

R.T.: 15.532 min
Delta R.T.: -0.002 min
Response: 5675989
Conc: 57.58 ppb

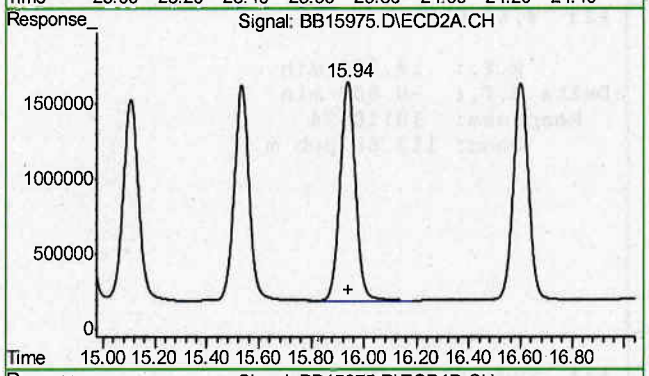
6.3.1

6



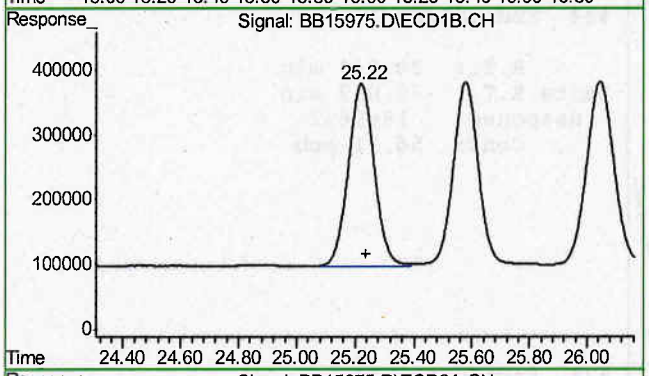
#21 Dieldrin

R.T.: 23.754 min
Delta R.T.: -0.011 min
Response: 2163450
Conc: 56.99 ppb



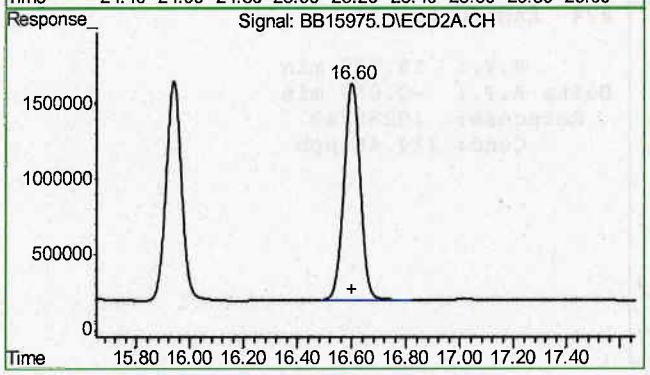
#21 Dieldrin

R.T.: 15.937 min
Delta R.T.: -0.004 min
Response: 6001990
Conc: 57.72 ppb



#22 Endrin

R.T.: 25.221 min
Delta R.T.: -0.016 min
Response: 1718351
Conc: 57.98 ppb



#22 Endrin

R.T.: 16.597 min
Delta R.T.: -0.004 min
Response: 6013931
Conc: 62.69 ppb

6.3.1

6

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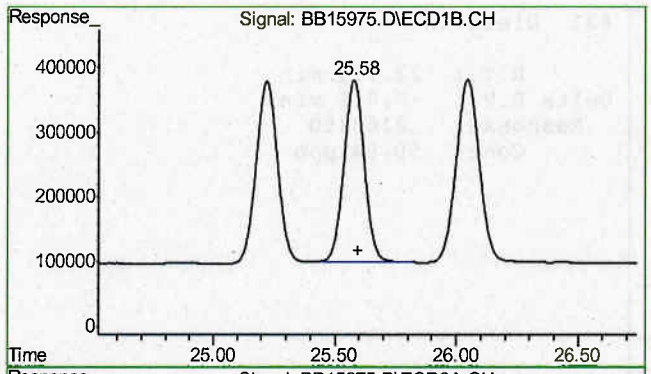
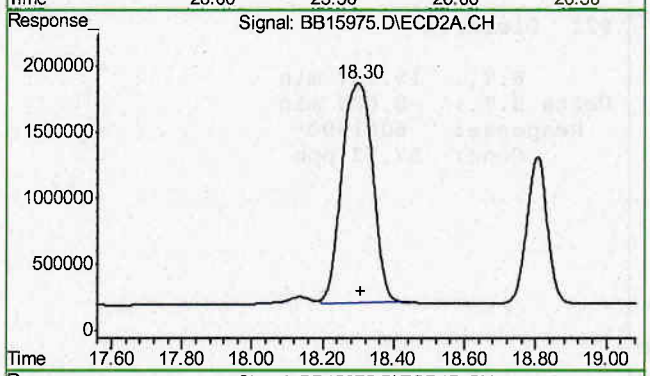


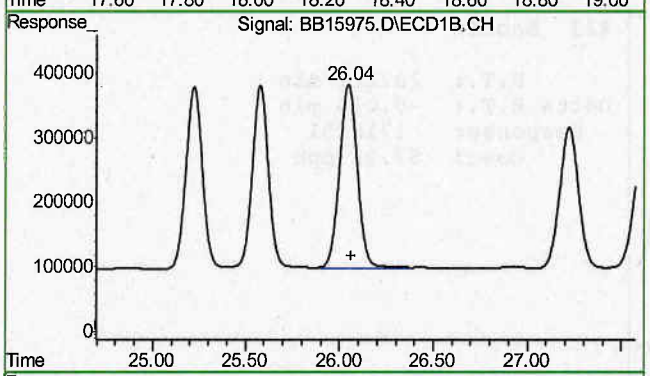
#23 4,4'-DDD

R.T.: 25.577 min
Delta R.T.: -0.017 min
Response: 1652416
Conc: 57.41 ppb



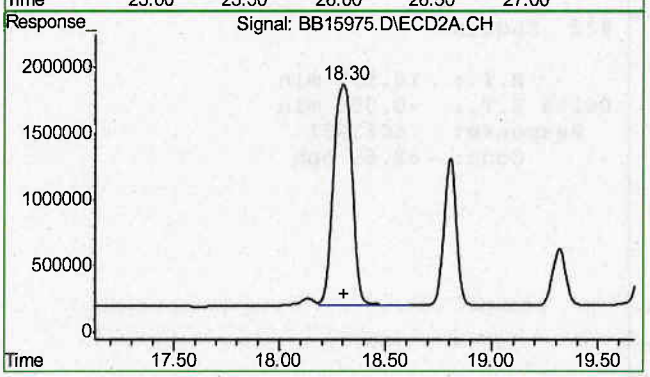
#23 4,4'-DDD

R.T.: 18.299 min
Delta R.T.: -0.007 min
Response: 10110024
Conc: 112.58 ppb m



#24 Endosulfan-II

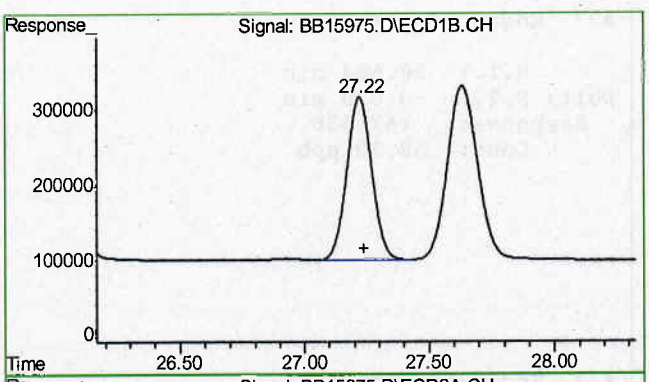
R.T.: 26.044 min
Delta R.T.: -0.019 min
Response: 1869652
Conc: 56.11 ppb



#24 Endosulfan-II

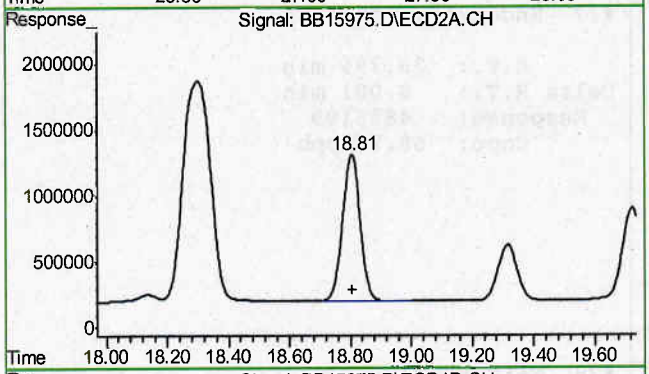
R.T.: 18.299 min
Delta R.T.: -0.007 min
Response: 10259249
Conc: 114.46 ppb

6.3.1 6



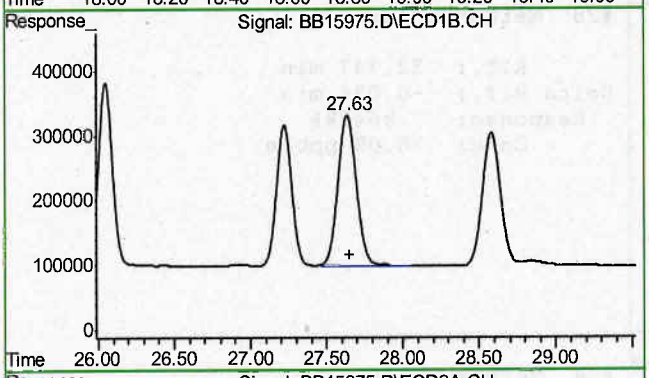
#25 4,4'-DDT

R.T.: 27.219 min
Delta R.T.: -0.019 min
Response: 1517098
Conc: 76.00 ppb



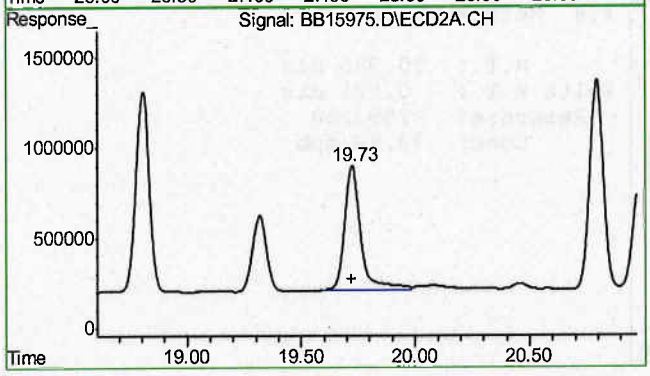
#25 4,4'-DDT

R.T.: 18.805 min
Delta R.T.: -0.002 min
Response: 4464057
Conc: 76.35 ppb



#26 Endrin aldehyde

R.T.: 27.634 min
Delta R.T.: -0.012 min
Response: 1968380
Conc: 77.80 ppb



#26 Endrin aldehyde

R.T.: 19.725 min
Delta R.T.: 0.003 min
Response: 3482337
Conc: 50.13 ppb

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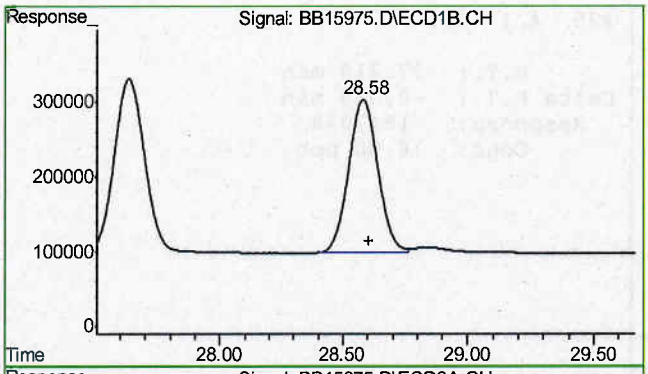
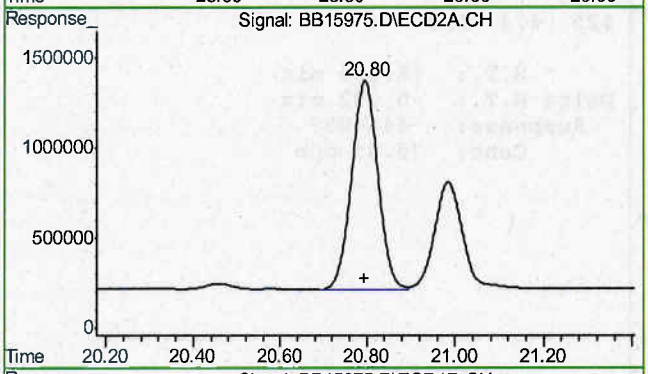


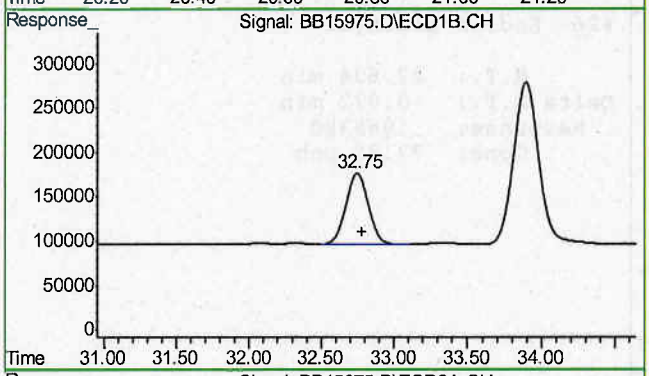
#27 Endosulfan sulfate

R.T.: 28.584 min
Delta R.T.: -0.020 min
Response: 1671536
Conc: 58.90 ppb



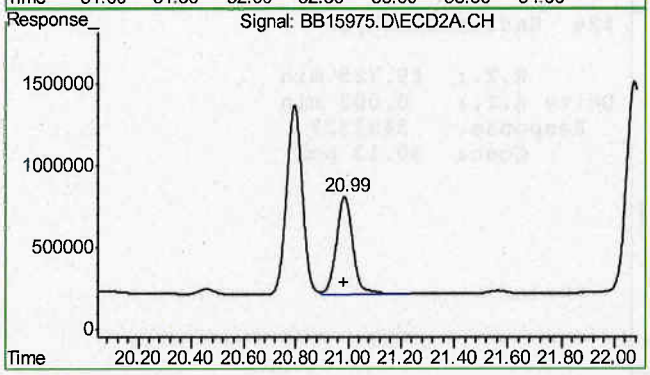
#27 Endosulfan sulfate

R.T.: 20.795 min
Delta R.T.: 0.001 min
Response: 4855199
Conc: 58.57 ppb



#28 Methoxychlor

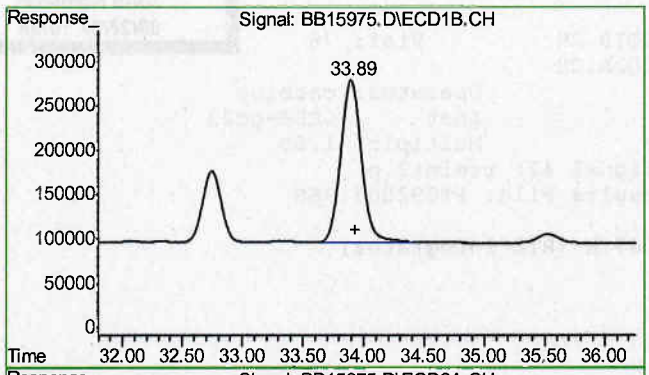
R.T.: 32.747 min
Delta R.T.: -0.036 min
Response: 864286
Conc: 76.09 ppb m



#28 Methoxychlor

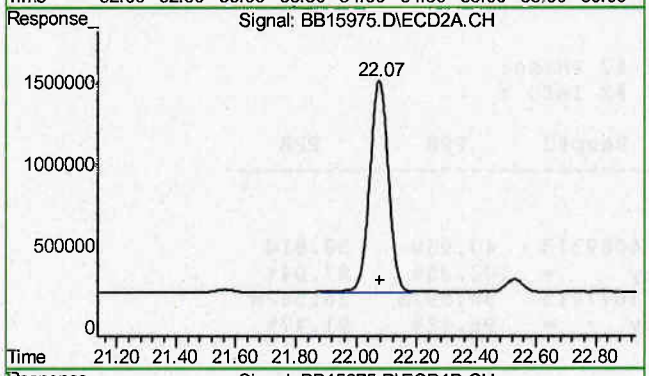
R.T.: 20.985 min
Delta R.T.: 0.001 min
Response: 2593258
Conc: 73.89 ppb

6.3.1 6



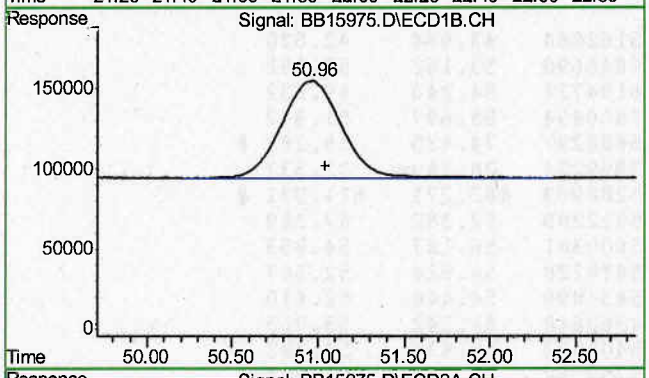
#29 Endrin ketone

R.T.: 33.892 min
Delta R.T.: -0.037 min
Response: 2159830
Conc: 62.54 ppb



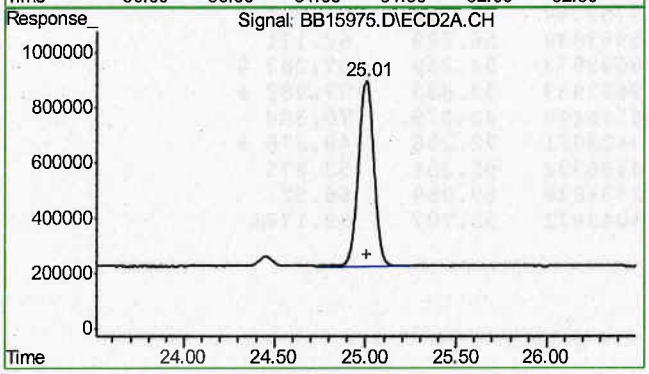
#29 Endrin ketone

R.T.: 22.074 min
Delta R.T.: -0.004 min
Response: 5506070
Conc: 64.60 ppb m



#38 DCB

R.T.: 50.964 min
Delta R.T.: -0.080 min
Response: 1455029
Conc: 41.43 ppb m



#38 DCB

R.T.: 25.007 min
Delta R.T.: 0.001 min
Response: 3977522
Conc: 39.57 ppb m

6.3.1

6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15976.D\ECD1B.CH Vial: 78
Signal #2 : C:\MSDCHEM\1\DATA\BB15976.D\ECD2A.CH
Acq On : 9-22-07 08:31:29 AM Operator: caobinz
Sample : op14345-bsd Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:48:35 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
1) s	TCMX	12.22	5.64	1658753	4089313	40.938	38.816	
	Spiked Amount 40.000			Recovery	=	102.35%	97.04%	
38) s	DCB	50.95	25.00	1355183	3677415	38.592m	36.587m	
	Spiked Amount 40.000			Recovery	=	96.48%	91.47%	
	Target Compounds							
8)	Hexachlorobenzen	14.36	6.90	2219572	5162084	43.964	42.520	
9)	alpha-BHC	14.87	8.52	3301942	6845699	53.162	50.982	
10)	gamma-BHC	16.39	9.86	2915776	6194724	54.240	49.632	
11)	beta-BHC	16.63	12.58	1291734	2866494	55.697	51.947	
12)	Heptachlor	17.96	10.50	2740064	5688297	74.435	55.282	#
13)	delta-BHC	18.03	13.34	2112035	3999274	38.249m	32.337	
14)	Alachlor	18.32	11.95	2645809	5286963	482.271	611.921	#
15)	Aldrin	19.26	11.41	2460213	5012289	52.382	47.389	
16)	Heptachlor Epoxi	21.27	13.77	2339952	5600381	56.147	54.853	
17)	gamma-Chlordane	21.98	14.92	2208511	5478228	54.924	52.567	
18)	alpha-Chlordane	22.54	15.11	2013451	5433899	54.448	52.610	
19)	Endosulfan-I	22.64	14.65	2187290	4960648	61.242	53.755	
20)	4,4'-DDE	23.27	15.53	1960124	5400083	56.836	54.782	
21)	Dieldrin	23.75	15.94	2101687	5759544	55.360	55.384	
22)	Endrin	25.22	16.60	1668149	5963838	56.289	62.171	
23)	4,4'-DDD	25.58	18.30	1561810	9633933	54.258	107.283	#
24)	Endosulfan-II	26.05	18.30	1793875	9633933	53.833	107.482	#
25)	4,4'-DDT	27.22	18.81	1438768	4116178	72.079	70.396	
26)	Endrin aldehyde	27.63	19.72	1826889	3423021	72.208	49.278	#
27)	Endosulfan sulfa	28.58	20.79	1570946	4466332	55.354	53.875	
28)	Methoxychlor	32.75	20.99	784400	2334829	69.059	66.527	
29)	Endrin ketone	33.89	22.08	2027556	5043672	58.707	59.176m	

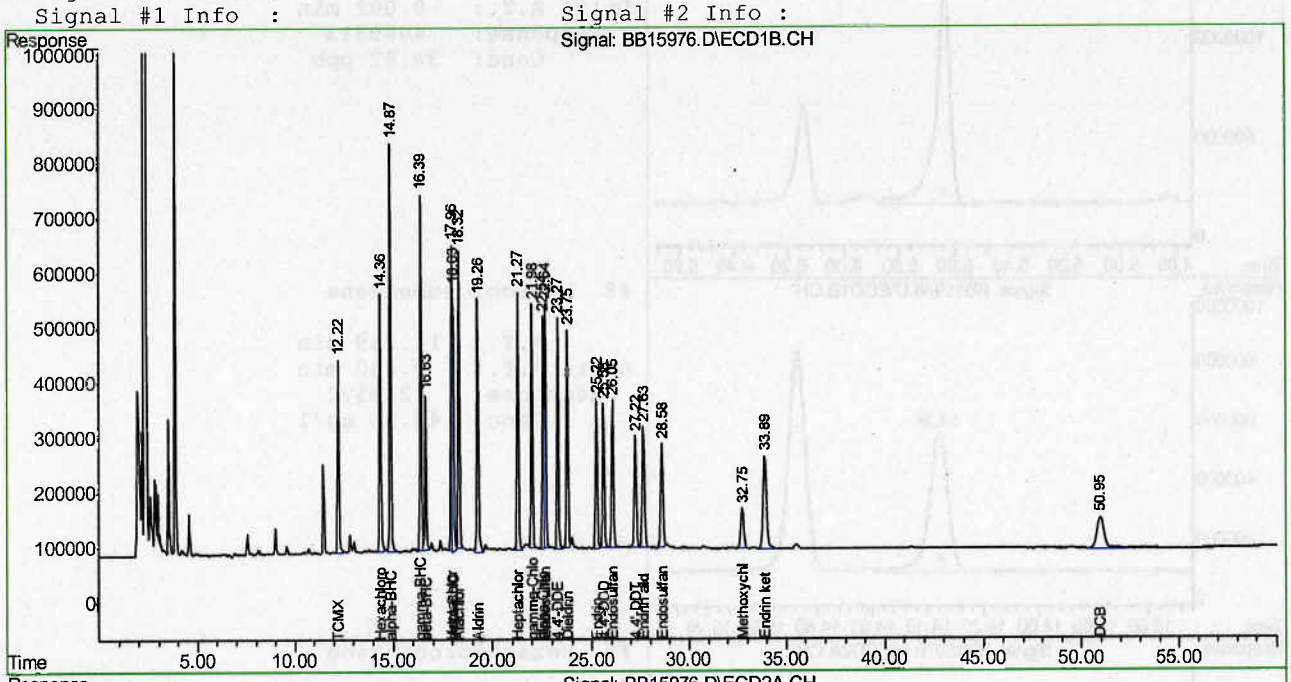
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15976.D PT092007.M Tue Sep 25 10:02:03 2007 GC23PRN

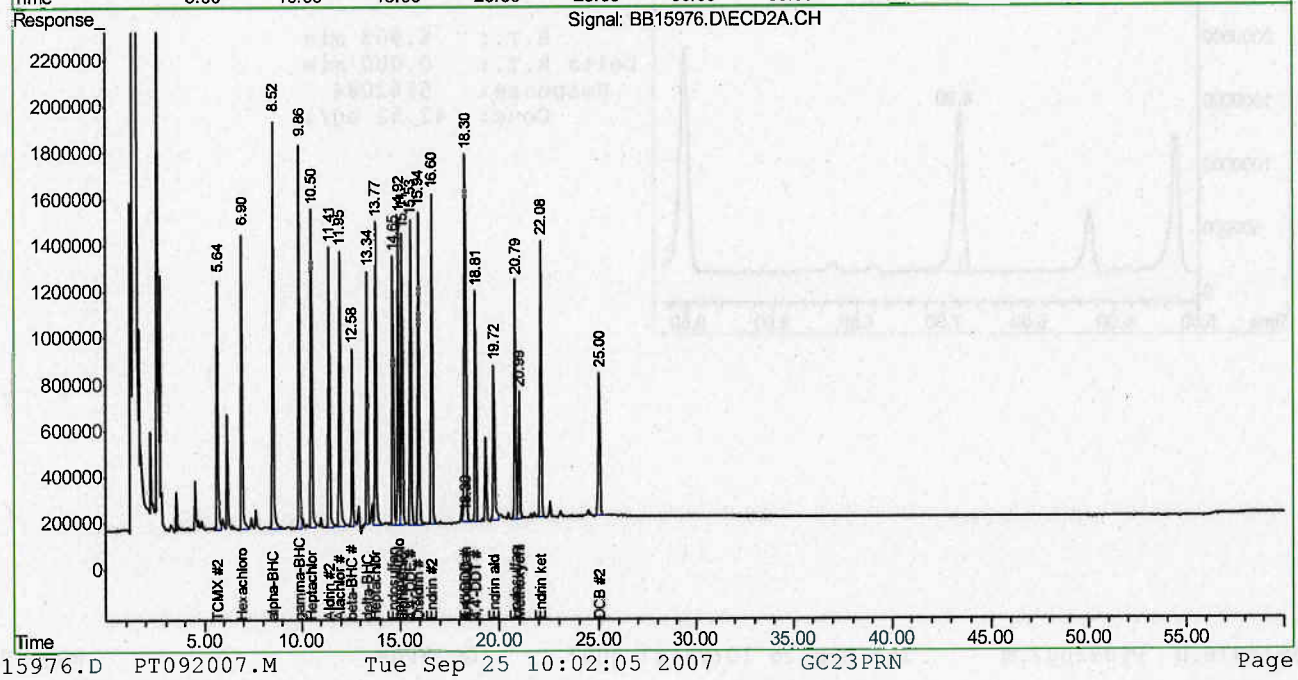
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15976.D\ECD1B.CH Vial: 78
Signal #2 : C:\MSDCHEM\1\DATA\BB15976.D\ECD2A.CH
Acq On : 9-22-07 08:31:29 AM Operator: caobinz
Sample : op14345-bsd Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:22 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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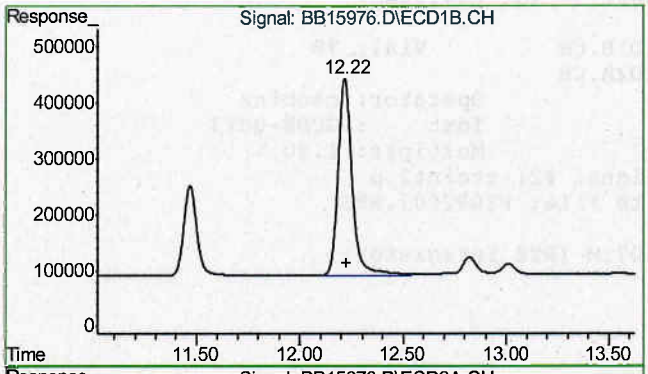
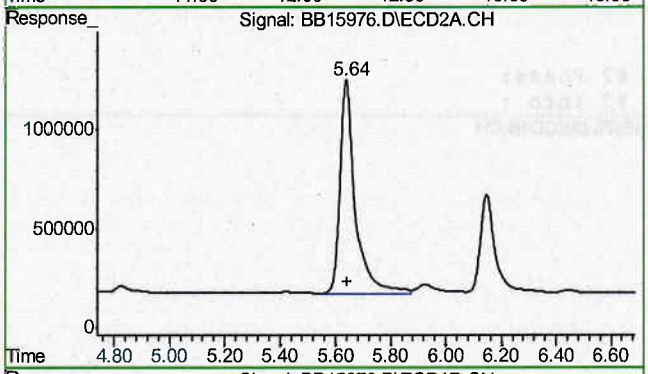


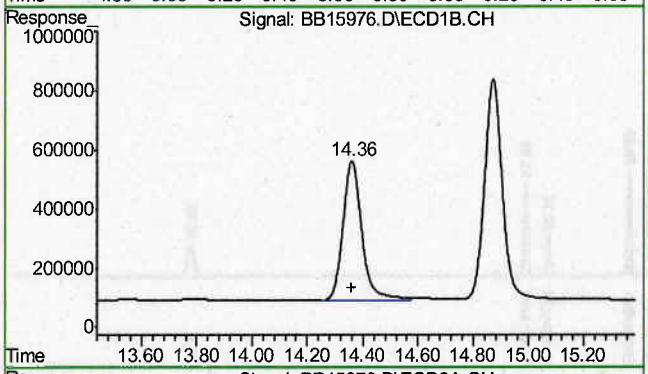
#1 TCMX

R.T.: 12.215 min
Delta R.T.: -0.006 min
Response: 1658753
Conc: 40.94 ppb



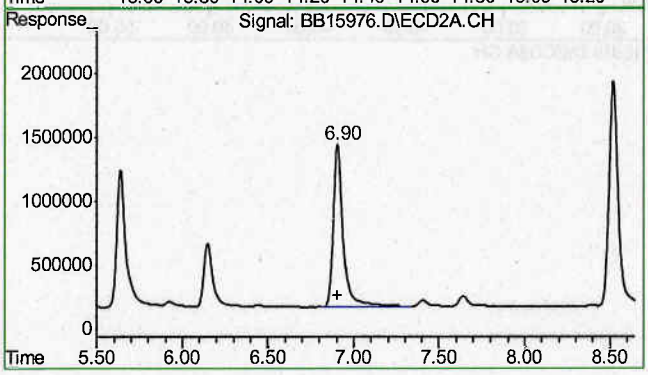
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.002 min
Response: 4089313
Conc: 38.82 ppb



#8 Hexachlorobenzene

R.T.: 14.359 min
Delta R.T.: 0.000 min
Response: 2219572
Conc: 43.96 ug/l

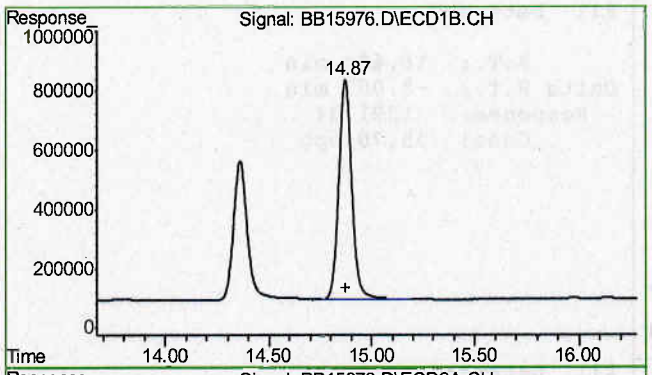


#8 Hexachlorobenzene

R.T.: 6.903 min
Delta R.T.: 0.000 min
Response: 5162084
Conc: 42.52 ug/l

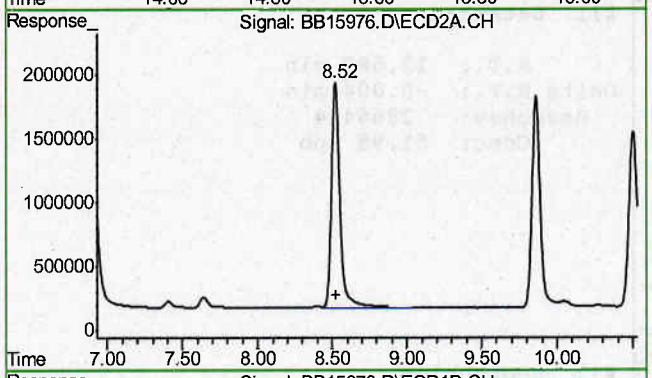
6.3.2

6



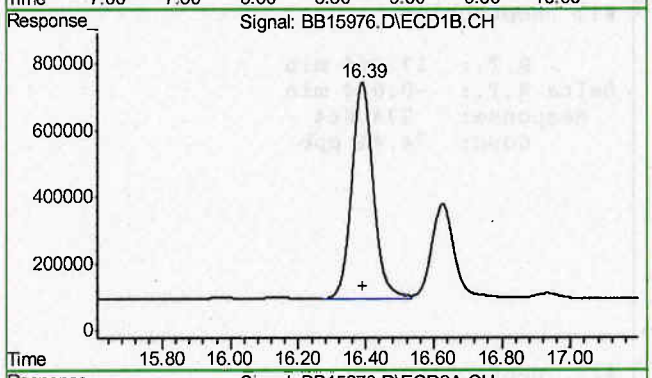
#9 alpha-BHC

R.T.: 14.870 min
Delta R.T.: -0.003 min
Response: 3301942
Conc: 53.16 ppb



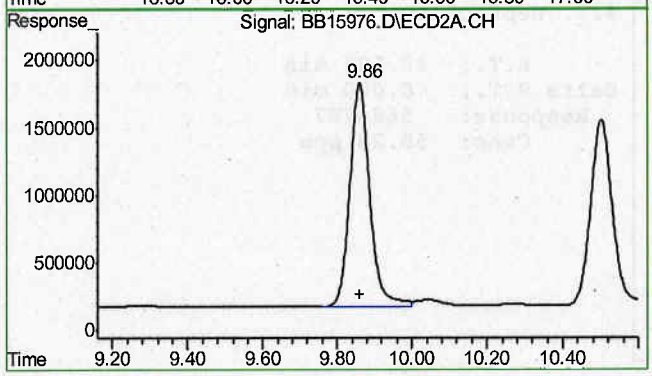
#9 alpha-BHC

R.T.: 8.518 min
Delta R.T.: -0.004 min
Response: 6845699
Conc: 50.98 ppb



#10 gamma-BHC

R.T.: 16.389 min
Delta R.T.: -0.003 min
Response: 2915776
Conc: 54.24 ppb



#10 gamma-BHC

R.T.: 9.860 min
Delta R.T.: 0.000 min
Response: 6194724
Conc: 49.63 ppb

6.3.2

6

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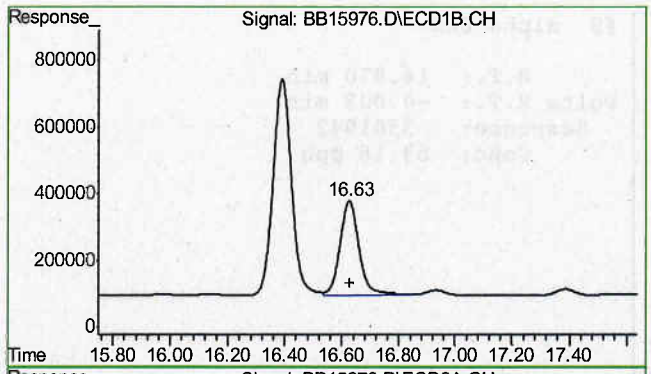
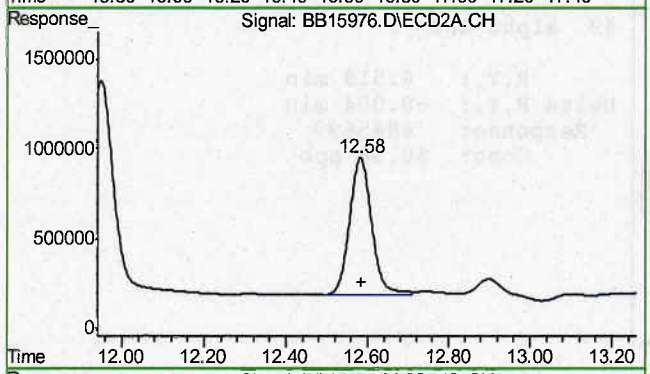


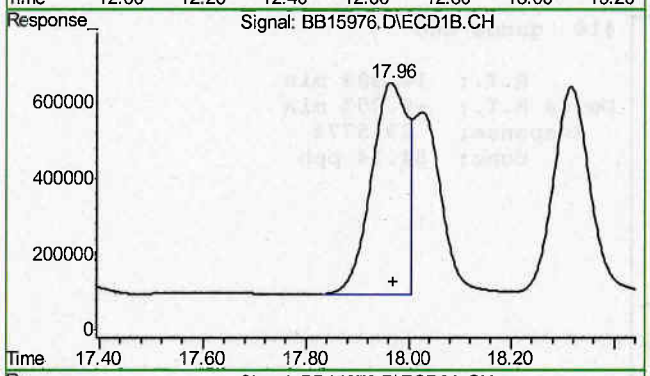
#11 beta-BHC

R.T.: 16.625 min
Delta R.T.: -0.003 min
Response: 1291734
Conc: 55.70 ppb



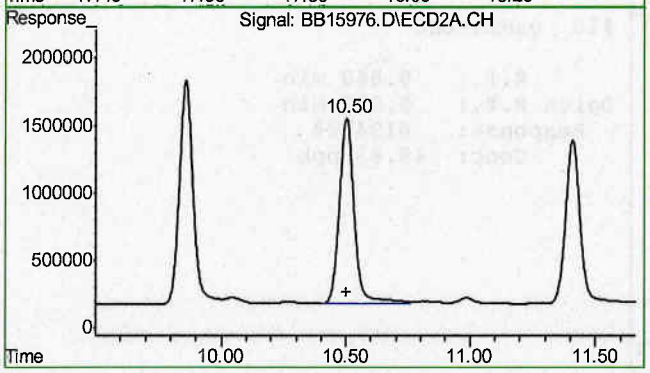
#11 beta-BHC

R.T.: 12.580 min
Delta R.T.: -0.004 min
Response: 2866494
Conc: 51.95 ppb



#12 Heptachlor

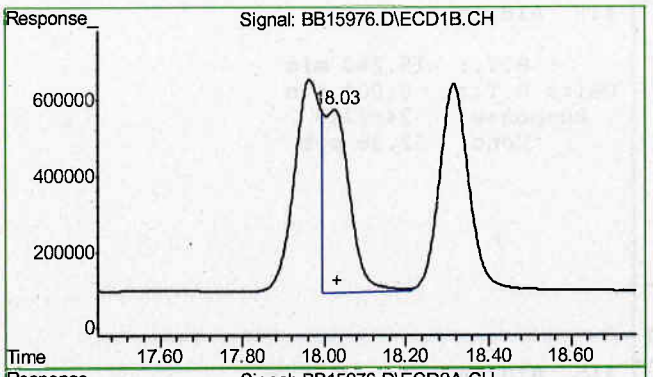
R.T.: 17.964 min
Delta R.T.: -0.004 min
Response: 2740064
Conc: 74.44 ppb



#12 Heptachlor

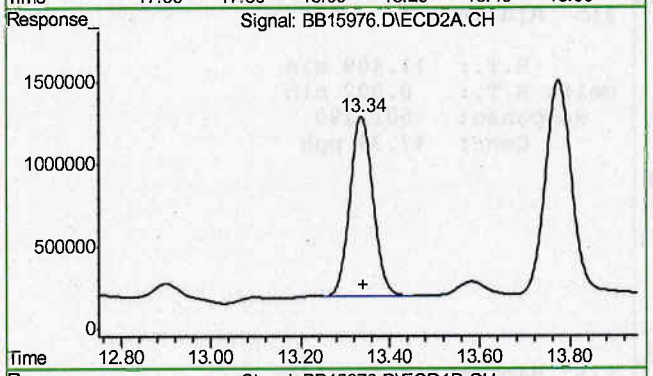
R.T.: 10.502 min
Delta R.T.: 0.000 min
Response: 5688297
Conc: 55.28 ppb

6.3.2 6



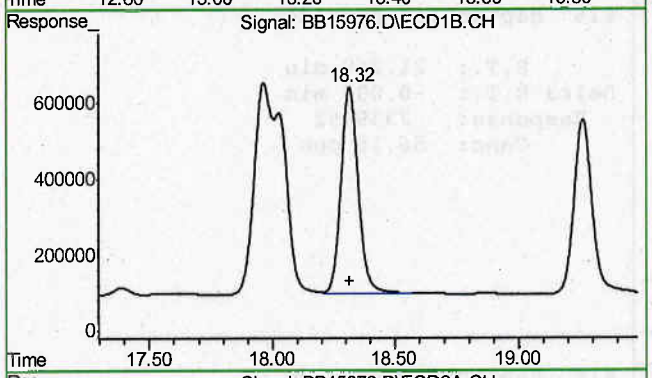
#13 delta-BHC

R.T.: 18.025 min
Delta R.T.: -0.008 min
Response: 2112035
Conc: 38.25 ppb m



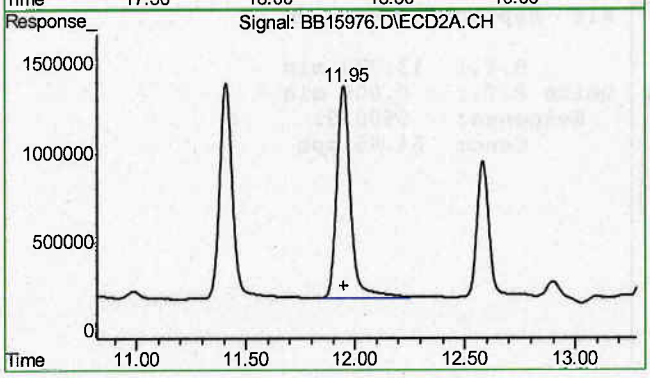
#13 delta-BHC

R.T.: 13.337 min
Delta R.T.: -0.004 min
Response: 3999274
Conc: 32.34 ppb



#14 Alachlor

R.T.: 18.315 min
Delta R.T.: -0.003 min
Response: 2645809
Conc: 482.27 ug/l

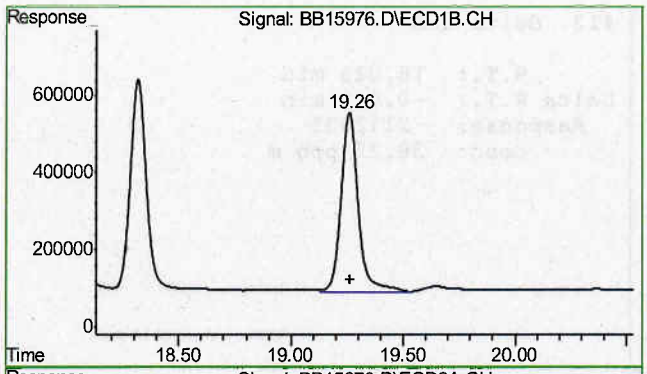


#14 Alachlor

R.T.: 11.948 min
Delta R.T.: -0.003 min
Response: 5286963
Conc: 611.92 ug/l

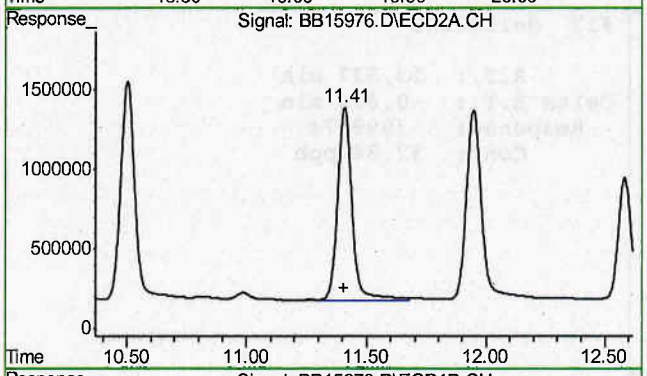
6.3.2

6



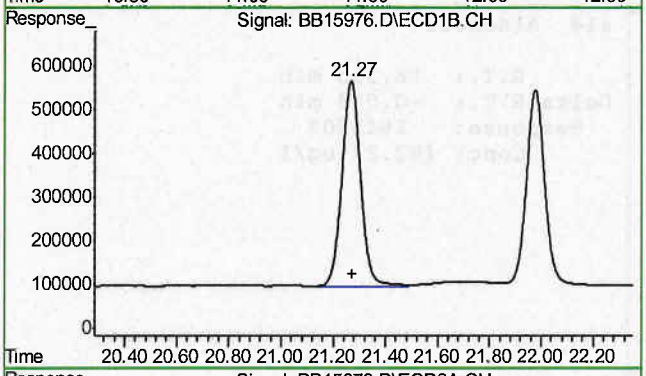
#15 Aldrin

R.T.: 19.260 min
Delta R.T.: -0.004 min
Response: 2460213
Conc: 52.38 ppb



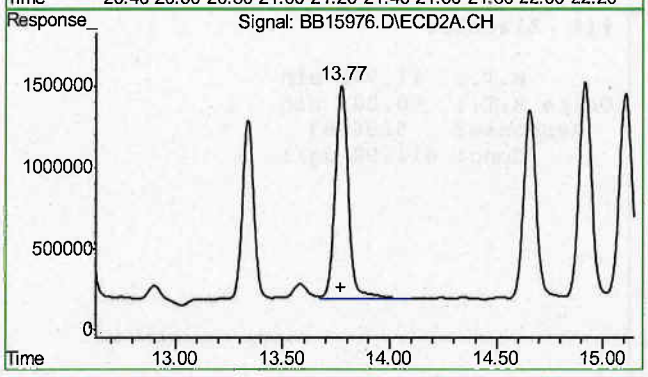
#15 Aldrin

R.T.: 11.408 min
Delta R.T.: 0.002 min
Response: 5012289
Conc: 47.39 ppb



#16 Heptachlor Epoxide

R.T.: 21.269 min
Delta R.T.: -0.006 min
Response: 2339952
Conc: 56.15 ppb

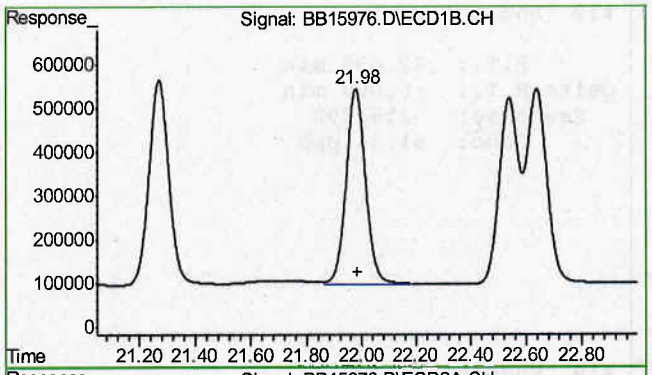


#16 Heptachlor Epoxide

R.T.: 13.773 min
Delta R.T.: 0.000 min
Response: 5600381
Conc: 54.85 ppb

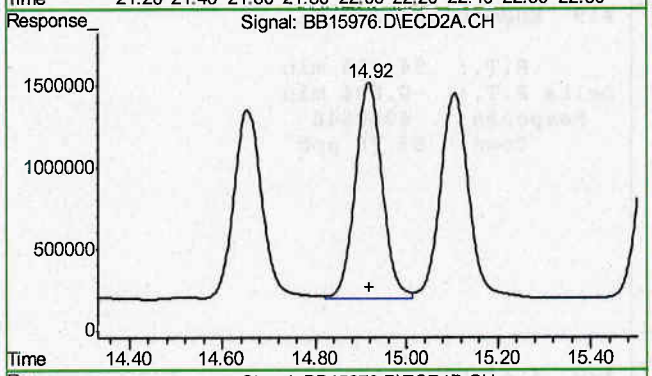
6.3.2

6



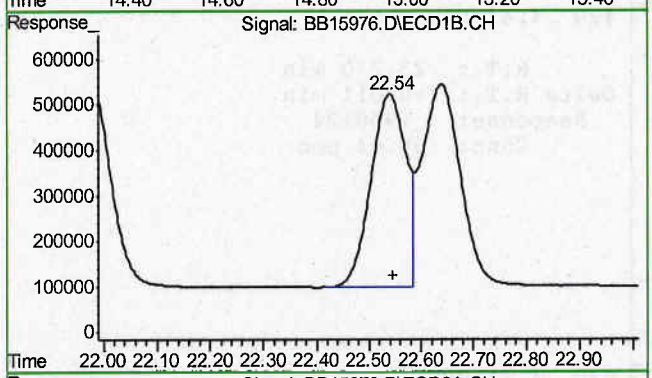
#17 gamma-Chlordane

R.T.: 21.977 min
Delta R.T.: -0.008 min
Response: 2208511
Conc: 54.92 ppb



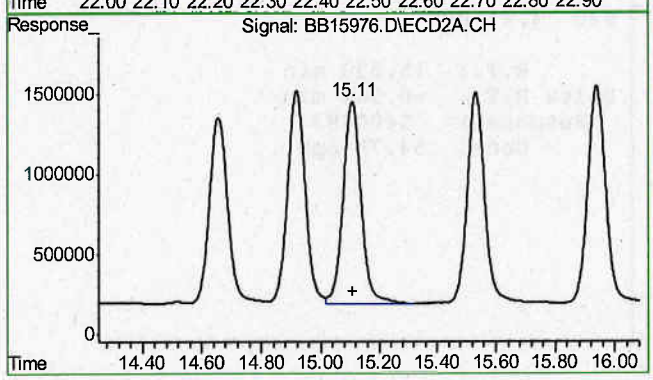
#17 gamma-Chlordane

R.T.: 14.917 min
Delta R.T.: 0.000 min
Response: 5478228
Conc: 52.57 ppb



#18 alpha-Chlordane

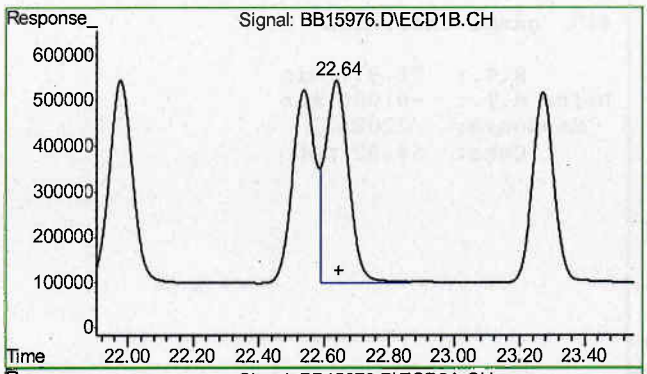
R.T.: 22.539 min
Delta R.T.: -0.008 min
Response: 2013451
Conc: 54.45 ppb



#18 alpha-Chlordane

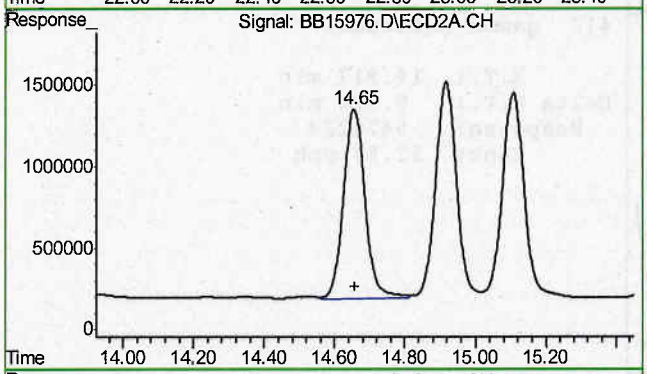
R.T.: 15.107 min
Delta R.T.: -0.003 min
Response: 5433899
Conc: 52.61 ppb

6.3.2 6



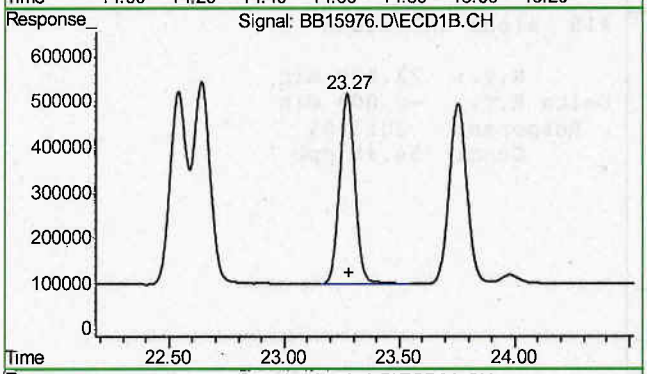
#19 Endosulfan-I

R.T.: 22.639 min
Delta R.T.: -0.009 min
Response: 2187290
Conc: 61.24 ppb



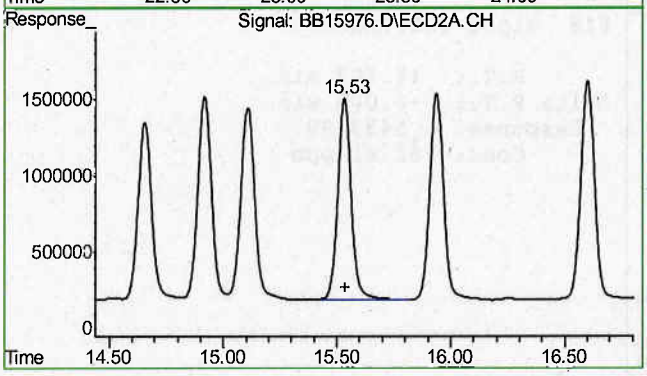
#19 Endosulfan-I

R.T.: 14.653 min
Delta R.T.: -0.004 min
Response: 4960648
Conc: 53.76 ppb



#20 4,4'-DDE

R.T.: 23.270 min
Delta R.T.: -0.011 min
Response: 1960124
Conc: 56.84 ppb

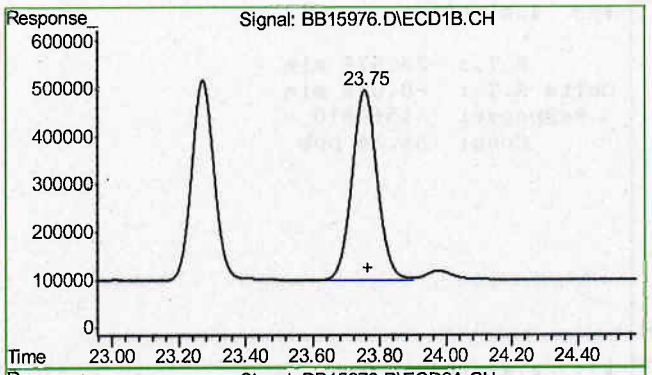


#20 4,4'-DDE

R.T.: 15.530 min
Delta R.T.: -0.004 min
Response: 5400083
Conc: 54.78 ppb

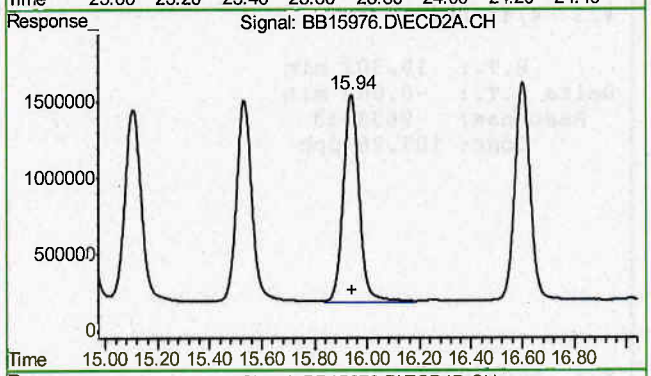
6.3.2

6



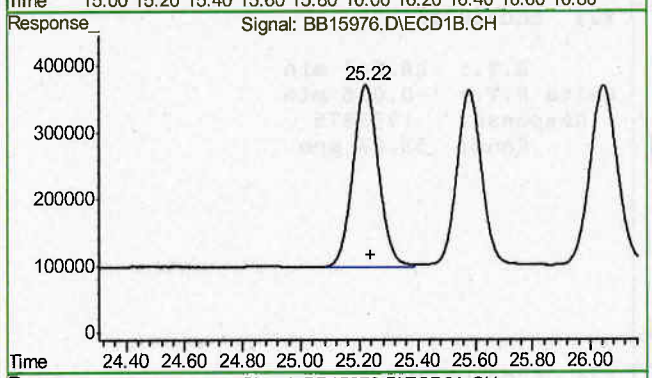
#21 Dieldrin

R.T.: 23.754 min
Delta R.T.: -0.011 min
Response: 2101687
Conc: 55.36 ppb



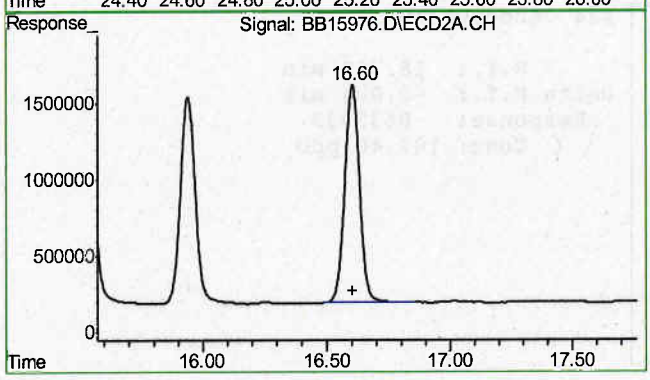
#21 Dieldrin

R.T.: 15.938 min
Delta R.T.: -0.003 min
Response: 5759544
Conc: 55.38 ppb



#22 Endrin

R.T.: 25.220 min
Delta R.T.: -0.016 min
Response: 1668149
Conc: 56.29 ppb



#22 Endrin

R.T.: 16.600 min
Delta R.T.: -0.001 min
Response: 5963838
Conc: 62.17 ppb

6.3.2

6

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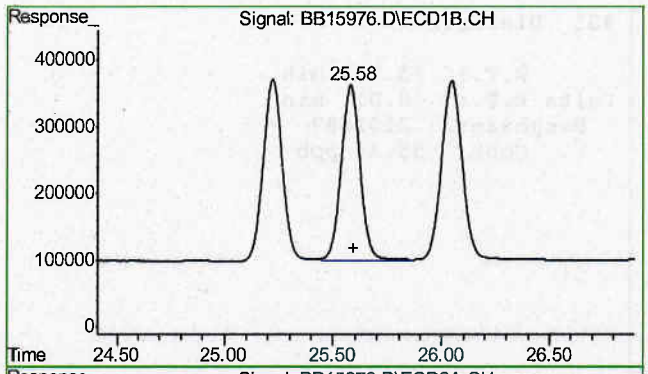
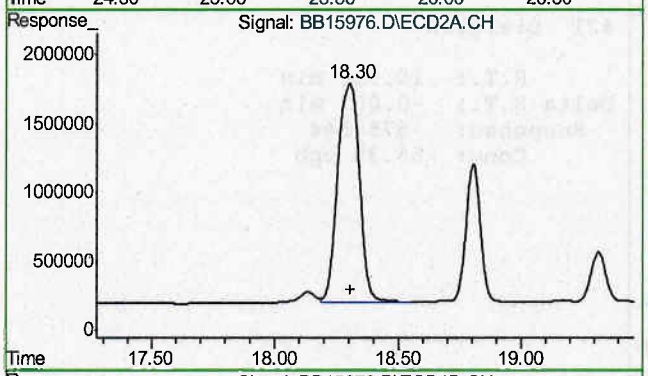


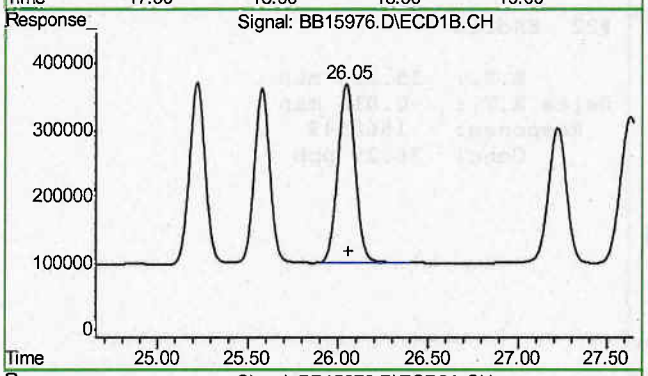
#23 4,4'-DDD

R.T.: 25.579 min
Delta R.T.: -0.016 min
Response: 1561810
Conc: 54.26 ppb



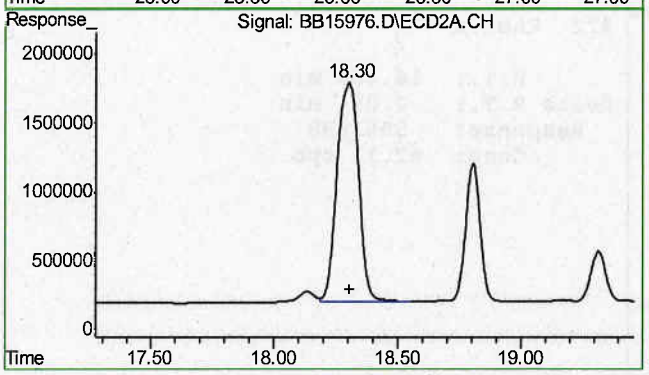
#23 4,4'-DDD

R.T.: 18.302 min
Delta R.T.: -0.004 min
Response: 9633933
Conc: 107.28 ppb



#24 Endosulfan-II

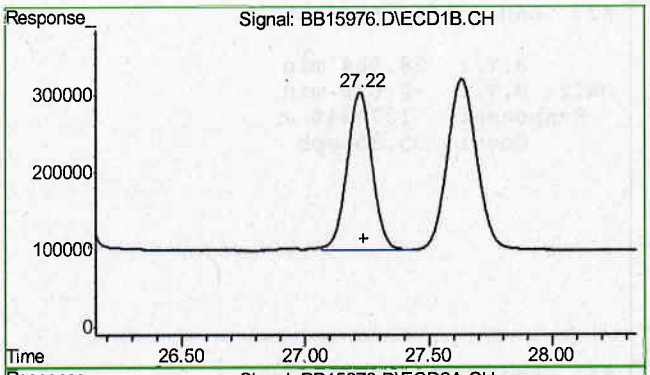
R.T.: 26.047 min
Delta R.T.: -0.016 min
Response: 1793875
Conc: 53.83 ppb



#24 Endosulfan-II

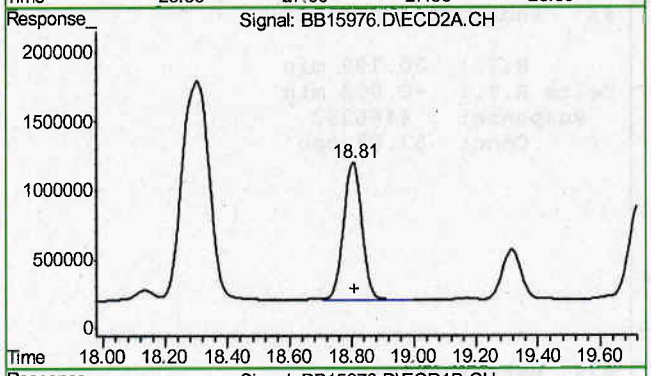
R.T.: 18.302 min
Delta R.T.: -0.004 min
Response: 9633933
Conc: 107.48 ppb

6.3.2 6



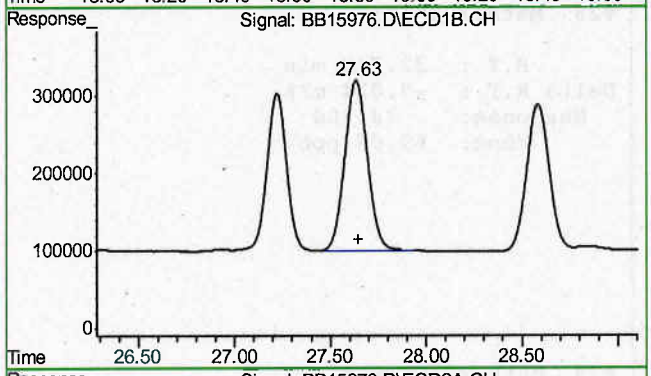
#25 4,4'-DDT

R.T.: 27.222 min
Delta R.T.: -0.016 min
Response: 1438768
Conc: 72.08 ppb



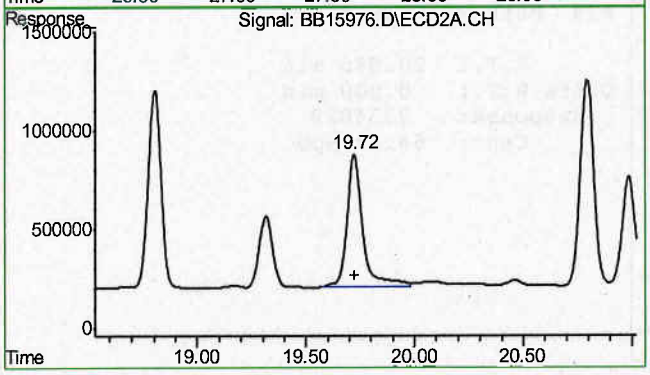
#25 4,4'-DDT

R.T.: 18.807 min
Delta R.T.: -0.001 min
Response: 4116178
Conc: 70.40 ppb



#26 Endrin aldehyde

R.T.: 27.634 min
Delta R.T.: -0.012 min
Response: 1826889
Conc: 72.21 ppb

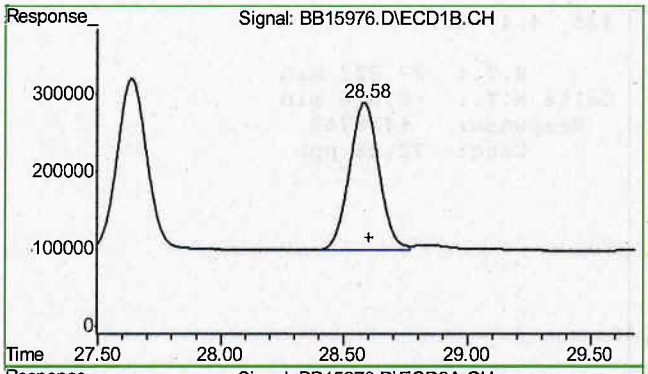


#26 Endrin aldehyde

R.T.: 19.720 min
Delta R.T.: -0.002 min
Response: 3423021
Conc: 49.28 ppb

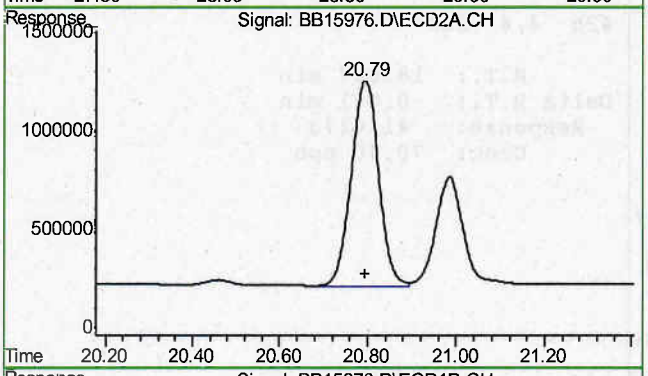
6.3.2

6



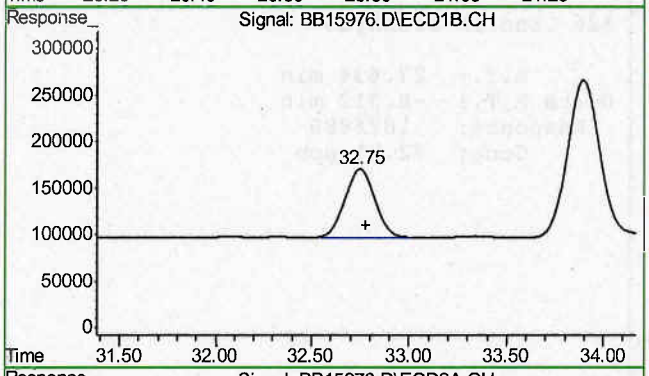
#27 Endosulfan sulfate

R.T.: 28.584 min
Delta R.T.: -0.020 min
Response: 1570946
Conc: 55.35 ppb



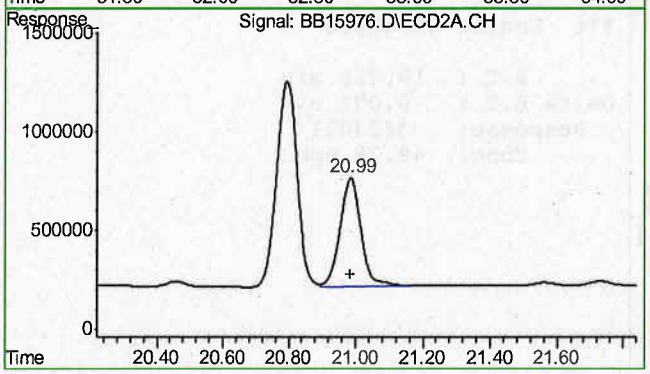
#27 Endosulfan sulfate

R.T.: 20.792 min
Delta R.T.: -0.002 min
Response: 4466332
Conc: 53.87 ppb



#28 Methoxychlor

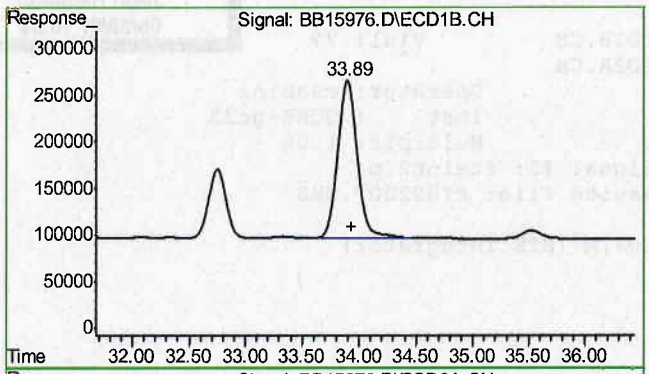
R.T.: 32.749 min
Delta R.T.: -0.034 min
Response: 784400
Conc: 69.06 ppb



#28 Methoxychlor

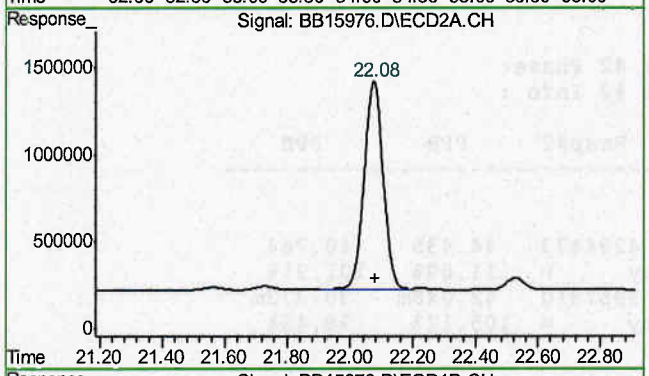
R.T.: 20.985 min
Delta R.T.: 0.000 min
Response: 2334829
Conc: 66.53 ppb

6.3.2 6



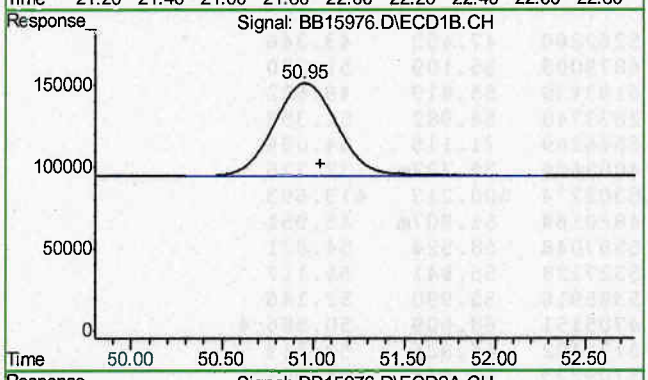
#29 Endrin ketone

R.T.: 33.890 min
Delta R.T.: -0.039 min
Response: 2027556
Conc: 58.71 ppb



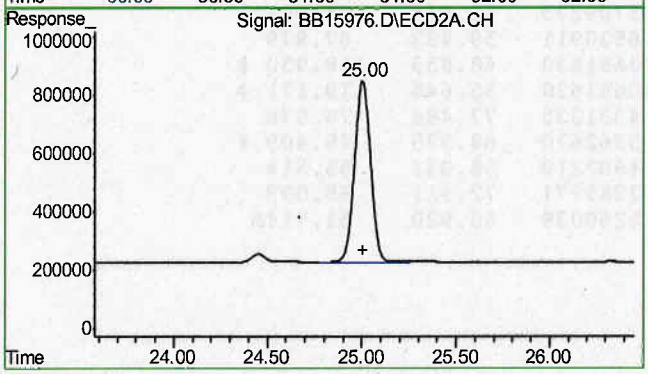
#29 Endrin ketone

R.T.: 22.075 min
Delta R.T.: -0.003 min
Response: 5043672
Conc: 59.18 ppb m



#38 DCB

R.T.: 50.947 min
Delta R.T.: -0.097 min
Response: 1355183
Conc: 38.59 ppb m



#38 DCB

R.T.: 25.000 min
Delta R.T.: -0.006 min
Response: 3677415
Conc: 36.59 ppb m

6.3.2

6

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15977.D\ECD1B.CH Vial: 79
Signal #2 : C:\MSDCHEM\1\DATA\BB15977.D\ECD2A.CH
Acq On : 9-22-07 09:36:33 AM Operator: caobinz
Sample : op14345-ms Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:49:39 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
1) s	TCMX	12.22	5.64	1800448	4294473	44.435	40.764	
	Spiked Amount 40.000			Recovery	=	111.09%	101.91%	
38) s	DCB	50.96	25.00	1476564	3957310	42.048m	39.372m	
	Spiked Amount 40.000			Recovery	=	105.12%	98.43%	
	Target Compounds							
8)	Hexachlorobenzen	14.36	6.90	2395646	5262260	47.452	43.346	
9)	alpha-BHC	14.87	8.52	3422884	6879009	55.109	51.230	
10)	gamma-BHC	16.39	9.86	3000649	6193439	55.819	49.622	
11)	beta-BHC	16.62	12.58	1321520	2833740	56.982	51.353	
12)	Heptachlor	17.96	10.50	2617845	5566269	71.115	54.096	
13)	delta-BHC	18.02	13.34	2194242	4053636	39.737m	32.776	
14)	Alachlor	18.32	11.95	2744239	5302274	500.213	613.693	
15)	Aldrin	19.26	11.41	2437943	4860164	51.907m	45.951	
16)	Heptachlor Epoxi	21.27	13.77	2439020	5597048	58.524	54.821	
17)	gamma-Chlordane	21.98	14.92	2249376	5327128	55.941	51.117	
18)	alpha-Chlordane	22.54	15.11	2070471	5385916	55.990	52.146	
19)	Endosulfan-I	22.64	14.65	2428951	4705151	68.009	50.986	#
20)	4,4'-DDE	23.27	15.53	1963205	5176402	56.926	52.513	
21)	Dieldrin	23.75	15.94	2142997	5709273	56.448	54.901	
22)	Endrin	25.22	16.60	1761333	6520911	59.433	67.979	
23)	4,4'-DDD	25.58	18.28	1981905	10681630	68.853	118.950	#
24)	Endosulfan-II	26.04	18.28	1854275	10681630	55.645	119.171	#
25)	4,4'-DDT	27.22	18.80	1546655	4331335	77.484	74.076	
26)	Endrin aldehyde	27.63	19.72	1745105	3362670	68.975	48.409	#
27)	Endosulfan sulfa	28.58	20.79	1646935	4602219	58.032	55.514	
28)	Methoxychlor	32.74	20.98	821330	2389771	72.311	68.093	
29)	Endrin ketone	33.89	22.07	2103981	5260039	60.920	61.714m	

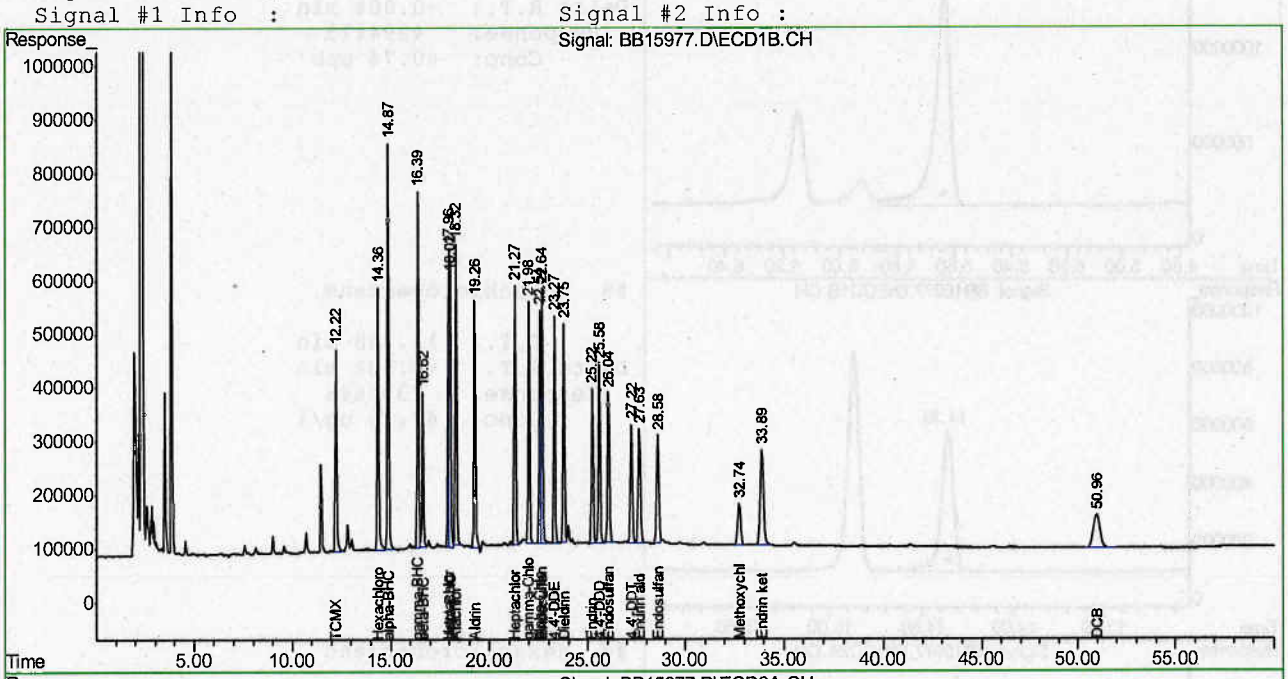
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15977.D PT092007.M Tue Sep 25 10:02:28 2007 GC23PRN

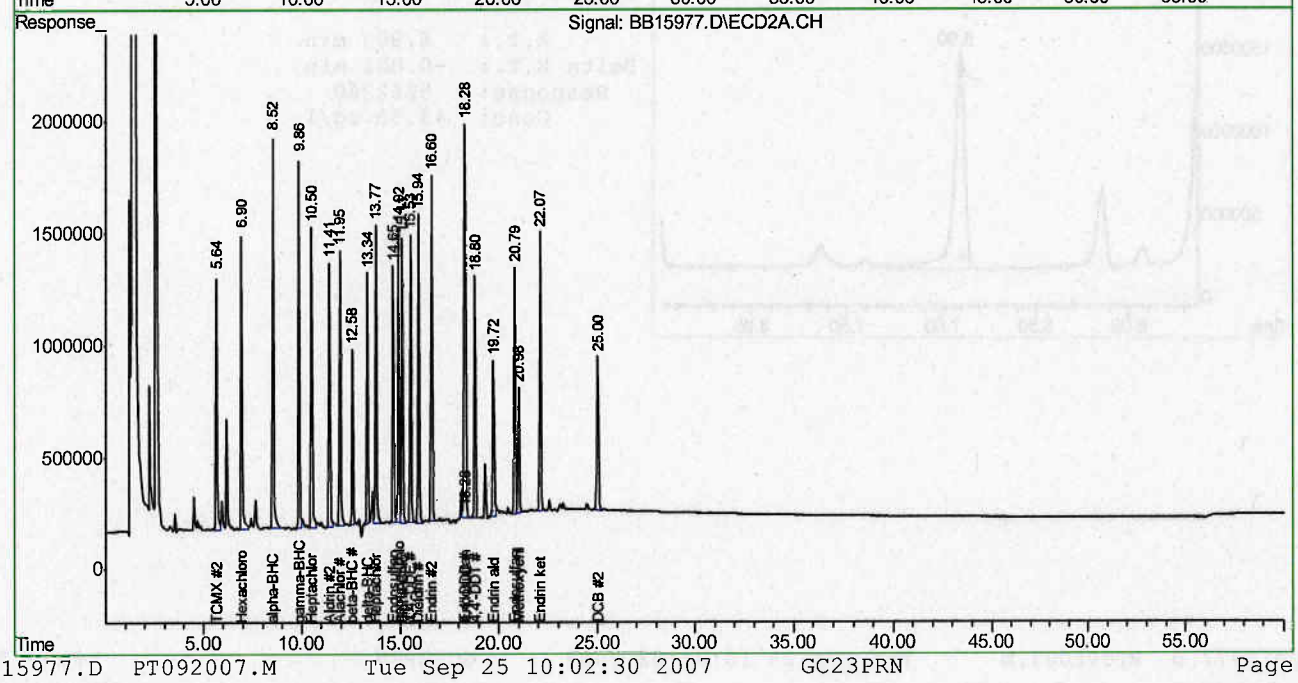
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15977.D\ECD1B.CH Vial: 79
Signal #2 : C:\MSDCHEM\1\DATA\BB15977.D\ECD2A.CH
Acq On : 9-22-07 09:36:33 AM Operator: caobinz
Sample : op14345-ms Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:24 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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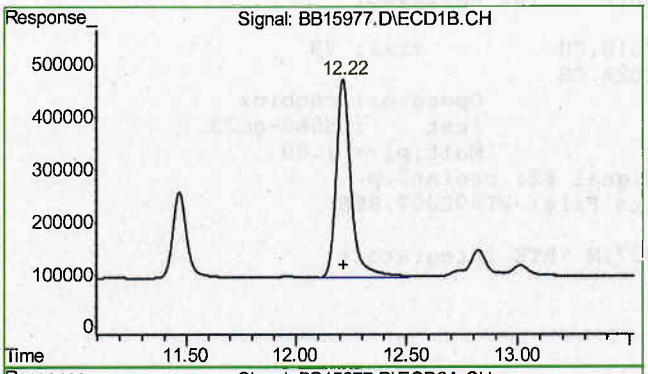
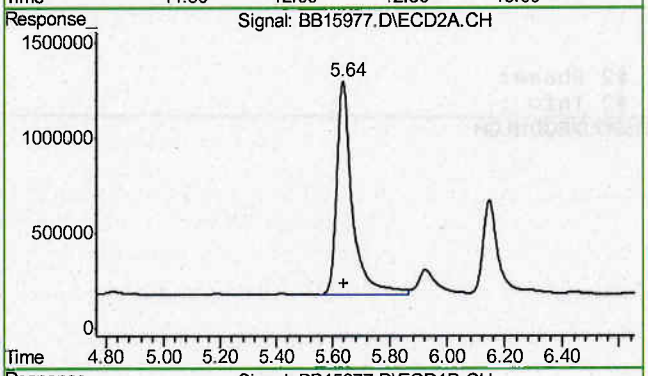


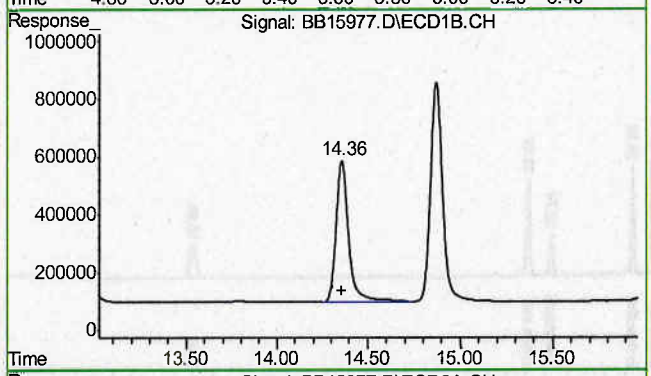
#1 TCMX

R.T.: 12.215 min
Delta R.T.: -0.006 min
Response: 1800448
Conc: 44.44 ppb



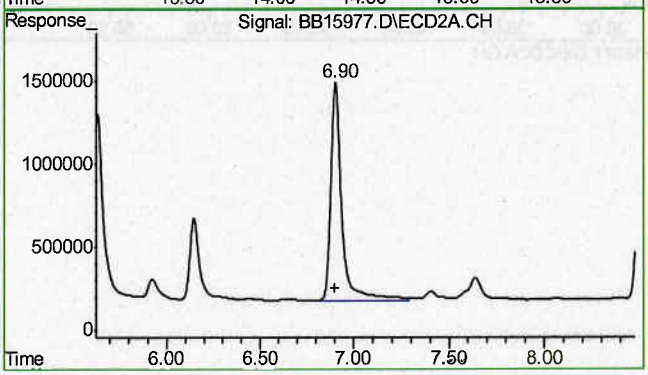
#1 TCMX

R.T.: 5.636 min
Delta R.T.: -0.004 min
Response: 4294473
Conc: 40.76 ppb



#8 Hexachlorobenzene

R.T.: 14.358 min
Delta R.T.: -0.001 min
Response: 2395646
Conc: 47.45 ug/l



#8 Hexachlorobenzene

R.T.: 6.903 min
Delta R.T.: -0.001 min
Response: 5262260
Conc: 43.35 ug/l

6.4.1

6

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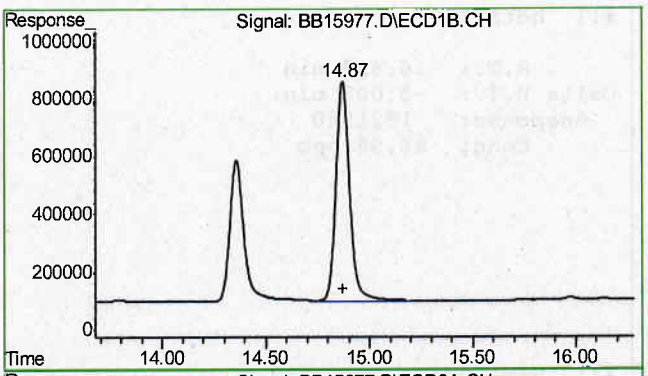
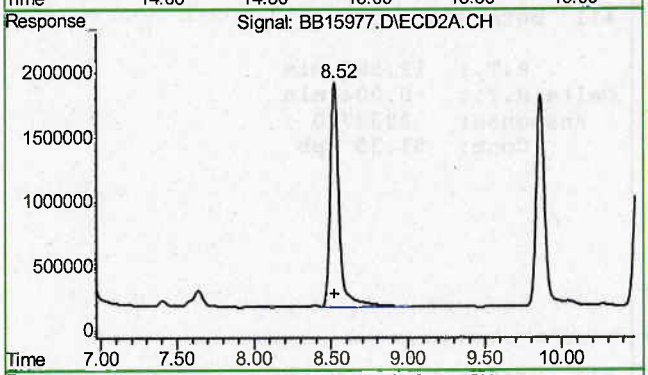


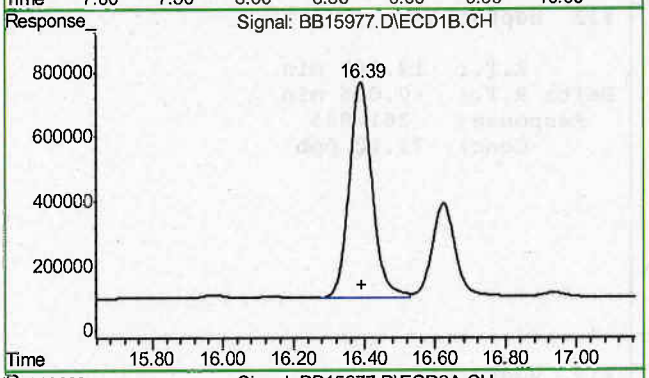
#9 alpha-BHC

R.T.: 14.870 min
Delta R.T.: -0.003 min
Response: 3422884
Conc: 55.11 ppb



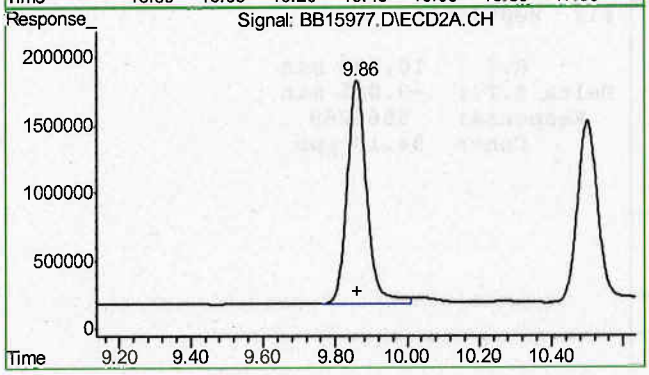
#9 alpha-BHC

R.T.: 8.520 min
Delta R.T.: -0.003 min
Response: 6879009
Conc: 51.23 ppb



#10 gamma-BHC

R.T.: 16.387 min
Delta R.T.: -0.005 min
Response: 3000649
Conc: 55.82 ppb

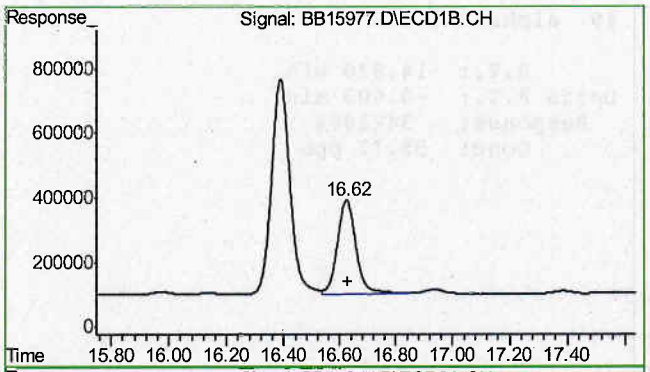


#10 gamma-BHC

R.T.: 9.858 min
Delta R.T.: -0.003 min
Response: 6193439
Conc: 49.62 ppb

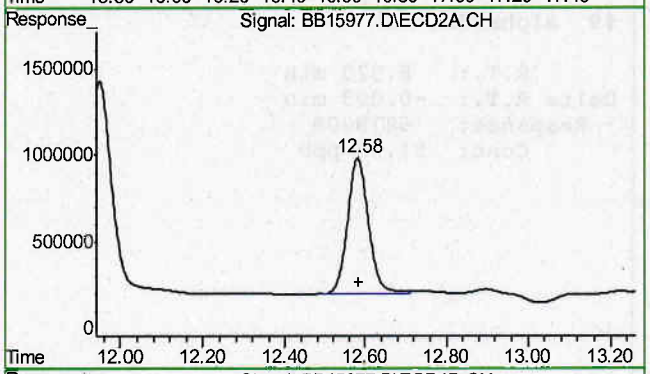
6.4.1

6



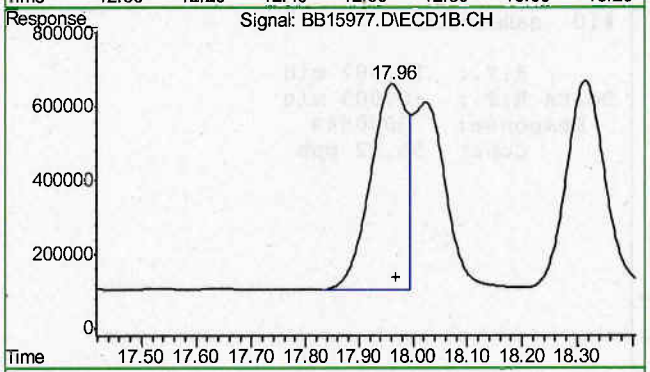
#11 beta-BHC

R.T.: 16.623 min
Delta R.T.: -0.005 min
Response: 1321520
Conc: 56.98 ppb



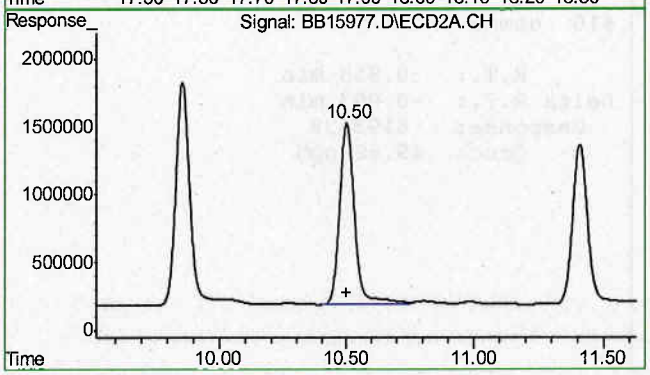
#11 beta-BHC

R.T.: 12.580 min
Delta R.T.: -0.004 min
Response: 2833740
Conc: 51.35 ppb



#12 Heptachlor

R.T.: 17.962 min
Delta R.T.: -0.006 min
Response: 2617845
Conc: 71.12 ppb

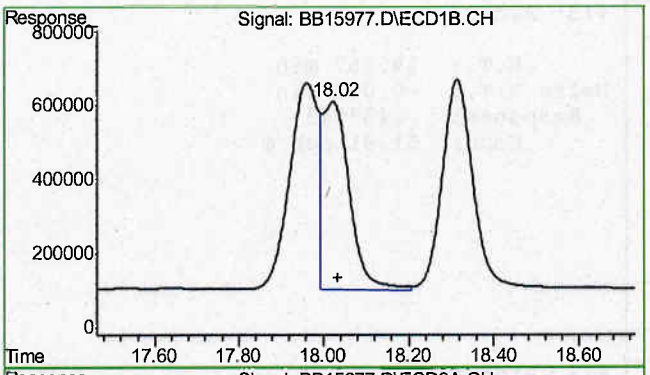


#12 Heptachlor

R.T.: 10.500 min
Delta R.T.: -0.001 min
Response: 5566269
Conc: 54.10 ppb

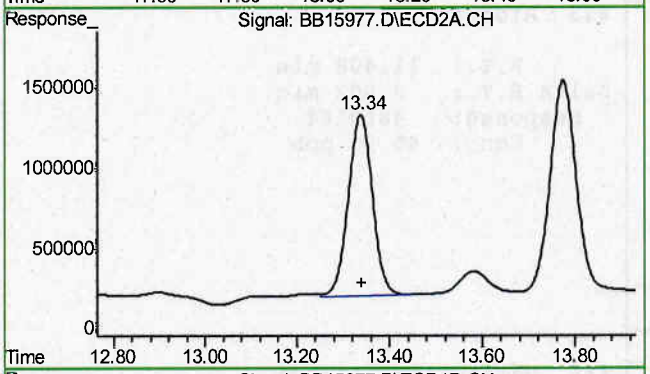
6.4.1

6



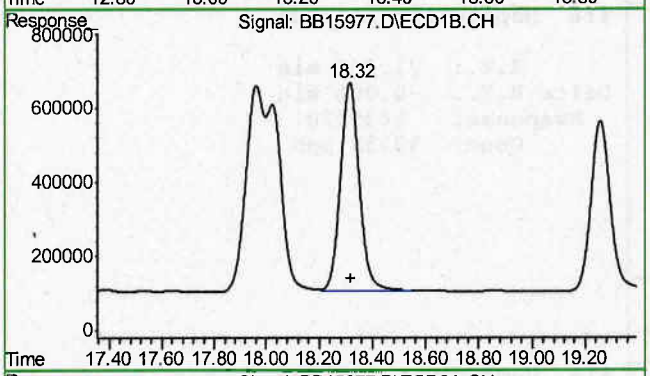
#13 delta-BHC

R.T.: 18.023 min
Delta R.T.: -0.010 min
Response: 2194242
Conc: 39.74 ppb m



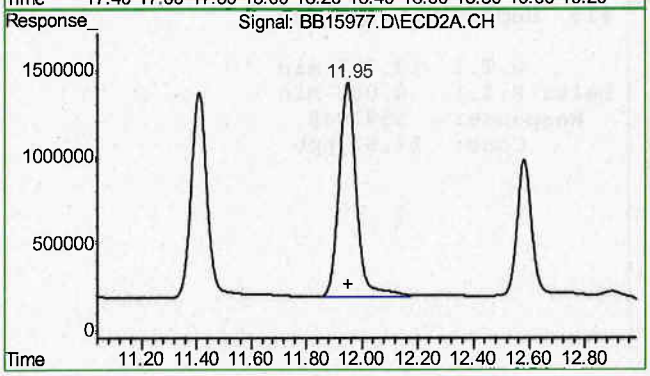
#13 delta-BHC

R.T.: 13.338 min
Delta R.T.: -0.003 min
Response: 4053636
Conc: 32.78 ppb



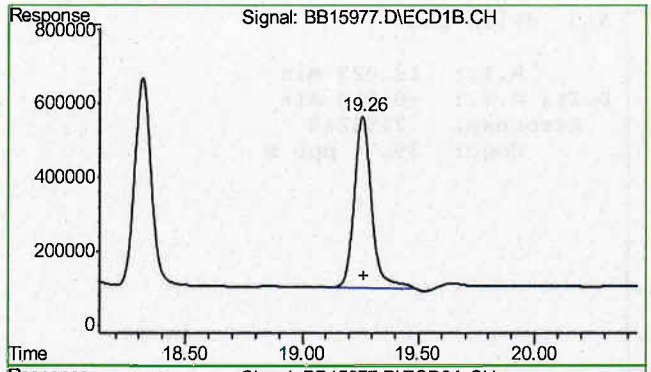
#14 Alachlor

R.T.: 18.315 min
Delta R.T.: -0.003 min
Response: 2744239
Conc: 500.21 ug/l



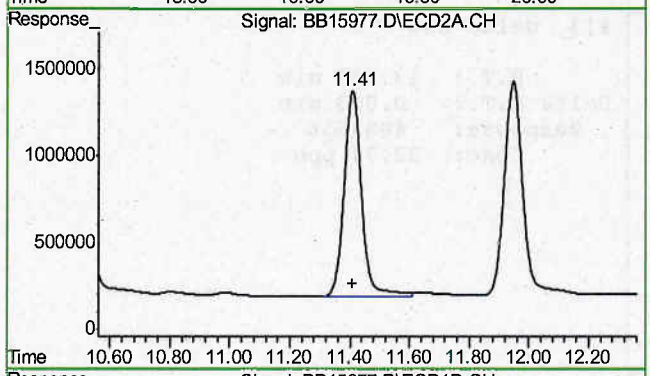
#14 Alachlor

R.T.: 11.948 min
Delta R.T.: -0.003 min
Response: 5302274
Conc: 613.69 ug/l



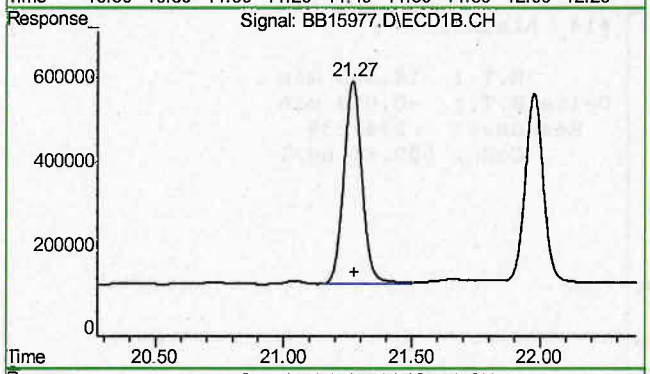
#15 Aldrin

R.T.: 19.257 min
Delta R.T.: -0.008 min
Response: 2437943
Conc: 51.91 ppb m



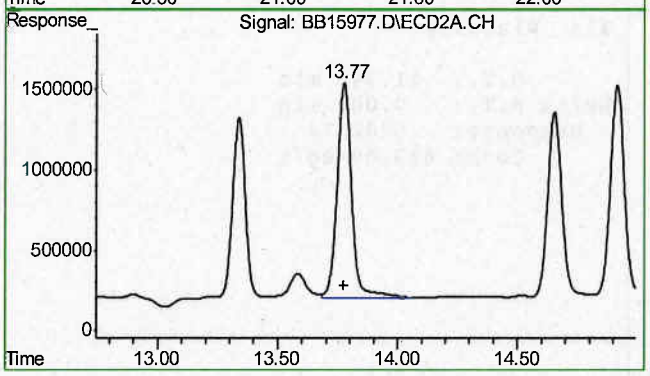
#15 Aldrin

R.T.: 11.408 min
Delta R.T.: 0.002 min
Response: 4860164
Conc: 45.95 ppb



#16 Heptachlor Epoxide

R.T.: 21.268 min
Delta R.T.: -0.006 min
Response: 2439020
Conc: 58.52 ppb

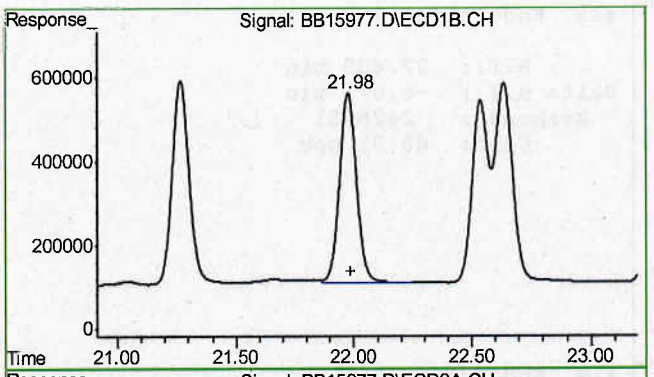


#16 Heptachlor Epoxide

R.T.: 13.775 min
Delta R.T.: 0.002 min
Response: 5597048
Conc: 54.82 ppb

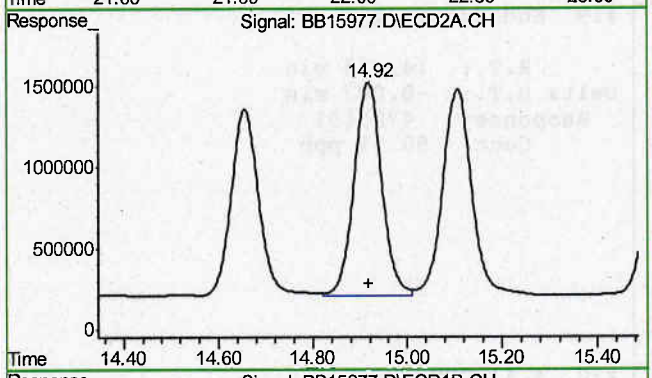
6.4.1

6



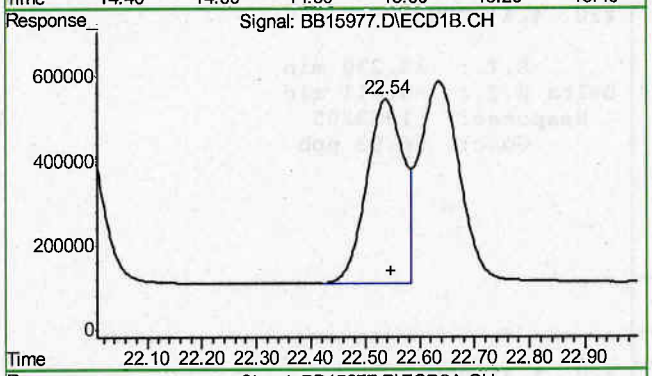
#17 gamma-Chlordane

R.T.: 21.975 min
Delta R.T.: -0.010 min
Response: 2249376
Conc: 55.94 ppb



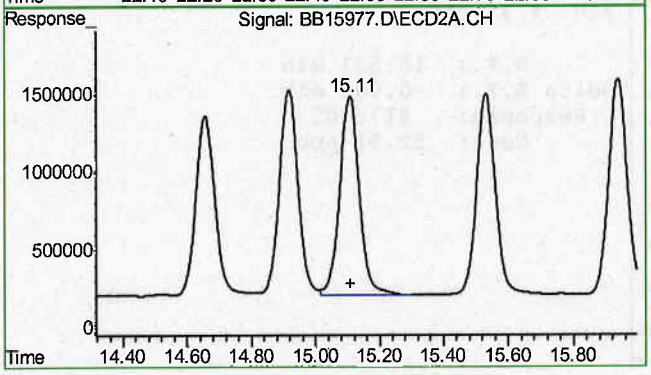
#17 gamma-Chlordane

R.T.: 14.916 min
Delta R.T.: -0.001 min
Response: 5327128
Conc: 51.12 ppb



#18 alpha-Chlordane

R.T.: 22.537 min
Delta R.T.: -0.010 min
Response: 2070471
Conc: 55.99 ppb



#18 alpha-Chlordane

R.T.: 15.108 min
Delta R.T.: -0.001 min
Response: 5385916
Conc: 52.15 ppb

6.4.1

6

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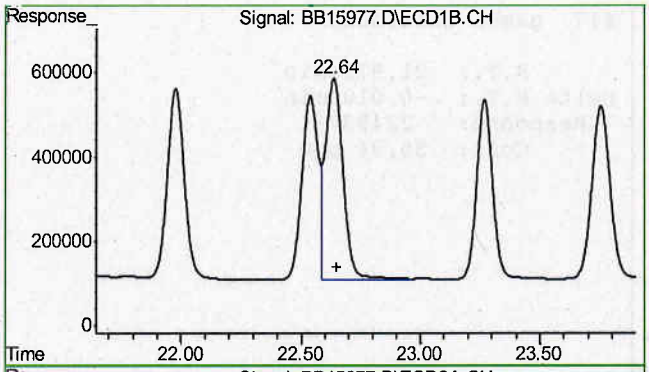
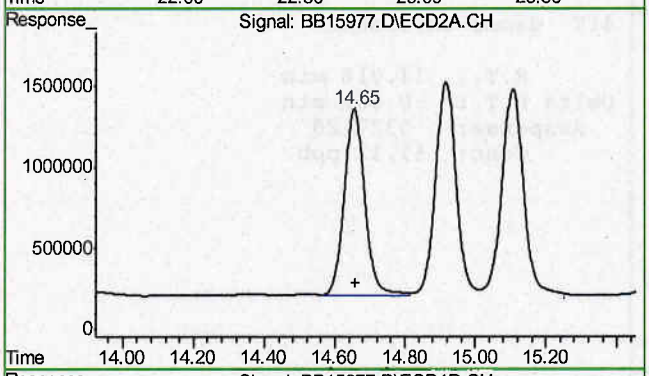


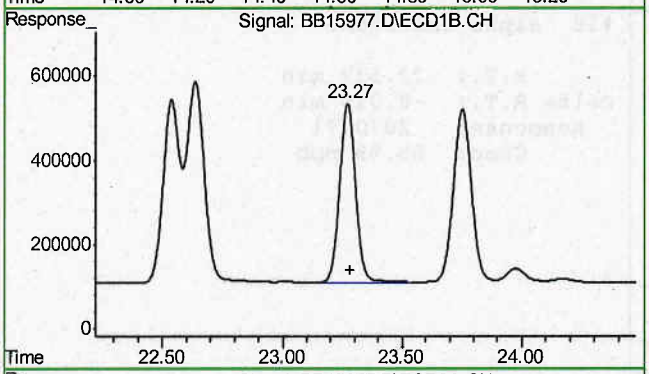
#19 Endosulfan-I

R.T.: 22.635 min
Delta R.T.: -0.013 min
Response: 2428951
Conc: 68.01 ppb



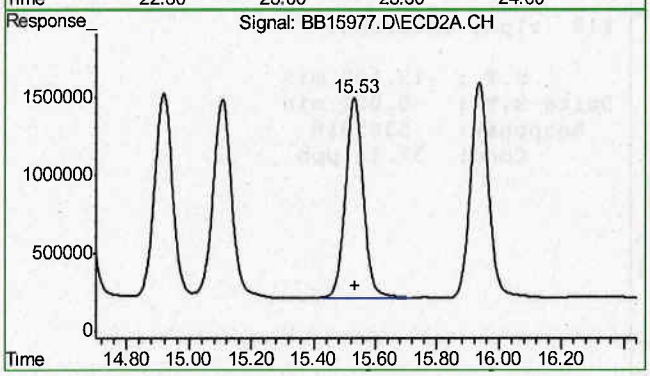
#19 Endosulfan-I

R.T.: 14.655 min
Delta R.T.: -0.003 min
Response: 4705151
Conc: 50.99 ppb



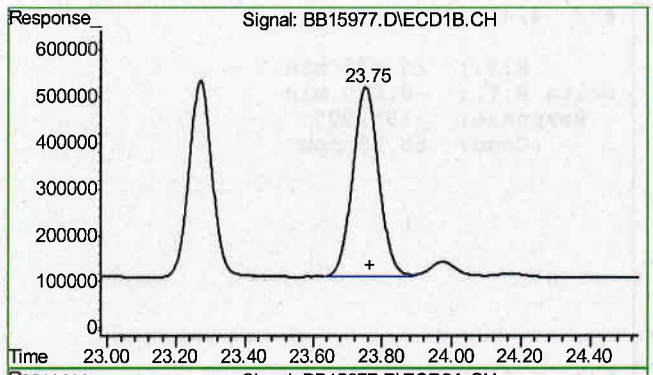
#20 4,4'-DDE

R.T.: 23.270 min
Delta R.T.: -0.011 min
Response: 1963205
Conc: 56.93 ppb



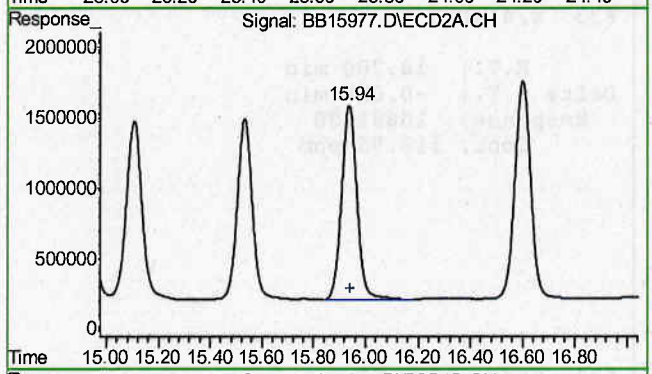
#20 4,4'-DDE

R.T.: 15.531 min
Delta R.T.: -0.003 min
Response: 5176402
Conc: 52.51 ppb



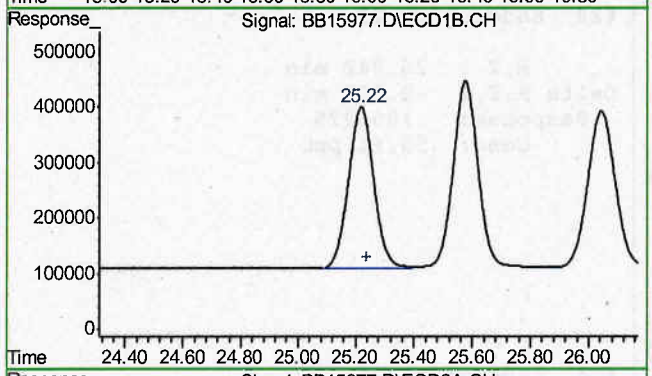
#21 Dieldrin

R.T.: 23.752 min
Delta R.T.: -0.013 min
Response: 2142997
Conc: 56.45 ppb



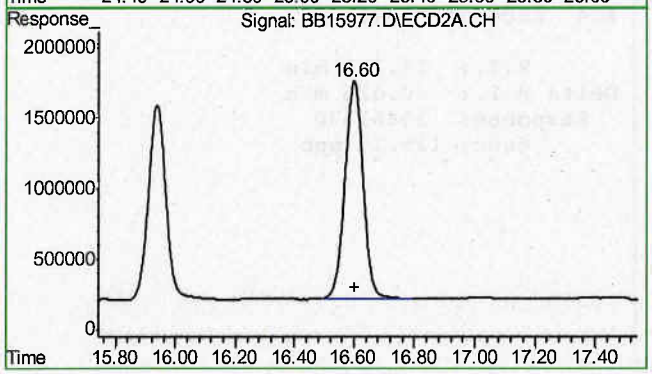
#21 Dieldrin

R.T.: 15.936 min
Delta R.T.: -0.005 min
Response: 5709273
Conc: 54.90 ppb



#22 Endrin

R.T.: 25.220 min
Delta R.T.: -0.016 min
Response: 1761333
Conc: 59.43 ppb

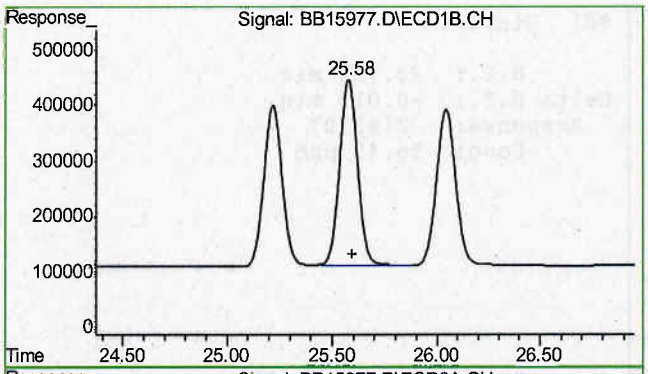


#22 Endrin

R.T.: 16.600 min
Delta R.T.: -0.001 min
Response: 6520911
Conc: 67.98 ppb

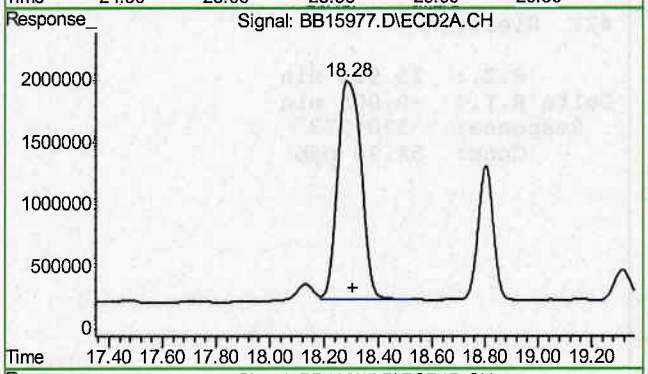
6.4.1

6



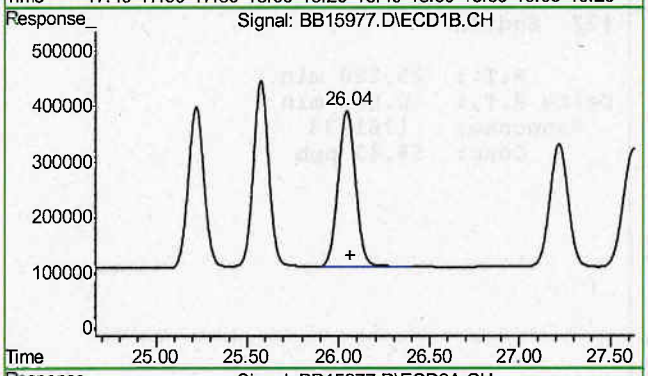
#23 4,4'-DDD

R.T.: 25.575 min
Delta R.T.: -0.020 min
Response: 1981905
Conc: 68.85 ppb



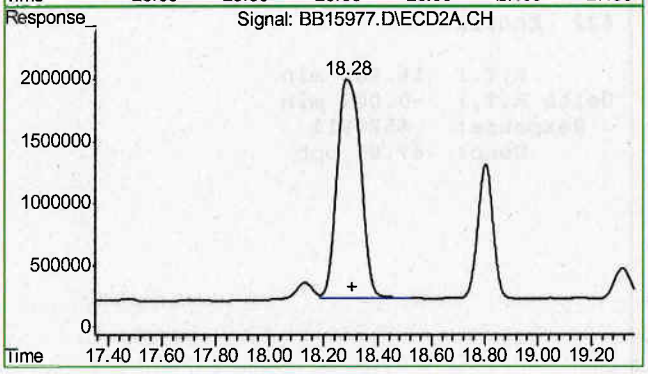
#23 4,4'-DDD

R.T.: 18.280 min
Delta R.T.: -0.026 min
Response: 10681630
Conc: 118.95 ppb



#24 Endosulfan-II

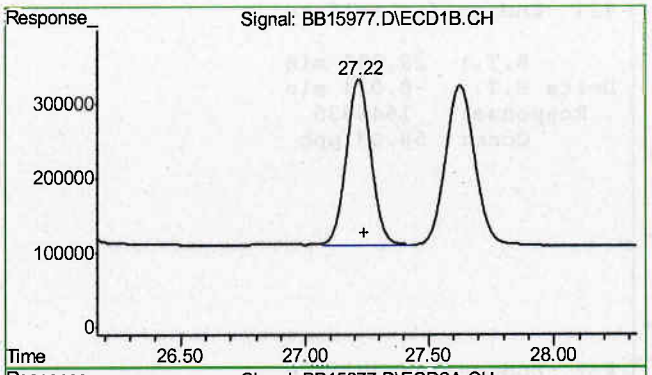
R.T.: 26.042 min
Delta R.T.: -0.021 min
Response: 1854275
Conc: 55.65 ppb



#24 Endosulfan-II

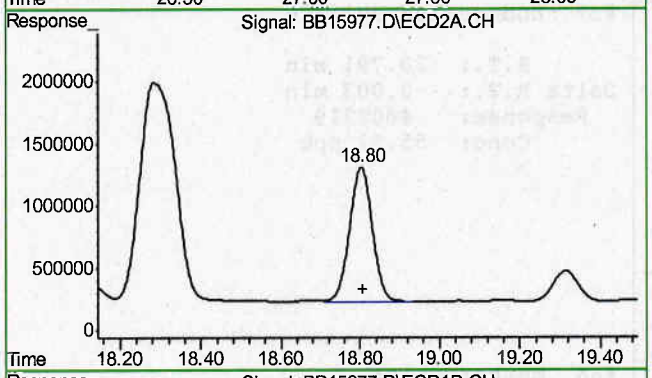
R.T.: 18.280 min
Delta R.T.: -0.026 min
Response: 10681630
Conc: 119.17 ppb

6.4.1 6



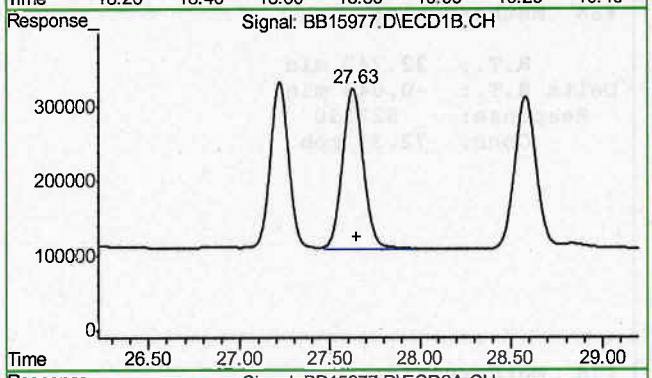
#25 4,4'-DDT

R.T.: 27.217 min
Delta R.T.: -0.021 min
Response: 1546655
Conc: 77.48 ppb



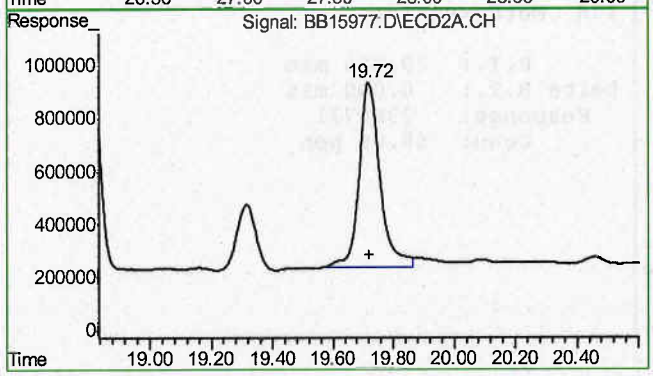
#25 4,4'-DDT

R.T.: 18.801 min
Delta R.T.: -0.006 min
Response: 4331335
Conc: 74.08 ppb



#26 Endrin aldehyde

R.T.: 27.628 min
Delta R.T.: -0.018 min
Response: 1745105
Conc: 68.98 ppb

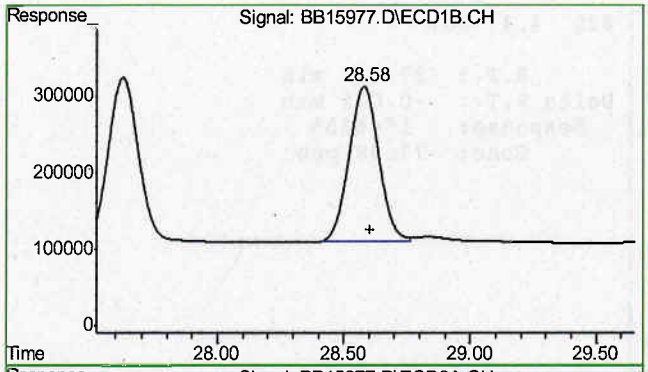


#26 Endrin aldehyde

R.T.: 19.716 min
Delta R.T.: -0.006 min
Response: 3362670
Conc: 48.41 ppb

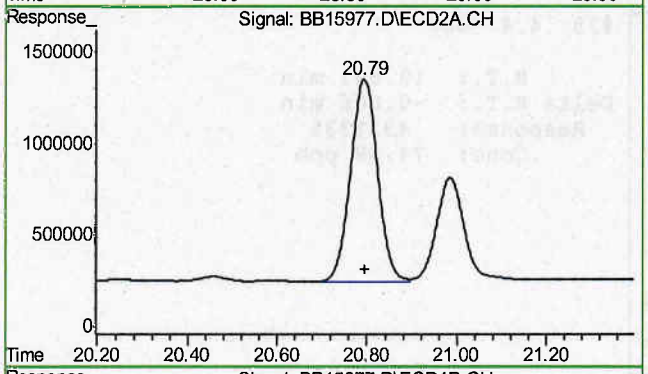
6.4.1

6



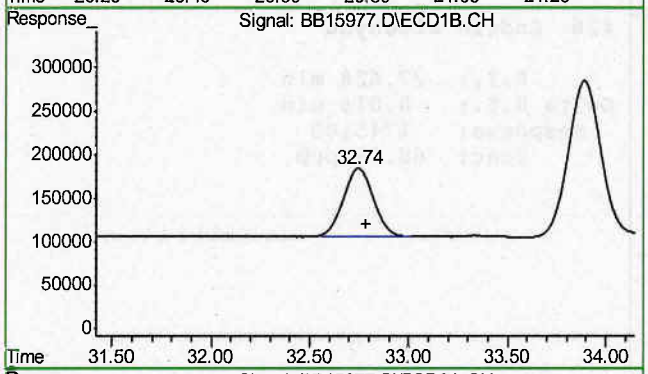
#27 Endosulfan sulfate

R.T.: 28.580 min
Delta R.T.: -0.024 min
Response: 1646935
Conc: 58.03 ppb



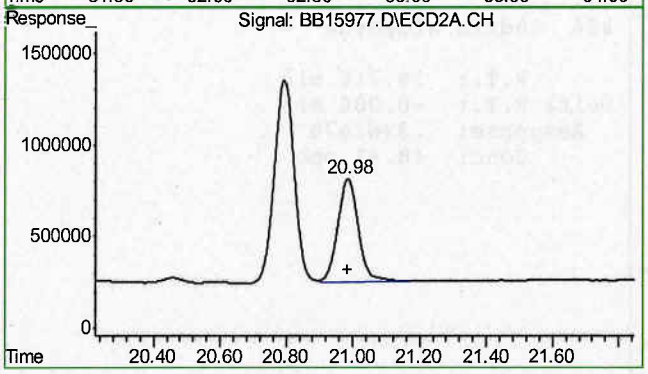
#27 Endosulfan sulfate

R.T.: 20.791 min
Delta R.T.: -0.003 min
Response: 4602219
Conc: 55.51 ppb



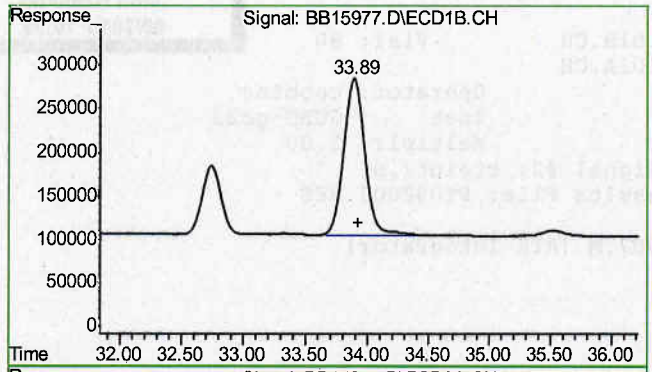
#28 Methoxychlor

R.T.: 32.740 min
Delta R.T.: -0.043 min
Response: 821330
Conc: 72.31 ppb



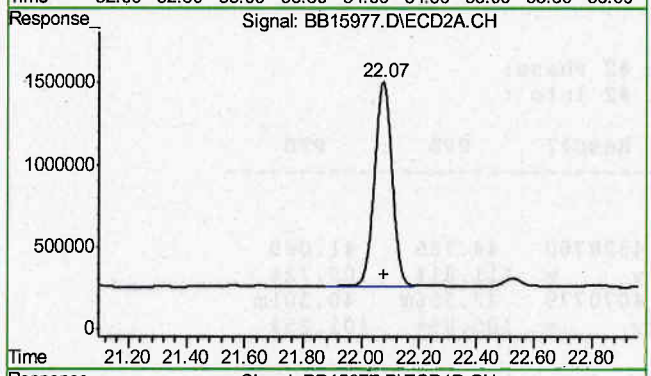
#28 Methoxychlor

R.T.: 20.985 min
Delta R.T.: 0.000 min
Response: 2389771
Conc: 68.09 ppb



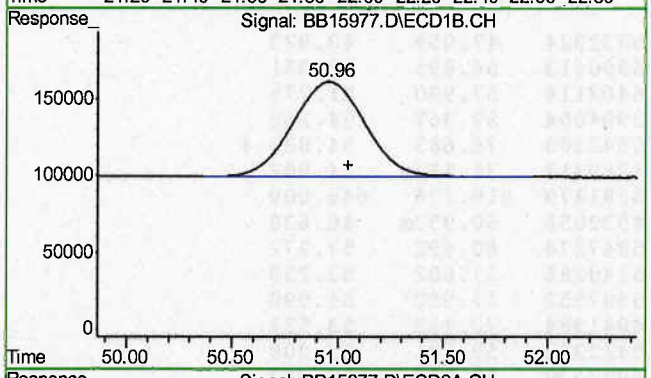
#29 Endrin ketone

R.T.: 33.888 min
Delta R.T.: -0.041 min
Response: 2103981
Conc: 60.92 ppb



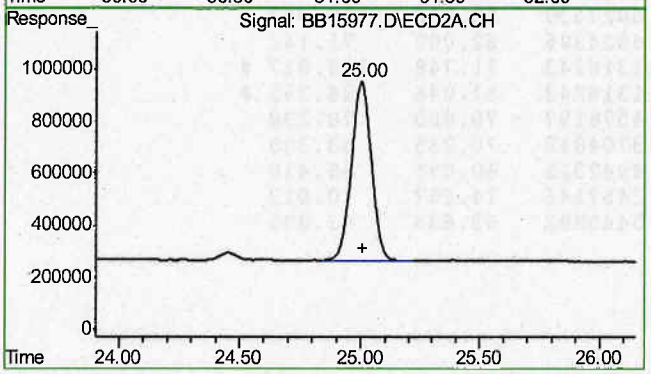
#29 Endrin ketone

R.T.: 22.073 min
Delta R.T.: -0.005 min
Response: 5260039
Conc: 61.71 ppb m



#38 DCB

R.T.: 50.957 min
Delta R.T.: -0.088 min
Response: 1476564
Conc: 42.05 ppb m



#38 DCB

R.T.: 25.001 min
Delta R.T.: -0.004 min
Response: 3957310
Conc: 39.37 ppb m

6.4.1

6

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15978.D\ECD1B.CH Vial: 80
Signal #2 : C:\MSDCHEM\1\DATA\BB15978.D\ECD2A.CH
Acq On : 22 Sep 2007 10:41 am Operator: caobinz
Sample : op14345-msd Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:50:43 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
1) s	TCMX	12.21	5.64	1812193	4328760	44.725	41.089	
	Spiked Amount 40.000			Recovery	=	111.81%	102.72%	
38) s	DCB	50.97	25.00	1487370	4070779	42.356m	40.501m	
	Spiked Amount 40.000			Recovery	=	105.89%	101.25%	
	Target Compounds							
8)	Hexachlorobenzen	14.36	6.90	2375824	5332324	47.059	43.923	
9)	alpha-BHC	14.87	8.52	3533792	6990613	56.895	52.061	
10)	gamma-BHC	16.39	9.86	3117369	6462116	57.990	51.775	
11)	beta-BHC	16.62	12.58	1376841	2994604	59.367	54.268	
12)	Heptachlor	17.96	10.50	2822788	5642103	76.683	54.833	#
13)	delta-BHC	18.02	13.34	2145366	4289317	38.852m	34.682	
14)	Alachlor	18.31	11.95	2848822	5581479	519.276	646.009	
15)	Aldrin	19.26	11.41	2393129	4932056	50.953m	46.630	
16)	Heptachlor Epoxi	21.27	13.77	2529369	5847278	60.692	57.272	
17)	gamma-Chlordane	21.98	14.92	2316193	5548286	57.602	53.239	
18)	alpha-Chlordane	22.54	15.10	2144110	5587552	57.982	54.098	
19)	Endosulfan-I	22.64	14.65	2516612	4941984	70.463	53.553	
20)	4,4'-DDE	23.27	15.53	2045140	5422332	59.301	55.008	
21)	Dieldrin	23.76	15.94	2233274	6027630	58.826	57.962	
22)	Endrin	25.22	16.60	1837463	6824386	62.002	71.142	
23)	4,4'-DDD	25.58	18.29	2065237	11316243	71.748	126.017	#
24)	Endosulfan-II	26.05	18.29	1927613	11316243	57.846	126.251	#
25)	4,4'-DDT	27.22	18.80	1594479	4578197	79.880	78.298	
26)	Endrin aldehyde	27.63	19.72	1776978	3704849	70.235	53.335	
27)	Endosulfan sulfa	28.58	20.79	1705218	4842315	60.085	58.410	
28)	Methoxychlor	32.75	20.98	843773	2457146	74.287	70.013	
29)	Endrin ketone	33.90	22.08	2197750	5445882	63.635	63.895	

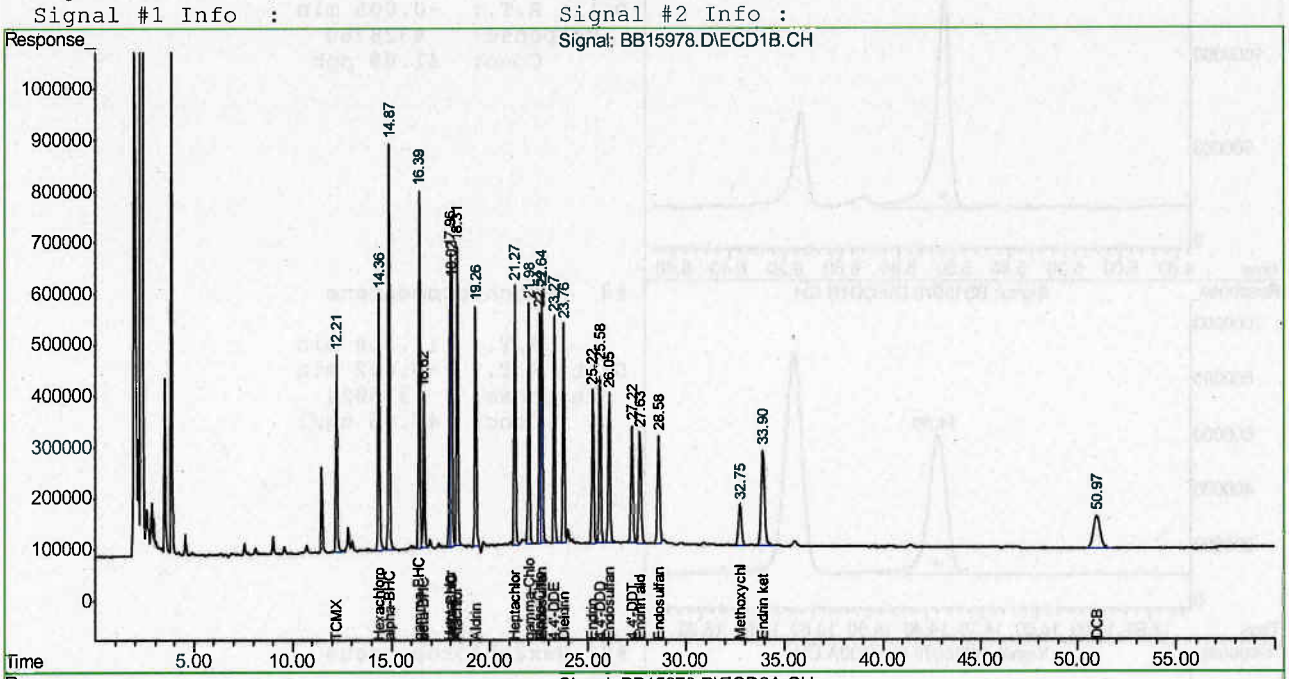
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15978.D PT092007.M Tue Sep 25 10:02:53 2007 GC23PRN

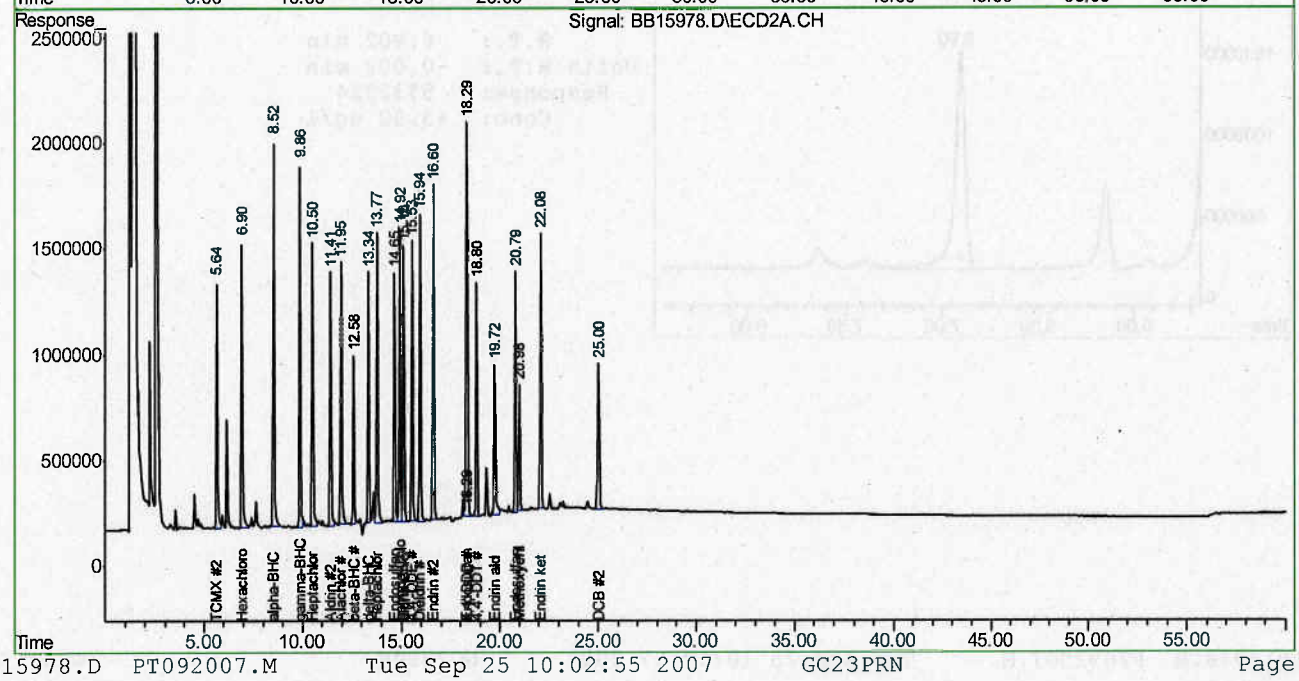
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15978.D\ECD1B.CH Vial: 80
Signal #2 : C:\MSDCHEM\1\DATA\BB15978.D\ECD2A.CH
Acq On : 22 Sep 2007 10:41 am Operator: caobinz
Sample : op14345-msd Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:25 2007 Quant Results File: PT092007.RES

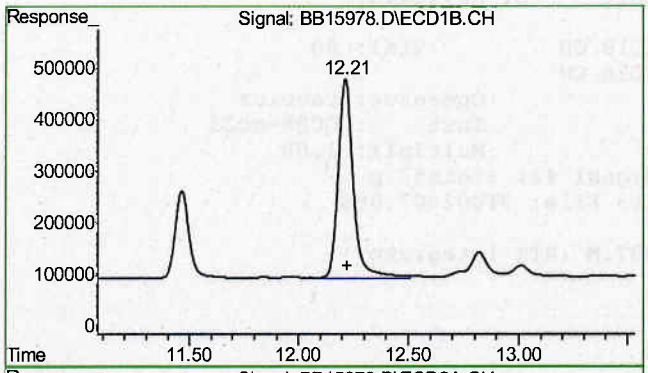
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



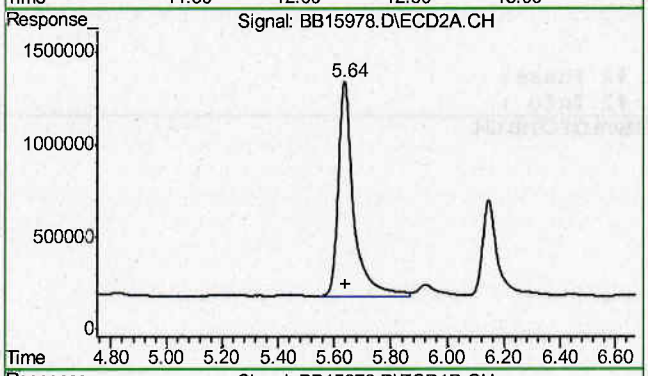


ACCUTEST Laboratories M67604



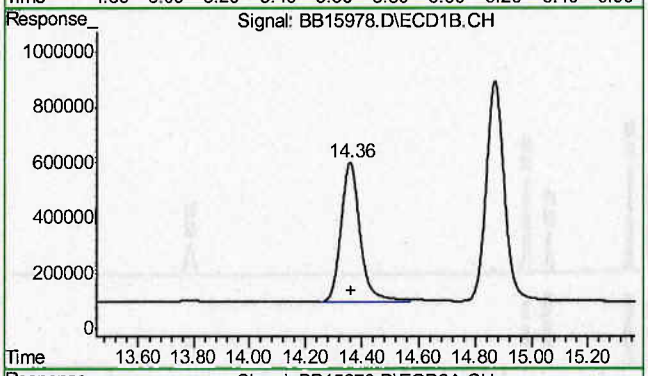
#1 TCMX

R.T.: 12.213 min
Delta R.T.: -0.008 min
Response: 1812193
Conc: 44.73 ppb



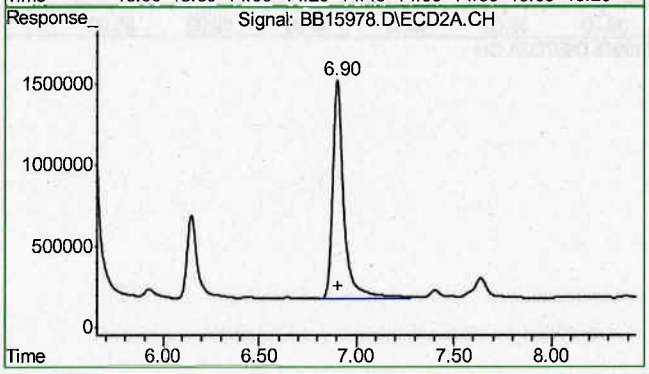
#1 TCMX

R.T.: 5.636 min
Delta R.T.: -0.005 min
Response: 4328760
Conc: 41.09 ppb



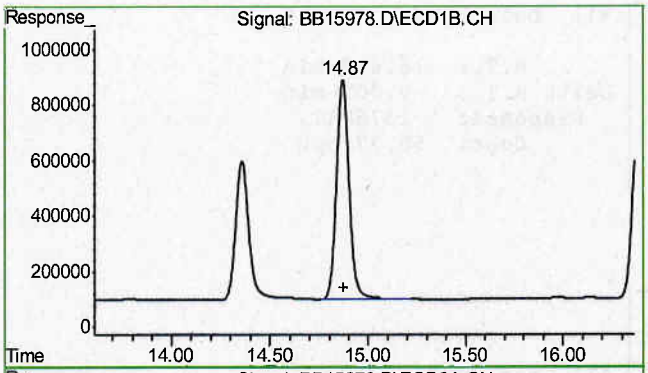
#8 Hexachlorobenzene

R.T.: 14.358 min
Delta R.T.: -0.002 min
Response: 2375824
Conc: 47.06 ug/l



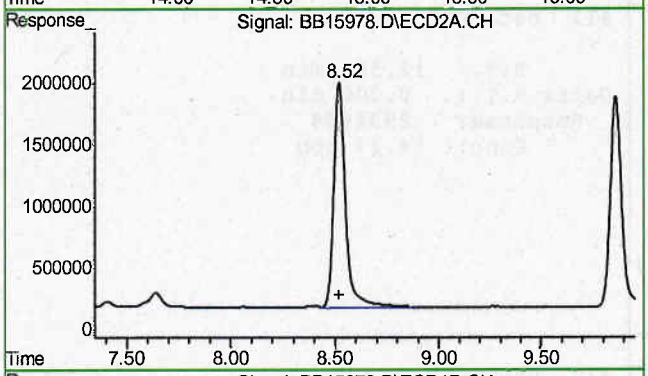
#8 Hexachlorobenzene

R.T.: 6.902 min
Delta R.T.: -0.002 min
Response: 5332324
Conc: 43.92 ug/l



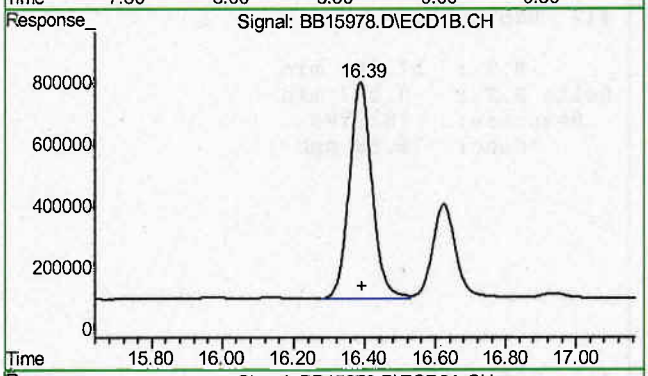
#9 alpha-BHC

R.T.: 14.869 min
Delta R.T.: -0.004 min
Response: 3533792
Conc: 56.89 ppb



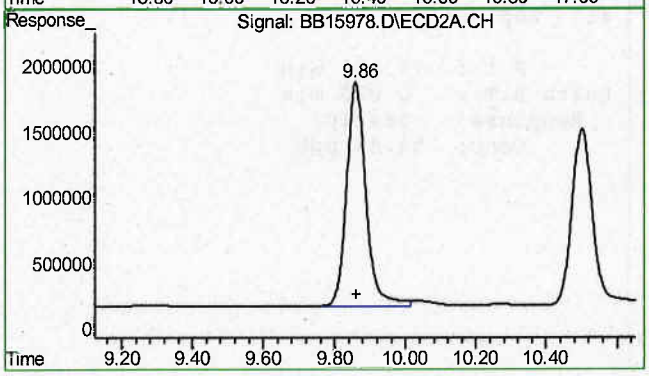
#9 alpha-BHC

R.T.: 8.519 min
Delta R.T.: -0.004 min
Response: 6990613
Conc: 52.06 ppb



#10 gamma-BHC

R.T.: 16.388 min
Delta R.T.: -0.004 min
Response: 3117369
Conc: 57.99 ppb

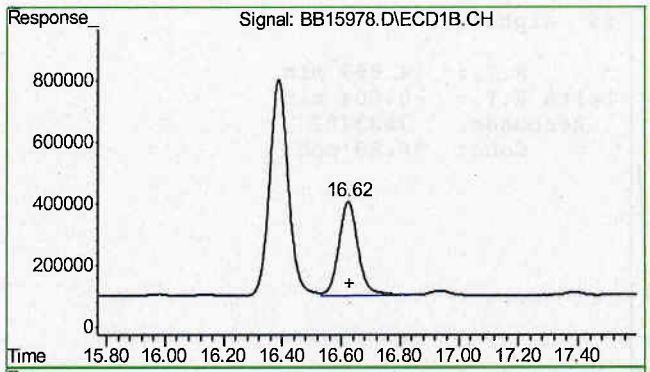


#10 gamma-BHC

R.T.: 9.857 min
Delta R.T.: -0.004 min
Response: 6462116
Conc: 51.77 ppb

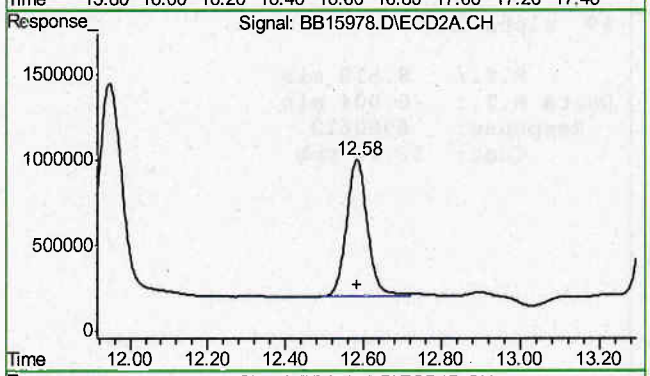
6.4.2

6



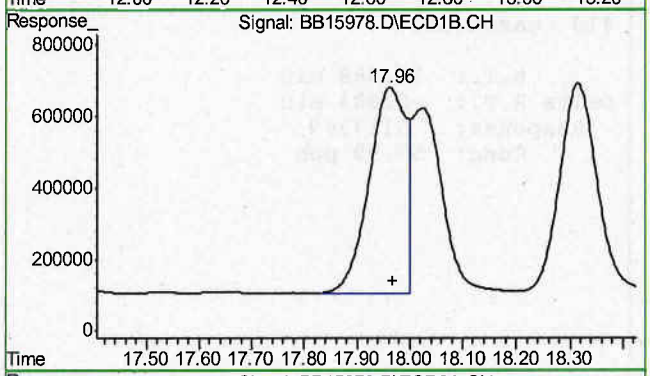
#11 beta-BHC

R.T.: 16.623 min
Delta R.T.: -0.005 min
Response: 1376841
Conc: 59.37 ppb



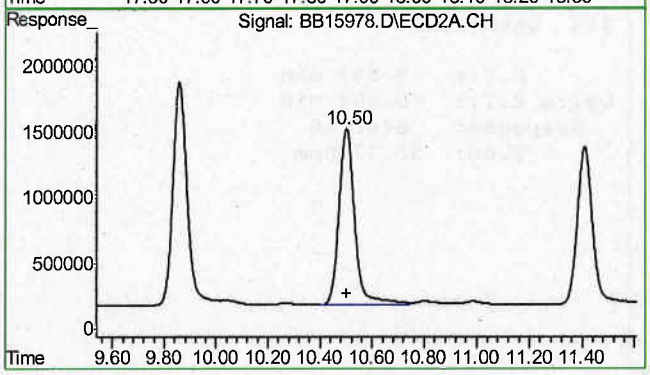
#11 beta-BHC

R.T.: 12.584 min
Delta R.T.: 0.000 min
Response: 2994604
Conc: 54.27 ppb



#12 Heptachlor

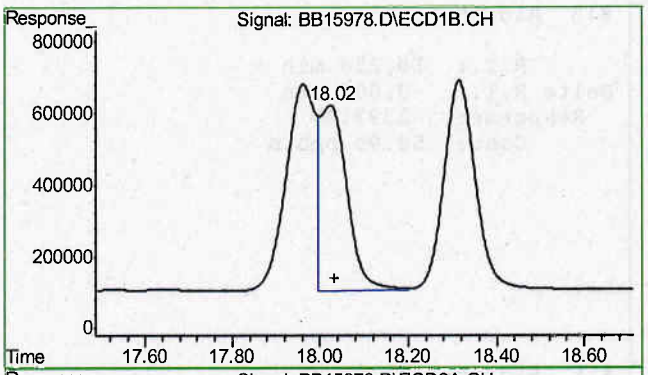
R.T.: 17.961 min
Delta R.T.: -0.007 min
Response: 2822788
Conc: 76.68 ppb



#12 Heptachlor

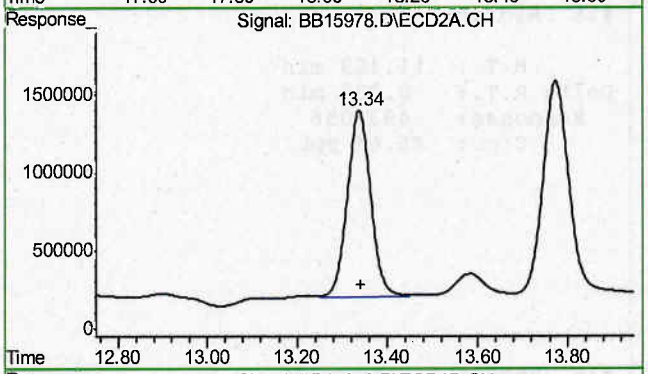
R.T.: 10.501 min
Delta R.T.: 0.000 min
Response: 5642103
Conc: 54.83 ppb

6.4.2 6



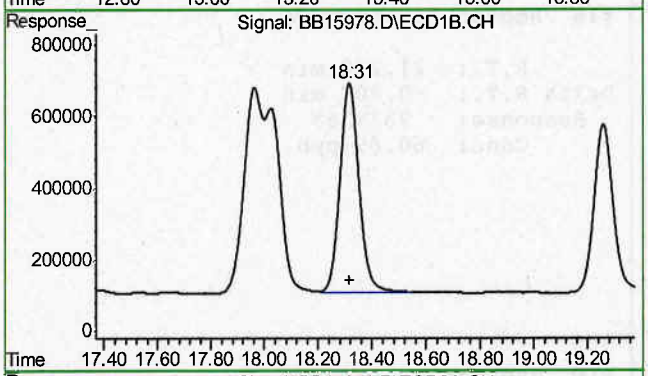
#13 delta-BHC

R.T.: 18.024 min
Delta R.T.: -0.009 min
Response: 2145366
Conc: 38.85 ppb m



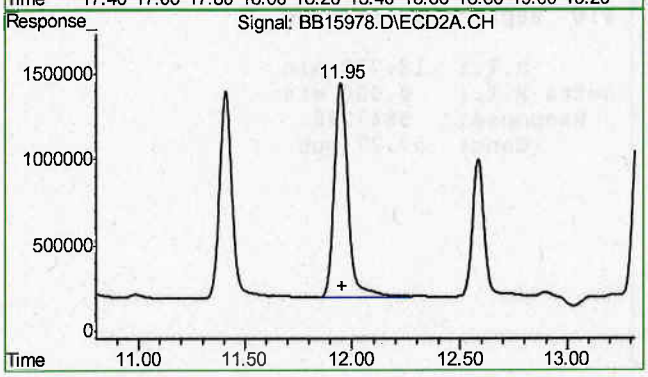
#13 delta-BHC

R.T.: 13.337 min
Delta R.T.: -0.004 min
Response: 4289317
Conc: 34.68 ppb



#14 Alachlor

R.T.: 18.314 min
Delta R.T.: -0.004 min
Response: 2848822
Conc: 519.28 ug/l

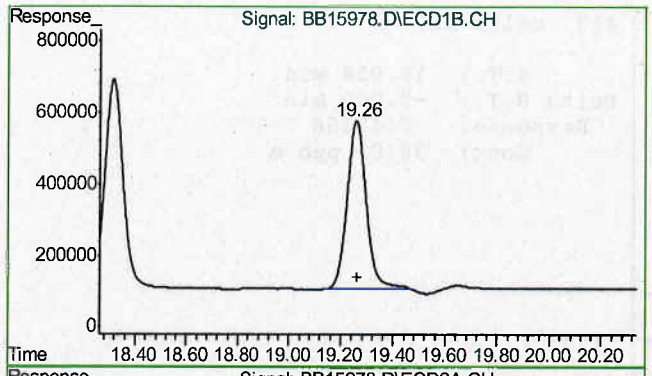


#14 Alachlor

R.T.: 11.946 min
Delta R.T.: -0.005 min
Response: 5581479
Conc: 646.01 ug/l

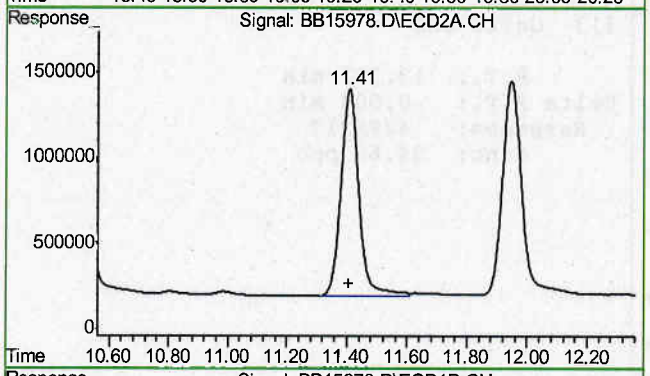
6.4.2

6



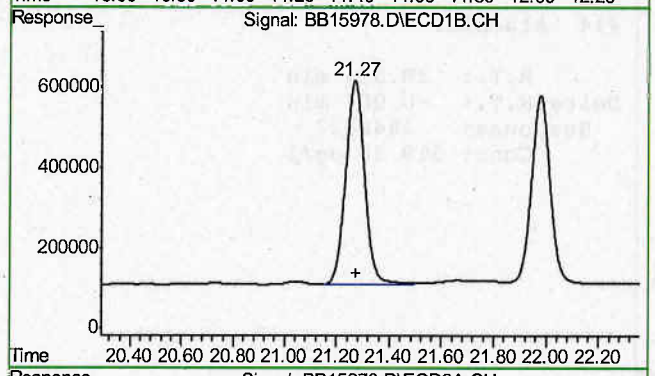
#15 Aldrin

R.T.: 19.258 min
Delta R.T.: -0.007 min
Response: 2393129
Conc: 50.95 ppb m



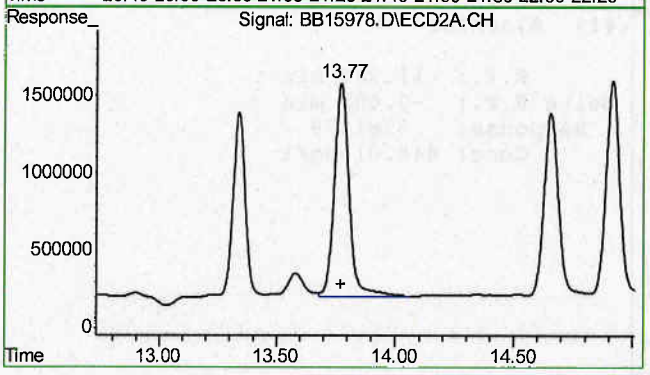
#15 Aldrin

R.T.: 11.409 min
Delta R.T.: 0.003 min
Response: 4932056
Conc: 46.63 ppb



#16 Heptachlor Epoxide

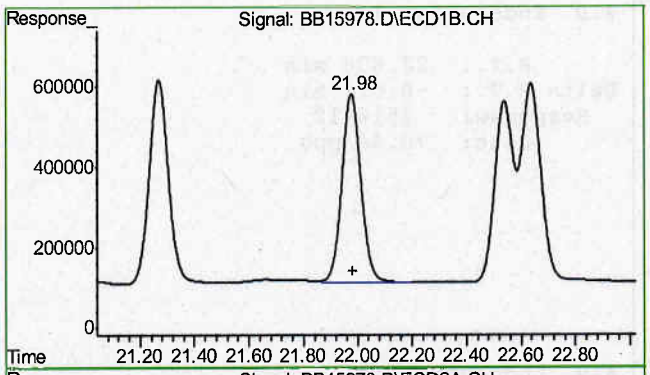
R.T.: 21.268 min
Delta R.T.: -0.007 min
Response: 2529369
Conc: 60.69 ppb



#16 Heptachlor Epoxide

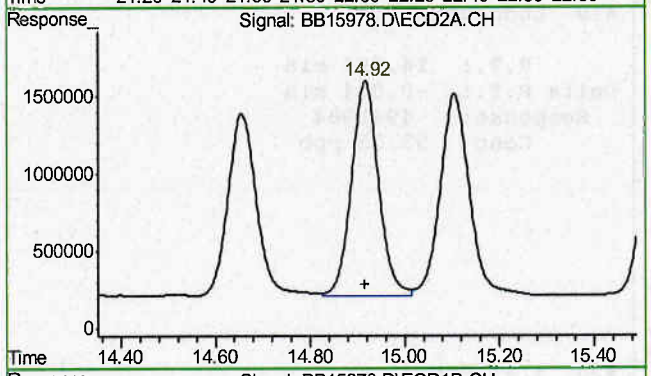
R.T.: 13.772 min
Delta R.T.: 0.000 min
Response: 5847278
Conc: 57.27 ppb

6.4.2 6



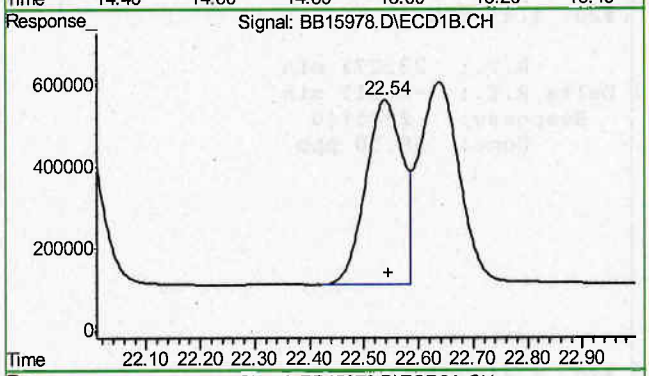
#17 gamma-Chlordane

R.T.: 21.978 min
Delta R.T.: -0.007 min
Response: 2316193
Conc: 57.60 ppb



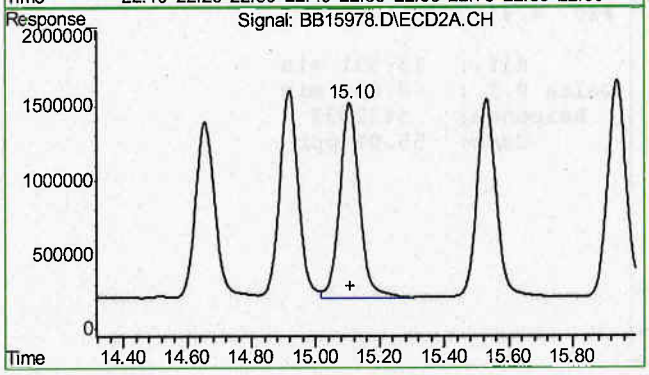
#17 gamma-Chlordane

R.T.: 14.917 min
Delta R.T.: 0.000 min
Response: 5548286
Conc: 53.24 ppb



#18 alpha-Chlordane

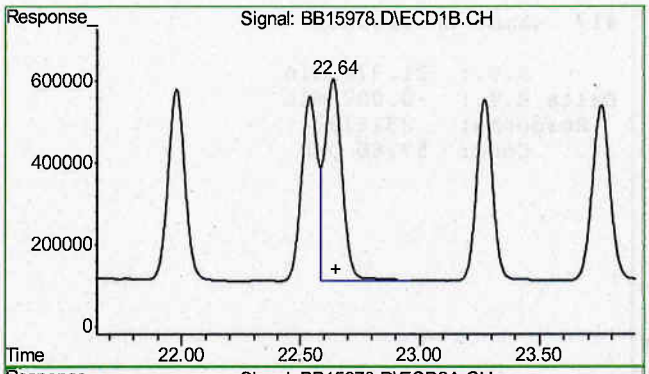
R.T.: 22.539 min
Delta R.T.: -0.007 min
Response: 2144110
Conc: 57.98 ppb



#18 alpha-Chlordane

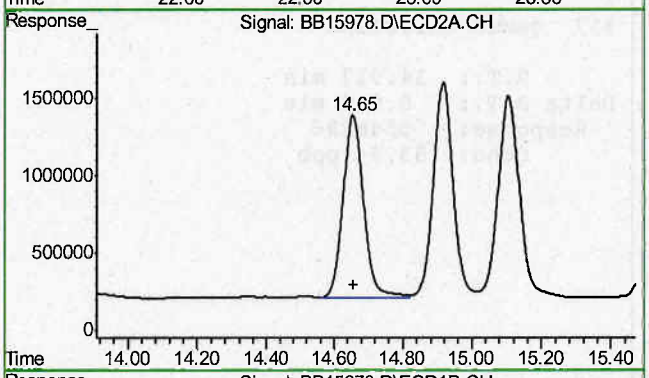
R.T.: 15.104 min
Delta R.T.: -0.006 min
Response: 5587552
Conc: 54.10 ppb

6.4.2 6



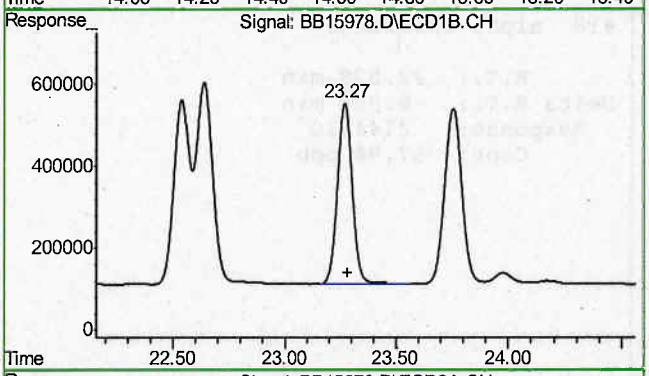
#19 Endosulfan-I

R.T.: 22.638 min
Delta R.T.: -0.011 min
Response: 2516612
Conc: 70.46 ppb



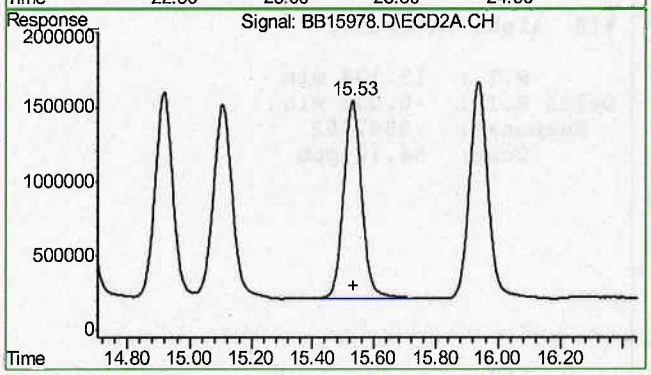
#19 Endosulfan-I

R.T.: 14.654 min
Delta R.T.: -0.004 min
Response: 4941984
Conc: 53.55 ppb



#20 4,4'-DDE

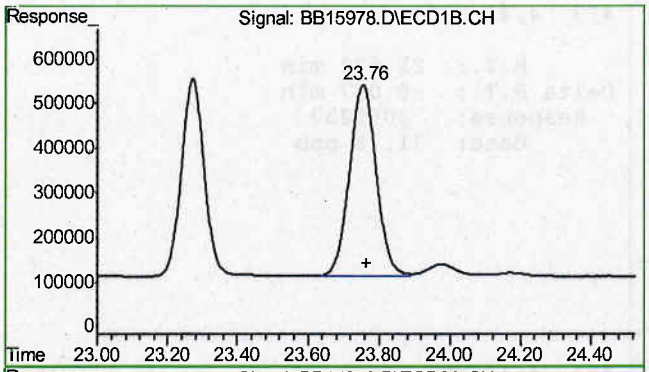
R.T.: 23.271 min
Delta R.T.: -0.011 min
Response: 2045140
Conc: 59.30 ppb



#20 4,4'-DDE

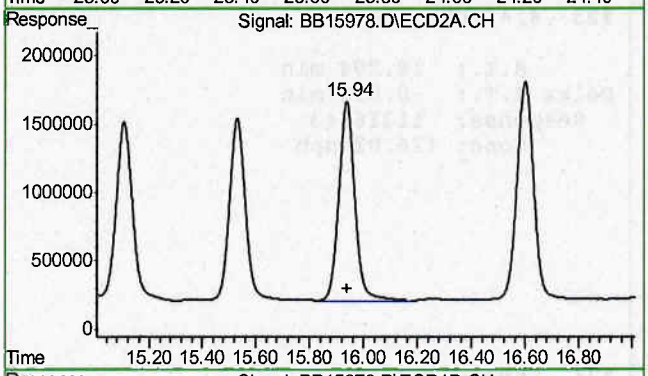
R.T.: 15.531 min
Delta R.T.: -0.004 min
Response: 5422332
Conc: 55.01 ppb

6.4.2 6



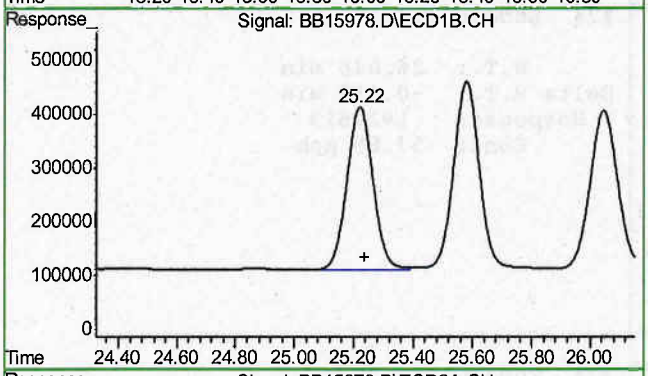
#21 Dieldrin

R.T.: 23.756 min
Delta R.T.: -0.009 min
Response: 2233274
Conc: 58.83 ppb



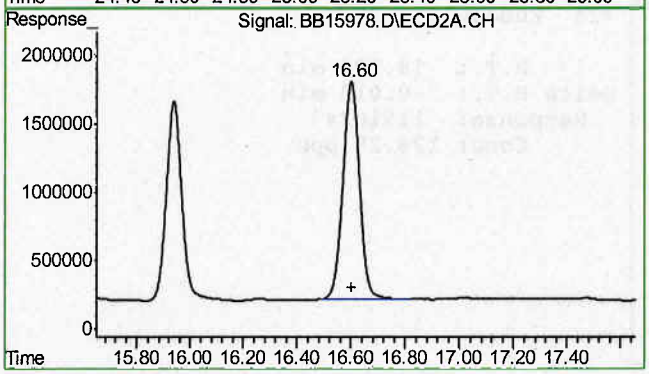
#21 Dieldrin

R.T.: 15.937 min
Delta R.T.: -0.004 min
Response: 6027630
Conc: 57.96 ppb



#22 Endrin

R.T.: 25.219 min
Delta R.T.: -0.017 min
Response: 1837463
Conc: 62.00 ppb

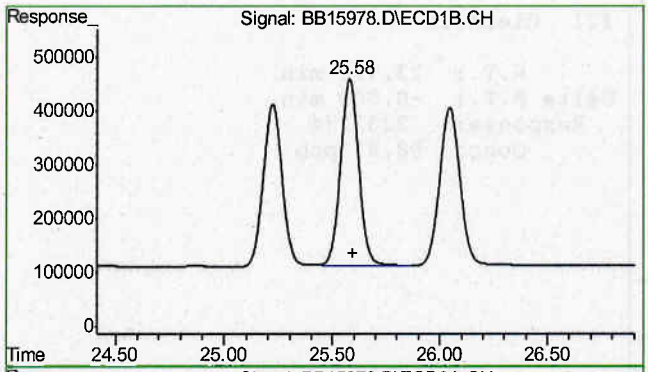


#22 Endrin

R.T.: 16.599 min
Delta R.T.: -0.002 min
Response: 6824386
Conc: 71.14 ppb

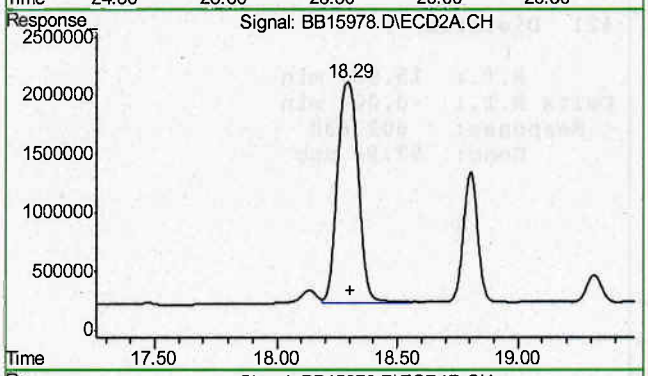
6.4.2

6



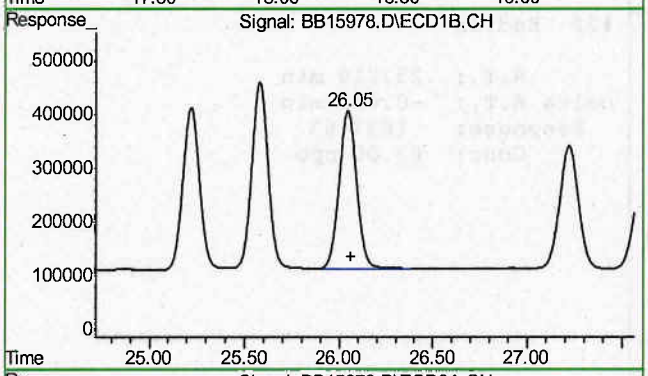
#23 4,4'-DDD

R.T.: 25.578 min
Delta R.T.: -0.017 min
Response: 2065237
Conc: 71.75 ppb



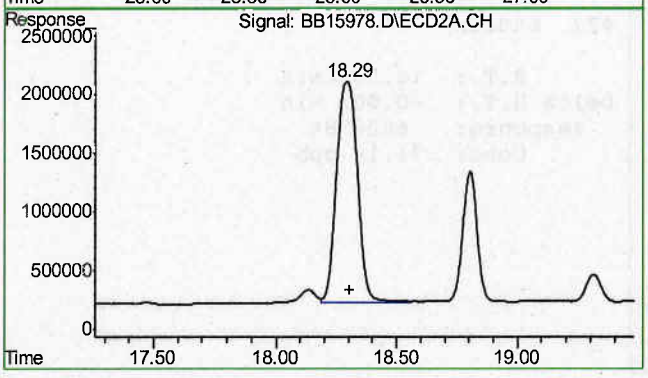
#23 4,4'-DDD

R.T.: 18.294 min
Delta R.T.: -0.012 min
Response: 11316243
Conc: 126.02 ppb



#24 Endosulfan-II

R.T.: 26.046 min
Delta R.T.: -0.017 min
Response: 1927613
Conc: 57.85 ppb

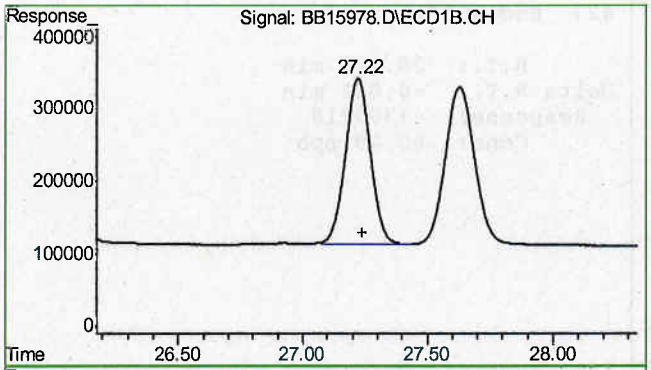


#24 Endosulfan-II

R.T.: 18.294 min
Delta R.T.: -0.012 min
Response: 11316243
Conc: 126.25 ppb

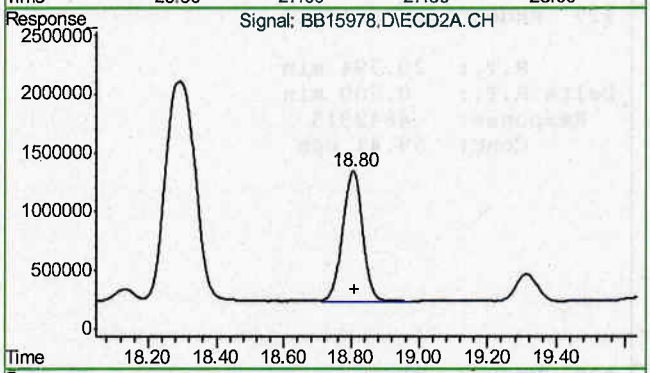
6.4.2

6



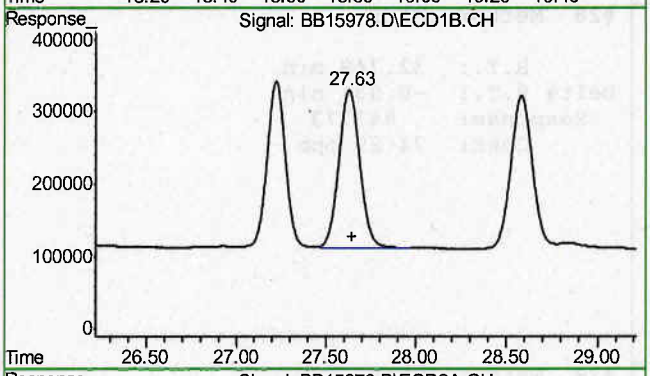
#25 4,4'-DDT

R.T.: 27.221 min
Delta R.T.: -0.017 min
Response: 1594479
Conc: 79.88 ppb



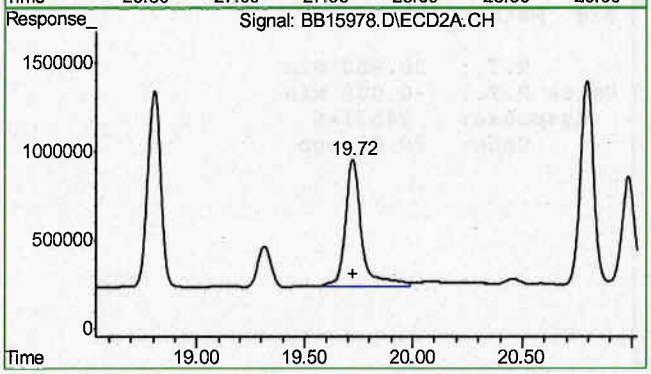
#25 4,4'-DDT

R.T.: 18.804 min
Delta R.T.: -0.004 min
Response: 4578197
Conc: 78.30 ppb



#26 Endrin aldehyde

R.T.: 27.629 min
Delta R.T.: -0.017 min
Response: 1776978
Conc: 70.24 ppb

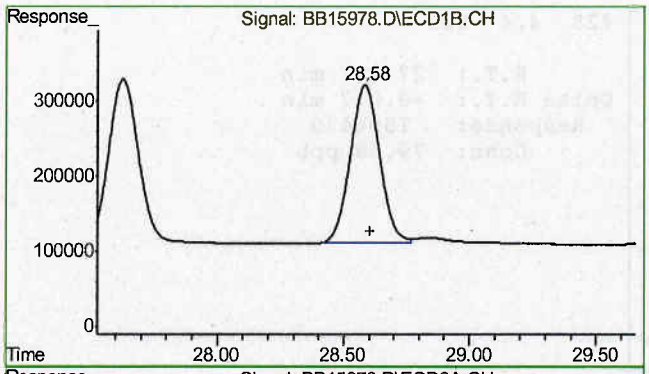


#26 Endrin aldehyde

R.T.: 19.721 min
Delta R.T.: -0.001 min
Response: 3704849
Conc: 53.34 ppb

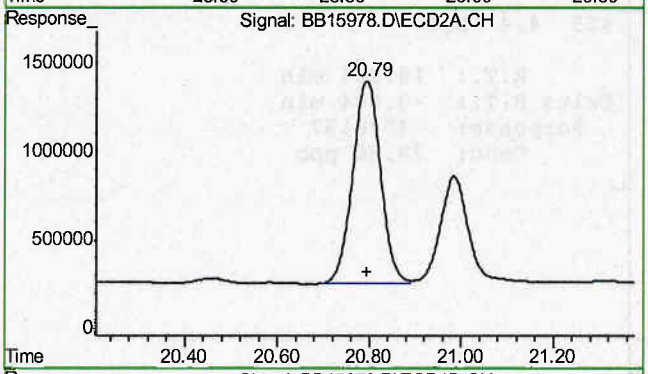
6.4.2

6



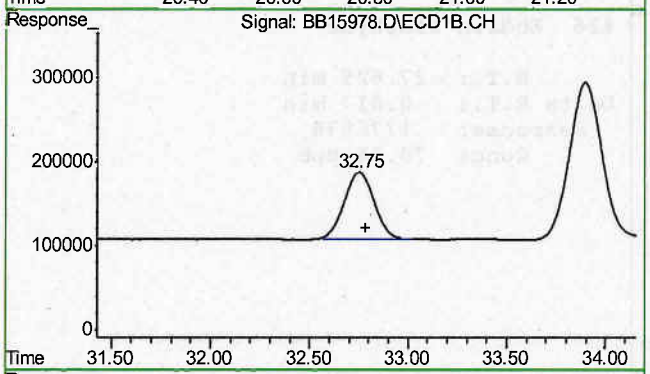
#27 Endosulfan sulfate

R.T.: 28.583 min
Delta R.T.: -0.021 min
Response: 1705218
Conc: 60.09 ppb



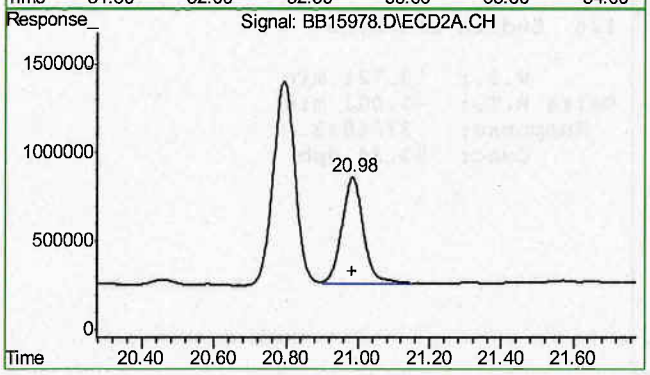
#27 Endosulfan sulfate

R.T.: 20.794 min
Delta R.T.: 0.000 min
Response: 4842315
Conc: 58.41 ppb



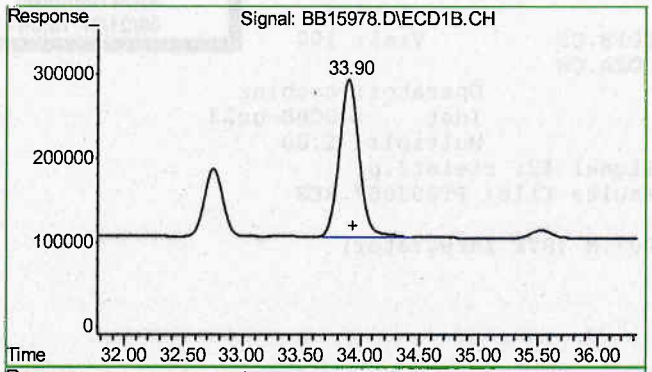
#28 Methoxychlor

R.T.: 32.749 min
Delta R.T.: -0.034 min
Response: 843773
Conc: 74.29 ppb



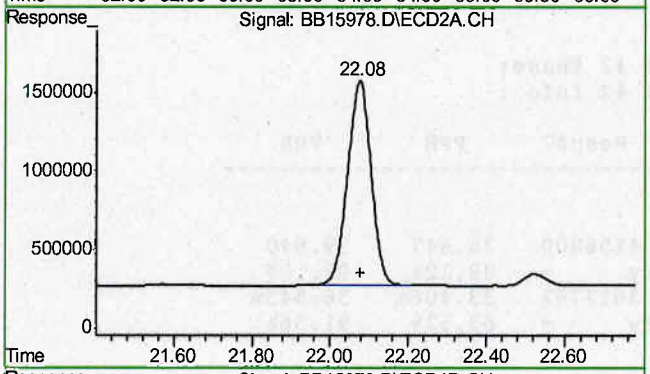
#28 Methoxychlor

R.T.: 20.982 min
Delta R.T.: -0.002 min
Response: 2457146
Conc: 70.01 ppb



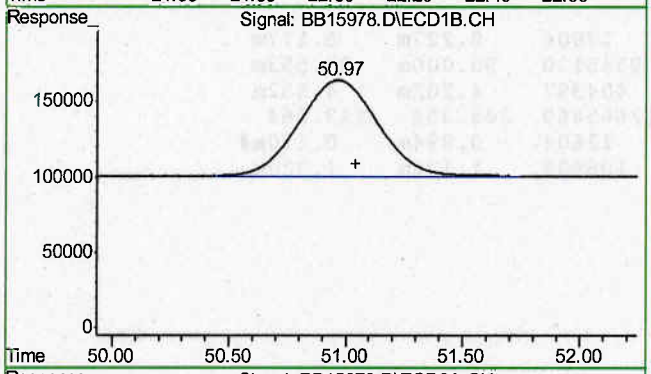
#29 Endrin ketone

R.T.: 33.898 min
Delta R.T.: -0.032 min
Response: 2197750
Conc: 63.63 ppb



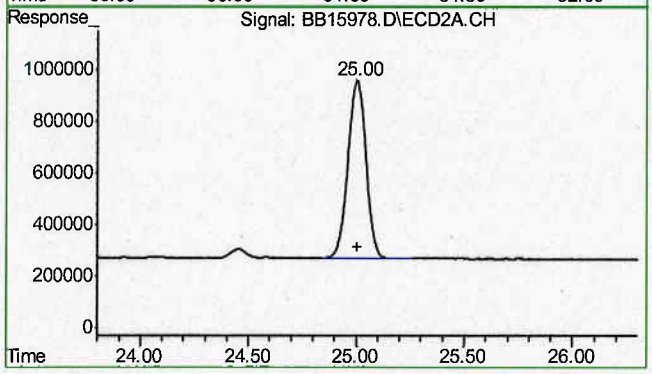
#29 Endrin ketone

R.T.: 22.076 min
Delta R.T.: -0.002 min
Response: 5445882
Conc: 63.89 ppb



#38 DCB

R.T.: 50.968 min
Delta R.T.: -0.077 min
Response: 1487370
Conc: 42.36 ppb m



#38 DCB

R.T.: 25.002 min
Delta R.T.: -0.003 min
Response: 4070779
Conc: 40.50 ppb m

6.4.2 6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BB15939.D\ECD1B.CH          Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BB15939.D\ECD2A.CH
Acq On    : 9-20-07 04:17:40 PM                     Operator: caobinz
Sample    : DDT                                     Inst    : GCBB-gc23
Misc      : op14341,gbb667,15,,,10,,soil            Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p
Quant Time: Sep 20 17:30:09 2007  Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title        : P8081pest,w/CT-PCB
Last Update  : Wed Sep 19 15:51:03 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.23	5.65	1505281	4156800	35.647	39.640
Spiked Amount 40.000			Recovery	=	89.12%	99.10%
38) s DCB	51.11	25.01	1231819	3617761	33.406m	36.543m
Spiked Amount 40.000			Recovery	=	83.52%	91.36%
Target Compounds						
20) 4,4'-DDE	23.30	15.55	8190	17806	0.227m	0.177m
22) Endrin	25.26	16.61	2829610	9545120	90.000m	98.553m
23) 4,4'-DDD	25.61	18.28	126440	404397	4.202m	4.552m
25) 4,4'-DDT	27.26	18.81	3965209	12665469	205.356	243.064
26) Endrin aldehyde	27.70	19.75	25314	12604	0.894m	0.170m#
29) Endrin ketone	33.98	22.09	38616	106983	1.126m	1.320m

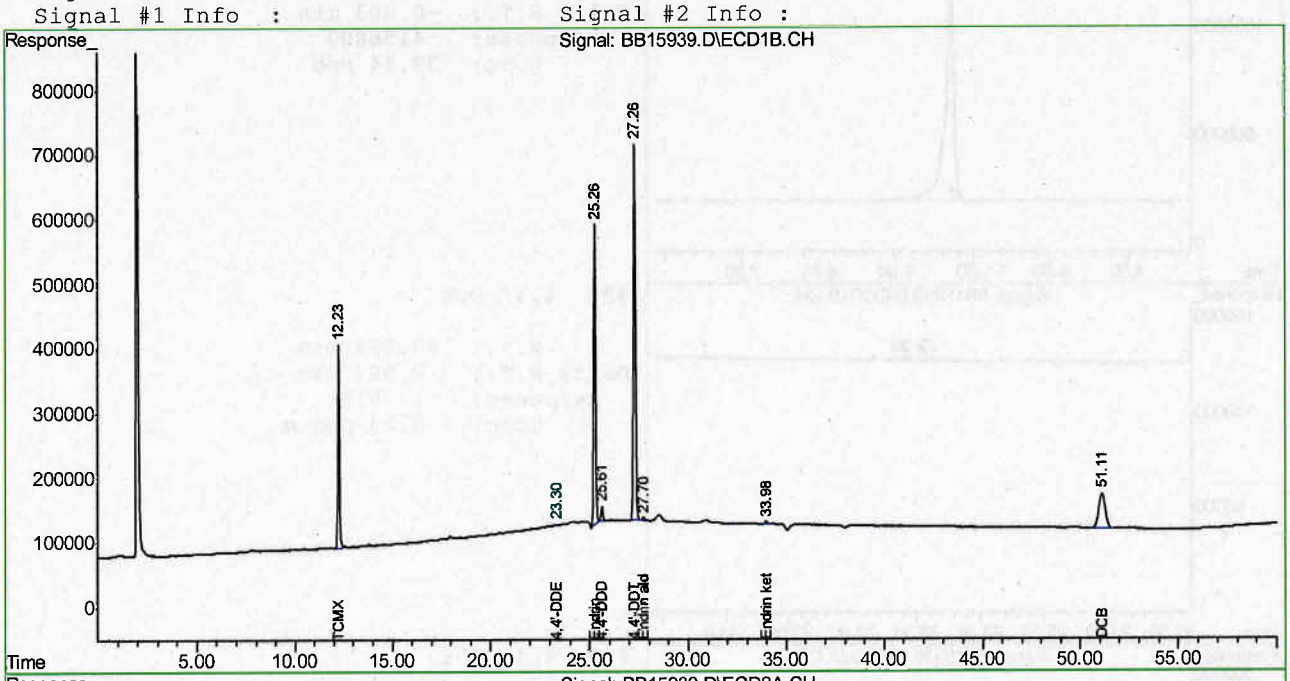
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15939.D PT092007.M Fri Sep 21 10:25:38 2007 GC23PRN

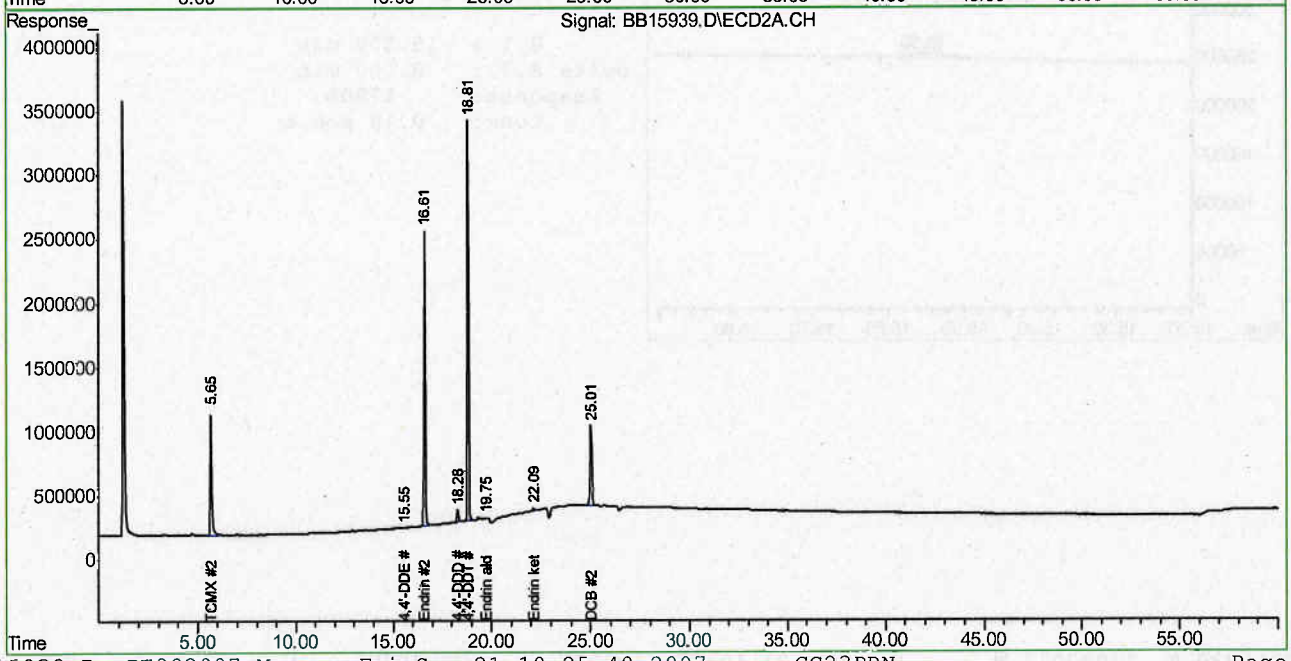
Quantitation Report (QT Reviewed)

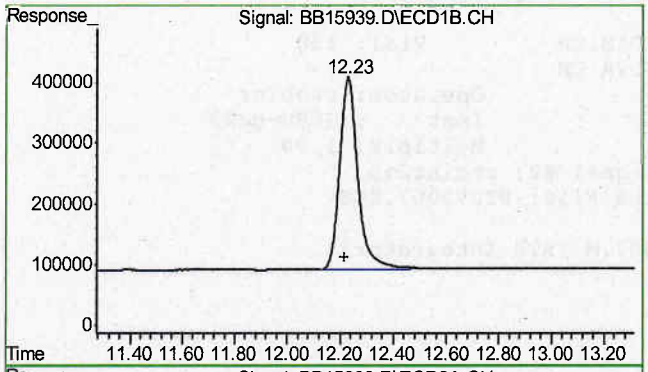
Signal #1 : C:\MSDCHEM\1\DATA\BB15939.D\ECD1B.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BB15939.D\ECD2A.CH
Acq On : 9-20-07 04:17:40 PM Operator: caobinz
Sample : DDT Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 20 17:32 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Wed Sep 19 15:51:03 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

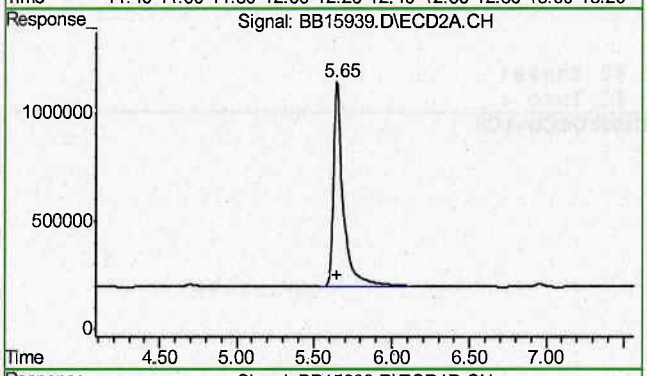






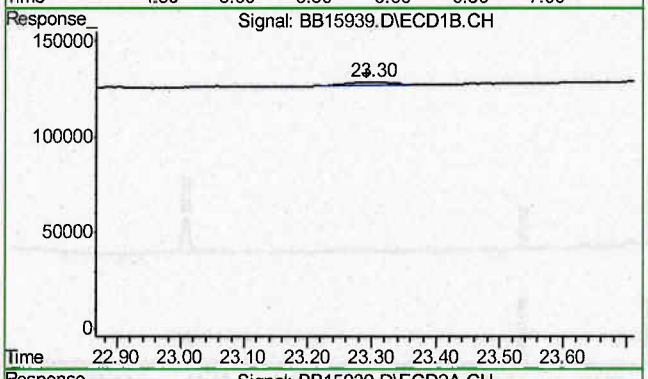
#1 TCMX

R.T.: 12.230 min
Delta R.T.: 0.015 min
Response: 1505281
Conc: 35.65 ppb



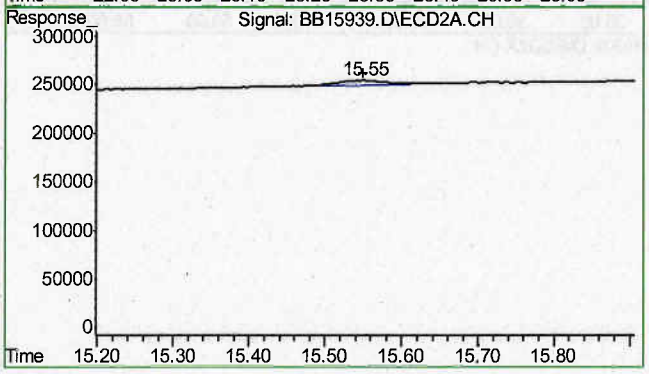
#1 TCMX

R.T.: 5.648 min
Delta R.T.: -0.003 min
Response: 4156800
Conc: 39.64 ppb



#20 4,4'-DDE

R.T.: 23.299 min
Delta R.T.: 0.007 min
Response: 8190
Conc: 0.23 ppb m

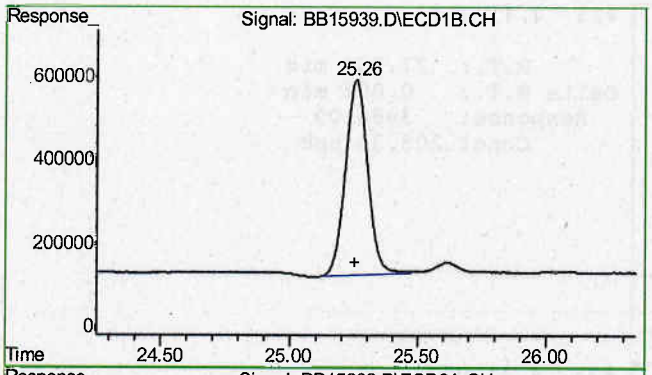


#20 4,4'-DDE

R.T.: 15.550 min
Delta R.T.: 0.000 min
Response: 17806
Conc: 0.18 ppb m

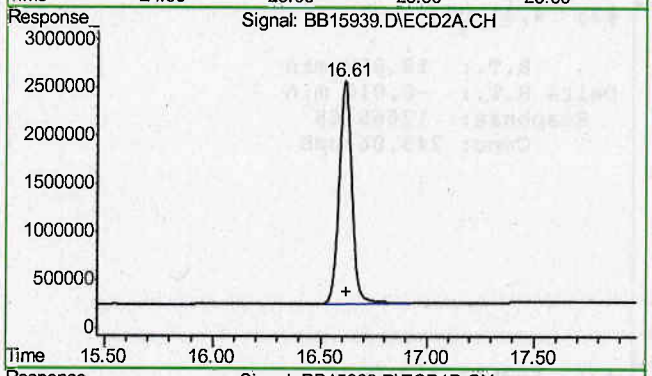
6.5.1

6



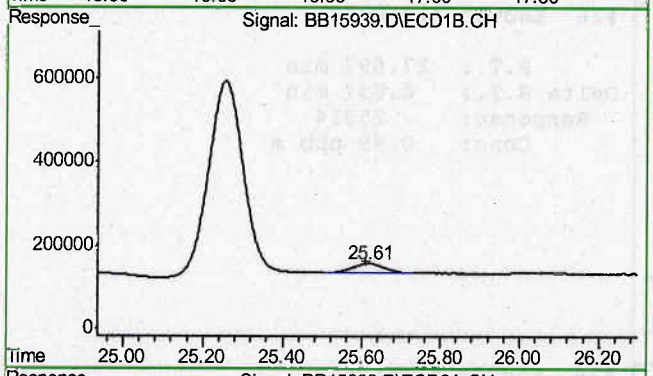
#22 Endrin

R.T.: 25.255 min
Delta R.T.: 0.003 min
Response: 2829610
Conc: 90.00 ppb m



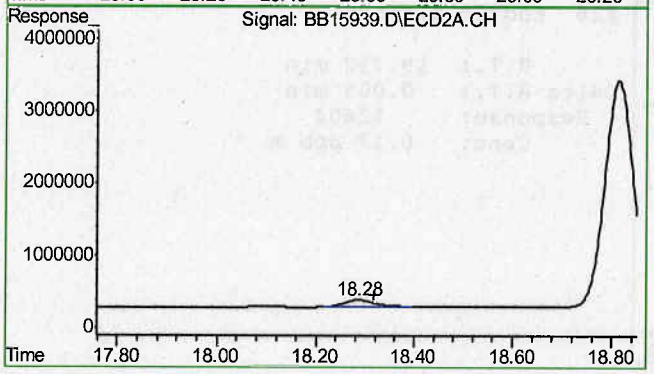
#22 Endrin

R.T.: 16.612 min
Delta R.T.: -0.008 min
Response: 9545120
Conc: 98.55 ppb m



#23 4,4'-DDD

R.T.: 25.614 min
Delta R.T.: 0.005 min
Response: 126440
Conc: 4.20 ppb m

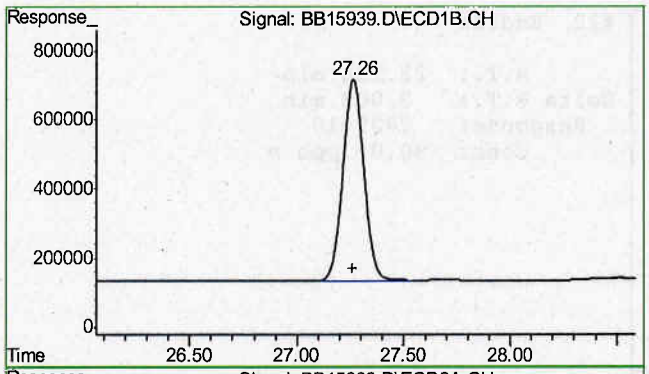


#23 4,4'-DDD

R.T.: 18.283 min
Delta R.T.: -0.033 min
Response: 404397
Conc: 4.55 ppb m

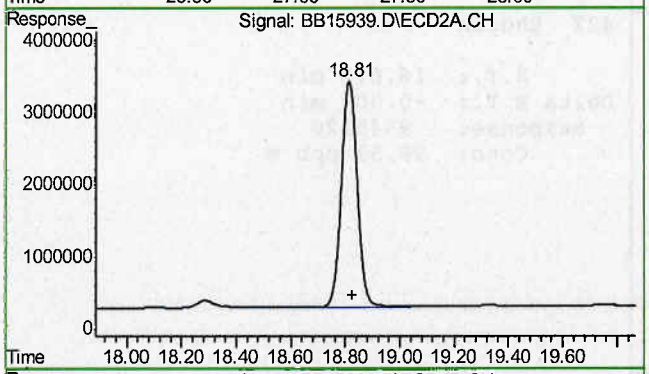
6.5.1

6



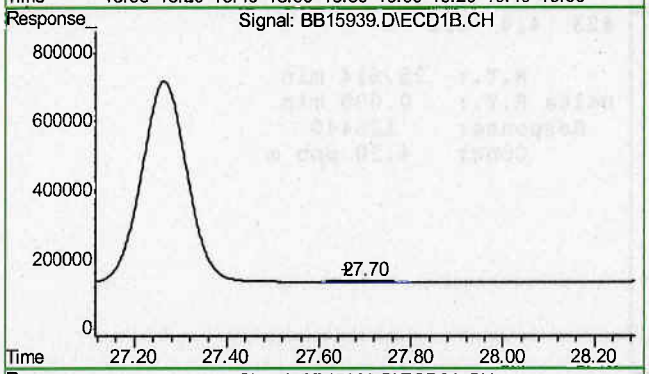
#25 4,4'-DDT

R.T.: 27.260 min
Delta R.T.: 0.002 min
Response: 3965209
Conc: 205.36 ppb



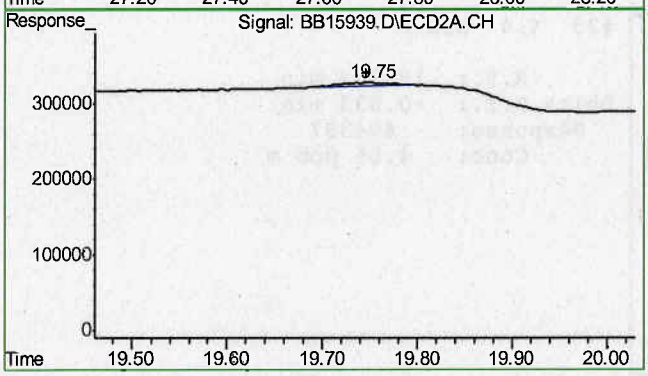
#25 4,4'-DDT

R.T.: 18.813 min
Delta R.T.: -0.010 min
Response: 12665469
Conc: 243.06 ppb



#26 Endrin aldehyde

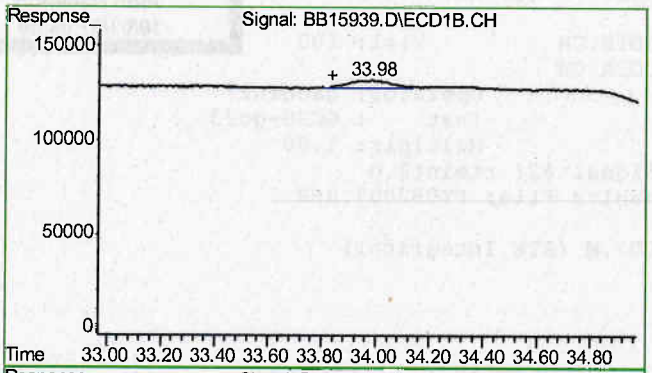
R.T.: 27.697 min
Delta R.T.: 0.037 min
Response: 25314
Conc: 0.89 ppb m



#26 Endrin aldehyde

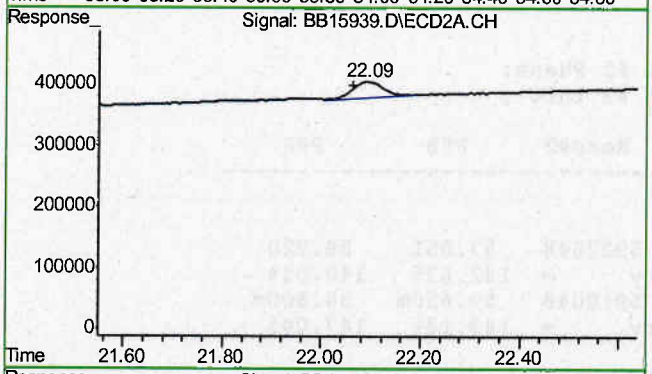
R.T.: 19.752 min
Delta R.T.: 0.005 min
Response: 12604
Conc: 0.17 ppb m

6.5.1 6



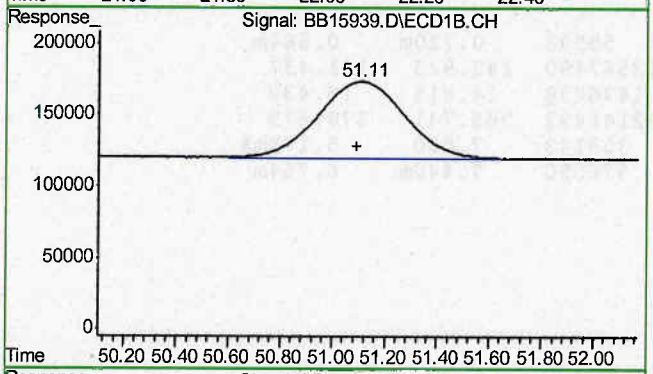
#29 Endrin ketone

R.T.: 33.980 min
Delta R.T.: 0.140 min
Response: 38616
Conc: 1.13 ppb m



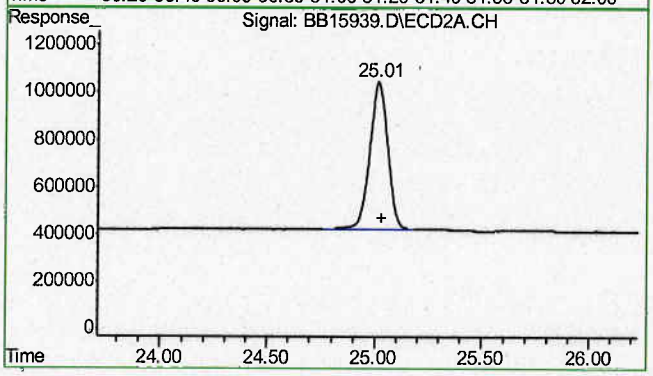
#29 Endrin ketone

R.T.: 22.090 min
Delta R.T.: 0.027 min
Response: 106983
Conc: 1.32 ppb m



#38 DCB

R.T.: 51.114 min
Delta R.T.: 0.023 min
Response: 1231819
Conc: 33.41 ppb m



#38 DCB

R.T.: 25.013 min
Delta R.T.: -0.017 min
Response: 3617761
Conc: 36.54 ppb m

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
10/01/07 08:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15971.D\ECD1B.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BB15971.D\ECD2A.CH
Acq On : 9-22-07 03:05:50 AM Operator: caobinz
Sample : DDT Inst : GCBB-gc23
Misc : op14350,gbb667,15,,,10 Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 26 10:25:40 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	2311626	5922848	57.051	56.220
	Spiked Amount 40.000			Recovery	=	142.63%	140.55%
38) s	DCB	50.96	25.01	2094660	5910048	59.650m	58.800m
	Spiked Amount 40.000			Recovery	=	149.13%	147.00%
	Target Compounds						
20)	4,4'-DDE	23.28	15.54	24826	55593	0.720m	0.564m
22)	Endrin	25.22	16.60	4235598	13567490	142.923	141.437
23)	4,4'-DDD	25.58	18.28	426456	1476238	14.815	16.439
25)	4,4'-DDT	27.22	18.80	7300531	22141493	365.741	378.673
26)	Endrin aldehyde	27.64	19.73	199374	359143	7.880	5.170m#
29)	Endrin ketone	33.91	22.07	256970	576550	7.440m	6.764m

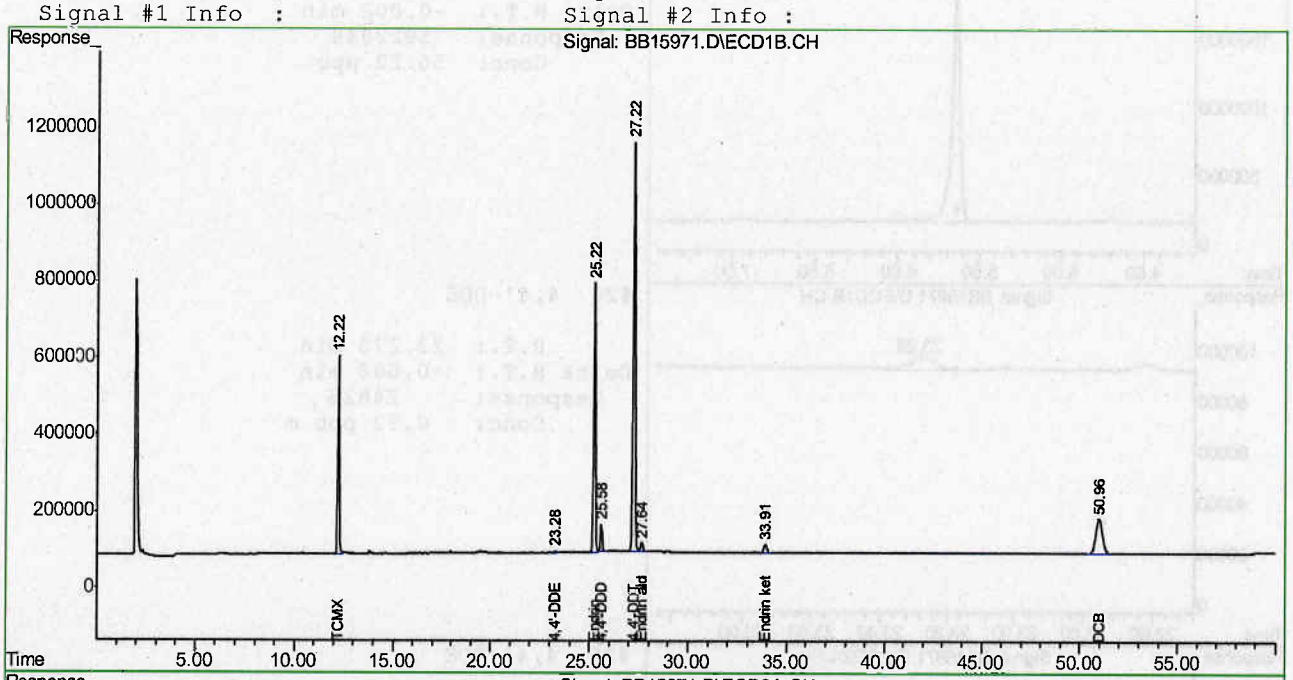
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15971.D PT092007.M Fri Sep 28 16:12:49 2007 GC23PRN

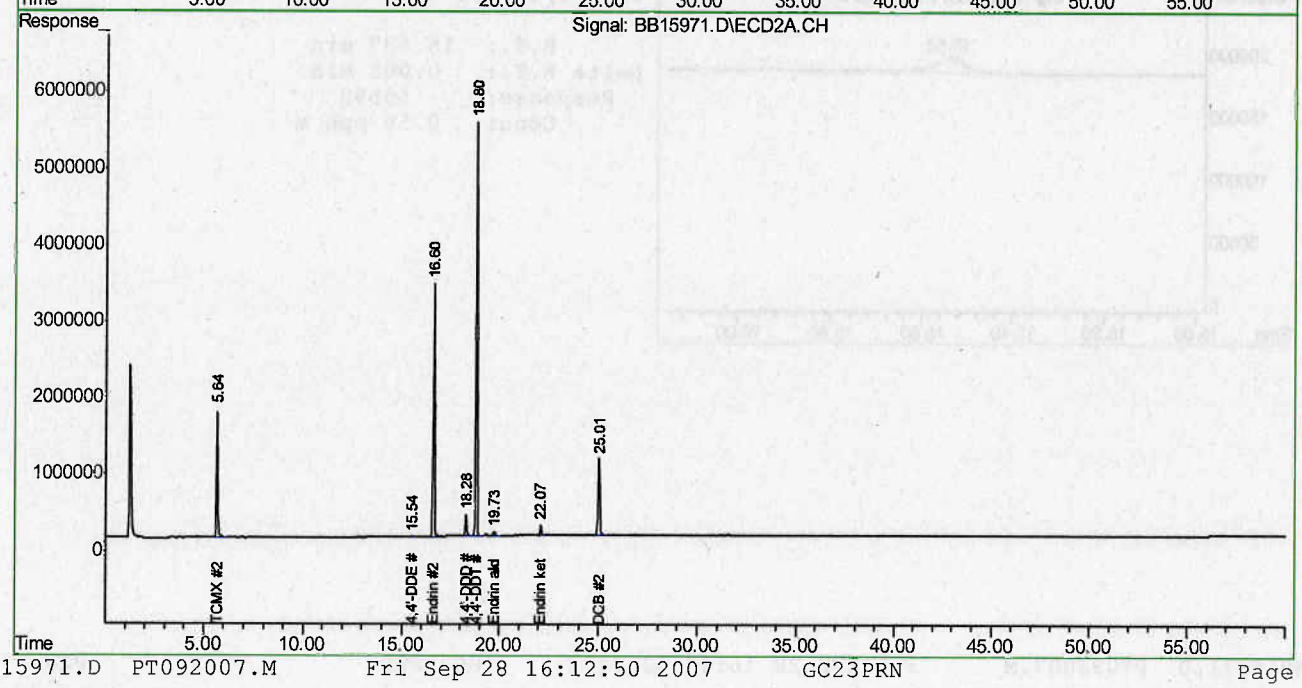
Quantitation Report (QT Reviewed)

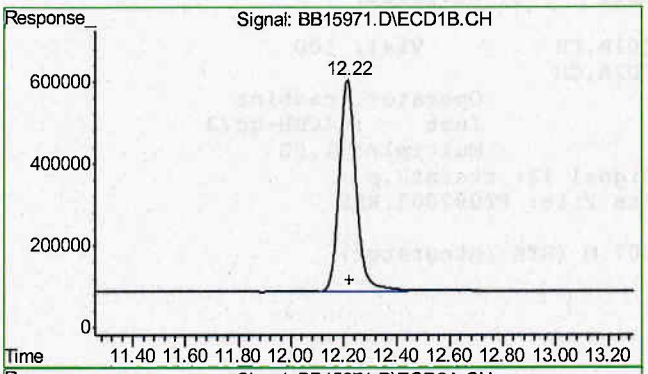
```
Signal #1 : C:\MSDCHEM\1\DATA\BB15971.D\ECD1B.CH          Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BB15971.D\ECD2A.CH
Acq On    : 9-22-07 03:05:50 AM                     Operator: caobinz
Sample    : DDT                                     Inst    : GCBB-gc23
Misc      : op14350,gbb667,15,,,10                  Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p
Quant Time: Sep 26 10:27 2007  Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title        : P8081pest,w/CT-PCB
Last Update  : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

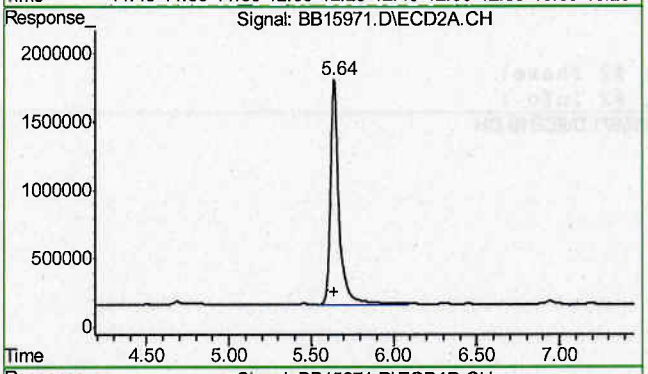






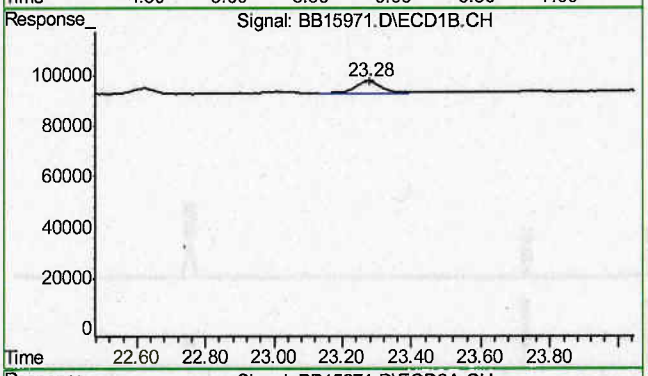
#1 TCMX

R.T.: 12.215 min
Delta R.T.: -0.006 min
Response: 2311626
Conc: 57.05 ppb



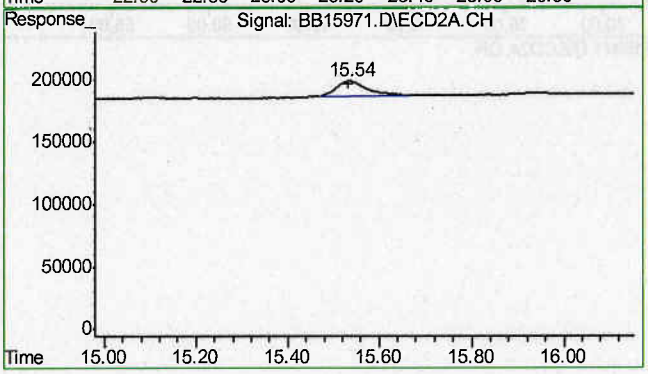
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.002 min
Response: 5922848
Conc: 56.22 ppb



#20 4,4'-DDE

R.T.: 23.275 min
Delta R.T.: -0.006 min
Response: 24826
Conc: 0.72 ppb m

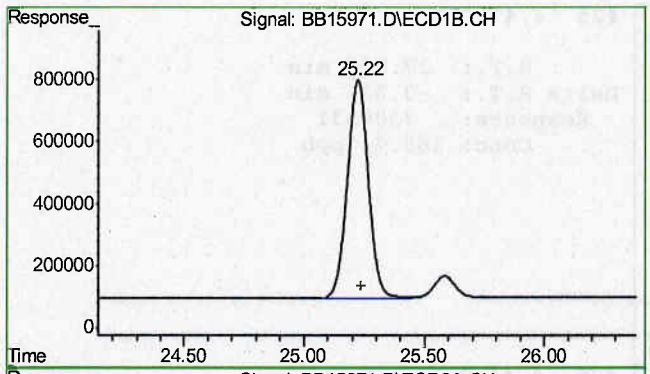


#20 4,4'-DDE

R.T.: 15.537 min
Delta R.T.: 0.002 min
Response: 55593
Conc: 0.56 ppb m

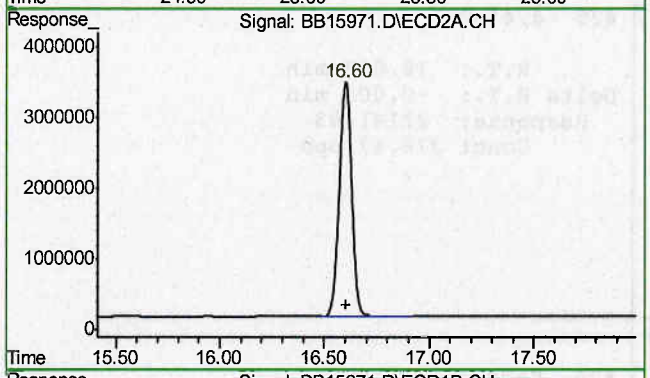
6.5.2

6



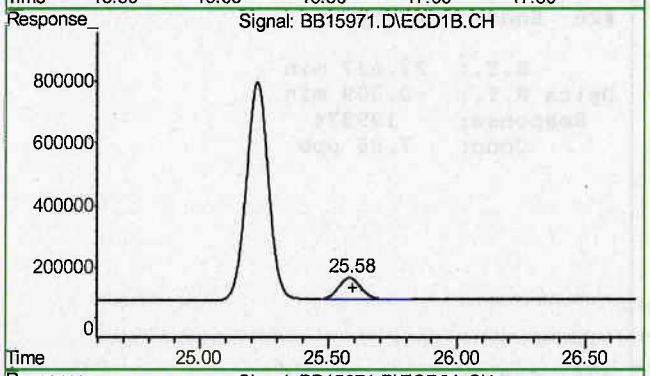
#22 Endrin

R.T.: 25.222 min
Delta R.T.: -0.014 min
Response: 4235598
Conc: 142.92 ppb



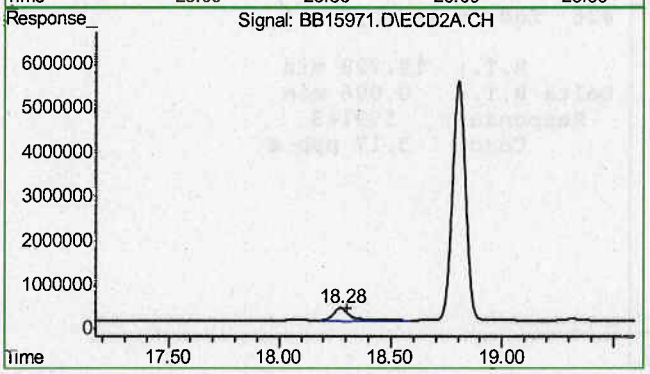
#22 Endrin

R.T.: 16.602 min
Delta R.T.: 0.000 min
Response: 13567490
Conc: 141.44 ppb



#23 4,4'-DDD

R.T.: 25.582 min
Delta R.T.: -0.013 min
Response: 426456
Conc: 14.82 ppb

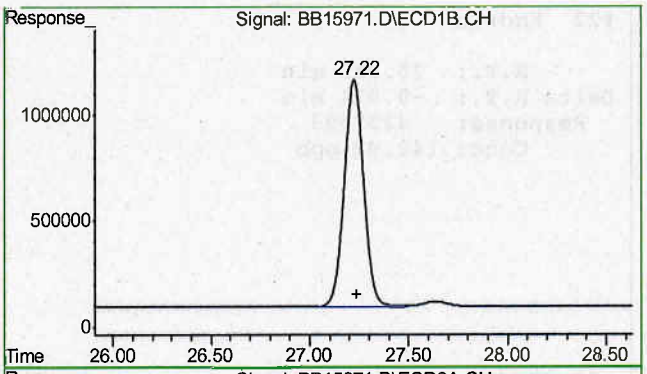


#23 4,4'-DDD

R.T.: 18.277 min
Delta R.T.: -0.029 min
Response: 1476238
Conc: 16.44 ppb

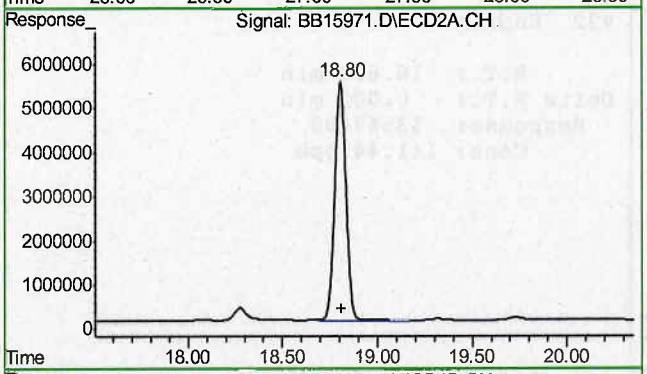
6.5.2

6



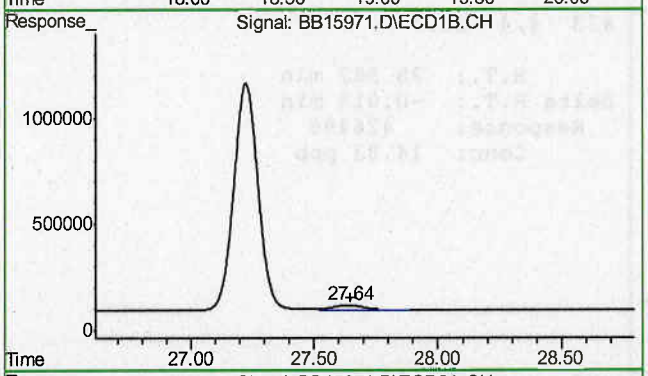
#25 4,4'-DDT

R.T.: 27.222 min
Delta R.T.: -0.016 min
Response: 7300531
Conc: 365.74 ppb



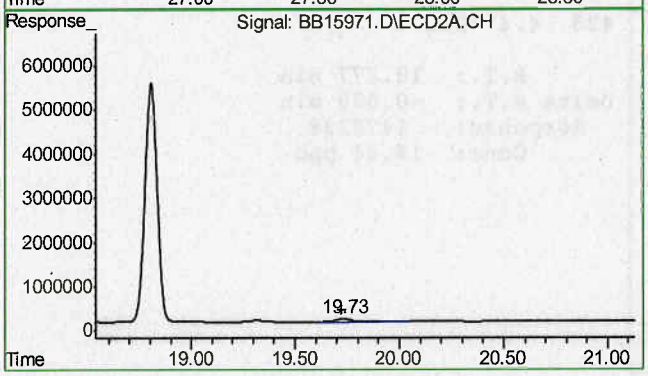
#25 4,4'-DDT

R.T.: 18.803 min
Delta R.T.: -0.005 min
Response: 22141493
Conc: 378.67 ppb



#26 Endrin aldehyde

R.T.: 27.637 min
Delta R.T.: -0.009 min
Response: 199374
Conc: 7.88 ppb

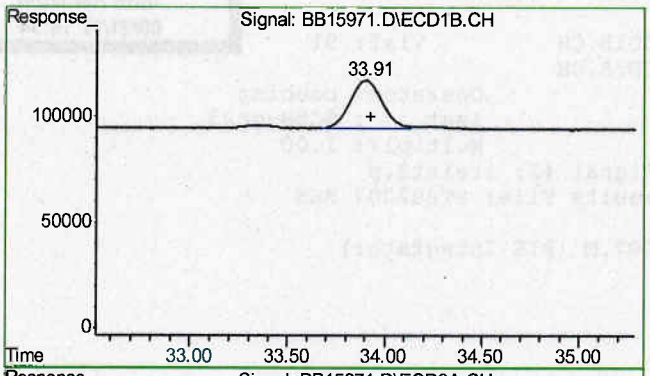


#26 Endrin aldehyde

R.T.: 19.728 min
Delta R.T.: 0.006 min
Response: 359143
Conc: 5.17 ppb m

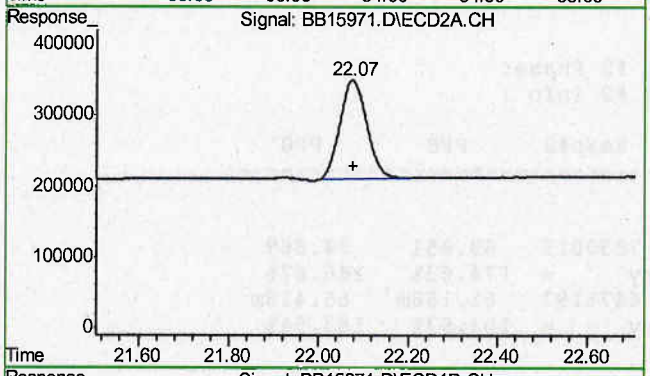
6.5.2

6



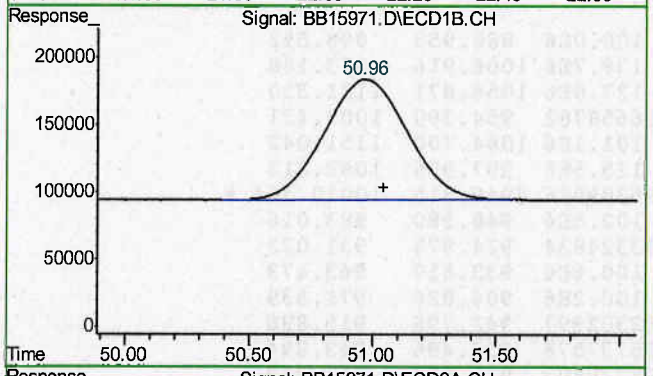
#29 Endrin ketone

R.T.: 33.910 min
Delta R.T.: -0.020 min
Response: 256970
Conc: 7.44 ppb m



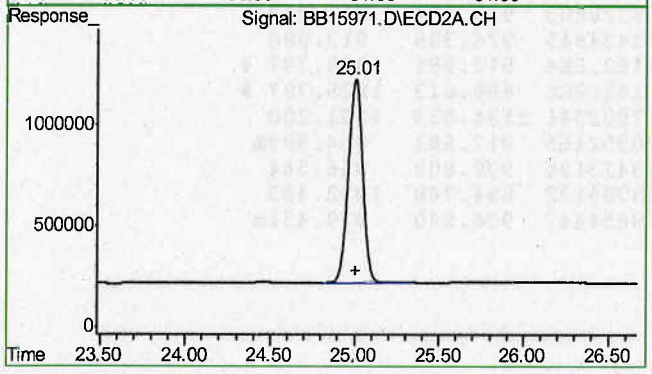
#29 Endrin ketone

R.T.: 22.075 min
Delta R.T.: -0.003 min
Response: 576550
Conc: 6.76 ppb m



#38 DCB

R.T.: 50.960 min
Delta R.T.: -0.084 min
Response: 2094660
Conc: 59.65 ppb m



#38 DCB

R.T.: 25.008 min
Delta R.T.: 0.003 min
Response: 5910048
Conc: 58.80 ppb m

6.5.2

6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15940.D\ECD1B.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BB15940.D\ECD2A.CH
Acq On : 9-20-07 05:35:51 PM Operator: caobinz
Sample : ic667-1000,pest 1000 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:26:22 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Wed Sep 19 15:51:03 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	2949601	7830013	69.851	74.669
	Spiked Amount 40.000			Recovery	=	174.63%	186.67%
38) s	DCB	51.10	25.01	2256220	6476197	61.188m	65.416m
	Spiked Amount 40.000			Recovery	=	152.97%	163.54%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.91	46561525	108.0E6	880.953	898.552
9)	alpha-BHC	14.88	8.53	64112775	138.7E6	1006.916	1083.188
10)	gamma-BHC	16.40	9.87	54830328	127.8E6	1056.871	1121.350
11)	beta-BHC	16.63	12.59	23652042	56658782	954.390	1002.421
12)	Heptachlor	17.98	10.51	36544181	101.1E6	1064.700	1151.042
13)	delta-BHC	18.04	13.35	55888863	125.5E6	997.905	1062.213
14)	Alachlor	18.33	11.96	44611390	86389026	7949.315	10010.364 #
15)	Aldrin	19.27	11.42	45741285	102.5E6	948.580	983.016
16)	Heptachlor Epoxi	21.28	13.78	39128093	93324834	924.975	931.032
17)	gamma-Chlordane	21.99	14.93	38341980	100.6E6	933.817	963.473
18)	alpha-Chlordane	22.56	15.12	34390099	100.2E6	904.826	971.539
19)	Endosulfan-I	22.66	14.66	33577537	82302997	942.798	915.896
20)	4,4'-DDE	23.29	15.54	33855842	95137576	936.496	943.894
21)	Dieldrin	23.78	15.95	37090484	98320803	946.684	944.069
22)	Endrin	25.25	16.61	29124139	88434845	926.339	913.086
23)	4,4'-DDD	25.61	18.31	27444282	162.2E6	911.981	1825.787 #
24)	Endosulfan-II	26.08	18.31	30231797	162.2E6	896.013	1825.787 #
25)	4,4'-DDT	27.25	18.81	21897086	67802341	1134.039	1301.200
26)	Endrin aldehyde	27.66	19.73	25975998	70952165	917.681	954.999m
27)	Endosulfan sulfa	28.62	20.80	28841036	83413196	930.808	956.564
28)	Methoxychlor	32.80	20.99	10507790	33305122	894.748	1032.493
29)	Endrin ketone	33.95	22.08	31093212	78654447	906.540	970.431m

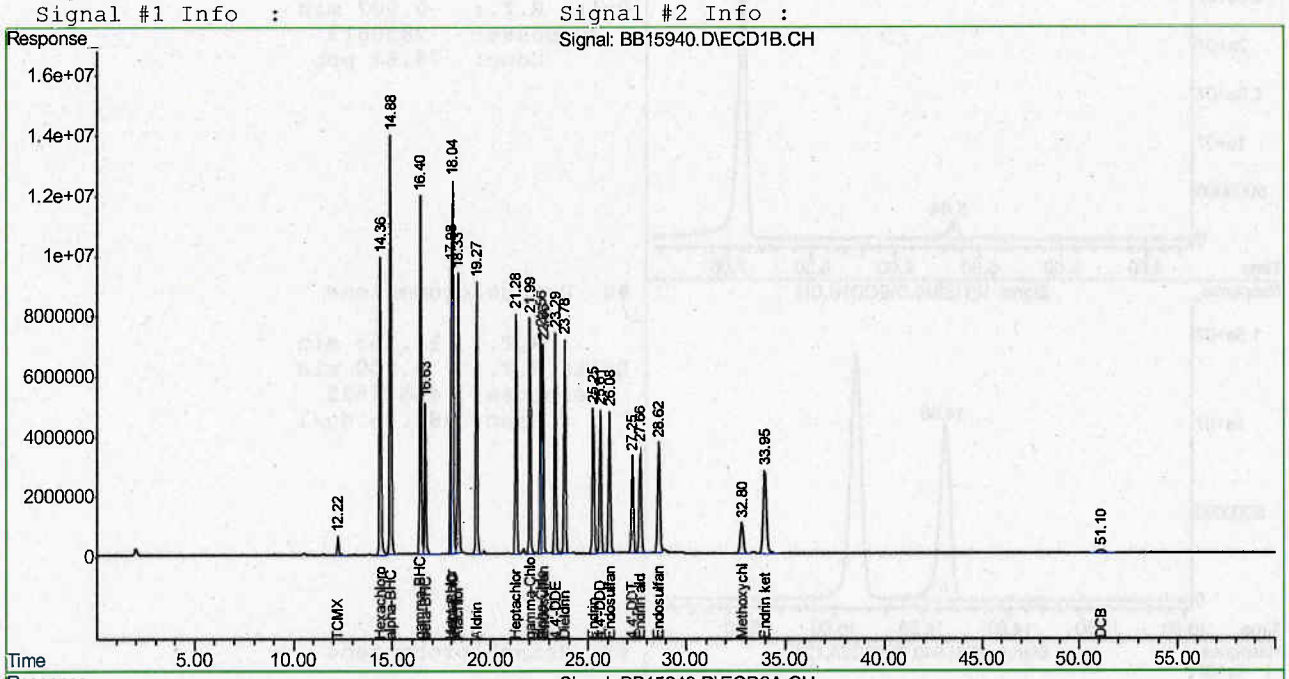
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15940.D PT092007.M Fri Sep 21 10:29:55 2007 GC23PRN

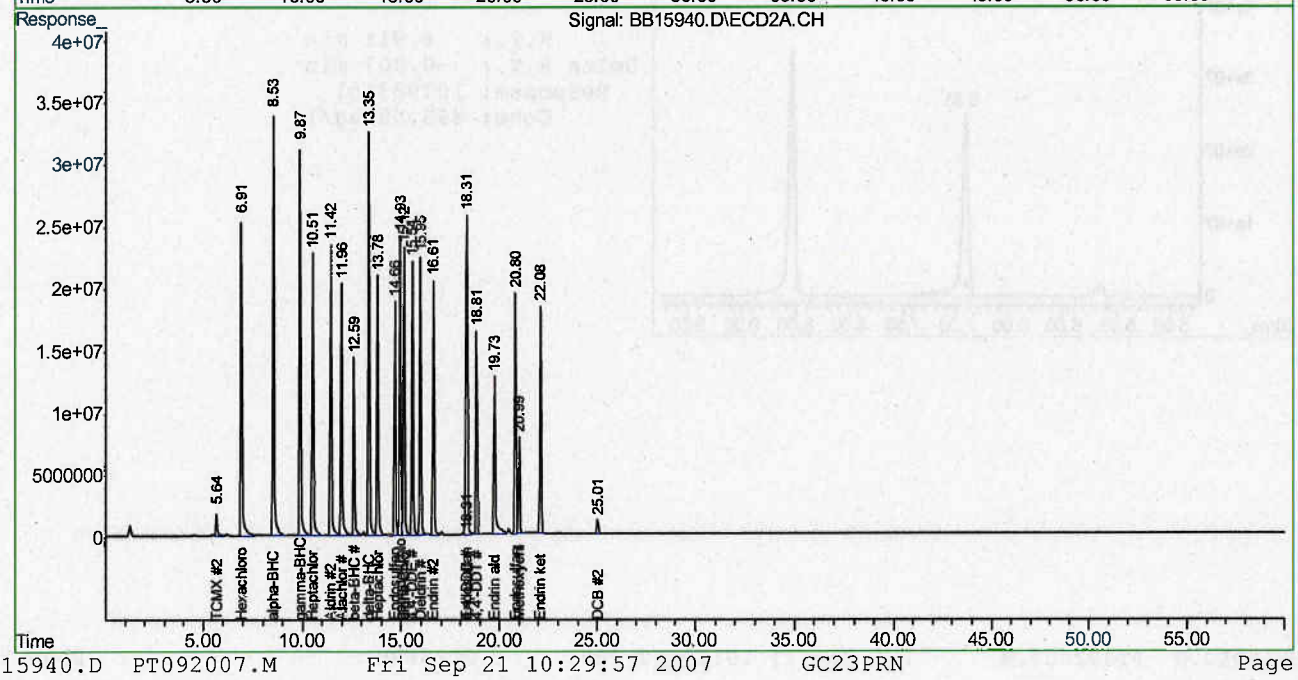
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15940.D\ECD1B.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BB15940.D\ECD2A.CH
Acq On : 9-20-07 05:35:51 PM Operator: caobinz
Sample : ic667-1000,pest 1000 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:29 2007 Quant Results File: PT092007.RES

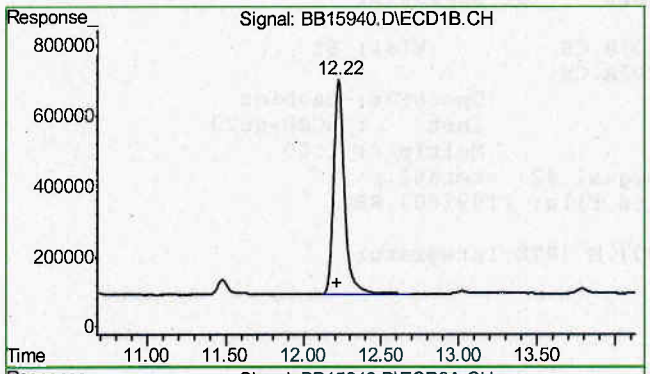
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Wed Sep 19 15:51:03 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



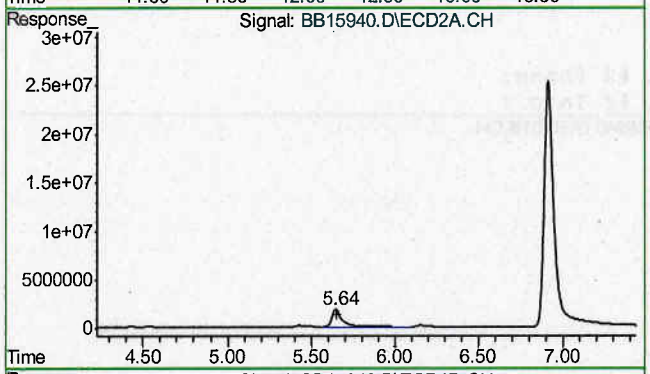


ACCUTEST Laboratories M67604



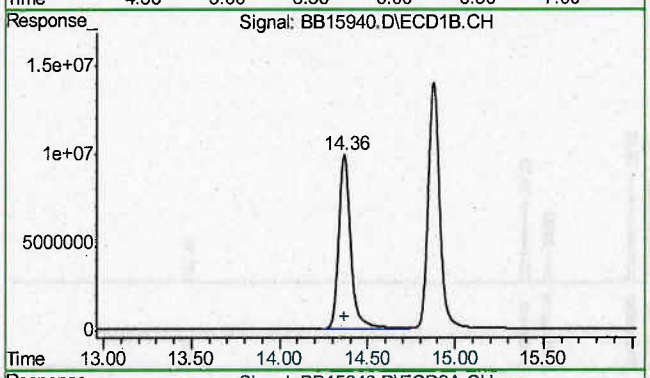
#1 TCMX

R.T.: 12.225 min
Delta R.T.: 0.009 min
Response: 2949601
Conc: 69.85 ppb



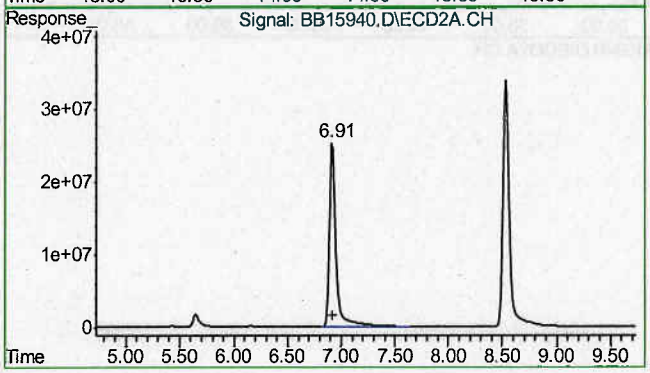
#1 TCMX

R.T.: 5.644 min
Delta R.T.: -0.007 min
Response: 7830013
Conc: 74.67 ppb



#8 Hexachlorobenzene

R.T.: 14.365 min
Delta R.T.: 0.000 min
Response: 46561525
Conc: 880.95 ug/l

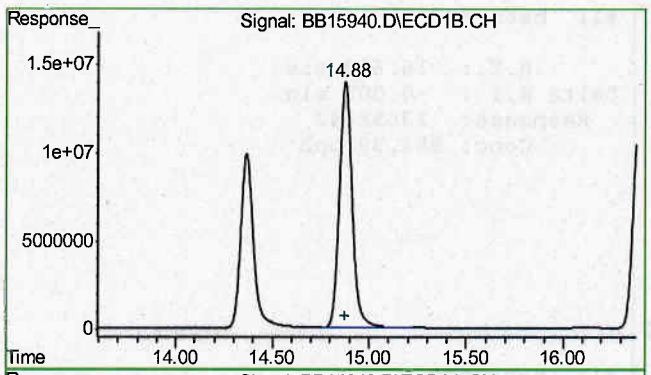


#8 Hexachlorobenzene

R.T.: 6.911 min
Delta R.T.: -0.007 min
Response: 107983151
Conc: 898.55 ug/l

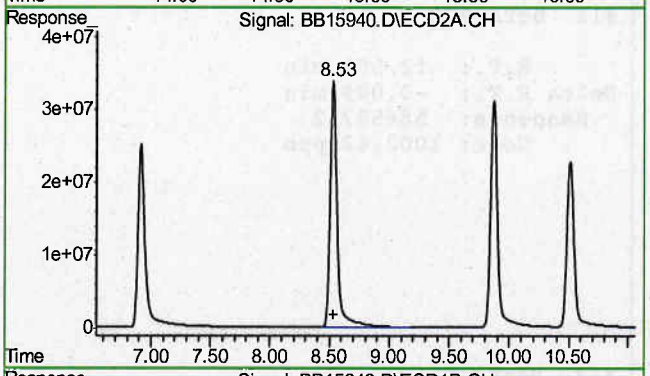
6.6.1

6



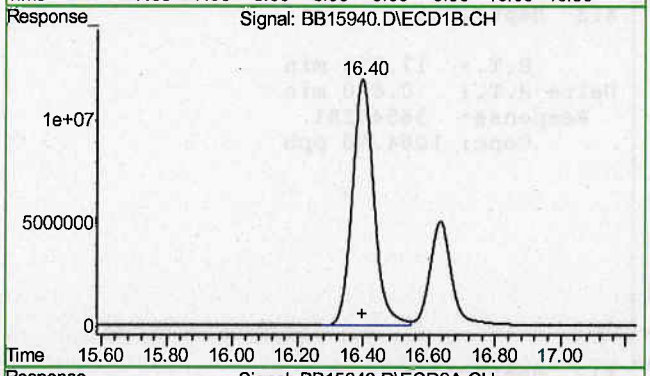
#9 alpha-BHC

R.T.: 14.878 min
Delta R.T.: 0.001 min
Response: 64112775
Conc: 1006.92 ppb



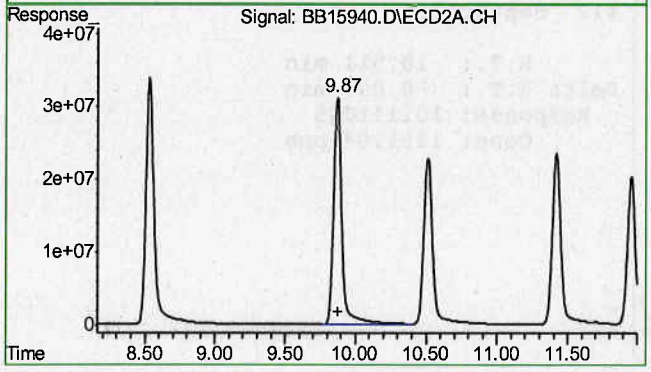
#9 alpha-BHC

R.T.: 8.529 min
Delta R.T.: -0.007 min
Response: 138660416
Conc: 1083.19 ppb



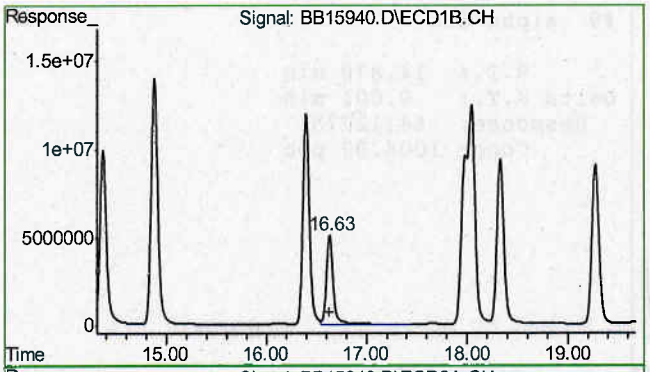
#10 gamma-BHC

R.T.: 16.396 min
Delta R.T.: -0.002 min
Response: 54830328
Conc: 1056.87 ppb



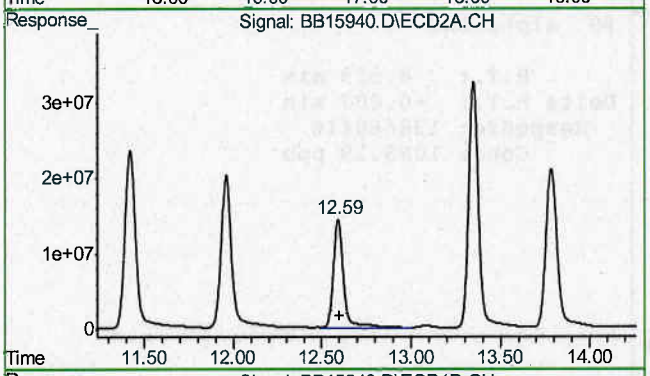
#10 gamma-BHC

R.T.: 9.871 min
Delta R.T.: -0.005 min
Response: 127789359
Conc: 1121.35 ppb



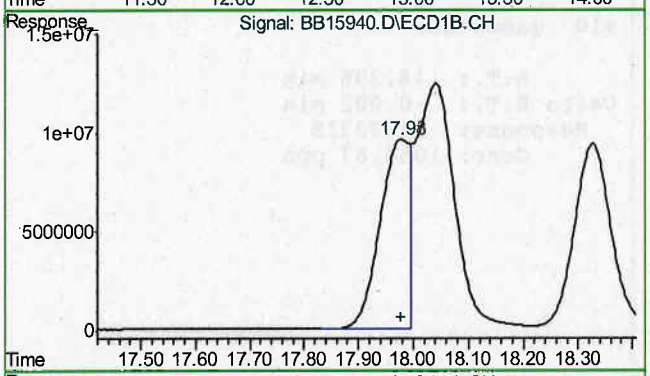
#11 beta-BHC

R.T.: 16.633 min
Delta R.T.: -0.002 min
Response: 23652042
Conc: 954.39 ppb



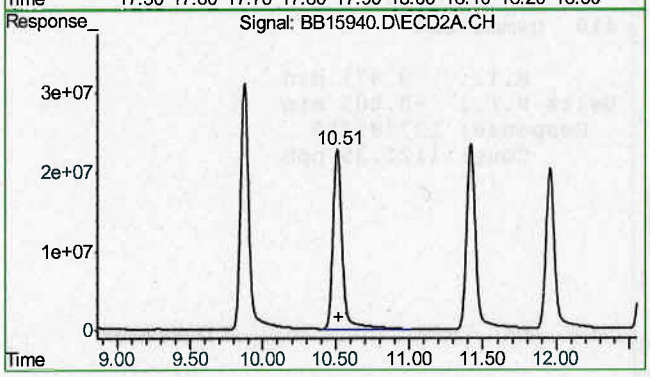
#11 beta-BHC

R.T.: 12.591 min
Delta R.T.: -0.009 min
Response: 56658782
Conc: 1002.42 ppb



#12 Heptachlor

R.T.: 17.976 min
Delta R.T.: 0.000 min
Response: 36544181
Conc: 1064.70 ppb

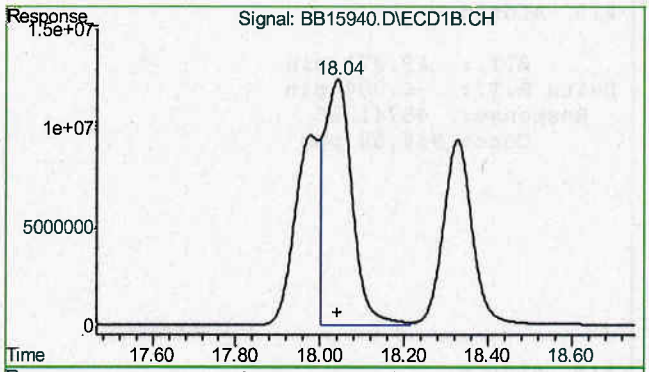


#12 Heptachlor

R.T.: 10.511 min
Delta R.T.: -0.007 min
Response: 101111035
Conc: 1151.04 ppb

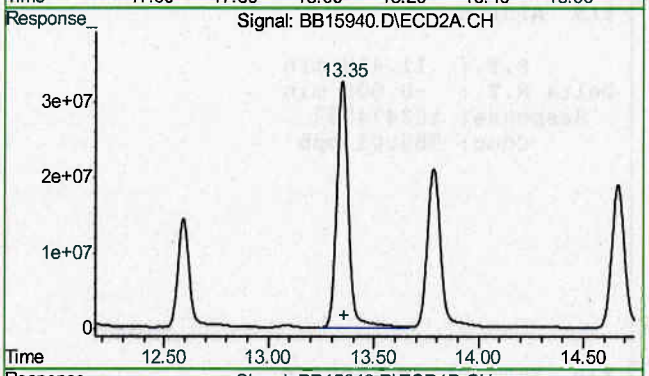
6.6.1

6



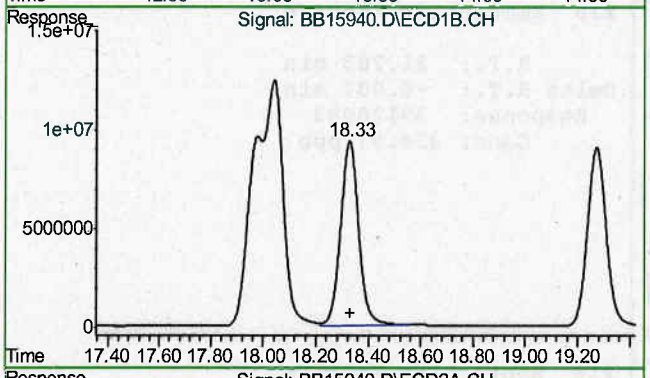
#13 delta-BHC

R.T.: 18.040 min
Delta R.T.: -0.002 min
Response: 55888863
Conc: 997.90 ppb



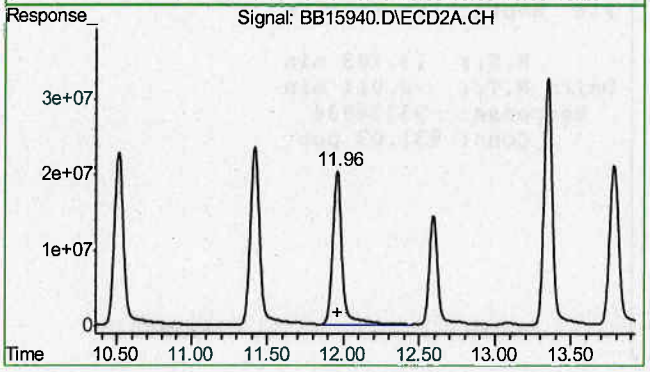
#13 delta-BHC

R.T.: 13.348 min
Delta R.T.: -0.009 min
Response: 125509898
Conc: 1062.21 ppb



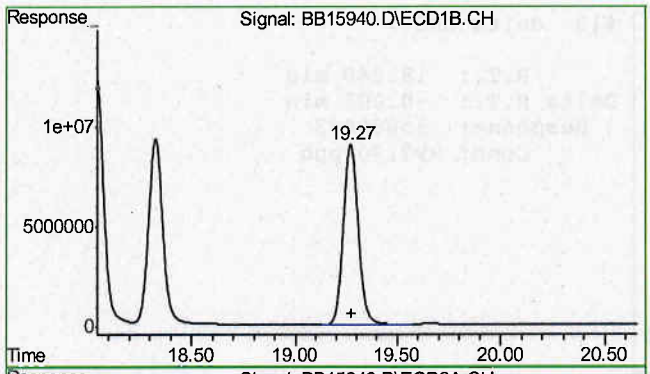
#14 Alachlor

R.T.: 18.326 min
Delta R.T.: -0.004 min
Response: 44611390
Conc: 7949.32 ug/l



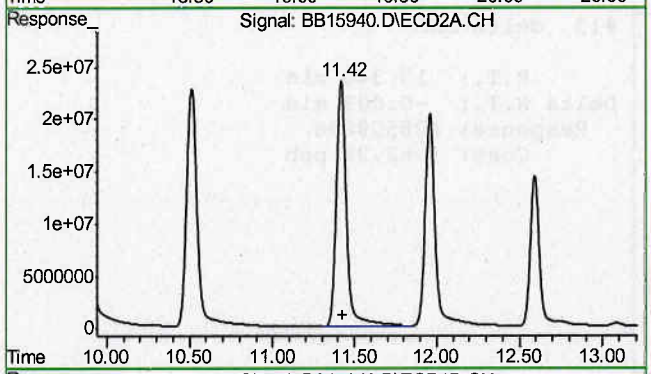
#14 Alachlor

R.T.: 11.959 min
Delta R.T.: -0.005 min
Response: 86389026
Conc: 10010.36 ug/l



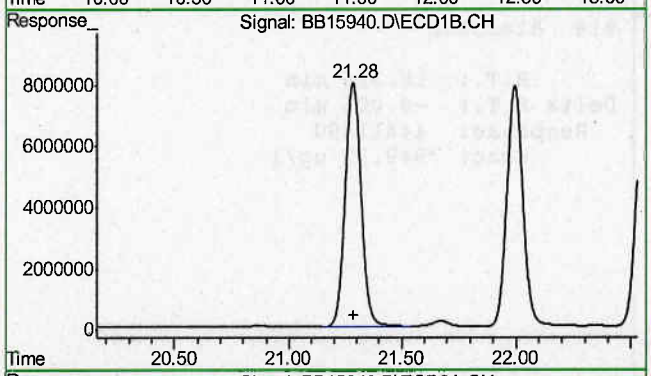
#15 Aldrin

R.T.: 19.271 min
Delta R.T.: -0.004 min
Response: 45741285
Conc: 948.58 ppb



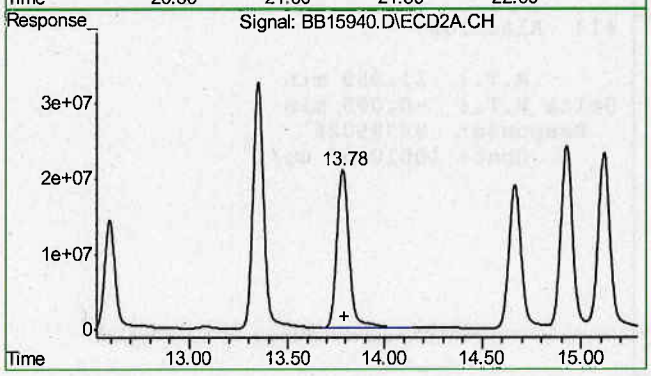
#15 Aldrin

R.T.: 11.418 min
Delta R.T.: -0.009 min
Response: 102474557
Conc: 983.02 ppb



#16 Heptachlor Epoxide

R.T.: 21.283 min
Delta R.T.: -0.002 min
Response: 39128093
Conc: 924.97 ppb

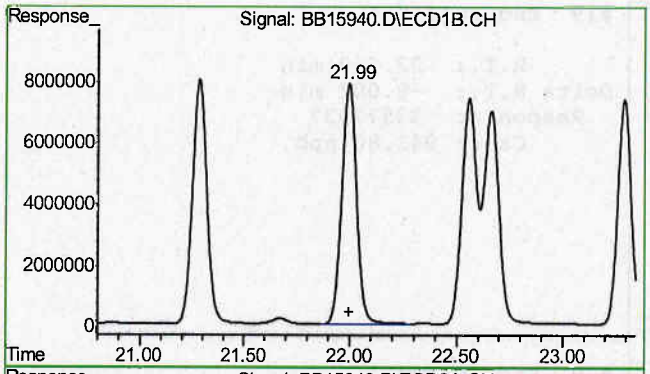


#16 Heptachlor Epoxide

R.T.: 13.783 min
Delta R.T.: -0.011 min
Response: 93324834
Conc: 931.03 ppb

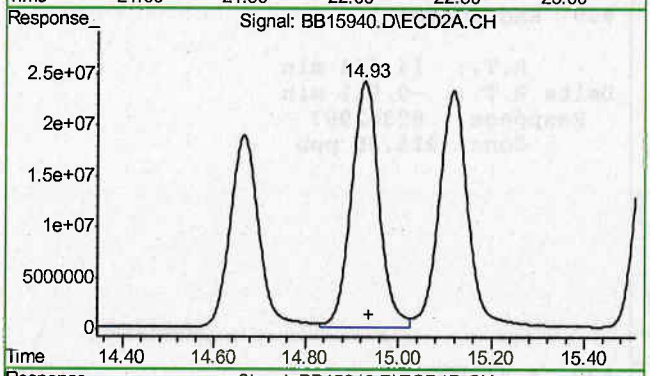
6.6.1

6



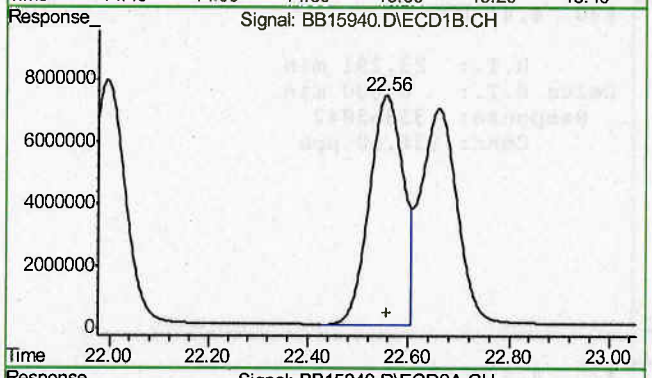
#17 gamma-Chlordane

R.T.: 21.995 min
Delta R.T.: -0.002 min
Response: 38341980
Conc: 933.82 ppb



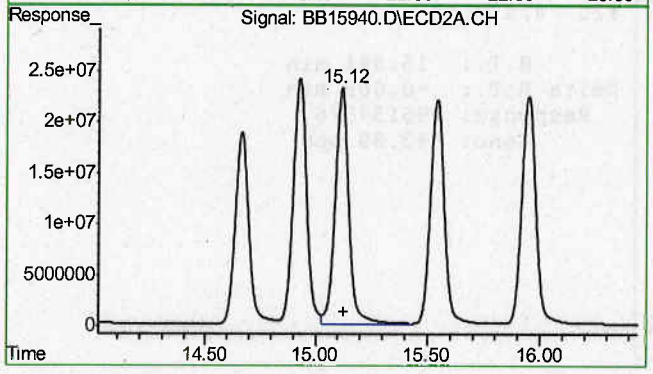
#17 gamma-Chlordane

R.T.: 14.926 min
Delta R.T.: -0.012 min
Response: 100641073
Conc: 963.47 ppb



#18 alpha-Chlordane

R.T.: 22.556 min
Delta R.T.: 0.000 min
Response: 34390099
Conc: 904.83 ppb

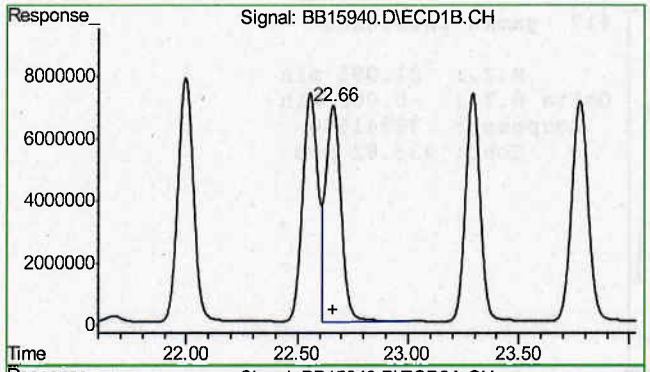


#18 alpha-Chlordane

R.T.: 15.118 min
Delta R.T.: -0.009 min
Response: 100164990
Conc: 971.54 ppb

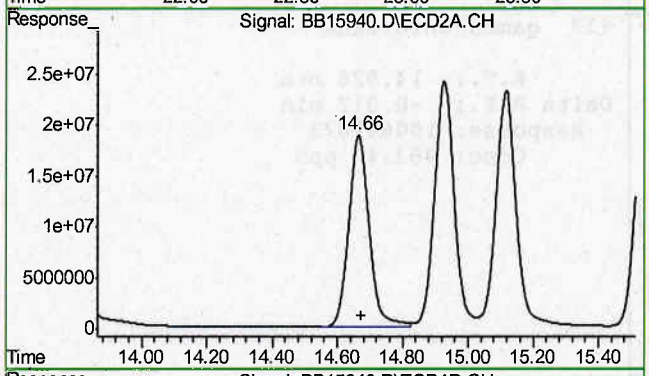
6.6.1

6



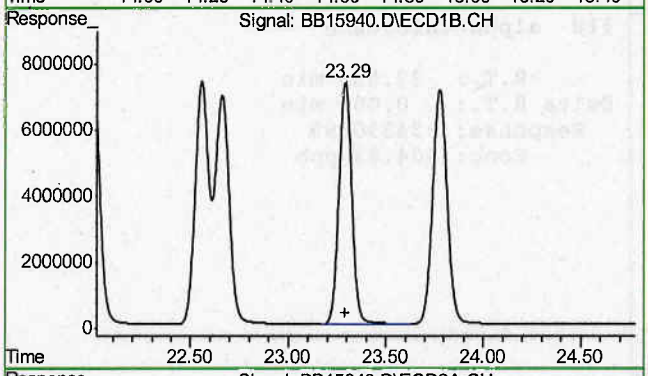
#19 Endosulfan-I

R.T.: 22.660 min
Delta R.T.: -0.002 min
Response: 33577537
Conc: 942.80 ppb



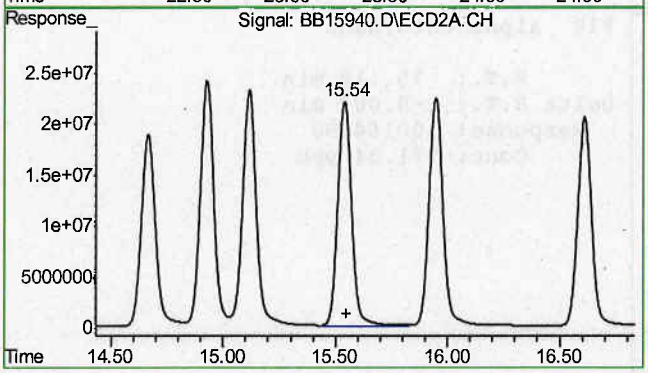
#19 Endosulfan-I

R.T.: 14.664 min
Delta R.T.: -0.011 min
Response: 82302997
Conc: 915.90 ppb



#20 4,4'-DDE

R.T.: 23.291 min
Delta R.T.: 0.000 min
Response: 33855842
Conc: 936.50 ppb

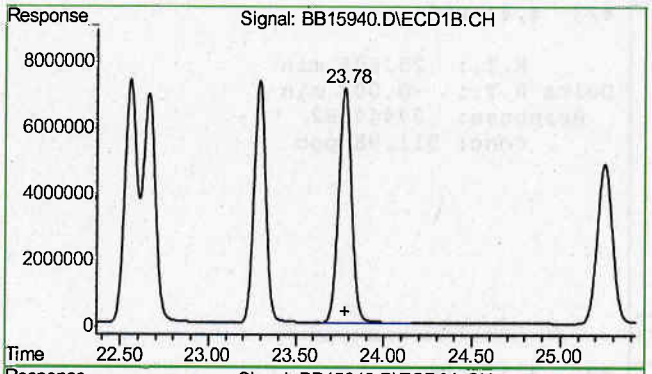


#20 4,4'-DDE

R.T.: 15.541 min
Delta R.T.: -0.009 min
Response: 95137576
Conc: 943.89 ppb

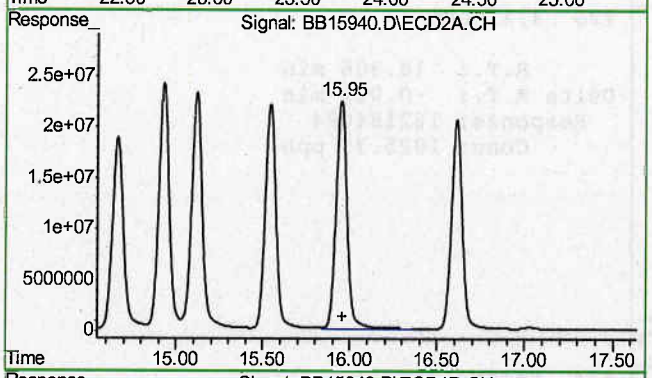
6.6.1

6



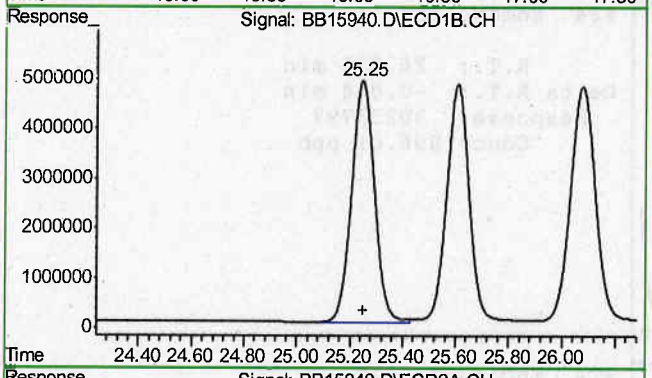
#21 Dieldrin

R.T.: 23.776 min
Delta R.T.: -0.002 min
Response: 37090484
Conc: 946.68 ppb



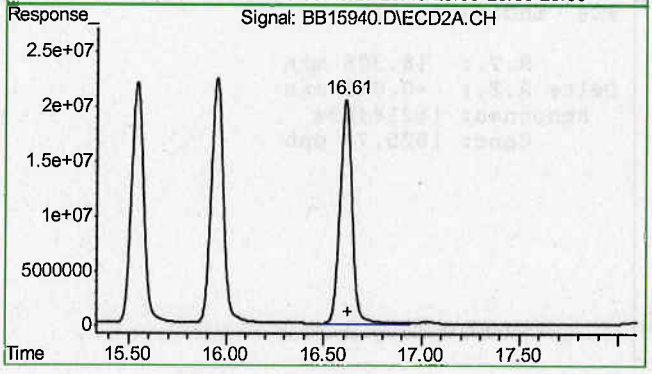
#21 Dieldrin

R.T.: 15.948 min
Delta R.T.: -0.011 min
Response: 98320803
Conc: 944.07 ppb



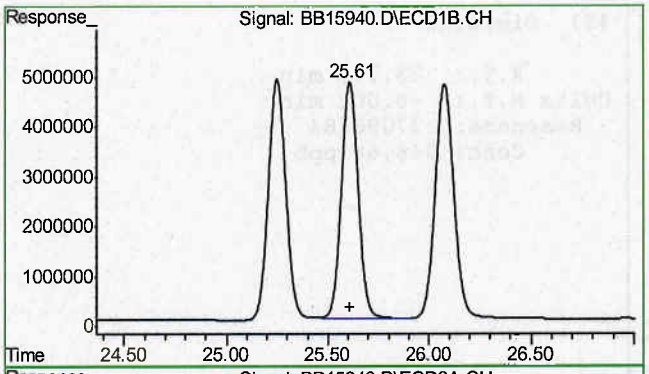
#22 Endrin

R.T.: 25.246 min
Delta R.T.: -0.006 min
Response: 29124139
Conc: 926.34 ppb



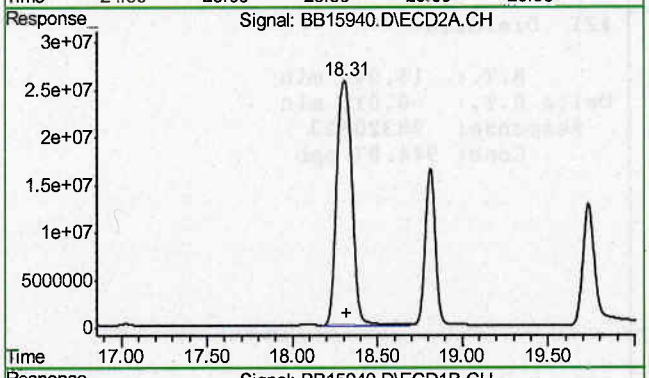
#22 Endrin

R.T.: 16.609 min
Delta R.T.: -0.011 min
Response: 88434845
Conc: 913.09 ppb



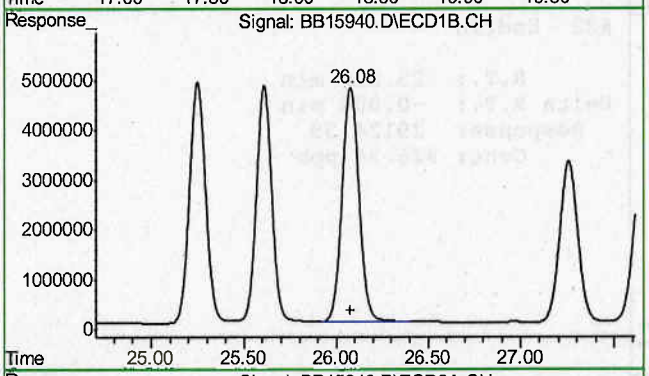
#23 4,4'-DDD

R.T.: 25.606 min
Delta R.T.: -0.002 min
Response: 27444282
Conc: 911.98 ppb



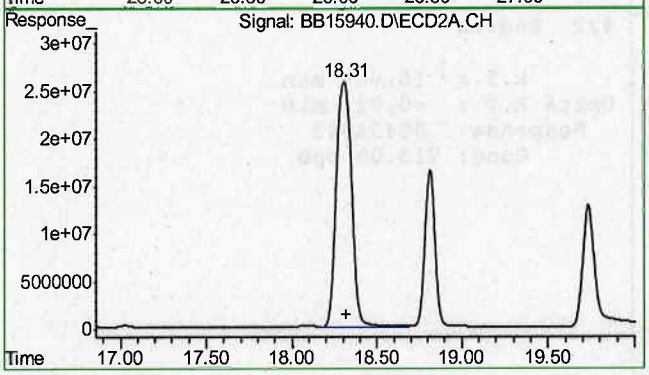
#23 4,4'-DDD

R.T.: 18.306 min
Delta R.T.: -0.011 min
Response: 162184094
Conc: 1825.79 ppb



#24 Endosulfan-II

R.T.: 26.076 min
Delta R.T.: -0.004 min
Response: 30231797
Conc: 896.01 ppb

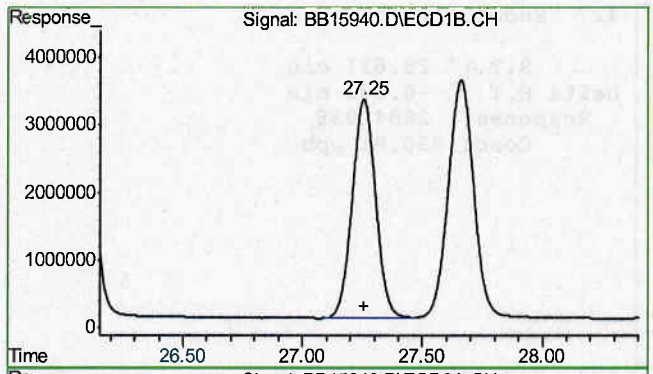


#24 Endosulfan-II

R.T.: 18.306 min
Delta R.T.: -0.011 min
Response: 162184094
Conc: 1825.79 ppb

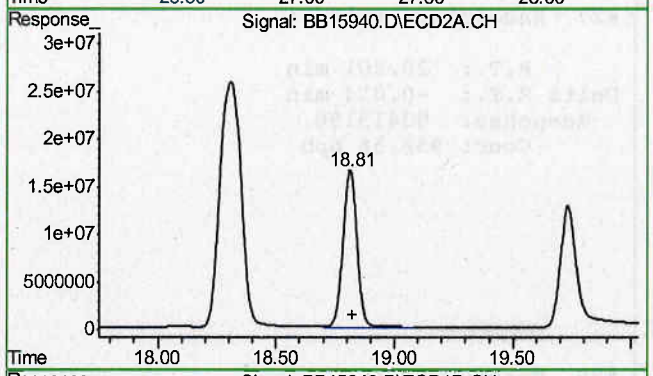
6.6.1

6



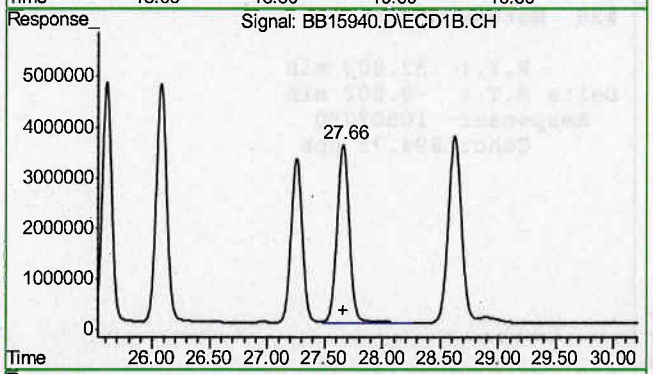
#25 4,4'-DDT

R.T.: 27.255 min
Delta R.T.: -0.004 min
Response: 21897086
Conc: 1134.04 ppb



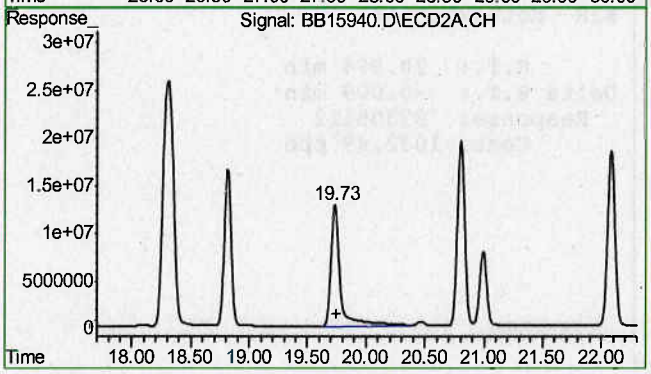
#25 4,4'-DDT

R.T.: 18.811 min
Delta R.T.: -0.012 min
Response: 67802341
Conc: 1301.20 ppb



#26 Endrin aldehyde

R.T.: 27.660 min
Delta R.T.: 0.000 min
Response: 25975998
Conc: 917.68 ppb

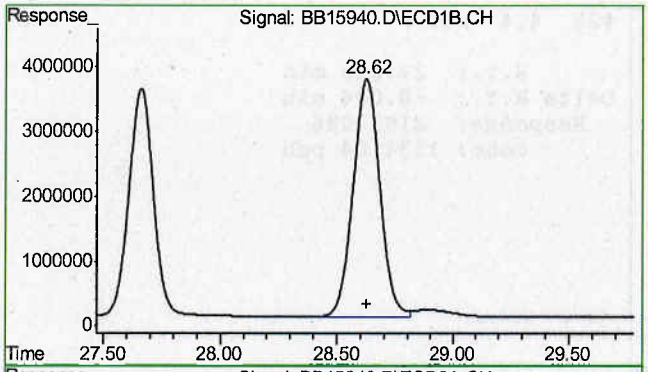


#26 Endrin aldehyde

R.T.: 19.729 min
Delta R.T.: -0.017 min
Response: 70952165
Conc: 955.00 ppb m

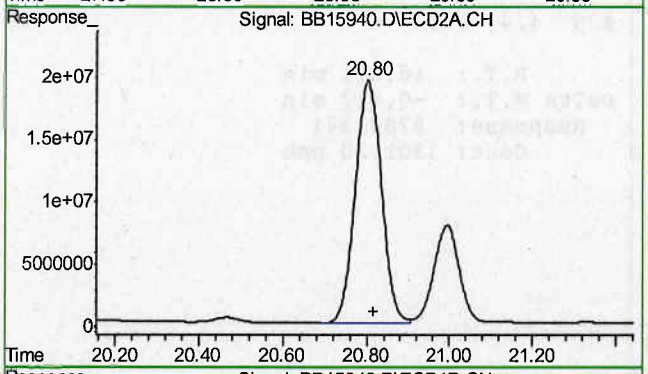
6.6.1

6



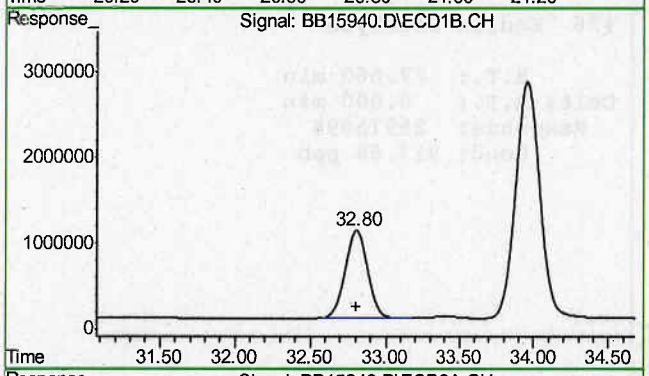
#27 Endosulfan sulfate

R.T.: 28.621 min
Delta R.T.: -0.006 min
Response: 28841036
Conc: 930.81 ppb



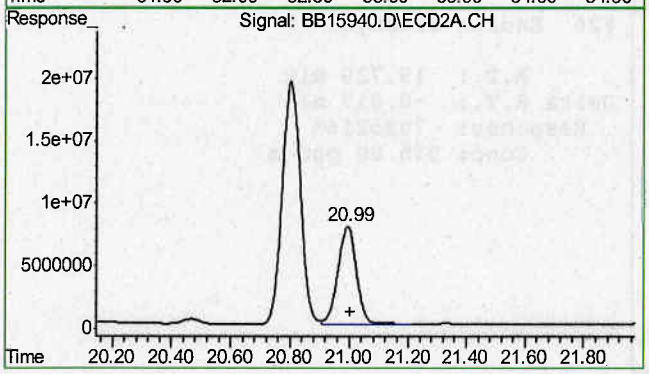
#27 Endosulfan sulfate

R.T.: 20.801 min
Delta R.T.: -0.014 min
Response: 83413196
Conc: 956.56 ppb



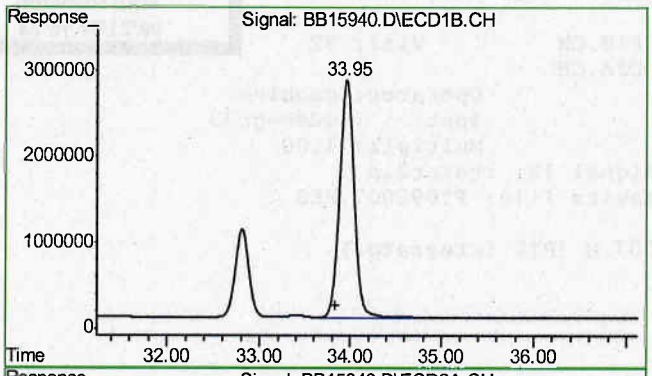
#28 Methoxychlor

R.T.: 32.803 min
Delta R.T.: -0.002 min
Response: 10507790
Conc: 894.75 ppb



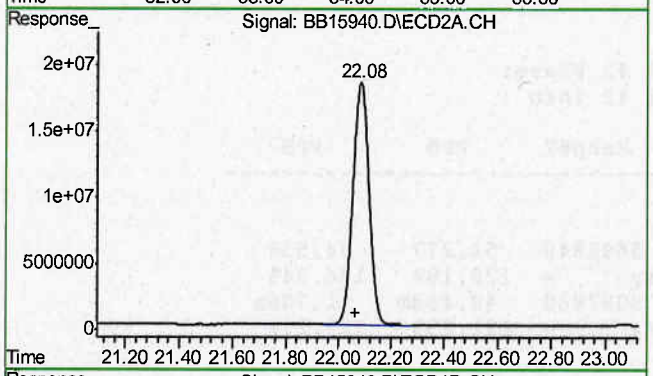
#28 Methoxychlor

R.T.: 20.994 min
Delta R.T.: -0.009 min
Response: 33305122
Conc: 1032.49 ppb



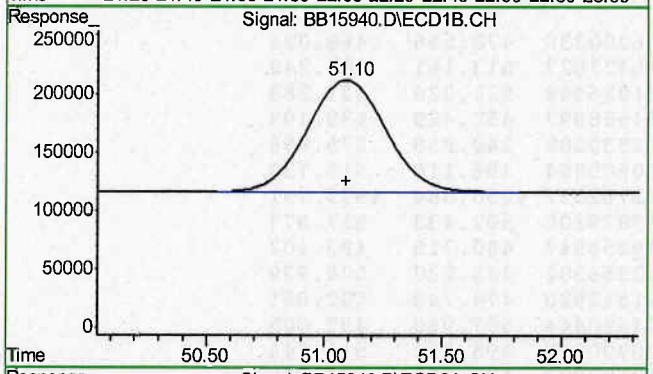
#29 Endrin ketone

R.T.: 33.955 min
Delta R.T.: 0.115 min
Response: 31093212
Conc: 906.54 ppb



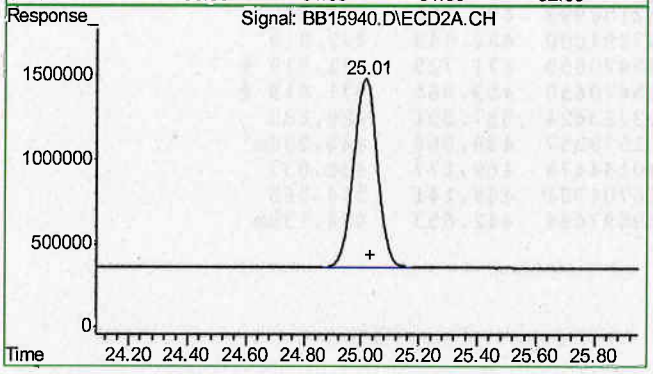
#29 Endrin ketone

R.T.: 22.084 min
Delta R.T.: 0.022 min
Response: 78654447
Conc: 970.43 ppb m



#38 DCB

R.T.: 51.100 min
Delta R.T.: 0.010 min
Response: 2256220
Conc: 61.19 ppb m



#38 DCB

R.T.: 25.014 min
Delta R.T.: -0.015 min
Response: 6476197
Conc: 65.42 ppb m

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15941.D\ECD1B.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\BB15941.D\ECD2A.CH
Acq On : 9-20-07 06:40:55 PM Operator: caobinz
Sample : ic667-500,pest 500 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:31:03 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:29:36 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	2138508	5692849	51.277	54.538
	Spiked Amount 40.000			Recovery	=	128.19%	136.34%
38) s	DCB	51.06	25.01	1766805	5092880	48.493m	51.706m
	Spiked Amount 40.000			Recovery	=	121.23%	129.27%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.91	24524997	56000330	470.556	466.024
9)	alpha-BHC	14.88	8.52	32216381	65427027	513.161	507.248
10)	gamma-BHC	16.40	9.86	26871806	61056968	521.328	531.283
11)	beta-BHC	16.63	12.59	10637154	24556997	452.429	439.199
12)	Heptachlor	17.98	10.50	18824962	51530085	548.858	575.856
13)	delta-BHC	18.04	13.34	27328151	60605864	496.118	515.739
14)	Alachlor	18.33	11.95	22337081	42762537	4050.584	4939.791
15)	Aldrin	19.27	11.41	23916661	53879205	502.433	517.977
16)	Heptachlor Epoxi	21.28	13.78	20068953	49256847	480.715	493.107
17)	gamma-Chlordane	21.99	14.92	19639714	52356381	485.220	506.939
18)	alpha-Chlordane	22.55	15.11	17878757	51512920	478.743	502.981
19)	Endosulfan-I	22.66	14.66	17790669	44450464	507.960	497.008
20)	4,4'-DDE	23.29	15.54	17596394	50900237	495.750	511.244
21)	Dieldrin	23.77	15.94	19060318	52158993	495.150	504.515
22)	Endrin	25.24	16.60	14830159	47294000	482.443	492.819
23)	4,4'-DDD	25.60	18.29	13848653	85470655	471.725	971.819 #
24)	Endosulfan-II	26.07	18.29	15210213	85470655	459.565	971.819 #
25)	4,4'-DDT	27.25	18.81	10335754	32723624	537.251	620.685
26)	Endrin aldehyde	27.65	19.73	11263949	31579557	438.966	446.238m
27)	Endosulfan sulfa	28.61	20.80	13216455	40144478	460.177	480.037
28)	Methoxychlor	32.80	20.99	5186883	16704931	448.141	514.565
29)	Endrin ketone	33.94	22.08	14991358	39097664	442.653	484.139m

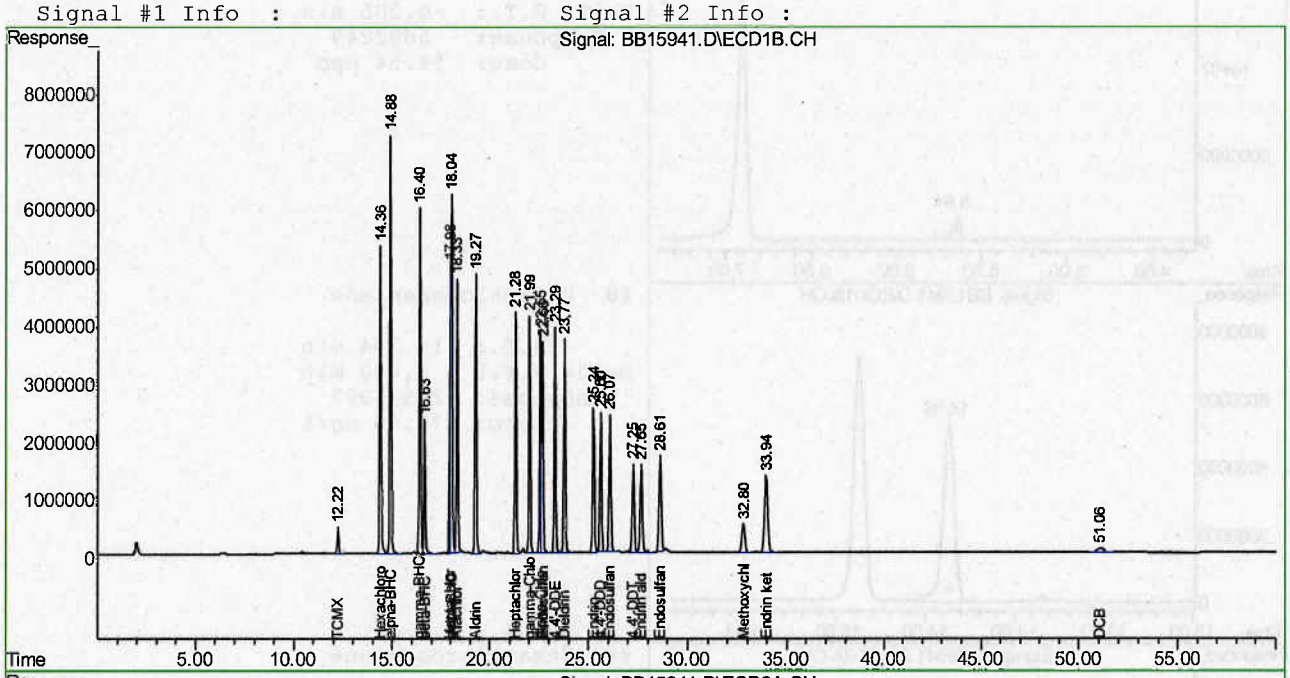
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15941.D PT092007.M Fri Sep 21 10:35:08 2007 GC23PRN

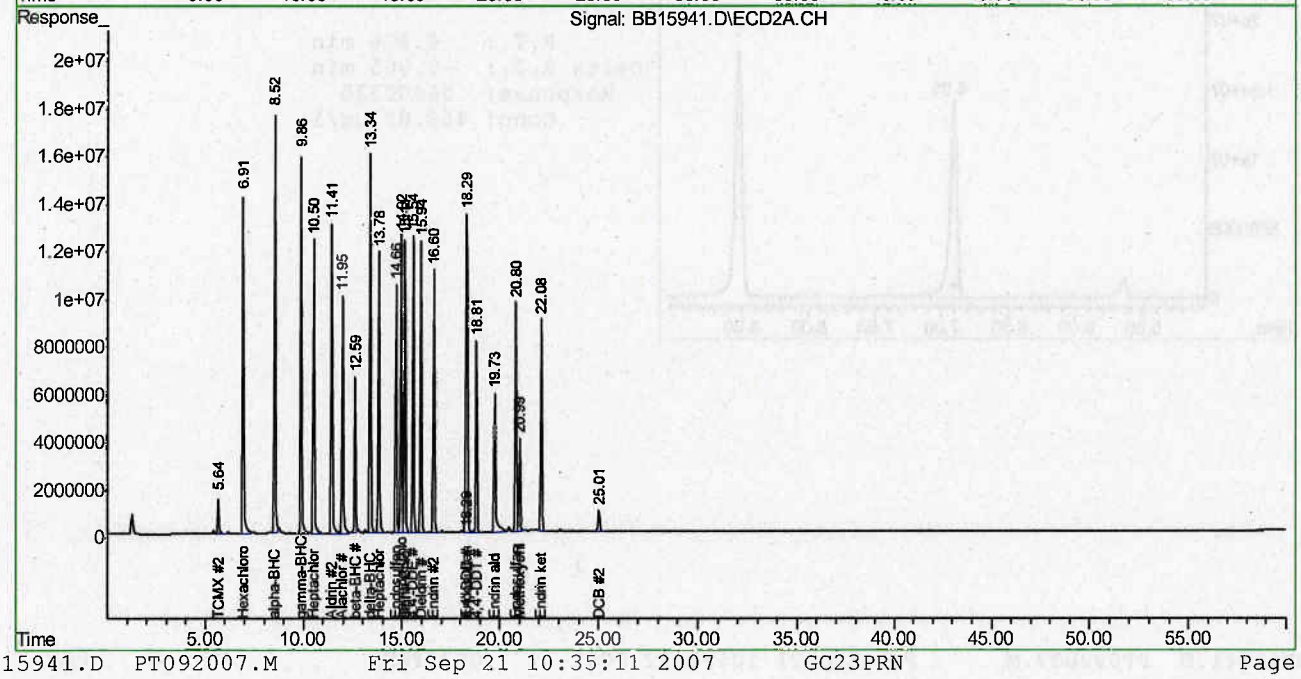
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15941.D\ECD1B.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\BB15941.D\ECD2A.CH
Acq On : 9-20-07 06:40:55 PM Operator: caobinz
Sample : ic667-500,pest 500 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:34 2007 Quant Results File: PT092007.RES

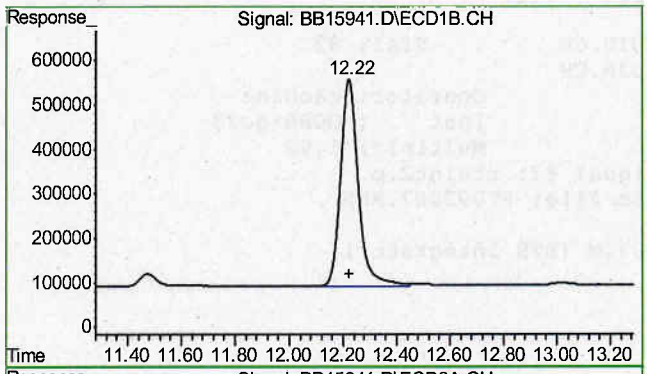
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:29:36 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



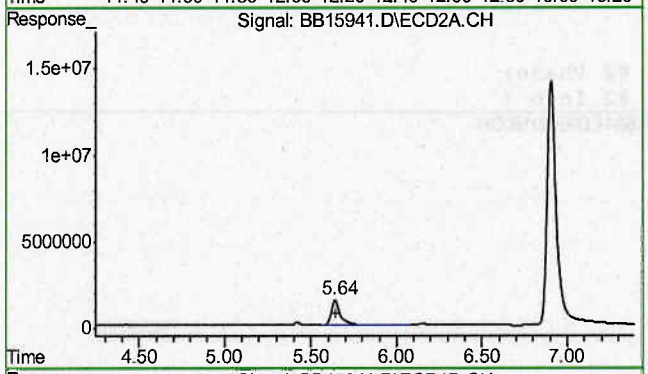


ACCUTEST Laboratories M67604



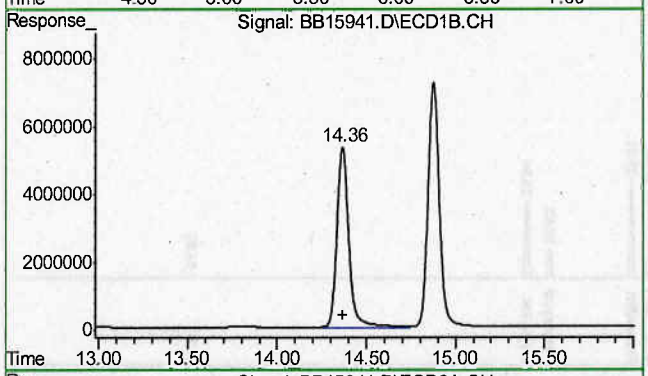
#1 TCMX

R.T.: 12.221 min
Delta R.T.: -0.004 min
Response: 2138508
Conc: 51.28 ppb



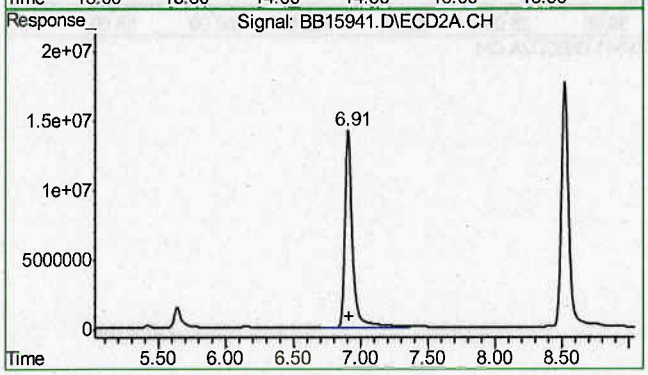
#1 TCMX

R.T.: 5.639 min
Delta R.T.: -0.005 min
Response: 5692849
Conc: 54.54 ppb



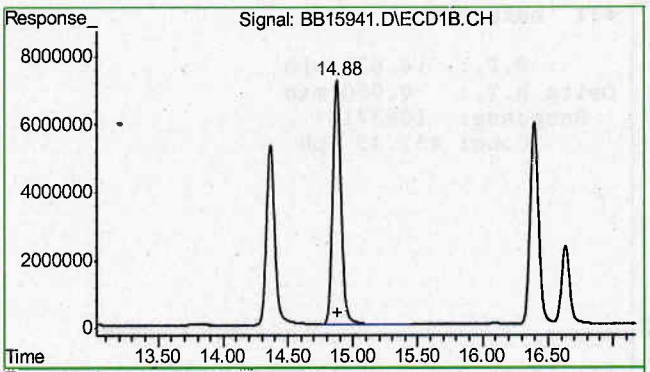
#8 Hexachlorobenzene

R.T.: 14.364 min
Delta R.T.: 0.000 min
Response: 24524997
Conc: 470.56 ug/l



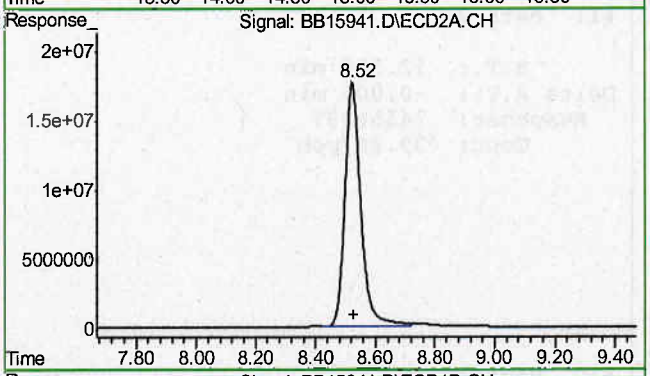
#8 Hexachlorobenzene

R.T.: 6.906 min
Delta R.T.: -0.005 min
Response: 56000330
Conc: 466.02 ug/l



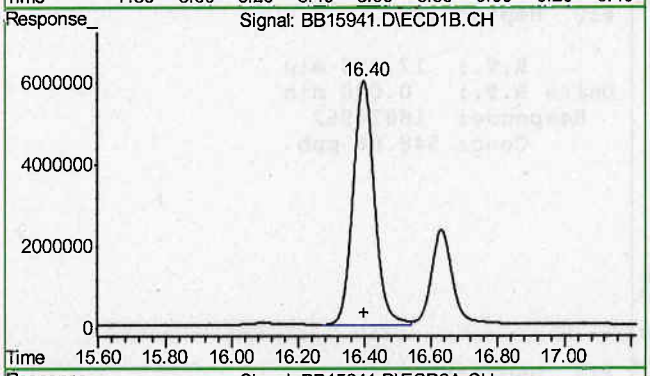
#9 alpha-BHC

R.T.: 14.876 min
Delta R.T.: -0.002 min
Response: 32216381
Conc: 513.16 ppb



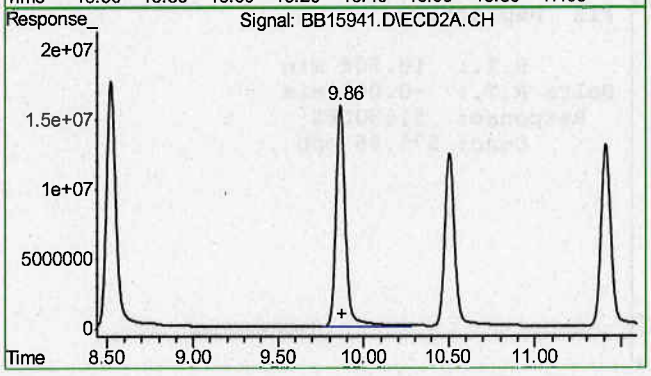
#9 alpha-BHC

R.T.: 8.522 min
Delta R.T.: -0.007 min
Response: 65427027
Conc: 507.25 ppb



#10 gamma-BHC

R.T.: 16.396 min
Delta R.T.: 0.000 min
Response: 26871806
Conc: 521.33 ppb

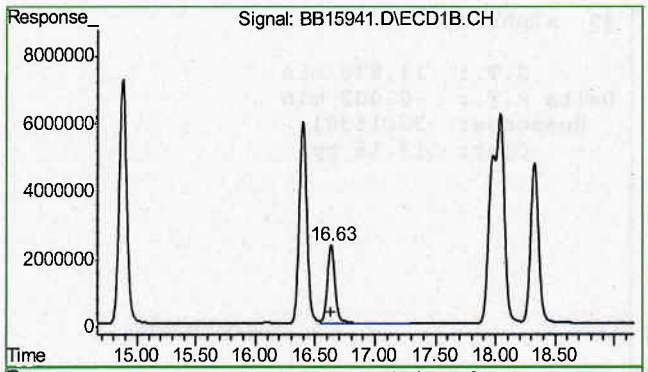


#10 gamma-BHC

R.T.: 9.862 min
Delta R.T.: -0.009 min
Response: 61056968
Conc: 531.28 ppb

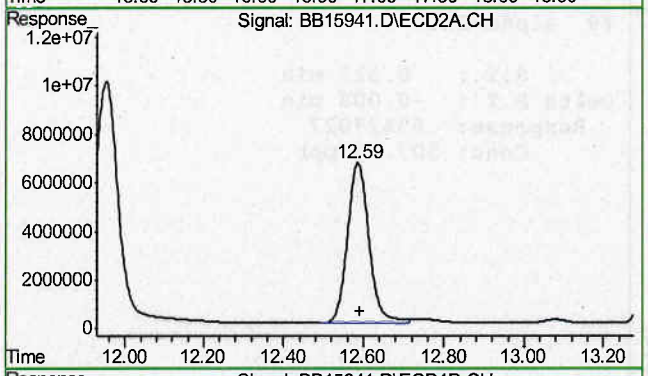
6.6.2

6



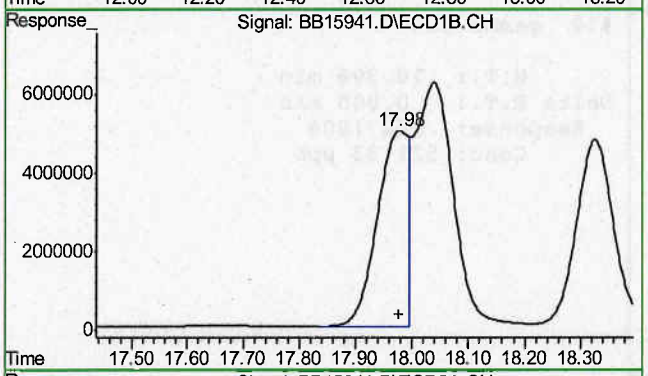
#11 beta-BHC

R.T.: 16.633 min
Delta R.T.: 0.000 min
Response: 10637154
Conc: 452.43 ppb



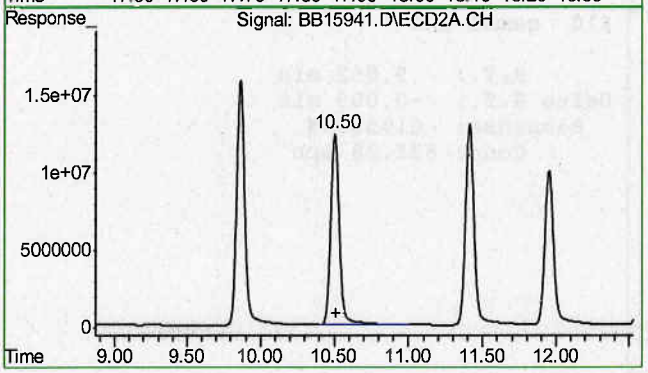
#11 beta-BHC

R.T.: 12.586 min
Delta R.T.: -0.005 min
Response: 24556997
Conc: 439.20 ppb



#12 Heptachlor

R.T.: 17.976 min
Delta R.T.: 0.000 min
Response: 18824962
Conc: 548.86 ppb

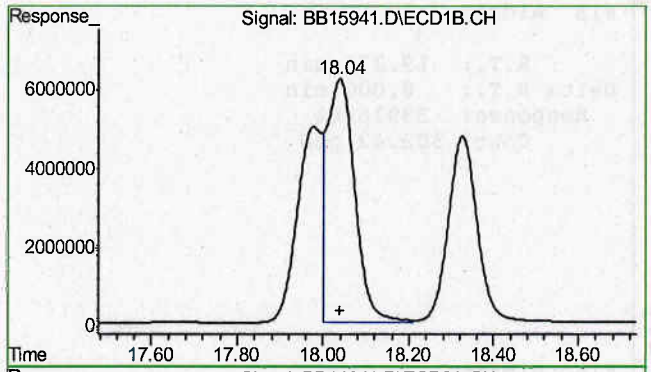


#12 Heptachlor

R.T.: 10.504 min
Delta R.T.: -0.007 min
Response: 51530085
Conc: 575.86 ppb

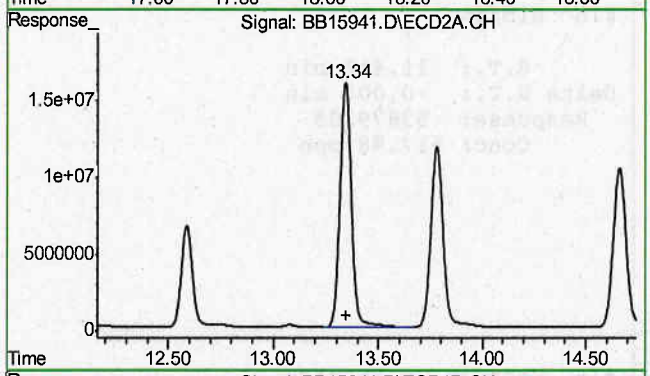
6.6.2

6



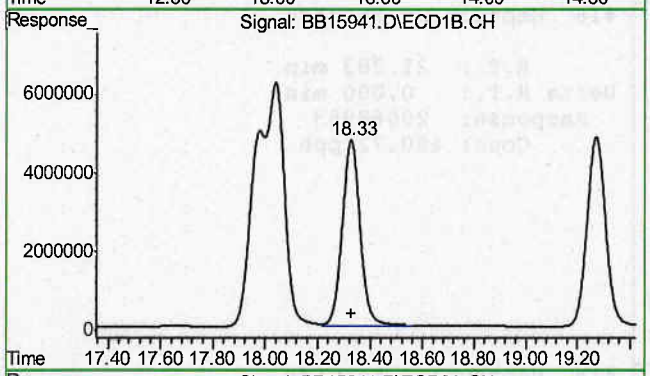
#13 delta-BHC

R.T.: 18.038 min
Delta R.T.: -0.002 min
Response: 27328151
Conc: 496.12 ppb



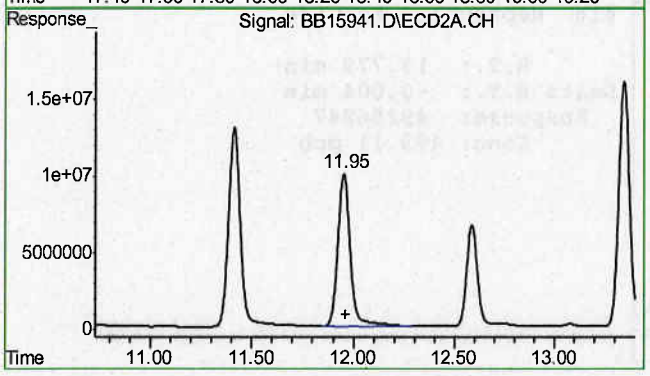
#13 delta-BHC

R.T.: 13.342 min
Delta R.T.: -0.005 min
Response: 60605864
Conc: 515.74 ppb



#14 Alachlor

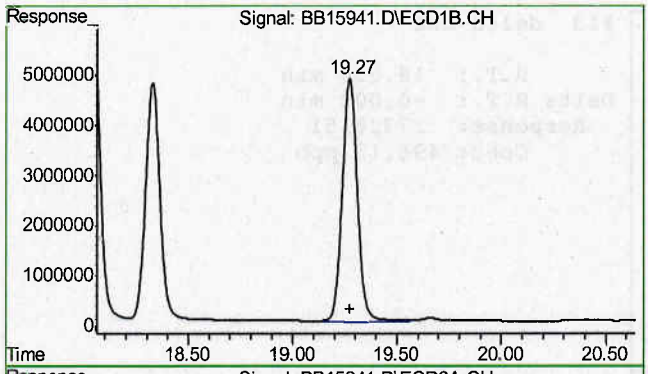
R.T.: 18.326 min
Delta R.T.: 0.000 min
Response: 22337081
Conc: 4050.58 ug/l



#14 Alachlor

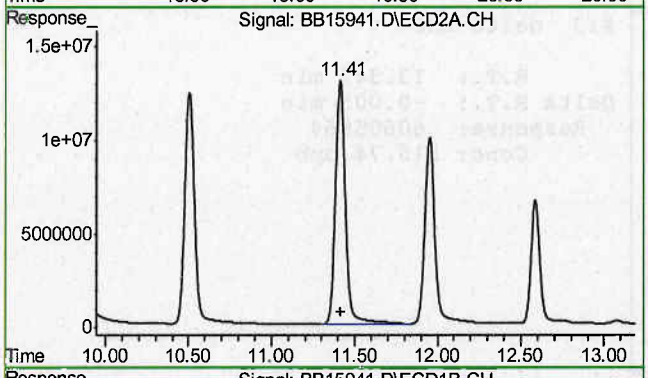
R.T.: 11.952 min
Delta R.T.: -0.007 min
Response: 42762537
Conc: 4939.79 ug/l

6.6.2 6



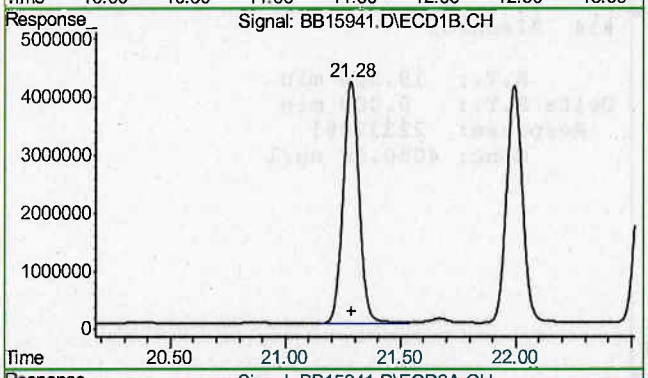
#15 Aldrin

R.T.: 19.271 min
Delta R.T.: 0.000 min
Response: 23916661
Conc: 502.43 ppb



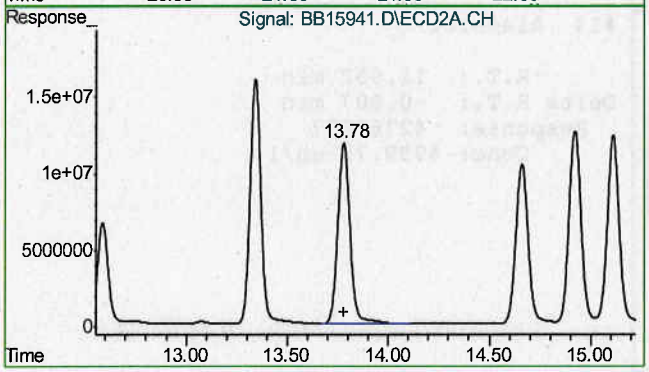
#15 Aldrin

R.T.: 11.412 min
Delta R.T.: -0.005 min
Response: 53879205
Conc: 517.98 ppb



#16 Heptachlor Epoxide

R.T.: 21.283 min
Delta R.T.: 0.000 min
Response: 20068953
Conc: 480.72 ppb

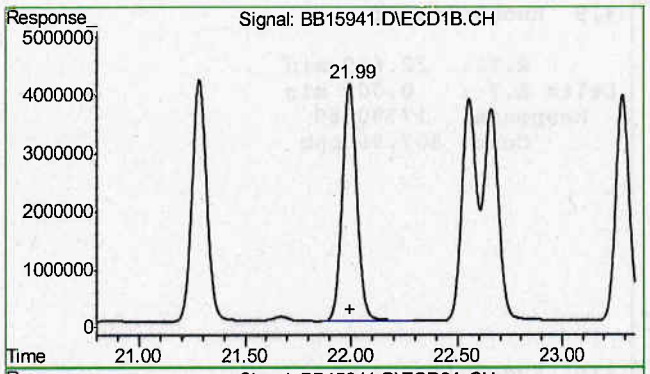


#16 Heptachlor Epoxide

R.T.: 13.779 min
Delta R.T.: -0.004 min
Response: 49256847
Conc: 493.11 ppb

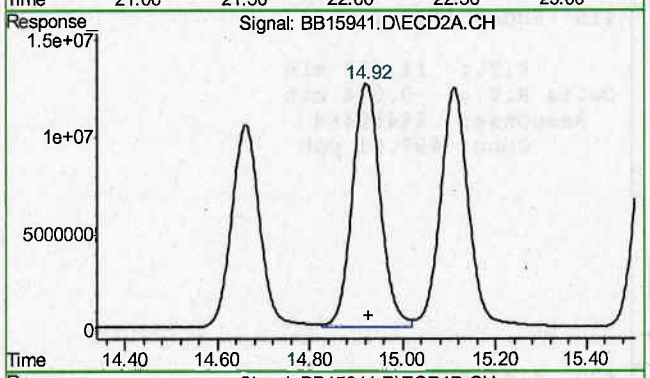
6.6.2

6



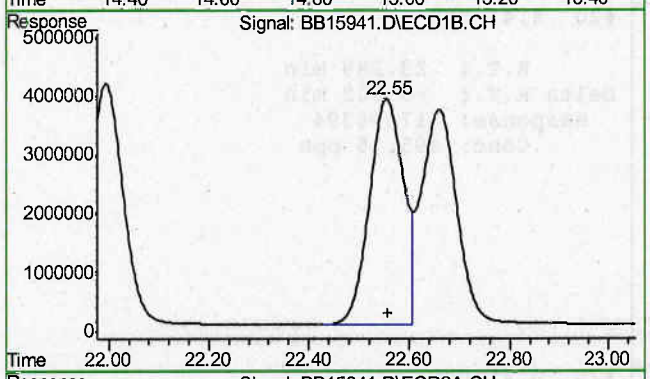
#17 gamma-Chlordane

R.T.: 21.994 min
Delta R.T.: 0.000 min
Response: 19639714
Conc: 485.22 ppb



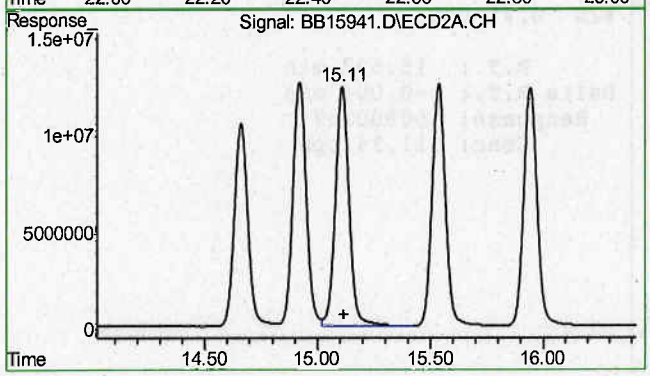
#17 gamma-Chlordane

R.T.: 14.922 min
Delta R.T.: -0.004 min
Response: 52356381
Conc: 506.94 ppb



#18 alpha-Chlordane

R.T.: 22.554 min
Delta R.T.: -0.002 min
Response: 17878757
Conc: 478.74 ppb

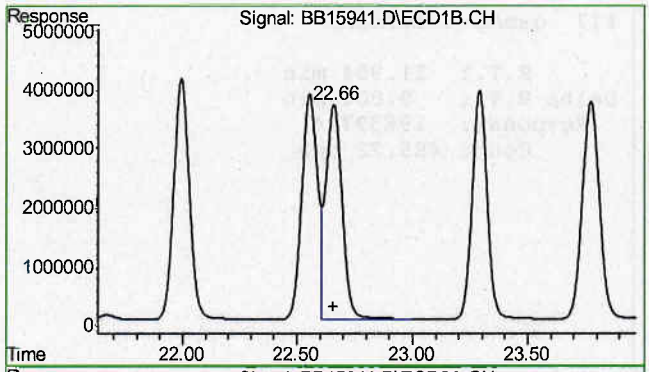


#18 alpha-Chlordane

R.T.: 15.111 min
Delta R.T.: -0.007 min
Response: 51512920
Conc: 502.98 ppb

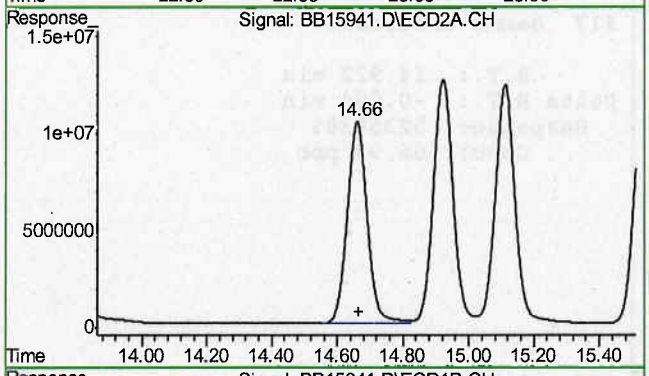
6.6.2

6



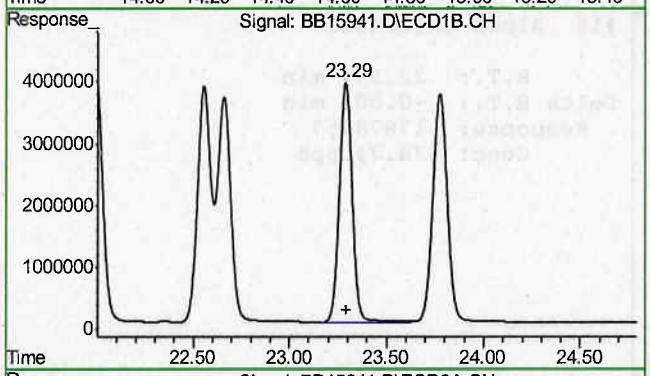
#19 Endosulfan-I

R.T.: 22.659 min
Delta R.T.: 0.000 min
Response: 17790669
Conc: 507.96 ppb



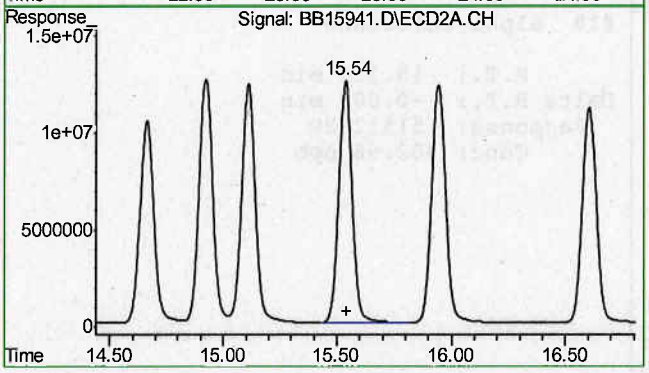
#19 Endosulfan-I

R.T.: 14.661 min
Delta R.T.: -0.004 min
Response: 44450464
Conc: 497.01 ppb



#20 4,4'-DDE

R.T.: 23.289 min
Delta R.T.: -0.002 min
Response: 17596394
Conc: 495.75 ppb



#20 4,4'-DDE

R.T.: 15.537 min
Delta R.T.: -0.004 min
Response: 50900237
Conc: 511.24 ppb

6.6.2

6

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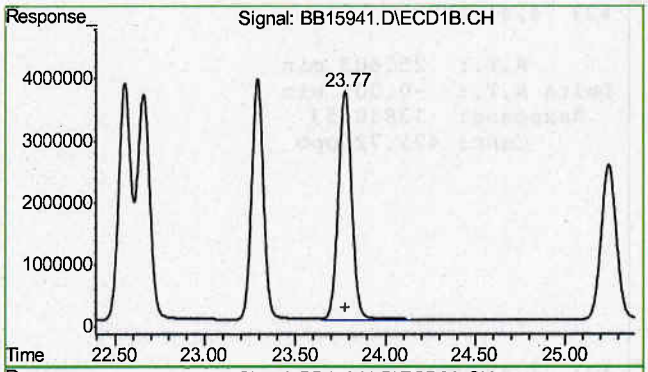
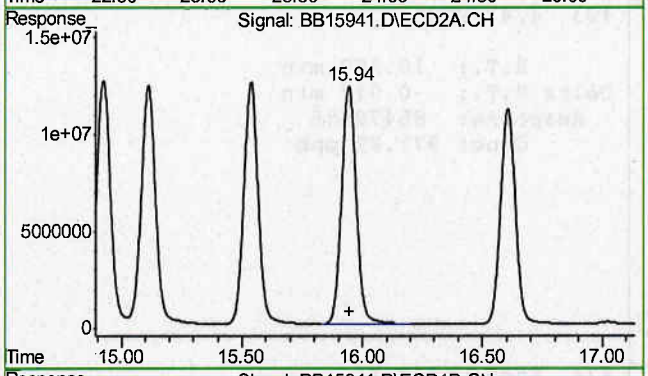


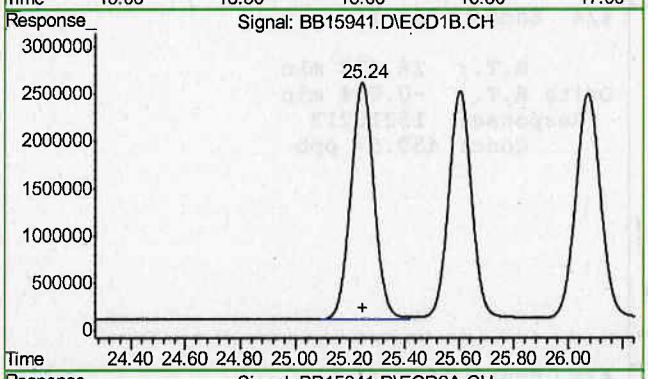
#21 Dieldrin

R.T.: 23.774 min
Delta R.T.: -0.002 min
Response: 19060318
Conc: 495.15 ppb



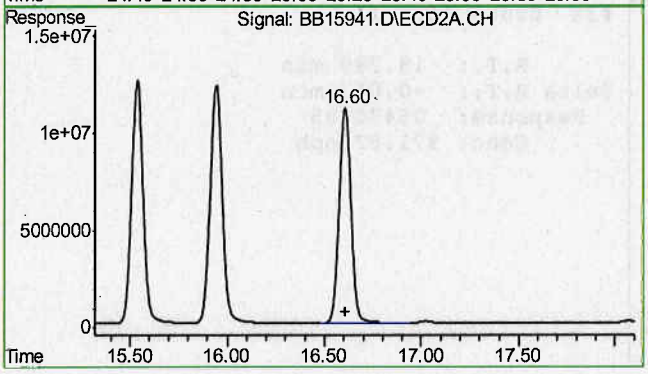
#21 Dieldrin

R.T.: 15.942 min
Delta R.T.: -0.005 min
Response: 52158993
Conc: 504.51 ppb



#22 Endrin

R.T.: 25.244 min
Delta R.T.: -0.002 min
Response: 14830159
Conc: 482.44 ppb

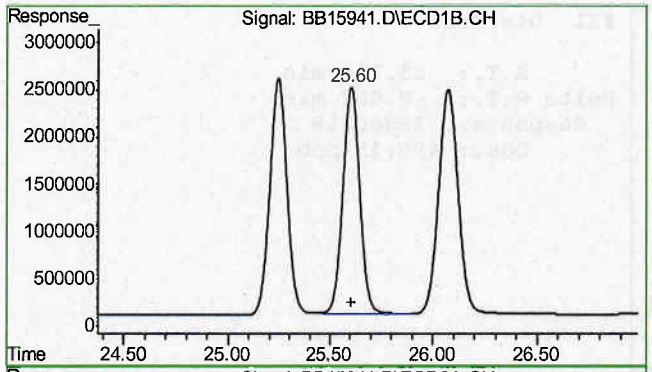


#22 Endrin

R.T.: 16.604 min
Delta R.T.: -0.005 min
Response: 47294000
Conc: 492.82 ppb

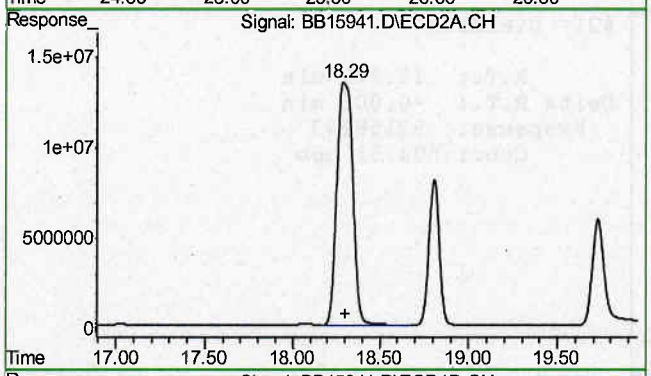
6.6.2

6



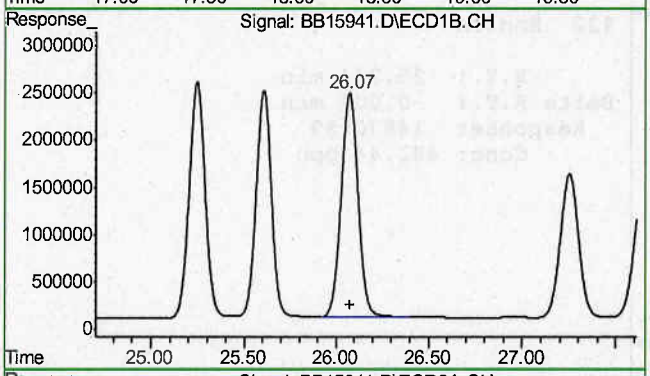
#23 4,4'-DDD

R.T.: 25.603 min
Delta R.T.: -0.004 min
Response: 13848653
Conc: 471.72 ppb



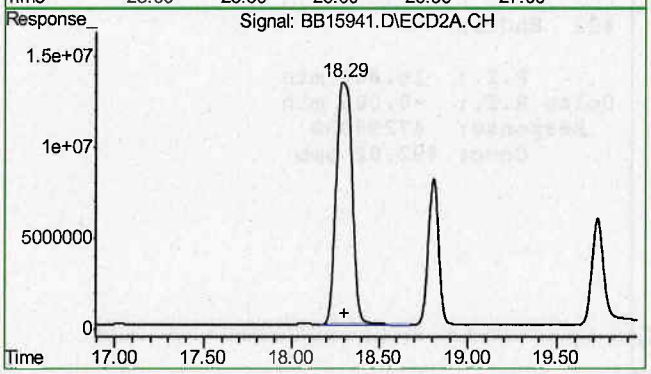
#23 4,4'-DDD

R.T.: 18.289 min
Delta R.T.: -0.017 min
Response: 85470655
Conc: 971.82 ppb



#24 Endosulfan-II

R.T.: 26.073 min
Delta R.T.: -0.004 min
Response: 15210213
Conc: 459.57 ppb

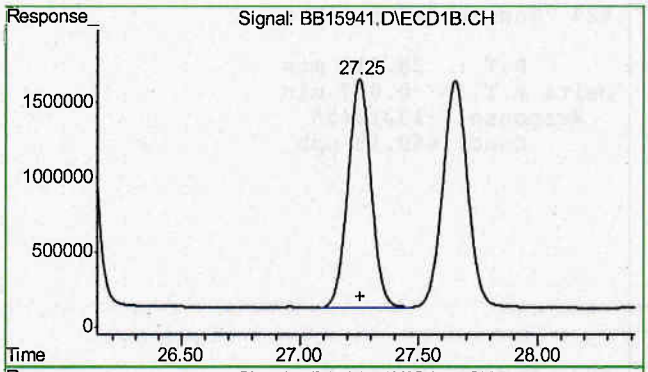


#24 Endosulfan-II

R.T.: 18.289 min
Delta R.T.: -0.017 min
Response: 85470655
Conc: 971.82 ppb

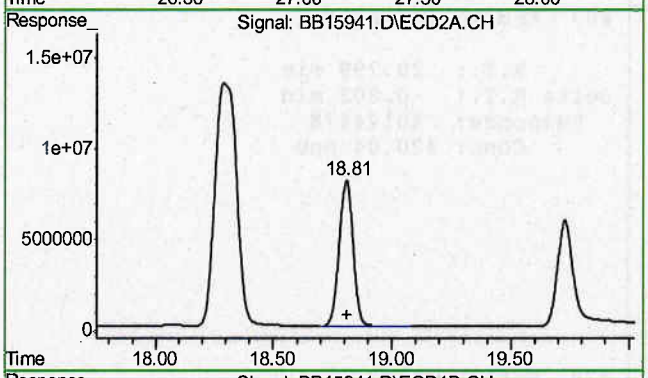
6.6.2

6



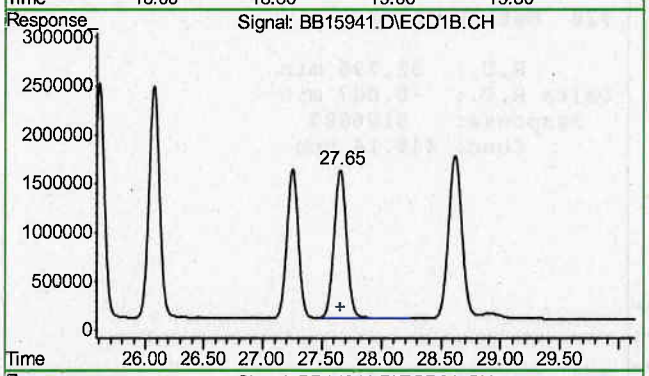
#25 4,4'-DDT

R.T.: 27.251 min
Delta R.T.: -0.004 min
Response: 10335754
Conc: 537.25 ppb



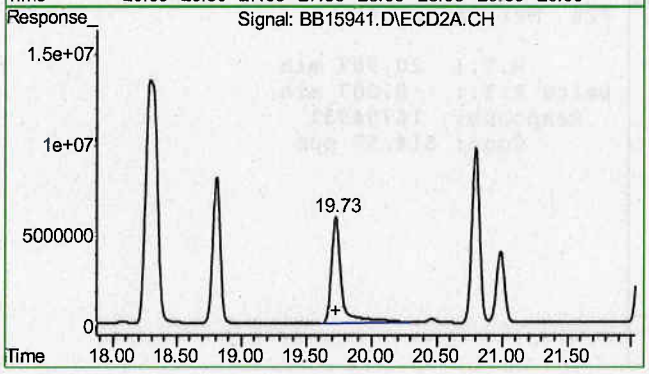
#25 4,4'-DDT

R.T.: 18.809 min
Delta R.T.: -0.002 min
Response: 32723624
Conc: 620.69 ppb



#26 Endrin aldehyde

R.T.: 27.653 min
Delta R.T.: -0.007 min
Response: 11263949
Conc: 438.97 ppb

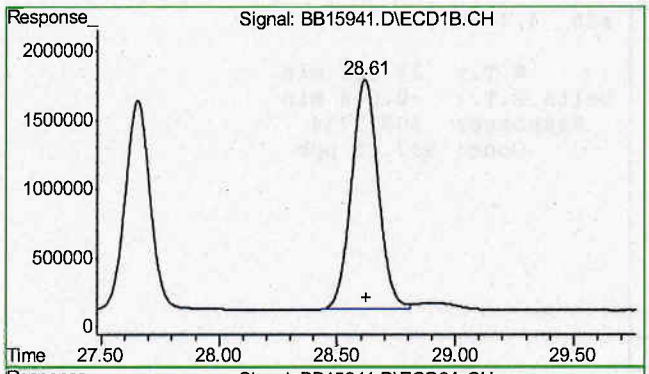


#26 Endrin aldehyde

R.T.: 19.726 min
Delta R.T.: -0.004 min
Response: 31579557
Conc: 446.24 ppb m

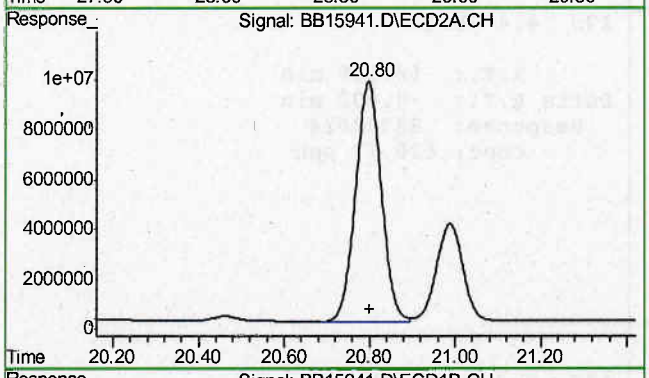
6.6.2

6



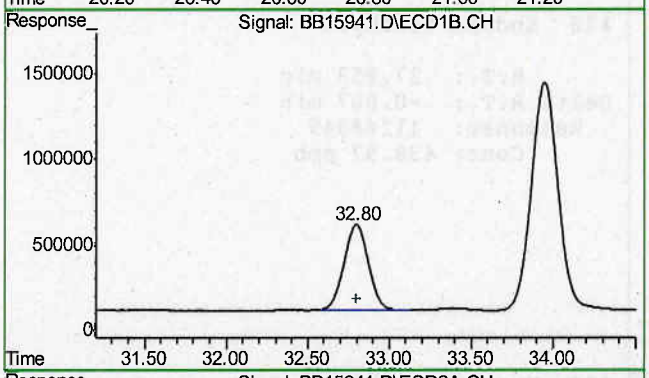
#27 Endosulfan sulfate

R.T.: 28.614 min
Delta R.T.: -0.007 min
Response: 13216455
Conc: 460.18 ppb



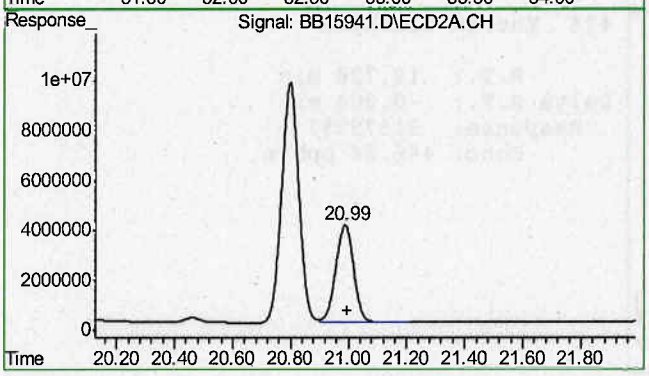
#27 Endosulfan sulfate

R.T.: 20.799 min
Delta R.T.: -0.002 min
Response: 40144478
Conc: 480.04 ppb



#28 Methoxychlor

R.T.: 32.796 min
Delta R.T.: -0.007 min
Response: 5186883
Conc: 448.14 ppb



#28 Methoxychlor

R.T.: 20.987 min
Delta R.T.: -0.007 min
Response: 16704931
Conc: 514.57 ppb

6.6.2

6

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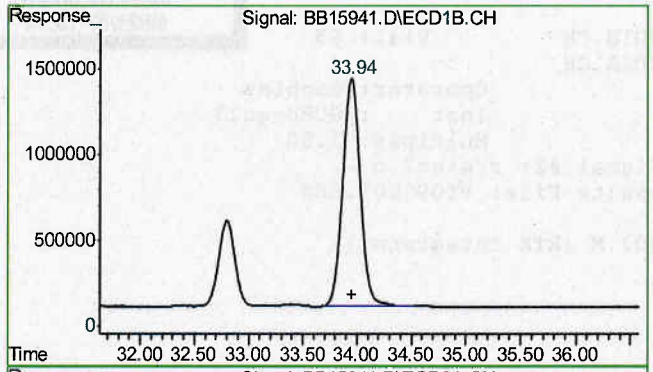
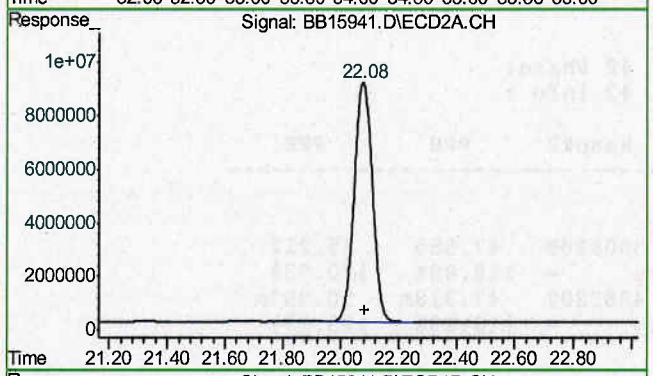


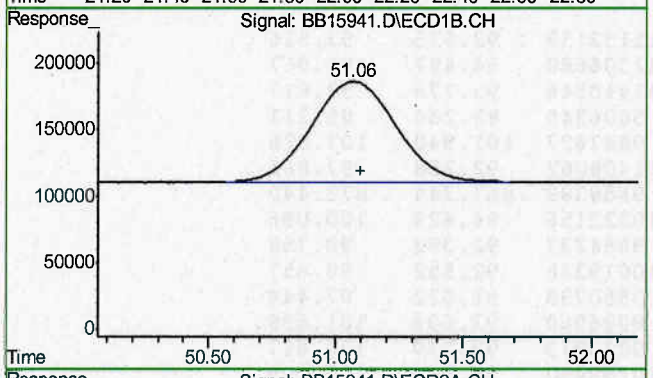
#29 Endrin ketone

R.T.: 33.944 min
Delta R.T.: -0.010 min
Response: 14991358
Conc: 442.65 ppb



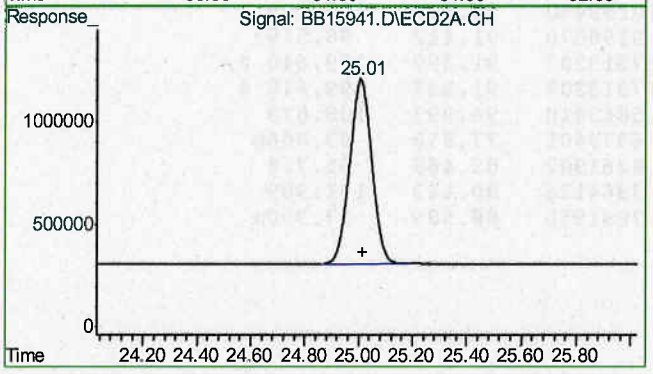
#29 Endrin ketone

R.T.: 22.077 min
Delta R.T.: -0.007 min
Response: 39097664
Conc: 484.14 ppb m



#38 DCB

R.T.: 51.058 min
Delta R.T.: -0.042 min
Response: 1766805
Conc: 48.49 ppb m



#38 DCB

R.T.: 25.007 min
Delta R.T.: -0.007 min
Response: 5092880
Conc: 51.71 ppb m

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15942.D\ECD1B.CH Vial: 93
Signal #2 : C:\MSDCHEM\1\DATA\BB15942.D\ECD2A.CH
Acq On : 9-20-07 07:46:02 PM Operator: caobinz
Sample : icc667-100,pest 100 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:35:56 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:34:52 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	1952737	5005369	47.555	48.212
	Spiked Amount 40.000			Recovery	=	118.89%	120.53%
38) s	DCB	51.06	25.01	1696381	4882205	47.318m	50.053m
	Spiked Amount 40.000			Recovery	=	118.29%	125.13%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	4738895	11153139	92.575	93.516
9)	alpha-BHC	14.87	8.52	5828642	12306680	94.447	95.967
10)	gamma-BHC	16.39	9.86	4905754	11410546	95.776	98.917
11)	beta-BHC	16.63	12.58	2109351	5006345	82.234	85.211
12)	Heptachlor	17.97	10.50	3472232	9847627	101.940	107.826
13)	delta-BHC	18.03	13.34	4996386	11408062	92.258	97.861
14)	Alachlor	18.32	11.95	4695641	9658389	867.344	872.440
15)	Aldrin	19.27	11.41	4432862	10322156	94.629	100.096
16)	Heptachlor Epoxi	21.28	13.77	3801530	9884237	92.383	99.758
17)	gamma-Chlordane	21.99	14.92	3684520	10019348	92.552	98.657
18)	alpha-Chlordane	22.55	15.11	3361685	9850739	91.622	97.444
19)	Endosulfan-I	22.65	14.66	3266809	8996960	93.696	101.638
20)	4,4'-DDE	23.28	15.53	3242967	9813973	93.279	100.617
21)	Dieldrin	23.77	15.94	3515246	10299490	93.049	101.199
22)	Endrin	25.24	16.60	2743945	9296570	91.412	98.519
23)	4,4'-DDD	25.60	18.31	2624000	17313207	91.399	199.640 #
24)	Endosulfan-II	26.07	18.31	2973830	17313207	91.337	199.640 #
25)	4,4'-DDT	27.25	18.81	1886334	5863410	96.993	108.879
26)	Endrin aldehyde	27.65	19.73	2233012	6373601	77.878	83.866m
27)	Endosulfan sulfa	28.61	20.80	2636955	8261902	83.468	91.718
28)	Methoxychlor	32.79	20.98	1049060	3364136	90.643	101.909
29)	Endrin ketone	33.95	22.08	2982866	7891955	88.589	97.900m

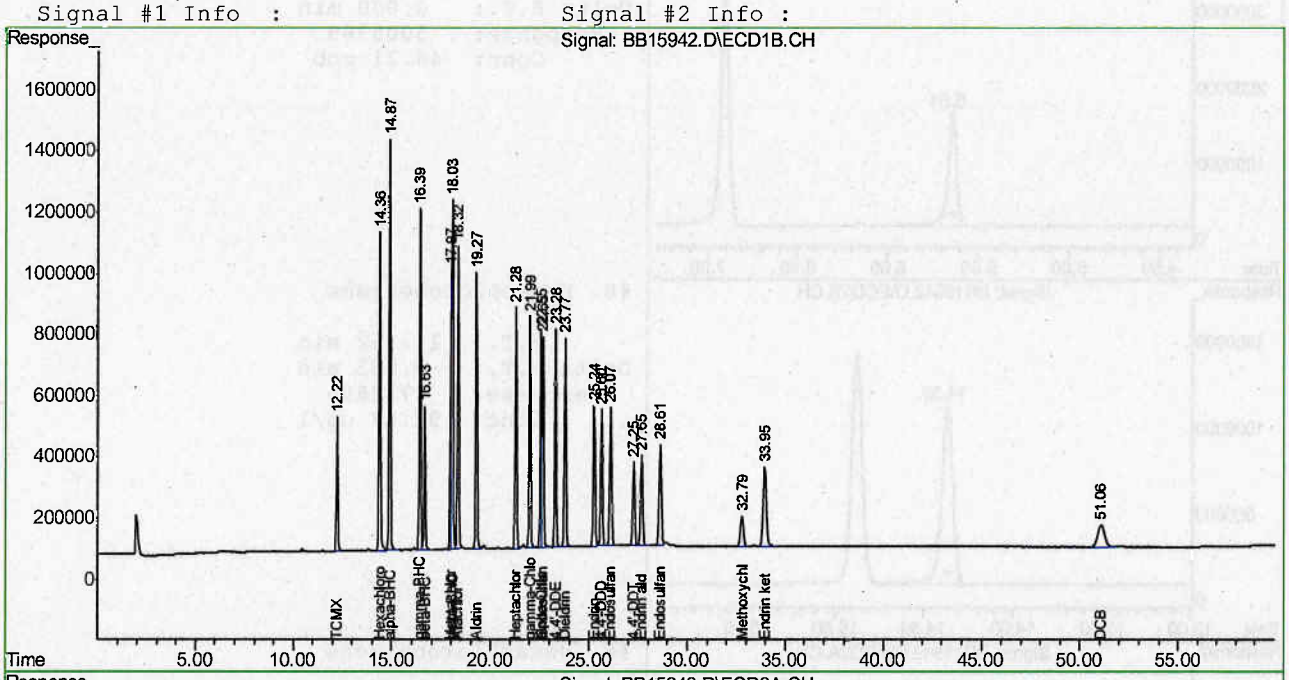
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15942.D PT092007.M Fri Sep 21 10:40:15 2007 GC23PRN

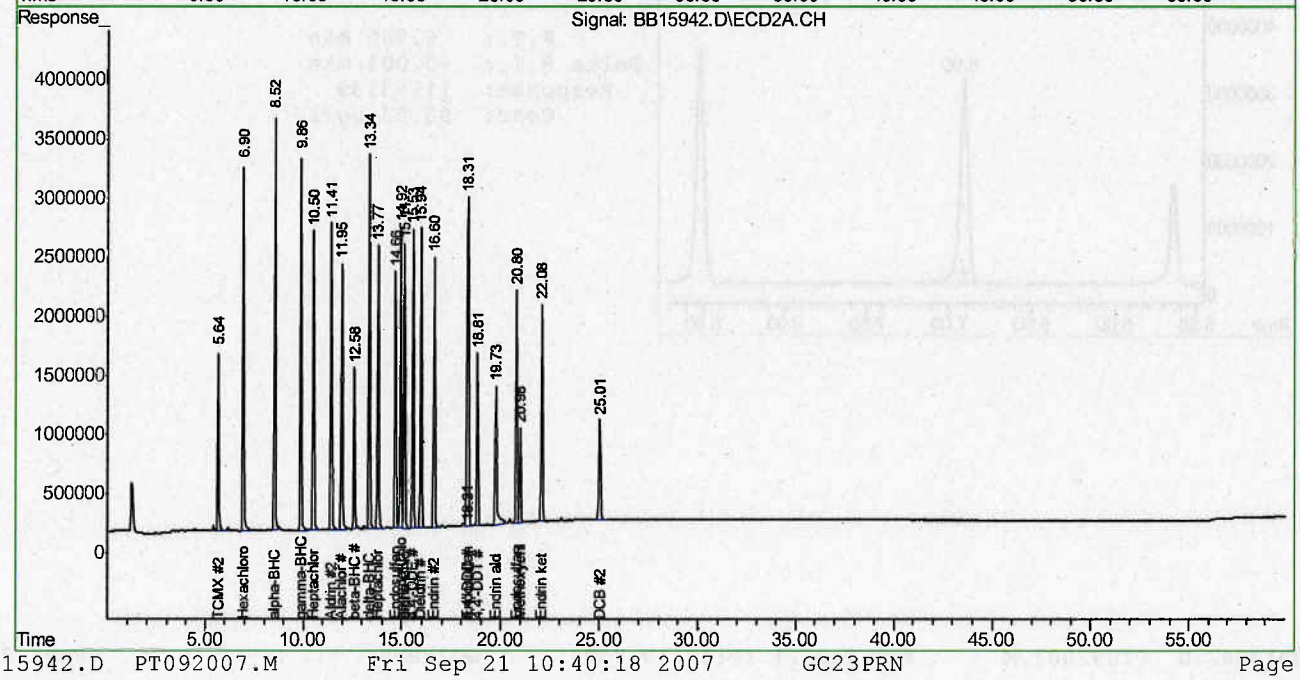
Quantitation Report (QT Reviewed)

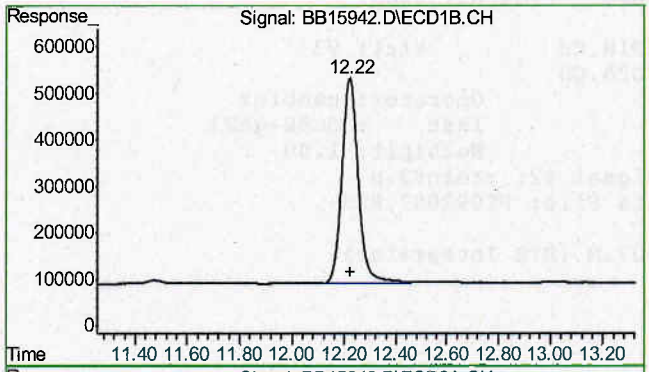
Signal #1 : C:\MSDCHEM\1\DATA\BB15942.D\ECD1B.CH Vial: 93
Signal #2 : C:\MSDCHEM\1\DATA\BB15942.D\ECD2A.CH
Acq On : 9-20-07 07:46:02 PM Operator: caobinz
Sample : icc667-100,pest 100 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:39 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:34:52 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

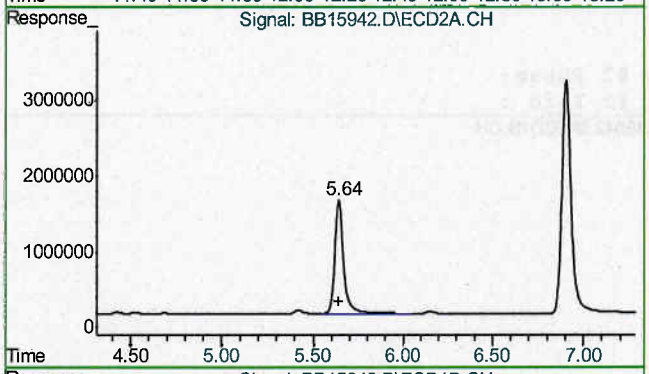






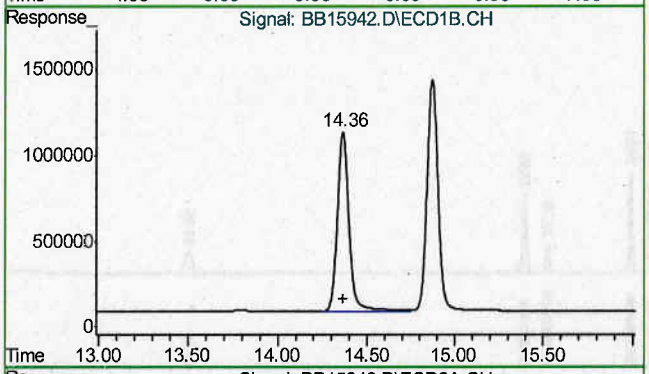
#1 TCMX

R.T.: 12.220 min
Delta R.T.: -0.001 min
Response: 1952737
Conc: 47.56 ppb



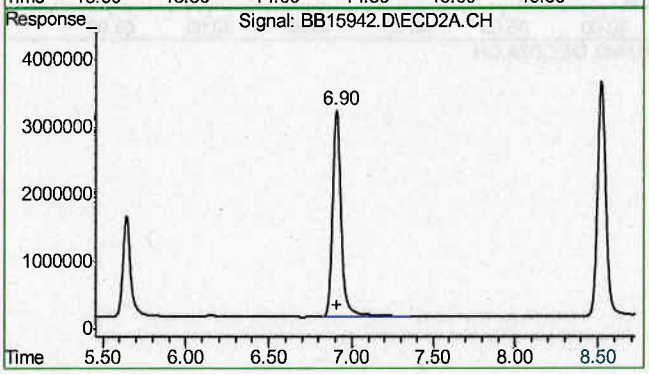
#1 TCMX

R.T.: 5.640 min
Delta R.T.: 0.000 min
Response: 5005369
Conc: 48.21 ppb



#8 Hexachlorobenzene

R.T.: 14.362 min
Delta R.T.: -0.003 min
Response: 4738895
Conc: 92.57 ug/l



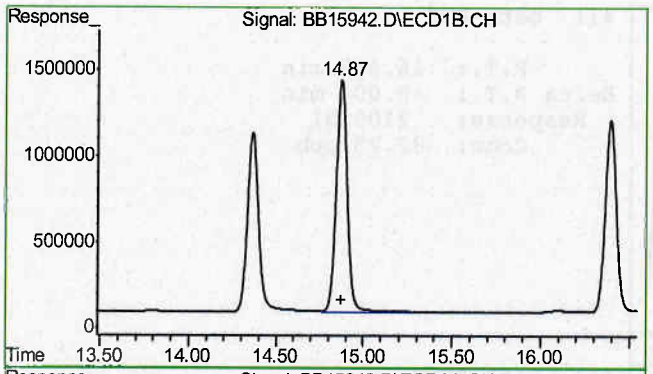
#8 Hexachlorobenzene

R.T.: 6.905 min
Delta R.T.: -0.001 min
Response: 11153139
Conc: 93.52 ug/l

6.6.3

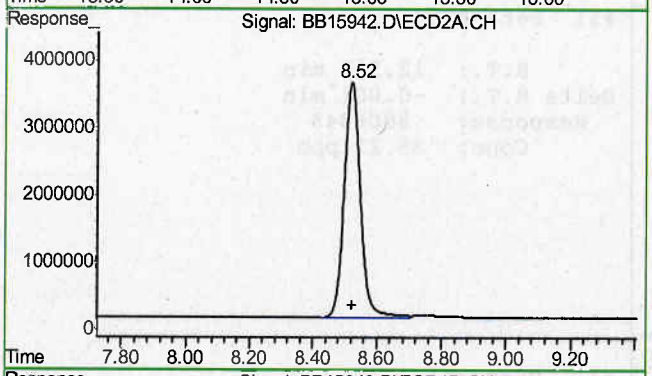
6

ACCUTEST Laboratories M67604



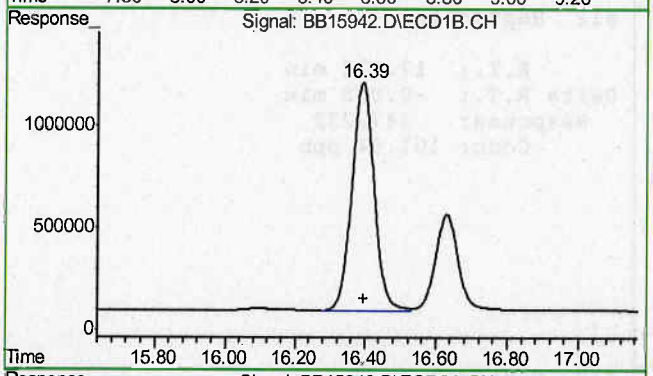
#9 alpha-BHC

R.T.: 14.873 min
Delta R.T.: -0.003 min
Response: 5828642
Conc: 94.45 ppb



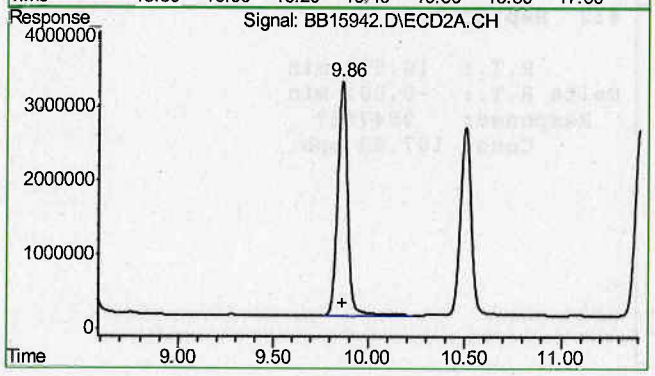
#9 alpha-BHC

R.T.: 8.521 min
Delta R.T.: -0.001 min
Response: 12306680
Conc: 95.97 ppb



#10 gamma-BHC

R.T.: 16.393 min
Delta R.T.: -0.003 min
Response: 4905754
Conc: 95.78 ppb

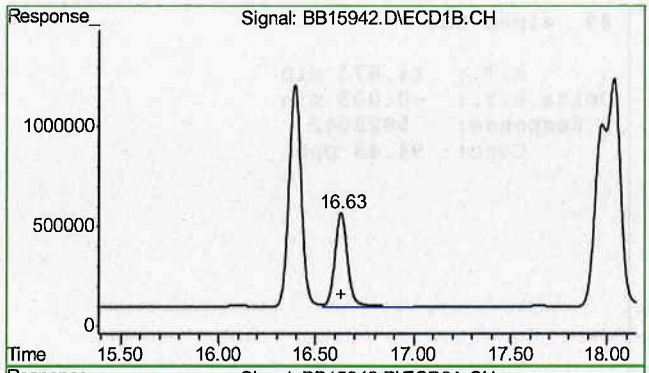


#10 gamma-BHC

R.T.: 9.863 min
Delta R.T.: 0.000 min
Response: 11410546
Conc: 98.92 ppb

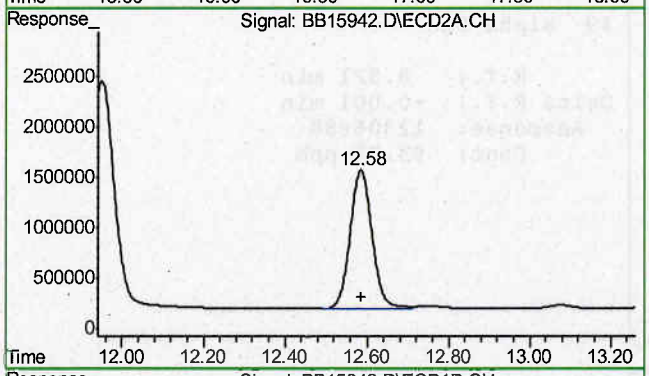
6.6.3

6



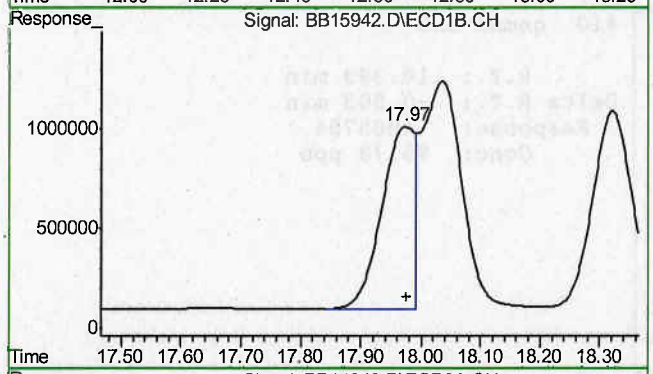
#11 beta-BHC

R.T.: 16.628 min
Delta R.T.: -0.005 min
Response: 2109351
Conc: 82.23 ppb



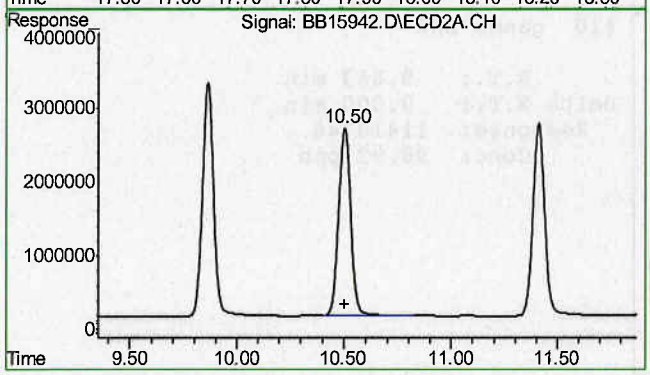
#11 beta-BHC

R.T.: 12.585 min
Delta R.T.: -0.001 min
Response: 5006345
Conc: 85.21 ppb



#12 Heptachlor

R.T.: 17.972 min
Delta R.T.: -0.005 min
Response: 3472232
Conc: 101.94 ppb

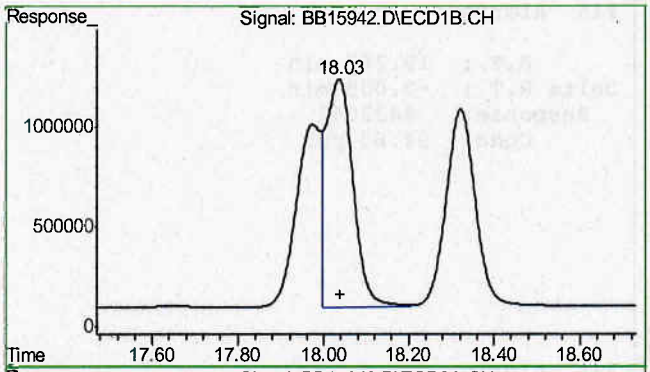


#12 Heptachlor

R.T.: 10.503 min
Delta R.T.: -0.001 min
Response: 9847627
Conc: 107.83 ppb

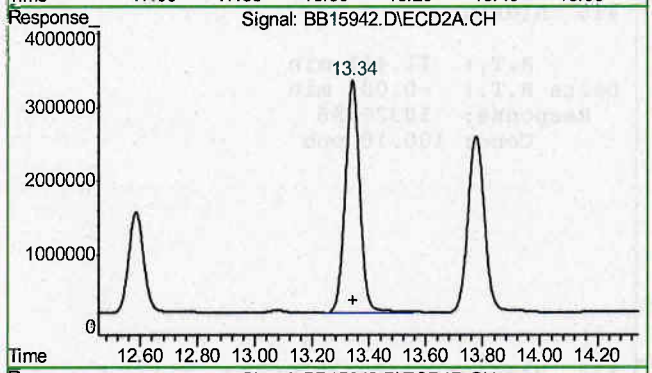
6.6.3

6



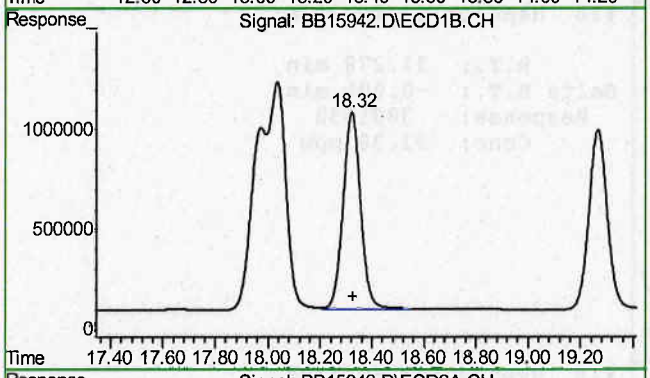
#13 delta-BHC

R.T.: 18.035 min
Delta R.T.: -0.003 min
Response: 4996386
Conc: 92.26 ppb



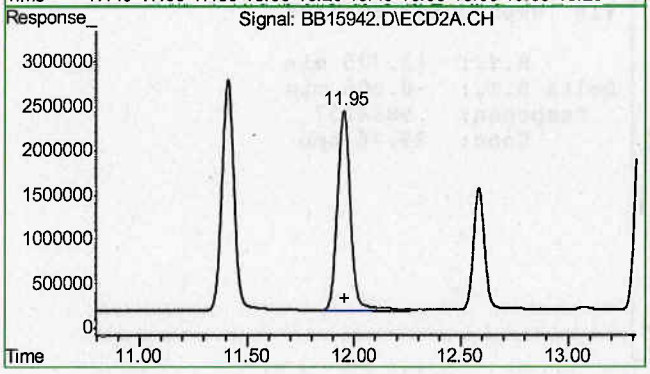
#13 delta-BHC

R.T.: 13.340 min
Delta R.T.: -0.003 min
Response: 11408062
Conc: 97.86 ppb



#14 Alachlor

R.T.: 18.322 min
Delta R.T.: -0.005 min
Response: 4695641
Conc: 867.34 ug/l

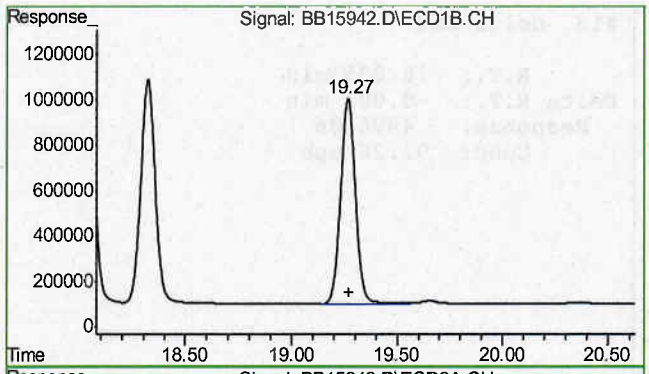


#14 Alachlor

R.T.: 11.950 min
Delta R.T.: -0.003 min
Response: 9658389
Conc: 872.44 ug/l

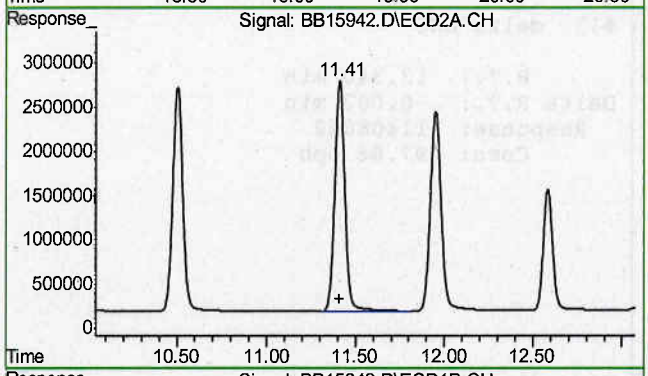
6.6.3

6



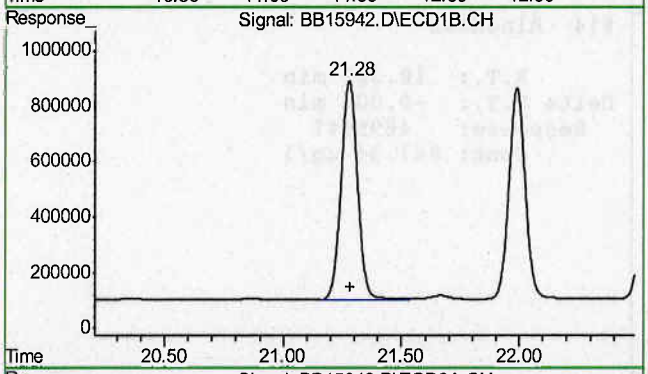
#15 Aldrin

R.T.: 19.267 min
Delta R.T.: -0.005 min
Response: 4432862
Conc: 94.63 ppb



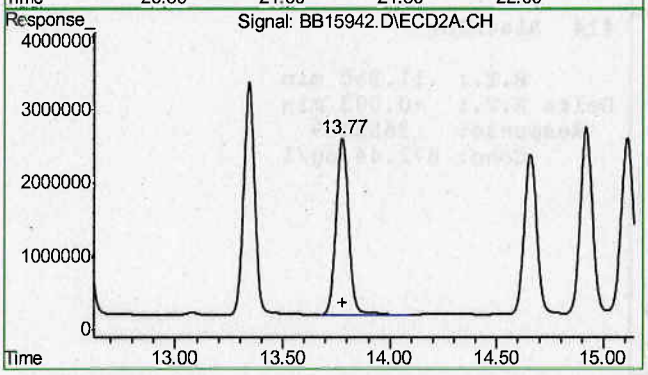
#15 Aldrin

R.T.: 11.411 min
Delta R.T.: -0.001 min
Response: 10322156
Conc: 100.10 ppb



#16 Heptachlor Epoxide

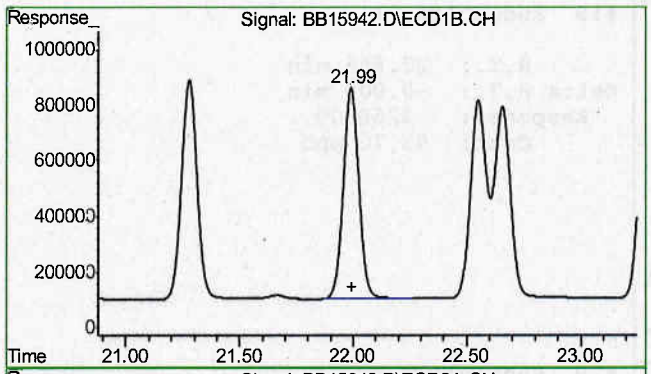
R.T.: 21.278 min
Delta R.T.: -0.005 min
Response: 3801530
Conc: 92.38 ppb



#16 Heptachlor Epoxide

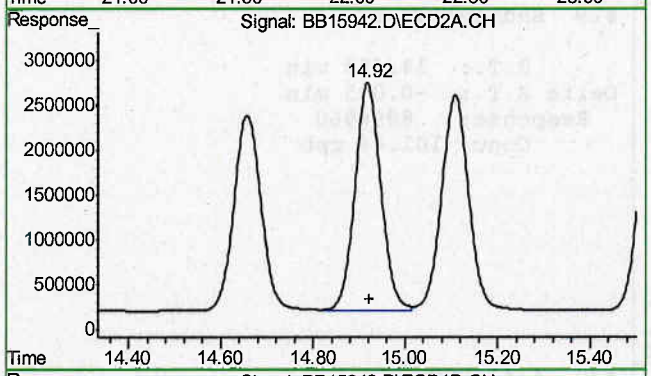
R.T.: 13.775 min
Delta R.T.: -0.005 min
Response: 9884237
Conc: 99.76 ppb

6.6.3 6



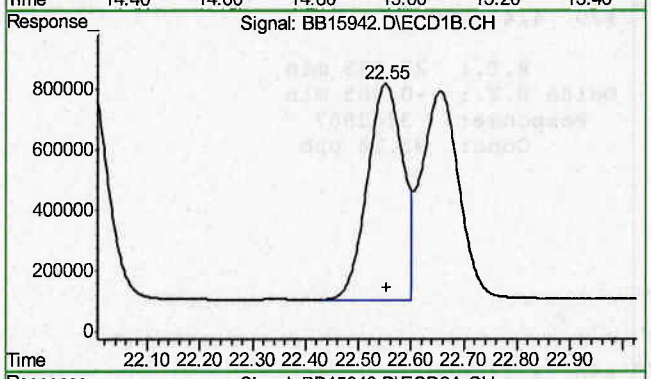
#17 gamma-Chlordane

R.T.: 21.990 min
Delta R.T.: -0.005 min
Response: 3684520
Conc: 92.55 ppb



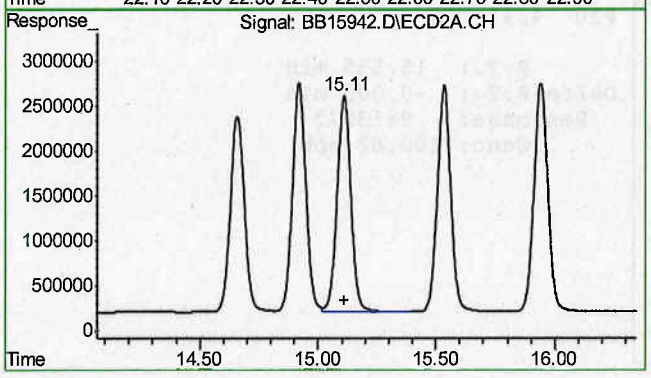
#17 gamma-Chlordane

R.T.: 14.918 min
Delta R.T.: -0.005 min
Response: 10019348
Conc: 98.66 ppb



#18 alpha-Chlordane

R.T.: 22.550 min
Delta R.T.: -0.005 min
Response: 3361685
Conc: 91.62 ppb

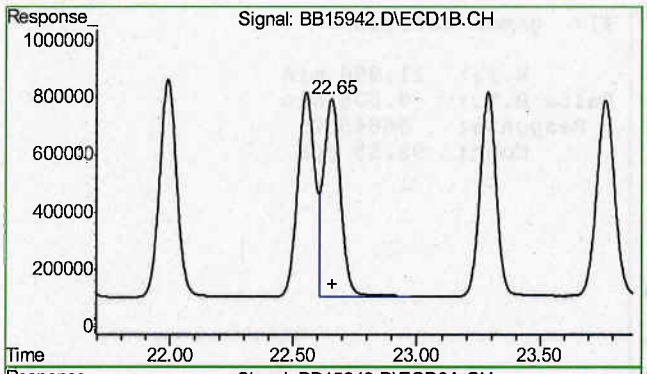


#18 alpha-Chlordane

R.T.: 15.110 min
Delta R.T.: -0.001 min
Response: 9850739
Conc: 97.44 ppb

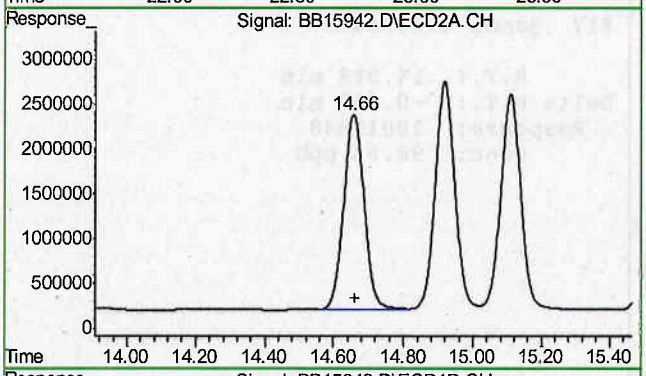
6.6.3

6



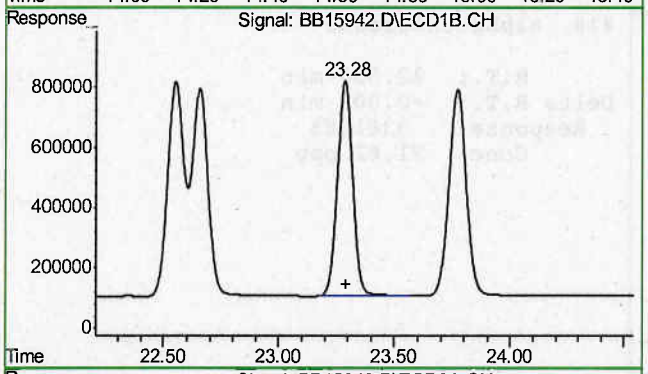
#19 Endosulfan-I

R.T.: 22.655 min
Delta R.T.: -0.005 min
Response: 3266809
Conc: 93.70 ppb



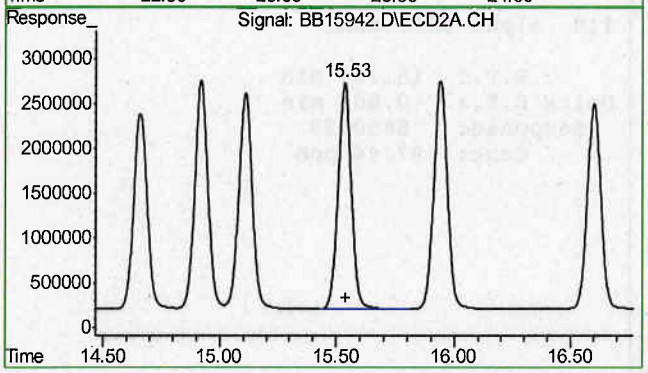
#19 Endosulfan-I

R.T.: 14.656 min
Delta R.T.: -0.005 min
Response: 8996960
Conc: 101.64 ppb



#20 4,4'-DDE

R.T.: 23.285 min
Delta R.T.: -0.005 min
Response: 3242967
Conc: 93.28 ppb



#20 4,4'-DDE

R.T.: 15.535 min
Delta R.T.: -0.003 min
Response: 9813973
Conc: 100.62 ppb

6.6.3

6

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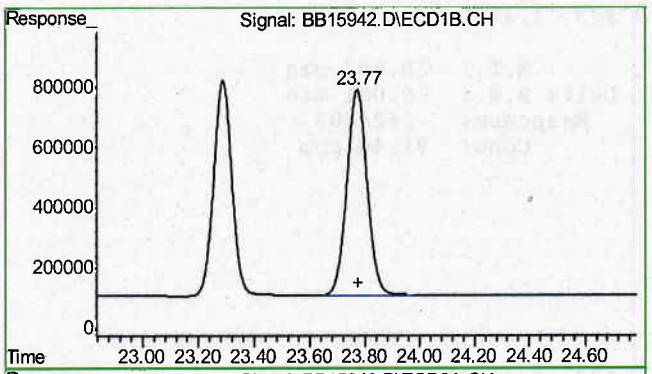
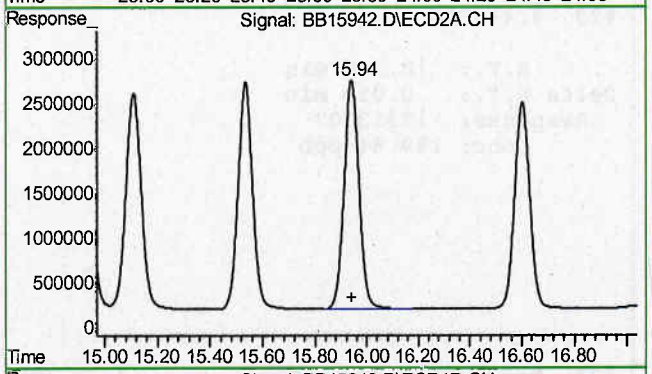


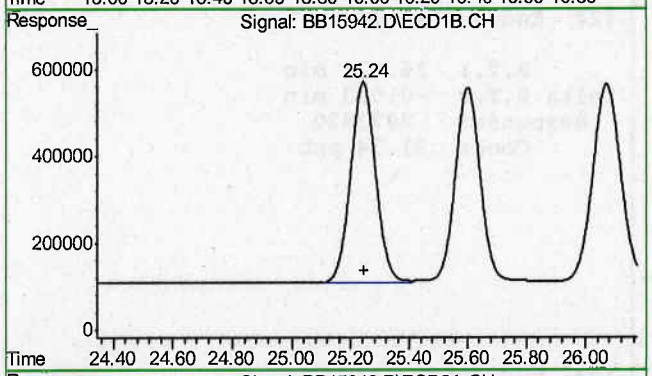
#21 Dieldrin

R.T.: 23.772 min
Delta R.T.: -0.003 min
Response: 3515246
Conc: 93.05 ppb



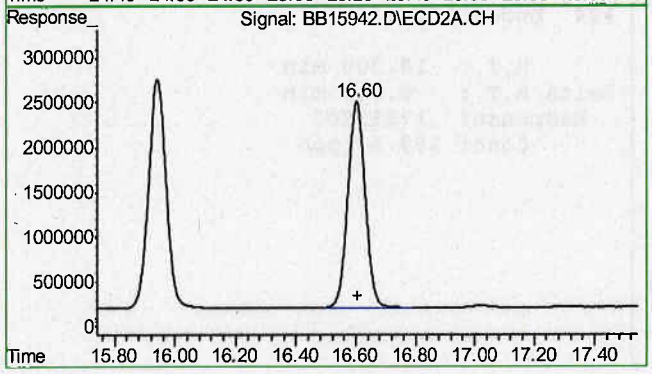
#21 Dieldrin

R.T.: 15.940 min
Delta R.T.: -0.003 min
Response: 10299490
Conc: 101.20 ppb



#22 Endrin

R.T.: 25.243 min
Delta R.T.: -0.001 min
Response: 2743945
Conc: 91.41 ppb



#22 Endrin

R.T.: 16.601 min
Delta R.T.: -0.003 min
Response: 9296570
Conc: 98.52 ppb

6.6.3

6

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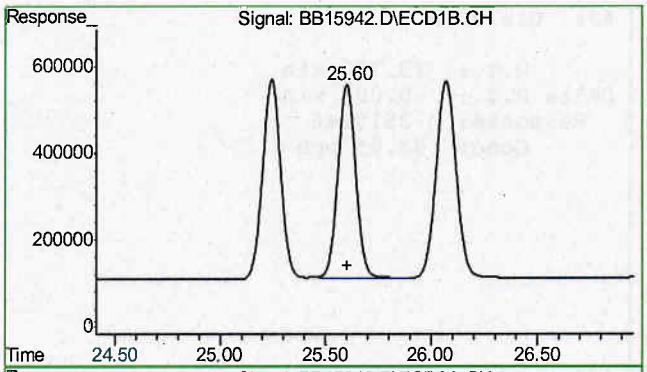
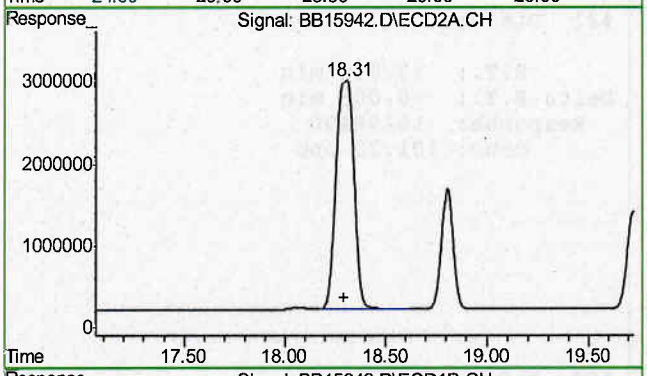


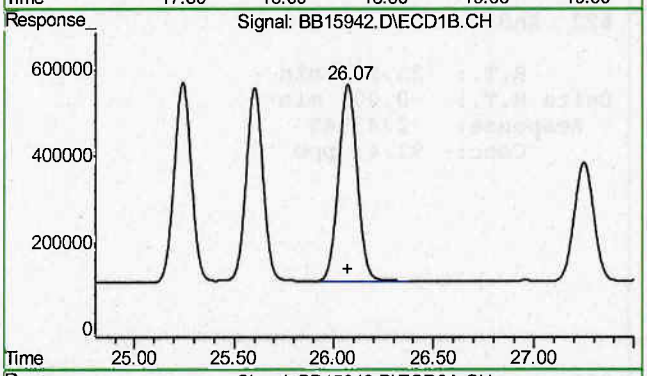
#23 4,4'-DDD

R.T.: 25.602 min
Delta R.T.: -0.001 min
Response: 2624000
Conc: 91.40 ppb



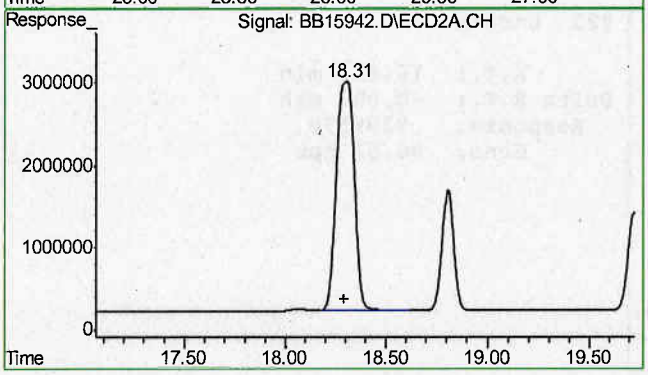
#23 4,4'-DDD

R.T.: 18.308 min
Delta R.T.: 0.019 min
Response: 17313207
Conc: 199.64 ppb



#24 Endosulfan-II

R.T.: 26.070 min
Delta R.T.: -0.003 min
Response: 2973830
Conc: 91.34 ppb



#24 Endosulfan-II

R.T.: 18.308 min
Delta R.T.: 0.019 min
Response: 17313207
Conc: 199.64 ppb

6.6.3

6

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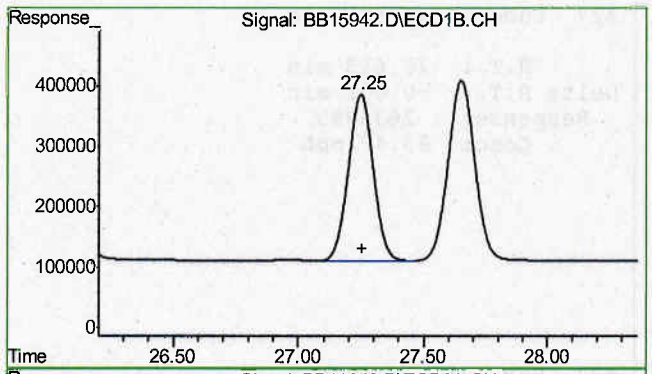
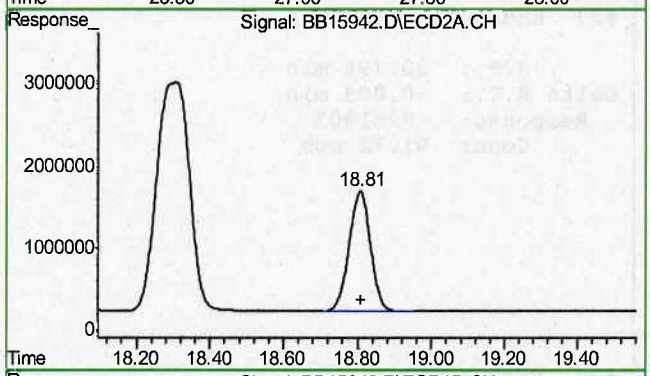


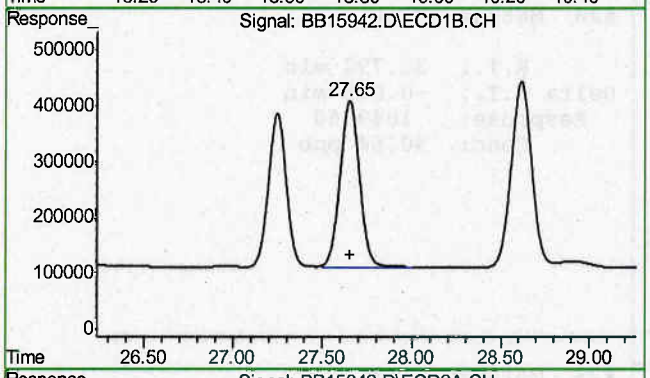
#25 4,4'-DDT

R.T.: 27.248 min
Delta R.T.: -0.003 min
Response: 1886334
Conc: 96.99 ppb



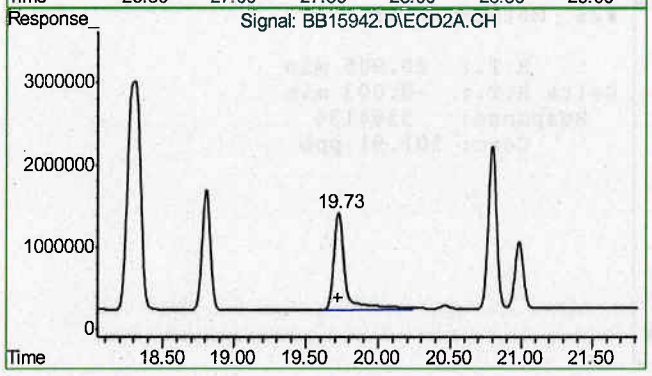
#25 4,4'-DDT

R.T.: 18.806 min
Delta R.T.: -0.003 min
Response: 5863410
Conc: 108.88 ppb



#26 Endrin aldehyde

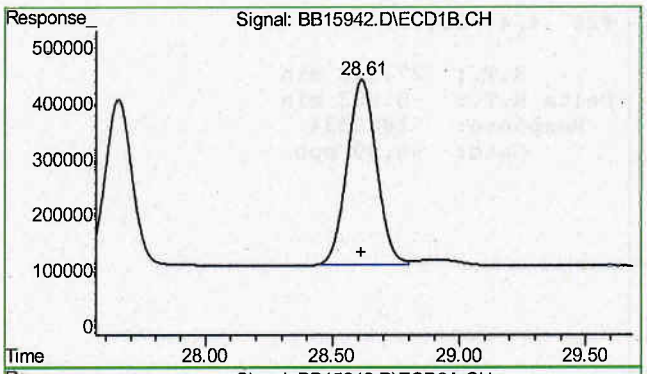
R.T.: 27.648 min
Delta R.T.: -0.005 min
Response: 2233012
Conc: 77.88 ppb



#26 Endrin aldehyde

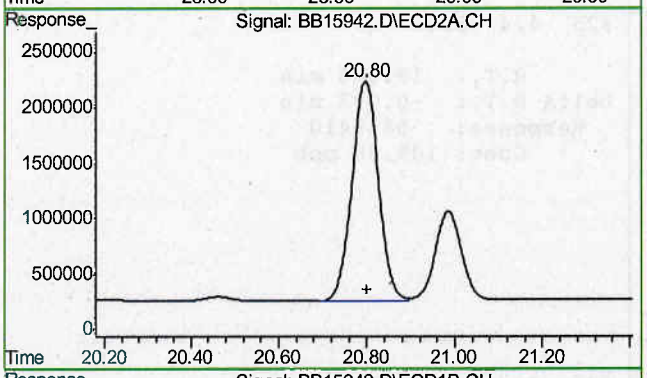
R.T.: 19.726 min
Delta R.T.: 0.000 min
Response: 6373601
Conc: 83.87 ppb m

6.6.3 6



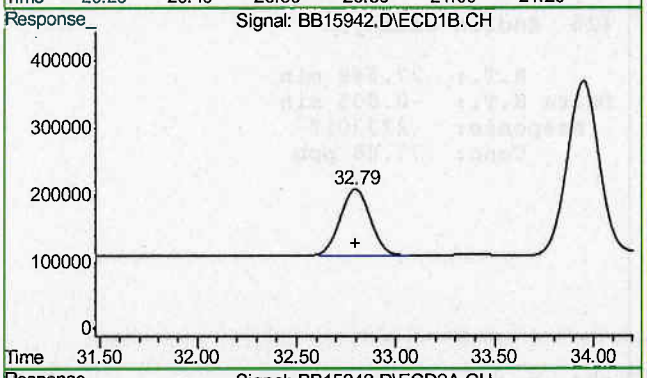
#27 Endosulfan sulfate

R.T.: 28.613 min
Delta R.T.: -0.001 min
Response: 2636955
Conc: 83.47 ppb



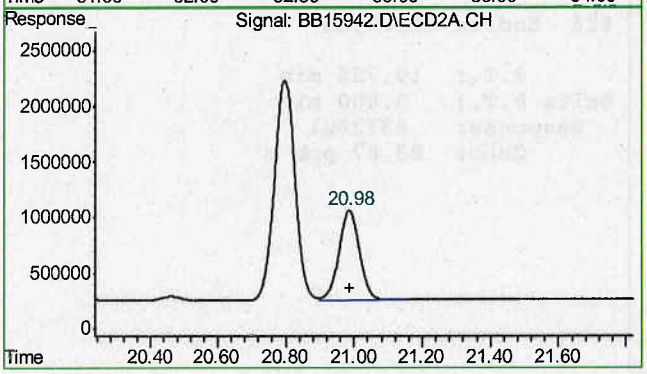
#27 Endosulfan sulfate

R.T.: 20.796 min
Delta R.T.: -0.003 min
Response: 8261902
Conc: 91.72 ppb



#28 Methoxychlor

R.T.: 32.792 min
Delta R.T.: -0.005 min
Response: 1049060
Conc: 90.64 ppb



#28 Methoxychlor

R.T.: 20.985 min
Delta R.T.: -0.003 min
Response: 3364136
Conc: 101.91 ppb

6.6.3

6

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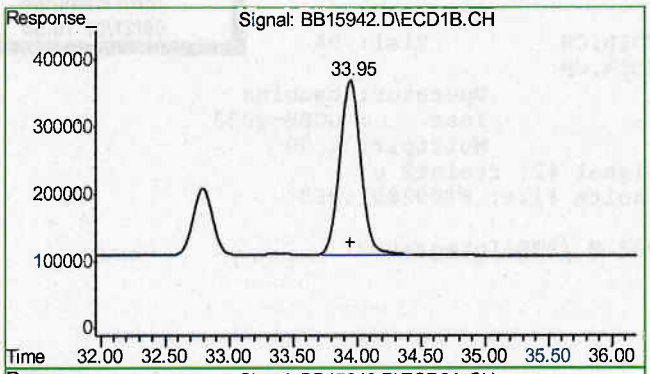
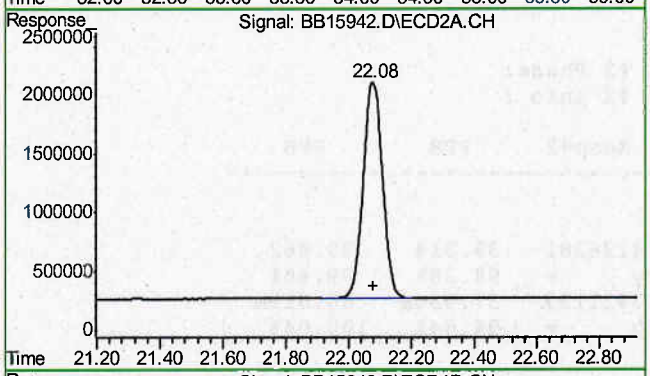


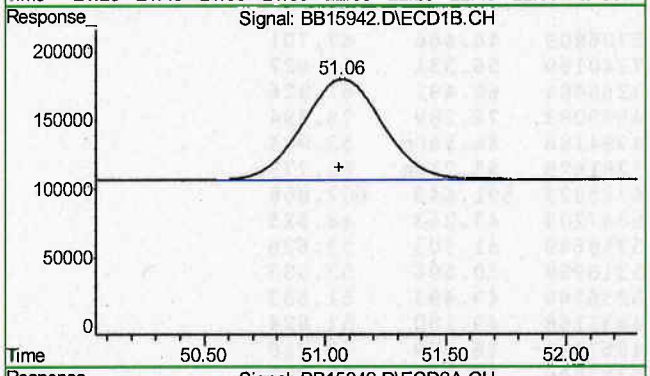
#29 Endrin ketone

R.T.: 33.952 min
Delta R.T.: 0.007 min
Response: 2982866
Conc: 88.59 ppb



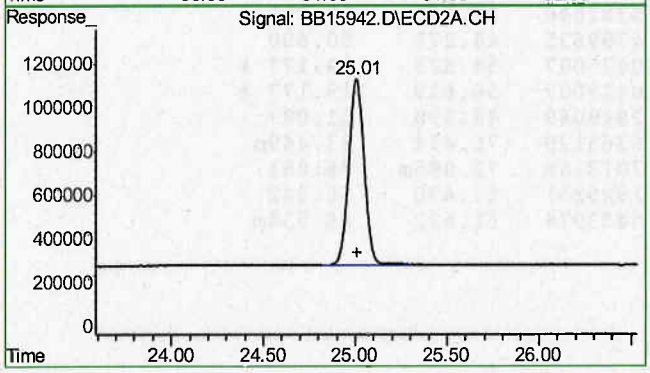
#29 Endrin ketone

R.T.: 22.076 min
Delta R.T.: -0.001 min
Response: 7891955
Conc: 97.90 ppb m



#38 DCB

R.T.: 51.060 min
Delta R.T.: 0.002 min
Response: 1696381
Conc: 47.32 ppb m



#38 DCB

R.T.: 25.006 min
Delta R.T.: -0.001 min
Response: 4882205
Conc: 50.05 ppb m

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15943.D\ECD1B.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\BB15943.D\ECD2A.CH
Acq On : 9-20-07 08:51:07 PM Operator: caobinz
Sample : ic667-50,pest 50 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:40:57 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:40:09 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	1605065	4136281	39.314	39.862
	Spiked Amount 40.000			Recovery	=	98.28%	99.66%
38) s	DCB	51.06	25.00	1353314	3921129	37.936m	40.015m
	Spiked Amount 40.000			Recovery	=	94.84%	100.04%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	2365011	5706809	46.466	47.701
9)	alpha-BHC	14.88	8.52	3472475	7340180	56.331	56.627
10)	gamma-BHC	16.39	9.86	3131453	7266884	60.492	61.826
11)	beta-BHC	16.63	12.58	1959712	4559083	76.289	76.894
12)	Heptachlor	17.99	10.50	1632127	4994186	46.560m	52.904
13)	delta-BHC	18.04	13.34	3535633	7781629	65.226m	65.779
14)	Alachlor	18.32	11.95	3200995	6725823	591.643	602.858
15)	Aldrin	19.27	11.41	2213674	5047205	47.263	48.523
16)	Heptachlor Epoxi	21.28	13.78	2115599	5358649	51.303	53.626
17)	gamma-Chlordane	21.99	14.92	2017231	5318968	50.596	52.033
18)	alpha-Chlordane	22.55	15.11	1817777	5236768	49.493	51.553
19)	Endosulfan-I	22.65	14.66	1718568	4631168	49.180	51.824
20)	4,4'-DDE	23.28	15.53	1623348	4867414	46.689	49.718
21)	Dieldrin	23.77	15.94	1873335	5352848	49.508	52.251
22)	Endrin	25.24	16.60	1444668	4789635	48.271	50.690
23)	4,4'-DDD	25.60	18.30	1579537	10425007	54.823	119.177 #
24)	Endosulfan-II	26.07	18.30	1857592	10425007	56.619	119.177 #
25)	4,4'-DDT	27.24	18.81	960941	2849069	48.398	51.087
26)	Endrin aldehyde	27.65	19.73	2202807	6365139	76.474	83.449m
27)	Endosulfan sulfa	28.61	20.80	2320324	7013158	72.895m	76.861
28)	Methoxychlor	32.79	20.99	601385	1925251	51.630	56.942
29)	Endrin ketone	33.94	22.08	2091803	5453974	61.522	66.535m

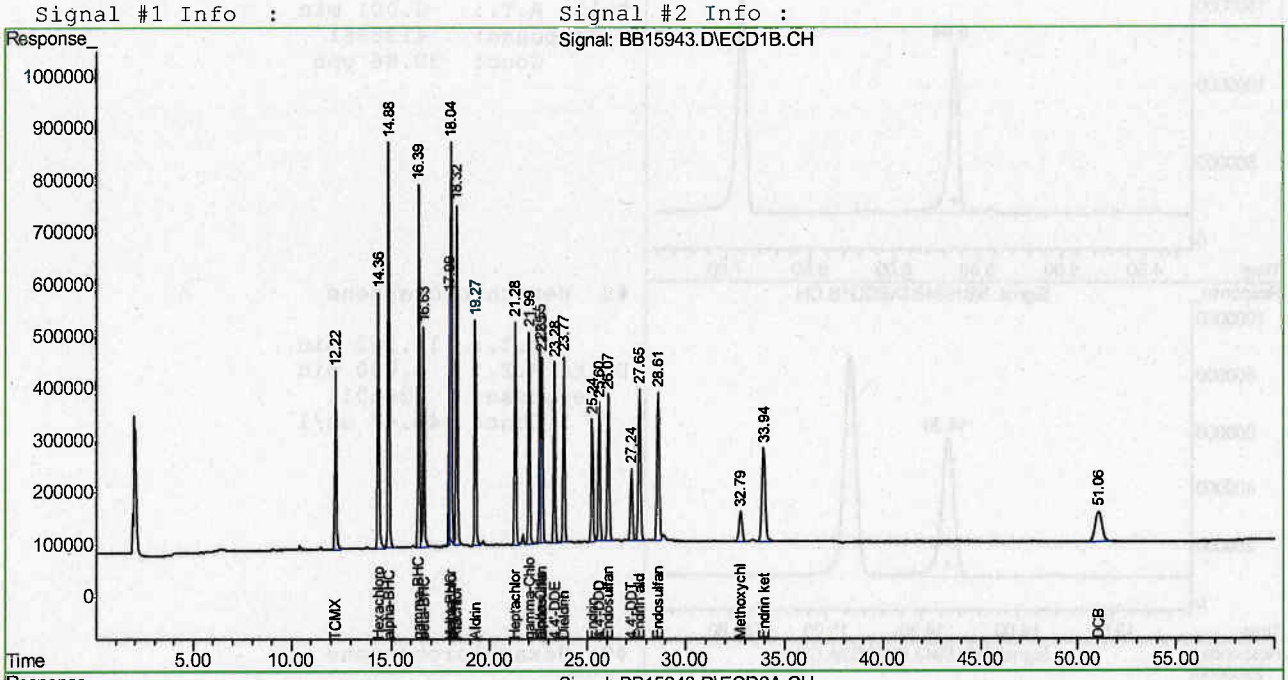
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15943.D PT092007.M Fri Sep 21 10:58:35 2007 GC23PRN

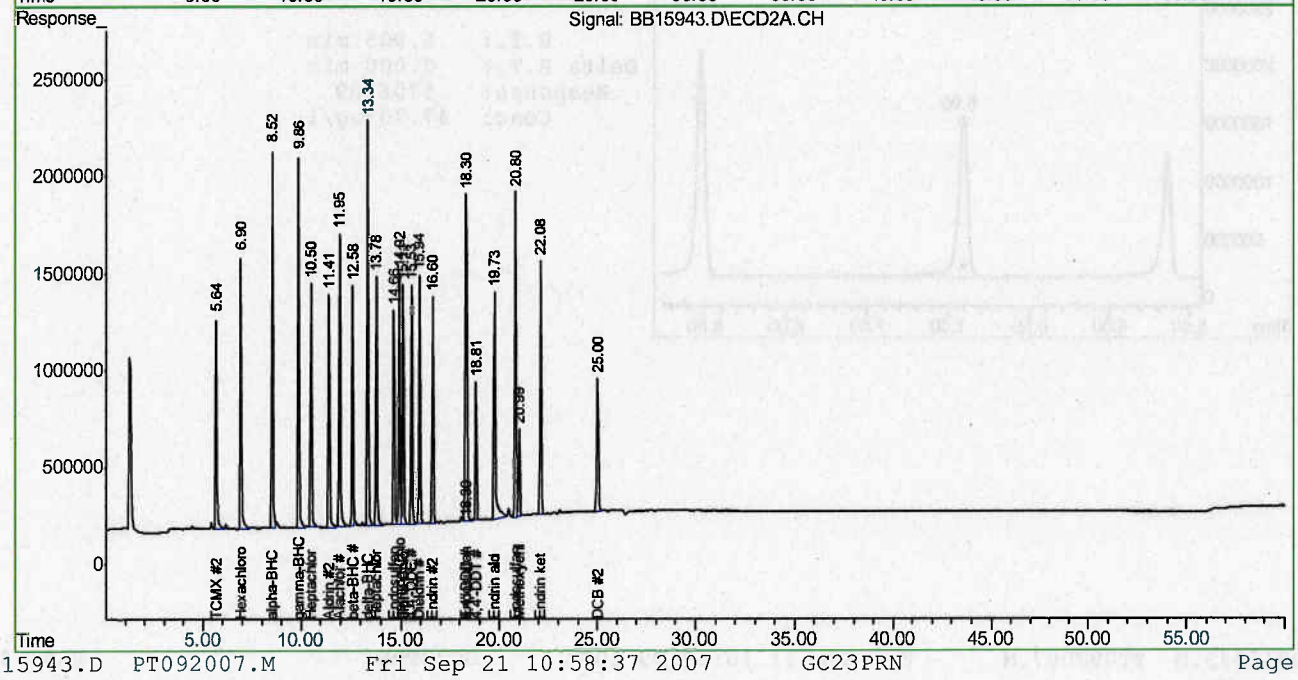
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15943.D\ECD1B.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\BB15943.D\ECD2A.CH
Acq On : 9-20-07 08:51:07 PM Operator: caobinz
Sample : ic667-50,pest 50 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:51 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:40:09 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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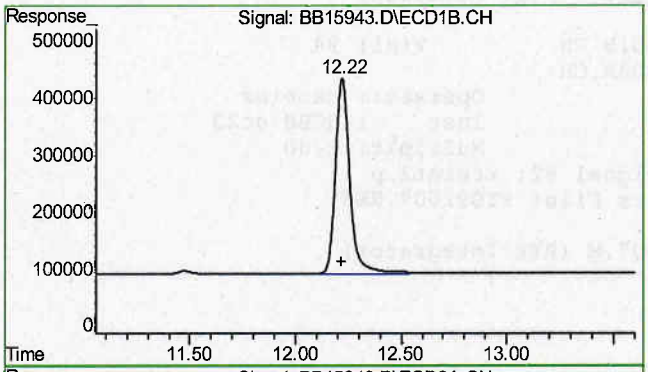
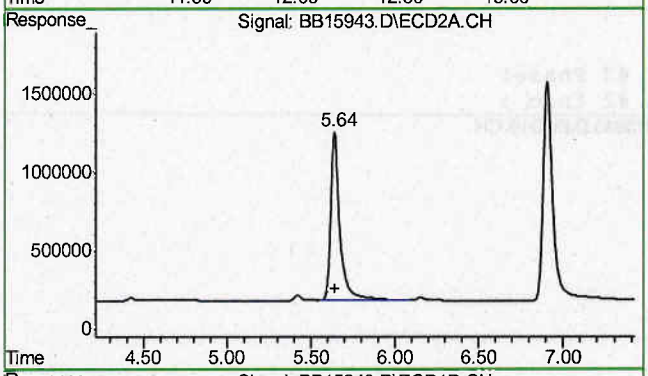


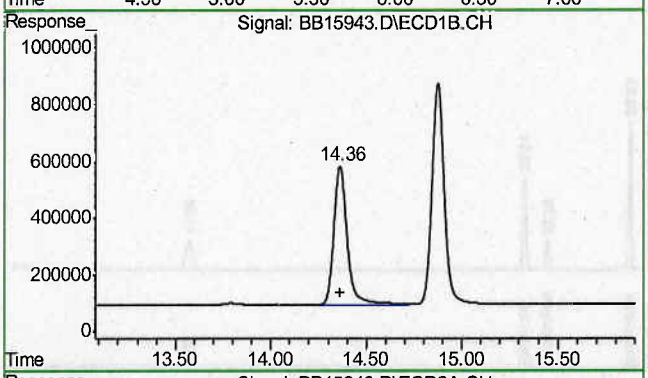
#1 TCMX

R.T.: 12.220 min
Delta R.T.: 0.000 min
Response: 1605065
Conc: 39.31 ppb



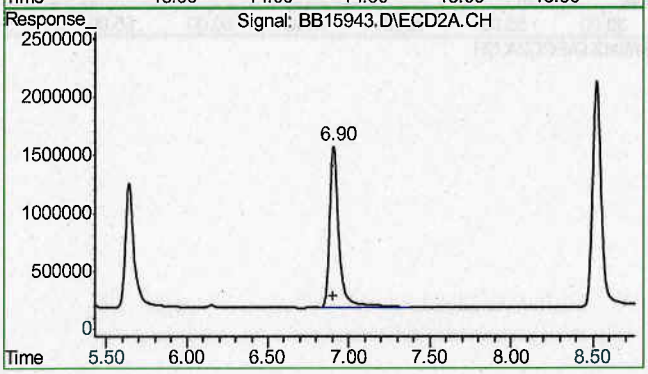
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.001 min
Response: 4136281
Conc: 39.86 ppb



#8 Hexachlorobenzene

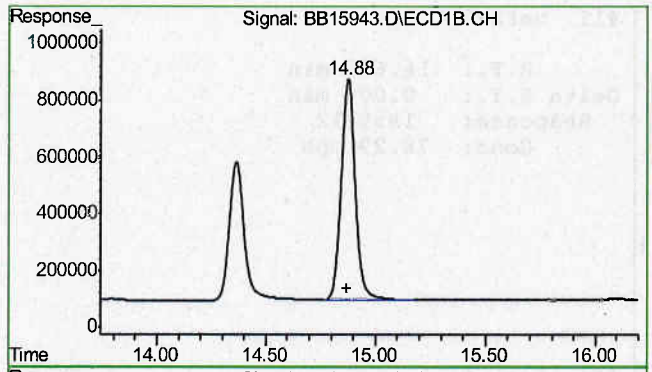
R.T.: 14.362 min
Delta R.T.: 0.000 min
Response: 2365011
Conc: 46.47 ug/l



#8 Hexachlorobenzene

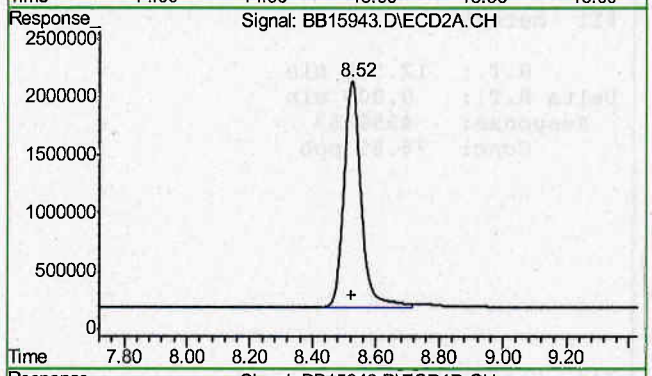
R.T.: 6.905 min
Delta R.T.: 0.000 min
Response: 5706809
Conc: 47.70 ug/l

6.6.4 6



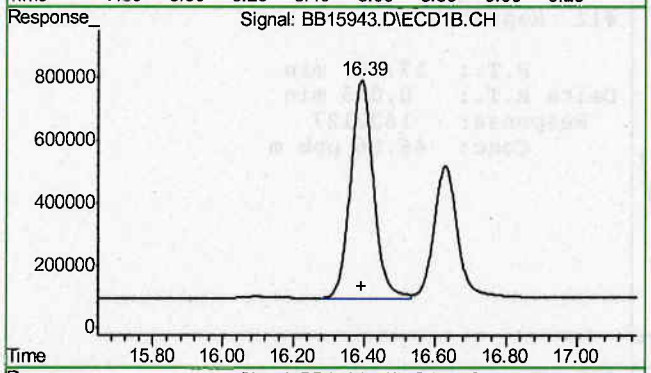
#9 alpha-BHC

R.T.: 14.875 min
Delta R.T.: 0.002 min
Response: 3472475
Conc: 56.33 ppb



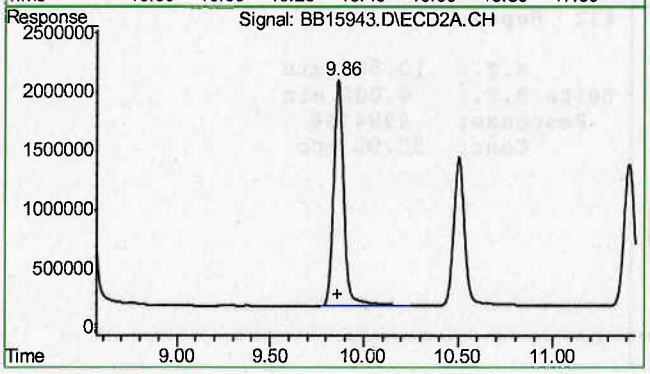
#9 alpha-BHC

R.T.: 8.525 min
Delta R.T.: 0.004 min
Response: 7340180
Conc: 56.63 ppb



#10 gamma-BHC

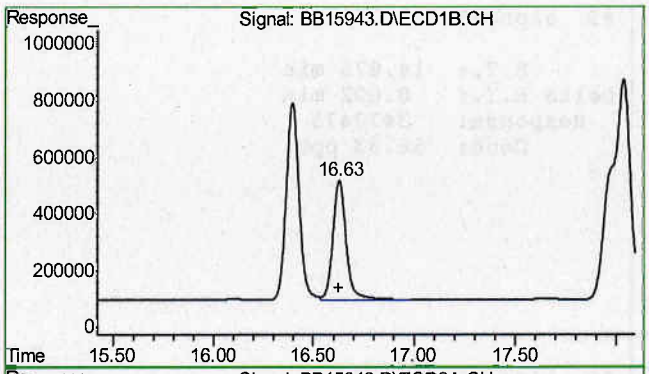
R.T.: 16.394 min
Delta R.T.: 0.000 min
Response: 3131453
Conc: 60.49 ppb



#10 gamma-BHC

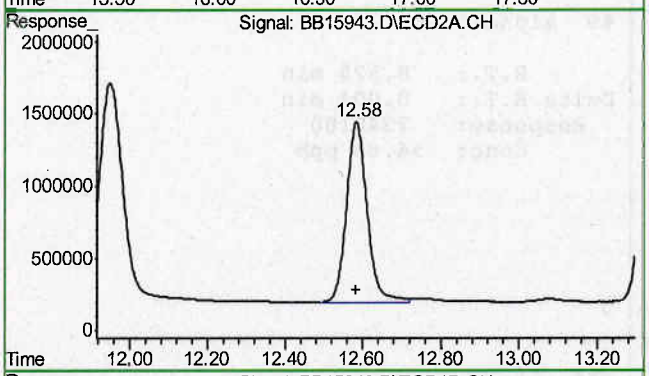
R.T.: 9.862 min
Delta R.T.: -0.001 min
Response: 7266884
Conc: 61.83 ppb

6.6.4 6



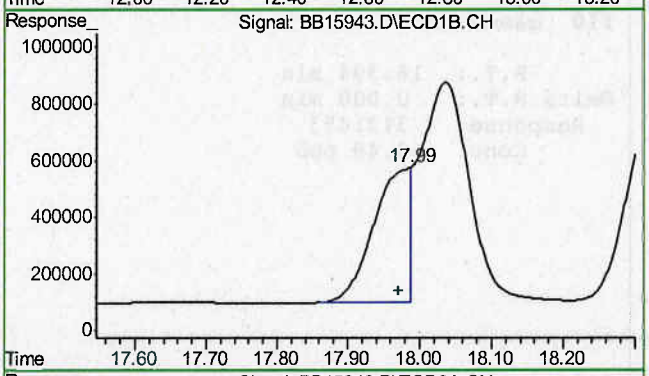
#11 beta-BHC

R.T.: 16.630 min
Delta R.T.: 0.002 min
Response: 1959712
Conc: 76.29 ppb



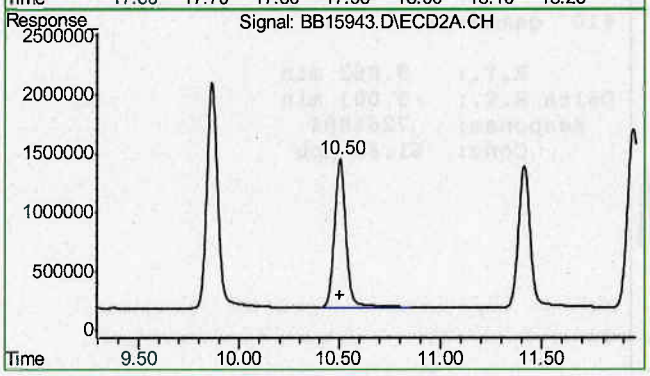
#11 beta-BHC

R.T.: 12.585 min
Delta R.T.: 0.000 min
Response: 4559083
Conc: 76.89 ppb



#12 Heptachlor

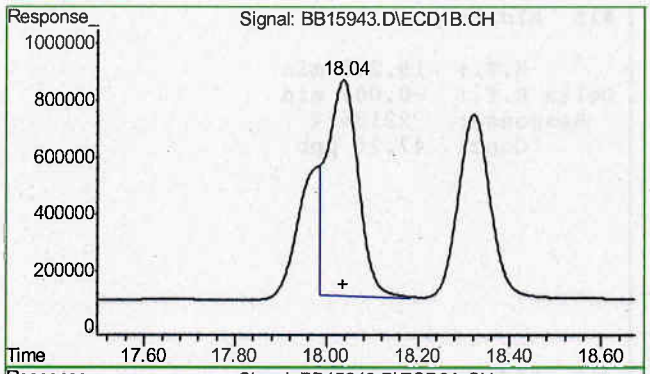
R.T.: 17.987 min
Delta R.T.: 0.015 min
Response: 1632127
Conc: 46.56 ppb m



#12 Heptachlor

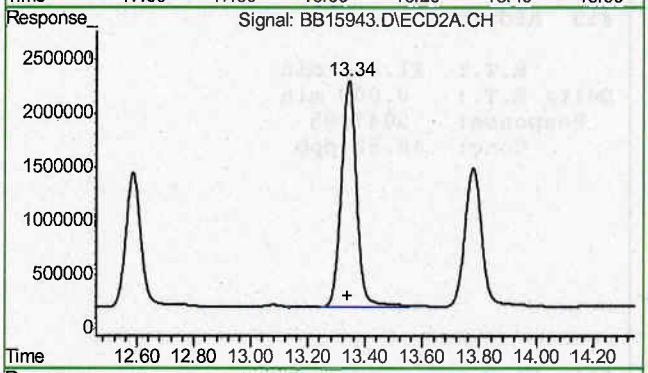
R.T.: 10.505 min
Delta R.T.: 0.002 min
Response: 4994186
Conc: 52.90 ppb

6.6.4 6



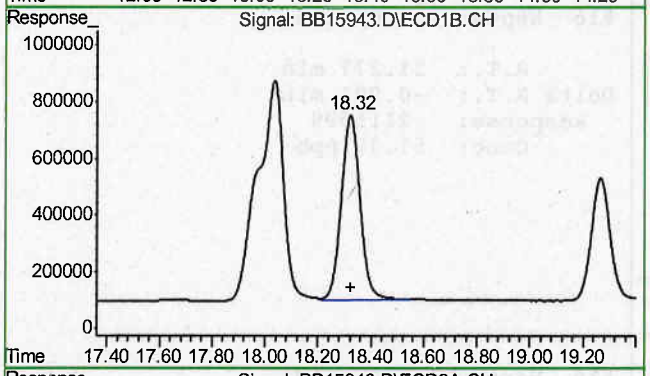
#13 delta-BHC

R.T.: 18.035 min
Delta R.T.: 0.000 min
Response: 3535633
Conc: 65.23 ppb m



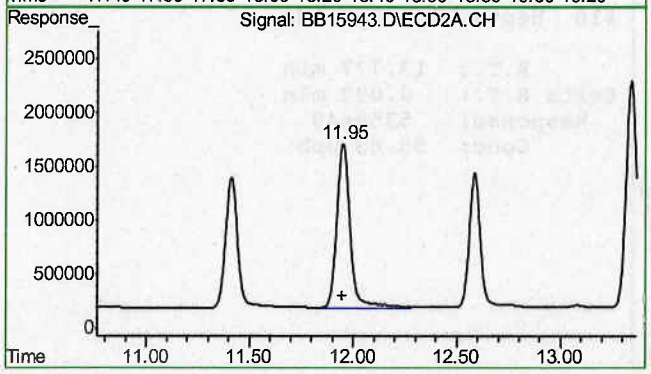
#13 delta-BHC

R.T.: 13.343 min
Delta R.T.: 0.004 min
Response: 7781629
Conc: 65.78 ppb



#14 Alachlor

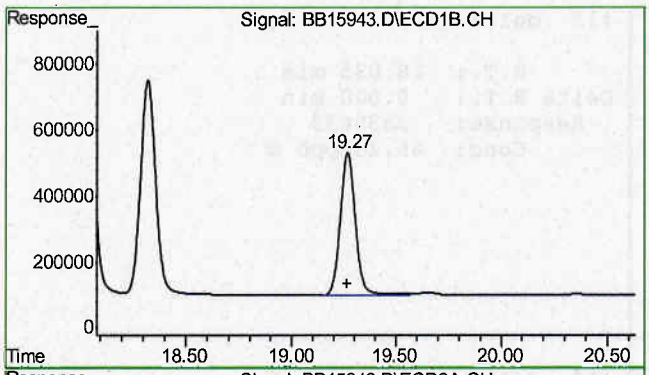
R.T.: 18.320 min
Delta R.T.: -0.001 min
Response: 3200995
Conc: 591.64 ug/l



#14 Alachlor

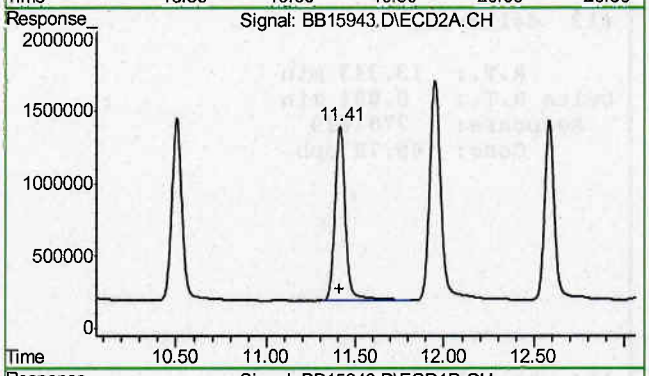
R.T.: 11.948 min
Delta R.T.: -0.001 min
Response: 6725823
Conc: 602.86 ug/l

6.6.4 6



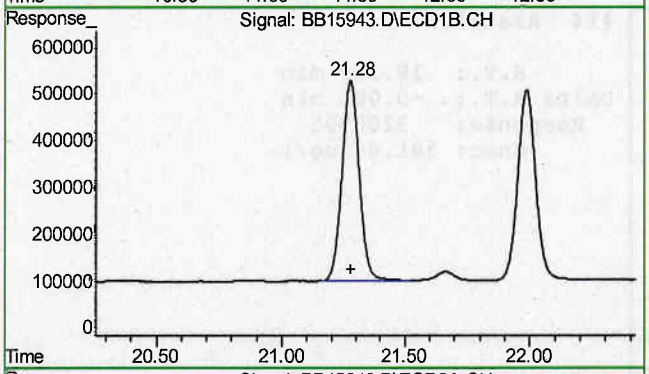
#15 Aldrin

R.T.: 19.265 min
Delta R.T.: -0.001 min
Response: 2213674
Conc: 47.26 ppb



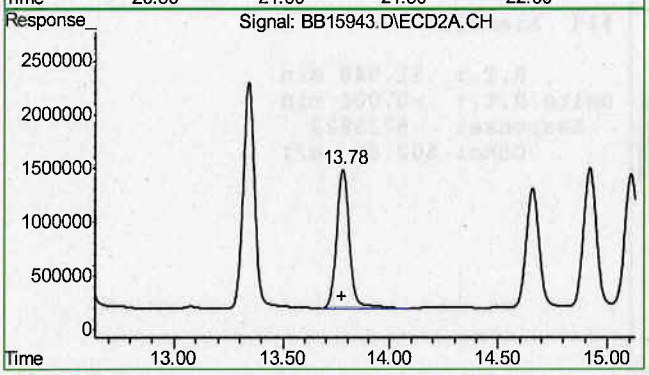
#15 Aldrin

R.T.: 11.412 min
Delta R.T.: 0.000 min
Response: 5047205
Conc: 48.52 ppb



#16 Heptachlor Epoxide

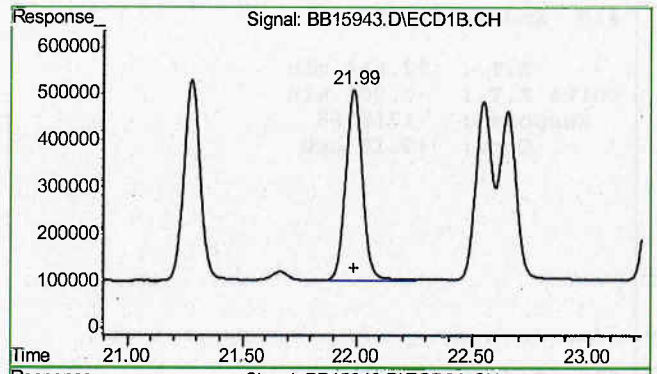
R.T.: 21.277 min
Delta R.T.: -0.001 min
Response: 2115599
Conc: 51.30 ppb



#16 Heptachlor Epoxide

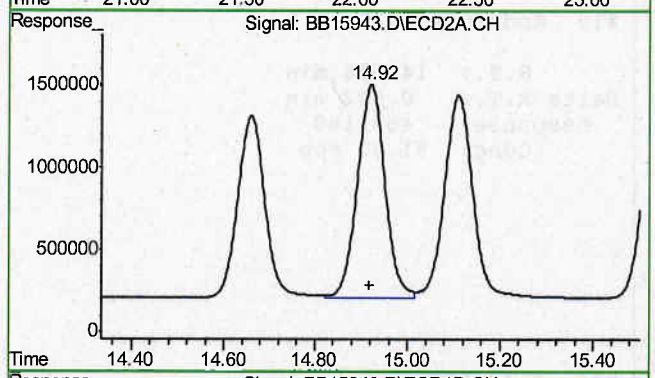
R.T.: 13.777 min
Delta R.T.: 0.002 min
Response: 5358649
Conc: 53.63 ppb

6.6.4 6



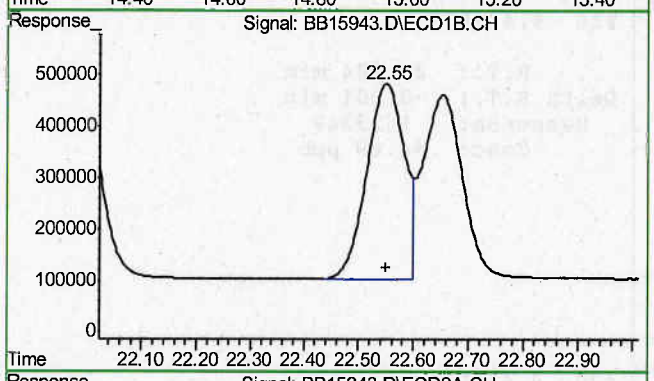
#17 gamma-Chlordane

R.T.: 21.987 min
Delta R.T.: -0.003 min
Response: 2017231
Conc: 50.60 ppb



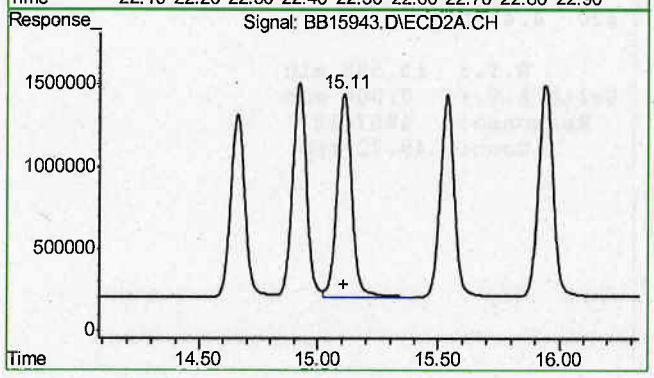
#17 gamma-Chlordane

R.T.: 14.922 min
Delta R.T.: 0.004 min
Response: 5318968
Conc: 52.03 ppb



#18 alpha-Chlordane

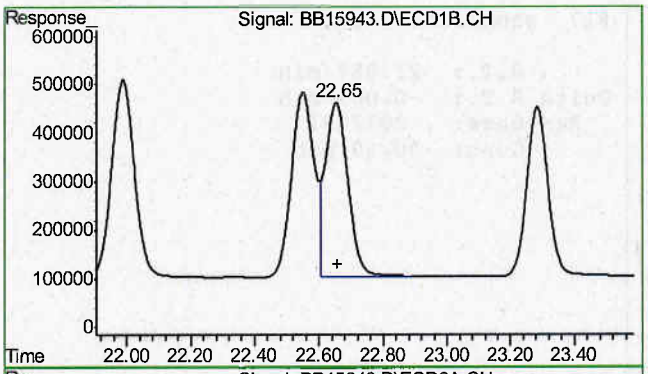
R.T.: 22.549 min
Delta R.T.: -0.001 min
Response: 1817777
Conc: 49.49 ppb



#18 alpha-Chlordane

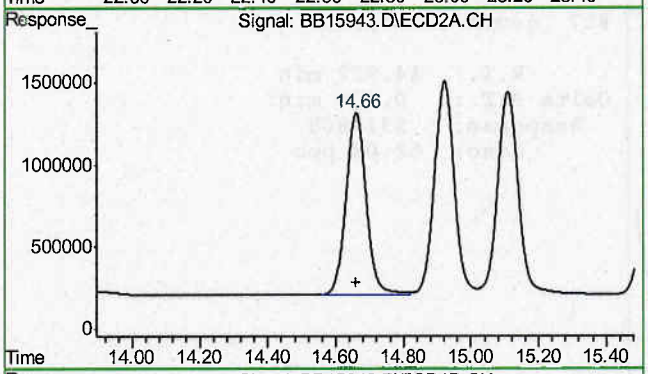
R.T.: 15.110 min
Delta R.T.: 0.000 min
Response: 5236768
Conc: 51.55 ppb

6.6.4 6



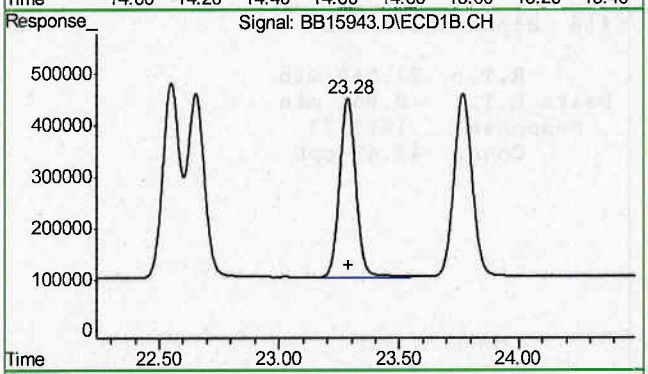
#19 Endosulfan-I

R.T.: 22.654 min
Delta R.T.: -0.001 min
Response: 1718568
Conc: 49.18 ppb



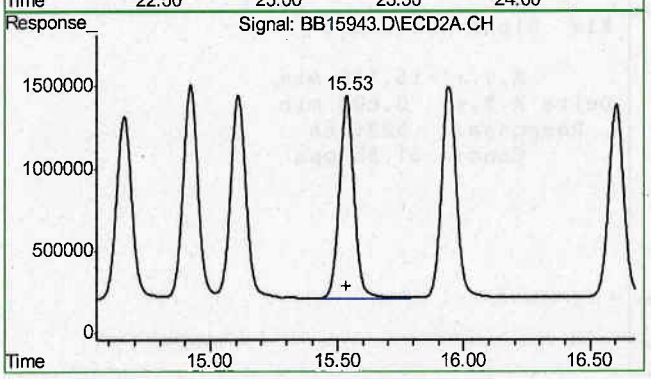
#19 Endosulfan-I

R.T.: 14.658 min
Delta R.T.: 0.002 min
Response: 4631168
Conc: 51.82 ppb



#20 4,4'-DDE

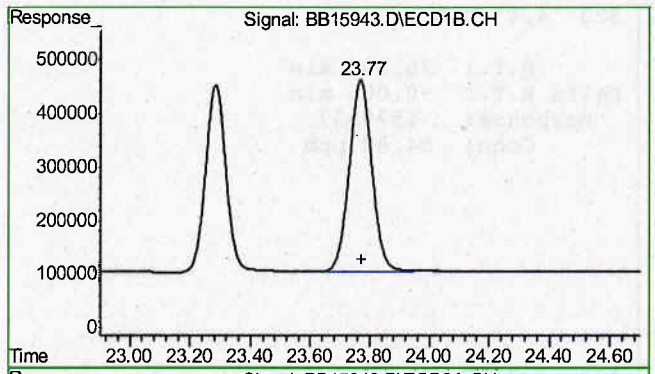
R.T.: 23.284 min
Delta R.T.: -0.001 min
Response: 1623348
Conc: 46.69 ppb



#20 4,4'-DDE

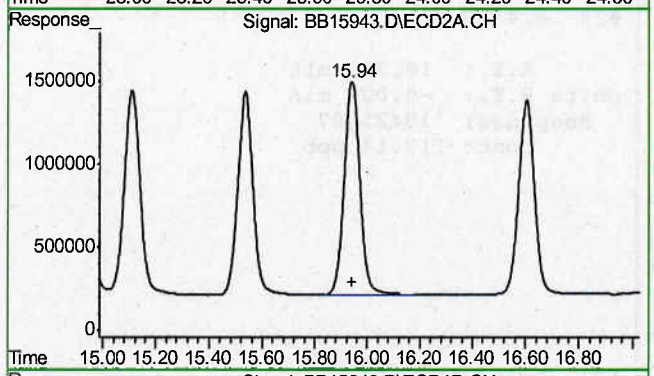
R.T.: 15.535 min
Delta R.T.: 0.000 min
Response: 4867414
Conc: 49.72 ppb

6.6.4 6



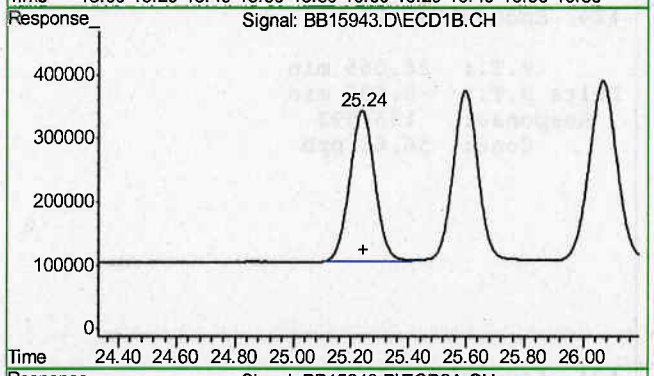
#21 Dieldrin

R.T.: 23.769 min
Delta R.T.: -0.003 min
Response: 1873335
Conc: 49.51 ppb



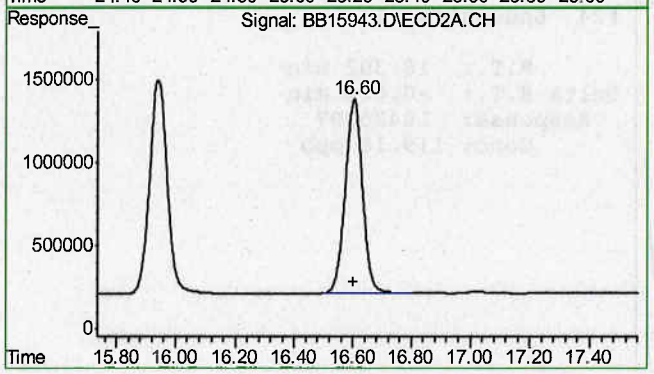
#21 Dieldrin

R.T.: 15.938 min
Delta R.T.: -0.001 min
Response: 5352848
Conc: 52.25 ppb



#22 Endrin

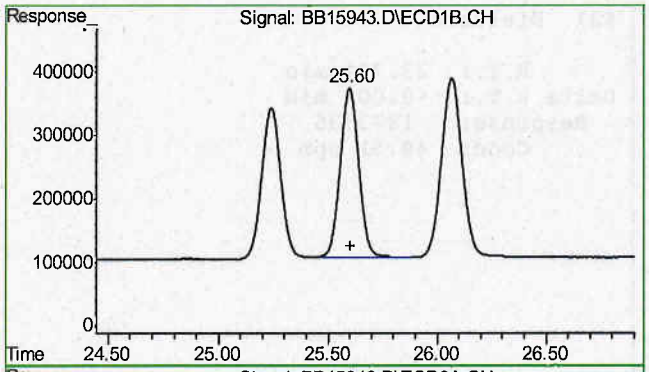
R.T.: 25.237 min
Delta R.T.: -0.006 min
Response: 1444668
Conc: 48.27 ppb



#22 Endrin

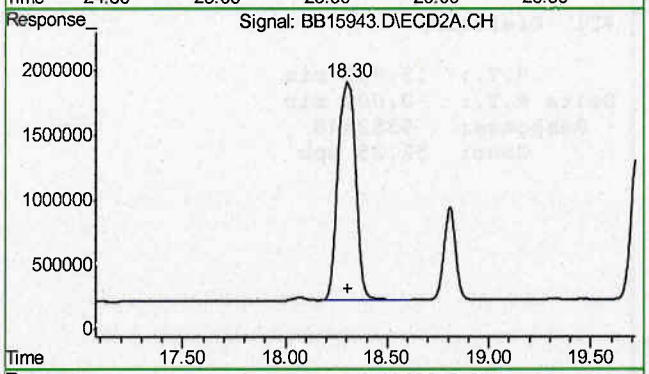
R.T.: 16.605 min
Delta R.T.: 0.004 min
Response: 4789635
Conc: 50.69 ppb

6.6.4 6



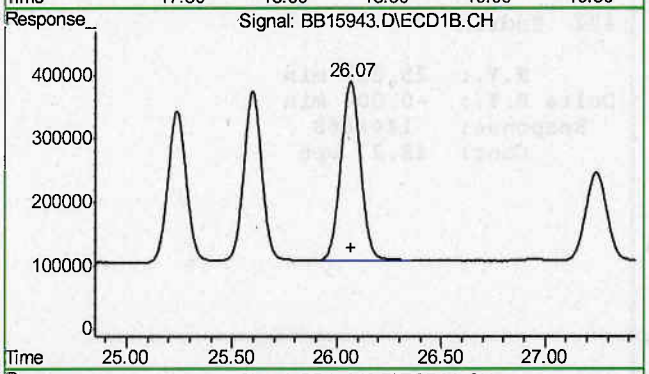
#23 4,4'-DDD

R.T.: 25.595 min
Delta R.T.: -0.006 min
Response: 1579537
Conc: 54.82 ppb



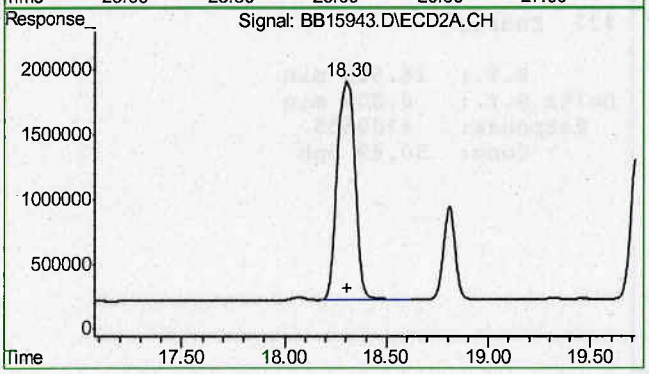
#23 4,4'-DDD

R.T.: 18.302 min
Delta R.T.: -0.006 min
Response: 10425007
Conc: 119.18 ppb



#24 Endosulfan-II

R.T.: 26.065 min
Delta R.T.: -0.005 min
Response: 1857592
Conc: 56.62 ppb



#24 Endosulfan-II

R.T.: 18.302 min
Delta R.T.: -0.006 min
Response: 10425007
Conc: 119.18 ppb

6.6.4

6

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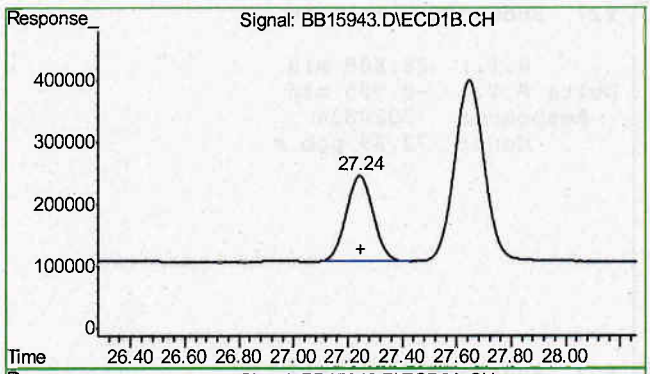
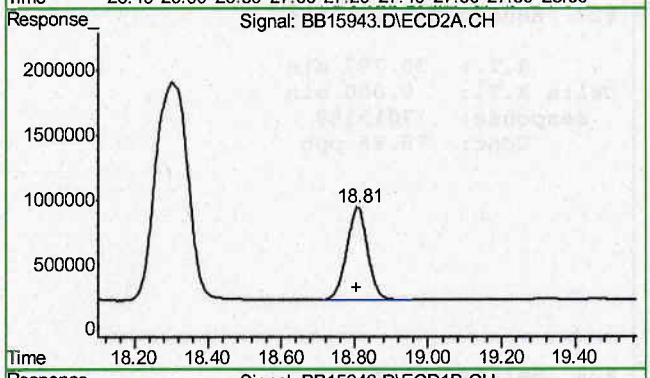


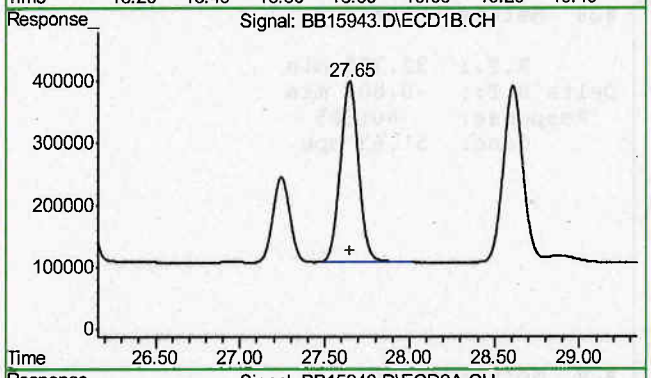
#25 4,4'-DDT

R.T.: 27.240 min
Delta R.T.: -0.008 min
Response: 960941
Conc: 48.40 ppb



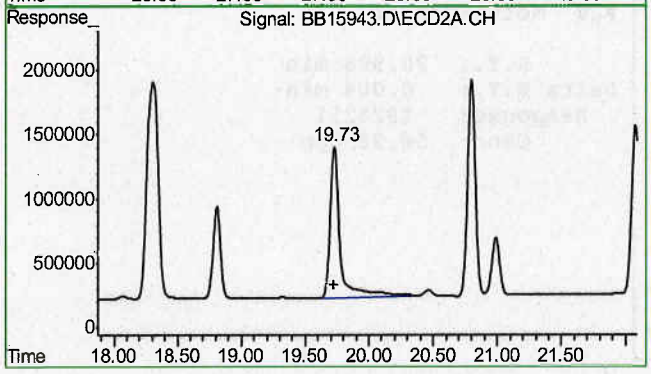
#25 4,4'-DDT

R.T.: 18.808 min
Delta R.T.: 0.002 min
Response: 2849069
Conc: 51.09 ppb



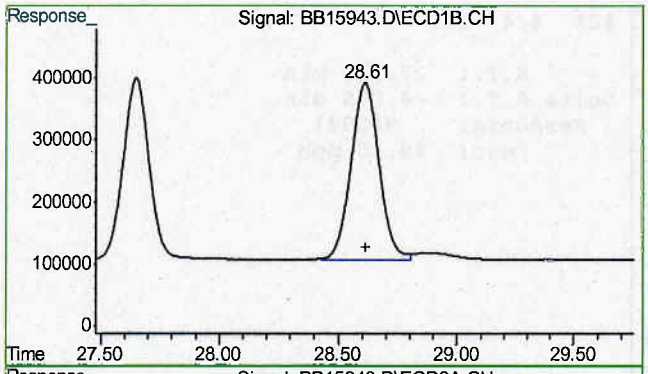
#26 Endrin aldehyde

R.T.: 27.645 min
Delta R.T.: -0.003 min
Response: 2202807
Conc: 76.47 ppb



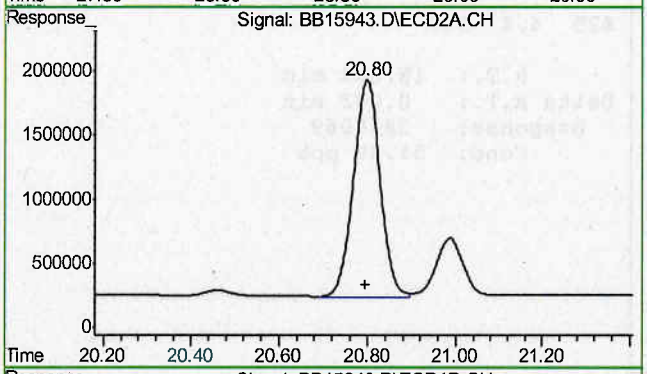
#26 Endrin aldehyde

R.T.: 19.727 min
Delta R.T.: 0.000 min
Response: 6365139
Conc: 83.45 ppb m



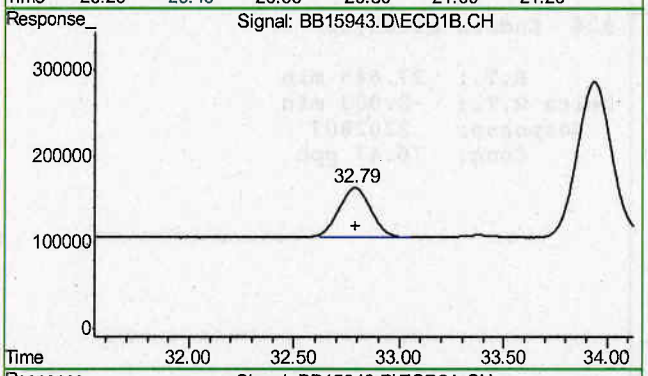
#27 Endosulfan sulfate

R.T.: 28.609 min
Delta R.T.: -0.005 min
Response: 2320324
Conc: 72.89 ppb m



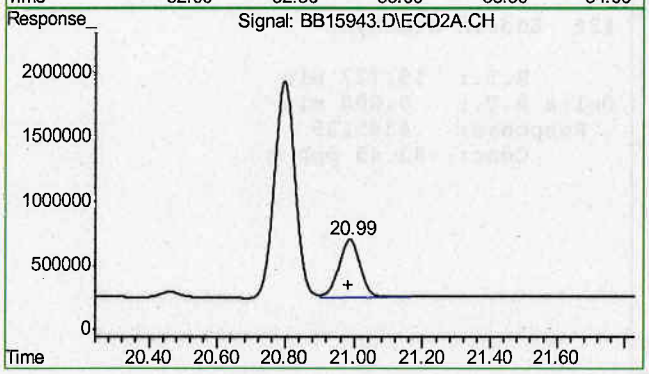
#27 Endosulfan sulfate

R.T.: 20.797 min
Delta R.T.: 0.000 min
Response: 7013158
Conc: 76.86 ppb



#28 Methoxychlor

R.T.: 32.785 min
Delta R.T.: -0.006 min
Response: 601385
Conc: 51.63 ppb



#28 Methoxychlor

R.T.: 20.988 min
Delta R.T.: 0.004 min
Response: 1925251
Conc: 56.94 ppb

6.6.4 6

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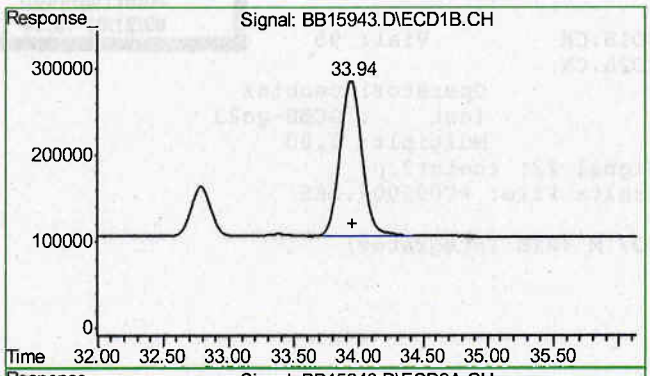
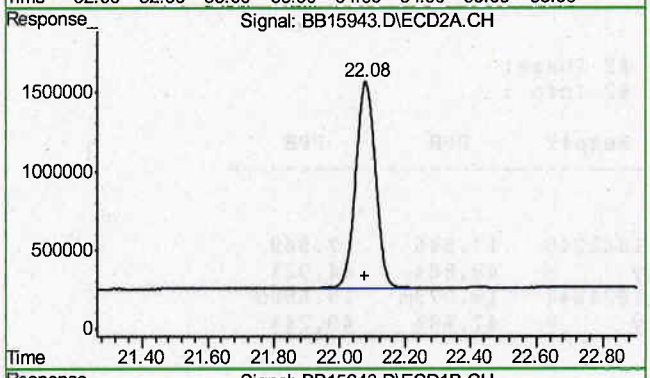


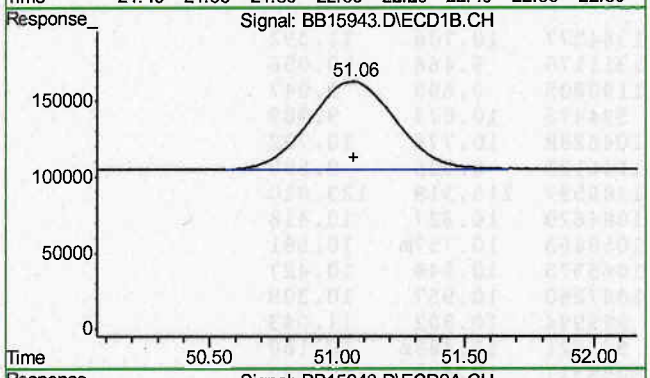
#29 Endrin ketone

R.T.: 33.939 min
Delta R.T.: -0.013 min
Response: 2091803
Conc: 61.52 ppb



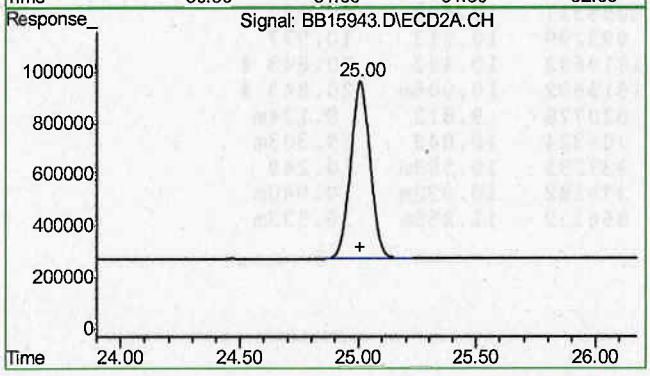
#29 Endrin ketone

R.T.: 22.077 min
Delta R.T.: 0.000 min
Response: 5453974
Conc: 66.54 ppb m



#38 DCB

R.T.: 51.059 min
Delta R.T.: -0.001 min
Response: 1353314
Conc: 37.94 ppb m



#38 DCB

R.T.: 25.005 min
Delta R.T.: -0.001 min
Response: 3921129
Conc: 40.02 ppb m

6.6.4 6

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15944.D\ECD1B.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BB15944.D\ECD2A.CH
Acq On : 9-20-07 09:56:13 PM Operator: caobinz
Sample : ic667-10,pest 10 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:59:30 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:58:21 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	711419	1862245	17.546	17.969
	Spiked Amount 40.000			Recovery	=	43.86%	44.92%
38) s	DCB	51.05	25.01	671102	1924044	19.073m	19.698m
	Spiked Amount 40.000			Recovery	=	47.68%	49.24%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	541279	1364277	10.706	11.392
9)	alpha-BHC	14.87	8.52	581807	1311178	9.466	10.056
10)	gamma-BHC	16.39	9.86	507326	1190805	9.695	9.947
11)	beta-BHC	16.63	12.58	258559	594476	10.079	9.989
12)	Heptachlor	17.97	10.50	384681	1046288	10.774	10.792
13)	delta-BHC	18.03	13.34	516867	1146123	9.525	9.599
14)	Alachlor	18.32	11.95	620579	1386597	115.318	123.810
15)	Aldrin	19.26	11.41	482188	1084629	10.327	10.418
16)	Heptachlor Epoxi	21.27	13.77	442888	1058465	10.757m	10.581
17)	gamma-Chlordane	21.99	14.92	419145	1065375	10.548	10.427
18)	alpha-Chlordane	22.55	15.11	400864	1047260	10.957	10.309
19)	Endosulfan-I	22.65	14.66	378198	989994	10.802	11.043
20)	4,4'-DDE	23.28	15.53	361865	991621	10.488m	10.188
21)	Dieldrin	23.77	15.94	394994	1058317	10.498	10.352
22)	Endrin	25.24	16.60	302970	993199	10.213	10.577
23)	4,4'-DDD	25.60	18.30	299518	1819692	10.493	20.843 #
24)	Endosulfan-II	26.07	18.30	356561	1819692	10.906m	20.843 #
25)	4,4'-DDT	27.24	18.80	196369	520778	9.812	9.134m
26)	Endrin aldehyde	27.65	19.72	286803	706324	10.043	9.303m
27)	Endosulfan sulfa	28.61	20.80	335160	937231	10.588m	10.249
28)	Methoxychlor	32.79	20.98	125813	375182	10.932m	10.940m
29)	Endrin ketone	33.94	22.08	379770	866152	11.255m	10.533m

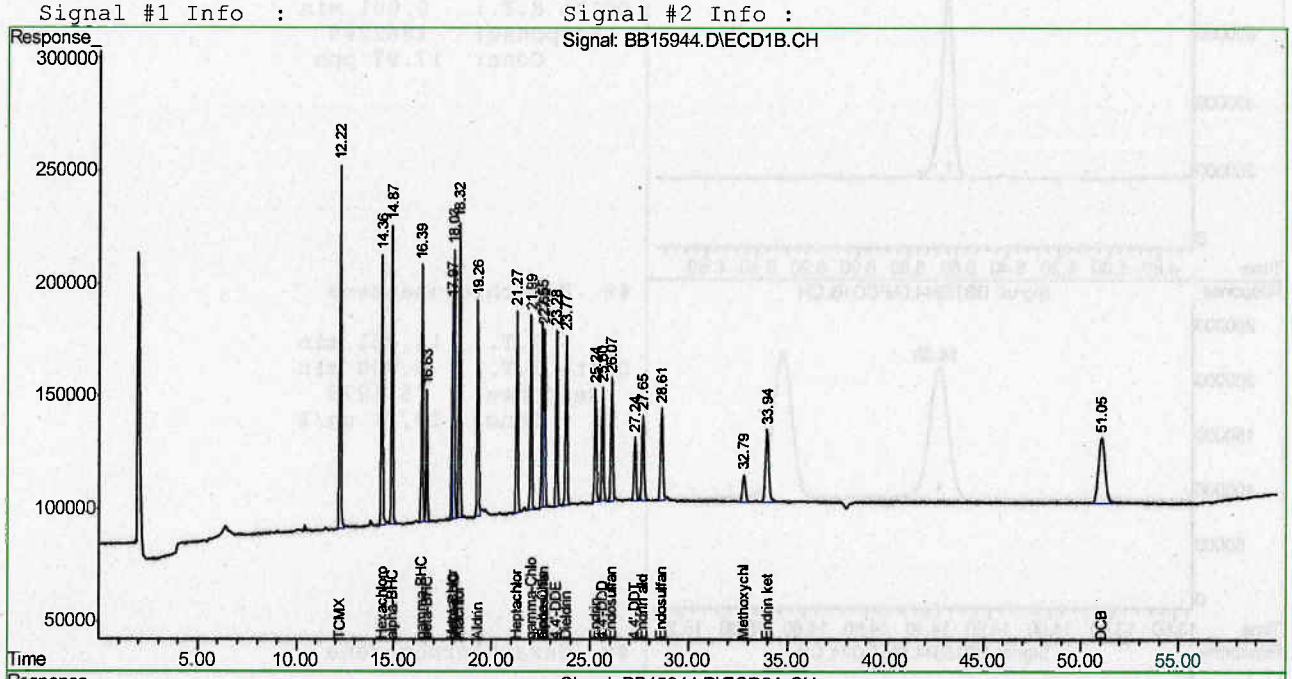
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15944.D PT092007.M Fri Sep 21 11:06:16 2007 GC23PRN

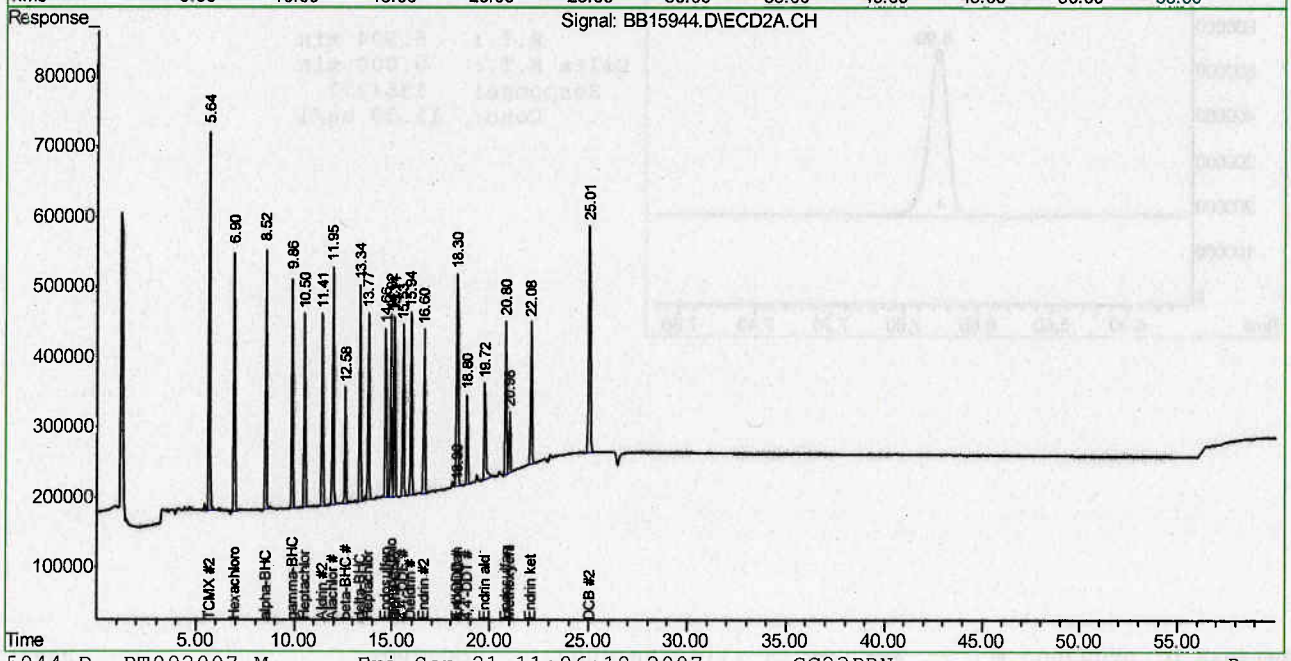
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15944.D\ECD1B.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BB15944.D\ECD2A.CH
Acq On : 9-20-07 09:56:13 PM Operator: caobinz
Sample : ic667-10,pest 10 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:06 2007 Quant Results File: PT092007.RES

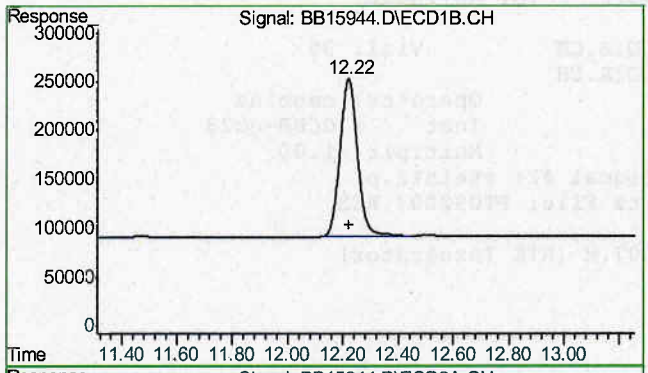
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:58:21 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



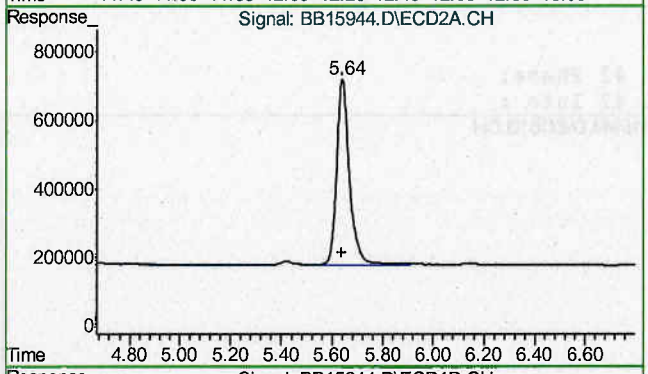


ACCUTEST Laboratories M67604



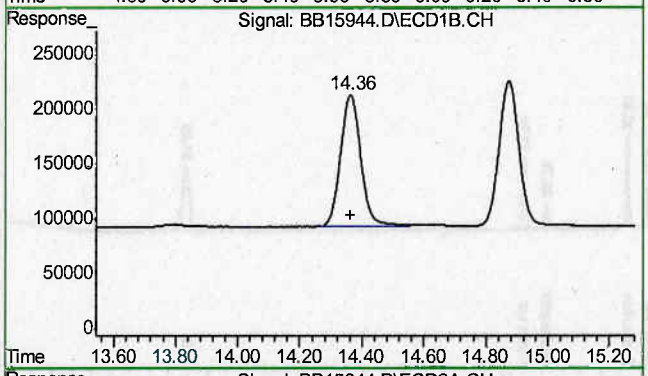
#1 TCMX

R.T.: 12.220 min
Delta R.T.: 0.000 min
Response: 711419
Conc: 17.55 ppb



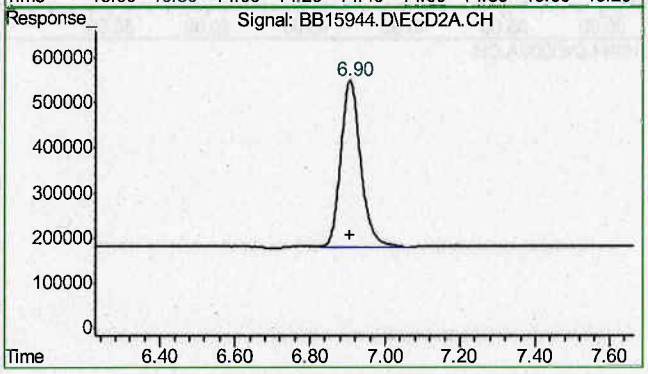
#1 TCMX

R.T.: 5.640 min
Delta R.T.: 0.001 min
Response: 1862245
Conc: 17.97 ppb



#8 Hexachlorobenzene

R.T.: 14.361 min
Delta R.T.: 0.000 min
Response: 541279
Conc: 10.71 ug/l

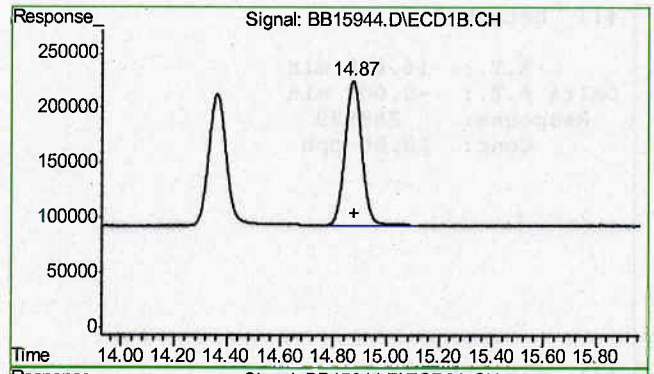


#8 Hexachlorobenzene

R.T.: 6.904 min
Delta R.T.: 0.000 min
Response: 1364277
Conc: 11.39 ug/l

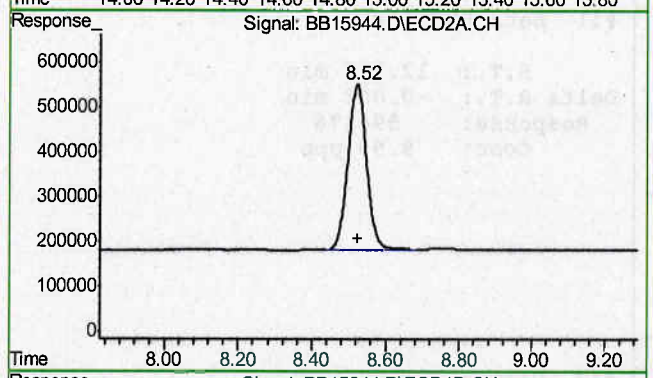
6.6.5

6



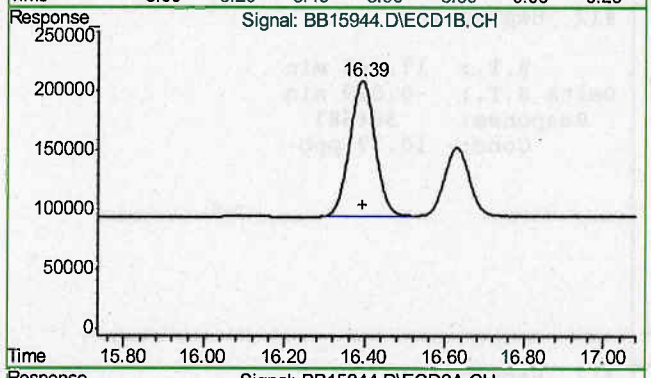
#9 alpha-BHC

R.T.: 14.873 min
Delta R.T.: -0.002 min
Response: 581807
Conc: 9.47 ppb



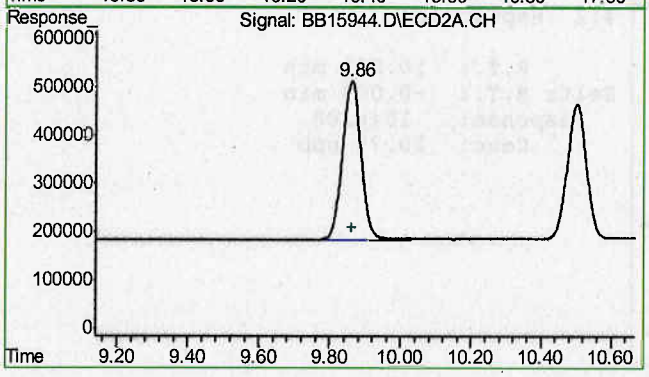
#9 alpha-BHC

R.T.: 8.523 min
Delta R.T.: -0.002 min
Response: 1311178
Conc: 10.06 ppb



#10 gamma-BHC

R.T.: 16.393 min
Delta R.T.: 0.000 min
Response: 507326
Conc: 9.69 ppb

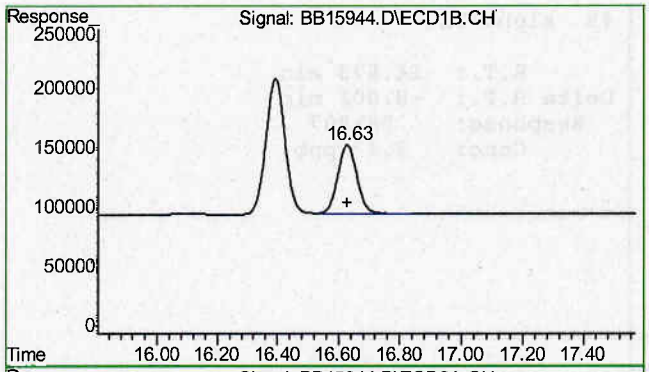


#10 gamma-BHC

R.T.: 9.861 min
Delta R.T.: 0.000 min
Response: 1190805
Conc: 9.95 ppb

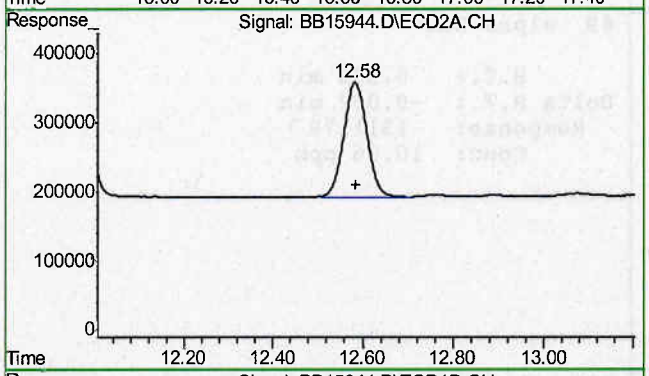
6.6.5

6



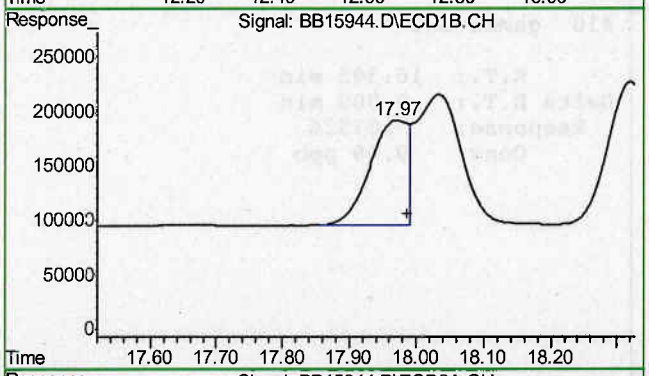
#11 beta-BHC

R.T.: 16.628 min
Delta R.T.: -0.002 min
Response: 258559
Conc: 10.08 ppb



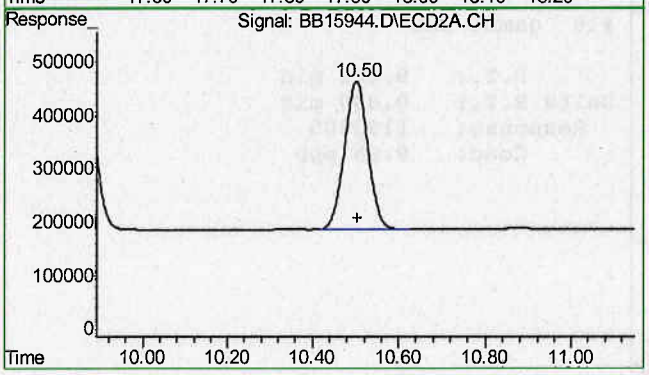
#11 beta-BHC

R.T.: 12.583 min
Delta R.T.: -0.002 min
Response: 594476
Conc: 9.99 ppb



#12 Heptachlor

R.T.: 17.968 min
Delta R.T.: -0.019 min
Response: 384681
Conc: 10.77 ppb

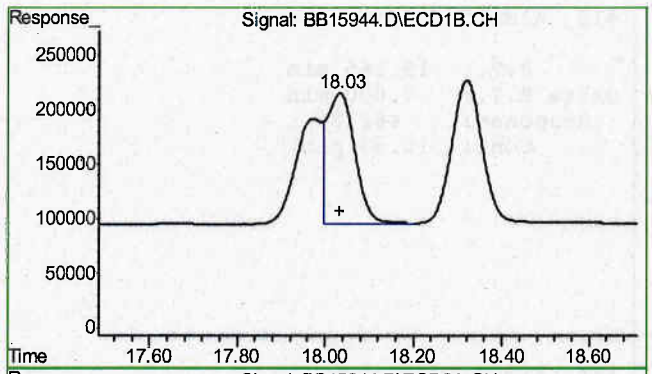


#12 Heptachlor

R.T.: 10.501 min
Delta R.T.: -0.004 min
Response: 1046288
Conc: 10.79 ppb

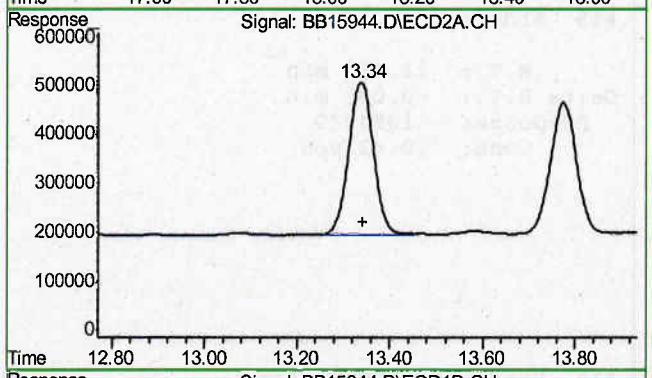
6.6.5

6



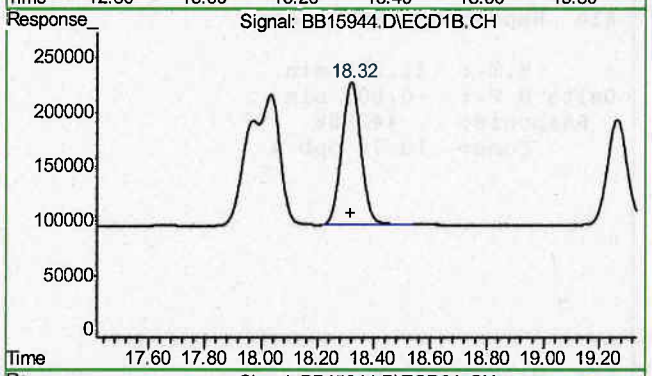
#13 delta-BHC

R.T.: 18.033 min
Delta R.T.: -0.002 min
Response: 516867
Conc: 9.53 ppb



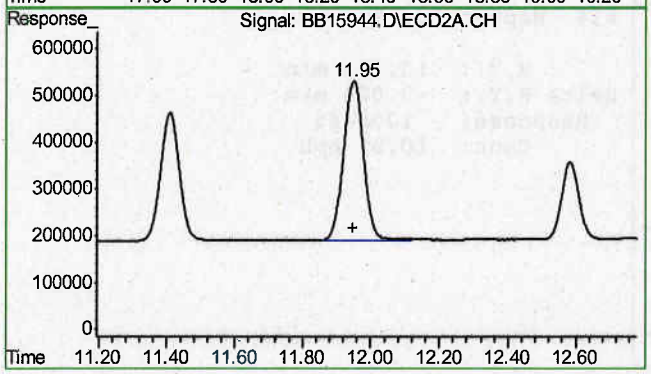
#13 delta-BHC

R.T.: 13.338 min
Delta R.T.: -0.005 min
Response: 1146123
Conc: 9.60 ppb



#14 Alachlor

R.T.: 18.322 min
Delta R.T.: 0.001 min
Response: 620579
Conc: 115.32 ug/l

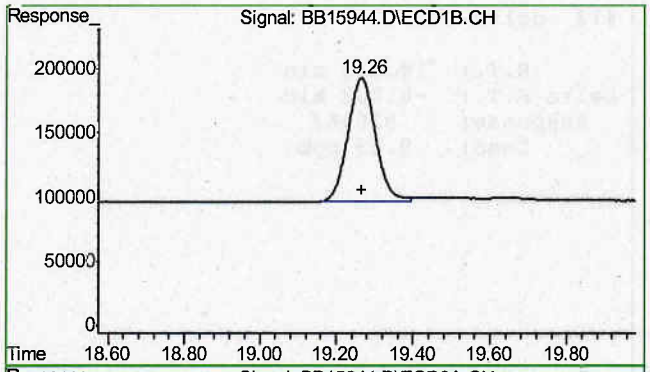


#14 Alachlor

R.T.: 11.950 min
Delta R.T.: 0.001 min
Response: 1386597
Conc: 123.81 ug/l

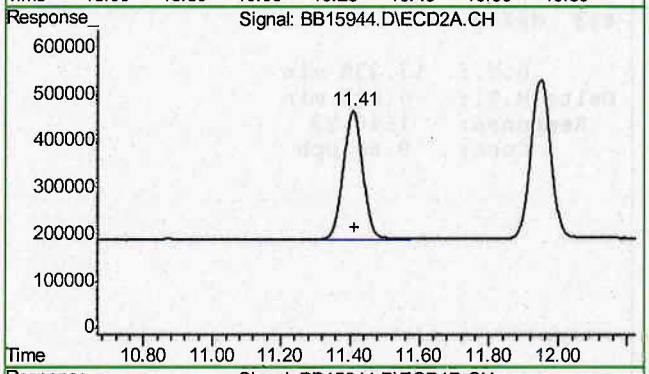
6.6.5

6



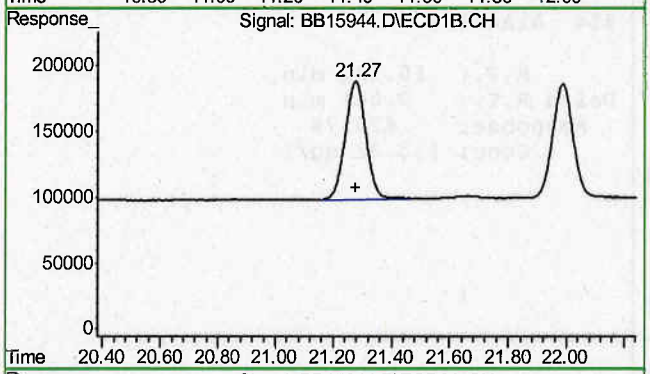
#15 Aldrin

R.T.: 19.265 min
Delta R.T.: 0.000 min
Response: 482188
Conc: 10.33 ppb



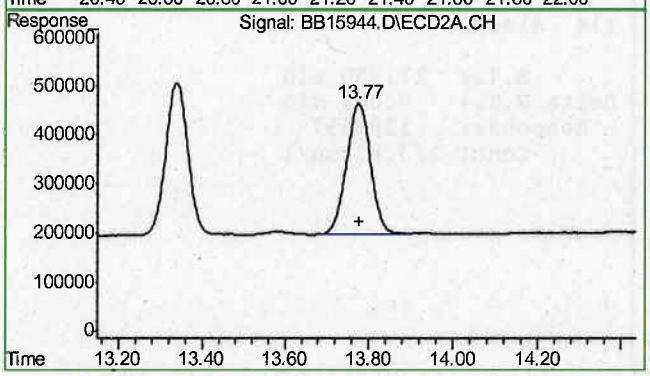
#15 Aldrin

R.T.: 11.410 min
Delta R.T.: -0.002 min
Response: 1084629
Conc: 10.42 ppb



#16 Heptachlor Epoxide

R.T.: 21.275 min
Delta R.T.: -0.002 min
Response: 442888
Conc: 10.76 ppb m

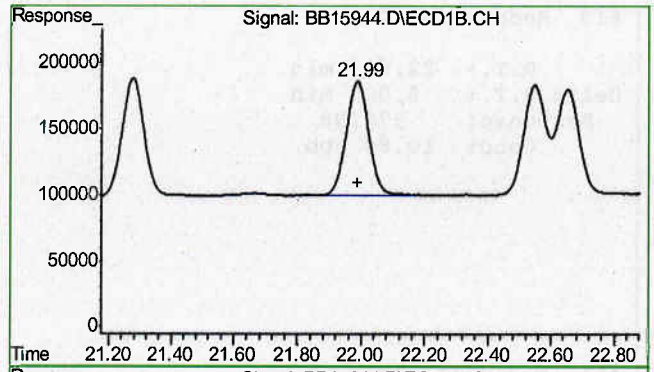


#16 Heptachlor Epoxide

R.T.: 13.773 min
Delta R.T.: -0.004 min
Response: 1058465
Conc: 10.58 ppb

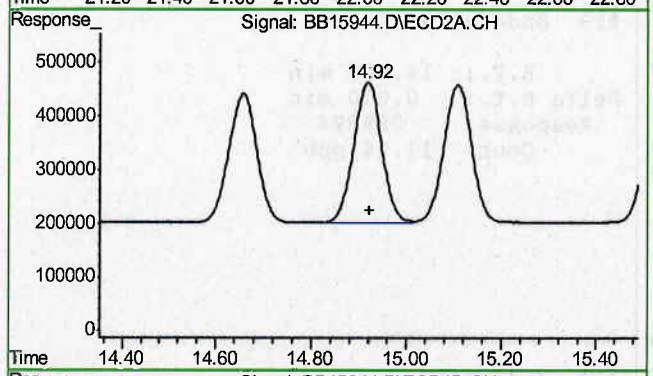
6.6.5

6



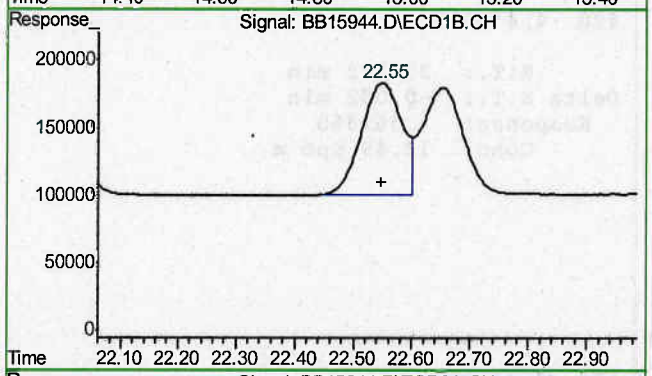
#17 gamma-Chlordane

R.T.: 21.986 min
Delta R.T.: 0.000 min
Response: 419145
Conc: 10.55 ppb



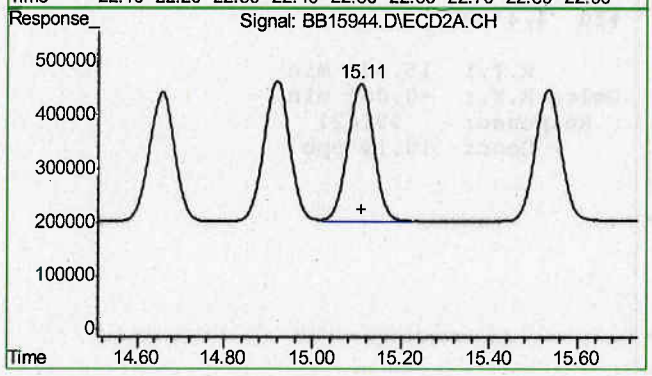
#17 gamma-Chlordane

R.T.: 14.918 min
Delta R.T.: -0.004 min
Response: 1065375
Conc: 10.43 ppb



#18 alpha-Chlordane

R.T.: 22.550 min
Delta R.T.: 0.001 min
Response: 400864
Conc: 10.96 ppb

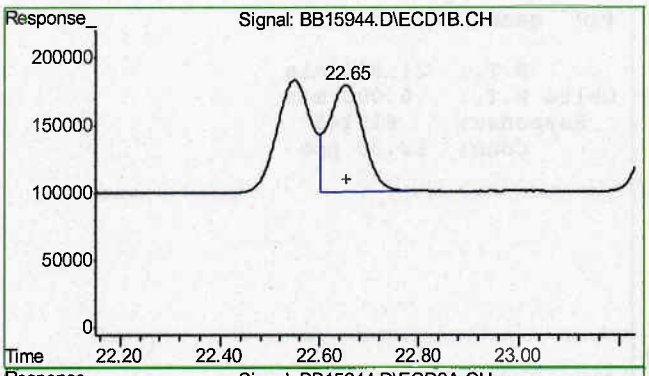


#18 alpha-Chlordane

R.T.: 15.108 min
Delta R.T.: -0.002 min
Response: 1047260
Conc: 10.31 ppb

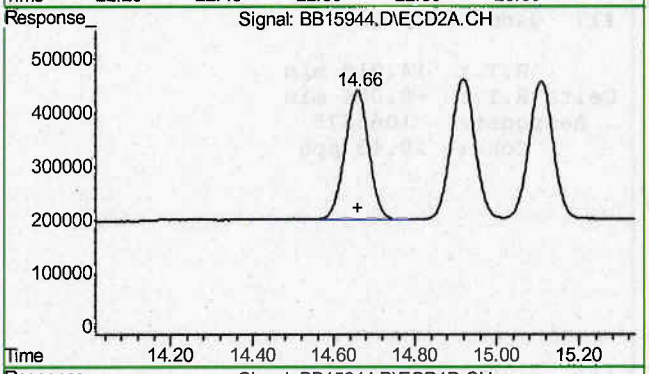
6.6.5

6



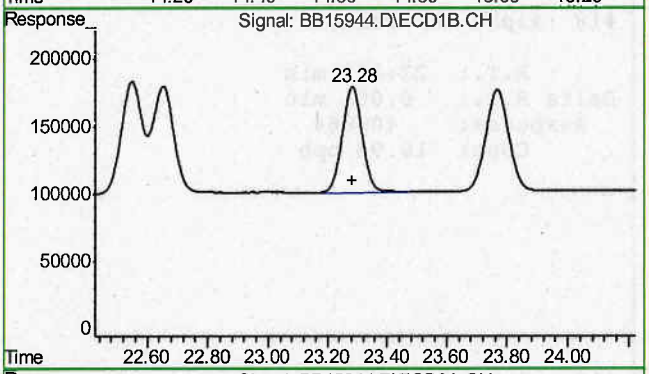
#19 Endosulfan-I

R.T.: 22.653 min
Delta R.T.: 0.000 min
Response: 378198
Conc: 10.80 ppb



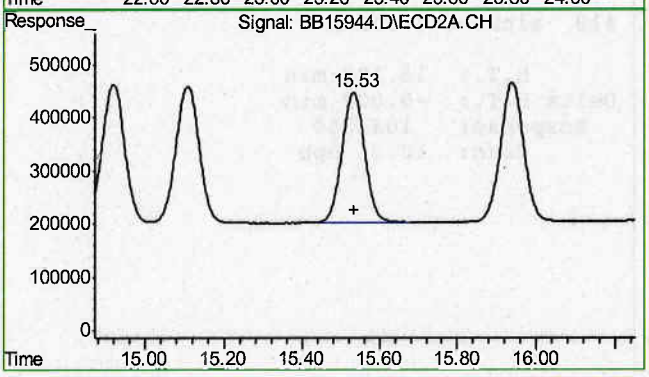
#19 Endosulfan-I

R.T.: 14.658 min
Delta R.T.: 0.000 min
Response: 989994
Conc: 11.04 ppb



#20 4,4'-DDE

R.T.: 23.282 min
Delta R.T.: -0.002 min
Response: 361865
Conc: 10.49 ppb m



#20 4,4'-DDE

R.T.: 15.533 min
Delta R.T.: -0.002 min
Response: 991621
Conc: 10.19 ppb

6.6.5

6

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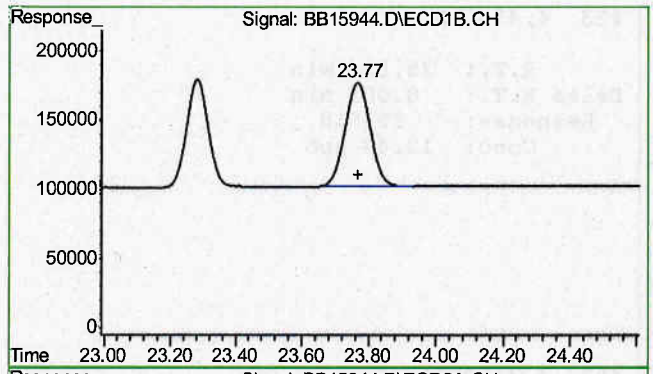
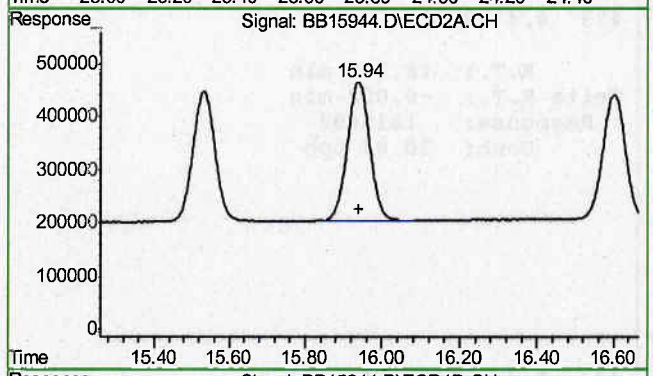


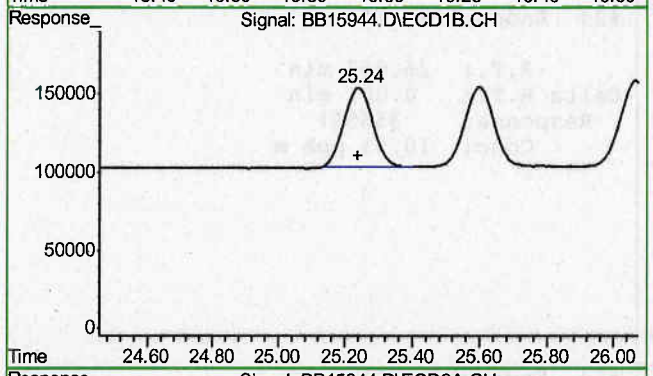
#21 Dieldrin

R.T.: 23.767 min
Delta R.T.: -0.002 min
Response: 394994
Conc: 10.50 ppb



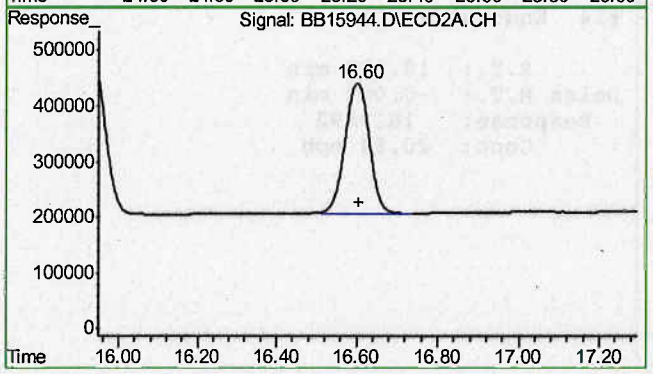
#21 Dieldrin

R.T.: 15.936 min
Delta R.T.: -0.002 min
Response: 1058317
Conc: 10.35 ppb



#22 Endrin

R.T.: 25.238 min
Delta R.T.: 0.001 min
Response: 302970
Conc: 10.21 ppb

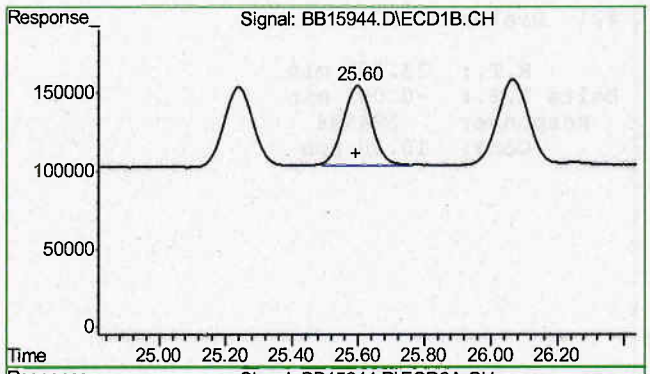


#22 Endrin

R.T.: 16.603 min
Delta R.T.: -0.002 min
Response: 993199
Conc: 10.58 ppb

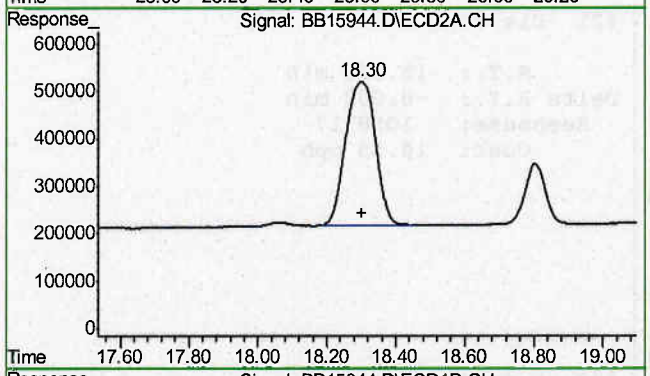
6.6.5

6



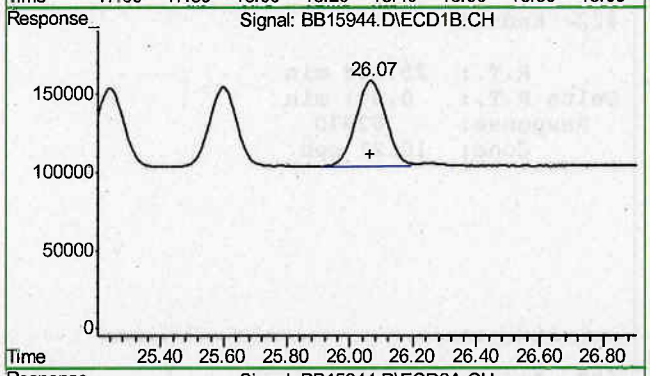
#23 4,4'-DDD

R.T.: 25.596 min
Delta R.T.: 0.001 min
Response: 299518
Conc: 10.49 ppb



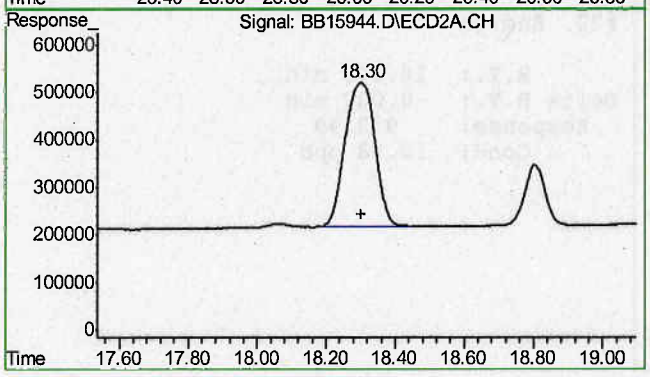
#23 4,4'-DDD

R.T.: 18.299 min
Delta R.T.: -0.002 min
Response: 1819692
Conc: 20.84 ppb



#24 Endosulfan-II

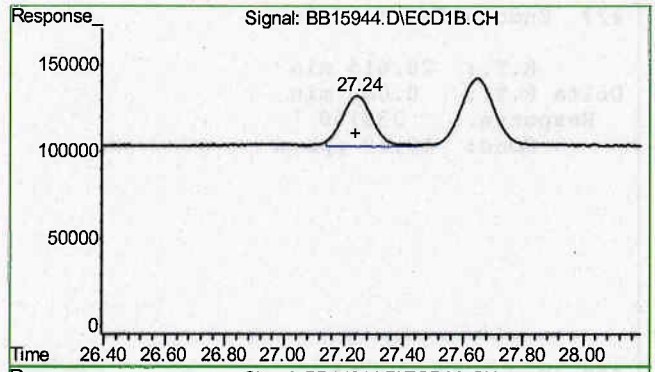
R.T.: 26.067 min
Delta R.T.: 0.001 min
Response: 356561
Conc: 10.91 ppb m



#24 Endosulfan-II

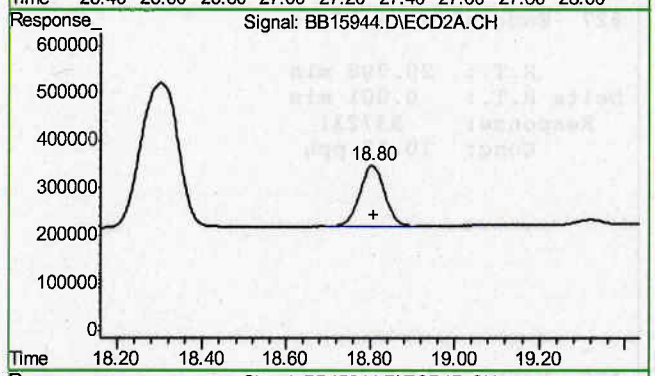
R.T.: 18.299 min
Delta R.T.: -0.002 min
Response: 1819692
Conc: 20.84 ppb

6.6.5 6



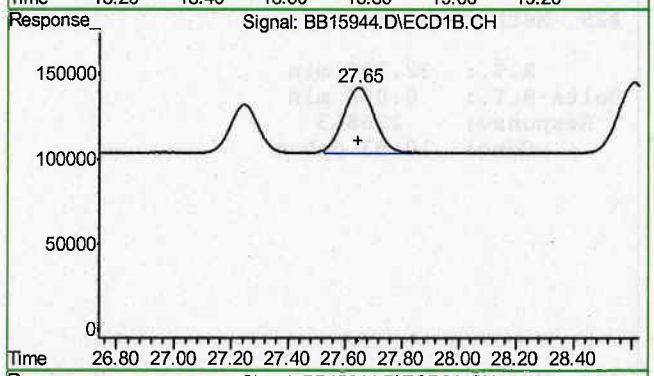
#25 4,4'-DDT

R.T.: 27.245 min
Delta R.T.: 0.005 min
Response: 196369
Conc: 9.81 ppb



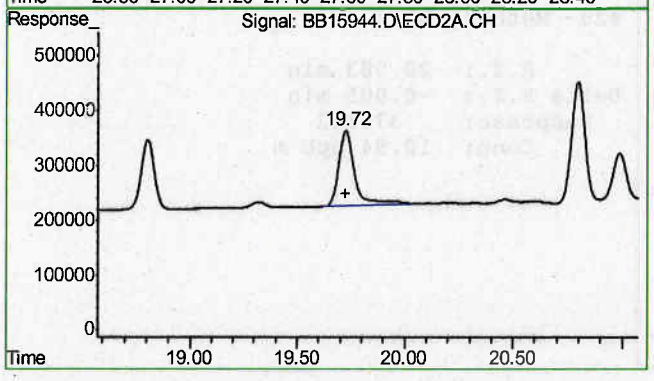
#25 4,4'-DDT

R.T.: 18.803 min
Delta R.T.: -0.005 min
Response: 520778
Conc: 9.13 ppb m



#26 Endrin aldehyde

R.T.: 27.648 min
Delta R.T.: 0.003 min
Response: 286803
Conc: 10.04 ppb

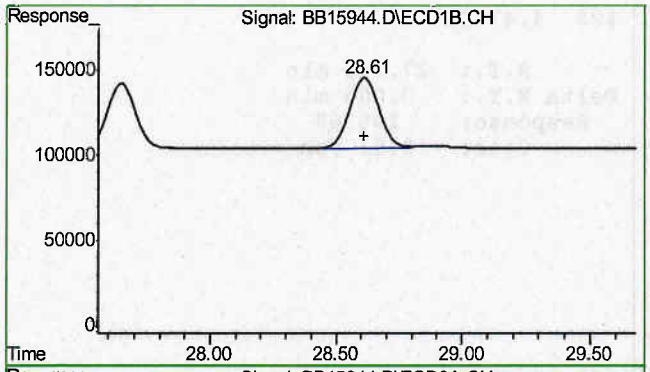


#26 Endrin aldehyde

R.T.: 19.723 min
Delta R.T.: -0.004 min
Response: 706324
Conc: 9.30 ppb m

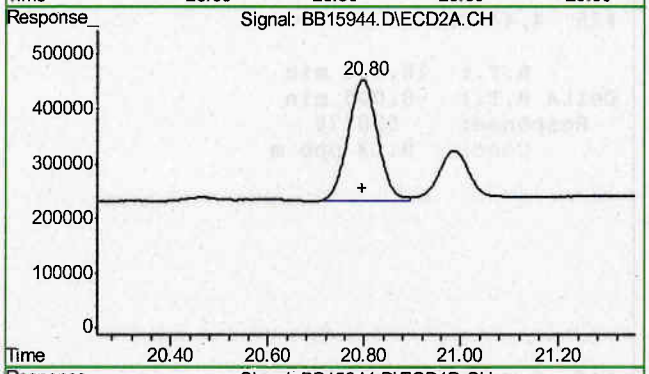
6.6.5

6



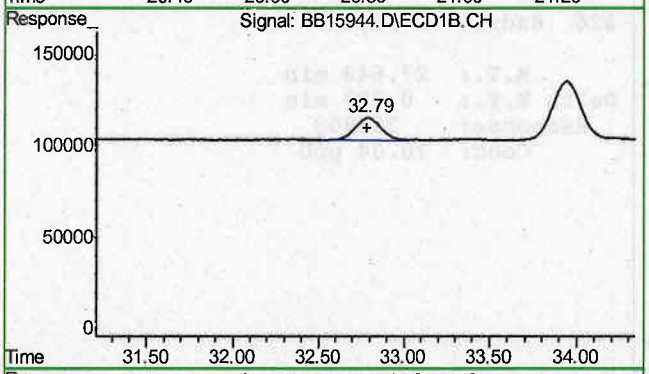
#27 Endosulfan sulfate

R.T.: 28.615 min
Delta R.T.: 0.006 min
Response: 335160
Conc: 10.59 ppb m



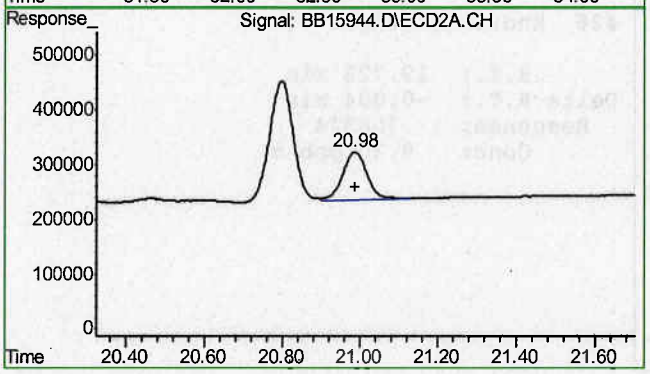
#27 Endosulfan sulfate

R.T.: 20.798 min
Delta R.T.: 0.001 min
Response: 937231
Conc: 10.25 ppb



#28 Methoxychlor

R.T.: 32.790 min
Delta R.T.: 0.005 min
Response: 125813
Conc: 10.93 ppb m



#28 Methoxychlor

R.T.: 20.983 min
Delta R.T.: -0.005 min
Response: 375182
Conc: 10.94 ppb m

6.6.5

6

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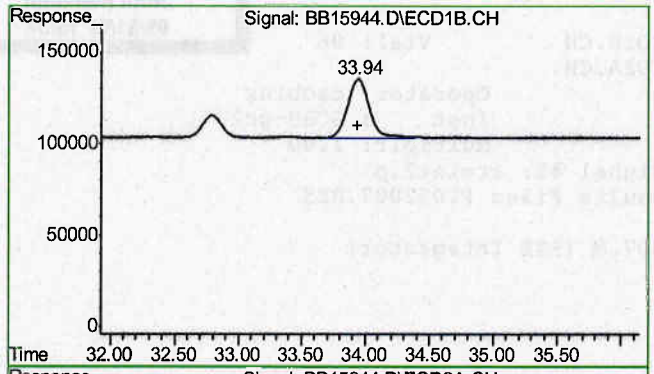
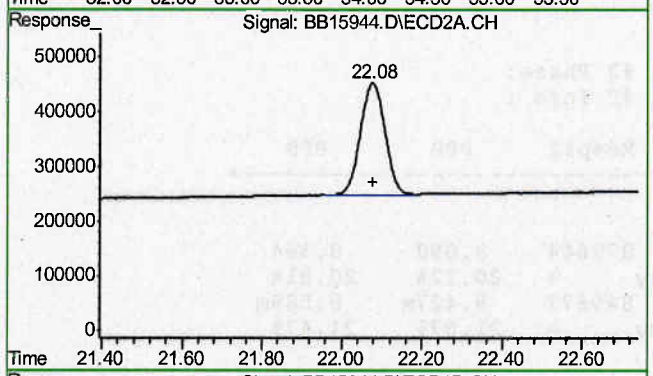


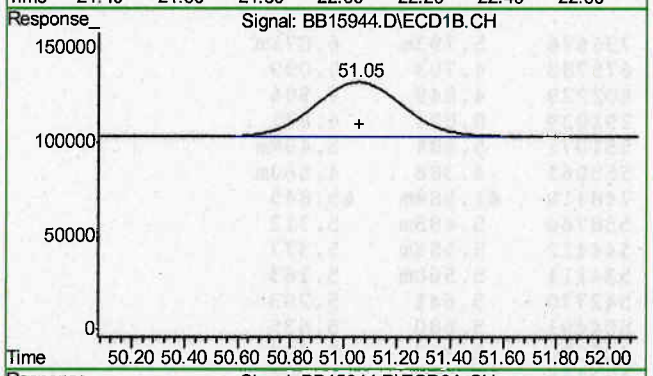
#29 Endrin ketone

R.T.: 33.937 min
Delta R.T.: -0.002 min
Response: 379770
Conc: 11.25 ppb m



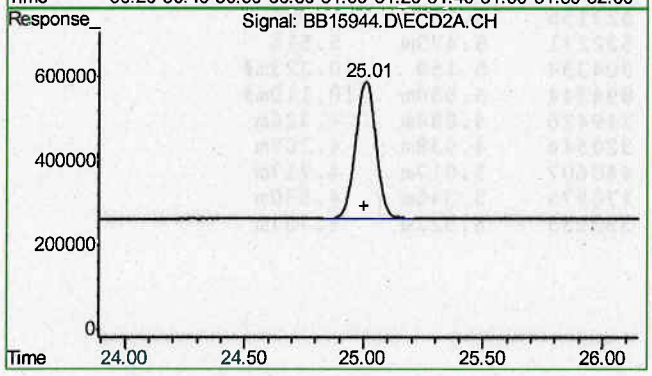
#29 Endrin ketone

R.T.: 22.076 min
Delta R.T.: 0.000 min
Response: 866152
Conc: 10.53 ppb m



#38 DCB

R.T.: 51.053 min
Delta R.T.: -0.005 min
Response: 671102
Conc: 19.07 ppb m



#38 DCB

R.T.: 25.011 min
Delta R.T.: 0.006 min
Response: 1924044
Conc: 19.70 ppb m

6.6.5

6

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15945.D\ECD1B.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\BB15945.D\ECD2A.CH
Acq On : 20 Sep 2007 11:01 pm Operator: caobinz
Sample : ic667-5,pest 5 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:07:26 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:06:51 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	327865	872644	8.090	8.364
	Spiked Amount 40.000			Recovery	=	20.22%	20.91%
38) s	DCB	51.04	25.00	296952	849677	8.427m	8.589m
	Spiked Amount 40.000			Recovery	=	21.07%	21.47%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	292428	731676	5.793m	6.071m
9)	alpha-BHC	14.87	8.52	291028	675783	4.703	5.099
10)	gamma-BHC	16.39	9.86	257735	602229	4.849	4.906
11)	beta-BHC	16.63	12.58	130125	291029	5.024	4.831
12)	Heptachlor	17.97	10.50	204204	551071	5.584	5.498m
13)	delta-BHC	18.03	13.34	242011	555061	4.386	4.560m
14)	Alachlor	18.32	11.95	334244	748418	61.588m	65.845
15)	Aldrin	19.26	11.41	257037	558760	5.485m	5.312
16)	Heptachlor Epoxi	21.27	13.77	230858	544412	5.556m	5.377
17)	gamma-Chlordane	21.98	14.92	222670	534111	5.560m	5.163
18)	alpha-Chlordane	22.55	15.11	208341	542770	5.641	5.293
19)	Endosulfan-I	22.65	14.66	201367	504491	5.680	5.535
20)	4,4'-DDE	23.28	15.53	183957	499290	5.303m	5.092
21)	Dieldrin	23.76	15.94	202280	527155	5.335	5.096
22)	Endrin	25.24	16.60	161992	522271	5.473m	5.515
23)	4,4'-DDD	25.59	18.31	148923	904334	5.159	10.223m#
24)	Endosulfan-II	26.06	18.31	183702	894344	5.550m	10.110m#
25)	4,4'-DDT	27.24	18.81	97390	249426	4.884m	4.326m
26)	Endrin aldehyde	27.65	19.72	141803	320544	4.938m	4.207m
27)	Endosulfan sulfa	28.60	20.79	161125	440607	5.017m	4.717m
28)	Methoxychlor	32.78	20.98	60844	170975	5.345m	4.930m
29)	Endrin ketone	33.93	22.08	182522	399635	5.322m	4.757m

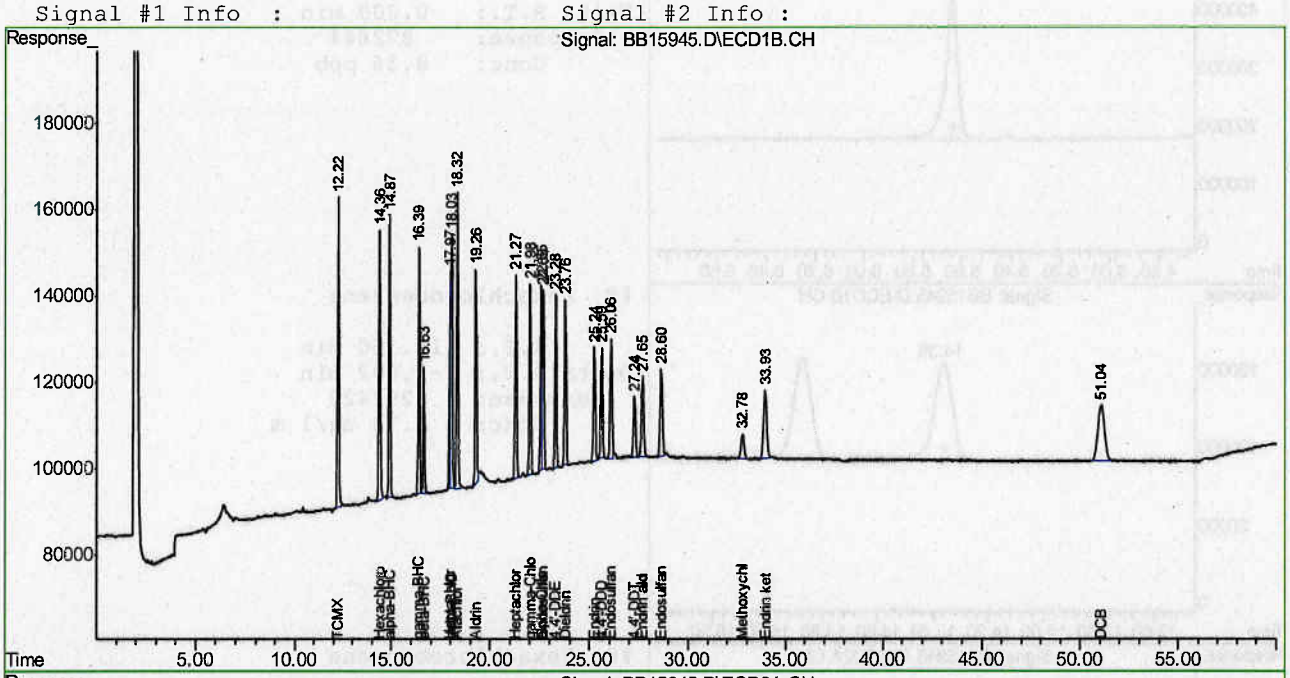
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15945.D PT092007.M Fri Sep 21 11:15:28 2007 GC23PRN

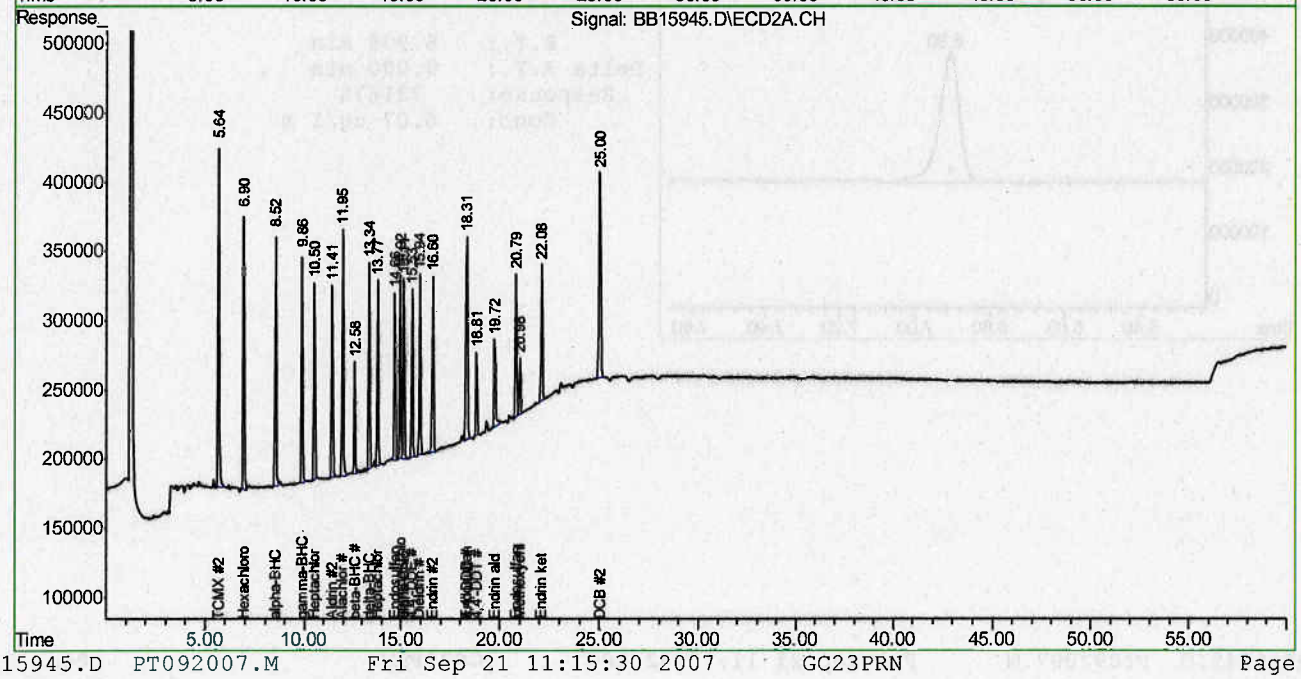
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15945.D\ECD1B.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\BB15945.D\ECD2A.CH
Acq On : 20 Sep 2007 11:01 pm Operator: caobinz
Sample : ic667-5,pest 5 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:15 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:06:51 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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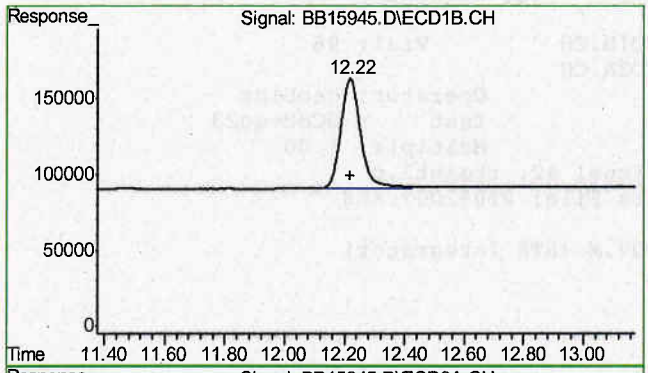
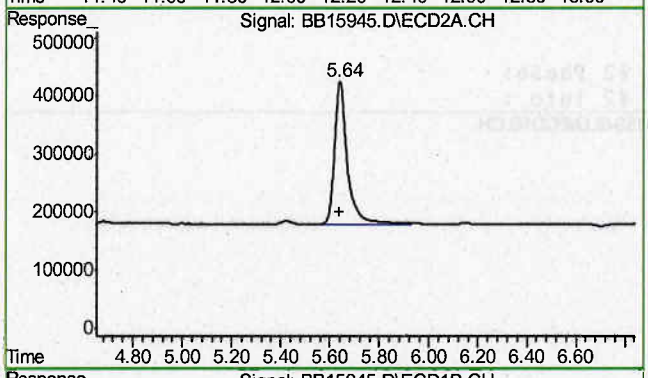


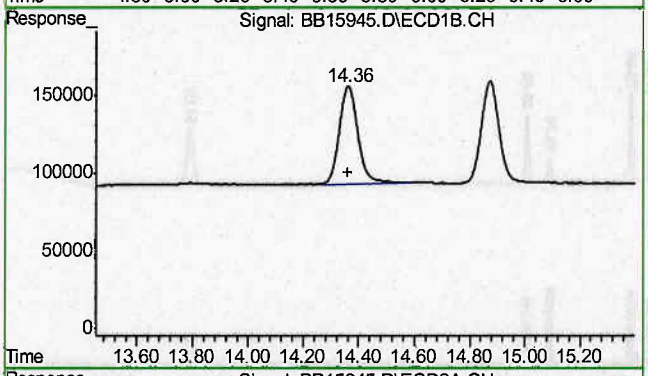
#1 TCMX

R.T.: 12.218 min
Delta R.T.: -0.002 min
Response: 327865
Conc: 8.09 ppb



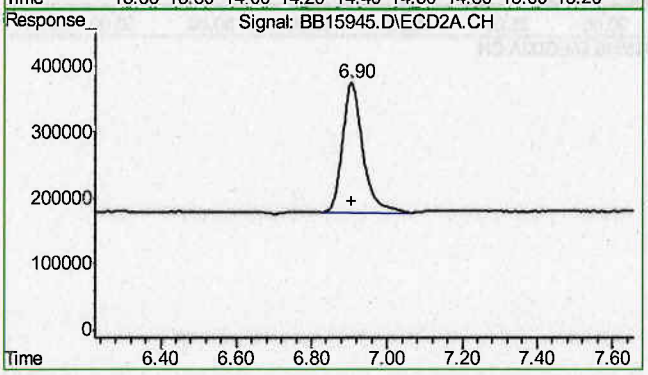
#1 TCMX

R.T.: 5.639 min
Delta R.T.: 0.000 min
Response: 872644
Conc: 8.36 ppb



#8 Hexachlorobenzene

R.T.: 14.360 min
Delta R.T.: -0.002 min
Response: 292428
Conc: 5.79 ug/l m



#8 Hexachlorobenzene

R.T.: 6.904 min
Delta R.T.: 0.000 min
Response: 731676
Conc: 6.07 ug/l m

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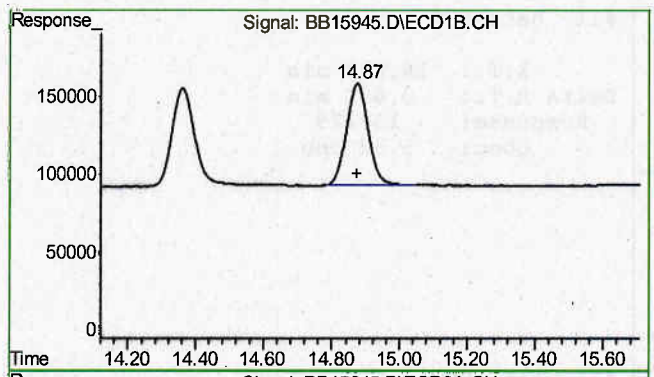
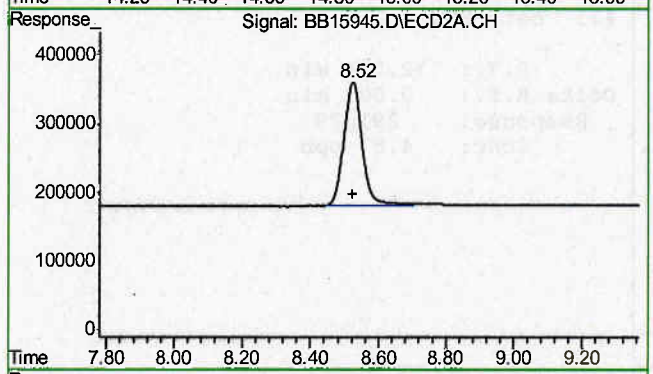


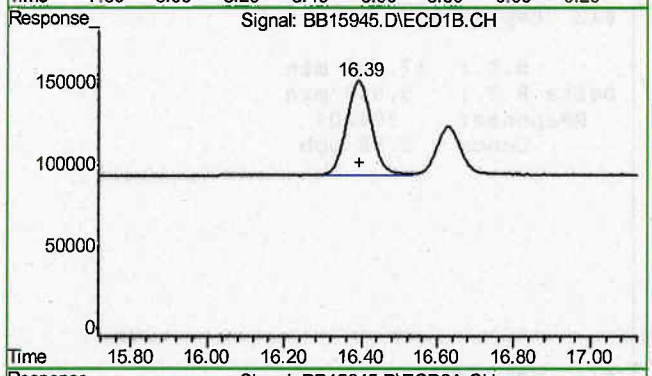
#9 alpha-BHC

R.T.: 14.873 min
Delta R.T.: 0.000 min
Response: 291028
Conc: 4.70 ppb



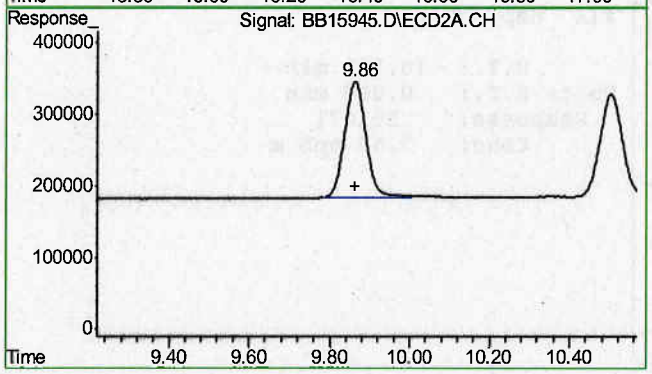
#9 alpha-BHC

R.T.: 8.523 min
Delta R.T.: 0.000 min
Response: 675783
Conc: 5.10 ppb



#10 gamma-BHC

R.T.: 16.391 min
Delta R.T.: -0.002 min
Response: 257735
Conc: 4.85 ppb

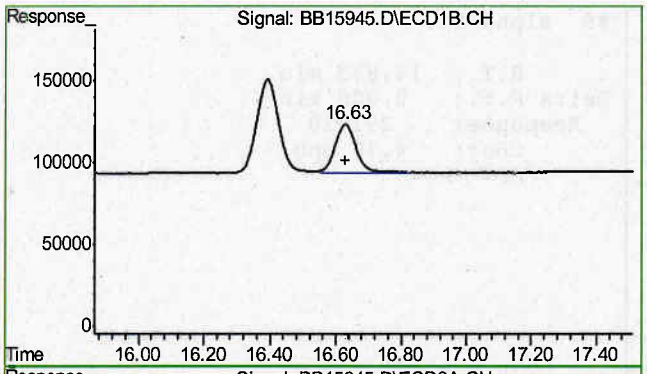


#10 gamma-BHC

R.T.: 9.861 min
Delta R.T.: 0.000 min
Response: 602229
Conc: 4.91 ppb

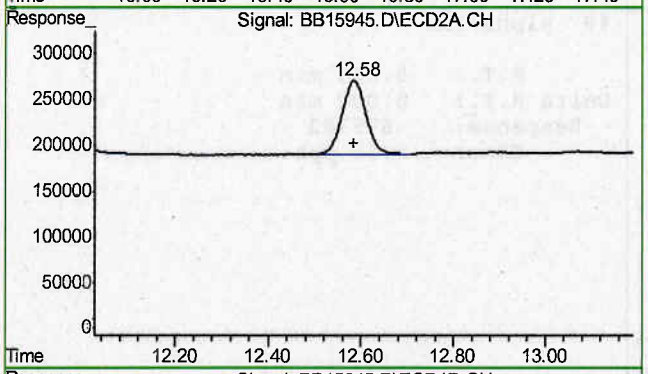
6.6.6

6



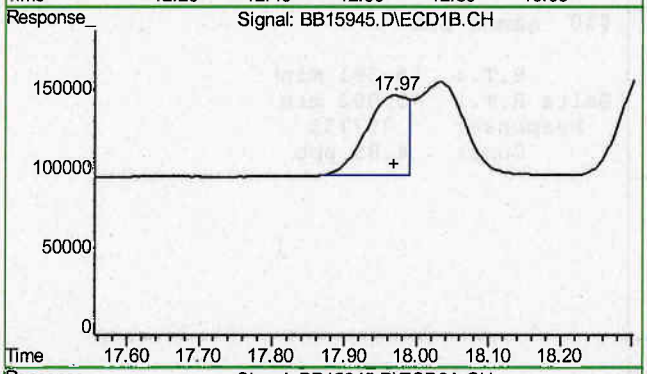
#11 beta-BHC

R.T.: 16.628 min
Delta R.T.: 0.000 min
Response: 130125
Conc: 5.02 ppb



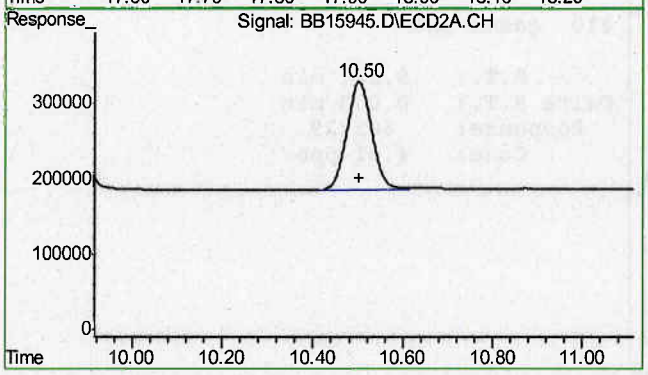
#11 beta-BHC

R.T.: 12.584 min
Delta R.T.: 0.002 min
Response: 291029
Conc: 4.83 ppb



#12 Heptachlor

R.T.: 17.968 min
Delta R.T.: 0.000 min
Response: 204204
Conc: 5.58 ppb



#12 Heptachlor

R.T.: 10.501 min
Delta R.T.: 0.000 min
Response: 551071
Conc: 5.50 ppb m

6.6.6

6

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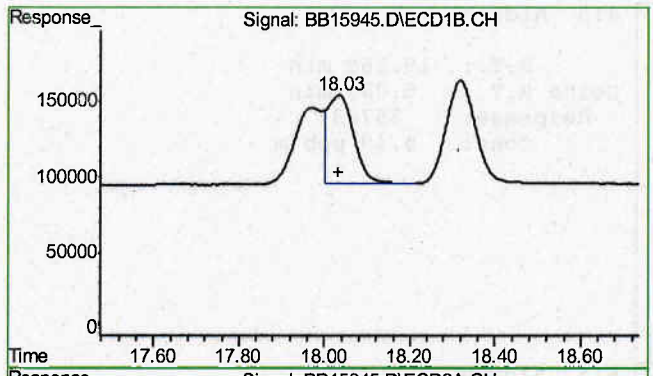
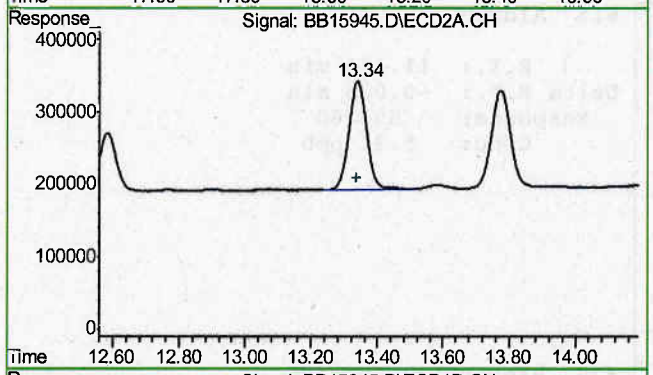


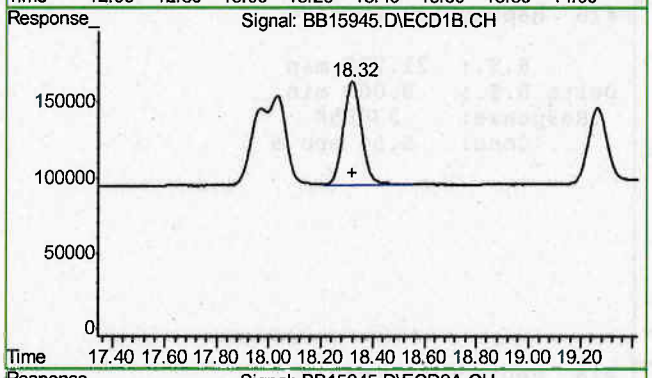
#13 delta-BHC

R.T.: 18.033 min
Delta R.T.: 0.000 min
Response: 242011
Conc: 4.39 ppb



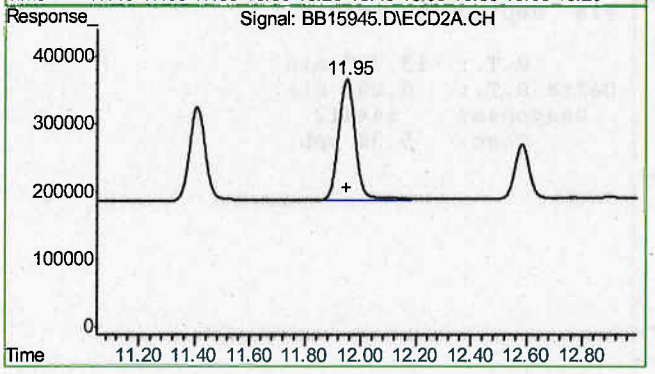
#13 delta-BHC

R.T.: 13.341 min
Delta R.T.: 0.003 min
Response: 555061
Conc: 4.56 ppb m



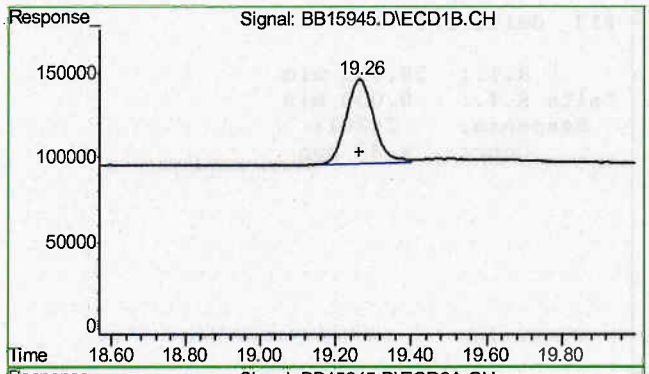
#14 Alachlor

R.T.: 18.318 min
Delta R.T.: -0.003 min
Response: 334244
Conc: 61.59 ug/l m



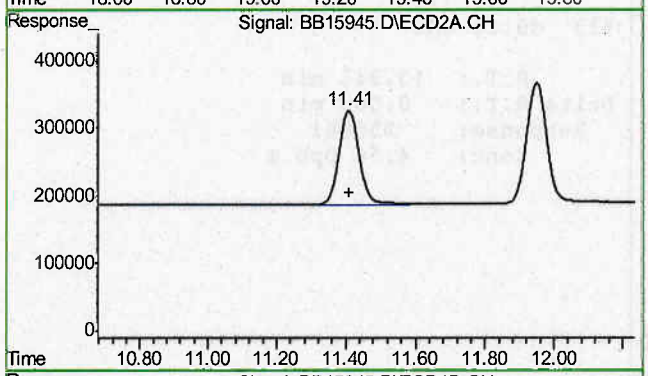
#14 Alachlor

R.T.: 11.951 min
Delta R.T.: 0.002 min
Response: 748418
Conc: 65.85 ug/l



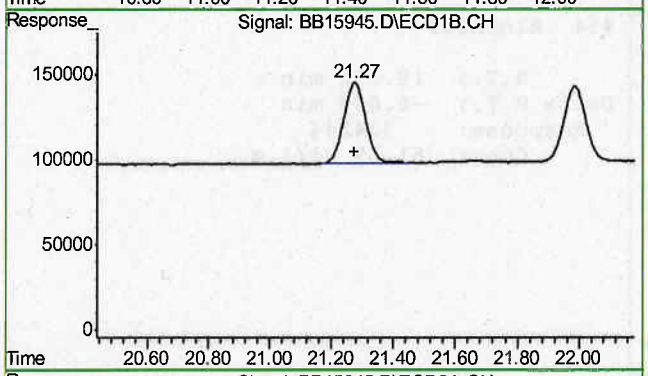
#15 Aldrin

R.T.: 19.265 min
Delta R.T.: 0.000 min
Response: 257037
Conc: 5.49 ppb m



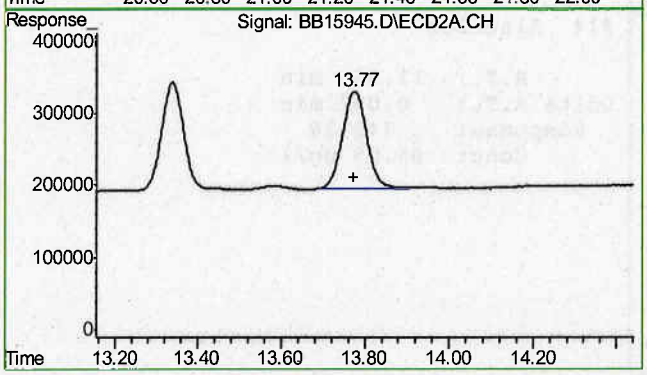
#15 Aldrin

R.T.: 11.406 min
Delta R.T.: -0.003 min
Response: 558760
Conc: 5.31 ppb



#16 Heptachlor Epoxide

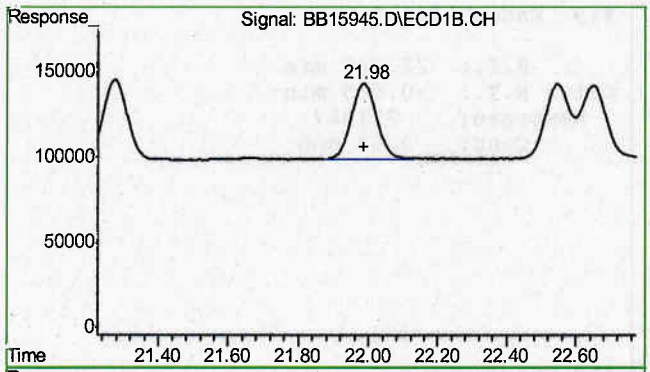
R.T.: 21.275 min
Delta R.T.: 0.000 min
Response: 230858
Conc: 5.56 ppb m



#16 Heptachlor Epoxide

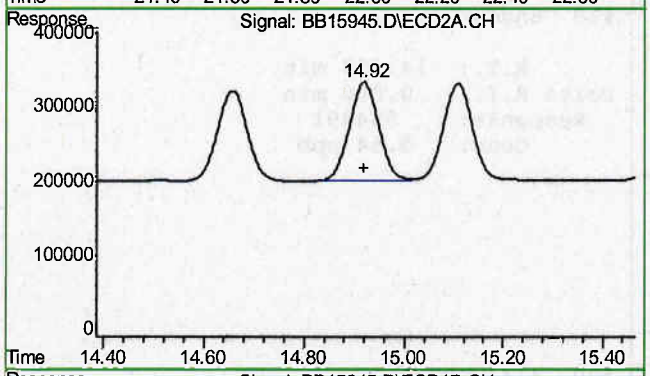
R.T.: 13.773 min
Delta R.T.: 0.000 min
Response: 544412
Conc: 5.38 ppb

6.6.6



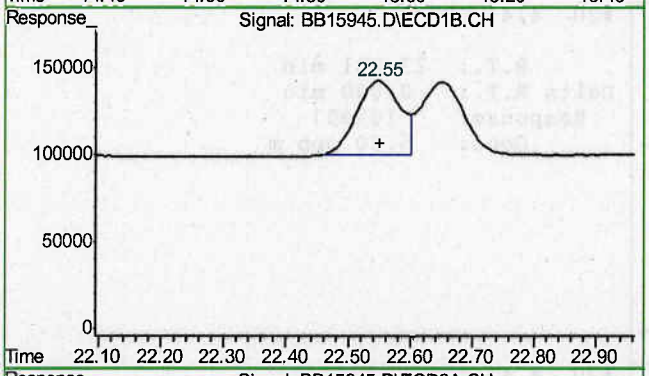
#17 gamma-Chlordane

R.T.: 21.985 min
Delta R.T.: -0.002 min
Response: 222670
Conc: 5.56 ppb m



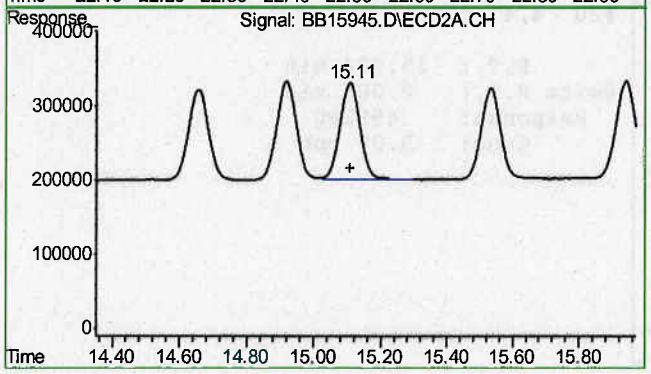
#17 gamma-Chlordane

R.T.: 14.918 min
Delta R.T.: 0.000 min
Response: 534111
Conc: 5.16 ppb



#18 alpha-Chlordane

R.T.: 22.546 min
Delta R.T.: -0.003 min
Response: 208341
Conc: 5.64 ppb

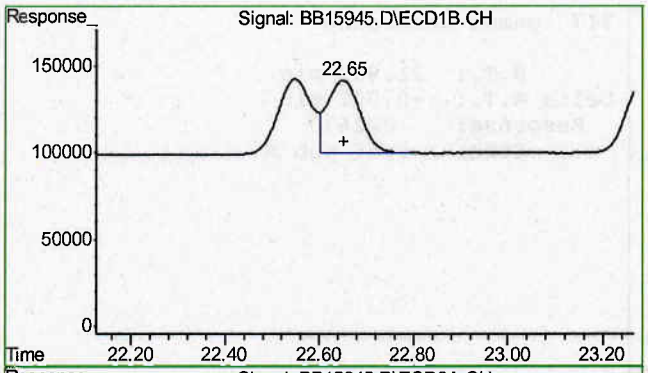


#18 alpha-Chlordane

R.T.: 15.109 min
Delta R.T.: 0.002 min
Response: 542770
Conc: 5.29 ppb

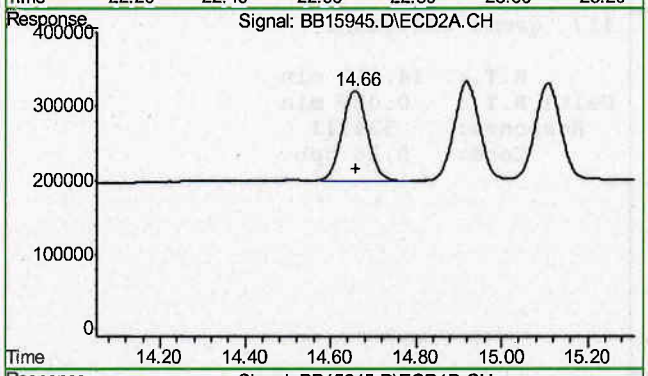
6.6.6

6



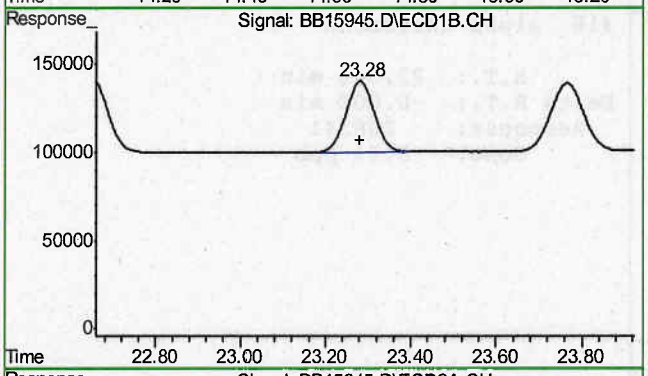
#19 Endosulfan-I

R.T.: 22.648 min
Delta R.T.: -0.005 min
Response: 201367
Conc: 5.68 ppb



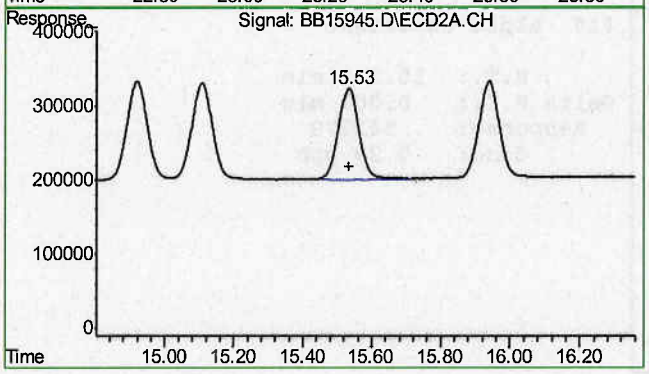
#19 Endosulfan-I

R.T.: 14.658 min
Delta R.T.: 0.000 min
Response: 504491
Conc: 5.54 ppb



#20 4,4'-DDE

R.T.: 23.281 min
Delta R.T.: 0.000 min
Response: 183957
Conc: 5.30 ppb m

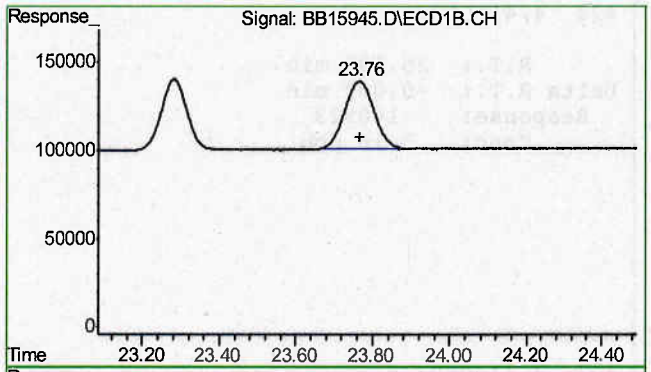


#20 4,4'-DDE

R.T.: 15.534 min
Delta R.T.: 0.002 min
Response: 499290
Conc: 5.09 ppb

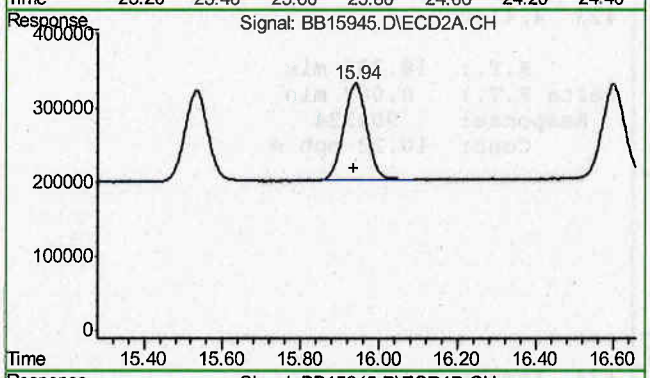
6.6.6

6



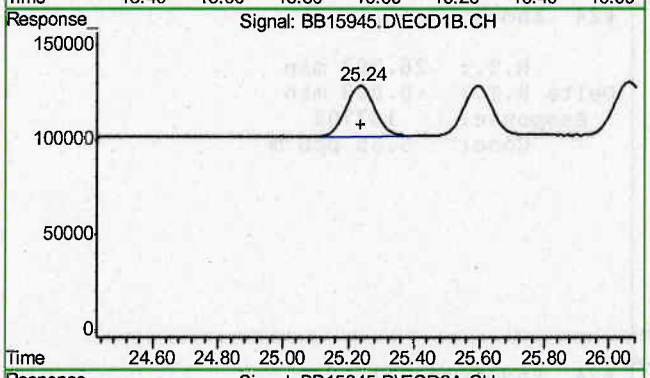
#21 Dieldrin

R.T.: 23.765 min
Delta R.T.: -0.002 min
Response: 202280
Conc: 5.34 ppb



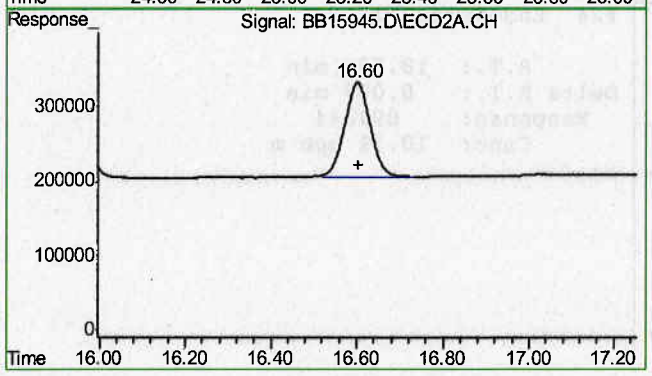
#21 Dieldrin

R.T.: 15.941 min
Delta R.T.: 0.005 min
Response: 527155
Conc: 5.10 ppb



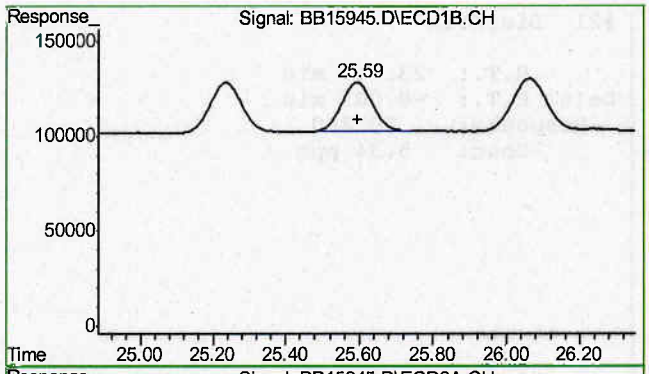
#22 Endrin

R.T.: 25.236 min
Delta R.T.: -0.002 min
Response: 161992
Conc: 5.47 ppb m



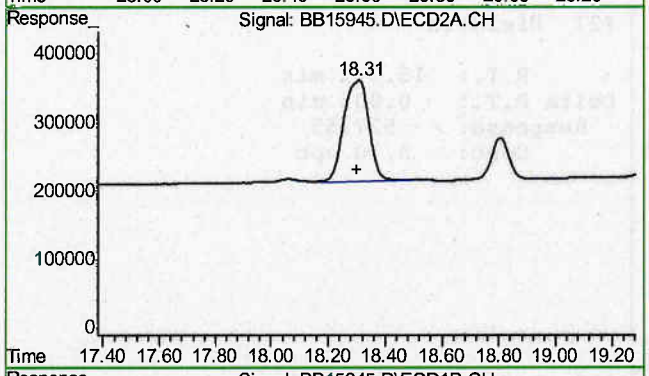
#22 Endrin

R.T.: 16.601 min
Delta R.T.: -0.002 min
Response: 522271
Conc: 5.51 ppb



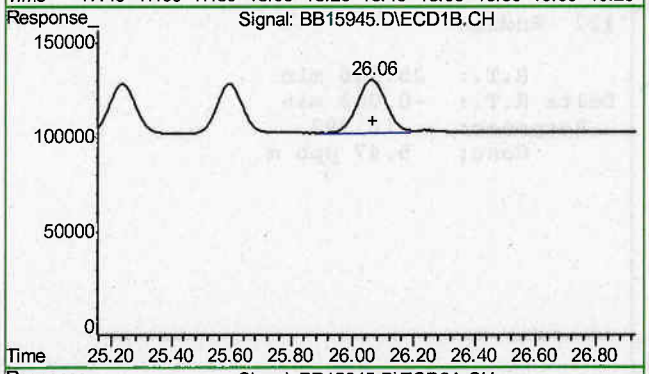
#23 4,4'-DDD

R.T.: 25.595 min
Delta R.T.: -0.002 min
Response: 148923
Conc: 5.16 ppb



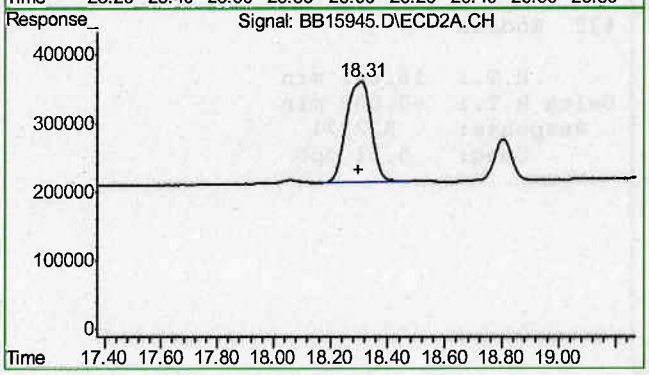
#23 4,4'-DDD

R.T.: 18.306 min
Delta R.T.: 0.007 min
Response: 904334
Conc: 10.22 ppb m



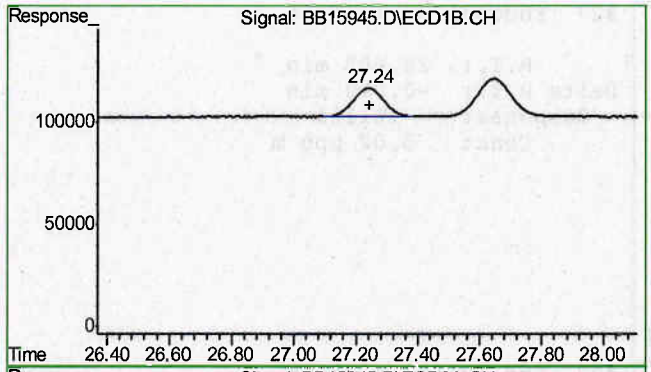
#24 Endosulfan-II

R.T.: 26.063 min
Delta R.T.: -0.003 min
Response: 183702
Conc: 5.55 ppb m



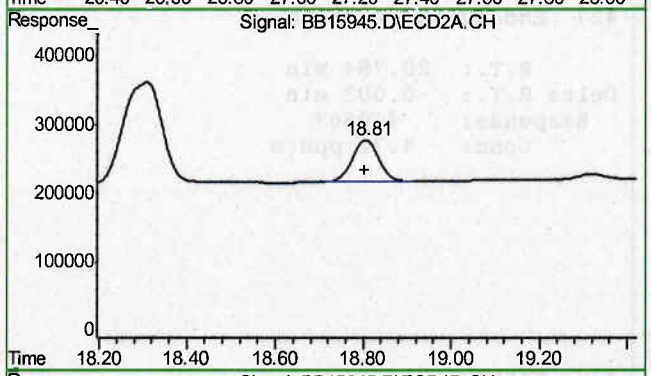
#24 Endosulfan-II

R.T.: 18.306 min
Delta R.T.: 0.007 min
Response: 894344
Conc: 10.11 ppb m



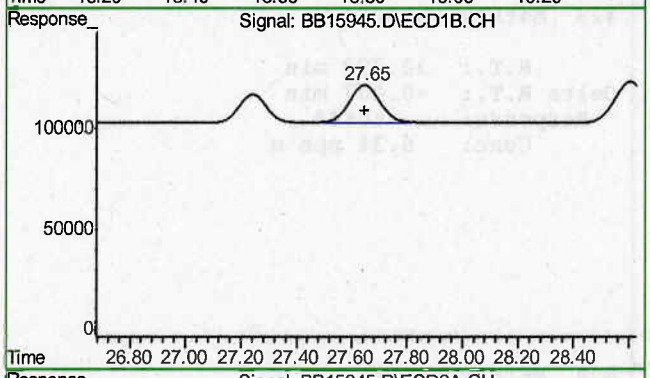
#25 4,4'-DDT

R.T.: 27.238 min
Delta R.T.: -0.007 min
Response: 97390
Conc: 4.88 ppb m



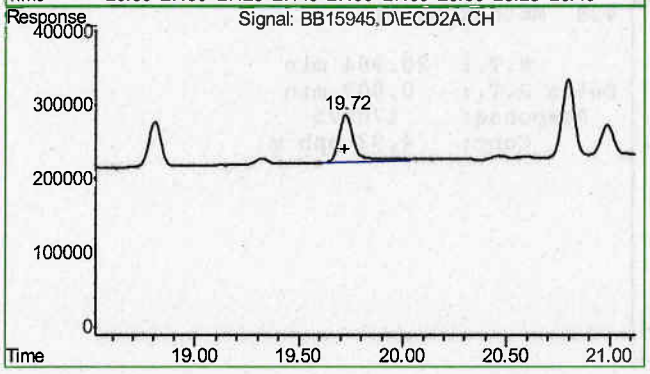
#25 4,4'-DDT

R.T.: 18.808 min
Delta R.T.: 0.005 min
Response: 249426
Conc: 4.33 ppb m



#26 Endrin aldehyde

R.T.: 27.646 min
Delta R.T.: -0.002 min
Response: 141803
Conc: 4.94 ppb m

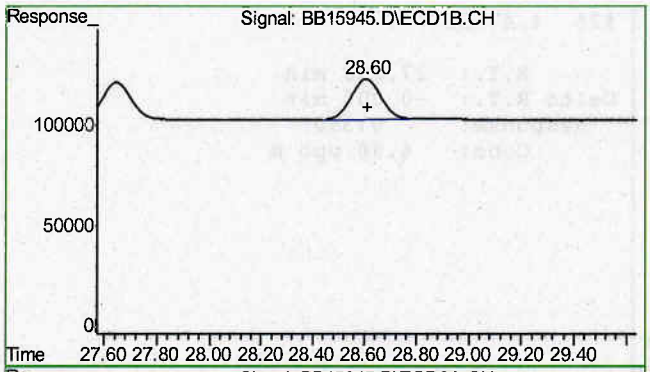


#26 Endrin aldehyde

R.T.: 19.723 min
Delta R.T.: 0.000 min
Response: 320544
Conc: 4.21 ppb m

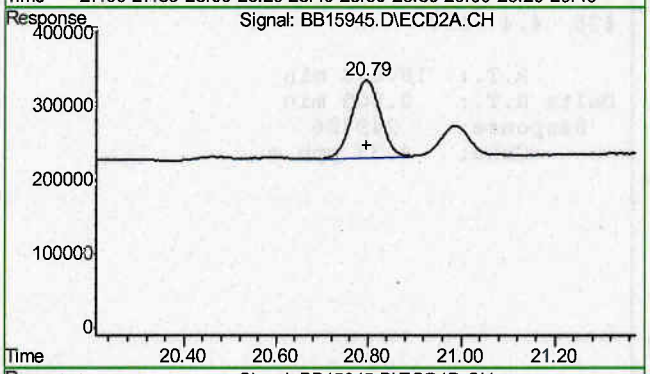
6.6.6

6



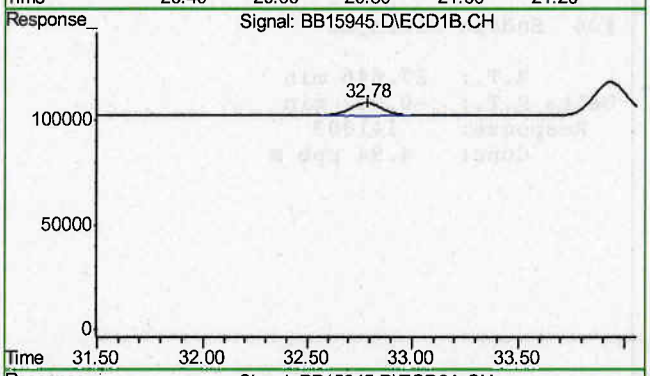
#27 Endosulfan sulfate

R.T.: 28.605 min
Delta R.T.: -0.010 min
Response: 161125
Conc: 5.02 ppb m



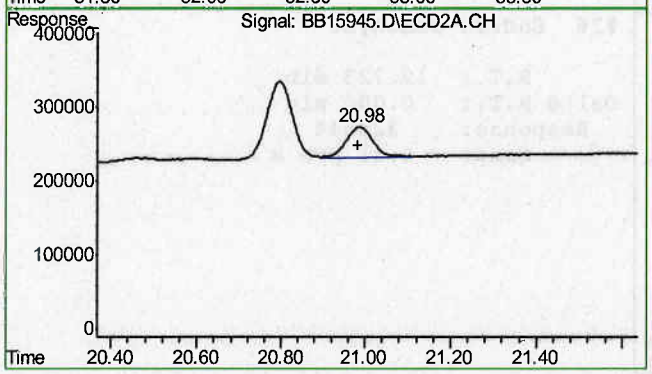
#27 Endosulfan sulfate

R.T.: 20.794 min
Delta R.T.: -0.003 min
Response: 440607
Conc: 4.72 ppb m



#28 Methoxychlor

R.T.: 32.783 min
Delta R.T.: -0.007 min
Response: 60844
Conc: 5.34 ppb m

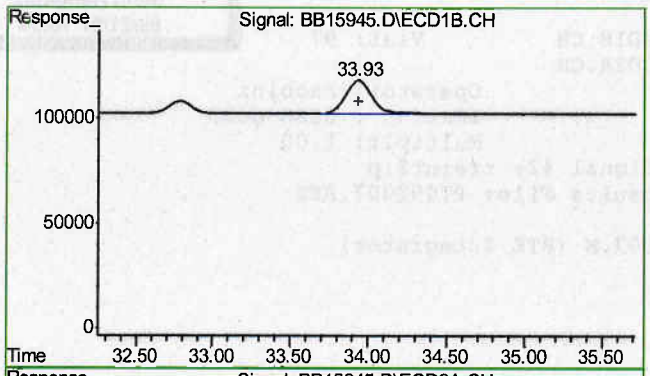


#28 Methoxychlor

R.T.: 20.984 min
Delta R.T.: 0.002 min
Response: 170975
Conc: 4.93 ppb m

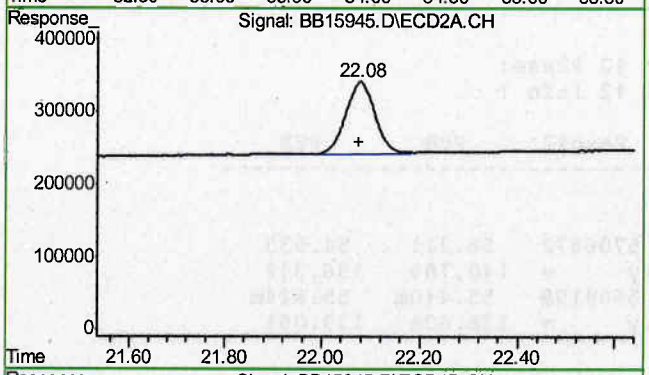
6.6.6

ACCUTEST Laboratories M67604



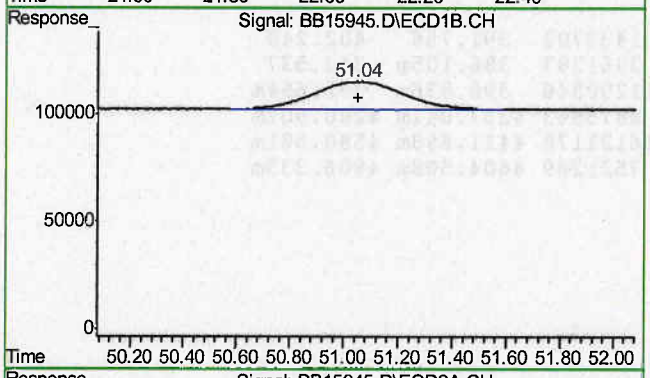
#29 Endrin ketone

R.T.: 33.930 min
Delta R.T.: -0.007 min
Response: 182522
Conc: 5.32 ppb m



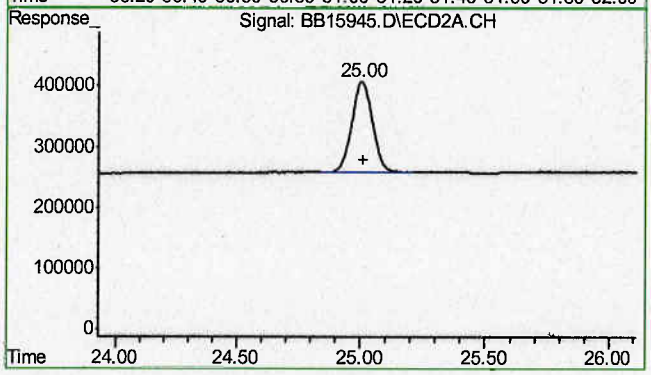
#29 Endrin ketone

R.T.: 22.078 min
Delta R.T.: 0.002 min
Response: 399635
Conc: 4.76 ppb m



#38 DCB

R.T.: 51.045 min
Delta R.T.: -0.008 min
Response: 296952
Conc: 8.43 ppb m



#38 DCB

R.T.: 25.003 min
Delta R.T.: -0.008 min
Response: 849677
Conc: 8.59 ppb m

BB15946.D
Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15946.D\ECD1B.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\BB15946.D\ECD2A.CH
Acq On : 21 Sep 2007 12:06 am Operator: caobinz
Sample : ic667-400,CT400 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:16:45 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:15:56 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.22	5.64	2279234	5706672	56.311	54.535
Spiked Amount 40.000			Recovery	=	140.78%	136.34%
38) s DCB	51.04	25.00	1941253	5508199	55.440m	55.624m
Spiked Amount 40.000			Recovery	=	138.60%	139.06%
Target Compounds						
2) Chlordane-A	17.32	9.98	697866	1433703	391.756	402.240
3) Chlordane-B	17.96	10.50	1070540	2061287	386.105m	343.537
4) Chlordane-C	21.99	15.12	6082914	11290546	390.536m	392.654m
5) Toxaphene-A	26.41	19.29	5569394	8873863	4237.041m	4280.902m
6) Toxaphene-B	29.09	20.52	2735223	16121178	4411.688m	4580.581m
7) Toxaphene-C	31.45	21.29	9495463	7521269	4604.508m	4806.333m

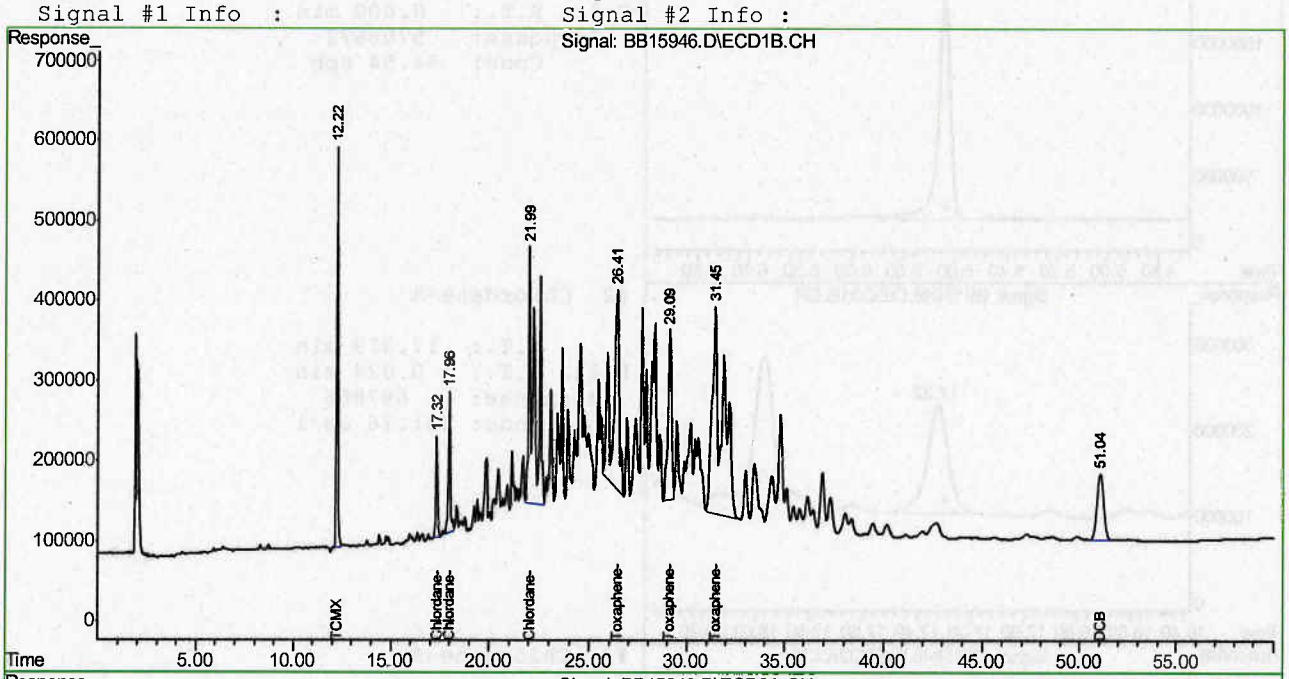
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15946.D PT092007.M Fri Sep 21 11:20:49 2007 GC23PRN

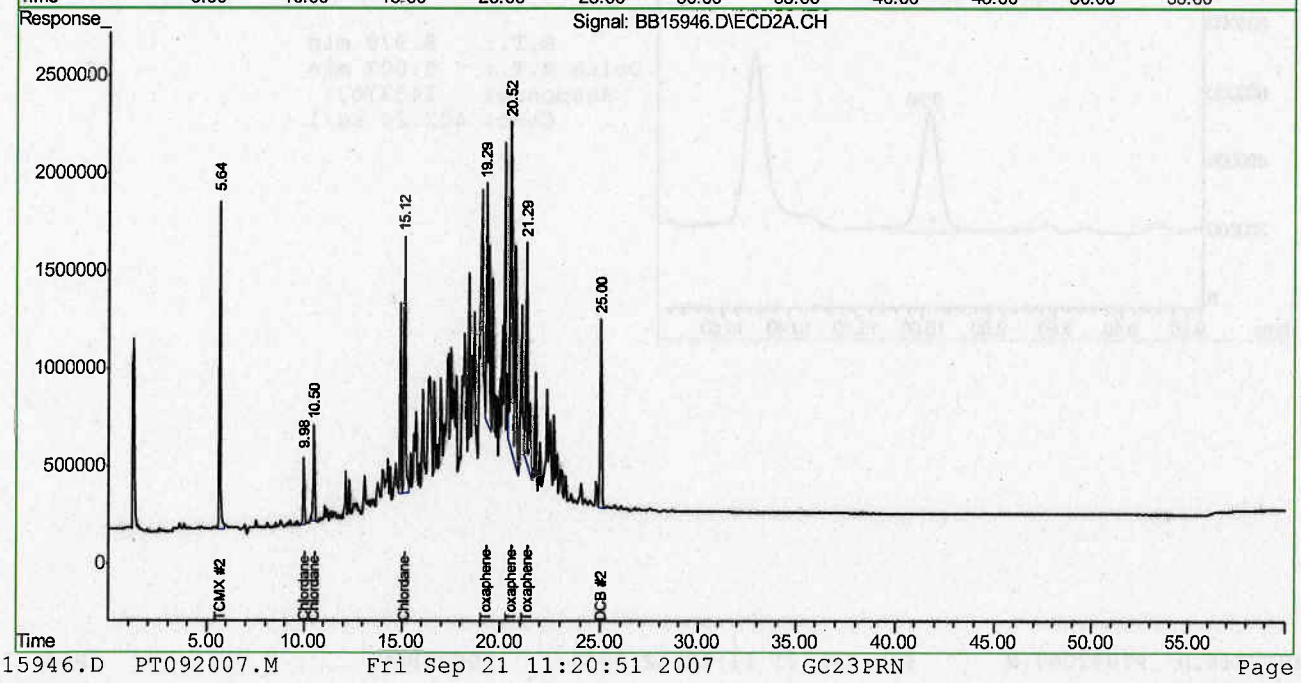
Quantitation Report (QT Reviewed)

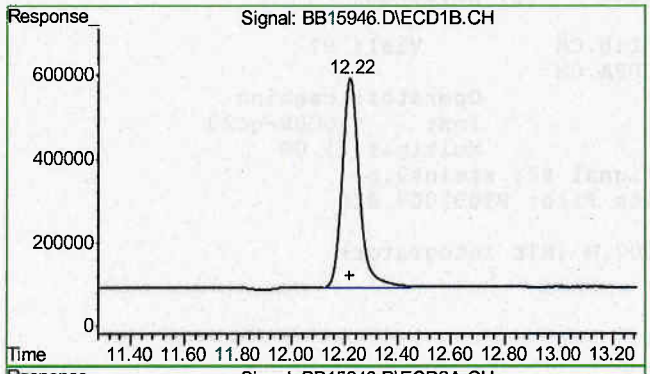
Signal #1 : C:\MSDCHEM\1\DATA\BB15946.D\ECD1B.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\BB15946.D\ECD2A.CH
Acq On : 21 Sep 2007 12:06 am Operator: caobinz
Sample : ic667-400,CT400 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:19 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:15:56 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

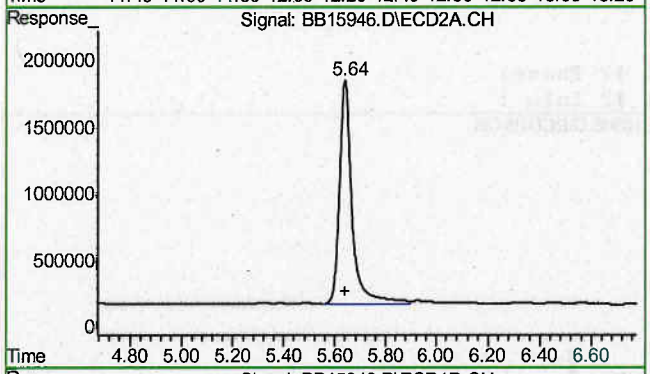






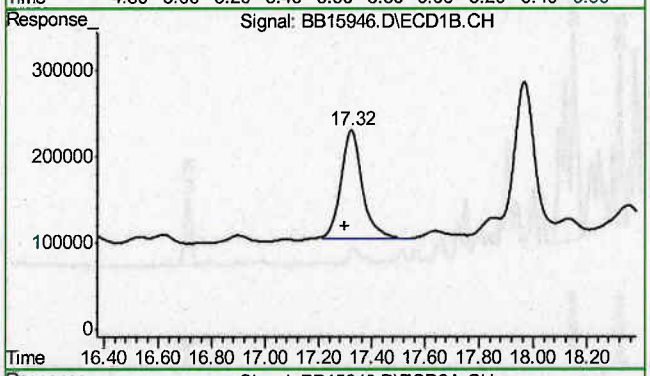
#1 TCMX

R.T.: 12.219 min
Delta R.T.: 0.001 min
Response: 2279234
Conc: 56.31 ppb



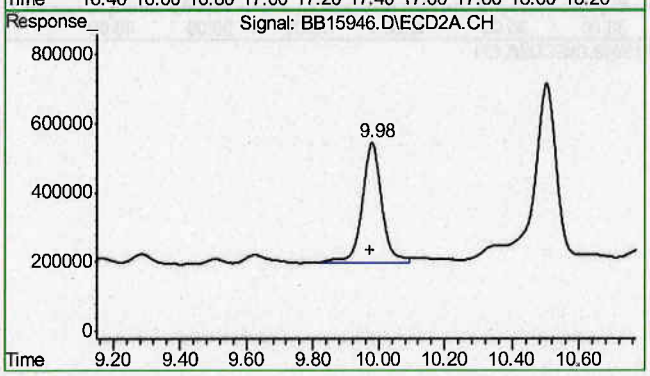
#1 TCMX

R.T.: 5.639 min
Delta R.T.: 0.000 min
Response: 5706672
Conc: 54.54 ppb



#2 Chlordane-A

R.T.: 17.319 min
Delta R.T.: 0.024 min
Response: 697866
Conc: 391.76 ug/l

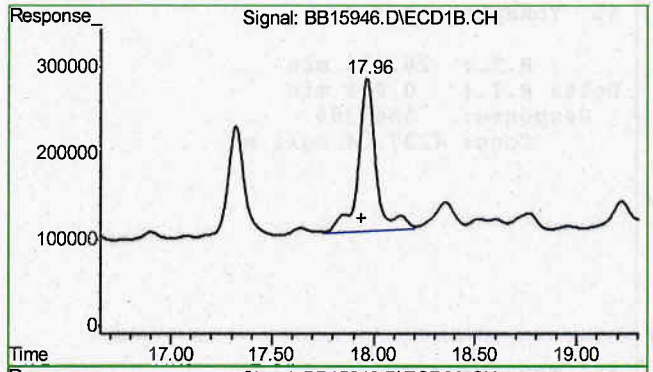


#2 Chlordane-A

R.T.: 9.979 min
Delta R.T.: 0.007 min
Response: 1433703
Conc: 402.24 ug/l

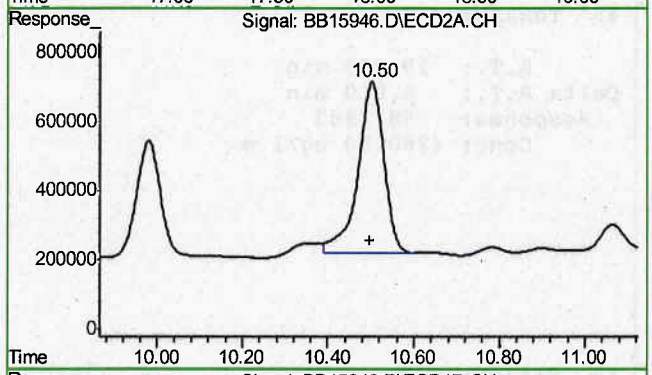
6.6.7

6



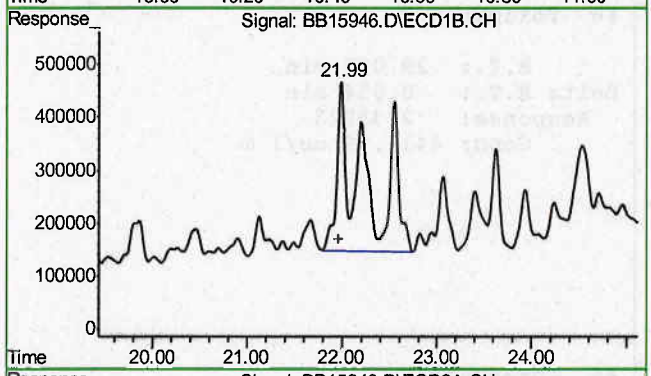
#3 Chlordane-B

R.T.: 17.964 min
Delta R.T.: 0.025 min
Response: 1070540
Conc: 386.10 ug/l m



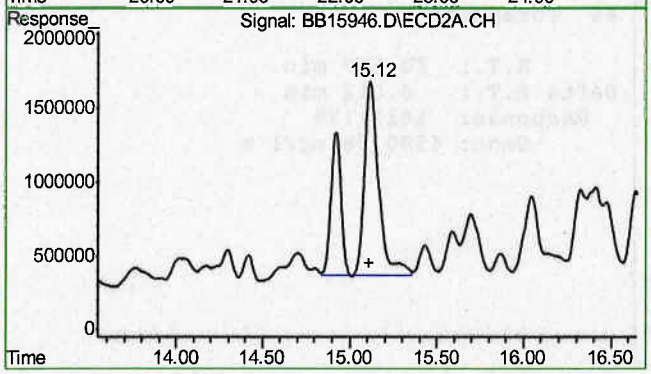
#3 Chlordane-B

R.T.: 10.502 min
Delta R.T.: 0.005 min
Response: 2061287
Conc: 343.54 ug/l



#4 Chlordane-C

R.T.: 21.987 min
Delta R.T.: 0.027 min
Response: 6082914
Conc: 390.54 ug/l m

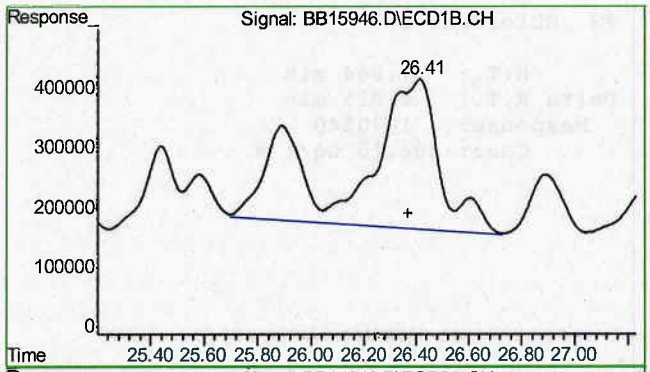


#4 Chlordane-C

R.T.: 15.115 min
Delta R.T.: 0.009 min
Response: 11290546
Conc: 392.65 ug/l m

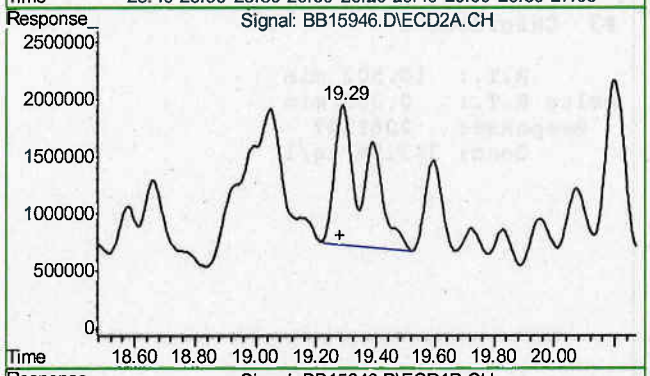
6.6.7

6



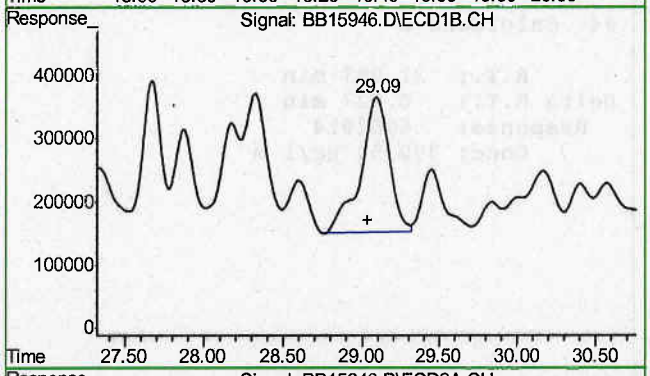
#5 Toxaphene-A

R.T.: 26.414 min
Delta R.T.: 0.044 min
Response: 5569394
Conc: 4237.04 ug/l m



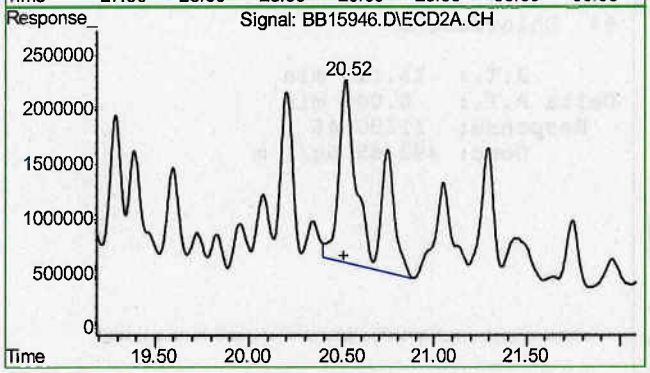
#5 Toxaphene-A

R.T.: 19.289 min
Delta R.T.: 0.010 min
Response: 8873863
Conc: 4280.90 ug/l m



#6 Toxaphene-B

R.T.: 29.087 min
Delta R.T.: 0.054 min
Response: 2735223
Conc: 4411.69 ug/l m

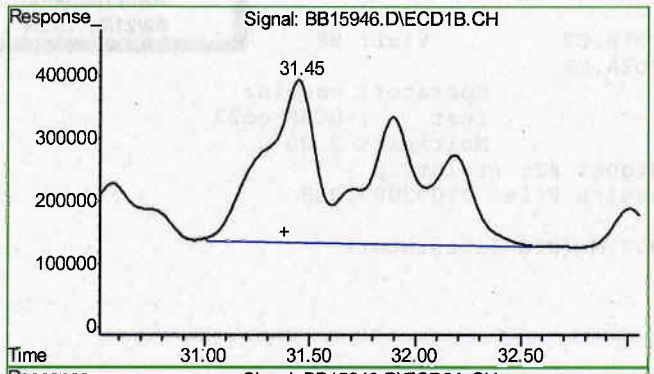


#6 Toxaphene-B

R.T.: 20.517 min
Delta R.T.: 0.012 min
Response: 16121178
Conc: 4580.58 ug/l m

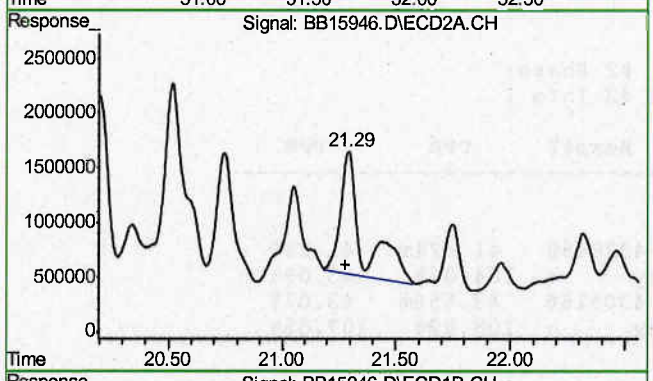
6.6.7

6



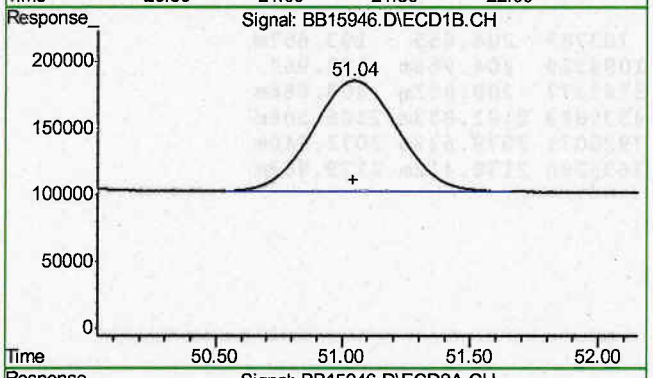
#7 Toxaphene-C

R.T.: 31.447 min
Delta R.T.: 0.065 min
Response: 9495463
Conc: 4604.51 ug/l m



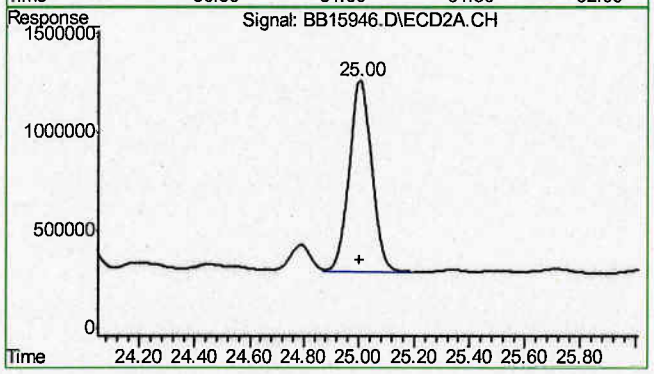
#7 Toxaphene-C

R.T.: 21.294 min
Delta R.T.: 0.012 min
Response: 7521269
Conc: 4806.33 ug/l m



#38 DCB

R.T.: 51.041 min
Delta R.T.: -0.004 min
Response: 1941253
Conc: 55.44 ppb m



#38 DCB

R.T.: 25.004 min
Delta R.T.: 0.001 min
Response: 5508199
Conc: 55.62 ppb m

6.6.7

6

BB15947.D

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BB15947.D\ECD1B.CH          Vial: 98
Signal #2 : C:\MSDCHEM\1\DATA\BB15947.D\ECD2A.CH
Acq On    : 9-21-07 01:11:23 AM                     Operator: caobinz
Sample    : ic667-200,CT200                         Inst    : GCBB-gc23
Misc      : op14341,gbb667,15,,,10,,soil            Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:21:25 2007  Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title        : P8081pest,w/CT-PCB
Last Update  : Fri Sep 21 11:20:41 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	1685344	4328480	41.624m	41.234
	Spiked Amount 40.000			Recovery	=	104.06%	103.09%
38) s	DCB	51.04	25.01	1530907	4305166	43.556m	43.019
	Spiked Amount 40.000			Recovery	=	108.89%	107.55%
	Target Compounds						
2)	Chlordane-A	17.32	9.98	371663	703789	206.655	193.657m
3)	Chlordane-B	17.96	10.50	571305	1094329	204.953m	192.967
4)	Chlordane-C	21.99	15.11	3245883	5743477	209.852m	203.666m
5)	Toxaphene-A	26.41	19.29	2880163	4539883	2101.833m	2106.508m
6)	Toxaphene-B	29.09	20.51	1386145	7920071	2079.679m	2072.840m
7)	Toxaphene-C	31.45	21.29	4871330	3695280	2138.412m	2129.883m

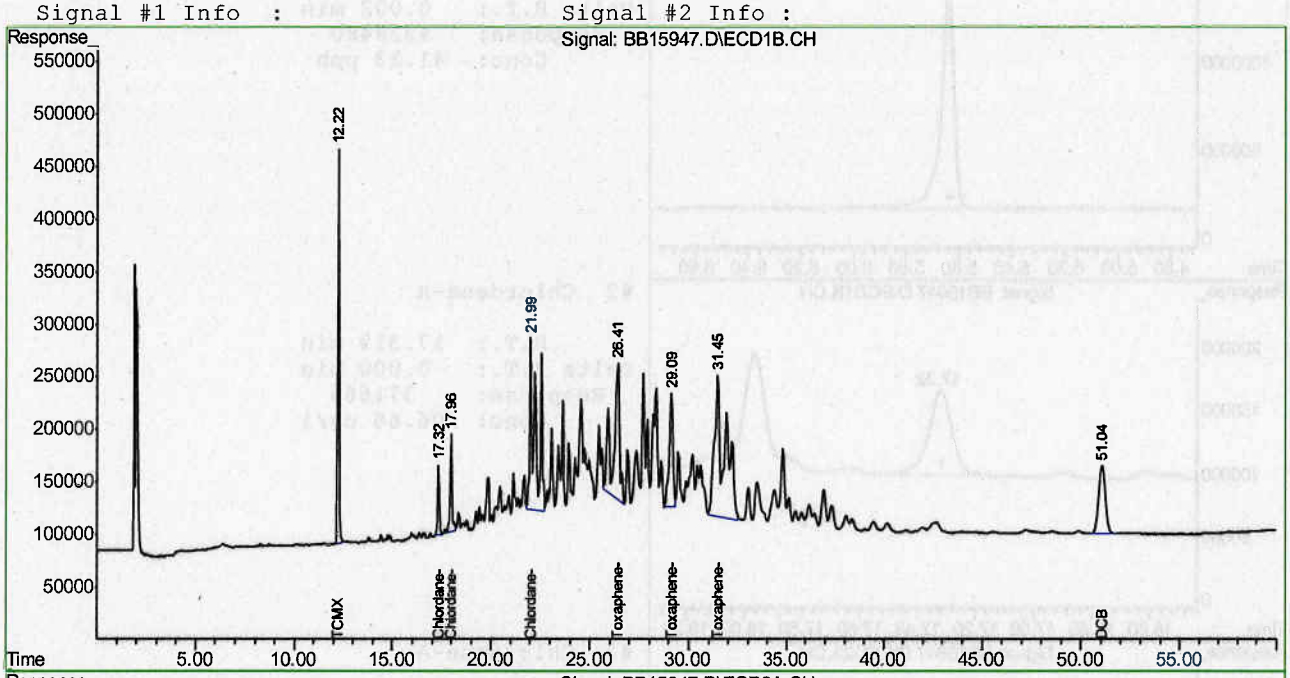
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15947.D PT092007.M Fri Sep 21 11:24:51 2007 GC23PRN

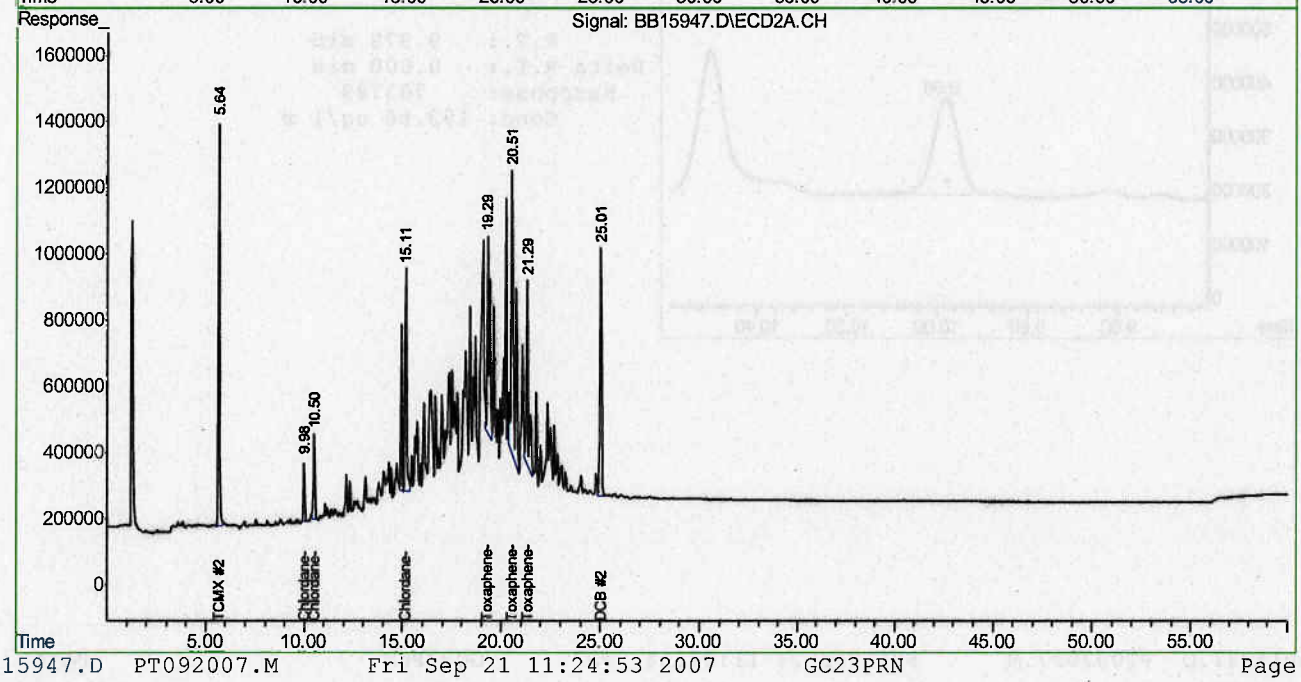
Quantitation Report (QT Reviewed)

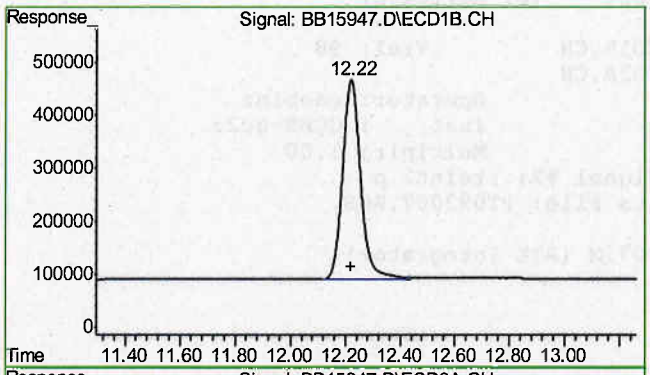
```
Signal #1 : C:\MSDCHEM\1\DATA\BB15947.D\ECD1B.CH          Vial: 98
Signal #2 : C:\MSDCHEM\1\DATA\BB15947.D\ECD2A.CH
Acq On    : 9-21-07 01:11:23 AM                    Operator: caobinz
Sample    : ic667-200,CT200                        Inst    : GCBB-gc23
Misc      : op14341,gbb667,15,,,10,,soil           Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:23 2007  Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title        : P8081pest,w/CT-PCB
Last Update  : Fri Sep 21 11:20:41 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

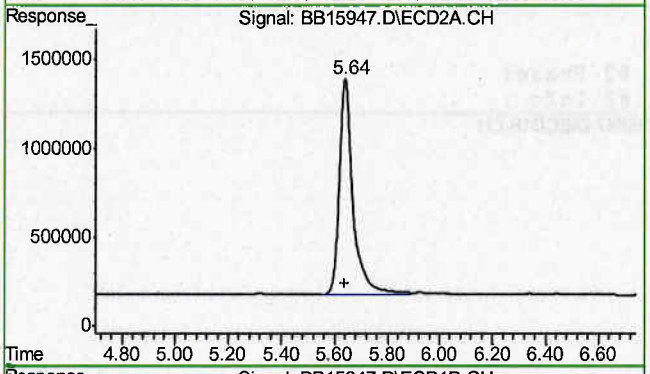






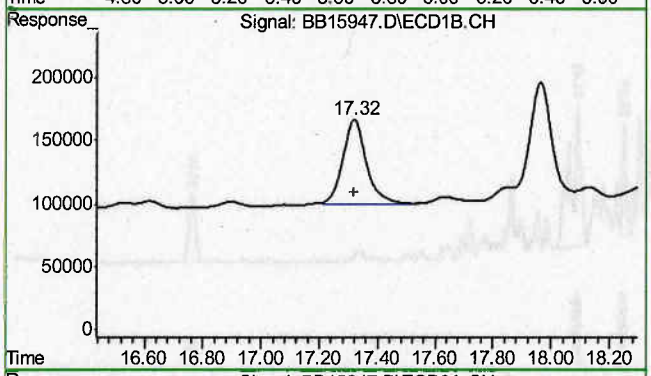
#1 TCMX

R.T.: 12.221 min
Delta R.T.: 0.002 min
Response: 1685344
Conc: 41.62 ppb m



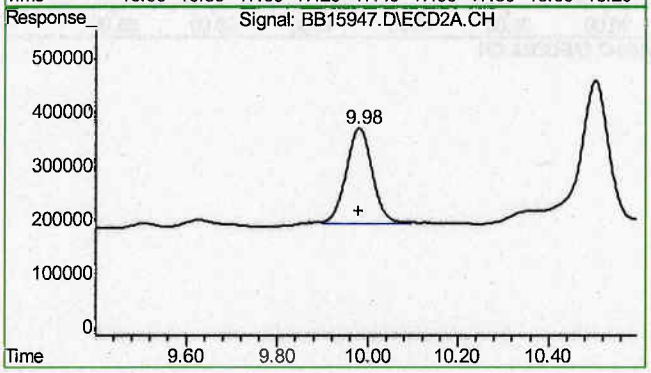
#1 TCMX

R.T.: 5.641 min
Delta R.T.: 0.002 min
Response: 4328480
Conc: 41.23 ppb



#2 Chlordane-A

R.T.: 17.319 min
Delta R.T.: 0.000 min
Response: 371663
Conc: 206.66 ug/l

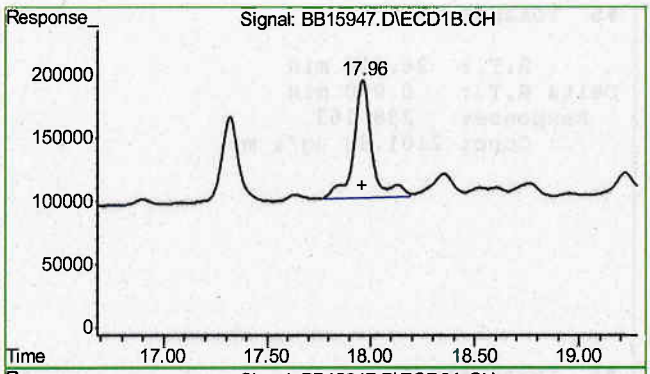


#2 Chlordane-A

R.T.: 9.979 min
Delta R.T.: 0.000 min
Response: 703789
Conc: 193.66 ug/l m

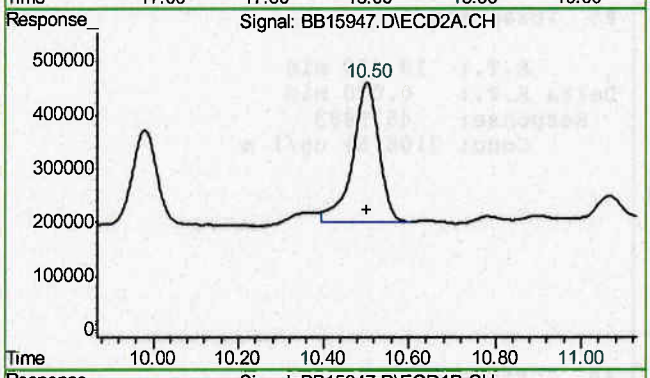
6.6.8

6



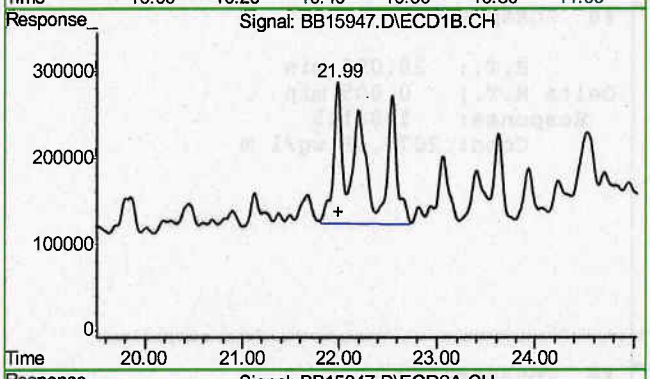
#3 Chlordane-B

R.T.: 17.964 min
Delta R.T.: 0.000 min
Response: 571305
Conc: 204.95 ug/l m



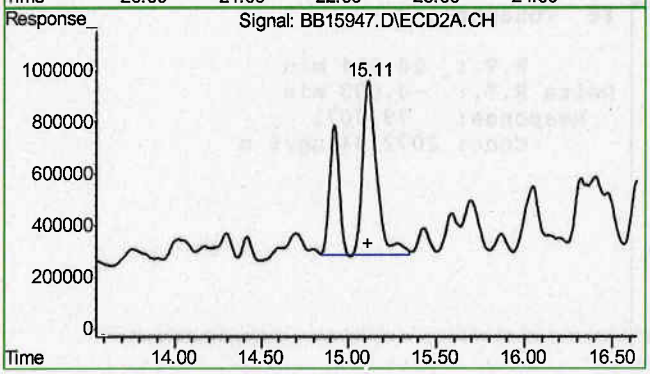
#3 Chlordane-B

R.T.: 10.502 min
Delta R.T.: 0.000 min
Response: 1094329
Conc: 192.97 ug/l



#4 Chlordane-C

R.T.: 21.986 min
Delta R.T.: -0.002 min
Response: 3245883
Conc: 209.85 ug/l m



#4 Chlordane-C

R.T.: 15.114 min
Delta R.T.: -0.002 min
Response: 5743477
Conc: 203.67 ug/l m

6.6.8

6

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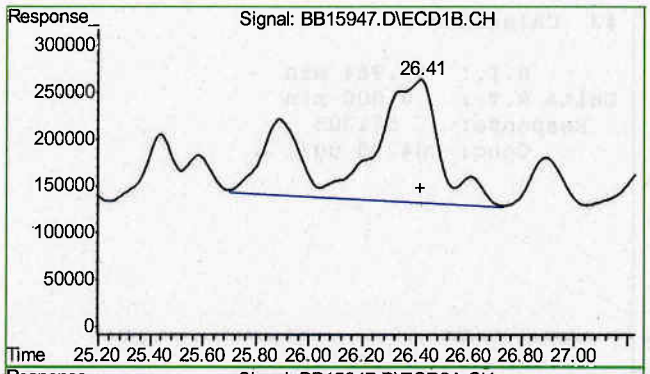
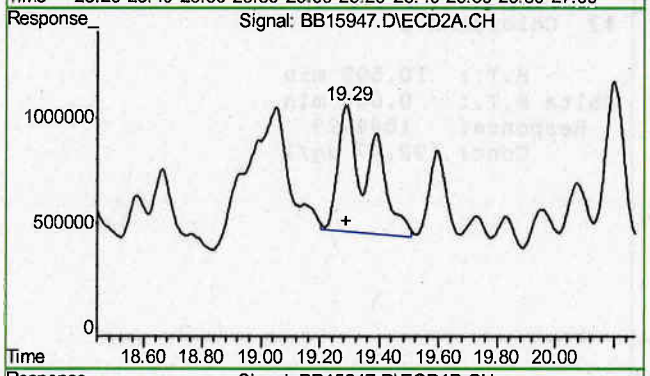


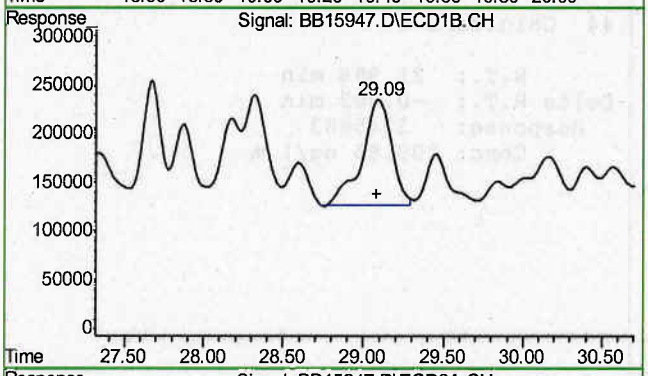
#5 Toxaphene-A

R.T.: 26.414 min
Delta R.T.: 0.000 min
Response: 2880163
Conc: 2101.83 ug/l m



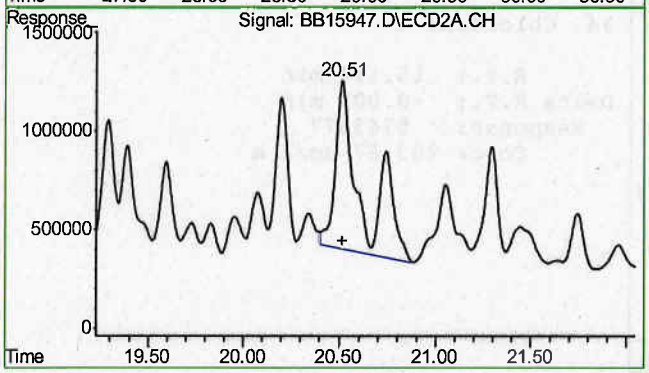
#5 Toxaphene-A

R.T.: 19.289 min
Delta R.T.: 0.000 min
Response: 4539883
Conc: 2106.51 ug/l m



#6 Toxaphene-B

R.T.: 29.093 min
Delta R.T.: 0.005 min
Response: 1386145
Conc: 2079.68 ug/l m

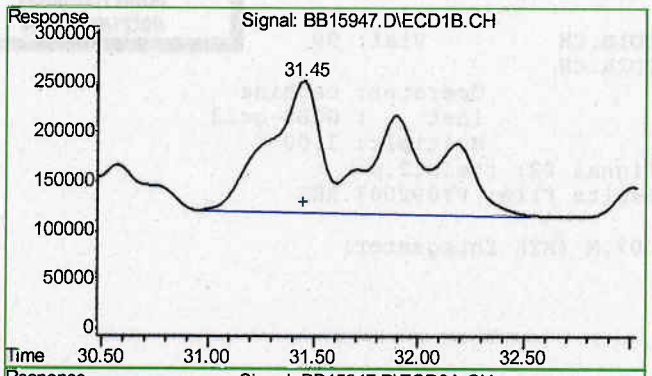


#6 Toxaphene-B

R.T.: 20.514 min
Delta R.T.: -0.003 min
Response: 7920071
Conc: 2072.84 ug/l m

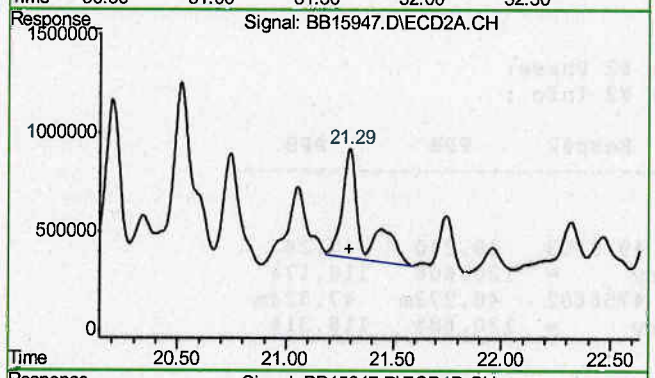
6.6.8

6



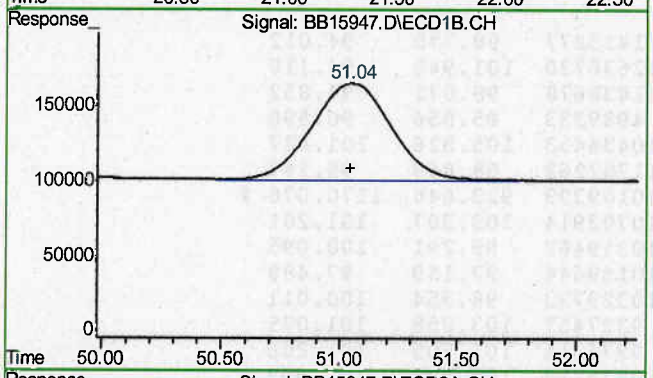
#7 Toxaphene-C

R.T.: 31.448 min
Delta R.T.: 0.000 min
Response: 4871330
Conc: 2138.41 ug/l m



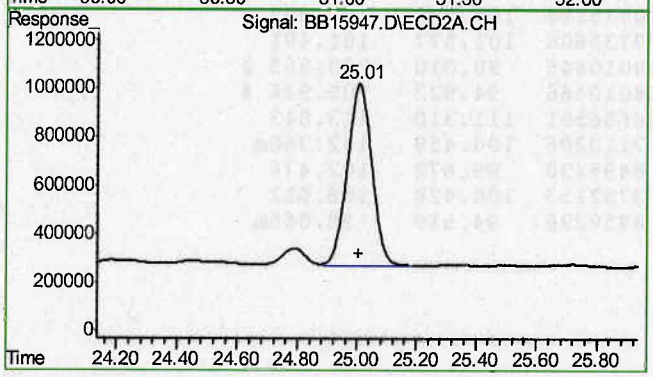
#7 Toxaphene-C

R.T.: 21.292 min
Delta R.T.: -0.002 min
Response: 3695280
Conc: 2129.88 ug/l m



#38 DCB

R.T.: 51.044 min
Delta R.T.: 0.003 min
Response: 1530907
Conc: 43.56 ppb m



#38 DCB

R.T.: 25.006 min
Delta R.T.: 0.002 min
Response: 4305166
Conc: 43.02 ppb

6.6.8

6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15948.D\ECD1B.CH Vial: 99
Signal #2 : C:\MSDCHEM\1\DATA\BB15948.D\ECD2A.CH
Acq On : 9-21-07 02:16:29 AM Operator: caobinz
Sample : icv667-100,pest 100 icv Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:33:56 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	1954621	4979603	48.240	47.267
	Spiked Amount 40.000			Recovery	=	120.60%	118.17%
38) s	DCB	51.03	25.01	1695159	4756602	48.273m	47.324m
	Spiked Amount 40.000			Recovery	=	120.68%	118.31%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.91	4986739	11413277	98.775	94.012
9)	alpha-BHC	14.87	8.52	6331909	12636730	101.945	94.110
10)	gamma-BHC	16.39	9.86	5325722	11838678	99.071	94.852
11)	beta-BHC	16.63	12.59	2216127	4999333	95.556	90.598
12)	Heptachlor	17.97	10.50	3884537	10436453	105.526	101.427
13)	delta-BHC	18.03	13.34	5459366	11782262	98.869	95.267
14)	Alachlor	18.32	11.95	5067262	10109399	923.648	1170.078 #
15)	Aldrin	19.26	11.41	4852026	10703914	103.307	101.201
16)	Heptachlor Epoxi	21.27	13.78	4137995	10219462	99.291	100.095
17)	gamma-Chlordane	21.98	14.92	3906756	10159644	97.159	97.488
18)	alpha-Chlordane	22.55	15.11	3637044	10329732	98.354	100.011
19)	Endosulfan-I	22.65	14.66	3687873	9327457	103.258	101.075
20)	4,4'-DDE	23.28	15.53	3514413	9976316	101.905	101.206
21)	Dieldrin	23.76	15.94	3807907	10575218	100.302	101.692
22)	Endrin	25.23	16.60	3010286	9735608	101.577	101.491
23)	4,4'-DDD	25.59	18.30	2821193	18010466	98.010	200.563 #
24)	Endosulfan-II	26.06	18.30	3163085	18010466	94.922	200.936 #
25)	4,4'-DDT	27.24	18.80	2221857	6656551	111.310	113.843
26)	Endrin aldehyde	27.64	19.73	2541639	7110296	100.458	102.360m
27)	Endosulfan sulfa	28.60	20.80	2828685	8495430	99.672	102.476
28)	Methoxychlor	32.77	20.99	1231555	3752153	108.428	106.912
29)	Endrin ketone	33.93	22.07	3264097	8358239	94.510	98.065m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15948.D PT092007.M Fri Sep 21 11:39:34 2007 GC23PRN

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BB15948.D\ECD1B.CH          Vial: 99
Signal #2 : C:\MSDCHEM\1\DATA\BB15948.D\ECD2A.CH
Acq On    : 9-21-07 02:16:29 AM                     Operator: caobinz
Sample    : icv667-100,pest 100 icv                 Inst    : GCBB-gc23
Misc      : op14341,gbb667,15,,,10,,soil            Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:38 2007  Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title        : P8081pest,w/CT-PCB
Last Update  : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj.      :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
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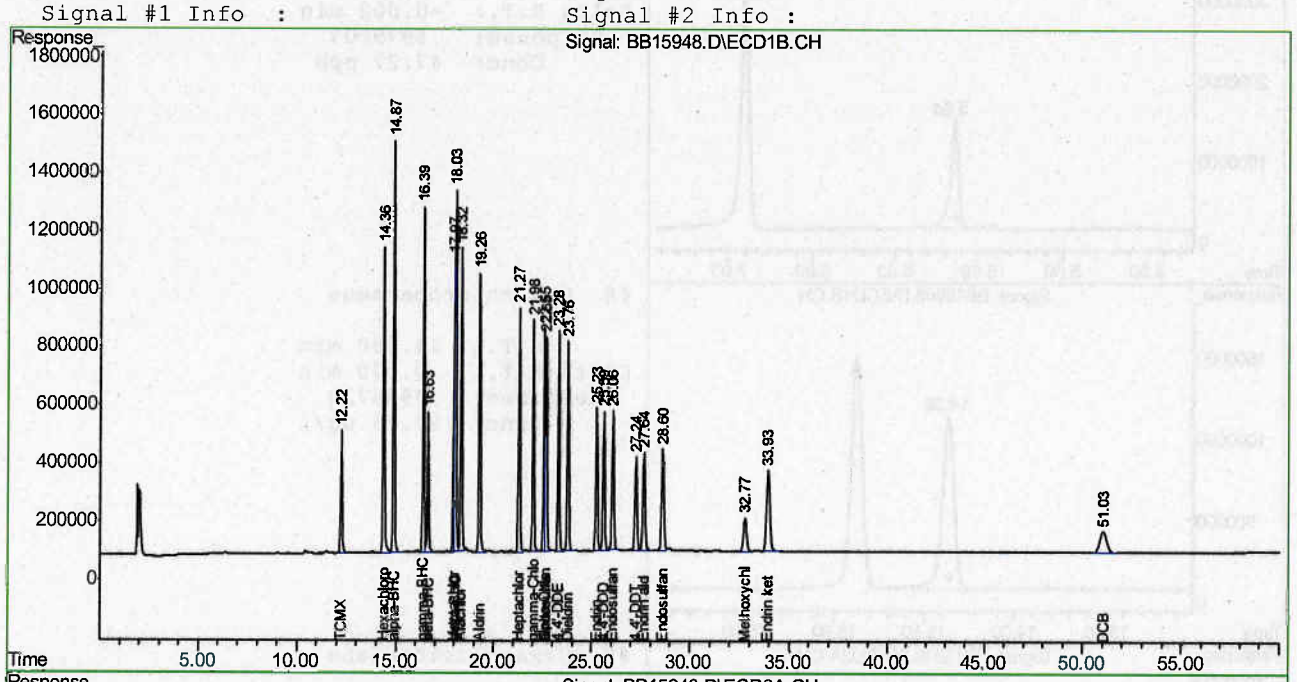
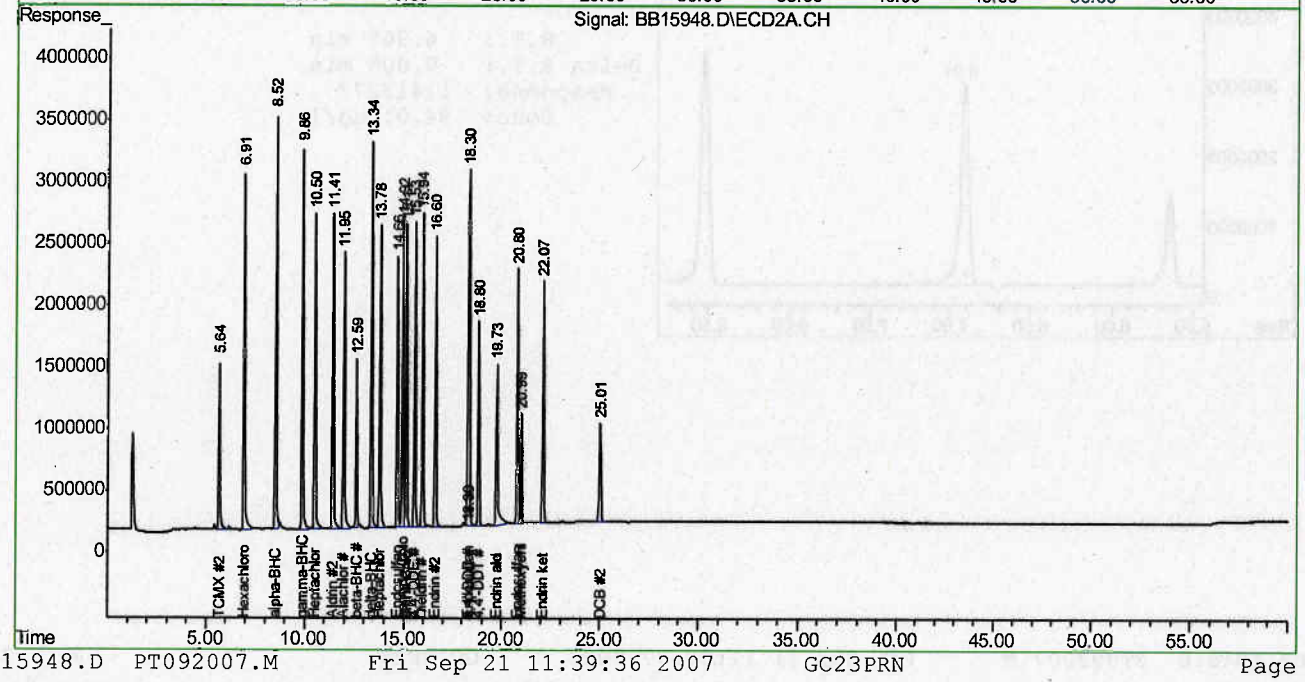
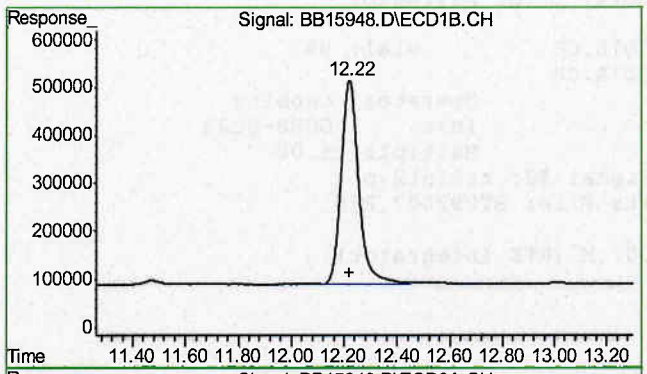
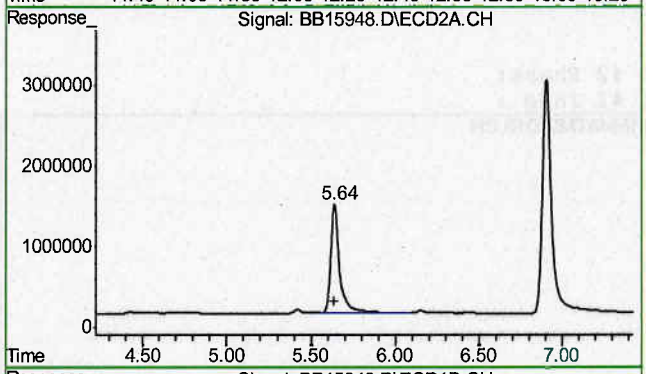






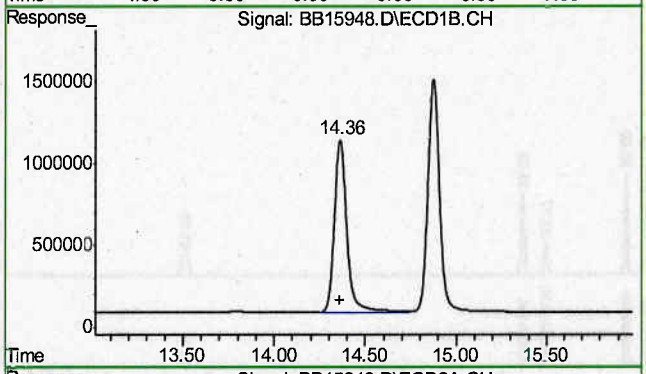
#1 TCMX

R.T.: 12.219 min
Delta R.T.: -0.002 min
Response: 1954621
Conc: 48.24 ppb



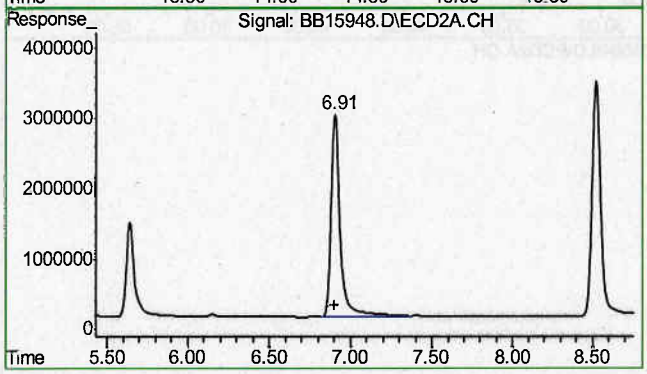
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.002 min
Response: 4979603
Conc: 47.27 ppb



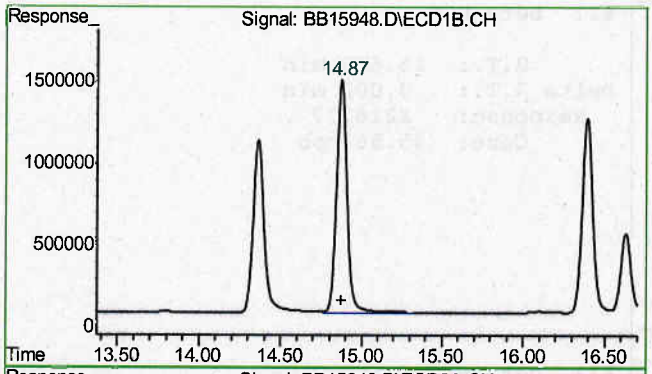
#8 Hexachlorobenzene

R.T.: 14.360 min
Delta R.T.: 0.000 min
Response: 4986739
Conc: 98.78 ug/l



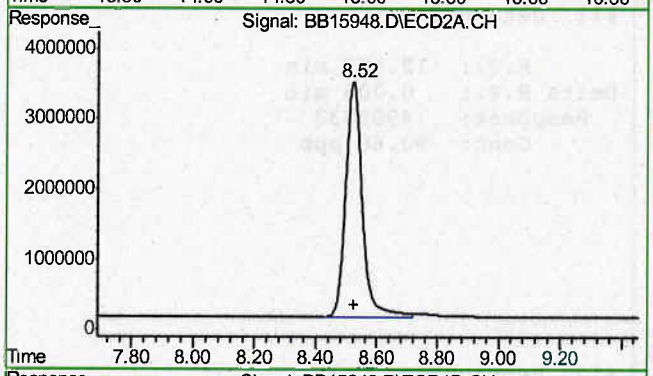
#8 Hexachlorobenzene

R.T.: 6.905 min
Delta R.T.: 0.000 min
Response: 11413277
Conc: 94.01 ug/l



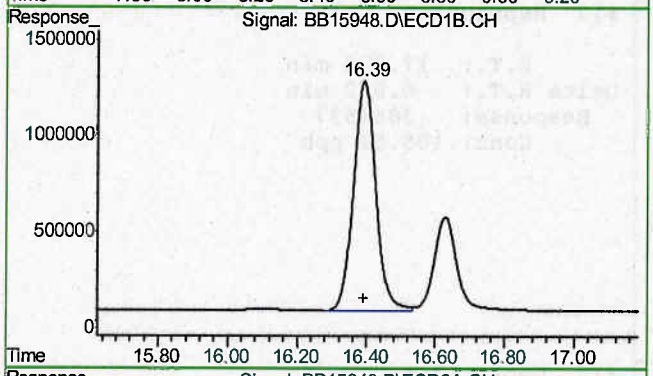
#9 alpha-BHC

R.T.: 14.874 min
Delta R.T.: 0.000 min
Response: 6331909
Conc: 101.94 ppb



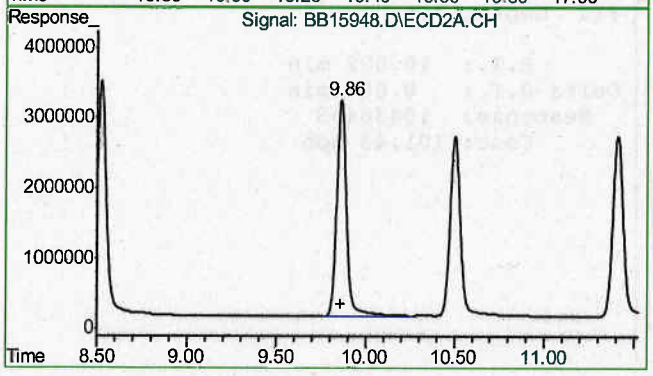
#9 alpha-BHC

R.T.: 8.522 min
Delta R.T.: 0.000 min
Response: 12636730
Conc: 94.11 ppb



#10 gamma-BHC

R.T.: 16.392 min
Delta R.T.: 0.000 min
Response: 5325722
Conc: 99.07 ppb

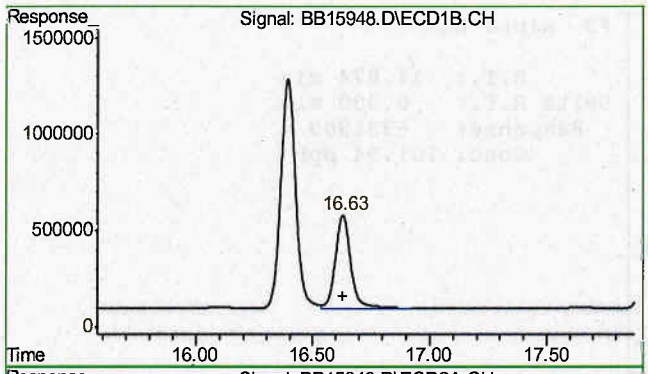


#10 gamma-BHC

R.T.: 9.860 min
Delta R.T.: 0.000 min
Response: 11838678
Conc: 94.85 ppb

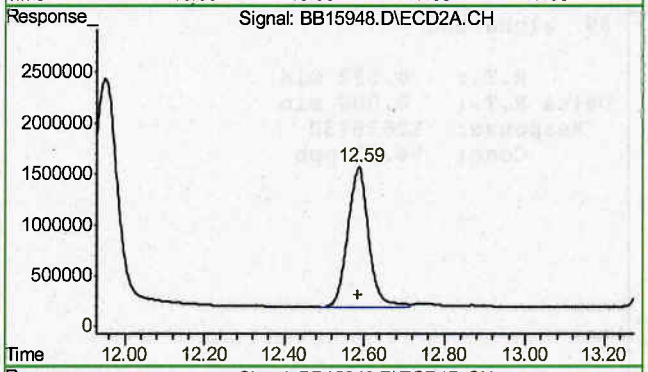
6.6.9

ACCUTEST Laboratories M67604



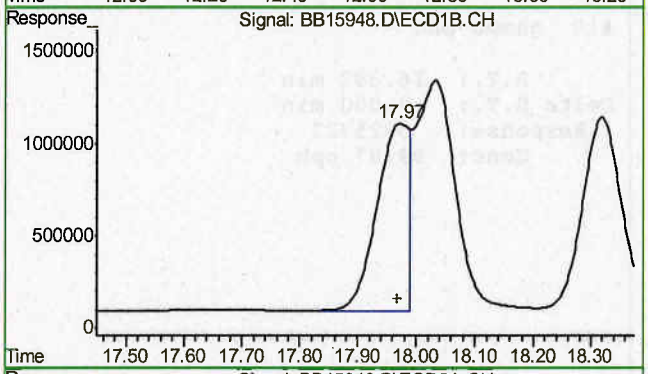
#11 beta-BHC

R.T.: 16.629 min
Delta R.T.: 0.000 min
Response: 2216127
Conc: 95.56 ppb



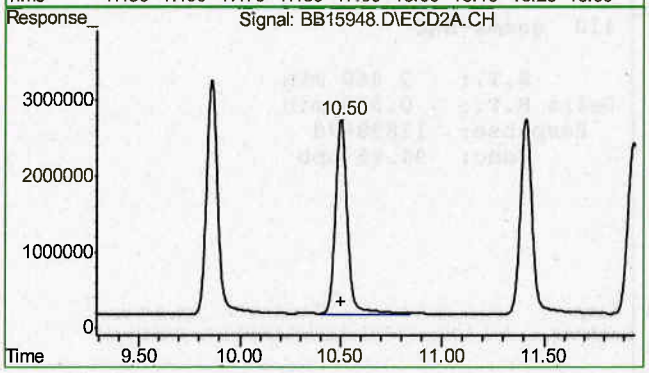
#11 beta-BHC

R.T.: 12.587 min
Delta R.T.: 0.003 min
Response: 4999333
Conc: 90.60 ppb



#12 Heptachlor

R.T.: 17.970 min
Delta R.T.: 0.002 min
Response: 3884537
Conc: 105.53 ppb



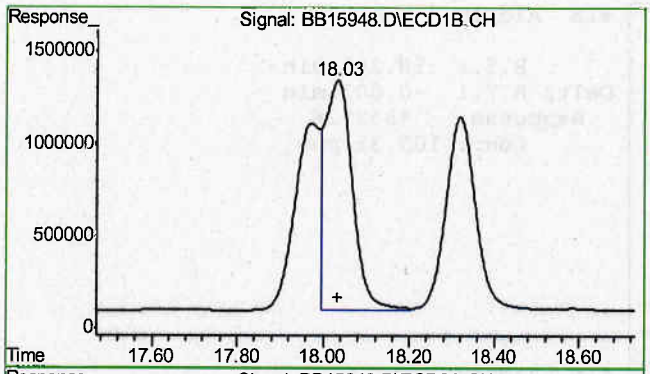
#12 Heptachlor

R.T.: 10.502 min
Delta R.T.: 0.000 min
Response: 10436453
Conc: 101.43 ppb

6.6.9

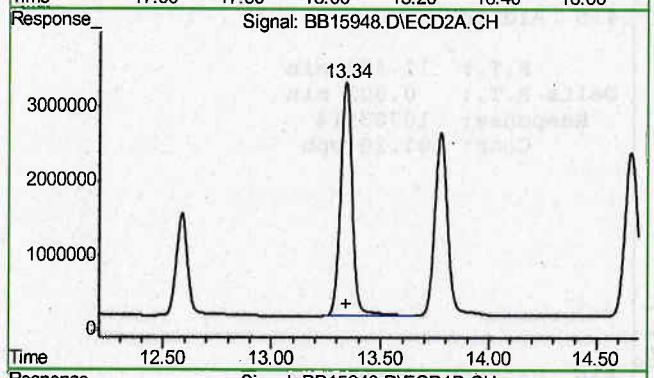
6

ACCUTEST Laboratories M67604



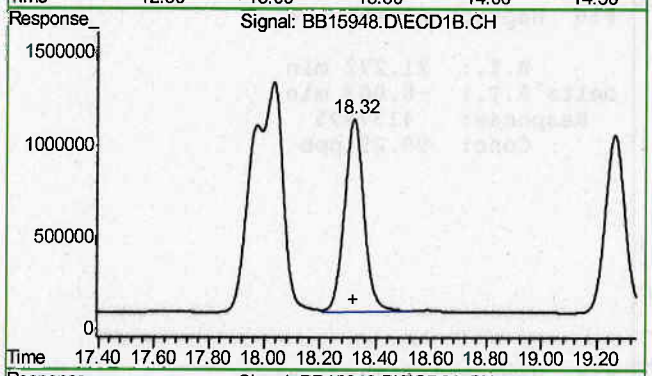
#13 delta-BHC

R.T.: 18.032 min
Delta R.T.: 0.000 min
Response: 5459366
Conc: 98.87 ppb



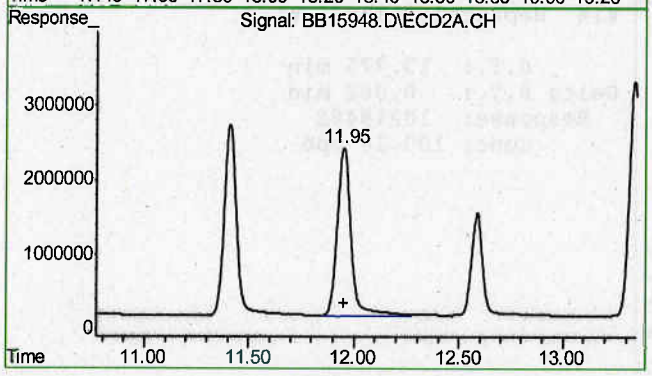
#13 delta-BHC

R.T.: 13.338 min
Delta R.T.: -0.003 min
Response: 11782262
Conc: 95.27 ppb



#14 Alachlor

R.T.: 18.319 min
Delta R.T.: 0.000 min
Response: 5067262
Conc: 923.65 ug/l



#14 Alachlor

R.T.: 11.950 min
Delta R.T.: 0.000 min
Response: 10109399
Conc: 1170.08 ug/l

6.6.9

6

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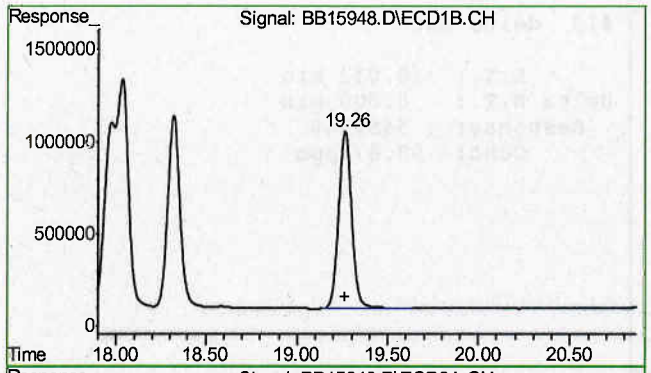
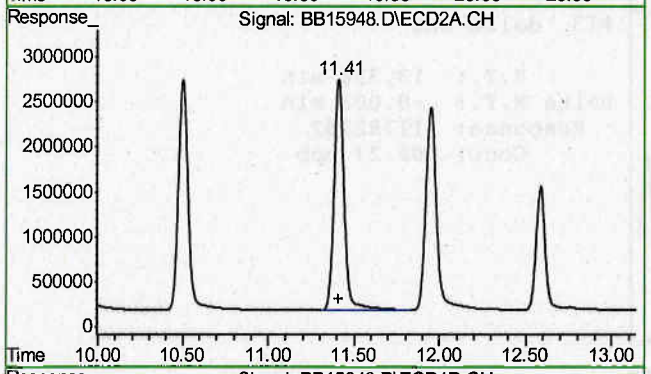


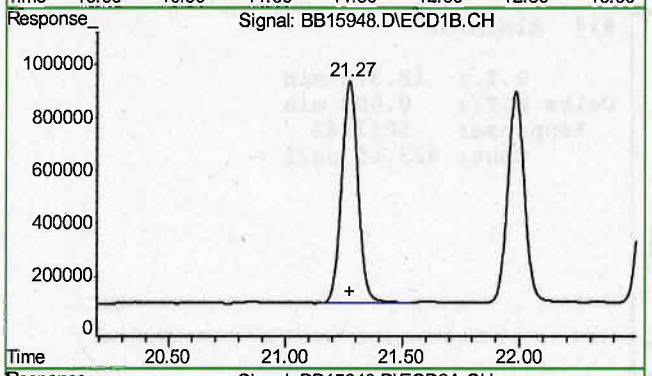
#15 Aldrin

R.T.: 19.262 min
Delta R.T.: -0.003 min
Response: 4852026
Conc: 103.31 ppb



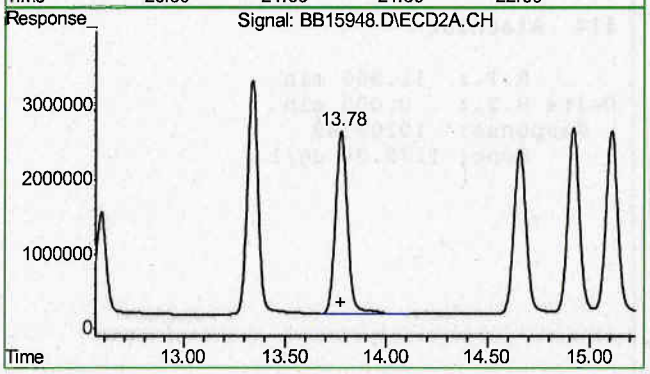
#15 Aldrin

R.T.: 11.408 min
Delta R.T.: 0.002 min
Response: 10703914
Conc: 101.20 ppb



#16 Heptachlor Epoxide

R.T.: 21.272 min
Delta R.T.: -0.003 min
Response: 4137995
Conc: 99.29 ppb



#16 Heptachlor Epoxide

R.T.: 13.775 min
Delta R.T.: 0.002 min
Response: 10219462
Conc: 100.10 ppb

6.6.9

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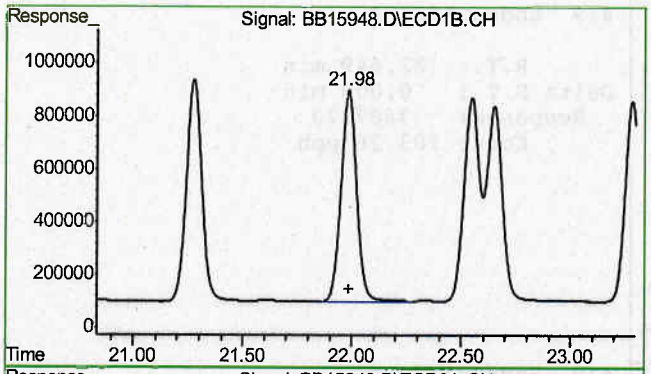
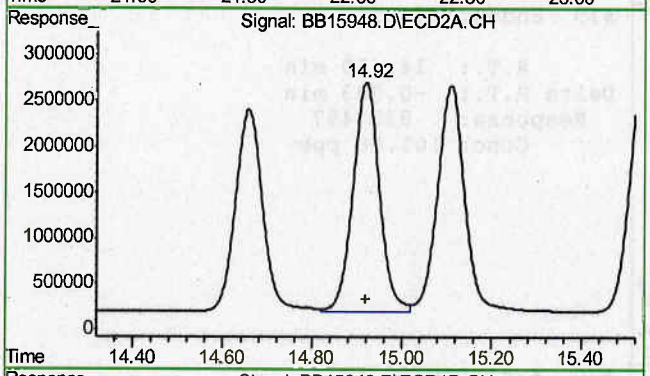


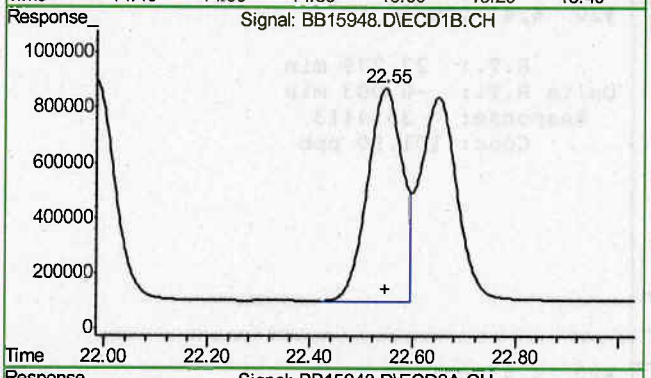
#17 gamma-Chlordane

R.T.: 21.982 min
Delta R.T.: -0.003 min
Response: 3906756
Conc: 97.16 ppb



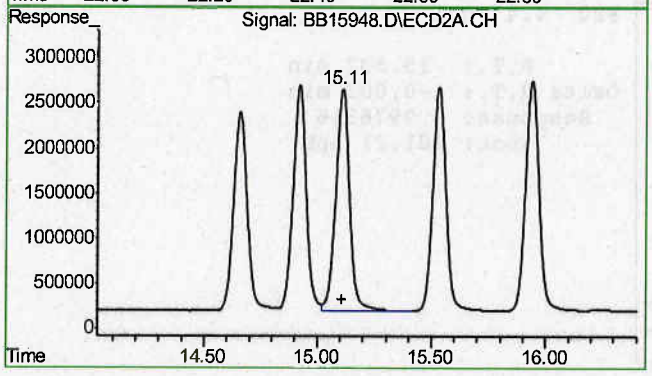
#17 gamma-Chlordane

R.T.: 14.920 min
Delta R.T.: 0.002 min
Response: 10159644
Conc: 97.49 ppb



#18 alpha-Chlordane

R.T.: 22.545 min
Delta R.T.: 0.000 min
Response: 3637044
Conc: 98.35 ppb



#18 alpha-Chlordane

R.T.: 15.108 min
Delta R.T.: 0.000 min
Response: 10329732
Conc: 100.01 ppb

6.6.9

6

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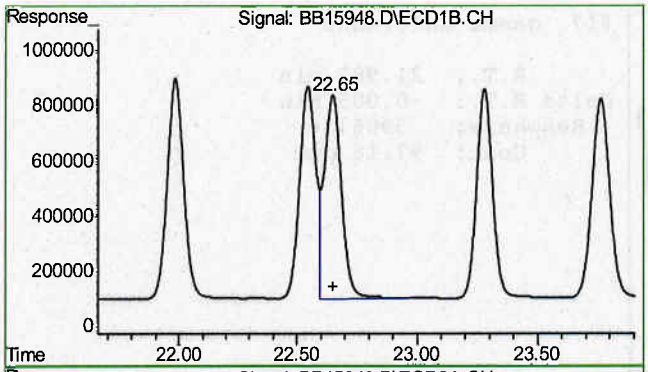
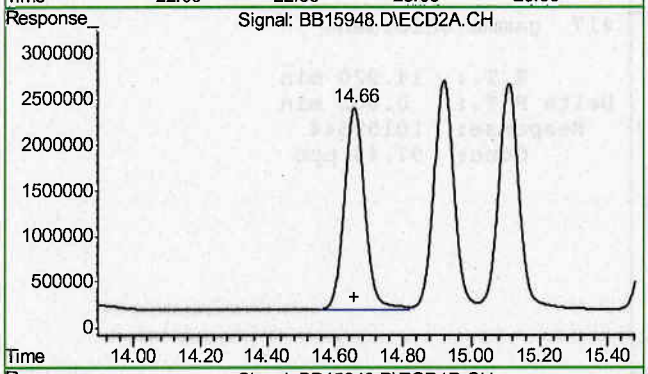


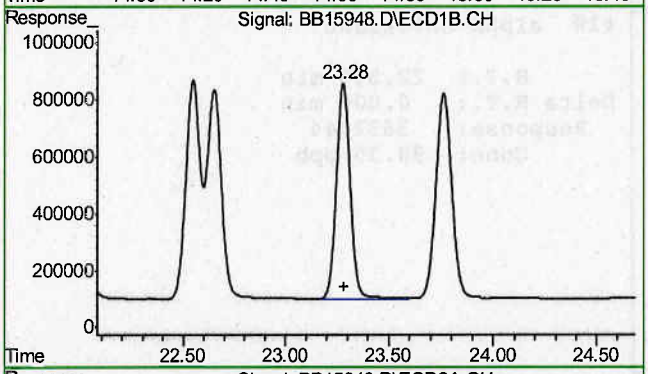
#19 Endosulfan-I

R.T.: 22.649 min
Delta R.T.: 0.000 min
Response: 3687873
Conc: 103.26 ppb



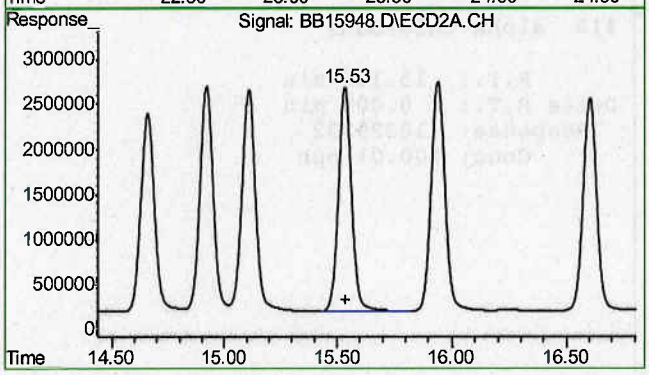
#19 Endosulfan-I

R.T.: 14.655 min
Delta R.T.: -0.003 min
Response: 9327457
Conc: 101.08 ppb



#20 4,4'-DDE

R.T.: 23.279 min
Delta R.T.: -0.003 min
Response: 3514413
Conc: 101.90 ppb



#20 4,4'-DDE

R.T.: 15.532 min
Delta R.T.: -0.003 min
Response: 9976316
Conc: 101.21 ppb

6.6.9

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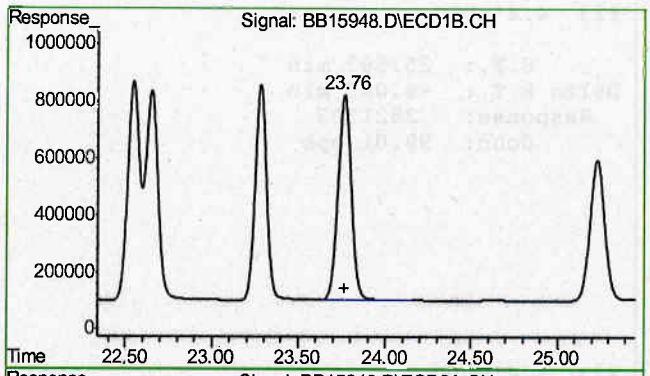
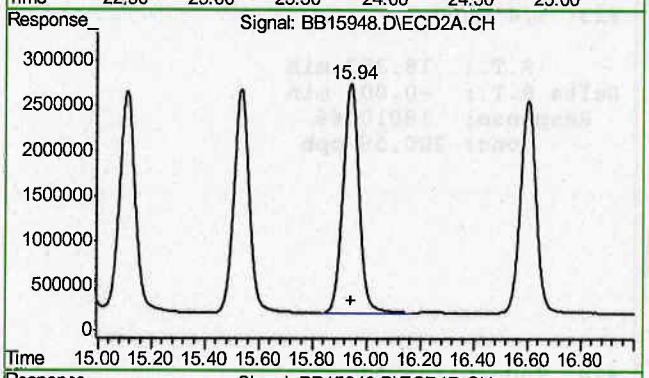


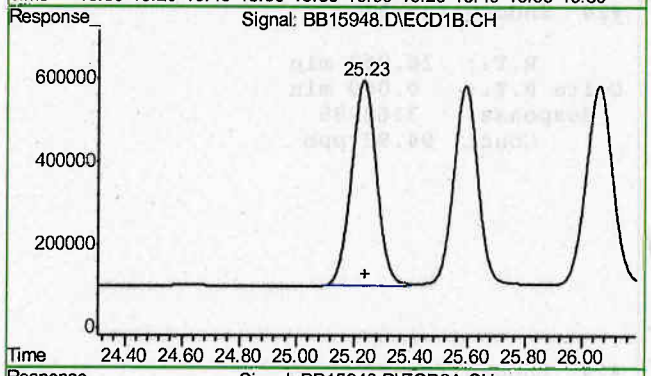
#21 Dieldrin

R.T.: 23.764 min
Delta R.T.: 0.000 min
Response: 3807907
Conc: 100.30 ppb



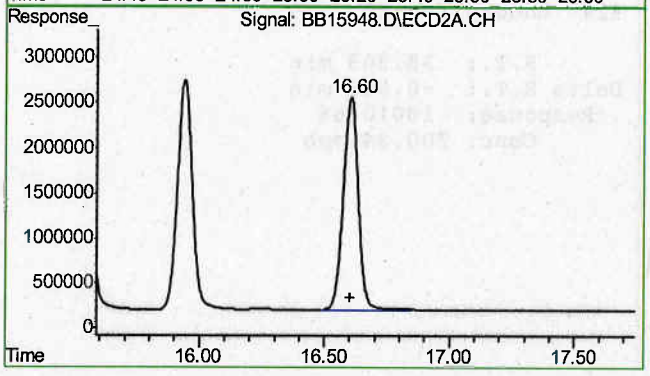
#21 Dieldrin

R.T.: 15.940 min
Delta R.T.: 0.000 min
Response: 10575218
Conc: 101.69 ppb



#22 Endrin

R.T.: 25.232 min
Delta R.T.: -0.004 min
Response: 3010286
Conc: 101.58 ppb



#22 Endrin

R.T.: 16.603 min
Delta R.T.: 0.002 min
Response: 9735608
Conc: 101.49 ppb

6.6.9

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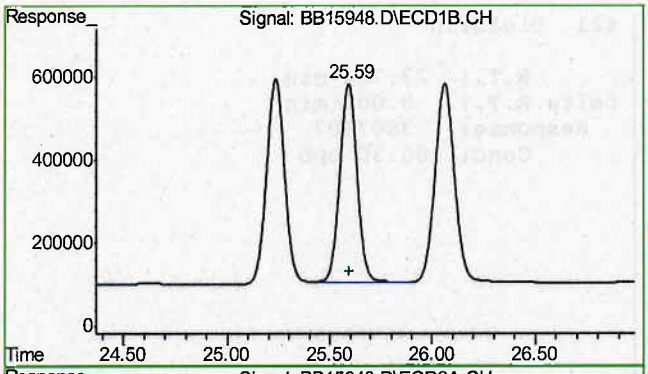
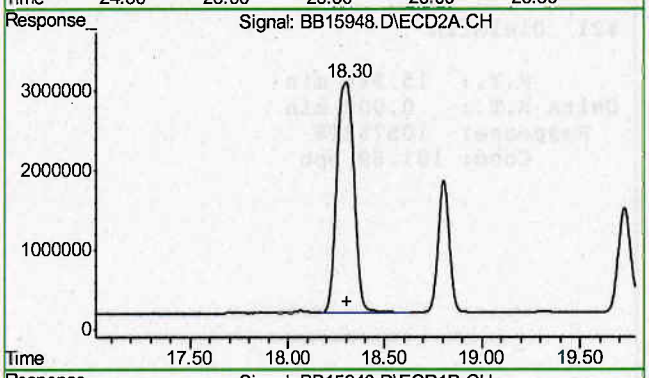


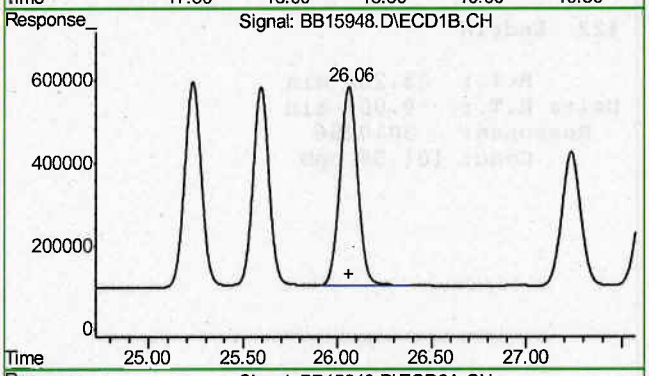
#23 4,4'-DDD

R.T.: 25.592 min
Delta R.T.: -0.003 min
Response: 2821193
Conc: 98.01 ppb



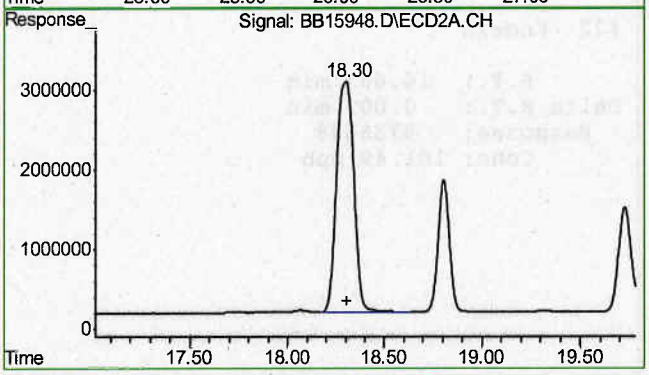
#23 4,4'-DDD

R.T.: 18.303 min
Delta R.T.: -0.003 min
Response: 18010466
Conc: 200.56 ppb



#24 Endosulfan-II

R.T.: 26.062 min
Delta R.T.: 0.000 min
Response: 3163085
Conc: 94.92 ppb



#24 Endosulfan-II

R.T.: 18.303 min
Delta R.T.: -0.003 min
Response: 18010466
Conc: 200.94 ppb

6.6.9

6

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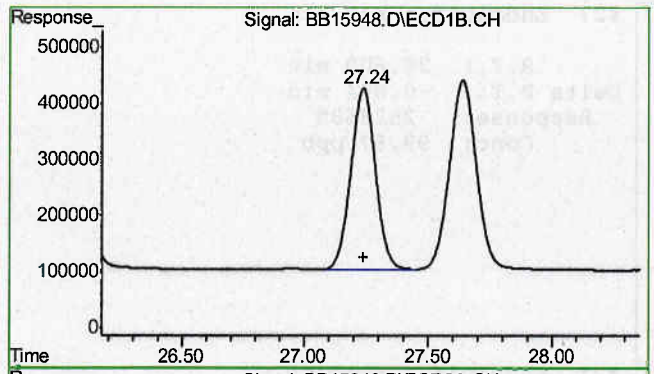
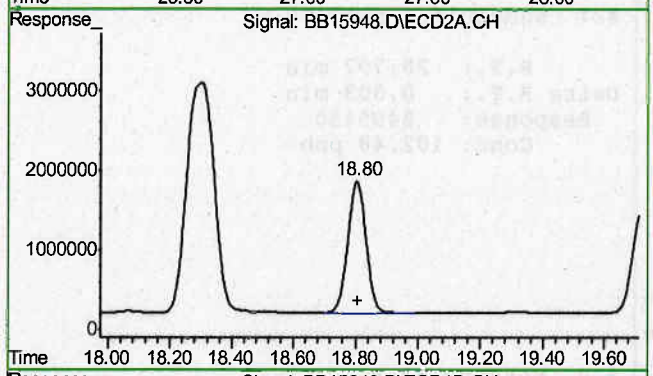


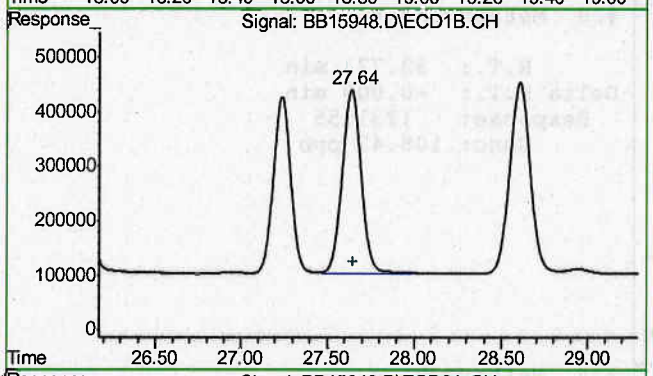
#25 4,4'-DDT

R.T.: 27.239 min
Delta R.T.: 0.000 min
Response: 2221857
Conc: 111.31 ppb



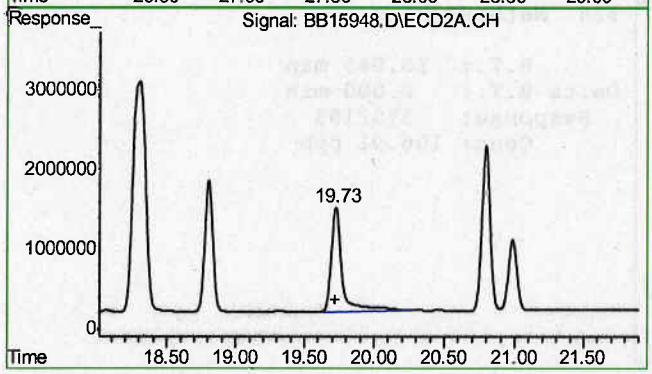
#25 4,4'-DDT

R.T.: 18.803 min
Delta R.T.: -0.004 min
Response: 6656551
Conc: 113.84 ppb



#26 Endrin aldehyde

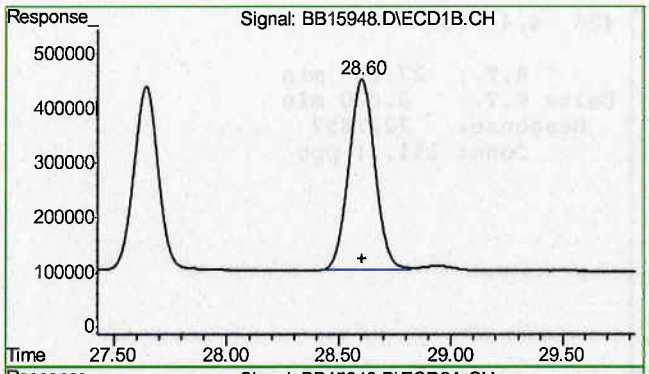
R.T.: 27.639 min
Delta R.T.: -0.007 min
Response: 2541639
Conc: 100.46 ppb



#26 Endrin aldehyde

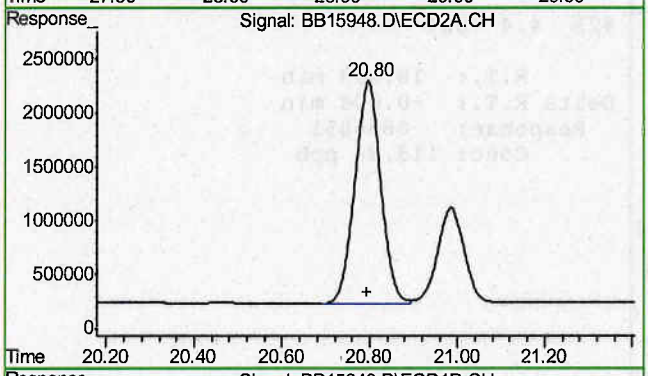
R.T.: 19.725 min
Delta R.T.: 0.003 min
Response: 7110296
Conc: 102.36 ppb m

6.6.9



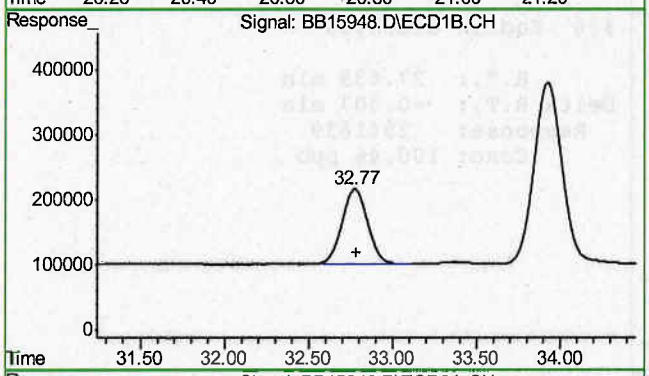
#27 Endosulfan sulfate

R.T.: 28.600 min
Delta R.T.: -0.004 min
Response: 2828685
Conc: 99.67 ppb



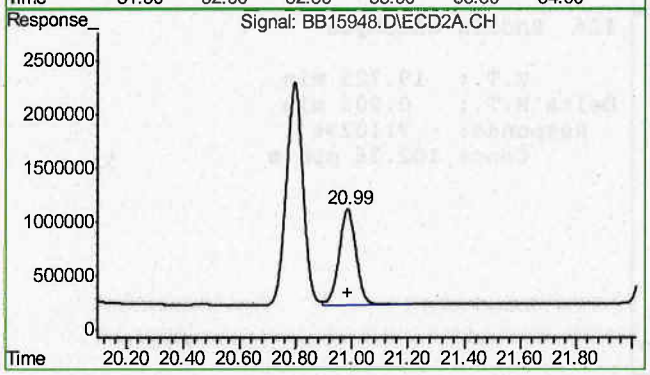
#27 Endosulfan sulfate

R.T.: 20.797 min
Delta R.T.: 0.003 min
Response: 8495430
Conc: 102.48 ppb



#28 Methoxychlor

R.T.: 32.774 min
Delta R.T.: -0.009 min
Response: 1231555
Conc: 108.43 ppb

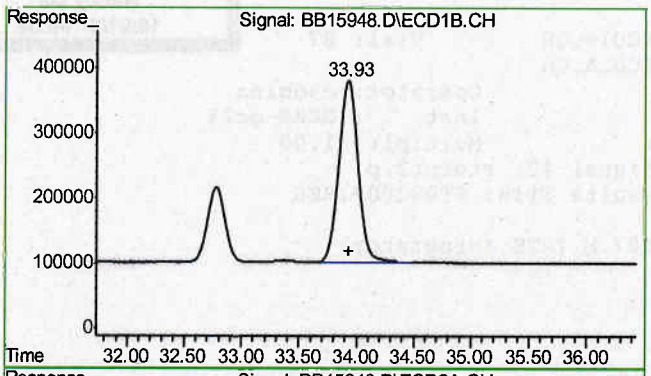


#28 Methoxychlor

R.T.: 20.985 min
Delta R.T.: 0.000 min
Response: 3752153
Conc: 106.91 ppb

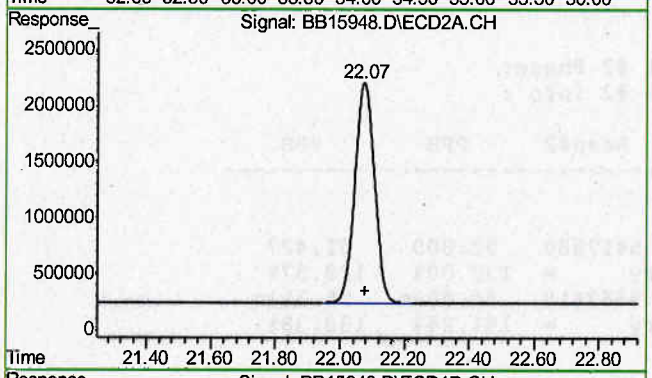
6.6.9

6



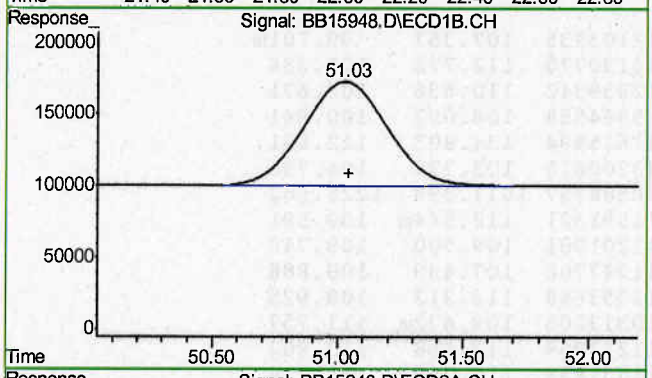
#29 Endrin ketone

R.T.: 33.925 min
Delta R.T.: -0.004 min
Response: 3264097
Conc: 94.51 ppb



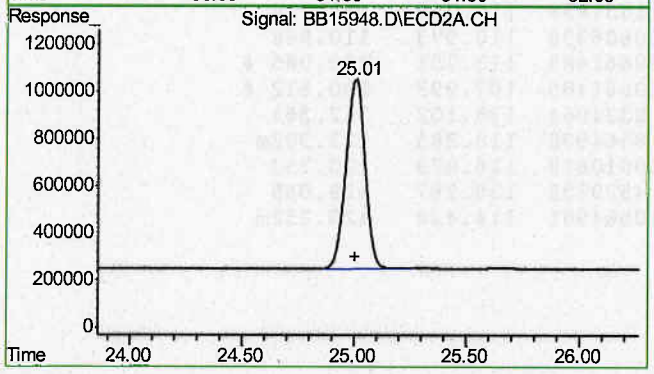
#29 Endrin ketone

R.T.: 22.072 min
Delta R.T.: -0.006 min
Response: 8358239
Conc: 98.06 ppb m



#38 DCB

R.T.: 51.029 min
Delta R.T.: -0.016 min
Response: 1695159
Conc: 48.27 ppb m



#38 DCB

R.T.: 25.008 min
Delta R.T.: 0.003 min
Response: 4756602
Conc: 47.32 ppb m

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Manual Integrations
APPROVED
(compounds with "m" flag)
Nancy Ma
10/01/07 08:53

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD1B.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD2A.CH
Acq On : 9-22-07 04:10:56 AM Operator: caobinz
Sample : cc667-100,pest 100,icv fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 16:08:50 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.21	5.64	2139360	5417880	52.800	51.427
	Spiked Amount 40.000			Recovery	=	132.00%	128.57%
38) s	DCB	50.97	25.00	1984164	5563415	56.503m	55.351m
	Spiked Amount 40.000			Recovery	=	141.26%	138.38%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	5419974	12103935	107.357	99.701m
9)	alpha-BHC	14.87	8.52	7004400	14130770	112.772	105.236
10)	gamma-BHC	16.39	9.86	5947403	12939342	110.636	103.671
11)	beta-BHC	16.62	12.58	2460479	5564558	106.092	100.841
12)	Heptachlor	17.96	10.50	4962278	11615994	134.803	112.891
13)	delta-BHC	18.03	13.34	5730525	13200615	103.779	106.735
14)	Alachlor	18.31	11.95	5548678	10588957	1011.399	1225.582
15)	Aldrin	19.26	11.41	5285875	11591321	112.544m	109.591
16)	Heptachlor Epoxi	21.27	13.77	4563490	11201081	109.500	109.710
17)	gamma-Chlordane	21.98	14.92	4320111	11347706	107.439	108.888
18)	alpha-Chlordane	22.54	15.11	4153252	11353658	112.313	109.925
19)	Endosulfan-I	22.64	14.66	3909829	10313205	109.472m	111.757
20)	4,4'-DDE	23.27	15.53	3916296	11217959	113.558	113.802
21)	Dieldrin	23.75	15.94	4204724	11831856	110.755	113.776
22)	Endrin	25.22	16.60	3288724	10606330	110.973	110.568
23)	4,4'-DDD	25.58	18.30	3274305	20661485	113.751	230.085 #
24)	Endosulfan-II	26.04	18.30	3598659	20661485	107.993	230.512 #
25)	4,4'-DDT	27.22	18.80	2756647	8324064	138.102	142.361
26)	Endrin aldehyde	27.62	19.72	2995138	8564998	118.383	123.302m
27)	Endosulfan sulfa	28.58	20.79	3315584	10010610	116.829	120.753
28)	Methoxychlor	32.75	20.98	1536747	4529288	135.297	129.055
29)	Endrin ketone	33.90	22.07	3951989	10504981	114.428	123.252m

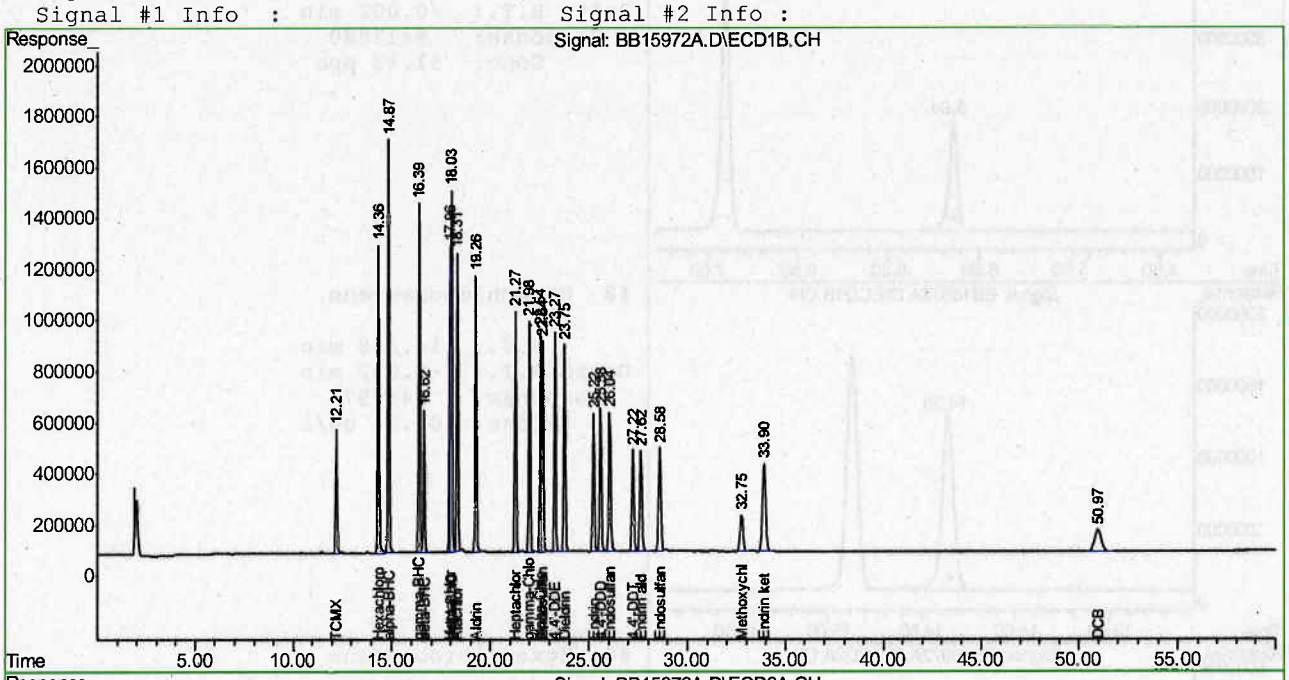
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15972A.D PT092007.M Tue Sep 25 10:01:05 2007 GC23PRN

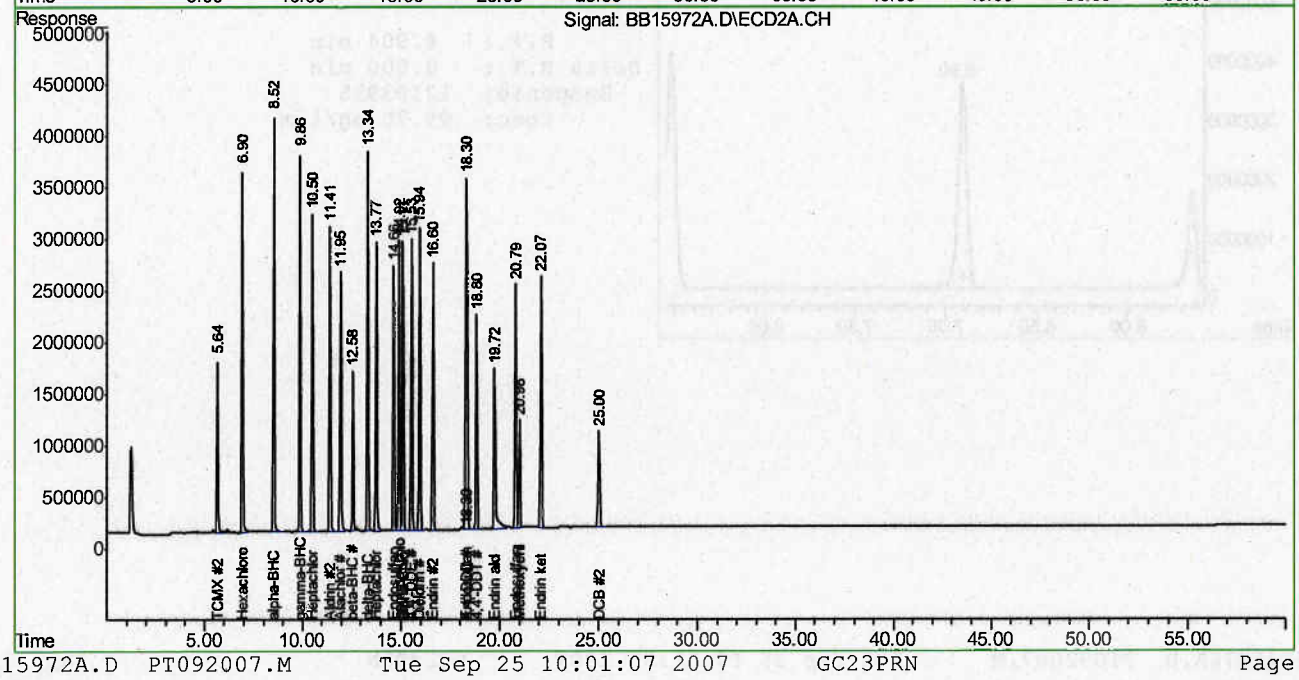
Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD1B.CH          Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD2A.CH
Acq On    : 9-22-07 04:10:56 AM                   Operator: caobinz
Sample    : cc667-100,pest 100,icv fresh          Inst    : GCBB-gc23
Misc      : op14345,gbb668,1000,,,5,,water        Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p
Quant Time: Sep 24 16:11 2007  Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title        : P8081pest,w/CT-PCB
Last Update  : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj.      :
Signal #1 Phase  :                    Signal #2 Phase:
Signal #1 Info   :                    Signal #2 Info :
```





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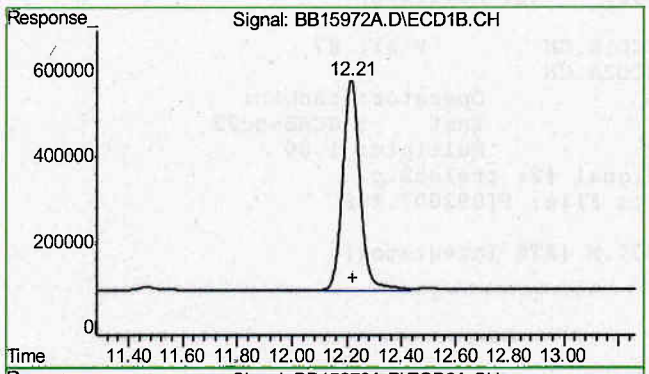
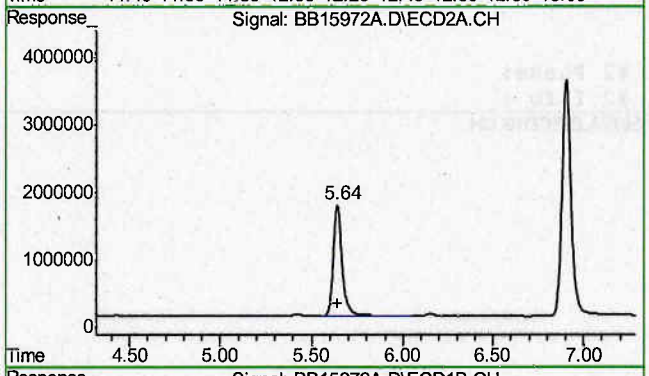


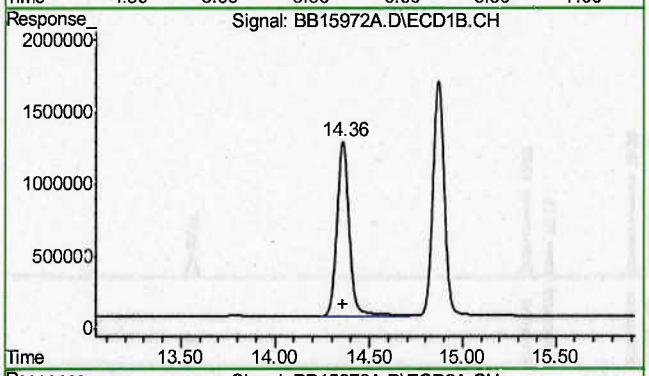
#1 TCMX

R.T.: 12.213 min
Delta R.T.: -0.008 min
Response: 2139360
Conc: 52.80 ppb



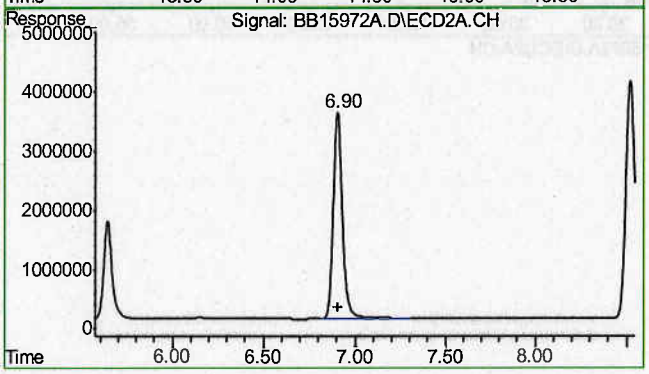
#1 TCMX

R.T.: 5.639 min
Delta R.T.: -0.002 min
Response: 5417880
Conc: 51.43 ppb



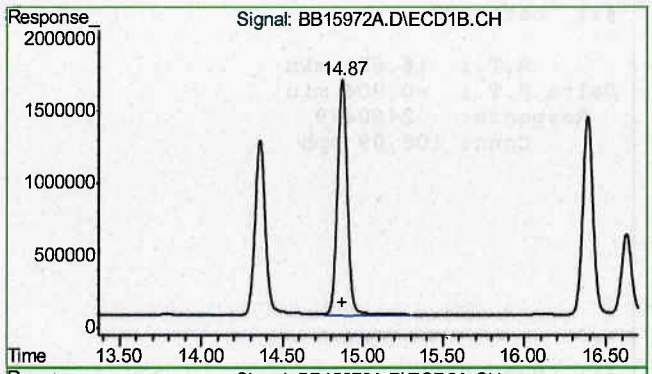
#8 Hexachlorobenzene

R.T.: 14.358 min
Delta R.T.: -0.002 min
Response: 5419974
Conc: 107.36 ug/l



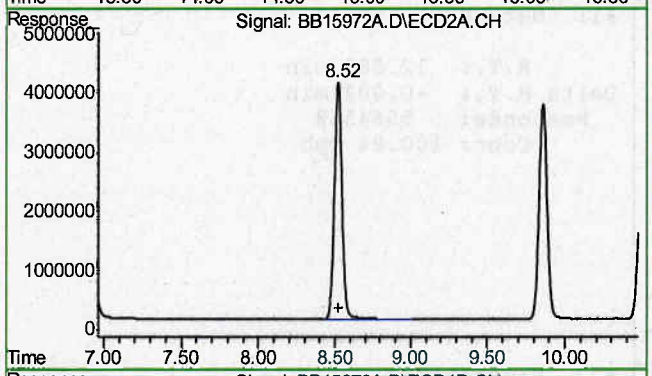
#8 Hexachlorobenzene

R.T.: 6.904 min
Delta R.T.: 0.000 min
Response: 12103935
Conc: 99.70 ug/l m



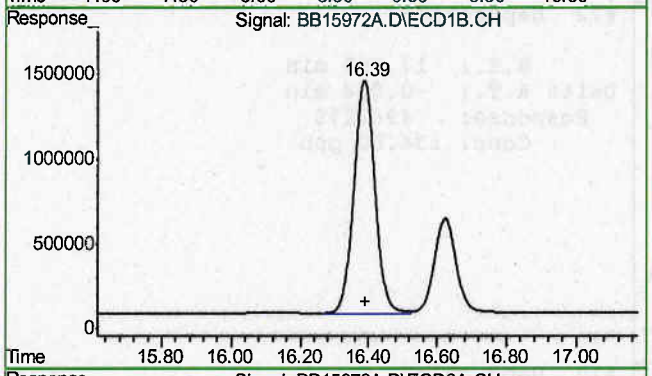
#9 alpha-BHC

R.T.: 14.869 min
Delta R.T.: -0.004 min
Response: 7004400
Conc: 112.77 ppb



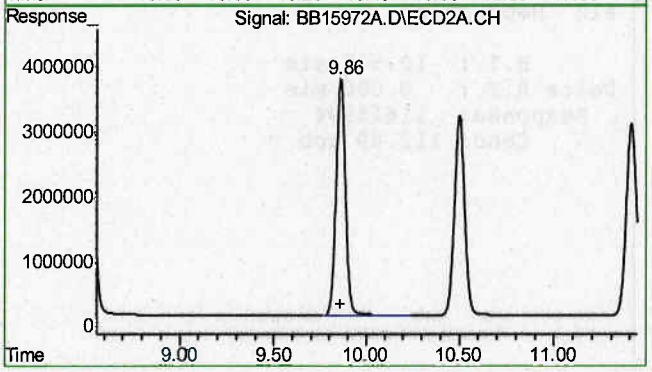
#9 alpha-BHC

R.T.: 8.521 min
Delta R.T.: -0.002 min
Response: 14130770
Conc: 105.24 ppb



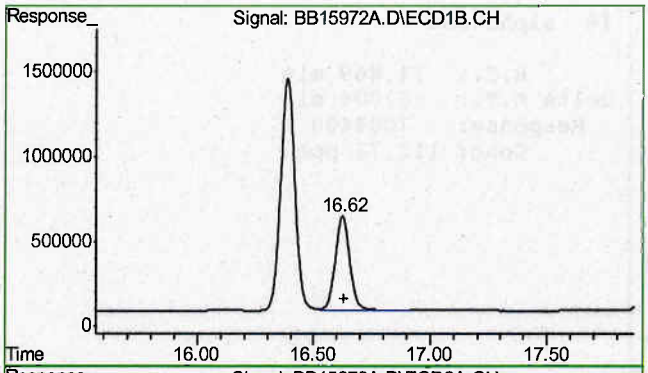
#10 gamma-BHC

R.T.: 16.387 min
Delta R.T.: -0.004 min
Response: 5947403
Conc: 110.64 ppb



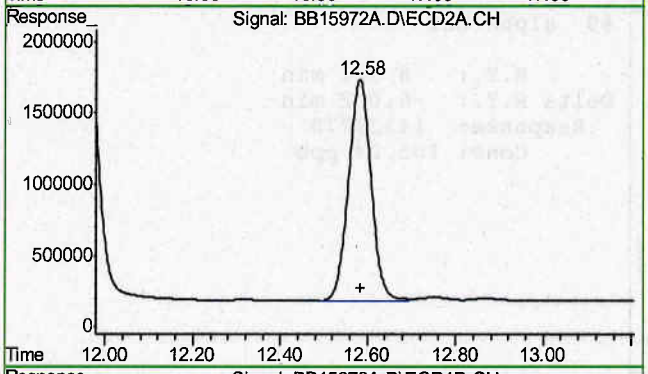
#10 gamma-BHC

R.T.: 9.861 min
Delta R.T.: 0.000 min
Response: 12939342
Conc: 103.67 ppb



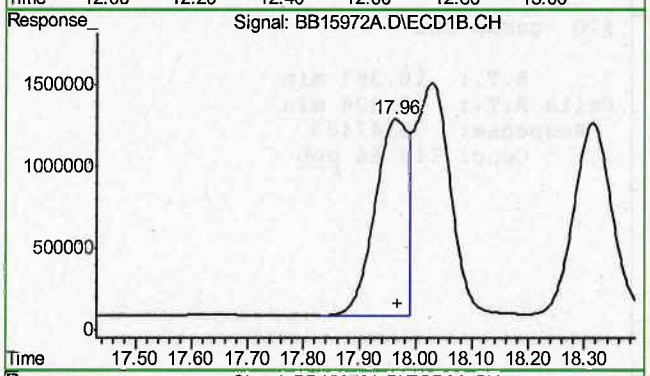
#11 beta-BHC

R.T.: 16.624 min
Delta R.T.: -0.004 min
Response: 2460479
Conc: 106.09 ppb



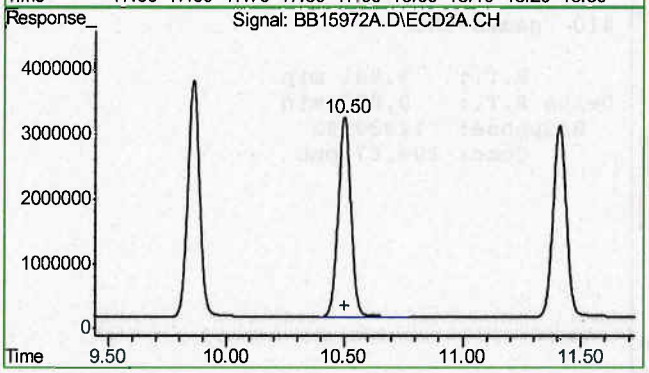
#11 beta-BHC

R.T.: 12.582 min
Delta R.T.: -0.002 min
Response: 5564558
Conc: 100.84 ppb



#12 Heptachlor

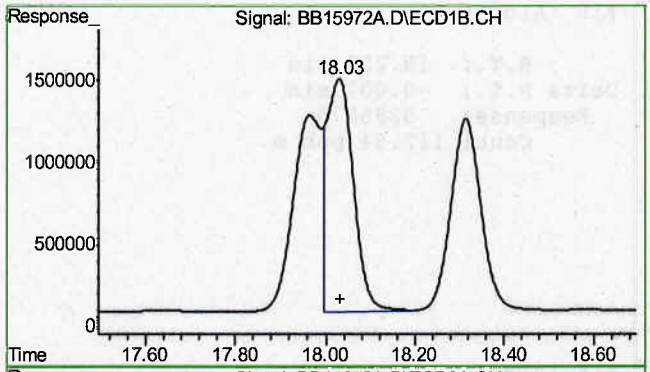
R.T.: 17.962 min
Delta R.T.: -0.006 min
Response: 4962278
Conc: 134.80 ppb



#12 Heptachlor

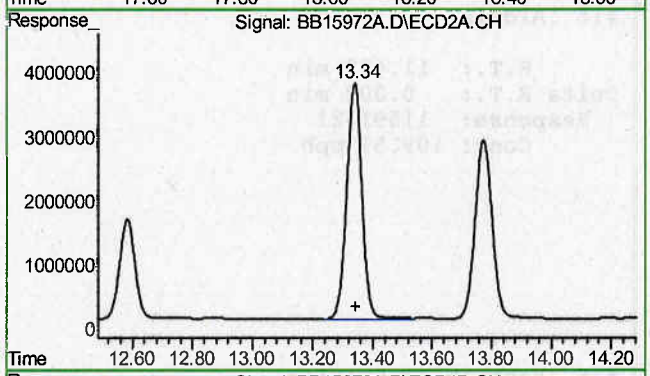
R.T.: 10.501 min
Delta R.T.: 0.000 min
Response: 11615994
Conc: 112.89 ppb

6.6.10 6



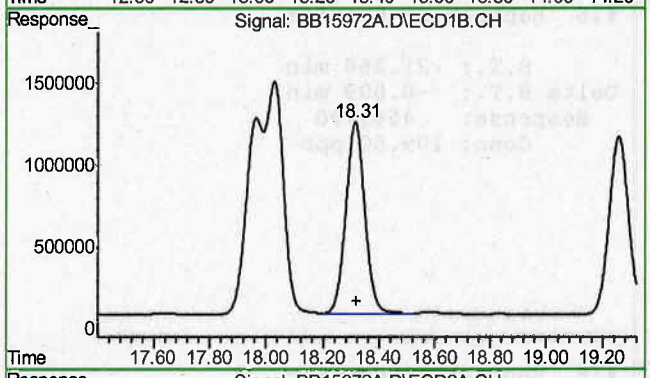
#13 delta-BHC

R.T.: 18.028 min
Delta R.T.: -0.006 min
Response: 5730525
Conc: 103.78 ppb



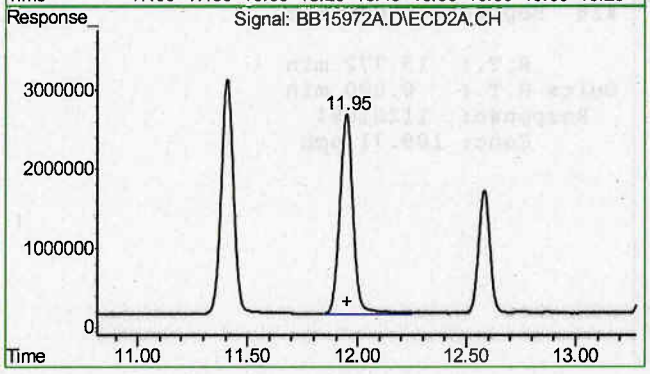
#13 delta-BHC

R.T.: 13.339 min
Delta R.T.: -0.002 min
Response: 13200615
Conc: 106.73 ppb



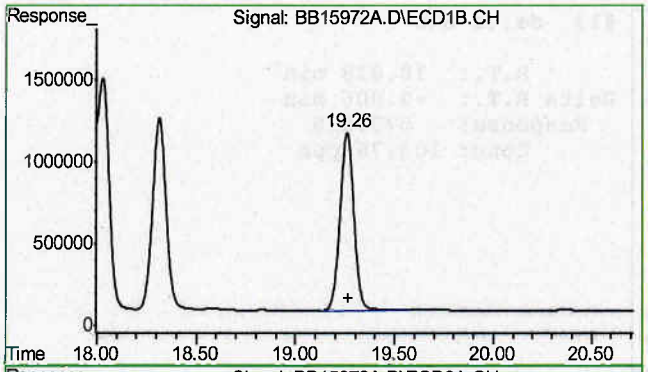
#14 Alachlor

R.T.: 18.314 min
Delta R.T.: -0.004 min
Response: 5548678
Conc: 1011.40 ug/l



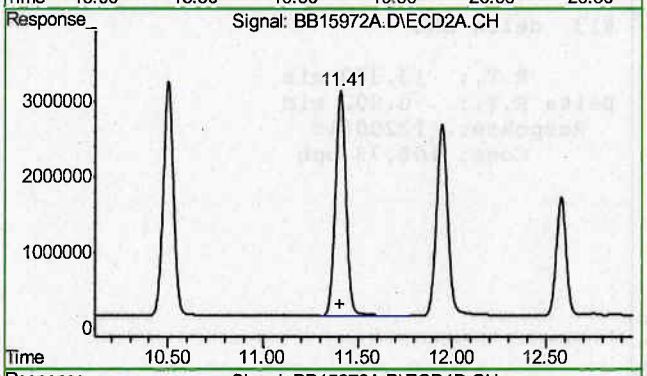
#14 Alachlor

R.T.: 11.947 min
Delta R.T.: -0.004 min
Response: 10588957
Conc: 1225.58 ug/l



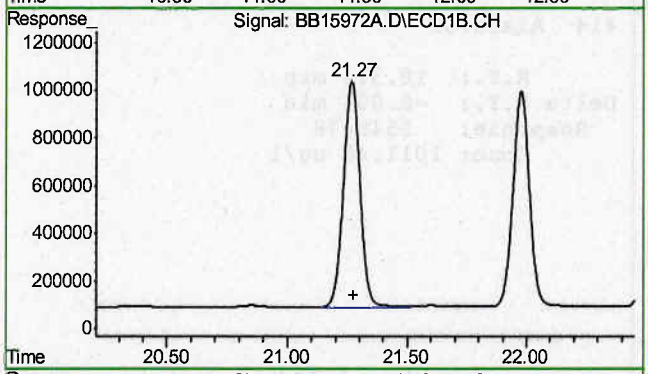
#15 Aldrin

R.T.: 19.258 min
Delta R.T.: -0.007 min
Response: 5285875
Conc: 112.54 ppb m



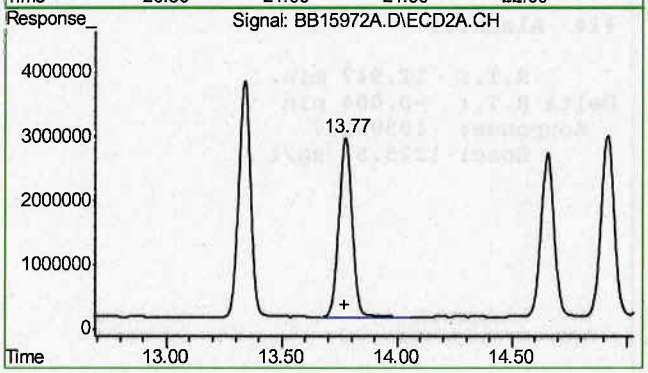
#15 Aldrin

R.T.: 11.409 min
Delta R.T.: 0.003 min
Response: 11591321
Conc: 109.59 ppb



#16 Heptachlor Epoxide

R.T.: 21.266 min
Delta R.T.: -0.009 min
Response: 4563490
Conc: 109.50 ppb

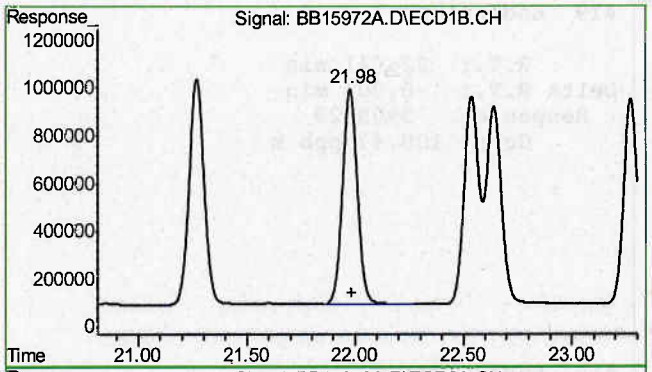


#16 Heptachlor Epoxide

R.T.: 13.772 min
Delta R.T.: 0.000 min
Response: 11201081
Conc: 109.71 ppb

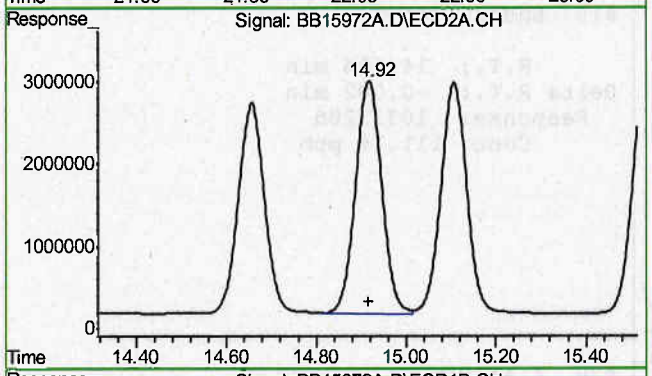
6.6.10

6



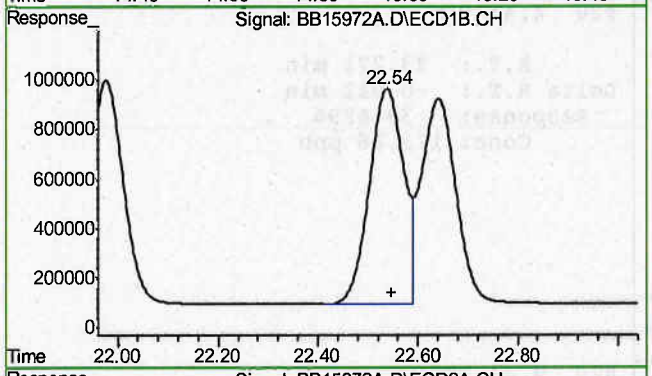
#17 gamma-Chlordane

R.T.: 21.976 min
Delta R.T.: -0.009 min
Response: 4320111
Conc: 107.44 ppb



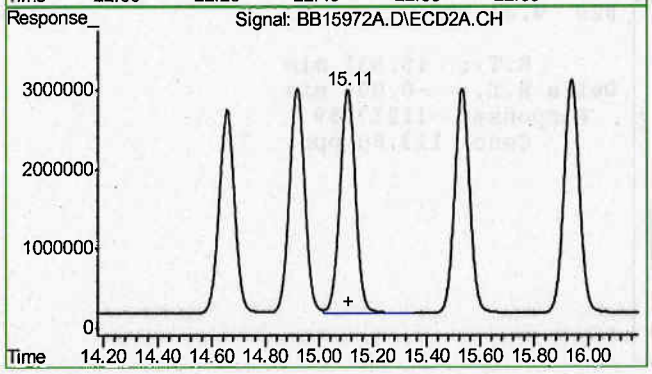
#17 gamma-Chlordane

R.T.: 14.919 min
Delta R.T.: 0.001 min
Response: 11347706
Conc: 108.89 ppb



#18 alpha-Chlordane

R.T.: 22.538 min
Delta R.T.: -0.009 min
Response: 4153252
Conc: 112.31 ppb

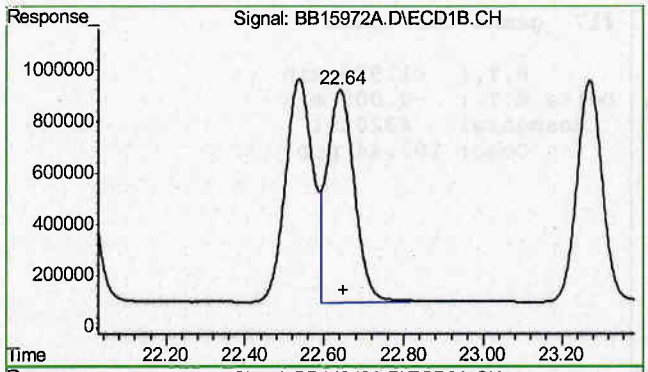


#18 alpha-Chlordane

R.T.: 15.105 min
Delta R.T.: -0.004 min
Response: 11353658
Conc: 109.92 ppb

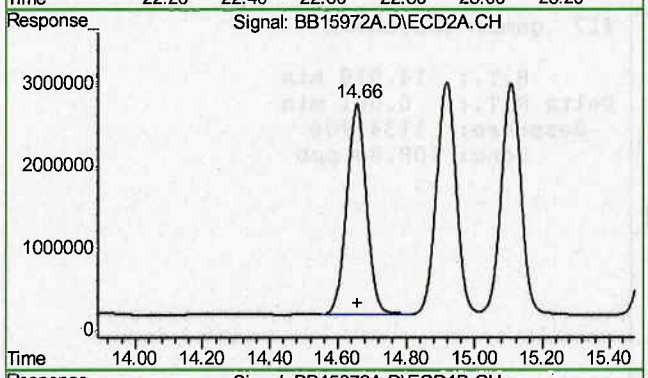
6.6.10

6



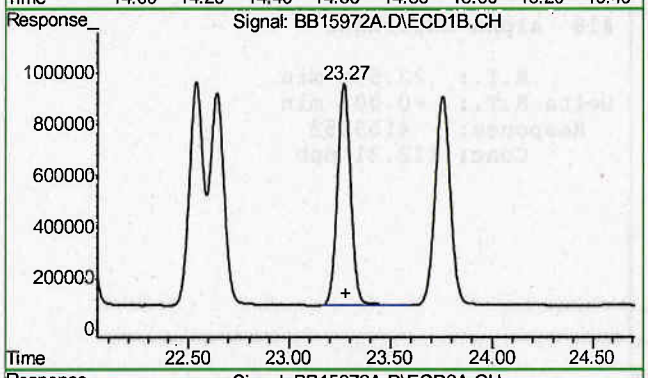
#19 Endosulfan-I

R.T.: 22.641 min
Delta R.T.: -0.007 min
Response: 3909829
Conc: 109.47 ppb m



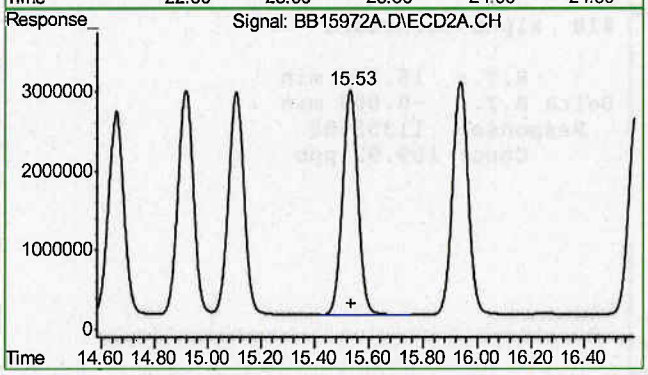
#19 Endosulfan-I

R.T.: 14.656 min
Delta R.T.: -0.002 min
Response: 10313205
Conc: 111.76 ppb



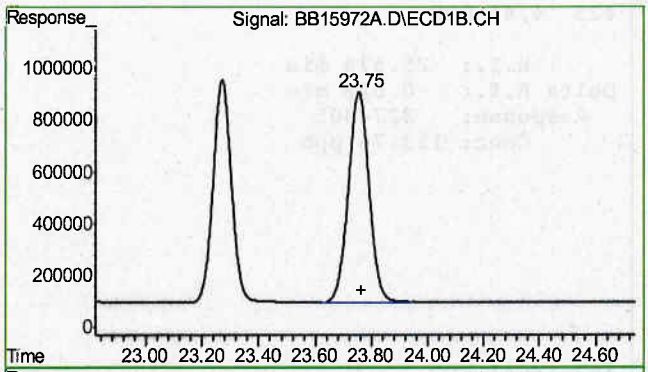
#20 4,4'-DDE

R.T.: 23.271 min
Delta R.T.: -0.011 min
Response: 3916296
Conc: 113.56 ppb



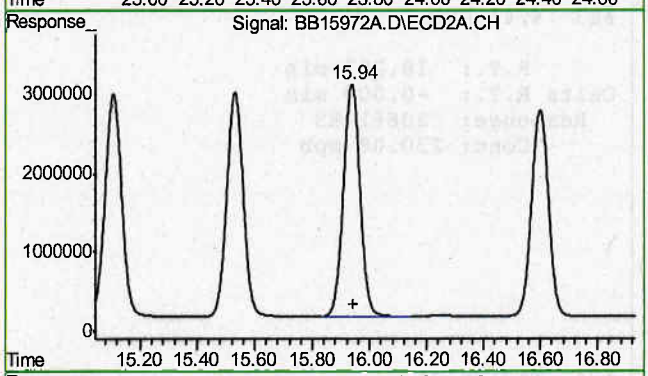
#20 4,4'-DDE

R.T.: 15.531 min
Delta R.T.: -0.004 min
Response: 11217959
Conc: 113.80 ppb



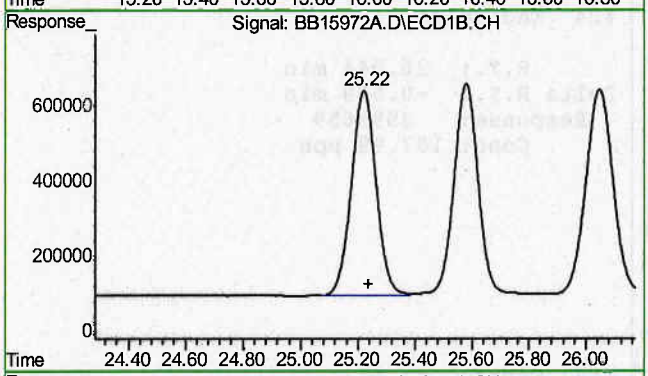
#21 Dieldrin

R.T.: 23.754 min
Delta R.T.: -0.011 min
Response: 4204724
Conc: 110.75 ppb



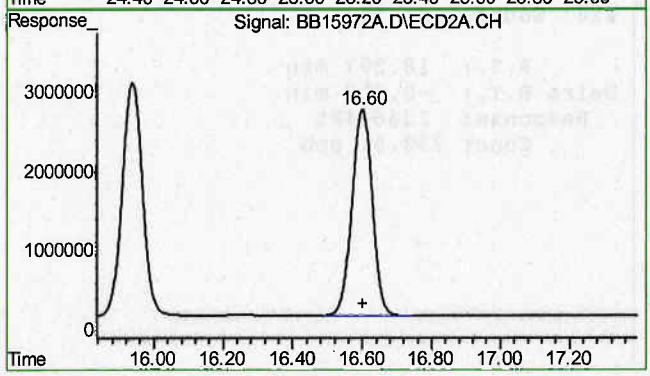
#21 Dieldrin

R.T.: 15.937 min
Delta R.T.: -0.004 min
Response: 11831856
Conc: 113.78 ppb



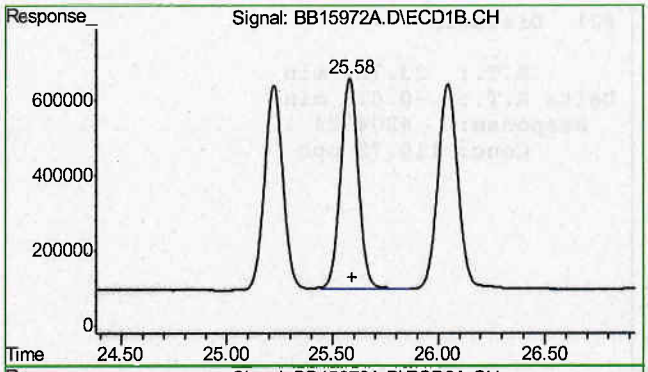
#22 Endrin

R.T.: 25.221 min
Delta R.T.: -0.016 min
Response: 3288724
Conc: 110.97 ppb



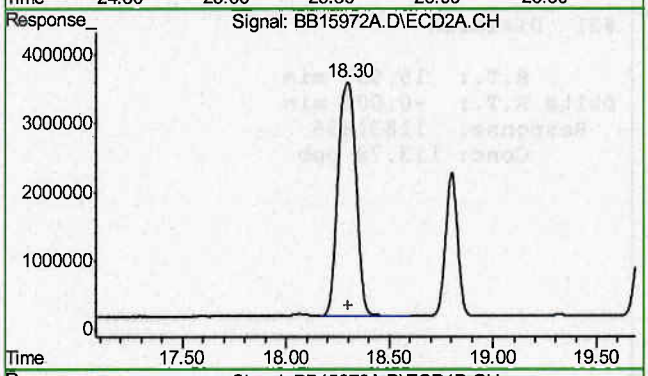
#22 Endrin

R.T.: 16.599 min
Delta R.T.: -0.002 min
Response: 10606330
Conc: 110.57 ppb



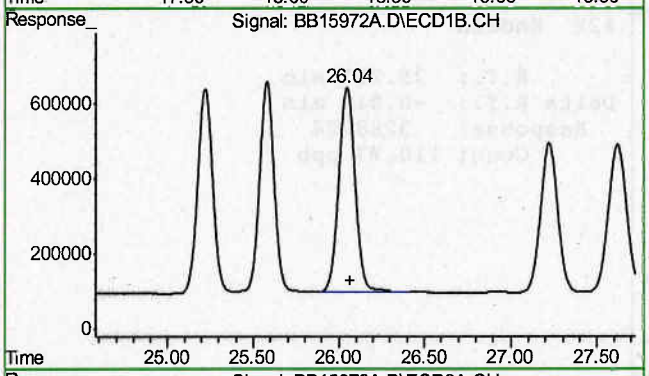
#23 4,4'-DDD

R.T.: 25.579 min
Delta R.T.: -0.016 min
Response: 3274305
Conc: 113.75 ppb



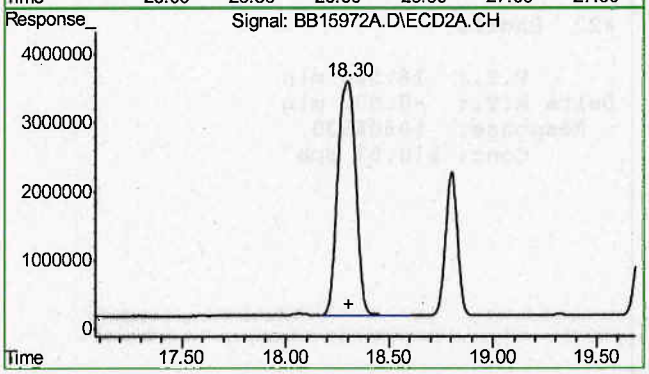
#23 4,4'-DDD

R.T.: 18.297 min
Delta R.T.: -0.009 min
Response: 20661485
Conc: 230.08 ppb



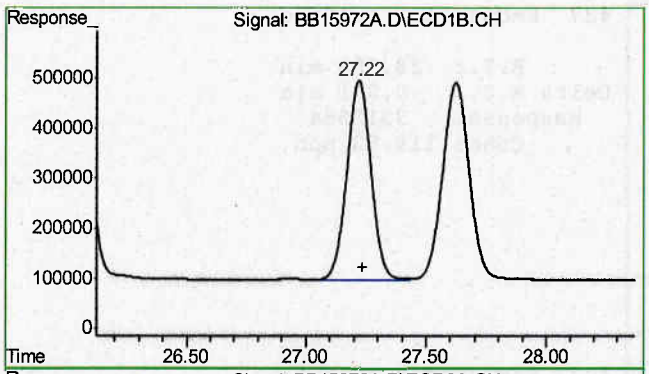
#24 Endosulfan-II

R.T.: 26.044 min
Delta R.T.: -0.019 min
Response: 3598659
Conc: 107.99 ppb



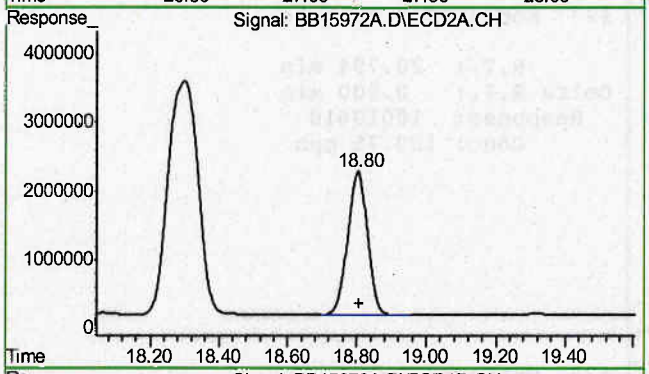
#24 Endosulfan-II

R.T.: 18.297 min
Delta R.T.: -0.009 min
Response: 20661485
Conc: 230.51 ppb



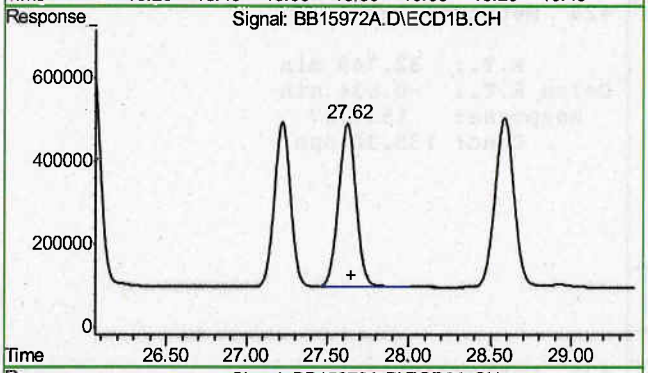
#25 4,4'-DDT

R.T.: 27.219 min
Delta R.T.: -0.019 min
Response: 2756647
Conc: 138.10 ppb



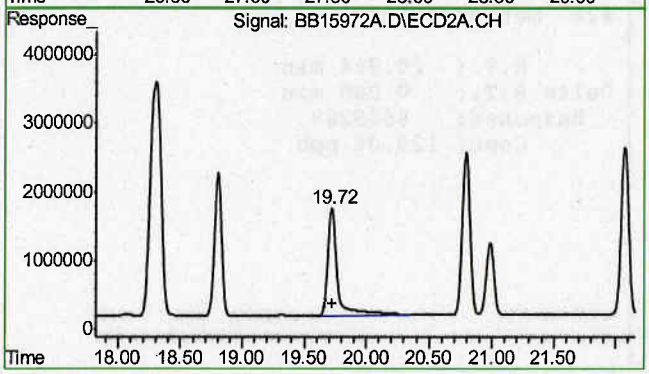
#25 4,4'-DDT

R.T.: 18.804 min
Delta R.T.: -0.004 min
Response: 8324064
Conc: 142.36 ppb



#26 Endrin aldehyde

R.T.: 27.622 min
Delta R.T.: -0.024 min
Response: 2995138
Conc: 118.38 ppb

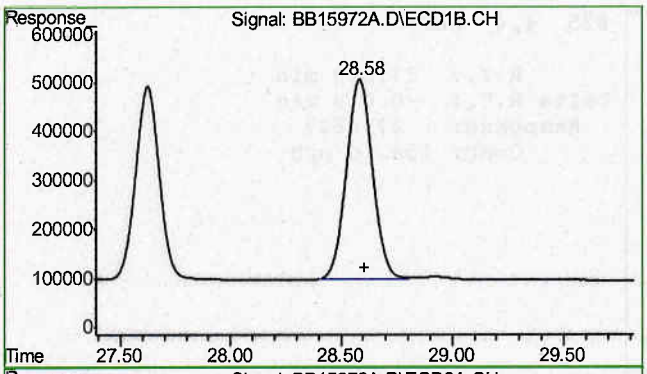


#26 Endrin aldehyde

R.T.: 19.724 min
Delta R.T.: 0.002 min
Response: 8564998
Conc: 123.30 ppb m

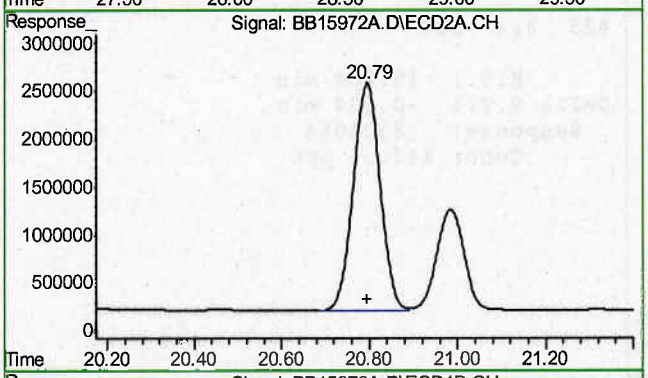
6.6.10

6



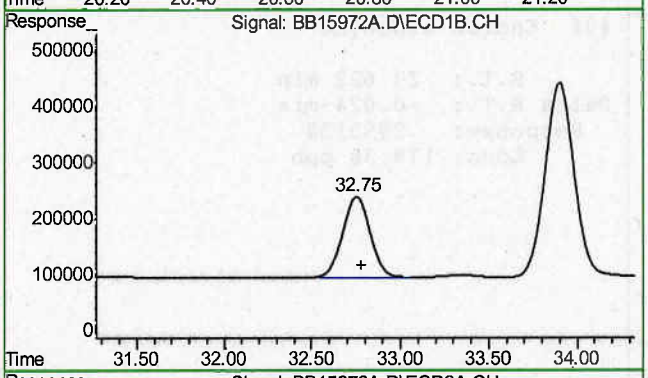
#27 Endosulfan sulfate

R.T.: 28.583 min
Delta R.T.: -0.021 min
Response: 3315584
Conc: 116.83 ppb



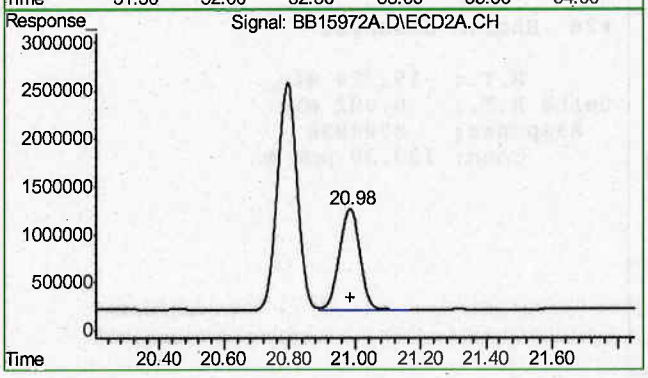
#27 Endosulfan sulfate

R.T.: 20.794 min
Delta R.T.: 0.000 min
Response: 10010610
Conc: 120.75 ppb



#28 Methoxychlor

R.T.: 32.749 min
Delta R.T.: -0.034 min
Response: 1536747
Conc: 135.30 ppb

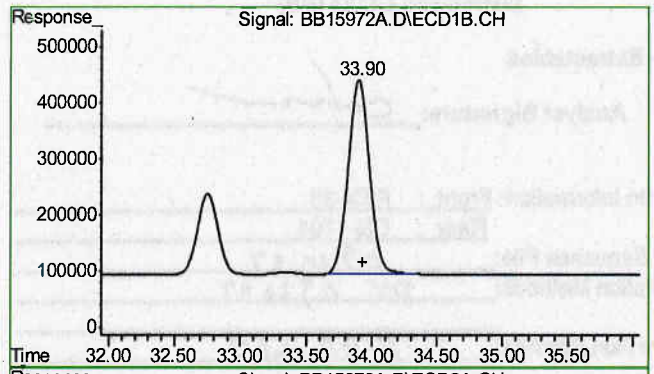


#28 Methoxychlor

R.T.: 20.984 min
Delta R.T.: 0.000 min
Response: 4529288
Conc: 129.06 ppb

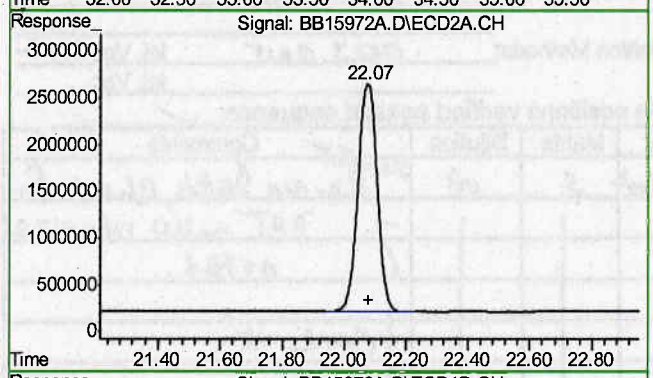
6.6.10

6



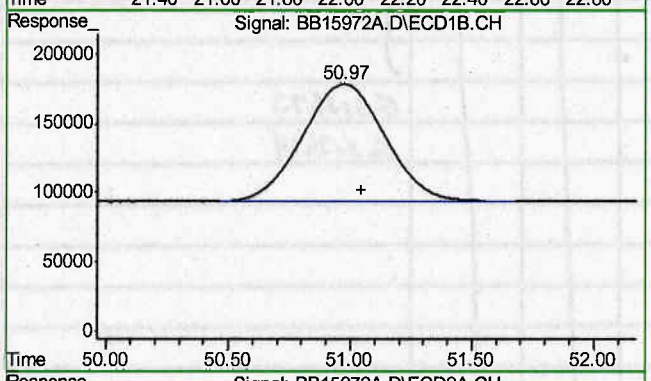
#29 Endrin ketone

R.T.: 33.901 min
Delta R.T.: -0.029 min
Response: 3951989
Conc: 114.43 ppb



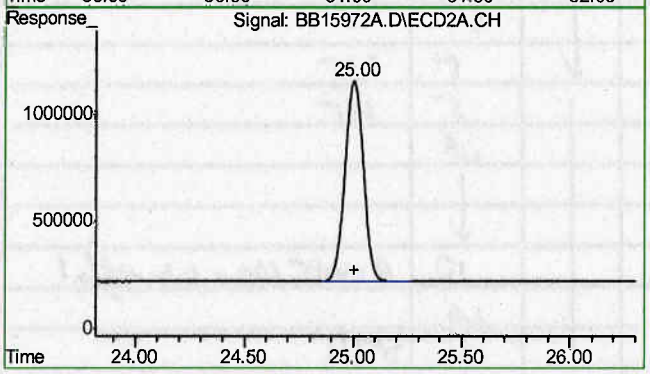
#29 Endrin ketone

R.T.: 22.074 min
Delta R.T.: -0.004 min
Response: 10504981
Conc: 123.25 ppb m



#38 DCB

R.T.: 50.971 min
Delta R.T.: -0.073 min
Response: 1984164
Conc: 56.50 ppb m



#38 DCB

R.T.: 25.002 min
Delta R.T.: -0.003 min
Response: 5563415
Conc: 55.35 ppb m

6.6.10

6

Accutest Laboratories of New England, Inc. Instrument: GC 23 (BB)

GC Analysis Log - Extractables

Run Date: 9/20/07 Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc
GS13667	Pest	1000 ng/L
13668		500
13643		250
13675		100
13647		50
13676		5
13669	(1ea)	1000
13670	ZR	40

Column Information: Front : RTX-35
Rear : DB-1701

Sequence File: 09.20.07

Quantitation Methods: PT 09.20.07

Instrument Run Batches: GBB667

Data Acquisition Methods: GC23 Pest Inj. Vol: 1.0 L

Inj. Vol:

Date of ICAL: 9/25/07 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext Batch	Analysis	Matrix	Dilution	Comments
100	BB15939	DOT	QP14341	Prep/Pesticide	S	NA	Re-run Batch Check for
81	40	Pest 1000					DOT unless otherwise
82	41	500					noted.
83	42	250					
84	43	50					Curve OK
85	44	10					
86	45	5					
87	46	CT 400					GS13673
88	47	CT 200					GS13674
89	48	Pest 1000	1ea				
90	49	ZR					
10	50	m67204-1					
12	51	-3					
13	52	-4					
14	53	-5					
15	54	-6				5	DOT
32	55	m67248-3	QP14350			5	DOT
33	56	-3				NA	
34	57	-4					
35	58	-5					
25	59	Pest 2ng				10	Results 110, 0.2 ng/ml
100	60	DOT				NA	
86	61	Pest 1000					Fish
5	62	QP14341-hs	QP14341				
6	63	-hsd					
7	64	-ms					
8	65	-msd					

MTX = Matrix: Designate W for water, S for soil, O for oil. Dilution Solvent: Hexane Lot#: 216.621

GC002-07
Date: 1/12/06

Review: [signature] 9/28/07

ACCUTEST Laboratories M67604

Accutest Laboratories of New England, Inc.

Instrument: GC 23 (BB)

GC Analysis Log - Extractables

Run Date: 9/20/07 (Cont'd)

Analyst Signature:

Standard Data

Lot #	Description	Conc

Column Information: Front : RTX-35
Rear : DB-1701

Sequence File: 092007

Quantitation Methods: PT 092007

Instrument Run Batches: GBB-667

Data Acquisition Methods: GC23 PEST Inj. Vol: 1 ul

Inj. Vol:

Date of ICAL: 9/23/07 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext Batch	Analysis	Matrix	Dilution	Comments
27	BB 15966	0914350-63	0914350	PEST pesticide	S	NA	5 grams: Dieldrin, 33B, 102, 104, Endrin.
28	67	shed					
29	68	ms					
30	69	msd					
31	70	MBSTR-10				10	MB check for alachlor 0.2 ug/ml
100	71	BOT				NA	
32	72	PEST 100					Fresh ice

TX = Matrix: Designate W for water, S for soil, O for oil. Dilution Solvent: Methanol Lot#: 316331

2002-07
date: 1/12/06

Review: JM 9/28/07

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ACCUTEST Laboratories M67604

6.7.1 6

Accutest Laboratories of New England, Inc.

Instrument: GC 23 (BB)

GC Analysis Log - Extractables

Run Date: 9/21/07

Analyst Signature:

Standard Data

Lot #	Description	Conc
G013565	DDT/Endrin	200/100 ng/ml
13645	Pest	100
13670	2B	40

Column Information: Front: RTX-35
Rear: DB-1701

Sequence File: 092107

Quantitation Methods: PT092007

Instrument Run Batches: GBB-668

Data Acquisition Methods: GCC3 Pest

Inj. Vol: 1 ul

Inj. Vol:

Date of ICAL: 9/20/07 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
100	BB15971A	DDT	op14345	Pest/pesticide	W	NA	shared run - OK
87	72A	Pest 100					ice
75	73	2B					
76	74	op14345-mb					
77	75	-bs					
78	76	-bsd					
79	77	-ms					
80	78	-msd					
81	79	M67604-1					
82	80	-2					
83	81	M67626-1					
84	82	-2					
85	83	op14345-cs					seq. stopped @ 9/21/07 2PM
100	84	DDT					OK print hanging up.
74	85	Pest 100					Fresh

9/21/07

MTX = Matrix: Designate W for water, S for soil, O for oil. Dilution Solvent: — Lot#: —

GC002-D7
Date: 1/12/06

Review: 10/1/07

ACCUTEST Laboratories M67604

Endrin/DDT Breakdown Check Report

Data File Name BB15971.D
Sample Name DDT
Date Acquired 9/22/2007 3:05
Instrument Name GCBB-gc23

6.7.2 6

#	Ret.Time	Name	Target Response	Breakdown	Status
Signal #1					
20)	23.28	4,4'-DDE	21,216		
22)	25.22	Endrin	4,235,598	5.8%	OK
23)	25.58	4,4'-DDD	426,456		
25)	27.22	4,4'-DDT	7,300,531	5.8%	OK
26)	27.64	Endrin aldehyde	162,350		
29)	33.91	Endrin ketone	247,914		
Signal #2					
59)	15.54	4,4'-DDE #2	47,951		
61)	16.60	Endrin #2	13,473,496	6.0%	OK
62)	18.28	4,4'-DDD #2	1,308,704		
64)	18.80	4,4'-DDT #2	22,141,493	5.8%	OK
65)	19.73	Endrin aldehyde #2	275,508		
68)	22.07	Endrin ketone #2	589,038		

CZ09062007-38 target compounds in all.

09/24/07

Endrin/DDT Breakdown Check Report

Data File Name BB15984.D
Sample Name DDT
Date Acquired 9/24/2007 8:10
Instrument Name GCBB-gc23

#	Ret Time	Name	Target Response	Breakdown	Status
	Signal #1				
20)	23.27	4,4'-DDE	22,823		
22)	25.22	**Endrin**	6,120,808	**6.4%**	**OK**
23)	25.58	4,4'-DDD	318,272		
25)	27.22	**4,4'-DDT**	11,045,490	**3.0%**	**OK**
26)	27.63	Endrin aldehyde	174,159		
29)	33.90	Endrin ketone	242,931		
	Signal #2				
59)	15.54	4,4'-DDE #2	35,439		
61)	16.60	**Endrin #2**	18,605,148	**4.0%**	**OK**
62)	18.28	4,4'-DDD #2	842,792		
64)	18.80	**4,4'-DDT #2**	33,181,696	**2.6%**	**OK**
65)	19.73	Endrin aldehyde #2	285,390		
68)	22.08	Endrin ketone #2	493,200		

CZ09062007-38 target compounds in all.

09/26/07

6.7.2

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Continuing Calibration Summary

Sample: GBB668-ECC667
Lab FileID: BB15985.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BB15985.D\ECD1B.CH          Vial: 74
Signal #2 : C:\MSDCHEM\1\DATA\BB15985.D\ECD2A.CH
Acq On    : 9-24-07 09:37:24 AM                     Operator: caobinz
Sample    : ecc667-100,pest 100,fresh               Inst    : GCBB-gc23
Misc      : op14345,gbb668,1000,,,5,,water          Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p

Method        : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title         : P8081pest,w/CT-PCB
Last Update   : Fri Sep 21 11:29:17 2007
Response via  : Multiple Level Calibration

Min. RRF      :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev  :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 s	TCMX	40.518	44.803 E3	-10.6	110	0.00
8	Hexachlorobenzene	50.486	51.698 E3	-2.4	109	0.00
9	alpha-BHC	62.111	64.259 E3	-3.5	110	0.00
10	gamma-BHC	53.757	55.029 E3	-2.4	112	0.00
11	beta-BHC	26.183	23.240 E3	11.2	110	-0.01
12	Heptachlor	36.811	42.149 E3	-14.5	121#	0.00
13	delta-BHC	55.218	54.634 E3	1.1	109	-0.01
14	Alachlor	5.486	5.168 E3	5.8	110	-0.01
15	Aldrin	46.967	48.578 E3	-3.4	110	-0.01
16	Heptachlor Epoxide	41.676	42.169 E3	-1.2	111	-0.01
17	gamma-Chlordane	40.210	40.525 E3	-0.8	110	-0.01
18	alpha-Chlordane	36.979	37.445 E3	-1.3	111	-0.01
19	Endosulfan-I	35.715	37.045 E3	-3.7	113	-0.01
20	4,4'-DDE	34.487	35.710 E3	-3.5	110	-0.01
21	Dieldrin	37.964	38.818 E3	-2.2	110	-0.01
22	Endrin	29.635	29.953 E3	-1.1	109	-0.02
23	4,4'-DDD	28.785	29.723 E3	-3.3	113	-0.02
24	Endosulfan-II	33.323	32.926 E3	1.2	111	-0.02
25	4,4'-DDT	19.961	24.996 E3	-25.2#	133#	-0.02
26	Endrin aldehyde	28.655	26.989 E3	5.8	121#	-0.03
27	Endosulfan sulfate	32.298	30.516 E3	5.5	116#	-0.03
28	Methoxychlor	11.358	14.057 E3	-23.8#	134#	-0.04
29	Endrin ketone	34.537	36.624 E3	-6.0	123#	-0.03
38 s	DCB	35.116	40.857 E3	-16.3#	116#	-0.09

Signal #2

1 s	TCMX	105.351	112.463 E3	-6.8	108	0.00
8	Hexachlorobenzene	121.402	117.617 E3	3.1	105	0.00
9	alpha-BHC	134.277	129.696 E3	3.4	105	0.00
10	gamma-BHC	124.812	120.763 E3	3.2	106	0.00
11	beta-BHC	60.779	51.701 E3	14.9	103	0.00
12	Heptachlor	102.896	108.510 E3	-5.5	110	0.00
13	delta-BHC	123.677	118.346 E3	4.3	104	0.00
14	Alachlor	11.523	10.302 E3	10.6	107	0.00
15	Aldrin	105.769	106.354 E3	-0.6	103	0.00
16	Heptachlor Epoxide	102.097	101.642 E3	0.4	103	0.00
17	gamma-Chlordane	104.214	103.402 E3	0.8	103	0.00
18	alpha-Chlordane	103.286	102.051 E3	1.2	104	0.00
19	Endosulfan-I	92.282	92.509 E3	-0.2	103	0.00
20	4,4'-DDE	98.574	100.727 E3	-2.2	103	0.00

Continuing Calibration Summary

Sample: GBB668-ECC667
Lab FileID: BB15985.D

21	Dieldrin	103.992	106.023	E3	-2.0	103	0.00
22	Endrin	95.926	93.663	E3	2.4	101	0.00
23	4,4'-DDD	89.799	91.080	E3	-1.4	105	0.00
24	Endosulfan-II	89.633	91.080	E3	-1.6	105	0.00
25	4,4'-DDT	58.471	73.455	E3	-25.6#	125#	0.00
26	Endrin aldehyde	76.649	71.568	E3	6.6	112	0.00
27	Endosulfan sulfate	94.738	88.584	E3	6.5	107	0.00
28	Methoxychlor	35.096	41.085	E3	-17.1#	122#	0.00
29	Endrin ketone	85.232	92.413	E3	-8.4	117#	0.00
38 s	DCB	100.511	108.558	E3	-8.0	107	0.00

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Evaluate Continuing Calibration Report - Not Founds

Signal #1 : C:\MSDCHEM\1\DATA\BB15985.D\ECD1B.CH Vial: 74
Signal #2 : C:\MSDCHEM\1\DATA\BB15985.D\ECD2A.CH
Acq On : 9-24-07 09:37:24 AM Operator: caobinz
Sample : ecc667-100,pest 100,fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
2	Chlordane-A	1.801	0.000	E3	100.0#	0#	-17.32#
3	Chlordane-B	2.766	0.000	E3	100.0#	0#	-17.96#
4	Chlordane-C	15.718	0.000	E3	100.0#	0#	-21.99#
5	Toxaphene-A	1.416	0.000	E3	100.0#	0#	-26.41#
6	Toxaphene-B	688.439	0.000		100.0#	0#	-29.09#
7	Toxaphene-C	2.405	0.000	E3	100.0#	0#	-31.45#
30	AR1016-A	0.000	0.000		0.0	0#	-11.64#
31	AR1016-B	0.000	0.000		0.0	0#	-14.13#
32	AR1016-C	0.000	0.000		0.0	0#	-15.69#
33	AR1260-A	0.000	0.000		0.0	0#	-22.24#
34	AR1260-B	0.000	0.000		0.0	0#	-22.91#
35	AR1260-C	0.000	0.000		0.0	0#	-24.57#
36	AR1260-D	0.000	0.000		0.0	0#	-27.63#
37	AR1260-E	0.000	0.000		0.0	0#	-30.23#

Signal #2

2	Chlordane-A	3.552	0.000	E3	100.0#	0#	-9.98#
3	Chlordane-B	5.312	0.000	E3	100.0#	0#	-10.50#
4	Chlordane-C	28.472	0.000	E3	100.0#	0#	-15.11#
5	Toxaphene-A	2.244	0.000	E3	100.0#	0#	-19.29#
6	Toxaphene-B	3.995	0.000	E3	100.0#	0#	-20.51#
7	Toxaphene-C	1.864	0.000	E3	100.0#	0#	-21.29#
30	AR1016-A	0.000	0.000		0.0	0#	-7.23#
31	AR1016-B	0.000	0.000		0.0	0#	-8.56#
32	AR1016-C	0.000	0.000		0.0	0#	-10.25#
33	AR1260-A	0.000	0.000		0.0	0#	-15.96#
34	AR1260-B	0.000	0.000		0.0	0#	-17.04#
35	AR1260-C	0.000	0.000		0.0	0#	-17.90#

Continuing Calibration Summary

Sample: GBB668-ECC667
Lab FileID: BB15985.D

36	AR1260-D	0.000	0.000	0.0	0#	-20.19#
37	AR1260-E	0.000	0.000	0.0	0#	-21.26#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB15942.D PT092007.M Tue Sep 25 10:16:23 2007 GC23PRN

6.7.2

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Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15985.D\ECD1B.CH Vial: 74
Signal #2 : C:\MSDCHEM\1\DATA\BB15985.D\ECD2A.CH
Acq On : 9-24-07 09:37:24 AM Operator: caobinz
Sample : ecc667-100,pest 100,fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 16:14:51 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.21	5.65	2150546	5398234	53.076	51.241
	Spiked Amount 40.000			Recovery	=	132.69%	128.10%
38) s	DCB	50.96	25.01	1961139	5210782	55.847m	51.843m
	Spiked Amount 40.000			Recovery	=	139.62%	129.61%
	Target Compounds						
8)	Hexachlorobenzen	14.35	6.91	5169819	11761748	102.402	96.882
9)	alpha-BHC	14.86	8.53	6425923	12969558	103.458	96.588m
10)	gamma-BHC	16.38	9.87	5502916	12076251	102.367	96.755
11)	beta-BHC	16.62	12.59	2324023	5170116	100.208	93.693
12)	Heptachlor	17.96	10.51	4214900	10851020	114.500	105.456
13)	delta-BHC	18.02	13.34	5463386	11834635	98.941	95.690
14)	Alachlor	18.31	11.95	5167980	10301661	942.006	1192.330 #
15)	Aldrin	19.25	11.42	4857812	10635423	103.430m	100.553
16)	Heptachlor Epoxi	21.26	13.78	4216866	10164194	101.183	99.554
17)	gamma-Chlordane	21.97	14.92	4052535	10340181	100.784	99.220
18)	alpha-Chlordane	22.53	15.11	3744495	10205136	101.260	98.805
19)	Endosulfan-I	22.64	14.66	3704493	9250916	103.723	100.246
20)	4,4'-DDE	23.27	15.54	3571017	10072705	103.546	102.184
21)	Dieldrin	23.75	15.94	3881750	10602270	102.247	101.953
22)	Endrin	25.22	16.60	2995317	9366285	101.072	97.641
23)	4,4'-DDD	25.58	18.31	2972262	18216045	103.258	202.852 #
24)	Endosulfan-II	26.04	18.31	3292613	18216045	98.809	203.229 #
25)	4,4'-DDT	27.22	18.81	2499581	7345451	125.224	125.625
26)	Endrin aldehyde	27.62	19.73	2698921	7156767	106.675	103.029m
27)	Endosulfan sulfa	28.58	20.80	3051635	8858397	107.528	106.854
28)	Methoxychlor	32.75	20.99	1405658	4108512	123.756	117.066
29)	Endrin ketone	33.90	22.08	3662357	9241326	106.042	108.426m

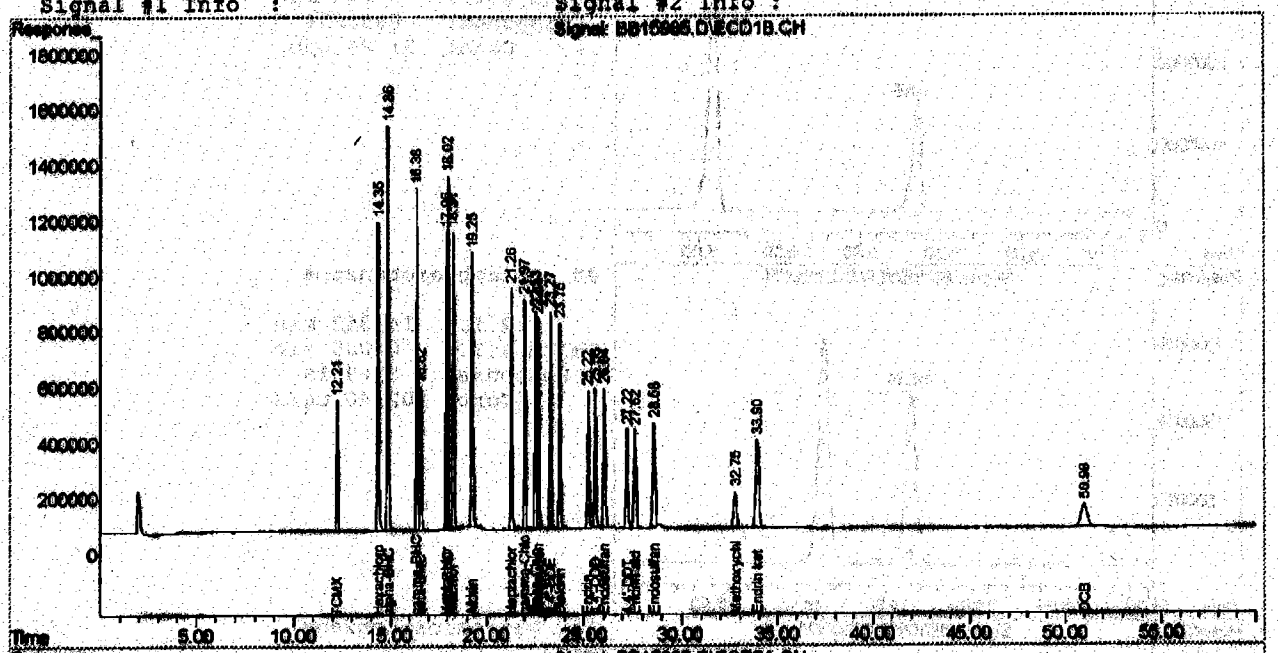
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15985.D PT092007.M Tue Sep 25 10:04:18 2007 GC23PRN

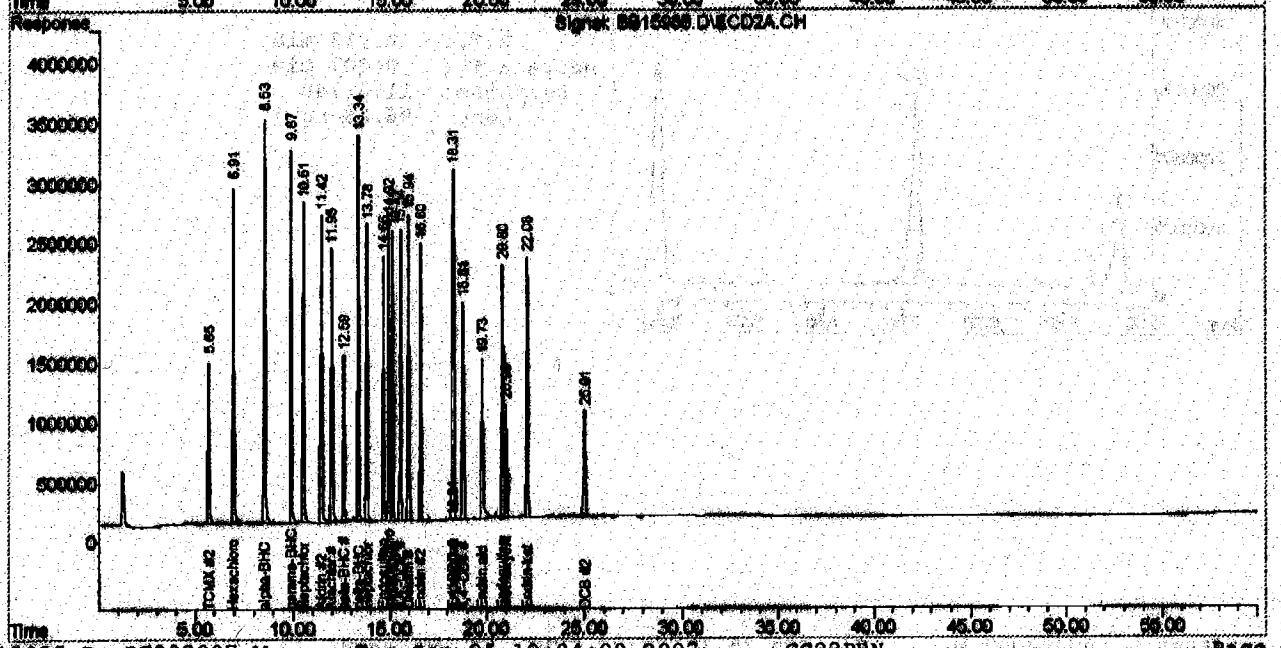
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15985.D\ECD1B.CH Vial: 74
Signal #2 : C:\MSDCHEM\1\DATA\BB15985.D\ECD2A.CH
Acq On : 9-24-07 09:37:24 AM Operator: caobinz
Sample : ecc667-100,pest 100,fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 16:17 2007 Quant Results File: PT092007.RES

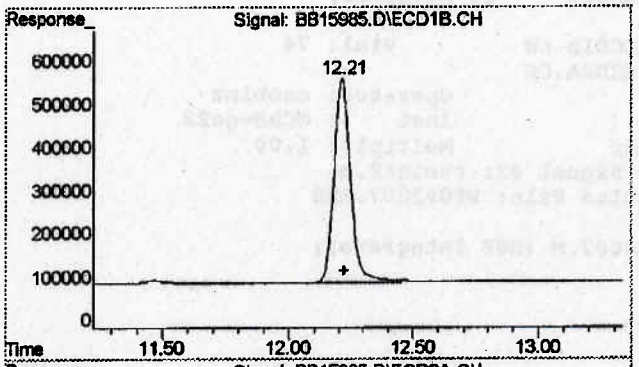
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



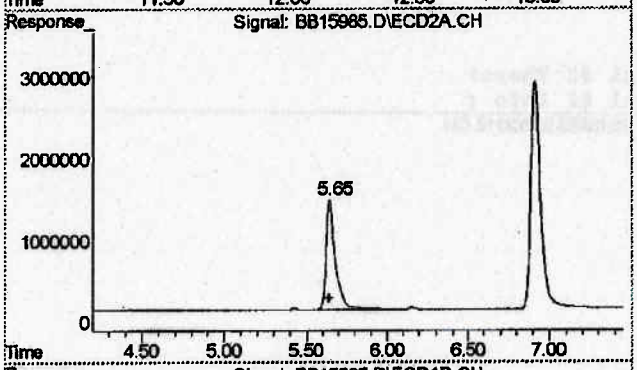


6.7.2 6



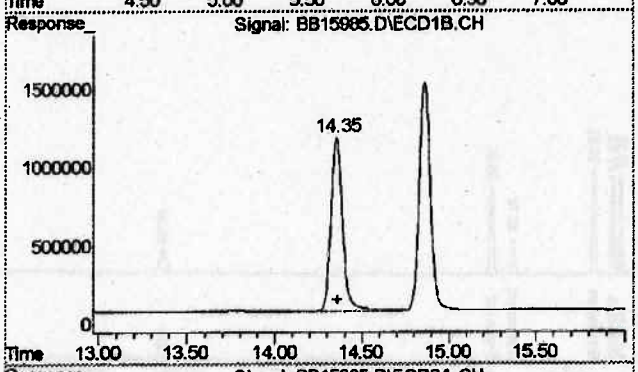
#1 TCMX

R.T.: 12.212 min
Delta R.T.: -0.009 min
Response: 2150546
Conc: 53.08 ppb



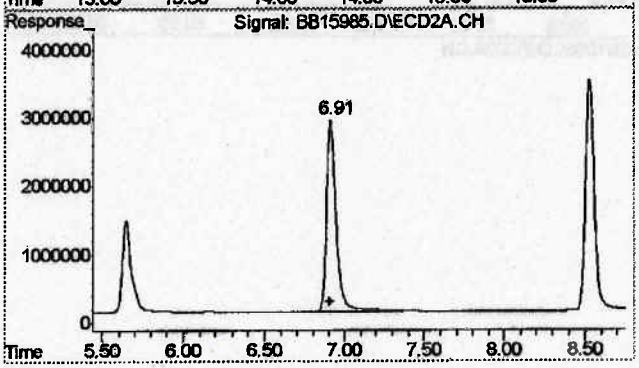
#1 TCMX

R.T.: 5.645 min
Delta R.T.: 0.005 min
Response: 5398234
Conc: 51.24 ppb



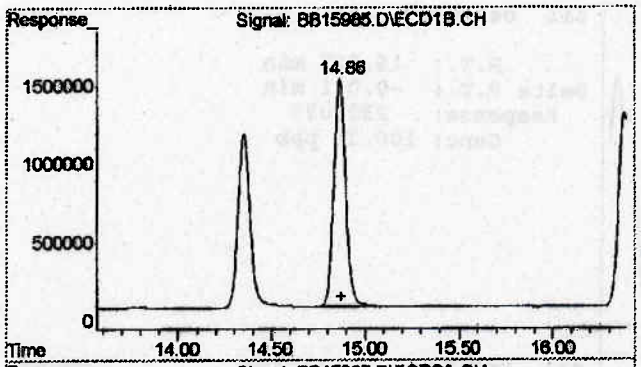
#8 Hexachlorobenzene

R.T.: 14.352 min
Delta R.T.: -0.008 min
Response: 5169819
Conc: 102.40 ug/l



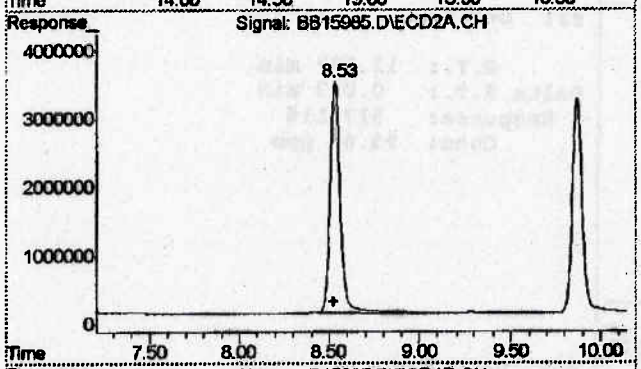
#8 Hexachlorobenzene

R.T.: 6.912 min
Delta R.T.: 0.007 min
Response: 11761748
Conc: 96.88 ug/l



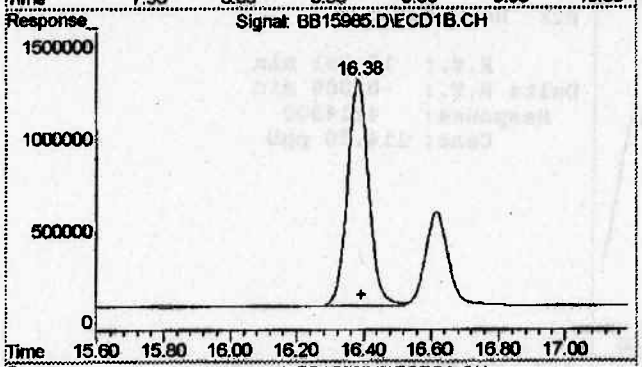
#9 alpha-BHC

R.T.: 14.864 min
Delta R.T.: -0.009 min
Response: 6425923
Conc: 103.46 ppb



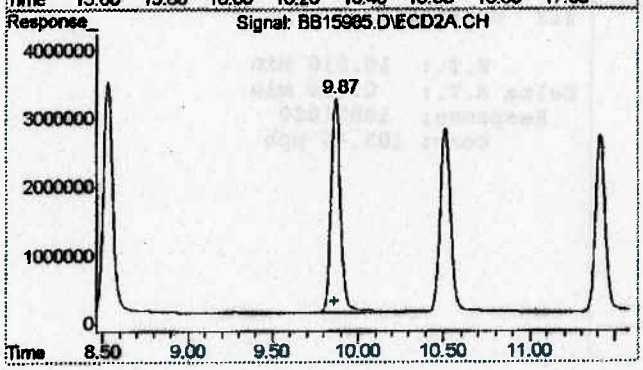
#9 alpha-BHC

R.T.: 8.529 min
Delta R.T.: 0.006 min
Response: 12969558
Conc: 96.59 ppb m



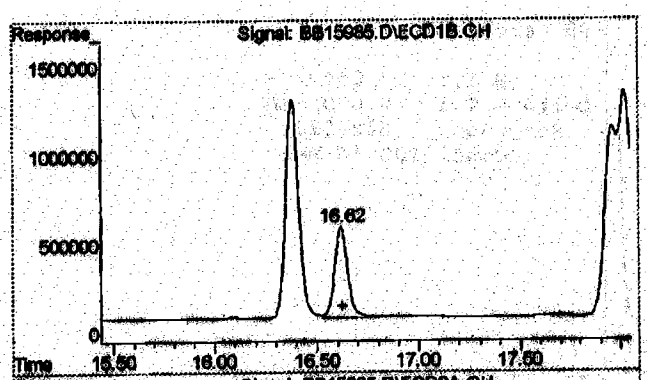
#10 gamma-BHC

R.T.: 16.382 min
Delta R.T.: -0.009 min
Response: 5502916
Conc: 102.37 ppb



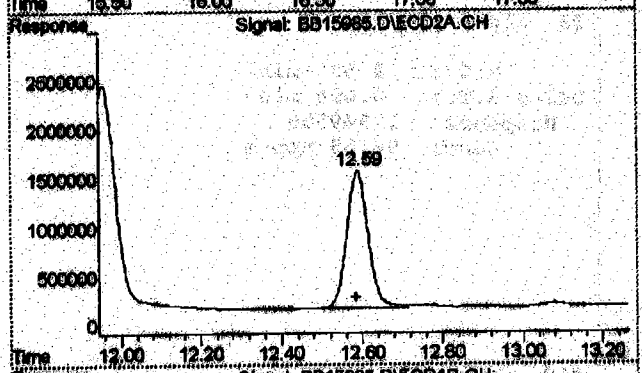
#10 gamma-BHC

R.T.: 9.869 min
Delta R.T.: 0.007 min
Response: 12076251
Conc: 96.76 ppb



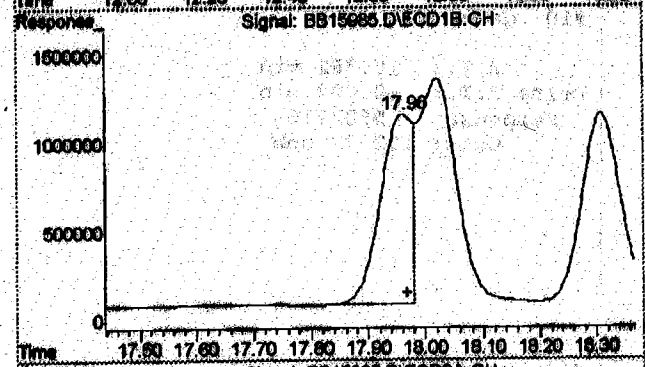
#11 beta-BHC

R.T.: 16.617 min
Delta R.T.: -0.011 min
Response: 2324023
Conc: 100.21 ppb



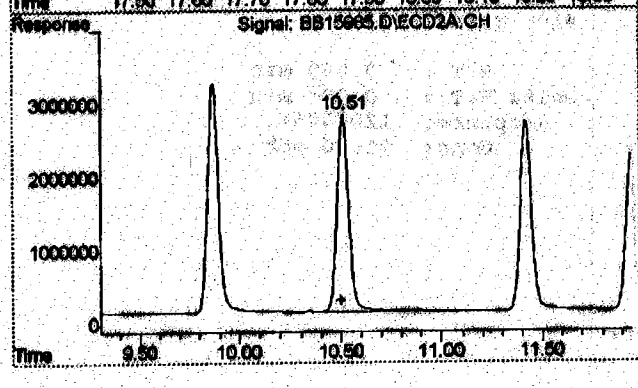
#11 beta-BHC

R.T.: 12.587 min
Delta R.T.: 0.003 min
Response: 5170116
Conc: 93.69 ppb



#12 Heptachlor

R.T.: 17.961 min
Delta R.T.: -0.008 min
Response: 4214900
Conc: 114.50 ppb



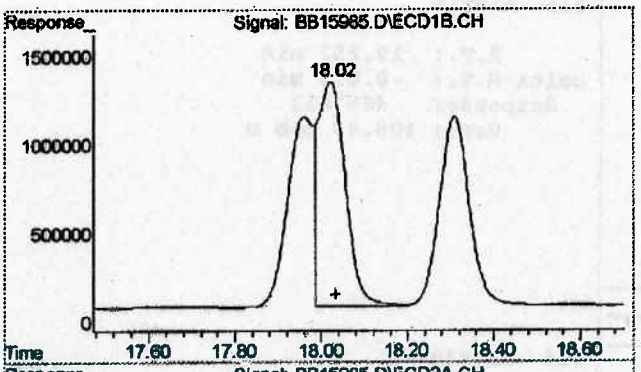
#12 Heptachlor

R.T.: 10.510 min
Delta R.T.: 0.009 min
Response: 10851020
Conc: 105.46 ppb

6.7.2

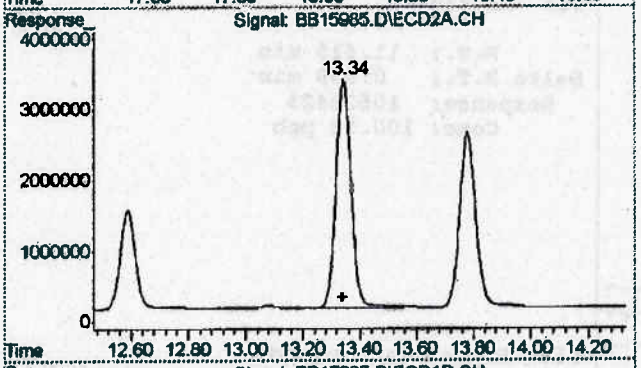
6

ACCUTEST Laboratories M67604



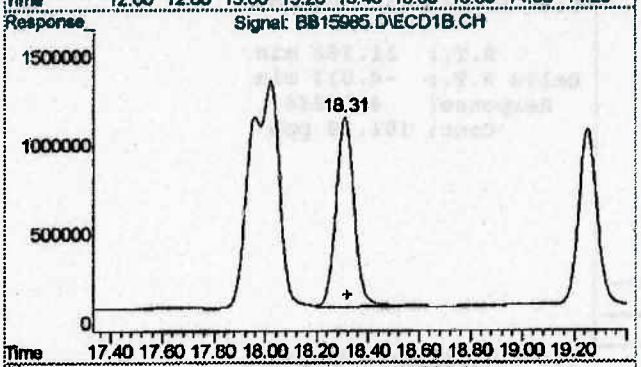
#13 delta-BHC

R.T.: 18.021 min
Delta R.T.: -0.013 min
Response: 5463386
Conc: 98.94 ppb



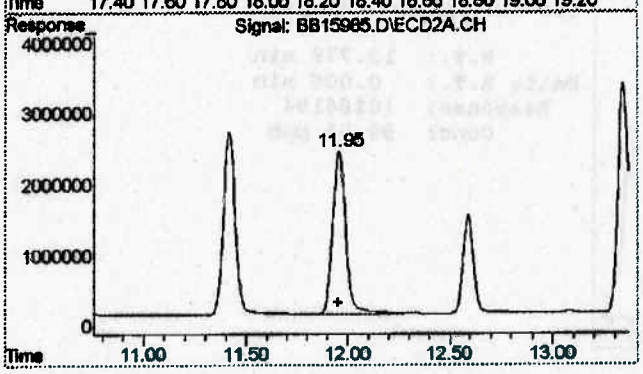
#13 delta-BHC

R.T.: 13.340 min
Delta R.T.: 0.000 min
Response: 11834635
Conc: 95.69 ppb



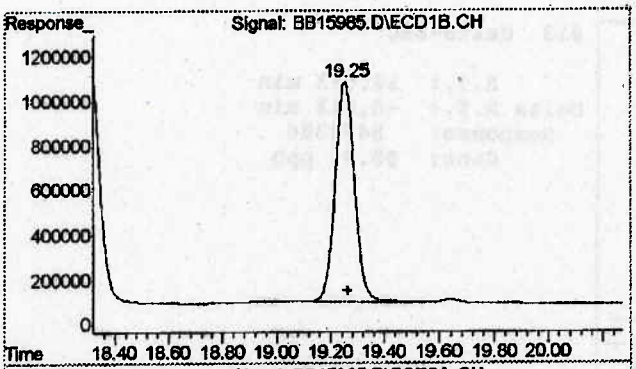
#14 Alachlor

R.T.: 18.307 min
Delta R.T.: -0.011 min
Response: 5167980
Conc: 942.01 ug/l



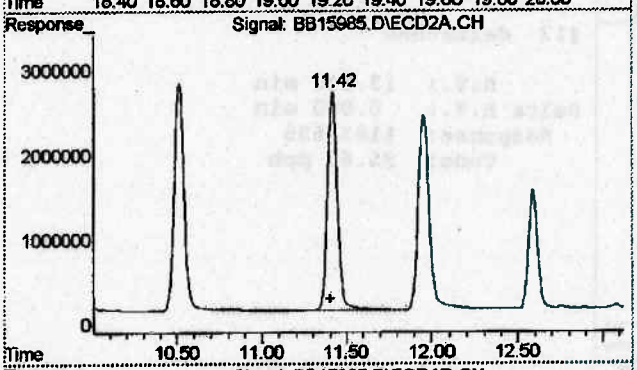
#14 Alachlor

R.T.: 11.954 min
Delta R.T.: 0.003 min
Response: 10301661
Conc: 1192.33 ug/l



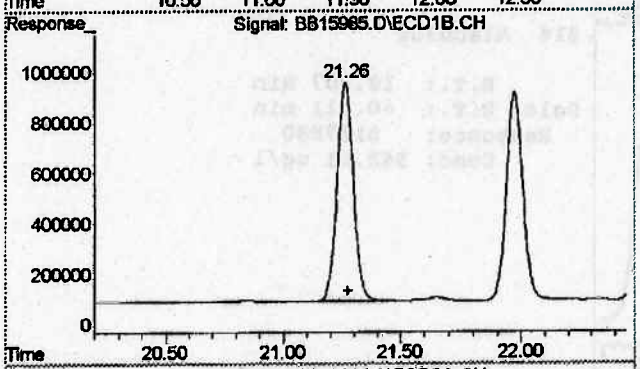
#15 Aldrin

R.T.: 19.252 min
Delta R.T.: -0.013 min
Response: 4857812
Conc: 103.43 ppb m



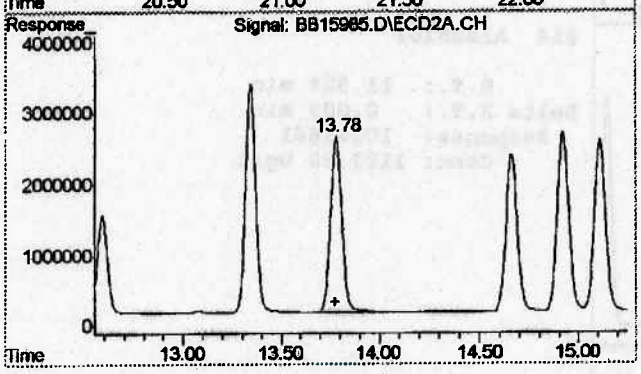
#15 Aldrin

R.T.: 11.415 min
Delta R.T.: 0.009 min
Response: 10635423
Conc: 100.55 ppb



#16 Heptachlor Epoxide

R.T.: 21.262 min
Delta R.T.: -0.013 min
Response: 4216866
Conc: 101.18 ppb



#16 Heptachlor Epoxide

R.T.: 13.779 min
Delta R.T.: 0.006 min
Response: 10164194
Conc: 99.55 ppb

6.7.2

6

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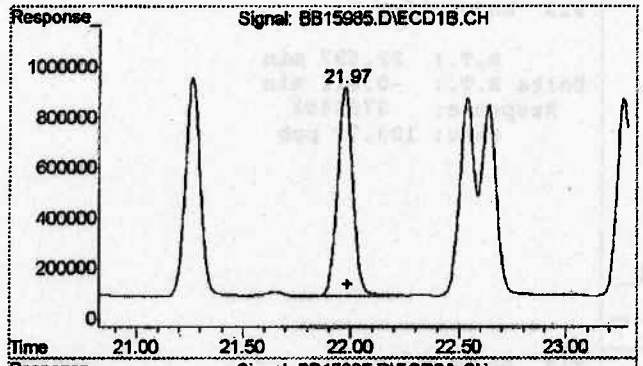
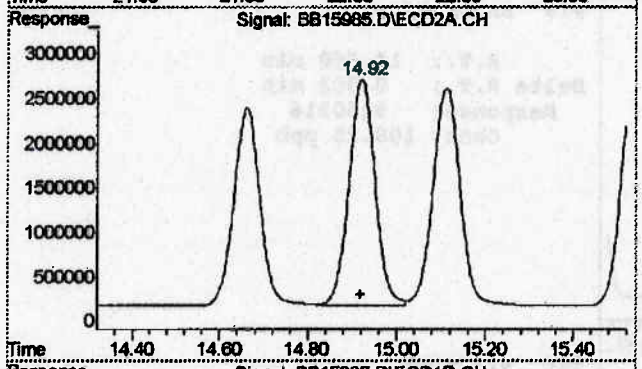


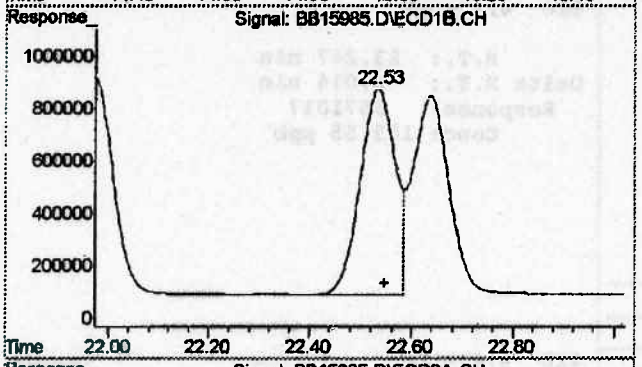
#17 gamma-Chlordane

R.T.: 21.972 min
Delta R.T.: -0.013 min
Response: 4052535
Conc: 100.78 ppb



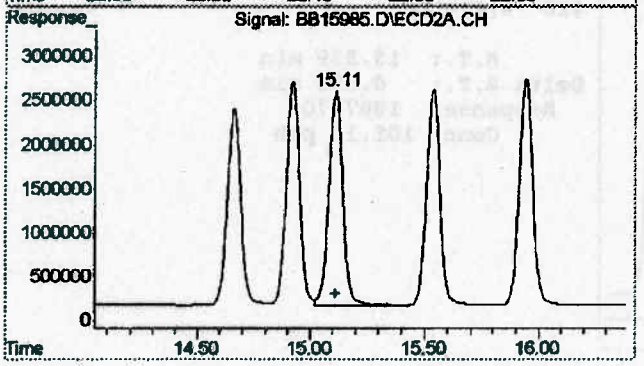
#17 gamma-Chlordane

R.T.: 14.920 min
Delta R.T.: 0.002 min
Response: 10340181
Conc: 99.22 ppb



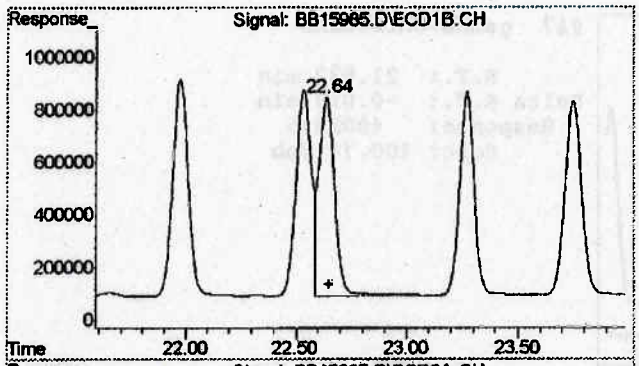
#18 alpha-Chlordane

R.T.: 22.534 min
Delta R.T.: -0.013 min
Response: 3744495
Conc: 101.26 ppb



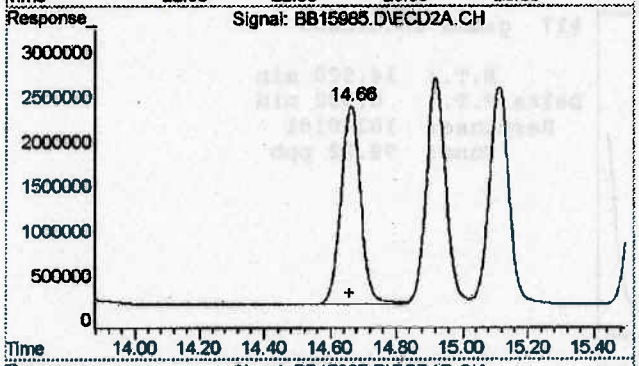
#18 alpha-Chlordane

R.T.: 15.112 min
Delta R.T.: 0.002 min
Response: 10205136
Conc: 98.81 ppb



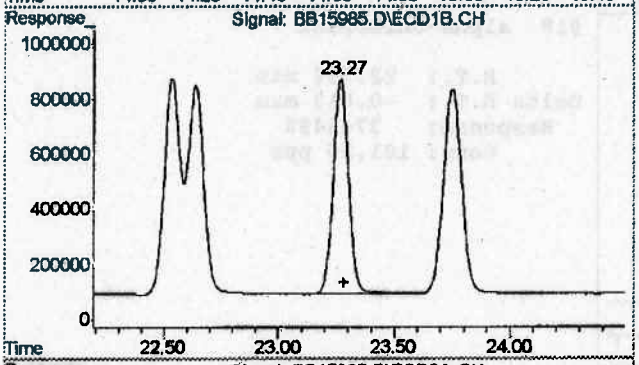
#19 Endosulfan-I

R.T.: 22.637 min
Delta R.T.: -0.011 min
Response: 3704493
Conc: 103.72 ppb



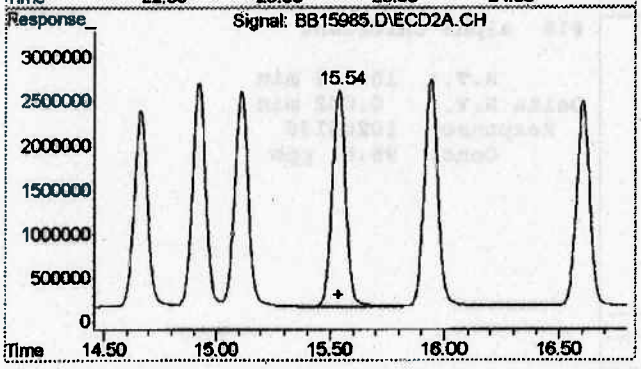
#19 Endosulfan-I

R.T.: 14.660 min
Delta R.T.: 0.002 min
Response: 9250916
Conc: 100.25 ppb



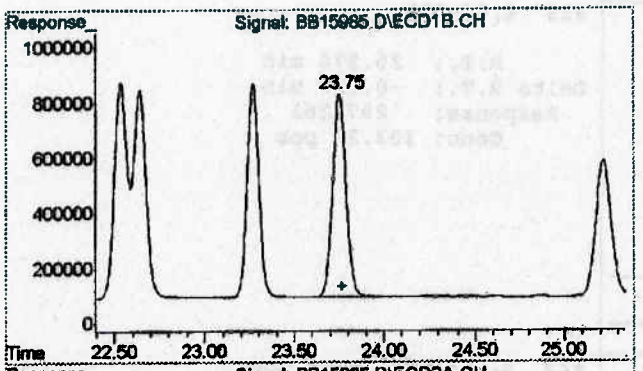
#20 4,4'-DDE

R.T.: 23.267 min
Delta R.T.: -0.014 min
Response: 3571017
Conc: 103.55 ppb



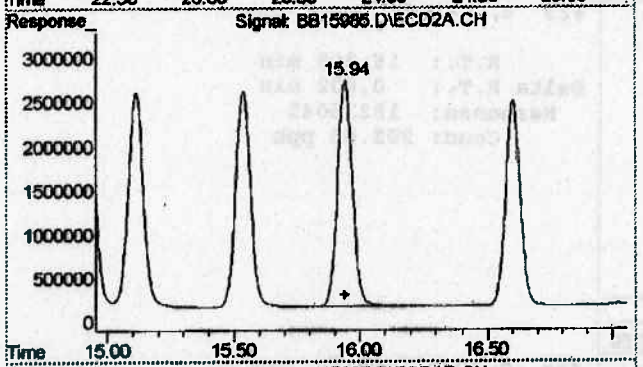
#20 4,4'-DDE

R.T.: 15.539 min
Delta R.T.: 0.004 min
Response: 10072705
Conc: 102.18 ppb



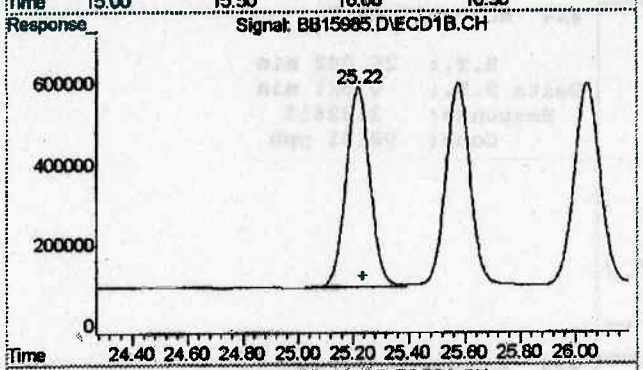
#21 Dieldrin

R.T.: 23.751 min
Delta R.T.: -0.014 min
Response: 3881750
Conc: 102.25 ppb



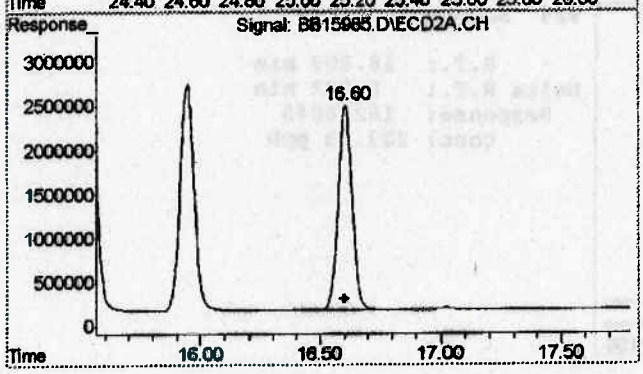
#21 Dieldrin

R.T.: 15.944 min
Delta R.T.: 0.002 min
Response: 10602270
Conc: 101.95 ppb



#22 Endrin

R.T.: 25.217 min
Delta R.T.: -0.019 min
Response: 2995317
Conc: 101.07 ppb

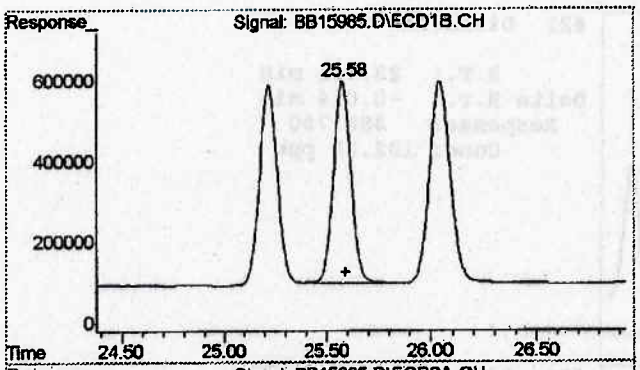


#22 Endrin

R.T.: 16.604 min
Delta R.T.: 0.002 min
Response: 9366285
Conc: 97.64 ppb

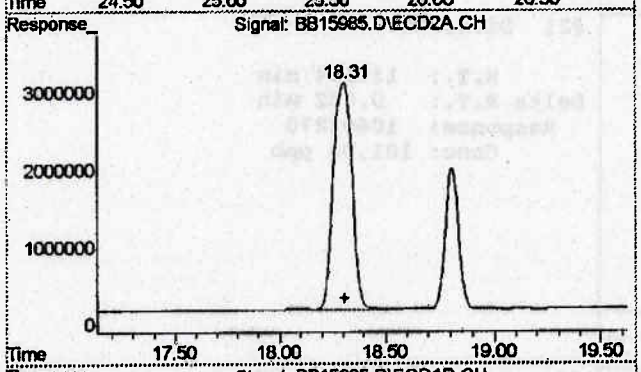
6.7.2

6



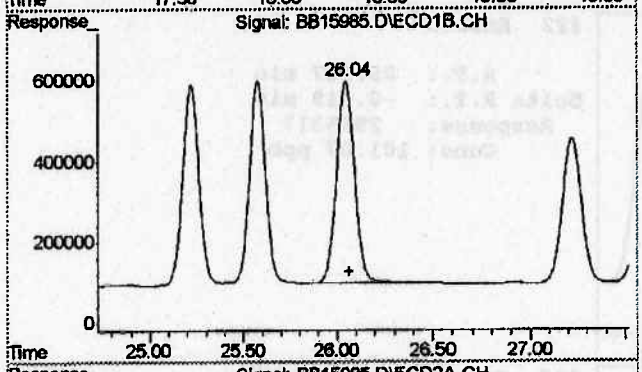
#23 4,4'-DDD

R.T.: 25.576 min
Delta R.T.: -0.019 min
Response: 2972262
Conc: 103.26 ppb



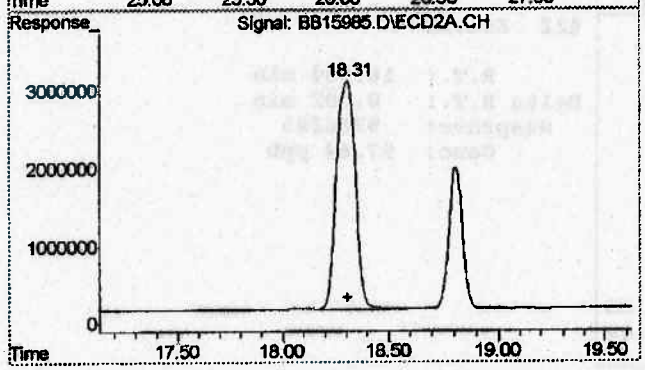
#23 4,4'-DDD

R.T.: 18.309 min
Delta R.T.: 0.002 min
Response: 18216045
Conc: 202.85 ppb



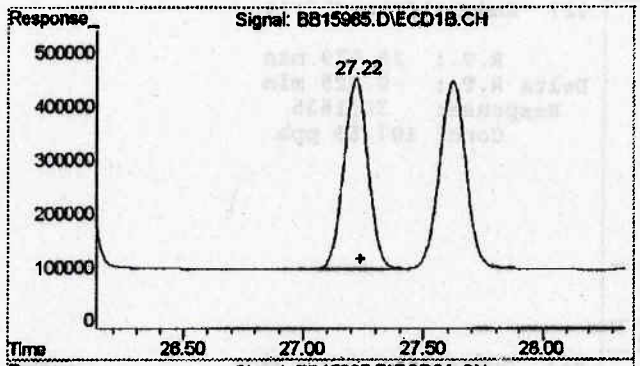
#24 Endosulfan-II

R.T.: 26.042 min
Delta R.T.: -0.021 min
Response: 3292613
Conc: 98.81 ppb



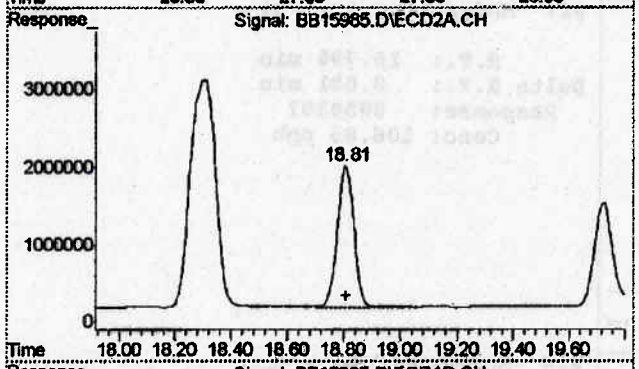
#24 Endosulfan-II

R.T.: 18.309 min
Delta R.T.: 0.002 min
Response: 18216045
Conc: 203.23 ppb



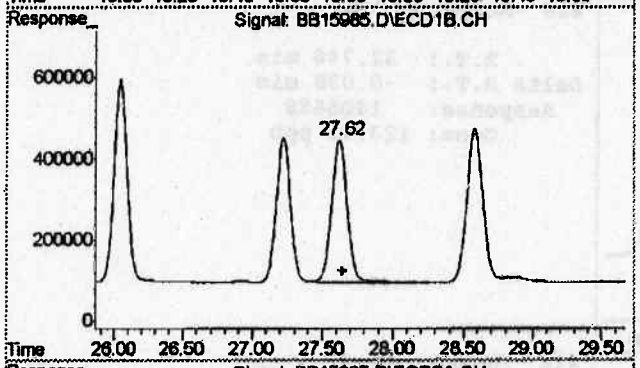
#25 4,4'-DDT

R.T.: 27.219 min
Delta R.T.: -0.019 min
Response: 2499581
Conc: 125.22 ppb



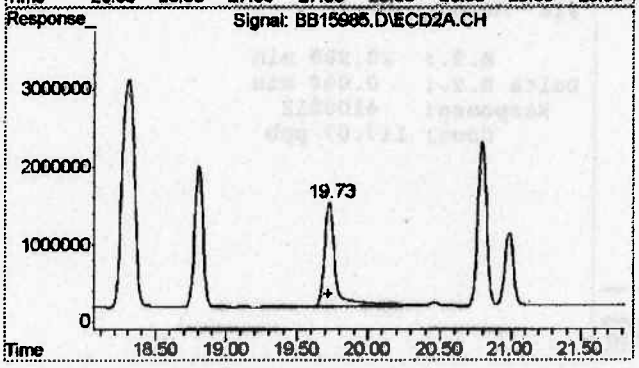
#25 4,4'-DDT

R.T.: 18.805 min
Delta R.T.: -0.003 min
Response: 7345451
Conc: 125.62 ppb



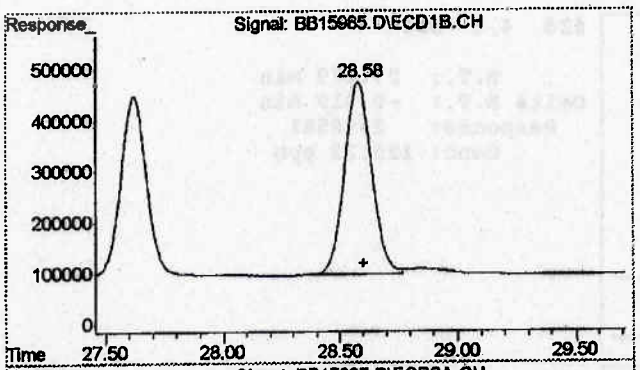
#26 Endrin aldehyde

R.T.: 27.619 min
Delta R.T.: -0.027 min
Response: 2698921
Conc: 106.67 ppb



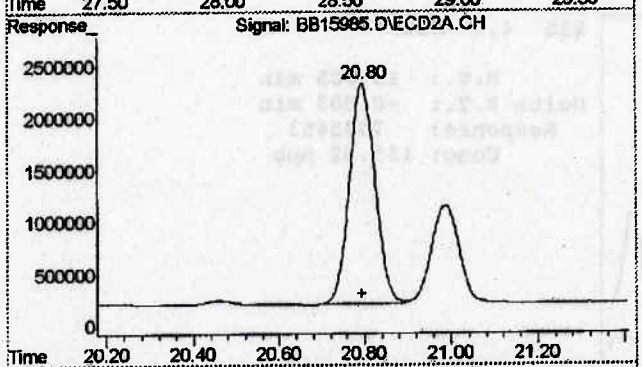
#26 Endrin aldehyde

R.T.: 19.729 min
Delta R.T.: 0.007 min
Response: 7156767
Conc: 103.03 ppb m



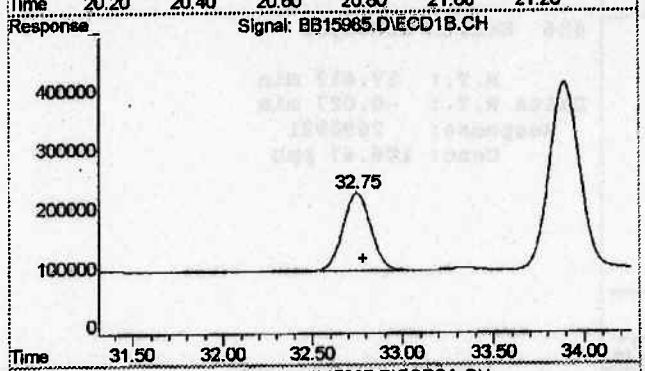
#27 Endosulfan sulfate

R.T.: 28.579 min
Delta R.T.: -0.025 min
Response: 3051635
Conc: 107.53 ppb



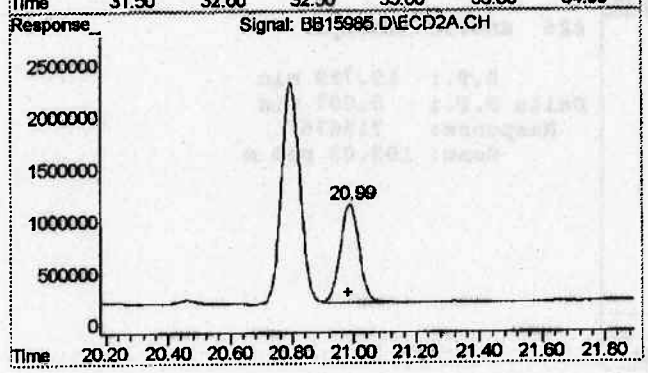
#27 Endosulfan sulfate

R.T.: 20.795 min
Delta R.T.: 0.001 min
Response: 8858397
Conc: 106.85 ppb



#28 Methoxychlor

R.T.: 32.746 min
Delta R.T.: -0.038 min
Response: 1405658
Conc: 123.76 ppb

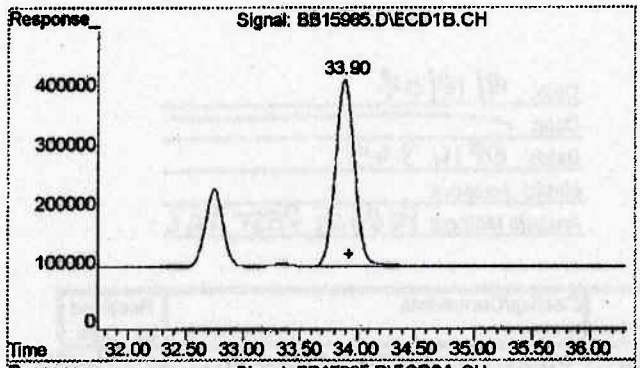


#28 Methoxychlor

R.T.: 20.989 min
Delta R.T.: 0.004 min
Response: 4108512
Conc: 117.07 ppb

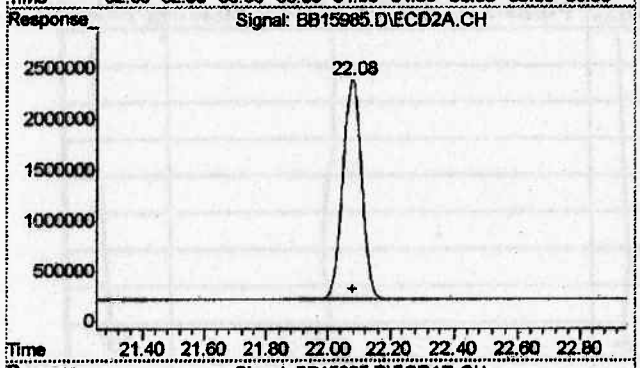
6.7.2

6



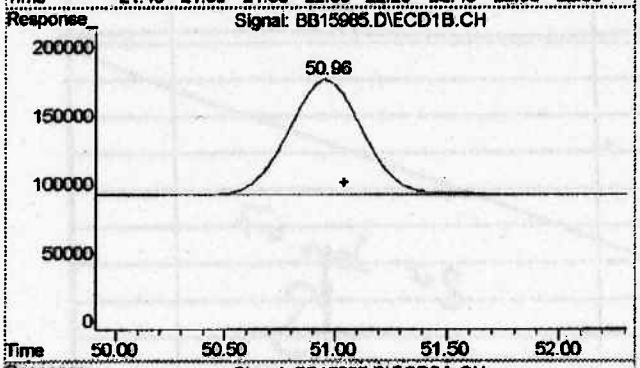
#29 Endrin ketone

R.T.: 33.896 min
Delta R.T.: -0.034 min
Response: 3662357
Conc: 106.04 ppb



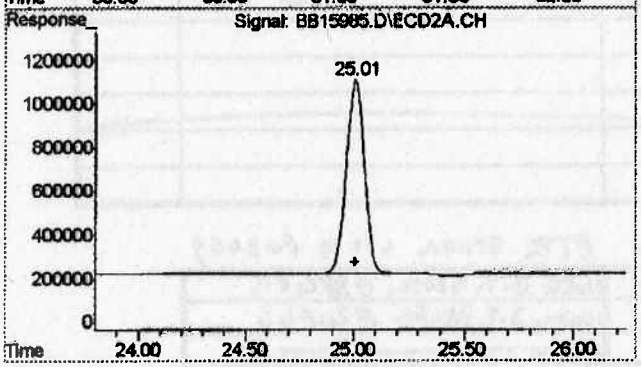
#29 Endrin ketone

R.T.: 22.079 min
Delta R.T.: 0.000 min
Response: 9241326
Conc: 108.43 ppb m



#38 DCB

R.T.: 50.959 min
Delta R.T.: -0.085 min
Response: 1961139
Conc: 55.85 ppb m



#38 DCB

R.T.: 25.007 min
Delta R.T.: 0.001 min
Response: 5210782
Conc: 51.84 ppb m

Accutest Laboratories of New England, Inc.

Extracted by: FG
Spike Witness: N/A
Concentrated by: FG
Fractionated by: N/A
Extraction Method: SW846 3510C

Date: 9/18/07
Date:
Batch: OP14345
Matrix: Aqueous
Analysis Method: PO8081 PEST TCL

	Sample	Bottle No.	Initial Volume (ml)	Final Volume (ml)	pH		Cleanup/Comments	Received by: Date:
1	OP14345 -mb	N/A	1000	5.0 ml	N/A	N/A	FLORISIL # ETYL ETHER clean-up	9/28/07
2	-bs							
3	-bsd							
4	M67604-1 -ms	6						
5	-msd	5						
6	-1	4						
7	-2	1						
8	M67676-1	2						
9	-2	2						
10	OP14345 CT	N/A						
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

2nd Sep 07 B

	Fraction	Lot #	Conc.	Vol. (ml)
Surrogate: DCB/TPH	3 of 3	P04131	0.2 µg/ml	1.0 ml
Surrogate:				
Surrogate:				
Surrogate:				
Spike: PEST MS	3 of 3	P04185	0.2 µg/ml	1.0 ml
Spike: ARochlor	1 of 3	P04115	0.2 µg/ml	1.0 ml
Spike: Hexachlorobz	1 of 3	P04191	0.2 µg/ml	1.0 ml
Spike: CT	1 of 1	P04190	1.4/1.6 µg/ml	1.0 ml

ETYL ETHER LOT # E03469

MeCl2:	J.T. BAKER E28405
Hexane:	J.T. BAKER E30E44
Acetone:	
Acetonitrile:	
Na Sulfate Lot #:	B345
Silica Lot #:	
SPE MFG/Lot #:	
Copper:	
Hydromatrix:	
Florisil:	31848-2-78

Water Bath Temp: 80°C/40°C

Reviewed by: 9/28/07

Tray #: GC-99
(FRI DCB #16)

OP002-04 (1/10/05)

2

6.8.1 6

New England ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

10/01/07

Technical Report for

Environmental Chemical Corporation

Brunswick Naval Air Station, Brunswick, ME

BUILDING 95

Accutest Job Number: M67604

Sampling Date: 09/11/07

Report to:

PMB 289
13 Gusnet Road
Brunswick, ME 04011

ATTN: Data Receipt

Total number of pages in report: **256**

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579) NY (23346) NJ (MA926) NAVY USACE

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Test results relate only to samples analyzed.

New England ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

10/01/07

Technical Report for

Environmental Chemical Corporation

Brunswick Naval Air Station, Brunswick, ME

BUILDING 95

Accutest Job Number: M67604

Sampling Date: 09/11/07

Report to:

Environmental Chemical Corporation
33 Boston Post Road West
Suite 340
Marlborough, MA 01752

ATTN: Mark Carver

Total number of pages in report: **256**

ACCREDITED IN ACCORDANCE WITH nelac

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Lab Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

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New England ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

10/01/07

Technical Report for

Environmental Chemical Corporation

Brunswick Naval Air Station, Brunswick, ME

Building 95 Event 26

Accutest Job Number: M67676

Sampling Date: 09/12/07

Report to:

Environmental Chemical Corporation
33 Boston Post Road West
Suite 340
Marlborough, MA 01752

ATTN: Jackson Kiker

Total number of pages in report: **257**

ACCREDITED IN ACCORDANCE WITH nelac

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Reza Tand
Lab Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579) NY (23346) NJ (MA926) NAVY USACE

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Sample Summary

Environmental Chemical Corporation

Job No: M67676

Brunswick Naval Air Station, Brunswick, ME
Project No: Building 95 Event 26

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M67676-1	09/12/07	11:15 MAC	09/14/07	AQ	Ground Water	BN-95-24-MW097
M67676-2	09/12/07	12:30 MAC	09/14/07	AQ	Ground Water	BN-95-26-MW098

ACCUTEST Laboratories

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Environmental Chemical Corporation **Job No** M67676

Site: Brunswick Naval Air Station, Brunswick, ME **Report Date** 10/1/2007 11:04:52 AM

2 Sample(s) were collected on 09/12/2007 and were received at Accutest on 09/14/2007 properly preserved, at 3.3 Deg. C and intact. These Samples received an Accutest job number of M67676. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GC By Method SW846 8081

Matrix AQ **Batch ID:** OP14345

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M67604-1MS, M67604-1MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 4,4'-DDE, 4,4'-DDT, beta-BHC, Endosulfan sulfate, Endosulfan-I, Endrin, Endrin aldehyde, Endrin ketone, Heptachlor epoxide, Methoxychlor are outside control limits. Associated samples are non-detect for this compound.
- Matrix Spike Recovery(s) for 4,4'-DDT, Aldrin, alpha-BHC, alpha-Chlordane, Endosulfan-I, Endrin aldehyde, gamma-BHC (Lindane), gamma-Chlordane, Heptachlor epoxide, Methoxychlor are outside control limits. Associated samples are non-detect for this compound.
- Matrix Spike Duplicate Recovery(s) for 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, alpha-BHC, alpha-Chlordane, beta-BHC, Dieldrin, Endosulfan-I, Endosulfan-II, Endrin, Endrin aldehyde, Endrin ketone, gamma-BHC (Lindane), gamma-Chlordane, Heptachlor epoxide, Methoxychlor are outside control limits. Associated samples are non-detect for this compound.
- Blank Spike Duplicate Recovery(s) for 4,4'-DDT, Endosulfan-I, Endrin aldehyde, Methoxychlor are outside control limits. Associated samples are non-detect for this compound.
- OP14345-BS, OP14345-BSD, OP14345-MS for 4,4'-DDD: Outside DoD control limits, but within in-house control limits.
- Continuing calibration check standard in batch GBB668, file GB15972A, signal #1 for Heptachlor, 4,4'-DDT, Methoxychlor, DCB are outside criteria (response bias high). Associated samples are non-detect for target compound.
- OP14345-BS for alpha-Chlordane, gamma-Chlordane, Dieldrin, Heptachlor: Outside DoD control limits, but within in-house control limits. Associated samples are non-detect for this compound.
- OP14345-MS for Dieldrin, Endrin, Endrin ketone, Heptachlor: Outside DoD control limits, but within in-house control limits. Associated samples are non-detect for this compound.
- OP14345-MSD for Heptachlor: Outside DoD control limits, but within in-house control limits. Associated samples are non-detect for this compound.
- OP14345-MSD for 4,4'-DDD is outside control limits. Posative sample results confirmed by re-extraction.
- OP14345-BSD for alpha-Chlordane, gamma-Chlordane, Dieldrin, Endrin ketone, Methoxychlor are outside DoD control limits, but within in-house control limits. Associated samples are non-detect for this compound.
- Continuing calibration check standard in batch GBB668, file GB15985, signal #1 for 4,4'-DDT, Methoxychlor, DCB are outside criteria (response bias high). Associated samples are non-detect for target compound.
- OP14345-MB for Decachlorobiphenyl: Recovery satisfactory for signal 2.

All work evaluated according to DoD QAPP.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M67676).

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	BN-95-24-MW097		
Lab Sample ID:	M67676-1	**Date Sampled:**	09/12/07
Matrix:	AQ - Ground Water	**Date Received:**	09/14/07
Method:	SW846 8081 SW846 3510C	**Percent Solids:**	n/a
Project:	Brunswick Naval Air Station, Brunswick, ME		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB15981.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.050	0.0070	ug/l	
319-84-6	alpha-BHC	ND	0.050	0.0070	ug/l	
319-85-7	beta-BHC	ND	0.050	0.010	ug/l	
319-86-8	delta-BHC	ND	0.050	0.011	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	0.0070	ug/l	
5103-71-9	alpha-Chlordane	ND	0.050	0.016	ug/l	
5103-74-2	gamma-Chlordane	ND	0.050	0.0080	ug/l	
60-57-1	Dieldrin	ND	0.050	0.0090	ug/l	
72-54-8	4,4'-DDD	ND	0.050	0.014	ug/l	
72-55-9	4,4'-DDE	ND	0.050	0.0090	ug/l	
50-29-3	4,4'-DDT	ND	0.050	0.026	ug/l	
72-20-8	Endrin	ND	0.050	0.011	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.050	0.021	ug/l	
7421-93-4	Endrin aldehyde	ND	0.050	0.050	ug/l	
53494-70-5	Endrin ketone	ND	0.050	0.018	ug/l	
959-98-8	Endosulfan-I	ND	0.050	0.015	ug/l	
33213-65-9	Endosulfan-II	ND	0.050	0.014	ug/l	
76-44-8	Heptachlor	ND	0.050	0.016	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	0.0080	ug/l	
72-43-5	Methoxychlor	ND	0.050	0.019	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		30-132%
877-09-8	Tetrachloro-m-xylene	97%		30-132%
2051-24-3	Decachlorobiphenyl	109%		30-126%
2051-24-3	Decachlorobiphenyl	101%		30-126%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	BN-95-26-MW098		
Lab Sample ID:	M67676-2	**Date Sampled:**	09/12/07
Matrix:	AQ - Ground Water	**Date Received:**	09/14/07
Method:	SW846 8081 SW846 3510C	**Percent Solids:**	n/a
Project:	Brunswick Naval Air Station, Brunswick, ME		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB15982.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.050	0.0070	ug/l	
319-84-6	alpha-BHC	ND	0.050	0.0070	ug/l	
319-85-7	beta-BHC	ND	0.050	0.010	ug/l	
319-86-8	delta-BHC	ND	0.050	0.011	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	0.0070	ug/l	
5103-71-9	alpha-Chlordane	ND	0.050	0.016	ug/l	
5103-74-2	gamma-Chlordane	ND	0.050	0.0080	ug/l	
60-57-1	Dieldrin	ND	0.050	0.0090	ug/l	
72-54-8	4,4'-DDD	ND	0.050	0.014	ug/l	
72-55-9	4,4'-DDE	ND	0.050	0.0090	ug/l	
50-29-3	4,4'-DDT	ND	0.050	0.026	ug/l	
72-20-8	Endrin	ND	0.050	0.011	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.050	0.021	ug/l	
7421-93-4	Endrin aldehyde	ND	0.050	0.050	ug/l	
53494-70-5	Endrin ketone	ND	0.050	0.018	ug/l	
959-98-8	Endosulfan-I	ND	0.050	0.015	ug/l	
33213-65-9	Endosulfan-II	ND	0.050	0.014	ug/l	
76-44-8	Heptachlor	ND	0.050	0.016	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	0.0080	ug/l	
72-43-5	Methoxychlor	ND	0.050	0.019	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		30-132%
877-09-8	Tetrachloro-m-xylene	102%		30-132%
2051-24-3	Decachlorobiphenyl	117%		30-126%
2051-24-3	Decachlorobiphenyl	110%		30-126%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

CHAIN OF CUSTODY

NEL Job #: M67676
NEL Control #:

Client Information

Name: ECC
Address: 33 Boston Post Rd. West, Suite 340
City: Marlborough, MA State: Zip: 01752
Send Report to: Jackson Kiker
Phone #: 508-229-2270

Facility Information

Project Name: Building 95 Event 26
Location: NASB Brunswick, Maine
Project No.: 5700.007.016.500
JKiker@ecc.net
FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	HCL	NaOH	HNO3	H2SO4	None	Pesticides
~~BN-95-24-MW097~~ -1	9/12/07	1115	MAC	GW	2					x	X
~~BN-95-26-MW098~~ -2	9/12/07	1230	MAC	GW	2					x	X

Turnaround Information

- [ ] 21 Day Standard
- [x] 14 Day
- [ ] 7 Days EMERGENCY
- [ ] Other _____ (Days)

Approved By:

RUSH TAT is for FAX data
Data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [ ] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] ASP Category B
- [ ] State Forms

Comments / Remarks

13 E

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Mark A. Carver	9/13/2007 1600	1 FedEx	2 FedEx	9/14/07 9:35	2 Ryan M Sweeney
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by Sampler: 5	Date Time:	Received By: 5	Seal #	Preserved where applies ☐	On Ice: ☑ 3.3°c

4.1 4

ACCUTEST

Sample Receipt Form

Client: ECC

Reviewed By: D

Accutest Job No.: M67676

Date/Time Received: 9-14-07 @ 9:35

1. Coolers received by: ☐ Accutest Courier ☑ Federal Express ☐ Client: _____ ☐ Other: _____

2. Custody Seal: ☑ Intact ☐ Broken ☐ Absent

3. Cooler Receipt Temperature: ☑ Temperature blank: 3.3°c ☐ Infrared Temp. gun: _____

4. Are samples on ice? yes

Comments:

5. Condition of Samples: ☑ Intact ☐ Broken/Leaking (list samples):

6. All containers accounted for: ☑ Yes ☐ No (explain):

7. Does the COC agree with the sample labels? ☑ Yes ☐ No (explain):

8. Are the appropriate containers used? ☑ Yes ☐ No (list samples):

9. Are the samples properly preserved? ☑ Yes ☐ No (list samples):

10. Are the samples within holding times? ☑ Yes ☐ No (list samples):

11. Is the COC filled out entirely/legibly in indelible ink? ☑ Yes ☐ No (explain):

12. Date/Time client contacted for any anomalies: _____

QA101-01

Massachusetts • 495 Technology Center West • Building One • Marlborough, MA 01752 • tel: 508.481.6200 • fax: 508.481.7753 • http://www.accutest.com

4.1 4

M67676: Chain of Custody
Page 2 of 2

ACCUTEST Laboratories

M67676

Internal Sample Tracking Chronicle

Environmental Chemical Corporation

Job No: M67676

Brunswick Naval Air Station, Brunswick, ME
Project No: Building 95 Event 26

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M67676-1	Collected: 12-SEP-07 11:15 By: MAC	Received: 14-SEP-07 By: RS				
BN-95-24-MW097						
M67676-1	SW846 8081	22-SEP-07 13:56	CZ	18-SEP-07	ME	P8081PESTTCL
M67676-2	Collected: 12-SEP-07 12:30 By: MAC	Received: 14-SEP-07 By: RS				
BN-95-26-MW098						
M67676-2	SW846 8081	22-SEP-07 15:02	CZ	18-SEP-07	ME	P8081PESTTCL

Accutest Internal Chain of Custody

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME
Received: 09/14/07

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
M67676-1.1	Walk In Ref #9	Agron Jana	09/21/07 16:00	Retrieve from Storage
M67676-1.1	Agron Jana		09/22/07 07:42	Depleted
M67676-1.2	Walk In Ref #9	Francesco Gulla	09/18/07 10:12	Retrieve from Storage
M67676-1.2	Francesco Gulla		09/24/07 07:25	Depleted
M67676-2.1	Walk In Ref #9	Agron Jana	09/21/07 16:00	Retrieve from Storage
M67676-2.1	Agron Jana		09/22/07 07:42	Depleted
M67676-2.2	Walk In Ref #9	Francesco Gulla	09/18/07 10:12	Retrieve from Storage
M67676-2.2	Francesco Gulla		09/24/07 07:25	Depleted

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- DDT/Endrin Breakdown Checks
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14345-MB	BB15974.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668

The QC reported here applies to the following samples: **Method:** SW846 8081

M67676-1, M67676-2

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.050	0.0070	ug/l	
319-84-6	alpha-BHC	ND	0.050	0.0070	ug/l	
319-85-7	beta-BHC	ND	0.050	0.010	ug/l	
319-86-8	delta-BHC	ND	0.050	0.011	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	0.0070	ug/l	
5103-71-9	alpha-Chlordane	ND	0.050	0.016	ug/l	
5103-74-2	gamma-Chlordane	ND	0.050	0.0080	ug/l	
60-57-1	Dieldrin	ND	0.050	0.0090	ug/l	
72-54-8	4,4'-DDD	ND	0.050	0.014	ug/l	
72-55-9	4,4'-DDE	ND	0.050	0.0090	ug/l	
50-29-3	4,4'-DDT	ND	0.050	0.026	ug/l	
72-20-8	Endrin	ND	0.050	0.011	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.050	0.021	ug/l	
7421-93-4	Endrin aldehyde	ND	0.050	0.050	ug/l	
53494-70-5	Endrin ketone	ND	0.050	0.018	ug/l	
959-98-8	Endosulfan-I	ND	0.050	0.015	ug/l	
33213-65-9	Endosulfan-II	ND	0.050	0.014	ug/l	
76-44-8	Heptachlor	ND	0.050	0.016	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	0.0080	ug/l	
72-43-5	Methoxychlor	ND	0.050	0.019	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	110%	30-132%
877-09-8	Tetrachloro-m-xylene	104%	30-132%
2051-24-3	Decachlorobiphenyl	130%* [a]	30-126%
2051-24-3	Decachlorobiphenyl	125%	30-126%

(a) Recovery satisfactory for signal 2.

Blank Spike/Blank Spike Duplicate Summary

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14345-BS	BB15975.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
OP14345-BSD	BB15976.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668

The QC reported here applies to the following samples: **Method:** SW846 8081

M67676-1, M67676-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	0.2	0.26	130	0.26	130	0	30-132/20
319-84-6	alpha-BHC	0.2	0.27	135	0.27	135	0	30-140/20
319-85-7	beta-BHC	0.2	0.29	145* [a]	0.28	140	4	30-140/20
319-86-8	delta-BHC	0.2	0.19	95	0.19	95	0	30-140/20
58-89-9	gamma-BHC (Lindane)	0.2	0.27	135	0.27	135	0	30-140/20
5103-71-9	alpha-Chlordane	0.2	0.28	140	0.27	135	4	42-140/20
5103-74-2	gamma-Chlordane	0.2	0.28	140	0.27	135	4	42-140/20
60-57-1	Dieldrin	0.2	0.28	140	0.28	140	0	30-140/20
72-54-8	4,4'-DDD	0.2	0.29	145	0.27	135	7	30-150/20
72-55-9	4,4'-DDE	0.2	0.30	150* [a]	0.28	140	7	30-140/20
50-29-3	4,4'-DDT	0.2	0.38	190* [a]	0.36	180* [a]	5	30-140/20
72-20-8	Endrin	0.2	0.29	145* [a]	0.28	140	4	30-140/20
1031-07-8	Endosulfan sulfate	0.2	0.29	145* [a]	0.28	140	4	30-140/20
7421-93-4	Endrin aldehyde	0.2	0.39	195* [a]	0.36	180* [a]	8	30-140/20
53494-70-5	Endrin ketone	0.2	0.31	155* [a]	0.29	145	7	30-150/20
959-98-8	Endosulfan-I	0.2	0.30	150* [a]	0.31	155* [a]	3	30-138/20
33213-65-9	Endosulfan-II	0.2	0.28	140	0.27	135	4	30-140/20
76-44-8	Heptachlor	0.2	0.28	140	0.28	140	0	30-140/20
1024-57-3	Heptachlor epoxide	0.2	0.29	145* [a]	0.28	140	4	30-140/20
72-43-5	Methoxychlor	0.2	0.38	190* [a]	0.35	175* [a]	8	30-140/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	105%	102%	30-132%
877-09-8	Tetrachloro-m-xylene	101%	97%	30-132%
2051-24-3	Decachlorobiphenyl	104%	96%	30-126%
2051-24-3	Decachlorobiphenyl	99%	91%	30-126%

(a) Outside control limits. Associated samples are non-detect for this compound.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14345-MS	BB15977.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
OP14345-MSD	BB15978.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668
M67604-1	BB15979.D	1	09/22/07	CZ	09/18/07	OP14345	GBB668

The QC reported here applies to the following samples: **Method:** SW846 8081

M67676-1, M67676-2

CAS No.	Compound	M67604-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND		0.2	0.26	130* [a]	0.25	125	4	30-127/30
319-84-6	alpha-BHC	ND		0.2	0.28	140* [a]	0.28	140* [a]	0	30-129/30
319-85-7	beta-BHC	ND		0.2	0.28	140	0.30	150* [a]	7	30-140/30
319-86-8	delta-BHC	ND		0.2	0.20	100	0.19	95	5	30-135/30
58-89-9	gamma-BHC (Lindane)	ND		0.2	0.28	140* [a]	0.29	145* [a]	4	30-139/30
5103-71-9	alpha-Chlordane	ND		0.2	0.28	140* [a]	0.29	145* [a]	4	47-137/30
5103-74-2	gamma-Chlordane	ND		0.2	0.28	140* [a]	0.29	145* [a]	4	47-134/30
60-57-1	Dieldrin	ND		0.2	0.28	140	0.29	145* [a]	4	30-142/30
72-54-8	4,4'-DDD	0.056		0.2	0.34	142	0.36	152* [b]	6	30-150/30
72-55-9	4,4'-DDE	ND		0.2	0.28	140	0.30	150* [a]	7	30-144/30
50-29-3	4,4'-DDT	ND		0.2	0.39	195* [a]	0.40	200* [a]	3	30-150/30
72-20-8	Endrin	ND		0.2	0.30	150	0.31	155* [a]	3	30-150/30
1031-07-8	Endosulfan sulfate	ND		0.2	0.29	145	0.30	150	3	30-150/30
7421-93-4	Endrin aldehyde	ND		0.2	0.34	170* [a]	0.35	175* [a]	3	30-147/30
53494-70-5	Endrin ketone	ND		0.2	0.30	150	0.32	160* [a]	6	30-150/30
959-98-8	Endosulfan-I	ND		0.2	0.34	170* [a]	0.35	175* [a]	3	30-136/30
33213-65-9	Endosulfan-II	ND		0.2	0.28	140	0.29	145* [a]	4	30-143/30
76-44-8	Heptachlor	ND		0.2	0.27	135	0.27	135	0	30-150/30
1024-57-3	Heptachlor epoxide	ND		0.2	0.29	145* [a]	0.30	150* [a]	3	30-139/30
72-43-5	Methoxychlor	ND		0.2	0.36	180* [a]	0.37	185* [a]	3	30-150/30

CAS No.	Surrogate Recoveries	MS	MSD	M67604-1	Limits
877-09-8	Tetrachloro-m-xylene	111%	112%	101%	30-132%
877-09-8	Tetrachloro-m-xylene	102%	103%	95%	30-132%
2051-24-3	Decachlorobiphenyl	105%	106%	94%	30-126%
2051-24-3	Decachlorobiphenyl	98%	101%	90%	30-126%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Posative sample results confirmed by re-extraction.

DDT/Endrin Breakdown Check

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample: GBB667-DDT
Lab File ID: BB15939.D
Instrument ID: GCBB
Injection Date: 09/20/07
Injection Time: 16:17

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	126440	404397
4,4'-DDE	8190	17806
4,4'-DDT	3965209	12665469
DDT Breakdown [a]	3.3 %	3.2 %
Endrin aldehyde	25314	12604
Endrin ketone	38616	106983
Endrin	2829610	9545120
Endrin Breakdown [b]	2.2 %	1.2 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GBB667-IC667	BB15940.D	09/20/07	17:35	01:18	Initial cal 1000
GBB667-IC667	BB15941.D	09/20/07	18:40	02:23	Initial cal 500
GBB667-ICC667	BB15942.D	09/20/07	19:46	03:28	Initial cal 100
GBB667-IC667	BB15943.D	09/20/07	20:51	04:33	Initial cal 50
GBB667-IC667	BB15944.D	09/20/07	21:56	05:39	Initial cal 10
GBB667-IC667	BB15945.D	09/20/07	23:01	06:43	Initial cal 5
GBB667-IC667	BB15946.D	09/21/07	00:06	07:48	Initial cal 400
GBB667-IC667	BB15947.D	09/21/07	01:11	08:54	Initial cal 200
GBB667-ICV667	BB15948.D	09/21/07	02:16	09:59	Initial cal verification 100
M67704-1	BB15950.D	09/21/07	04:26	12:09	(used for QC only; not part of job M67676)
ZZZZZZ	BB15951.D	09/21/07	05:31	13:14	(unrelated sample)
ZZZZZZ	BB15952.D	09/21/07	06:36	14:19	(unrelated sample)
ZZZZZZ	BB15953.D	09/21/07	07:42	15:24	(unrelated sample)
ZZZZZZ	BB15954.D	09/21/07	08:47	16:29	(unrelated sample)
ZZZZZZ	BB15955.D	09/21/07	10:04	17:46	(unrelated sample)
ZZZZZZ	BB15956.D	09/21/07	11:13	18:55	(unrelated sample)
ZZZZZZ	BB15957.D	09/21/07	12:16	19:58	(unrelated sample)
ZZZZZZ	BB15958.D	09/21/07	13:21	21:03	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample:	GBB667-DDT	**Injection Date:**	09/22/07
Lab File ID:	BB15971.D	**Injection Time:**	03:05
Instrument ID:	GCBB		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	426456	1476238
4,4'-DDE	24826	55593
4,4'-DDT	7300531	22141493
DDT Breakdown [a]	5.8 %	6.5 %
Endrin aldehyde	199374	359143
Endrin ketone	256970	576550
Endrin	4235598	13567490
Endrin Breakdown [b]	9.7 %	6.5 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP14345-MB	BB15974.D	09/22/07	06:21	03:15	Method Blank
OP14345-BS	BB15975.D	09/22/07	07:26	04:21	Blank Spike
OP14345-BSD	BB15976.D	09/22/07	08:31	05:26	Blank Spike Duplicate
OP14345-MS	BB15977.D	09/22/07	09:36	06:31	Matrix Spike
OP14345-MSD	BB15978.D	09/22/07	10:41	07:35	Matrix Spike Duplicate
M67604-1	BB15979.D	09/22/07	11:46	08:40	(used for QC only; not part of job M67676)
ZZZZZZ	BB15980.D	09/22/07	12:51	09:45	(unrelated sample)
M67676-1	BB15981.D	09/22/07	13:56	10:51	BN-95-24-MW097
M67676-2	BB15982.D	09/22/07	15:02	11:56	BN-95-26-MW098

Semivolatile Surrogate Recovery Summary

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Method: SW846 8081 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
M67676-1	BB15981.D	102.0	97.0	109.0	101.0
M67676-2	BB15982.D	108.0	102.0	117.0	110.0
OP14345-BS	BB15975.D	105.0	101.0	104.0	99.0
OP14345-BSD	BB15976.D	102.0	97.0	96.0	91.0
OP14345-MB	BB15974.D	110.0	104.0	130.0* [c]	125.0
OP14345-MS	BB15977.D	111.0	102.0	105.0	98.0
OP14345-MSD	BB15978.D	112.0	103.0	106.0	101.0

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	30-132%
S2 = Decachlorobiphenyl	30-126%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2
(c) Recovery satisfactory for signal 2.

GC Surrogate Retention Time Summary

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Check Std:	GBB668-CC667	**Injection Date:**	09/22/07
Lab File ID:	BB15972A.D	**Injection Time:**	04:10
Instrument ID:	GCBB	**Method:**	SW846 8081

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	12.21	5.64	50.97	25.00

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP14345-MB	BB15974.D	09/22/07	06:21	12.22	5.64	50.96	25.00
OP14345-BS	BB15975.D	09/22/07	07:26	12.21	5.64	50.96	25.01
OP14345-BSD	BB15976.D	09/22/07	08:31	12.22	5.64	50.95	25.00
OP14345-MS	BB15977.D	09/22/07	09:36	12.22	5.64	50.96	25.00
OP14345-MSD	BB15978.D	09/22/07	10:41	12.21	5.64	50.97	25.00
M67604-1	BB15979.D	09/22/07	11:46	12.22	5.64	50.97	25.00
ZZZZZZ	BB15980.D	09/22/07	12:51	12.22	5.64	50.96	25.00
M67676-1	BB15981.D	09/22/07	13:56	12.22	5.64	50.97	25.00
M67676-2	BB15982.D	09/22/07	15:02	12.22	5.64	50.99	25.01

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME
Sample: GBB667-ICC667
Lab FileID: BB15942.D

Response Factor Report GCBB-gc23

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration

Calibration Files
1 =BB15940.D 2 =BB15941.D 3 =BB15942.D 4 =BB15943.D
5 =BB15944.D 6 =BB15945.D 7 =BB15946.D 8 =BB15947.D

Compound	1	2	3	4	5	6	7	8	Avg	%RSD
1) TCMX	3.687	3.819	4.068	4.013	4.446	4.098	4.070	4.213	4.052 E4	5.70
2) Chlordane-A							1.745	1.858	1.801 E3	4.46
3) Chlordane-B							2.676	2.857	2.766 E3	4.61
4) Chlordane-C							1.521	1.623	1.572 E4	4.60
5) Toxaphene-A							1.392	1.440	1.416 E3	2.38
6) Toxaphene-B							6.838	6.931	6.884 E2	0.95
7) Toxaphene-C							2.374	2.436	2.405 E3	1.82
8) Hexachlorobe	4.656	4.905	4.739	4.730	5.413	5.849			5.049 E4	9.48
9) alpha-BHC	6.411	6.443	5.829	6.945	5.818	5.821			6.211 E4	7.50
10) gamma-BHC	5.483	5.374	4.906	6.263	5.073	5.155			5.376 E4	8.96
11) beta-BHC	2.365	2.127	2.109	3.919	2.586	2.603			2.618 E4	25.67
Linear regr.,Force(0,0)for beta-BHC										
Coefficient = 0.9958										
Response Ratio = 0.00000 + 23191.98172 *A										
12) Heptachlor	3.654	3.765	3.472	3.264	3.847	4.084			3.681 E4	7.83
13) delta-BHC	5.589	5.466	4.996	7.071	5.169	4.840			5.522 E4	14.65
14) Alachlor	4.461	4.467	4.696	6.402	6.206	6.685			5.486 E3	19.13
15) Aldrin	4.574	4.783	4.433	4.427	4.822	5.141			4.697 E4	5.85
16) Heptachlor E	3.913	4.014	3.802	4.231	4.429	4.617			4.168 E4	7.57
17) gamma-Chlord	3.834	3.928	3.685	4.034	4.191	4.453			4.021 E4	6.79
18) alpha-Chlord	3.439	3.576	3.362	3.636	4.009	4.167			3.698 E4	8.68
19) Endosulfan-I	3.358	3.558	3.267	3.437	3.782	4.027			3.572 E4	8.01
20) 4,4'-DDE	3.386	3.519	3.243	3.247	3.619	3.679			3.449 E4	5.41
21) Dieldrin	3.709	3.812	3.515	3.747	3.950	4.046			3.796 E4	4.93
22) Endrin	2.912	2.966	2.744	2.889	3.030	3.240			2.964 E4	5.59
23) 4,4'-DDD	2.744	2.770	2.624	3.159	2.995	2.978			2.878 E4	6.89
24) Endosulfan-I	3.023	3.042	2.974	3.715	3.566	3.674			3.332 E4	10.62
25) 4,4'-DDT	2.190	2.067	1.886	1.922	1.964	1.948			1.996 E4	5.64
26) Endrin aldeh	2.598	2.253	2.233	4.406	2.868	2.836			2.866 E4	28.01
Linear regr.,Force(0,0)for Endrin aldehyde										
Coefficient = 0.9935										
Response Ratio = 0.00000 + 25300.45825 *A										
27) Endosulfan s	2.884	2.643	2.637	4.641	3.352	3.223			3.230 E4	23.25
Linear regr.,Force(0,0)for Endosulfan sulfate										
Coefficient = 0.9969										
Response Ratio = 0.00000 + 28379.86926 *A										
28) Methoxychlor	1.051	1.037	1.049	1.203	1.258	1.217			1.136 E4	8.84
29) Endrin keton	3.109	2.998	2.983	4.184	3.798	3.650			3.454 E4	14.40
30) AR1016-A									0.000	-1.00
31) AR1016-B									0.000	-1.00
32) AR1016-C									0.000	-1.00
33) AR1260-A									0.000	-1.00
34) AR1260-B									0.000	-1.00
35) AR1260-C									0.000	-1.00

Initial Calibration Summary

Job Number: M67676 **Sample:** GBB667-ICC667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15942.D
Project: Brunswick Naval Air Station, Brunswick, ME

36)	AR1260-D									0.000		-1.00
37)	AR1260-E									0.000		-1.00
38)	DCB	2.820	3.155	3.534	3.383	4.194	3.712	3.467	3.827	3.512	E4	11.94

Signal #2

1)	TCMX	0.979	1.017	1.043	1.034	1.164	1.091	1.019	1.082	1.054	E5	5.44
2)	Chlordane-A							3.584	3.519	3.552	E3	1.30
3)	Chlordane-B							5.153	5.472	5.312	E3	4.24
4)	Chlordane-C							2.823	2.872	2.847	E4	1.22
5)	Toxaphene-A							2.218	2.270	2.244	E3	1.62
6)	Toxaphene-B							4.030	3.960	3.995	E3	1.24
7)	Toxaphene-C							1.880	1.848	1.864	E3	1.24
8)	Hexachlorobe	1.080	1.120	1.115	1.141	1.364	1.463			1.214	E5	13.11
9)	alpha-BHC	1.387	1.309	1.231	1.468	1.311	1.352			1.343	E5	6.00
10)	gamma-BHC	1.278	1.221	1.141	1.453	1.191	1.204			1.248	E5	8.81
11)	beta-BHC	5.666	4.911	5.006	9.118	5.945	5.821			6.078	E4	25.50

Linear regr.,Force(0,0)for beta-BHC
Coefficient = 0.9939
Response Ratio = 0.00000 + 55181.28427 *A

12)	Heptachlor	1.011	1.031	0.985	0.999	1.046	1.102			1.029	E5	4.09
13)	delta-BHC	1.255	1.212	1.141	1.556	1.146	1.110			1.237	E5	13.36
14)	Alachlor	0.864	0.855	0.966	1.345	1.387	1.497			1.152	E4	25.06

Linear regr.,Force(0,0)for Alachlor
Coefficient = 0.9994
Response Ratio = 0.00000 + 8639.93922 *A

15)	Aldrin	1.025	1.078	1.032	1.009	1.085	1.118			1.058	E5	3.96
16)	Heptachlor E	0.933	0.985	0.988	1.072	1.058	1.089			1.021	E5	5.98
17)	gamma-Chlord	1.006	1.047	1.002	1.064	1.065	1.068			1.042	E5	2.91
18)	alpha-Chlord	1.002	1.030	0.985	1.047	1.047	1.086			1.033	E5	3.48
19)	Endosulfan-I	0.823	0.889	0.900	0.926	0.990	1.009			0.923	E5	7.44
20)	4,4'-DDE	0.951	1.018	0.981	0.973	0.992	0.999			0.986	E5	2.31
21)	Dieldrin	0.983	1.043	1.030	1.071	1.058	1.054			1.040	E5	2.98
22)	Endrin	0.884	0.946	0.930	0.958	0.993	1.045			0.959	E5	5.73
23)	4,4'-DDD	0.811	0.855	0.866	1.043	0.910	0.904			0.898	E5	8.85
24)	Endosulfan-I	0.811	0.855	0.866	1.043	0.910	0.894			0.896	E5	8.86
25)	4,4'-DDT	6.780	6.545	5.863	5.698	5.208	4.989			5.847	E4	12.16
26)	Endrin aldeh	0.710	0.632	0.637	1.273	0.706	0.641			0.766	E5	32.70

Linear regr.,Force(0,0)for Endrin aldehyde
Coefficient = 0.9946
Response Ratio = 0.00000 + 69463.40086 *A

27)	Endosulfan s	0.834	0.803	0.826	1.403	0.937	0.881			0.947	E5	24.08

Linear regr.,Force(0,0)for Endosulfan sulfate
Coefficient = 0.9983
Response Ratio = 0.00000 + 82901.77879 *A

28)	Methoxychlor	3.331	3.341	3.364	3.851	3.752	3.420			3.510	E4	6.56
29)	Endrin keton	0.787	0.782	0.789	1.091	0.866	0.799			0.852	E5	14.19
30)	AR1016-A									0.000		-1.00
31)	AR1016-B									0.000		-1.00
32)	AR1016-C									0.000		-1.00
33)	AR1260-A									0.000		-1.00
34)	AR1260-B									0.000		-1.00
35)	AR1260-C									0.000		-1.00
36)	AR1260-D									0.000		-1.00
37)	AR1260-E									0.000		-1.00
38)	DCB	0.810	0.909	1.017	0.980	1.203	1.062	0.984	1.076	1.005	E5	11.65

Initial Calibration Summary

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample: GBB667-ICC667
Lab FileID: BB15942.D

(#) = Out of Range ### Number of calibration levels exceeded format ###

PT092007.M Fri Sep 21 11:31:59 2007 GC23PRN

Initial Calibration Verification

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME
Sample: GBB667-ICV667
Lab FileID: BB15948.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\BB15948.D\ECD1B.CH Vial: 99
Signal #2 : C:\MSDCHEM\1\DATA\BB15948.D\ECD2A.CH
Acq On : 9-21-07 02:16:29 AM Operator: caobinz
Sample : icv667-100,pest 100 icv Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
1	s	TCMX	40.518	40.721	E3	-0.5	100	0.00
8		Hexachlorobenzene	50.486	49.867	E3	1.2	105	0.00
9		alpha-BHC	62.111	63.319	E3	-1.9	109	0.00
10		gamma-BHC	53.757	53.257	E3	0.9	109	0.00
11		beta-BHC	26.183	22.161	E3	15.4#	105	0.00
12		Heptachlor	36.811	38.845	E3	-5.5	112	0.00
13		delta-BHC	55.218	54.594	E3	1.1	109	0.00
14		Alachlor	5.486	5.067	E3	7.6	108	0.00
15		Aldrin	46.967	48.520	E3	-3.3	109	0.00
16		Heptachlor Epoxide	41.676	41.380	E3	0.7	109	0.00
17		gamma-Chlordane	40.210	39.068	E3	2.8	106	0.00
18		alpha-Chlordane	36.979	36.370	E3	1.6	108	0.00
19		Endosulfan-I	35.715	36.879	E3	-3.3	113	0.00
20		4,4'-DDE	34.487	35.144	E3	-1.9	108	0.00
21		Dieldrin	37.964	38.079	E3	-0.3	108	0.00
22		Endrin	29.635	30.103	E3	-1.6	110	0.00
23		4,4'-DDD	28.785	28.212	E3	2.0	108	0.00
24		Endosulfan-II	33.323	31.631	E3	5.1	106	0.00
25		4,4'-DDT	19.961	22.219	E3	-11.3	118#	0.00
26		Endrin aldehyde	28.655	25.416	E3	11.3	114	0.00
27		Endosulfan sulfate	32.298	28.287	E3	12.4	107	0.00
28		Methoxychlor	11.358	12.316	E3	-8.4	117#	0.00
29		Endrin ketone	34.537	32.641	E3	5.5	109	0.00
38	s	DCB	35.116	35.316	E3	-0.6	100	-0.02

Signal #2

1	s	TCMX	105.351	103.742	E3	1.5	99	0.00
8		Hexachlorobenzene	121.402	114.133	E3	6.0	102	0.00
9		alpha-BHC	134.277	126.367	E3	5.9	103	0.00
10		gamma-BHC	124.812	118.387	E3	5.1	104	0.00
11		beta-BHC	60.779	49.993	E3	17.7#	100	0.00
12		Heptachlor	102.896	104.365	E3	-1.4	106	0.00
13		delta-BHC	123.677	117.823	E3	4.7	103	0.00
14		Alachlor	11.523	10.109	E3	12.3	105	0.00
15		Aldrin	105.769	107.039	E3	-1.2	104	0.00
16		Heptachlor Epoxide	102.097	102.195	E3	-0.1	103	0.00
17		gamma-Chlordane	104.214	101.596	E3	2.5	101	0.00
18		alpha-Chlordane	103.286	103.297	E3	-0.0	105	0.00
19		Endosulfan-I	92.282	93.275	E3	-1.1	104	0.00
20		4,4'-DDE	98.574	99.763	E3	-1.2	102	0.00

Initial Calibration Verification

Job Number: M67676 **Sample:** GBB667-ICV667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15948.D
Project: Brunswick Naval Air Station, Brunswick, ME

21	Dieldrin	103.992	105.752	E3	-1.7	103	0.00
22	Endrin	95.926	97.356	E3	-1.5	105	0.00
23	4,4'-DDD	89.799	90.052	E3	-0.3	104	0.00
24	Endosulfan-II	89.633	90.052	E3	-0.5	104	0.00
25	4,4'-DDT	58.471	66.566	E3	-13.8	114	0.00
26	Endrin aldehyde	76.649	71.103	E3	7.2	112	0.00
27	Endosulfan sulfate	94.738	84.954	E3	10.3	103	0.00
28	Methoxychlor	35.096	37.522	E3	-6.9	112	0.00
29	Endrin ketone	85.232	83.582	E3	1.9	106	0.00
38 s	DCB	100.511	99.096	E3	1.4	97	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #1 : C:\MSDCHEM\1\DATA\BB15948.D\ECD1B.CH Vial: 99
Signal #2 : C:\MSDCHEM\1\DATA\BB15948.D\ECD2A.CH
Acq On : 9-21-07 02:16:29 AM Operator: caobinz
Sample : icv667-100,pest 100 icv Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
2	Chlordane-A	1.801	0.000	E3	100.0#	0#	-17.32#
3	Chlordane-B	2.766	0.000	E3	100.0#	0#	-17.96#
4	Chlordane-C	15.718	0.000	E3	100.0#	0#	-21.99#
5	Toxaphene-A	1.416	0.000	E3	100.0#	0#	-26.41#
6	Toxaphene-B	688.439	0.000		100.0#	0#	-29.09#
7	Toxaphene-C	2.405	0.000	E3	100.0#	0#	-31.45#
30	AR1016-A	0.000	0.000		0.0	0#	-11.64#
31	AR1016-B	0.000	0.000		0.0	0#	-14.13#
32	AR1016-C	0.000	0.000		0.0	0#	-15.69#
33	AR1260-A	0.000	0.000		0.0	0#	-22.24#
34	AR1260-B	0.000	0.000		0.0	0#	-22.91#
35	AR1260-C	0.000	0.000		0.0	0#	-24.57#
36	AR1260-D	0.000	0.000		0.0	0#	-27.63#
37	AR1260-E	0.000	0.000		0.0	0#	-30.23#

Signal #2

2	Chlordane-A	3.552	0.000	E3	100.0#	0#	-9.98#
3	Chlordane-B	5.312	0.000	E3	100.0#	0#	-10.50#
4	Chlordane-C	28.472	0.000	E3	100.0#	0#	-15.11#
5	Toxaphene-A	2.244	0.000	E3	100.0#	0#	-19.29#
6	Toxaphene-B	3.995	0.000	E3	100.0#	0#	-20.51#
7	Toxaphene-C	1.864	0.000	E3	100.0#	0#	-21.29#
30	AR1016-A	0.000	0.000		0.0	0#	-7.23#
31	AR1016-B	0.000	0.000		0.0	0#	-8.56#
32	AR1016-C	0.000	0.000		0.0	0#	-10.25#
33	AR1260-A	0.000	0.000		0.0	0#	-15.96#
34	AR1260-B	0.000	0.000		0.0	0#	-17.04#
35	AR1260-C	0.000	0.000		0.0	0#	-17.90#

Initial Calibration Verification

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample: GBB667-ICV667
Lab FileID: BB15948.D

36	AR1260-D	0.000	0.000	0.0	0# -20.19#
37	AR1260-E	0.000	0.000	0.0	0# -21.26#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB15942.D PT092007.M Fri Sep 21 11:39:11 2007 GC23PRN

5.7 5

Continuing Calibration Summary

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME
Sample: GBB668-CC667
Lab FileID: BB15972A.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD1B.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD2A.CH
Acq On : 9-22-07 04:10:56 AM Operator: caobinz
Sample : cc667-100,pest 100,icv fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	s	TCMX	40.518	44.570 E3	-10.0	110	0.00
8		Hexachlorobenzene	50.486	54.200 E3	-7.4	114	0.00
9		alpha-BHC	62.111	70.044 E3	-12.8	120#	0.00
10		gamma-BHC	53.757	59.474 E3	-10.6	121#	0.00
11		beta-BHC	26.183	24.605 E3	6.0	117#	0.00
12		Heptachlor	36.811	49.623 E3	-34.8#	143#	0.00
13		delta-BHC	55.218	57.305 E3	-3.8	115	0.00
14		Alachlor	5.486	5.549 E3	-1.1	118#	0.00
15		Aldrin	46.967	52.859 E3	-12.5	119#	0.00
16		Heptachlor Epoxide	41.676	45.635 E3	-9.5	120#	0.00
17		gamma-Chlordane	40.210	43.201 E3	-7.4	117#	0.00
18		alpha-Chlordane	36.979	41.533 E3	-12.3	124#	0.00
19		Endosulfan-I	35.715	39.098 E3	-9.5	120#	0.00
20		4,4'-DDE	34.487	39.163 E3	-13.6	121#	-0.01
21		Dieldrin	37.964	42.047 E3	-10.8	120#	-0.01
22		Endrin	29.635	32.887 E3	-11.0	120#	-0.02
23		4,4'-DDD	28.785	32.743 E3	-13.8	125#	-0.02
24		Endosulfan-II	33.323	35.987 E3	-8.0	121#	-0.02
25		4,4'-DDT	19.961	27.566 E3	-38.1#	146#	-0.02
26		Endrin aldehyde	28.655	29.951 E3	-4.5	134#	-0.02
27		Endosulfan sulfate	32.298	33.156 E3	-2.7	126#	-0.02
28		Methoxychlor	11.358	15.367 E3	-35.3#	146#	-0.03
29		Endrin ketone	34.537	39.520 E3	-14.4	132#	-0.03
38	s	DCB	35.116	41.337 E3	-17.7#	117#	-0.07

Signal #2

1	s	TCMX	105.351	112.873 E3	-7.1	108	0.00
8		Hexachlorobenzene	121.402	121.039 E3	0.3	109	0.00
9		alpha-BHC	134.277	141.308 E3	-5.2	115	0.00
10		gamma-BHC	124.812	129.393 E3	-3.7	113	0.00
11		beta-BHC	60.779	55.646 E3	8.4	111	0.00
12		Heptachlor	102.896	116.160 E3	-12.9	118#	0.00
13		delta-BHC	123.677	132.006 E3	-6.7	116#	0.00
14		Alachlor	11.523	10.589 E3	8.1	110	0.00
15		Aldrin	105.769	115.913 E3	-9.6	112	0.00
16		Heptachlor Epoxide	102.097	112.011 E3	-9.7	113	0.00
17		gamma-Chlordane	104.214	113.477 E3	-8.9	113	0.00
18		alpha-Chlordane	103.286	113.537 E3	-9.9	115#	0.00
19		Endosulfan-I	92.282	103.132 E3	-11.8	115	0.00
20		4,4'-DDE	98.574	112.180 E3	-13.8	114	0.00

Continuing Calibration Summary

Job Number: M67676 **Sample:** GBB668-CC667
Account: ECCMA Environmental Chemical Corporation **Lab FileID:** BB15972A.D
Project: Brunswick Naval Air Station, Brunswick, ME

21	Dieldrin	103.992	118.319	E3	-13.8	115	0.00
22	Endrin	95.926	106.063	E3	-10.6	114	0.00
23	4,4'-DDD	89.799	103.307	E3	-15.0#	119#	0.00
24	Endosulfan-II	89.633	103.307	E3	-15.3#	119#	0.00
25	4,4'-DDT	58.471	83.241	E3	-42.4#	142#	0.00
26	Endrin aldehyde	76.649	85.650	E3	-11.7	134#	0.00
27	Endosulfan sulfate	94.738	100.106	E3	-5.7	121#	0.00
28	Methoxychlor	35.096	45.293	E3	-29.1#	135#	0.00
29	Endrin ketone	85.232	105.050	E3	-23.3#	133#	0.00
38 s	DCB	100.511	115.904	E3	-15.3#	114	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #1 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD1B.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD2A.CH
Acq On : 9-22-07 04:10:56 AM Operator: caobinz
Sample : cc667-100,pest 100,icv fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
2	Chlordane-A	1.801	0.000	E3	100.0#	0#	-17.32#
3	Chlordane-B	2.766	0.000	E3	100.0#	0#	-17.96#
4	Chlordane-C	15.718	0.000	E3	100.0#	0#	-21.99#
5	Toxaphene-A	1.416	0.000	E3	100.0#	0#	-26.41#
6	Toxaphene-B	688.439	0.000		100.0#	0#	-29.09#
7	Toxaphene-C	2.405	0.000	E3	100.0#	0#	-31.45#
30	AR1016-A	0.000	0.000		0.0	0#	-11.64#
31	AR1016-B	0.000	0.000		0.0	0#	-14.13#
32	AR1016-C	0.000	0.000		0.0	0#	-15.69#
33	AR1260-A	0.000	0.000		0.0	0#	-22.24#
34	AR1260-B	0.000	0.000		0.0	0#	-22.91#
35	AR1260-C	0.000	0.000		0.0	0#	-24.57#
36	AR1260-D	0.000	0.000		0.0	0#	-27.63#
37	AR1260-E	0.000	0.000		0.0	0#	-30.23#

Signal #2

2	Chlordane-A	3.552	0.000	E3	100.0#	0#	-9.98#
3	Chlordane-B	5.312	0.000	E3	100.0#	0#	-10.50#
4	Chlordane-C	28.472	0.000	E3	100.0#	0#	-15.11#
5	Toxaphene-A	2.244	0.000	E3	100.0#	0#	-19.29#
6	Toxaphene-B	3.995	0.000	E3	100.0#	0#	-20.51#
7	Toxaphene-C	1.864	0.000	E3	100.0#	0#	-21.29#
30	AR1016-A	0.000	0.000		0.0	0#	-7.23#
31	AR1016-B	0.000	0.000		0.0	0#	-8.56#
32	AR1016-C	0.000	0.000		0.0	0#	-10.25#
33	AR1260-A	0.000	0.000		0.0	0#	-15.96#
34	AR1260-B	0.000	0.000		0.0	0#	-17.04#
35	AR1260-C	0.000	0.000		0.0	0#	-17.90#

Continuing Calibration Summary

Job Number: M67676
Account: ECCMA Environmental Chemical Corporation
Project: Brunswick Naval Air Station, Brunswick, ME

Sample: GBB668-CC667
Lab FileID: BB15972A.D

36	AR1260-D	0.000	0.000	0.0	0# -20.19#
37	AR1260-E	0.000	0.000	0.0	0# -21.26#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB15942.D PT092007.M Tue Sep 25 10:16:21 2007 GC23PRN

5.7 5

GC Semi-volatiles

Raw Data

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15981.D\ECD1B.CH Vial: 83
Signal #2 : C:\MSDCHEM\1\DATA\BB15981.D\ECD2A.CH
Acq On : 9-22-07 01:56:55 PM Operator: caobinz
Sample : m67676-1 Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:53:41 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.22	5.64	1659342	4071960	40.953	38.651
Spiked Amount 40.000			Recovery	=	102.38%	96.63%
38) s DCB	50.97	25.00	1537011	4043317	43.770m	40.228m
Spiked Amount 40.000			Recovery	=	109.43%	100.57%
Target Compounds						
10) gamma-BHC	16.39	9.87	63979	161842	1.190	1.297
25) 4,4' DDT	27.17	18.81	46457	172524	2.327m	2.951m#

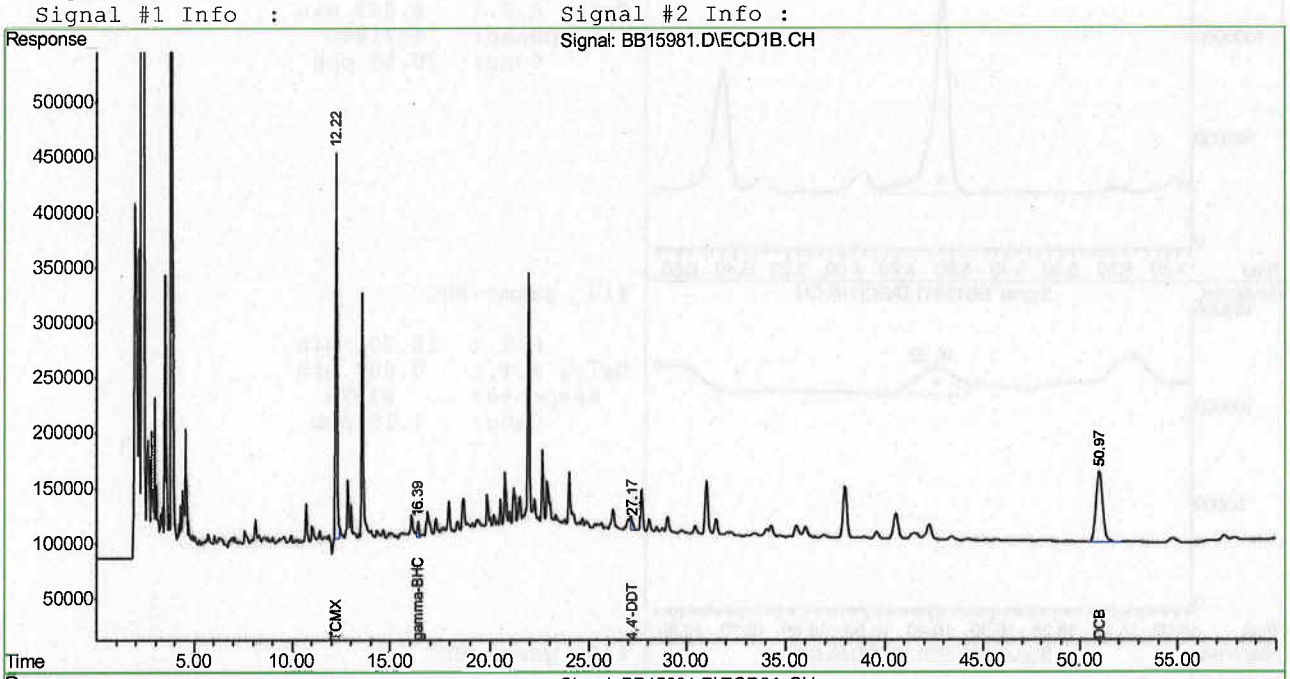
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15981.D PT092007.M Tue Sep 25 10:03:35 2007 GC23PRN

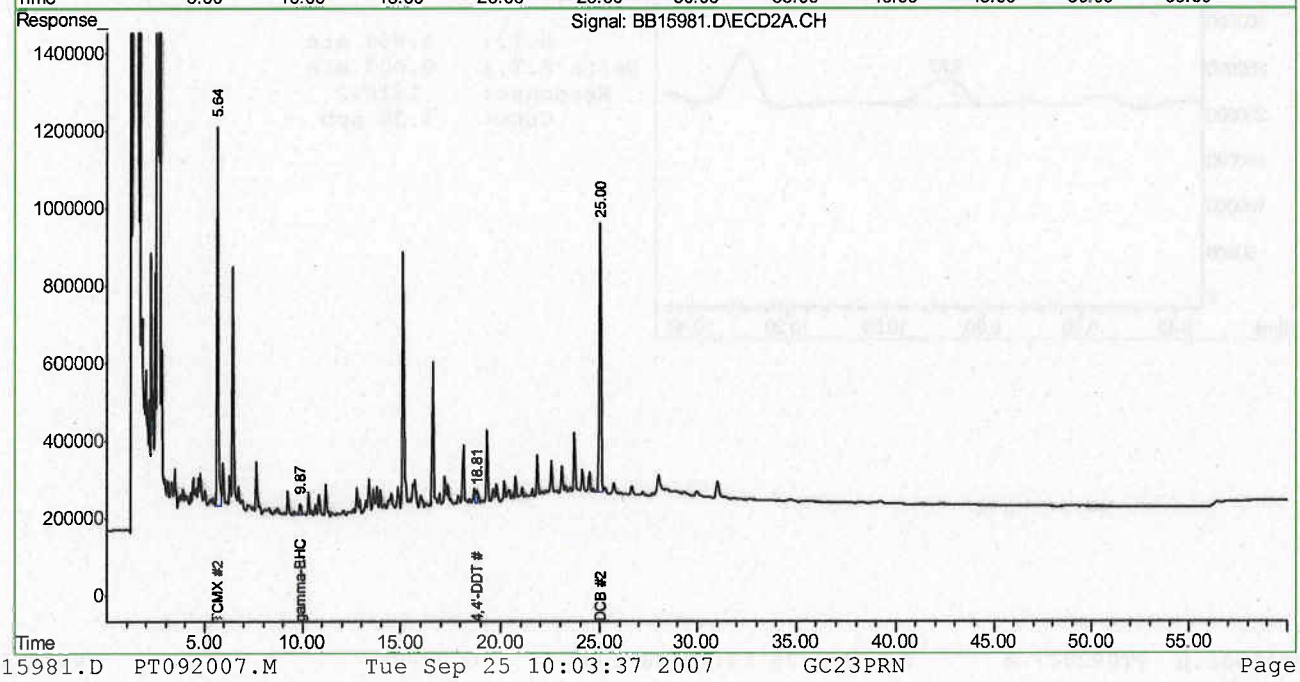
Quantitation Report (QT Reviewed)

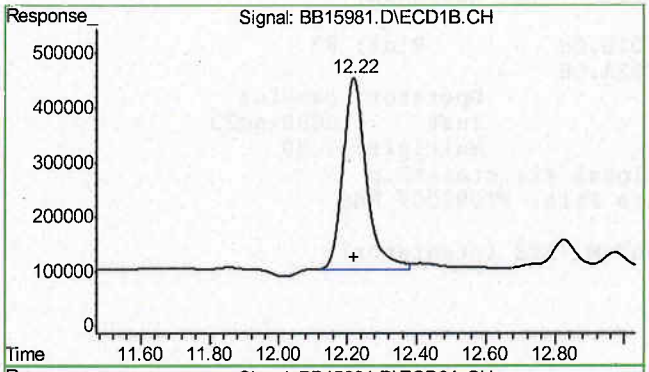
```
Signal #1 : C:\MSDCHEM\1\DATA\BB15981.D\ECD1B.CH          Vial: 83
Signal #2 : C:\MSDCHEM\1\DATA\BB15981.D\ECD2A.CH
Acq On    : 9-22-07 01:56:55 PM                    Operator: caobinz
Sample    : m67676-1                               Inst    : GCBB-gc23
Misc      : op14345,gbb668,1000,,,5,,water         Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p
Quant Time: Sep 25  9:49 2007  Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title        : P8081pest,w/CT-PCB
Last Update  : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj.      :
Signal #1 Phase :                Signal #2 Phase:
Signal #1 Info  :                Signal #2 Info :
```

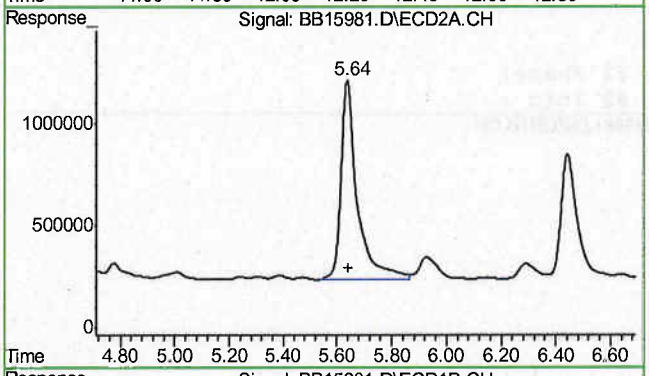






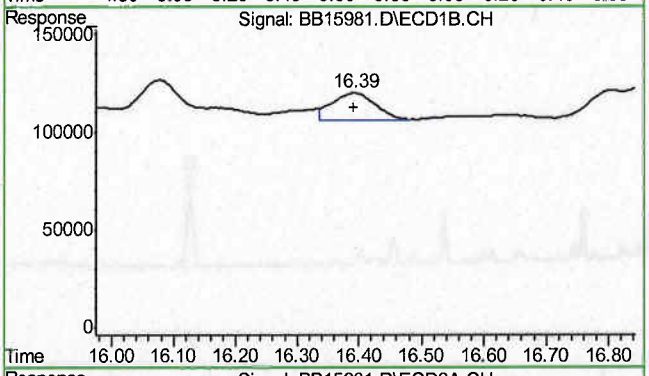
#1 TCMX

R.T.: 12.218 min
Delta R.T.: -0.003 min
Response: 1659342
Conc: 40.95 ppb



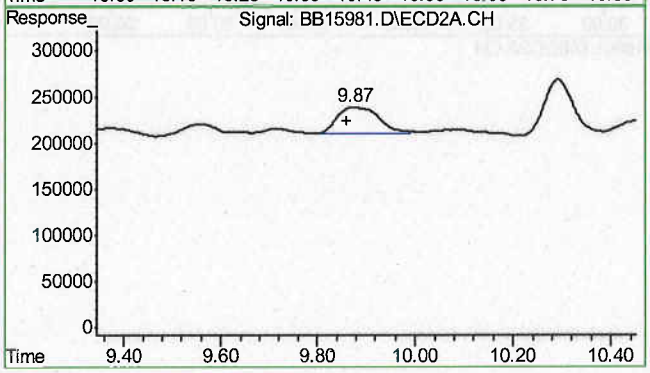
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.003 min
Response: 4071960
Conc: 38.65 ppb



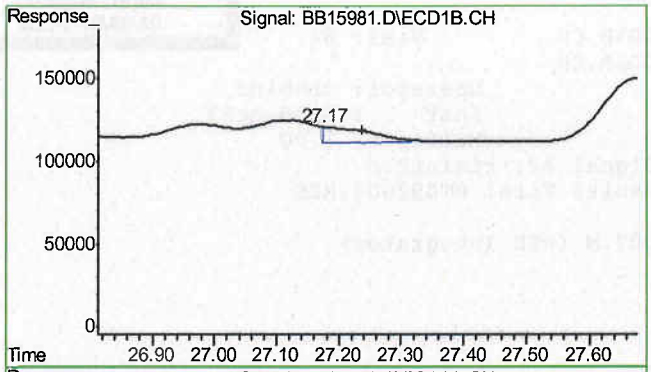
#10 gamma-BHC

R.T.: 16.391 min
Delta R.T.: 0.000 min
Response: 63979
Conc: 1.19 ppb



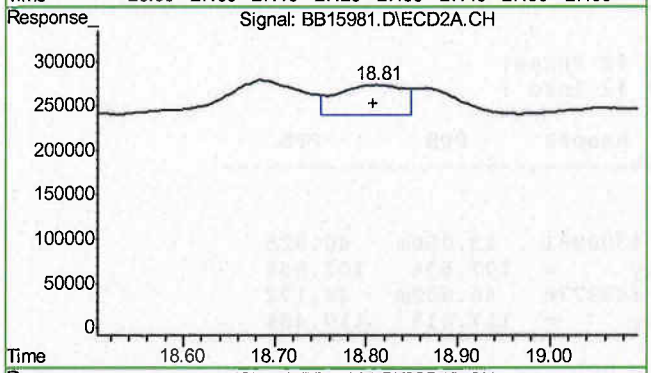
#10 gamma-BHC

R.T.: 9.868 min
Delta R.T.: 0.007 min
Response: 161842
Conc: 1.30 ppb



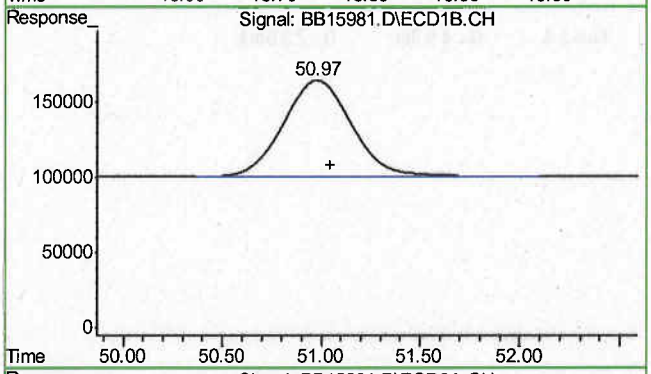
#25 4,4'-DDT

R.T.: 27.173 min
Delta R.T.: -0.065 min
Response: 46457
Conc: 2.33 ppb m



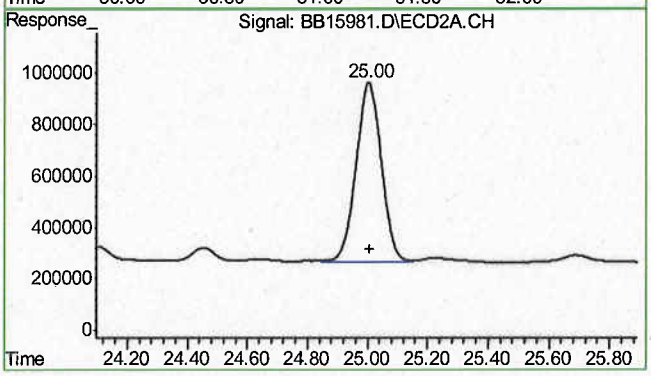
#25 4,4'-DDT

R.T.: 18.811 min
Delta R.T.: 0.003 min
Response: 172524
Conc: 2.95 ppb m



#38 DCB

R.T.: 50.973 min
Delta R.T.: -0.071 min
Response: 1537011
Conc: 43.77 ppb m



#38 DCB

R.T.: 25.003 min
Delta R.T.: -0.003 min
Response: 4043317
Conc: 40.23 ppb m

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15982.D\ECD1B.CH Vial: 84
Signal #2 : C:\MSDCHEM\1\DATA\BB15982.D\ECD2A.CH
Acq On : 9-22-07 03:02:00 PM Operator: caobinz
Sample : m67676-2 Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:54:31 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.22	5.64	1744332	4300981	43.050m	40.825
Spiked Amount 40.000			Recovery	=	107.63%	102.06%
38) s DCB	50.99	25.01	1643515	4439776	46.802m	44.172
Spiked Amount 40.000			Recovery	=	117.01%	110.43%
Target Compounds						
10) gamma-BHC	16.39	9.86	24339	36854	0.453m	0.295m#

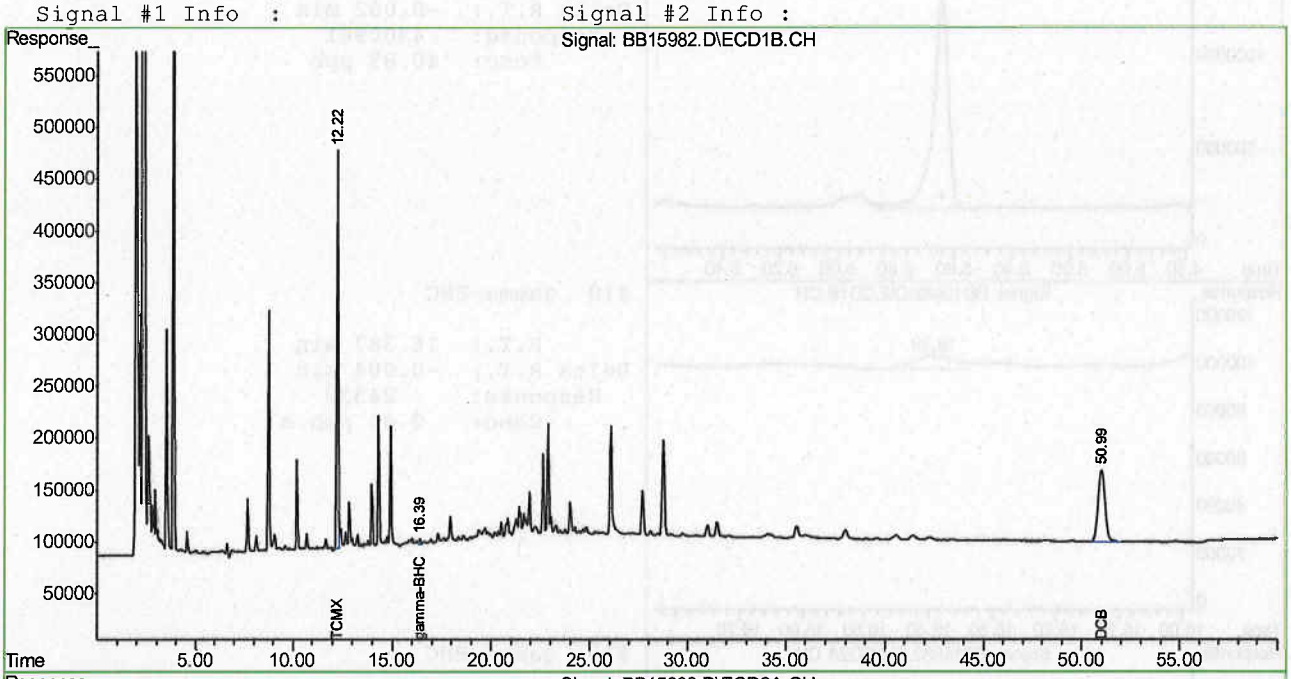
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15982.D PT092007.M Tue Sep 25 10:03:44 2007 GC23PRN

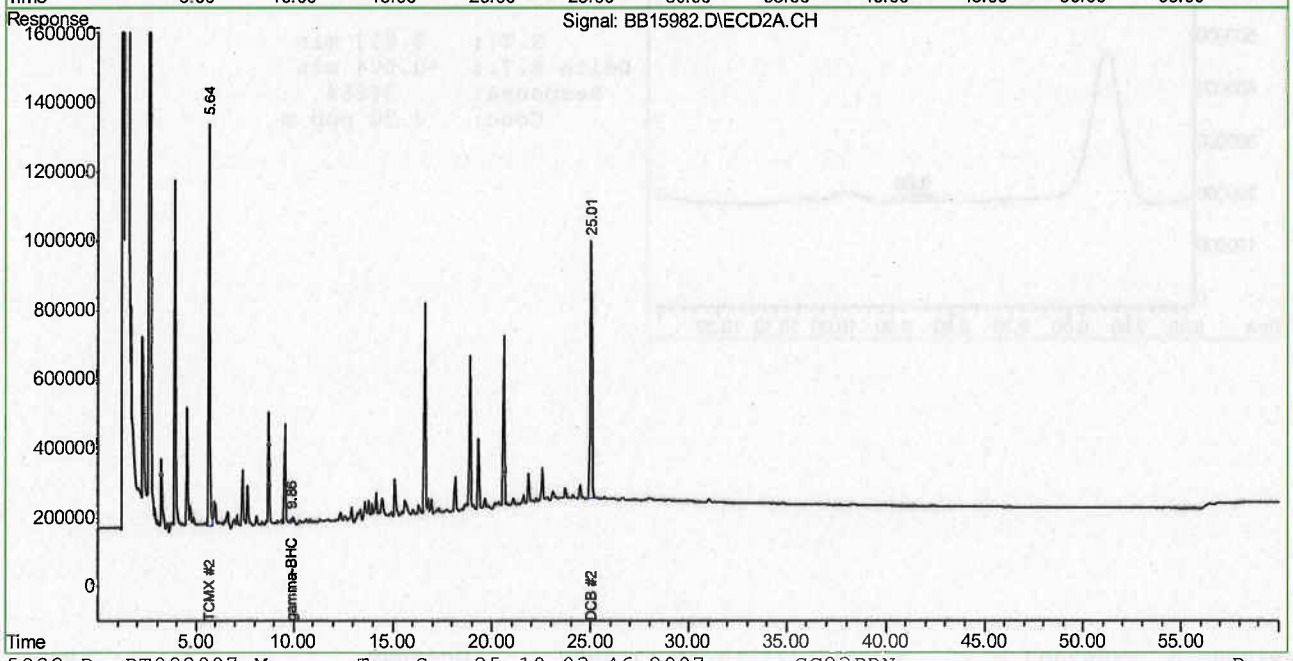
Quantitation Report (QT Reviewed)

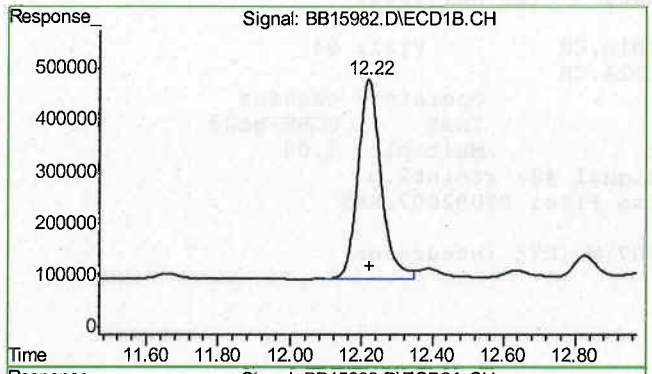
```
Signal #1 : C:\MSDCHEM\1\DATA\BB15982.D\ECD1B.CH          Vial: 84
Signal #2 : C:\MSDCHEM\1\DATA\BB15982.D\ECD2A.CH
Acq On    : 9-22-07 03:02:00 PM                     Operator: caobinz
Sample    : m67676-2                                Inst    : GCBB-gc23
Misc      : op14345,gbb668,1000,,,5,,water          Multiplr: 1.00
IntFile Signal #1: RTEINT2.P     IntFile Signal #2: rteint2.p
Quant Time: Sep 25  9:55 2007  Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title        : P8081pest,w/CT-PCB
Last Update  : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

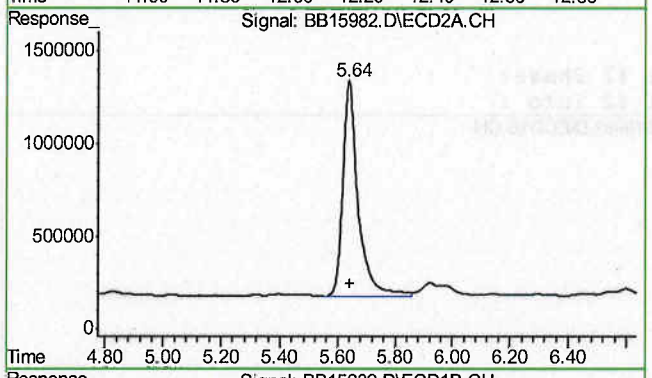






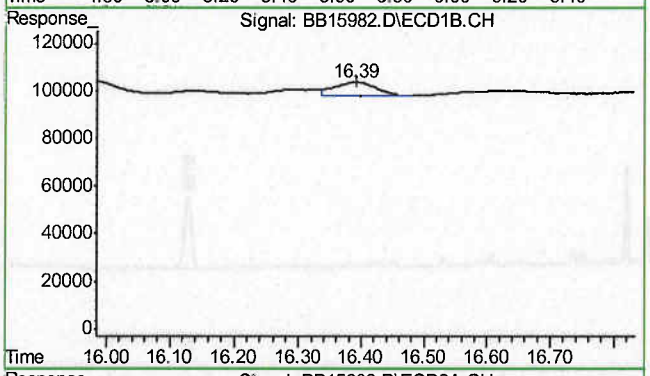
#1 TCMX

R.T.: 12.219 min
Delta R.T.: -0.002 min
Response: 1744332
Conc: 43.05 ppb m



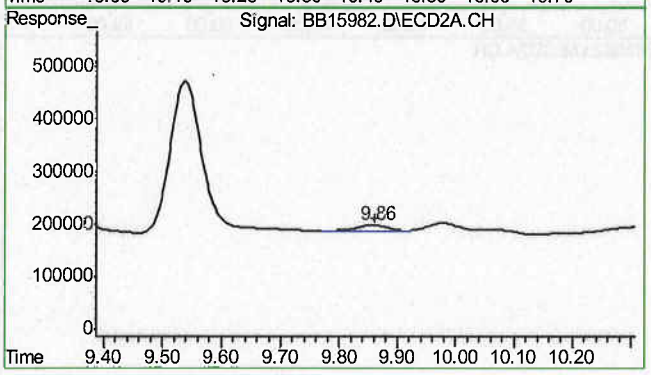
#1 TCMX

R.T.: 5.639 min
Delta R.T.: -0.002 min
Response: 4300981
Conc: 40.83 ppb



#10 gamma-BHC

R.T.: 16.387 min
Delta R.T.: -0.004 min
Response: 24339
Conc: 0.45 ppb m

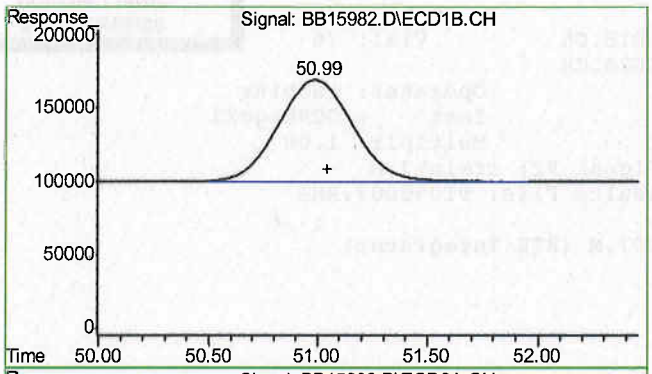


#10 gamma-BHC

R.T.: 9.857 min
Delta R.T.: -0.004 min
Response: 36854
Conc: 0.30 ppb m

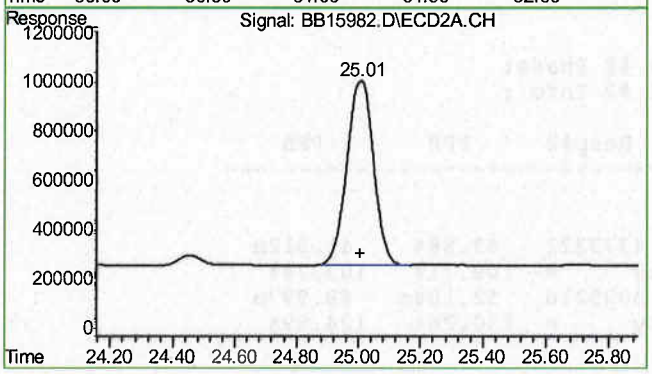
6.1.2

6



#38 DCB

R.T.: 50.991 min
Delta R.T.: -0.054 min
Response: 1643515
Conc: 46.80 ppb m



#38 DCB

R.T.: 25.007 min
Delta R.T.: 0.001 min
Response: 4439776
Conc: 44.17 ppb

6.1.2

6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15974.D\ECD1B.CH Vial: 76
Signal #2 : C:\MSDCHEM\1\DATA\BB15974.D\ECD2A.CH
Acq On : 9-22-07 06:21:17 AM Operator: caobinz
Sample : op14345-mb Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:46:57 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.22	5.64	1778114	4373322	43.884	41.512m
Spiked Amount 40.000			Recovery	=	109.71%	103.78%
38) s DCB	50.96	25.00	1829685	5025216	52.104m	49.997m
Spiked Amount 40.000			Recovery	=	130.26%	124.99%

Target Compounds

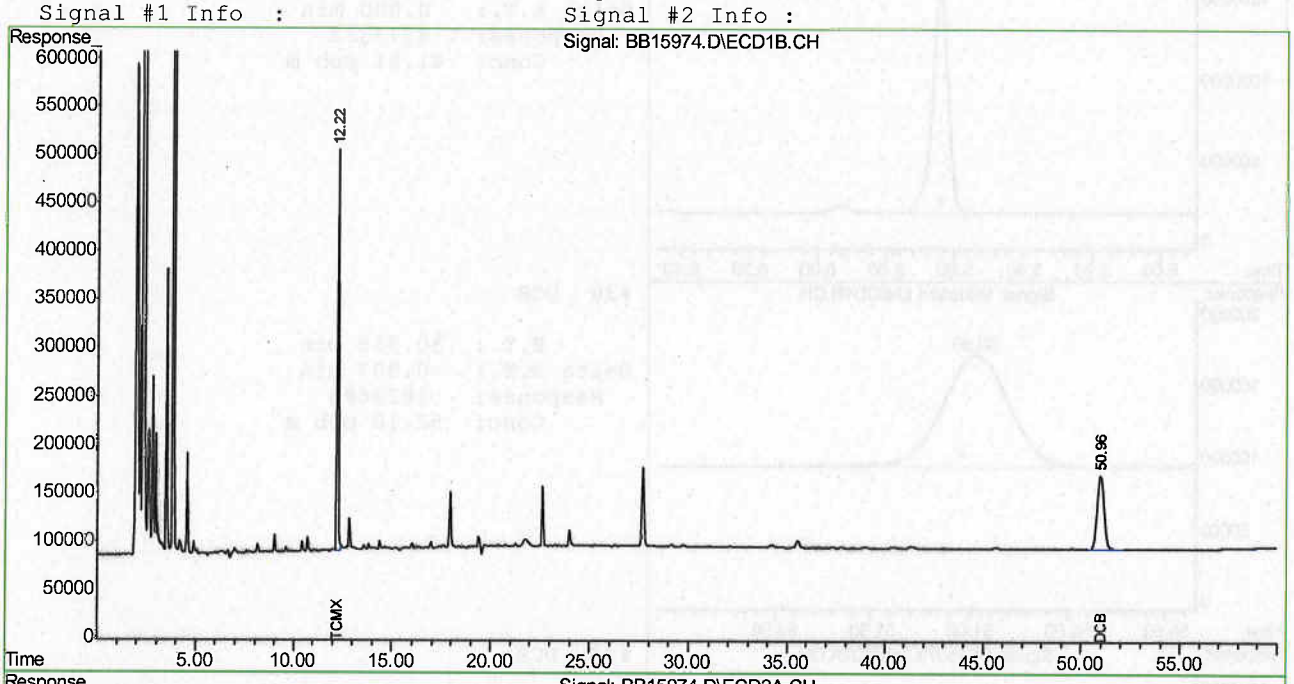
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15974.D PT092007.M Tue Sep 25 10:01:29 2007 GC23PRN

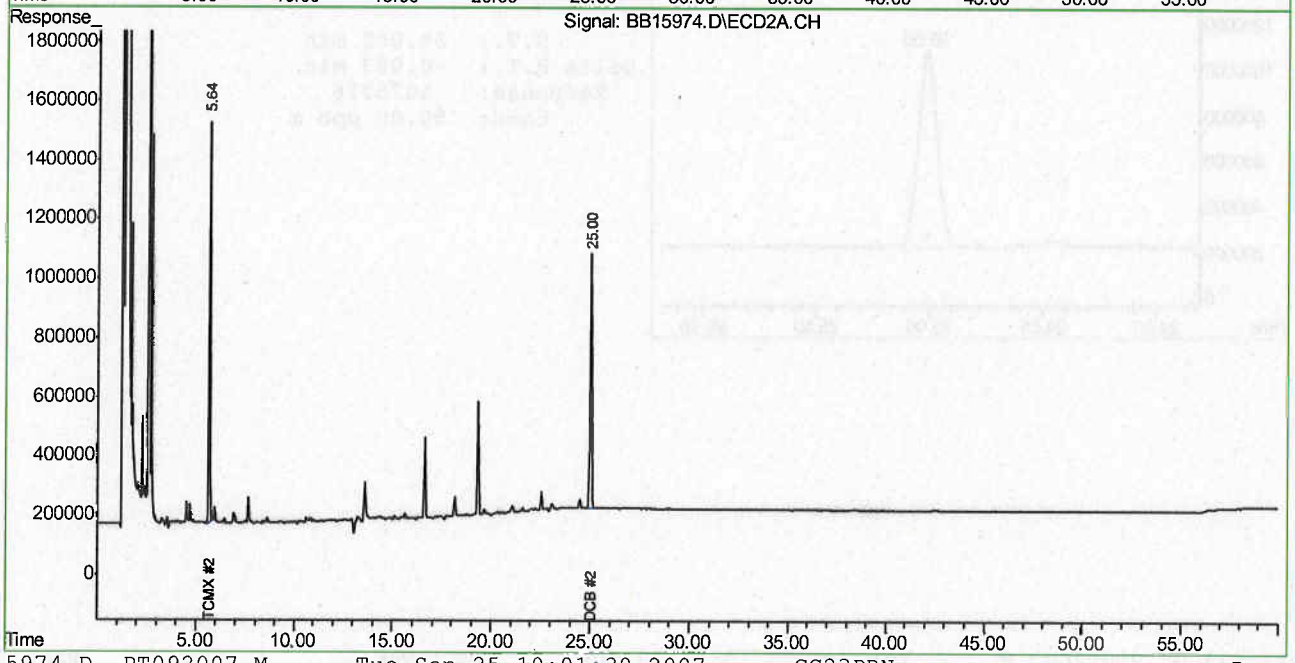
Quantitation Report (QT Reviewed)

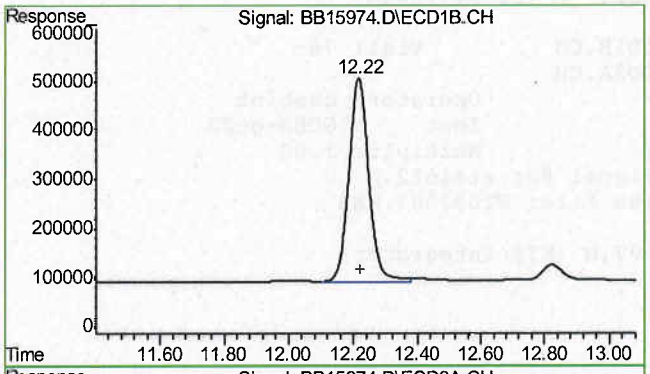
Signal #1 : C:\MSDCHEM\1\DATA\BB15974.D\ECD1B.CH Vial: 76
Signal #2 : C:\MSDCHEM\1\DATA\BB15974.D\ECD2A.CH
Acq On : 9-22-07 06:21:17 AM Operator: caobinz
Sample : op14345-mb Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:18 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

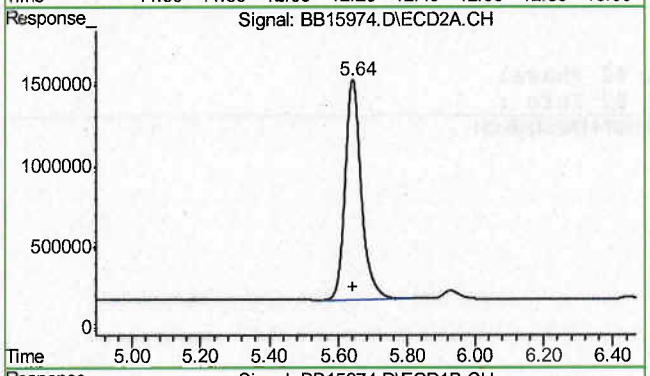






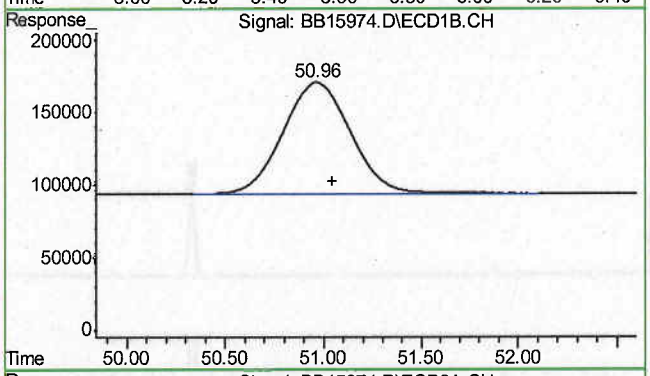
#1 TCMX

R.T.: 12.216 min
Delta R.T.: -0.005 min
Response: 1778114
Conc: 43.88 ppb



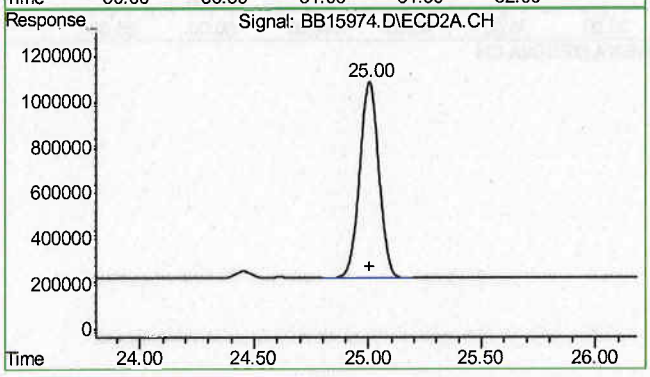
#1 TCMX

R.T.: 5.641 min
Delta R.T.: 0.000 min
Response: 4373322
Conc: 41.51 ppb m



#38 DCB

R.T.: 50.958 min
Delta R.T.: -0.087 min
Response: 1829685
Conc: 52.10 ppb m



#38 DCB

R.T.: 25.002 min
Delta R.T.: -0.003 min
Response: 5025216
Conc: 50.00 ppb m

ACCUTEST Laboratories M67676

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15975.D\ECD1B.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BB15975.D\ECD2A.CH
Acq On : 9-22-07 07:26:23 AM Operator: caobinz
Sample : op14345-bs Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:47:43 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.21	5.64	1709579	4245501	42.193	40.299
	Spiked Amount 40.000			Recovery	=	105.48%	100.75%
38) s	DCB	50.96	25.01	1455029	3977522	41.435m	39.573m
	Spiked Amount 40.000			Recovery	=	103.59%	98.93%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	2201547	5095868	43.607	41.975
9)	alpha-BHC	14.87	8.52	3337809	6817521	53.739	50.772
10)	gamma-BHC	16.39	9.86	2947112	6388819	54.823	51.187
11)	beta-BHC	16.62	12.58	1328419	2965734	57.279	53.745
12)	Heptachlor	17.96	10.50	2731016	5772572	74.190	56.101
13)	delta-BHC	18.03	13.34	2093669	4192868	37.916m	33.902
14)	Alachlor	18.32	11.95	2687413	5339831	489.855	618.040 #
15)	Aldrin	19.26	11.41	2440826	5209619	51.969m	49.255
16)	Heptachlor Epoxi	21.27	13.78	2390770	5748762	57.366	56.307
17)	gamma-Chlordane	21.98	14.92	2262256	5654109	56.261	54.255
18)	alpha-Chlordane	22.54	15.11	2078103	5560292	56.197	53.834
19)	Endosulfan-I	22.64	14.66	2176553	4991767	60.942	54.092
20)	4,4'-DDE	23.27	15.53	2035514	5675989	59.022	57.581
21)	Dieldrin	23.75	15.94	2163450	6001990	56.986	57.716
22)	Endrin	25.22	16.60	1718351	6013931	57.983	62.694
23)	4,4'-DDD	25.58	18.30	1652416	10110024	57.406	112.584m#
24)	Endosulfan-II	26.04	18.30	1869652	10259249	56.107	114.458 #
25)	4,4'-DDT	27.22	18.81	1517098	4464057	76.003	76.346
26)	Endrin aldehyde	27.63	19.73	1968380	3482337	77.800	50.132 #
27)	Endosulfan sulfa	28.58	20.80	1671536	4855199	58.899	58.566
28)	Methoxychlor	32.75	20.99	864286	2593258	76.093m	73.891
29)	Endrin ketone	33.89	22.07	2159830	5506070	62.537	64.601m

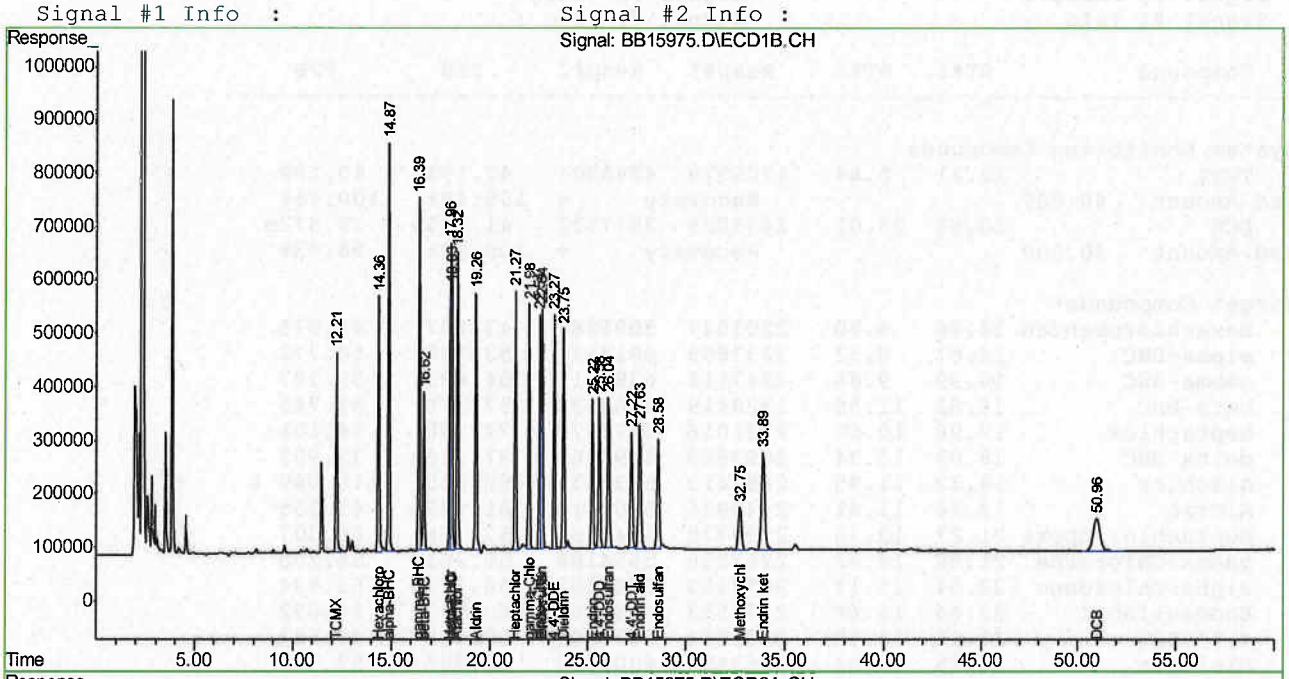
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15975.D PT092007.M Tue Sep 25 10:01:38 2007 GC23PRN

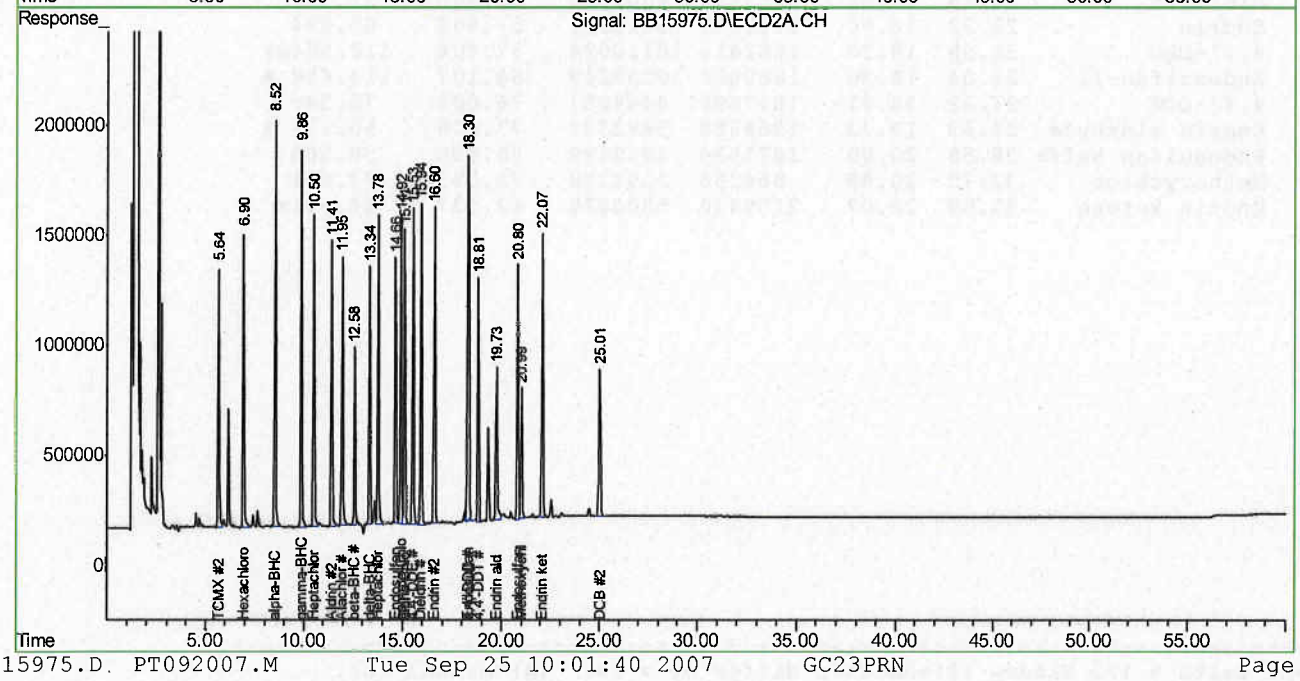
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15975.D\ECD1B.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BB15975.D\ECD2A.CH
Acq On : 9-22-07 07:26:23 AM Operator: caobinz
Sample : op14345-bs Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:20 2007 Quant Results File: PT092007.RES

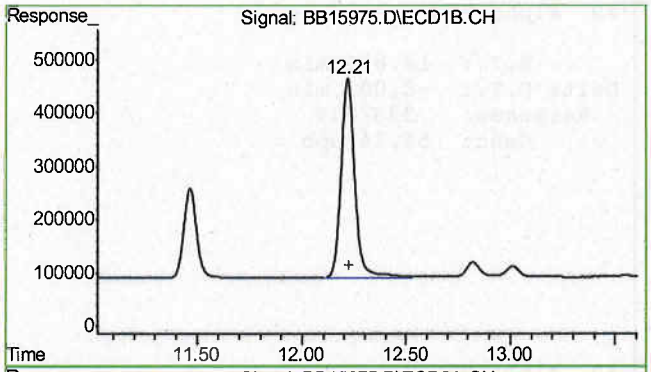
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



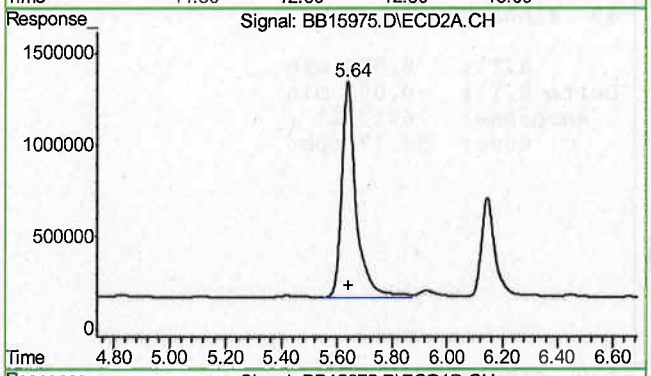


ACCUTEST. Laboratories M67676



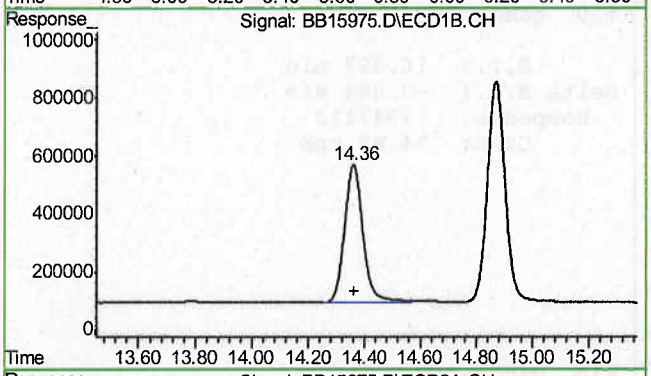
#1 TCMX

R.T.: 12.214 min
Delta R.T.: -0.007 min
Response: 1709579
Conc: 42.19 ppb



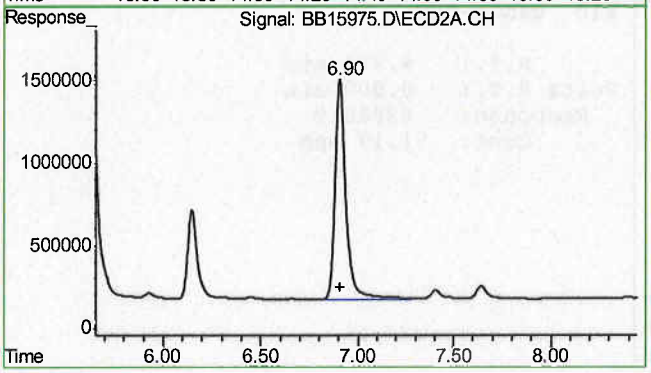
#1 TCMX

R.T.: 5.639 min
Delta R.T.: -0.002 min
Response: 4245501
Conc: 40.30 ppb



#8 Hexachlorobenzene

R.T.: 14.359 min
Delta R.T.: 0.000 min
Response: 2201547
Conc: 43.61 ug/l

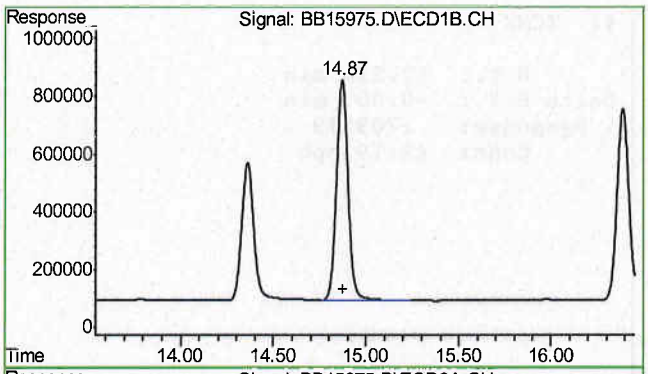


#8 Hexachlorobenzene

R.T.: 6.904 min
Delta R.T.: 0.000 min
Response: 5095868
Conc: 41.98 ug/l

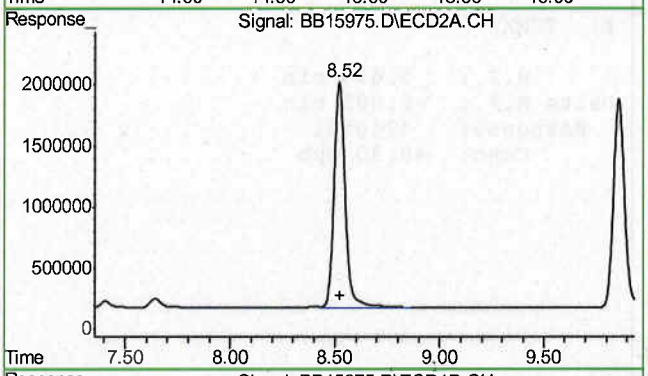
6.3.1

6



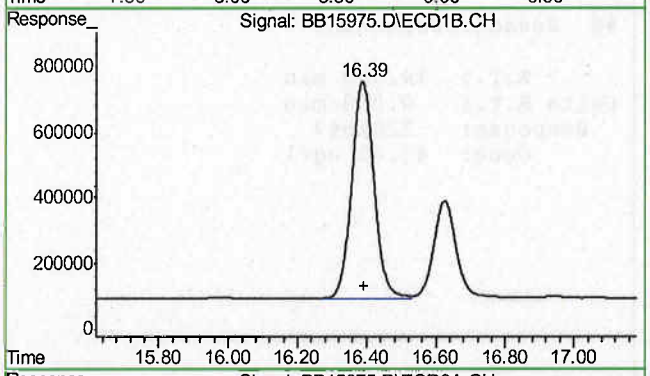
#9 alpha-BHC

R.T.: 14.871 min
Delta R.T.: -0.002 min
Response: 3337809
Conc: 53.74 ppb



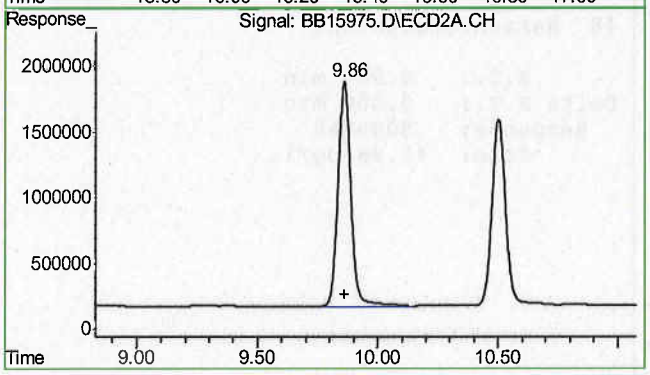
#9 alpha-BHC

R.T.: 8.520 min
Delta R.T.: -0.002 min
Response: 6817521
Conc: 50.77 ppb



#10 gamma-BHC

R.T.: 16.387 min
Delta R.T.: -0.004 min
Response: 2947112
Conc: 54.82 ppb



#10 gamma-BHC

R.T.: 9.860 min
Delta R.T.: 0.000 min
Response: 6388819
Conc: 51.19 ppb

6.3.1

6

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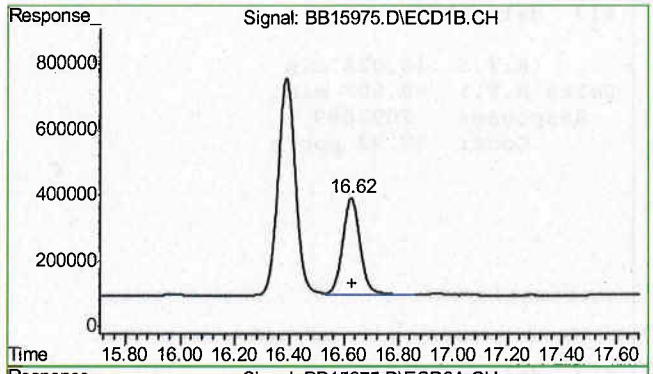
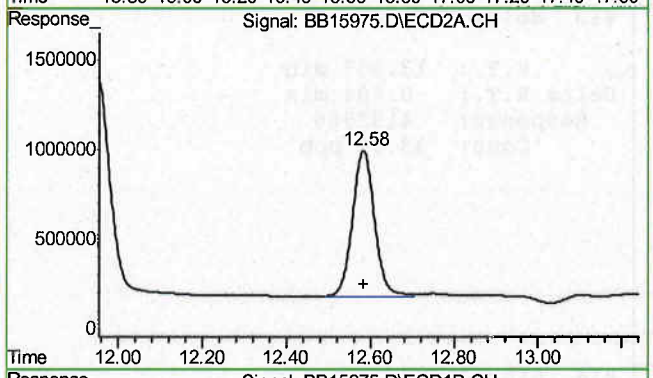


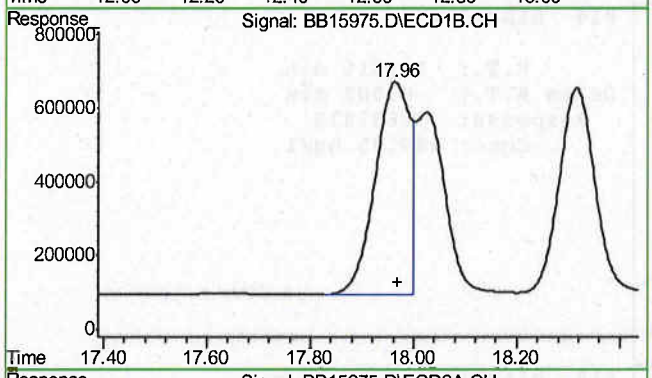
#11 beta-BHC

R.T.: 16.624 min
Delta R.T.: -0.004 min
Response: 1328419
Conc: 57.28 ppb



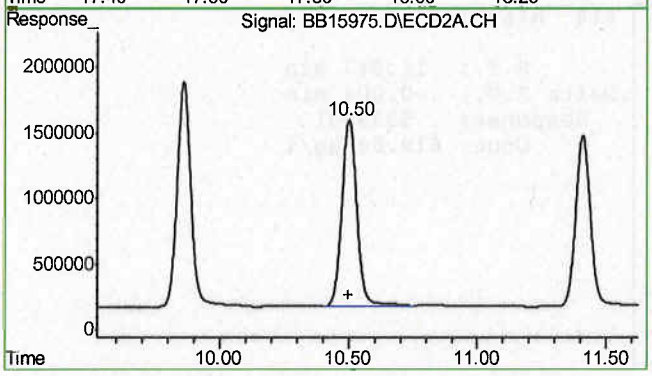
#11 beta-BHC

R.T.: 12.582 min
Delta R.T.: -0.002 min
Response: 2965734
Conc: 53.75 ppb



#12 Heptachlor

R.T.: 17.962 min
Delta R.T.: -0.006 min
Response: 2731016
Conc: 74.19 ppb

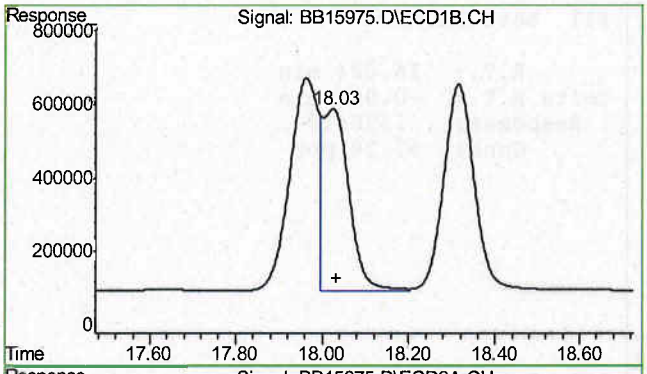


#12 Heptachlor

R.T.: 10.500 min
Delta R.T.: 0.000 min
Response: 5772572
Conc: 56.10 ppb

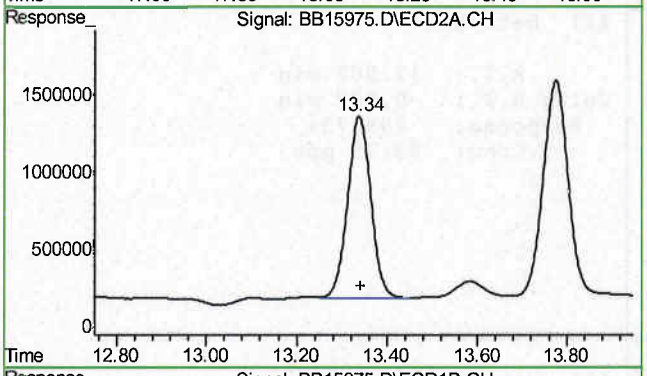
6.3.1

6



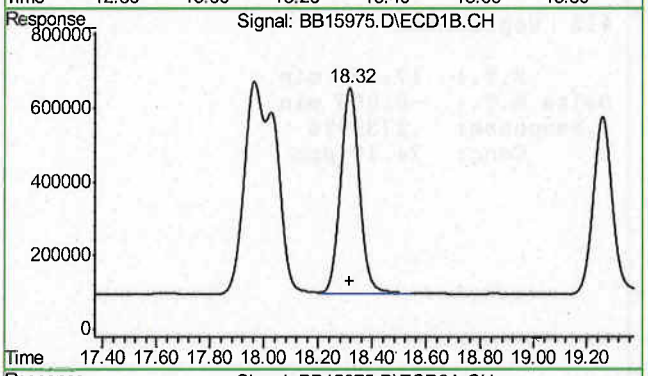
#13 delta-BHC

R.T.: 18.026 min
Delta R.T.: -0.007 min
Response: 2093669
Conc: 37.92 ppb m



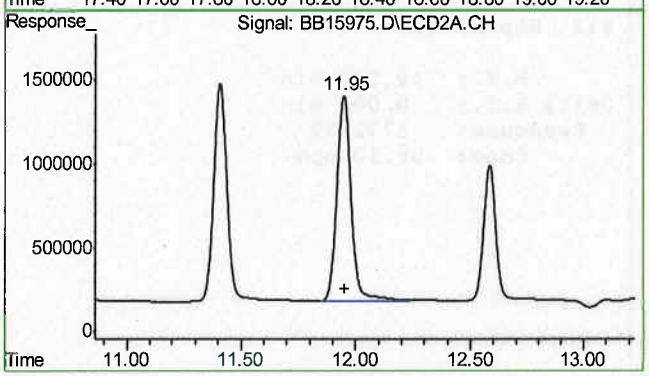
#13 delta-BHC

R.T.: 13.337 min
Delta R.T.: -0.004 min
Response: 4192868
Conc: 33.90 ppb



#14 Alachlor

R.T.: 18.316 min
Delta R.T.: -0.002 min
Response: 2687413
Conc: 489.85 ug/l



#14 Alachlor

R.T.: 11.947 min
Delta R.T.: -0.004 min
Response: 5339831
Conc: 618.04 ug/l

6.3.1

6

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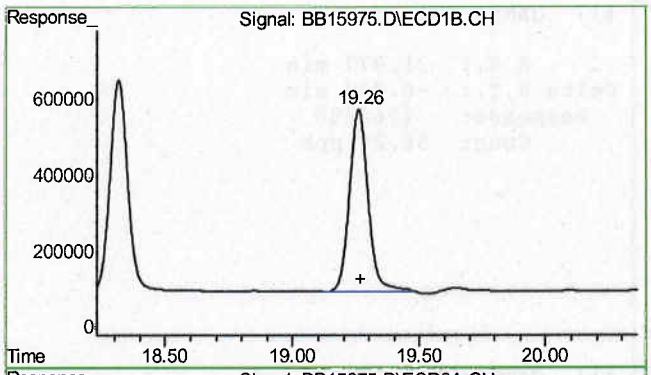
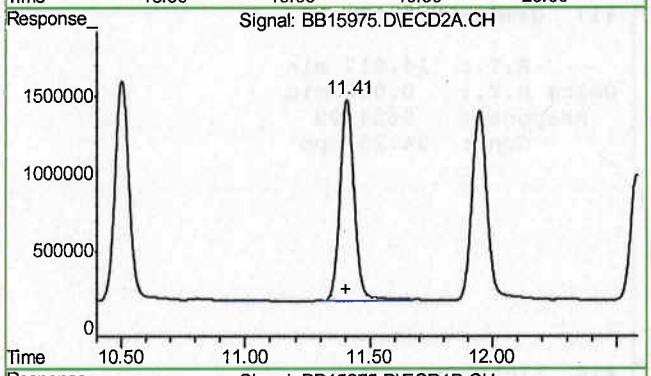


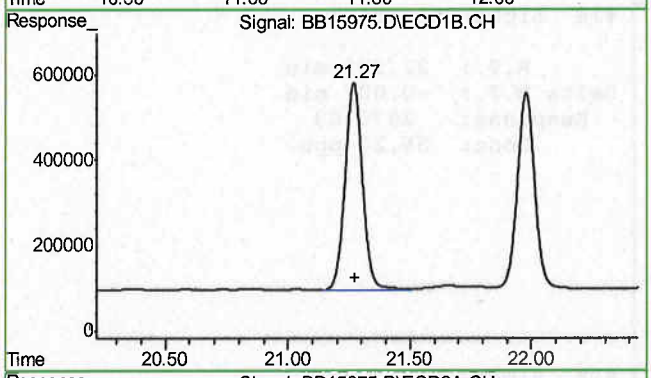
#15 Aldrin

R.T.: 19.259 min
Delta R.T.: -0.006 min
Response: 2440826
Conc: 51.97 ppb m



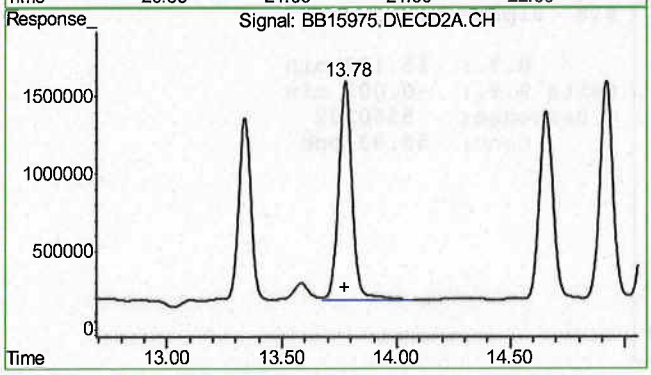
#15 Aldrin

R.T.: 11.407 min
Delta R.T.: 0.001 min
Response: 5209619
Conc: 49.25 ppb



#16 Heptachlor Epoxide

R.T.: 21.267 min
Delta R.T.: -0.007 min
Response: 2390770
Conc: 57.37 ppb

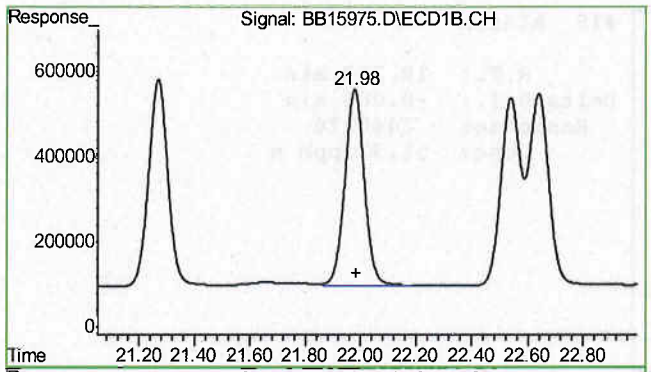


#16 Heptachlor Epoxide

R.T.: 13.775 min
Delta R.T.: 0.003 min
Response: 5748762
Conc: 56.31 ppb

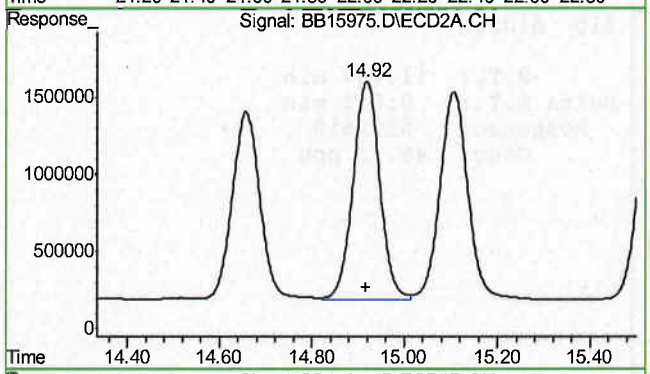
6.3.1

6



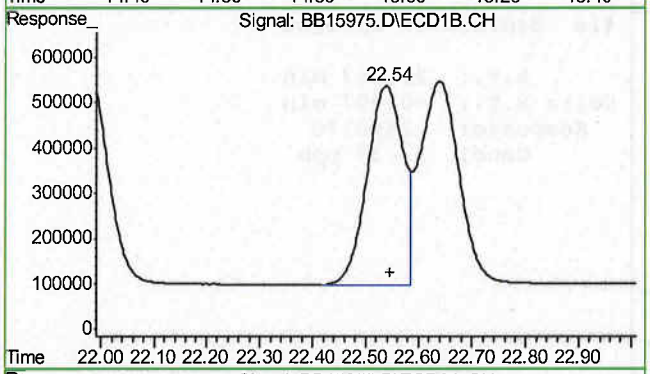
#17 gamma-Chlordane

R.T.: 21.977 min
Delta R.T.: -0.007 min
Response: 2262256
Conc: 56.26 ppb



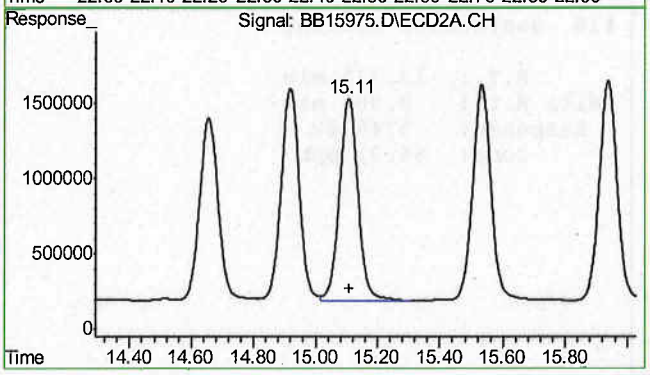
#17 gamma-Chlordane

R.T.: 14.917 min
Delta R.T.: 0.000 min
Response: 5654109
Conc: 54.25 ppb



#18 alpha-Chlordane

R.T.: 22.539 min
Delta R.T.: -0.007 min
Response: 2078103
Conc: 56.20 ppb



#18 alpha-Chlordane

R.T.: 15.107 min
Delta R.T.: -0.002 min
Response: 5560292
Conc: 53.83 ppb

6.3.1

6

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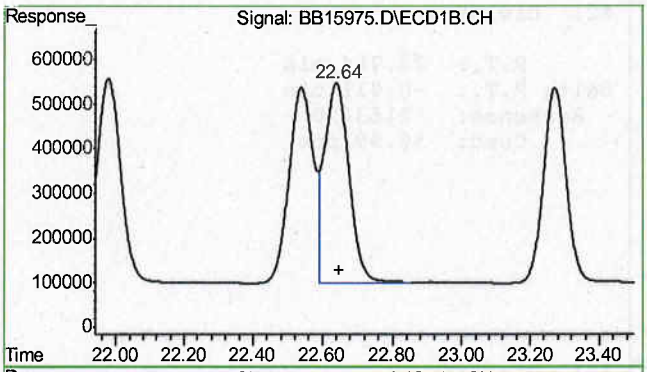
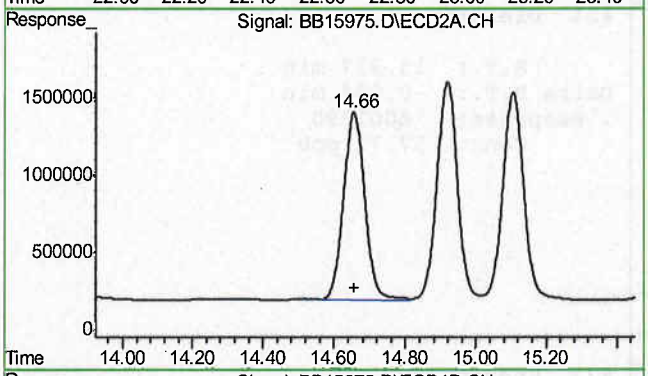


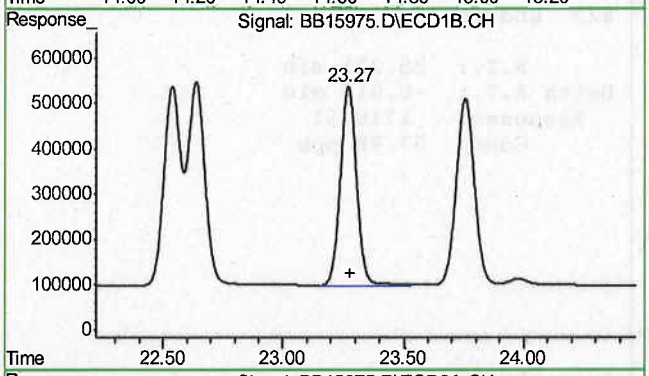
#19 Endosulfan-I

R.T.: 22.639 min
Delta R.T.: -0.009 min
Response: 2176553
Conc: 60.94 ppb



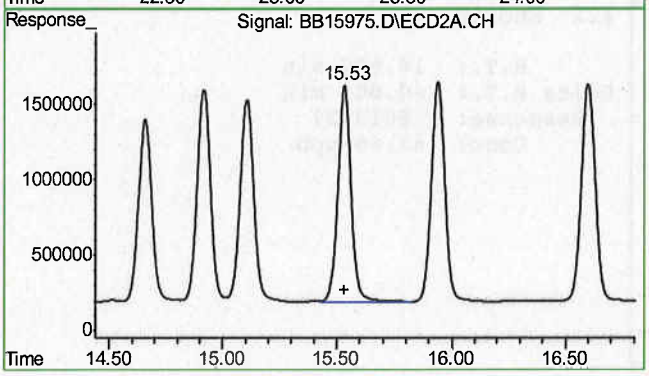
#19 Endosulfan-I

R.T.: 14.655 min
Delta R.T.: -0.002 min
Response: 4991767
Conc: 54.09 ppb



#20 4,4'-DDE

R.T.: 23.271 min
Delta R.T.: -0.011 min
Response: 2035514
Conc: 59.02 ppb



#20 4,4'-DDE

R.T.: 15.532 min
Delta R.T.: -0.002 min
Response: 5675989
Conc: 57.58 ppb

6.3.1

6

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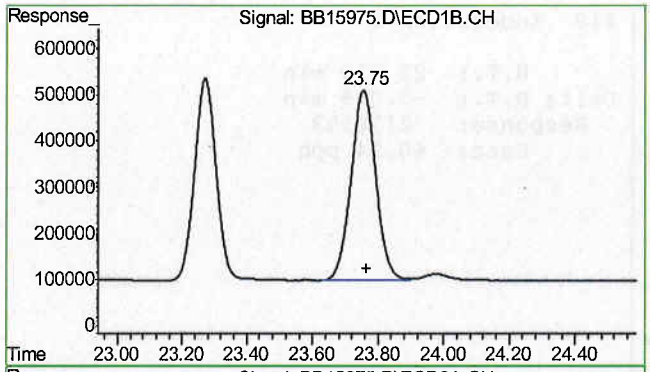
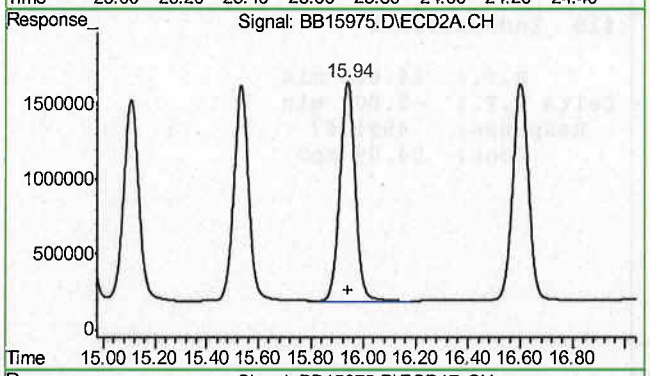


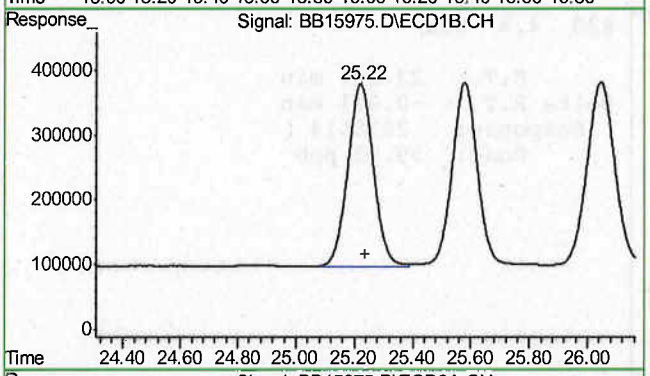
#21 Dieldrin

R.T.: 23.754 min
Delta R.T.: -0.011 min
Response: 2163450
Conc: 56.99 ppb



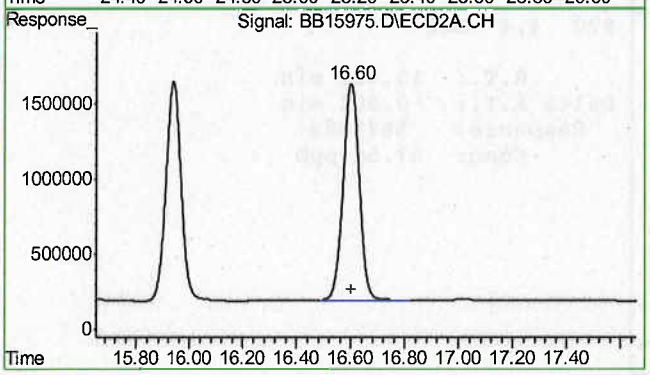
#21 Dieldrin

R.T.: 15.937 min
Delta R.T.: -0.004 min
Response: 6001990
Conc: 57.72 ppb



#22 Endrin

R.T.: 25.221 min
Delta R.T.: -0.016 min
Response: 1718351
Conc: 57.98 ppb



#22 Endrin

R.T.: 16.597 min
Delta R.T.: -0.004 min
Response: 6013931
Conc: 62.69 ppb

6.3.1

6

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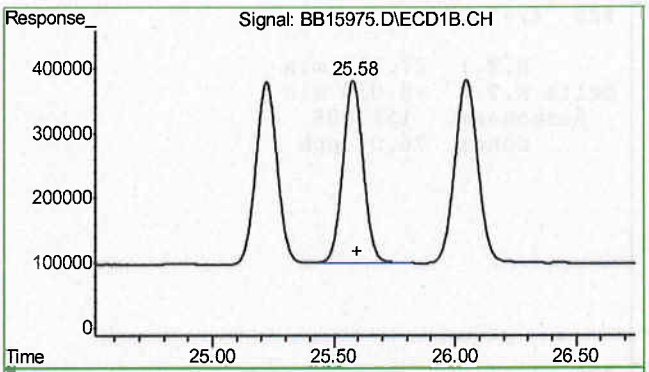
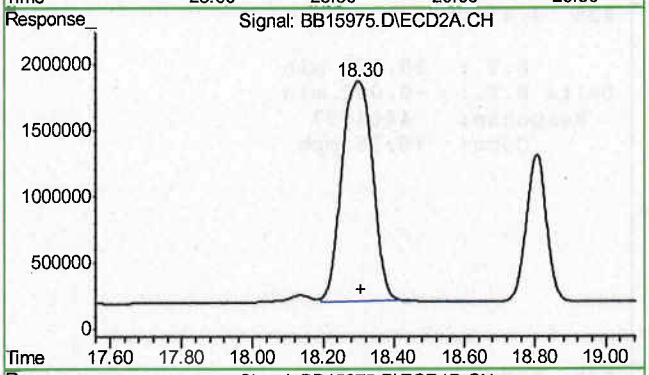


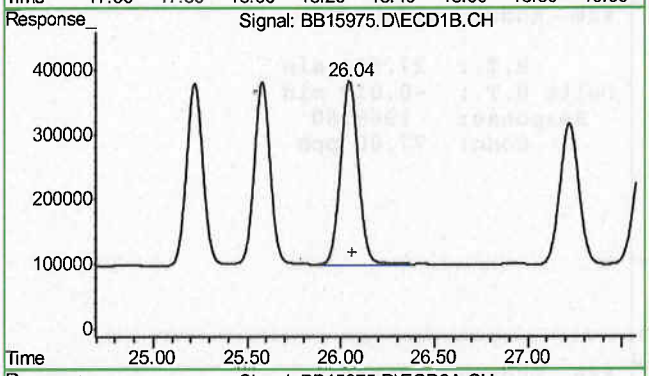
#23 4,4'-DDD

R.T.: 25.577 min
Delta R.T.: -0.017 min
Response: 1652416
Conc: 57.41 ppb



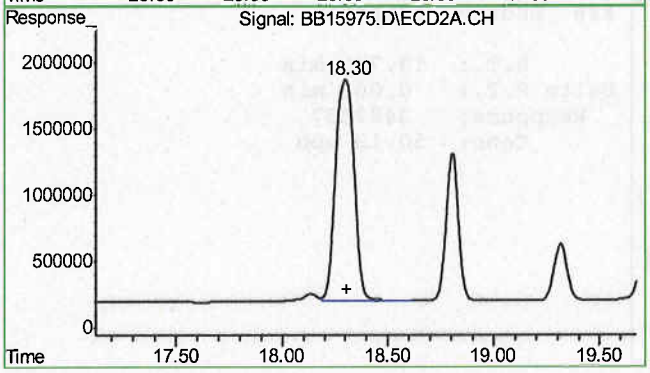
#23 4,4'-DDD

R.T.: 18.299 min
Delta R.T.: -0.007 min
Response: 10110024
Conc: 112.58 ppb m



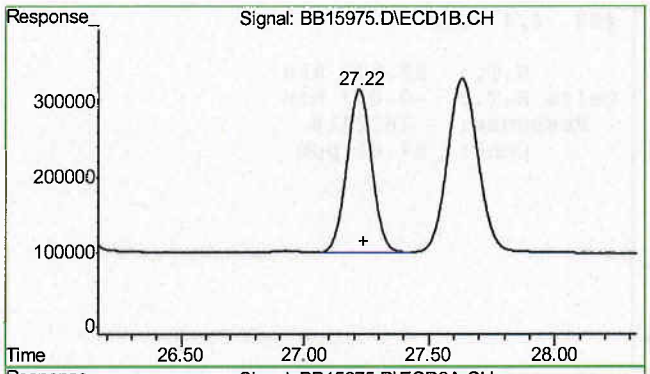
#24 Endosulfan-II

R.T.: 26.044 min
Delta R.T.: -0.019 min
Response: 1869652
Conc: 56.11 ppb



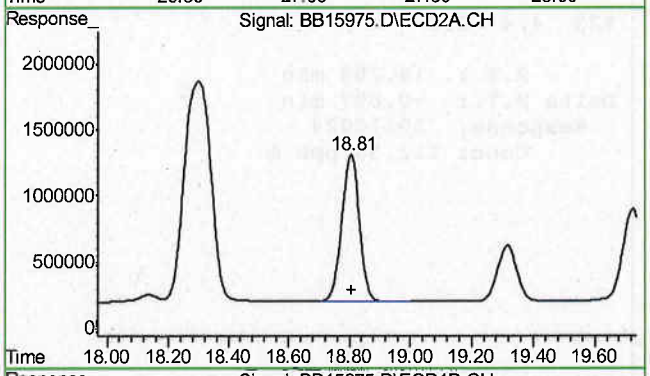
#24 Endosulfan-II

R.T.: 18.299 min
Delta R.T.: -0.007 min
Response: 10259249
Conc: 114.46 ppb



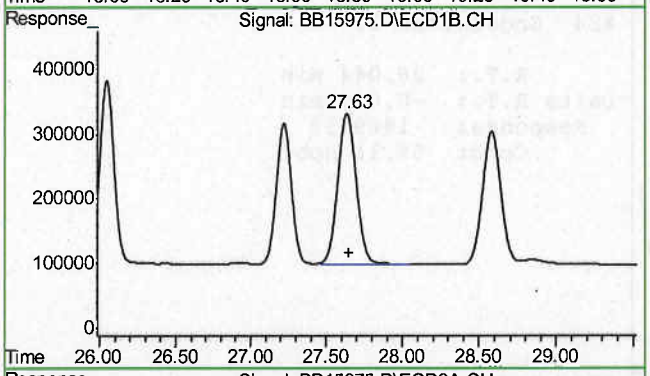
#25 4,4'-DDT

R.T.: 27.219 min
Delta R.T.: -0.019 min
Response: 1517098
Conc: 76.00 ppb



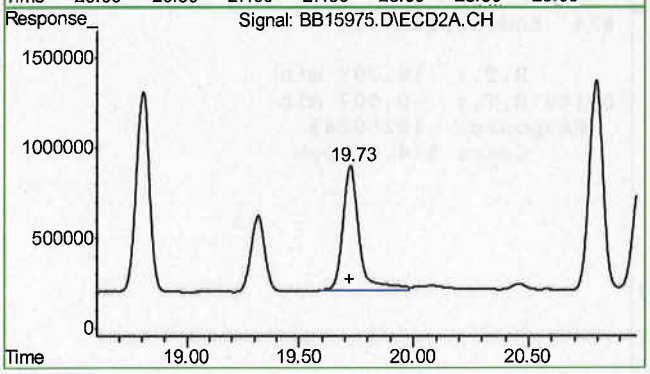
#25 4,4'-DDT

R.T.: 18.805 min
Delta R.T.: -0.002 min
Response: 4464057
Conc: 76.35 ppb



#26 Endrin aldehyde

R.T.: 27.634 min
Delta R.T.: -0.012 min
Response: 1968380
Conc: 77.80 ppb



#26 Endrin aldehyde

R.T.: 19.725 min
Delta R.T.: 0.003 min
Response: 3482337
Conc: 50.13 ppb

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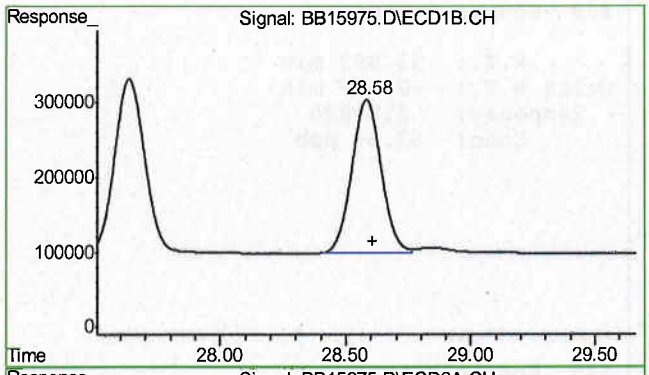
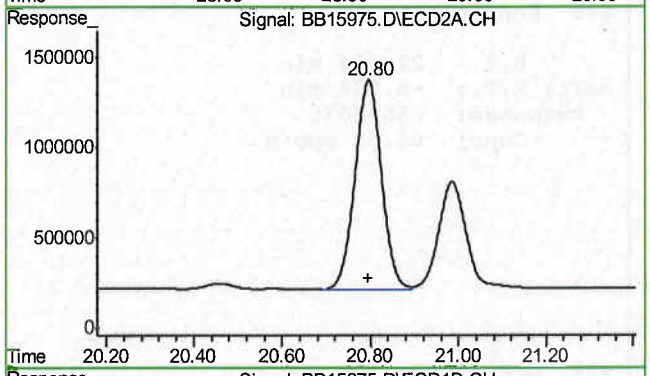


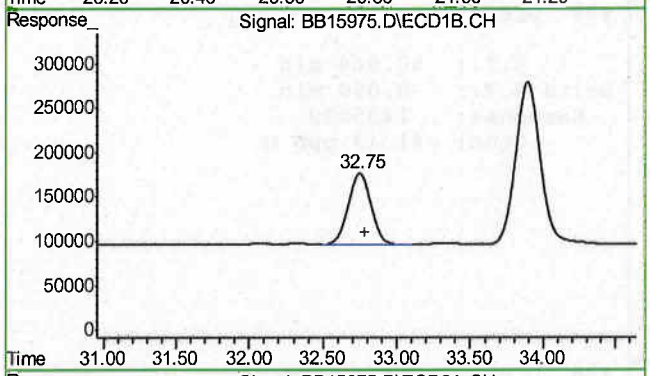
#27 Endosulfan sulfate

R.T.: 28.584 min
Delta R.T.: -0.020 min
Response: 1671536
Conc: 58.90 ppb



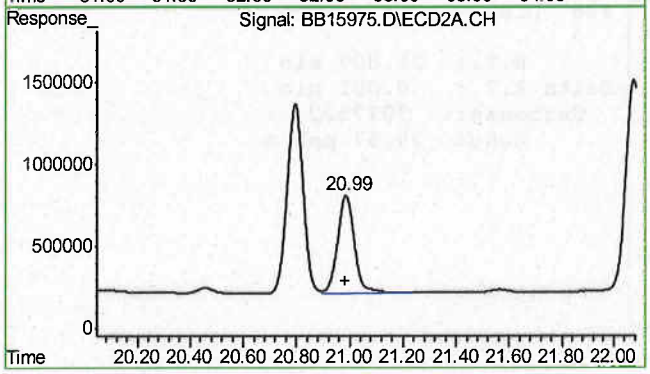
#27 Endosulfan sulfate

R.T.: 20.795 min
Delta R.T.: 0.001 min
Response: 4855199
Conc: 58.57 ppb



#28 Methoxychlor

R.T.: 32.747 min
Delta R.T.: -0.036 min
Response: 864286
Conc: 76.09 ppb m



#28 Methoxychlor

R.T.: 20.985 min
Delta R.T.: 0.001 min
Response: 2593258
Conc: 73.89 ppb

6.3.1

6

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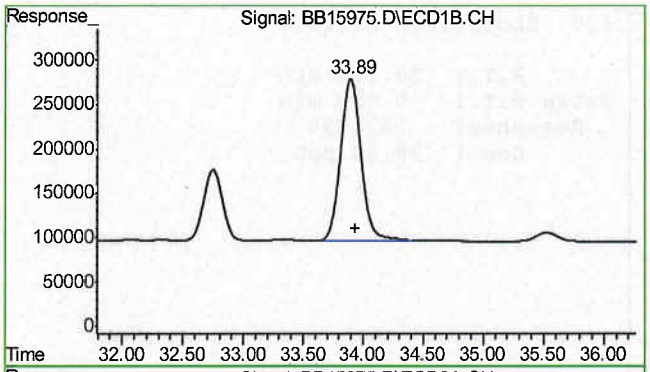
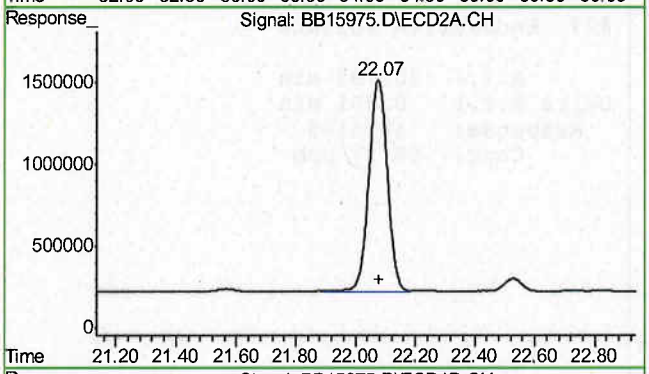


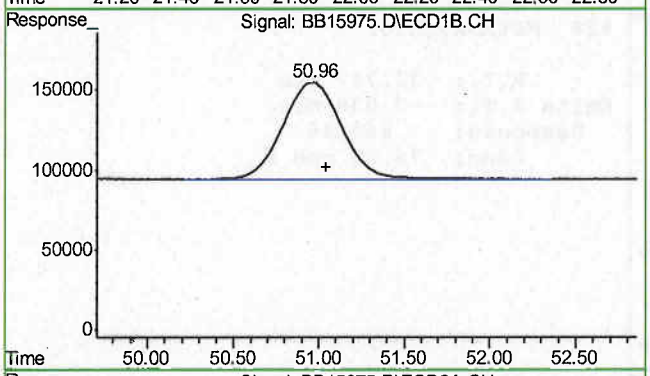
#29 Endrin ketone

R.T.: 33.892 min
Delta R.T.: -0.037 min
Response: 2159830
Conc: 62.54 ppb



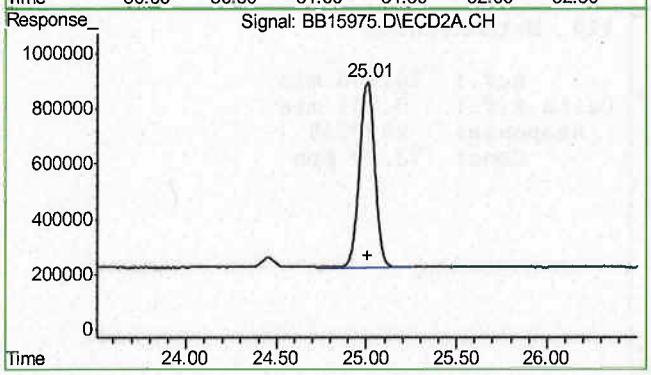
#29 Endrin ketone

R.T.: 22.074 min
Delta R.T.: -0.004 min
Response: 5506070
Conc: 64.60 ppb m



#38 DCB

R.T.: 50.964 min
Delta R.T.: -0.080 min
Response: 1455029
Conc: 41.43 ppb m



#38 DCB

R.T.: 25.007 min
Delta R.T.: 0.001 min
Response: 3977522
Conc: 39.57 ppb m

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15976.D\ECD1B.CH Vial: 78
Signal #2 : C:\MSDCHEM\1\DATA\BB15976.D\ECD2A.CH
Acq On : 9-22-07 08:31:29 AM Operator: caobinz
Sample : op14345-bsd Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:48:35 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	1658753	4089313	40.938	38.816
	Spiked Amount 40.000			Recovery	=	102.35%	97.04%
38) s	DCB	50.95	25.00	1355183	3677415	38.592m	36.587m
	Spiked Amount 40.000			Recovery	=	96.48%	91.47%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	2219572	5162084	43.964	42.520
9)	alpha-BHC	14.87	8.52	3301942	6845699	53.162	50.982
10)	gamma-BHC	16.39	9.86	2915776	6194724	54.240	49.632
11)	beta-BHC	16.63	12.58	1291734	2866494	55.697	51.947
12)	Heptachlor	17.96	10.50	2740064	5688297	74.435	55.282 #
13)	delta-BHC	18.03	13.34	2112035	3999274	38.249m	32.337
14)	Alachlor	18.32	11.95	2645809	5286963	482.271	611.921 #
15)	Aldrin	19.26	11.41	2460213	5012289	52.382	47.389
16)	Heptachlor Epoxi	21.27	13.77	2339952	5600381	56.147	54.853
17)	gamma-Chlordane	21.98	14.92	2208511	5478228	54.924	52.567
18)	alpha-Chlordane	22.54	15.11	2013451	5433899	54.448	52.610
19)	Endosulfan-I	22.64	14.65	2187290	4960648	61.242	53.755
20)	4,4'-DDE	23.27	15.53	1960124	5400083	56.836	54.782
21)	Dieldrin	23.75	15.94	2101687	5759544	55.360	55.384
22)	Endrin	25.22	16.60	1668149	5963838	56.289	62.171
23)	4,4'-DDD	25.58	18.30	1561810	9633933	54.258	107.283 #
24)	Endosulfan-II	26.05	18.30	1793875	9633933	53.833	107.482 #
25)	4,4'-DDT	27.22	18.81	1438768	4116178	72.079	70.396
26)	Endrin aldehyde	27.63	19.72	1826889	3423021	72.208	49.278 #
27)	Endosulfan sulfa	28.58	20.79	1570946	4466332	55.354	53.875
28)	Methoxychlor	32.75	20.99	784400	2334829	69.059	66.527
29)	Endrin ketone	33.89	22.08	2027556	5043672	58.707	59.176m

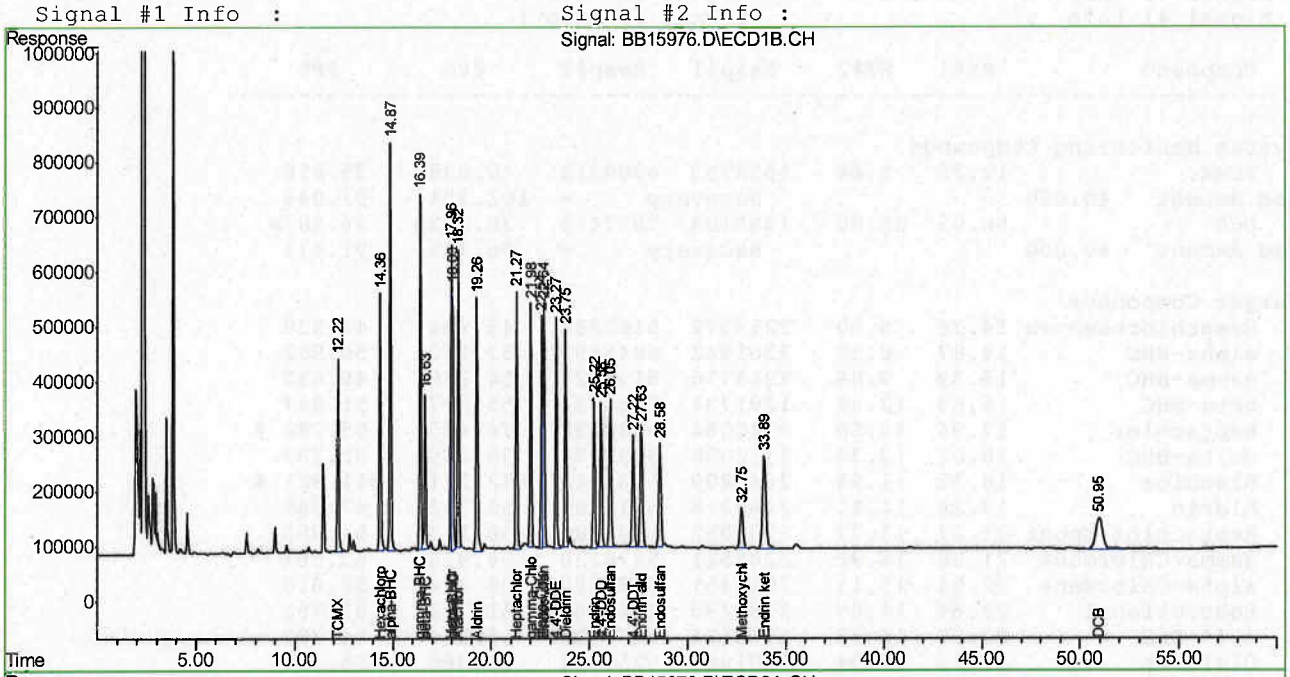
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15976.D PT092007.M Tue Sep 25 10:02:03 2007 GC23PRN

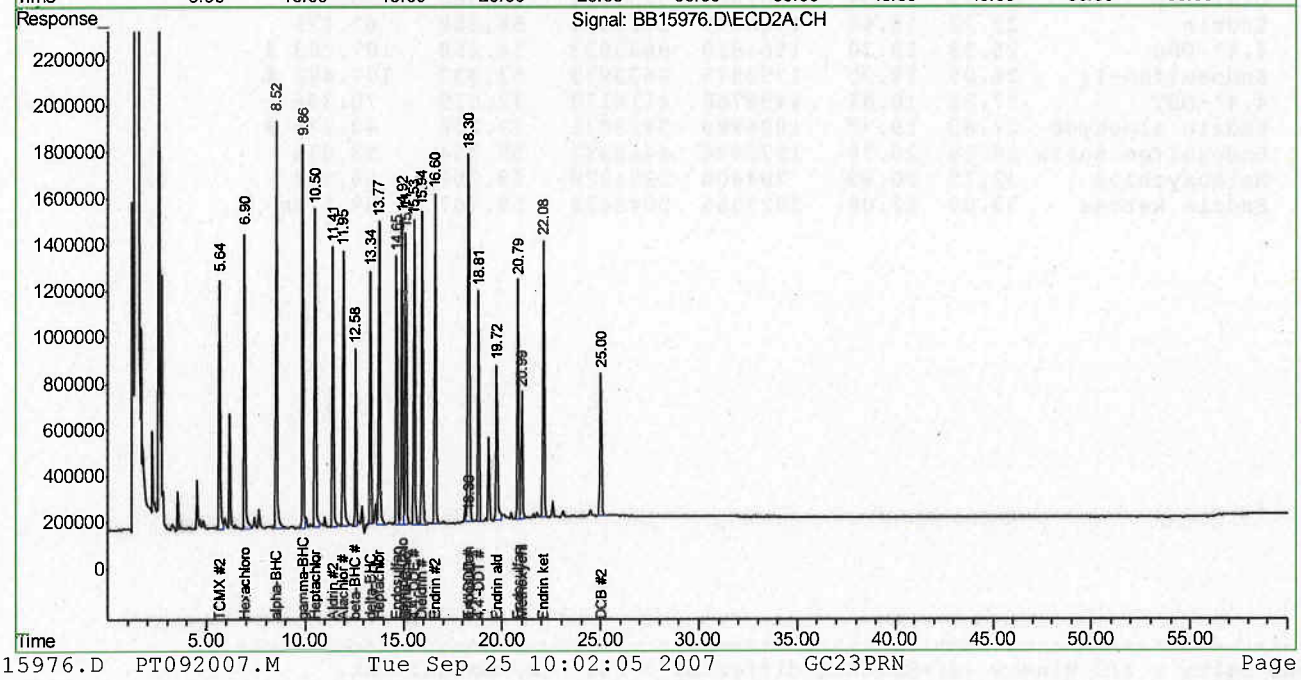
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15976.D\ECD1B.CH Vial: 78
Signal #2 : C:\MSDCHEM\1\DATA\BB15976.D\ECD2A.CH
Acq On : 9-22-07 08:31:29 AM Operator: caobinz
Sample : op14345-bsd Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:22 2007 Quant Results File: PT092007.RES

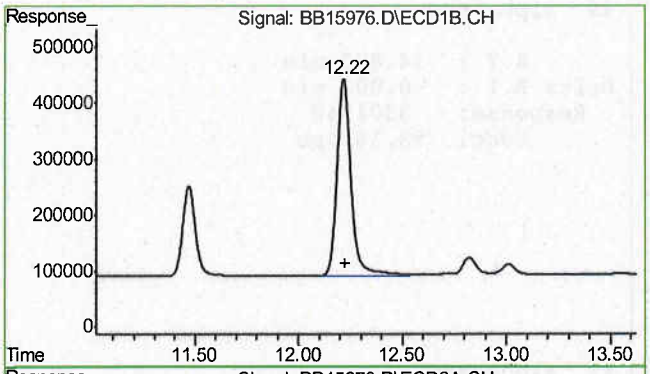
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



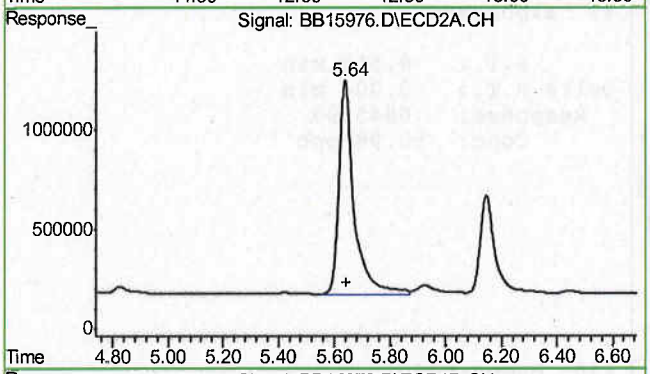


ACCUTEST Laboratories M67676



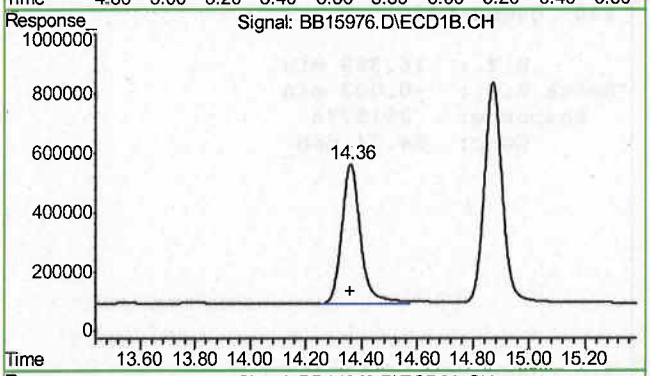
#1 TCMX

R.T.: 12.215 min
Delta R.T.: -0.006 min
Response: 1658753
Conc: 40.94 ppb



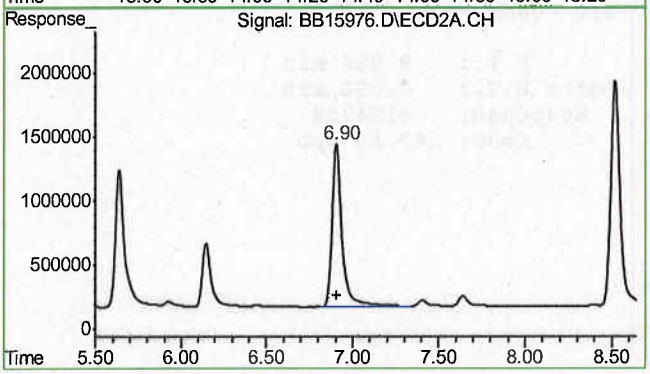
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.002 min
Response: 4089313
Conc: 38.82 ppb



#8 Hexachlorobenzene

R.T.: 14.359 min
Delta R.T.: 0.000 min
Response: 2219572
Conc: 43.96 ug/l

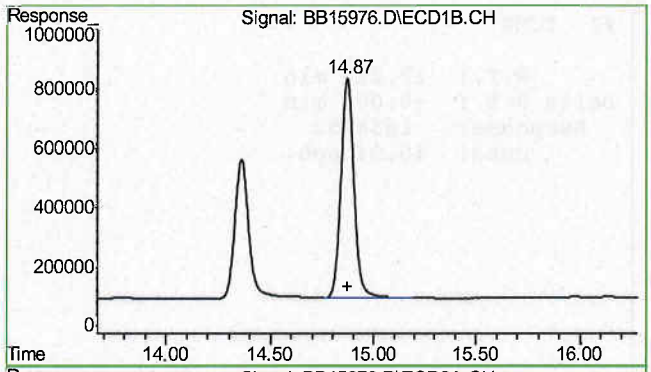


#8 Hexachlorobenzene

R.T.: 6.903 min
Delta R.T.: 0.000 min
Response: 5162084
Conc: 42.52 ug/l

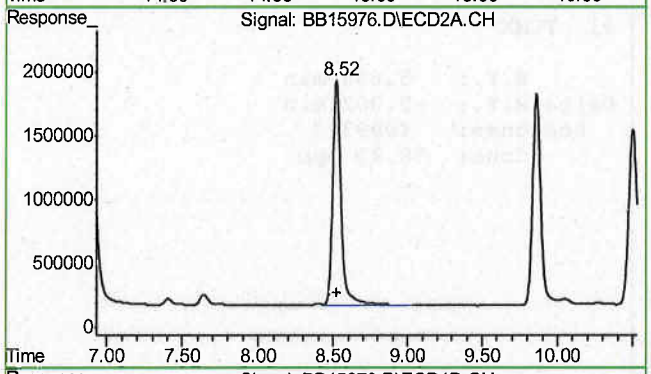
6.3.2

6



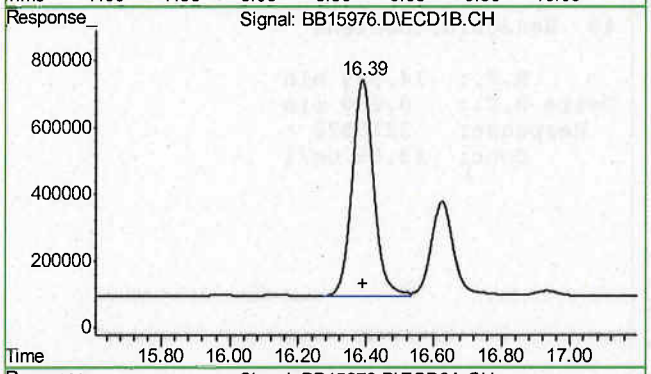
#9 alpha-BHC

R.T.: 14.870 min
Delta R.T.: -0.003 min
Response: 3301942
Conc: 53.16 ppb



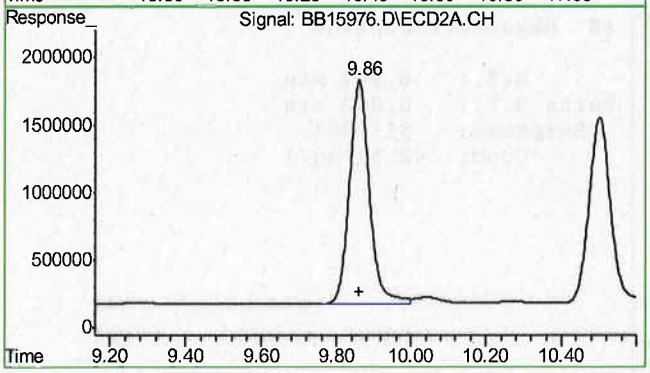
#9 alpha-BHC

R.T.: 8.518 min
Delta R.T.: -0.004 min
Response: 6845699
Conc: 50.98 ppb



#10 gamma-BHC

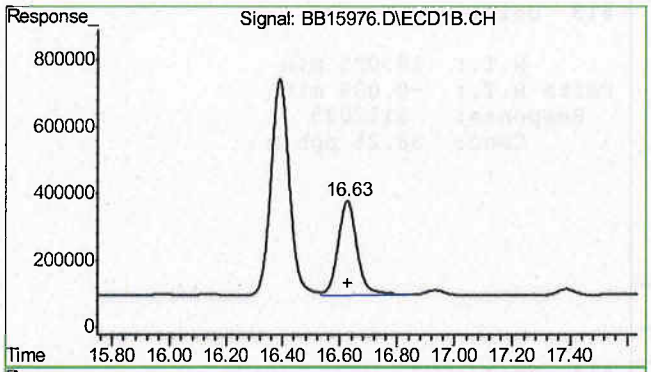
R.T.: 16.389 min
Delta R.T.: -0.003 min
Response: 2915776
Conc: 54.24 ppb



#10 gamma-BHC

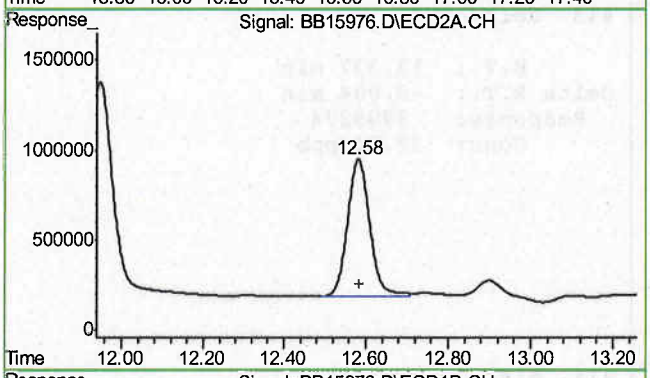
R.T.: 9.860 min
Delta R.T.: 0.000 min
Response: 6194724
Conc: 49.63 ppb

6.3.2 6



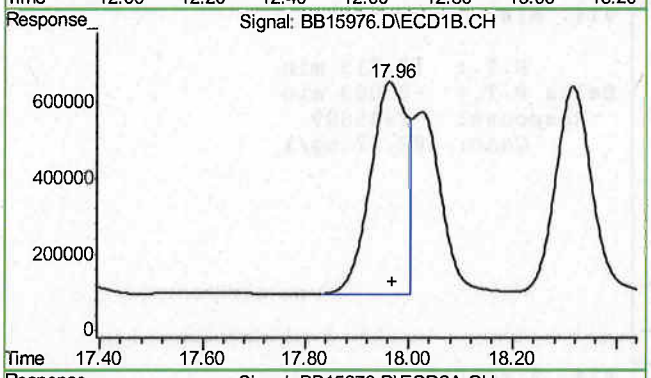
#11 beta-BHC

R.T.: 16.625 min
Delta R.T.: -0.003 min
Response: 1291734
Conc: 55.70 ppb



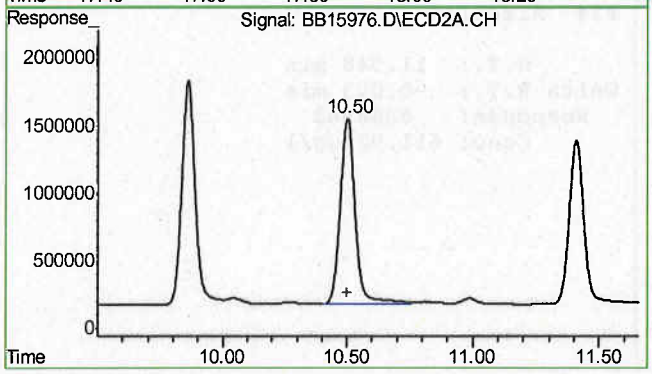
#11 beta-BHC

R.T.: 12.580 min
Delta R.T.: -0.004 min
Response: 2866494
Conc: 51.95 ppb



#12 Heptachlor

R.T.: 17.964 min
Delta R.T.: -0.004 min
Response: 2740064
Conc: 74.44 ppb

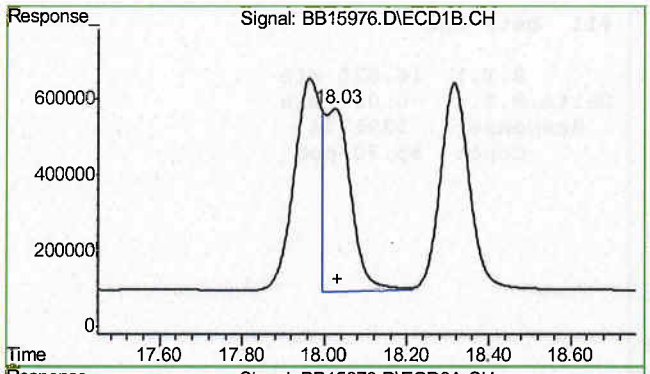


#12 Heptachlor

R.T.: 10.502 min
Delta R.T.: 0.000 min
Response: 5688297
Conc: 55.28 ppb

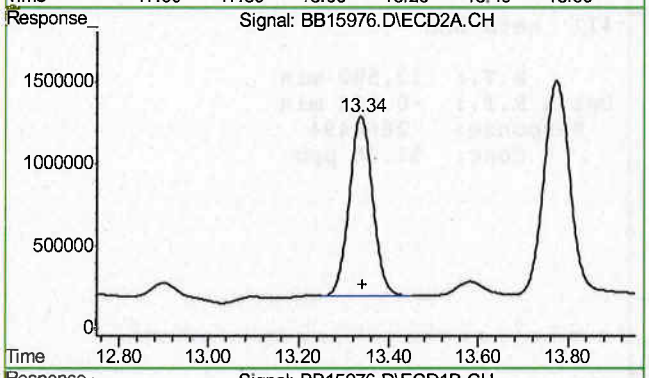
6.3.2

6



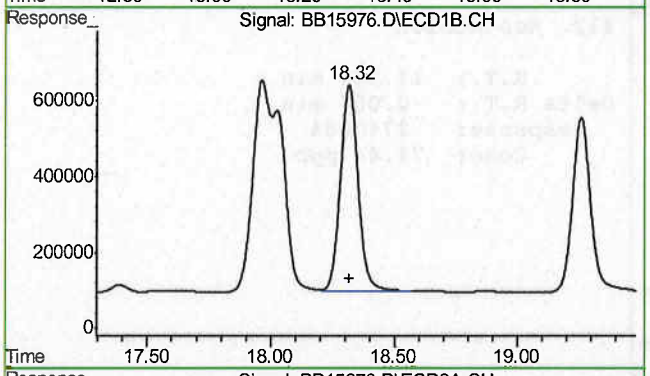
#13 delta-BHC

R.T.: 18.025 min
Delta R.T.: -0.008 min
Response: 2112035
Conc: 38.25 ppb m



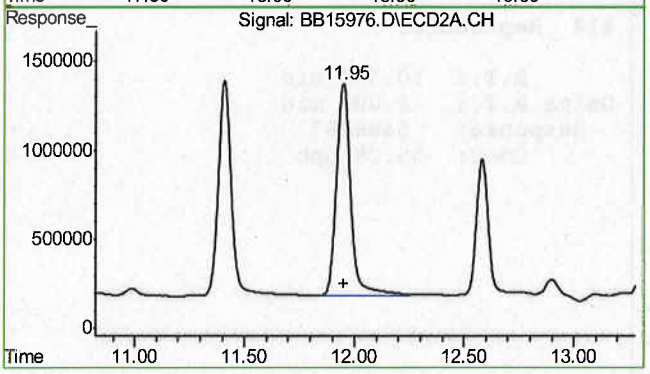
#13 delta-BHC

R.T.: 13.337 min
Delta R.T.: -0.004 min
Response: 3999274
Conc: 32.34 ppb



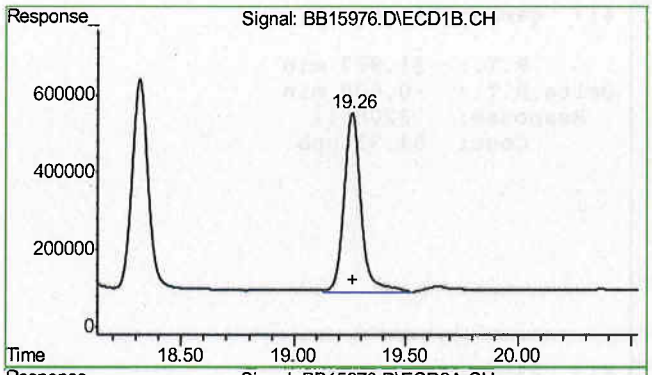
#14 Alachlor

R.T.: 18.315 min
Delta R.T.: -0.003 min
Response: 2645809
Conc: 482.27 ug/l



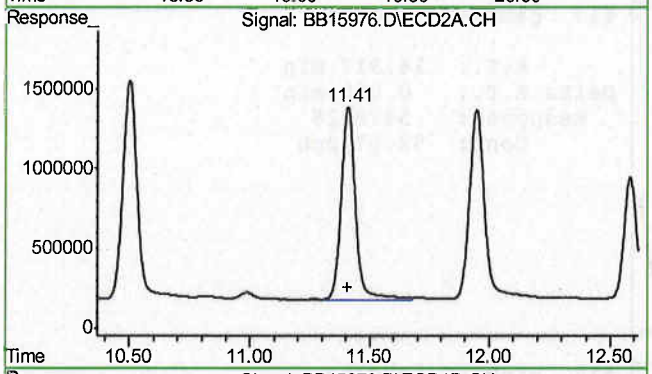
#14 Alachlor

R.T.: 11.948 min
Delta R.T.: -0.003 min
Response: 5286963
Conc: 611.92 ug/l



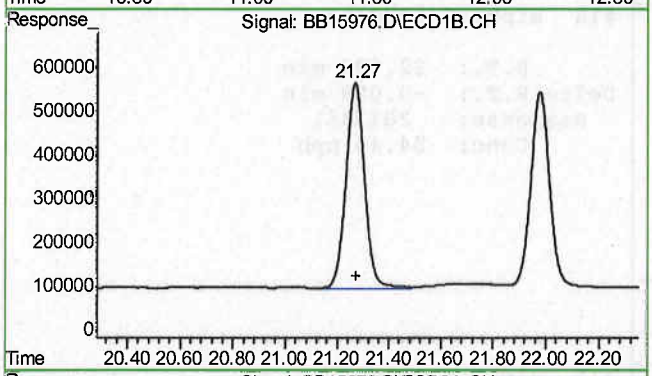
#15 Aldrin

R.T.: 19.260 min
Delta R.T.: -0.004 min
Response: 2460213
Conc: 52.38 ppb



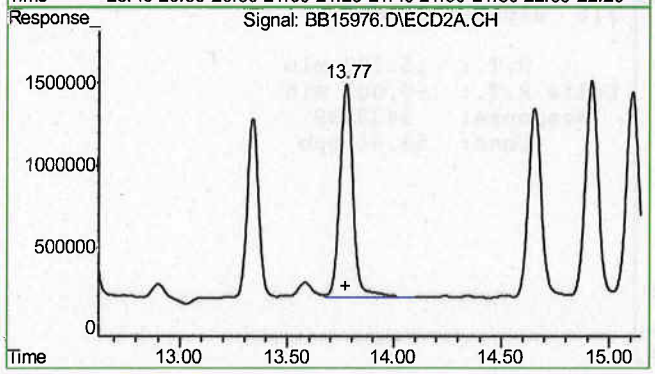
#15 Aldrin

R.T.: 11.408 min
Delta R.T.: 0.002 min
Response: 5012289
Conc: 47.39 ppb



#16 Heptachlor Epoxide

R.T.: 21.269 min
Delta R.T.: -0.006 min
Response: 2339952
Conc: 56.15 ppb

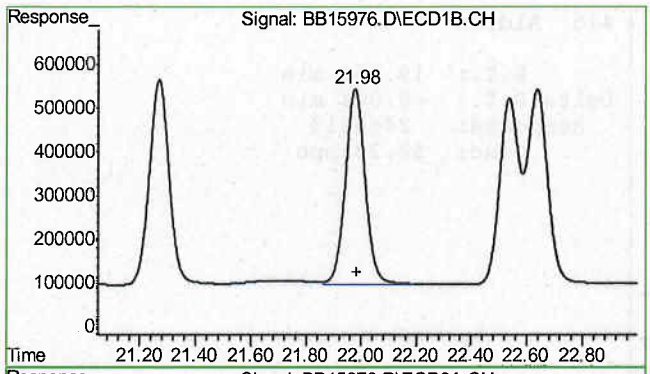


#16 Heptachlor Epoxide

R.T.: 13.773 min
Delta R.T.: 0.000 min
Response: 5600381
Conc: 54.85 ppb

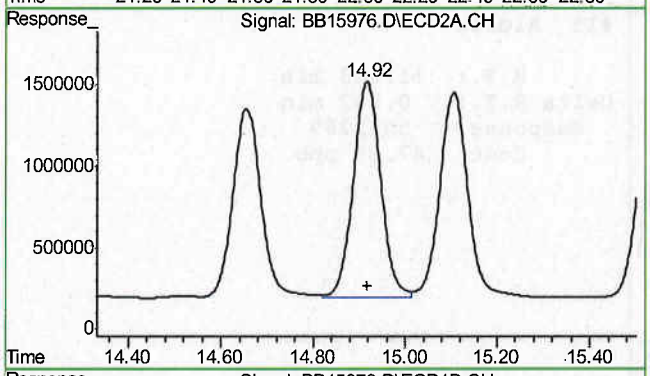
6.3.2

6



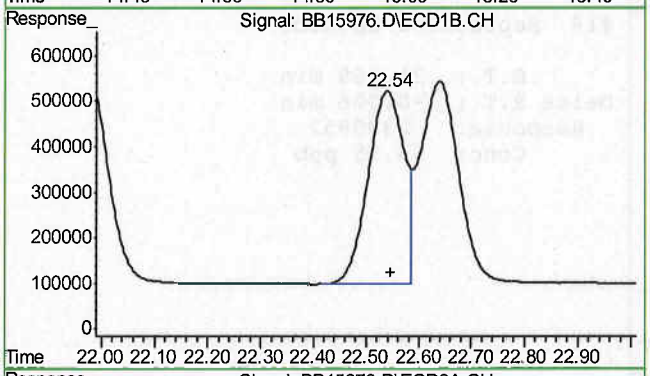
#17 gamma-Chlordane

R.T.: 21.977 min
Delta R.T.: -0.008 min
Response: 2208511
Conc: 54.92 ppb



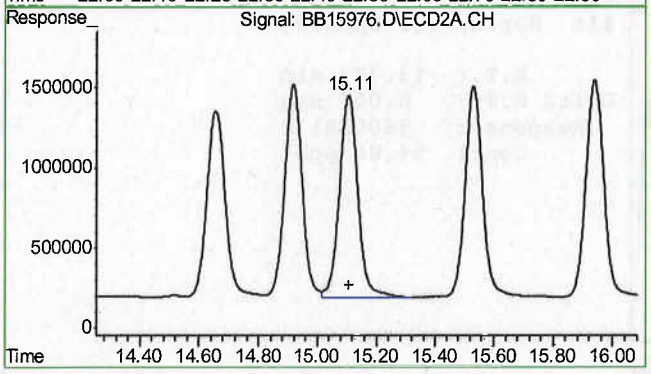
#17 gamma-Chlordane

R.T.: 14.917 min
Delta R.T.: 0.000 min
Response: 5478228
Conc: 52.57 ppb



#18 alpha-Chlordane

R.T.: 22.539 min
Delta R.T.: -0.008 min
Response: 2013451
Conc: 54.45 ppb

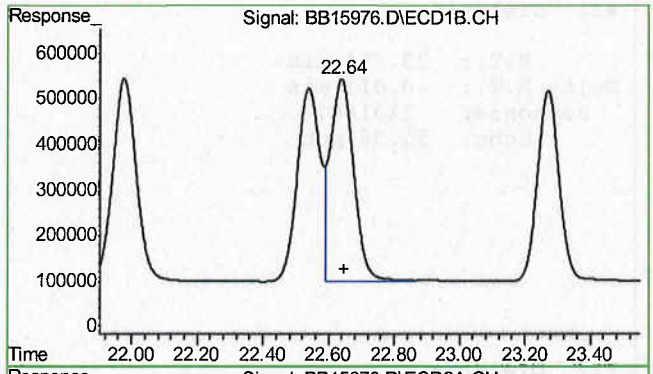


#18 alpha-Chlordane

R.T.: 15.107 min
Delta R.T.: -0.003 min
Response: 5433899
Conc: 52.61 ppb

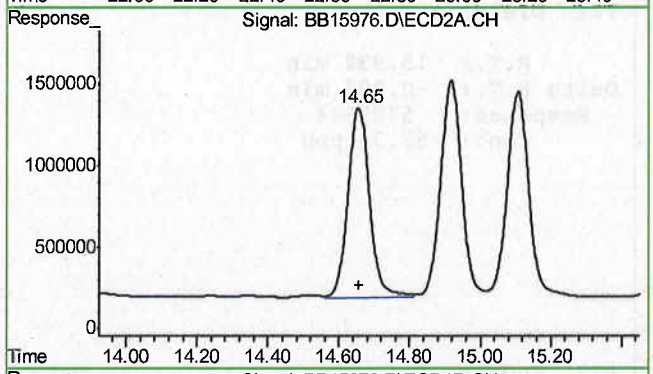
6.3.2

6



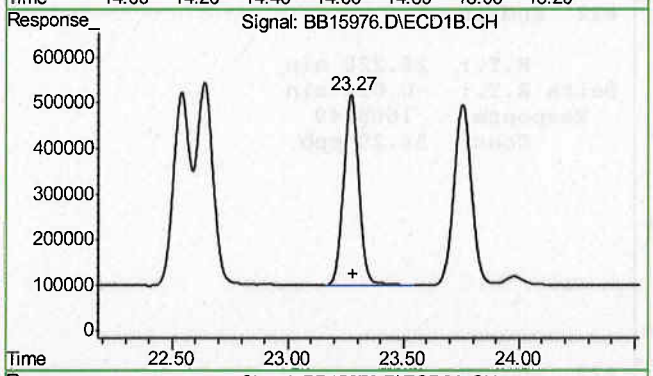
#19 Endosulfan-I

R.T.: 22.639 min
Delta R.T.: -0.009 min
Response: 2187290
Conc: 61.24 ppb



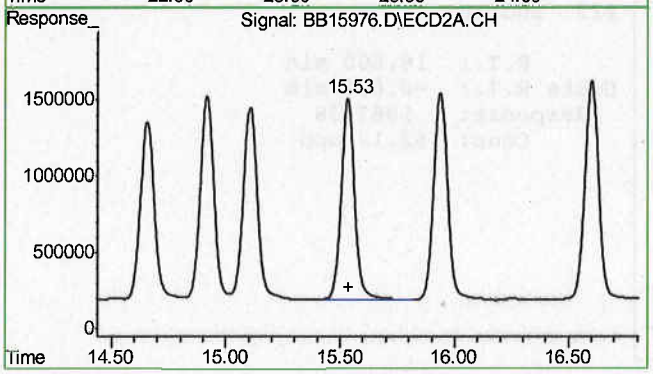
#19 Endosulfan-I

R.T.: 14.653 min
Delta R.T.: -0.004 min
Response: 4960648
Conc: 53.76 ppb



#20 4,4'-DDE

R.T.: 23.270 min
Delta R.T.: -0.011 min
Response: 1960124
Conc: 56.84 ppb

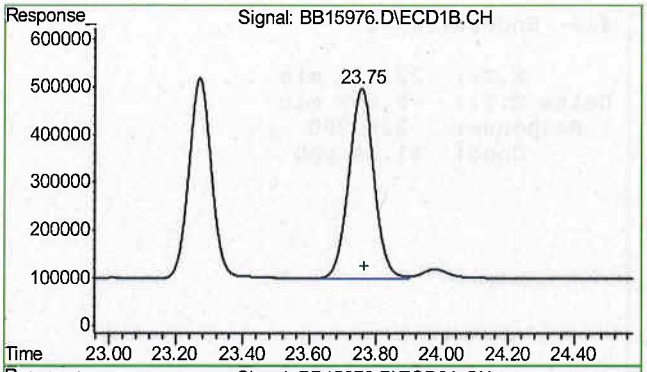


#20 4,4'-DDE

R.T.: 15.530 min
Delta R.T.: -0.004 min
Response: 5400083
Conc: 54.78 ppb

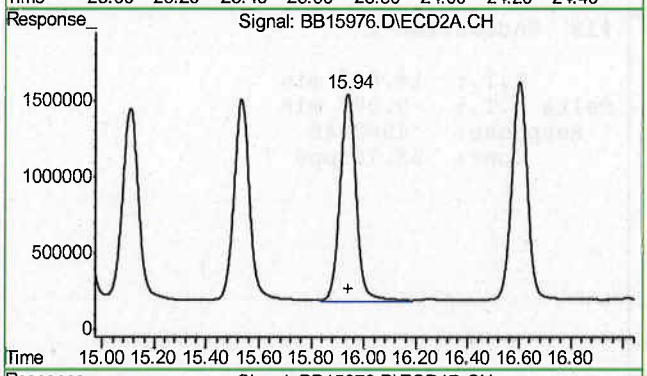
6.3.2

6



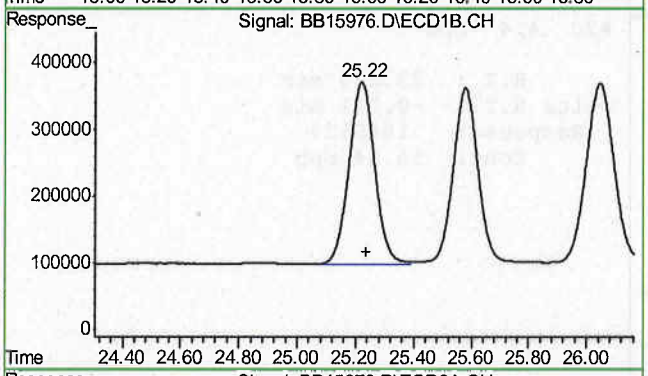
#21 Dieldrin

R.T.: 23.754 min
Delta R.T.: -0.011 min
Response: 2101687
Conc: 55.36 ppb



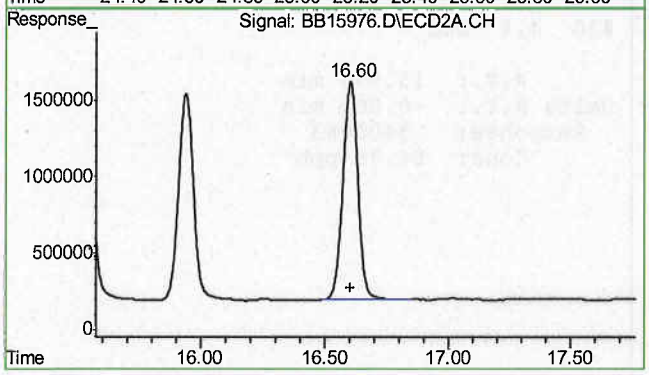
#21 Dieldrin

R.T.: 15.938 min
Delta R.T.: -0.003 min
Response: 5759544
Conc: 55.38 ppb



#22 Endrin

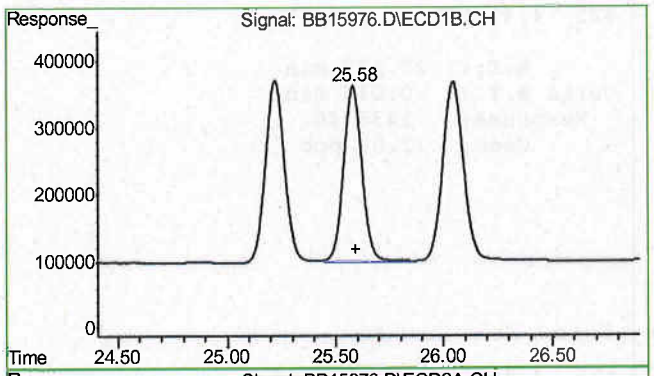
R.T.: 25.220 min
Delta R.T.: -0.016 min
Response: 1668149
Conc: 56.29 ppb



#22 Endrin

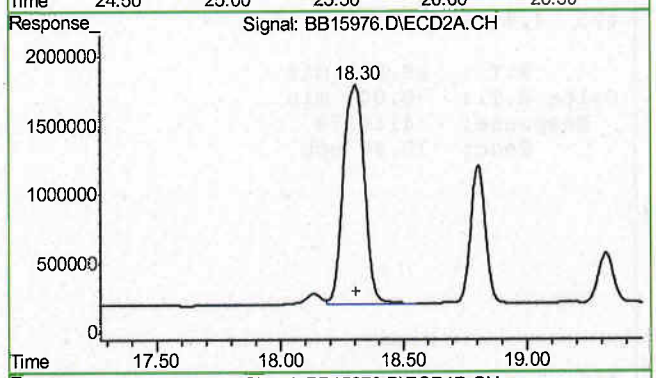
R.T.: 16.600 min
Delta R.T.: -0.001 min
Response: 5963838
Conc: 62.17 ppb

6.3.2 6



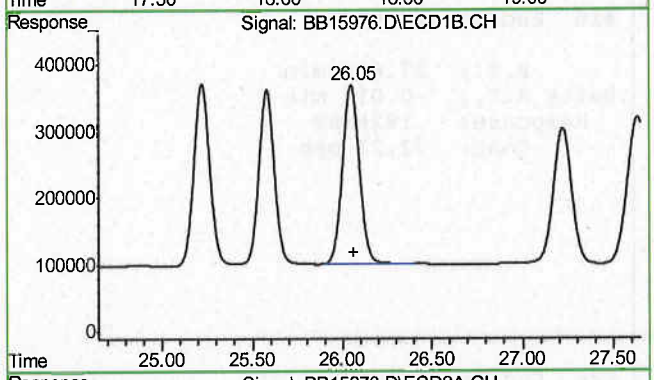
#23 4,4'-DDD

R.T.: 25.579 min
Delta R.T.: -0.016 min
Response: 1561810
Conc: 54.26 ppb



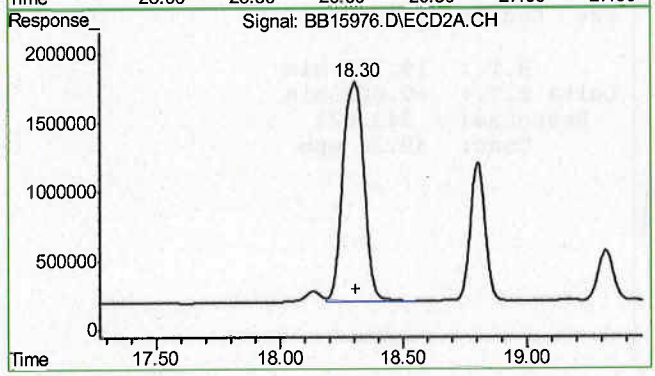
#23 4,4'-DDD

R.T.: 18.302 min
Delta R.T.: -0.004 min
Response: 9633933
Conc: 107.28 ppb



#24 Endosulfan-II

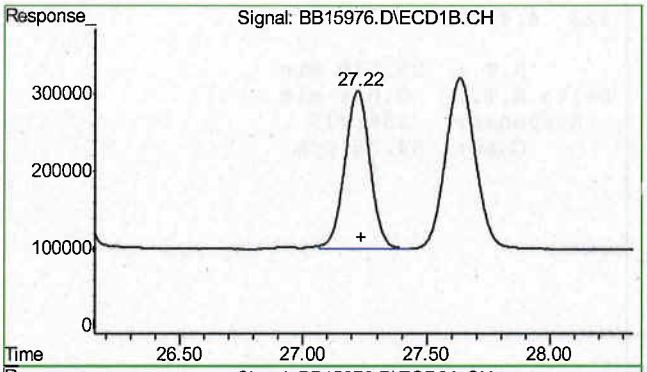
R.T.: 26.047 min
Delta R.T.: -0.016 min
Response: 1793875
Conc: 53.83 ppb



#24 Endosulfan-II

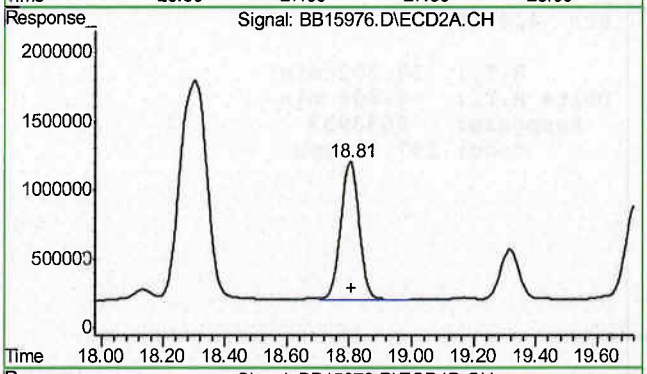
R.T.: 18.302 min
Delta R.T.: -0.004 min
Response: 9633933
Conc: 107.48 ppb

6.3.2 6



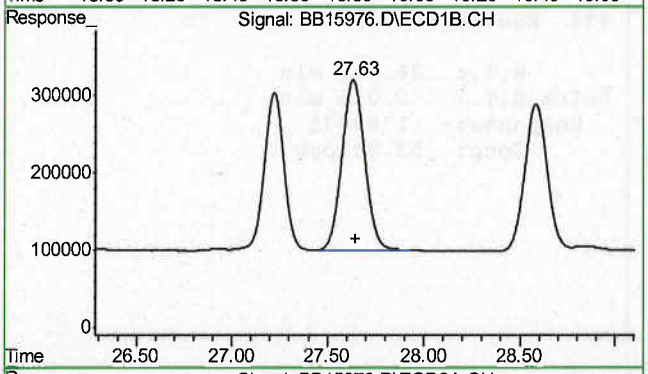
#25 4,4'-DDT

R.T.: 27.222 min
Delta R.T.: -0.016 min
Response: 1438768
Conc: 72.08 ppb



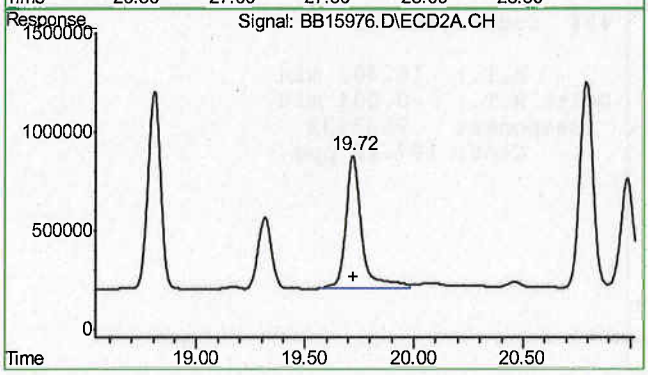
#25 4,4'-DDT

R.T.: 18.807 min
Delta R.T.: -0.001 min
Response: 4116178
Conc: 70.40 ppb



#26 Endrin aldehyde

R.T.: 27.634 min
Delta R.T.: -0.012 min
Response: 1826889
Conc: 72.21 ppb



#26 Endrin aldehyde

R.T.: 19.720 min
Delta R.T.: -0.002 min
Response: 3423021
Conc: 49.28 ppb

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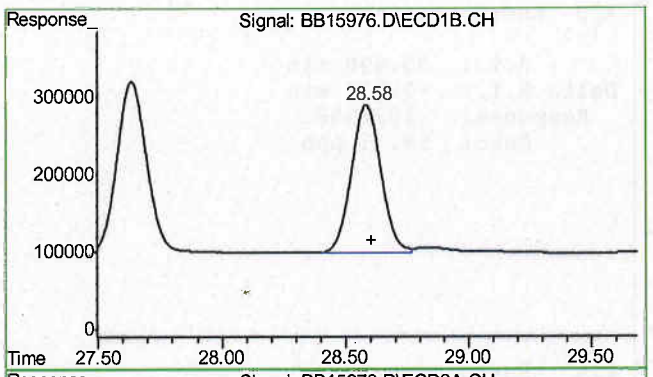
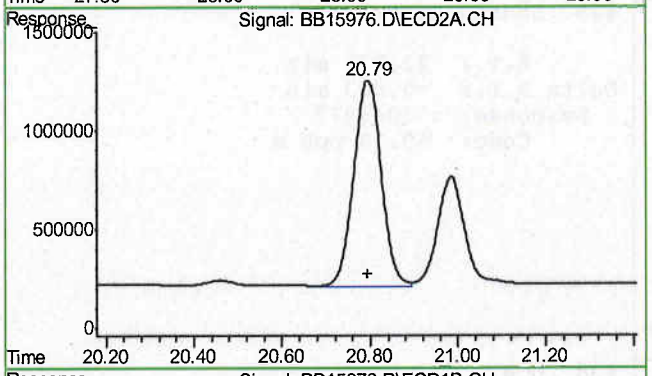


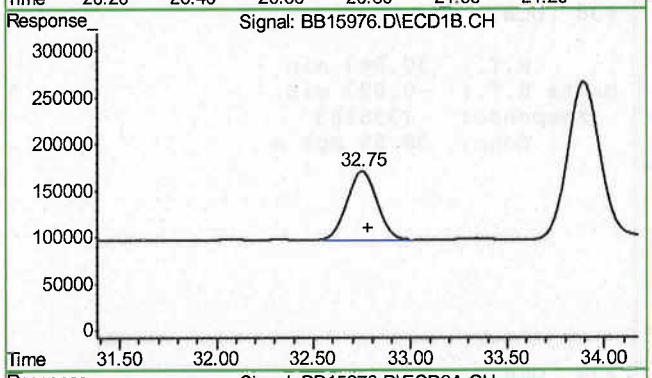
#27 Endosulfan sulfate

R.T.: 28.584 min
Delta R.T.: -0.020 min
Response: 1570946
Conc: 55.35 ppb



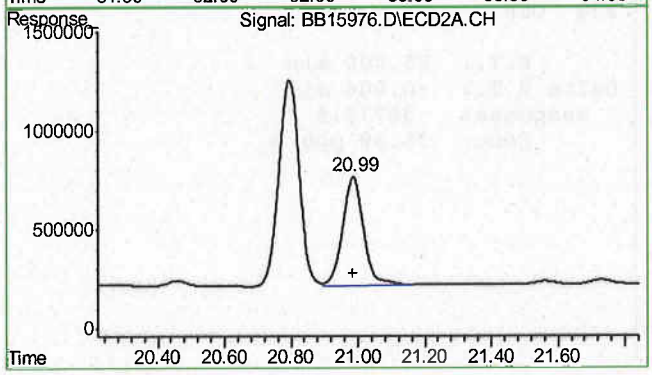
#27 Endosulfan sulfate

R.T.: 20.792 min
Delta R.T.: -0.002 min
Response: 4466332
Conc: 53.87 ppb



#28 Methoxychlor

R.T.: 32.749 min
Delta R.T.: -0.034 min
Response: 784400
Conc: 69.06 ppb



#28 Methoxychlor

R.T.: 20.985 min
Delta R.T.: 0.000 min
Response: 2334829
Conc: 66.53 ppb

6.3.2

6

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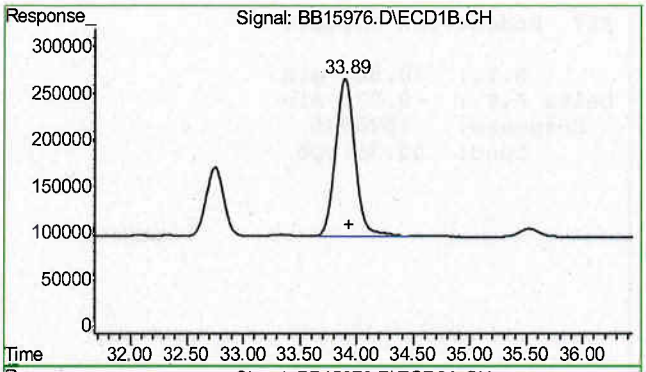
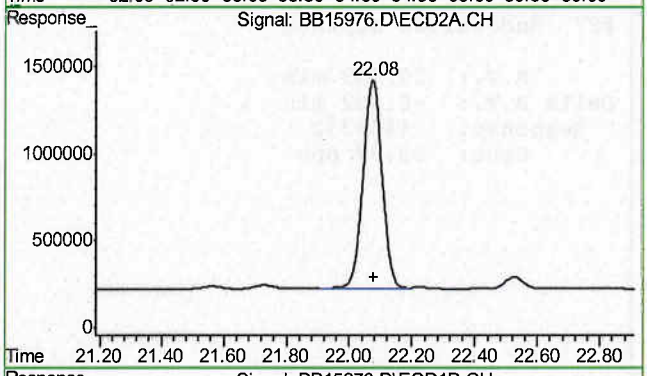


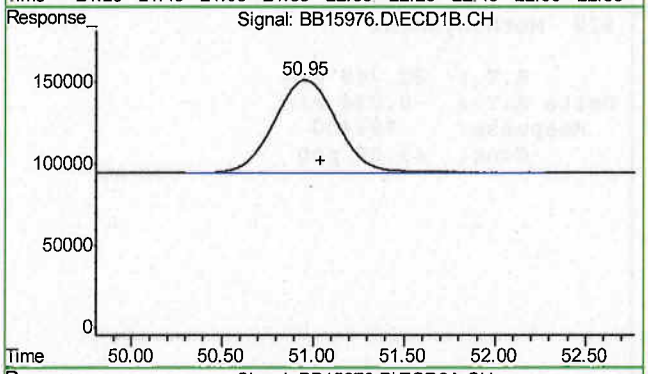
#29 Endrin ketone

R.T.: 33.890 min
Delta R.T.: -0.039 min
Response: 2027556
Conc: 58.71 ppb



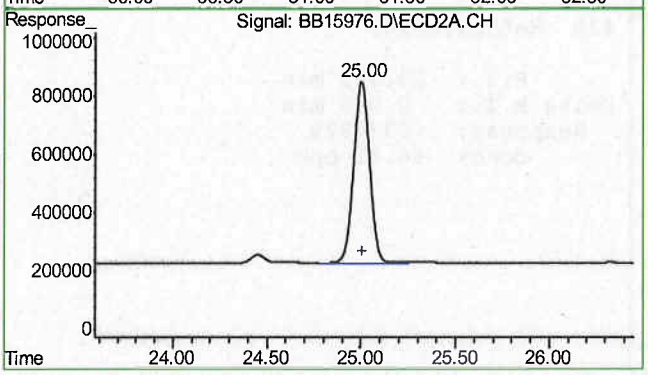
#29 Endrin ketone

R.T.: 22.075 min
Delta R.T.: -0.003 min
Response: 5043672
Conc: 59.18 ppb m



#38 DCB

R.T.: 50.947 min
Delta R.T.: -0.097 min
Response: 1355183
Conc: 38.59 ppb m



#38 DCB

R.T.: 25.000 min
Delta R.T.: -0.006 min
Response: 3677415
Conc: 36.59 ppb m

6.3.2 6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15977.D\ECD1B.CH Vial: 79
Signal #2 : C:\MSDCHEM\1\DATA\BB15977.D\ECD2A.CH
Acq On : 9-22-07 09:36:33 AM Operator: caobinz
Sample : op14345-ms Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:49:39 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
1) s	TCMX	12.22	5.64	1800448	4294473	44.435	40.764	
	Spiked Amount 40.000			Recovery	=	111.09%	101.91%	
38) s	DCB	50.96	25.00	1476564	3957310	42.048m	39.372m	
	Spiked Amount 40.000			Recovery	=	105.12%	98.43%	
	Target Compounds							
8)	Hexachlorobenzen	14.36	6.90	2395646	5262260	47.452	43.346	
9)	alpha-BHC	14.87	8.52	3422884	6879009	55.109	51.230	
10)	gamma-BHC	16.39	9.86	3000649	6193439	55.819	49.622	
11)	beta-BHC	16.62	12.58	1321520	2833740	56.982	51.353	
12)	Heptachlor	17.96	10.50	2617845	5566269	71.115	54.096	
13)	delta-BHC	18.02	13.34	2194242	4053636	39.737m	32.776	
14)	Alachlor	18.32	11.95	2744239	5302274	500.213	613.693	
15)	Aldrin	19.26	11.41	2437943	4860164	51.907m	45.951	
16)	Heptachlor Epoxi	21.27	13.77	2439020	5597048	58.524	54.821	
17)	gamma-Chlordane	21.98	14.92	2249376	5327128	55.941	51.117	
18)	alpha-Chlordane	22.54	15.11	2070471	5385916	55.990	52.146	
19)	Endosulfan-I	22.64	14.65	2428951	4705151	68.009	50.986	#
20)	4,4'-DDE	23.27	15.53	1963205	5176402	56.926	52.513	
21)	Dieldrin	23.75	15.94	2142997	5709273	56.448	54.901	
22)	Endrin	25.22	16.60	1761333	6520911	59.433	67.979	
23)	4,4'-DDD	25.58	18.28	1981905	10681630	68.853	118.950	#
24)	Endosulfan-II	26.04	18.28	1854275	10681630	55.645	119.171	#
25)	4,4'-DDT	27.22	18.80	1546655	4331335	77.484	74.076	
26)	Endrin aldehyde	27.63	19.72	1745105	3362670	68.975	48.409	#
27)	Endosulfan sulfa	28.58	20.79	1646935	4602219	58.032	55.514	
28)	Methoxychlor	32.74	20.98	821330	2389771	72.311	68.093	
29)	Endrin ketone	33.89	22.07	2103981	5260039	60.920	61.714m	

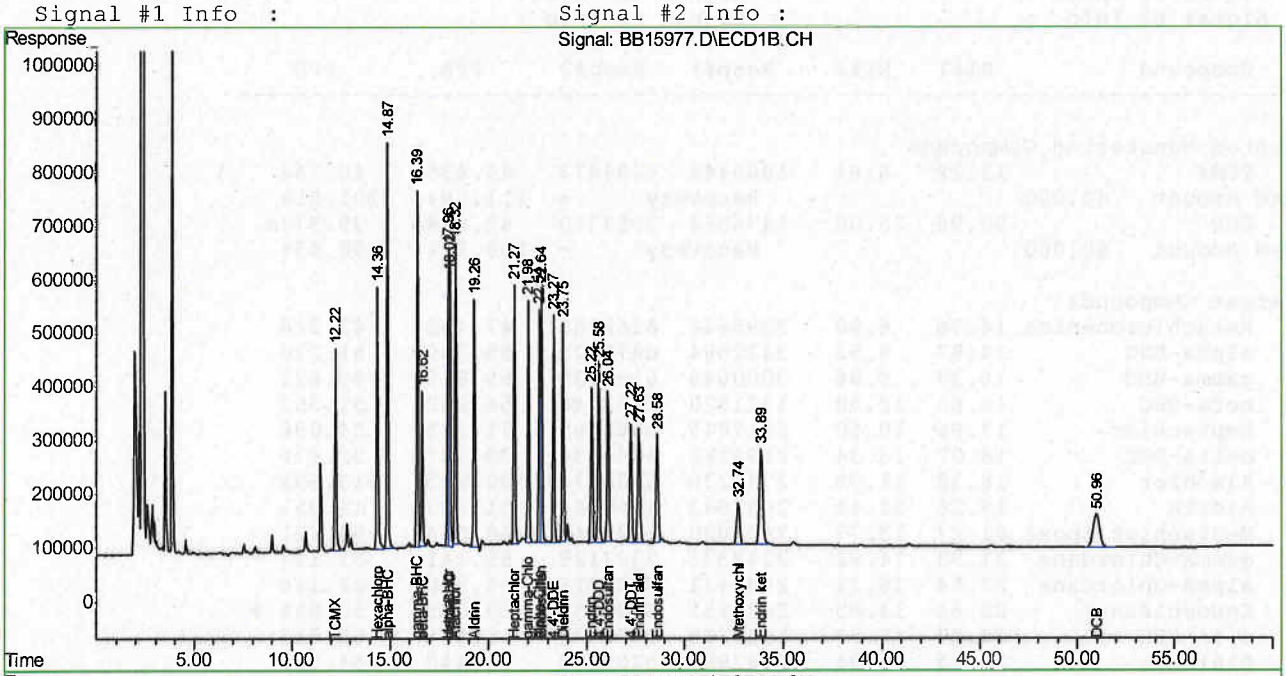
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15977.D PT092007.M Tue Sep 25 10:02:28 2007 GC23PRN

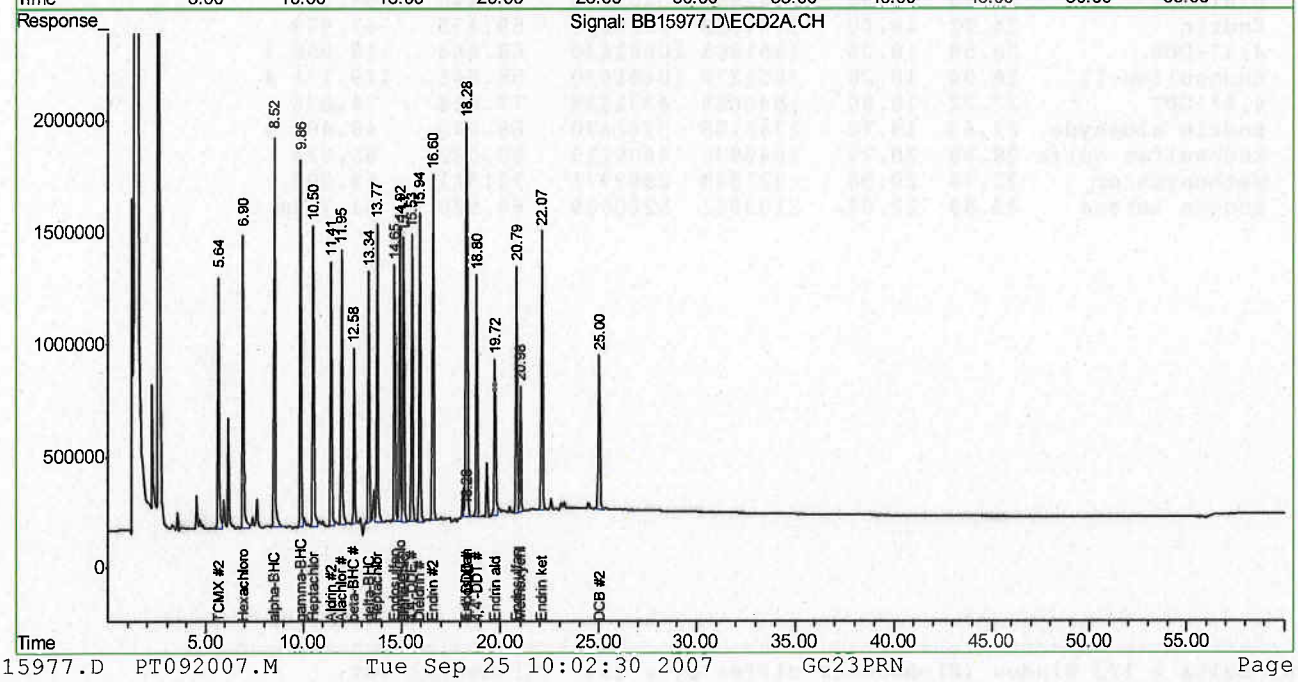
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15977.D\ECD1B.CH Vial: 79
Signal #2 : C:\MSDCHEM\1\DATA\BB15977.D\ECD2A.CH
Acq On : 9-22-07 09:36:33 AM Operator: caobinz
Sample : op14345-ms Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:24 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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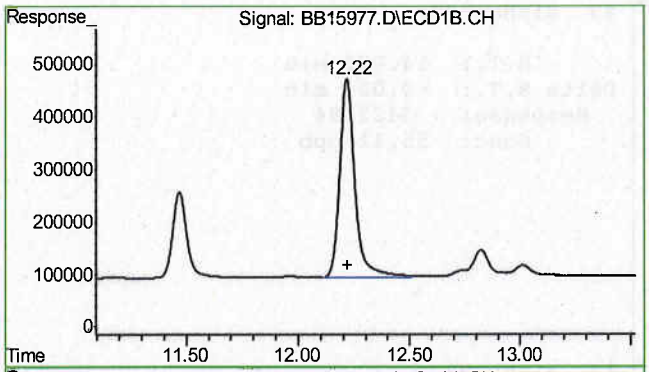
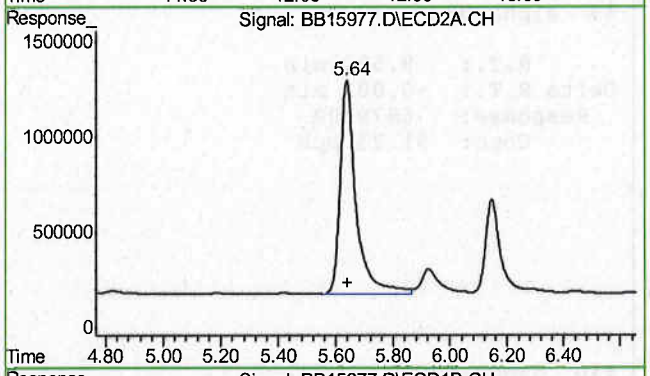


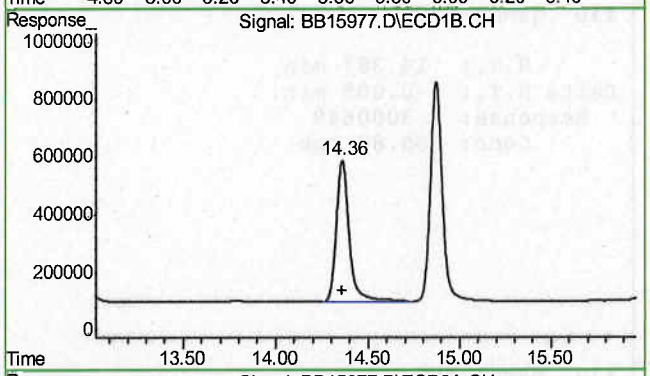
#1 TCMX

R.T.: 12.215 min
Delta R.T.: -0.006 min
Response: 1800448
Conc: 44.44 ppb



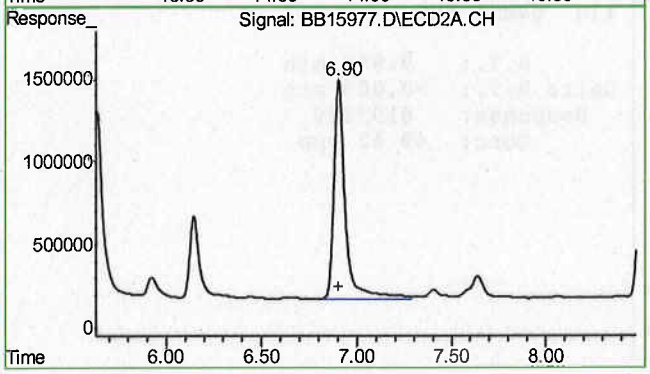
#1 TCMX

R.T.: 5.636 min
Delta R.T.: -0.004 min
Response: 4294473
Conc: 40.76 ppb



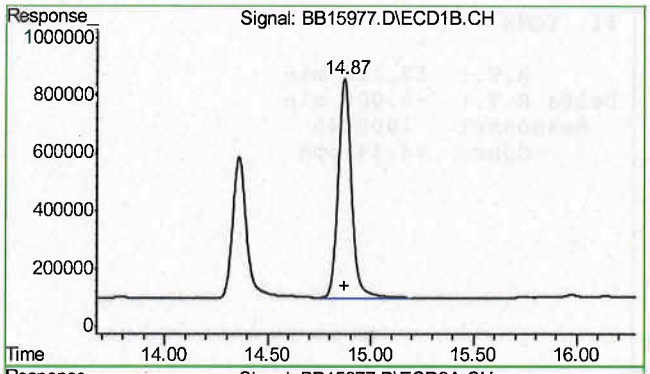
#8 Hexachlorobenzene

R.T.: 14.358 min
Delta R.T.: -0.001 min
Response: 2395646
Conc: 47.45 ug/l



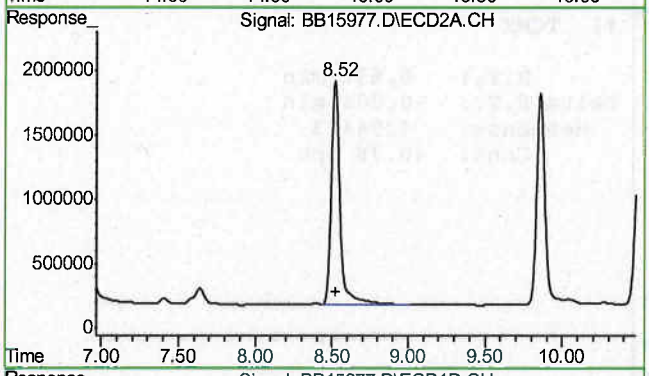
#8 Hexachlorobenzene

R.T.: 6.903 min
Delta R.T.: -0.001 min
Response: 5262260
Conc: 43.35 ug/l



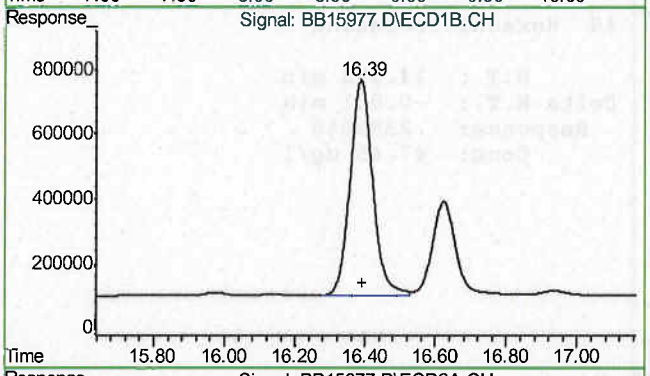
#9 alpha-BHC

R.T.: 14.870 min
Delta R.T.: -0.003 min
Response: 3422884
Conc: 55.11 ppb



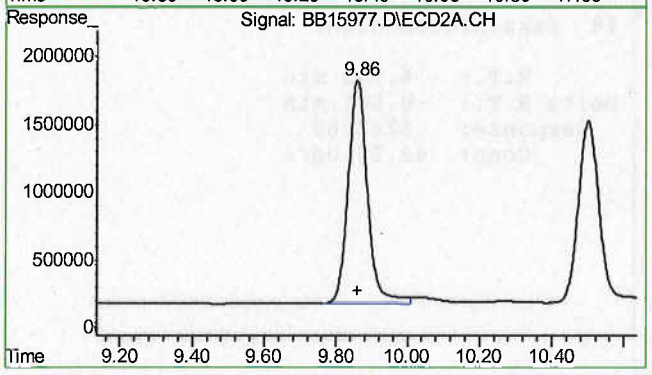
#9 alpha-BHC

R.T.: 8.520 min
Delta R.T.: -0.003 min
Response: 6879009
Conc: 51.23 ppb



#10 gamma-BHC

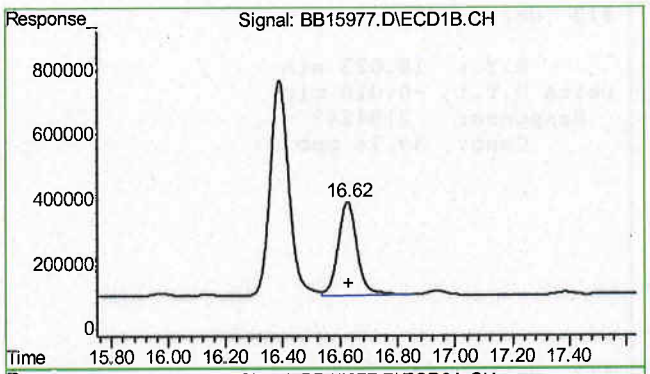
R.T.: 16.387 min
Delta R.T.: -0.005 min
Response: 3000649
Conc: 55.82 ppb



#10 gamma-BHC

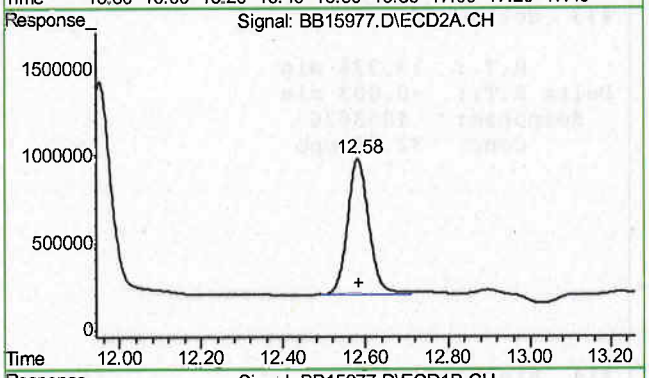
R.T.: 9.858 min
Delta R.T.: -0.003 min
Response: 6193439
Conc: 49.62 ppb

6.4.1 6



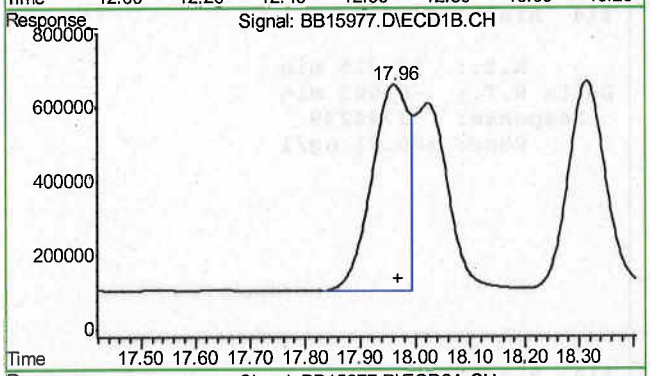
#11 beta-BHC

R.T.: 16.623 min
Delta R.T.: -0.005 min
Response: 1321520
Conc: 56.98 ppb



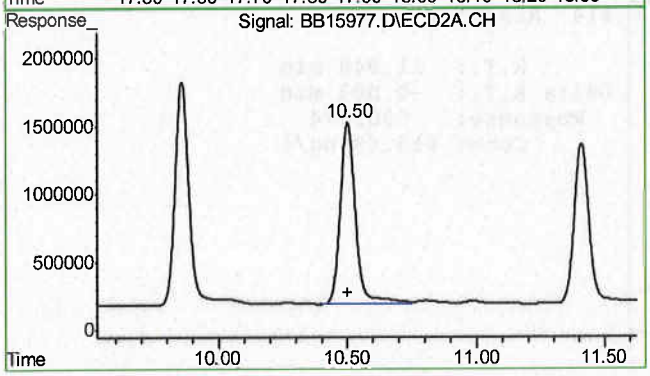
#11 beta-BHC

R.T.: 12.580 min
Delta R.T.: -0.004 min
Response: 2833740
Conc: 51.35 ppb



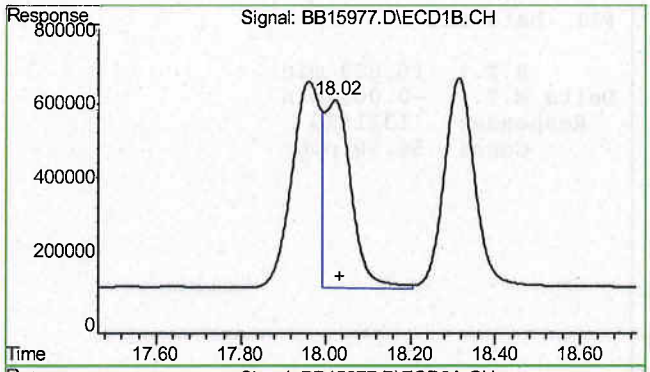
#12 Heptachlor

R.T.: 17.962 min
Delta R.T.: -0.006 min
Response: 2617845
Conc: 71.12 ppb



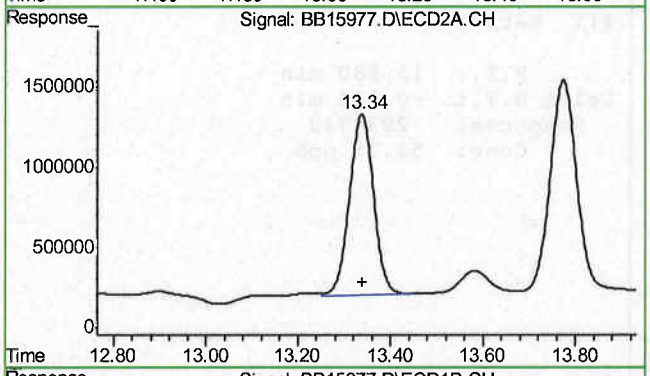
#12 Heptachlor

R.T.: 10.500 min
Delta R.T.: -0.001 min
Response: 5566269
Conc: 54.10 ppb



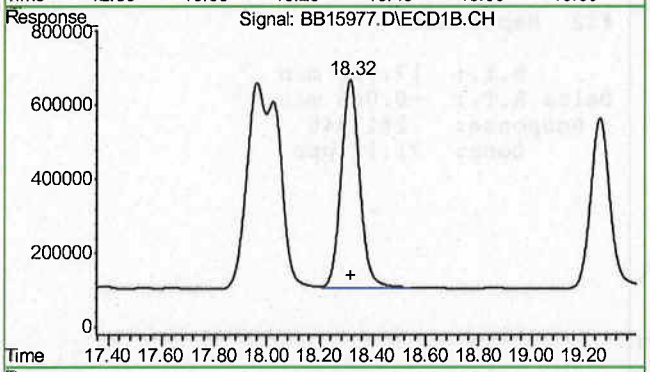
#13 delta-BHC

R.T.: 18.023 min
Delta R.T.: -0.010 min
Response: 2194242
Conc: 39.74 ppb m



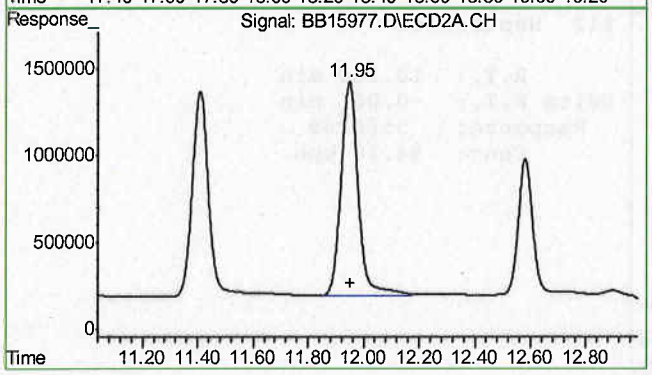
#13 delta-BHC

R.T.: 13.338 min
Delta R.T.: -0.003 min
Response: 4053636
Conc: 32.78 ppb



#14 Alachlor

R.T.: 18.315 min
Delta R.T.: -0.003 min
Response: 2744239
Conc: 500.21 ug/l



#14 Alachlor

R.T.: 11.948 min
Delta R.T.: -0.003 min
Response: 5302274
Conc: 613.69 ug/l

6.4.1

6

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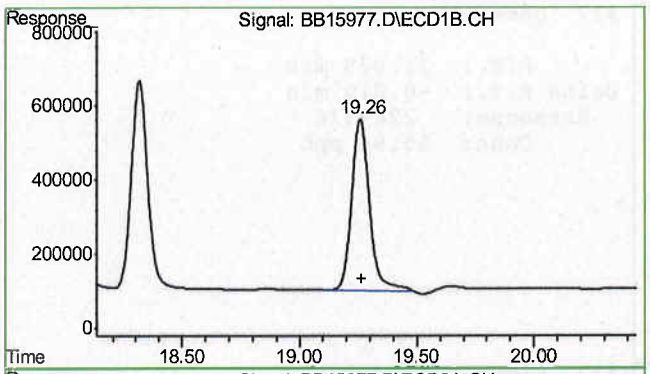
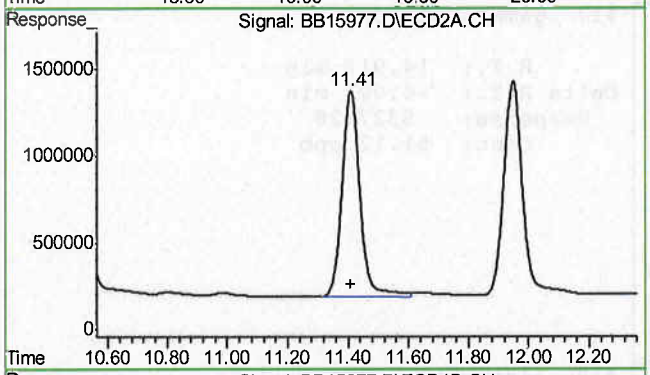


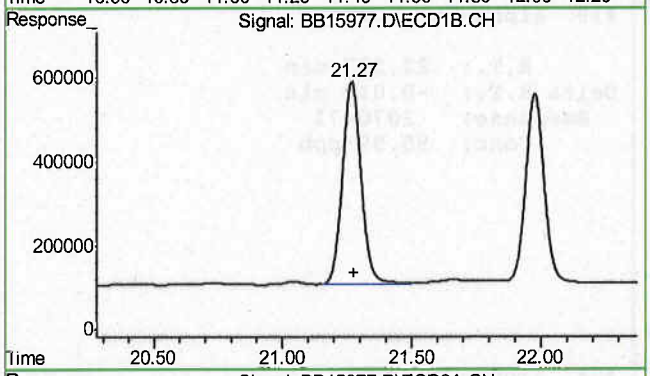
#15 Aldrin

R.T.: 19.257 min
Delta R.T.: -0.008 min
Response: 2437943
Conc: 51.91 ppb m



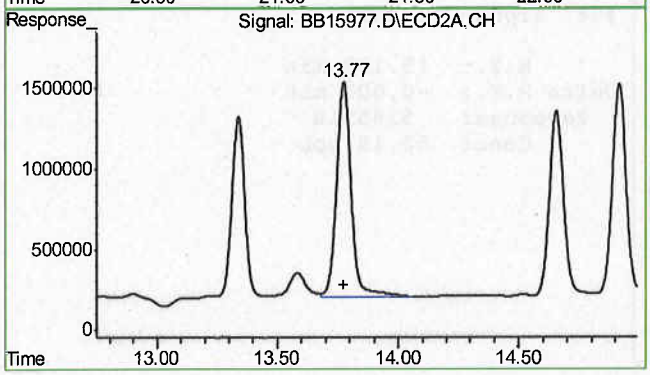
#15 Aldrin

R.T.: 11.408 min
Delta R.T.: 0.002 min
Response: 4860164
Conc: 45.95 ppb



#16 Heptachlor Epoxide

R.T.: 21.268 min
Delta R.T.: -0.006 min
Response: 2439020
Conc: 58.52 ppb



#16 Heptachlor Epoxide

R.T.: 13.775 min
Delta R.T.: 0.002 min
Response: 5597048
Conc: 54.82 ppb

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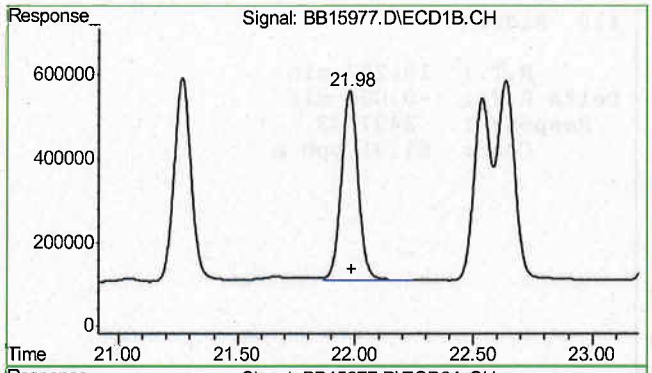
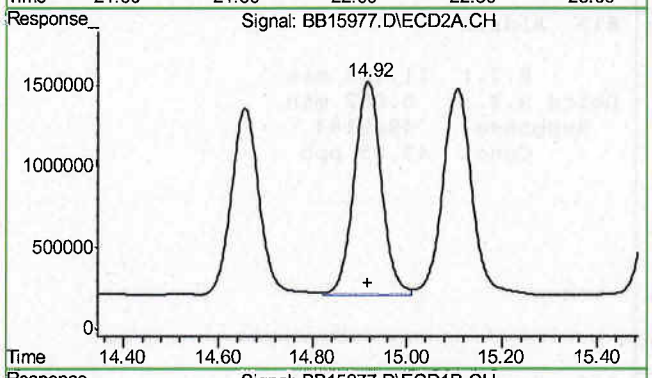


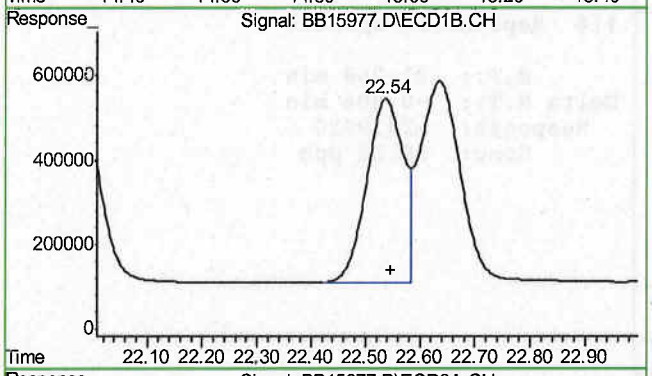
#17 gamma-Chlordane

R.T.: 21.975 min
Delta R.T.: -0.010 min
Response: 2249376
Conc: 55.94 ppb



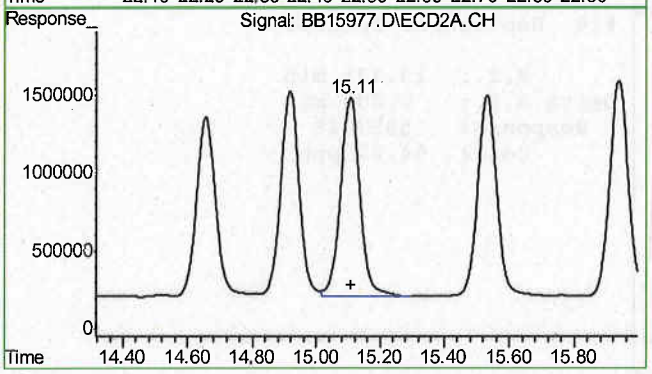
#17 gamma-Chlordane

R.T.: 14.916 min
Delta R.T.: -0.001 min
Response: 5327128
Conc: 51.12 ppb



#18 alpha-Chlordane

R.T.: 22.537 min
Delta R.T.: -0.010 min
Response: 2070471
Conc: 55.99 ppb



#18 alpha-Chlordane

R.T.: 15.108 min
Delta R.T.: -0.001 min
Response: 5385916
Conc: 52.15 ppb

6.4.1

6

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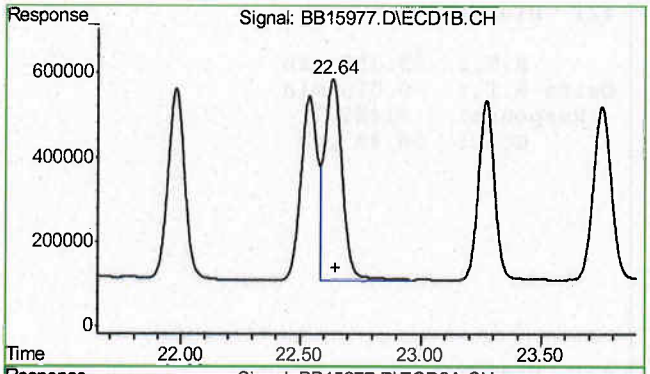
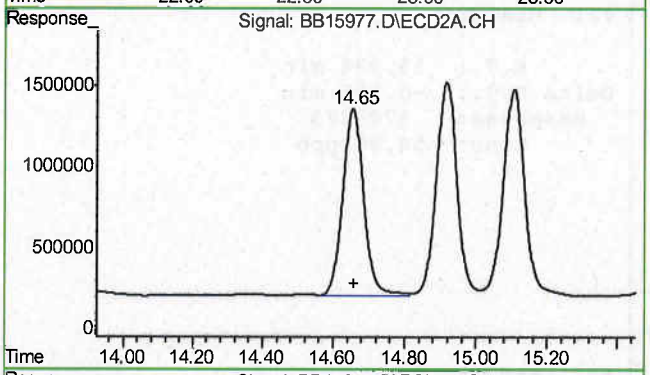


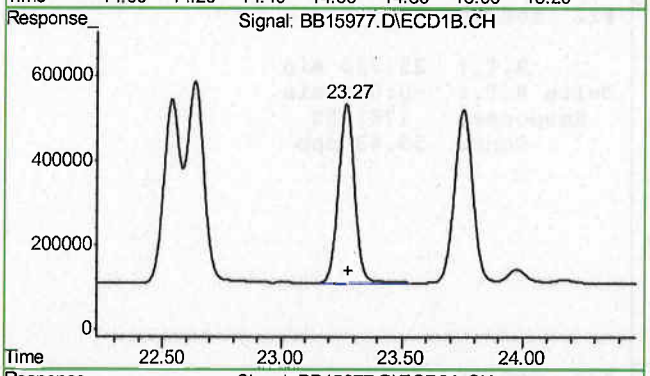
#19 Endosulfan-I

R.T.: 22.635 min
Delta R.T.: -0.013 min
Response: 2428951
Conc: 68.01 ppb



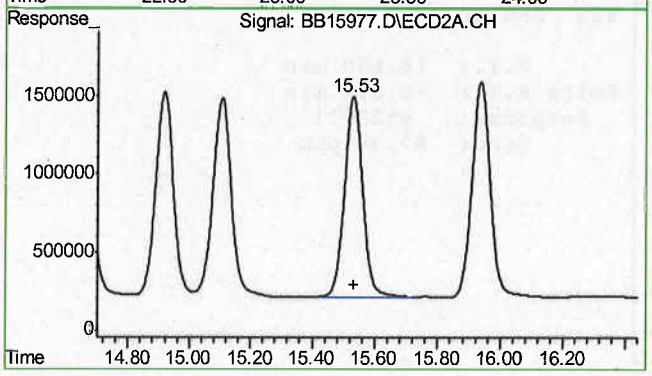
#19 Endosulfan-I

R.T.: 14.655 min
Delta R.T.: -0.003 min
Response: 4705151
Conc: 50.99 ppb



#20 4,4'-DDE

R.T.: 23.270 min
Delta R.T.: -0.011 min
Response: 1963205
Conc: 56.93 ppb

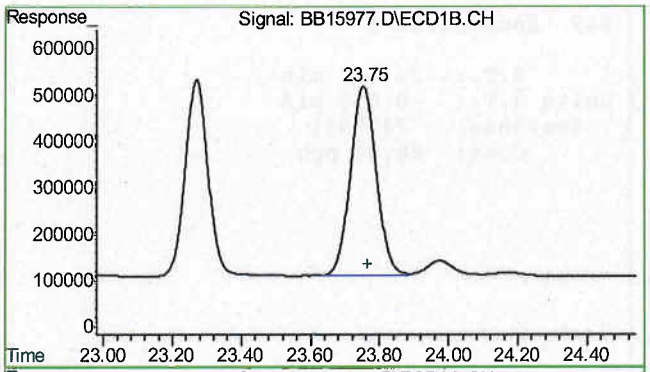


#20 4,4'-DDE

R.T.: 15.531 min
Delta R.T.: -0.003 min
Response: 5176402
Conc: 52.51 ppb

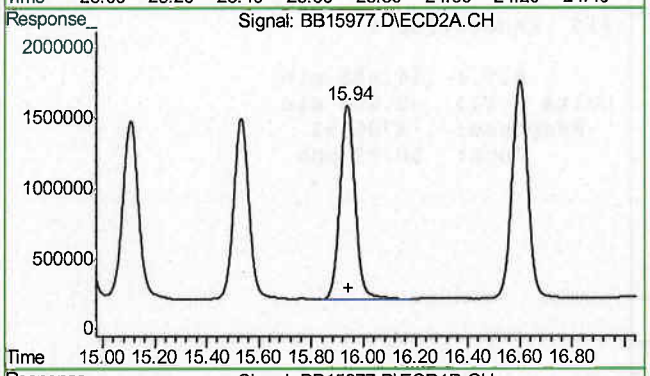
6.4.1

6



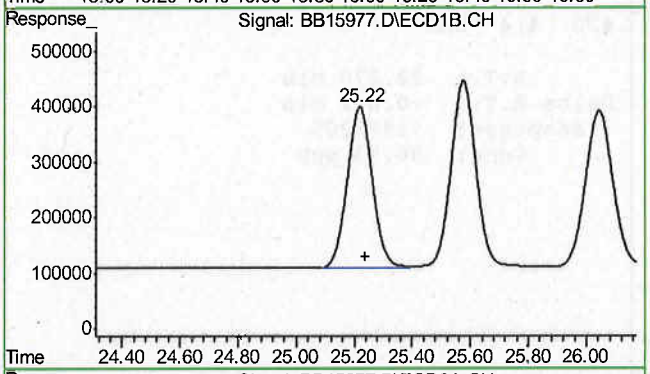
#21 Dieldrin

R.T.: 23.752 min
Delta R.T.: -0.013 min
Response: 2142997
Conc: 56.45 ppb



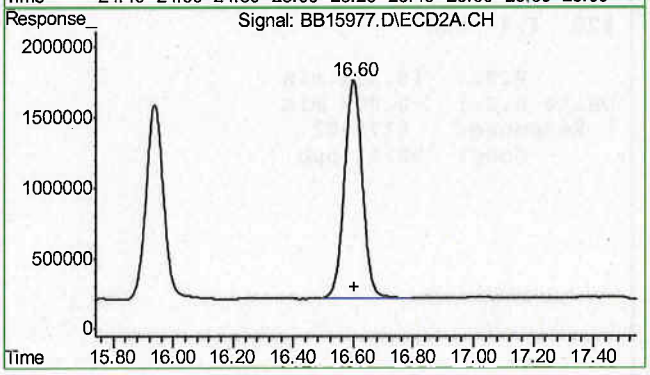
#21 Dieldrin

R.T.: 15.936 min
Delta R.T.: -0.005 min
Response: 5709273
Conc: 54.90 ppb



#22 Endrin

R.T.: 25.220 min
Delta R.T.: -0.016 min
Response: 1761333
Conc: 59.43 ppb

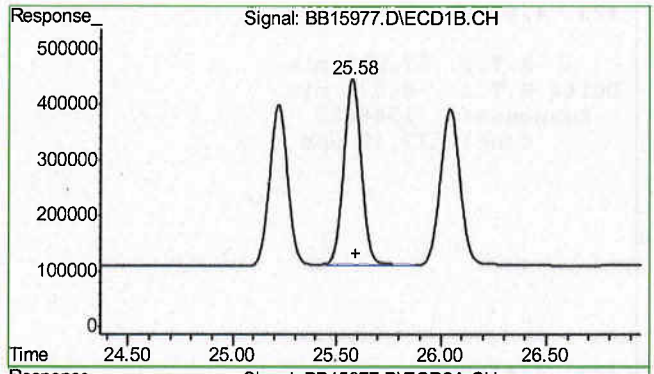


#22 Endrin

R.T.: 16.600 min
Delta R.T.: -0.001 min
Response: 6520911
Conc: 67.98 ppb

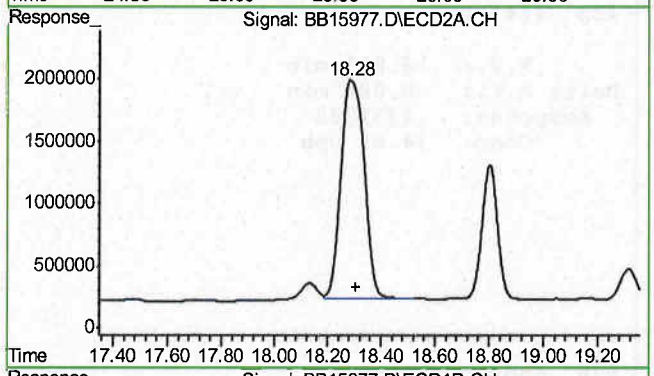
6.4.1

6



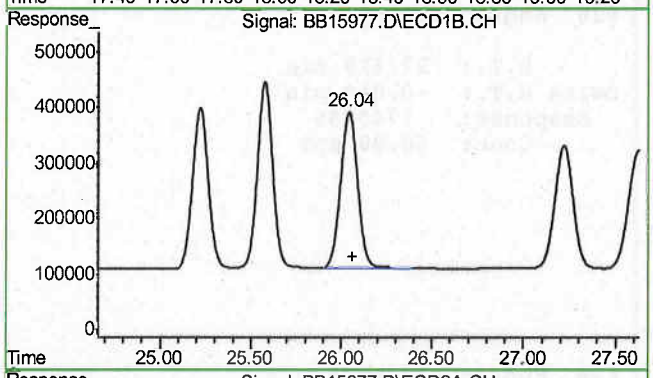
#23 4,4'-DDD

R.T.: 25.575 min
Delta R.T.: -0.020 min
Response: 1981905
Conc: 68.85 ppb



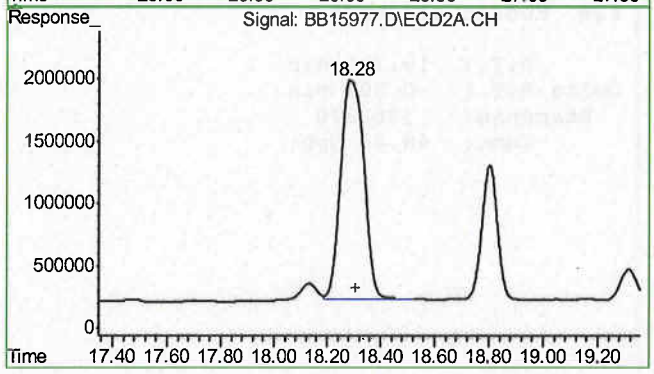
#23 4,4'-DDD

R.T.: 18.280 min
Delta R.T.: -0.026 min
Response: 10681630
Conc: 118.95 ppb



#24 Endosulfan-II

R.T.: 26.042 min
Delta R.T.: -0.021 min
Response: 1854275
Conc: 55.65 ppb

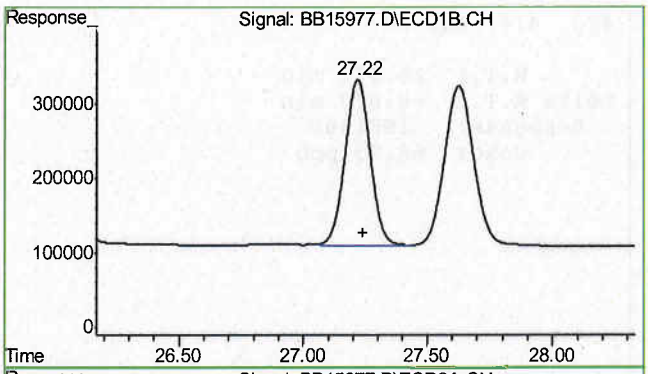


#24 Endosulfan-II

R.T.: 18.280 min
Delta R.T.: -0.026 min
Response: 10681630
Conc: 119.17 ppb

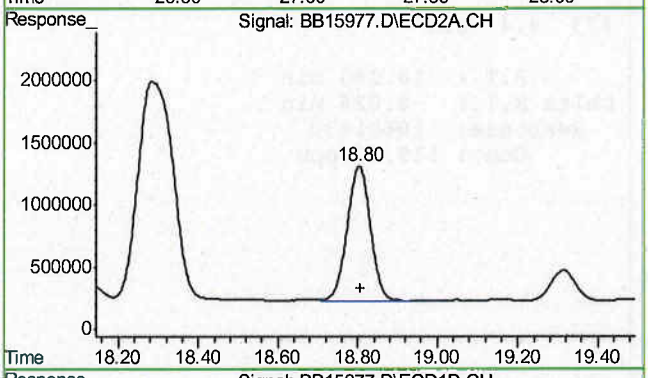
6.4.1

6



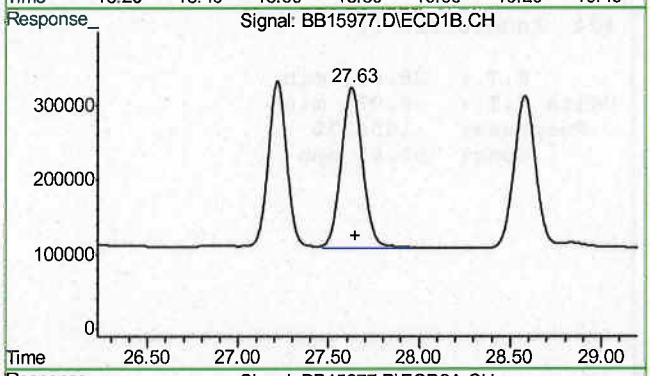
#25 4,4'-DDT

R.T.: 27.217 min
Delta R.T.: -0.021 min
Response: 1546655
Conc: 77.48 ppb



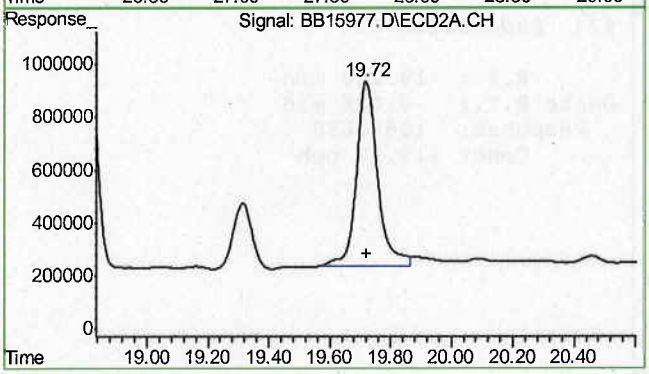
#25 4,4'-DDT

R.T.: 18.801 min
Delta R.T.: -0.006 min
Response: 4331335
Conc: 74.08 ppb



#26 Endrin aldehyde

R.T.: 27.628 min
Delta R.T.: -0.018 min
Response: 1745105
Conc: 68.98 ppb

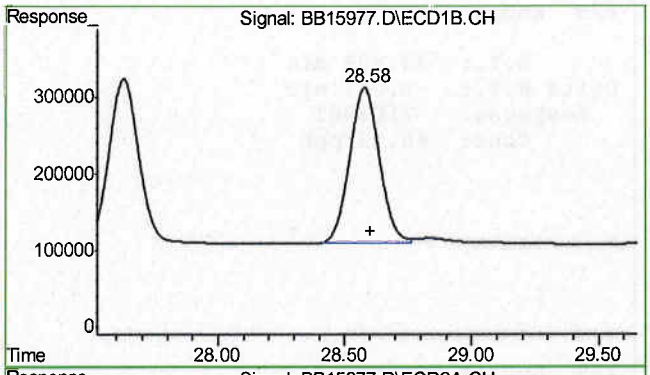


#26 Endrin aldehyde

R.T.: 19.716 min
Delta R.T.: -0.006 min
Response: 3362670
Conc: 48.41 ppb

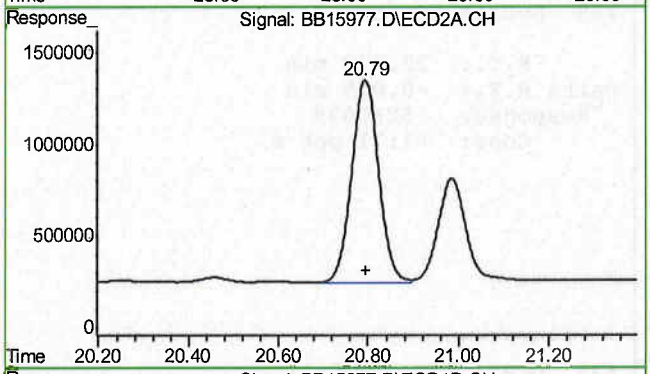
6.4.1

6



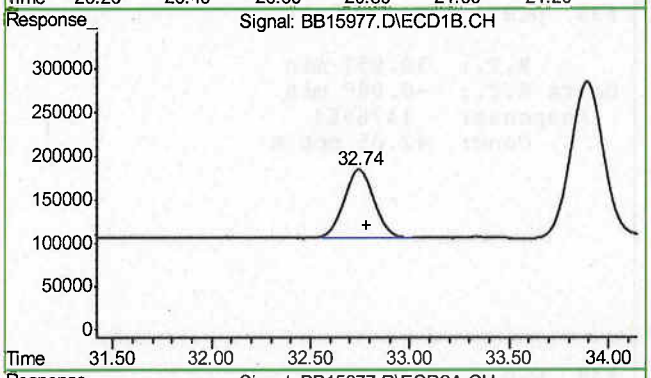
#27 Endosulfan sulfate

R.T.: 28.580 min
Delta R.T.: -0.024 min
Response: 1646935
Conc: 58.03 ppb



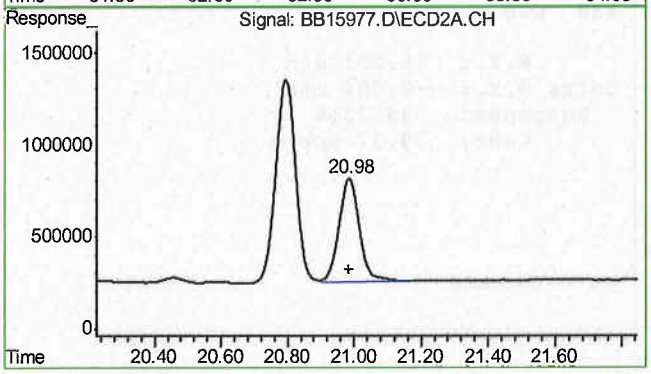
#27 Endosulfan sulfate

R.T.: 20.791 min
Delta R.T.: -0.003 min
Response: 4602219
Conc: 55.51 ppb



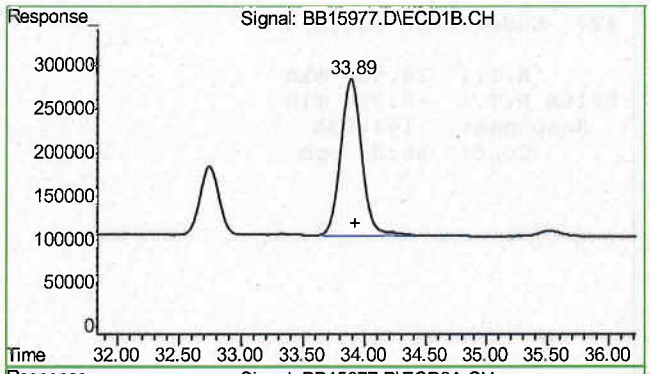
#28 Methoxychlor

R.T.: 32.740 min
Delta R.T.: -0.043 min
Response: 821330
Conc: 72.31 ppb



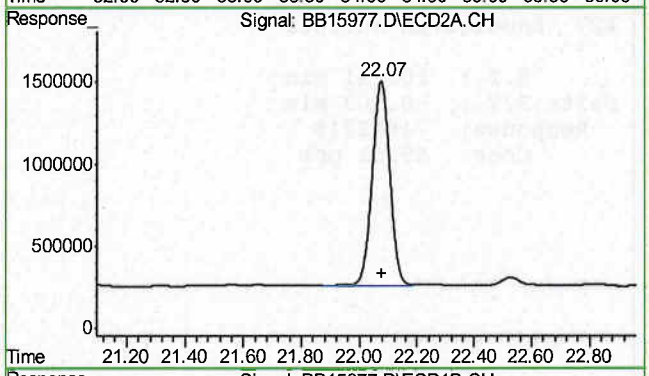
#28 Methoxychlor

R.T.: 20.985 min
Delta R.T.: 0.000 min
Response: 2389771
Conc: 68.09 ppb



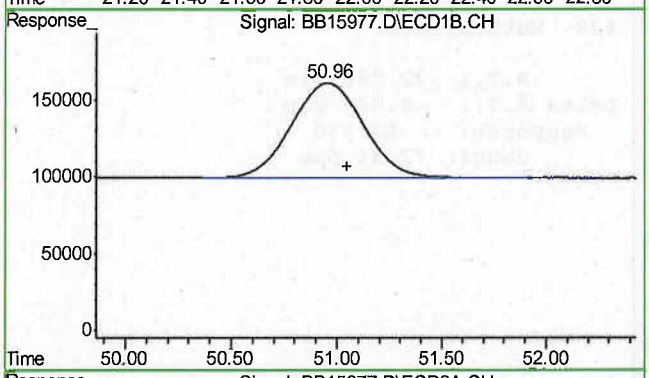
#29 Endrin ketone

R.T.: 33.888 min
Delta R.T.: -0.041 min
Response: 2103981
Conc: 60.92 ppb



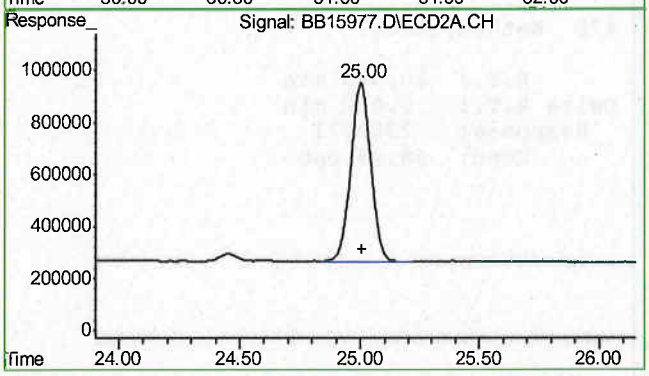
#29 Endrin ketone

R.T.: 22.073 min
Delta R.T.: -0.005 min
Response: 5260039
Conc: 61.71 ppb m



#38 DCB

R.T.: 50.957 min
Delta R.T.: -0.088 min
Response: 1476564
Conc: 42.05 ppb m



#38 DCB

R.T.: 25.001 min
Delta R.T.: -0.004 min
Response: 3957310
Conc: 39.37 ppb m

6.4.1

6

ACCUTEST Laboratories M67676

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/28/07 10:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15978.D\ECD1B.CH Vial: 80
Signal #2 : C:\MSDCHEM\1\DATA\BB15978.D\ECD2A.CH
Acq On : 22 Sep 2007 10:41 am Operator: caobinz
Sample : op14345-msd Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 08:50:43 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
1) s	TCMX	12.21	5.64	1812193	4328760	44.725	41.089	
	Spiked Amount 40.000			Recovery	=	111.81%	102.72%	
38) s	DCB	50.97	25.00	1487370	4070779	42.356m	40.501m	
	Spiked Amount 40.000			Recovery	=	105.89%	101.25%	
	Target Compounds							
8)	Hexachlorobenzen	14.36	6.90	2375824	5332324	47.059	43.923	
9)	alpha-BHC	14.87	8.52	3533792	6990613	56.895	52.061	
10)	gamma-BHC	16.39	9.86	3117369	6462116	57.990	51.775	
11)	beta-BHC	16.62	12.58	1376841	2994604	59.367	54.268	
12)	Heptachlor	17.96	10.50	2822788	5642103	76.683	54.833	#
13)	delta-BHC	18.02	13.34	2145366	4289317	38.852m	34.682	
14)	Alachlor	18.31	11.95	2848822	5581479	519.276	646.009	
15)	Aldrin	19.26	11.41	2393129	4932056	50.953m	46.630	
16)	Heptachlor Epoxi	21.27	13.77	2529369	5847278	60.692	57.272	
17)	gamma-Chlordane	21.98	14.92	2316193	5548286	57.602	53.239	
18)	alpha-Chlordane	22.54	15.10	2144110	5587552	57.982	54.098	
19)	Endosulfan-I	22.64	14.65	2516612	4941984	70.463	53.553	
20)	4,4'-DDE	23.27	15.53	2045140	5422332	59.301	55.008	
21)	Dieldrin	23.76	15.94	2233274	6027630	58.826	57.962	
22)	Endrin	25.22	16.60	1837463	6824386	62.002	71.142	
23)	4,4'-DDD	25.58	18.29	2065237	11316243	71.748	126.017	#
24)	Endosulfan-II	26.05	18.29	1927613	11316243	57.846	126.251	#
25)	4,4'-DDT	27.22	18.80	1594479	4578197	79.880	78.298	
26)	Endrin aldehyde	27.63	19.72	1776978	3704849	70.235	53.335	
27)	Endosulfan sulfa	28.58	20.79	1705218	4842315	60.085	58.410	
28)	Methoxychlor	32.75	20.98	843773	2457146	74.287	70.013	
29)	Endrin ketone	33.90	22.08	2197750	5445882	63.635	63.895	

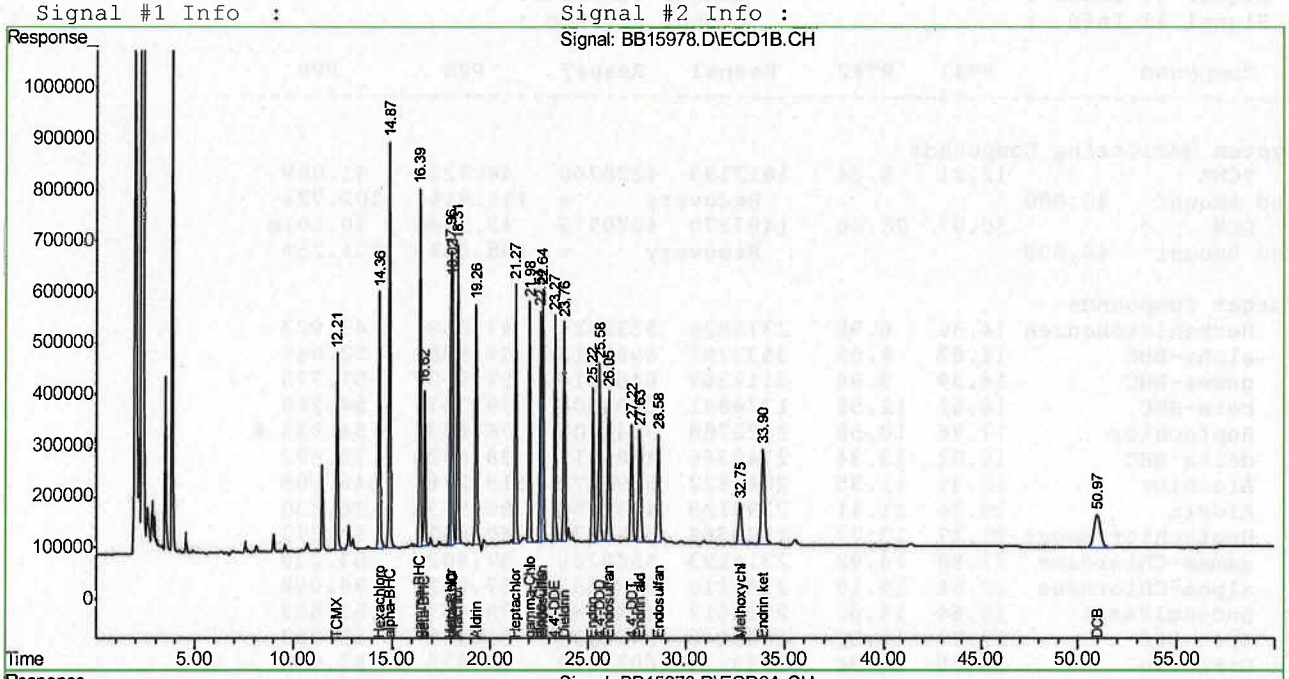
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15978.D PT092007.M Tue Sep 25 10:02:53 2007 GC23PRN

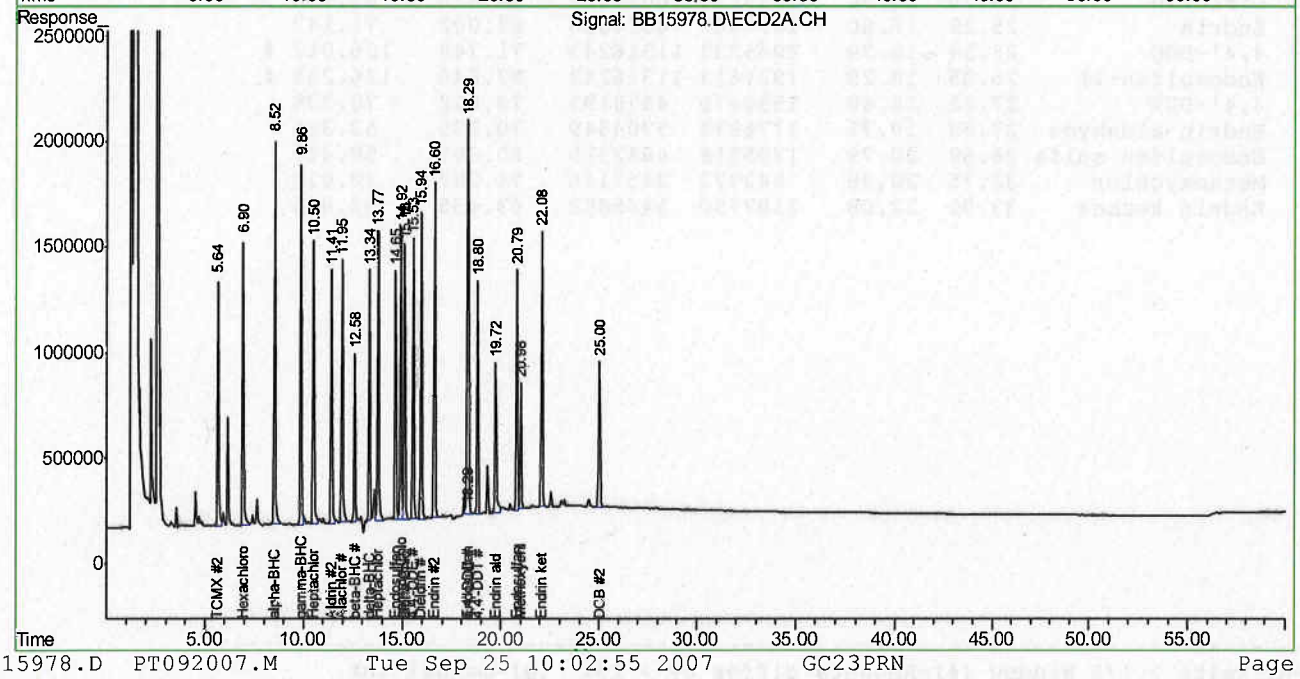
Quantitation Report (QT Reviewed)

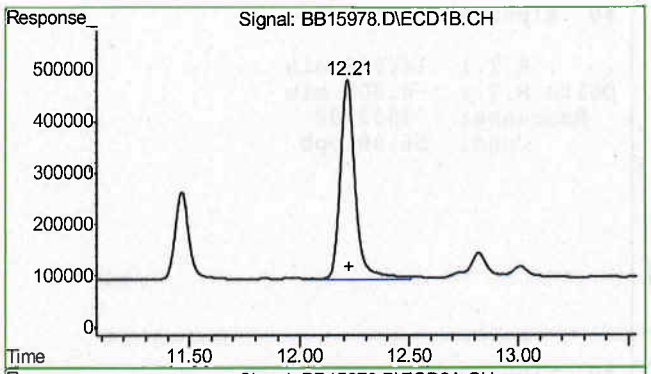
Signal #1 : C:\MSDCHEM\1\DATA\BB15978.D\ECD1B.CH Vial: 80
Signal #2 : C:\MSDCHEM\1\DATA\BB15978.D\ECD2A.CH
Acq On : 22 Sep 2007 10:41 am Operator: caobinz
Sample : op14345-msd Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 25 9:25 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

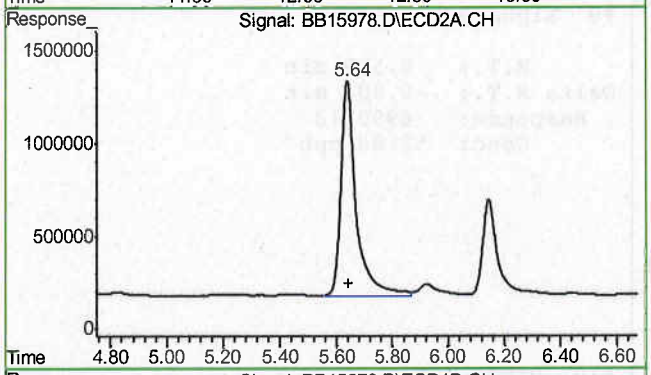






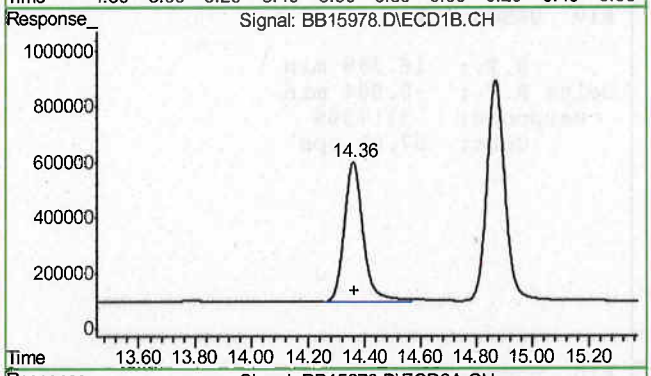
#1 TCMX

R.T.: 12.213 min
Delta R.T.: -0.008 min
Response: 1812193
Conc: 44.73 ppb



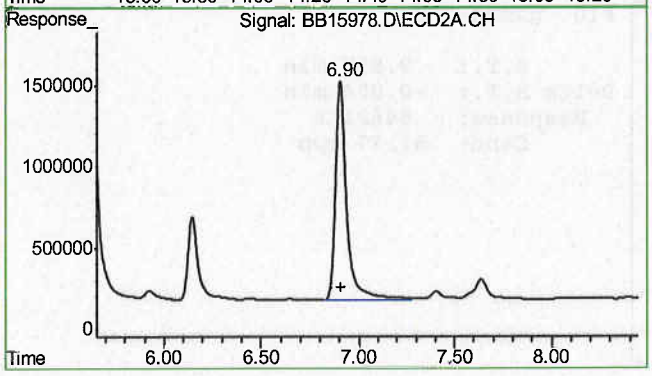
#1 TCMX

R.T.: 5.636 min
Delta R.T.: -0.005 min
Response: 4328760
Conc: 41.09 ppb



#8 Hexachlorobenzene

R.T.: 14.358 min
Delta R.T.: -0.002 min
Response: 2375824
Conc: 47.06 ug/l

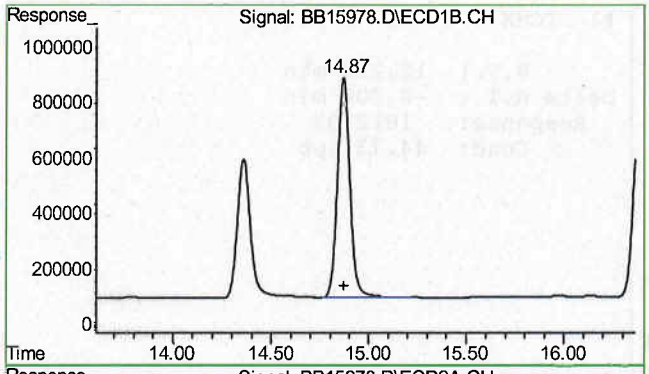


#8 Hexachlorobenzene

R.T.: 6.902 min
Delta R.T.: -0.002 min
Response: 5332324
Conc: 43.92 ug/l

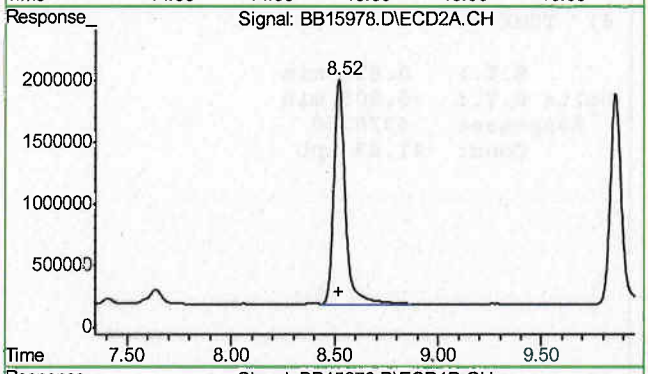
6.4.2

6



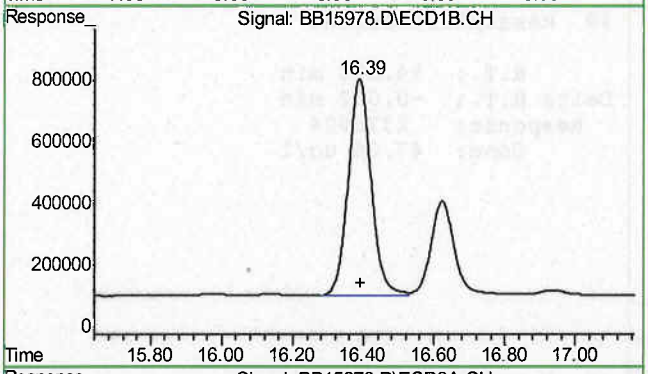
#9 alpha-BHC

R.T.: 14.869 min
Delta R.T.: -0.004 min
Response: 3533792
Conc: 56.89 ppb



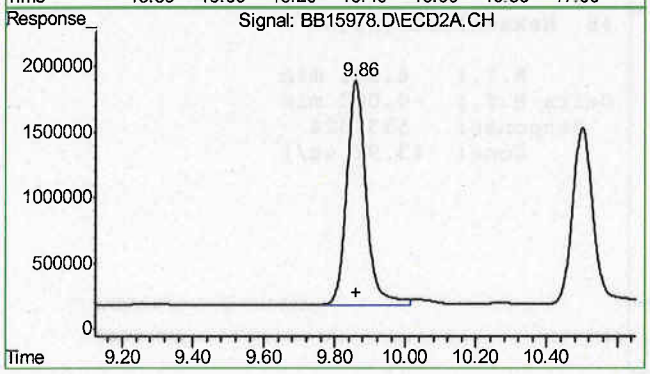
#9 alpha-BHC

R.T.: 8.519 min
Delta R.T.: -0.004 min
Response: 6990613
Conc: 52.06 ppb



#10 gamma-BHC

R.T.: 16.388 min
Delta R.T.: -0.004 min
Response: 3117369
Conc: 57.99 ppb



#10 gamma-BHC

R.T.: 9.857 min
Delta R.T.: -0.004 min
Response: 6462116
Conc: 51.77 ppb

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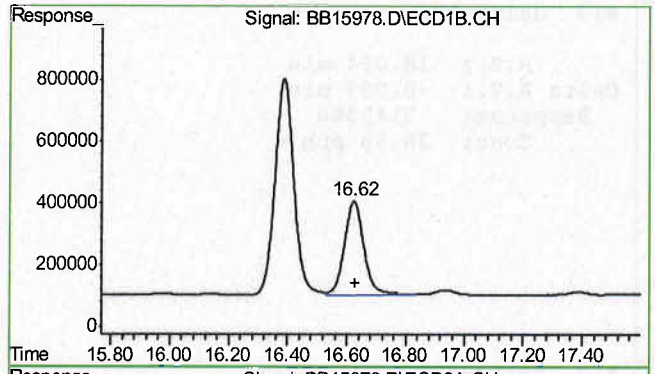
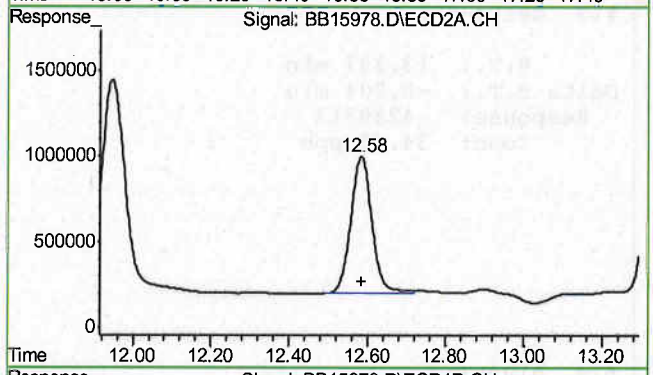


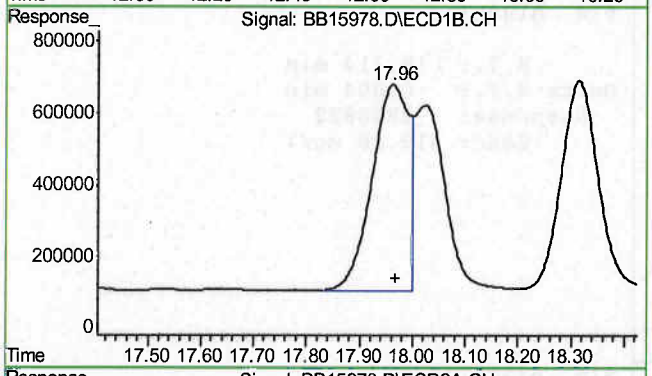
#11 beta-BHC

R.T.: 16.623 min
Delta R.T.: -0.005 min
Response: 1376841
Conc: 59.37 ppb



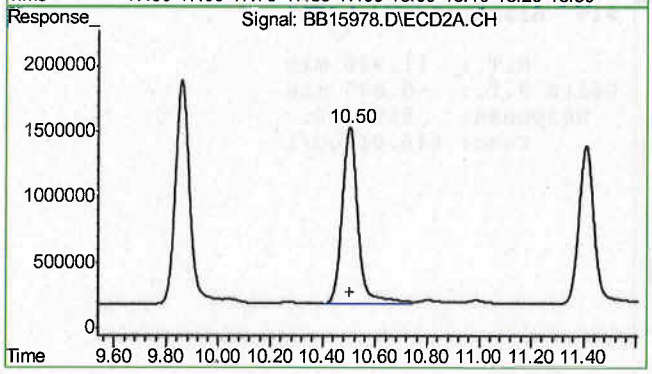
#11 beta-BHC

R.T.: 12.584 min
Delta R.T.: 0.000 min
Response: 2994604
Conc: 54.27 ppb



#12 Heptachlor

R.T.: 17.961 min
Delta R.T.: -0.007 min
Response: 2822788
Conc: 76.68 ppb

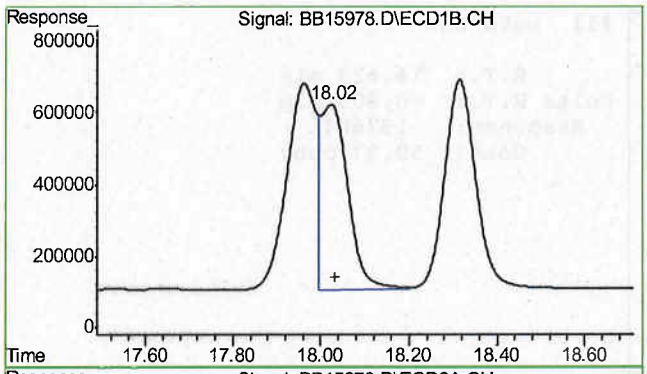


#12 Heptachlor

R.T.: 10.501 min
Delta R.T.: 0.000 min
Response: 5642103
Conc: 54.83 ppb

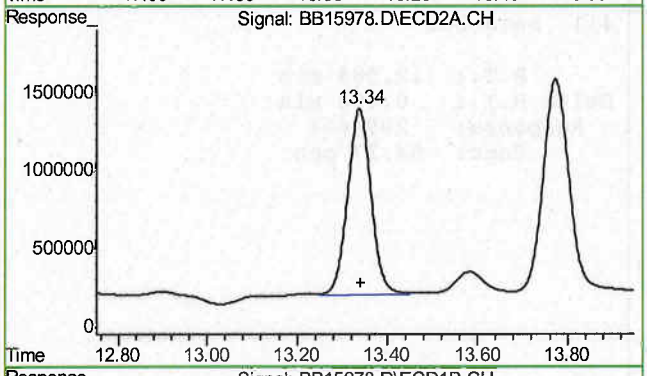
6.4.2

6



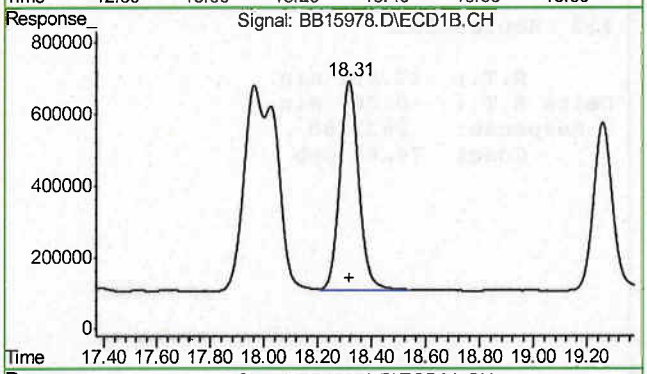
#13 delta-BHC

R.T.: 18.024 min
Delta R.T.: -0.009 min
Response: 2145366
Conc: 38.85 ppb m



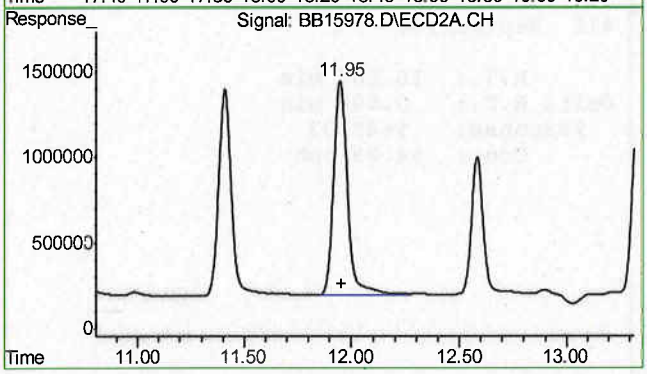
#13 delta-BHC

R.T.: 13.337 min
Delta R.T.: -0.004 min
Response: 4289317
Conc: 34.68 ppb



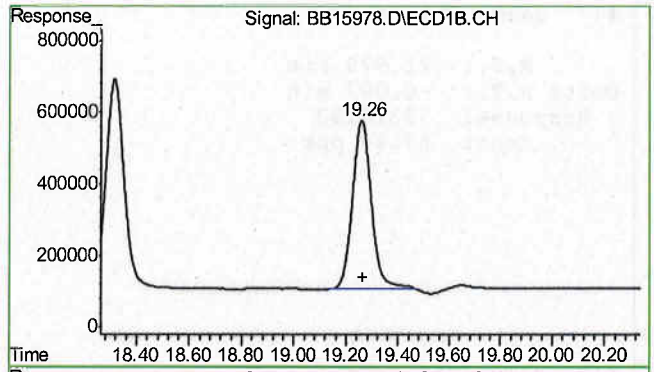
#14 Alachlor

R.T.: 18.314 min
Delta R.T.: -0.004 min
Response: 2848822
Conc: 519.28 ug/l



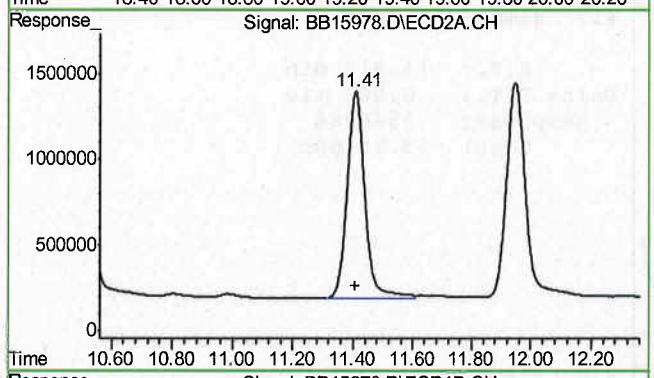
#14 Alachlor

R.T.: 11.946 min
Delta R.T.: -0.005 min
Response: 5581479
Conc: 646.01 ug/l



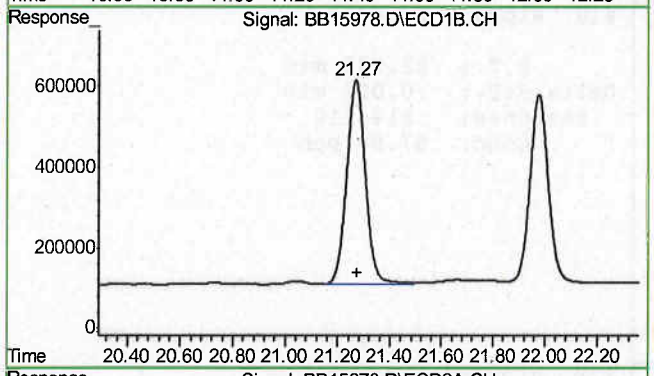
#15 Aldrin

R.T.: 19.258 min
Delta R.T.: -0.007 min
Response: 2393129
Conc: 50.95 ppb m



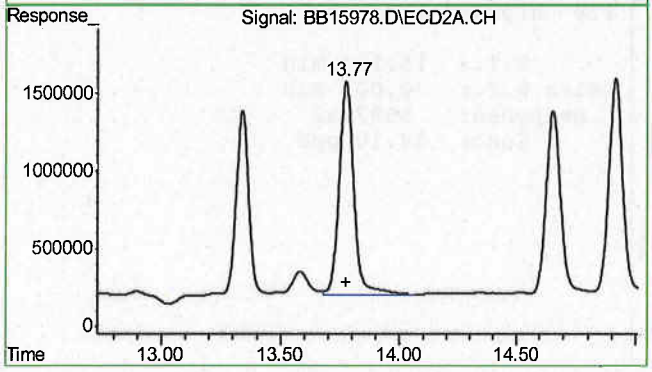
#15 Aldrin

R.T.: 11.409 min
Delta R.T.: 0.003 min
Response: 4932056
Conc: 46.63 ppb



#16 Heptachlor Epoxide

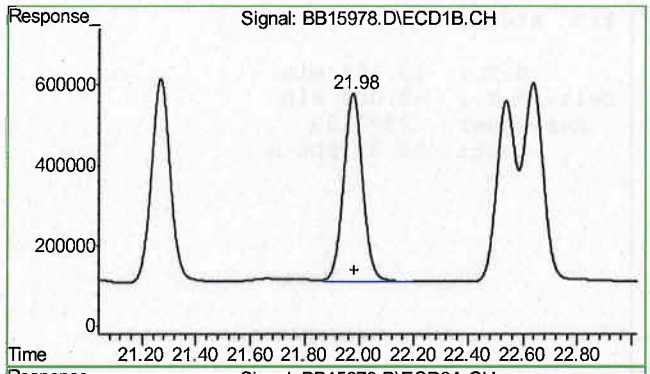
R.T.: 21.268 min
Delta R.T.: -0.007 min
Response: 2529369
Conc: 60.69 ppb



#16 Heptachlor Epoxide

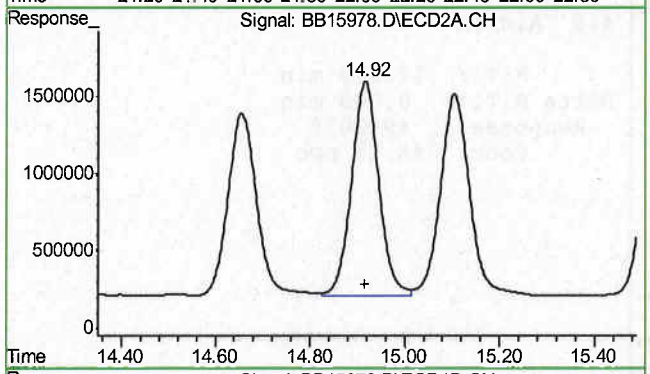
R.T.: 13.772 min
Delta R.T.: 0.000 min
Response: 5847278
Conc: 57.27 ppb

6.4.2 6



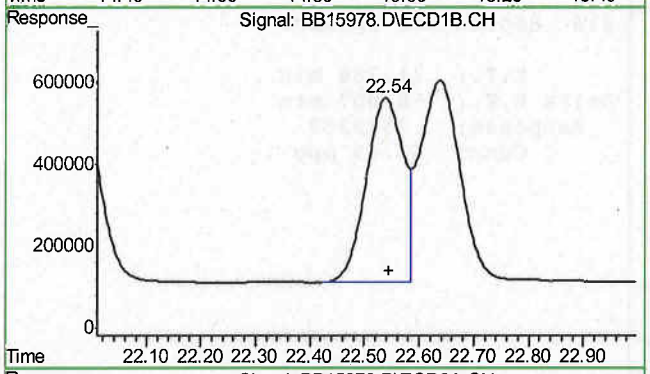
#17 gamma-Chlordane

R.T.: 21.978 min
Delta R.T.: -0.007 min
Response: 2316193
Conc: 57.60 ppb



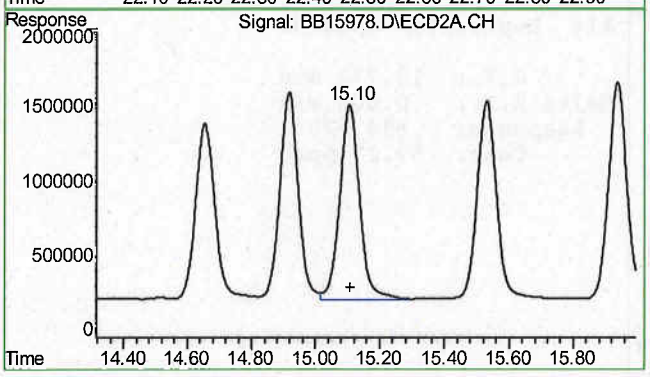
#17 gamma-Chlordane

R.T.: 14.917 min
Delta R.T.: 0.000 min
Response: 5548286
Conc: 53.24 ppb



#18 alpha-Chlordane

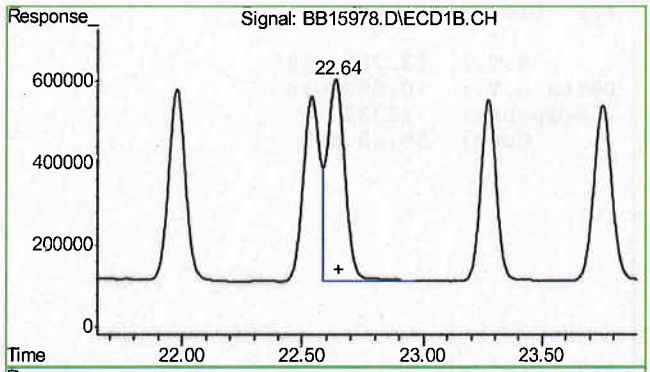
R.T.: 22.539 min
Delta R.T.: -0.007 min
Response: 2144110
Conc: 57.98 ppb



#18 alpha-Chlordane

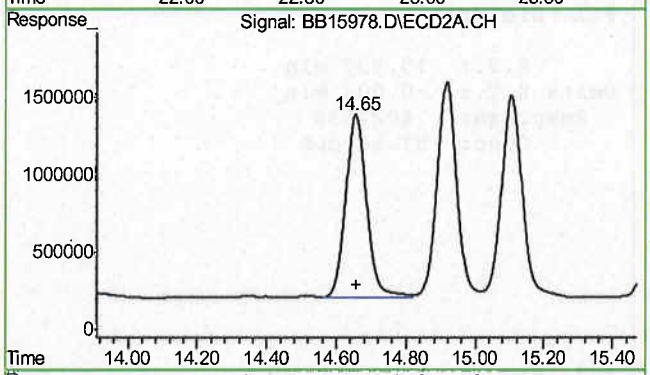
R.T.: 15.104 min
Delta R.T.: -0.006 min
Response: 5587552
Conc: 54.10 ppb

6.4.2 6



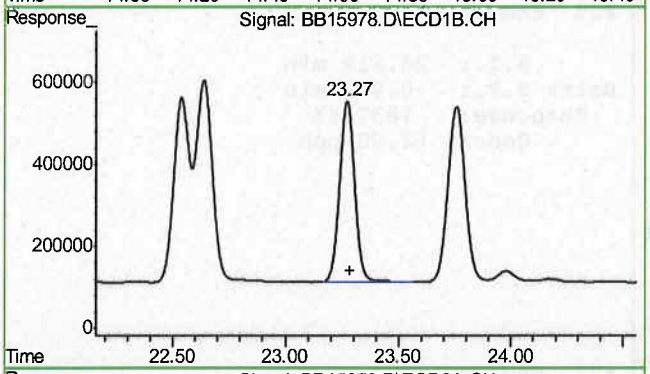
#19 Endosulfan-I

R.T.: 22.638 min
Delta R.T.: -0.011 min
Response: 2516612
Conc: 70.46 ppb



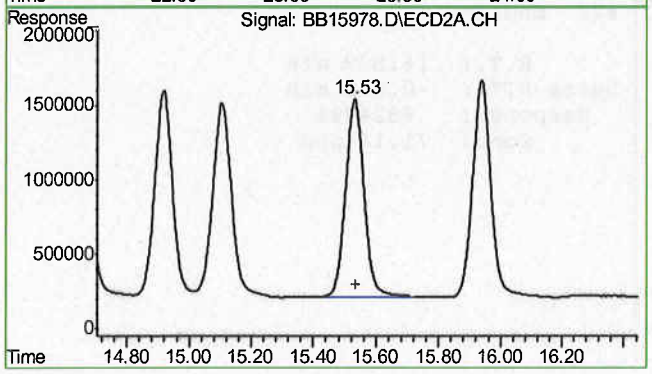
#19 Endosulfan-I

R.T.: 14.654 min
Delta R.T.: -0.004 min
Response: 4941984
Conc: 53.55 ppb



#20 4,4'-DDE

R.T.: 23.271 min
Delta R.T.: -0.011 min
Response: 2045140
Conc: 59.30 ppb



#20 4,4'-DDE

R.T.: 15.531 min
Delta R.T.: -0.004 min
Response: 5422332
Conc: 55.01 ppb

6.4.2

6

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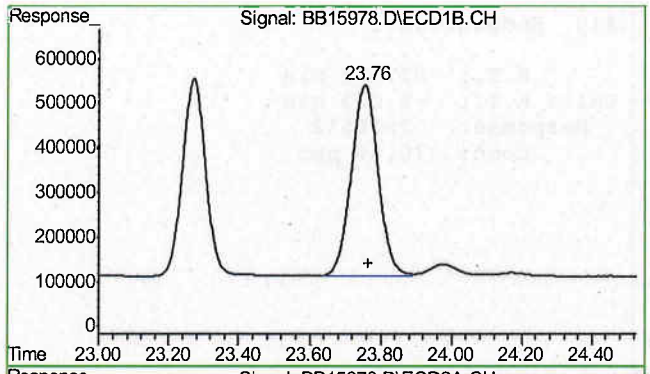
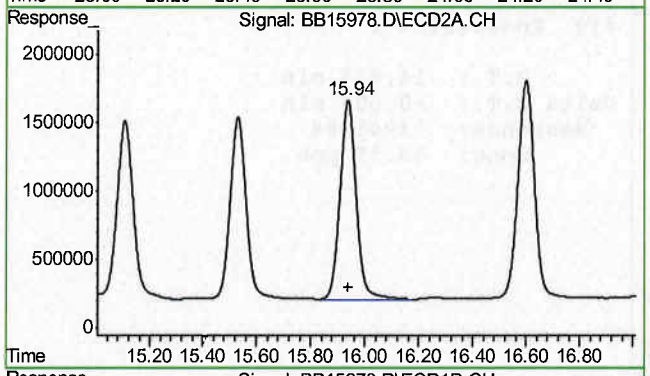


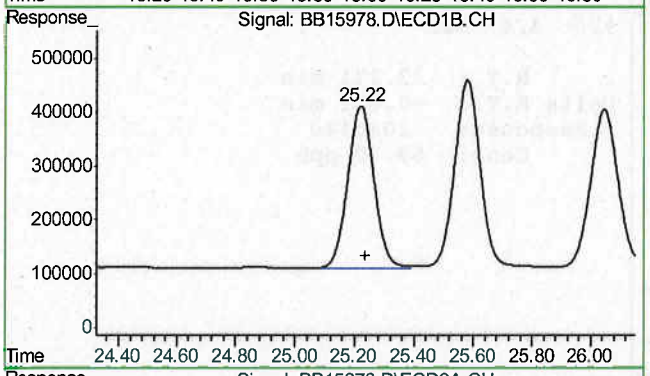
#21 Dieldrin

R.T.: 23.756 min
Delta R.T.: -0.009 min
Response: 2233274
Conc: 58.83 ppb



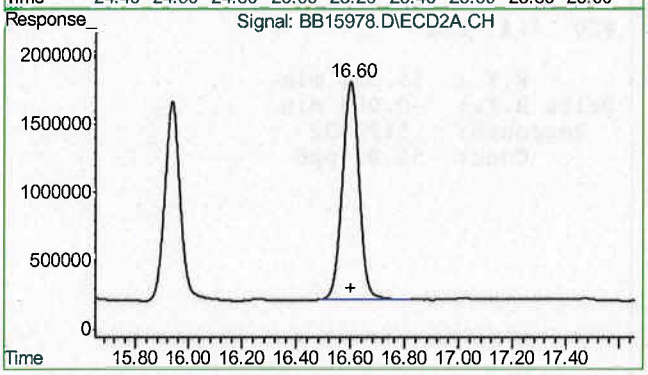
#21 Dieldrin

R.T.: 15.937 min
Delta R.T.: -0.004 min
Response: 6027630
Conc: 57.96 ppb



#22 Endrin

R.T.: 25.219 min
Delta R.T.: -0.017 min
Response: 1837463
Conc: 62.00 ppb



#22 Endrin

R.T.: 16.599 min
Delta R.T.: -0.002 min
Response: 6824386
Conc: 71.14 ppb

6.4.2

6

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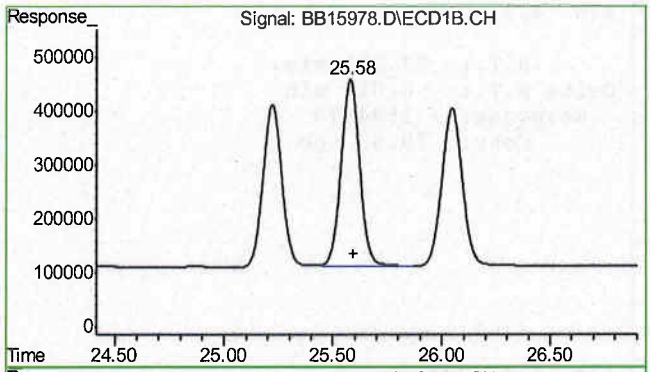
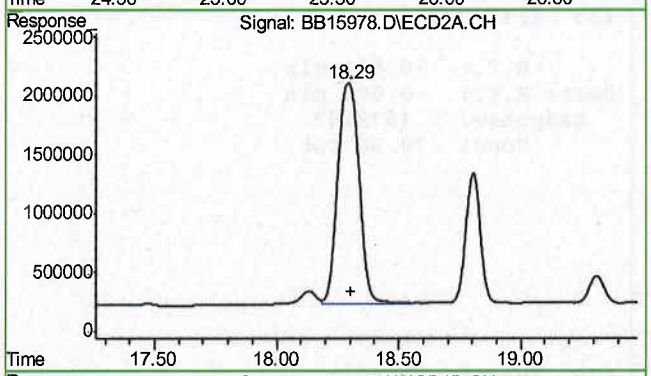


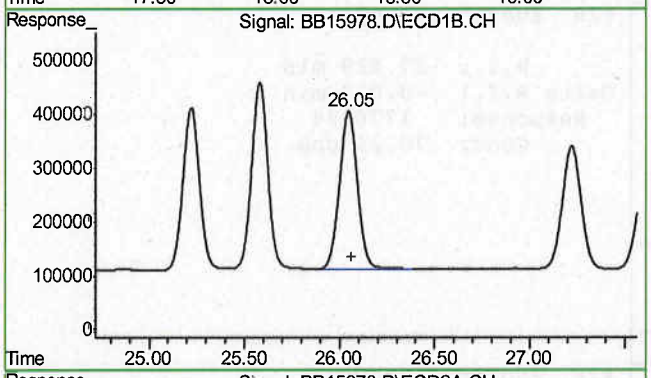
#23 4,4'-DDD

R.T.: 25.578 min
Delta R.T.: -0.017 min
Response: 2065237
Conc: 71.75 ppb



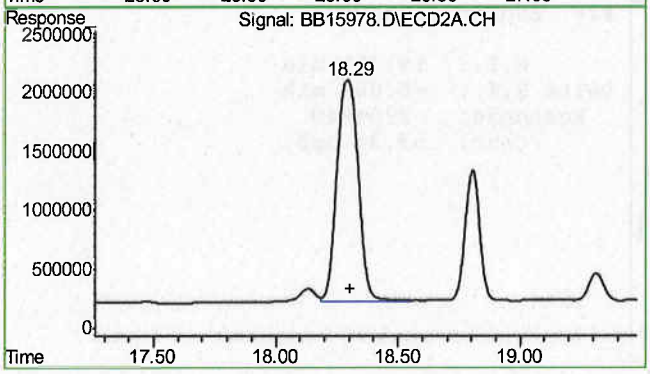
#23 4,4'-DDD

R.T.: 18.294 min
Delta R.T.: -0.012 min
Response: 11316243
Conc: 126.02 ppb



#24 Endosulfan-II

R.T.: 26.046 min
Delta R.T.: -0.017 min
Response: 1927613
Conc: 57.85 ppb

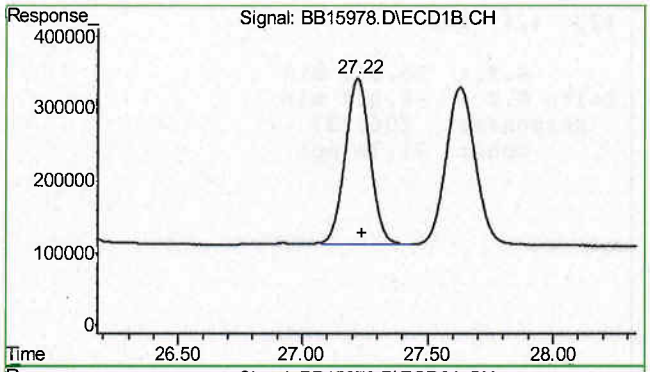


#24 Endosulfan-II

R.T.: 18.294 min
Delta R.T.: -0.012 min
Response: 11316243
Conc: 126.25 ppb

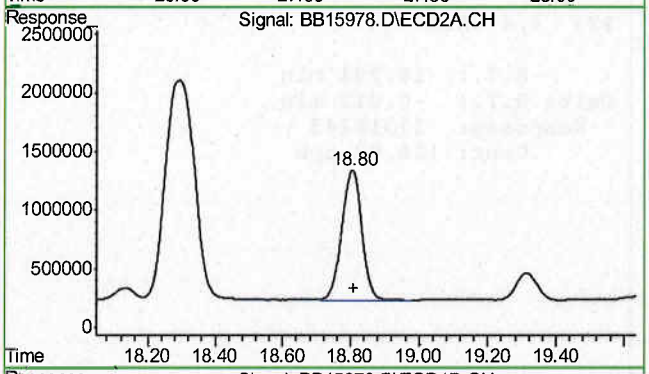
6.4.2

6



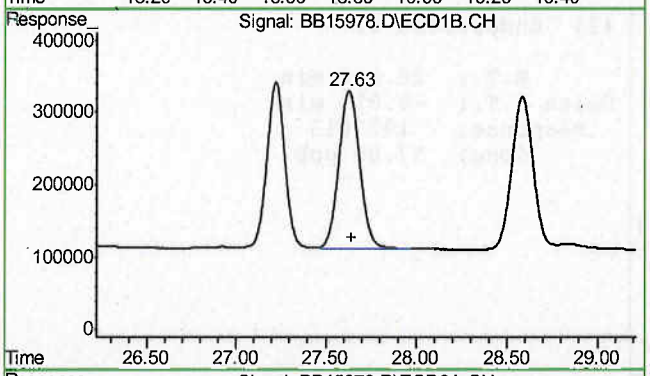
#25 4,4'-DDT

R.T.: 27.221 min
Delta R.T.: -0.017 min
Response: 1594479
Conc: 79.88 ppb



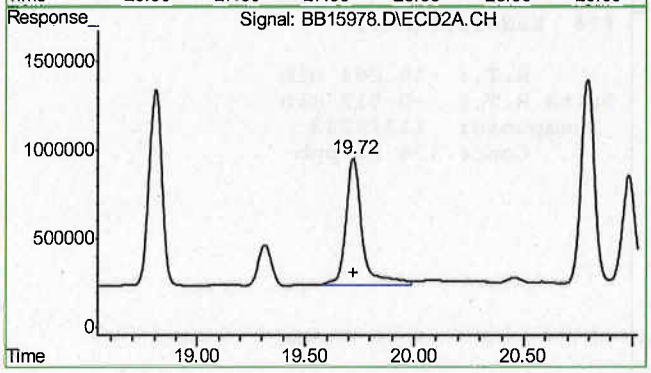
#25 4,4'-DDT

R.T.: 18.804 min
Delta R.T.: -0.004 min
Response: 4578197
Conc: 78.30 ppb



#26 Endrin aldehyde

R.T.: 27.629 min
Delta R.T.: -0.017 min
Response: 1776978
Conc: 70.24 ppb

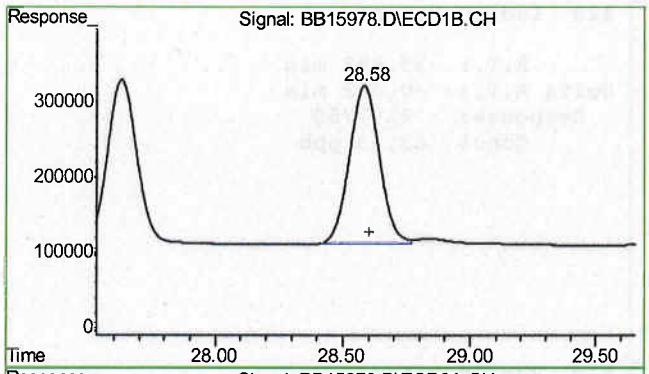


#26 Endrin aldehyde

R.T.: 19.721 min
Delta R.T.: -0.001 min
Response: 3704849
Conc: 53.34 ppb

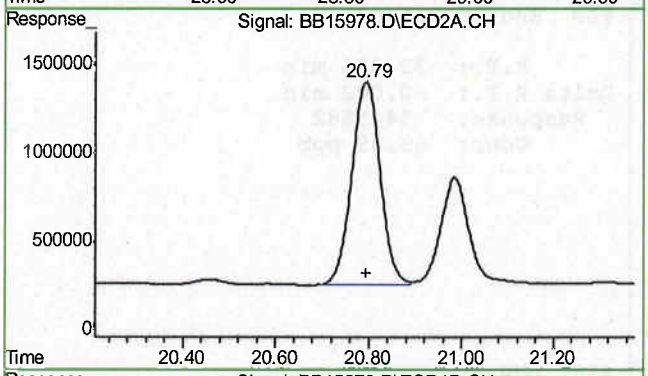
6.4.2

6



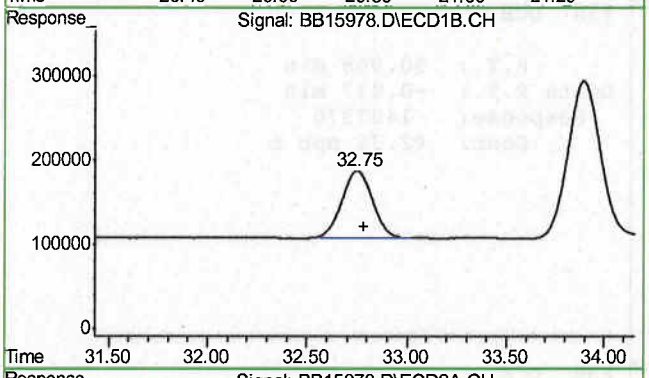
#27 Endosulfan sulfate

R.T.: 28.583 min
Delta R.T.: -0.021 min
Response: 1705218
Conc: 60.09 ppb



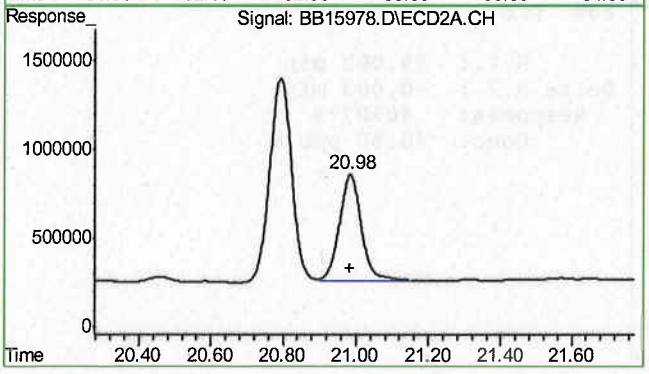
#27 Endosulfan sulfate

R.T.: 20.794 min
Delta R.T.: 0.000 min
Response: 4842315
Conc: 58.41 ppb



#28 Methoxychlor

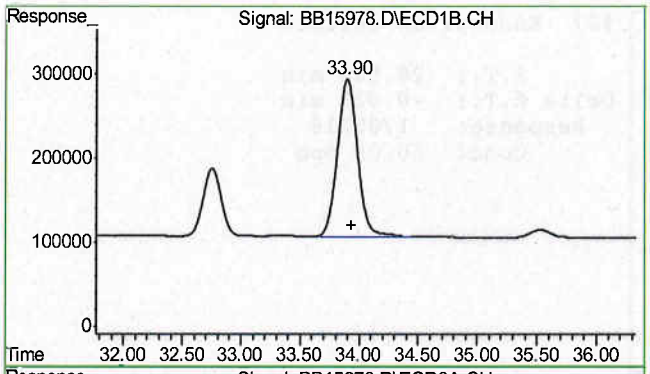
R.T.: 32.749 min
Delta R.T.: -0.034 min
Response: 843773
Conc: 74.29 ppb



#28 Methoxychlor

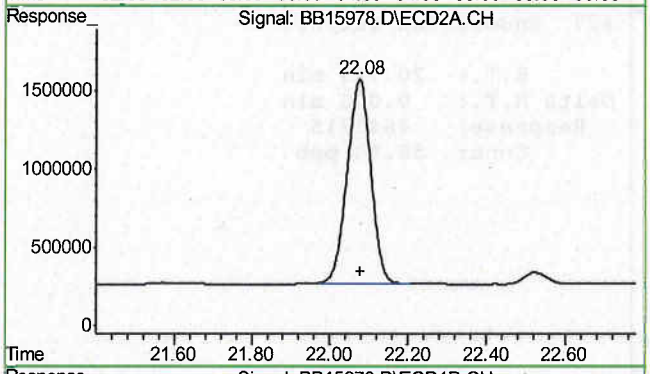
R.T.: 20.982 min
Delta R.T.: -0.002 min
Response: 2457146
Conc: 70.01 ppb

6.4.2 6



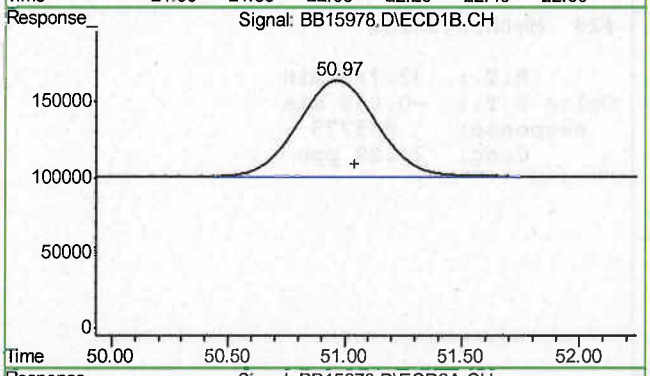
#29 Endrin ketone

R.T.: 33.898 min
Delta R.T.: -0.032 min
Response: 2197750
Conc: 63.63 ppb



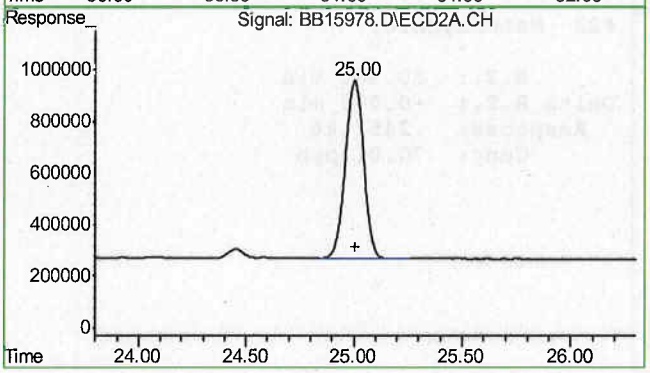
#29 Endrin ketone

R.T.: 22.076 min
Delta R.T.: -0.002 min
Response: 5445882
Conc: 63.89 ppb



#38 DCB

R.T.: 50.968 min
Delta R.T.: -0.077 min
Response: 1487370
Conc: 42.36 ppb m



#38 DCB

R.T.: 25.002 min
Delta R.T.: -0.003 min
Response: 4070779
Conc: 40.50 ppb m

6.4.2 6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15939.D\ECD1B.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BB15939.D\ECD2A.CH
Acq On : 9-20-07 04:17:40 PM Operator: caobinz
Sample : DDT Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 20 17:30:09 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Wed Sep 19 15:51:03 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.23	5.65	1505281	4156800	35.647	39.640
Spiked Amount 40.000			Recovery	=	89.12%	99.10%
38) s DCB	51.11	25.01	1231819	3617761	33.406m	36.543m
Spiked Amount 40.000			Recovery	=	83.52%	91.36%
Target Compounds						
20) 4,4'-DDE	23.30	15.55	8190	17806	0.227m	0.177m
22) Endrin	25.26	16.61	2829610	9545120	90.000m	98.553m
23) 4,4'-DDD	25.61	18.28	126440	404397	4.202m	4.552m
25) 4,4'-DDT	27.26	18.81	3965209	12665469	205.356	243.064
26) Endrin aldehyde	27.70	19.75	25314	12604	0.894m	0.170m#
29) Endrin ketone	33.98	22.09	38616	106983	1.126m	1.320m

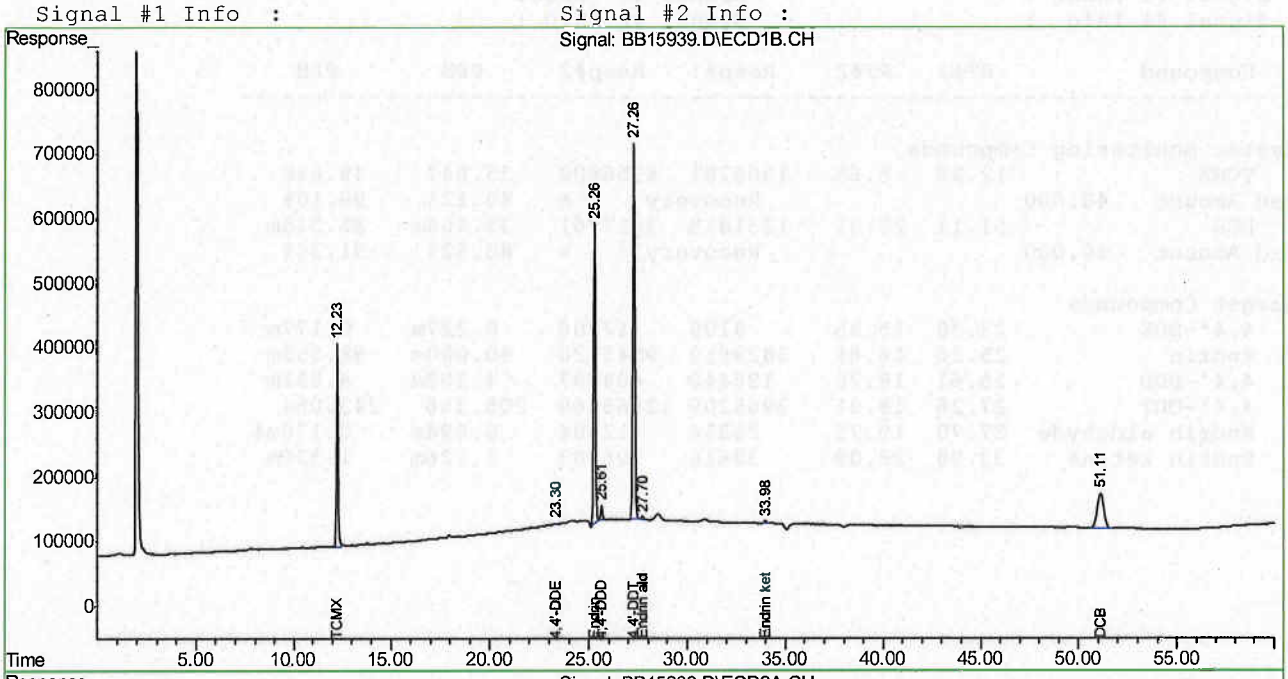
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15939.D PT092007.M Fri Sep 21 10:25:38 2007 GC23PRN

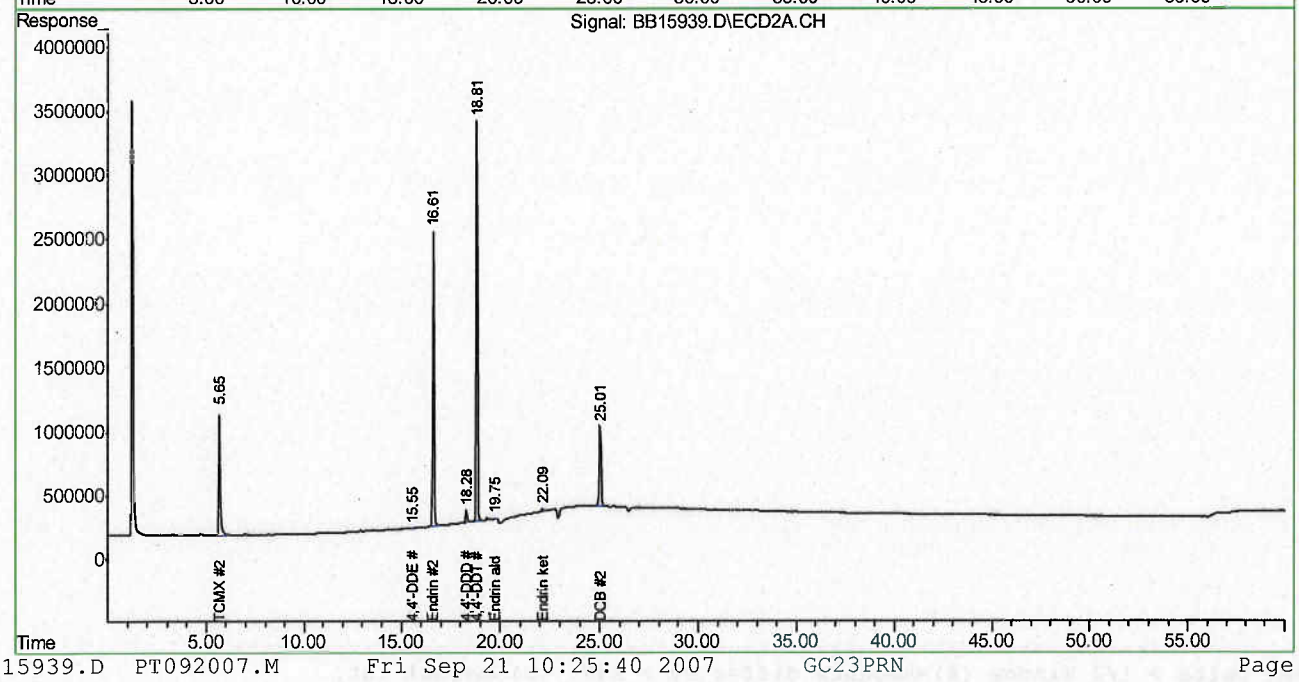
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15939.D\ECD1B.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BB15939.D\ECD2A.CH
Acq On : 9-20-07 04:17:40 PM Operator: caobinz
Sample : DDT Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 20 17:32 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Wed Sep 19 15:51:03 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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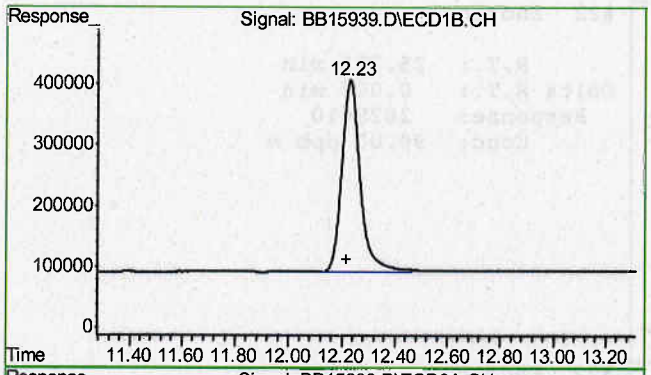
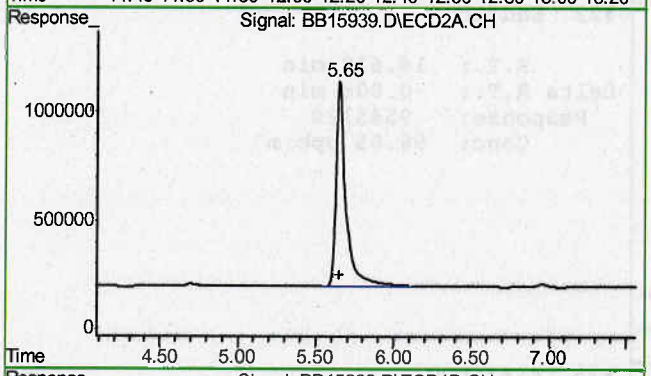


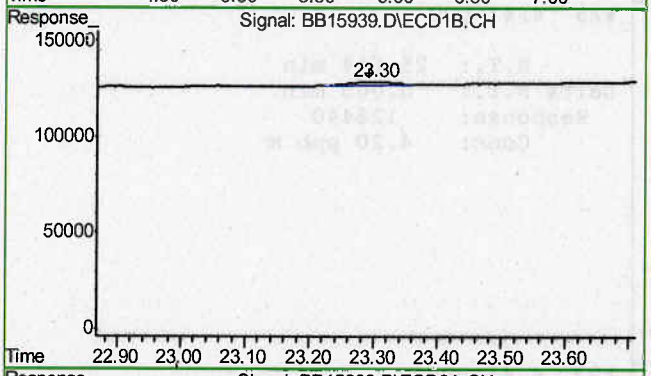
#1 TCMX

R.T.: 12.230 min
Delta R.T.: 0.015 min
Response: 1505281
Conc: 35.65 ppb



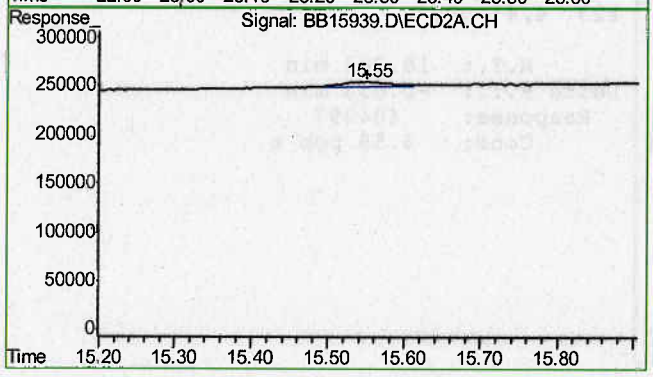
#1 TCMX

R.T.: 5.648 min
Delta R.T.: -0.003 min
Response: 4156800
Conc: 39.64 ppb



#20 4,4'-DDE

R.T.: 23.299 min
Delta R.T.: 0.007 min
Response: 8190
Conc: 0.23 ppb m

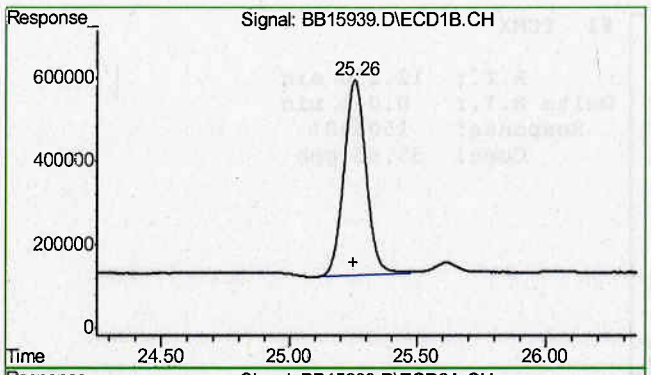


#20 4,4'-DDE

R.T.: 15.550 min
Delta R.T.: 0.000 min
Response: 17806
Conc: 0.18 ppb m

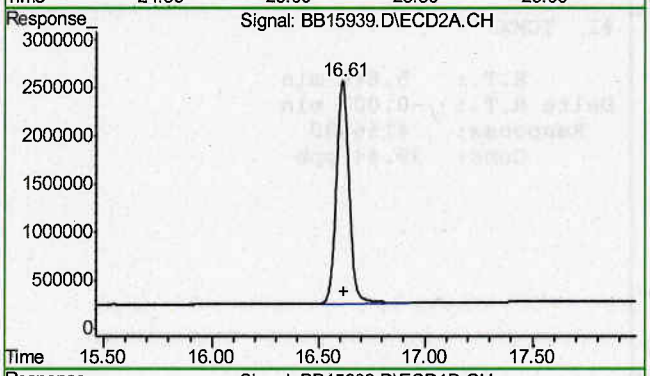
6.5.1

6



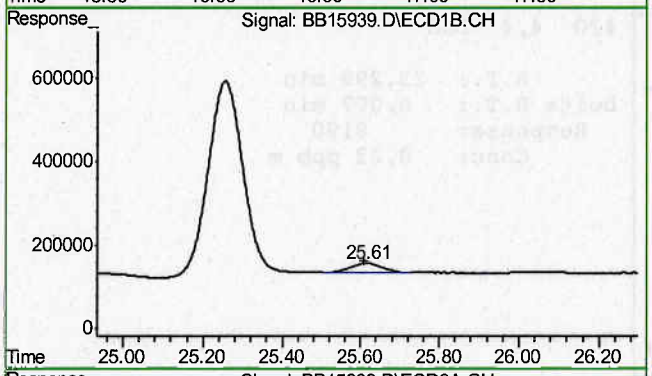
#22 Endrin

R.T.: 25.255 min
Delta R.T.: 0.003 min
Response: 2829610
Conc: 90.00 ppb m



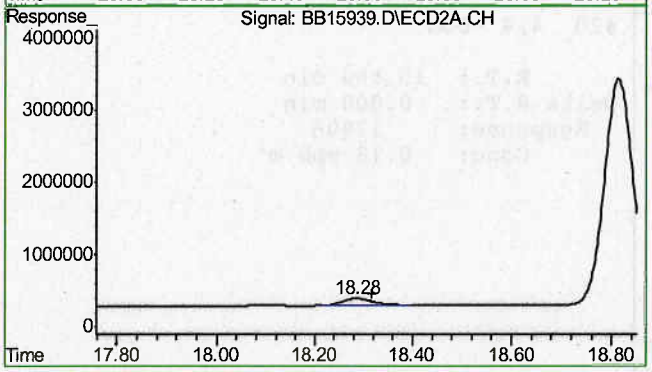
#22 Endrin

R.T.: 16.612 min
Delta R.T.: -0.008 min
Response: 9545120
Conc: 98.55 ppb m



#23 4,4'-DDD

R.T.: 25.614 min
Delta R.T.: 0.005 min
Response: 126440
Conc: 4.20 ppb m

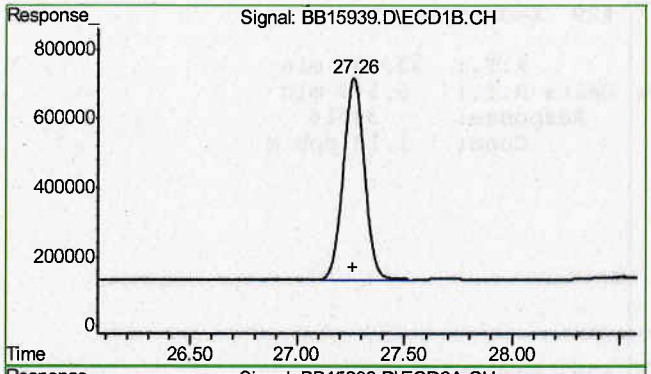


#23 4,4'-DDD

R.T.: 18.283 min
Delta R.T.: -0.033 min
Response: 404397
Conc: 4.55 ppb m

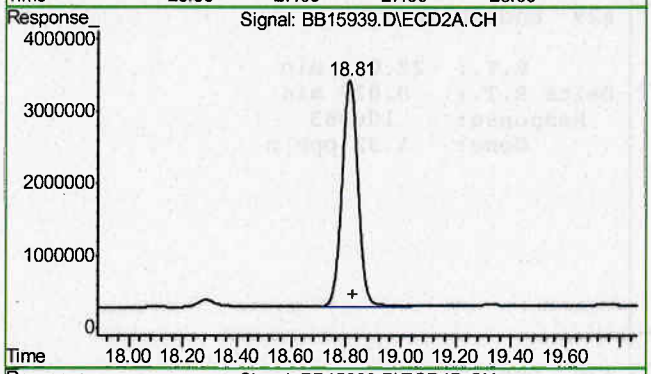
6.5.1

6



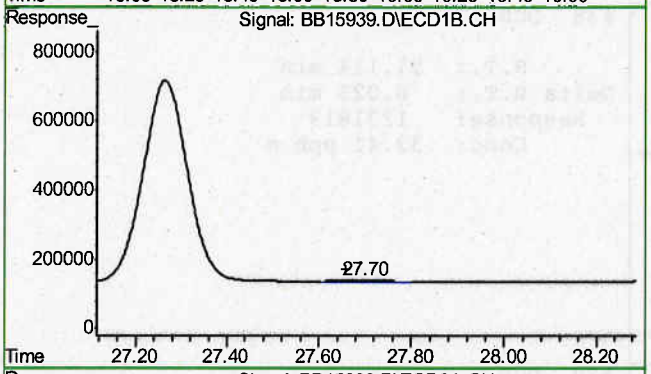
#25 4,4'-DDT

R.T.: 27.260 min
Delta R.T.: 0.002 min
Response: 3965209
Conc: 205.36 ppb



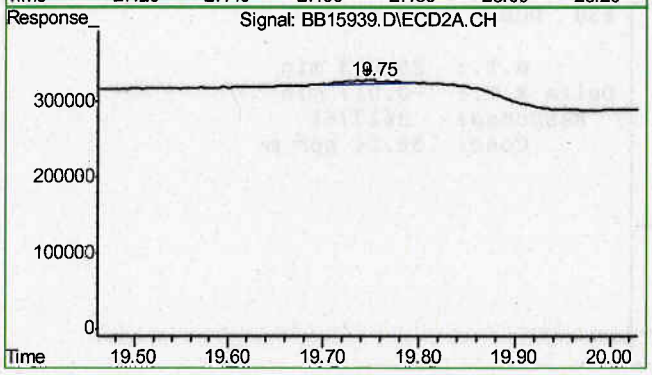
#25 4,4'-DDT

R.T.: 18.813 min
Delta R.T.: -0.010 min
Response: 12665469
Conc: 243.06 ppb



#26 Endrin aldehyde

R.T.: 27.697 min
Delta R.T.: 0.037 min
Response: 25314
Conc: 0.89 ppb m

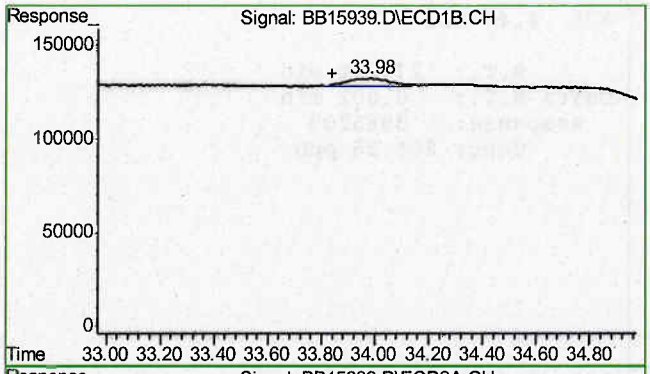


#26 Endrin aldehyde

R.T.: 19.752 min
Delta R.T.: 0.005 min
Response: 12604
Conc: 0.17 ppb m

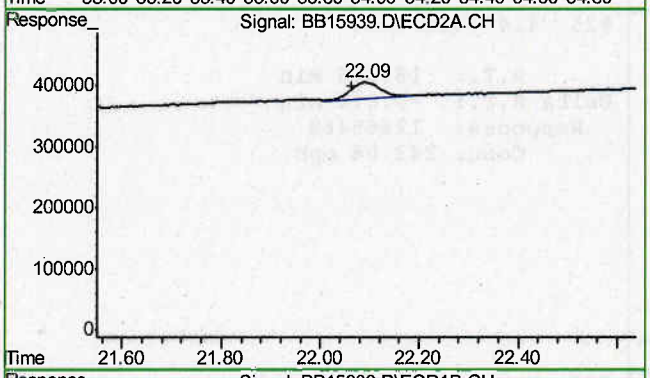
6.5.1

6



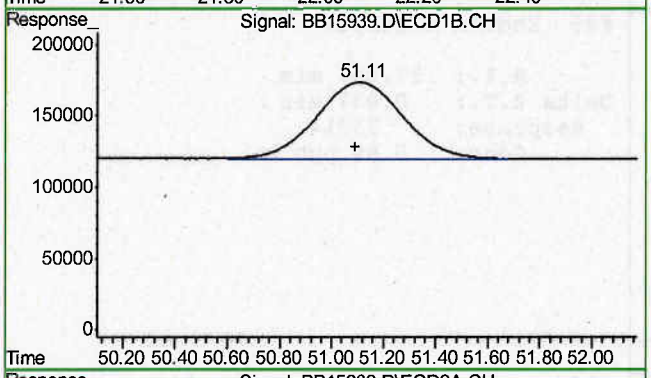
#29 Endrin ketone

R.T.: 33.980 min
Delta R.T.: 0.140 min
Response: 38616
Conc: 1.13 ppb m



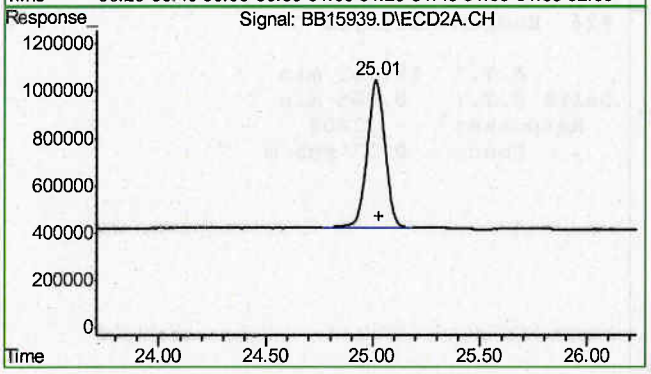
#29 Endrin ketone

R.T.: 22.090 min
Delta R.T.: 0.027 min
Response: 106983
Conc: 1.32 ppb m



#38 DCB

R.T.: 51.114 min
Delta R.T.: 0.023 min
Response: 1231819
Conc: 33.41 ppb m



#38 DCB

R.T.: 25.013 min
Delta R.T.: -0.017 min
Response: 3617761
Conc: 36.54 ppb m

6.5.1

6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
10/01/07 08:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15971.D\ECD1B.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BB15971.D\ECD2A.CH
Acq On : 9-22-07 03:05:50 AM Operator: caobinz
Sample : DDT Inst : GCBB-gc23
Misc : op14350,gbb667,15,,,10 Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 26 10:25:40 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.22	5.64	2311626	5922848	57.051	56.220
Spiked Amount 40.000			Recovery	=	142.63%	140.55%
38) s DCB	50.96	25.01	2094660	5910048	59.650m	58.800m
Spiked Amount 40.000			Recovery	=	149.13%	147.00%
Target Compounds						
20) 4,4'-DDE	23.28	15.54	24826	55593	0.720m	0.564m
22) Endrin	25.22	16.60	4235598	13567490	142.923	141.437
23) 4,4'-DDD	25.58	18.28	426456	1476238	14.815	16.439
25) 4,4'-DDT	27.22	18.80	7300531	22141493	365.741	378.673
26) Endrin aldehyde	27.64	19.73	199374	359143	7.880	5.170m#
29) Endrin ketone	33.91	22.07	256970	576550	7.440m	6.764m

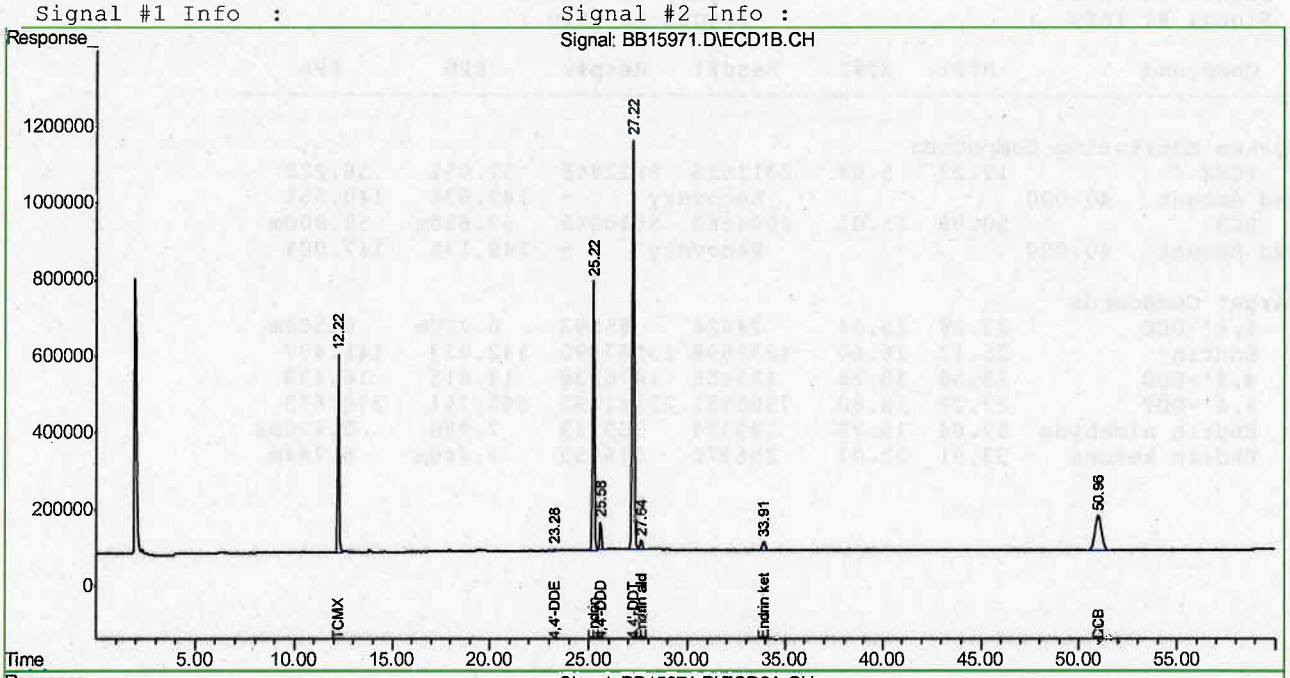
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15971.D PT092007.M Fri Sep 28 16:12:49 2007 GC23PRN

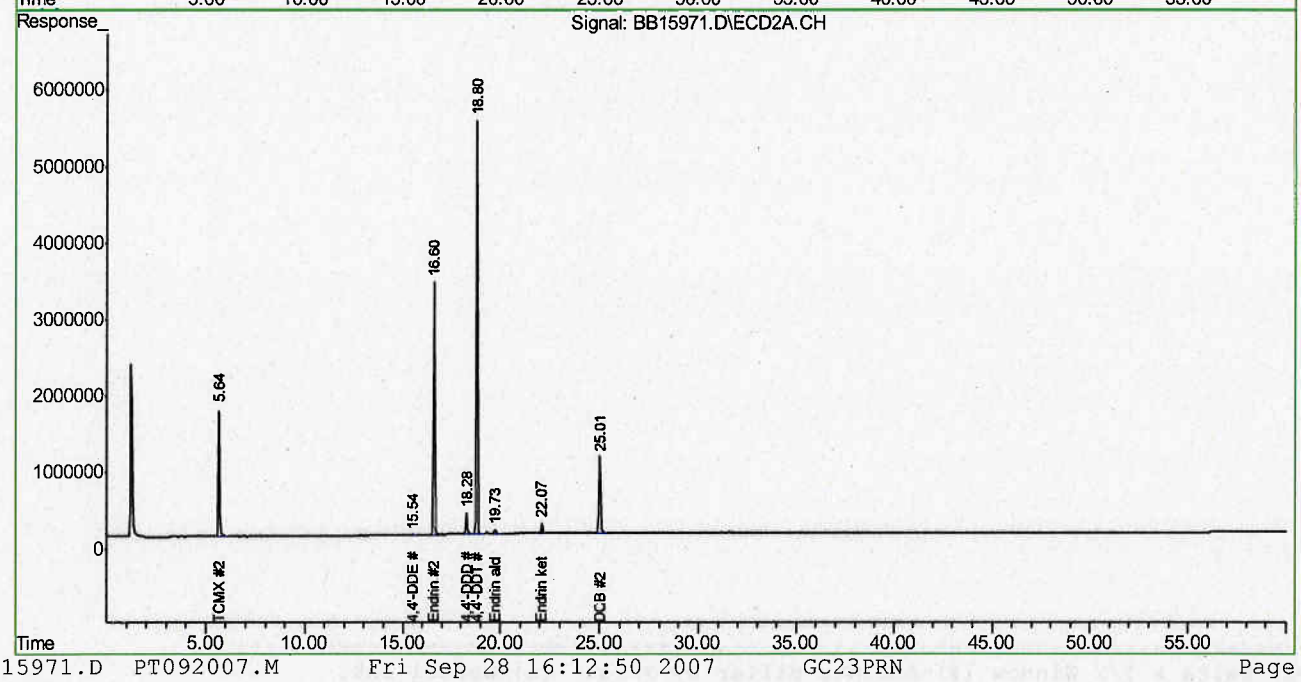
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15971.D\ECD1B.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BB15971.D\ECD2A.CH
Acq On : 9-22-07 03:05:50 AM Operator: caobinz
Sample : DDT Inst : GCBB-gc23
Misc : op14350,gbb667,15,,,10 Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 26 10:27 2007 Quant Results File: PT092007.RES

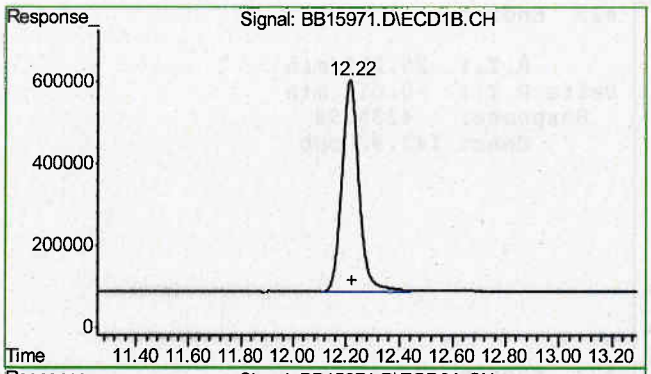
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



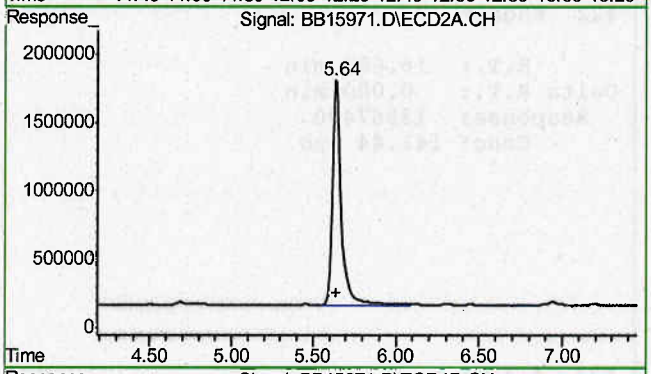


ACCUTEST Laboratories M67676



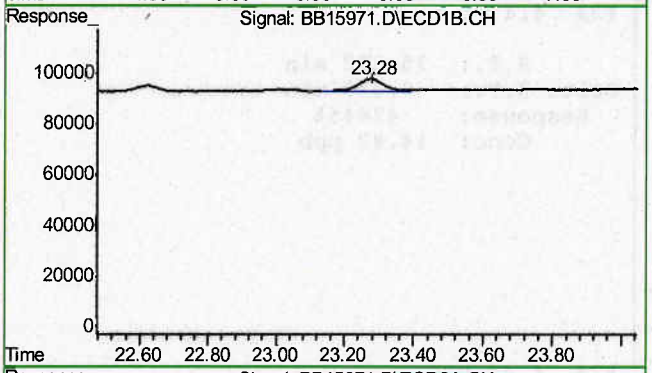
#1 TCMX

R.T.: 12.215 min
Delta R.T.: -0.006 min
Response: 2311626
Conc: 57.05 ppb



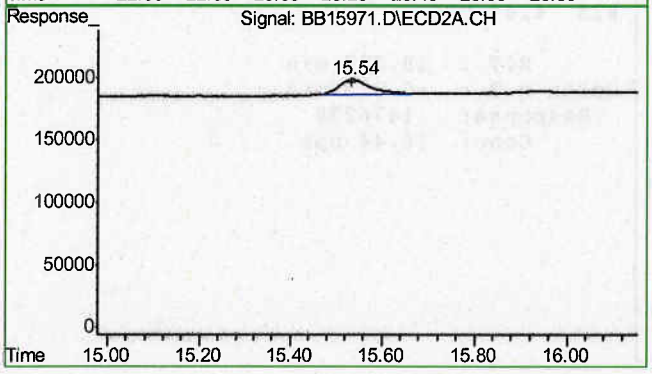
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.002 min
Response: 5922848
Conc: 56.22 ppb



#20 4,4'-DDE

R.T.: 23.275 min
Delta R.T.: -0.006 min
Response: 24826
Conc: 0.72 ppb m

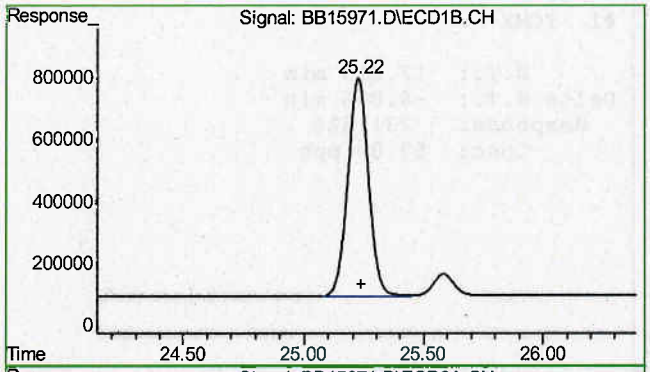


#20 4,4'-DDE

R.T.: 15.537 min
Delta R.T.: 0.002 min
Response: 55593
Conc: 0.56 ppb m

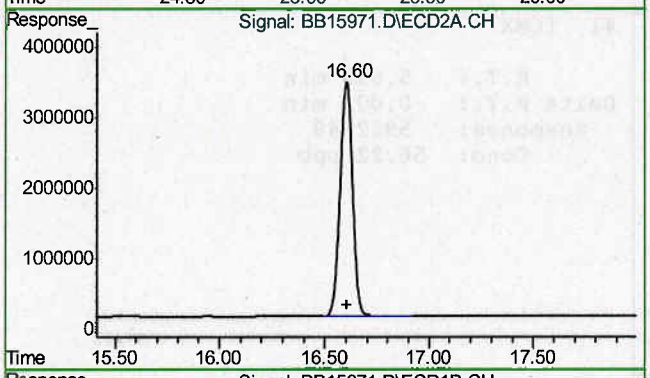
6.5.2

6



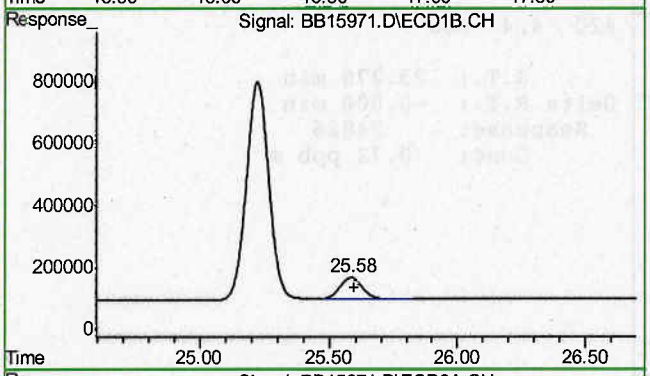
#22 Endrin

R.T.: 25.222 min
Delta R.T.: -0.014 min
Response: 4235598
Conc: 142.92 ppb



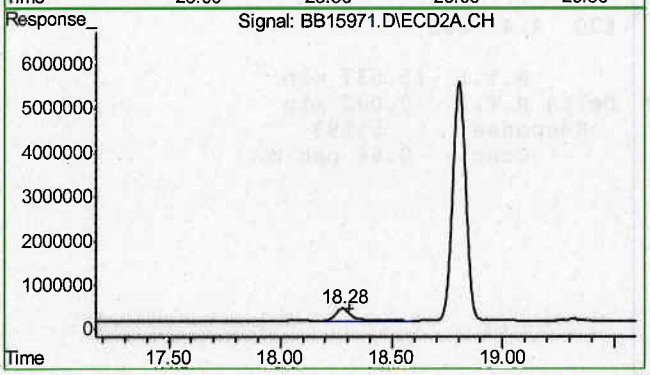
#22 Endrin

R.T.: 16.602 min
Delta R.T.: 0.000 min
Response: 13567490
Conc: 141.44 ppb



#23 4,4'-DDD

R.T.: 25.582 min
Delta R.T.: -0.013 min
Response: 426456
Conc: 14.82 ppb



#23 4,4'-DDD

R.T.: 18.277 min
Delta R.T.: -0.029 min
Response: 1476238
Conc: 16.44 ppb

6.5.2

6

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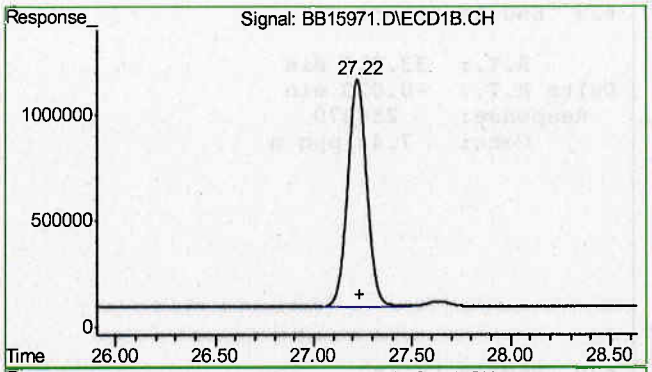
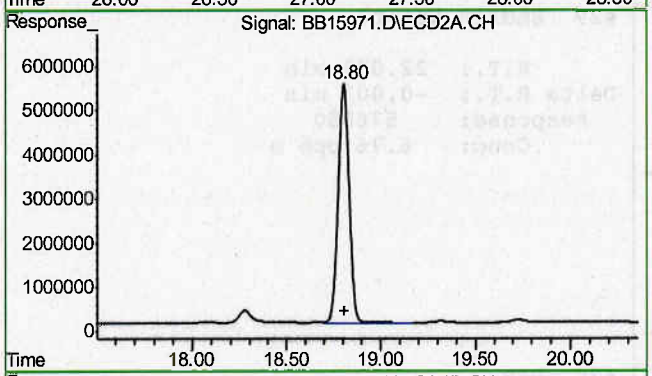


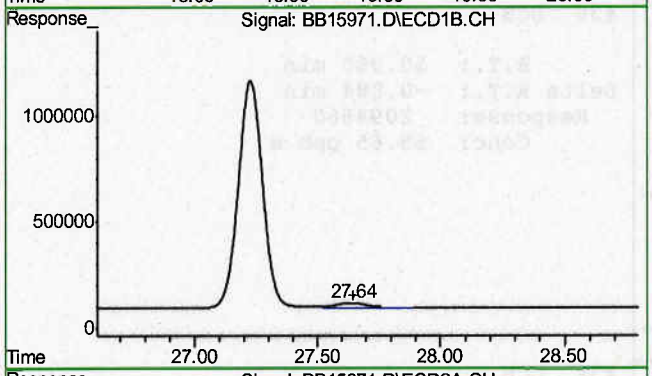
#25 4,4'-DDT

R.T.: 27.222 min
Delta R.T.: -0.016 min
Response: 7300531
Conc: 365.74 ppb



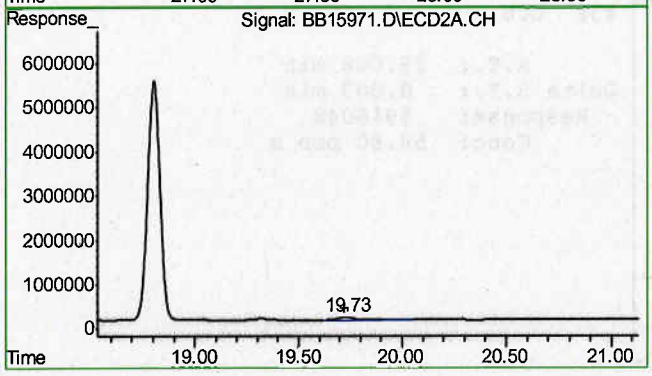
#25 4,4'-DDT

R.T.: 18.803 min
Delta R.T.: -0.005 min
Response: 22141493
Conc: 378.67 ppb



#26 Endrin aldehyde

R.T.: 27.637 min
Delta R.T.: -0.009 min
Response: 199374
Conc: 7.88 ppb

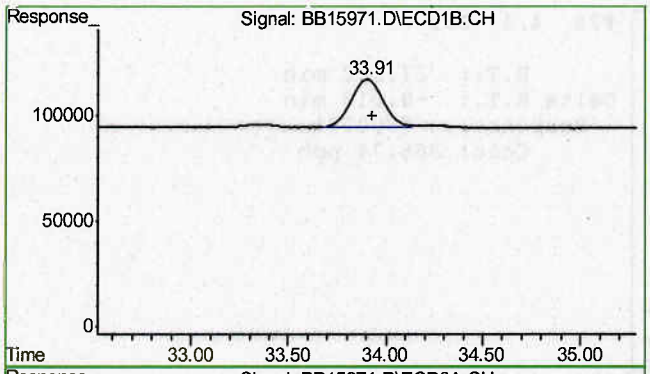


#26 Endrin aldehyde

R.T.: 19.728 min
Delta R.T.: 0.006 min
Response: 359143
Conc: 5.17 ppb m

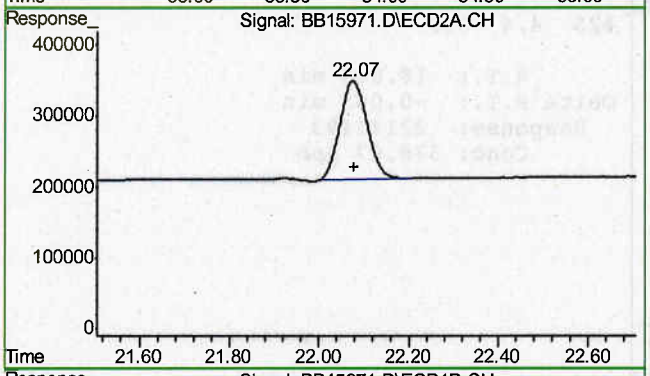
6.5.2

6



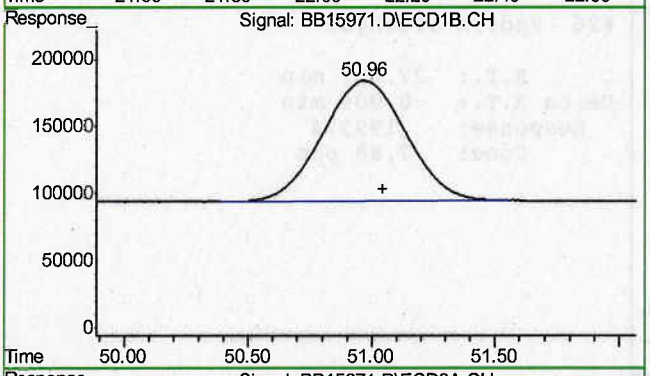
#29 Endrin ketone

R.T.: 33.910 min
Delta R.T.: -0.020 min
Response: 256970
Conc: 7.44 ppb m



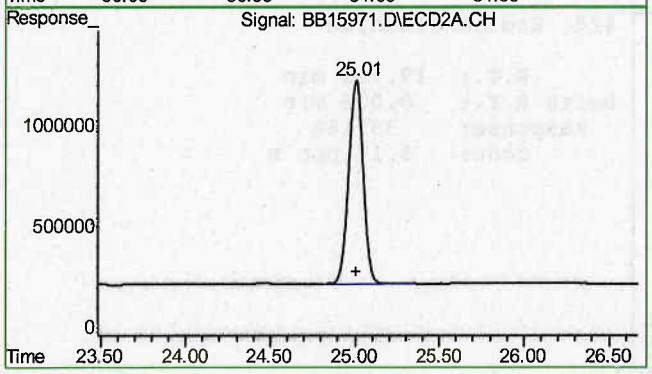
#29 Endrin ketone

R.T.: 22.075 min
Delta R.T.: -0.003 min
Response: 576550
Conc: 6.76 ppb m



#38 DCB

R.T.: 50.960 min
Delta R.T.: -0.084 min
Response: 2094660
Conc: 59.65 ppb m



#38 DCB

R.T.: 25.008 min
Delta R.T.: 0.003 min
Response: 5910048
Conc: 58.80 ppb m

6.5.2 6

ACCUTEST Laboratories M67676

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15940.D\ECD1B.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BB15940.D\ECD2A.CH
Acq On : 9-20-07 05:35:51 PM Operator: caobinz
Sample : ic667-1000,pest 1000 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:26:22 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Wed Sep 19 15:51:03 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	2949601	7830013	69.851	74.669
	Spiked Amount 40.000			Recovery	=	174.63%	186.67%
38) s	DCB	51.10	25.01	2256220	6476197	61.188m	65.416m
	Spiked Amount 40.000			Recovery	=	152.97%	163.54%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.91	46561525	108.0E6	880.953	898.552
9)	alpha-BHC	14.88	8.53	64112775	138.7E6	1006.916	1083.188
10)	gamma-BHC	16.40	9.87	54830328	127.8E6	1056.871	1121.350
11)	beta-BHC	16.63	12.59	23652042	56658782	954.390	1002.421
12)	Heptachlor	17.98	10.51	36544181	101.1E6	1064.700	1151.042
13)	delta-BHC	18.04	13.35	55888863	125.5E6	997.905	1062.213
14)	Alachlor	18.33	11.96	44611390	86389026	7949.315	10010.364 #
15)	Aldrin	19.27	11.42	45741285	102.5E6	948.580	983.016
16)	Heptachlor Epoxi	21.28	13.78	39128093	93324834	924.975	931.032
17)	gamma-Chlordane	21.99	14.93	38341980	100.6E6	933.817	963.473
18)	alpha-Chlordane	22.56	15.12	34390099	100.2E6	904.826	971.539
19)	Endosulfan-I	22.66	14.66	33577537	82302997	942.798	915.896
20)	4,4'-DDE	23.29	15.54	33855842	95137576	936.496	943.894
21)	Dieldrin	23.78	15.95	37090484	98320803	946.684	944.069
22)	Endrin	25.25	16.61	29124139	88434845	926.339	913.086
23)	4,4'-DDD	25.61	18.31	27444282	162.2E6	911.981	1825.787 #
24)	Endosulfan-II	26.08	18.31	30231797	162.2E6	896.013	1825.787 #
25)	4,4'-DDT	27.25	18.81	21897086	67802341	1134.039	1301.200
26)	Endrin aldehyde	27.66	19.73	25975998	70952165	917.681	954.999m
27)	Endosulfan sulfa	28.62	20.80	28841036	83413196	930.808	956.564
28)	Methoxychlor	32.80	20.99	10507790	33305122	894.748	1032.493
29)	Endrin ketone	33.95	22.08	31093212	78654447	906.540	970.431m

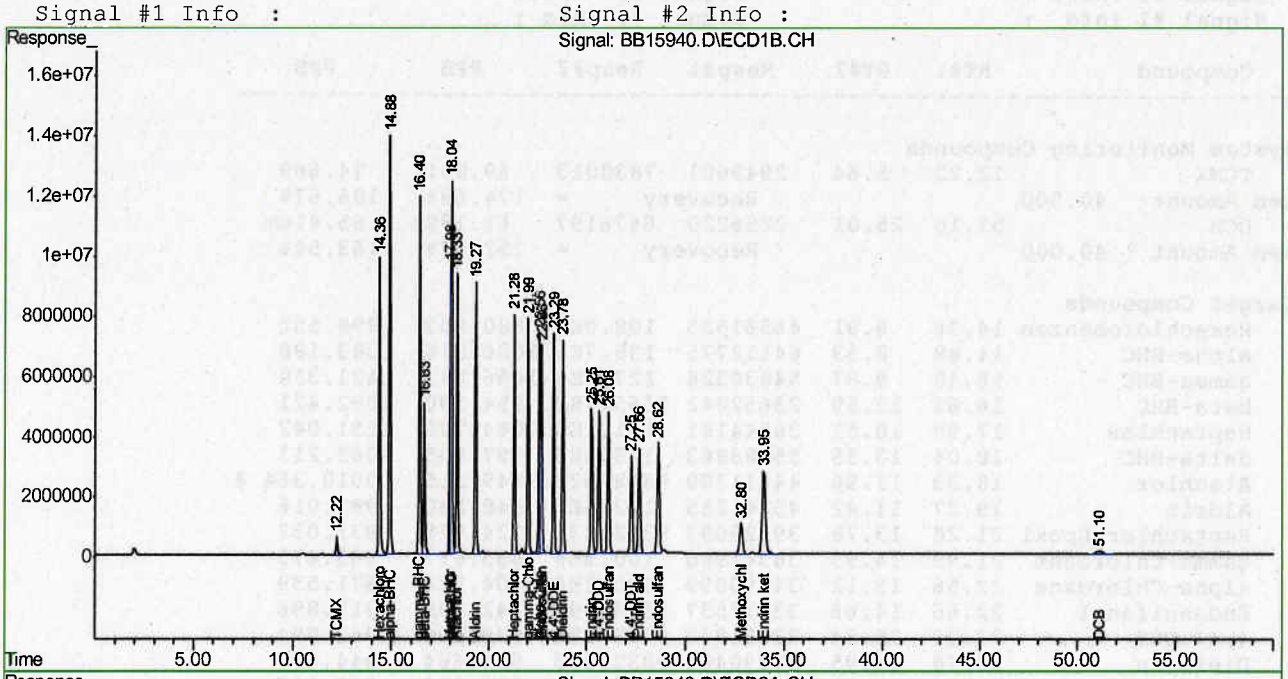
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15940.D PT092007.M Fri Sep 21 10:29:55 2007 GC23PRN

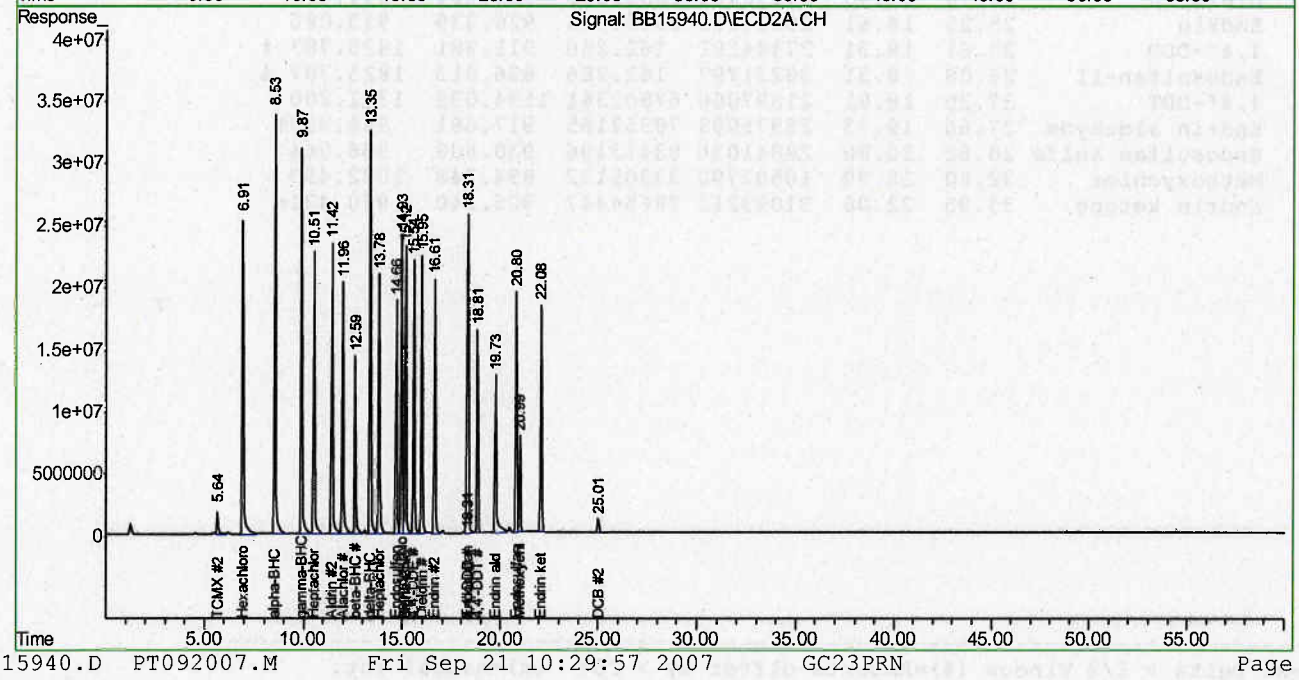
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15940.D\ECD1B.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BB15940.D\ECD2A.CH
Acq On : 9-20-07 05:35:51 PM Operator: caobinz
Sample : ic667-1000,pest 1000 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:29 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Wed Sep 19 15:51:03 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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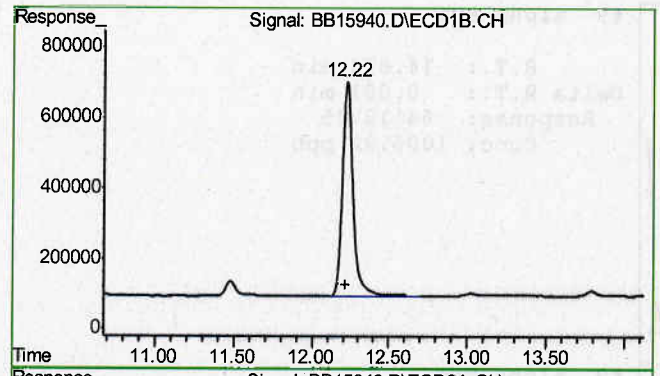
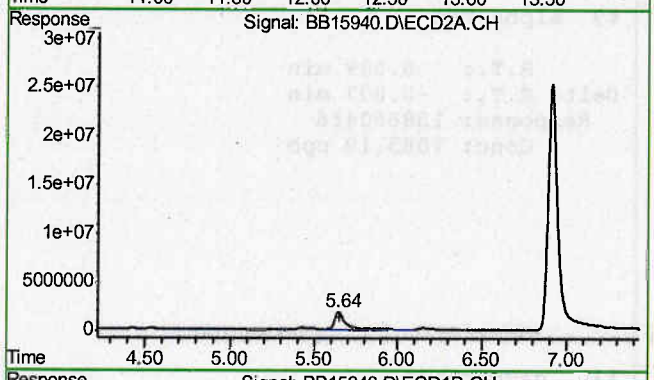


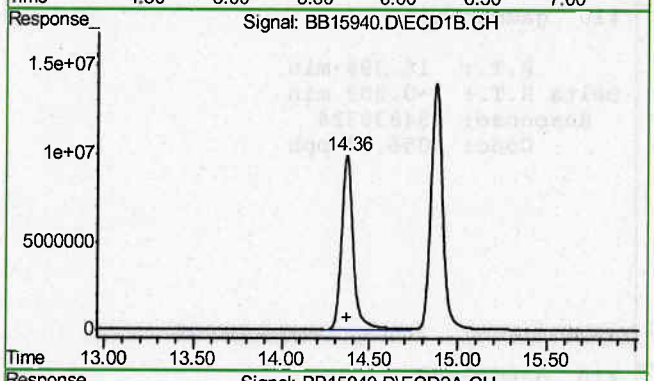
#1 TCMX

R.T.: 12.225 min
Delta R.T.: 0.009 min
Response: 2949601
Conc: 69.85 ppb



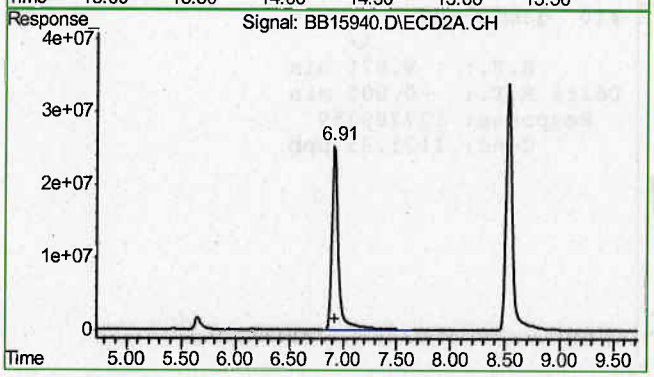
#1 TCMX

R.T.: 5.644 min
Delta R.T.: -0.007 min
Response: 7830013
Conc: 74.67 ppb



#8 Hexachlorobenzene

R.T.: 14.365 min
Delta R.T.: 0.000 min
Response: 46561525
Conc: 880.95 ug/l



#8 Hexachlorobenzene

R.T.: 6.911 min
Delta R.T.: -0.007 min
Response: 107983151
Conc: 898.55 ug/l

6.6.1

6

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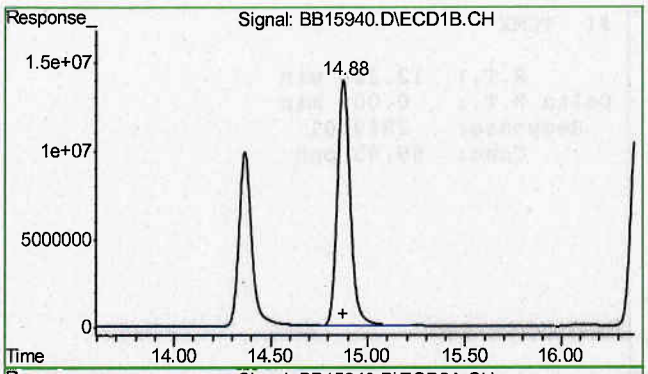
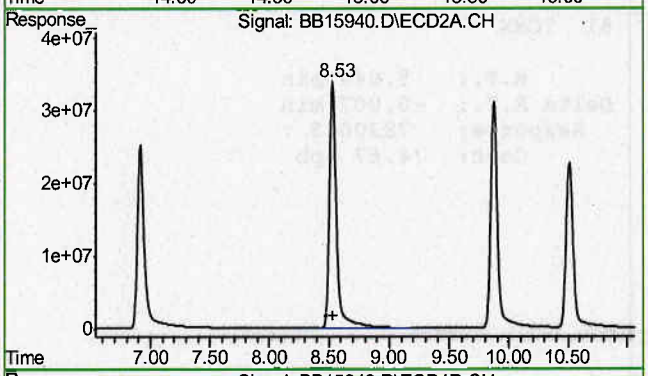


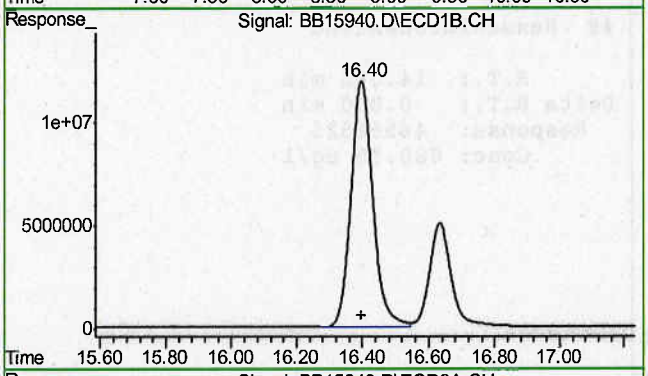
#9 alpha-BHC

R.T.: 14.878 min
Delta R.T.: 0.001 min
Response: 64112775
Conc: 1006.92 ppb



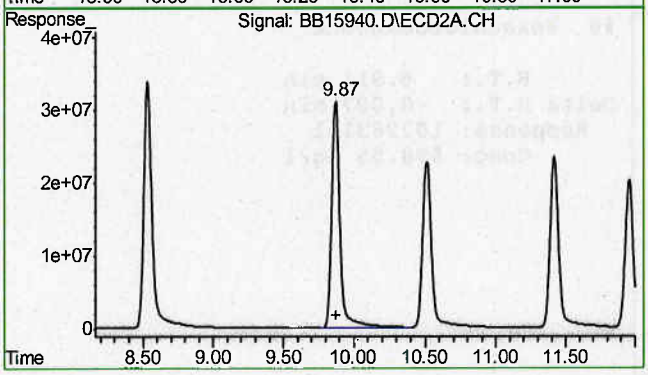
#9 alpha-BHC

R.T.: 8.529 min
Delta R.T.: -0.007 min
Response: 138660416
Conc: 1083.19 ppb



#10 gamma-BHC

R.T.: 16.396 min
Delta R.T.: -0.002 min
Response: 54830328
Conc: 1056.87 ppb



#10 gamma-BHC

R.T.: 9.871 min
Delta R.T.: -0.005 min
Response: 127789359
Conc: 1121.35 ppb

6.6.1

6

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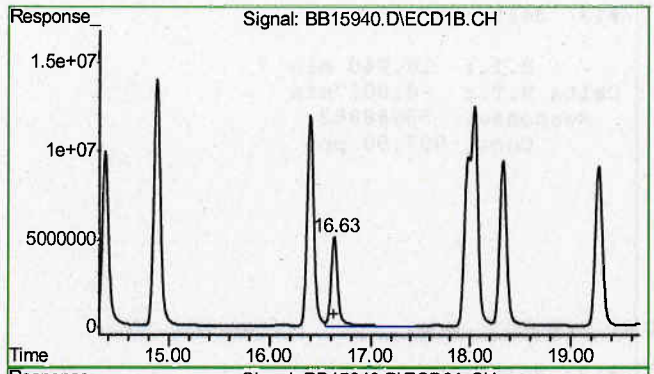
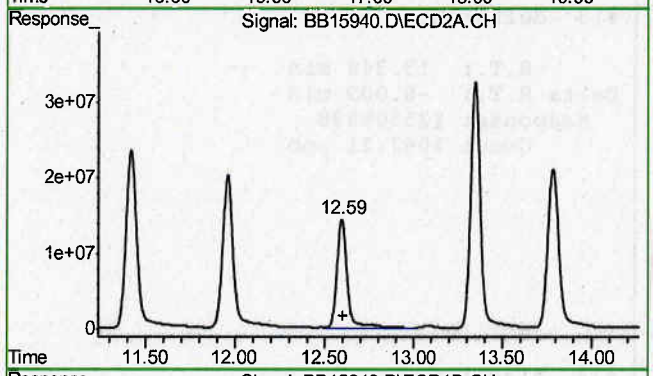


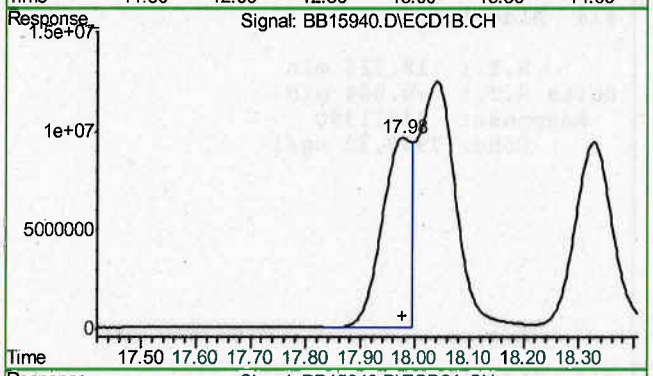
#11 beta-BHC

R.T.: 16.633 min
Delta R.T.: -0.002 min
Response: 23652042
Conc: 954.39 ppb



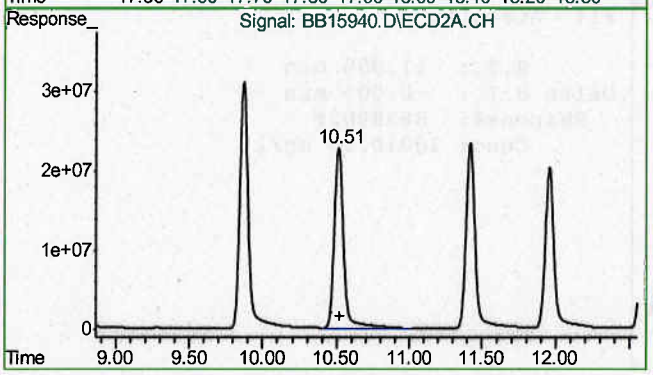
#11 beta-BHC

R.T.: 12.591 min
Delta R.T.: -0.009 min
Response: 56658782
Conc: 1002.42 ppb



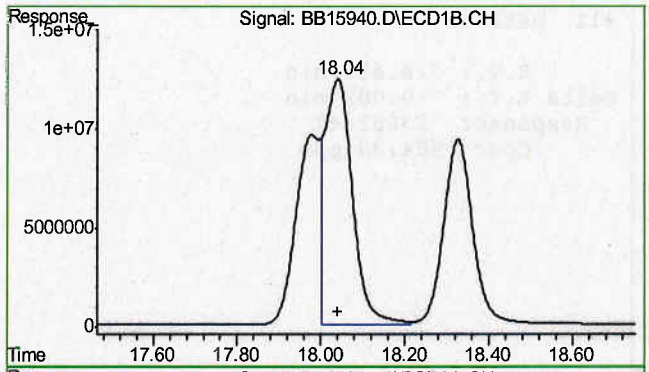
#12 Heptachlor

R.T.: 17.976 min
Delta R.T.: 0.000 min
Response: 36544181
Conc: 1064.70 ppb



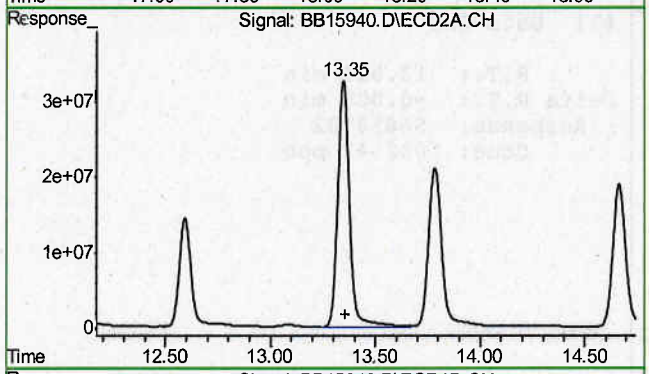
#12 Heptachlor

R.T.: 10.511 min
Delta R.T.: -0.007 min
Response: 101111035
Conc: 1151.04 ppb



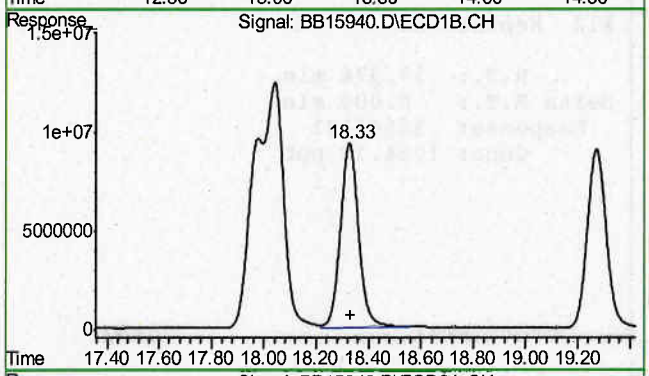
#13 delta-BHC

R.T.: 18.040 min
Delta R.T.: -0.002 min
Response: 55888863
Conc: 997.90 ppb



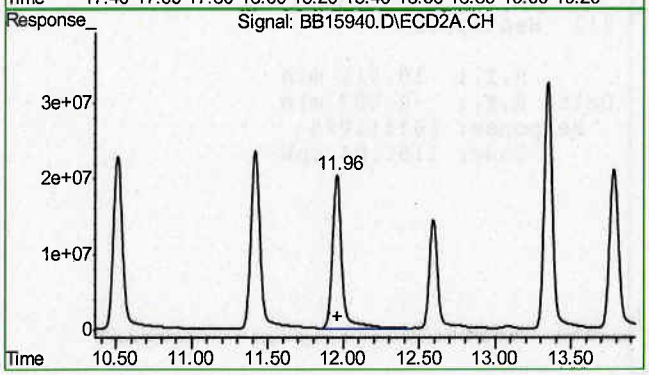
#13 delta-BHC

R.T.: 13.348 min
Delta R.T.: -0.009 min
Response: 125509898
Conc: 1062.21 ppb



#14 Alachlor

R.T.: 18.326 min
Delta R.T.: -0.004 min
Response: 44611390
Conc: 7949.32 ug/l

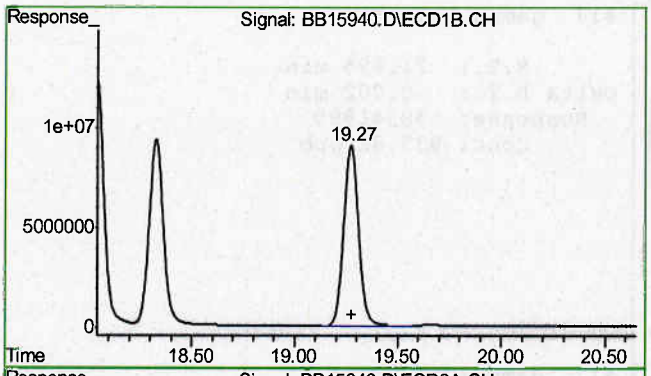


#14 Alachlor

R.T.: 11.959 min
Delta R.T.: -0.005 min
Response: 86389026
Conc: 10010.36 ug/l

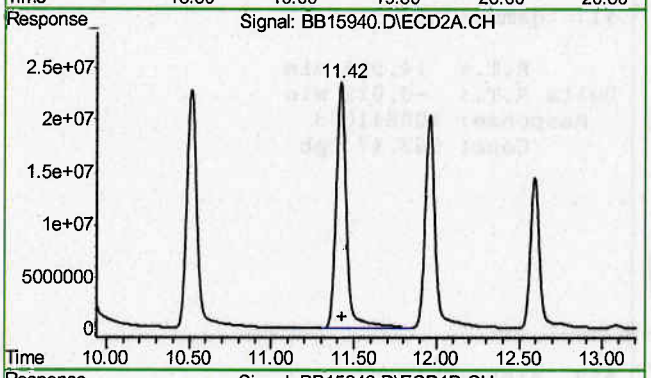
6.6.1

6



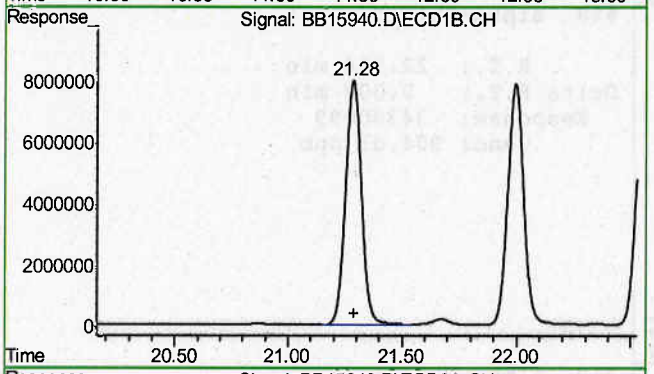
#15 Aldrin

R.T.: 19.271 min
Delta R.T.: -0.004 min
Response: 45741285
Conc: 948.58 ppb



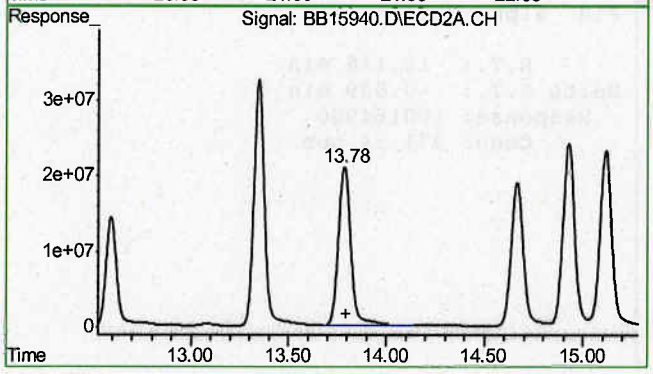
#15 Aldrin

R.T.: 11.418 min
Delta R.T.: -0.009 min
Response: 102474557
Conc: 983.02 ppb



#16 Heptachlor Epoxide

R.T.: 21.283 min
Delta R.T.: -0.002 min
Response: 39128093
Conc: 924.97 ppb

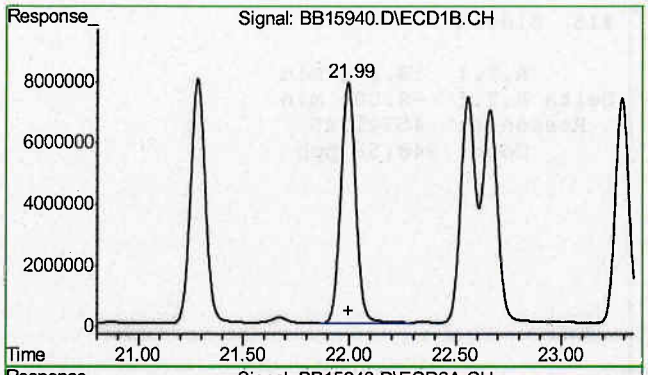


#16 Heptachlor Epoxide

R.T.: 13.783 min
Delta R.T.: -0.011 min
Response: 93324834
Conc: 931.03 ppb

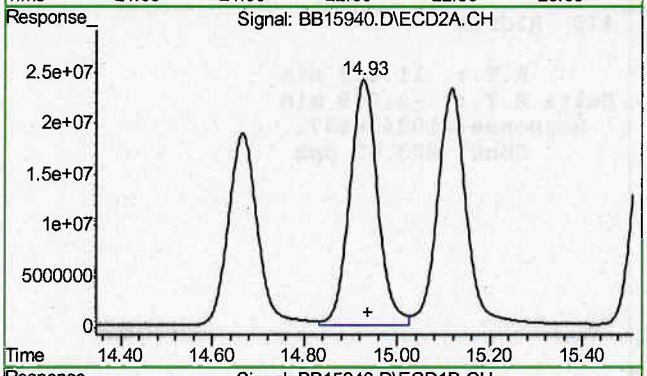
6.6.1

6



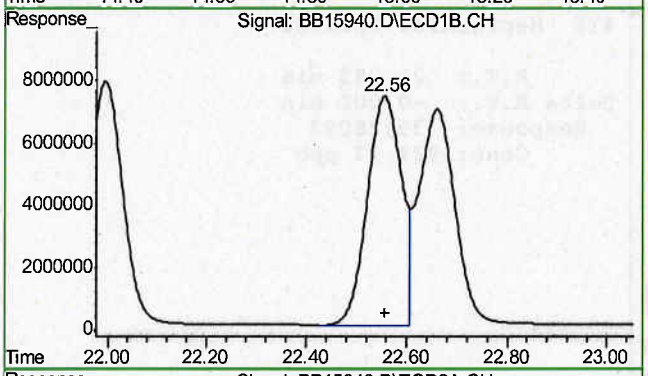
#17 gamma-Chlordane

R.T.: 21.995 min
Delta R.T.: -0.002 min
Response: 38341980
Conc: 933.82 ppb



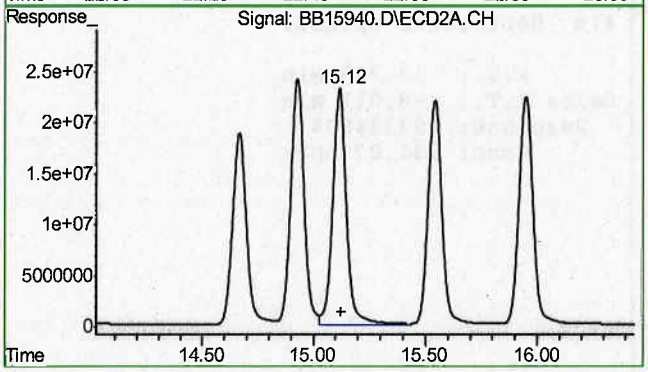
#17 gamma-Chlordane

R.T.: 14.926 min
Delta R.T.: -0.012 min
Response: 100641073
Conc: 963.47 ppb



#18 alpha-Chlordane

R.T.: 22.556 min
Delta R.T.: 0.000 min
Response: 34390099
Conc: 904.83 ppb

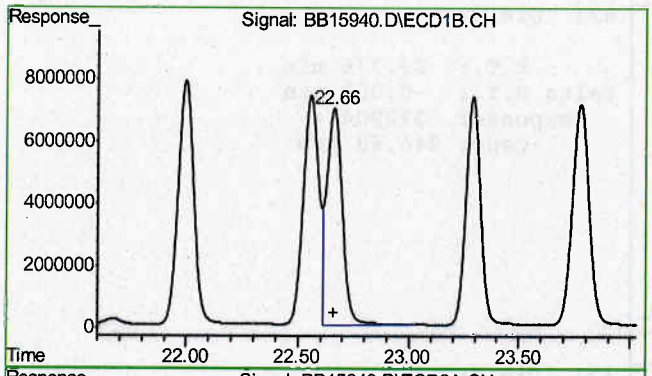


#18 alpha-Chlordane

R.T.: 15.118 min
Delta R.T.: -0.009 min
Response: 100164990
Conc: 971.54 ppb

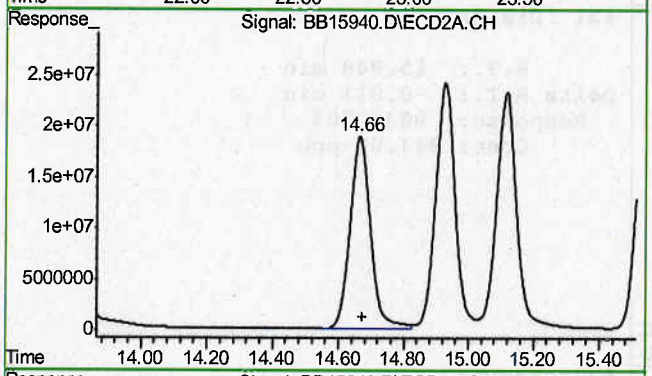
6.6.1

6



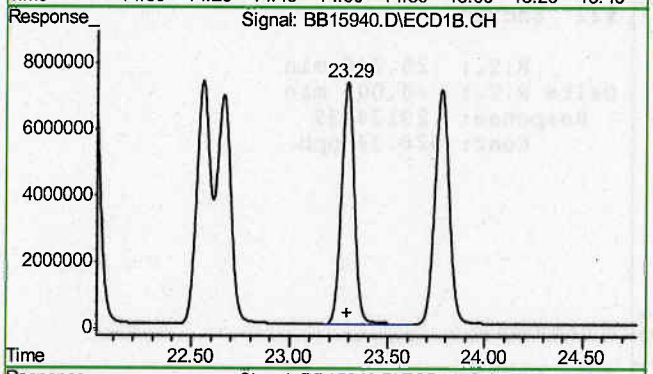
#19 Endosulfan-I

R.T.: 22.660 min
Delta R.T.: -0.002 min
Response: 33577537
Conc: 942.80 ppb



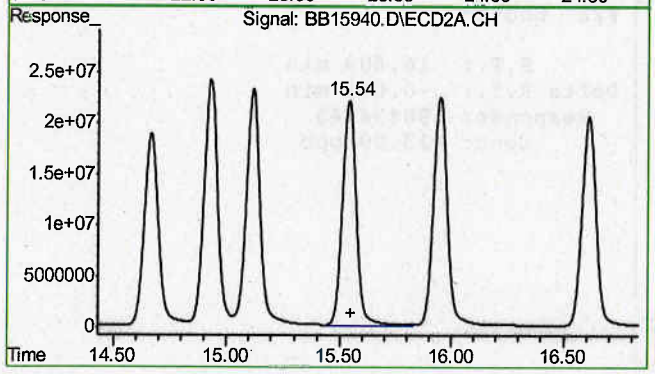
#19 Endosulfan-I

R.T.: 14.664 min
Delta R.T.: -0.011 min
Response: 82302997
Conc: 915.90 ppb



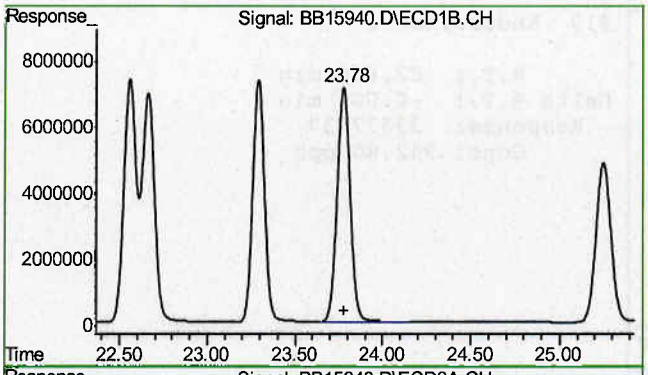
#20 4,4'-DDE

R.T.: 23.291 min
Delta R.T.: 0.000 min
Response: 33855842
Conc: 936.50 ppb



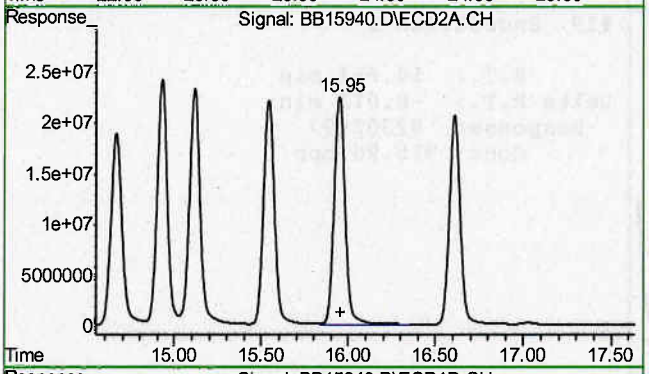
#20 4,4'-DDE

R.T.: 15.541 min
Delta R.T.: -0.009 min
Response: 95137576
Conc: 943.89 ppb



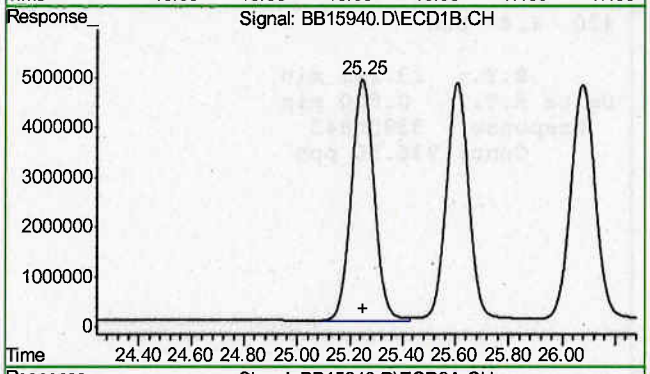
#21 Dieldrin

R.T.: 23.776 min
Delta R.T.: -0.002 min
Response: 37090484
Conc: 946.68 ppb



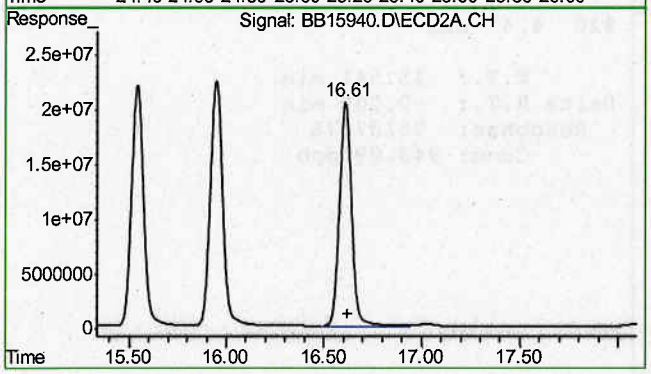
#21 Dieldrin

R.T.: 15.948 min
Delta R.T.: -0.011 min
Response: 98320803
Conc: 944.07 ppb



#22 Endrin

R.T.: 25.246 min
Delta R.T.: -0.006 min
Response: 29124139
Conc: 926.34 ppb

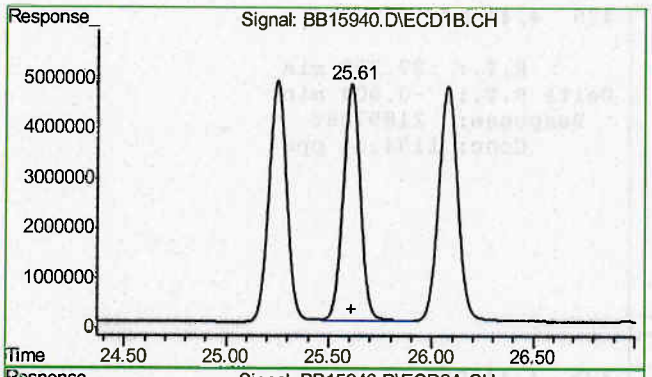


#22 Endrin

R.T.: 16.609 min
Delta R.T.: -0.011 min
Response: 88434845
Conc: 913.09 ppb

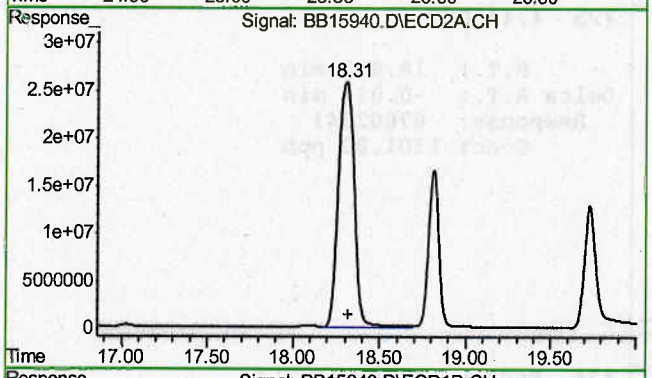
6.6.1

6



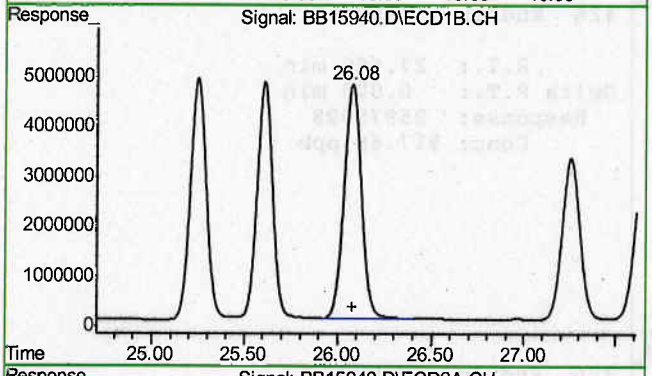
#23 4,4'-DDD

R.T.: 25.606 min
Delta R.T.: -0.002 min
Response: 27444282
Conc: 911.98 ppb



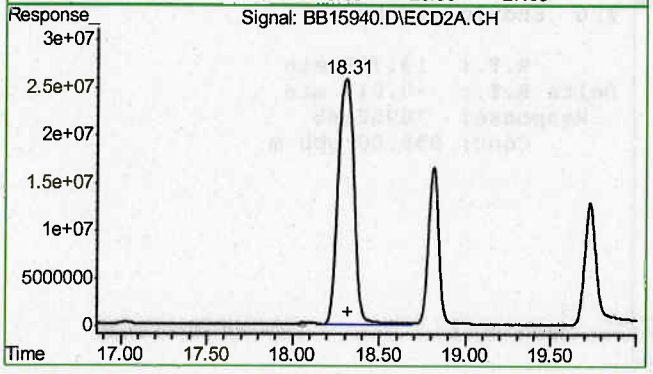
#23 4,4'-DDD

R.T.: 18.306 min
Delta R.T.: -0.011 min
Response: 162184094
Conc: 1825.79 ppb



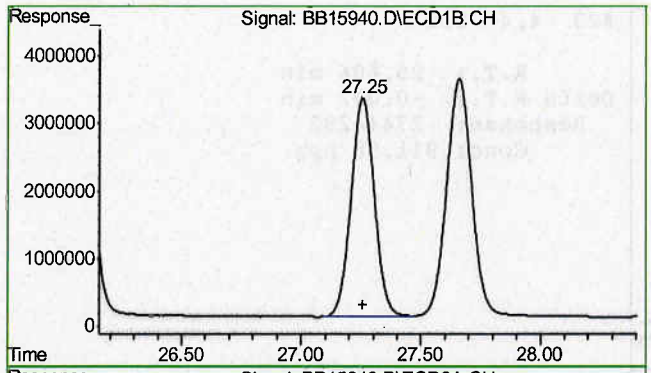
#24 Endosulfan-II

R.T.: 26.076 min
Delta R.T.: -0.004 min
Response: 30231797
Conc: 896.01 ppb



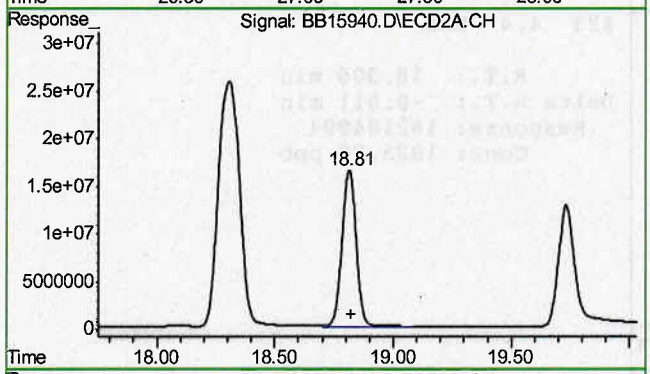
#24 Endosulfan-II

R.T.: 18.306 min
Delta R.T.: -0.011 min
Response: 162184094
Conc: 1825.79 ppb



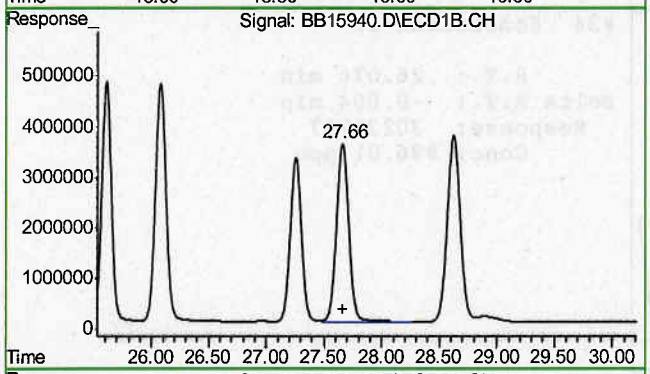
#25 4,4'-DDT

R.T.: 27.255 min
Delta R.T.: -0.004 min
Response: 21897086
Conc: 1134.04 ppb



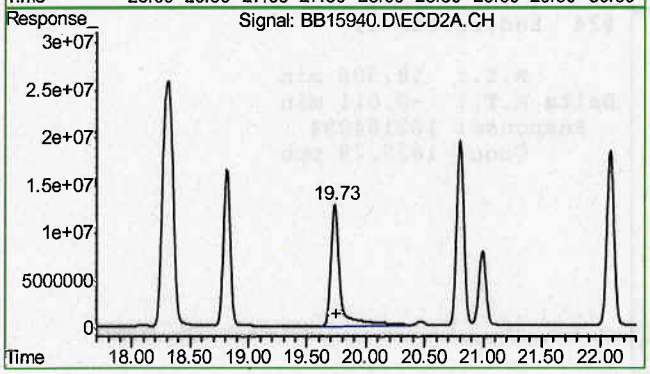
#25 4,4'-DDT

R.T.: 18.811 min
Delta R.T.: -0.012 min
Response: 67802341
Conc: 1301.20 ppb



#26 Endrin aldehyde

R.T.: 27.660 min
Delta R.T.: 0.000 min
Response: 25975998
Conc: 917.68 ppb

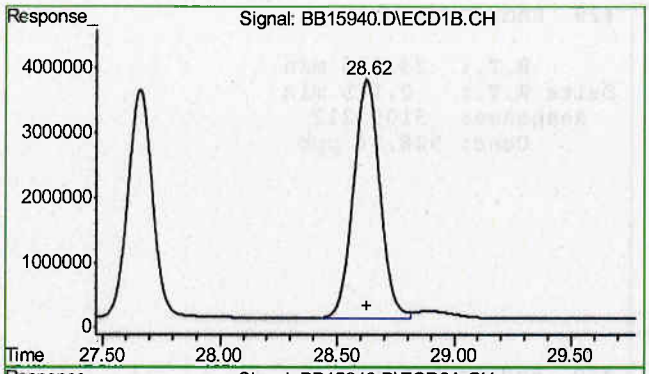


#26 Endrin aldehyde

R.T.: 19.729 min
Delta R.T.: -0.017 min
Response: 70952165
Conc: 955.00 ppb m

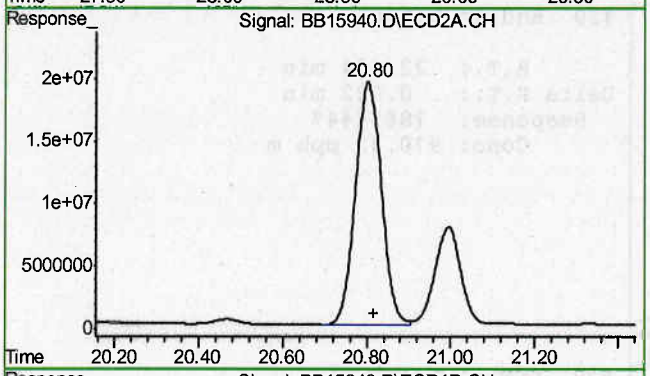
6.6.1

6



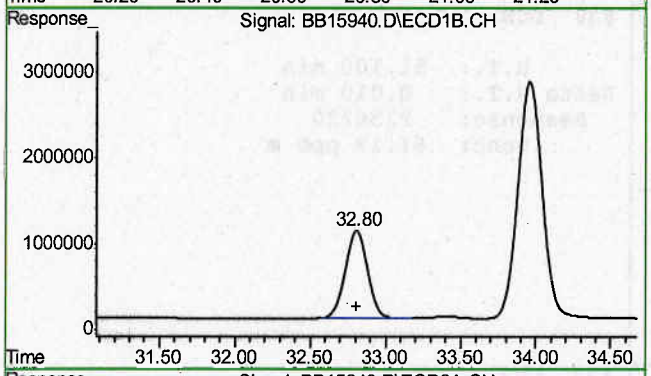
#27 Endosulfan sulfate

R.T.: 28.621 min
Delta R.T.: -0.006 min
Response: 28841036
Conc: 930.81 ppb



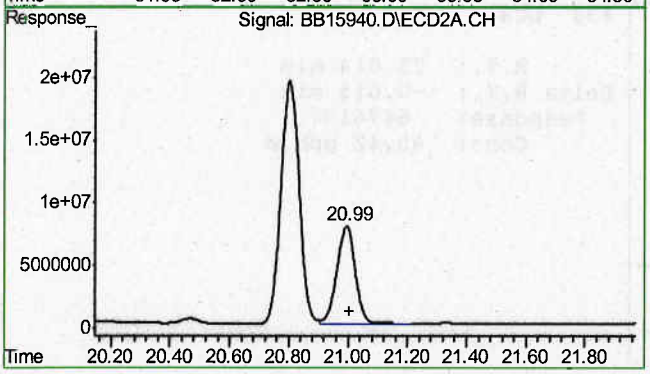
#27 Endosulfan sulfate

R.T.: 20.801 min
Delta R.T.: -0.014 min
Response: 83413196
Conc: 956.56 ppb



#28 Methoxychlor

R.T.: 32.803 min
Delta R.T.: -0.002 min
Response: 10507790
Conc: 894.75 ppb

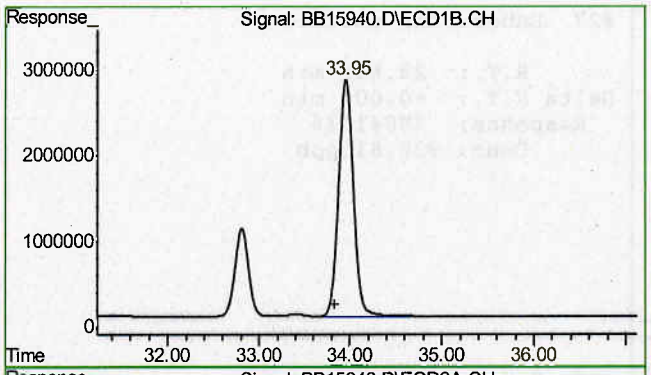


#28 Methoxychlor

R.T.: 20.994 min
Delta R.T.: -0.009 min
Response: 33305122
Conc: 1032.49 ppb

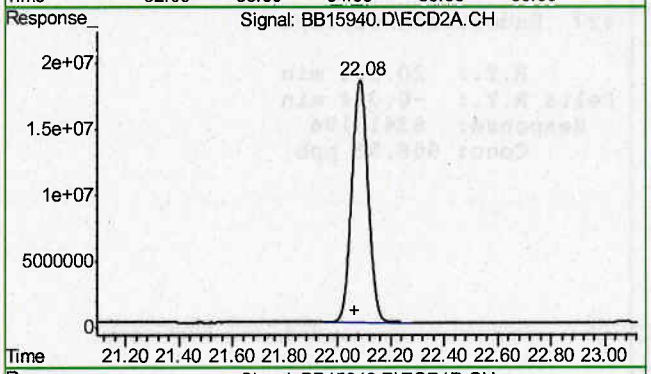
6.6.1

6



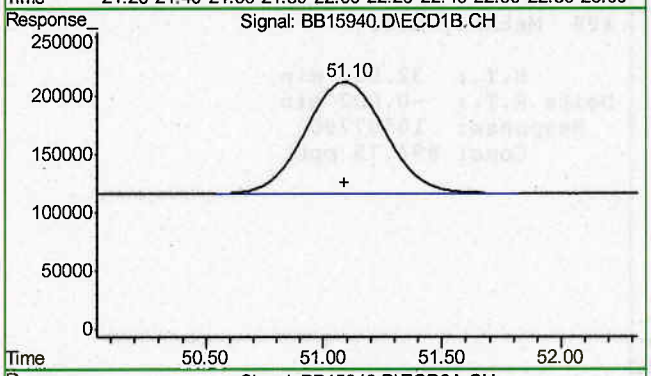
#29 Endrin ketone

R.T.: 33.955 min
Delta R.T.: 0.115 min
Response: 31093212
Conc: 906.54 ppb



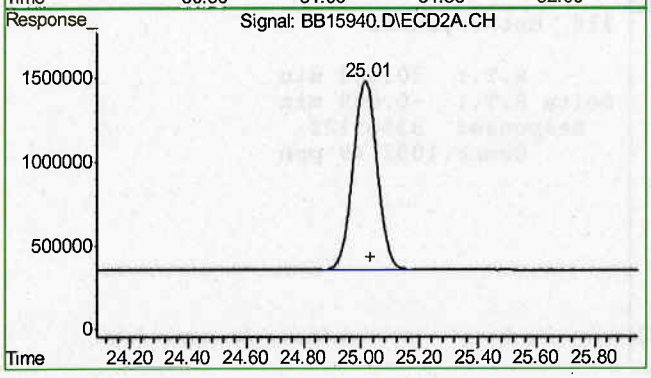
#29 Endrin ketone

R.T.: 22.084 min
Delta R.T.: 0.022 min
Response: 78654447
Conc: 970.43 ppb m



#38 DCB

R.T.: 51.100 min
Delta R.T.: 0.010 min
Response: 2256220
Conc: 61.19 ppb m



#38 DCB

R.T.: 25.014 min
Delta R.T.: -0.015 min
Response: 6476197
Conc: 65.42 ppb m

6.6.1

6

ACCUTEST Laboratories M67676

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15941.D\ECD1B.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\BB15941.D\ECD2A.CH
Acq On : 9-20-07 06:40:55 PM Operator: caobinz
Sample : ic667-500,pest 500 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:31:03 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:29:36 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
1) s	TCMX	12.22	5.64	2138508	5692849	51.277	54.538	
	Spiked Amount 40.000			Recovery	=	128.19%	136.34%	
38) s	DCB	51.06	25.01	1766805	5092880	48.493m	51.706m	
	Spiked Amount 40.000			Recovery	=	121.23%	129.27%	
	Target Compounds							
8)	Hexachlorobenzen	14.36	6.91	24524997	56000330	470.556	466.024	
9)	alpha-BHC	14.88	8.52	32216381	65427027	513.161	507.248	
10)	gamma-BHC	16.40	9.86	26871806	61056968	521.328	531.283	
11)	beta-BHC	16.63	12.59	10637154	24556997	452.429	439.199	
12)	Heptachlor	17.98	10.50	18824962	51530085	548.858	575.856	
13)	delta-BHC	18.04	13.34	27328151	60605864	496.118	515.739	
14)	Alachlor	18.33	11.95	22337081	42762537	4050.584	4939.791	
15)	Aldrin	19.27	11.41	23916661	53879205	502.433	517.977	
16)	Heptachlor Epoxi	21.28	13.78	20068953	49256847	480.715	493.107	
17)	gamma-Chlordane	21.99	14.92	19639714	52356381	485.220	506.939	
18)	alpha-Chlordane	22.55	15.11	17878757	51512920	478.743	502.981	
19)	Endosulfan-I	22.66	14.66	17790669	44450464	507.960	497.008	
20)	4,4'-DDE	23.29	15.54	17596394	50900237	495.750	511.244	
21)	Dieldrin	23.77	15.94	19060318	52158993	495.150	504.515	
22)	Endrin	25.24	16.60	14830159	47294000	482.443	492.819	
23)	4,4'-DDD	25.60	18.29	13848653	85470655	471.725	971.819	#
24)	Endosulfan-II	26.07	18.29	15210213	85470655	459.565	971.819	#
25)	4,4'-DDT	27.25	18.81	10335754	32723624	537.251	620.685	
26)	Endrin aldehyde	27.65	19.73	11263949	31579557	438.966	446.238m	
27)	Endosulfan sulfa	28.61	20.80	13216455	40144478	460.177	480.037	
28)	Methoxychlor	32.80	20.99	5186883	16704931	448.141	514.565	
29)	Endrin ketone	33.94	22.08	14991358	39097664	442.653	484.139m	

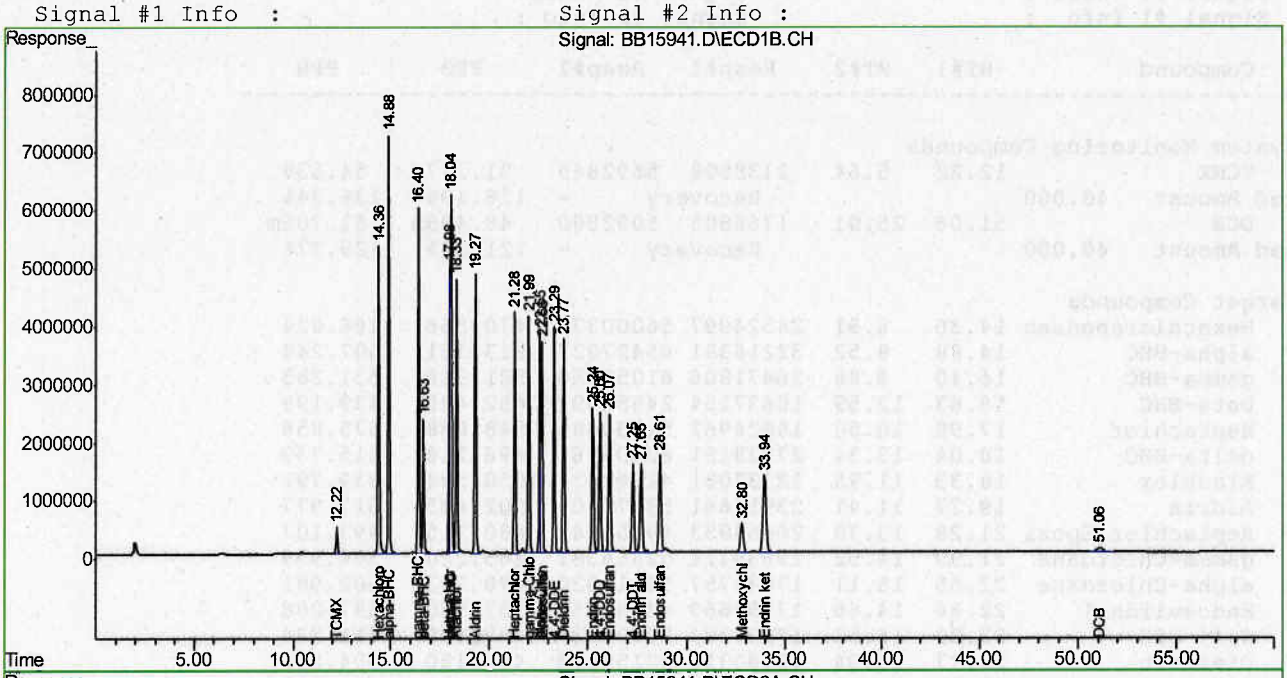
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15941.D PT092007.M Fri Sep 21 10:35:08 2007 GC23PRN

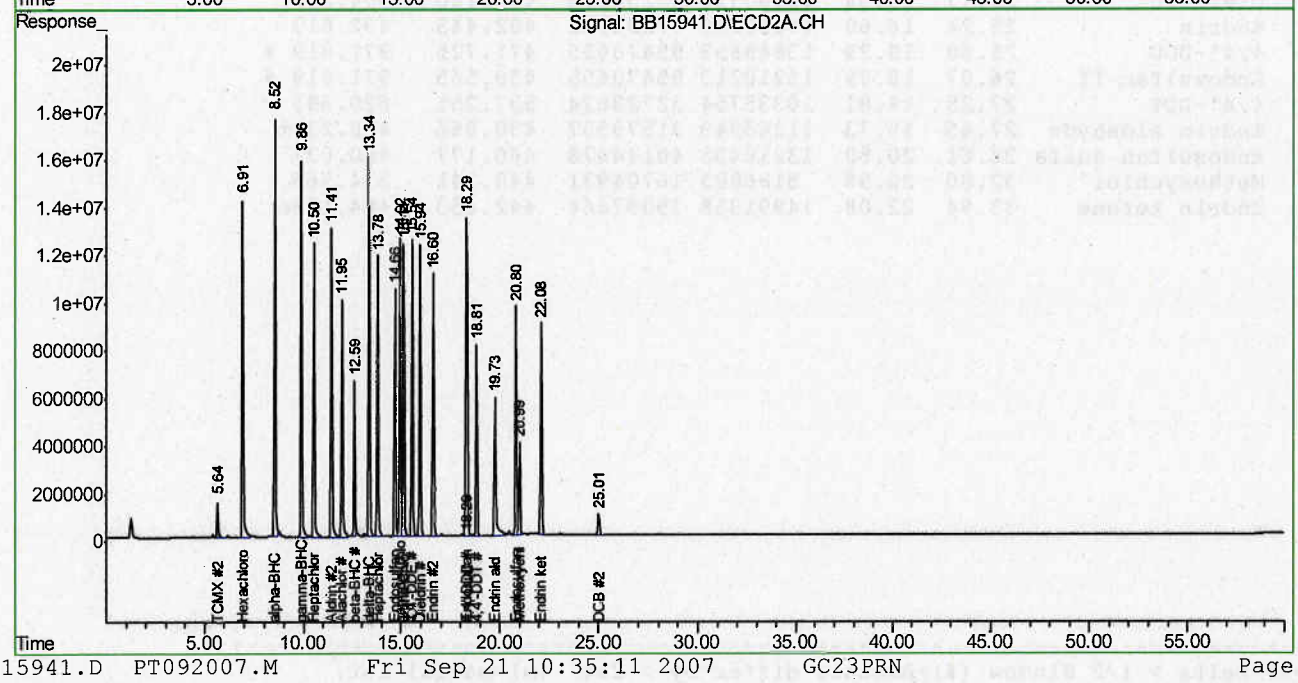
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15941.D\ECD1B.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\BB15941.D\ECD2A.CH
Acq On : 9-20-07 06:40:55 PM Operator: caobinz
Sample : ic667-500,pest 500 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:34 2007 Quant Results File: PT092007.RES

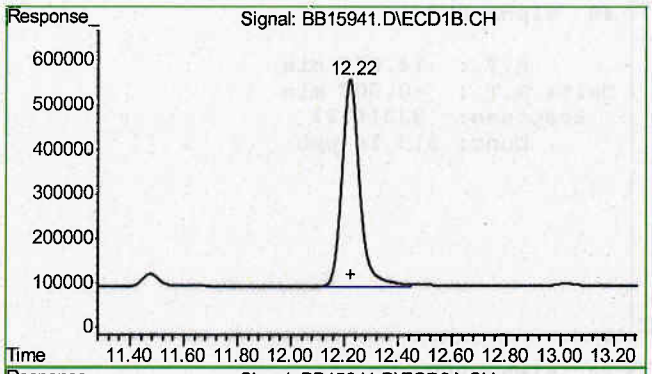
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:29:36 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



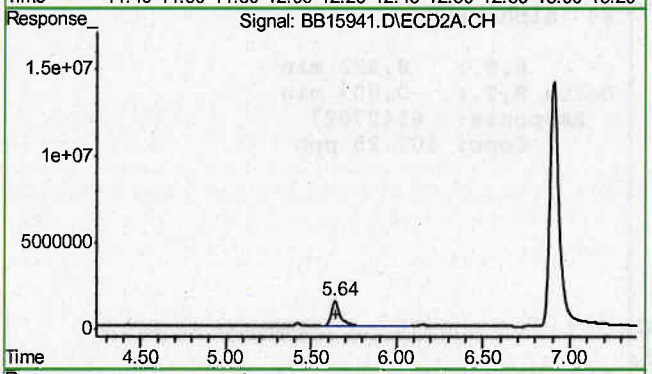


ACCUTEST Laboratories M67676



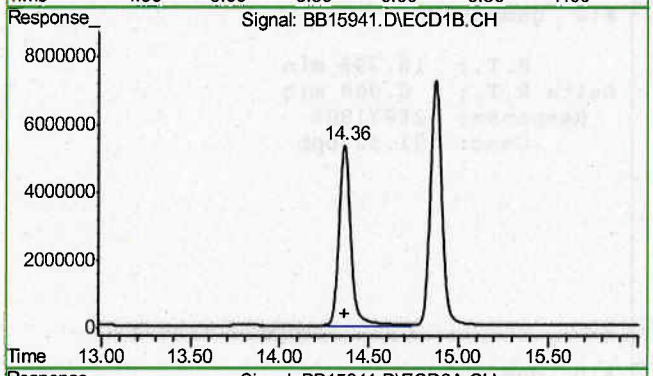
#1 TCMX

R.T.: 12.221 min
Delta R.T.: -0.004 min
Response: 2138508
Conc: 51.28 ppb



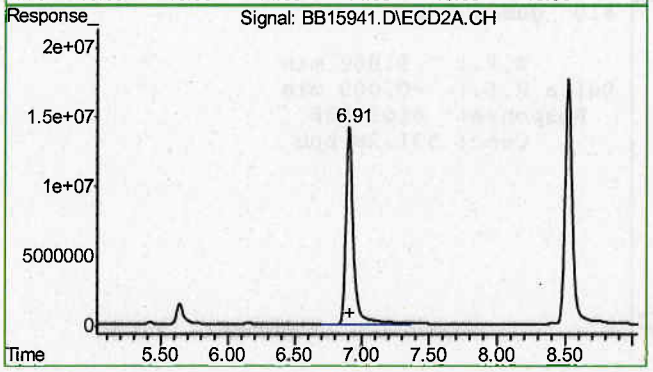
#1 TCMX

R.T.: 5.639 min
Delta R.T.: -0.005 min
Response: 5692849
Conc: 54.54 ppb



#8 Hexachlorobenzene

R.T.: 14.364 min
Delta R.T.: 0.000 min
Response: 24524997
Conc: 470.56 ug/l

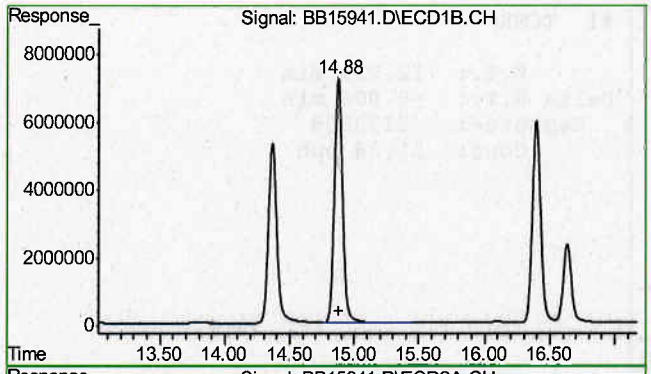


#8 Hexachlorobenzene

R.T.: 6.906 min
Delta R.T.: -0.005 min
Response: 56000330
Conc: 466.02 ug/l

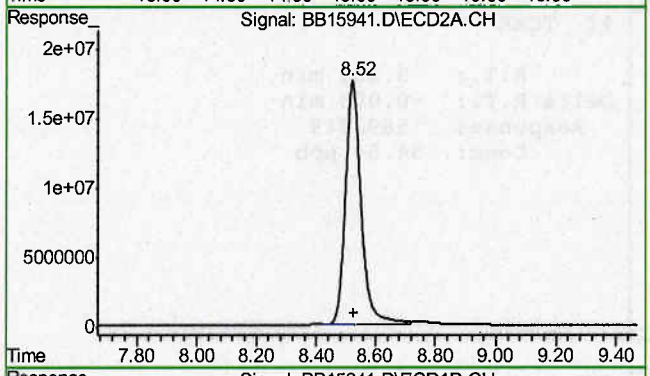
6.6.2

6



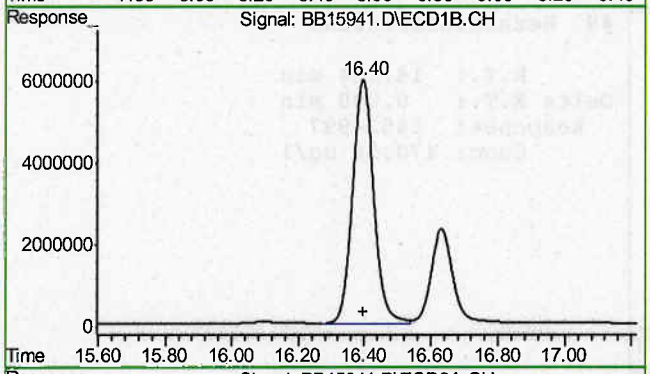
#9 alpha-BHC

R.T.: 14.876 min
Delta R.T.: -0.002 min
Response: 32216381
Conc: 513.16 ppb



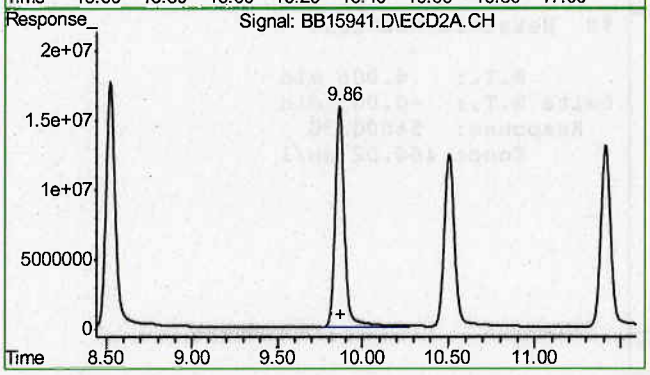
#9 alpha-BHC

R.T.: 8.522 min
Delta R.T.: -0.007 min
Response: 65427027
Conc: 507.25 ppb



#10 gamma-BHC

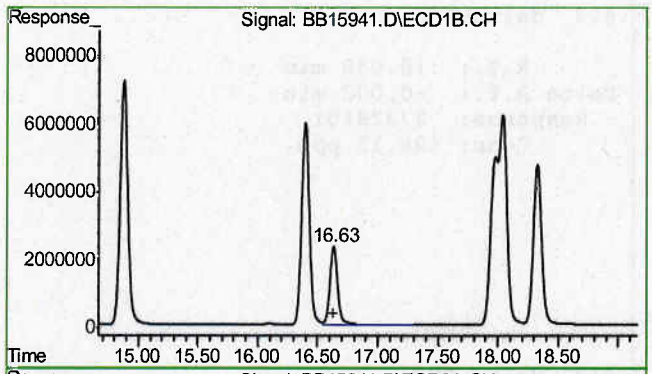
R.T.: 16.396 min
Delta R.T.: 0.000 min
Response: 26871806
Conc: 521.33 ppb



#10 gamma-BHC

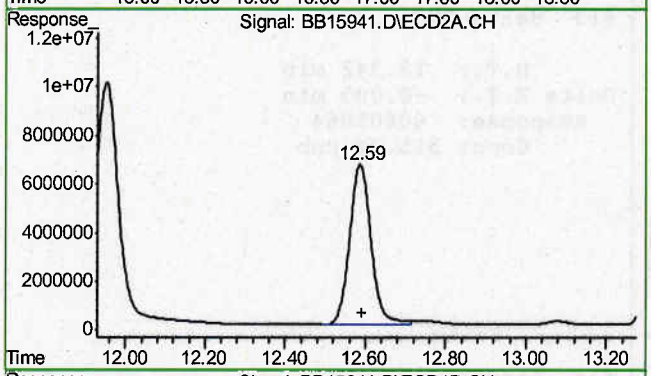
R.T.: 9.862 min
Delta R.T.: -0.009 min
Response: 61056968
Conc: 531.28 ppb

6.6.2 6



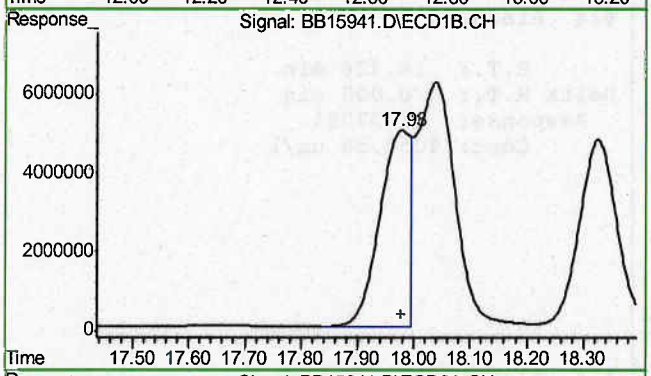
#11 beta-BHC

R.T.: 16.633 min
Delta R.T.: 0.000 min
Response: 10637154
Conc: 452.43 ppb



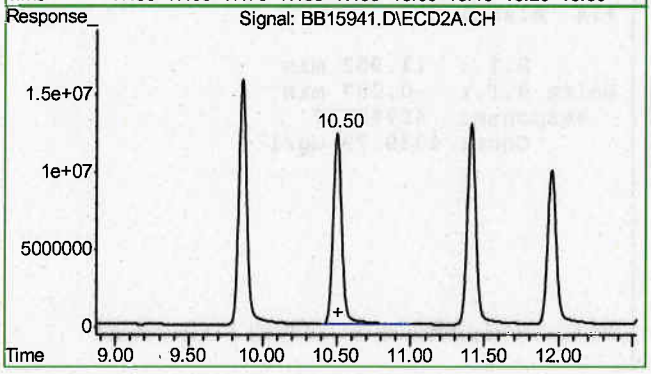
#11 beta-BHC

R.T.: 12.586 min
Delta R.T.: -0.005 min
Response: 24556997
Conc: 439.20 ppb



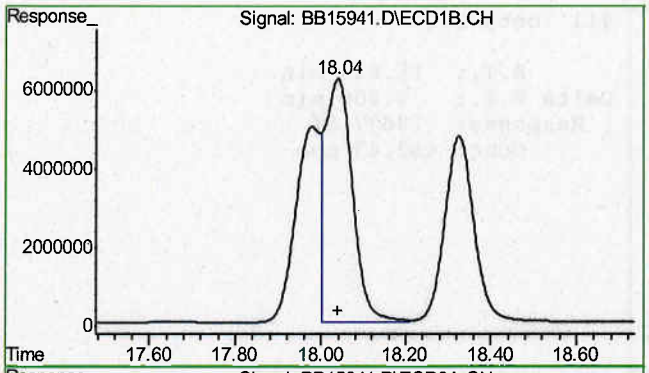
#12 Heptachlor

R.T.: 17.976 min
Delta R.T.: 0.000 min
Response: 18824962
Conc: 548.86 ppb



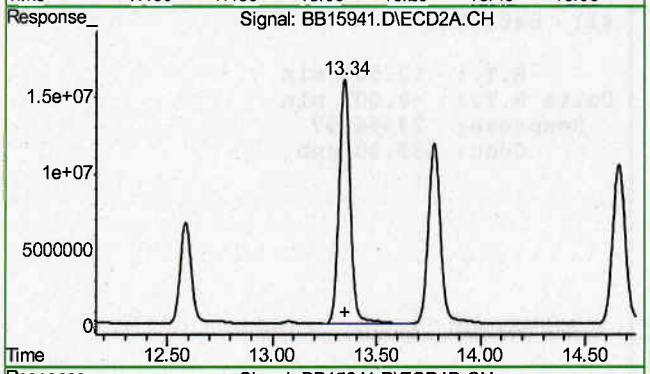
#12 Heptachlor

R.T.: 10.504 min
Delta R.T.: -0.007 min
Response: 51530085
Conc: 575.86 ppb



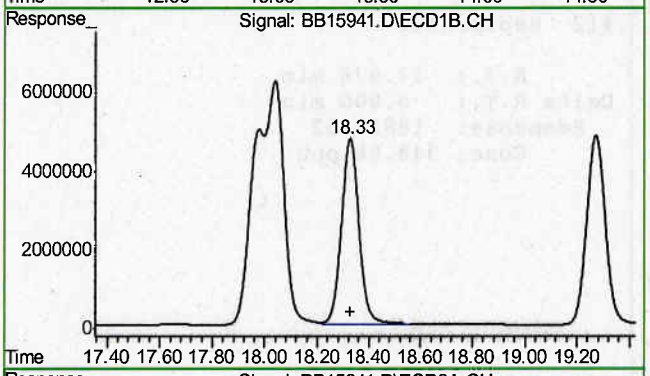
#13 delta-BHC

R.T.: 18.038 min
Delta R.T.: -0.002 min
Response: 27328151
Conc: 496.12 ppb



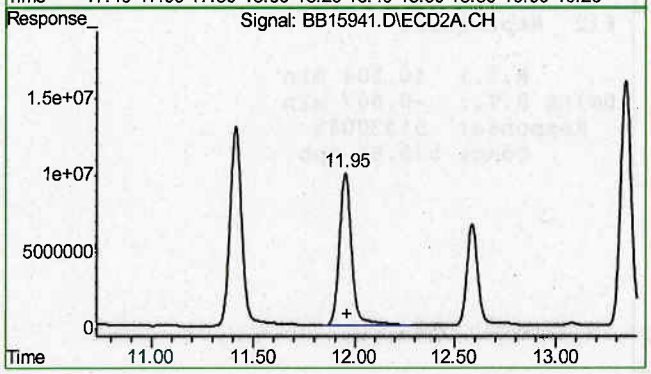
#13 delta-BHC

R.T.: 13.342 min
Delta R.T.: -0.005 min
Response: 60605864
Conc: 515.74 ppb



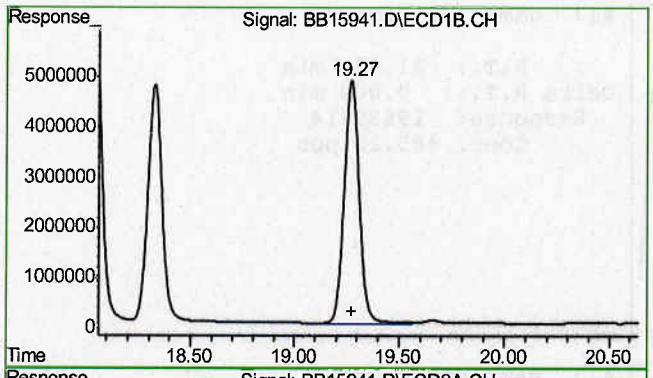
#14 Alachlor

R.T.: 18.326 min
Delta R.T.: 0.000 min
Response: 22337081
Conc: 4050.58 ug/l



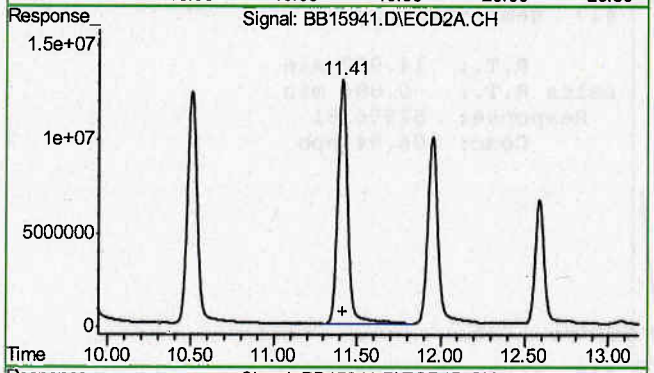
#14 Alachlor

R.T.: 11.952 min
Delta R.T.: -0.007 min
Response: 42762537
Conc: 4939.79 ug/l



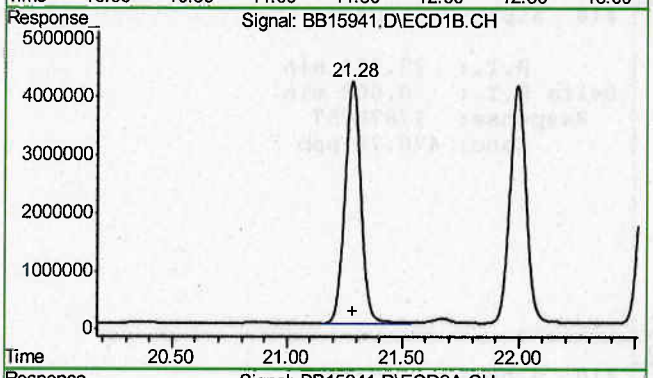
#15 Aldrin

R.T.: 19.271 min
Delta R.T.: 0.000 min
Response: 23916661
Conc: 502.43 ppb



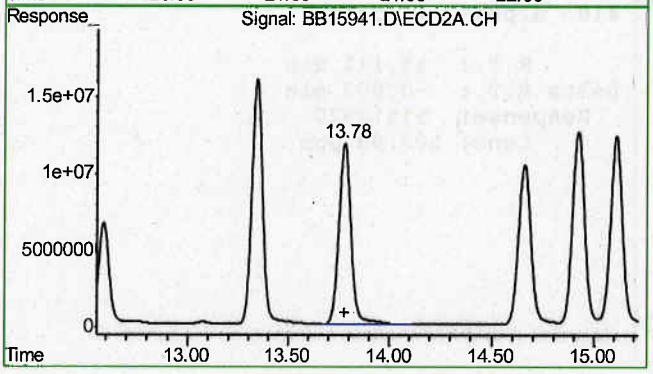
#15 Aldrin

R.T.: 11.412 min
Delta R.T.: -0.005 min
Response: 53879205
Conc: 517.98 ppb



#16 Heptachlor Epoxide

R.T.: 21.283 min
Delta R.T.: 0.000 min
Response: 20068953
Conc: 480.72 ppb

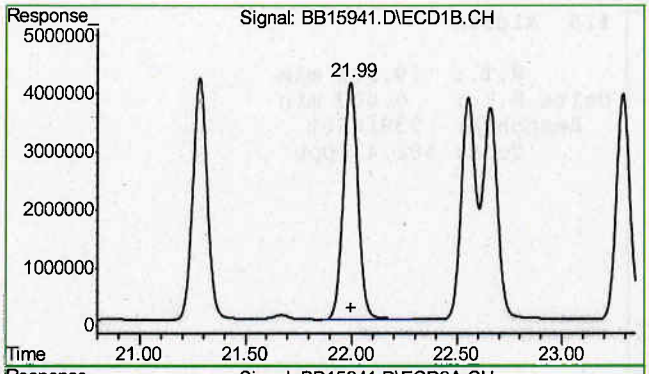


#16 Heptachlor Epoxide

R.T.: 13.779 min
Delta R.T.: -0.004 min
Response: 49256847
Conc: 493.11 ppb

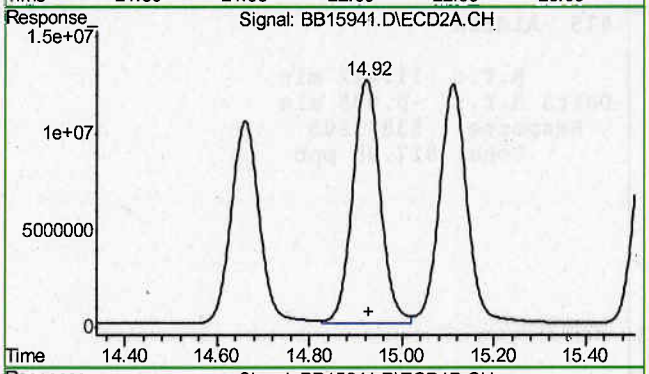
6.6.2

6



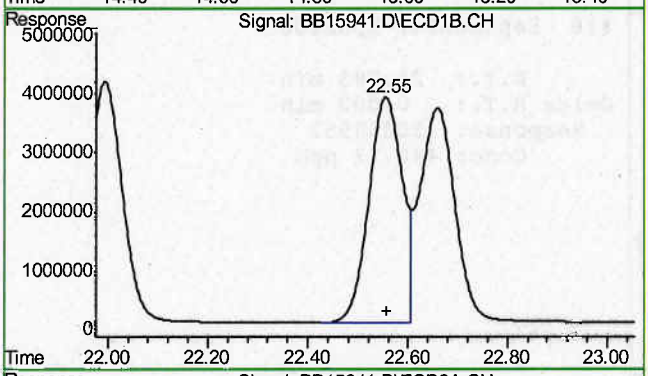
#17 gamma-Chlordane

R.T.: 21.994 min
Delta R.T.: 0.000 min
Response: 19639714
Conc: 485.22 ppb



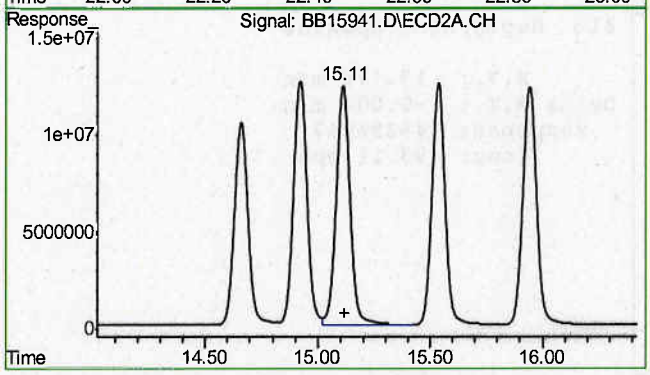
#17 gamma-Chlordane

R.T.: 14.922 min
Delta R.T.: -0.004 min
Response: 52356381
Conc: 506.94 ppb



#18 alpha-Chlordane

R.T.: 22.554 min
Delta R.T.: -0.002 min
Response: 17878757
Conc: 478.74 ppb

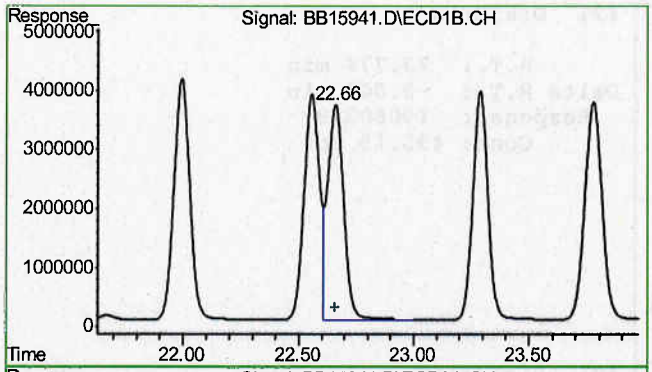


#18 alpha-Chlordane

R.T.: 15.111 min
Delta R.T.: -0.007 min
Response: 51512920
Conc: 502.98 ppb

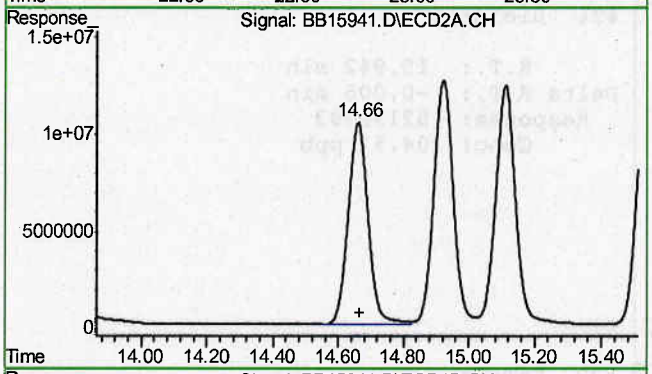
6.6.2

6



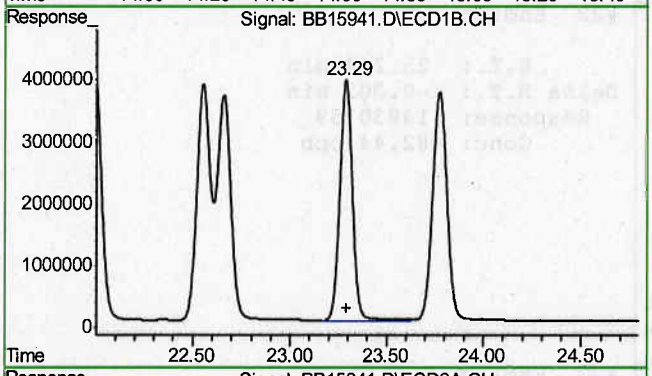
#19 Endosulfan-I

R.T.: 22.659 min
Delta R.T.: 0.000 min
Response: 17790669
Conc: 507.96 ppb



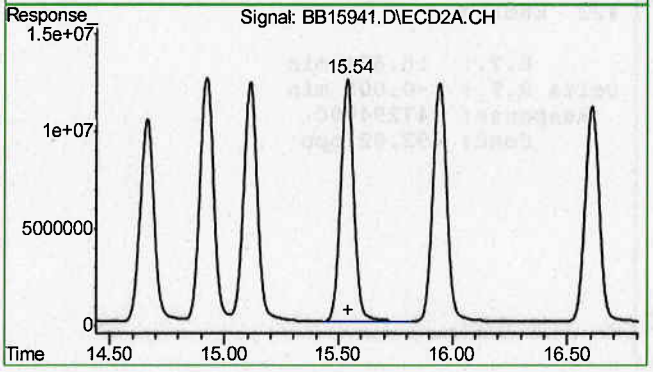
#19 Endosulfan-I

R.T.: 14.661 min
Delta R.T.: -0.004 min
Response: 44450464
Conc: 497.01 ppb



#20 4,4'-DDE

R.T.: 23.289 min
Delta R.T.: -0.002 min
Response: 17596394
Conc: 495.75 ppb

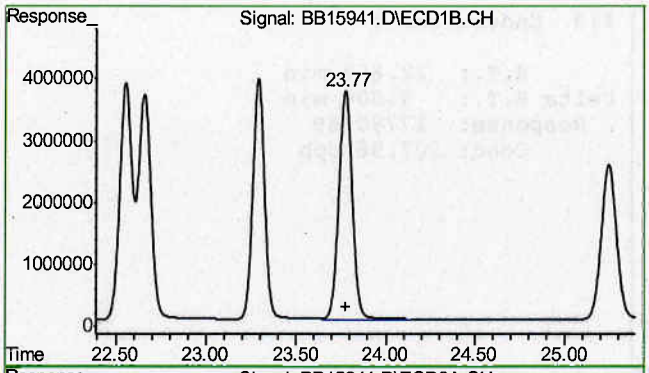


#20 4,4'-DDE

R.T.: 15.537 min
Delta R.T.: -0.004 min
Response: 50900237
Conc: 511.24 ppb

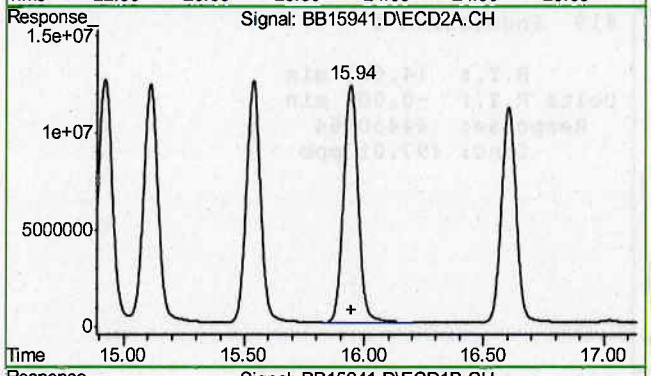
6.6.2

6



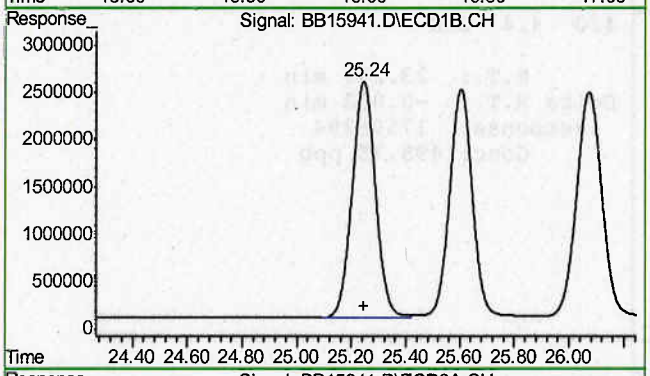
#21 Dieldrin

R.T.: 23.774 min
Delta R.T.: -0.002 min
Response: 19060318
Conc: 495.15 ppb



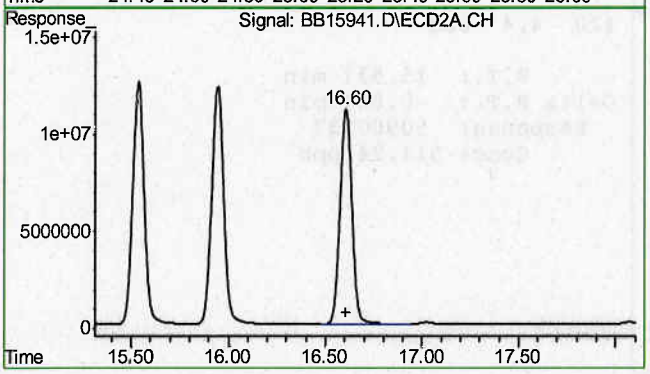
#21 Dieldrin

R.T.: 15.942 min
Delta R.T.: -0.005 min
Response: 52158993
Conc: 504.51 ppb



#22 Endrin

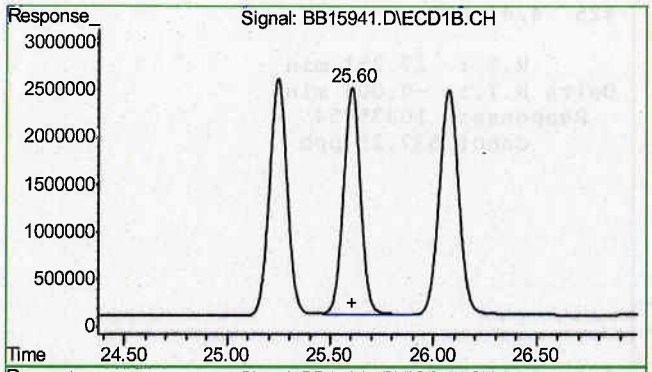
R.T.: 25.244 min
Delta R.T.: -0.002 min
Response: 14830159
Conc: 482.44 ppb



#22 Endrin

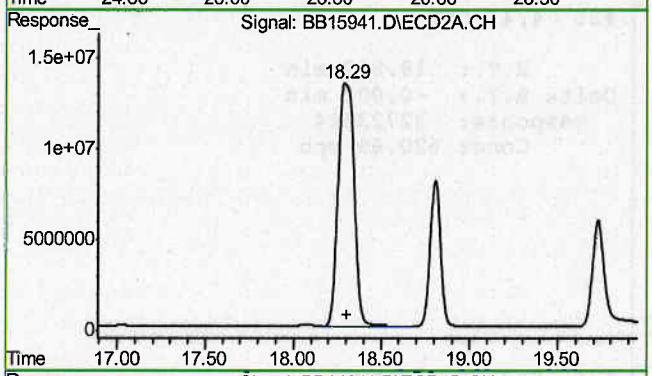
R.T.: 16.604 min
Delta R.T.: -0.005 min
Response: 47294000
Conc: 492.82 ppb

6.6.2 6



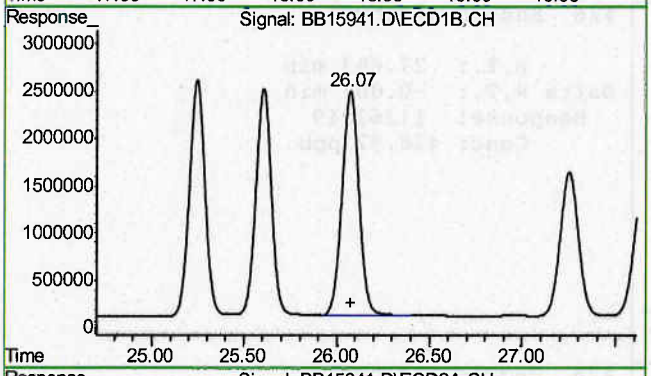
#23 4,4'-DDD

R.T.: 25.603 min
Delta R.T.: -0.004 min
Response: 13848653
Conc: 471.72 ppb



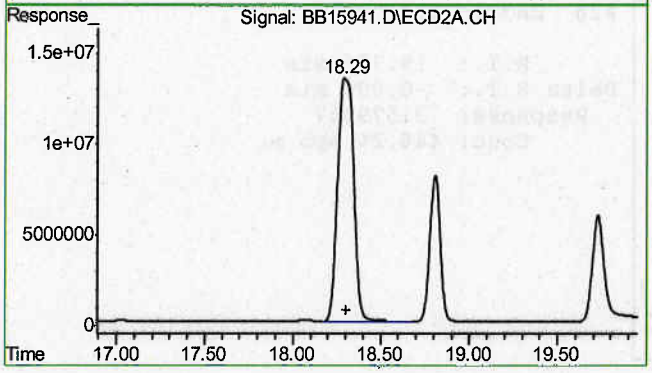
#23 4,4'-DDD

R.T.: 18.289 min
Delta R.T.: -0.017 min
Response: 85470655
Conc: 971.82 ppb



#24 Endosulfan-II

R.T.: 26.073 min
Delta R.T.: -0.004 min
Response: 15210213
Conc: 459.57 ppb

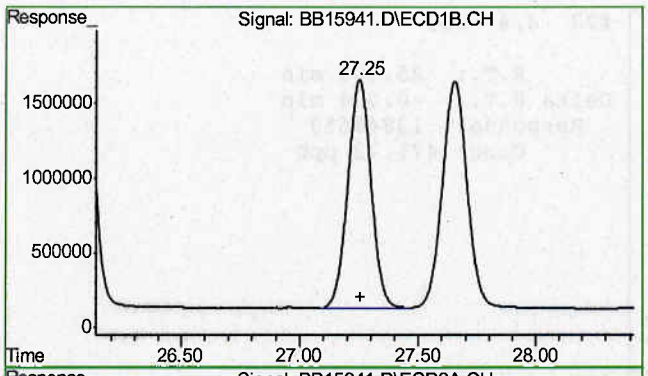


#24 Endosulfan-II

R.T.: 18.289 min
Delta R.T.: -0.017 min
Response: 85470655
Conc: 971.82 ppb

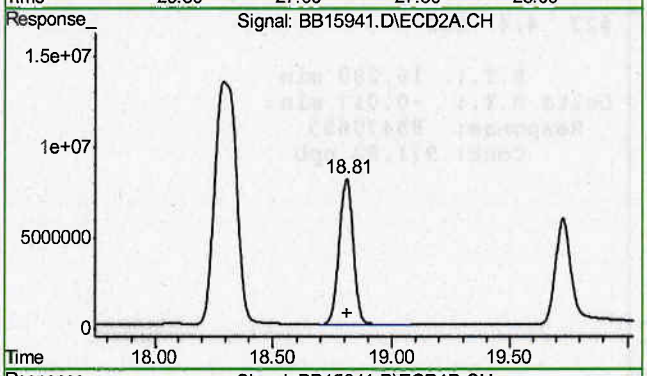
6.6.2

6



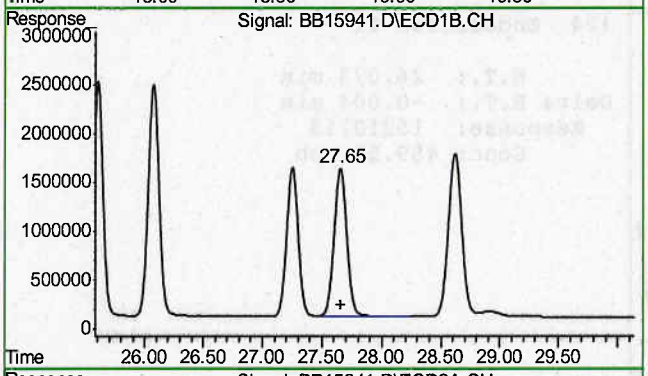
#25 4,4'-DDT

R.T.: 27.251 min
Delta R.T.: -0.004 min
Response: 10335754
Conc: 537.25 ppb



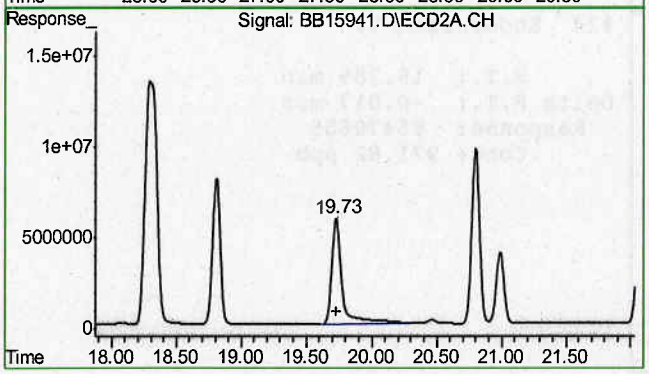
#25 4,4'-DDT

R.T.: 18.809 min
Delta R.T.: -0.002 min
Response: 32723624
Conc: 620.69 ppb



#26 Endrin aldehyde

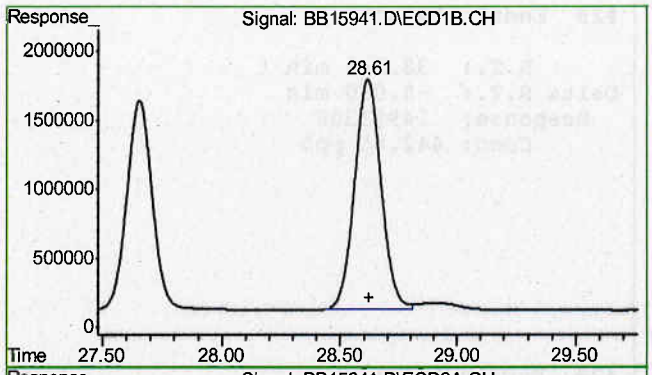
R.T.: 27.653 min
Delta R.T.: -0.007 min
Response: 11263949
Conc: 438.97 ppb



#26 Endrin aldehyde

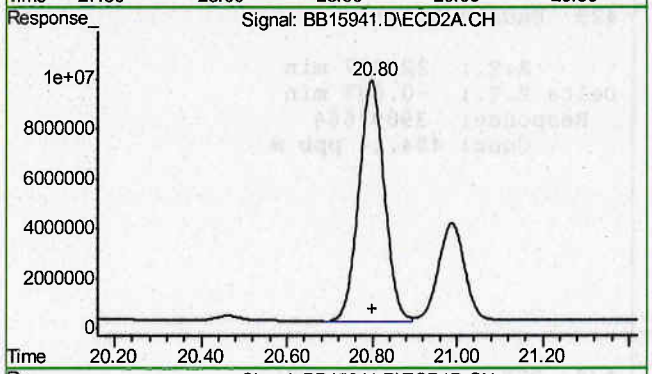
R.T.: 19.726 min
Delta R.T.: -0.004 min
Response: 31579557
Conc: 446.24 ppb m

6.6.2 6



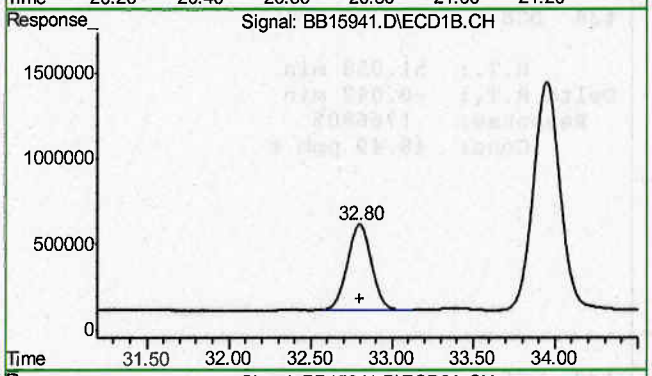
#27 Endosulfan sulfate

R.T.: 28.614 min
Delta R.T.: -0.007 min
Response: 13216455
Conc: 460.18 ppb



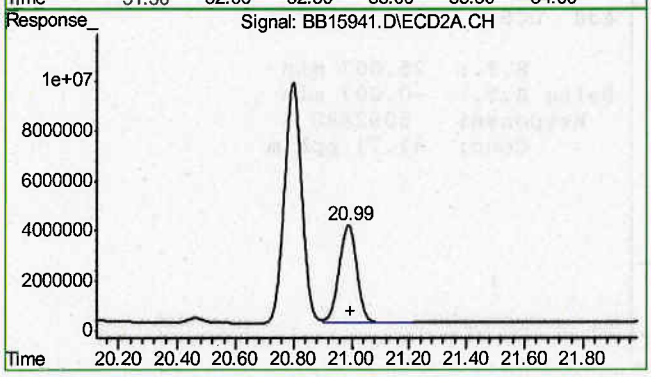
#27 Endosulfan sulfate

R.T.: 20.799 min
Delta R.T.: -0.002 min
Response: 40144478
Conc: 480.04 ppb



#28 Methoxychlor

R.T.: 32.796 min
Delta R.T.: -0.007 min
Response: 5186883
Conc: 448.14 ppb

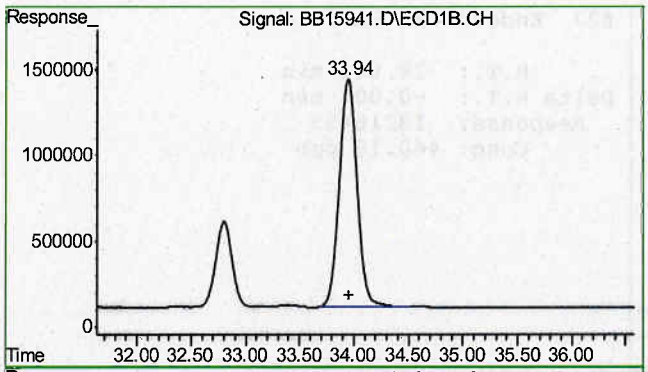


#28 Methoxychlor

R.T.: 20.987 min
Delta R.T.: -0.007 min
Response: 16704931
Conc: 514.57 ppb

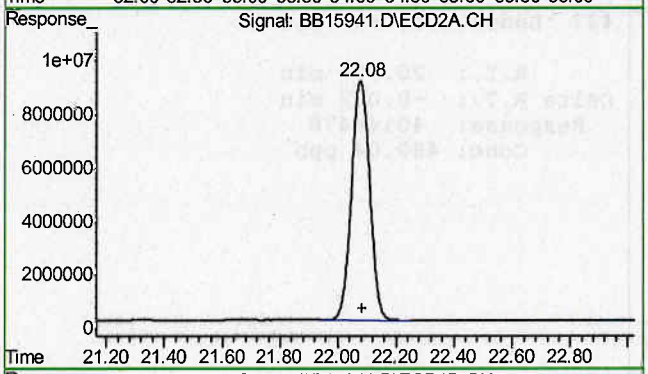
6.6.2

6



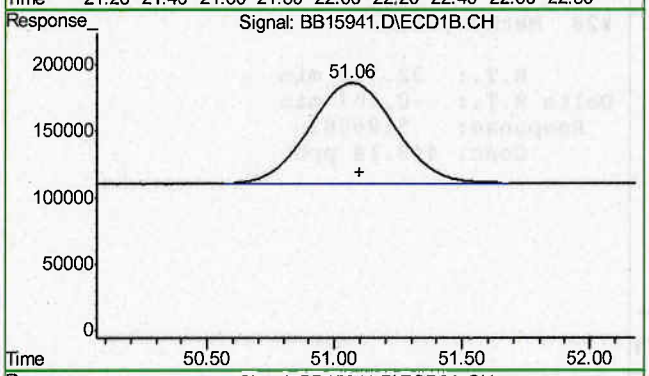
#29 Endrin ketone

R.T.: 33.944 min
Delta R.T.: -0.010 min
Response: 14991358
Conc: 442.65 ppb



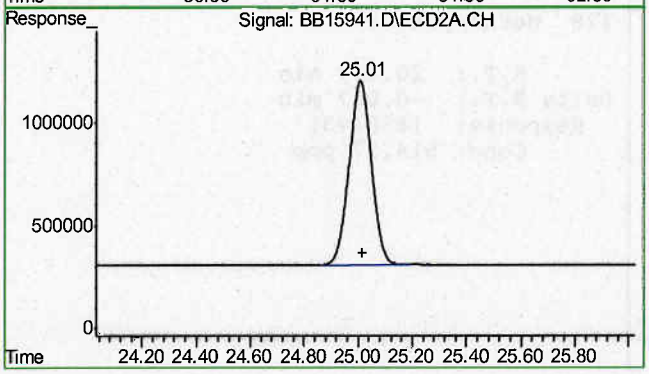
#29 Endrin ketone

R.T.: 22.077 min
Delta R.T.: -0.007 min
Response: 39097664
Conc: 484.14 ppb m



#38 DCB

R.T.: 51.058 min
Delta R.T.: -0.042 min
Response: 1766805
Conc: 48.49 ppb m



#38 DCB

R.T.: 25.007 min
Delta R.T.: -0.007 min
Response: 5092880
Conc: 51.71 ppb m

6.6.2 6

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15942.D\ECD1B.CH Vial: 93
Signal #2 : C:\MSDCHEM\1\DATA\BB15942.D\ECD2A.CH
Acq On : 9-20-07 07:46:02 PM Operator: caobinz
Sample : icc667-100,pest 100 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:35:56 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:34:52 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	1952737	5005369	47.555	48.212
	Spiked Amount 40.000			Recovery	=	118.89%	120.53%
38) s	DCB	51.06	25.01	1696381	4882205	47.318m	50.053m
	Spiked Amount 40.000			Recovery	=	118.29%	125.13%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	4738895	11153139	92.575	93.516
9)	alpha-BHC	14.87	8.52	5828642	12306680	94.447	95.967
10)	gamma-BHC	16.39	9.86	4905754	11410546	95.776	98.917
11)	beta-BHC	16.63	12.58	2109351	5006345	82.234	85.211
12)	Heptachlor	17.97	10.50	3472232	9847627	101.940	107.826
13)	delta-BHC	18.03	13.34	4996386	11408062	92.258	97.861
14)	Alachlor	18.32	11.95	4695641	9658389	867.344	872.440
15)	Aldrin	19.27	11.41	4432862	10322156	94.629	100.096
16)	Heptachlor Epoxi	21.28	13.77	3801530	9884237	92.383	99.758
17)	gamma-Chlordane	21.99	14.92	3684520	10019348	92.552	98.657
18)	alpha-Chlordane	22.55	15.11	3361685	9850739	91.622	97.444
19)	Endosulfan-I	22.65	14.66	3266809	8996960	93.696	101.638
20)	4,4'-DDE	23.28	15.53	3242967	9813973	93.279	100.617
21)	Dieldrin	23.77	15.94	3515246	10299490	93.049	101.199
22)	Endrin	25.24	16.60	2743945	9296570	91.412	98.519
23)	4,4'-DDD	25.60	18.31	2624000	17313207	91.399	199.640 #
24)	Endosulfan-II	26.07	18.31	2973830	17313207	91.337	199.640 #
25)	4,4'-DDT	27.25	18.81	1886334	5863410	96.993	108.879
26)	Endrin aldehyde	27.65	19.73	2233012	6373601	77.878	83.866m
27)	Endosulfan sulfa	28.61	20.80	2636955	8261902	83.468	91.718
28)	Methoxychlor	32.79	20.98	1049060	3364136	90.643	101.909
29)	Endrin ketone	33.95	22.08	2982866	7891955	88.589	97.900m

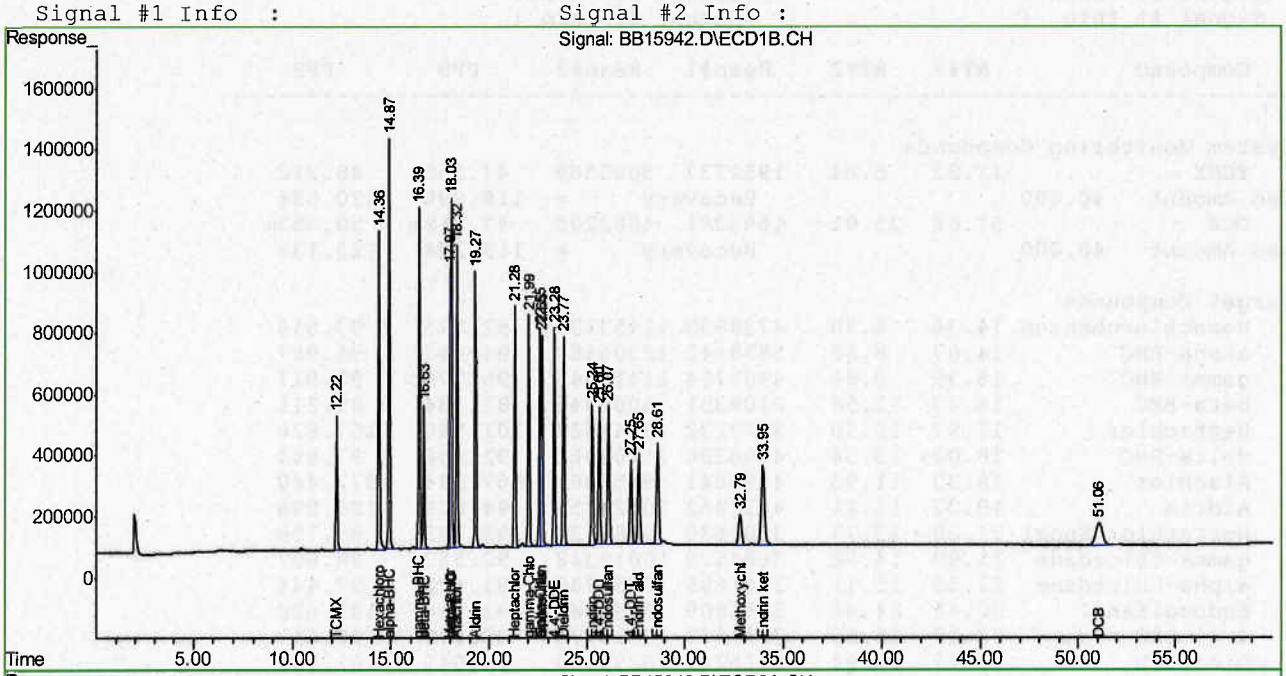
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15942.D PT092007.M Fri Sep 21 10:40:15 2007 GC23PRN

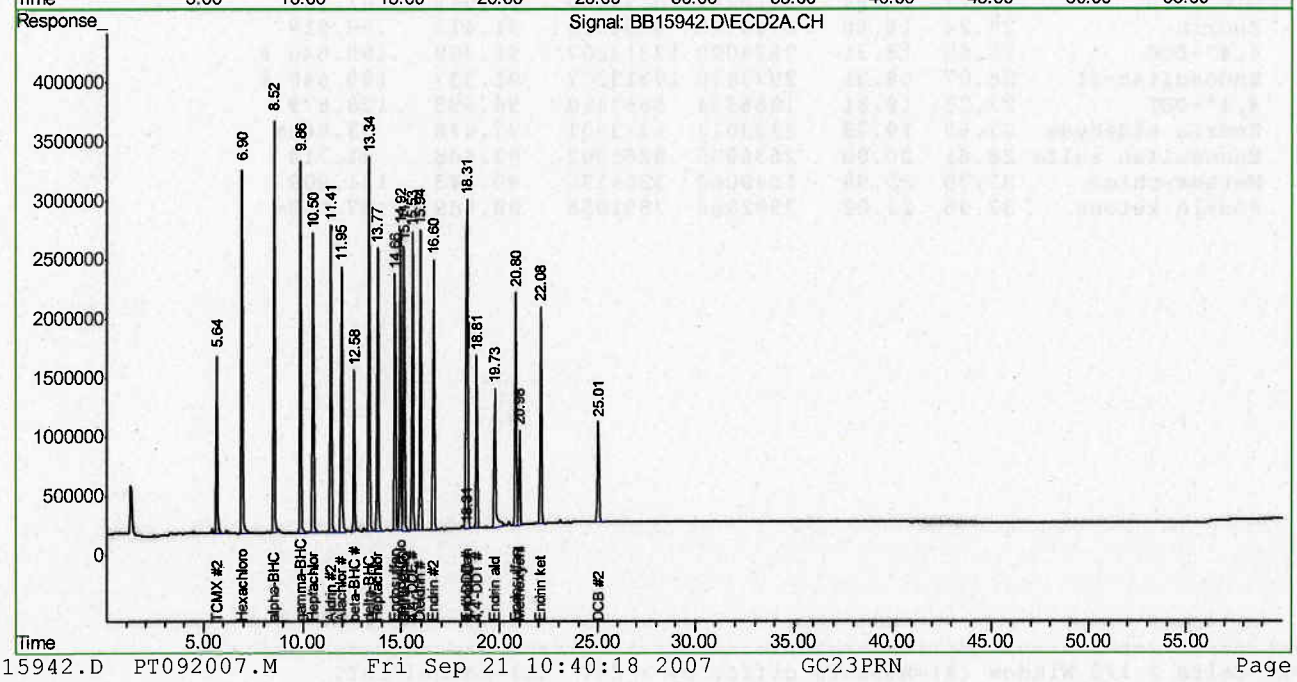
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15942.D\ECD1B.CH Vial: 93
Signal #2 : C:\MSDCHEM\1\DATA\BB15942.D\ECD2A.CH
Acq On : 9-20-07 07:46:02 PM Operator: caobinz
Sample : icc667-100,pest 100 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:39 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:34:52 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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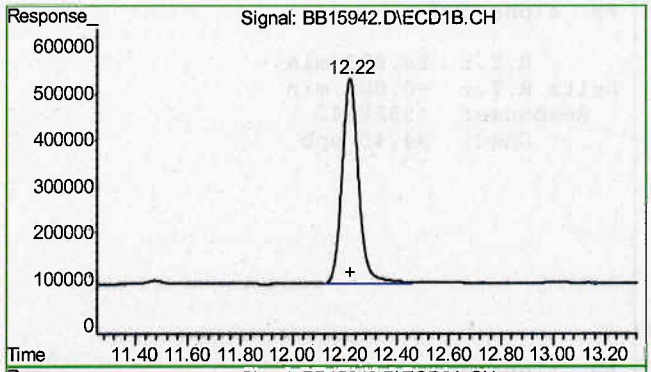
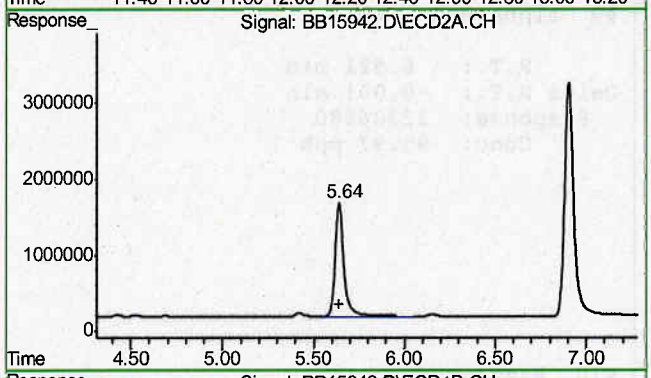


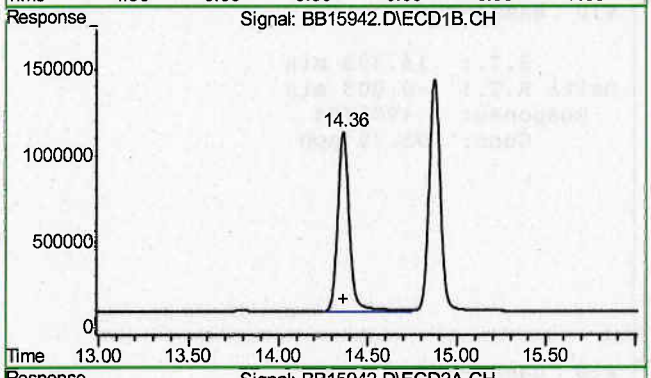
#1 TCMX

R.T.: 12.220 min
Delta R.T.: -0.001 min
Response: 1952737
Conc: 47.56 ppb



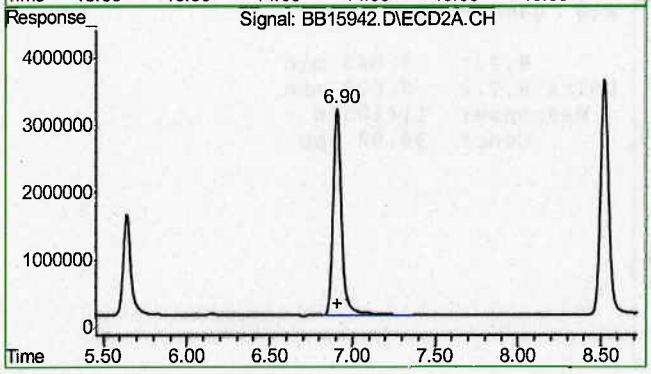
#1 TCMX

R.T.: 5.640 min
Delta R.T.: 0.000 min
Response: 5005369
Conc: 48.21 ppb



#8 Hexachlorobenzene

R.T.: 14.362 min
Delta R.T.: -0.003 min
Response: 4738895
Conc: 92.57 ug/l

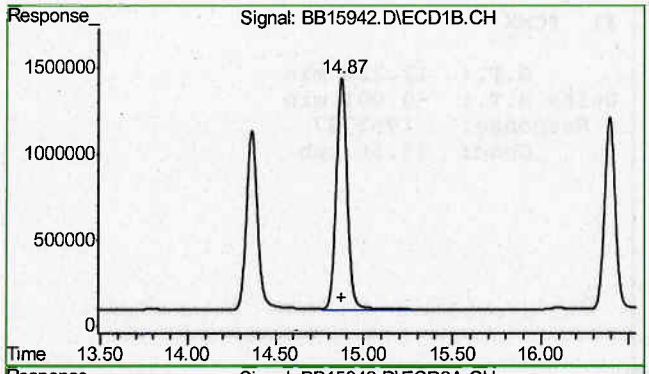


#8 Hexachlorobenzene

R.T.: 6.905 min
Delta R.T.: -0.001 min
Response: 11153139
Conc: 93.52 ug/l

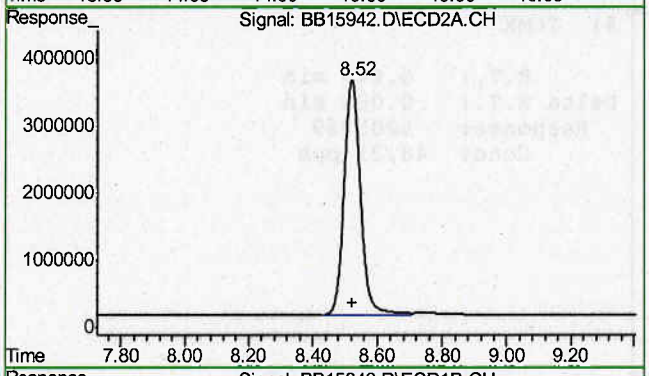
6.6.3

6



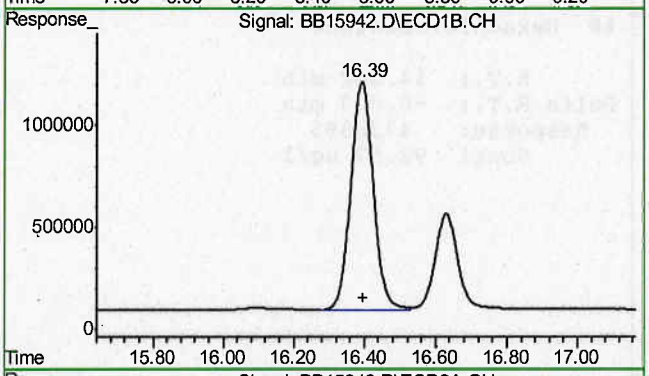
#9 alpha-BHC

R.T.: 14.873 min
Delta R.T.: -0.003 min
Response: 5828642
Conc: 94.45 ppb



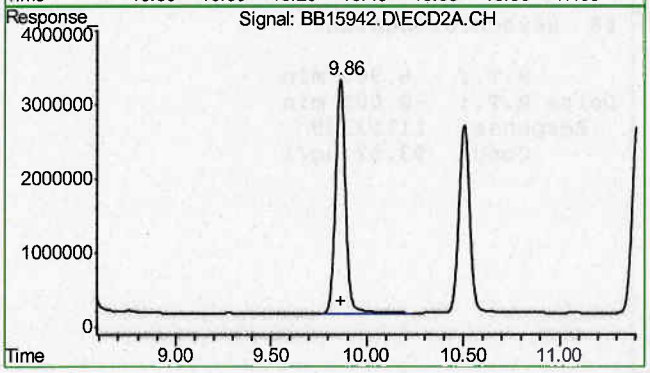
#9 alpha-BHC

R.T.: 8.521 min
Delta R.T.: -0.001 min
Response: 12306680
Conc: 95.97 ppb



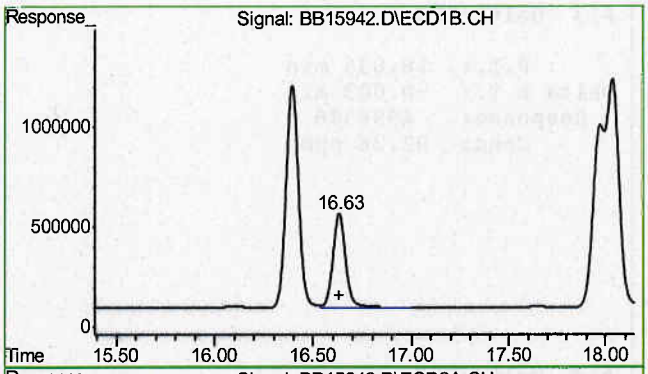
#10 gamma-BHC

R.T.: 16.393 min
Delta R.T.: -0.003 min
Response: 4905754
Conc: 95.78 ppb



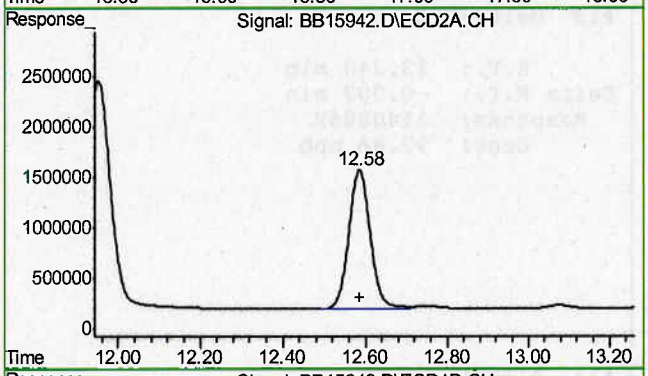
#10 gamma-BHC

R.T.: 9.863 min
Delta R.T.: 0.000 min
Response: 11410546
Conc: 98.92 ppb



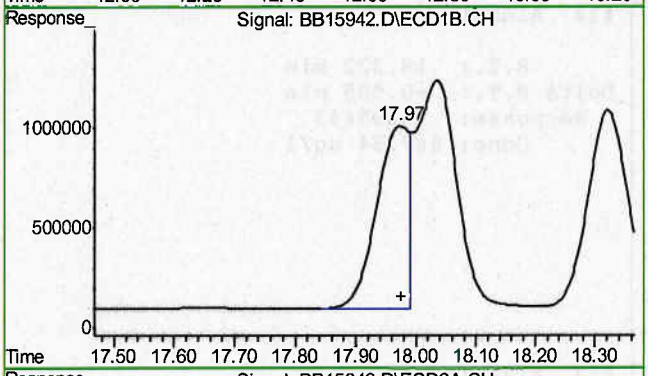
#11 beta-BHC

R.T.: 16.628 min
Delta R.T.: -0.005 min
Response: 2109351
Conc: 82.23 ppb



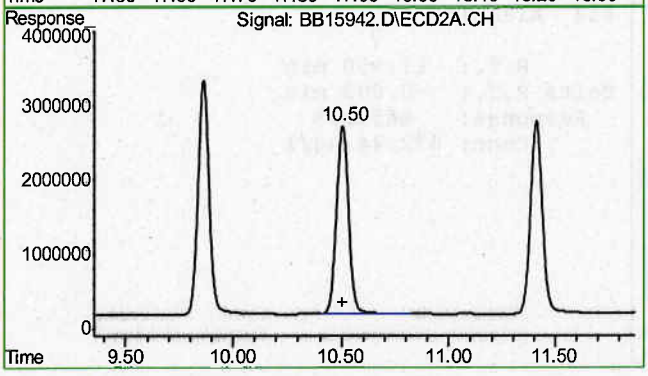
#11 beta-BHC

R.T.: 12.585 min
Delta R.T.: -0.001 min
Response: 5006345
Conc: 85.21 ppb



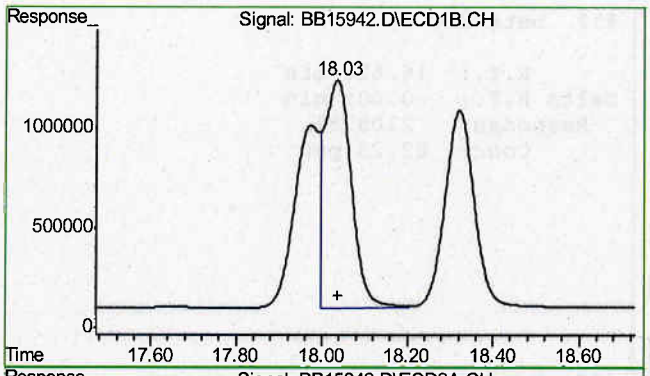
#12 Heptachlor

R.T.: 17.972 min
Delta R.T.: -0.005 min
Response: 3472232
Conc: 101.94 ppb



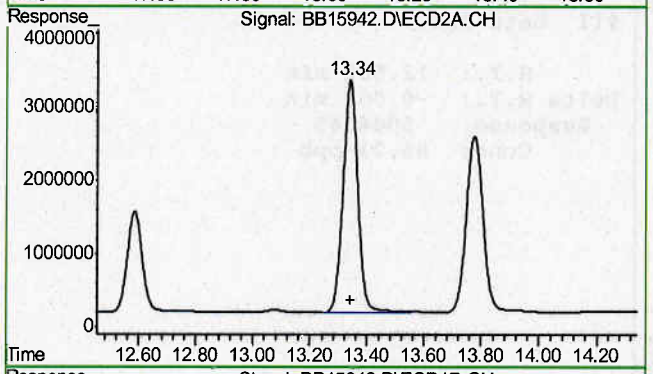
#12 Heptachlor

R.T.: 10.503 min
Delta R.T.: -0.001 min
Response: 9847627
Conc: 107.83 ppb



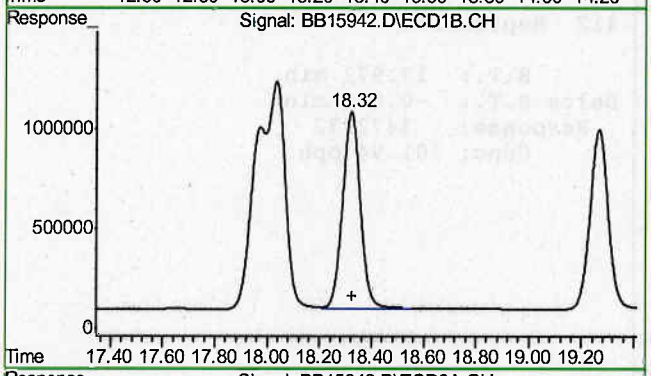
#13 delta-BHC

R.T.: 18.035 min
Delta R.T.: -0.003 min
Response: 4996386
Conc: 92.26 ppb



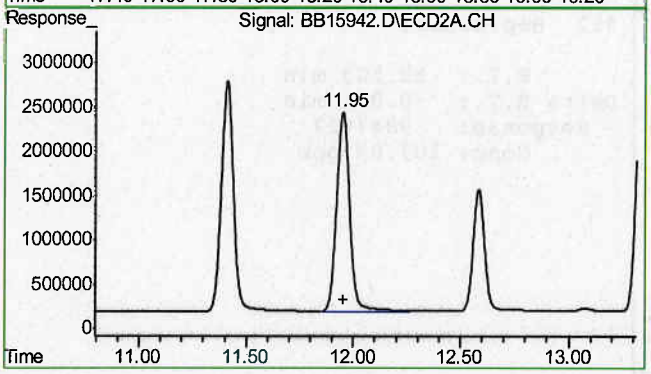
#13 delta-BHC

R.T.: 13.340 min
Delta R.T.: -0.003 min
Response: 11408062
Conc: 97.86 ppb



#14 Alachlor

R.T.: 18.322 min
Delta R.T.: -0.005 min
Response: 4695641
Conc: 867.34 ug/l



#14 Alachlor

R.T.: 11.950 min
Delta R.T.: -0.003 min
Response: 9658389
Conc: 872.44 ug/l

6.6.3

6

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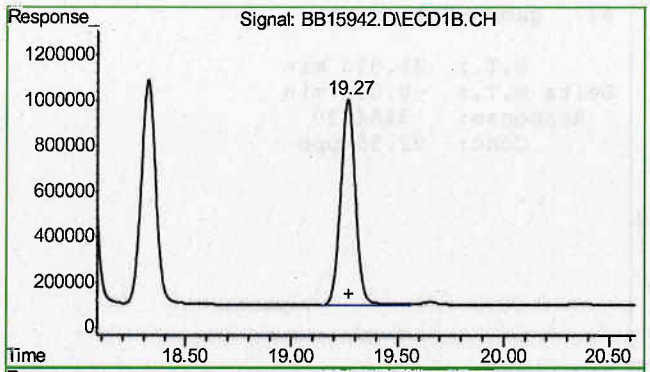
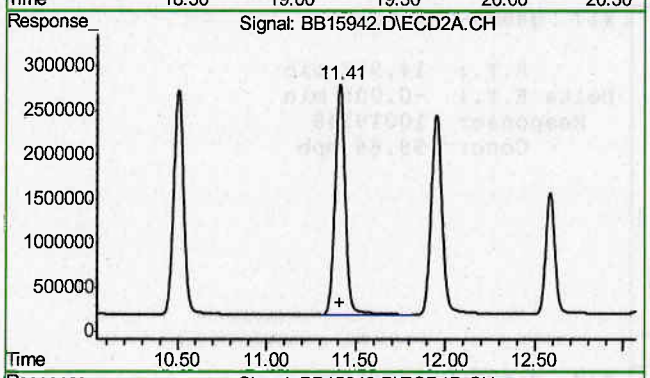


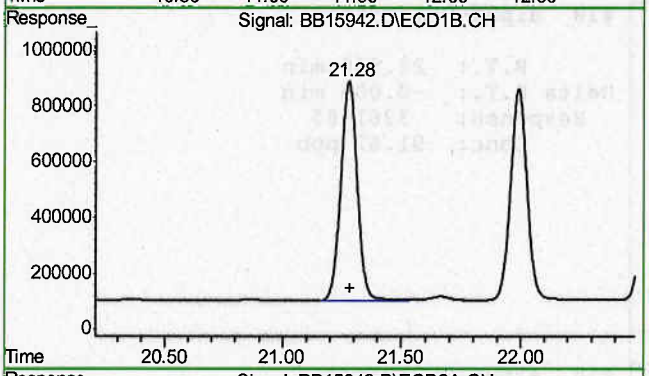
#15 Aldrin

R.T.: 19.267 min
Delta R.T.: -0.005 min
Response: 4432862
Conc: 94.63 ppb



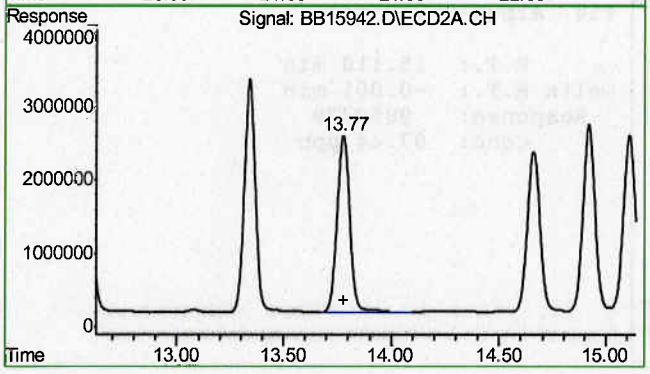
#15 Aldrin

R.T.: 11.411 min
Delta R.T.: -0.001 min
Response: 10322156
Conc: 100.10 ppb



#16 Heptachlor Epoxide

R.T.: 21.278 min
Delta R.T.: -0.005 min
Response: 3801530
Conc: 92.38 ppb

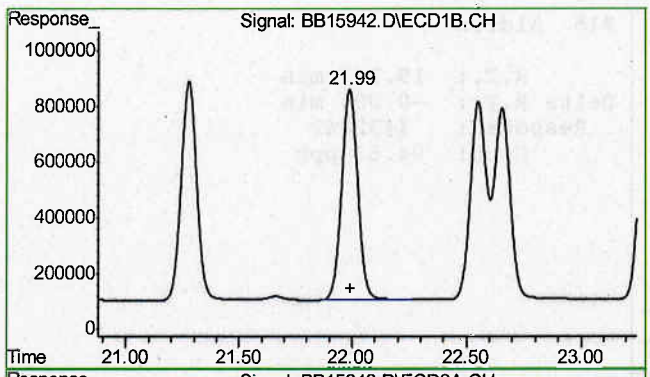


#16 Heptachlor Epoxide

R.T.: 13.775 min
Delta R.T.: -0.005 min
Response: 9884237
Conc: 99.76 ppb

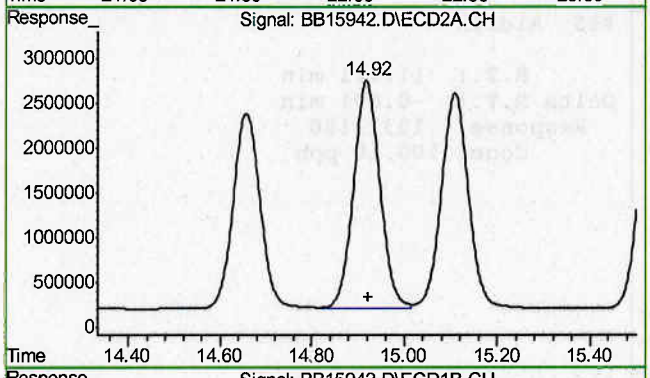
6.6.3

6



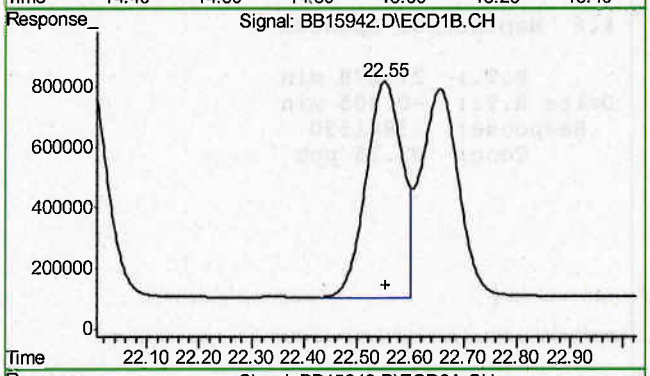
#17 gamma-Chlordane

R.T.: 21.990 min
Delta R.T.: -0.005 min
Response: 3684520
Conc: 92.55 ppb



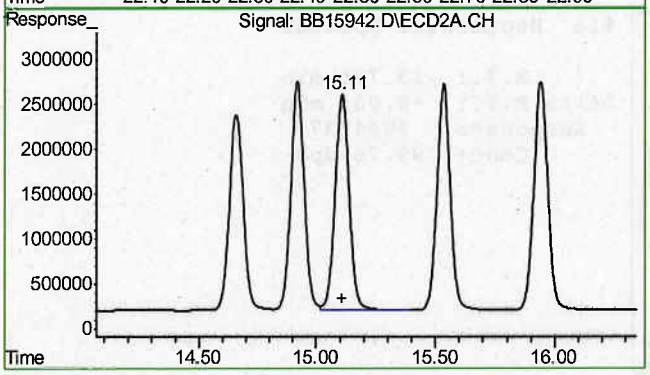
#17 gamma-Chlordane

R.T.: 14.918 min
Delta R.T.: -0.005 min
Response: 10019348
Conc: 98.66 ppb



#18 alpha-Chlordane

R.T.: 22.550 min
Delta R.T.: -0.005 min
Response: 3361685
Conc: 91.62 ppb

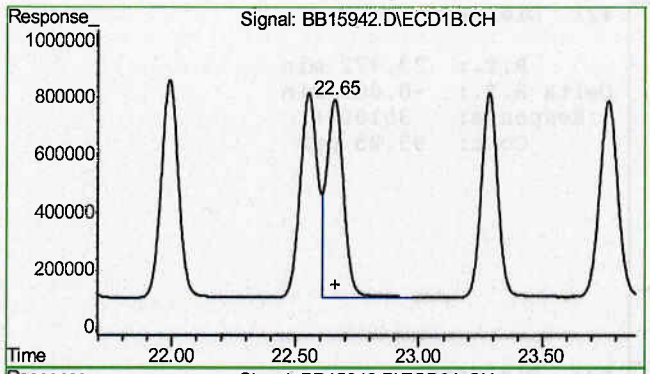


#18 alpha-Chlordane

R.T.: 15.110 min
Delta R.T.: -0.001 min
Response: 9850739
Conc: 97.44 ppb

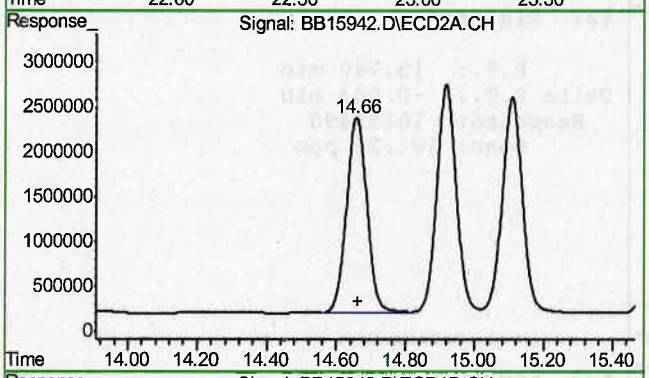
6.6.3

6



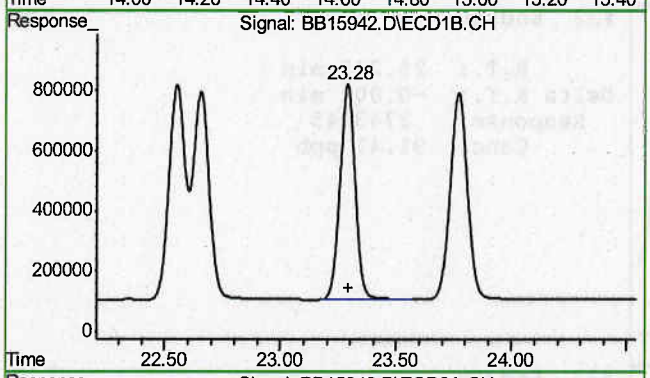
#19 Endosulfan-I

R.T.: 22.655 min
Delta R.T.: -0.005 min
Response: 3266809
Conc: 93.70 ppb



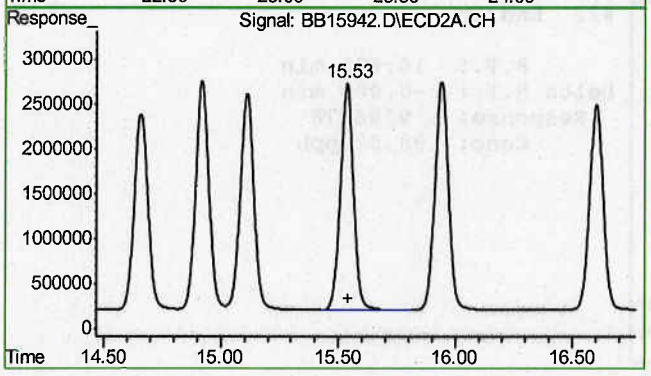
#19 Endosulfan-I

R.T.: 14.656 min
Delta R.T.: -0.005 min
Response: 8996960
Conc: 101.64 ppb



#20 4,4'-DDE

R.T.: 23.285 min
Delta R.T.: -0.005 min
Response: 3242967
Conc: 93.28 ppb



#20 4,4'-DDE

R.T.: 15.535 min
Delta R.T.: -0.003 min
Response: 9813973
Conc: 100.62 ppb

6.6.3

6

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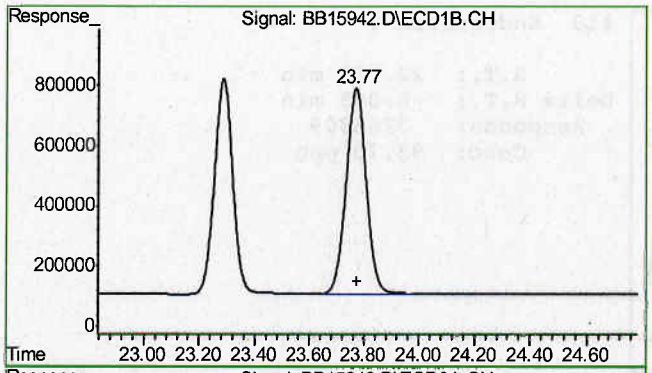
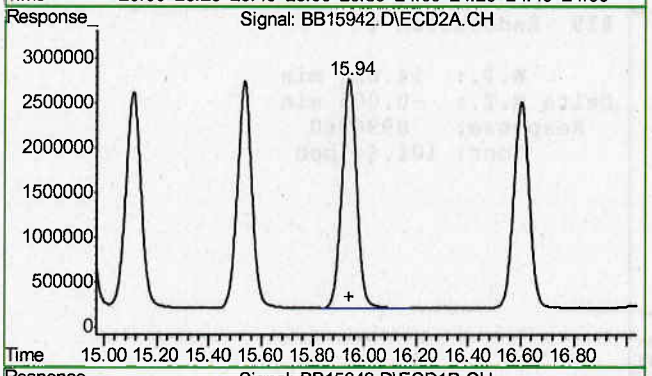


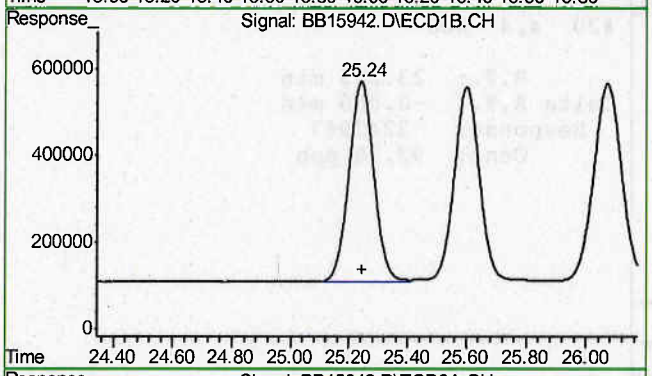
#21 Dieldrin

R.T.: 23.772 min
Delta R.T.: -0.003 min
Response: 3515246
Conc: 93.05 ppb



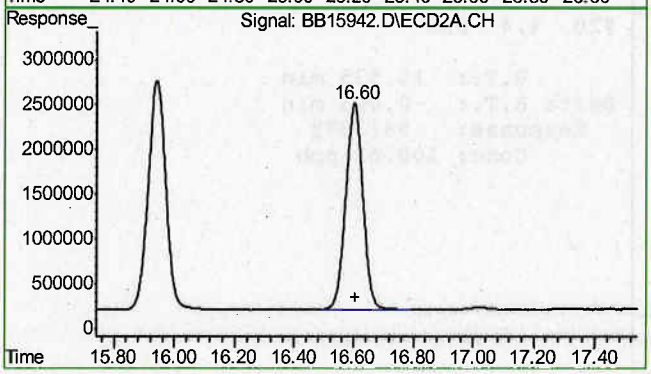
#21 Dieldrin

R.T.: 15.940 min
Delta R.T.: -0.003 min
Response: 10299490
Conc: 101.20 ppb



#22 Endrin

R.T.: 25.243 min
Delta R.T.: -0.001 min
Response: 2743945
Conc: 91.41 ppb

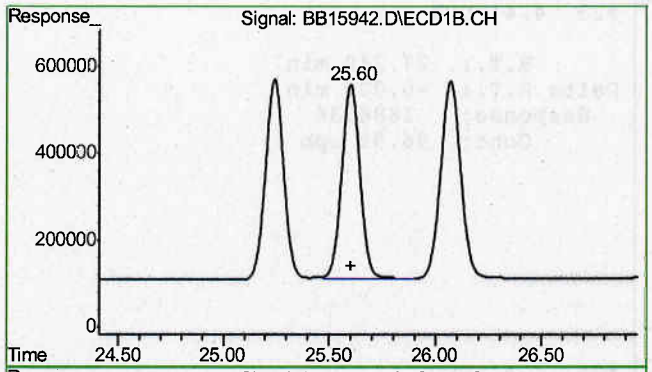


#22 Endrin

R.T.: 16.601 min
Delta R.T.: -0.003 min
Response: 9296570
Conc: 98.52 ppb

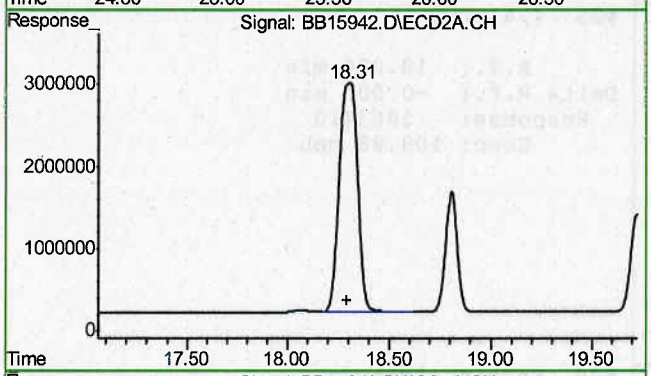
6.6.3

6



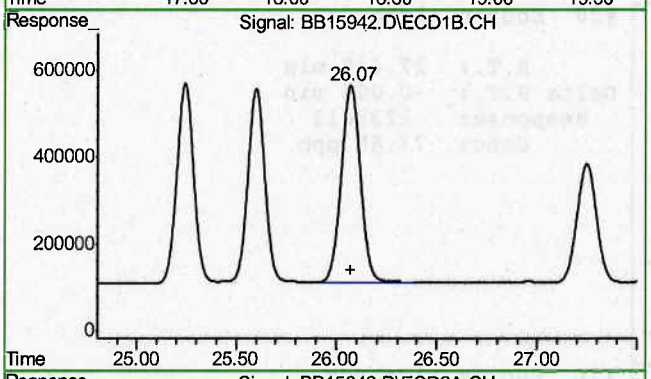
#23 4,4'-DDD

R.T.: 25.602 min
Delta R.T.: -0.001 min
Response: 2624000
Conc: 91.40 ppb



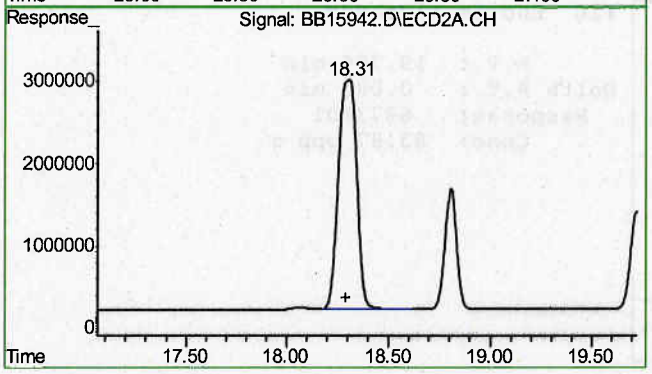
#23 4,4'-DDD

R.T.: 18.308 min
Delta R.T.: 0.019 min
Response: 17313207
Conc: 199.64 ppb



#24 Endosulfan-II

R.T.: 26.070 min
Delta R.T.: -0.003 min
Response: 2973830
Conc: 91.34 ppb

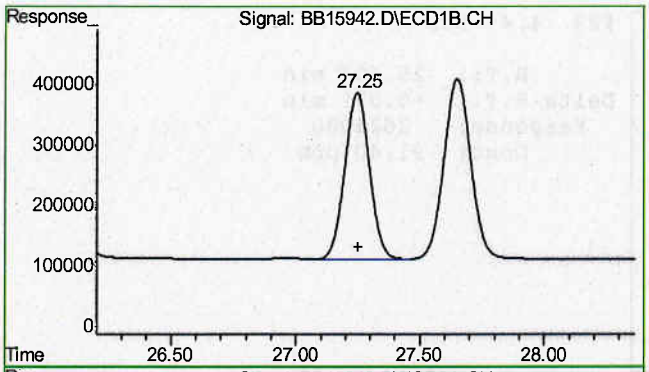


#24 Endosulfan-II

R.T.: 18.308 min
Delta R.T.: 0.019 min
Response: 17313207
Conc: 199.64 ppb

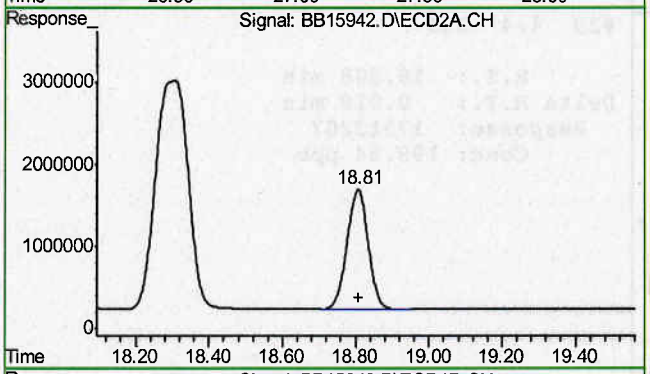
6.6.3

6



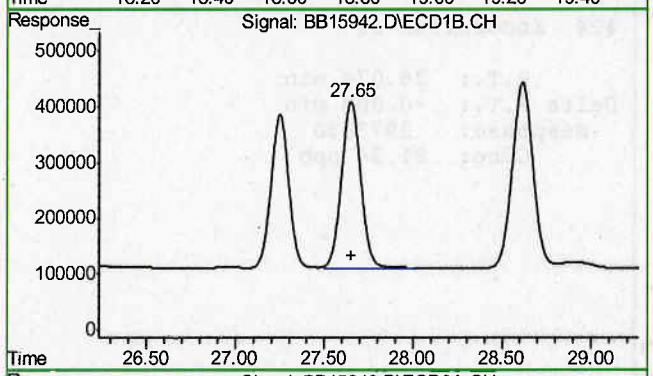
#25 4,4'-DDT

R.T.: 27.248 min
Delta R.T.: -0.003 min
Response: 1886334
Conc: 96.99 ppb



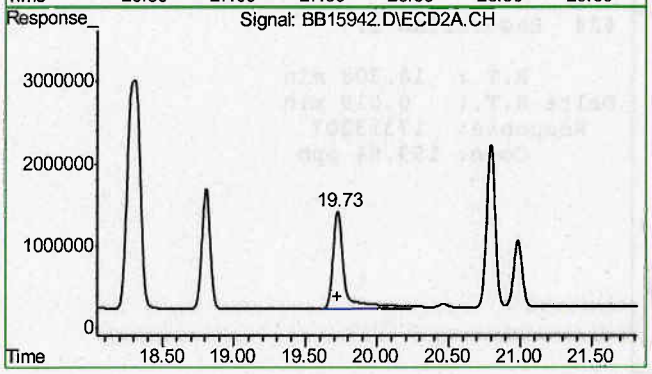
#25 4,4'-DDT

R.T.: 18.806 min
Delta R.T.: -0.003 min
Response: 5863410
Conc: 108.88 ppb



#26 Endrin aldehyde

R.T.: 27.648 min
Delta R.T.: -0.005 min
Response: 2233012
Conc: 77.88 ppb



#26 Endrin aldehyde

R.T.: 19.726 min
Delta R.T.: 0.000 min
Response: 6373601
Conc: 83.87 ppb m

6.6.3

6

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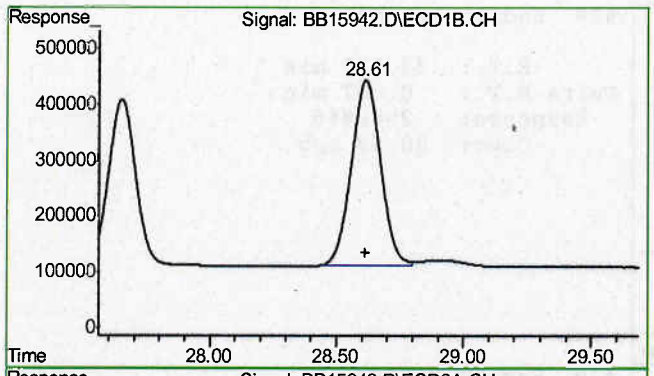
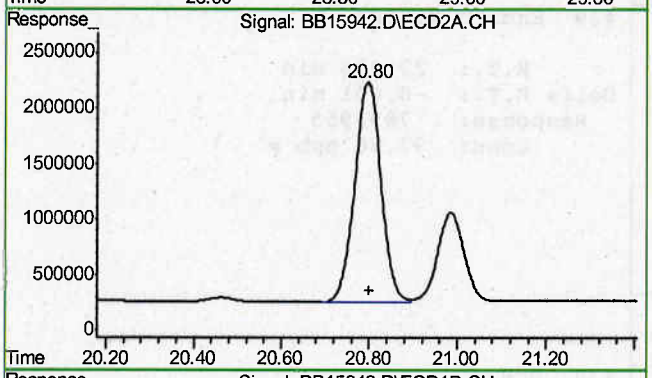


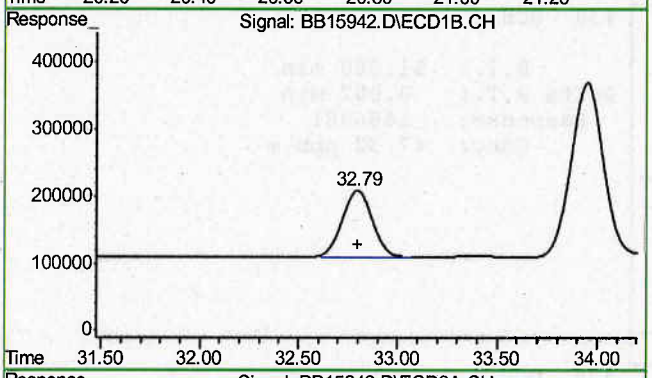
#27 Endosulfan sulfate

R.T.: 28.613 min
Delta R.T.: -0.001 min
Response: 2636955
Conc: 83.47 ppb



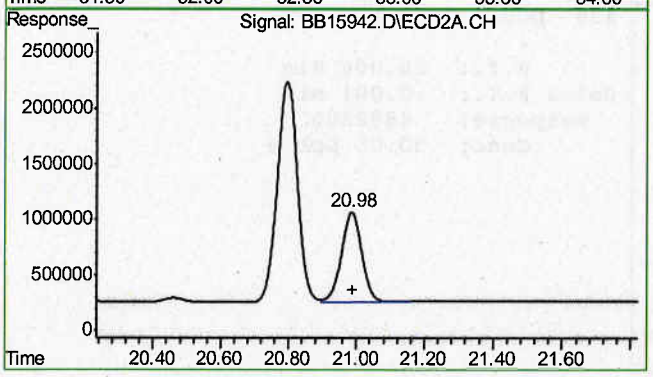
#27 Endosulfan sulfate

R.T.: 20.796 min
Delta R.T.: -0.003 min
Response: 8261902
Conc: 91.72 ppb



#28 Methoxychlor

R.T.: 32.792 min
Delta R.T.: -0.005 min
Response: 1049060
Conc: 90.64 ppb

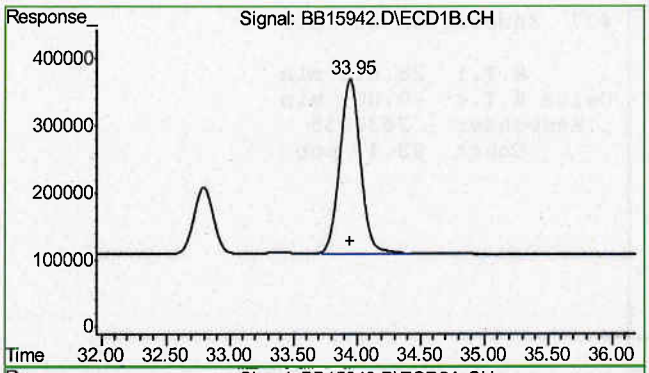


#28 Methoxychlor

R.T.: 20.985 min
Delta R.T.: -0.003 min
Response: 3364136
Conc: 101.91 ppb

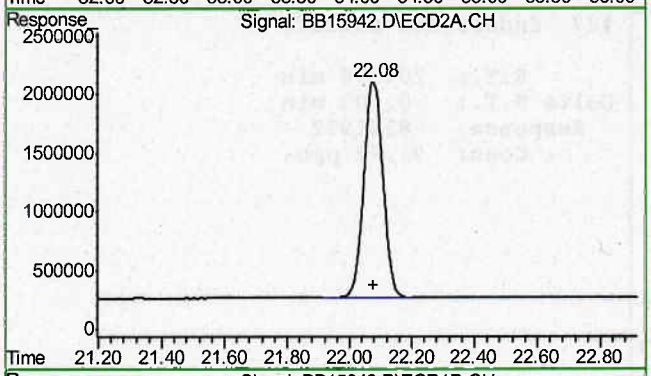
6.6.3

6



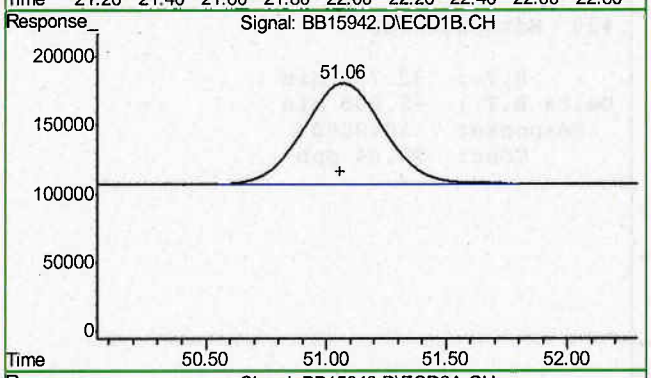
#29 Endrin ketone

R.T.: 33.952 min
Delta R.T.: 0.007 min
Response: 2982866
Conc: 88.59 ppb



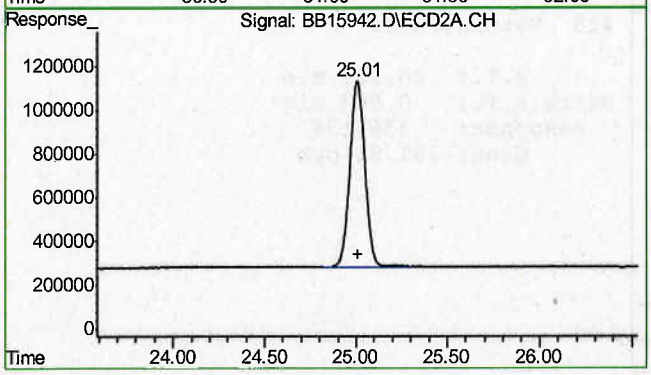
#29 Endrin ketone

R.T.: 22.076 min
Delta R.T.: -0.001 min
Response: 7891955
Conc: 97.90 ppb m



#38 DCB

R.T.: 51.060 min
Delta R.T.: 0.002 min
Response: 1696381
Conc: 47.32 ppb m



#38 DCB

R.T.: 25.006 min
Delta R.T.: -0.001 min
Response: 4882205
Conc: 50.05 ppb m

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15943.D\ECD1B.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\BB15943.D\ECD2A.CH
Acq On : 9-20-07 08:51:07 PM Operator: caobinz
Sample : ic667-50,pest 50 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:40:57 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:40:09 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	1605065	4136281	39.314	39.862
	Spiked Amount 40.000			Recovery	=	98.28%	99.66%
38) s	DCB	51.06	25.00	1353314	3921129	37.936m	40.015m
	Spiked Amount 40.000			Recovery	=	94.84%	100.04%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	2365011	5706809	46.466	47.701
9)	alpha-BHC	14.88	8.52	3472475	7340180	56.331	56.627
10)	gamma-BHC	16.39	9.86	3131453	7266884	60.492	61.826
11)	beta-BHC	16.63	12.58	1959712	4559083	76.289	76.894
12)	Heptachlor	17.99	10.50	1632127	4994186	46.560m	52.904
13)	delta-BHC	18.04	13.34	3535633	7781629	65.226m	65.779
14)	Alachlor	18.32	11.95	3200995	6725823	591.643	602.858
15)	Aldrin	19.27	11.41	2213674	5047205	47.263	48.523
16)	Heptachlor Epoxi	21.28	13.78	2115599	5358649	51.303	53.626
17)	gamma-Chlordane	21.99	14.92	2017231	5318968	50.596	52.033
18)	alpha-Chlordane	22.55	15.11	1817777	5236768	49.493	51.553
19)	Endosulfan-I	22.65	14.66	1718568	4631168	49.180	51.824
20)	4,4'-DDE	23.28	15.53	1623348	4867414	46.689	49.718
21)	Dieldrin	23.77	15.94	1873335	5352848	49.508	52.251
22)	Endrin	25.24	16.60	1444668	4789635	48.271	50.690
23)	4,4'-DDD	25.60	18.30	1579537	10425007	54.823	119.177 #
24)	Endosulfan-II	26.07	18.30	1857592	10425007	56.619	119.177 #
25)	4,4'-DDT	27.24	18.81	960941	2849069	48.398	51.087
26)	Endrin aldehyde	27.65	19.73	2202807	6365139	76.474	83.449m
27)	Endosulfan sulfa	28.61	20.80	2320324	7013158	72.895m	76.861
28)	Methoxychlor	32.79	20.99	601385	1925251	51.630	56.942
29)	Endrin ketone	33.94	22.08	2091803	5453974	61.522	66.535m

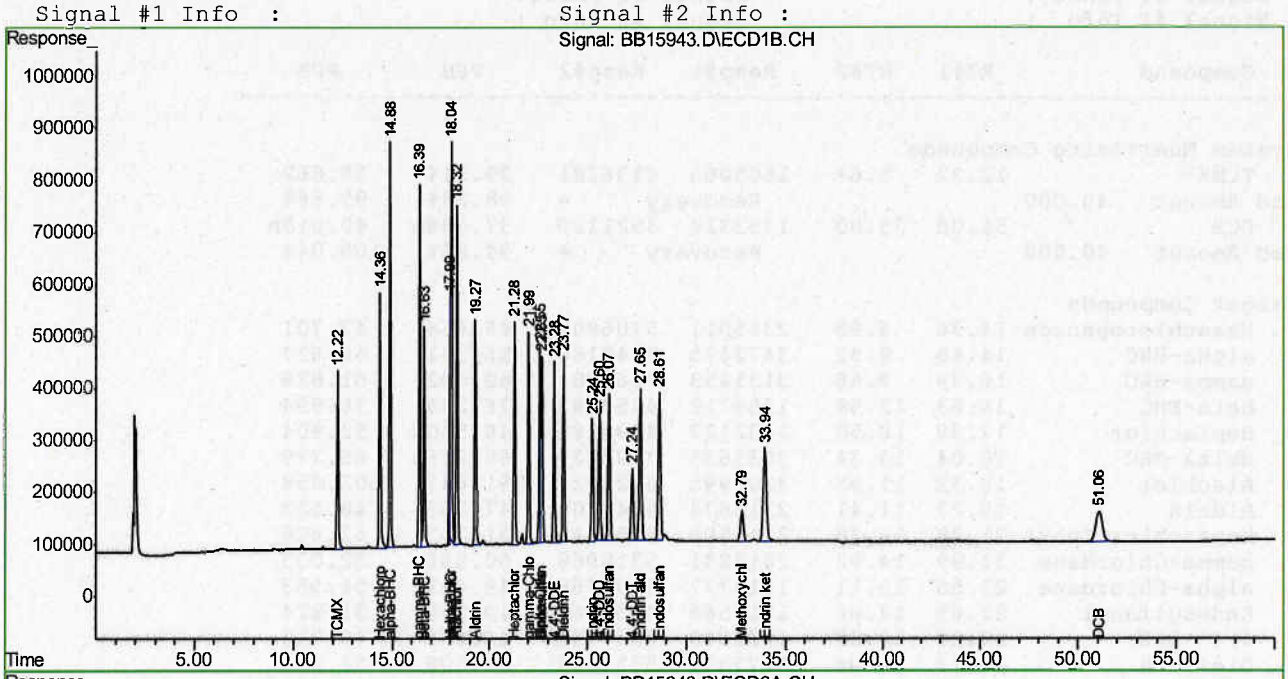
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15943.D PT092007.M Fri Sep 21 10:58:35 2007 GC23PRN

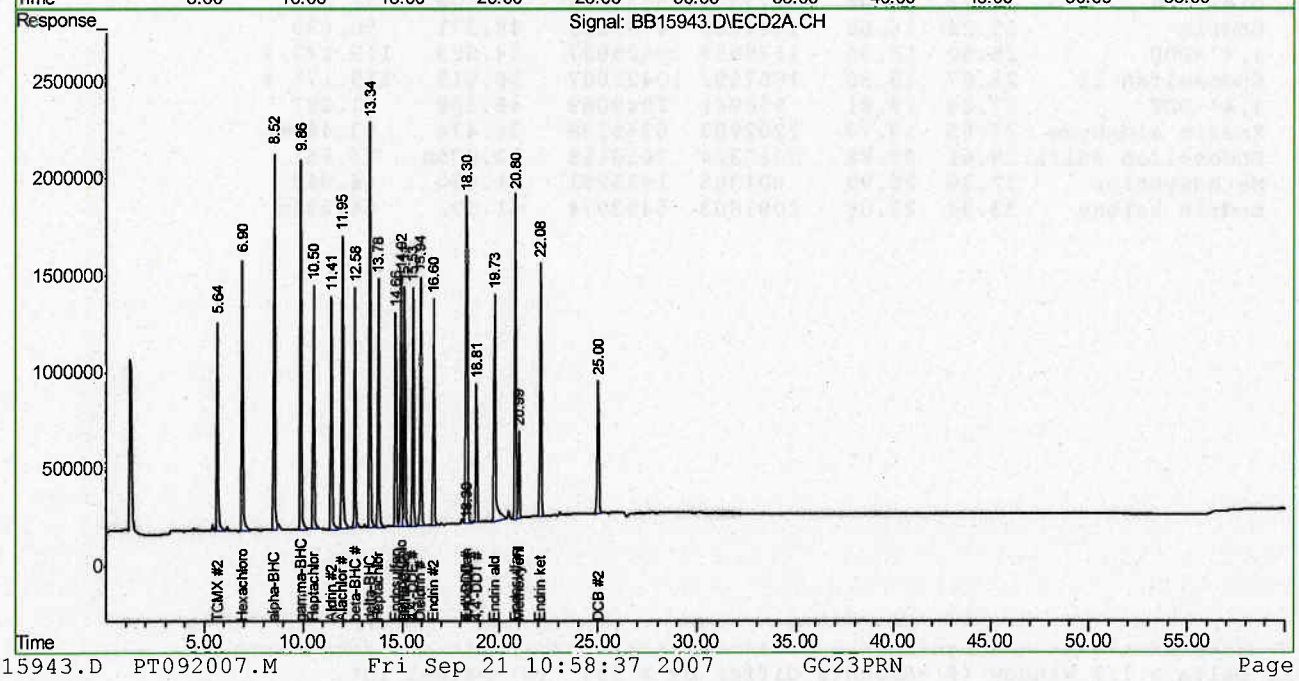
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15943.D\ECD1B.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\BB15943.D\ECD2A.CH
Acq On : 9-20-07 08:51:07 PM Operator: caobinz
Sample : ic667-50,pest 50 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:51 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:40:09 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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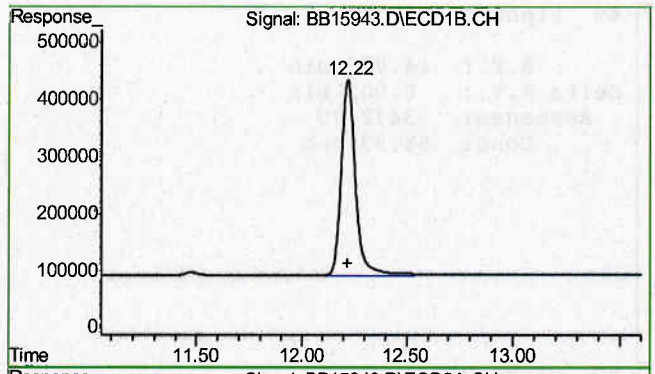
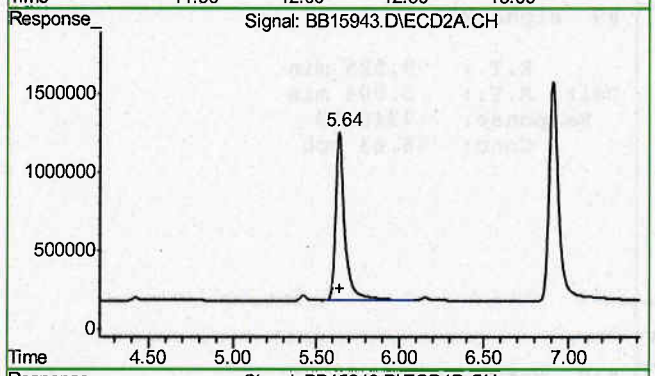


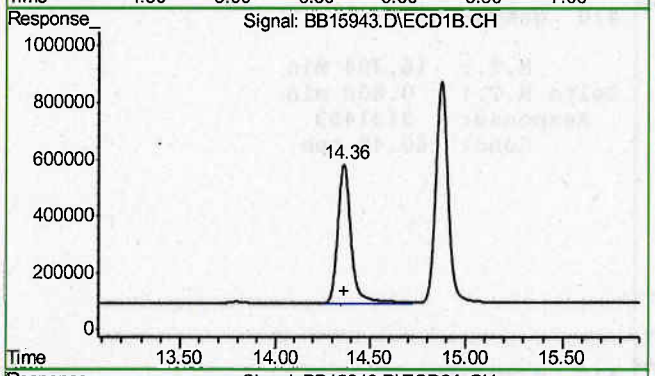
#1 TCMX

R.T.: 12.220 min
Delta R.T.: 0.000 min
Response: 1605065
Conc: 39.31 ppb



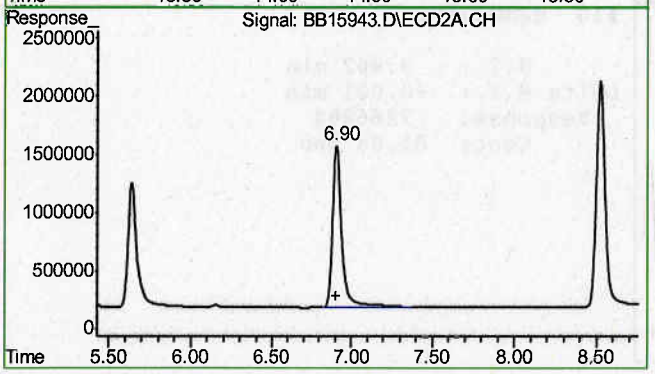
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.001 min
Response: 4136281
Conc: 39.86 ppb



#8 Hexachlorobenzene

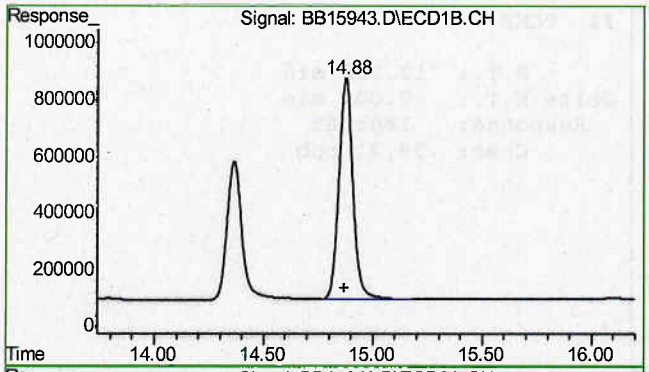
R.T.: 14.362 min
Delta R.T.: 0.000 min
Response: 2365011
Conc: 46.47 ug/l



#8 Hexachlorobenzene

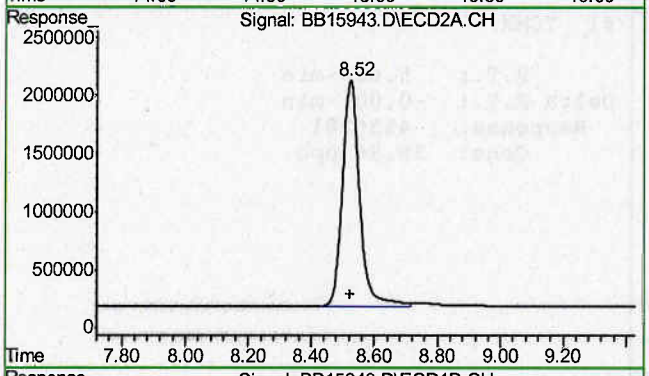
R.T.: 6.905 min
Delta R.T.: 0.000 min
Response: 5706809
Conc: 47.70 ug/l

6.6.4 6



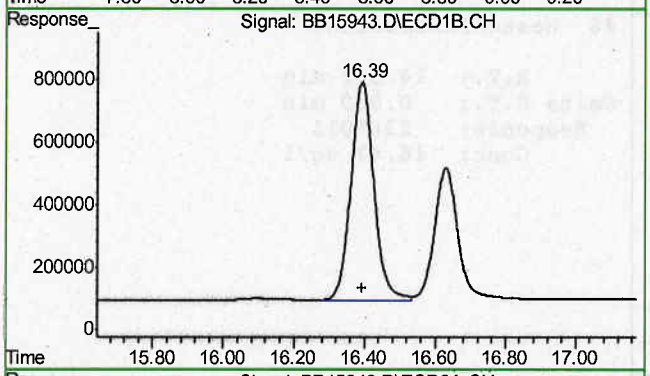
#9 alpha-BHC

R.T.: 14.875 min
Delta R.T.: 0.002 min
Response: 3472475
Conc: 56.33 ppb



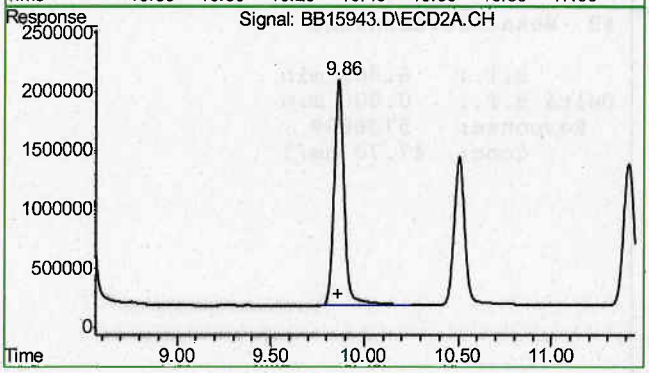
#9 alpha-BHC

R.T.: 8.525 min
Delta R.T.: 0.004 min
Response: 7340180
Conc: 56.63 ppb



#10 gamma-BHC

R.T.: 16.394 min
Delta R.T.: 0.000 min
Response: 3131453
Conc: 60.49 ppb



#10 gamma-BHC

R.T.: 9.862 min
Delta R.T.: -0.001 min
Response: 7266884
Conc: 61.83 ppb

6.6.4

6

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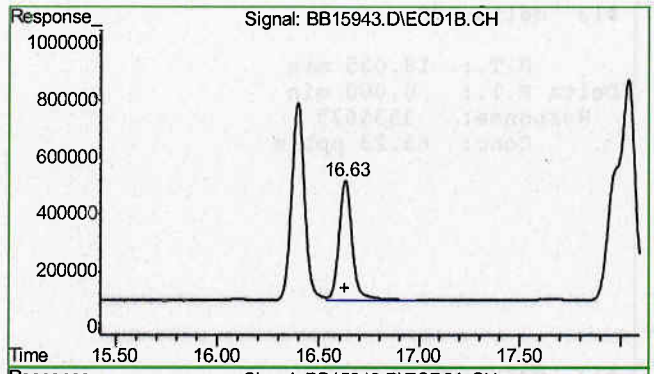
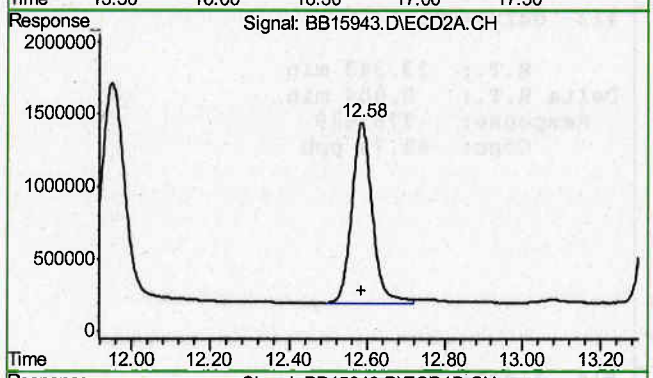


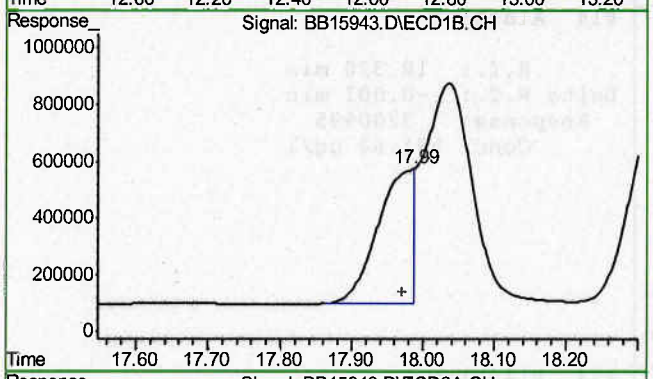
#11 beta-BHC

R.T.: 16.630 min
Delta R.T.: 0.002 min
Response: 1959712
Conc: 76.29 ppb



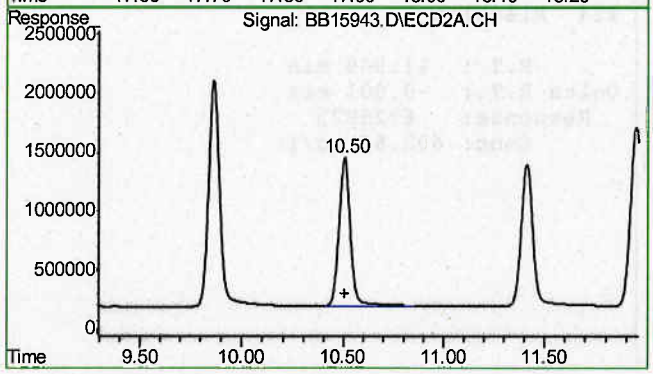
#11 beta-BHC

R.T.: 12.585 min
Delta R.T.: 0.000 min
Response: 4559083
Conc: 76.89 ppb



#12 Heptachlor

R.T.: 17.987 min
Delta R.T.: 0.015 min
Response: 1632127
Conc: 46.56 ppb m



#12 Heptachlor

R.T.: 10.505 min
Delta R.T.: 0.002 min
Response: 4994186
Conc: 52.90 ppb

6.6.4

6

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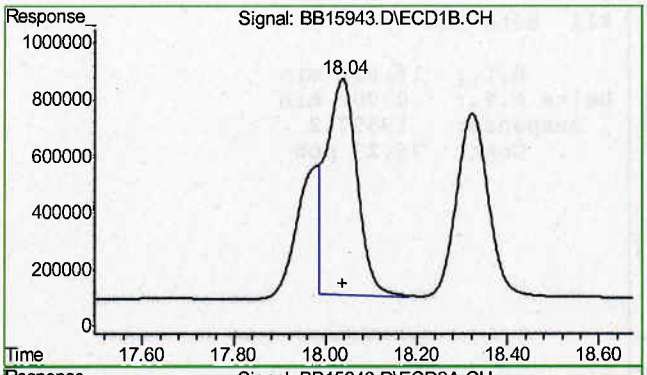
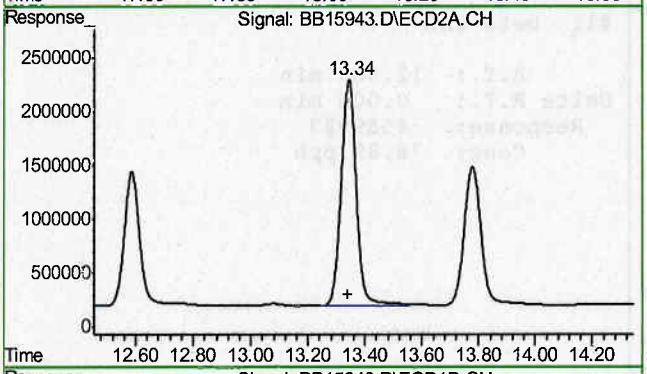


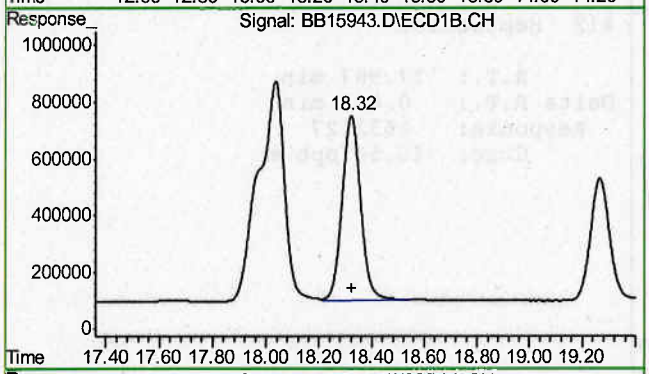
#13 delta-BHC

R.T.: 18.035 min
Delta R.T.: 0.000 min
Response: 3535633
Conc: 65.23 ppb m



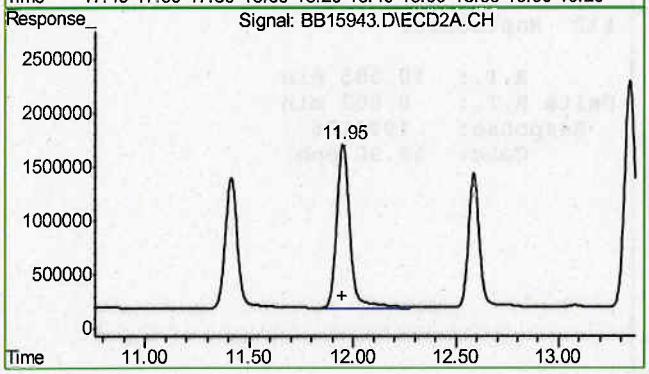
#13 delta-BHC

R.T.: 13.343 min
Delta R.T.: 0.004 min
Response: 7781629
Conc: 65.78 ppb



#14 Alachlor

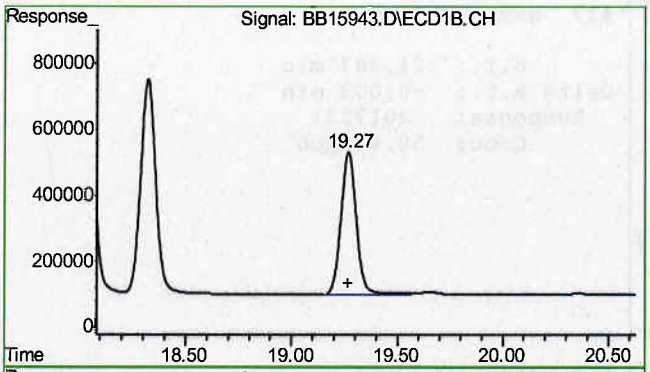
R.T.: 18.320 min
Delta R.T.: -0.001 min
Response: 3200995
Conc: 591.64 ug/l



#14 Alachlor

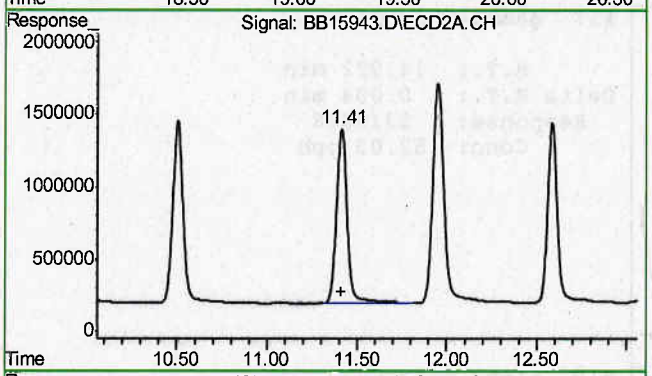
R.T.: 11.948 min
Delta R.T.: -0.001 min
Response: 6725823
Conc: 602.86 ug/l

6.6.4 6



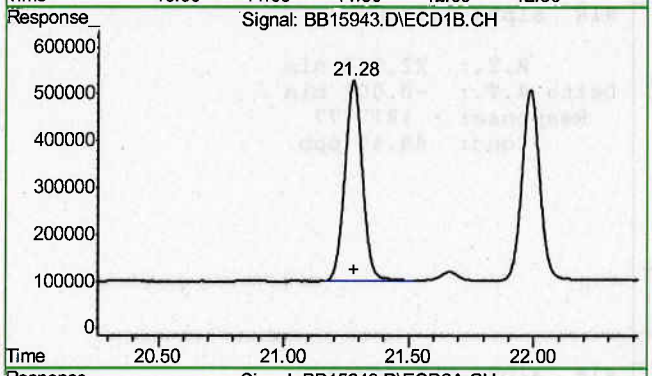
#15 Aldrin

R.T.: 19.265 min
Delta R.T.: -0.001 min
Response: 2213674
Conc: 47.26 ppb



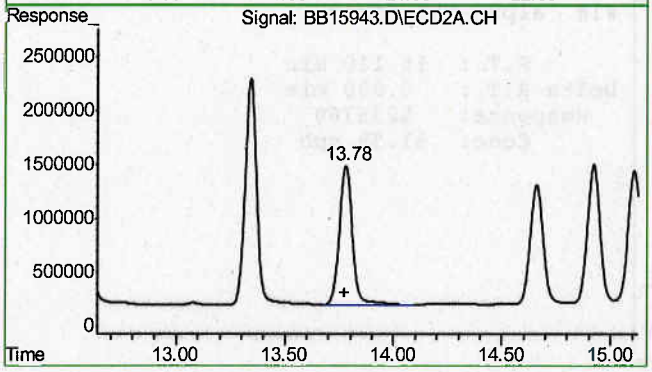
#15 Aldrin

R.T.: 11.412 min
Delta R.T.: 0.000 min
Response: 5047205
Conc: 48.52 ppb



#16 Heptachlor Epoxide

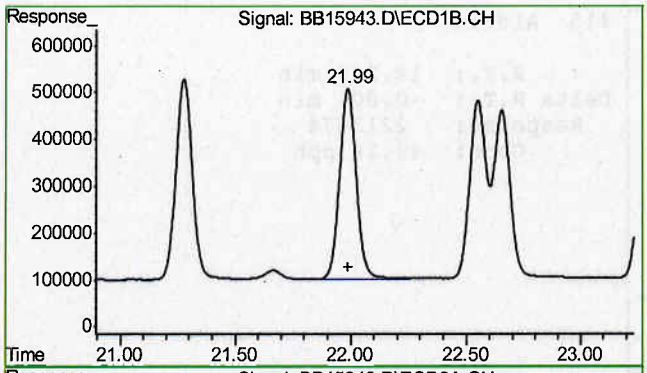
R.T.: 21.277 min
Delta R.T.: -0.001 min
Response: 2115599
Conc: 51.30 ppb



#16 Heptachlor Epoxide

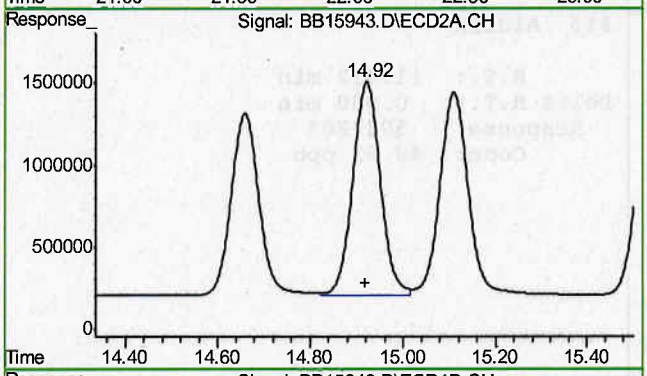
R.T.: 13.777 min
Delta R.T.: 0.002 min
Response: 5358649
Conc: 53.63 ppb

6.6.4 6



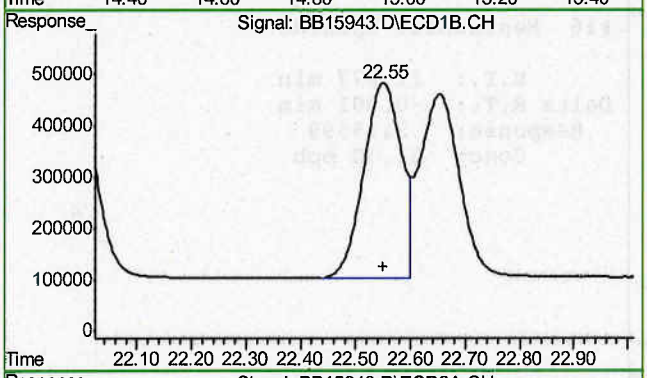
#17 gamma-Chlordane

R.T.: 21.987 min
Delta R.T.: -0.003 min
Response: 2017231
Conc: 50.60 ppb



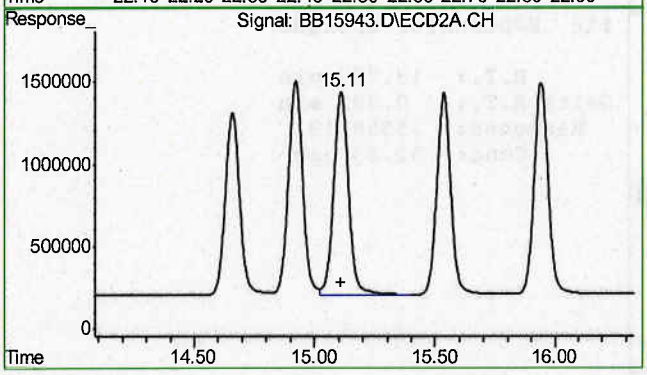
#17 gamma-Chlordane

R.T.: 14.922 min
Delta R.T.: 0.004 min
Response: 5318968
Conc: 52.03 ppb



#18 alpha-Chlordane

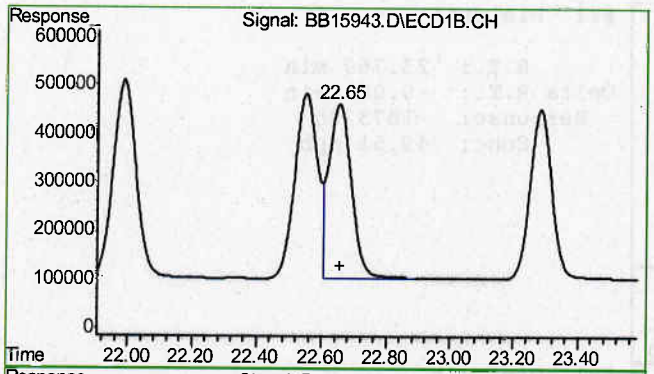
R.T.: 22.549 min
Delta R.T.: -0.001 min
Response: 1817777
Conc: 49.49 ppb



#18 alpha-Chlordane

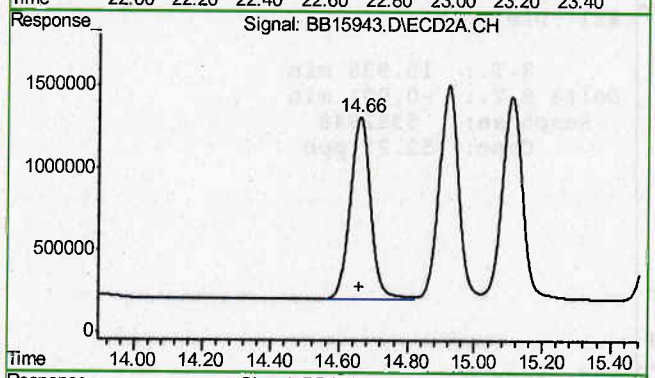
R.T.: 15.110 min
Delta R.T.: 0.000 min
Response: 5236768
Conc: 51.55 ppb

6.6.4 6



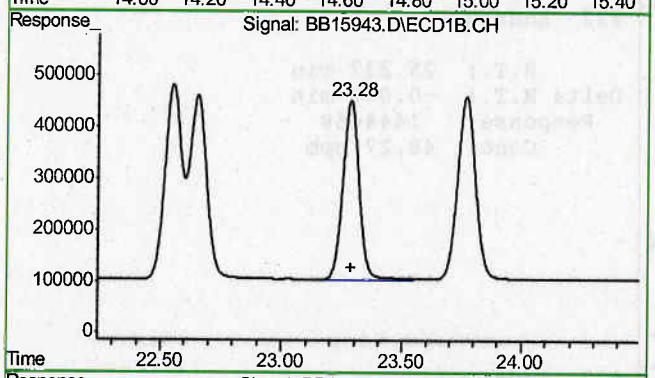
#19 Endosulfan-I

R.T.: 22.654 min
Delta R.T.: -0.001 min
Response: 1718568
Conc: 49.18 ppb



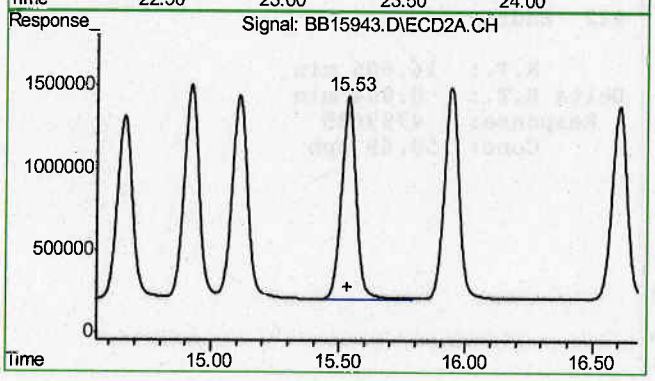
#19 Endosulfan-I

R.T.: 14.658 min
Delta R.T.: 0.002 min
Response: 4631168
Conc: 51.82 ppb



#20 4,4'-DDE

R.T.: 23.284 min
Delta R.T.: -0.001 min
Response: 1623348
Conc: 46.69 ppb

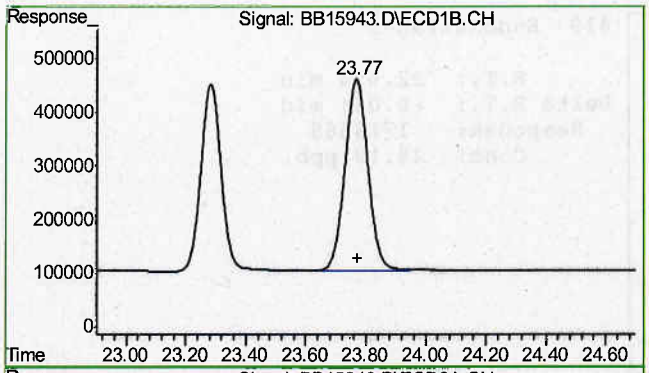


#20 4,4'-DDE

R.T.: 15.535 min
Delta R.T.: 0.000 min
Response: 4867414
Conc: 49.72 ppb

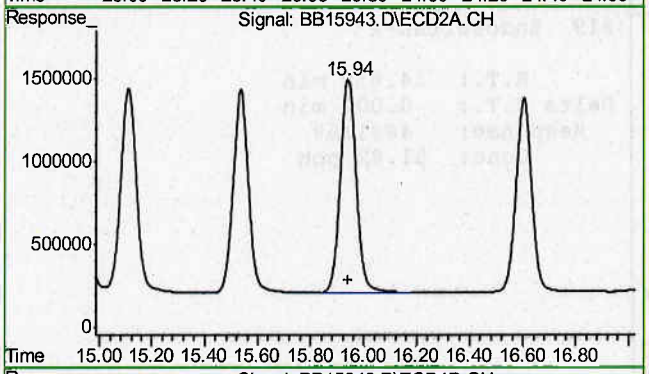
6.6.4

6



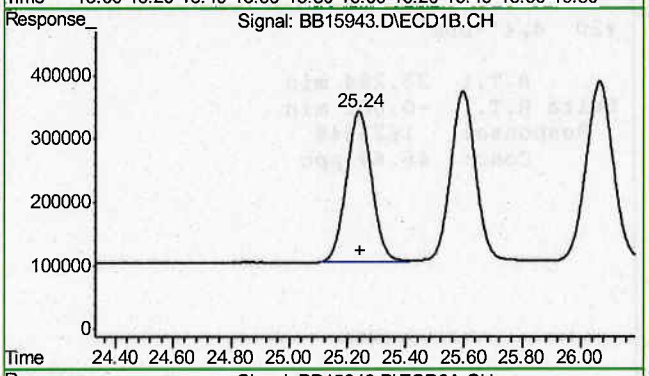
#21 Dieldrin

R.T.: 23.769 min
Delta R.T.: -0.003 min
Response: 1873335
Conc: 49.51 ppb



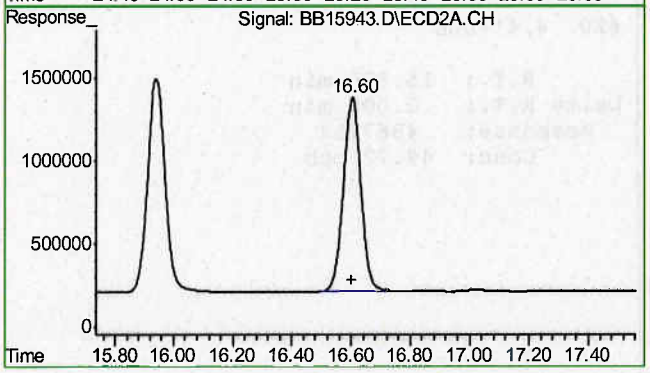
#21 Dieldrin

R.T.: 15.938 min
Delta R.T.: -0.001 min
Response: 5352848
Conc: 52.25 ppb



#22 Endrin

R.T.: 25.237 min
Delta R.T.: -0.006 min
Response: 1444668
Conc: 48.27 ppb



#22 Endrin

R.T.: 16.605 min
Delta R.T.: 0.004 min
Response: 4789635
Conc: 50.69 ppb

6.6.4

6

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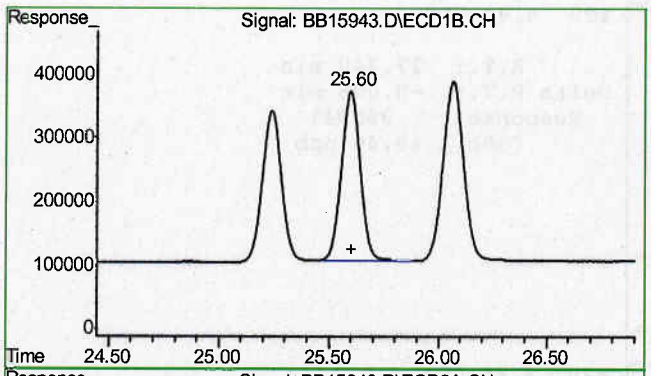
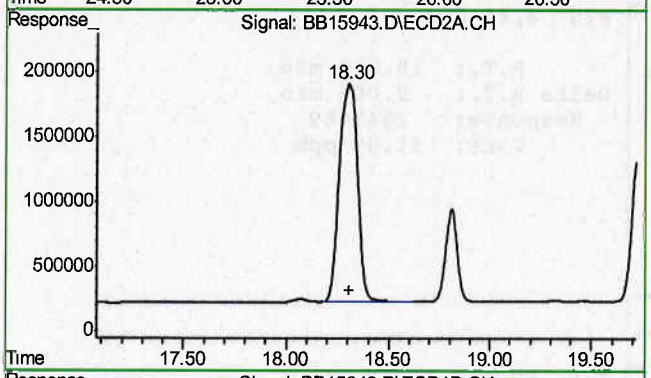


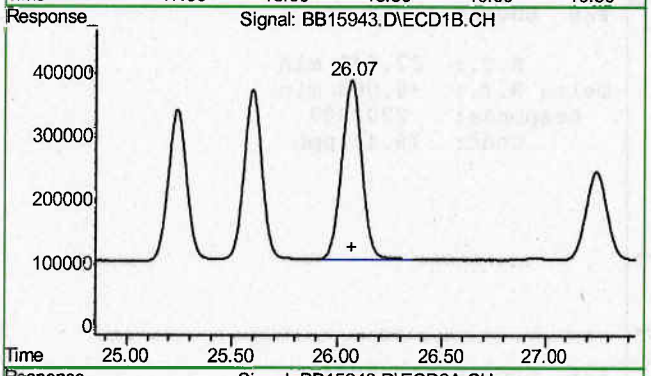
#23 4,4'-DDD

R.T.: 25.595 min
Delta R.T.: -0.006 min
Response: 1579537
Conc: 54.82 ppb



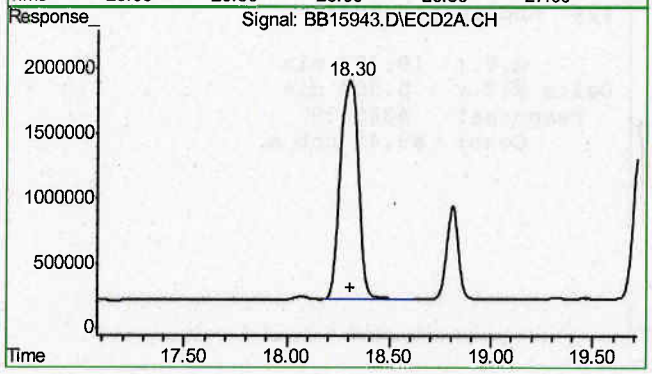
#23 4,4'-DDD

R.T.: 18.302 min
Delta R.T.: -0.006 min
Response: 10425007
Conc: 119.18 ppb



#24 Endosulfan-II

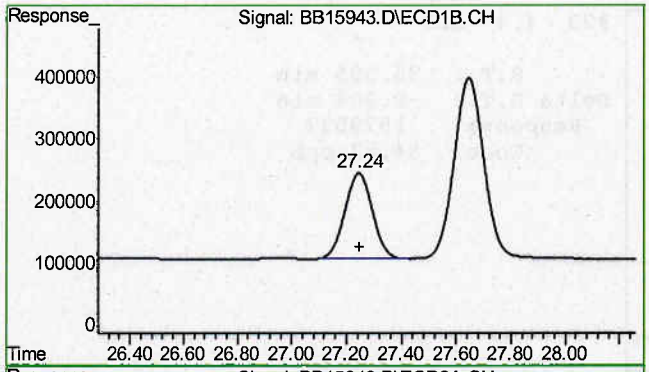
R.T.: 26.065 min
Delta R.T.: -0.005 min
Response: 1857592
Conc: 56.62 ppb



#24 Endosulfan-II

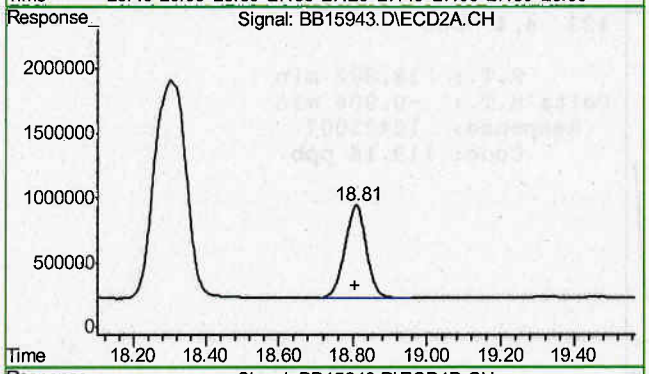
R.T.: 18.302 min
Delta R.T.: -0.006 min
Response: 10425007
Conc: 119.18 ppb

6.6.4 6



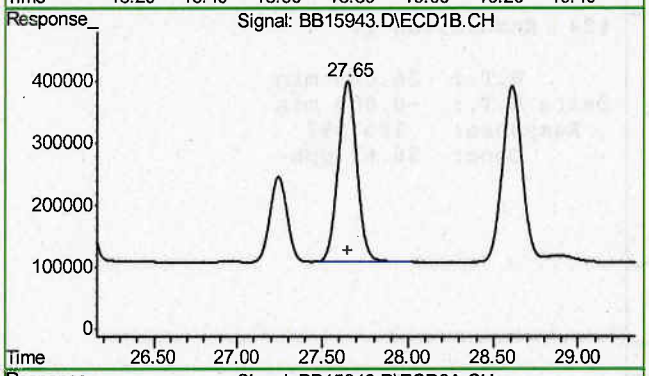
#25 4,4'-DDT

R.T.: 27.240 min
Delta R.T.: -0.008 min
Response: 960941
Conc: 48.40 ppb



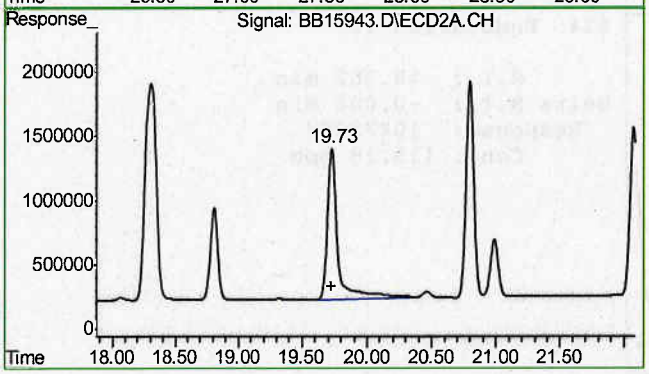
#25 4,4'-DDT

R.T.: 18.808 min
Delta R.T.: 0.002 min
Response: 2849069
Conc: 51.09 ppb



#26 Endrin aldehyde

R.T.: 27.645 min
Delta R.T.: -0.003 min
Response: 2202807
Conc: 76.47 ppb

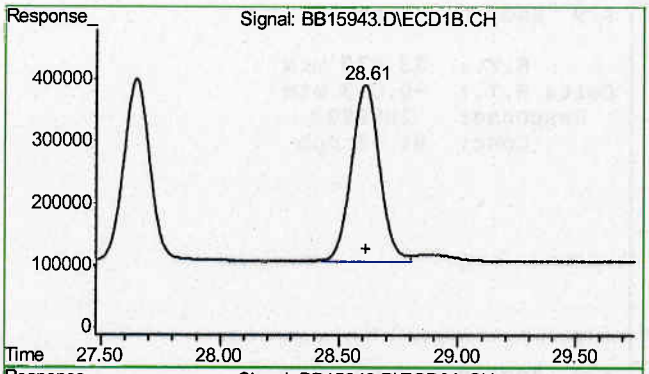


#26 Endrin aldehyde

R.T.: 19.727 min
Delta R.T.: 0.000 min
Response: 6365139
Conc: 83.45 ppb m

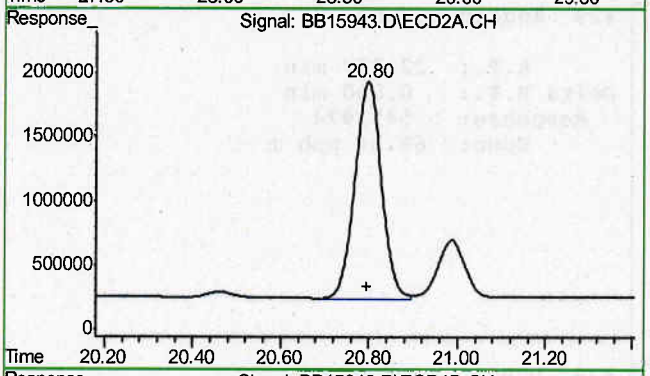
6.6.4

6



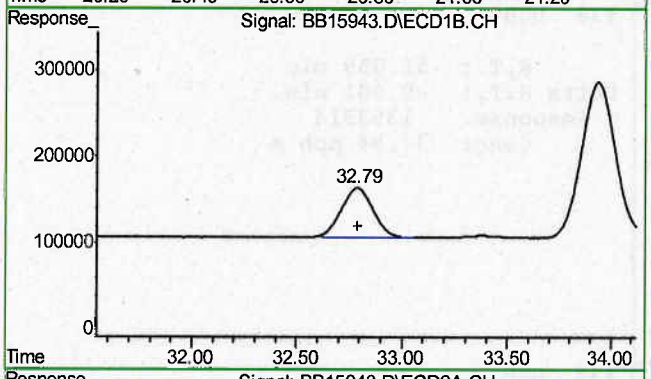
#27 Endosulfan sulfate

R.T.: 28.609 min
Delta R.T.: -0.005 min
Response: 2320324
Conc: 72.89 ppb m



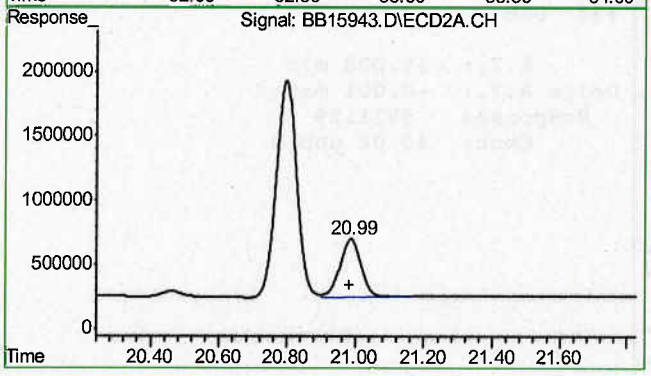
#27 Endosulfan sulfate

R.T.: 20.797 min
Delta R.T.: 0.000 min
Response: 7013158
Conc: 76.86 ppb



#28 Methoxychlor

R.T.: 32.785 min
Delta R.T.: -0.006 min
Response: 601385
Conc: 51.63 ppb



#28 Methoxychlor

R.T.: 20.988 min
Delta R.T.: 0.004 min
Response: 1925251
Conc: 56.94 ppb

6.6.4

6

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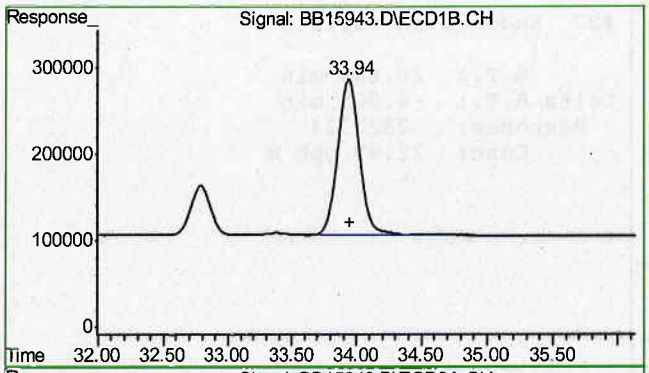
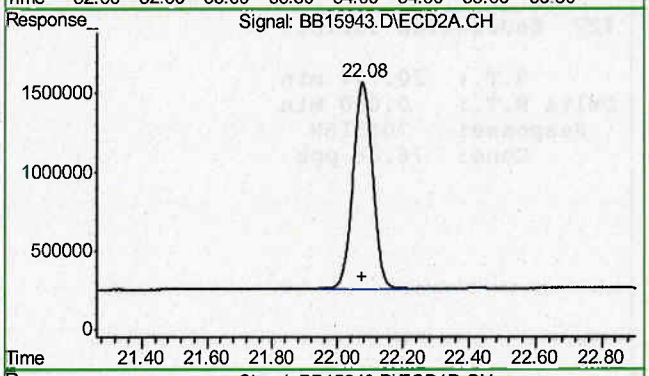


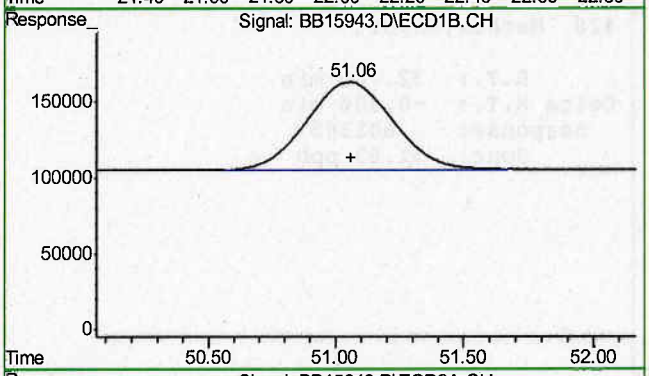
#29 Endrin ketone

R.T.: 33.939 min
Delta R.T.: -0.013 min
Response: 2091803
Conc: 61.52 ppb



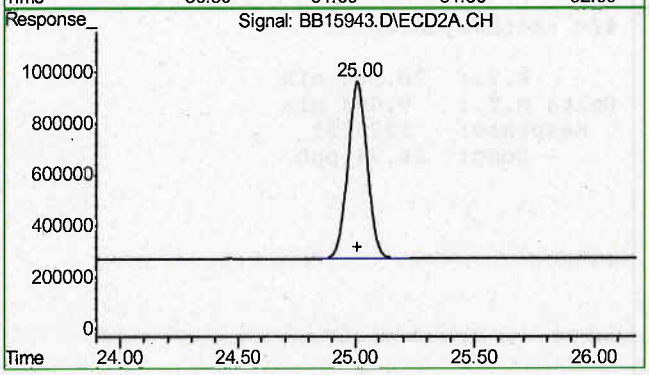
#29 Endrin ketone

R.T.: 22.077 min
Delta R.T.: 0.000 min
Response: 5453974
Conc: 66.54 ppb m



#38 DCB

R.T.: 51.059 min
Delta R.T.: -0.001 min
Response: 1353314
Conc: 37.94 ppb m



#38 DCB

R.T.: 25.005 min
Delta R.T.: -0.001 min
Response: 3921129
Conc: 40.02 ppb m

6.6.4 6

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15944.D\ECD1B.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BB15944.D\ECD2A.CH
Acq On : 9-20-07 09:56:13 PM Operator: caobinz
Sample : ic667-10,pest 10 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 10:59:30 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:58:21 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	711419	1862245	17.546	17.969
	Spiked Amount 40.000			Recovery	=	43.86%	44.92%
38) s	DCB	51.05	25.01	671102	1924044	19.073m	19.698m
	Spiked Amount 40.000			Recovery	=	47.68%	49.24%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	541279	1364277	10.706	11.392
9)	alpha-BHC	14.87	8.52	581807	1311178	9.466	10.056
10)	gamma-BHC	16.39	9.86	507326	1190805	9.695	9.947
11)	beta-BHC	16.63	12.58	258559	594476	10.079	9.989
12)	Heptachlor	17.97	10.50	384681	1046288	10.774	10.792
13)	delta-BHC	18.03	13.34	516867	1146123	9.525	9.599
14)	Alachlor	18.32	11.95	620579	1386597	115.318	123.810
15)	Aldrin	19.26	11.41	482188	1084629	10.327	10.418
16)	Heptachlor Epoxi	21.27	13.77	442888	1058465	10.757m	10.581
17)	gamma-Chlordane	21.99	14.92	419145	1065375	10.548	10.427
18)	alpha-Chlordane	22.55	15.11	400864	1047260	10.957	10.309
19)	Endosulfan-I	22.65	14.66	378198	989994	10.802	11.043
20)	4,4'-DDE	23.28	15.53	361865	991621	10.488m	10.188
21)	Dieldrin	23.77	15.94	394994	1058317	10.498	10.352
22)	Endrin	25.24	16.60	302970	993199	10.213	10.577
23)	4,4'-DDD	25.60	18.30	299518	1819692	10.493	20.843 #
24)	Endosulfan-II	26.07	18.30	356561	1819692	10.906m	20.843 #
25)	4,4'-DDT	27.24	18.80	196369	520778	9.812	9.134m
26)	Endrin aldehyde	27.65	19.72	286803	706324	10.043	9.303m
27)	Endosulfan sulfa	28.61	20.80	335160	937231	10.588m	10.249
28)	Methoxychlor	32.79	20.98	125813	375182	10.932m	10.940m
29)	Endrin ketone	33.94	22.08	379770	866152	11.255m	10.533m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15944.D PT092007.M Fri Sep 21 11:06:16 2007 GC23PRN

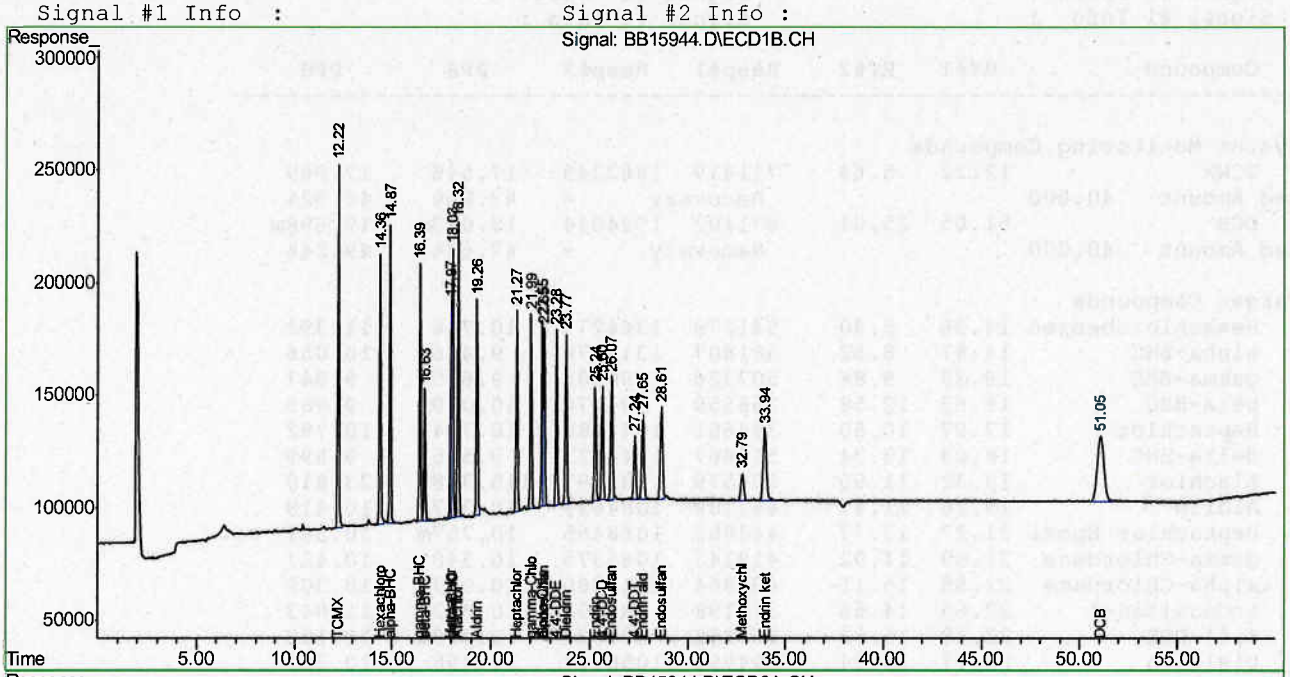
Quantitation Report (QT Reviewed)

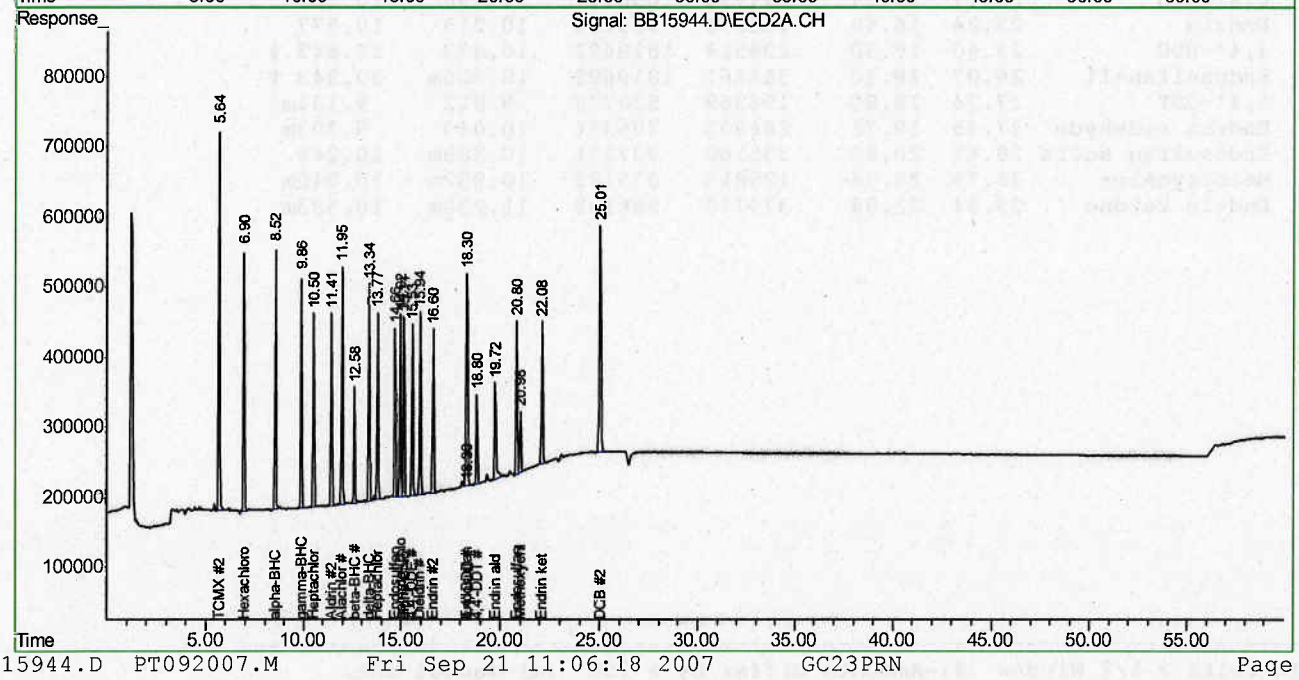
Signal #1 : C:\MSDCHEM\1\DATA\BB15944.D\ECD1B.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BB15944.D\ECD2A.CH
Acq On : 9-20-07 09:56:13 PM Operator: caobinz
Sample : ic667-10,pest 10 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:06 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 10:58:21 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

6.6.5 6





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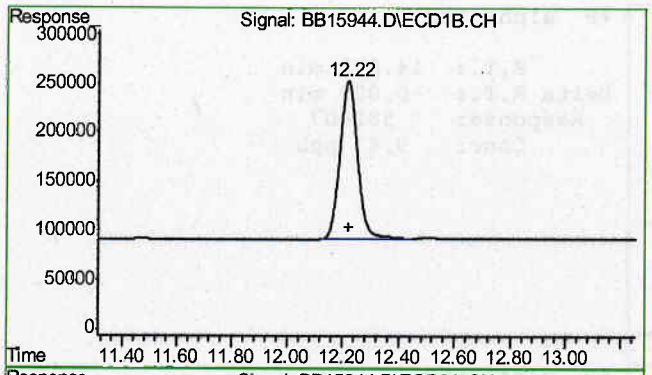
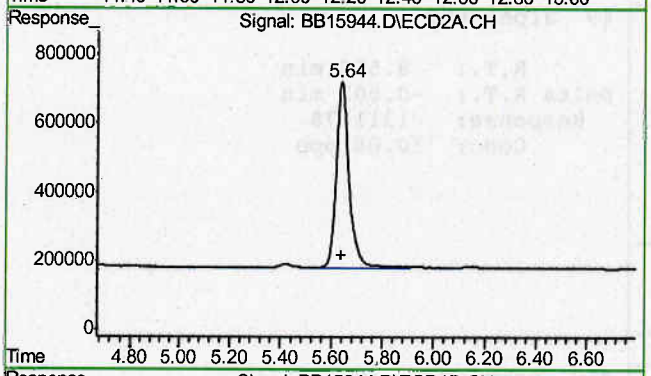


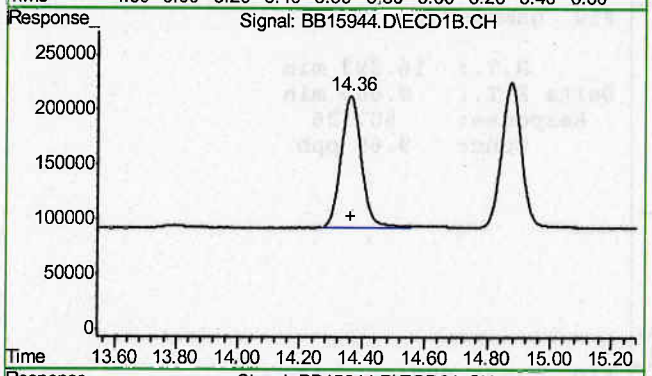
#1 TCMX

R.T.: 12.220 min
Delta R.T.: 0.000 min
Response: 711419
Conc: 17.55 ppb



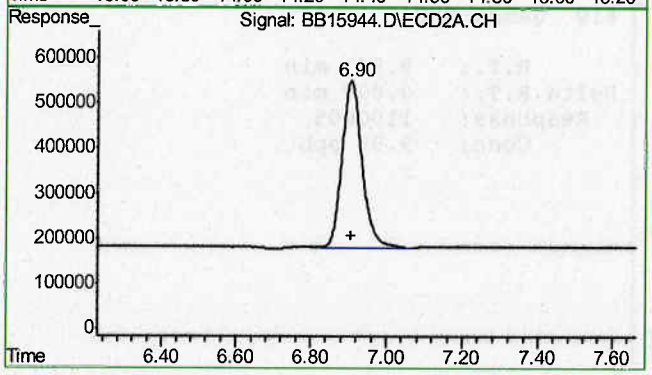
#1 TCMX

R.T.: 5.640 min
Delta R.T.: 0.001 min
Response: 1862245
Conc: 17.97 ppb



#8 Hexachlorobenzene

R.T.: 14.361 min
Delta R.T.: 0.000 min
Response: 541279
Conc: 10.71 ug/l

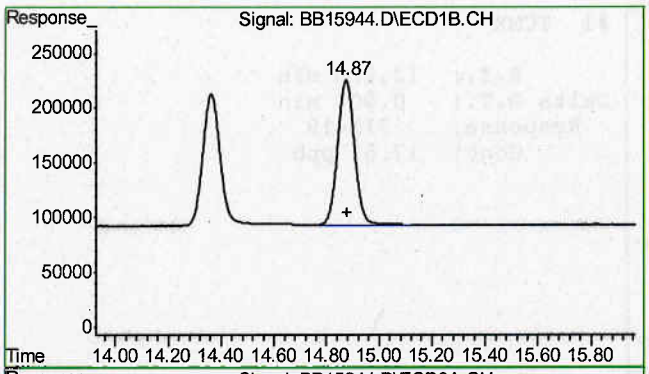


#8 Hexachlorobenzene

R.T.: 6.904 min
Delta R.T.: 0.000 min
Response: 1364277
Conc: 11.39 ug/l

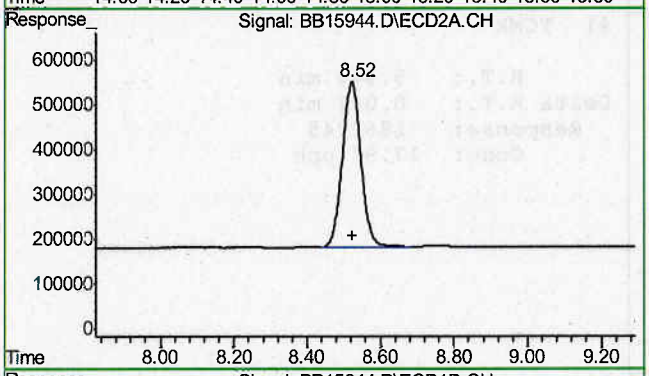
6.6.5

6



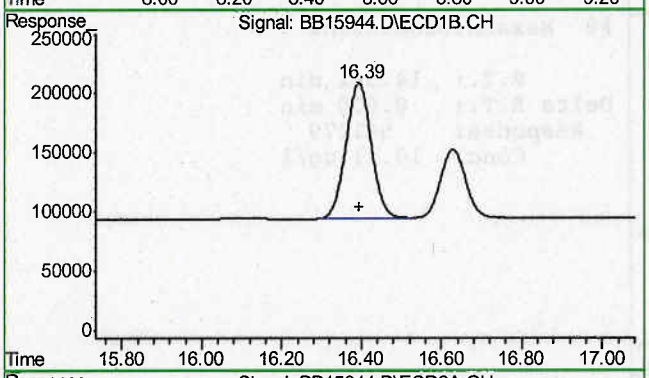
#9 alpha-BHC

R.T.: 14.873 min
Delta R.T.: -0.002 min
Response: 581807
Conc: 9.47 ppb



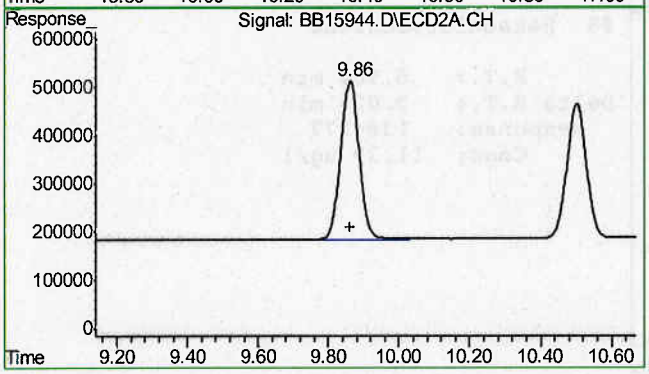
#9 alpha-BHC

R.T.: 8.523 min
Delta R.T.: -0.002 min
Response: 1311178
Conc: 10.06 ppb



#10 gamma-BHC

R.T.: 16.393 min
Delta R.T.: 0.000 min
Response: 507326
Conc: 9.69 ppb

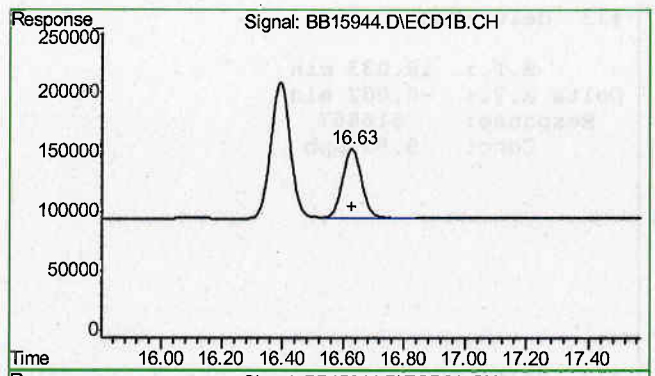


#10 gamma-BHC

R.T.: 9.861 min
Delta R.T.: 0.000 min
Response: 1190805
Conc: 9.95 ppb

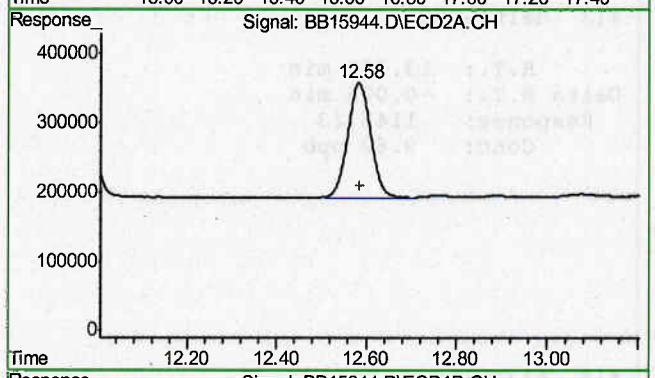
6.6.5

6



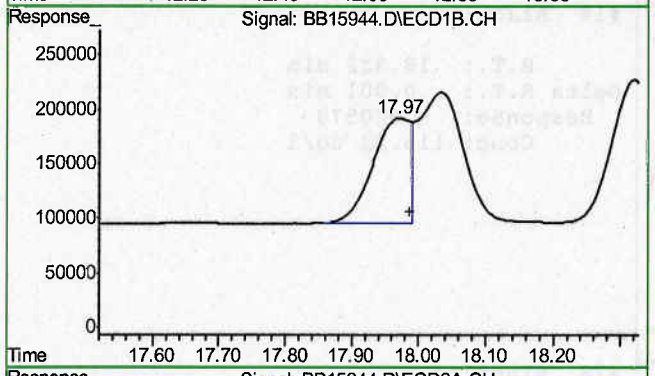
#11 beta-BHC

R.T.: 16.628 min
Delta R.T.: -0.002 min
Response: 258559
Conc: 10.08 ppb



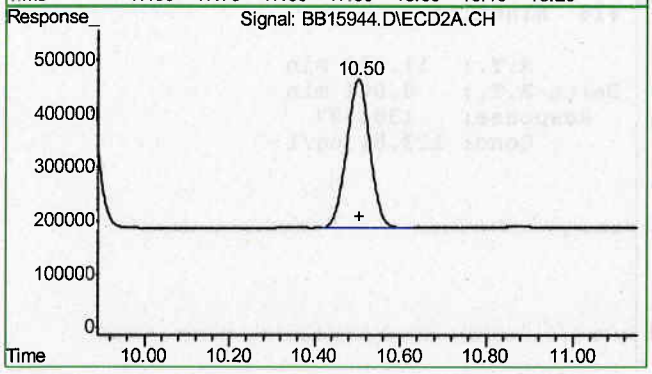
#11 beta-BHC

R.T.: 12.583 min
Delta R.T.: -0.002 min
Response: 594476
Conc: 9.99 ppb



#12 Heptachlor

R.T.: 17.968 min
Delta R.T.: -0.019 min
Response: 384681
Conc: 10.77 ppb



#12 Heptachlor

R.T.: 10.501 min
Delta R.T.: -0.004 min
Response: 1046288
Conc: 10.79 ppb

6.6.5

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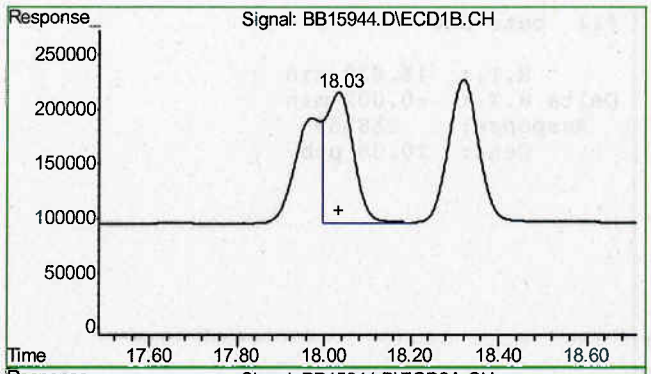
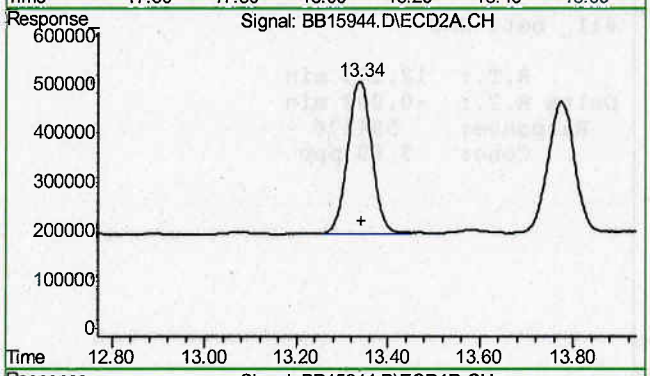


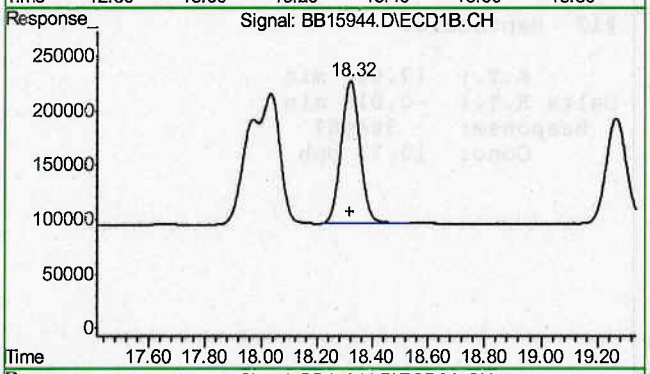
#13 delta-BHC

R.T.: 18.033 min
Delta R.T.: -0.002 min
Response: 516867
Conc: 9.53 ppb



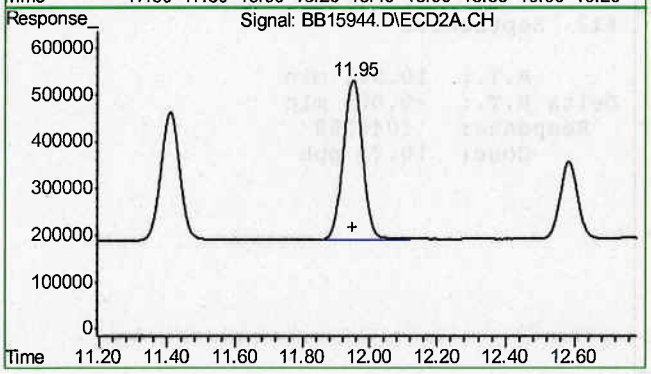
#13 delta-BHC

R.T.: 13.338 min
Delta R.T.: -0.005 min
Response: 1146123
Conc: 9.60 ppb



#14 Alachlor

R.T.: 18.322 min
Delta R.T.: 0.001 min
Response: 620579
Conc: 115.32 ug/l



#14 Alachlor

R.T.: 11.950 min
Delta R.T.: 0.001 min
Response: 1386597
Conc: 123.81 ug/l

6.6.5

6

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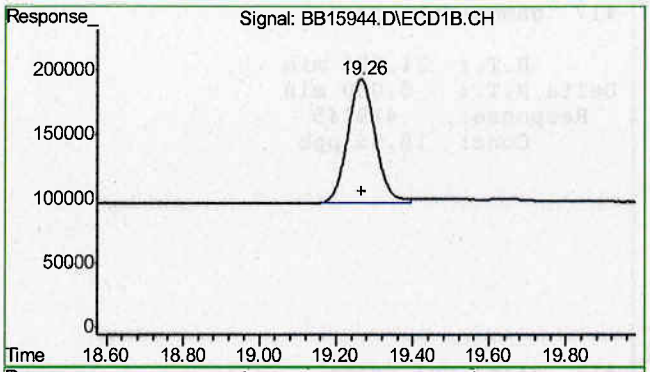
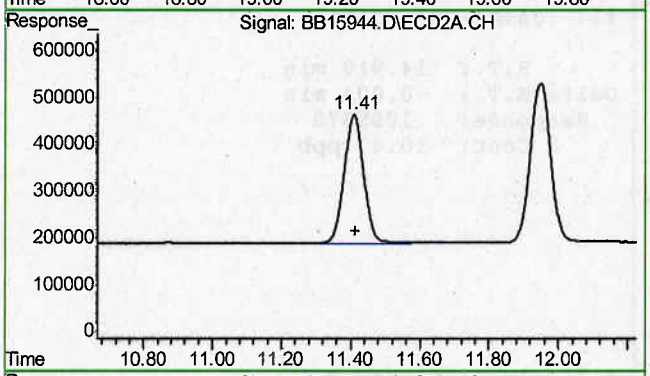


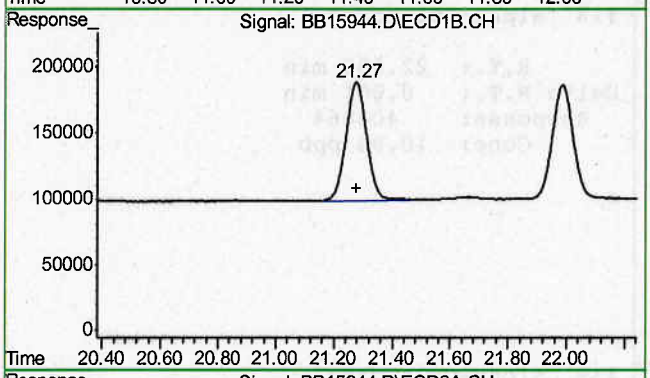
#15 Aldrin

R.T.: 19.265 min
Delta R.T.: 0.000 min
Response: 482188
Conc: 10.33 ppb



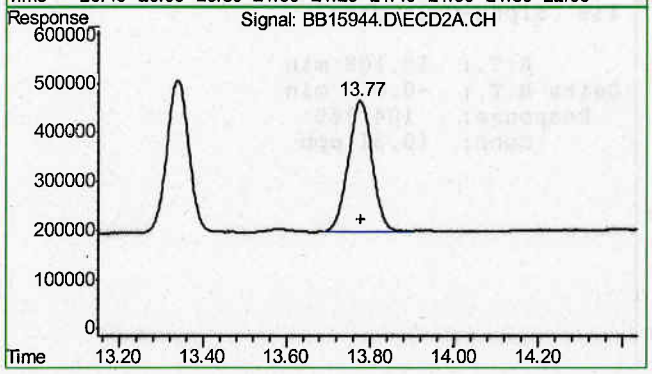
#15 Aldrin

R.T.: 11.410 min
Delta R.T.: -0.002 min
Response: 1084629
Conc: 10.42 ppb



#16 Heptachlor Epoxide

R.T.: 21.275 min
Delta R.T.: -0.002 min
Response: 442888
Conc: 10.76 ppb m

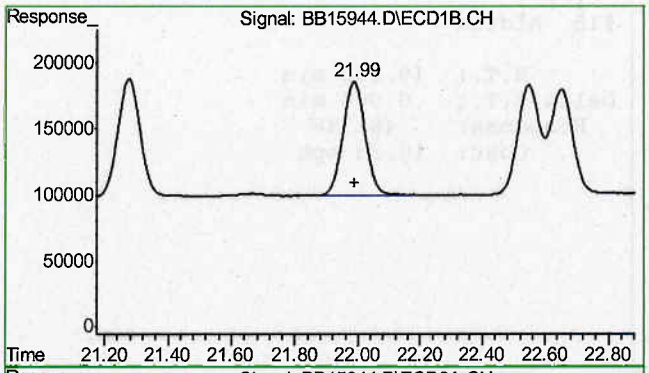


#16 Heptachlor Epoxide

R.T.: 13.773 min
Delta R.T.: -0.004 min
Response: 1058465
Conc: 10.58 ppb

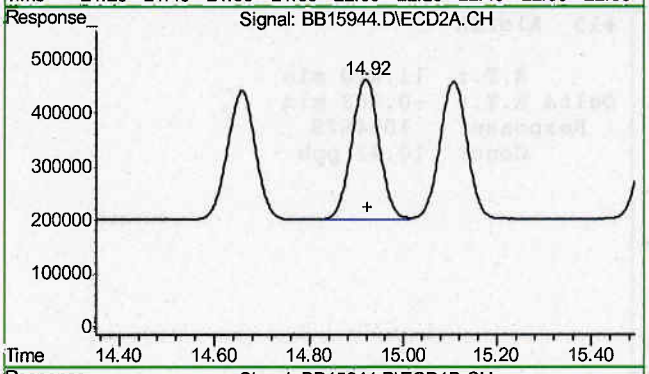
6.6.5

6



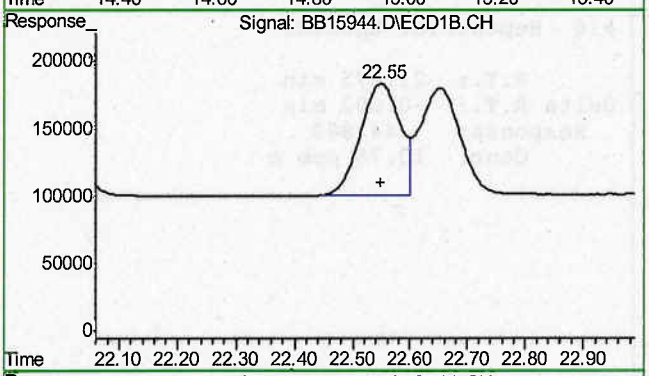
#17 gamma-Chlordane

R.T.: 21.986 min
Delta R.T.: 0.000 min
Response: 419145
Conc: 10.55 ppb



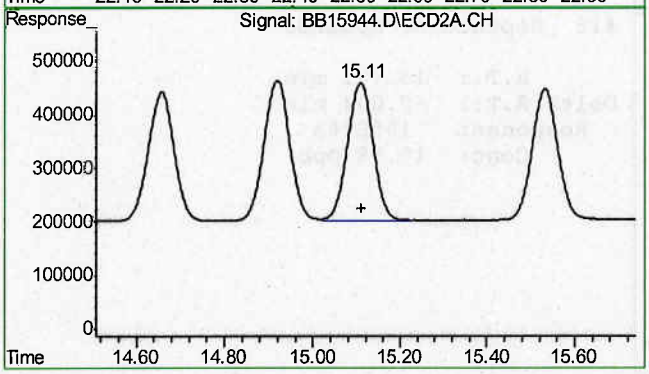
#17 gamma-Chlordane

R.T.: 14.918 min
Delta R.T.: -0.004 min
Response: 1065375
Conc: 10.43 ppb



#18 alpha-Chlordane

R.T.: 22.550 min
Delta R.T.: 0.001 min
Response: 400864
Conc: 10.96 ppb

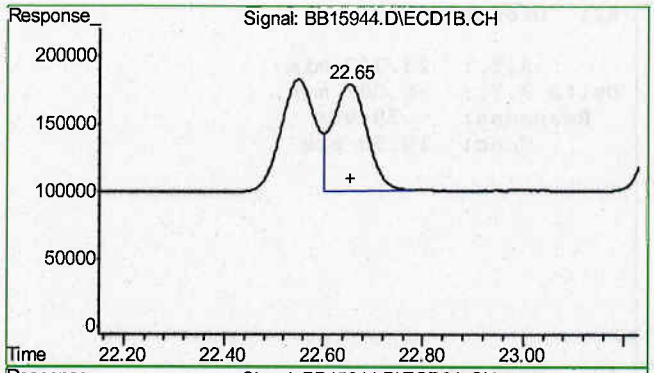


#18 alpha-Chlordane

R.T.: 15.108 min
Delta R.T.: -0.002 min
Response: 1047260
Conc: 10.31 ppb

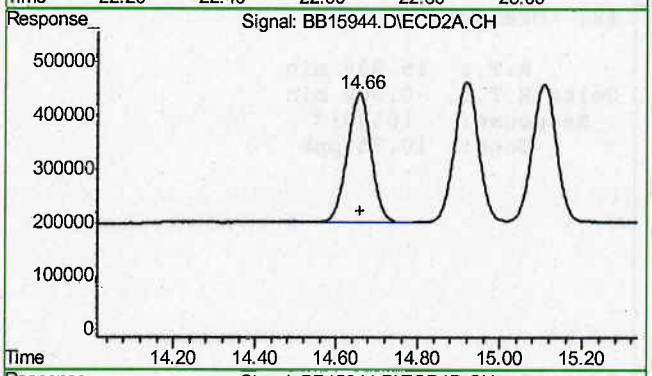
6.6.5

6



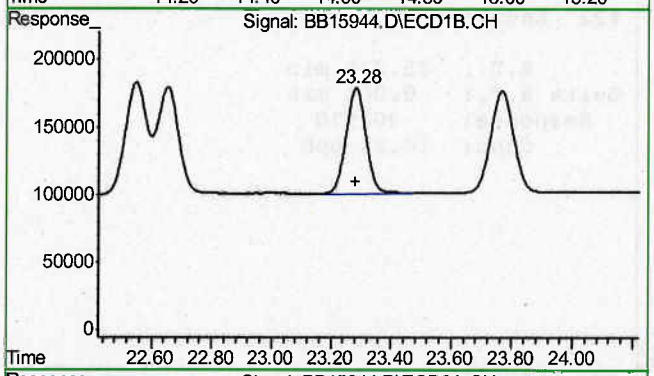
#19 Endosulfan-I

R.T.: 22.653 min
Delta R.T.: 0.000 min
Response: 378198
Conc: 10.80 ppb



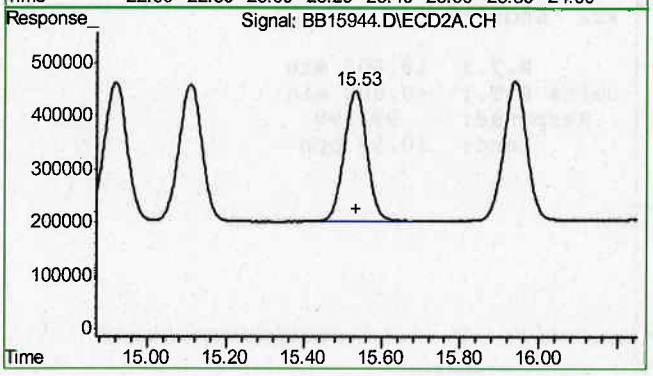
#19 Endosulfan-I

R.T.: 14.658 min
Delta R.T.: 0.000 min
Response: 989994
Conc: 11.04 ppb



#20 4,4'-DDE

R.T.: 23.282 min
Delta R.T.: -0.002 min
Response: 361865
Conc: 10.49 ppb m



#20 4,4'-DDE

R.T.: 15.533 min
Delta R.T.: -0.002 min
Response: 991621
Conc: 10.19 ppb

6.6.5

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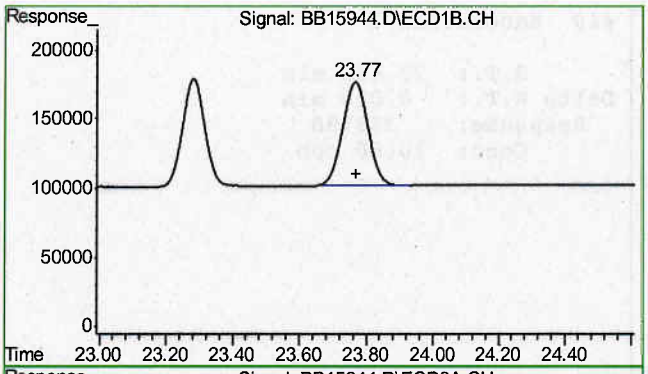
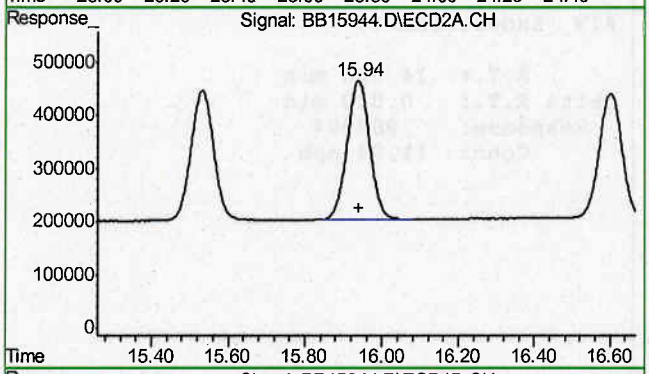


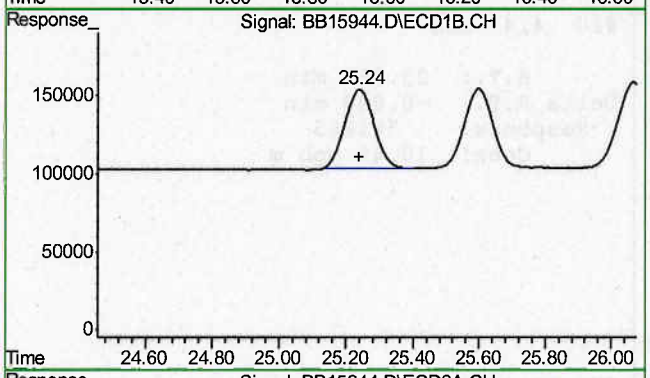
#21 Dieldrin

R.T.: 23.767 min
Delta R.T.: -0.002 min
Response: 394994
Conc: 10.50 ppb



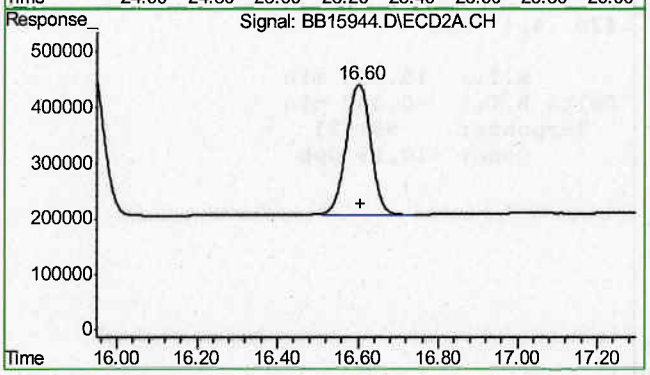
#21 Dieldrin

R.T.: 15.936 min
Delta R.T.: -0.002 min
Response: 1058317
Conc: 10.35 ppb



#22 Endrin

R.T.: 25.238 min
Delta R.T.: 0.001 min
Response: 302970
Conc: 10.21 ppb

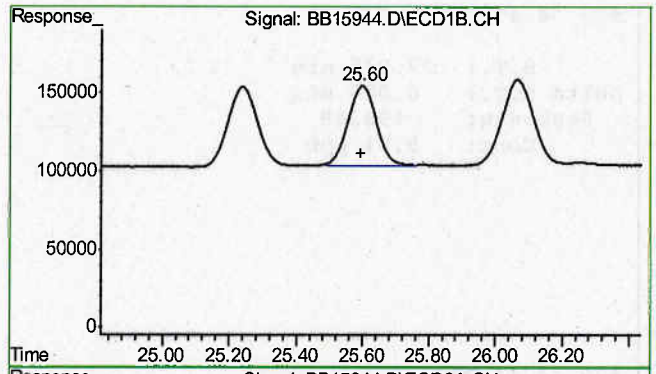


#22 Endrin

R.T.: 16.603 min
Delta R.T.: -0.002 min
Response: 993199
Conc: 10.58 ppb

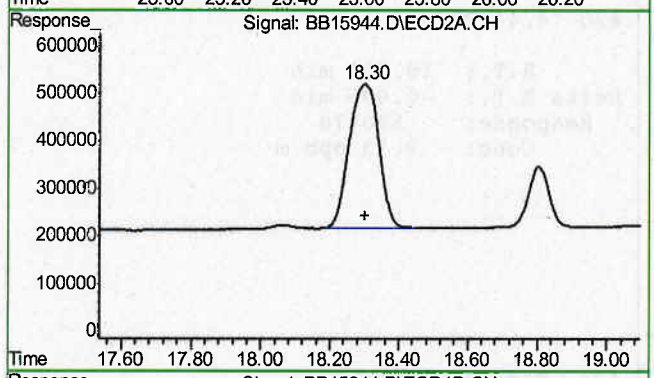
6.6.5

6



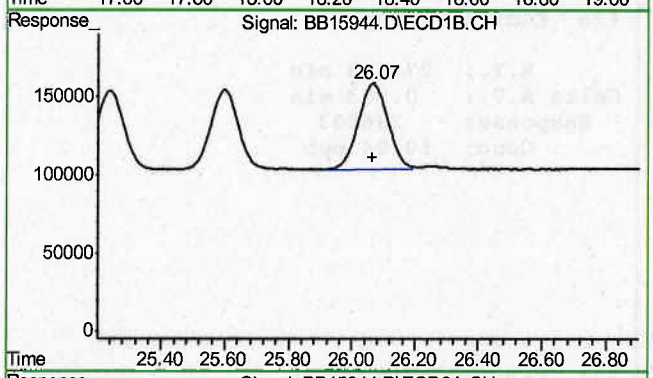
#23 4,4'-DDD

R.T.: 25.596 min
Delta R.T.: 0.001 min
Response: 299518
Conc: 10.49 ppb



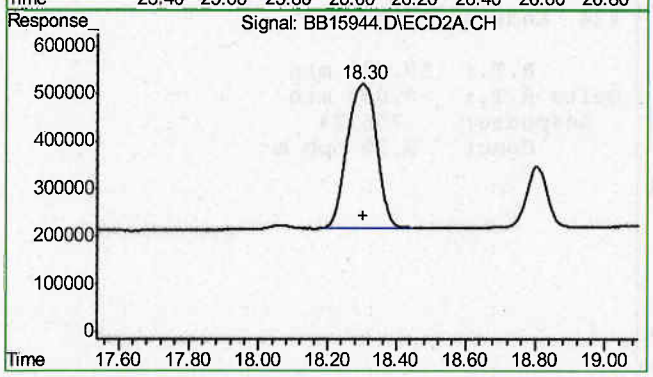
#23 4,4'-DDD

R.T.: 18.299 min
Delta R.T.: -0.002 min
Response: 1819692
Conc: 20.84 ppb



#24 Endosulfan-II

R.T.: 26.067 min
Delta R.T.: 0.001 min
Response: 356561
Conc: 10.91 ppb m



#24 Endosulfan-II

R.T.: 18.299 min
Delta R.T.: -0.002 min
Response: 1819692
Conc: 20.84 ppb

6.6.5

6

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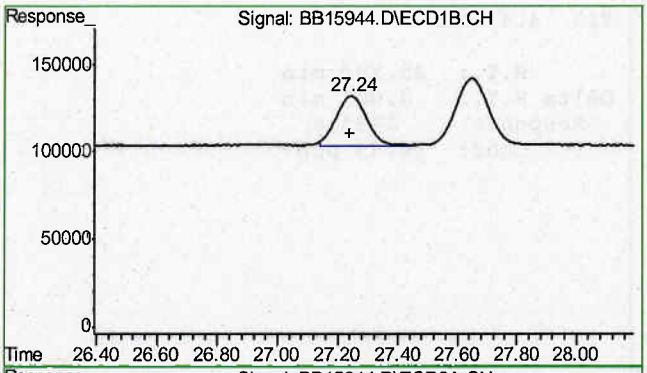
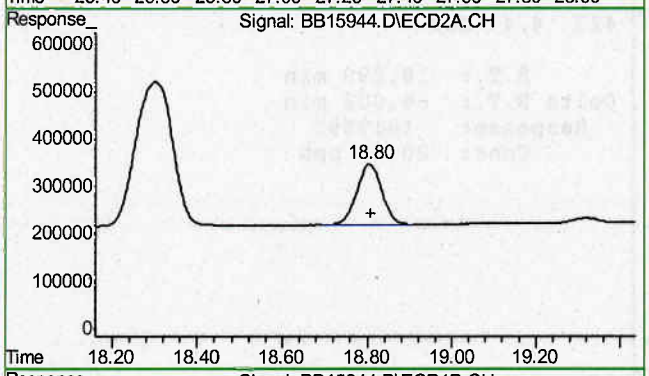


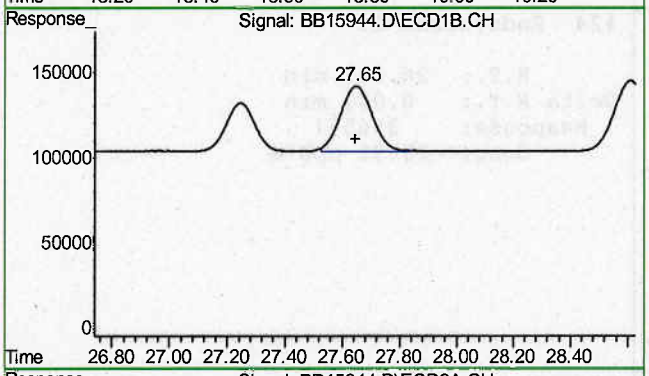
#25 4,4'-DDT

R.T.: 27.245 min
Delta R.T.: 0.005 min
Response: 196369
Conc: 9.81 ppb



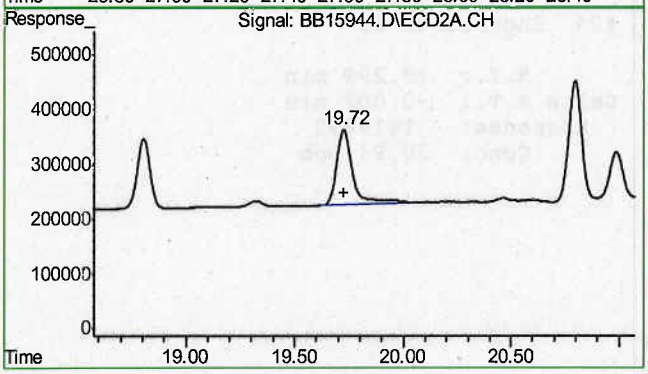
#25 4,4'-DDT

R.T.: 18.803 min
Delta R.T.: -0.005 min
Response: 520778
Conc: 9.13 ppb m



#26 Endrin aldehyde

R.T.: 27.648 min
Delta R.T.: 0.003 min
Response: 286803
Conc: 10.04 ppb



#26 Endrin aldehyde

R.T.: 19.723 min
Delta R.T.: -0.004 min
Response: 706324
Conc: 9.30 ppb m

6.6.5

6

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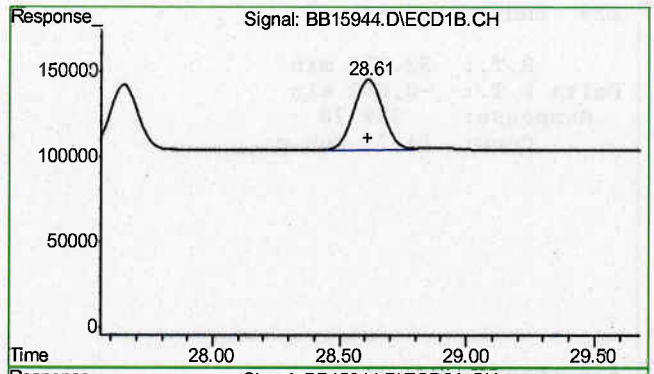
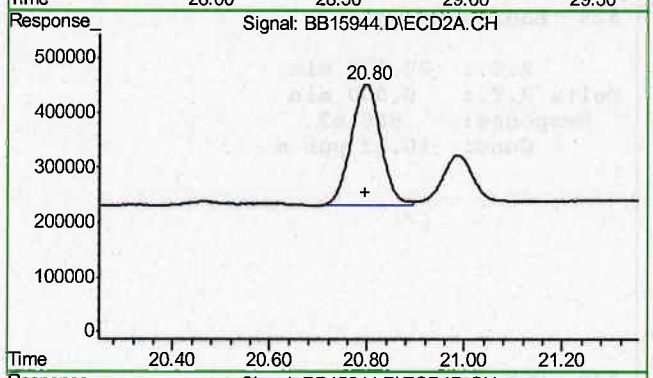


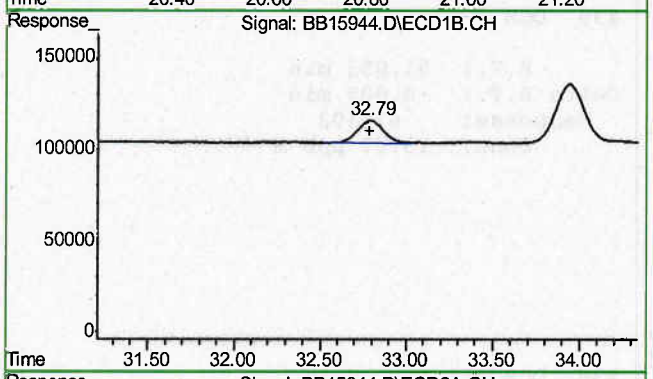
#27 Endosulfan sulfate

R.T.: 28.615 min
Delta R.T.: 0.006 min
Response: 335160
Conc: 10.59 ppb m



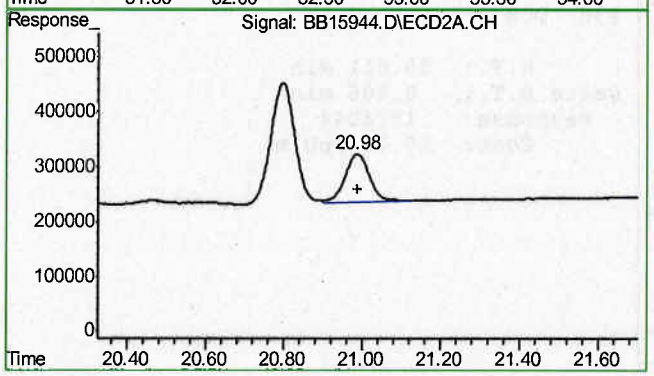
#27 Endosulfan sulfate

R.T.: 20.798 min
Delta R.T.: 0.001 min
Response: 937231
Conc: 10.25 ppb



#28 Methoxychlor

R.T.: 32.790 min
Delta R.T.: 0.005 min
Response: 125813
Conc: 10.93 ppb m

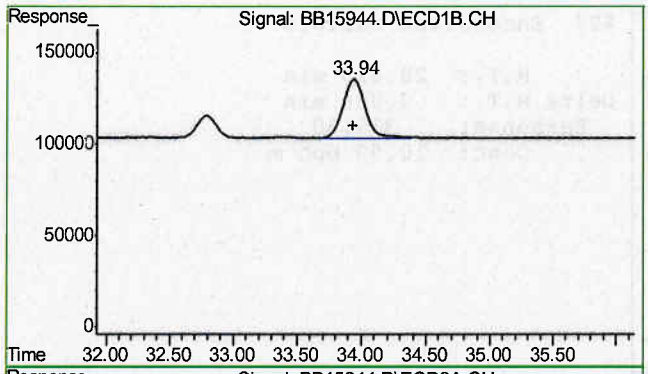


#28 Methoxychlor

R.T.: 20.983 min
Delta R.T.: -0.005 min
Response: 375182
Conc: 10.94 ppb m

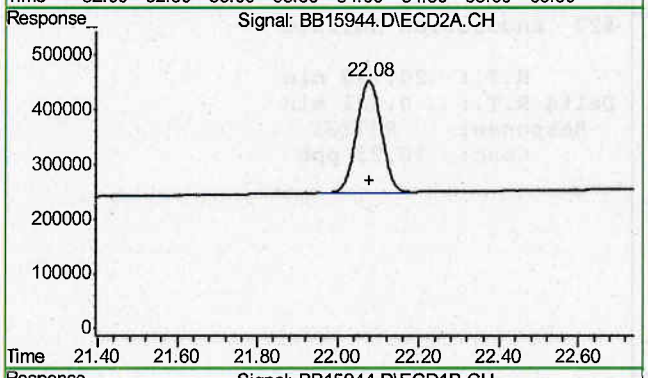
6.6.5

6



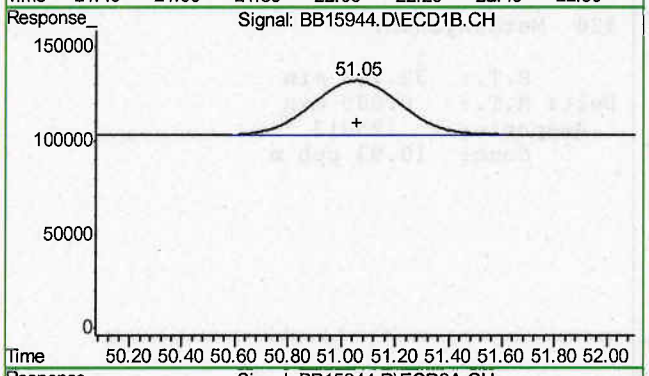
#29 Endrin ketone

R.T.: 33.937 min
Delta R.T.: -0.002 min
Response: 379770
Conc: 11.25 ppb m



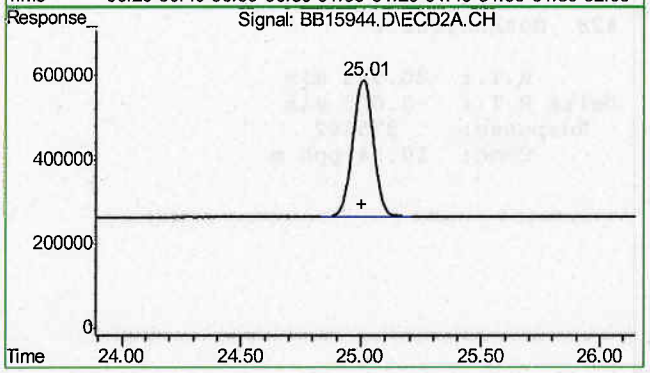
#29 Endrin ketone

R.T.: 22.076 min
Delta R.T.: 0.000 min
Response: 866152
Conc: 10.53 ppb m



#38 DCB

R.T.: 51.053 min
Delta R.T.: -0.005 min
Response: 671102
Conc: 19.07 ppb m



#38 DCB

R.T.: 25.011 min
Delta R.T.: 0.006 min
Response: 1924044
Conc: 19.70 ppb m

6.6.5

6

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15945.D\ECD1B.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\BB15945.D\ECD2A.CH
Acq On : 20 Sep 2007 11:01 pm Operator: caobinz
Sample : ic667-5,pest 5 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:07:26 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:06:51 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	327865	872644	8.090	8.364
	Spiked Amount 40.000			Recovery	=	20.22%	20.91%
38) s	DCB	51.04	25.00	296952	849677	8.427m	8.589m
	Spiked Amount 40.000			Recovery	=	21.07%	21.47%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	292428	731676	5.793m	6.071m
9)	alpha-BHC	14.87	8.52	291028	675783	4.703	5.099
10)	gamma-BHC	16.39	9.86	257735	602229	4.849	4.906
11)	beta-BHC	16.63	12.58	130125	291029	5.024	4.831
12)	Heptachlor	17.97	10.50	204204	551071	5.584	5.498m
13)	delta-BHC	18.03	13.34	242011	555061	4.386	4.560m
14)	Alachlor	18.32	11.95	334244	748418	61.588m	65.845
15)	Aldrin	19.26	11.41	257037	558760	5.485m	5.312
16)	Heptachlor Epoxi	21.27	13.77	230858	544412	5.556m	5.377
17)	gamma-Chlordane	21.98	14.92	222670	534111	5.560m	5.163
18)	alpha-Chlordane	22.55	15.11	208341	542770	5.641	5.293
19)	Endosulfan-I	22.65	14.66	201367	504491	5.680	5.535
20)	4,4'-DDE	23.28	15.53	183957	499290	5.303m	5.092
21)	Dieldrin	23.76	15.94	202280	527155	5.335	5.096
22)	Endrin	25.24	16.60	161992	522271	5.473m	5.515
23)	4,4'-DDD	25.59	18.31	148923	904334	5.159	10.223m#
24)	Endosulfan-II	26.06	18.31	183702	894344	5.550m	10.110m#
25)	4,4'-DDT	27.24	18.81	97390	249426	4.884m	4.326m
26)	Endrin aldehyde	27.65	19.72	141803	320544	4.938m	4.207m
27)	Endosulfan sulfa	28.60	20.79	161125	440607	5.017m	4.717m
28)	Methoxychlor	32.78	20.98	60844	170975	5.345m	4.930m
29)	Endrin ketone	33.93	22.08	182522	399635	5.322m	4.757m

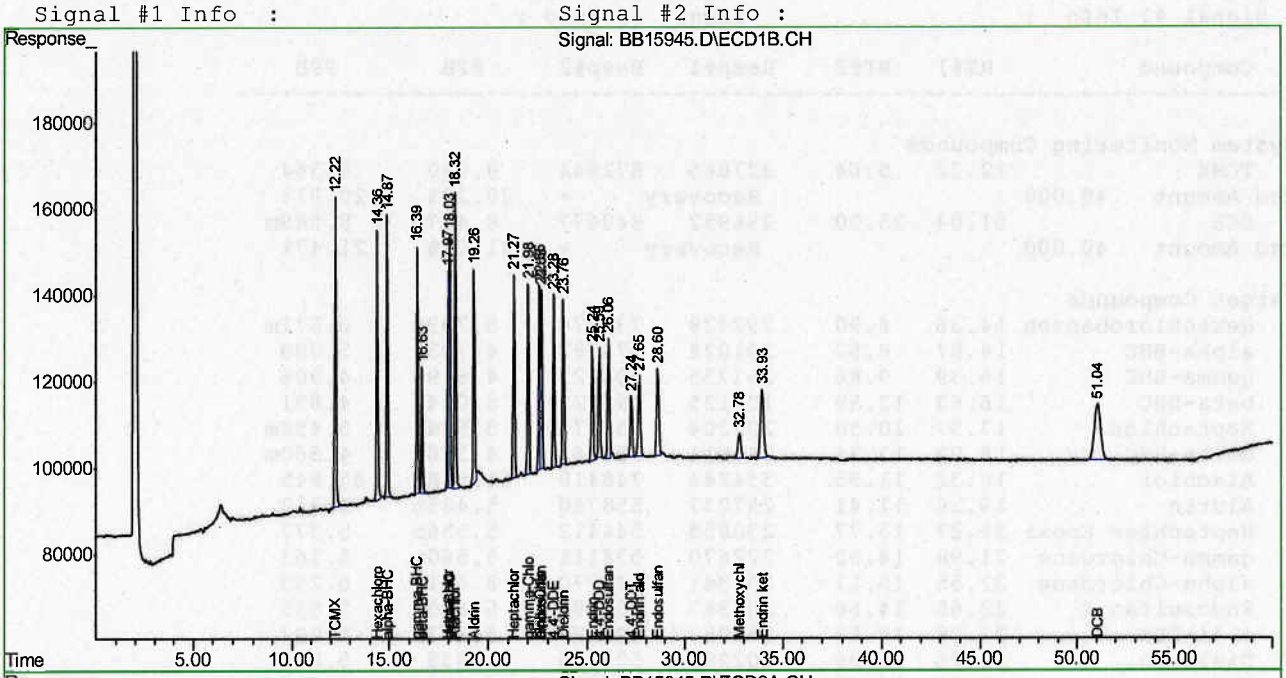
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15945.D PT092007.M Fri Sep 21 11:15:28 2007 GC23PRN

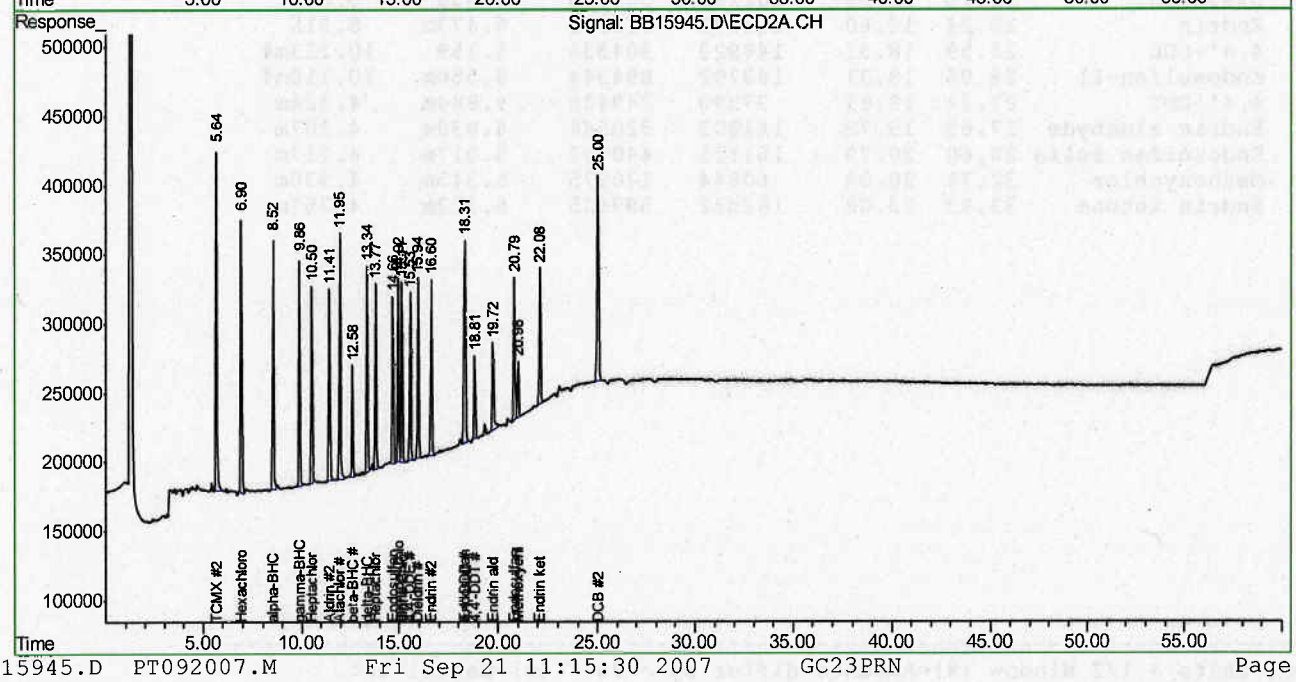
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15945.D\ECD1B.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\BB15945.D\ECD2A.CH
Acq On : 20 Sep 2007 11:01 pm Operator: caobinz
Sample : ic667-5,pest 5 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:15 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:06:51 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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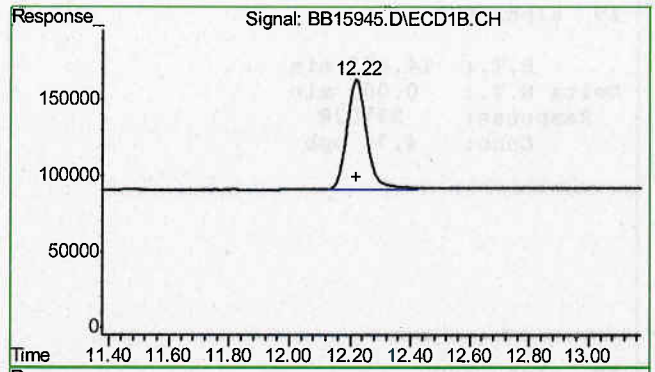
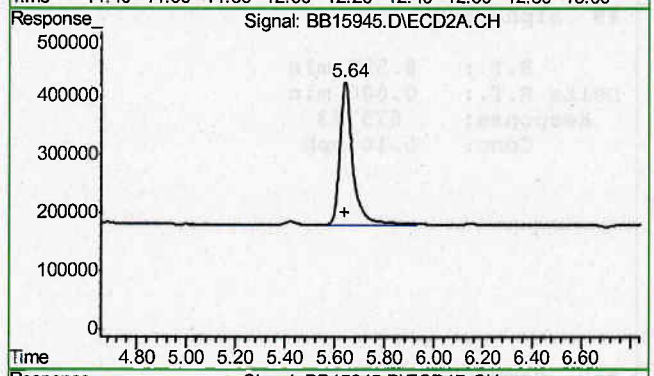


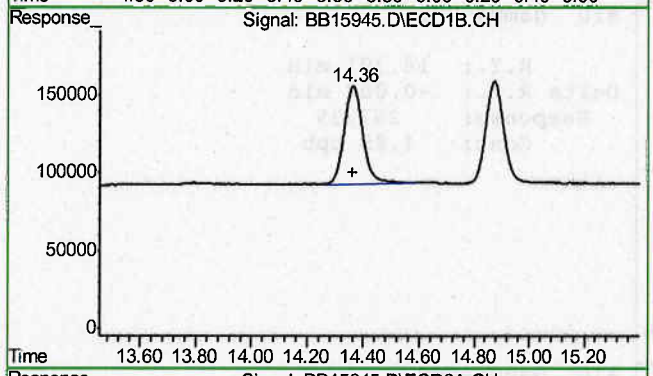
#1 TCMX

R.T.: 12.218 min
Delta R.T.: -0.002 min
Response: 327865
Conc: 8.09 ppb



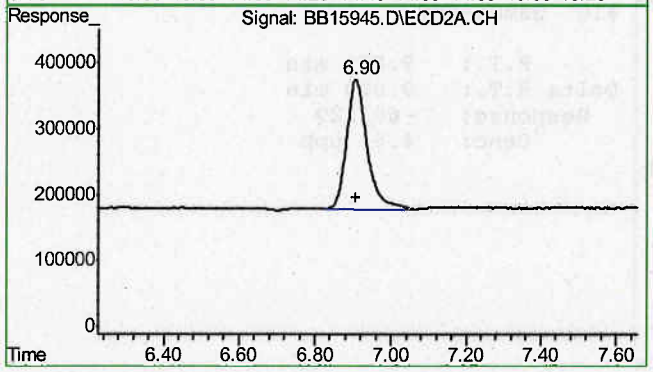
#1 TCMX

R.T.: 5.639 min
Delta R.T.: 0.000 min
Response: 872644
Conc: 8.36 ppb



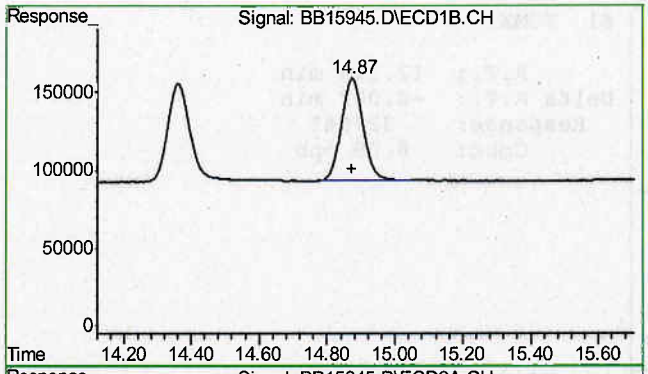
#8 Hexachlorobenzene

R.T.: 14.360 min
Delta R.T.: -0.002 min
Response: 292428
Conc: 5.79 ug/l m



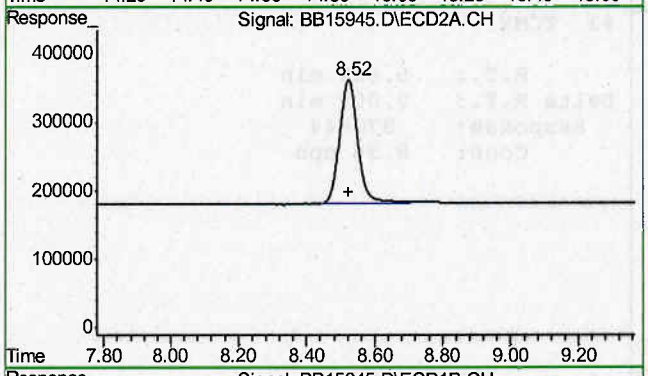
#8 Hexachlorobenzene

R.T.: 6.904 min
Delta R.T.: 0.000 min
Response: 731676
Conc: 6.07 ug/l m



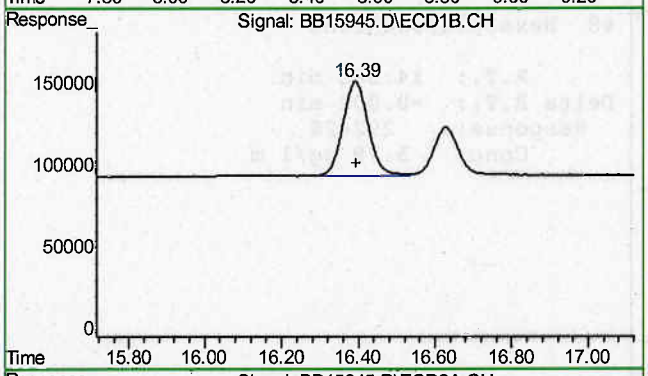
#9 alpha-BHC

R.T.: 14.873 min
Delta R.T.: 0.000 min
Response: 291028
Conc: 4.70 ppb



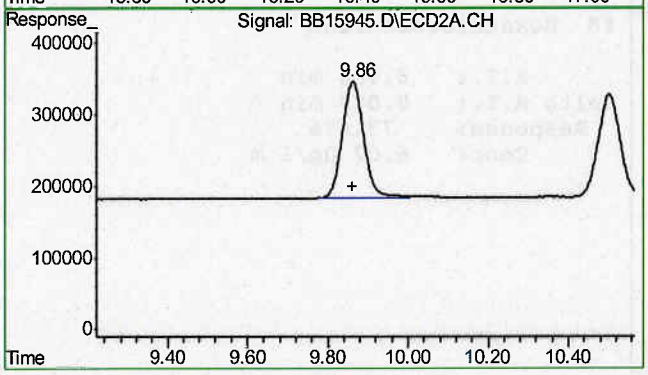
#9 alpha-BHC

R.T.: 8.523 min
Delta R.T.: 0.000 min
Response: 675783
Conc: 5.10 ppb



#10 gamma-BHC

R.T.: 16.391 min
Delta R.T.: -0.002 min
Response: 257735
Conc: 4.85 ppb



#10 gamma-BHC

R.T.: 9.861 min
Delta R.T.: 0.000 min
Response: 602229
Conc: 4.91 ppb

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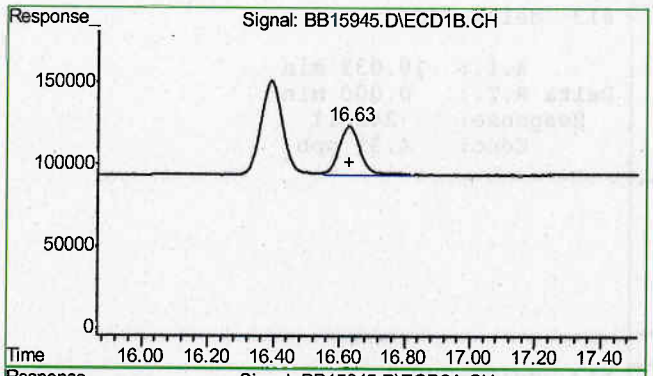
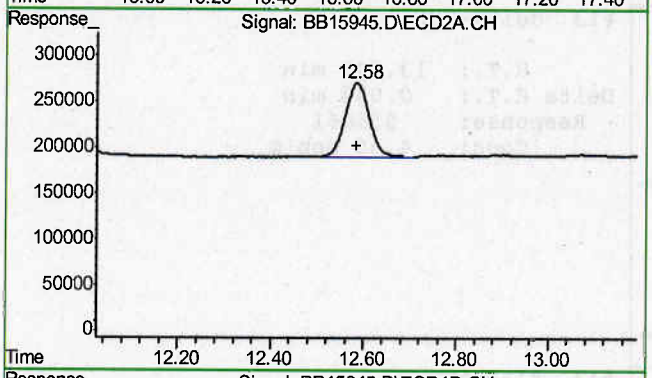


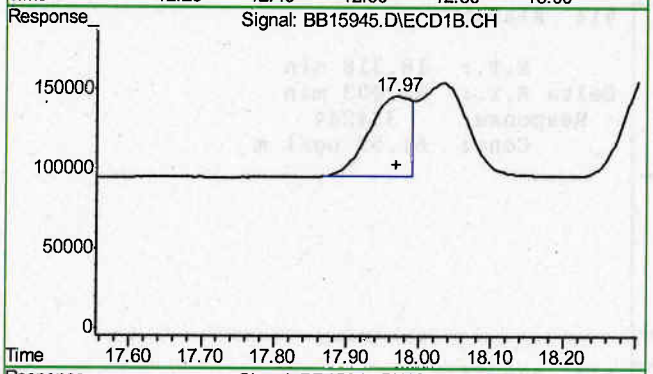
#11 beta-BHC

R.T.: 16.628 min
Delta R.T.: 0.000 min
Response: 130125
Conc: 5.02 ppb



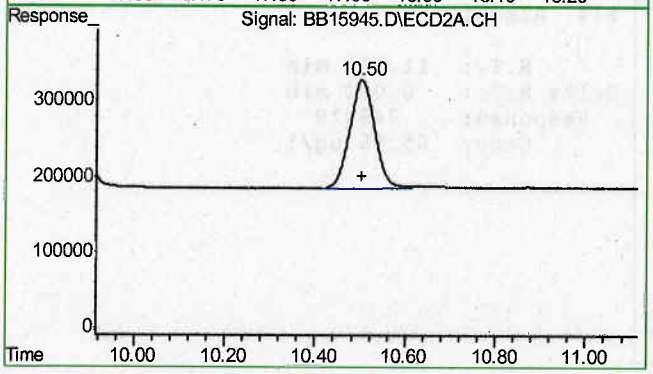
#11 beta-BHC

R.T.: 12.584 min
Delta R.T.: 0.002 min
Response: 291029
Conc: 4.83 ppb



#12 Heptachlor

R.T.: 17.968 min
Delta R.T.: 0.000 min
Response: 204204
Conc: 5.58 ppb

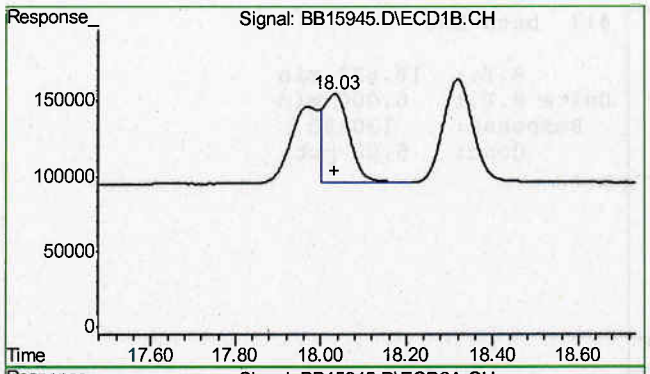


#12 Heptachlor

R.T.: 10.501 min
Delta R.T.: 0.000 min
Response: 551071
Conc: 5.50 ppb m

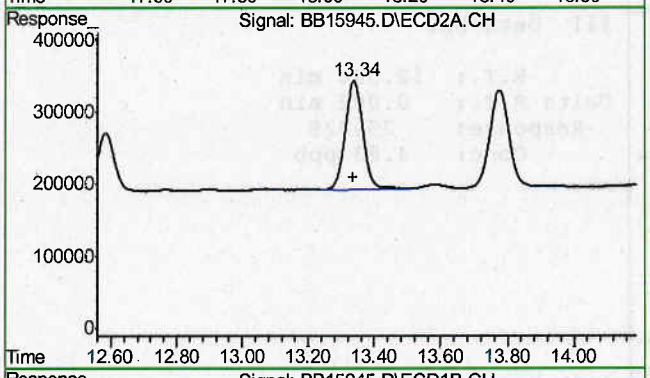
6.6.6

6



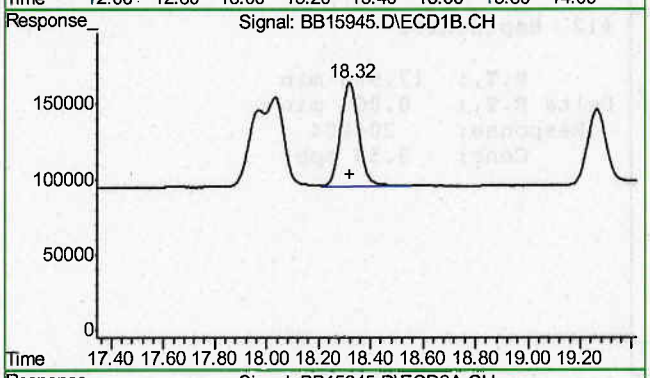
#13 delta-BHC

R.T.: 18.033 min
Delta R.T.: 0.000 min
Response: 242011
Conc: 4.39 ppb



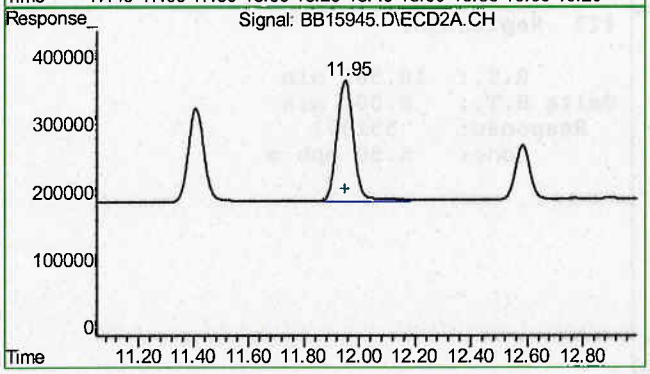
#13 delta-BHC

R.T.: 13.341 min
Delta R.T.: 0.003 min
Response: 555061
Conc: 4.56 ppb m



#14 Alachlor

R.T.: 18.318 min
Delta R.T.: -0.003 min
Response: 334244
Conc: 61.59 ug/l m

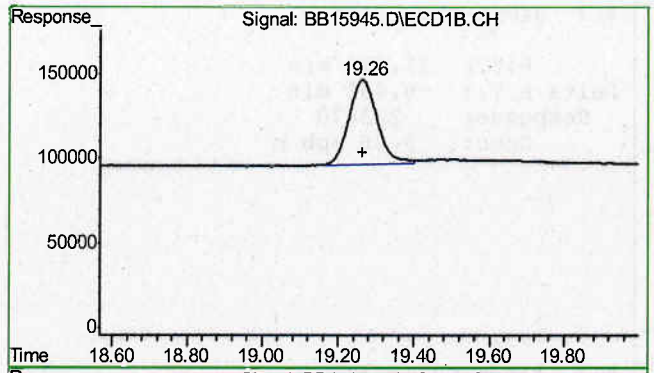


#14 Alachlor

R.T.: 11.951 min
Delta R.T.: 0.002 min
Response: 748418
Conc: 65.85 ug/l

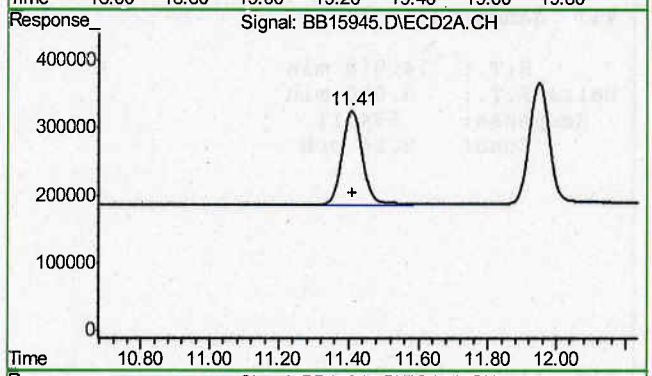
6.6.6

6



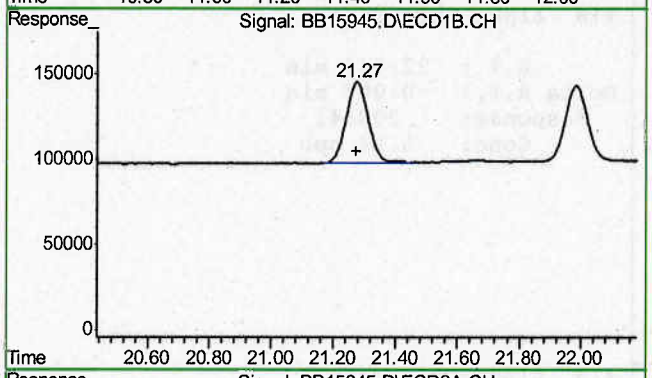
#15 Aldrin

R.T.: 19.265 min
Delta R.T.: 0.000 min
Response: 257037
Conc: 5.49 ppb m



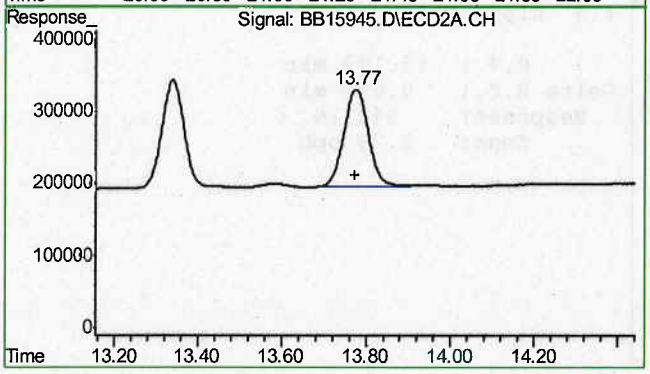
#15 Aldrin

R.T.: 11.406 min
Delta R.T.: -0.003 min
Response: 558760
Conc: 5.31 ppb



#16 Heptachlor Epoxide

R.T.: 21.275 min
Delta R.T.: 0.000 min
Response: 230858
Conc: 5.56 ppb m

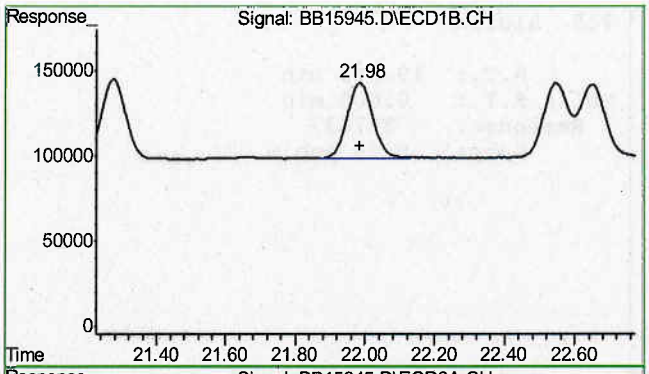


#16 Heptachlor Epoxide

R.T.: 13.773 min
Delta R.T.: 0.000 min
Response: 544412
Conc: 5.38 ppb

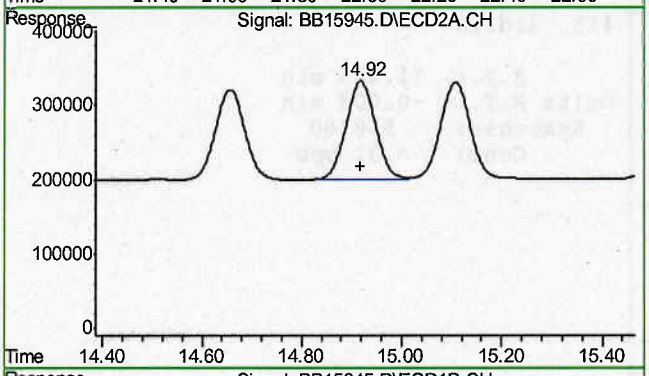
6.6.6

6



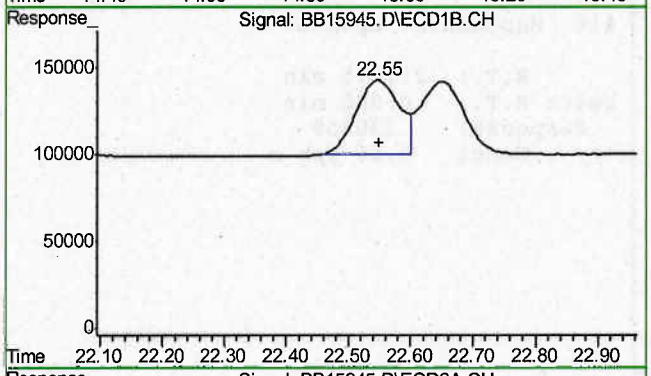
#17 gamma-Chlordane

R.T.: 21.985 min
Delta R.T.: -0.002 min
Response: 222670
Conc: 5.56 ppb m



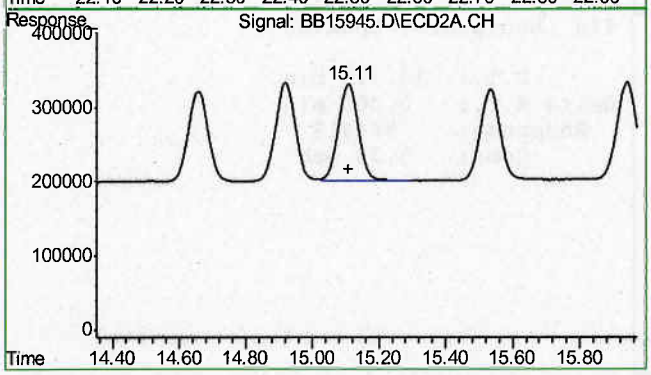
#17 gamma-Chlordane

R.T.: 14.918 min
Delta R.T.: 0.000 min
Response: 534111
Conc: 5.16 ppb



#18 alpha-Chlordane

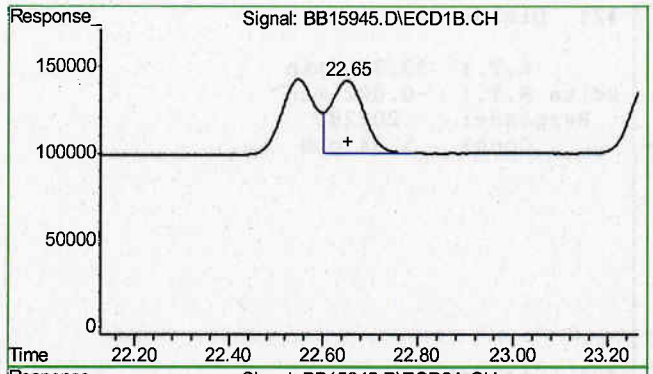
R.T.: 22.546 min
Delta R.T.: -0.003 min
Response: 208341
Conc: 5.64 ppb



#18 alpha-Chlordane

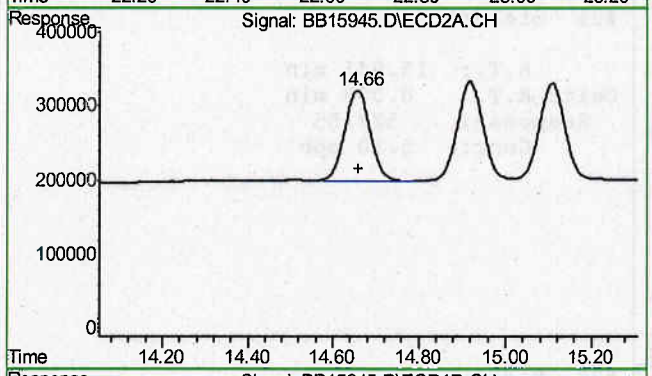
R.T.: 15.109 min
Delta R.T.: 0.002 min
Response: 542770
Conc: 5.29 ppb

6.6.6



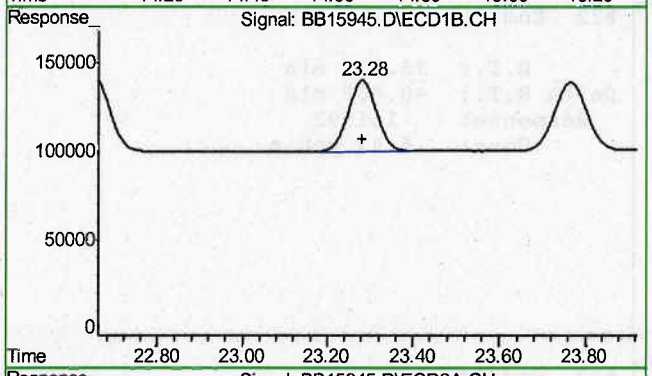
#19 Endosulfan-I

R.T.: 22.648 min
Delta R.T.: -0.005 min
Response: 201367
Conc: 5.68 ppb



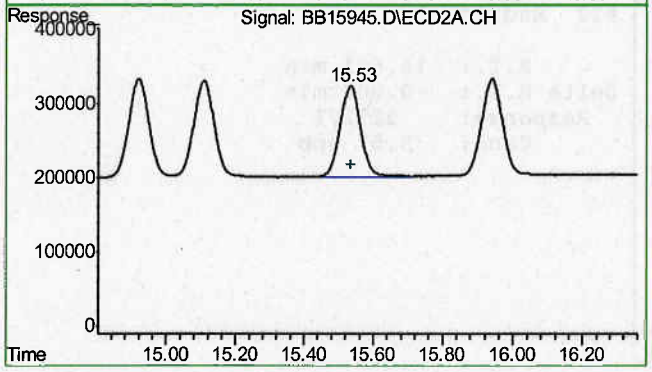
#19 Endosulfan-I

R.T.: 14.658 min
Delta R.T.: 0.000 min
Response: 504491
Conc: 5.54 ppb



#20 4,4'-DDE

R.T.: 23.281 min
Delta R.T.: 0.000 min
Response: 183957
Conc: 5.30 ppb m

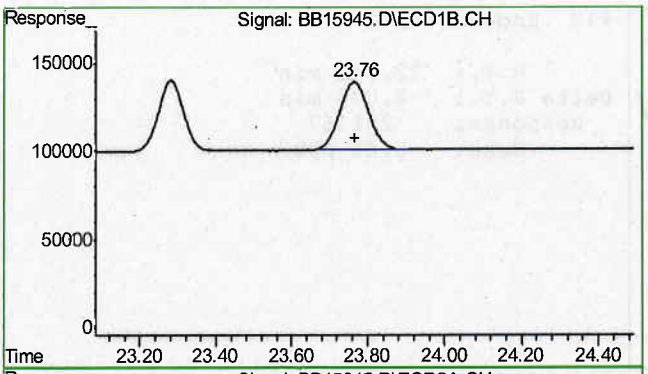


#20 4,4'-DDE

R.T.: 15.534 min
Delta R.T.: 0.002 min
Response: 499290
Conc: 5.09 ppb

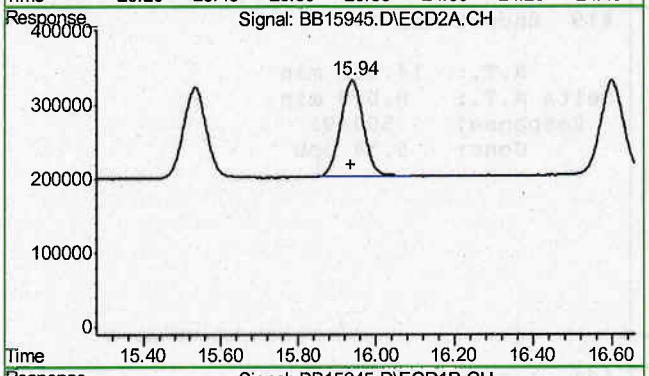
6.6.6

6



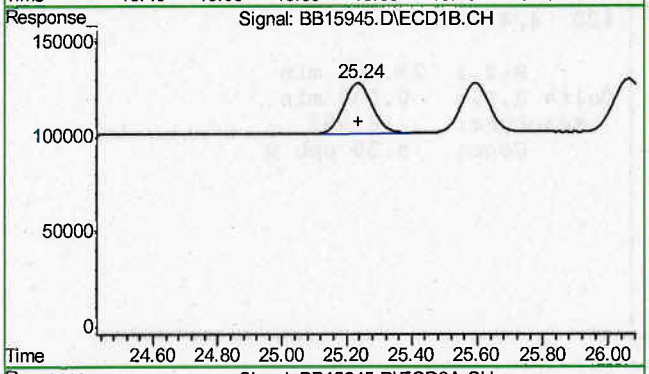
#21 Dieldrin

R.T.: 23.765 min
Delta R.T.: -0.002 min
Response: 202280
Conc: 5.34 ppb



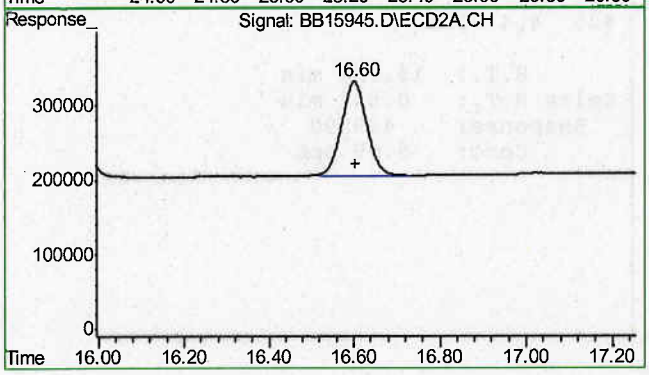
#21 Dieldrin

R.T.: 15.941 min
Delta R.T.: 0.005 min
Response: 527155
Conc: 5.10 ppb



#22 Endrin

R.T.: 25.236 min
Delta R.T.: -0.002 min
Response: 161992
Conc: 5.47 ppb m

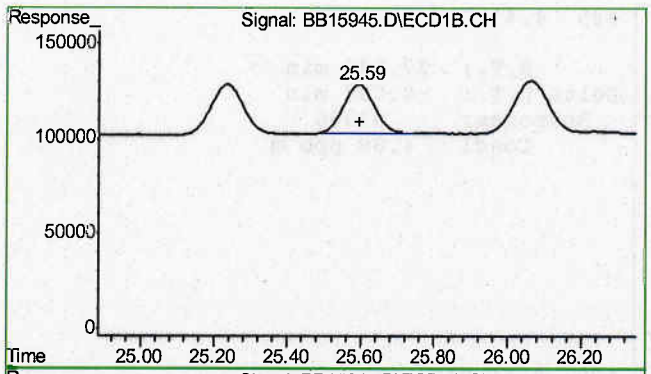


#22 Endrin

R.T.: 16.601 min
Delta R.T.: -0.002 min
Response: 522271
Conc: 5.51 ppb

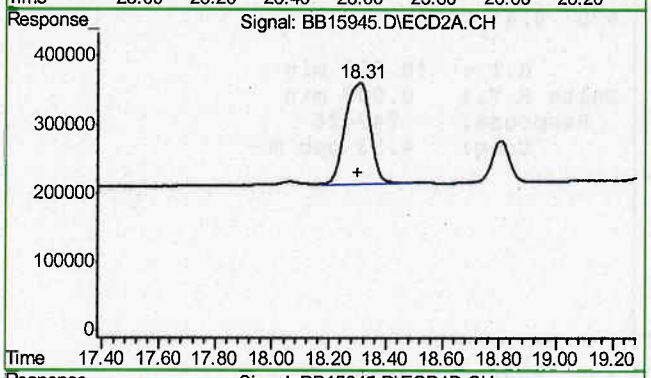
6.6.6

6



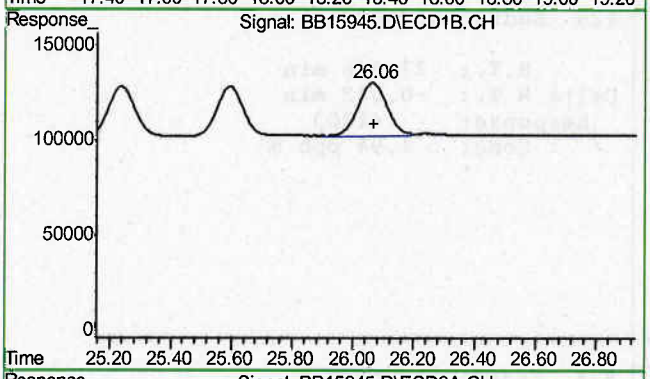
#23 4,4'-DDD

R.T.: 25.595 min
Delta R.T.: -0.002 min
Response: 148923
Conc: 5.16 ppb



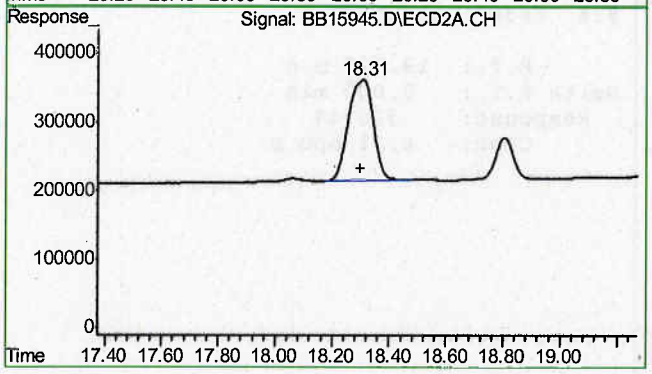
#23 4,4'-DDD

R.T.: 18.306 min
Delta R.T.: 0.007 min
Response: 904334
Conc: 10.22 ppb m



#24 Endosulfan-II

R.T.: 26.063 min
Delta R.T.: -0.003 min
Response: 183702
Conc: 5.55 ppb m

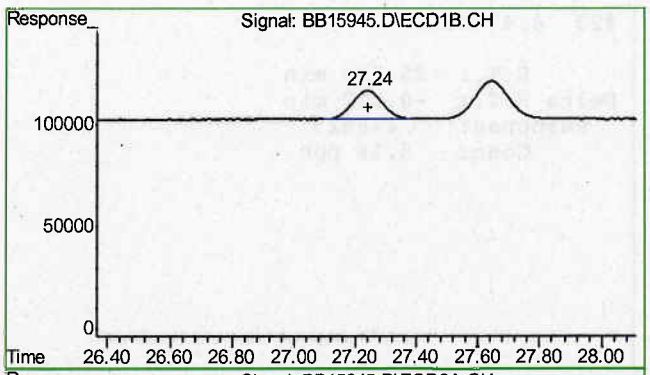


#24 Endosulfan-II

R.T.: 18.306 min
Delta R.T.: 0.007 min
Response: 894344
Conc: 10.11 ppb m

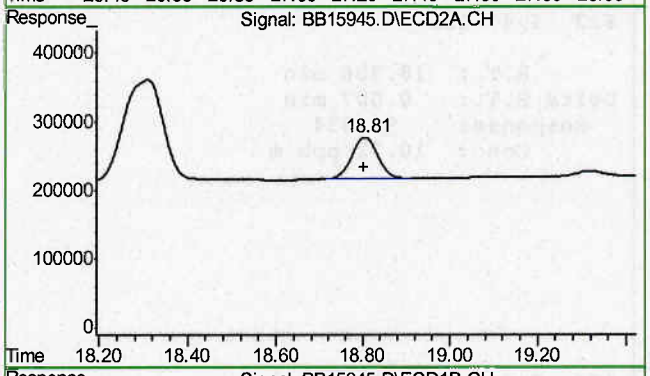
6.6.6

6



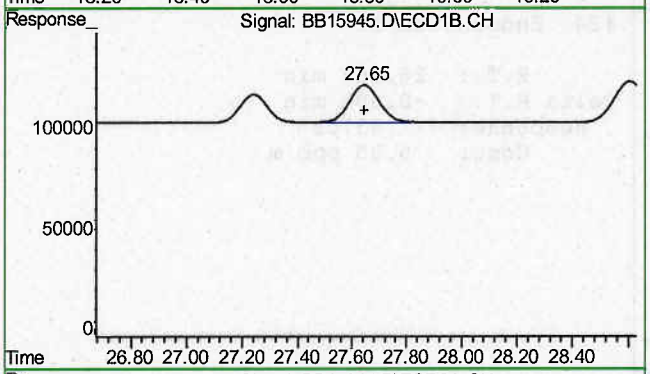
#25 4,4'-DDT

R.T.: 27.238 min
Delta R.T.: -0.007 min
Response: 97390
Conc: 4.88 ppb m



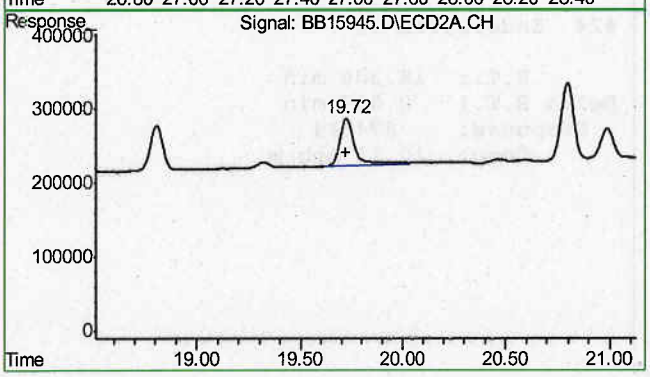
#25 4,4'-DDT

R.T.: 18.808 min
Delta R.T.: 0.005 min
Response: 249426
Conc: 4.33 ppb m



#26 Endrin aldehyde

R.T.: 27.646 min
Delta R.T.: -0.002 min
Response: 141803
Conc: 4.94 ppb m

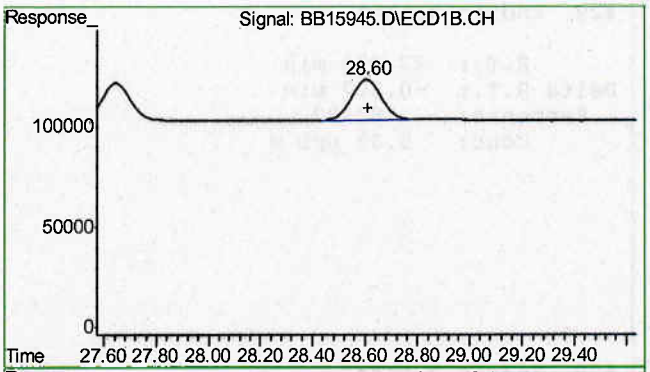


#26 Endrin aldehyde

R.T.: 19.723 min
Delta R.T.: 0.000 min
Response: 320544
Conc: 4.21 ppb m

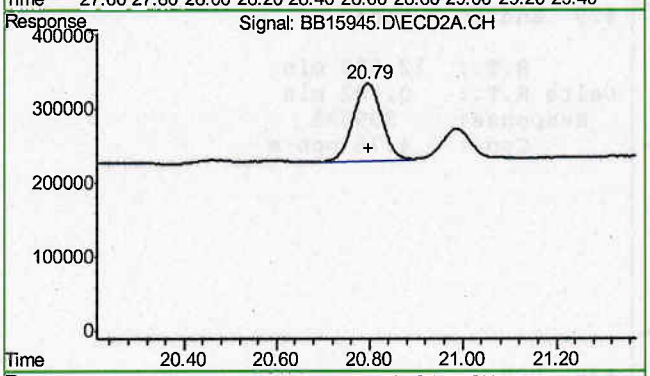
6.6.6

6



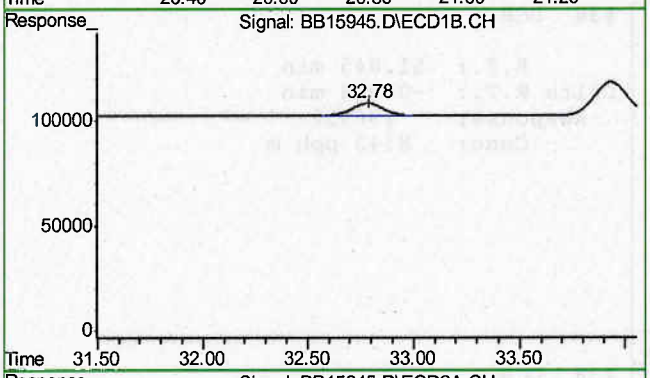
#27 Endosulfan sulfate

R.T.: 28.605 min
Delta R.T.: -0.010 min
Response: 161125
Conc: 5.02 ppb m



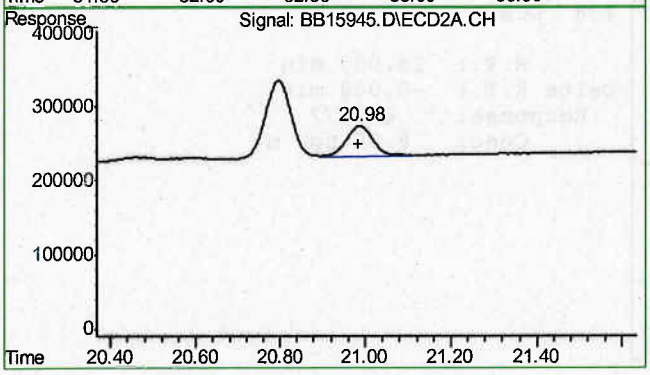
#27 Endosulfan sulfate

R.T.: 20.794 min
Delta R.T.: -0.003 min
Response: 440607
Conc: 4.72 ppb m



#28 Methoxychlor

R.T.: 32.783 min
Delta R.T.: -0.007 min
Response: 60844
Conc: 5.34 ppb m

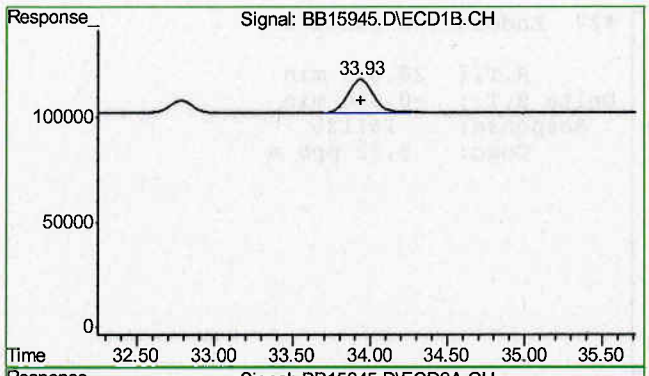


#28 Methoxychlor

R.T.: 20.984 min
Delta R.T.: 0.002 min
Response: 170975
Conc: 4.93 ppb m

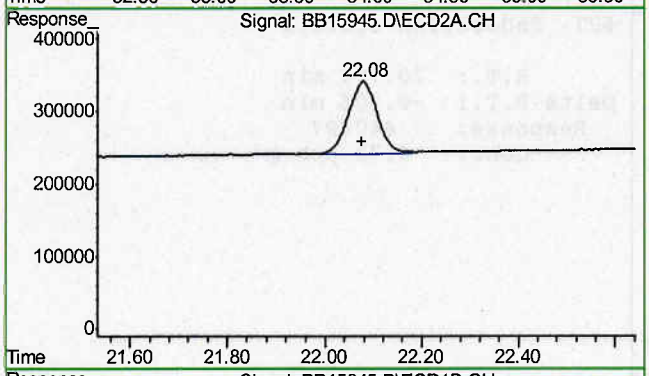
6.6.6

6



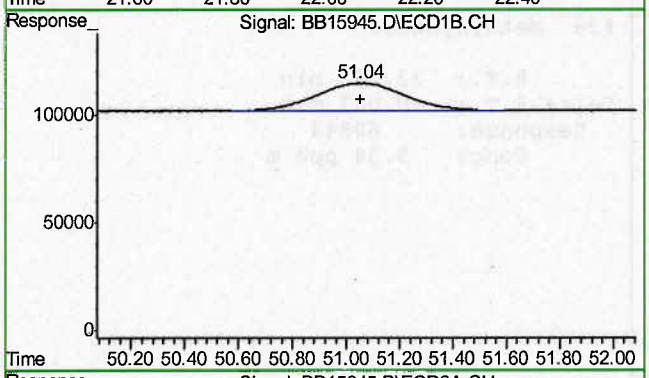
#29 Endrin ketone

R.T.: 33.930 min
Delta R.T.: -0.007 min
Response: 182522
Conc: 5.32 ppb m



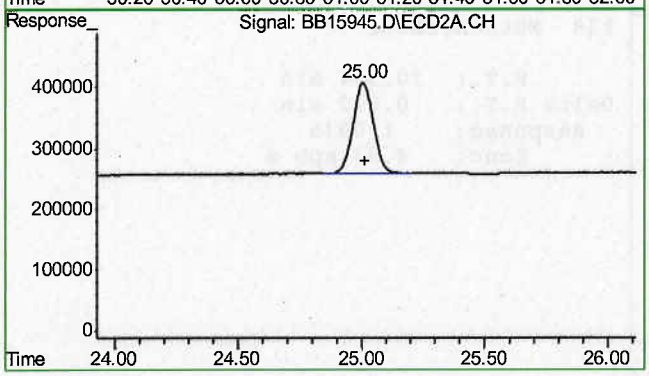
#29 Endrin ketone

R.T.: 22.078 min
Delta R.T.: 0.002 min
Response: 399635
Conc: 4.76 ppb m



#38 DCB

R.T.: 51.045 min
Delta R.T.: -0.008 min
Response: 296952
Conc: 8.43 ppb m



#38 DCB

R.T.: 25.003 min
Delta R.T.: -0.008 min
Response: 849677
Conc: 8.59 ppb m

6.6.6

6

BB15946.D

Manual Integrations APPROVED (compounds with "m" flag)

John Hamilton 09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15946.D\ECD1B.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\BB15946.D\ECD2A.CH
Acq On : 21 Sep 2007 12:06 am Operator: caobinz
Sample : ic667-400,CT400 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:16:45 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:15:56 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) s TCMX	12.22	5.64	2279234	5706672	56.311	54.535
Spiked Amount 40.000			Recovery	=	140.78%	136.34%
38) s DCB	51.04	25.00	1941253	5508199	55.440m	55.624m
Spiked Amount 40.000			Recovery	=	138.60%	139.06%
Target Compounds						
2) Chlordane-A	17.32	9.98	697866	1433703	391.756	402.240
3) Chlordane-B	17.96	10.50	1070540	2061287	386.105m	343.537
4) Chlordane-C	21.99	15.12	6082914	11290546	390.536m	392.654m
5) Toxaphene-A	26.41	19.29	5569394	8873863	4237.041m	4280.902m
6) Toxaphene-B	29.09	20.52	2735223	16121178	4411.688m	4580.581m
7) Toxaphene-C	31.45	21.29	9495463	7521269	4604.508m	4806.333m

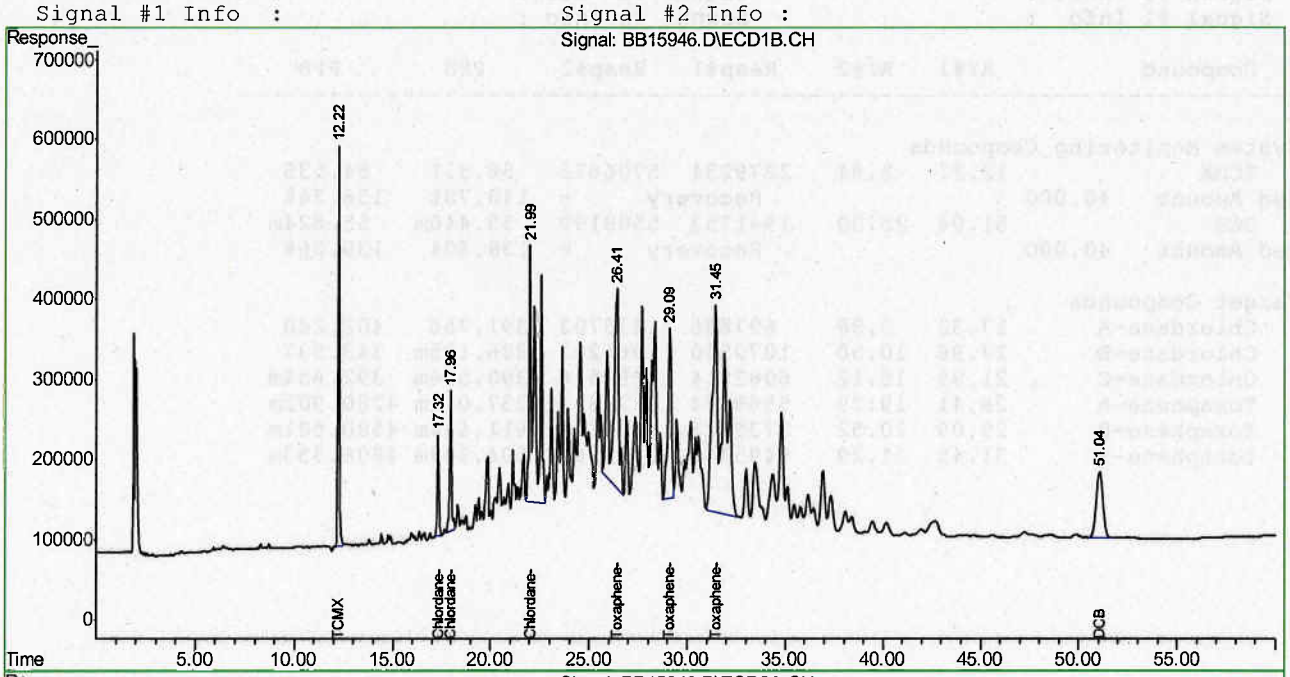
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15946.D PT092007.M Fri Sep 21 11:20:49 2007 GC23PRN

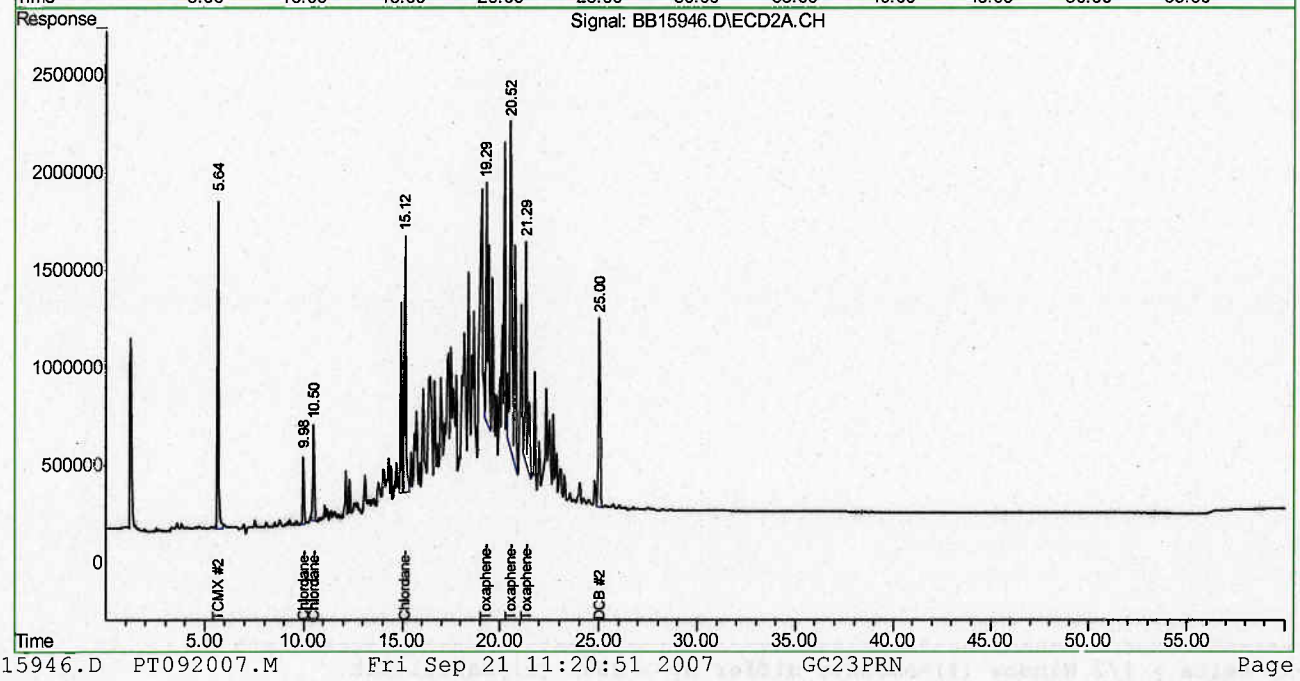
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15946.D\ECD1B.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\BB15946.D\ECD2A.CH
Acq On : 21 Sep 2007 12:06 am Operator: caobinz
Sample : ic667-400,CT400 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:19 2007 Quant Results File: PT092007.RES

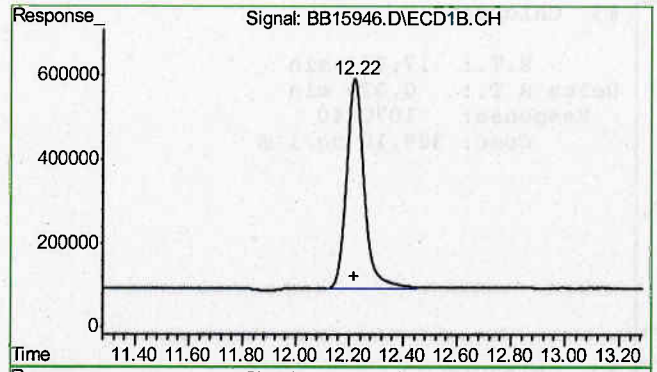
Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:15:56 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



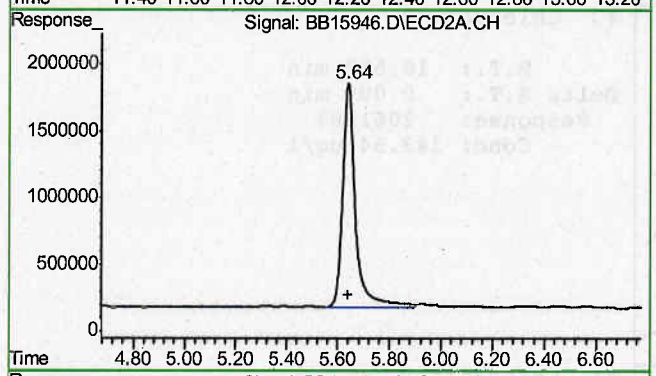


ACCUTEST Laboratories M67676



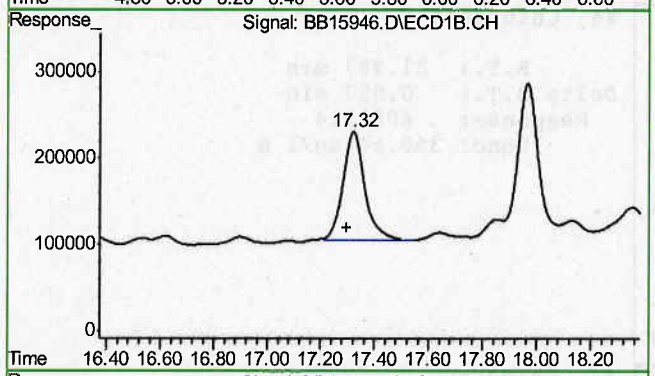
#1 TCMX

R.T.: 12.219 min
Delta R.T.: 0.001 min
Response: 2279234
Conc: 56.31 ppb



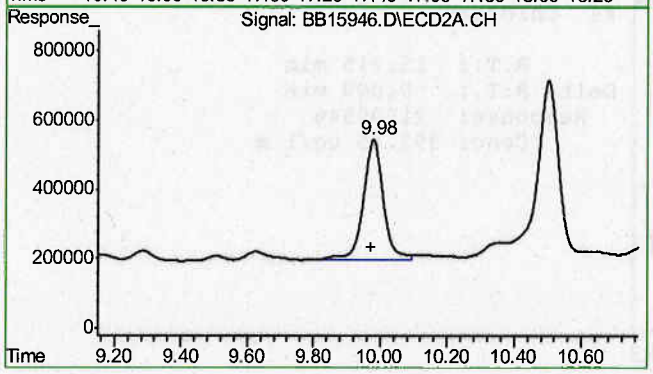
#1 TCMX

R.T.: 5.639 min
Delta R.T.: 0.000 min
Response: 5706672
Conc: 54.54 ppb



#2 Chlordane-A

R.T.: 17.319 min
Delta R.T.: 0.024 min
Response: 697866
Conc: 391.76 ug/l

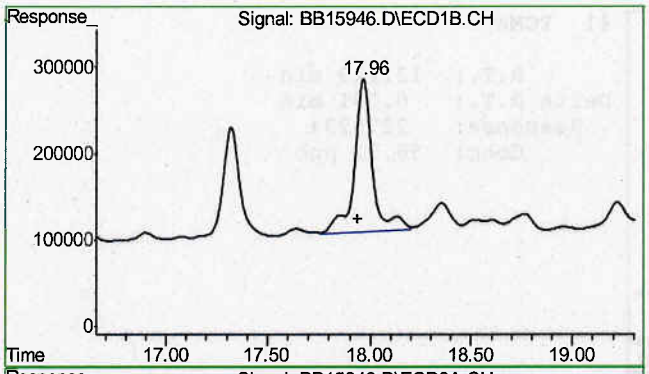


#2 Chlordane-A

R.T.: 9.979 min
Delta R.T.: 0.007 min
Response: 1433703
Conc: 402.24 ug/l

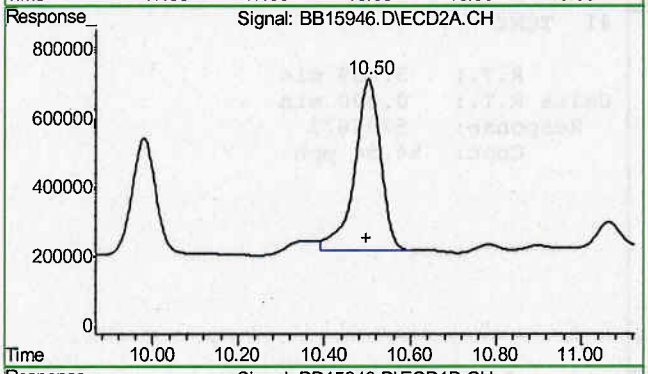
6.6.7

6



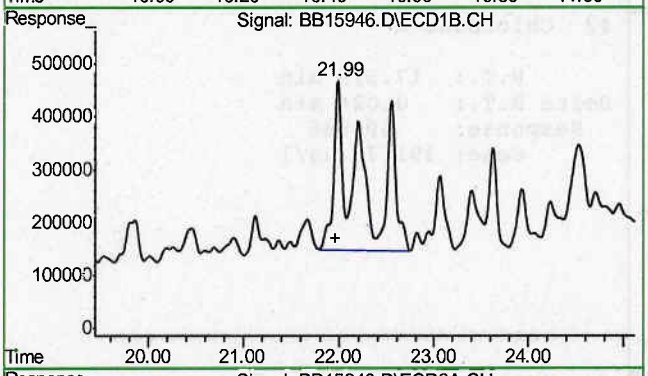
#3 Chlordane-B

R.T.: 17.964 min
Delta R.T.: 0.025 min
Response: 1070540
Conc: 386.10 ug/l m



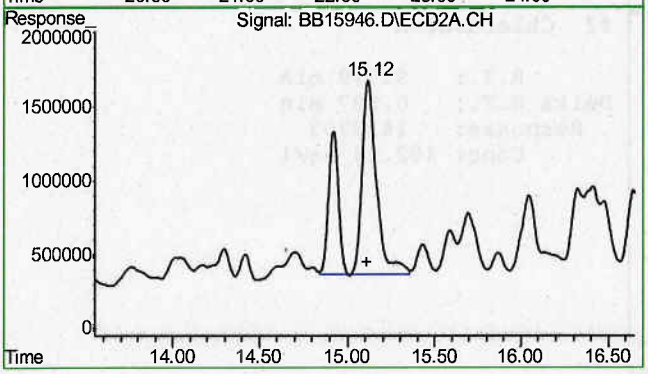
#3 Chlordane-B

R.T.: 10.502 min
Delta R.T.: 0.005 min
Response: 2061287
Conc: 343.54 ug/l



#4 Chlordane-C

R.T.: 21.987 min
Delta R.T.: 0.027 min
Response: 6082914
Conc: 390.54 ug/l m

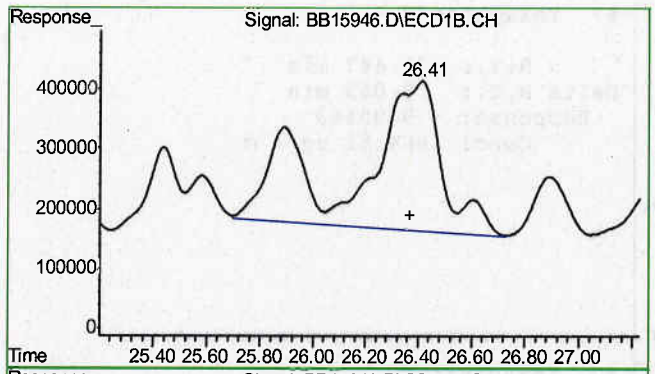


#4 Chlordane-C

R.T.: 15.115 min
Delta R.T.: 0.009 min
Response: 11290546
Conc: 392.65 ug/l m

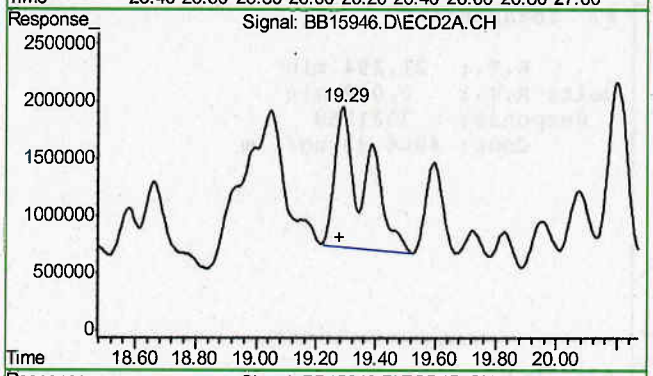
6.6.7

6



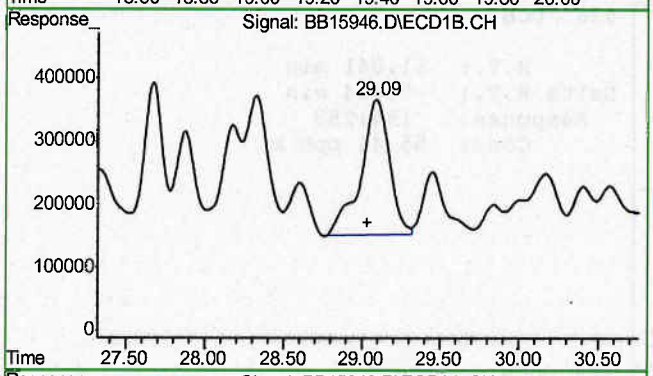
#5 Toxaphene-A

R.T.: 26.414 min
Delta R.T.: 0.044 min
Response: 5569394
Conc: 4237.04 ug/l m



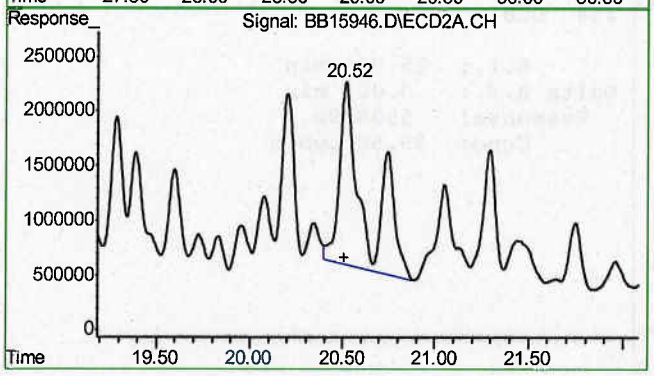
#5 Toxaphene-A

R.T.: 19.289 min
Delta R.T.: 0.010 min
Response: 8873863
Conc: 4280.90 ug/l m



#6 Toxaphene-B

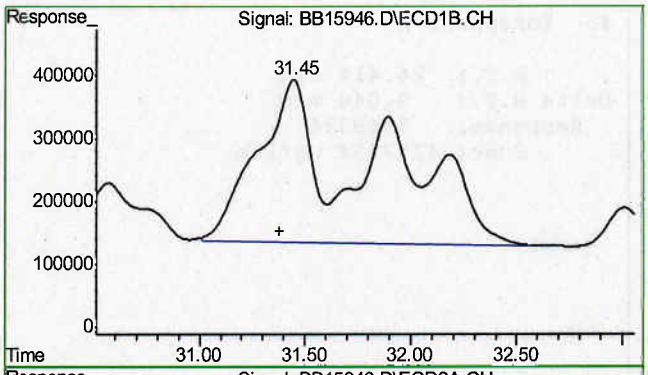
R.T.: 29.087 min
Delta R.T.: 0.054 min
Response: 2735223
Conc: 4411.69 ug/l m



#6 Toxaphene-B

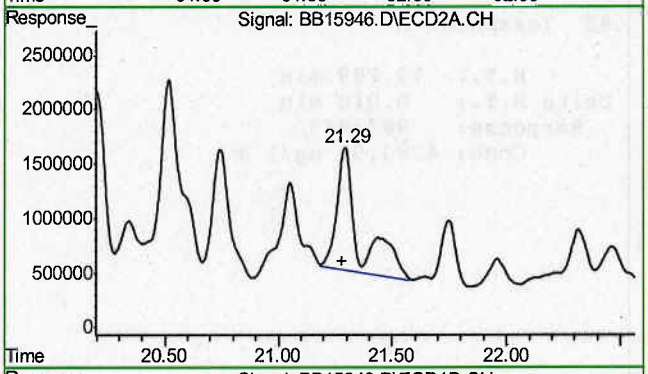
R.T.: 20.517 min
Delta R.T.: 0.012 min
Response: 16121178
Conc: 4580.58 ug/l m

6.6.7



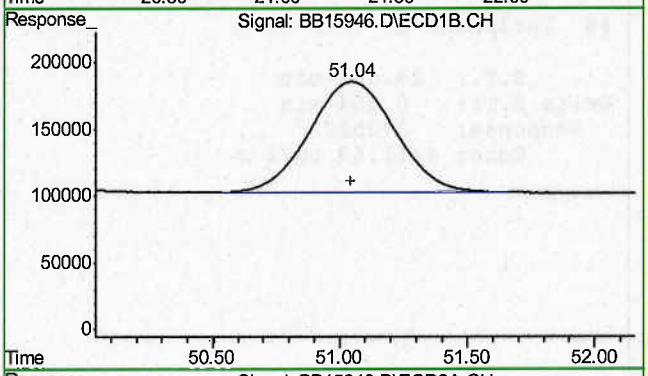
#7 Toxaphene-C

R.T.: 31.447 min
Delta R.T.: 0.065 min
Response: 9495463
Conc: 4604.51 ug/l m



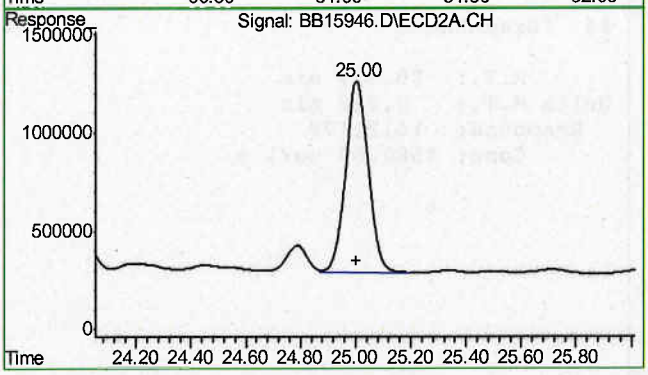
#7 Toxaphene-C

R.T.: 21.294 min
Delta R.T.: 0.012 min
Response: 7521269
Conc: 4806.33 ug/l m



#38 DCB

R.T.: 51.041 min
Delta R.T.: -0.004 min
Response: 1941253
Conc: 55.44 ppb m



#38 DCB

R.T.: 25.004 min
Delta R.T.: 0.001 min
Response: 5508199
Conc: 55.62 ppb m

BB15947.D

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15947.D\ECD1B.CH Vial: 98
Signal #2 : C:\MSDCHEM\1\DATA\BB15947.D\ECD2A.CH
Acq On : 9-21-07 01:11:23 AM Operator: caobinz
Sample : ic667-200,CT200 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:21:25 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:20:41 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.22	5.64	1685344	4328480	41.624m	41.234
	Spiked Amount 40.000			Recovery	=	104.06%	103.09%
38) s	DCB	51.04	25.01	1530907	4305166	43.556m	43.019
	Spiked Amount 40.000			Recovery	=	108.89%	107.55%
	Target Compounds						
2)	Chlordane-A	17.32	9.98	371663	703789	206.655	193.657m
3)	Chlordane-B	17.96	10.50	571305	1094329	204.953m	192.967
4)	Chlordane-C	21.99	15.11	3245883	5743477	209.852m	203.666m
5)	Toxaphene-A	26.41	19.29	2880163	4539883	2101.833m	2106.508m
6)	Toxaphene-B	29.09	20.51	1386145	7920071	2079.679m	2072.840m
7)	Toxaphene-C	31.45	21.29	4871330	3695280	2138.412m	2129.883m

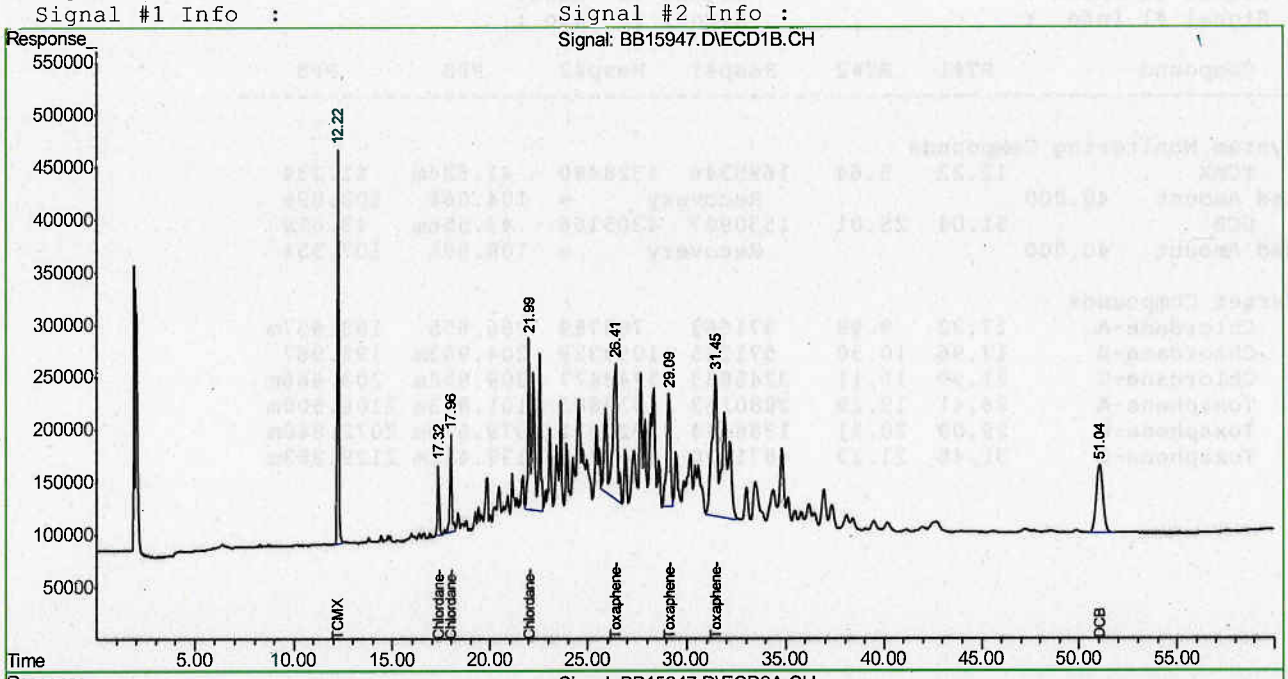
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15947.D PT092007.M Fri Sep 21 11:24:51 2007 GC23PRN

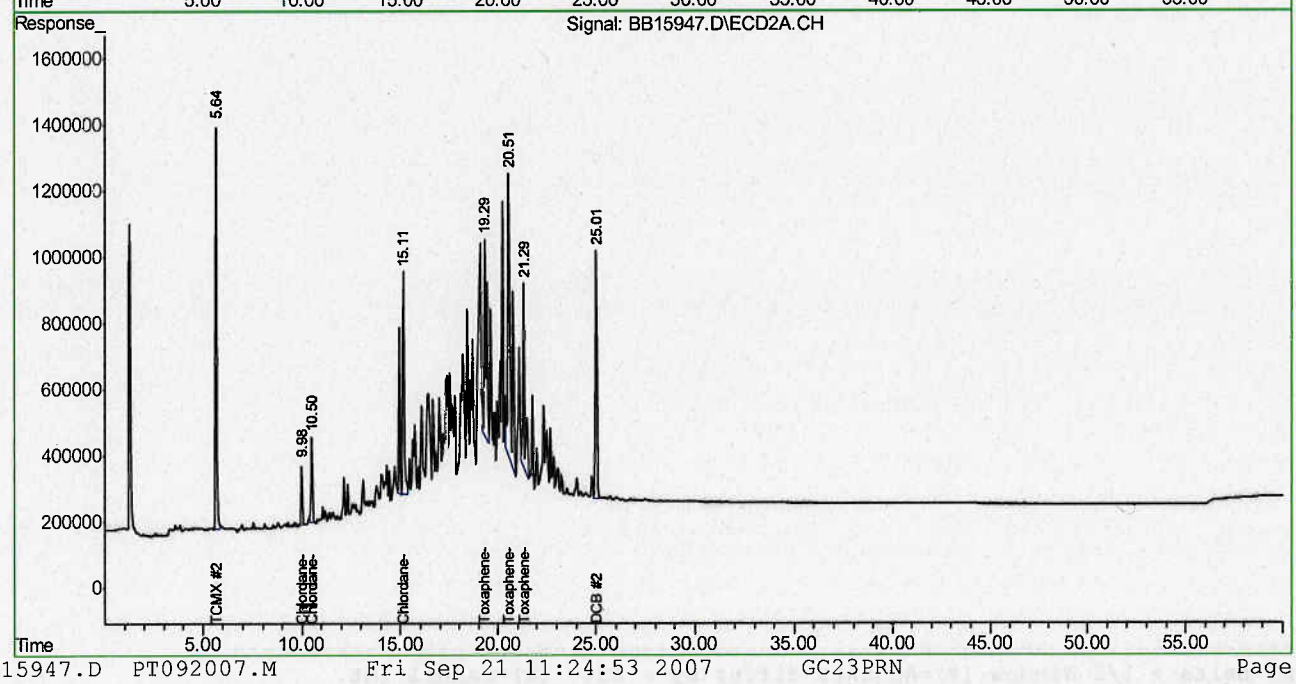
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15947.D\ECD1B.CH Vial: 98
Signal #2 : C:\MSDCHEM\1\DATA\BB15947.D\ECD2A.CH
Acq On : 9-21-07 01:11:23 AM Operator: caobinz
Sample : ic667-200,CT200 Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:23 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:20:41 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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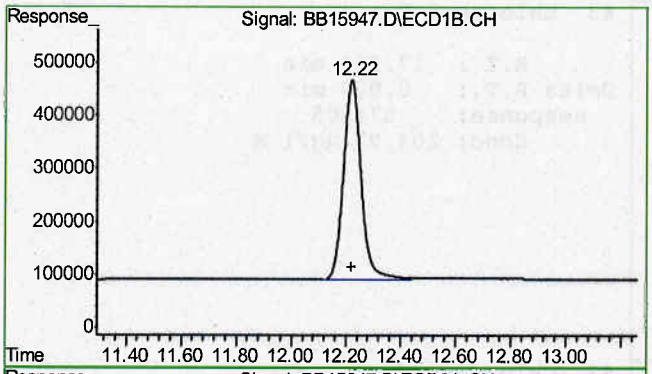
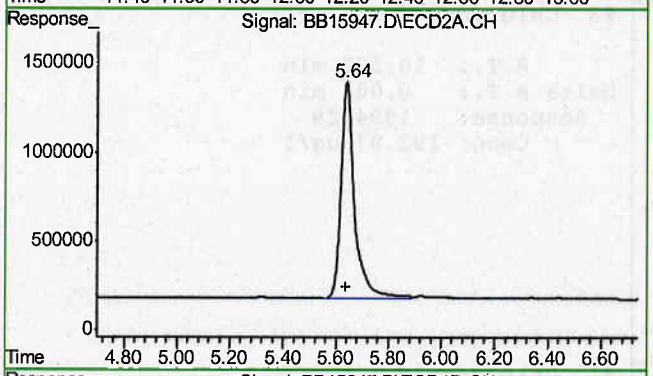


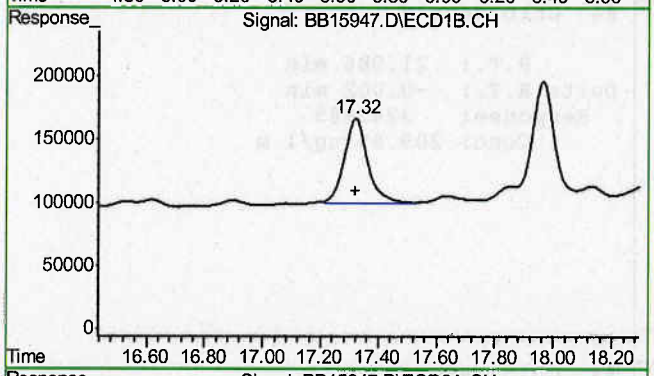
#1 TCMX

R.T.: 12.221 min
Delta R.T.: 0.002 min
Response: 1685344
Conc: 41.62 ppb m



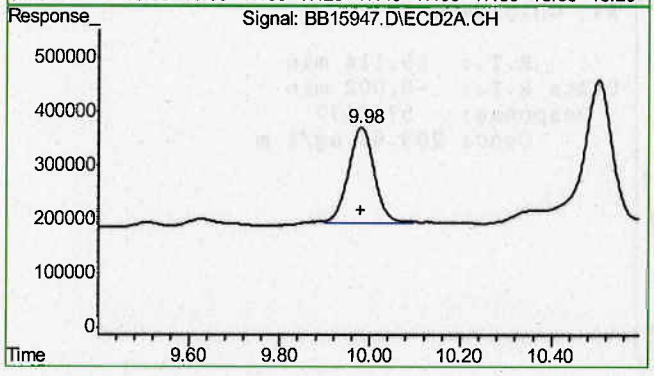
#1 TCMX

R.T.: 5.641 min
Delta R.T.: 0.002 min
Response: 4328480
Conc: 41.23 ppb



#2 Chlordane-A

R.T.: 17.319 min
Delta R.T.: 0.000 min
Response: 371663
Conc: 206.66 ug/l

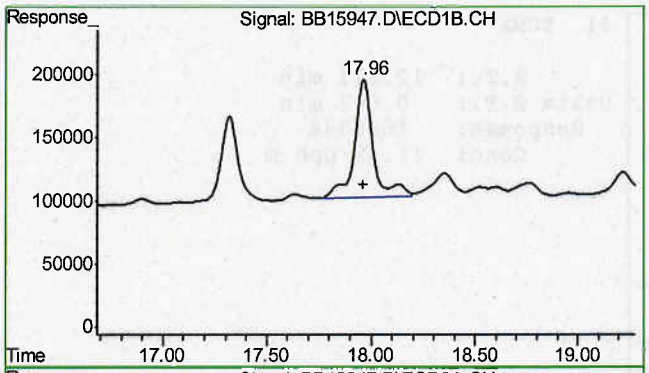


#2 Chlordane-A

R.T.: 9.979 min
Delta R.T.: 0.000 min
Response: 703789
Conc: 193.66 ug/l m

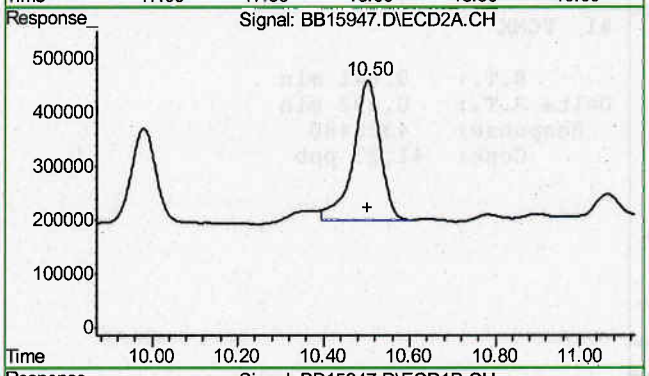
6.6.8

6



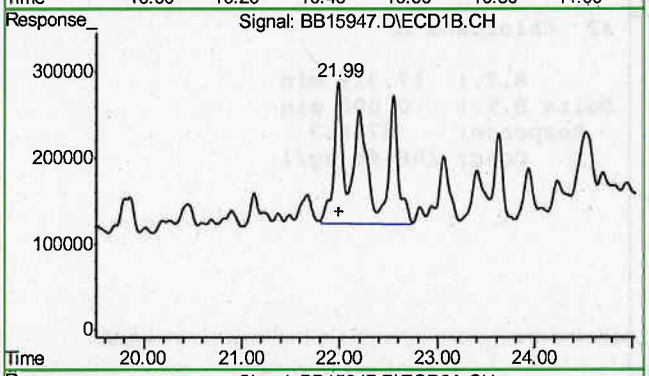
#3 Chlordane-B

R.T.: 17.964 min
Delta R.T.: 0.000 min
Response: 571305
Conc: 204.95 ug/l m



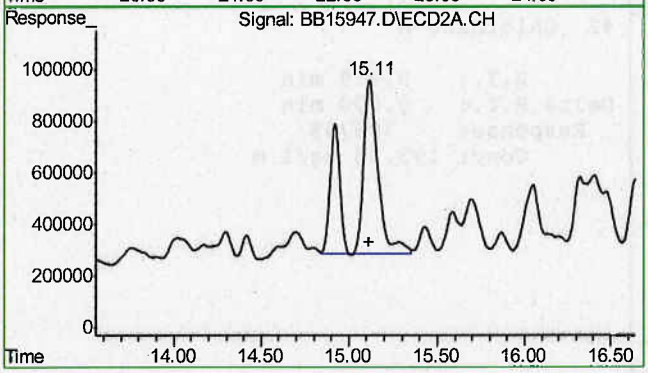
#3 Chlordane-B

R.T.: 10.502 min
Delta R.T.: 0.000 min
Response: 1094329
Conc: 192.97 ug/l



#4 Chlordane-C

R.T.: 21.986 min
Delta R.T.: -0.002 min
Response: 3245883
Conc: 209.85 ug/l m

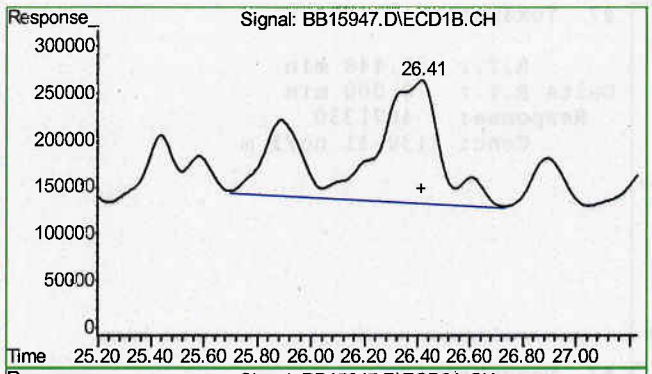


#4 Chlordane-C

R.T.: 15.114 min
Delta R.T.: -0.002 min
Response: 5743477
Conc: 203.67 ug/l m

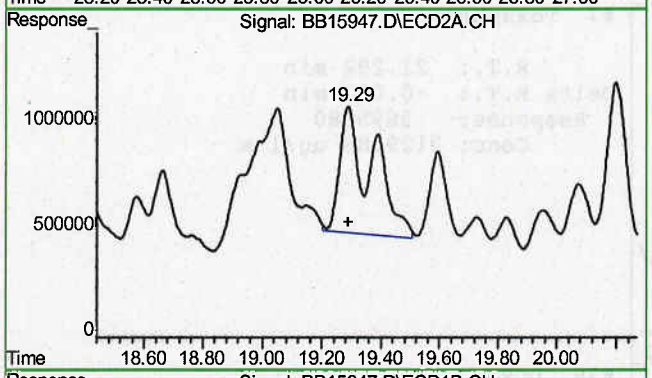
6.6.8

6



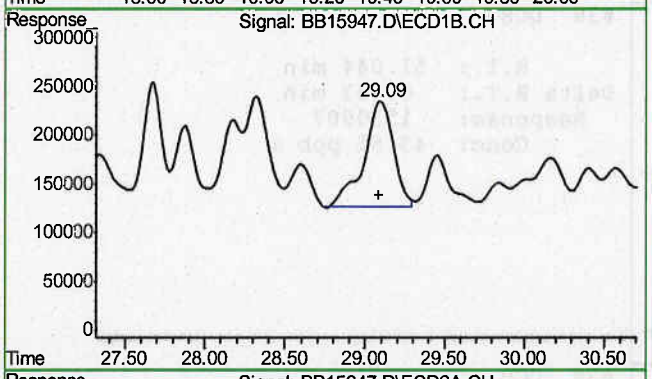
#5 Toxaphene-A

R.T.: 26.414 min
Delta R.T.: 0.000 min
Response: 2880163
Conc: 2101.83 ug/l m



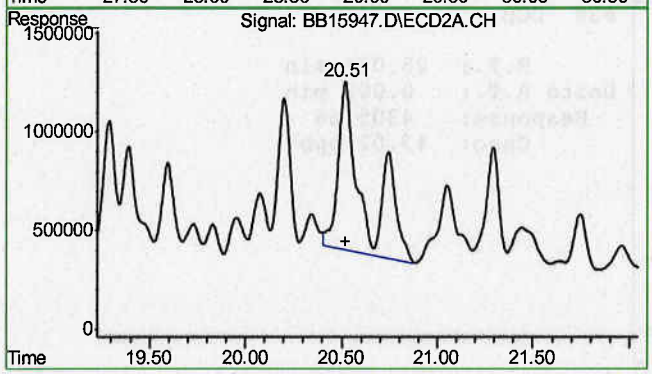
#5 Toxaphene-A

R.T.: 19.289 min
Delta R.T.: 0.000 min
Response: 4539883
Conc: 2106.51 ug/l m



#6 Toxaphene-B

R.T.: 29.093 min
Delta R.T.: 0.005 min
Response: 1386145
Conc: 2079.68 ug/l m

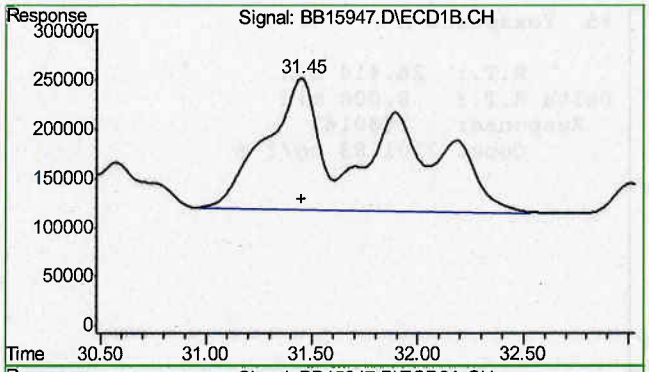


#6 Toxaphene-B

R.T.: 20.514 min
Delta R.T.: -0.003 min
Response: 7920071
Conc: 2072.84 ug/l m

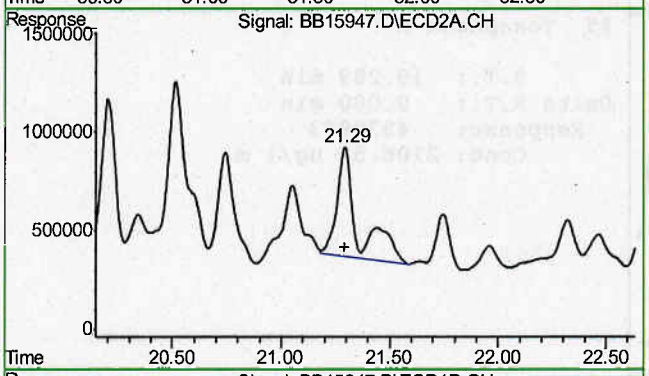
6.6.8

6



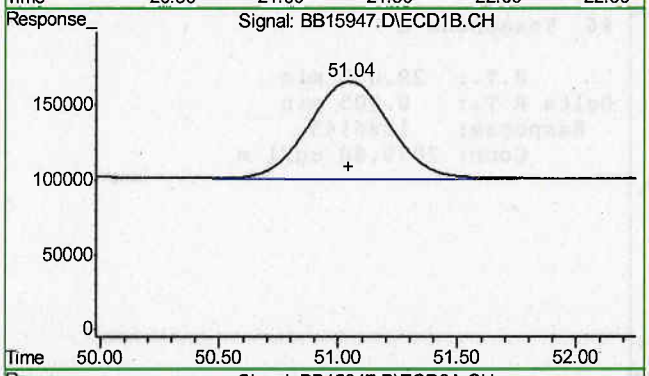
#7 Toxaphene-C

R.T.: 31.448 min
Delta R.T.: 0.000 min
Response: 4871330
Conc: 2138.41 ug/l m



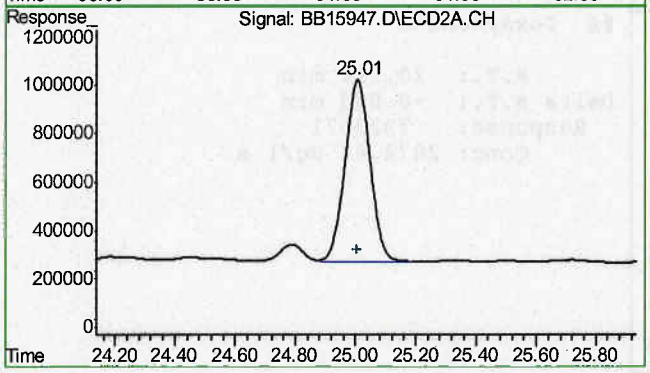
#7 Toxaphene-C

R.T.: 21.292 min
Delta R.T.: -0.002 min
Response: 3695280
Conc: 2129.88 ug/l m



#38 DCB

R.T.: 51.044 min
Delta R.T.: 0.003 min
Response: 1530907
Conc: 43.56 ppb m



#38 DCB

R.T.: 25.006 min
Delta R.T.: 0.002 min
Response: 4305166
Conc: 43.02 ppb

6.6.8

ACCUTEST Laboratories M67676

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
09/21/07 15:54

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15948.D\ECD1B.CH Vial: 99
Signal #2 : C:\MSDCHEM\1\DATA\BB15948.D\ECD2A.CH
Acq On : 9-21-07 02:16:29 AM Operator: caobinz
Sample : icv667-100,pest 100 icv Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:33:56 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
1) s	TCMX	12.22	5.64	1954621	4979603	48.240	47.267	
	Spiked Amount 40.000			Recovery	=	120.60%	118.17%	
38) s	DCB	51.03	25.01	1695159	4756602	48.273m	47.324m	
	Spiked Amount 40.000			Recovery	=	120.68%	118.31%	
	Target Compounds							
8)	Hexachlorobenzen	14.36	6.91	4986739	11413277	98.775	94.012	
9)	alpha-BHC	14.87	8.52	6331909	12636730	101.945	94.110	
10)	gamma-BHC	16.39	9.86	5325722	11838678	99.071	94.852	
11)	beta-BHC	16.63	12.59	2216127	4999333	95.556	90.598	
12)	Heptachlor	17.97	10.50	3884537	10436453	105.526	101.427	
13)	delta-BHC	18.03	13.34	5459366	11782262	98.869	95.267	
14)	Alachlor	18.32	11.95	5067262	10109399	923.648	1170.078	#
15)	Aldrin	19.26	11.41	4852026	10703914	103.307	101.201	
16)	Heptachlor Epoxi	21.27	13.78	4137995	10219462	99.291	100.095	
17)	gamma-Chlordane	21.98	14.92	3906756	10159644	97.159	97.488	
18)	alpha-Chlordane	22.55	15.11	3637044	10329732	98.354	100.011	
19)	Endosulfan-I	22.65	14.66	3687873	9327457	103.258	101.075	
20)	4,4'-DDE	23.28	15.53	3514413	9976316	101.905	101.206	
21)	Dieldrin	23.76	15.94	3807907	10575218	100.302	101.692	
22)	Endrin	25.23	16.60	3010286	9735608	101.577	101.491	
23)	4,4'-DDD	25.59	18.30	2821193	18010466	98.010	200.563	#
24)	Endosulfan-II	26.06	18.30	3163085	18010466	94.922	200.936	#
25)	4,4'-DDT	27.24	18.80	2221857	6656551	111.310	113.843	
26)	Endrin aldehyde	27.64	19.73	2541639	7110296	100.458	102.360m	
27)	Endosulfan sulfa	28.60	20.80	2828685	8495430	99.672	102.476	
28)	Methoxychlor	32.77	20.99	1231555	3752153	108.428	106.912	
29)	Endrin ketone	33.93	22.07	3264097	8358239	94.510	98.065m	

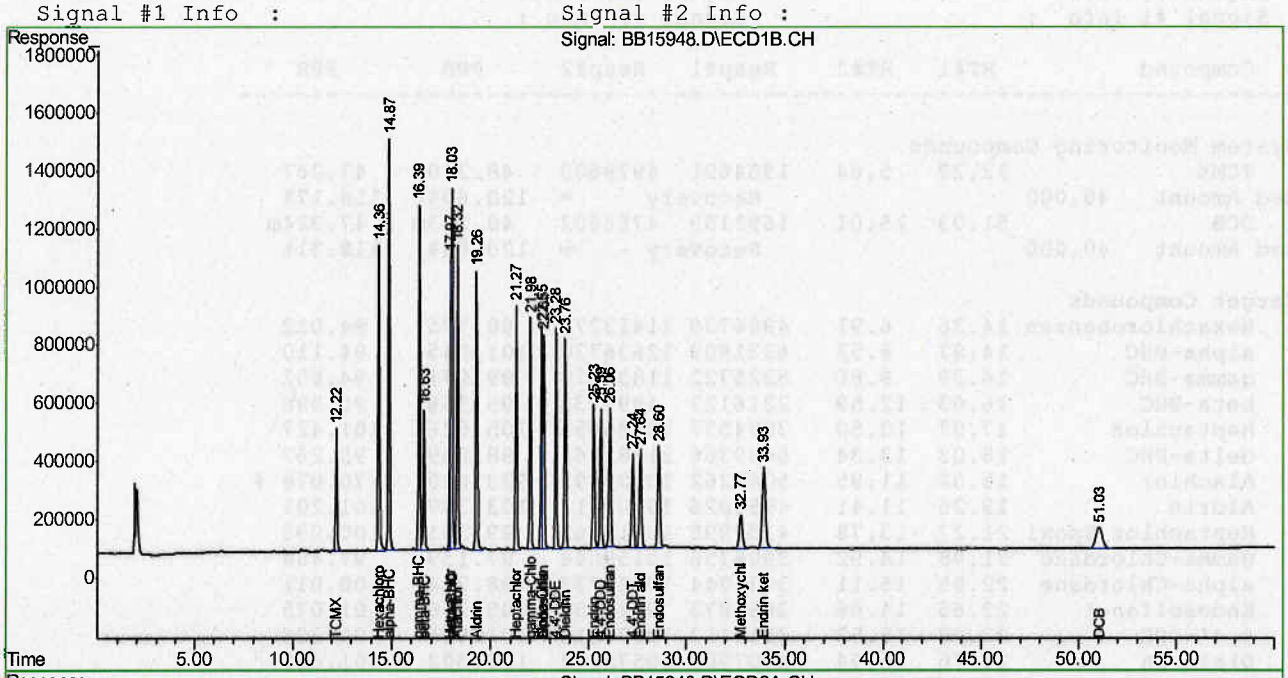
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15948.D PT092007.M Fri Sep 21 11:39:34 2007 GC23PRN

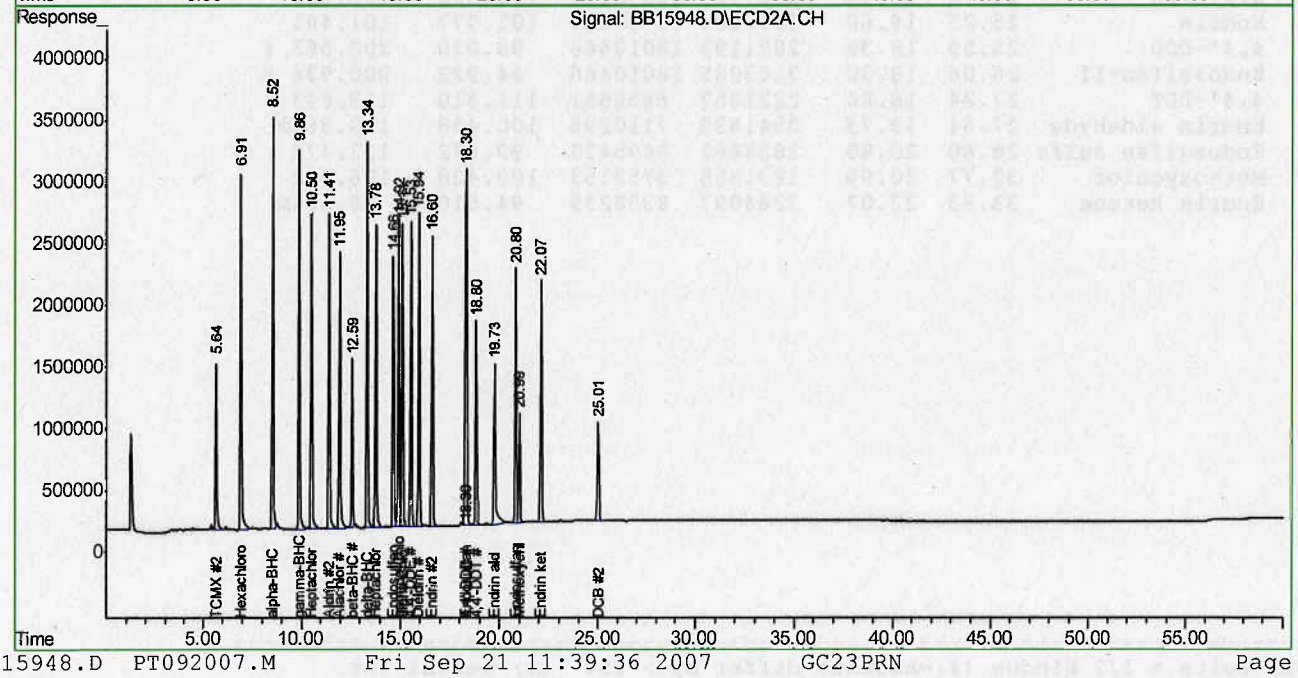
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15948.D\ECD1B.CH Vial: 99
Signal #2 : C:\MSDCHEM\1\DATA\BB15948.D\ECD2A.CH
Acq On : 9-21-07 02:16:29 AM Operator: caobinz
Sample : icv667-100,pest 100 icv Inst : GCBB-gc23
Misc : op14341,gbb667,15,,,10,,soil Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 21 11:38 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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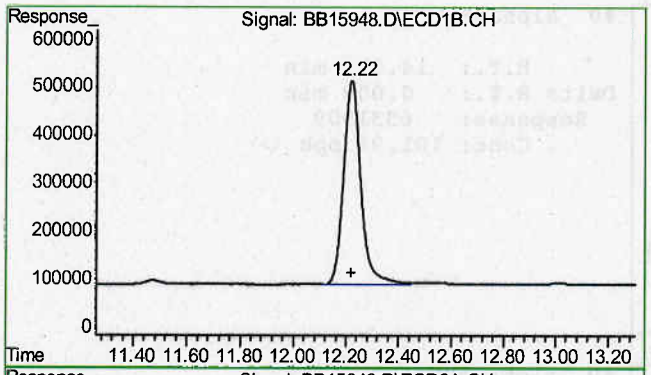
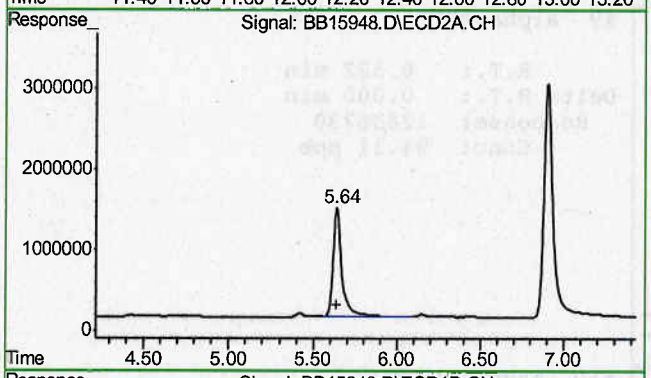


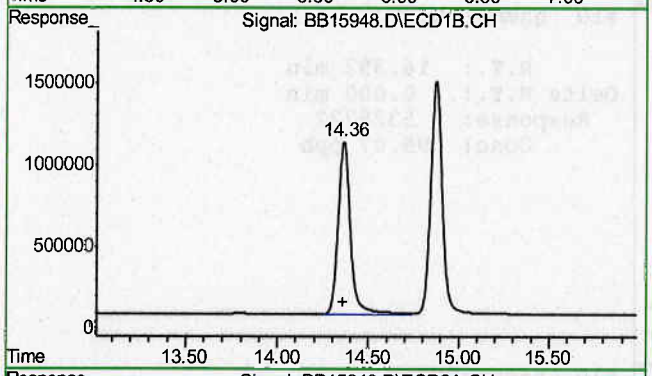
#1 TCMX

R.T.: 12.219 min
Delta R.T.: -0.002 min
Response: 1954621
Conc: 48.24 ppb



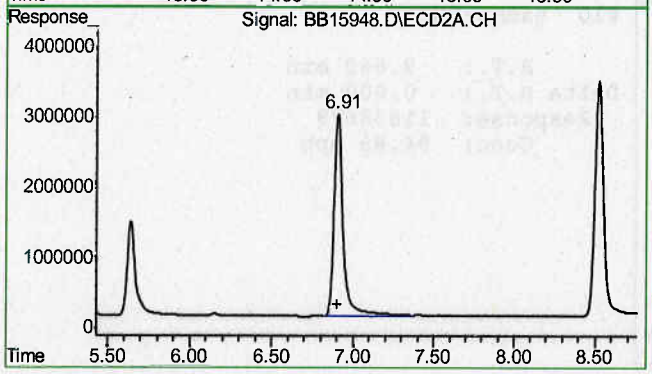
#1 TCMX

R.T.: 5.638 min
Delta R.T.: -0.002 min
Response: 4979603
Conc: 47.27 ppb



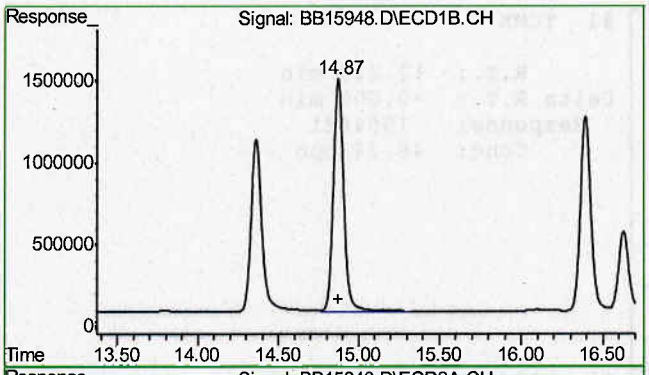
#8 Hexachlorobenzene

R.T.: 14.360 min
Delta R.T.: 0.000 min
Response: 4986739
Conc: 98.78 ug/l



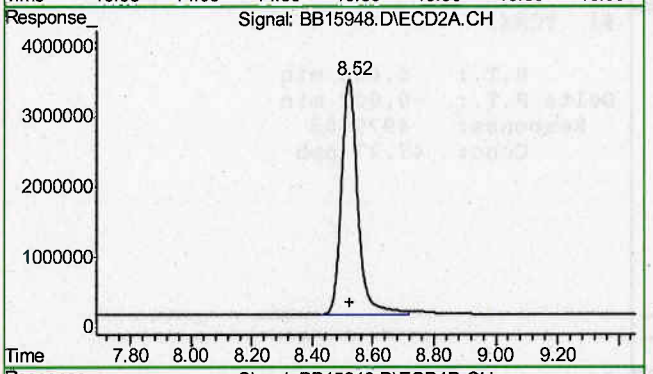
#8 Hexachlorobenzene

R.T.: 6.905 min
Delta R.T.: 0.000 min
Response: 11413277
Conc: 94.01 ug/l



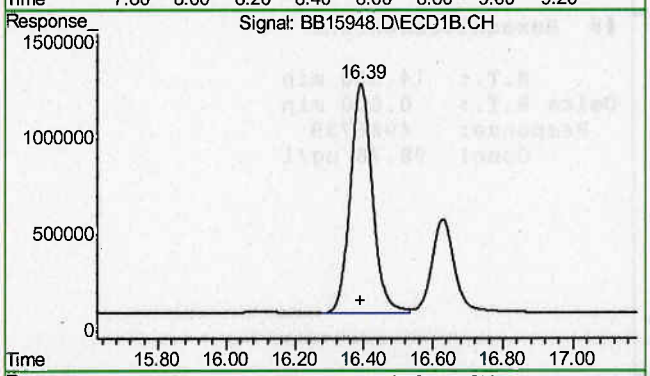
#9 alpha-BHC

R.T.: 14.874 min
Delta R.T.: 0.000 min
Response: 6331909
Conc: 101.94 ppb



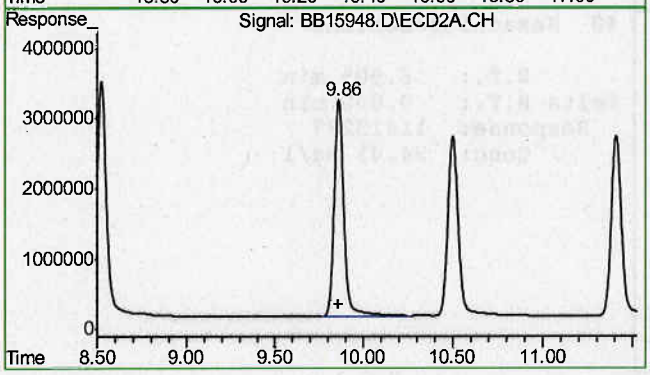
#9 alpha-BHC

R.T.: 8.522 min
Delta R.T.: 0.000 min
Response: 12636730
Conc: 94.11 ppb



#10 gamma-BHC

R.T.: 16.392 min
Delta R.T.: 0.000 min
Response: 5325722
Conc: 99.07 ppb



#10 gamma-BHC

R.T.: 9.860 min
Delta R.T.: 0.000 min
Response: 11838678
Conc: 94.85 ppb

6.6.9

6

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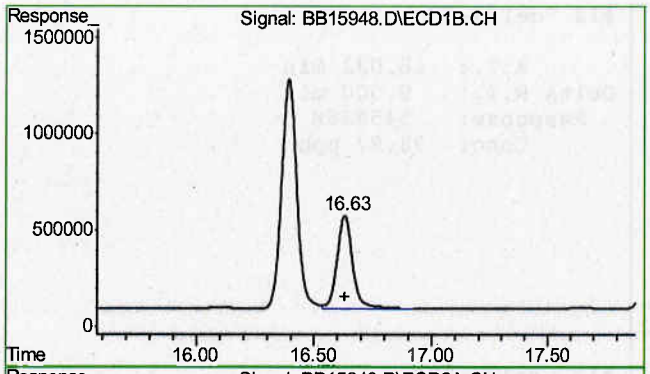
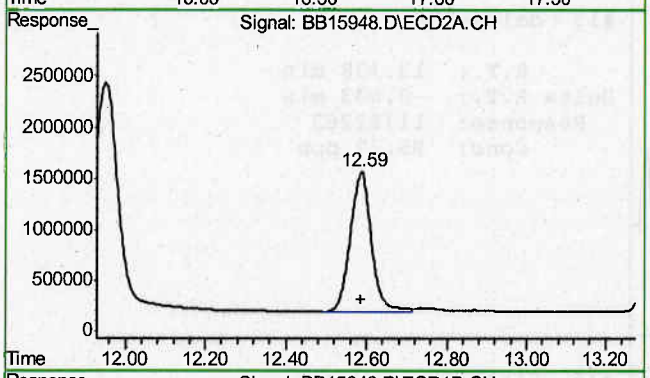


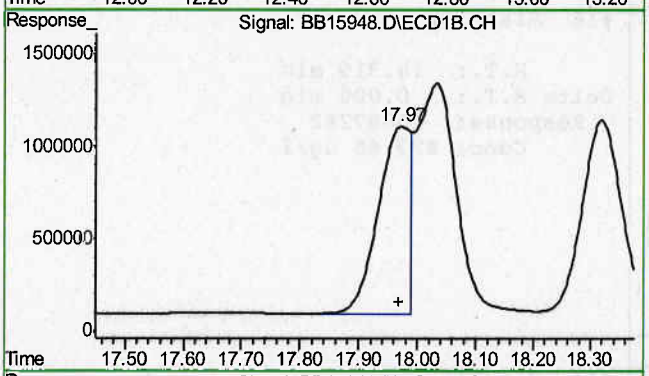
#11 beta-BHC

R.T.: 16.629 min
Delta R.T.: 0.000 min
Response: 2216127
Conc: 95.56 ppb



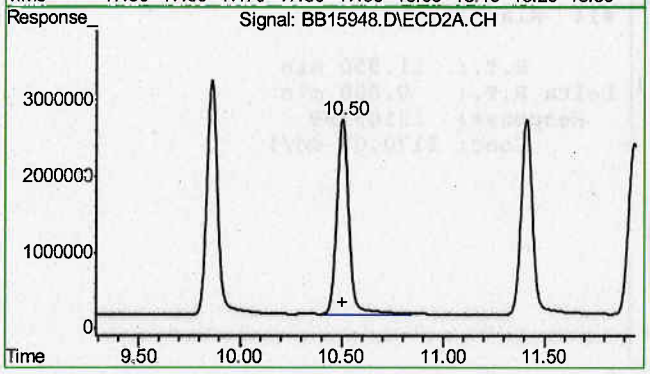
#11 beta-BHC

R.T.: 12.587 min
Delta R.T.: 0.003 min
Response: 4999333
Conc: 90.60 ppb



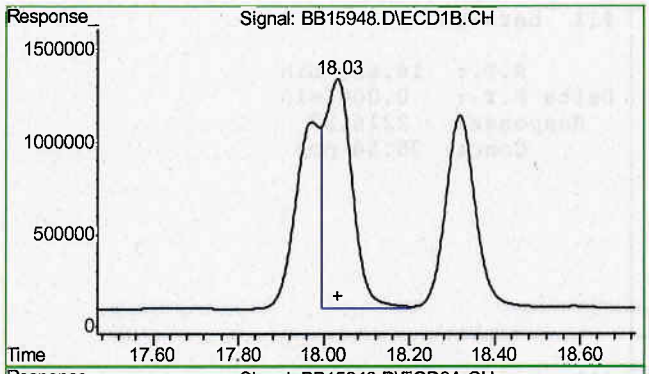
#12 Heptachlor

R.T.: 17.970 min
Delta R.T.: 0.002 min
Response: 3884537
Conc: 105.53 ppb



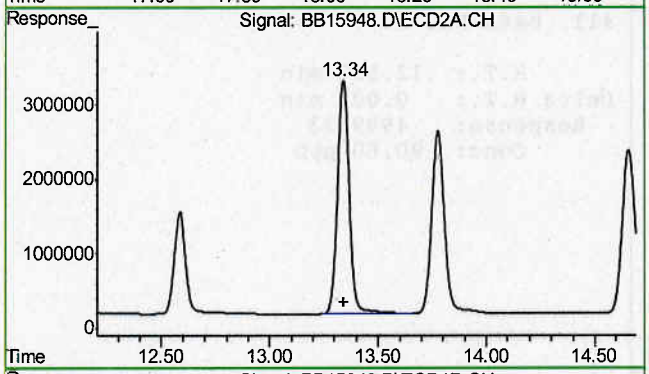
#12 Heptachlor

R.T.: 10.502 min
Delta R.T.: 0.000 min
Response: 10436453
Conc: 101.43 ppb



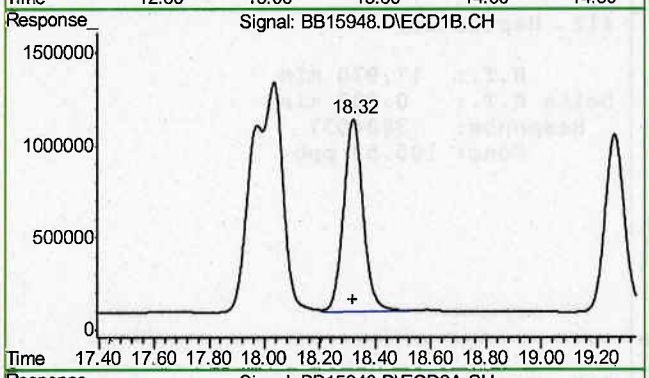
#13 delta-BHC

R.T.: 18.032 min
Delta R.T.: 0.000 min
Response: 5459366
Conc: 98.87 ppb



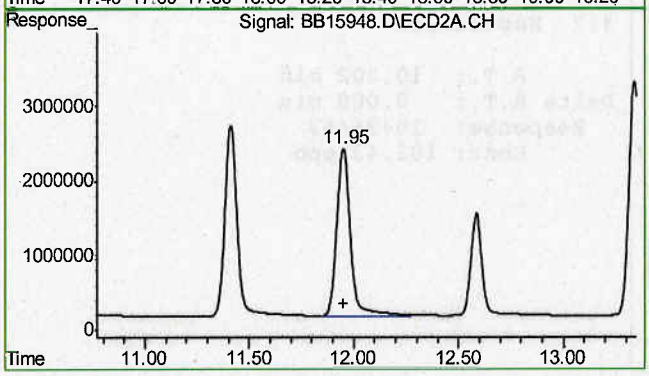
#13 delta-BHC

R.T.: 13.338 min
Delta R.T.: -0.003 min
Response: 11782262
Conc: 95.27 ppb



#14 Alachlor

R.T.: 18.319 min
Delta R.T.: 0.000 min
Response: 5067262
Conc: 923.65 ug/l



#14 Alachlor

R.T.: 11.950 min
Delta R.T.: 0.000 min
Response: 10109399
Conc: 1170.08 ug/l

6.6.9

6

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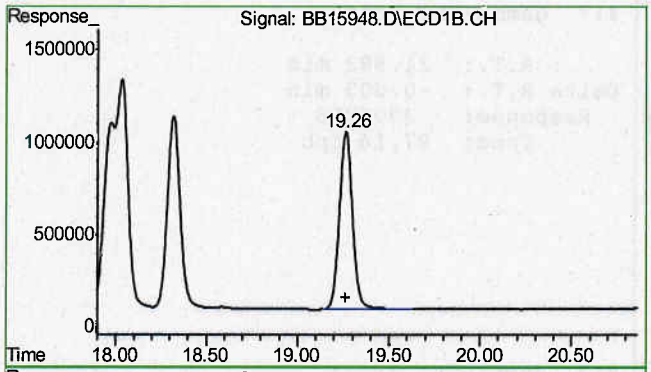
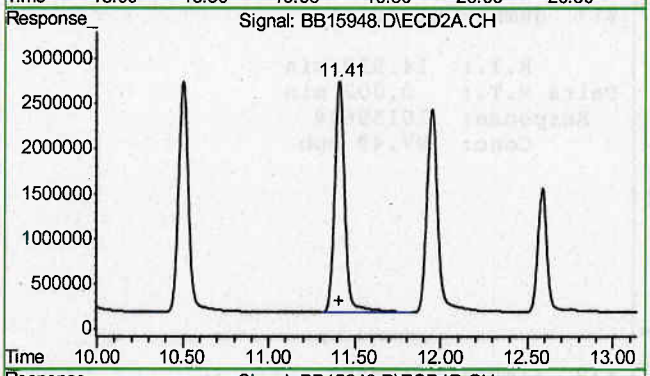


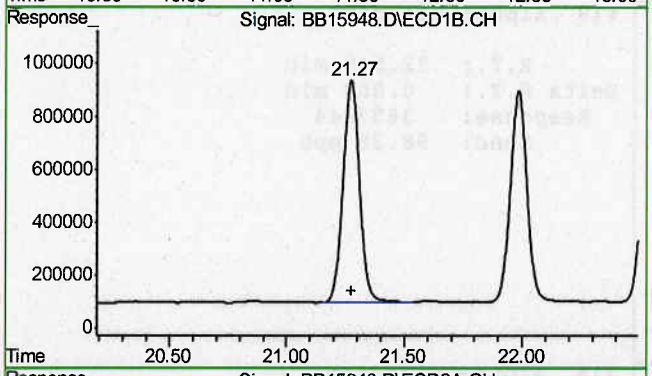
#15 Aldrin

R.T.: 19.262 min
Delta R.T.: -0.003 min
Response: 4852026
Conc: 103.31 ppb



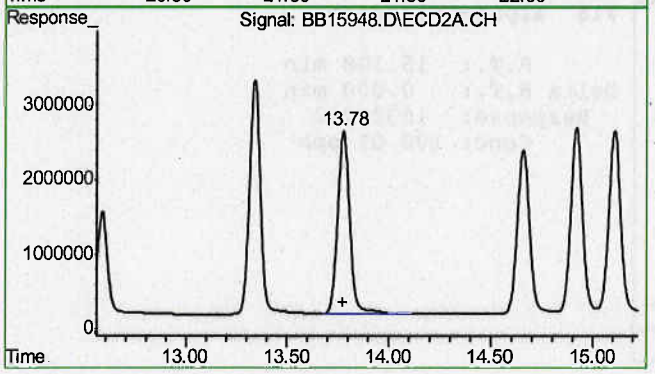
#15 Aldrin

R.T.: 11.408 min
Delta R.T.: 0.002 min
Response: 10703914
Conc: 101.20 ppb



#16 Heptachlor Epoxide

R.T.: 21.272 min
Delta R.T.: -0.003 min
Response: 4137995
Conc: 99.29 ppb

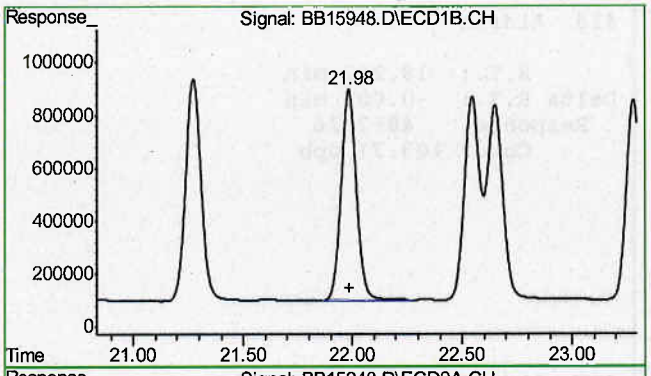


#16 Heptachlor Epoxide

R.T.: 13.775 min
Delta R.T.: 0.002 min
Response: 10219462
Conc: 100.10 ppb

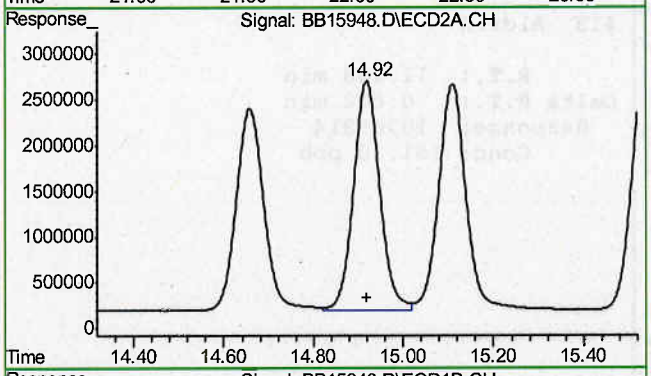
6.6.9

6



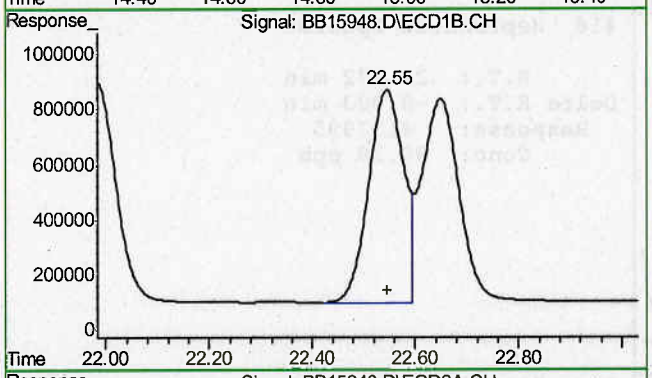
#17 gamma-Chlordane

R.T.: 21.982 min
Delta R.T.: -0.003 min
Response: 3906756
Conc: 97.16 ppb



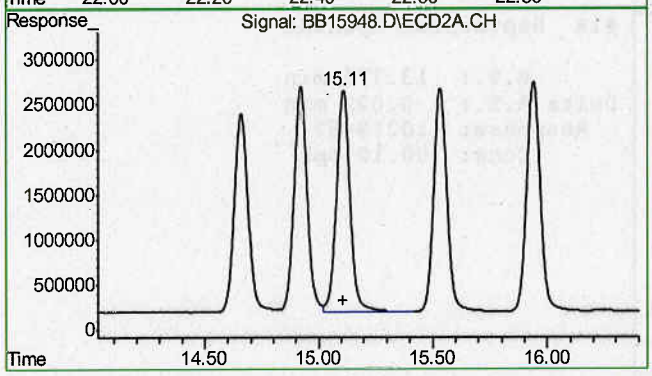
#17 gamma-Chlordane

R.T.: 14.920 min
Delta R.T.: 0.002 min
Response: 10159644
Conc: 97.49 ppb



#18 alpha-Chlordane

R.T.: 22.545 min
Delta R.T.: 0.000 min
Response: 3637044
Conc: 98.35 ppb

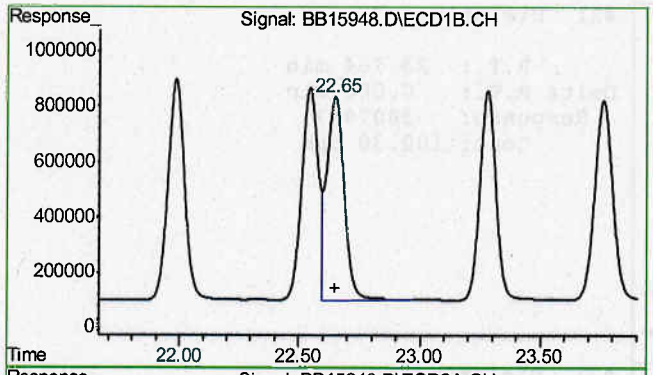


#18 alpha-Chlordane

R.T.: 15.108 min
Delta R.T.: 0.000 min
Response: 10329732
Conc: 100.01 ppb

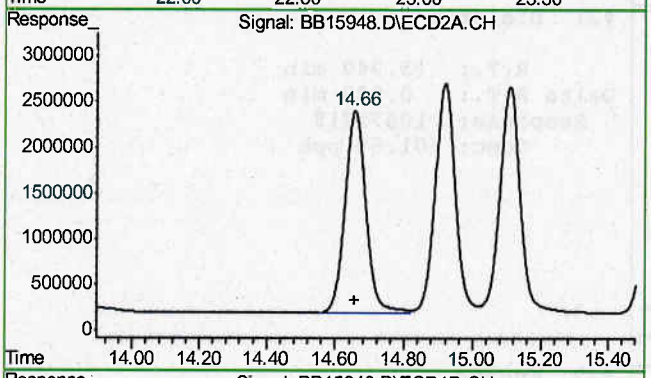
6.6.9

6



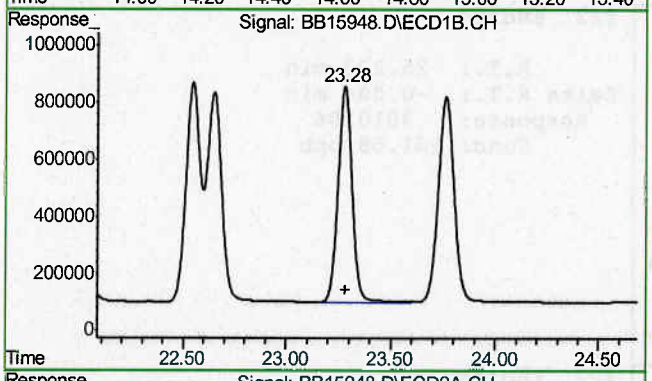
#19 Endosulfan-I

R.T.: 22.649 min
Delta R.T.: 0.000 min
Response: 3687873
Conc: 103.26 ppb



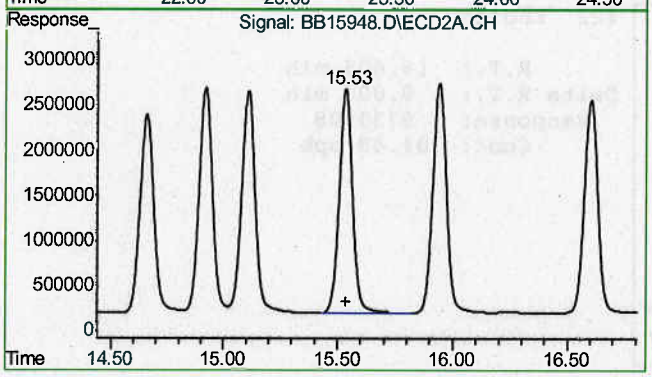
#19 Endosulfan-I

R.T.: 14.655 min
Delta R.T.: -0.003 min
Response: 9327457
Conc: 101.08 ppb



#20 4,4'-DDE

R.T.: 23.279 min
Delta R.T.: -0.003 min
Response: 3514413
Conc: 101.90 ppb

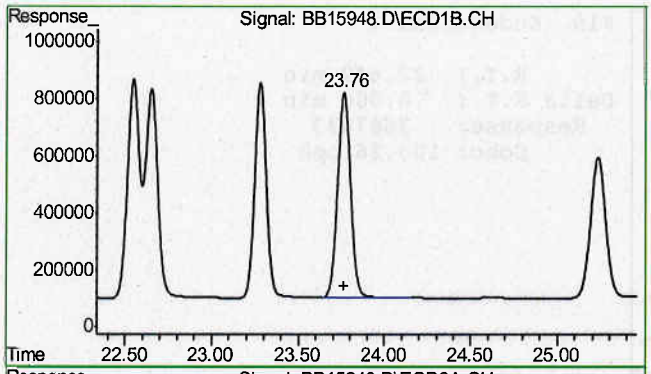


#20 4,4'-DDE

R.T.: 15.532 min
Delta R.T.: -0.003 min
Response: 9976316
Conc: 101.21 ppb

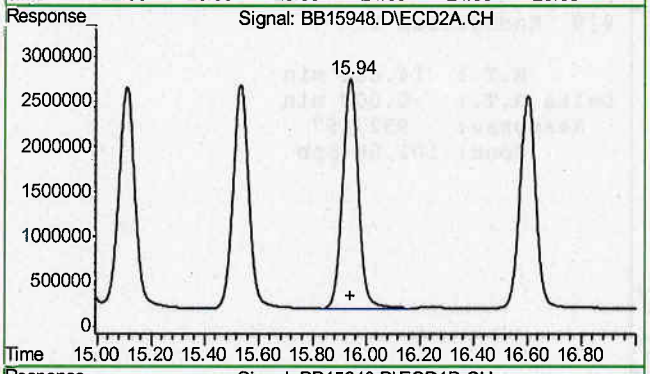
6.6.9

6



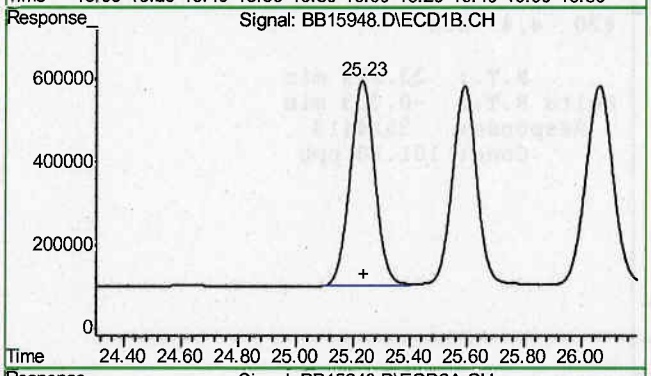
#21 Dieldrin

R.T.: 23.764 min
Delta R.T.: 0.000 min
Response: 3807907
Conc: 100.30 ppb



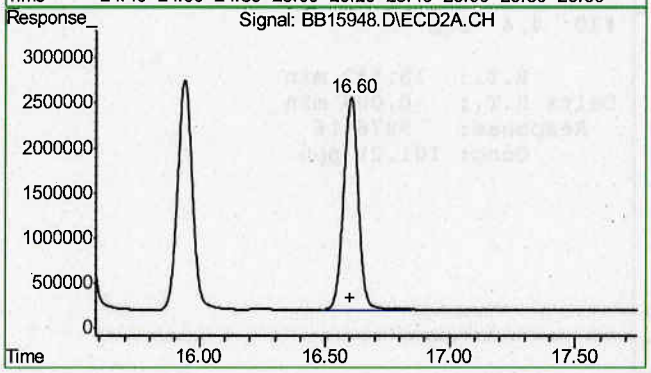
#21 Dieldrin

R.T.: 15.940 min
Delta R.T.: 0.000 min
Response: 10575218
Conc: 101.69 ppb



#22 Endrin

R.T.: 25.232 min
Delta R.T.: -0.004 min
Response: 3010286
Conc: 101.58 ppb



#22 Endrin

R.T.: 16.603 min
Delta R.T.: 0.002 min
Response: 9735608
Conc: 101.49 ppb

6.6.9

6

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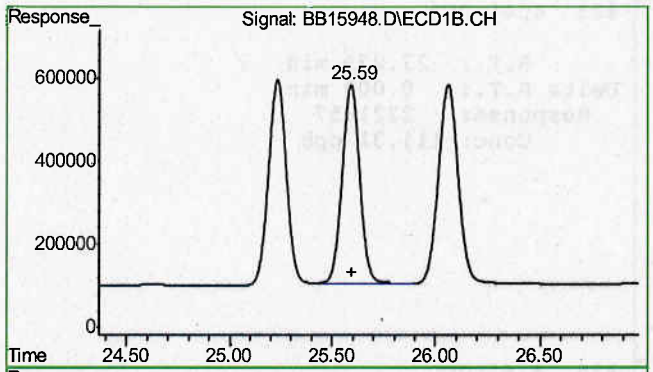
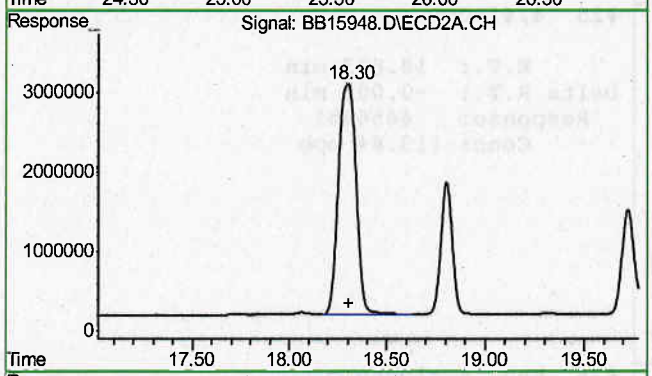


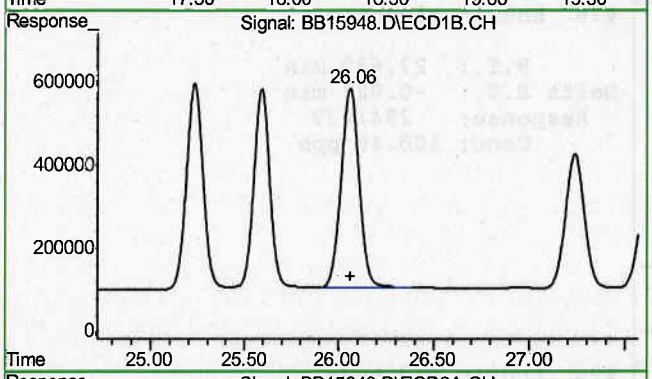
#23 4,4'-DDD

R.T.: 25.592 min
Delta R.T.: -0.003 min
Response: 2821193
Conc: 98.01 ppb



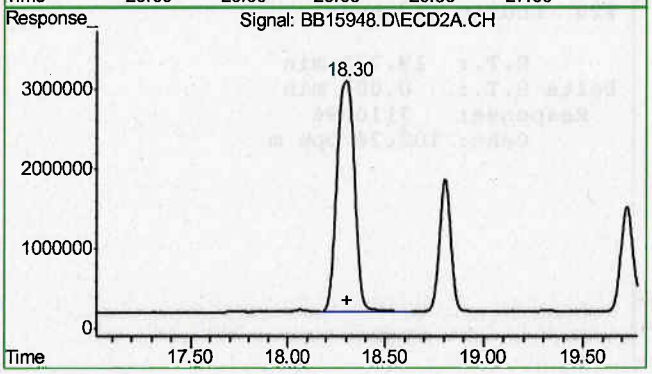
#23 4,4'-DDD

R.T.: 18.303 min
Delta R.T.: -0.003 min
Response: 18010466
Conc: 200.56 ppb



#24 Endosulfan-II

R.T.: 26.062 min
Delta R.T.: 0.000 min
Response: 3163085
Conc: 94.92 ppb



#24 Endosulfan-II

R.T.: 18.303 min
Delta R.T.: -0.003 min
Response: 18010466
Conc: 200.94 ppb

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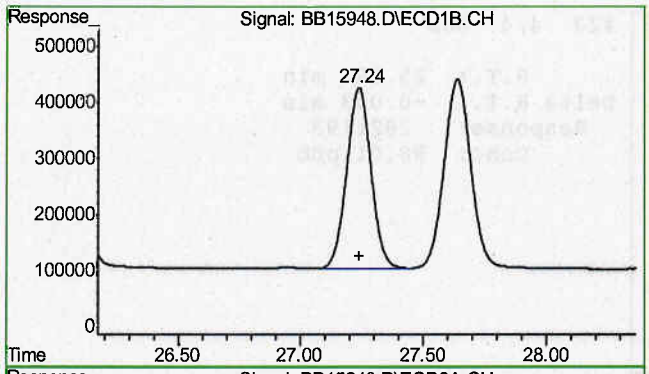
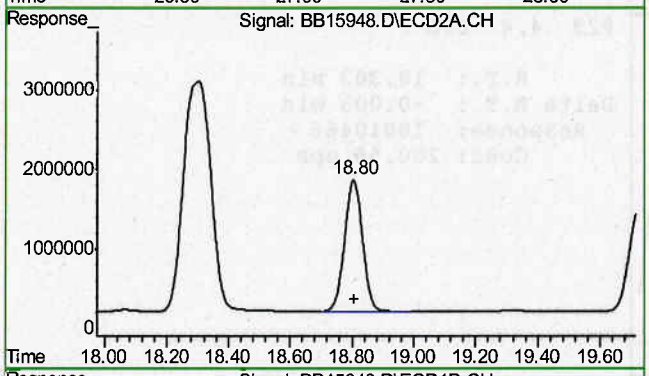


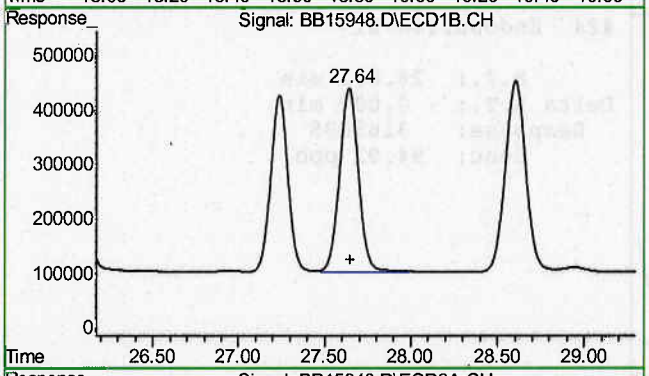
#25 4,4'-DDT

R.T.: 27.239 min
Delta R.T.: 0.000 min
Response: 2221857
Conc: 111.31 ppb



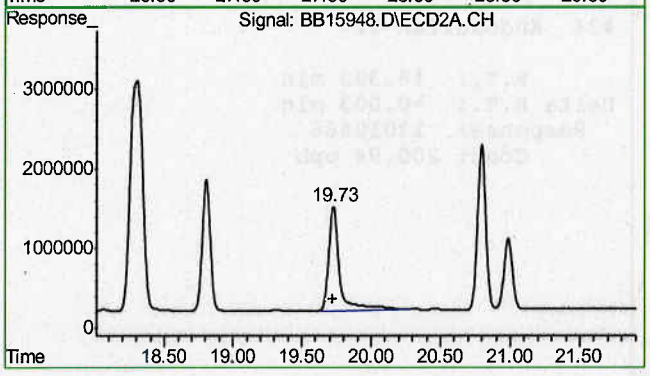
#25 4,4'-DDT

R.T.: 18.803 min
Delta R.T.: -0.004 min
Response: 6656551
Conc: 113.84 ppb



#26 Endrin aldehyde

R.T.: 27.639 min
Delta R.T.: -0.007 min
Response: 2541639
Conc: 100.46 ppb



#26 Endrin aldehyde

R.T.: 19.725 min
Delta R.T.: 0.003 min
Response: 7110296
Conc: 102.36 ppb m

6.6.9

6

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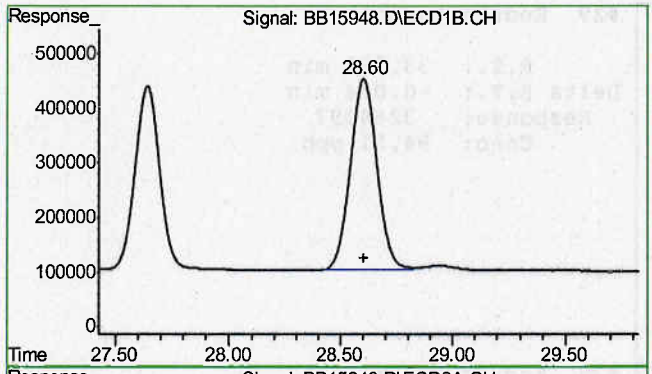
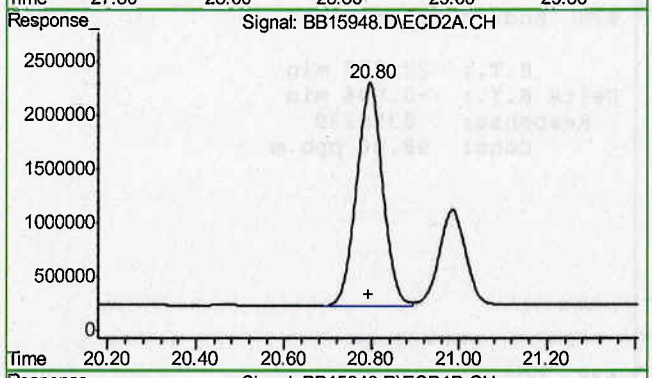


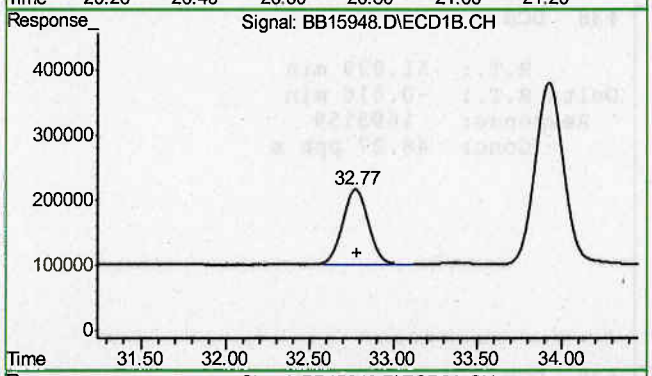
#27 Endosulfan sulfate

R.T.: 28.600 min
Delta R.T.: -0.004 min
Response: 2828685
Conc: 99.67 ppb



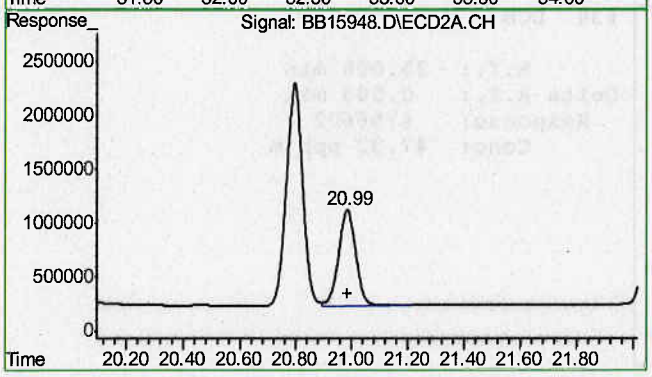
#27 Endosulfan sulfate

R.T.: 20.797 min
Delta R.T.: 0.003 min
Response: 8495430
Conc: 102.48 ppb



#28 Methoxychlor

R.T.: 32.774 min
Delta R.T.: -0.009 min
Response: 1231555
Conc: 108.43 ppb



#28 Methoxychlor

R.T.: 20.985 min
Delta R.T.: 0.000 min
Response: 3752153
Conc: 106.91 ppb

6.6.9

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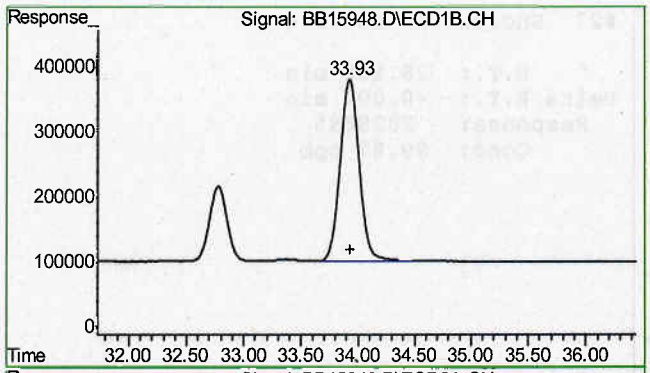
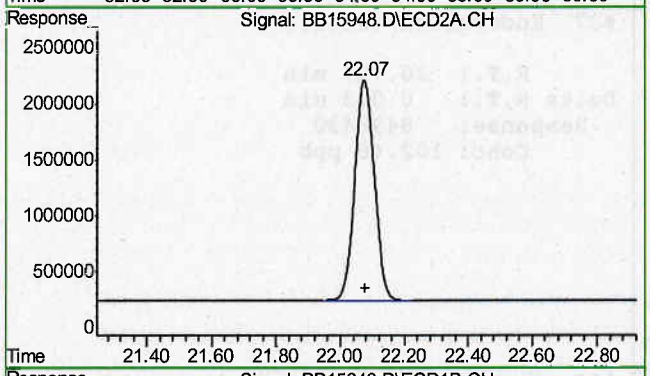


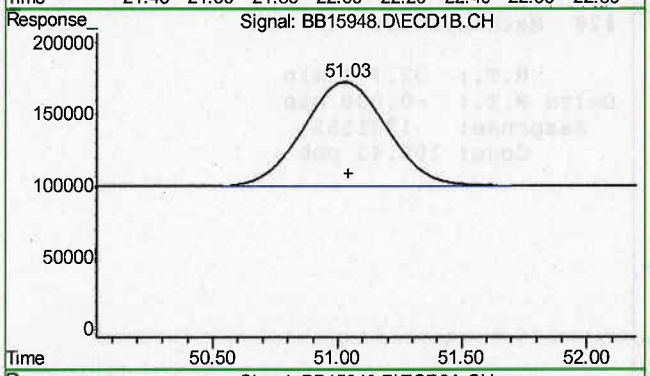
#29 Endrin ketone

R.T.: 33.925 min
Delta R.T.: -0.004 min
Response: 3264097
Conc: 94.51 ppb



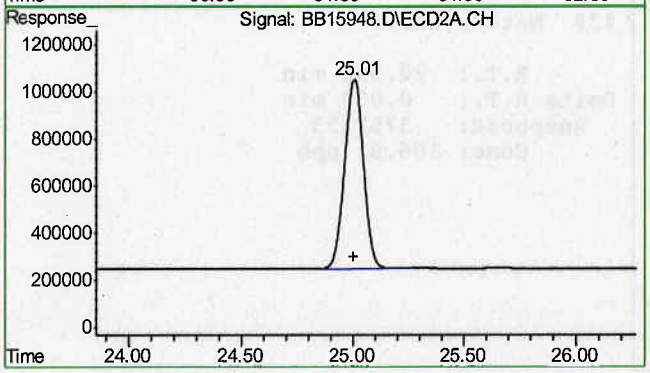
#29 Endrin ketone

R.T.: 22.072 min
Delta R.T.: -0.006 min
Response: 8358239
Conc: 98.06 ppb m



#38 DCB

R.T.: 51.029 min
Delta R.T.: -0.016 min
Response: 1695159
Conc: 48.27 ppb m



#38 DCB

R.T.: 25.008 min
Delta R.T.: 0.003 min
Response: 4756602
Conc: 47.32 ppb m

Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
10/01/07 08:53

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD1B.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD2A.CH
Acq On : 9-22-07 04:10:56 AM Operator: caobinz
Sample : cc667-100,pest 100,icv fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 16:08:50 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) s	TCMX	12.21	5.64	2139360	5417880	52.800	51.427
	Spiked Amount 40.000			Recovery	=	132.00%	128.57%
38) s	DCB	50.97	25.00	1984164	5563415	56.503m	55.351m
	Spiked Amount 40.000			Recovery	=	141.26%	138.38%
	Target Compounds						
8)	Hexachlorobenzen	14.36	6.90	5419974	12103935	107.357	99.701m
9)	alpha-BHC	14.87	8.52	7004400	14130770	112.772	105.236
10)	gamma-BHC	16.39	9.86	5947403	12939342	110.636	103.671
11)	beta-BHC	16.62	12.58	2460479	5564558	106.092	100.841
12)	Heptachlor	17.96	10.50	4962278	11615994	134.803	112.891
13)	delta-BHC	18.03	13.34	5730525	13200615	103.779	106.735
14)	Alachlor	18.31	11.95	5548678	10588957	1011.399	1225.582
15)	Aldrin	19.26	11.41	5285875	11591321	112.544m	109.591
16)	Heptachlor Epoxi	21.27	13.77	4563490	11201081	109.500	109.710
17)	gamma-Chlordane	21.98	14.92	4320111	11347706	107.439	108.888
18)	alpha-Chlordane	22.54	15.11	4153252	11353658	112.313	109.925
19)	Endosulfan-I	22.64	14.66	3909829	10313205	109.472m	111.757
20)	4,4'-DDE	23.27	15.53	3916296	11217959	113.558	113.802
21)	Dieldrin	23.75	15.94	4204724	11831856	110.755	113.776
22)	Endrin	25.22	16.60	3288724	10606330	110.973	110.568
23)	4,4'-DDD	25.58	18.30	3274305	20661485	113.751	230.085 #
24)	Endosulfan-II	26.04	18.30	3598659	20661485	107.993	230.512 #
25)	4,4'-DDT	27.22	18.80	2756647	8324064	138.102	142.361
26)	Endrin aldehyde	27.62	19.72	2995138	8564998	118.383	123.302m
27)	Endosulfan sulfa	28.58	20.79	3315584	10010610	116.829	120.753
28)	Methoxychlor	32.75	20.98	1536747	4529288	135.297	129.055
29)	Endrin ketone	33.90	22.07	3951989	10504981	114.428	123.252m

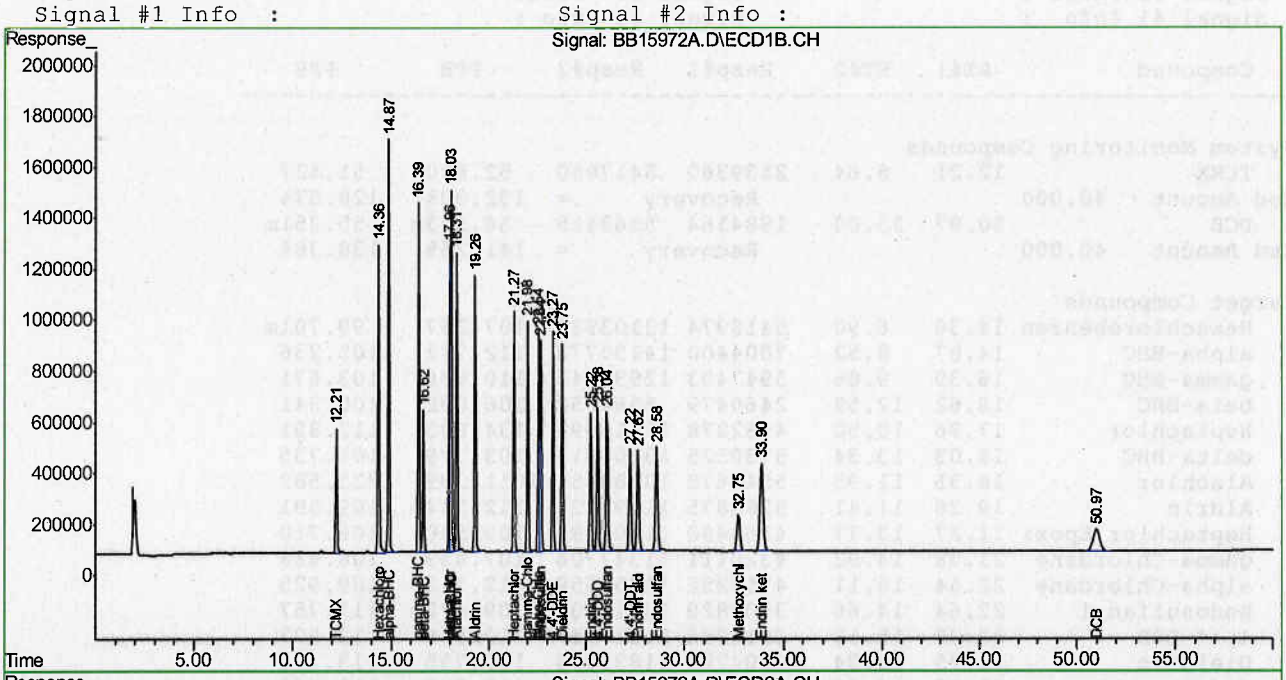
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
BB15972A.D PT092007.M Tue Sep 25 10:01:05 2007 GC23PRN

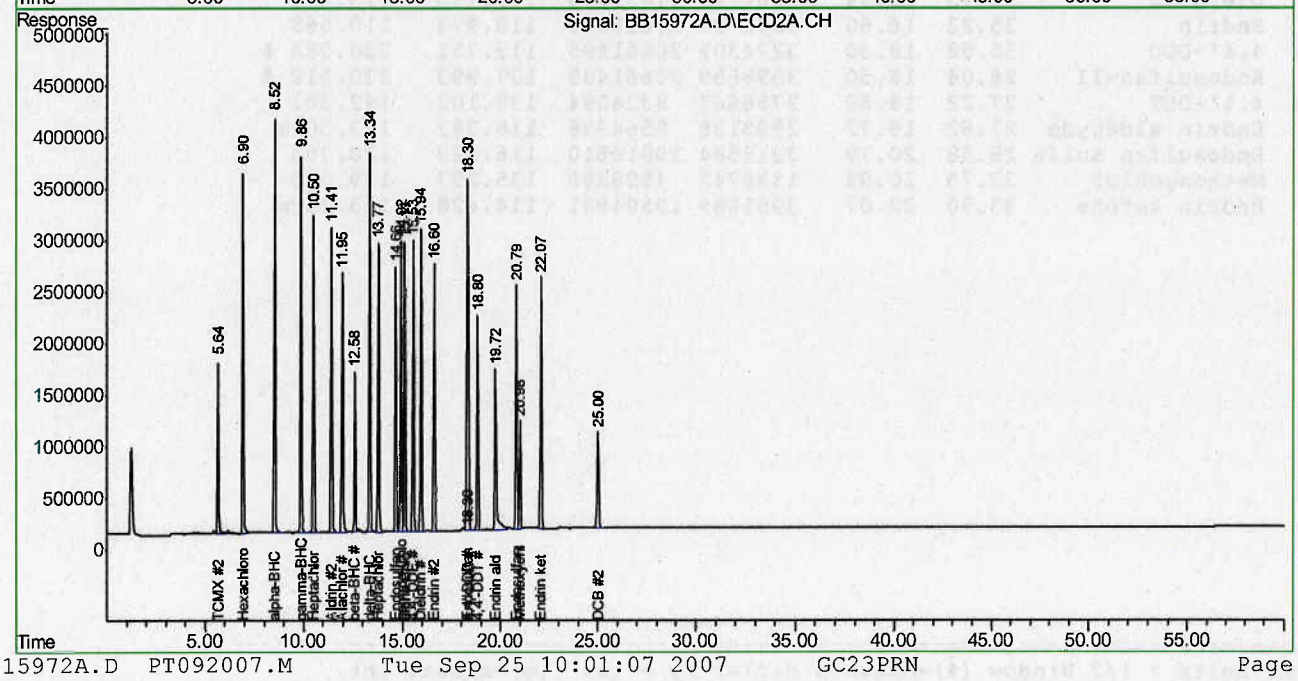
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD1B.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BB15972A.D\ECD2A.CH
Acq On : 9-22-07 04:10:56 AM Operator: caobinz
Sample : cc667-100,pest 100,icv fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 16:11 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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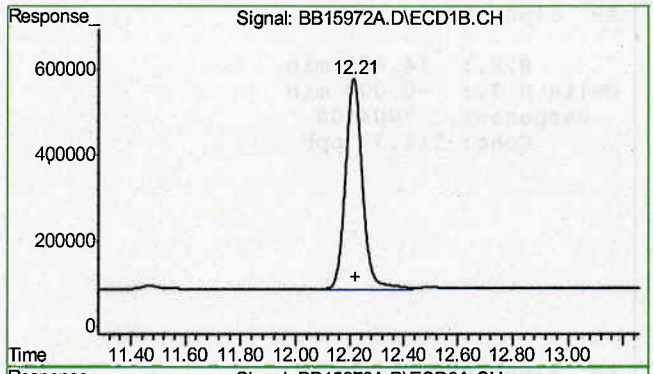
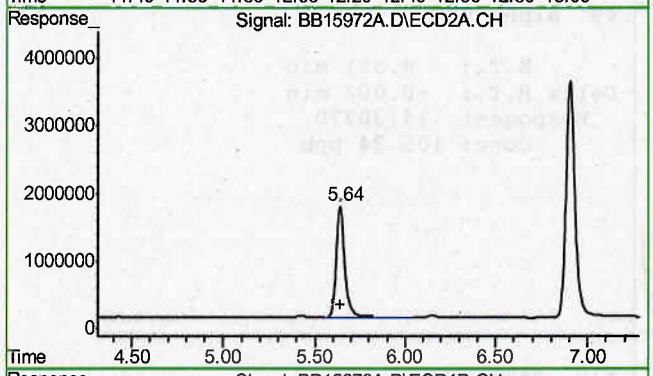


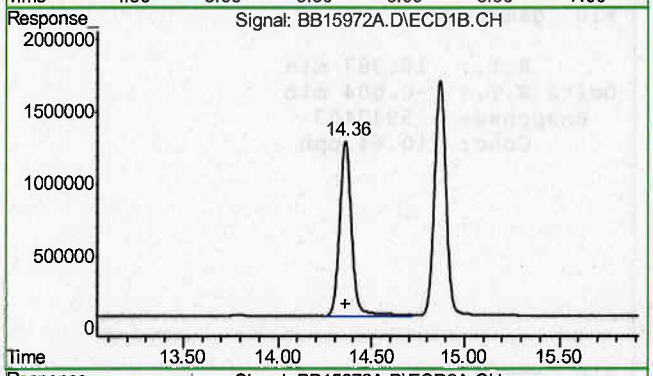
#1 TCMX

R.T.: 12.213 min
Delta R.T.: -0.008 min
Response: 2139360
Conc: 52.80 ppb



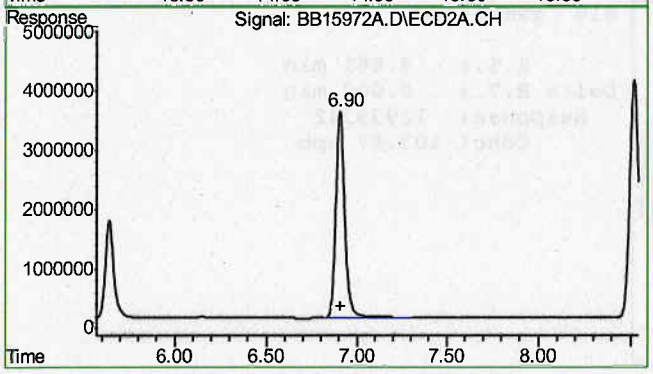
#1 TCMX

R.T.: 5.639 min
Delta R.T.: -0.002 min
Response: 5417880
Conc: 51.43 ppb



#8 Hexachlorobenzene

R.T.: 14.358 min
Delta R.T.: -0.002 min
Response: 5419974
Conc: 107.36 ug/l

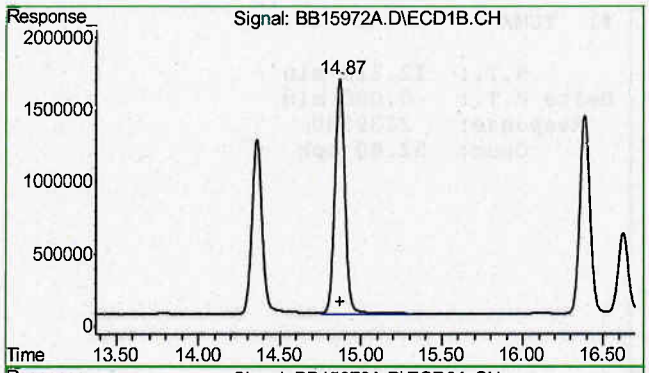


#8 Hexachlorobenzene

R.T.: 6.904 min
Delta R.T.: 0.000 min
Response: 12103935
Conc: 99.70 ug/l m

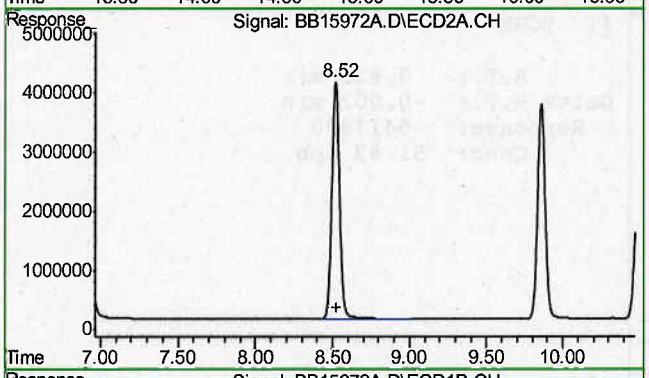
6.6.10

6



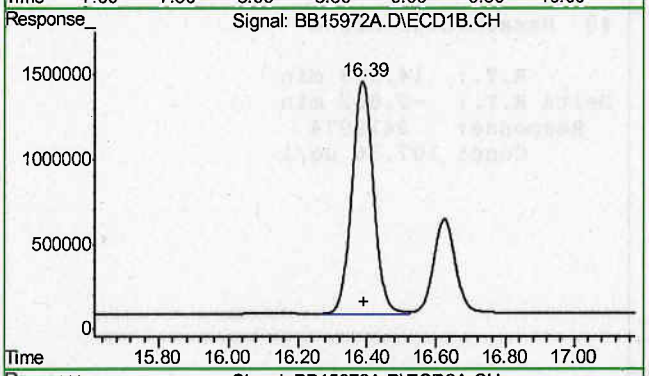
#9 alpha-BHC

R.T.: 14.869 min
Delta R.T.: -0.004 min
Response: 7004400
Conc: 112.77 ppb



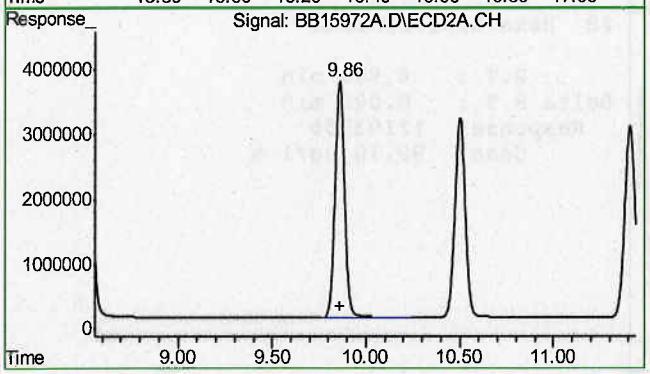
#9 alpha-BHC

R.T.: 8.521 min
Delta R.T.: -0.002 min
Response: 14130770
Conc: 105.24 ppb



#10 gamma-BHC

R.T.: 16.387 min
Delta R.T.: -0.004 min
Response: 5947403
Conc: 110.64 ppb



#10 gamma-BHC

R.T.: 9.861 min
Delta R.T.: 0.000 min
Response: 12939342
Conc: 103.67 ppb

6.6.10

6

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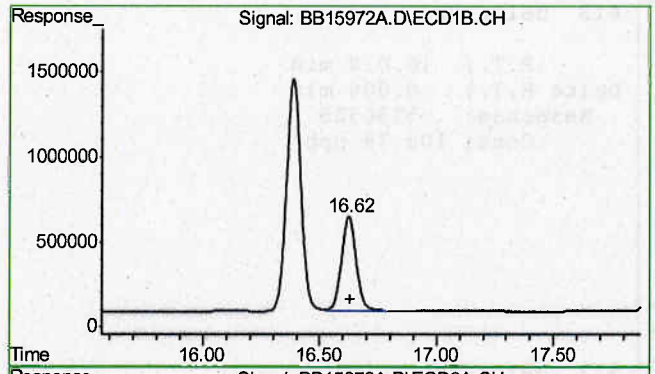
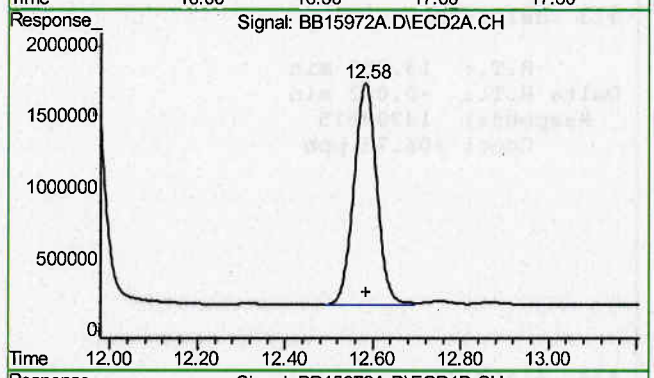


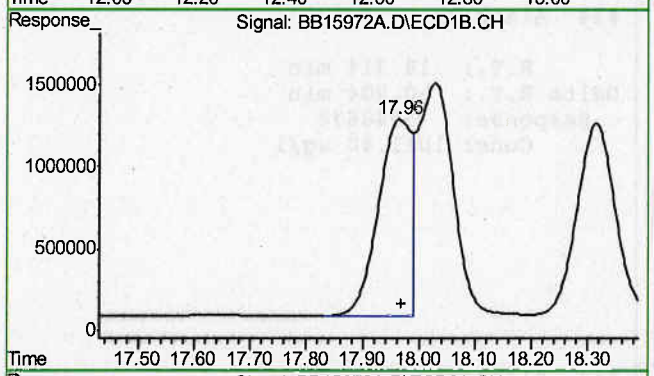
#11 beta-BHC

R.T.: 16.624 min
Delta R.T.: -0.004 min
Response: 2460479
Conc: 106.09 ppb



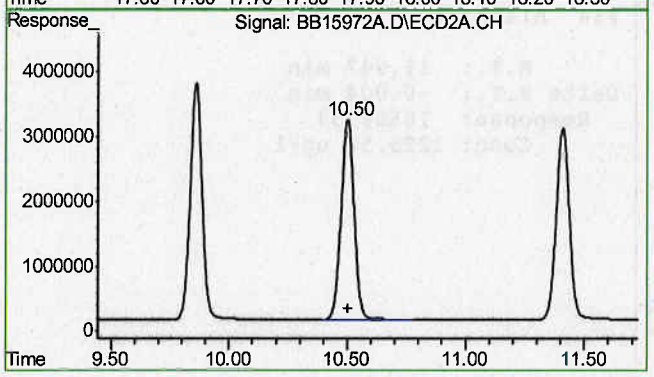
#11 beta-BHC

R.T.: 12.582 min
Delta R.T.: -0.002 min
Response: 5564558
Conc: 100.84 ppb



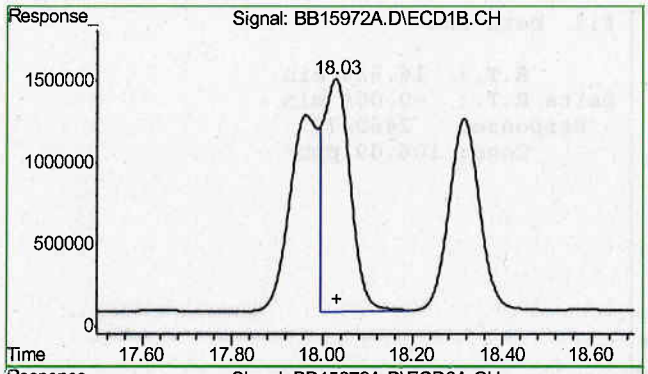
#12 Heptachlor

R.T.: 17.962 min
Delta R.T.: -0.006 min
Response: 4962278
Conc: 134.80 ppb



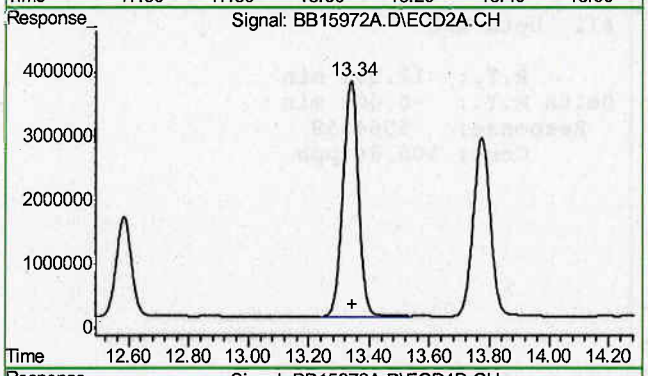
#12 Heptachlor

R.T.: 10.501 min
Delta R.T.: 0.000 min
Response: 11615994
Conc: 112.89 ppb



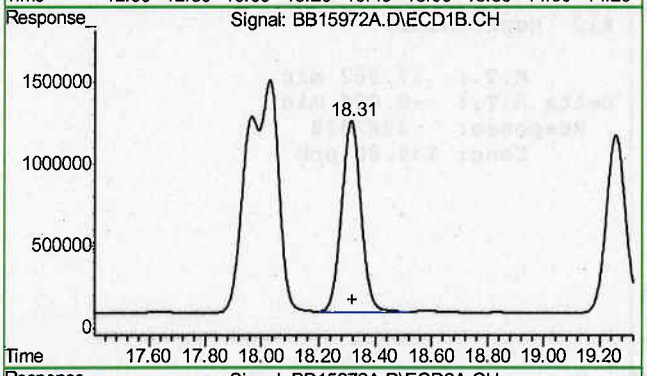
#13 delta-BHC

R.T.: 18.028 min
Delta R.T.: -0.006 min
Response: 5730525
Conc: 103.78 ppb



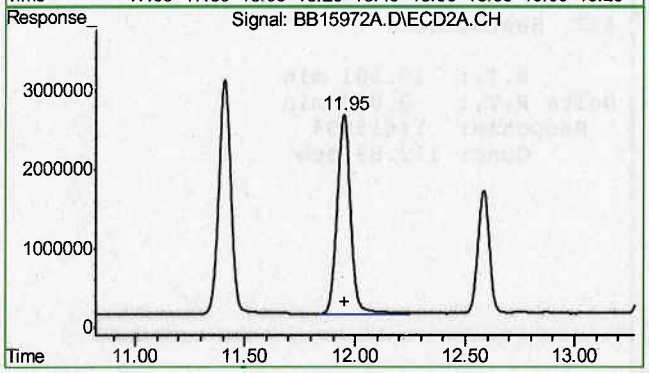
#13 delta-BHC

R.T.: 13.339 min
Delta R.T.: -0.002 min
Response: 13200615
Conc: 106.73 ppb



#14 Alachlor

R.T.: 18.314 min
Delta R.T.: -0.004 min
Response: 5548678
Conc: 1011.40 ug/l

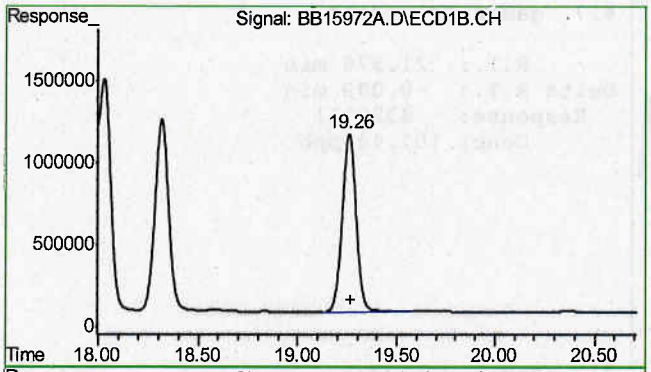


#14 Alachlor

R.T.: 11.947 min
Delta R.T.: -0.004 min
Response: 10588957
Conc: 1225.58 ug/l

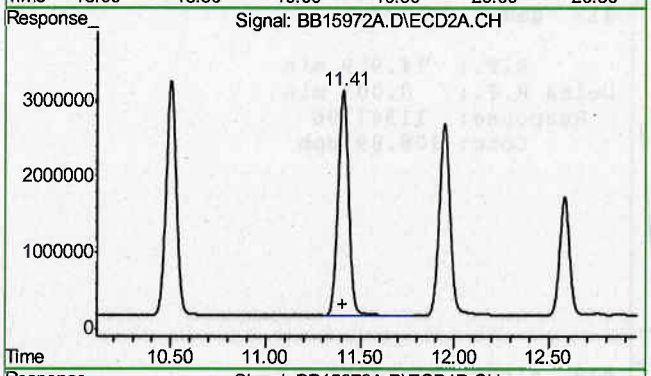
6.6.10

6



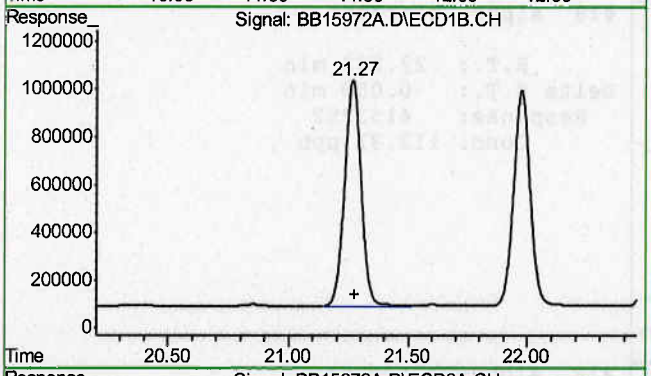
#15 Aldrin

R.T.: 19.258 min
Delta R.T.: -0.007 min
Response: 5285875
Conc: 112.54 ppb m



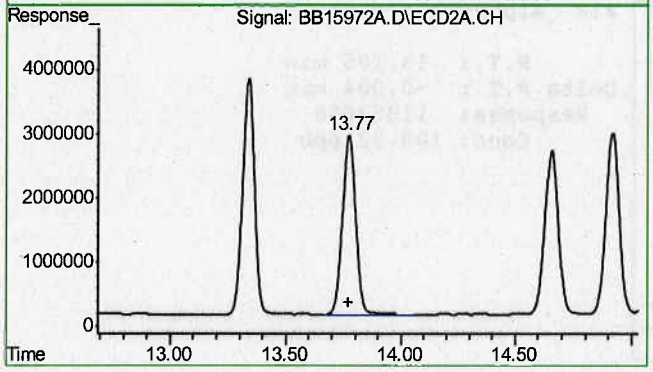
#15 Aldrin

R.T.: 11.409 min
Delta R.T.: 0.003 min
Response: 11591321
Conc: 109.59 ppb



#16 Heptachlor Epoxide

R.T.: 21.266 min
Delta R.T.: -0.009 min
Response: 4563490
Conc: 109.50 ppb

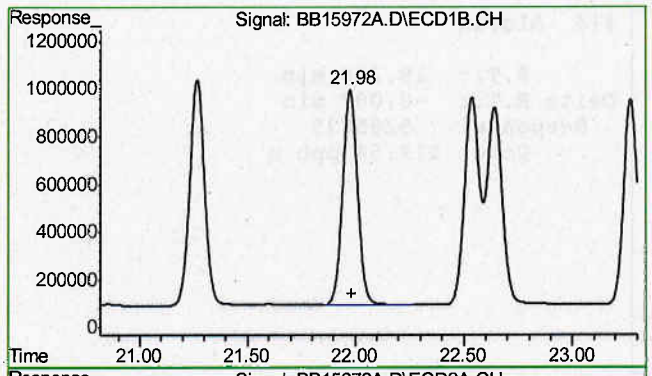


#16 Heptachlor Epoxide

R.T.: 13.772 min
Delta R.T.: 0.000 min
Response: 11201081
Conc: 109.71 ppb

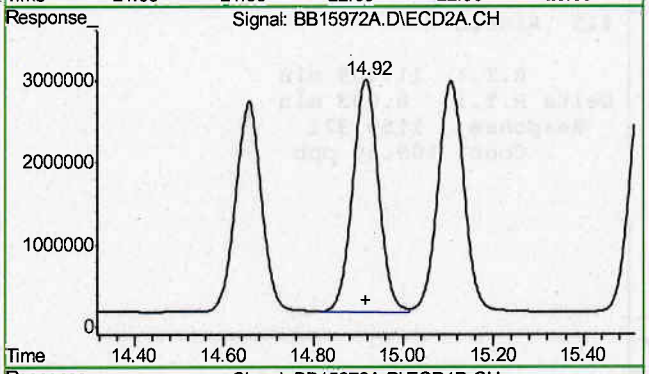
6.6.10

6



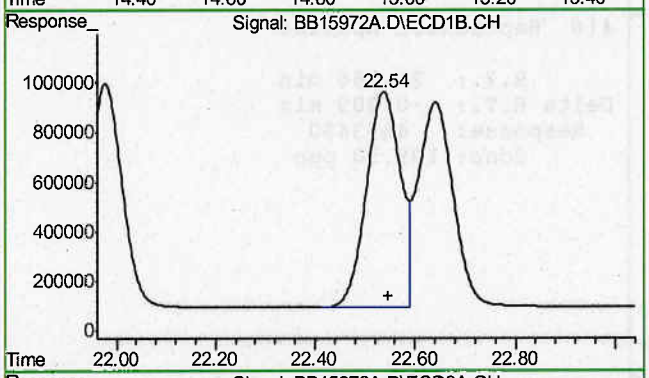
#17 gamma-Chlordane

R.T.: 21.976 min
Delta R.T.: -0.009 min
Response: 4320111
Conc: 107.44 ppb



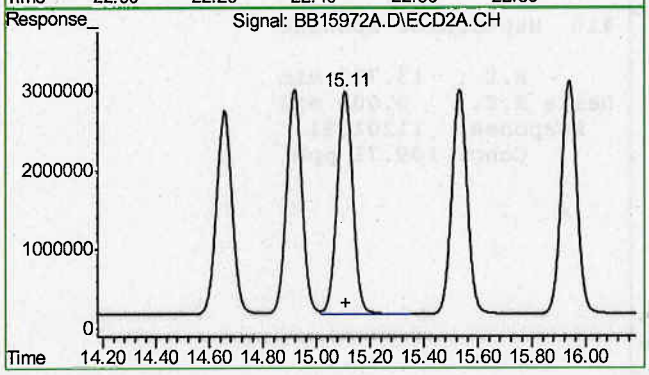
#17 gamma-Chlordane

R.T.: 14.919 min
Delta R.T.: 0.001 min
Response: 11347706
Conc: 108.89 ppb



#18 alpha-Chlordane

R.T.: 22.538 min
Delta R.T.: -0.009 min
Response: 4153252
Conc: 112.31 ppb



#18 alpha-Chlordane

R.T.: 15.105 min
Delta R.T.: -0.004 min
Response: 11353658
Conc: 109.92 ppb

6.6.10

6

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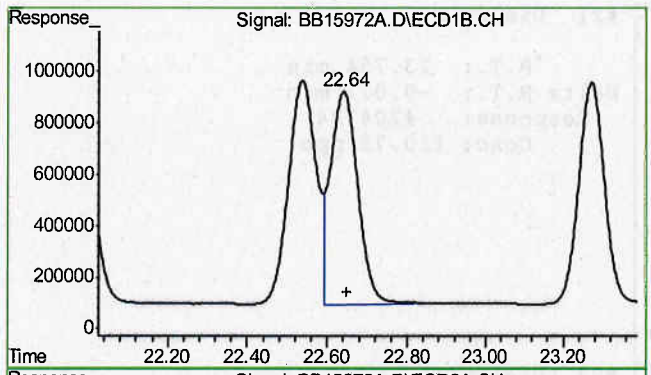
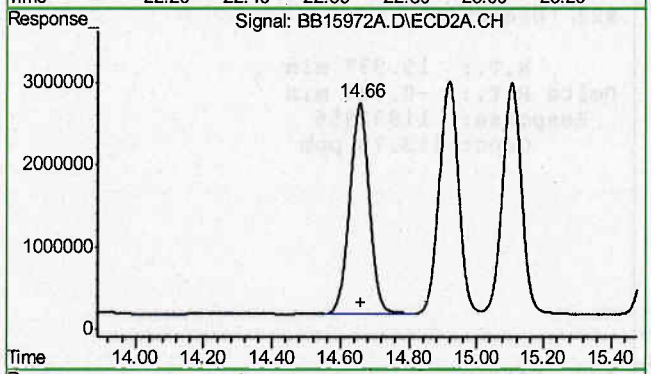


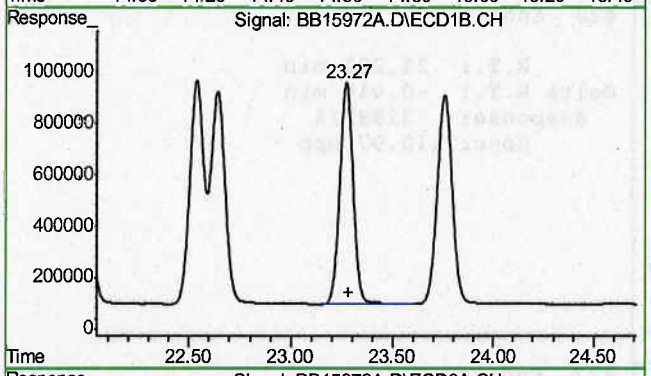
#19 Endosulfan-I

R.T.: 22.641 min
Delta R.T.: -0.007 min
Response: 3909829
Conc: 109.47 ppb m



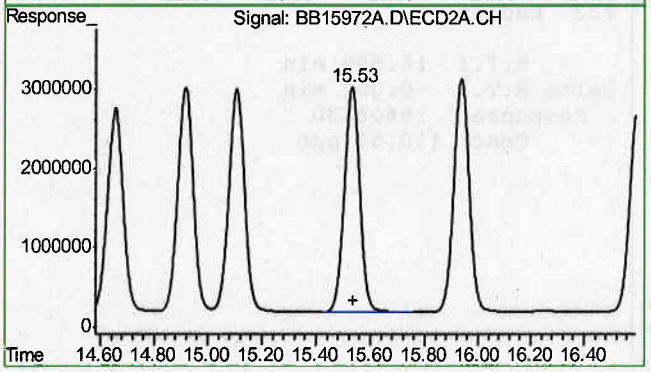
#19 Endosulfan-I

R.T.: 14.656 min
Delta R.T.: -0.002 min
Response: 10313205
Conc: 111.76 ppb



#20 4,4'-DDE

R.T.: 23.271 min
Delta R.T.: -0.011 min
Response: 3916296
Conc: 113.56 ppb

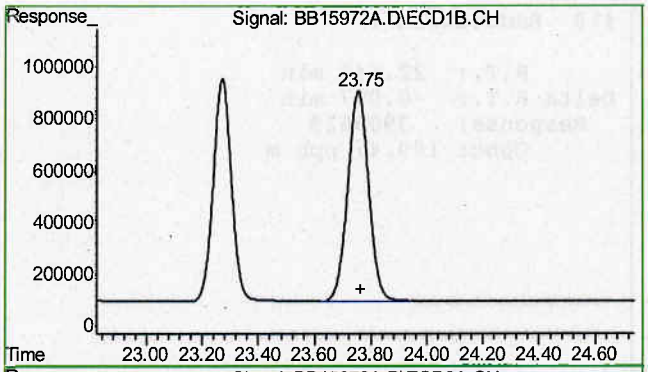


#20 4,4'-DDE

R.T.: 15.531 min
Delta R.T.: -0.004 min
Response: 11217959
Conc: 113.80 ppb

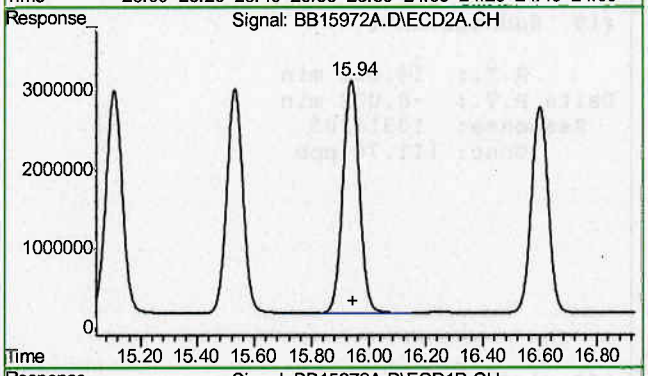
6.6.10

6



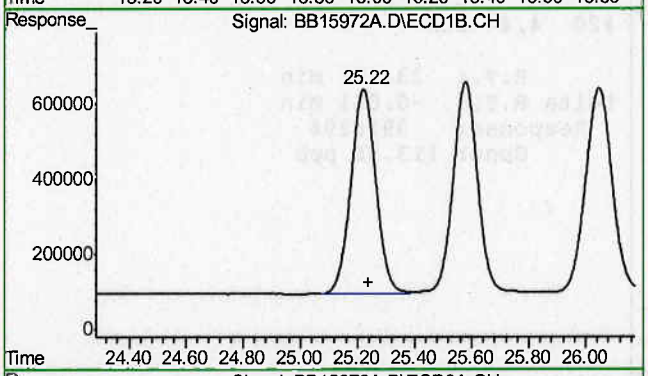
#21 Dieldrin

R.T.: 23.754 min
Delta R.T.: -0.011 min
Response: 4204724
Conc: 110.75 ppb



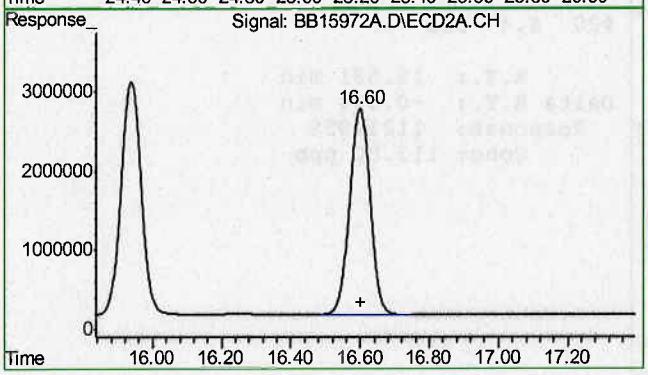
#21 Dieldrin

R.T.: 15.937 min
Delta R.T.: -0.004 min
Response: 11831856
Conc: 113.78 ppb



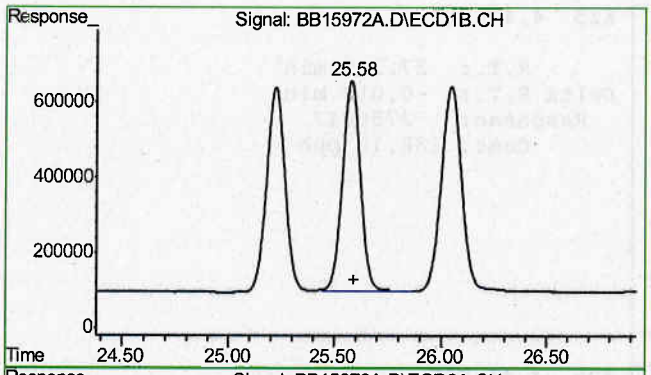
#22 Endrin

R.T.: 25.221 min
Delta R.T.: -0.016 min
Response: 3288724
Conc: 110.97 ppb



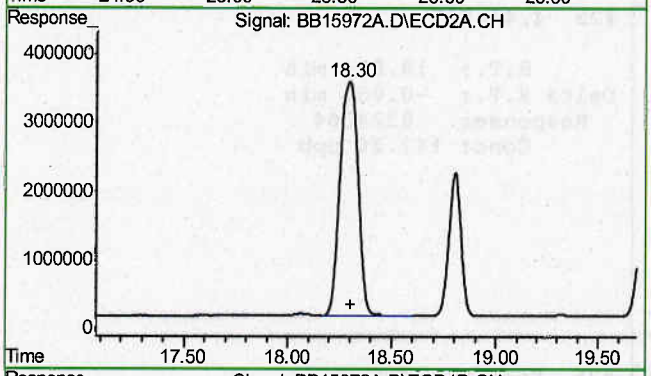
#22 Endrin

R.T.: 16.599 min
Delta R.T.: -0.002 min
Response: 10606330
Conc: 110.57 ppb



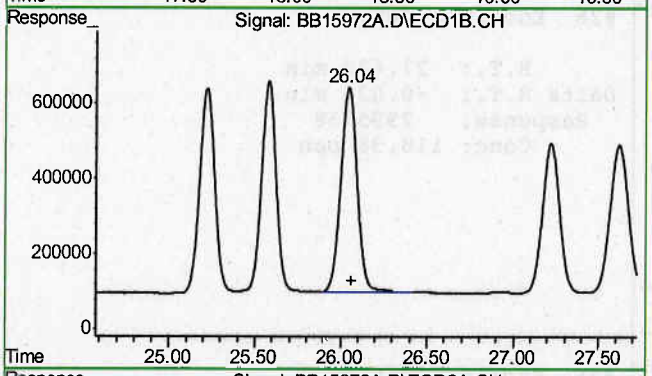
#23 4,4'-DDD

R.T.: 25.579 min
Delta R.T.: -0.016 min
Response: 3274305
Conc: 113.75 ppb



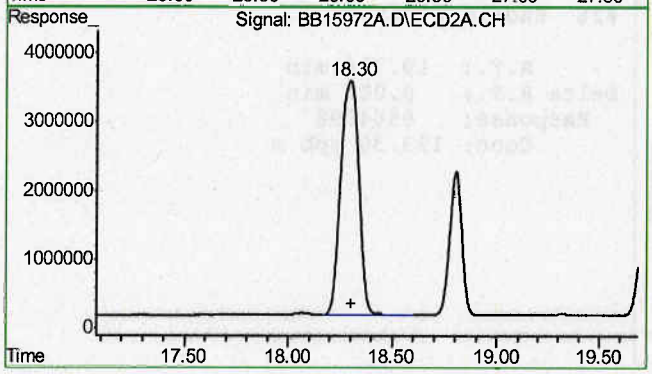
#23 4,4'-DDD

R.T.: 18.297 min
Delta R.T.: -0.009 min
Response: 20661485
Conc: 230.08 ppb



#24 Endosulfan-II

R.T.: 26.044 min
Delta R.T.: -0.019 min
Response: 3598659
Conc: 107.99 ppb

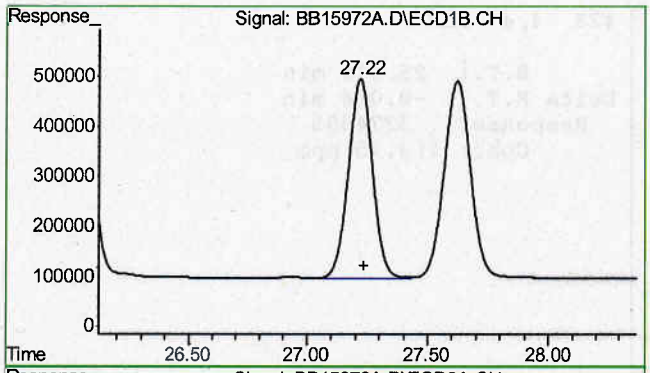


#24 Endosulfan-II

R.T.: 18.297 min
Delta R.T.: -0.009 min
Response: 20661485
Conc: 230.51 ppb

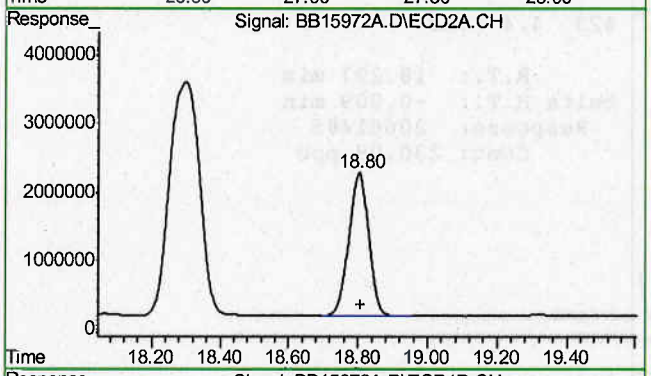
6.6.10

6



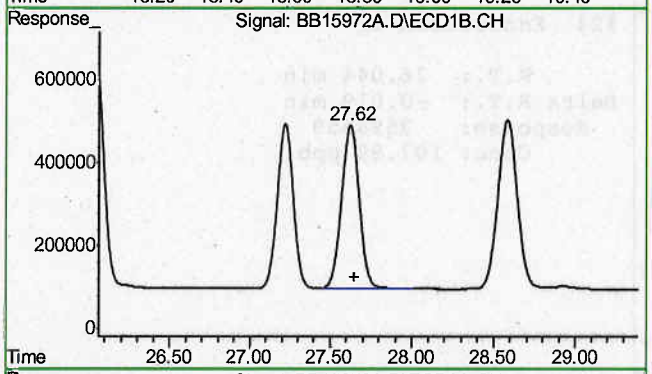
#25 4,4'-DDT

R.T.: 27.219 min
Delta R.T.: -0.019 min
Response: 2756647
Conc: 138.10 ppb



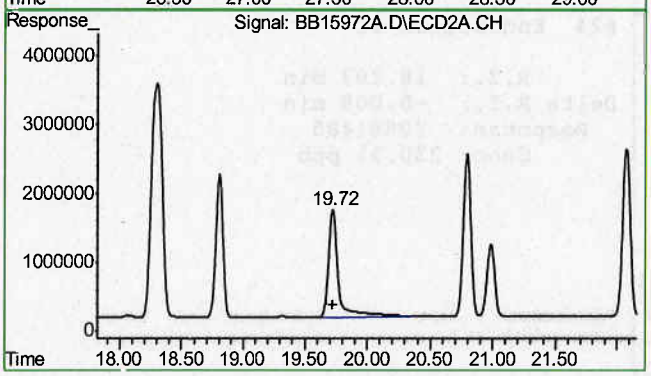
#25 4,4'-DDT

R.T.: 18.804 min
Delta R.T.: -0.004 min
Response: 8324064
Conc: 142.36 ppb



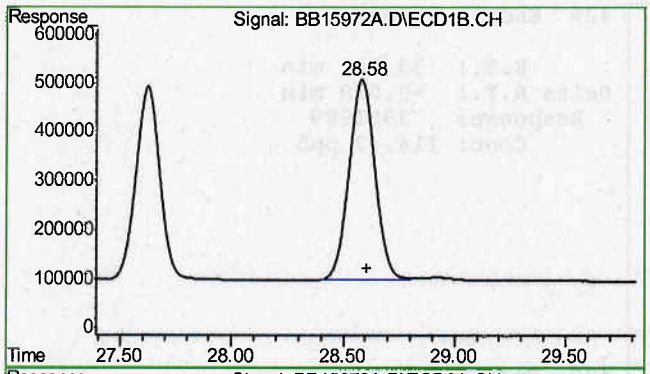
#26 Endrin aldehyde

R.T.: 27.622 min
Delta R.T.: -0.024 min
Response: 2995138
Conc: 118.38 ppb



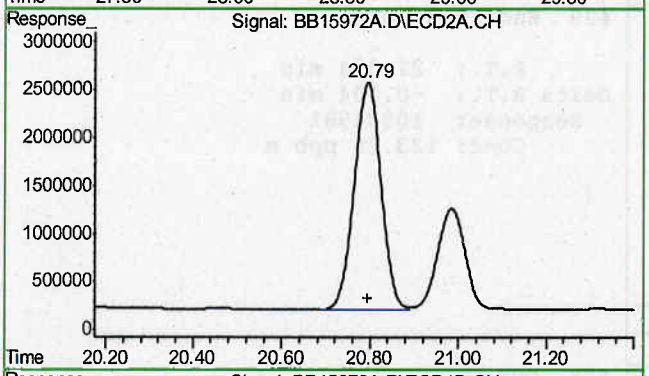
#26 Endrin aldehyde

R.T.: 19.724 min
Delta R.T.: 0.002 min
Response: 8564998
Conc: 123.30 ppb m



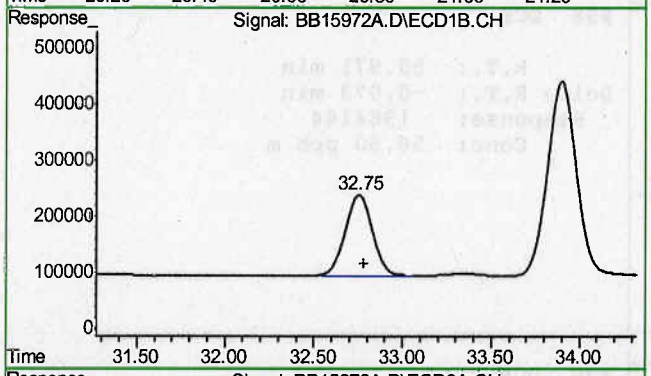
#27 Endosulfan sulfate

R.T.: 28.583 min
Delta R.T.: -0.021 min
Response: 3315584
Conc: 116.83 ppb



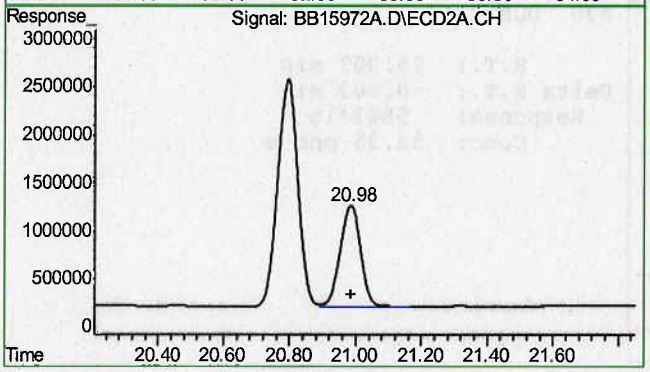
#27 Endosulfan sulfate

R.T.: 20.794 min
Delta R.T.: 0.000 min
Response: 10010610
Conc: 120.75 ppb



#28 Methoxychlor

R.T.: 32.749 min
Delta R.T.: -0.034 min
Response: 1536747
Conc: 135.30 ppb

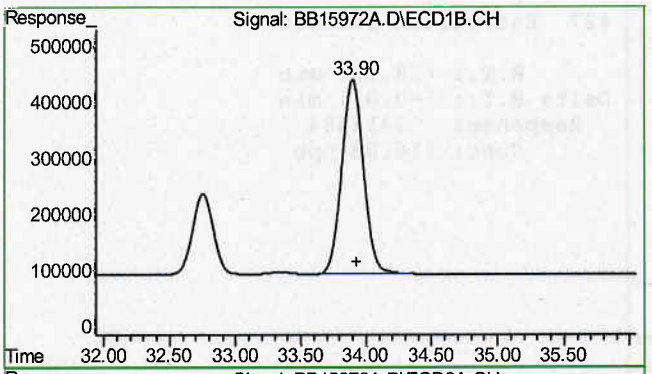


#28 Methoxychlor

R.T.: 20.984 min
Delta R.T.: 0.000 min
Response: 4529288
Conc: 129.06 ppb

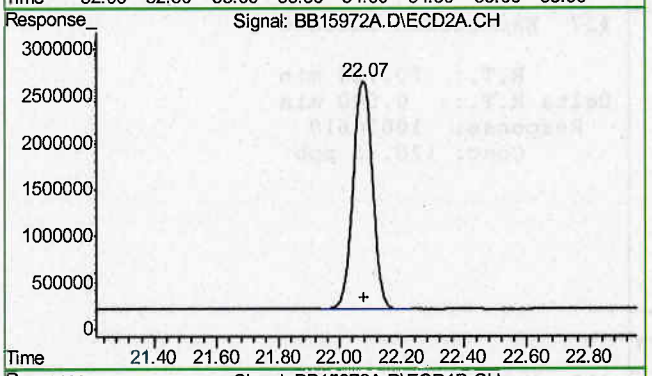
6.6.10

6



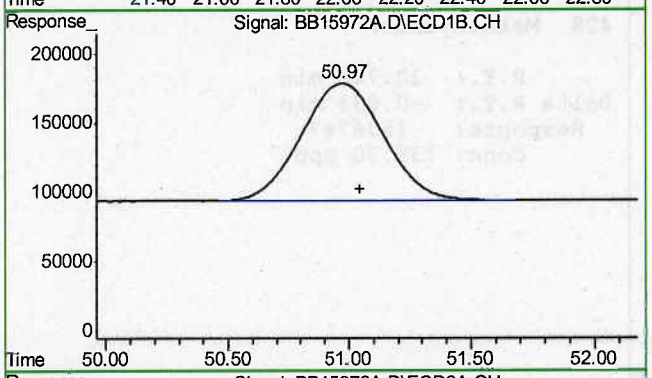
#29 Endrin ketone

R.T.: 33.901 min
Delta R.T.: -0.029 min
Response: 3951989
Conc: 114.43 ppb



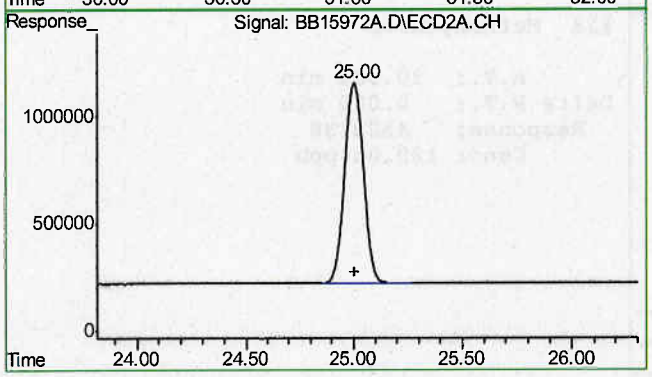
#29 Endrin ketone

R.T.: 22.074 min
Delta R.T.: -0.004 min
Response: 10504981
Conc: 123.25 ppb m



#38 DCB

R.T.: 50.971 min
Delta R.T.: -0.073 min
Response: 1984164
Conc: 56.50 ppb m



#38 DCB

R.T.: 25.002 min
Delta R.T.: -0.003 min
Response: 5563415
Conc: 55.35 ppb m

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ACCUTEST Laboratories M67676

Accutest Laboratories of New England, Inc.

Instrument: GC 23 (BB)

GC Analysis Log - Extractables

Run Date: 9/20/07

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc
GS13667	Pest	1000 ng/L
13668		500
13645		100
13675		50
13647		10
13676		5
13669	(ICV)	100
13670	ZB	40

Column Information: Front : RTX-35
Rear : DB-1701

Sequence File: 092007

Quantitation Methods: PT 092007

Instrument Run Batches: GBB-667

Data Acquisition Methods: GC23 Pest Inj. Vol: 1 uL
Inj. Vol:

Date of ICAL: 8/20/07 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
100	BB15939	DOT	op14341	Prep8081pestpp	S	NA	GS13665 Re-run Batch, Check for
81	40	pest 1000					DOT unless otherwise
82	41	500					noted.
83	42	100					
84	43	50					Curve OK
85	44	10					
86	45	5					
87	46	CT 400					GS13673
88	47	CT 200					GS13674
89	48	pest 100	ICV				
90	49	ZB					
10	50	m67264-1					
12	51	-3					
13	52	-4					
14	53	-5					
15	54	-6				5	DOT
32	55	m67248-2	op14350			5	DOT
33	56	-3				NA	
34	57	-4					
35	58	-5					
25	59	pest spk				10	p oxidis 1/10; 0.2 ug/ml
100	60	DOT				NA	
86	61	pest 100					fresh
5	62	op14341-bs	op14341				
6	63	-bsd					
7	64	-ms					
8	65	msd					

MTX = Matrix: Designate W for water, S for soil, O for oil. Dilution Solvent: Hexane Lot#: 216621

GC002-07
Date: 1/12/06

Review: [signature] 9/28/07

ACCUTEST Laboratories M67676

Accutest Laboratories of New England, Inc.

Instrument: GC 23 (BB)

GC Analysis Log - Extractables

Run Date: 9/20/07 (Cont'd)

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc
See previous page		

Column Information: Front : RTX-35
Rear : DB-1701

Sequence File: 092007

Quantitation Methods: PT092007

Instrument Run Batches: GBB-667

Data Acquisition Methods: GC23 pest

Inj. Vol: 1 ul
Inj. Vol:

Date of ICAL: 9/20/07 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
27	BB 15966	op14350-bs	op14350	pesticide	S	NA	5 cmpds: Dieldrin, DDD, DDE, DDT, Endrin.
28	67	-bsd					
29	68	-ms					
30	69	-msd					
21	70	mb5568-10				10	spk chk pos 115 alachlor 0.2 ng/ml
100	71	DDT				NA	
87	72	pest 100					Fresh iw

9/21/07

TX = Matrix: Designate W for water, S for soil, O for oil. Dilution Solvent: Hexane Lot#: E16E21

Review: JM 9/28/07

Accutest Laboratories of New England, Inc.

Instrument: GC 23 (BB)

GC Analysis Log - Extractables

Run Date: 8/21/07

Analyst Signature:

Standard Data

Lot #	Description	Conc
G013565	DDT/Endrin	200/100 ng/L
13645	Pest	100
13670	2B	40

Column Information: Front : RTX-35
Rear : DB-1701

Sequence File: 082107

Quantitation Methods: PT082007

Instrument Run Batches: 02BB-668

Data Acquisition Methods: GC23 Pest

Ini. Vol: 1 ul
Ini. Vol:

Date of ICAL: 8/20/07 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
100	BB15971A	DDT	OP14345	Pest/pesticide	W	NA	shared run - OK
87	72A	Pest 100					ick
75	73	2B					
76	74	OP14345-mb					
77	75	-bs					
78	76	-bsd					
79	77	-ms					
80	78	-msd					
81	79	M67604-1					
82	80	-2					
83	81	M67676-1					
84	82	-2					
85	83	OP14345-cs					
100	84	DDT					SOP stopped @ 8/24/07 2pm OK print hanging up.
74	85	Pest 100					Fresh

8/21/07

MTX = Matrix: Designate W for water, S for soil, O for oil. Dilution Solvent: — Lot#: —

GC002-07
Date: 1/12/06

Review: 2M 10/1/07

Endrin/DDT Breakdown Check Report

Data File Name BB15971.D
Sample Name DDT
Date Acquired 9/22/2007 3:05
Instrument Name GCBB-gc23

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#	Ret Time	Name	Target Response	Breakdown	Status
	Signal #1				
20)	23.28	4,4'-DDE	21,216		
22)	25.22	**Endrin**	4,235,598	**8.8%**	**OK**
23)	25.58	4,4'-DDD	426,456		
25)	27.22	**4,4'-DDT**	7,300,531	**5.8%**	**OK**
26)	27.64	Endrin aldehyde	162,350		
29)	33.91	Endrin ketone	247,914		
	Signal #2				
59)	15.54	4,4'-DDE #2	47,951		
61)	16.60	**Endrin #2**	13,473,496	**6.0%**	**OK**
62)	18.28	4,4'-DDD #2	1,308,704		
64)	18.80	**4,4'-DDT #2**	22,141,493	**5.8%**	**OK**
65)	19.73	Endrin aldehyde #2	275,508		
68)	22.07	Endrin ketone #2	589,038		

CZ09062007-38 target compounds in all.

09/26/07

Endrin/DDT Breakdown Check Report

Data File Name BB15984.D
Sample Name DDT
Date Acquired 9/24/2007 8:10
Instrument Name GCBB-gc23

#	Ret Time	Name	Target Response	Breakdown	Status
	Signal #1				
20)	23.27	4,4'-DDE	22,823		
22)	25.22	**Endrin**	6,120,808	**6.4%**	**OK**
23)	25.58	4,4'-DDD	318,272		
25)	27.22	**4,4'-DDT**	11,045,490	**3.0%**	**OK**
26)	27.63	Endrin aldehyde	174,159		
29)	33.90	Endrin ketone	242,931		
	Signal #2				
59)	15.54	4,4'-DDE #2	35,439		
61)	16.60	**Endrin #2**	18,605,148	**4.0%**	**OK**
62)	18.28	4,4'-DDD #2	842,792		
64)	18.80	**4,4'-DDT #2**	33,181,696	**2.6%**	**OK**
65)	19.73	Endrin aldehyde #2	285,390		
68)	22.08	Endrin ketone #2	493,200		

CZ09062007-38 target compounds in all.

09/26/07

6.7.2

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Continuing Calibration Summary

Sample: GBB668-ECC667
Lab FileID: BB15985.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\BB15985.D\ECD1B.CH Vial: 74
Signal #2 : C:\MSDCHEM\1\DATA\BB15985.D\ECD2A.CH
Acq On : 9-24-07 09:37:24 AM Operator: caobinz
Sample : ecc667-100,pest 100,fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 s	TCMX	40.518	44.803 E3	-10.6	110	0.00
8	Hexachlorobenzene	50.486	51.698 E3	-2.4	109	0.00
9	alpha-BHC	62.111	64.259 E3	-3.5	110	0.00
10	gamma-BHC	53.757	55.029 E3	-2.4	112	0.00
11	beta-BHC	26.183	23.240 E3	11.2	110	-0.01
12	Heptachlor	36.811	42.149 E3	-14.5	121#	0.00
13	delta-BHC	55.218	54.634 E3	1.1	109	-0.01
14	Alachlor	5.486	5.168 E3	5.8	110	-0.01
15	Aldrin	46.967	48.578 E3	-3.4	110	-0.01
16	Heptachlor Epoxide	41.676	42.169 E3	-1.2	111	-0.01
17	gamma-Chlordane	40.210	40.525 E3	-0.8	110	-0.01
18	alpha-Chlordane	36.979	37.445 E3	-1.3	111	-0.01
19	Endosulfan-I	35.715	37.045 E3	-3.7	113	-0.01
20	4,4'-DDE	34.487	35.710 E3	-3.5	110	-0.01
21	Dieldrin	37.964	38.818 E3	-2.2	110	-0.01
22	Endrin	29.635	29.953 E3	-1.1	109	-0.02
23	4,4'-DDD	28.785	29.723 E3	-3.3	113	-0.02
24	Endosulfan-II	33.323	32.926 E3	1.2	111	-0.02
25	4,4'-DDT	19.961	24.996 E3	-25.2#	133#	-0.02
26	Endrin aldehyde	28.655	26.989 E3	5.8	121#	-0.03
27	Endosulfan sulfate	32.298	30.516 E3	5.5	116#	-0.03
28	Methoxychlor	11.358	14.057 E3	-23.8#	134#	-0.04
29	Endrin ketone	34.537	36.624 E3	-6.0	123#	-0.03
38 s	DCB	35.116	40.857 E3	-16.3#	116#	-0.09

Signal #2

1 s	TCMX	105.351	112.463 E3	-6.8	108	0.00
8	Hexachlorobenzene	121.402	117.617 E3	3.1	105	0.00
9	alpha-BHC	134.277	129.696 E3	3.4	105	0.00
10	gamma-BHC	124.812	120.763 E3	3.2	106	0.00
11	beta-BHC	60.779	51.701 E3	14.9	103	0.00
12	Heptachlor	102.896	108.510 E3	-5.5	110	0.00
13	delta-BHC	123.677	118.346 E3	4.3	104	0.00
14	Alachlor	11.523	10.302 E3	10.6	107	0.00
15	Aldrin	105.769	106.354 E3	-0.6	103	0.00
16	Heptachlor Epoxide	102.097	101.642 E3	0.4	103	0.00
17	gamma-Chlordane	104.214	103.402 E3	0.8	103	0.00
18	alpha-Chlordane	103.286	102.051 E3	1.2	104	0.00
19	Endosulfan-I	92.282	92.509 E3	-0.2	103	0.00
20	4,4'-DDE	98.574	100.727 E3	-2.2	103	0.00

Continuing Calibration Summary

Sample: GBB668-ECC667
Lab FileID: BB15985.D

21	Dieldrin	103.992	106.023	E3	-2.0	103	0.00
22	Endrin	95.926	93.663	E3	2.4	101	0.00
23	4,4'-DDD	89.799	91.080	E3	-1.4	105	0.00
24	Endosulfan-II	89.633	91.080	E3	-1.6	105	0.00
25	4,4'-DDT	58.471	73.455	E3	-25.6#	125#	0.00
26	Endrin aldehyde	76.649	71.568	E3	6.6	112	0.00
27	Endosulfan sulfate	94.738	88.584	E3	6.5	107	0.00
28	Methoxychlor	35.096	41.085	E3	-17.1#	122#	0.00
29	Endrin ketone	85.232	92.413	E3	-8.4	117#	0.00
38 s	DCB	100.511	108.558	E3	-8.0	107	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #1 : C:\MSDCHEM\1\DATA\BB15985.D\ECD1B.CH Vial: 74
Signal #2 : C:\MSDCHEM\1\DATA\BB15985.D\ECD2A.CH
Acq On : 9-24-07 09:37:24 AM Operator: caobinz
Sample : ecc667-100,pest 100,fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p

Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 85% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 115%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
2	Chlordane-A	1.801	0.000	E3	100.0#	0#	-17.32#
3	Chlordane-B	2.766	0.000	E3	100.0#	0#	-17.96#
4	Chlordane-C	15.718	0.000	E3	100.0#	0#	-21.99#
5	Toxaphene-A	1.416	0.000	E3	100.0#	0#	-26.41#
6	Toxaphene-B	688.439	0.000		100.0#	0#	-29.09#
7	Toxaphene-C	2.405	0.000	E3	100.0#	0#	-31.45#
30	AR1016-A	0.000	0.000		0.0	0#	-11.64#
31	AR1016-B	0.000	0.000		0.0	0#	-14.13#
32	AR1016-C	0.000	0.000		0.0	0#	-15.69#
33	AR1260-A	0.000	0.000		0.0	0#	-22.24#
34	AR1260-B	0.000	0.000		0.0	0#	-22.91#
35	AR1260-C	0.000	0.000		0.0	0#	-24.57#
36	AR1260-D	0.000	0.000		0.0	0#	-27.63#
37	AR1260-E	0.000	0.000		0.0	0#	-30.23#

Signal #2

2	Chlordane-A	3.552	0.000	E3	100.0#	0#	-9.98#
3	Chlordane-B	5.312	0.000	E3	100.0#	0#	-10.50#
4	Chlordane-C	28.472	0.000	E3	100.0#	0#	-15.11#
5	Toxaphene-A	2.244	0.000	E3	100.0#	0#	-19.29#
6	Toxaphene-B	3.995	0.000	E3	100.0#	0#	-20.51#
7	Toxaphene-C	1.864	0.000	E3	100.0#	0#	-21.29#
30	AR1016-A	0.000	0.000		0.0	0#	-7.23#
31	AR1016-B	0.000	0.000		0.0	0#	-8.56#
32	AR1016-C	0.000	0.000		0.0	0#	-10.25#
33	AR1260-A	0.000	0.000		0.0	0#	-15.96#
34	AR1260-B	0.000	0.000		0.0	0#	-17.04#
35	AR1260-C	0.000	0.000		0.0	0#	-17.90#

Continuing Calibration Summary

Sample: GBB668-ECC667
Lab FileID: BB15985.D

36	AR1260-D	0.000	0.000	0.0	0# -20.19#
37	AR1260-E	0.000	0.000	0.0	0# -21.26#

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB15942.D PT092007.M Tue Sep 25 10:16:23 2007 GC23PRN

6.7.2

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Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BB15985.D\ECD1B.CH Vial: 74
Signal #2 : C:\MSDCHEM\1\DATA\BB15985.D\ECD2A.CH
Acq On : 9-24-07 09:37:24 AM Operator: caobinz
Sample : ecc667-100,pest 100,fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 16:14:51 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Initial Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
1) s	TCMX	12.21	5.65	2150546	5398234	53.076	51.241	
	Spiked Amount 40.000			Recovery	=	132.69%	128.10%	
38) s	DCB	50.96	25.01	1961139	5210782	55.847m	51.843m	
	Spiked Amount 40.000			Recovery	=	139.62%	129.61%	
	Target Compounds							
8)	Hexachlorobenzen	14.35	6.91	5169819	11761748	102.402	96.882	
9)	alpha-BHC	14.86	8.53	6425923	12969558	103.458	96.588m	
10)	gamma-BHC	16.38	9.87	5502916	12076251	102.367	96.755	
11)	beta-BHC	16.62	12.59	2324023	5170116	100.208	93.693	
12)	Heptachlor	17.96	10.51	4214900	10851020	114.500	105.456	
13)	delta-BHC	18.02	13.34	5463386	11834635	98.941	95.690	
14)	Alachlor	18.31	11.95	5167980	10301661	942.006	1192.330	#
15)	Aldrin	19.25	11.42	4857812	10635423	103.430m	100.553	
16)	Heptachlor Epoxi	21.26	13.78	4216866	10164194	101.183	99.554	
17)	gamma-Chlordane	21.97	14.92	4052535	10340181	100.784	99.220	
18)	alpha-Chlordane	22.53	15.11	3744495	10205136	101.260	98.805	
19)	Endosulfan-I	22.64	14.66	3704493	9250916	103.723	100.246	
20)	4,4'-DDE	23.27	15.54	3571017	10072705	103.546	102.184	
21)	Dieldrin	23.75	15.94	3881750	10602270	102.247	101.953	
22)	Endrin	25.22	16.60	2995317	9366285	101.072	97.641	
23)	4,4'-DDD	25.58	18.31	2972262	18216045	103.258	202.852	#
24)	Endosulfan-II	26.04	18.31	3292613	18216045	98.809	203.229	#
25)	4,4'-DDT	27.22	18.81	2499581	7345451	125.224	125.625	
26)	Endrin aldehyde	27.62	19.73	2698921	7156767	106.675	103.029m	
27)	Endosulfan sulfa	28.58	20.80	3051635	8858397	107.528	106.854	
28)	Methoxychlor	32.75	20.99	1405658	4108512	123.756	117.066	
29)	Endrin ketone	33.90	22.08	3662357	9241326	106.042	108.426m	

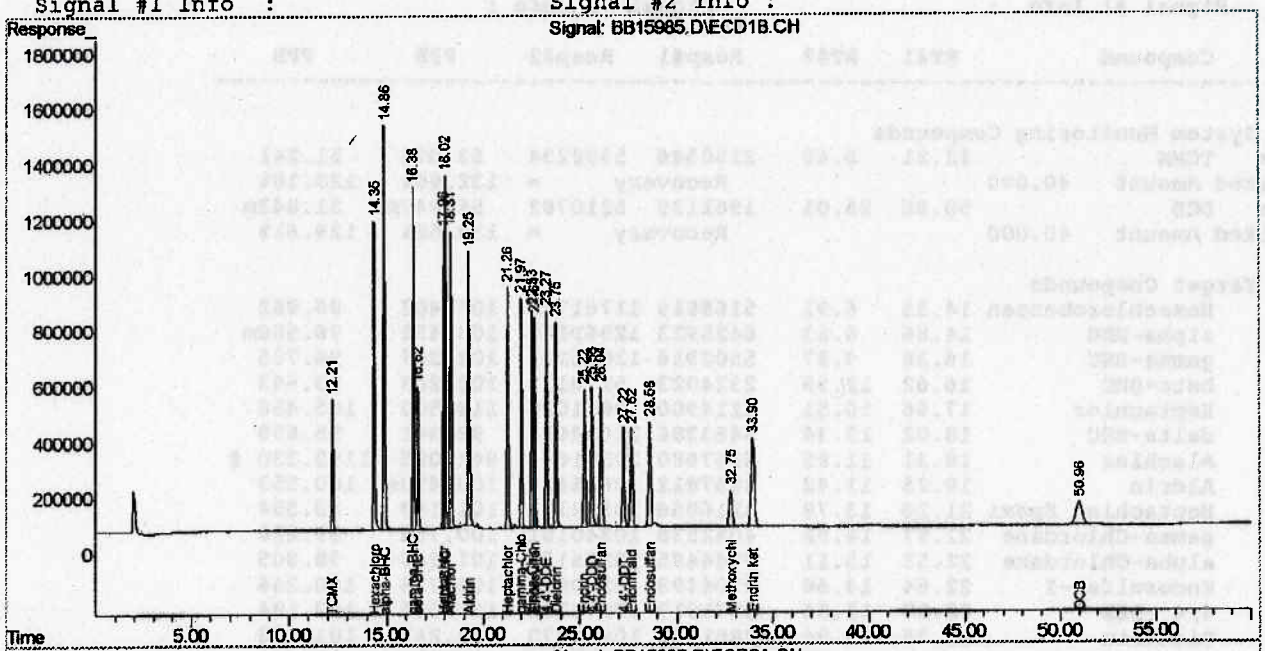
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

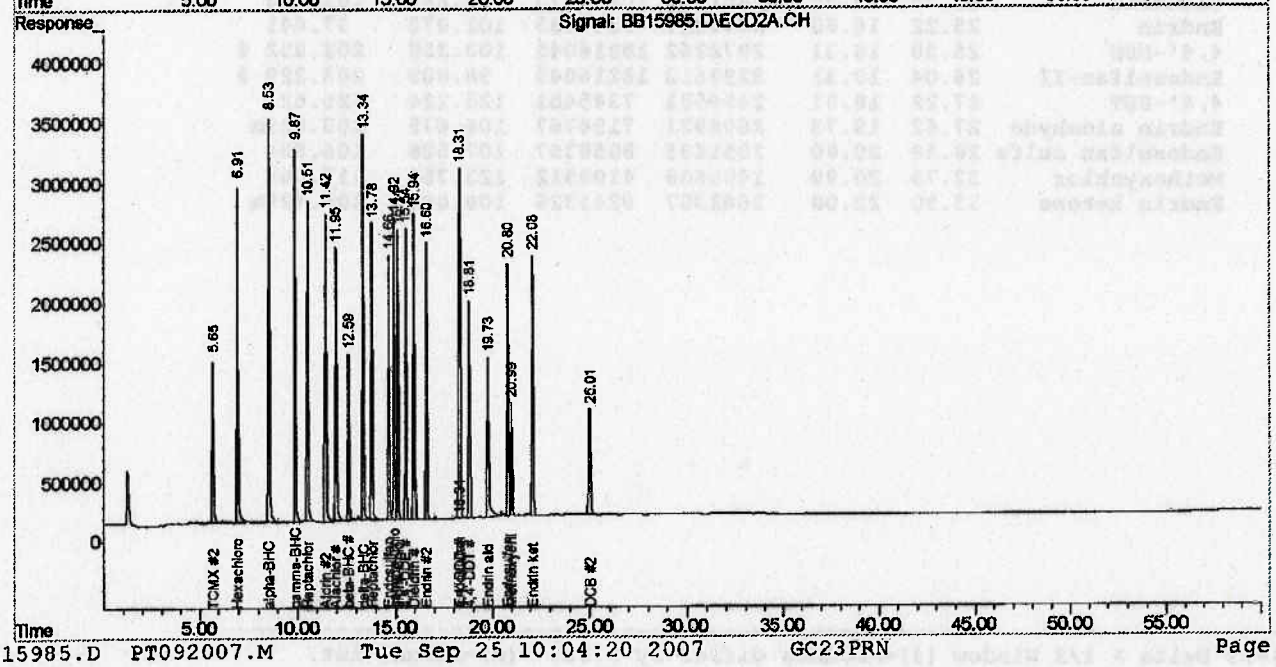
Quantitation Report (QT Reviewed)

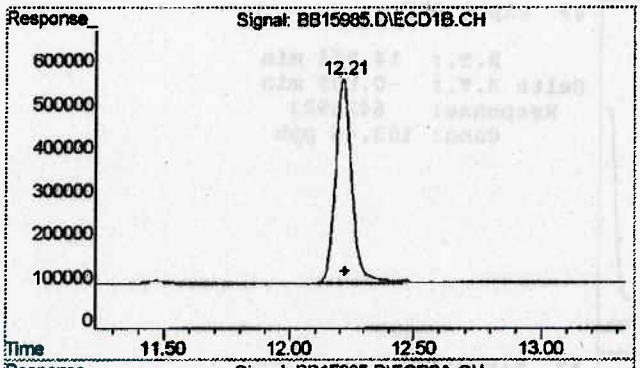
Signal #1 : C:\MSDCHEM\1\DATA\BB15985.D\ECD1B.CH Vial: 74
Signal #2 : C:\MSDCHEM\1\DATA\BB15985.D\ECD2A.CH
Acq On : 9-24-07 09:37:24 AM Operator: caobinz
Sample : ecc667-100,pest 100,fresh Inst : GCBB-gc23
Misc : op14345,gbb668,1000,,,5,,water Multiplr: 1.00
IntFile Signal #1: RTEINT2.P IntFile Signal #2: rteint2.p
Quant Time: Sep 24 16:17 2007 Quant Results File: PT092007.RES

Quant Method : C:\MSDCHEM\1\METHODS\PT092007.M (RTE Integrator)
Title : P8081pest,w/CT-PCB
Last Update : Fri Sep 21 11:29:17 2007
Response via : Multiple Level Calibration
DataAcq Meth : GC23PEST.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

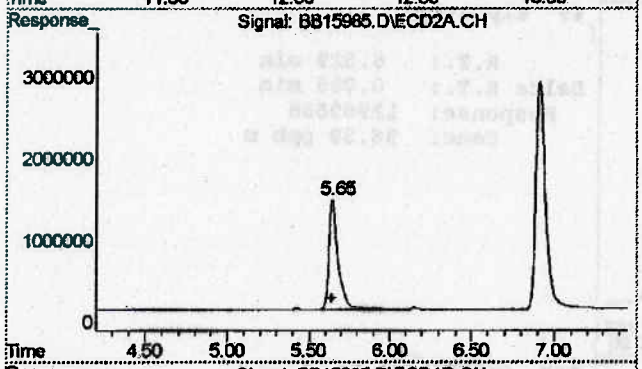






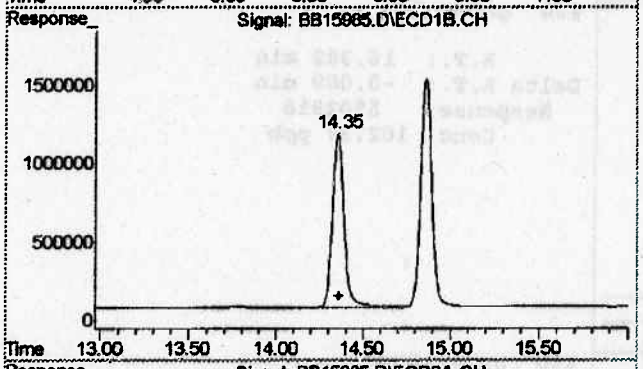
#1 TCMX

R.T.: 12.212 min
Delta R.T.: -0.009 min
Response: 2150546
Conc: 53.08 ppb



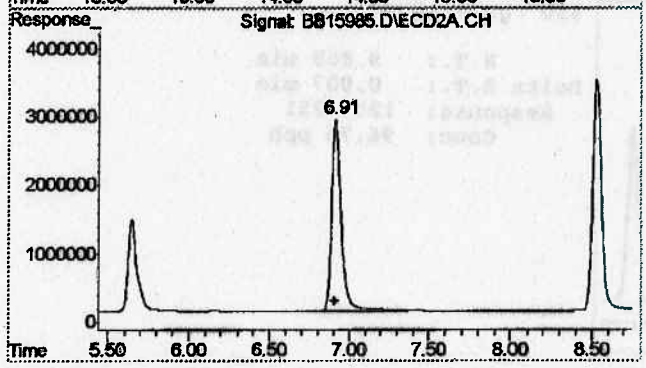
#1 TCMX

R.T.: 5.645 min
Delta R.T.: 0.005 min
Response: 5398234
Conc: 51.24 ppb



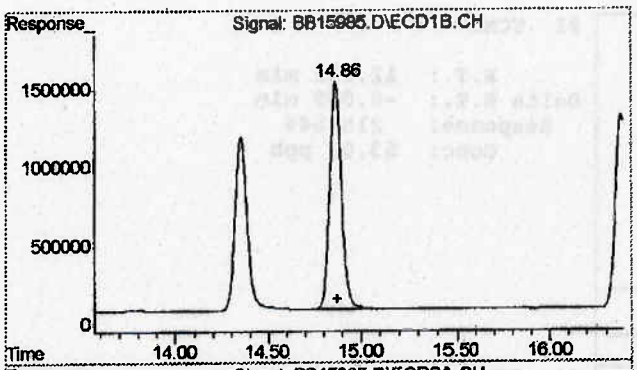
#8 Hexachlorobenzene

R.T.: 14.352 min
Delta R.T.: -0.008 min
Response: 5169819
Conc: 102.40 ug/l



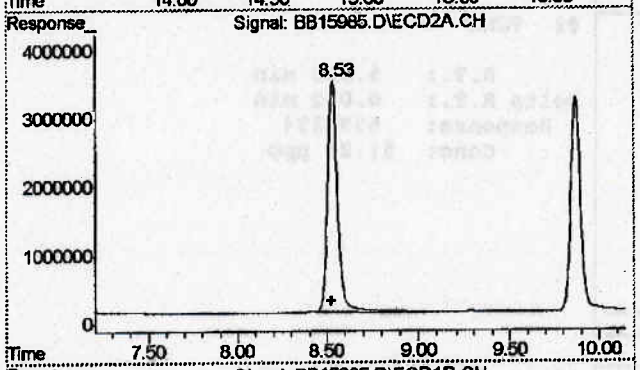
#8 Hexachlorobenzene

R.T.: 6.912 min
Delta R.T.: 0.007 min
Response: 11761748
Conc: 96.88 ug/l



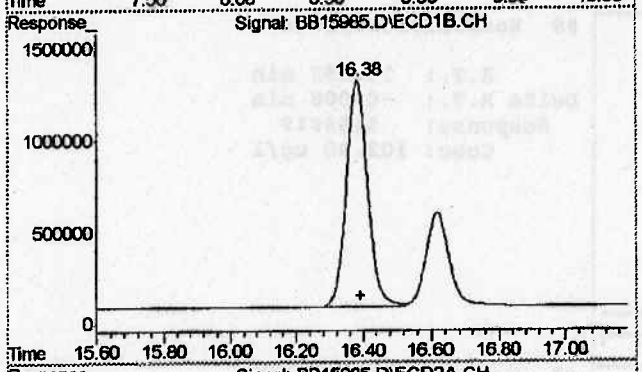
#9 alpha-BHC

R.T.: 14.864 min
Delta R.T.: -0.009 min
Response: 6425923
Conc: 103.46 ppb



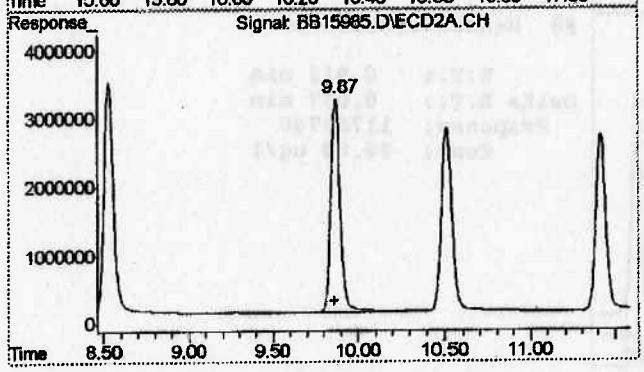
#9 alpha-BHC

R.T.: 8.529 min
Delta R.T.: 0.006 min
Response: 12969558
Conc: 96.59 ppb m



#10 gamma-BHC

R.T.: 16.382 min
Delta R.T.: -0.009 min
Response: 5502916
Conc: 102.37 ppb

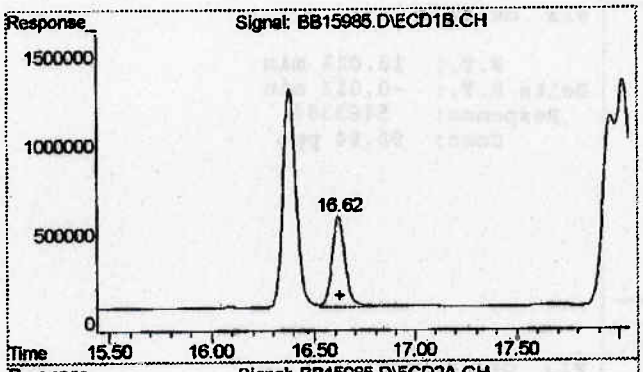


#10 gamma-BHC

R.T.: 9.869 min
Delta R.T.: 0.007 min
Response: 12076251
Conc: 96.76 ppb

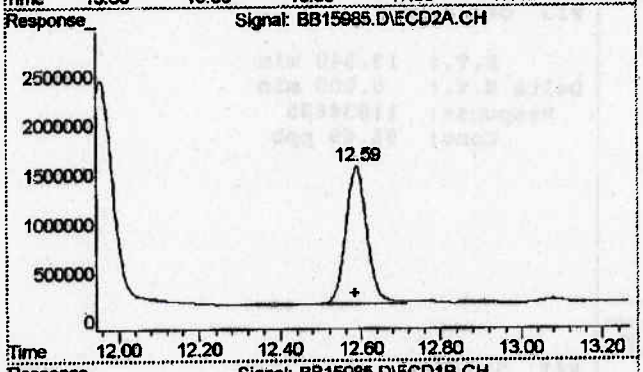
6.7.2

6



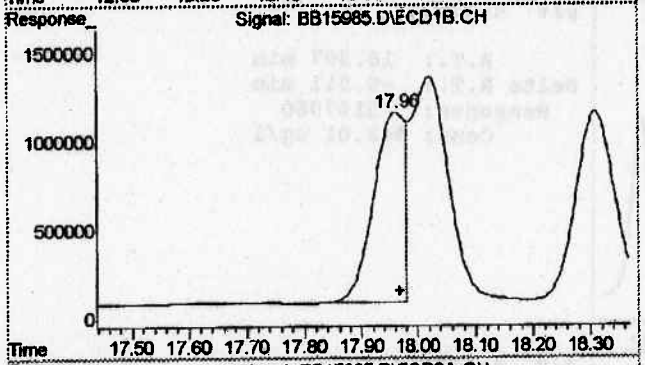
#11 beta-BHC

R.T.: 16.617 min
Delta R.T.: -0.011 min
Response: 2324023
Conc: 100.21 ppb



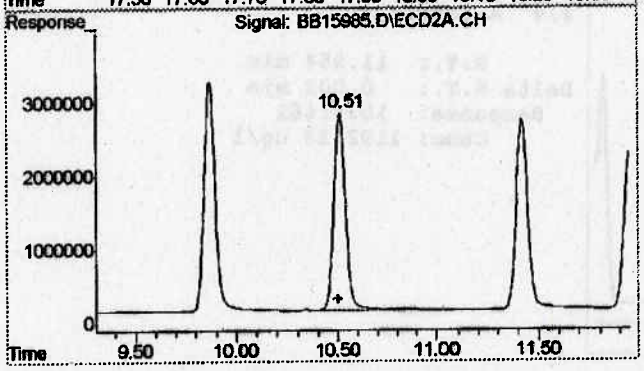
#11 beta-BHC

R.T.: 12.587 min
Delta R.T.: 0.003 min
Response: 5170116
Conc: 93.69 ppb



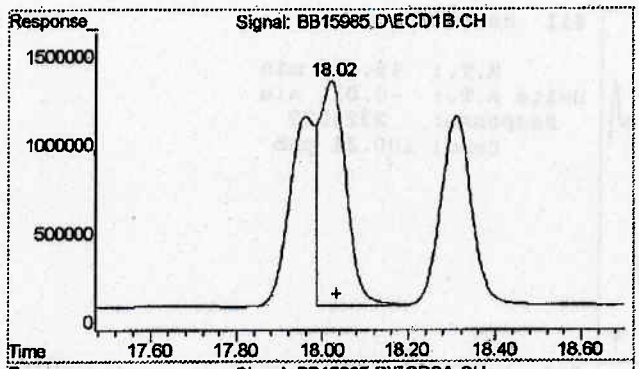
#12 Heptachlor

R.T.: 17.961 min
Delta R.T.: -0.008 min
Response: 4214900
Conc: 114.50 ppb



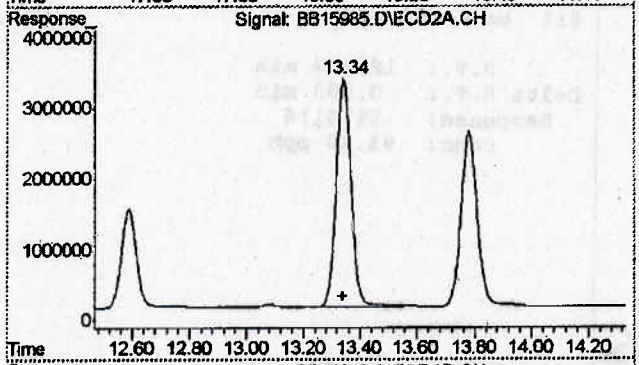
#12 Heptachlor

R.T.: 10.510 min
Delta R.T.: 0.009 min
Response: 10851020
Conc: 105.46 ppb



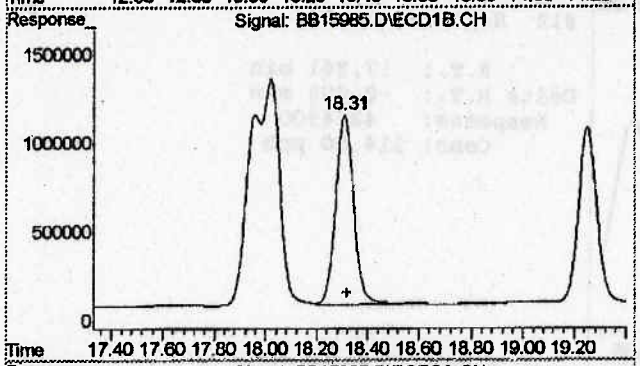
#13 delta-BHC

R.T.: 18.021 min
Delta R.T.: -0.013 min
Response: 5463386
Conc: 98.94 ppb



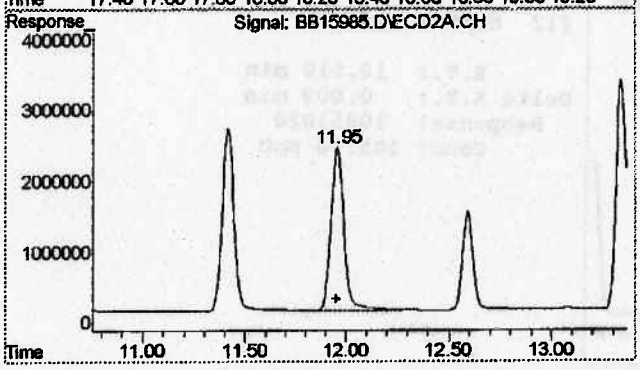
#13 delta-BHC

R.T.: 13.340 min
Delta R.T.: 0.000 min
Response: 11834635
Conc: 95.69 ppb



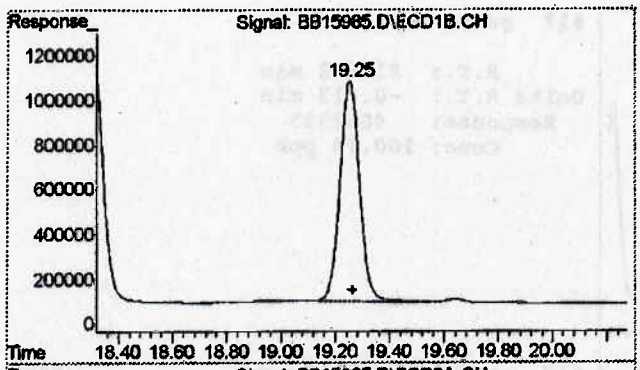
#14 Alachlor

R.T.: 18.307 min
Delta R.T.: -0.011 min
Response: 5167980
Conc: 942.01 ug/l



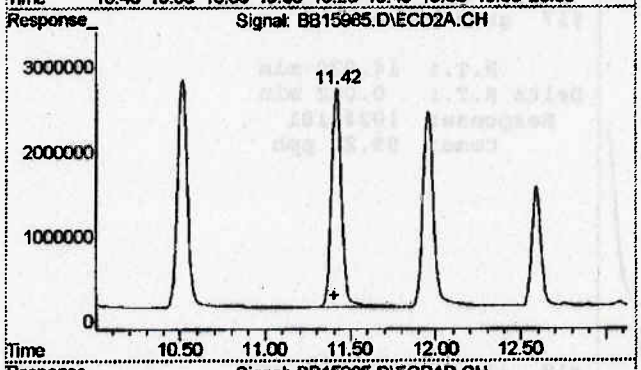
#14 Alachlor

R.T.: 11.954 min
Delta R.T.: 0.003 min
Response: 10301661
Conc: 1192.33 ug/l



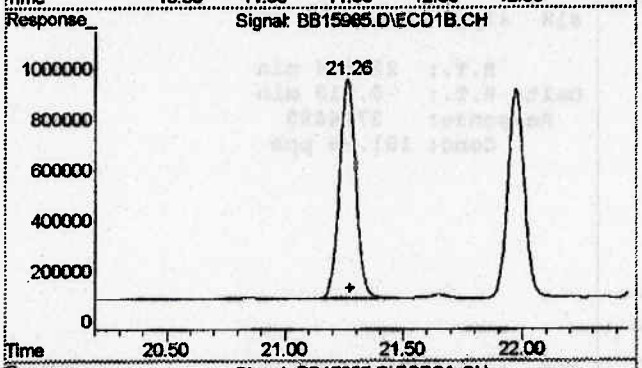
#15 Aldrin

R.T.: 19.252 min
Delta R.T.: -0.013 min
Response: 4857812
Conc: 103.43 ppb m



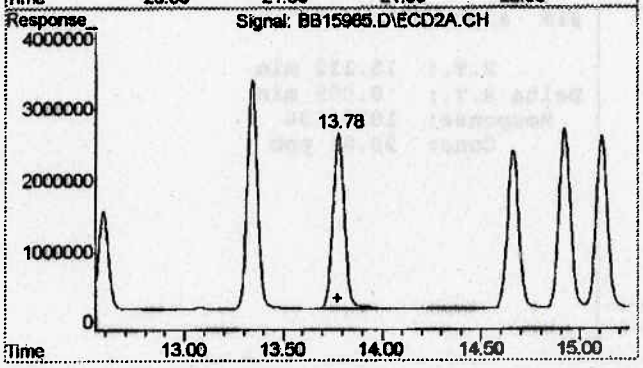
#15 Aldrin

R.T.: 11.415 min
Delta R.T.: 0.009 min
Response: 10635423
Conc: 100.55 ppb



#16 Heptachlor Epoxide

R.T.: 21.262 min
Delta R.T.: -0.013 min
Response: 4216866
Conc: 101.18 ppb

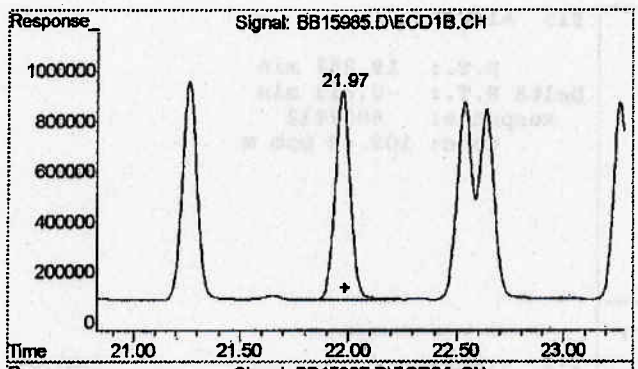


#16 Heptachlor Epoxide

R.T.: 13.779 min
Delta R.T.: 0.006 min
Response: 10164194
Conc: 99.55 ppb

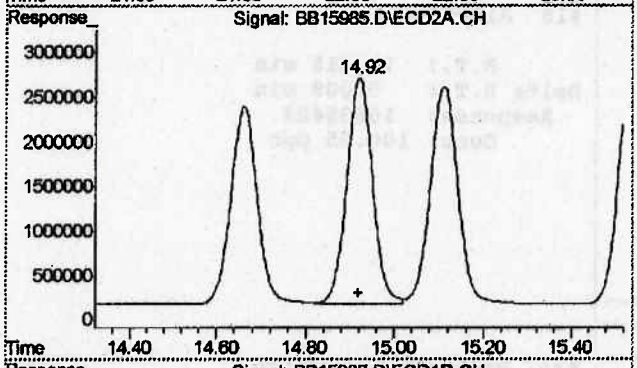
6.7.2

6



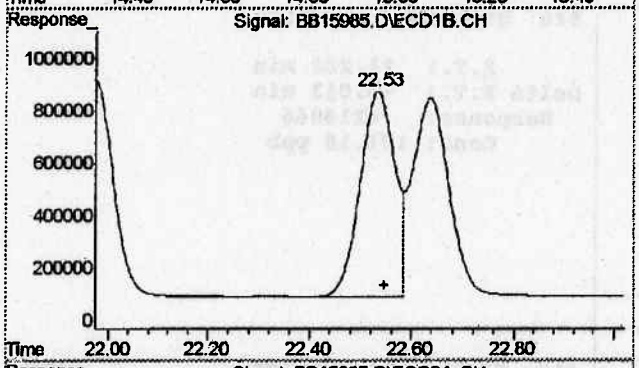
#17 gamma-Chlordane

R.T.: 21.972 min
Delta R.T.: -0.013 min
Response: 4052535
Conc: 100.78 ppb



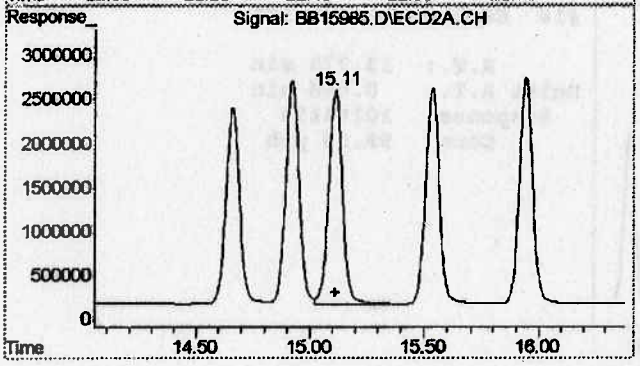
#17 gamma-Chlordane

R.T.: 14.920 min
Delta R.T.: 0.002 min
Response: 10340181
Conc: 99.22 ppb



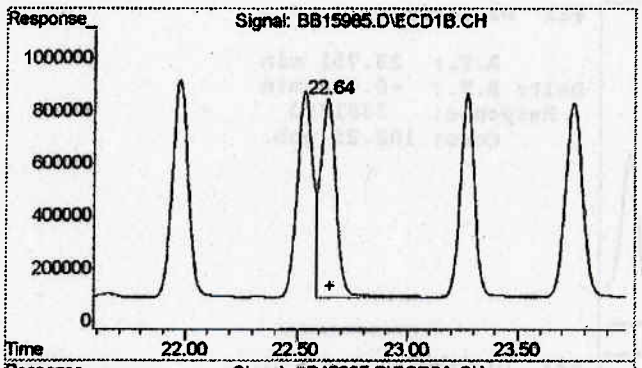
#18 alpha-Chlordane

R.T.: 22.534 min
Delta R.T.: -0.013 min
Response: 3744495
Conc: 101.26 ppb



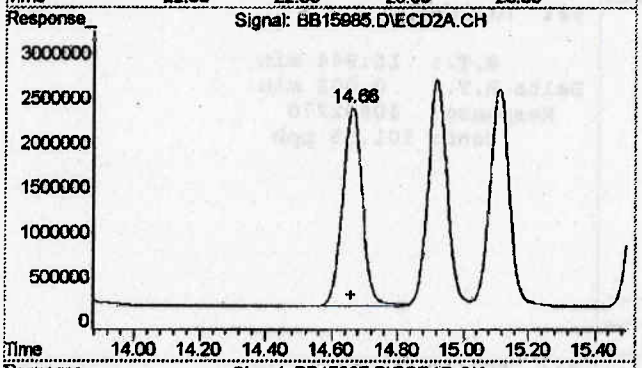
#18 alpha-Chlordane

R.T.: 15.112 min
Delta R.T.: 0.002 min
Response: 10205136
Conc: 98.81 ppb



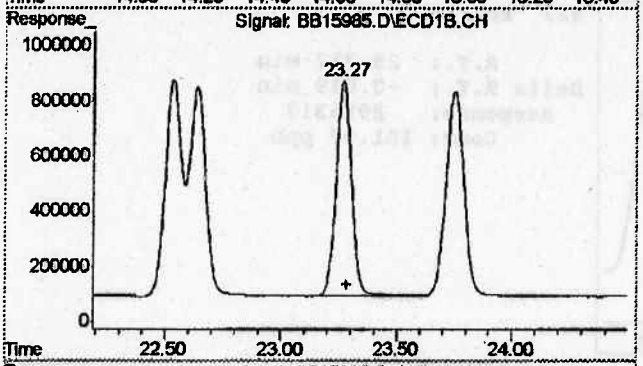
#19 Endosulfan-I

R.T.: 22.637 min
Delta R.T.: -0.011 min
Response: 3704493
Conc: 103.72 ppb



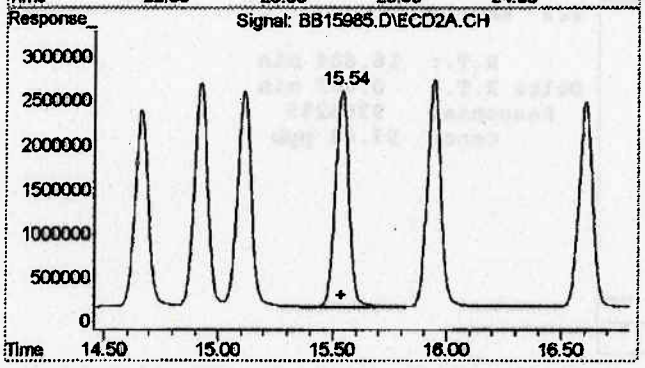
#19 Endosulfan-I

R.T.: 14.660 min
Delta R.T.: 0.002 min
Response: 9250916
Conc: 100.25 ppb



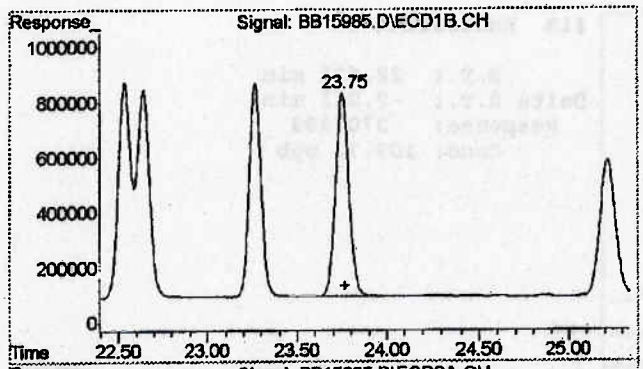
#20 4,4'-DDE

R.T.: 23.267 min
Delta R.T.: -0.014 min
Response: 3571017
Conc: 103.55 ppb



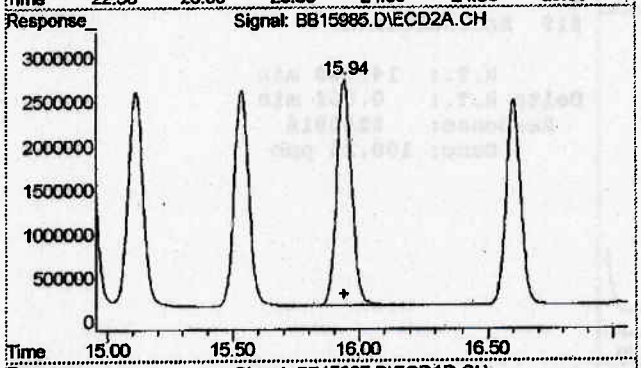
#20 4,4'-DDE

R.T.: 15.539 min
Delta R.T.: 0.004 min
Response: 10072705
Conc: 102.18 ppb



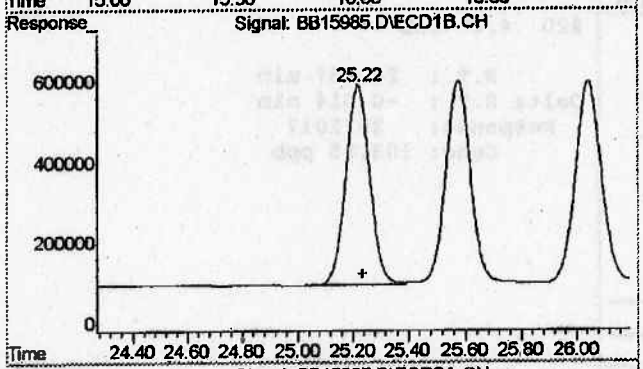
#21 Dieldrin

R.T.: 23.751 min
Delta R.T.: -0.014 min
Response: 3881750
Conc: 102.25 ppb



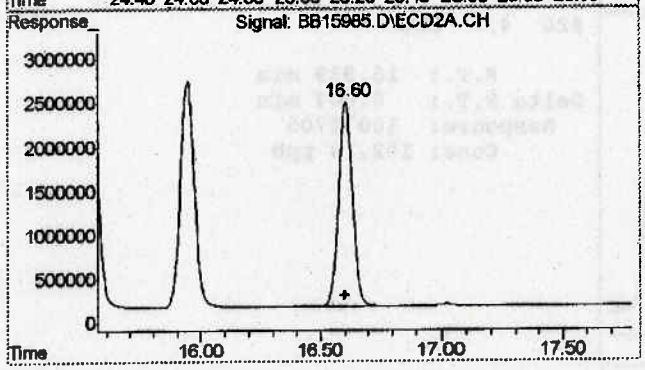
#21 Dieldrin

R.T.: 15.944 min
Delta R.T.: 0.002 min
Response: 10602270
Conc: 101.95 ppb



#22 Endrin

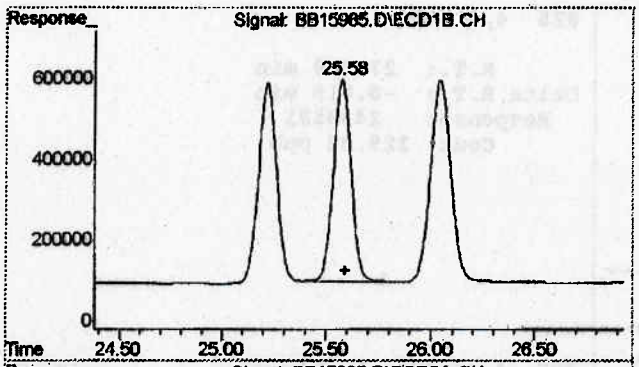
R.T.: 25.217 min
Delta R.T.: -0.019 min
Response: 2995317
Conc: 101.07 ppb



#22 Endrin

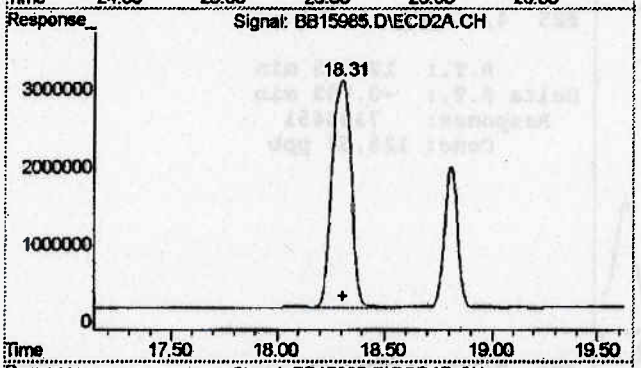
R.T.: 16.604 min
Delta R.T.: 0.002 min
Response: 9366285
Conc: 97.64 ppb

6.7.2 6



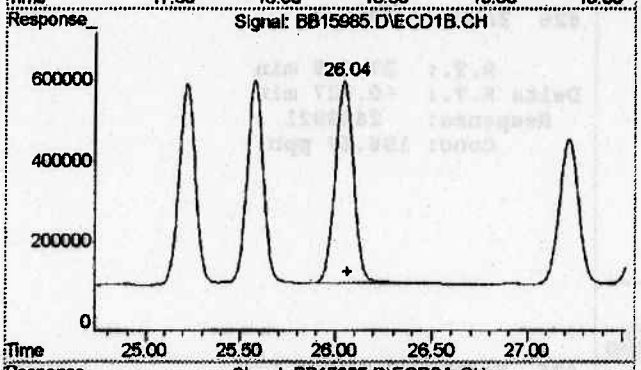
#23 4,4'-DDD

R.T.: 25.576 min
Delta R.T.: -0.019 min
Response: 2972262
Conc: 103.26 ppb



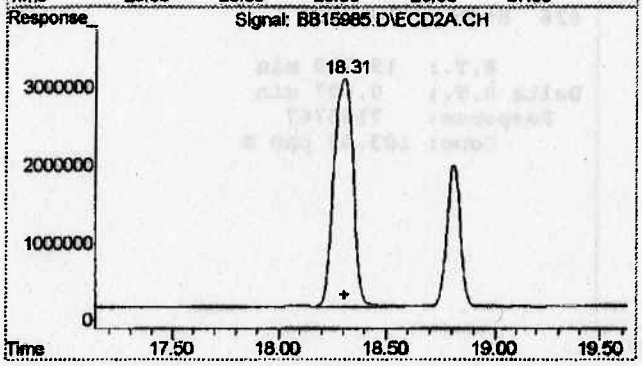
#23 4,4'-DDD

R.T.: 18.309 min
Delta R.T.: 0.002 min
Response: 18216045
Conc: 202.85 ppb



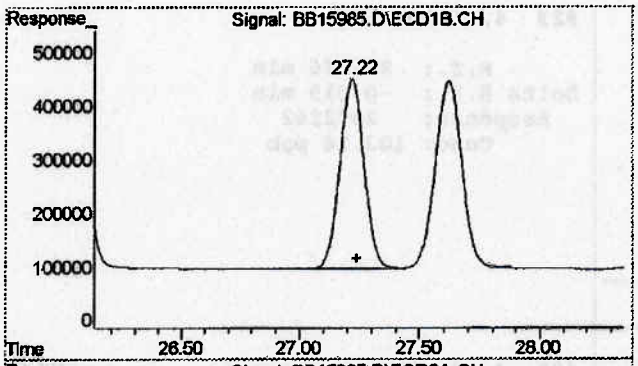
#24 Endosulfan-II

R.T.: 26.042 min
Delta R.T.: -0.021 min
Response: 3292613
Conc: 98.81 ppb



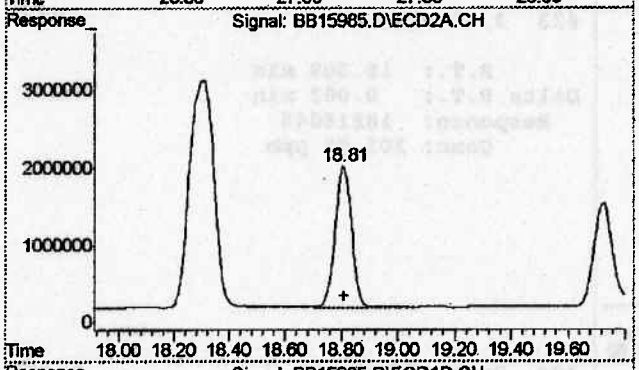
#24 Endosulfan-II

R.T.: 18.309 min
Delta R.T.: 0.002 min
Response: 18216045
Conc: 203.23 ppb



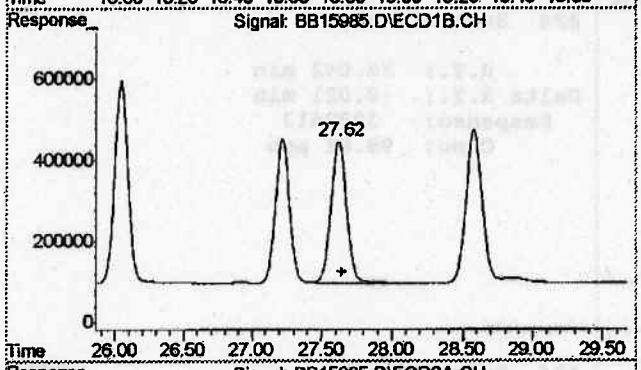
#25 4,4'-DDT

R.T.: 27.219 min
Delta R.T.: -0.019 min
Response: 2499581
Conc: 125.22 ppb



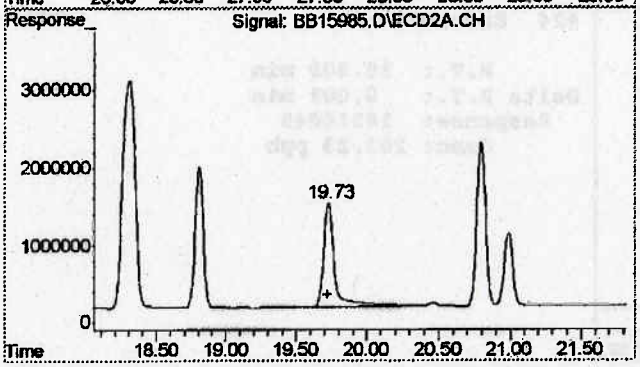
#25 4,4'-DDT

R.T.: 18.805 min
Delta R.T.: -0.003 min
Response: 7345451
Conc: 125.62 ppb



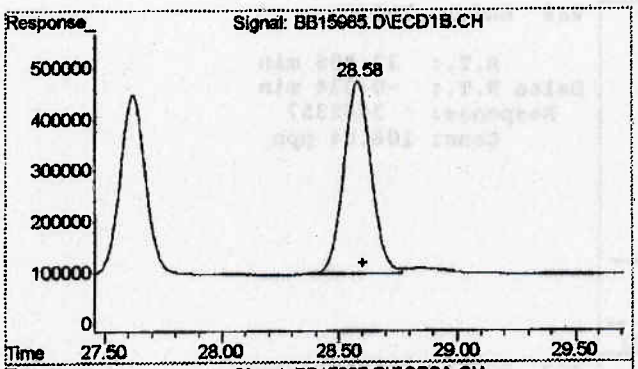
#26 Endrin aldehyde

R.T.: 27.619 min
Delta R.T.: -0.027 min
Response: 2698921
Conc: 106.67 ppb



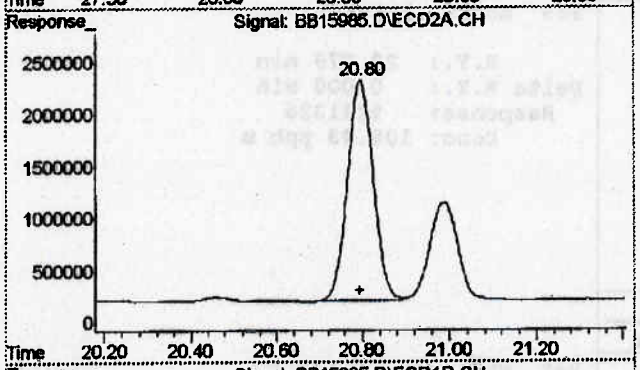
#26 Endrin aldehyde

R.T.: 19.729 min
Delta R.T.: 0.007 min
Response: 7156767
Conc: 103.03 ppb m



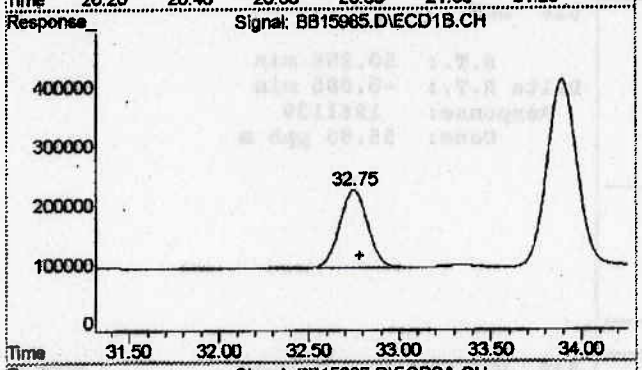
#27 Endosulfan sulfate

R.T.: 28.579 min
Delta R.T.: -0.025 min
Response: 3051635
Conc: 107.53 ppb



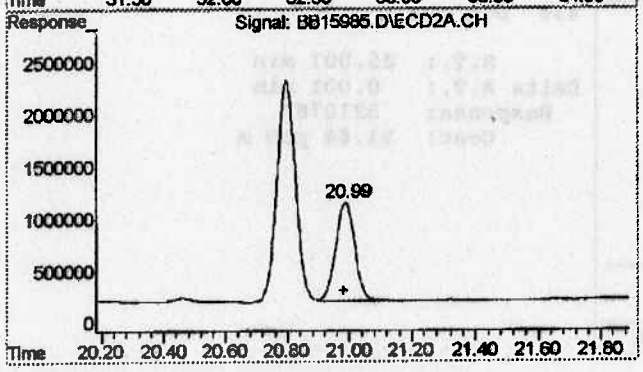
#27 Endosulfan sulfate

R.T.: 20.795 min
Delta R.T.: 0.001 min
Response: 8858397
Conc: 106.85 ppb



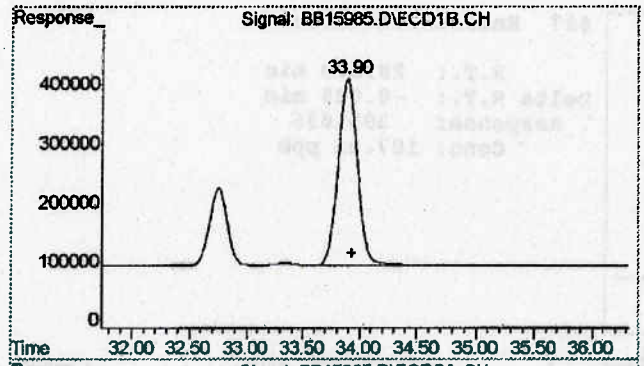
#28 Methoxychlor

R.T.: 32.746 min
Delta R.T.: -0.038 min
Response: 1405658
Conc: 123.76 ppb



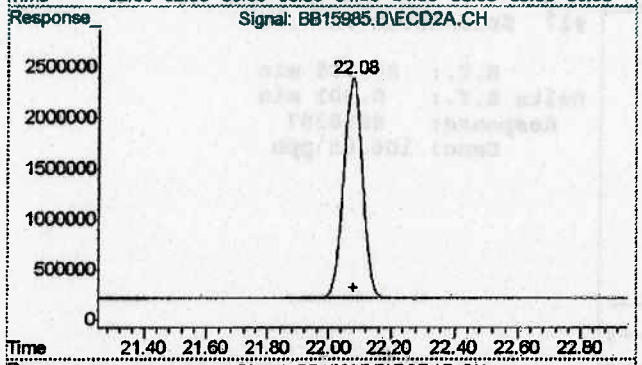
#28 Methoxychlor

R.T.: 20.989 min
Delta R.T.: 0.004 min
Response: 4108512
Conc: 117.07 ppb



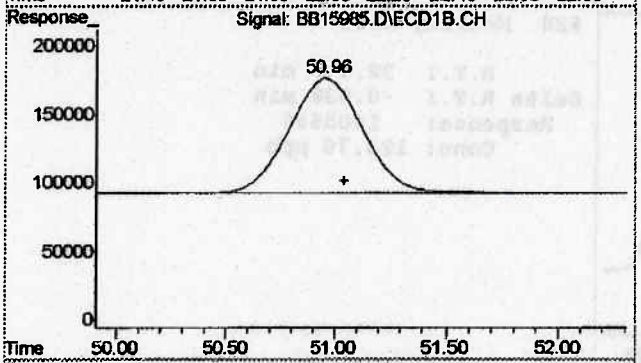
#29 Endrin ketone

R.T.: 33.896 min
Delta R.T.: -0.034 min
Response: 3662357
Conc: 106.04 ppb



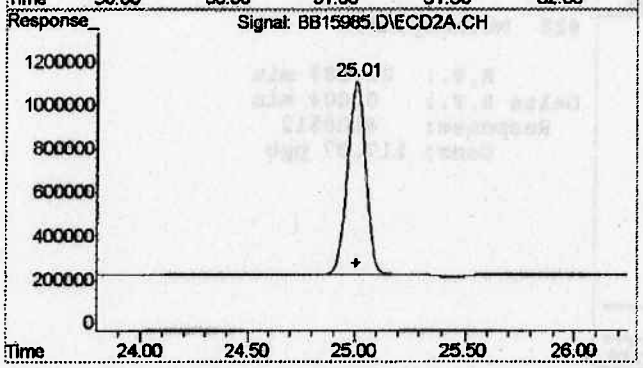
#29 Endrin ketone

R.T.: 22.079 min
Delta R.T.: 0.000 min
Response: 9241326
Conc: 108.43 ppb m



#38 DCB

R.T.: 50.959 min
Delta R.T.: -0.085 min
Response: 1961139
Conc: 55.85 ppb m



#38 DCB

R.T.: 25.007 min
Delta R.T.: 0.001 min
Response: 5210782
Conc: 51.84 ppb m

Accutest Laboratories of New England, Inc.

Extracted by: FG
Spike Witness: N/A
Concentrated by: FG
Fractionated by: N/A
Extraction Method: SW 846 3510C

Date: 9/18/07
Date:
Batch: OP14345
Matrix: Aqueous
Analysis Method: PO8081 PEST TCL

	Sample	Bottle No.	Initial Volume (ml)	Final Volume (ml)	pH		Cleanup/Comments	Received by: Date:
1	OP14345 -mb	N/A	1000	5.0 ml	N/A	N/A	FLORISIL # ETYL ETHER clean-up	9/28/07
2	-bs							
3	-bsd							
4	M67604-1 -ms	6						
5	-msd	5						
6	-1	4						
7	-2	1						
8	M67676-1	2						
9	-2	2						
10	OP14345 CT	N/A						
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

2nd Sept 07 FB

	Fraction	Lot #	Conc.	Vol. (ml)
Surrogate: DCB/TPP	3 of 3	P04131	0.2 µg/ml	1.0 ml
Surrogate:				
Surrogate:				
Surrogate:				
Spike: PEST MS	3 of 3	P04185	0.2 µg/ml	1.0 ml
Spike: ARoclor	1 of 3	P04115	0.2 µg/ml	1.0 ml
Spike: HEXACHLOROB	1 of 3	P04191	0.2 µg/ml	1.0 ml
Spike: CT	1 of 1	P04190	1.4/1.6 µg/ml	1.0 ml

ETYL ETHER LOT # E03469

MeCl2:	J.T. BAKER E28405
Hexane:	J.T. BAKER E30E44
Acetone:	
Acetonitrile:	
Na Sulfate Lot #:	B345
Silica Lot #:	
SPE MFG/Lot #:	
Copper:	
Hydromatrix:	
Florisil:	31848-2-78

Water Bath Temp: 80°C/40°C

Reviewed by: 9/28/07

Tray #: GC-99
(FRIDGE #16)

OP002-04 (1/19/05)

2

6.8.1 6

ACCUTEST Laboratories M67676

New England ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

10/01/07

Technical Report for

Environmental Chemical Corporation

Brunswick Naval Air Station, Brunswick, ME

Building 95 Event 26

Accutest Job Number: M67676

Sampling Date: 09/12/07

Report to:

PMB 289
13 Gusnet Road
Brunswick, ME 04011

ATTN: Data Receipt

Total number of pages in report: **257**

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579) NY (23346) NJ (MA926) NAVY USACE

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Test results relate only to samples analyzed.

New England ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

10/01/07

Technical Report for

Environmental Chemical Corporation

Brunswick Naval Air Station, Brunswick, ME

Building 95 Event 26

Accutest Job Number: M67676

Sampling Date: 09/12/07

Report to:

Environmental Chemical Corporation
33 Boston Post Road West
Suite 340
Marlborough, MA 01752

ATTN: Mark Carver

Total number of pages in report: **257**

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

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Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579) NY (23346) NJ (MA926) NAVY USACE

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Test results relate only to samples analyzed.

APPENDIX F

Engineering Inspection Form

Site: Bld 95/ Site 17 Date: 9/4/2007 Personnel: ACE Weather: sunny/ warm/ breezy

Well ID	Condition	Locked	Labeled	Depth to Water	Total Depth of Well	Comments
MW-NASB-065	Good	Yes	Yes	5.95	15.50	
MW-NASB-066	Good	Yes	Yes	9.87	19.79	
MW-NASB-067	Good	Yes	Yes	5.88	15.00	
MW-NASB-068	Good	Yes	Yes	6.67	15.05	
MW-NASB-097	Good	Not Possible	No	5.17	11.05	Flush Mount…
MW-NASB-098	Good	Yes	Yes	8.68	16.00	

Additional Comments:

1. Stressed Vegetation - All vegetation appears healthy and well watered!

2. Condition of Geo Textile - Buried, not visible.

3. Other - Some thinning of dense tree growth is recommended to facilitate well access.

Dense tree growth – Site 17

MW-NASB-097 Repairs – Site 17

APPENDIX G

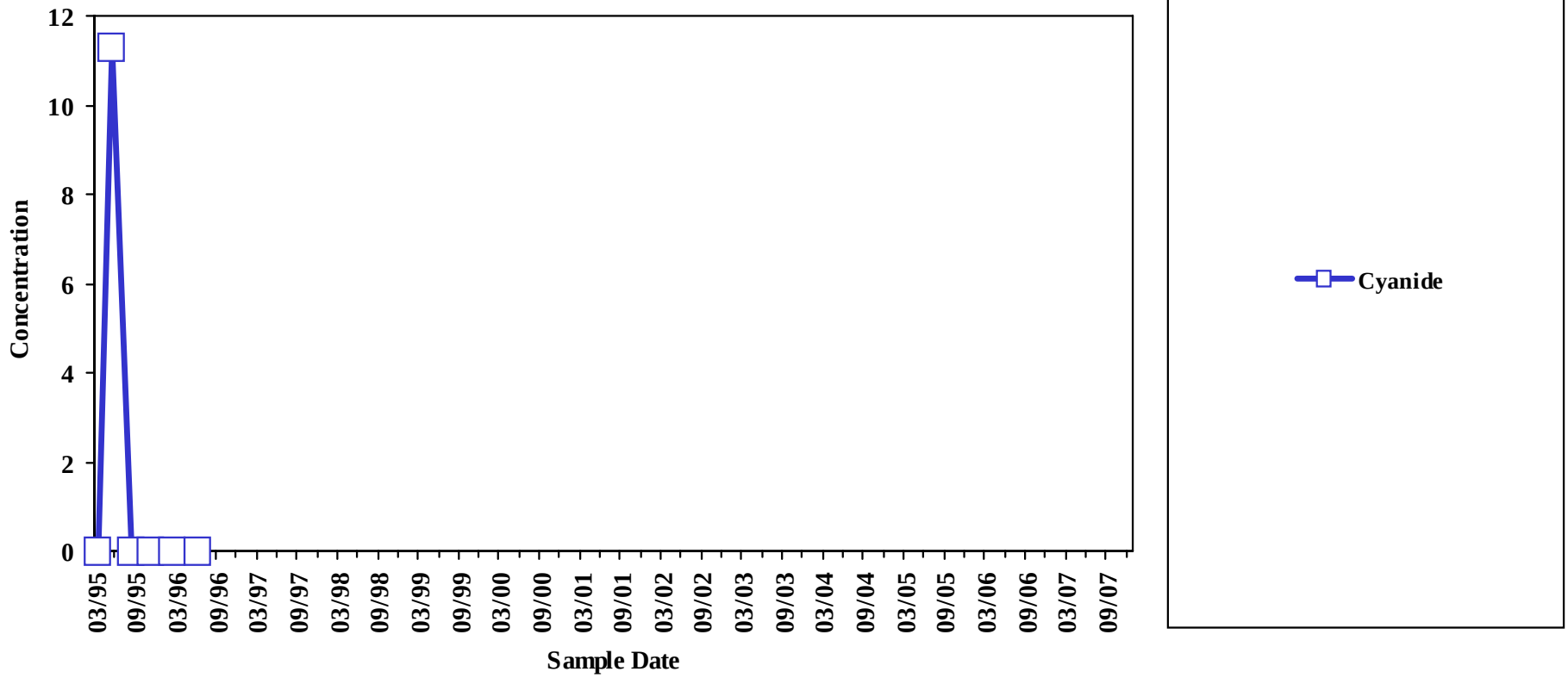
Sample Location:

MW-NASB-065

Site 17

Groundwater

Contaminants of Concern Inorganics



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Sample concentration units: mg/L

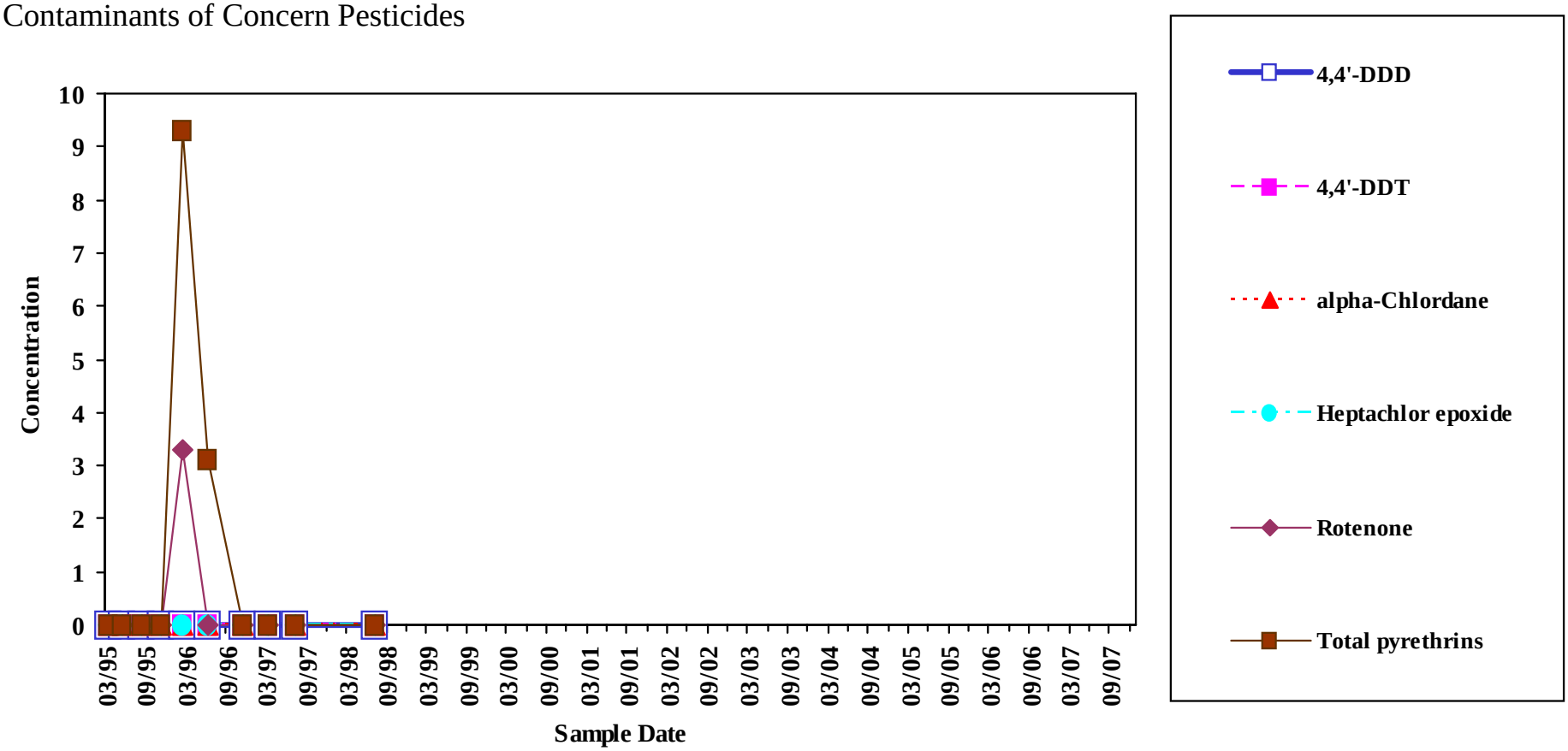
Sample Location:

MW-NASB-065

Site 17

Groundwater

Contaminants of Concern Pesticides



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Results from October 2003 should be considered estimates due to sample temperatures upon receipt at the laboratory.

Sample concentration units: µg/L

MEG	Heptachlor epoxide	alpha-Chlordane	4,4'-DDT	4,4'-DDD	MCL	Heptachlor epoxide	alpha-Chlordane
	0.04	0.3	1	--		0.2	--

4,4'-DDT	4,4'-DDD
--	--

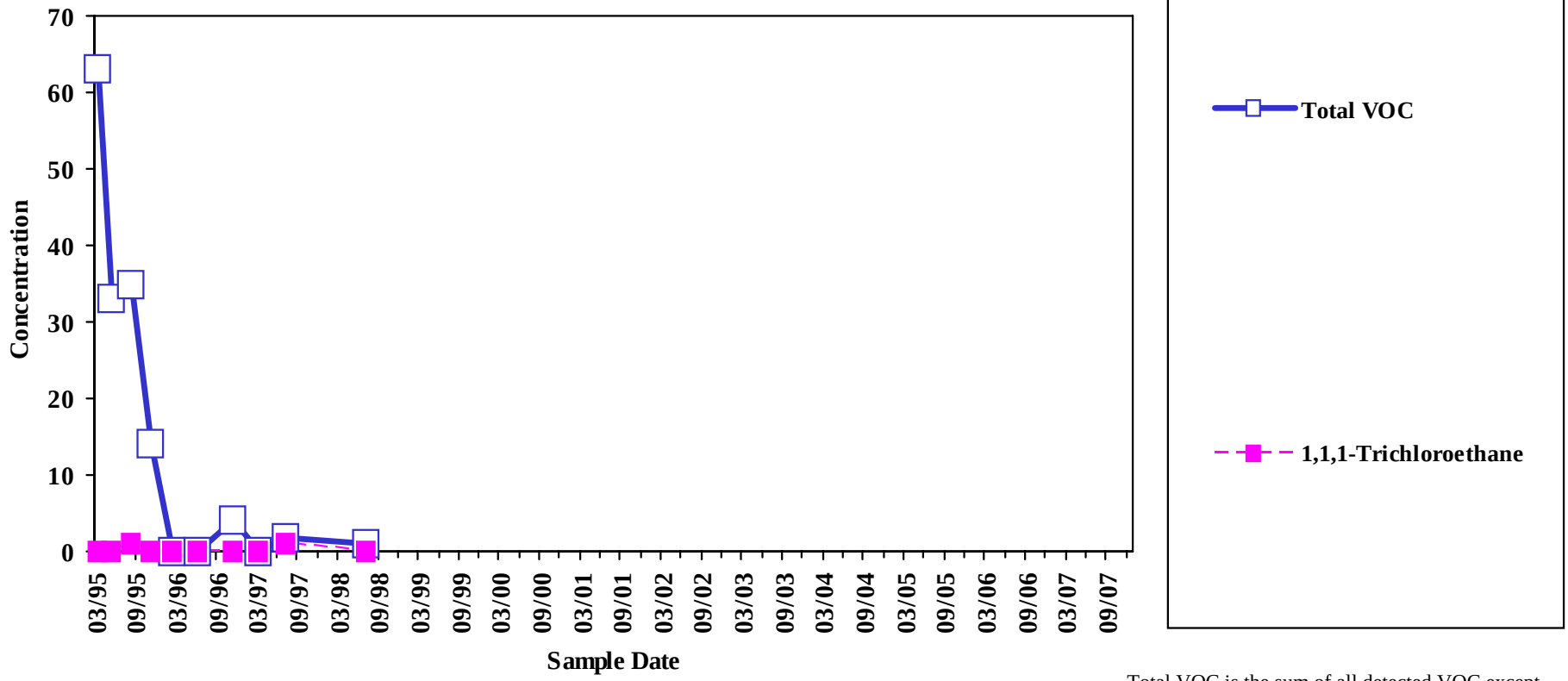
Sample Location:

MW-NASB-065

Site 17

Groundwater

Contaminants of Concern Volatiles



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride and Acetone.

Sample concentration units: µg/L

MEG	1,1,1-Trichloroethane	MCL	1,1,1-Trichloroethane
	200		200

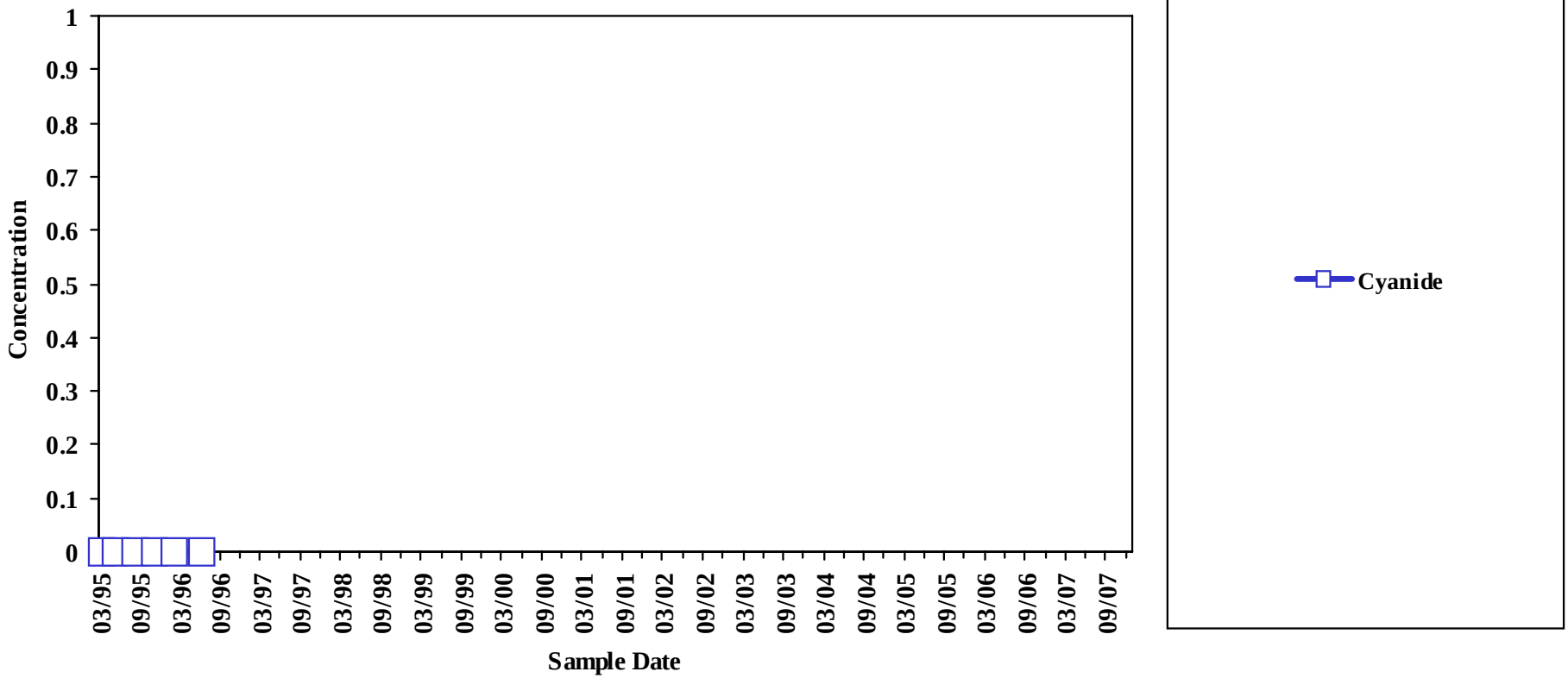
Sample Location:

MW-NASB-066

Site 17

Groundwater

Contaminants of Concern Inorganics



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Sample concentration units: mg/L

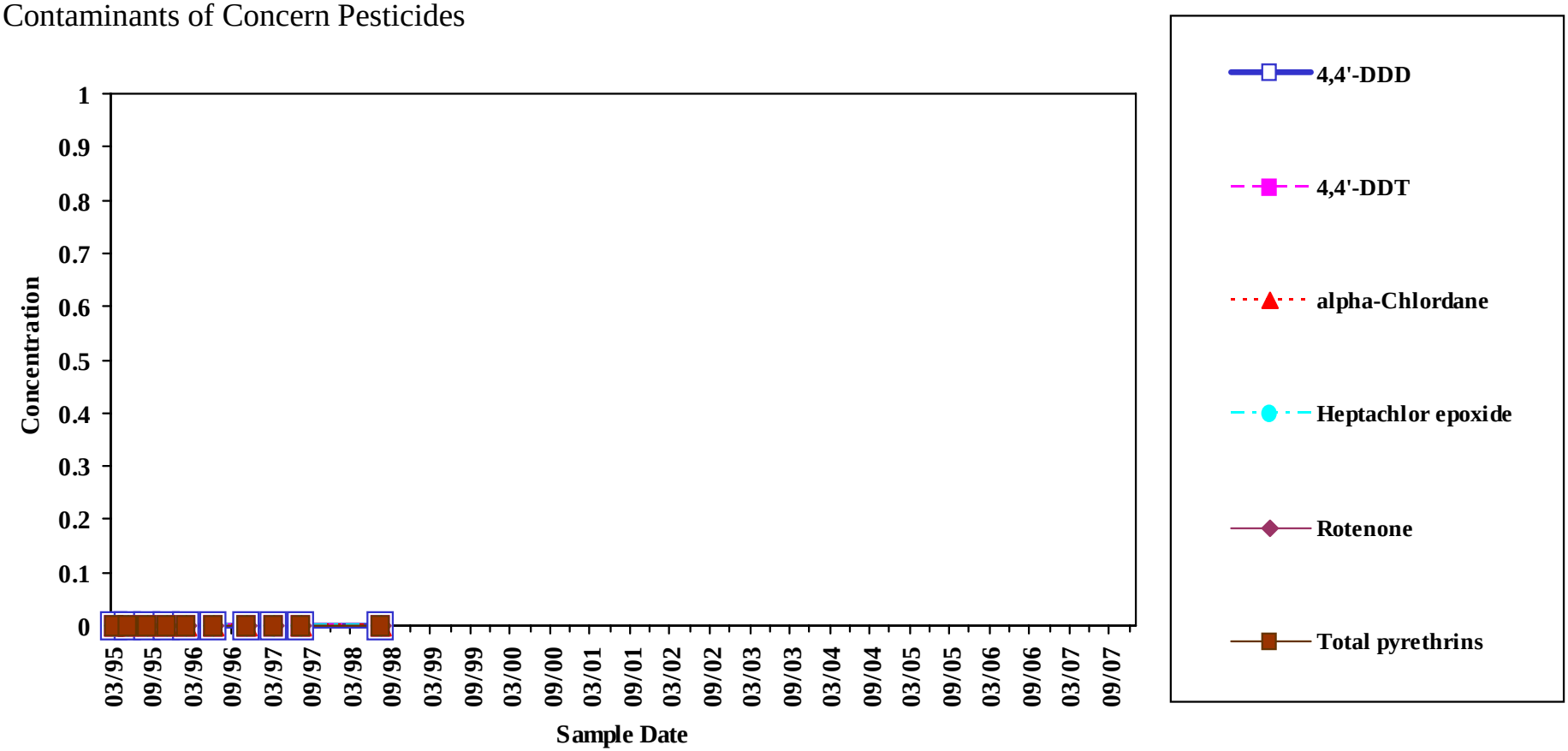
Sample Location:

MW-NASB-066

Site 17

Groundwater

Contaminants of Concern Pesticides



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Results from October 2003 should be considered estimates due to sample temperatures upon receipt at the laboratory.

Sample concentration units: µg/L

MEG	Heptachlor epoxide	alpha-Chlordane	4,4'-DDT	4,4'-DDD
	0.04	0.3	1	--

MCL	Heptachlor epoxide	alpha-Chlordane
	0.2	--

4,4'-DDT	4,4'-DDD
--	--

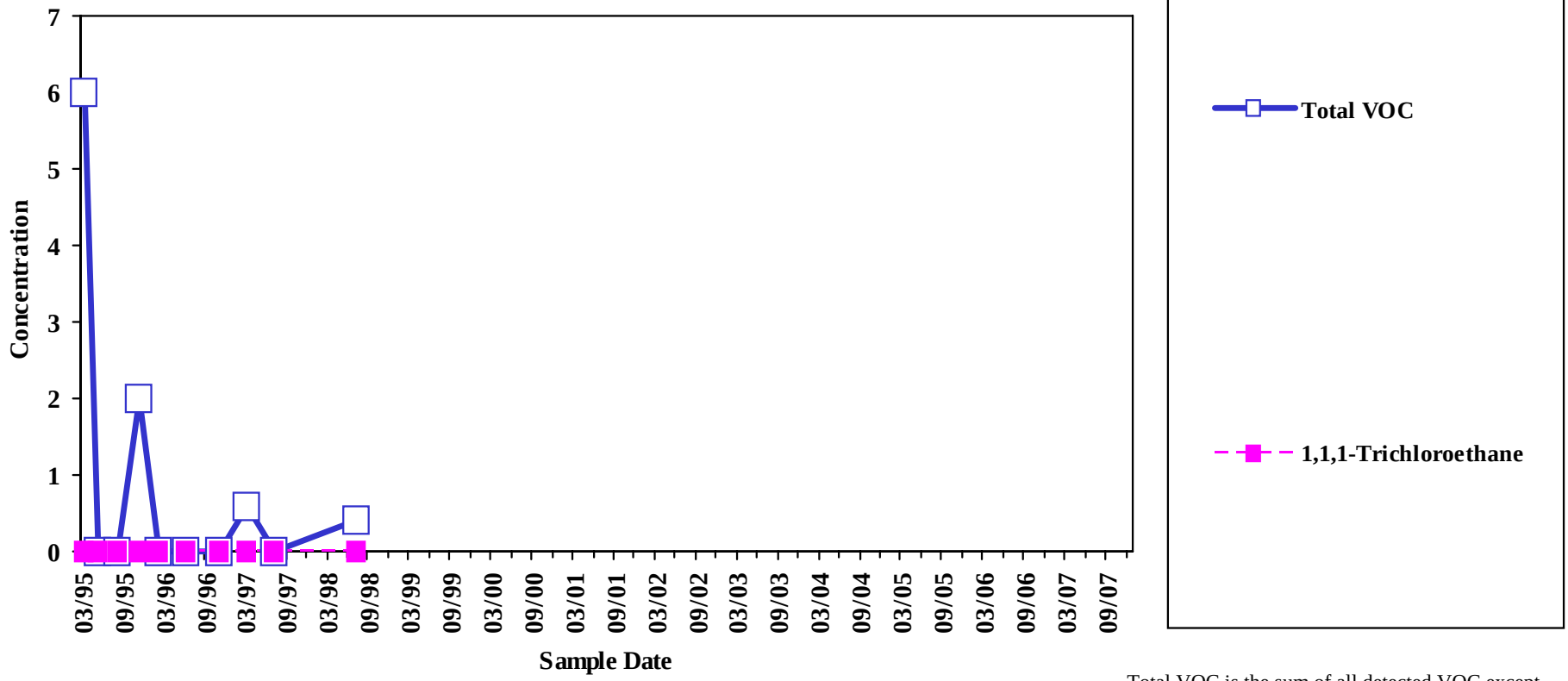
Sample Location:

MW-NASB-066

Site 17

Groundwater

Contaminants of Concern Volatiles



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride and Acetone.

Sample concentration units: µg/L

MEG	1,1,1-Trichloroethane	MCL	1,1,1-Trichloroethane
	200		200

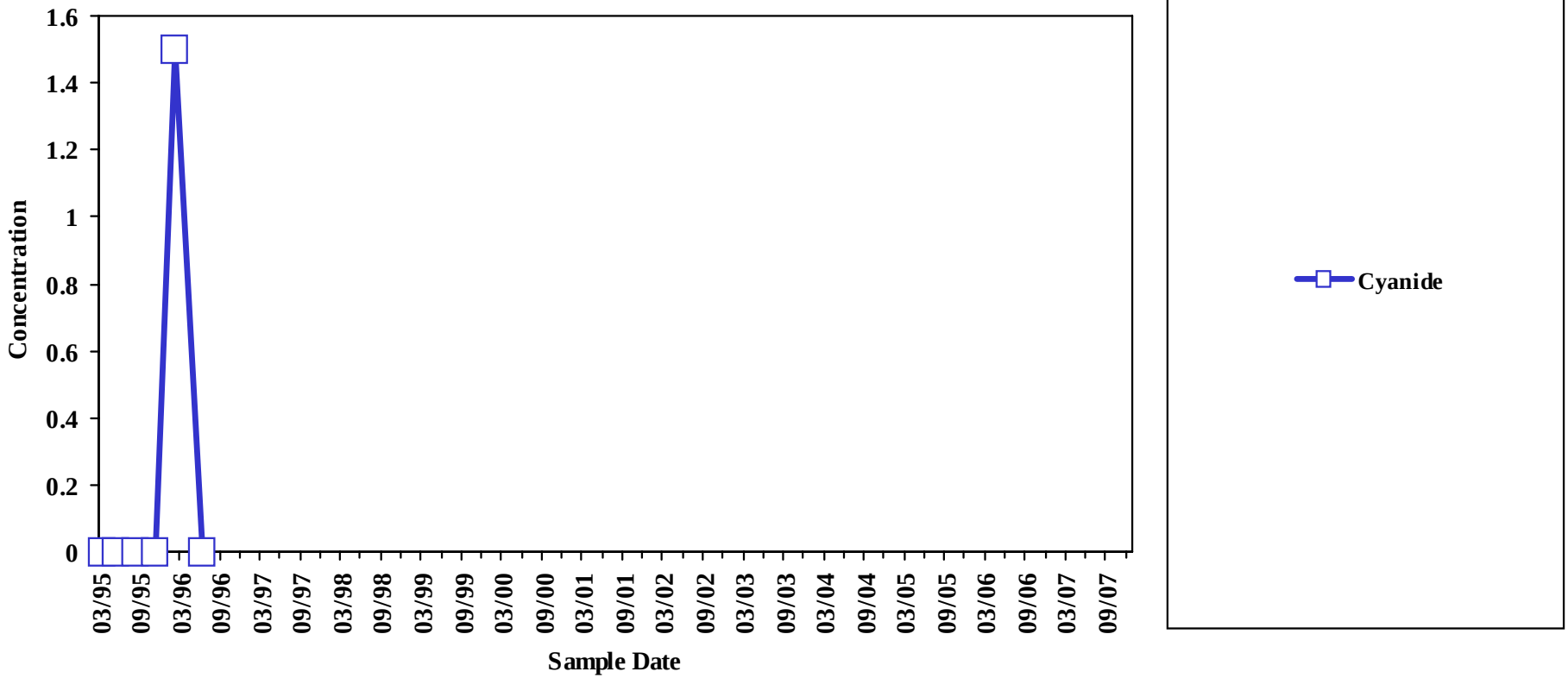
Sample Location:

MW-NASB-067

Site 17

Groundwater

Contaminants of Concern Inorganics



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Sample concentration units: mg/L

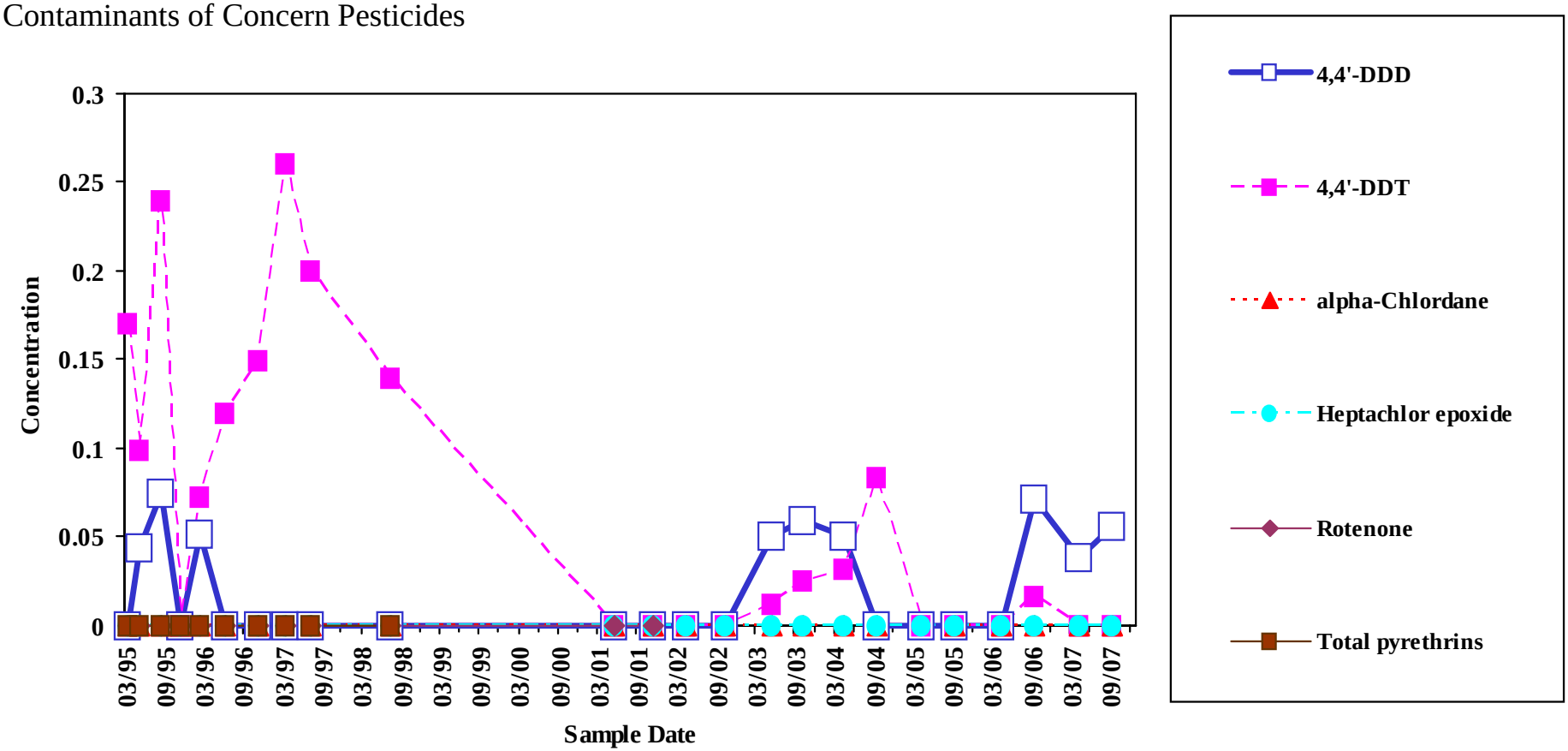
Sample Location:

MW-NASB-067

Site 17

Groundwater

Contaminants of Concern Pesticides



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Results from October 2003 should be considered estimates due to sample temperatures upon receipt at the laboratory.

Sample concentration units: µg/L

MEG	Heptachlor epoxide	alpha-Chlordane	4,4'-DDT	4,4'-DDD
	0.04	0.3	1	--

MCL	Heptachlor epoxide	alpha-Chlordane
	0.2	--

4,4'-DDT	4,4'-DDD
--	--

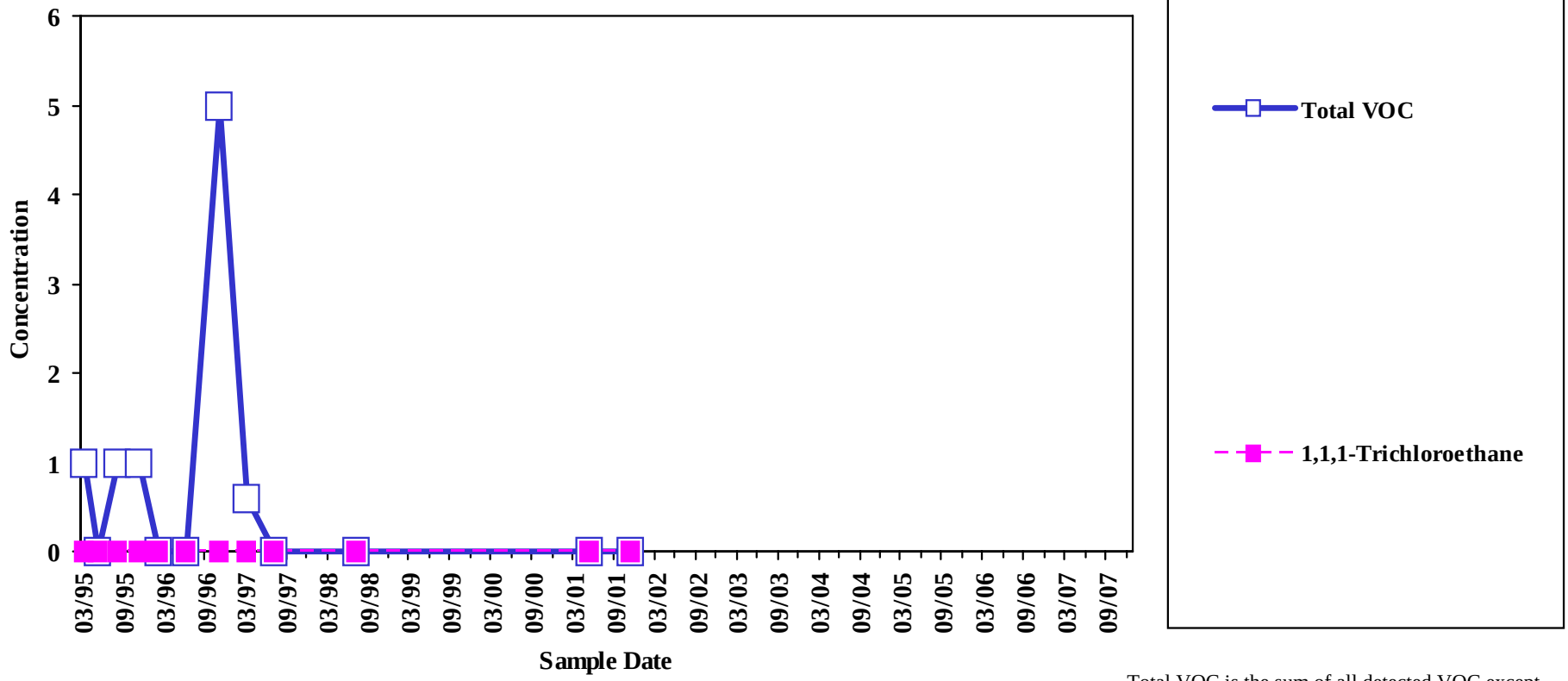
Sample Location:

MW-NASB-067

Site 17

Groundwater

Contaminants of Concern Volatiles



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride and Acetone.

Sample concentration units: µg/L

MEG	1,1,1-Trichloroethane	MCL	1,1,1-Trichloroethane
	200		200

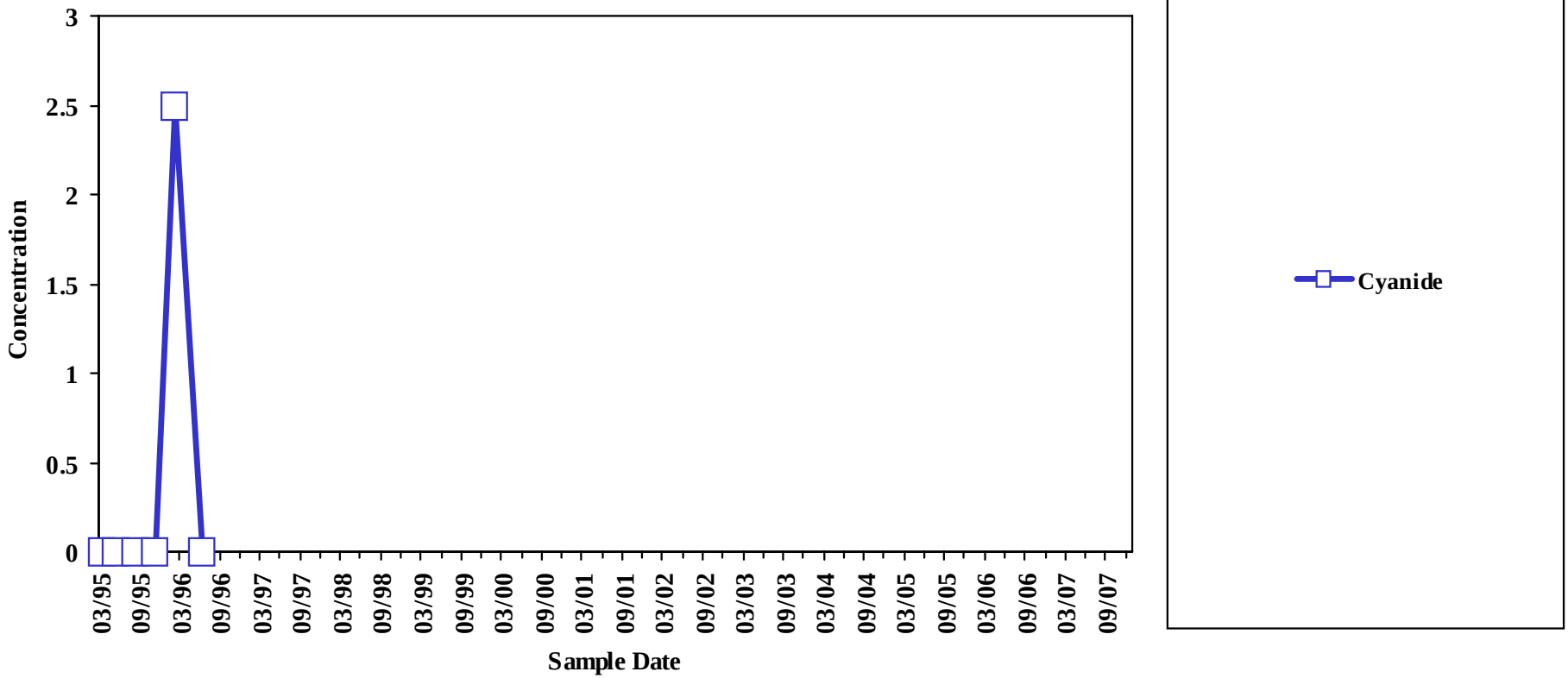
Sample Location:

MW-NASB-068

Site 17

Groundwater

Contaminants of Concern Inorganics



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Sample concentration units: mg/L

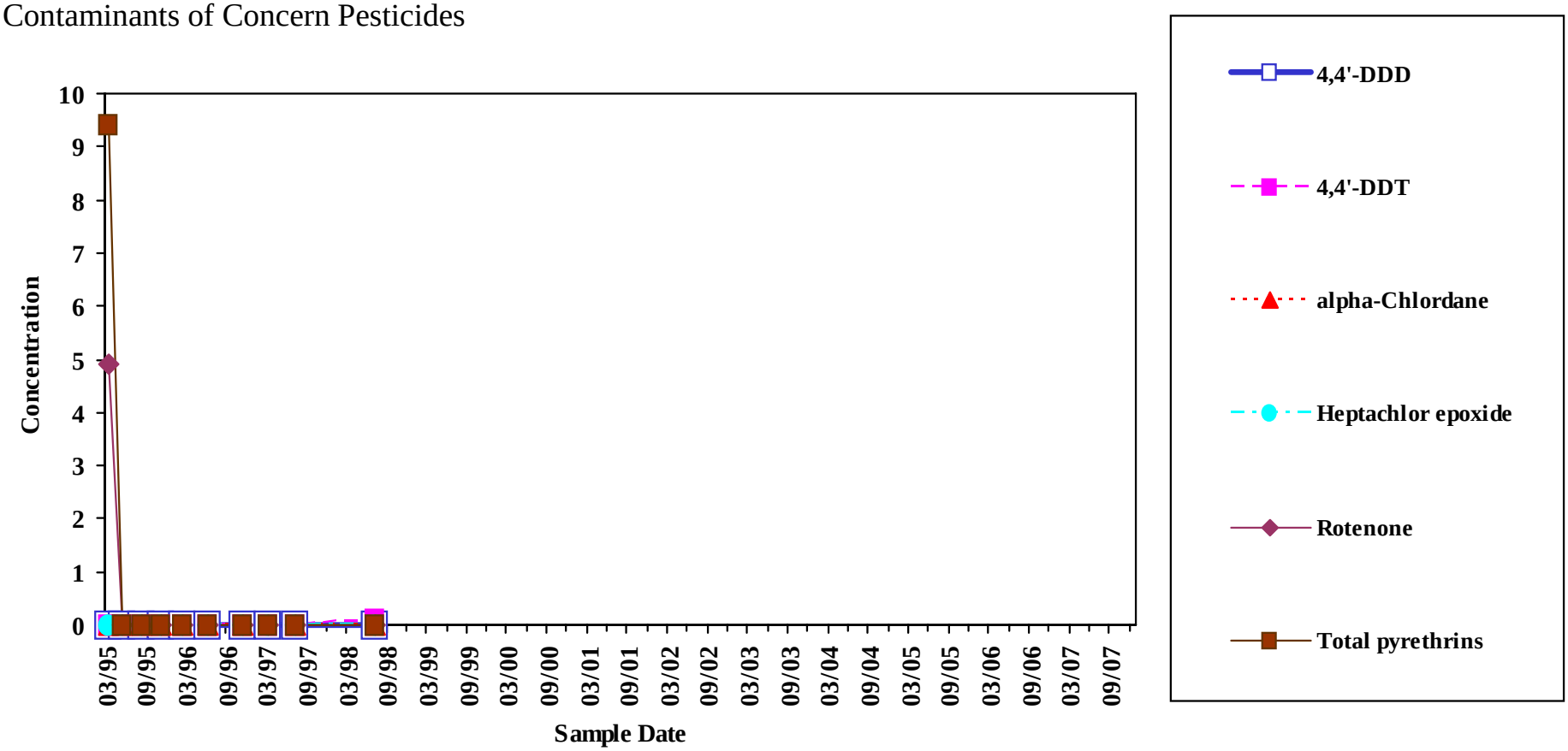
Sample Location:

MW-NASB-068

Site 17

Groundwater

Contaminants of Concern Pesticides



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Results from October 2003 should be considered estimates due to sample temperatures upon receipt at the laboratory.

Sample concentration units: µg/L

MEG	Heptachlor epoxide	alpha-Chlordane	4,4'-DDT	4,4'-DDD
	0.04	0.3	1	--

MCL	Heptachlor epoxide	alpha-Chlordane
	0.2	--

4,4'-DDT	4,4'-DDD
--	--

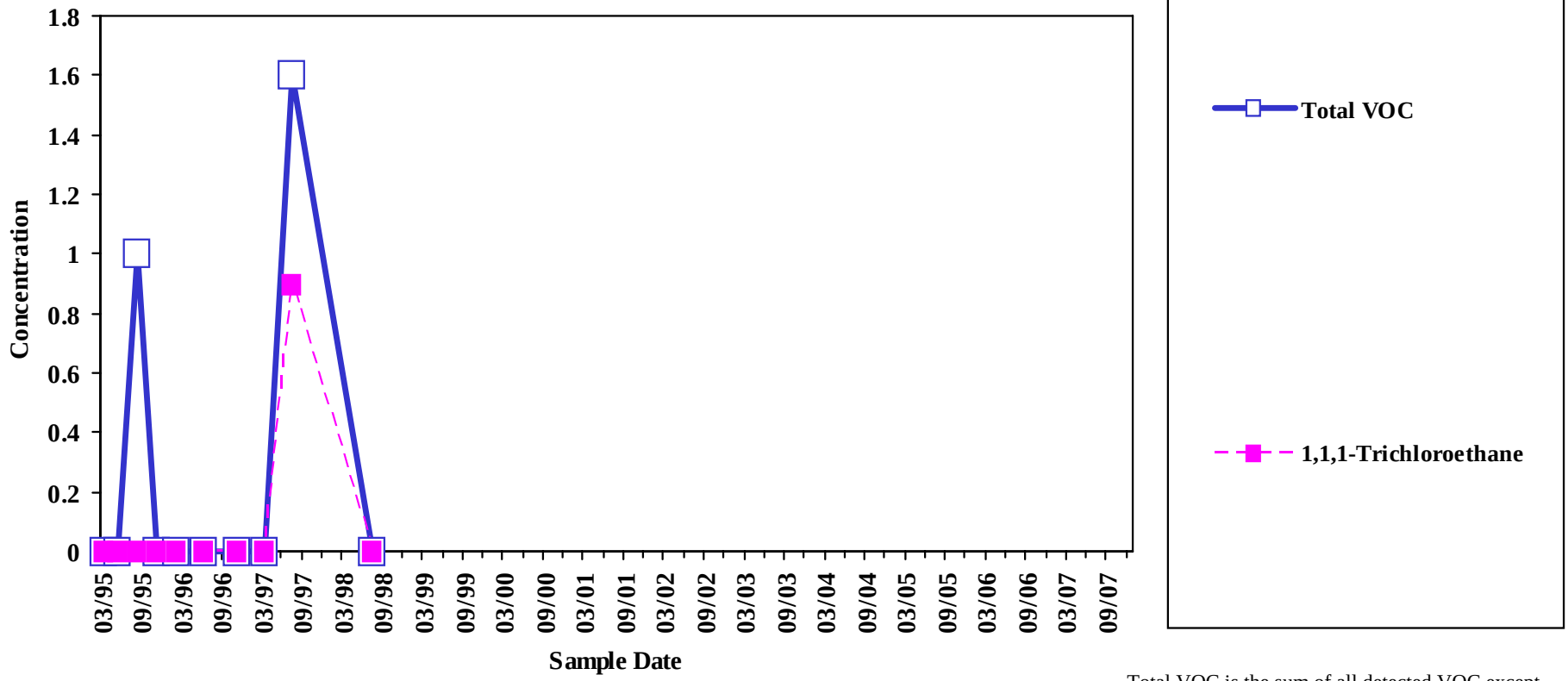
Sample Location:

MW-NASB-068

Site 17

Groundwater

Contaminants of Concern Volatiles



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride and Acetone.

Sample concentration units: µg/L

MEG	1,1,1-Trichloroethane	MCL	1,1,1-Trichloroethane
	200		200

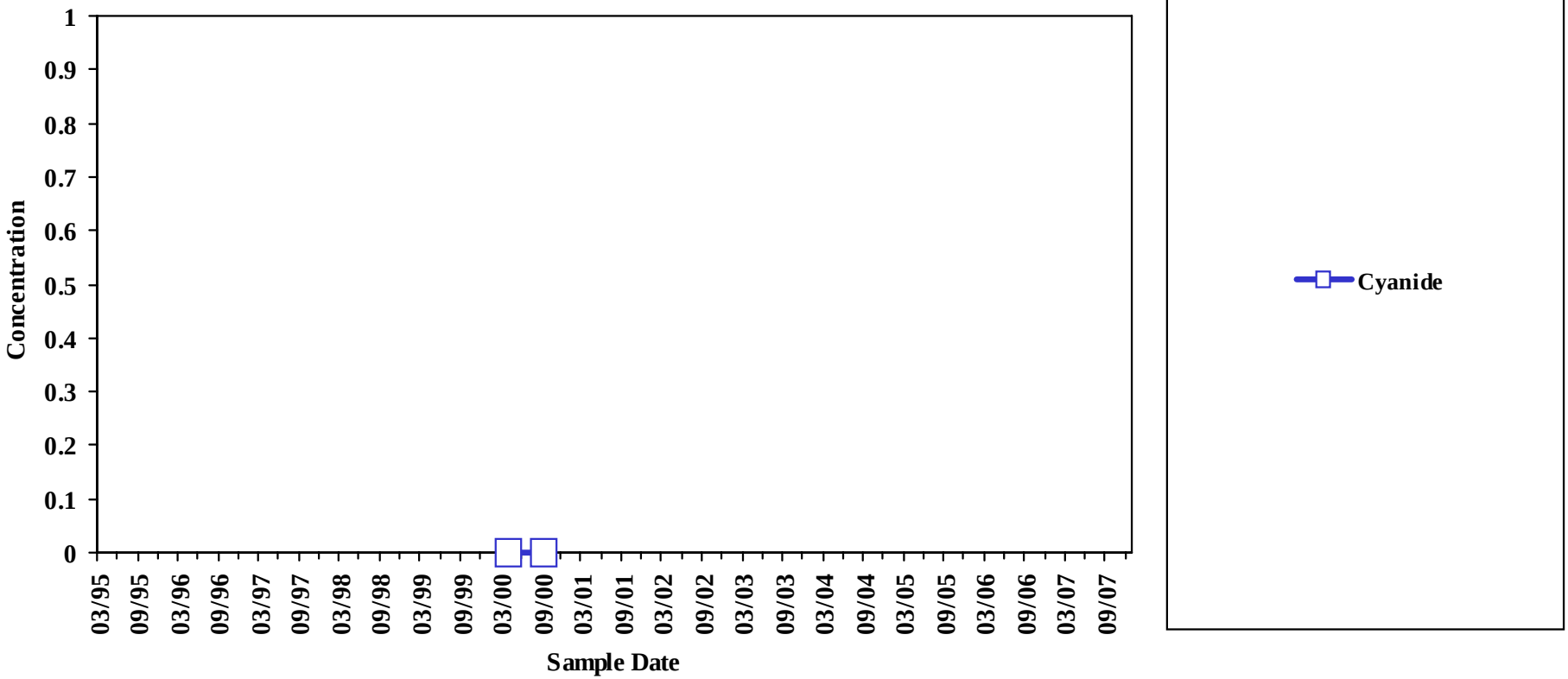
Sample Location:

MW-NASB-097

Site 17

Groundwater

Contaminants of Concern Inorganics



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Sample concentration units: mg/L

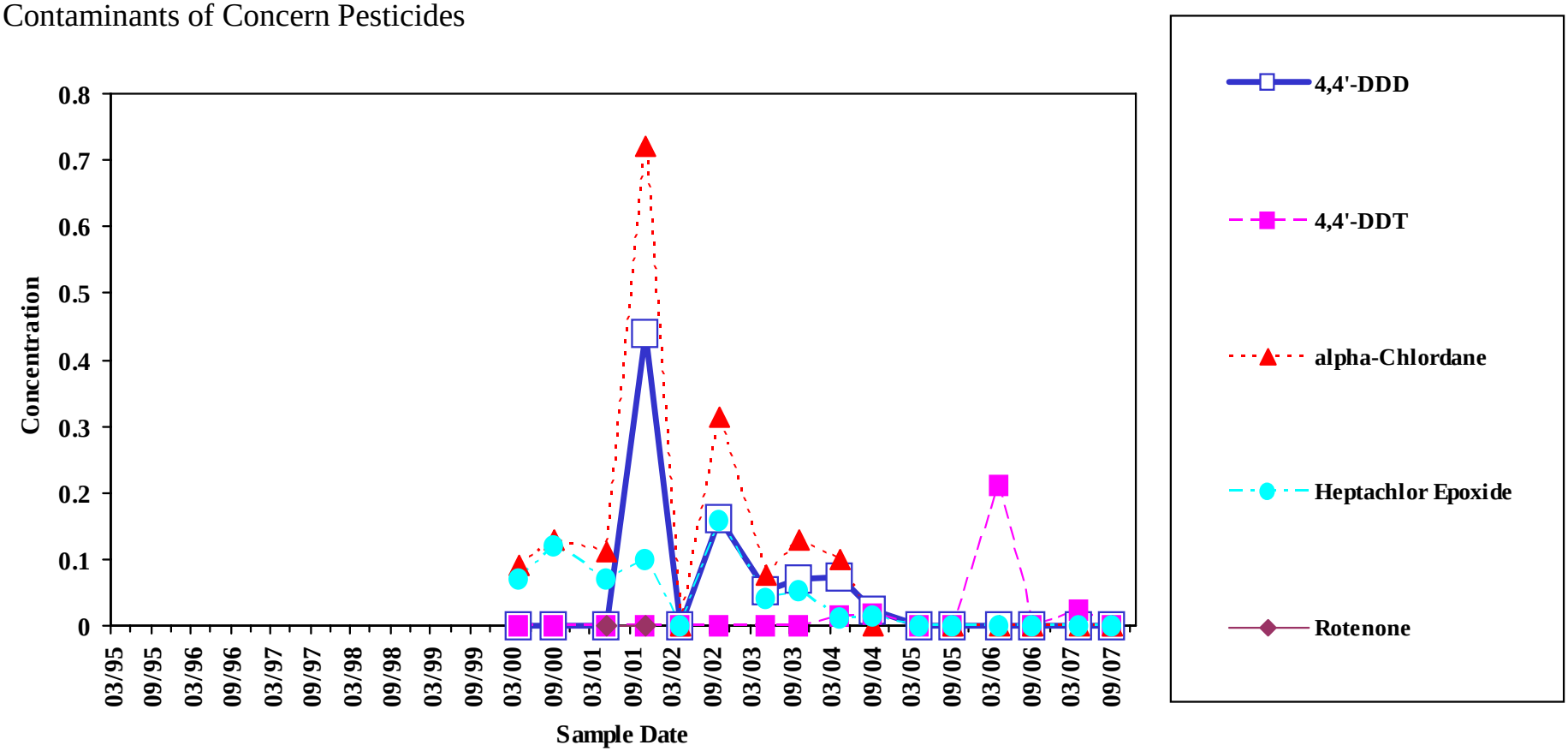
Sample Location:

MW-NASB-097

Site 17

Groundwater

Contaminants of Concern Pesticides



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Results from October 2003 should be considered estimates due to sample temperatures upon receipt at the laboratory.

Sample concentration units: µg/L

MEG	Heptachlor epoxide	alpha-Chlordane	4,4'-DDT	4,4'-DDD
	0.04	0.3	1	--

4,4'-DDT	4,4'-DDD
--	--

MCL	Heptachlor epoxide	alpha-Chlordane
	0.2	--

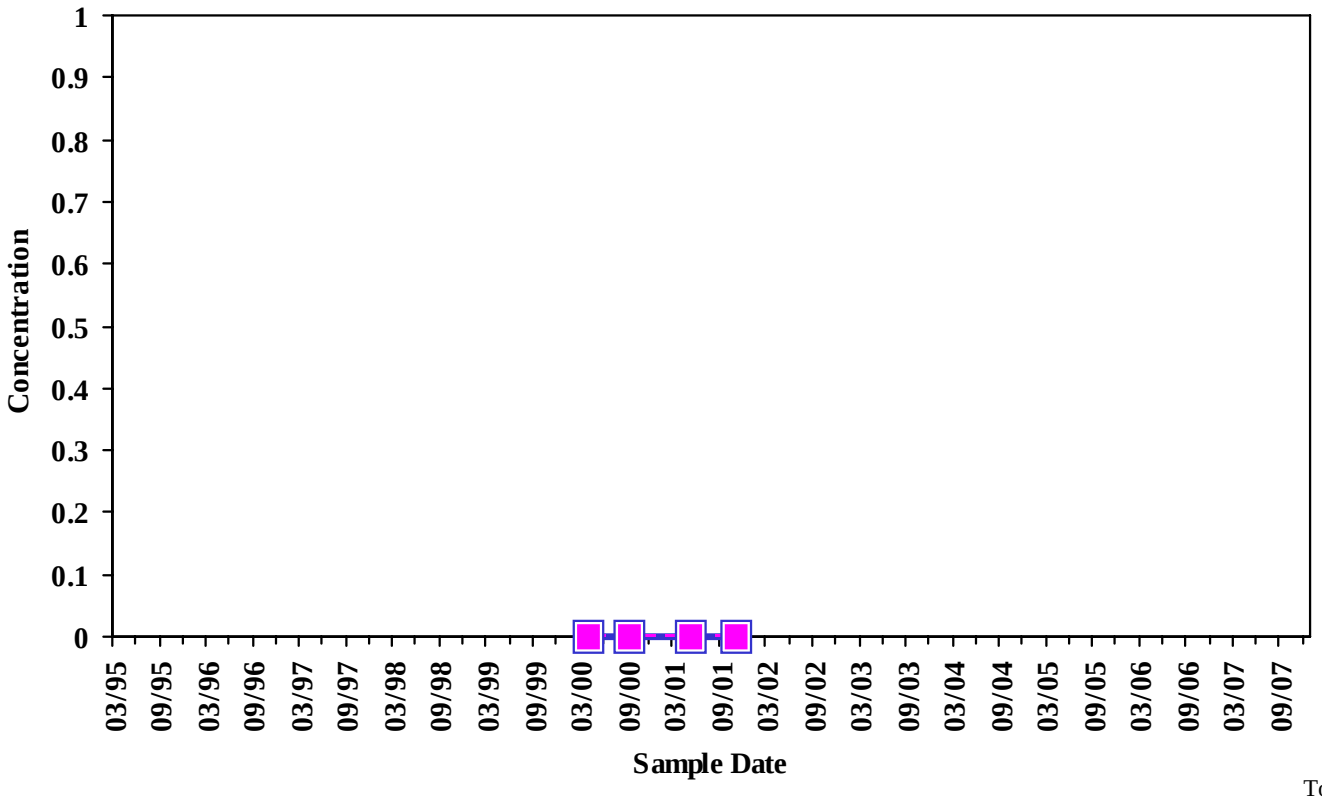
Sample Location:

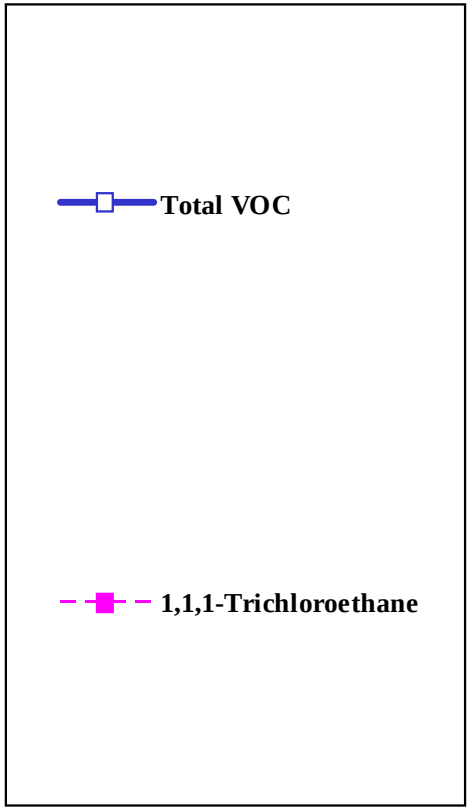
MW-NASB-097

Site 17

Groundwater

Contaminants of Concern Volatiles





Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride and Acetone.

Sample concentration units: µg/L

MEG	1,1,1-Trichloroethane	MCL	1,1,1-Trichloroethane
	200		200

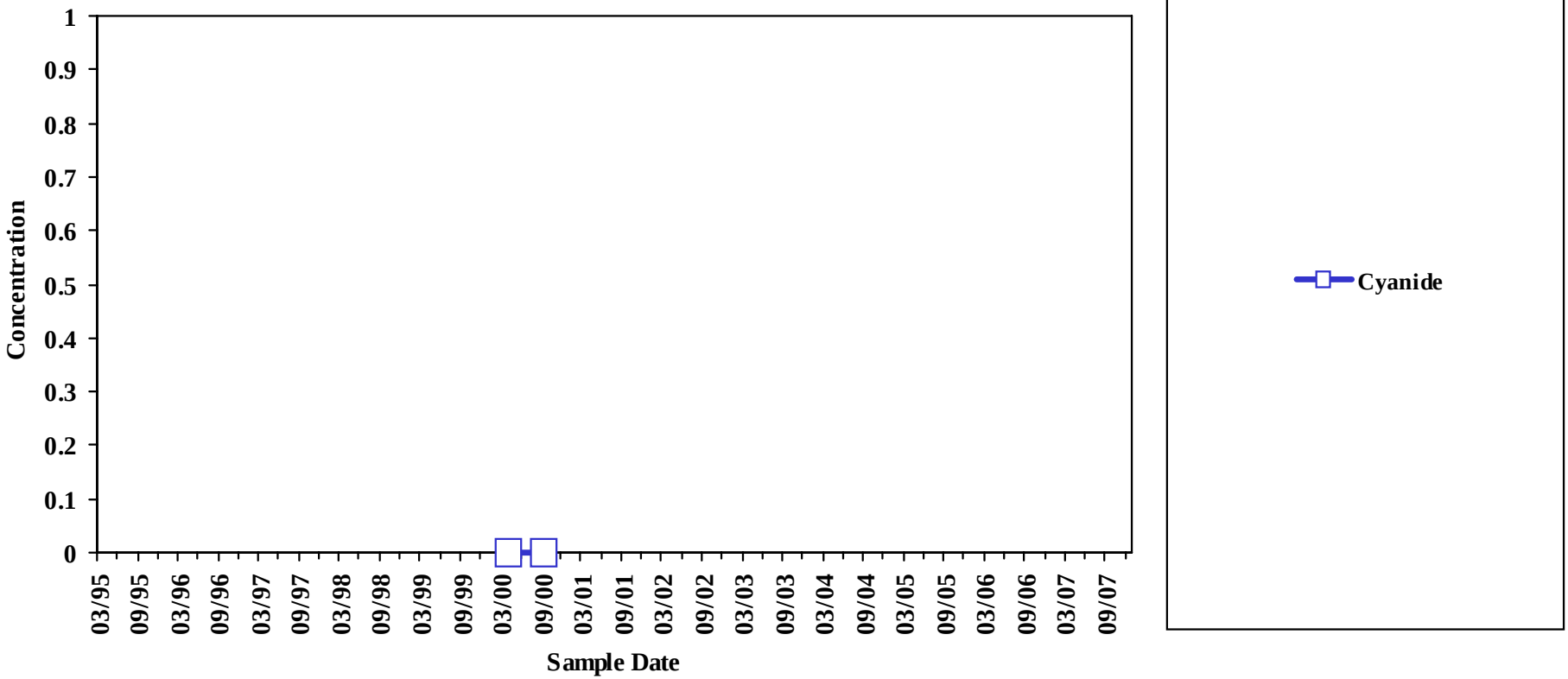
Sample Location:

MW-NASB-098

Site 17

Groundwater

Contaminants of Concern Inorganics



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Sample concentration units: mg/L

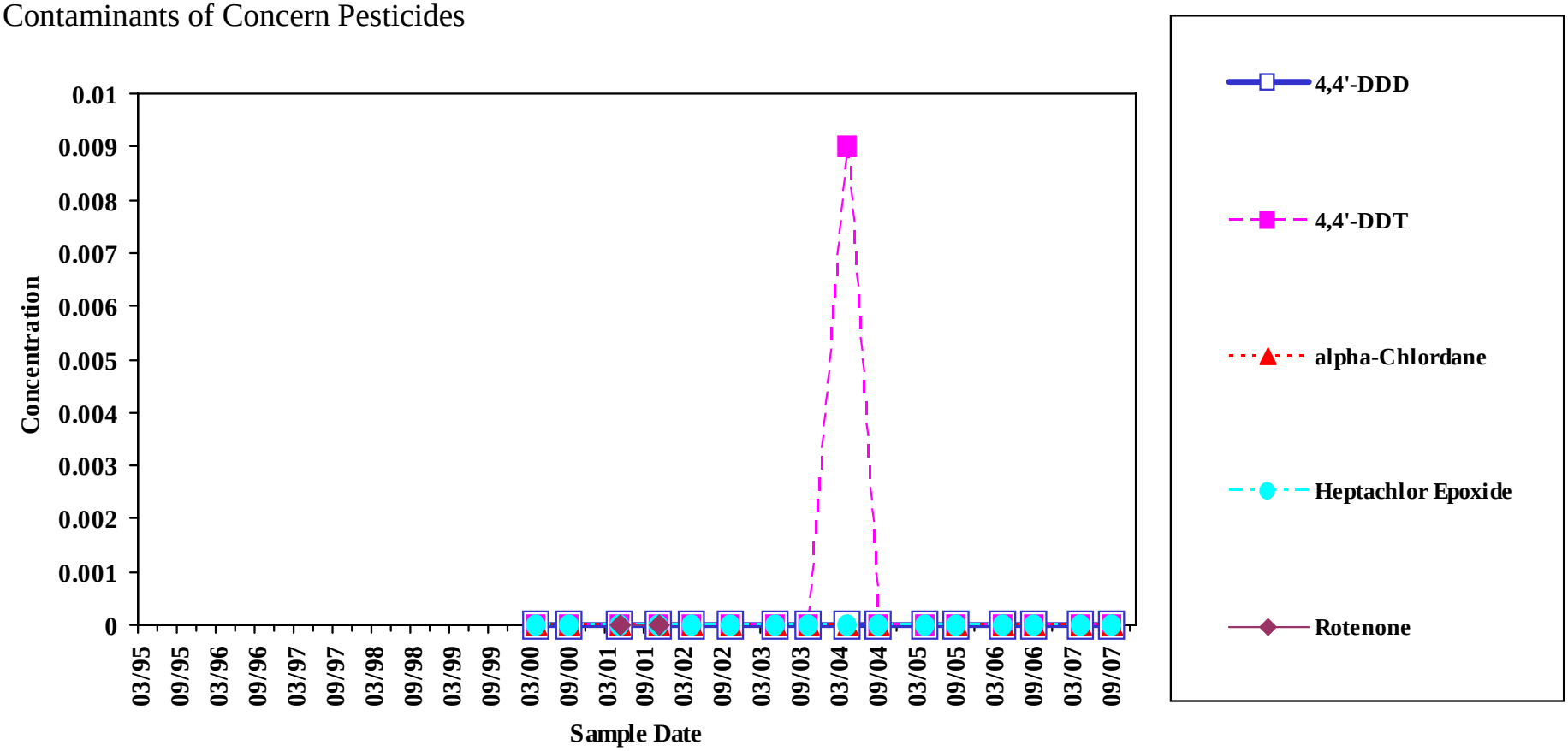
Sample Location:

MW-NASB-098

Site 17

Groundwater

Contaminants of Concern Pesticides



Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Results from October 2003 should be considered estimates due to sample temperatures upon receipt at the laboratory.

Sample concentration units: µg/L

MEG	Heptachlor epoxide	alpha-Chlordane	4,4'-DDT	4,4'-DDD
	0.04	0.3	1	--
4,4'-DDT	4,4'-DDD			
--	--			

MCL	Heptachlor epoxide	alpha-Chlordane
	0.2	--

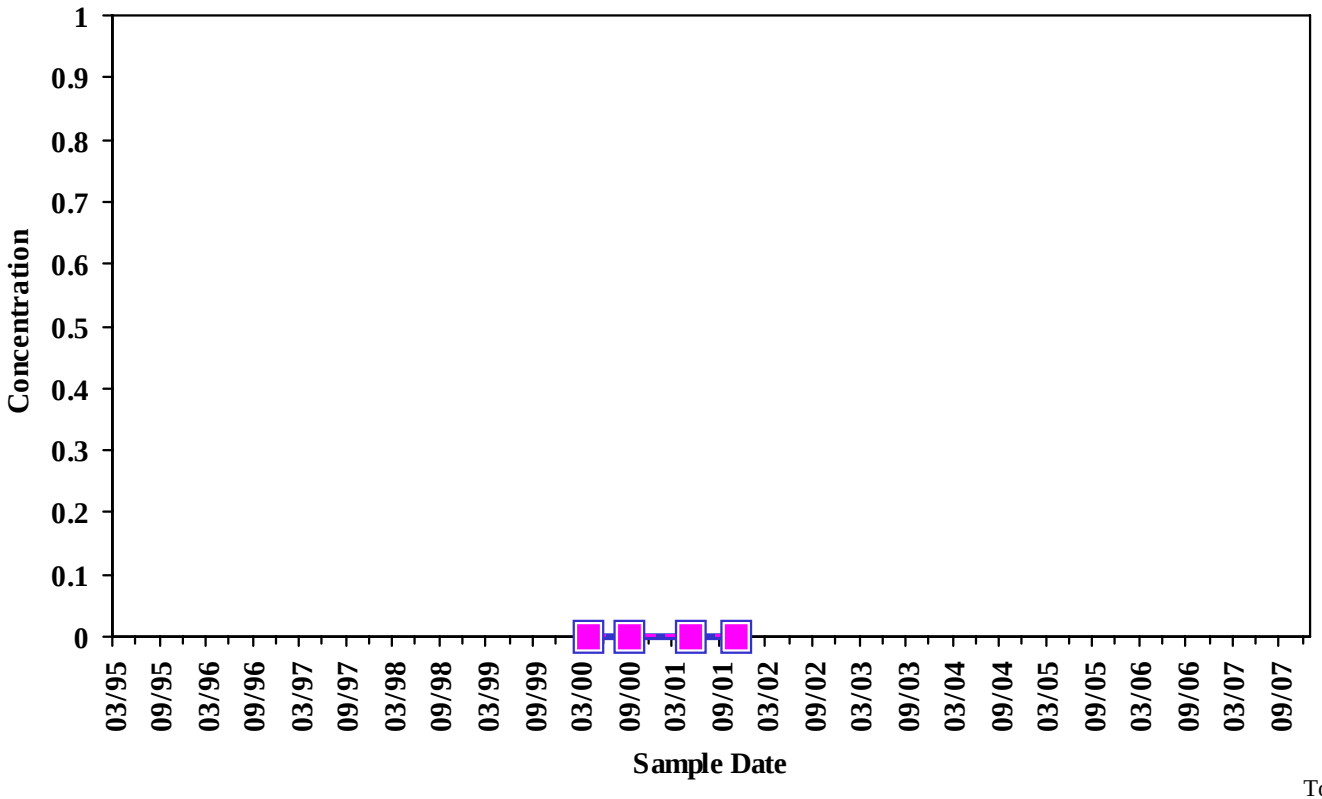
Sample Location:

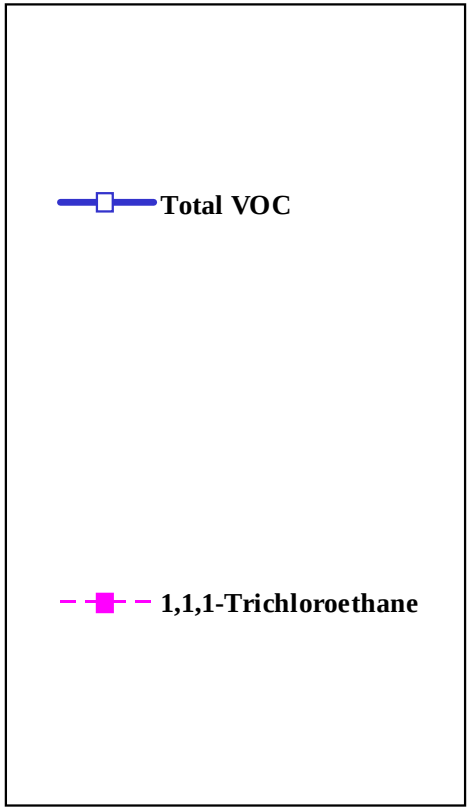
MW-NASB-098

Site 17

Groundwater

Contaminants of Concern Volatiles





Analyte concentrations less than the method detection limit (MDL) are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride and Acetone.

Sample concentration units: µg/L

MEG	1,1,1-Trichloroethane	MCL	1,1,1-Trichloroethane
	200		200

APPENDIX H

APPENDIX H

Site 17 Historical Results

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-065	MW-NASB-065	MW-NASB-065	MW-NASB-065	MW-NASB-065	MW-NASB-065
			Sample Date	3/24/1995	5/14/1995	8/11/1995	11/8/1995	2/11/1996	6/23/1996
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/l	NA	1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-BHC	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-chlordane	ug/l	NA	0.3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	ug/l	NA	42	NS	NS	NS	NS	NS	NS
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobenzene	ug/l	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-065	MW-NASB-065	MW-NASB-065	MW-NASB-065	MW-NASB-066	MW-NASB-066
			Sample Date	11/14/1996	3/17/1997	7/16/1997	7/15/1998	3/24/1995	5/14/1995
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/l	NA	1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-BHC	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-chlordane	ug/l	NA	0.3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	ug/l	NA	NA	0.05 U	NS	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	ug/l	NA	42	NS	1 U	NS			
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-Chlordane	ug/l	NA	0.3	0.05 U	NS	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobenzene	ug/l	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	ug/l	NA	NA	5 U	5 U	5 U	5 U	1 U	1 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-066	MW-NASB-066	MW-NASB-066	MW-NASB-066	MW-NASB-066	MW-NASB-066
			Sample Date	5/14/1995	8/11/1995	11/8/1995	2/11/1996	6/23/1996	11/14/1996
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/l	NA	1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-BHC	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-chlordane	ug/l	NA	0.3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	ug/l	NA	42						NS
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobenzene	ug/l	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U	5 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-066	MW-NASB-066	MW-NASB-066	MW-NASB-067	MW-NASB-067	MW-NASB-067
			Sample Date	3/17/1997	7/16/1997	7/15/1998	5/4/2001	11/1/2001	4/11/2002
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/l	NA	1	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U
Aldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.1 U	0.05 U	0.051 U	0.1 U
Alpha-BHC	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.05 U	0.051 U	0.1 U
Alpha-chlordane	ug/l	NA	0.3	0.1 U	0.1 U	0.1 U	0.05 U	0.051 U	0.1 U
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.1 U
Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	NS		
Delta-BHC	ug/l	NA	NA	NS	0.05 U	0.05 U	0.05 U	0.051 U	0.1 U
Dieldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U
Endosulfan I	ug/l	NA	42	1 U	NS	NS	0.05 U	0.051 U	0.1 U
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.1 U
Gamma-Chlordane	ug/l	NA	0.3		0.05 U	0.05 U	0.05 U	0.051 U	0.1 U
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.1 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.1 U
Hexachlorobenzene	ug/l	NA	NA	10 U	10 U	10 U	NS		
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.5 U	0.5 U	0.51 U	0.1 U
Toxaphene	ug/l	NA	NA	5 U	5 U	5 U	1 U	1 U	5 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-067	MW-NASB-067	MW-NASB-067	MW-NASB-067	MW-NASB-067	MW-NASB-067
			Sample Date	10/15/2002	5/8/2003	10/10/2003	4/6/2004	9/15/2004	4/5/2005
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.1 U	0.043 J	0.059 z	0.051 J	0.051 U	0.1 U
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.02 U	0.01 U	0.051 U	0.1 U
4,4'-DDT	ug/l	NA	1	0.1 U	0.1 U	0.025 z	0.032 z	0.083 J	0.1 U
Aldrin	ug/l	NA	0.02	0.1 U	0.05 U	0.01 U	0.01 U	0.051 U	0.05 U
Alpha-BHC	ug/l	NA	NA	0.1 U	0.05 U	0.01 U	0.01 U	0.051 UJ	0.05 U
Alpha-chlordane	ug/l	NA	0.3	0.1 U	0.05 U	0.01 U	0.01 U	0.051 U	NS
Beta-BHC	ug/l	NA	NA	0.1 U	0.05 U	0.01 U	0.01 U	0.051 U	0.05 U
Chlordane	ug/l	NA	0.3				0.1 U	NS	0.5 U
Delta-BHC	ug/l	NA	NA	0.1 U	0.05 U	0.01 U	0.01 U	0.051 U	0.05 U
Dieldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.02 U	0.01 UJ	0.051 U	0.1 U
Endosulfan I	ug/l	NA	42	0.1 U	0.05 U	0.01 U	0.01 U	0.051 U	0.05 U
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.02 U	0.01 U	0.051 U	0.1 U
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.02 U	0.01 U	0.051 U	0.1 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.02 U	0.01 U	0.051 U	0.1 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.02 U	0.01 U	0.051 UJ	0.1 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.02 U	0.01 U	0.051 U	0.1 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.2 U	0.05 U	0.01 U	0.01 U	0.051 U	0.05 U
Gamma-Chlordane	ug/l	NA	0.3	5 U	0.05 U	0.01 U	0.01 U	0.051 U	NS
Heptachlor	ug/l	0.4	0.08	0.101 U	0.05 U	0.01 U	0.01 U	0.051 U	0.05 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.101 U	0.05 U	0.01 U	0.01 U	0.051 U	0.05 U
Hexachlorobenzene	ug/l	NA	NA			NS	NS	NS	NS
Methoxychlor	ug/l	40	35	0.202 U	0.5 U	0.1 U	0.01 U	0.051 U	0.5 U
Toxaphene	ug/l	NA	NA	0.101 U	1 U	1 U	0.51 U	NS	1 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-067	MW-NASB-067	MW-NASB-067	MW-NASB-067	MW-NASB-067	MW-NASB-067
			Sample Date	9/21/2005	6/6/2006	9/11/2006	4/5/2007	9/11/2007	9/11/2007
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.1 U	0.1 U	0.071 J	0.039 J	0.058 z	0.056 J
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.021 U	0.052 U	0.009 U	0.009 U
4,4'-DDT	ug/l	NA	1	0.1 U	0.1 U	0.016 J	0.052 U	0.026 UJ	0.026 UJ
Aldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.021 UJ	0.052 U	0.007 U	0.007 U
Alpha-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.021 UJ	0.052 U	0.007 U	0.007 U
Alpha-chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.021 U	0.052 U	0.016 U	0.016 U
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.021 U	0.052 U	0.01 UJ	0.01 UJ
Chlordane	ug/l	NA	0.3	0.5 U	0.5 U		NS	NS	NS
Delta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.021 UJ	0.052 U	0.011 U	0.011 U
Dieldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.021 UJ	0.052 U	0.009 U	0.009 U
Endosulfan I	ug/l	NA	42	0.05 U	0.05 U	0.021 U	0.052 U	0.015 U	0.015 U
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.021 U	NS	0.014 UJ	0.014 UJ
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.021 U	0.052 U	0.021 U	0.021 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.021 U	0.052 U	0.011 U	0.011 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.021 UJ	0.052 U	0.05 U	0.05 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.021 U	0.052 U	0.018 UJ	0.018 UJ
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.021 UJ	0.052 U	0.007 U	0.007 U
Gamma-Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.021 U	0.052 U	0.008 U	0.008 U
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.021 UJ	0.052 U	0.016 UJ	0.016 UJ
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.05 U	0.021 U	0.052 U	0.008 U	0.008 U
Hexachlorobenzene	ug/l	NA	NA	0.05 U	0.05 U	NS	NS	NS	NS
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.021 UJ	0.052 U	0.019 UJ	0.019 UJ
Toxaphene	ug/l	NA	NA	1 U	1 U	NS	NS	NS	NS

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-068	MW-NASB-068	MW-NASB-068	MW-NASB-068	MW-NASB-068	MW-NASB-068
			Sample Date	3/24/1995	3/24/1995	5/14/1995	8/11/1995	11/8/1995	11/8/1995
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/l	NA	1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-BHC	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-chlordane	ug/l	NA	0.3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	ug/l	NA	42	NS	NS	NS	NS	NS	NS
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobenzene	ug/l	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-068	MW-NASB-068	MW-NASB-068	MW-NASB-068	MW-NASB-068	MW-NASB-068
			Sample Date	2/11/1996	2/11/1996	6/23/1996	6/23/1996	11/14/1996	3/17/1997
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/l	NA	1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-BHC	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-chlordane	ug/l	NA	0.3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Delta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NS
Dieldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	ug/l	NA	42	NS	NS	NS	NS	NS	1 U
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NS
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobenzene	ug/l	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	ug/l	NA	NA	1 U	1 U	1 U	1 U	5 U	5 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-068	MW-NASB-068	MW-NASB-068	MW-NASB-068	W-NASB-097	MW-NASB-097	M
			Sample Date	3/17/1997	7/16/1997	7/16/1997	7/15/1998	4/17/2000	9/17/2000	
		Federal MCL	**Maine MEG**							
Parameter	**Result Units**									
4,4'-DDD	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
4,4'-DDT	ug/l	NA	1	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	
Aldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	
Alpha-BHC	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	
Alpha-chlordane	ug/l	NA	0.3	0.1 U	0.1 U	0.1 U	0.1 z	0.092 C	0.13 C	
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	NS	NS	
Delta-BHC	ug/l	NA	NA	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Dieldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	
Endosulfan I	ug/l	NA	42	1 U	NS	NS	NS	0.05 U	0.05 U	
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Endrin	ug/l	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Gamma-Chlordane	ug/l	NA	0.3	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.07 C	0.12 C	
Hexachlorobenzene	ug/l	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Toxaphene	ug/l	NA	NA	5 U	5 U	5 U	5 U	1 U	1 U	

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	W-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097
			Sample Date	5/4/2001	5/4/2001	11/1/2001	4/11/2002	4/11/2002	10/15/2002
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.1 U	0.1 U	0.44 C	0.1 U	0.1 U	0.162 z
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.102 U
4,4'-DDT	ug/l	NA	1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.204 U
Aldrin	ug/l	NA	0.02	0.052 U	0.052 U	0.05 U	0.1 U	0.1 U	0.102 U
Alpha-BHC	ug/l	NA	NA	0.052 U	0.052 U	0.05 U	0.1 U	0.1 U	0.102 U
Alpha-chlordane	ug/l	NA	0.3	0.12 C	0.11 C	0.72 C	0.1 U	0.1 U	0.313 z
Beta-BHC	ug/l	NA	NA	0.052 U	0.052 U	0.05 U	0.1 U	0.1 U	0.102 U
Chlordane	ug/l	NA	0.3	NS	NS	NS	NS	NS	NS
Delta-BHC	ug/l	NA	NA	0.052 U	0.052 U	0.05 U	0.1 U	0.1 U	0.102 U
Dieldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.102 U
Endosulfan I	ug/l	NA	42	0.052 U	0.052 U	0.05 U	0.1 U	0.1 U	0.1 JP
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.102 U
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.102 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.102 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.102 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.102 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.052 U	0.052 U	0.05 U	0.1 U	0.1 U	0.102 U
Gamma-Chlordane	ug/l	NA	0.3	0.052 U	0.052 U	0.05 U	0.1 U	0.1 U	0.134 z
Heptachlor	ug/l	0.4	0.08	0.052 U	0.052 U	0.05 U	0.1 U	0.1 U	0.102 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.074 C	0.069 C	0.1 C	0.1 U	0.1 U	0.157 z
Hexachlorobenzene	ug/l	NA	NA	NS	NS	NS	NS	NS	NS
Methoxychlor	ug/l	40	35	0.52 U	0.52 U	0.5 U	0.1 U	0.1 U	0.2 U
Toxaphene	ug/l	NA	NA	1 U	1 U	1 U	5 U	5 U	5.1 U

Table H-1
Historical Groundwater Results - Site 17
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Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097
			Sample Date	5/8/2003	5/8/2003	10/10/2003	10/10/2003	4/6/2004	4/6/2004
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.042 J	0.037 J	0.072 z	0.071 z	0.034 J	0.11 J
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.02 U	0.02 U	0.01 U	0.01 U
4,4'-DDT	ug/l	NA	1	0.1 U	0.1 U	0.02 U	0.02 U	0.022 J	0.0074 J
Aldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U
Alpha-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U
Alpha-chlordane	ug/l	NA	0.3	0.027 J	0.023 J	0.12 z	0.13 z	0.044 J	0.1 J
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U
Chlordane	ug/l	NA	0.3	NS	NS	NS	NS	0.1 U	0.1 U
Delta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.014 P	0.014 P	0.01 U	0.01 U
Dieldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.02 U	0.02 U	0.01 UJ	0.01 UJ
Endosulfan I	ug/l	NA	42	0.05 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.02 U	0.02 U	0.01 U	0.0043 J
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.02 U	0.02 U	0.01 U	0.01 U
Endrin	ug/l	2	2	0.1 U	0.1 U	0.02 U	0.02 U	0.01 U	0.01 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.02 U	0.02 U	0.01 U	0.01 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.02 U	0.02 U	0.01 U	0.01 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U
Gamma-Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.01 U	0.01 U	0.04 J	0.071 J
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.034 J	0.028 J	0.036 P	0.052 P	0.0089 J	0.013 J
Hexachlorobenzene	ug/l	NA	NA	NS	NS	NS	NS	NS	NS
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.1 U	0.1 U	0.01 U	0.01 U
Toxaphene	ug/l	NA	NA	1 U	1 U	1 U	1 U	0.51 U	0.51 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097
			Sample Date	9/15/2004	9/15/2004	4/5/2005	4/5/2005	9/21/2005	9/21/2005
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.025 J	0.022 J	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	ug/l	NA	NA	0.05 UJ	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/l	NA	1	0.05 UJ	0.017 J	0.1 U	0.1 U	0.1 U	0.1 U
Aldrin	ug/l	NA	0.02	0.05 UJ	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha-BHC	ug/l	NA	NA	0.05 UJ	0.052 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Alpha-chlordane	ug/l	NA	0.3	0.05 UJ	0.052 U	NS	NS	0.05 U	0.05 U
Beta-BHC	ug/l	NA	NA	0.05 UJ	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlordane	ug/l	NA	0.3	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U
Delta-BHC	ug/l	NA	NA	0.05 UJ	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	NA	0.02	0.05 UJ	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan I	ug/l	NA	42	0.05 UJ	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan II	ug/l	NA	42	0.05 UJ	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	ug/l	NA	42	0.05 UJ	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	2	2	0.05 UJ	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	ug/l	NA	NA	0.05 UJ	0.052 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	ug/l	NA	NA	0.05 UJ	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 UJ	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-Chlordane	ug/l	NA	0.3	0.05 UJ	0.052 U	NS	NS	0.05 U	0.05 U
Heptachlor	ug/l	0.4	0.08	0.05 UJ	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.023 J	0.016 J	0.05 U	0.05 U	0.05 U	0.05 U
Hexachlorobenzene	ug/l	NA	NA	NS	NS	NS	NS	0.05 U	0.05 U
Methoxychlor	ug/l	40	35	0.05 UJ	0.052 U	0.5 U	0.5 U	0.5 U	0.5 U
Toxaphene	ug/l	NA	NA		2.6 U	1 U	1 U	1 U	1 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097	MW-NASB-097	W-NASB-098	M
			Sample Date	6/6/2006	9/13/2006	4/4/2007	4/4/2007	9/12/2007	4/17/2000	
		Federal MCL	**Maine MEG**							
Parameter	**Result Units**									
4,4'-DDD	ug/l	NA	NA	0.1 U	0.021 UJ	0.051 UJ	0.05 U	0.014 U	0.1 U	
4,4'-DDE	ug/l	NA	NA	0.1 U	0.021 U	0.051 U	0.05 U	0.009 U	0.1 U	
4,4'-DDT	ug/l	NA	1	0.21 z	0.021 UJ	0.036 J	0.023 J	0.026 UJ	0.1 U	
Aldrin	ug/l	NA	0.02	0.05 U	0.021 UJ	0.051 UJ	0.05 U	0.007 U	0.05 U	
Alpha-BHC	ug/l	NA	NA	0.05 U	0.021 UJ	0.051 UJ	0.05 U	0.007 U	0.05 U	
Alpha-chlordane	ug/l	NA	0.3	0.05 U	0.021 U	0.051 U	0.05 U	0.016 U	0.05 U	
Beta-BHC	ug/l	NA	NA	0.05 U	0.021 U	0.051 U	0.05 U	0.01 UJ	0.05 U	
Chlordane	ug/l	NA	0.3	0.5 U	NS	NS	NS	NS	NS	
Delta-BHC	ug/l	NA	NA	0.05 U	0.021 UJ	0.051 UJ	0.05 U	0.011 U	0.05 U	
Dieldrin	ug/l	NA	0.02	0.1 U	0.021 UJ	0.051 U	0.05 U	0.009 U	0.1 U	
Endosulfan I	ug/l	NA	42	0.05 U	0.021 U	0.051 U	0.05 U	0.015 U	0.05 U	
Endosulfan II	ug/l	NA	42	0.1 U	0.021 U	0.051 U	0.05 U	0.014 UJ	0.1 U	
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.021 U	0.051 U	0.05 U	0.021 U	0.1 U	
Endrin	ug/l	2	2	0.1 U	0.021 U	0.051 U	0.05 U	0.011 U	0.1 U	
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.021 UJ	0.051 U	0.05 U	0.05 U	0.1 U	
Endrin Ketone	ug/l	NA	NA	0.1 U	0.021 U	0.051 UJ	0.05 U	0.018 UJ	0.1 U	
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.021 UJ	0.051 UJ	0.05 U	0.007 U	0.05 U	
Gamma-Chlordane	ug/l	NA	0.3	0.05 U	0.021 U	0.051 U	0.05 U	0.008 U	0.05 U	
Heptachlor	ug/l	0.4	0.08	0.05 U	0.021 UJ	0.051 UJ	0.05 U	0.016 UJ	0.05 U	
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.021 U	0.051 U	0.05 U	0.008 U	0.05 U	
Hexachlorobenzene	ug/l	NA	NA	0.05 U	NS	NS	NS	NS	10 U	
Methoxychlor	ug/l	40	35	0.5 U	0.021 UJ	0.051 U	0.05 U	0.019 UJ	0.5 U	
Toxaphene	ug/l	NA	NA	1 U	NS	NS	NS	NS	1 U	

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	W-NASB-098	MW-NASB-098	MW-NASB-098	MW-NASB-098	MW-NASB-098	MW-NASB-098	M
			Sample Date	4/17/2000	9/17/2000	9/17/2000	5/4/2001	11/1/2001	11/1/2001	
		Federal MCL	**Maine MEG**							
Parameter	**Result Units**									
4,4'-DDD	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
4,4'-DDE	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
4,4'-DDT	ug/l	NA	1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Aldrin	ug/l	NA	0.02	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Alpha-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Alpha-chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Beta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Chlordane	ug/l	NA	0.3	NS	NS	NS	NS	NS	NS	
Delta-BHC	ug/l	NA	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Dieldrin	ug/l	NA	0.02	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Endosulfan I	ug/l	NA	42	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Endosulfan II	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Endrin	ug/l	2	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Endrin Ketone	ug/l	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Gamma-Chlordane	ug/l	NA	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor	ug/l	0.4	0.08	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor Epoxide	ug/l	0.2	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Hexachlorobenzene	ug/l	NA	NA	10 U	10 U	10 U	NS	NS	NS	
Methoxychlor	ug/l	40	35	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Toxaphene	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	W-NASB-098	MW-NASB-098	MW-NASB-098	MW-NASB-098	MW-NASB-098	MW-NASB-098
			Sample Date	4/11/2002	########	########	5/8/2003	10/10/2003	4/6/2004
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.1 U	0.101 U	0.101 U	0.1 U	0.02 U	0.011 UJ
4,4'-DDE	ug/l	NA	NA	0.1 U	0.101 U	0.101 U	0.1 U	0.02 U	0.011 U
4,4'-DDT	ug/l	NA	1	0.1 U	0.101 U	0.101 U	0.1 U	0.02 U	0.009 J
Aldrin	ug/l	NA	0.02	0.1 U	0.101 U	0.101 U	0.05 U	0.01 U	0.011 U
Alpha-BHC	ug/l	NA	NA	0.1 U	0.101 U	0.101 U	0.05 U	0.01 U	0.011 U
Alpha-chlordane	ug/l	NA	0.3	0.1 U	0.101 U	0.101 U	0.05 U	0.01 U	0.01 U
Beta-BHC	ug/l	NA	NA	0.1 U	0.101 U	0.101 U	0.05 U	0.01 U	0.011 U
Chlordane	ug/l	NA	0.3	NS	NS	NS	NS	NS	0.11 U
Delta-BHC	ug/l	NA	NA	0.1 U	0.101 U	0.101 U	0.05 U	0.01 U	0.011 U
Dieldrin	ug/l	NA	0.02	0.1 U	0.101 U	0.101 U	0.1 U	0.02 U	0.011 UJ
Endosulfan I	ug/l	NA	42	0.1 U	0.101 U	0.101 U	0.05 U	0.01 U	0.011 U
Endosulfan II	ug/l	NA	42	0.1 U	0.101 U	0.101 U	0.1 U	0.02 U	0.011 U
Endosulfan Sulfate	ug/l	NA	42	0.1 U	0.101 U	0.101 U	0.1 U	0.02 U	0.011 U
Endrin	ug/l	2	2	0.1 U	0.101 U	0.101 U	0.1 U	0.02 U	0.011 U
Endrin Aldehyde	ug/l	NA	NA	0.1 U	0.101 U	0.101 U	0.1 U	0.02 U	0.011 U
Endrin Ketone	ug/l	NA	NA	0.1 U	0.101 U	0.101 U	0.1 U	0.02 U	0.01 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.1 U	0.202 U	0.202 U	0.05 U	0.01 U	0.011 U
Gamma-Chlordane	ug/l	NA	0.3	0.1 U	5.05 U	5.05 U	0.05 U	0.01 U	0.01 U
Heptachlor	ug/l	0.4	0.08	0.1 U	0.101 U	0.101 U	0.05 U	0.01 U	0.011 U
Heptachlor Epoxide	ug/l	0.2	0.04	0.1 U	0.101 U	0.101 U	0.05 U	0.01 U	0.011 U
Hexachlorobenzene	ug/l	NA	NA	NS	NS	NS	NS	NS	NS
Methoxychlor	ug/l	40	35	0.1 U	0.202 U	0.202 U	0.5 U	0.1 U	0.011 U
Toxaphene	ug/l	NA	NA	5 U	5.05 U	0.101 U	1 U	1 U	0.53 U

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-098	MW-NASB-098	MW-NASB-098	MW-NASB-098	MW-NASB-098	MW-NASB-098
			Sample Date	9/15/2004	4/5/2005	9/21/2005	6/6/2006	6/6/2006	9/13/2006
		Federal MCL	**Maine MEG**						
Parameter	**Result Units**								
4,4'-DDD	ug/l	NA	NA	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U	0.021 UJ
4,4'-DDE	ug/l	NA	NA	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U	0.021 U
4,4'-DDT	ug/l	NA	1	0.052 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.021 UJ
Aldrin	ug/l	NA	0.02	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.021 UJ
Alpha-BHC	ug/l	NA	NA	0.052 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.021 UJ
Alpha-chlordane	ug/l	NA	0.3	0.052 U	NS	0.05 U	0.05 U	0.05 U	0.021 U
Beta-BHC	ug/l	NA	NA	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.021 U
Chlordane	ug/l	NA	0.3	NS	0.5 U	0.5 U	0.5 U	0.5 U	NS
Delta-BHC	ug/l	NA	NA	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.021 UJ
Dieldrin	ug/l	NA	0.02	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U	0.021 UJ
Endosulfan I	ug/l	NA	42	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.021 U
Endosulfan II	ug/l	NA	42	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U	0.021 U
Endosulfan Sulfate	ug/l	NA	42	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U	0.021 U
Endrin	ug/l	2	2	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U	0.021 U
Endrin Aldehyde	ug/l	NA	NA	0.052 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.021 UJ
Endrin Ketone	ug/l	NA	NA	0.052 U	0.1 U	0.1 U	0.1 U	0.1 U	0.021 U
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.021 UJ
Gamma-Chlordane	ug/l	NA	0.3	0.052 U	NS	0.05 U	0.05 U	0.05 U	0.021 U
Heptachlor	ug/l	0.4	0.08	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.021 UJ
Heptachlor Epoxide	ug/l	0.2	0.04	0.052 U	0.05 U	0.05 U	0.05 U	0.05 U	0.021 U
Hexachlorobenzene	ug/l	NA	NA	NS	NS	0.05 U	0.05 U	0.05 U	NS
Methoxychlor	ug/l	40	35	0.052 U	0.5 U	0.5 U	0.5 U	0.5 U	0.021 UJ
Toxaphene	ug/l	NA	NA	2.6 U	1 U	1 U	1 U	1 U	NS

Table H-1
Historical Groundwater Results - Site 17
1995 - 2007
Naval Air Station, Brunswick, Maine

Station Name: Site 17 (Building 95)

			Location ID	MW-NASB-098	MW-NASB-098	MW-NASB-098
			Sample Date	9/14/2006	4/5/2007	9/12/2007
		Federal MCL	**Maine MEG**			
Parameter	**Result Units**					
4,4'-DDD	ug/l	NA	NA	0.021 UJ	0.051 U	0.014 U
4,4'-DDE	ug/l	NA	NA	0.021 U	0.051 U	0.009 U
4,4'-DDT	ug/l	NA	1	0.021 UJ	0.051 U	0.026 UJ
Aldrin	ug/l	NA	0.02	0.021 UJ	0.051 U	0.007 U
Alpha-BHC	ug/l	NA	NA	0.021 UJ	0.051 U	0.007 U
Alpha-chlordane	ug/l	NA	0.3	0.021 U	0.051 U	0.016 U
Beta-BHC	ug/l	NA	NA	0.021 U	0.051 U	0.01 UJ
Chlordane	ug/l	NA	0.3	NS	NS	NS
Delta-BHC	ug/l	NA	NA	0.021 UJ	0.051 U	0.011 U
Dieldrin	ug/l	NA	0.02	0.021 UJ	0.051 U	0.009 U
Endosulfan I	ug/l	NA	42	0.021 U	0.051 U	0.015 U
Endosulfan II	ug/l	NA	42	0.021 U	0.051 U	0.014 UJ
Endosulfan Sulfate	ug/l	NA	42	0.021 U	0.051 U	0.021 U
Endrin	ug/l	2	2	0.021 U	0.051 U	0.011 U
Endrin Aldehyde	ug/l	NA	NA	0.021 UJ	0.051 U	0.05 U
Endrin Ketone	ug/l	NA	NA	0.021 U	0.051 U	0.018 UJ
Gamma-BHC (Lindane)	ug/l	NA	0.2	0.021 UJ	0.051 U	0.007 U
Gamma-Chlordane	ug/l	NA	0.3	0.021 U	0.051 U	0.008 U
Heptachlor	ug/l	0.4	0.08	0.021 UJ	0.051 U	0.016 UJ
Heptachlor Epoxide	ug/l	0.2	0.04	0.021 U	0.051 U	0.008 U
Hexachlorobenzene	ug/l	NA	NA	NS	NS	NS
Methoxychlor	ug/l	40	35	0.021 UJ	0.051 U	0.019 UJ
Toxaphene	ug/l	NA	NA	NS	NS	NS

APPENDIX I

APPENDIX I

Response to Comments from the Regulators on the Draft Report

Responses to Comments Provided by the State of Maine, Department of Environmental Protection Agency on the Site 17 Monitoring Event 26 (September 2007) Draft Report, December 2007 Naval Air Station, Brunswick, Maine

Reviewer: Claudia Sait
Date: January 30, 2008
Respondent: ECC
Date: September 3, 2008

Comment #	Location	Comment	Response
1	General	The data for Monitoring Event (ME) 26 – Fall 2007 are consistent with the past few years of monitoring. The lone detection was a 4,4'-DDD detection (0.056J µg/L and 0.058 µg/L-duplicate) at MW-NASB-67, well below the Maine Maximum Exposure Guideline (MEG) of 1 µg/L for DDT and its breakdown products. In general water quality has improved since the sporadic detections of pesticides at MW-NASB-097 in 2001 – 2004, with a few detections at the three site wells. (No response required.)	**Noted.** Based on the data from the last three years, the Navy is recommending that the long term monitoring be discontinued.
2	General	MEDEP anticipates that the electronic data deliverable for Site 17 will be included in a submittal of data for all long-term monitoring (LTM) sites.	**Concur.** Starting in 2008, the analytical data will be provided in MEDEP EDD format along with the draft and final report,
3	Section 2.2 and field parameter tables	Please add a note in the tables section that defines the "average" dotted lines in the graphs.	**Concur.** A note will be added to the field parameters table defining the "average" dotted lines.
4	Appendix B – Field Forms	The "black-colored" water noted at MW-NASB-097 the day it was pouring is unusual. The field parameters and laboratory results do not indicate anything anomalous in the data. What is the Navy's explanation for the color? Is it associated with roadbed material or miscellaneous fuel runoff? MEDEP noted that the picture showing the repair to the roadbox at this location appeared to have dark soil around it, although it may simply be wet rather than stained.	**Noted.** Please note that the field form for MW-097 (11 Sept 2007) indicates that the street and this flush mounted well were flooded during torrential rains. Most likely the torrential rain and high water mobilized sediment material in the roadbox, as the turbidity between the sampling on the 11th is much higher than the follow up sampling on the 12th. There was no notation of odor or sheen in the field form notes, which would be indicative of fuel. The future Site 17 Remedial Investigation will be collecting soil and groundwater samples for DRO analysis, which will data on the presence or absence of DRO at Site 17.
5	Appendix F, Temporal Trend Graphs	In MEDEP hard copy of Appendix F every other one graph is up side down. Please fix this in the final copy and electronic copy, if necessary.	**Concur.** Graphs will all be printed in the correct orientation in the final copy.

Responses to Comments Provided by the State of Maine, Department of Environmental Protection Agency on the Site 17 Monitoring Event 26 (September 2007) Draft Report, December 2007 Naval Air Station, Brunswick, Maine

Reviewer: Claudia Sait
Date: January 30, 2008
Respondent: ECC
Date: September 3, 2008

Comment #	Location	Comment	Response
6	Section 3.2, Recommendations:	The recommendation to discontinue monitoring in 2008 is reasonable given the upcoming investigation this year, and the lack of significant groundwater detections over the last 6 rounds. However, MEDEP cannot agree to discontinuing the monitoring of groundwater entirely as long as buried hazardous waste remains at the site. MEDEP is open to a discussion of a reduction in monitoring, perhaps to a spring and fall round every other year. If the Remedial Investigation is completed this year then the required groundwater monitoring will be revisited, and further revisions to the LTMP are likely. MEDEP has requested that this topic be discussed at the upcoming February 5, 2008 conference call.	**Concur.** Groundwater samples will not be collected in 2008, but Site 17 monitoring wells will be gauged. See attached letter from the Navy. In addition, buried waste identified south of the site will be addressed as per the *Site 17 Work Plan to Investigate and Remove Relocated Soils (2008).*
END OF COMMENTS			

Responses to Comments Provided by the Environmental Protection Agency on the Site 17 Monitoring Event 26 (September 2007) Draft Report, December 2007 Naval Air Station, Brunswick, Maine

Reviewer: Mike Daly
Date: February 4, 2008
Respondent: ECC
Date: September 3, 2008

Comment #	Location	Comment	Response
1	General	It would be extremely helpful for readers if future ME reports include a running history of all analytical results for all the site monitoring wells, not just the most recent results for the current LTMP well list. These data should be provided in a table and be included as a hard copy in the table or appendices section of the report. It is not sufficient to provide only historical graphical plots of data. Once these spreadsheets are prepared, they are very easy to update with future results.	**Concur.** A historical results table for Site 17 will be included in the appendices section of this and all future Site 17 reports.
2	Section 3.2 Recommendations	EPA concurs with the Navy conclusion that future near-term LTM sampling frequency should be revisited given contaminant trends in these monitoring wells. EPA believes it would make sense to revisit the LTMP after data is collected and evaluated as part of the TtNUS work plan. Ground water data will be collected in 2008 as part of the TtNUS effort so it is reasonable to postpone planned 2008 LTMP sampling. Once the TtNUS-collected data becomes available, the LTMP can be revisited. The Navy should submit a formal letter to the regulators requesting postponement of 2008 LTMP sampling and provide a schedule as to when the new TtNUS data will be made available. If for some reason the TtNUS work does not get executed in 2008, the Navy should plan on implementing the existing LTMP in 2009. The Navy letter should directly reference the existing LTMP and it should be attached to the existing LTMP so there is no confusion as to what the Navy's LTMP sampling and reporting obligations are for this site in 2008.	**Noted.** See attached Navy letter about the LTMP suspension for 2008.
END OF COMMENTS			

DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE, NORTHEAST
4911 SOUTH BROAD STREET
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5090
BPMO NE/TB
Ser 08-116
April 2, 2008

Mr. Michael J. Daly
Remedial Project Manager
Federal Facilities Superfund Section
U. S. Environmental Protection Agency
1 Congress Street, Suite 1100 (HBT)
Boston, MA 02114-2023

Ms. Claudia Sait
Remedial Project Manager
Maine Department of Environmental Protection
Bureau of Remediation and Waste Management
17 State House Station
Augusta, ME 04333-0017

SUBJECT: SUSPENSION OF 2008 LONG-TERM MONITORING PROGRAM, SITE 17 - BUILDING 95, NAVAL AIR STATION BRUNSWICK, MAINE

Dear Mr. Daly and Ms. Sait:

As discussed during the Naval Air Station Brunswick (NASB), Maine conference call among the project stakeholders (US EPA, MEDEP and Navy) on 5 February 2008, and presented in Site 17 Monitoring Event Nos. 25 (April 2007) and 26 (September 2007) Reports to discontinue sampling, the Navy is seeking to suspend the Long-Term Monitoring Program (LTMP) sampling during 2008 at Site 17, Building 95. The US EPA and MEDEP representatives agreed to the suspension of the LTM Program at Site 17 during 2008; however, they requested the Navy's request be put in writing regarding the LTMP suspension. In addition, the regulators stated that the suspension of the Site 17 LTM Program will be reviewed in December 2008 to determine if the LTM Program should resume in 2009.

If you have any questions concerning this correspondence, please contact Mr. Todd Bober at (215) 897-4911.

Sincerely,

Paul F. Burgio
BRAC Environmental Coordinator
By direction of BRAC PMO

Copy to:
MEDEP (C. Evans)
Gannet-Fleming (P. Golonka, D. McTigue)
NASB (L. Joy, M. Fagan)
Lepage Environmental (C. Lepage)
BRAC PMO Northeast (P. Burgio)
NAVFAC MIDLANT (T. Bober)
NAVFAC ATLANTIC (A.Van Dercook, D. Barclift, B.Capito)
TtNUS (L. Klink, A. Ostrofsky, J. Connet)
ECC (A. Easterday, G. Calderone, J. Kiker, H. Cavanagh, M. Carver)
Curtis Memorial Library

November 7, 2008

Mr. Todd Bober
Department of Navy
Base Realignment and Closure
Program Management Office-Northeast
4911 South Broad Street
Philadelphia, PA 19112-1303

Re: Site 17, Monitoring Event 26, Response to Comments (RTCs)
Naval Air Station, Brunswick, Maine

Dear Mr. Bober:

Pursuant to Section VI of the Naval Air Station, Brunswick, Maine Federal Facility Agreement (Oct 1990), as amended, the Maine Department of Environmental Protection (MEDEP) has reviewed the Navy's responses dated September 16, 2008, to MEDEP's comments, dated January 30, 2008, for draft "Site 17 (Building 95), Monitoring Event 26 Report-September 2007", dated December 2007, prepared by ECC. Based on that review, MEDEP has no further comments provided that the proposed revisions and additions are incorporated into the final report along with regulator comments, responses and this letter.

Please contact me at (207) 287-7713 or claudia.b.sait@maine.gov, if you have any questions or comments.

Respectfully,

Claudia Sait
Project Manager-Federal Facilities
Bureau of Remediation & Waste Management