



*Environmental Science
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TEST PIT SOIL SAMPLING AND ANALYSIS REPORT

**FORMER OMNISOURCE CORPORATION FACILITY
1610 NORTH CALHOUN STREET
FORT WAYNE, ALLEN COUNTY, INDIANA**

AVANT Group
508 Incentive Drive
Fort Wayne, Indiana 46825

November 16, 2007

Project 07-791-30

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1.0 EXECUTIVE SUMMARY

AVANT Group (AVANT) was retained by the City of Fort Wayne, Division of Community Development (City) to perform sampling and analysis of soil on the former OmniSource facility located at 1610 North Calhoun Street, Fort Wayne, Indiana. The site location is identified on Figure 1. The soil sampling and analyses were performed as total metals (arsenic, cadmium, lead, and mercury) and total polychlorinated biphenyls (PCBs) which were previously identified in soil samples collected from five, random soil sampling locations. The five random soil samples were collected from surface/near-surface soils in August 2007. The sampling locations are identified on Figure 2 as B-10 through B-14. The results of these analyses indicated that the soil samples had elevated concentrations of arsenic, cadmium, lead, mercury, and total PCBs in excess of the IDEM RISC Residential Default Closure Levels for soils. Several of the constituent concentrations exceeded the IDEM RISC Industrial Default Closure Levels for soils.

During the week of October 1, 2007, four soil borings were advanced and thirty-three test pits were excavated on the site. The soil sampling locations are identified on Figure 2 as TP-1 through TP-37. The test pits were excavated at randomly selected locations on the site. The locations were selected based upon a one-acre grid of the site with each one-acre grid being subdivided into 16 sections. Each sample location was selected using a random number generator with a lower bound of 1 and an upper bound of 16. The grid area included areas adjacent to site buildings, within the former auto salvage yard, along railroad spurs, and in the location of former building footprints. Two hand-auger borings were also performed on the east side of North Clinton Street on the grounds of Lawton Park. These boring locations are identified on Figure 2 as HA-1 and HA-2.

The soil borings and test pits were performed to identify the thickness of fill material on the site and to assess if contaminants previously identified as having constituent concentrations exceeding the IDEM RISC Residential Default Closure Levels exists throughout the site. Soil samples were typically collected from the near surface (0.0 to 0.5 ft) soils, at a depth consistent with half the fill thickness, and at the apparent top of the underlying, native soils. Soil samples collected from each horizon were analyzed for total metals (arsenic, cadmium, lead, and mercury) and total PCBs. The samples were analyzed on a dry weight basis. The results of the analyses were compared to the IDEM RISC Residential and Industrial Default Closure Levels as presented in the IDEM RISC Technical Guide, Appendix 1, Default Closure Tables, updated January 31, 2006.

The results of the soil analyses indicated that a large portion of the site had concentrations of lead and arsenic in excess of the IDEM RISC Residential and Industrial Closure Levels. PCBs were identified at several locations at concentrations less than the RISC Residential Default Closure Level. However, the initial, random samples collected in August 2007 did have concentrations of PCBs in excess of the RISC Industrial Default Closure Level. Cadmium and mercury were detected at most locations but at concentrations less than the RISC Residential Default Closure Levels. Several locations had cadmium concentrations exceeding the RISC Residential Default Closure Level, but not the RISC Industrial Default Closure Level. One location had a mercury concentration exceeding both the RISC Residential and Industrial Default Closure Levels. The soil analytical results from the soil borings, hand-auger borings, and test pits are included in Table 1.

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Ten soil samples with elevated lead concentrations were also analyzed for the toxicity characteristic leaching procedure (TCLP). Three of the samples analyzed had detectable lead above 5.0 mg/Kg which is the Maximum Concentration of Contaminants for Characteristics of EP Toxicity. TCLP lead results are presented in Table 2.

Based on the sampling and analyses performed on the site to date, the majority of site surface and near-surface soils have been impacted with total metals (specifically arsenic, cadmium, lead, and mercury) in excess of the IDEM RISC Residential Default Closure Levels. A majority of the total lead and arsenic results were also found in excess of the IDEM RISC Industrial Default Closure Levels. Some locations have also been impacted by cadmium, mercury, and PCBs having concentrations greater than both the RISC Residential and Industrial Default Closure Level.

2.0 SOIL SAMPLING INVESTIGATION

Thirty-seven soil sampling locations were identified on the site for sampling based upon a statistical evaluation and previous soil sampling results. Thirty-three test pits were made using a track-mounted excavator to excavate test pits which extended to the apparent top of the native soils underlying the fill material (foundry sand, bricks, railroad ballast, cinders, etc.) at the site. Four of the locations were sampled using a Geoprobe™ due to the presence of asphalt. Two sampling locations were identified off-site on the grounds of Lawton Park and these locations were sampled using a hand auger. Generally speaking, the term test pit includes the sampling by Geoprobe™ borings and hand augering. The soil sampling data collected from the five previous sampling locations is included herein.

The soil samples, collected as part of this investigation, were analyzed for total RCRA metals (arsenic, cadmium, lead, and mercury), and total polychlorinated biphenyls (PCBs). The samples were analyzed on a dry weight basis as required by the Indiana Department of Environmental Management (IDEM). These constituents were selected for analyses based on the laboratory results of the five soil samples collected and analyzed from random sampling locations across the site in August 2007. The results of the August soil investigation, presented in the *Draft Sampling and Analysis Report*, prepared by AVANT Group and submitted to the City of Fort Wayne on September 4, 2007, indicated arsenic, cadmium, lead, mercury, and total PCBs exist in soils at concentrations greater than the IDEM Risk Integrated System of Closure (RISC) Residential and Industrial Default Closure Levels.

2.1 Soil Sampling

The five initial sampling locations were randomly chosen on the site. These locations were not selected due to evidence of surface staining, metal debris, and/or the footprint of former site buildings. The 33 test pit locations were randomly chosen by gridding the site and surrounding area into approximately 1.0 acre square areas. Each acre area was gridded into 16 subsections and a random number generator, with a lower bound of 1 and an upper bound of 16, was used to choose the grid location to be sampled within each one acre area. The hand-auger boring locations were chosen based on potential historic site conditions at Lawton Park. HA-1 was advanced in an area on the site that did not appear to have been disturbed for at least 50 years. HA-2 was advanced in an area on the site where it appears that earth moving activities in the past 10 years have disturbed the site soils.

The site location is presented on Figure 1. The test pit locations, including the Geoprobe™ borings are designated TP-1 through TP-37 on Figure 2. The off-site sampling locations are designated HA-1 and HA-2 and the five sampling locations performed on the site in August 2007 are designated B-10 through B-14 on Figure 2.

Photographs were taken of a majority of the excavated test pits to illustrate the apparent thickness and contents of the fill material encountered on the site. Photographs depicting the fill material encountered are included on Figure 3.

The majority of soil samples were collected for analyses from three distinct horizons within each of the test pits and the hand-auger borings. Where little or no fill material was encountered, only two soil horizons were sampled. The first sample horizon included near surface soils and fill material which extended from the ground surface to a depth of approximately 0.5 feet. The second sample horizon included samples collected from the approximate mid-depth of apparent fill material identified within each test pit. The third sample horizon included samples collected from the apparent surface, or near surface of the underlying native soils. The fill material was distinguished from the native soils based on color, foreign material (metal, wood, foundry sand, slag, etc.), and odor. Each test pit location was excavated to a depth such that the fill material and the native soils were clearly distinguished from the fill material. Care was taken when collecting the native soil samples so as not to introduce any of the overlying fill material in the sample container.

Each soil sample was collected from the sidewall of the excavation or the bottom of the excavation using a separate pair of nitrile gloves for each collected sample. The depth of each sample collected for analysis is included in Table 1. Soil samples were placed in 1.0 pound soil sample bags provided by the laboratory. Each sample bag was identified with the sample location number, depth of sample, date collected, and time collected.

Where soil samples were collected using Geoprobe™, the soil borings were advanced using a track-mounted Geoprobe™ unit. A 2.0-inch diameter Macro-core sampler was used to collect the soil samples. The hand auger samples were collected using a 2-inch diameter stainless steel hand auger. Standard field protocols were used for sampling with the Geoprobe™ and hand auger and equipment cleaning between each sample collection.

2.2 Fill Material

The nature and thickness of the fill material on the site was investigated through soil borings and test pit excavations. The thickness of fill on the site varied from no fill to approximately 10 feet in thickness. The location of the fill material on the site also varied due to the location of former and/or existing site buildings, asphalt paved areas, and former roadways. The measured thickness of the fill material on the site is presented on Figure 4.

The southeastern portion of the site (former railroad spur) and locations of previous railroad-related site features (turn tables, spurs, etc) exhibited fill material that consisted mainly of foundry slag, railroad ballast material. Coal, broken concrete, and treated (creosote) railroad timbers were also prevalent in these locations. The majority of the site most recently was used as an automobile salvage scrap metal recycling yard. The fill on this portion of the site mainly consisted of re-worked soil with metal scraps, wire, non-metallic automotive parts, and oil stained soils.

Some fill material on the west-central portion of the site (TP-22) appeared to consist mainly of foundry sand. The sand had appeared to have solidified and had a consistency similar to brittle concrete.

2.3 Laboratory Analyses

The five initial soil samples collected on the site on August 3, 2007 were analyzed for total RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) using SW-846 Methods 6010B and 7471A. Collected soil samples were also analyzed for polychlorinated biphenyls (PCBs) using SW-846 Method 8082. Selected soil samples, those having the highest total lead concentrations, were analyzed for toxicity characteristic leaching procedure (TCLP) lead using SW-846 Methods 6010B. The soil samples were also analyzed for percent moisture using SW-846 Method 1684 and therefore, the metals and PCB concentrations were reported on a dry-weight basis. The five (5) initial soil samples were analyzed by ENVision Laboratories, Inc., Indianapolis, Indiana. A complete laboratory report of these analyses is included in the *Draft Sampling and Analysis Report* submitted to the City by AVANT on September 4, 2007.

The test pit and hand-auger soil samples were analyzed for total RCRA metals (arsenic, cadmium, lead, and mercury) using SW-846 Methods 6020 and 6010B. Selected soil samples, those having the highest total lead concentrations, were analyzed for toxicity characteristic leaching procedure (TCLP) lead using SW-846 Methods 6010B. Collected soil samples were also analyzed for polychlorinated biphenyls (PCBs) using SW-846 Method 8082. The soil samples were also analyzed for percent moisture using EPA Method 160.3 and therefore, the metals and PCB concentrations were reported on a dry-weight basis. These soil samples were analyzed by A&L Great Lakes Laboratory, Inc., Fort Wayne, Indiana.

A total of 121 soil samples were collected and analyzed as part of this investigation. Level IV quality assurance/quality control (QA/QC) data is included with the sample data sheets which are presented in Appendix A on a compact disk.

3.0 SAMPLING RESULTS

3.1 Initial Sampling Results

The soil sample results from the initial five soil samples indicated concentrations of PCBs, arsenic, and lead in excess of the IDEM RISC Residential and Industrial Default Closure Levels. Cadmium and mercury were also detected in the soil samples at concentrations greater than the IDEM RISC Residential Default Closure Levels. The constituent concentrations are presented in Table 1. Note that the PCB analyses results presented in Table 1 do not differentiate between the seven (7) Aroclor compounds identified during analysis; the results are presented as total PCBs.

PCBs were detected in four of the soil samples at concentrations varying from 4.28 to 46.60 mg/Kg. Arsenic was detected in four of the soil samples at concentrations varying from 3.1 to 7.6 mg/Kg. Lead was detected in five of the soil samples at concentrations varying from 295 to 3,081 mg/Kg. Cadmium was detected in five of the soil samples at concentrations varying from 4 to 54 mg/Kg while mercury was detected in three of the soil samples at concentrations varying from 1.6 to 9.6 mg/Kg.

Below are the IDEM RISC Residential and Industrial Default Closure Levels for the constituents of concern at the site:

<u>Constituent</u>	<u>Residential</u>	<u>Industrial</u>
PCBs	1.8 mg/Kg	5.3 mg/Kg
Arsenic	3.9 mg/Kg	5.8 mg/Kg
Cadmium	7.5 mg/Kg	77 mg/Kg
Lead	81 mg/Kg	230 mg/Kg
Mercury	2.1 mg/Kg	32 mg/Kg

Based upon the aforementioned analytical results, additional soil sampling and analysis was warranted to further assess the detected contaminants.

3.2 Additional Sampling Results

PCBs. PCBs were detected at concentrations greater than the laboratory detection limit in 19 of the 116 additional soil samples analyzed. These concentrations varied from 0.44 to 5.66 mg/Kg. 13 of the detections are at concentrations greater than the RISC Residential Default Closure Level while two of the 13 detections were at concentrations exceeding the RISC Industrial Default Closure Level.

The two soil samples with elevated PCB concentrations above RISC Industrial Default Closure Level and the remaining 17 soil samples with elevated PCB concentrations above RISC Residential Default Closure Level were collected within the fill material in test pits. No PCBs were detected above the laboratory detection limit from the native soil samples analyzed.

Arsenic. Arsenic was detected in all 116 of the soil samples analyzed. These concentrations varied from 1.72 to 130 mg/Kg. Arsenic was detected above the RISC Residential Default Closure Level in 112 of the samples and above the RISC Industrial Default Closure Level in 106 of the samples. The current RISC Default Closure Levels for arsenic do not consider typical background concentrations in soils in northern Indiana. Typical background concentrations of arsenic vary from six to 15 mg/Kg. Therefore, only 29 of the soil samples analyzed may have concentrations exceeding typical background concentrations. Additional sampling from proximate areas not impacted by industrial activities followed by a statistical evaluation of the laboratory data would be required to assess the closure level for arsenic.

The soil samples having significantly elevated concentrations of arsenic generally were collected from within the fill material. The majority of the native soils appear to have arsenic concentrations within the typical background range.

Cadmium. Cadmium was detected above the RISC Residential Default Closure Level in 14 of the 116 samples analyzed. These concentrations varied from 0.28 to 40.7 mg/Kg. Cadmium concentrations did not exceed the RISC Industrial Default Closure Levels in any of the samples analyzed. Where cadmium was detected at concentrations greater than the RISC Industrial Closure Level, the samples were collected from within the fill material. Cadmium was generally not detected in the native soil samples analyzed. Where cadmium was detected in the native soils, the concentrations were below the RISC Residential Default Closure Level.

Lead. Lead was widely detected in the soil samples at the site with 61 soil samples having concentrations greater than the RISC Residential Default Closure Level. 45 of the 61 samples analyzed had lead concentrations exceeding the RISC Industrial Default Closure Level. These concentrations varied from 4.32 to 33,622 mg/Kg. Generally, the soil samples having lead concentrations above the RISC Default Closure Levels (both residential and Industrial) were collected from the fill material. Two native soil samples analyzed had lead concentrations greater than the RISC Residential Default Closure Level. Due to the elevated concentrations of lead present in the site soils, ten soil samples were chosen for analysis using the toxicity characteristic leaching procedure (TCLP).

The ten soil samples chosen for TCLP analysis had total lead concentrations above 1,400 mg/Kg. Three of the soil samples were analyzed from the initial five soil samples collected in August 2007 and the remaining seven soil samples were from test pit samples. Each of the ten samples analyzed had detectable TCLP lead concentrations above the laboratory detection limit. Three of the samples had lead concentrations in excess of 5.0 mg/L, which is the Maximum Concentration of Contaminants for Characteristics of EP Toxicity. The TCLP lead results are presented in Table 2.

Mercury. Mercury was detected at concentrations above the RISC Residential Default Closure Level in nine of the soil samples analyzed and above the RISC Industrial Default Closure Level in one sample analyzed. These concentrations varied from 0.27 to 32.4 mg/Kg. All mercury detection at concentrations above the RISC Residential Default Closure Level were from soil samples collected for the fill material. Mercury was not detected in the native soils.

Soil analytical results are presented on Figures 5, 6, and 7. Figure 5 illustrates the near surface fill material metal and PCB concentrations. Figure 6 depicts the mid-fill metal and PCB concentrations, and Figure 7 depicts the native soil metal and PCB concentrations.

4.0 SUMMARY AND CONCLUSIONS

A total of forty-four (44) sampling locations and one-hundred twenty one (121) soil analyses were performed as part of this investigation. The results indicate that widespread metals contamination is present on the site.

The soils at the site have been impacted with elevated concentrations of total metals (arsenic, cadmium, lead, and mercury) and PCBs. The most significant metal concentrations concern lead. The IDEM RISC program allows for the determination of Non-Default Closure Levels for constituents identified on sites of this size. The calculation of Non-Default Closure Levels may alleviate the need for remediation of some areas on the site based on higher concentrations of metals allowed to remain. However, any remedial action developed for the site will be dependent on the end use of the site for residential and/or industrial purposes.

5.0 LIMITATIONS

The services, data, and opinions of AVANT Group, (AVANT) performed for and expressed in this report are for the sole and exclusive use of the City of Fort Wayne. Reliance by any third party on the facts, conclusions, and recommendations in this report is not contemplated. The scope of services for this project may not be appropriate for the needs of others, and the use or re-use of this document and the findings, conclusions, or recommendations expressed herein by any third party is at their sole risk.

In performing this investigation, AVANT has striven to conform to generally accepted principles and practices of other consultants conducting similar investigations in the same geographic area. This warranty is in lieu of all others, either expressed or implied. The investigation is limited to the specific project, property, and date of AVANT's site visit, as described in this report, and its findings should not be relied upon by any party to represent conditions at other times or properties. The investigation described in this report was also conducted within the context of agency rules, regulations, and enforcement policies in effect at the time of its execution; later changes in rules, regulations, and policies may result in different conclusions than those expressed in this report.

The scope of the investigation and report was mutually devised by AVANT and the City of Fort Wayne and is not intended as an audit for regulatory compliance. No activity, including sampling, investigation, or evaluation of any material or substance, may be assumed to be included in this investigation unless such activity is expressly considered in the scope of work and this report. Maps and drawings in this report are included only to aid the reader and should not be considered surveys or engineering studies.

AVANT's observations, findings, and opinions are based on our professional judgment concerning the significance of the data gathered during the course of this assessment. Specifically, AVANT does not and cannot represent that the site contains no hazardous or toxic materials or other latent condition beyond that observed by AVANT during the assessment. The findings of the investigation are probabilities based on AVANT's professional judgment of site conditions as discernible from the limited, and often indirect, information provided by others and obtained or observed by AVANT using the methods specified. AVANT does not warrant the accuracy or completeness of information and independent opinions, conclusions, and recommendations provided or developed by others and assume no responsibility for documenting conditions detectable with methods or techniques not specified in the scope of work. AVANT's opinion regarding site conditions is not a warranty that all areas within the site and beneath site structures are of the same quality or condition as those observed or sampled.

Sincerely,
AVANT Group

Mark Anderson
MLL

Mark Anderson, LPG
Project Manager

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Table 1
PCB and Total Metals Analyses
Former OmniSource Corporation Site, 1610 North Calhoun Street, Fort Wayne, Indiana

Sample ID	Sample Depth (ft.)	Contaminant Concentrations mg/Kg				
		Total PCBs	Arsenic	Cadmium	Lead	Mercury
TP1	0-0.5	<0.42	20.3	2.85	404	0.39
	2	<0.43	17.9	5.36	503	0.30
	4.5	<0.44	19.2	<0.0066	7.31	<0.0011
TP2	0-0.5	<0.46	9.08	3.73	261	0.39
	2	<0.45	14.0	3.02	313	0.39
	4	<0.42	5.49	<0.0063	5.16	<0.0011
TP3	0-0.5	<0.46	15.5	3.01	681	0.41
	1	<0.44	13.3	1.85	208	<0.0011
	2.5	<0.45	6.07	<0.0068	8.46	<0.0011
TP4	0-0.5	3.59	15.7	16.4	1,163	3.03
	2	<0.47	25.8	4.46	755	0.84
	3.5	<0.43	5.62	<0.0065	5.57	<0.0011
TP5	0-0.5	1.24	6.42	6.08	324	1.01
	2	<0.43	10.3	1.52	278	<0.0011
	5	<0.48	6.11	<0.0071	14.1	0.31
TP6	0-0.5	2.55	25.5	35.7	6,111	1.79
	2	<0.47	21.6	2.43	158	0.31
	4	<0.45	4.30	<0.0068	5.62	<0.0011
TP7	0-0.5	<0.42	6.24	2.80	240	0.28
	2	3.40	13.4	3.88	331	1.03
	5	<0.45	4.91	<0.0068	6.76	<0.0011
TP8	0-0.5	<0.43	6.22	0.28	32.4	<0.0011
	5	5.06	16.6	9.74	1,142	0.75
	10	<0.50	12.7	0.74	21.3	<0.0012
TP9	0-0.5	0.55	29.8	11.2	3,465	1.25
	2	<0.45	25.4	0.84	112	<0.0011
	4	<0.45	8.85	<0.0068	10.7	<0.0011
TP10	0-0.5	<0.46	19.1	3.76	554	0.55
	1	<0.43	12.5	0.93	301	0.37
	2.5	<0.48	12.4	<0.0072	13.7	<0.0012
TP11	0-0.5	<0.45	18.3	2.59	399	0.43
	2	<0.46	33.7	1.17	545	0.94
	4	<0.49	17.1	<0.0074	16.4	<0.0012
TP12	0-0.5	4.28	19.2	28.3	1,590	4.05
	2	0.60	16.5	5.86	421	0.80
	4	<0.48	3.75	<0.0072	14.8	<0.0012
TP13	0-0.5	5.03	19.3	21.9	1,260	4.91
	1	1.96	22.4	13.4	1,419	32.4

Table 1
PCB and Total Metals Analyses
Former OmniSource Corporation Site, 1610 North Calhoun Street, Fort Wayne, Indiana

Sample ID	Sample Depth (ft.)	Contaminant Concentrations mg/Kg				
		Total PCBs	Arsenic	Cadmium	Lead	Mercury
	3	<0.45	1.99	<0.0068	4.32	<0.0011
TP14	0-0.5	0.52	10.7	12.9	685	3.15
	2	0.90	11.3	5.70	279	0.85
	3	<0.46	8.52	<0.0069	10.6	<0.0011
TP15	0-0.5	1.59	9.50	6.83	578	1.14
	3	<0.46	16.0	1.48	4,924	<0.0011
	6.5	<0.47	7.42	<0.0070	13.0	<0.0012
TP16	0-0.5	<0.45	27.3	23.4	4,268	1.10
	2	5.66	130	40.7	13,560	3.50
	4	<0.47	12.7	0.36	17.2	<0.0012
TP17	0-0.5	<0.44	9.48	0.45	179	0.57
DUP 2 (TP17)	0-0.5	<0.45	8.43	0.35	109	0.32
TP-17	1-1.5	<0.48	10.7	0.50	31.0	<0.0012
DUP 1 (TP17)	1.5	<0.47	7.00	0.39	25.2	<0.0012
TP18	0-0.5	<0.45	9.42	0.59	43.5	<0.0011
	2	<0.48	14.7	<0.0072	11.5	<0.0012
DUP 8 (TP18)	2	<0.45	17.1	<0.0068	12.8	<0.0011
TP19	0-0.5	<0.45	8.19	1.97	140	<0.0011
	2	<0.51	40.2	1.69	345	<0.0013
	4	<0.51	14.2	0.74	109	<0.0013
TP20	0-0.5	0.60	11.2	5.26	642	1.24
	1.5	5.60	21.1	37.8	2,085	3.83
	2.5	<0.44	7.74	<0.0067	7.52	<0.0011
TP21	0-0.5	1.09	6.86	7.90	485	1.49
	1-1.5	<0.45	22.0	2.79	372	0.69
	3	0.44	5.38	0.90	8.58	<0.0011
TP22	0-0.5	<0.42	10.7	6.00	736	1.14
	4	<0.45	10.8	<0.0067	27.7	<0.0011
	8	<0.43	3.99	<0.0065	5.57	<0.0011
TP23	0-0.5	<0.42	12.7	4.19	682	0.25
	1.5	<0.43	1.72	<0.0064	48.2	<0.0011
	3	<0.48	6.12	0.29	40.0	<0.0012
TP24	0-0.5	<0.42	12.3	11.9	1,148	0.68
	1.5	<0.44	5.78	<0.0065	6.92	<0.0011
TP25	0-0.5	<0.42	11.2	6.15	832	0.93
	1.58	<0.44	7.09	<0.0065	12.4	<0.0011
TP26	0-0.5	<0.44	7.09	2.10	235	0.42
	2	<0.46	7.18	<0.0069	44.7	0.97

Table 1
PCB and Total Metals Analyses
Former OmniSource Corporation Site, 1610 North Calhoun Street, Fort Wayne, Indiana

Sample ID	Sample Depth (ft.)	Contaminant Concentrations mg/Kg				
		Total PCBs	Arsenic	Cadmium	Lead	Mercury
	4	<0.45	9.68	0.26	42.5	<0.0011
TP27	0-0.5	<0.41	2.05	<0.0061	6.01	<0.0010
	2.5	<0.48	8.24	<0.0072	17.8	<0.0012
	4	<0.46	12.6	<0.0069	11.2	<0.0011
DUP 7 (TP27)	4	<0.47	14.0	<0.0070	13.7	<0.0012
TP28	0-0.5	<0.44	12.3	0.54	53.7	<0.0011
	1	<0.49	2.03	1.02	108	<0.0012
	2.5	<0.45	10.9	<0.0068	17.7	<0.0011
TP29	0-0.5	<0.44	6.13	0.36	26.2	<0.0011
	1	<0.46	10.8	0.35	45.7	<0.0011
DUP 4 (TP29)	1	<0.45	11.6	0.39	55.4	<0.0011
TP29	2.5	<0.45	12.3	<0.0068	9.15	<0.0011
DUP 3 (TP29)	2.5	<0.45	13.6	<0.0068	9.49	<0.0011
TP30	0-0.5	<0.44	8.26	1.90	187	<0.0011
	1.5	<0.46	13.7	2.12	207	<0.0012
	3	<0.47	13.9	<0.0071	15.2	<0.0012
TP31	0-0.5	1.40	8.51	1.28	181	<0.0010
	1	<0.44	5.69	0.37	39.1	<0.0011
	3.5	<0.46	4.07	<0.0070	7.93	<0.0012
TP32	0-0.5	<0.42	15.8	2.28	323	0.28
	2	<0.46	7.28	30.6	33,622	0.40
	3	<0.47	3.14	0.71	81.2	<0.0012
TP33	0-0.5	<0.42	5.73	0.82	111	<0.0010
	1.5	<0.46	10.7	<0.0069	13.0	<0.0012
TP34	0-0.5	<0.46	11.4	0.92	461	<0.0011
	2	<0.59	41.5	3.79	231	<0.0015
	3.5	<0.50	10.0	0.39	13.5	<0.0013
TP35	0-0.5	<0.42	4.31	<0.0063	6.20	<0.0010
	2	<0.47	5.06	<0.0070	7.68	<0.0012
TP36	0-0.5	<0.42	5.78	3.33	527	0.27
	1.5	<0.43	1.75	<0.0064	5.56	<0.0011
TP37	0-0.5	<0.45	18.8	2.13	293	0.32
	1	<0.46	15.5	0.68	175	<0.0011
DUP 6 (TP37)	1	<0.45	12.5	0.44	108	<0.0011
TP37	1.5	<0.48	16.9	<0.0073	18.2	<0.0012
DUP 5 (TP37)	1.5	<0.49	18.5	0.32	19.4	<0.0012
HA1	0.5	<0.43	72.5	1.90	370	0.40
	2	<0.43	56.8	0.87	141	<0.0011

Table 1
PCB and Total Metals Analyses
Former OmniSource Corporation Site, 1610 North Calhoun Street, Fort Wayne, Indiana

Sample ID	Sample Depth (ft.)	Contaminant Concentrations mg/Kg				
		Total PCBs	Arsenic	Cadmium	Lead	Mercury
HA2	0.5	<0.46	8.71	0.86	63.8	<0.0011
	1.5	<0.44	6.37	<0.0066	9.63	<0.0011
B-10	0.5	46.60	3.1	4.6	295	<1
B-11	0.5	20.73	6.2	54	1,933	9.6
B-12	0.5	10.18	7.6	11	1,410	2.3
B-13	0.5	<0.08	3.5	6	3,081	<1
B-14	0.5	4.28	<2	4	721	1.6

	PCBs Total	Arsenic	Cadmium	Lead	Mercury
RISC Residential	1.8	3.9	7.5	81	2.1
RISC Industrial	5.3	5.8	77	230	32

Notes:

All results are reported in mg/Kg.

Bold numbers exceed RISC Residential Default Closure Levels.

Bold and shaded numbers exceed RISC Industrial Default Closure Levels.

RISC Industrial and Residential Default Closure Levels are taken from Appendix 1, Default Closure IDEM RISC Technical Guide, January 31, 2006 Update.

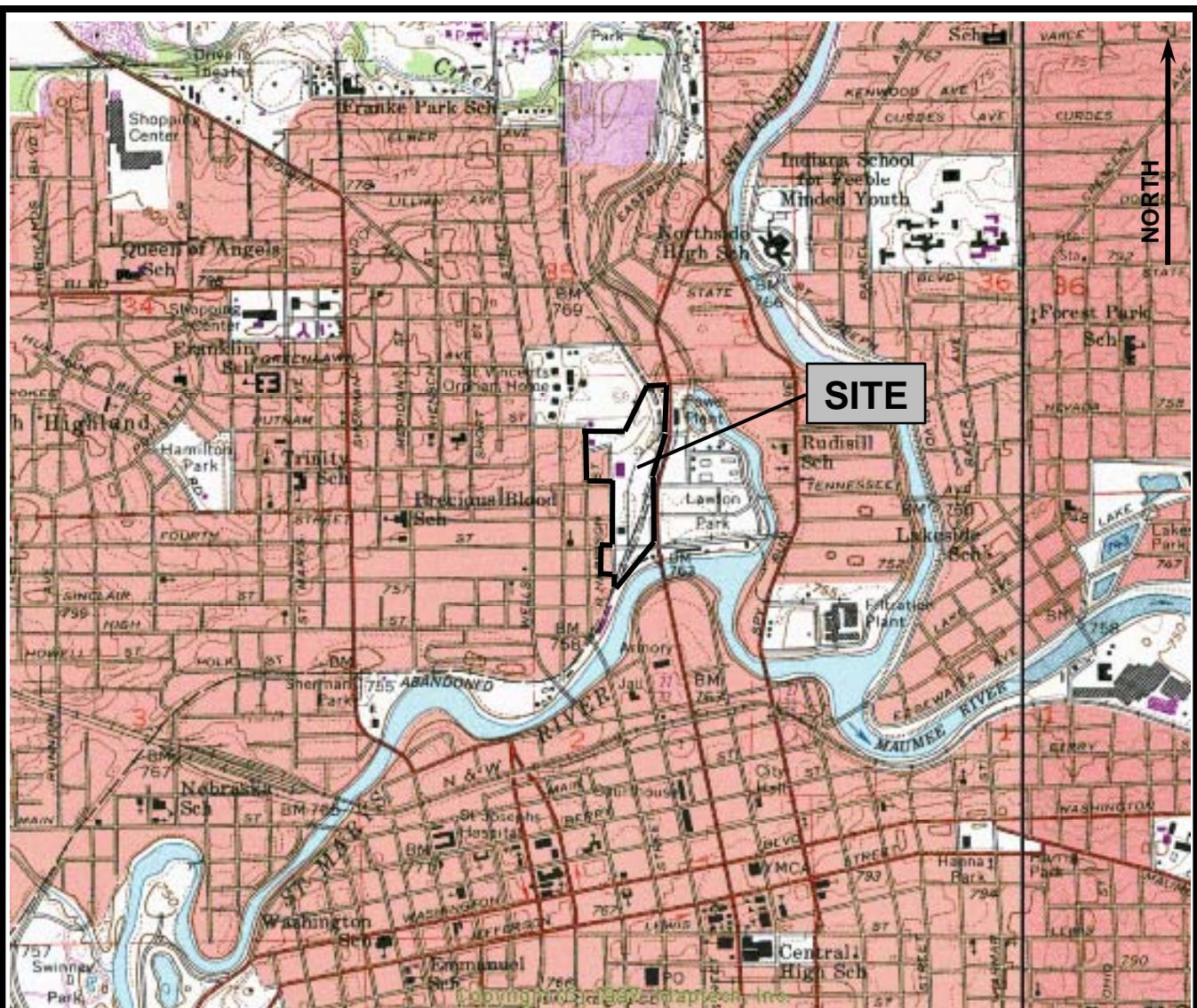
Table 2
TCLP Lead Analyses
Former OmniSource Corporation Site, 1610 North Calhoun Street, Fort Wayne, Indiana

Sample Location	TCLP Lead
B-11	0.28
B-12	0.21
B-13	6.29
TP-6 (0-0.5')	0.64
TP-9 (0-0.5')	0.87
TP-15 (3')	392.51
TP-16 (0-0.5')	1.44
TP-16 (2')	12.52
TP-20 (1.5')	0.95
TP-32 (2')	3.31

Notes:

All results are reported in mg/L.

Bold and Shaded Values indicate concentrations exceeding the Maximum Concentration of Contaminant for Characteristics of EP Toxicity.



SCALE: 1 INCH = 2,000 FT

SOURCE: FORT WAYNE WEST, INDIANA, USGS TOPOGRAPHIC QUADRANGLE MAP, 1963, REVISED 1981
 FORT WAYNE EAST, INDIANA, USGS TOPOGRAPHIC QUADRANGLE MAP, 1963, REVISED 1981

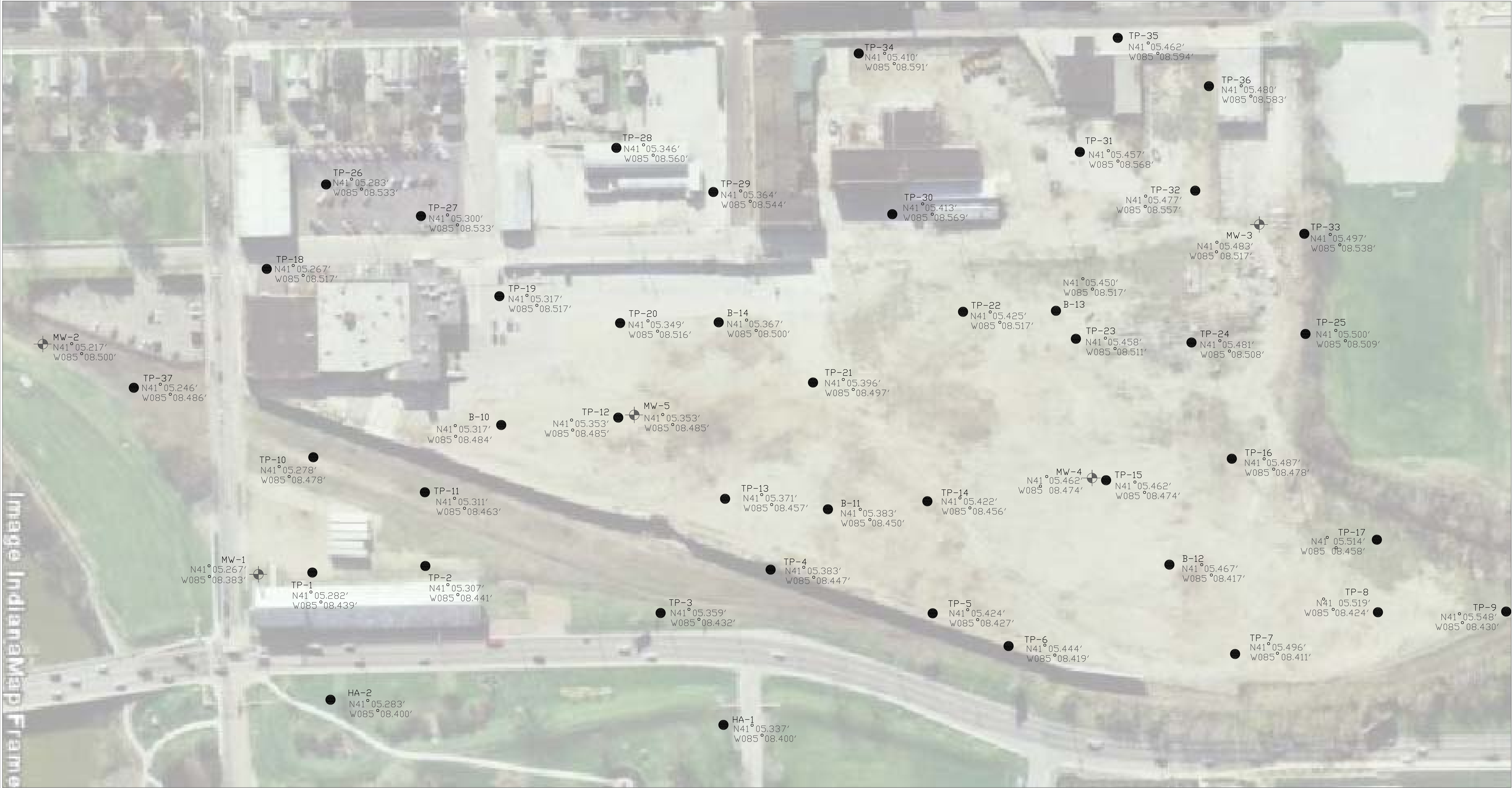
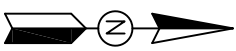


Environmental Science and Engineering
 508 Incentive Drive, Fort Wayne, IN 46825
 (260) 497-9620 Fax: (260) 497-9720

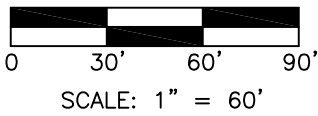
TITLE **Figure 1 - Site Location Map**
Former OmniSource Corporation Site
1610 N. Calhoun Street
Fort Wayne, Indiana

CLIENT
City of Fort Wayne
Division of Community Development

Project	Task	Size	Date
07-791	40	A	11/14/07



- NOTES:
- TP - Test Pit Soil Sampling Location, October 2007
 - HA - Hand Auger Soil Sampling Location, October 2007
 - ⊕ MW - Monitoring Well Location, October 2007
 - B - GeoProbe Soil Sampling Location, August 2007

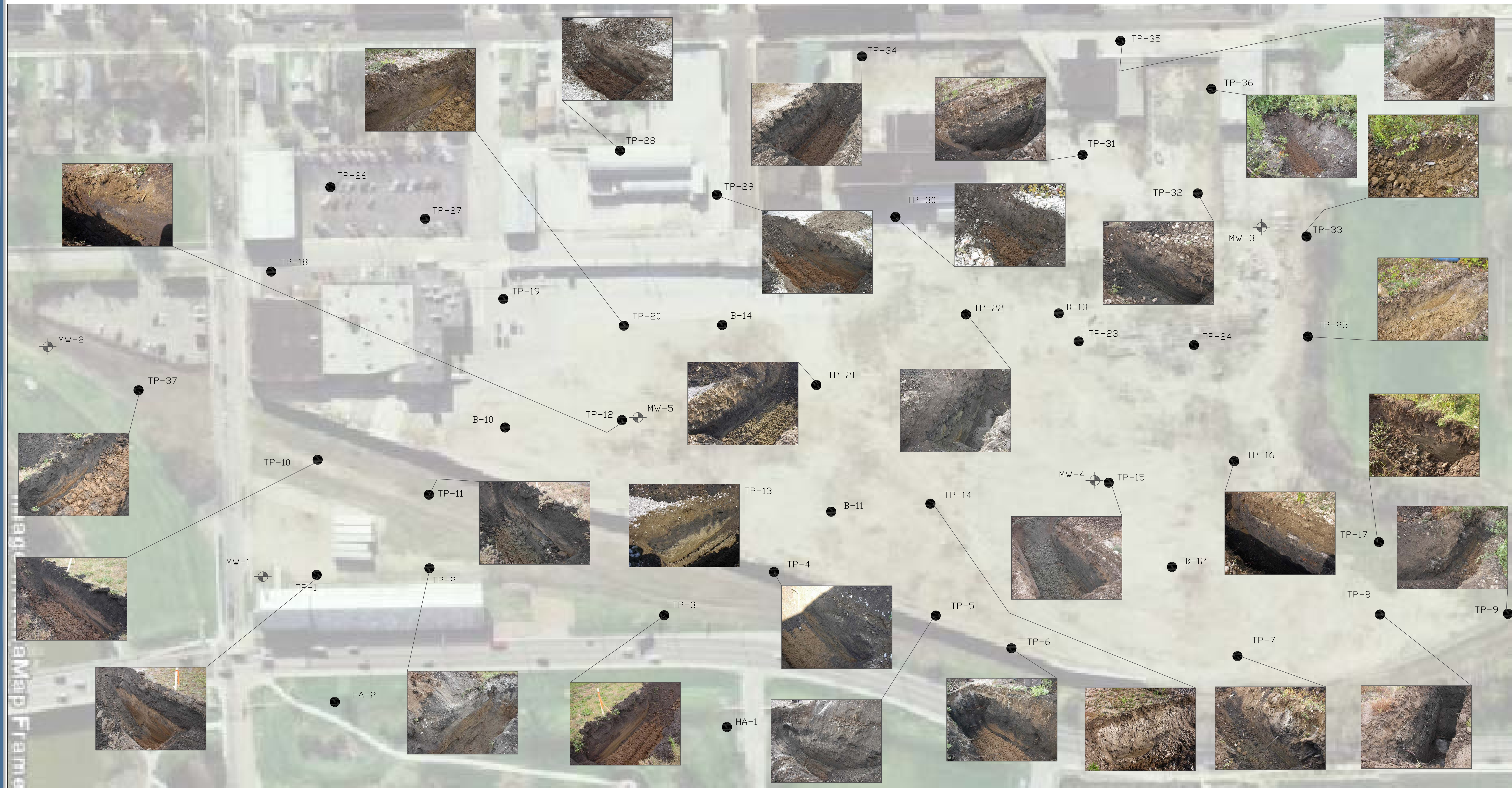
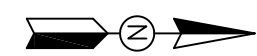


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CHECKED BY:	MRA	9/28/09	DATE	9/28/09	REV		
APPROVED BY:	MKL	9/28/07					



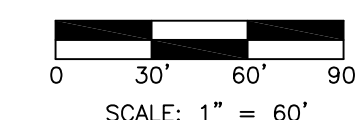
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FORMER OMNISOURCE FACILITY
1610 CALHOUN STREET
FORT WAYNE, INDIANA

CLIENT: CITY OF FORT WAYNE-DIVISION OF COMMUNITY DEVELOPMENT
FORT WAYNE, INDIANA



NOTES:

- TP - Test Pit Soil Sampling Location, October 2007
- HA - Hand Auger Soil Sampling Location, October 2007
- ⊕ MW - Monitoring Well Location, October 2007
- B - GeoProbe Soil Sampling Location, August 2007



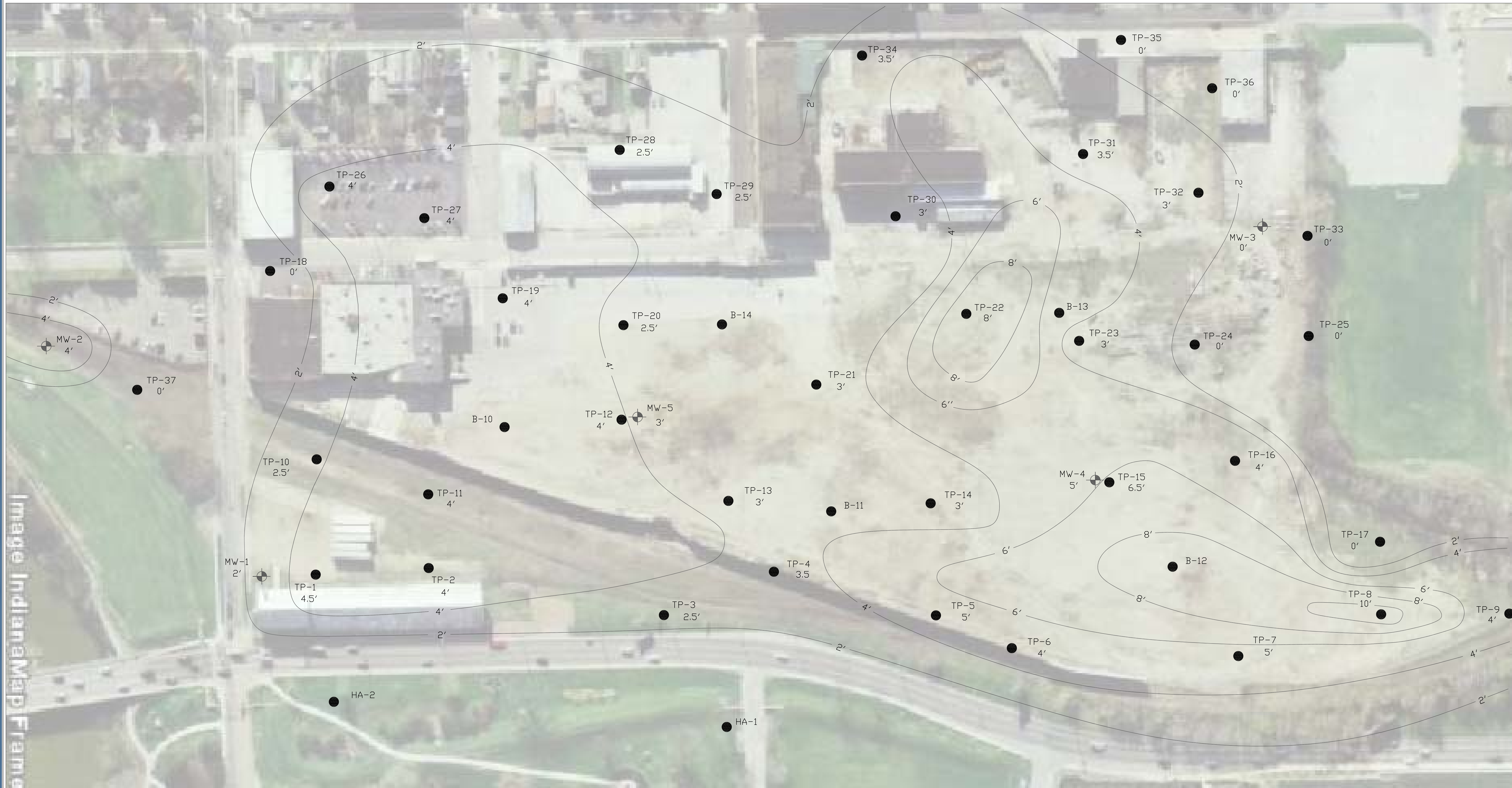
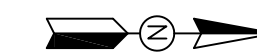
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CHECKED BY:	MRA	11/16/07
APPROVED BY:	MKL	11/16/07



TITLE:
TEST PIT PHOTOGRAPHS
FORMER OMNISOURCE FACILITY
1610 CALHOUN STREET
FORT WAYNE, INDIANA

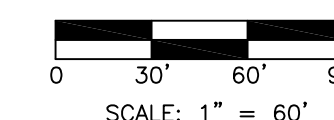
CLIENT:
CITY OF FORT WAYNE-DIVISION OF COMMUNITY DEVELOPMENT
FORT WAYNE, INDIANA

CONTRACT NUMBER	TASK	SIZE	FILE NO.	REV.
07-791	30	D	3	



NOTES:

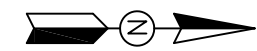
- TP - Test Pit Soil Sampling Location, October 2007
- HA - Hand Auger Soil Sampling Location, October 2007
- ⊕ MW - Monitoring Well Location, October 2007
- B - GeoProbe Soil Sampling Location, August 2007



TITLE:
FILL THICKNESS ISOPLETH
FORMER OMNISOURCE FACILITY
1610 CALHOUN STREET
FORT WAYNE, INDIANA

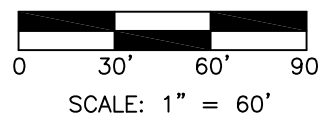
CLIENT:
CITY OF FORT WAYNE-DIVISION OF COMMUNITY DEVELOPMENT
FORT WAYNE, INDIANA

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CHECKED BY: MRA	11/16/07	07-791	30	D	4	
APPROVED BY: MKL	11/16/07					



NOTE: - Contaminate Concentrations in mg/Kg
- Bold values indicates concentration greater than RISC Residential Default Closure Level
* Indicates concentration greater than RISC Industrial Default Closure Level

- TP - Test Pit Soil Sampling Location, October 2007
- HA - Hand Auger Soil Sampling Location, October 2007
- ⊕ MW - Monitoring Well Location, October 2007
- B - GeoProbe Soil Sampling Location, August 2007



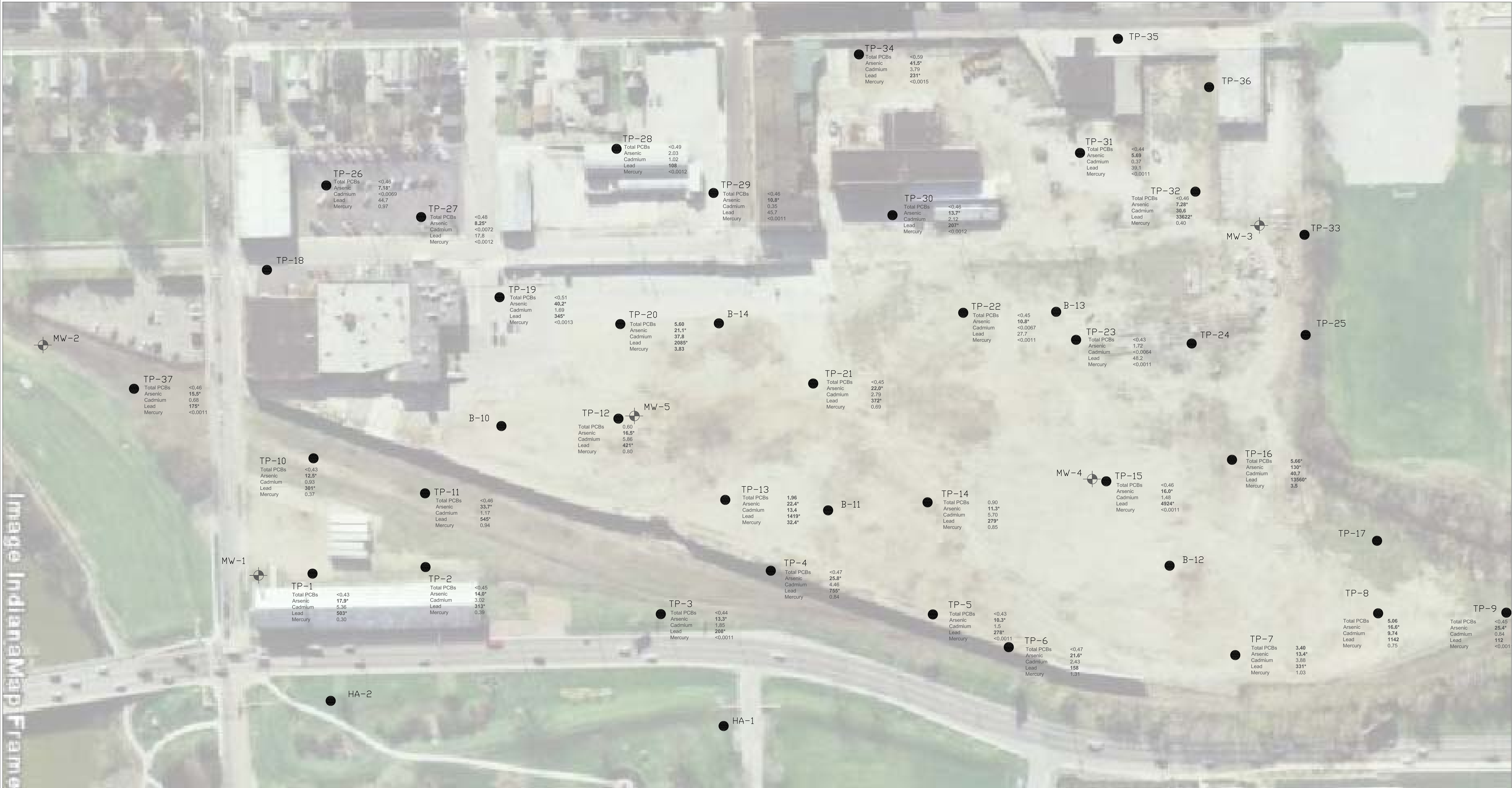
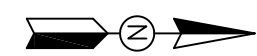
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CHECKED BY:	MRA	11/16/07								
APPROVED BY:	MKL	11/16/07								



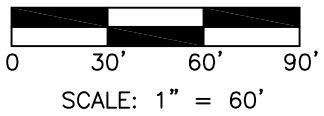
508 Incentive Drive, Fort Wayne, IN 46825
(260)497-0620 fax: (260)497-9670 www.avantgrp.com

TITLE:
NEAR SURFACE FILL METALS AND PCB CONCENTRATIONS
FORMER OMNISOURCE FACILITY
1610 CALHOUN STREET
FORT WAYNE, INDIANA

CLIENT:
CITY OF FORT WAYNE-DIVISION OF COMMUNITY DEVELOPMENT
FORT WAYNE, INDIANA



NOTE: - Contaminate Concentrations in mg/Kg
- Bold values indicates concentration greater than RISC Residential Default Closure Level
* Indicates concentration greater than RISC Industrial Default Closure Level
● TP - Test Pit Soil Sampling Location, October 2007
● HA - Hand Auger Soil Sampling Location, October 2007
⊕ MW - Monitoring Well Location, October 2007
● B - GeoProbe Soil Sampling Location, August 2007

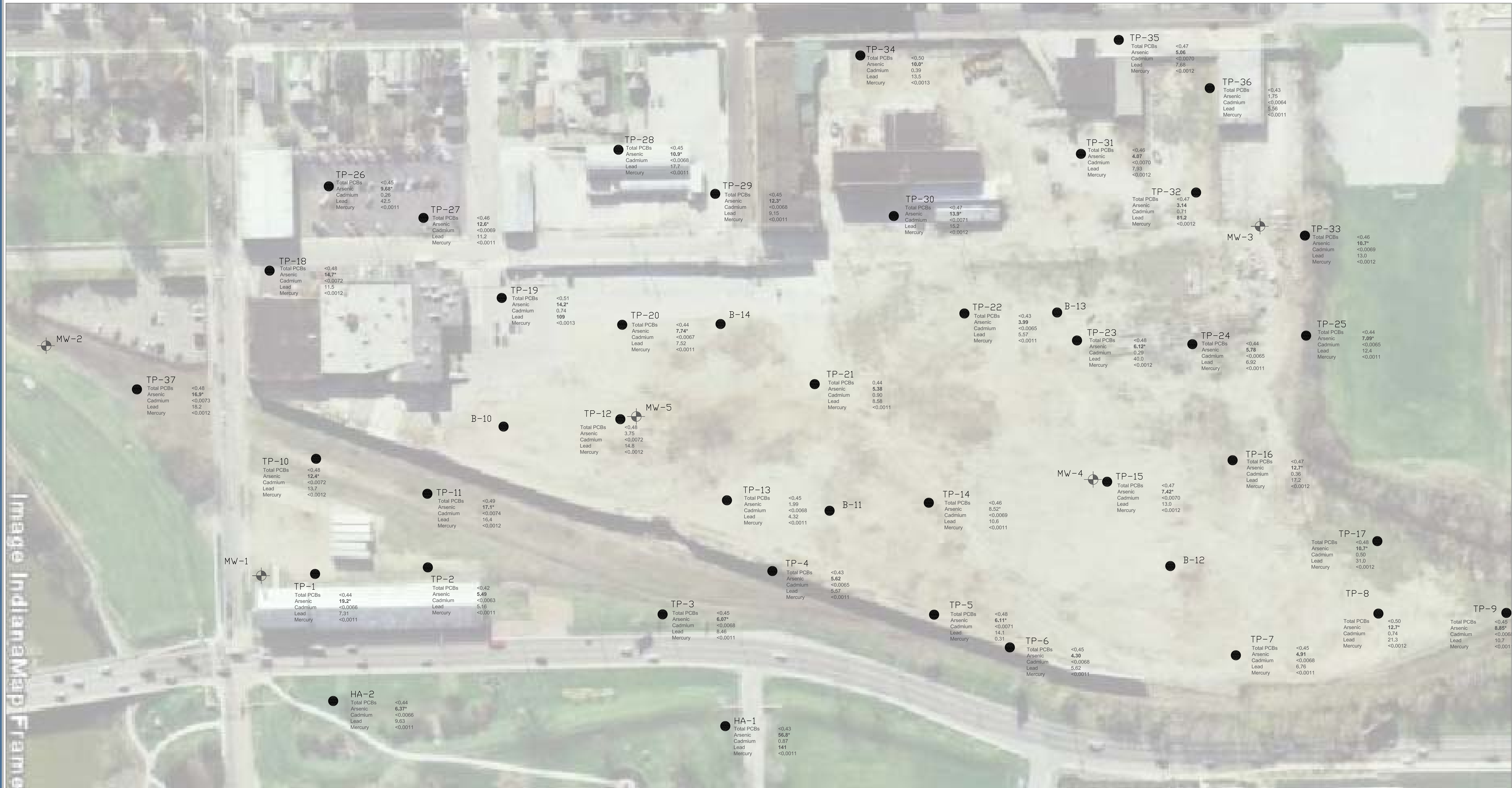
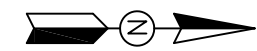


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APPROVED BY: MKL	11/16/07								

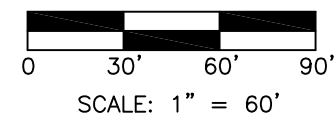


TITLE: MID-FILL METALS AND PCB CONCENTRATIONS
FORMER CNMSOURCE FACILITY
1610 CALHOUN STREET
FORT WAYNE, INDIANA

CLIENT: CITY OF FORT WAYNE-DIVISION OF COMMUNITY DEVELOPMENT
FORT WAYNE, INDIANA



NOTE: - Contaminate Concentrations in mg/Kg
- Bold values indicates concentration greater than RISC Residential Default Closure Level
* Indicates concentration greater than RISC Industrial Default Closure Level
● TP - Test Pit Soil Sampling Location, October 2007
● HA - Hand Auger Soil Sampling Location, October 2007
⊕ MW - Monitoring Well Location, October 2007
● B - GeoProbe Soil Sampling Location, August 2007



DRAWN BY: MKL	11/16/07	CONTRACT NUMBER	07-791	TASK	30	SIZE	D	FILE NO.	7	REV.	
CHECKED BY: MRA	11/16/07										
APPROVED BY: MKL	11/16/07										



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TITLE: NATIVE SOIL METALS AND PCB CONCENTRATIONS
FORMER OMNISOURCE FACILITY
1610 CALHOUN STREET
FORT WAYNE, INDIANA

CLIENT: CITY OF FORT WAYNE-DIVISION OF COMMUNITY DEVELOPMENT
FORT WAYNE, INDIANA

APPENDIX A
LABORATORY ANALYTICAL RESULTS

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4414 • Phone 260-483-4759 • FAX 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com



REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-9 (0-0.5')
LAB NUMBER: 22645

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 0950
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/24/2007

PAGE: 1

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	88.74	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/03/07	SW846-3051
Arsenic	26.488	mg/kg	29.8	0.0011	mg/kg	CRT	10/04/07	SW846-6020
Cadmium	9.902	mg/kg	11.2	0.0068	mg/kg	CRT	10/04/07	SW846-6020
Mercury	1.108	mg/kg	1.25	0.0011	mg/kg	CRT	10/04/07	SW846-6020
Lead	3074.94	mg/kg	3465	0.56	mg/kg	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date						SF	10/04/07	
PCB, Total	0.49	mg/kg	0.55	0.45	mg/kg	KLH	10/05/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-9 (4')

LAB NUMBER: 22646

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLF07253-1

DATE SAMPLED: 10/1/2007 0952

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 2

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	88.06	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/03/07	SW846-3051
Arsenic	7.793	mg/kg	8.85	0.0011	mg/kg	CRT	10/04/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0068	0.0068	mg/kg	CRT	10/04/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/04/07	SW846-6020
Lead	9.461	mg/kg	10.7	0.0011	mg/kg	CRT	10/04/07	SW846-6020
PCB Sample Extraction Date						SF	10/04/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	mg/kg	KLH	10/05/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-9 (2')

LAB NUMBER: 22647

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 0954

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 3

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.42	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/03/07	SW846-3051
Arsenic	22.456	mg/kg	25.4	0.0011	CRT	10/04/07	SW846-6020
Cadmium	0.742	mg/kg	0.84	0.0068	CRT	10/04/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/04/07	SW846-6020
Lead	98.705	mg/kg	112	0.0011	CRT	10/04/07	SW846-6020
PCB Sample Extraction Date					SF	10/04/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	KLH	10/05/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-8 (10')

LAB NUMBER: 22648

DATE SAMPLED: 10/1/2007 1006

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 4

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	80.61	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/03/07	SW846-3051
Arsenic	10.201	mg/kg	12.7	0.0012	CRT	10/04/07	SW846-6020
Cadmium	0.599	mg/kg	0.74	0.0074	CRT	10/04/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/04/07	SW846-6020
Lead	17.188	mg/kg	21.3	0.0012	CRT	10/04/07	SW846-6020
PCB Sample Extraction Date					SF	10/04/07	
PCB, Total	<0.40	mg/kg	<0.50	0.50	KLH	10/05/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: K LH07253-1

SAMPLE ID: TP-8 (5')

DATE SAMPLED: 10/1/2007 1008

LAB NUMBER: 22649

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 5

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	89.21	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/03/07	SW846-3051
Arsenic	14.782	mg/kg	16.6	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	8.692	mg/kg	9.74	0.0067	mg/kg	CRT	10/16/07	SW846-6020
Mercury	0.672	mg/kg	0.75	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	1018.60	mg/kg	1142	0.56	mg/kg	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date						SF	10/04/07	
PCB, Total	4.51	mg/kg	5.06	0.45	mg/kg	KLH	10/05/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-8 (0-0.5')

LAB NUMBER: 22650

DATE SAMPLED: 10/1/2007 1010

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 6

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	92.93	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/03/07	SW846-3051
Arsenic	5.783	mg/kg	6.22	0.0011	mg/kg	CRT	10/04/07	SW846-6020
Cadmium	0.256	mg/kg	0.28	0.0065	mg/kg	CRT	10/04/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/04/07	SW846-6020
Lead	30.148	mg/kg	32.4	0.0011	mg/kg	CRT	10/04/07	SW846-6020
PCB Sample Extraction Date						SF	10/04/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	mg/kg	KLH	10/05/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-7 (5')

LAB NUMBER: 22651

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 1025

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 7

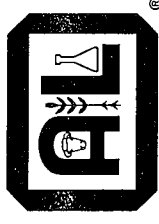
REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.81	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/03/07	SW846-3051
Arsenic	4.360	mg/kg	4.91	0.0011	CRT	10/04/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0068	0.0068	CRT	10/04/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/04/07	SW846-6020
Lead	6.003	mg/kg	6.76	0.0011	CRT	10/04/07	SW846-6020
PCB Sample Extraction Date					SF	10/04/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	KLH	10/05/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-7 (2')

LAB NUMBER: 22652

DATE SAMPLED: 10/1/2007 1027

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 8

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	92.84	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/03/07	SW846-3051
Arsenic	12.428	mg/kg	13.4	0.0011	CRT	10/04/07	SW846-6020
Cadmium	3.598	mg/kg	3.88	0.0065	CRT	10/04/07	SW846-6020
Mercury	0.952	mg/kg	1.03	0.0011	CRT	10/04/07	SW846-6020
Lead	306.96	mg/kg	331	0.54	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/04/07	
PCB, Total	3.16	mg/kg	3.40	0.43	KLH	10/05/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-7 (0-0.5')
LAB NUMBER: 22653

DATE SAMPLED: 10/1/2007 1029
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/24/2007

PAGE: 9

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	94.29	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/03/07	SW846-3051
Arsenic	5.881	mg/kg	6.24	0.0011	mg/kg	CRT	10/04/07	SW846-6020
Cadmium	2.644	mg/kg	2.80	0.0064	mg/kg	CRT	10/04/07	SW846-6020
Mercury	0.262	mg/kg	0.28	0.0011	mg/kg	CRT	10/04/07	SW846-6020
Lead	226.53	mg/kg	240	0.53	mg/kg	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date						SF	10/08/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	mg/kg	SKP	10/09/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-6 (4')

LAB NUMBER: 22654

DATE SAMPLED: 10/1/2007 1043

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 10

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.46	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/03/07	SW846-3051
Arsenic	3.807	mg/kg	4.30	0.0011	CRT	10/04/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0068	0.0068	CRT	10/04/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/04/07	SW846-6020
Lead	4.970	mg/kg	5.62	0.0011	CRT	10/04/07	SW846-6020
PCB Sample Extraction Date					SF	10/08/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/09/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-6 (2')

LAB NUMBER: 22655

DATE SAMPLED: 10/1/2007 1045

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 11

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	85.00	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/03/07	SW846-3051
Arsenic	18.353	mg/kg	21.6	0.0012	CRT	10/04/07	SW846-6020
Cadmium	2.066	mg/kg	2.43	0.0071	CRT	10/04/07	SW846-6020
Mercury	0.261	mg/kg	0.31	0.0012	CRT	10/04/07	SW846-6020
Lead	134.552	mg/kg	158	0.0012	CRT	10/04/07	SW846-6020
PCB Sample Extraction Date					SF	10/08/07	
PCB, Total	<0.40	mg/kg	<0.47	0.47	SKP	10/09/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-6 (0-0.5')
LAB NUMBER: 22656

DATE SAMPLED: 10/1/2007 1047
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/24/2007

PAGE: 12

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	95.73	%	1000000	0.010	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave								
Arsenic	24.416	mg/kg	25.5	0.0010	mg/kg	DLG	10/03/07	SW846-3051
Cadmium	34.156	mg/kg	35.7	0.0063	mg/kg	CRT	10/04/07	SW846-6020
Mercury	1.712	mg/kg	1.79	0.0010	mg/kg	CRT	10/04/07	SW846-6020
Lead	5850.19	mg/kg	6111	0.52	mg/kg	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date						SF	10/08/07	
PCB, Total	2.44	mg/kg	2.55	0.42	mg/kg	SKP	10/09/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-5 (5')
LAB NUMBER: 22657

DATE SAMPLED: 10/1/2007 1052
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/24/2007

PAGE: 13

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	84.00	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/03/07	SW846-3051
Arsenic	5.136	mg/kg	6.11	0.0012	CRT	10/04/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0071	0.0071	CRT	10/04/07	SW846-6020
Mercury	0.261	mg/kg	0.31	0.0012	CRT	10/04/07	SW846-6020
Lead	11.878	mg/kg	14.1	0.0012	CRT	10/04/07	SW846-6020
PCB Sample Extraction Date					SF	10/08/07	
PCB, Total	<0.40	mg/kg	<0.48	0.48	SKP	10/09/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-5 (2')

LAB NUMBER: 22658

DATE SAMPLED: 10/1/2007 1054

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 14

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	93.06	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	9.582	mg/kg	10.3	0.0011	CRT	10/12/07	SW846-6020
Cadmium	1.410	mg/kg	1.52	0.0064	CRT	10/12/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/12/07	SW846-6020
Lead	259.12	mg/kg	278	0.54	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/08/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	SKP	10/09/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-5 (0-0.5')

LAB NUMBER: 22659

DATE SAMPLED: 10/1/2007 1056

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 15

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	95.81	%	1000000	0.010	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	6.152	mg/kg	6.42	0.0010	CRT	10/12/07	SW846-6020
Cadmium	5.829	mg/kg	6.08	0.0063	CRT	10/12/07	SW846-6020
Mercury	0.964	mg/kg	1.01	0.0010	CRT	10/12/07	SW846-6020
Lead	310.35	mg/kg	324	0.52	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/08/07	
PCB, Total	1.19	mg/kg	1.24	0.42	SKP	10/09/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-14 (3')

LAB NUMBER: 22660

DATE SAMPLED: 10/1/2007 1100

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 16

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.12	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	7.423	mg/kg	8.52	0.0011	CRT	10/12/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0069	0.0069	CRT	10/12/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/12/07	SW846-6020
Lead	9.262	mg/kg	10.6	0.0011	CRT	10/12/07	SW846-6020
PCB Sample Extraction Date					SF	10/08/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/09/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-14 (2')

LAB NUMBER: 22661

DATE SAMPLED: 10/1/2007 1102

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 17

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	86.22	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	9.733	mg/kg	11.3	0.0012	CRT	10/12/07	SW846-6020
Cadmium	4.912	mg/kg	5.70	0.0070	CRT	10/12/07	SW846-6020
Mercury	0.737	mg/kg	0.85	0.0012	CRT	10/12/07	SW846-6020
Lead	240.86	mg/kg	279	0.58	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/09/07	
PCB, Total	0.78	mg/kg	0.90	0.46	SKP	10/10/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-14 (0-0.5')
LAB NUMBER: 22662

DATE SAMPLED: 10/1/2007 1104
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/24/2007

PAGE: 18

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	96.65	%	1000000	0.010	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	10.300	mg/kg	10.7	0.0010	CRT	10/12/07	SW846-6020
Cadmium	12.471	mg/kg	12.9	0.0062	CRT	10/12/07	SW846-6020
Mercury	3.041	mg/kg	3.15	0.0010	CRT	10/12/07	SW846-6020
Lead	661.59	mg/kg	685	0.52	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/09/07	
PCB, Total	0.50	mg/kg	0.52	0.41	SKP	10/10/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-4 (3.5')

LAB NUMBER: 22663

DATE SAMPLED: 10/1/2007 1123

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 19

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	92.16	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	5.175	mg/kg	5.62	0.0011	CRT	10/12/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0065	0.0065	CRT	10/12/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/12/07	SW846-6020
Lead	5.132	mg/kg	5.57	0.0011	CRT	10/12/07	SW846-6020
PCB Sample Extraction Date					SF	10/09/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	SKP	10/10/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-4 (2')

LAB NUMBER: 22664

DATE SAMPLED: 10/1/2007 1125

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 20

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	84.63	%	1000000	0.012	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/10/07	SW846-3051
Arsenic	21.855	mg/kg	25.8	0.0012	mg/kg	CRT	10/12/07	SW846-6020
Cadmium	3.777	mg/kg	4.46	0.0071	mg/kg	CRT	10/12/07	SW846-6020
Mercury	0.710	mg/kg	0.84	0.0012	mg/kg	CRT	10/12/07	SW846-6020
Lead	638.56	mg/kg	755	0.59	mg/kg	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date						SF	10/09/07	
PCB, Total	<0.40	mg/kg	<0.47	0.47	mg/kg	SKP	10/10/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-4 (0.0-0.5')

LAB NUMBER: 22665

DATE SAMPLED: 10/1/2007 1127

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 21

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	90.80	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	14.295	mg/kg	15.7	0.0011	CRT	10/12/07	SW846-6020
Cadmium	14.918	mg/kg	16.4	0.0066	CRT	10/12/07	SW846-6020
Mercury	2.755	mg/kg	3.03	0.0011	CRT	10/12/07	SW846-6020
Lead	1056.42	mg/kg	1163	0.55	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/09/07	
PCB, Total	3.26	mg/kg	3.59	0.44	SKP	10/10/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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www.algreatlakes.com • lab@algreatlakes.com



REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-13 (3')

LAB NUMBER: 22666

DATE SAMPLED: 10/1/2007 1255

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 22

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.07	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	1.756	mg/kg	1.99	0.0011	CRT	10/12/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0068	0.0068	CRT	10/12/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/12/07	SW846-6020
Lead	3.808	mg/kg	4.32	0.0011	CRT	10/12/07	SW846-6020
PCB Sample Extraction Date					SF	10/09/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/10/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-13 (1')

LAB NUMBER: 22667

DATE SAMPLED: 10/1/2007 1257

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 23

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	86.15	%	1000000	0.012	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/10/07	SW846-3051
Arsenic	19.283	mg/kg	22.4	0.0012	mg/kg	CRT	10/12/07	SW846-6020
Cadmium	11.573	mg/kg	13.4	0.0070	mg/kg	CRT	10/12/07	SW846-6020
Mercury	27.951	mg/kg	32.4	0.0012	mg/kg	CRT	10/12/07	SW846-6020
Lead	1222.66	mg/kg	1419	0.58	mg/kg	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date						SF	10/09/07	
PCB, Total	1.69	mg/kg	1.96	0.46	mg/kg	SKP	10/10/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-13 (0-0.5')

LAB NUMBER: 22668

DATE SAMPLED: 10/1/2007 1259
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/24/2007

PAGE: 24

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	95.19	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/10/07	SW846-3051
Arsenic	18.382	mg/kg	19.3	0.0011	mg/kg	CRT	10/12/07	SW846-6020
Cadmium	20.819	mg/kg	21.9	0.0063	mg/kg	CRT	10/12/07	SW846-6020
Mercury	4.674	mg/kg	4.91	0.0011	mg/kg	CRT	10/12/07	SW846-6020
Lead	1199.84	mg/kg	1260	0.53	mg/kg	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date						SF	10/09/07	
PCB, Total	4.79	mg/kg	5.03	0.42	mg/kg	SKP	10/10/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-12 (4')

LAB NUMBER: 22669

DATE SAMPLED: 10/1/2007 1308

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 25

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	83.14	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	3.116	mg/kg	3.75	0.0012	CRT	10/12/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0072	0.0072	CRT	10/12/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/12/07	SW846-6020
Lead	12.285	mg/kg	14.8	0.0012	CRT	10/12/07	SW846-6020
PCB Sample Extraction Date					SF	10/10/07	
PCB, Total	<0.40	mg/kg	<0.48	0.48	SKP	10/12/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-12 (2')

DATE SAMPLED: 10/1/2007 1310

LAB NUMBER: 22670

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 26

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	75.60	%	1000000	0.013	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	12.483	mg/kg	16.5	0.0013	CRT	10/12/07	SW846-6020
Cadmium	4.430	mg/kg	5.86	0.0079	CRT	10/12/07	SW846-6020
Mercury	0.608	mg/kg	0.80	0.0013	CRT	10/12/07	SW846-6020
Lead	318.30	mg/kg	421	0.66	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/10/07	
PCB, Total	0.45	mg/kg	0.60	0.53	SKP	10/12/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-12 (0-0.5')

LAB NUMBER: 22671

DATE SAMPLED: 10/1/2007 1312

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 27

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	89.35	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/10/07	SW846-3051
Arsenic	17.151	mg/kg	19.2	0.0011	mg/kg	CRT	10/12/07	SW846-6020
Cadmium	25.327	mg/kg	28.3	0.0067	mg/kg	CRT	10/12/07	SW846-6020
Mercury	3.623	mg/kg	4.05	0.0011	mg/kg	CRT	10/12/07	SW846-6020
Lead	1420.44	mg/kg	1590	0.56	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/10/07	
PCB, Total	3.82	mg/kg	4.28	0.45	mg/kg	SKP	10/12/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-21 (3')

LAB NUMBER: 22672

DATE SAMPLED: 10/1/2007 1320

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 28

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	90.15	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	4.846	mg/kg	5.38	0.0011	CRT	10/12/07	SW846-6020
Cadmium	0.811	mg/kg	0.90	0.0067	CRT	10/12/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/12/07	SW846-6020
Lead	7.738	mg/kg	8.58	0.0011	CRT	10/12/07	SW846-6020
PCB Sample Extraction Date					SF	10/10/07	
PCB, Total	0.40	mg/kg	0.44	0.44	SKP	10/12/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-21 (1-1.5')

LAB NUMBER: 22673

DATE SAMPLED: 10/1/2007 1322

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 29

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	88.24	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/08/07	SW846-3051
Arsenic	19.437	mg/kg	22.0	0.0011	mg/kg	CRT	10/17/07	SW846-6020
Cadmium	2.458	mg/kg	2.79	0.0068	mg/kg	CRT	10/17/07	SW846-6020
Mercury	0.613	mg/kg	0.69	0.0011	mg/kg	CRT	10/17/07	SW846-6020
Lead	328.65	mg/kg	372	0.57	mg/kg	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date						SF	10/10/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	mg/kg	SKP	10/12/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-21 (0-0.5')

LAB NUMBER: 22674

DATE SAMPLED: 10/1/2007 1324

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 30

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	94.80	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/12/07	SW846-3051
Arsenic	6.505	mg/kg	6.86	0.0011	CRT	10/16/07	SW846-6020
Cadmium	7.492	mg/kg	7.90	0.0063	CRT	10/16/07	SW846-6020
Mercury	1.410	mg/kg	1.49	0.0011	CRT	10/16/07	SW846-6020
Lead	459.77	mg/kg	485	0.53	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/10/07	
PCB, Total	1.03	mg/kg	1.09	0.42	SKP	10/12/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-20 (2.5')

DATE SAMPLED: 10/1/2007 1336

LAB NUMBER: 22675

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 31

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	89.97	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/12/07	SW846-3051
Arsenic	6.960	mg/kg	7.74	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0067	0.0067	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	6.763	mg/kg	7.52	0.0011	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/10/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	mg/kg	SKP	10/12/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

DATE SAMPLED: 10/1/2007 1338

SAMPLE ID: TP-20 (1.5')

DATE RECEIVED: 10/02/2007

LAB NUMBER: 22676

DATE REPORTED: 10/24/2007

PAGE: 32

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	84.85	%	1000000	0.012	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/12/07	SW846-3051
Arsenic	17.866	mg/kg	21.1	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	32.062	mg/kg	37.8	0.0071	mg/kg	CRT	10/16/07	SW846-6020
Mercury	3.253	mg/kg	3.83	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Lead	1769.05	mg/kg	2085	0.59	mg/kg	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date						SF	10/10/07	
PCB, Total	4.75	mg/kg	5.60	0.47	mg/kg	SKP	10/12/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-20 (0-0.5')

LAB NUMBER: 22677

DATE SAMPLED: 10/1/2007 1340

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 33

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	85.96	%	1000000	0.012	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/12/07	SW846-3051
Arsenic	9.598	mg/kg	11.2	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	4.520	mg/kg	5.26	0.0070	mg/kg	CRT	10/16/07	SW846-6020
Mercury	1.069	mg/kg	1.24	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Lead	552.27	mg/kg	642	0.58	mg/kg	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date						SF	10/15/07	
PCB, Total	0.52	mg/kg	0.60	0.47	mg/kg	SKP	10/16/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-22 (8')

DATE SAMPLED: 10/1/2007 1353

LAB NUMBER: 22678

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 34

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	92.92	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/12/07	SW846-3051
Arsenic	3.703	mg/kg	3.99	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0065	0.0065	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	5.172	mg/kg	5.57	0.0011	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/15/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	mg/kg	SKP	10/16/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-22 (4')

LAB NUMBER: 22679

DATE SAMPLED: 10/1/2007 1355

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 35

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	88.98	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/12/07	SW846-3051
Arsenic	9.626	mg/kg	10.8	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0067	0.0067	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	24.654	mg/kg	27.7	0.0011	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/15/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	mg/kg	SKP	10/16/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-22 (0-0.5')

DATE SAMPLED: 10/1/2007 1357

LAB NUMBER: 22680

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 36

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	94.34	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/12/07	SW846-3051
Arsenic	10.115	mg/kg	10.7	0.0011	CRT	10/16/07	SW846-6020
Cadmium	5.658	mg/kg	6.00	0.0064	CRT	10/16/07	SW846-6020
Mercury	1.071	mg/kg	1.14	0.0011	CRT	10/16/07	SW846-6020
Lead	694.34	mg/kg	736	0.53	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/15/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	SKP	10/16/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

A & L GREAT LAKES LABORATORIES, INC.

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-23 (3')

LAB NUMBER: 22681

DATE SAMPLED: 10/1/2007 1405

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 37

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	84.10	%	1000000	0.012	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/12/07	SW846-3051
Arsenic	5.143	mg/kg	6.12	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	0.248	mg/kg	0.29	0.0071	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Lead	33.604	mg/kg	40.0	0.0012	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/15/07	
PCB, Total	<0.40	mg/kg	<0.48	0.48	mg/kg	SKP	10/16/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-23 (18")

LAB NUMBER: 22682

DATE SAMPLED: 10/1/2007 1407
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/24/2007

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REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	93.38	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/12/07	SW846-3051
Arsenic	1.607	mg/kg	1.72	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0064	0.0064	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	45.008	mg/kg	48.2	0.0011	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/15/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	mg/kg	SKP	10/16/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON
SAMPLE ID: TP-23 (0-0.5')
LAB NUMBER: 22683

DATE SAMPLED: 10/1/2007 1409
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/24/2007

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REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	95.17	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/12/07	SW846-3051
Arsenic	12.119	mg/kg	12.7	0.0011	CRT	10/16/07	SW846-6020
Cadmium	3.987	mg/kg	4.19	0.0063	CRT	10/16/07	SW846-6020
Mercury	0.239	mg/kg	0.25	0.0011	CRT	10/16/07	SW846-6020
Lead	649.38	mg/kg	682	0.53	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/15/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	SKP	10/16/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-24 (18")

DATE SAMPLED: 10/1/2007 1413

LAB NUMBER: 22684

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 40

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	91.74	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/12/07	SW846-3051
Arsenic	5.302	mg/kg	5.78	0.0011	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0065	0.0065	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	6.352	mg/kg	6.92	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/16/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/17/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
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FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-24 (0-0.5')

LAB NUMBER: 22685

DATE SAMPLED: 10/1/2007 1415

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 41

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	94.67	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	11.689	mg/kg	12.3	0.0011	CRT	10/10/07	SW846-6020
Cadmium	11.298	mg/kg	11.9	0.0063	CRT	10/10/07	SW846-6020
Mercury	0.643	mg/kg	0.68	0.0011	CRT	10/10/07	SW846-6020
Lead	1086.41	mg/kg	1148	0.53	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/16/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	SKP	10/17/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-25 (19")

LAB NUMBER: 22686

DATE SAMPLED: 10/1/2007 1418

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

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REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	91.90	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/04/07	SW846-3051
Arsenic	6.515	mg/kg	7.09	0.0011	mg/kg	CRT	10/10/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0065	0.0065	mg/kg	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/10/07	SW846-6020
Lead	11.415	mg/kg	12.4	0.0011	mg/kg	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date						SF	10/16/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	mg/kg	SKP	10/17/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-25 (0-0.5')

LAB NUMBER: 22687

DATE SAMPLED: 10/1/2007 1420

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

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REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	92.72	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	10.374	mg/kg	11.2	0.0011	CRT	10/10/07	SW846-6020
Cadmium	5.700	mg/kg	6.15	0.0065	CRT	10/10/07	SW846-6020
Mercury	0.861	mg/kg	0.93	0.0011	CRT	10/10/07	SW846-6020
Lead	771.68	mg/kg	832	0.54	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/16/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	SKP	10/17/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-16 (4')

LAB NUMBER: 22688

DATE SAMPLED: 10/1/2007 1424

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 44

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	85.36	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	10.876	mg/kg	12.7	0.0012	CRT	10/10/07	SW846-6020
Cadmium	0.304	mg/kg	0.36	0.0070	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/10/07	SW846-6020
Lead	14.714	mg/kg	17.2	0.0012	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date					SF	10/16/07	
PCB, Total	<0.40	mg/kg	<0.47	0.47	SKP	10/17/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-16 (2')

DATE SAMPLED: 10/1/2007 1426

LAB NUMBER: 22689

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

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REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	83.72	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	108.557	mg/kg	130	0.0012	CRT	10/10/07	SW846-6020
Cadmium	34.060	mg/kg	40.7	0.0072	CRT	10/10/07	SW846-6020
Mercury	2.934	mg/kg	3.50	0.0012	CRT	10/10/07	SW846-6020
Lead	11352.10	mg/kg	13560	0.60	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/16/07	
PCB, Total	4.74	mg/kg	5.66	0.48	SKP	10/17/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-16 (0-0.5')

LAB NUMBER: 22690

DATE SAMPLED: 10/1/2007 1428

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 46

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.17	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	24.067	mg/kg	27.3	0.0011	CRT	10/10/07	SW846-6020
Cadmium	20.607	mg/kg	23.4	0.0068	CRT	10/10/07	SW846-6020
Mercury	0.974	mg/kg	1.10	0.0011	CRT	10/10/07	SW846-6020
Lead	3762.81	mg/kg	4268	0.57	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/16/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/17/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-17 (1-18")

LAB NUMBER: 22691

DATE SAMPLED: 10/1/2007 1445

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 47

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	84.01	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	9.006	mg/kg	10.7	0.0012	CRT	10/10/07	SW846-6020
Cadmium	0.417	mg/kg	0.50	0.0071	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/10/07	SW846-6020
Lead	26.050	mg/kg	31.0	0.0012	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date					SF	10/16/07	
PCB, Total	<0.40	mg/kg	<0.48	0.48	SKP	10/17/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-17 (0-0.5')

LAB NUMBER: 22692

DATE SAMPLED: 10/1/2007 1443

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 48

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	91.00	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	8.626	mg/kg	9.48	0.0011	CRT	10/10/07	SW846-6020
Cadmium	0.414	mg/kg	0.45	0.0066	CRT	10/10/07	SW846-6020
Mercury	0.522	mg/kg	0.57	0.0011	CRT	10/10/07	SW846-6020
Lead	162.980	mg/kg	179	0.0011	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/16/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/17/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-15 (6.5')

DATE SAMPLED: 10/1/2007 1351

LAB NUMBER: 22693

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 49

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	85.37	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	6.334	mg/kg	7.42	0.0012	CRT	10/10/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0070	0.0070	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/10/07	SW846-6020
Lead	11.114	mg/kg	13.0	0.0012	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date					SF	10/17/07	
PCB, Total	<0.40	mg/kg	<0.47	0.47	SKP	10/18/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-15 (3')

LAB NUMBER: 22694

DATE SAMPLED: 10/1/2007 1353

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 50

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.02	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	13.908	mg/kg	16.0	0.0011	CRT	10/10/07	SW846-6020
Cadmium	1.284	mg/kg	1.48	0.0069	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/10/07	SW846-6020
Lead	4285.14	mg/kg	4924	0.57	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/17/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/18/07	SW846-8082

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-15 (0-0.5')

DATE SAMPLED: 10/1/2007 1355

LAB NUMBER: 22695

DATE RECEIVED:	10/02/2007
DATE REPORTED:	10/24/2007

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	90.76	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/04/07	SW846-3051
Arsenic	8.621	mg/kg	9.50	0.0011	mg/kg	CRT	10/10/07	SW846-6020
Cadmium	6.199	mg/kg	6.83	0.0066	mg/kg	CRT	10/10/07	SW846-6020
Mercury	1.036	mg/kg	1.14	0.0011	mg/kg	CRT	10/10/07	SW846-6020
Lead	524.48	mg/kg	578	0.55	mg/kg	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date						SF	10/17/07	
PCB, Total	1.44	mg/kg	1.59	0.44	mg/kg	SKP	10/18/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-33 (18")

LAB NUMBER: 22696

DATE SAMPLED: 10/1/2007 1456

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 52

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	86.60	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	9.230	mg/kg	10.7	0.0012	CRT	10/10/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0069	0.0069	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/10/07	SW846-6020
Lead	11.230	mg/kg	13.0	0.0012	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date					SF	10/17/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/18/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-33 (0-0.5')

LAB NUMBER: 22697

DATE SAMPLED: 10/1/2007 1450

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 53

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	95.45	%	1000000	0.010	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	5.466	mg/kg	5.73	0.0010	CRT	10/10/07	SW846-6020
Cadmium	0.787	mg/kg	0.82	0.0063	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0010	0.0010	CRT	10/10/07	SW846-6020
Lead	105.973	mg/kg	111	0.0010	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date					SF	10/17/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	SKP	10/18/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-36 (18")

LAB NUMBER: 22698

DATE SAMPLED: 10/1/2007 1505

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 54

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	93.78	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	1.643	mg/kg	1.75	0.0011	CRT	10/10/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0064	0.0064	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/10/07	SW846-6020
Lead	5.211	mg/kg	5.56	0.0011	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date					SF	10/17/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	SKP	10/18/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-36 (0-0.5')

LAB NUMBER: 22699

DATE SAMPLED: 10/1/2007 1507

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 55

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	95.77	%	1000000	0.010	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	5.539	mg/kg	5.78	0.0010	CRT	10/10/07	SW846-6020
Cadmium	3.189	mg/kg	3.33	0.0063	CRT	10/10/07	SW846-6020
Mercury	0.262	mg/kg	0.27	0.0010	CRT	10/10/07	SW846-6020
Lead	504.51	mg/kg	527	0.52	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/17/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	SKP	10/18/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-32 (3')

DATE SAMPLED: 10/1/2007 1511

LAB NUMBER: 22700

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 56

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	85.29	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	2.681	mg/kg	3.14	0.0012	CRT	10/10/07	SW846-6020
Cadmium	0.609	mg/kg	0.71	0.0070	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/10/07	SW846-6020
Lead	69.238	mg/kg	81.2	0.0012	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date					SF	10/17/07	
PCB, Total	<0.40	mg/kg	<0.47	0.47	SKP	10/18/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-32 (2')

DATE SAMPLED: 10/1/2007 1513

LAB NUMBER: 22701

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 57

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	86.12	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	6.271	mg/kg	7.28	0.0012	CRT	10/10/07	SW846-6020
Cadmium	26.388	mg/kg	30.6	0.0070	CRT	10/10/07	SW846-6020
Mercury	0.346	mg/kg	0.40	0.0012	CRT	10/10/07	SW846-6020
Lead	28955.60	mg/kg	33622	0.58	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/19/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/19/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-32 (0-0.5')

LAB NUMBER: 22702

DATE SAMPLED: 10/1/2007 1515

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 58

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	95.18	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/04/07	SW846-3051
Arsenic	15.072	mg/kg	15.8	0.0011	CRT	10/10/07	SW846-6020
Cadmium	2.169	mg/kg	2.28	0.0063	CRT	10/10/07	SW846-6020
Mercury	0.264	mg/kg	0.28	0.0011	CRT	10/10/07	SW846-6020
Lead	307.39	mg/kg	323	0.53	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					SF	10/19/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	SKP	10/19/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-35 (2')

LAB NUMBER: 22703

DATE SAMPLED: 10/1/2007 1520

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 59

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	85.37	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					FLG	10/04/07	SW846-3051
Arsenic	4.319	mg/kg	5.06	0.0012	CRT	10/10/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0070	0.0070	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/10/07	SW846-6020
Lead	6.559	mg/kg	7.68	0.0012	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date					SF	10/19/07	
PCB, Total	<0.40	mg/kg	<0.47	0.47	SKP	10/19/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-35 (0-0.5')

LAB NUMBER: 22704

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 1522

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 60

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	95.44	%	1000000	0.010	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/04/07	SW846-3051
Arsenic	4.114	mg/kg	4.31	0.0010	mg/kg	CRT	10/10/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0063	0.0063	mg/kg	CRT	10/10/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0010	0.0010	mg/kg	CRT	10/10/07	SW846-6020
Lead	5.920	mg/kg	6.20	0.0010	mg/kg	CRT	10/10/07	SW846-6020
PCB Sample Extraction Date						SF	10/19/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	mg/kg	SKP	10/19/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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**TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376**

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-31 (3.5')

DATE SAMPLED: 10/1/2007 1527

LAB NUMBER: 22705

DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/24/2007

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	86.09	%	1000000	0.012	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/08/07	SW846-3051
Arsenic	3.506	mg/kg	4.07	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0070	0.0070	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Lead	6.830	mg/kg	7.93	0.0012	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/19/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	mg/kg	SKP	10/19/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-31 (1')

LAB NUMBER: 22706

DATE SAMPLED: 10/1/2007 1529

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 62

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	90.07	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	5.129	mg/kg	5.69	0.0011	CRT	10/16/07	SW846-6020
Cadmium	0.329	mg/kg	0.37	0.0067	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	35.223	mg/kg	39.1	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/19/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/19/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-31 (0-0.5')

LAB NUMBER: 22707

DATE SAMPLED: 10/1/2007 1531

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 63

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	98.49	%	1000000	0.010	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	8.377	mg/kg	8.51	0.0010	CRT	10/16/07	SW846-6020
Cadmium	1.257	mg/kg	1.28	0.0061	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0010	0.0010	CRT	10/16/07	SW846-6020
Lead	178.10	mg/kg	181	0.51	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/19/07	
PCB, Total	1.38	mg/kg	1.40	0.41	SKP	10/19/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-34 (3.5')

LAB NUMBER: 22708

DATE SAMPLED: 10/1/2007 1537

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 64

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	79.39	%	1000000	0.013	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	7.969	mg/kg	10.0	0.0013	CRT	10/16/07	SW846-6020
Cadmium	0.309	mg/kg	0.39	0.0076	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0013	0.0013	CRT	10/16/07	SW846-6020
Lead	10.754	mg/kg	13.5	0.0013	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/19/07	
PCB, Total	<0.40	mg/kg	<0.50	0.50	SKP	10/19/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-34 (2')

LAB NUMBER: 22709

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 1539

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 65

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	67.77	%	1000000	0.015	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	28.156	mg/kg	41.5	0.0015	CRT	10/16/07	SW846-6020
Cadmium	2.569	mg/kg	3.79	0.0089	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0015	0.0015	CRT	10/16/07	SW846-6020
Lead	156.62	mg/kg	231	0.74	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/20/07	
PCB, Total	<0.40	mg/kg	<0.59	0.59	SKP	10/20/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4414 • Phone 260-483-4759 • FAX 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com



REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-34 (0-0.5')

DATE SAMPLED: 10/1/2007 1541

LAB NUMBER: 22710

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 66

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.15	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	9.933	mg/kg	11.4	0.0011	CRT	10/16/07	SW846-6020
Cadmium	0.799	mg/kg	0.92	0.0069	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	402.18	mg/kg	461	0.57	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/20/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/20/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-30 (3')

LAB NUMBER: 22711

DATE SAMPLED: 10/1/2007 1547

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 67

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	84.75	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	11.745	mg/kg	13.9	0.0012	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0071	0.0071	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/16/07	SW846-6020
Lead	12.847	mg/kg	15.2	0.0012	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/20/07	
PCB, Total	<0.40	mg/kg	<0.47	0.47	SKP	10/20/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-30 (18")

LAB NUMBER: 22712

DATE SAMPLED: 10/1/2007 1549

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 68

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	86.78	%	1000000	0.012	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/08/07	SW846-3051
Arsenic	11.871	mg/kg	13.7	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	1.841	mg/kg	2.12	0.0069	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Lead	179.24	mg/kg	207	0.58	mg/kg	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date						SF	10/20/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	mg/kg	SKP	10/20/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-30 (0-0.5')

LAB NUMBER: 22713

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 1551

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 69

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	91.13	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	7.524	mg/kg	8.26	0.0011	CRT	10/16/07	SW846-6020
Cadmium	1.727	mg/kg	1.90	0.0066	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	170.28	mg/kg	187	0.55	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/20/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/20/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-28 (2.5')

LAB NUMBER: 22714

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 1602

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 70

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.07	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	9.577	mg/kg	10.9	0.0011	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0068	0.0068	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	15.588	mg/kg	17.7	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/20/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/20/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-28 (1')

LAB NUMBER: 22715

DATE SAMPLED: 10/1/2007 1604

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 71

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	81.32	%	1000000	0.012	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/08/07	SW846-3051
Arsenic	1.653	mg/kg	2.03	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	0.833	mg/kg	1.02	0.0074	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Lead	87.728	mg/kg	108	0.0012	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/20/07	
PCB, Total	<0.40	mg/kg	<0.49	0.49	mg/kg	SKP	10/20/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-28 (0-0.5')

LAB NUMBER: 22716

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 1606

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 72

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	91.46	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	11.291	mg/kg	12.3	0.0011	CRT	10/16/07	SW846-6020
Cadmium	0.490	mg/kg	0.54	0.0066	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	49.111	mg/kg	53.7	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/20/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/20/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-29 (2.5')

DATE SAMPLED: 10/1/2007 1608

LAB NUMBER: 22717

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 73

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.80	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	10.916	mg/kg	12.3	0.0011	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0068	0.0068	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	8.129	mg/kg	9.15	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/20/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/20/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

A & L GREAT LAKES LABORATORIES, INC.

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-29 ('1')

LAB NUMBER: 22718

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 1610

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 74

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.88	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	9.453	mg/kg	10.8	0.0011	CRT	10/16/07	SW846-6020
Cadmium	0.305	mg/kg	0.35	0.0068	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	40.142	mg/kg	45.7	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/22/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/23/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC.
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-29 (0-0.5')

LAB NUMBER: 22719

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007 1612

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 75

REPORT OF ANALYSIS

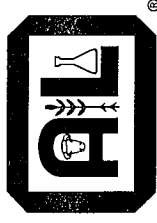
PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	90.53	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	5.553	mg/kg	6.13	0.0011	CRT	10/16/07	SW846-6020
Cadmium	0.326	mg/kg	0.36	0.0066	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	23.729	mg/kg	26.2	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/22/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/23/07	SW846-8082

REPORT NUMBER: F07275-8000

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: DUP-1

DATE SAMPLED: 10/1/2007

LAB NUMBER: 22720

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 76

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	84.83	%	1000000	0.012	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	5.939	mg/kg	7.00	0.0012	CRT	10/16/07	SW846-6020
Cadmium	0.334	mg/kg	0.39	0.0071	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/16/07	SW846-6020
Lead	21.409	mg/kg	25.2	0.0012	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/22/07	
PCB, Total	<0.40	mg/kg	<0.47	0.47	SKP	10/23/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: DUP-2

LAB NUMBER: 22721

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 77

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.05	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	7.420	mg/kg	8.43	0.0011	CRT	10/16/07	SW846-6020
Cadmium	0.307	mg/kg	0.35	0.0068	CRT	10/16/07	SW846-6020
Mercury	0.286	mg/kg	0.32	0.0011	CRT	10/16/07	SW846-6020
Lead	96.274	mg/kg	109	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/22/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/23/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: DUP-3

LAB NUMBER: 22722

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007 PAGE: 78

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.52	%	1000000	0.011	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/08/07	SW846-3051
Arsenic	12.041	mg/kg	13.6	0.0011	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0068	0.0068	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	8.398	mg/kg	9.49	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/22/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/23/07	SW846-8082

REPORT NUMBER: F07275-8000
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC.
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: DUP-4

LAB NUMBER: 22723

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/1/2007

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/24/2007

PAGE: 79

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	88.17	%	1000000	0.011	mg/kg	ZB	10/02/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/08/07	SW846-3051
Arsenic	10.217	mg/kg	11.6	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	0.342	mg/kg	0.39	0.0068	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	48.823	mg/kg	55.4	0.0011	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/22/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	mg/kg	SKP	10/23/07	SW846-8082



F07275-8000



CHAIN OF CUSTODY RECORD

508 Incentive Drive
Fort Wayne, Indiana 46825
E-mail: avantgrp.com
Phone: (260) 497-9620
Fax: (260) 497-9670

Project Number		Project Name		Containers				Parameters				Remarks			
07-191-30		CFW05													
Sample Identification		Date	Time	Grab	Comp	Matrix									
TP-9 (0-0.5')		10/1	0950	X		Soil									
↓ (4')			0952												
↓ (2')			0954												
TP-8 (10')			1006												
TP-8 (5')			1008												
TP-8 (0-0.5')			1010												
TP-7 (5')			1025												
↓ (2')			1027												
↓ (0-0.5')			1029												
TP-6 (4')			1043												
↓ (2')			1045												
↓ (0-0.5')			1047												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Relinquished by: (Signature)		Date		Time	Received by: (Signature)				
Mark Anderson		10/2/07		Latter's Smith				10/2		8:30					
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Relinquished by: (Signature)		Date		Time	Received by: (Signature)				



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CHAIN OF CUSTODY RECORD

Project Number 07-791-30		Project Name CFWDS		Number of Containers				Parameters		Remarks	
Sample Identification				Date	Time	Grab	Comp	Matrix	Relinquished by: (Signature)		
TP-5 (5')				10/1	1052	X		Soil	Pb, Hg, Cd, PCBs, At, Cu		
↓ (2')					1054				↓		
↓ (0-0.5')					1056				↓		
TP-14 (3')					1100				↓		
↓ (2')					1102				↓		
↓ (0-0.5')					1104				↓		
TP-4 (3.5')					1123				↓		
↓ (2')					1125				↓		
↓ (0.0-0.5')					1127				↓		
TP-13 (3')					1255				↓		
↓ (1')					1257				↓		
↓ (0-0.5')					1259				↓		
Relinquished by: (Signature)				Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time	
Mark Anderson				10/2/07		Fallett Smith				10/2/07 830	
Relinquished by: (Signature)				Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time	



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CHAIN OF CUSTODY RECORD

signature

Project Number		Project Name		Parameters				Remarks	
67-791-30		CFWOS							
Sample Identification				Date	Time	Grab	Comp	Matrix	Number of Containers
TP-12	(4')	10/1	1308	X				Soil	X
	(2')		1310						
	(0-0.5')		1312						
TP-21	(3')		1320						
	(1-1.5')		1322						
	(0-0.5')		1324						
TP-20	(2.5')		1336						
	(1.5')		1338						
	(0-0.5')		1340						
TP-22	(8')		1353						
	(4')		1355						
	(0-0.5')		1357						
Relinquished by: (Signature)				Date / Time		Received by: (Signature)		Date / Time	
Mark Anderson				10/2/07		Tate Smith		10/2/07 8:30	
Relinquished by: (Signature)				Date / Time		Received by: (Signature)		Date / Time	



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CHAIN OF CUSTODY RECORD

Project Number		Project Name		Number of Containers			Parameters		Remarks		
07-791-30		CFR105									
Sample Identification		Date	Time	Grab	Comp	Matrix					
TP-23 (3')	10/1	1405	X			Soil					
↓ (18")		1407									
↓ (0-0.5')		1409									
TP-24 (18")		1413									
↓ (0-0.5')		1415									
TP-25 (19")		1418									
↓ (0-0.5')		1420									
TP-16 (4')		1424									
↓ (2')		1426									
↓ (0-0.5')		1428									
TP-17 (1-18")		1445									
↓ (0-0.5')		1443									
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Date / Time		Relinquished by: (Signature)		Date / Time	
Mark Anderson		10/2/07		Patricia Smith		10/2/07 8:30					
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Date / Time		Relinquished by: (Signature)		Date / Time	



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CHAIN OF CUSTODY RECORD

Project Number		Project Name		Number of Containers		Parameters		Remarks	
07-791-30		CFWD3							
Sample Identification		Date	Time	Grab	Comp	Matrix			
TP-15 (6.5')	10/1	1351	X			Soil	PCBs, Ar, Cd, Pb, Hg, 90 mols style	022693	
↓ (3')		1353							
↓ (0-0.5')		1355							
TP-33 (18")		1456							
↓ (0-0.5')		1450							
TP-36 (18")		1505							
↓ (0-0.5')		1507							
TP-32 (3')		1511							
↓ (2')		1513							
↓ (0-0.5')		1515							
TP-35 (2')		1520							
↓ (0-0.5')		1522							
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Relinquished by: (Signature)		Date	Time
Mark Anderson		10/1	1522	Patricia Smith		Patricia Smith		10/1	1522
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Relinquished by: (Signature)		Date	Time



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CHAIN OF CUSTODY RECORD

Project Number		Project Name		Parameters				Remarks			
07-791-30		CFWOS									
Sample Identification				Date	Time	Grab	Comp	Matrix	Number of Containers	Relinquished by: (Signature)	Received by: (Signature)
TP-31 (3.5')				10/1	1527	X		soil	1	PCBs, Ar, Cd, Pb, Hg, 7, moisture	Environmental 022705
TP-32 (1')				1529							
TP-33 (0-0.5')				1531							
TP-34 (3.5')				1537							
TP-35 (2')				1539							
TP-36 (0-0.5')				1541							
TP-37 (3')				1547							
TP-38 (18")				1549							
TP-39 (0-0.5')				1551							
TP-40 (2.5')				1602							
TP-41 (1')				1604							
TP-42 (0-0.5')				1606							
Relinquished by: (Signature)				Date	Time	Received by: (Signature)		Relinquished by: (Signature)		Date	Time
Mark Anderson				10/2/07		[Signature]		[Signature]		10/2	8:30
Relinquished by: (Signature)				Date	Time	Received by: (Signature)		Relinquished by: (Signature)		Date	Time

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CHAIN OF CUSTODY RECORD

[illegible]

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22645	Sample ID:	TP-9 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22646	Sample ID:	TP-9 (4')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22647	Sample ID:	TP-9 (2')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22648	Sample ID:	TP-8 (10')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22649	Sample ID:	TP-8 (5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22650	Sample ID: TP-8 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper: Walk-In	
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A				
Report #	F07275-8000	Lab #	22651	Sample ID: TP-7 (5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper: Walk-In	
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A				
Report #	F07275-8000	Lab #	22652	Sample ID: TP-7 (2')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper: Walk-In	
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A				
Report #	F07275-8000	Lab #	22653	Sample ID: TP-7 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper: Walk-In	
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A				
Report #	F07275-8000	Lab #	22654	Sample ID: TP-6 (4')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper: Walk-In	
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A				

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22655	Sample ID:	TP-6 (2)	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								
Report #	F07275-8000	Lab #	22656	Sample ID:	TP-6 (0-0.5)	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								
Report #	F07275-8000	Lab #	22657	Sample ID:	TP-5 (5)	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								
Report #	F07275-8000	Lab #	22658	Sample ID:	TP-5 (2)	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								
Report #	F07275-8000	Lab #	22659	Sample ID:	TP-5 (0-0.5)	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22660	Sample ID:	TP-14 (3')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07275-8000	Lab #	22661	Sample ID:	TP-14 (2')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07275-8000	Lab #	22662	Sample ID:	TP-14 (0-0:5)	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07275-8000	Lab #	22663	Sample ID:	TP-4 (3:5)	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07275-8000	Lab #	22664	Sample ID:	TP-4 (2)	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		

Sample Receipt Summary for Avant Group Inc



Report # F07275-8000	Lab # 22665	Sample ID: TP-4 (0-0.5)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: </p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07275-8000	Lab # 22666	Sample ID: TP-13 (3)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: </p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07275-8000	Lab # 22667	Sample ID: TP-13 (4)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: </p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07275-8000	Lab # 22668	Sample ID: TP-13 (0-0.5)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: </p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07275-8000	Lab # 22669	Sample ID: TP-12 (4)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: </p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22670	Sample ID:	TP-12 (2')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22671	Sample ID:	TP-12 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22672	Sample ID:	TP-21 (3')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22673	Sample ID:	TP-21 (1-1.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22674	Sample ID:	TP-21 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22675	Sample ID:	TP-20 (2.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07275-8000	Lab #	22676	Sample ID:	TP-20 (1.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07275-8000	Lab #	22677	Sample ID:	TP-20 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07275-8000	Lab #	22678	Sample ID:	TP-22 (8')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07275-8000	Lab #	22679	Sample ID:	TP-22 (4')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		

Sample Receipt Summary for Avant Group Inc



Report # F07275-8000	Lab # 22680	Sample ID: TP-22 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22681	Sample ID: TP-23 (3')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22682	Sample ID: TP-23 (18")	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22683	Sample ID: TP-23 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22684	Sample ID: TP-24 (18")	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22684	Sample ID: TP-24 (18")	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22685	Sample ID:	TP-24 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22686	Sample ID:	TP-25 (19")	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22687	Sample ID:	TP-25 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22688	Sample ID:	TP-16 (4')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22689	Sample ID:	TP-16 (2')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22690	Sample ID:	TP-16 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22691	Sample ID:	TP-17 (1-18")	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22692	Sample ID:	TP-17 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22693	Sample ID:	TP-15 (6.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											
Report #	F07275-8000	Lab #	22694	Sample ID:	TP-15 (3')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In											
Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #:											
Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: Custody seals intact (if applicable): N/A											
Other Noted Compliance Issues: NONE Receipt pH: N/A											

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22695	Sample ID: TP-15 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE				Receipt pH:	N/A	

Report #	F07275-8000	Lab #	22696	Sample ID: TP-33 (18")	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE				Receipt pH:	N/A	

Report #	F07275-8000	Lab #	22697	Sample ID: TP-33 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE				Receipt pH:	N/A	

Report #	F07275-8000	Lab #	22698	Sample ID: TP-36 (18")	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE				Receipt pH:	N/A	

Report #	F07275-8000	Lab #	22699	Sample ID: TP-36 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:	
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A
Other Noted Compliance Issues:	NONE				Receipt pH:	N/A	

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22700	Sample ID:	TP-32 (3')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								
Report #	F07275-8000	Lab #	22701	Sample ID:	TP-32 (2')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								
Report #	F07275-8000	Lab #	22702	Sample ID:	TP-32 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								
Report #	F07275-8000	Lab #	22703	Sample ID:	TP-35 (2')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								
Report #	F07275-8000	Lab #	22704	Sample ID:	TP-35 (0-0.5')	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:		Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE	Receipt pH:	N/A								

Sample Receipt Summary for Avant Group Inc



Report # F07275-8000	Lab # 22705	Sample ID: TP-31 (3.5)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22706	Sample ID: TP-31 (1)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22707	Sample ID: TP-31 (0-0.5)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22708	Sample ID: TP-34 (3.5)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22709	Sample ID: TP-34 (2)	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				

Sample Receipt Summary for Avant Group Inc



Report # F07275-8000	Lab # 22710	Sample ID: TP-34 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22711	Sample ID: TP-30 (3')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22712	Sample ID: TP-30 (18'')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22713	Sample ID: TP-30 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				
Report # F07275-8000	Lab # 22714	Sample ID: TP-28 (2.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	N/A	Packing material:	Custody seals intact (if applicable): N/A
Other Noted Compliance Issues:	NONE				

Sample Receipt Summary for Avant Group Inc



Report # F07275-8000	Lab # 22715	Sample ID: TP-28 (1')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07275-8000	Lab # 22716	Sample ID: TP-28 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07275-8000	Lab # 22717	Sample ID: TP-29 (2.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07275-8000	Lab # 22718	Sample ID: TP-29 (1')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07275-8000	Lab # 22719	Sample ID: TP-29 (0-0.5')	Matrix: Soil	Date Sampled: 10/1/2007	Date Received: 10/2/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					

Sample Receipt Summary for Avant Group Inc



Report #	F07275-8000	Lab #	22720	Sample ID:	DUP-1	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?				Y	Was sufficient ice used?	N/A	Shipper:	Walk-In	
		Samples intact / Good condition?				Y	Temperature:	N/A degrees C	Tracking #:		
		Proper containers for analysis requested?				Y	Packing material:		Custody seals intact (if applicable):	N/A	
		Other Noted Compliance Issues:				NONE	Receipt pH:	N/A			
Report #	F07275-8000	Lab #	22721	Sample ID:	DUP-2	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?				Y	Was sufficient ice used?	N/A	Shipper:	Walk-In	
		Samples intact / Good condition?				Y	Temperature:	N/A degrees C	Tracking #:		
		Proper containers for analysis requested?				Y	Packing material:		Custody seals intact (if applicable):	N/A	
		Other Noted Compliance Issues:				NONE	Receipt pH:	N/A			
Report #	F07275-8000	Lab #	22722	Sample ID:	DUP-3	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?				Y	Was sufficient ice used?	N/A	Shipper:	Walk-In	
		Samples intact / Good condition?				Y	Temperature:	N/A degrees C	Tracking #:		
		Proper containers for analysis requested?				Y	Packing material:		Custody seals intact (if applicable):	N/A	
		Other Noted Compliance Issues:				NONE	Receipt pH:	N/A			
Report #	F07275-8000	Lab #	22723	Sample ID:	DUP-4	Matrix:	Soil	Date Sampled:	10/1/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?				Y	Was sufficient ice used?	N/A	Shipper:	Walk-In	
		Samples intact / Good condition?				Y	Temperature:	N/A degrees C	Tracking #:		
		Proper containers for analysis requested?				Y	Packing material:		Custody seals intact (if applicable):	N/A	
		Other Noted Compliance Issues:				NONE	Receipt pH:	N/A			

REPORT NUMBER: F07276-8001
ACCOUNT NUMBER: 99735

A & L GREAT LAKES LABORATORIES, INC.

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-10 (2.5')
LAB NUMBER: 22783

DATE SAMPLED: 10/2/2007 1000
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/31/2007

PAGE: 1

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	83.75	%	1000000	0.012	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	10.389	mg/kg	12.4	0.0012	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0072	0.0072	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/16/07	SW846-6020
Lead	11.509	mg/kg	13.7	0.0012	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/22/07	
PCB, Total	<0.40	mg/kg	<0.48	0.48	SKP	10/23/07	SW846-8082

REPORT NUMBER: F07276-8001
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: K LH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-10 (1')

LAB NUMBER: 22784

DATE SAMPLED: 10/2/2007 1002

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007 PAGE: 2

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	92.20	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	11.488	mg/kg	12.5	0.0011	CRT	10/16/07	SW846-6020
Cadmium	0.853	mg/kg	0.93	0.0065	CRT	10/16/07	SW846-6020
Mercury	0.344	mg/kg	0.37	0.0011	CRT	10/16/07	SW846-6020
Lead	277.35	mg/kg	301	0.54	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/22/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	SKP	10/23/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-10 (0-0.5')

LAB NUMBER: 22785

DATE SAMPLED: 10/2/2007 1004

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007 PAGE: 3

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.70	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	16.784	mg/kg	19.1	0.0011	CRT	10/16/07	SW846-6020
Cadmium	3.301	mg/kg	3.76	0.0068	CRT	10/16/07	SW846-6020
Mercury	0.486	mg/kg	0.55	0.0011	CRT	10/16/07	SW846-6020
Lead	485.65	mg/kg	554	0.57	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/22/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/23/07	SW846-8082

REPORT NUMBER: F07276-8001
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-11 (4')

LAB NUMBER: 22786

DATE SAMPLED: 10/2/2007 1010

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007 PAGE: 4

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	80.93	%	1000000	0.012	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	13.865	mg/kg	17.1	0.0012	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0074	0.0074	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/16/07	SW846-6020
Lead	13.300	mg/kg	16.4	0.0012	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					ZB	10/24/07	
PCB, Total	<0.40	mg/kg	<0.49	0.49	SKP	10/25/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-11 (2')

DATE SAMPLED: 10/2/2007 1012

LAB NUMBER: 22787

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 5

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.38	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	29.487	mg/kg	33.7	0.0011	CRT	10/16/07	SW846-6020
Cadmium	1.020	mg/kg	1.17	0.0069	CRT	10/16/07	SW846-6020
Mercury	0.819	mg/kg	0.94	0.0011	CRT	10/16/07	SW846-6020
Lead	476.65	mg/kg	545	0.57	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					ZB	10/24/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/25/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-11 (0-0.5')

DATE SAMPLED: 10/2/2007 1014

LAB NUMBER: 22788

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007 PAGE: 6

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.49	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	16.209	mg/kg	18.3	0.0011	CRT	10/16/07	SW846-6020
Cadmium	2.295	mg/kg	2.59	0.0068	CRT	10/16/07	SW846-6020
Mercury	0.380	mg/kg	0.43	0.0011	CRT	10/16/07	SW846-6020
Lead	353.35	mg/kg	399	0.57	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					ZB	10/24/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/25/07	SW846-8082

REPORT NUMBER: F07276-8001
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-3 (2.5')

LAB NUMBER: 22789

DATE SAMPLED: 10/2/2007 1016

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007 PAGE: 7

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	88.42	%	1000000	0.011	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	5.365	mg/kg	6.07	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0068	0.0068	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	7.476	mg/kg	8.46	0.0011	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						ZB	10/24/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	mg/kg	SKP	10/25/07	SW846-8082

REPORT NUMBER: F07276-8001
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-3 (1')

LAB NUMBER: 22790

DATE SAMPLED: 10/2/2007 1018

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 8

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	91.16	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	12.131	mg/kg	13.3	0.0011	CRT	10/16/07	SW846-6020
Cadmium	1.684	mg/kg	1.85	0.0066	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	189.24	mg/kg	208	0.55	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					ZB	10/24/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/25/07	SW846-8082

REPORT NUMBER: F07276-8001
ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-3 (0-0.5')

LAB NUMBER: 22791

DATE SAMPLED: 10/2/2007 1020

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 9

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.75	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	13.567	mg/kg	15.5	0.0011	CRT	10/16/07	SW846-6020
Cadmium	2.639	mg/kg	3.01	0.0068	CRT	10/16/07	SW846-6020
Mercury	0.356	mg/kg	0.41	0.0011	CRT	10/16/07	SW846-6020
Lead	597.50	mg/kg	681	0.57	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					ZB	10/24/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/25/07	SW846-8082

REPORT NUMBER: F07276-8001
ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-2 (4')

LAB NUMBER: 22792

DATE SAMPLED: 10/2/2007 1020

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 10

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	94.86	%	1000000	0.011	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	5.208	mg/kg	5.49	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0063	0.0063	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	4.897	mg/kg	5.16	0.0011	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						ZB	10/24/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	mg/kg	SKP	10/25/07	SW846-8082

REPORT NUMBER: F07276-8001
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-2 (2')

LAB NUMBER: 22793

DATE SAMPLED: 10/2/2007 1022

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 11

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	89.44	%	1000000	0.011	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	12.501	mg/kg	14.0	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	2.697	mg/kg	3.02	0.0067	mg/kg	CRT	10/16/07	SW846-6020
Mercury	0.348	mg/kg	0.39	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	279.68	mg/kg	313	0.56	mg/kg	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date						ZB	10/24/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	mg/kg	SKP	10/25/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-2 (0-0.5')

DATE SAMPLED: 10/2/2007 1024

LAB NUMBER: 22794

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 12

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.36	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	7.929	mg/kg	9.08	0.0011	CRT	10/16/07	SW846-6020
Cadmium	3.256	mg/kg	3.73	0.0069	CRT	10/16/07	SW846-6020
Mercury	0.339	mg/kg	0.39	0.0011	CRT	10/16/07	SW846-6020
Lead	228.37	mg/kg	261	0.57	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/26/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/26/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-1 (4.5")

LAB NUMBER: 22795

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/2/2007 1026

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 13

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	90.28	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	17.332	mg/kg	19.2	0.0011	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0066	0.0066	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	6.597	mg/kg	7.31	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/26/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/26/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC.
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-1 (2')

LAB NUMBER: 22796

DATE SAMPLED: 10/2/2007 1028

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 14

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	92.65	%	1000000	0.011	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	16.584	mg/kg	17.9	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	4.966	mg/kg	5.36	0.0065	mg/kg	CRT	10/16/07	SW846-6020
Mercury	0.281	mg/kg	0.30	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	466.46	mg/kg	503	0.54	mg/kg	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date						SF	10/26/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	mg/kg	SKP	10/26/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4414 • Phone 260-483-4759 • FAX 260-483-5274
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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: K LH07253-1

SAMPLE ID: TP-1 (0-0.5')

LAB NUMBER: 22797

DATE SAMPLED: 10/2/2007 1030

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 15

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	95.56	%	1000000	0.010	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	19.444	mg/kg	20.3	0.0010	CRT	10/16/07	SW846-6020
Cadmium	2.722	mg/kg	2.85	0.0063	CRT	10/16/07	SW846-6020
Mercury	0.373	mg/kg	0.39	0.0010	CRT	10/16/07	SW846-6020
Lead	386.35	mg/kg	404	0.52	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/26/07	
PCB, Total	<0.40	mg/kg	<0.42	0.42	SKP	10/26/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-37 (18")

LAB NUMBER: 22798

DATE SAMPLED: 10/2/2007 1043

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 16

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	82.53	%	1000000	0.012	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	13.969	mg/kg	16.9	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0073	0.0073	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Lead	14.981	mg/kg	18.2	0.0012	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/26/07	
PCB, Total	<0.40	mg/kg	<0.48	0.48	mg/kg	SKP	10/26/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLLH07253-1

SAMPLE ID: TP-37 (1')

LAB NUMBER: 22799

DATE SAMPLED: 10/2/2007 1045

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 17

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	87.89	%	1000000	0.011	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	13.594	mg/kg	15.5	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	0.601	mg/kg	0.68	0.0068	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	153.79	mg/kg	175	0.57	mg/kg	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date						SF	10/29/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	mg/kg	SKP	10/29/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

DATE SAMPLED: 10/2/2007 1047

SAMPLE ID: TP-37 (0-0.5')

DATE RECEIVED: 10/02/2007

LAB NUMBER: 22800

DATE REPORTED: 10/31/2007

PAGE: 18

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	89.53	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	16.804	mg/kg	18.8	0.0011	CRT	10/16/07	SW846-6020
Cadmium	1.903	mg/kg	2.13	0.0067	CRT	10/16/07	SW846-6020
Mercury	0.285	mg/kg	0.32	0.0011	CRT	10/16/07	SW846-6020
Lead	261.96	mg/kg	293	0.56	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					SF	10/29/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/29/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: DUP-5

LAB NUMBER: 22801

DATE SAMPLED: 10/2/2007

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 19

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	82.26	%	1000000	0.012	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	15.192	mg/kg	18.5	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	0.266	mg/kg	0.32	0.0073	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Lead	15.964	mg/kg	19.4	0.0012	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/29/07	
PCB, Total	<0.40	mg/kg	<0.49	0.49	mg/kg	SKP	10/29/07	SW846-8082

REPORT NUMBER: F07276-8001

ACCOUNT NUMBER: 99735

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FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: DUP-6

LAB NUMBER: 22802

DATE SAMPLED: 10/2/2007

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 20

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	89.70	%	1000000	0.011	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	11.172	mg/kg	12.5	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	0.393	mg/kg	0.44	0.0067	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	96.880	mg/kg	108	0.0011	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						SF	10/29/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	mg/kg	SKP	10/29/07	SW846-8082



508 Incentive Drive
Fort Wayne, Indiana 46825
E-mail: avantgrp.com
Phone: (260) 497-9620
Fax: (260) 497-9670

CHAIN OF CUSTODY RECORD

F07276-8001



Project Number		Project Name		Containers			Parameters		Remarks
Sample Identification	Date	Time	Grab	Comp	Matrix	Number of Containers	Relinquished by: (Signature)	Received by: (Signature)	
TP-10 (2.5')	10/2	1000	X		Soil	1			
↓ (1')		1002							*USE IDEM RISC
↓ (0-0.5')		1004							* NEED MS/MSD
TP-11 (4')		1010							* NEED LEVEL QA/QC
↓ (2')		1012							Detection Limits not to Exceed:
↓ (0-0.5')		1014							Pb: 10
TP-3 (2.5')		1016							PbBs: 1
↓ (1')		1018							Arsenic: 1
↓ (0-0.5')		1020							Cd: 1
TP-2 (4')		1020							Hg: 1
↓ (2')		1022							
↓ (0-0.5')		1024							
							Environmental 022783		
							Environmental 022794		
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time	
Leah Chester		10/2		[Signature]		[Signature]		10/2 4:45P	
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time	

508 Incentive Drive
Fort Wayne, Indiana 46825
E-mail: avantgrp.com
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CHAIN OF CUSTODY RECORD

[illegible]

4.0

Sample Receipt Summary for Avant Group Inc



Report # F07276-8001	Lab # 22783	Sample ID: TP-10 (2.5')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: _____					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Receipt pH: N/A					
Report # F07276-8001	Lab # 22784	Sample ID: TP-10 (1')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: _____					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Receipt pH: N/A					
Report # F07276-8001	Lab # 22785	Sample ID: TP-10 (0-0.5')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: _____					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Receipt pH: N/A					
Report # F07276-8001	Lab # 22786	Sample ID: TP-11 (4')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: _____					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Receipt pH: N/A					
Report # F07276-8001	Lab # 22787	Sample ID: TP-11 (2')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: _____					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Receipt pH: N/A					

Sample Receipt Summary for Avant Group Inc



Report #	F07276-8001	Lab #	22788	Sample ID:	TP-11 (0-0.5')	Matrix:	Soil	Date Sampled:	10/2/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	Y	Packing material:	On/In Ice	Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07276-8001	Lab #	22789	Sample ID:	TP-3 (2.5')	Matrix:	Soil	Date Sampled:	10/2/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	Y	Packing material:	On/In Ice	Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07276-8001	Lab #	22790	Sample ID:	TP-3 (1')	Matrix:	Soil	Date Sampled:	10/2/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	Y	Packing material:	On/In Ice	Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07276-8001	Lab #	22791	Sample ID:	TP-3 (0-0.5')	Matrix:	Soil	Date Sampled:	10/2/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	Y	Packing material:	On/In Ice	Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07276-8001	Lab #	22792	Sample ID:	TP-2 (4')	Matrix:	Soil	Date Sampled:	10/2/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	Y	Packing material:	On/In Ice	Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		

Sample Receipt Summary for Avant Group Inc



Report # F07276-8001	Lab # 22793	Sample ID: TP-2 (2')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Report # F07276-8001	Lab # 22794	Sample ID: TP-2 (0-0.5')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Report # F07276-8001	Lab # 22795	Sample ID: TP-1 (4-5')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Report # F07276-8001	Lab # 22796	Sample ID: TP-1 (2')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Report # F07276-8001	Lab # 22797	Sample ID: TP-1 (0-0.5')	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					

Sample Receipt Summary for Avant Group Inc



Report # F07276-8001	Lab # 22798	Sample ID: TP-37 (18")	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Report # F07276-8001	Lab # 22799	Sample ID: TP-37 (1")	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Report # F07276-8001	Lab # 22800	Sample ID: TP-37 (0-0.5")	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Report # F07276-8001	Lab # 22801	Sample ID: DUP-5	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					
Report # F07276-8001	Lab # 22802	Sample ID: DUP-6	Matrix: Soil	Date Sampled: 10/2/2007	Date Received: 10/2/2007
COC Complete? Y					
Sufficient sample volume for analysis requested? Y					
Was sufficient ice used? N/A					
Shipper: Walk-In					
Samples intact / Good condition? Y					
Sample submitted within required holding time? Y					
Temperature: N/A degrees C					
Tracking #: N/A					
Proper containers for analysis requested? Y					
Sample preserved correctly for analysis requested? Y					
Packing material: On/In Ice					
Custody seals intact (if applicable): N/A					
Other Noted Compliance Issues: NONE					

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

ATTN: MARK ANDERSON

SAMPLE ID: HA-1 (0.5")

LAB NUMBER: 22803

DATE SAMPLED: 10/2/2007 1450
DATE RECEIVED: 10/02/2007
DATE REPORTED: 10/31/2007

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	93.50	%	1000000	0.011	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	67.818	mg/kg	72.5	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	1.781	mg/kg	1.90	0.0064	mg/kg	CRT	10/16/07	SW846-6020
Mercury	0.377	mg/kg	0.40	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead	345.74	mg/kg	370	0.53	mg/kg	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date						SF	10/29/07	
PCB, Total	<0.40	mg/kg	<0.43	0.43	mg/kg	SKP	10/29/07	SW846-8082

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

ATTN: MARK ANDERSON

DATE SAMPLED: 10/2/2007 1457

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007 PAGE: 2

REPORT OF ANALYSIS

PARAMETER		WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
		RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total		93.45	%	1000000	0.011	mg/kg	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave							DLG	10/09/07	SW846-3051
Arsenic		53.042	mg/kg	56.8	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Cadmium		0.815	mg/kg	0.87	0.0064	mg/kg	CRT	10/16/07	SW846-6020
Mercury		<0.001	mg/kg	<0.0011	0.0011	mg/kg	CRT	10/16/07	SW846-6020
Lead		131.511	mg/kg	141	0.0011	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date							SF	10/29/07	
PCB, Total		<0.40	mg/kg	<0.43	0.43	mg/kg	SKP	10/29/07	SW846-8082

REPORT NUMBER: F07276-8002

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: HA-2 (0.5')

LAB NUMBER: 22805

DATE SAMPLED: 10/2/2007 1430

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007

PAGE: 3

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.18	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	7.591	mg/kg	8.71	0.0011	CRT	10/16/07	SW846-6020
Cadmium	0.753	mg/kg	0.86	0.0069	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	55.660	mg/kg	63.8	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/29/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/29/07	SW846-8082

REPORT NUMBER: F07276-8002

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: HA-2 (1.5')

LAB NUMBER: 22806

DATE SAMPLED: 10/2/2007 1435

DATE RECEIVED: 10/02/2007

DATE REPORTED: 10/31/2007 PAGE: 4

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	90.40	%	1000000	0.011	ZB	10/03/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	5.757	mg/kg	6.37	0.0011	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0066	0.0066	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	8.701	mg/kg	9.63	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/29/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/29/07	SW846-8082

Sample Receipt Summary for Avant Group Inc



Report #	F07276-8002	Lab #	22803	Sample ID:	HA-1 (0.5')	Matrix:	Soil	Date Sampled:	10/2/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	Y	Packing material:	On/In Ice	Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07276-8002	Lab #	22804	Sample ID:	HA-1 (2.0')	Matrix:	Soil	Date Sampled:	10/2/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	Y	Packing material:	On/In Ice	Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07276-8002	Lab #	22805	Sample ID:	HA-2 (0.5')	Matrix:	Soil	Date Sampled:	10/2/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	Y	Packing material:	On/In Ice	Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		
Report #	F07276-8002	Lab #	22806	Sample ID:	HA-2 (1.5')	Matrix:	Soil	Date Sampled:	10/2/2007	Date Received:	10/2/2007
COC Complete?	Y	Sufficient sample volume for analysis requested?	Y	Was sufficient ice used?	N/A	Shipper:	Walk-In				
Samples intact / Good condition?	Y	Sample submitted within required holding time?	Y	Temperature:	N/A degrees C	Tracking #:					
Proper containers for analysis requested?	Y	Sample preserved correctly for analysis requested?	Y	Packing material:	On/In Ice	Custody seals intact (if applicable):	N/A				
Other Noted Compliance Issues:	NONE							Receipt pH:	N/A		



F07276-8002

Fort Wayne, Indiana 46825
E-mail: avant@avantgrp.com
Phone: (260) 497-9620
Fax: (260) 497-9670

CHAIN OF CUSTODY RECORD

[illegible]

REPORT NUMBER: F07277-8032

ACCOUNT NUMBER: 99735

A & L GREAT LAKES LABORATORIES, INC.

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-19 (4')

DATE SAMPLED: 10/4/2007 0931

LAB NUMBER: 22937

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007 PAGE: 1

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	78.00	%	1000000	0.013	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	11.083	mg/kg	14.2	0.0013	CRT	10/16/07	SW846-6020
Cadmium	0.580	mg/kg	0.74	0.0077	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0013	0.0013	CRT	10/16/07	SW846-6020
Lead	85.122	mg/kg	109	0.0013	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					SF	10/29/07	
PCB, Total	<0.40	mg/kg	<0.51	0.51	SKP	10/29/07	SW846-8082

REPORT NUMBER: F07277-8032
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-19 (2')

LAB NUMBER: 22938

DATE SAMPLED: 10/4/2007 0933

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007 PAGE: 2

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	78.94	%	1000000	0.013	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	31.756	mg/kg	40.2	0.0013	CRT	10/16/07	SW846-6020
Cadmium	1.334	mg/kg	1.69	0.0076	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0013	0.0013	CRT	10/16/07	SW846-6020
Lead	272.42	mg/kg	345	0.63	CRT	10/17/07	SW846-6010B
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.51	0.51	SKP	10/31/07	SW846-8082

REPORT NUMBER: F07277-8032

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
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FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLF07253-1

SAMPLE ID: TP-19 (0-0.5')

LAB NUMBER: 22939

DATE SAMPLED: 10/4/2007 0934

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007

PAGE: 3

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	89.77	%	1000000	0.011	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	7.353	mg/kg	8.19	0.0011	CRT	10/16/07	SW846-6020
Cadmium	1.770	mg/kg	1.97	0.0067	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	125.915	mg/kg	140	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/31/07	SW846-8082

REPORT NUMBER: F07277-8032
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
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FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-27 (0-0.5')

LAB NUMBER: 22940

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/4/2007 0950

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007 PAGE: 4

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	97.93	%	1000000	0.010	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	2.011	mg/kg	2.05	0.0010	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0061	0.0061	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0010	0.0010	CRT	10/16/07	SW846-6020
Lead	5.886	mg/kg	6.01	0.0010	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.41	0.41	SKP	10/31/07	SW846-8082

REPORT NUMBER: F07277-8032

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-27 (2.5')

DATE SAMPLED: 10/4/2007 0952

LAB NUMBER: 22941

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007

PAGE: 5

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS			ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL	UNIT			
Solids, Total	83.14	%	1000000	0.012	mg/kg	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave						DLG	10/09/07	SW846-3051
Arsenic	6.848	mg/kg	8.24	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0072	0.0072	mg/kg	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	mg/kg	CRT	10/16/07	SW846-6020
Lead	14.811	mg/kg	17.8	0.0012	mg/kg	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date						ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.48	0.48	mg/kg	SKP	10/31/07	SW846-8082

REPORT NUMBER: F07277-8032

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

SAMPLE ID: TP-27 (4')

LAB NUMBER: 22942

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

DATE SAMPLED: 10/4/2007 0954

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007 PAGE: 6

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	87.04	%	1000000	0.011	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	10.940	mg/kg	12.6	0.0011	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0069	0.0069	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	9.731	mg/kg	11.2	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/31/07	SW846-8082

REPORT NUMBER: F07277-8032

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-26 (4')

LAB NUMBER: 22943

DATE SAMPLED: 10/4/2007 1207

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007 PAGE: 7

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.22	%	1000000	0.011	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	8.541	mg/kg	9.68	0.0011	CRT	10/16/07	SW846-6020
Cadmium	0.233	mg/kg	0.26	0.0068	CRT	10/16/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/16/07	SW846-6020
Lead	37.499	mg/kg	42.5	0.0011	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/30/07	SW846-8082

REPORT NUMBER: F07277-8032

ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-26 (2')

LAB NUMBER: 22944

DATE SAMPLED: 10/4/2007 1209

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007 PAGE: 8

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	86.67	%	1000000	0.012	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/09/07	SW846-3051
Arsenic	6.227	mg/kg	7.18	0.0012	CRT	10/16/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0069	0.0069	CRT	10/16/07	SW846-6020
Mercury	0.837	mg/kg	0.97	0.0012	CRT	10/16/07	SW846-6020
Lead	38.701	mg/kg	44.7	0.0012	CRT	10/16/07	SW846-6020
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.46	0.46	SKP	10/31/07	SW846-8082

REPORT NUMBER: F07277-8032
ACCOUNT NUMBER: 99735

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TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-26 (0-0.5')

LAB NUMBER: 22945

DATE SAMPLED: 10/4/2007 1100

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007

PAGE: 9

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	89.91	%	1000000	0.011	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	6.372	mg/kg	7.09	0.0011	CRT	10/12/07	SW846-6020
Cadmium	1.885	mg/kg	2.10	0.0067	CRT	10/12/07	SW846-6020
Mercury	0.376	mg/kg	0.42	0.0011	CRT	10/12/07	SW846-6020
Lead	210.91	mg/kg	235	0.56	CRT	10/16/07	SW846-6010B
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.44	0.44	SKP	10/31/07	SW846-8082

ACCOUNT NUMBER: 99735

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4414 • Phone 260-483-4759 • FAX 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com



REPORT PRINTED 11/2/2007

To: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: TP-18 (0-0.5')

DATE SAMPLED: 10/4/2007 1216

LAB NUMBER: 22946

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007 PAGE: 10

REPORT OF ANALYSIS

[illegible]

REPORT NUMBER: F07277-8032

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: TP-18 (2')

DATE SAMPLED: 10/4/2007 1218

LAB NUMBER: 22947

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007 PAGE: 11

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	83.65	%	1000000	0.012	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	12.314	mg/kg	14.7	0.0012	CRT	10/12/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0072	0.0072	CRT	10/12/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/12/07	SW846-6020
Lead	9.654	mg/kg	11.5	0.0012	CRT	10/12/07	SW846-6020
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.48	0.48	SKP	10/31/07	SW846-8082

REPORT NUMBER: F07277-8032

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

ATTN: MARK ANDERSON

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

SAMPLE ID: DUP-7

DATE SAMPLED: 10/4/2007

LAB NUMBER: 22948

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007

PAGE: 12

REPORT OF ANALYSIS

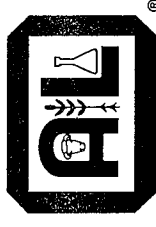
PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	86.00	%	1000000	0.012	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	12.000	mg/kg	14.0	0.0012	CRT	10/12/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0070	0.0070	CRT	10/12/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0012	0.0012	CRT	10/12/07	SW846-6020
Lead	11.793	mg/kg	13.7	0.0012	CRT	10/12/07	SW846-6020
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.47	0.47	SKP	10/31/07	SW846-8082

REPORT NUMBER: F07277-8032

ACCOUNT NUMBER: 99735

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REPORT PRINTED 11/2/2007

TO: AVANT GROUP INC
508 INCENTIVE DRIVE
FORT WAYNE, IN 46825-3376

FOR: CFWOS

PURCHASE ORDER: 07-791-30
QUOTATION NUMBER: KLH07253-1

ATTN: MARK ANDERSON

SAMPLE ID: DUP-8

LAB NUMBER: 22949

DATE SAMPLED: 10/4/2007

DATE RECEIVED: 10/04/2007

DATE REPORTED: 11/01/2007

PAGE: 13

REPORT OF ANALYSIS

PARAMETER	WET BASIS		DRY BASIS		ANALYST	DATE OF ANALYSIS	METHOD REFERENCE
	RESULT	UNIT	RESULT	DL			
Solids, Total	88.17	%	1000000	0.011	ZB	10/04/07	EPA 160.3
Sample Digestion-Microwave					DLG	10/10/07	SW846-3051
Arsenic	15.059	mg/kg	17.1	0.0011	CRT	10/12/07	SW846-6020
Cadmium	<0.006	mg/kg	<0.0068	0.0068	CRT	10/12/07	SW846-6020
Mercury	<0.001	mg/kg	<0.0011	0.0011	CRT	10/12/07	SW846-6020
Lead	11.317	mg/kg	12.8	0.0011	CRT	10/12/07	SW846-6020
PCB Sample Extraction Date					ZB	10/30/07	
PCB, Total	<0.40	mg/kg	<0.45	0.45	SKP	10/31/07	SW846-8082



508 Incentive Drive
Fort Wayne, Indiana 46825
E-mail: avantgrp.com
Phone: (260) 497-9620
Fax: (260) 497-9670

CHAIN OF CUSTODY RECORD

Project Number		Project Name		Parameters		Remarks	
07-191-30		LFNOS					
Sample Identification		Date	Time	Grab	Comp	Matrix	Number of Containers
TP-19 (4')	10/4	0931	X			Soil	1
(2')		0933					
(0-0.5')		0934					
TP-27 (0-0.5')		0950					
(2.5')		0952					
(4')		0954					
TP-26 (4')		1207					
(2')		1209					
(0-0.5')		1100					
TP-18 (0-0.5')		1216					
(2')		1218					
DUP-7							

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Leah Chester</i>	10/4	1410	<i>Patterson</i>	10/4	2:05 PM

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



**508 Incentive Drive
Fort Wayne, Indiana 46825
E-mail: avant@avantgrp.com
Phone: (260) 497-9620
Fax: (260) 497-9670**

[illegible]

155

Sample Receipt Summary for Avant Group Inc



Report # F07277-8032	Lab # 22937	Sample ID: TP-19 (4')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y</p> <p>Sufficient sample volume for analysis requested? Y</p> <p>Was sufficient ice used? N/A</p> <p>Shipper: Walk-In</p> <p>Samples intact / Good condition? Y</p> <p>Sample submitted within required holding time? Y</p> <p>Temperature: N/A degrees C</p> <p>Tracking #: _____</p> <p>Proper containers for analysis requested? Y</p> <p>Sample preserved correctly for analysis requested? N/A</p> <p>Packing material: _____</p> <p>Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE</p> <p>Receipt pH: N/A</p>					
Report # F07277-8032	Lab # 22938	Sample ID: TP-19 (2')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y</p> <p>Sufficient sample volume for analysis requested? Y</p> <p>Was sufficient ice used? N/A</p> <p>Shipper: Walk-In</p> <p>Samples intact / Good condition? Y</p> <p>Sample submitted within required holding time? Y</p> <p>Temperature: N/A degrees C</p> <p>Tracking #: _____</p> <p>Proper containers for analysis requested? Y</p> <p>Sample preserved correctly for analysis requested? N/A</p> <p>Packing material: _____</p> <p>Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE</p> <p>Receipt pH: N/A</p>					
Report # F07277-8032	Lab # 22939	Sample ID: TP-19 (0-0.5')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y</p> <p>Sufficient sample volume for analysis requested? Y</p> <p>Was sufficient ice used? N/A</p> <p>Shipper: Walk-In</p> <p>Samples intact / Good condition? Y</p> <p>Sample submitted within required holding time? Y</p> <p>Temperature: N/A degrees C</p> <p>Tracking #: _____</p> <p>Proper containers for analysis requested? Y</p> <p>Sample preserved correctly for analysis requested? N/A</p> <p>Packing material: _____</p> <p>Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE</p> <p>Receipt pH: N/A</p>					
Report # F07277-8032	Lab # 22940	Sample ID: TP-27 (0-0.5')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y</p> <p>Sufficient sample volume for analysis requested? Y</p> <p>Was sufficient ice used? N/A</p> <p>Shipper: Walk-In</p> <p>Samples intact / Good condition? Y</p> <p>Sample submitted within required holding time? Y</p> <p>Temperature: N/A degrees C</p> <p>Tracking #: _____</p> <p>Proper containers for analysis requested? Y</p> <p>Sample preserved correctly for analysis requested? N/A</p> <p>Packing material: _____</p> <p>Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE</p> <p>Receipt pH: N/A</p>					
Report # F07277-8032	Lab # 22941	Sample ID: TP-27 (2.5')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y</p> <p>Sufficient sample volume for analysis requested? Y</p> <p>Was sufficient ice used? N/A</p> <p>Shipper: Walk-In</p> <p>Samples intact / Good condition? Y</p> <p>Sample submitted within required holding time? Y</p> <p>Temperature: N/A degrees C</p> <p>Tracking #: _____</p> <p>Proper containers for analysis requested? Y</p> <p>Sample preserved correctly for analysis requested? N/A</p> <p>Packing material: _____</p> <p>Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE</p> <p>Receipt pH: N/A</p>					
Report # F07277-8032	Lab # 22941	Sample ID: TP-27 (2.5')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y</p> <p>Sufficient sample volume for analysis requested? Y</p> <p>Was sufficient ice used? N/A</p> <p>Shipper: Walk-In</p> <p>Samples intact / Good condition? Y</p> <p>Sample submitted within required holding time? Y</p> <p>Temperature: N/A degrees C</p> <p>Tracking #: _____</p> <p>Proper containers for analysis requested? Y</p> <p>Sample preserved correctly for analysis requested? N/A</p> <p>Packing material: _____</p> <p>Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE</p> <p>Receipt pH: N/A</p>					

Sample Receipt Summary for Avant Group Inc



Report # F07277-8032	Lab # 22942	Sample ID: TP-27 (4')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07277-8032	Lab # 22943	Sample ID: TP-26 (4')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07277-8032	Lab # 22944	Sample ID: TP-26 (2')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07277-8032	Lab # 22945	Sample ID: TP-26 (0-0.5')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					
Report # F07277-8032	Lab # 22946	Sample ID: TP-18 (0-0.5')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
<p>COC Complete? Y Sufficient sample volume for analysis requested? Y Was sufficient ice used? N/A Shipper: Walk-In</p> <p>Samples intact / Good condition? Y Sample submitted within required holding time? Y Temperature: N/A degrees C Tracking #: _____</p> <p>Proper containers for analysis requested? Y Sample preserved correctly for analysis requested? N/A Packing material: _____ Custody seals intact (if applicable): N/A</p> <p>Other Noted Compliance Issues: NONE Receipt pH: N/A</p>					

Sample Receipt Summary for Avant Group Inc



Report # F07277-8032	Lab # 22947	Sample ID: TP-18 (2')	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
COC Complete? Y Samples intact / Good condition? Y Proper containers for analysis requested? Y Other Noted Compliance Issues: NONE		Sufficient sample volume for analysis requested? Y Sample submitted within required holding time? Y Sample preserved correctly for analysis requested? N/A		Was sufficient ice used? N/A Temperature: N/A degrees C Packing material: Receipt pH: N/A	Shipper: Walk-In Tracking #: Custody seals intact (if applicable): N/A
Report # F07277-8032	Lab # 22948	Sample ID: DUP-7	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
COC Complete? Y Samples intact / Good condition? Y Proper containers for analysis requested? Y Other Noted Compliance Issues: NONE		Sufficient sample volume for analysis requested? Y Sample submitted within required holding time? Y Sample preserved correctly for analysis requested? N/A		Was sufficient ice used? N/A Temperature: N/A degrees C Packing material: Receipt pH: N/A	Shipper: Walk-In Tracking #: Custody seals intact (if applicable): N/A
Report # F07277-8032	Lab # 22949	Sample ID: DUP-8	Matrix: Soil	Date Sampled: 10/4/2007	Date Received: 10/4/2007
COC Complete? Y Samples intact / Good condition? Y Proper containers for analysis requested? Y Other Noted Compliance Issues: NONE		Sufficient sample volume for analysis requested? Y Sample submitted within required holding time? Y Sample preserved correctly for analysis requested? N/A		Was sufficient ice used? N/A Temperature: N/A degrees C Packing material: Receipt pH: N/A	Shipper: Walk-In Tracking #: Custody seals intact (if applicable): N/A

Inject 11.10
only

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100201

Avant
Level IV

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SF
PREP DATE:	10-4-2007

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AA11900001		
PREP. DATE:	7-16-07		

7-6-07 USE 10-3-07

VESSEL I.D.	LAB NUMBER	SAMPLE (GRAMS OR MLS)
1	SPIKE 1	50.0
2	22645	
3	22646	
4	22647	
5	22648	
6	22649	
7	22649 dup	
8	22650	
9	22651	
10	22651 ms	
11	22652	
12	22652 msd	
13	blank	
14		
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	KLH	ALICUOT RATIO:	50/100
COLUMN I.D.:	809200	FINAL VOLUME:	2.0 mL
DATE USED:	10-5-2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGW (cm/s)	Not Given	A1016 I.D.	411300003
INST. CAL I.D.	MX501 00154	A1221 I.D.	411800003
INST. CAL PREP. DATE:	9-14-2007	A1232 I.D.	411500003
ANALYTE 1		A1242 I.D.	411600003
RETENTION TIME (MIN)	14.39	A1248 I.D.	411700005
R.T. ACCURACY (%)	99	A1254 I.D.	X11800001
SENSITIVITY (AREA)	378866	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	95	CAL PREP DATE:	10-2-07
ANALYTE 2			
RETENTION TIME (MIN)	16.60		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	818969		
SENS. ACCURACY (%)	82		

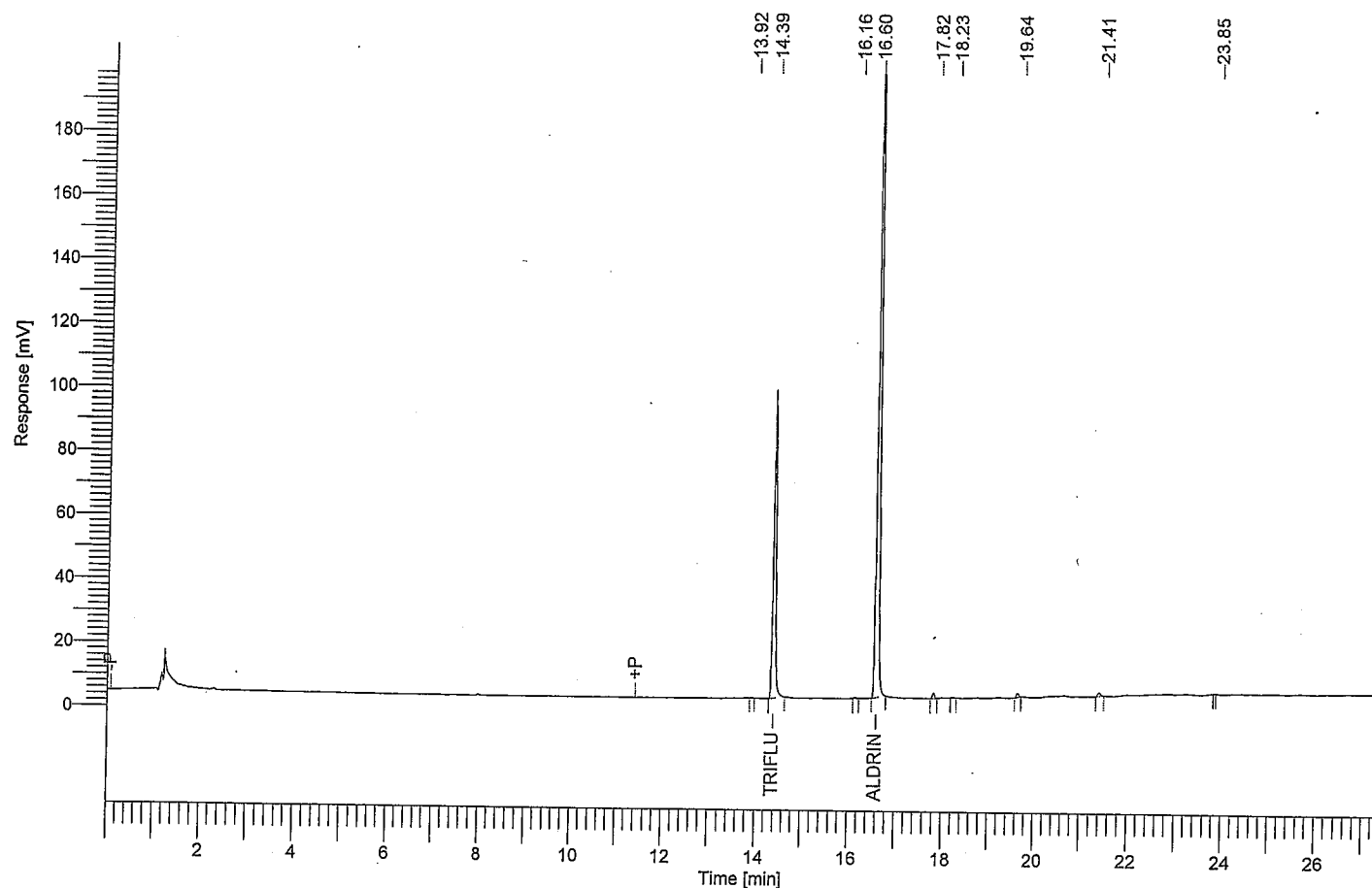
COMMENTS

C18 Lot # - 071000
Florisil Lot # - 19593 7120A
Use 0.5 mL of Arochlor 1260 INT for the matrix spike and the matrix spike duplicate
JBA Sulfate Reagent 30-10-3-07
PH7 Buffer Solution PD: 9-28-07
90% Methanol / Di-Water PD: 9-28-07 15% EE/Hexane PD: 10-3-07

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 61591
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

Date : 10/5/2007 9:19:12 AM
Data Acquisition Time : 10/5/2007 8:51:33 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [$\mu\text{V}\cdot\text{s}$]
14.39	TRIFLURALIN	378866.75
16.60	ALDRIN	818969.44
		1197836.19

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100201_11,07092802 PCB COMBINED\SEQ.seq

Printed by : envweigh on: 10/5/2007 2:28:57 PM
 Created by : envweigh on: 10/5/2007 8:36:54 AM
 Edited by : envweigh on: 10/5/2007 2:28:54 PM
 Number of Times Edited : 1

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 55
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1016	02	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1221	03	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1232	04	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1242	05	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1248	06	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1254	07	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	AROCHLOR 1260	08	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
9	Sample	BLANK VWV	09	COMBINED	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
10	Sample	SPIKE VWV	10	COMBINED	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22765	11	COMBINED	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22766	12	COMBINED	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22766 DUP	13	COMBINED	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
14	Sample	FLUSH	14	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
15	Sample	BLANK S	15	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
16	Sample	SPIKE S	16	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
17	Sample	22735 1:5	17	COMBINED	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
18	Sample	22739 1:5	18	COMBINED	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
19	Sample	22817 1:5	19	COMBINED	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
20	Sample	22820 1:5	20	COMBINED	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
21	Sample	22735 DUP 1:5	21	COMBINED	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
22	Sample	FLUSH	22	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
23	Sample	AROCHLOR 1248	23	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
24	Sample	22735	24	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
25	Sample	22739	25	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
26	Sample	22817	26	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
27	Sample	22820	27	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
28	Sample	22735 DUP	28	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
29	Sample	FLUSH	29	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
30	Sample	22757 1:100	30	COMBINED	50.000000	1.000000	2.000	100.000000	2.000000	1.000000	0.000000	100.000
31	Sample	22757 1:50	31	COMBINED	50.000000	1.000000	2.000	50.000000	2.000000	1.000000	0.000000	100.000
32	Sample	FLUSH	32	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
33	Sample	22757 1:10	33	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
34	Sample	FLUSH	34	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
35	Sample	AROCHLOR 1254	35	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
36	Sample	FLUSH	36	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
37	Sample	FLUSH	37	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
38	Sample	BLANK A	38	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
39	Sample	SPIKE A	39	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
40	Sample	22645 1:10	40	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
41	Sample	22646 1:10	41	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
42	Sample	22647 1:10	42	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
43	Sample	22648 1:10	43	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
44	Sample	22649 1:10	44	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
45	Sample	22649 DUP 1:10	45	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
46	Sample	22650 1:10	46	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
47	Sample	22651 1:10	47	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
48	Sample	22651 MS 1:10	48	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
49	Sample	22652 1:10	49	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
50	Sample	22652 MS 1:10	50	COMBINED	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
51	Sample	22651 MS	51	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
52	Sample	22652 MSD	52	COMBINED	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
53	Sample	FLUSH	53	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
54	Sample	AROCHLOR 1260	54	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
55	Sample	FLUSH	55	COMBINED	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc9\methods\waters\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc9\methods\waters\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc9\methods\waters\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc9\methods\waters\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc9\methods\waters\pcb
6	A	0	6	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc9\methods\waters\pcb
7	A	0	7	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc9\methods\waters\pcb

[illegible][illegible]

Sequence Process Information - Channel A

Row	Raw Data File					Result File	
36	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB036					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB036	
37	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB037					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB037	
38	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB038					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB038	
39	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB039					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB039	
40	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB040					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB040	
41	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB041					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB041	
42	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB042					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB042	
43	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB043					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB043	
44	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB044					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB044	
45	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB045					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB045	
46	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB046					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB046	
47	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB047					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB047	
48	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB048					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB048	
49	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB049					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB049	
50	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB050					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB050	
51	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB051					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB051	
52	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB052					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB052	
53	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB053					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB053	
54	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB054					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB054	
55	C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB055					C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB055	
Row	Baseline	Modified	Calib Rpt	Cal Level	Update RT	Printer	Plotter
1		-	-	-		Default	Default
2		-	-	-		Default	Default
3		-	-	-		Default	Default
4		-	-	-		Default	Default
5		-	-	-		Default	Default
6		-	-	-		Default	Default
7		-	-	-		Default	Default
8		-	-	-		Default	Default
9		-	-	-		Default	Default
10		-	-	-		Default	Default
11		-	-	-		Default	Default
12		-	-	-		Default	Default
13		-	-	-		Default	Default
14		-	-	-		Default	Default
15		-	-	-		Default	Default
16		-	-	-		Default	Default
17		-	-	-		Default	Default
18		-	-	-		Default	Default
19		-	-	-		Default	Default
20		-	-	-		Default	Default
21		-	-	-		Default	Default
22		-	-	-		Default	Default
23		-	-	-		Default	Default
24		-	-	-		Default	Default
25		-	-	-		Default	Default
26		-	-	-		Default	Default
27		-	-	-		Default	Default
28		-	-	-		Default	Default
29		-	-	-		Default	Default
30		-	-	-		Default	Default
31		-	-	-		Default	Default
32		-	-	-		Default	Default
33		-	-	-		Default	Default
34		-	-	-		Default	Default
35		-	-	-		Default	Default
36		-	-	-		Default	Default
37		-	-	-		Default	Default
38		-	-	-		Default	Default
39		-	-	-		Default	Default
40		-	-	-		Default	Default
41		-	-	-		Default	Default
42		-	-	-		Default	Default
43		-	-	-		Default	Default
44		-	-	-		Default	Default
45		-	-	-		Default	Default
46		-	-	-		Default	Default
47		-	-	-		Default	Default
48		-	-	-		Default	Default
49		-	-	-		Default	Default
50		-	-	-		Default	Default
51		-	-	-		Default	Default
52		-	-	-		Default	Default
53		-	-	-		Default	Default
54		-	-	-		Default	Default
55		-	-	-		Default	Default

TotalChrom Method File C:\PEST\GC14\Metho1s\PCB.mth

Printed by : envweigh on: 10/12/2007 10:42:55 AM
 Created by : manager on: 2/21/2001 1:29:43 PM
 Edited by : envweigh on: 10/12/2007 10:42:52 AM
 Number of Times Edited : 152

Number of Times Calibrated : 80

Description: METHOD FOR THE ANALYSIS OF PCB

Instrument Conditions

Capillary GC :
 Instrument : PE AUTOSYSTEM
 Column : RTX-CLP
 Column Length : 30 METERS
 Carrier Gas : HELIUM
 Flow Rate : 1.5 MLS/MIN
 Split Ratio : NONE
 Temperature : 125 for 2.0 min, 5 deg/min to 200, hold 10 min, 5 deg/min to 260, hold 6 min
 Injection Temp.: 300
 Detector 1 : 300
 Detector 2 :
 Notes : METHOD OF ANALYSIS FOR PCB

Instrument Control Method

Instrument Name : GC014
 Instrument Type : PE AutoSystem GC with built-in Autosampler

Channel Parameters

Data will be collected from channel A
 Delay Time : 0.00 min
 Run Time : 45.00 min
 Sampling Rate : 6.2500 pts/s

Channel A Channel B

	Channel A	Channel B
Signal Source	DetA	DetB
Analog Output	Rec	Rec
Attenuation	-2	0
Offset	5.0 %FS	5.0 %FS

Autosampler Method

Syringe Capacity	: 5.0 µL	Injection Volume	: 2.0 µL
Injection Speed	: Fast	Sample Pumps	: 6
Viscosity Delay	: 0	Wash/Waste Vial Set	: 2
Pre-injection Solvent Washes	: 2	Pre-injection Sample Washes	: 3
Post-injection Solvent Washes (A)	: 3		

Carriers Parameters

Carrier A control	: PFlow - He	
Column A length	: 30.00 m	
Vacuum Compensation	: OFF	Diameter : 320 µm
Split Flow	: 0.0 mL/min	
Initial Setpoint	: 1.50 ML/MIN	
Carrier B control	: PFlow - He	Initial Hold : 999.00 min
Column B length	: 30.00 m	
Vacuum Compensation	: OFF	Diameter : 320 µm
Split Flow	: 0.0 mL/min	
Initial Setpoint	: 2.50 ML/MIN	

Valve configuration and settings

Valve 1 : SPLIT On	Valve 2 : SPLIT On
Valve 3 : NONE	Valve 4 : NONE
Valve 5 : NONE	Valve 6 : NONE

Detector Parameters

	Detector A	Detector B
Detector	ECD	NPD
Range	1	1
Time Constant	200	200
Autozero	ON	ON
Polarity		

Detector A Gas Flows
 MU : 40.0 mL/min

Detector B Gas Flows
 Air : 0.0 mL/min
 H2 : 0.0 mL/min

Heated Zones

Injector A: CAP
Setpoint : 200 °C

Injector B: CAP
Setpoint : 300 °C

Detector A : 300°C
Detector B : 300°C
Auxiliary (NONE) : 0°C

Oven Program

Cryogenics : Off
Initial Temp : 125°C
Initial Hold : 2.00 min
Ramp 1 : 5.0 0/min to 200°, hold for 10.00 min
Ramp 2 : 5.0 0/min to 260°, hold for 6.00 min

Total Run Time : 45.00 min
Maximum Temp : 260°C
Equilibration Time : 2.0 min

Timed Events

There are no timed events in the method

Real Time Plot Parameters

	Pages	Offset (mV)	Scale (mV)
Channel A	1	0.000	250.000

Processing Parameters

Bunch Factor : 2 points
Noise Threshold : 10 µV
Area Threshold : 50.00 µV

Peak Separation Criteria

Width Ratio : 0.200
Valley-to-Peak Ratio : 0.010

Exponential Skim Criteria

Peak Height Ratio : 5.000
Adjusted Height Ratio : 4.000
Valley Height Ratio : 3.000

Baseline Timed Events

Event #1 - Disable Peak Detection at 0.125
Event #2 - Enable Peak Detection at 5.000
Event #3 - Disable Peak Detection at 55.225

Optional Reports

No report format files given

Optional Report Plot Parameters

Plot Number	1	2	3	4	5
Generate this plot	No	No	No	No	No
Start plot at end of delay time	Yes	Yes	Yes	Yes	Yes
Start Time					
End Time					
Scale Type	Vertical Scaling	Vertical Scaling	Vertical Scaling	Vertical Scaling	Vertical Scaling
Scale Factor	1.000	1.000	1.000	1.000	1.000
Full Scale					
Offset					

Annotated Replot Parameters

No replot will be printed

User Programs

No user programs will be executed

Global Sample Information

Default Sample Volume : 2.000 ul
Quantitation Units : NGs
Void Time : 0.000 min
Correct amounts during calibration : Yes
Convert unknowns to concentration units : Yes
Reject outliers during calibration : No

An External Standard calibration will be used
Unknown peaks will be quantitated using a response factor of 1.000000e+06
First peak will be relative retention reference

Component Information

No components present in calibration file

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61740
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/1
 Sample Amount : 1.000000
 Cycle : 1

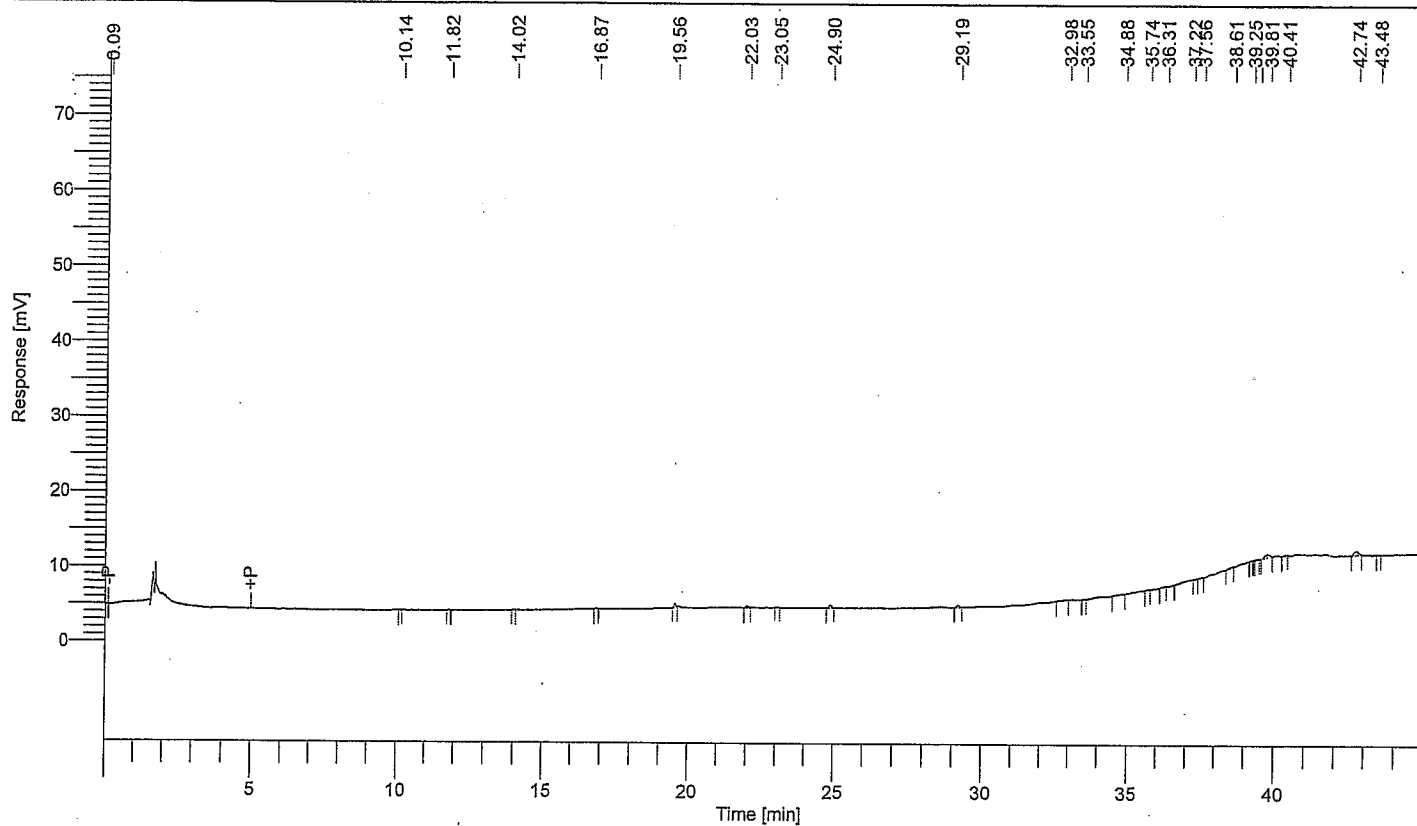
Date : 10/8/2007 11:42:18 AM
 Data Acquisition Time : 10/5/2007 3:21:50 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB001.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μ V·s]
	19.56	2030
	22.03	1446
	23.05	532
	24.90	2584
	29.19	2076
	32.98	1304
	33.55	540
	34.88	1246
	36.31	673
	37.22	2076
	38.61	935
	39.81	5569
	40.41	566
	42.74	5225
		26803

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 61753
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/14
Sample Amount : 1.000000
Cycle : 14

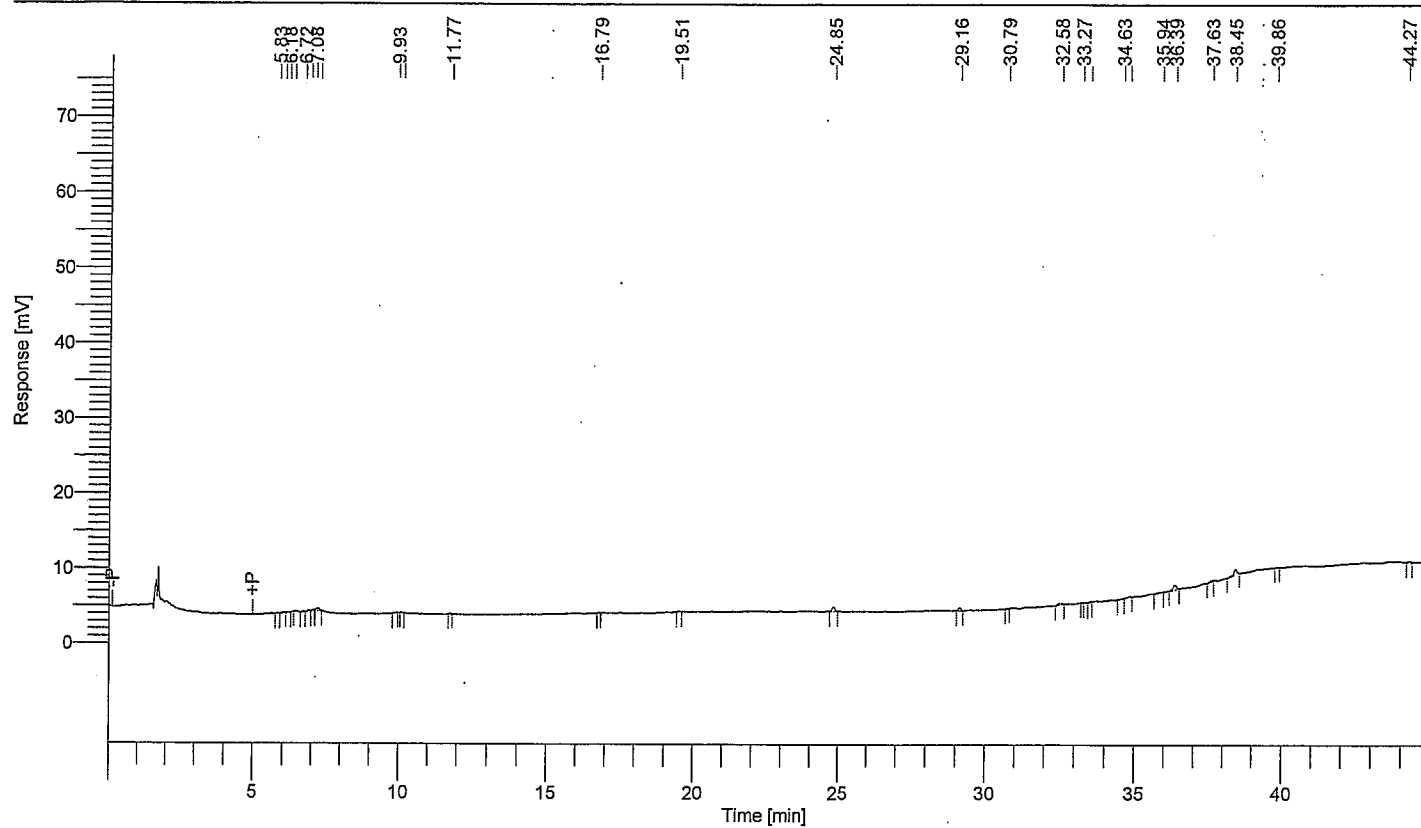
Date : 10/8/2007 11:42:40 AM
Data Acquisition Time : 10/6/2007 2:45:40 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB014.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V-s]
7.24	2829
24.85	4045
29.16	2345
36.39	5001
38.45	5980
20200	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61761
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 1.000000
 Cycle : 22

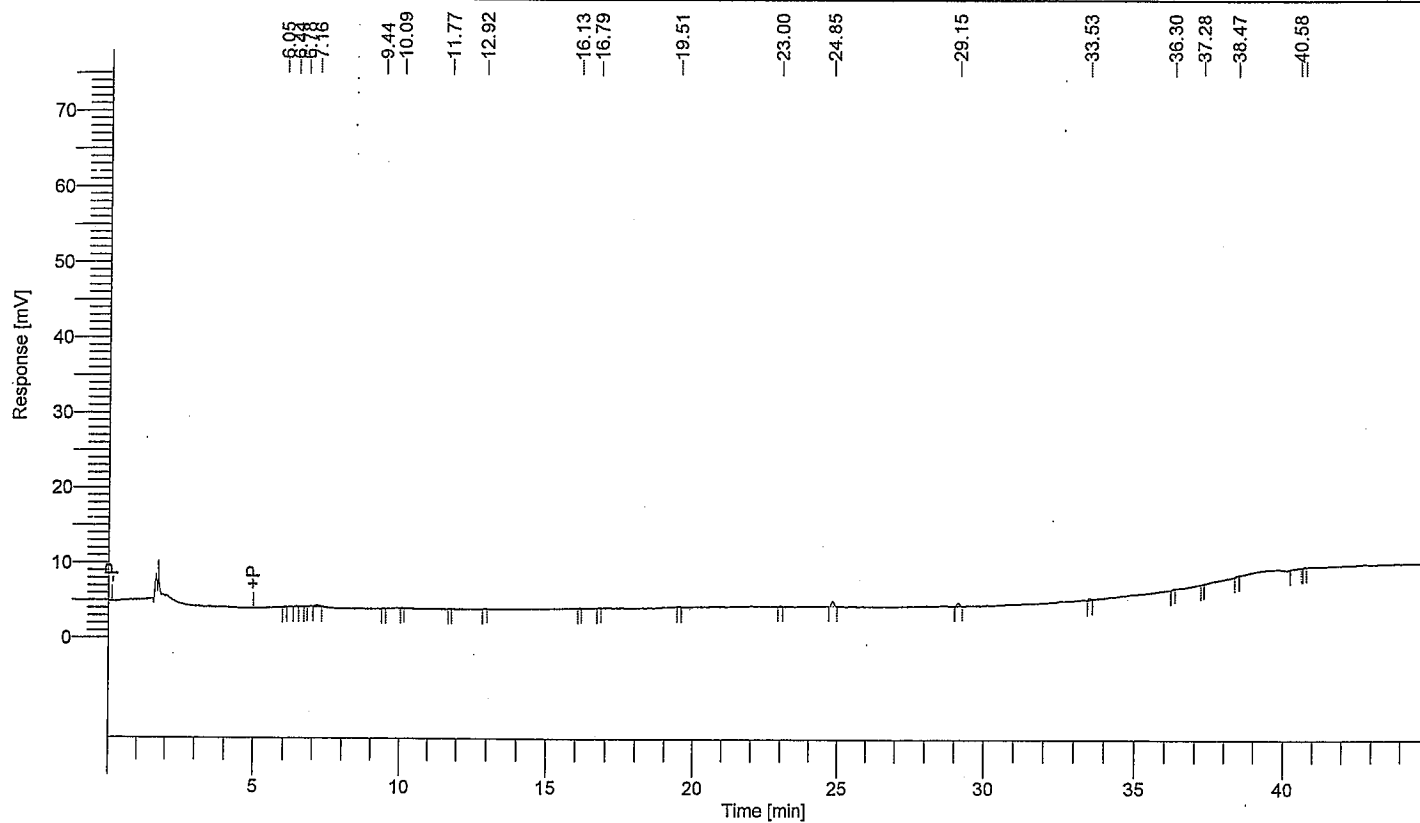
Date : 10/8/2007 11:42:52 AM
 Data Acquisition Time : 10/6/2007 9:46:44 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB022.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V·s]
24.85	4505
29.15	2902
7407	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61768
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/29
 Sample Amount : 1.000000
 Cycle : 29

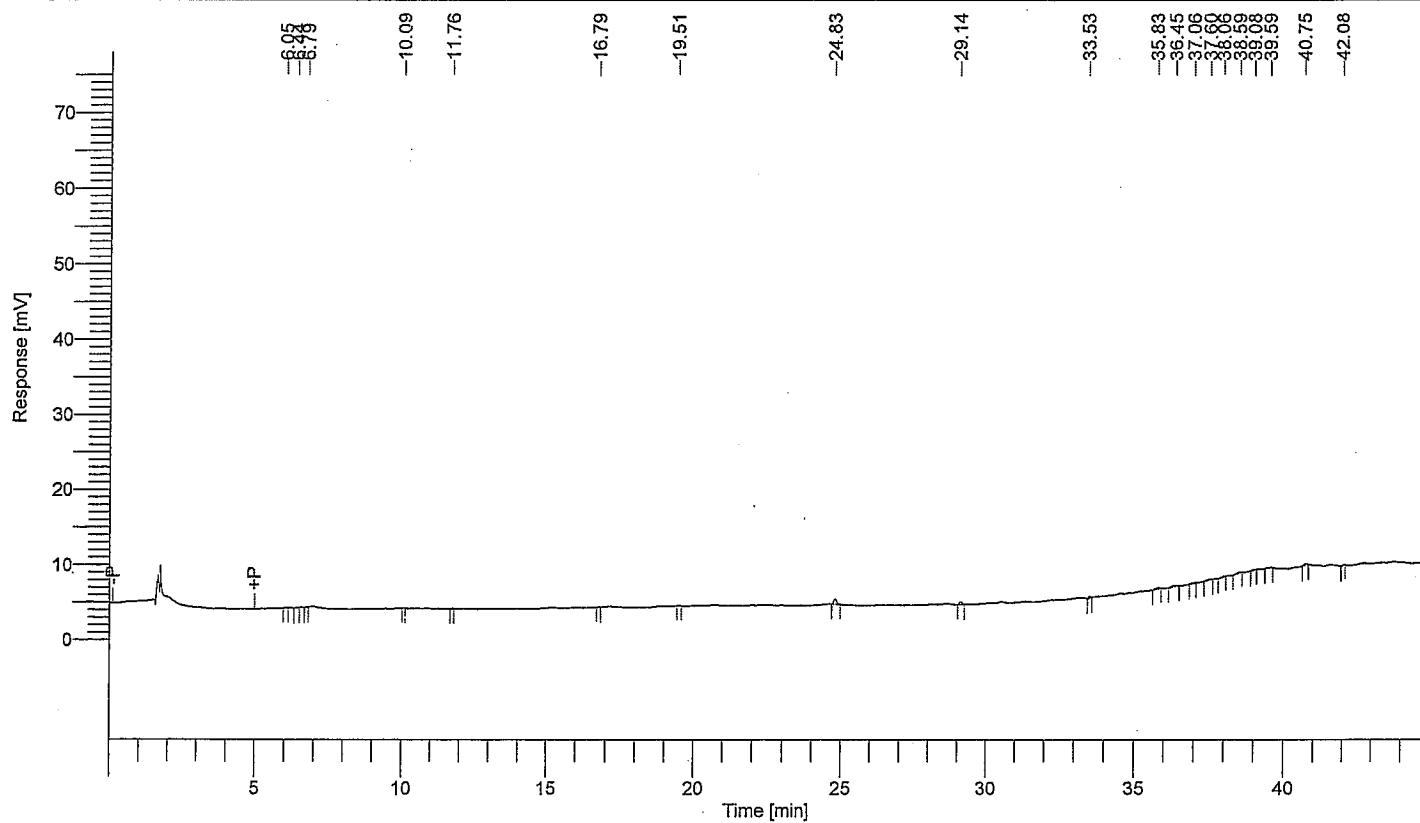
Date : 10/8/2007 11:43:01 AM
 Data Acquisition Time : 10/6/2007 3:57:37 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB029.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.83	4738
29.14	2214
36.45	2123
	9076

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 61771
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/32
Sample Amount : 1.000000
Cycle : 32

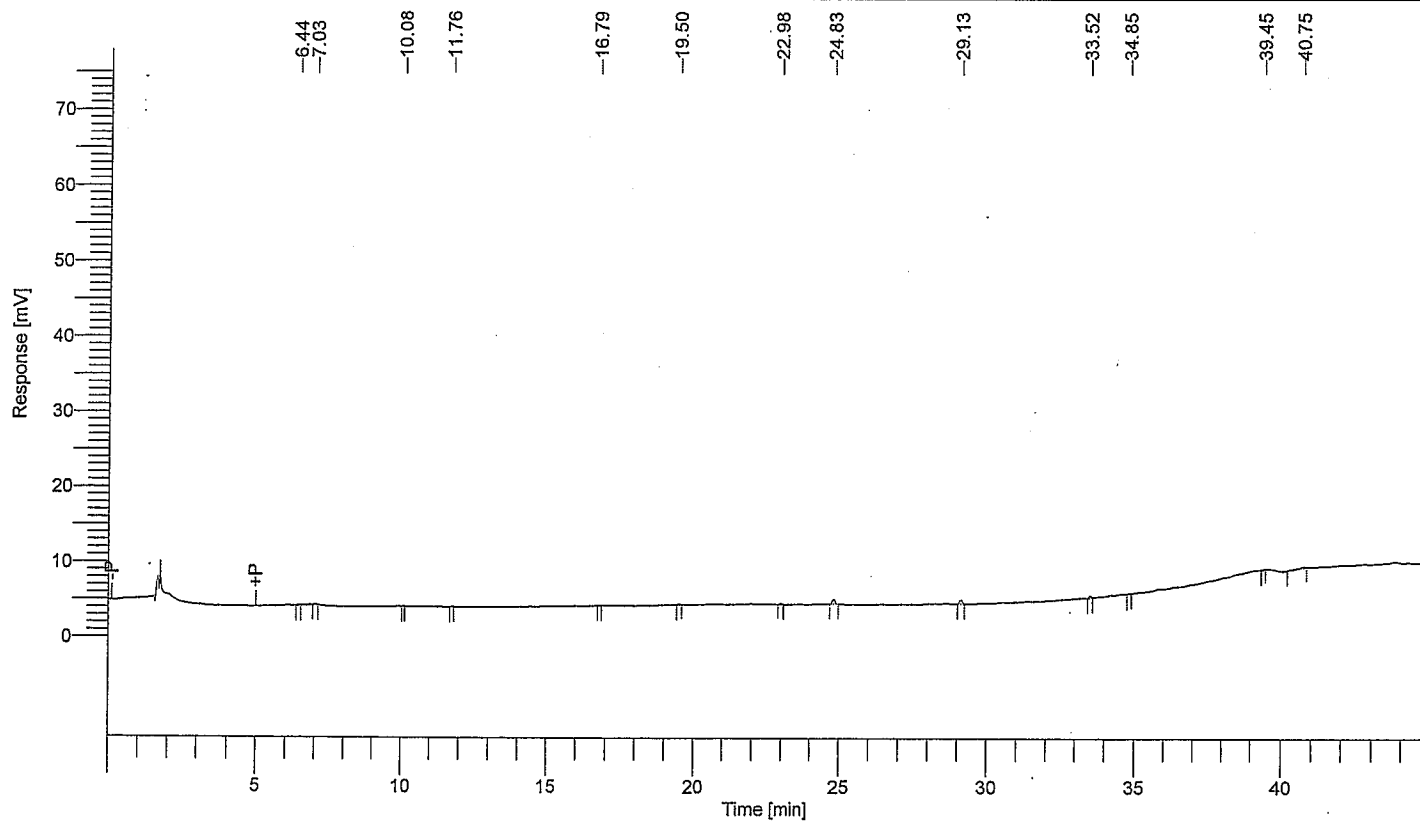
Date : 10/8/2007 11:43:04 AM
Data Acquisition Time : 10/6/2007 6:36:42 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB032.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V-s]
24.83	4195
29.13	3309
40.75	2178
<hr/>	
	9682

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61773
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/34
 Sample Amount : 1.000000
 Cycle : 34

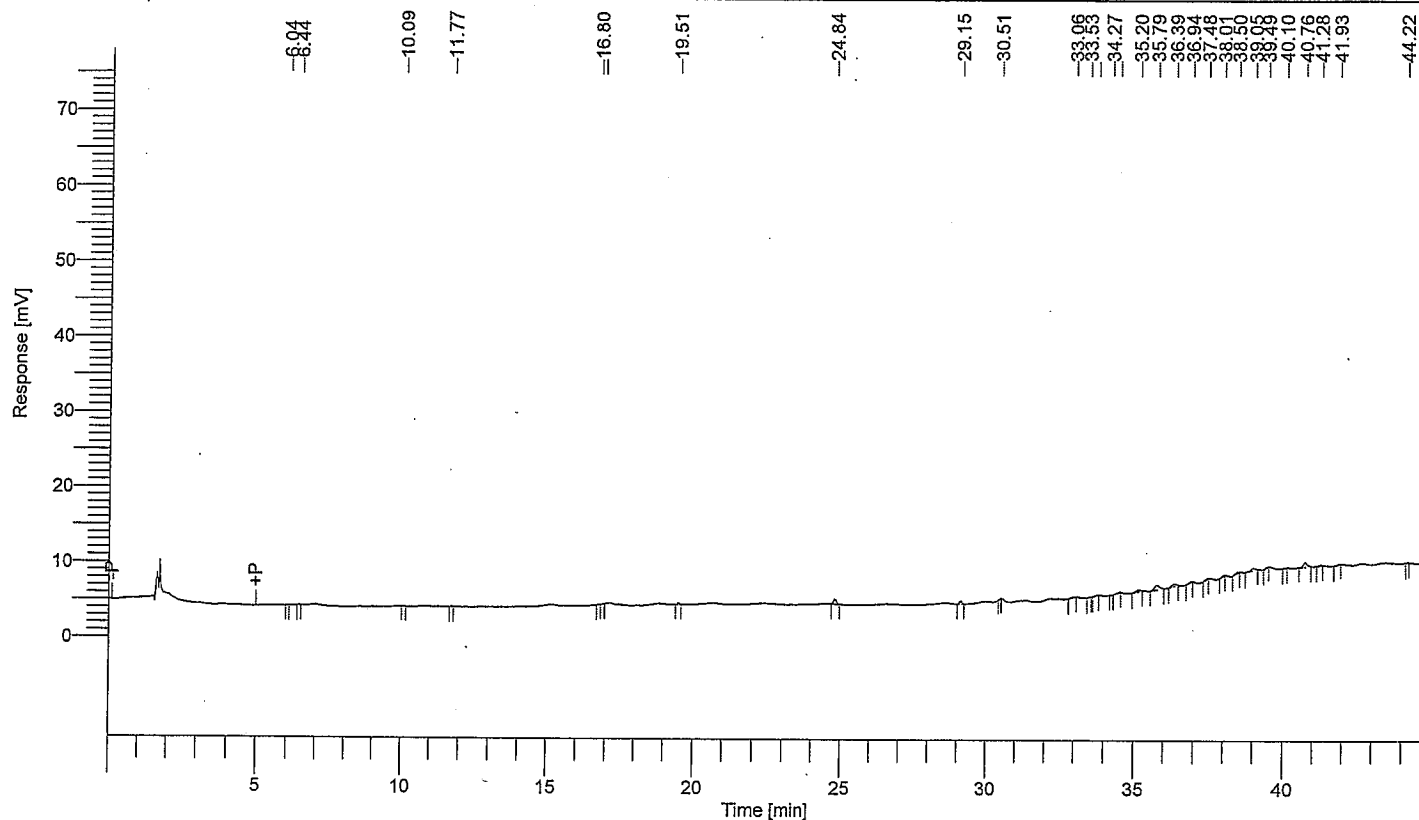
Date : 10/8/2007 11:43:06 AM
 Data Acquisition Time : 10/6/2007 8:22:40 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB034.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.84	4496
29.15	2408
35.20	2778
35.79	7845
36.39	3468
39.05	2757
40.76	5799

29551

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 61775
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/36
Sample Amount : 1.000000
Cycle : 36

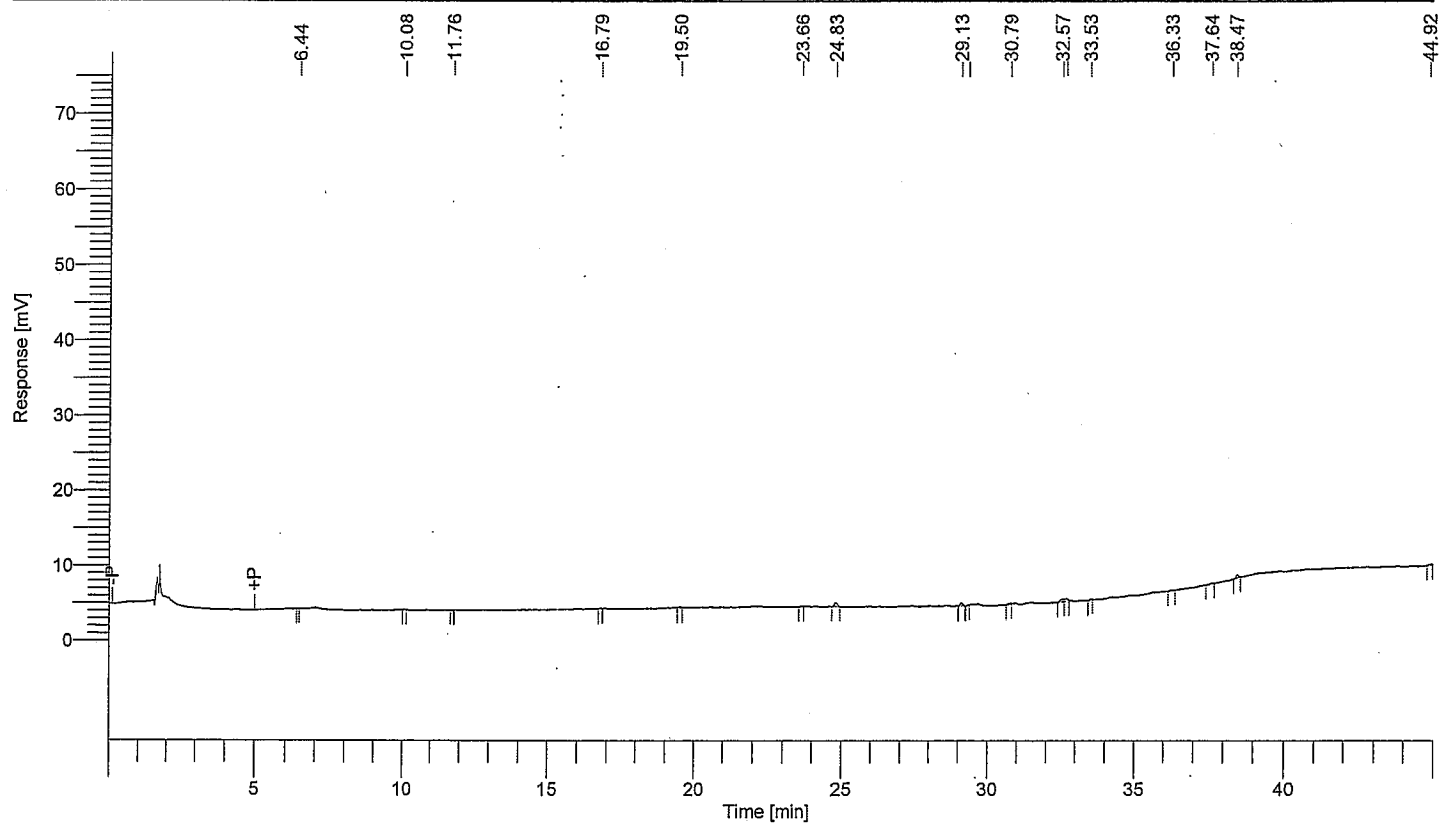
Date : 10/8/2007 11:43:09 AM
Data Acquisition Time : 10/8/2007 10:08:29 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB036.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V·s]
24.83	3481
29.13	2358
32.57	2384
32.70	2307
38.47	2209
<hr/>	
	12738

Software Version : 6.3.1.0504
Rep/Process Number : totalchrom: 61776
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/37
Sample Amount : 1.000000
Cycle : 37

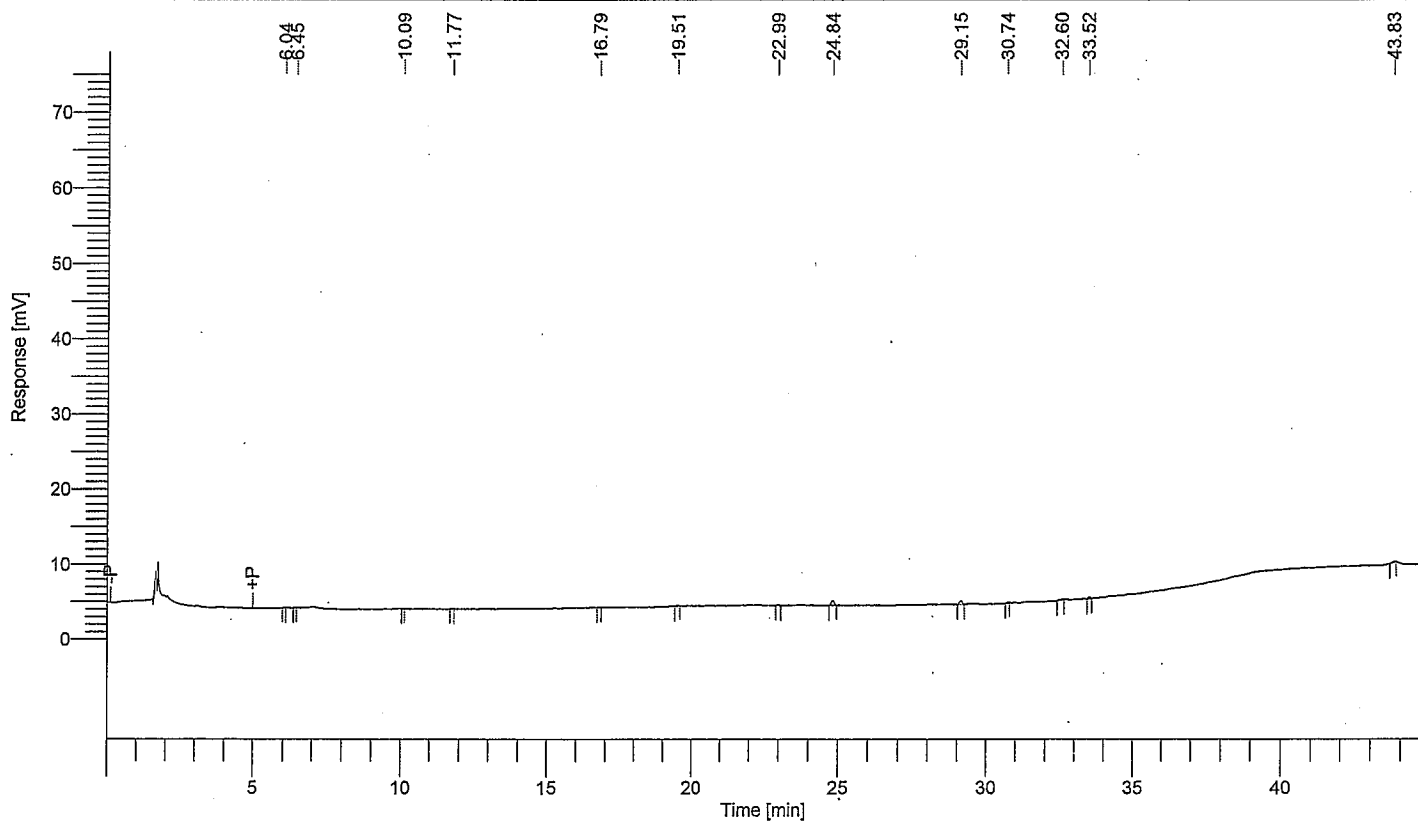
Date : 10/8/2007 11:43:09 AM
Data Acquisition Time : 10/6/2007 11:01:25 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB037.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V-s]
24.84	4000
29.15	3049
<hr/>	
	7049

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61794
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/55
 Sample Amount : 1.000000
 Cycle : 55

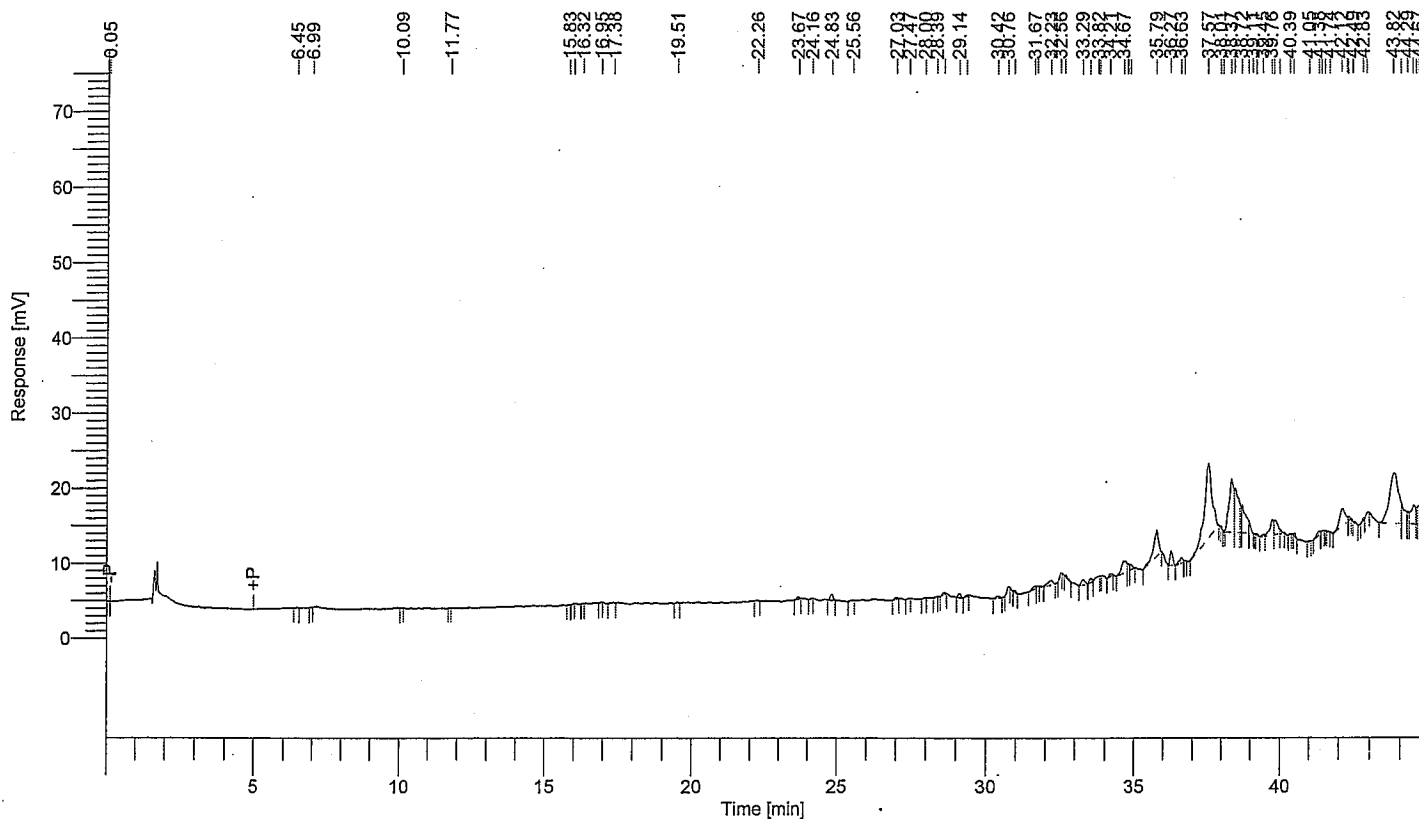
Date : 10/8/2007 11:43:25 AM
 Data Acquisition Time : 10/7/2007 2:51:08 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB055.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.83	5196
29.14	3076
30.42	2513
30.76	2475
31.67	3264
32.23	7654
33.29	6422
33.54	2984
33.82	2668
34.21	2579
34.67	19128
34.80	3574
34.91	4031
35.79	42378
36.27	13565
36.63	6076
37.57	184116
38.37	79349
38.49	54692
38.72	41206
38.96	7102
39.76	18736
39.84	16472
40.02	2259
41.38	4022
42.12	30182
42.89	2377

Time [min]	Area [μ V-s]
43.82	136027
44.06	25600
44.29	5540
44.47	28780
44.58	5039
44.67	16631
44.74	16633

802345

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61792
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/53
 Sample Amount : 1.000000
 Cycle : 53

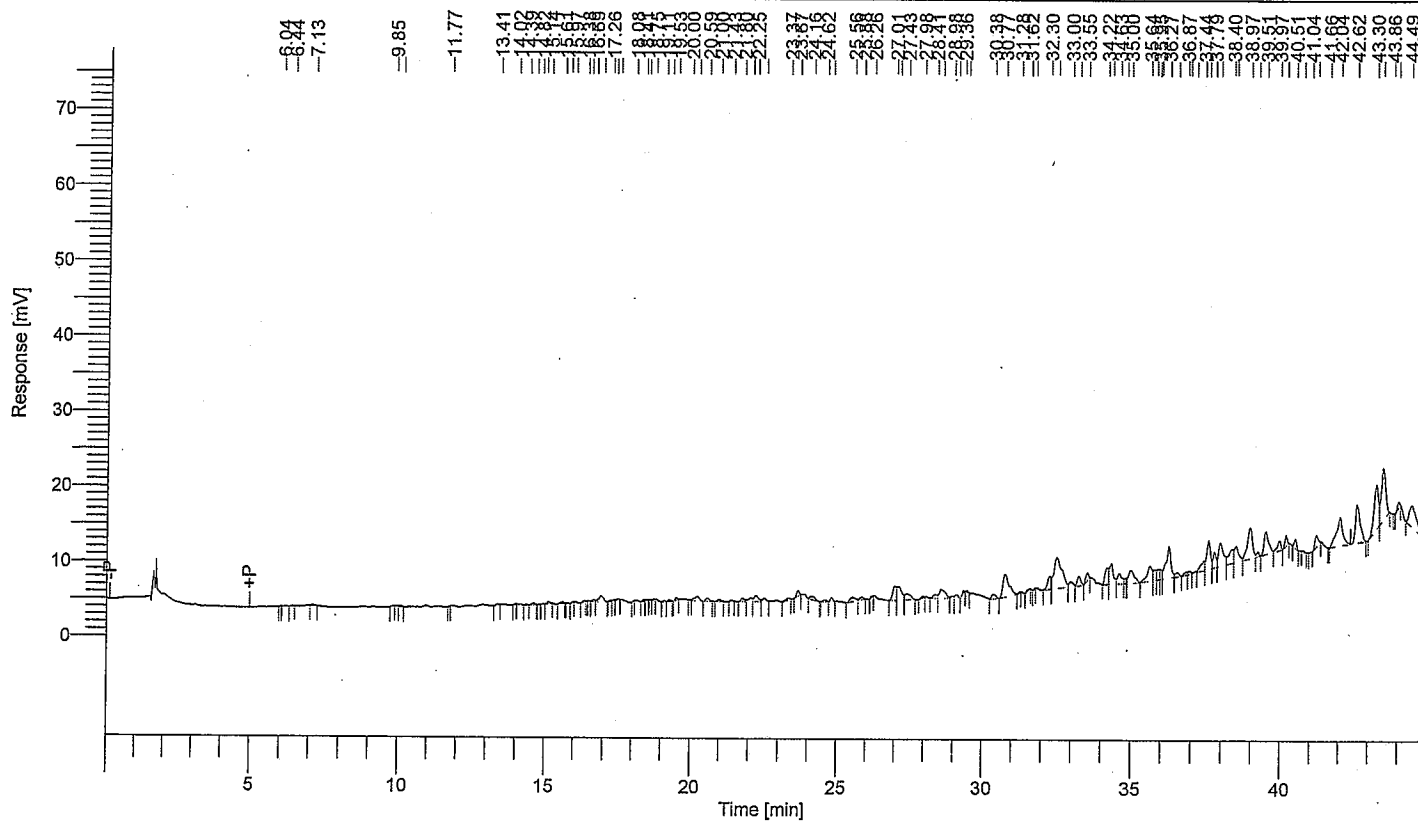
Date : 10/8/2007 11:43:23 AM
 Data Acquisition Time : 10/7/2007 1:05:50 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB053.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
16.93	9020
20.25	7237
20.59	3708
21.00	2257
21.80	4059
22.09	4572
22.25	8593
22.54	3192
23.37	2374
23.67	4595
24.16	5008
24.62	2381
24.84	3476
25.58	7471
25.88	2996
27.01	16158
27.14	21249
27.43	11726
28.41	4924
28.82	16865
29.14	3198
30.38	5912
30.77	44950
32.30	15620
32.55	74405
33.00	6426
33.26	10843

Time [min]	Area [μ V-s]
33.55	6530
34.22	17442
34.36	26630
34.63	13705
34.84	3253
35.00	22983
35.64	24192
35.83	10085
35.95	9183
36.00	6037
36.27	48587
36.56	5673
36.87	3260
36.96	2777
37.44	12805
37.59	33189
37.79	15671
37.97	34247
38.40	21761
38.50	20861
38.97	47723
39.23	3605
39.51	31484
39.97	11057
40.20	8937
40.51	6753
41.25	11486
42.04	58653
42.62	59181
43.30	60395
43.50	77083
44.04	5392
44.49	50899

1074735

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61777
 Sample Name : BLANK A
 Instrument Name : GC014
 Rack/Vial : 0/38
 Sample Amount : 50.000000
 Cycle : 38

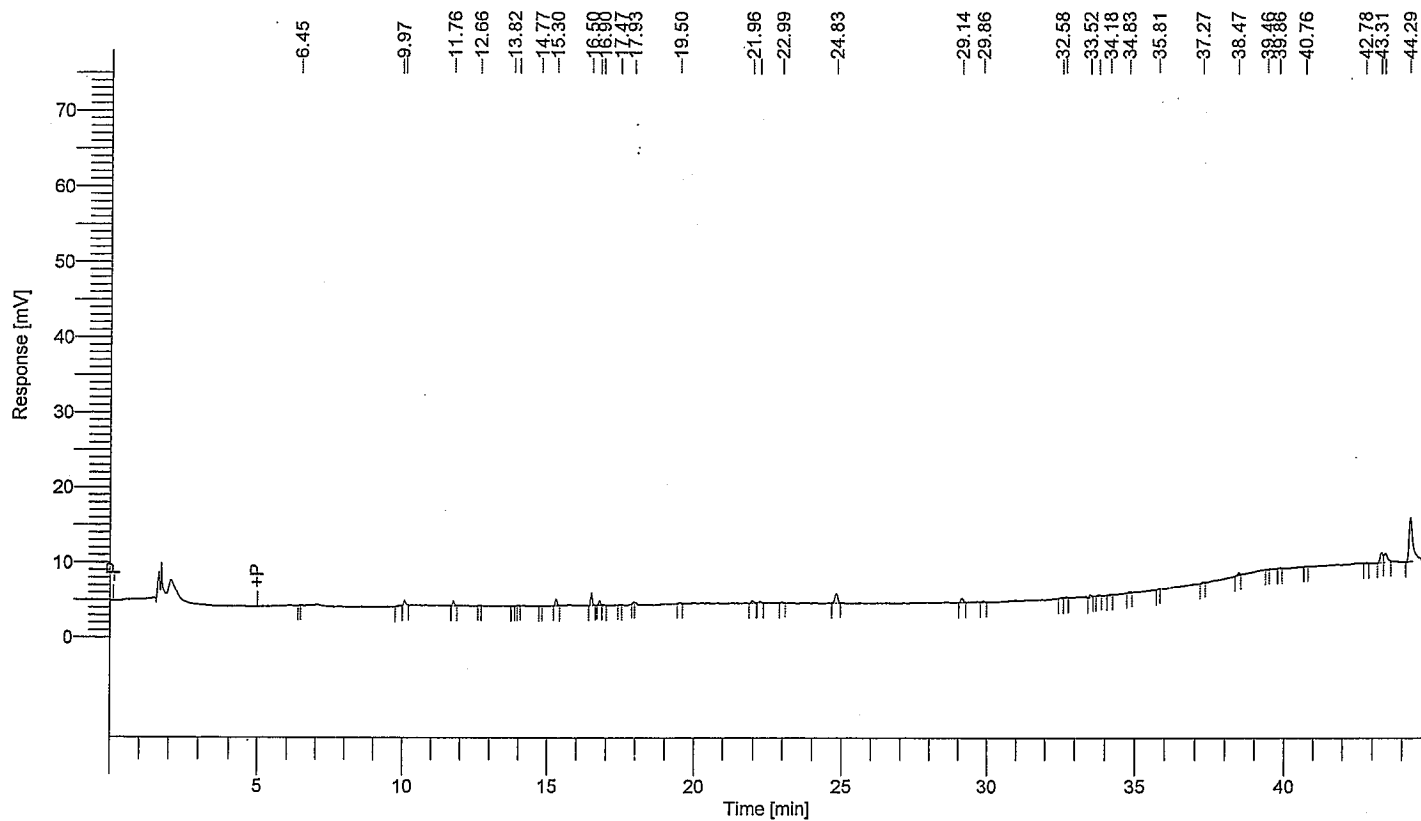
Date : 10/8/2007 11:43:10 AM
 Data Acquisition Time : 10/6/2007 11:54:20 PM
 Channel : A
 Operator : envw@gh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB038.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.09	3268
11.76	2774
15.30	3732
16.50	6889
16.78	2373
21.96	2154
24.83	8157
29.14	3662
43.31	7947
43.44	8457
44.29	54217
<hr/>	
	103630

BUL

Software Version : 6.3.1.0504
 Sample Name : SPIKE A
 Instrument Name : GC014
 Rack/Vial : 0/39
 Sample Amount : 50.000000
 Cycle : 39

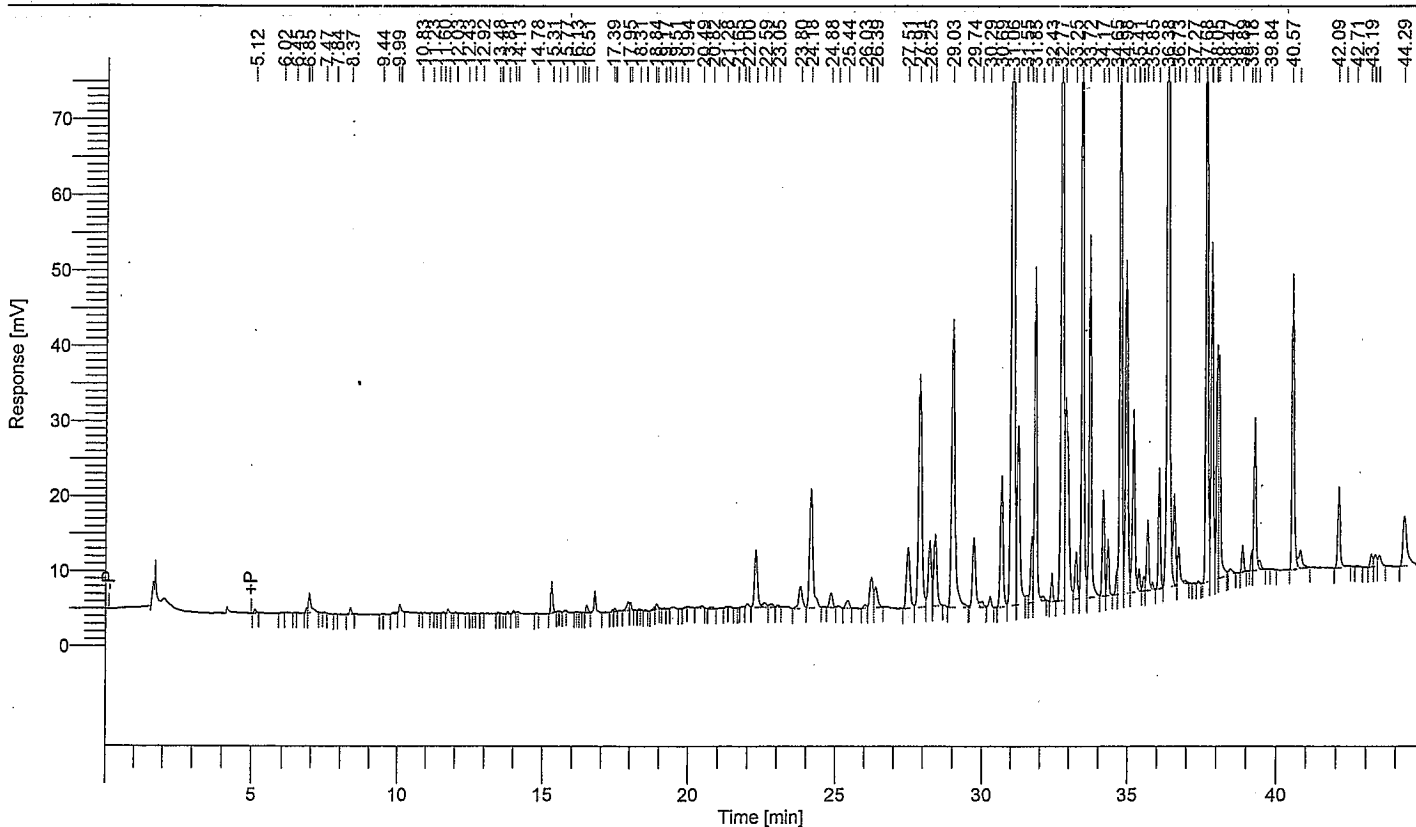
Date : 10/9/2007 12:40:05 PM
 Data Acquisition Time : 10/7/2007 12:47:14 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB039.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.12	2526
6.85	2598
6.95	17194
8.37	3957
9.99	2089
10.09	5877
11.76	2319
15.31	18887
16.51	5079
16.79	13772
17.95	7570
18.01	4590
18.92	3097
19.51	2787
20.49	3024
20.82	2339
22.00	3566
22.29	54651
22.59	4949
22.83	4477
23.80	25250
24.18	128095
24.88	13162
25.12	2214
25.44	9029
26.03	3000
26.25	32211
26.39	21815
27.51	66916

$$\sum \text{area} = 446862$$

$$\text{ng inj} = \frac{446862}{168383} = 2.6538$$

$$\text{ppm} = \frac{2.6538 \text{ ng}}{50 \text{ g}} \times \frac{2 \text{ mL}}{2 \text{ μL}} \times \frac{100}{50} = 0.1062$$

$$\% \text{ Recovery} = \frac{0.1062}{0.1} \times 100 = 106\%$$

Time [min]	Area [μ V-s]
27.91	246614
28.25	62615
28.43	70717
29.03	307217
29.74	69078
30.02	6775
30.29	8703
30.69	105453
31.06	775099
31.25	167504
31.55	6213
31.72	45642
31.85	269945
32.12	4384
32.43	20007
32.77	571182
32.90	241905
33.25	37260
33.46	476689
33.72	263024
34.17	70658
34.34	37951
34.65	12504
34.78	408693
34.98	234557
35.22	146498
35.41	14139
35.56	8533
35.69	48628
35.85	4168
36.08	73763
36.38	953695
36.59	67840
36.73	29188
36.96	2259
37.68	459481
37.87	219713
38.05	135577
38.10	128557
38.47	6039
38.89	15098
39.18	9133
39.29	98663
39.43	6476
40.57	202953
40.83	21761
42.09	62359
43.19	9434
43.31	9871
43.44	10157
44.29	58942

7790358

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: S1790
 Sample Name : 22651 MS
 Instrument Name : GC014
 Rack/Vial : 0/51
 Sample Amount : 50.000000
 Cycle : 51

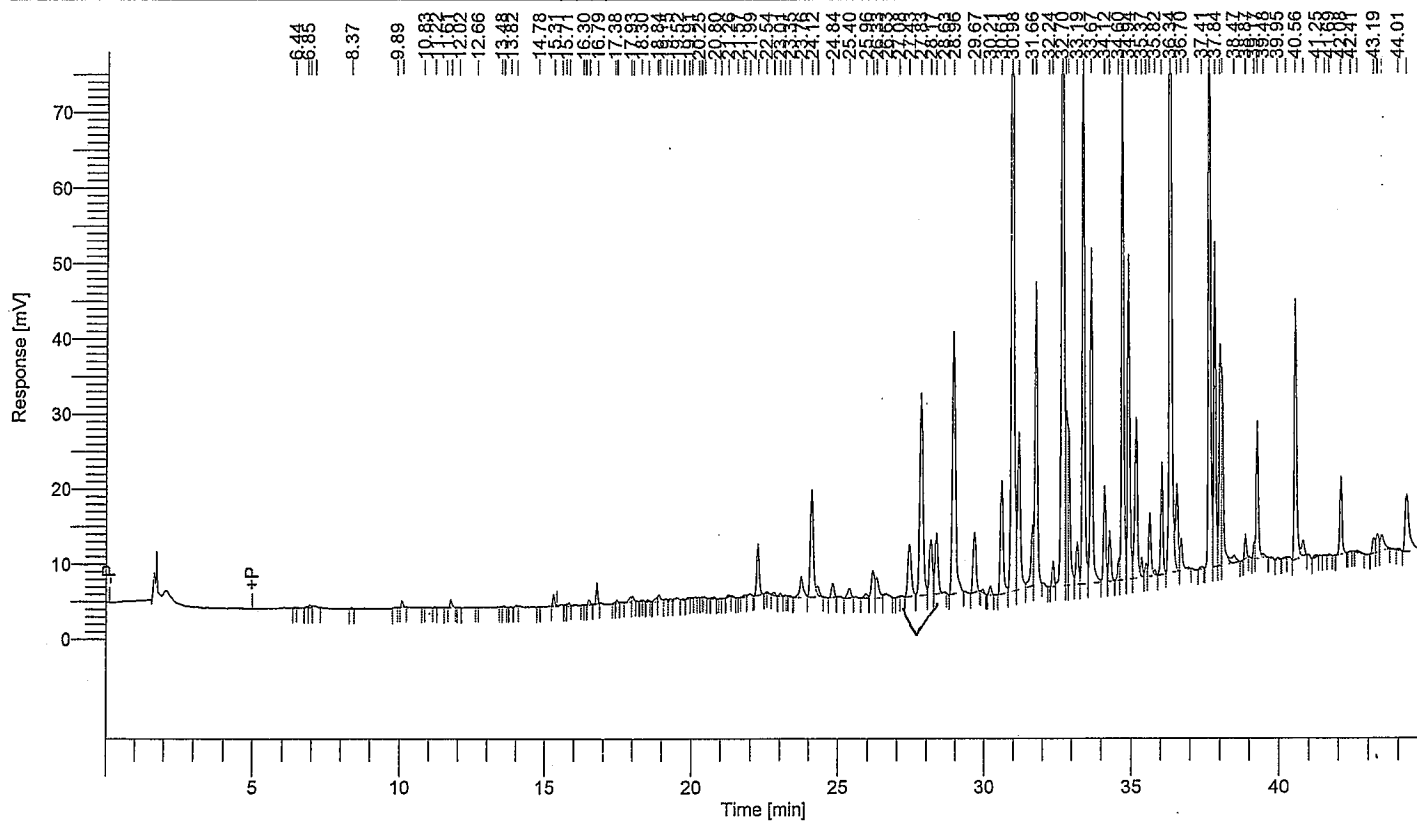
Date : 10/8/2007 11:43:22 AM
 Data Acquisition Time : 10/7/2007 11:20:25 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB051.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.95	2362
7.11	2468
10.09	3989
11.77	4594
15.31	6259
15.83	2179
16.51	3631
16.79	10625
17.93	4141
18.01	3300
18.84	3708
18.91	6060
19.52	2982
21.99	2072
22.26	43165
22.82	2545
23.01	2222
23.76	25767
24.12	108247
24.32	6955
24.84	12019
25.40	10053
25.96	4354
26.19	28602
26.33	22268
26.63	6055
27.43	59036

$$\Sigma \text{area} = 387847$$

$$\text{ng inj} = \frac{387847}{168383} = 2.3034$$

$$\text{ppm} = \frac{2.3034}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.0921$$

$$\% \text{Rec} = \frac{0.0921}{0.1} \times 100 = 92\%$$

Time [min]	Area [μ Vs]
27.83	214563
28.17	54030
28.35	60218
28.96	262709
29.67	53776
29.95	2269
30.21	6896
30.61	97589
30.98	704965
31.19	147395
31.66	46179
31.78	240420
32.37	17987
32.70	531783
32.83	126580
32.90	99437
33.19	34767
33.41	436078
33.67	245794
34.12	65746
34.29	37410
34.60	12245
34.73	374694
34.94	216638
35.18	136217
35.37	12882
35.52	8277
35.64	46693
35.82	3033
36.04	68285
36.34	892905
36.56	64121
36.70	25941
37.41	2150
37.66	427365
37.84	206167
38.02	142255
38.08	110765
38.47	11178
38.87	13010
39.17	7805
39.28	90355
39.48	3596
40.56	191574
40.82	14175
41.25	2282
42.08	58714
42.63	2596
43.19	11753
43.31	15656
43.45	18726
44.30	74391

7142695

Software Version : 6.3 1.0504
 Reprocess Number : totachrom: 61787
 Sample Name : 22651 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/48
 Sample Amount : 50.000000
 Cycle : 48

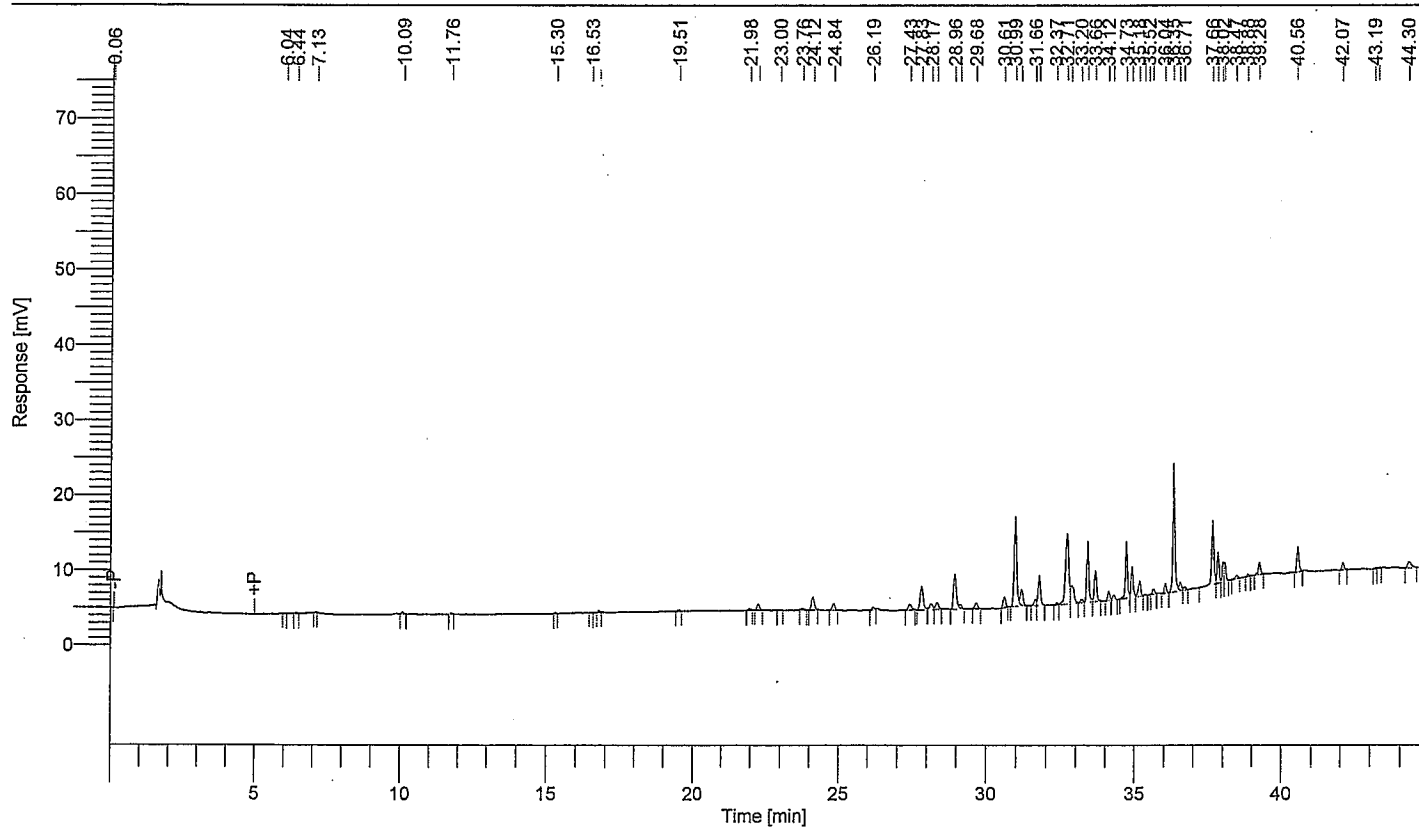
Date : 10/8/2007 11:43:19 AM
 Data Acquisition Time : 10/7/2007 8:42:14 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB048.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
22.26	5029
24.12	11183
24.84	5756
27.43	6026
27.83	23005
28.17	5379
28.36	6132
28.96	33881
29.14	2759
29.68	5018
30.81	7978
30.99	77767
31.19	12263
31.66	4245
31.78	22470
32.71	60110
32.85	21476
33.20	2517
33.40	43751
33.66	22304
34.12	6249
34.29	3898
34.73	40319
34.94	21858
35.18	12341
35.65	3495
36.04	6249

Time [min]	Area [μ V·s]
36.35	89308
36.56	5949
36.71	2246
37.66	43481
37.85	19978
38.02	11495
38.08	10201
38.47	2108
39.28	8925
40.56	16968
42.07	5313
44.30	7206
<hr/>	
696633	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61791
 Sample Name : 22652 MSD
 Instrument Name : GC014
 Rack/Vial : 0/52
 Sample Amount : 50.000000
 Cycle : 52

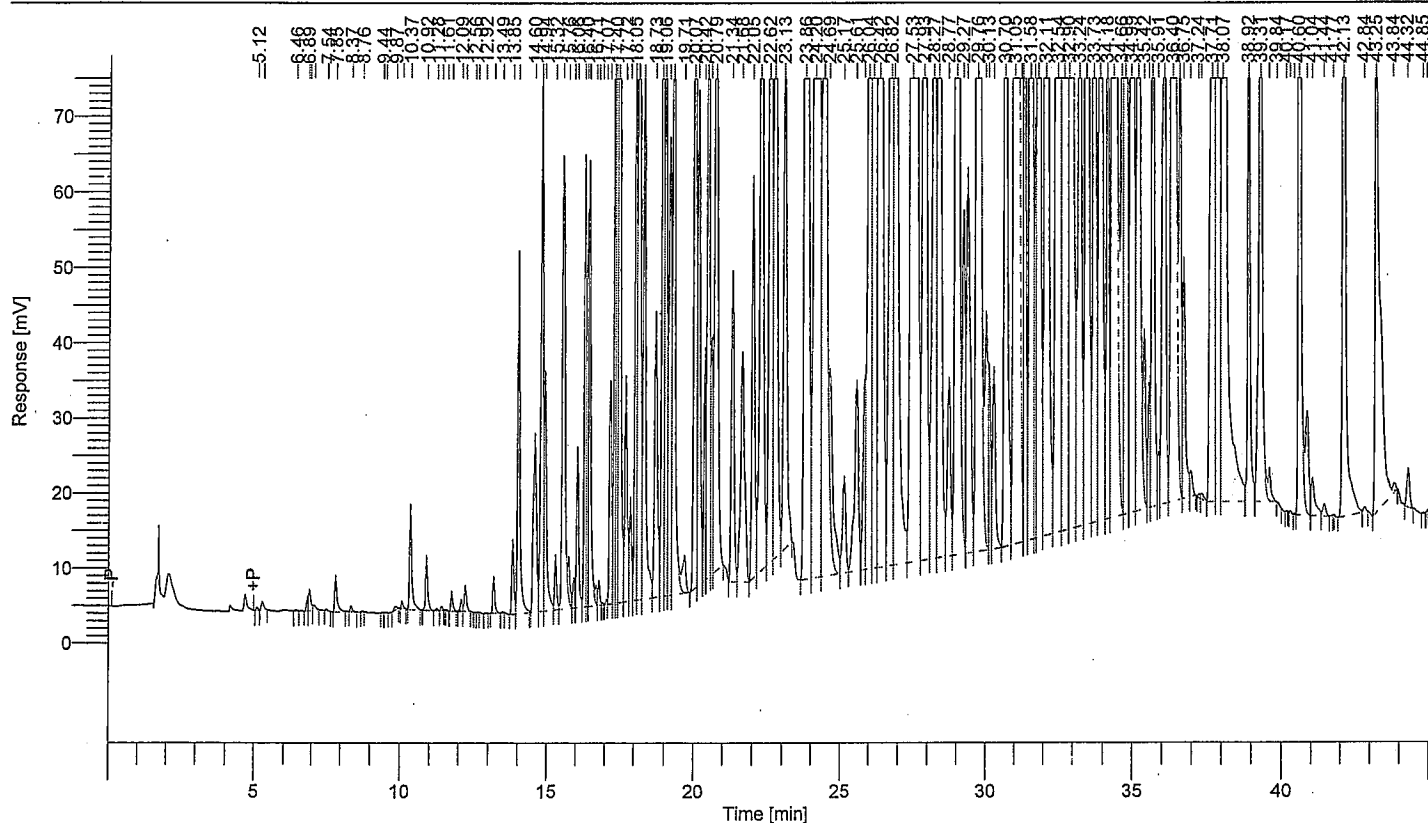
Date : 10/8/2007 11:43:23 AM
 Data Acquisition Time : 10/7/2007 12:13:07 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB052.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.12	2064
5.29	6404
6.89	7768
6.95	16140
7.09	4761
7.85	27815
8.37	3547
9.87	3293
10.09	4184
10.37	69958
10.92	34550
11.44	2133
11.77	11937
12.09	6826
12.23	18598
13.19	22706
13.85	47028
14.03	254581
14.60	175635
14.84	393067
14.94	180093
15.32	34624
15.56	432567
15.76	30026
15.95	19489
16.06	108242
16.31	236620

MSD recovery cannot be calculated due to high concentration of PCB (Aroclor 1260) in the sample. SEP 10/12/2007

Time [min]	Area [μ V-s]
16.40	188928
16.47	305875
16.71	12873
16.81	15204
17.07	2352
17.20	166031
17.34	367866
17.40	376611
17.49	771526
17.72	172049
17.88	74748
18.05	313846
18.15	836613
18.33	450172
18.73	244630
18.95	565041
19.06	448664
19.21	393911
19.33	657056
19.71	46246
20.07	864442
20.20	369003
20.42	152760
20.52	533328
20.64	135398
20.79	774634
21.34	256160
21.68	273060
22.05	337619
22.33	1082290
22.62	978219
22.80	854316
23.13	546996
23.86	1568069
24.20	3624115
24.50	1709619
24.69	184077
25.17	109412
25.61	248061
25.89	146088
26.04	874597
26.20	1229301
26.42	1718899
26.82	1367716
26.92	1677350
27.53	5053408
27.93	1637994
28.27	963103
28.45	1195300
28.77	187940
29.05	2234965
29.27	266888
29.41	478644
29.76	4284939
30.04	254297
30.13	114685
30.30	170712
30.70	1263248
31.05	7567799
31.27	945235
31.33	847842
31.58	1392138
31.73	233551
31.86	2381726
32.11	1858753
32.54	2631782
32.73	9394586
32.90	2687139
33.24	865537
33.47	2933173
33.73	1571473
33.93	1717167
34.18	510450
34.40	5531782
34.66	510599
34.79	2420480
34.99	1480228
35.23	1057334
35.42	129163
35.58	77640
35.70	800382
35.91	36755
36.10	662082
36.40	5388095
36.61	360805
36.75	214407

Time [min]	Area [μ V·s]
36.98	21453
37.24	2442
37.35	5236
37.71	3997105
37.89	1959653
38.07	2430896
38.92	343233
39.31	770010
39.60	34953
40.60	1449626
40.87	112241
41.04	47373
41.44	12145
42.13	1225607
42.84	3825
43.25	745540
43.84	10120
44.32	36371

117702480

Warning -- Signal level out-of-range in peak

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61789
 Sample Name : 22652 MS*1:10
 Instrument Name : GC014
 Rack/Vial : 0/50
 Sample Amount : 50.000000
 Cycle : 50

Date : 10/8/2007 11:43:21 AM

Data Acquisition Time : 10/7/2007 10:27:42 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

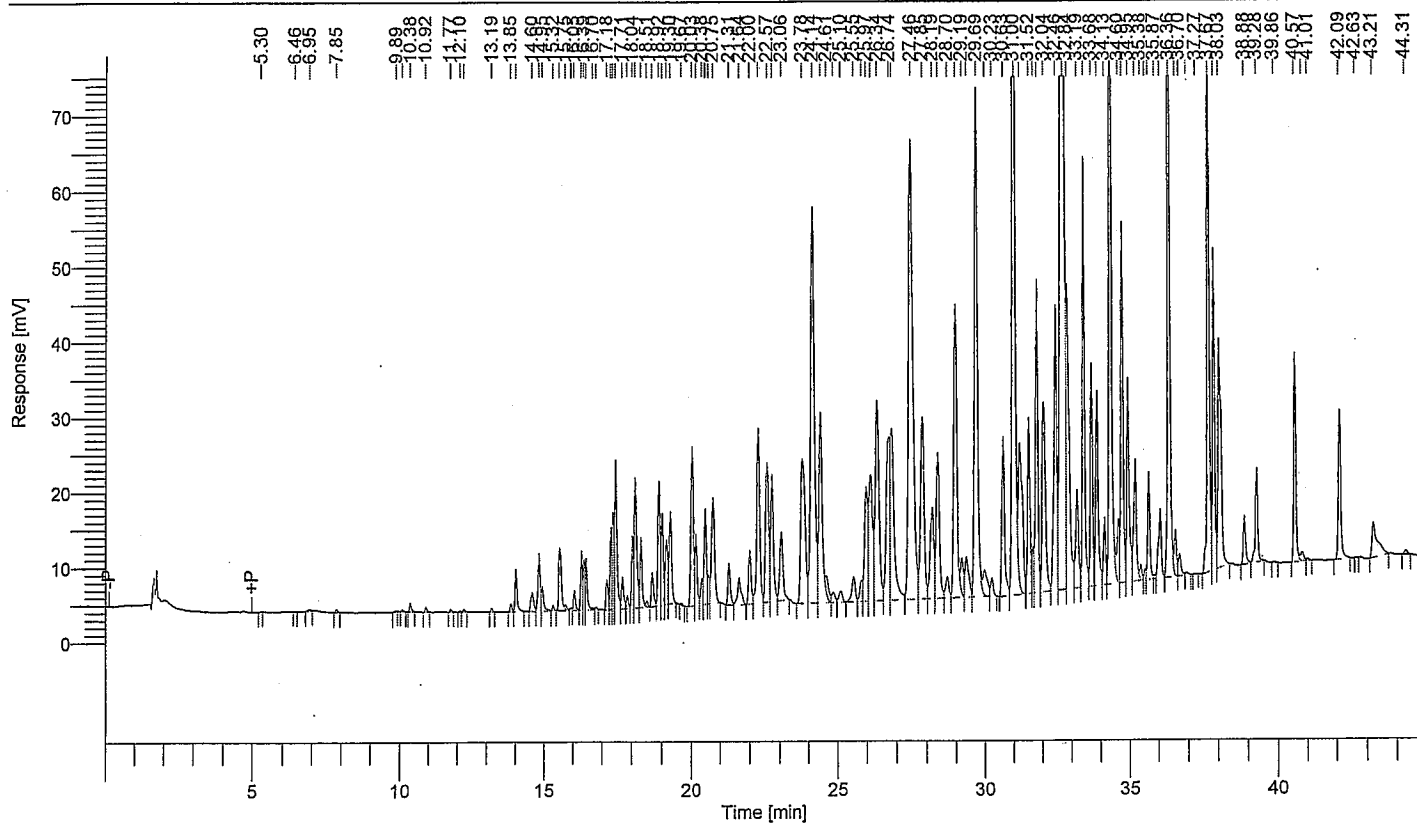
MSB
 0808
 10/9/2007

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB050.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.38	5153
10.92	2751
13.85	4924
14.03	27599
14.60	18762
14.84	39872
14.95	18641
15.32	3151
15.55	56627
15.75	3097
16.05	12607
16.31	30451
16.39	25822
16.46	32164
17.18	20782
17.32	39872
17.39	50249
17.48	101579
17.71	22376
17.87	8403
18.04	39097
18.13	96240
18.31	49615
18.51	3626
18.70	24888
18.92	79988
19.03	63853

Time [min]	Area [μ V·s]
19.18	50497
19.30	69488
20.03	118350
20.17	53368
20.38	16393
20.49	73199
20.61	17030
20.75	101551
21.31	32713
21.64	31120
22.00	43504
22.28	164409
22.57	136230
22.74	118989
23.06	71059
23.78	214100
24.14	467274
24.42	220746
24.61	20269
24.85	10831
25.10	12677
25.55	28543
25.81	17101
25.97	117420
26.11	159518
26.34	236282
26.74	175748
26.82	215973
27.46	638854
27.85	205196
28.19	101383
28.37	158423
28.70	22365
28.97	305427
29.19	29412
29.34	50991
29.69	474479
29.98	38594
30.23	15476
30.63	135573
31.00	847780
31.19	177777
31.52	150245
31.67	26023
31.79	246420
32.04	197402
32.46	283390
32.71	1201704
32.84	301011
33.19	90335
33.41	312233
33.68	159468
33.88	166797
34.13	47032
34.33	552786
34.60	50593
34.74	264209
34.95	153527
35.19	109882
35.38	11442
35.53	6818
35.65	74616
35.87	2463
36.05	61941
36.36	555196
36.57	35785
36.70	19051
36.94	2377
37.67	393156
37.86	205417
38.03	229536
38.88	31102
39.28	69910
40.57	146187
40.82	10029
42.09	121339
43.21	58499
44.31	4007

13430228

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61784
 Sample Name : 22649 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/45
 Sample Amount : 50.000000
 Cycle : 45

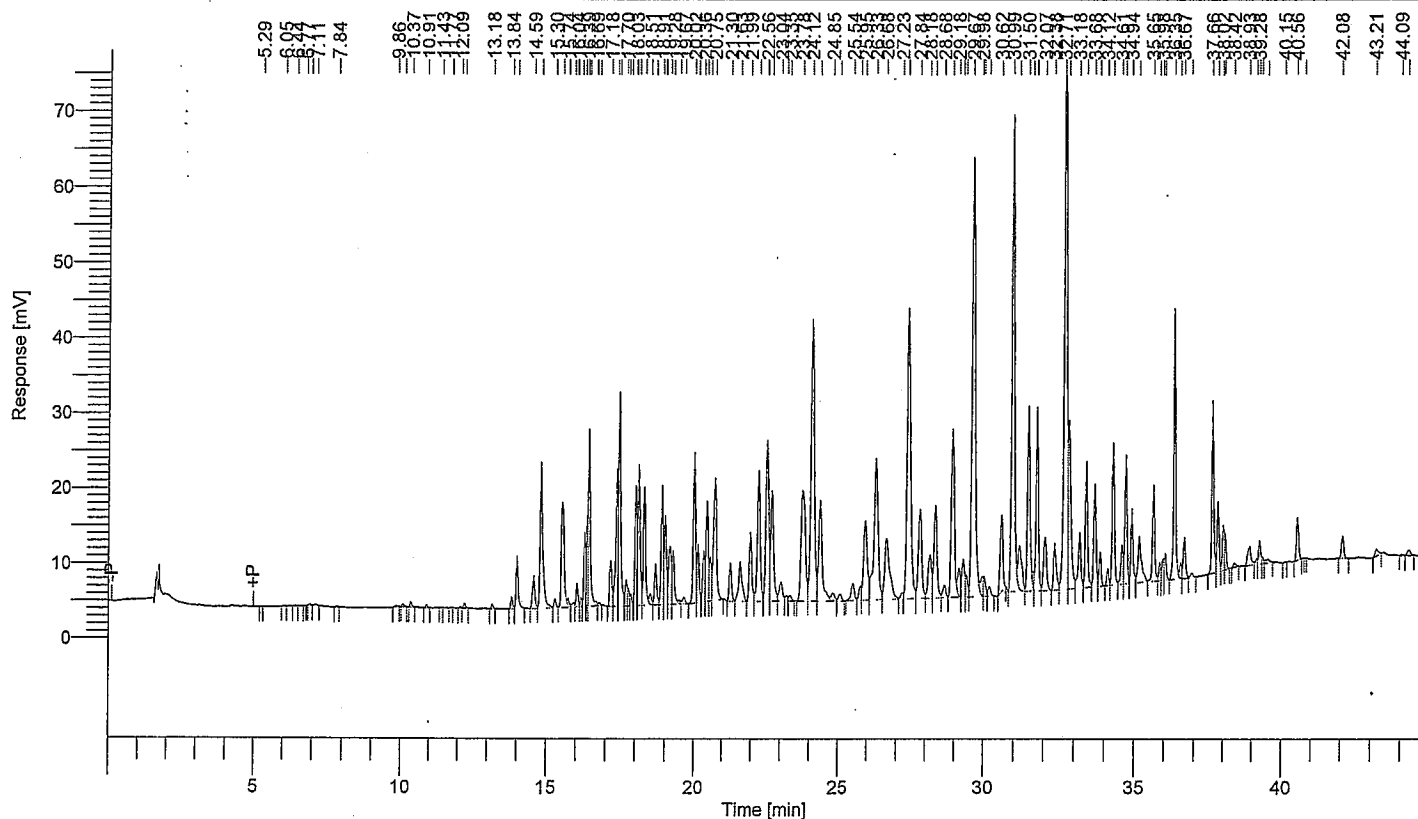
Date : 10/8/2007 11:43:17 AM
 Data Acquisition Time : 10/7/2007 6:04:04 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB045.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
10.37	3109
12.23	3335
13.18	2374
13.84	7170
14.02	33461
14.59	25884
14.83	112611
15.30	5268
15.54	97452
15.74	4085
15.93	3195
16.04	13848
16.19	4170
16.30	37294
16.39	37141
16.45	118201
16.69	2669
17.18	33325
17.39	81996
17.47	145878
17.70	16527
17.77	9146
17.85	6910
18.03	69075
18.12	98398
18.31	81633
18.51	8322

See 1:20 dilution and chromatogram overlay.
 Sig 10/12/2007

→ Arochlor
 1242

Time [min]	Area [μV-s]
18.69	29824
18.91	75893
19.02	64768
19.18	50886
19.28	43253
19.51	2777
19.67	5832
20.02	113021
20.16	42912
20.36	34140
20.48	76462
20.60	28429
20.75	118660
21.30	28623
21.63	44735
21.99	57644
22.27	118691
22.56	151056
22.73	106345
23.04	21587
23.23	4475
23.35	4734
23.78	156993
24.12	305242
24.40	121079
24.85	8334
25.09	7595
25.54	17955
25.80	10977
25.95	94158
26.33	182874
26.68	97851
27.23	4979
27.43	338664
27.84	95317
28.18	46197
28.36	95611
28.68	11925
28.96	168471
29.18	22577
29.33	35539
29.43	15463
29.67	415455
29.98	16957
30.04	15947
30.21	7951
30.62	57272
30.99	429723
31.19	47072
31.50	157156
31.65	7141
31.79	142096
32.07	45345
32.38	45259
32.71	469563
32.84	142864
33.18	47517
33.41	92949
33.68	74487
33.86	24696
34.12	9937
34.30	103631
34.61	26755
34.73	86494
34.94	51334
35.19	50360
35.65	63297
35.86	11901
35.98	11884
36.04	16228
36.35	177954
36.56	10085
36.67	28829
36.93	3719
37.66	108777
37.85	44086
38.02	28853
38.08	15989
38.42	3045
38.93	18393
39.17	3469
39.28	15651
39.36	3607
39.56	4642

→ Arochlor
1242

→ Arochlor
1254

→ Arochlor
1260

Time [min]	Area [μ V-s]
40.56	28216
42.08	17410
43.21	6650
44.30	4871

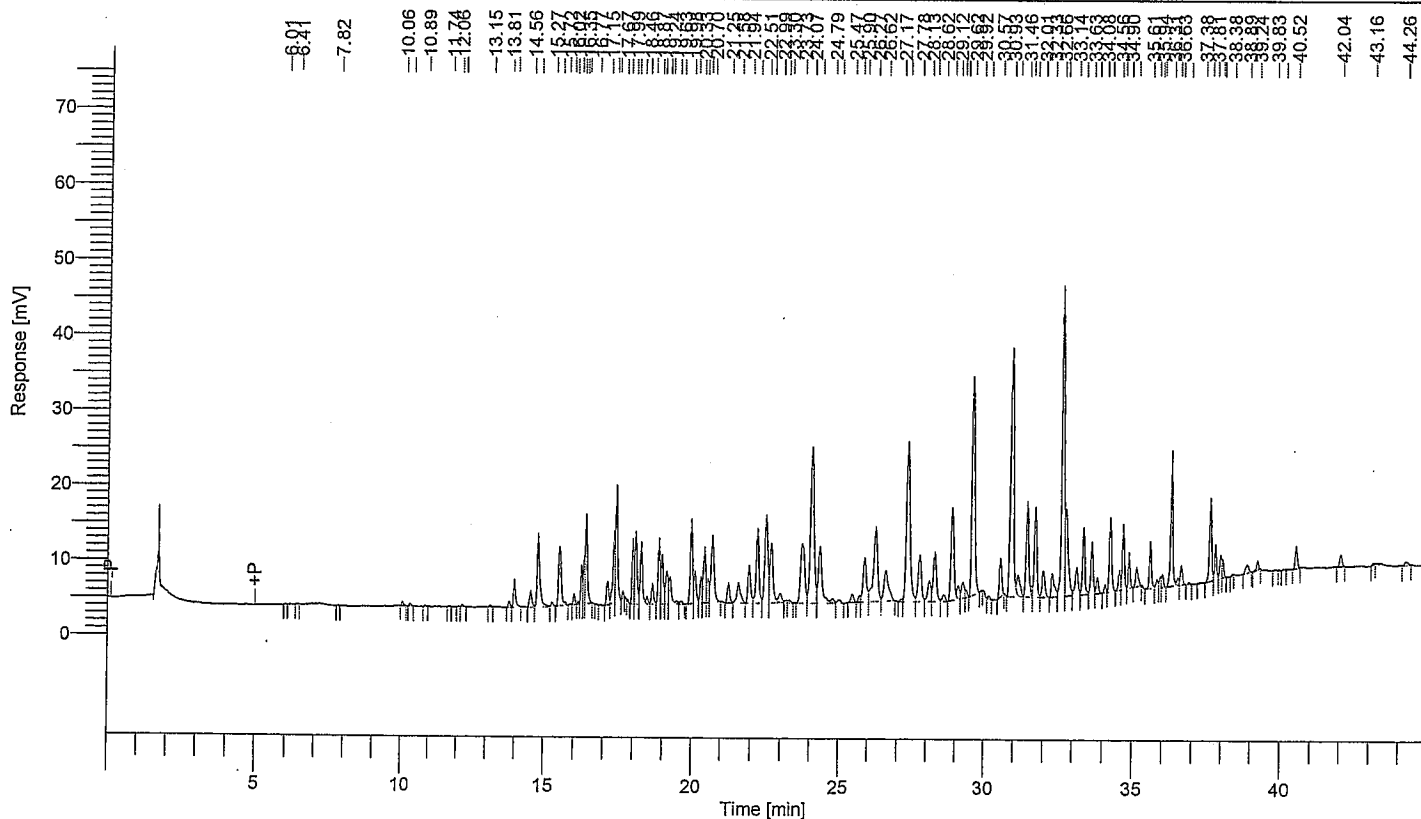
7320541

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61960
 Sample Name : ###22649 DUP 1:20
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 12

Date : 10/12/2007 7:21:00 AM
 Data Acquisition Time : 10/10/2007 1:18:00 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 20.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb012.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.06	2332
13.81	3600
13.99	17602
14.56	13215
14.80	58824
15.27	2444
15.52	53325
16.02	5963
16.27	18713
16.35	20043
16.42	59074
17.15	16384
17.36	41613
17.44	73292
17.67	2904
17.99	36054
18.09	51313
18.27	42201
18.46	4872
18.65	14026
18.87	42206
18.98	35889
19.15	27915
19.24	22275
19.47	2417
19.63	2624
19.98	62382

Arachlor 1242 $\sum \text{area} = 201176$ $\text{ng/inj} = \frac{201176}{102196.5} = 1.9685$

$\text{ppm} = \frac{1.9685}{50} \times \frac{2}{2} \times \frac{100}{50} \times 20 = 1.5748$

Arachlor 1254 $\sum \text{area} = 92917$ $\text{ng/inj} = \frac{92917}{55714} = 1.66677$

$\text{ppm} = \frac{1.66677}{50} \times \frac{2}{2} \times \frac{100}{50} \times 20 = 1.3342$

Arachlor 1260 $\sum \text{area} = 103186$ $\text{ng/inj} = \frac{103186}{295160} = 0.3496$

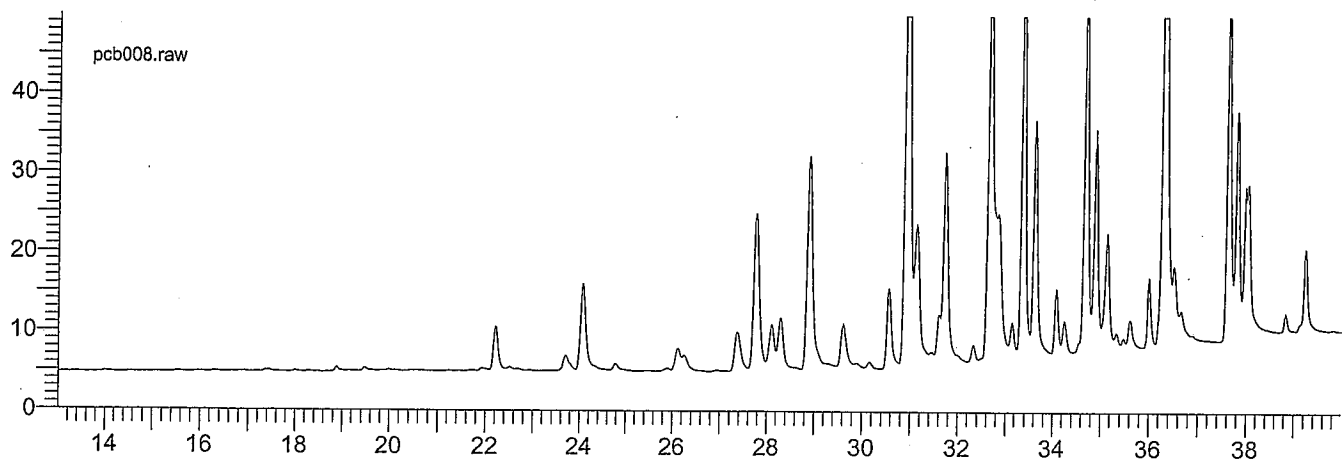
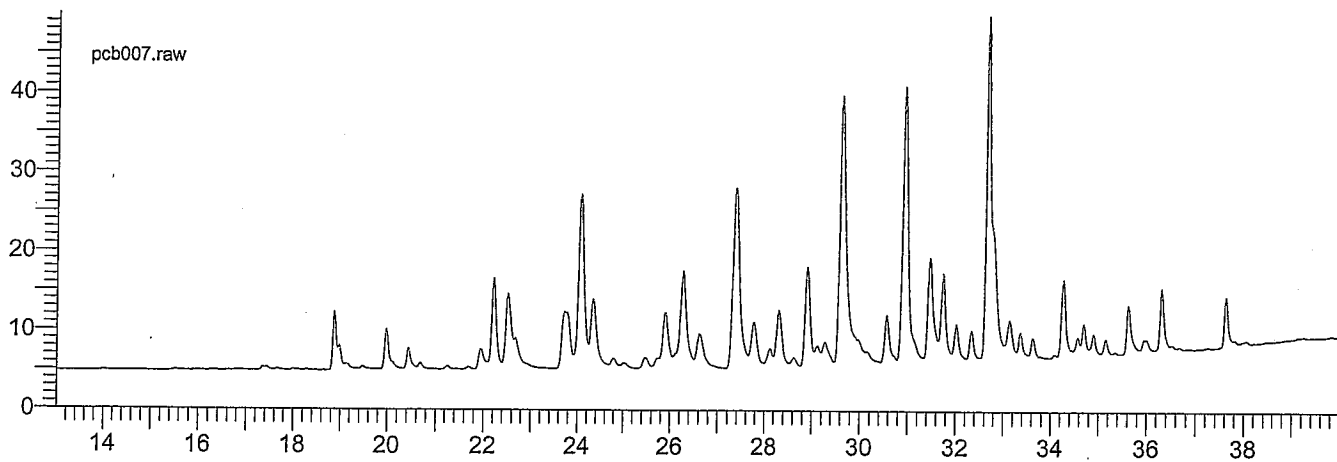
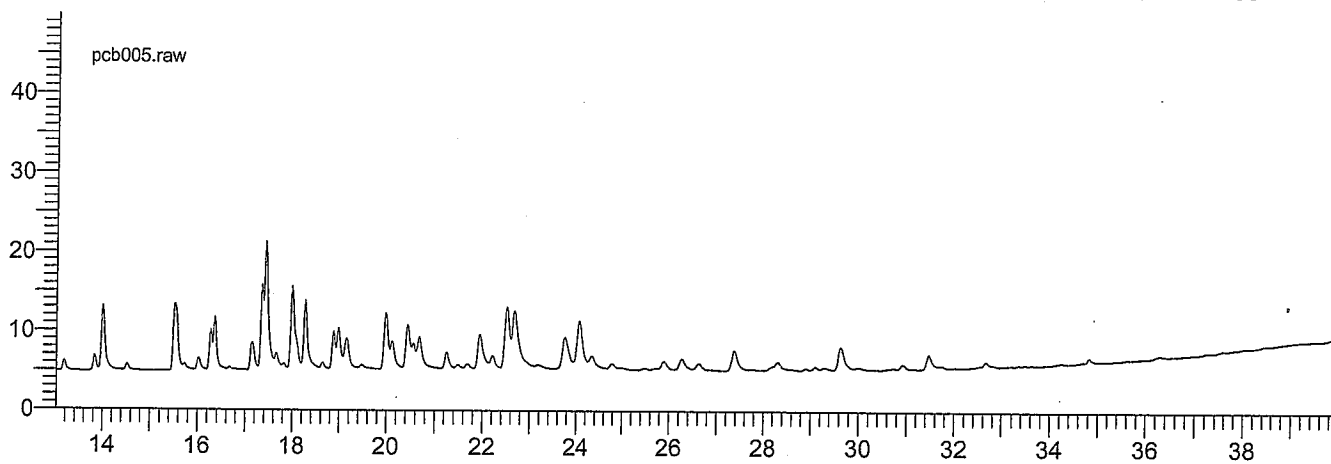
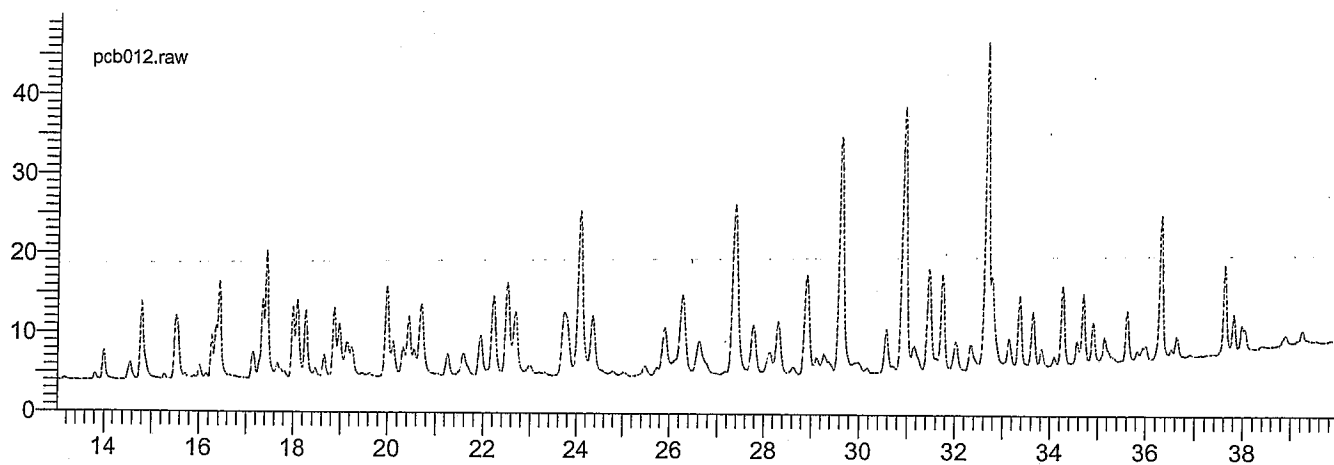
$\text{ppm} = \frac{0.3496}{50} \times \frac{2}{2} \times \frac{100}{50} \times 20 = 0.2797$

Total PCB = 3.1887 $\text{ppm} = \frac{(4.5114 - 3.1887)}{1/2 \times 99.2 + 1/2 \times 114.4} \times 100 = 34.36\%$

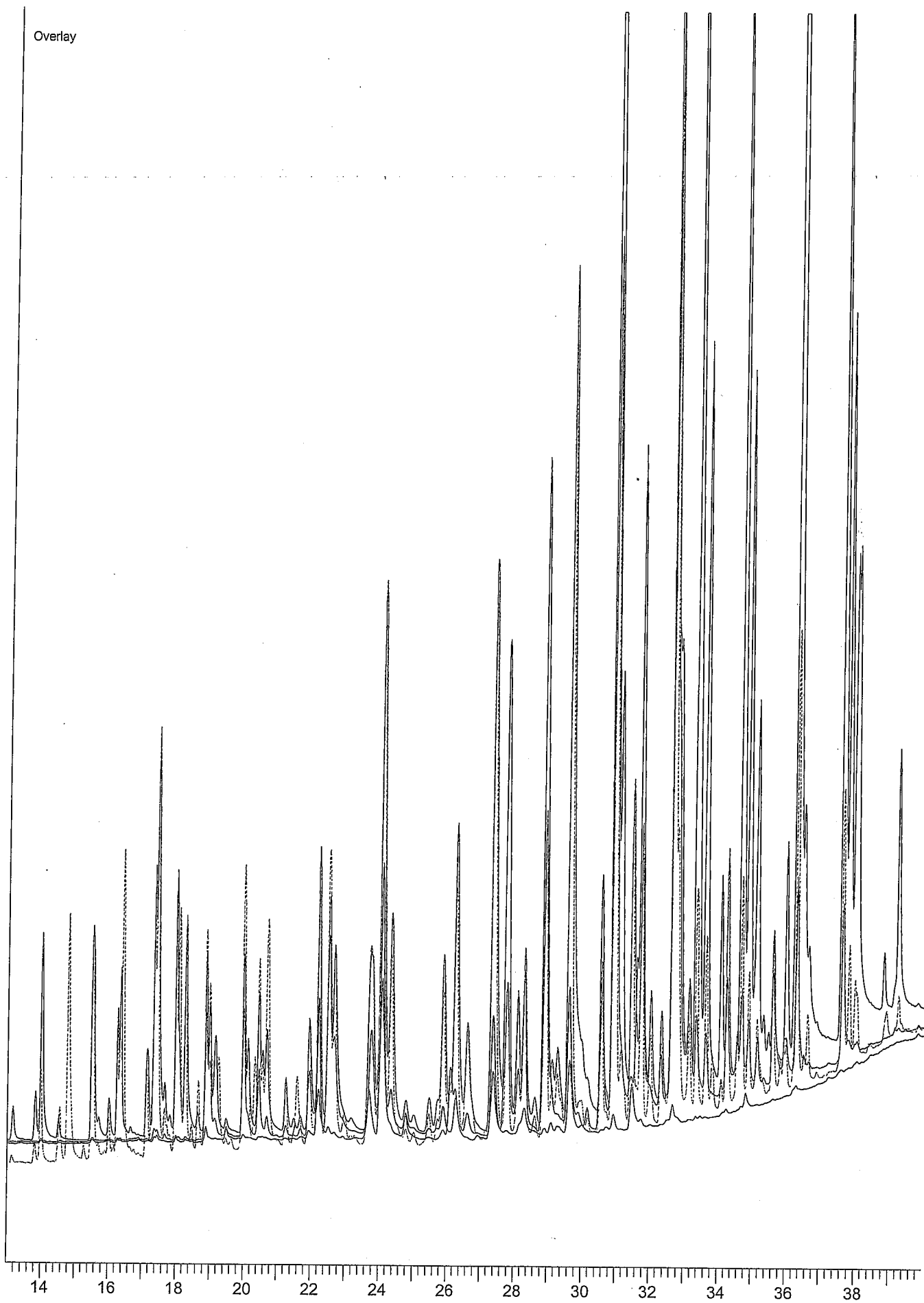
Time [min]	Area [μ V·s]
20.11	23889
20.33	17643
20.44	41842
20.55	15265
20.70	64787
21.25	15280
21.58	23361
21.94	31613
22.22	68083
22.51	83276
22.68	58815
22.99	10628
23.19	2152
23.30	2442
23.73	85801
24.07	170813
24.34	66793
24.79	4678
25.03	4012
25.47	7748
25.74	4753
25.90	48234
26.27	95645
26.62	44683
27.17	2065
27.37	185922
27.78	49241
28.13	22721
28.31	50815
28.62	6540
28.91	90554
29.12	9862
29.27	14822
29.37	4736
29.62	203576
30.57	27828
30.93	227842
31.15	21946
31.46	79511
31.60	4008
31.74	71647
32.01	22674
32.33	24537
32.66	249606
32.78	78065
33.14	25023
33.36	48390
33.63	37468
33.82	11704
34.08	4755
34.25	51836
34.56	11983
34.69	42413
34.90	21892
35.14	15585
35.61	30537
35.83	5540
35.94	6175
36.00	7496
36.31	93445
36.52	5211
36.63	13295
37.62	56827
37.81	22969
37.99	13819
38.04	9571
38.89	7157
39.24	6011
40.52	14846
42.04	8703
44.26	3411

3750321

Plot Title	Start Time	End Time	Scale	Offset
pcb012.raw Sample Name : ###22649 DUP 1:20 Sample Number: 12 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	50.00	0.00
pcb005.raw Sample Name : AROCHLOR 1242 Sample Number: 05 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	50.00	0.00
pcb007.raw Sample Name : AROCHLOR 1254 Sample Number: 07 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	50.00	0.00
pcb008.raw Sample Name : AROCHLOR 1260 Sample Number: 08 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	50.00	0.00



Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61741
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

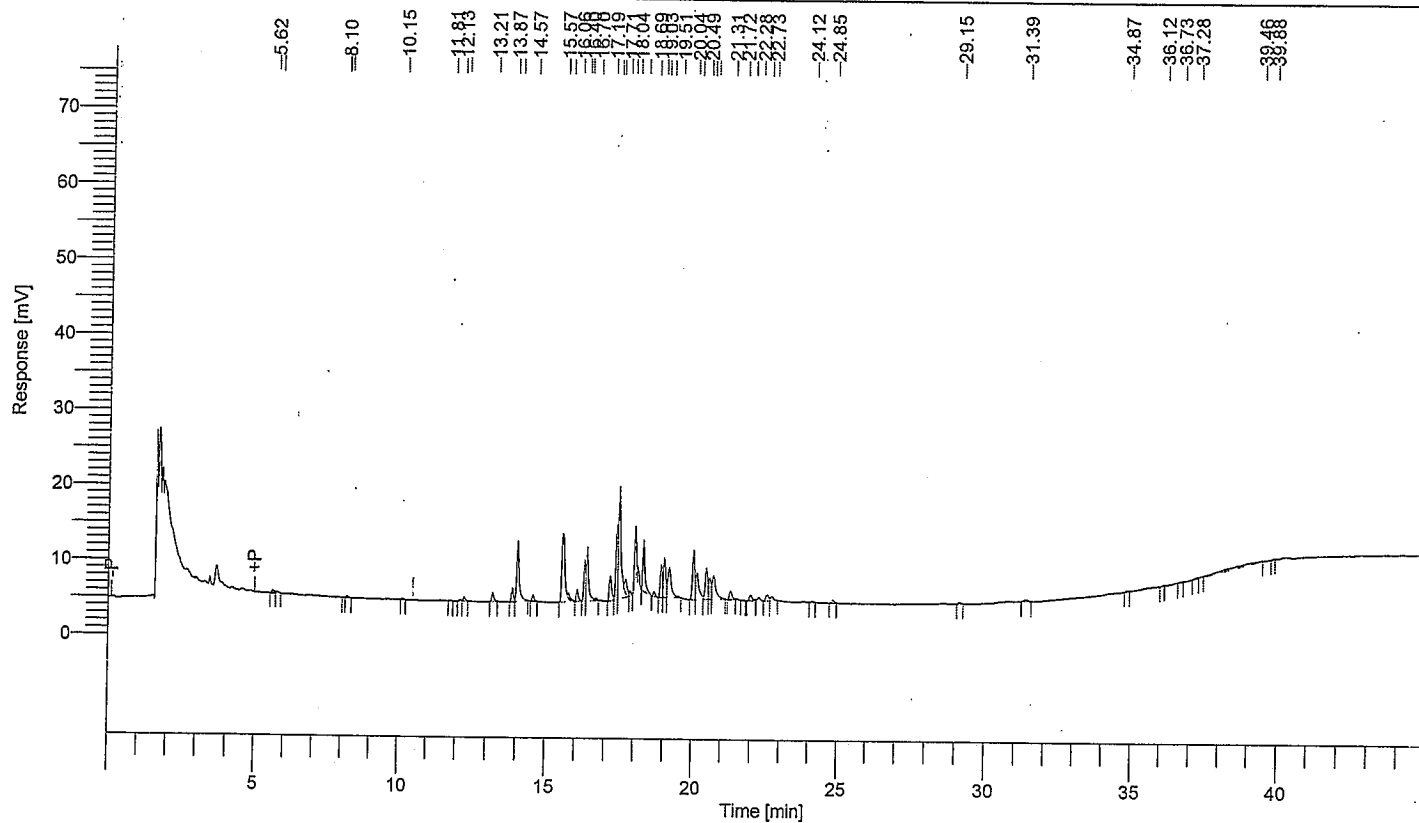
Date : 10/8/2007 11:42:20 AM
 Data Acquisition Time : 10/5/2007 4:14:35 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB002.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	5.62	2425
	5.77	1693
	8.21	1525
	10.15	969
	12.13	827
	12.27	2656
	13.21	5787
	13.87	8317
	14.05	45629
	14.57	3987
	15.57	69705
	15.76	4754
	16.06	8149
	16.32	20596
	16.40	39994
	16.70	1098
	17.19	19419
	17.40	37511
	17.48	96387
	17.71	12387
	17.87	3149
	18.04	28540
	18.32	36211
	18.69	3084
	18.92	20553
	19.03	31951
	19.20	33971

Component Name	Time [min]	Area [μ V·s]
	19.51	833
	20.04	38265
	20.17	28557
	20.49	25358
	20.60	16348
	20.73	27425
	21.31	7033
	21.72	527
	21.99	5572
	22.28	3659
	22.57	5759
	22.73	4322
	24.12	946
	24.85	2465
	29.15	1162
	31.39	2504
	34.87	762
	37.28	1097
	39.46	19128
		732993

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61742
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

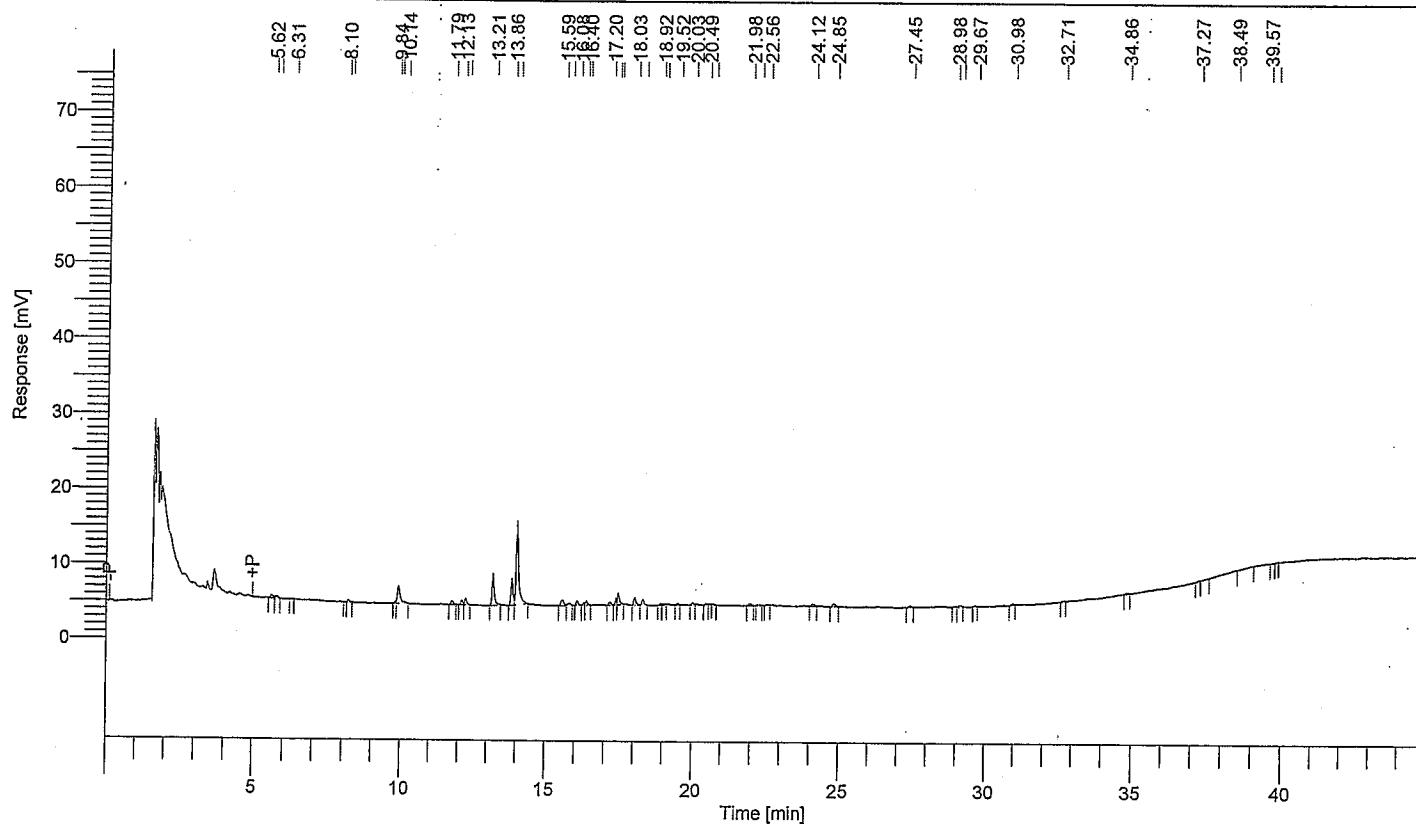
Date : 10/8/2007 11:42:22 AM
 Data Acquisition Time : 10/5/2007 5:07:18 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB003.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	5.62	2578
	5.78	1947
	6.31	649
	8.20	1404
	9.84	1007
	9.93	15323
	10.14	1318
	11.79	2814
	12.13	3091
	12.26	4310
	13.21	22646
	13.86	16506
	14.04	66833
	15.59	5246
	15.80	2087
	16.08	2848
	16.31	1419
	16.40	2867
	17.20	2212
	17.39	3003
	17.48	8075
	18.03	5712
	18.31	3728
	18.92	1111
	19.03	981
	19.52	837
	20.03	1317

Component Name	Time [min]	Area [μ V·s]
	20.49	734
	21.98	1747
	22.27	1047
	22.56	945
	24.12	1943
	24.85	2670
	27.45	1164
	28.98	580
	29.16	1271
	29.67	580
	30.98	1111
	32.71	658
	34.86	948
	38.49	1788
	39.57	1222
	<hr/>	
	200275	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61743
 Sample Name : AROCHLOR 1232
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

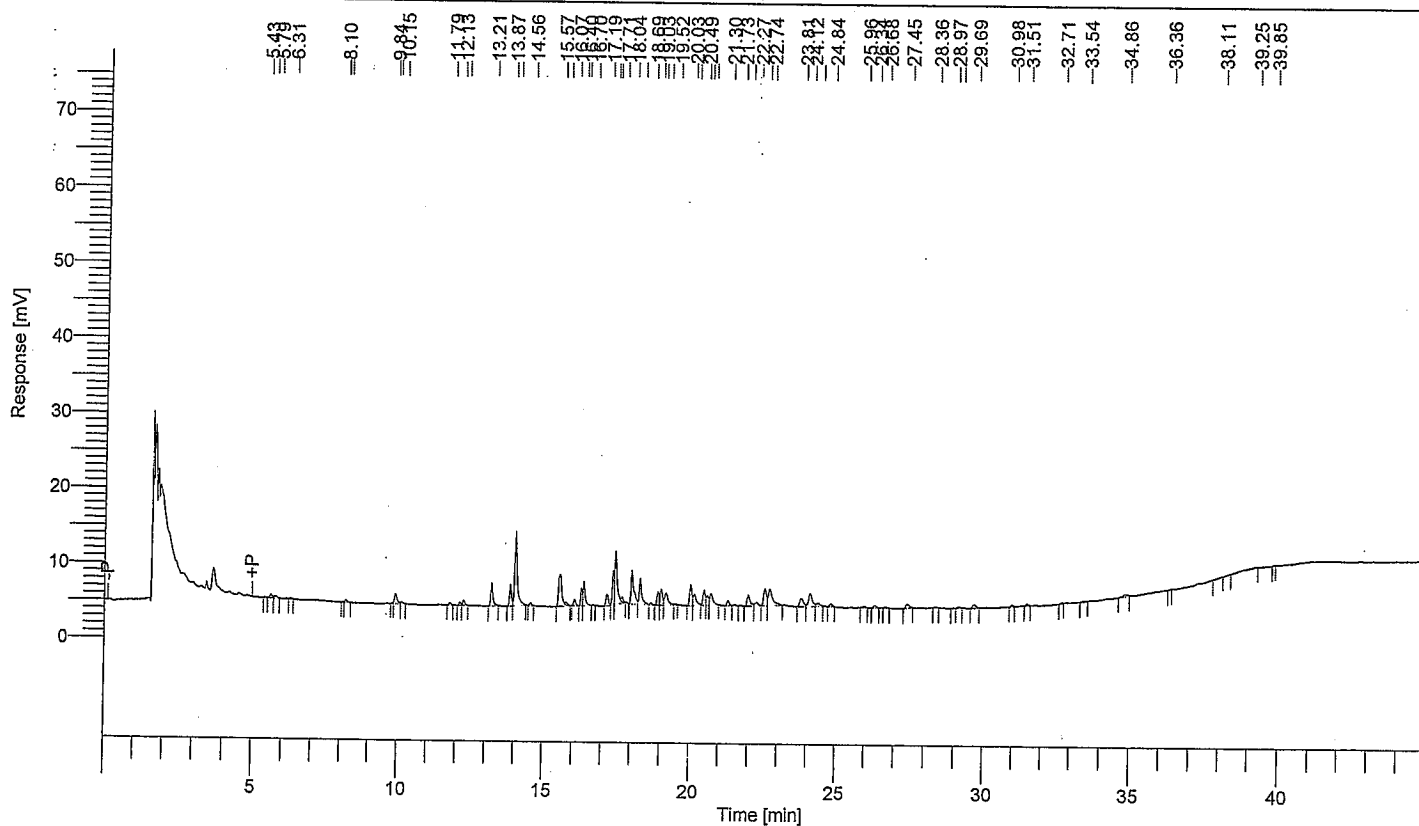
Date : 10/8/2007 11:42:24 AM
 Data Acquisition Time : 10/5/2007 5:59:57 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB004.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV-s]
	5.62	2758
	5.79	2129
	6.31	668
	8.21	1835
	9.84	605
	9.93	8424
	10.15	1455
	11.79	1581
	12.13	2102
	12.27	3627
	13.21	15700
	13.87	13151
	14.05	57445
	14.56	1631
	15.57	30872
	15.77	2194
	16.07	4330
	16.31	9116
	16.40	17667
	16.70	608
	17.19	8797
	17.40	16818
	17.48	43392
	17.71	3545
	18.04	29033
	18.32	21210
	18.69	1154

Component Name	Time [min]	Area [μ V·s]
	18.92	8375
	19.03	12777
	19.20	13031
	19.52	838
	20.03	16115
	20.17	11451
	20.49	11018
	20.60	7174
	20.73	11476
	21.30	3735
	21.73	813
	22.00	10971
	22.27	3788
	22.57	15394
	22.74	21972
	23.81	9875
	24.12	15375
	24.41	3319
	24.84	2336
	25.96	1519
	26.34	2103
	26.68	976
	27.45	4293
	28.36	837
	28.97	532
	29.15	1199
	29.69	3727
	30.98	1173
	31.51	1510
	32.71	665
	33.54	856
	34.86	2718
	38.11	636
	39.25	4679

509082

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61744
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

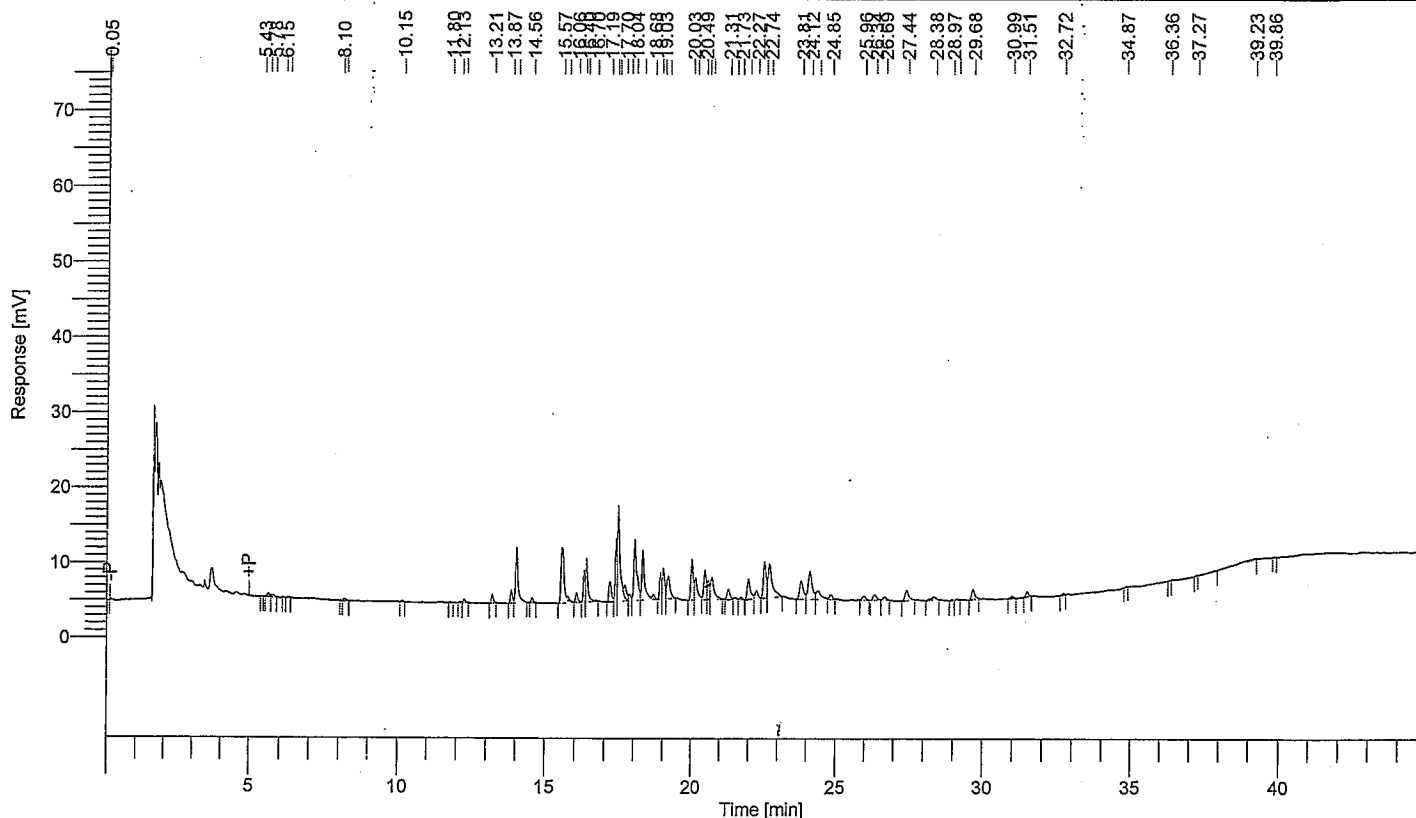
Date : 10/8/2007 11:42:26 AM
 Data Acquisition Time : 10/5/2007 6:52:36 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB005.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	5.62	2630
	5.78	2161
	6.30	584
	8.21	1783
	10.15	729
	12.13	831
	12.27	2630
	13.21	5495
	13.87	7908
	14.05	41979
	14.56	3136
	15.57	54555
	15.76	3692
	16.06	6499
	16.31	16517
	16.40	31370
	16.70	997
	17.19	16866
	17.40	31709
	17.48	83243
	17.70	12253
	17.86	5009
	18.04	58008
	18.32	45400
	18.68	3521
	18.92	16646
	19.03	24164

$$\Sigma \text{area} = 233473$$

$$\text{C.Factor} = \frac{\text{Dgs in j} = 233473}{2} = 116737$$

$$\Sigma \text{area} = 162839$$

$$\text{CF} = \frac{162839}{2 \text{ mg}} = 81419.5$$

CF = Calibration factor.

2652
1:10

Component Name	Time [min]	Area [μ V·s]
	19.20	23679
	20.03	31943
	20.17	22507
	20.49	23353
	20.60	14473
	20.73	26245
	21.31	9185
	21.54	1868
	21.73	1915
	21.99	21040
	22.27	8014
	22.56	32678
	22.74	45851
	23.81	23345
	24.12	36621
	24.41	12998
	24.85	4095
	25.96	4434
	26.34	6773
	26.69	3408
	27.44	12753
	28.38	4623
	28.97	685
	29.17	925
	29.68	9725
	30.99	2071
	31.51	4753
	32.72	1117
	34.87	579
	39.23	7198
		879174

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61745
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 1.000000
 Cycle : 6

Date : 10/8/2007 1:42:27 AM

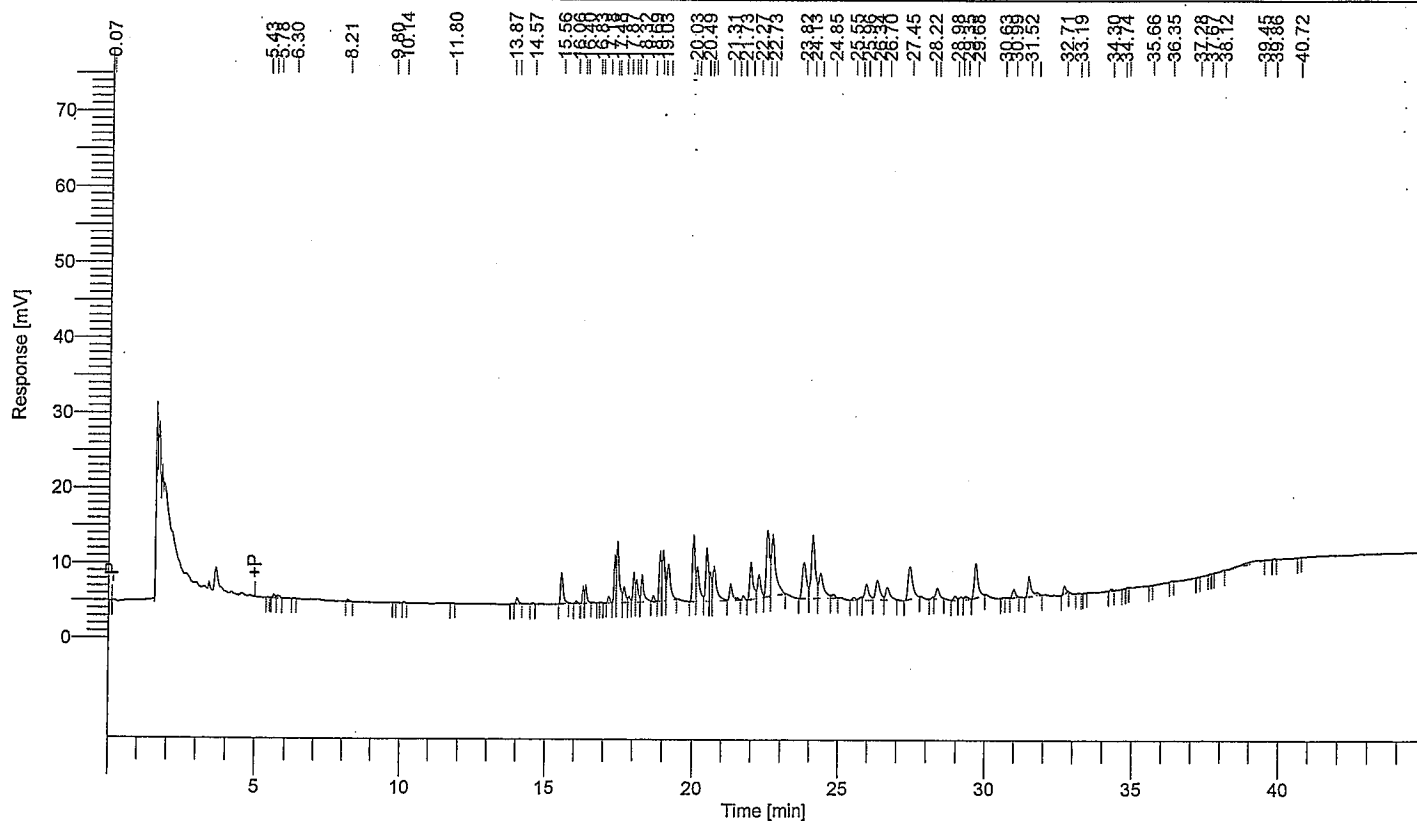
Data Acquisition Time : 10/5/2007 7:45:15 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB006.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	5.62	2679
	5.78	2212
	6.30	671
	8.21	1662
	10.14	830
	13.87	502
	14.05	4304
	14.57	984
	15.56	26847
	16.06	1573
	16.31	8929
	16.40	11757
	16.92	606
	17.18	4722
	17.40	24625
	17.48	51063
	17.71	13087
	17.87	4574
	18.04	18828
	18.13	16645
	18.32	23641
	18.69	4124
	18.92	32830
	19.03	40480
	19.20	38394
	20.03	53864
	20.16	35832

Component Name	Time [min]	Area [μ V-s]
	20.49	44609
	20.60	19732
	20.73	42335
	21.31	16294
	21.53	1590
	21.73	3342
	22.00	38565
	22.27	25005
	22.56	66447
	22.73	83488
	23.82	49276
	24.13	81610
	24.40	39483
	24.85	3892
	25.55	2743
	25.78	2404
	25.96	20956
	26.34	27552
	26.70	17041
	27.45	45764
	28.22	1447
	28.37	12178
	28.98	3820
	29.18	2956
	29.35	3799
	29.68	38930
	30.63	652
	30.99	8581
	31.52	22058
	31.79	3016
	32.71	6170
	33.19	614
	34.30	1440
	36.35	646
	38.12	1082
	39.45	13073

1178857

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61762
 Sample Name : AROCHLOR 1249
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 1.000000
 Cycle : 23

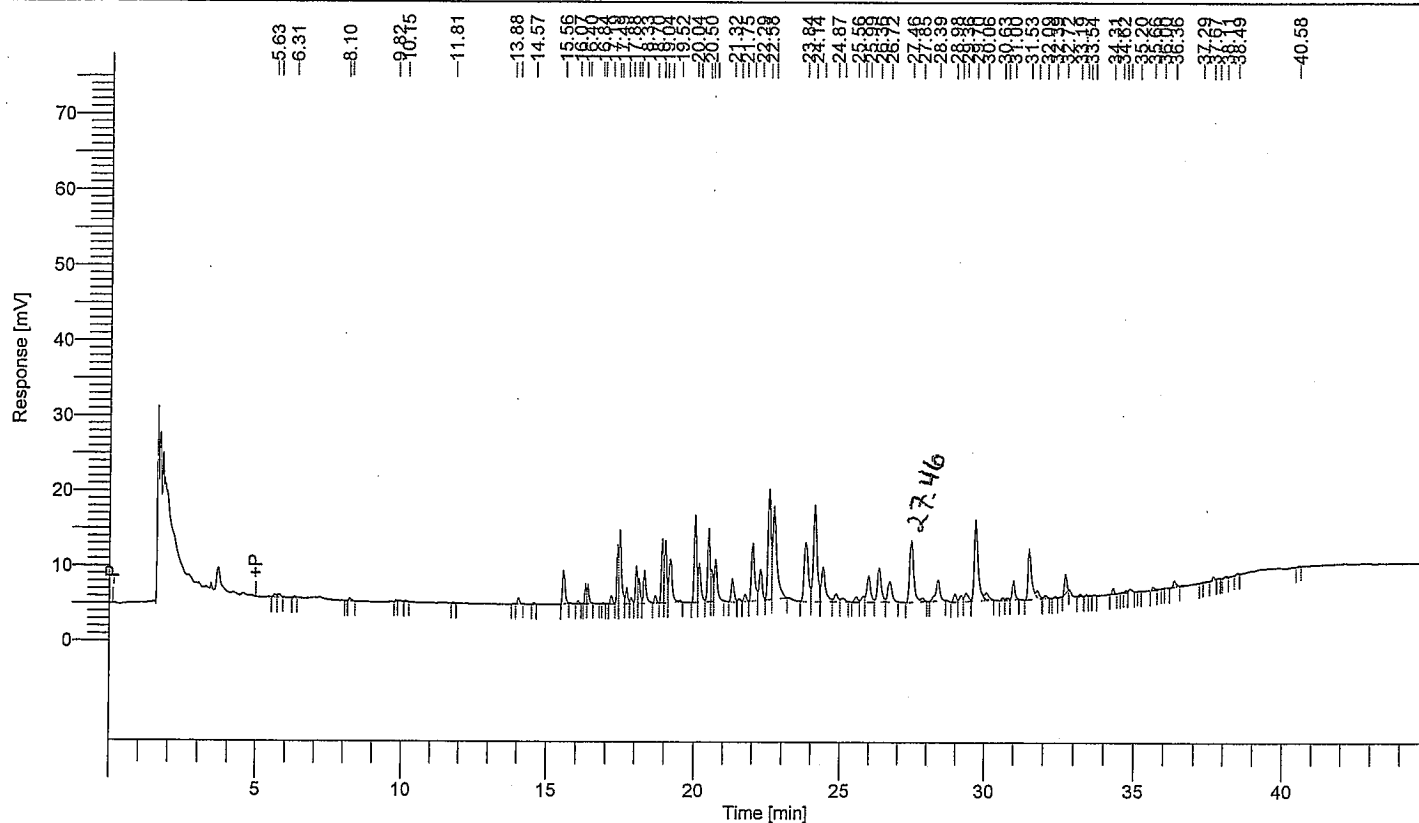
Date : 10/8/2007 11:42:53 AM
 Data Acquisition Time : 10/6/2007 10:29:29 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB023.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V-s]
22.02	61108
22.29	29346
22.58	106294
22.75	115362
23.84	77676
24.14	117676
24.43	46963
24.87	9367
25.11	4491
25.56	5201
25.81	5344
25.99	32545
26.36	42405
26.72	26384
27.46	81245
27.85	3567
28.39	28647
28.98	6993
29.19	5877
29.36	10842
29.70	96838
30.06	9572
30.63	2069
31.00	17553
31.53	56272
31.80	7186
32.09	2434
32.72	13188
34.31	3931
34.88	3062
35.66	2038
36.36	5633
37.67	2296

1654536

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61746
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

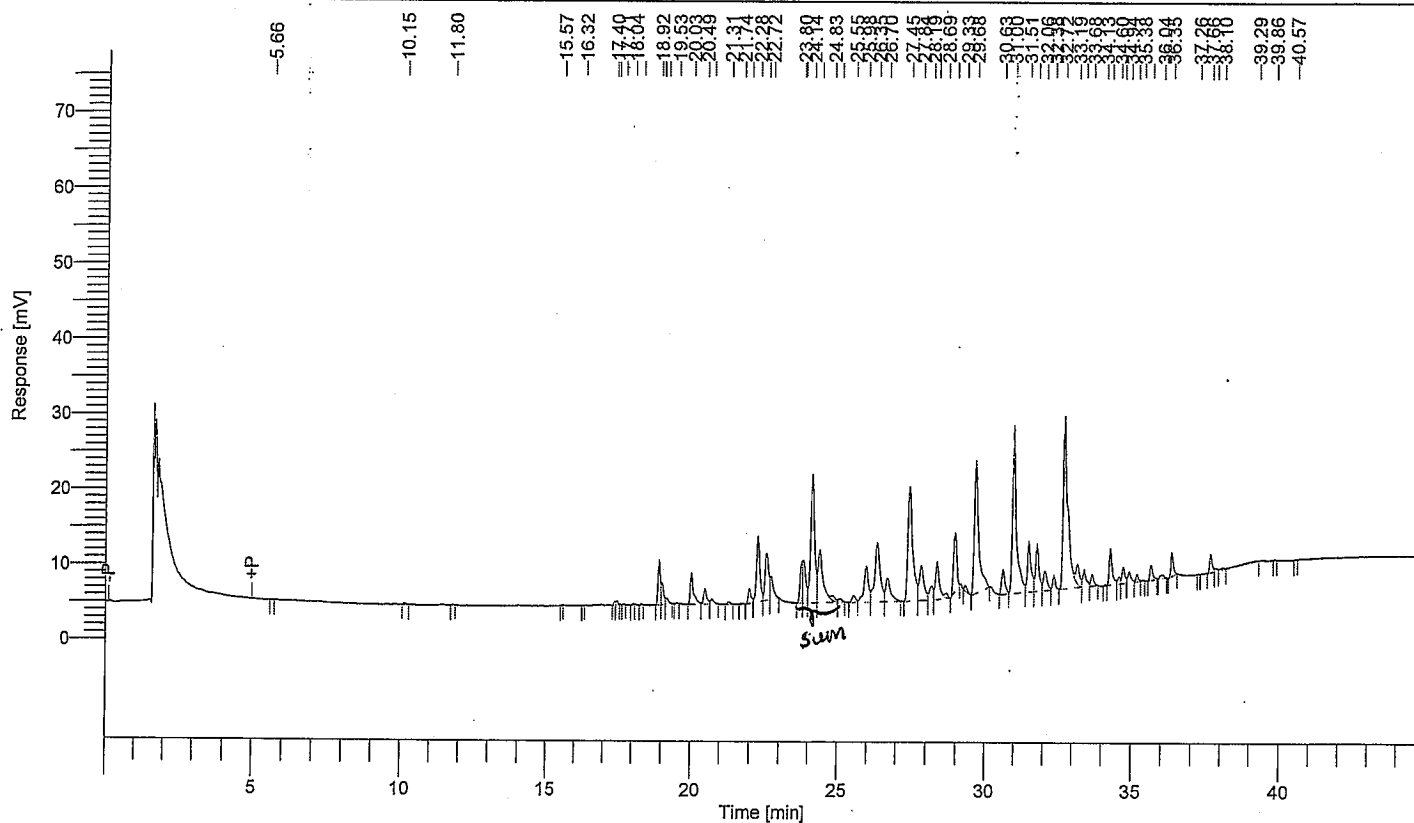
Date : 10/8/2007 11:42:29 AM
 Data Acquisition Time : 10/5/2007 8:37:51 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB007.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	10.15	1374
	17.40	1784
	17.48	2306
	17.71	586
	18.04	752
	18.32	738
	18.92	31905
	19.02	16718
	19.17	5362
	19.53	667
	20.03	32287
	20.49	14889
	20.73	5257
	21.31	2028
	21.74	1033
	22.00	13053
	22.28	69959
	22.57	54414
	22.72	23137
	23.80	34302
	23.84	39009
	24.14	163375
	24.41	89427
	24.83	7309
	25.09	3853
	25.55	7220
	25.98	51239

$$\text{Area} = 326113$$

Calibration Factor =

$$\frac{326113}{2} = 163057$$

Sum of area = 326113

Component Name	Time [min]	Area [μV·s]
	26.35	99285
	26.70	38089
	27.45	173761
	27.84	51076
	28.19	16464
	28.38	49851
	28.69	4479
	28.98	57810
	29.33	4277
	29.68	177473
	30.63	25611
	31.00	209546
	31.51	61960
	31.79	52103
	32.06	21938
	32.38	13527
	32.72	254071
	33.19	24001
	33.41	19043
	33.68	10547
	34.13	662
	34.30	34129
	34.60	6142
	34.73	14704
	34.94	10374
	35.19	5485
	35.38	577
	35.66	13878
	36.04	5118
	36.35	18303
	37.66	14988
	37.84	2733
	38.10	2557
	39.29	4058

2172604

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61774
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/35
 Sample Amount : 1.000000
 Cycle : 35

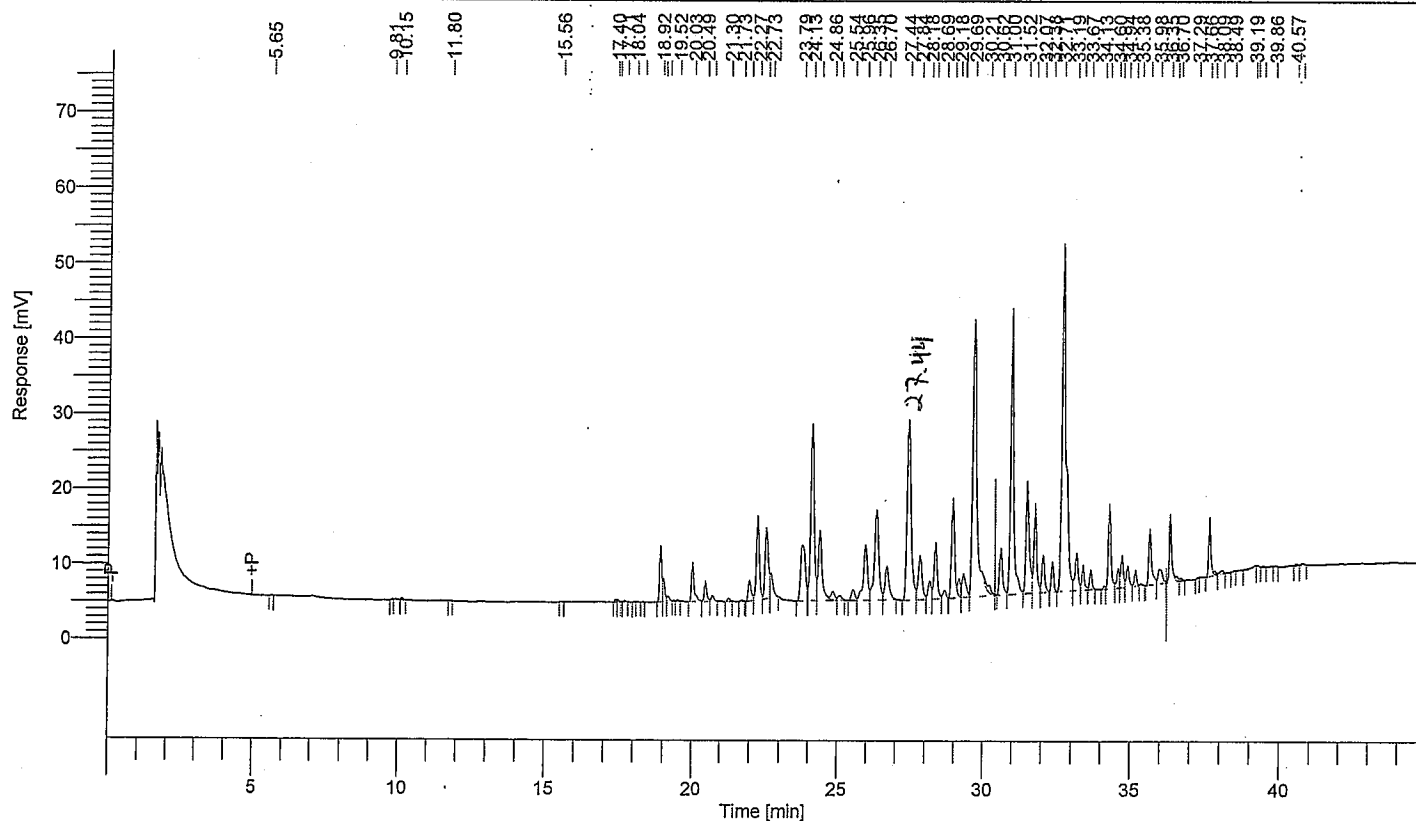
Date : 10/8/2007 11:43:07 AM
 Data Acquisition Time : 10/6/2007 9:15:35 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB035.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.92	38707
19.03	15511
19.18	4218
20.03	34872
20.49	16649
20.73	4860
21.30	2418
22.00	19113
22.27	79478
22.57	75571
22.73	22931
23.79	89396
24.13	199904
24.41	87534
24.86	10577
25.09	5075
25.54	11236
25.96	74621
26.35	127987
26.70	44358
27.44	241162
27.84	52393
28.18	17955
28.37	61835
28.69	7950
28.97	102062
29.18	15101

$$\Sigma \text{area} = 206513$$

$$\text{Calibration factor} = \frac{206513}{2} = 103256.5$$

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
29.33	28681
29.69	365610
30.21	12872
30.62	43984
31.00	294144
31.52	118711
31.79	80588
32.07	31892
32.38	23804
32.71	408608
33.19	37456
33.41	20968
33.67	14000
34.13	2125
34.30	70619
34.60	16514
34.73	24592
34.94	19615
35.19	11683
35.66	51587
35.98	19215
36.35	51783
36.56	3854
36.70	2333
37.66	40779
37.84	2871
38.09	3862
39.19	3488

3269707

Software Version : 6.3.1.0504
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 1.000000
 Cycle : 9

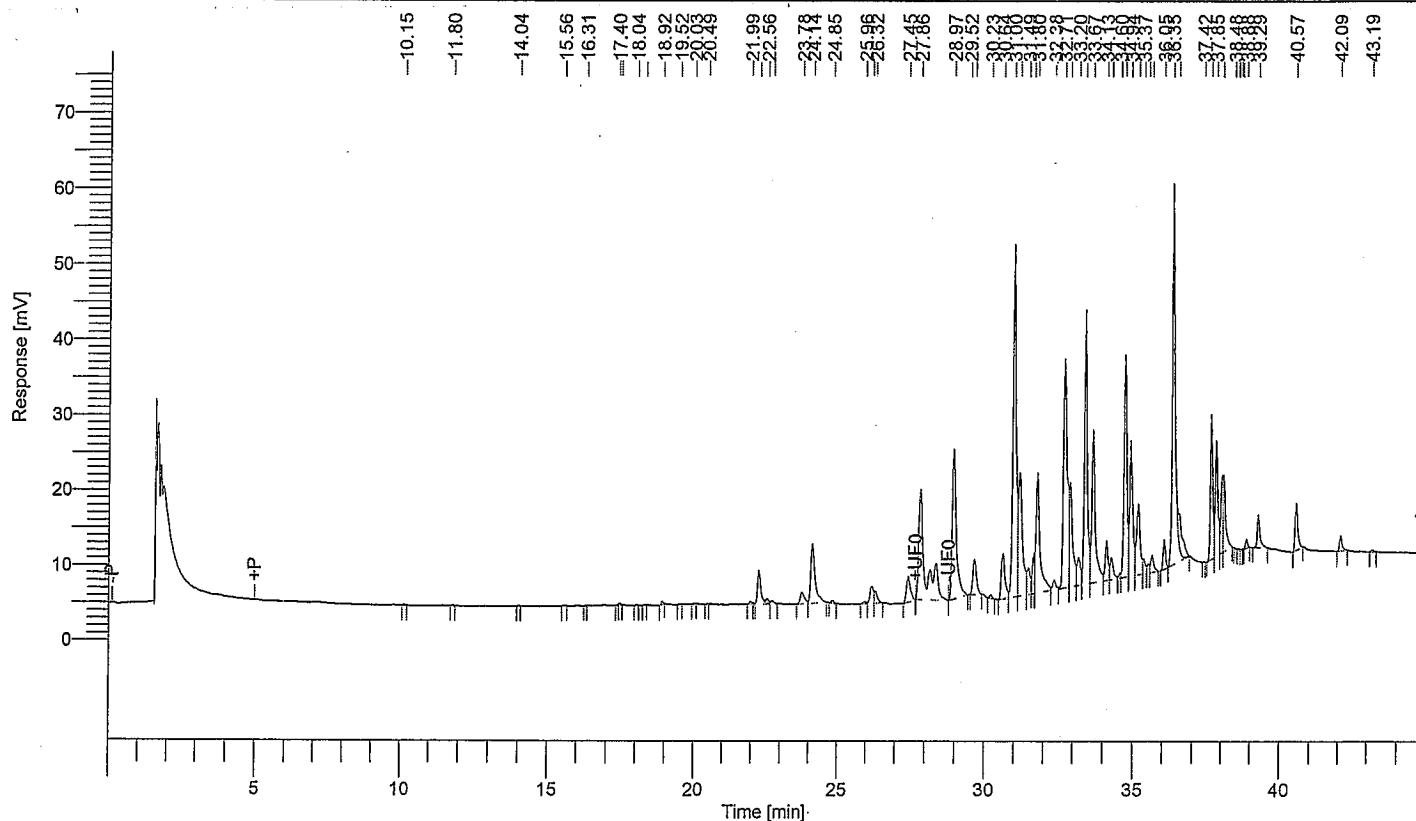
Date : 10/8/2007 1:15:55 PM
 Data Acquisition Time : 10/5/2007 9:30:25 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File :

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μ V-s]
	10.15	933
	15.56	777
	17.40	696
	17.48	1203
	18.04	666
	18.92	1875
	19.52	751
	20.03	908
	21.99	2294
	22.28	36343
	22.56	4862
	22.74	3059
	23.78	16129
	24.14	81491
	24.85	2254
	25.96	2245
	26.21	18118
	26.32	13056
	27.45	31514
	27.86	226356
	28.97	189947
	29.68	37746
	30.23	2726
	30.64	50175
	31.00	372773
	31.20	158669
	31.49	27199
	31.68	27057
	31.80	157142

$$E_{area} = 257870$$

Calibration factor =

$$\frac{257870}{2} = 128935$$

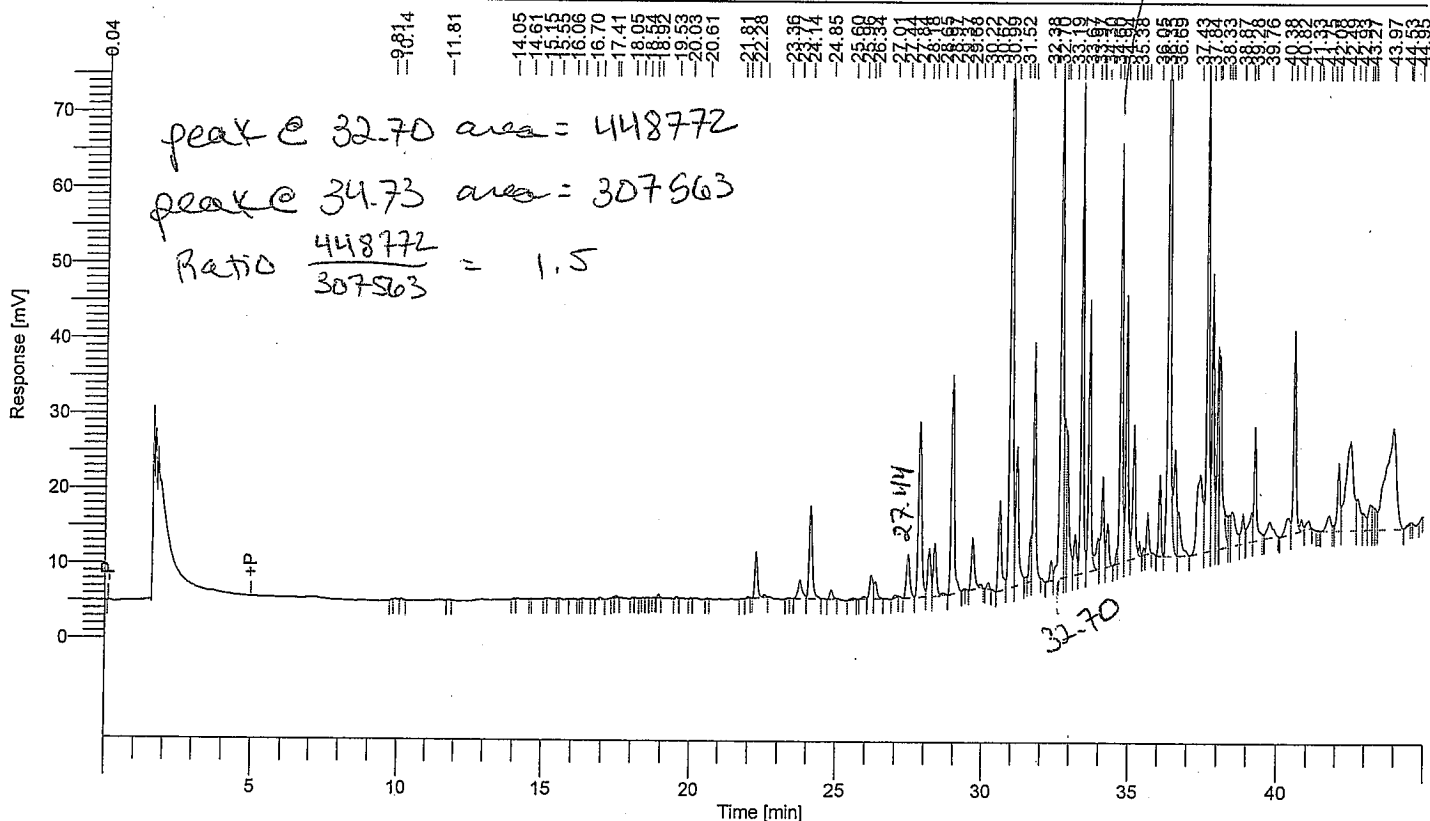
$$Sum\ area = 257870$$

Component Name	Time [min]	Area [μ V·s]
	32.38	10122
	32.71	281049
	32.91	114633
	33.20	29767
	33.42	258685
	33.67	164545
	34.13	34685
	34.29	22534
	34.60	2677
	34.74	195672
	34.94	124966
	35.18	80940
	35.37	12307
	35.53	6399
	35.65	16355
	36.05	21319
	36.35	341025
	36.55	49758
	37.66	118030
	37.85	96968
	38.04	50885
	38.08	60731
	38.88	5227
	39.29	29352
	40.57	38439
	42.09	14027
	43.19	1714
		3651775

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61793
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/54
 Sample Amount : 1.000000
 Cycle : 54

Date : 10/8/2007 11:43:24 AM
 Data Acquisition Time : 10/7/2007 1:58:29 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB054.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
16.94	2528
22.28	40169
22.57	2532
23.77	25262
24.14	97433
24.85	8621
25.60	2343
25.96	3052
26.19	25114
26.34	17911
27.01	2322
27.44	49585
27.84	187401
28.18	46744
28.36	53036
28.65	2858
28.97	228183
29.68	52477
29.96	3494
30.22	4589
30.62	83307
30.99	589956
31.20	134962
31.52	5213
31.67	28991
31.78	198247
32.38	15887

$$\begin{aligned} \sum \text{area} &= 336766 \\ \text{CF} &= \frac{336766}{2 \text{ ng inj}} \\ &= 168383 \end{aligned}$$

34.20
 0.518
 10/12/2007

CF for Spike
 = 168383

$$22645 : \text{CF} = \frac{808225}{2} = 404112.5$$

note: CF = Calibration factor.

Time [min]	Area [μV-s]
32.70	448772
32.84	99974
32.90	119318
33.19	37549
33.41	363435
33.67	201185
33.97	32326
34.12	82529
34.30	36247
34.60	7547
34.73	307563
34.94	196337
35.18	116326
35.38	8281
35.52	4524
35.65	28570
36.05	51215
36.35	733589
36.56	97719
36.69	48428
37.43	141018
37.66	378742
37.84	197334
38.02	115476
38.07	176145
38.33	19394
38.42	18822
38.50	52242
38.87	28479
39.16	37706
39.28	88667
39.76	29747
40.38	26264
40.56	154280
40.82	9645
41.04	9611
41.75	22663
41.92	2880
42.08	63819
42.49	222028
42.74	40388
42.93	19630
43.19	27363
43.27	17862
43.36	12209
43.97	335342
44.53	2039

7183447

22652
1.10

$$\begin{aligned} \Sigma \text{area} &= 620226 \\ \text{CF} &= \frac{620226}{2} \\ &= 310113 \end{aligned}$$

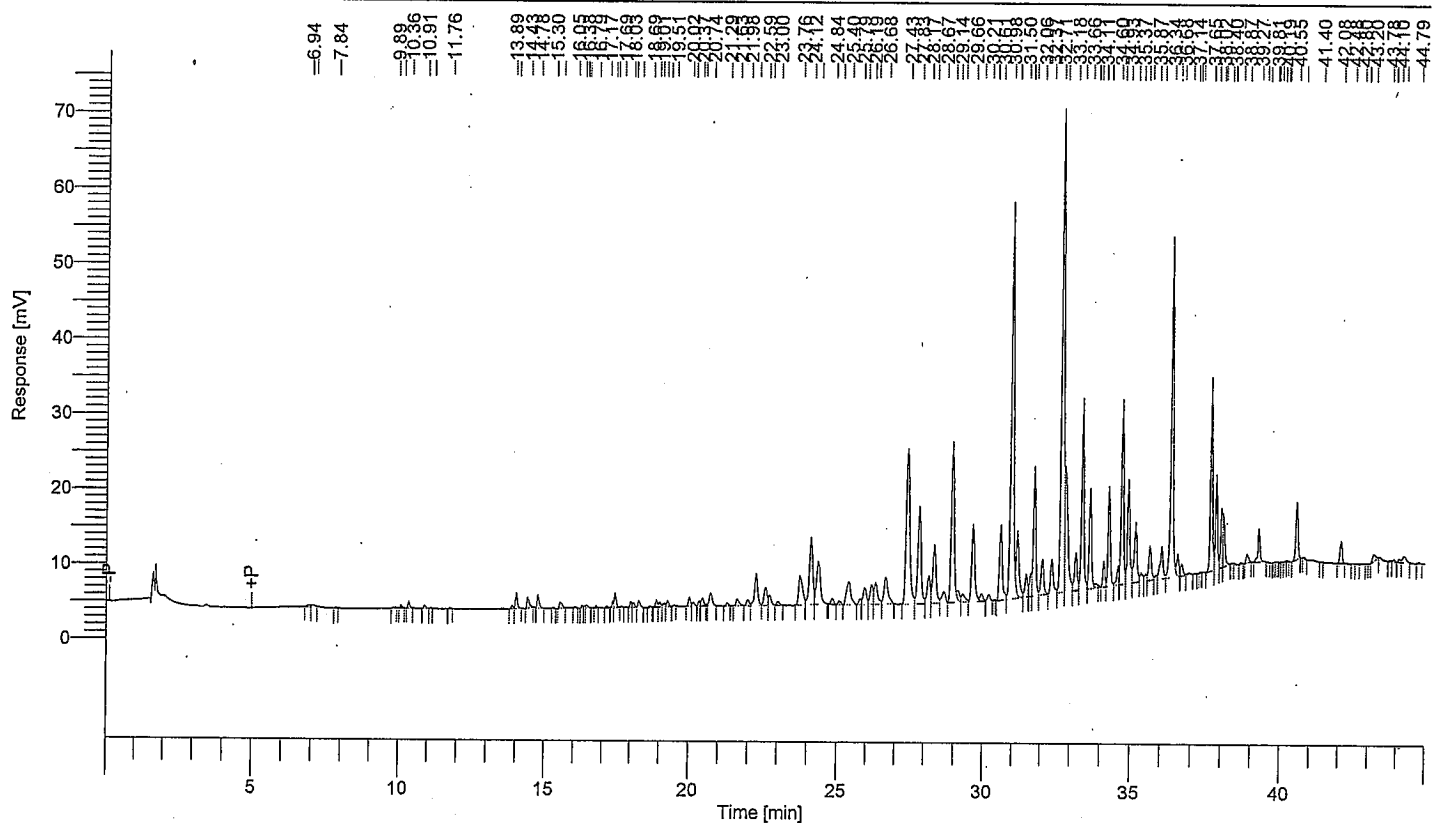
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61779
 Sample Name : 22645 1:10
 Instrument Name : GC014
 Rack/Vial : 0/40
 Sample Amount : 50.000000
 Cycle : 40

Date : 10/8/2007 11:43:12 AM
 Data Acquisition Time : 10/7/2007 1:40:06 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB040.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.36	3977
13.89	2037
14.03	9681
14.43	8342
14.78	8323
15.56	5145
16.45	2403
17.38	3021
17.47	9079
18.03	3280
18.12	3371
18.31	4833
18.91	4041
19.01	3049
19.16	2524
19.29	3930
20.02	5977
20.15	2826
20.37	3268
20.47	6523
20.74	12417
21.29	2225
21.63	6417
21.98	4704
22.26	31687
22.59	17522
22.72	9097

$$\sum \text{area} = 497539$$

$$\text{mg/L} = \frac{497539}{404112.5} = 1.2312$$

$$\text{ppm} = \frac{1.2312 \text{ mg}}{50 \text{ g}} \times \frac{2 \text{ mL}}{2 \text{ μL}} \times \frac{100}{50} \times 10 = 0.4925 \text{ ppm}$$

Arochlor 1260

Time [min]	Area [μV·s]
23.00	3415
23.76	36121
24.12	70408
24.37	55461
24.84	4769
25.09	3208
25.40	33398
25.79	4646
25.95	18234
26.19	20095
26.32	24624
26.68	34302
27.43	189112
27.83	102631
28.17	27243
28.35	61161
28.67	12628
28.96	157948
29.14	8291
29.31	9915
29.66	73314
29.95	7312
30.21	5300
30.61	64585
30.98	376065
31.19	56889
31.50	20460
31.66	16258
31.78	103555
32.06	29242
32.37	29829
32.71	393650
32.83	118481
33.18	32783
33.40	142728
33.66	72229
33.85	3592
34.11	16488
34.29	74727
34.60	13036
34.73	126686
34.93	76597
35.18	54690
35.37	8279
35.52	4682
35.65	29028
35.87	3036
36.04	29863
36.34	243034
36.55	15361
36.68	9423
37.65	126283
37.84	59617
38.02	34405
38.07	30557
38.87	6003
39.27	24173
40.55	38559
42.08	15957
43.20	6934
44.10	2215
44.28	7093

3660306

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61780
 Sample Name : 22646 1:10
 Instrument Name : GC014
 Rack/Vial : 0/41
 Sample Amount : 50.000000
 Cycle : 41

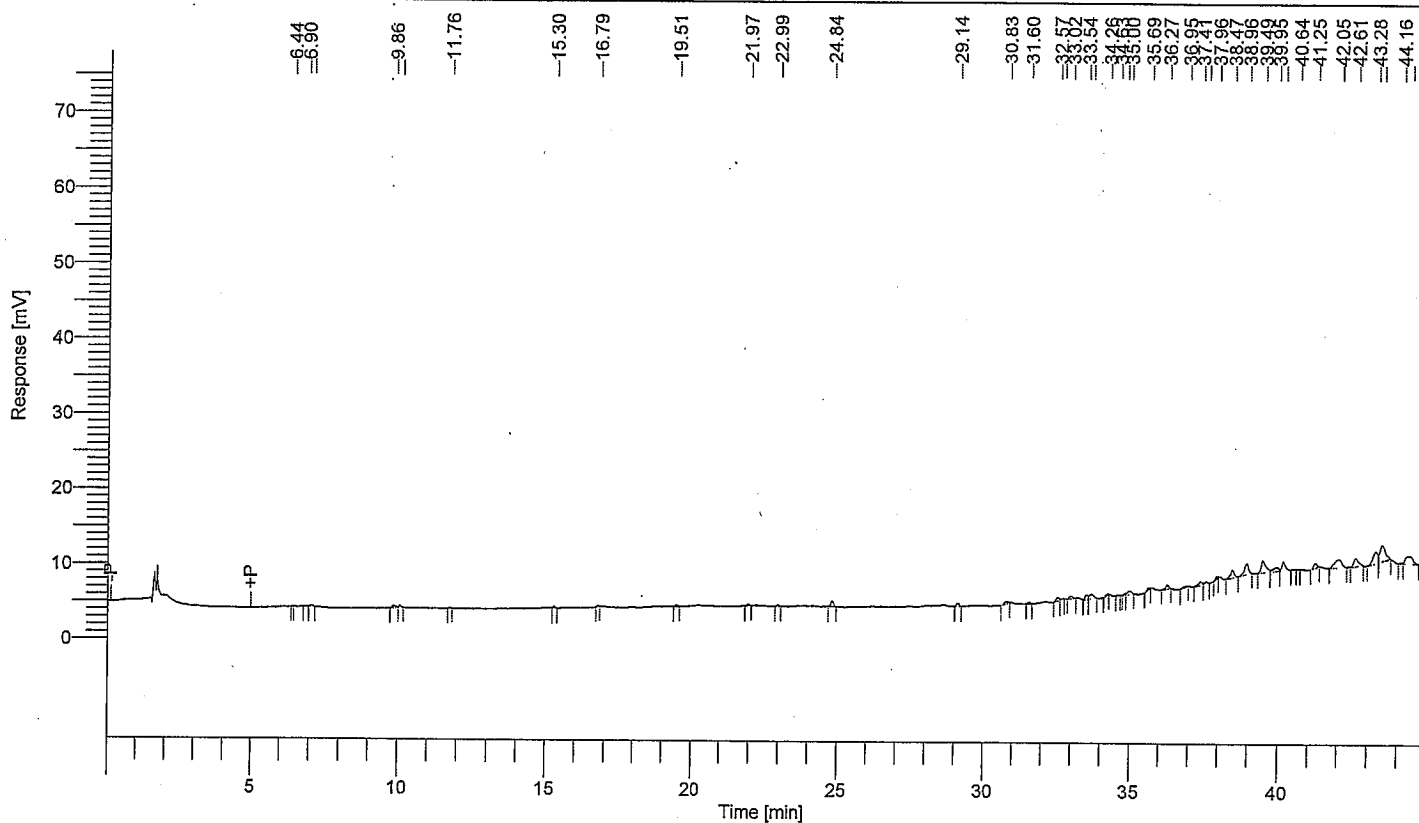
Date : 10/8/2007 11:43:13 AM
 Data Acquisition Time : 10/7/2007 2:32:57 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB041.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB

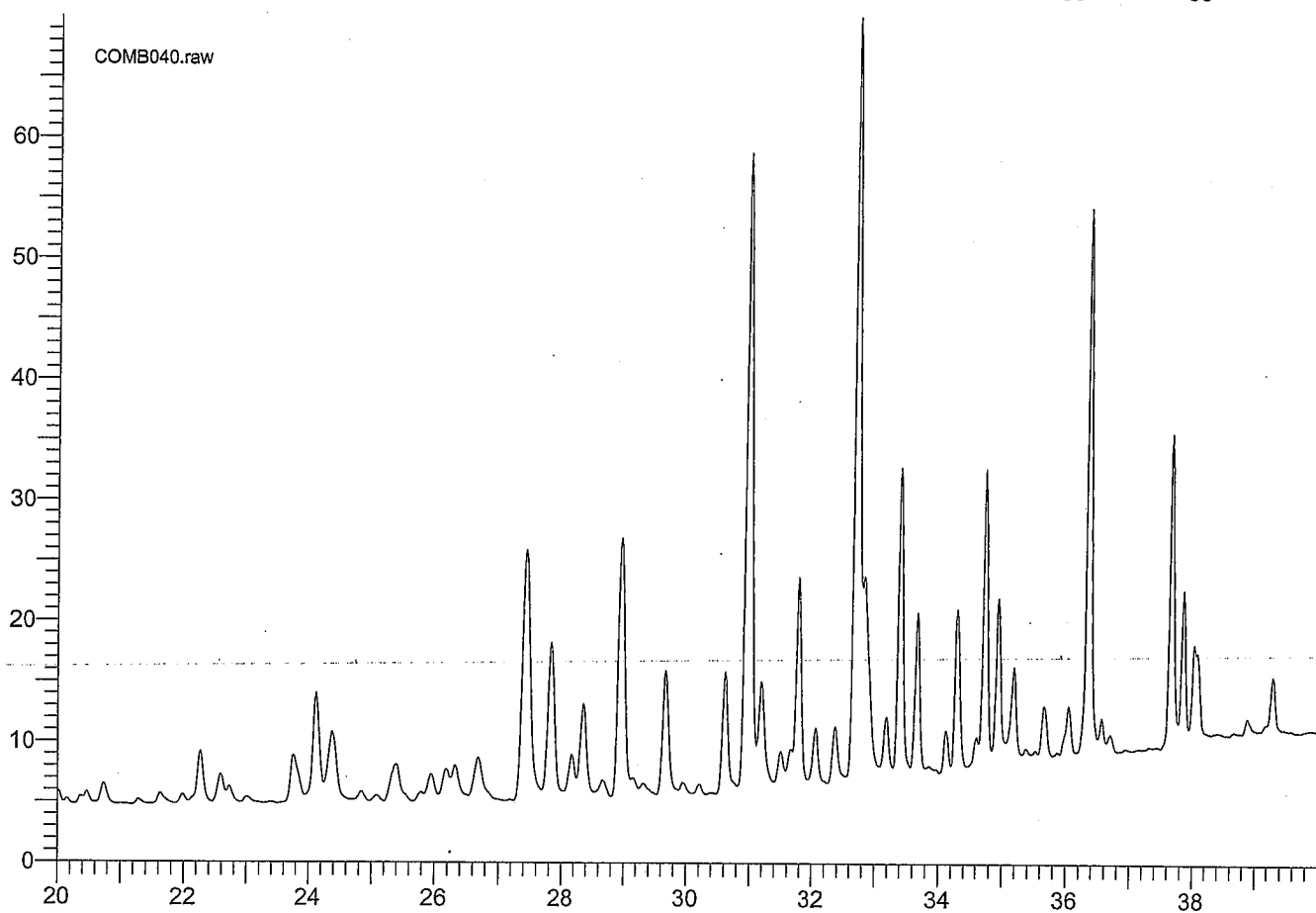
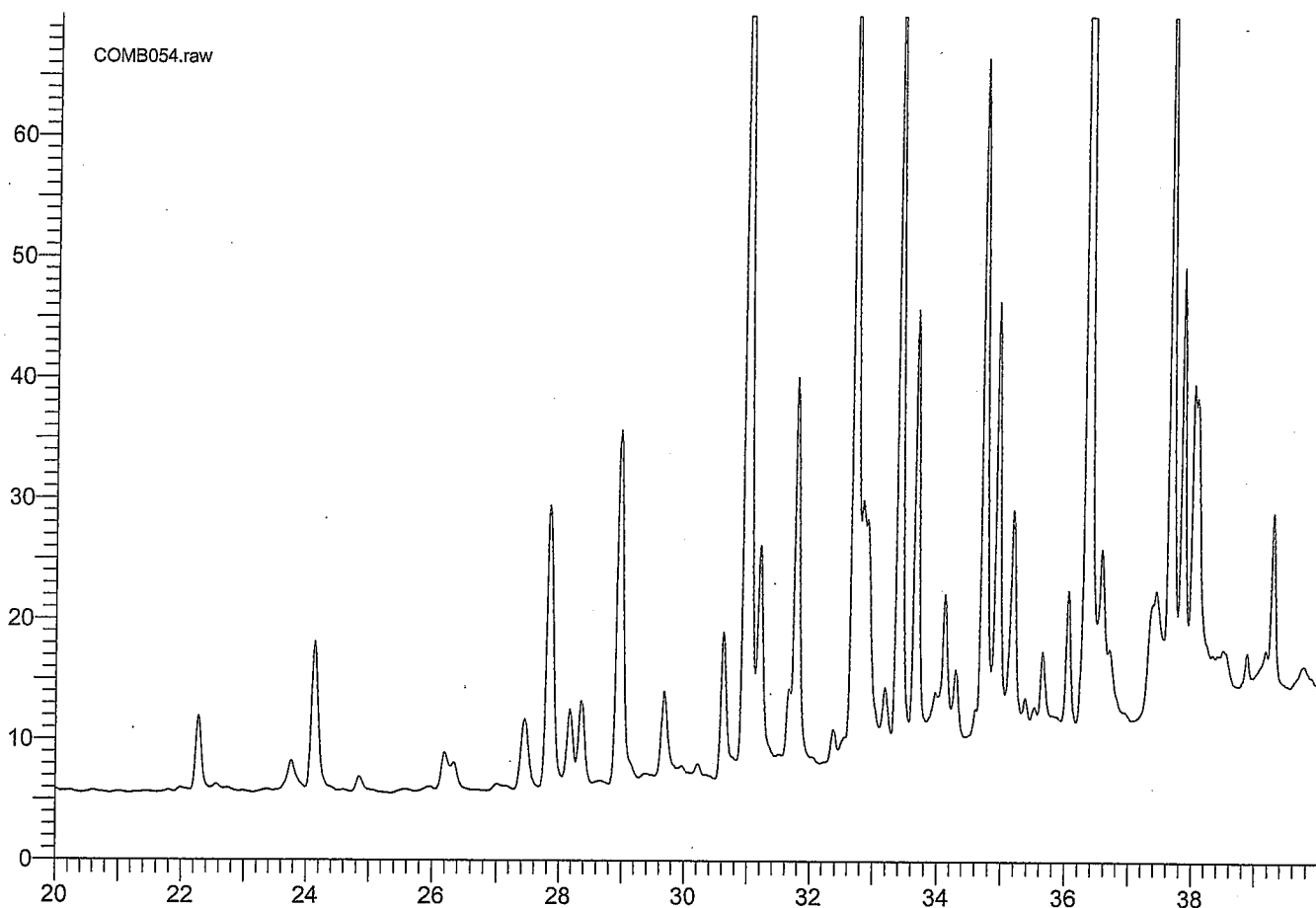


REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

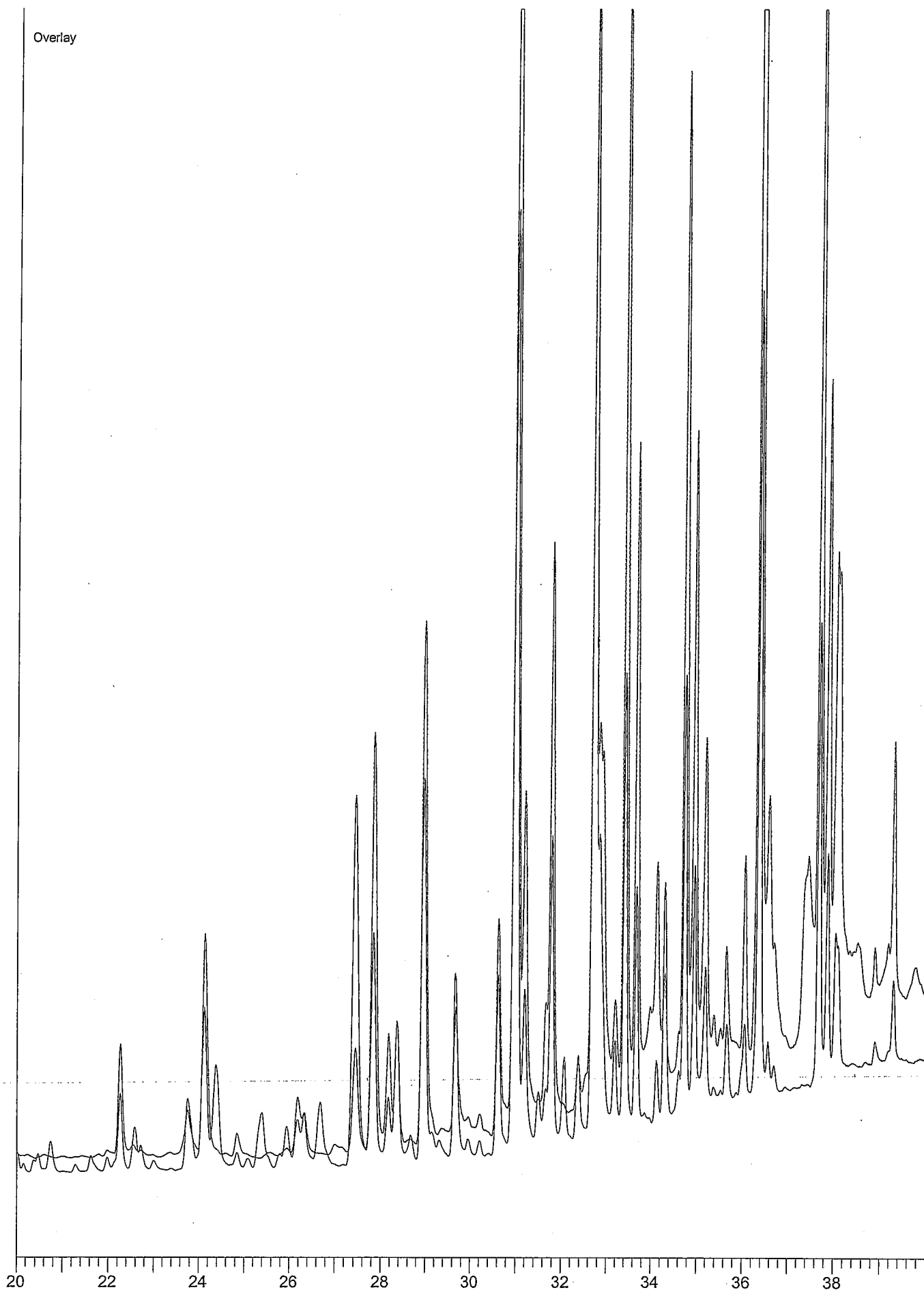
Time [min]	Area [μV-s]
9.86	2836
24.84	5120
29.14	2696
30.83	2871
32.57	3151
33.02	3209
33.54	3743
33.70	6638
35.00	4462
36.27	3997
37.41	4395
37.61	2469
38.47	8538
38.96	13340
39.49	16904
39.95	6980
40.17	10434
41.25	5088
42.05	19054
42.61	12526
43.28	16922
43.47	29025
44.44	17605

<0.4 ppm total PCB.

Plot Title		Start Time	End Time	Scale	Offset
COMB054.raw		20.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	54				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB040.raw		20.00	40.00	70.00	0.00
Sample Name :	22645 1:10				
Sample Number:	40				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61781
 Sample Name : 22647 1:10
 Instrument Name : GC014
 Rack/Vial : 0/42
 Sample Amount : 50.000000
 Cycle : 42

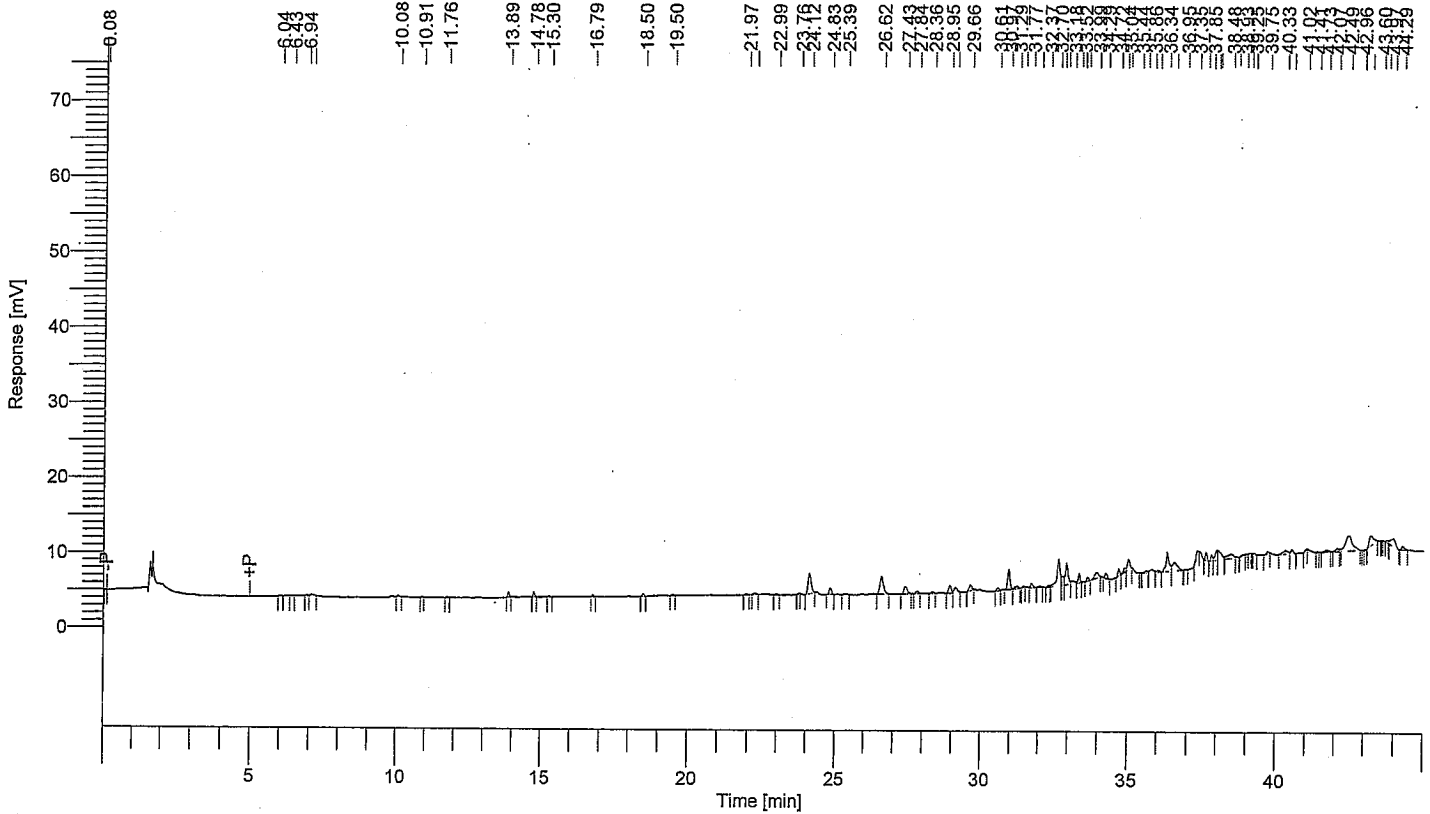
Date : 10/8/2007 11:43:14 AM
 Data Acquisition Time : 10/7/2007 3:25:44 AM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB042.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
13.89	2503
14.78	2556
24.12	19383
24.83	5598
26.62	19586
27.43	7942
28.95	6269
29.16	4643
29.66	4651
30.97	15697
31.29	3007
31.77	3105
32.70	25282
32.83	6220
32.97	20099
33.18	3239
33.39	6144
33.66	2597
33.99	6129
34.29	3701
34.72	3986
34.93	2682
35.04	7619
35.86	3650
36.34	19269
36.57	12653
37.35	3945

<0.4 ppm total PCB.

Time [min]	Area [μ V-s]
37.65	4479
37.85	3417
38.01	7922
38.07	10006
38.48	8092
40.33	5830
40.55	3258
41.73	2477
42.07	3301
42.49	33886
43.22	13264
43.97	10940
44.29	3052
<hr/>	
	332079

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61782
 Sample Name : 22648 1:10
 Instrument Name : GC014
 Rack/Vial : 0/43
 Sample Amount : 50.000000
 Cycle : 43

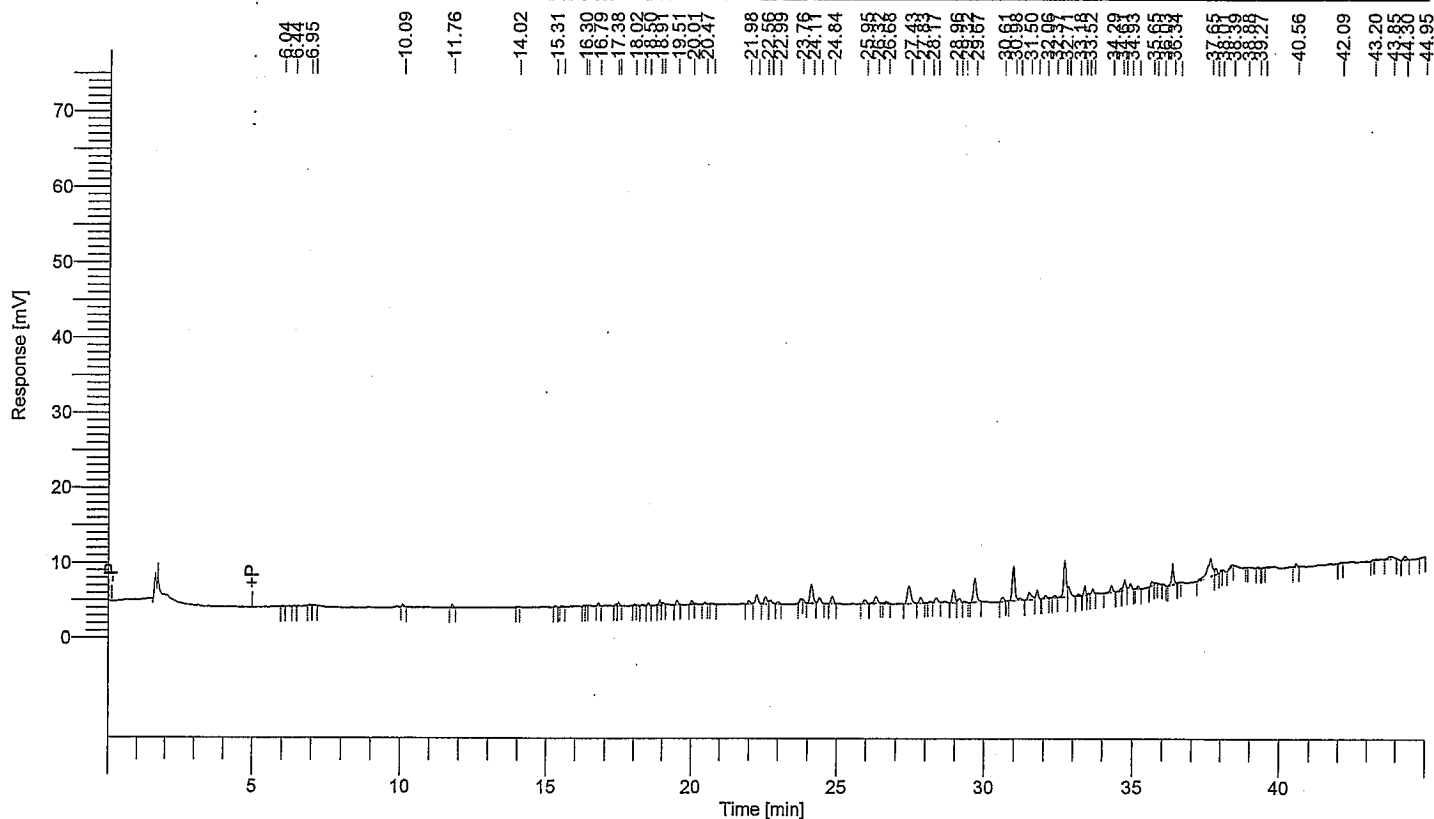
Date : 10/8/2007 11:43:15 AM
 Data Acquisition Time : 10/7/2007 4:18:30 AM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB043.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
17.47	2141
18.91	2927
19.51	2817
20.01	2175
21.98	3342
22.25	8433
22.56	7074
22.73	3750
24.11	18272
24.40	5049
24.84	6189
25.95	3590
26.32	7100
27.43	19950
27.83	5112
28.36	4246
28.96	11945
29.14	3755
29.67	23079
30.61	3183
30.98	30157
31.19	2056
31.50	8589
31.78	6998
32.71	31654
32.83	8955
33.40	5573

< 0.4 ppm total PCB.

Time [min]	Area [μ V-s]
33.66	3272
34.29	5892
34.73	8068
34.93	4430
35.65	3109
36.34	14708
37.65	29739
37.84	4473
40.56	2153
43.85	3839
44.30	3589
<hr/>	
	321385

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61783
 Sample Name : 22649 1:10
 Instrument Name : GC014
 Rack/Vial : 0/44
 Sample Amount : 50.000000
 Cycle : 44

Date : 10/8/2007 11:43:16 AM

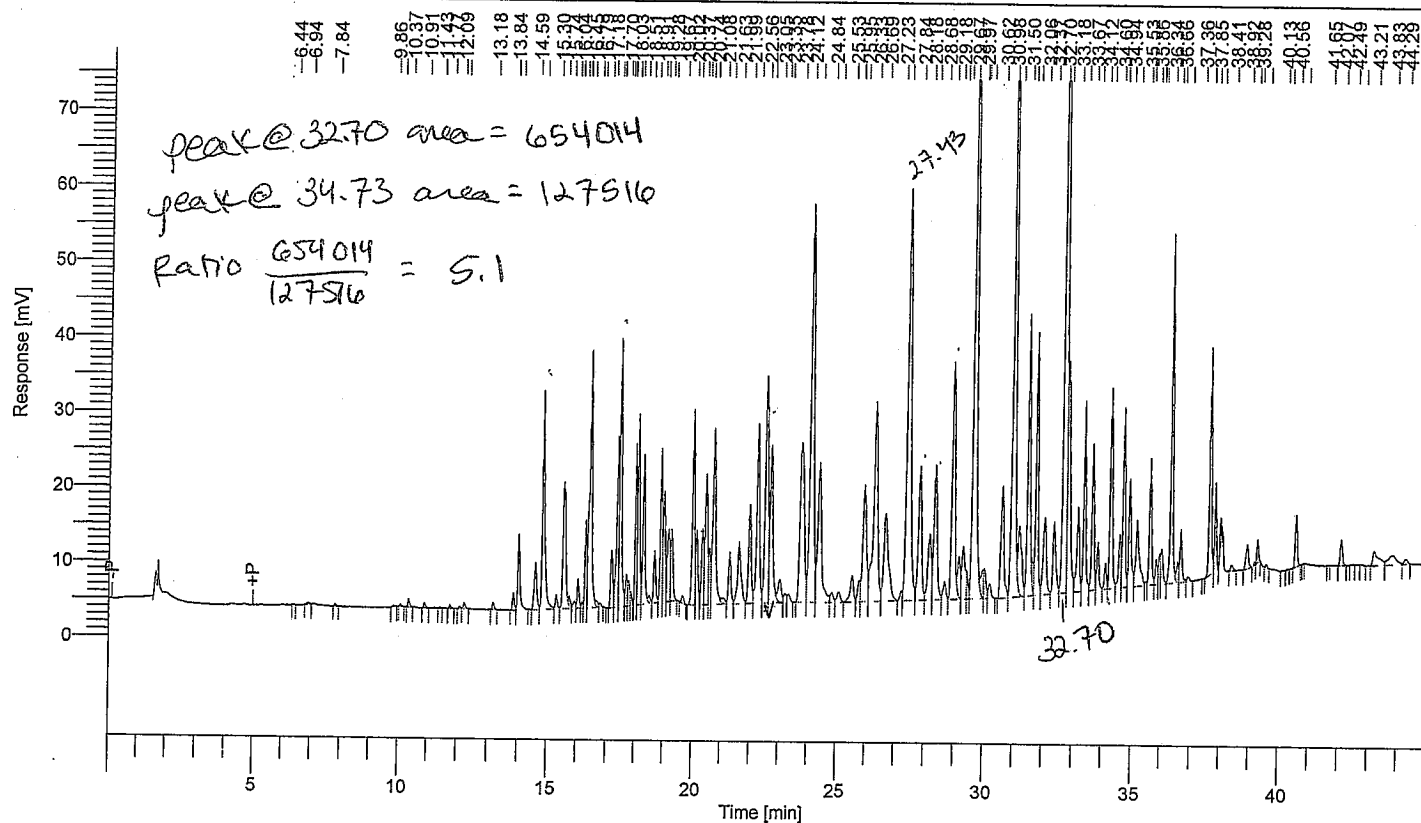
Data Acquisition Time : 10/7/2007 5:11:17 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB044.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.37	4745
10.91	2981
11.77	2055
12.23	4063
13.18	3993
13.84	10322
14.02	49612
14.59	36552
14.83	167271
15.30	8533
15.54	117987
15.74	5772
15.93	5878
16.04	17521
16.19	2899
16.30	45157
16.45	214855
16.68	4978
16.79	2469
17.18	42453
17.38	104959
17.47	179441
17.70	19653
17.77	14595
17.85	7827
18.03	91589
18.12	131907

See 1:20 dilution and chromatogram overlay.
 Skp 10/12/2007

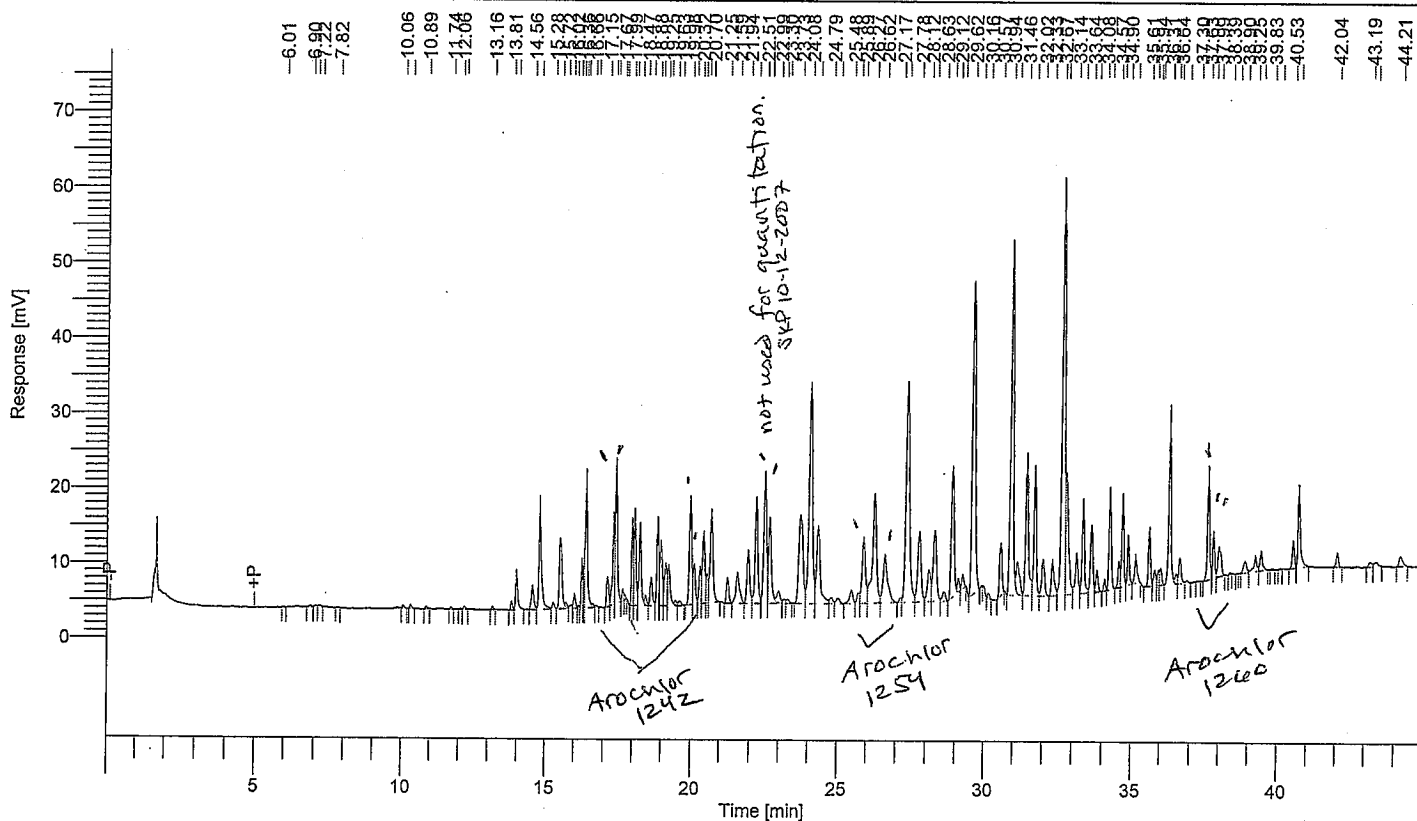
Time [min]	Area [μV·s]
18.30	103247
18.51	5349
18.69	36071
18.91	97093
19.02	79994
19.13	63684
19.28	52429
19.67	5323
20.02	149077
20.16	56213
20.37	52008
20.48	104956
20.60	35625
20.74	175386
21.08	6778
21.30	40944
21.63	72243
21.99	83935
22.27	170452
22.56	215691
22.73	153092
23.05	26224
23.23	7541
23.35	7142
23.78	223657
24.12	429398
24.40	169756
24.84	9938
25.09	11097
25.53	28339
25.79	16989
25.95	137339
26.33	260714
26.69	138272
27.23	6730
27.43	481932
27.84	141914
28.18	70955
28.36	139480
28.68	16640
28.96	241791
29.18	30981
29.32	58740
29.44	14267
29.67	586916
29.97	23183
30.03	25971
30.22	12731
30.62	98703
30.98	611131
31.20	77766
31.50	237248
31.65	13919
31.79	209025
32.06	69236
32.37	66550
32.70	654014
32.83	204754
33.18	72005
33.41	135445
33.67	106984
33.86	34881
34.12	16794
34.30	151305
34.60	37518
34.73	127516
34.94	80140
35.18	75320
35.53	2415
35.64	86468
35.86	17479
35.97	16768
36.04	23842
36.34	233941
36.56	13660
36.66	38740
36.93	3906
37.66	140532
37.85	51596
38.02	10793
38.41	4269
38.92	19009
39.28	12675
40.56	32634

Time [min]	Area [μ V·s]
42.07	18723
43.21	25756
43.83	23935
44.29	5024
<hr/>	
10240708	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61959
 Sample Name : ###22649 1:20
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

Date : 10/12/2007 7:20:59 AM
 Data Acquisition Time : 10/10/2007 12:25:27 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 20.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb011.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.34	2421
13.81	5214
13.99	26079
14.56	19051
14.80	88786
15.28	4176
15.51	66001
15.72	3054
15.90	2800
16.02	9261
16.27	24457
16.36	22426
16.42	93969
16.66	2435
17.15	21517
17.36	55062
17.44	92997
17.67	6001
17.74	2561
17.99	48825
18.09	70470
18.27	55380
18.47	6479
18.66	19687
18.88	56435
18.98	46666
19.14	36774

$$\text{Arochlor 1242 } \Sigma \text{area} = 260991 \quad \text{ng inj} = \frac{260991}{102196.5} = 2.5538$$

$$\text{ppm} = \frac{2.5538}{50} \times \frac{2}{2} \times \frac{100}{50} \times 20 = 2.0431$$

$$\text{Arochlor 1254 } \Sigma \text{area} = 145554 \quad \text{ng inj} = \frac{145554}{55714} = 2.6125$$

$$\text{ppm} = \frac{2.6125}{50} \times \frac{2}{2} \times \frac{100}{50} \times 20 = 2.0900$$

$$\text{Arochlor 1260 } \Sigma \text{area} = 139586 \quad \text{ng inj} = \frac{139586}{295160} = 0.4729$$

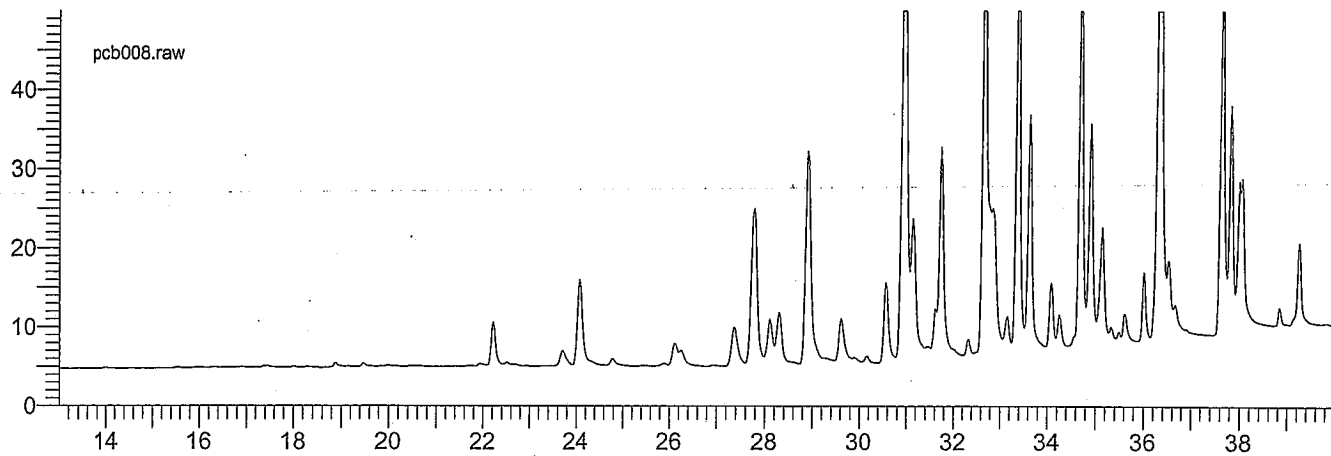
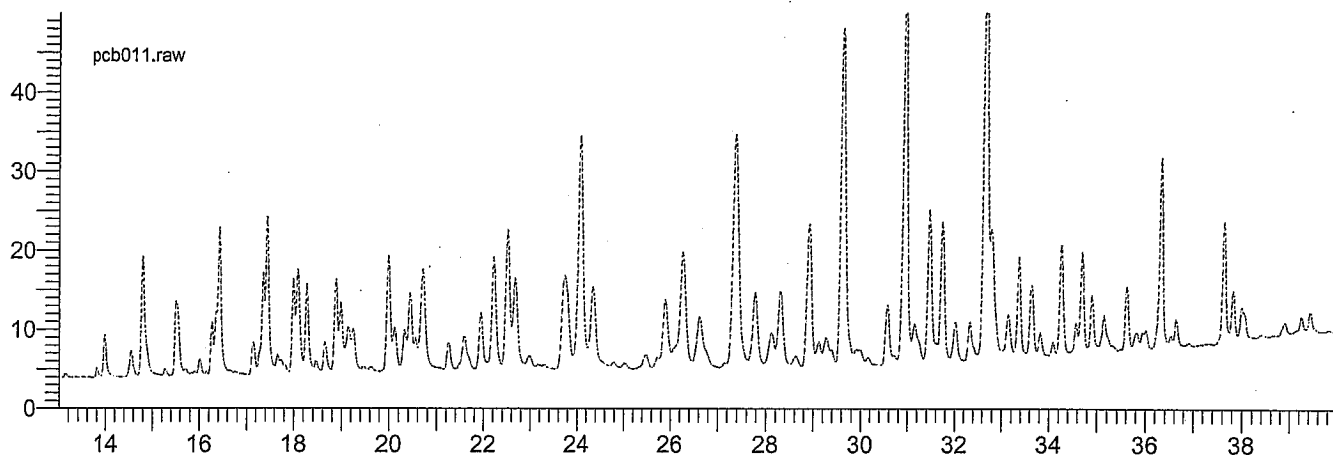
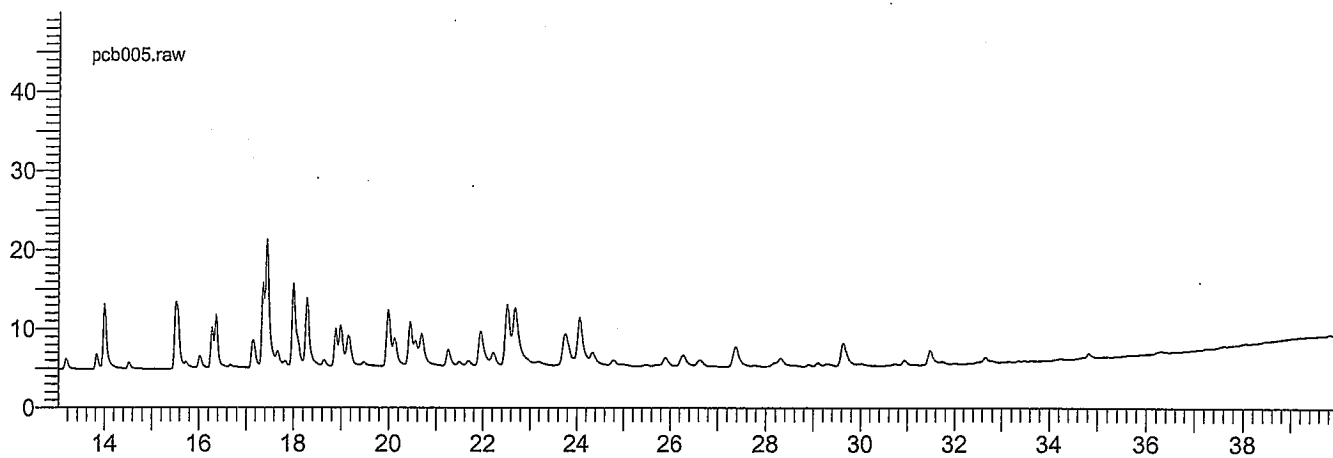
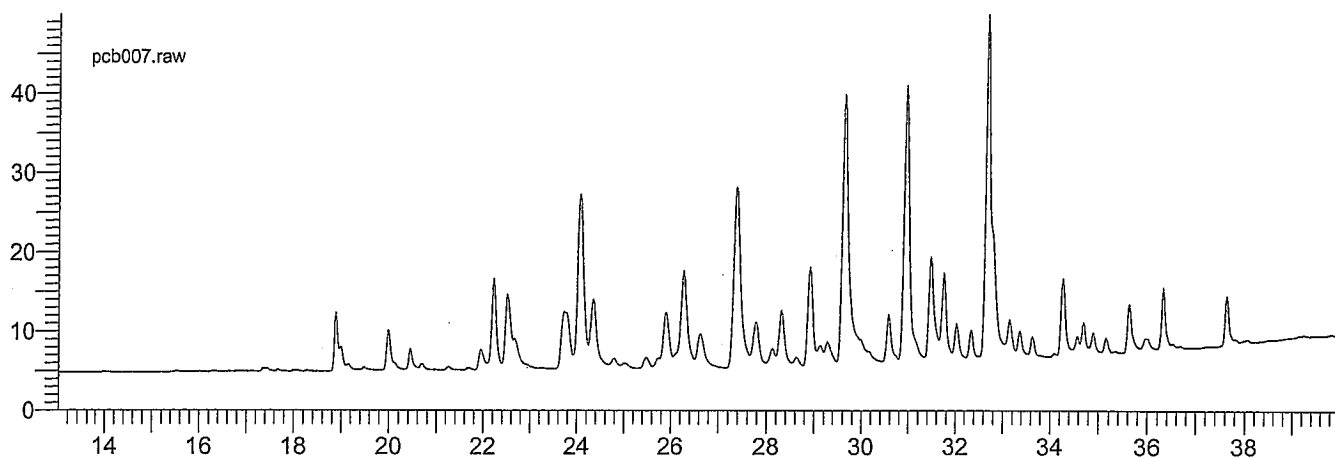
$$\text{ppm} = \frac{0.4729}{50} \times \frac{2}{2} \times \frac{100}{50} \times 20 = 0.3783$$

$$\text{Total PCB} = 2.0431 + 2.0900 + 0.3783 = 4.5114$$

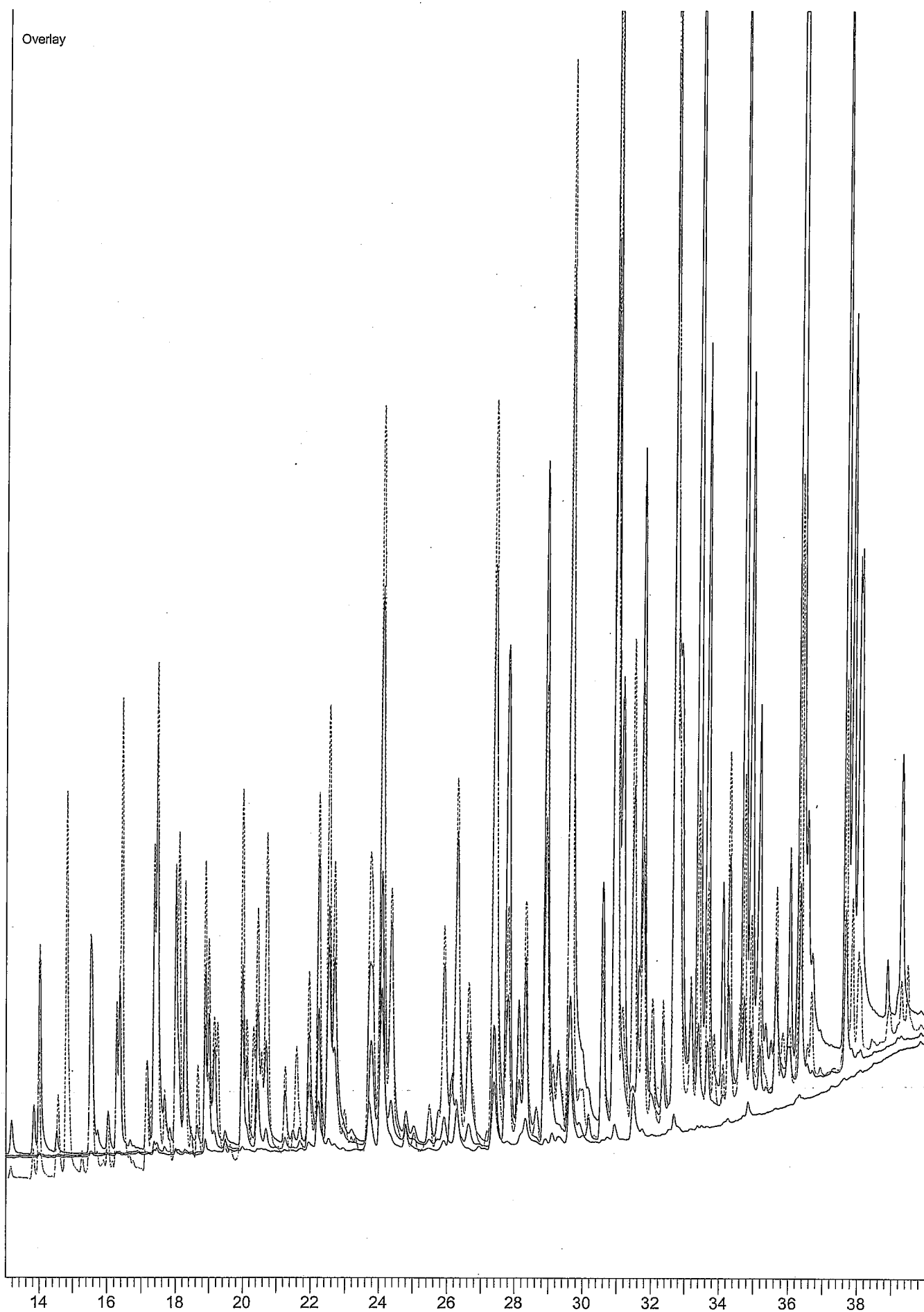
Time [min]	Area [μ V·s]
19.25	31980
19.47	3700
19.63	4060
19.98	82540
20.12	30392
20.32	25168
20.44	56177
20.55	18599
20.70	89537
21.25	19914
21.59	35231
21.94	44599
22.22	96581
22.51	118221
22.68	84865
22.99	13119
23.18	3406
23.30	3612
23.73	123028
24.08	243299
24.35	94648
24.79	6551
25.03	5982
25.48	14606
25.73	8422
25.89	72770
26.27	144869
26.62	72784
27.17	2925
27.37	269354
27.78	75284
28.12	34992
28.31	75254
28.63	9385
28.91	124622
29.12	9156
29.27	10209
29.62	290065
30.16	2712
30.57	39796
30.94	319640
31.15	35362
31.46	123940
31.74	103211
32.02	31565
32.33	32478
32.67	351269
32.78	108163
33.14	36637
33.36	69757
33.64	52465
33.82	15452
34.08	6577
34.26	74644
34.57	15959
34.69	61537
34.90	32981
35.15	22372
35.61	40224
35.81	14163
35.94	7915
36.01	11085
36.31	125766
36.53	7256
36.64	19410
37.63	77862
37.82	31382
37.99	30342
38.90	10753
39.25	15303
39.43	15545
40.53	19352
40.73	63160
42.04	10489
43.19	4761
43.37	5328
44.21	11201

5396705

Plot Title		Start Time	End Time	Scale	Offset
pcb007.raw		13.00	40.00	50.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
pcb005.raw		13.00	40.00	50.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	05				
Instrument File Name:	c:\pest\gc14\methods\pcb				
pcb011.raw		13.00	40.00	50.00	0.00
Sample Name :	###22649 1:20				
Sample Number:	11				
Instrument File Name:	c:\pest\gc14\methods\pcb				
pcb008.raw		13.00	40.00	50.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61785
 Sample Name : 22650 1:10
 Instrument Name : GC014
 Rack/Vial : 0/46
 Sample Amount : 50.000000
 Cycle : 46

Date : 10/8/2007 11:43:18 AM

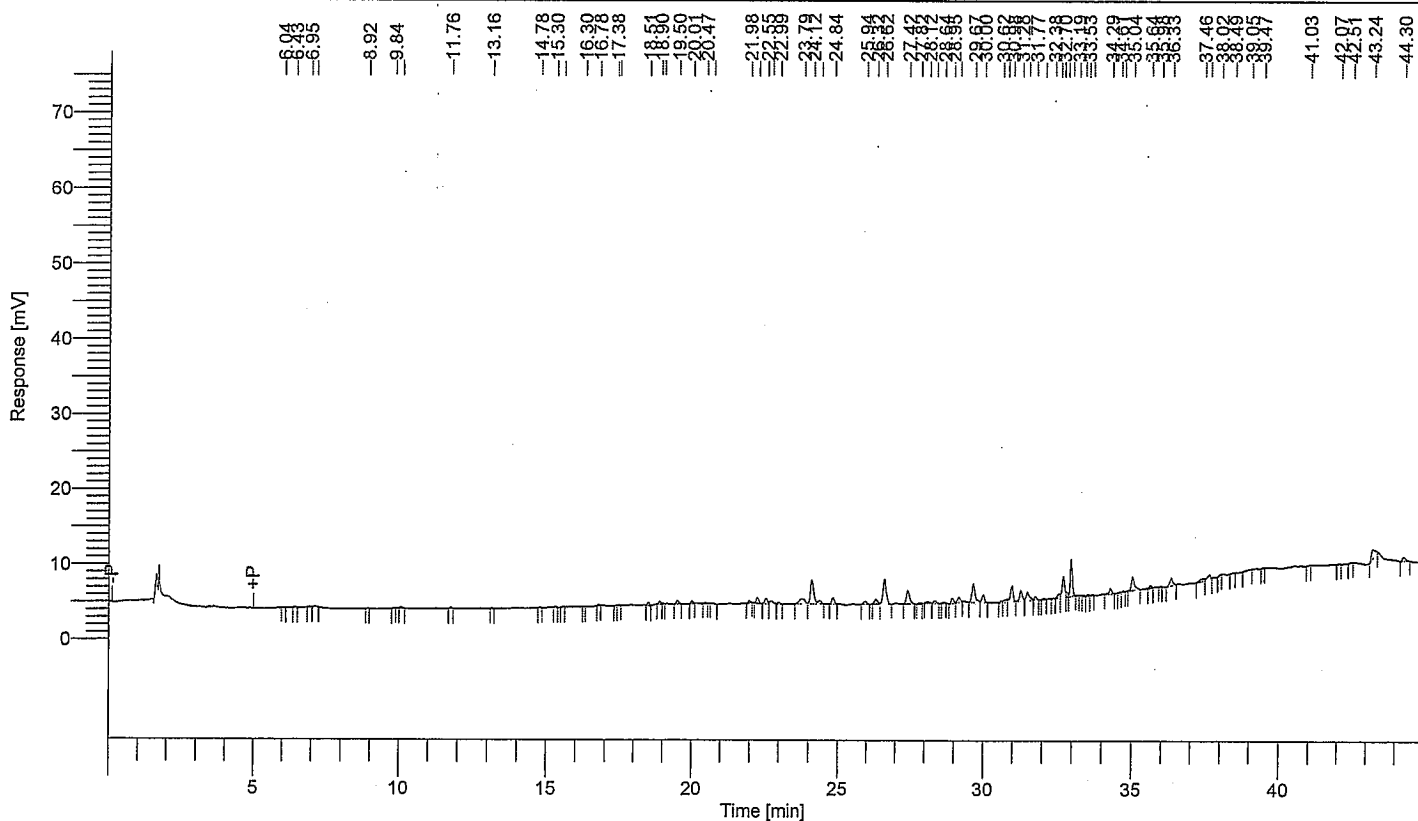
Data Acquisition Time : 10/7/2007 6:56:47 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB046.rst

Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.50	2672
22.26	4604
22.55	4523
22.72	2961
23.79	9026
24.12	25419
24.39	2834
24.84	5439
25.94	3270
26.32	4402
26.62	27630
27.42	14484
28.36	2214
28.95	4083
29.17	4108
29.67	17535
30.00	6407
30.80	2789
30.98	15311
31.28	9002
31.50	9200
31.77	2388
32.57	2811
32.70	17013
32.82	2743
32.97	25395
34.29	4524

BUL

< 0.4 ppm total PCB

Time [min]	Area [μ V-s]
35.04	13008
36.33	7743
37.46	3164
37.65	3968
43.24	9537
44.30	4040
<hr/>	
274246	

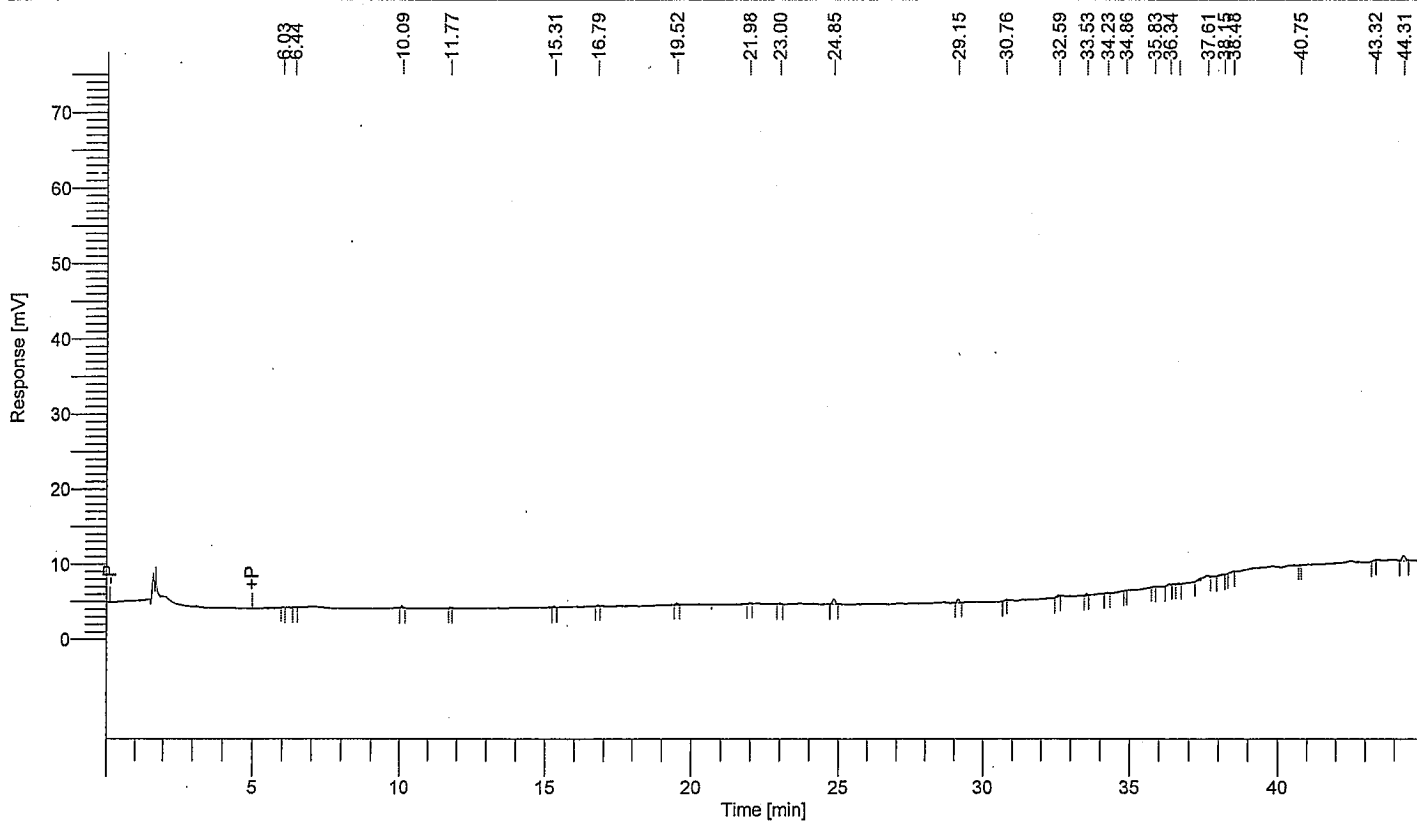
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61786
 Sample Name : 22651 1:10
 Instrument Name : GC014
 Rack/Vial : 0/47
 Sample Amount : 50.000000
 Cycle : 47

Date : 10/8/2007 11:43:19 AM
 Data Acquisition Time : 10/7/2007 7:49:31 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB047.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.85	4399
29.15	2854
37.61	5522
44.31	4830
	17604

(BDL)

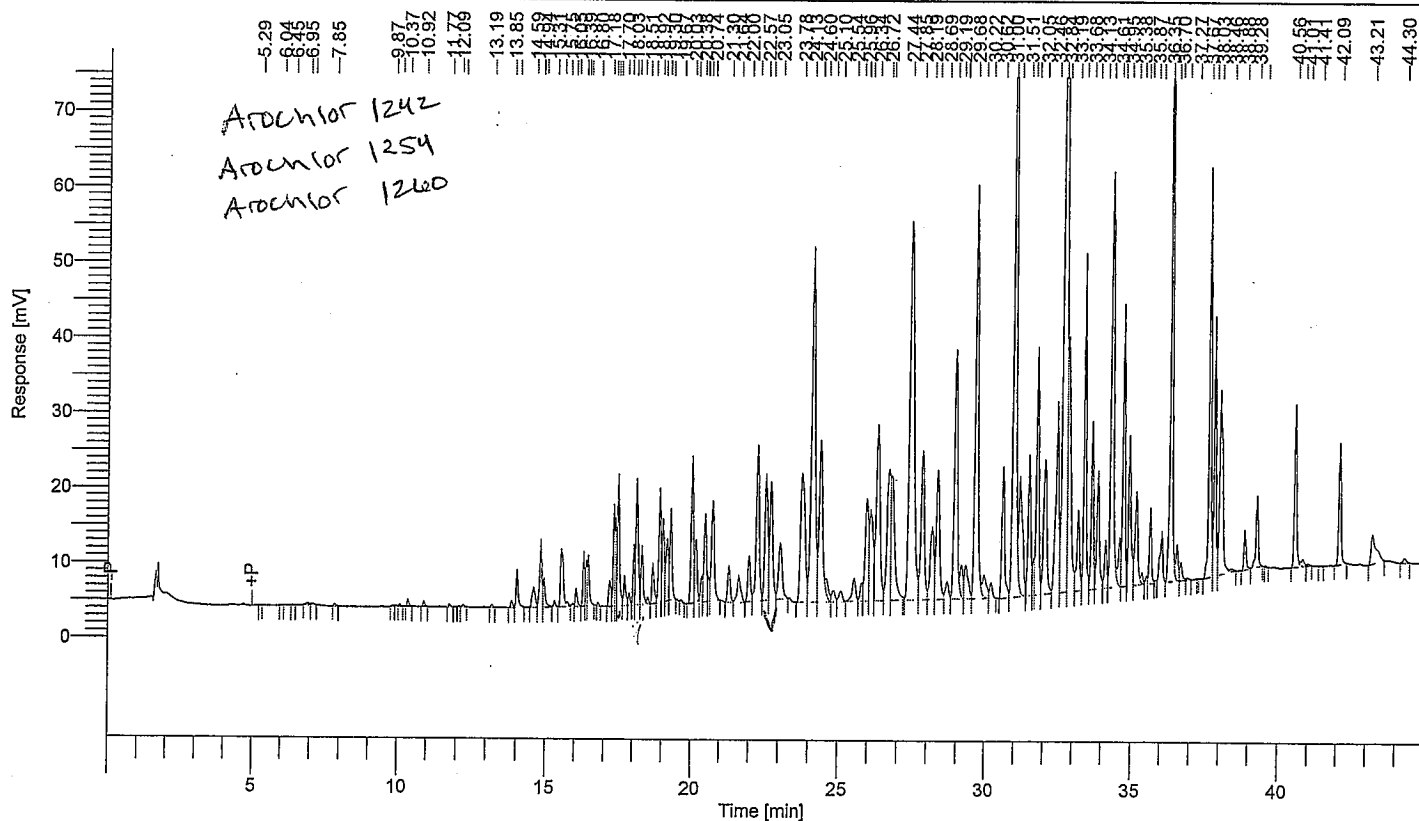
< 0.4 ppm total PCB

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61788
 Sample Name : 22652 1:10
 Instrument Name : GC014
 Rack/Vial : 0/49
 Sample Amount : 50.000000
 Cycle : 49

Date : 10/8/2007 11:43:20 AM

Data Acquisition Time : 10/7/2007 9:34:59 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\COMB049.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100201,211,07092802 PCB COMBINED\SEQ.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.95	2196
10.37	4527
10.92	3153
13.85	4377
14.03	24192
14.59	20458
14.84	44903
14.94	21523
15.31	3414
15.54	51947
15.75	2410
15.94	2136
16.05	11431
16.30	27949
16.39	22123
16.46	31457
17.18	17908
17.32	52686
17.39	42866
17.47	90412
17.70	21231
17.86	7973
18.03	31695
18.13	99863
18.31	42666
18.51	3911
18.70	30421

$$\sum \text{area Arochlor 1242} = 183350 \quad \text{ng inj} = \frac{183350}{81419.5} = 2.2519$$

$$\text{ppm} = \frac{2.2519}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.9008$$

$$\sum \text{area Arochlor 1254} = 446552 \quad \text{ng inj} = \frac{446552}{103256.5} = 4.3247$$

$$\text{ppm} = \frac{4.3247}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 1.7299$$

$$\sum \text{area Arochlor 1260} = 412519 \quad \text{ng inj} = \frac{412519}{310113} = 1.3302$$

$$\text{ppm} = \frac{1.3302}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.5321$$

$$\text{Total PCB} = 3.1628 \text{ ppm}$$

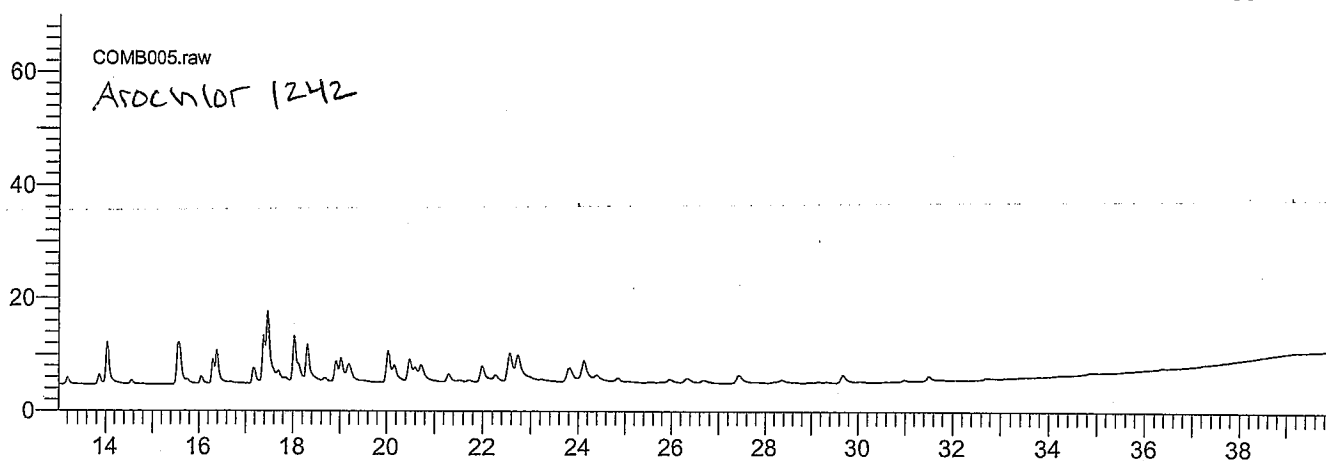
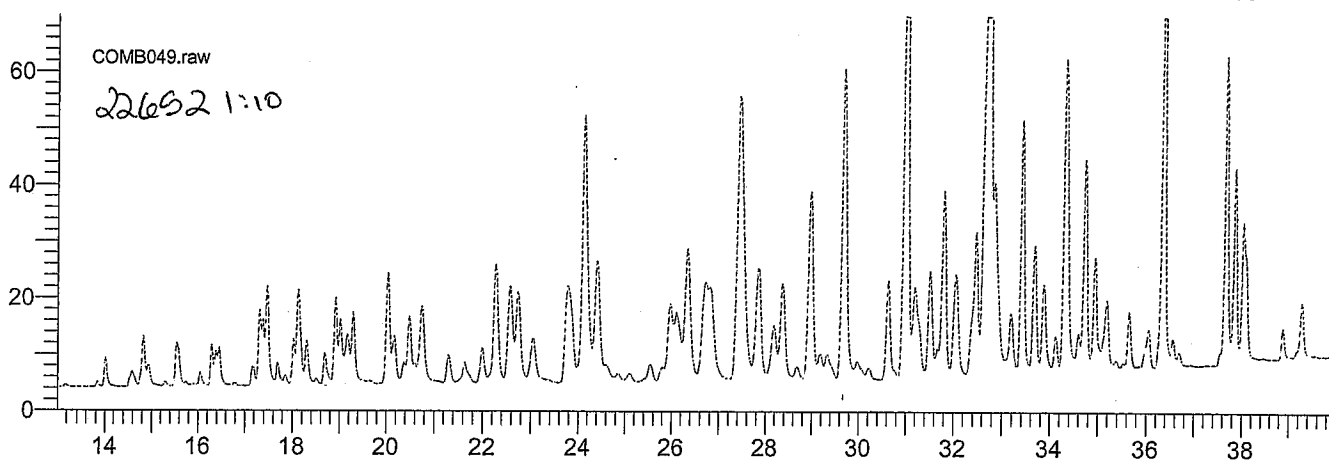
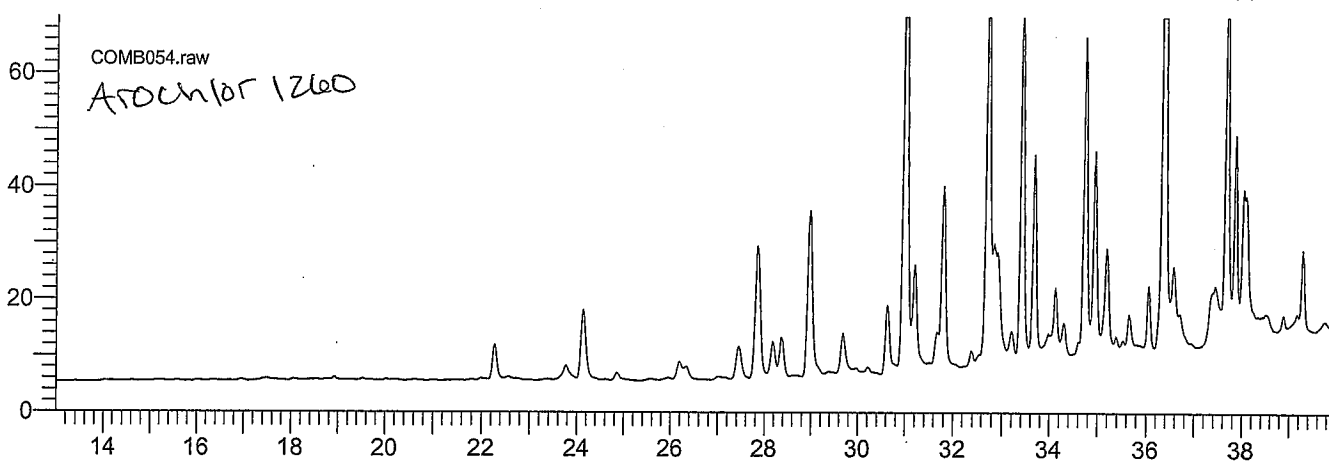
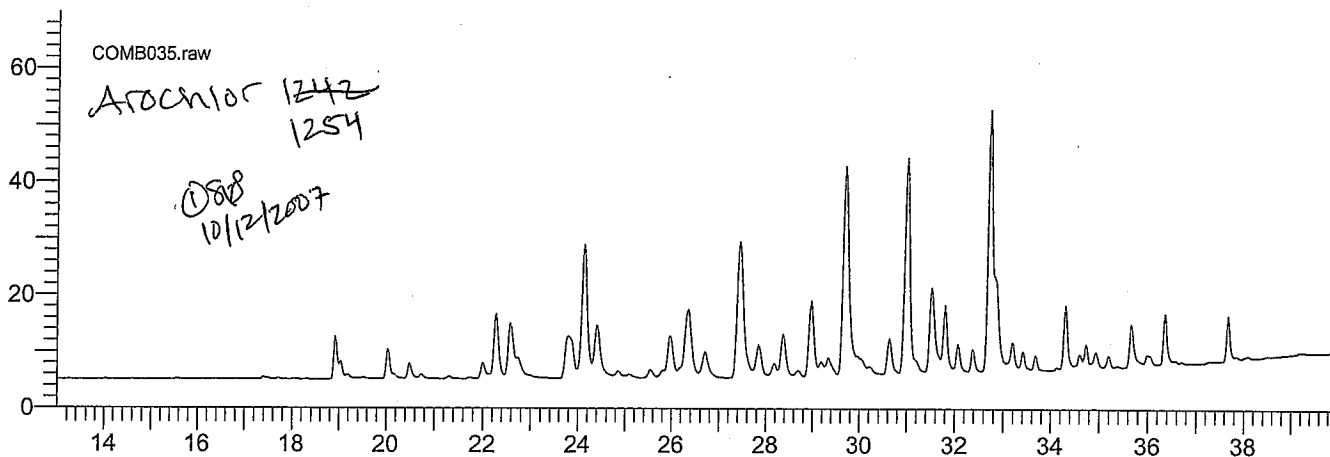
Time [min]	Area [μV·s]
18.92	72031
19.03	58108
19.18	52132
19.30	68114
20.03	108371
20.17	49075
20.38	16933
20.48	66858
20.60	14676
20.74	96481
21.30	28995
21.64	29277
22.00	36788
22.27	144564
22.57	121344
22.74	113788
23.05	60355
23.78	187216*
24.13	401997
24.41	192984
24.60	16671
24.85	12229
25.10	11527
25.54	24896
25.80	14866
25.96	107670
26.10	112047
26.34	206180
26.72	145898
26.81	149369
27.44	532533
27.85	165822
28.19	82052
28.37	137602
28.69	18296
28.97	255819
29.19	26972
29.33	42215
29.68	394507
29.97	30643
30.22	13490
30.62	110635
31.00	691961
31.20	133110
31.51	120774
31.67	18586
31.79	197810
32.05	137544
32.46	189595
32.71	913878
32.84	243506
33.19	73603
33.42	246110
33.68	123272
33.87	101332
34.13	33935
34.33	374300
34.61	36533
34.74	206743
34.95	120167
35.19	85609
35.38	7890
35.53	4798
35.65	52396
36.05	46816
36.35	426717
36.56	26882
36.70	15200
37.67	279944
37.85	164353
38.03	185701
38.46	3470
38.88	24615
39.28	52895
40.56	111662
40.83	7761
42.09	92218
43.21	46229
44.30	4545

10854310

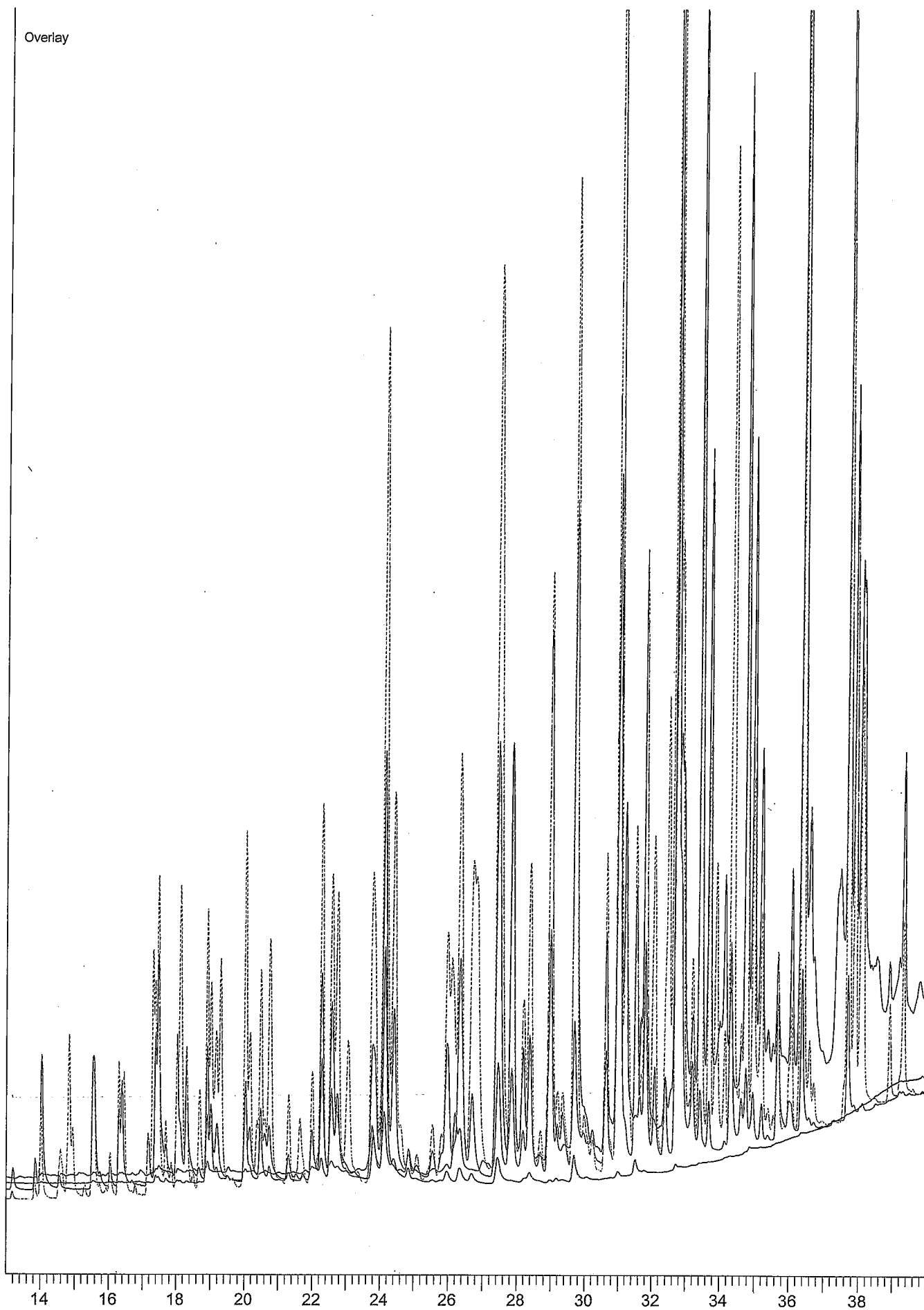
Plot Title

Start Time End Time Scale Offset

COMB035.raw		13.00	39.99	70.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB054.raw		13.00	39.99	70.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	54				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB049.raw		13.00	39.99	70.00	0.00
Sample Name :	22652 1:10				
Sample Number:	49				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB005.raw		13.00	39.99	70.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	05				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay



A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Set #2

Q.A. NUMBER:

07100202

Asent
Level III

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SF
PREP DATE:	10-8-07

SPIKING INFORMATION	
SPIKE SOL'N:	A1260 INTERM
SPIKE VOL:	0.5 mL
LIBRARY I.D.:	A011900001
PREP. DATE:	7-6-07

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS OR MLS
1	SPIKE 1	50.0
2	22653	
3	22654	
4	22655	
5	22655 dup	
6	22656	
7	22657	
8	22657 ms	
9	22658	
10	22658 msd	
11	22659	
12	22660	
13	blank	
14		
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION	SAMPLE INFORMATION
INST. METHOD: PCB	BALANCE #: 01
G.C.#: 14	OVEN#/TEMP: NA
OPERATOR: SP	ALICUOT RATIO: 50/100
COLUMN I.D.: 809200	FINAL VOLUME: 2.0 mL
DATE USED: 10-9-2007	INJECTION VOL. 2 uL
DETECTOR: ECD	EXTRACT STORAGE: F7

INSTRUMENT CALIBRATION INFORMATION	METHOD CALIBRATION INFORMATION
LGV (cm/s)	A1016 I.D. 411300003
INST. CAL I.D. MX501	A1221 I.D. 411900003
INST. CAL PREP. DATE:	A1232 I.D. 411500003
ANALYTE 1	A1242 I.D. 411600003
RETENTION TIME (MIN) 14.37	A1248 I.D. 411700005
R.T. ACCURACY (%) 99	A1254 I.D. X11800011
SENSITIVITY (AREA) 394038	A1260 I.D. 411900003
SENS. ACCURACY (%) 99	CAL PREP DATE: 10-2-2007
ANALYTE 2	
RETENTION TIME (MIN) 16.58	
R.T. ACCURACY (%) 99	
SENSITIVITY (AREA) 86613	
SENS. ACCURACY (%) 87	

1:10 on all

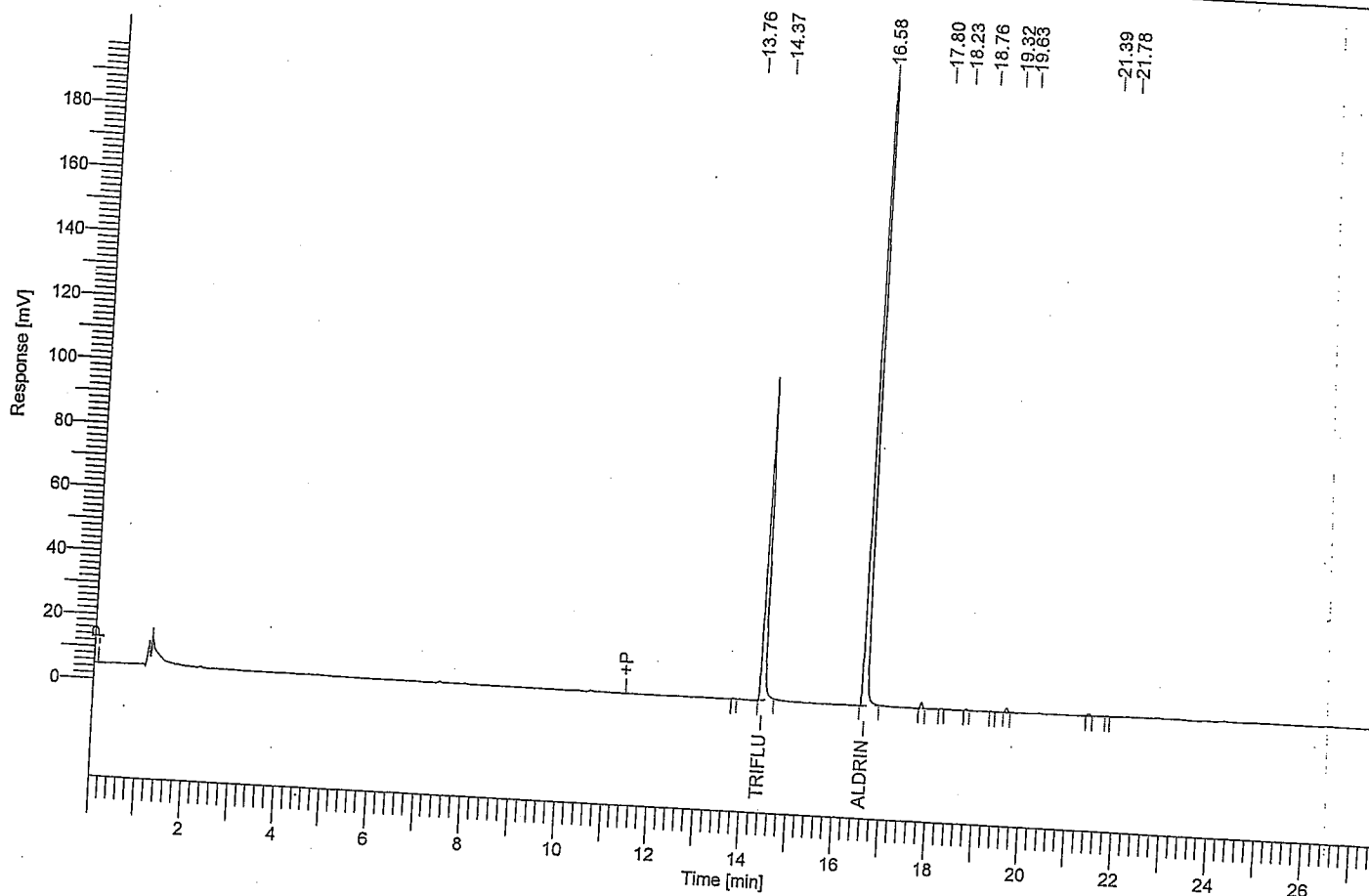
COMMENTS
C18 Lot # - 0731006
Florisil Lot # - 195937120A
Use 0.5 mL of Arochlor 1260 INT for the matrix spike and the matrix spike duplicate
pH 7 Buffer Solution PD: 9-28-07
90% Methanol / Di-Water PD: 9-28-07
15% EE/Hexane PD: 10-3-07

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 61810
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

Date : 10/9/2007 11:30:28 AM

Data Acquisition Time : 10/9/2007 11:02:47 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003-20071009-113028.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [μ V·s]
14.37	TRIFLURALIN	394038.23
16.58	ALDRIN	865512.63
		1259550.87

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 57
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1016	02	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1221	03	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1232	04	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1242	05	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1248	06	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1254	07	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	AROCHLOR 1260	08	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
9	Sample	BLANK SOIL	09	07100202	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
10	Sample	SPIKE SOIL	10	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
11	Sample	###22649 1:20	11	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
12	Sample	###22649 DUP 1:20	12	07100202	50.000000	1.000000	2.000	20.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22653 1:10	13	07100202	50.000000	1.000000	2.000	20.000000	2.000000	1.000000	0.000000	100.000
14	Sample	22654 1:10	14	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
15	Sample	22655 1:10	15	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22655 DUP 1:10	16	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	22656 1:10	17	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
18	Sample	22657 1:10	18	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
19	Sample	FLUSH	19	07100202	1.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	AROCHLOR 1242	20	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
21	Sample	22657 MS 1:10	21	07100202	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
22	Sample	22658 1:10	22	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
23	Sample	22658 MSD 1:10	23	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
24	Sample	22659 1:10	24	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
25	Sample	22660 1:10	25	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
26	Sample	22657 MS	26	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
27	Sample	FLUSH	27	07100202	1.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
28	Sample	22658 MSD	28	07100202	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
29	Sample	FLUSH	29	07100202	1.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
30	Sample	AROCHLOR 1016	30	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
31	Sample	AROCHLOR 1221	31	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
32	Sample	AROCHLOR 1232	32	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
33	Sample	AROCHLOR 1242	33	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
34	Sample	AROCHLOR 1248	34	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
35	Sample	AROCHLOR 1254	35	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
36	Sample	AROCHLOR 1260	36	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
37	Sample	BLANK SLUDGE	37	07100203	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
38	Sample	SPIKE SLUDGE	38	07100203	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
39	Sample	22661 1:10	39	07100203	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
40	Sample	22662 1:10	40	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
41	Sample	22663 1:10	41	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
42	Sample	22663 DUP 1:10	42	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
43	Sample	22664 1:10	43	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
44	Sample	22665 1:10	44	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
45	Sample	FLUSH	45	07100203	1.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
46	Sample	AROCHLOR 1242	46	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
47	Sample	22666 1:10	47	07100203	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
48	Sample	22667 1:10	48	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
49	Sample	22668 1:10	49	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
50	Sample	22667 MS 1:10	50	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
51	Sample	22668 MSD 1:10	51	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
52	Sample	FLUSH	52	07100203	1.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
53	Sample	AROCHLOR 1260	53	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
54	Sample	22667 MS	54	07100203	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
55	Sample	FLUSH	55	07100203	1.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
56	Sample	22668 MSD	56	07100203	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
57	Sample	FLUSH	57	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
-----	------	------	------	-------------	-------------	--------------	--------------

[illegible]

Row

Raw Data File

Result File

Baseline

[illegible][illegible]

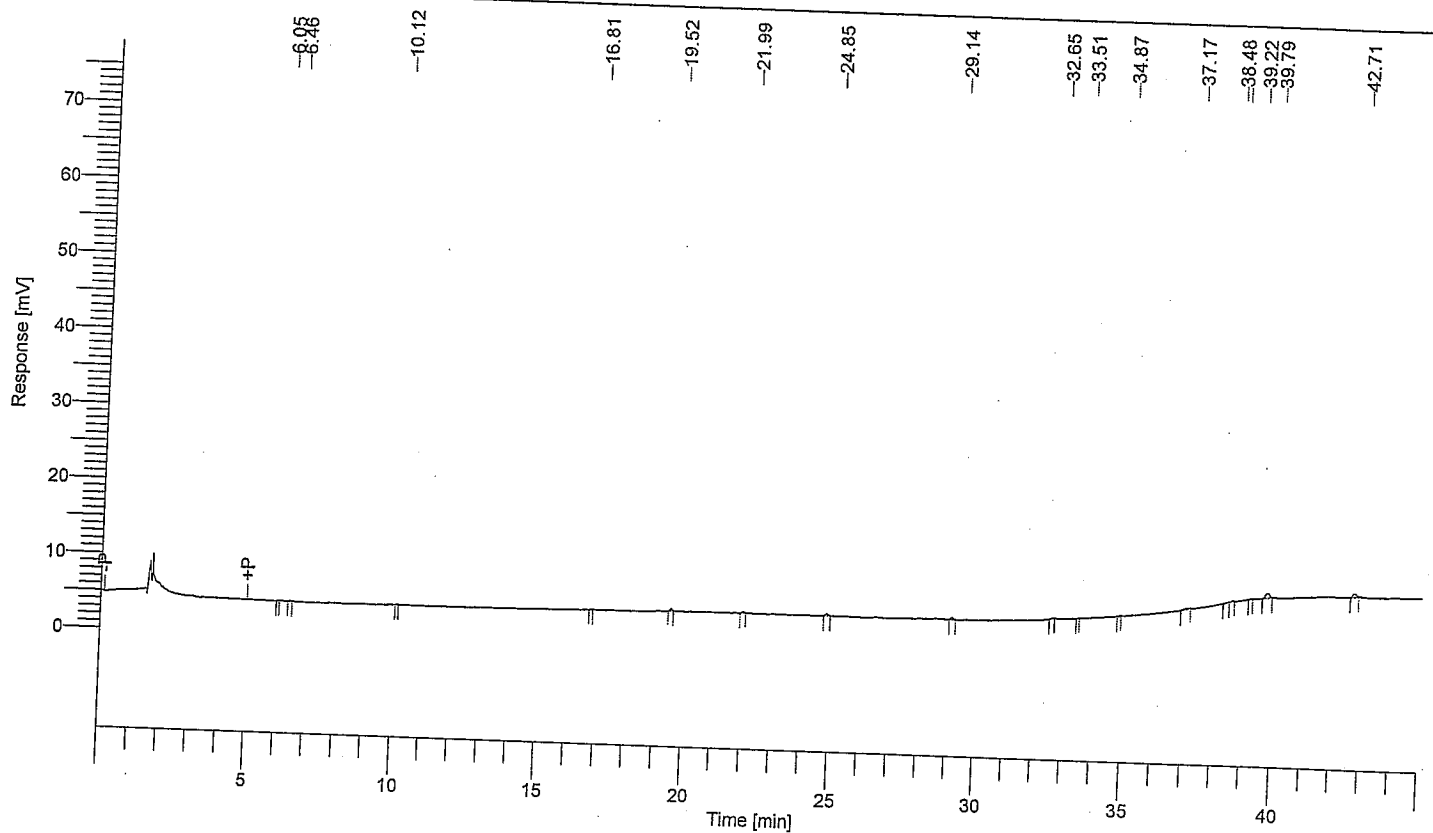
Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 61949
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/1
Sample Amount : 1.000000
Cycle : 1

Date : 10/12/2007 7:20:41 AM
Data Acquisition Time : 10/9/2007 3:39:04 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Page 1 of 1

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb001.rst
Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

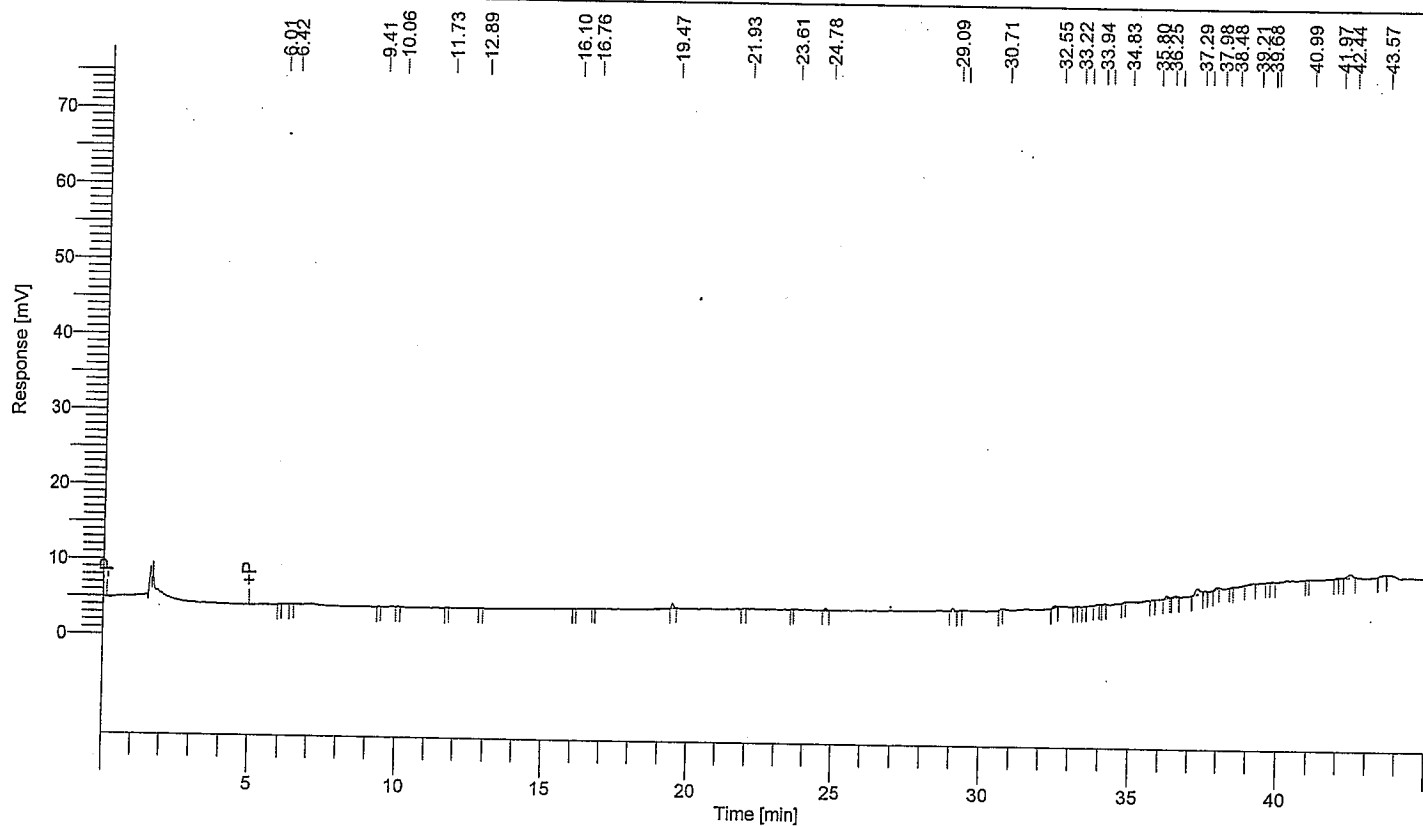
Time [min]	Area [μV·s]
39.79	6129
42.71	3871
9999	

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 61967
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/19
Sample Amount : 1.000000
Cycle : 19

Date : 10/12/2007 7:21:11 AM
Data Acquisition Time : 10/10/2007 7:26:15 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb019.rst
Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
19.47	3375
29.09	2367
36.25	2226
37.29	9358
42.44	5329
	22655

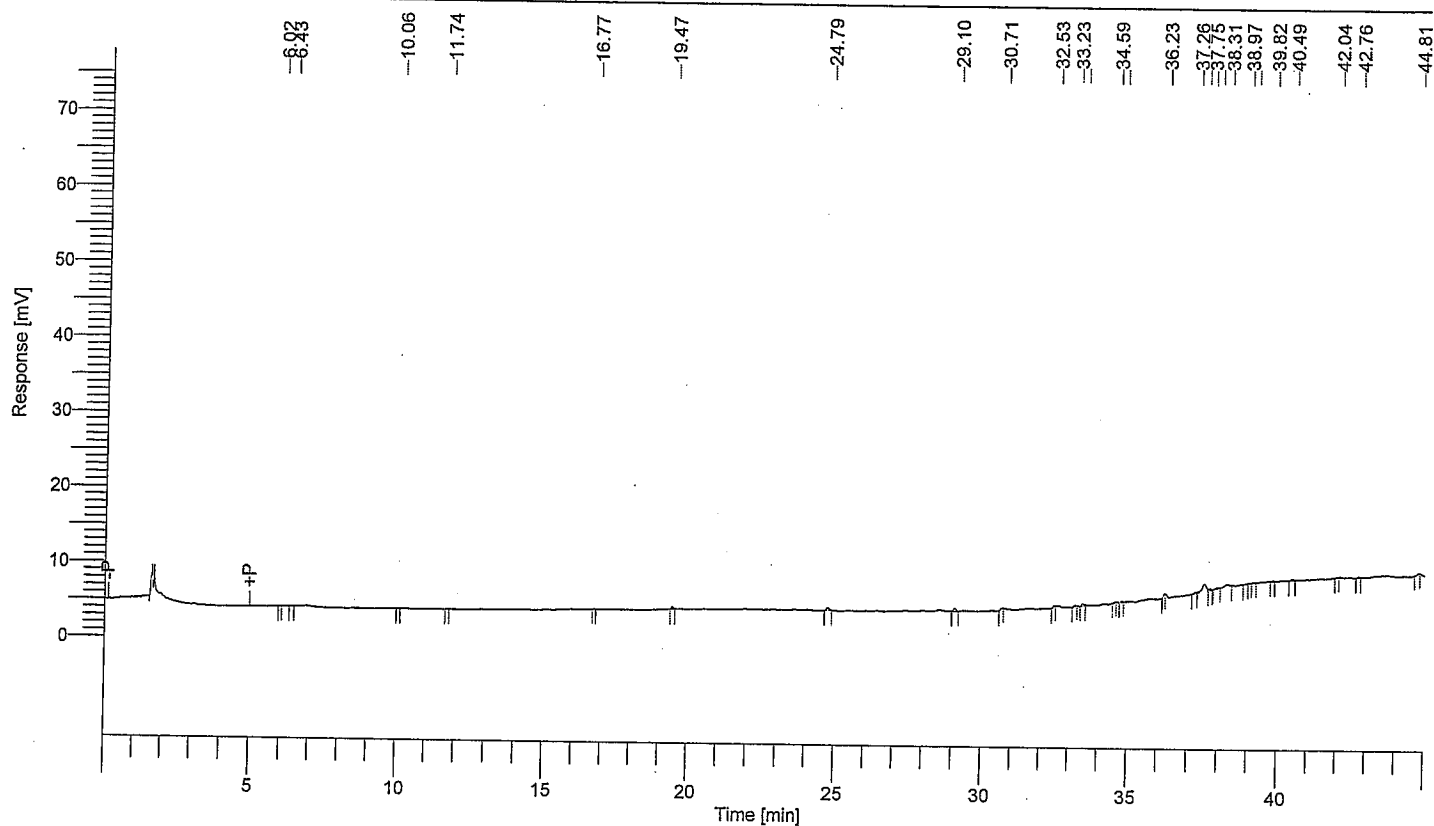
Software Version : 6.1.1.0504
Reprocess Number : totalchrom; 61975
Sample Name : FLUSH
Instrument Name : GC2014
Rack/Vial : 0/27
Sample Amount : 1.000000
Cycle : 27

Date : 10/12/2007 7:21:22 AM
Data Acquisition Time : 10/10/2007 2:29:28 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb027.rst
Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.79	2369
29.10	2402
37.54	9765
38.31	2644
<hr/>	
	17180

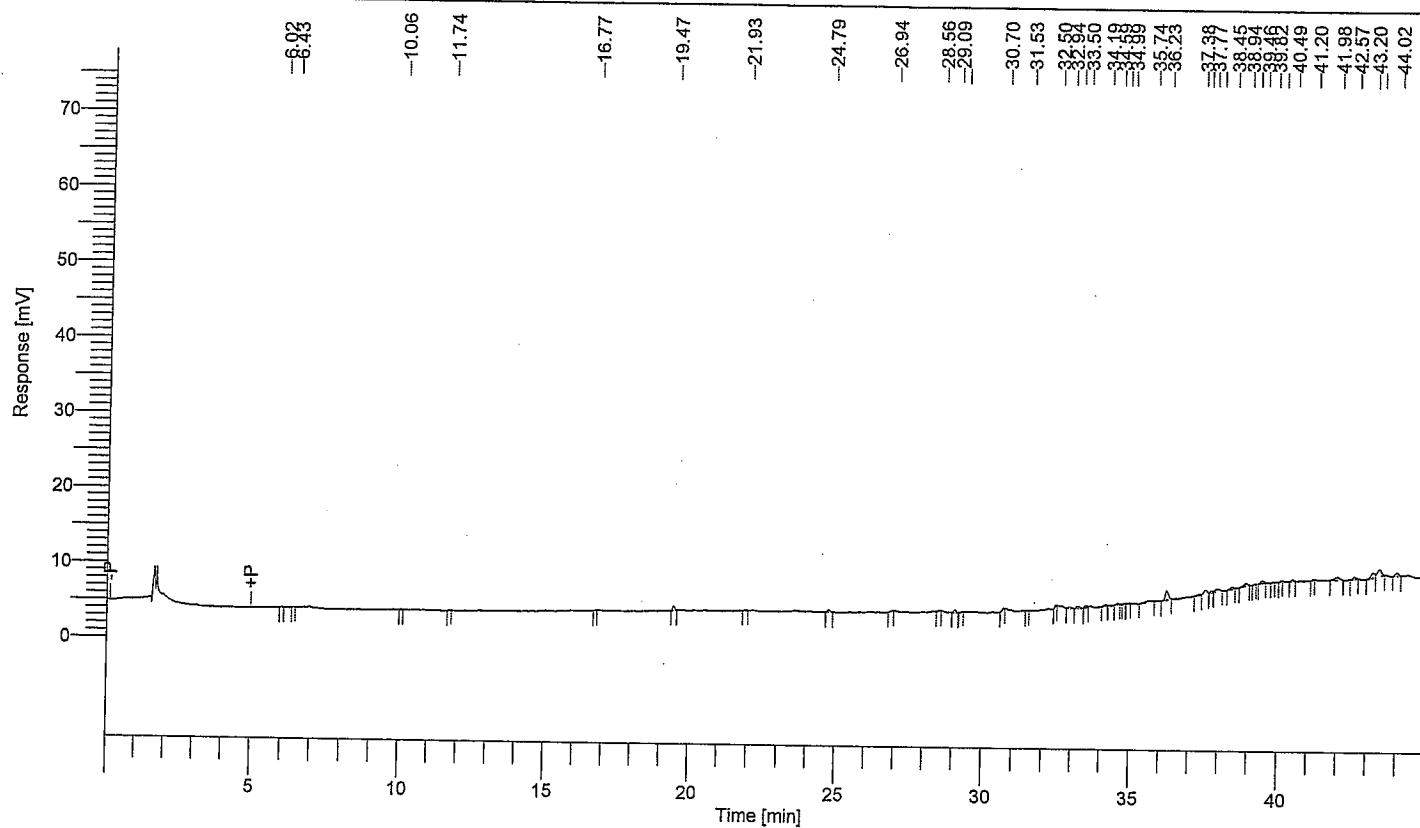
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61977
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/29
 Sample Amount : 1.000000
 Cycle : 29

Date : 10/12/2007 7:21:25 AM
 Data Acquisition Time : 10/10/2007 4:28:03 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb029.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.47	3154
29.09	2106
33.22	2793
35.74	3131
36.23	9395
37.57	4064
38.00	3956
38.45	2009
38.94	3501
39.46	2319
41.98	4613
42.57	2285
43.20	6078
43.43	9058
44.02	3478

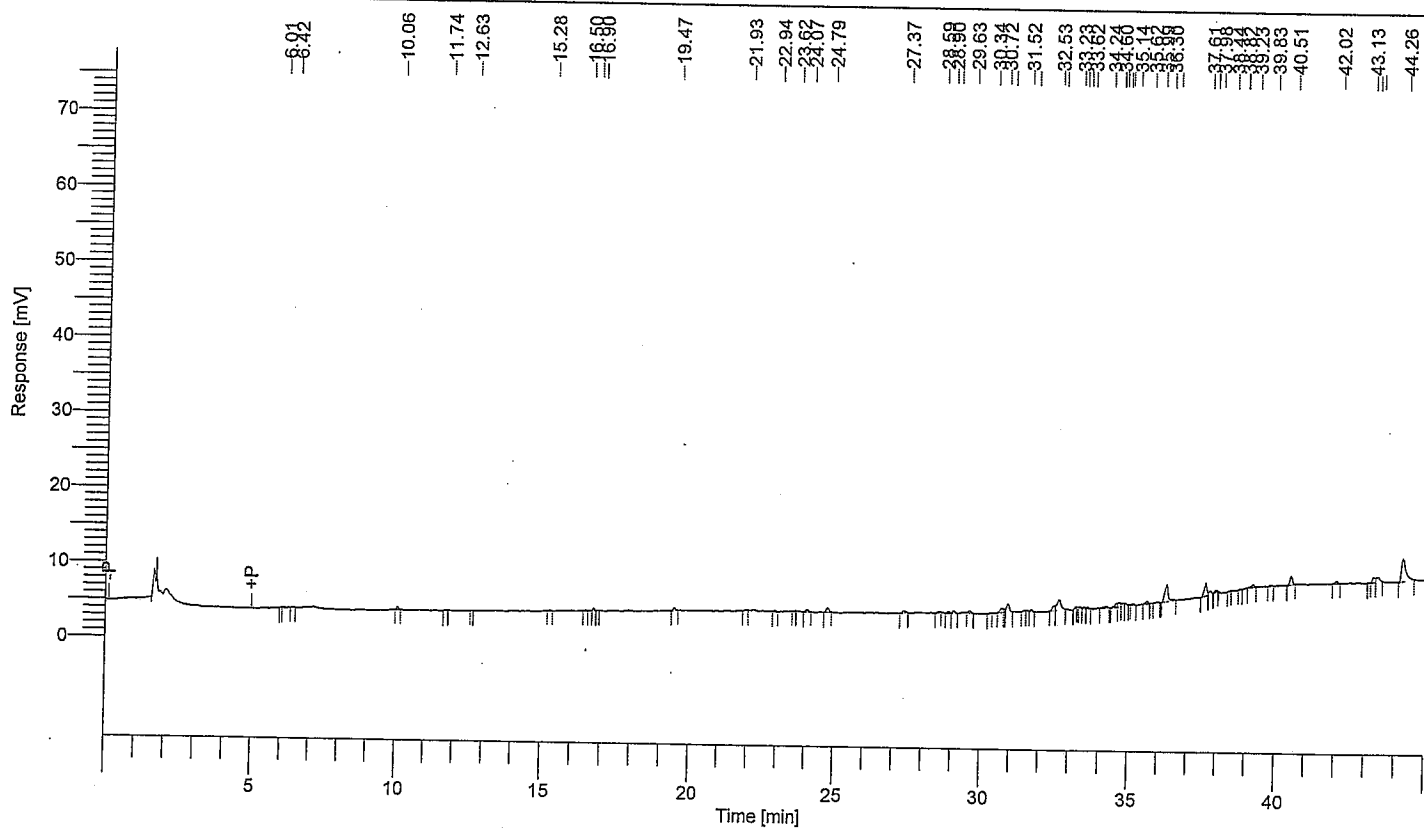
61939

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61957
 Sample Name : BLANK SOIL
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

Date : 10/12/2007 7:21:55 AM
 Data Acquisition Time : 10/9/2007 10:40:21 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb009.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.79	3687
27.37	2494
29.09	2469
30.72	4217
30.93	7951
32.53	4184
32.66	11396
34.24	2223
34.60	3257
34.69	3481
34.82	2335
36.30	18500
37.61	11562
37.79	3292
39.23	2608
40.51	6789
42.02	2331
43.28	4284
43.41	4761
44.26	30326

132149

BDL

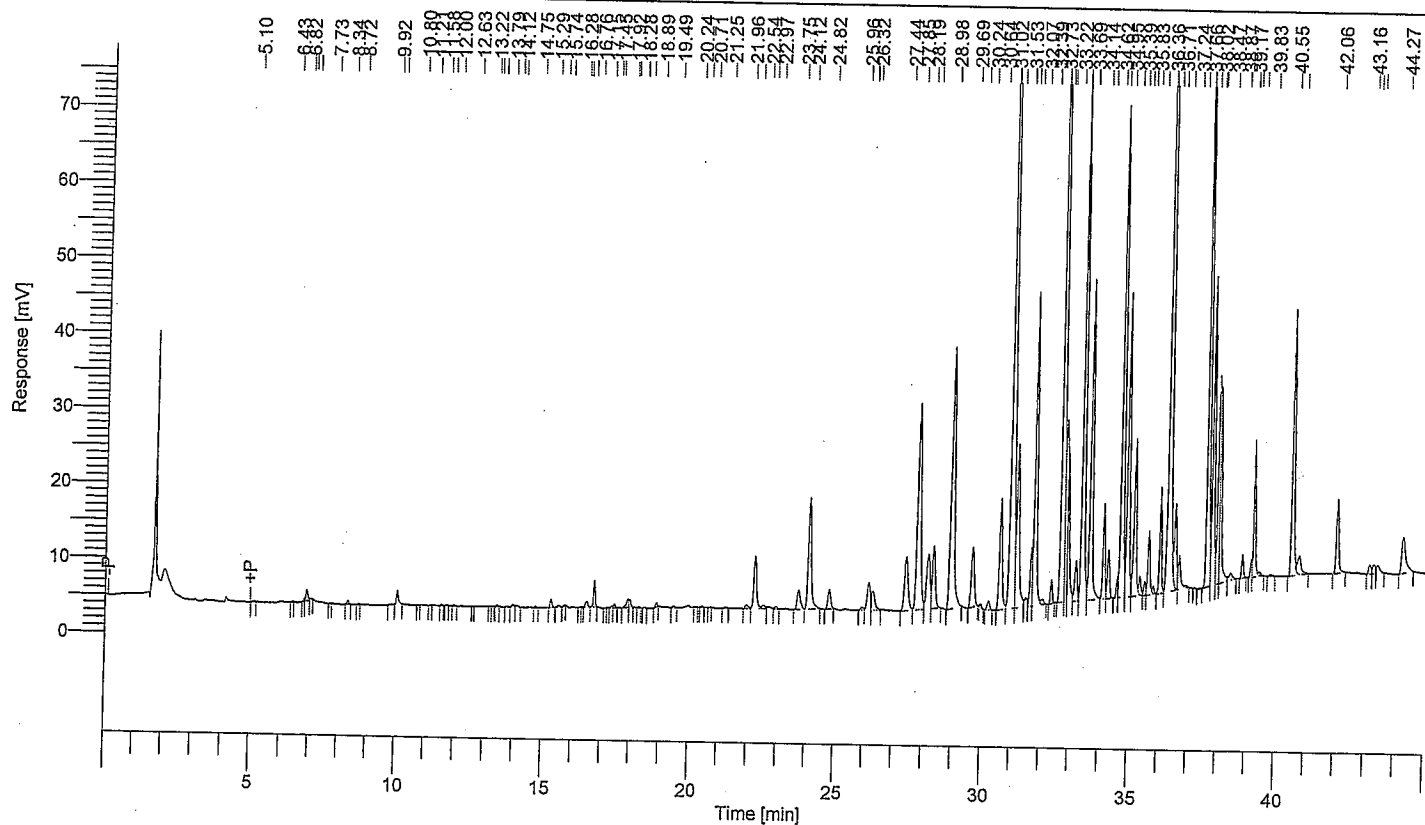
<0.04 ppm.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61958
 Sample Name : SPIKE SOIL
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

Date : 10/12/2007 7:20:57 AM
 Data Acquisition Time : 10/9/2007 11:32:56 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb010.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.92	6935
8.34	2019
10.06	8718
14.00	2191
15.29	4704
16.51	4446
16.76	13849
17.45	2111
17.92	6701
17.98	4249
18.89	2395
21.96	3531
22.25	48144
22.54	3791
22.71	2546
23.75	21217
24.12	111860
24.82	17338
25.96	2844
26.18	27985
26.32	20584
27.44	61320
27.85	218568
28.19	56873
28.37	62639
28.98	266364
29.69	55546

$$\Sigma \text{area} = 399400$$

$$\text{ng wing} = \frac{399400}{155611} = 2.56666$$

$$\text{ppm} = \frac{2.56666}{50} \times \frac{2}{2} \times \frac{100}{60} = 0.1027$$

$$\% \text{Recovery} = \frac{0.1027}{0.1} \times 100 = 103\%$$

Time [min]	Area [μ V-s]
30.24	6609
30.64	95046
31.02	692447
31.21	152889
31.53	7761
31.68	38582
31.81	241732
32.07	5171
32.39	16477
32.73	506117
32.86	127174
32.93	93081
33.22	33211
33.43	423983
33.69	234425
34.14	62016
34.31	34331
34.62	10624
34.74	366817
34.95	210372
35.19	131837
35.39	13375
35.53	8168
35.66	44136
35.83	4834
36.05	65576
36.36	851360
36.56	62645
36.71	28167
37.66	409107
37.84	197631
38.02	120137
38.07	117194
38.47	8181
38.87	13197
39.17	8037
39.27	86903
39.44	3160
40.55	180495
40.80	22243
42.06	55172
43.16	6818
43.28	7300
43.41	8169
44.27	42791

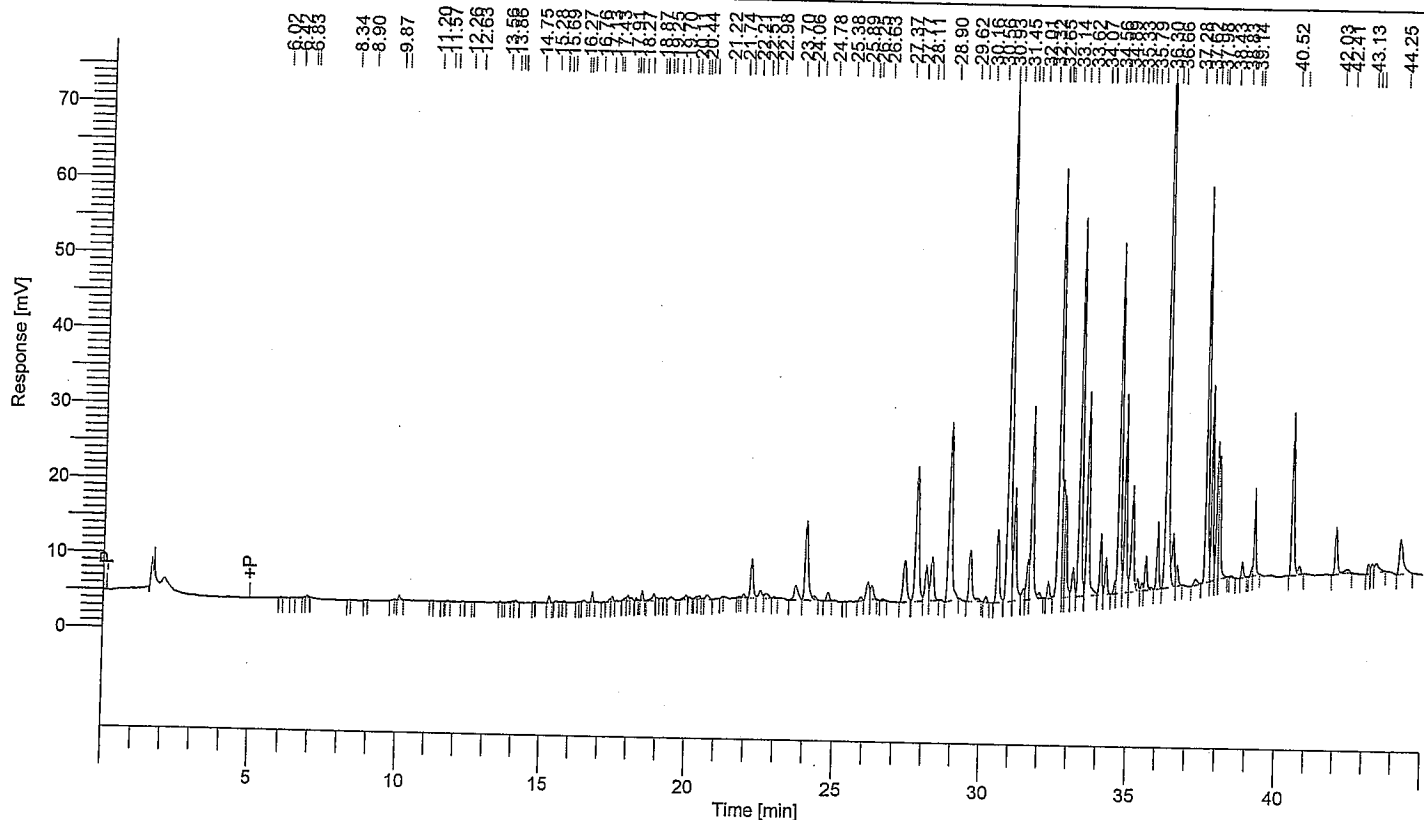
6894965

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61974
 Sample Name : 22657 MS
 Instrument Name : GC014
 Rack/Vial : 0/26
 Sample Amount : 50.000000
 Cycle : 26

Date : 10/12/2007 7:21:21 AM
 Data Acquisition Time : 10/10/2007 1:36:20 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb026.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V·s]
26.25	13458
27.37	47858
27.77	145019
28.11	35693
28.30	42386
28.90	181435
29.62	48032
29.88	2943
30.16	4262
30.56	62655
30.93	463153
31.14	100465
31.45	10167
31.60	29997
31.74	159181
32.01	5306
32.32	13328
32.65	348346
32.78	72636
32.85	72228
33.14	23922
33.36	281382
33.62	158073
34.07	41103
34.25	25976
34.56	6907
34.69	240462
34.89	139962
35.14	88678
35.33	8157
35.48	4893
35.61	24487
36.00	41232
36.30	549548
36.52	39031
36.66	15281
37.28	6873
37.62	254673
37.81	126833
37.98	79181
38.04	71263
38.83	9308
39.14	3773
39.24	53899
40.52	112010
40.77	7672
42.03	36184
42.41	6058
43.13	7746
43.27	7938
43.40	13639
44.25	42099

4627517

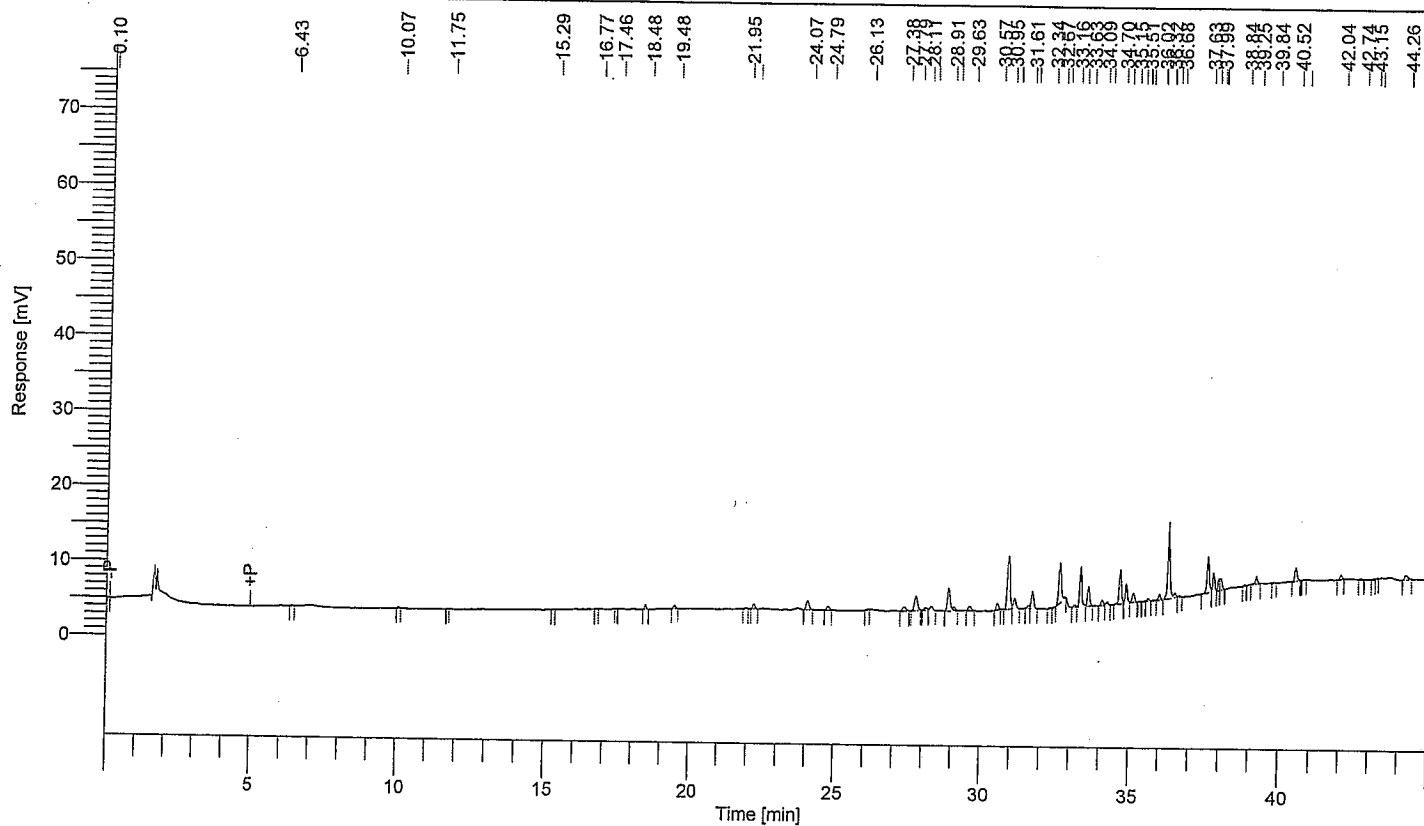
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61969
 Sample Name : 22657 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 50.000000
 Cycle : 21

Date : 10/12/2007 7:21:14 AM
 Data Acquisition Time : 10/10/2007 9:11:40 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb021.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
18.48	2736
19.48	2180
22.22	3897
24.07	8531
24.79	3390
27.38	4701
27.79	13681
28.11	2726
28.31	4028
28.91	21913
29.09	2335
29.63	4127
30.57	4738
30.95	47984
31.15	8348
31.61	2241
31.74	13627
32.67	29998
33.37	27290
33.63	13366
34.09	4166
34.26	2555
34.70	24780
34.90	13557
35.15	7270
36.02	3472
36.32	53357

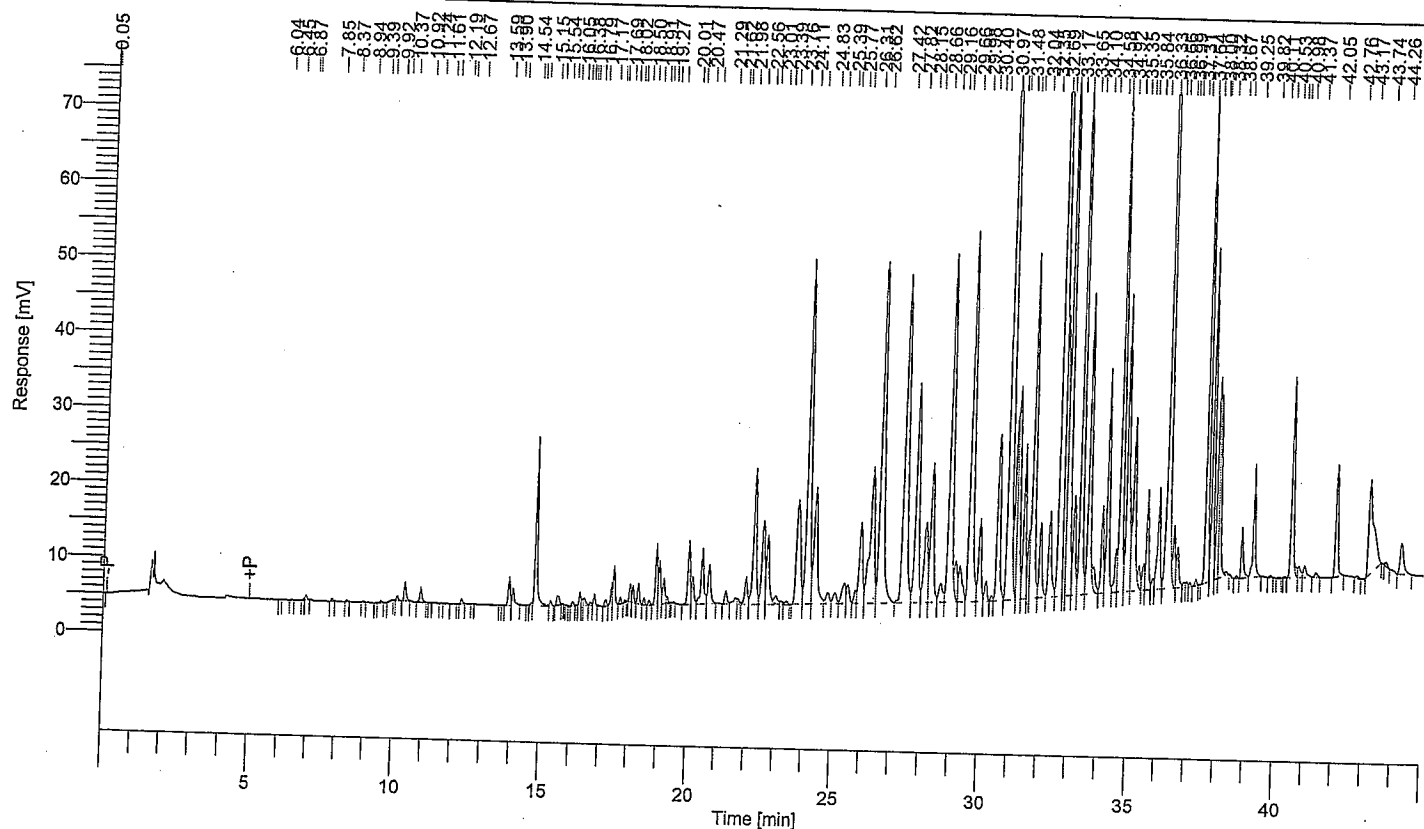
Time [min]	Area [μ V·s]
36.53	3508
37.63	25272
37.82	11998
37.99	6293
38.05	6710
39.25	5482
40.52	9823
42.04	2847
44.26	4423

407346

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61976
 Sample Name : 22658 MSD
 Instrument Name : GC014
 Rack/Vial : 0/28
 Sample Amount : 50.000000
 Cycle : 28

Date : 10/12/2007 7:21:23 AM
 Data Acquisition Time : 10/10/2007 3:34:56 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb028.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.95	3080
10.10	2722
10.37	11411
10.92	10346
12.30	2801
13.90	17134
14.03	12037
14.66	2003
14.78	104664
15.31	2790
15.54	7452
16.05	2428
16.30	6732
16.38	3011
16.45	5351
16.65	2153
16.79	5791
17.17	4381
17.38	12153
17.46	24459
17.69	3377
18.02	9385
18.12	10129
18.30	12087
18.50	4056
18.68	2840
18.91	37760

$$\sum \text{area} = 760074$$

$$\text{ng/ml} = \frac{760074}{295160} = 2.5751$$

$$\text{ppm} = \frac{2.5751}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.1030$$

$$\% \text{Recovery} = \frac{(0.1030 - 0.0751)}{0.1} \times 100 = 28\%$$

Time [min]	Area [μ V·s]
19.01	30123
19.16	19394
19.27	3671
20.01	47929
20.15	20698
20.47	49599
20.72	35615
21.29	10666
21.62	7191
21.71	3728
21.98	23662
22.25	130341
22.56	85396
22.72	68709
23.01	9626
23.20	2614
23.39	2857
23.76	143046
24.11	358463
24.38	139605
24.83	13078
25.07	12330
25.39	25003
25.51	17423
25.77	9726
25.93	87196
26.31	192248
26.62	413873
27.42	383365
27.82	236254
28.15	94457
28.34	149507
28.66	22799
28.94	357535
29.16	31014
29.29	44663
29.66	360160
29.98	80883
30.20	16113
30.40	3810
30.59	144036
30.97	888230
31.19	109380
31.26	171941
31.48	131892
31.65	43746
31.77	287350
32.04	67422
32.35	74868
32.69	822236
32.81	193772
32.96	504638
33.17	86541
33.39	415759
33.65	234982
33.83	24236
34.10	64508
34.27	166896
34.58	29529
34.71	369995
34.92	255523
35.16	160637
35.35	19330
35.51	16950
35.62	73888
35.84	8843
36.03	82304
36.33	672375
36.54	43909
36.66	34478
36.91	3024
36.99	2944
37.09	2269
37.31	4285
37.64	324217
37.82	210361
38.00	121033
38.06	104463
38.32	2660
38.85	34215
39.25	84924
40.53	136193
40.69	6017
40.79	10200
40.98	12105
41.37	3865

Time [min]	Area [μ V·s]
42.05	86949
43.17	144554
43.74	3077
44.26	32681
<hr/>	
11597128	

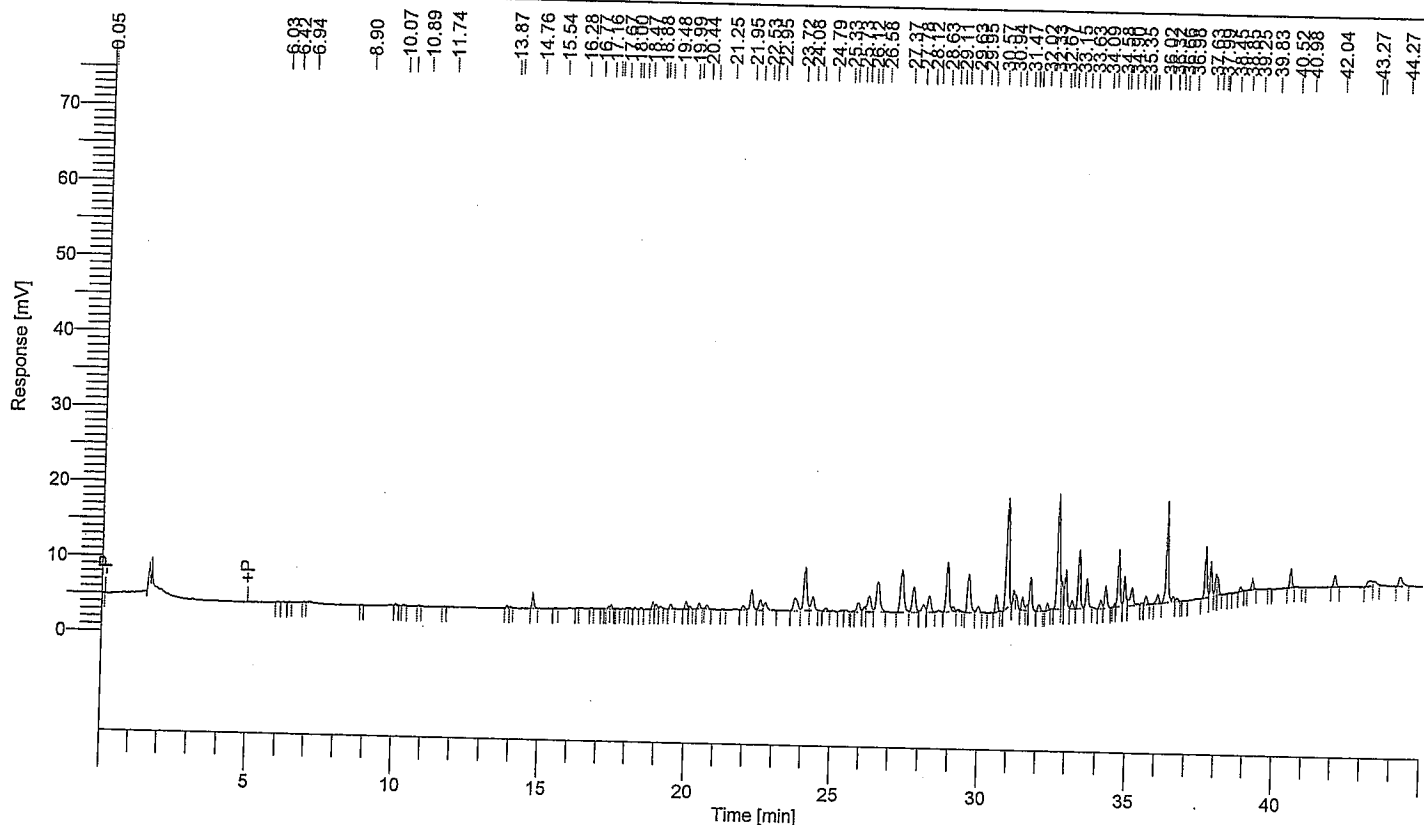
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61971
 Sample Name : 22658 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 50.000000
 Cycle : 23

Date : 10/12/2007 7:21:17 AM

Data Acquisition Time : 10/10/2007 10:57:14 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb023.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.76	8822
17.44	2479
18.88	4322
18.99	3124
19.48	3089
19.99	5194
20.44	3559
20.69	2926
21.95	3770
22.22	17909
22.53	9987
22.69	7475
23.72	17042
24.08	45145
24.34	14246
24.79	2420
25.90	9673
26.12	3964
26.28	17962
26.58	36844
27.37	48652
27.78	25486
28.12	8831
28.31	16326
28.91	45424
29.11	3389
29.63	37799

$$\sum \text{area} = 76217$$

$$\text{ng conc} = \frac{76217}{295160}$$

$$= 0.2582$$

$$\text{ppm} = \frac{0.2582}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1033$$

$$0.1033 - 0.0751 = 0.0282$$

$$\% \text{Recovery} = \frac{0.0282}{0.1} \times 100 = 28\%$$

Time [min]	Area [μ V·s]
29.95	6402
30.57	12415
30.94	94039
31.16	4109
31.47	10080
31.62	3661
31.75	26136
32.02	5024
32.33	4883
32.67	95305
32.79	18834
32.94	31907
33.15	6167
33.37	40252
33.63	19971
34.09	6127
34.26	17500
34.69	39357
34.90	21013
35.15	18423
35.62	5925
36.02	6638
36.32	68380
36.53	3931
36.66	2607
37.63	32912 —
37.82	21458 —
37.99	12257 —
38.04	9590 —
38.85	2841
39.25	7625
40.52	12154
42.04	8474
43.27	8451
43.39	4179
44.27	10007

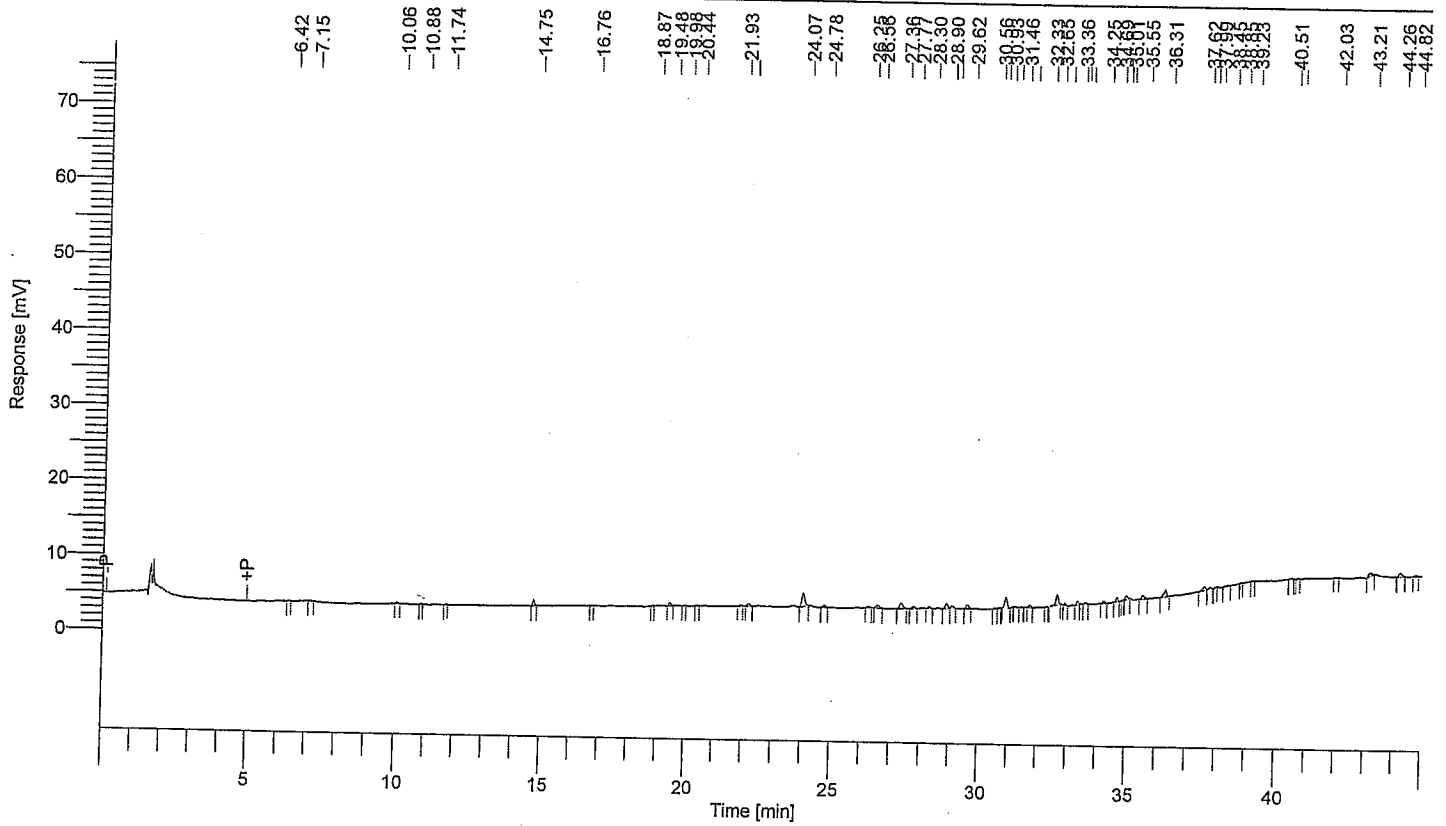
1104894

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61964
 Sample Name : 22655 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

Date : 10/12/2007 7:21:07 AM
 Data Acquisition Time : 10/10/2007 4:48:15 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb016.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
14.75	3109
19.48	2201
22.21	2126
24.07	12786
26.56	3003
27.36	5997
28.90	4573
29.10	2472
29.62	2920
30.93	9638
32.65	7982
33.36	2545
34.69	2345
35.01	2441
35.55	2995
36.31	5981
37.62	3973
43.21	3544
44.26	3776

84407

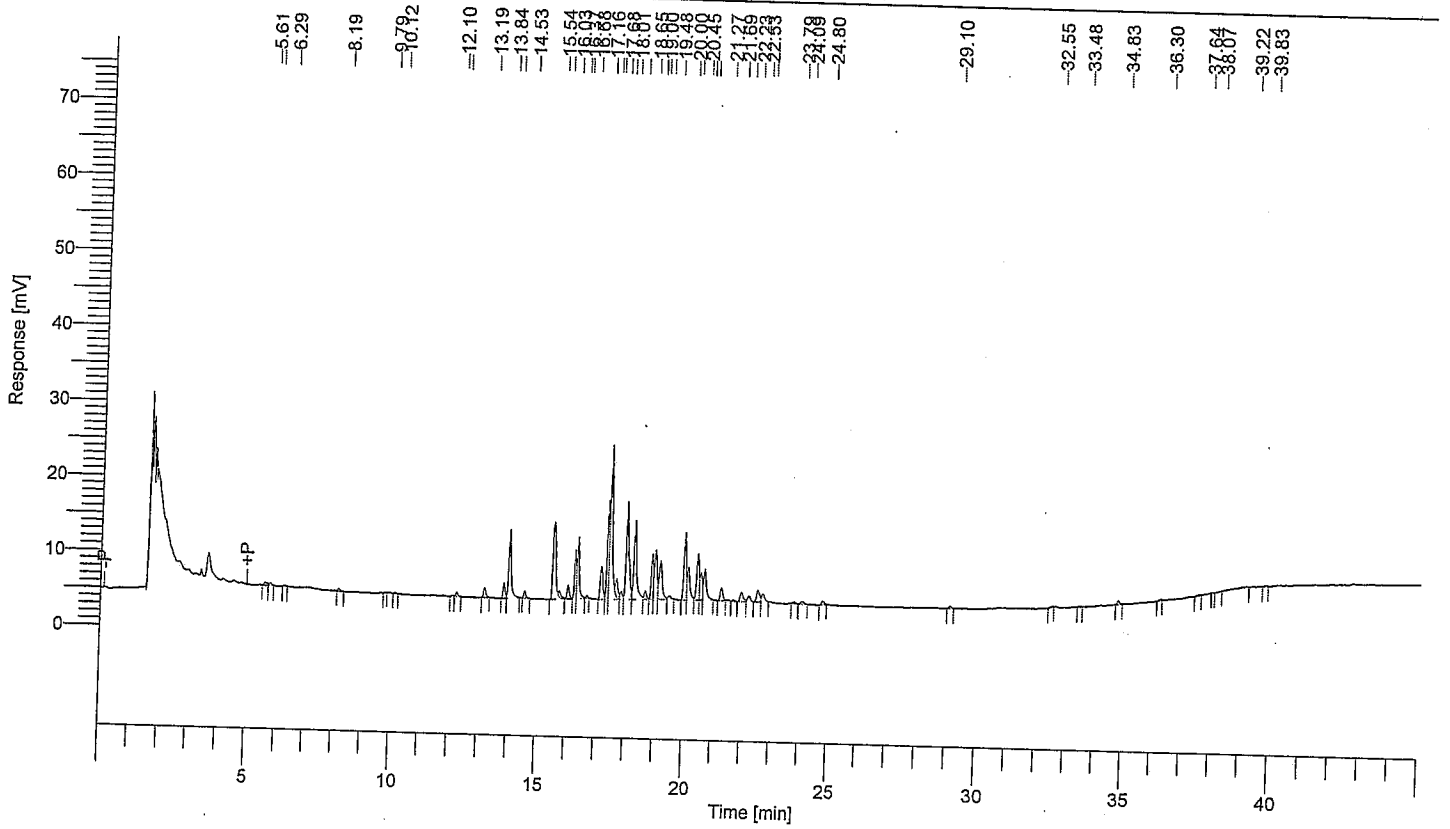
< 0.4 ppm.

Both sample and The duplicate have less than 0.4 ppm total PCB. SK 10/12/2007.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61950
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/12/2007 7:20:43 AM
 Data Acquisition Time : 10/9/2007 4:31:48 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb002.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2658
5.76	2583
8.19	2045
12.24	2995
13.19	6464
13.84	9549
14.02	50778
14.53	4641
15.54	74451
15.73	4961
16.03	10085
16.28	24522
16.37	41740
17.16	26444
17.37	51347
17.45	122528
17.68	14394
17.83	5846
18.01	88193
18.28	67636
18.65	6297
18.89	28512
19.00	38933
19.16	38517
19.48	2775
20.00	51916
20.13	29151

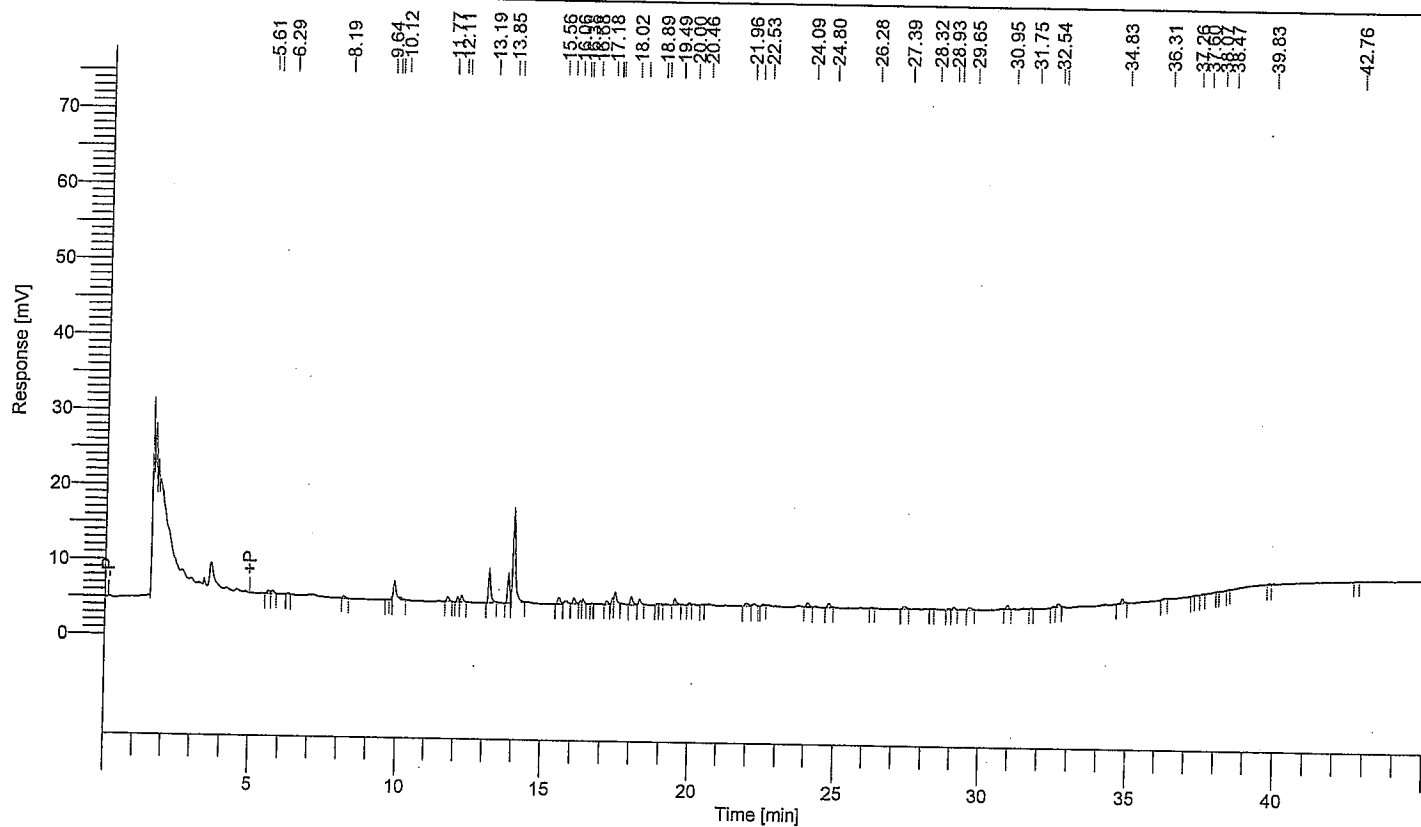
Time [min]	Area [μ V·s]
20.45	35359
20.57	19405
20.70	30345
21.27	10581
21.96	10225
22.23	5632
22.53	11145
22.70	8005
24.09	2750
24.80	2964
34.83	2613
39.22	4406

953392

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61951
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

Date : 10/12/2007 7:20:45 AM
 Data Acquisition Time : 10/9/2007 5:24:31 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb003.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2557
5.76	2516
8.19	2058
9.91	17547
11.77	3153
12.11	3190
12.24	4716
13.19	24712
13.85	18767
14.02	74089
15.56	5727
15.81	3168
16.06	4392
16.38	2672
17.18	2611
17.38	3161
17.46	8624
18.02	6355
18.29	3850
19.49	5198
21.96	3258
22.23	2190
24.09	3947
24.80	3781
27.39	3093
29.11	2202

Time [min]	Area [μ V·s]
29.65	2672
30.95	3158
32.68	2389
34.83	4284

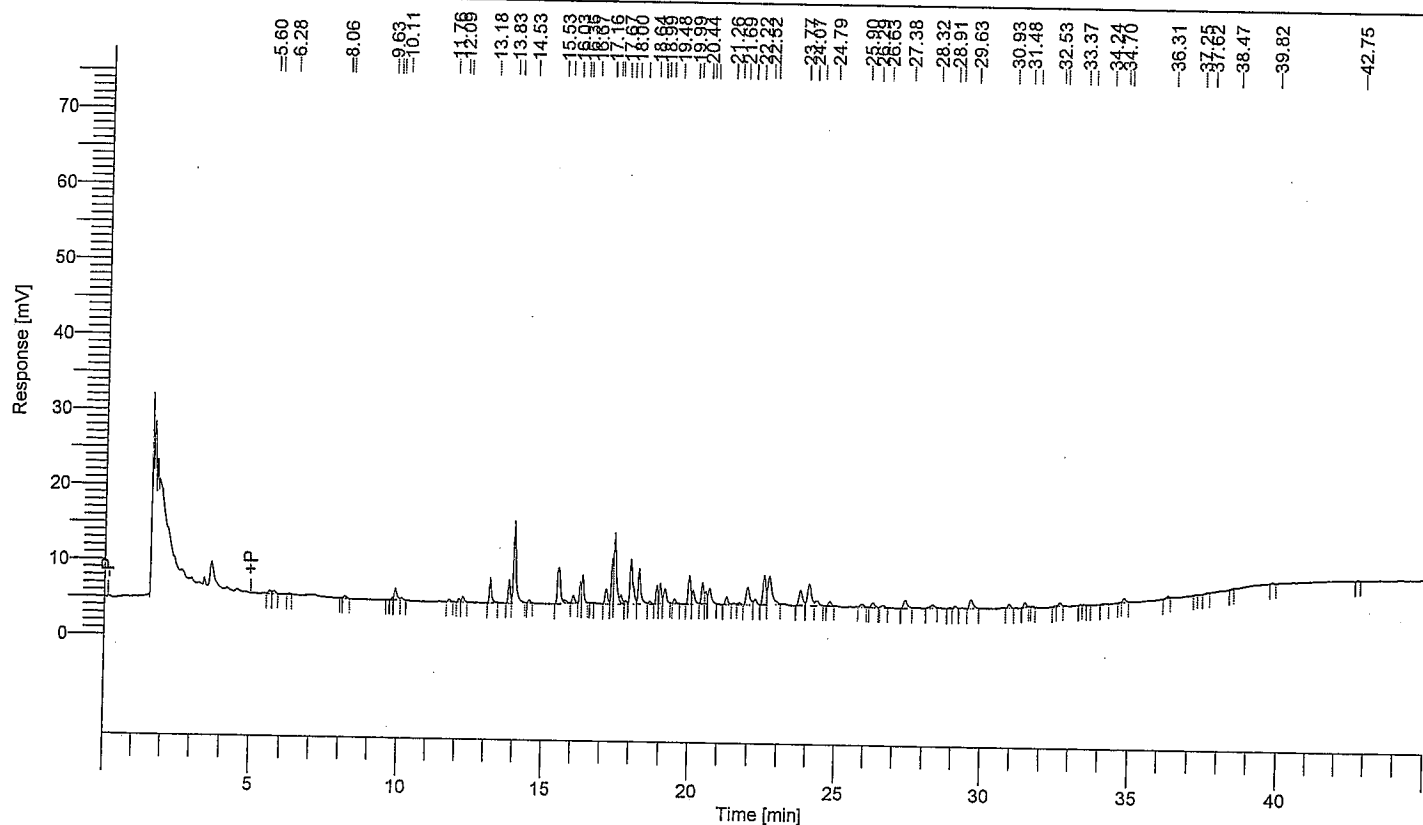
230038

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61952
 Sample Name : AROCHLOR 1232
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

Date : 10/12/2007 7:20:47 AM
 Data Acquisition Time : 10/9/2007 6:17:14 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb004.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2611
5.75	2453
8.18	2178
9.90	10154
12.09	2156
12.23	3731
13.18	17280
13.83	14808
14.01	63563
15.53	34276
15.73	3320
16.03	5906
16.28	10681
16.36	17606
17.16	12542
17.36	23257
17.44	57609
17.67	6312
17.83	2266
18.00	39806
18.28	30012
18.64	2059
18.88	11221
18.99	15218
19.16	13276
19.48	3442
19.99	21620

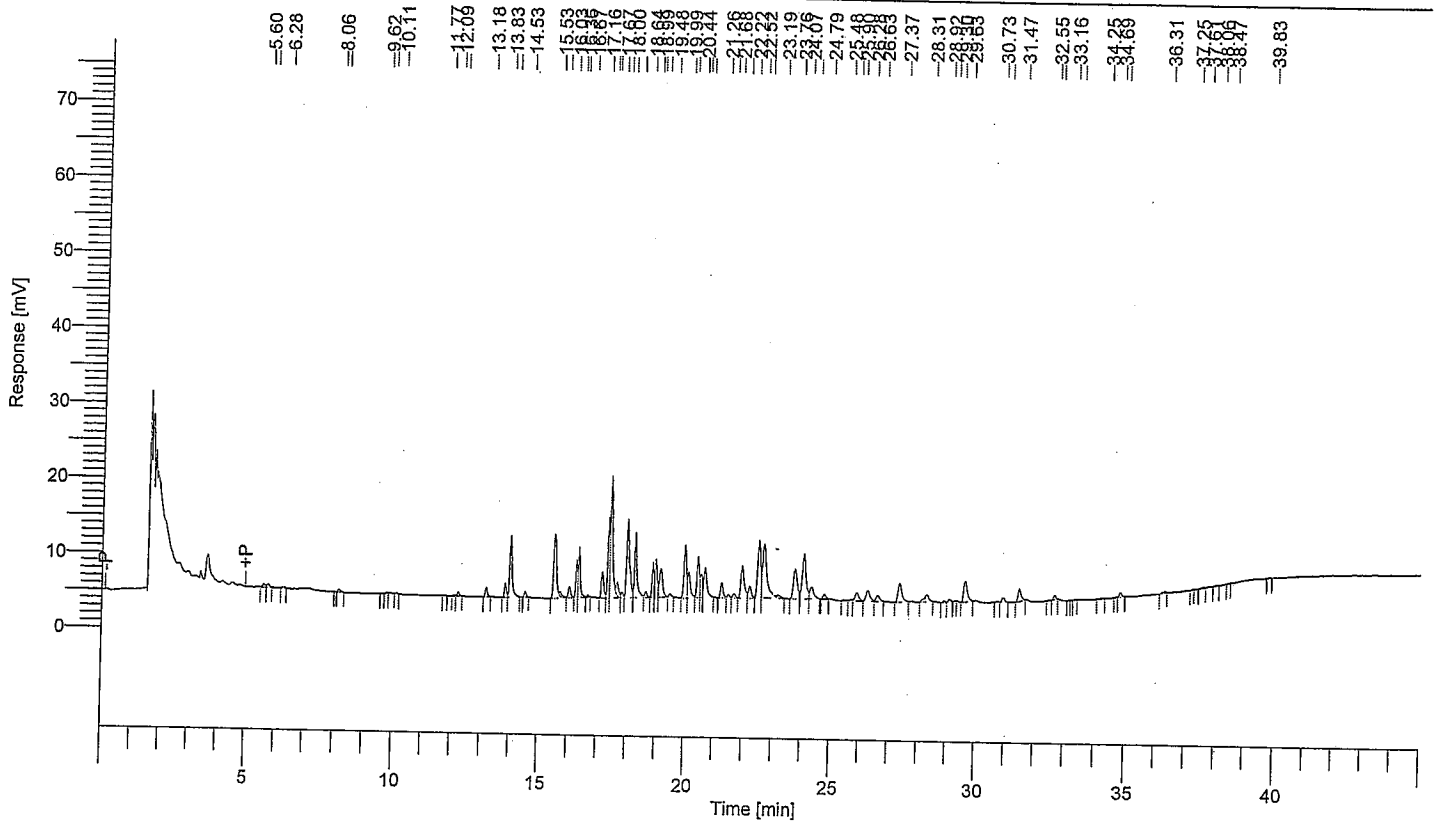
Time [min]	Area [μV-s]
20.12	11714
20.44	15768
20.55	8215
20.69	14722
21.26	6608
21.95	19102
22.22	5374
22.52	27489
22.69	35386
23.77	18468
24.07	26963
24.34	6062
24.79	3944
25.90	3113
26.29	5433
26.63	2792
27.38	9985
28.32	4218
29.63	10176
30.93	3071
31.48	4279
32.67	2424
34.83	3684

678350

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61953
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

Date : 10/12/2007 7:20:48 AM
 Data Acquisition Time : 10/9/2007 7:09:53 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
5.60	2887
5.76	2944
8.18	2385
12.23	2736
13.18	6274
13.83	8996
14.01	46283
14.53	3338
15.53	59684
15.73	3846
16.03	8211
16.28	19539
16.36	33400
17.16	21552
17.36	41196
17.44	98008
17.67	11092
17.83	4226
18.00	69954
18.28	53826
18.64	4213
18.88	21972
18.99	29232
19.15	27539
19.48	2345
19.99	42007
20.12	23182

$$\text{Calibration factor} = \frac{204393}{2\text{ng}} = 102196.5$$

$$\text{for } 226561110 \quad \begin{aligned} \text{area} &= 160750 \\ \text{CF} &= \frac{160750}{2} \\ &= 80378 \end{aligned}$$

Time [min]	Area [μ V-s]
20.44	32450
20.56	15627
20.69	29645
21.26	12783
21.49	2825
21.68	3486
21.95	35470
22.22	11507
22.52	55758
22.69	75442
23.19	2798
23.76	38555
24.07	54529
24.34	14287
24.79	3802
25.90	9736
26.28	13102
26.63	6994
27.37	23373
28.31	10211
29.63	23831
30.93	4233
31.47	12709
32.67	2921
34.83	3629

1150567

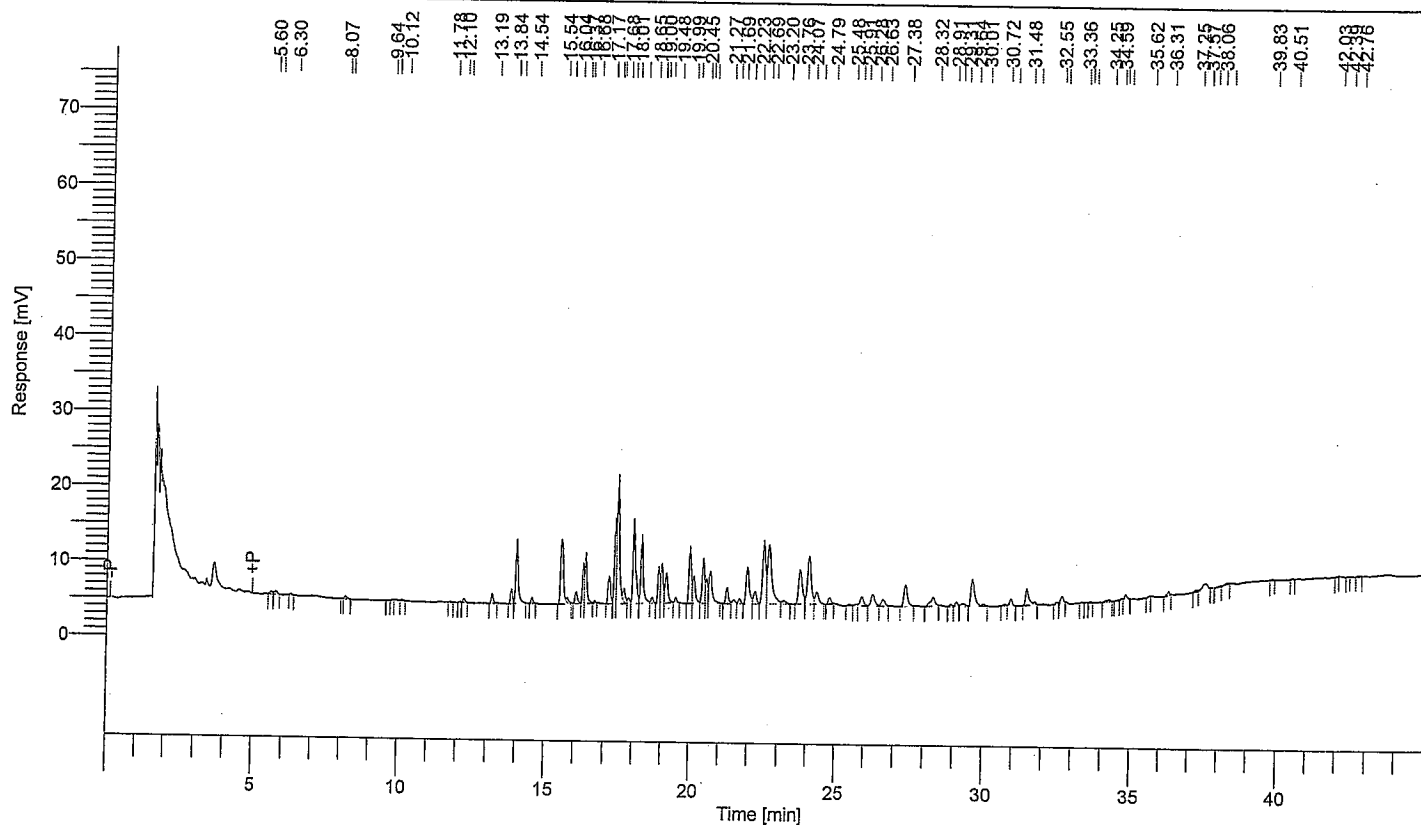
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61968
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/20
 Sample Amount : 1.000000
 Cycle : 20

Date : 10/12/2007 7:21:13 AM
 Data Acquisition Time : 10/10/2007 8:18:55 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb020.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2772
5.77	3035
8.19	2393
12.24	2540
13.19	6323
13.84	9158
14.02	46221
14.54	3581
15.54	60746
15.74	4002
16.04	8991
16.29	20781
16.37	34171
17.17	22495
17.37	44124
17.45	98946
17.68	10925
17.84	4026
18.01	72356
18.29	55331
18.65	4266
18.89	23381
19.00	30127
19.16	28651
19.48	3924
19.99	43410
20.13	23599

$$\sum \text{area} = 215426$$

$$\text{Calibration factor} = \frac{215426}{2} = 107713$$

Time [m/n]	Area [μ V·s]
20.45	33730
20.56	17121
20.69	31516
21.27	13592
21.50	3223
21.89	3993
21.96	37892
22.23	12021
22.52	61182
22.69	76951
23.20	4522
23.76	42592
24.07	58709
24.36	14070
24.79	5652
25.91	10499
26.28	14477
26.63	7636
27.38	25752
28.32	12408
29.11	3848
29.31	3973
29.64	30609
30.94	6437
31.48	18679
32.67	4847
34.25	2602
34.83	4186
36.31	3202
37.57	7843

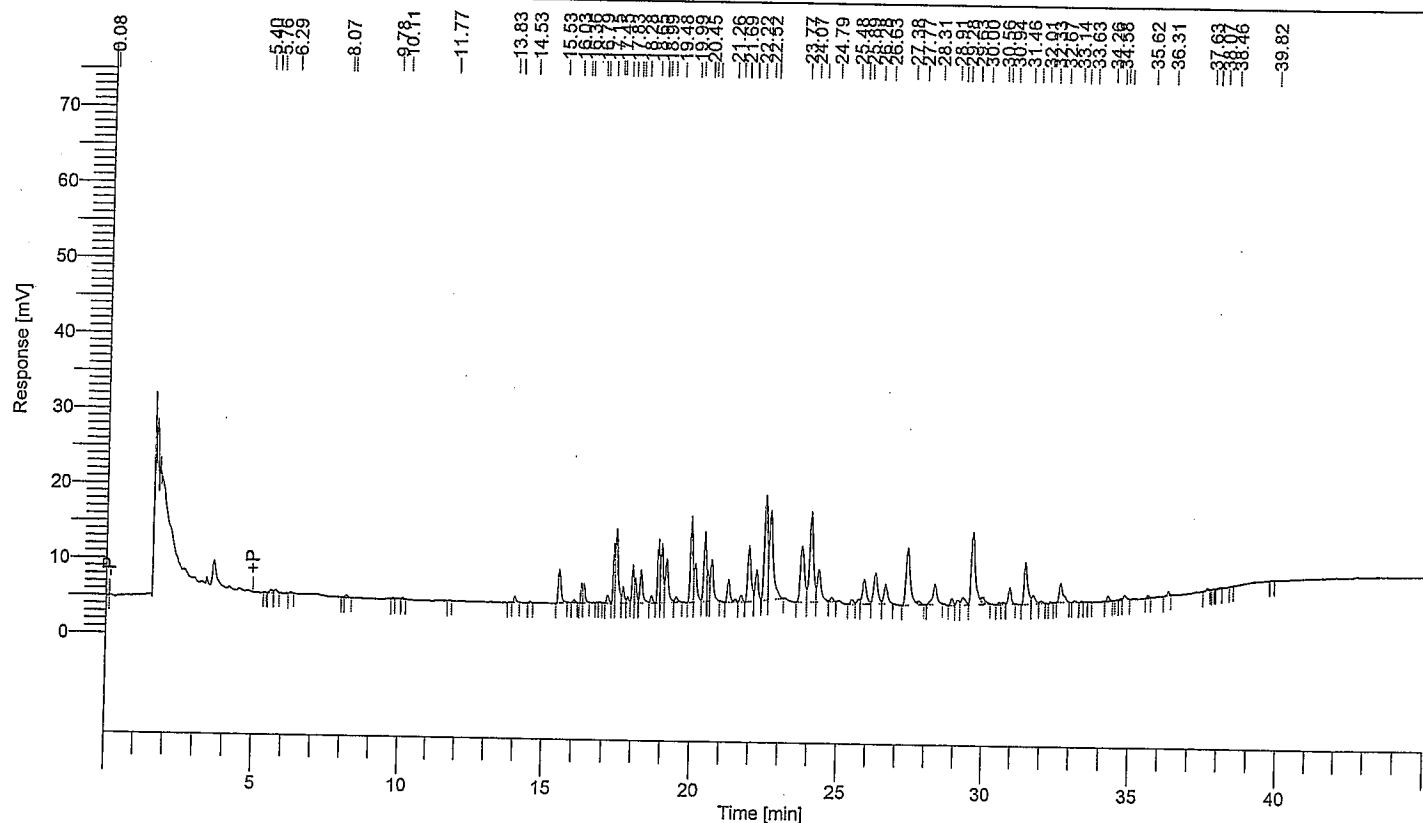
1244038

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61954
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 1.000000
 Cycle : 6

Date : 10/12/2007 7:20:50 AM
 Data Acquisition Time : 10/9/2007 8:02:32 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb006.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2807
5.76	2824
8.18	2233
14.02	4318
15.53	28889
16.28	10176
16.36	12496
17.15	5835
17.36	30739
17.45	58266
17.67	12121
17.83	4176
18.00	23244
18.09	17106
18.28	27322
18.65	4645
18.88	40822
18.99	46598
19.16	43263
19.48	5118
19.99	66548
20.12	33704
20.45	56444
20.55	19455
20.69	37362
21.26	19567
21.49	2135

Time [min]	Area [μV·s]
21.69	5523
21.95	59193
22.22	29965
22.52	100915
22.69	115592
23.77	74329
24.07	113083
24.35	41929
24.79	3838
25.48	4804
25.74	4444
25.89	30829
26.28	39381
26.63	23268
27.38	77800
27.77	3236
28.31	26036
28.91	6046
29.12	4700
29.28	10065
29.63	91692
30.00	7685
30.94	15747
31.46	49880
31.73	9658
32.01	2277
32.67	20856
34.26	3876
34.83	4134
36.31	2907

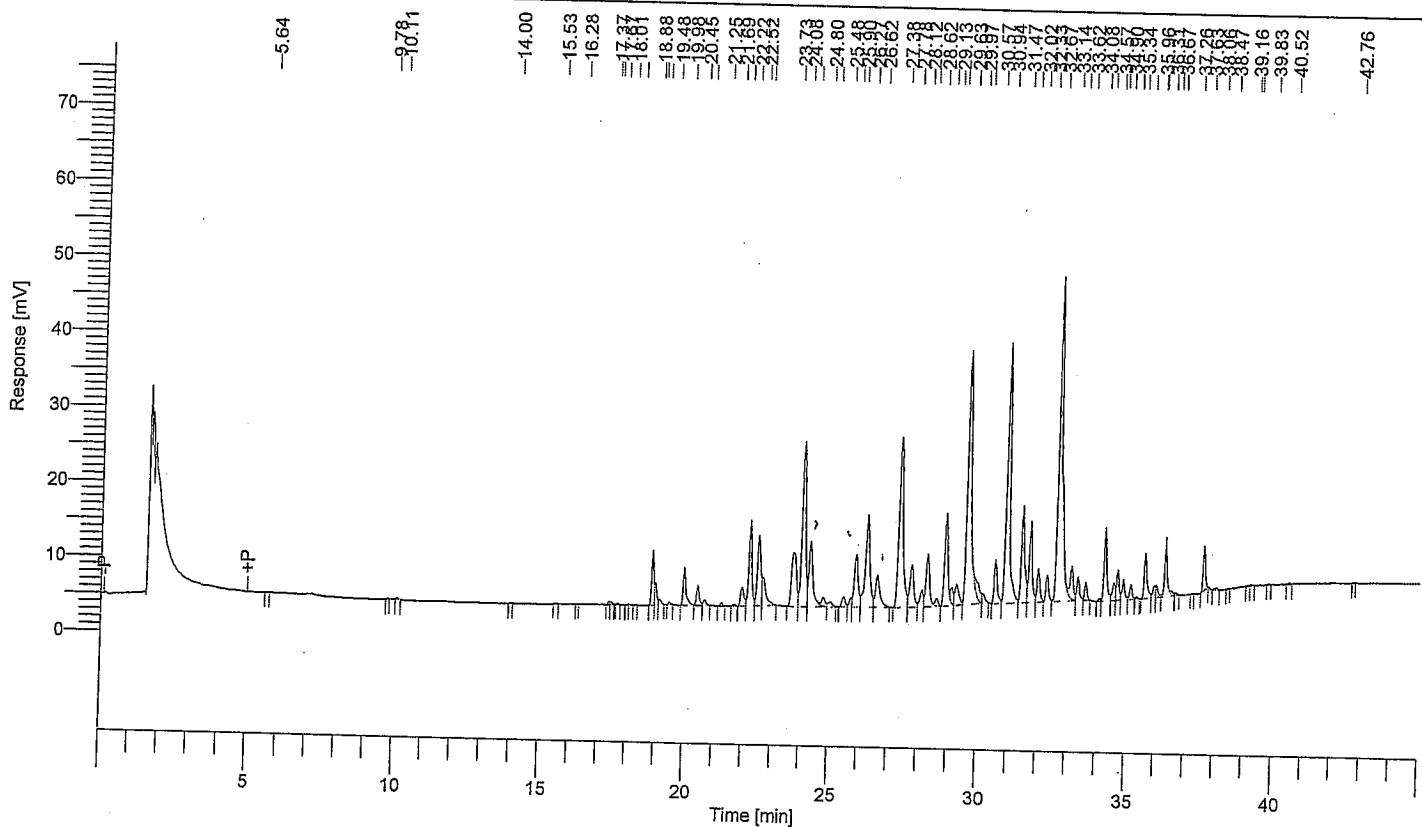
1601902

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61955
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

Date : 10/12/2007 7:20:52 AM

Data Acquisition Time : 10/9/2007 8:55:11 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.88	37956
18.99	16172
19.14	4463
19.98	35101
20.45	16827
20.69	4970
21.25	2247
21.95	20547
22.22	82450
22.52	79048
22.67	34194
23.73	87846
24.08	198180
24.35	88289
24.80	11078
25.02	6079
25.48	10901
25.74	7391
25.90	65123
26.27	126582
26.62	46305
27.38	233624
27.78	53317
28.12	17865
28.31	60733
28.62	7053
28.91	98093

$$\sum \text{area} = 111428$$

$$\text{Calibration factor} = \frac{111428}{2} = 55714$$

For 22656 1:10: $\sum \text{area} = 199717$
 & 22659 1:10

$$\text{Calibration factor} = \frac{199717}{2} = 99858.5$$

Time [min]	Area [μV-s]
29.13	13756
29.28	26411
29.63	320331
29.97	23577
30.14	8588
30.57	41318
30.94	285621
31.47	108083
31.74	79265
32.02	30519
32.33	22212
32.67	393565
33.14	33261
33.36	21075
33.62	13026
34.26	66798
34.57	14843
34.69	24852
34.90	18829
35.15	11387
35.62	42336
35.96	8854
36.00	8395
36.31	48032
36.52	3343
37.63	31077
38.06	2163

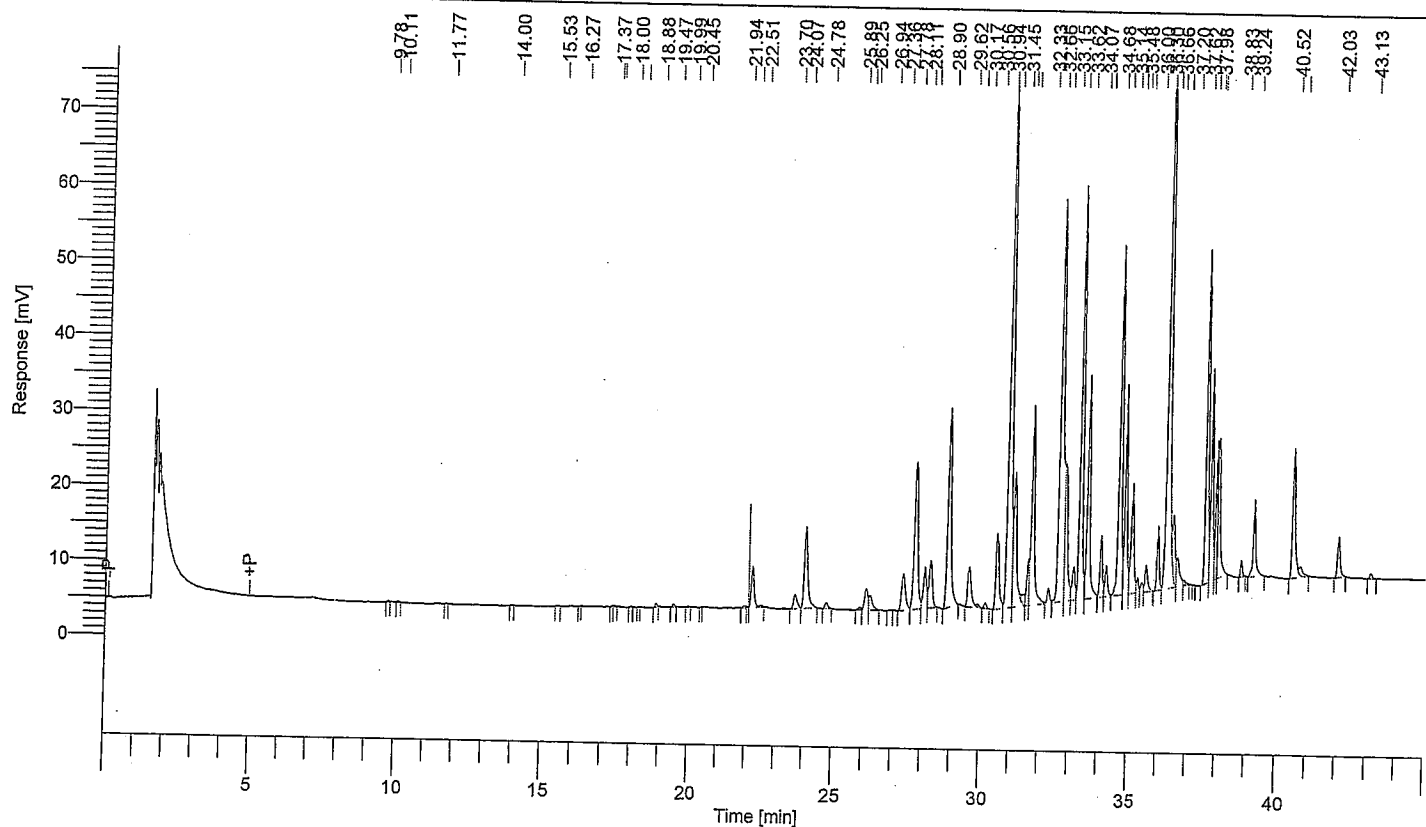
3153947

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61956
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 1.000000
 Cycle : 8

Date : 10/12/2007 7:20:54 AM

Data Acquisition Time : 10/9/2007 9:47:46 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.88	2172
22.22	38043
23.70	17851
24.07	90492
24.78	5409
25.89	2398
26.12	22348
26.25	16113
27.36	45106
27.78	174036
28.11	42568
28.29	49512
28.90	214776
29.62	44575
29.88	2735
30.17	4324
30.56	72230
30.94	526509
31.14	147090
31.45	11203
31.61	31163
31.73	195223
32.33	11747
32.66	428451
32.84	129713
33.15	30788
33.36	335438

$$\sum \text{area} = 311222$$

$$\text{CF} = \frac{311222}{2 \text{ ng}} = 155611$$

used for spike.

$$\sum \text{area} = 590320$$

$$\text{CF} = \frac{590320}{2 \text{ ng}} = 295160$$

CF = Calibration Factor.

Time [min]	Area [μV-s]
33.62	190786
34.07	46661
34.25	25462
34.68	282285
34.89	166595
35.14	102420
35.33	11338
35.48	6824
35.60	23939
36.00	44023
36.30	608571
36.51	55628
36.66	31365
36.89	4140
37.62	255819
37.80	155988
37.98	74801
38.04	103712
38.83	9465
39.24	63186
40.52	110994
40.77	11668
42.03	33467
43.13	4286

5115433

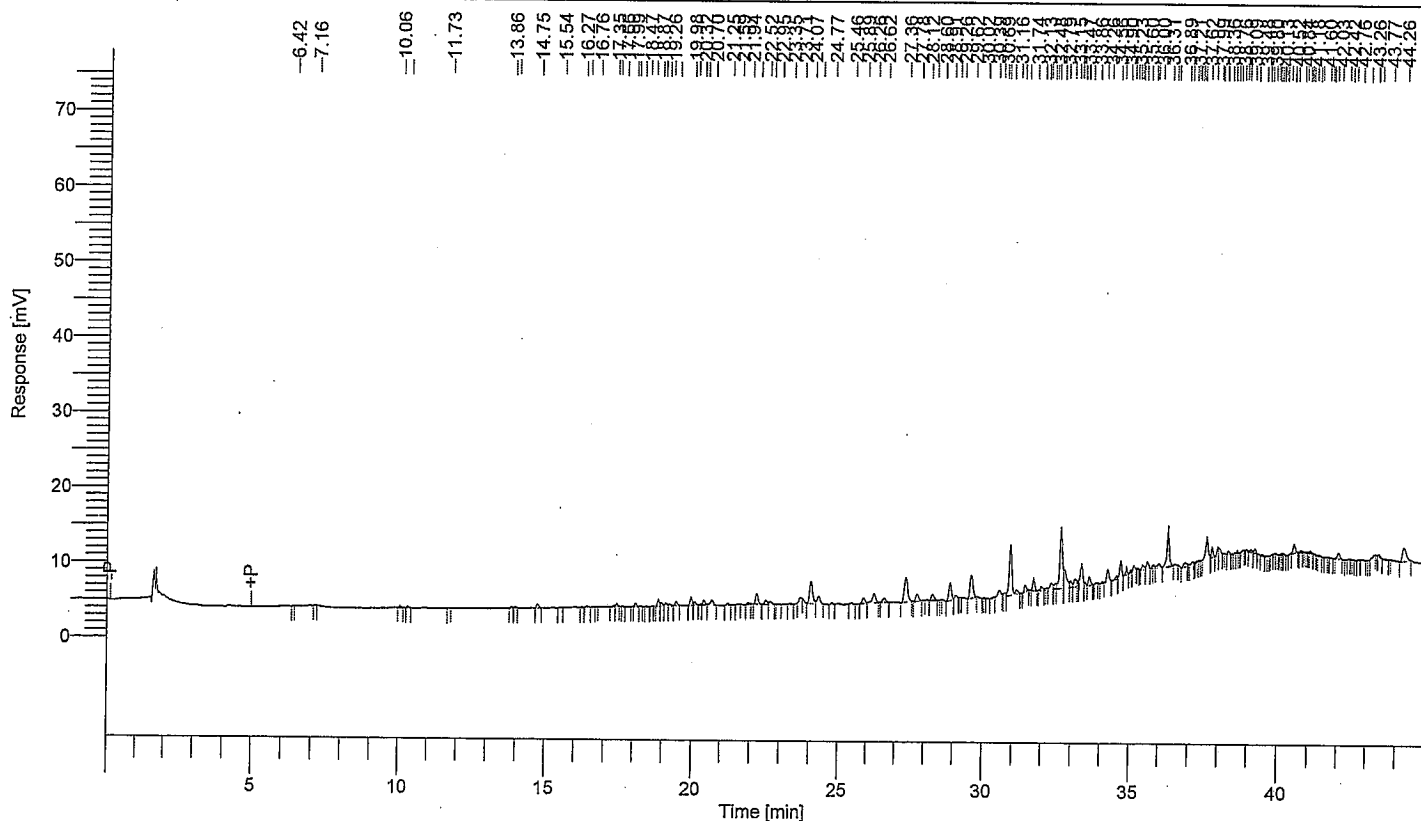
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61961
 Sample Name : 22653 1:10
 Instrument Name : GC014
 Rack/Vial : 0/13
 Sample Amount : 50.000000
 Cycle : 13

Date : 10/12/2007 7:21:02 AM
 Data Acquisition Time : 10/10/2007 2:10:33 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb013.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



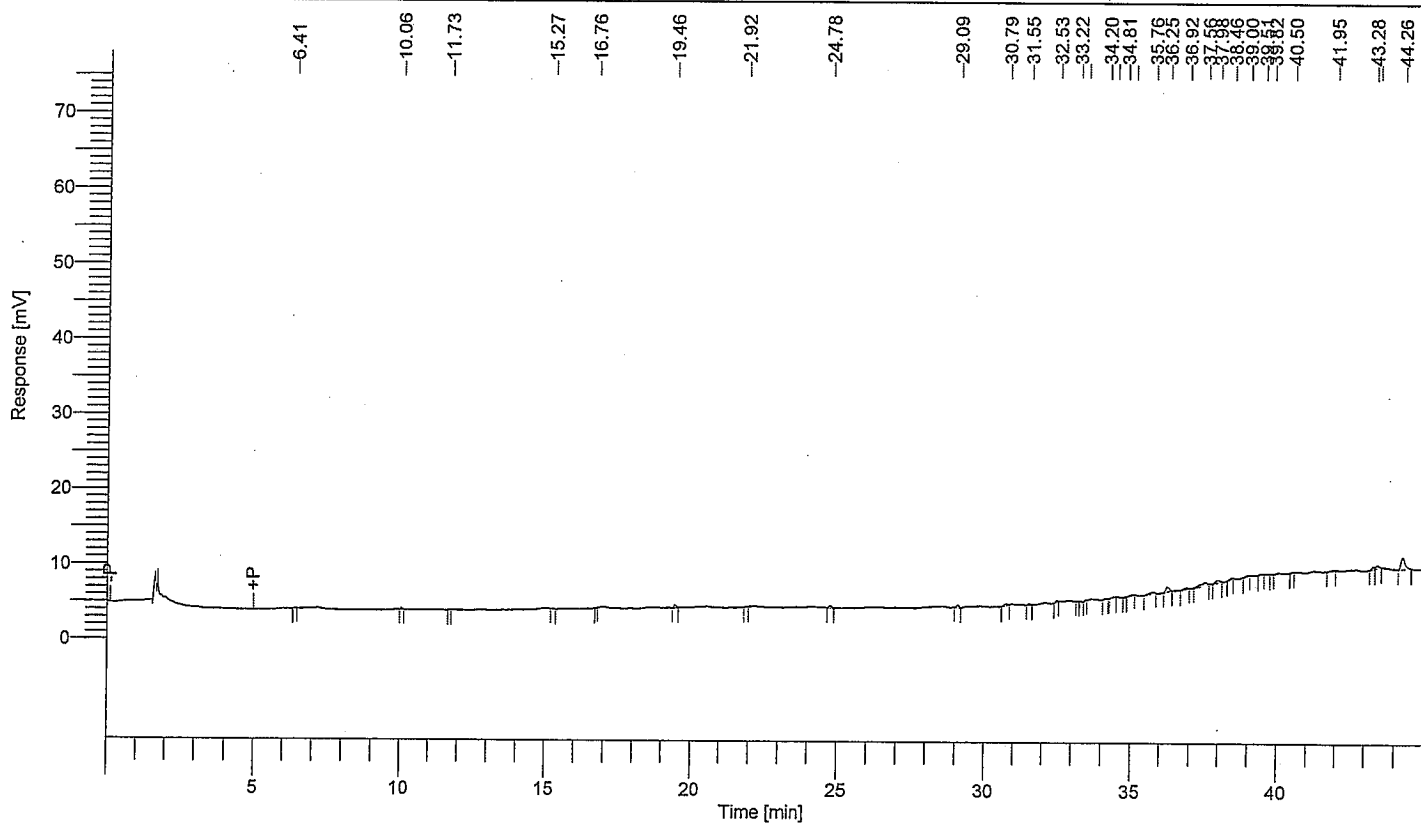
Time [min]	Area [μ V-s]
31.16	3500
31.45	4929
31.74	8777
32.00	3196
32.33	4645
32.48	3510
32.66	52476
32.79	17497
32.99	4413
33.15	7202
33.24	2135
33.36	18399
33.47	2293
33.63	6218
34.26	9433
34.56	2261
34.69	11101
34.90	4840
35.15	2696
35.45	3085
35.60	5053
36.00	3303
36.31	29858
36.89	4115
37.62	18423
37.81	6359
37.99	3793
38.03	4458
38.36	2368
39.22	3035
40.52	6110
42.03	4600
44.26	16146

508318

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61962
 Sample Name : 22654 1:10
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 50.000000
 Cycle : 14

Date : 10/12/2007 7:21:04 AM
 Data Acquisition Time : 10/10/2007 3:03:05 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb014.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
29.09	2028
35.76	3466
36.25	5159
37.56	6909
37.98	3041
43.28	2084
43.41	3063
44.26	14967

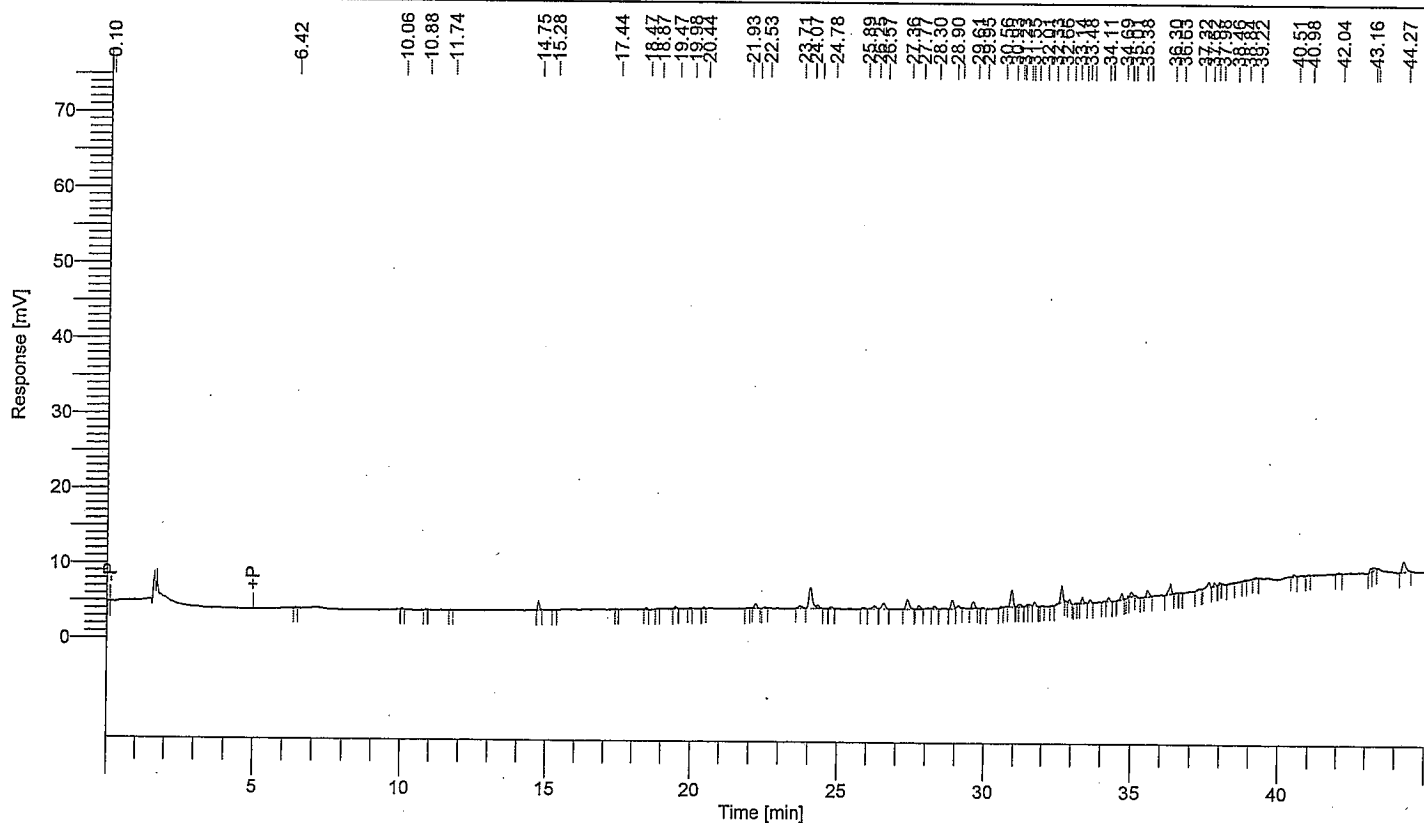
40717

0.4 ppm

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61963
 Sample Name : 22655 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

Date : 10/12/2007 7:21:05 AM
 Data Acquisition Time : 10/10/2007 3:55:39 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb015.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.75	4699
22.21	3627
23.71	3235
24.07	23030
24.33	2637
26.25	3870
26.57	6885
27.36	10545
27.77	3001
28.30	2494
28.90	7477
29.11	2316
29.61	5279
30.93	13979
31.23	2172
31.55	2263
31.74	3646
32.66	11582
32.93	2223
33.36	3775
33.63	2060
34.25	3136
34.69	4380
35.01	3316
35.54	5445
36.30	8243
37.62	4922

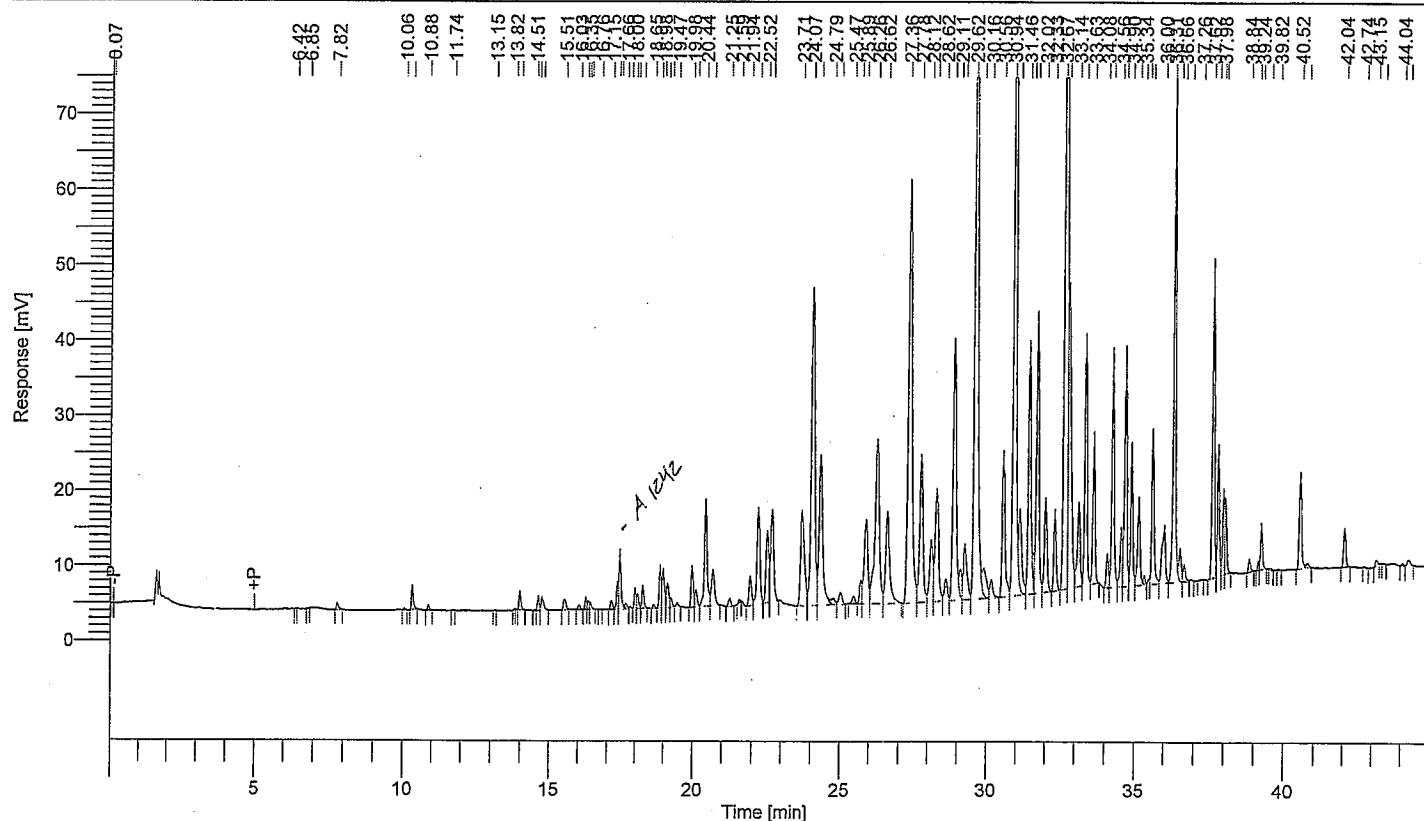
0.4 ppm

Time [min]	Area [μ V-s]
37.81	2076
43.16	2427
43.26	2428
44.27	11478
<hr/>	
168645	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61965
 Sample Name : 22656 1:10
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 50.000000
 Cycle : 17

Date : 10/12/2007 7:21:08 AM
 Data Acquisition Time : 10/10/2007 5:40:52 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb017.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
7.82	4765
10.34	14880
10.88	3051
14.00	11348
14.62	8136
14.75	10485
15.51	9016
16.03	3228
16.27	6335
16.35	4779
16.42	4277
17.15	6565
17.35	14056
17.44	41517
17.66	4143
18.00	11666
18.09	9658
18.27	14525
18.65	2523
18.87	26281
18.98	29411
19.13	19594
19.25	6724
19.47	2741
19.98	29934
20.12	12516
20.44	92308

$$\sum \text{area (Aroclor 1254)} = 401108$$

$$\text{ng inj} = \frac{401108}{99858.5} = 4.0168$$

$$\text{ppm} = \frac{4.0168}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 1.6067$$

$$\sum \text{area (Aroclor 1260)} = 384632 \quad \text{ng inj} = \frac{384632}{295160} = 1.3031$$

$$\text{ppm} = \frac{1.3031}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.5213$$

$$\sum \text{area (Aroclor 1242)} = 62138 \quad \text{ng inj} = \frac{62138}{80378} = 0.7731$$

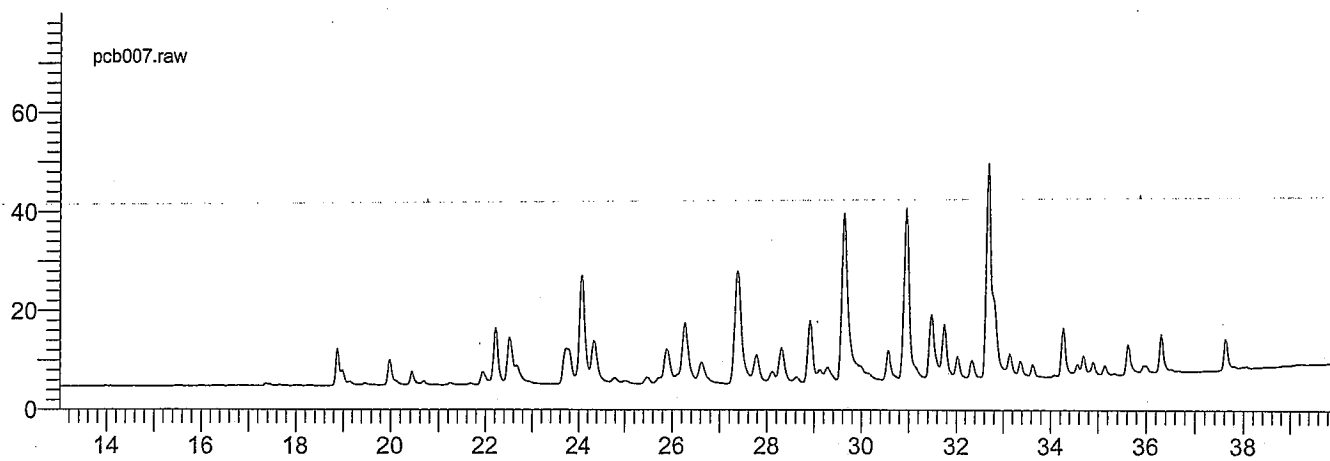
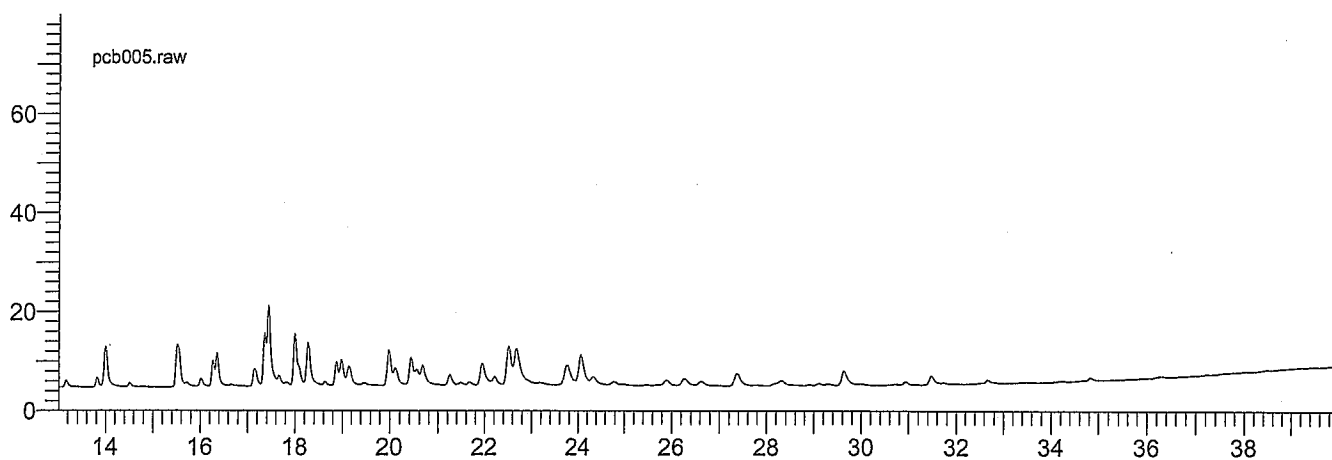
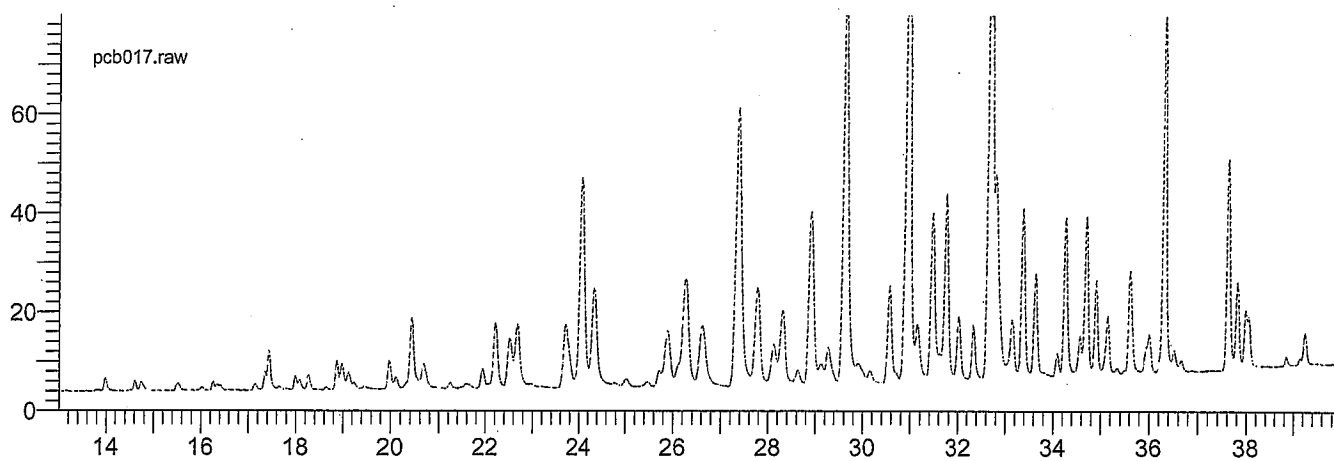
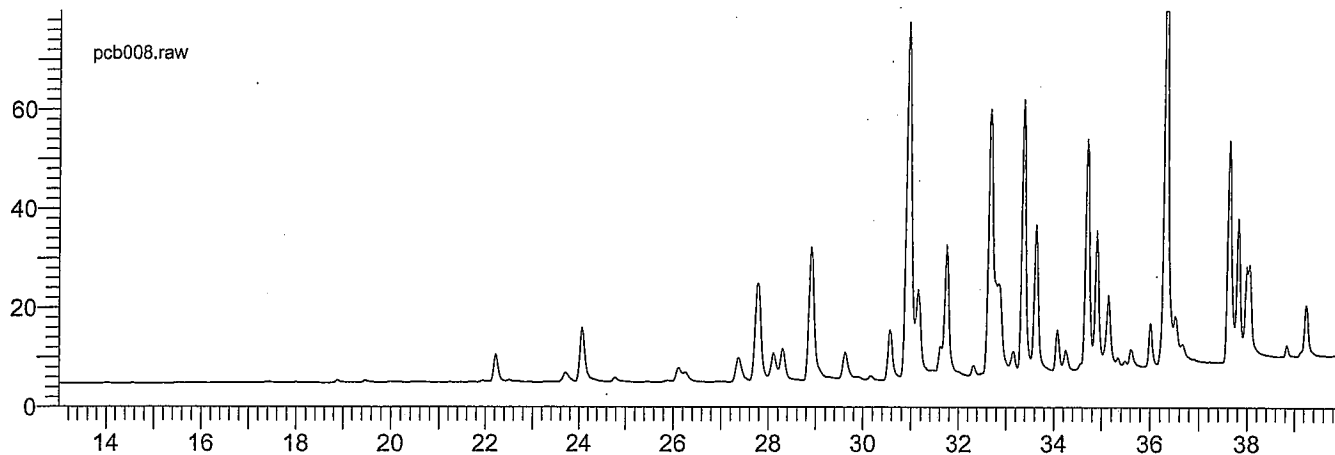
$$\text{ppm} = \frac{0.7731}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.3092$$

$$\text{total PCB} = 2.4372 \text{ ppm}$$

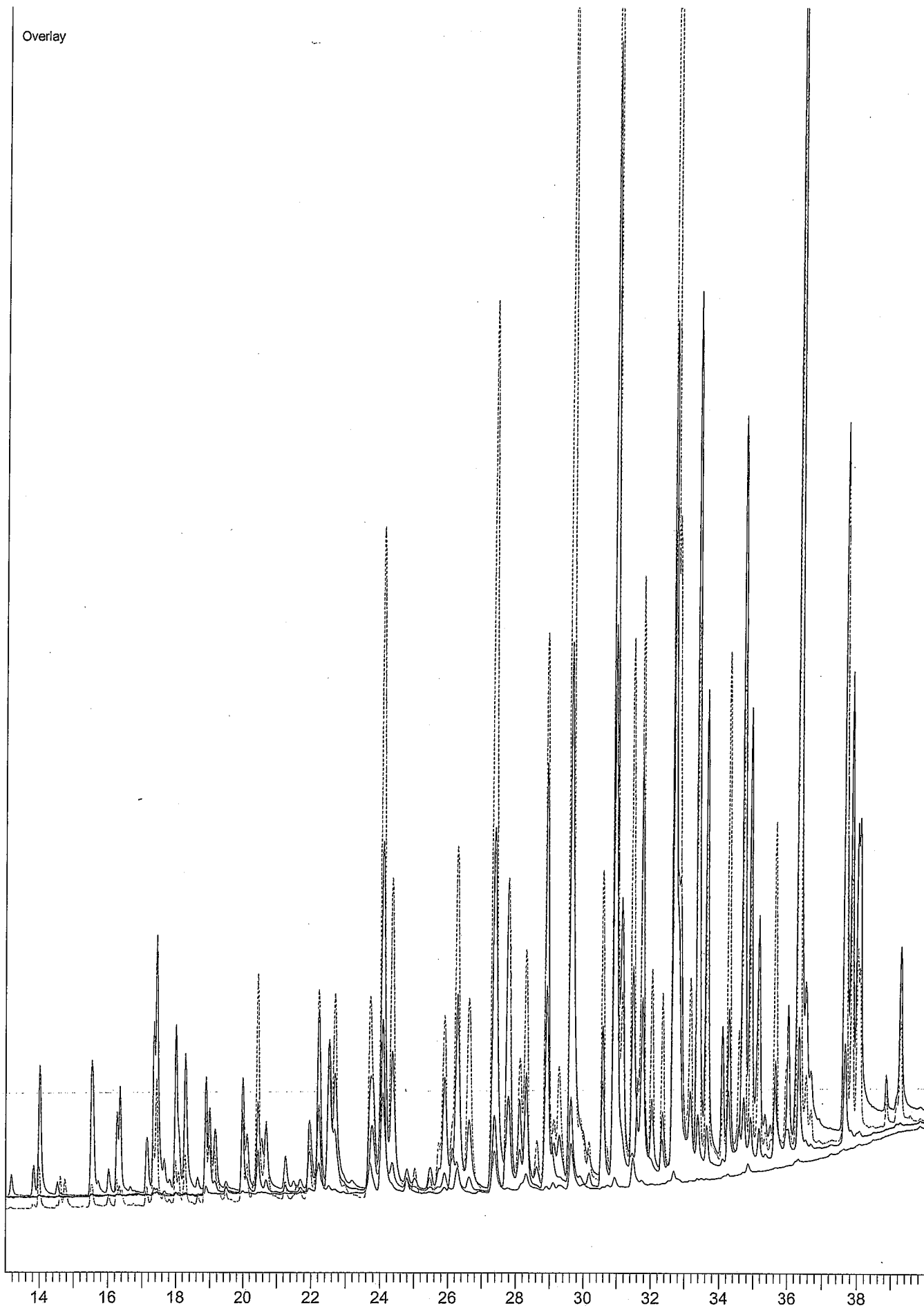
Time [min]	Area [μ V·s]
20.69	36774
21.25	6226
21.94	23653
22.22	89715
22.52	68852
22.69	89170
23.71	118184
24.07	343398
24.34	178694
24.79	8485
25.03	12587
25.47	6692
25.72	17702
25.89	97642
26.26	223939
26.62	124772
27.36	495732
27.78	163321
28.12	65897
28.30	122125
28.62	21908
28.90	269930
29.11	22036
29.27	64360
29.62	637445
29.90	40633
30.16	17934
30.56	127587
30.94	810250
31.14	69541
31.46	227706
31.61	16834
31.74	225277
32.02	76923
32.33	58964
32.67	806735
32.79	277488
33.14	76026
33.36	182863
33.63	99317
34.08	22647
34.26	174411
34.56	41781
34.69	169057
34.90	96598
35.14	68724
35.34	5680
35.49	2565
35.61	117984
36.00	59026
36.31	382043
36.52	24780
36.66	13709
37.62	210190
37.81	83840
37.98	48881
38.05	41721
38.84	8348
39.14	4331
39.24	31595
40.52	68591
40.79	4495
42.04	29029
43.15	3836
44.26	4907

8546550

Plot Title	Start Time	End Time	Scale	Offset
pcb008.raw Sample Name : AROCHLOR 1260 Sample Number: 08 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	40.00	80.00	0.00
pcb017.raw Sample Name : 22656 1:10 Sample Number: 17 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	40.00	80.00	0.00
pcb005.raw Sample Name : AROCHLOR 1242 Sample Number: 05 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	40.00	80.00	0.00
pcb007.raw Sample Name : AROCHLOR 1254 Sample Number: 07 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	40.00	80.00	0.00



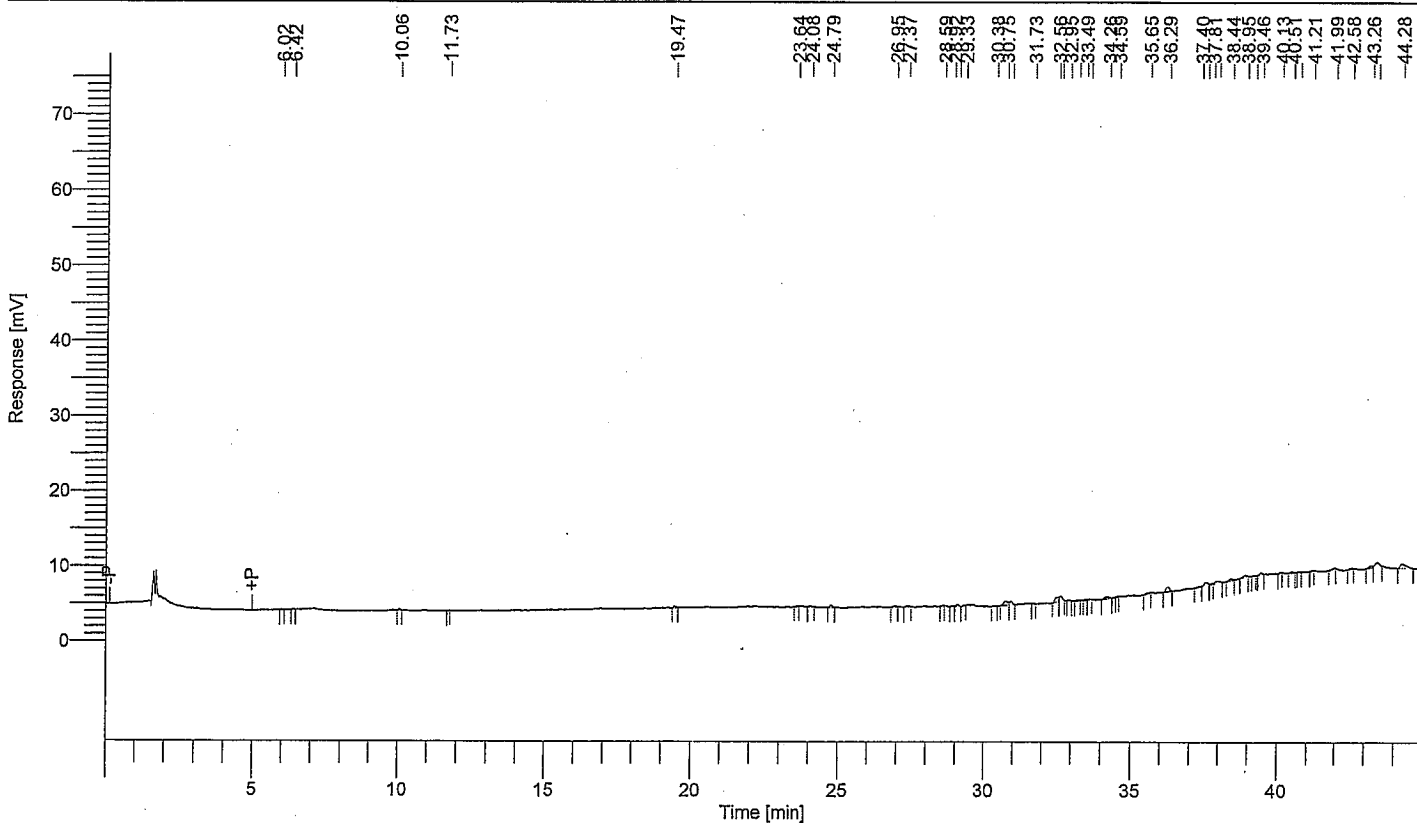
Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61966
 Sample Name : 22657 1:10
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 50.000000
 Cycle : 18

Date : 10/12/2007 7:21:10 AM
 Data Acquisition Time : 10/10/2007 6:33:33 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb018.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
29.09	2071
30.75	5693
30.94	3488
32.56	4905
32.67	4249
34.26	2995
36.29	5423
37.60	3763
37.99	3632
38.44	2018
38.95	2024
43.26	2311
43.45	5360
44.28	8302

LO.4 ppm

56235

Software Version : 6.3.1.0504
 Sample Name : 22658 1:10
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

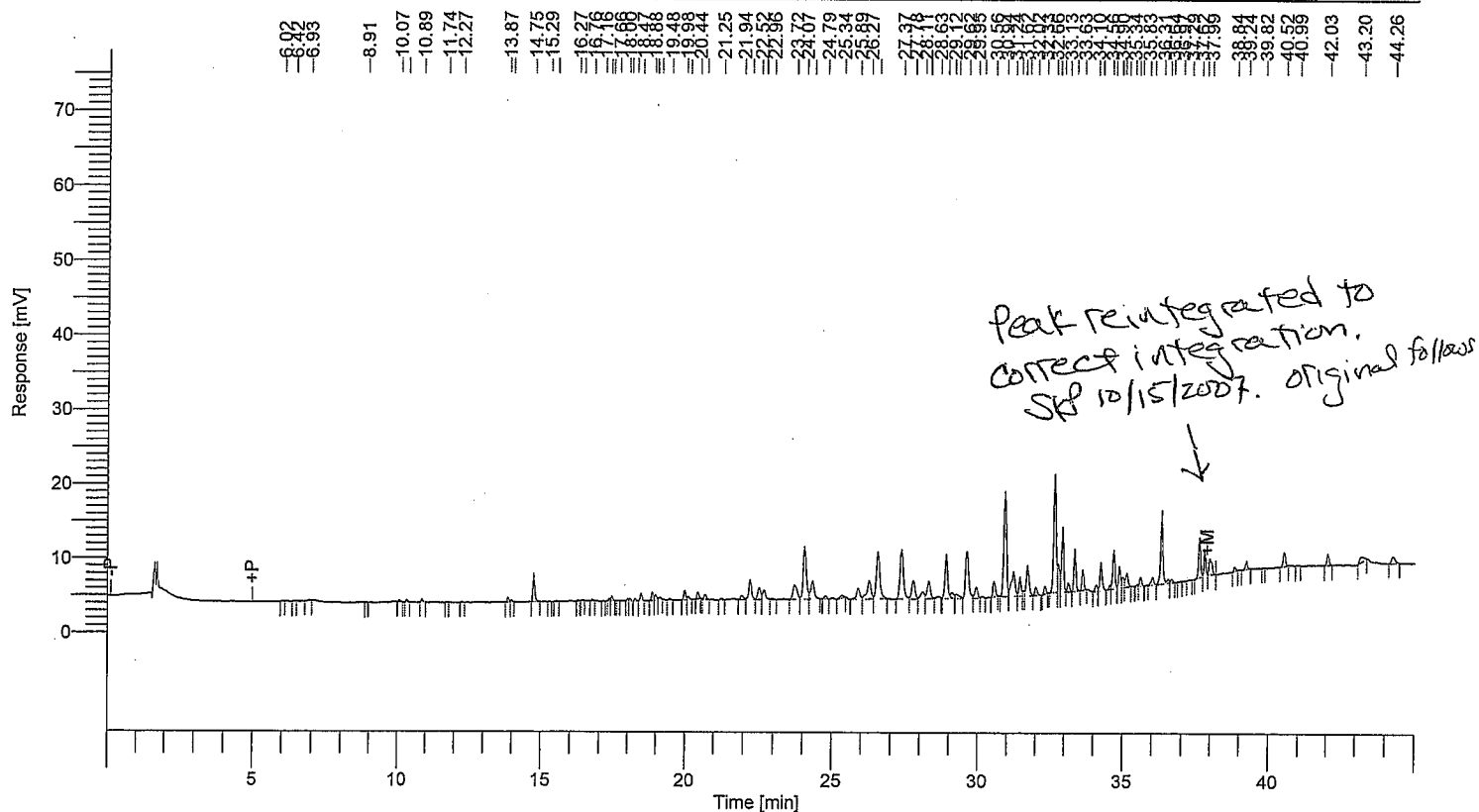
Date : 10/12/2007 1:43:04 PM
 Data Acquisition Time : 10/10/2007 10:04:29 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb022-20071012-134254.rst

Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
13.87	2664
14.75	17188
17.44	2649
18.47	4647
18.88	4959
18.98	3660
19.98	6348
20.12	2225
20.44	4384
20.69	3660
21.94	3714
22.22	18731
22.52	12146
22.69	9196
23.72	20437
24.07	54656
24.34	20947
24.79	2620
25.34	2763
25.89	13278
26.27	23596
26.56	55273
27.37	58389
27.78	19216
28.11	9018
28.30	17722
28.63	2820
28.90	41984
29.12	5269

$$\text{Area (Aroclor 1260)} = 55394$$

$$\text{ng min} = \frac{55394}{295160}$$

$$= 0.1877$$

$$\text{ppm} = \frac{0.1877}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0751$$

< 0.4 ppm

BDL

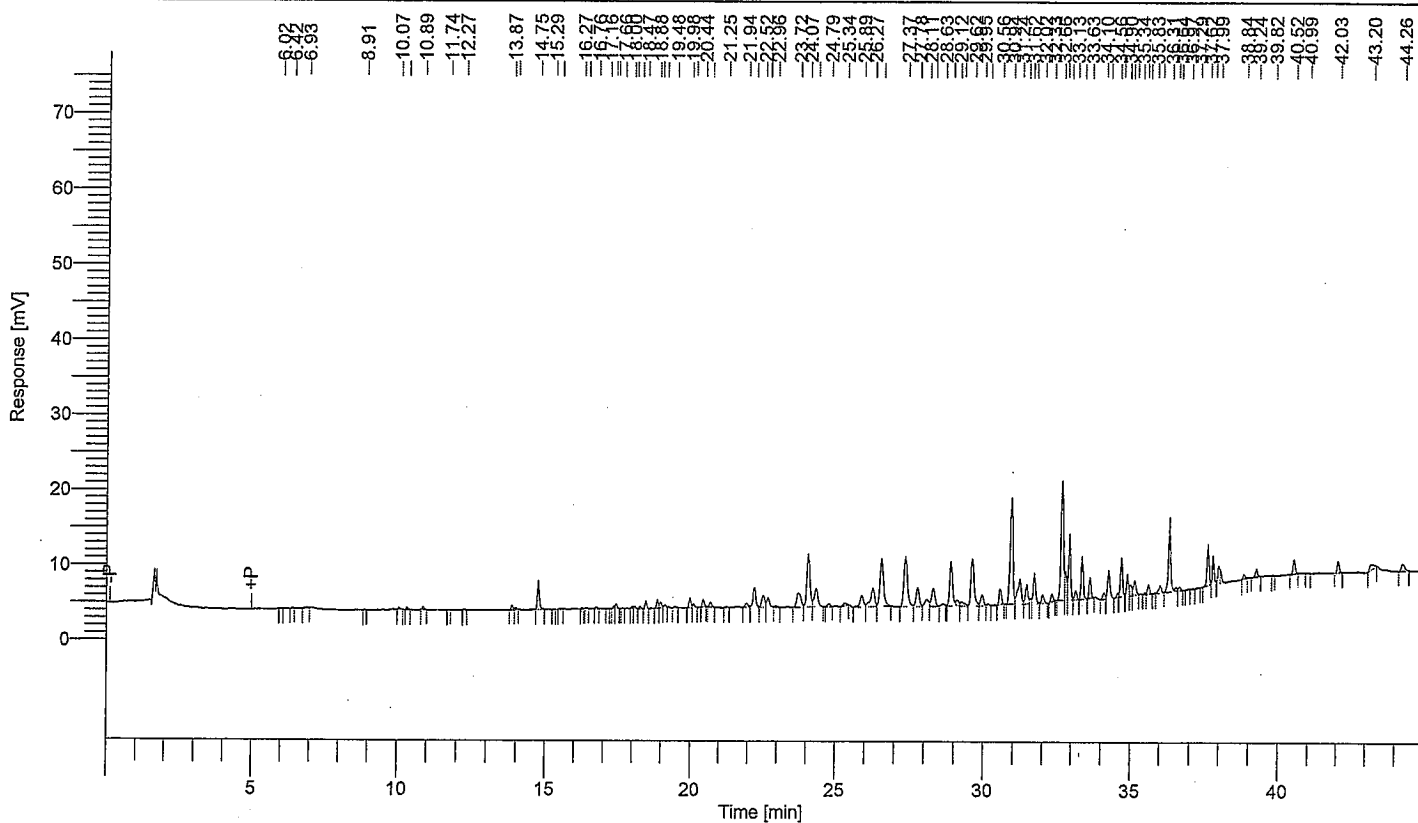
Time [min]	Area [μ V·s]
29.27	5779
29.62	48222
29.95	10742
30.56	12146
30.94	93974
31.24	30014
31.46	16247
31.62	3021
31.74	24650
32.02	6976
32.33	5365
32.66	95922
32.79	18941
32.94	48914
33.13	6581
33.36	28062
33.63	13534
34.10	4841
34.25	20692
34.56	2401
34.69	28699
34.90	14154
35.00	7193
35.14	12107
35.61	6358
36.01	5971
36.31	52477
36.53	2763
36.64	2719
37.62	25663
37.81	14865
37.99	14866
38.84	2639
39.24	5886
40.52	9808
42.03	8187
43.20	6871
44.26	7393

1169805

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61970
 Sample Name : 22658 1:10
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

Date : 10/12/2007 7:21:15 AM
 Data Acquisition Time : 10/10/2007 10:04:29 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb022.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

$\Sigma \text{area} =$

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
13.87	2664
14.75	17188
17.44	2649
18.47	4647
18.88	4959
18.98	3660
19.98	6348
20.12	2225
20.44	4384
20.69	3660
21.94	3714
22.22	18731
22.52	12146
22.69	9196
23.72	20437
24.07	54656
24.34	20947
24.79	2620
25.34	2763
25.89	13278
26.27	23596
26.56	55273
27.37	58389
27.78	19216
28.11	9018
28.30	17722
28.63	2820

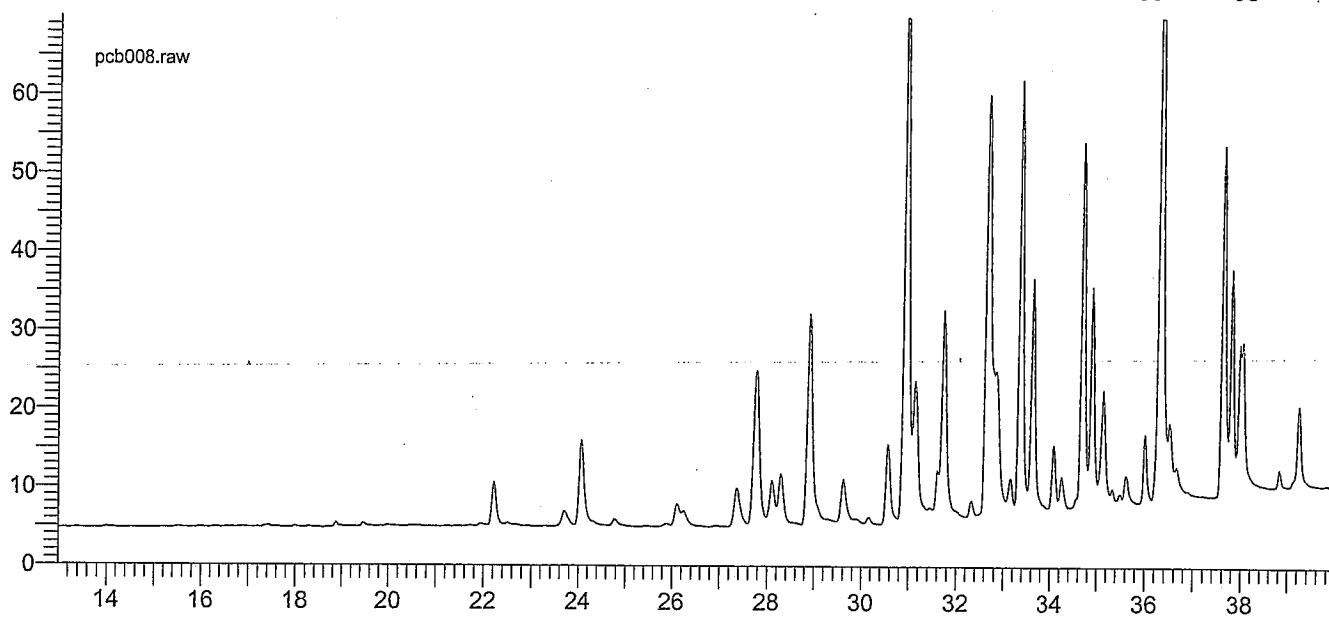
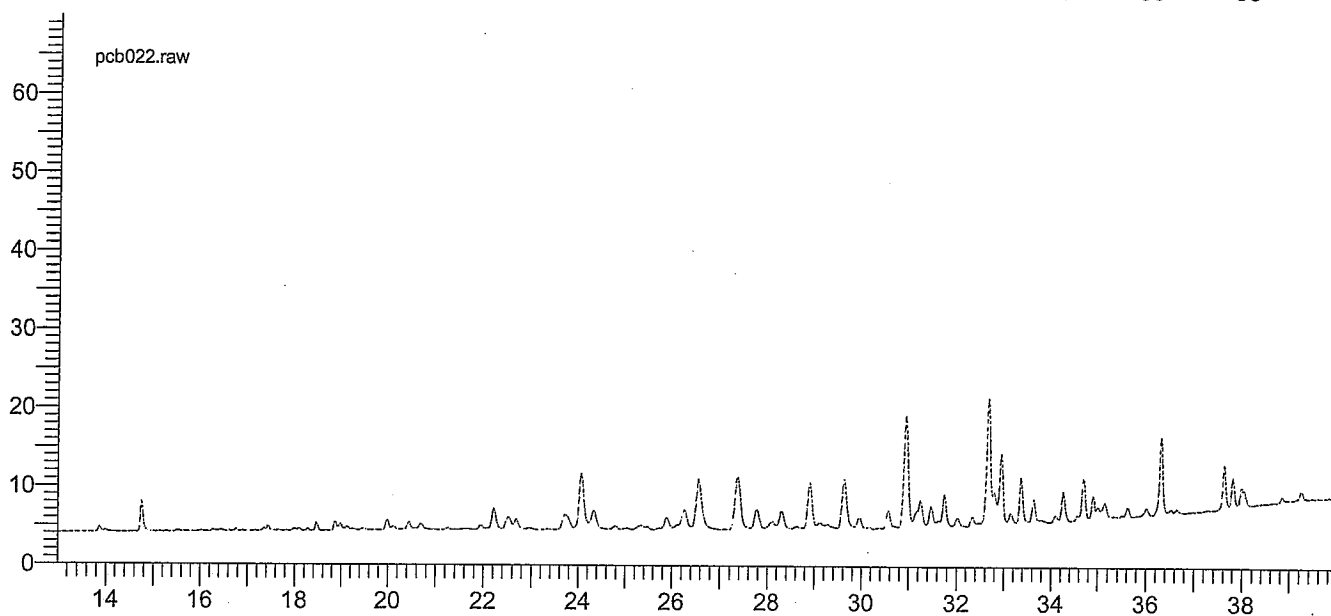
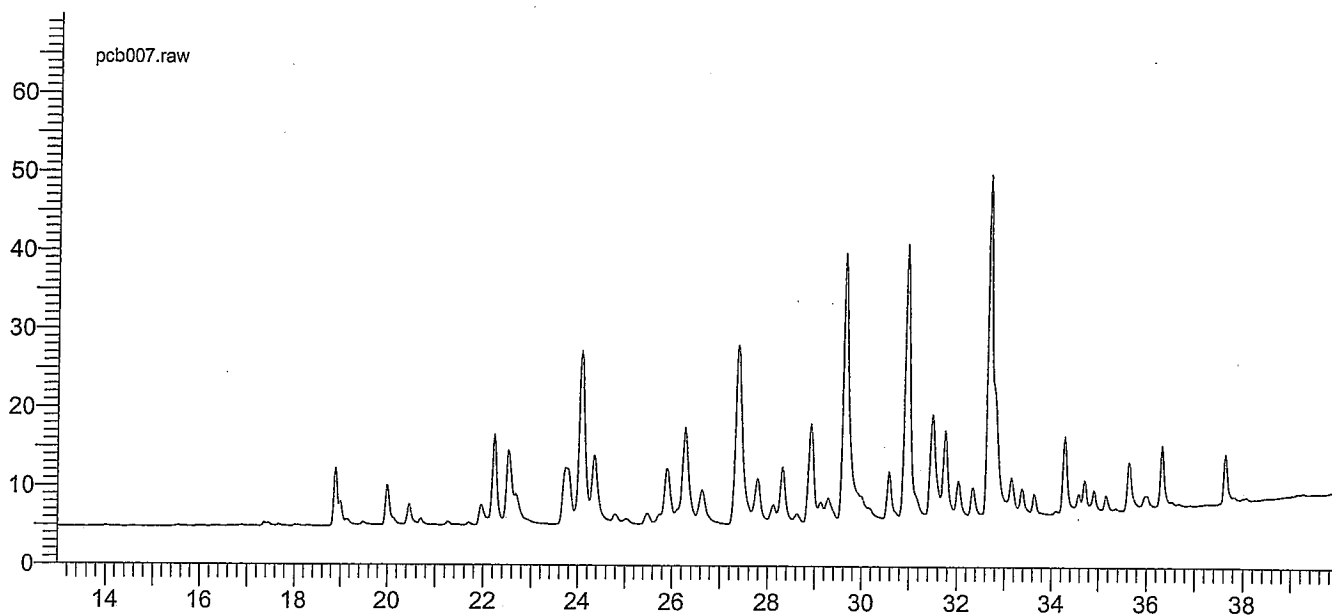
Time [min]	Area [μV·s]
28.90	41984
29.12	5269
29.27	5779
29.62	48222
29.95	10742
30.56	12146
30.94	93974
31.24	30014
31.46	16247
31.62	3021
31.74	24650
32.02	6976
32.33	5365
32.66	95922
32.79	18941
32.94	48914
33.13	6581
33.36	28062
33.63	13534
34.10	4841
34.25	20692
34.56	2401
34.69	28699
34.90	14154
35.00	7193
35.14	12107
35.61	6358
36.01	5971
36.31	52477
36.53	2763
36.64	2719
37.62	25663
37.81	14866
37.99	3559
38.84	2639
39.24	5886
40.52	9808
42.03	8187
43.20	6871
44.26	7393

1158499

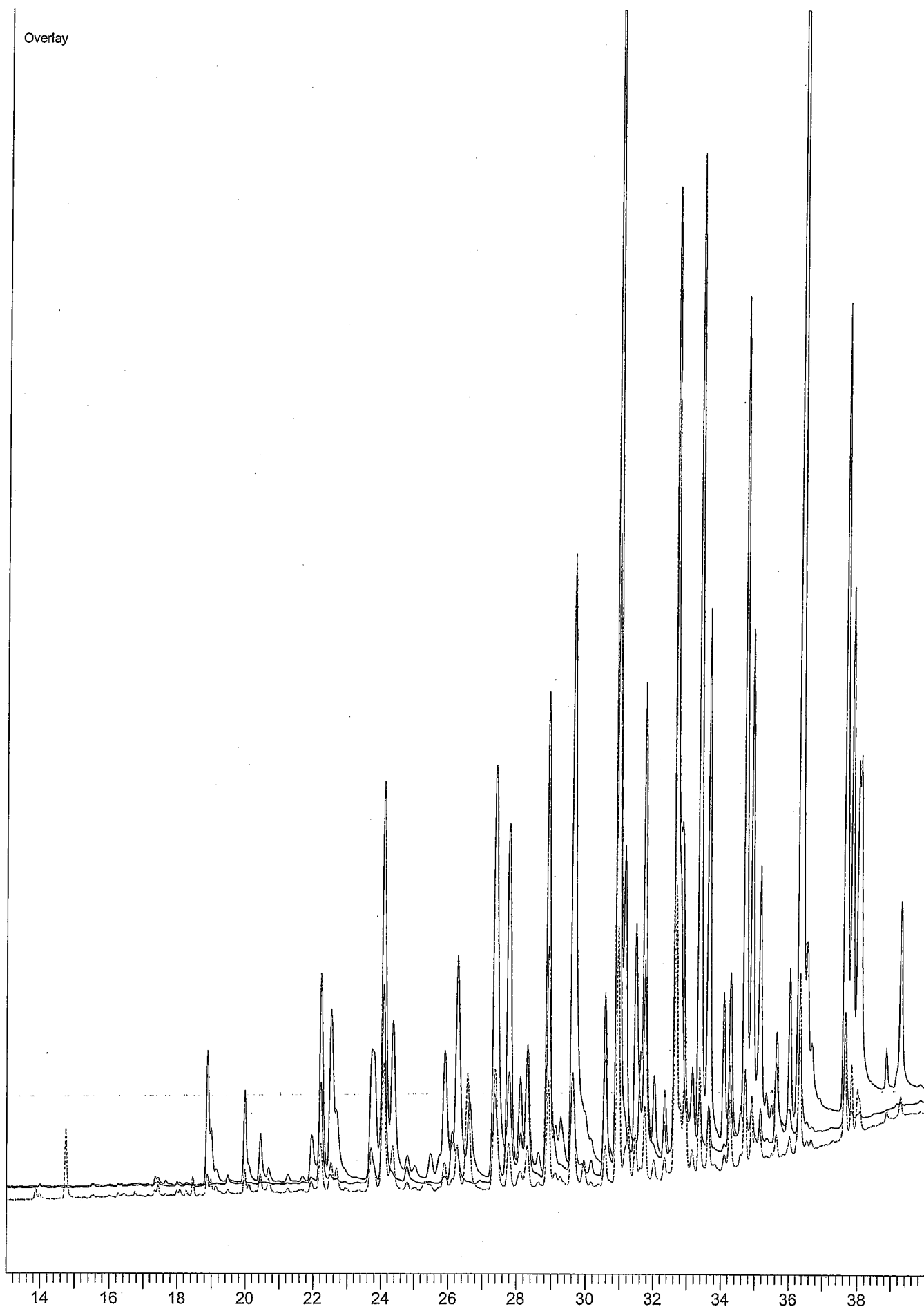
Plot Title

Start Time End Time Scale Offset

pcb007.raw		13.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
pcb022.raw		13.00	40.00	70.00	0.00
Sample Name :	22658 1:10				
Sample Number:	22				
Instrument File Name:	c:\pest\gc14\methods\pcb				
pcb008.raw		13.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				



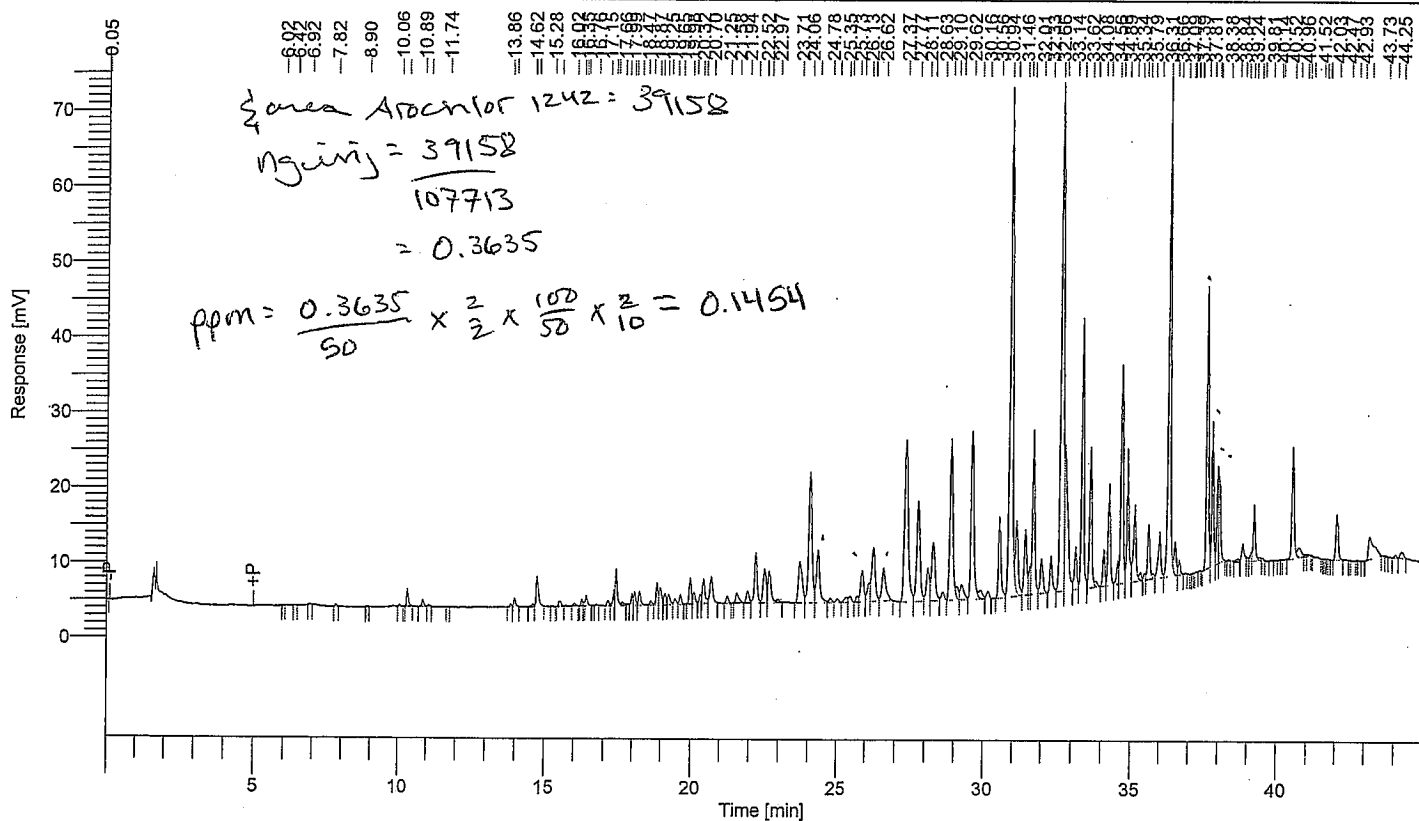
Overlay



Software Version : 6.3 1.0504
 Reprocess Number : totalchrom: 61972
 Sample Name : 22659 1:10
 Instrument Name : GC014
 Rack/Vial : 0/24
 Sample Amount : 50.000000
 Cycle : 24

Date : 0/12/2007 7:21:18 AM
 Data Acquisition Time : 0/10/2007 11:50:03 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb024.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.34	11098
10.89	4694
13.99	5184
14.75	21276
15.51	4394
16.26	3315
16.42	6624
17.15	3497
17.35	8440
17.43	24130
17.66	2841
17.99	6588
18.08	9985
18.27	9466
18.65	2837
18.87	14144
18.98	12134
19.12	8806
19.25	8052
19.47	4389
19.65	6276
19.98	18083
20.11	8413
20.32	5457
20.43	20567
20.70	26194
21.25	5038

$\sum \text{area Aroclor 1254} = 135183$

$$\text{ng/inj} = \frac{135183}{99858.5} = 1.3537$$

$$\text{ppm} = \frac{1.3537}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.5415$$

$\sum \text{area Aroclor 1260} = 374064$

$$\text{ng/inj} = \frac{374064}{295160} = 1.2673$$

$$\text{ppm} = \frac{1.2673}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.5069$$

$$\text{Total PCB} = 0.5415 + 0.5069 = 1.0484 \text{ ppm}$$

$$+ 0.1454 = 1.1938$$

10/15/2007

Time [min]	Area [μV·s]
21.58	9688
21.94	9968
22.22	45198
22.52	32681
22.68	31020
22.97	2633
23.71	54003
24.06	135346
24.34	61433
24.78	4233
25.03	3588
25.35	5631
25.46	5501
25.73	4494
25.88	32990
26.13	15116
26.27	63295
26.62	40760
27.37	193704
27.77	107878
28.11	35017
28.29	64512
28.63	8073
28.91	160574
29.10	9752
29.26	18184
29.62	161572
29.90	10659
30.16	6509
30.56	68828
30.94	454319
31.15	62664
31.46	56445
31.61	17683
31.74	130255
32.01	28333
32.33	28621
32.66	417033
32.79	146420
33.14	33333
33.36	191633
33.62	102238
33.82	5291
34.08	23311
34.26	72107
34.56	14850
34.69	161807
34.89	97466
35.14	66083
35.34	6036
35.49	4418
35.62	42688
35.79	3455
36.00	38317
36.31	371842
36.52	23997
36.66	10555
37.62	178250
37.81	91991
37.99	53659
38.04	50164
38.66	2608
38.84	13875
38.98	2392
39.13	4969
39.24	38954
39.42	2374
40.52	77457
40.74	12958
42.03	34828
43.17	38974
44.03	2245
44.25	5974

Area for
1254

Area for
1260

4887635

Plot Title

Start Time End Time Scale Offset

pcb005.raw

Sample Name : AROCHLOR 1242

Sample Number: 05

Instrument File Name: c:\pest\gc14\methods\pcb

15.00 44.99 50.00 0.00

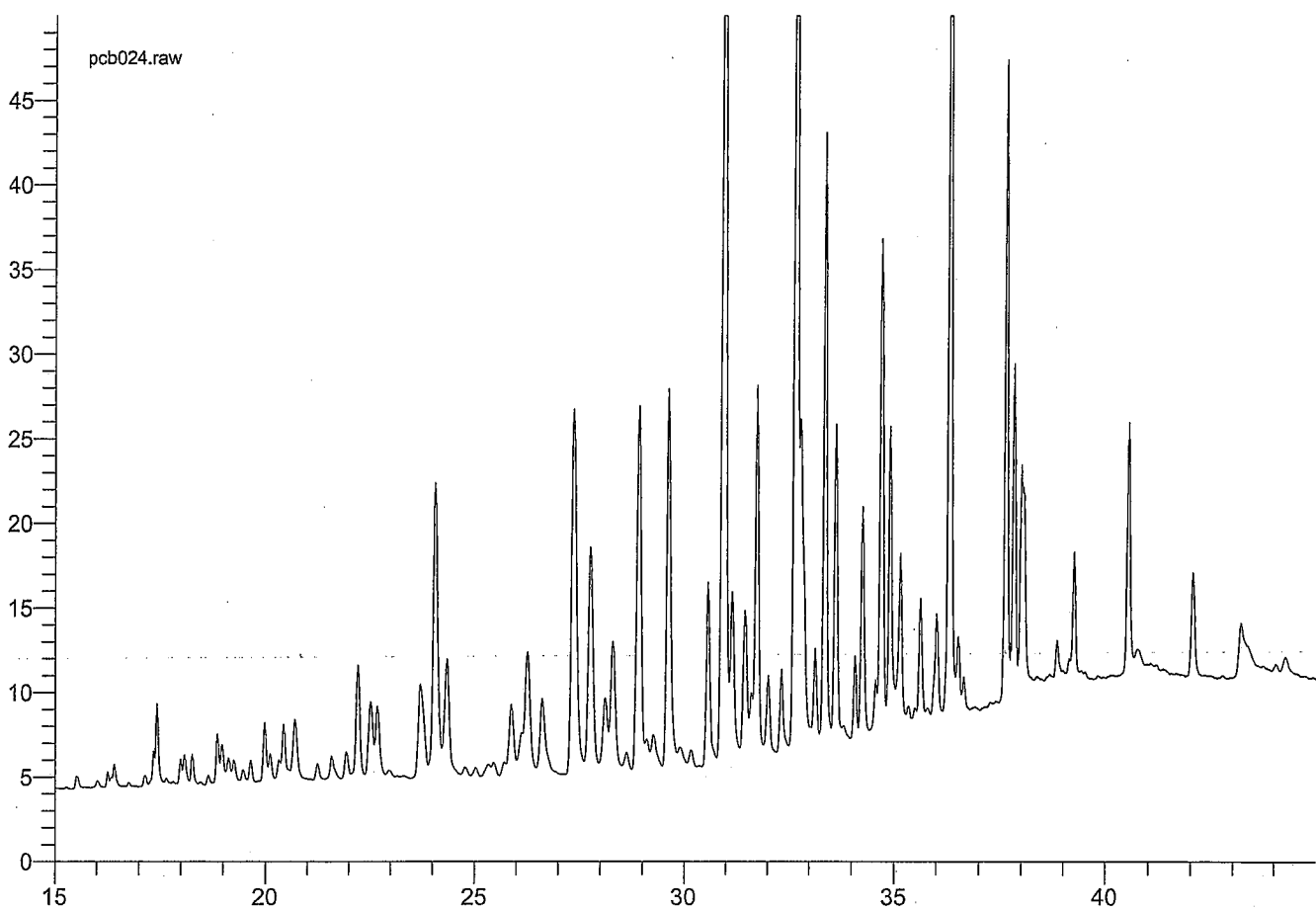
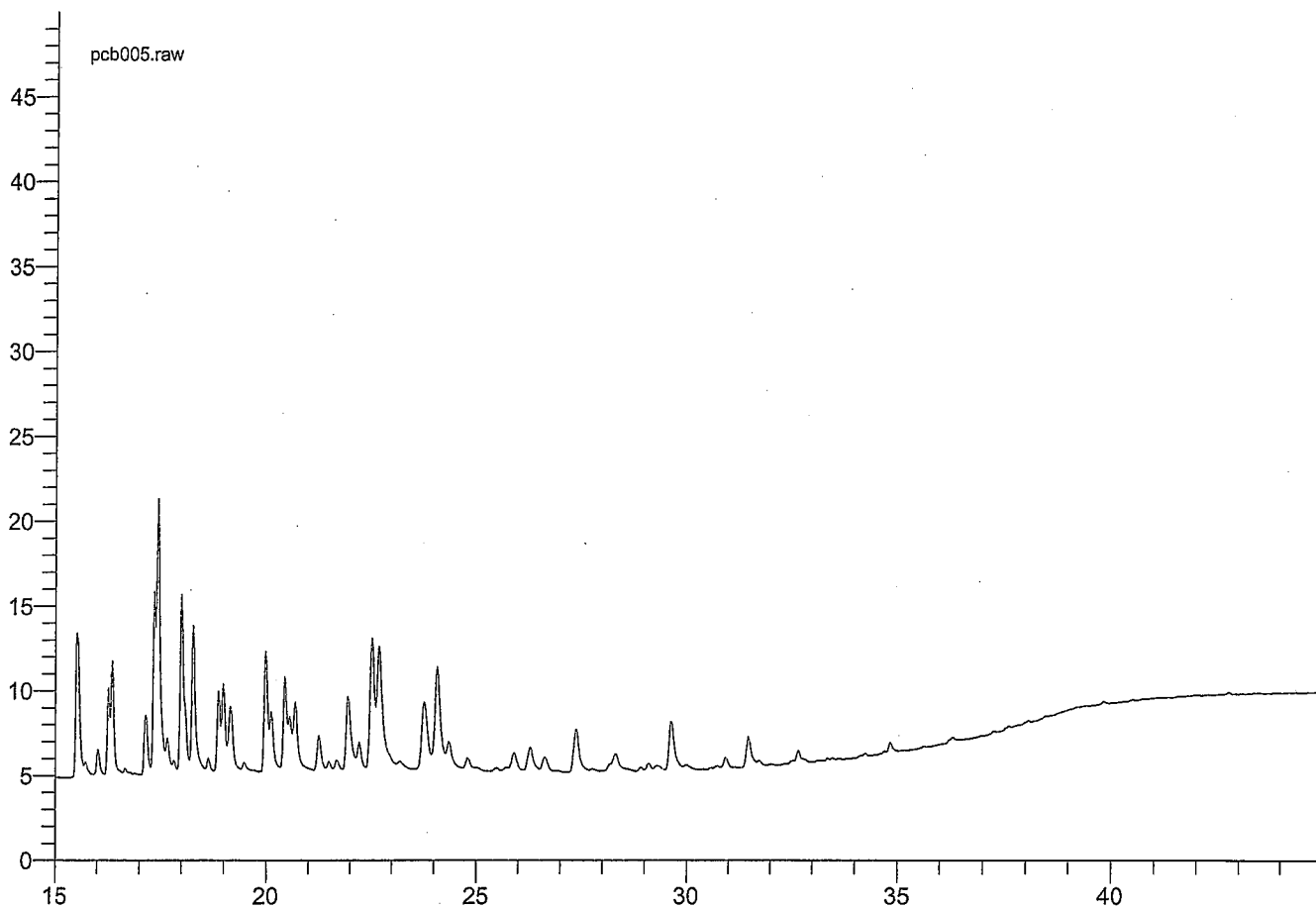
pcb024.raw

Sample Name : 22659 1:10

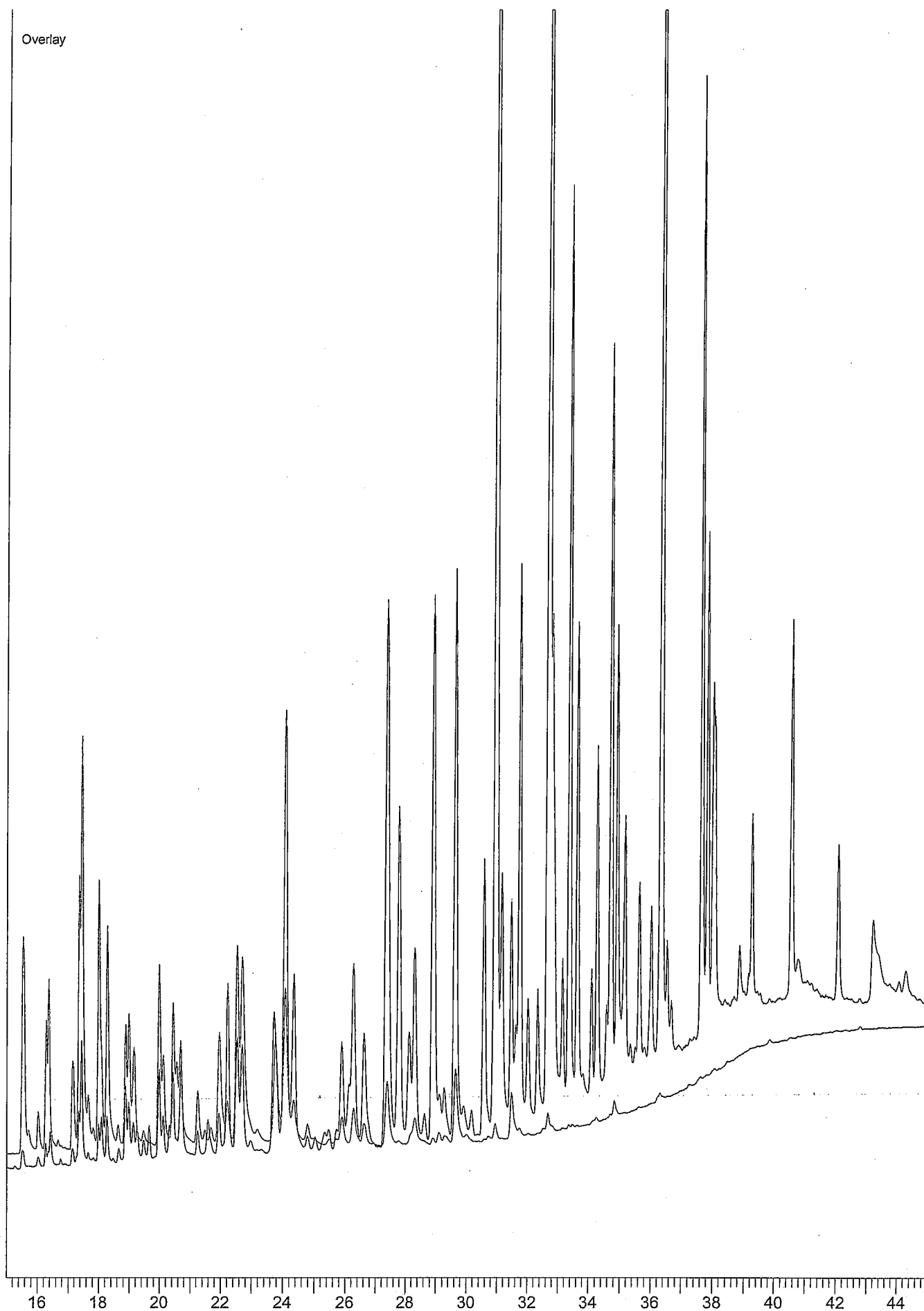
Sample Number: 24

Instrument File Name: c:\pest\gc14\methods\pcb

15.00 44.99 50.00 0.00



Overlay



Plot Title

Start Time End Time Scale Offset

pcb024.raw

Sample Name : 22659 1:10

Sample Number: 24

Instrument File Name: c:\pest\gc14\methods\pcb

15.00 39.99 50.00 0.00

pcb007.raw

Sample Name : AROCHLOR 1254

Sample Number: 07

Instrument File Name: c:\pest\gc14\methods\pcb

15.00 39.99 50.00 0.00

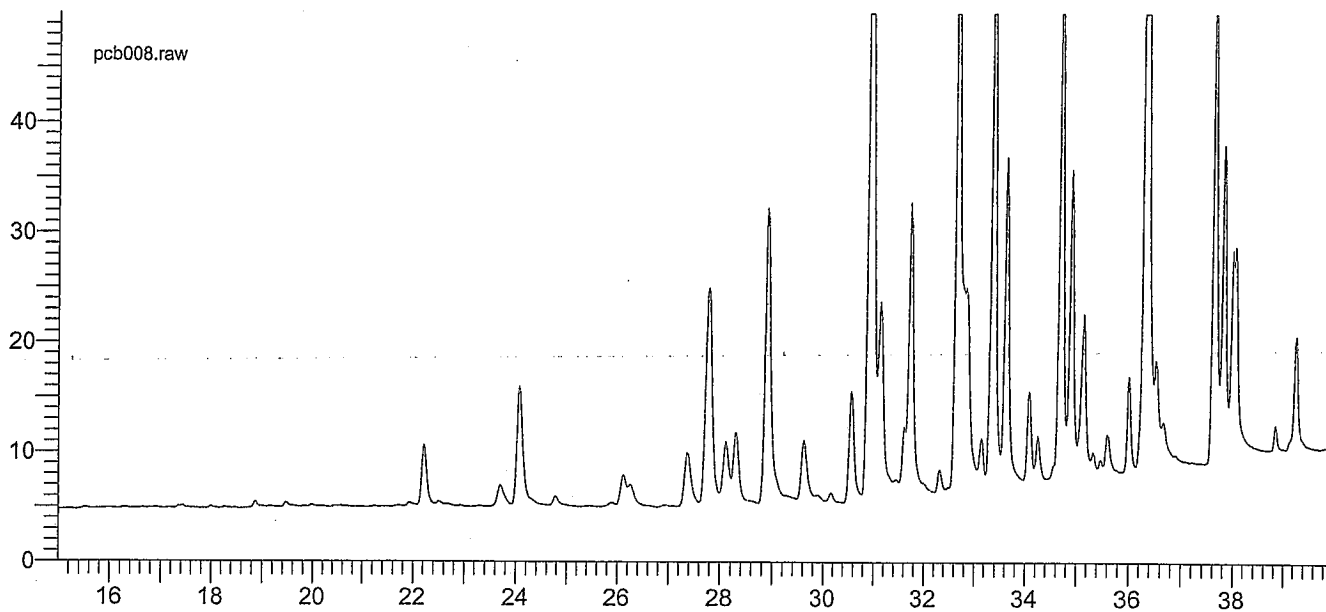
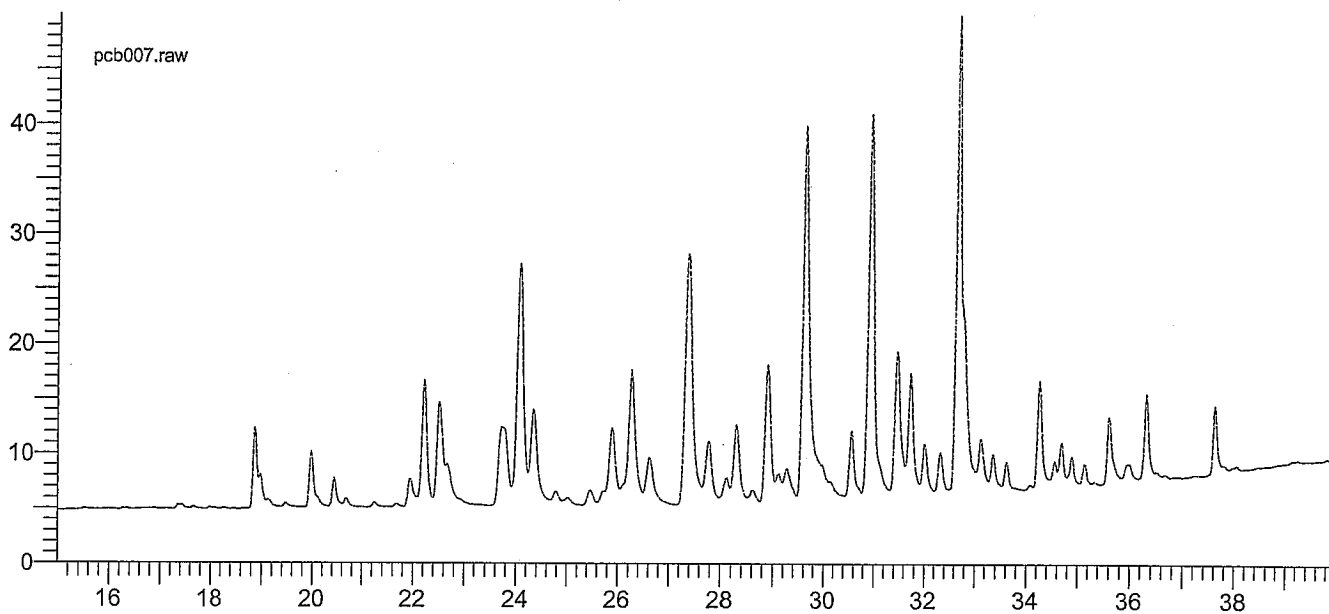
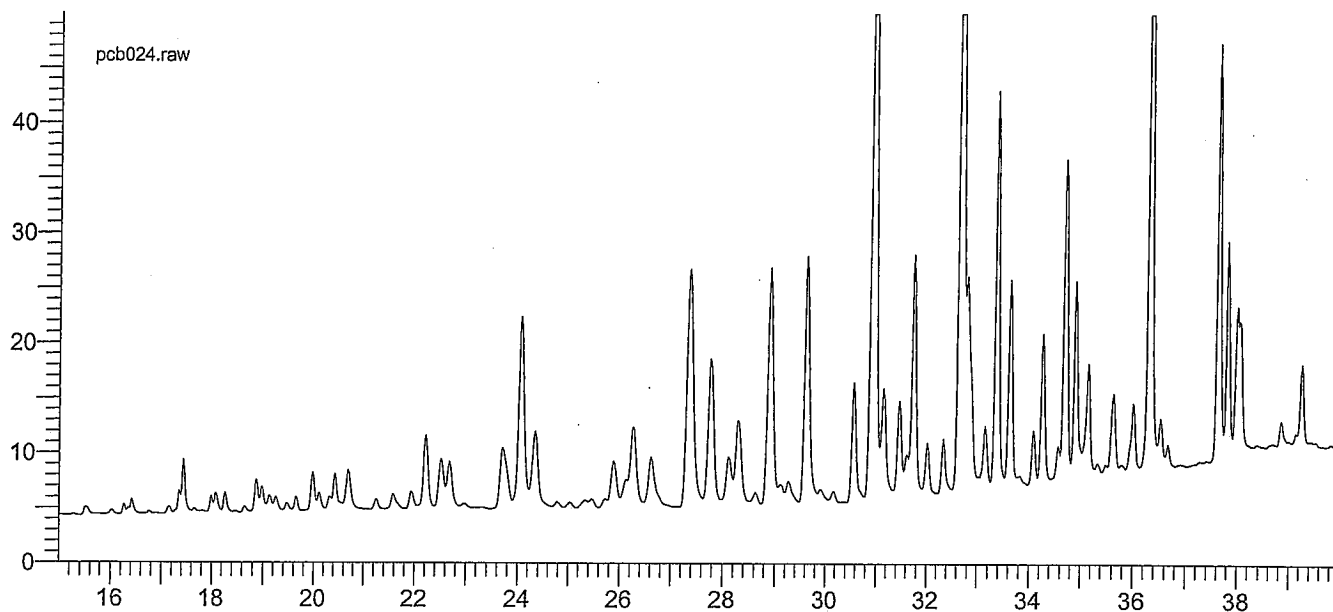
pcb008.raw

Sample Name : AROCHLOR 1260

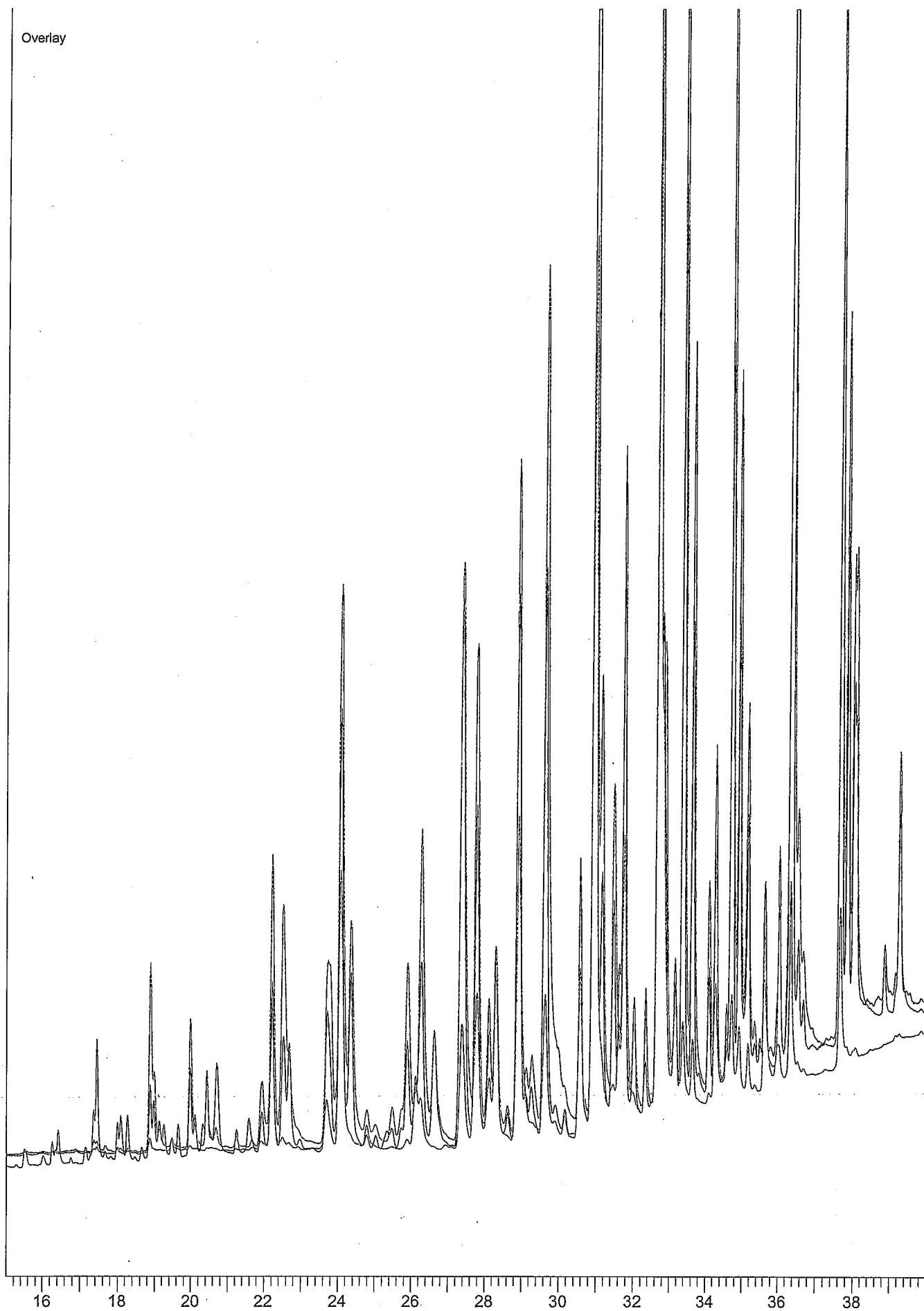
Sample Number: 08

Instrument File Name: c:\pest\gc14\methods\pcb

15.00 39.99 50.00 0.00



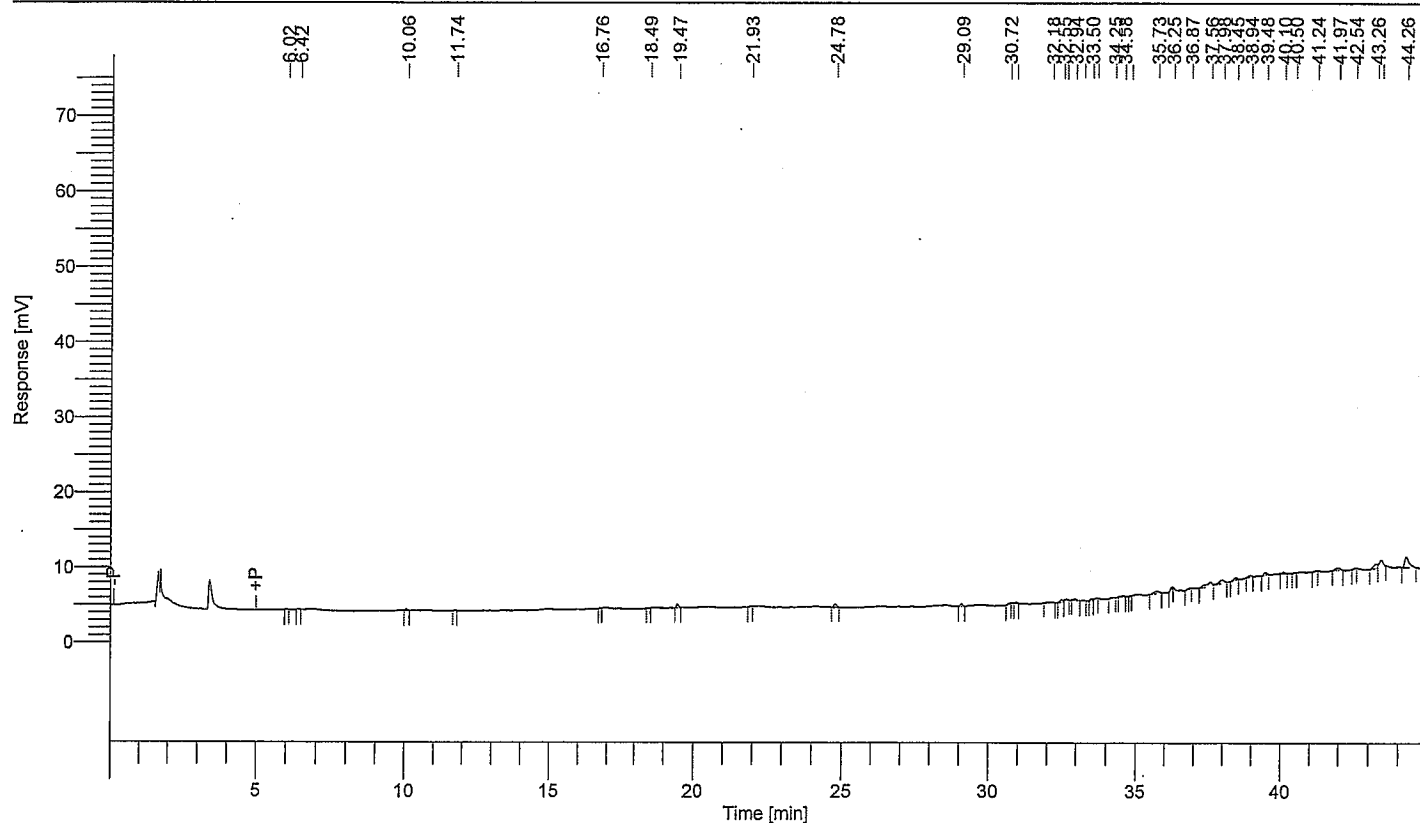
Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61973
 Sample Name : 22660 1:10
 Instrument Name : GC014
 Rack/Vial : 0/25
 Sample Amount : 50.000000
 Cycle : 25

Date : 10/12/2007 7:21:21 AM
 Data Acquisition Time : 10/10/2007 12:43:13 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\pcb025.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.47	2551
24.78	2765
29.09	2152
32.55	2220
35.73	4210
37.56	7268
37.98	5345
38.45	2254
39.48	2431
41.97	3541
43.26	4744
43.41	7560
44.26	14286

61329

60.4 ppm total PCB.

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Set #3
Avant
Level
10

Q.A. NUMBER:

07100203

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019
TECHNICIAN:	GF
PREP DATE:	10-9-07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AA11900001		
PREP. DATE:	9-6-07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS OR MLS
1	SPIKE 1	50.0
2	22661	
3	22662	
4	22663	
5	22663 dup	
6	22664	
7	22665	
8	22666	
9	22667	
10	22668	
11	22667 MS	
12	22668 MSD	
13	BLANK	
14		
15		
16		
17		
18		
19		
	BLANK	

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	SKP	ALICUOT RATIO:	50/100
COLUMN I.D.:	879200	FINAL VOLUME:	2.0 mL
DATE USED:	10-10-2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGV (cm/s)	NOT GIVEN	A1016 I.D.	411300003
INST. CAL I.D.	MX50100154	A1221 I.D.	411400003
INST. CAL PREP. DATE:	9-14-2007	A1232 I.D.	411500003
ANALYTE 1		A1242 I.D.	411600003
RETENTION TIME (MIN)	14.37	A1248 I.D.	411700005
R.T. ACCURACY (%)	99	A1254 I.D.	X11800011
SENSITIVITY (AREA)	394038	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	99	CAL PREP DATE: 10-2-2007	
ANALYTE 2			
RETENTION TIME (MIN)	16.58		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	865513		
SENS. ACCURACY (%)	87		

1:10 on all

COMMENTS

C18 LOT#

0731006

FLORISIL LOT #

1959371207

TBA Su/ Site Regent PD: 10-3-07

Use 0.5 ml. of Arochlor 1260 INT for the matrix spike and MSD.

90% Methanol / Di-Water PD: 9-28-07 / 10-8-07

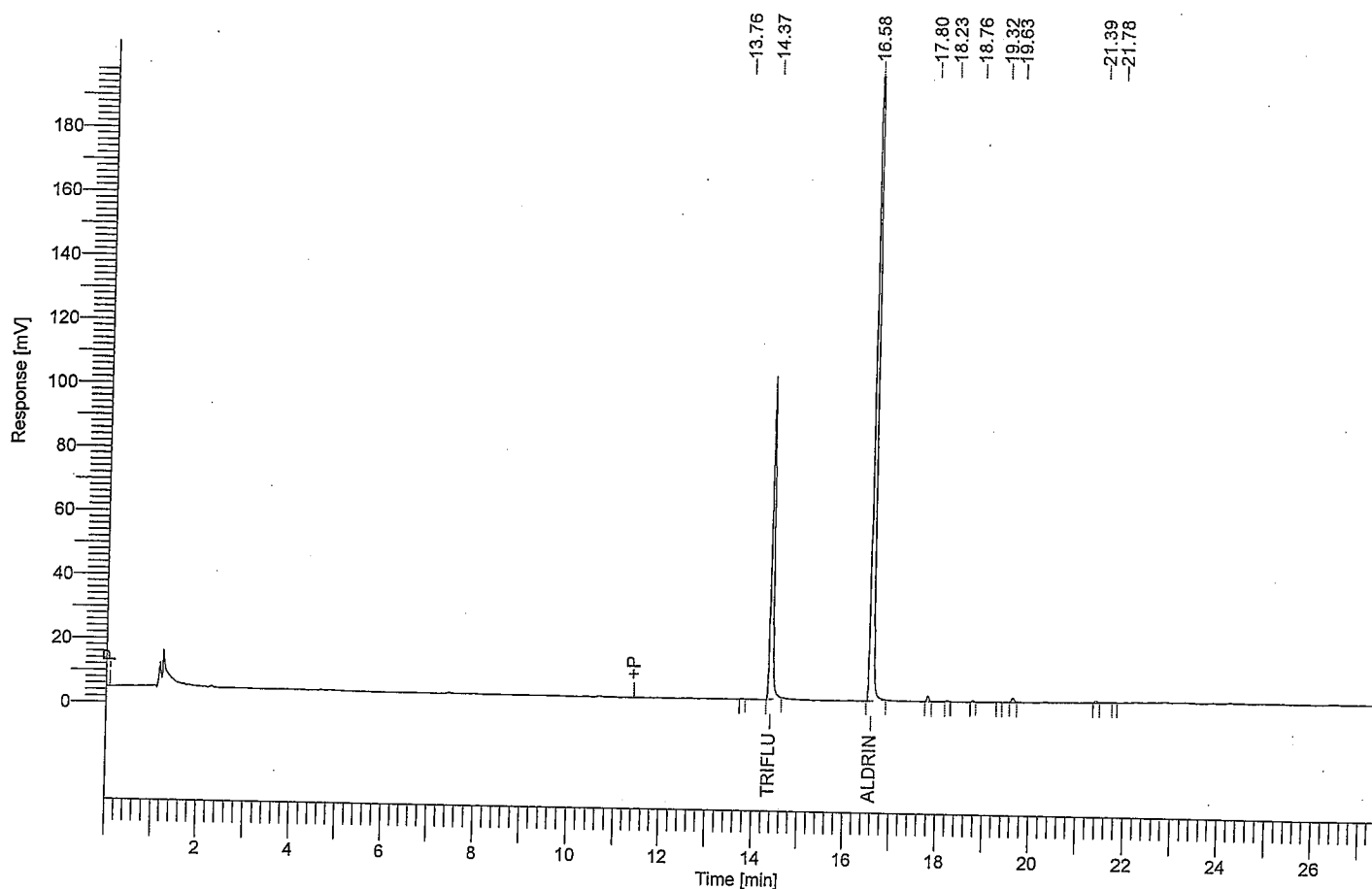
PH 7 Buffer Solution PD: 9-28-07

15% EE/ Hexane PD: 10-3-07

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 61810
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

Date : 10/9/2007 11:30:28 AM
Data Acquisition Time : 10/9/2007 11:02:47 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003-20071009-113028.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [$\mu\text{V}\cdot\text{s}$]
14.37	TRIFLURALIN	394038.23
16.58	ALDRIN	865512.63
		1259550.87

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 57
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	07100202	1.000000	1.000000						
2	Sample	AROCHLOR 1016	02	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1221	03	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1232	04	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1242	05	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1248	06	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1254	07	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	AROCHLOR 1260	08	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
9	Sample	BLANK SOIL	09	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
10	Sample	SPIKE SOIL	10	07100202	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
11	Sample	###22649 1:20	11	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
12	Sample	###22649 DUP 1:20	12	07100202	50.000000	1.000000	2.000	20.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22653 1:10	13	07100202	50.000000	1.000000	2.000	20.000000	2.000000	1.000000	0.000000	100.000
14	Sample	22654 1:10	14	07100202	50.000000	1.000000	2.000	20.000000	2.000000	1.000000	0.000000	100.000
15	Sample	22655 1:10	15	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22655 DUP 1:10	16	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	22656 1:10	17	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
18	Sample	22657 1:10	18	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
19	Sample	FLUSH	19	07100202	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	AROCHLOR 1242	20	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
21	Sample	22657 MS 1:10	21	07100202	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
22	Sample	22658 1:10	22	07100202	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
23	Sample	22658 MSD 1:10	23	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
24	Sample	22659 1:10	24	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
25	Sample	22660 1:10	25	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
26	Sample	22657 MS	26	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
27	Sample	FLUSH	27	07100202	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
28	Sample	22658 MSD	28	07100202	1.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
29	Sample	FLUSH	29	07100202	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
30	Sample	AROCHLOR 1016	30	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
31	Sample	AROCHLOR 1221	31	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
32	Sample	AROCHLOR 1232	32	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
33	Sample	AROCHLOR 1242	33	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
34	Sample	AROCHLOR 1248	34	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
35	Sample	AROCHLOR 1254	35	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
36	Sample	AROCHLOR 1260	36	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
37	Sample	BLANK SLUDGE	37	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
38	Sample	SPIKE SLUDGE	38	07100203	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
39	Sample	22661 1:10	39	07100203	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
40	Sample	22662 1:10	40	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
41	Sample	22663 1:10	41	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
42	Sample	22663 DUP 1:10	42	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
43	Sample	22664 1:10	43	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
44	Sample	22665 1:10	44	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
45	Sample	FLUSH	45	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
46	Sample	AROCHLOR 1242	46	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
47	Sample	22666 1:10	47	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
48	Sample	22667 1:10	48	07100203	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
49	Sample	22668 1:10	49	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
50	Sample	22667 MS 1:10	50	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
51	Sample	22668 MSD 1:10	51	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
52	Sample	FLUSH	52	07100203	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
53	Sample	AROCHLOR 1260	53	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
54	Sample	22667 MS	54	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
55	Sample	FLUSH	55	07100203	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
56	Sample	22668 MSD	56	07100203	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
57	Sample	FLUSH	57	07100203	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb

[illegible][illegible]

Result File

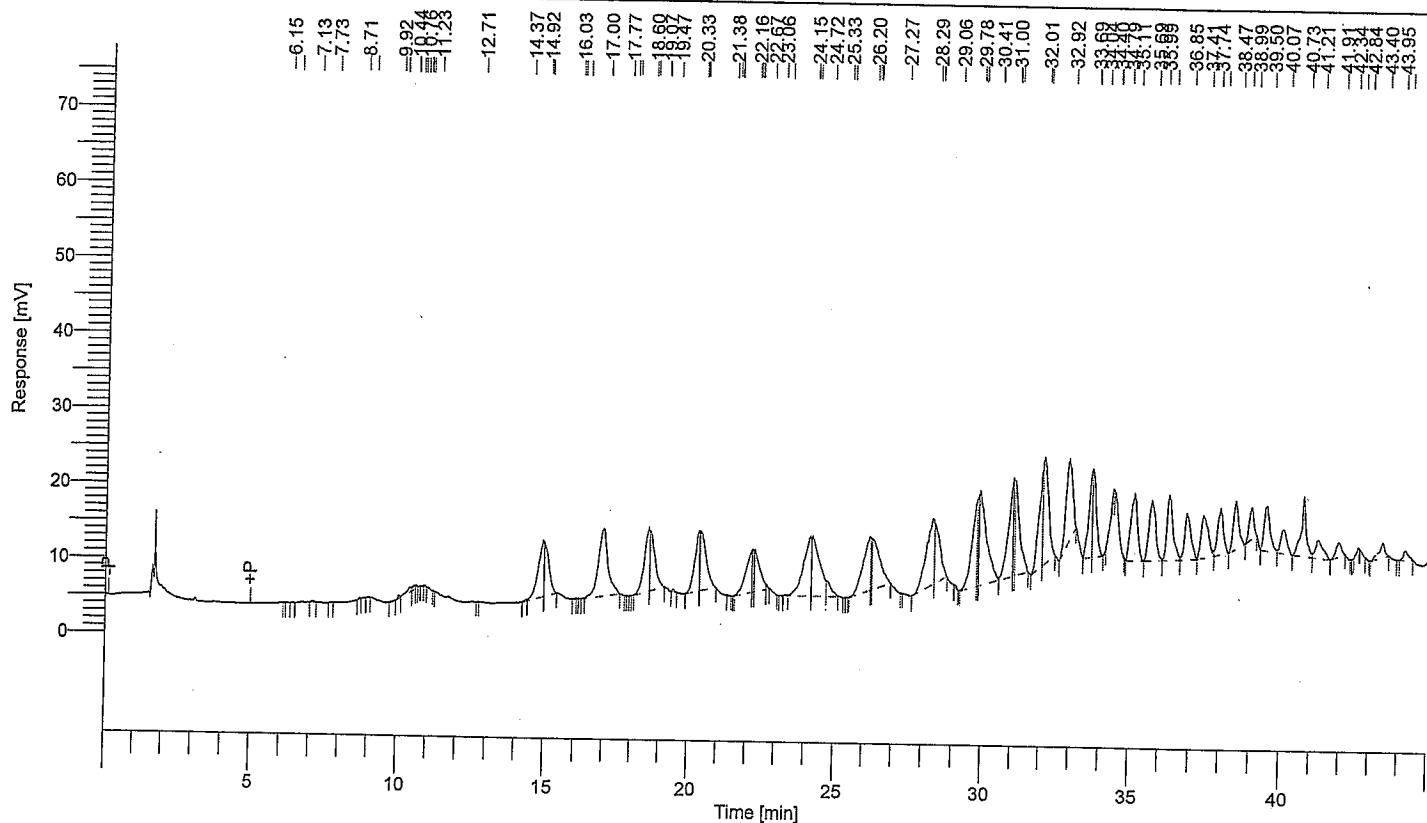
Baseline

[illegible]

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61993
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/45
 Sample Amount : 1.000000
 Cycle : 45

Date : 10/12/2007 7:21:42 AM
 Data Acquisition Time : 10/11/2007 6:34:55 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL016.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

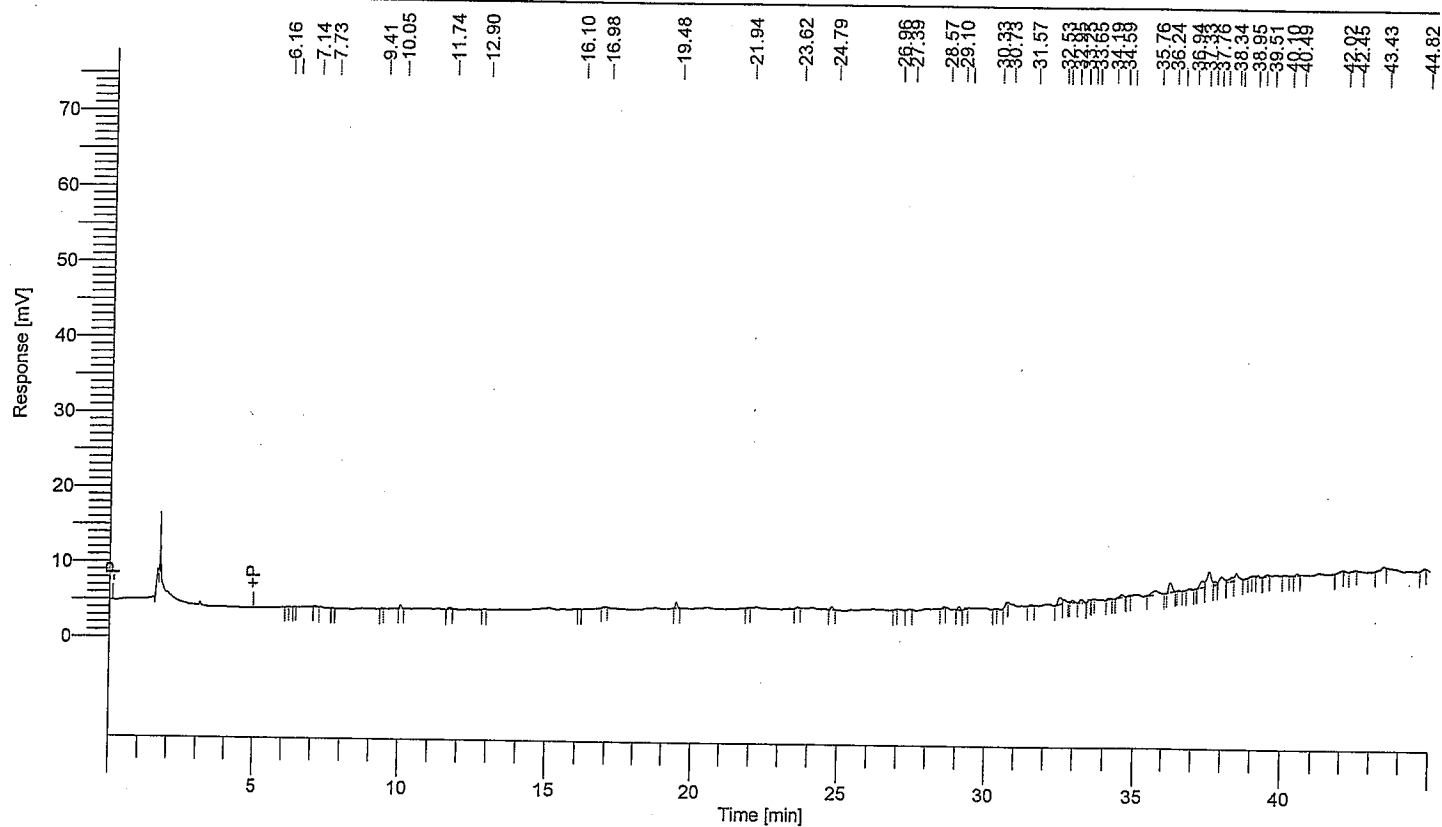
Time [min]	Area [μV·s]
10.44	7971
10.59	3500
14.92	96810
14.98	79672
17.00	213880
18.60	107696
18.66	93315
20.33	85909
20.37	18446
20.40	106648
22.16	82640
22.19	16520
22.24	10458
22.27	69639
22.67	2599
24.15	144583
24.23	150176
24.72	24737
26.20	132298
26.26	17148
26.31	118317
28.29	160909
28.38	98447
29.78	141464
29.83	37663
29.88	217040
31.00	146596

Time [min]	Area [μ V-s]
31.02	49277
31.09	141123
32.01	110424
32.07	173762
32.92	174436
33.69	95277
33.71	101562
34.40	13386
34.43	2110
35.11	139312
35.69	129844
36.26	120338
36.85	92213
37.41	89999
37.74	2120
37.97	77750
38.47	77203
38.99	41639
39.50	79439
40.07	47358
40.73	93927
41.21	43681
41.91	24865
43.40	26346
44.20	15156
<hr/>	
4347629	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62000
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/52
 Sample Amount : 1.000000
 Cycle : 52

Date : 10/12/2007 7:21:48 AM
 Data Acquisition Time : 10/11/2007 12:44:14 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

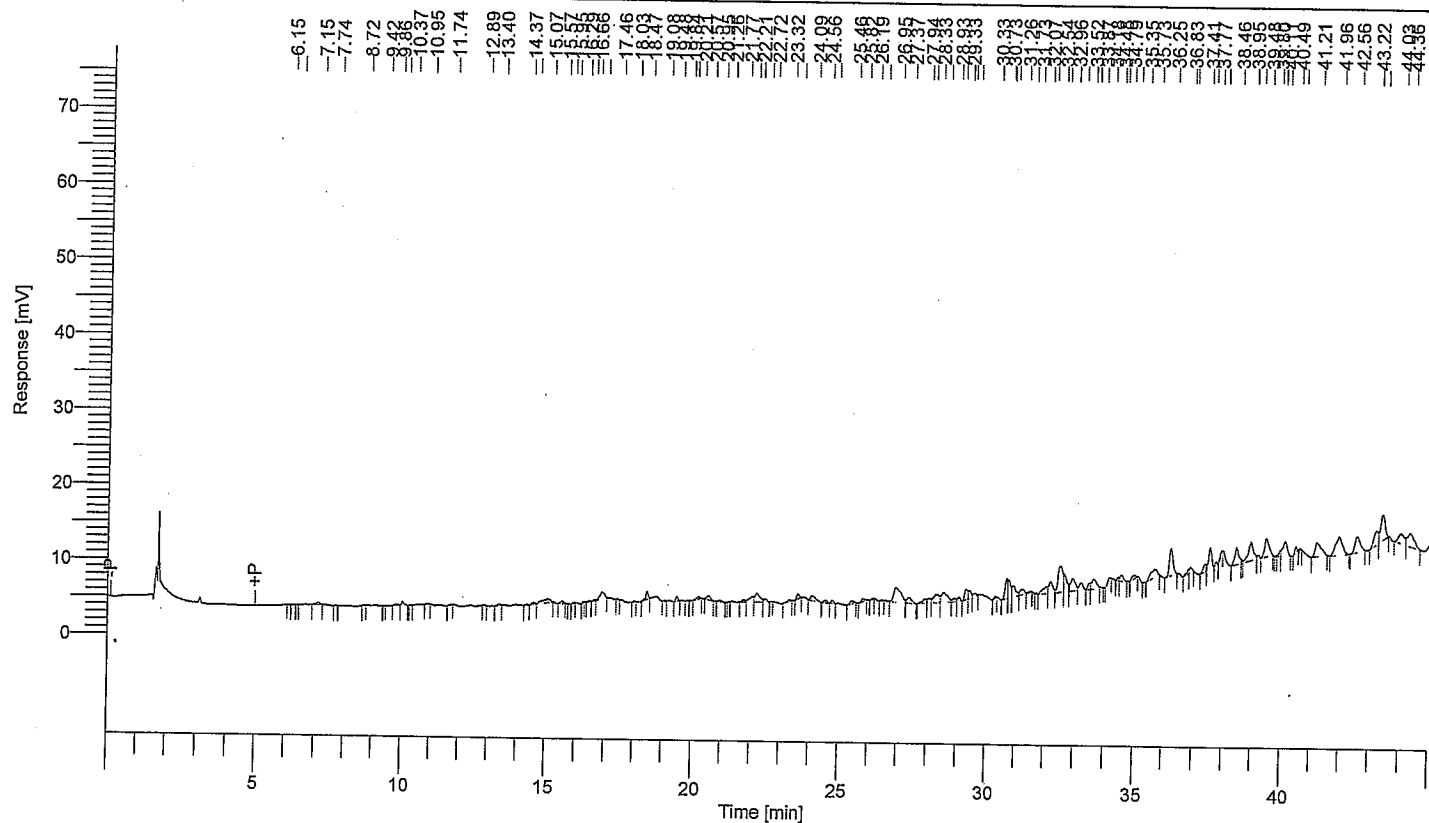
Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL023.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62003
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/55
 Sample Amount : 1.000000
 Cycle : 55

Date : 10/12/2007 7:21:50 AM
 Data Acquisition Time : 10/11/2007 3:22:14 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL026.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
7.15	2791
10.05	3254
14.59	2011
15.07	9469
15.57	2316
16.92	9713
18.47	5665
19.48	3122
20.21	2811
20.57	4205
20.95	2114
21.77	2729
22.05	7436
22.21	13471
22.50	2878
23.32	2099
23.61	3888
24.09	8043
24.56	2582
24.79	2404
25.46	3284
25.82	2720
26.95	33066
27.37	9106
27.94	5050
28.08	4696
28.33	15011

Time [min]	Area [μ V-s]
28.58	19605
28.93	3839
29.09	3762
29.33	10261
29.43	6759
29.62	3049
30.73	17738
30.77	13957
30.92	14694
31.26	7412
32.07	9721
32.21	14112
32.54	38846
32.66	16933
32.96	19530
33.22	9101
33.52	4247
33.65	15161
34.18	3468
34.48	2216
34.59	6625
35.04	4350
35.73	16783
36.25	31158
36.83	3644
36.91	4328
37.41	7664
37.56	20143
37.77	2245
38.46	20247
38.95	29170
39.20	2783
39.48	25059
39.95	3633
40.11	21656
40.49	3331
41.21	27559
41.96	39157
42.56	26847
43.22	19256
43.43	36344
44.03	18919
44.36	28581
<hr/>	
799829	

Time [min]	Area [μ V·s]
37.13	11277
37.30	84449
37.40	25095
37.62	2471707
37.82	1215081
37.99	673343
38.05	784824
38.33	23933
38.37	59101
38.46	24220
38.50	13988
38.56	11623
38.63	50332
38.69	23270
38.84	177446
39.02	19145
39.13	62249
39.25	519180
39.75	3491
39.93	9348
40.05	7426
40.17	6494
40.28	5615
40.52	812365
40.72	61451
40.75	110078
40.93	31734
40.99	12920
41.05	30400
41.11	16963
41.17	27754
41.28	5151
41.34	4896
41.61	3048
41.81	2050
42.04	222642
42.25	2653
42.39	10442
42.47	10688
42.74	3352
43.14	36821
43.28	4962
43.32	6429
43.35	8640
43.42	5922
43.51	2288
43.73	2398
43.79	2524
43.93	2291
44.01	8586
44.24	25932
44.70	2417

74628617

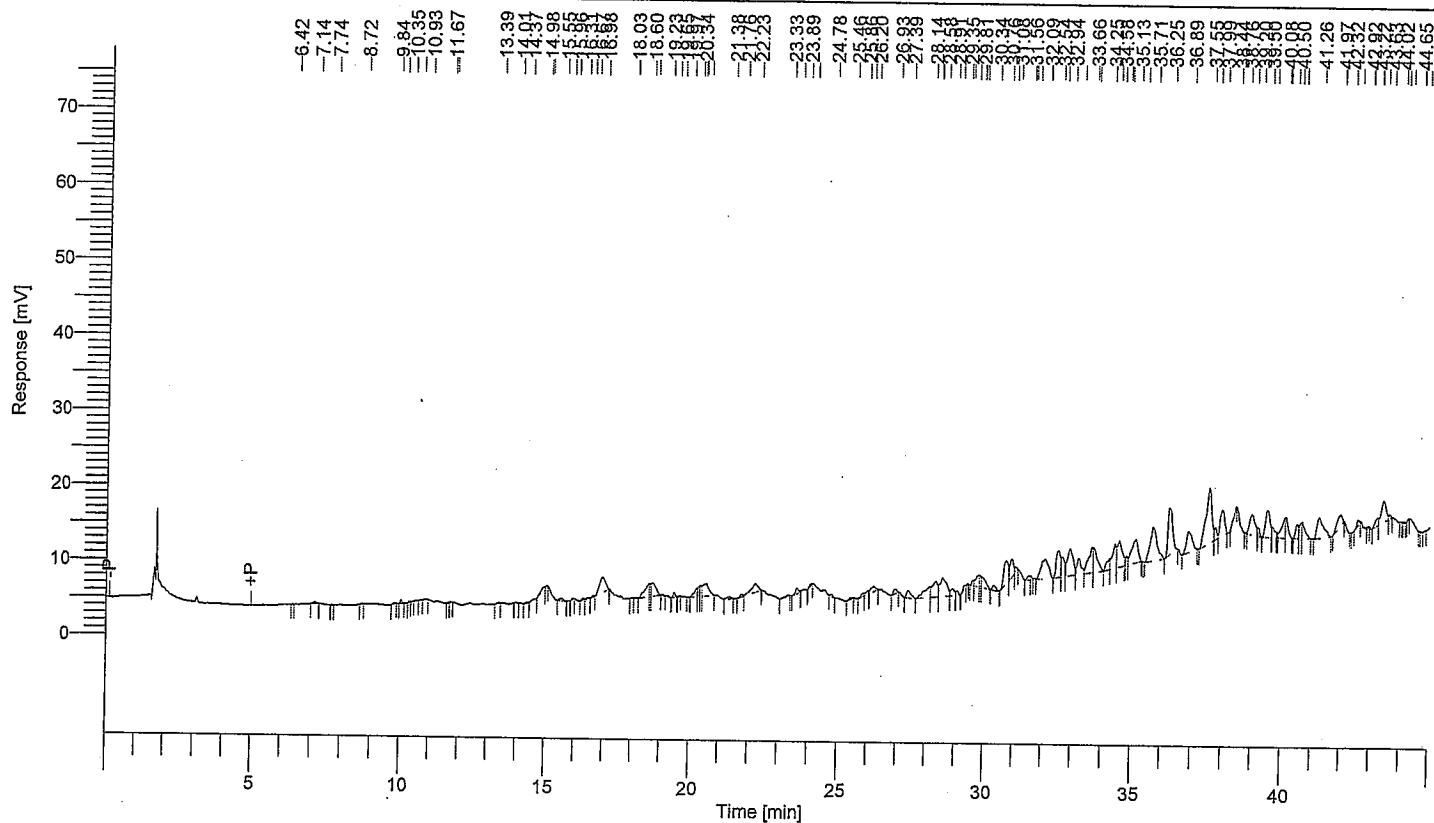
Warning -- Signal level out-of-range in peak

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62005
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/57
 Sample Amount : 1.000000
 Cycle : 57

Date : 10/12/2007 7:21:52 AM
 Data Acquisition Time : 10/11/2007 5:07:29 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL028.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.98	5145
15.55	3164
16.98	29863
18.60	18031
18.73	20603
19.47	3185
20.25	8428
20.34	8447
20.39	6406
20.56	24670
21.38	2890
21.76	2635
22.23	18301
23.33	2077
23.62	5188
23.89	2310
25.46	3099
26.03	3799
26.20	8475
26.93	5238
27.39	10297
28.14	21721
28.33	28152
28.58	41013
28.91	9078
29.09	3755
29.35	3111

Time [min]	Area [μ V-s]
29.64	3234
29.81	12577
29.86	6100
29.92	15930
30.34	5412
30.76	33223
30.95	23632
31.08	4282
31.56	3869
32.09	44944
32.54	32375
32.67	22946
32.94	50685
33.24	20703
33.66	35018
33.72	33474
34.25	11742
34.45	29136
34.58	39791
34.78	2783
34.83	4782
35.13	46538
35.71	72490
36.25	66153
36.89	36525
37.55	99698
37.76	10542
37.99	33098
38.98	34932
39.20	5775
39.50	38447
39.66	10871
40.08	21576
40.12	18168
40.50	12231
40.64	10549
40.67	17270
41.26	42990
41.97	19681
42.56	4303
43.22	7742
43.43	32792
43.63	2342
	1378432

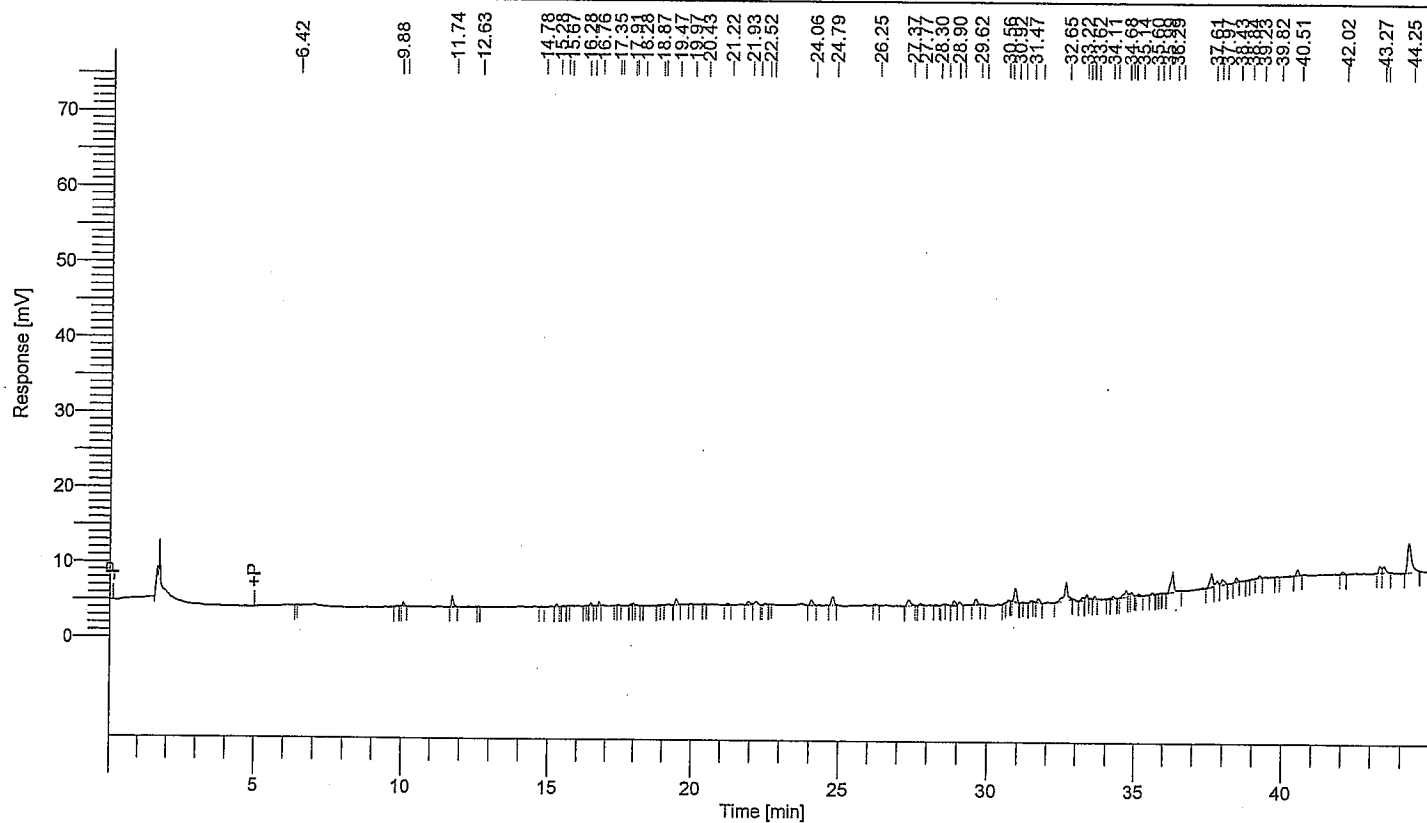
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61985
 Sample Name : BLANK SLUDGE
 Instrument Name : GC014
 Rack/Vial : 0/37
 Sample Amount : 50.000000
 Cycle : 37

Date : 10/12/2007 7:21:34 AM
 Data Acquisition Time : 10/10/2007 11:31:59 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.06	2553
11.74	6665
19.47	4235
21.93	3403
22.20	3308
24.06	4789
24.79	7525
27.37	6601
28.90	4217
29.08	3214
29.62	5117
30.92	11278
31.73	2737
32.65	21757
33.22	2897
33.35	4143
34.26	2548
34.68	7411
34.89	2715
36.29	19833
37.61	12054
37.80	5182
37.97	5633
38.43	2719
39.23	2376

(BBL)

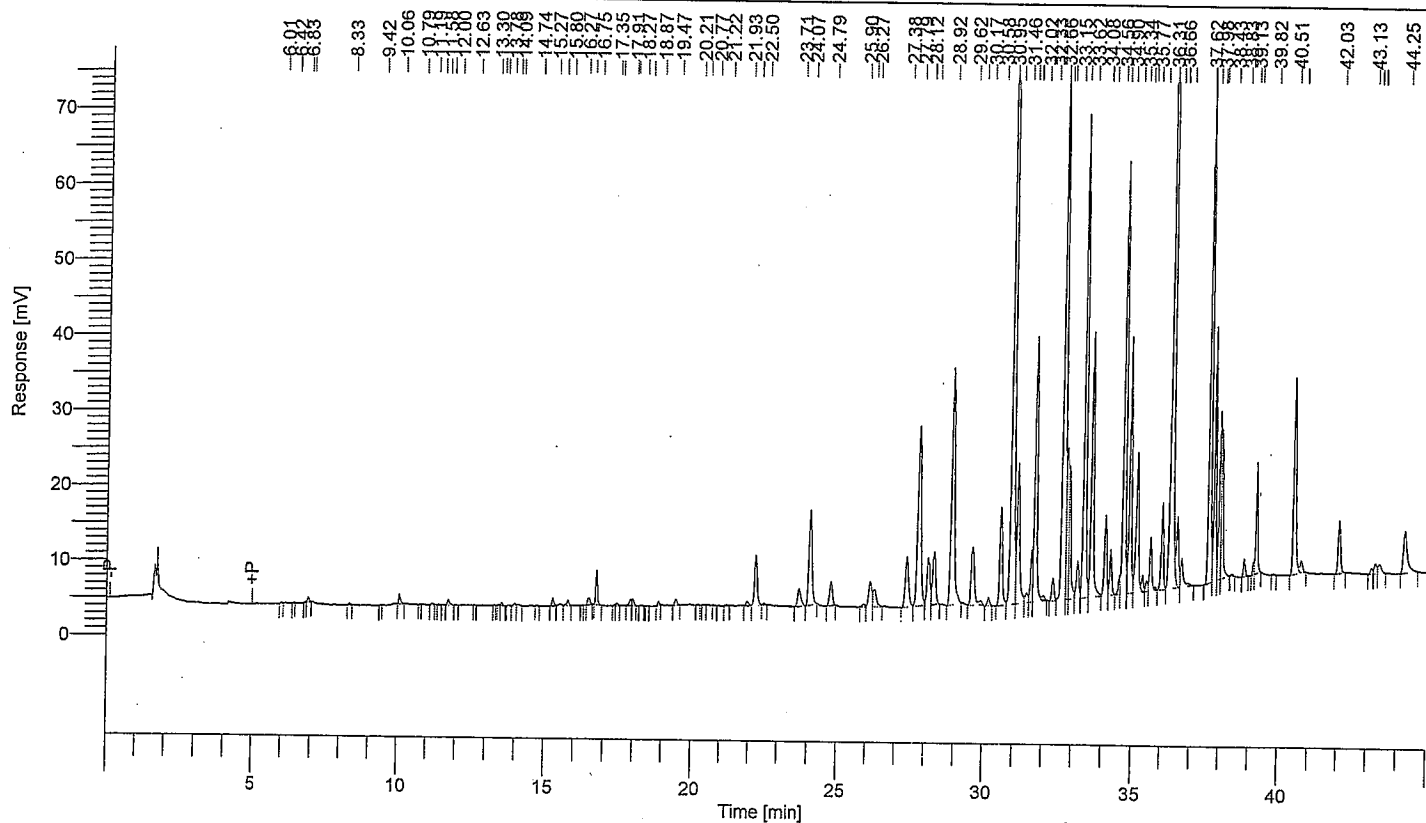
LO.04 ppm.

Time [min]	Area [μ V·s]
40.51	4483
43.27	5398
43.39	6477
44.25	35721
<hr/>	
206992	

Software Version : 6.3.1.0504
 Sample Name : SPIKE SLUDGE
 Instrument Name : GC014
 Rack/Vial : 0/38
 Sample Amount : 50.000000
 Cycle : 38

Date : 10/16/2007 6:44:56 AM
 Data Acquisition Time : 10/11/2007 12:24:54 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL009.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.92	2683
10.06	5869
11.73	3805
13.98	2000
15.27	4544
15.80	3699
16.50	5587
16.75	17894
17.91	4036
17.98	4393
18.87	2003
19.47	4124
21.93	3592
22.21	43188
23.71	17826
24.07	91391
24.79	21592
25.90	2649
26.13	25521
26.27	17943
27.38	55206
27.79	186806
28.12	46812
28.32	52923
28.92	232046
29.62	55745
29.91	4722
30.17	5601
30.58	81423

$$\Sigma \text{Area} = 341747$$

$$\text{ng injected} = \frac{341747}{158856.5} = 2.1513$$

$$\text{ppm} = \frac{2.1513}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.0861$$

$$\% \text{ Recovery} = \frac{0.0861}{0.1} \times 100 = 86\%$$

Time [min]	Area [μ V·s]
30.95	597791
31.15	129248
31.46	8895
31.62	33136
31.75	206794
32.02	4829
32.33	16015
32.66	448866
32.79	107318
32.87	84647
33.15	30814
33.36	362317
33.62	201238
34.08	53450
34.25	32198
34.56	10531
34.69	314695
34.90	181451
35.14	112825
35.34	11096
35.49	6660
35.61	38405
36.01	54520
36.31	709580
36.52	53043
36.66	24488
36.90	2773
37.62	345362
37.81	161014
37.98	96798
38.04	87836
38.83	10105
39.13	5783
39.23	68306
40.51	140971
40.76	10681
42.03	40425
43.13	4230
43.26	8830
43.39	9233
44.25	50847
<hr/>	
5883668	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61990
 Sample Name : 22663 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/42
 Sample Amount : 50.000000
 Cycle : 42

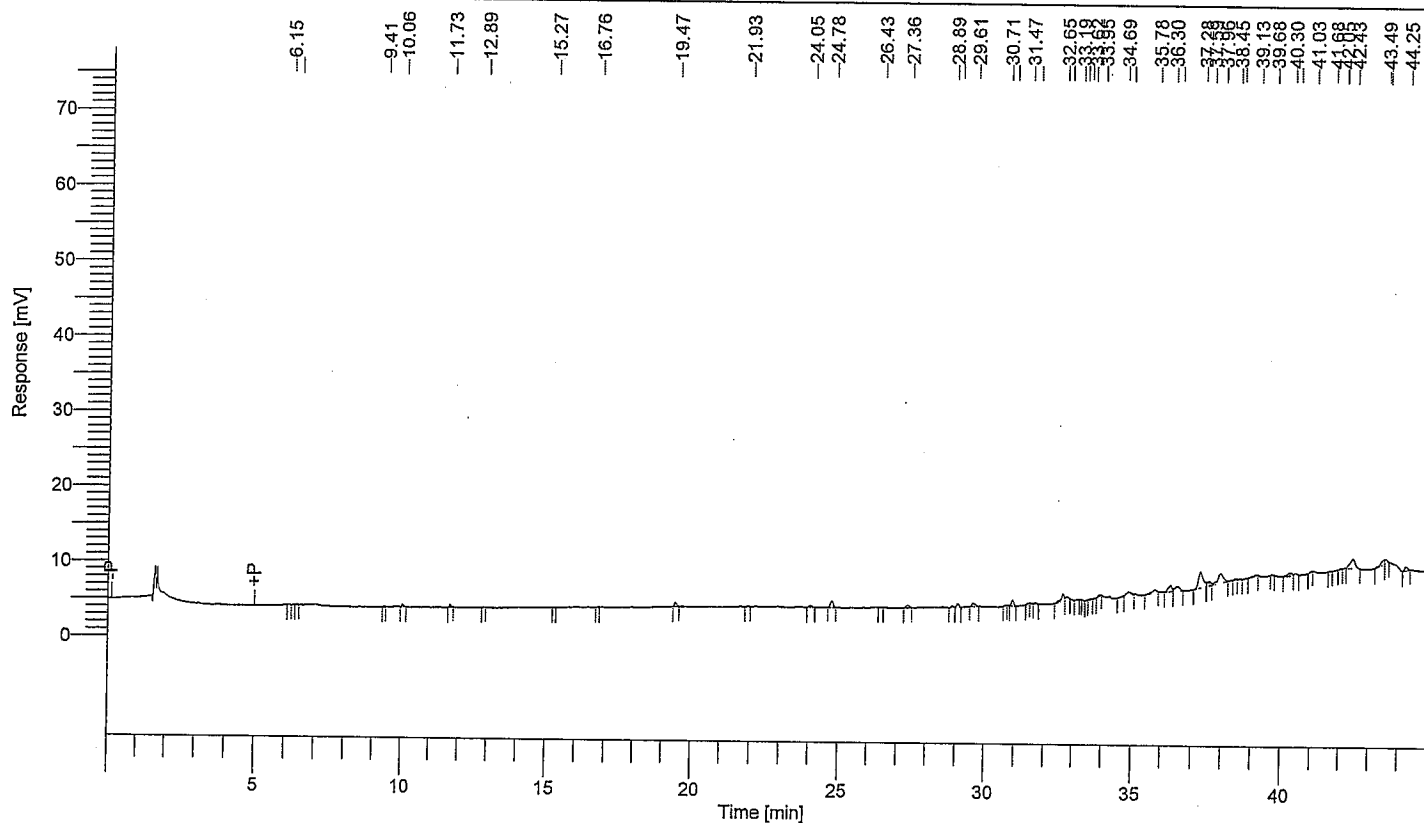
Date : 10/12/2007 7:21:39 AM
 Data Acquisition Time : 10/11/2007 3:56:31 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL013.rst

Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.47	2607
24.78	5664
27.36	2604
29.08	3295
29.61	3247
30.93	4564
32.65	6887
32.83	2507
34.90	5786
35.78	4411
36.30	6838
36.51	6527
37.28	24263
37.59	5164
37.96	16042
40.30	4284
42.43	15070
43.49	5510
43.54	3455
44.25	3795

<0.4 ppm
 Both Sample & duplicate
 have less than 0.4 ppm PCB.
 SKP 10/16/2007

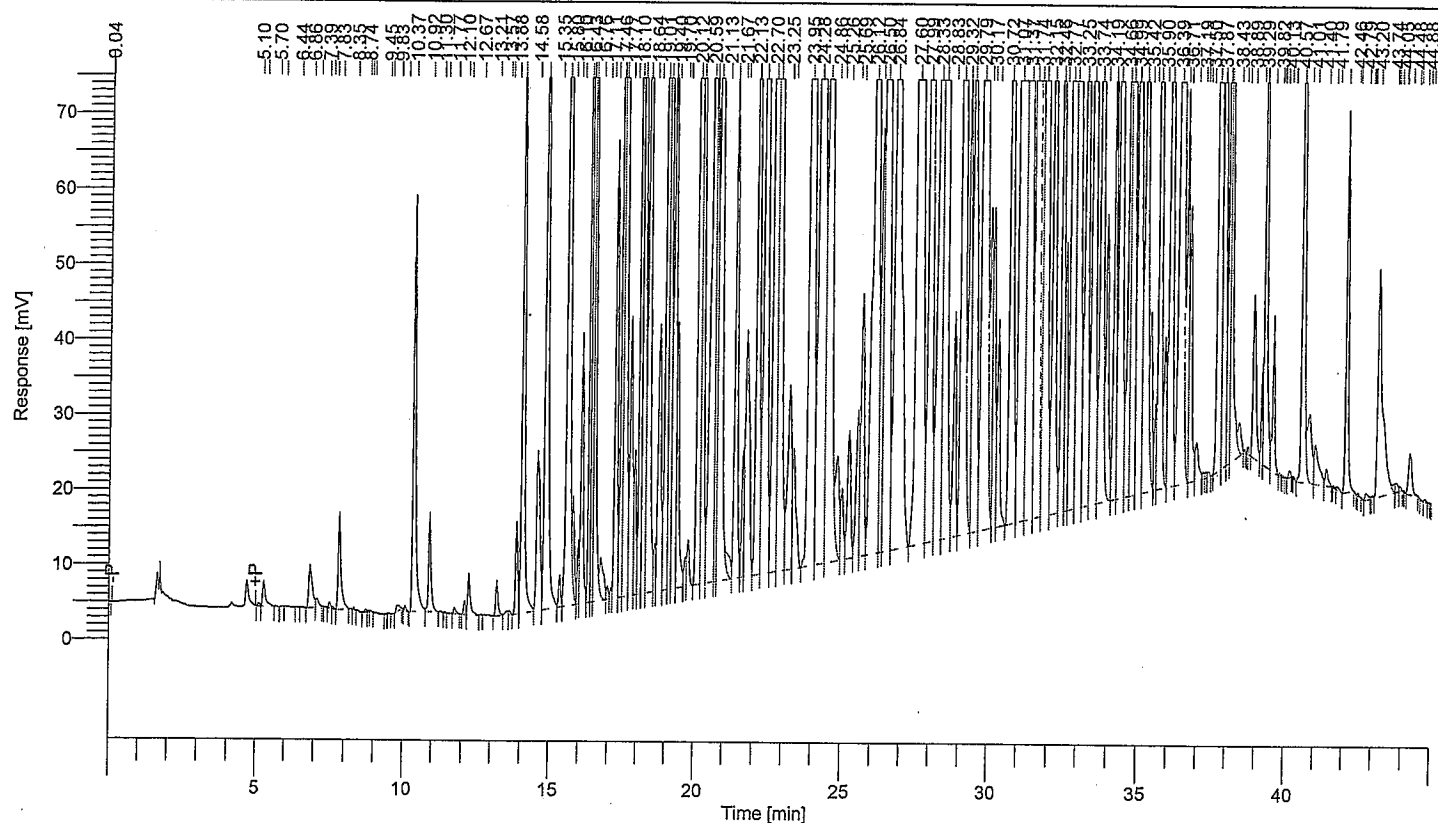
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62002
 Sample Name : 22667 MS
 Instrument Name : GC014
 Rack/Vial : 0/54
 Sample Amount : 50.000000
 Cycle : 54

Date : 10/12/2007 7:21:50 AM
 Data Acquisition Time : 10/11/2007 2:29:35 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL025.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.28	23690
6.86	45953
7.10	7606
7.52	3434
7.83	81557
9.83	7020
10.08	2505
10.37	330668
10.92	72491
11.77	4071
12.10	8509
12.24	35724
13.21	26248
13.57	3334
13.65	2328
13.88	67091
14.07	512091
14.58	178185
14.87	684605
15.35	20276
15.60	1039839
15.80	60108
15.99	36979
16.10	198907
16.35	457126
16.43	564913
16.51	517397

See 1:10 dilution.

Time [min]	Area [μV·s]
16.76	47440
16.99	8609
17.11	5821
17.25	372306
17.46	744951
17.55	1528044
17.77	257739
17.93	107313
18.10	830907
18.21	692066
18.39	992365
18.64	31036
18.78	277837
19.01	922539
19.12	676201
19.28	540442
19.40	217996
19.70	20601
19.79	38082
20.12	1327071
20.26	508892
20.59	1088324
20.70	328135
20.84	1043476
21.13	30332
21.40	432407
21.67	77137
21.77	319903
22.13	699471
22.39	1573941
22.70	1818843
22.87	1307075
23.25	242337
23.39	132290
23.95	2247657
24.28	4436151
24.56	1576011
24.86	113758
25.03	65758
25.26	132454
25.55	135541
25.69	273143
26.12	1516532
26.33	350520
26.50	2368549
26.84	1690297
27.60	5427727
27.99	1744648
28.33	1006109
28.50	1513800
28.83	202443
29.09	2591576
29.32	372356
29.47	809247
29.79	6891958
30.07	274392
30.17	261895
30.33	176332
30.72	1298524
31.07	7639277
31.37	1978069
31.60	2821980
31.74	197042
31.88	2608173
32.15	926927
32.46	687270
32.58	184672
32.77	7316034
32.92	2739972
33.25	931505
33.47	2291540
33.74	1420350
33.94	254303
34.19	364657
34.36	2060458
34.66	424575
34.78	2089280
34.99	1309061
35.23	911237
35.42	129042
35.57	52516
35.70	1191385
35.90	107399
36.08	634286
36.39	4041612
36.60	279178

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
36.71	253912
36.96	40660
37.19	4639
37.28	2765
37.38	4132
37.69	2269812
37.87	969337
38.05	517856
38.10	574721
38.43	31751
38.72	2927
38.89	148865
39.19	49202
39.29	404810
39.57	111061
40.13	4760
40.57	689028
40.83	100040
41.01	60564
41.40	15879
41.79	3183
42.08	286705
42.79	6149
43.20	328043
43.74	6689
43.79	7575
43.90	2798
44.27	40035

114241663

Warning -- Signal level out-of-range in peak

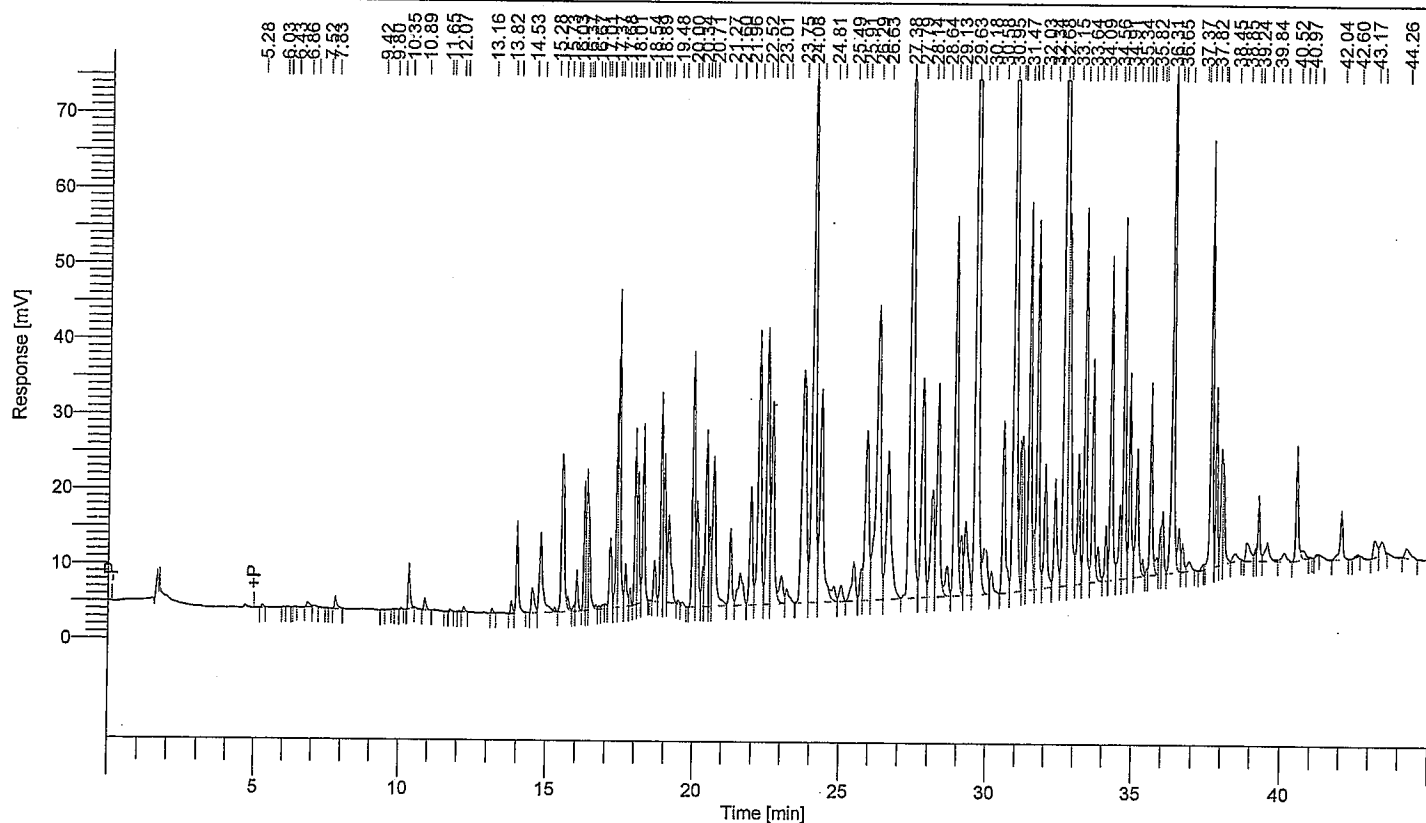
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61998
 Sample Name : 22667 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/50
 Sample Amount : 50.000000
 Cycle : 50

Date : 10/12/2007 7:21:46 AM
 Data Acquisition Time : 10/11/2007 10:58:49 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL021.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.86	5120
7.83	9044
10.35	28533
10.89	7813
12.21	3480
13.16	2619
13.82	7472
14.01	58450
14.53	22310
14.81	85478
15.28	2846
15.52	146636
15.73	7568
15.93	3227
16.03	24979
16.28	65106
16.37	75658
16.43	60131
16.67	2714
16.79	2107
16.93	3422
17.01	3037
17.16	51278
17.37	100888
17.45	204371
17.68	30238
17.84	10033

$$\sum \text{area (Arochlor 1260)} = 520186$$

$$\text{ng inj} = \frac{520186}{332859.5}$$

$$= 1.5628$$

$$\text{ppm} = \frac{1.5628}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.6251$$

$$\% \text{Recovery} = \frac{(0.6251 - 0.1433)}{0.1} \times 100 = 482\%$$

Time [min]	Area [μV·s]
18.01	102813
18.10	85993
18.28	112268
18.66	27560
18.89	130532
19.00	103637
19.16	98032
19.48	2198
19.64	2857
20.00	190764
20.13	81964
20.34	26733
20.45	133935
20.57	51750
20.71	158391
21.27	61245
21.60	51191
21.96	98536
22.24	260006
22.52	262087
22.69	196952
23.01	30852
23.20	18280
23.75	326003
24.08	597359
24.36	254910
24.81	18957
25.05	17557
25.49	48913
25.74	25565
25.91	197092
26.29	405690
26.63	227271
27.38	711714
27.79	239740
28.14	123936
28.32	222482
28.64	32279
28.92	379289
29.13	44414
29.28	94516
29.63	814951
29.92	75615
30.18	22882
30.58	156989
30.95	977407
31.17	92611
31.23	119125
31.47	334104
31.62	25841
31.75	300496
32.03	115868
32.34	103073
32.68	1015256
32.79	356468
33.15	114581
33.37	273101
33.64	167248
33.83	29075
34.09	36469
34.26	252126
34.56	55933
34.70	253218
34.91	157255
35.15	113306
35.34	11289
35.50	3693
35.61	136144
35.82	13718
35.95	26098
36.01	39916
36.31	470964
36.53	30812
36.65	24121
36.89	12353
37.37	3846
37.43	2246
37.63	272759
37.82	114316
37.99	77309
38.05	55802
38.45	11032
38.85	25609
39.14	7230
39.24	45395
39.53	25776

Aroclor
 1260

Time [min]	Area [μ V-s]
40.10	13537
40.52	84719
40.76	10284
42.04	45194
42.60	2377
43.17	20747
43.41	18021
44.26	15242
<hr/>	
14864371	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62004
 Sample Name : 22668 MSD
 Instrument Name : GC014
 Rack/Vial : 0/56
 Sample Amount : 50.000000
 Cycle : 56

Date : 10/12/2007 7:21:51 AM

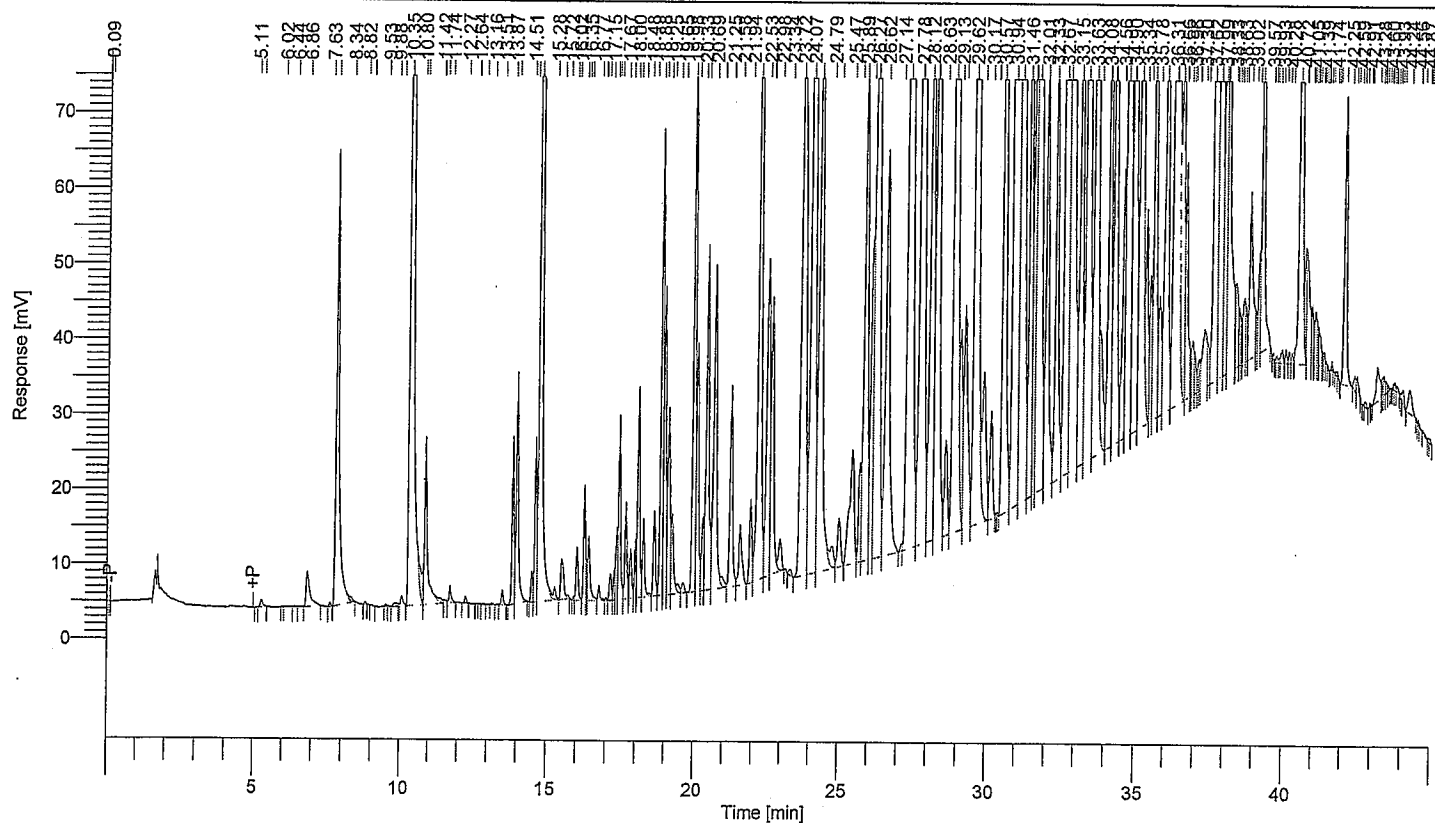
Data Acquisition Time : 10/11/2007 4:14:52 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL027.rst

Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

See 1:10 dilution.

Time [min]	Area [μV·s]
5.28	5646
6.86	42206
7.63	2093
7.82	412678
8.34	5279
9.88	4221
10.07	8426
10.35	1755125
10.80	29281
10.89	155231
11.42	6039
11.57	2532
11.74	11872
12.27	3777
13.51	8578
13.87	98864
14.00	154288
14.51	16076
14.63	87364
14.76	1099002
15.28	12166
15.52	35293
16.02	35442
16.27	64113
16.35	14353
16.42	47783
16.77	8111

Time [min]	Area [μ V·s]
17.15	17887
17.29	11965
17.36	36842
17.44	121484
17.67	62934
17.82	34355
18.00	29814
18.09	146932
18.27	54185
18.48	2109
18.65	58377
18.88	308837
18.98	217964
19.13	145864
19.25	64656
19.47	7882
19.65	8521
19.98	421633
20.12	195807
20.33	44970
20.44	303451
20.69	312738
20.96	11884
21.25	163943
21.58	64785
21.94	66264
22.22	861084
22.53	330616
22.68	272633
22.98	30657
23.34	5216
23.72	832842
24.07	1772574
24.34	708733
24.79	28964
25.03	50356
25.47	169314
25.74	80888
25.89	543560
26.14	264857
26.27	1041503
26.62	552951
27.14	4464
27.37	2290767
27.78	2030767
28.12	669880
28.30	964026
28.63	98862
28.91	2319308
29.13	141983
29.27	292862
29.62	2396195
29.91	192260
30.17	94317
30.57	906655
30.94	6299017
31.15	1464963
31.46	823499
31.62	368845
31.74	2198085
32.01	398930
32.33	415771
32.67	5721413
32.79	2112596
33.15	545633
33.37	3229421
33.63	1682544
33.80	116877
34.08	546707
34.25	912689
34.56	200845
34.69	2822887
34.90	1676250
35.14	1103116
35.34	162260
35.48	100126
35.61	554750
35.78	114140
36.01	574413
36.31	5010410
36.52	421724
36.66	210892
36.82	12966
36.91	38561
36.96	21873
37.09	15164

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61999
 Sample Name : 22668 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/51
 Sample Amount : 50.000000
 Cycle : 51

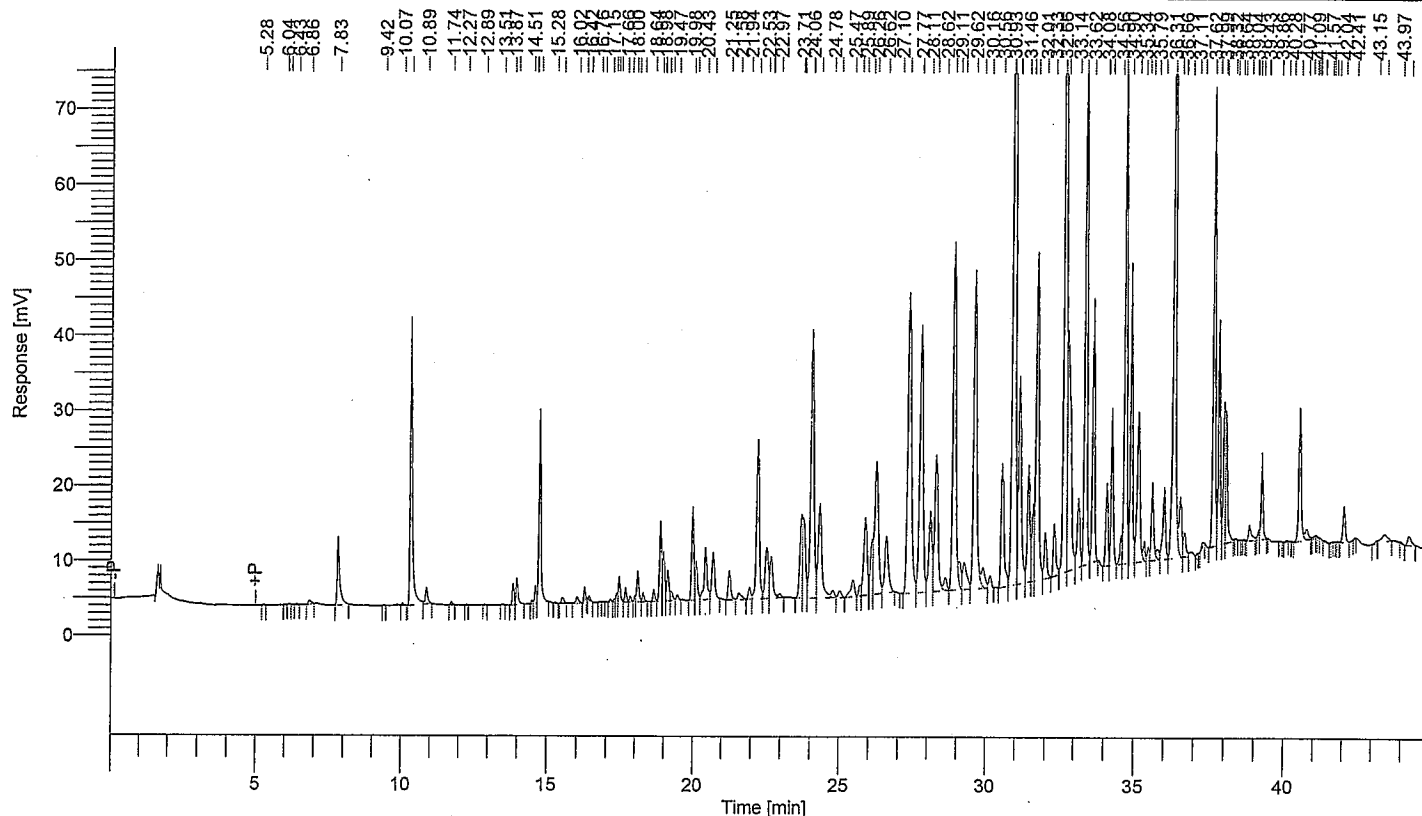
Date : 10/12/2007 7:21:47 AM

Data Acquisition Time : 10/11/2007 11:51:31 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL022.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
6.86	3299
7.83	54845
10.34	203630
10.89	11683
13.87	12117
14.00	17249
14.62	9135
14.75	113875
15.51	4402
16.02	5561
16.27	6161
17.15	2138
17.36	4821
17.44	16801
17.66	8494
17.82	3658
18.00	3101
18.09	20580
18.27	6009
18.64	7610
18.87	51690
18.98	34512
19.13	22747
19.25	7028
19.47	3398
19.98	67371
20.11	30056

$$\Sigma \text{area} = 604444$$

$$ng_{\text{injected}} = \frac{604444}{332899.5}$$

$$= 1.8159$$

$$ppm = \frac{1.8159}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.7264$$

$$\% \text{Recovery} = \frac{(0.7264 - 2.1513)}{0.1} \times 100 = -1425\%$$

Matrix Spike duplicate recovery is very low due to the presence of PCB's in the sample and the heterogeneity of the sample itself. 8/8 10/16/2007

Time [min]	Area [μ V-s]
20.43	48701
20.68	42960
21.25	23363
21.58	7657
21.94	9401
22.22	150847
22.53	53366
22.68	41160
22.97	3503
23.71	64202
23.77	69997
24.06	284846
24.34	112692
24.78	8060
25.03	6804
25.47	20696
25.73	7706
25.89	82087
26.12	44811
26.26	159807
26.62	69690
27.36	350370
27.77	288969
28.11	83357
28.30	145989
28.62	13409
28.90	363783
29.11	19645
29.27	36760
29.62	320929
29.91	23719
30.16	9926
30.56	116367
30.93	798054
31.14	204767
31.46	101620
31.61	51143
31.74	268071
32.01	40316
32.33	42598
32.66	703524
32.78	268620
33.14	56001
33.36	388223
33.62	183799
34.08	53705
34.25	108732
34.56	16565
34.69	361253
34.90	212421
35.14	129494
35.34	13243
35.48	8791
35.61	59024
35.79	8998
36.00	58916
36.31	601479
36.52	45844
36.66	20631
36.90	5060
37.30	3490
37.62	295440
37.81	146045
37.99	84224
38.04	78735
38.84	13069
39.13	4809
39.24	57460
40.52	95130
40.77	12217
42.04	27636
43.15	2006
43.43	15105
44.26	10714

9474521

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61978
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/30
 Sample Amount : 1.000000
 Cycle : 30

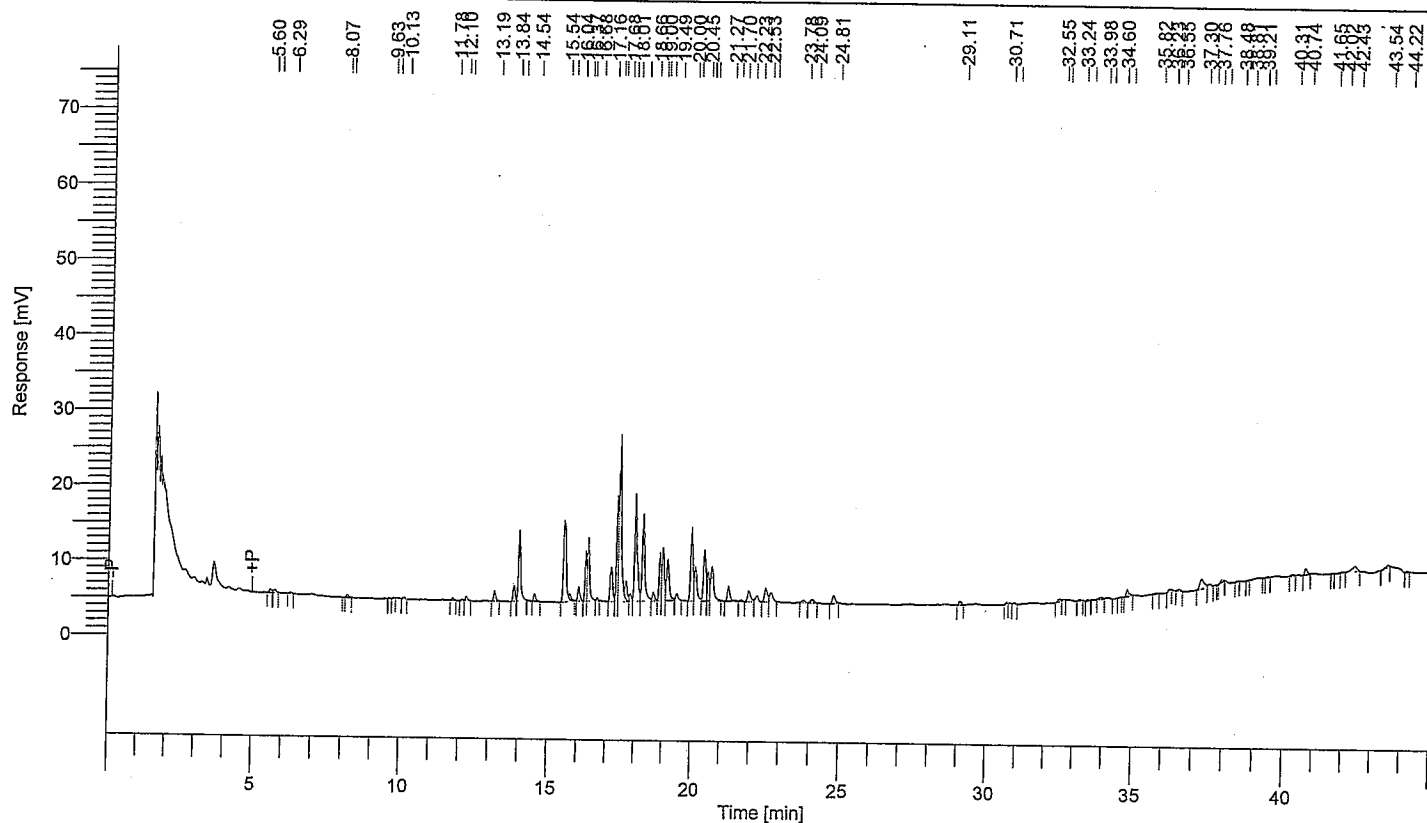
Date : 10/12/2007 7:21:26 AM

Data Acquisition Time : 10/10/2007 5:21:06 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL001.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2878
5.77	2965
8.19	2298
12.24	3033
13.19	6681
13.84	9648
14.02	49742
14.54	4906
15.54	75072
15.73	3768
16.04	9593
16.29	25701
16.37	41679
17.16	28081
17.37	54848
17.45	126133
17.68	14332
17.84	5640
18.01	91932
18.29	69616
18.66	6300
18.89	30203
19.00	40157
19.17	39308
19.49	5135
20.00	54880
20.13	29546

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
20.45	38015
20.57	20363
20.70	31833
21.27	12510
21.96	10581
22.23	5840
22.53	12881
22.70	9050
23.78	2178
24.09	3524
24.81	6975
29.11	2844
32.55	2430
33.98	2523
34.17	2049
34.83	5548
37.30	13567
37.56	2898
40.74	5365
42.43	7896
43.54	2458
<hr/>	
1035404	

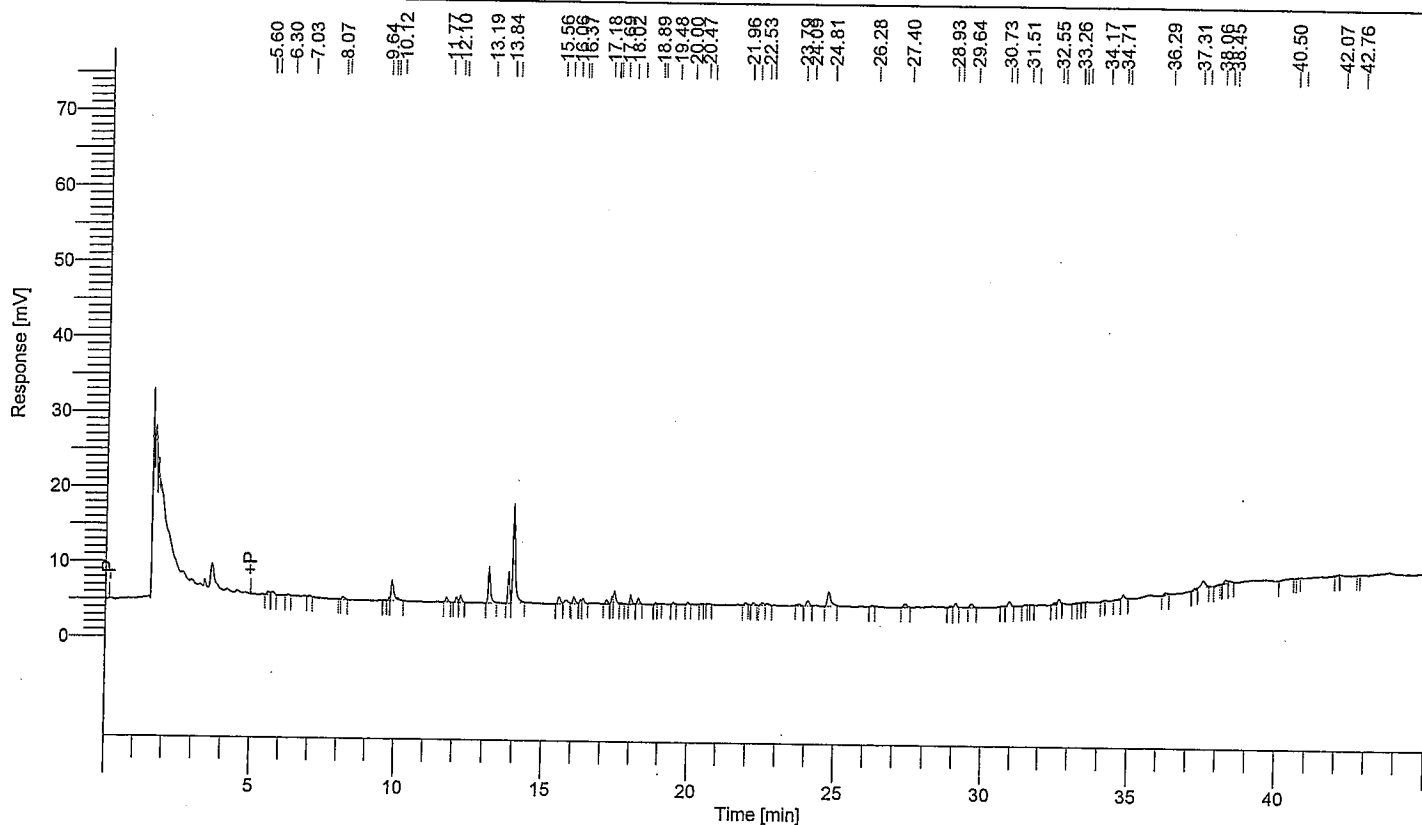
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61979
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/31
 Sample Amount : 1.000000
 Cycle : 31

Date : 10/12/2007 7:21:27 AM
 Data Acquisition Time : 10/10/2007 6:14:09 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL002.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2852
5.77	2935
8.19	2351
9.91	17807
11.77	3313
12.10	3429
12.24	4574
13.19	25371
13.84	19726
14.02	76150
15.56	5974
15.81	3856
16.06	5656
16.37	3419
17.18	3161
17.38	3801
17.46	10108
18.02	6717
18.29	4005
22.53	2445
24.09	4795
24.81	15737
27.40	4008
29.10	3411
29.64	3671
30.94	4242
32.68	3399

Time [min]	Area [μ V-s]
34.83	3657
36.29	2278
37.54	9275
38.32	3715
40.50	2001
<hr/>	
267841	

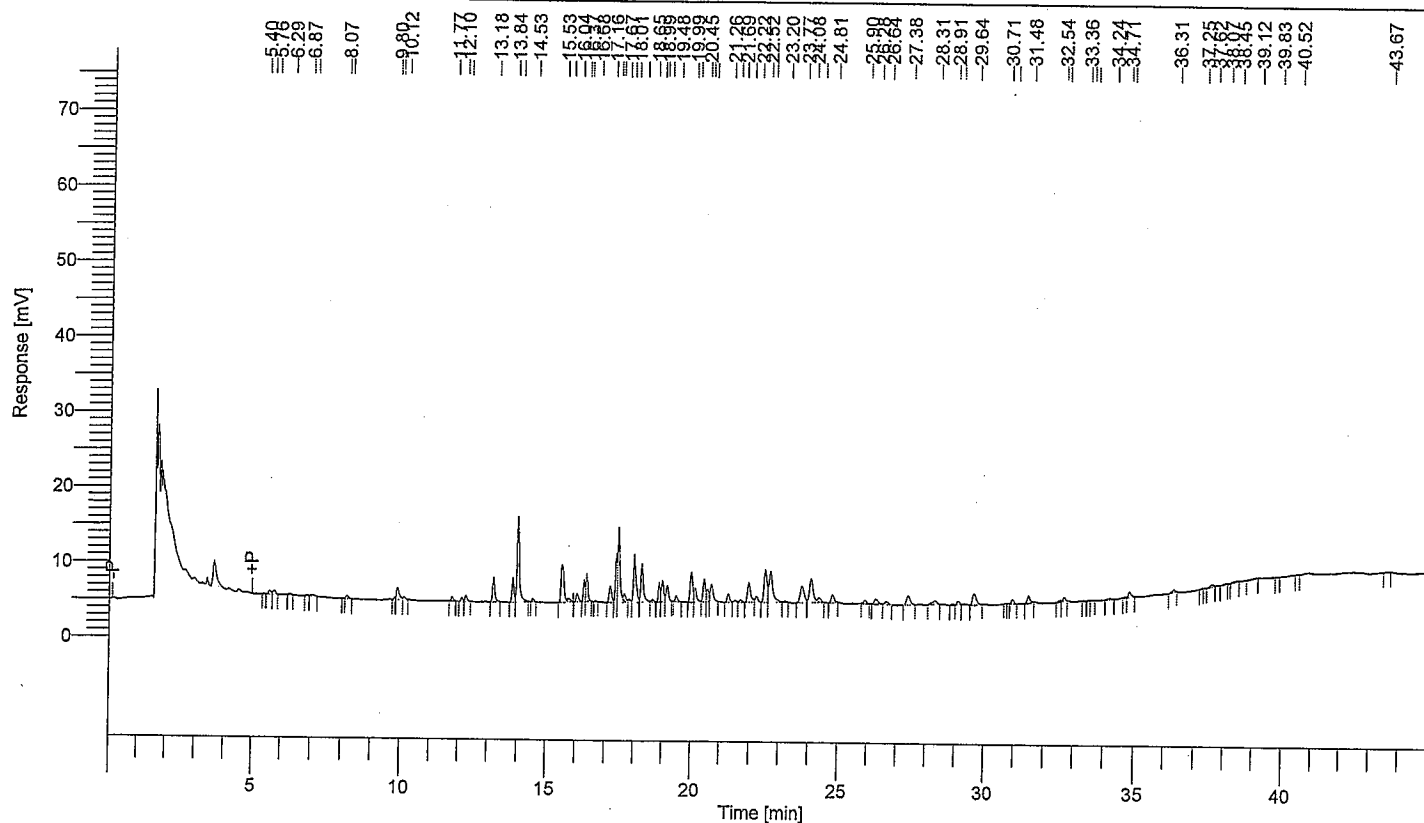
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61980
 Sample Name : AROCHLOR 1232
 Instrument Name : GC014
 Rack/Vial : 0/32
 Sample Amount : 1.000000
 Cycle : 32

Date : 10/12/2007 7:21:28 AM
 Data Acquisition Time : 10/10/2007 7:07:08 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL003.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	3084
5.76	3298
8.19	2524
9.90	10303
10.12	2124
11.77	2789
12.10	2373
12.23	4201
13.18	17413
13.84	15335
14.01	64074
15.53	34561
15.74	3390
16.04	6476
16.28	11113
16.37	17623
17.16	13097
17.37	24597
17.45	58697
17.67	6214
17.83	2107
18.01	40941
18.28	30561
18.88	11673
18.99	15841
19.16	13549
19.48	4048

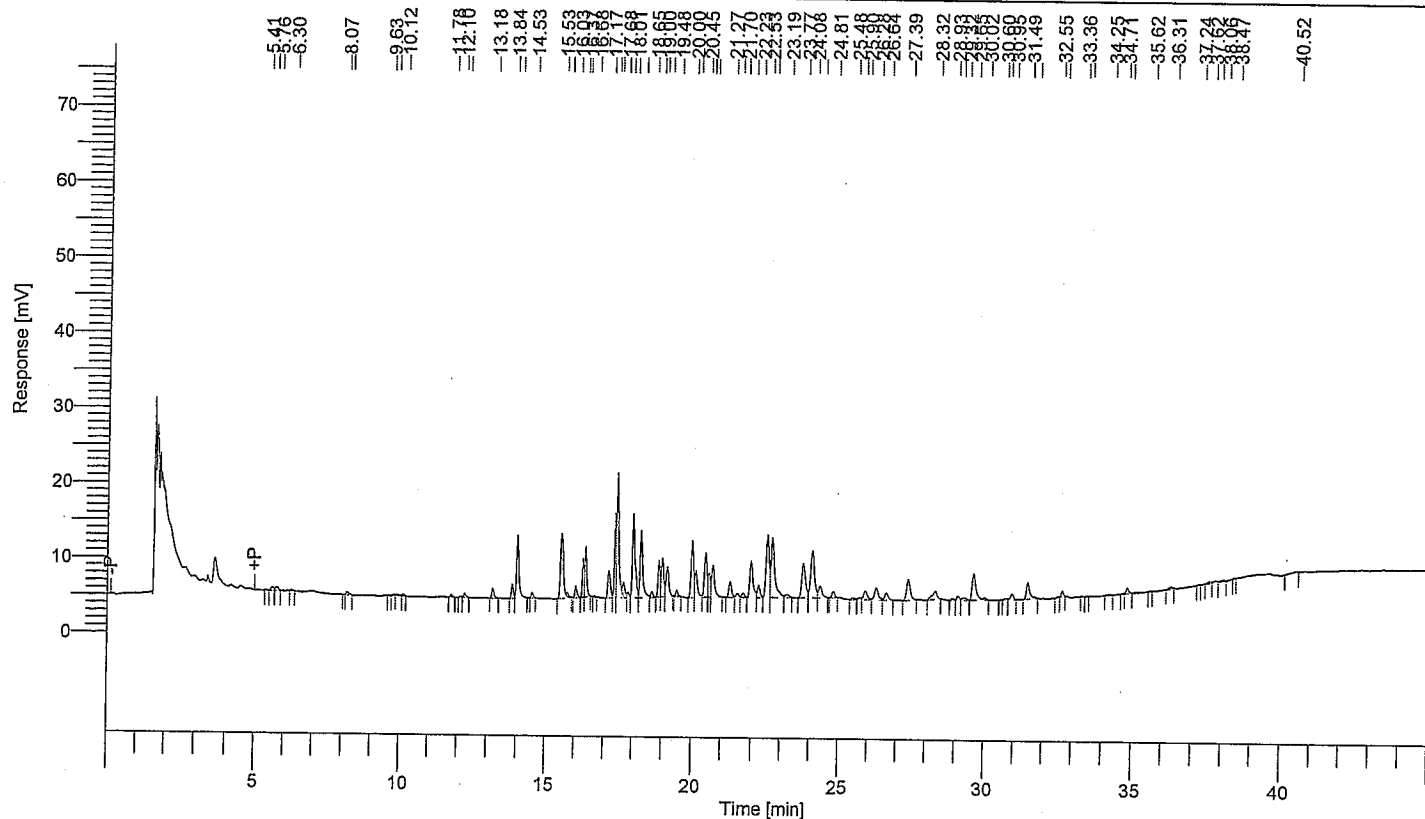
Time [min]	Area [μ V·s]
19.99	22746
20.13	11915
20.45	16996
20.56	8739
20.69	15542
21.26	6798
21.96	20272
22.22	5312
22.52	30702
22.70	37902
23.77	20396
24.08	29368
24.35	4028
24.81	7545
25.90	3394
26.28	5989
26.64	3431
27.38	11575
28.31	5477
29.10	2970
29.64	12798
30.95	3441
31.48	6928
32.67	3129
34.83	4956
36.31	2519
37.62	2563

729437

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61981
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/33
 Sample Amount : 1.000000
 Cycle : 33

Date : 10/12/2007 7:21:21 AM
 Data Acquisition Time : 10/10/2007 8:00:07 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL004.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	3164
5.76	3545
8.18	2587
12.24	2861
13.18	6666
13.84	9223
14.02	46719
14.53	3501
15.53	59370
15.74	2812
16.03	7905
16.28	19638
16.37	31370
17.17	22310
17.37	43125
17.45	99548
17.68	10890
17.84	3881
18.01	71689
18.29	54656
18.65	3984
18.89	22521
19.00	29406
19.17	25897
19.48	4183
20.00	43188
20.13	23407

$$\sum \text{area} = 176970$$

$$\text{calibration factor} = \frac{176970}{2}$$

$$= 88485$$

$$\sum \text{area (for 22665 1:10)} = 269018$$

$$\text{calibration factor} = \frac{269018}{2}$$

$$= 134509$$

or
22665
1:10

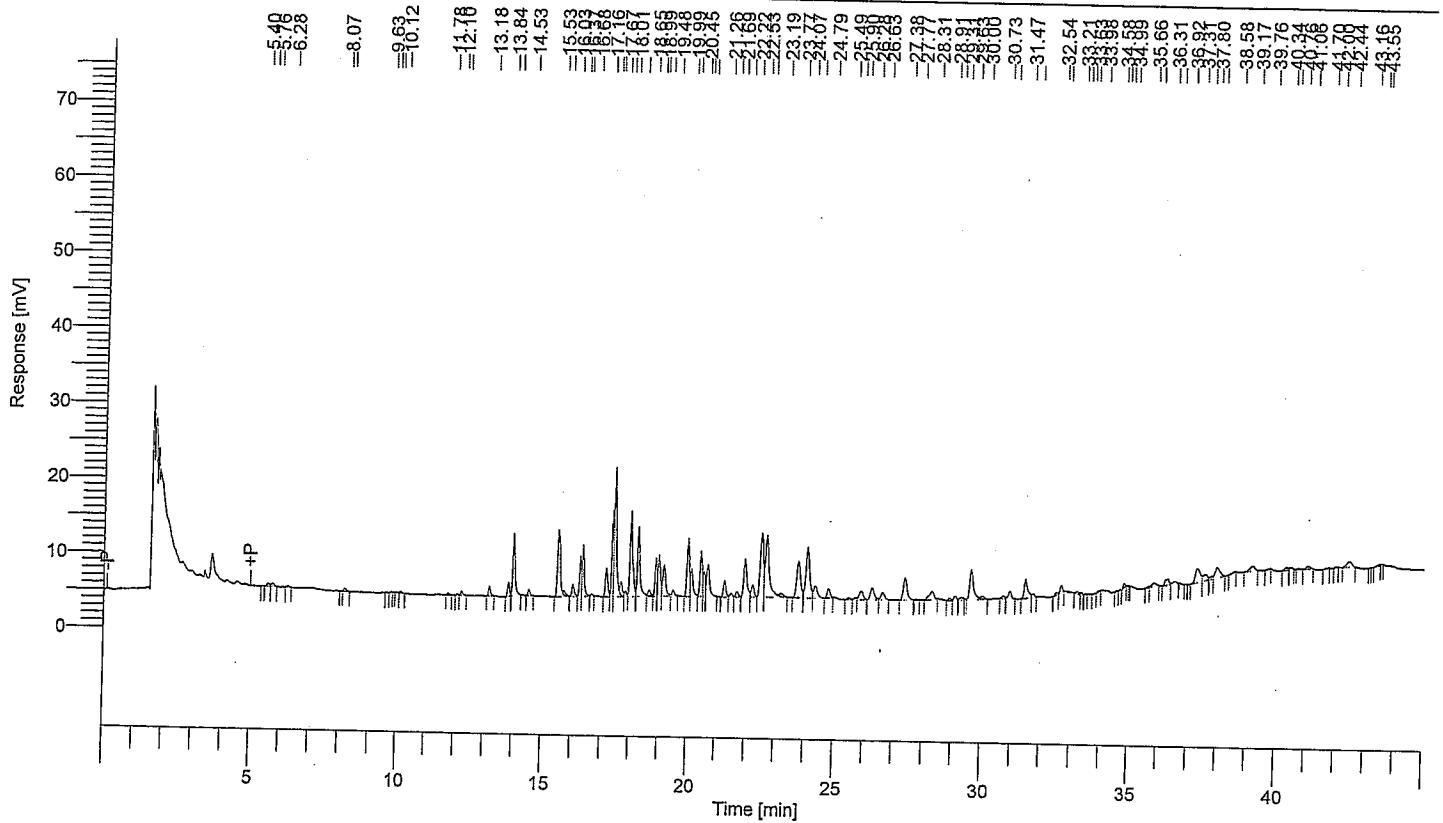
Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
20.45	33958
20.57	16361
20.69	31347
21.27	13463
21.50	3251
21.70	4005
21.96	37794
22.23	11621
22.53	60777
22.70	76242
23.19	3644
23.77	42321
24.08	57851
24.36	13864
24.81	5900
25.90	10771
26.28	14557
26.64	8788
27.39	25326
28.32	12068
29.11	3564
29.32	3540
29.65	30530
30.95	5114
31.49	18167
32.67	3630
34.84	4404

1210906

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61994
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/46
 Sample Amount : 1.000000
 Cycle : 46

Date : 10/12/2007 7:21:43 AM
 Data Acquisition Time : 10/11/2007 7:27:42 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL017.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2764
5.76	2927
8.19	2342
12.23	2886
13.18	6379
13.84	9058
14.02	45126
14.53	4022
15.53	60554
15.73	3853
16.03	9025
16.28	20617
16.37	34553
17.16	22638
17.37	44339
17.45	99477
17.67	10806
17.83	3923
18.01	72486
18.29	55647
18.65	5187
18.89	24312
18.99	31264
19.16	30043
19.48	4308
19.99	43890
20.13	23241

$$\sum \text{area} = 254633$$

$$\text{Calibration factor} = \frac{254633}{2} = 127316.5$$

For 226681110 $\sum \text{area} = 198000$

$$\text{Calibration factor} = \frac{198000}{2} = 99000$$

226681110

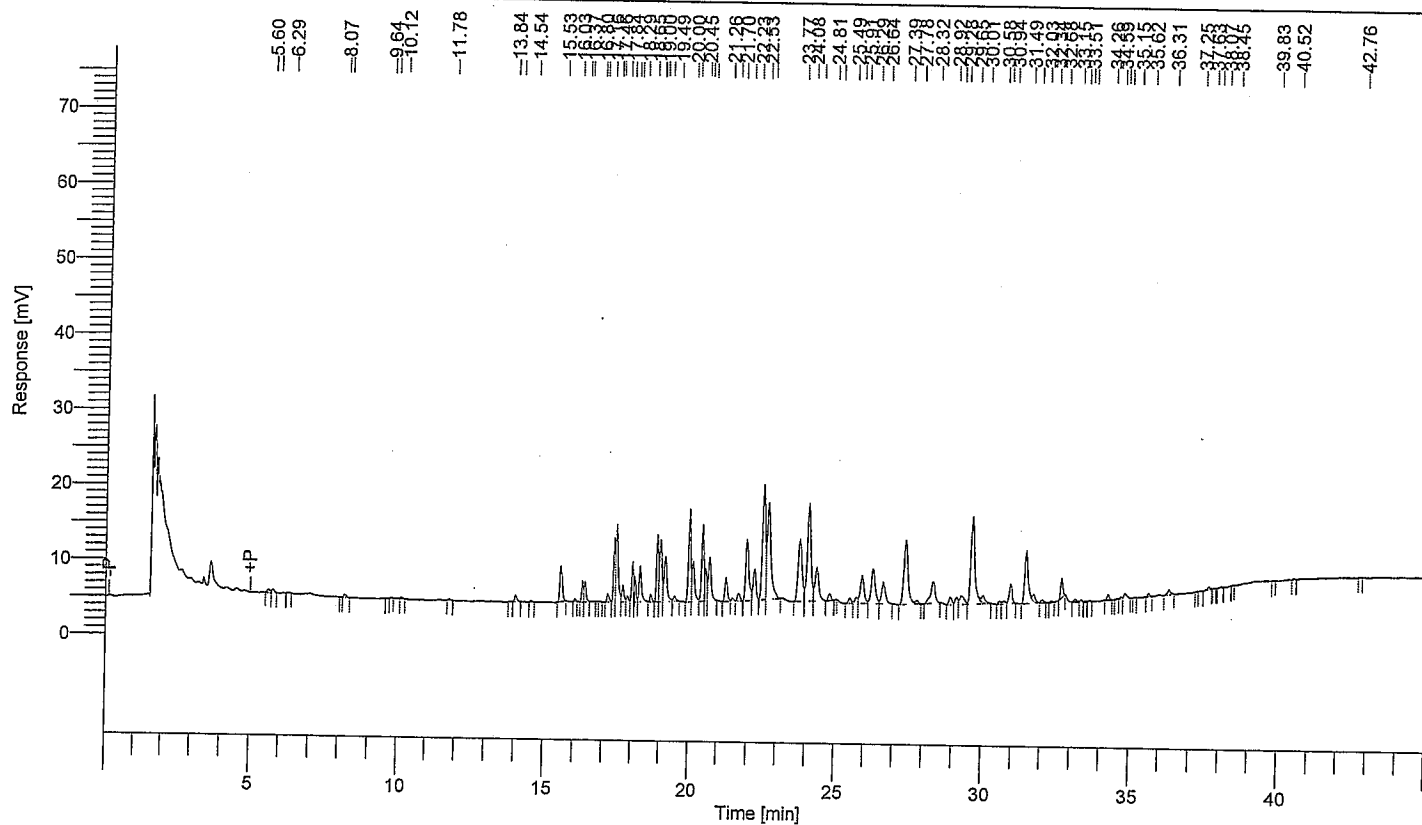
Time [min]	Area [μ V-s]
20.45	34281
20.56	16240
20.69	31451
21.26	13975
21.50	3188
21.69	4257
21.95	38602
22.22	11516
22.53	62756
22.70	78977
23.19	3991
23.77	43571
24.07	60136
24.35	14842
24.79	8339
25.90	10435
26.28	14283
26.63	8120
27.38	26507
28.31	12276
28.91	2064
29.10	3926
29.31	3468
29.63	35753
30.00	3720
30.73	2458
30.94	6880
31.47	21136
31.74	2928
32.67	5141
33.21	2169
34.83	2648
35.85	5352
36.31	8007
36.54	2763
37.31	22745
37.58	9360
37.80	2984
37.98	16014
39.17	8487
40.34	3053
41.06	3278
42.44	9318

1357067

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61982
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/34
 Sample Amount : 1.000000
 Cycle : 34

Date : 10/12/2007 7:21:31 AM
 Data Acquisition Time : 10/10/2007 8:53:06 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2904
5.77	3120
8.19	2414
14.02	4543
15.53	28141
16.29	10676
16.37	12322
17.16	6053
17.37	32975
17.46	59656
17.68	12129
17.84	4199
18.01	24787
18.10	17071
18.29	28203
18.65	4751
18.89	43201
19.00	47360
19.17	43914
19.49	4209
20.00	69602
20.13	34043
20.45	58739
20.56	20648
20.69	38899
21.26	20411
21.50	2537

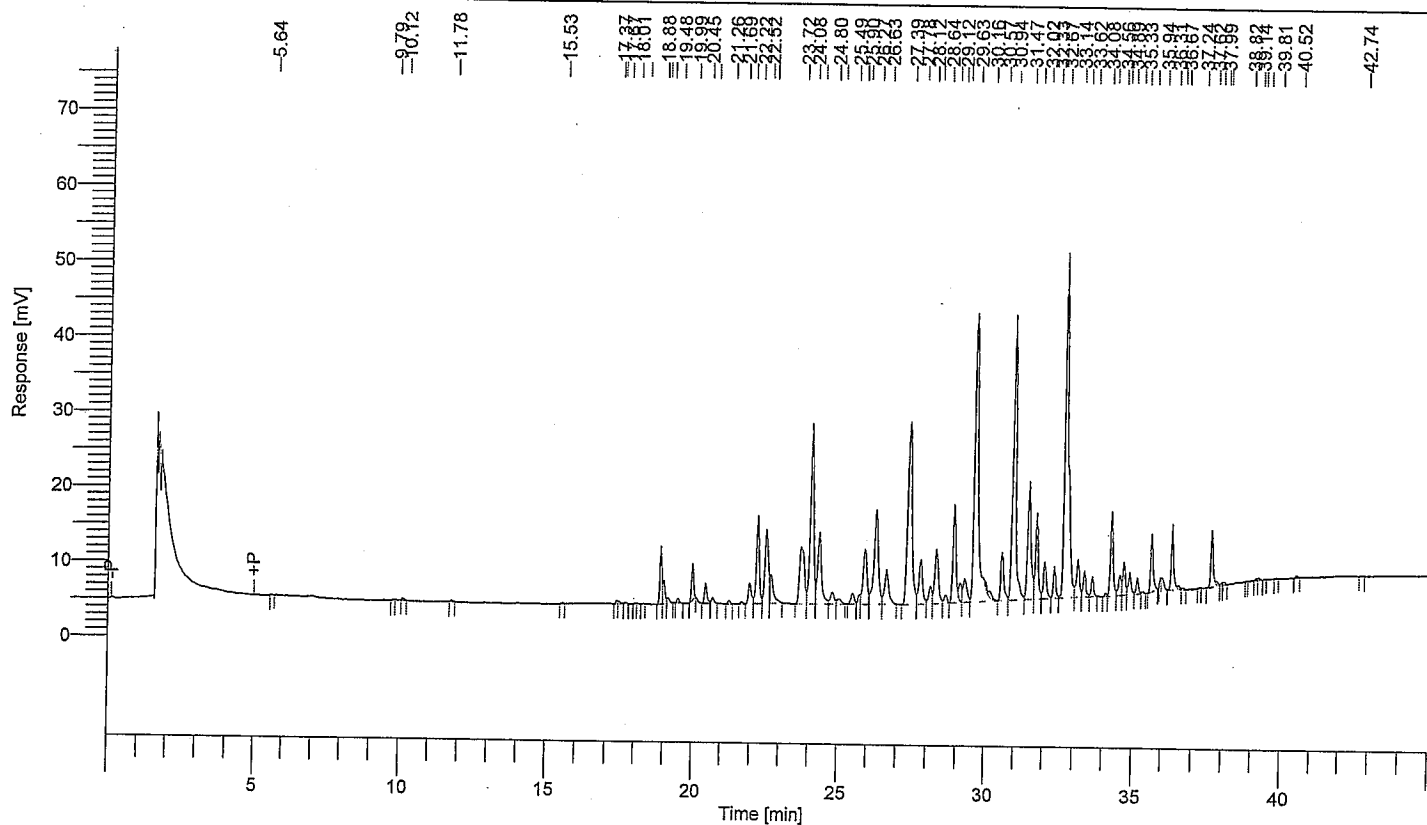
Time [min]	Area [μ V·s]
21.70	6077
21.96	63457
22.23	30140
22.53	111076
22.70	118796
23.77	80392
24.08	117422
24.36	39982
24.81	5905
25.49	5344
25.73	5602
25.91	33228
26.29	44266
26.64	28106
27.39	81684
27.78	3417
28.32	29431
28.92	6641
29.13	6325
29.28	12317
29.65	102933
30.01	10026
30.72	2572
30.94	17217
31.49	61103
31.74	7299
32.03	2276
32.68	13671
33.15	2272
34.26	3929
34.83	4811
35.62	2299
36.31	5200
37.63	2440

1705163

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61983
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/35
 Sample Amount : 1.000000
 Cycle : 35

Date : 10/12/2007 7:21:32 AM
 Data Acquisition Time : 10/10/2007 9:46:05 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL006.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB

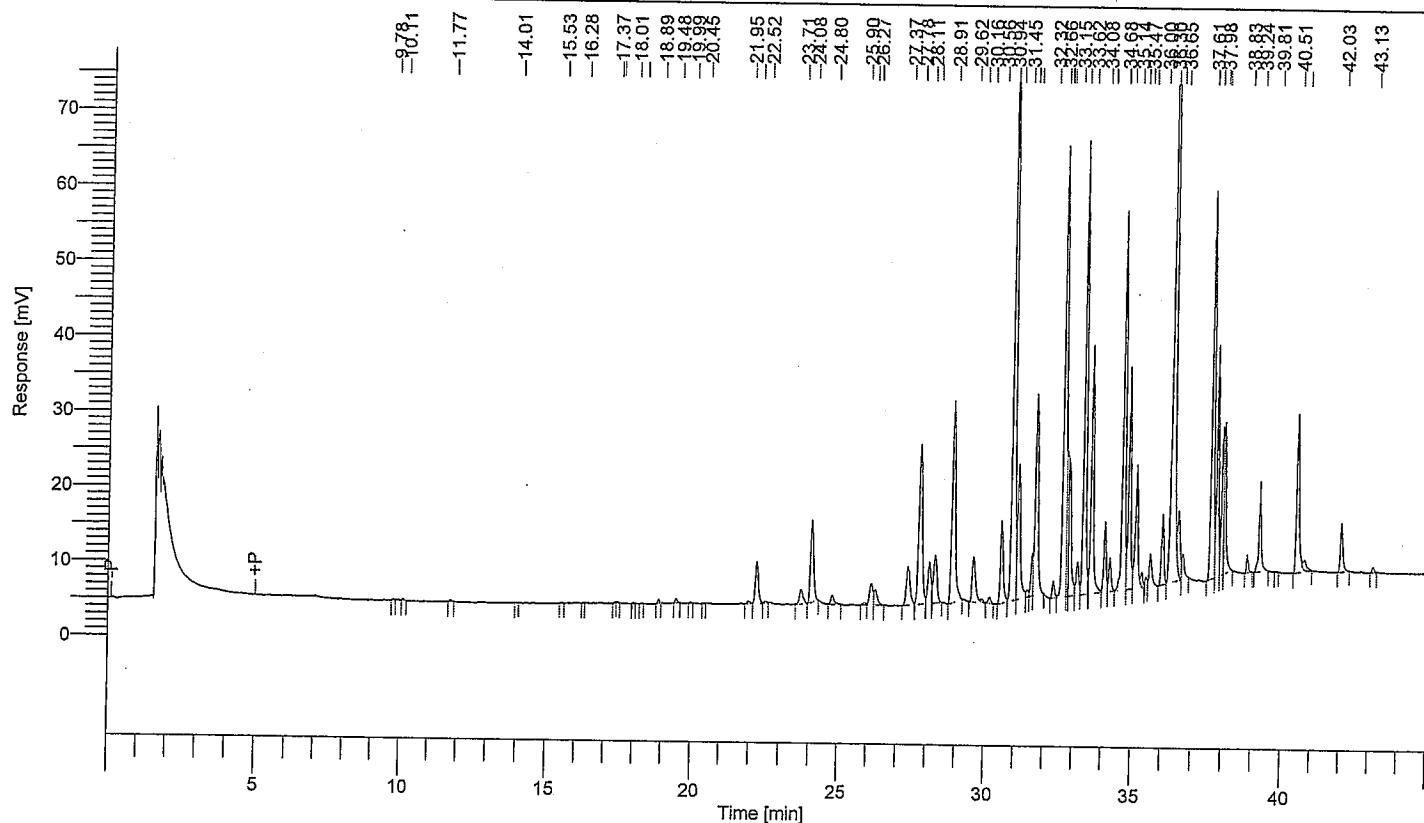


Time [min]	Area [μ V·s]
28.64	8129
28.91	100955
29.12	14831
29.28	30971
29.63	373874
30.16	12183
30.57	44765
30.94	296797
31.47	124448
31.74	81861
32.02	32701
32.33	24850
32.67	412866
33.14	37653
33.36	21240
33.62	14759
34.08	2181
34.26	71545
34.56	17602
34.69	25447
34.89	20944
35.14	11812
35.61	47757
36.31	50766
36.51	2666
37.62	43258
37.80	3085
<hr/>	
3296905	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61984
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/36
 Sample Amount : 1.000000
 Cycle : 36

Date : 10/12/2007 12:21:33 AM
 Data Acquisition Time : 10/10/2007 10:39:04 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.89	2206
19.48	3233
21.95	2658
22.22	38894
23.71	17057
24.08	83903
24.80	9510
25.90	2185
26.13	23357
26.27	16089
27.37	47102
27.78	176659
28.11	43581
28.30	50371
28.91	219252
29.62	46346
29.90	2387
30.16	4591
30.56	73764
30.94	543756
31.14	133767
31.45	5466
31.61	27184
31.73	182651
32.32	12573
32.66	396714
32.78	77259

For the spike $\sum \text{area} = 317713$

$$\text{Calibration factor (CF)} = \frac{317713}{2} = 158856.5$$

used for spike

$$\sum \text{area} = 641425$$

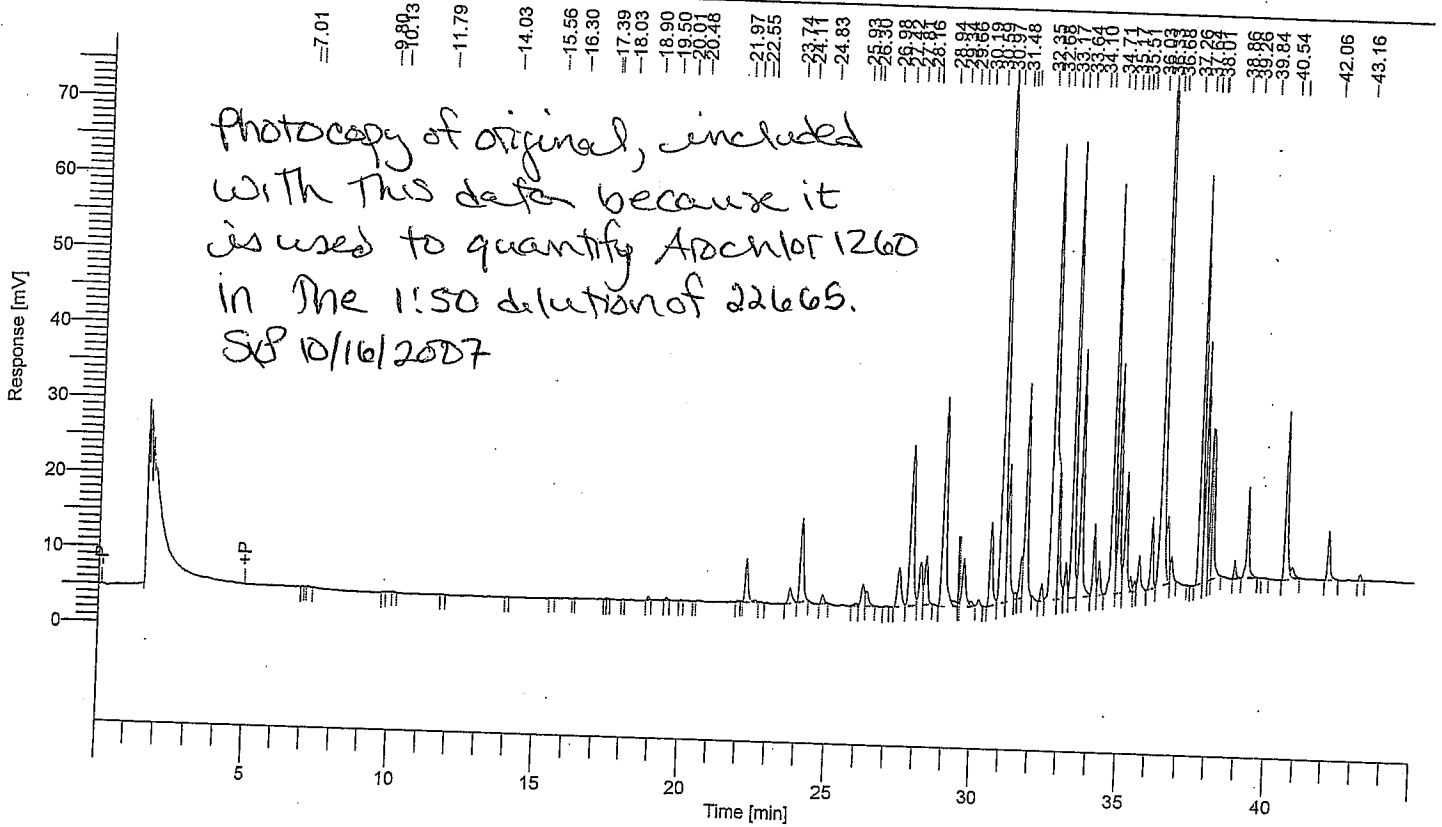
$$\text{CF} = \frac{641425}{2} = 320712.5$$

Time [min]	Area [μ V-s]
32.84	109667
33.15	29951
33.36	344852
33.62	193595
34.08	49633
34.25	27055
34.68	297515
34.89	172829
35.14	107016
35.33	10522
35.47	6736
35.61	29330
36.00	48146
36.30	657328
36.51	51422
36.65	21714
37.61	294056 ✓
37.80	162292 ✓
37.98	87328 ✓
38.04	97749 ✓
38.83	10256
39.24	71247
40.51	130290
40.77	12795
42.03	40326
43.13	4149
<hr/>	
5310311	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62016
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 1.000000
 Cycle : 8

Date : 10/15/2007 7:07:14 AM
 Data Acquisition Time : 10/12/2007 9:44:46 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.90	2250
19.50	2055
22.25	38812
22.55	2548
23.74	17325
24.11	85327
24.83	8255
25.93	2859
26.16	23304
26.30	16975
27.42	46927
27.81	181067
28.16	44466
28.34	51422
28.94	233298
29.34	7304
29.66	53370
29.92	4829
30.19	5820
30.59	75343
30.97	556687
31.17	135310
31.48	6022
31.64	26947
31.76	185398
32.35	12488
32.68	483327

$$\sum \text{area} = 1138730$$

$$\text{Calibration factor} = \frac{1138730}{2} = 569365$$

Time [min]	Area [μV-s]
32.89	84880
33.17	30161
33.39	354332
33.64	197826
34.10	50378
34.27	27282
34.71	302644
34.92	175755
35.17	108173
35.36	11139
35.51	6925
35.64	29035
36.03	47792
36.33	662630
36.54	54036
36.68	19437
37.64	298607
37.83	164442
38.01	83058
38.05	105639
38.86	11571
39.26	73246
40.54	131958
40.81	12787
42.06	41643
43.16	4544

5399655

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62001
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/53
 Sample Amount : 1.000000
 Cycle : 53

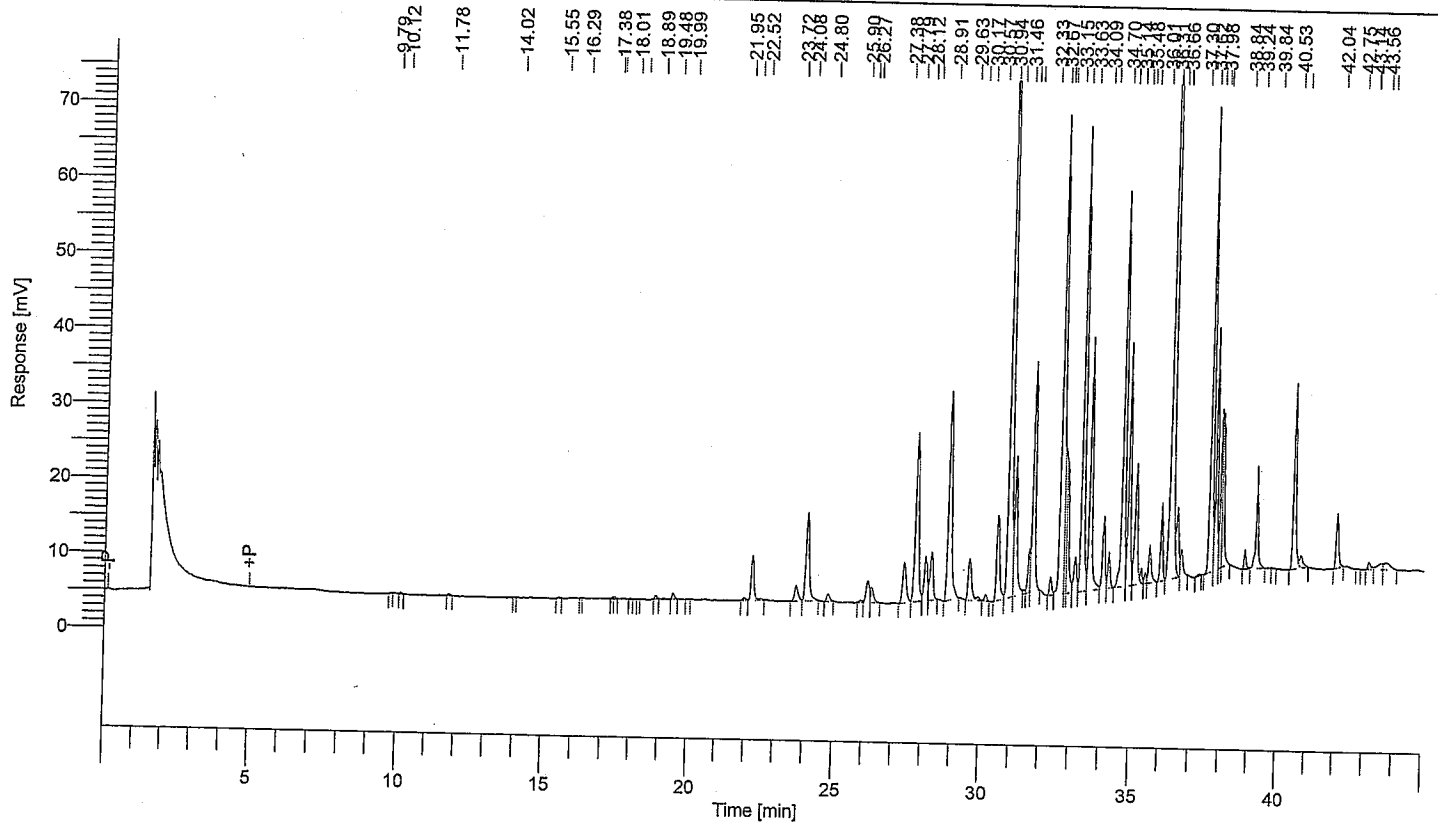
Date : 10/12/2007 7:21:49 AM

Data Acquisition Time : 10/11/2007 1:36:56 PM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL024.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.89	2022
19.48	4057
21.95	2180
22.23	39698
23.72	17960
24.08	92931
24.80	7220
25.90	2137
26.14	24513
26.27	15973
27.38	47350
27.79	181049
28.12	44411
28.31	50588
28.91	225761
29.63	44303
29.91	2702
30.17	4859
30.57	77346
30.94	566366
31.15	130572
31.46	2862
31.62	28128
31.74	187946
32.33	13037
32.67	425384
33.56	80140

$$\begin{aligned} \sum \text{area} &= 665719 \\ \text{Calibration factor} &= \frac{665719}{2} \\ &= 332859.5 \end{aligned}$$

Time [min]	Area [μ V·s]
32.86	99760
33.15	31042
33.37	356681
33.63	201621
34.09	52567
34.26	26928
34.70	309422
34.90	179929
35.14	110509
35.34	10106
35.48	6568
35.62	32199
36.01	50091
36.31	692567
36.52	53964
36.66	21455
37.62	317665
37.81	162811
37.98	90132
38.04	95111
38.84	11511
39.24	78745
40.53	142969
40.78	13739
42.04	43373
43.14	6760
43.56	10132
43.73	14543

5544399

Software Version : 6.3.1.0504
 Sample Name : 23661 1:10
 Instrument Name : GC014
 Rack/Vial : 0:39
 Sample Amount : 50.000000
 Cycle : 33

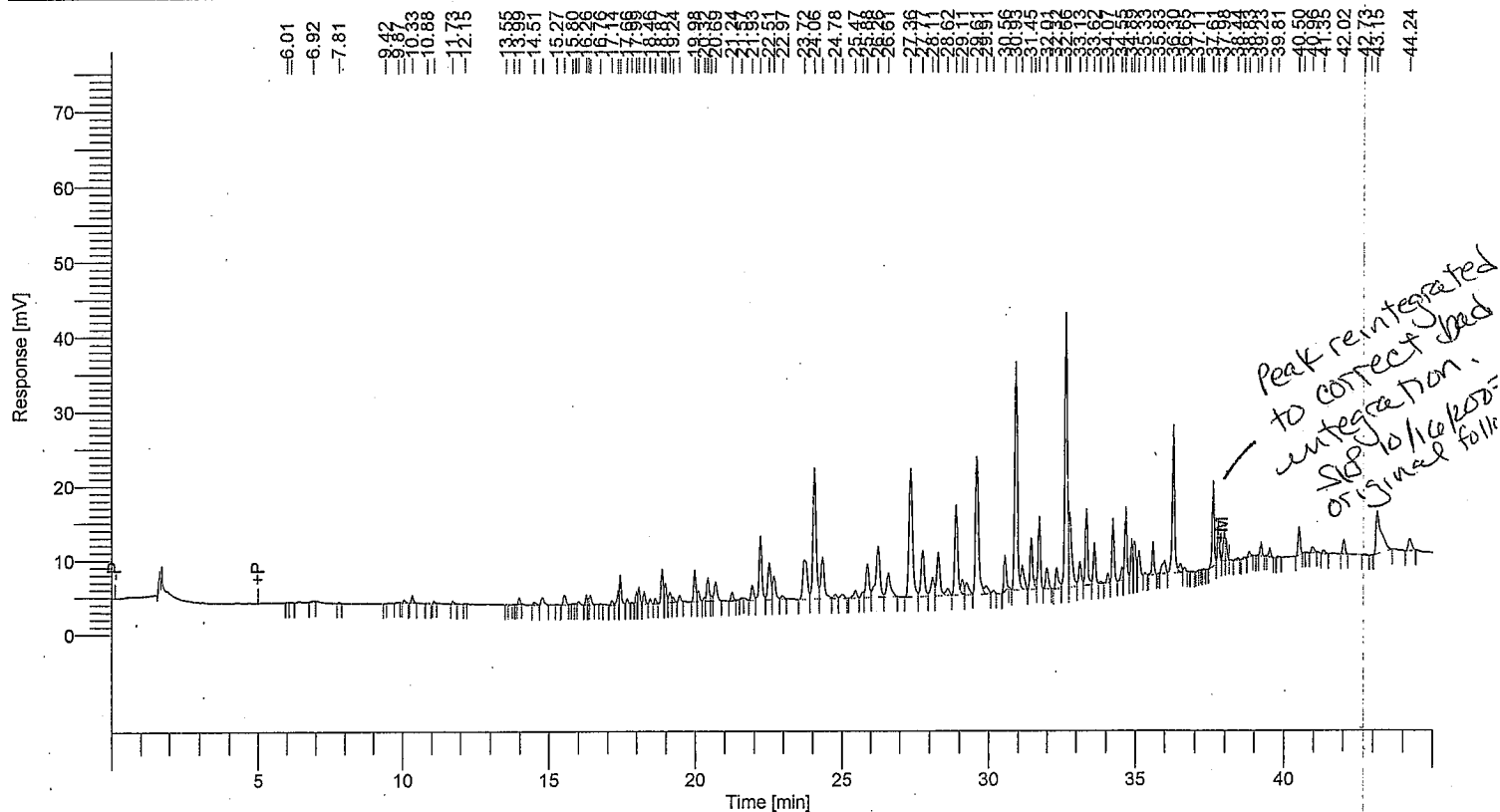
Date : 10/16/2007 7:14:55 AM
 Data Acquisition Time : 10/11/2007 1:17:49 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL010-20071016-071446.rst

Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.33	4467
11.73	2041
13.99	3233
14.51	2526
14.79	7237
15.51	8056
16.01	2367
16.26	5188
16.35	3155
16.41	5832
17.14	3065
17.35	8607
17.43	18781
17.66	3995
17.99	6914
18.08	11655
18.26	7933
18.46	3199
18.64	3303
18.87	21603
18.98	13624
19.13	8420
19.24	3548
19.46	4014
19.98	22822
20.11	7996
20.32	2349
20.43	17744
20.54	3003

$$\sum \text{area (Arochlor 1242)} = 39379$$

$$\text{ng inj} = \frac{39379}{88485} = 0.4450$$

$$\text{ppm} = \frac{0.4450}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1780$$

$$\sum \text{area (Arochlor 1254)} = 115392$$

$$\text{ng inj} = \frac{115392}{100536.5} = 1.1478$$

$$\text{ppm} = \frac{1.1478}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.4591$$

$$\sum \text{area (Arochlor 1260)} = 110949$$

$$\text{ng inj} = \frac{110949}{320712.5} = 0.3459$$

$$\text{ppm 1260} = \frac{0.3459}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1384$$

10/24/2007
 Total PCB = 0.9830 ppm. 0.7755 ppm

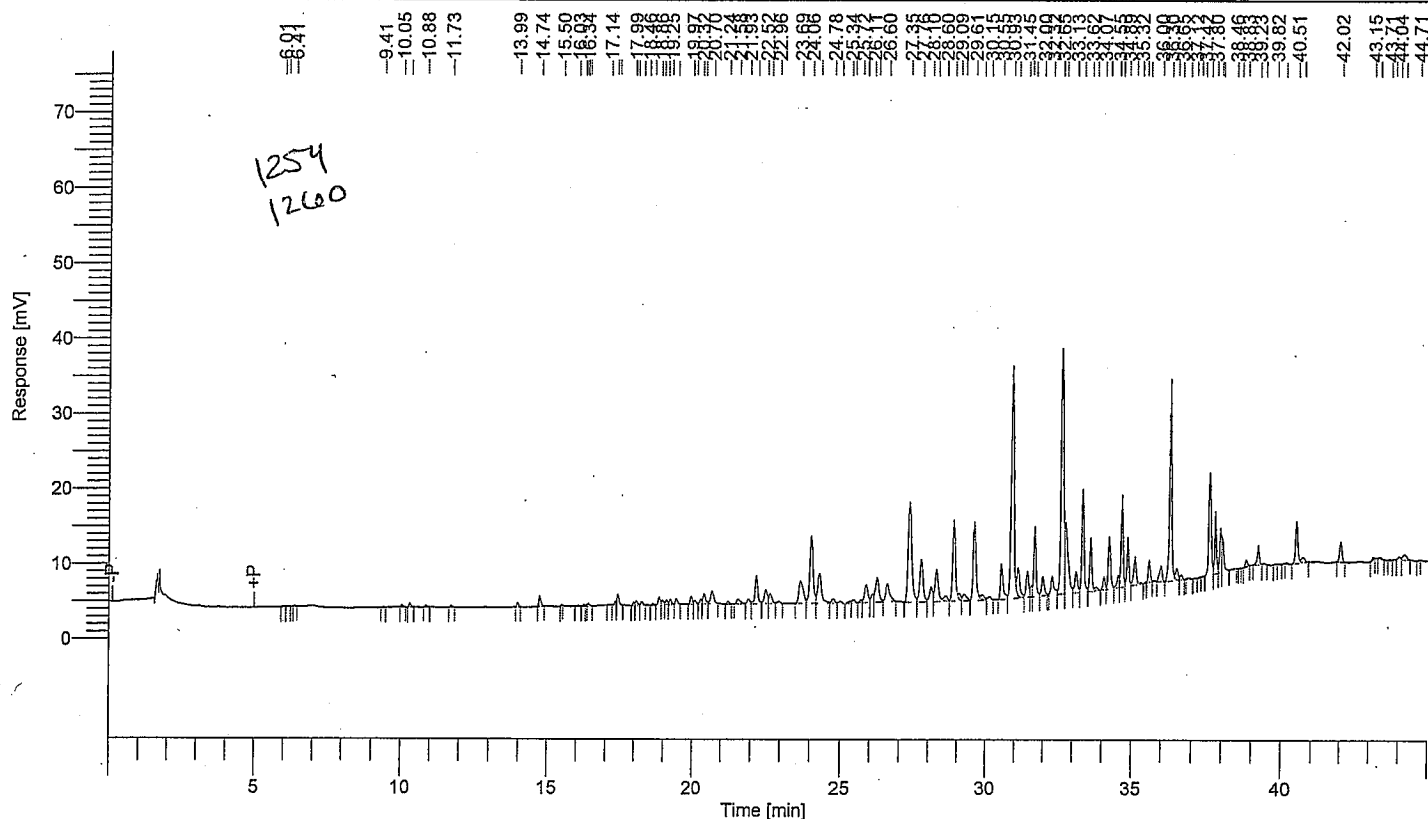
Time [min]	Area [μV·s]
20.69	18078
21.24	6258
21.93	12053
22.21	57613
22.51	35789
22.67	22402
22.97	3260
23.72	59683
24.06	136498
24.33	47044
24.78	4564
25.02	4464
25.47	7971
25.73	4391
25.88	36705
26.26	67795
26.61	31643
27.36	149167
27.77	49640
28.11	19859
28.30	44039
28.62	7266
28.90	87194
29.11	12136
29.26	13651
29.61	126134
29.91	10564
30.16	2364
30.56	25704
30.93	206902
31.14	23373
31.45	42730
31.60	4514
31.73	53817
32.01	16104
32.32	20291
32.66	218644
32.78	70033
33.13	20187
33.36	58769
33.62	29036
34.07	6228
34.25	43151
34.55	9006
34.68	50567
34.89	26692
34.98	28209
35.13	21484
35.33	2135
35.60	21439
36.00	12530
36.30	108963
36.51	6880
36.65	3231
37.61	56715
37.80	26146
37.98	17124
38.03	10964
38.83	3360
39.23	9485
39.52	5433
40.50	19386
40.96	4990
41.35	3069
42.02	10686
43.15	70720
44.24	12121

2675723

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61988
 Sample Name : 22662 1:10
 Instrument Name : GC014
 Rack/Vial : 0/40
 Sample Amount : 50.000000
 Cycle : 40

Date : 10/12/2007 7:21:37 AM
 Data Acquisition Time : 10/11/2007 2:10:44 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL011.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.33	2522
13.99	2198
14.74	6757
16.42	2024
17.35	2326
17.43	6936
18.08	3727
18.26	2555
18.66	4831
18.97	3417
19.12	3043
19.25	3513
19.46	3592
19.97	5531
20.11	2622
20.32	2784
20.43	8302
20.70	12151
21.24	2015
21.58	5272
21.93	3995
22.20	26032
22.52	13432
22.67	9432
22.96	2209
23.69	30367
24.06	69278

$$\sum \text{area (Aroclor 1254)} = 77198$$

$$\text{ng inj} = \frac{77198}{100536.5} = 0.7679$$

$$\text{ppm} = \frac{0.7679}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.3071$$

$$\sum \text{area (Aroclor 1260)} = 156959$$

$$\text{ng inj} = \frac{156959}{320712.5} = 0.4894$$

$$\text{ppm} = \frac{0.4894}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1958$$

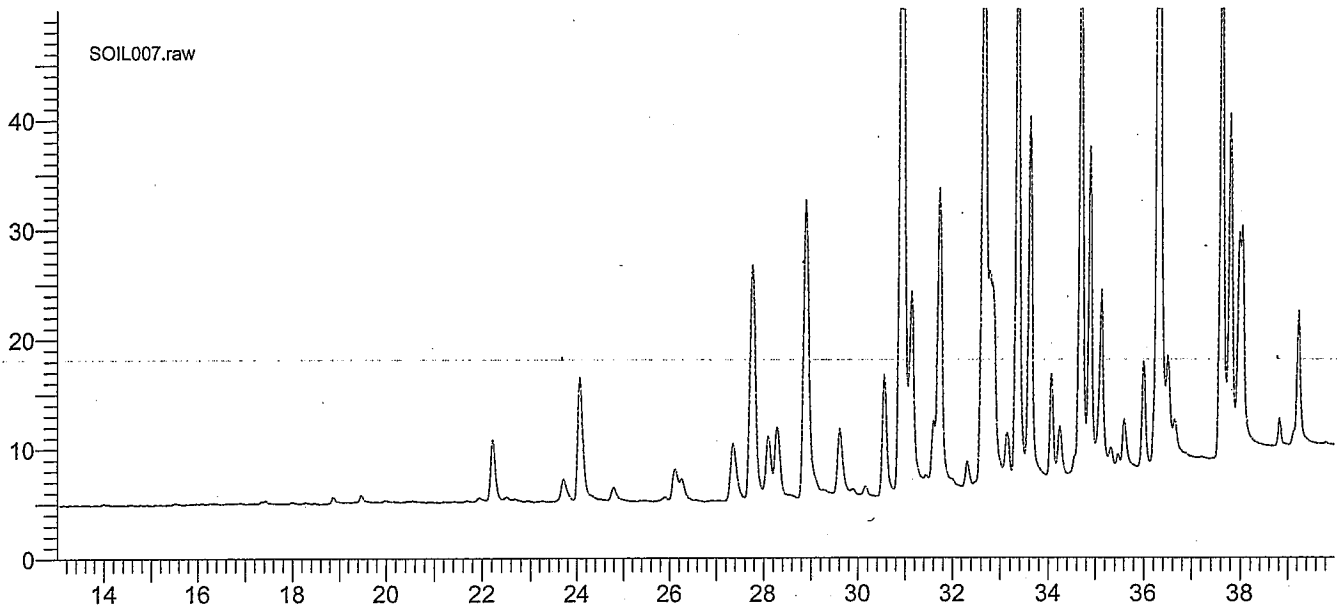
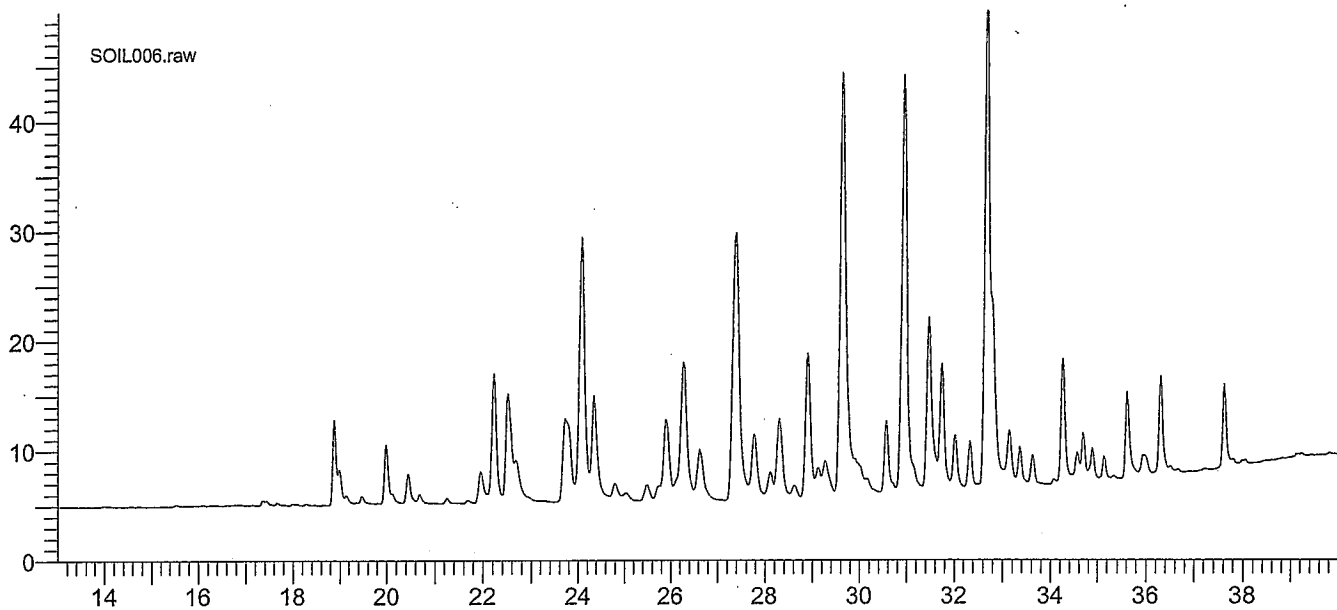
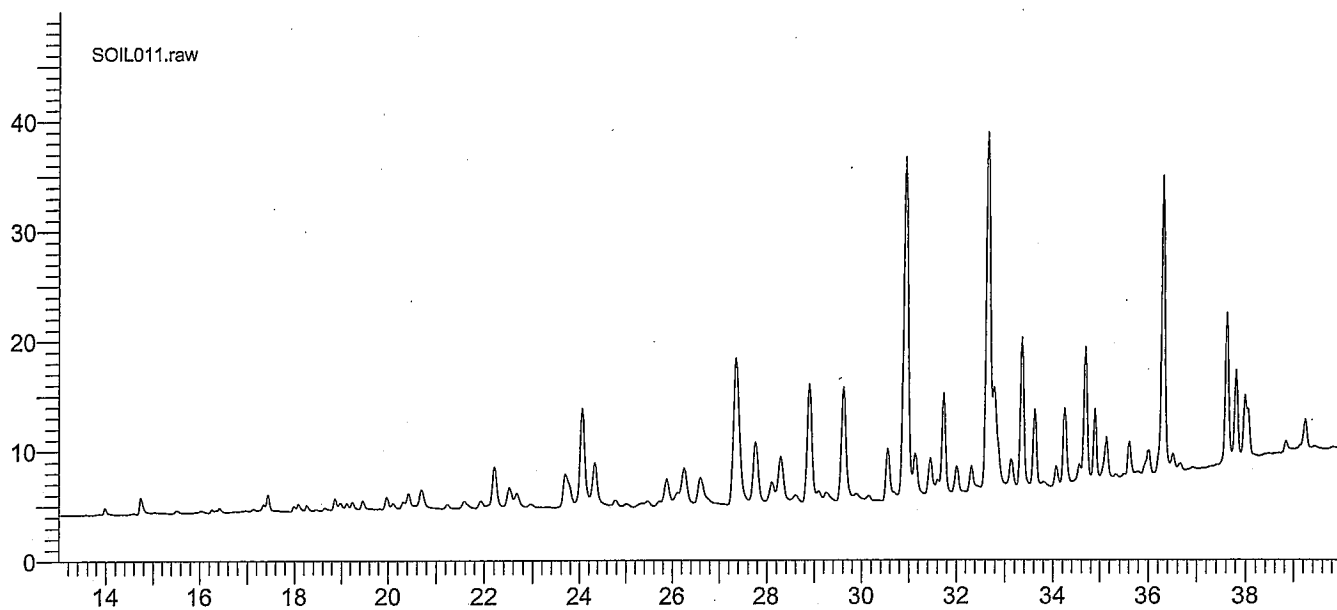
$$\text{Total PCB} = 0.5029 \text{ ppm}$$

10/12/2007 7:21:37 AM Result: C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL011.rst

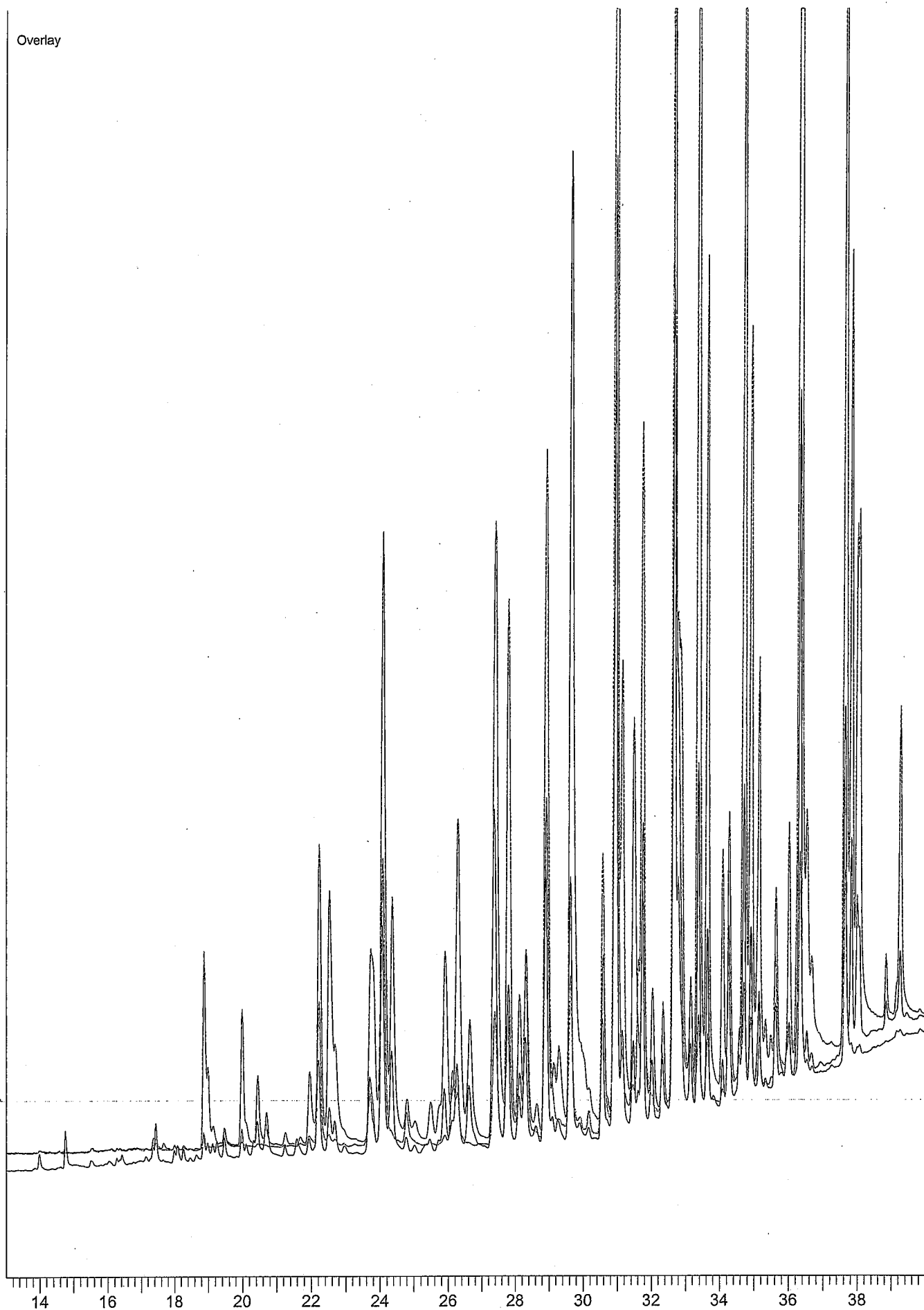
Time [min]	Area [μV·s]
24.34	36077
24.78	4909
25.02	2236
25.46	3658
25.72	2095
25.88	18905
26.11	6899
26.25	28420
26.60	22216
27.35	117165
27.76	45288
28.10	14803
28.29	34904
28.60	6259
28.89	78794
29.09	5094
29.26	8134
29.61	75479
29.90	5902
30.15	2967
30.55	32827
30.93	212586
31.13	26271
31.45	22792
31.60	7174
31.73	55639
32.00	16682
32.32	17786
32.65	210505
32.78	68354
33.13	18319
33.35	73469
33.62	38717
33.80	3092
34.07	8525
34.24	39781
34.55	8877
34.68	63273
34.89	33749
35.13	23933
35.61	15404
36.00	13197
36.30	141666
36.51	8351
36.65	3758
37.61	72172
37.80	39321
37.97	25484
38.02	19982
38.83	4086
39.23	14458
40.51	30708
40.73	5854
42.02	15206
44.04	3169
44.23	6277

2162511

Plot Title	Start Time	End Time	Scale	Offset
SOIL011.raw	13.00	40.00	50.00	0.00
Sample Name :	22662 1:10			
Sample Number:	40			
Instrument File Name:	c:\pest\gc14\methods\pcb			
SOIL006.raw	13.00	40.00	50.00	0.00
Sample Name :	AROCHLOR 1254			
Sample Number:	35			
Instrument File Name:	c:\pest\gc14\methods\pcb			
SOIL007.raw	13.00	40.00	50.00	0.00
Sample Name :	AROCHLOR 1260			
Sample Number:	36			
Instrument File Name:	c:\pest\gc14\methods\pcb			



Overlay

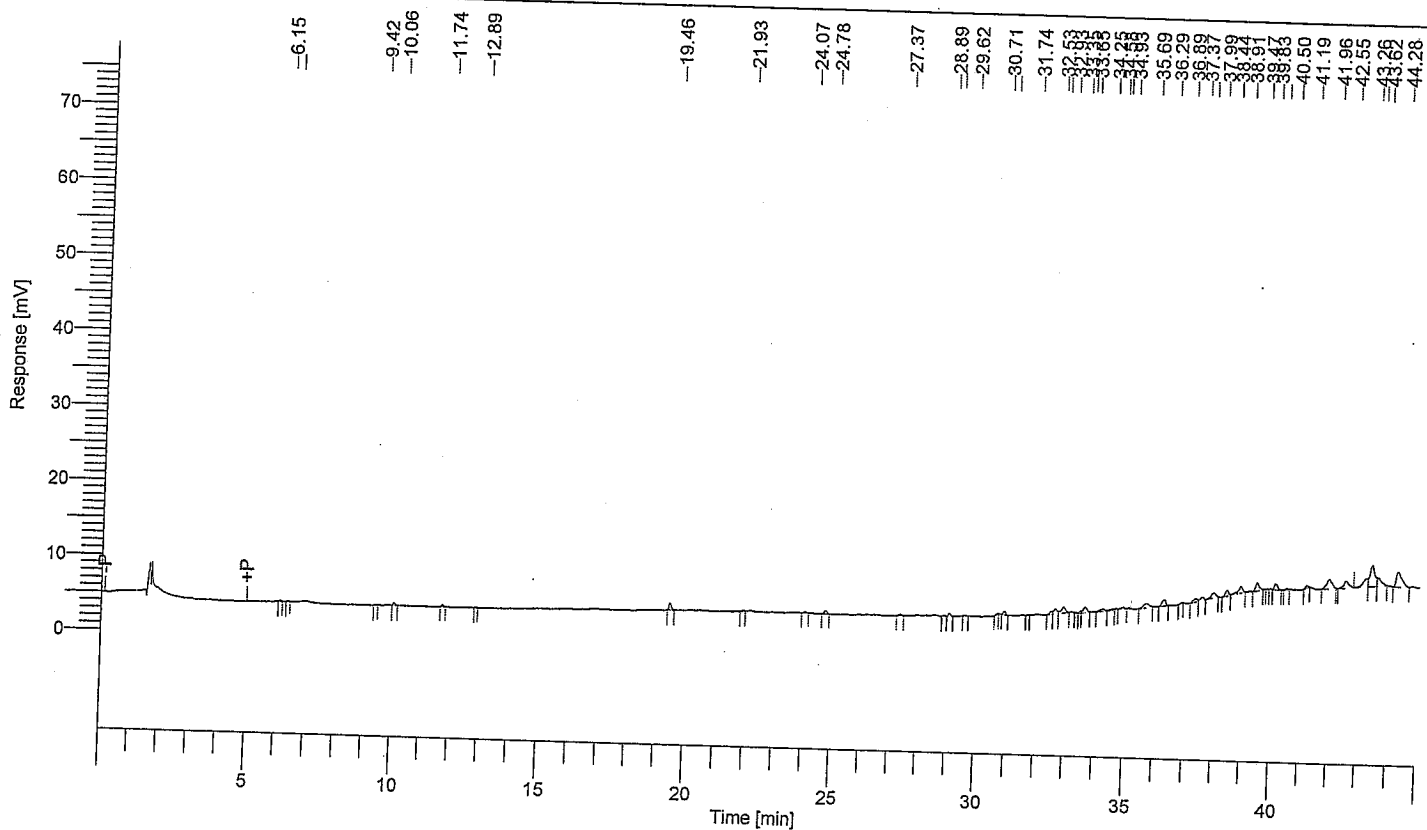


Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61989
 Sample Name : 22663 1:10
 Instrument Name : GC014
 Rack/Vial : 0/41
 Sample Amount : 50.000000
 Cycle : 41

Date : 10/12/2007 7:21:38 AM
 Data Acquisition Time : 10/11/2007 3:03:39 AM
 Channel : A
 Operator : tprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL012.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
19.46	4793
24.78	2882
29.09	2798
30.93	2488
32.53	2800
32.66	5248
32.93	8052
33.65	6724
34.25	3148
35.69	7303
36.29	6995
37.37	4640
37.60	3632
37.99	6973
38.44	5779
38.91	8716
39.47	8918
40.11	6395
41.19	2067
41.96	16538
42.55	11976
43.26	12547
43.42	32881
43.62	10280
44.28	26070

<0.4 ppm total PCB

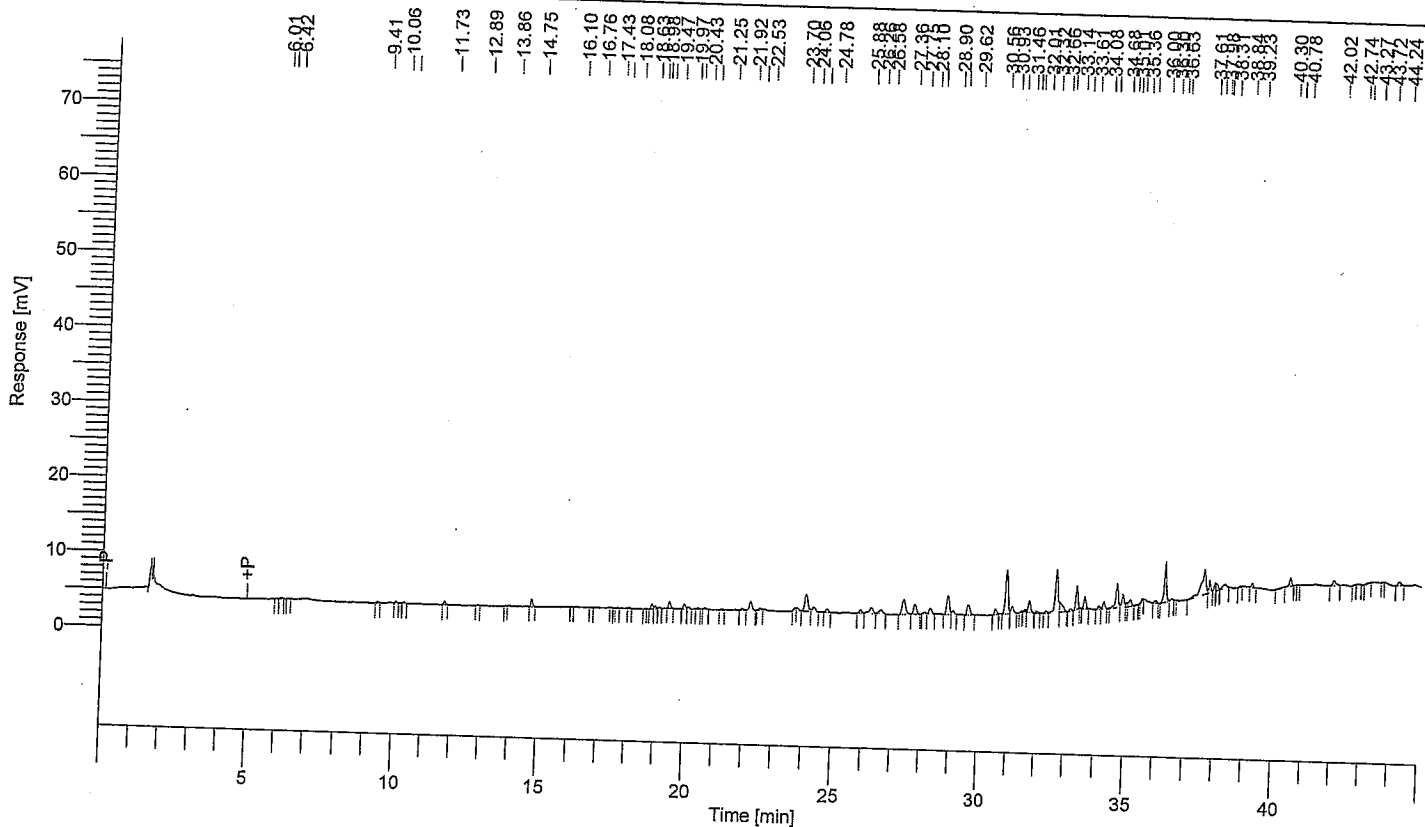
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61991
 Sample Name : 22664 1:10
 Instrument Name : GC014
 Rack/Vial : 0/43
 Sample Amount : 50.000000
 Cycle : 43

Date : 10/12/2007 7:21:40 AM

Page 1 of 2

Data Acquisition Time : 10/11/2007 4:49:21 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL014.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
11.73	2028
14.75	4232
18.87	2894
19.47	4417
19.97	3272
22.21	7346
24.06	16567
24.33	4708
24.78	3003
25.88	2855
26.26	7431
26.58	4780
27.36	16359
27.75	9528
28.29	5269
28.90	17515
29.09	3227
29.62	9295
30.56	3984
30.93	38086
31.14	5890
31.72	8988
32.66	36820
32.79	10592
33.35	14696
33.61	7543
34.08	2308

<0.4 ppm total PCB

Time [min]	Area [μ V·s]
34.25	4888
34.68	17790
34.89	9422
35.13	5890
36.30	28896
37.61	34267
37.80	8302
37.98	4252
38.04	4104
38.31	4691
39.23	2733
40.51	6140
42.02	5243
44.24	3383

393632

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61592
 Sample Name : 22665 1:10
 Instrument Name : GC014
 Rack/Vial : 0/44
 Sample Amount : 50.000000
 Cycle : 44

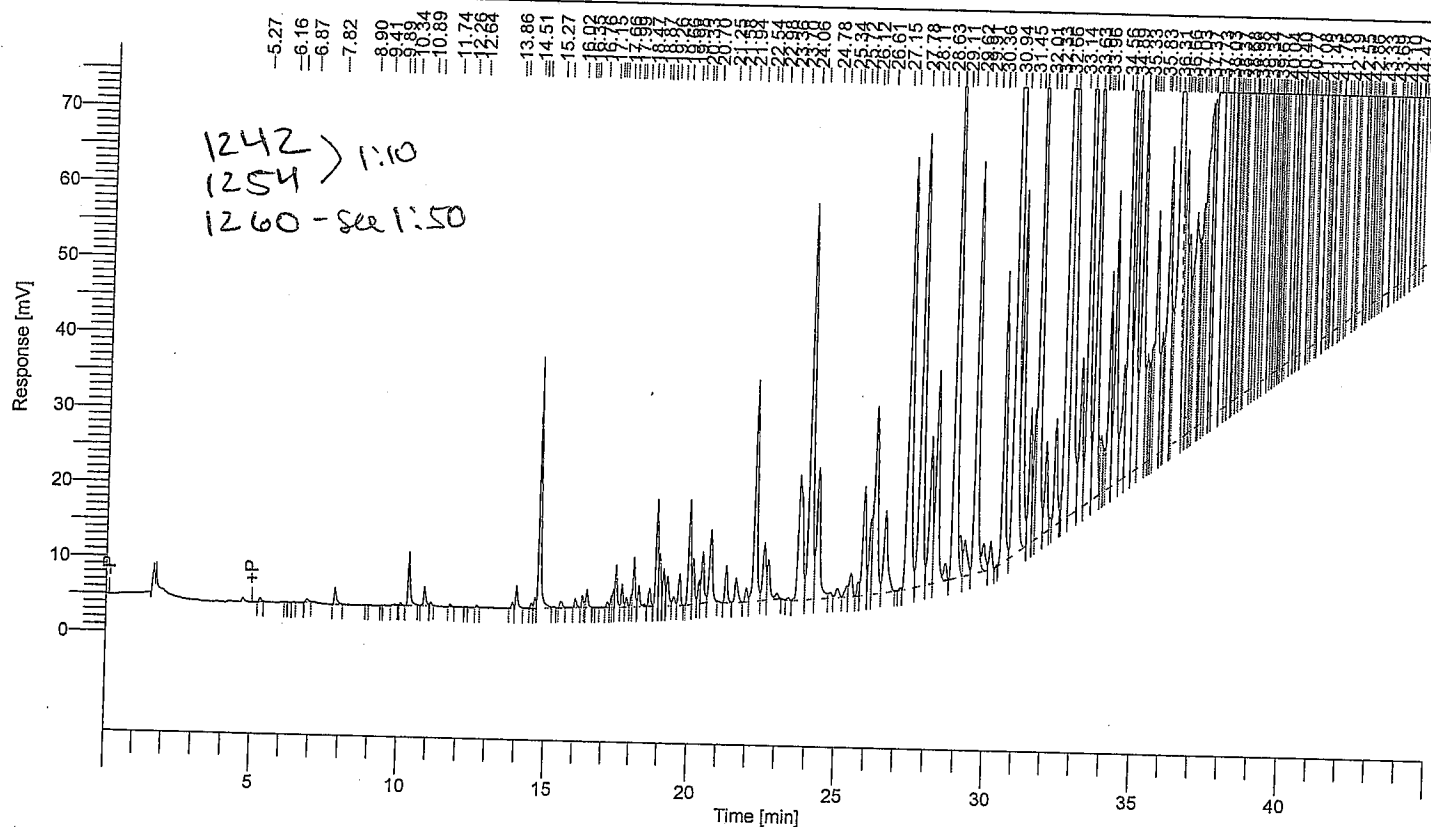
Date : 10/12/2007 7:21:41 AM

Data Acquisition Time : 10/11/2007 5:42:08 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL015.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.27	2688
6.87	2796
7.82	12403
10.34	35250
10.89	12259
13.86	3815
14.00	14118
14.51	3150
14.62	6000
14.75	157330
15.51	5389
16.02	6079
16.27	6258
16.35	2120
16.42	11913
17.15	3927
17.28	5317
17.35	9215
17.44	27895
17.66	14256
17.82	6068
17.99	6075
18.09	34441
18.27	14069
18.64	12342
18.87	69593
18.98	36354

$$\Sigma \text{area (Arochlor 1254)} = 234,400$$

$$\text{ng in g} = \frac{234400}{102536.5} = 2.3315$$

$$\text{ppm} = \frac{2.3315}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.9326$$

$$\Sigma \text{area (Arochlor 1242)} = 91695$$

(OSVP)
10/16/2007

$$\text{ng in g} = \frac{91695}{134509} = 0.6817$$

$$\text{ppm} = \frac{0.6817}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.2727$$

See 1:50 dilution for Arochlor 1260 calculation. SKP
10/16/2007

$$\text{Total PCB} = 0.9326 + 0.2727 + 2.0557 = 3.2610 \text{ ppm.}$$

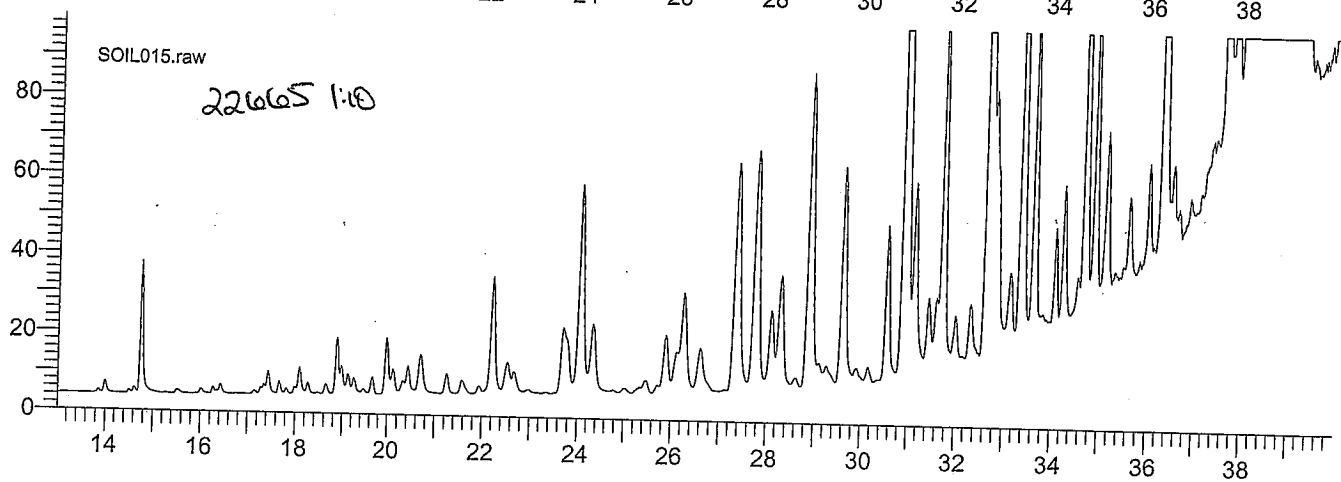
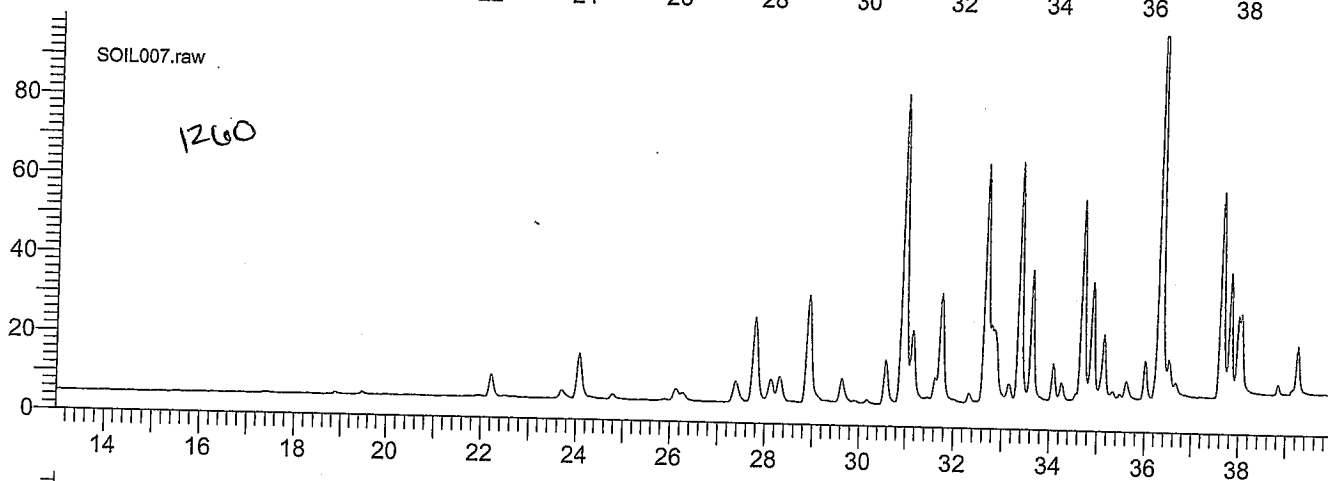
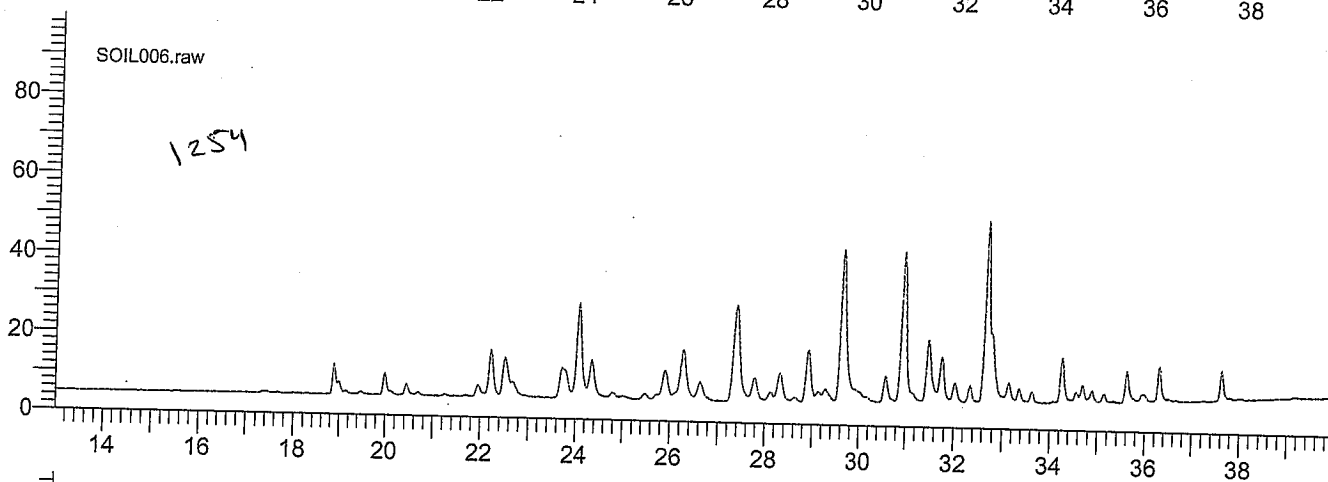
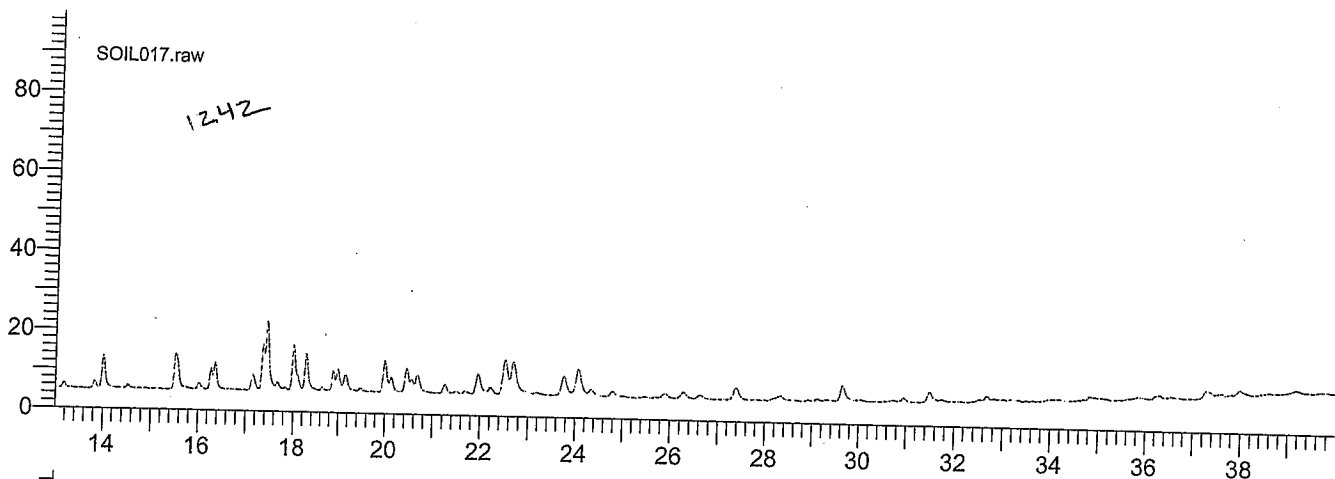
Time [min]	Area [μ V·s]
19.12	27492
19.26	24797
19.47	7272
19.66	21665
19.98	77422
20.11	35253
20.33	15853
20.43	43129
20.70	69672
21.25	28792
21.58	23945
21.84	10999
22.21	202277
22.54	58435
22.67	40265
22.98	5368
23.36	2243
23.70	183152
24.06	419888
24.34	160827
24.78	6144
25.02	10235
25.34	10353
25.47	23699
25.72	10069
25.89	114624
26.12	61423
26.26	224769
26.61	109423
27.37	495786
27.78	502405
28.11	153248
28.30	229320
28.63	15560
28.90	615462
29.11	28272
29.27	46996
29.62	403649
29.91	32876
30.16	22822
30.56	248829
30.94	1697302
31.15	317999
31.45	117845
31.62	89345
31.74	580372
32.01	79466
32.16	7074
32.33	101310
32.66	1404651
32.79	590170
33.14	144838
33.37	914211
33.63	513126
33.78	20168
33.83	35325
33.89	20086
33.96	17971
34.08	162800
34.25	263835
34.56	112488
34.69	800097
34.89	518376
35.14	388259
35.33	82509
35.38	33757
35.43	36458
35.52	69119
35.60	271262
35.83	88872
35.89	31004
36.01	311342
36.12	61807
36.31	1750322
36.46	88262
36.53	229615
36.60	33557
36.66	153524
36.76	54161
36.82	81791
36.90	261948
37.03	53660
37.05	37640
37.13	160717
37.24	165005
37.37	348665

Time [min]	Area [μ V·s]
37.44	228814
37.62	1311609
37.73	82045
37.81	835818
38.00	523445
38.03	685681
38.14	121147
38.16	113904
38.19	127221
38.24	437061
38.31	131670
38.37	266167
38.40	203361
38.46	483352
38.54	199090
38.68	1117526
38.83	523026
38.87	660354
38.98	642639
39.10	486526
39.24	767855
39.34	107347
39.36	311433
39.47	259300
39.52	113851
39.58	185921
39.67	271307
39.71	171161
39.77	156272
39.82	244512
39.92	252421
40.04	648934
40.14	553475
40.25	385756
40.29	156199
40.40	525051
40.42	151469
40.53	1330381
40.63	151669
40.67	403095
40.77	435581
40.83	1043733
40.93	331339
41.08	1171149
41.17	187642
41.19	686748
41.32	295687
41.37	224041
41.43	526120
41.54	94216
41.59	565503
41.76	249328
41.78	391107
41.94	181443
42.05	566373
42.19	243562
42.32	105868
42.46	425121
42.55	70620
42.59	68192
42.61	76216
42.65	37836
42.74	251406
42.81	155944
42.86	95251
42.91	148753
42.99	295457
43.05	150742
43.13	274694
43.33	651654
43.38	105762
43.45	583406
43.69	410501
43.75	374332
43.84	400373
43.98	457553
44.10	96028
44.17	308284
44.27	89318
44.31	240730
44.47	263864
44.57	356181

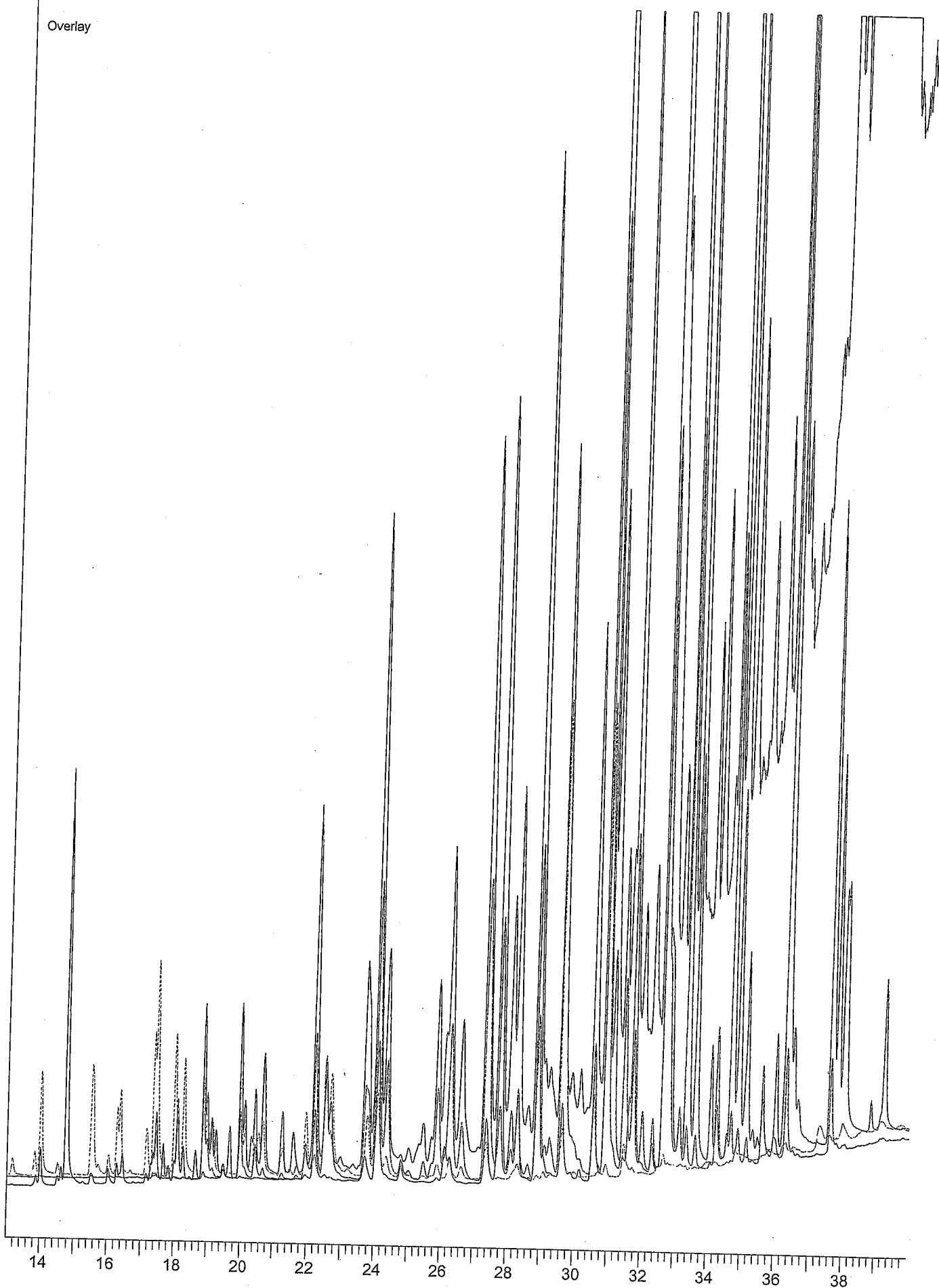
Plot Title

Start Time End Time Scale Offset

SOIL017.raw					
Sample Name :	AROCHLOR 1242	13.00	40.00	100.00	0.00
Sample Number:	46				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw					
Sample Name :	AROCHLOR 1254	13.00	40.00	100.00	0.00
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL007.raw					
Sample Name :	AROCHLOR 1260	13.00	40.00	100.00	0.00
Sample Number:	36				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL015.raw					
Sample Name :	22665 1:10	13.00	40.00	100.00	0.00
Sample Number:	44				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay

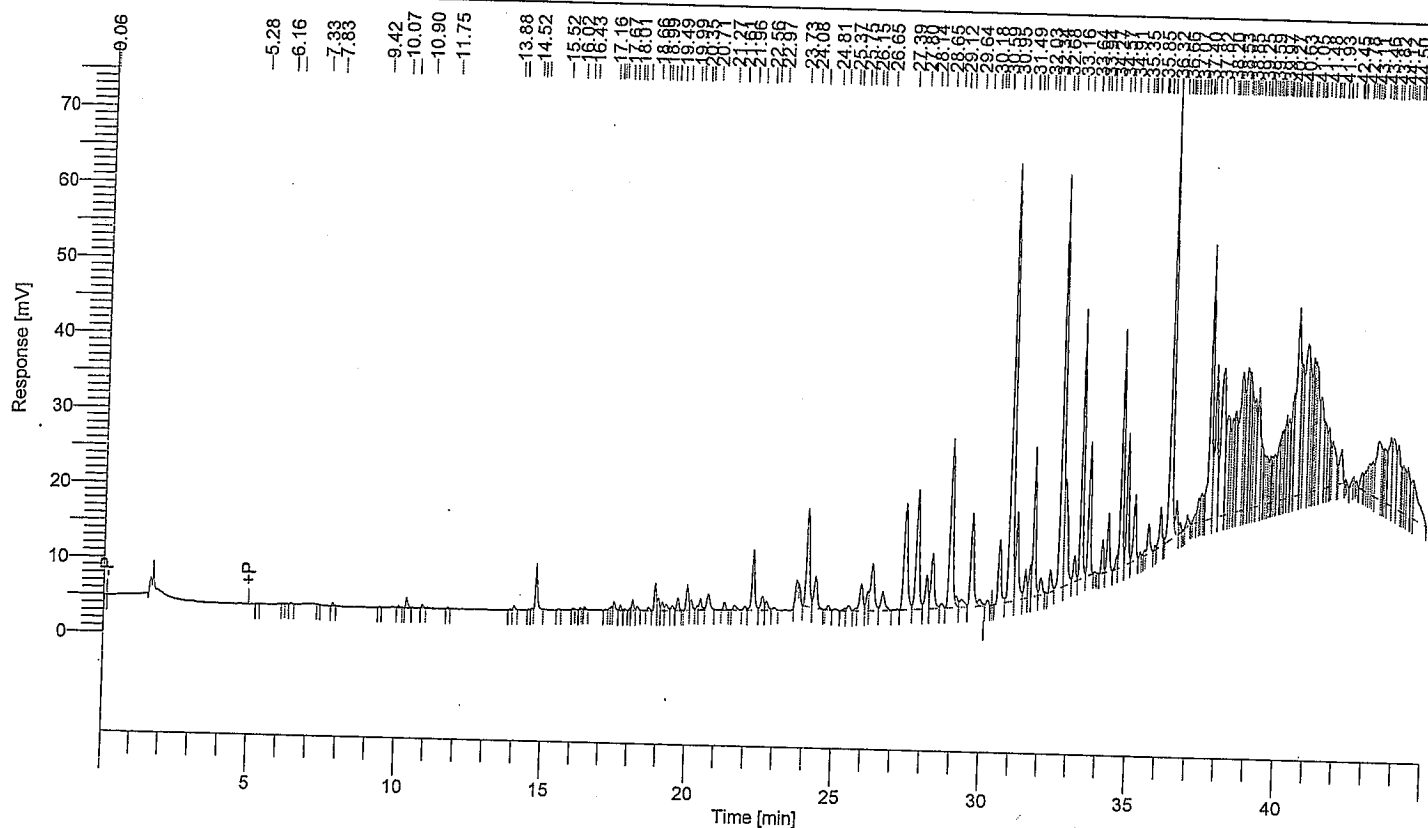


Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62025
 Sample Name : ##SET 3###22665 1:50
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 50.000000
 Cycle : 17

Date : 10/15/2007 7:07:19 AM
 Data Acquisition Time : 10/13/2007 5:37:52 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 50.000000

Result File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\COMB017.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\PCB.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μV-s]
24.08	102112
24.37	31585
24.81	3598
25.49	5603
25.91	27715
26.15	15617
26.29	56355
26.65	24289
27.39	126707
27.80	120626
28.14	33105
28.32	56302
28.65	3920
28.93	166650
29.12	7323
29.29	11614
29.64	91563
29.93	7124
30.18	4664
30.59	53879
30.95	398584
31.17	85324
31.49	25097
31.63	20547
31.75	121849
32.03	14654
32.34	17753
32.68	333258
32.80	116479
33.16	20107**
33.38	184557
33.64	92227
34.10	21196
34.27	42238
34.57	8254
34.71	164452
34.91	91575
35.16	52423
35.35	3019
35.50	2466
35.63	22990
36.02	27299
36.32	335964
36.54	24135
36.66	7081
36.92	7953
37.17	6453
37.27	13573
37.31	7545
37.40	21394
37.47	9795
37.64	218820
37.82	142270
38.05	192784
38.20	84522
38.26	57450
38.38	64869
38.45	31232
38.47	49547
38.53	22402
38.68	148617
38.72	61795
38.79	23674
38.85	97883
38.90	33179
38.94	75795
39.01	70416
39.12	81345
39.25	118857
39.34	47484
39.44	9180
39.47	20646
39.54	27979
39.59	16290
39.67	18998
39.71	16609
39.74	19154
39.81	26127
39.87	11820
39.97	45314
40.02	33674
40.08	30005
40.18	62444
40.27	53514
40.31	16210
40.41	61997

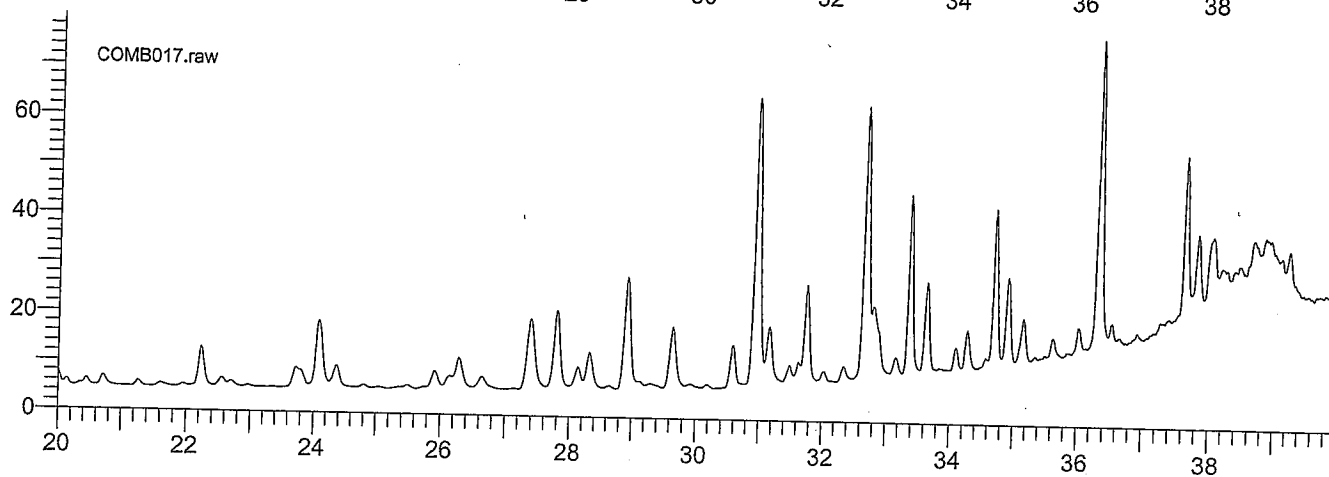
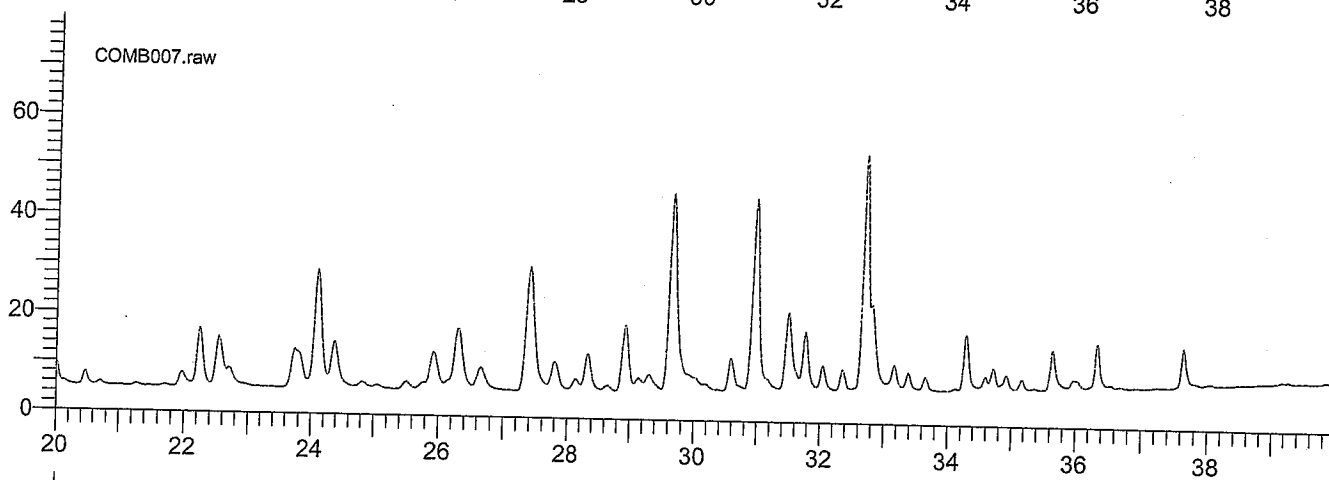
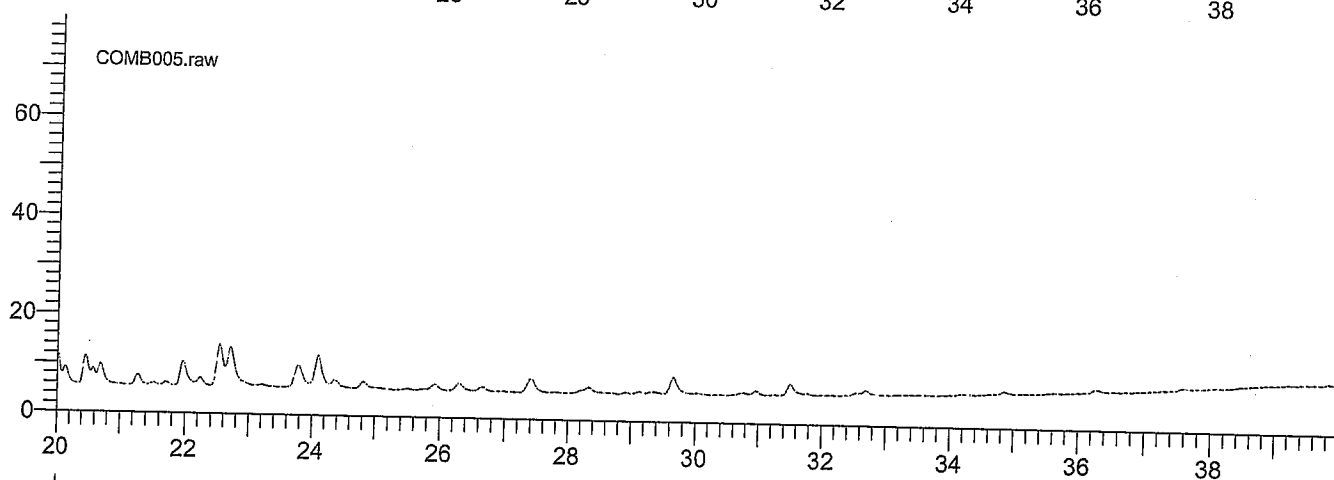
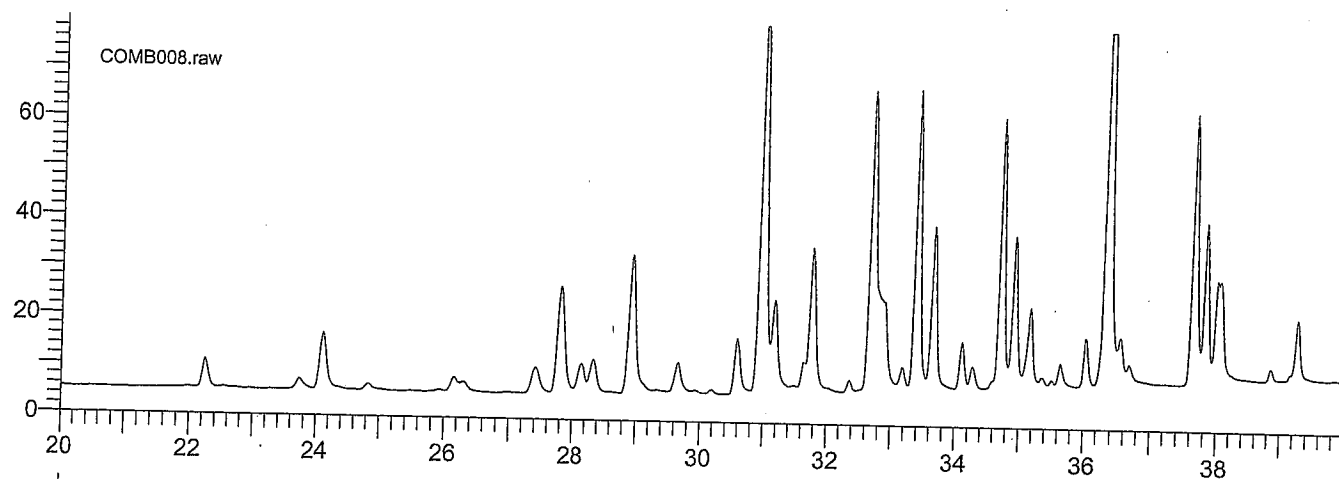
Time [min]	Area [μV·s]
40.43	29931
40.54	196468
40.63	39628
40.69	71288
40.85	192038
40.91	95621
41.05	63708
41.08	49625
41.14	65745
41.20	104511
41.34	98468
41.48	56278
41.63	44012
41.68	17668
41.76	51828
41.93	7708
42.06	33564
42.45	4171
42.49	2843
42.78	10419
42.81	5371
42.89	9988
42.96	13799
43.04	19737
43.11	14685
43.15	17089
43.34	88275
43.46	19746
43.51	25731
43.55	29867
43.73	80071
43.82	76555
43.99	77198
44.12	17141
44.19	27788
44.25	21262
44.34	46256
44.50	31361
44.56	67933

7533072

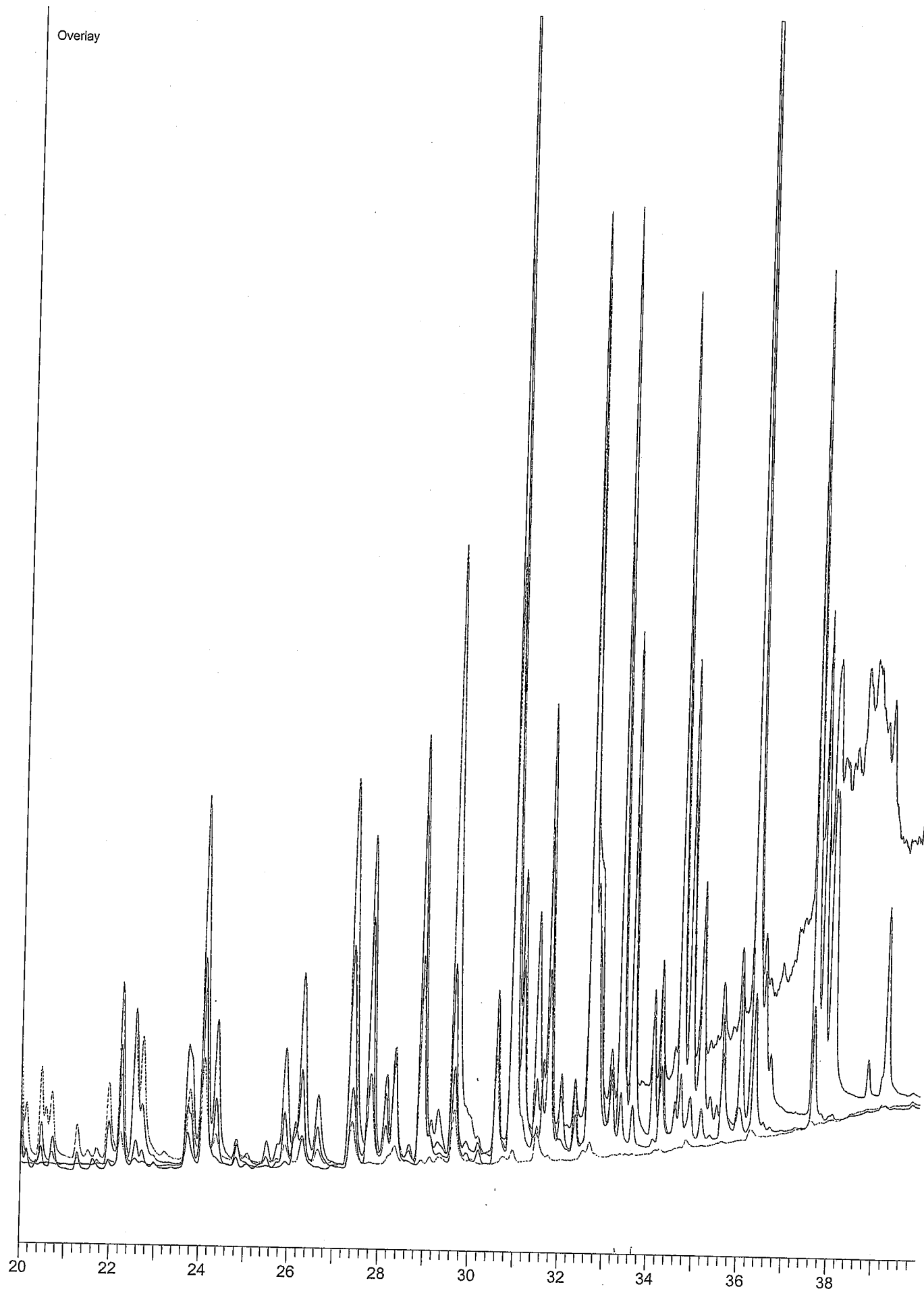
Plot Title

Start Time End Time Scale Offset

COMB008.raw					
Sample Name :	AROCHLOR 1260	20.00	39.99	80.00	0.00
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB005.raw					
Sample Name :	AROCHLOR 1242	20.00	39.99	80.00	0.00
Sample Number:	05				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB007.raw					
Sample Name :	AROCHLOR 1254	20.00	39.99	80.00	0.00
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB017.raw					
Sample Name :	##SET 3###22665 1:50	20.00	39.99	80.00	0.00
Sample Number:	17				
Instrument File Name:	c:\pest\gc14\methods\pcb				



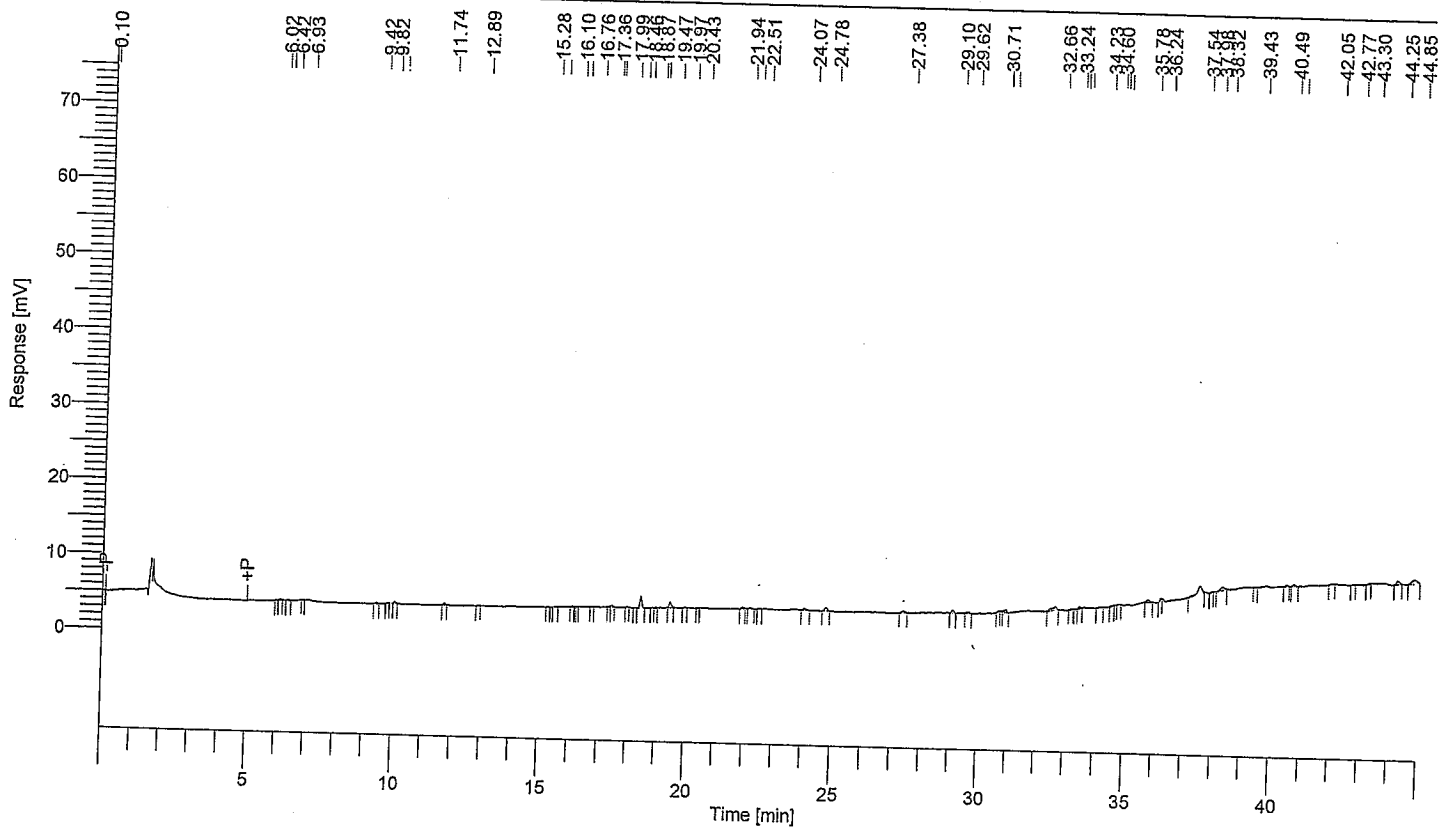
Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totaichrom: 61995
 Sample Name : 22666 1:10
 Instrument Name : GC014
 Rack/Vial : 0/47
 Sample Amount : 50.000000
 Cycle : 47

Date : 10/12/2007 7:21:44 AM
 Data Acquisition Time : 10/11/2007 8:20:29 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL018.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
18.46	7175
19.47	3604
24.78	2885
29.10	2431
32.66	5489
35.78	2313
37.54	10164
38.32	3891
44.25	3215
44.85	7391

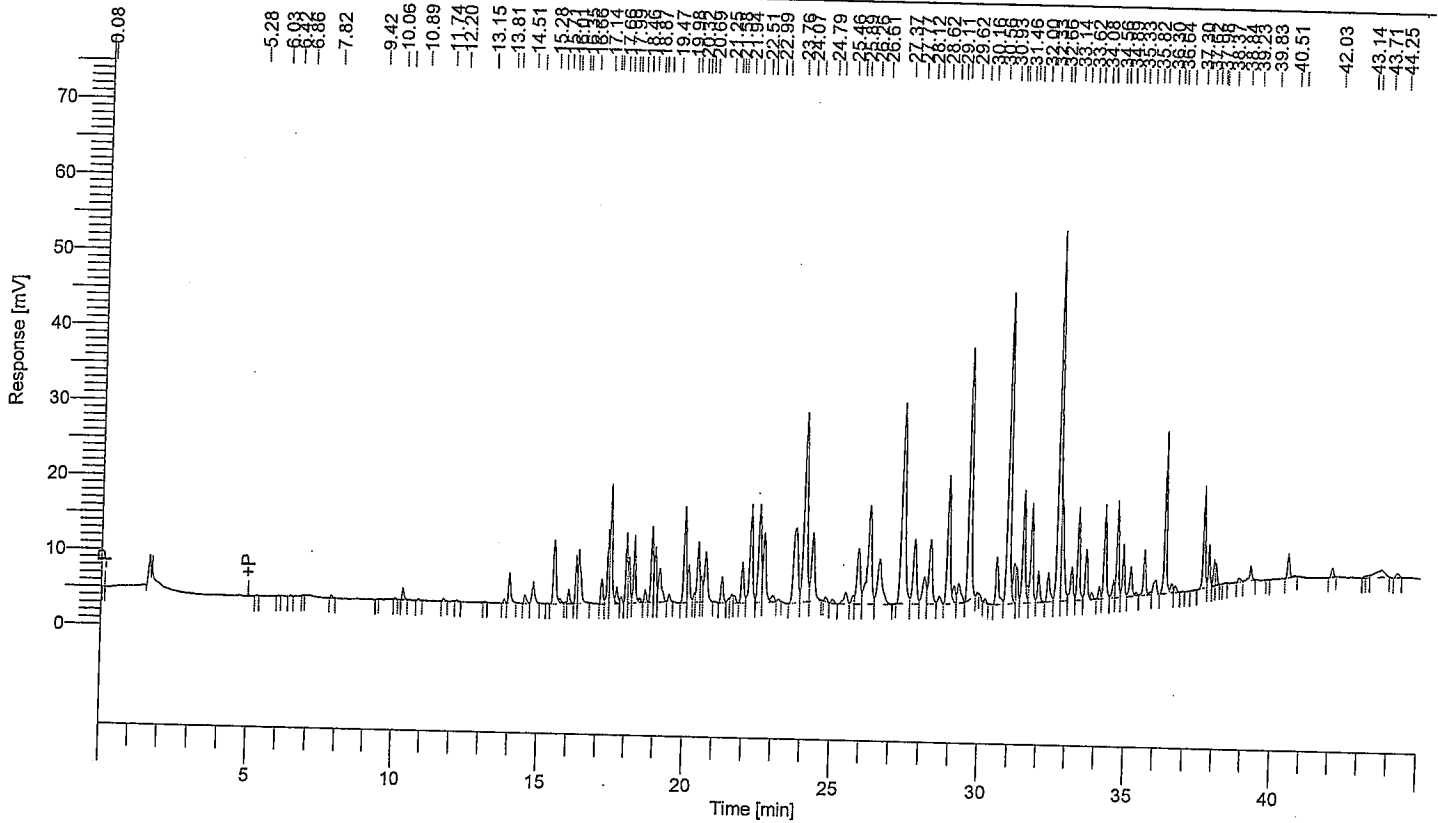
48558

<0.4 ppm total PCB

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61996
 Sample Name : 22667 1:10
 Instrument Name : GC014
 Rack/Vial : 0/48
 Sample Amount : 50.000000
 Cycle : 48

Date : 10/12/2007 7:21:15 AM
 Data Acquisition Time : 10/11/2007 9:13:15 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL019.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.34	7052
13.81	2368
13.99	18699
14.51	6729
14.80	17438
15.51	56675
15.71	2853
16.01	8911
16.27	24331
16.35	47200
17.14	18426
17.35	38532
17.43	80456
17.66	11623
17.82	4390
17.99	40654
18.08	30140
18.27	44133
18.46	2770
18.64	8349
18.87	48458
18.98	39502
19.15	34833
19.47	4689
19.98	69563
20.11	28455
20.32	5507

A1242

$$\sum \text{Area (Arochlor 1242)} = 234652$$

$$ng_{inj} = \frac{234652}{127316.5} = 1.8431$$

$$ppm = \frac{1.8431}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.7372$$

$$\sum \text{Area (Arochlor 1254)} = 202350$$

$$ng_{inj} = \frac{202350}{100536.5} = 2.0127$$

$$ppm = \frac{2.0127}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.8051$$

10/16/2007

$$\sum \text{Area (Arochlor 1260)} = 119236$$

$$ng_{inj} = \frac{119236}{332859.5} = 0.3582$$

$$ppm = \frac{0.3582}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1433$$

$$\text{Total PCB} = 1.6856 \text{ ppm}$$

Time [min]	Area [μV·s]
20.43	45210
20.55	17082
20.69	47691
21.25	20306
21.49	2760
21.58	6803
21.67	5147
21.94	33248
22.22	90260
22.51	90863
22.68	67377
22.99	6647
23.18	2044
23.76	108305
24.07	197542
24.34	71731
24.79	3302
25.02	3726
25.46	13937
25.73	6845
25.89	62811
26.26	132311
26.61	67808
27.37	235794
27.77	68234
28.12	32181
28.30	68531
28.62	7103
28.90	121312
29.11	13244
29.26	21722
29.62	226754
30.16	2305
30.56	41944
30.93	285783
31.14	28548
31.22	25746
31.46	97450
31.60	6980
31.74	79381
32.00	25979
32.33	25791
32.66	300044
32.78	90178
33.14	29351
33.36	68232
33.62	38365
33.82	5160
34.08	7946
34.25	69644
34.56	11862
34.68	65772
34.89	36777
35.14	24096
35.33	2134
35.60	31214
35.82	2047
36.00	15065
36.30	109954
36.52	6381
36.64	5399
37.62	66055
37.81	26943
37.98	14686
38.04	11552
38.84	3490
39.23	11839
40.51	16298
42.03	6947
43.29	2281
43.71	21574
44.25	3922

Atoclor
1254

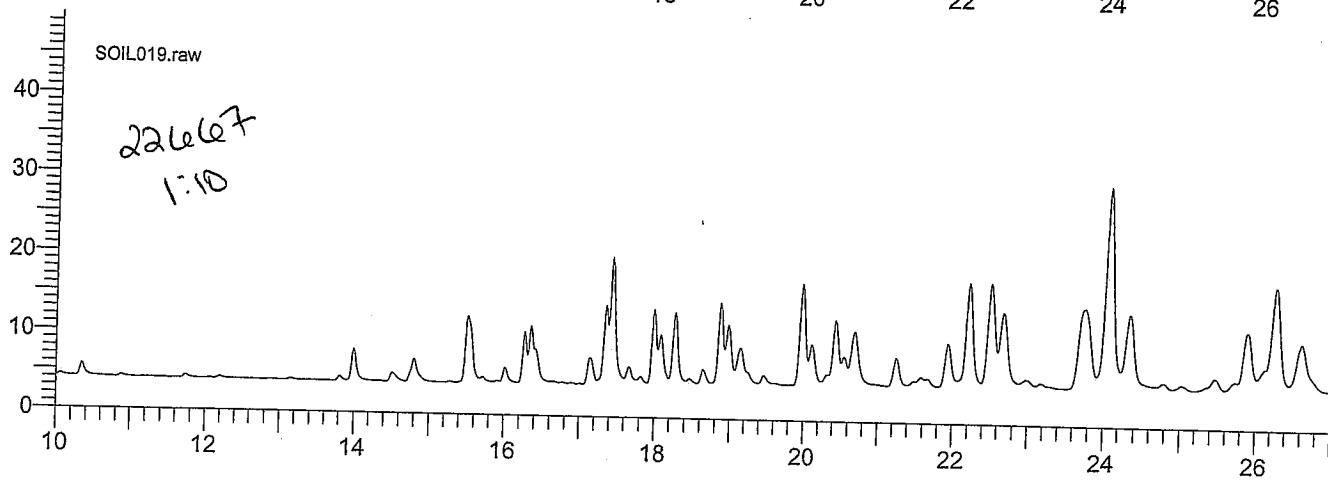
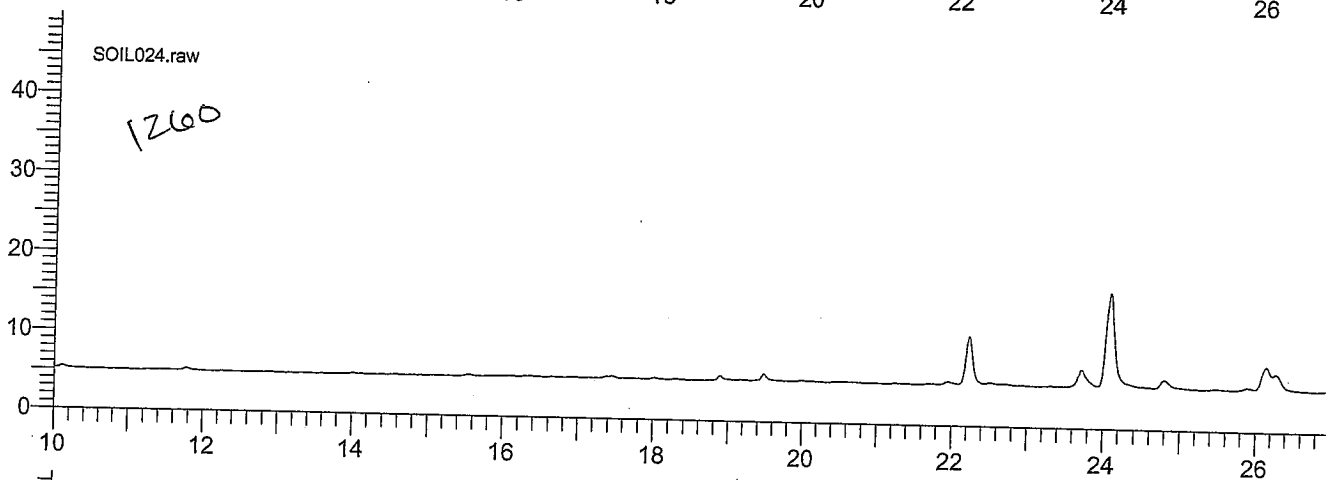
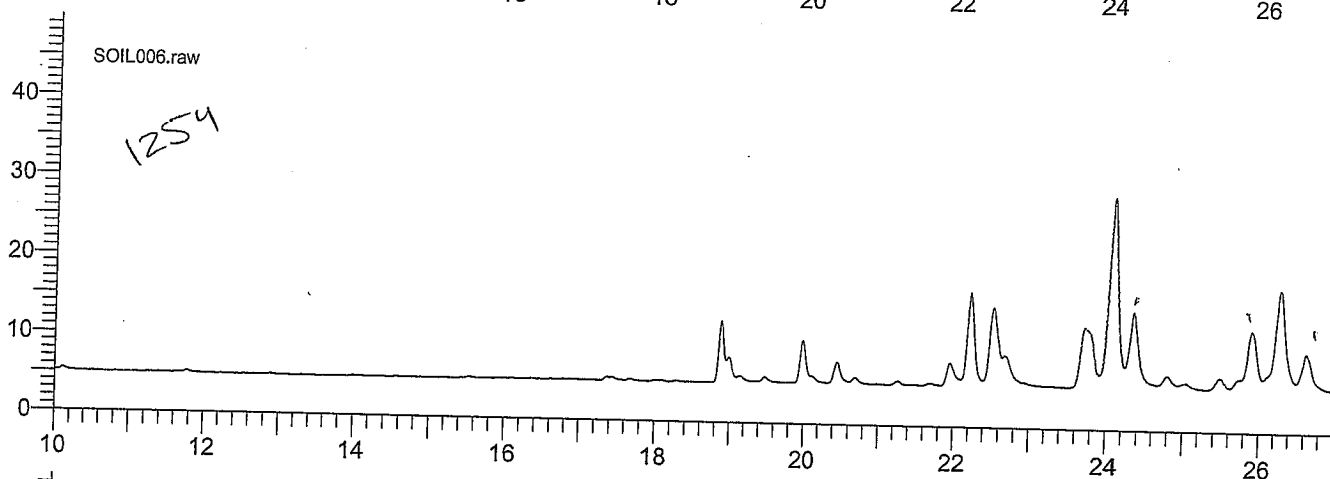
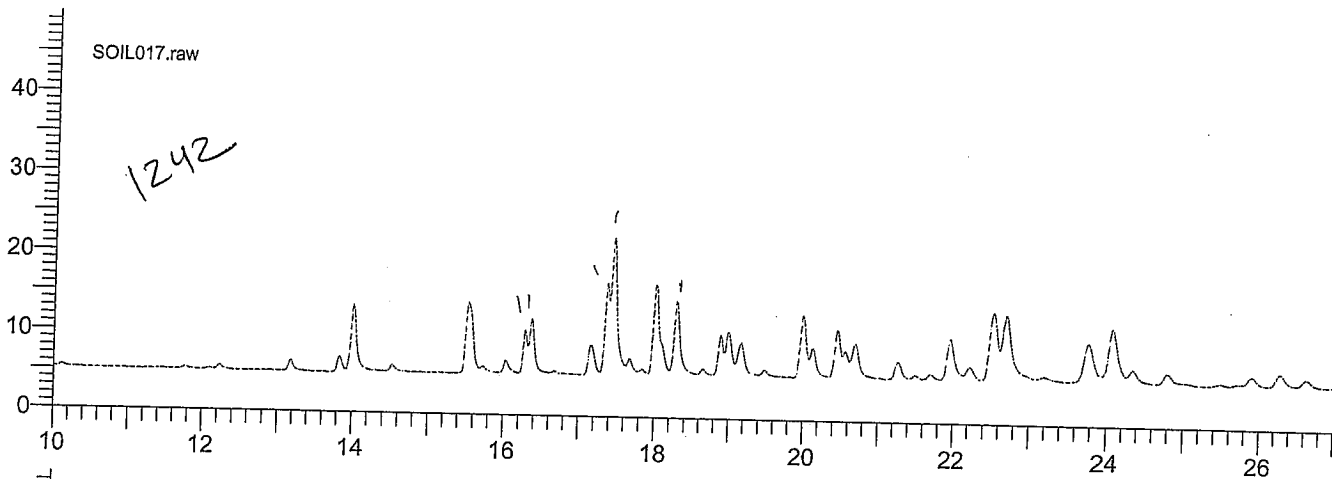
Atoclor
1260

4326481

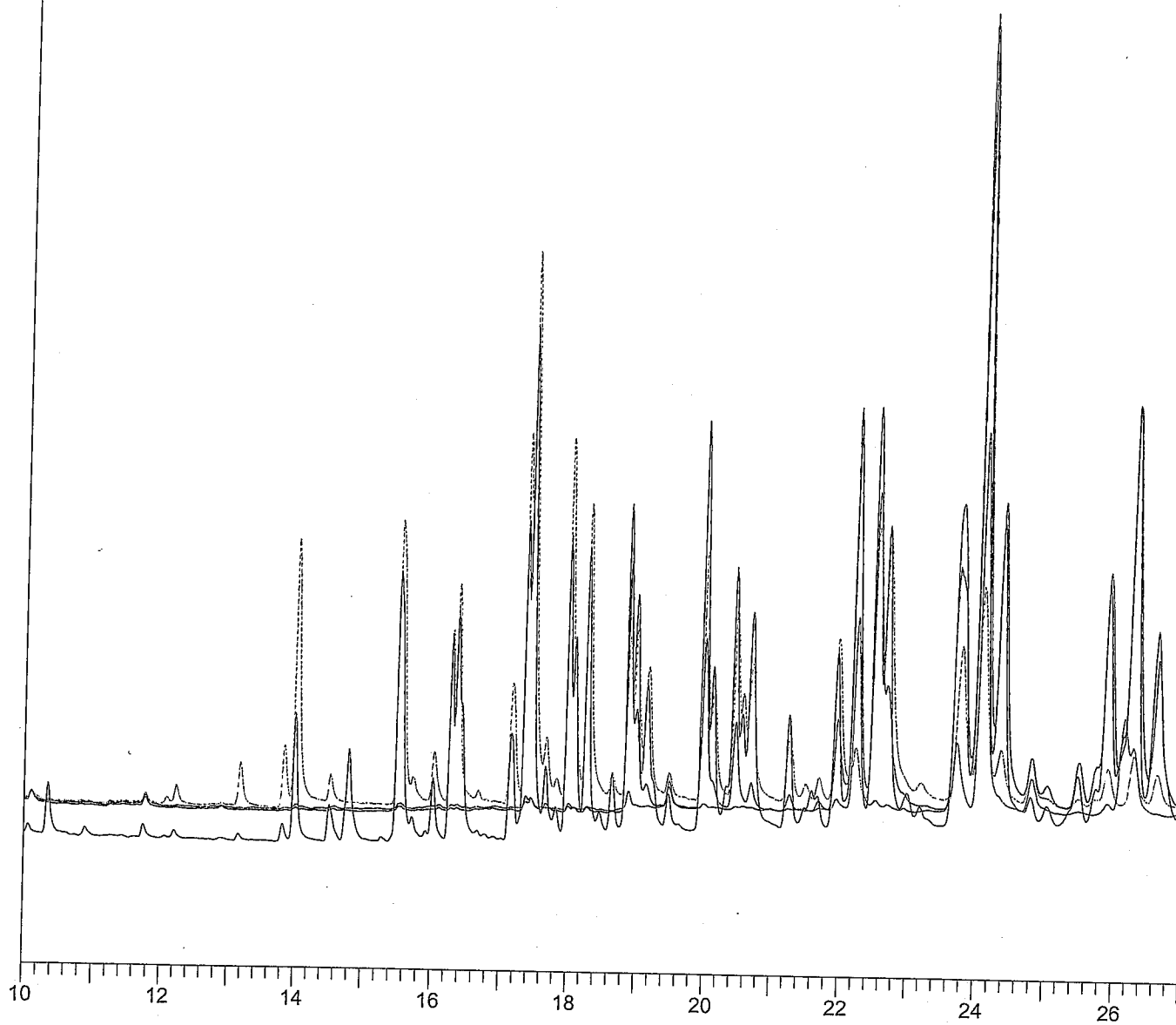
Plot Title

Start Time End Time Scale Offset

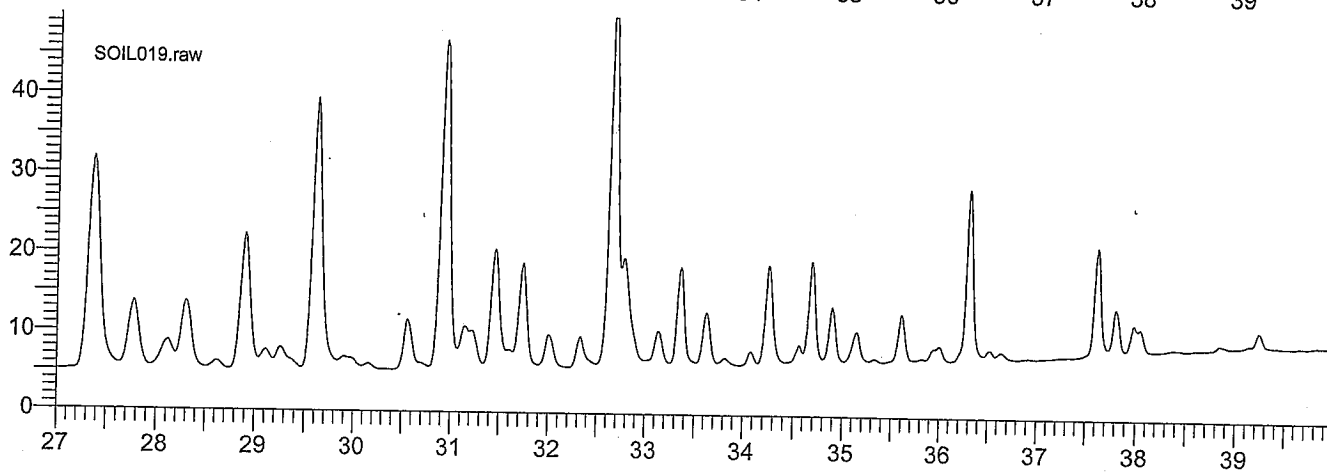
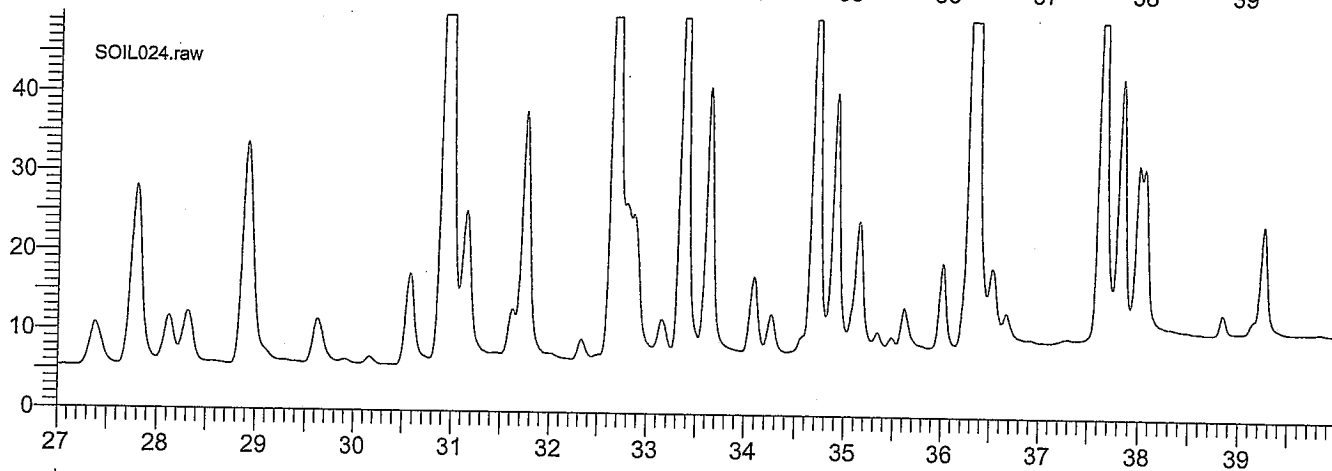
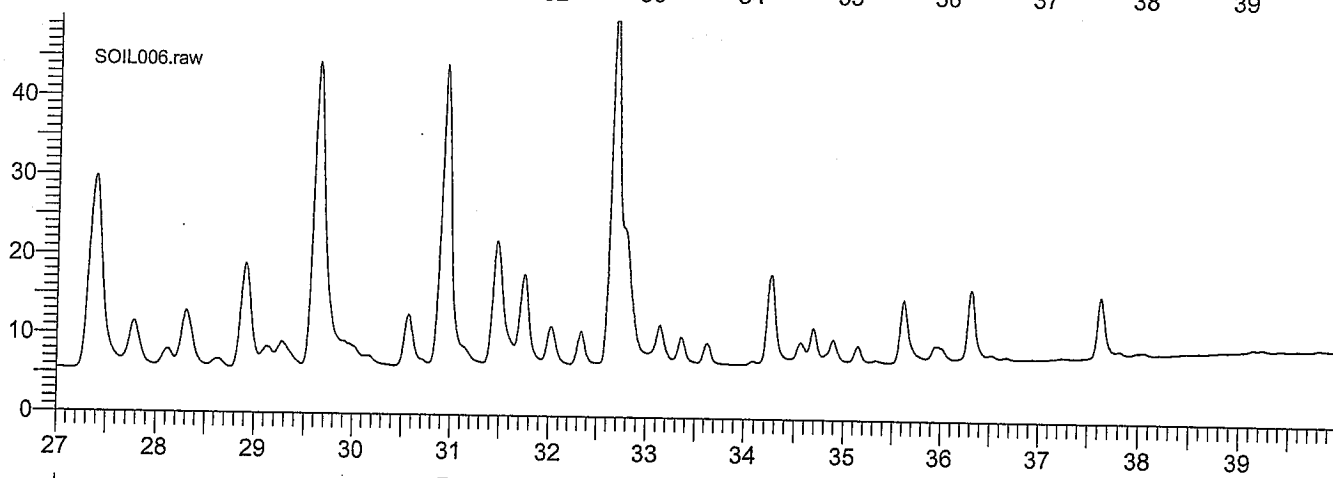
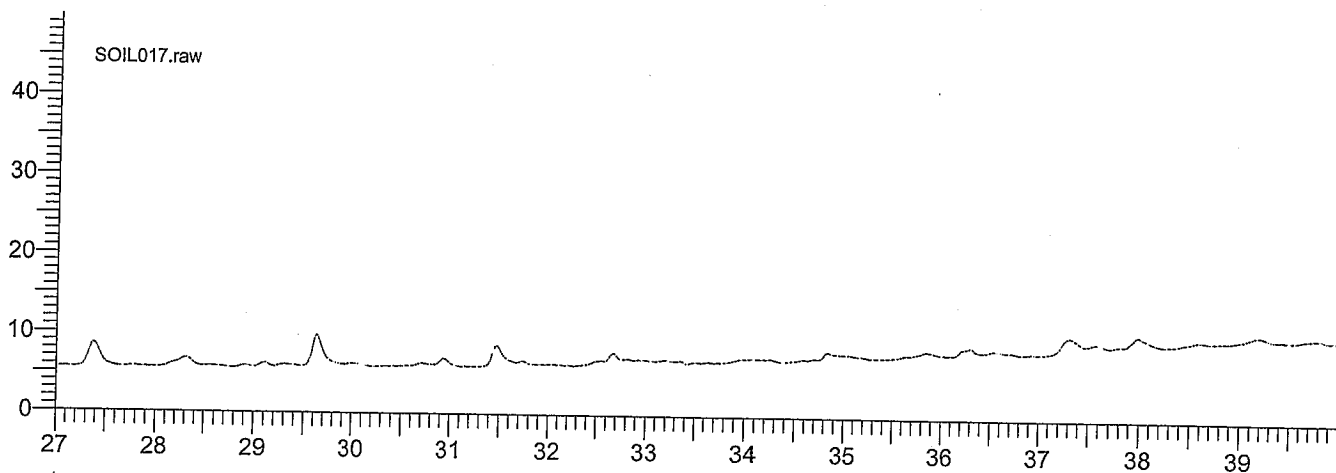
SOIL017.raw					
Sample Name :	AROCHLOR 1242	10.00	27.00	50.00	0.00
Sample Number:	46				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw					
Sample Name :	AROCHLOR 1254	10.00	27.00	50.00	0.00
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL024.raw					
Sample Name :	AROCHLOR 1260	10.00	27.00	50.00	0.00
Sample Number:	53				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL019.raw					
Sample Name :	22667 1:10	10.00	27.00	50.00	0.00
Sample Number:	48				
Instrument File Name:	c:\pest\gc14\methods\pcb				



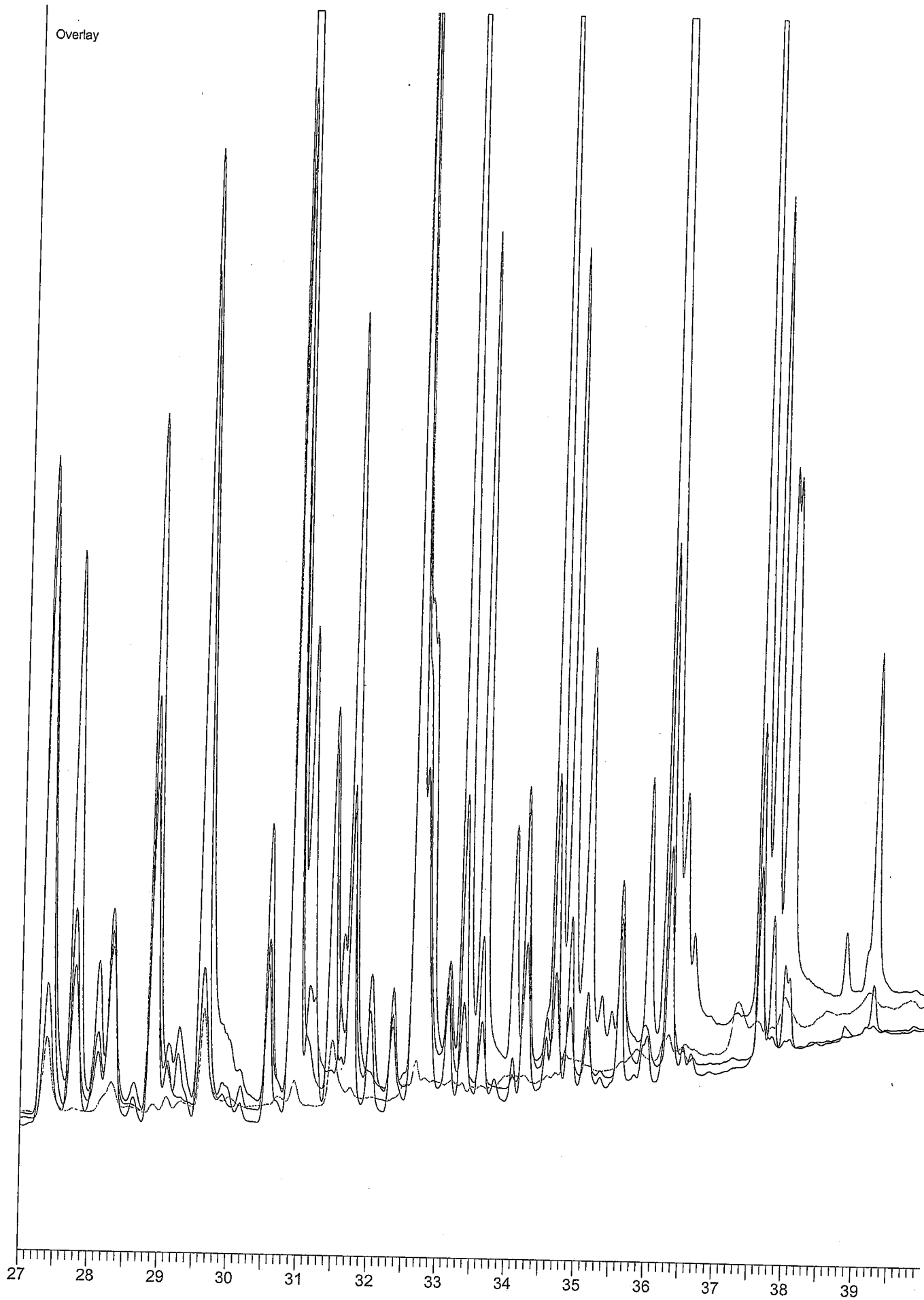
Overlay



Plot Title		Start Time	End Time	Scale	Offset
SOIL017.raw					
Sample Name :	AROCHLOR 1242	27.00	40.00	50.00	0.00
Sample Number:	46				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw					
Sample Name :	AROCHLOR 1254	27.00	40.00	50.00	0.00
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL024.raw					
Sample Name :	AROCHLOR 1260	27.00	40.00	50.00	0.00
Sample Number:	53				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL019.raw					
Sample Name :	22667 1:10	27.00	40.00	50.00	0.00
Sample Number:	48				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay

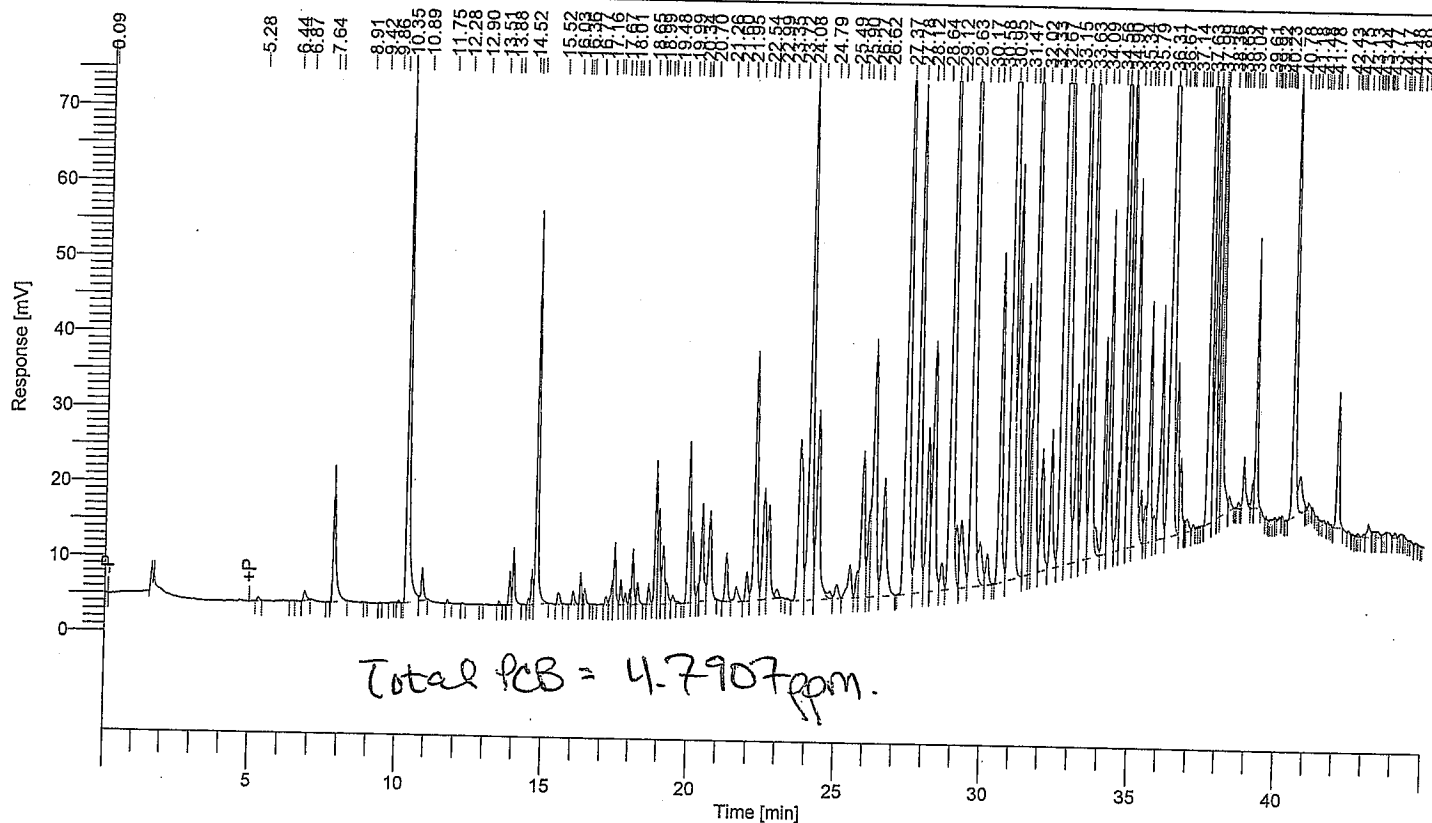


Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 61997
 Sample Name : 22668 1:10
 Instrument Name : GC014
 Rack/Vial : 0/49
 Sample Amount : 50.000000
 Cycle : 48

Date : 10/12/2007 7:21:45 AM

Data Acquisition Time : 10/11/2007 10:06:02 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100203 AV SET 3\SOIL020.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100202 AV SET 2\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.28	2666
6.87	7935
7.83	115808
10.35	428781
10.89	22302
13.88	19217
14.01	35838
14.52	3604
14.63	18708
14.76	240715
15.52	9283
16.03	9669
16.28	17294
16.36	3743
16.43	10207
17.16	5795
17.37	15300
17.45	41213
17.67	15607
17.83	7367
18.01	7628
18.10	38616
18.28	14627
18.65	14215
18.88	91994
18.99	68714
19.14	45560

$$\sum \text{area (Arochlor 1242)} = 111568$$

$$\text{ng injected} = \frac{111568}{99000} = 1.1269$$

$$\text{ppm} = \frac{1.1269}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.4508$$

$$\sum \text{area (Arochlor 1254)} = 550076$$

$$\text{ng injected} = \frac{550076}{102536.5} = 5.4714$$

$$\text{ppm} = \frac{5.4714}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 2.1886$$

$$\sum \text{area (Arochlor 1260)} = 1790196$$

$$\text{ng injected} = \frac{1790196}{332859.5} = 5.3782$$

$$\text{ppm} = \frac{5.3782}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 2.15128$$

1242

Time [min]	Area [μV·s]
19.26	17080
19.48	6701
19.99	121042
20.13	54222
20.34	9939
20.45	82970
20.70	83685
21.26	38331
21.60	16787
21.95	23849
22.23	235672
22.54	111321
22.69	95665
22.99	8217
23.72	235175
24.08	546509
24.35	223740
24.79	9442
25.04	14771
25.49	39867
25.74	20060
25.90	165378
26.13	65629
26.27	311666
26.62	160958
27.37	660818
27.78	553814
28.12	177243
28.32	272868
28.64	27209
28.91	674785
29.12	46200
29.28	87716
29.63	761210
29.91	57551
30.17	29384
30.58	280717
30.95	1878691
31.15	359989
31.47	250859
31.63	99862
31.74	646369
32.02	112542
32.33	114040
32.67	1593847
32.81	668309
33.15	159319
33.37	1005278
33.63	532637
33.82	25496
34.09	150112
34.26	256662
34.56	57542
34.69	843054
34.90	492478
35.15	325240
35.34	40295
35.49	25934
35.61	175291
35.79	22996
36.01	178478
36.31	1742131
36.52	132091
36.67	62180
36.82	4174
36.86	2441
36.91	11213
37.14	3599
37.63	834229
37.81	442917
37.99	259345
38.05	253705
38.36	11649
38.65	3706
38.84	39656
39.14	14296
39.25	173233
40.52	347606
40.78	47860
42.04	107703
42.96	2497
43.13	13649
43.29	3147
43.35	2048
43.44	6800

Arochlor
1254

Arochlor
1260

Time [min]	Area [μ V·s]
43.72	2494
43.77	5806
44.01	4156
44.22	3182
22193230	

Plot Title

Start Time End Time Scale Offset

SOIL024.raw

Sample Name : AROCHLOR 1260

Sample Number: 53

Instrument File Name: c:\pest\gc14\methods\pcb

0.00 27.00 50.00 0.00

SOIL006.raw

Sample Name : AROCHLOR 1254

Sample Number: 35

Instrument File Name: c:\pest\gc14\methods\pcb

0.00 27.00 50.00 0.00

SOIL017.raw

Sample Name : AROCHLOR 1242

Sample Number: 46

Instrument File Name: c:\pest\gc14\methods\pcb

0.00 27.00 50.00 0.00

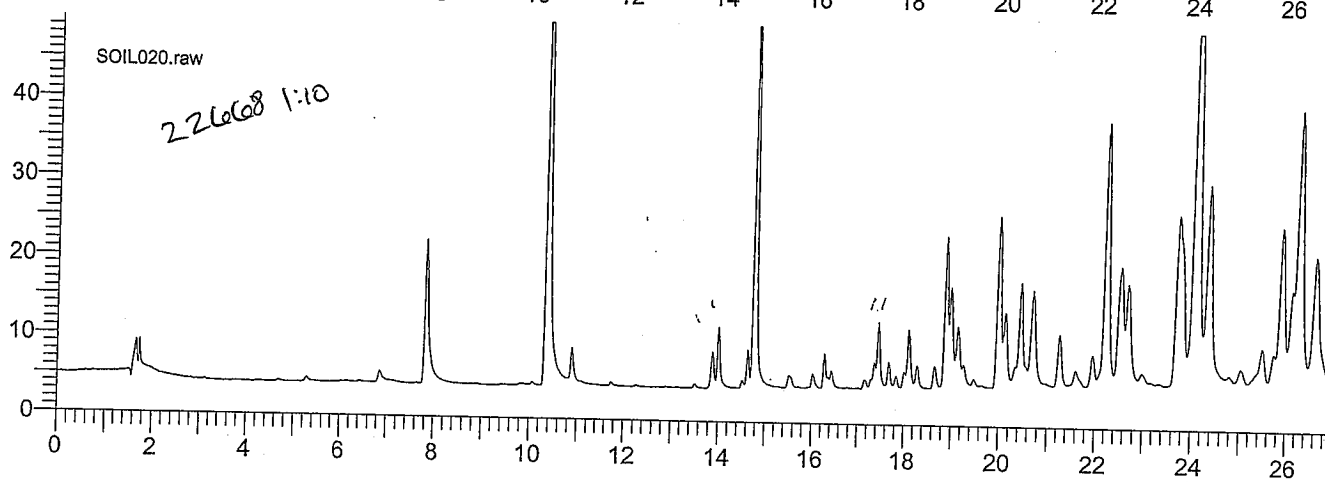
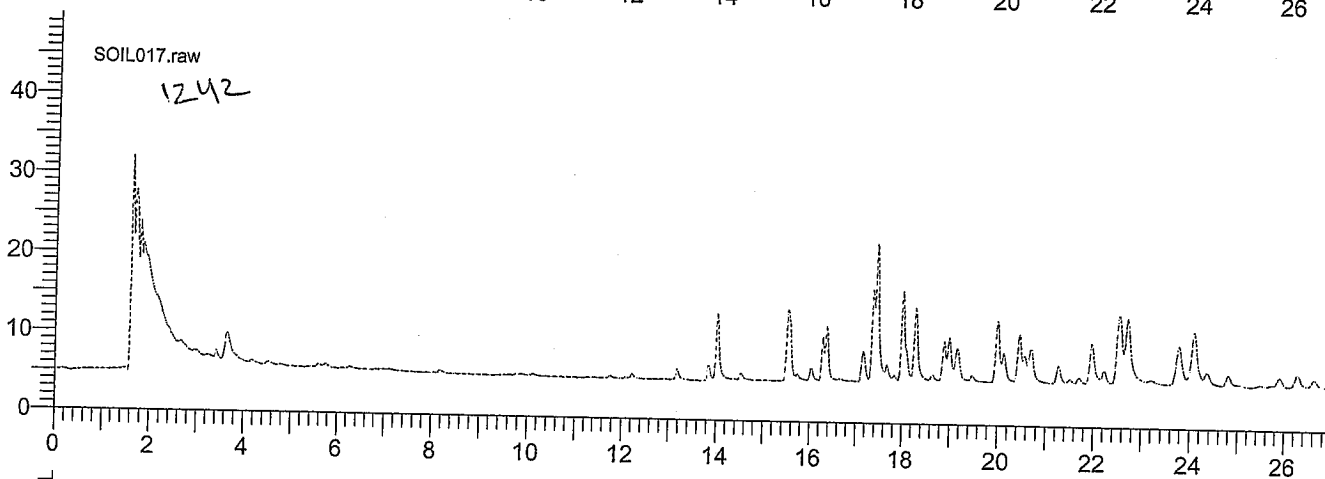
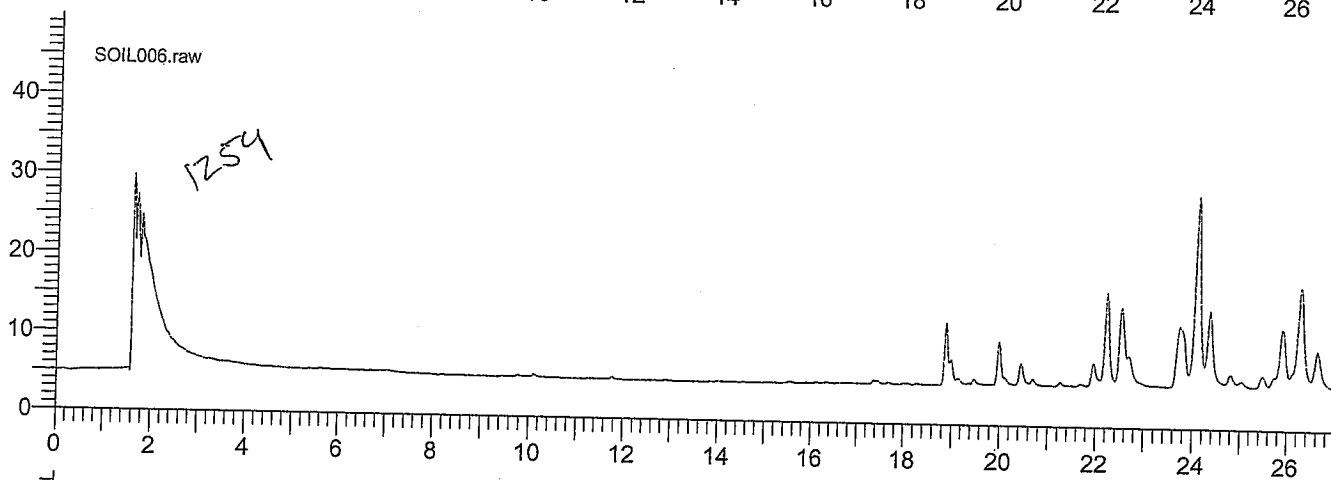
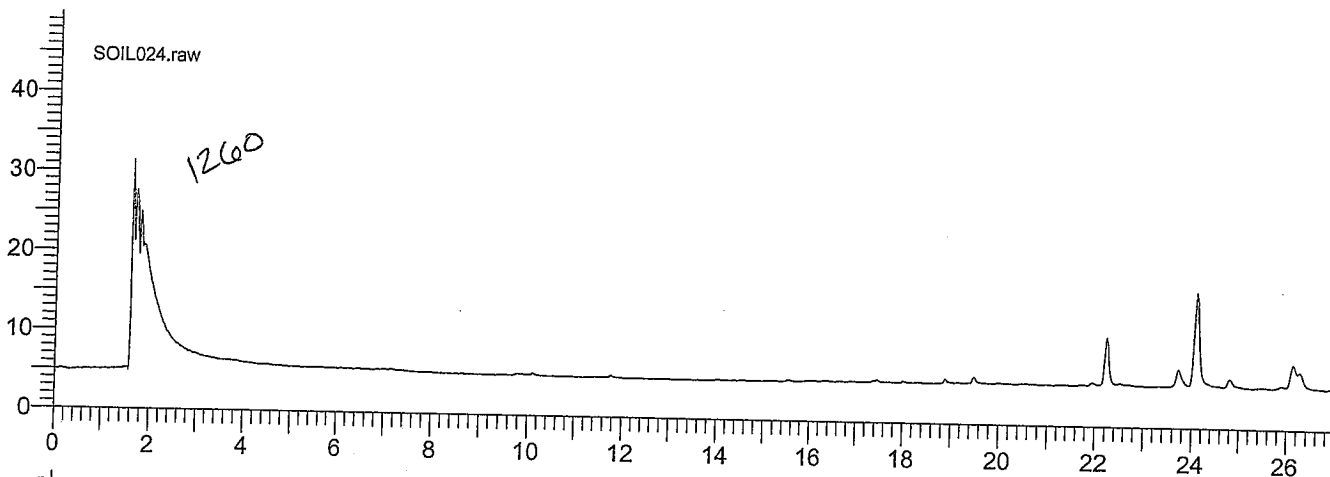
SOIL020.raw

Sample Name : 22668 1:10

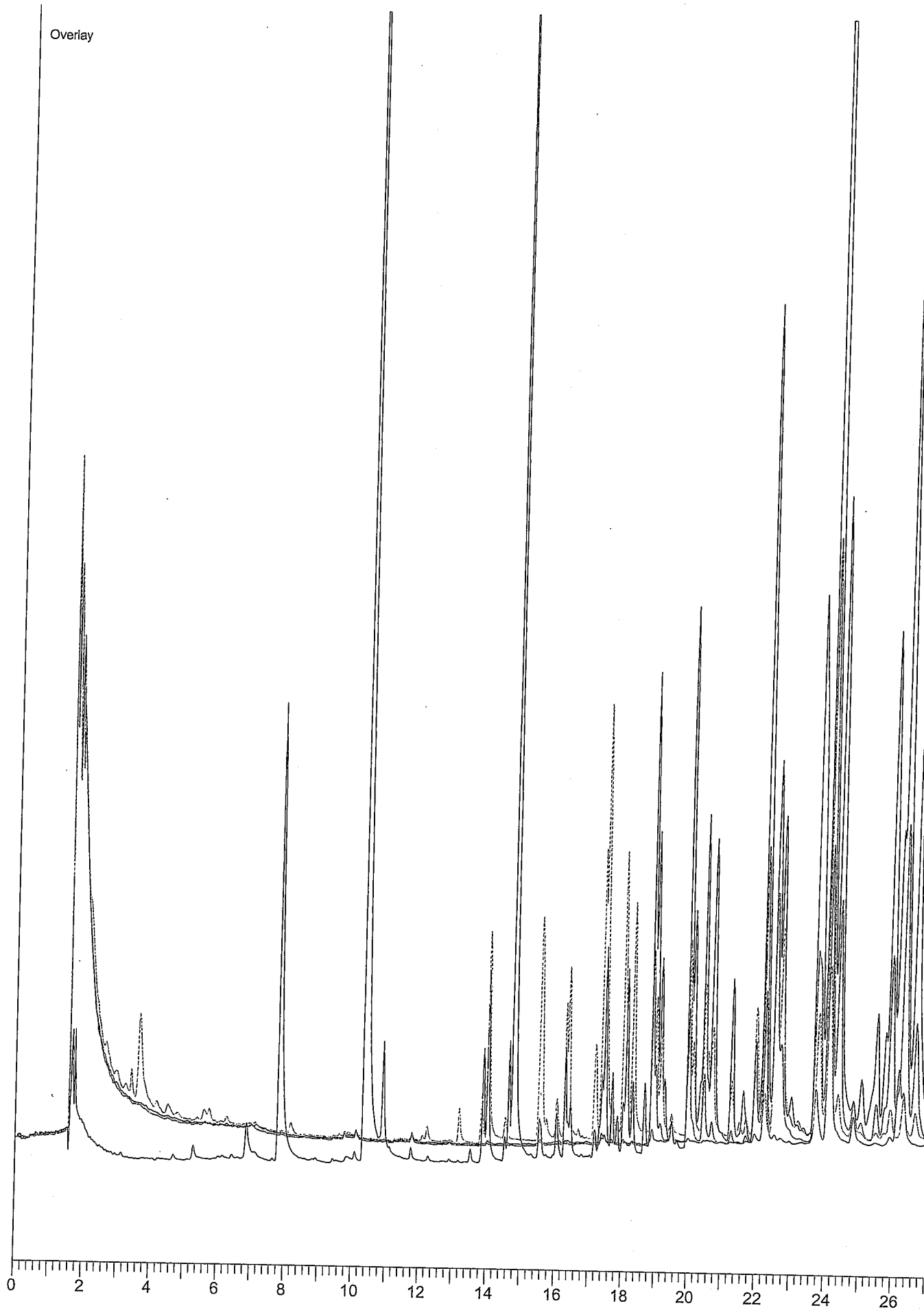
Sample Number: 49

Instrument File Name: c:\pest\gc14\methods\pcb

0.00 27.00 50.00 0.00



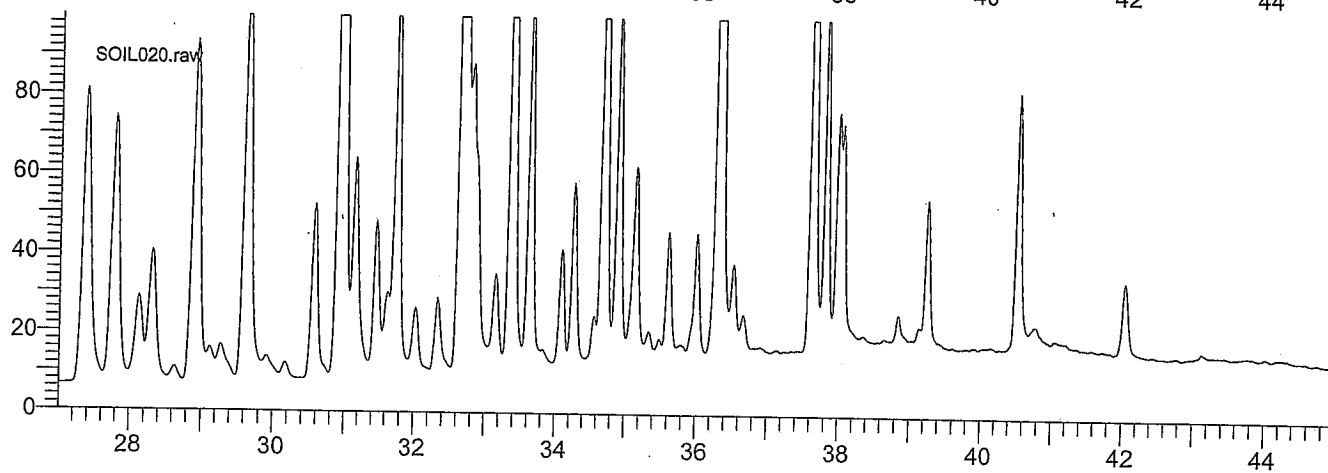
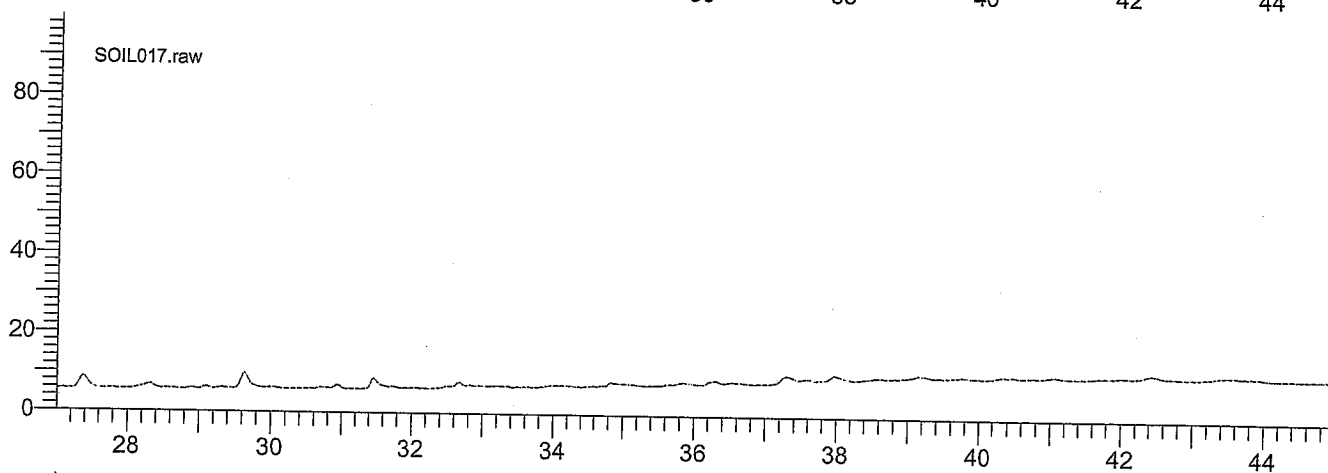
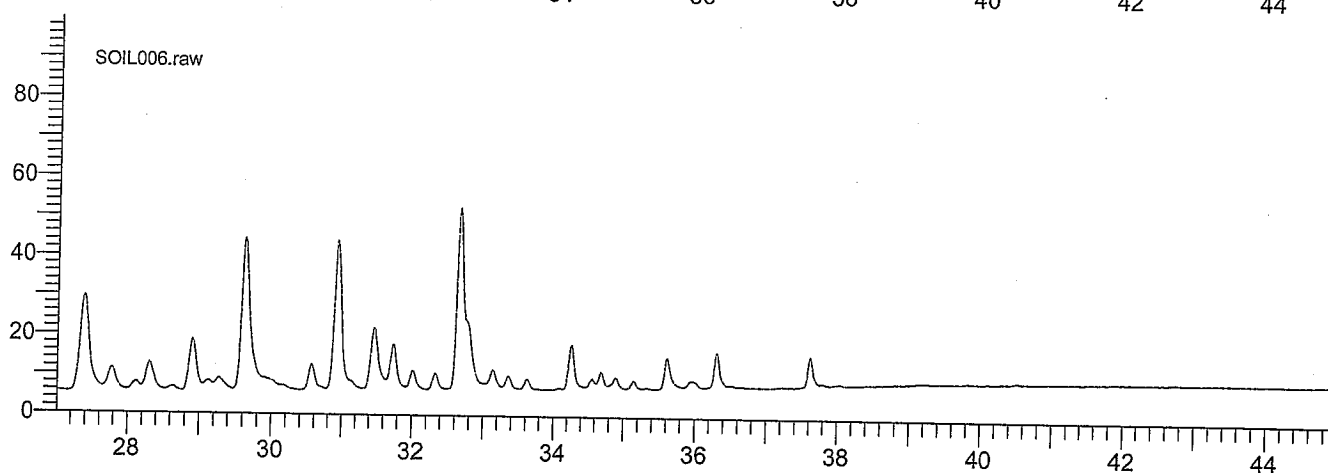
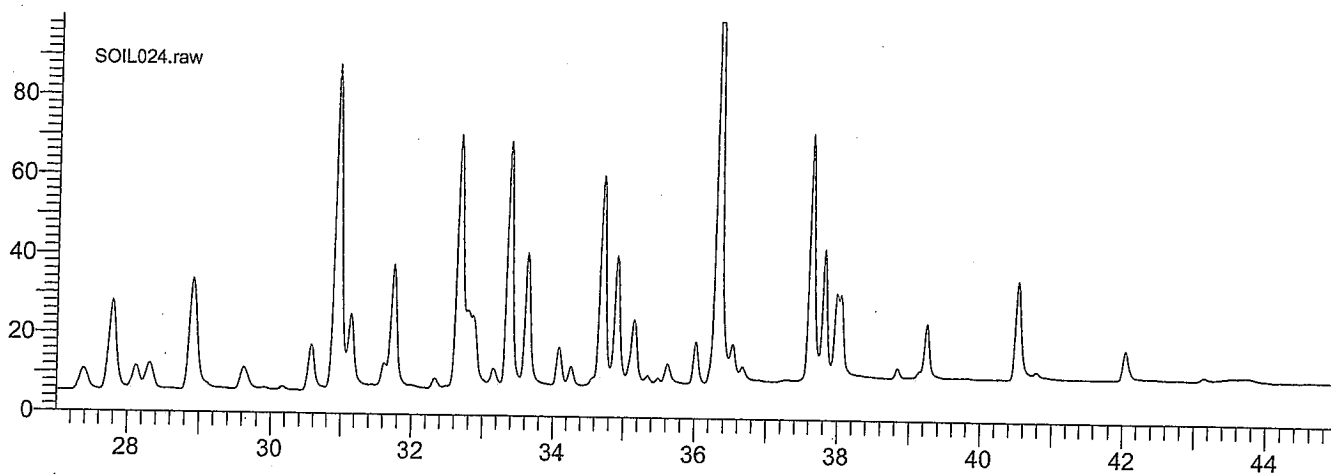
Overlay



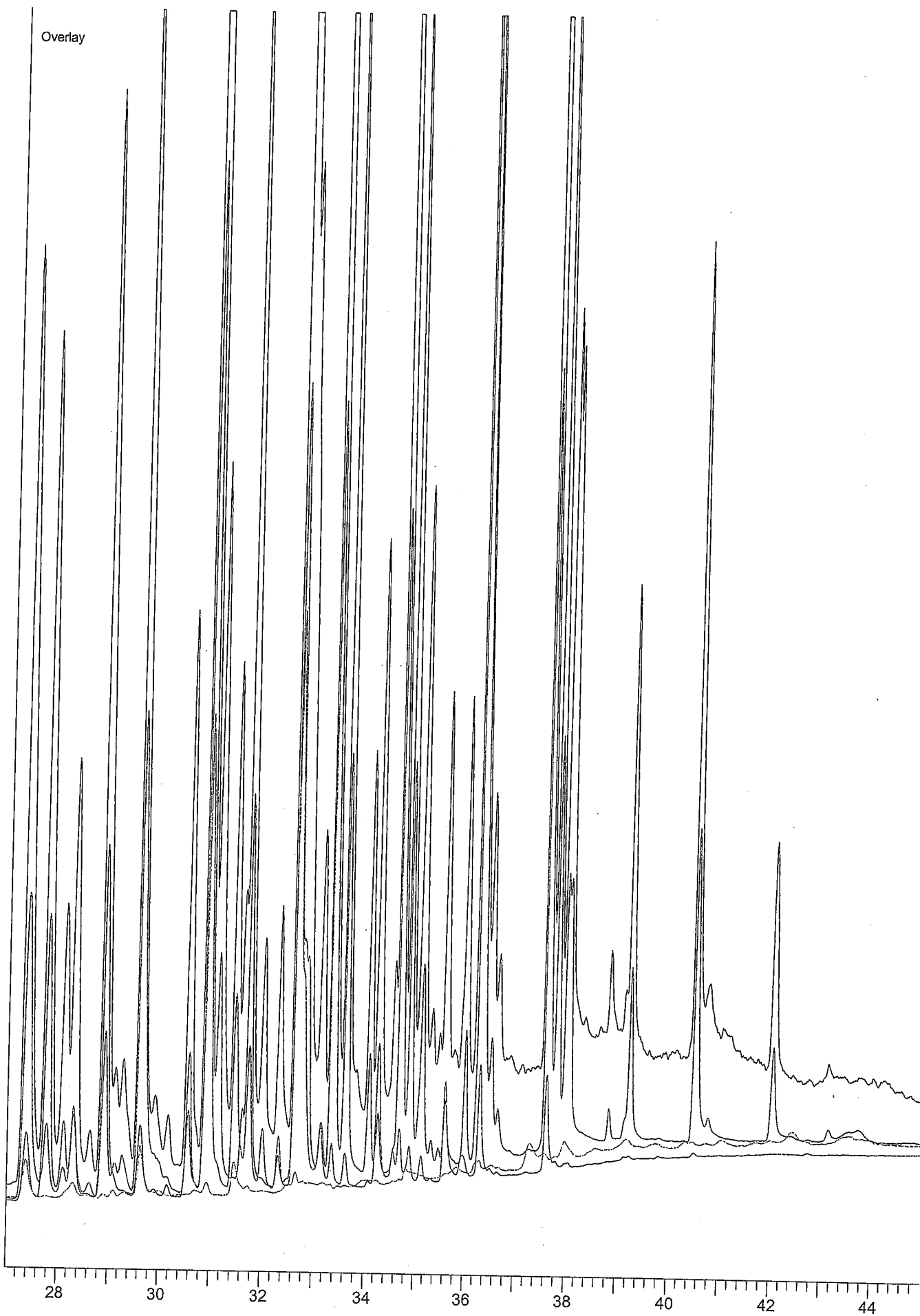
Plot Title

Start Time End Time Scale Offset

SOIL024.raw					
Sample Name :	AROCHLOR 1260	27.00	45.00	100.00	0.00
Sample Number:	53				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw					
Sample Name :	AROCHLOR 1254	27.00	45.00	100.00	0.00
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL017.raw					
Sample Name :	AROCHLOR 1242	27.00	45.00	100.00	0.00
Sample Number:	46				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL020.raw					
Sample Name :	22668 1:10	27.00	45.00	100.00	0.00
Sample Number:	49				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay



A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100204

Avant Level IV QAQC

SET #4

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SF
PREP DATE:	10-10-07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	A11900001		
PREP. DATE:	2-6-07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS OR MLS
1	SPIKE 1	50.0
2	22669	
3	22670	
4	22671	
5	22672	
6	22673	
7	22673 dup	
8	22674	
9	22675	
10	22675 ms	
11	22676	
12	22676 msd	
13	blank	
14		
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION	SAMPLE INFORMATION
INST. METHOD: PCB	BALANCE #: 01
G.C.#: 14	OVEN#/TEMP: NA
OPERATOR: SVP	ALQUOT RATIO: 50/100
COLUMN I.D.: 809200	FINAL VOLUME: 2.0 mL
DATE USED: 10-12-2007	INJECTION VOL. 2 uL
DETECTOR: ECD	EXTRACT STORAGE: F7

INSTRUMENT CALIBRATION INFORMATION	METHOD CALIBRATION INFORMATION
LGV (cm/s) NOT Given	A1016 I.D. 411300003
INST. CAL I.D. MX50100154	A1221 I.D. 411400003
INST. CAL PREP. DATE: 9-14-2007	A1232 I.D. 411500003
ANALYTE 1	A1242 I.D. 411600003
RETENTION TIME (MIN) 14.37	A1248 I.D. 411700005
R.T. ACCURACY (%) 99	A1254 I.D. X11800011
SENSITIVITY (AREA) 392047	A1260 I.D. A411900003
SENS. ACCURACY (%) 99	CAL PREP DATE: 10-2-2007
ANALYTE 2	
RETENTION TIME (MIN) 16.58	
R.T. ACCURACY (%) 99	
SENSITIVITY (AREA) 882668	
SENS. ACCURACY (%) 88	

COMMENTS

C18 Lot # - 0731006

Florisil Lot # - 195937120A

Use 0.5 mL of Arochlor 1260 INT for the matrix spike and the matrix spike duplicate

pH 7 Buffer Solution PD: 10-9-07

90% Methanol/Di-Water PD: 10-8-07

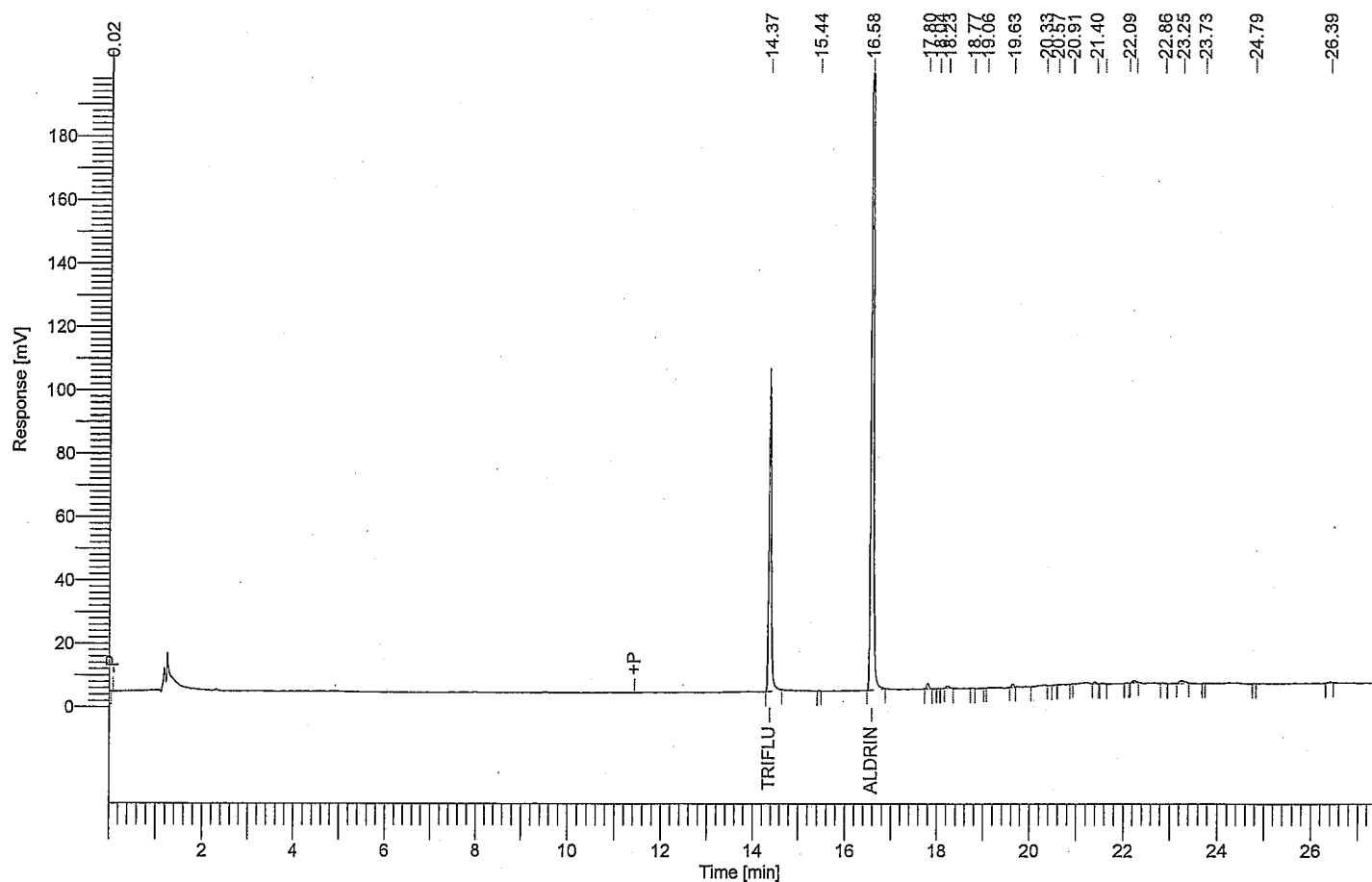
15% RE/Hexane PD: 10-3-07

TBA sulfate Reagent PD: 10-3-07

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62008
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

Date : 10/12/2007 2:15:04 PM
Data Acquisition Time : 10/12/2007 1:47:23 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003-20071012-141504.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [μ V·s]
14.37	TRIFLURALIN	392047.01
16.58	ALDRIN	882668.17
		1274715.18

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\PCB.seq

Printed by : envweigh on: 10/12/2007 1:53:32 PM
 Created by : envweigh on: 10/12/2007 11:58:57 AM
 Edited by : envweigh on: 10/12/2007 1:53:28 PM
 Number of Times Edited : 2

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 59
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1016	02	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1221	03	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1232	04	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1242	05	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1248	06	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1254	07	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	AROCHLOR 1260	08	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
9	Sample	BLANK SOIL AVANT(SET4)	09	AVANT SET 4	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
10	Sample	SPIKE SOIL AVANT(SET4)	10	AVANT SET 4	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22669 1:10	11	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22670 1:10	12	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22671 1:10	13	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
14	Sample	22672 1:10	14	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
15	Sample	22673 1:10	15	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22673 DUP 1:10	16	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	##SET 3###22665 1:50	17	AVANT SET 4	50.000000	1.000000	2.000	50.000000	2.000000	1.000000	0.000000	100.000
18	Sample	FLUSH	18	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
19	Sample	AROCHLOR 1254	19	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
20	Sample	22674 1:10	20	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
21	Sample	22675 1:10	21	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
22	Sample	22675 MS 1:10	22	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
23	Sample	22676 1:10	23	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
24	Sample	22676 MSD 1:10	24	AVANT SET 4	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
25	Sample	FLUSH	25	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
26	Sample	AROCHLOR 1260	26	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
27	Sample	22675 MS	27	AVANT SET 4	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
28	Sample	FLUSH	28	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
29	Sample	22676 MSD	29	AVANT SET 4	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
30	Sample	FLUSH	30	AVANT SET 4	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
31	Sample	BLANK WW	31	WASTEWATER	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
32	Sample	SPIKE WW	32	WASTEWATER	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
33	Sample	22964	33	WASTEWATER	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
34	Sample	22964 DUP	34	WASTEWATER	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
35	Sample	22817	35	WASTEWATER	100.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
36	Sample	FLUSH	36	WASTEWATER	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
37	Sample	AROCHLOR 1232	37	WASTEWATER	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
38	Sample	AROCHLOR 1232 MDL SPK	38	WASTEWATER	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
39	Sample	BLANK SLUDGE	39	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
40	Sample	SPIKE SLUDGE	40	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
41	Sample	22991 1:5	41	SLUDGE	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
42	Sample	23017 1:5	42	SLUDGE	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
43	Sample	23020 1:5	43	SLUDGE	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
44	Sample	23021 1:5	44	SLUDGE	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
45	Sample	23067 1:5	45	SLUDGE	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
46	Sample	23112 1:5	46	SLUDGE	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
47	Sample	23122 1:5	47	SLUDGE	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
48	Sample	23020 DUP 1:5	48	SLUDGE	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
49	Sample	FLUSH	49	SLUDGE	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
50	Sample	AROCHLOR 1260	50	SLUDGE	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
51	Sample	22991	51	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
52	Sample	23017	52	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
53	Sample	23020	53	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
54	Sample	23021	54	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
55	Sample	23067	55	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
56	Sample	23112	56	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
57	Sample	23122	57	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
58	Sample	23020 DUP	58	SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
59	Sample	FLUSH	59	SLUDGE	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000

[illegible][illegible]

[illegible][illegible]

Sequence Process Information - Channel A

Row	Modified	Calib Rpt	Cal Level	Update RT	Printer	Plotter
49	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
50	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
51	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
52	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
53	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
54	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
55	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
56	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
57	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
58	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
59	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62009
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/1
 Sample Amount : 1.000000
 Cycle : 1

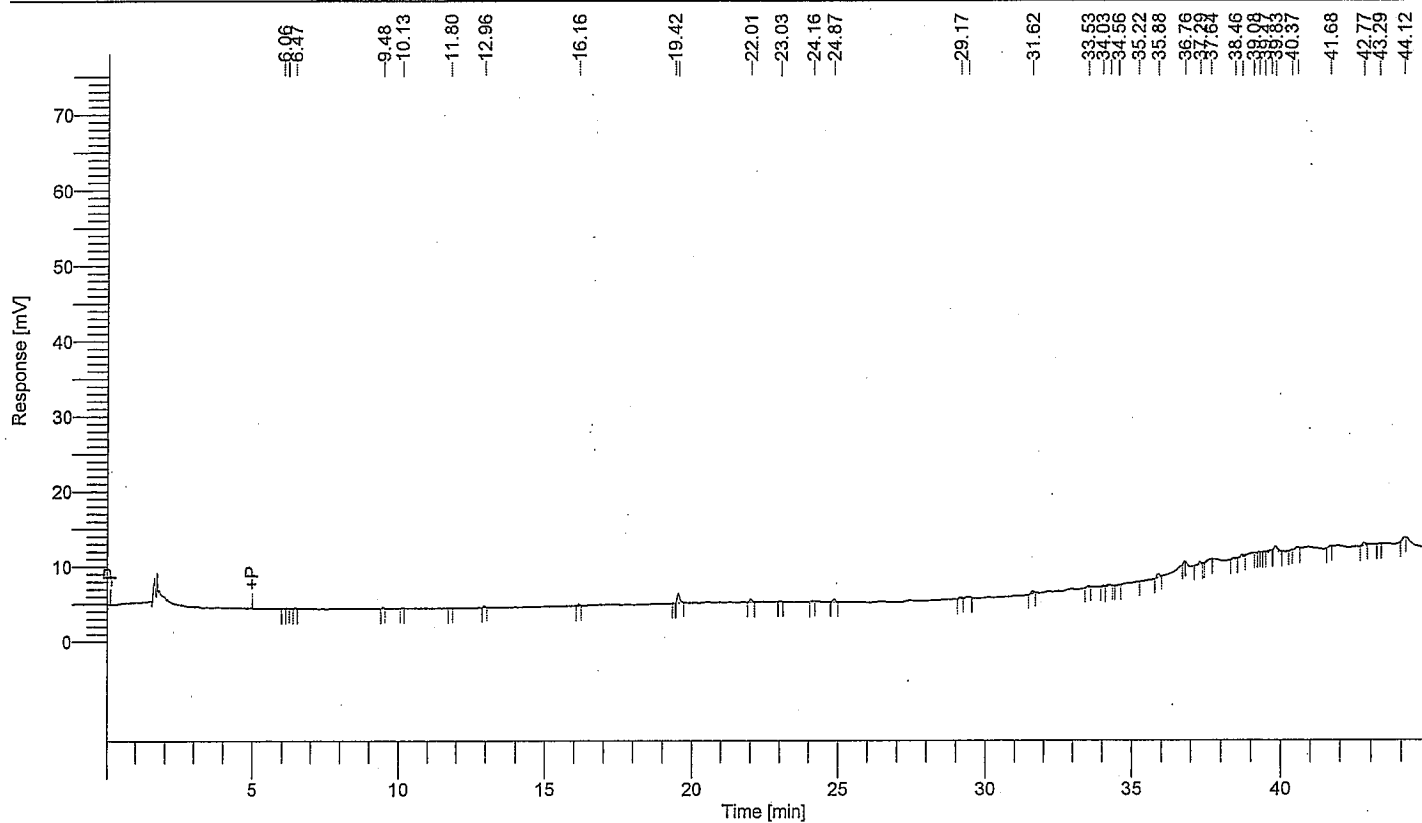
Date : 10/15/2007 7:07:01 AM
 Data Acquisition Time : 10/12/2007 3:36:15 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB001.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
19.54	7548
22.01	2392
24.87	2570
29.42	2146
31.62	2129
35.88	2986
37.29	2280
38.70	2019
39.70	2287
39.83	6130
42.77	2256

34741

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62026
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 1.000000
 Cycle : 18

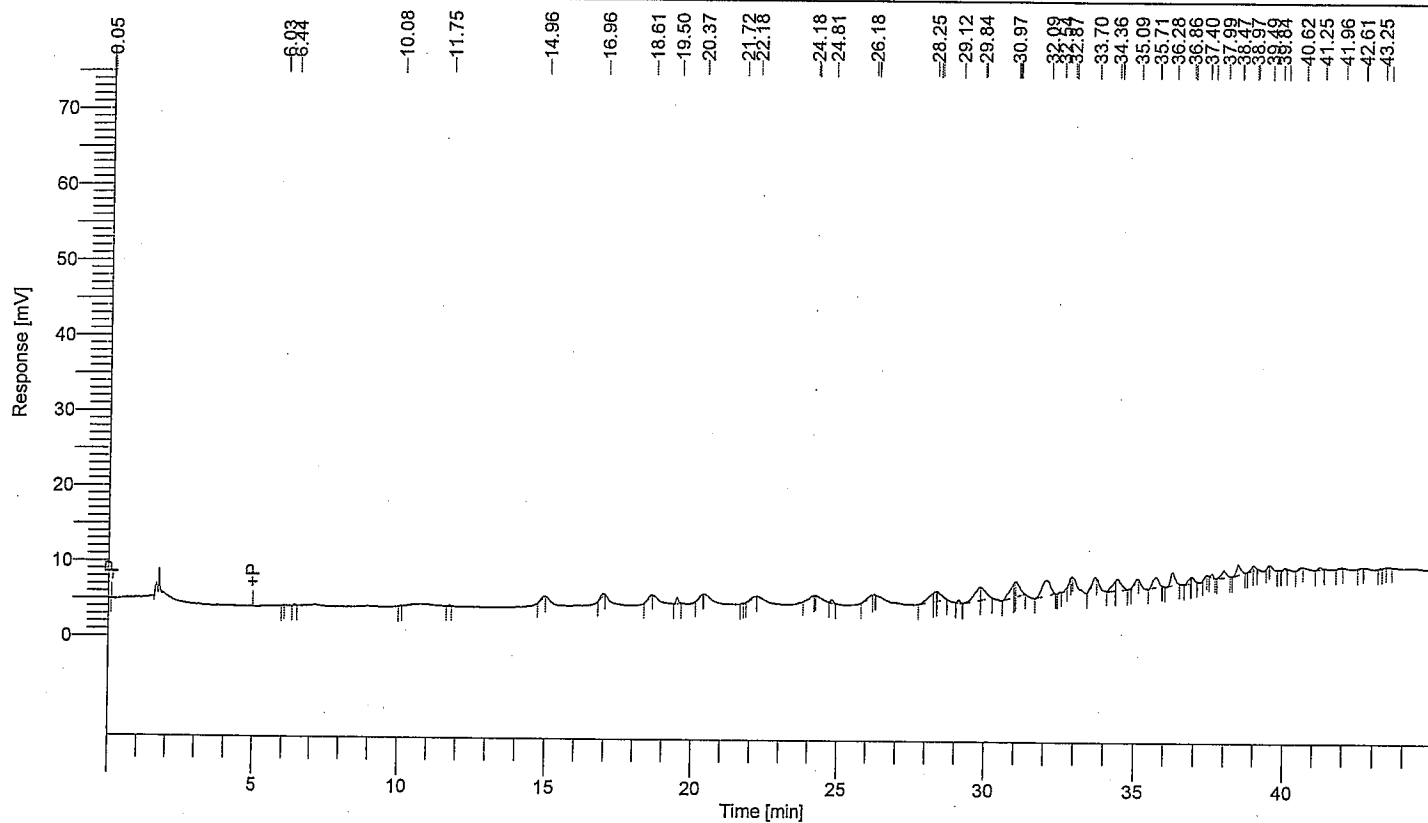
Date : 10/15/2007 7:07:31 AM
 Data Acquisition Time : 10/13/2007 6:30:29 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB018.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
14.96	2344
16.96	3612
18.61	2358
19.50	4374
22.18	2690
24.81	2785
26.18	3781
28.25	15108
28.36	9370
28.41	13478
29.12	2180
29.84	25080
29.88	19361
30.97	19509
31.02	6897
31.06	18421
32.09	40668
33.70	6628
34.36	11088
34.47	19713
35.09	2731
35.71	17874
36.28	18946
36.86	5263
36.92	5222
37.59	2649
37.99	10699

10/15/2007 7:07:31 AM Result: C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB018.rst

Time [min]	Area [μ V-s]
38.47	13135
38.97	3316
39.00	2794
41.25	2368

314441

Software Version : 6.3.1.01-04
 Reprocess Number : totalchrom: 62033
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/25
 Sample Amount : 1.000000
 Cycle : 25

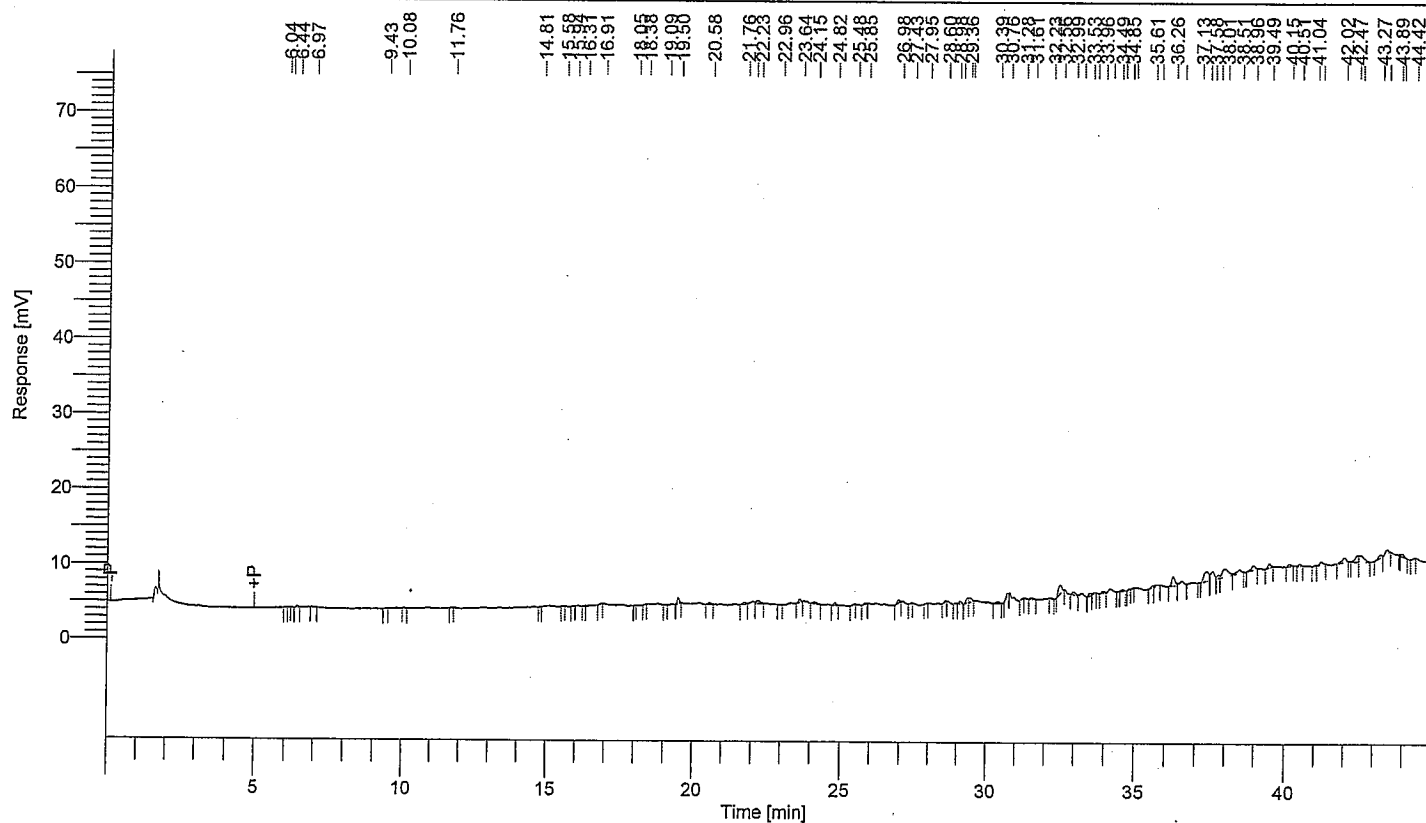
Date : 10/11/2007 7:07:41 AM
 Data Acquisition Time : 10/13/2007 12:39:42 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\COMB025.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.50	3750
20.58	2056
21.76	2150
22.05	3345
22.23	4059
23.64	2516
24.15	2274
24.82	2117
26.98	2653
29.12	2190
29.36	3655
29.44	3646
30.39	2356
30.76	2654
32.56	8968
32.99	3107
33.24	3810
33.53	2137
34.20	4812
36.26	9944
36.55	4745
37.41	14815
37.58	9935
37.78	2925
38.01	14811
38.51	4953
38.96	5010

Time [min]	Area [μ V-s]
39.49	3567
40.15	2312
41.23	3558
42.02	6439
42.47	6822
42.60	10325
43.27	3047
43.48	4417
43.99	2543

172425

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62036
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/28
 Sample Amount : 1.000000
 Cycle : 28

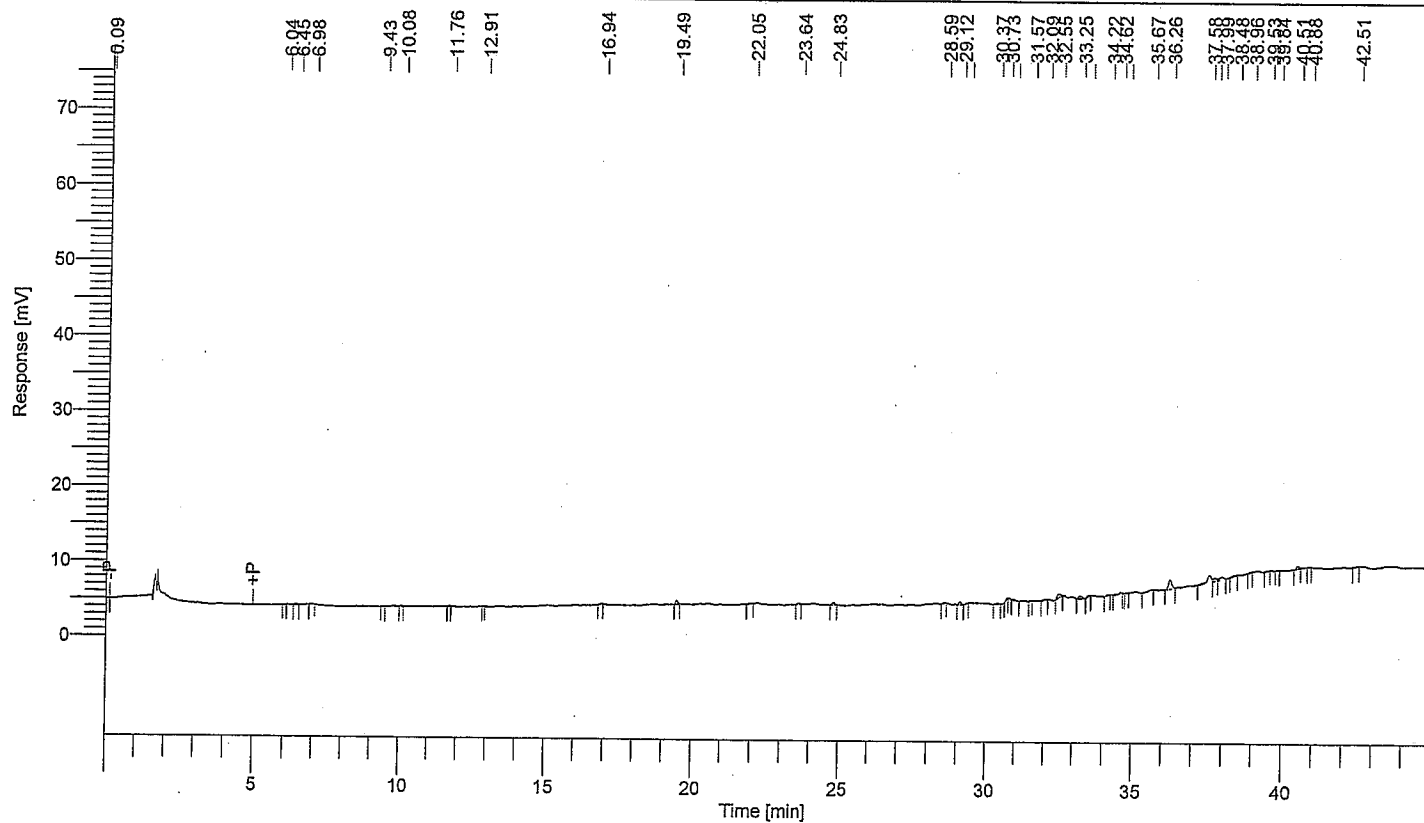
Date : 10/15/2007 7:07:45 AM
 Data Acquisition Time : 10/13/2007 3:18:58 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\COMB028.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.49	2763
24.83	2159
29.12	2046
32.55	3754
33.25	3432
36.26	9698
37.58	9370
37.77	3504
37.99	3480
40.51	2099
	42306

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62138
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/30
 Sample Amount : 1.000000
 Cycle : 30

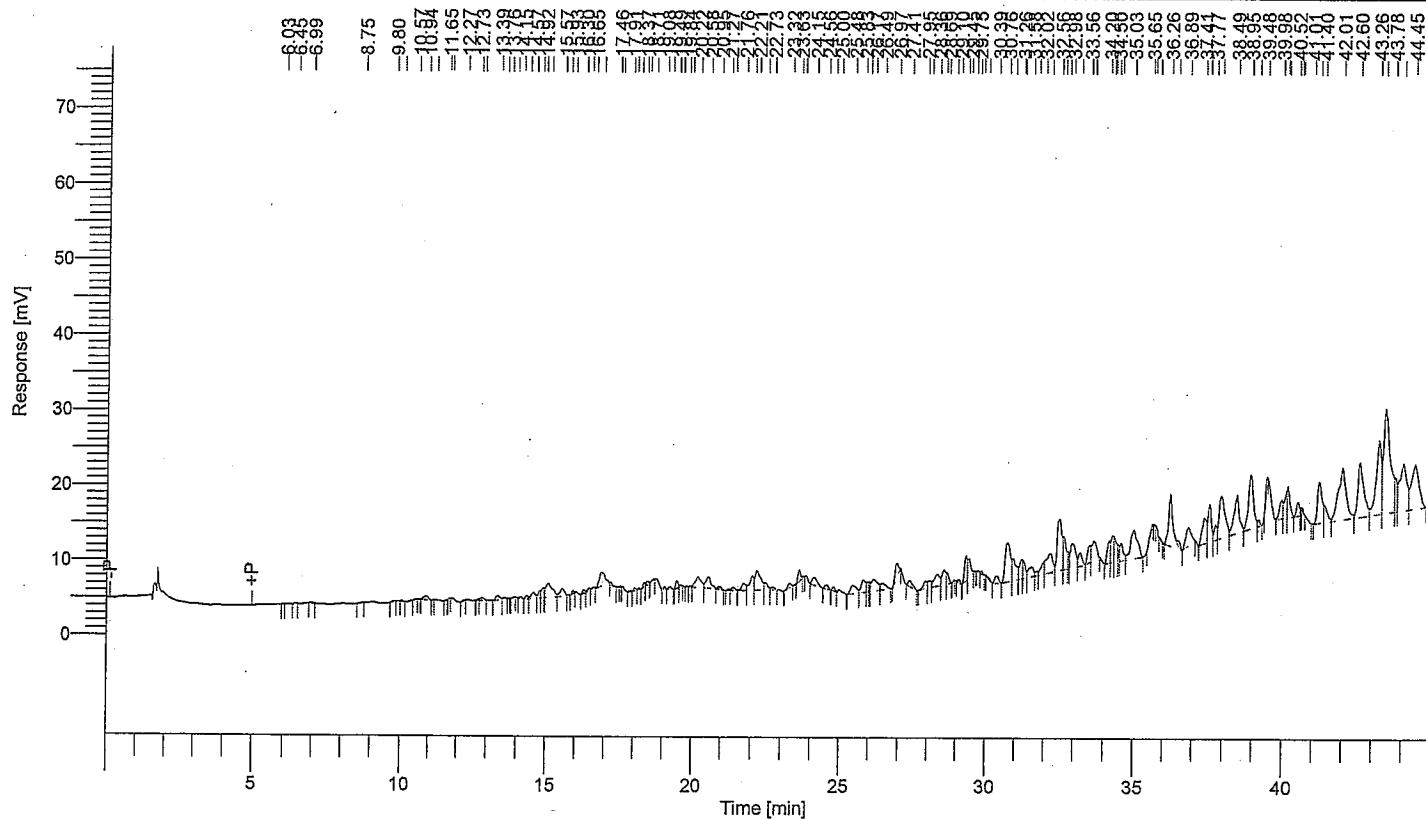
Date : 10/15/2007 7:07:48 AM
 Data Acquisition Time : 10/13/2007 5:05:04 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB030.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.94	6231
12.85	3141
13.39	5654
14.35	2489
14.57	7856
14.81	5606
14.92	6730
15.09	28958
15.57	11476
15.93	2202
16.30	2732
16.49	2541
16.91	25224
18.04	2202
18.37	2715
18.48	2819
19.26	2199
19.49	5321
20.22	19500
20.58	18599
20.95	2751
21.42	3627
21.76	9082
22.06	17921
22.21	35542
22.50	8108
22.73	2951

Time [min]	Area [μ V·s]
23.32	4772
23.63	9850
24.15	12638
24.56	4213
24.81	3091
25.00	3158
25.48	16095
25.83	16482
25.98	6827
26.17	25125
26.49	11313
26.97	15808
27.41	7651
27.95	9058
28.09	8638
28.36	21426
28.59	18707
28.69	8249
29.10	2041
29.34	20910
29.45	19160
30.39	9543
30.76	66284
30.96	30877
31.26	18905
31.30	14349
31.58	16206
31.78	3435
32.02	14575
32.23	38992
32.56	74193
32.68	30346
32.83	7061
32.98	41747
33.23	15761
33.56	15841
33.69	27701
34.20	21150
34.32	21742
34.36	24008
34.50	6778
34.60	19044
35.03	61069
35.65	4609
36.26	73288
36.50	5802
36.89	30634
37.41	32928
37.57	39150
37.77	14293
37.97	74383
38.49	59345
38.95	84212
39.21	4858
39.48	6983
39.98	19282
40.13	19403
40.18	28296
40.52	12415
40.61	2474
40.65	3661
41.23	59550
41.40	18430
42.01	126042
42.60	102515
43.26	118922
43.46	223536
43.78	23746
44.07	104752
44.45	104169

2466672

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62017
 Sample Name : BLANK SOIL AVANT(SET4)
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

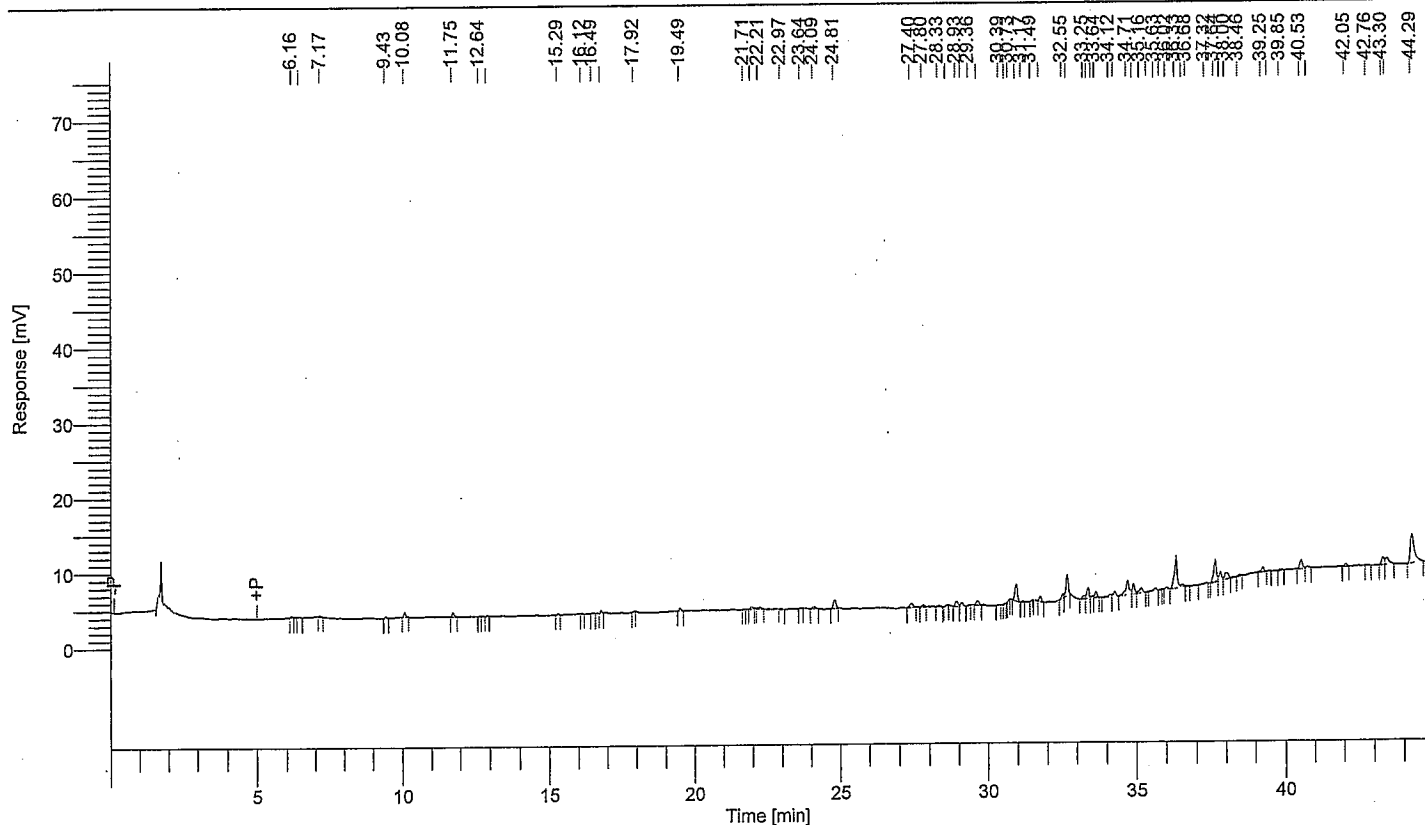
Date : 10/15/2007 7:07:16 AM
 Data Acquisition Time : 10/12/2007 10:37:21 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB009.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.08	2667
11.75	2529
24.09	2254
24.81	7205
27.40	3797
28.93	4589
29.11	2983
29.64	3591
30.96	13278
31.76	3465
32.55	2186
32.68	15773
33.25	2894
33.38	7428
33.64	3931
34.12	2674
34.27	4000
34.71	16295
34.91	7883
35.16	4865
35.63	2735
36.33	29855
37.64	18774
37.83	7177
38.00	7009
39.25	3819

(BSL)

<0.04 ppm total PCB
 8/8 10/16/2007

10/15/2007 7:07:16 AM Result: C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB009.rst

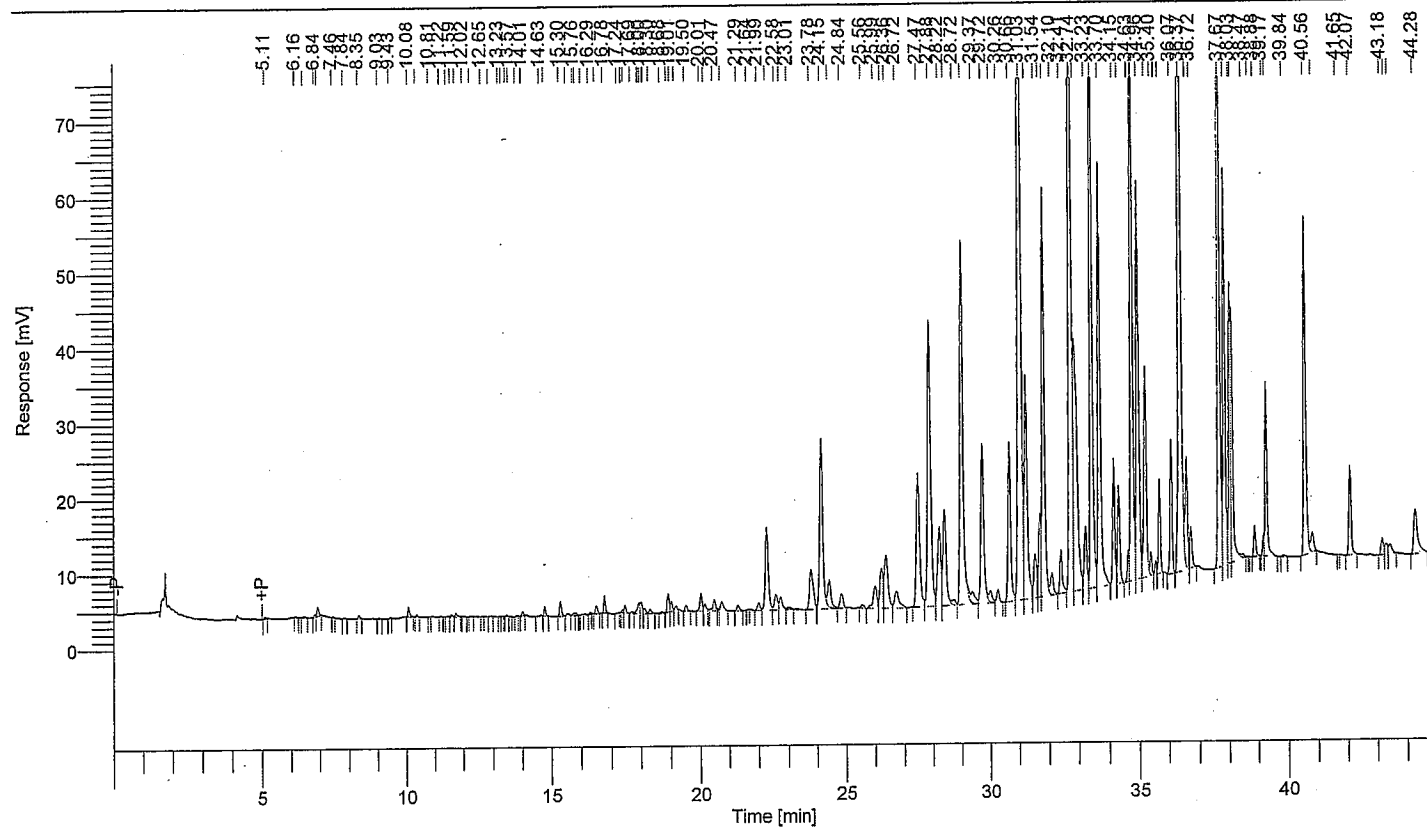
Time [min]	Area [μ V·s]
40.53	7156
43.30	5785
43.42	7242
44.29	36314
<hr/>	
240154	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62018
 Sample Name : SPIKE SOIL AVANT(SET4)
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

Date : 10/15/2007 7:07:18 AM
 Data Acquisition Time : 10/12/2007 11:29:56 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204_0806,0906 AV SET 4\COMB010.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204_0806,0906 AV SET 4\PCB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.94	5444
10.08	5747
11.75	2348
14.77	5043
15.30	9070
16.50	5101
16.78	8101
17.46	4217
17.94	8238
18.00	7171
18.11	3830
18.30	3177
18.90	11665
19.01	6282
19.16	2826
19.50	3908
20.01	12926
20.15	4927
20.47	10068
20.73	9239
21.29	4550
21.99	6688
22.27	76264
22.58	15759
22.74	11966
23.01	2211
23.78	50488

$$\sum \text{area} = 1108276$$

$$\text{nanograms injected} = \frac{1108276}{325873} = 3.4009$$

$$\text{ppm} = \frac{3.4009}{50} \times \frac{2}{1} \times \frac{100}{50} = 0.1360$$

$$\% \text{ Recovery} = \frac{0.1360}{0.1} \times 100 = 136\%$$

10/15/2007 7:07:18 AM Result: C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB010.rst

Time [min]	Area [μ V·s]
24.15	184282
24.43	29494
24.84	13115
25.56	2632
25.99	25901
26.21	39477
26.36	61634
26.72	25844
27.47	152228
27.88	299704
28.22	80666
28.40	105503
28.72	6246
29.01	366371
29.37	20110
29.72	157160
30.00	13808
30.26	10646
30.66	132990
31.03	948753
31.23	207347
31.54	38107
31.70	58327
31.82	333836
32.10	21232
32.41	35013
32.74	736613
32.87	314603
33.23	54858
33.44	561253
33.70	315194
34.15	83537
34.32	69688
34.63	16463
34.76	483092
34.96	278148
35.21	170690
35.40	14427
35.55	7172
35.68	58681
36.07	84999
36.37	1098626
36.58	78537
36.72	29762
37.67	533947
37.86	262224
38.03	153924
38.09	158181
38.47	3406
38.88	17847
39.17	10278
39.28	115986
40.56	229439
40.81	18793
42.07	69738
43.18	12250
43.30	8832
43.43	9791
44.28	52814
<hr/>	
9781471	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62024
 Sample Name : 22673 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

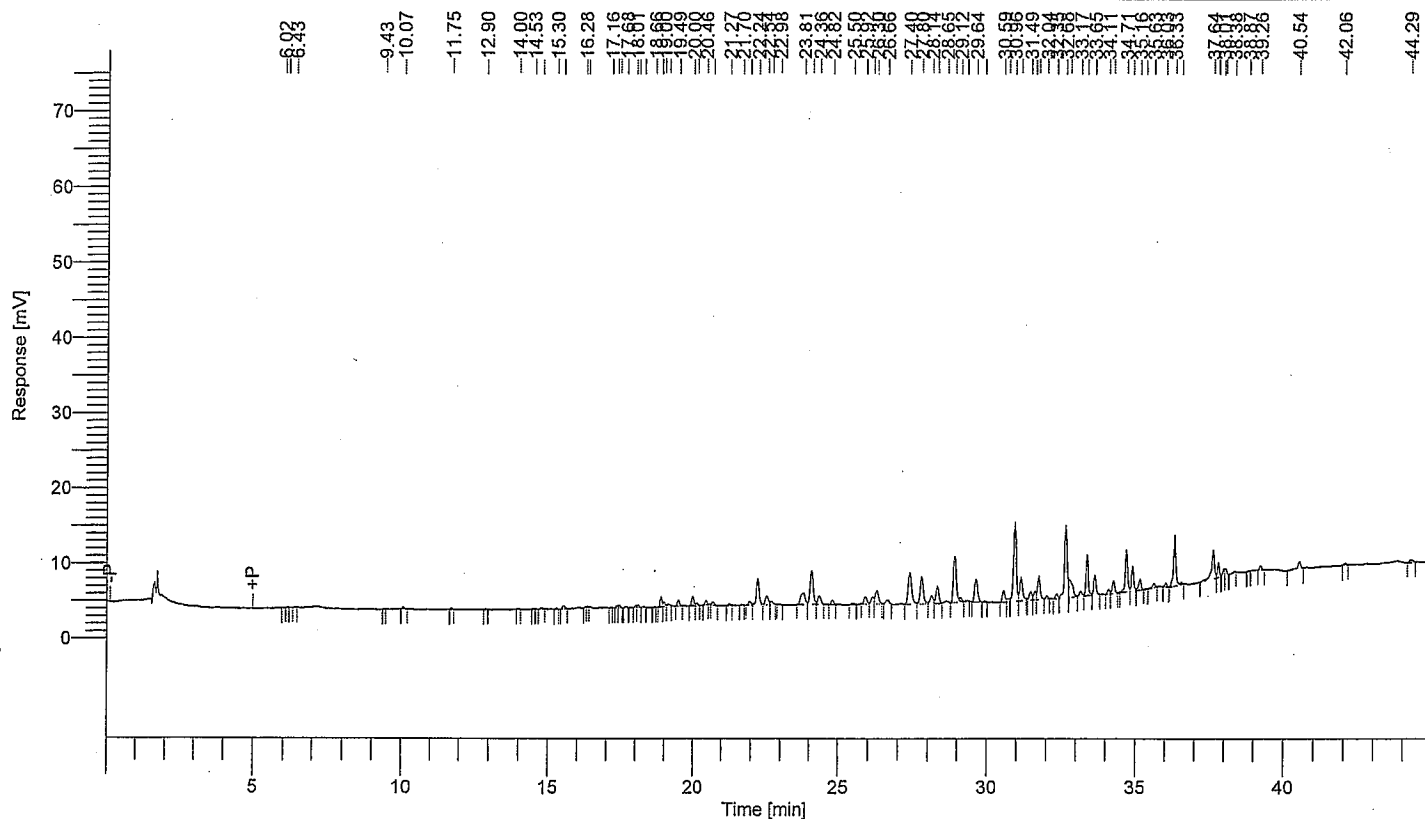
Date : 10/15/2007 7:07:28 AM
 Data Acquisition Time : 10/13/2007 4:45:15 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB016.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
15.53	2506
18.89	6401
19.00	2951
19.49	4009
20.00	6639
20.46	2639
20.70	2050
21.96	2884
22.24	23319
22.54	8521
22.70	2662
23.81	17754
24.09	33920
24.36	8074
24.82	3546
25.92	6961
26.15	6065
26.30	15135
26.66	4237
27.40	35859
27.80	28414
28.14	7113
28.33	16143
28.65	2310
28.93	46065
29.12	2542
29.64	20557

$$\sum \text{area (Aroclor 1260)} = 44809$$

$$\text{ng ing} = \frac{44809}{325873} = 0.1375$$

$$\text{ppm} = \frac{0.1375}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0550$$

$$\sum \text{area (Aroclor 1254)} = 19272$$

$$\text{ng ing} = \frac{19272}{98887} = 0.1949$$

$$\text{ppm} = \frac{0.1949}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0780$$

$$\text{Total PCB} = 0.1330 \text{ ppm}$$

$$\text{RPD} = \frac{(0.2187 - 0.1330)}{0.1759} \times 100 = 49$$

Both sample & duplicate are < 0.40 ppm.
 RPD 10/16/2007.

Time [min]	Area [μ V·s]
30.59	9253
30.75	2332
30.96	73816
31.17	21120
31.49	7317
31.63	6618
31.76	18059
32.04	2087
32.35	3179
32.68	63929
32.81	18931
33.17	3872
33.38	28926
33.65	13542
34.11	3192
34.27	9480
34.71	31260
34.92	16941
35.16	8921
35.63	3112
36.03	2267
36.33	36911
37.64	27712
37.83	9278
38.01	3766
38.07	4053
39.26	2503
40.54	7076
44.29	2479

761212


```

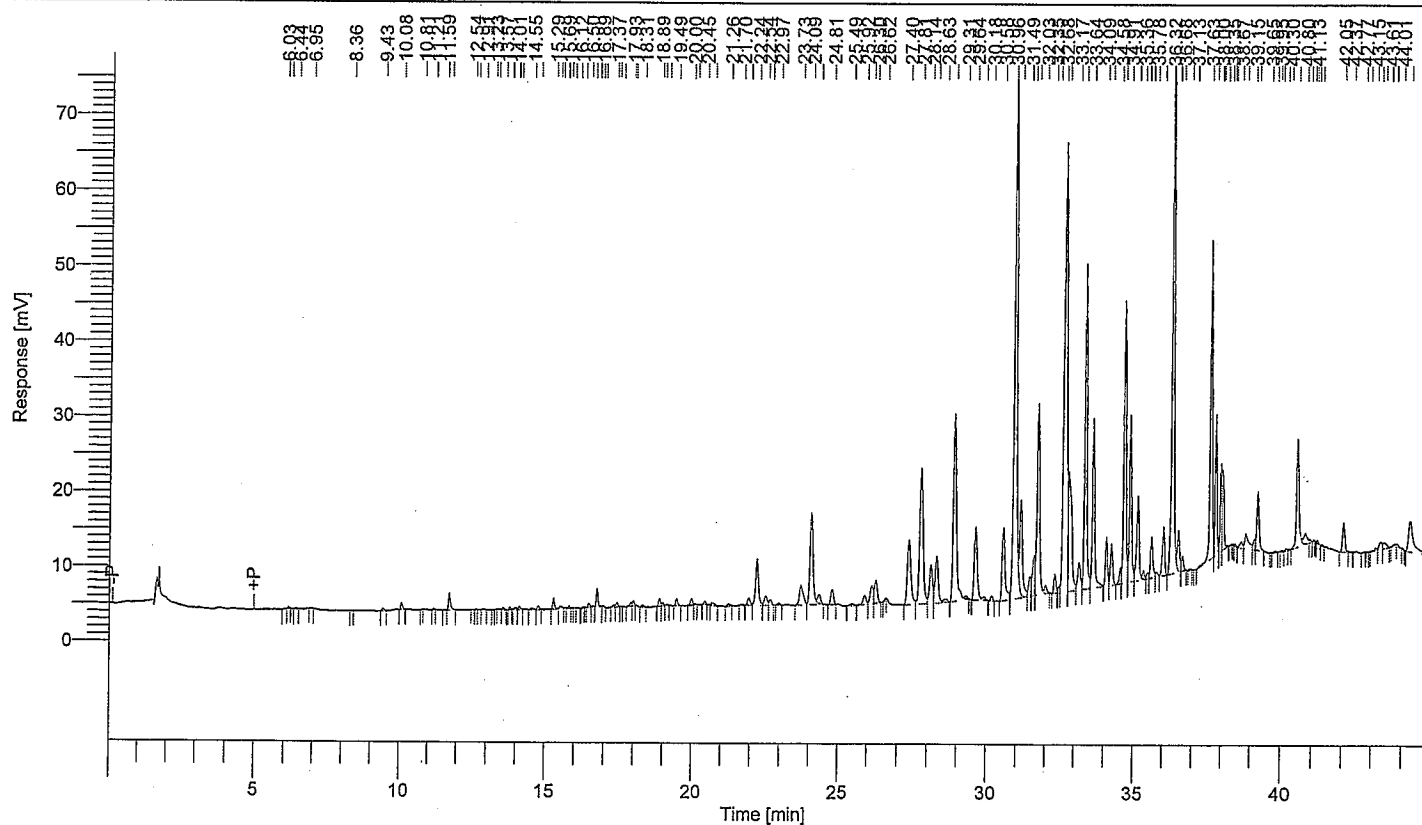
Software Version   : 6.3.1.0504
Reprocess Number  : totalchrom: 62035
Sample Name       : 22675 MS
Instrument Name    : GC014
Rack/Vial         : 0/27
Sample Amount     : 50.000000
Cycle             : 27

```

Date : 10/15/2007 7:07:44 AM

Data Acquisition Time : 10/13/2007 2:25:55 PM
Channel : A
Operator : enwweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204_0806,0906 AV SET 4\COMB027.rst
Sequence File : C:\PEST\OCTOBER 2007\07100204_0806,0906 AV SET 4\PCB.seq
Sample Notes:
METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
10.08	3815
11.76	10520
14.12	2151
14.78	2399
15.29	6117
15.53	2089
16.50	2933
16.78	10084
17.46	2468
17.93	2777
18.00	2876
18.89	4448
19.01	2132
19.49	4476
20.00	3995
20.71	2750
21.95	6575
22.24	44559
22.54	9151
22.69	4153
23.73	24876
24.09	93793
24.36	8482
24.81	13326
25.49	2477
25.92	9780
26.16	17401

$$\Sigma \text{ area (Archlor 1260)} = 393146$$

$$ng = \bar{u} \bar{v} = \frac{393146}{328551.5} = 1.1966$$

$$\text{ppm} = \frac{1.1966}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.0479 \quad \text{① 818 10/17/2007}$$

$$\% \text{ Recovery} = \frac{0.0479}{0.1} \times 100 = 48\%$$

Time [min]	Area [μ V-s]
26.30	22755
27.40	75391
27.81	148694
28.14	37993
28.32	48392
28.63	4265
28.93	189404
29.31	2236
29.64	67792
29.93	3189
30.18	3337
30.58	65078
30.96	469979
31.17	82443
31.49	16635
31.63	31247
31.75	154775
32.03	6980
32.35	13599
32.52	4066
32.68	367901
32.81	134223
33.17	24052
33.38	229016
33.64	127184
34.09	32571
34.27	31087
34.58	9564
34.71	206432
34.91	116651
35.16	68026
35.36	6247
35.50	3633
35.63	29110
35.78	3662
36.02	32471
36.32	433066
36.53	29914
36.68	10124
37.63	215448 —
37.82	85570 —
38.00	47508 —
38.05	44620 —
38.67	6082
38.85	18845
39.15	6680
39.25	38303
40.53	84868
40.80	11973
42.05	22287
43.30	6703
43.43	6250
44.27	43705

4282606

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62030
 Sample Name : 22675 MS 1:"0
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

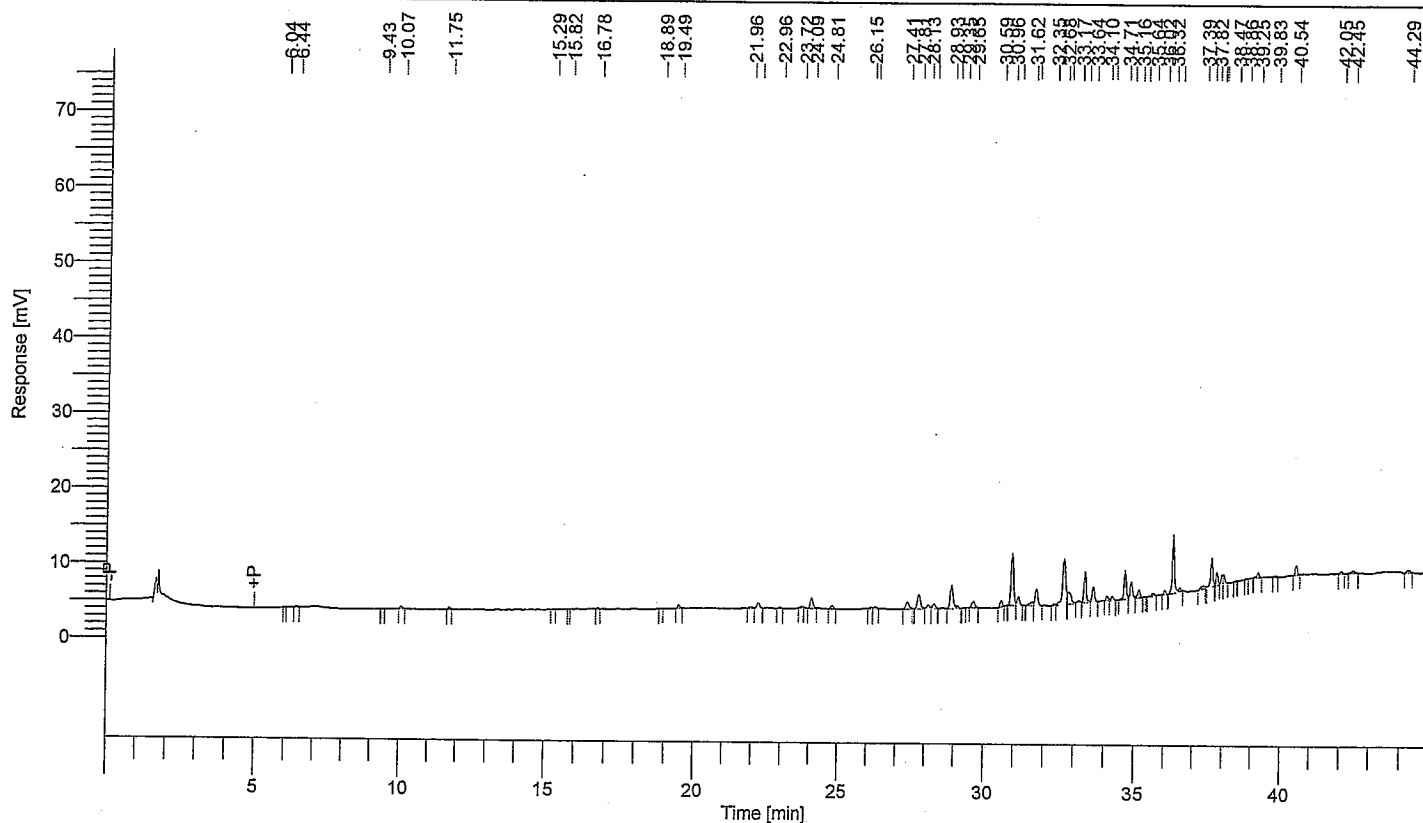
Date : 10/15/2007 7:07:37 AM
 Data Acquisition Time : 10/13/2007 10:01:09 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\COMB022.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.49	2475
22.24	4820
24.09	9558
24.81	2757
27.41	7745
27.81	14641
28.13	3417
28.33	4310
28.93	22038
29.65	5984
30.59	4210
30.96	45269
31.17	6449
31.62	4165
31.75	13630
32.68	42237
32.81	14478
33.17	2217
33.38	21689
33.64	10627
34.10	2943
34.27	3170
34.71	20500
34.91	11879
35.16	6150
35.64	2146
36.02	2446

Time [min]	Area [μ V·s]
36.32	41738
36.54	2454
37.39	3847
37.63	20706
37.82	8229
38.00	6000
38.06	4666
39.25	3691
40.54	6283
42.45	2681
44.29	2675
<hr/>	
	394923

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62037
 Sample Name : 22676 MSD
 Instrument Name : GC014
 Rack/Vial : 0/29
 Sample Amount : 50.000000
 Cycle : 29

Date : 10/15/2007 7:07:47 AM

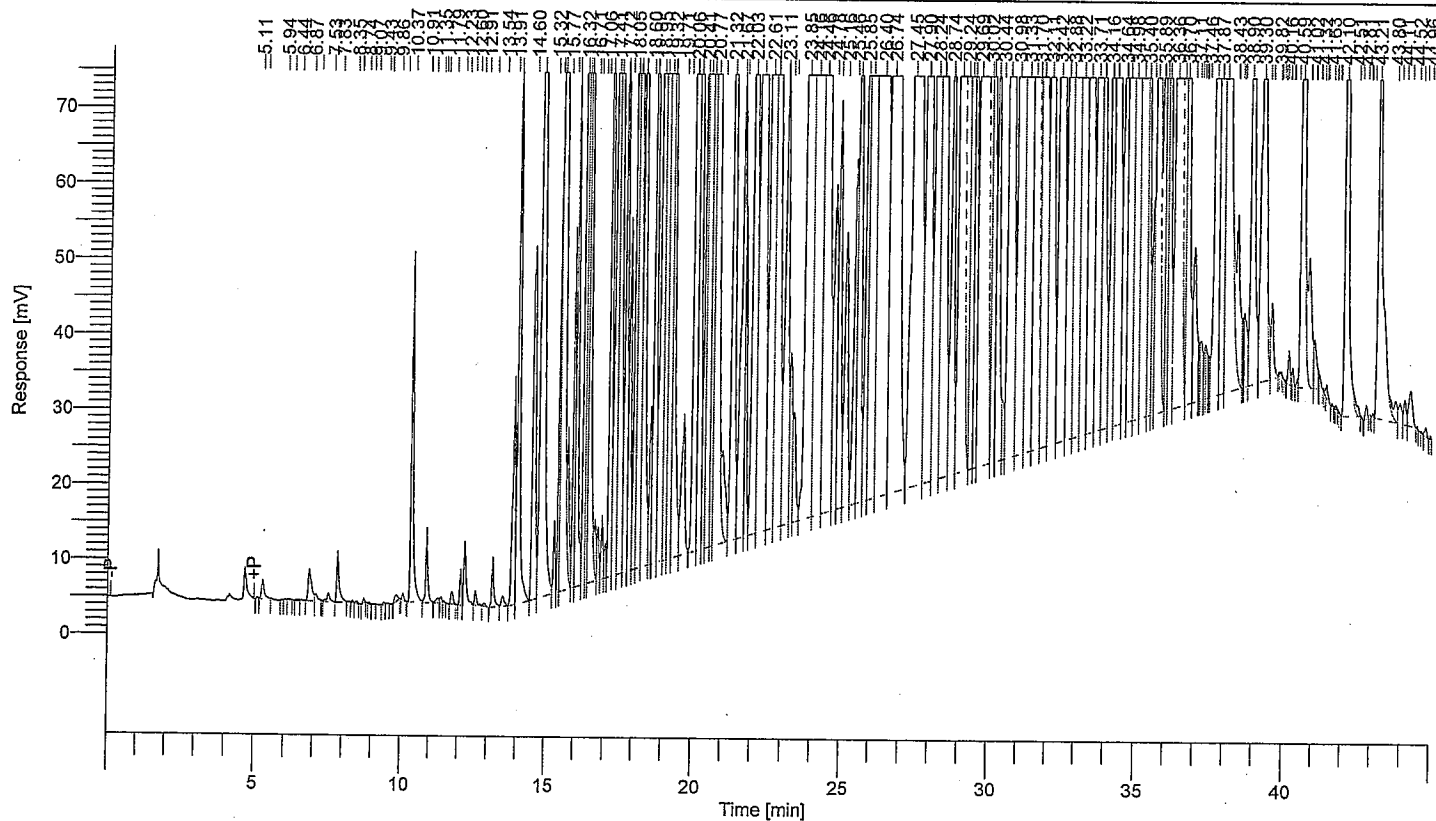
Data Acquisition Time : 10/13/2007 4:12:01 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB029.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
5.28	16178
6.87	34887
7.10	6757
7.53	8575
7.83	40438
8.74	2134
9.86	6569
10.08	3534
10.37	245597
10.91	48924
11.35	4808
11.43	3380
11.79	10022
12.09	21471
12.23	50177
12.60	9439
12.91	2243
13.19	36127
13.54	9728
13.91	167526
14.04	450231
14.60	357244
14.84	1719597
15.32	42128
15.48	149107
15.56	1568210
15.77	92831

See 1:10 dilution.

Time [min]	Area [μ V-s]
15.97	187263
16.06	367615
16.32	839638
16.40	729921
16.47	884289
16.71	38103
16.81	36205
16.95	40443
17.06	18869
17.20	484847
17.41	1252952
17.50	2371778
17.72	444051
17.87	277427
18.05	850416
18.15	1455690
18.33	1201973
18.60	97635
18.72	580649
18.95	2128698
19.06	1543843
19.21	1122841
19.32	608596
19.71	156785
20.06	3068401
20.19	1119628
20.41	380854
20.51	2016827
20.63	701906
20.77	2070683
21.02	111156
21.32	923791
21.67	528747
21.75	213436
22.03	1317444
22.31	3482583
22.61	4200588
22.78	3015353
23.11	573729
23.28	148944
23.40	95389
23.85	4887351
24.16	9388081
24.46	3517794
24.78	355949
24.92	384911
25.16	323509
25.46	295516
25.58	641323
25.85	474850
26.02	2985414
26.40	6054759
26.74	3827123
27.45	10834839
27.90	3393734
28.24	2102703
28.43	3236053
28.74	511349
29.02	5509762
29.24	862817
29.38	1375624
29.48	694611
29.69	10596763
30.02	418962
30.10	732990
30.27	463189
30.44	43933
30.67	2894601
30.98	10518926
31.33	4524278
31.54	6520019
31.70	343224
31.84	5913904
32.11	2221005
32.42	1937763
32.70	10343434
32.88	5711472
33.22	2065017
33.45	4419769
33.71	2967093
33.90	812744
34.16	694710
34.34	4580068
34.64	1082707
34.77	3900082
34.98	2341080

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
35.22	1943827
35.40	338322
35.56	123089
35.68	2837304
35.89	371536
36.01	576505
36.08	837649
36.36	6831110
36.59	459734
36.70	813651
36.96	176515
37.11	24778
37.19	47126
37.26	10547
37.33	23063
37.36	38440
37.46	20060
37.69	4594726
37.87	2424327
38.05	2827141
38.43	202618
38.58	19735
38.63	20822
38.67	74296
38.90	716671
39.30	1036653
39.49	31681
39.58	62159
40.16	22356
40.26	4109
40.29	7312
40.45	3677
40.59	1570317
40.85	176720
41.02	43655
41.15	5367
41.20	6703
41.38	2147
41.43	7850
42.10	1349964
42.51	14170
42.81	7312
43.21	609639
43.80	26474
43.94	21600
44.11	20915
44.29	38597
44.80	5104

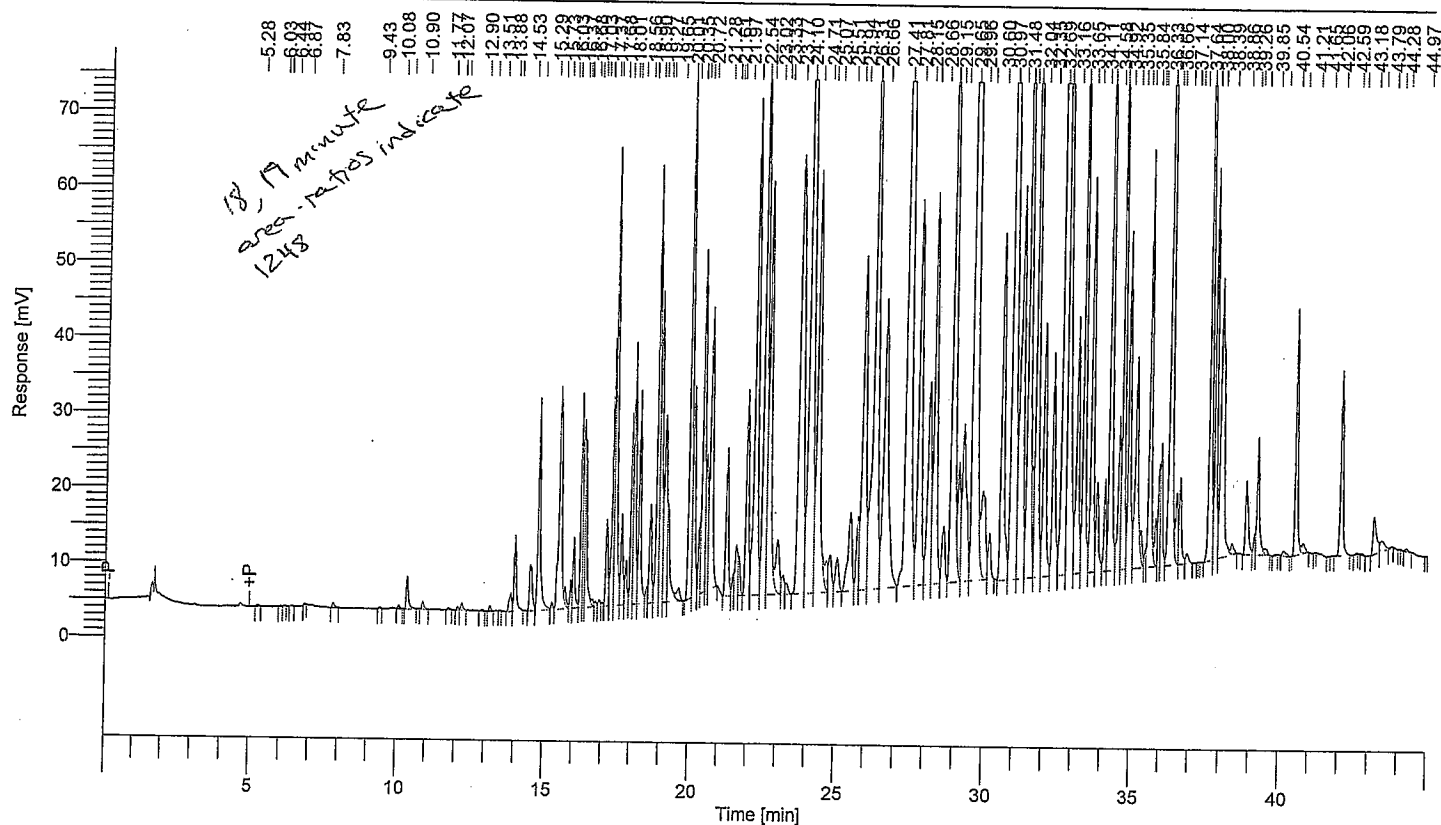
225931723

Warning -- Signal level out-of-range in peak

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62032
 Sample Name : 22676 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/24
 Sample Amount : 50.000000
 Cycle : 24

Date : 10/15/2007 7:07:40 AM
 Data Acquisition Time : 10/13/2007 11:46:35 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB024.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
7.83	3780
10.35	21921
10.90	5026
12.21	4874
13.17	2969
13.88	14864
14.01	49969
14.53	43558
14.81	158885
15.29	4058
15.53	225635
15.73	11455
15.93	14921
16.03	47603
16.29	111156
16.37	94559
16.43	107633
16.68	4788
16.78	3724
16.92	4655
17.03	2001
17.16	63449
17.37	155252
17.46	308240
17.68	64862
17.84	32520
18.01	107046

$$\{ \text{area (Aroclor 1260)} = 791521$$

$$\text{avg} = \frac{791521}{328551.5} = 2.4091$$

$$\text{ppm} = \frac{2.4091}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.9636$$

$$\% \text{Recovery} = \frac{(0.9636 - 1.0848)}{0.1} \times 100 = -21\%$$

% Recovery not valid due to concentration of PCB's in the sample. 8/10/17/2007

Time [min]	Area [μV·s]
18.11	183966
18.29	150594
18.56	10310
18.67	71928
18.90	287827
19.01	226518
19.17	170687
19.27	78720
19.65	14083
20.01	394867
20.14	160812
20.35	43298
20.46	264418
20.58	88548
20.72	259196
21.28	119157
21.52	13201
21.61	42802
21.70	24957
21.97	171868
22.25	482218
22.54	520192
22.71	401260
23.02	66482
23.22	17534
23.33	9110
23.77	623572
24.10	1184669
24.38	481242
24.71	31515
24.83	38833
25.07	36373
25.51	99805
25.77	59161
25.94	394340
26.31	761342
26.66	440077
27.41	1396501
27.81	421765
28.15	224628
28.34	411568
28.66	54694
28.94	659517
29.15	90539
29.31	217070
29.65	1709233
29.96	142015
30.19	38995
30.60	314376
30.97	1847017
31.26	464744
31.48	701418
31.63	44267
31.77	617539
32.04	233094
32.35	211018
32.69	1983489
32.81	712888
33.16	233921
33.39	476574
33.65	311119
33.84	77759
34.11	64308
34.28	483953
34.58	115548
34.71	429578
34.92	256505
35.17	214274
35.35	21794
35.51	8959
35.63	288480
35.84	33147
35.96	55481
36.03	82028
36.33	820437
36.54	51251
36.66	71145
36.92	9073
37.64	473022
37.83	262289
38.00	292210
38.39	11197 *NO
38.86	66086
39.15	11415
39.26	93832
39.47	6254

1260

Time [min]	Area [μ V·s]
40.13	5943
40.54	167085
40.79	11721
42.06	145856
43.18	42128
43.42	15280
44.28	2472

28303381

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62010
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/15/2007 7:07:03 AM

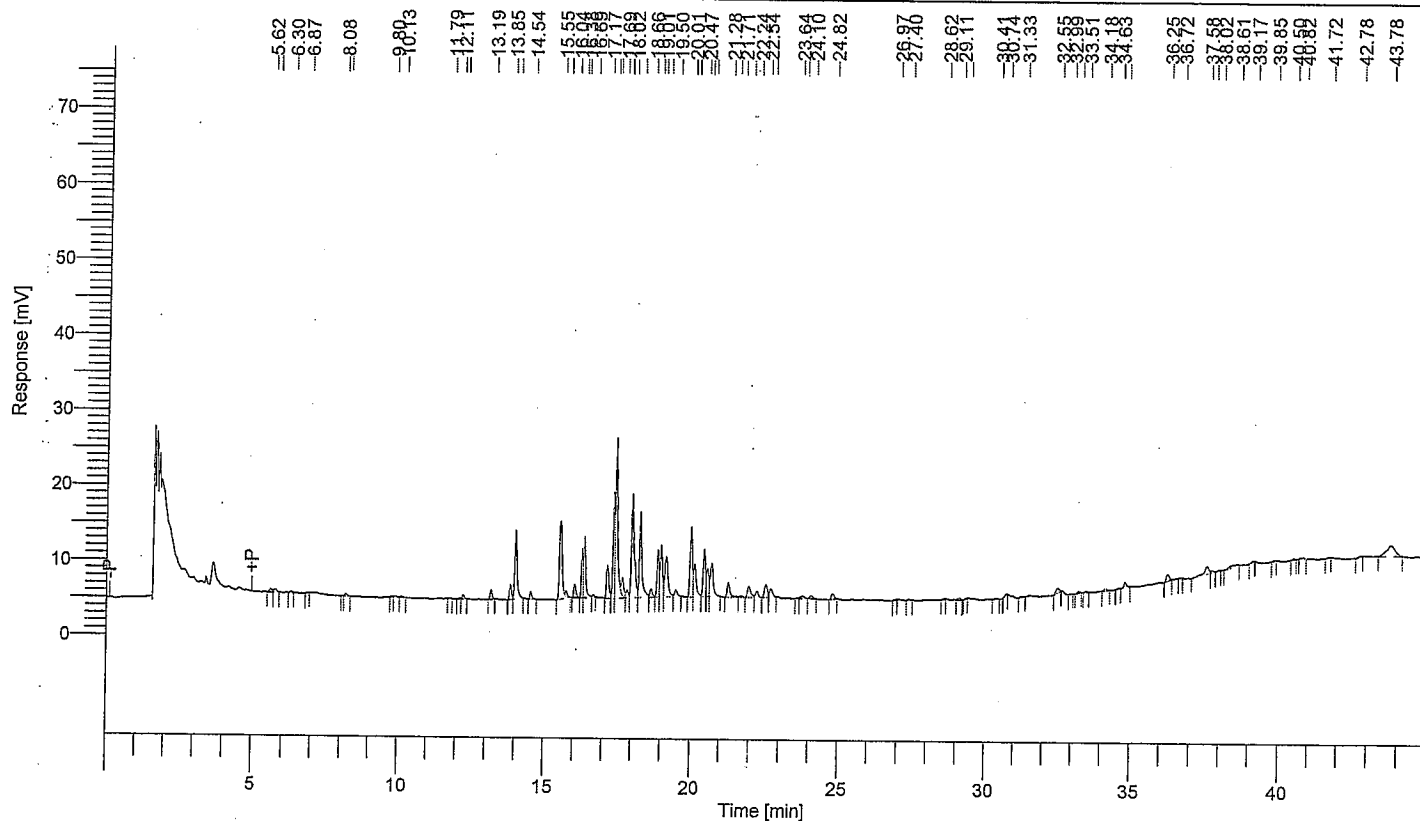
Data Acquisition Time : 10/12/2007 4:28:56 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB002.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.62	2758
5.77	2779
8.20	2062
12.24	2711
13.19	6195
13.85	9281
14.03	48224
14.54	4941
15.55	72712
15.74	3571
16.04	9138
16.29	24875
16.38	41134
17.17	27147
17.38	53550
17.46	121756
17.69	14665
17.85	5698
18.02	89659
18.30	68803
18.66	6422
18.90	29341
19.01	39320
19.18	38717
19.50	5309
20.01	53241
20.14	28689

Time [min]	Area [μ V·s]
20.47	36543
20.58	19751
20.71	30536
21.28	12288
21.97	11696
22.24	6223
22.54	12138
22.72	8505
23.80	3598
24.10	3569
24.82	5015
32.55	4339
34.18	2104
34.84	4739
36.25	6073
37.58	11554
38.61	4411
43.78	28997

1024774

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62011
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

Date : 10/15/2007 7:07:05 AM

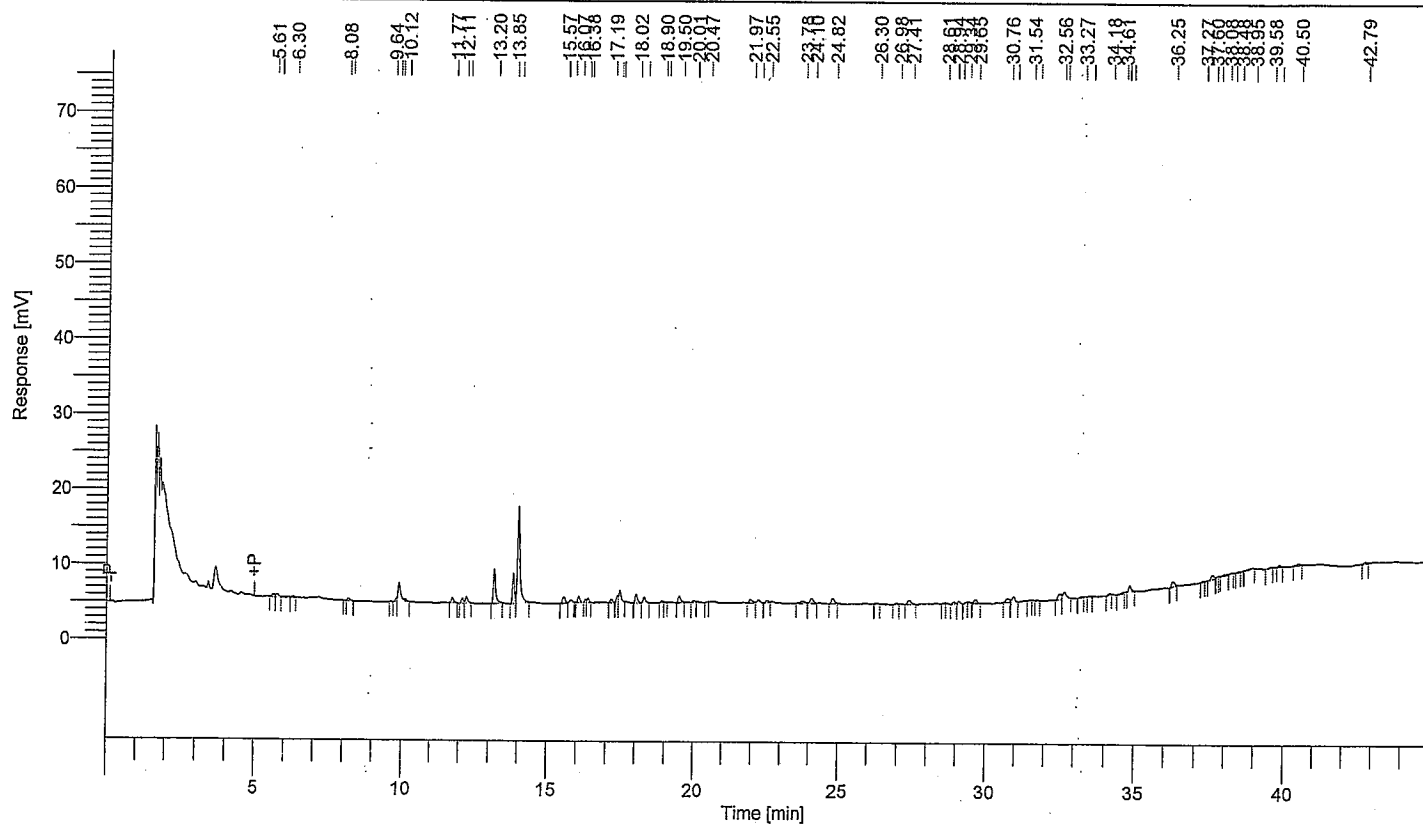
Data Acquisition Time : 10/12/2007 5:21:35 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB003.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2563
5.77	2751
8.19	2292
9.91	17085
11.77	3483
12.11	3118
12.25	4639
13.20	24637
13.85	18786
14.03	72721
15.67	5422
15.81	2081
16.07	4112
16.38	2556
17.19	2732
17.39	3100
17.47	8380
18.02	6687
18.30	4110
19.50	4932
21.97	3913
22.24	3019
23.78	3580
24.10	5141
24.82	4727
27.41	4878
29.12	2036

Time [min]	Area [μV·s]
29.65	3262
30.76	4235
30.96	5289
32.56	5952
32.69	7237
34.85	5553
36.25	5268
37.60	4235
38.08	2480
40.50	2135
<hr/>	
269127	

Software Version : 6.3.1.0504
 Reprocess Number : totaichrom: 62012
 Sample Name : AROCHLOR 1232
 Instrument Name : GC114
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

Date : 10/15/2007 7:07:07 AM

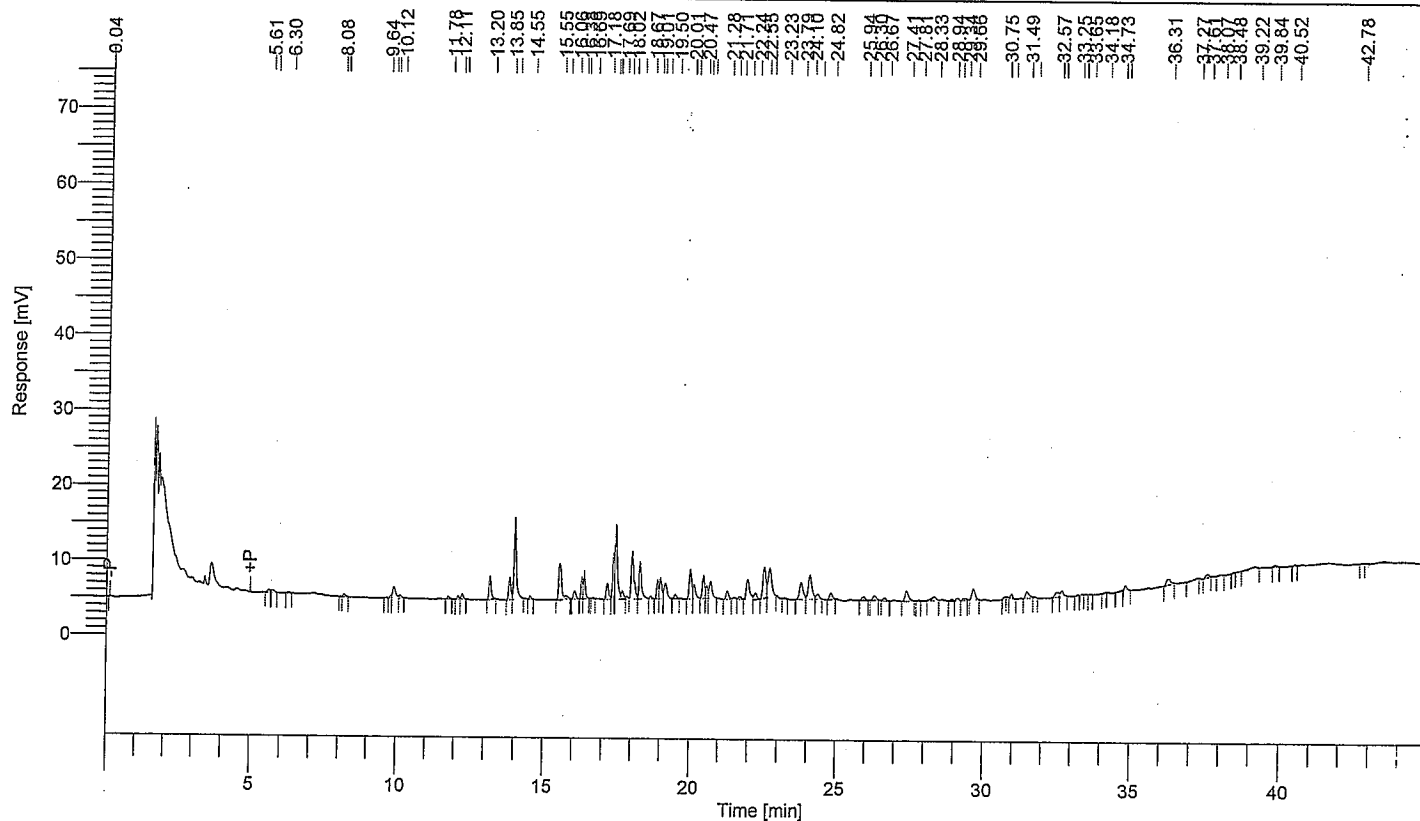
Data Acquisition Time : 10/12/2007 6:14:14 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB004.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2482
5.76	2658
8.19	2309
9.91	10081
12.11	2019
12.25	3523
13.20	16050
13.85	14384
14.03	60030
15.55	34020
15.75	3361
16.06	6242
16.30	10775
16.38	17495
17.18	12722
17.38	23859
17.47	57340
17.69	6073
17.85	2054
18.02	40097
18.30	29766
18.90	11602
19.01	15590
19.18	14217
19.50	2714
20.01	22563
20.15	11959

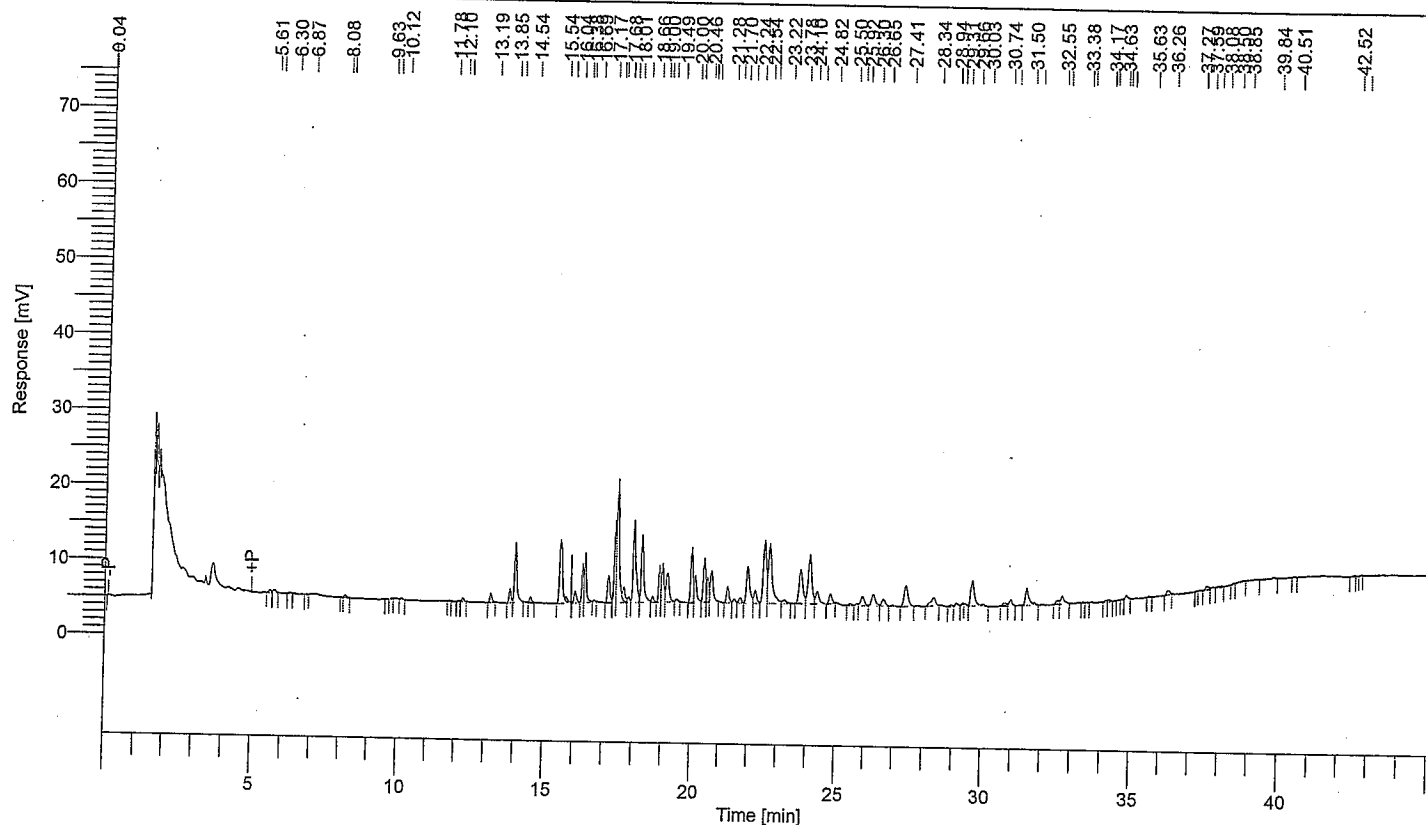
Time [min]	Area [μ V·s]
20.47	16463
20.58	8709
20.71	14622
21.28	6836
21.71	2145
21.98	20368
22.24	5998
22.55	29314
22.72	31001
23.79	20631
24.10	28115
24.38	4917
24.82	5941
25.94	3598
26.30	4395
26.67	2760
27.41	11873
28.33	4864
29.12	2128
29.34	2418
29.66	11252
30.96	3164
31.49	7868
32.57	4920
32.69	5711
34.85	4786
36.31	7624
37.61	3456
39.22	4515

716381

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62013
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

Date : 10/15/2007 7:07:09 AM
 Data Acquisition Time : 10/12/2007 7:06:54 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2461
5.76	2936
8.19	2146
12.24	2441
13.19	5994
13.85	8587
14.02	43604
14.54	3365
15.54	58772
15.74	4015
16.04	8563
16.29	19881
16.38	33178
17.17	21811
17.38	42127
17.46	97772
17.68	11041
17.84	3936
18.01	70870
18.29	54356
18.66	4009
18.90	22842
19.00	29462
19.17	27836
20.00	42751
20.14	23102
20.46	32712

$\Sigma \text{area} = 220839$

Calibration factor = 110019.5

$\Sigma \text{area} = 265125$

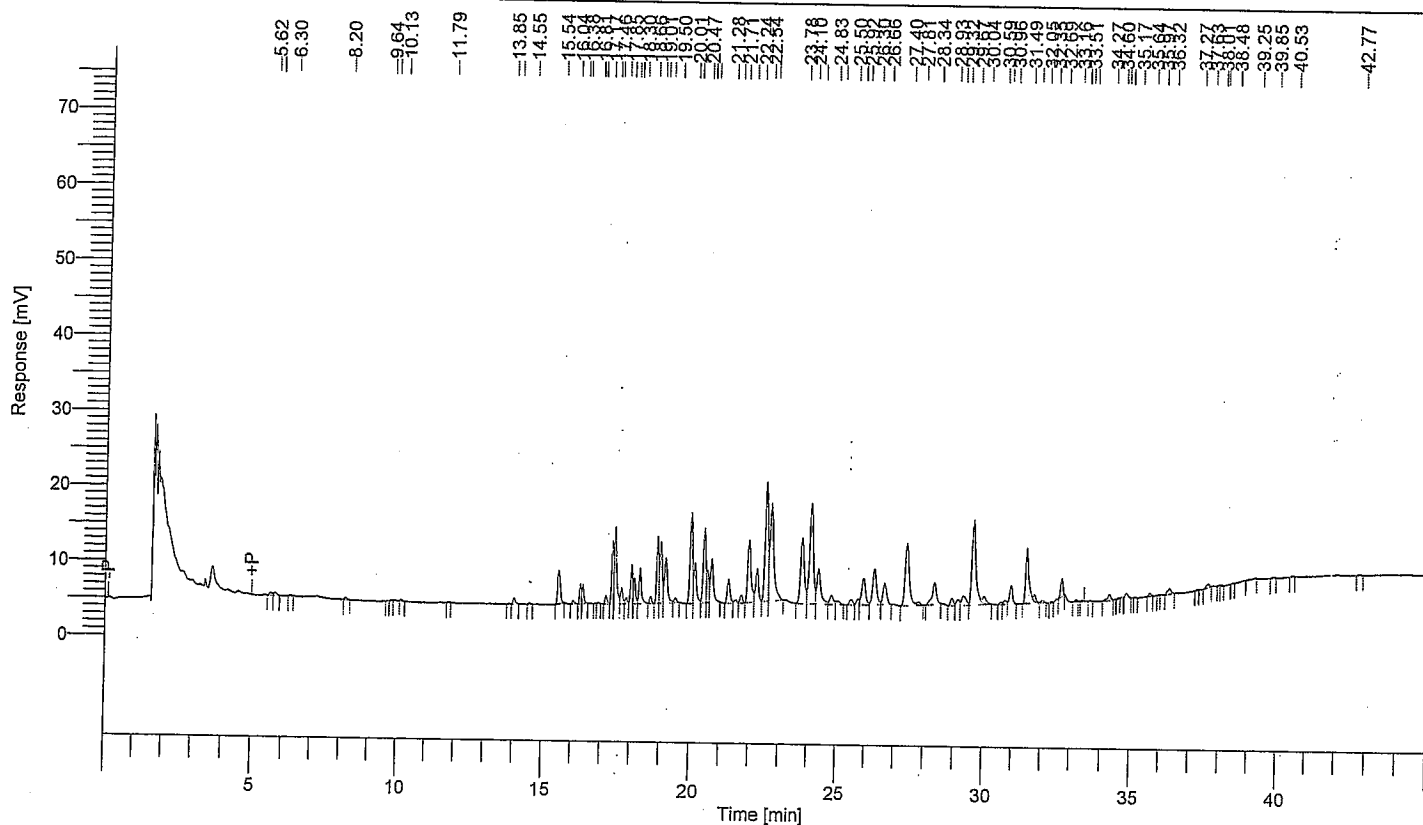
Calibration factor = $\frac{265125}{2} = 132562.5$

Time [min]	Area [μ V·s]
20.57	16764
20.70	29156
21.28	13409
21.51	3257
21.70	4422
21.97	38373
22.24	12211
22.54	61928
22.71	76820
23.22	4139
23.78	42417
24.10	58016
24.36	14766
24.82	8811
25.92	10556
26.30	14160
26.65	7590
27.41	25502
28.34	11746
29.12	2050
29.66	29484
30.03	2125
30.74	3419
30.96	5527
31.50	18645
32.55	3673
32.69	8100
34.85	3431
36.26	4388
37.59	3361
1218814	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62014
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 1.000000
 Cycle : 6

Date : 10/15/2007 7:07:11 AM
 Data Acquisition Time : 10/12/2007 7:59:28 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB006.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.62	2482
5.77	2703
14.03	4346
15.54	27159
16.04	2317
16.30	10426
16.38	12173
17.17	5962
17.38	32688
17.46	57967
17.69	11870
17.85	4111
18.02	24245
18.11	16795
18.30	27387
18.66	4461
18.90	42541
19.01	46805
19.18	42926
19.50	3535
20.01	69257
20.14	33997
20.47	58336
20.57	21114
20.71	39138
21.28	20298
21.52	2654

$$\begin{aligned} \text{Area} &= 352328 \\ \text{Calibration factor} &= \frac{352328}{2} \\ &= 176164 \end{aligned}$$

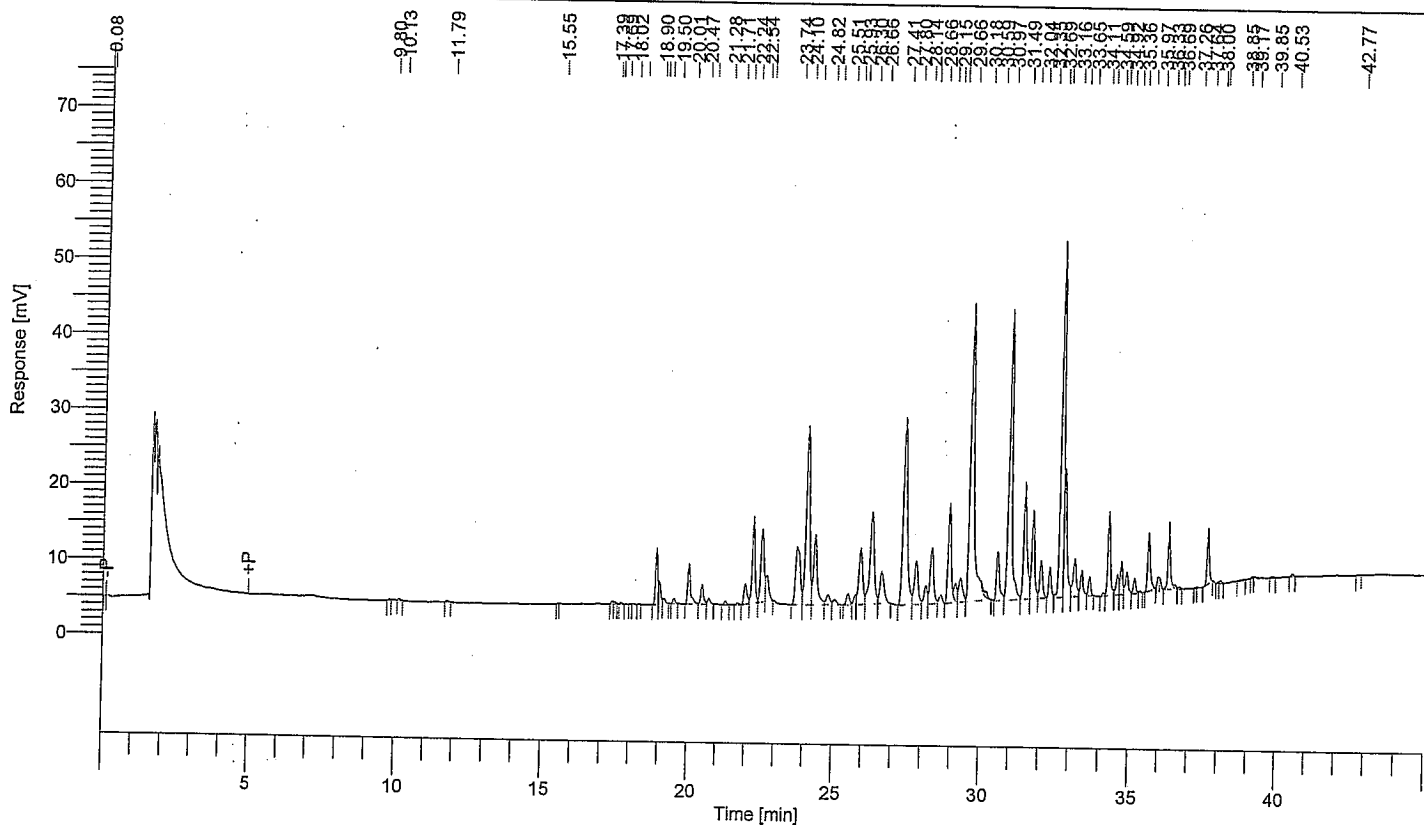
Time [min]	Area [μV·s]
21.71	6197
21.97	63539
22.24	30870
22.54	111919
22.71	119152
23.78	82259
24.10	121127
24.37	46772
24.83	10361
25.05	4894
25.50	5511
25.75	5322
25.92	32782
26.30	42841
26.66	24936
27.40	82796
27.81	3274
28.34	28974
28.93	6737
29.14	5695
29.32	13590
29.67	104241
30.04	10018
30.74	4267
30.96	18420
31.49	60658
31.75	6918
32.05	2291
32.69	12783
34.27	6152
34.85	4741
35.64	2012
36.32	6806
37.63	3631

1720176

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62015
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

Date : 10/15/2007 7:07:12 AM
 Data Acquisition Time : 10/12/2007 8:52:08 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.90	38285
19.00	16212
19.16	4719
19.50	3701
20.01	35194
20.47	16852
20.71	4926
21.28	2730
21.97	20490
22.24	80385
22.54	76641
22.71	24847
23.74	91221
24.10	202738
24.38	88238
24.82	12065
25.06	6047
25.51	11295
25.77	7086
25.93	67681
26.30	126757
26.66	41855
27.41	242735
27.80	52650
28.14	18643
28.34	61821
28.66	8487

$$\Sigma \text{area} = 584560$$

$$\text{Calibration factor} = \frac{584560}{2}$$

$$= 292280$$

$$\Sigma \text{area} = 197774$$

$$\text{Calif Calibration factor} = \frac{197774}{2} = 98887$$

10/10/2007

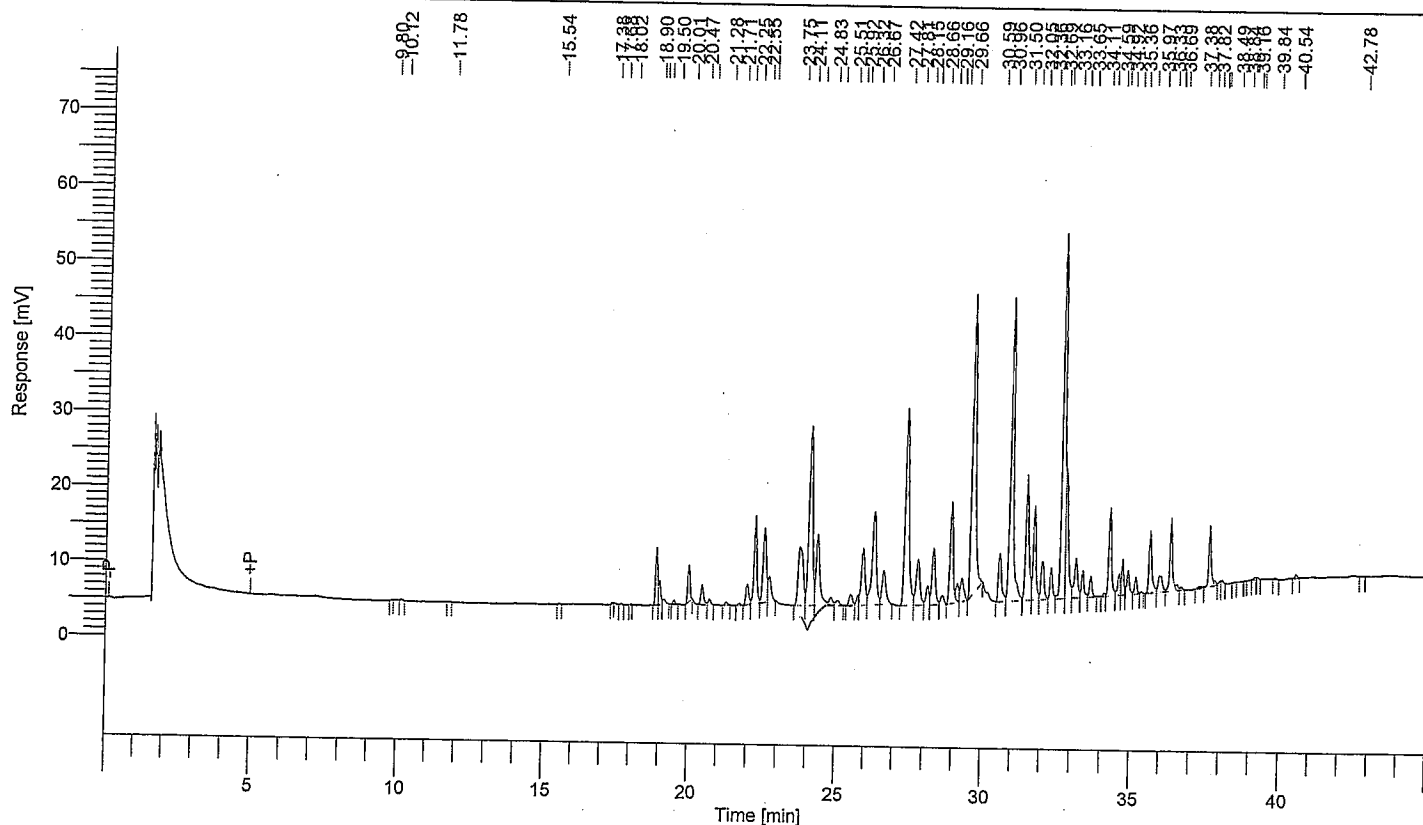
Time [min]	Area [μ V·s]
28.94	101771
29.15	15346
29.31	30156
29.66	371836
30.18	9725
30.59	45747
30.97	300725
31.49	124727
31.76	81982
32.04	32085
32.35	24104
32.69	309391
32.80	109658
33.16	37704
33.38	21368
33.65	13947
34.11	2343
34.28	71620
34.59	16679
34.71	25216
34.92	21232
35.16	11618
35.64	46816
36.33	52024
36.54	2588
37.64	37964

3282669

Software Version : 6.3.1.0504
 Reprocess Number : totalchr/m: 62027
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 1.000000
 Cycle : 19

Date : 10/15/2007 7:07:32 AM
 Data Acquisition Time : 10/13/2007 7:23:06 AM
 Channel : A
 Operator : envwaigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204_0806,0906 AV SET 4\COMB019.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204_0806,0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.90	38526
19.01	15967
19.16	4711
19.50	2833
20.01	24896
20.47	16046
20.71	4408
21.28	2510
21.88	19233
22.25	80628
22.55	77146
22.71	24153
23.75	91963
24.11	206779
24.38	90436
24.83	9486
25.06	6315
25.51	11730
25.77	7209
25.92	69242
26.32	129750
26.67	42927
27.42	247172
27.81	54046
28.15	18641
28.34	63260
28.66	8531

$$\sum \text{area} = 389178$$

$$CF = 194589$$

$$\sum \text{area} = 202605$$

$$CF = \frac{202605}{2} = 101302.5$$

note CF = Calibration factor.

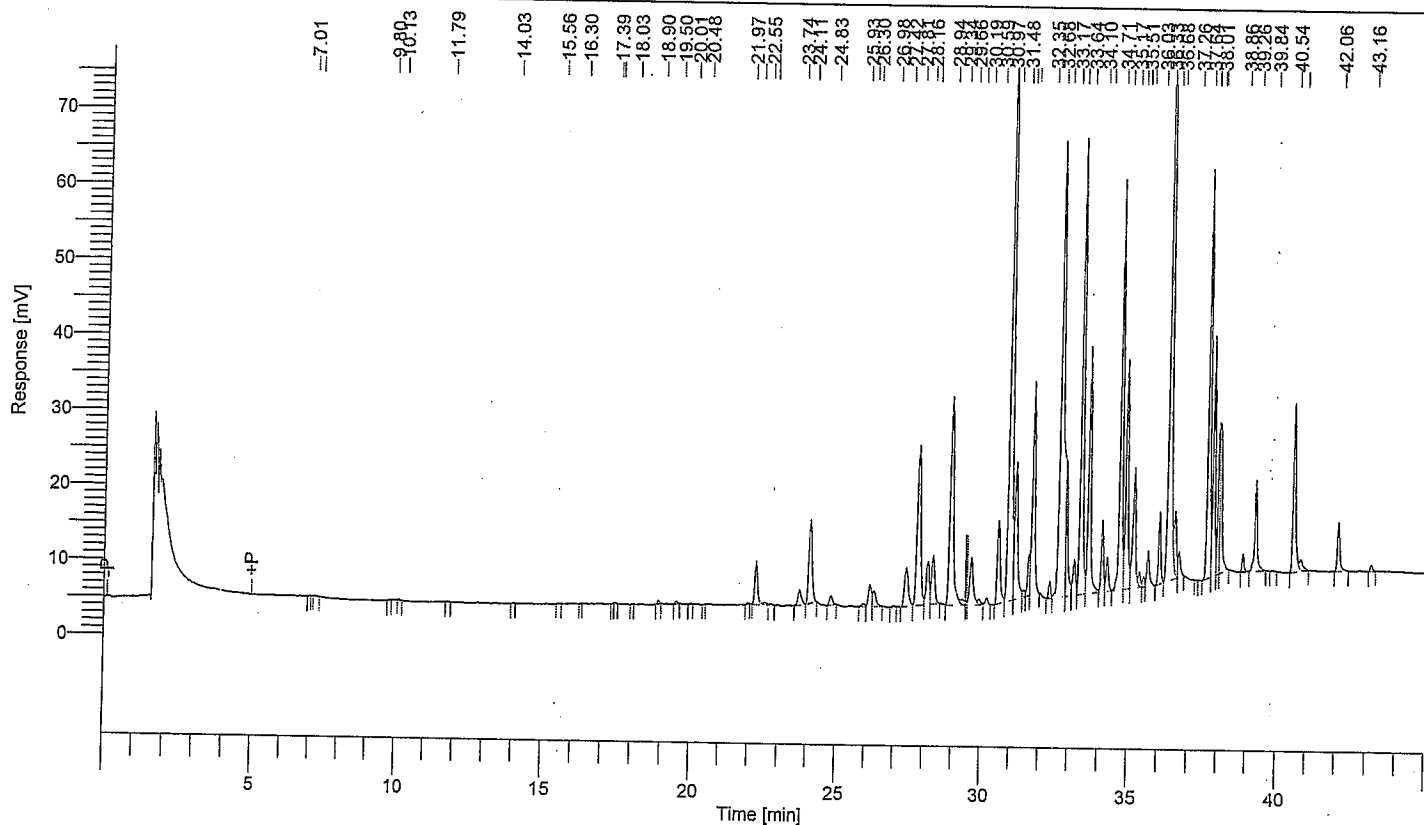
Time [min]	Area [μ V·s]
28.94	103224
29.16	14407
29.31	27149
29.66	329023
30.59	47299
30.96	309310
31.50	130051
31.77	84663
32.05	33779
32.36	25566
32.69	323653
32.80	109290
33.16	40987
33.39	22995
33.65	15855
34.11	2117
34.28	73349
34.59	17598
34.71	25604
34.92	21659
35.16	11859
35.64	56009
35.97	20023
36.33	59134
36.54	4576
36.69	2231
37.38	2372
37.64	47237
37.82	3119
38.00	2603
38.07	2598
40.54	2621

3340508

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62016
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 1.000000
 Cycle : 8

Date : 10/15/2007 7:07:14 AM
 Data Acquisition Time : 10/12/2007 9:44:46 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.90	2250
19.50	2055
22.25	38812
22.55	2548
23.74	17325
24.11	85327
24.83	8255
25.93	2859
26.16	23304
26.30	16975
27.42	46927
27.81	181067
28.16	44466
28.34	51422
28.94	233298
29.34	7304
29.66	53370
29.92	4829
30.19	5820
30.59	75343
30.97	556687
31.17	135310
31.48	6022
31.64	26947
31.76	185398
32.35	12488
32.68	483327

$$\Sigma \text{area} = 651746$$

$$\text{Calibration factor} = \frac{651476}{2}$$

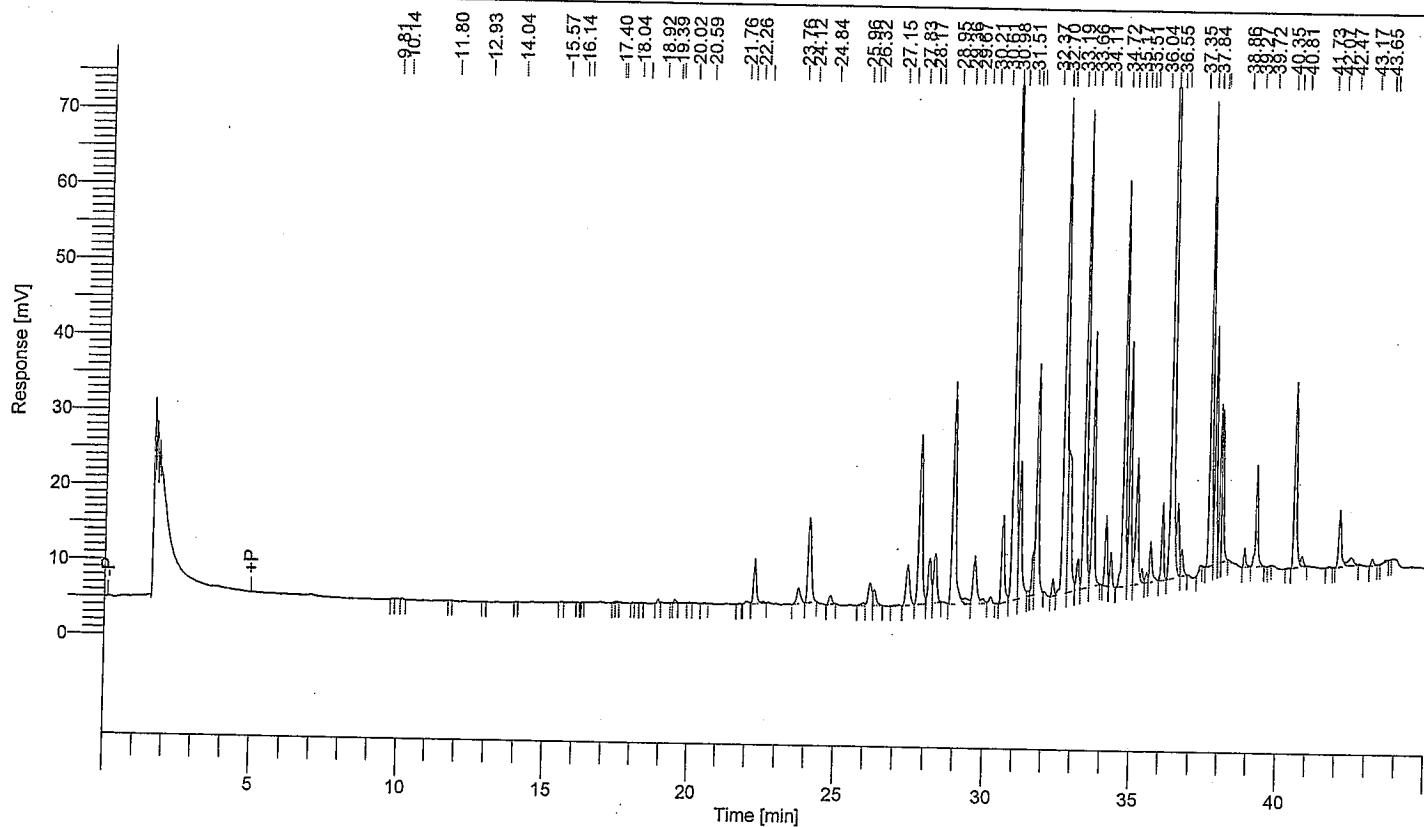
$$= 325873$$

Time [min]	Area [μ V-s]
32.89	84880
33.17	30181
33.39	354332
33.64	197826
34.10	50378
34.27	27282
34.71	302644
34.92	175755
35.17	108173
35.36	11139
35.51	6925
35.64	29035
36.03	47792
36.33	662630
36.54	54036
36.68	19437
37.64	298607
37.83	164442
38.01	83058
38.05	105639
38.86	11571
39.26	73246
40.54	131958
40.81	12787
42.06	41643
43.16	4544
<hr/>	
5399655	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62034
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/26
 Sample Amount : 1.000000
 Cycle : 26

Date : 10/15/2007 7:07:43 AM
 Data Acquisition Time : 10/13/2007 1:32:49 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\COMB026.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.92	2146
19.51	2153
21.99	2917
22.26	40267
23.76	19231
24.12	87961
24.84	8220
25.96	3615
26.18	25449
26.32	15974
27.43	47460
27.83	181917
28.17	44841
28.35	50141
28.95	233643
29.36	9945
29.67	53107
29.94	4719
30.21	5840
30.61	78549
30.98	571881
31.18	133165
31.51	4563
31.65	28302
31.78	192059
32.37	12198
32.70	436539

$$\Sigma \text{area} = 657103$$

$$\text{Calibration factor} = \frac{657103}{2} = 328551.5$$

Time [min]	Area [μ V-s]
32.83	173906
33.19	26021
33.40	345518
33.66	185950
34.11	48858
34.29	25565
34.72	310970
34.93	181679
35.17	110497
35.36	9698
35.51	6324
35.64	34262
36.04	49866
36.34	702090
36.55	53817
36.70	22054
37.35	2326
37.65	317683
37.84	157475
38.01	88275
38.07	93670
38.86	12017
39.27	76464
40.55	143094
40.81	8964
42.07	49227
42.47	14774
43.17	5219
43.65	2012

5555074

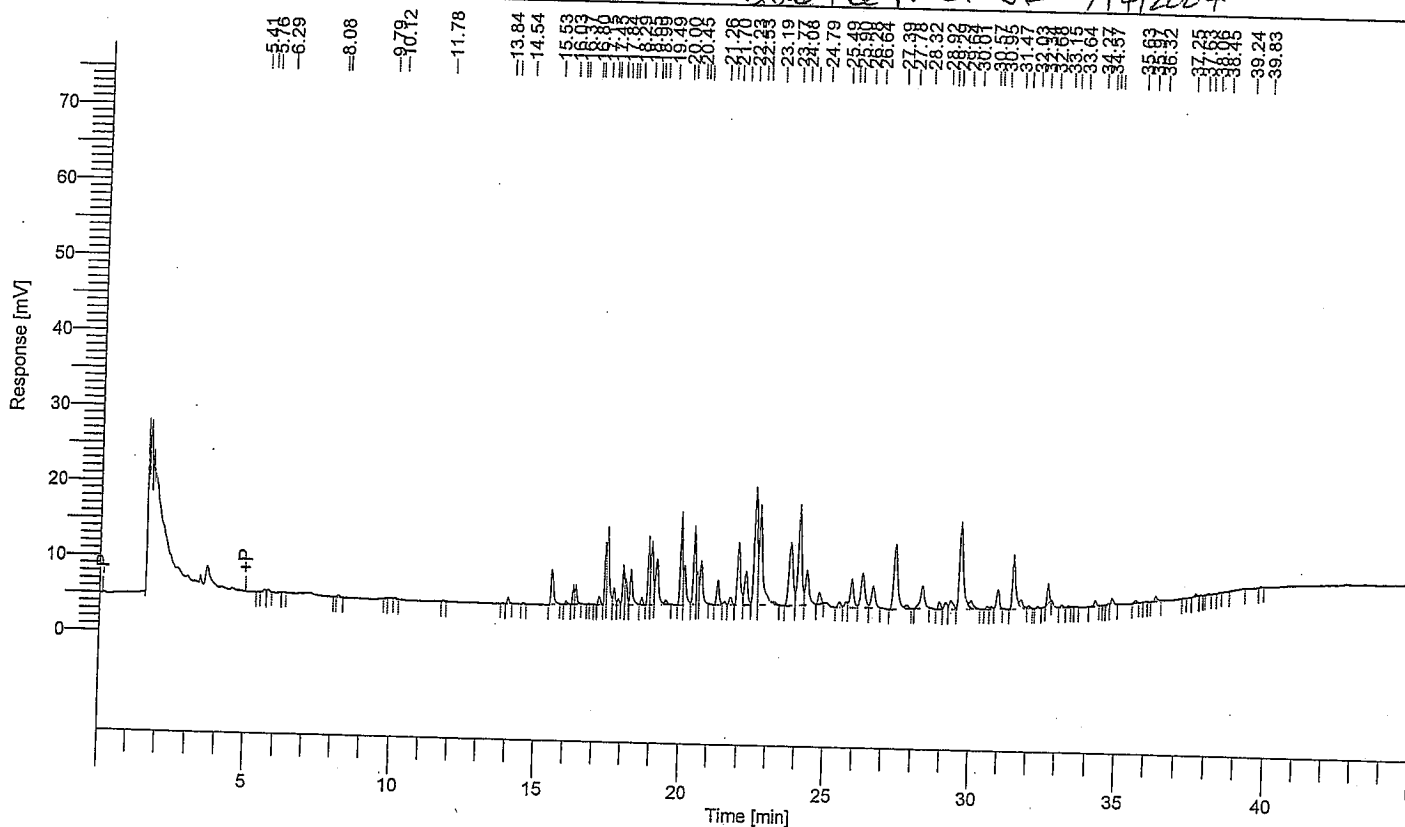
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62125
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

Date : 10/17/2007 8:43:30 AM

Data Acquisition Time : 10/16/2007 12:28:42 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB

Copy of original included
 because it is used to quantify
 22676 1:50. SKP 10/17/2007



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2324
5.76	2480
14.02	4215
15.53	28854
16.03	2179
16.29	10367
16.37	12113
17.15	5708
17.37	32174
17.45	58884
17.68	11955
17.84	4267
18.01	24151
18.10	17184
18.29	27761
18.65	4653
18.89	43136
18.99	47975
19.16	44722
19.49	3667
20.00	70455
20.13	34560
20.45	59316
20.56	21118
20.69	38855
21.26	20266
21.50	2559

$$\Sigma \text{area} = 670278$$

$$\text{Calibration factor} = \frac{670278}{2 \mu\text{g}} = 335139$$

Time [min]	Area [μ V-s]
21.70	6290
21.96	64667
22.23	32299
22.53	115567
22.69	129453
23.19	2368
23.77	80870
24.08	119430
24.35	40185
24.79	9897
25.49	5212
25.73	5088
25.90	33051
26.28	43307
26.64	26132
27.39	83656
27.78	3607
28.32	29640
28.92	6540
29.12	6270
29.29	12260
29.64	105089
30.01	10093
30.57	2152
30.72	2025
30.95	17503
31.47	62132
31.75	7090
32.03	2593
32.68	13707
34.27	5217
34.84	5561
35.63	2155
36.32	4685
37.63	2075

1733767

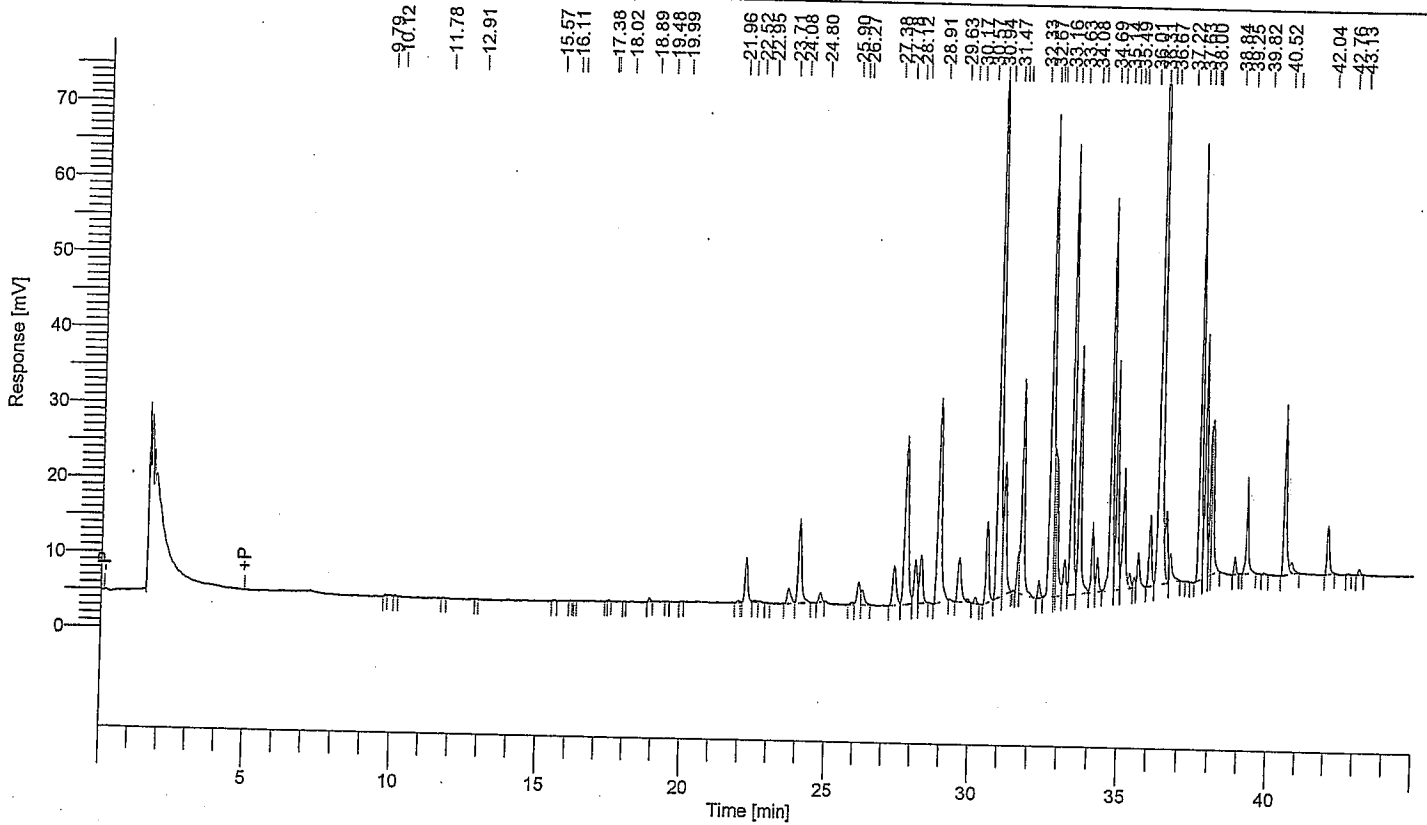
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62127
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

Date : 10/17/2007 8:43:32 AM

Data Acquisition Time : 10/16/2007 2:13:56 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB

Copy of original included because
 it is ~~not~~ used to quantify
 226761:SD Skp 10/17/2007.



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.89	2300
22.22	39187
23.71	17504
24.08	92784
24.80	8235
25.90	2297
26.13	23827
26.27	16086
27.38	47481
27.78	181835
28.12	45578
28.31	52714
28.91	224919
29.63	46170
29.91	2356
30.17	4717
30.57	72642
30.94	555161
31.15	122723
31.62	24083
31.74	191352
32.33	12679
32.67	411147
32.80	91632
32.86	96123
33.16	30389
33.36	356727

$\Sigma \text{Area} = 352652869$
 10/17/2007

Calibration factor = $\frac{652869}{2}$
 $= 326434.5$

Time [min]	Area [μ V-s]
33.63	201767
34.08	52179
34.26	27760
34.69	305168
34.90	177687
35.14	110682
35.34	10566
35.49	6962
35.62	29582
36.01	50269
36.31	680433
36.52	53407
36.67	29213
37.63	301739
37.81	164932
38.00	81755
38.05	104443
38.84	10653
39.25	72829
40.52	134549
40.78	12405
42.04	39858
43.13	4296
<hr/>	
5435786	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62019
 Sample Name : 22669 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

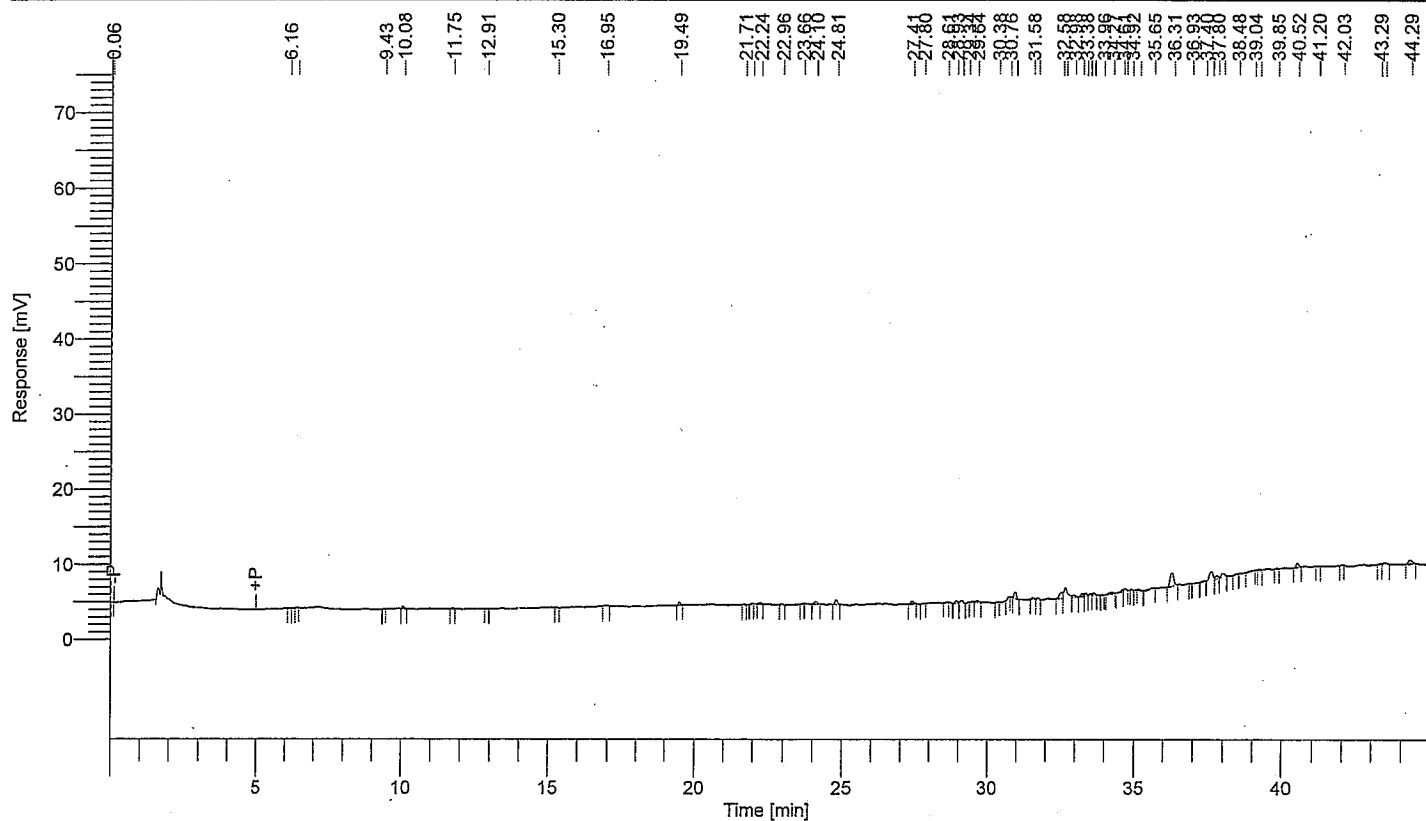
Date : 10/15/2007 7:07:19 AM
 Data Acquisition Time : 10/13/2007 12:22:28 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB011.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.49	2067
24.10	2506
24.81	4077
27.41	2606
28.93	2532
29.12	2839
30.96	5022
32.58	6046
32.68	12122
32.98	2288
33.25	2510
34.27	2432
34.71	2108
36.31	16536
37.61	8818
37.80	2751
37.99	4222
40.52	3611
43.45	2069
44.29	4197

91359

<0.4ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62020
 Sample Name : 22670 1:10
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 12

Date : 10/15/2007 7:07:21 AM

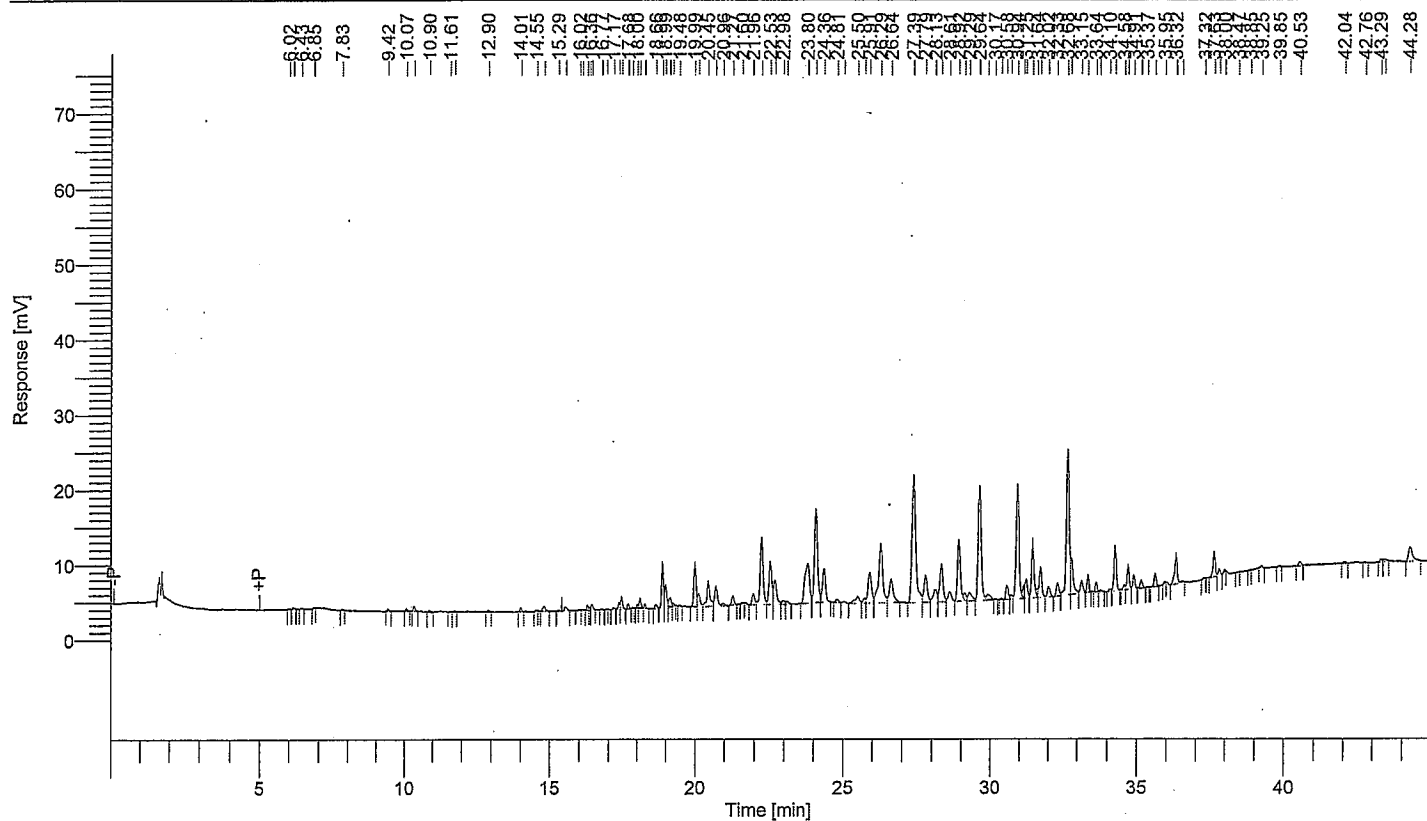
Data Acquisition Time : 10/13/2007 1:14:59 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB012.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.35	3105
14.01	2226
14.80	4558
15.52	3468
16.28	2631
16.43	3638
17.37	3924
17.45	7570
17.68	2860
18.10	6178
18.28	2403
18.66	2533
18.89	27019
18.99	14707
19.15	7202
19.99	32737
20.13	10309
20.45	24886
20.70	18298
20.96	2130
21.27	6405
21.96	9713
22.24	63463
22.53	43063
22.69	23669
22.98	3945
23.10	2330

$$\{ \text{area (Arochlor 1254)} = 326949$$

$$\text{ng min}^{-1} = \frac{326949}{292280}$$

$$= 1.1186$$

$$\text{ppm} = \frac{1.1186}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.4474$$

Time [min]	Area [μ V·s]
23.80	56222
24.09	96001
24.36	34818
24.81	2963
25.50	10046
25.74	4242
25.91	33505
26.29	79317
26.64	30087
27.39	151318
27.79	28744
28.13	15700
28.33	39422
28.61	10872
28.92	58700
29.13	5948
29.29	10655
29.64	108806
29.92	7634
30.58	10735
30.72	3243
30.94	110459
31.17	7272
31.25	15522
31.47	51285
31.64	3209
31.75	26153
32.02	8045
32.33	11126
32.68	122091
32.79	30683
33.15	9466
33.37	11146
33.64	6106
34.26	32511
34.58	2526
34.70	16832
34.91	9825
35.16	6103
35.62	9381
36.32	25891
37.63	17613
37.82	3900
40.53	3051
43.29	2184
44.28	17191
<hr/>	
1693518	

Plot Title

Start Time End Time Scale Offset

COMB012.raw

Sample Name : 22670 1:10

Sample Number: 12

Instrument File Name: c:\pest\gc14\methods\pcb

15.00 40.00 50.00 0.00

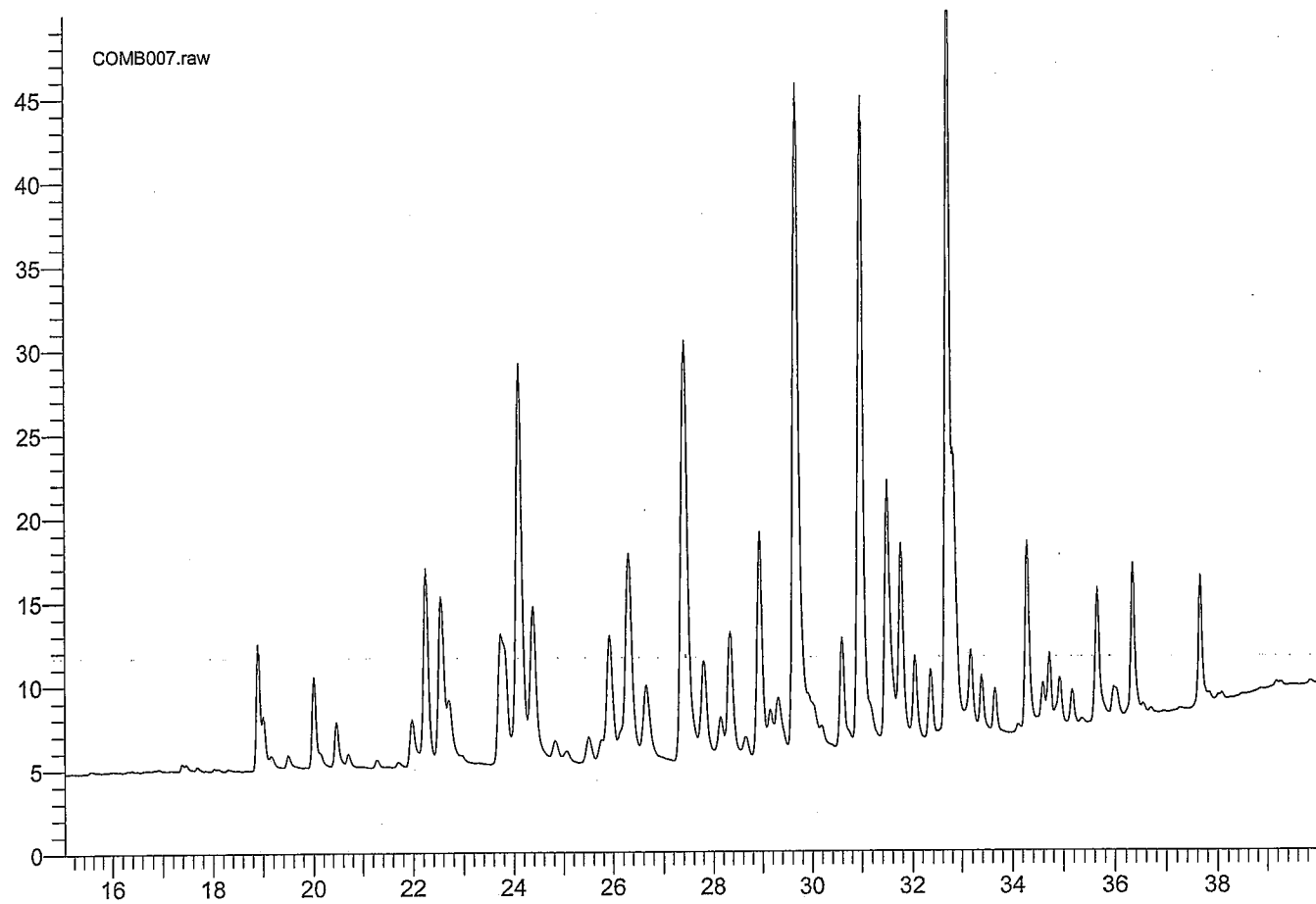
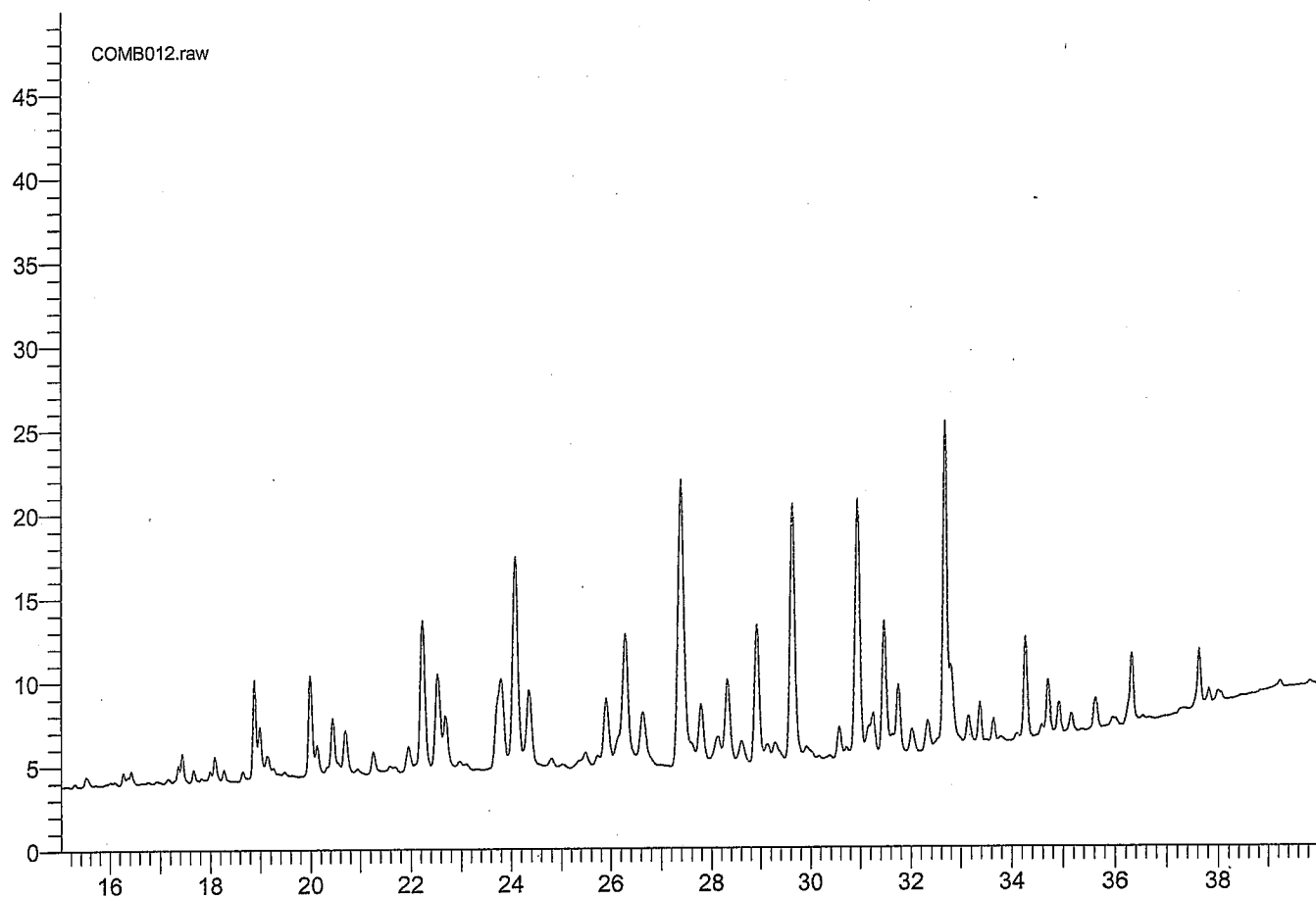
COMB007.raw

Sample Name : AROCHLOR 1254

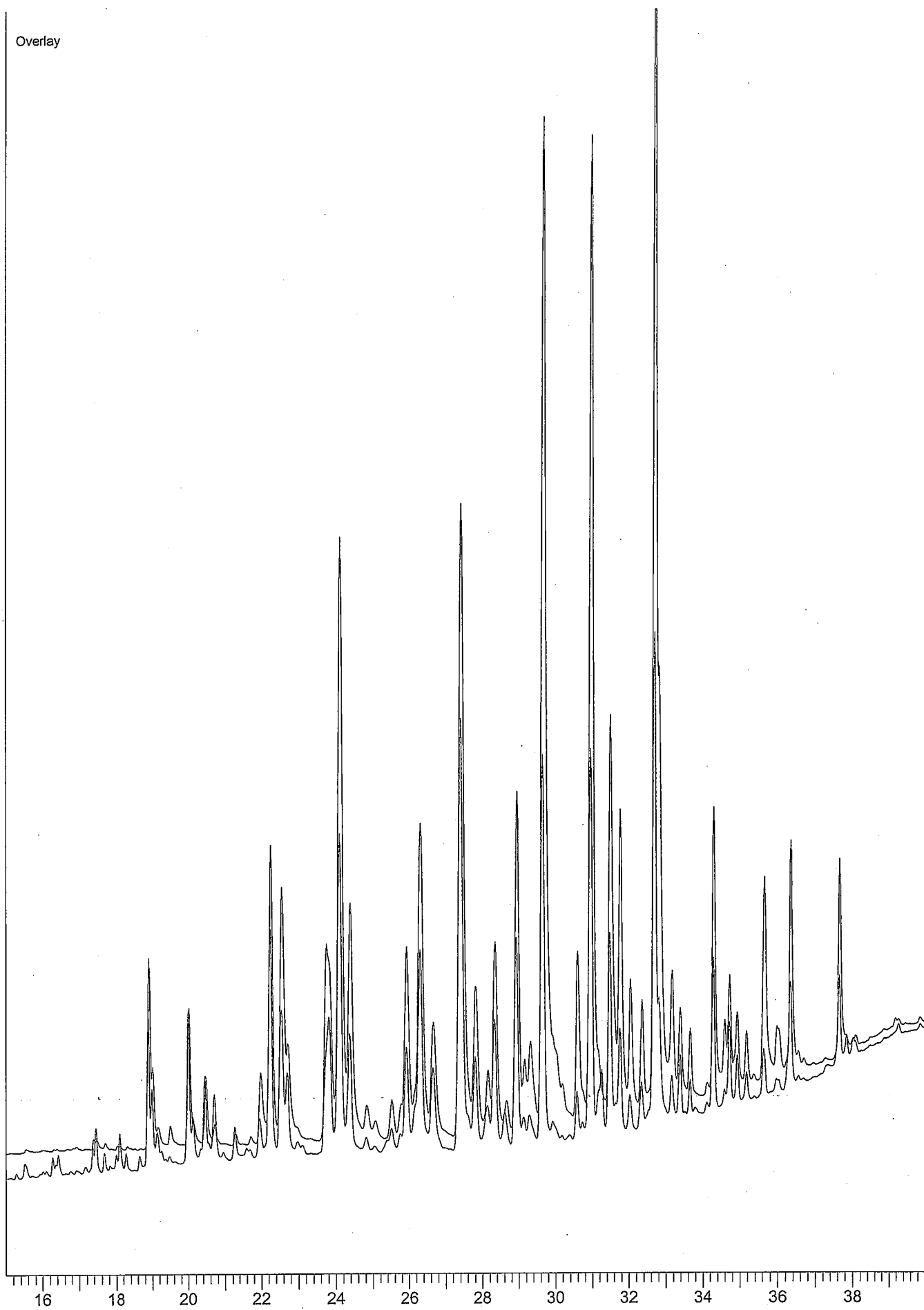
Sample Number: 07

Instrument File Name: c:\pest\gc14\methods\pcb

15.00 40.00 50.00 0.00



Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62021
 Sample Name : 22671 1:10
 Instrument Name : GC014
 Rack/Vial : 0/13
 Sample Amount : 50.000000
 Cycle : 13

Date : 10/15/2007 7:07:23 AM

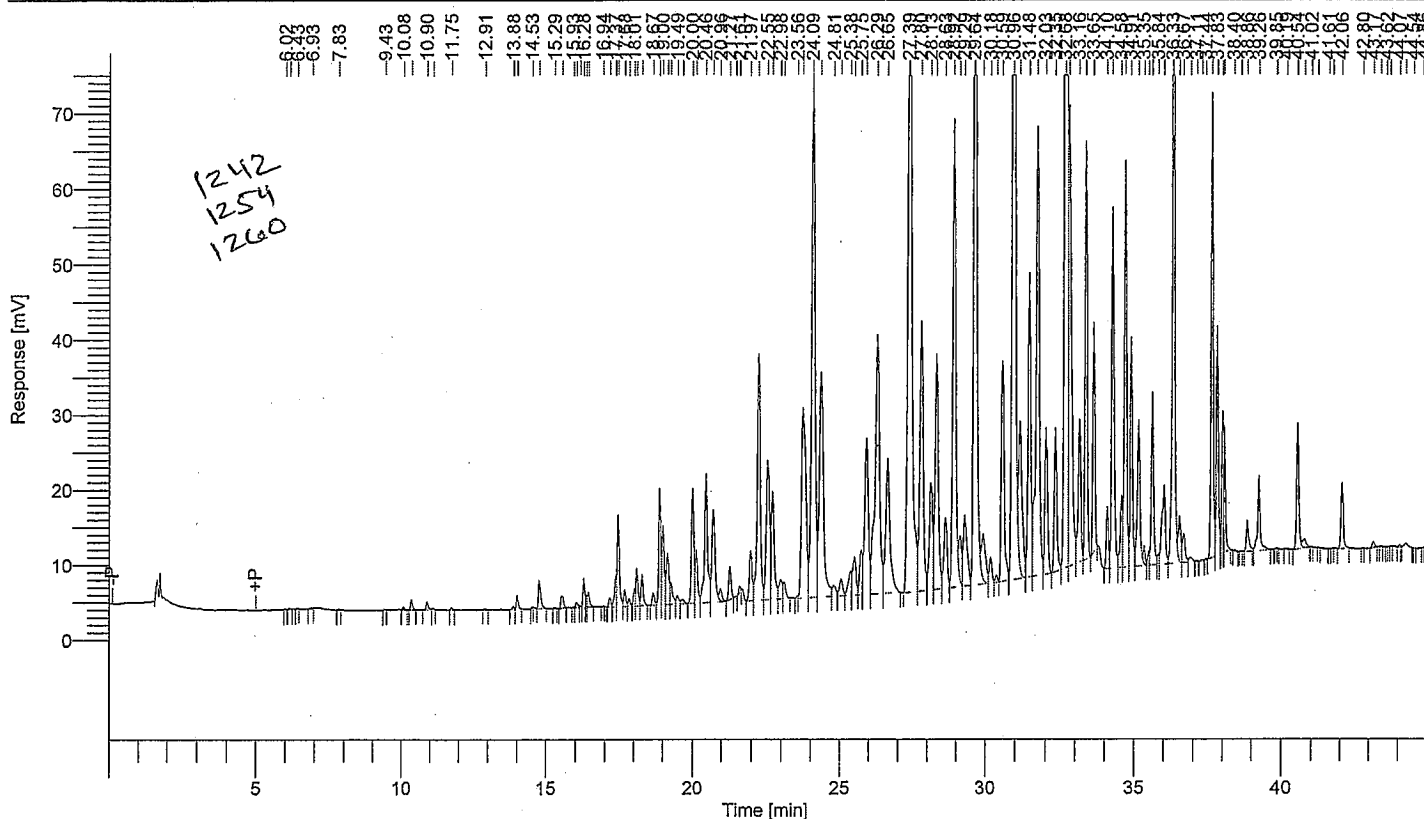
Data Acquisition Time : 10/13/2007 2:07:33 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB013.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
10.35	6273
10.90	5493
14.01	7900
14.77	21666
15.55	10744
16.03	3748
16.28	15120
16.37	5415
16.44	9602
17.17	6503
17.37	17568
17.46	62360
17.68	11367
17.84	5712
18.01	9382
18.10	27864
18.29	21908
18.67	8679
18.89	76284
19.00	59829
19.15	44826
19.27	17723
19.49	6991
19.67	4320
20.00	87561
20.13	41785
20.46	126393

$$\sum \text{area (Arochlor 1242)} = 139082$$

$$\text{nanograms injected} = \frac{139082}{132962.5} = 1.0492$$

$$\text{ppm} = \frac{1.0492}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.4197$$

$$\sum \text{area (Arochlor 1254)} = 659276$$

$$\text{ng inj} = \frac{659276}{98887} = 6.6670$$

$$\text{ppm} = \frac{6.6670}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 2.6668$$

$$\sum \text{area (Arochlor 1260)} = 597130$$

$$\text{ng inj} = \frac{597130}{325873} = 1.8324$$

$$\text{ppm} = \frac{1.8324}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.7330$$

$$\text{Total PCB} = 3.8195 \text{ ppm.}$$

10/15/2007 7:07:23 AM Result: C:\PEST\OCTOBER 2007\0710\204, 0806,0906 AV SET 4\COMB013.rst

Time [min]	Area [μ V-s]
20.71	94094
20.96	10142
21.27	24758
21.61	2873
21.97	45533
22.23	243755
22.55	144814
22.70	106317
22.98	21407
23.11	14196
23.73	278454
24.09	562489
24.36	284919
24.81	13187
25.05	17087
25.38	24270
25.50	42464
25.75	38604
25.91	180397
26.29	378197
26.65	193960
27.39	824190
27.80	298872
28.13	113956
28.33	249072
28.63	76003
28.92	468979
29.14	37592
29.29	85438
29.64	773054
29.93	58257
30.18	22063
30.38	4972
30.59	196857
30.96	1232208
31.17	156235
31.48	275437
31.76	422791
32.03	116023
32.35	118770
32.68	1229006
32.81	427937
33.16	119772
33.38	302979
33.65	151642
34.10	40346
34.27	280522
34.58	51839
34.71	297870
34.91	168592
35.16	126586
35.35	12186
35.51	7267
35.63	126008
35.84	6405
36.02	82529
36.33	535070
36.54	34508
36.67	24854
36.91	4790
37.64	296784
37.83	146696
38.01	86324
38.06	67326
38.86	23076
39.26	62440
40.54	88853
40.79	10179
42.06	51558
43.17	4534
44.27	4908

Arachnoid
(254)

1260

13849085

Plot Title

Start Time End Time Scale Offset

COMB007.raw

Sample Name : AROCHLOR 1254
Sample Number: 07
Instrument File Name: c:\pest\gc14\methods\pcb

0.00 26.98 100.00 0.00

COMB005.raw

Sample Name : AROCHLOR 1242
Sample Number: 05
Instrument File Name: c:\pest\gc14\methods\pcb

0.00 26.98 100.00 0.00

COMB008.raw

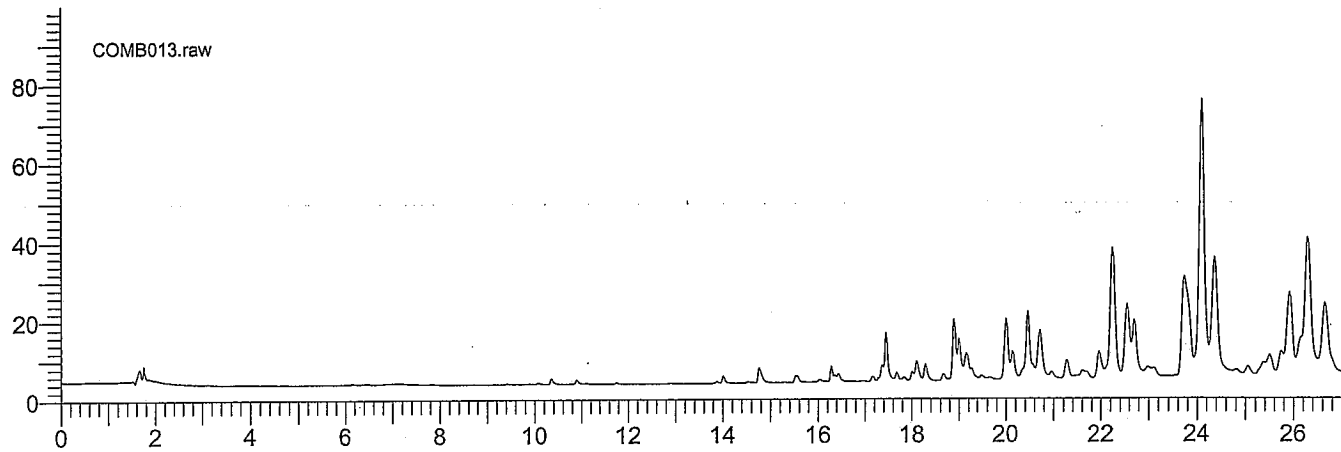
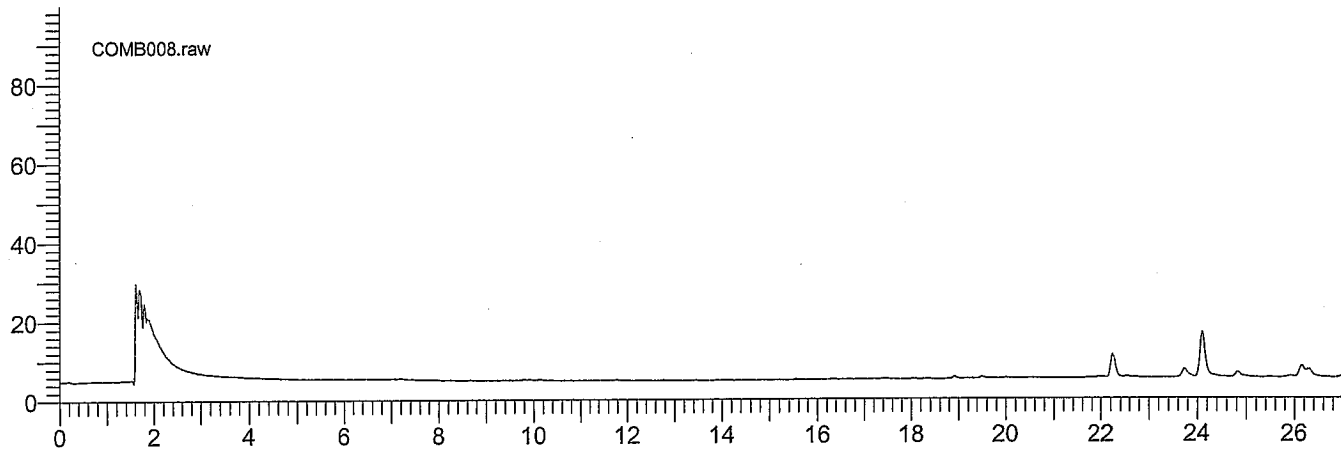
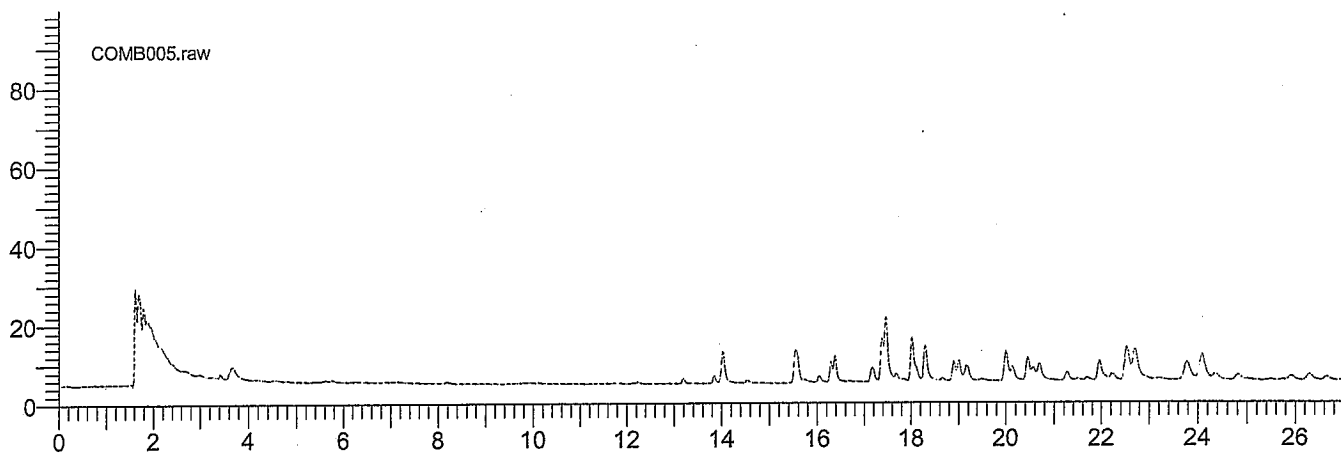
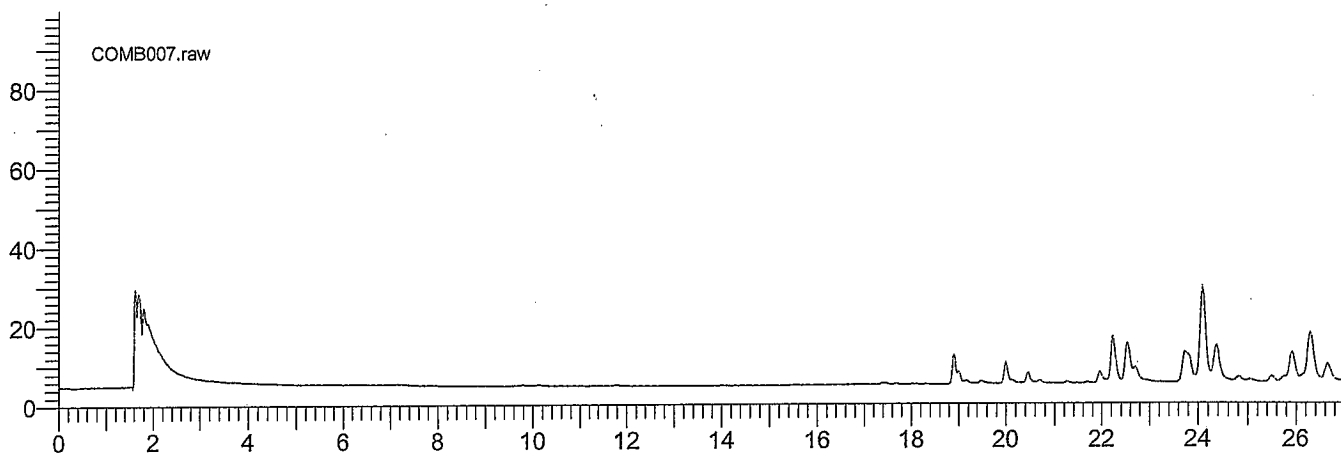
Sample Name : AROCHLOR 1260
Sample Number: 08
Instrument File Name: c:\pest\gc14\methods\pcb

0.00 26.98 100.00 0.00

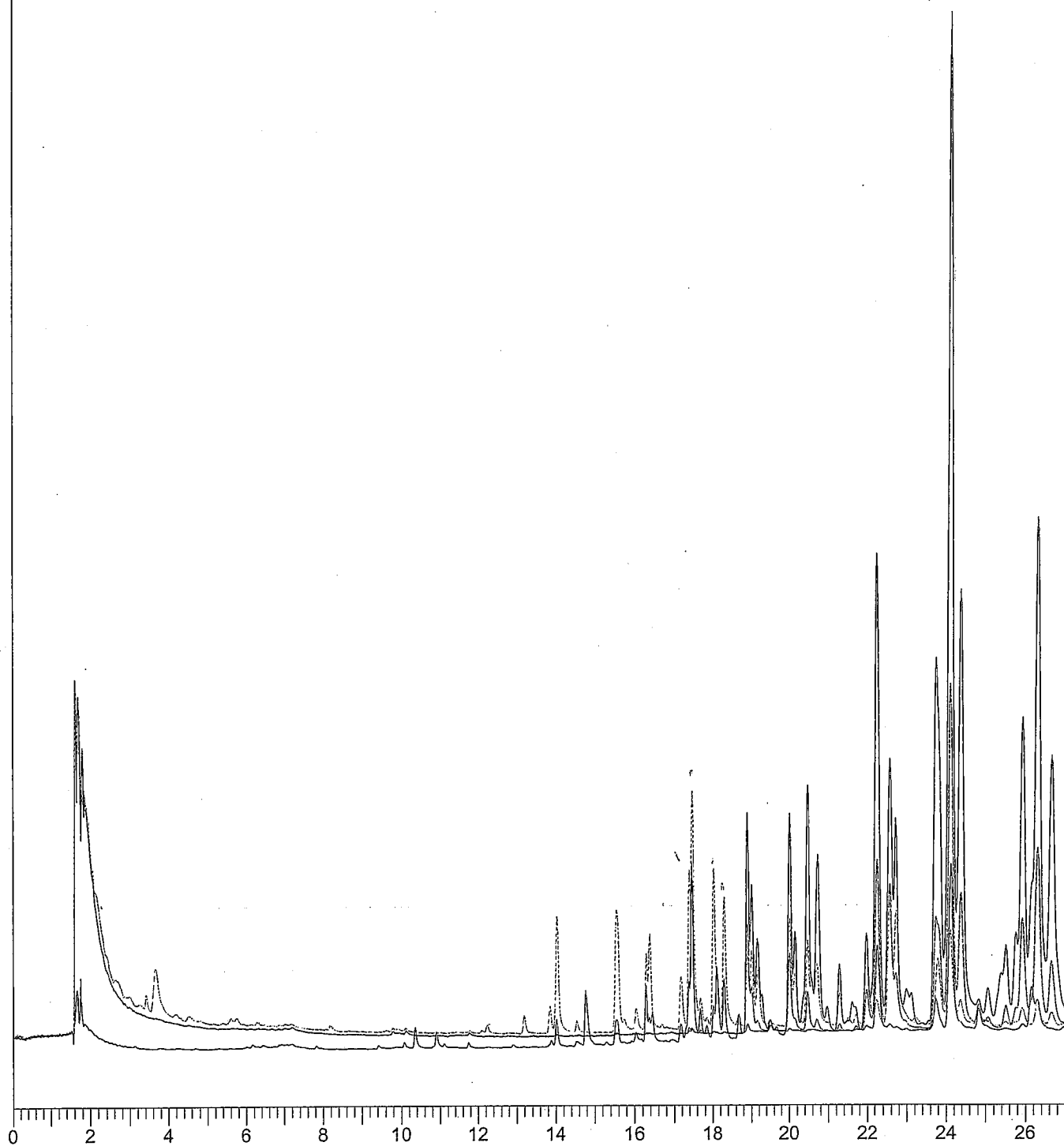
COMB013.raw

Sample Name : 22671 1:10
Sample Number: 13
Instrument File Name: c:\pest\gc14\methods\pcb

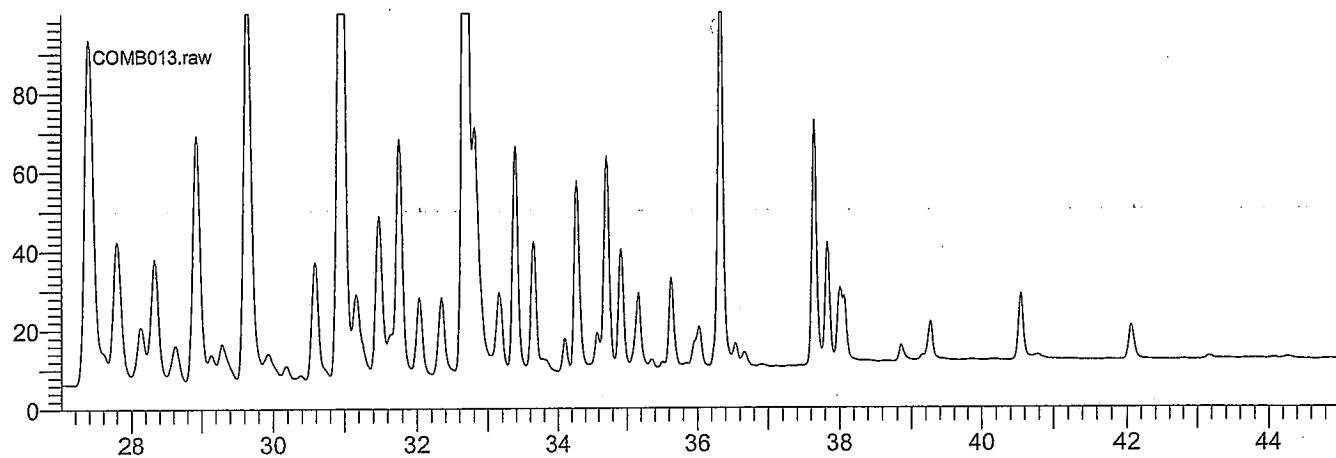
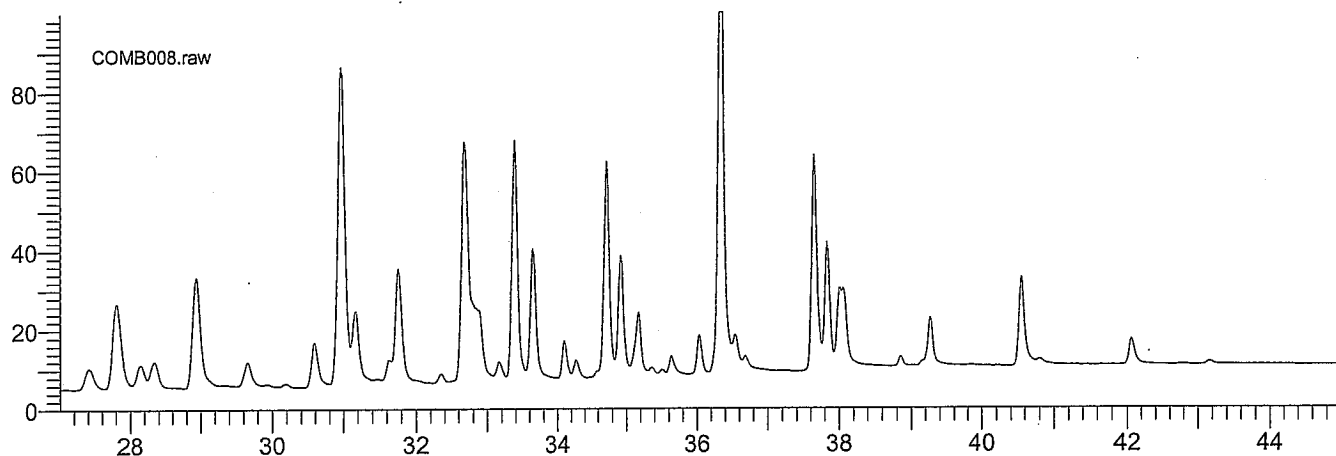
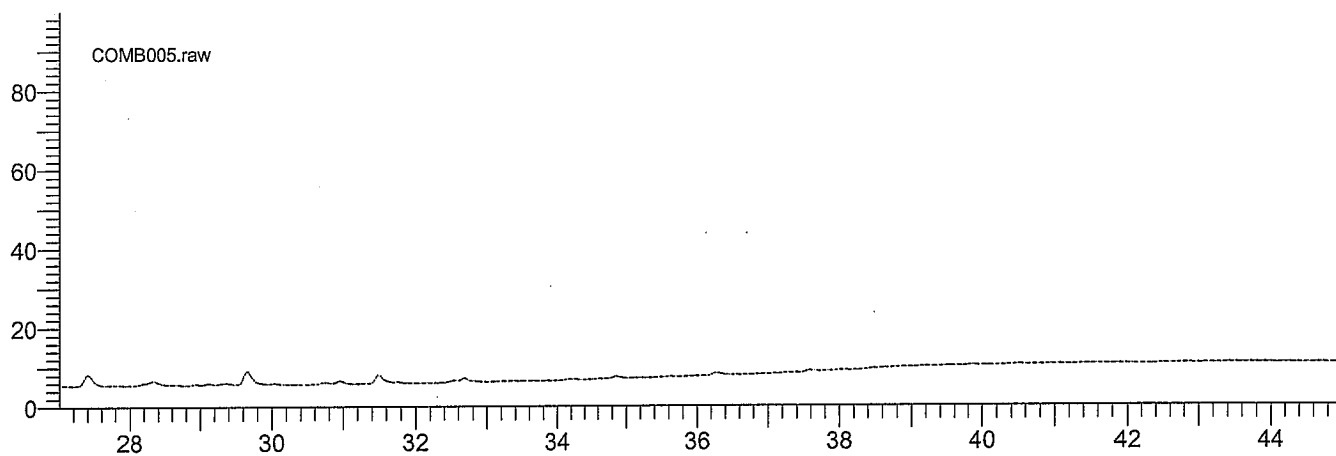
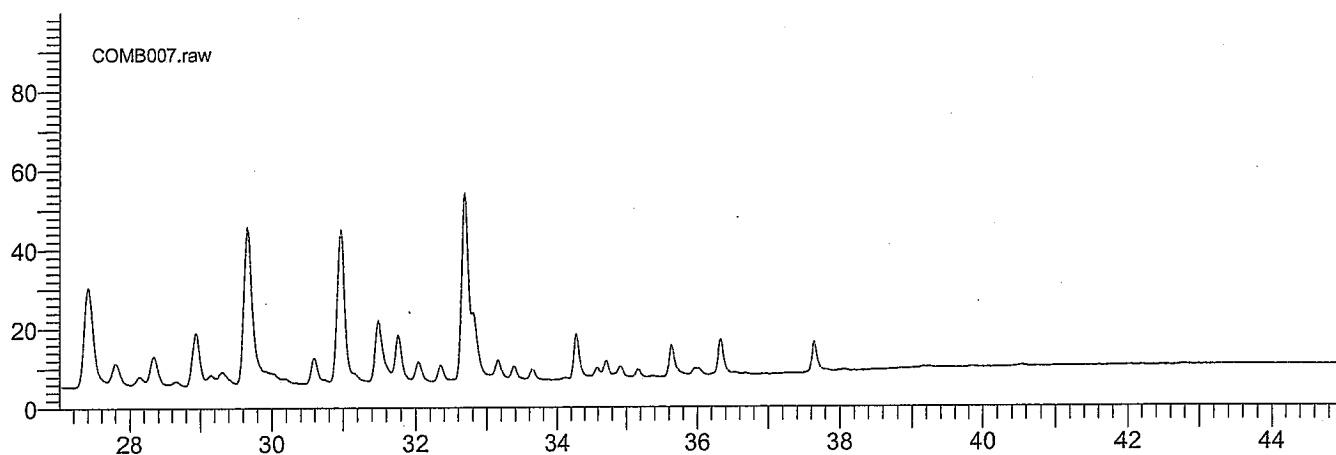
0.00 26.98 100.00 0.00

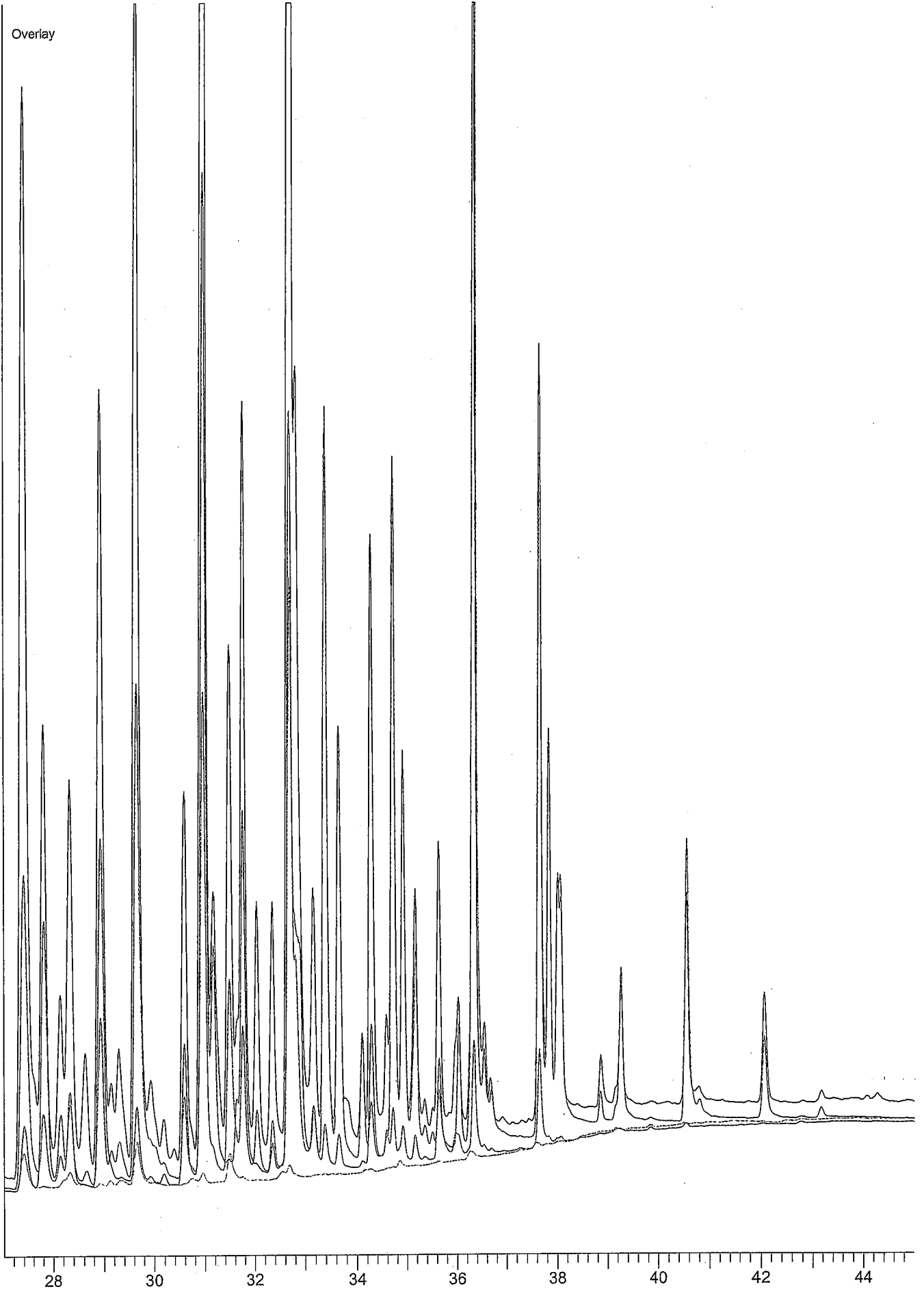


Overlay



Plot Title	Start Time	End Time	Scale	Offset
COMB007.raw Sample Name : AROCHLOR 1254 Sample Number: 07 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	45.00	100.00	0.00
COMB005.raw Sample Name : AROCHLOR 1242 Sample Number: 05 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	45.00	100.00	0.00
COMB008.raw Sample Name : AROCHLOR 1260 Sample Number: 08 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	45.00	100.00	0.00
COMB013.raw Sample Name : 22671 1:10 Sample Number: 13 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	45.00	100.00	0.00

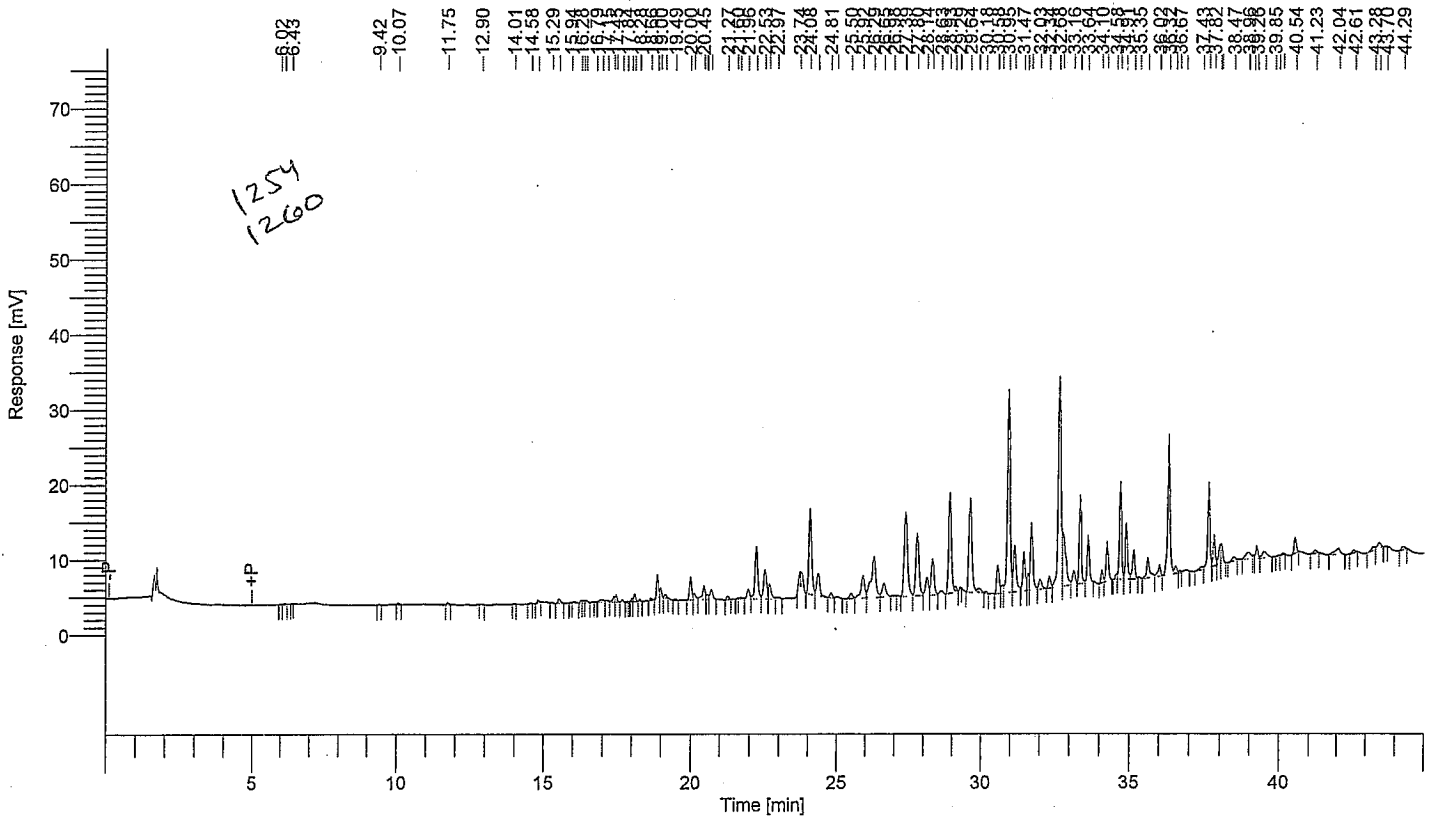




Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62022
 Sample Name : 22672 1:10
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 50.000000
 Cycle : 14

Date : 10/15/2007 7:07:24 AM
 Data Acquisition Time : 10/13/2007 3:00:05 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\COMB014.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
15.52	3453
16.44	2168
16.99	3615
17.37	3865
17.45	4691
18.10	4759
18.89	14904
19.00	6714
19.16	2473
20.00	15814
20.13	5516
20.45	13055
20.57	3437
20.71	8744
21.27	2571
21.96	8722
22.24	49870
22.53	29585
22.70	14193
23.74	3651
24.08	82026
24.37	22432
24.81	3874
25.50	4987
25.92	26905
26.29	62495
26.65	17739

$$\sum \text{area (Arochlor 1254)} = 67076$$

$$\text{ng inj} = \frac{67076}{98887} = 0.6783$$

$$\text{ppm} = \frac{0.6783}{SD} \times \frac{2}{2} \times \frac{100}{SD} \times 10 = 0.2713$$

$$\sum \text{area (Arochlor 1260)} = 100764$$

$$\text{ng inj} = \frac{100764}{325873} = 0.3092$$

$$\text{ppm} = \frac{0.3092}{SD} \times \frac{2}{2} \times \frac{100}{SD} \times 10 = 0.1237$$

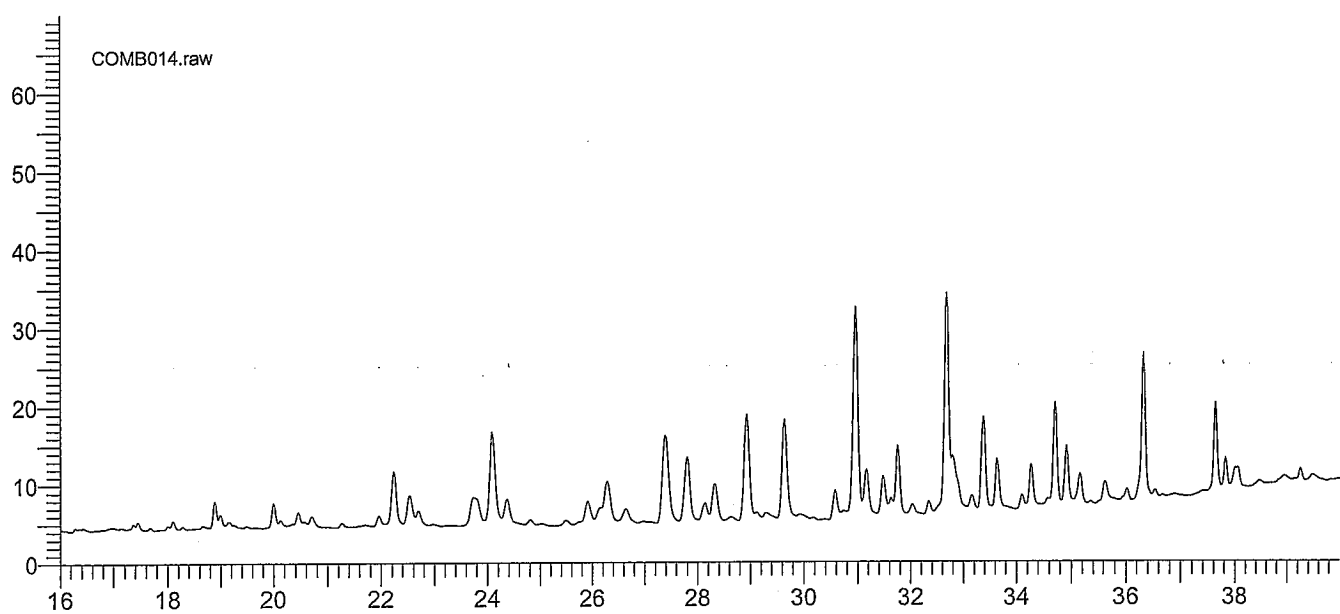
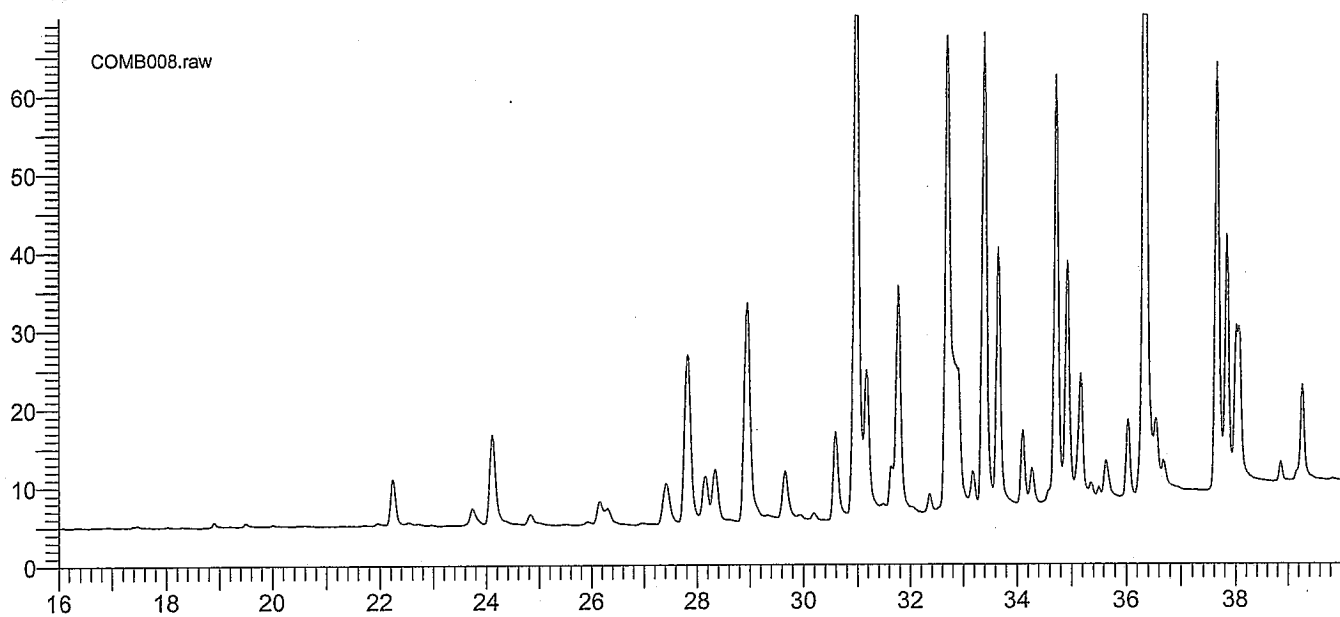
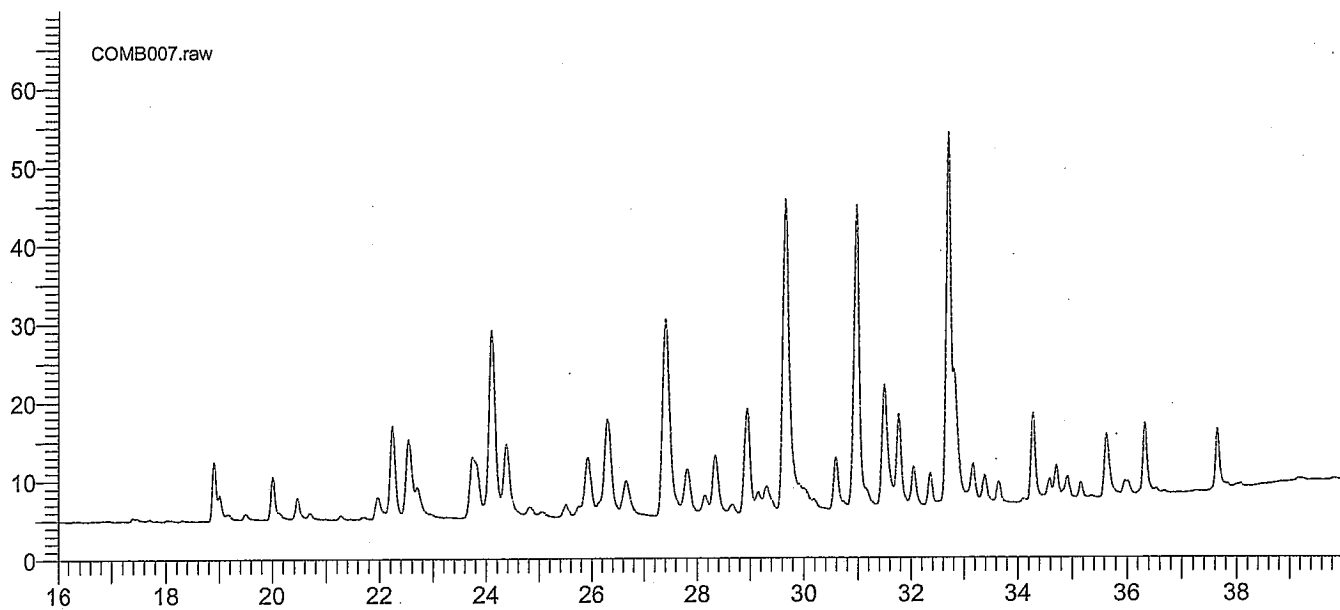
$$\text{Total PCB} = 0.3950 \text{ ppm.}$$

Arochlor
1254

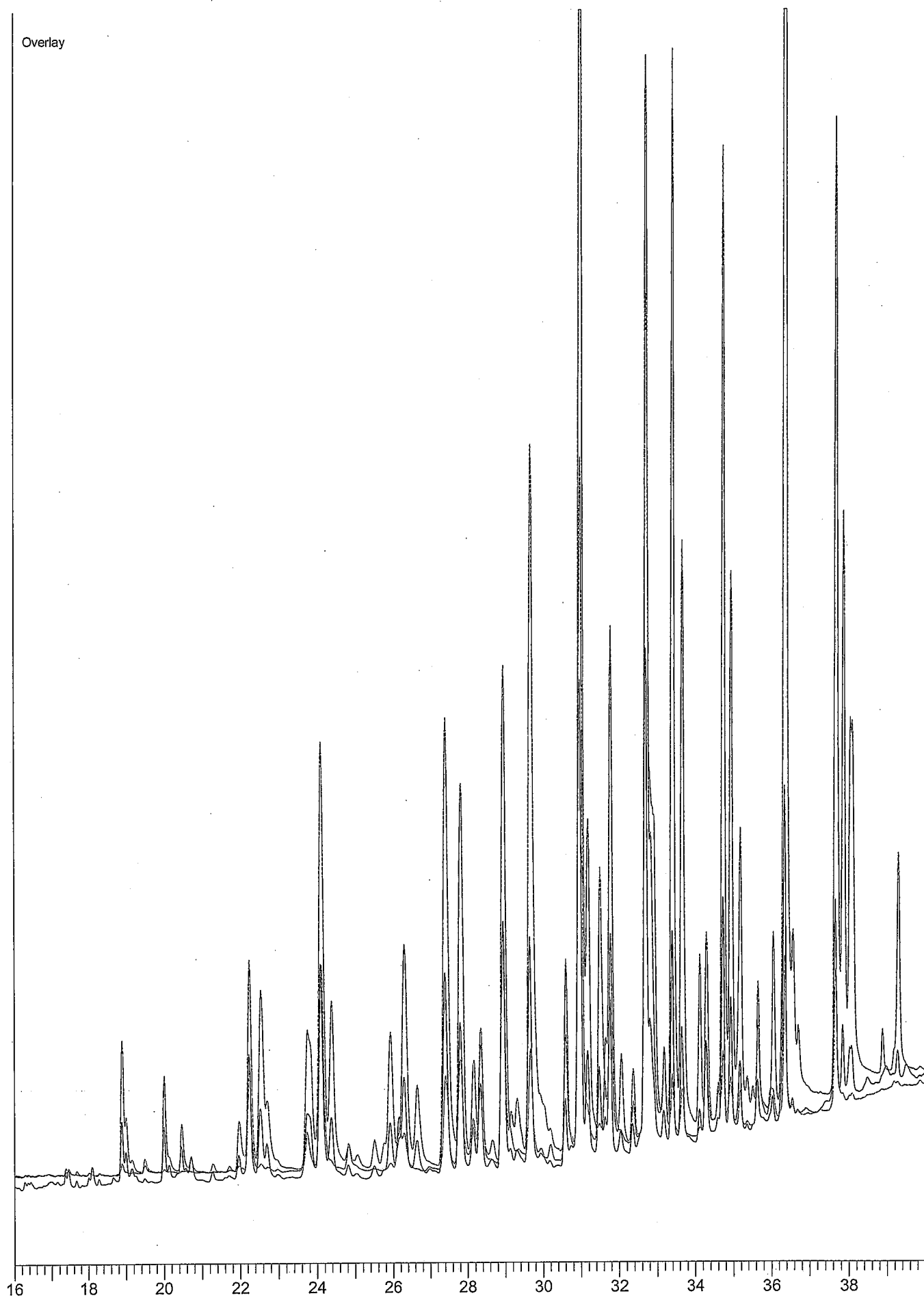
10/15/2007 7:07:24 AM Result: C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB014.rst

Time [min]	Area [μ V-s]
27.39	96229
27.80	64491
28.14	17483
28.33	36343
28.63	4654
28.93	95117
29.13	2882
29.64	86703
29.93	5102
30.58	22186
30.74	5589
30.95	188761
31.17	43454
31.47	33704
31.63	11737
31.75	53943
32.03	9634
32.34	8338
32.68	176906
32.79	57654
33.16	11622
33.38	61885
33.64	32435
34.10	8447
34.27	28029
34.58	3045
34.71	67079
34.91	39479
35.16	23898
35.63	19835
36.02	9012
36.32	100308
36.54	5591
36.89	2311
37.43	3588
37.64	57159
37.82	19665
38.01	12656
38.05	11284
38.47	3957
38.96	10221
39.26	9088
39.49	9081
40.54	11095
41.23	3367
42.04	11319
42.61	3038
43.28	4022
43.46	6009
44.29	3072
2034766	

Plot Title	Start Time	End Time	Scale	Offset
COMB007.raw Sample Name : AROCHLOR 1254 Sample Number: 07 Instrument File Name: c:\pest\gc14\methods\pcb	16.00	40.00	70.00	0.00
COMB008.raw Sample Name : AROCHLOR 1260 Sample Number: 08 Instrument File Name: c:\pest\gc14\methods\pcb	16.00	40.00	70.00	0.00
COMB014.raw Sample Name : 22672 1:10 Sample Number: 14 Instrument File Name: c:\pest\gc14\methods\pcb	16.00	40.00	70.00	0.00



Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62023
 Sample Name : 22673 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

Date : 10/15/2007 7:07:26 AM

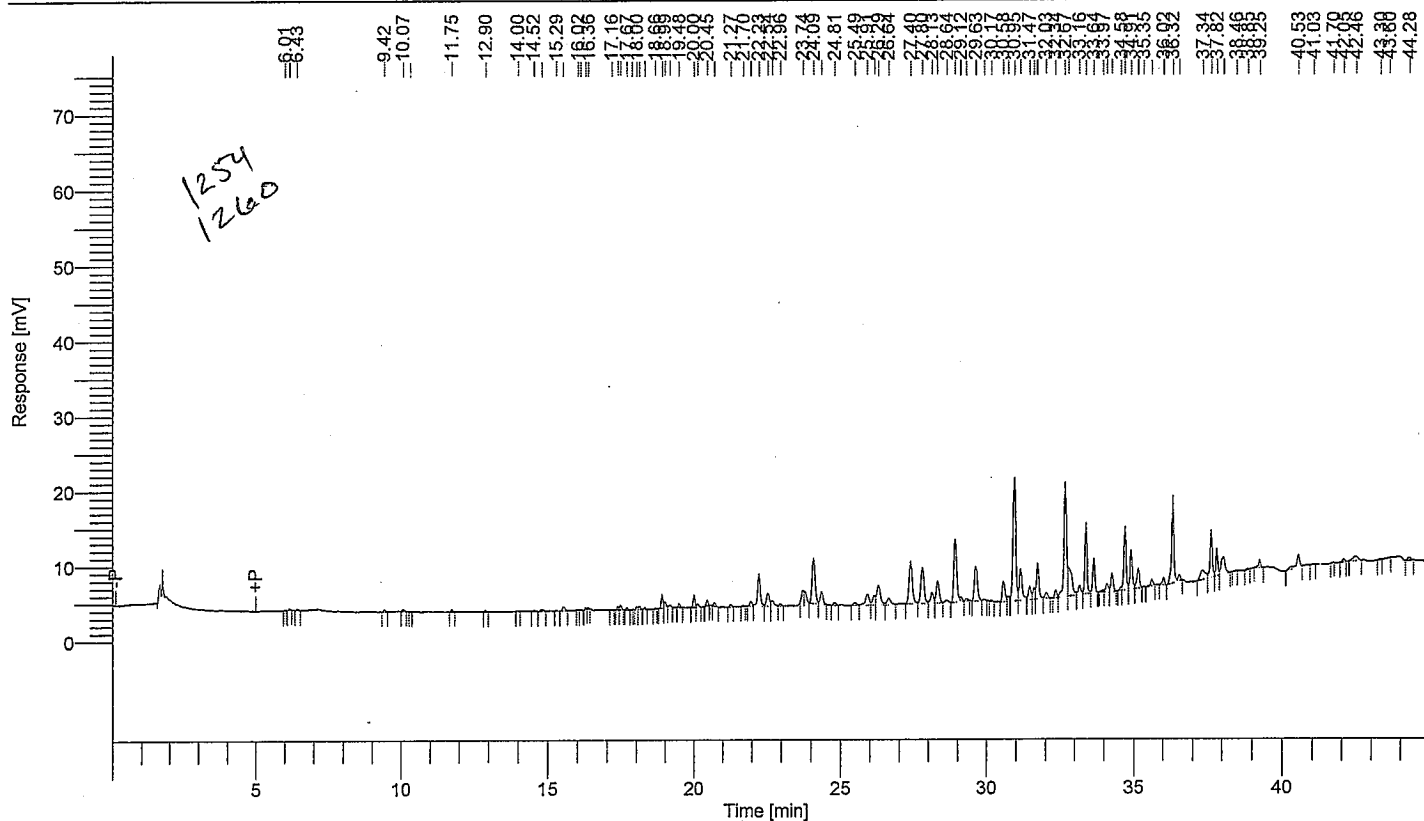
Data Acquisition Time : 10/13/2007 3:52:43 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB015.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
15.52	3393
17.45	2507
18.88	8373
18.99	3899
19.48	2278
20.00	8329
20.13	2206
20.45	3382
20.70	2420
21.95	3833
22.23	29429
22.54	13427
22.70	5474
23.74	2689
24.09	43020
24.36	10711
24.81	2399
25.49	2662
25.91	13226
26.15	8249
26.29	23034
26.64	8354
27.40	47023
27.80	37871
28.13	10093
28.32	21532
28.64	3051

$$\sum \text{area (Arochlor 1260)} = 71791$$

$$\text{ng inj} = \frac{71791}{325873} = 0.2203$$

$$\text{ppm} = \frac{0.2203}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.090.0881$$

0808 10/16/2007

$$\sum \text{area (Arochlor 1254)} = 32291$$

$$\text{ng inj} = \frac{32291}{98887} = 0.3265$$

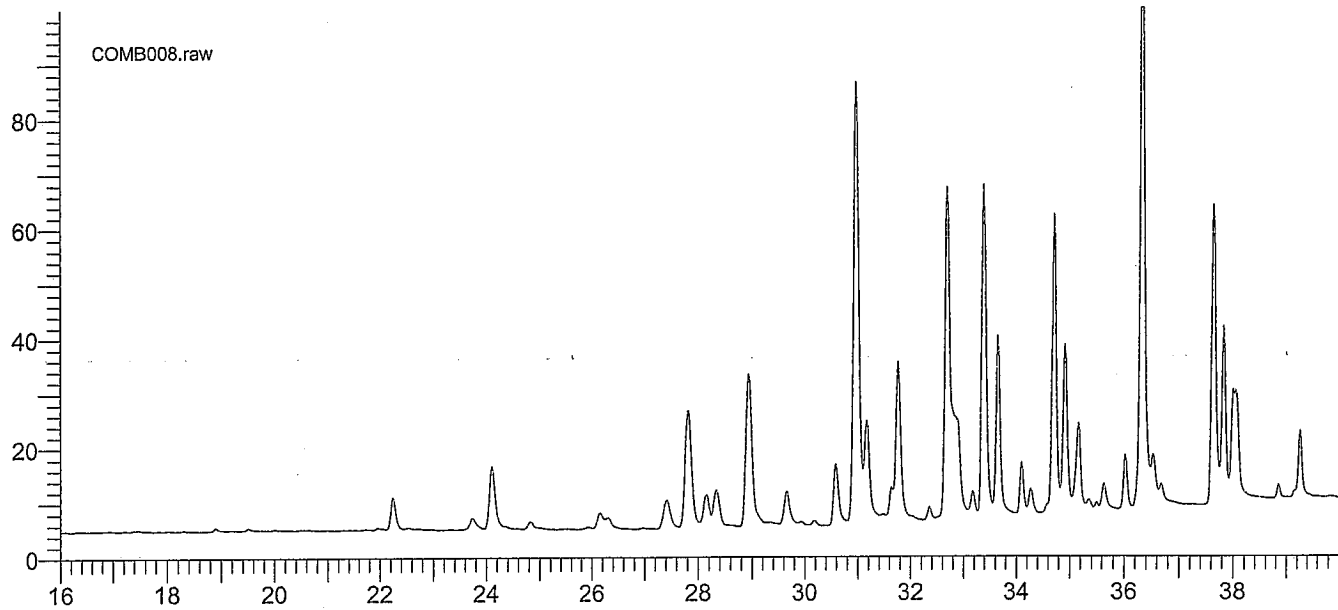
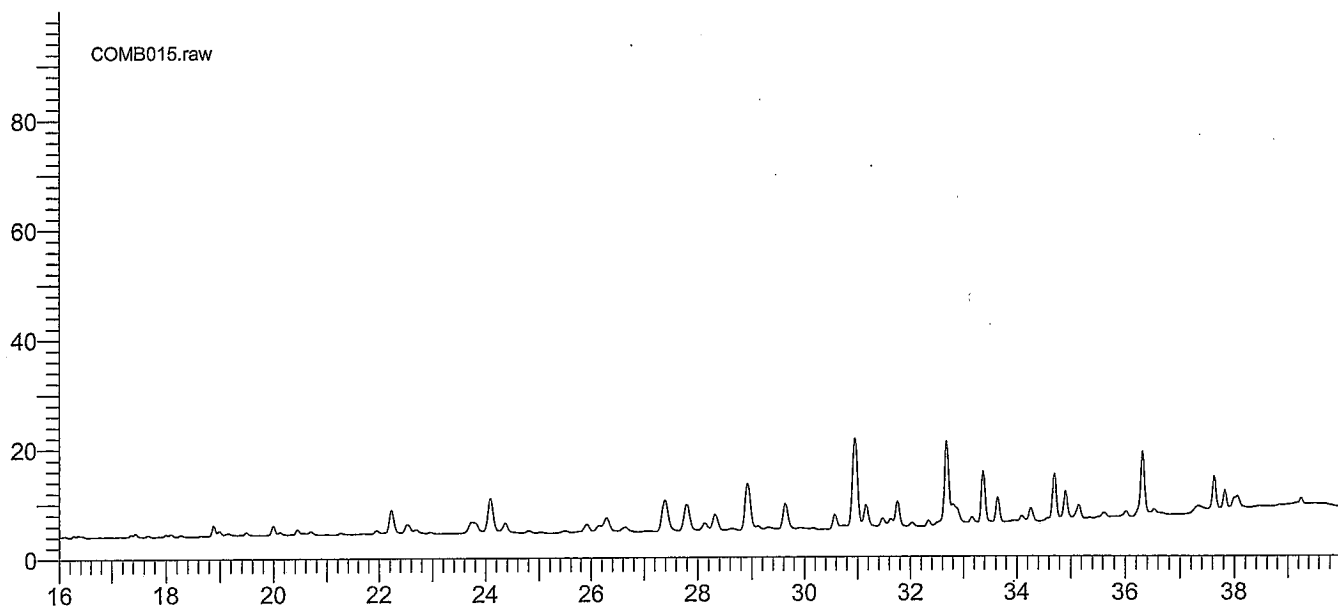
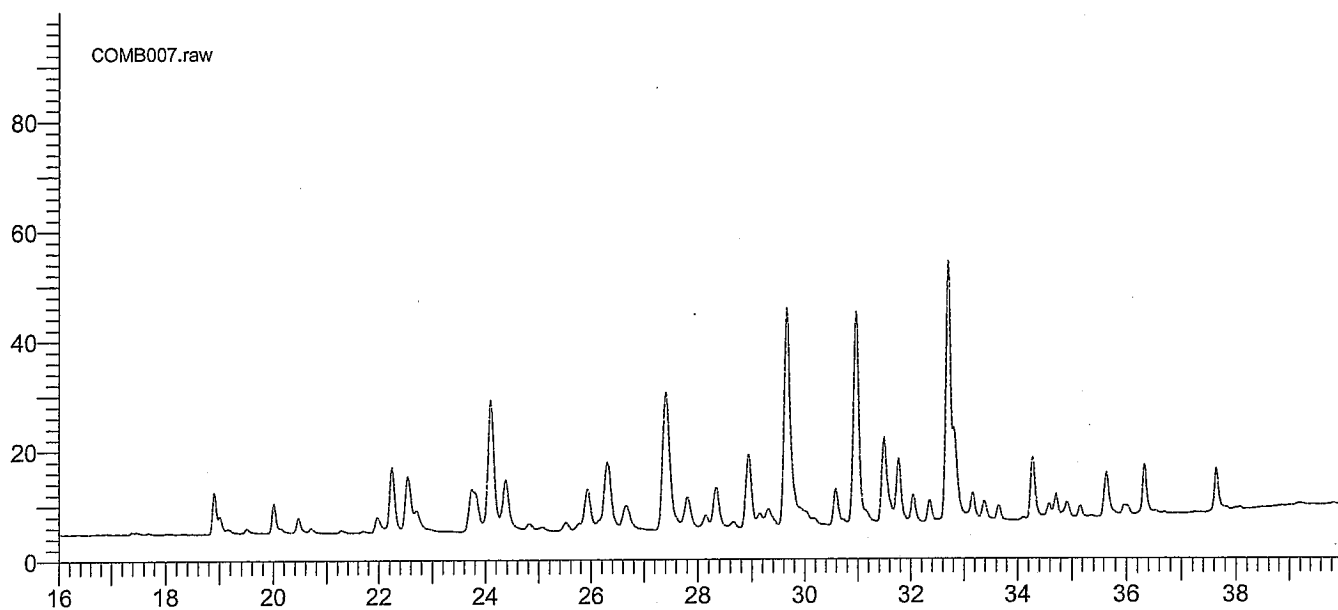
$$\text{ppm} = \frac{0.3265}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1306$$

$$\text{total PCB} = 0.2187 \text{ ppm.}$$

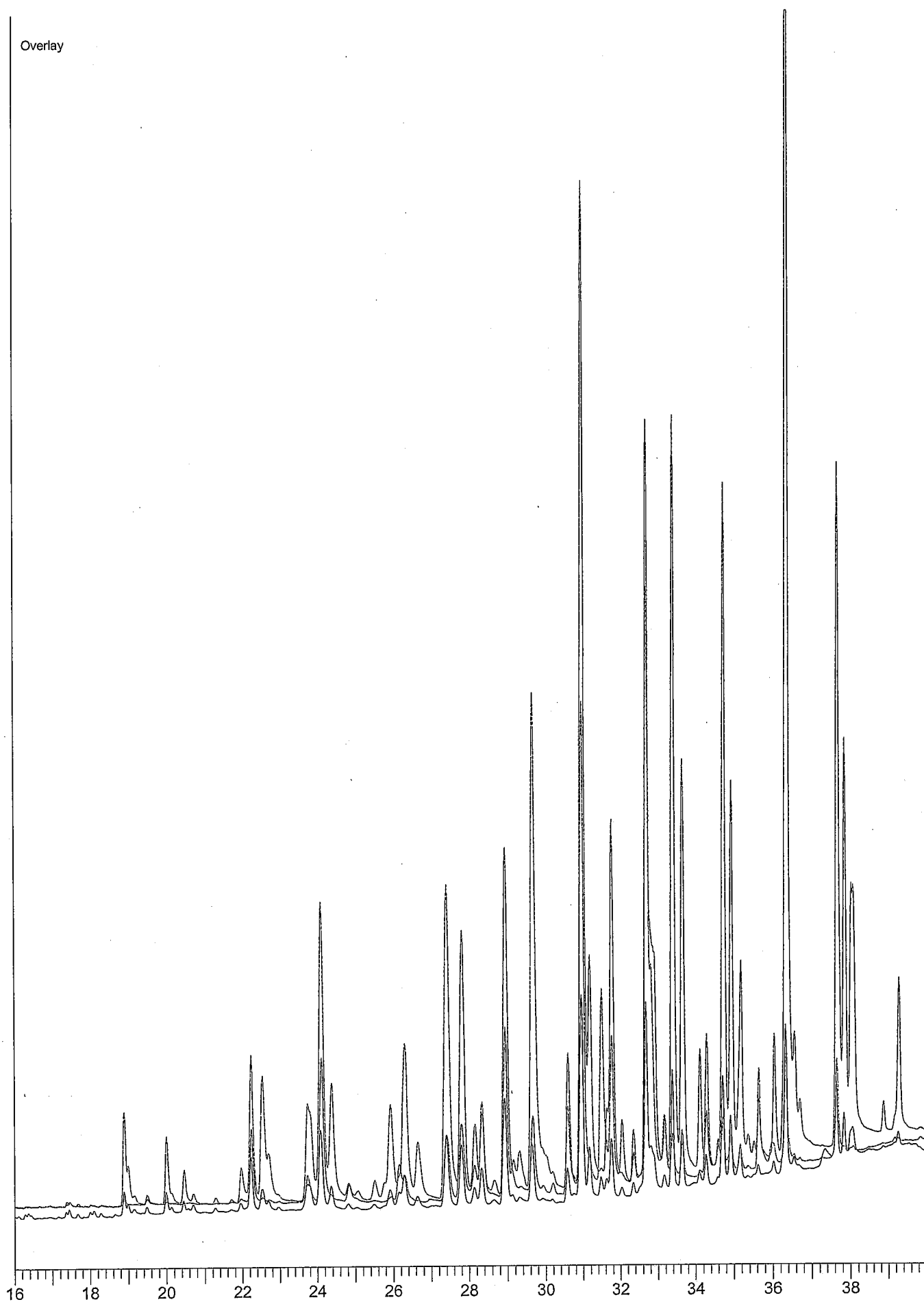
10/15/2007 7:07:26 AM Result: C:\PEST\OCTOBER 2007\07100204_0806_0906 AV SET 4\COMB015.rst

Time [min]	Area [μ V·s]
28.92	61216
29.12	2386
29.63	31053
30.58	16420
30.74	3761
30.95	114159
31.16	28866
31.47	11235
31.63	8687
31.75	28544
32.03	4161
32.34	5204
32.67	96396
32.80	34167
33.16	7462
33.37	48344
33.64	23172
34.09	6158
34.26	13406
34.70	44956
34.91	27897
35.15	16583
35.62	5112
36.02	5338
36.32	63596
36.53	4034
37.34	15157
37.63	32884 ✓
37.82	17297 ✓
38.05	21610 ✓
39.25	6063
40.53	13187
42.05	2014
42.46	7465
44.28	2913
<hr/>	
1153770	

Plot Title	Start Time	End Time	Scale	Offset
COMB007.raw Sample Name : AROCHLOR 1254 Sample Number: 07 Instrument File Name: c:\pest\gc14\methods\pcb	16.00	40.00	100.00	0.00
COMB015.raw Sample Name : 22673 1:10 Sample Number: 15 Instrument File Name: c:\pest\gc14\methods\pcb	16.00	40.00	100.00	0.00
COMB008.raw Sample Name : AROCHLOR 1260 Sample Number: 08 Instrument File Name: c:\pest\gc14\methods\pcb	16.00	40.00	100.00	0.00



Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62028
 Sample Name : 22674 1:10
 Instrument Name : GC014
 Rack/Vial : 0/20
 Sample Amount : 50.000000
 Cycle : 20

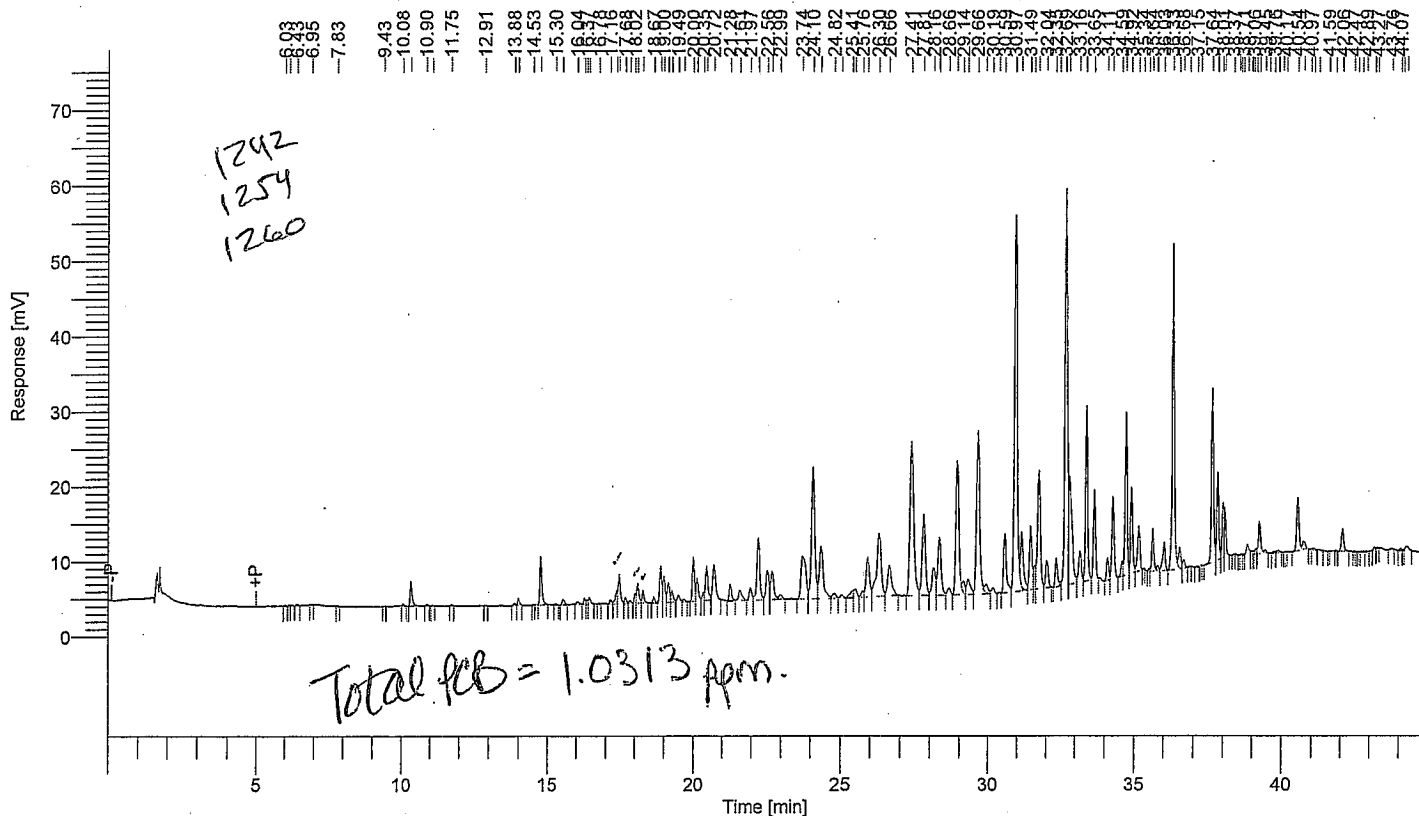
Date : 10/15/2007 7:07:34 / M
 Data Acquisition Time : 10/13/2007 8:15:47 A.M
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB020.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.36	14911
14.01	3834
14.77	29873
15.53	4211
16.04	2155
16.28	3046
16.44	4631
17.16	2824
17.38	7943
17.46	20101
17.68	4016
17.84	2026
18.02	5387
18.11	14249
18.29	8270
18.67	4261
18.90	23076
19.00	18324
19.15	15016
19.28	9284
19.49	5462
20.00	30947
20.14	17407
20.35	4548
20.46	28708
20.72	33650
21.28	12843

Handwritten calculations:

Aroclor 1242
 $\Sigma \text{area} = 55950$
 $\text{ng/inj} = \frac{55950}{132962.5} = 0.4221$
 $\text{ppm} = \frac{0.4221}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1688$

Aroclor 1254
 $\Sigma \text{area} = 148099$
 $\text{ng/inj} = \frac{148099}{101302.5} = 1.4619$
 $\text{ppm} = \frac{1.4619}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.5848$

Aroclor 1260
 $\Sigma \text{area} = 228099$
 $\text{ng/inj} = \frac{228099}{328551.5} = 0.6943$
 $\text{ppm} = \frac{0.6943}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.2777$

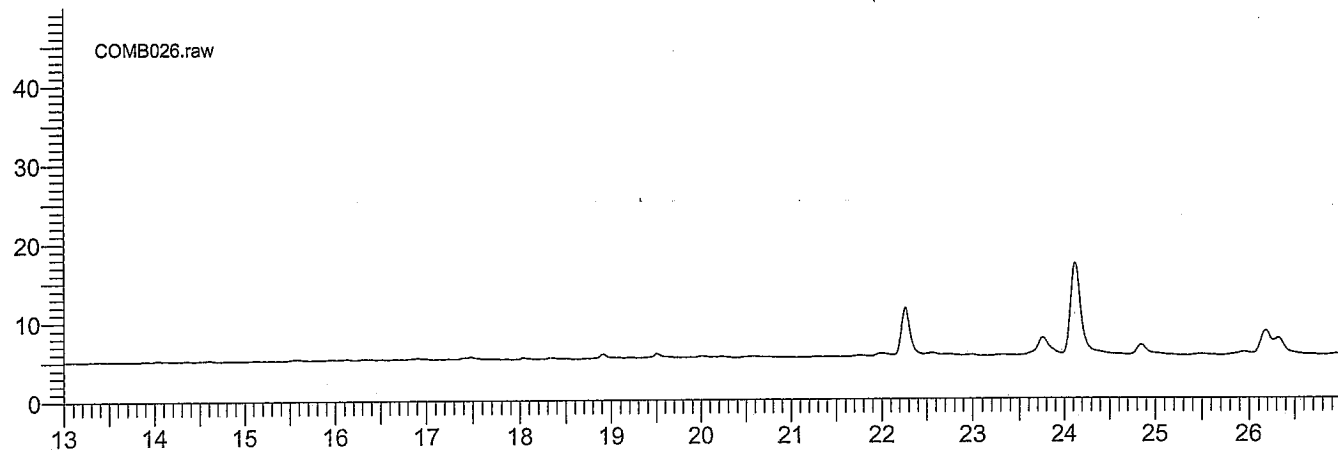
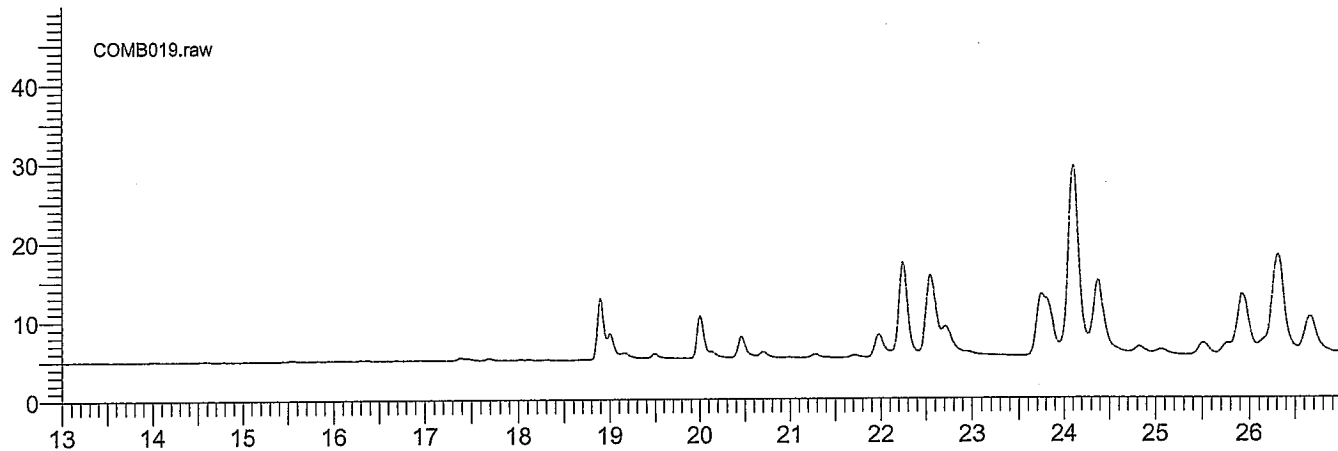
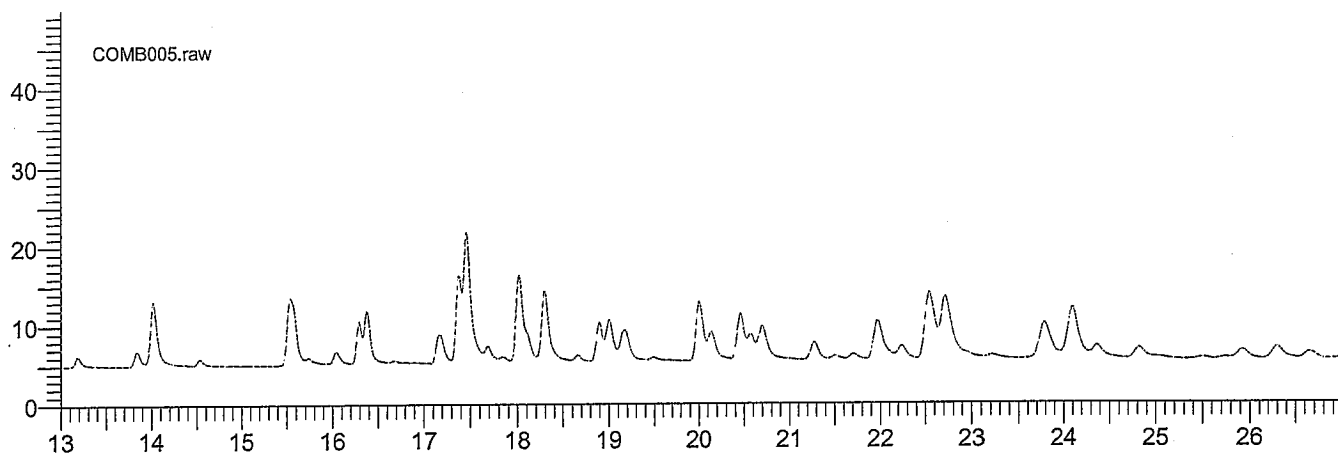
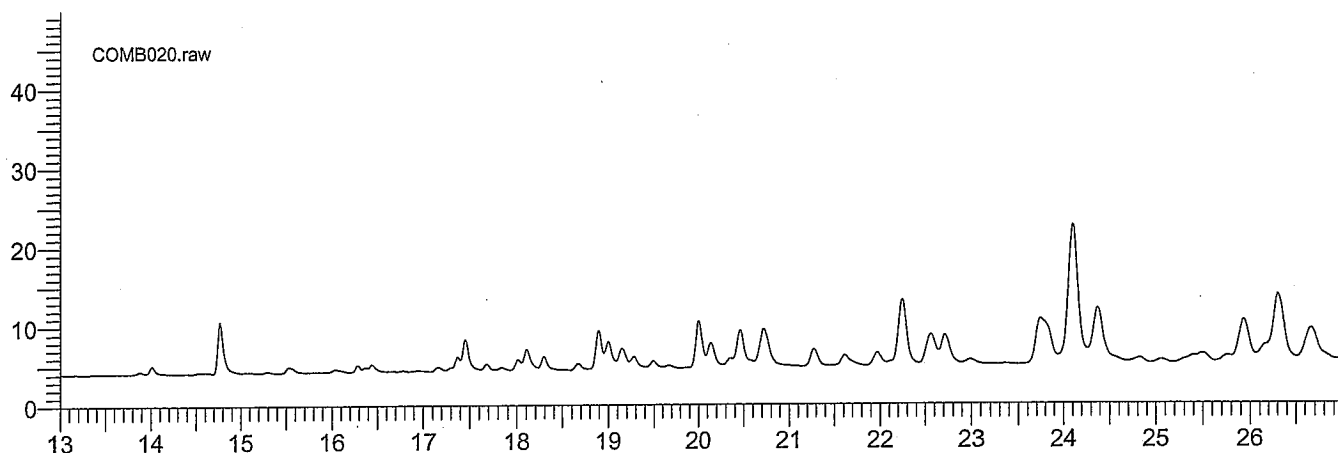
10/15/2007 7:07:34 AM Result: C:\PEST\OCTOBER 2007\071002\4, 0806,0906 AV SET 4\COMB020.rst

Time [min]	Area [μ V·s]
21.61	10619
21.97	10414
22.25	57862
22.56	28780
22.71	27732
22.99	4366
23.74	64774
24.10	141580
24.37	65027
24.82	5633
25.06	3062
25.41	6963
25.50	8896
25.76	5066
25.93	43065
26.30	85949
26.66	40007
27.41	182820
27.81	83220
28.16	28952
28.34	60882
28.66	6758
28.93	135259
29.14	9527
29.31	20141
29.66	164532
29.94	11485
30.19	5369
30.59	52776
30.97	350587
31.17	50233
31.49	56706
31.63	14653
31.77	98517
32.04	21189
32.35	21244
32.69	329772
32.81	108490
33.16	25096
33.39	122857
33.65	60724
34.11	15073
34.28	58193
34.59	9124
34.72	110894
34.92	60179
35.16	35833
35.64	29771
35.80	3201
36.03	22697
36.33	225775
36.54	14296
36.68	6470
37.64	115588
37.83	55640
38.01	31304
38.06	25567
38.85	7527
39.15	3175
39.26	24497
40.54	40257
40.75	7407
42.06	17807
44.29	4891

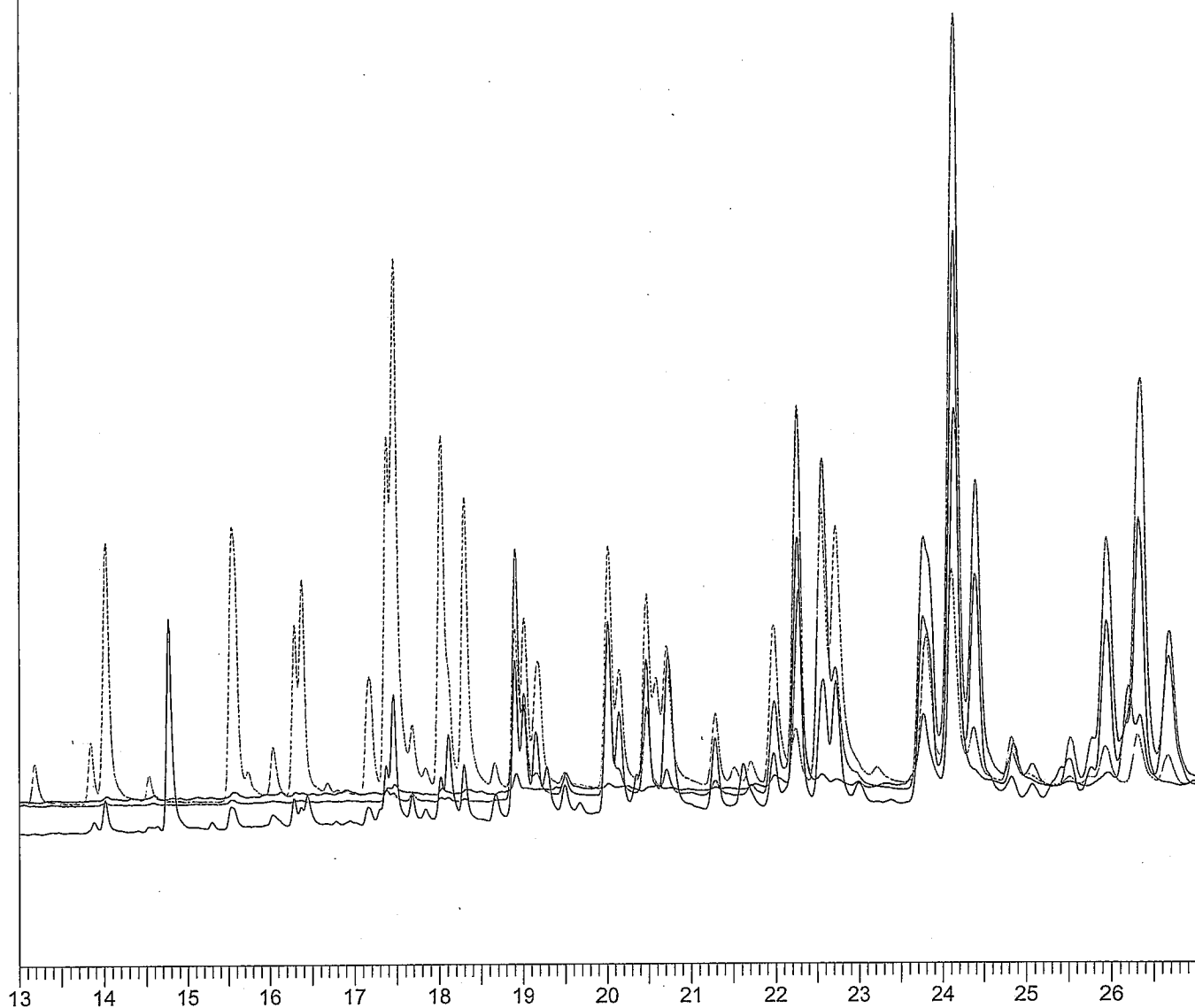
3887775

Arochlor
1254Arochlor
1260

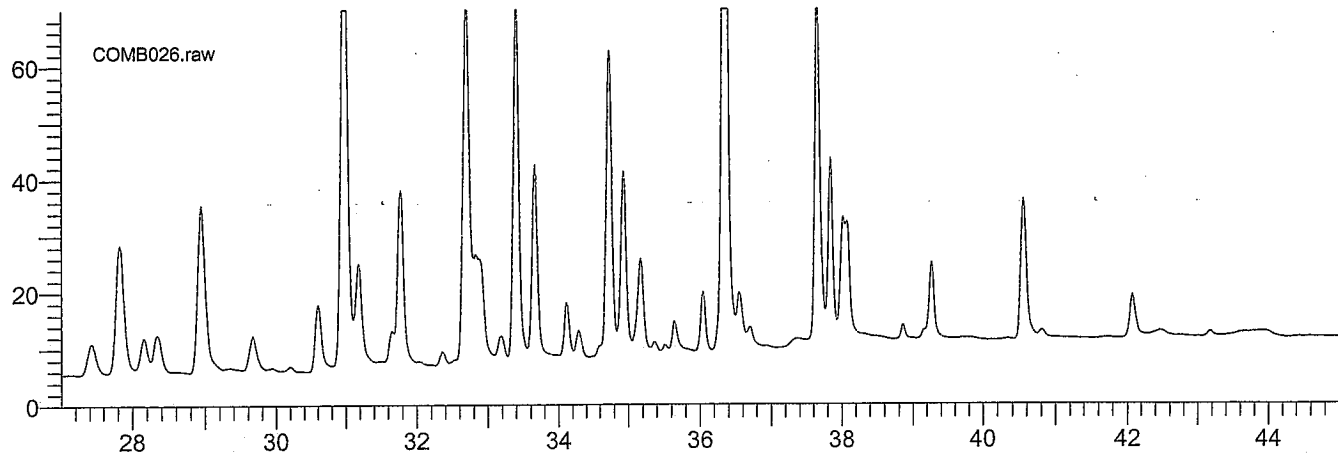
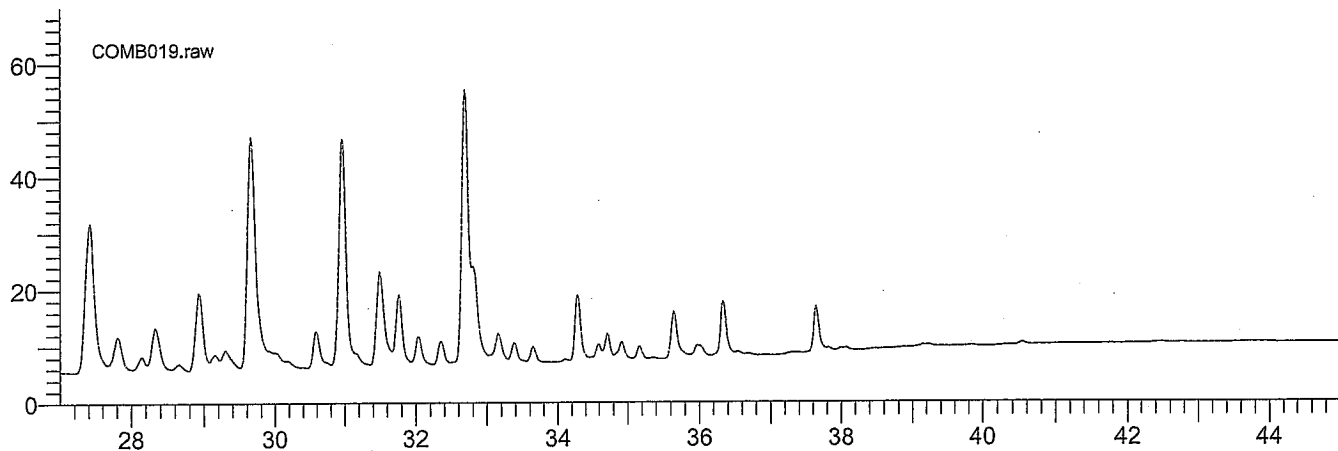
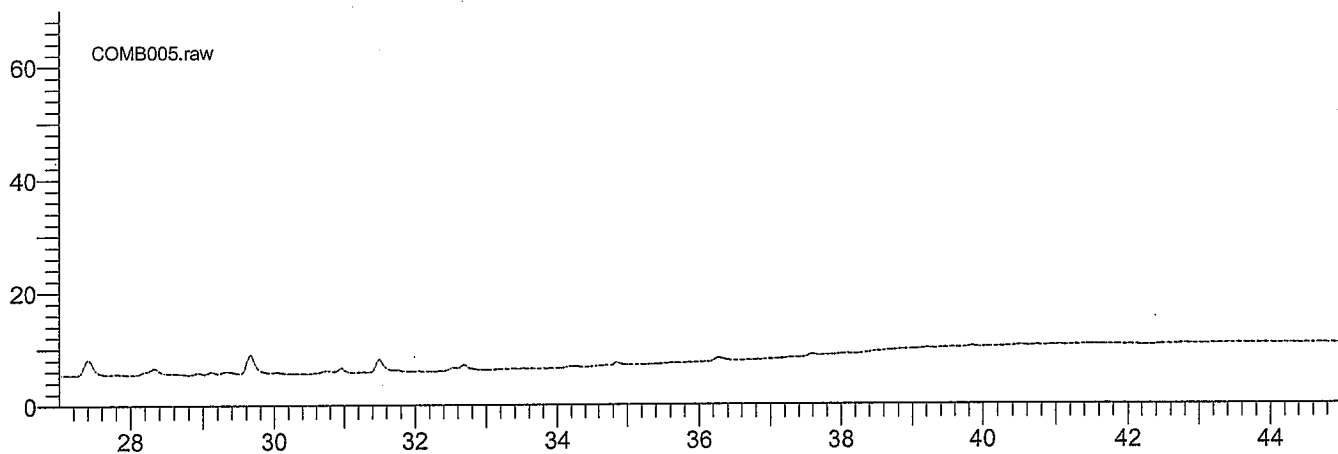
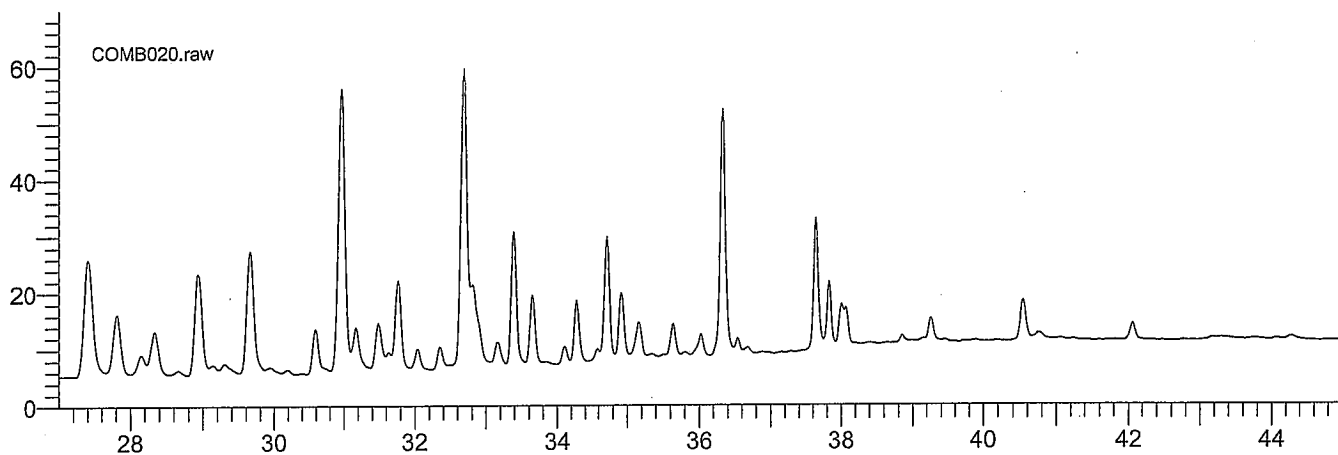
Plot Title	Start Time	End Time	Scale	Offset
COMB020.raw Sample Name : 22674 1:10 Sample Number: 20 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	27.00	50.00	0.00
COMB005.raw Sample Name : AROCHLOR 1242 Sample Number: 05 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	27.00	50.00	0.00
COMB019.raw Sample Name : AROCHLOR 1254 Sample Number: 19 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	27.00	50.00	0.00
COMB026.raw Sample Name : AROCHLOR 1260 Sample Number: 26 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	27.00	50.00	0.00



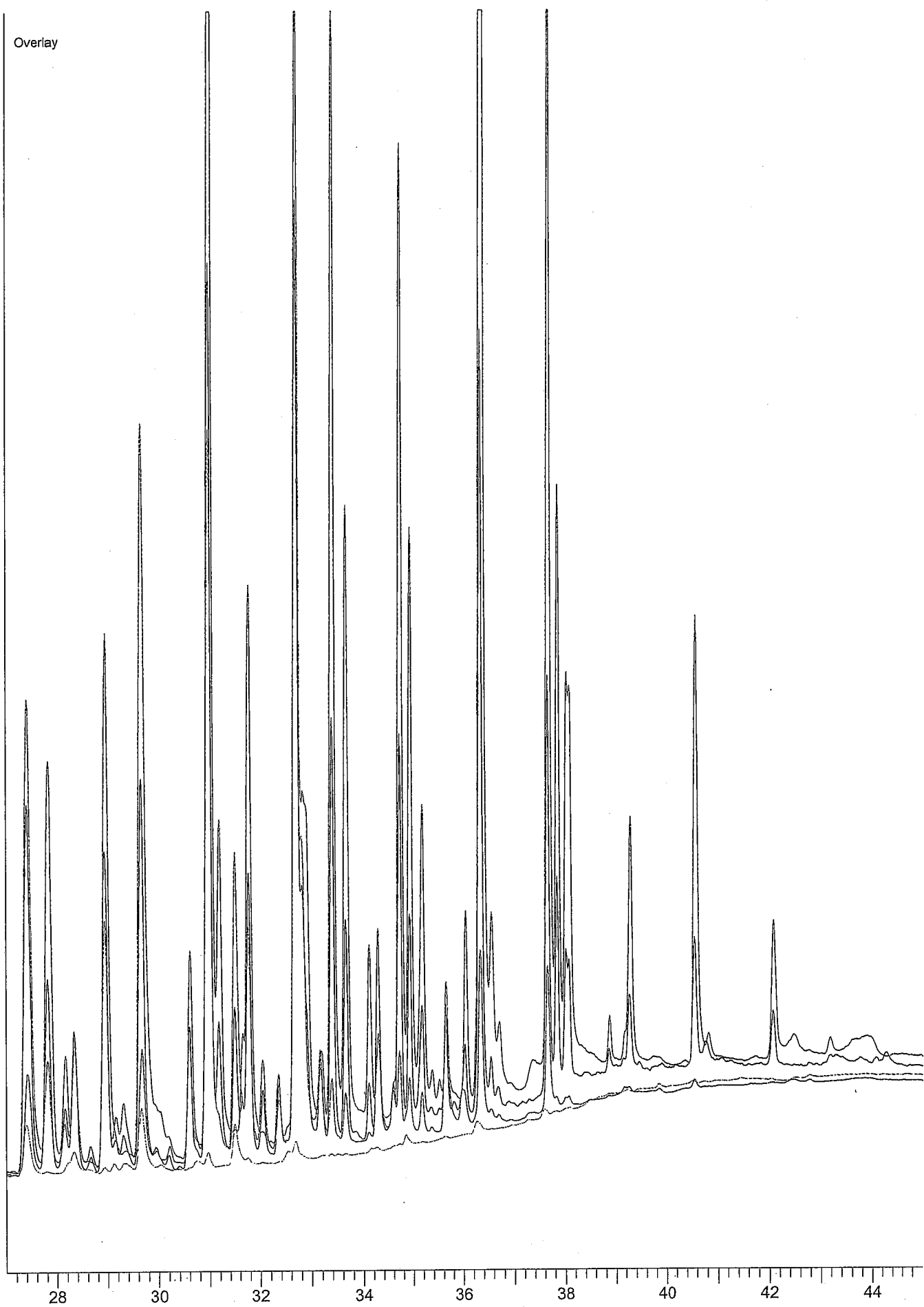
Overlay



Plot Title	Start Time	End Time	Scale	Offset
COMB020.raw Sample Name : 22674 1:10 Sample Number: 20 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	45.00	70.00	0.00
COMB005.raw Sample Name : AROCHLOR 1242 Sample Number: 05 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	45.00	70.00	0.00
COMB019.raw Sample Name : AROCHLOR 1254 Sample Number: 19 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	45.00	70.00	0.00
COMB026.raw Sample Name : AROCHLOR 1260 Sample Number: 26 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	45.00	70.00	0.00



Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62029
 Sample Name : 22675 1:10
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 50.000000
 Cycle : 21

Date : 10/15/2007 7:07:35 AM

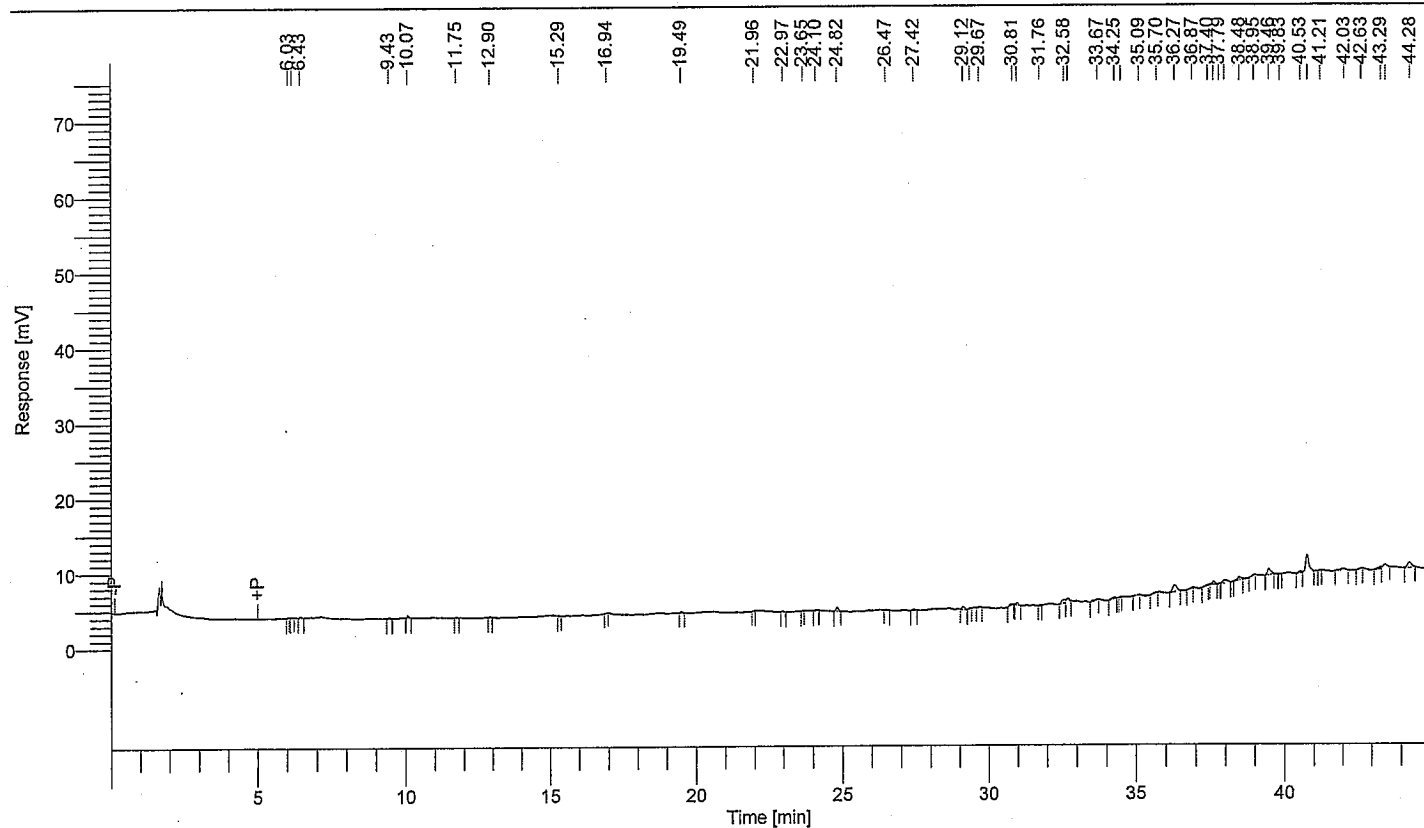
Data Acquisition Time : 10/13/2007 9:08:28 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB021.rst

Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.82	3215
29.12	2171
32.58	3461
32.70	2849
36.27	7995
37.59	2751
37.97	4356
38.48	2841
39.46	5775
40.76	16589
42.03	3833
43.44	4001
44.28	6304

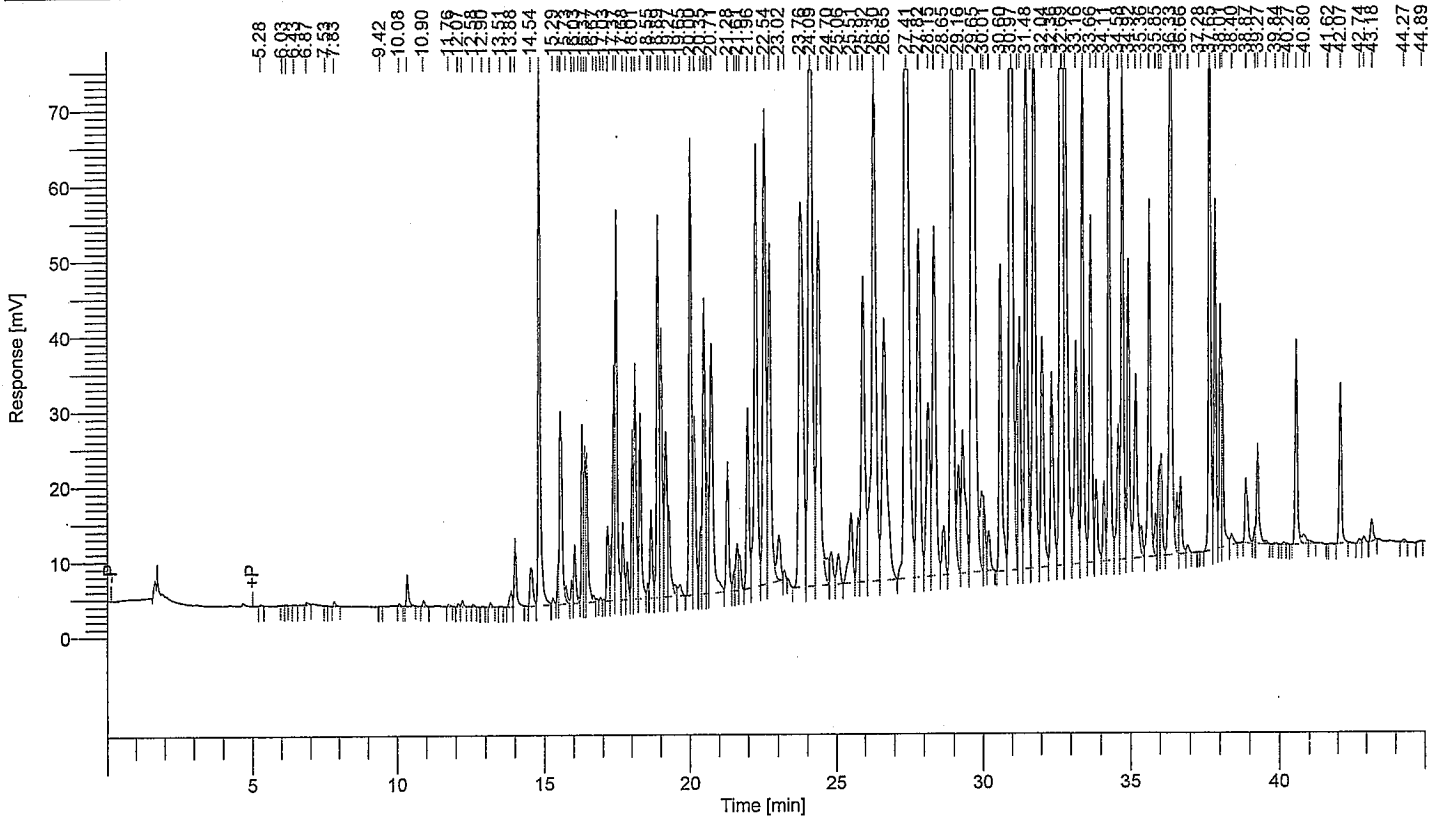
66140

<0.4 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62031
 Sample Name : 22676 1:10
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 50.000000
 Cycle : 23

Date : 10/15/2007 7:07:38 AM
 Data Acquisition Time : 10/13/2007 10:53:50 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\COMB023.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100204, 0806,0906 AV SET 4\PCB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.87	2123
7.83	3639
10.35	20244
10.90	4017
12.21	4034
13.17	2807
13.88	12757
14.01	45111
14.54	36257
14.81	379166
15.29	4090
15.45	13750
15.53	178870
15.73	9779
15.93	12378
16.03	38977
16.17	2156
16.28	92774
16.37	78388
16.43	97709
16.67	4048
16.78	2118
16.92	2380
17.16	54190
17.37	141926
17.45	262027
17.68	55919

$$\sum \text{area (Area for 1260)} = 890998$$

$$\text{ng inj} = \frac{890998}{328551.5}$$

$$= 2.7119$$

$$\mu\text{M} = \frac{2.7119}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 1.0848$$

See 1:50 dilution.

10/15/2007 7:07:38 AM Result: C:\EST\OCTOBER 2007\07100204_0806_0906 AV SET 4\COMB023.rst

Time [min]	Area [μ V·s]
17.83	26952
18.01	93351
18.10	170972
18.29	131041
18.55	8723
18.67	63509
18.89	255582
19.00	194160
19.16	145323
19.27	71124
19.48	8119
19.65	12504
20.00	343997
20.14	140215
20.35	43364
20.46	233313
20.57	78938
20.71	263717
21.28	103410
21.52	11818
21.61	37860
21.69	23588
21.96	151305
22.24	428181
22.54	452366
22.71	338743
23.02	50803
23.21	6278
23.76	557155
24.09	1061718
24.38	441067
24.70	29159
24.82	32837
25.06	32387
25.51	86526
25.76	52011
25.92	354138
26.30	690468
26.65	396419
27.41	1261080
27.82	376951
28.15	195298
28.34	368350
28.65	48297
28.94	595017
29.16	84187
29.30	188221
29.65	1521059
29.95	73521
30.01	54935
30.19	36135
30.60	275317
30.97	1655766
31.19	102396
31.26	215972
31.48	614875
31.64	36050
31.77	550022
32.04	207894
32.36	187093
32.69	1754625
32.81	608282
33.16	211086
33.39	417573
33.66	270013
33.84	71090
34.11	53774
34.28	430466
34.58	97521
34.72	376191
34.92	214970
35.17	180173
35.36	23037
35.63	275933
35.85	27588
35.96	50015
36.03	67818
36.33	703951
36.55	42732
36.66	61846
36.92	6211
37.65	408866
37.84	230893
38.01	158221
38.07	93018
38.40	10315

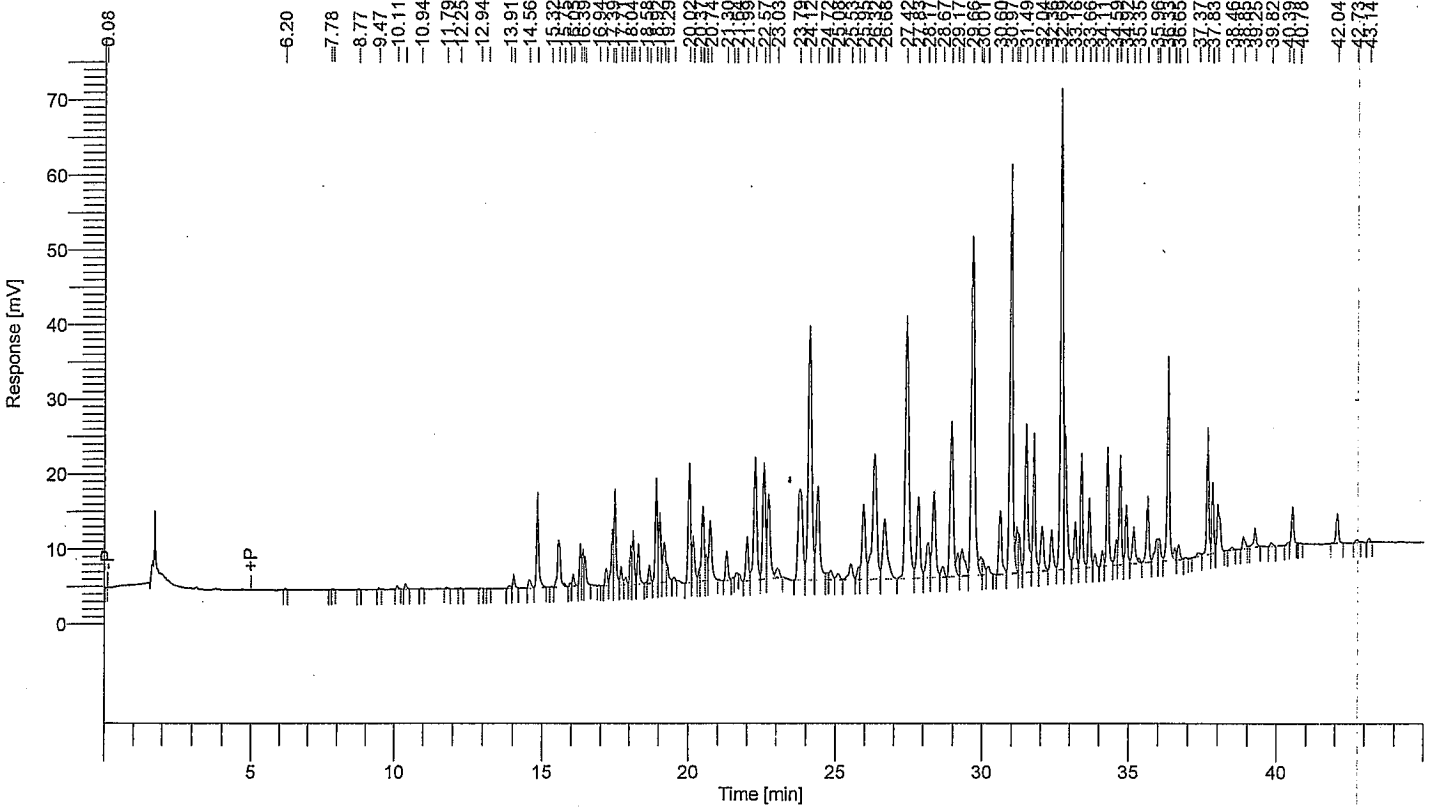
10/15/2007 7:07:38 AM Result: C:\PEST\OCTOBER 2\07107100204, 0806,0906 AV SET 4\COMB023.rst

Time [min]	Area [μ V-s]
38.87	52466
39.16	7453
39.27	78565
39.54	2627
40.55	139614
40.80	12778
41.00	3114
42.07	124418
42.74	3535
42.90	5528
43.18	18134
44.27	2622
<hr/>	
25130275	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62128
 Sample Name : ###SET4##22676
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 50.000000
 Cycle : 8

Date : 10/17/2007 8 43:33 AM
 Data Acquisition Time : 10/16/2007 4:06:46 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 50.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.39	3417
13.91	2085
14.04	8289
14.56	7106
14.84	57992
15.55	44844
16.05	7738
16.31	21238
16.39	19085
16.46	18172
17.18	12481
17.39	33517
17.48	64596
17.71	12736
17.86	5448
18.04	21250
18.13	37697
18.31	28050
18.69	12171
18.92	65105
19.03	49972
19.18	35648
19.29	12216
19.51	2451
20.02	88068
20.16	35278
20.37	7466

1260 $\Sigma \text{area} = 172012$

$\text{ng} \cdot \text{inj} = \frac{172012}{326434.5} = 0.5269$

$\text{ppm} = \frac{0.5269}{50} \times \frac{2}{2} \times \frac{100}{50} \times 50 = 1.0539$

1248 $\Sigma \text{area} = 619435$

$\text{ng} \cdot \text{inj} = \frac{619435}{335139} = 1.8483$

$\text{ppm} = \frac{1.8483}{50} \times \frac{2}{2} \times \frac{100}{50} \times 50 = 3.6966$

Total PCB = 4.7235 ppm. 4.7505
 10/24/2007

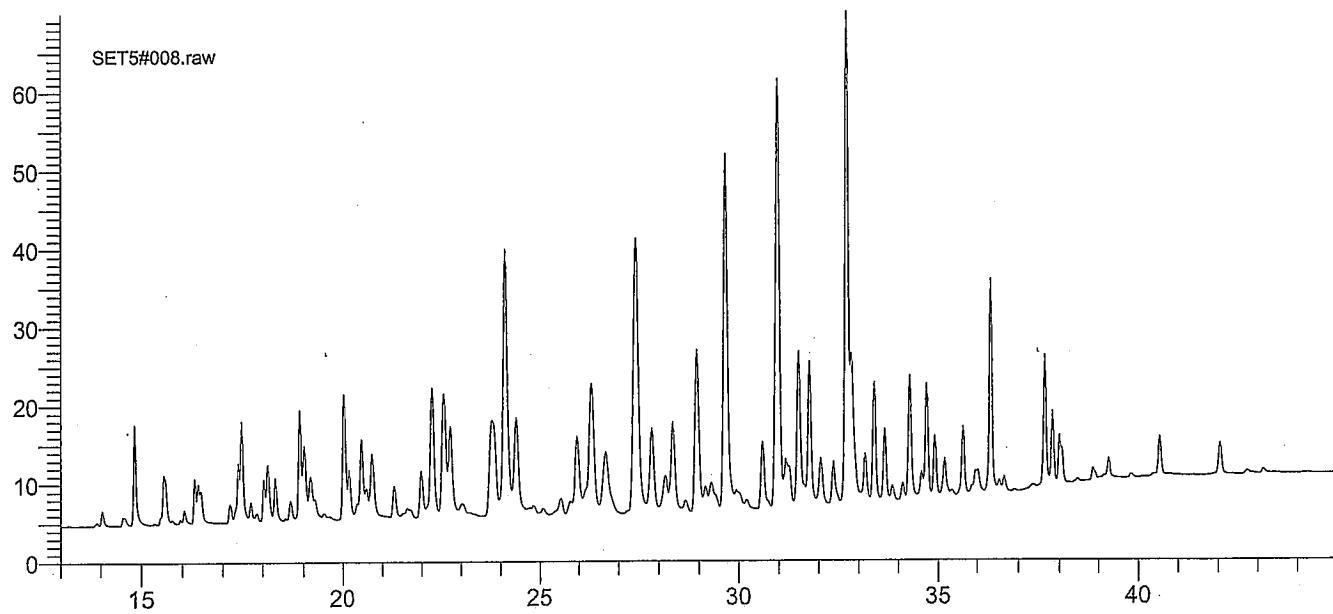
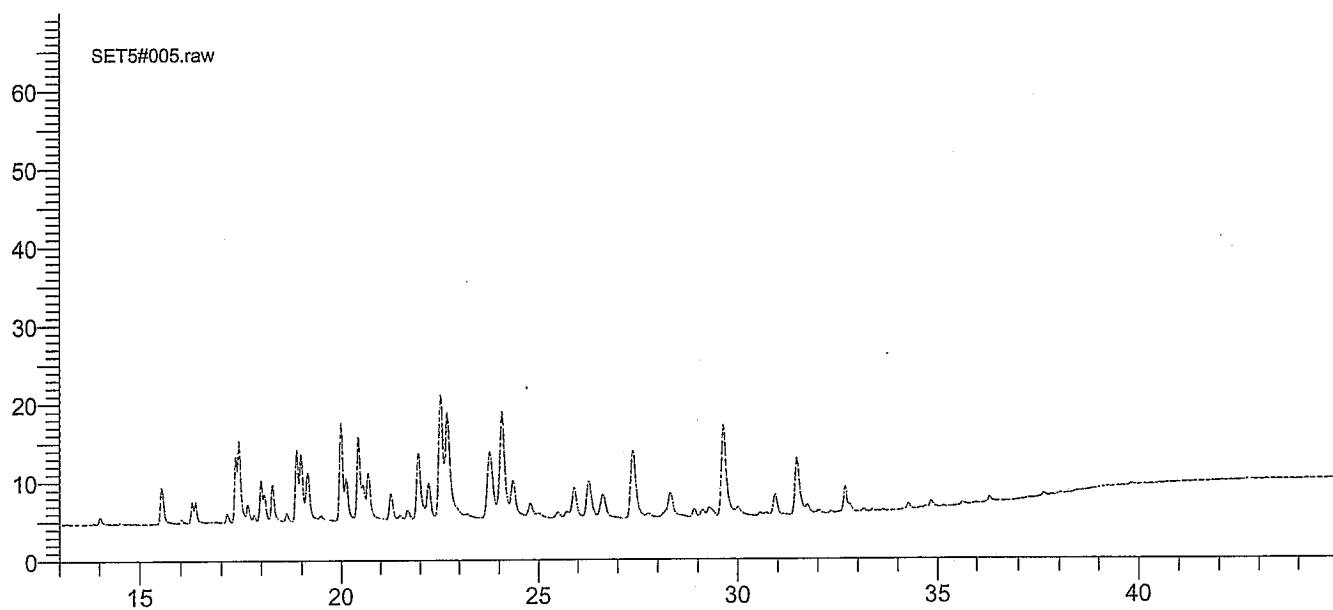
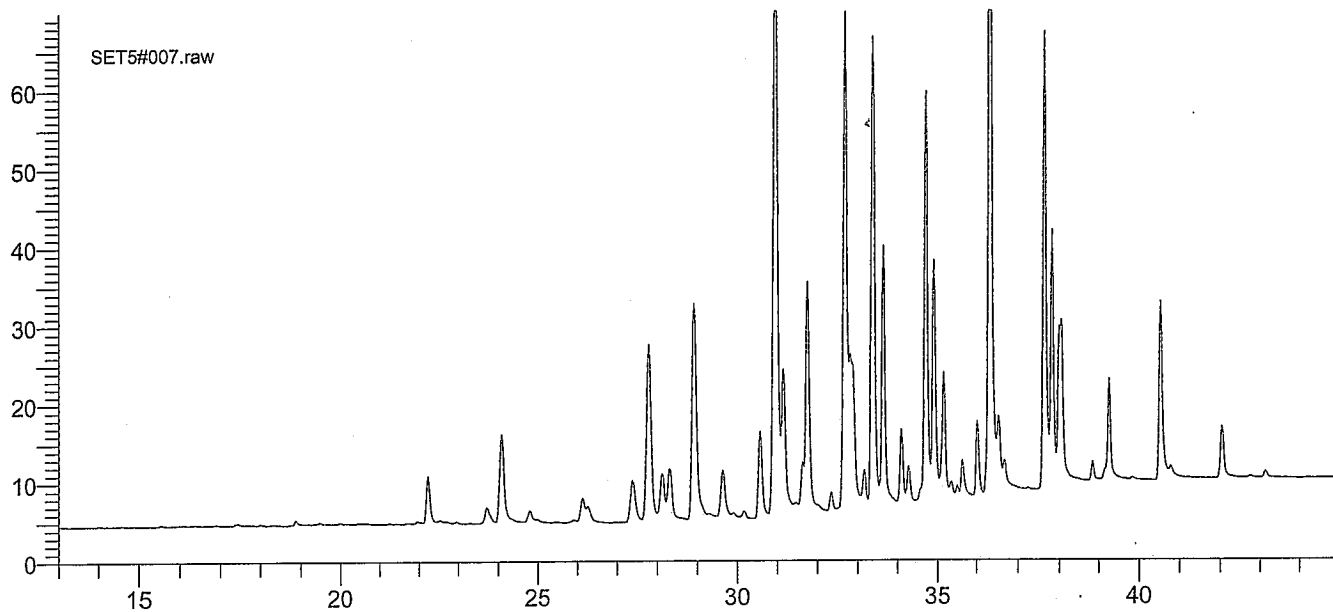
10/17/2007 8:43:33 AM Result: C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#008.rst

Time [min]	Area [μ V·s]
20.48	56353
20.60	16849
20.74	55681
21.30	21611
21.99	35837
22.27	114510
22.57	112671
22.73	84192
23.03	9775
23.79	136548
24.12	269073
24.40	110576
24.72	5962
24.84	9846
25.08	6619
25.53	18354
25.78	10093
25.95	84890
26.32	172614
26.68	90558
27.42	313540
27.83	86574
28.17	39293
28.35	90576
28.67	10002
28.95	149837
29.17	17813
29.31	36734
29.66	338261
29.95	15547
30.01	11864
30.20	7331
30.60	56735
30.97	376204
31.18	34076
31.25	25203
31.49	134811
31.77	113850
32.04	40266
32.36	35300
32.69	390760
32.81	129231
33.16	40053
33.39	82587
33.66	50214
33.85	10322
34.11	10636
34.28	92106
34.59	17909
34.71	77782
34.92	41229
35.16	33398
35.35	3305
35.63	49173
35.96	20376
36.02	16293
36.33	141729
36.54	8401
36.65	11471
37.37	4704
37.64	81758
37.83	45664
38.00	44590
38.46	2529
38.85	9904
39.25	16690
39.82	2953
40.53	24690
42.04	23765
42.73	2343
43.14	2603

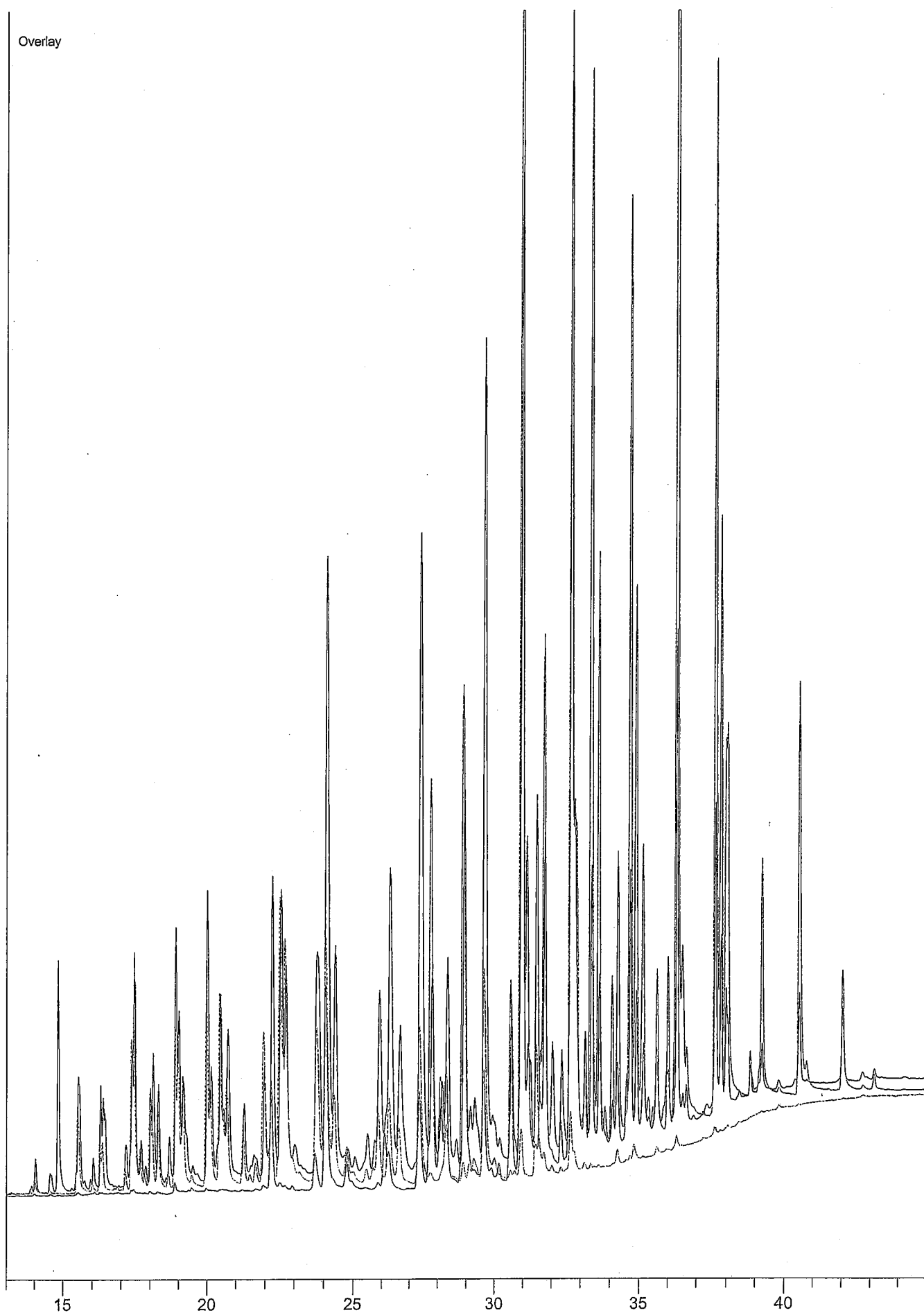
5559710

Plot Title	Start Time	End Time	Scale	Offset
SET5#007.raw Sample Name : AROCHLOR 1260 Sample Number: 07 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	44.99	70.00	0.00
SET5#005.raw Sample Name : AROCHLOR 1248 Sample Number: 05 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	44.99	70.00	0.00
SET5#008.raw Sample Name : ###SET4##22676 1:10/50 Sample Number: 08 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	44.99	70.00	0.00

0518
10/17/2007



Overlay



A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100205

*Avant set #5
Level II QAC*

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SF
PREP DATE:	10-15-07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AA11900004		
PREP. DATE:	10-8-07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS OR MLS
1	SPIKE 1	50.0
2	22677	
3	22678	
4	22679	
5	22679 ms	
6	22680	
7	22681	
8	22682	
9	22682 msd	
10	22683	
11	22684	
12	22684 dup	
13	blank	
14		
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	SKP	ALICUOT RATIO:	50/100
COLUMN I.D.:	809200	FINAL VOLUME:	2.0 mL
DATE USED:	10-16-2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGV (cm/s)	Not Given	A1016 I.D.	911300003
INST. CAL I.D.	MX50100154	A1221 I.D.	911400003
INST. CAL PREP. DATE:	9-14-2007	A1232 I.D.	911500003
ANALYTE 1		A1242 I.D.	911600003
RETENTION TIME (MIN)	14.37	A1248 I.D.	911700005
R.T. ACCURACY (%)	99	A1254 I.D.	X11820011
SENSITIVITY (AREA)	398925	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	100	CAL PREP DATE:	10-2-2007
ANALYTE 2			
RETENTION TIME (MIN)	16.57		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	886871		
SENS. ACCURACY (%)	89		

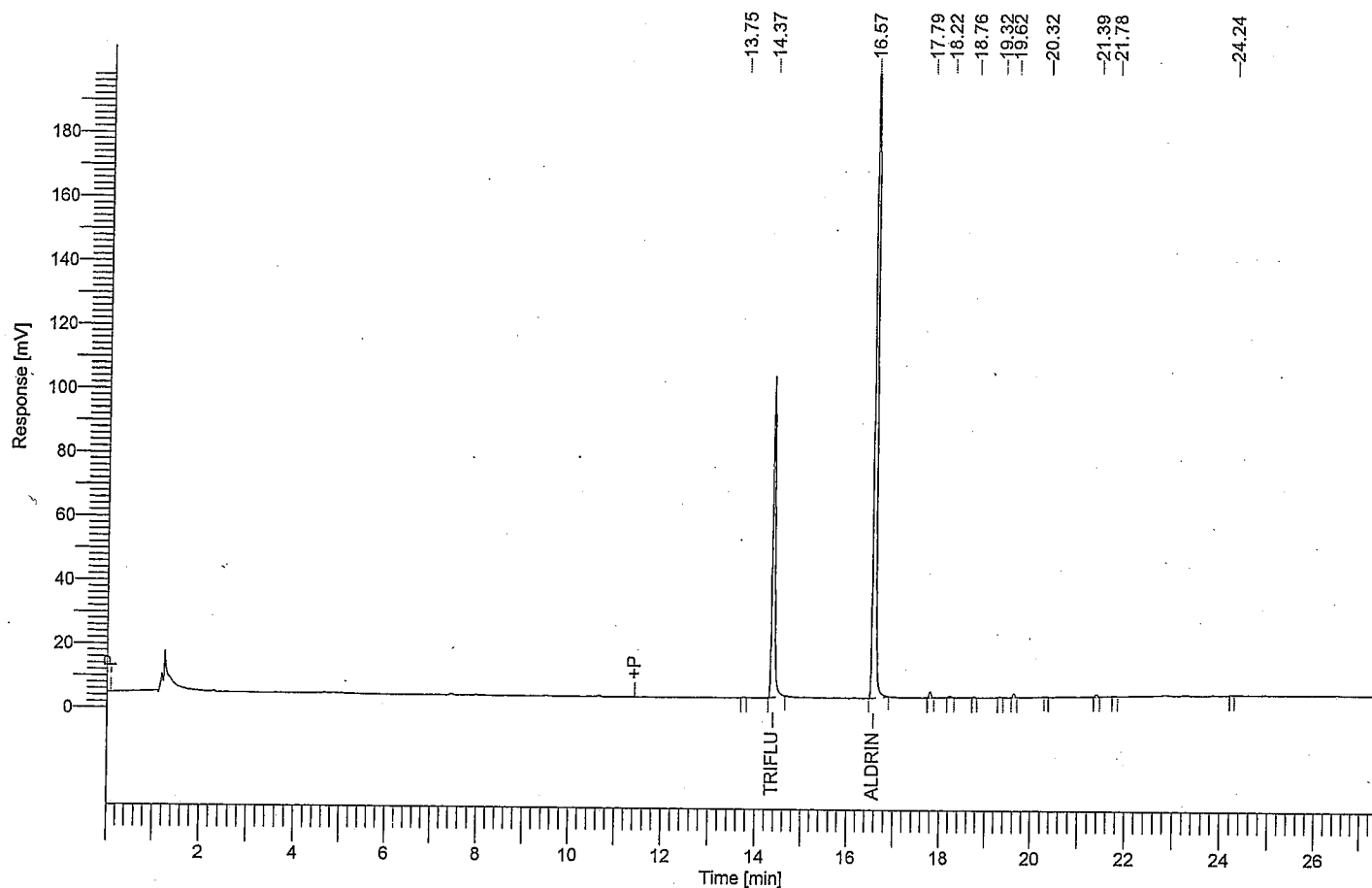
COMMENTS

C18 Lot # - 0731006
 Florisil Lot # - 195937120A
 15% Ethyl Ether / Hexane PD: 10-11-07
 pH 7 Buffer Solution PD: 10-9-07
 90% Methanol / DI-Water PD: 10-8-07
 TBA Sulfite Reagent PD: 10-3-07

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62120
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

Date : 10/16/2007 8:46:20 AM
Data Acquisition Time : 10/16/2007 8:18:41 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003-20071016-084619.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [μ V·s]
14.37	TRIFLURALIN	398925.48
16.57	ALDRIN	886871.05
		1285796.52

TotalChrom Sequence File C:\PES\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Printed by : envweigh on: 10/16/2007 8:41:02 AM
 Created by : envweigh on: 10/16/2007 8:15:31 AM
 Edited by : envweigh on: 10/16/2007 8:40:58 AM
 Number of Times Edited : 2

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 33
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	AROCHLOR 1016	01	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1221	02	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1232	03	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1242	04	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1248	05	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1254	06	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1260	07	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	###SET4###22676 1:10	08	07100205	50.000000	1.000000	2.000	50.000000	2.000000	1.000000	0.000000	100.000
9	Sample	BLANK SLUDGE	09	07100205	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
10	Sample	SPIKE SLUDGE	10	07100205	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22677 1:10	11	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	FLUSH	12	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
13	Sample	22678 1:10	13	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
14	Sample	22679 1:10	14	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
15	Sample	22679 MS 1:10	15	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22680 1:10	16	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	22681 1:10	17	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
18	Sample	FLUSH	18	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
19	Sample	AROCHLOR 1242	19	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
20	Sample	22682 1:10	20	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
21	Sample	FLUSH	21	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
22	Sample	22682 MSD 1:10	22	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
23	Sample	FLUSH	23	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
24	Sample	22683 1:10	24	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
25	Sample	FLUSH	25	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
26	Sample	22684 1:10	26	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
27	Sample	22684 DUP 1:10	27	07100205	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
28	Sample	FLUSH	28	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
29	Sample	AROCHLOR 1260	29	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
30	Sample	22679 MS	30	07100205	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
31	Sample	FLUSH	31	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
32	Sample	22682 MSD	32	07100205	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
33	Sample	FLUSH	33	07100205	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
6	A	0	6	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
7	A	0	7	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
8	A	0	8	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
9	A	0	9	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
10	A	0	10	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
11	A	0	11	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
12	A	0	12	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
13	A	0	13	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
14	A	0	14	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
15	A	0	15	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
16	A	0	16	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
17	A	0	17	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
18	A	0	18	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
19	A	0	19	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
20	A	0	20	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
21	A	0	21	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
22	A	0	22	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
23	A	0	23	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
24	A	0	24	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
25	A	0	25	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
26	A	0	26	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
27	A	0	27	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb

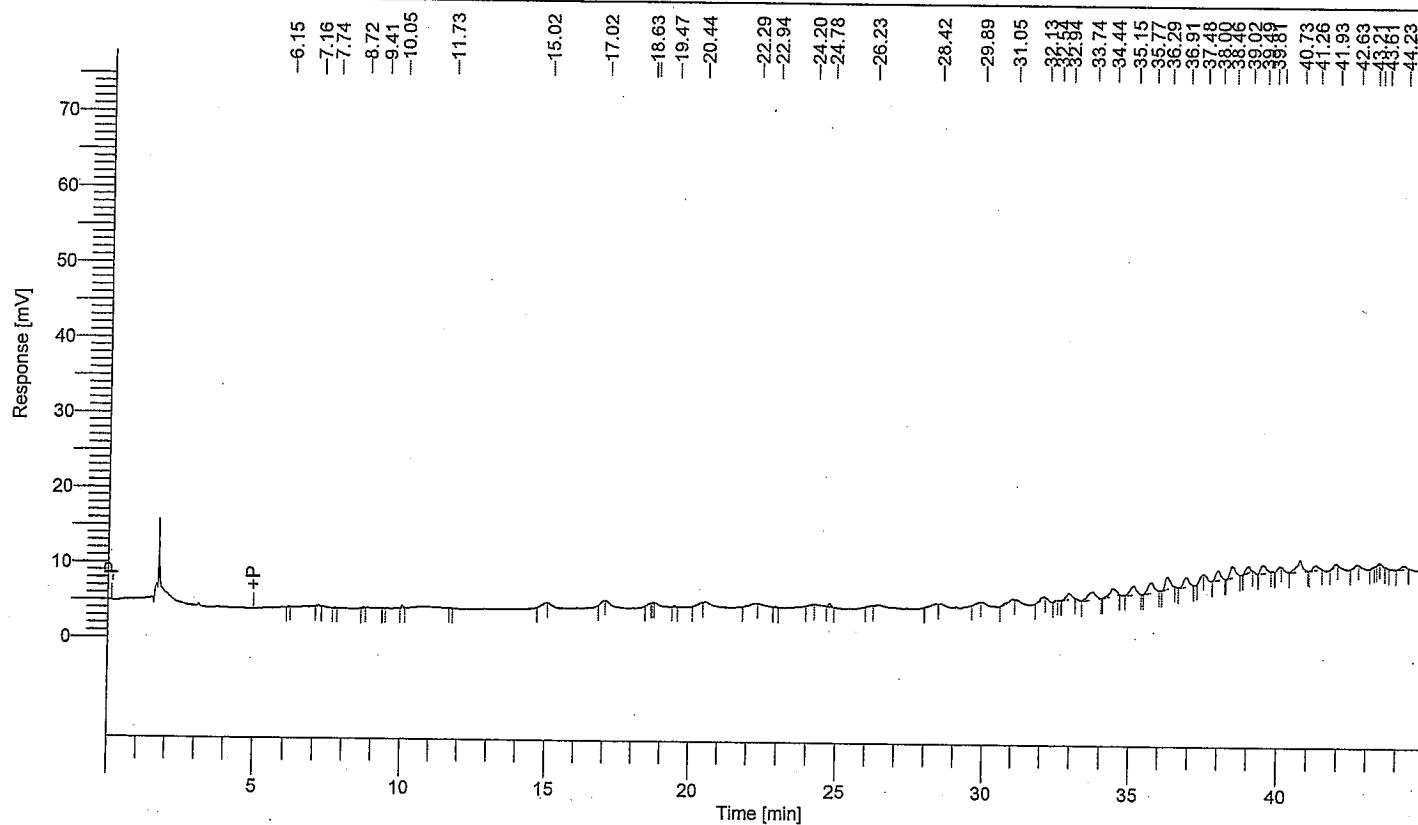
Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File		
28	A	0	28	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb		
29	A	0	29	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb		
30	A	0	30	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb		
31	A	0	31	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb		
32	A	0	32	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb		
33	A	0	33	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb		
Row	Raw Data File				Result File		Baseline		
1	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#001				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#001				
2	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#002				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#002				
3	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#003				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#003				
4	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#004				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#004				
5	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#005				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#005				
6	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#006				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#006				
7	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#007				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#007				
8	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#008				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#008				
9	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#009				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#009				
10	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#010				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#010				
11	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#011				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#011				
12	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#012				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#012				
13	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#013				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#013				
14	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#014				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#014				
15	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#015				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#015				
16	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#016				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#016				
17	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#017				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#017				
18	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#018				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#018				
19	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#019				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#019				
20	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#020				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#020				
21	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#021				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#021				
22	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#022				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#022				
23	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#023				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#023				
24	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#024				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#024				
25	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#025				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#025				
26	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#026				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#026				
27	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#027				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#027				
28	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#028				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#028				
29	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#029				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#029				
30	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#030				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#030				
31	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#031				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#031				
32	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#032				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#032				
33	C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#033				C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#033				
Row	Modified				Calib Rpt	Cal Level	Update RT	Printer	Plotter
1	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
2	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
3	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
4	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
5	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
6	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
7	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
8	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
9	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
10	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
11	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
12	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
13	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
14	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
15	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
16	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
17	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
18	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
19	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
20	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
21	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
22	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
23	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
24	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
25	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
26	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
27	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
28	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
29	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
30	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
31	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
32	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default
33	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -				-	-		Default	Default

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62132
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 1.000000
 Cycle : 12

Date : 10/17/2007 8:43:38 AM
 Data Acquisition Time : 10/16/2007 7:37:08 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#012.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
22.29	2539
24.78	2635
31.05	4155
32.13	3241
32.94	10765
33.74	17709
34.44	15875
35.15	17582
35.77	20259
36.29	18635
36.91	16465
38.00	14295
38.46	18177
39.02	8190
39.49	14133
40.73	20297
41.26	7628
41.93	2612
44.23	5594

220786

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62138
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/18
Sample Amount : 1.000000
Cycle : 18

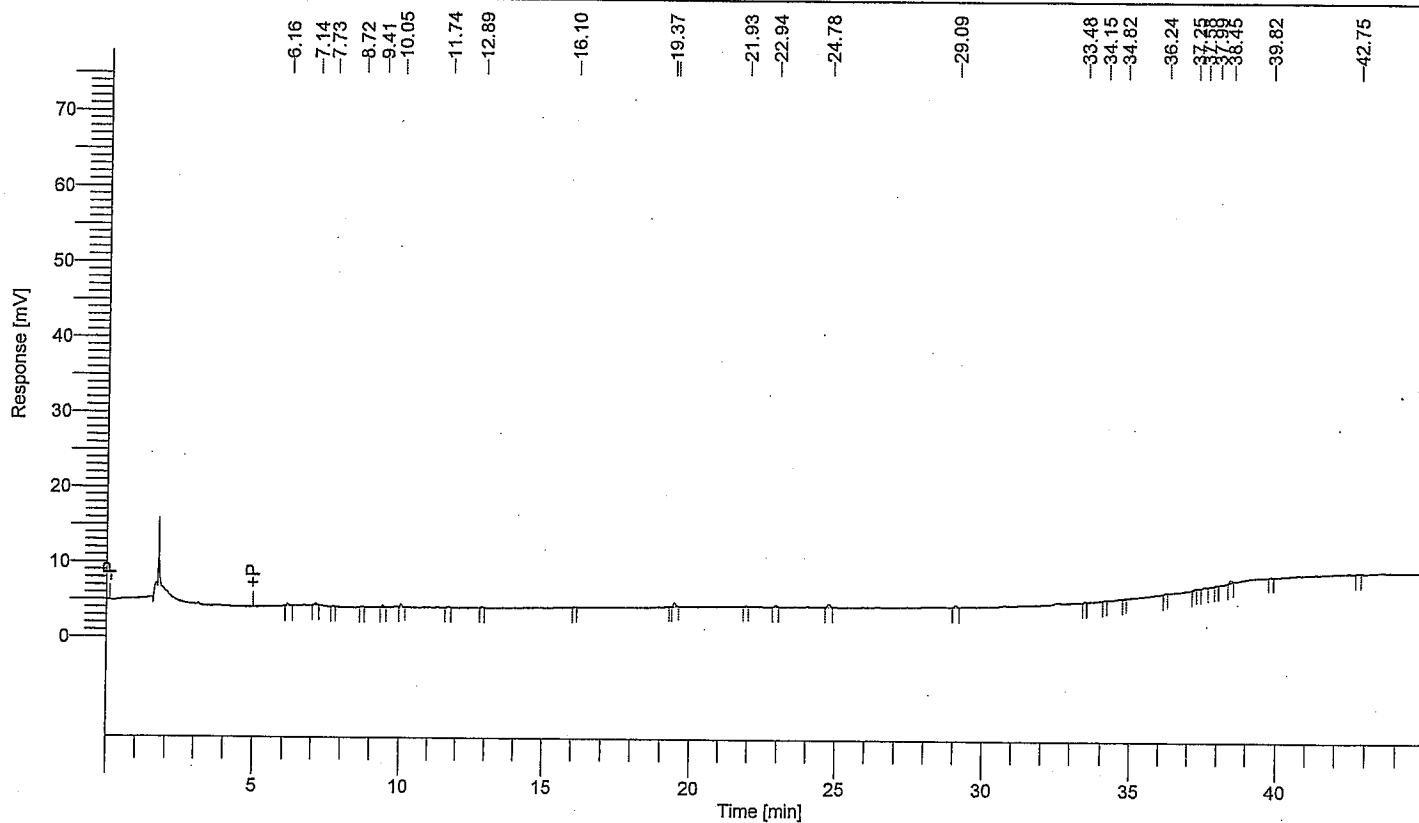
Date : 10/17/2007 8:43:43 AM

Data Acquisition Time : 10/17/2007 12:52:50 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#018.rst
Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



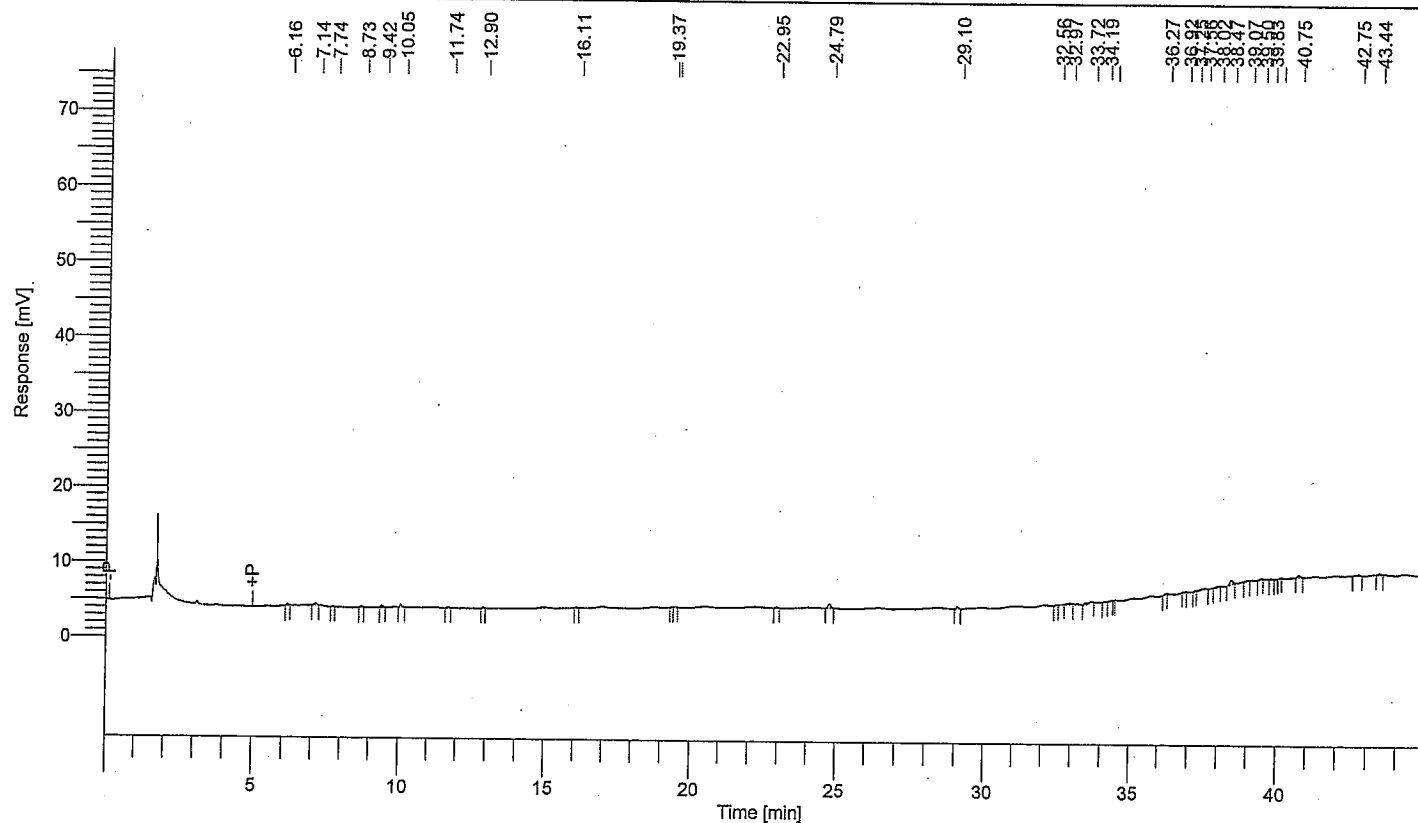
REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.47	2892
24.78	2803
	5695

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62141
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 1.000000
 Cycle : 21

Date : 10/17/2007 8:43:45 A.M
 Data Acquisition Time : 10/17/2007 3:30:52 A.M
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#021.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.79	3694
33.72	2863
37.56	2354
38.47	3432

12343

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62143
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 1.000000
 Cycle : 23

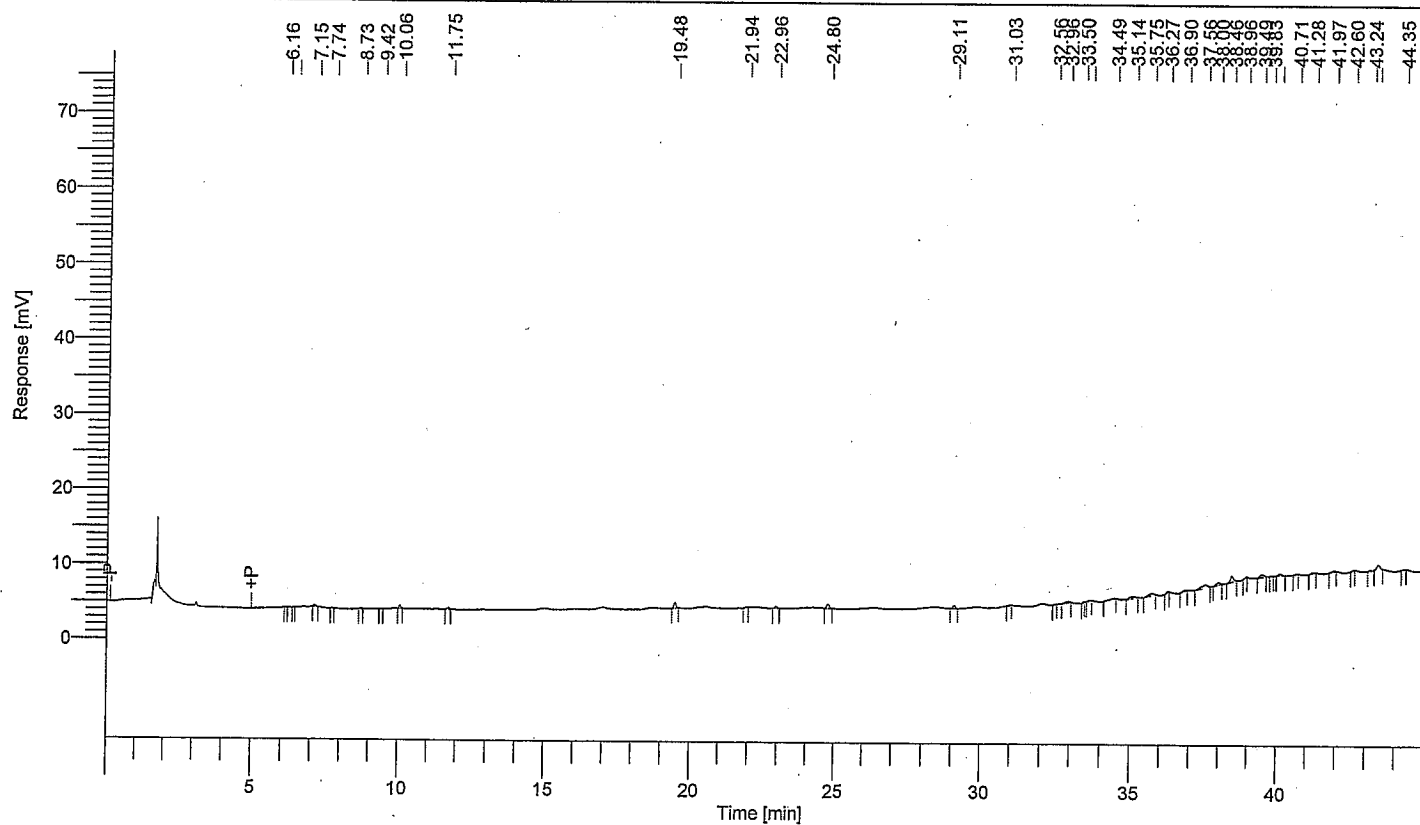
Date : 10/17/2007 8:43:47 AM
 Data Acquisition Time : 10/17/2007 5:16:18 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#023.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
19.48	3875
24.80	3625
29.11	2582
32.96	2089
35.14	3776
35.75	4095
37.56	6209
38.00	2886
38.46	5595
39.49	3475
40.11	2490
43.43	5411

46109

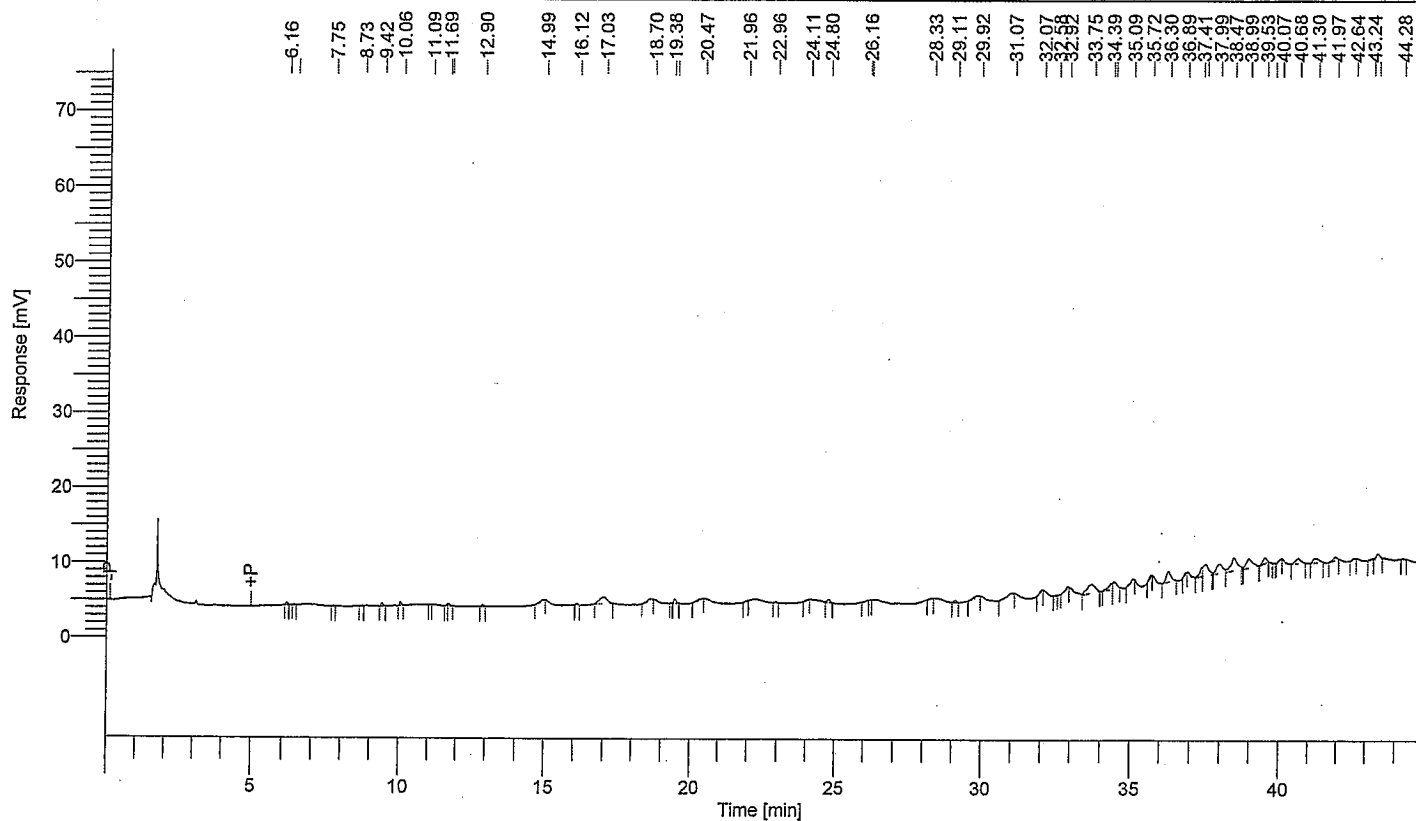
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62145
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/25
 Sample Amount : 1.000000
 Cycle : 25

Date : 10/17/2007 8:43:48 AM
 Data Acquisition Time : 10/17/2007 7:02:10 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#025.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
9.42	2023
14.99	2122
17.03	15995
18.70	2347
19.48	2935
24.80	2796
29.92	3345
31.07	3363
33.75	20986
34.39	7498
34.47	8299
35.09	2493
35.72	2271
36.30	16073
37.41	7212
37.53	18731
37.99	17273
38.47	25650
38.99	18189
39.53	7016
40.68	9341
41.30	8098
41.97	3967
43.43	5807

213829

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62156
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/28
 Sample Amount : 1.000000
 Cycle : 4

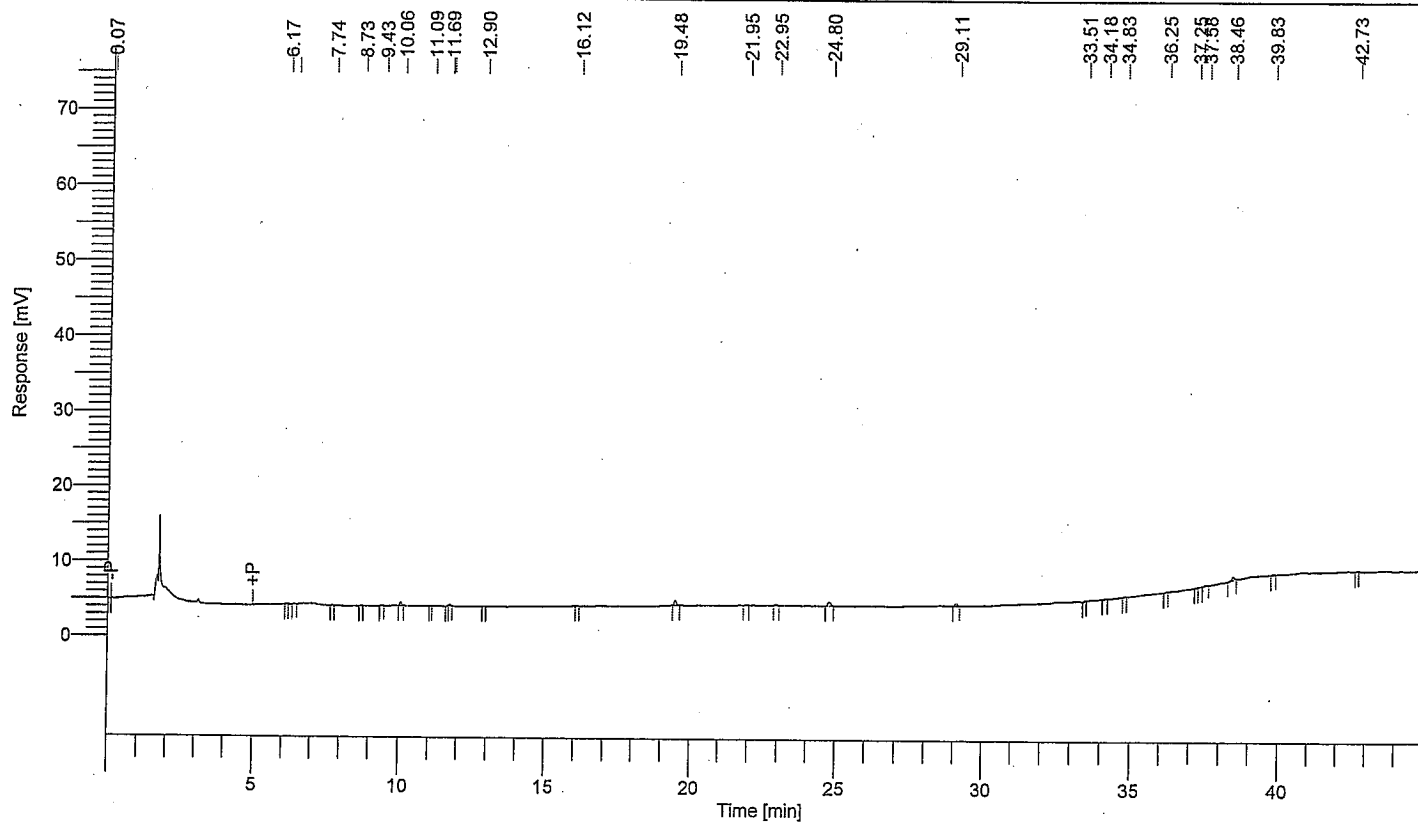
Date : 10/17/2007 1:10:46 PM
 Data Acquisition Time : 10/17/2007 9:41:30 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#028.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.48	3445
24.80	3496
29.11	2116
38.46	2406
	11463

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62159
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/31
 Sample Amount : 1.000000
 Cycle : 7

Date : 10/17/2007 1:10:48 PM

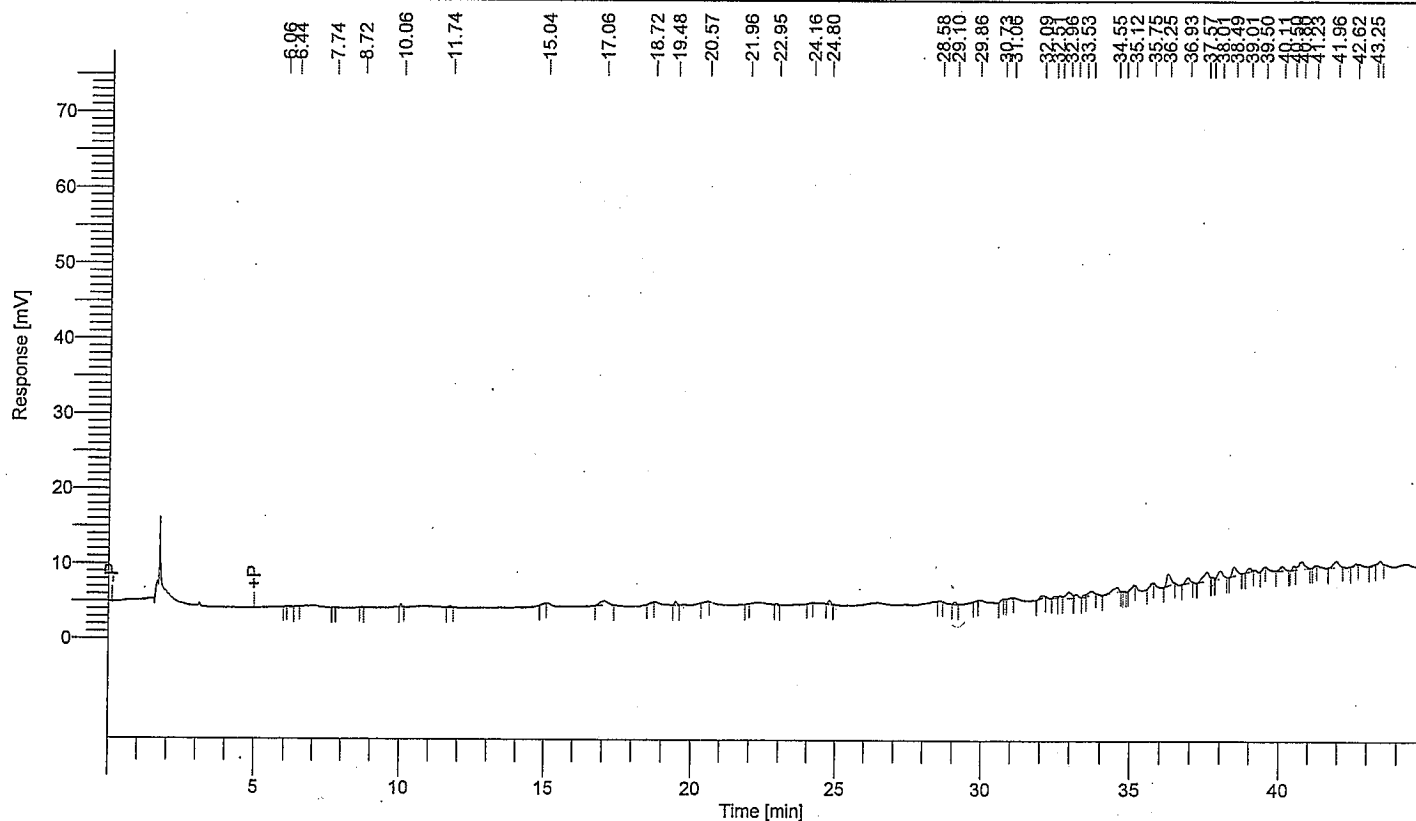
Data Acquisition Time : 10/17/2007 12:20:40 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#031.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
17.06	11608
19.48	2481
24.80	3282
29.10	2008
32.09	2887
32.51	2487
32.69	2271
32.96	11527
33.23	4481
33.73	5763
34.55	10165
36.25	16290
36.93	6850
37.57	17552
37.74	2782
38.01	11889
38.49	12654
39.01	4876
40.11	6695
40.50	3603
40.80	14955
41.96	10142
43.43	4702

171951

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62129
 Sample Name : BLANK SLUDGE
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

Date : 10/17/2007 8:43:34 AM

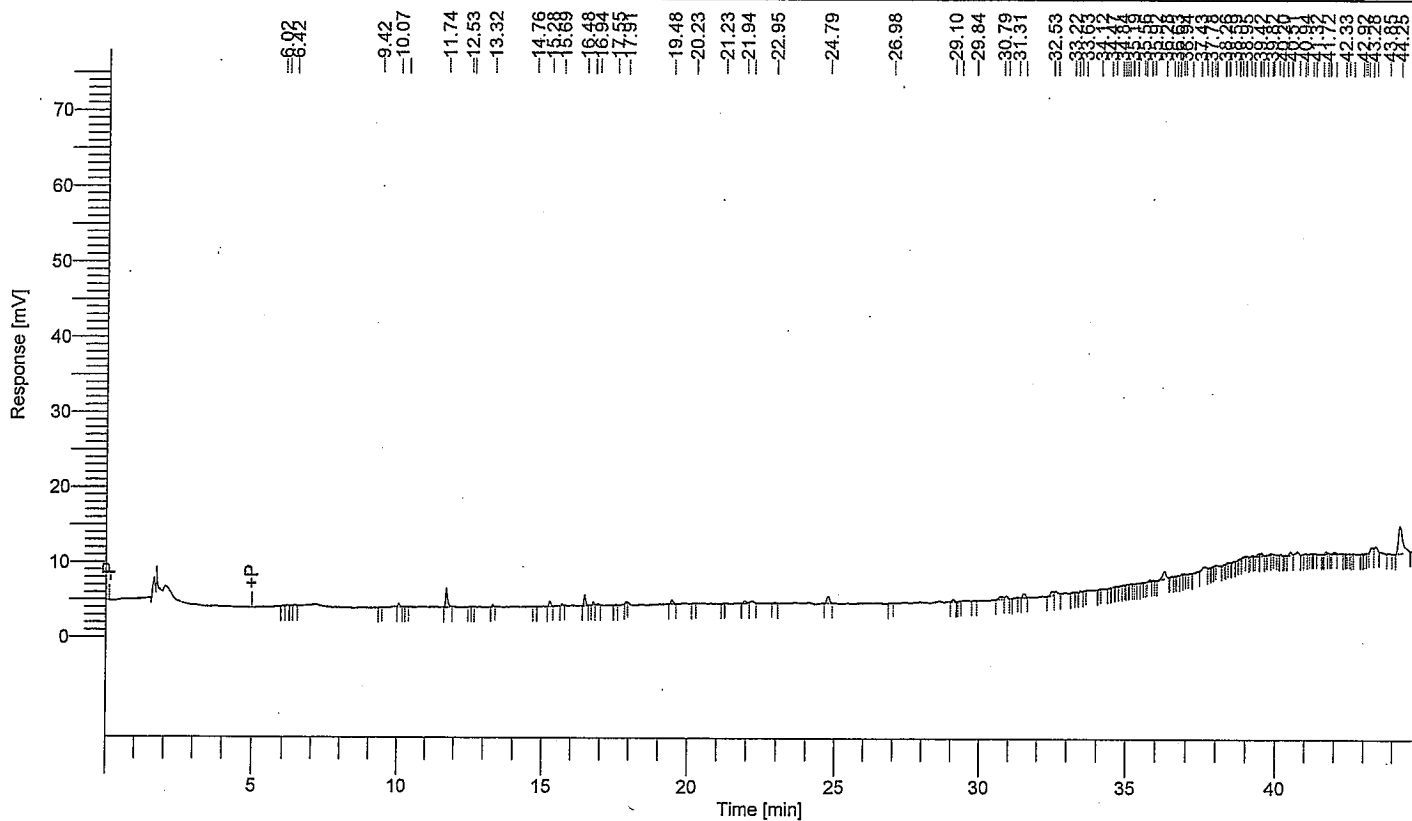
Data Acquisition Time : 10/16/2007 4:59:21 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#009.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.74	11274
15.28	3084
16.48	5891
19.48	2833
21.94	2541
22.18	2338
24.79	6090
29.10	2062
30.79	3868
30.94	2373
31.56	3470
32.53	4358
32.67	3243
36.28	8532
37.62	4526
39.51	2171
40.51	3005
40.75	3793
43.28	5066
43.40	5841
44.25	36251

(BPL)

CO.04 ppm.

Software Version : 6.3.1 0504
 Reprocess Number : totalchrom: 62130
 Sample Name : SPIKE SLUDGE
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

Date : 10/17/2007 8:43:36 AM

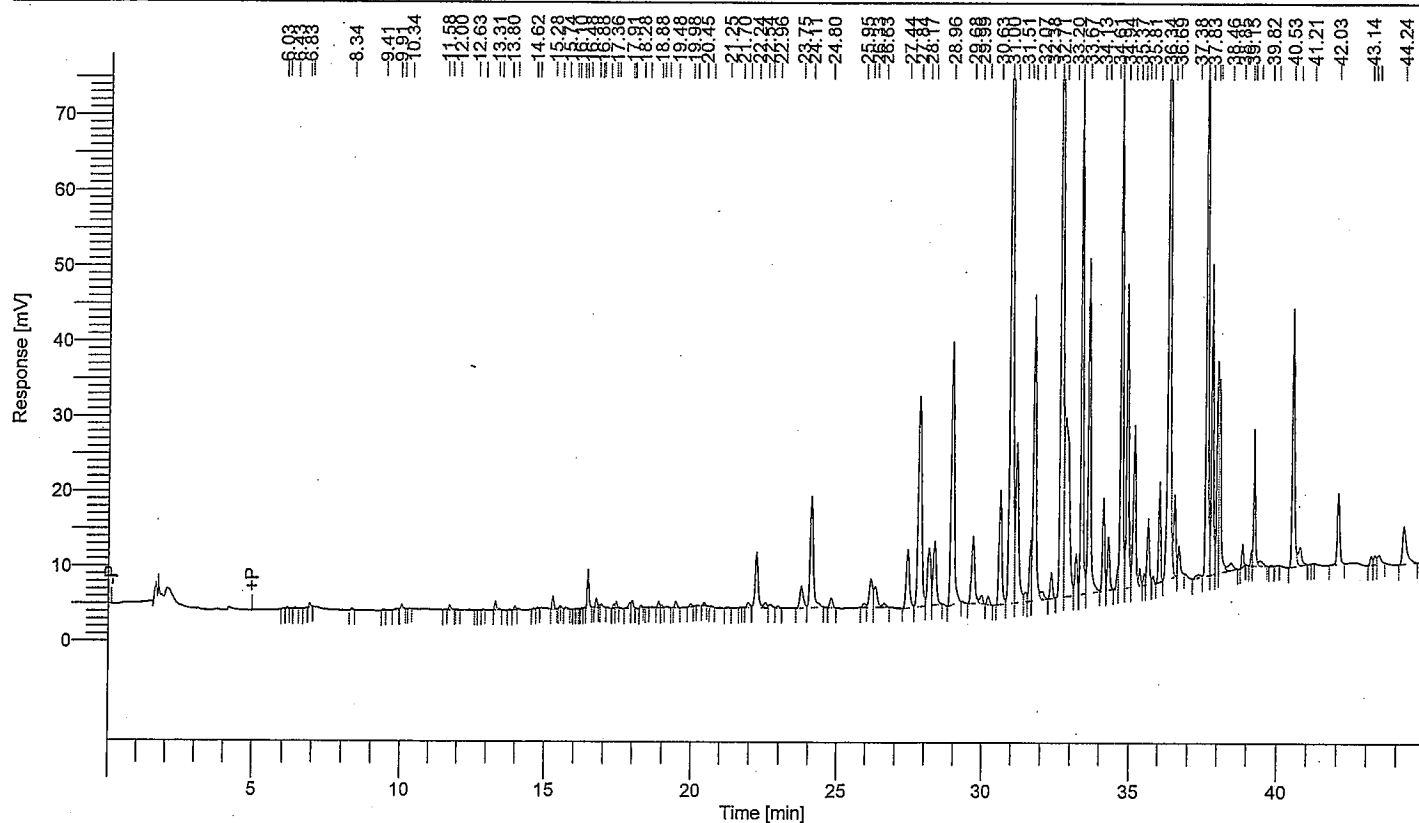
Data Acquisition Time : 10/16/2007 5:51:56 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#010.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.93	2417
10.06	2993
11.74	3008
13.31	5195
13.99	2103
15.28	7473
16.48	20604
16.76	4984
16.93	2293
17.36	2020
17.44	3403
17.91	3883
17.99	4591
18.88	3970
19.48	4330
21.96	4876
22.24	53513
22.54	5181
22.71	3821
23.75	24350
24.11	119169
24.80	8734
25.95	4112
26.17	31014
26.33	23241
26.63	4581
27.44	64028

$$\begin{aligned} \sum \text{area} &= 842722 \\ \text{ng/ml} &= \frac{842722}{326434.5} \\ &= 2.5816 \end{aligned}$$

$$\text{ppm} = \frac{2.5816}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.1033$$

$$\% \text{Recovery} = \frac{0.1033}{0.1} \times 100 = 103\%$$

Time [min]	Area [μ V·s]
27.84	221348
28.17	57811
28.37	65796
28.96	265937
29.68	65164
29.99	9347
30.22	6226
30.63	96221
31.00	706455
31.20	155086
31.51	8877
31.68	38694
31.80	249485
32.07	10037
32.38	18226
32.71	517432
32.85	241854
33.20	34535
33.42	427449
33.67	242104
34.13	63635
34.29	38286
34.61	11107
34.73	362913
34.94	212451
35.18	131062
35.37	11583
35.52	7074
35.65	45374
35.81	5979
36.04	62571
36.34	851155
36.55	58536
36.69	21149
37.38	5623
37.64	406547
37.83	198025
38.00	117325
38.07	120825
38.46	12423
38.85	11970
39.15	7826
39.25	84141
39.43	6082
40.53	181569
40.78	22060
42.03	55102
43.14	5947
43.26	7803
43.40	9116
44.24	48224

7041451

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62155
 Sample Name : 22684 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/27
 Sample Amount : 50.000000
 Cycle : 3

Date : 10/17/2007 1:10:46 PM

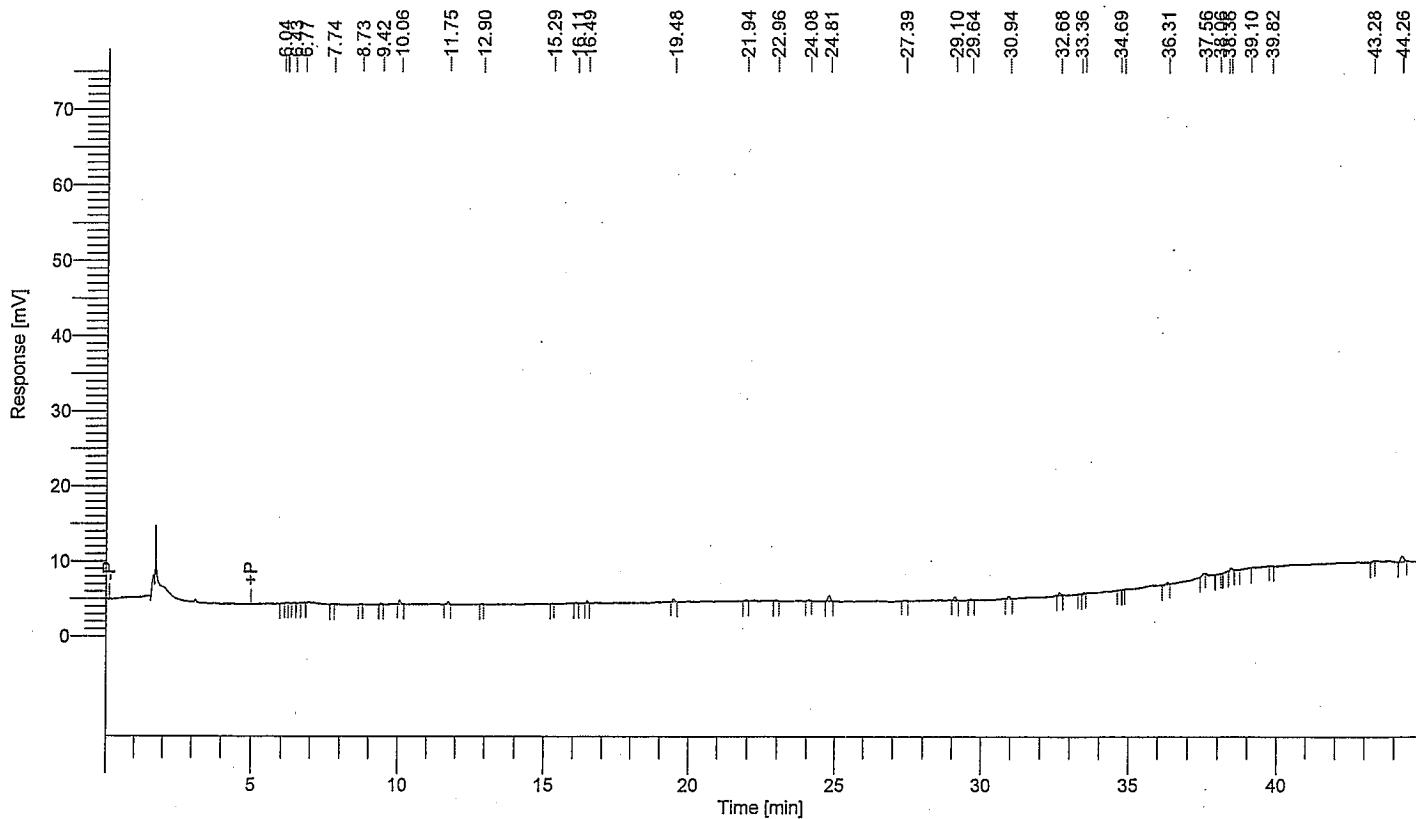
Data Acquisition Time : 10/17/2007 8:48:24 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#027.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

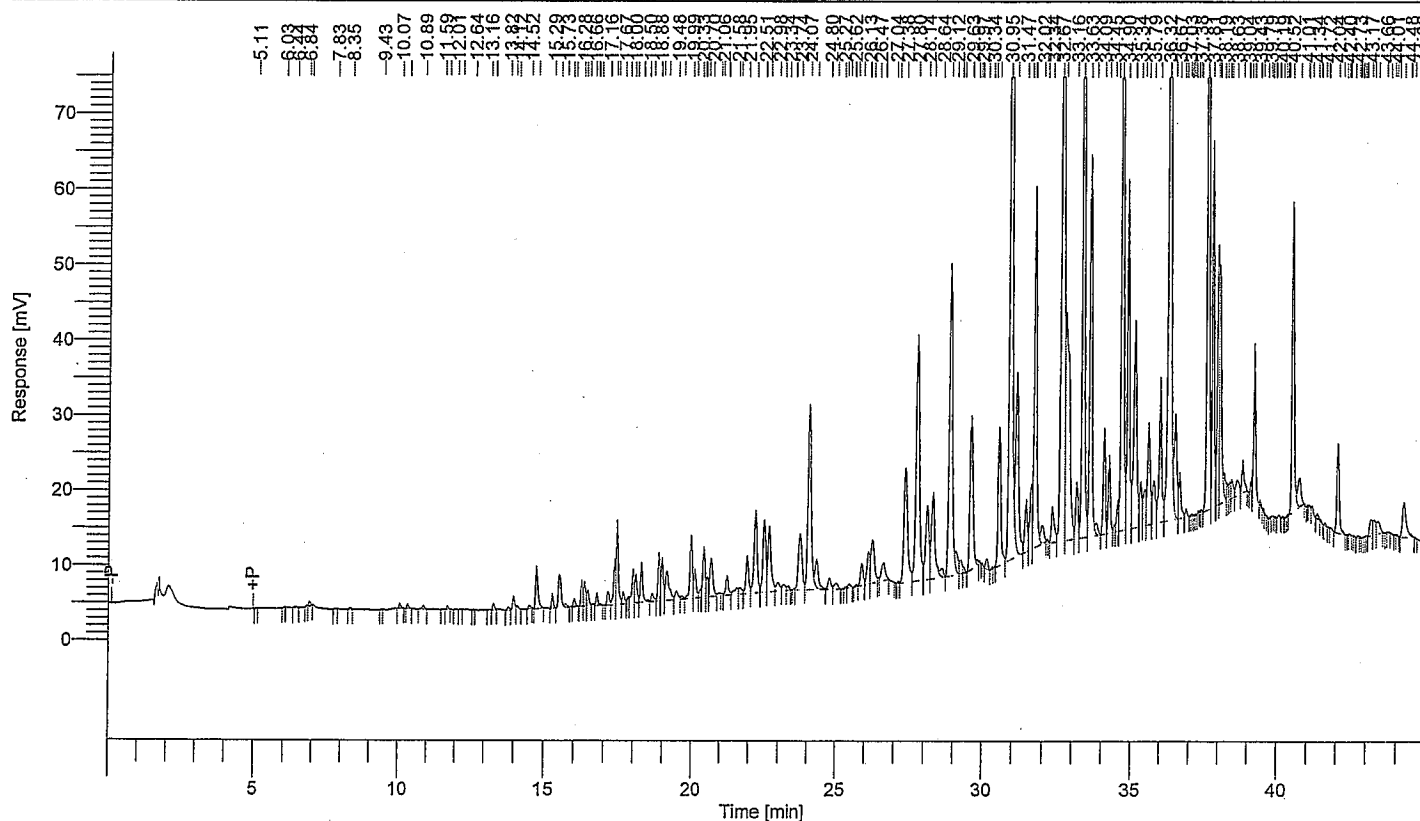
Time [min]	Area [μV·s]
10.06	2470
24.81	4777
29.10	2572
30.94	2055
38.45	2188
44.26	5259
	19321

Both sample & duplicate have less than 0.4 ppm PCB. 8/10/17/2007

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62158
 Sample Name : 22679 MS
 Instrument Name : GC014
 Rack/Vial : 0/30
 Sample Amount : 50.000000
 Cycle : 6

Date : 10/17/2007 1:10:48 PM
 Data Acquisition Time : 10/17/2007 11:27:37 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#030.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.93	2637
10.07	3103
10.35	2773
10.89	2864
13.32	3211
13.82	2308
14.00	8395
14.12	2281
14.76	29087
15.29	7860
15.52	29281
15.73	2382
16.02	4852
16.28	13105
16.36	16201
16.48	10055
16.77	7094
17.16	9496
17.36	24792
17.45	55105
17.67	8360
17.84	3935
18.00	23993
18.09	19811
18.28	27530
18.66	6782
18.88	29850

$$\sum \text{area (Aroclor 1260)} = 1043626$$

$$\text{gain} = \frac{1043626}{326434.5} = 3.1970$$

$$\text{ppm} = \frac{3.1970}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.1279$$

$$\% \text{ Recovery} = \frac{0.1279}{0.1} \times 100 = 128\%$$

Time [min]	Area [μ V-s]
18.99	30184
19.15	33702
19.48	7862
19.67	2467
19.99	48327
20.13	23306
20.33	4776
20.44	38365
20.56	13012
20.70	37815
20.99	2450
21.26	17457
21.58	7879
21.68	6372
21.95	34425
22.22	78459
22.51	69407
22.69	67157
22.98	9490
23.17	6386
23.34	3328
23.74	70190
24.07	199208
24.35	30591
24.80	10534
25.03	7449
25.48	2959
25.91	19672
26.13	30273
26.28	49694
26.65	22124
27.38	137637
27.80	272201
28.14	78441
28.32	101255
28.64	9806
28.92	312595
29.12	17930
29.28	11585
29.37	3365
29.63	141523
29.84	3257
30.18	7306
30.57	120839
30.95	848823
31.16	155884
31.47	42224
31.62	44837
31.74	294596
32.02	17944
32.34	36055
32.67	650882
32.80	293688
33.16	46007
33.37	516692
33.63	273121
33.81	10074
34.09	68207
34.26	54837
34.45	3167
34.57	19920
34.70	439264
34.90	269778
35.15	197385
35.34	37120
35.49	32860
35.61	84577
35.79	44235
36.02	117199
36.32	1055986
36.52	89540
36.67	32675
36.91	4718
37.63	500801
37.81	244362
37.99	146171
38.05	152292
38.19	15293
38.29	6932
38.36	5412
38.40	6705
38.45	13972
38.63	18409
38.84	22296
39.14	8713
39.25	94650

Time [min]	Area [μ V·s]
40.52	222638
40.77	29841
41.17	3310
41.34	2772
42.04	66457
42.21	2020
43.17	13392
43.27	12332
43.39	13896
44.25	40076
<hr/>	
9985241	

Software Version : 6.3.1.0504
 Sample Name : 22679 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

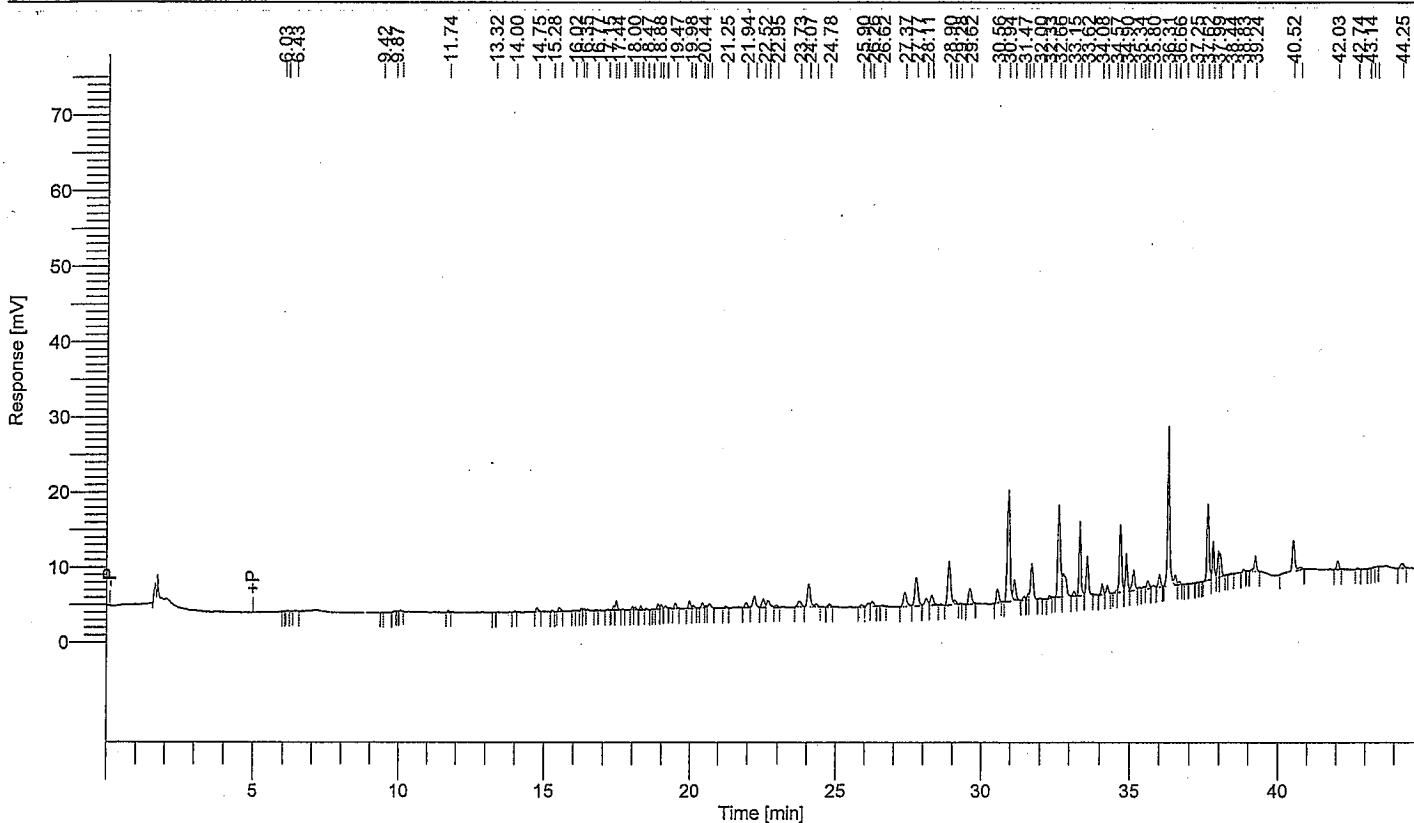
Date : 10/17/2007 1:28:53 PM
 Data Acquisition Time : 10/16/2007 10:14:55 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#015.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
14.75	2498
15.51	2810
17.36	2171
17.44	5797
18.28	2248
18.88	3179
18.98	2900
19.47	3575
19.98	5012
20.44	3270
20.69	3335
21.94	4470
22.22	9740
22.52	7502
22.69	6854
23.73	7105
24.07	23945
24.34	2542
24.78	2332
26.14	3406
26.26	4469
27.37	15576
27.77	29090
28.11	7188
28.30	10092
28.90	41425
29.10	2813
29.62	14024
30.56	10419

$$\begin{aligned} \Sigma \text{Area} &= 100364 \\ \text{mg conc} &= \frac{100364}{326439.5} \\ &= 0.3075 \end{aligned}$$

$$\text{ppm} = \frac{0.3075}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1230$$

$$\% \text{Recovery} = \frac{0.1230}{0.1} \times 100 = 123\%$$

10/17/2007 1:28:53 PM Result: C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#015.rst

Time [min]	Area [μ V·s]
30.94	96814
31.14	15559
31.47	2741
31.61	3925
31.73	27852
32.66	73648
32.79	27333
33.15	3341
33.36	53615
33.62	26217
34.08	6782
34.26	5446
34.69	46759
34.90	26216
35.14	17610
35.34	2000
35.61	6212
35.80	2268
36.00	8144
36.31	107247
36.52	7311
36.66	2187
37.62	50219 ✓
37.81	23483 ✓
37.99	13717 ✓
38.04	12945 ✓
39.24	10595
40.52	24693
40.77	2831
42.03	6120
44.25	4338
<hr/>	
957957	

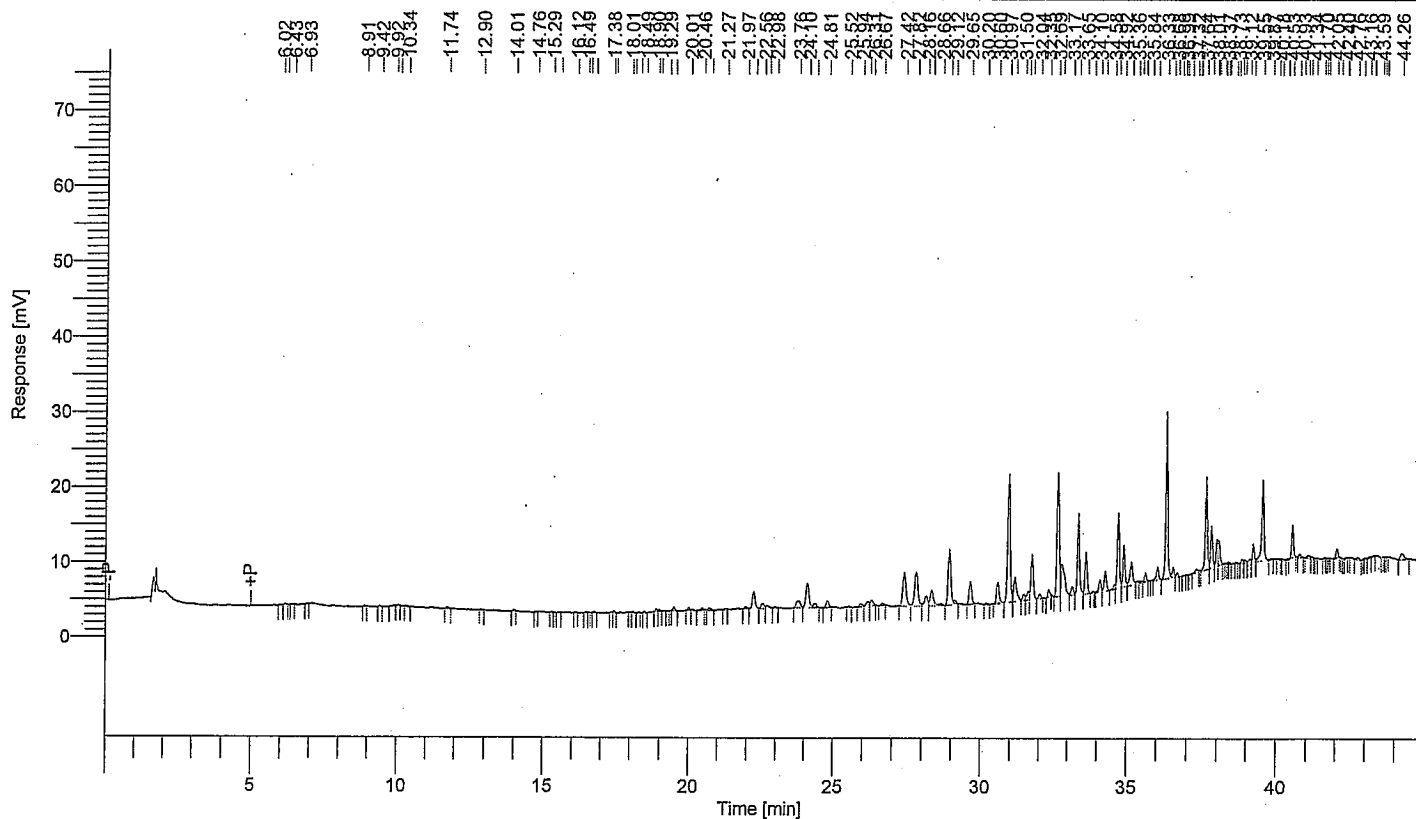
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62142
 Sample Name : 22682 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

Date : 10/17/2007 8:43:46 AM
 Data Acquisition Time : 10/17/2007 4:23:37 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#022.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.49	2183
22.25	14916
22.56	5298
22.72	2918
23.76	9191
24.10	24576
24.38	3971
24.81	5838
25.94	2637
26.17	4323
26.31	5081
27.42	35915
27.82	36433
28.16	10173
28.34	16568
28.94	51393
29.12	2415
29.65	18526
30.60	16880
30.97	110574
31.18	23696
31.50	5063
31.64	7071
31.77	33562
32.04	3663
32.35	4032
32.69	99009

$$\Sigma \text{area} = 114087$$

$$\text{ng inj} = \frac{114087}{326434.5} = 0.3495$$

$$\text{ppm} = \frac{0.3495}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1398$$

$$\% \text{Recovery} = \frac{(0.1398 - 0.0221)}{0.1} \times 100 = 118\%$$

$$\text{from data file \#029: ng inj} = \frac{114087}{343206} = 0.3324$$

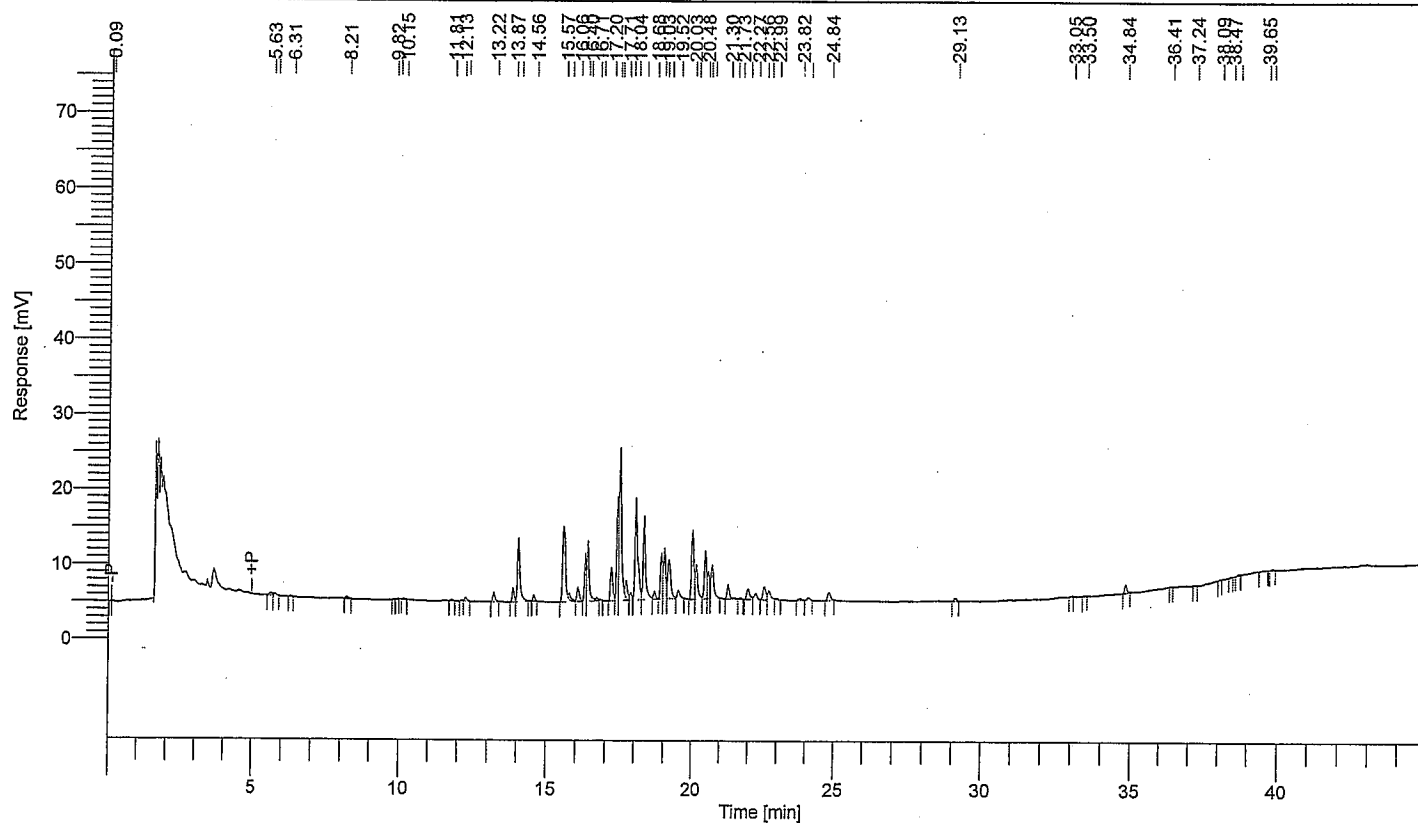
$$\text{ppm} = \frac{0.3324}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1329 \quad \% \text{ rec} = \frac{0.1329 - 0.0221}{0.1} \times 100 = 111\%$$

Time [min]	Area [μ V-s]
32.82	36514
33.17	6971
33.38	58518
33.65	28089
34.10	8300
34.27	14217
34.58	2946
34.71	50128
34.92	29376
35.16	19139
35.62	5284
36.03	8456
36.33	109339
36.54	7018
36.68	2350
37.32	3679
37.64	58274 ✓
37.83	26116 ✓
38.01	14657 ✓
38.06	15040 ✓
38.85	2160
39.12	2508
39.26	11215
39.55	53812
40.53	20096
40.79	2207
41.07	2341
42.05	5857
42.76	2208
44.26	7446
<hr/>	
1169966	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62121
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/1
 Sample Amount : 1.000000
 Cycle : 1

Date : 10/17/2007 8:43:26 AM
 Data Acquisition Time : 10/16/2007 8:58:03 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#001.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.63	2158
5.78	2262
12.27	2699
13.22	6139
13.87	8911
14.05	48041
14.56	3826
15.57	72756
15.77	5608
16.06	10410
16.31	24389
16.40	42384
16.71	2047
17.20	26451
17.40	52415
17.48	120591
17.71	13961
17.86	5537
18.04	87708
18.32	66668
18.68	5873
18.92	28638
19.03	38490
19.19	37402
19.52	6906
20.03	53089
20.16	28692

Time [min]	Area [μ V-s]
20.48	36026
20.59	19562
20.73	29897
21.30	12018
21.99	11473
22.27	5359
22.56	12280
22.73	9767
23.82	2210
24.12	2714
24.84	7687
29.13	2492
34.84	6053

961589

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62122
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/17/2007 8:43:27 AM

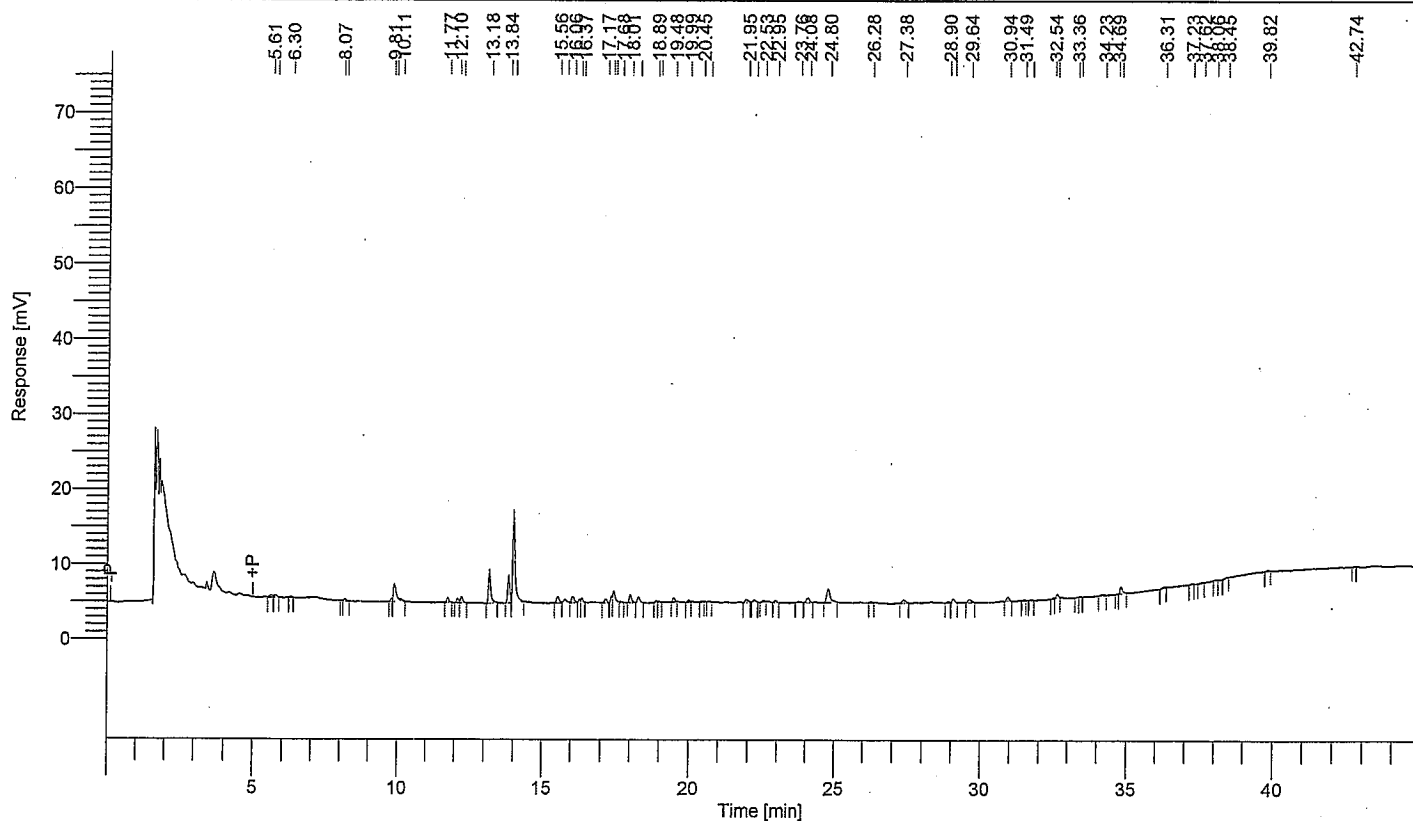
Data Acquisition Time : 10/16/2007 9:50:44 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#002.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2236
5.76	2326
9.90	16966
11.77	3411
12.10	3086
12.24	4627
13.18	24104
13.84	18102
14.02	71907
15.56	5761
15.80	3697
16.06	4987
16.37	2700
17.17	2974
17.37	3340
17.45	9419
18.01	6192
18.29	4099
19.48	2888
21.95	2819
22.22	2044
24.08	4706
24.80	15082
27.38	3633
29.10	3395

Time [min]	Area [μ V-s]
29.64	3431
30.94	3652
32.67	2815
34.82	5478
<hr/>	
239880	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62123
 Sample Name : AROCHLOR 1232
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

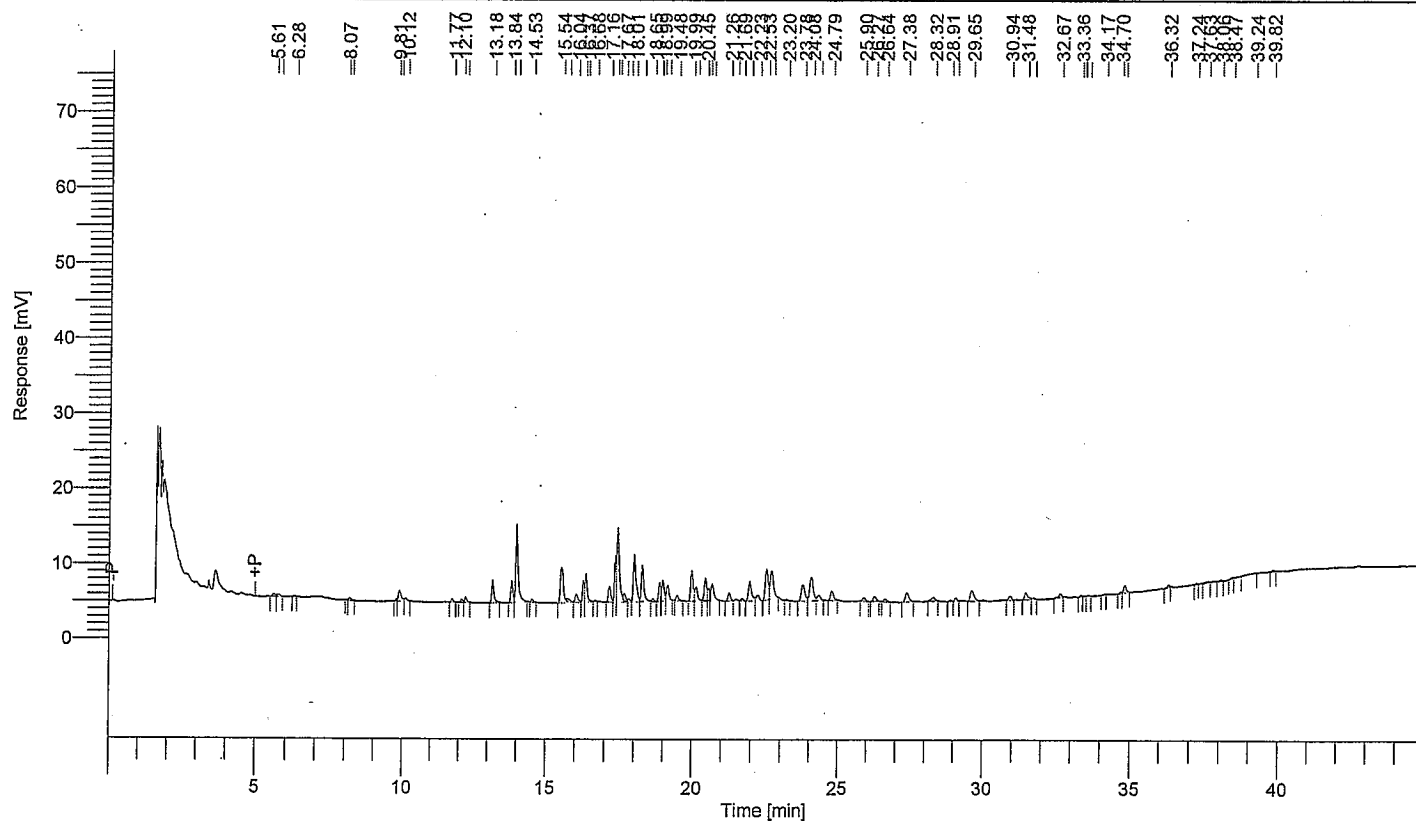
Date : 10/17/2007 8:43:28 AM
 Data Acquisition Time : 10/16/2007 10:43:23 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#003.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2291
5.77	2385
9.90	10031
10.12	2103
11.77	2223
12.10	2135
12.23	3625
13.18	16332
13.84	14060
14.02	61096
15.54	34113
15.73	3910
16.04	7070
16.28	11127
16.37	19124
17.16	12518
17.37	23832
17.45	57268
17.67	6387
17.83	2023
18.01	40055
18.28	29884
18.89	11567
18.99	15620
19.16	13414
19.48	3850
19.99	22735

Time [min]	Area [μ V-s]
20.12	11923
20.45	17186
20.56	8351
20.69	15328
21.26	6859
21.96	19980
22.23	5508
22.53	28827
22.70	30683
23.78	20227
24.08	27745
24.36	5069
24.79	8959
25.90	3411
26.27	4448
26.64	2947
27.38	11070
28.32	4402
29.10	2476
29.65	12008
30.94	3505
31.48	7485
32.67	3273
34.83	6110
<hr/>	
698560	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62124
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

Date : 10/17/2007 8:43:29 AM

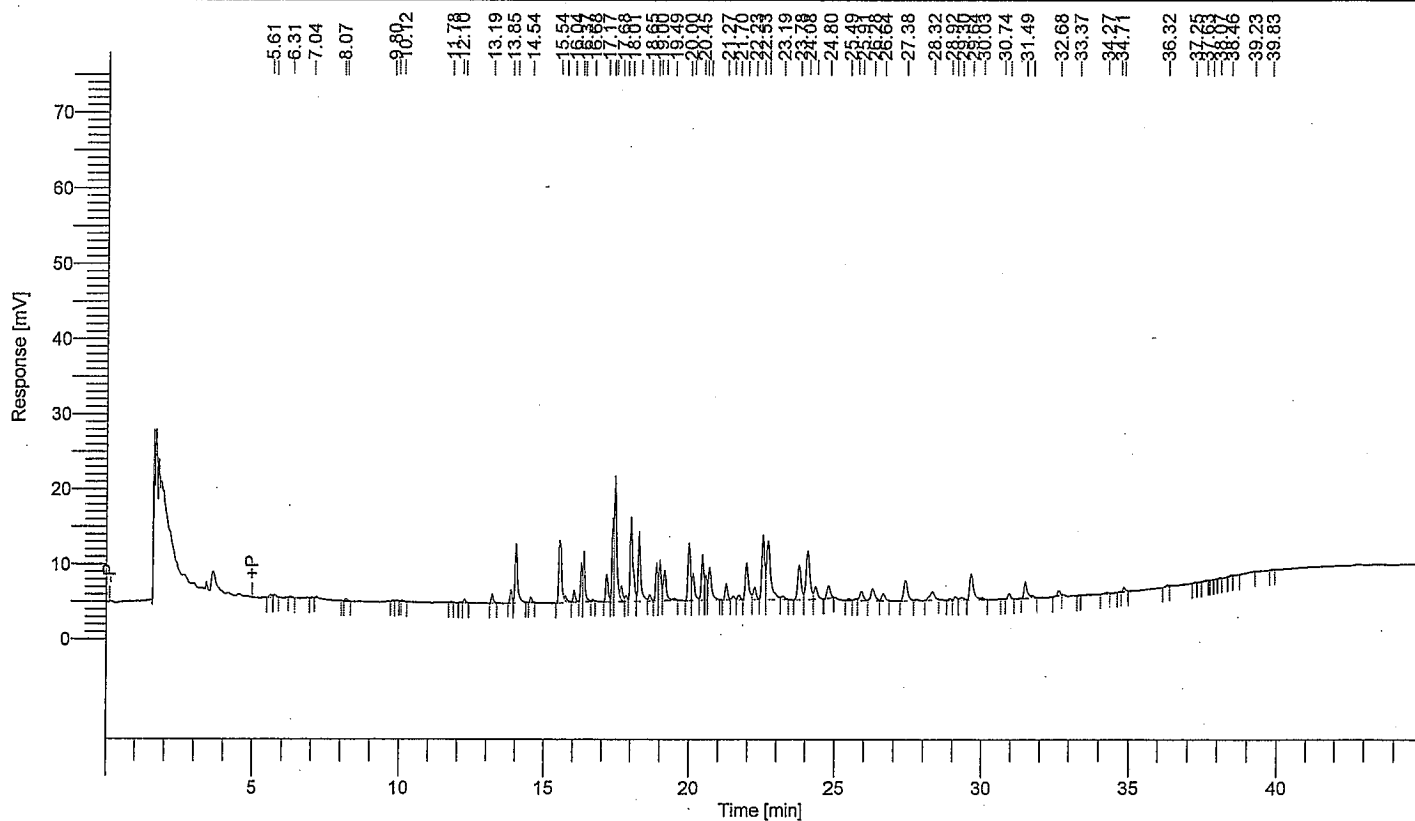
Data Acquisition Time : 10/16/2007 11:36:03 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#004.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
5.61	2421
5.76	2740
8.18	2015
12.24	2523
13.19	6012
13.85	8634
14.02	45120
14.54	3410
15.54	59745
15.74	4248
16.04	8752
16.29	19924
16.37	34042
17.17	22113
17.37	42970
17.45	99540
17.68	11441
17.84	4376
18.01	72433
18.29	55867
18.65	4664
18.89	23339
19.00	30607
19.17	29663
20.00	44003
20.13	24047
20.45	34222

Time [min]	Area [μ V·s]
20.57	17156
20.70	32171
21.27	13562
21.50	3030
21.70	3915
21.96	37859
22.23	11659
22.53	61101
22.70	78145
23.19	3862
23.78	42655
24.08	58524
24.36	13857
24.80	12046
25.91	10330
26.28	14313
26.64	8004
27.38	25629
28.32	12438
29.11	3274
29.30	3877
29.64	31420
30.03	2352
30.94	4841
31.49	18626
32.68	3967
34.83	3382

1230870

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62139
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 1.000000
 Cycle : 19

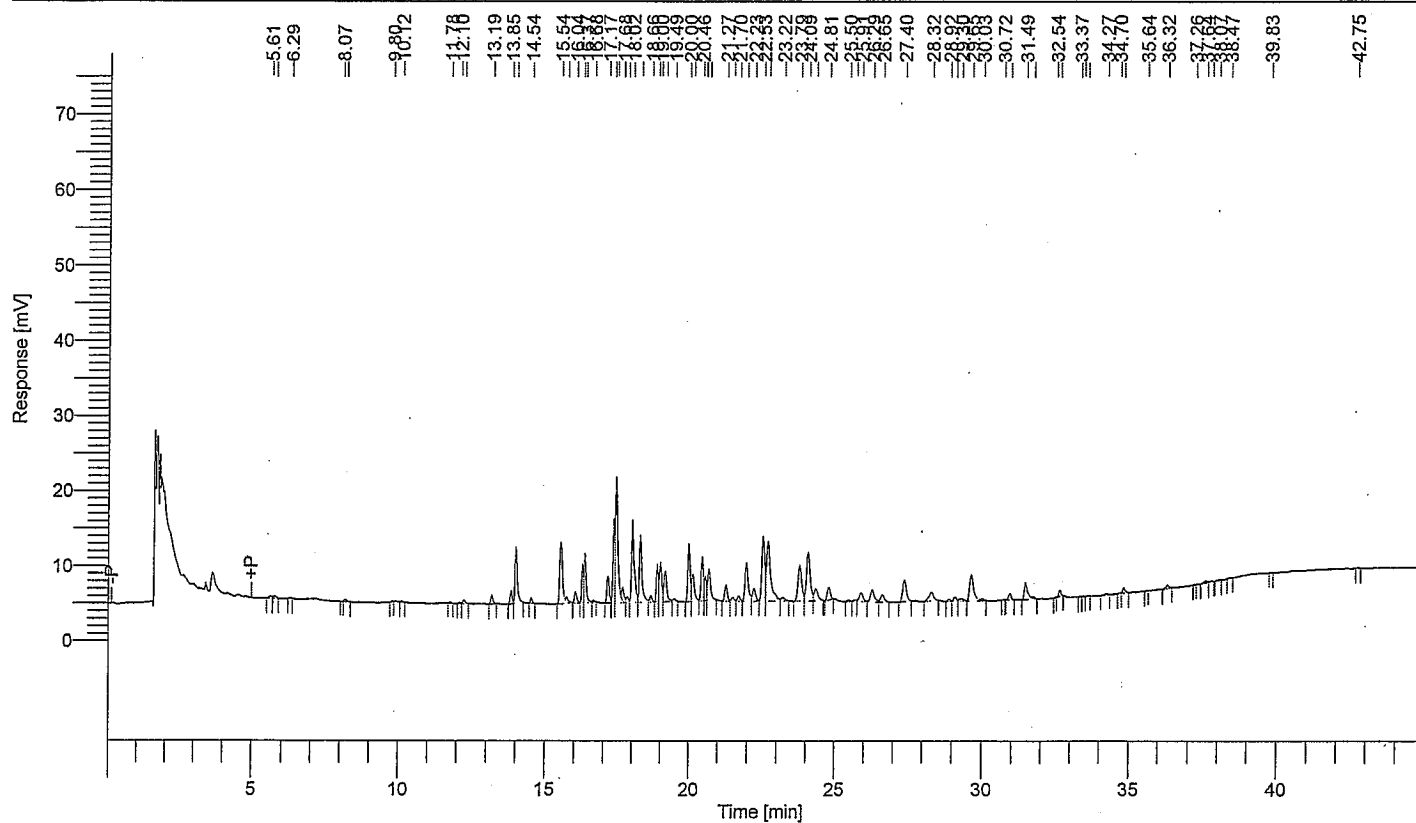
Date : 10/17/2007 8:43:44 AM
 Data Acquisition Time : 10/17/2007 1:45:31 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#019.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2154
5.76	2514
8.19	2011
12.24	2550
13.19	5811
13.85	8116
14.03	42064
14.54	3284
15.54	59067
15.74	4357
16.04	8758
16.29	19745
16.37	34025
17.17	22086
17.38	42092
17.46	99508
17.68	11304
17.84	4459
18.02	72280
18.29	55610
18.66	4652
18.89	23553
19.00	30693
19.17	29485
20.00	44039
20.13	23145
20.46	33581

10/17/2007 8:43:44 AM Result: C:\PEST\OCTOBER 2007\0710020\; AV SET 5\SET5#019.rst

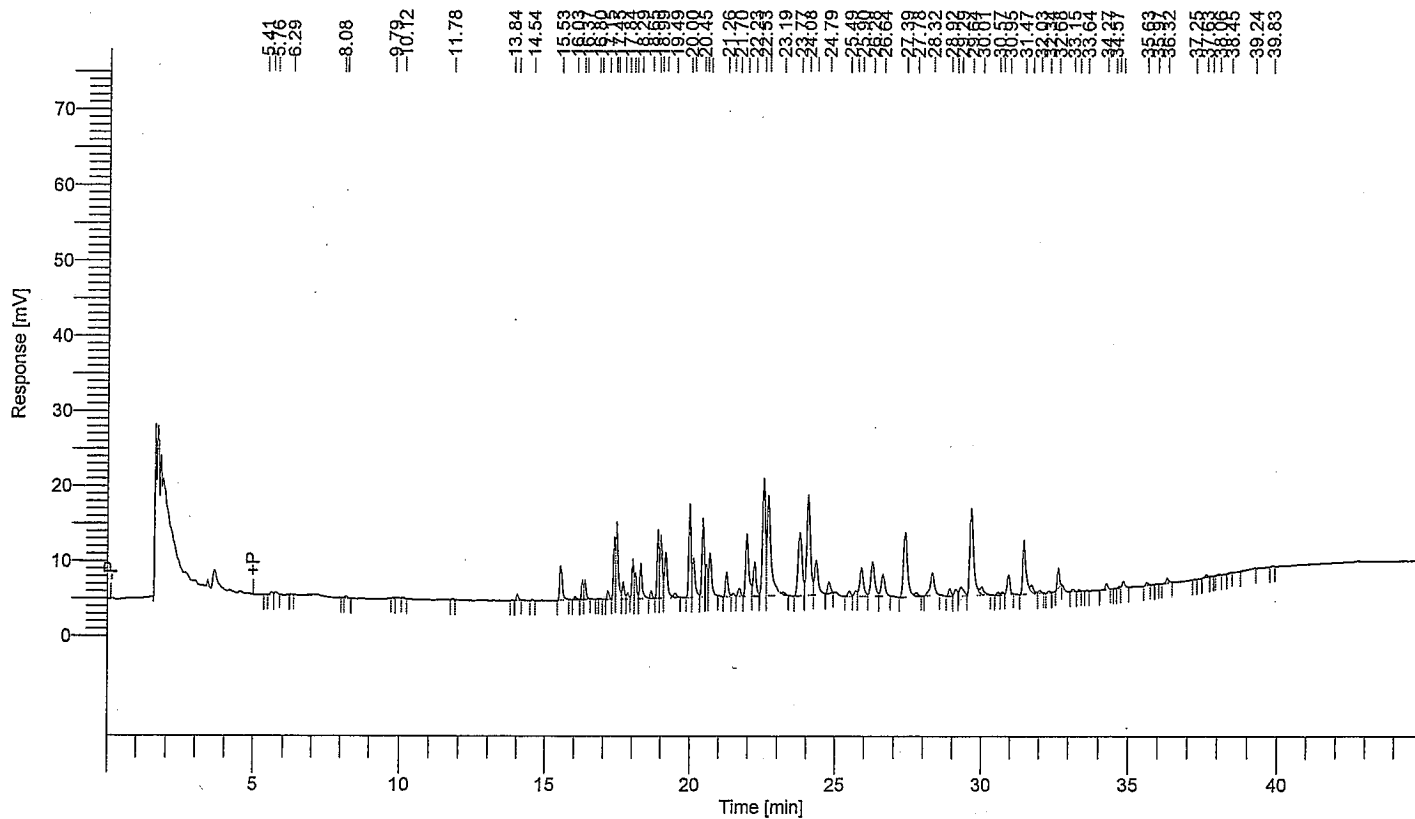
Time [min]	Area [μ V·s]
20.57	16357
20.70	29875
21.27	13569
21.51	3045
21.70	3942
21.97	37769
22.23	11615
22.53	61560
22.71	78875
23.22	3927
23.79	43148
24.09	59491
24.35	14475
24.81	11898
25.91	10502
26.29	14864
26.65	8681
27.40	25271
28.32	12714
29.11	3960
29.30	3354
29.65	31328
30.95	5479
31.49	19198
32.68	4252
34.83	4166
36.32	3842
37.64	2351

1230448

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62125
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

Date : 10/17/2007 8:43:30 AM
 Data Acquisition Time : 10/16/2007 12:28:42 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2324
5.76	2480
14.02	4215
15.53	28854
16.03	2179
16.29	10367
16.37	12113
17.15	5708
17.37	32174
17.45	58884
17.68	11955
17.84	4267
18.01	24151
18.10	17184
18.29	27761
18.65	4653
18.89	43136
18.99	47975
19.16	44722
19.49	3667
20.00	70455
20.13	34560
20.45	59316
20.56	21118
20.69	38855
21.26	20266
21.50	2559

$$\sum \text{area} = 471911$$

$$CF = \frac{471911}{2}$$

$$= 235955.5$$

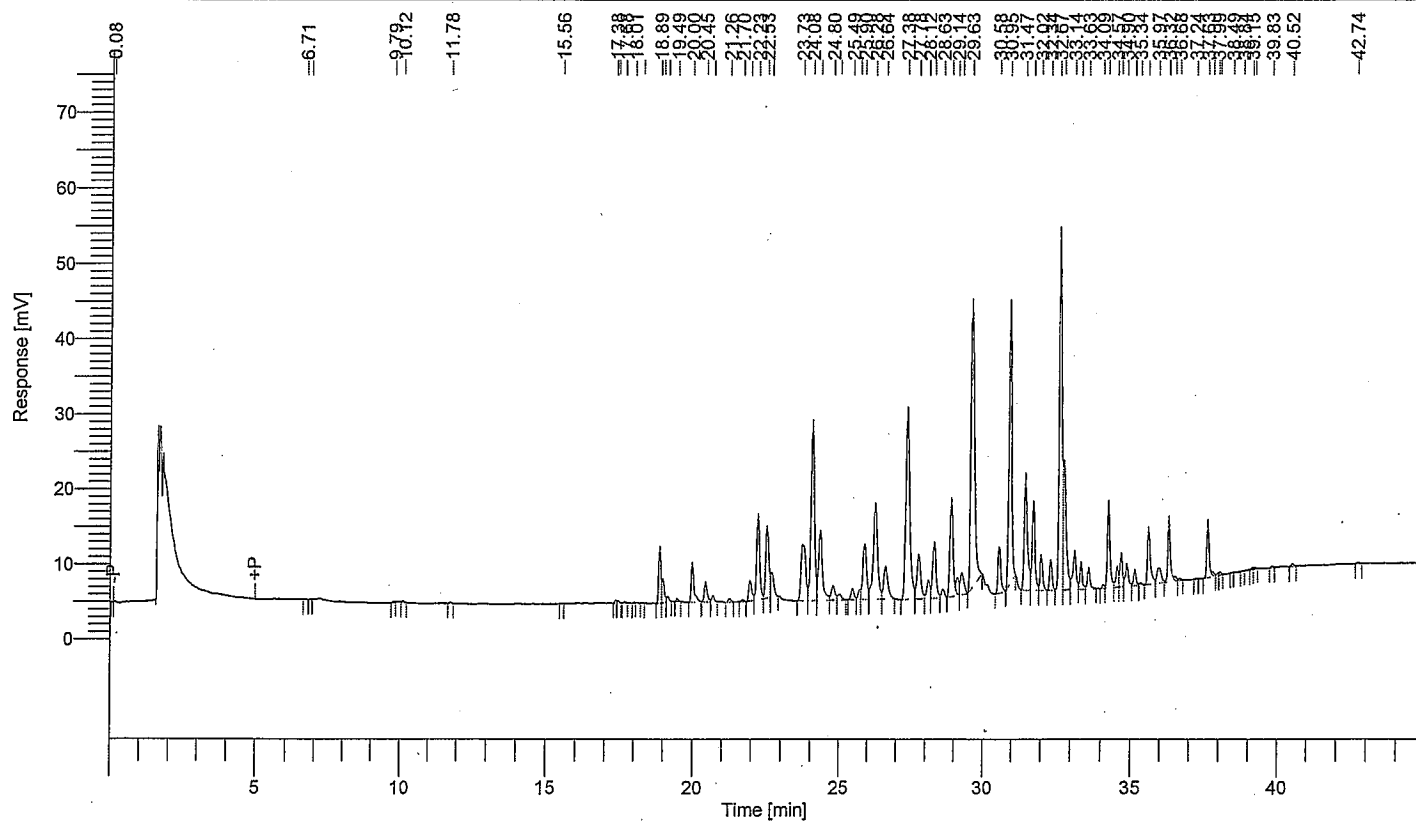
Time [min]	Area [μ V-s]
21.70	6290
21.96	64667
22.23	32299
22.53	115567
22.69	129453
23.19	2368
23.77	80870
24.08	119430
24.35	40185
24.79	9897
25.49	5212
25.73	5088
25.90	33051
26.28	43307
26.64	26132
27.39	83656
27.78	3607
28.32	29640
28.92	6540
29.12	6270
29.29	12260
29.64	105089
30.01	10093
30.57	2152
30.72	2025
30.95	17503
31.47	62132
31.75	7090
32.03	2593
32.68	13707
34.27	5217
34.84	5561
35.63	2155
36.32	4685
37.63	2075

1733767

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62126
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 1.000000
 Cycle : 6

Date : 10/17/2007 8:43:31 AM
 Data Acquisition Time : 10/16/2007 1:21:21 PM
 Channel : A
 Operator : envvwaigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.89	38869
18.99	16207
19.15	4467
19.49	2068
20.00	35622
20.45	17122
20.70	4972
21.26	2805
21.96	19575
22.23	81387
22.53	76446
22.69	24189
23.73	90781
24.08	202093
24.36	89117
24.80	17321
25.03	7356
25.49	11094
25.74	7541
25.90	67768
26.28	130009
26.64	44858
27.38	244534
27.78	53167
28.12	18951
28.32	62651
28.63	8323

Time [min]	Area [μ V·s]
28.91	100779
29.14	14428
29.28	26518
29.63	317795
30.58	42202
30.95	261551
31.47	120862
31.75	80224
32.02	31041
32.34	24065
32.67	309425
32.79	108871
33.14	40462
33.37	22722
33.63	16620
34.09	2282
34.26	72841
34.57	17195
34.70	25818
34.90	21785
35.15	12107
35.62	53009
35.97	19049
36.32	53315
36.53	3156
37.63	43228
37.81	3020
38.06	2037

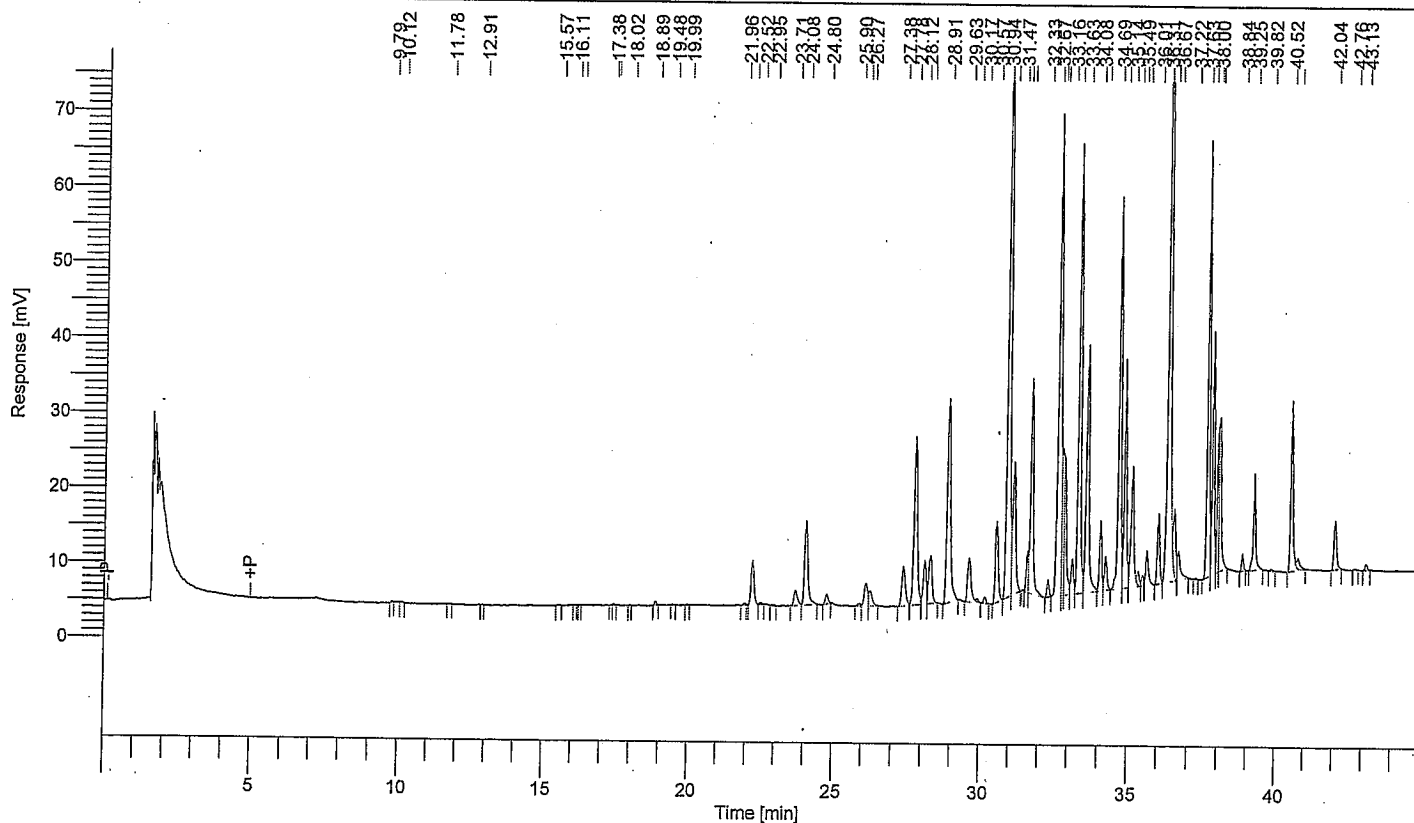
3225700

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62127
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

Date : 10/17/2007 8:43:32 AM

Data Acquisition Time : 10/16/2007 2:13:56 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
18.89	2300
22.22	39187
23.71	17504
24.08	92784
24.80	8235
25.90	2297
26.13	23827
26.27	16086
27.38	47481
27.78	181835
28.12	45578
28.31	52714
28.91	224919
29.63	46170
29.91	2356
30.17	4717
30.57	72642
30.94	555161
31.15	122723
31.62	24083
31.74	191352
32.33	12679
32.67	411147
32.80	91632
32.86	96123
33.16	30389
33.36	356727

$$\Sigma \text{area} = 652869$$

$$CF = \frac{652869}{2}$$

$$= 326434.5$$

CF = calibration factor.

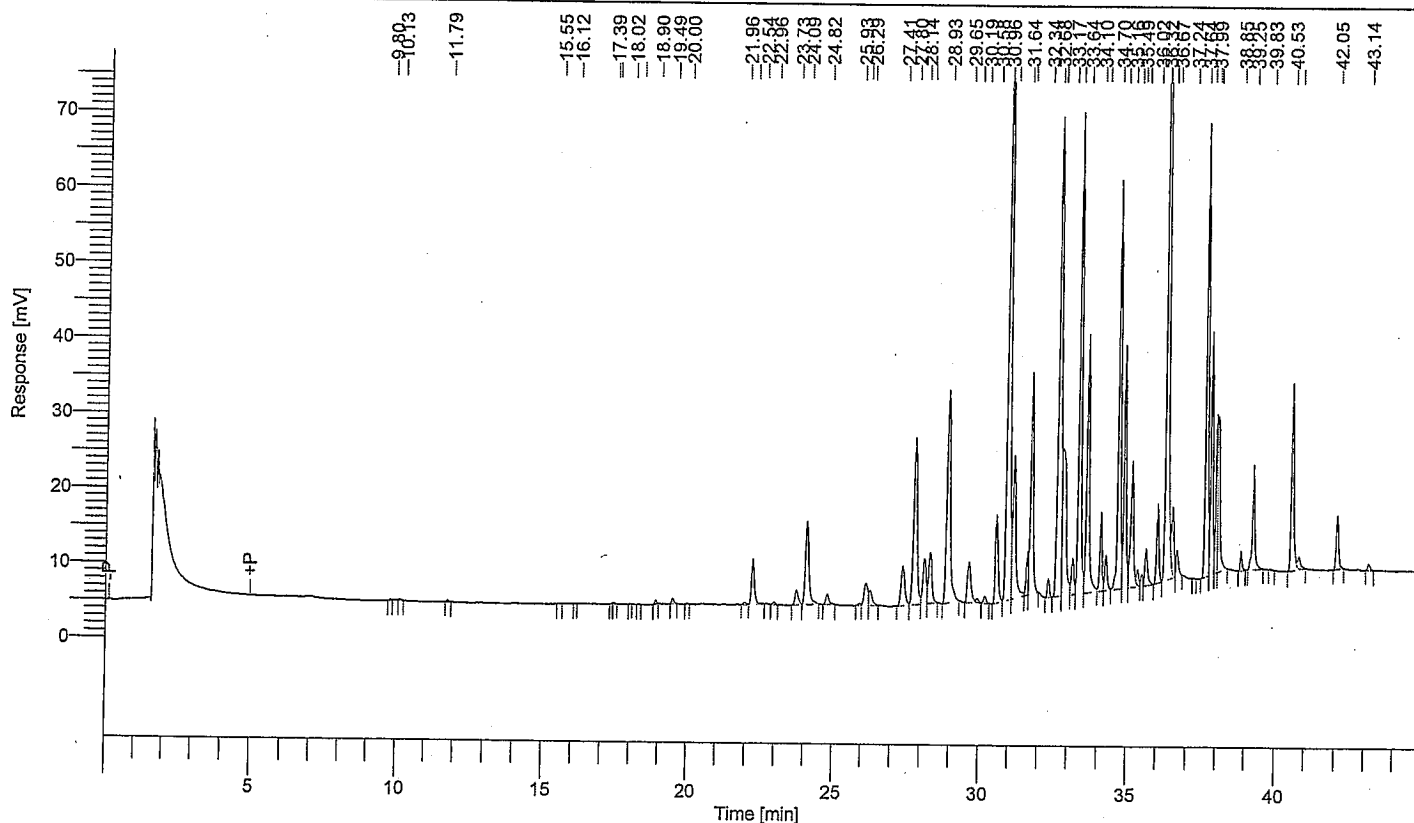
Time [min]	Area [μ V-s]
33.63	201767
34.08	52179
34.26	27760
34.69	305168
34.90	177687
35.14	110682
35.34	10566
35.49	6962
35.62	29582
36.01	50269
36.31	680433
36.52	53407
36.67	29213
37.63	301739
37.81	164932
38.00	81755
38.05	104443
38.84	10653
39.25	72829
40.52	134549
40.78	12405
42.04	39858
43.13	4296
<hr/>	
5435786	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62157
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/29
 Sample Amount : 1.000000
 Cycle : 5

Date : 10/17/2007 1:10:47 PM

Data Acquisition Time : 10/17/2007 10:34:34 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#029.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.90	2124
19.49	3768
21.96	2039
22.24	39937
23.73	16773
24.09	94777
24.82	10544
26.15	25104
26.29	16368
27.41	47629
27.80	185312
28.14	46570
28.33	53975
28.93	232032
29.65	44901
29.93	3827
30.19	6125
30.58	76333
30.96	572447
31.16	139179
31.64	26652
31.76	192691
32.34	13650
32.68	413450
32.78	23191
32.81	173603
33.17	32061

$$\begin{aligned} \text{Area} &= 686532 \\ \text{Calibration factor} &= \frac{686532}{2} \\ &= 343266 \end{aligned}$$

Time [min]	Area [μ V·s]
33.38	363193
33.64	207299
34.10	53697
34.27	28926
34.70	314817
34.91	185252
35.16	114272
35.35	11738
35.49	7286
35.63	31648
36.02	51657
36.32	699300
36.53	54872
36.67	21102
37.64	320751
37.82	169816
37.99	84279
38.05	111686
38.85	11992
39.25	78348
40.53	145185
40.79	12716
42.05	43040
43.14	5036
<hr/>	
5622970	

Software Version : 6.3.1.0504
 Sample Name : 22677 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

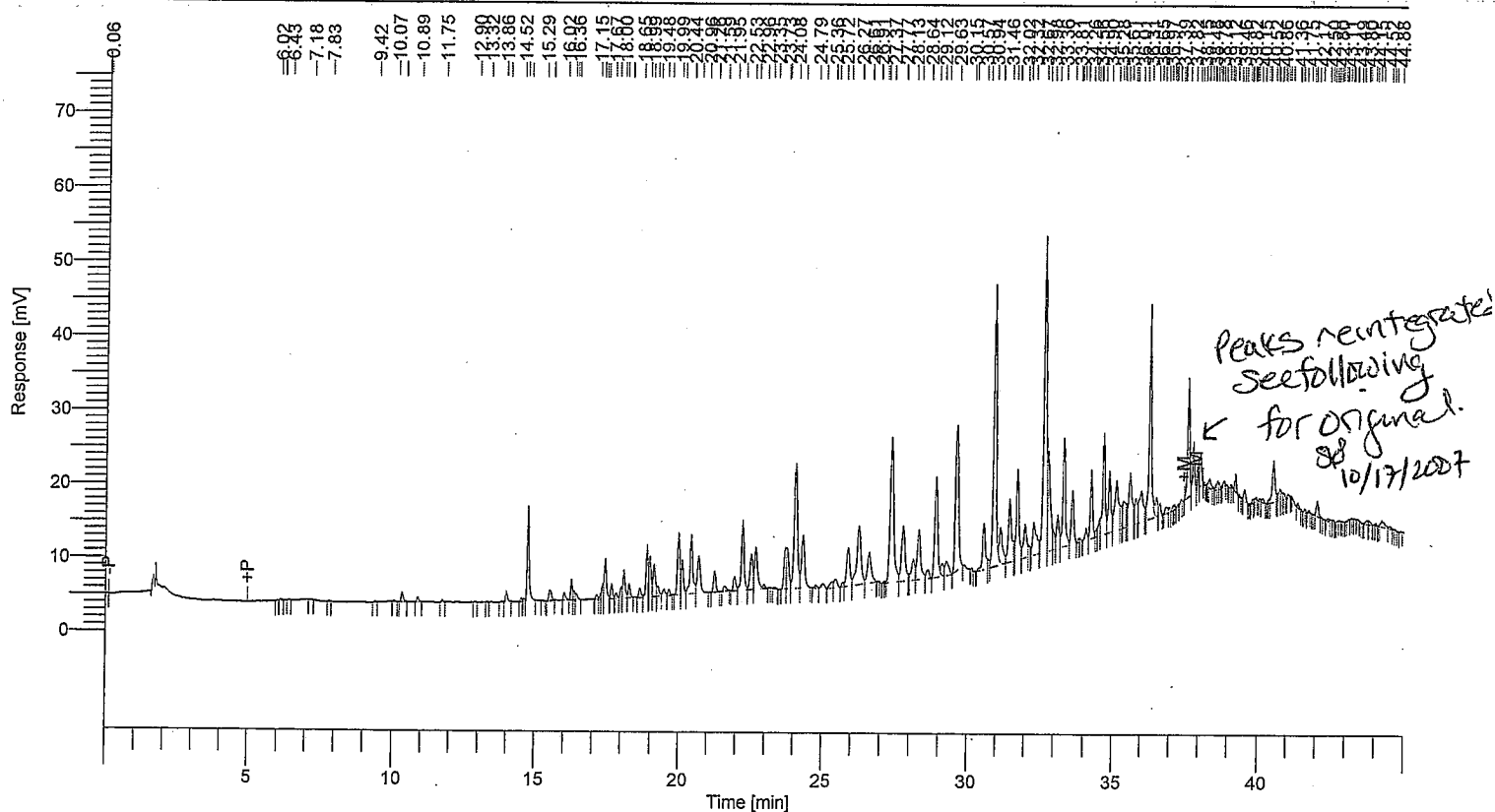
Date : 10/17/2007 2:20:31 PM
 Data Acquisition Time : 10/16/2007 6:44:31 PM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#011-20071017-142049.rst

Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.35	6171
10.89	2988
14.00	6561
14.52	2057
14.76	57496
15.52	9031
16.02	5431
16.28	10717
16.36	4734
16.43	5231
17.15	3293
17.29	2505
17.36	8176
17.45	27336
17.67	9339
17.83	3937
18.00	5843
18.09	19736
18.28	9454
18.65	6759
18.88	34142
18.99	29727
19.14	25867
19.26	8219
19.48	6045
19.66	4393
19.99	44298
20.12	25738
20.44	54099

$$\sum \text{area (Archlor 1248)} = 201866$$

$$\text{ng/inj} = \frac{201866}{235955.5} = 0.8555$$

$$\text{ppm} = \frac{0.8555}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.3422$$

$$\sum \text{area (Archlor 1260)} = 147257$$

$$\text{ng/inj} = \frac{147257}{326434.5} = 0.4511$$

$$\text{ppm} = \frac{0.4511}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1804$$

$$\text{Total PCB} = 0.5226 \text{ ppm}$$

Time [min]	Area [μ V-s]
20.69	35826
21.26	16120
21.59	4644
21.95	11768
22.22	63020
22.53	34552
22.68	42066
22.96	2909
23.73	31667
23.78	32229
24.08	134999
24.34	58277
24.79	2630
25.03	5072
25.36	6580
25.48	8608
25.72	3277
25.89	42316
26.27	79071
26.61	39987
27.37	175936
27.77	63406
28.13	22205
28.31	56452
28.64	8306
28.91	97055
29.12	10353
29.27	18468
29.63	140198
30.57	44141
30.72	4698
30.94	257927
31.14	37037
31.46	70149
31.63	6379
31.74	82390
32.02	36207
32.14	5156
32.32	44186
32.67	264877
32.79	96957
32.98	13465
33.14	31180
33.36	91578
33.63	39741
34.07	7849
34.26	50090
34.46	4083
34.56	10214
34.69	85180
34.90	55702
35.14	62905
35.28	9142
35.33	5179
35.36	5668
35.39	22497
35.49	8362
35.61	52193
35.74	4661
35.81	22340
36.01	41708
36.15	4806
36.31	164474
36.54	16925
36.65	8037
36.88	5390
36.97	2197
37.39	2205
37.63	80494
37.82	34865
37.98	12762
38.05	19136
38.38	7042
38.57	2186
38.63	3790
38.69	2891
38.85	2554
39.24	10373
39.53	7387
40.15	2982
40.52	35120
40.63	2537
40.76	7880
40.79	4446
40.86	2138
40.90	2545

1248

1260

Time [min]	Area [μ V·s]
41.03	2467
41.36	2376
42.03	10956
43.74	2675
43.80	2521
44.24	7927
<hr/>	
3735255	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62131
 Sample Name : 22677 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

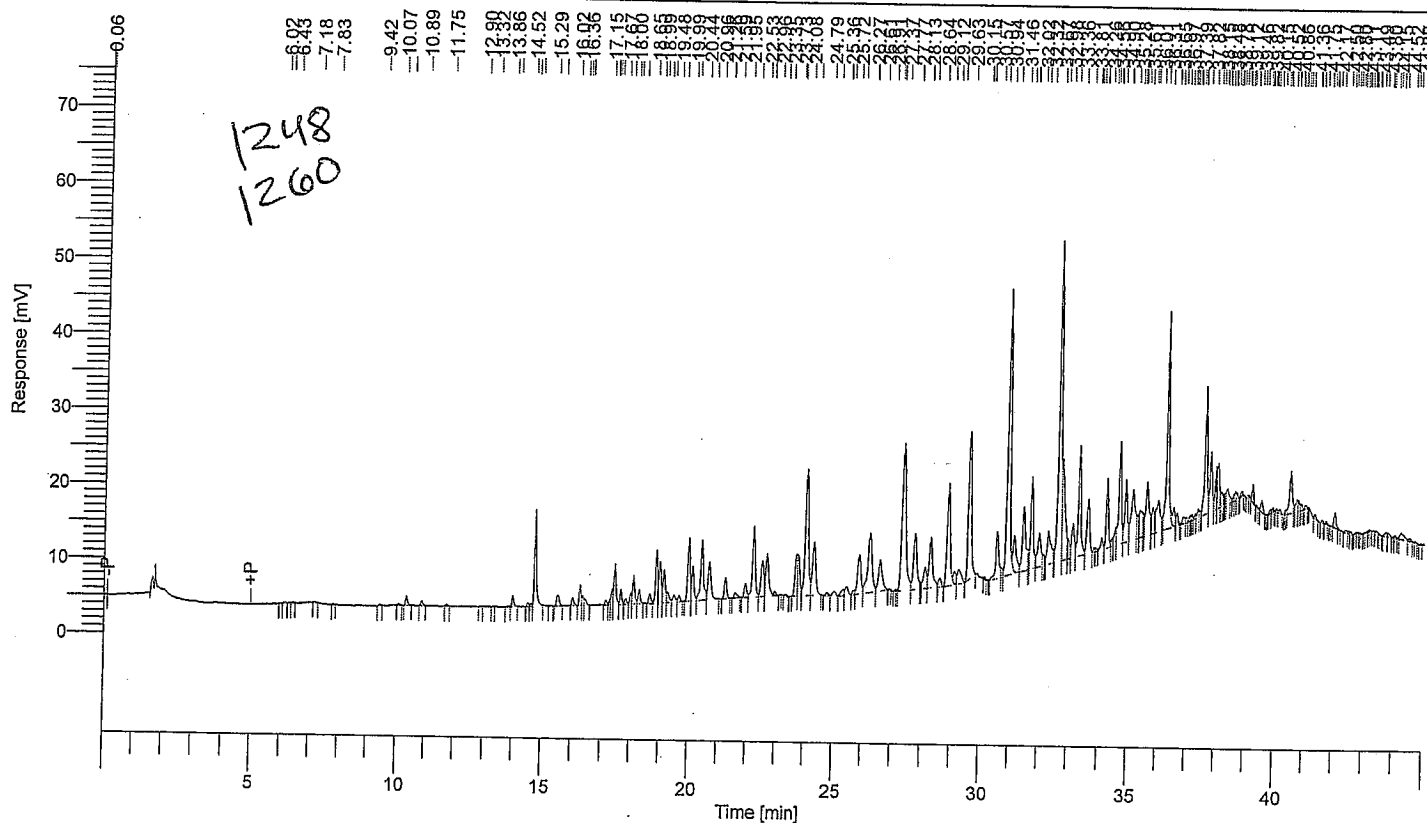
Date : 10/17/2007 8:43:37 AM

Data Acquisition Time : 10/16/2007 6:44:31 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#011.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

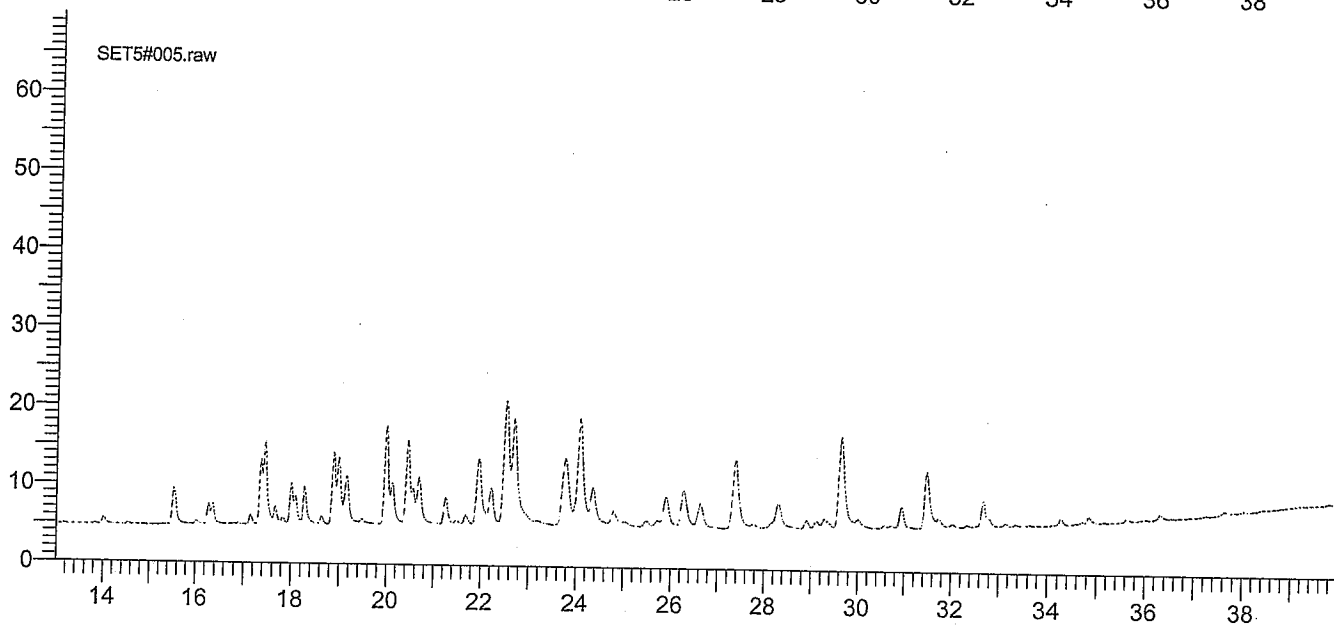
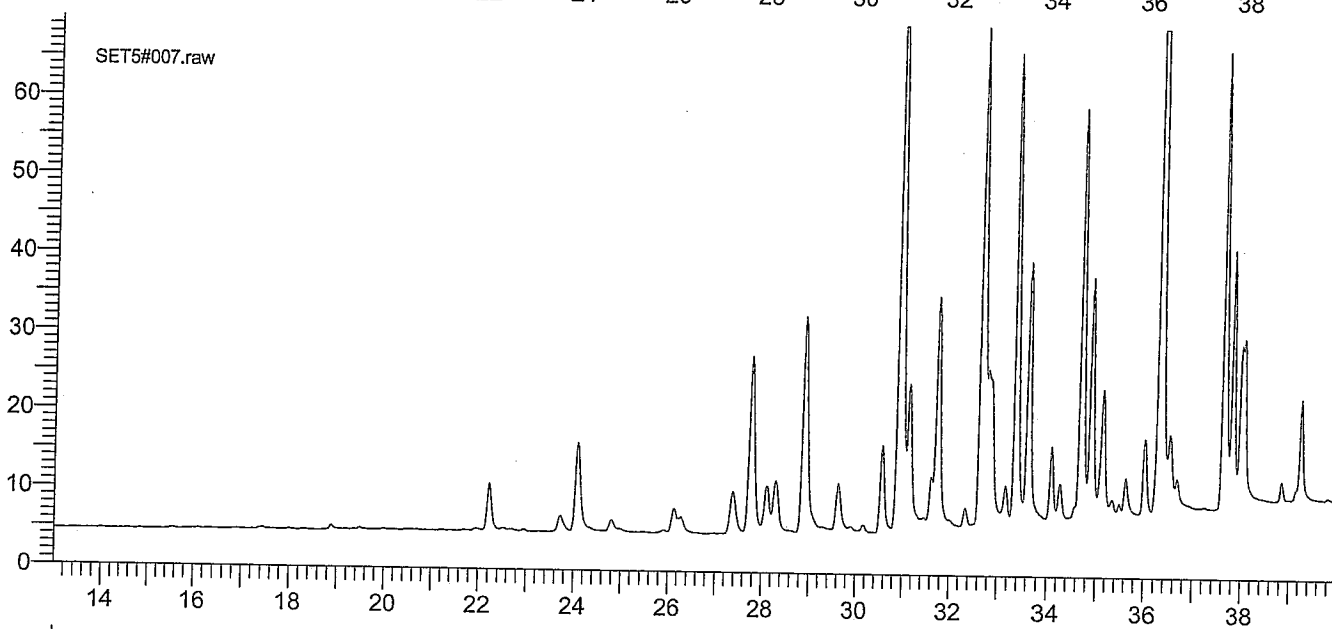
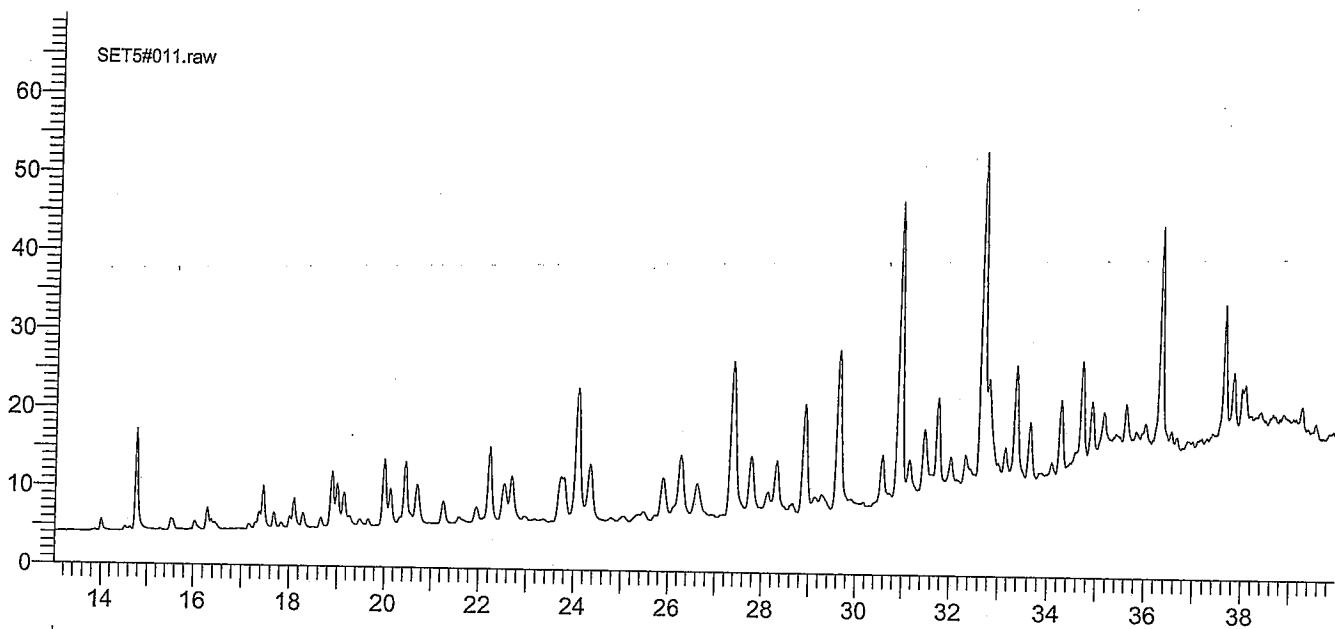
Time [min]	Area [μV-s]
10.35	6171
10.89	2988
14.00	6561
14.52	2057
14.76	57496
15.52	9031
16.02	5431
16.28	10717
16.36	4734
16.43	5231
17.15	3293
17.29	2505
17.36	8176
17.45	27336
17.67	9339
17.83	3937
18.00	5843
18.09	19736
18.28	9454
18.65	6759
18.88	34142
18.99	29727
19.14	25867
19.26	8219
19.48	6045
19.66	4393
19.99	44298

Time [min]	Area [μ V-s]
20.12	25738
20.44	54099
20.69	35826
21.26	16120
21.59	4644
21.95	11768
22.22	63020
22.53	34552
22.68	42066
22.96	2909
23.73	31667
23.78	32229
24.08	134999
24.34	58277
24.79	2630
25.03	5072
25.36	6580
25.48	8608
25.72	3277
25.89	42316
26.27	79071
26.61	39987
27.37	175936
27.77	63406
28.13	22205
28.31	56452
28.64	8306
28.91	97055
29.12	10353
29.27	18468
29.63	140198
30.57	44141
30.72	4698
30.94	257927
31.14	37037
31.46	70149
31.63	6379
31.74	82390
32.02	36207
32.14	5156
32.32	44186
32.67	264877
32.79	96957
32.98	13465
33.14	31180
33.36	91578
33.63	39741
34.07	7849
34.26	50090
34.46	4083
34.56	10214
34.69	85180
34.90	55702
35.14	62905
35.28	9142
35.33	5179
35.36	5668
35.39	22497
35.49	8362
35.61	52193
35.74	4661
35.81	22340
36.01	41708
36.15	4806
36.31	164474
36.54	16925
36.65	8037
36.88	5390
36.97	2197
37.27	2678
37.39	5165
37.63	92431
37.82	47792
37.98	21512
38.05	31096
38.15	4978
38.18	4547
38.24	3747
38.27	2304
38.30	3182
38.38	12950
38.48	2013
38.57	2764
38.63	4157
38.69	3025
38.85	2569

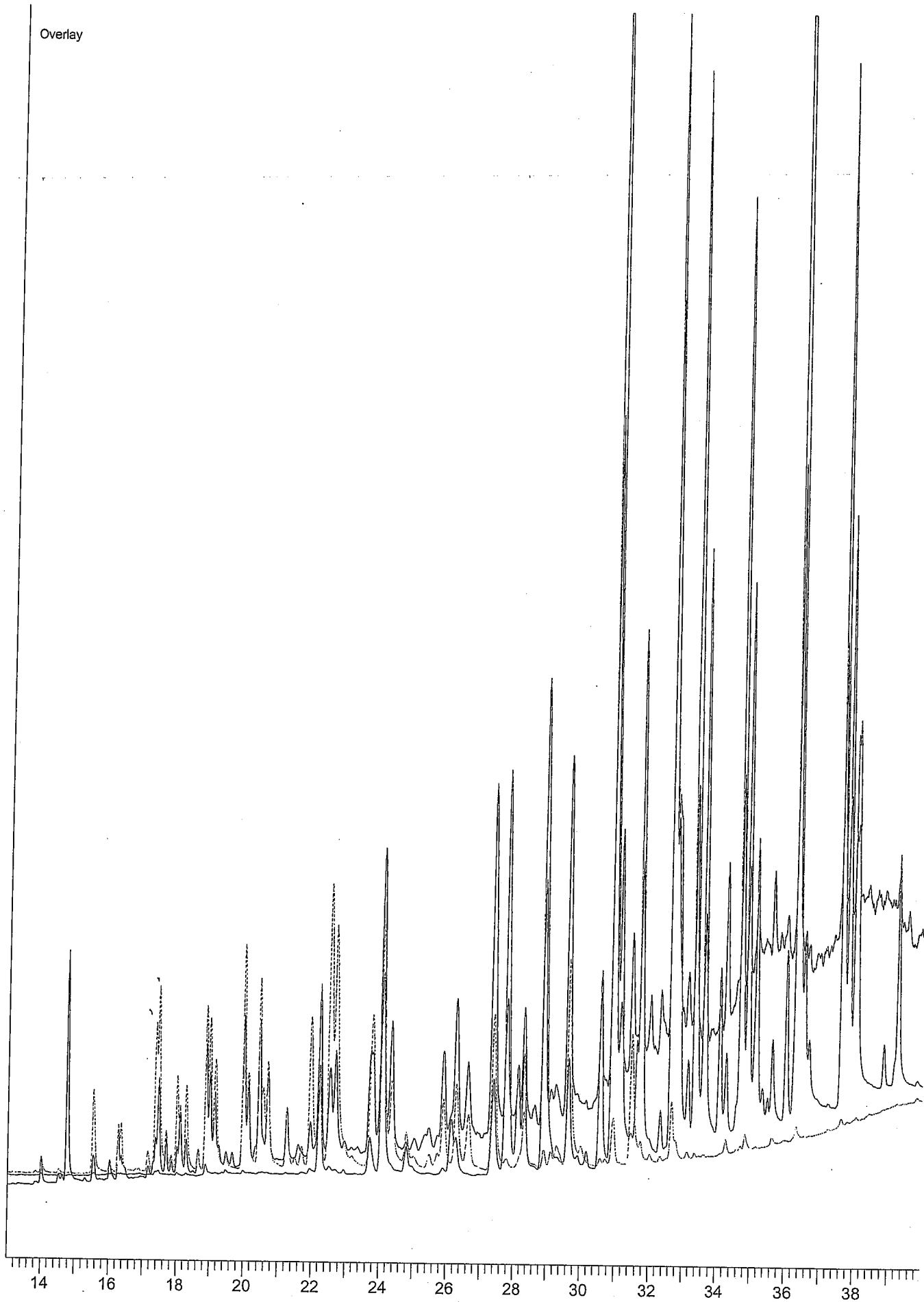
Time [min]	Area [μ V-s]
39.24	10373
39.53	7397
40.15	2982
40.52	35120
40.63	2537
40.76	7880
40.79	4446
40.86	2138
40.90	2545
41.03	2467
41.36	2376
42.03	10956
43.74	2675
43.80	2521
44.24	7927

3814239

Plot Title		Start Time	End Time	Scale	Offset
SET5#011.raw		13.00	39.99	70.00	0.00
Sample Name :	22677 1:10				
Sample Number:	11				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET5#007.raw		13.00	39.99	70.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET5#005.raw		13.00	39.99	70.00	0.00
Sample Name :	AROCHLOR 1248				
Sample Number:	05				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay



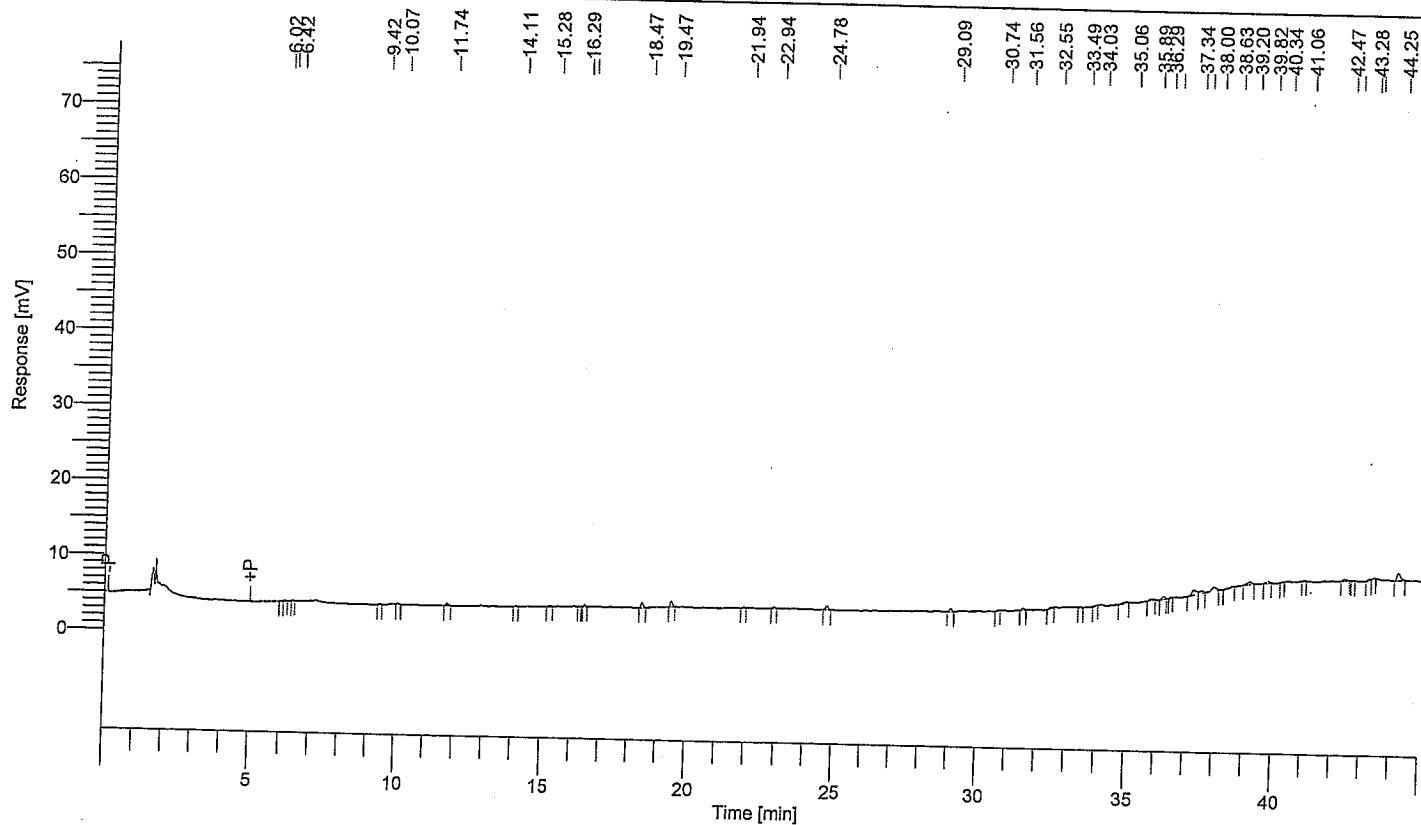
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62133
 Sample Name : 22678 1:10
 Instrument Name : GC014
 Rack/Vial : 0/13
 Sample Amount : 50.000000
 Cycle : 13

Date : 10/17/2007 8:43:38 AM

Data Acquisition Time : 10/16/2007 8:29:40 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#013.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.47	3447
19.47	4085
24.78	3399
29.09	2375
36.29	2860
37.34	7943
37.59	3667
38.00	5668
39.20	3500
39.82	2184
42.47	2022
44.25	7791
48941	

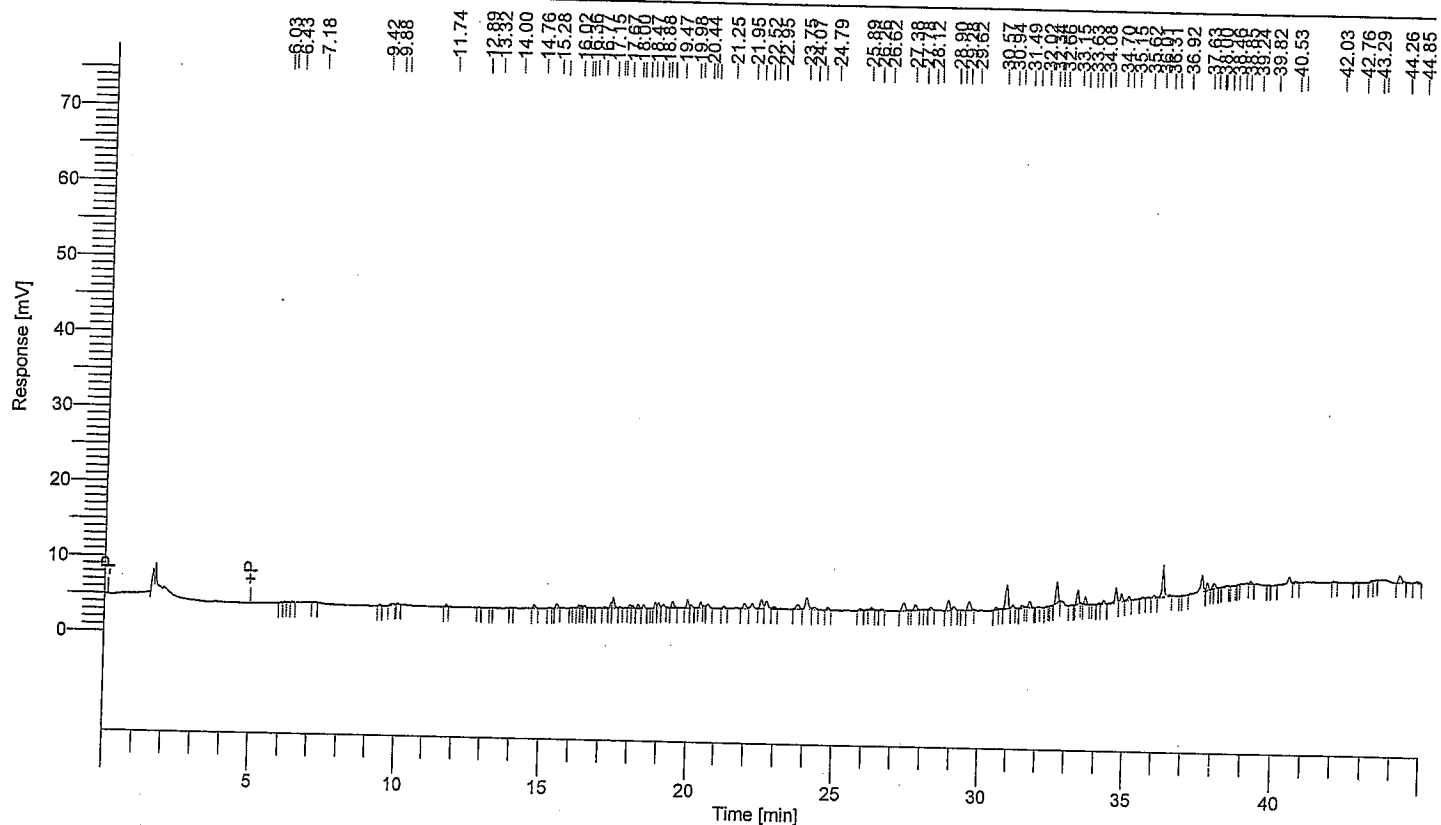
<0.40 ppm.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62134
 Sample Name : 22679 1:10
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 50.000000
 Cycle : 14

Date : 10/17/2007 8:43:39 AM
 Data Acquisition Time : 10/16/2007 9:22:17 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#014.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.76	2560
15.52	3363
17.36	2602
17.44	6883
18.28	2587
18.47	2279
18.88	3308
18.98	3326
19.47	4455
19.98	5688
20.12	2160
20.44	3909
20.69	3658
21.95	4851
22.22	4473
22.52	7864
22.69	7535
23.75	5564
24.07	12161
24.34	2584
24.79	2239
27.38	8179
27.78	4782
28.30	2352
28.90	9246
29.10	3003
29.62	7817

50.40 ppm

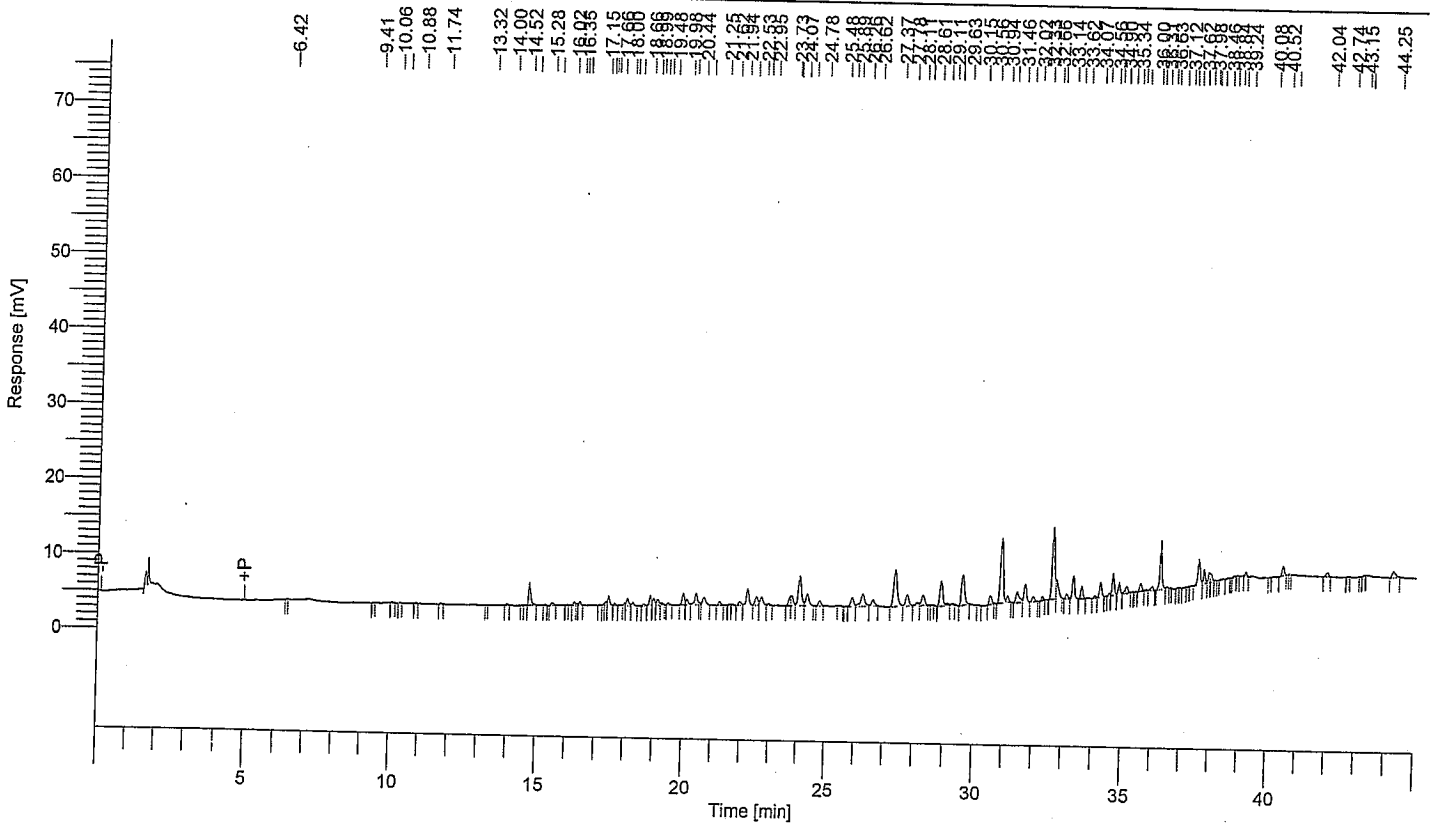
Time [min]	Area [μ V·s]
30.94	18950
31.15	2021
31.49	2066
31.74	4360
32.66	14004
33.37	8866
33.63	4752
34.26	3035
34.70	10944
34.90	5849
35.15	2957
36.31	22741
37.63	14465
37.81	4794
38.00	2334
38.05	2674
40.53	6129
44.26	7004

267372

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62136
 Sample Name : 22680 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

Date : 10/17/2007 8:43:41 AM
 Data Acquisition Time : 10/16/2007 11:07:31 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#016.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.75	14763
15.52	2032
16.47	2719
17.36	2119
17.44	6198
18.09	5116
18.28	2201
18.88	6153
18.99	4938
19.13	4414
19.98	7947
20.12	4379
20.44	10234
20.70	7571
21.25	2771
21.94	3169
22.22	15065
22.53	8276
22.69	8248
23.73	6504
23.78	7925
24.07	30715
24.34	12294
24.78	4182
25.89	9007
26.26	15662
26.62	6274

50.40 ppm

Time [min]	Area [μ V·s]
27.37	41489
27.78	11968
28.11	3104
28.29	10040
28.90	22962
29.63	29264
30.56	6467
30.94	58220
31.14	4451
31.46	12220
31.74	14004
32.02	3934
32.33	2660
32.66	58751
32.78	15044
33.14	3231
33.36	16363
33.62	8104
34.26	10640
34.68	14929
34.90	7446
35.14	6459
35.61	4773
36.00	2834
36.31	34052
37.62	19038
37.81	8961
37.98	5230
38.03	4937
39.24	2492
40.52	6312
42.04	3225
44.25	6375

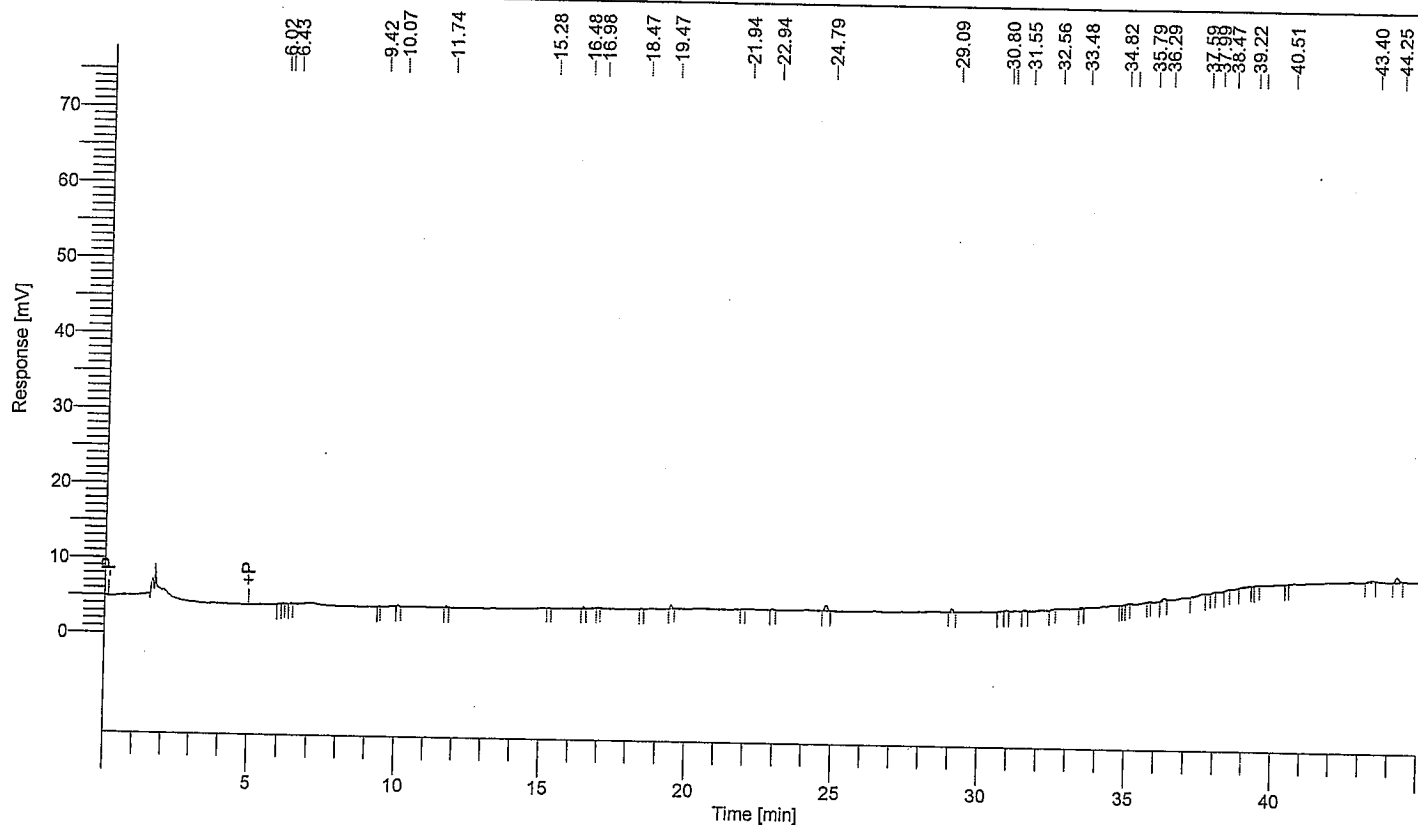
670858

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62137
 Sample Name : 22681 1:10
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 50.000000
 Cycle : 17

Date : 10/17/2007 8:43:41 AM
 Data Acquisition Time : 10/17/2007 12:00:18 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#017.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

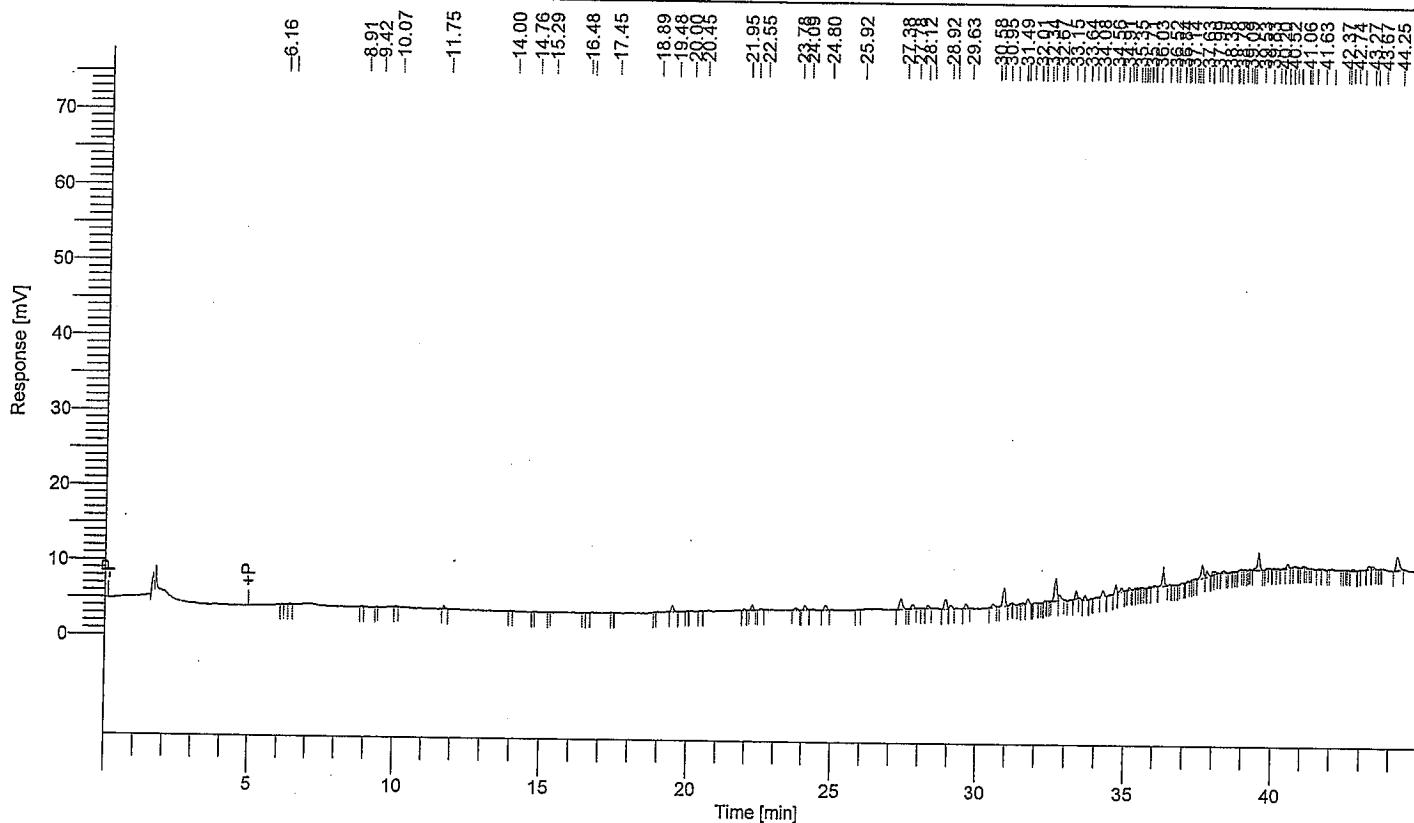
Time [min]	Area [μV·s]
19.47	2395
24.79	4650
29.09	2940
36.29	2357
37.59	2826
43.40	2403
44.25	5367
22938	

20.40 ppm

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62140
 Sample Name : 22682 1:10
 Instrument Name : GC014
 Rack/Vial : 0/20
 Sample Amount : 50.000000
 Cycle : 20

Date : 10/17/2007 8:43:45 AM
 Data Acquisition Time : 10/17/2007 2:38:11 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#020.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
19.48	4418
22.23	3666
23.78	2474
24.09	3716
24.80	4287
27.38	10463
27.78	3668
28.32	2169
28.92	8979
29.10	2965
29.63	3661
30.58	3041
30.95	14567
31.75	4337
32.67	16915
32.80	4187
33.37	4810
33.64	3575
34.26	4583
34.70	5497
34.91	3693
36.31	13084
37.63	11011
37.79	4808
37.99	2245
38.38	2200

50.40 ppm

$$\begin{aligned} \sum \text{area} &= 18064 \\ \text{ng min} &= \frac{18064}{326439.5} \\ &= 0.0553 \end{aligned}$$

$$\text{ppm} = \frac{0.0553}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0221$$

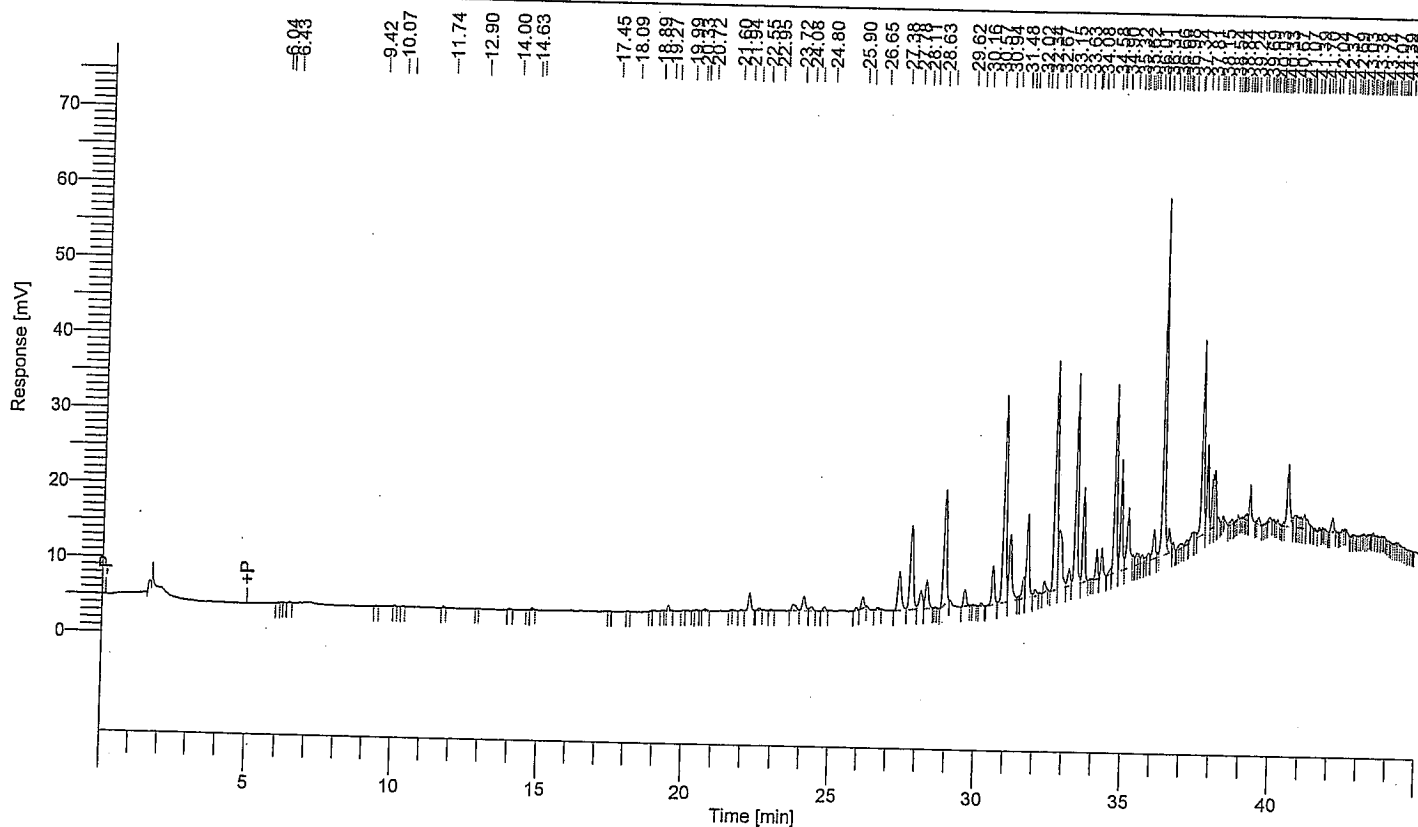
Time [min]	Area [μV-s]
39.53	12529
40.52	3064
43.27	2988
44.25	13697
<hr/>	
181296	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62144
 Sample Name : 22683 1:10
 Instrument Name : GC014
 Rack/Vial : 0/24
 Sample Amount : 50.000000
 Cycle : 24

Date : 10/17/2007 8:43:47 AM

Data Acquisition Time : 10/17/2007 6:09:03 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#024.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.48	3715
22.22	14697
23.72	8998
24.08	14585
24.35	4350
24.80	3551
25.90	2252
26.13	9685
26.65	2109
27.38	43395
27.78	89300
28.11	18441
28.31	28551
28.91	106853
29.62	14156
30.16	2232
30.57	33639
30.94	189304
31.15	64460
31.48	2117
31.63	15924
31.74	69028
32.02	5656
32.34	7809
32.67	184075
32.80	75407
33.15	14186

$$\sum \text{area} = 251679$$

$$\text{ng inj} = \frac{251679}{343266}$$

$$= 0.7332$$

$$\text{ppm} = \frac{0.7332}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.2933$$

less than 0.4 ppm total PCB.

Time [min]	Area [μ V-s]
33.37	149317
33.63	66765
34.08	17926
34.26	20668
34.58	4147
34.70	131204
34.90	79281
35.15	57457
35.32	6585
35.43	7256
35.49	5030
35.62	6112
35.74	2103
35.84	5207
36.01	21928
36.31	247980
36.52	19401
36.66	4840
36.93	3285
37.14	3340
37.34	8944
37.39	4124
37.62	131138 —
37.81	57674 —
37.99	30391 —
38.05	32476 —
38.15	3986
38.63	2739
39.12	3102
39.24	22501
39.52	5149
39.90	2628
40.52	50186
40.67	4042
40.77	9522
40.82	6209
40.90	3974
40.95	6001
41.07	9900
41.15	9183
42.04	10457

2302634

Plot Title

Start Time End Time Scale Offset

SET5#024.raw

Sample Name : 22683 1:10

Sample Number: 24

Instrument File Name: c:\pest\gc14\methods\pcb

13.00 40.00 70.00 0.00

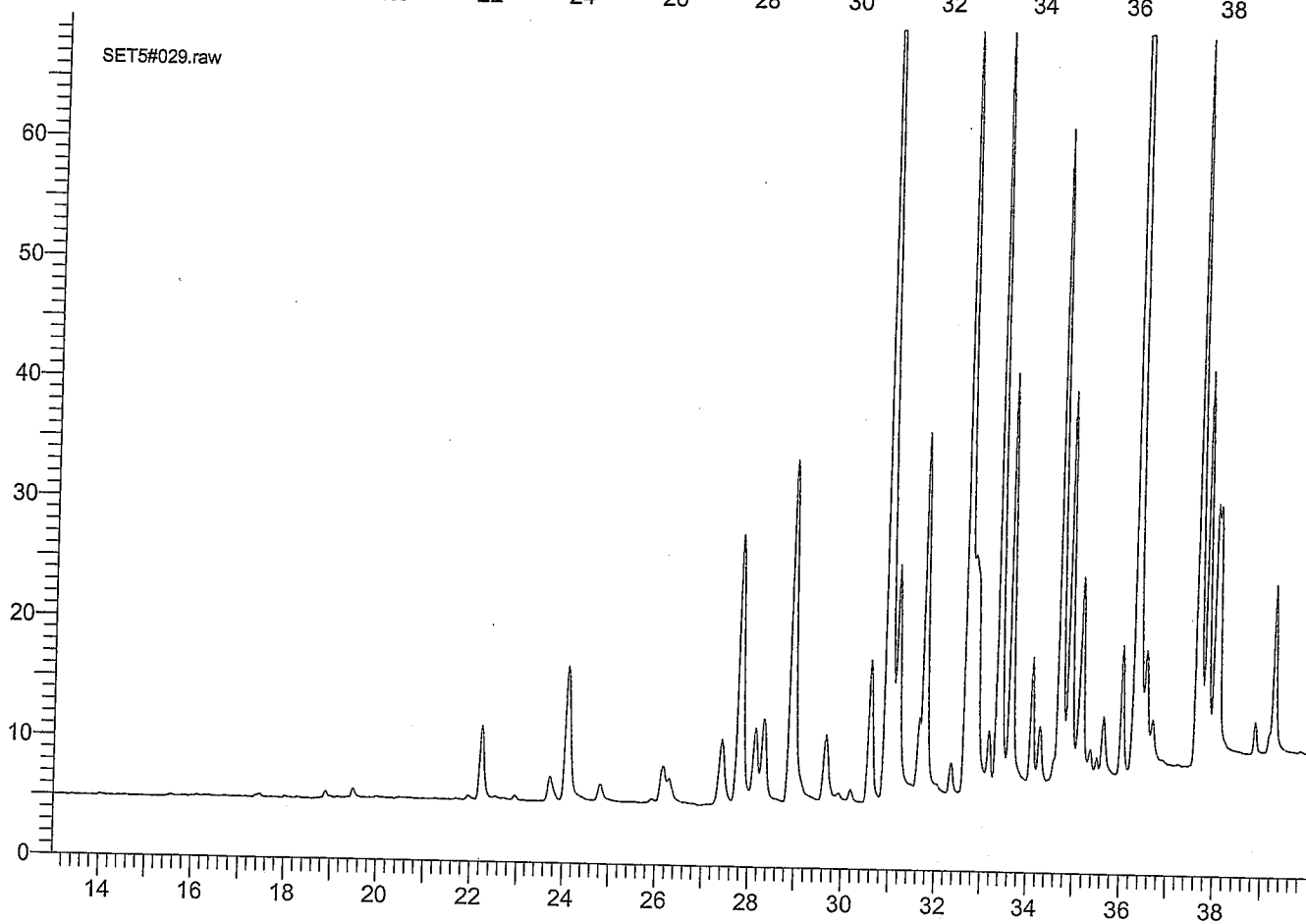
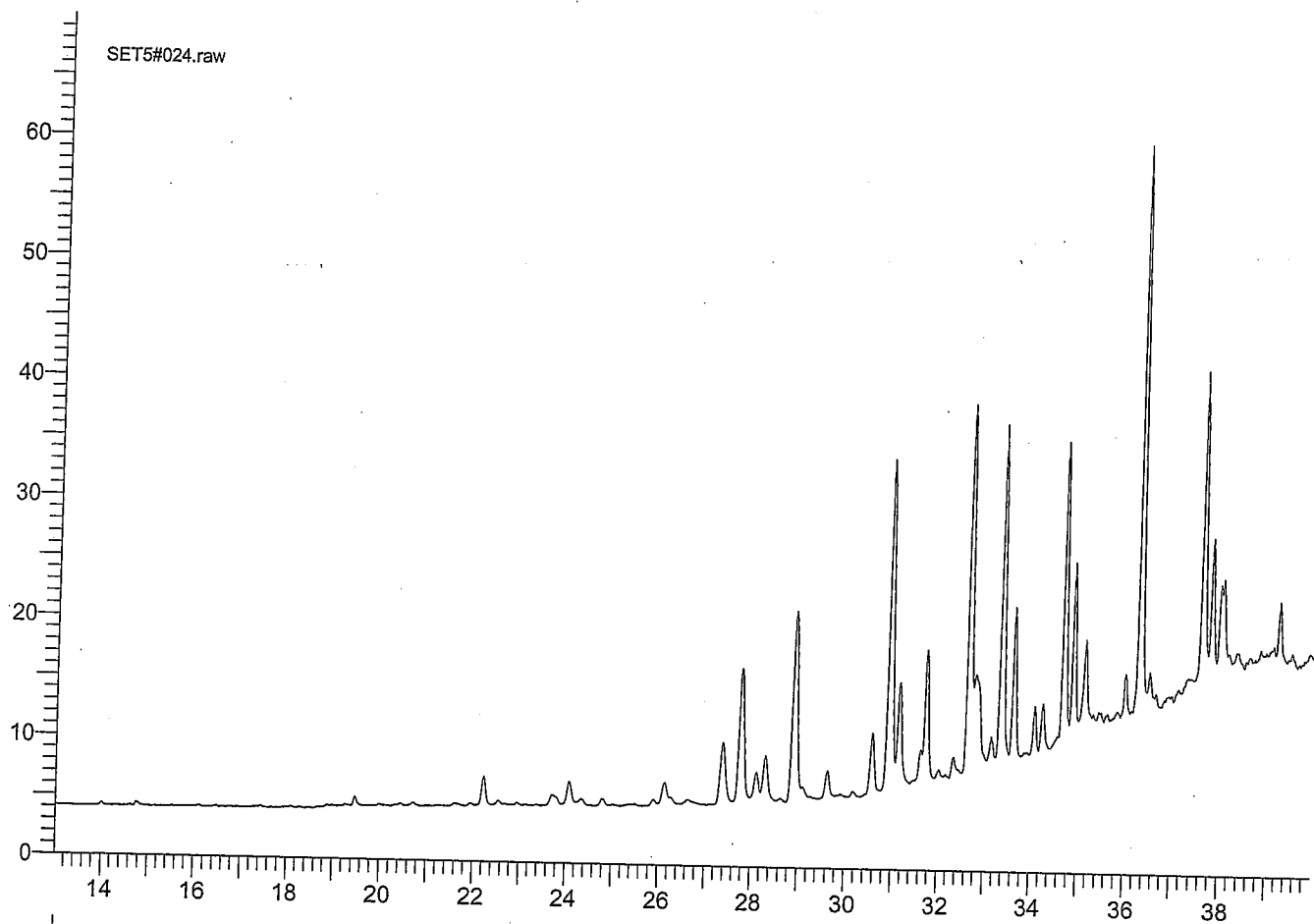
SET5#029.raw

Sample Name : AROCHLOR 1260

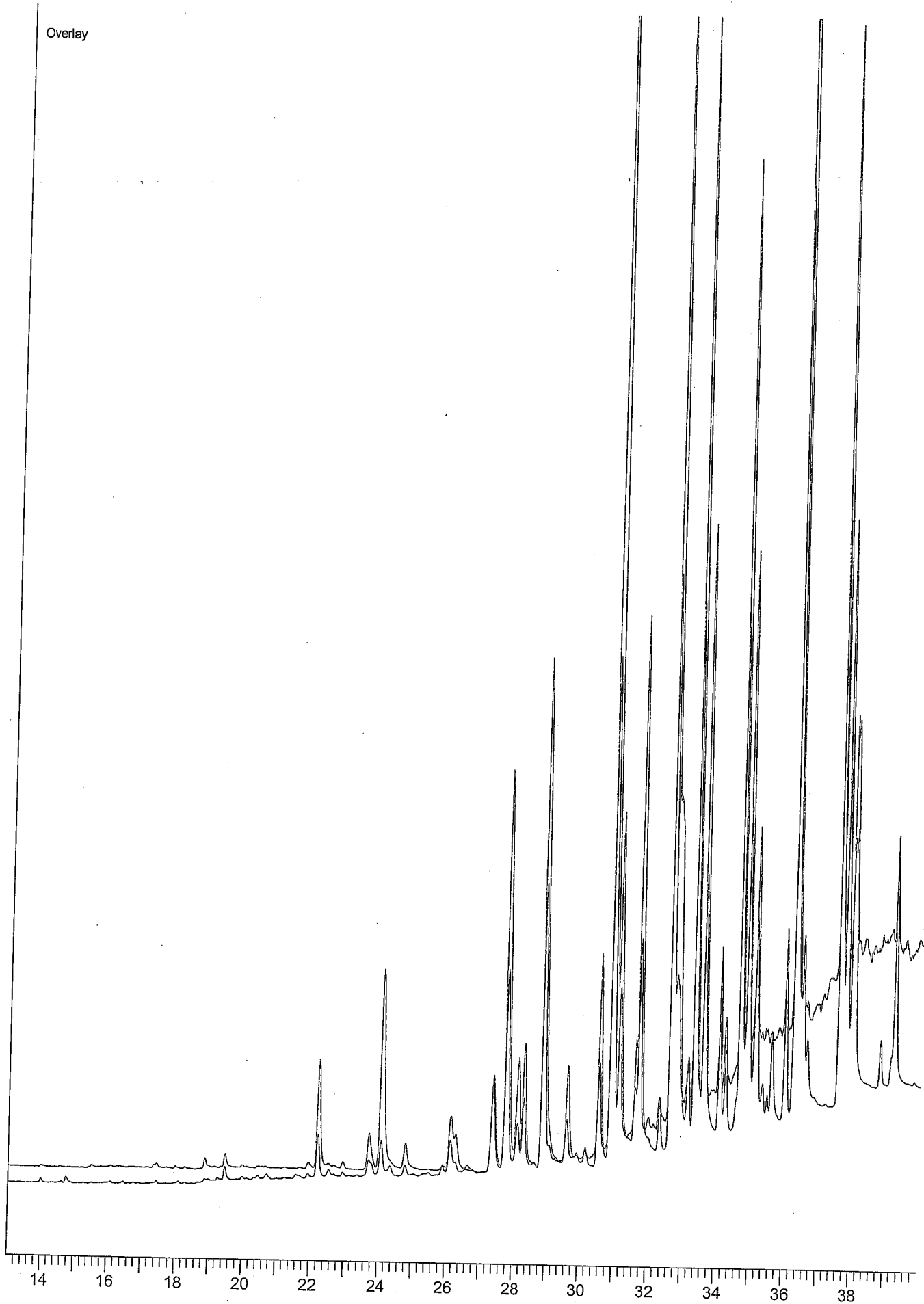
Sample Number: 29

Instrument File Name: c:\pest\gc14\methods\pcb

13.00 40.00 70.00 0.00



Overlay



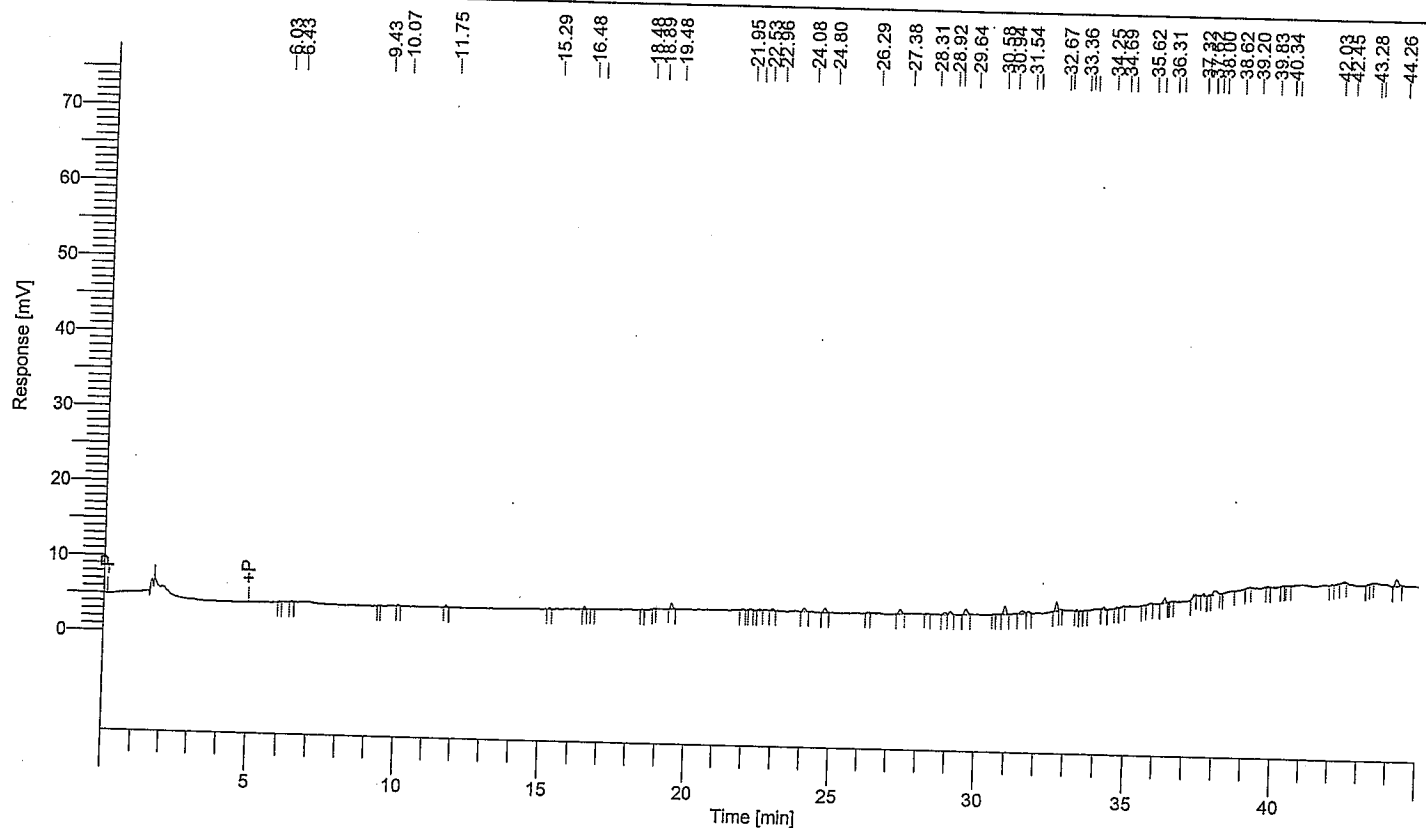
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62146
 Sample Name : 22684 1:10
 Instrument Name : GC014
 Rack/Vial : 0/26
 Sample Amount : 50.000000
 Cycle : 26

Date : 10/17/2007 8:43:49 AM
 Data Acquisition Time : 10/17/2007 7:55:16 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET5#026.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100205 AV SET 5\SET 5.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.48	4017
24.08	3201
24.80	3496
27.38	4206
28.92	2065
29.11	2639
29.64	4887
30.94	6591
31.54	3431
32.67	6390
36.31	3942
38.00	4706
44.26	6222

55793

<0.4 ppm total PCB.

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100206

07102006

Avant Level IV QAQC

Set #6

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SE
PREP DATE:	AA11900004

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	A11900004		
PREP. DATE:	10-8-07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS OR MLS
1	SPIKE 1	50.0
2	22685	
3	22686	
4	22687	
5	22687 ms	
6	22688	
7	22689	
8	22690	
9	22690 msd	
10	22691	
11	22692	
12	22692 dup	
13	blank	
14		
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	SKP	ALICUOT RATIO:	50/100
COLUMN I.D.:	809200	FINAL VOLUME:	2.0 mL
DATE USED:	10-17-2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGV (cm/s)	NOT GIVEN	A1016 I.D.	Y11300003
INST. CAL I.D.	MX50100154	A1221 I.D.	Y11400003
INST. CAL PREP. DATE:	9-14-2007	A1232 I.D.	Y11500003
ANALYTE 1		A1242 I.D.	Y11600003
RETENTION TIME (MIN)	14.37	A1248 I.D.	Y11700005
R.T. ACCURACY (%)	99	A1254 I.D.	X11800011
SENSITIVITY (AREA)	398925	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	100	CAL PREP DATE:	10-2-2007
ANALYTE 2			
RETENTION TIME (MIN)	16.57		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	886871		
SENS. ACCURACY (%)	89		

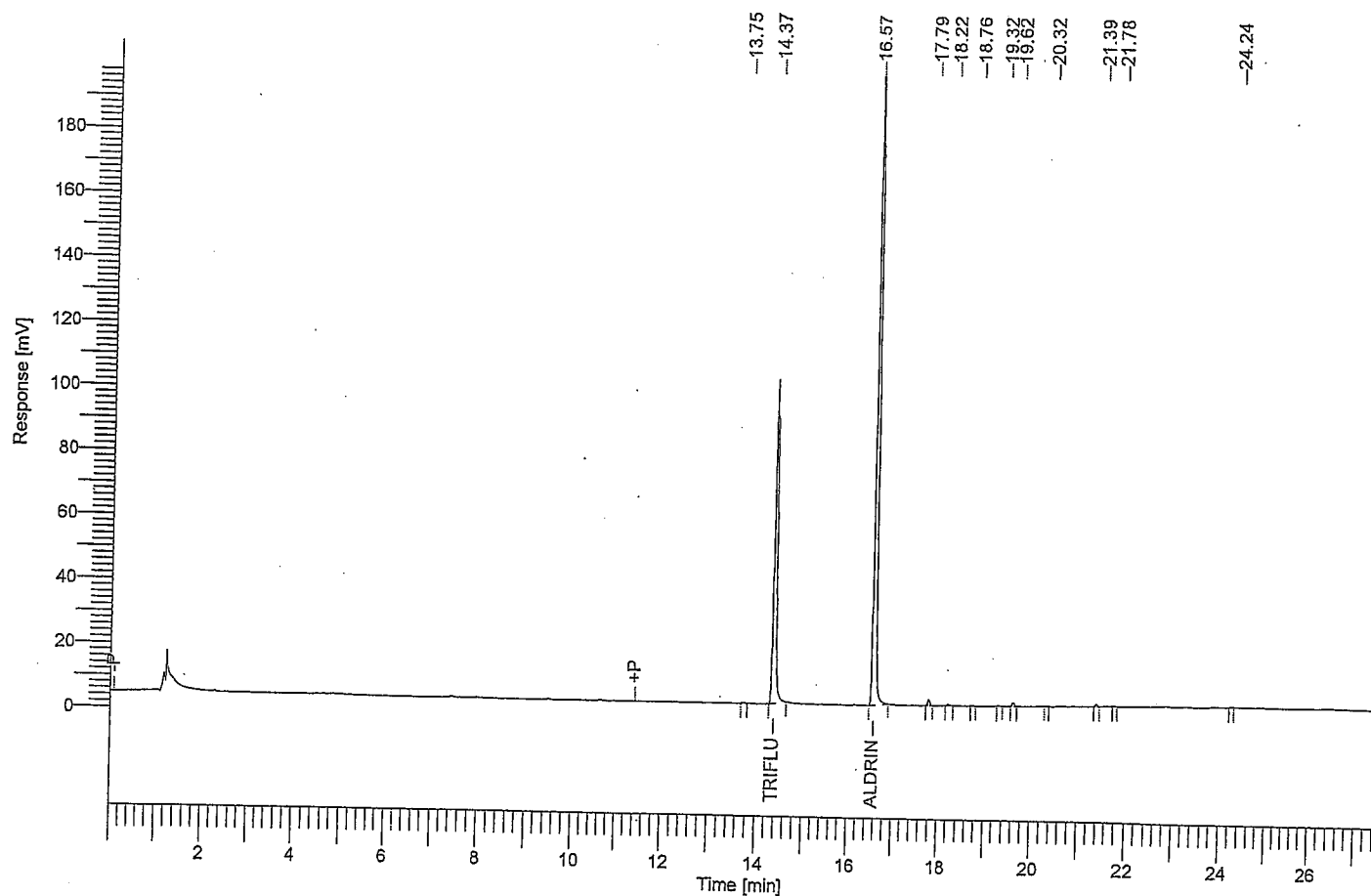
COMMENTS

use 0.5 mL of Aroclor 1260 INT for the MS & MSD. Solvent rinse all glassware 3 times with Acetone and 3 times w/ Hexane before washing.
 SEP 10/15/2007
 C18 Lot # - 0731006
 Florisil Lot # - 195937120A
 90% Methanol / Di-Water PD: 10-8-07
 DH7 Buffer Solution PD: 10-9-07
 15% EE/Hexane PD: 10-11-07
 TBA Sulfate Reagent PD: 10-3-07 10-16-07
 10-16-07

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62120
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

Date : 10/16/2007 8:46:20 AM
Data Acquisition Time : 10/16/2007 8:18:41 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003-20071016-084619.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [$\mu\text{V}\cdot\text{s}$]
14.37	TRIFLURALIN	398925.48
16.57	ALDRIN	886871.05
		1285796.52

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Printed by : envweigh on: 10/17/2007 2:52:05 PM
 Created by : envweigh on: 10/17/2007 2:46:39 PM
 Edited by : envweigh on: 10/17/2007 2:52:02 PM
 Number of Times Edited : 1

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 24
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	AROCHLOR 1242	01	07100206	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1248	02	07100206	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1254	03	07100206	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1260	04	07100206	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	BLANK SLUDGE	05	07100206	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
6	Sample	SPIKE SLUDGE	06	07100206	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
7	Sample	22685 1:10	07	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
8	Sample	22686 1:10	08	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
9	Sample	22687 1:10	09	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
10	Sample	22687 MS 1:10	10	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22688 1:10	11	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22689 1:10	12	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
13	Sample	FLUSH	13	07100206	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
14	Sample	AROCHLOR 1248	14	07100206	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
15	Sample	22690 1:10	15	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22690 MSD 1:10	16	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	22691 1:10	17	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
18	Sample	22692 1:10	18	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
19	Sample	22692 DUP 1:10	19	07100206	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	AROCHLOR 1260	20	07100206	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
21	Sample	22687 MS	21	07100206	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
22	Sample	FLUSH	22	07100206	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
23	Sample	22690 MSD	23	07100206	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
24	Sample	FLUSH	24	07100206	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
6	A	0	6	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
7	A	0	7	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
8	A	0	8	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
9	A	0	9	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
10	A	0	10	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
11	A	0	11	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
12	A	0	12	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
13	A	0	13	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
14	A	0	14	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
15	A	0	15	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
16	A	0	16	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
17	A	0	17	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
18	A	0	18	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
19	A	0	19	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
20	A	0	20	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
21	A	0	21	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
22	A	0	22	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
23	A	0	23	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
24	A	0	24	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb

Raw Data File Result File Baseline

1 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#001
 2 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#002
 3 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#003
 4 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#004
 5 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#005
 6 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#006
 7 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#007
 8 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#008
 9 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#009
 10 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#010
 11 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#011
 12 C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#012

Sequence Process Information - Channel A

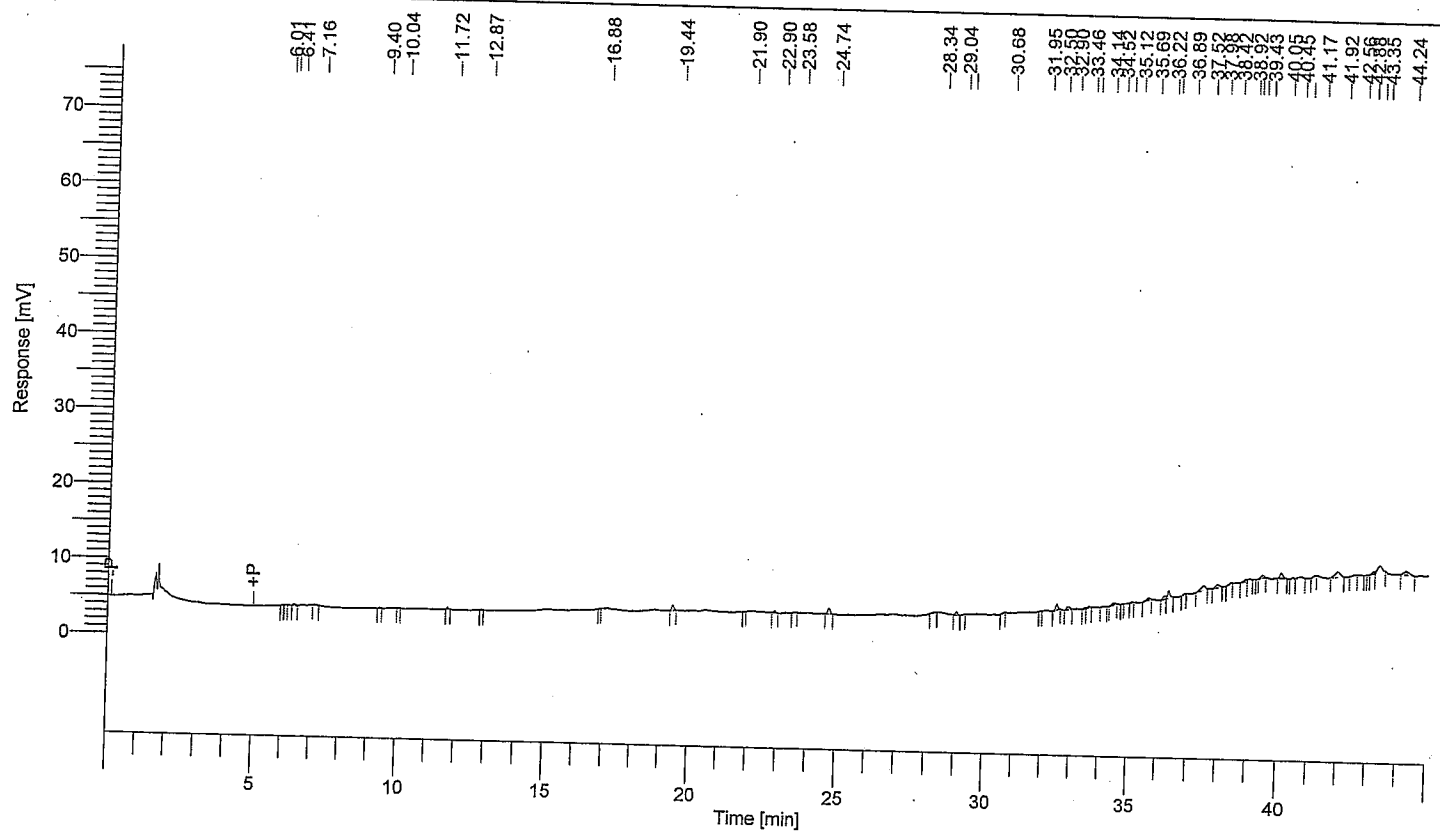
Row	Raw Data File	Result File	Baseline			
13	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#013	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#013				
14	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#014	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#014				
15	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#015	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#015				
16	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#016	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#016				
17	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#017	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#017				
18	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#018	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#018				
19	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#019	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#019				
20	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#020	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#020				
21	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#021	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#021				
22	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#022	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#022				
23	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#023	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#023				
24	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#024	C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#024				
Row	Modified	Calib Rpt	Cal Level	Update RT	Printer	Plotter
1	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
2	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
3	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
4	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
5	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
6	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
7	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
8	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
9	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
10	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
11	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
12	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
13	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
14	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
15	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
16	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
17	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
18	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
19	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
20	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
21	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
22	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
23	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
24	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default

Software Version : 6.3.1.0504
 Reprocess Number : totachrom: 62201
 Sample Name : FLUSH
 Instrument Name : GC114
 Rack/Vial : 0/13
 Sample Amount : 1.000000
 Cycle : 13

Date : 10/18/2007 1:20:29 PM
 Data Acquisition Time : 10/18/2007 2:00:33 AM
 Channel : A
 Operator : e.vweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#013.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

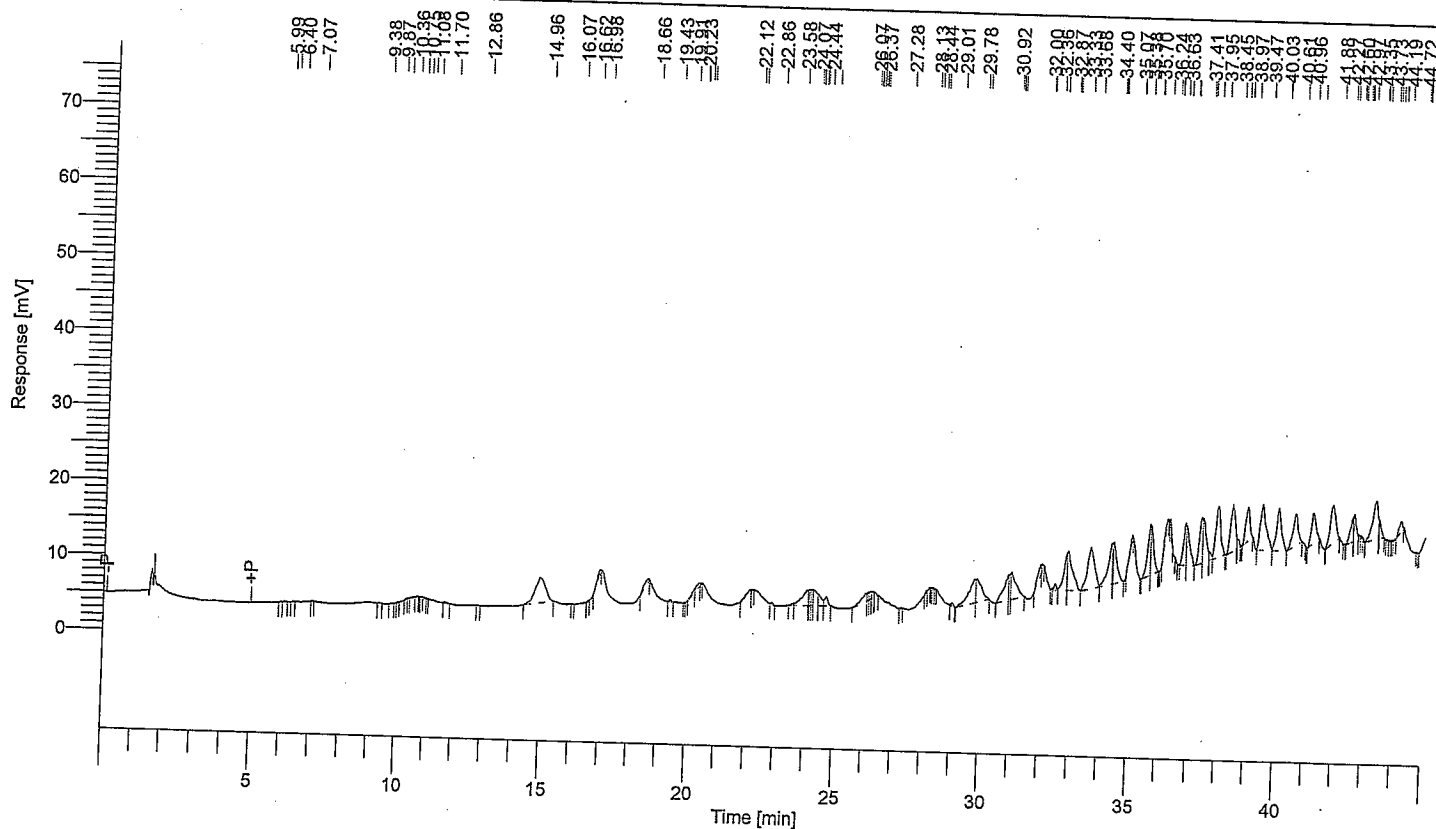
Time [min]	Area [μV·s]
19.44	3662
24.74	4779
29.04	2588
32.50	4570
32.90	3160
35.69	2593
36.22	3099
36.36	5398
37.52	6165
37.98	3907
39.43	2400
40.05	4753
40.71	2414
41.92	8567
43.35	8718
44.24	6228

73000

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62210
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 1.000000
 Cycle : 22

Date : 10/18/2007 1:20:37 PM
 Data Acquisition Time : 10/18/2007 9:54:50 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#022.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.96	83379
16.98	5574
18.66	7177
20.23	2728
20.39	5285
22.12	5840
24.07	30355
24.12	4656
24.15	7365
24.23	8133
24.28	18799
24.44	12206
24.70	9401
26.07	14231
26.14	4433
26.21	3920
26.26	2716
26.31	3572
26.37	3489
29.01	2305
29.78	51659
29.87	39828
30.92	39688
30.97	13364
31.03	43765
32.00	12220
32.04	2901

Time [min]	Area [μV·s]
32.49	4614
32.87	39938
32.92	62349
33.68	90085
34.40	56262
34.43	9616
34.47	42614
35.07	8567
35.67	45897
35.70	48583
36.24	8836
36.32	5275
36.85	40854
36.89	40148
37.41	45763
37.46	44549
37.69	5590
37.95	75386
38.45	66863
38.62	5983
38.97	43000
39.47	83155
40.03	71164
40.61	53176
41.22	42941
41.88	61013
42.56	22392
42.60	23901
43.35	62699
43.45	12913
44.19	9722

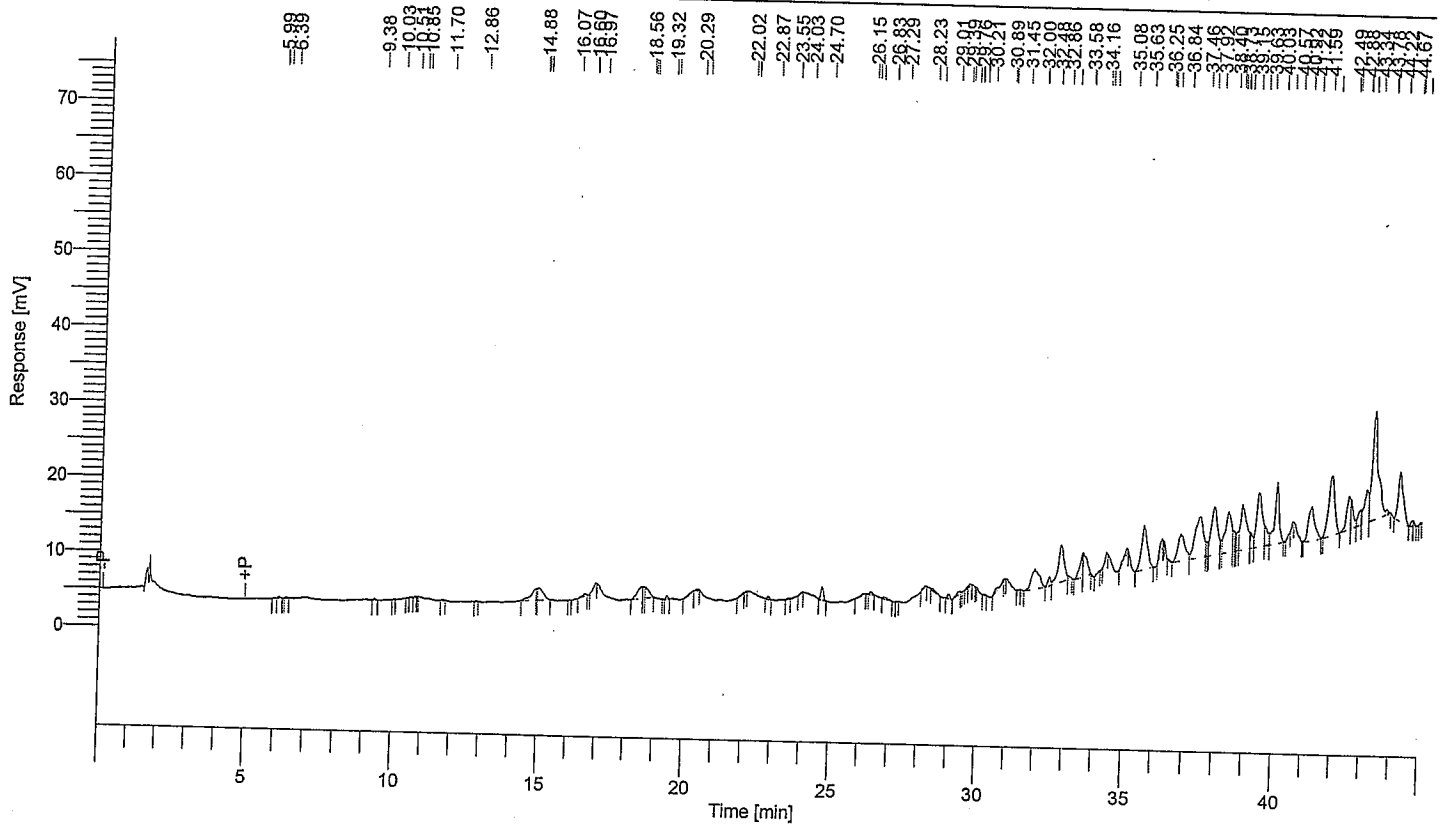
1672835

Software Version : 3.3.1.0504
 Reprocess Number : totalchrom: 62212
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/24
 Sample Amount : 1.000000
 Cycle : 24

Date : 10/18/2007 1:20:38 PM
 Data Acquisition Time : 10/18/2007 11:40:36 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#024.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



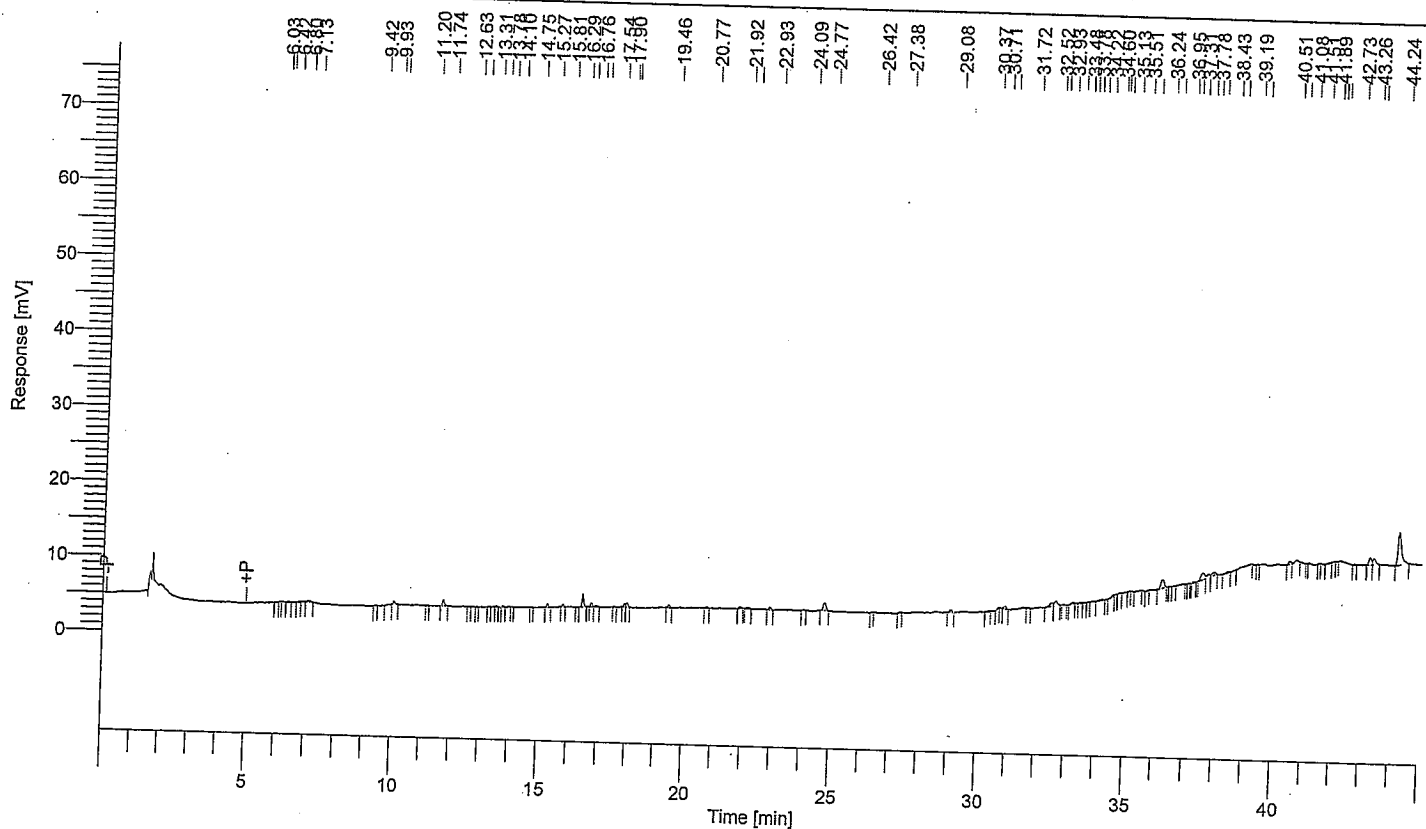
Time [min]	Area [μ V·s]
36.25	12349
36.84	58141
37.46	103077
37.67	3841
37.92	92656
38.40	75394
38.57	11488
38.63	7489
38.73	14014
38.87	82722
39.15	14719
39.41	93734
39.63	22704
40.03	82819
41.22	72736
41.89	110886
42.49	38937
42.55	24785
42.88	14730
42.92	3063
43.09	47413
43.34	200791
43.78	2077
44.22	79237
44.67	3232
44.71	2467

1676215

Data Acquisition Time : 10/17/2007 6:59:38 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#005.rst
Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
10.06	2304
11.74	3595
16.47	6682
17.99	2748
24.77	6991
29.08	2143
32.52	3865
32.65	4444
36.24	9265
37.58	7768
37.78	3244
37.97	3040
40.51	2408
40.74	2901
43.26	5872
43.38	5497
44.24	35615

108381

BDL

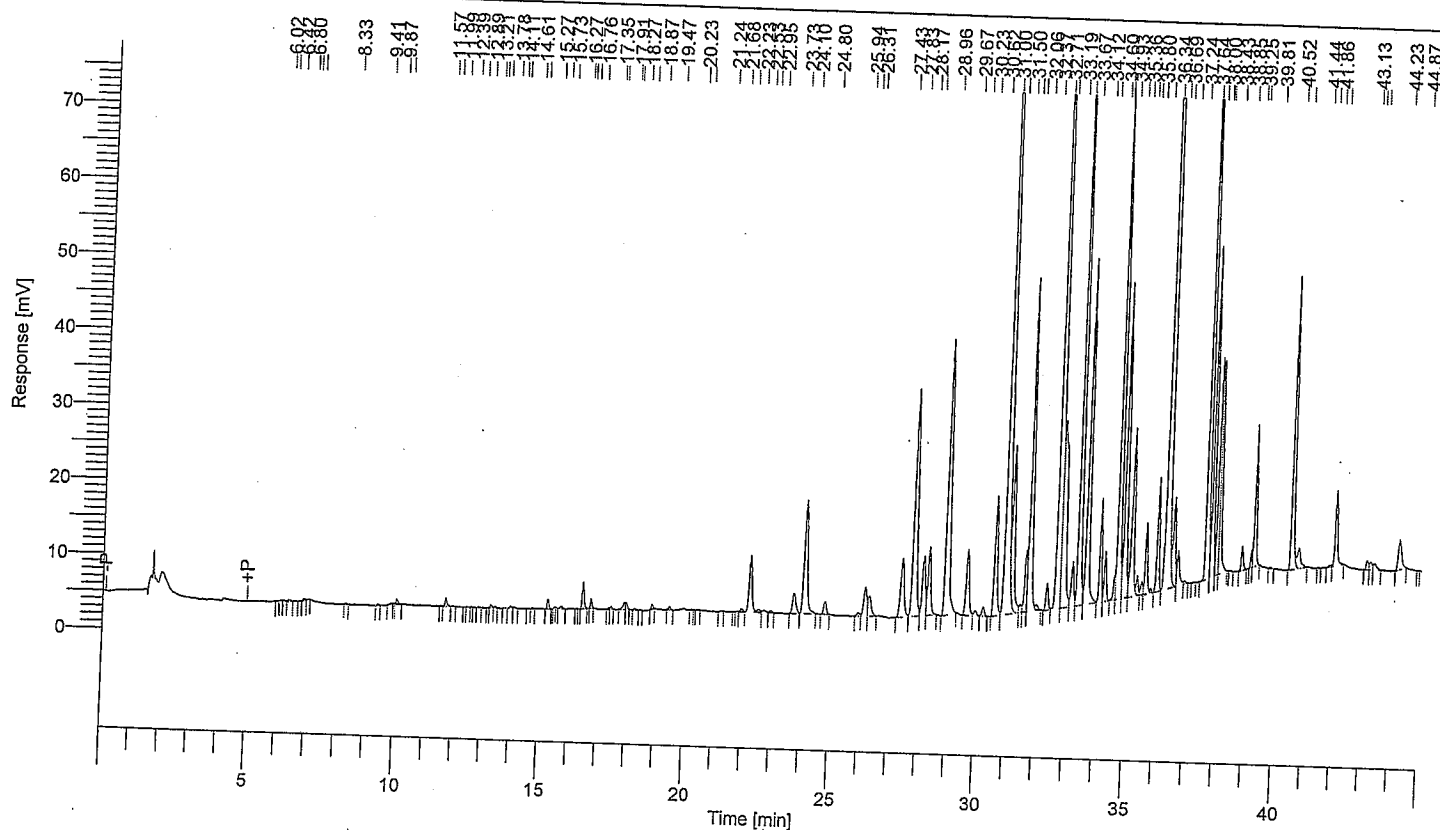
20.04 ppm

Software Version : 6.3.1.0504
 Sample Name : SPIKE SLUDGE
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 50.000000
 Cycle : 6

Date : 10/20/2007 8:03:05 AM
 Data Acquisition Time : 10/17/2007 7:52:17 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#006.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.06	3064
11.73	5078
15.27	5392
15.73	2025
16.47	14399
16.76	4667
17.91	5663
17.97	3521
18.87	2630
19.47	2080
21.94	2402
22.23	51601
22.53	3225
22.70	2594
23.73	21723
24.10	118631
24.80	11418
25.94	2927
26.16	30172
26.31	21625
27.43	64386
27.83	232956
28.17	59418
28.35	66525
28.96	281021
29.67	62325
29.96	4033
30.23	7214
30.62	102002

$$\Sigma \text{area} = 888122$$

$$n_{\text{inj}} = \frac{888122}{353264.5}$$

$$= 2.5140$$

$$\text{ppm} = \frac{2.5140}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.1006$$

$$\% \text{Recovery} = \frac{0.1006}{0.1} \times 100 = 101\%$$

Time [min]	Area [μ V·s]
31.00	768491
31.19	137375
31.50	6846
31.67	41519
31.79	260751
32.06	5625
32.37	19124
32.71	553432
32.83	231236
33.19	36621
33.41	453768
33.67	253129
34.12	67516
34.28	35696
34.60	12302
34.73	387885
34.93	224691
35.18	140086
35.36	14091
35.52	8285
35.64	48012
35.80	2501
36.04	69641
36.34	921183
36.54	65064
36.69	28555
36.93	2378
37.64	439500
37.82	207056
38.00	122408
38.06	119158
38.85	14237
39.14	8345
39.25	87883
40.52	196240
40.77	24609
42.03	58943
43.13	7003
43.25	6741
43.38	6745
44.23	29452

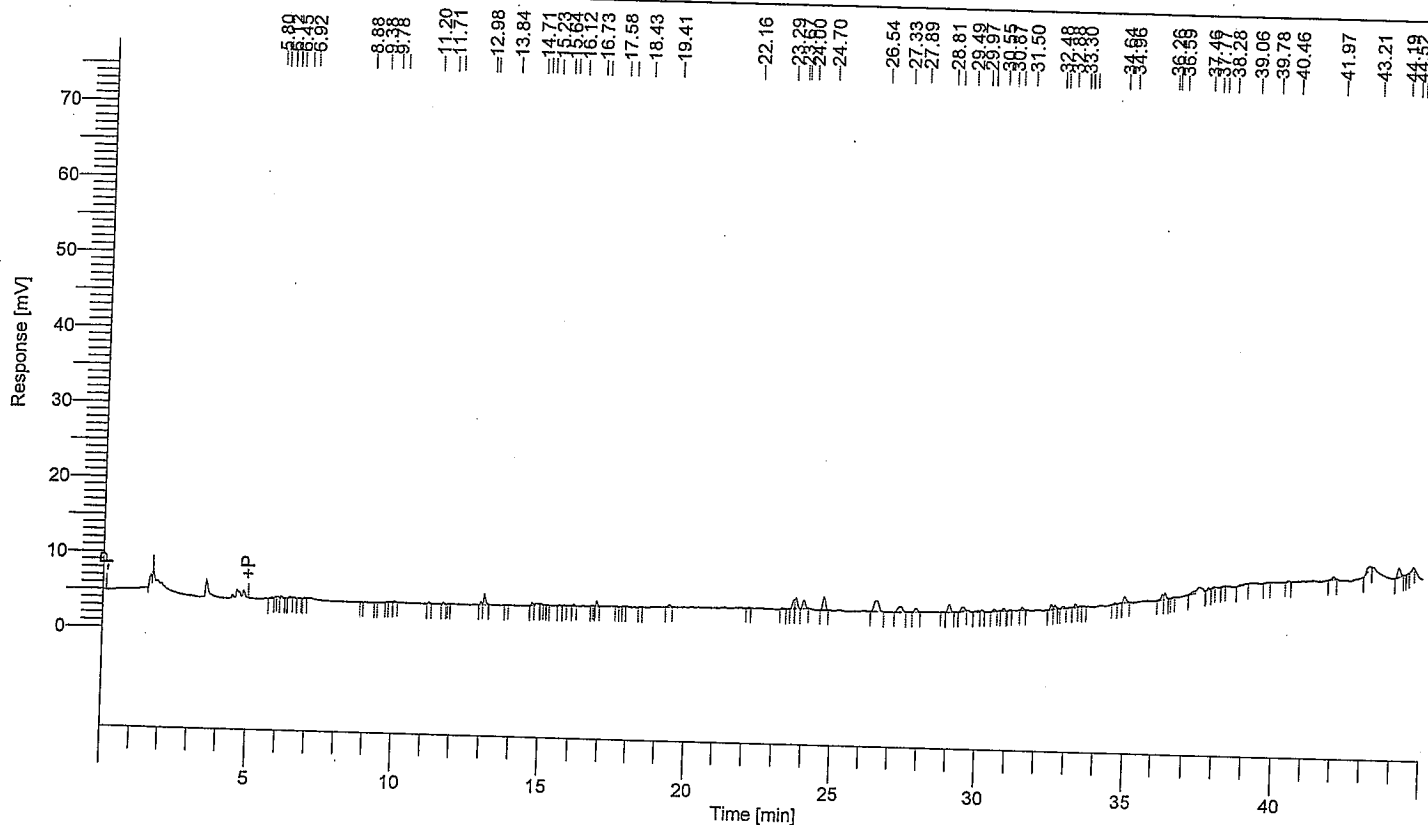
7318843

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62207
 Sample Name : 22692 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 50.000000
 Cycle : 19

Date : 10/18/2007 1:20:34 PM
 Data Acquisition Time : 10/18/2007 7:16:35 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#019.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
13.10	6136
14.87	2151
16.89	2353
23.67	6086
23.74	8943
24.00	7780
24.70	11724
26.54	17858
27.33	8843
27.89	3606
29.03	7661
29.49	4641
32.48	3755
32.60	2427
33.30	2166
34.96	5000
36.26	4203
36.35	3876
37.46	10122
41.97	2657
43.21	4740
44.19	7990

<0.40 ppm total PCB.

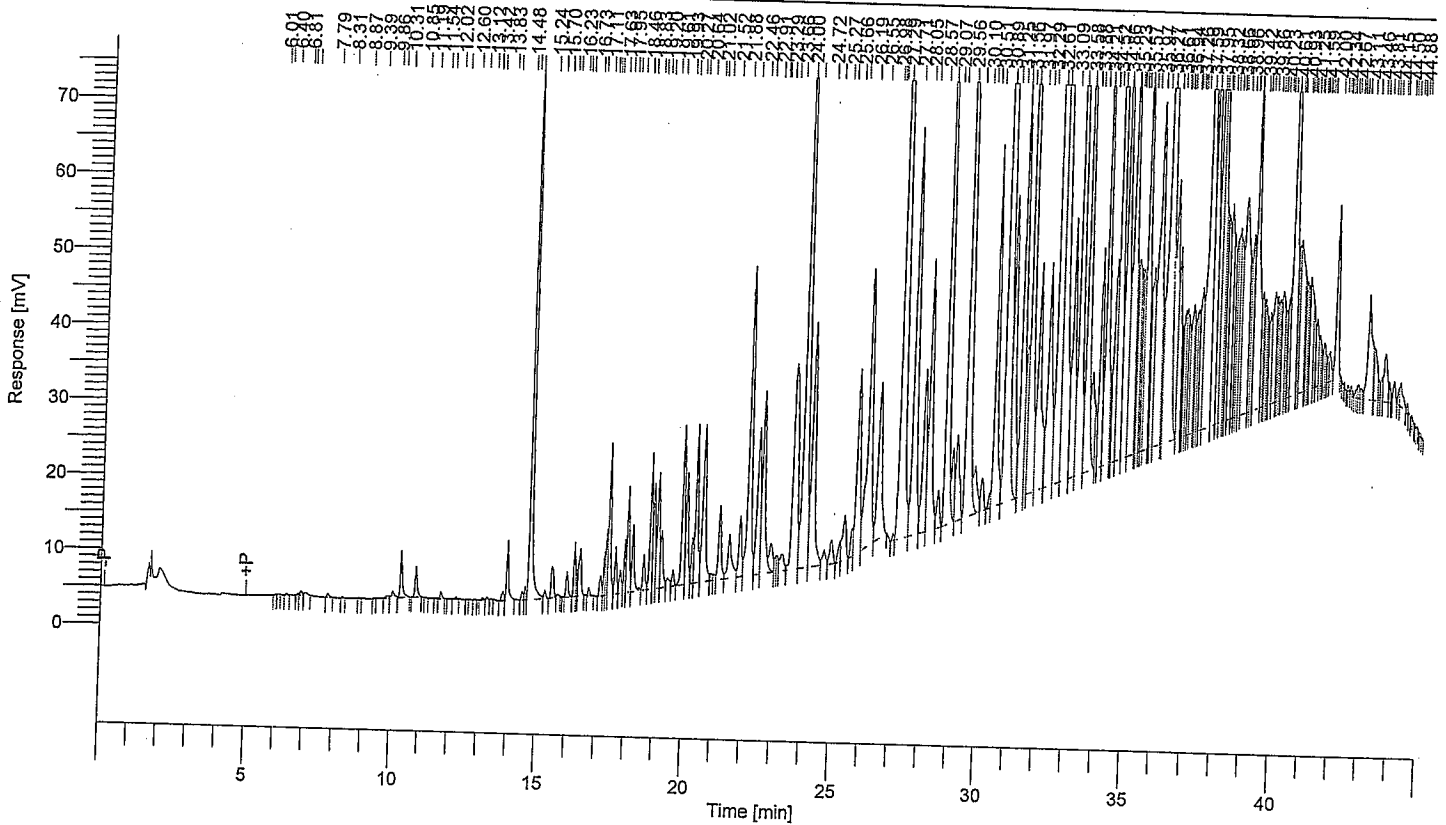
Both sample & duplicate
 are BDL. 8/10/18/2007.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62209
 Sample Name : 22687 MS
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 50.000000
 Cycle : 21

Date : 10/18/2007 1:20:36 PM

Data Acquisition Time : 10/18/2007 9:02:05 AM
 Channel : A
 Operator : enweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#021.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.90	3051
7.05	2719
7.79	2850
9.86	2622
10.03	5939
10.31	32852
10.85	19233
11.71	3861
13.83	7411
13.96	38215
14.48	5266
14.59	7177
14.72	399967
15.24	4936
15.48	26729
15.99	16750
16.23	28122
16.32	12501
16.43	39387
16.73	4227
17.11	14140
17.25	19663
17.32	32605
17.40	100160
17.63	31240
17.78	18164
17.95	30069

See 1:10 dilution.

Time [min]	Area [μ V·s]
18.05	78666
18.23	47872
18.60	26038
18.83	86992
18.94	75359
19.09	87162
19.20	46154
19.43	8830
19.61	10838
19.83	116821
20.07	86610
20.27	29049
20.39	135529
20.64	161402
20.93	5183
21.02	4370
21.19	64794
21.52	54547
21.88	53835
22.16	295647
22.46	146267
22.62	191727
22.91	30254
23.08	7840
23.11	8635
23.29	23312
23.66	305286
24.00	645768
24.27	293348
24.72	15622
24.97	25061
25.27	16812
25.40	49268
25.66	21066
25.81	195853
26.19	381258
26.55	199814
27.05	3514
27.29	858502
27.71	456134
28.05	177606
28.24	302256
28.57	36387
28.84	594107
29.07	60638
29.20	105863
29.56	859728
29.84	60680
30.10	27435
30.37	9452
30.51	333080
30.89	1916246
31.09	271195
31.25	16729
31.41	396807
31.56	95170
31.69	700645
31.97	271631
32.16	17308
32.29	286918
32.61	1898708
32.73	829412
33.09	267587
33.32	907657
33.58	518959
33.77	90109
33.88	37090
34.04	174173
34.21	452345
34.38	21956
34.41	19791
34.52	170287
34.65	791455
34.86	561838
35.11	520415
35.23	54321
35.28	159411
35.38	75781
35.43	50915
35.45	69756
35.57	411323
35.69	54628
35.79	145927
35.97	443990
36.11	49560
36.27	1808281

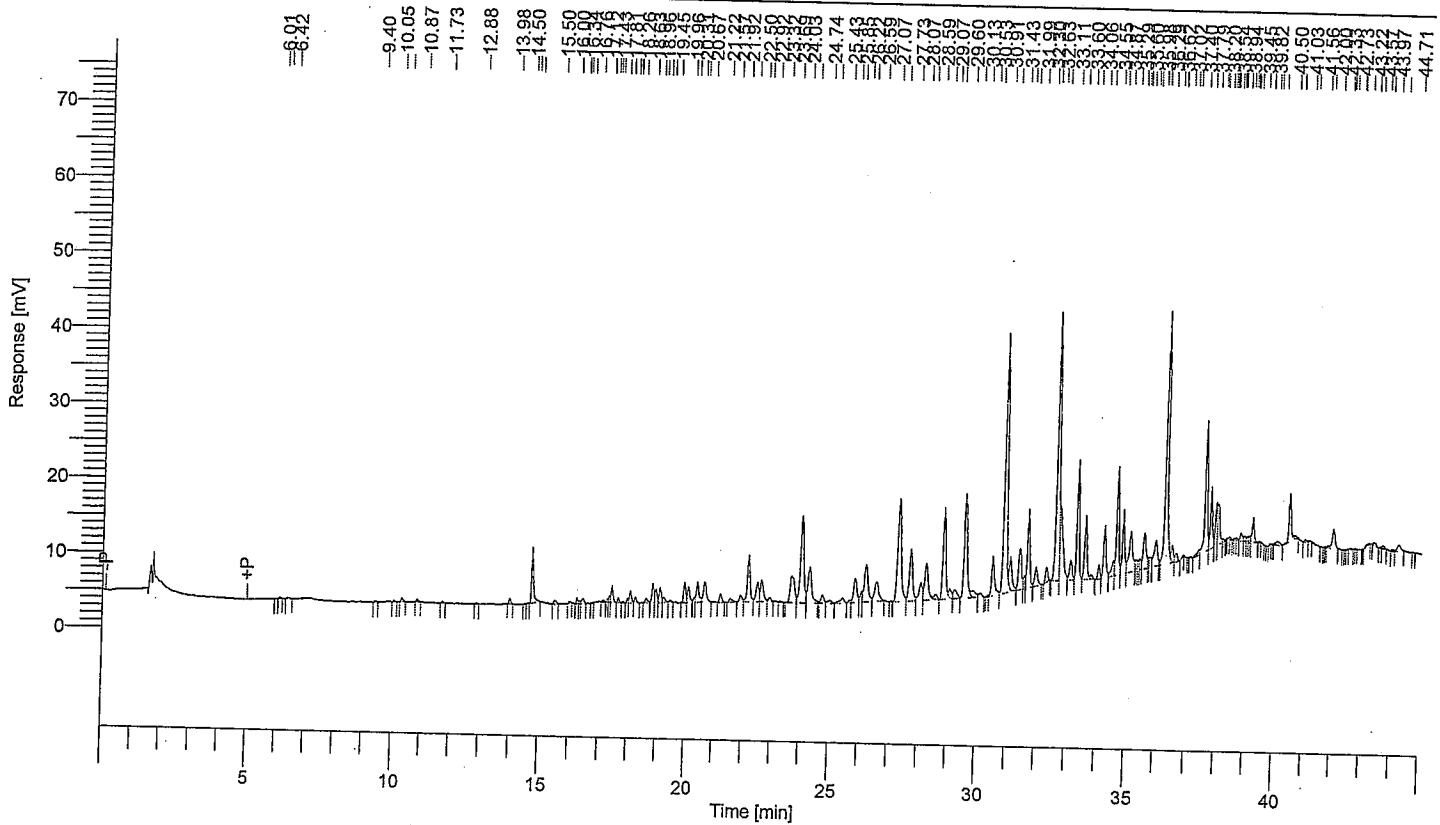
Time [min]	Area [μ V-s]
36.49	228785
36.61	175637
36.72	40888
36.77	25717
36.84	75528
36.89	66038
36.94	58709
37.09	119106
37.12	42104
37.22	63130
37.26	52884
37.31	31064
37.39	112431
37.59	1105219
37.78	585922
37.95	369730
38.01	378788
38.13	93743
38.19	133983
38.32	204288
38.40	123958
38.52	88831
38.61	130102
38.66	113049
38.82	346674
38.96	81223
39.07	96701
39.10	52109
39.21	409212
39.42	65599
39.49	36708
39.52	61886
39.61	36019
39.72	83220
39.86	118594
39.93	43030
40.00	44547
40.04	44012
40.11	93859
40.23	46138
40.28	25753
40.36	57164
40.48	479696
40.61	38199
40.64	44364
40.68	41828
40.72	177604
40.87	43147
40.93	50064
40.99	40861
41.05	113574
41.17	46341
41.25	14342
41.29	44907
41.40	28655
41.45	15109
41.54	23952
41.59	13270
41.64	7314
41.69	7007
41.73	8447
41.76	19357
42.00	137315
42.50	2588
42.67	2553
42.73	4872
42.77	6094
42.84	6152
42.92	2590
43.11	138185
43.26	14030
43.30	44894
43.46	9515
43.54	13662
43.68	54709
43.81	11073
43.88	3354
43.97	14948
44.15	6857
44.21	22222
44.43	3220
44.50	2007

31307210

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62198
 Sample Name : 22687 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

Date : 10/18/2007 1:20:27 PM
 Data Acquisition Time : 10/17/2007 11:22:45 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#010.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
10.33	2320
13.98	3057
14.74	34720
15.50	2774
16.25	3156
16.46	3656
17.34	3137
17.43	10524
17.65	2530
17.98	2318
18.07	7967
18.26	3984
18.63	3431
18.85	11776
18.96	9482
19.11	10815
19.23	4455
19.96	14434
20.09	12497
20.31	2956
20.41	18600
20.67	19289
21.22	6365
21.57	3861
21.92	5801
22.19	43065
22.50	18653

$$\Sigma \text{Area (Aroclor 1260)} = 186053$$

$$\text{ng-inj} = \frac{186053}{353264.5} = 0.5267$$

$$\text{ppm} = \frac{0.5267}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.2107$$

$$\% \text{Recovery} = \frac{(0.2107 - 0.1317)}{0.1} \times 100 = 79\%$$

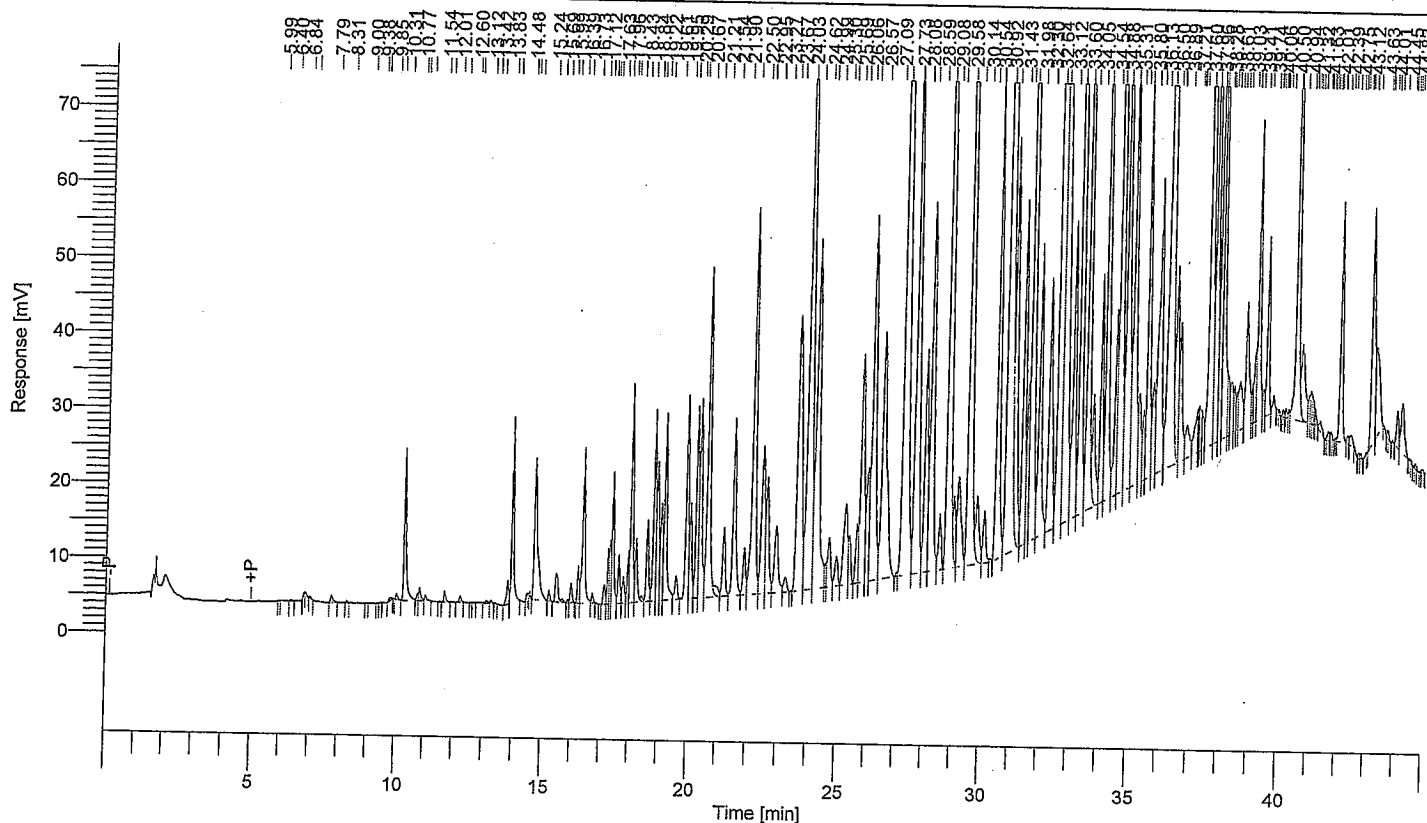
Time [min]	Area [μ V·s]
22.65	21315
22.92	3184
23.69	40344
24.03	93443
24.31	43005
24.74	7961
25.00	3376
25.43	6810
25.85	26489
26.08	6855
26.22	47148
26.59	26038
27.33	119410
27.73	55348
28.07	19794
28.26	41889
28.59	5642
28.87	86885
29.07	8158
29.22	10726
29.60	102302
29.87	9711
30.13	4228
30.53	34302
30.91	233613
31.12	29409
31.43	36940
31.59	6718
31.71	63046
31.99	15842
32.30	10125
32.63	217067
32.76	74954
33.11	16272
33.34	83149
33.60	43383
33.79	3419
34.06	9662
34.24	40447
34.55	13550
34.67	78623
34.87	46686
35.12	47237
35.29	3878
35.32	4870
35.41	4493
35.45	6360
35.60	32220
35.72	3280
35.79	8126
35.98	25305
36.29	182608
36.50	12455
36.62	6278
37.40	4609
37.60	95226 ~
37.79	40870 ~
37.97	24067 ~
38.02	25890 ~
38.83	5934
38.94	3213
39.03	2488
39.08	2045
39.22	17178
40.08	4840
40.50	33813
40.68	2684
42.00	17805
43.22	2079
43.37	2479
43.70	2162
44.23	6195

2743577

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62211
 Sample Name : 22690 MSD
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 50.000000
 Cycle : 23

Date : 10/18/2007 1:20:38 PM
 Data Acquisition Time : 10/18/2007 10:47:49 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#023.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
7.79	5359
9.85	2643
10.03	3256
10.31	104996
10.77	3578
10.85	9009
11.06	3612
11.70	6428
12.23	3762
13.12	2137
13.83	14799
13.97	116113
14.72	148337
15.24	5491
15.48	25695
15.69	2404
15.99	12141
16.24	19428
16.39	120618
16.73	5232
17.12	13379
17.25	27340
17.32	31079
17.41	87436
17.63	33267
17.79	20229
17.96	27024

See 1:10 dilution

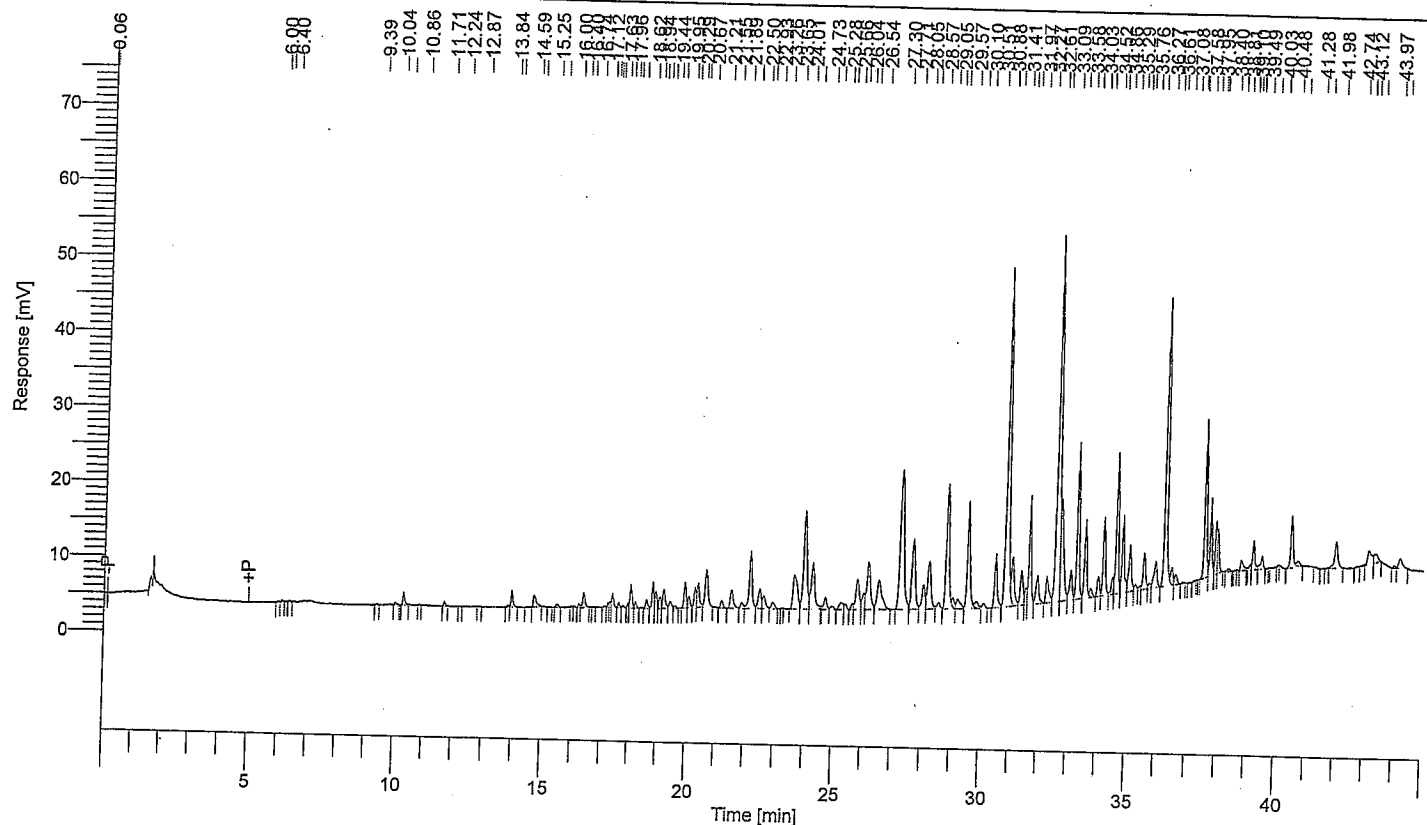
Time [min]	Area [μV·s]
18.05	161998
18.24	47168
18.43	3802
18.62	57419
18.84	126650
18.94	104532
19.09	75798
19.22	150309
19.61	18931
19.95	152738
20.08	72215
20.29	139161
20.40	166571
20.67	309575
20.93	13674
21.21	55997
21.54	164169
21.90	38492
22.18	372636
22.50	154267
22.64	109800
22.95	83190
23.27	16098
23.67	382577
24.03	784542
24.30	450124
24.62	11086
24.74	52574
24.99	29830
25.30	99501
25.42	39207
25.69	44594
25.84	262289
26.06	108056
26.22	440672
26.57	396602
27.09	2079
27.33	1264458
27.73	624997
28.08	234234
28.26	392995
28.59	51478
28.87	842508
29.08	51268
29.24	116507
29.58	904738
29.87	74771
30.14	47502
30.33	2171
30.54	441030
30.92	2530836
31.11	358446
31.43	298501
31.59	98372
31.72	852607
31.98	270275
32.30	266250
32.64	2556076
32.77	963118
33.12	278689
33.34	1055564
33.60	604668
33.80	102351
34.05	161527
34.23	546948
34.54	128024
34.67	904296
34.88	622947
35.13	435608
35.31	83786
35.46	46896
35.59	325761
35.80	92743
35.99	292302
36.13	8866
36.29	1970581
36.50	146694
36.62	130960
36.89	46456
37.21	43623
37.25	16030
37.28	28539
37.37	24320
37.60	1074799
37.79	545229
37.96	354472

Time [min]	Area [μ V·s]
38.03	321274
38.21	30748
38.28	13680
38.34	38672
38.43	27432
38.53	17529
38.61	53068
38.73	6772
38.83	118772
39.03	18074
39.12	45163
39.22	226662
39.41	17500
39.52	108717
39.74	12157
40.06	2783
40.14	5531
40.26	2776
40.50	418918
40.71	93713
40.94	13856
40.99	12223
41.02	13767
41.08	7784
41.13	7499
41.32	8502
41.60	3849
41.65	2041
41.71	3735
42.01	170279
42.29	4010
42.39	9443
42.67	3097
42.75	2237
43.12	221712
43.26	111603
43.67	2039
43.70	3389
44.01	27819
44.20	54703
44.66	2256
<hr/>	
32135312	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62204
 Sample Name : 22690 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

Date : 10/18/2007 1:20:32 PM
 Data Acquisition Time : 10/18/2007 4:38:28 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#016.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
10.31	7976
11.71	2428
13.97	10269
14.73	10927
15.49	2464
16.40	11270
17.25	2371
17.33	3089
17.41	9419
17.63	2992
17.96	2230
18.06	16636
18.24	4055
18.62	5670
18.84	16509
18.94	12009
19.09	8882
19.22	15329
19.44	5036
19.95	18353
20.07	8253
20.29	13703
20.39	20057
20.67	33963
21.21	5491
21.55	17441
21.89	4771

$$\Sigma \text{area (Aroclor 1260)} = 209338$$

$$\text{ng/cm}^2 = \frac{209338}{353264.5} = 0.5926$$

$$\text{ppm} = \frac{0.5926}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.2370$$

$$\% \text{ Recovery} = \frac{0.2370 - 0.1109}{0.1} \times 100 = 126\%$$

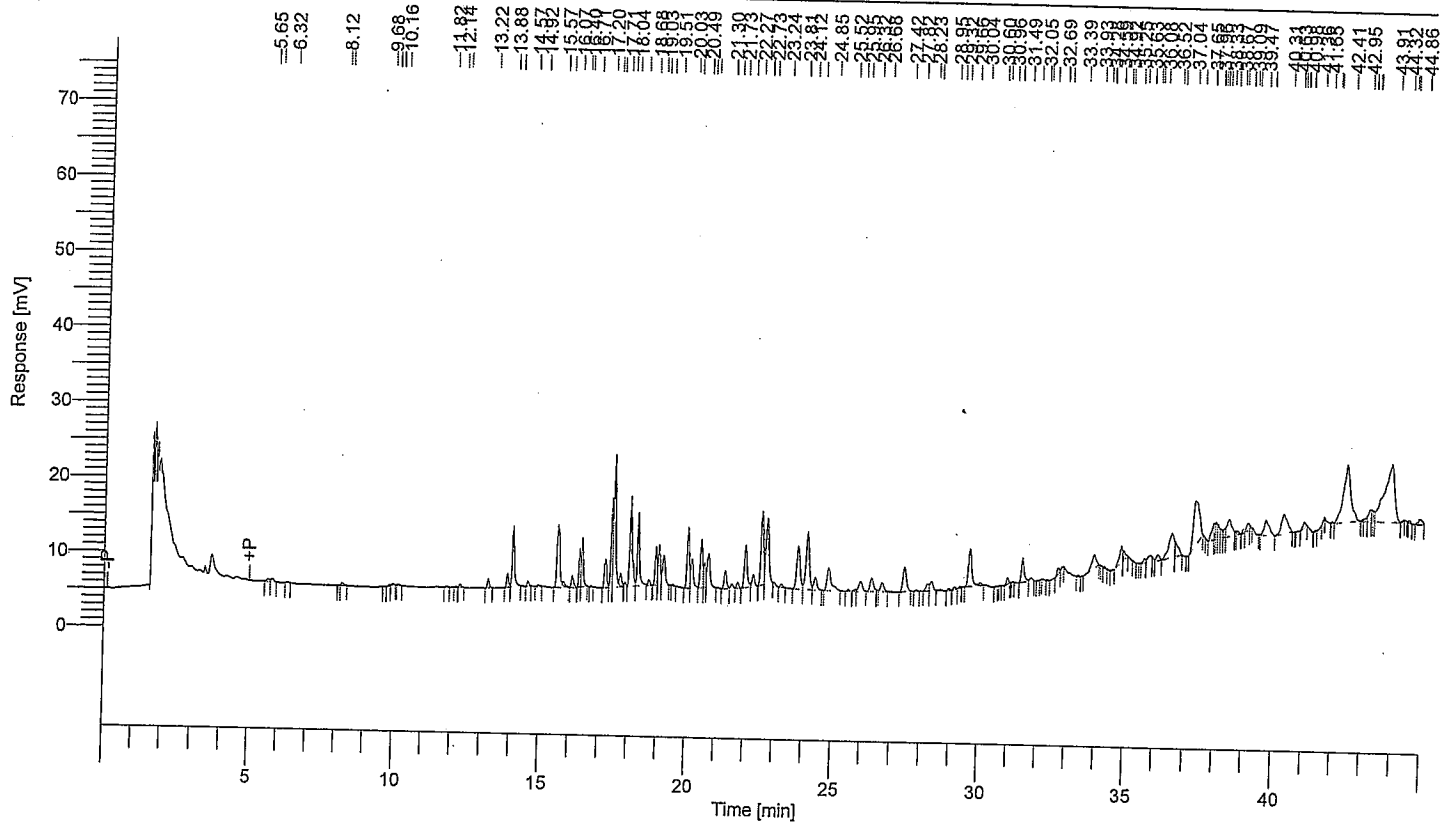
Time [min]	Area [μV·s]
22.17	53202
22.50	18913
22.63	11643
22.93	6368
23.65	49259
24.01	108875
24.28	56310
24.73	11624
24.96	3219
25.28	8404
25.41	4550
25.66	4470
25.82	32539
26.04	14399
26.19	56274
26.54	45677
27.30	170148
27.71	74191
28.05	24793
28.24	51718
28.57	6575
28.84	119371
29.05	8163
29.21	12388
29.57	101802
29.84	8269
30.10	4277
30.51	45579
30.88	298246
31.09	43152
31.41	29822
31.56	11343
31.69	84069
31.97	24776
32.27	24877
32.61	304548
32.74	98121
33.09	25692
33.31	109332
33.58	59304
33.77	7141
34.03	12814
34.20	58192
34.52	11385
34.64	97047
34.86	60049
35.10	40102
35.29	4688
35.45	2672
35.57	28912
35.76	4491
35.96	21886
36.27	202186
36.48	11893
36.61	8033
37.58	104289 ~
37.77	50562 ~
37.95	29758 ~
38.00	24729 ~
38.40	2363
38.81	9745
39.10	3428
39.21	21539
39.49	10998
40.48	38980
40.70	5702
41.98	25966
43.12	18131
43.34	10277
44.19	11135

3436966

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62189
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/1
 Sample Amount : 1.000000
 Cycle : 1

Date : 10/18/2007 1:20:17 PM
 Data Acquisition Time : 10/17/2007 3:28:48 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#001.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
5.65	2375
5.80	3025
8.22	2290
12.28	2355
13.22	5672
13.88	8216
14.06	41882
14.57	2947
15.57	57163
15.77	3751
16.07	7945
16.32	19416
16.40	30114
17.20	21997
17.40	44826
17.48	94400
17.71	9171
17.87	2685
18.04	69365
18.32	52562
18.68	3517
18.92	22875
19.03	28950
19.20	25456
20.03	44537
20.17	22917
20.49	35176

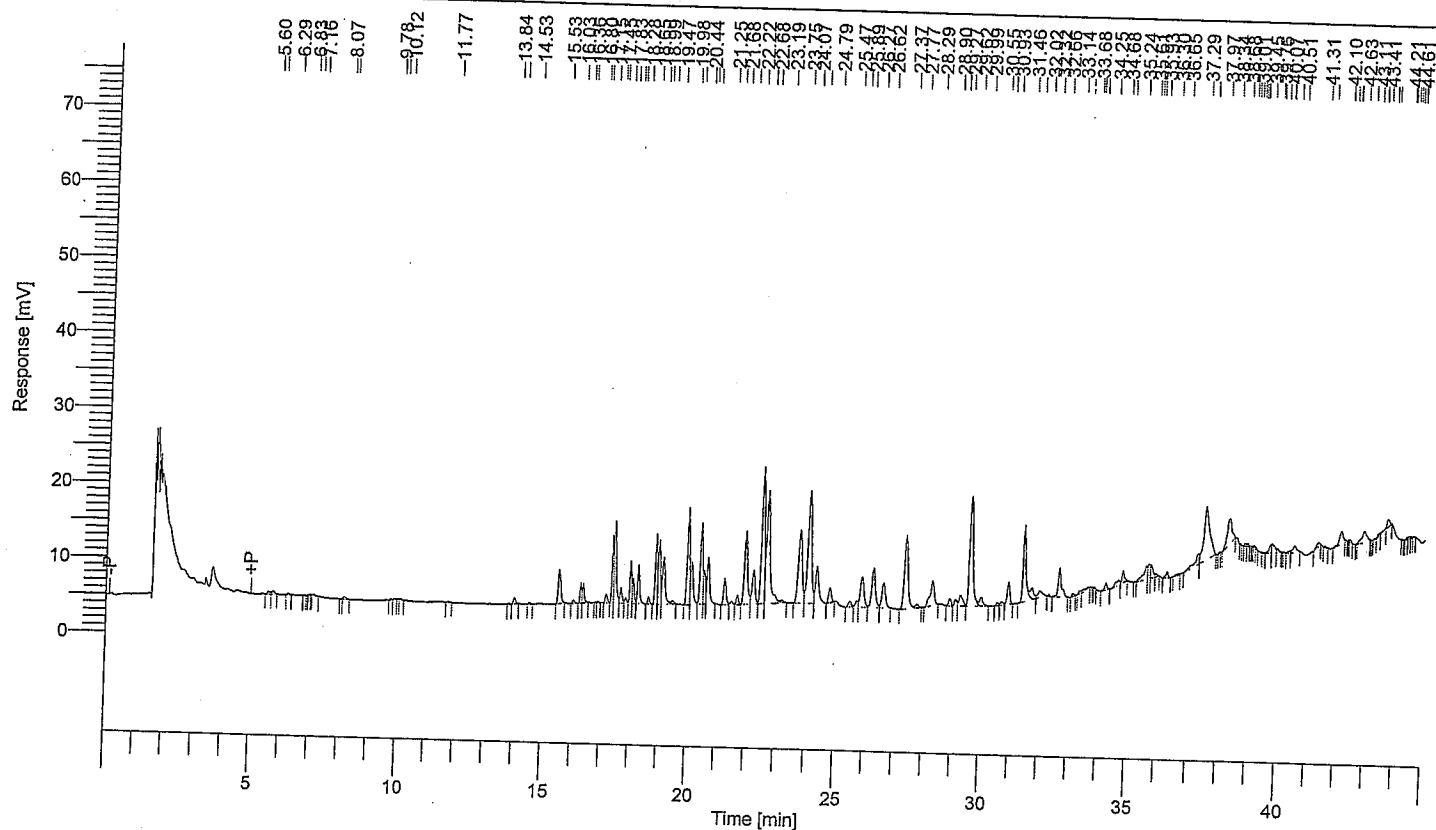
Time [min]	Area [μ V-s]
20.60	16035
20.73	31135
21.30	14056
21.53	3526
21.73	4107
22.00	39069
22.27	9945
22.56	64999
22.73	64717
23.24	2548
23.81	46472
24.12	61169
24.40	12534
24.85	28999
25.95	10914
26.32	14898
26.68	9304
27.42	26975
28.23	6392
28.35	9328
29.66	38660
30.04	2471
30.96	4449
31.49	22047
31.78	2740
32.69	4654
33.93	19862
34.84	16534
34.92	6744
35.63	3081
35.83	8324
35.91	2229
36.08	5519
36.52	37112
36.63	15444
37.30	84330
37.93	12751
37.96	6443
38.02	8848
38.09	9758
38.18	5539
38.33	5706
38.45	26427
38.74	2623
38.96	2474
39.09	6483
39.68	26429
40.31	36561
40.98	4505
42.41	135065
43.10	3597
43.21	8999
43.25	4993
43.91	181787
44.86	7028

1912923

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62190
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/18/2007 1:20:18 PM
 Data Acquisition Time : 10/17/2007 4:21:33 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#002.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2340
5.75	2915
8.18	2429
14.02	3978
15.53	27258
16.03	2304
16.28	10439
16.36	12069
17.15	6116
17.36	34622
17.45	57946
17.67	10802
17.83	3658
18.00	25639
18.09	15976
18.28	27517
18.65	4560
18.88	44416
18.99	48452
19.15	44277
19.47	2497
19.98	72699
20.12	34360
20.44	62368
20.55	21195
20.69	39284
21.25	20964

$$\sum \text{Area} = 491115$$

$$CF = \frac{491115}{2}$$

$$= 225557.5$$

1248

Time [min]	Area [μ V·s]
21.49	2756
21.68	6851
21.95	67910
22.22	31900
22.51	125096
22.68	131019
23.19	2406
23.75	88136
24.07	126170
24.34	40654
24.79	13017
25.47	5423
25.71	5789
25.89	33695
26.27	45779
26.62	28083
27.37	87331
27.77	3990
28.29	33735
28.90	6073
29.11	5504
29.27	13277
29.62	116740
29.99	10595
30.55	2262
30.71	2884
30.93	18824
31.46	75581
31.73	12872
32.02	9439
32.66	29222
33.36	2189
33.68	4315
34.25	5430
34.68	6564
34.82	9128
35.61	16071
35.70	10514
35.77	10410
35.93	2123
36.30	4533
37.29	15183
37.52	96161
38.34	38342
39.72	6846
39.76	8472
39.93	3006
40.51	8196
41.31	3720
42.10	15860
42.89	17891
43.41	2235
43.61	2114
43.69	6221

2119614

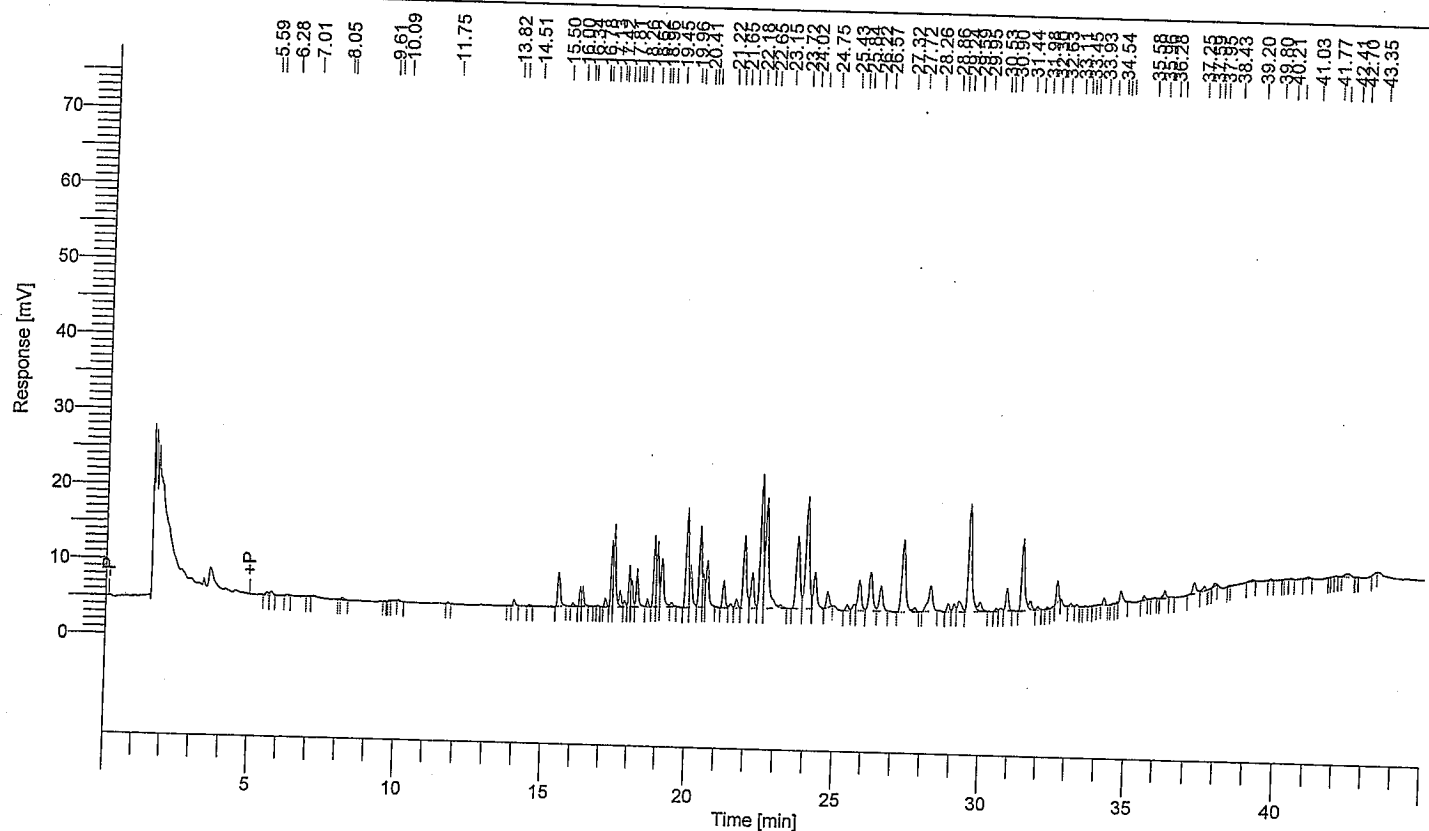
Archival
1248

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62202
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 1.000000
 Cycle : 14

Date : 10/18/2007 1:20:30 PM

Data Acquisition Time : 10/18/2007 2:53:10 AM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#014.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V·s]
5.59	2459
5.74	3245
8.16	2292
13.99	3990
15.50	28872
16.00	2346
16.26	10554
16.34	12574
17.13	6040
17.34	33820
17.42	60756
17.65	11439
17.81	4296
17.98	25526
18.06	16877
18.26	28224
18.62	4704
18.85	44599
18.96	49181
19.13	45257
19.45	3227
19.96	72927
20.09	35009
20.41	63078
20.53	21039
20.66	40456
21.22	21308

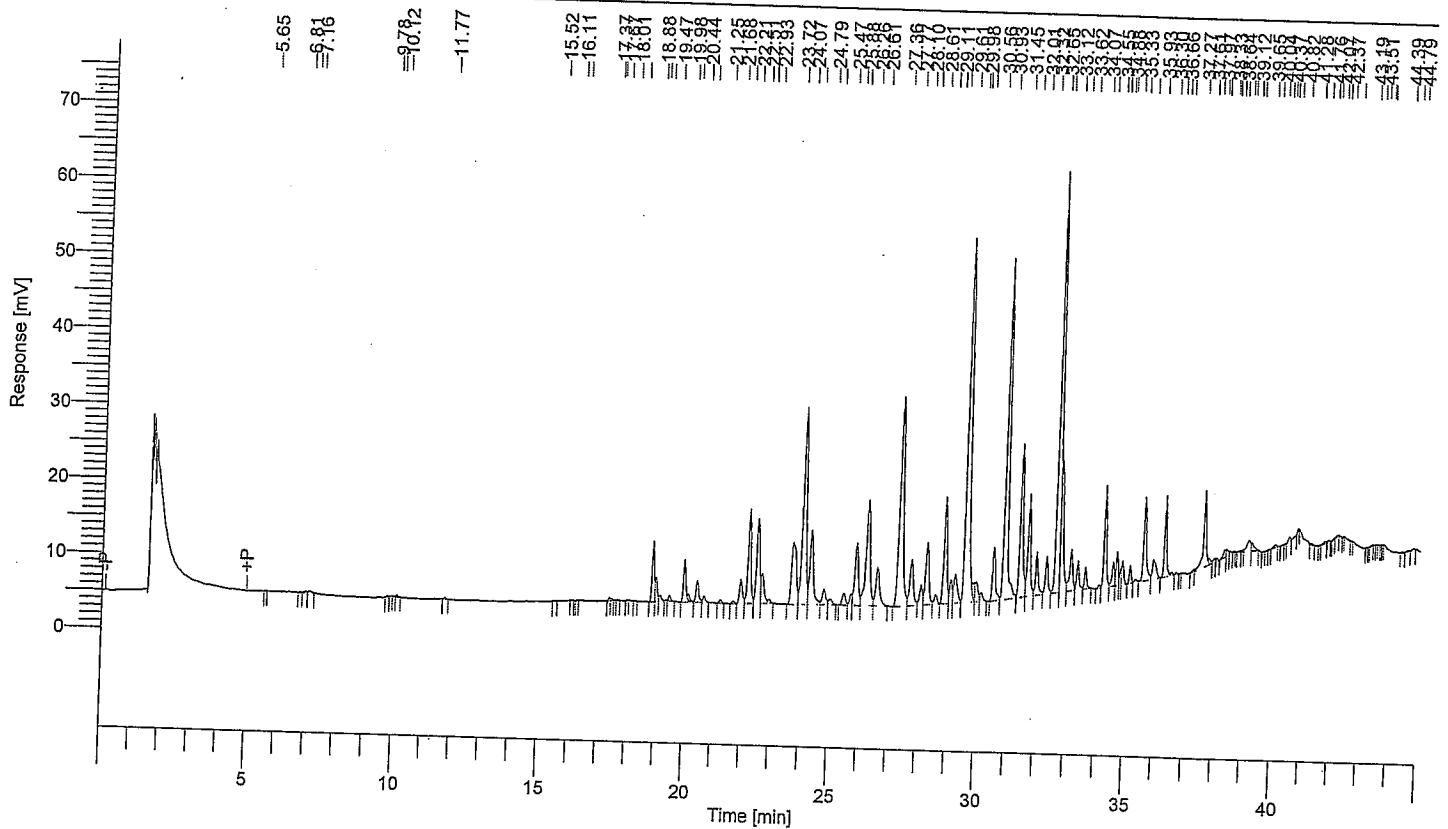
Time [min]	Area [μ V-s]
21.46	3003
21.65	7072
21.91	68907
22.18	33514
22.47	124249
22.65	135103
23.15	3202
23.72	88140
24.02	126278
24.30	42231
24.75	14770
25.43	5618
25.67	5943
25.84	34696
26.22	46371
26.57	28271
27.32	88514
27.72	3923
28.26	34708
28.86	6962
29.07	7571
29.24	14120
29.59	117748
29.95	11371
30.53	2343
30.67	3115
30.90	20085
31.44	71780
31.70	8076
31.98	2753
32.63	15551
33.11	2810
34.22	4909
34.79	11494
35.58	3310
36.28	7172
37.25	12906
37.59	3891
39.20	2288
42.41	6152

1885017

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62191
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

Date : 10/18/2007 1:20:19 PM
 Data Acquisition Time : 10/17/2007 5:14:16 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#003.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.88	40191
18.98	18256
19.14	4822
19.47	3411
19.98	33124
20.12	5161
20.44	18048
20.68	5026
21.25	2662
21.68	2000
21.95	22070
22.21	86269
22.51	86515
22.88	31901
22.93	2451
23.72	94918
24.07	210002
24.33	88636
24.79	18054
25.01	6659
25.47	12170
25.73	8345
25.88	73612
26.26	137665
26.61	48837
27.36	259854
27.77	54804

Time [min]	Area [μ V·s]
28.10	20245
28.30	66253
28.61	9079
28.89	102899
29.11	20297
29.27	33908
29.61	382016
29.90	12916
29.98	20533
30.15	7673
30.56	48608
30.93	318611
31.45	148907
31.73	87011
32.01	38073
32.32	29674
32.65	337015
32.77	110234
33.12	39364
33.35	22161
33.62	15959
34.07	2412
34.25	76864
34.55	18697
34.68	23131
34.82	6875
34.88	18399
35.14	11180
35.33	2167
35.60	68494
35.93	21661
36.30	55095
36.52	2296
37.61	64873
37.80	4380
37.97	3076
38.33	6245
38.39	4529
38.52	2082
39.12	13439
39.24	8155
40.04	2576
40.52	3232

3664554

Time [min]	Area [μV·s]
33.35	374773
33.62	215109
34.07	55983
34.24	29426
34.68	318204
34.89	188761
35.13	113698
35.33	11502
35.48	7724
35.61	37788
36.00	53736
36.30	720339
36.51	48941
36.66	16456
37.62	343418
37.80	170382
37.98	98437
38.04	94292
38.83	14739
39.23	83213
39.61	11806
40.51	160183
40.77	20723
42.02	52999
43.12	4521

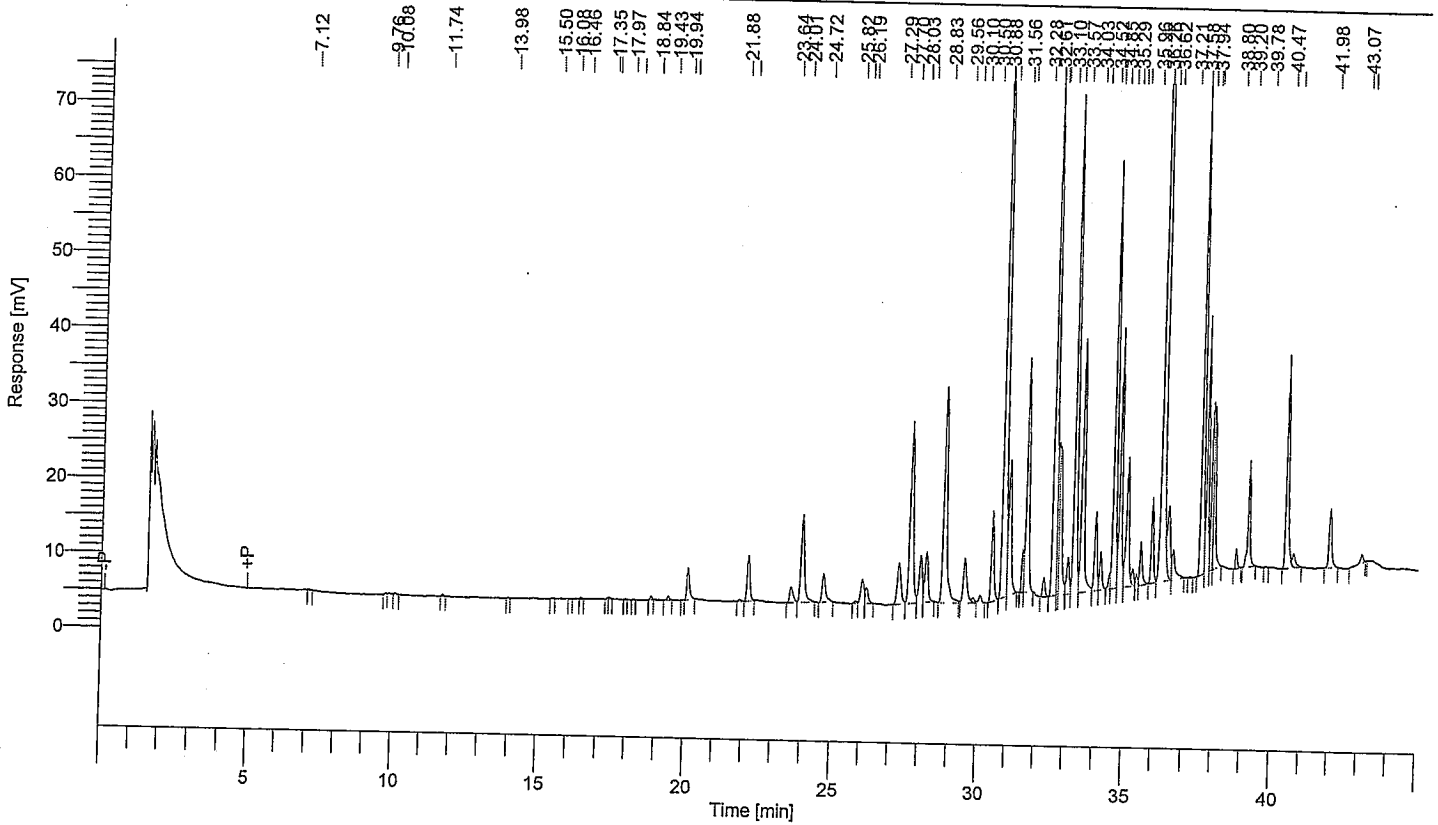
5795081

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62208
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/20
 Sample Amount : 1.000000
 Cycle : 20

Date : 10/18/2007 1:20:35 PM

Data Acquisition Time : 10/18/2007 8:09:20 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#020.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
18.84	2100
19.43	3015
20.09	27294
22.17	39430
23.64	17263
24.01	95700
24.72	32260
26.05	25157
26.19	15921
27.29	49191
27.70	187290
28.03	47896
28.23	55577
28.83	244852
29.56	49789
29.84	4328
30.10	7013
30.50	77421
30.88	585426
31.08	127065
31.56	25483
31.68	196153
32.28	14500
32.61	440206
32.75	71399
32.79	120310
33.10	32449

CF = 396346

Time [min]	Area [μV·s]
33.31	374705
33.57	213262
34.03	56388
34.20	30032
34.52	8184
34.64	316296
34.85	192777
35.10	117270
35.29	12199
35.44	7514
35.57	35760
35.96	55849
36.26	736125
36.47	58316
36.62	31685
37.58	341391
37.77	172573
37.94	97928
38.00	100800
38.80	12081
39.20	80999
40.47	155105
40.73	15108
41.98	49101
43.07	8470
<hr/>	
5874408	

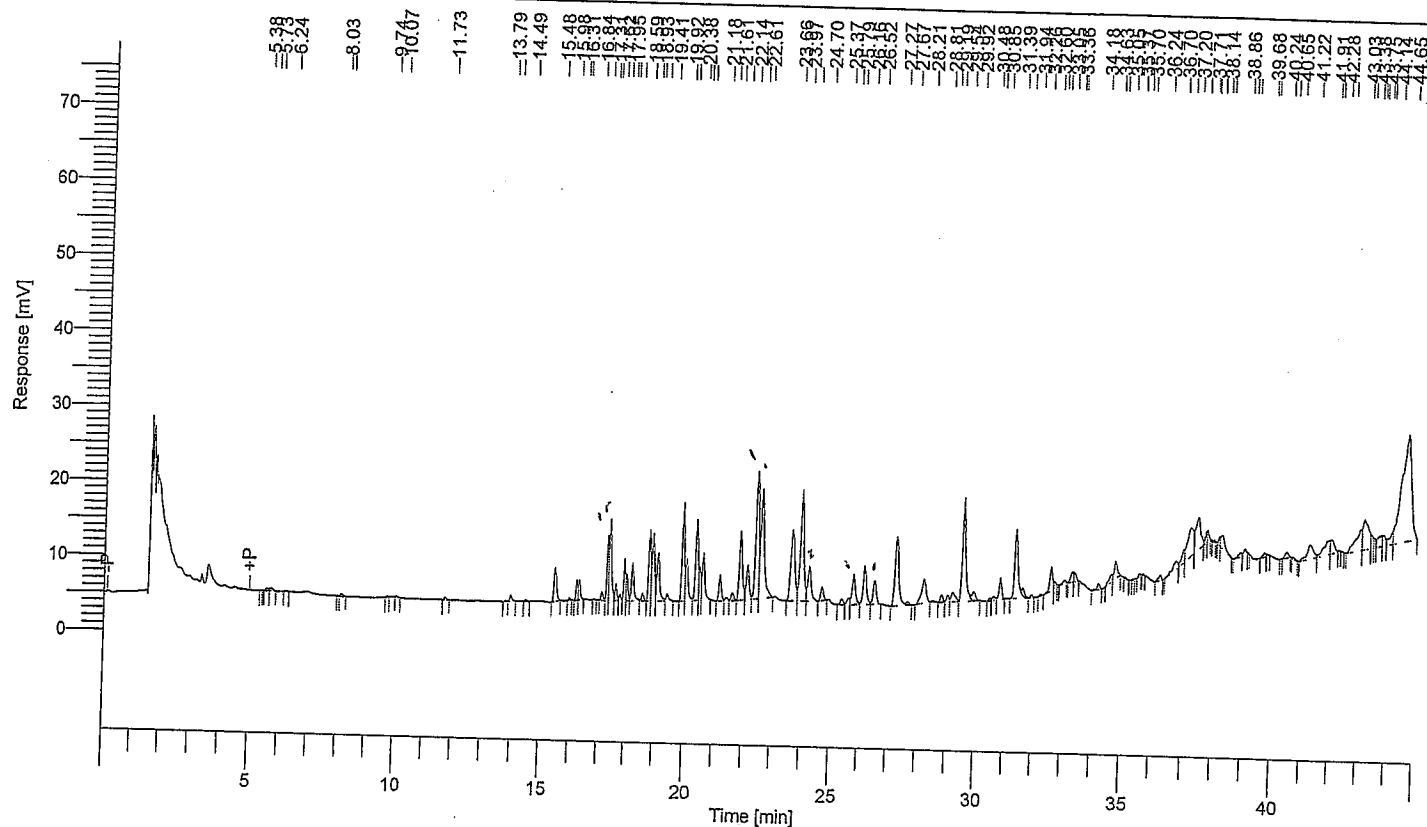
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62269
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/19/2007 1:27:08 PM

Data Acquisition Time : 10/18/2007 4:48:14 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#002.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.57	2225
5.73	3098
8.14	2213
13.97	4271
15.48	27857
16.23	10553
16.31	12250
17.10	6589
17.31	34136
17.39	61034
17.62	11948
17.78	3785
17.95	24836
18.03	16839
18.23	28902
18.59	5066
18.82	44253
18.93	48917
19.10	44918
19.41	5673
19.92	72806
20.05	35344
20.38	61243
20.48	21989
20.62	40095
21.18	21210
21.41	2594

$$\sum \text{area} = 447193$$

$$CF = \frac{447193}{2}$$

$$= 223596.5$$

Copy of original included because it was used
 to calculate 226891.50. SW 10/20/2007

CF = Calibration factor.

Time [min]	Area [μ V-s]
21.61	6272
21.87	66973
22.14	33247
22.43	122824 -
22.61	128012 ✓
23.66	87288
23.97	123264
24.25	41085 -
24.70	12745
25.37	5375
25.62	5459
25.79	33320 -
26.16	43799
26.52	26742 -
27.27	86139
27.67	3271
28.21	31545
28.81	6266
29.02	5723
29.19	12427
29.54	115331
29.92	11135
30.48	2099
30.63	3919
30.85	19400
31.39	76143
31.64	7907
31.94	2091
32.60	20434
32.72	5516
33.05	2767
33.30	7952
33.36	7573
34.18	4919
34.63	8515
34.76	16540
36.24	4735
36.70	13374
36.97	12731
37.20	55565
37.45	51080
37.71	5970
37.75	6613
38.14	4345
38.25	18385
38.86	4187
39.01	5069
39.68	4136
40.42	6279
41.22	29111
41.91	29451
42.02	19117
43.03	42364
43.15	57806
43.38	10172
43.49	4918
43.55	2043
43.75	16418
43.83	9608
44.14	14024
44.65	337110

2613276

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62271
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

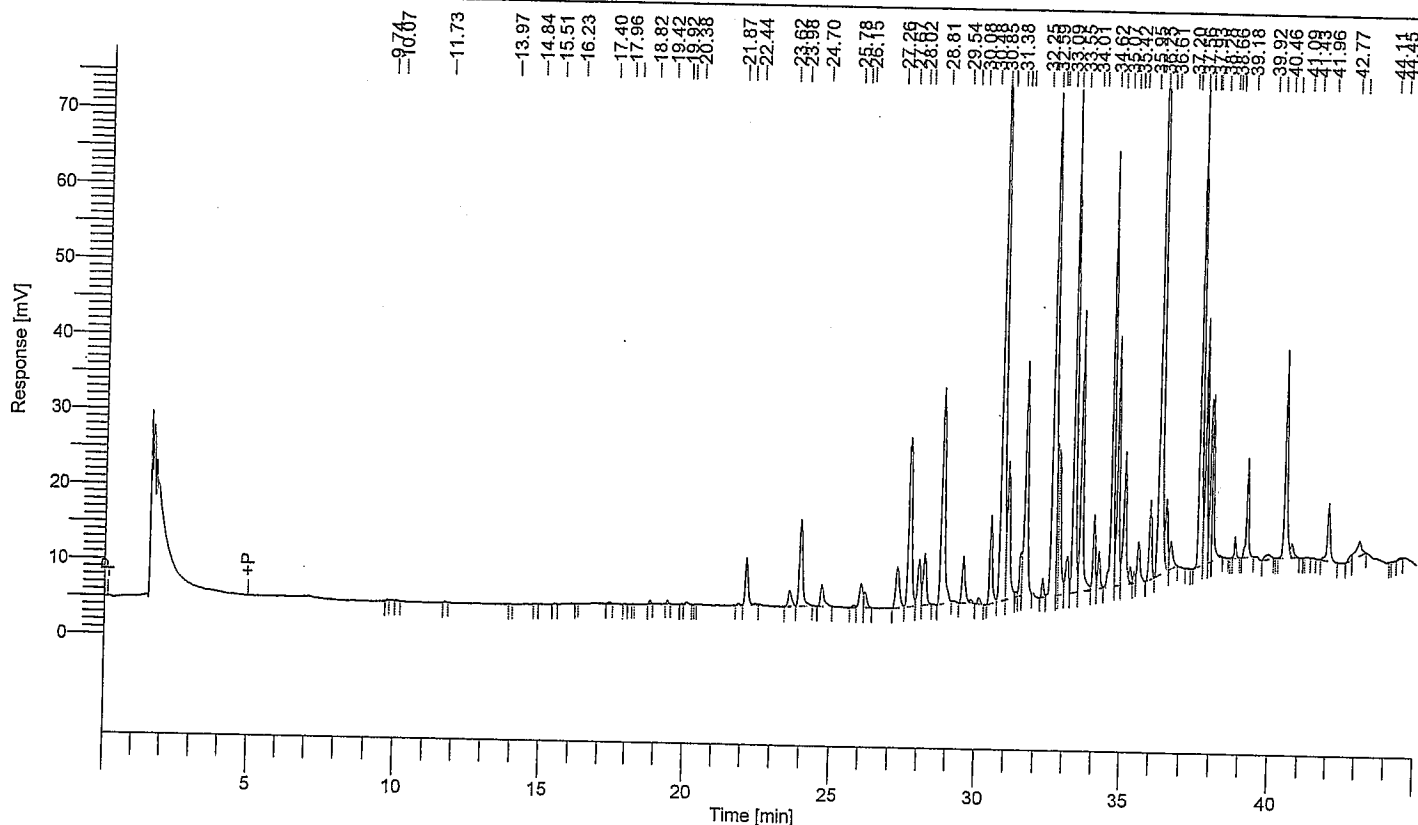
Date : 10/19/2007 1:27:10 PM

Data Acquisition Time : 10/18/2007 6:33:46 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#004.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
18.82	2302
19.42	2161
20.07	2365
22.14	40369
23.62	17853
23.98	94174
24.70	24643
25.78	2401
26.02	24152
26.15	16676
27.26	49030
27.67	186384
28.02	46886
28.20	52915
28.81	230755
29.54	48317
29.81	2870
30.08	5098
30.48	79379
30.85	588156
31.06	134488
31.38	4754
31.54	27760
31.66	198090
32.25	13850
32.59	447468
32.72	83710

$$\text{Area} = 712412$$

$$\text{Calibration factor} = \frac{712412}{2} = 356206$$

Copy of original included because it was used to calculate 22689 1:50. SGP 10/20/2007.

Time [min]	Area [μ V·s]
32.79	105240
33.09	34452
33.29	378617
33.55	214429
34.01	56420
34.19	29671
34.62	323331
34.83	192106
35.07	115969
35.27	11520
35.42	7557
35.56	35499
35.95	53110
36.25	723598
36.46	53839
36.61	25061
37.56	337562 ✓
37.75	174251 ✓
37.93	94291 ✓
37.98	106308 ✓
38.78	12636
39.18	73224
39.92	9042
40.46	158543
40.71	15307
41.96	55215
42.77	5376
43.04	27230
<hr/>	
5856409	

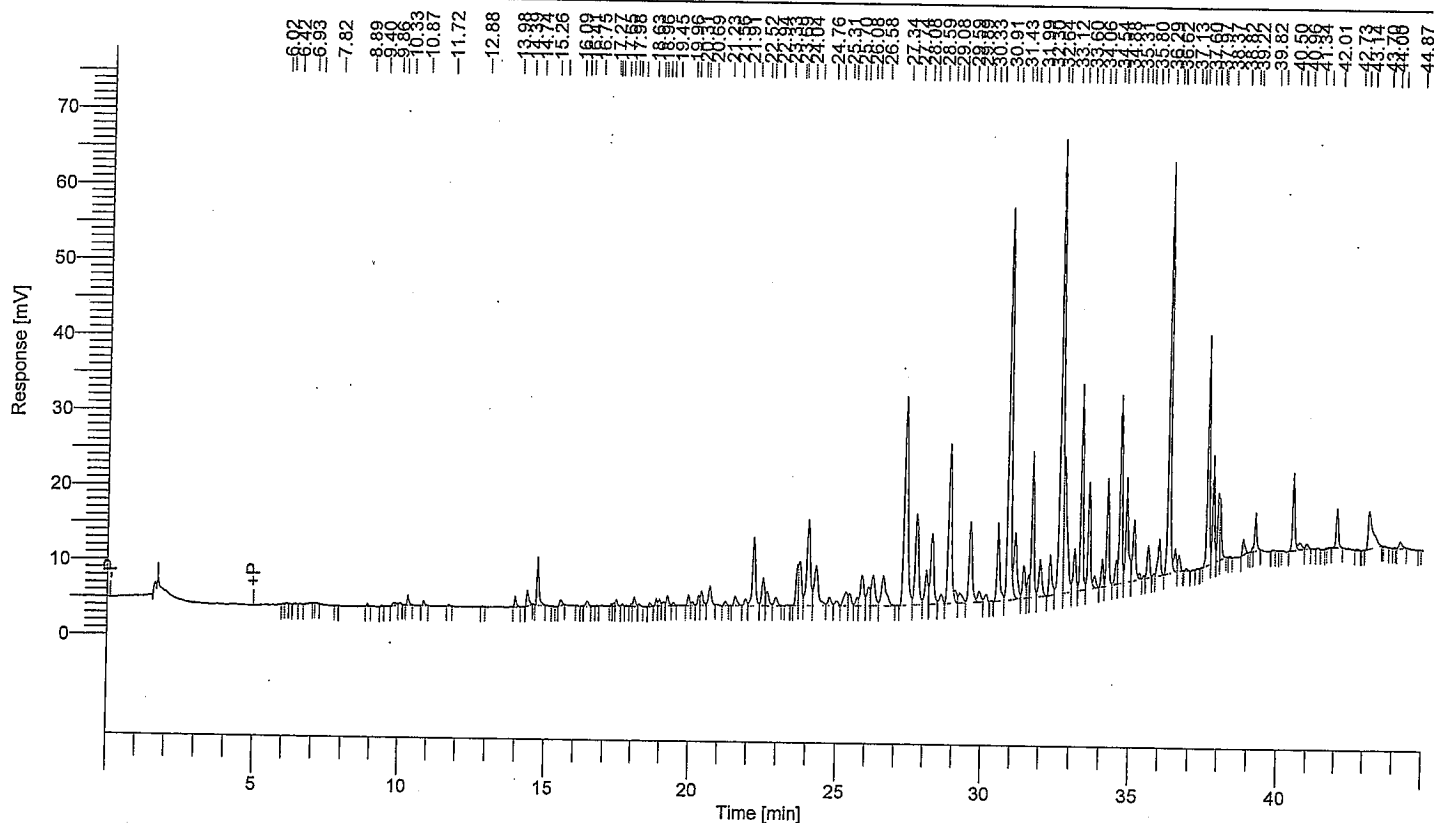
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62195
 Sample Name : 22685 1:10
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 50.000000
 Cycle : 7

Date : 10/18/2007 1:20:24 PM
 Data Acquisition Time : 10/17/2007 8:44:56 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



Time. [min]	Area [μ V·s]
22.94	8046
23.69	27198
23.75	40485
24.04	94896
24.30	54604
24.76	7995
25.00	5073
25.31	16473
25.43	11158
25.70	6828
25.86	33557
26.08	19901
26.24	35867
26.58	47275
27.34	245983
27.74	100755
28.08	35698
28.27	74811
28.59	10681
28.87	161758
29.08	10006
29.24	13351
29.59	77116
29.89	12550
30.14	6785
30.54	67454
30.91	363374
31.12	59054
31.43	27334
31.59	14863
31.71	116321
31.99	31679
32.30	34599
32.64	379719
32.76	142637
33.12	36037
33.34	150967
33.60	82612
33.80	9513
34.06	17450
34.23	77884
34.54	15057
34.67	132820
34.88	89723
35.12	54780
35.31	3544
35.60	24266
35.80	2243
35.98	28485
36.29	284629
36.51	16102
36.62	11755
37.60	148346
37.79	69854
37.97	45181
38.02	29319
38.82	11249
39.11	2191
39.22	26574
40.50	54045
40.72	8580
40.96	4394
42.01	29627
43.14	58091
44.22	7304

4197393

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62196
 Sample Name : 22686 1:10
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 50.000000
 Cycle : 8

Date : 10/18/2007 1:20:25 PM

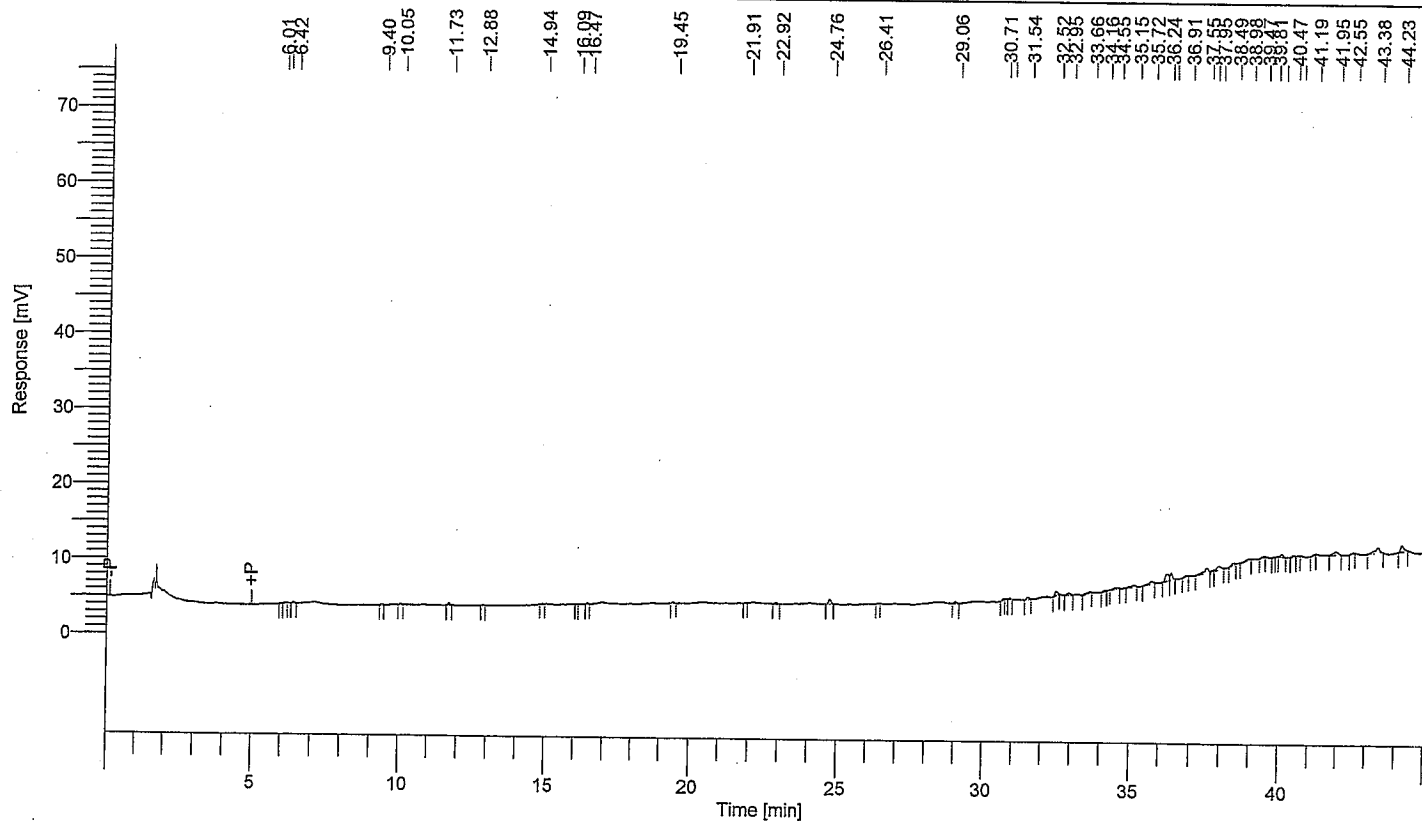
Data Acquisition Time : 10/17/2007 9:37:36 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#008.rst

Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.76	3903
32.52	3253
32.95	2378
34.55	2299
35.15	2323
35.72	3597
36.24	7694
36.37	4732
37.55	7034
37.95	4760
40.07	2211
41.95	5318
43.38	8361
44.23	6554

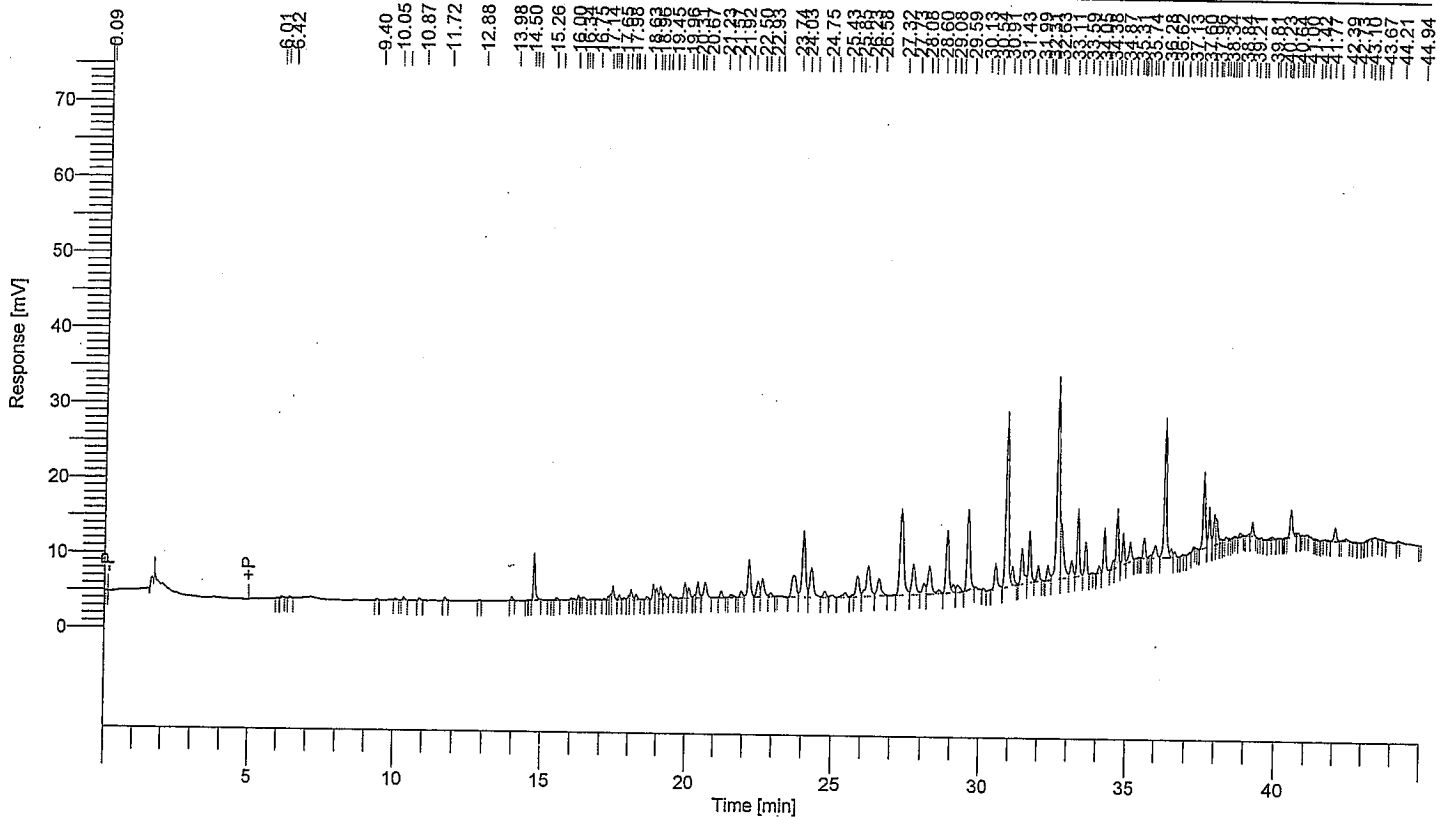
BDL

< 0.40 ppm total PCB

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62197
 Sample Name : 22687 1:10
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

Date : 10/18/2007 1:20:26 PM
 Data Acquisition Time : 10/17/2007 10:30:11 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#009.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
13.98	2136
14.74	27305
16.25	2219
16.42	2210
17.34	2759
17.42	9185
17.65	2762
17.98	2131
18.07	7169
18.26	3634
18.63	2180
18.85	9414
18.96	7810
19.11	9343
19.24	4812
19.45	3425
19.96	10709
20.09	7919
20.41	12306
20.67	14390
21.23	4992
21.57	2928
21.92	4934
22.19	33038
22.50	15157
22.65	17476
22.93	3272

$$\sum \text{area (Aroclor 1260)} = 116291$$

$$\text{nginj} = \frac{116291}{393264.5} = 0.3292$$

$$\text{ppm} = \frac{0.3292}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1317$$

$$\sum \text{area (Aroclor 1248)} = 121835$$

$$\text{nginj} = \frac{121835}{225597.5} = 0.5402$$

$$\text{ppm} = \frac{0.5402}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.2160$$

$$\text{Total PCB} = 0.3477 \text{ ppm}$$

reported as <0.4 ppm.
 5/8 10/20/2007

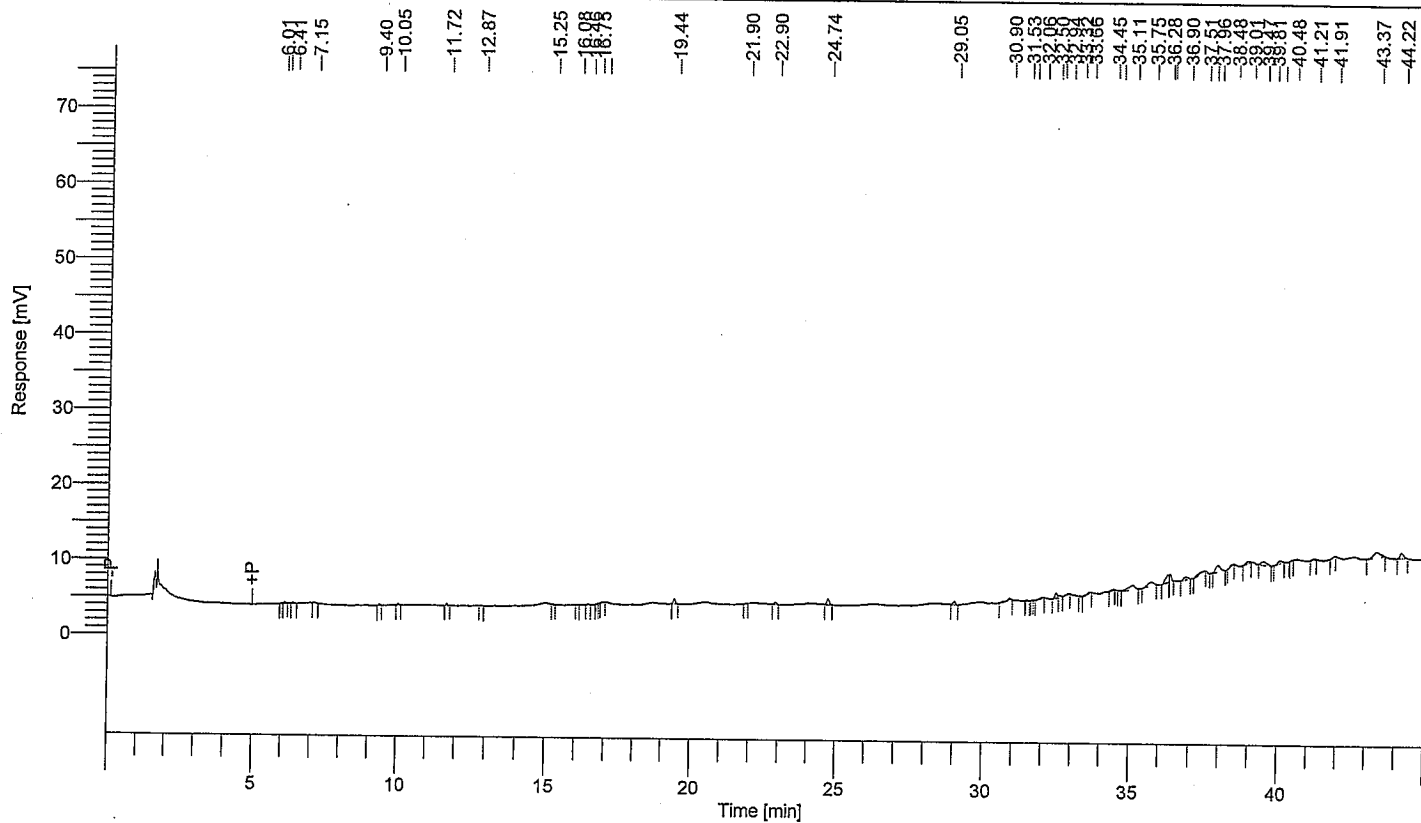
Time [min]	Area [μ V-s]
23.74	32589
24.03	71363
24.31	33973
24.75	6318
25.00	2673
25.43	5846
25.85	21951
26.23	40811
26.58	21334
27.32	102473
27.73	33957
28.08	11894
28.27	31093
28.60	4403
28.87	59118
29.08	6912
29.23	8857
29.59	75409
30.54	24824
30.91	159050
31.11	15318
31.43	34579
31.71	41319
31.99	11857
32.31	12587
32.63	173835
32.74	53751
33.11	14839
33.33	48310
33.59	22831
34.05	4964
34.23	30156
34.54	5453
34.67	40609
34.87	22233
35.11	16766
35.58	14021
35.81	2062
35.97	11762
36.28	102136
36.50	6827
36.62	3854
37.60	54044
37.79	27366
37.96	19181
38.01	15700
38.15	2733
38.34	3130
38.84	2656
39.21	8686
40.49	21219
40.74	2408
42.00	11101
42.39	2577
43.28	2255
43.39	2363

1845950

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62199
 Sample Name : 22688 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

Date : 10/18/2007 1:20:28 PM
 Data Acquisition Time : 10/18/2007 12:15:20 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#011.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.44	3080
24.74	5047
29.05	2823
30.90	2837
32.50	3754
35.11	8662
35.75	7346
36.28	8117
36.36	5084
36.90	4090
37.51	4023
37.96	9622
39.01	2639
39.47	6562
40.08	3623
43.37	11376
44.22	5988

94672

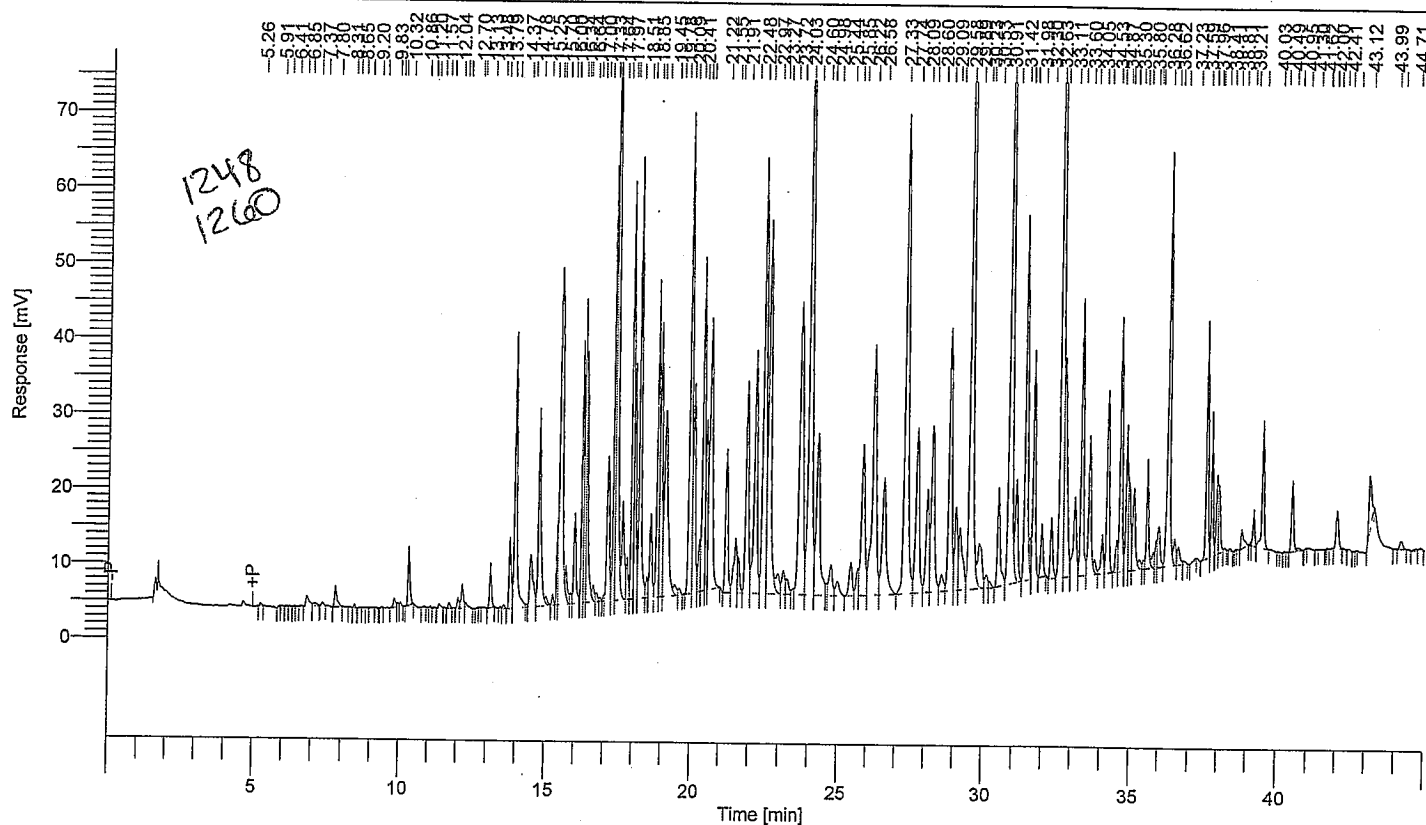
<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62200
 Sample Name : 22689 1:10
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 12

Date : 10/18/2007 1:20:28 PM

Data Acquisition Time : 10/18/2007 1:07:57 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#012.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
6.85	11022
7.13	3946
7.37	2230
7.80	15976
9.83	6991
9.95	2384
10.04	2145
10.32	35457
11.39	3034
11.73	3652
12.04	5901
12.18	17399
12.29	5118
13.13	26075
13.60	2153
13.79	49985
13.97	191237
14.50	57506
14.78	157659
15.03	5483
15.25	5634
15.41	28642
15.49	323318
15.70	22002
15.87	6851
16.00	61875
16.25	132598

See 1:50 or 1:100 dilution.

Area (Aroclor 1260) = 322761

$$\text{ng inj} = \frac{322761}{390 \times 10/20/2007} = 393264.5$$

$$= 0.9137$$

$$\text{ppm Aroclor 1260} = \frac{0.9137}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.3655$$

Time [min]	Area [μ V-s]
16.34	155526
16.40	155075
16.64	10718
16.75	6754
16.88	2320
17.00	2700
17.13	113132
17.33	220565
17.42	496679
17.64	81093
17.80	27504
17.97	246742
18.06	154686
18.25	300307
18.51	13142
18.63	62501
18.85	197577
18.96	199632
19.12	214450
19.45	9521
19.61	5527
19.96	344198
20.09	159513
20.29	33812
20.41	246601
20.53	111471
20.66	265507
21.22	114554
21.55	60909
21.64	24294
21.91	178911
22.19	230466
22.48	384692
22.65	358213
22.97	24323
23.15	22492
23.27	14938
23.50	4492
23.72	370776
24.03	651961
24.31	191289
24.60	6063
24.76	34339
24.98	18258
25.44	32532
25.69	22421
25.85	168056
26.22	327302
26.58	160571
27.33	559790
27.74	181784
28.09	105411
28.27	180261
28.60	19877
28.87	266814
29.09	78983
29.23	77240
29.58	648531
29.89	66011
30.13	11572
30.23	4573
30.53	88071
30.91	596328
31.12	81507
31.42	298273
31.58	18668
31.71	176652
31.98	41160
32.30	45570
32.63	618418
32.75	205479
33.11	76688
33.33	207054
33.60	114577
33.78	9679
34.05	28916
34.22	131509
34.53	18885
34.66	179371
34.87	101312
34.94	62201
35.11	73797
35.30	8032
35.45	5239
35.58	72180
35.80	13157

Time [min]	Area [μ V·s]
35.91	15282
35.97	29577
36.28	290500
36.49	19853
36.62	17074
36.82	2904
37.59	149881
37.79	87575
37.96	46396
38.02	38909
38.81	15736
39.21	24039
39.50	85608
40.49	45932
40.68	3206
42.00	29887
43.12	47872
44.20	8156
44.87	2088

14859425

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62289
 Sample Name : ###SET 6## 22689 1:50
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

Date : 10/19/2007 1:27:26 PM

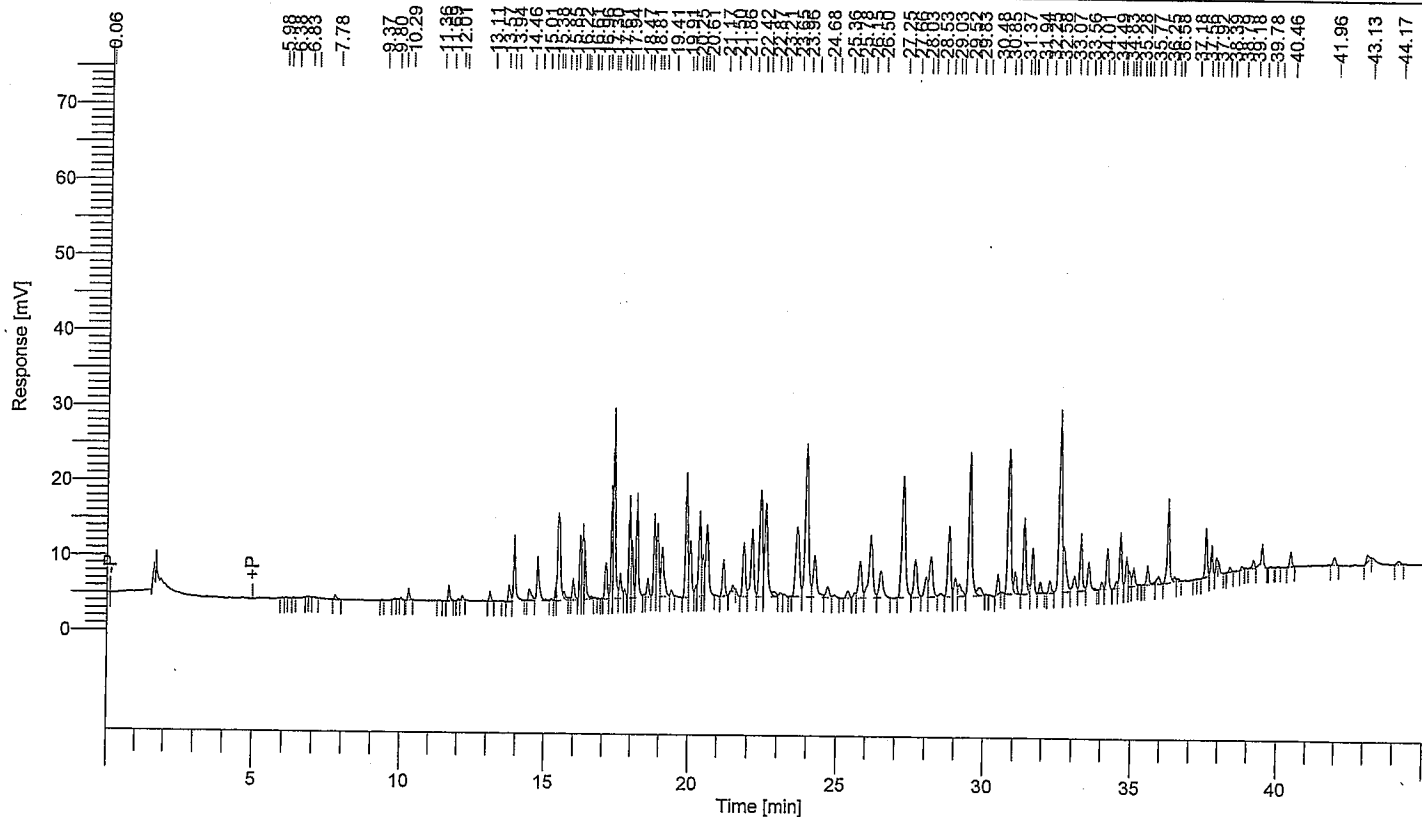
Data Acquisition Time : 10/19/2007 10:21:45 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 50.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#022.rst

Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
7.78	3254
10.29	6559
11.69	8800
12.15	2688
13.11	5340
13.77	10978
13.94	43223
14.46	11513
14.75	33413
15.38	6286
15.46	82162
15.66	5422
15.97	14313
16.22	32996
16.30	40360
16.36	33141
17.10	27065
17.30	55917
17.38	125002
17.61	19028
17.77	5673
17.94	60876
18.03	36723
18.21	69311
18.58	12302
18.81	51646
18.92	52676

Aroclor
1248

$$\sum \text{area} = 489366$$

$$\text{ng inj} = \frac{489366}{223576.5} = 2.1888$$

$$\text{ppm} = \frac{2.1888}{50} \times \frac{2}{2} \times \frac{100}{50} \times 50 = 4.3776$$

$$\text{Total PCB} = 4.3776 + 0.3655 = 4.7431 \text{ ppm.}$$

Time [min]	Area [μ V·s]
19.08	50695
19.41	4170
19.91	91029
20.05	42243
20.25	7082
20.36	63046
20.48	27353
20.61	65850
21.17	26607
21.50	4667
21.86	44217
22.13	61038
22.42	98528
22.59	90701
22.87	5731
23.09	3758
23.21	2180
23.65	87284
23.96	162982
24.24	46216
24.68	11296
24.92	2679
25.36	6783
25.61	4435
25.78	38762
26.15	78825
26.50	34240
27.25	136795
27.66	38253
28.03	19703
28.20	42824
28.53	3640
28.80	65623
29.03	17267
29.16	14193
29.52	141717
29.83	10842
30.48	13470
30.85	135379
31.06	16599
31.37	64102
31.52	4245
31.66	36052
31.94	8224
32.25	9209
32.58	143338
32.71	41360
33.07	15436
33.29	42123
33.56	21705
34.01	4264
34.18	28457
34.49	4220
34.62	38524
34.83	21040
34.93	10932
35.07	14146
35.54	13003
35.94	7961
36.25	61272
36.46	3641
36.58	2028
37.56	31597
37.75	16873
37.92	3352
38.39	3076
39.18	5835
39.47	17858
40.46	9680
41.96	6295
43.13	6422
44.17	3612

3375232

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62288
 Sample Name : ###SET 6## 22689 1:100
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 50.000000
 Cycle : 21

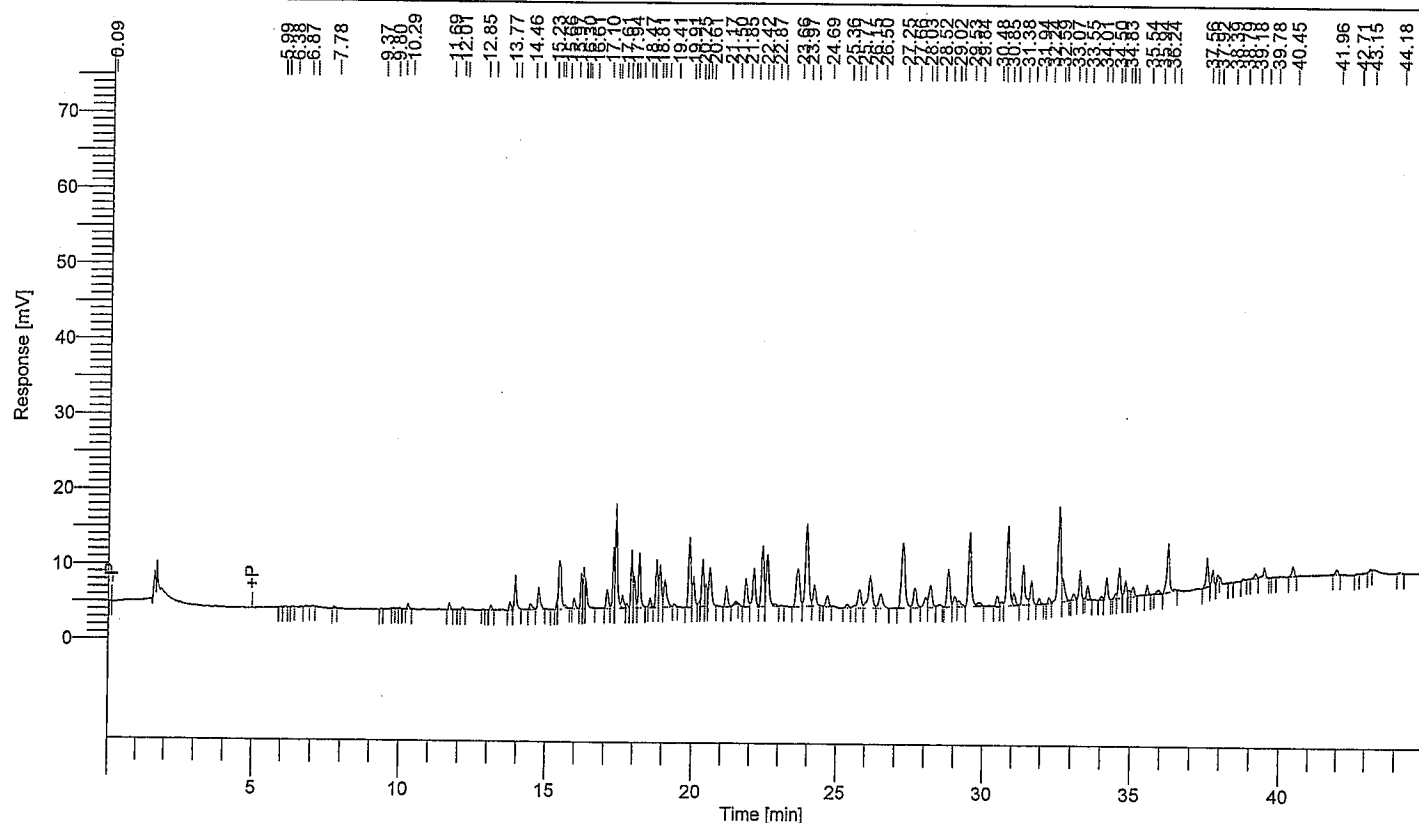
Date : 10/19/2007 1:27:25 PM
 Data Acquisition Time : 10/19/2007 9:29:00 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 100.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#021.rst

Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
10.29	3150
11.69	3545
13.11	2647
13.77	5382
13.95	21289
14.46	5566
14.75	15325
15.38	3106
15.46	44099
15.97	6557
16.22	17392
16.30	22161
16.36	16623
17.10	13782
17.30	30064
17.38	69886
17.61	9703
17.77	2851
17.94	32792
18.03	19770
18.21	36604
18.58	5968
18.81	28636
18.92	29105
19.08	27907
19.41	2083
19.91	49993

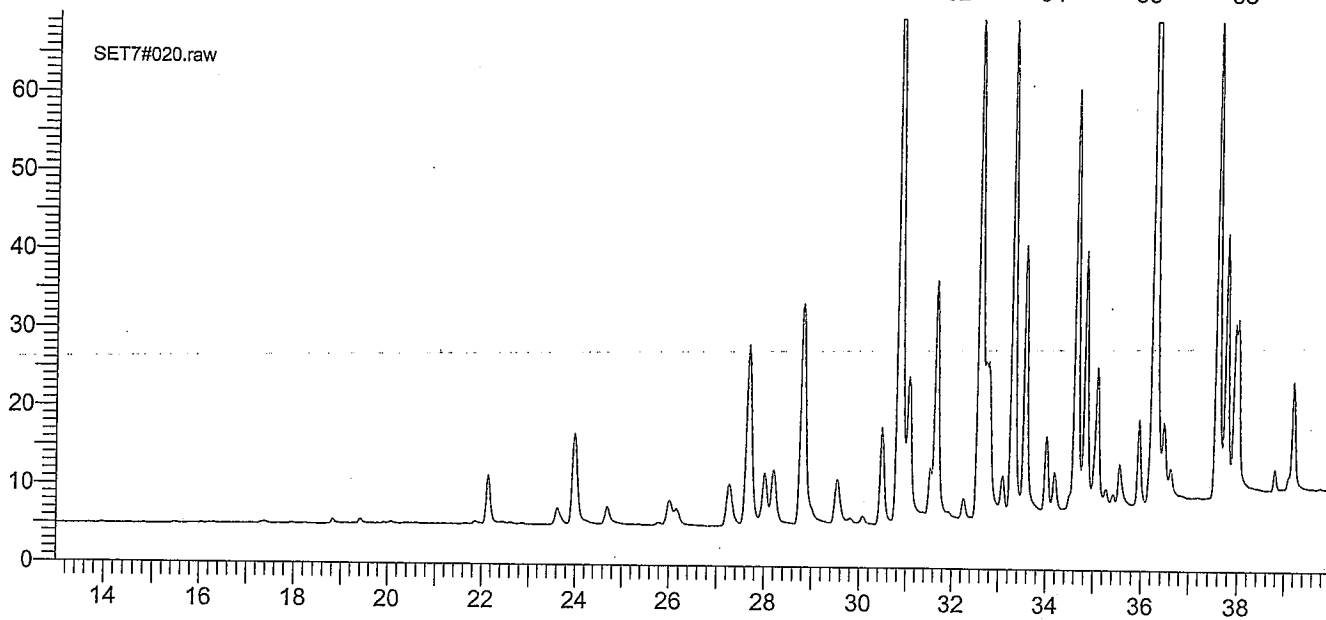
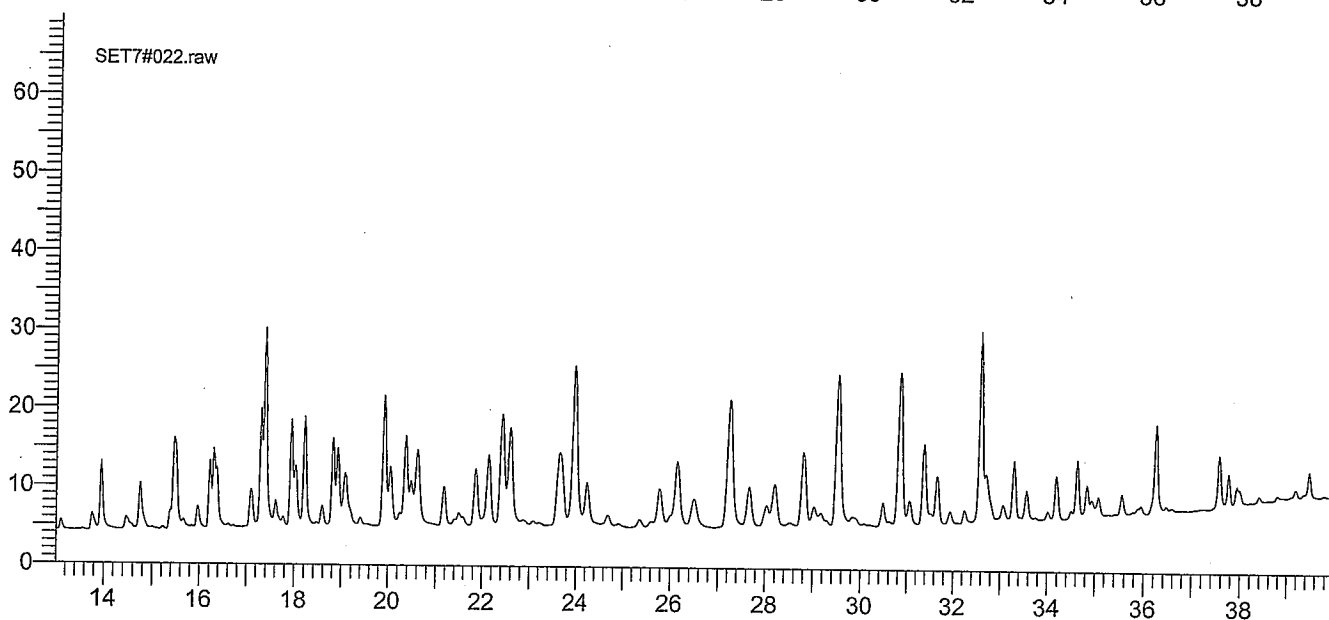
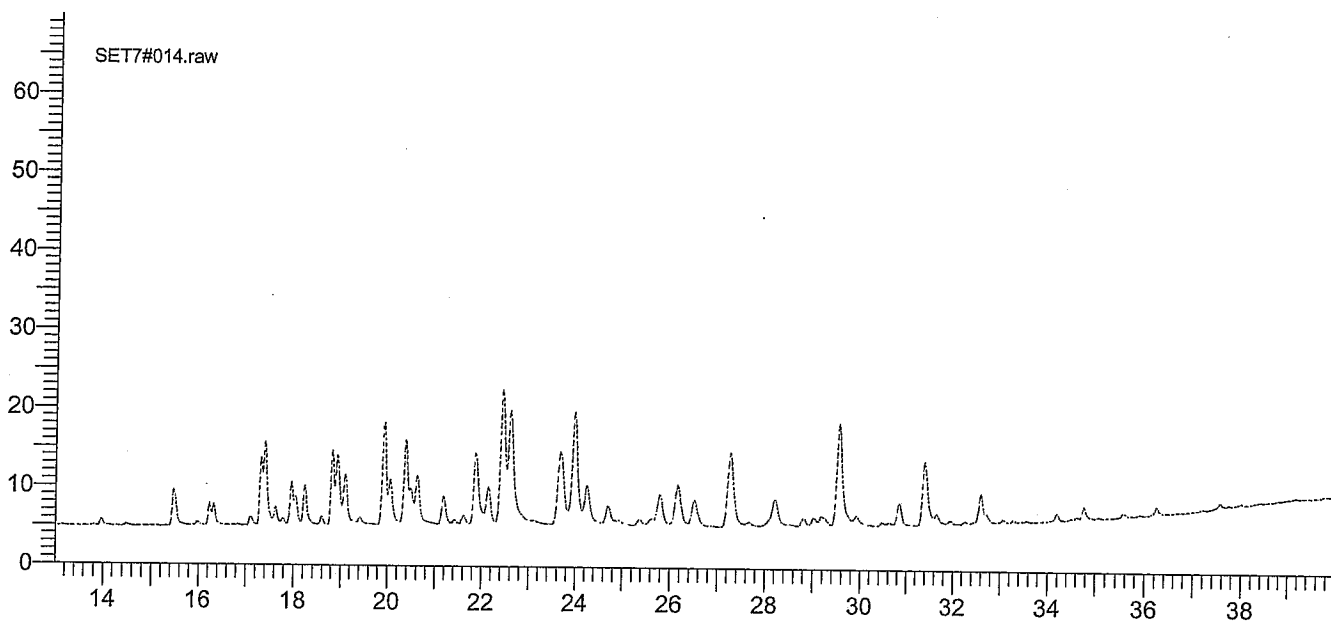
Time [min]	Area [μV·s]
20.04	22149
20.25	3087
20.36	33928
20.48	14231
20.61	34051
21.17	14443
21.50	2121
21.85	23141
22.13	32715
22.42	52865
22.59	48031
22.87	2150
23.66	45253
23.97	86728
24.24	19214
24.69	9067
25.36	3454
25.60	2179
25.77	20202
26.15	41986
26.50	18244
27.25	75128
27.66	20337
28.03	9903
28.20	22437
28.52	2898
28.80	35464
29.02	10087
29.17	6814
29.53	71928
29.84	4703
30.48	8345
30.62	3898
30.85	76986
31.06	9532
31.38	36769
31.66	19208
31.94	4364
32.24	4409
32.59	78734
32.70	19107
33.07	4836
33.28	17437
33.55	8686
34.01	2383
34.18	15060
34.50	2764
34.62	21734
34.83	12502
34.94	5152
35.07	7868
35.54	6282
35.94	3575
36.24	38270
37.56	20925
37.75	9453
39.18	4442
39.47	7992
40.45	7360
41.96	3892

1776889

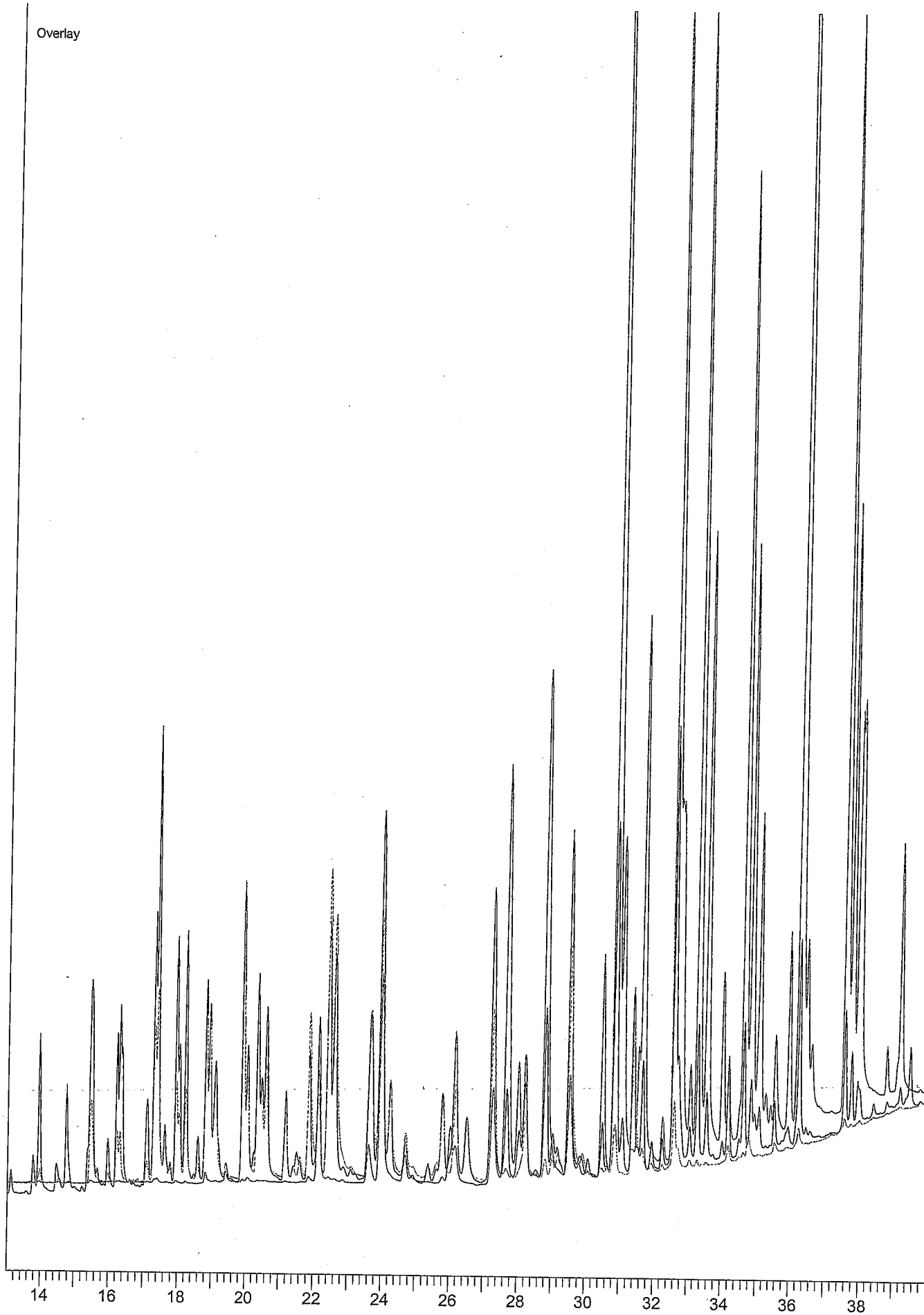
Plot Title

Start Time End Time Scale Offset

SET7#014.raw					
Sample Name :	AROCHLOR 1248	13.00	40.00	70.00	0.00
Sample Number:	14				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET7#022.raw					
Sample Name :	###SET 6## 22689 1:50	13.00	40.00	70.00	0.00
Sample Number:	22				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET7#020.raw					
Sample Name :	AROCHLOR 1260	13.00	40.00	70.00	0.00
Sample Number:	20				
Instrument File Name:	c:\pest\gc14\methods\pcb				



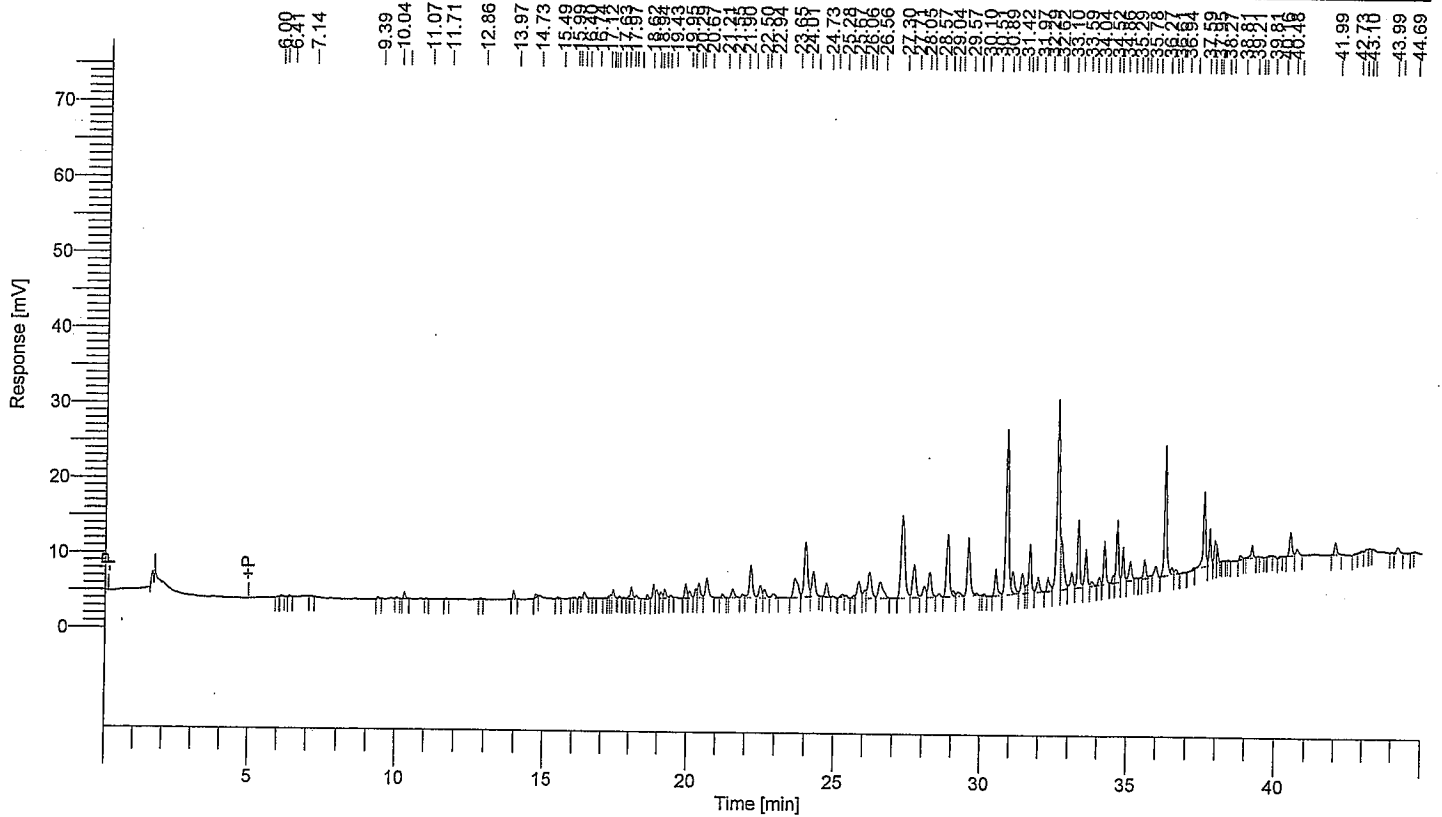
Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62203
 Sample Name : 22690 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

Date : 10/18/2007 1:20:31 PM
 Data Acquisition Time : 10/18/2007 3:45:47 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#015.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.31	4231
13.97	4738
14.73	2312
16.40	4932
17.41	4911
18.06	8432
18.24	2502
18.62	2728
18.84	8581
18.94	6445
19.09	4483
19.22	7186
19.95	10086
20.08	5274
20.29	6074
20.39	12130
20.67	17844
21.21	2882
21.55	8083
21.90	2810
22.16	29740
22.50	11337
22.63	7265
22.94	4195
23.65	26388
24.01	56927
24.29	26314

<0.40 ppm total PCB.

$$\text{Area} = 97979$$

$$\text{mg/L} = \frac{97979}{353264.5} = 0.2774$$

$$\text{ppm} = \frac{0.2774}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1109$$

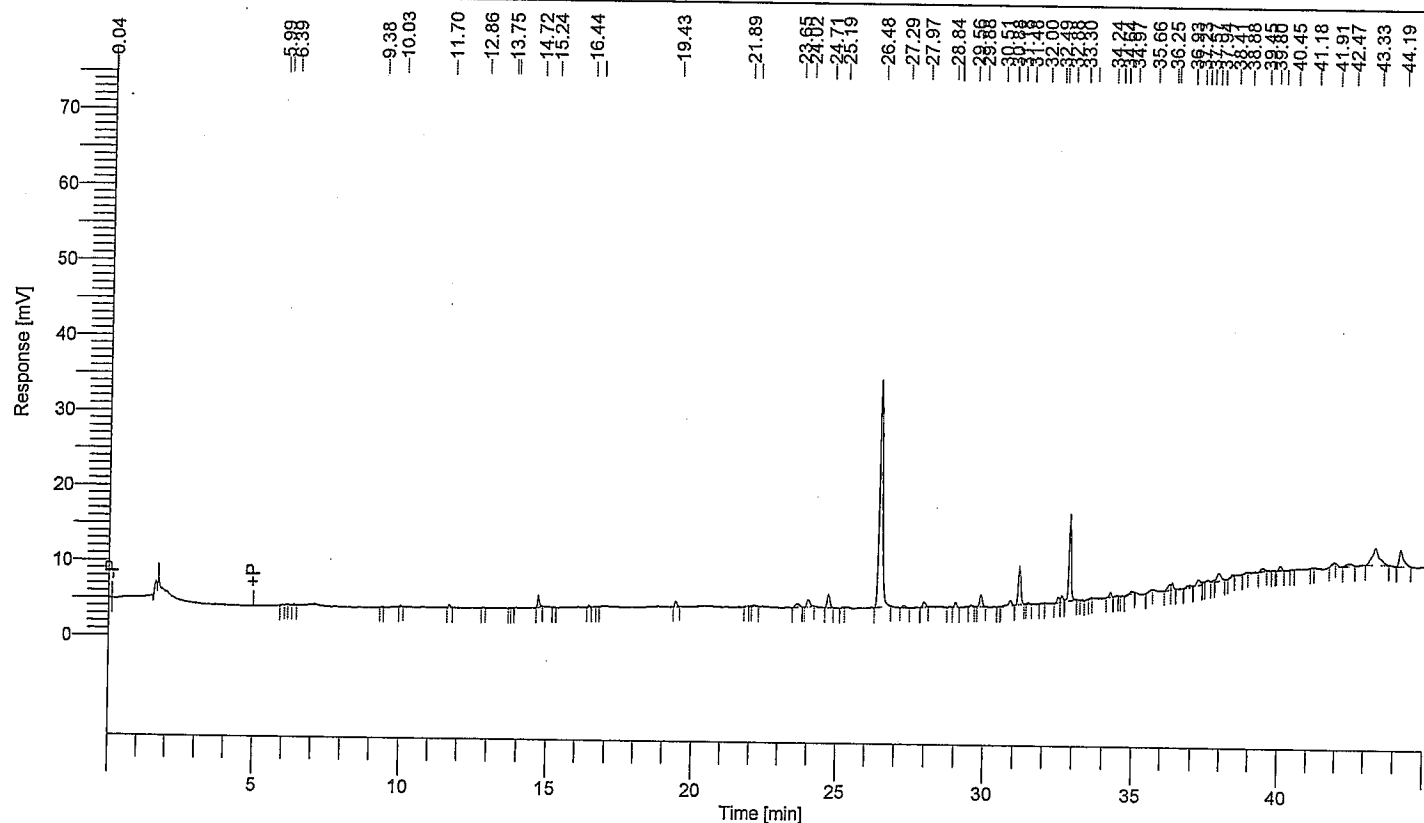
Time [min]	Area [μ V-s]
24.73	12269
25.28	2193
25.67	2283
25.83	18390
26.06	7521
26.20	30397
26.56	24541
27.30	99563
27.71	34938
28.05	11732
28.24	26867
28.57	3439
28.86	60939
29.04	4391
29.21	5328
29.57	53685
30.51	23088
30.89	151369
31.09	19611
31.42	17576
31.56	5073
31.70	40263
31.97	13405
32.29	13341
32.62	161450
32.74	48498
33.10	14773
33.32	50372
33.59	26505
33.78	4690
34.04	5367
34.22	31795
34.52	5255
34.65	43702
34.86	24804
35.10	17067
35.58	14150
35.78	2289
35.97	9637
36.27	89048
36.49	4705
36.61	3682
37.59	53153
37.78	22379
37.95	14334
38.01	8113
38.81	3003
39.21	9324
40.48	16956
40.69	5901
41.99	9601
44.20	5751

1677337

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62205
 Sample Name : 22691 1:10
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 50.000000
 Cycle : 17

Date : 10/18/2007 1:20:33 PM
 Data Acquisition Time : 10/18/2007 5:31:09 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#017.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.72	6341
19.43	3504
23.65	5130
24.02	7260
24.71	11993
26.48	236767
27.29	2511
27.97	4870
29.03	4204
29.88	9532
30.88	5878
31.18	29603
32.49	4606
32.60	5251
32.88	61265
34.24	3326
34.97	2960
36.25	5338
36.35	4546
36.93	3157
37.23	7398
37.57	3967
37.77	2019
37.94	10496
39.45	3649

50.40 ppm total PCB.

Time [min]	Area [μ V-s]
40.03	3963
42.47	4598
43.33	38064
44.19	21309
<hr/>	
	513503

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62206
 Sample Name : 22692 1:10
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 50.000000
 Cycle : 18

Date : 10/13/2007 1:20:34 PM

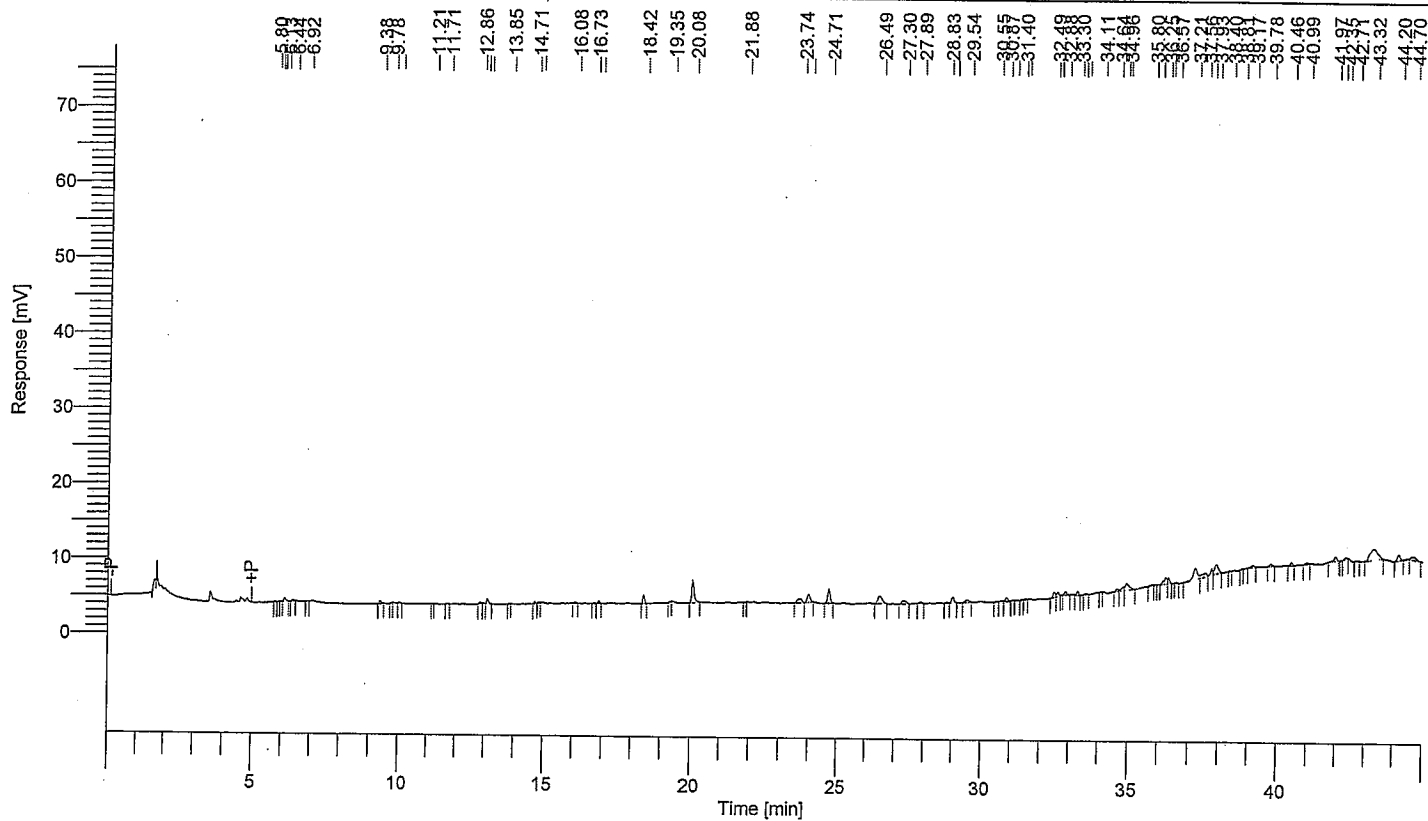
Data Acquisition Time : 10/13/2007 6:23:50 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET6#018.rst

Sequence File : C:\PEST\OCTOBER 2007\07100206 AV SET 6\SET 6.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.13	2379
13.10	3143
18.42	4936
20.08	17675
23.74	5696
24.01	7597
24.71	11723
26.49	10672
27.30	4633
29.03	5045
29.54	2997
30.87	2695
32.49	3550
32.81	2790
32.88	2548
33.30	2440
34.86	3487
34.96	8312
36.25	6194
36.35	3313
37.21	15824
37.56	5979
37.77	4429
37.93	10618
40.46	2218

50.40 ppm total PCB.

Time [min]	Area [μ V-s]
41.97	4328
43.32	27709
44.20	5231
44.70	5115
<hr/>	
193274	

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100207 (SVP 10/18/2007)

07102007 Avant Level IV QAQC

Set #7

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	JP
PREP DATE:	10-17-07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AA1190000Y		
PREP. DATE:	10-8-07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS
1	SPIKE 1	50.0
2	22693	50.0
3	22693 ms	50.0
4	22694	50.0
5	22695	50.0
6	22696	50.0
7	22696 dup	50.0
8	22697	50.0
9	22698	50.0
10	22699	50.0
11	22700	50.0
12	22700 ms	50.0
13	blank	—
14		
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	SVP	ALQUOT RATIO:	50/100
COLUMN I.D.:	809200	FINAL VOLUME:	2.0 mL
DATE USED:	10-18-2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGV (cm/s)	Not Given	A1016 I.D.	Y11300003
INST. CAL I.D.	MX50100154	A1221 I.D.	Y11400003
INST. CAL PREP. DATE	9-14-2007	A1232 I.D.	Y11500003
ANALYTE 1		A1242 I.D.	Y11600003
RETENTION TIME (MIN)	14.37	A1248 I.D.	Y11700005
R.T. ACCURACY (%)	99	A1254 I.D.	X11800011
SENSITIVITY (AREA)	398925	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	100	CAL PREP DATE:	10-2-2007
ANALYTE 2			
RETENTION TIME (MIN)	16.57		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	826871		
SENS. ACCURACY (%)	89		

COMMENTS

Solvent rinse sample glassware three times with acetone and three times with hexane before washing. Use 0.5 mL Arochlor 1260 INT for the matrix spike and the matrix spike duplicate.

SVP 10/16/2007

15% EE/Hexane PD: 10-11-07

pH 7 Buffer - Solution PD: 10-9-07

90% Methanol / Di-Water PD: 10-8-07 / 10-16-07

C18 Lot # - 0731006

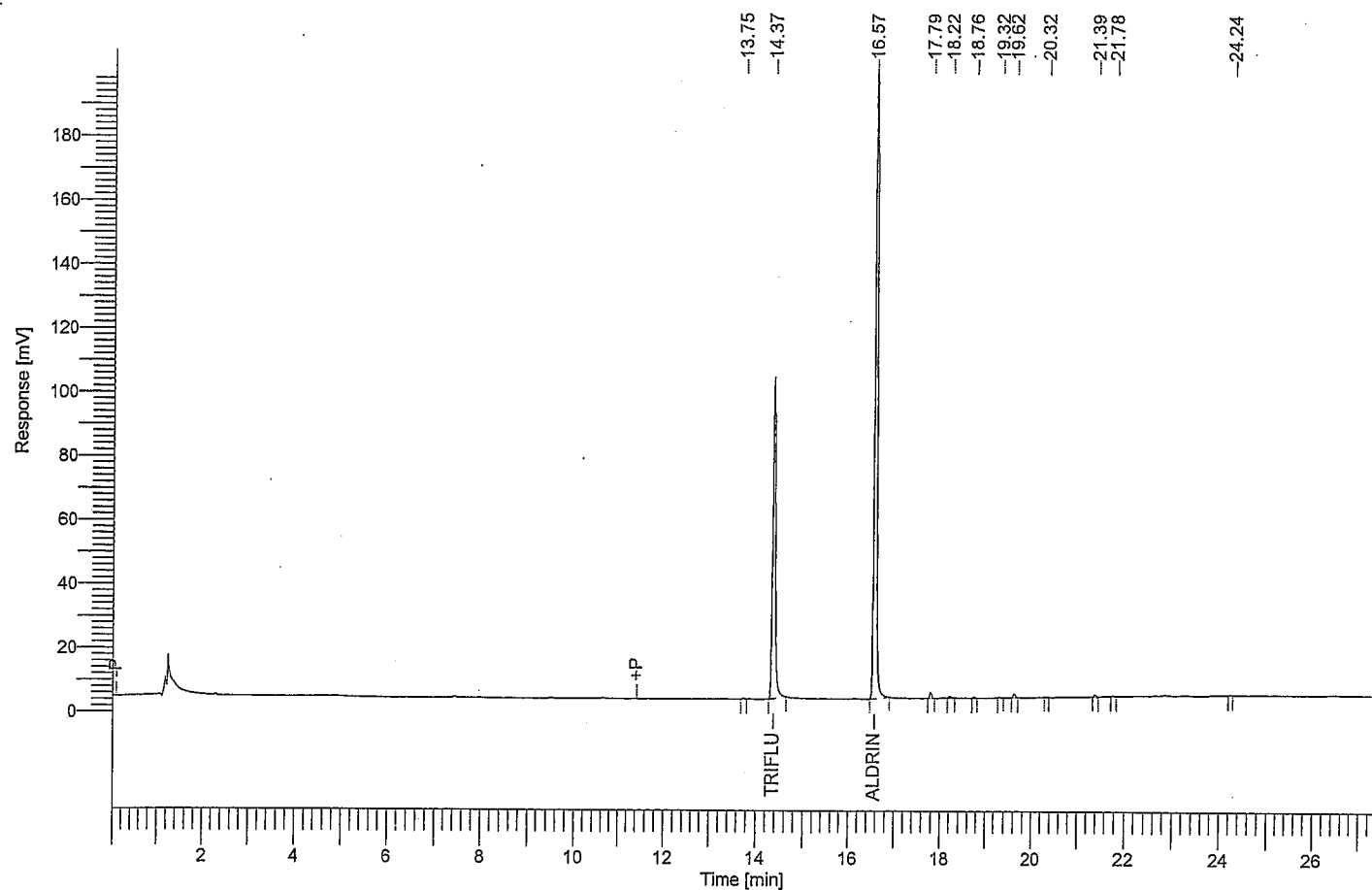
Florisil Lot # - 19593 7120A

TBA.S. 11 Site PD: 10-10-16-07

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62120
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

Date : 10/16/2007 8:46:20 AM
Data Acquisition Time : 10/16/2007 8:18:41 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003-20071016-084619.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [$\mu\text{V}\cdot\text{s}$]
14.37	TRIFLURALIN	398925.48
16.57	ALDRIN	886871.05
		1285796.52

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Printed by : envweigh on: 10/18/2007 2:35:53 PM

Created by : envweigh on: 10/18/2007 2:30:38 PM

Edited by : envweigh on: 10/18/2007 2:35:49 PM

Number of Times Edited : 2

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 23
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	AROCHLOR 1242	01	07100207	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1248	02	07100207	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1254	03	07100207	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1260	04	07100207	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	BLANK SLUDGE	05	07100207	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
6	Sample	SPIKE SLUDGE	06	07100207	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
7	Sample	22693 1:10	07	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
8	Sample	22693 MS 1:10	08	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
9	Sample	22694 1:10	09	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
10	Sample	22695 1:10	10	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22696 1:10	11	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22696 DUP 1:10	12	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
13	Sample	FLUSH	13	07100207	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
14	Sample	AROCHLOR 1248	14	07100207	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
15	Sample	22697 1:10	15	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22698 1:10	16	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	22699 1:10	17	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
18	Sample	22700 1:10	18	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
19	Sample	22700 MS 1:10	19	07100207	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	AROCHLOR 1260	20	07100207	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
21	Sample	###SET 6## 22689 1:100	21	07100207	50.000000	1.000000	2.000	100.000000	2.000000	1.000000	0.000000	100.000
22	Sample	###SET 6## 22689 1:50	22	07100207	50.000000	1.000000	2.000	50.000000	2.000000	1.000000	0.000000	100.000
23	Sample	FLUSH	23	07100207	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
6	A	0	6	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
7	A	0	7	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
8	A	0	8	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
9	A	0	9	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
10	A	0	10	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
11	A	0	11	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
12	A	0	12	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
13	A	0	13	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
14	A	0	14	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
15	A	0	15	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
16	A	0	16	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
17	A	0	17	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
18	A	0	18	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
19	A	0	19	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
20	A	0	20	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
21	A	0	21	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
22	A	0	22	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
23	A	0	23	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
Row				Raw Data File	Result File		Baseline

1 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#001 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#001
 2 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#002 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#002
 3 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#003 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#003
 4 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#004 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#004
 5 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#005 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#005
 6 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#006 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#006
 7 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#007 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#007
 8 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#008 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#008
 9 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#009 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#009
 10 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#010 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#010
 11 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#011 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#011
 12 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#012 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#012
 13 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#013 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#013
 14 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#014 C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#014

Sequence Process Information - Channel A

Row	Raw Data File	Result File	Baseline			
15	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#015	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#015				
16	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#016	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#016				
17	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#017	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#017				
18	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#018	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#018				
19	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#019	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#019				
20	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#020	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#020				
21	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#021	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#021				
22	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#022	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#022				
23	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#023	C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#023				
Row	Modified	Calib Rpt	Cal Level	Update RT	Printer	Plotter
1	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
2	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
3	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
4	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
5	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
6	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
7	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
8	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
9	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
10	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
11	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
12	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
13	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
14	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
15	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
16	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
17	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
18	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
19	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
20	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
21	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
22	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
23	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default

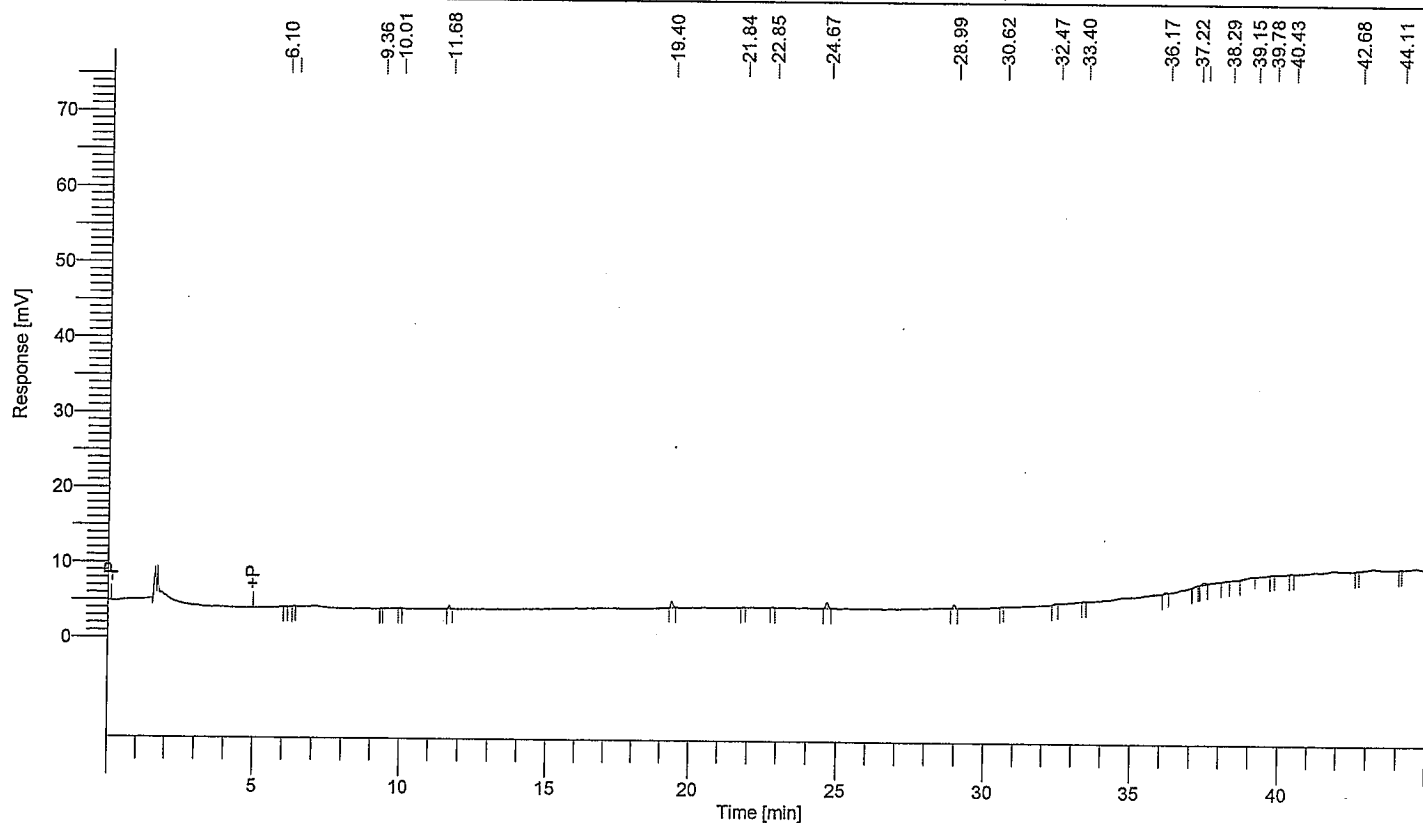
Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62280
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/13
Sample Amount : 1.000000
Cycle : 13

Date : 10/19/2007 1:27:19 PM
Data Acquisition Time : 10/19/2007 2:27:40 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#013.rst
Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
19.40	4465
24.67	5209
28.99	3134
37.47	2343
15151	

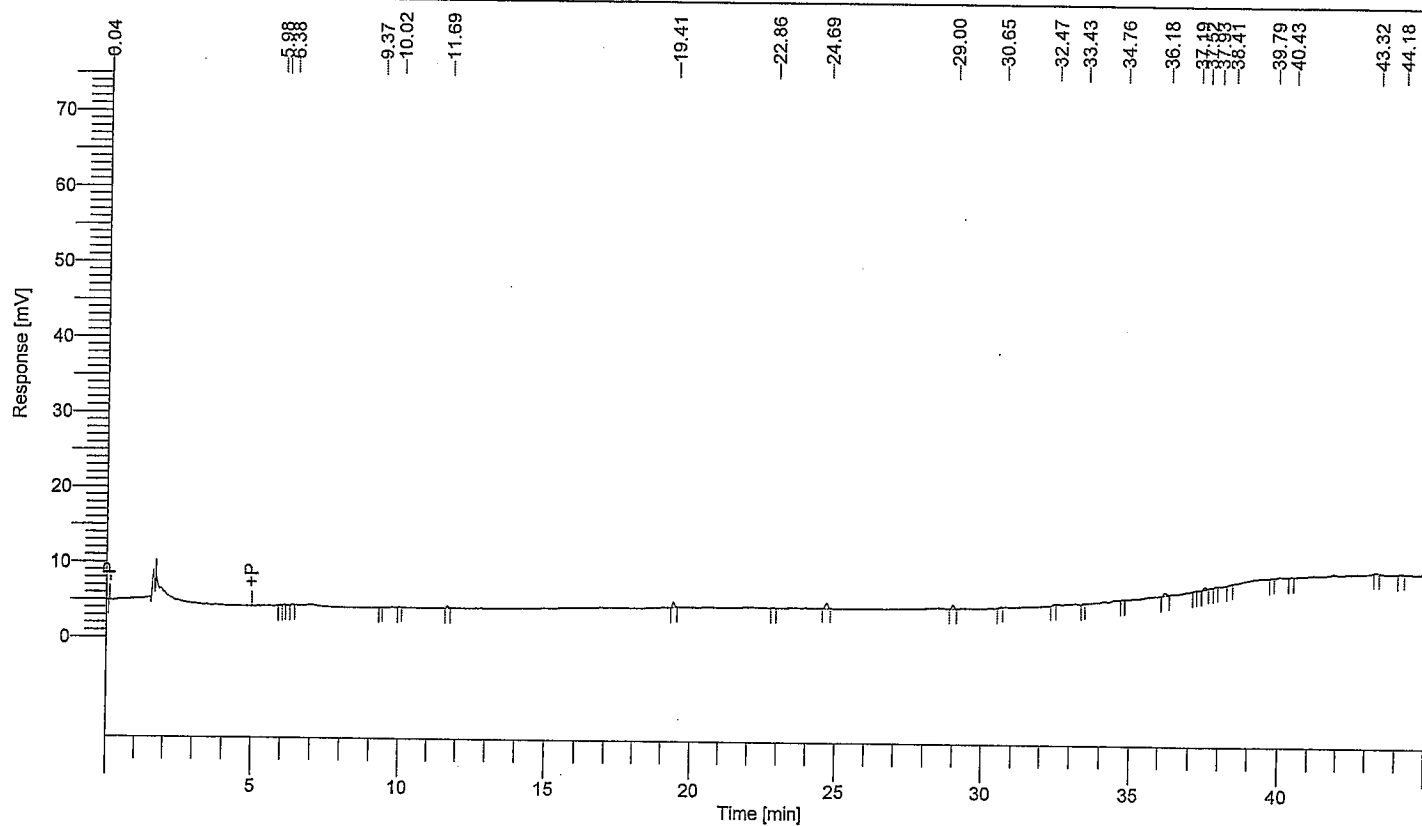
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62290
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 1.000000
 Cycle : 23

Date : 10/19/2007 1:27:27 PM
 Data Acquisition Time : 10/19/2007 11:14:30 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#023.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

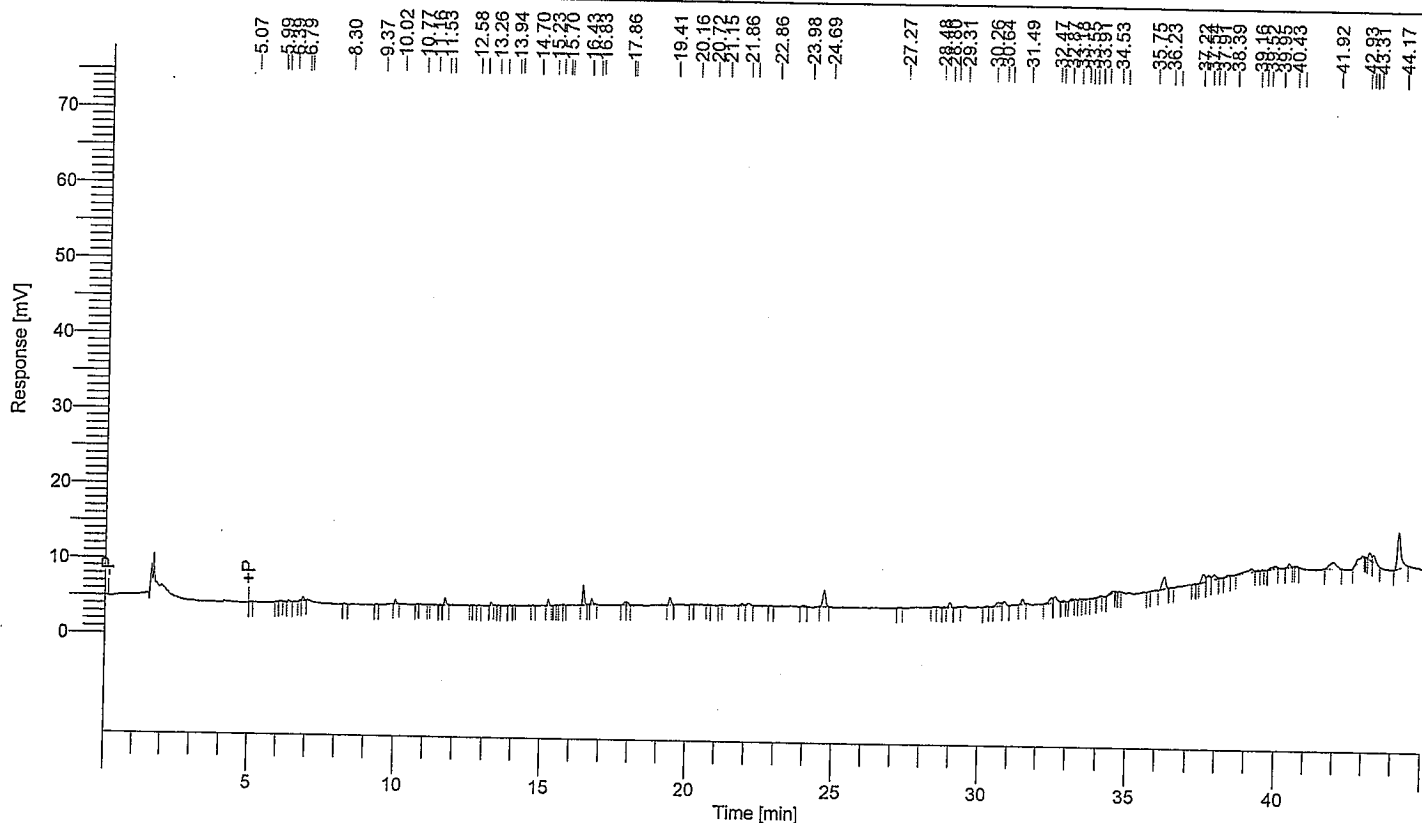
Time [min]	Area [μV·s]
19.41	3405
24.69	5027
29.00	3203
36.18	2648
37.52	2105
	16387

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62272
 Sample Name : BLANK SLUDGE
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 50.000000
 Cycle : 5

Date : 10/19/2007 1:27:11 PM

Data Acquisition Time : 10/18/2007 7:26:29 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV\SET 7\SET7#005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV\SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
6.89	2462
10.02	2481
11.69	4148
15.23	3417
16.43	10536
16.72	3333
17.86	2339
17.92	2103
19.41	4821
22.09	2456
24.69	14528
29.00	4187
30.64	5398
30.84	4757
31.49	4200
32.47	6515
32.59	6793
34.53	2167
36.23	13192
37.54	9250
37.71	6242
37.91	5687
39.16	8428
39.95	3818
40.43	2792
41.92	15681

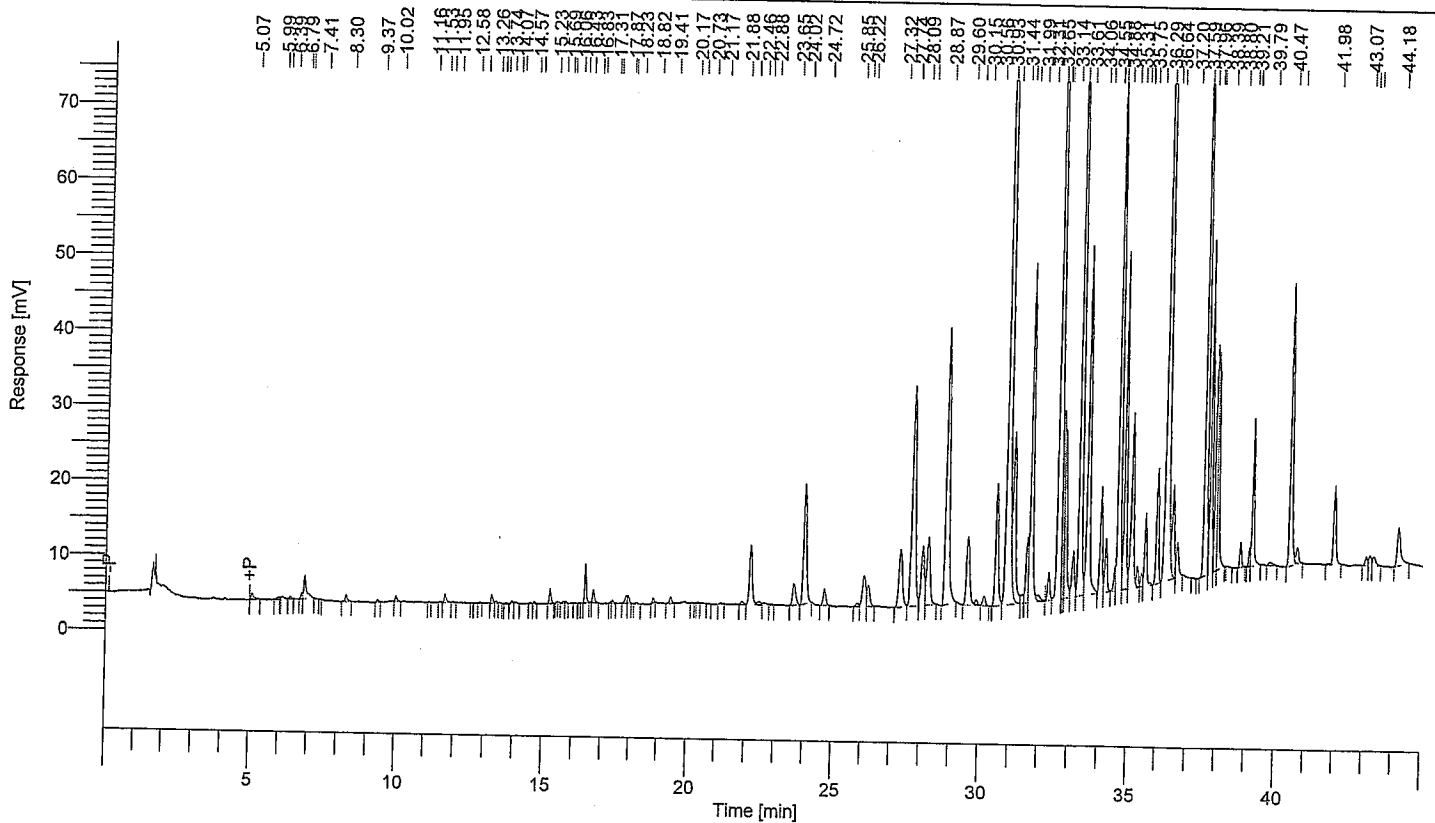
BSL

Time [min]	Area [μ V-s]
42.93	7031
43.19	6118
43.31	6661
44.17	40574
<hr/>	
212134	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62273
 Sample Name : SPIKE SLUDGE
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 50.000000
 Cycle : 6

Date : 10/19/2007 1:27:12 PM
 Data Acquisition Time : 10/18/2007 8:19:12 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#006.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.07	5396
6.12	2679
6.79	3148
6.89	20076
8.30	5062
10.02	3465
11.69	5600
13.26	4783
15.23	8250
16.43	20175
16.72	7118
17.87	5057
17.93	4827
18.82	2726
19.41	4644
21.88	2646
22.16	54175
22.46	3380
22.64	2330
23.65	21959
24.02	114459
24.72	14591
25.85	2927
26.07	32291
26.22	20999
27.32	65890
27.74	239787

$$\Sigma \text{area} = 921755$$

$$n_{\text{inj}} = \frac{921755}{396206}$$

$$\text{OSD } 10/20/2007 = 2.5877$$

$$\text{ppm} = \frac{8.2.5877}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.1035$$

$$\% \text{Recovery} = \frac{0.1035}{0.1} \times 100 = 104\%$$

Time [min]	Area [μ V-s]
28.09	61293
28.27	68569
28.87	287164
29.60	64098
29.89	4400
30.15	7738
30.56	105772
30.93	786627
31.13	143154
31.44	7013
31.60	44692
31.72	271507
31.99	7279
32.31	19817
32.65	564779
32.78	68309
32.80	66882
32.85	108057
33.14	38251
33.35	471954
33.61	261942
34.06	70705
34.23	37462
34.55	12839
34.67	399958
34.88	230391
35.12	143322
35.31	13627
35.47	8252
35.59	48314
35.99	71636
36.29	946788
36.50	64413
36.64	26634
37.59	453911 ~
37.78	215484 ~
37.96	129992 ~
38.01	122368 ~
38.80	14626
39.10	9107
39.21	95943
39.79	4160
40.47	201263
40.73	14673
41.98	60396
43.07	7342
43.20	8228
43.33	8453
44.18	41830

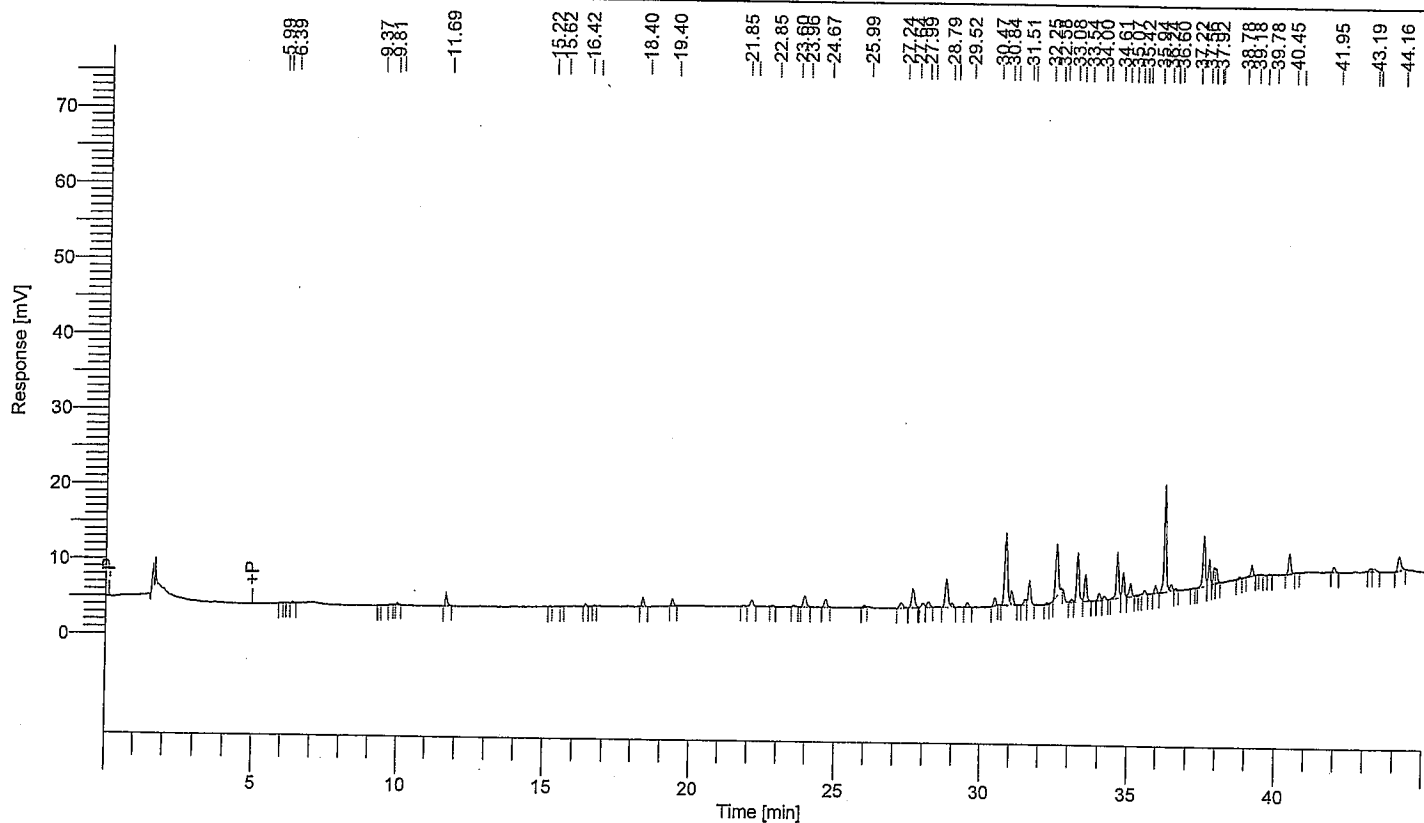
7599852

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62275
 Sample Name : 22693 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 50.000000
 Cycle : 8

Date : 10/19/2007 1:27:14 PM

Data Acquisition Time : 10/18/2007 10:04:34 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.69	8147
18.40	5994
19.40	4518
22.12	5459
23.96	10968
24.67	6759
27.24	5975
27.64	19432
27.99	4405
28.18	5107
28.79	28271
28.99	2577
29.52	4414
30.47	5957
30.84	65593
31.05	10377
31.51	4371
31.65	18926
32.58	38619
33.08	2166
33.28	36835
33.54	18559
34.00	5190
34.18	3263
34.61	33658
34.82	18155
35.07	10458

$$\Sigma \text{area} = 71357$$

$$\text{ng conc} = \frac{71357}{396206} = 0.2003$$

$$\text{ppm} = \frac{0.2003}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0801$$

$$\% \text{ Recovery} = \frac{0.0801}{0.1} \times 100 = 80\%$$

0.0801
 10/20/2007

Time [min]	Area [μ V-s]
35.54	3391
35.94	4864
36.24	74810
36.45	4544
37.56	36214
37.74	16776
37.92	9452
37.98	8915
39.18	7594
40.45	14475
41.95	4030
43.19	2583
43.30	3362
44.16	14623
<hr/>	
589784	

Software Version : 6.3.1.0514
 Sample Name : 22700 M/S 1:10
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 50.000000
 Cycle : 19

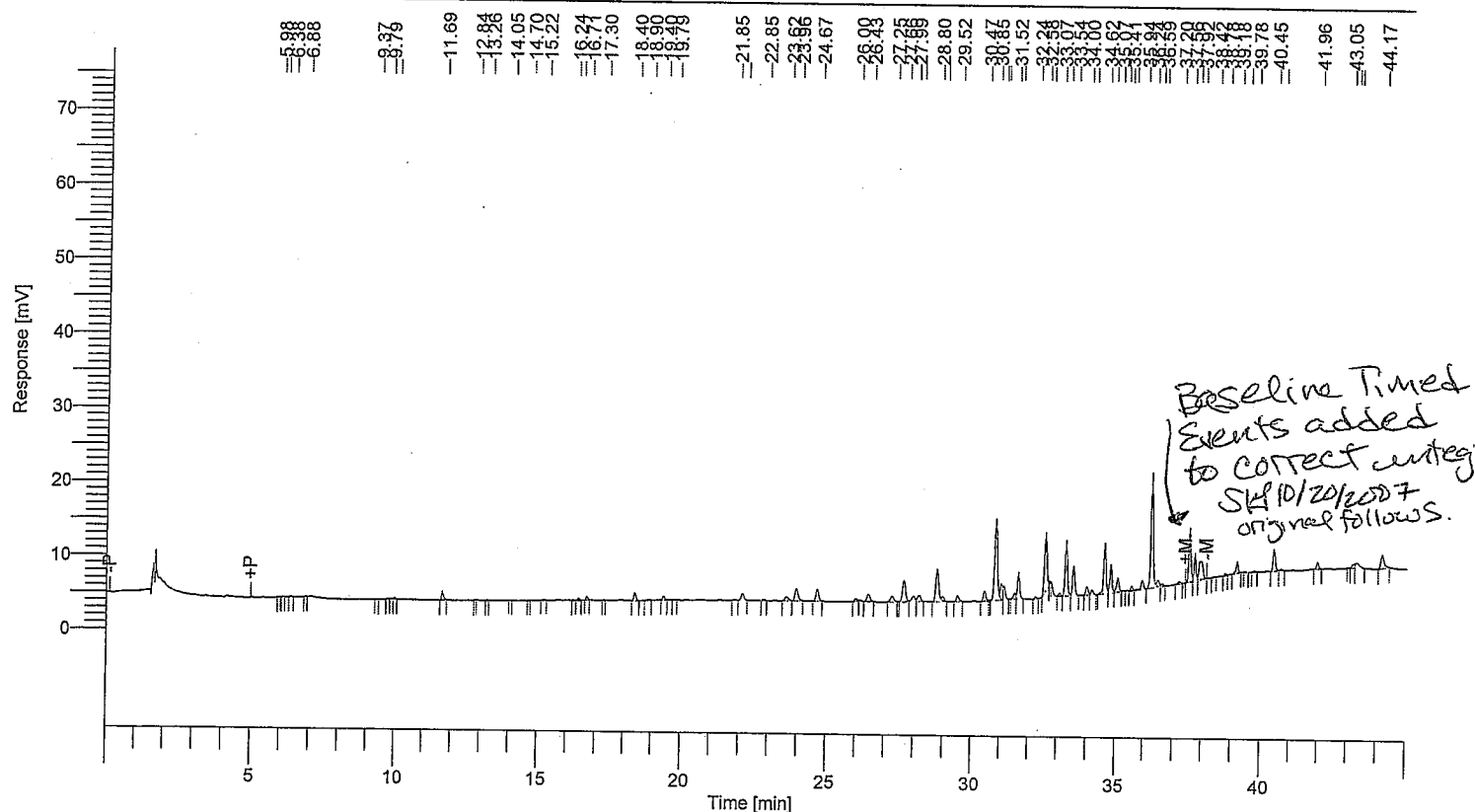
Date : 10/20/2007 10:24:27 AM
 Data Acquisition Time : 10/19/2007 7:43:34 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#019-20071020-102425.rst

Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
11.69	5334
18.40	5328
19.40	2309
22.12	6024
23.62	4344
23.96	11627
24.67	10848
26.43	7804
27.25	6767
27.66	21762
27.99	6139
28.18	6108
28.80	31788
28.99	3357
29.52	5808
30.47	8542
30.85	73280
31.05	11743
31.14	10122
31.52	4384
31.65	20407
32.58	43728
33.28	39594
33.54	19949
34.00	5690
34.17	4112
34.62	37470
34.83	21018
35.07	12015

$$\Sigma \text{area (Aroclor 1260)} = 77864$$

$$\text{ng inj} = \frac{77864}{349268} = 0.2229$$

$$\text{ppm} = \frac{0.2229}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0892$$

$$\% \text{recovery} = \frac{0.0892}{0.1} \times 100 = 89\%$$

Time [min]	Area [μ V-s]
35.55	2960
35.94	6457
36.24	79710
36.45	4984
37.20	2190
37.56	37445
37.75	18406
37.92	22013
39.18	8502
40.45	16027
41.96	4960
43.22	3216
43.31	6431
44.17	13919
<hr/>	
674619	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62286
 Sample Name : 22700 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 50.000000
 Cycle : 19

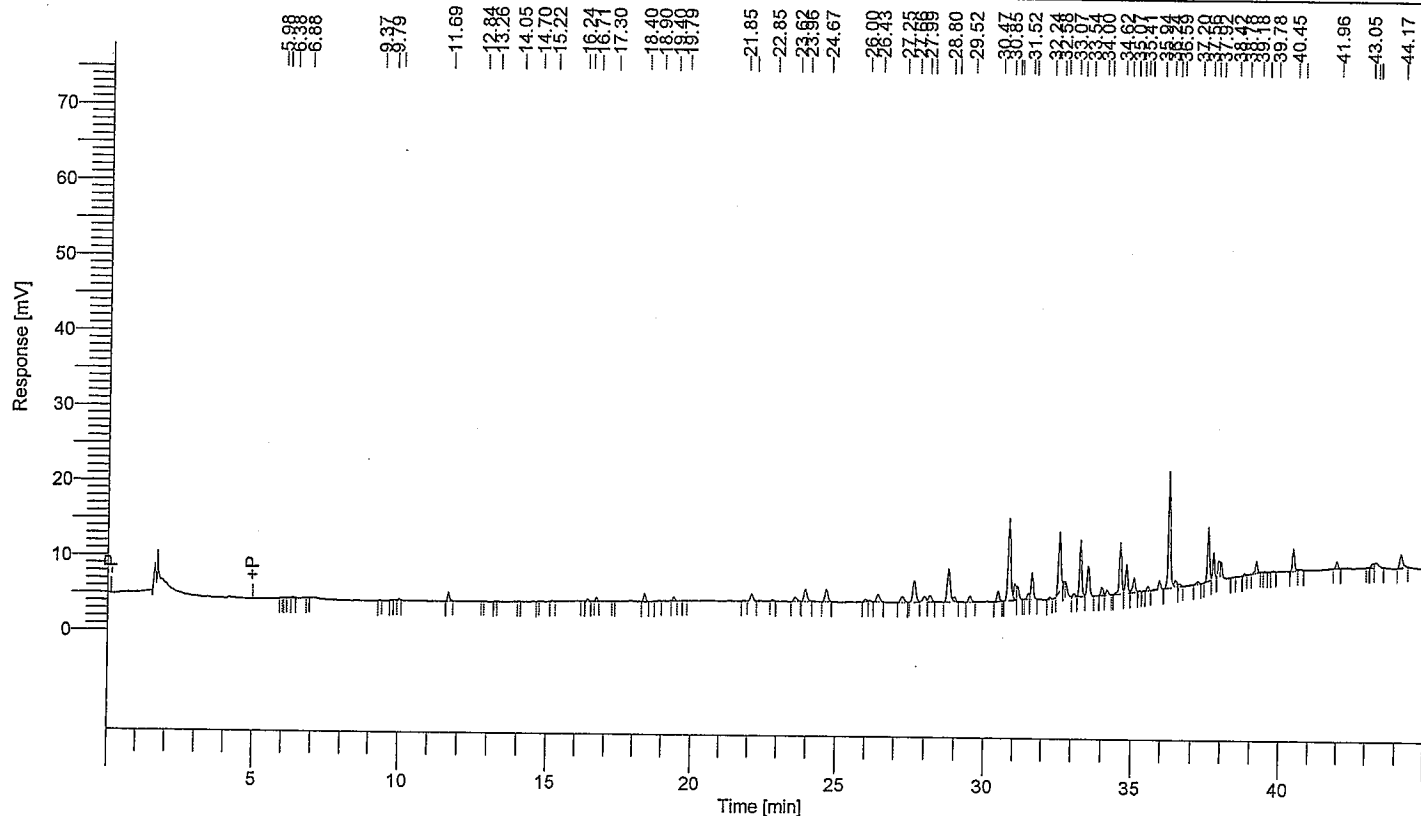
Date : 10/19/2007 1:27:24 PM

Data Acquisition Time : 10/19/2007 7:43:34 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#019.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.69	5334
18.40	5328
19.40	2309
22.12	6024
23.62	4344
23.96	11627
24.67	10848
26.43	7804
27.25	6767
27.66	21762
27.99	6139
28.18	6108
28.80	31788
28.99	3357
29.52	5808
30.47	8542
30.85	73280
31.05	11743
31.14	10122
31.52	4384
31.65	20407
32.58	43728
33.28	39594
33.54	19949
34.00	5690
34.17	4112
34.62	37470

$\sum \text{area} =$

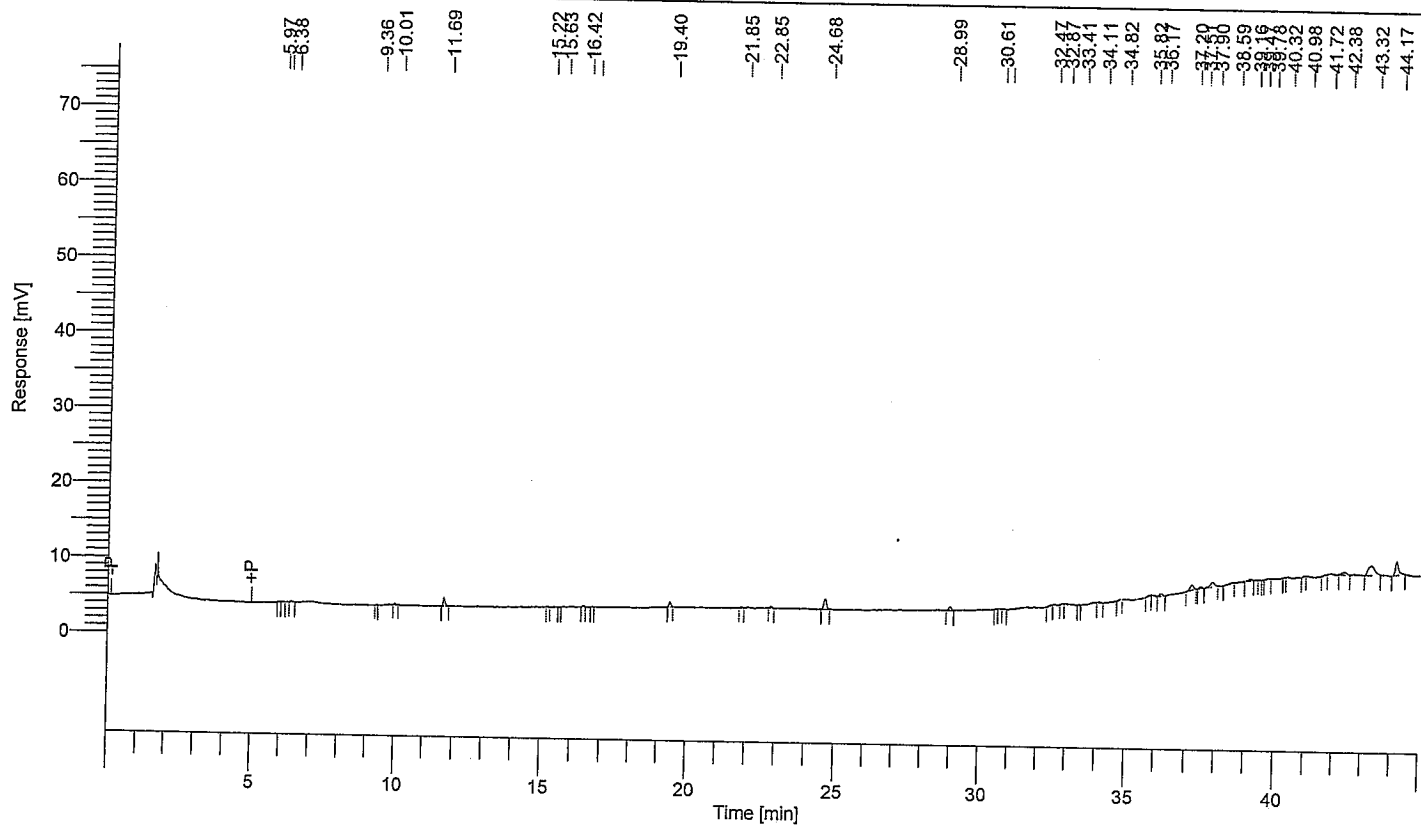
Time [min]	Area [μ V-s]
34.83	21018
35.07	12015
35.55	2960
35.94	6457
36.24	79710
36.45	4984
37.20	2190
37.56	35719
37.75	15280
37.92	3099
39.18	8502
40.45	18027
41.96	4960
43.22	3216
43.31	6431
44.17	13919
<hr/>	
650853	

Software Version : 6.3.1.05/14
 Reprocess Number : totalchrom: 62279
 Sample Name : 22696 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 12

Date : 10/19/2007 1:27:18 PM

Data Acquisition Time : 10/19/2007 1:35:03 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#012.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.69	4925
19.40	3285
24.68	9000
28.99	3211
36.17	2068
37.20	6073
37.90	6362
39.16	2146
42.38	4240
43.32	18984
44.17	15023
	75317

0.40 ppm total PCB.

Both sample & duplicate have
 less than 0.40 ppm total PCB.
 8/8 10/20/2007

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62268
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/1
 Sample Amount : 1.000000
 Cycle : 1

Date : 10/19/2007 1:27:07 PM

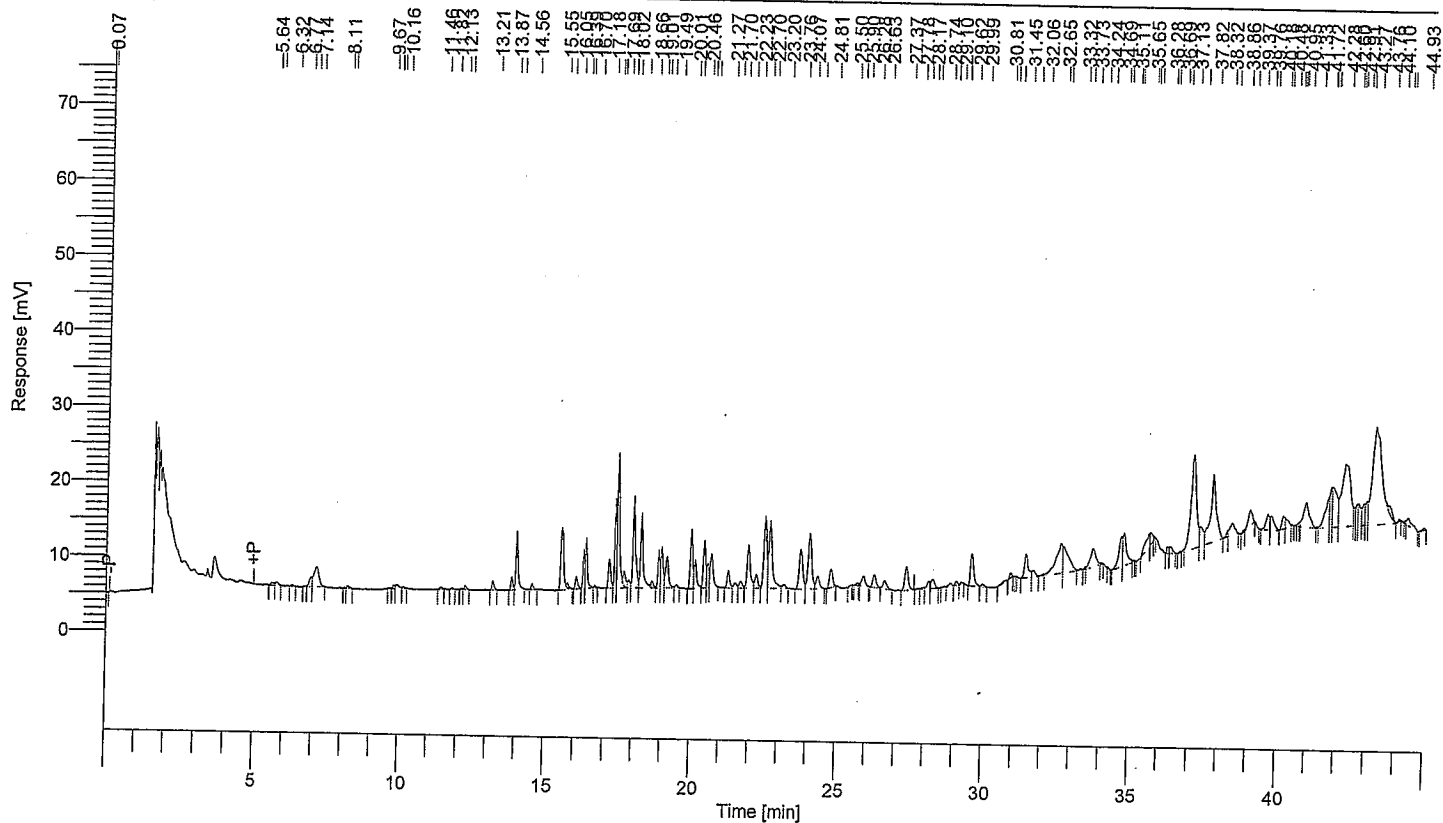
Data Acquisition Time : 10/18/2007 3:55:16 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#001.rst

Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.64	2380
5.79	3141
6.96	8064
7.14	33137
8.22	2216
9.83	2189
9.94	4069
12.27	2632
13.21	5699
13.87	8461
14.05	42352
14.56	4049
15.55	58299
15.75	3881
16.05	8876
16.30	19578
16.39	32940
17.18	22434
17.38	44588
17.46	100168
17.69	13438
17.85	6483
18.02	76644
18.30	59589
18.66	5642
18.90	23812
19.01	30516

Time [min]	Area [μ V·s]
19.17	28582
20.01	44739
20.14	22748
20.46	34486
20.57	16514
20.70	31012
21.27	14436
21.50	4658
21.70	6615
21.96	43581
22.23	13469
22.52	66472
22.70	78983
23.20	3917
23.76	46410
24.07	60692
24.35	14232
24.81	17855
25.90	10722
26.28	13529
26.63	9258
27.37	26679
28.17	7219
28.30	10180
28.89	2998
29.10	2893
29.62	33692
29.99	2465
30.94	2972
31.45	26984
31.71	7753
32.65	62067
32.74	48095
33.73	32758
34.69	32963
34.78	41638
35.65	18380
35.71	9609
36.28	4625
36.37	6582
37.13	166090
37.40	24310
37.82	127545
38.32	2999
38.46	17511
39.06	19317
39.64	16157
39.76	14569
40.18	12566
40.26	10247
40.95	44302
41.72	39496
41.82	27637
41.85	56133
42.28	173884
42.60	10033
42.68	10296
42.73	18467
42.91	19533
43.01	17001
43.27	296986
43.76	11052
44.38	10987

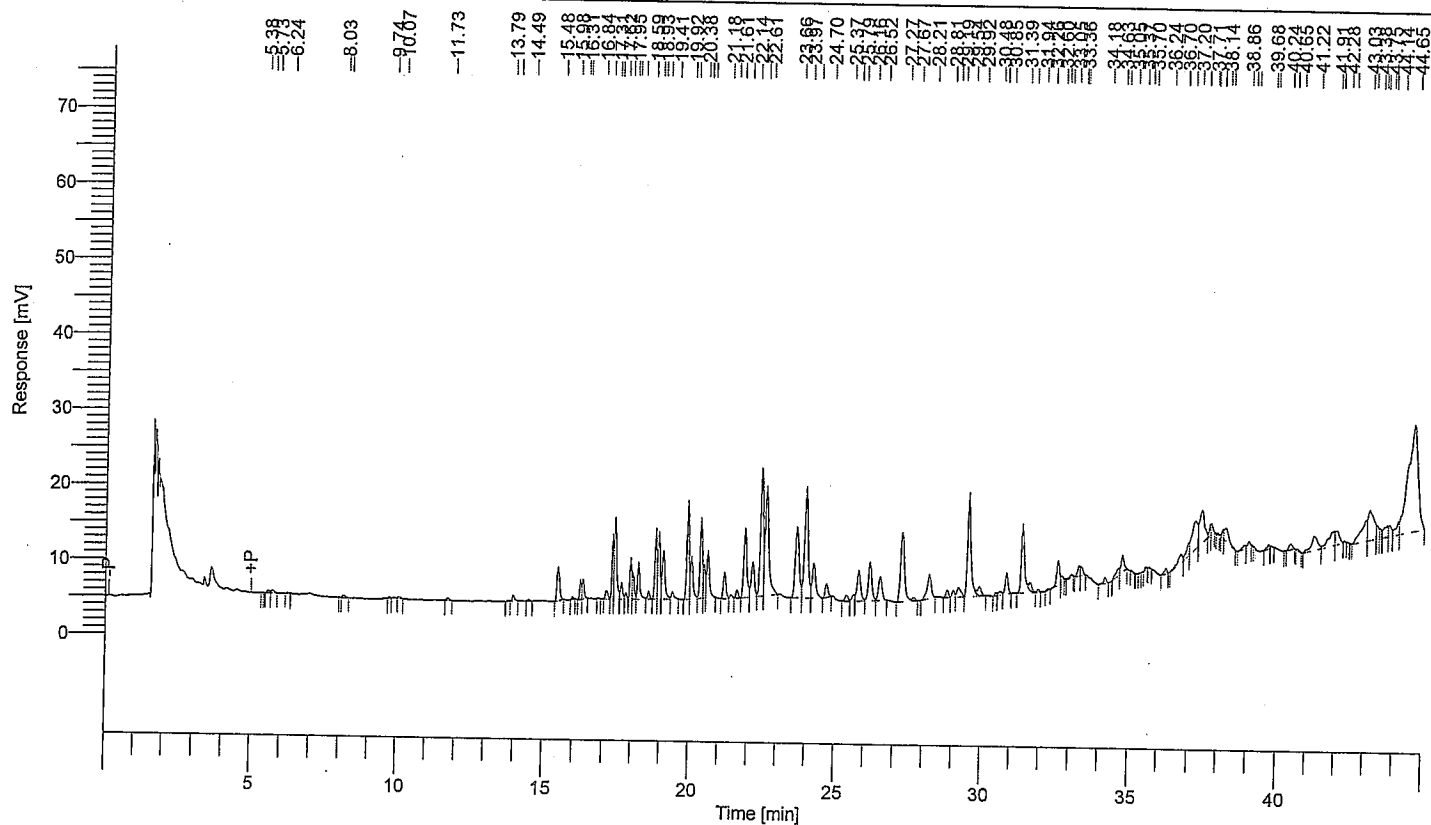
2735856

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62269
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/19/2007 1:27:08 PM
 Data Acquisition Time : 10/18/2007 4:48:14 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#002.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
5.57	2225
5.73	3098
8.14	2213
13.97	4271
15.48	27857
16.23	10553
16.31	12250
17.10	6589
17.31	34136
17.39	61034
17.62	11948
17.78	3785
17.95	24836
18.03	16839
18.23	28902
18.59	5066
18.82	44253
18.93	48917
19.10	44918
19.41	5673
19.92	72806
20.05	35344
20.38	61243
20.48	21989
20.62	40095
21.18	21210
21.41	2594

Time [min]	Area [μ V-s]
21.61	6272
21.87	66973
22.14	33247
22.43	122824
22.61	128012
23.66	87288
23.97	123264
24.25	41085
24.70	12745
25.37	5375
25.62	5459
25.79	33320
26.16	43799
26.52	26742
27.27	86139
27.67	3271
28.21	31545
28.81	6266
29.02	5723
29.19	12427
29.54	115331
29.92	11135
30.48	2099
30.63	3919
30.85	19400
31.39	76143
31.64	7907
31.94	2091
32.60	20434
32.72	5516
33.05	2767
33.30	7952
33.36	7573
34.18	4919
34.63	8515
34.76	16540
36.24	4735
36.70	13374
36.97	12731
37.20	55565
37.45	51080
37.71	5970
37.75	6613
38.14	4345
38.25	18385
38.86	4187
39.01	5069
39.68	4136
40.42	6279
41.22	29111
41.91	29451
42.02	19117
43.03	42364
43.15	57806
43.38	10172
43.49	4918
43.55	2043
43.75	16418
43.83	9608
44.14	14024
44.65	337110

2613276

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62281
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 1.000000
 Cycle : 14

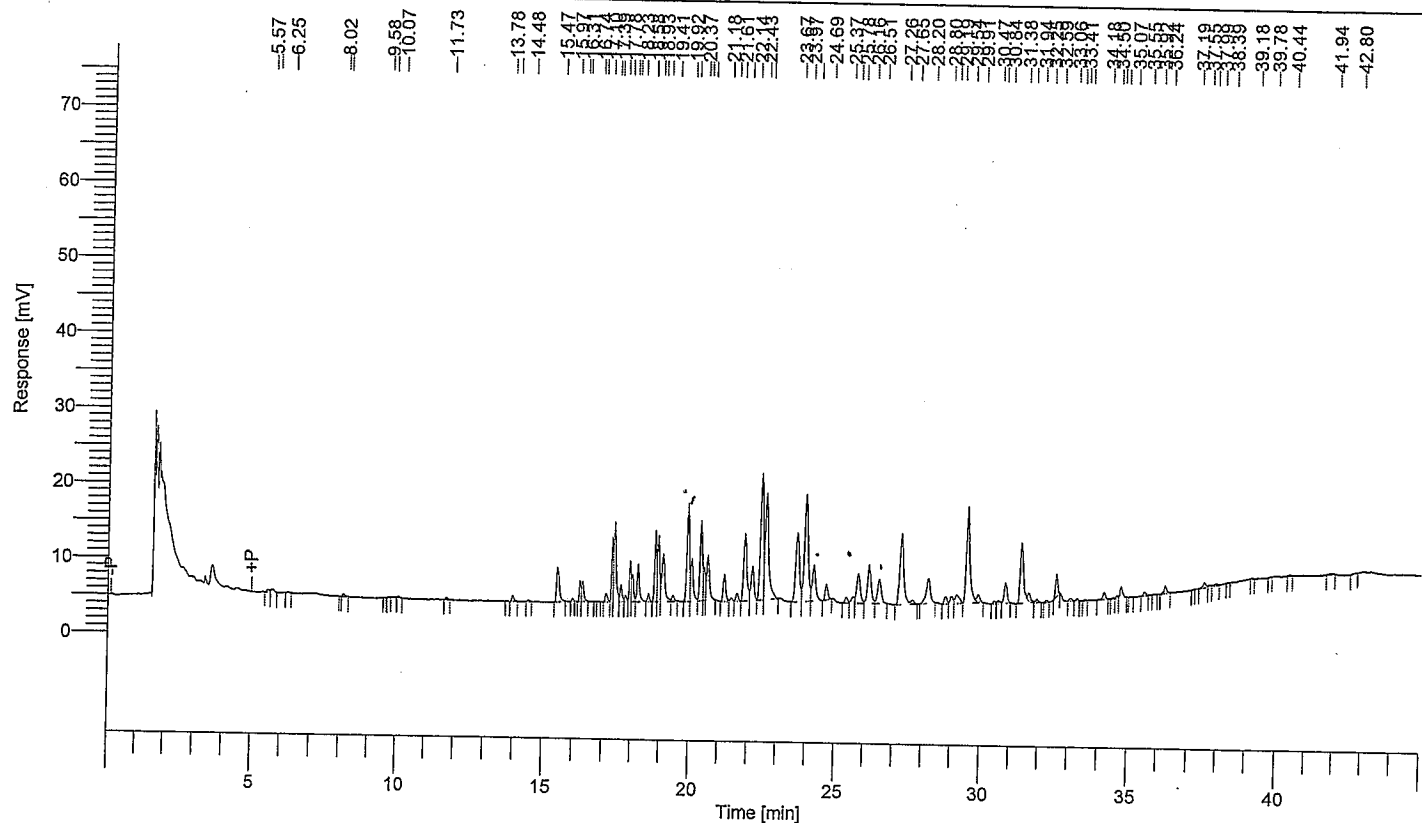
Date : 10/19/2007 1:27:20 PM
 Data Acquisition Time : 10/19/2007 3:20:13 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#014.rst

Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.57	2302
5.72	2932
8.13	2093
13.97	3988
15.47	29487
16.23	10547
16.31	12623
17.10	6033
17.31	33817
17.39	59861
17.62	12457
17.78	4379
17.95	25289
18.03	17574
18.23	28622
18.58	4759
18.82	44622
18.93	49225
19.09	46033
19.41	4565
19.82	72497
20.05	35458
20.37	61778
20.48	21338
20.61	40475
21.18	21322
21.42	2491

$$\Sigma \text{area} = 214104$$

$$\text{calibration factor} = \frac{214104}{2}$$

$$= 107052$$

Time [min]	Area [μ V-s]
21.61	6205
21.87	66357
22.14	31418
22.43	118723
22.60	123373
23.67	86102
23.97	124346
24.25	42427 —
24.69	14610
25.37	5386
25.61	5844
25.78	34629 —
26.16	46053
26.51	29093 —
27.26	87045
27.65	4140
28.20	32401
28.80	6571
29.01	6723
29.19	11524
29.54	110015
29.91	8073
30.47	2225
30.62	2433
30.84	19197
31.38	69596
31.64	7525
31.94	3182
32.59	15011
33.06	2049
34.18	5772
34.76	9314
35.55	3001
36.24	6198
37.55	4741

1807868

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62270
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

Date : 10/19/2007 1:27:09 PM

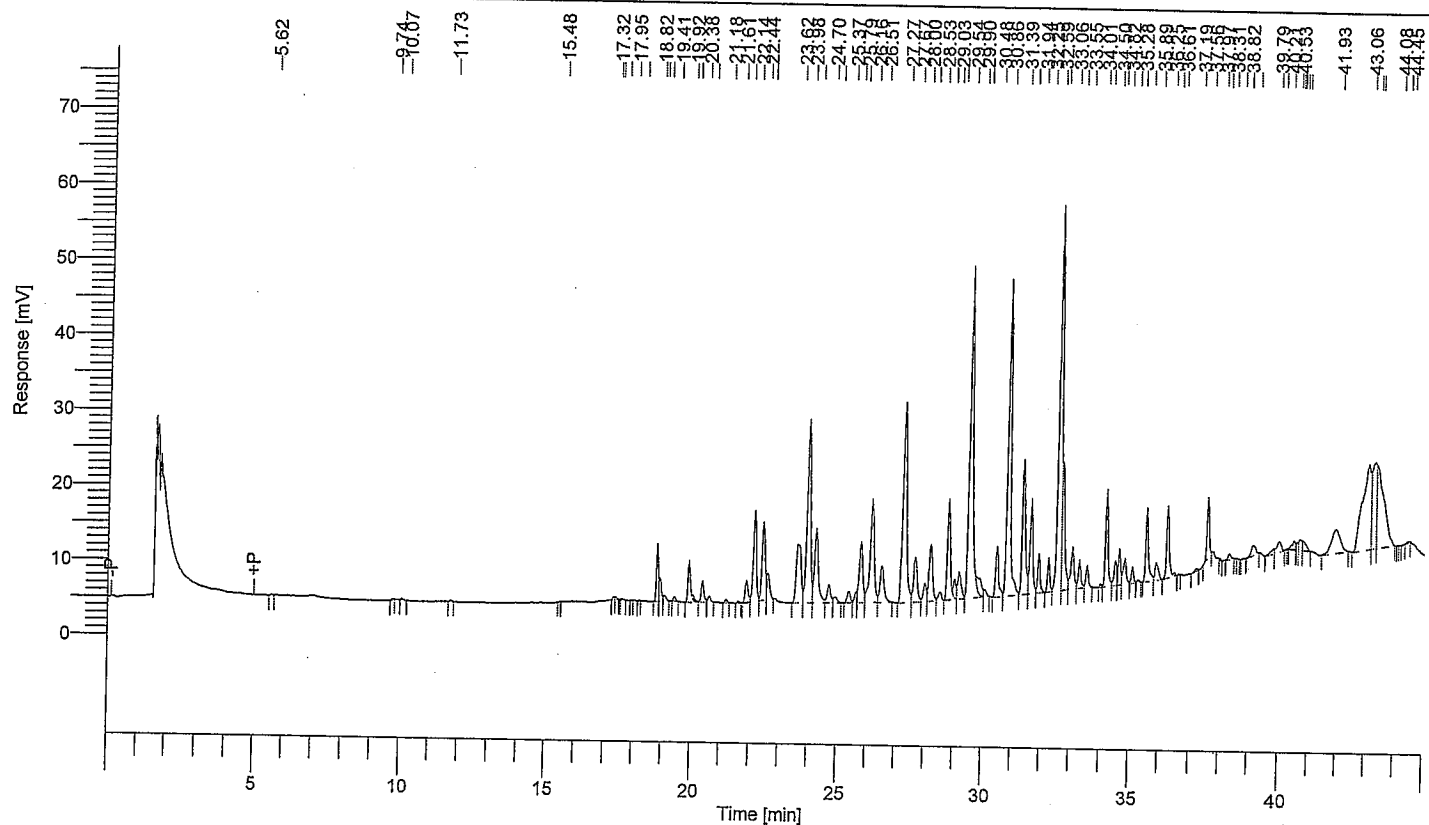
Data Acquisition Time : 10/18/2007 5:41:04 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#003.rst

Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V-s]
28.53	8307
28.81	102901
29.03	16486
29.18	30783
29.54	374893
29.90	24277
30.06	6415
30.48	48355
30.86	311738
31.39	142256
31.66	85461
31.94	33421
32.25	25298
32.59	342717
32.70	103617
33.06	41630
33.29	24237
33.55	15614
34.19	74346
34.50	19771
34.62	26431
34.82	28145
35.08	11805
35.55	63153
35.89	18926
36.25	57345
37.19	2062
37.56	40878
38.31	5866
39.11	15108
39.79	6171
39.97	14951
40.47	8625
40.59	3213
40.69	11317
40.78	11099
41.93	68440
43.06	233133
43.29	125429
43.36	182787

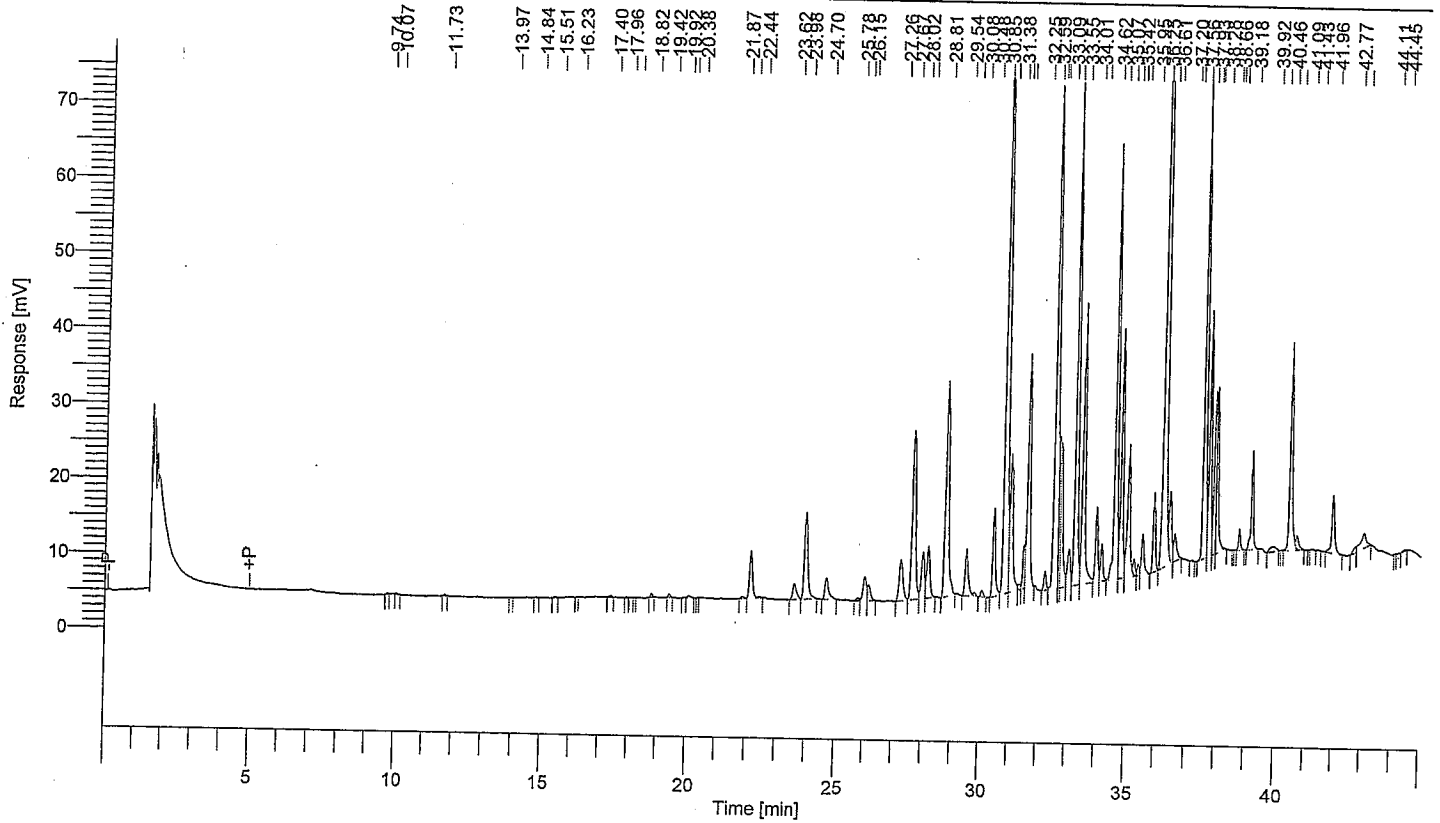
4169773

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62271
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

Date : 10/19/2007 1:27:10 PM

Data Acquisition Time : 10/18/2007 6:33:46 PM
 Channel : A
 Operator : enweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#004.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.82	2302
19.42	2161
20.07	2365
22.14	40369
23.62	17853
23.98	94174
24.70	24643
25.78	2401
26.02	24152
26.15	16676
27.26	49030
27.67	186384
28.02	46886
28.20	52915
28.81	230755
29.54	48317
29.81	2870
30.08	5098
30.48	79379
30.85	588156
31.06	134488
31.38	4754
31.54	27760
31.66	198090
32.25	13850
32.59	447468
32.72	83710

$$\begin{aligned} \text{Area} &= 712412 \\ \text{Calibration factor} &= \frac{712412}{2} \\ &= 356206 \end{aligned}$$

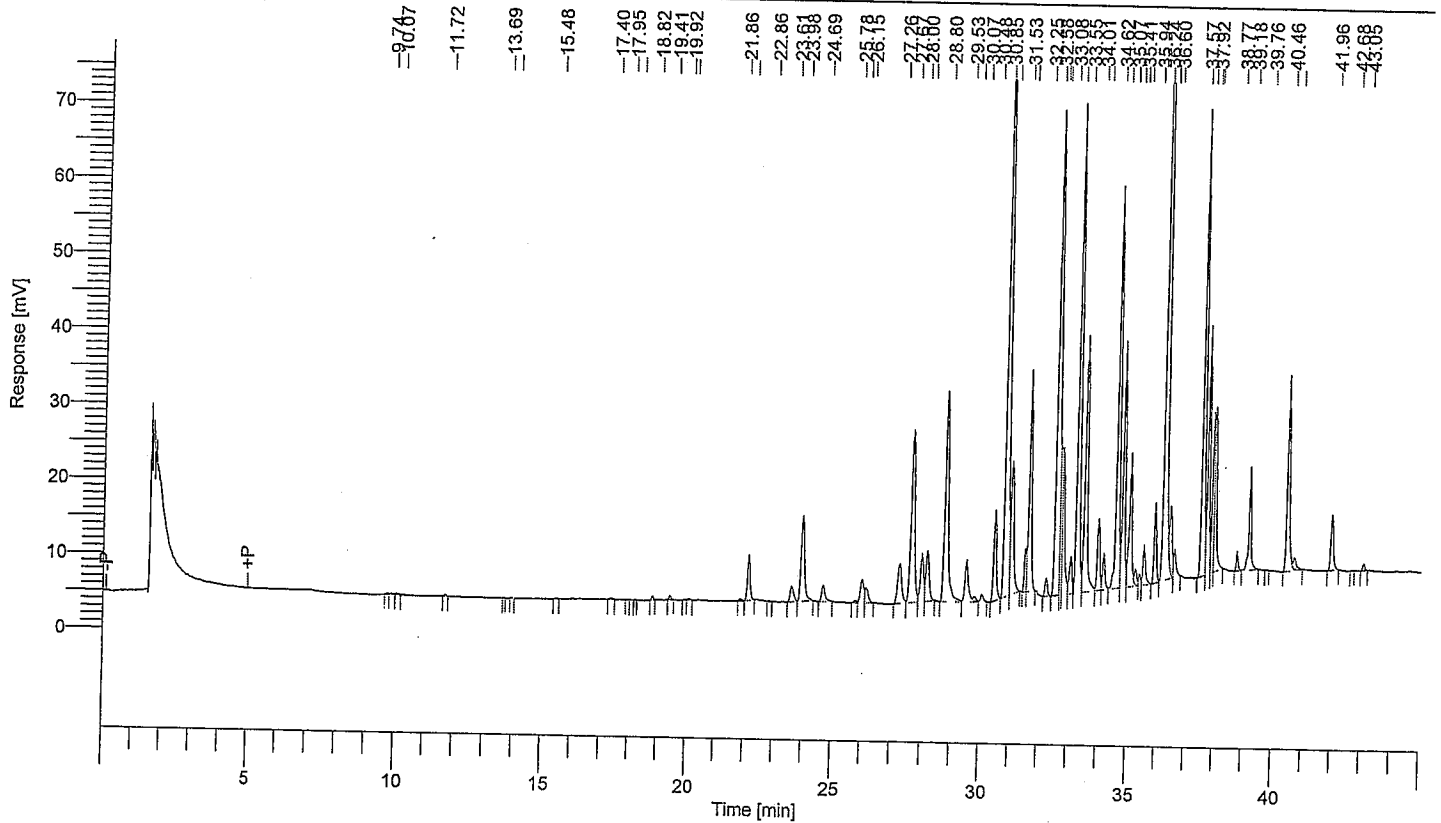
Time [min]	Area [μ V·s]
32.79	105240
33.09	34452
33.29	378617
33.55	214429
34.01	56420
34.19	29671
34.62	323331
34.83	192106
35.07	115969
35.27	11520
35.42	7557
35.56	35499
35.95	53110
36.25	723598
36.46	53839
36.61	25061
37.56	337562
37.75	174251
37.93	94291
37.98	106308
38.78	12636
39.18	73224
39.92	9042
40.46	158543
40.71	15307
41.96	55215
42.77	5376
43.04	27230

5856409

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62287
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/20
 Sample Amount : 1.000000
 Cycle : 20

Date : 10/19/2007 1:27:25 PM
 Data Acquisition Time : 10/19/2007 8:36:14 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#020.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.82	2212
19.41	2625
22.14	38882
23.61	16700
23.98	93393
24.69	17382
25.78	2080
26.01	25343
26.15	15647
27.26	48396
27.67	186912
28.00	47168
28.19	54452
28.80	242916
29.53	47585
29.81	4486
30.07	6380
30.48	75703
30.85	576881
31.06	128583
31.53	26050
31.66	192652
32.25	13656
32.58	430542
32.71	80380
32.77	111006
33.08	32386

$$\Sigma \text{area} = 698536$$

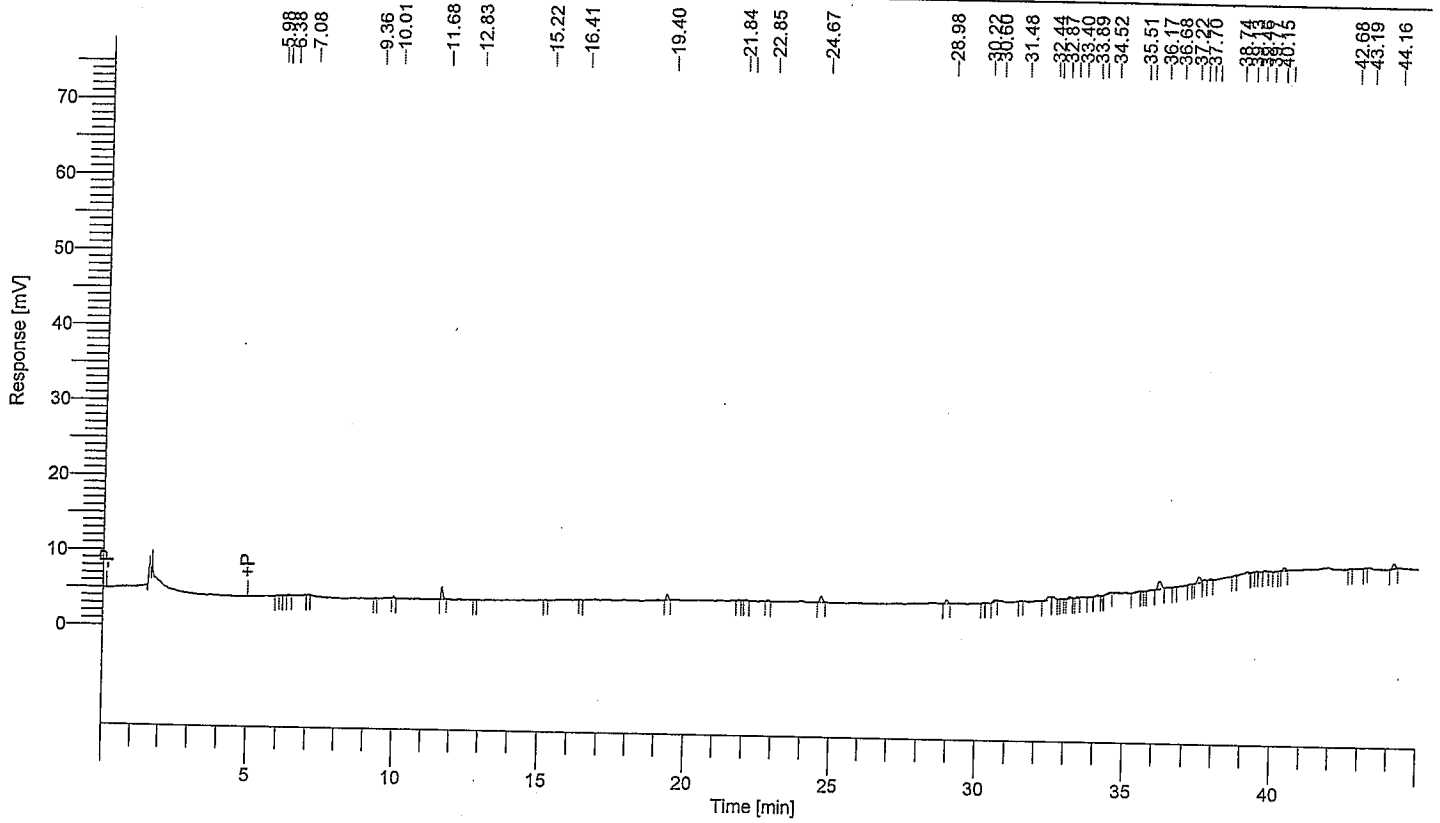
$$\text{Calibration factor} = \frac{698536}{2} = 349268$$

Time [min]	Area [μ V·s]
33.29	370730
33.55	209700
34.01	54871
34.18	29101
34.62	319460
34.82	189710
35.07	115012
35.27	12353
35.41	7216
35.55	33160
35.94	53018
36.24	719666
36.45	52706
36.60	22228
37.57	329606 ~
37.75	171110 ~
37.92	83751 ~
37.98	114069 ~
38.77	11899
39.18	79893
40.46	148892
40.71	13257
41.96	44206
43.05	4882
<hr/>	
5710897	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62274
 Sample Name : 22693 1:10
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 50.000000
 Cycle : 7

Date : 10/19/2007 1:27:13 PM
 Data Acquisition Time : 10/18/2007 9:11:56 PM
 Channel : A
 Operator : enweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.68	7226
19.40	3619
24.67	5303
28.98	3125
32.44	4854
32.58	2887
36.17	8649
37.50	5854
39.13	2965
40.41	2396
44.16	4407

51286

<0.4 ppm. total PCB.

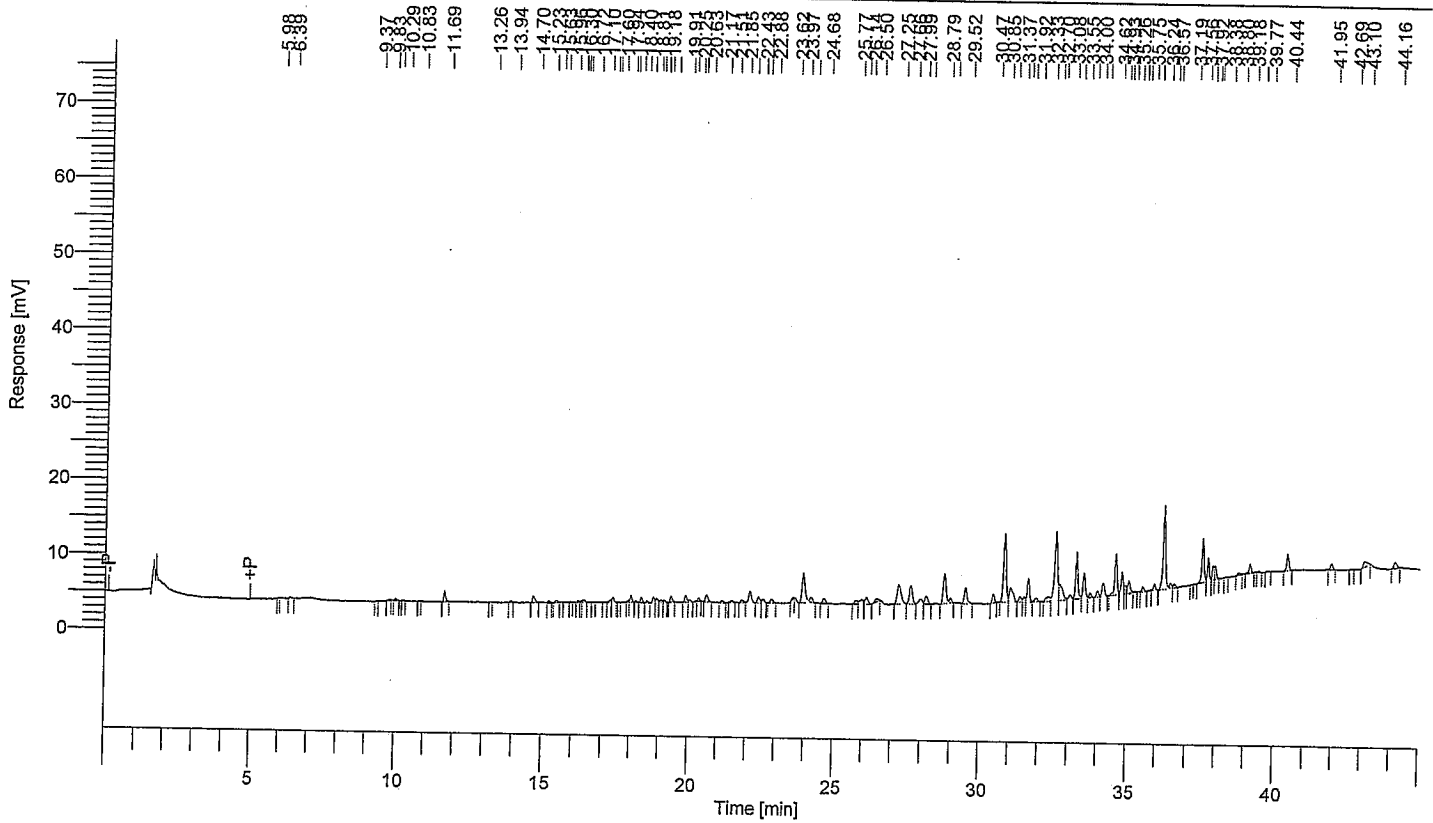
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62276
 Sample Name : 22694 1:10
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

Date : 10/19/2007 1:27:15 PM
 Data Acquisition Time : 10/18/2007 10:57:14 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#009.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
11.69	6175
14.70	4435
16.37	2188
17.38	3040
18.03	4251
18.40	3095
18.81	3262
18.91	2769
19.40	3591
19.91	4732
20.36	2160
20.63	5617
21.85	2465
22.12	10113
22.43	5218
22.59	3122
22.88	3419
23.97	30709
24.23	4786
24.68	4332
25.77	3536
25.98	5627
26.14	6631
26.50	3428
27.25	24505
27.66	17896
27.99	5759

<0.40 ppm total PCB

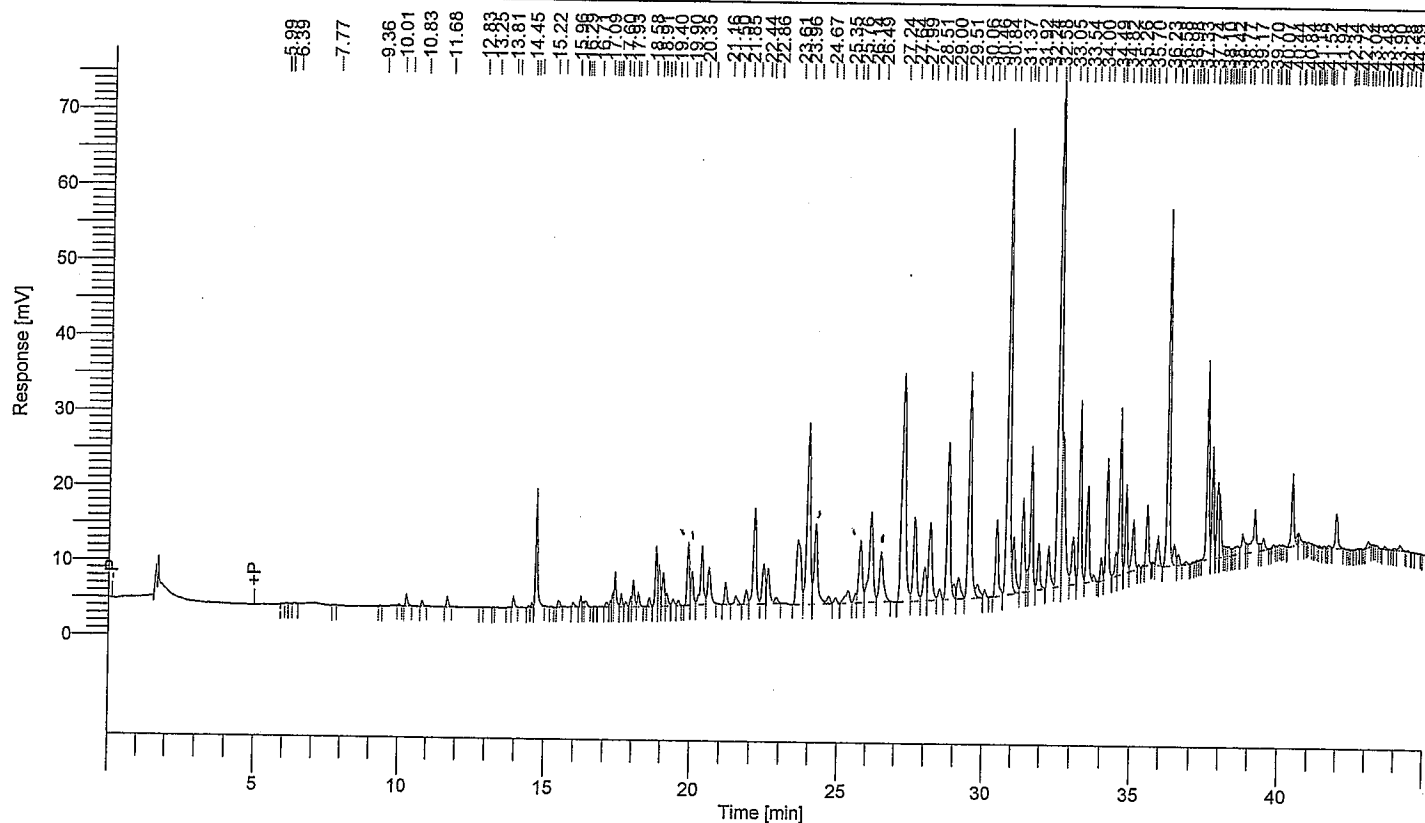
Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
28.19	7651
28.79	27348
29.01	3553
29.52	15075
30.47	6313
30.85	59431
31.06	16910
31.37	4039
31.52	3310
31.65	17745
31.92	2818
32.33	6339
32.58	58909
32.70	18589
33.08	3884
33.28	33414
33.55	17525
33.75	3282
34.00	4012
34.19	10542
34.62	30044
34.82	16143
34.93	5959
35.06	11319
35.53	3378
35.94	4354
36.24	59755
36.45	3358
36.57	2662
37.56	30005
37.75	14671
37.92	8003
37.98	7351
39.18	6077
40.44	10735
41.95	4526
43.10	6570
44.16	5740

728200

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62277
 Sample Name : 22695 1:10
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

Date : 10/19/2007 1:27:16 PM
 Data Acquisition Time : 10/18/2007 11:49:52 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#010.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.29	7398
10.83	3245
11.68	6091
13.94	6412
14.56	2370
14.69	68199
15.45	5190
15.96	3080
16.21	5585
16.29	2527
16.37	5044
17.09	3164
17.23	2760
17.30	7345
17.38	23219
17.60	7906
17.76	3273
17.93	5162
18.02	19164
18.21	9734
18.58	5931
18.80	38476
18.91	28951
19.06	25376
19.18	10455
19.40	5430
19.58	3793

$$\Sigma \text{area Arochlor 1248} = 297483$$

$$\text{ng/mL} = \frac{297483}{107092} = 2.7789$$

$$\text{ppm} = \frac{2.7789}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 1.1115$$

$$\Sigma \text{area (Arochlor 1260)} = 294518$$

$$\text{ng/mL} = \frac{294518}{356206} = 0.8268$$

$$\text{ppm} = \frac{0.8268}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.3307$$

$$\text{Total PCB} = 1.4422 \text{ ppm.}$$

Time [min]	Area [μV-s]
19.90	44641
20.04	25554
20.35	54293
20.61	34635
21.16	16823
21.50	9092
21.85	11663
22.12	89407
22.44	38918
22.58	34463
22.86	5242
23.61	94937
23.96	195237
24.23	95379
24.67	7530
24.91	5311
25.35	19229
25.60	6770
25.76	66757
26.14	122890
26.49	65152
27.24	274567
27.64	94404
27.99	35103
28.18	84555
28.51	10560
28.79	158525
29.00	11407
29.16	24652
29.51	220091
29.80	15568
30.06	6533
30.46	67210
30.84	439707
31.05	49300
31.37	79941
31.52	12441
31.65	122363
31.92	39213
32.24	37373
32.58	450139
32.70	140060
33.05	42846
33.28	130571
33.54	68090
33.74	4594
34.00	14121
34.17	90994
34.49	16986
34.61	112120
34.82	60206
35.07	42763
35.26	2372
35.54	41587
35.93	25196
36.23	245979
36.45	14603
36.58	8331
36.83	2829
37.55	137054
37.74	72577
37.92	48745
37.98	36162
38.10	2971
38.14	5070
38.20	4928
38.31	7872
38.42	2169
38.49	3732
38.58	8900
38.77	20320
38.89	5034
39.17	46537
39.36	4999
39.47	9948
40.44	52073
40.61	5599
40.65	9291
41.94	28773
43.04	5129
43.62	2566
44.14	5553

1248

Plot Title

Start Time End Time Scale Offset

SET7#004.raw

Sample Name : AROCHLOR 1260

Sample Number: 04

Instrument File Name: c:\pest\gc14\methods\pcb

13.00 40.00 70.00 0.00

SET7#002.raw

Sample Name : AROCHLOR 1248

Sample Number: 02

Instrument File Name: c:\pest\gc14\methods\pcb

13.00 40.00 70.00 0.00

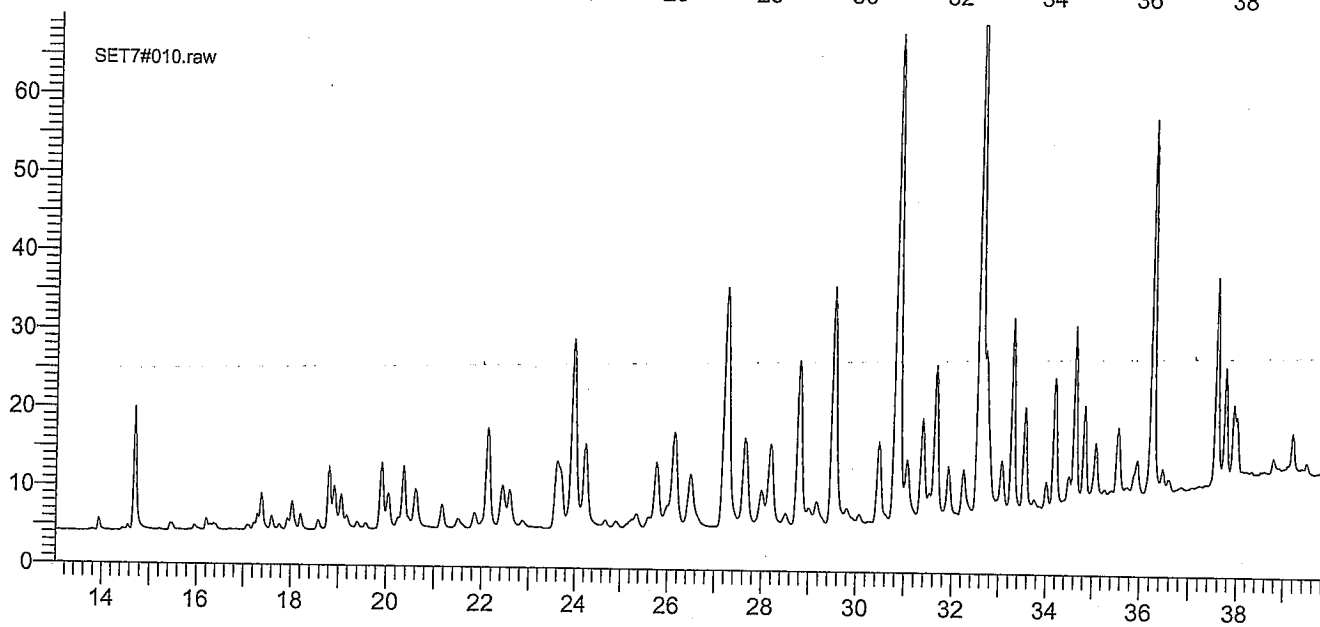
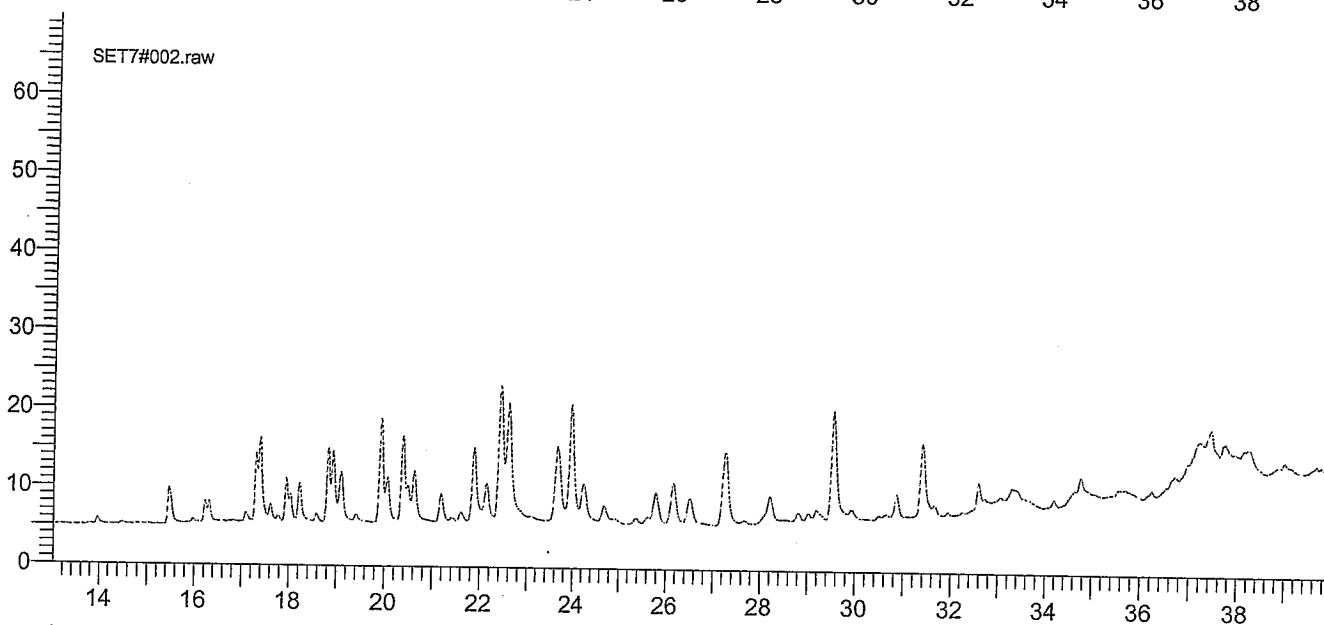
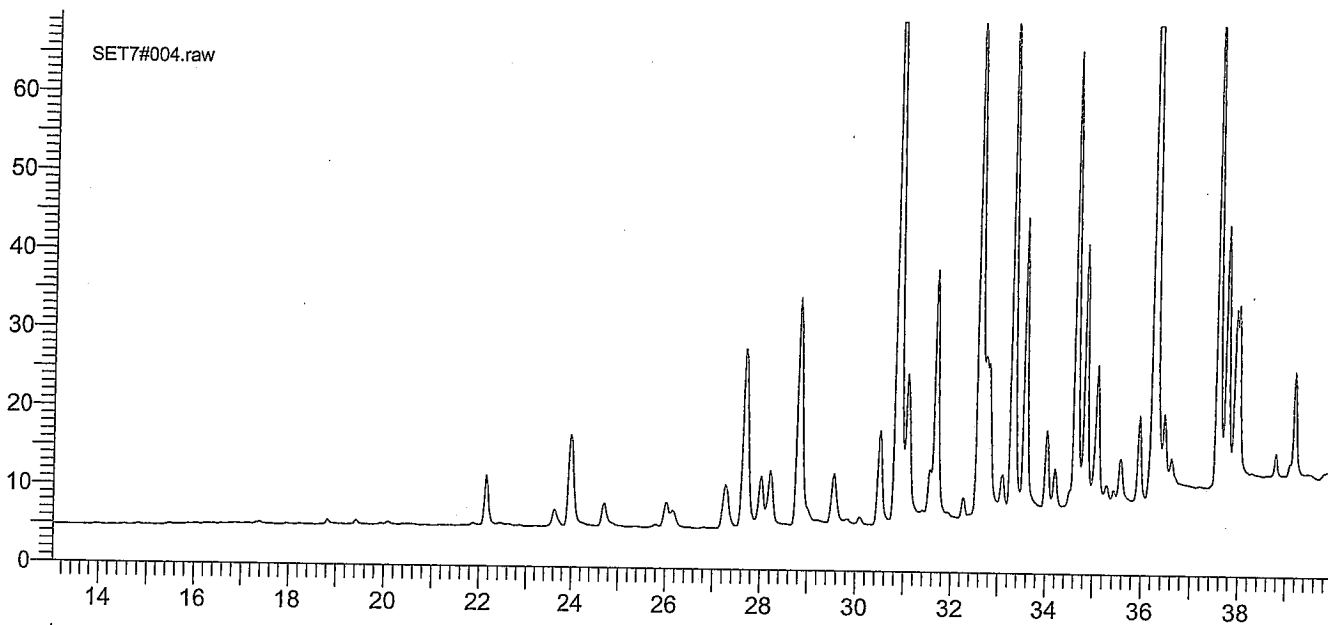
SET7#010.raw

Sample Name : 22695 1:10

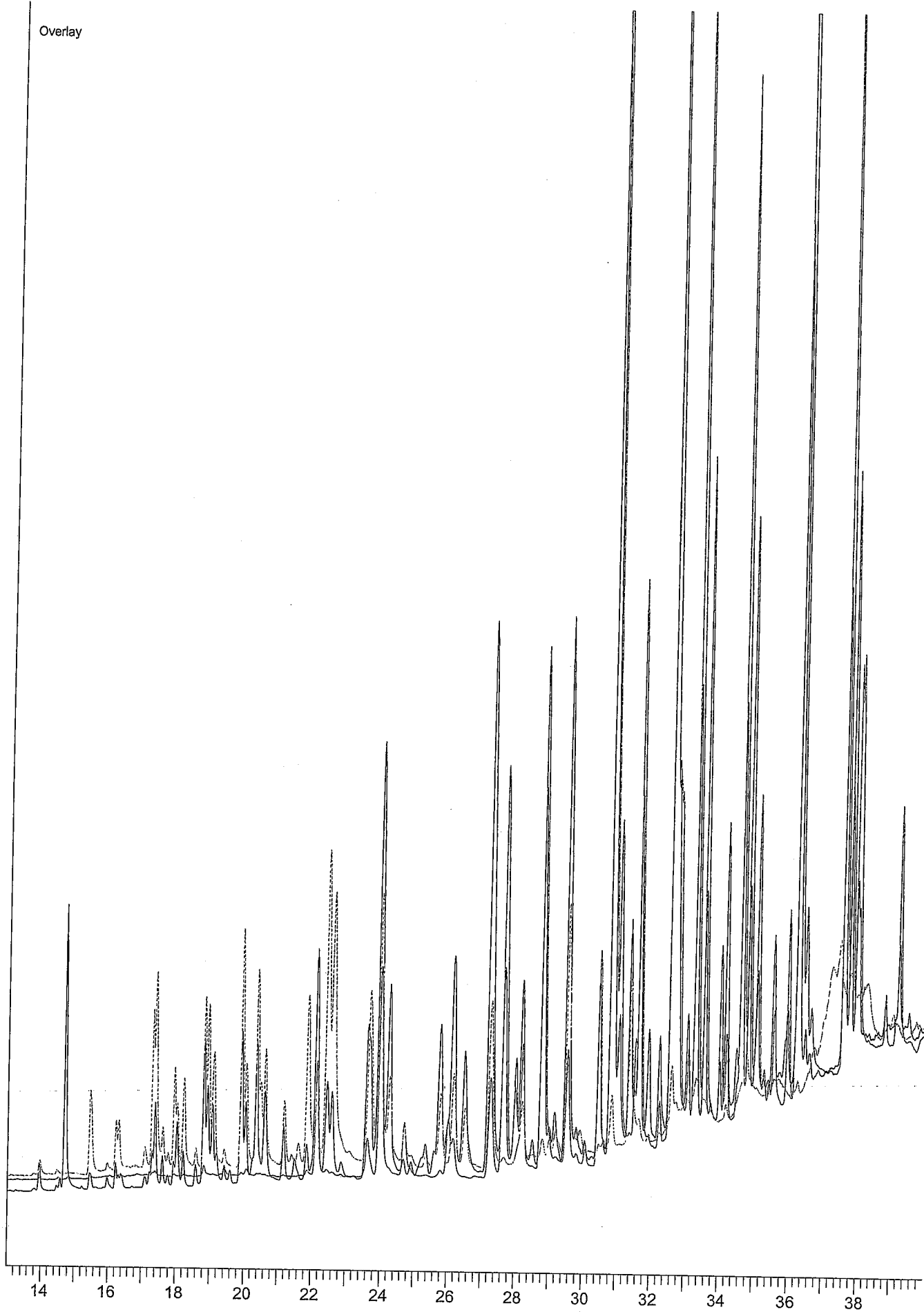
Sample Number: 10

Instrument File Name: c:\pest\gc14\methods\pcb

13.00 40.00 70.00 0.00



Overlay

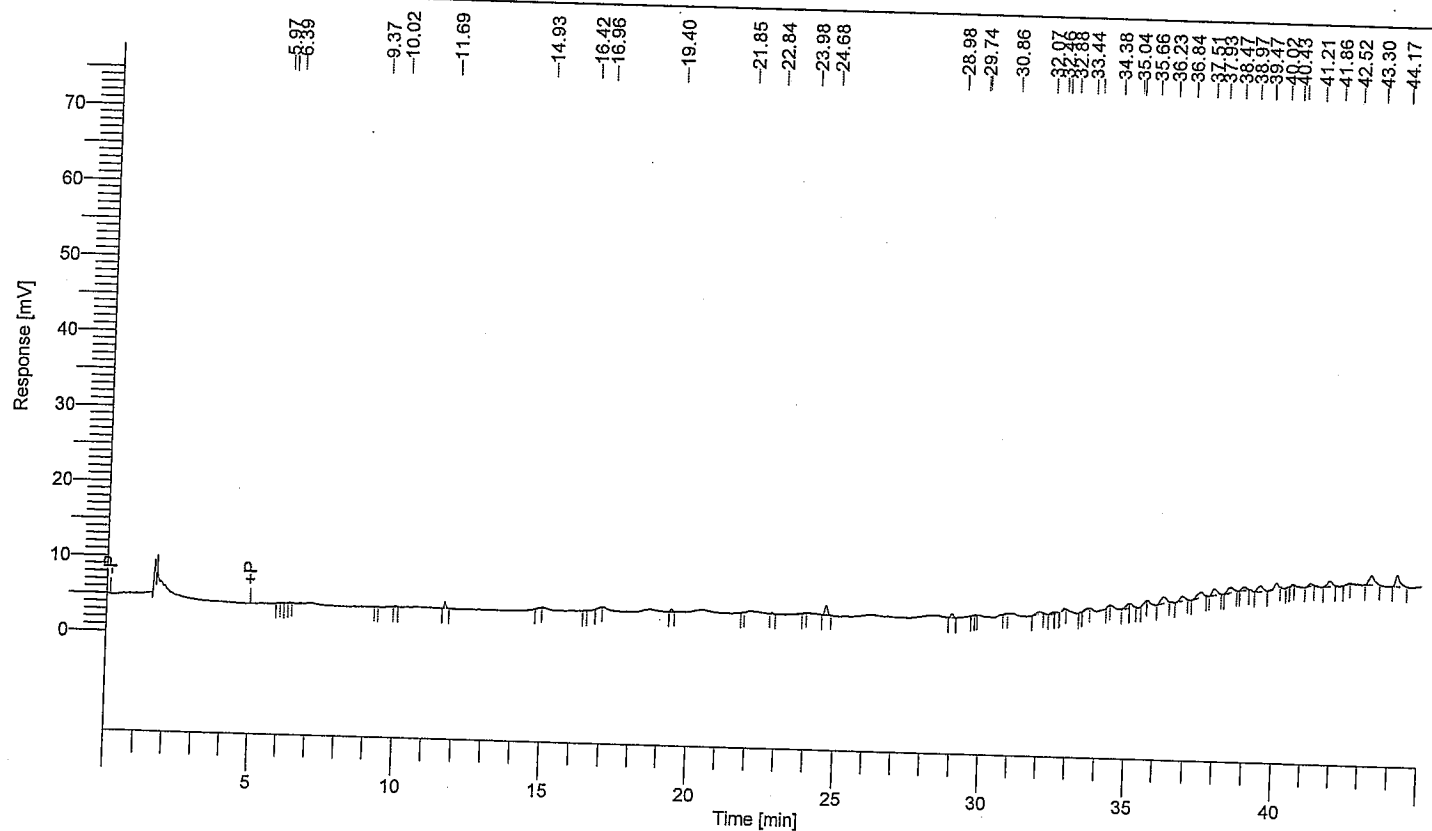


Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62278
 Sample Name : 22696 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

Date : 10/19/2007 1:27:17 PM

Data Acquisition Time : 10/19/2007 12:42:27 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#011.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.69	3607
24.68	8045
28.98	3460
32.07	3448
35.04	4896
35.11	4094
36.23	11233
36.84	7309
37.51	9559
37.93	9495
38.47	9462
38.97	4332
39.47	9691
40.02	6637
41.21	3102
41.86	8196
43.30	14831
44.17	15750

137147

<0.40 ppm total PCB

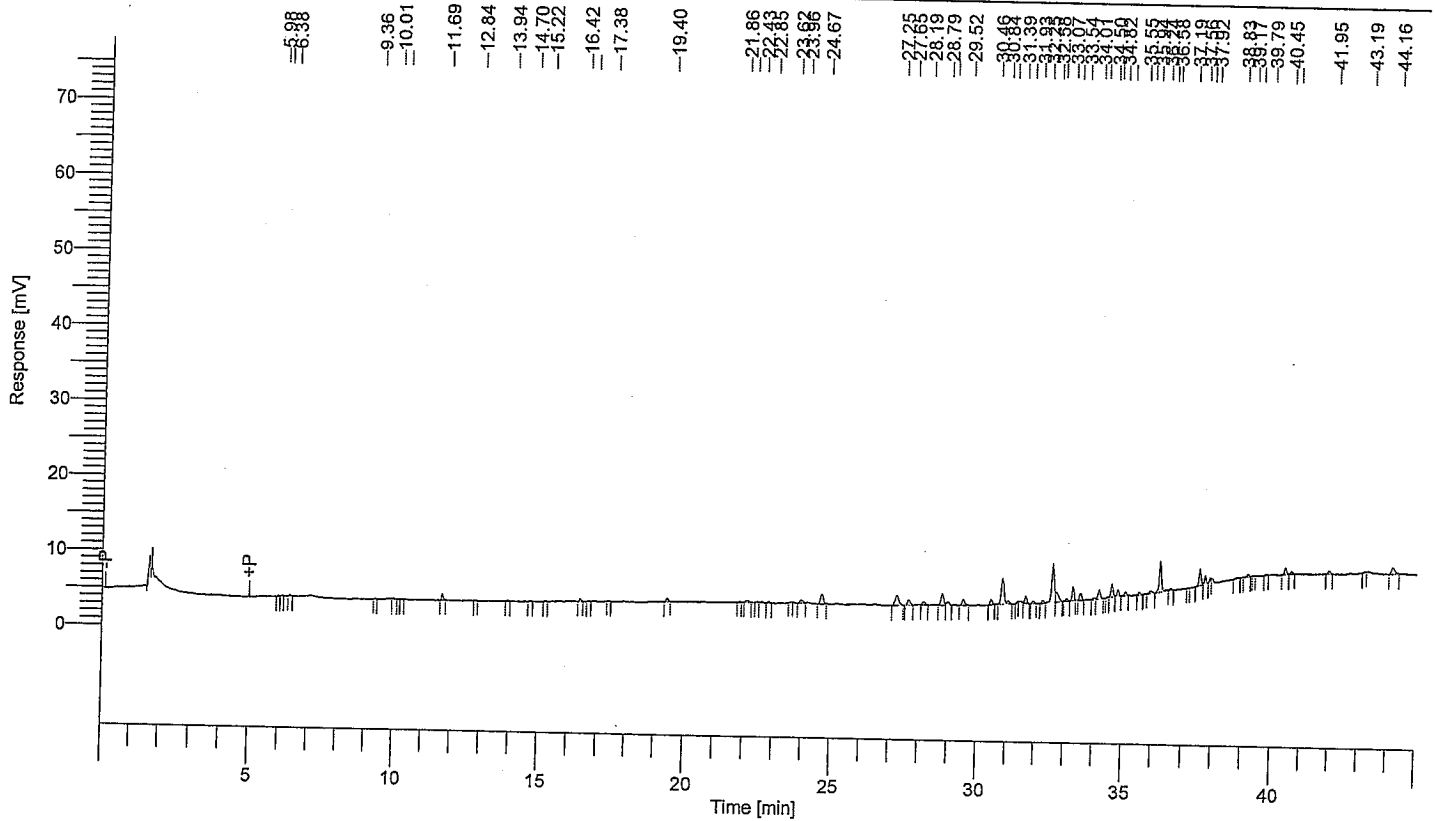
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62282
 Sample Name : 22697 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

Date : 10/19/2007 1:27:21 PM

Data Acquisition Time : 10/19/2007 4:12:50 AM
 Channel : A
 Operator : enweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#015.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.69	3392
19.40	2153
23.96	2973
24.67	8475
27.25	10850
27.65	4625
28.19	2851
28.79	9908
28.99	3109
29.52	5417
30.46	3759
30.84	23806
31.05	2251
31.65	4832
32.25	2002
32.58	32774
32.71	8767
33.28	8670
33.54	4308
34.18	7367
34.62	8781
34.82	4410
35.07	2564
35.94	2298
36.24	21730
37.56	11519

<0.40 ppm total PCB.

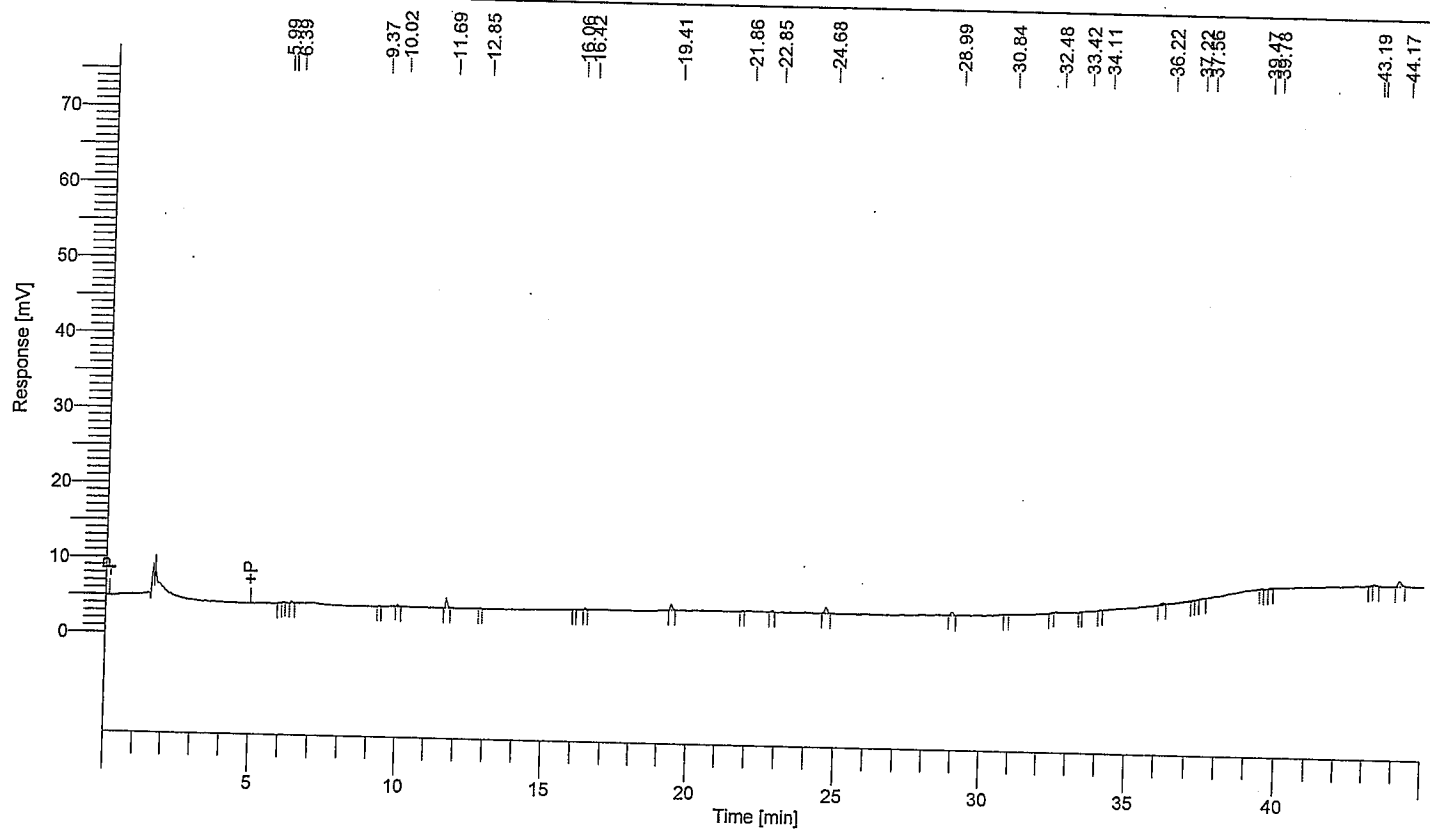
Time [min]	Area [μ V-s]
37.75	4608
40.45	4340
41.95	2121
44.16	7218
<hr/>	
221877	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62283
 Sample Name : 22698 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

Date : 10/19/2007 1:27:22 PM

Data Acquisition Time : 10/19/2007 5:05:31 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#016.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.69	5401
19.41	3922
24.68	4861
28.99	2876
44.17	5682
	22742

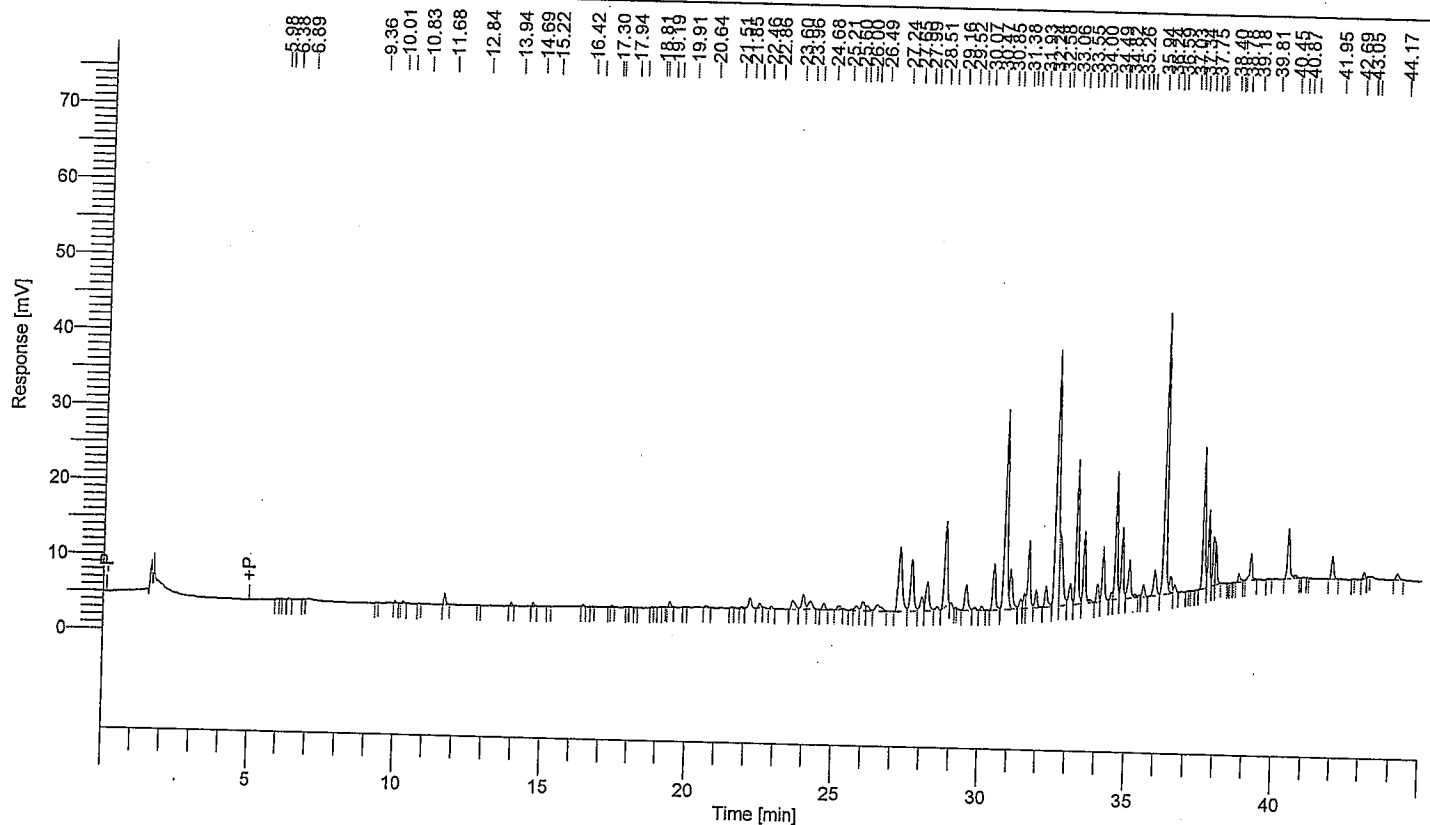
<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62284
 Sample Name : 22699 1:10
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 50.000000
 Cycle : 17

Date : 10/19/2007 1:27:22 PM

Data Acquisition Time : 10/19/2007 5:58:12 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#017.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.68	6354
14.69	2164
19.40	3695
22.12	9446
22.46	3175
23.60	10817
23.96	15230
24.22	10310
24.68	5581
25.21	4041
25.77	4812
26.00	10020
26.14	5015
26.49	10398
27.24	75134
27.65	55063
27.99	14101
28.19	29535
28.51	3446
28.80	79238
29.52	26049
29.82	2707
30.07	3171
30.47	39080
30.85	187082
31.05	33882
31.38	8336

LO.40 ppm total PCB.

Time [min]	Area [μ V-s]
31.52	10135
31.65	56030
31.93	14284
32.24	17338
32.58	215082
32.71	78072
33.06	18148
33.28	104473
33.55	51144
33.74	3005
34.00	11636
34.18	39813
34.49	3859
34.61	87440
34.82	48808
35.06	31233
35.26	2489
35.54	8950
35.94	19990
36.24	191474
36.45	12169
36.59	6022
37.55	94015
37.75	49077
37.92	29453
37.98	22517
38.78	6314
39.18	21261
40.45	37353
40.71	3290
41.95	16469
43.05	4273
44.17	6204

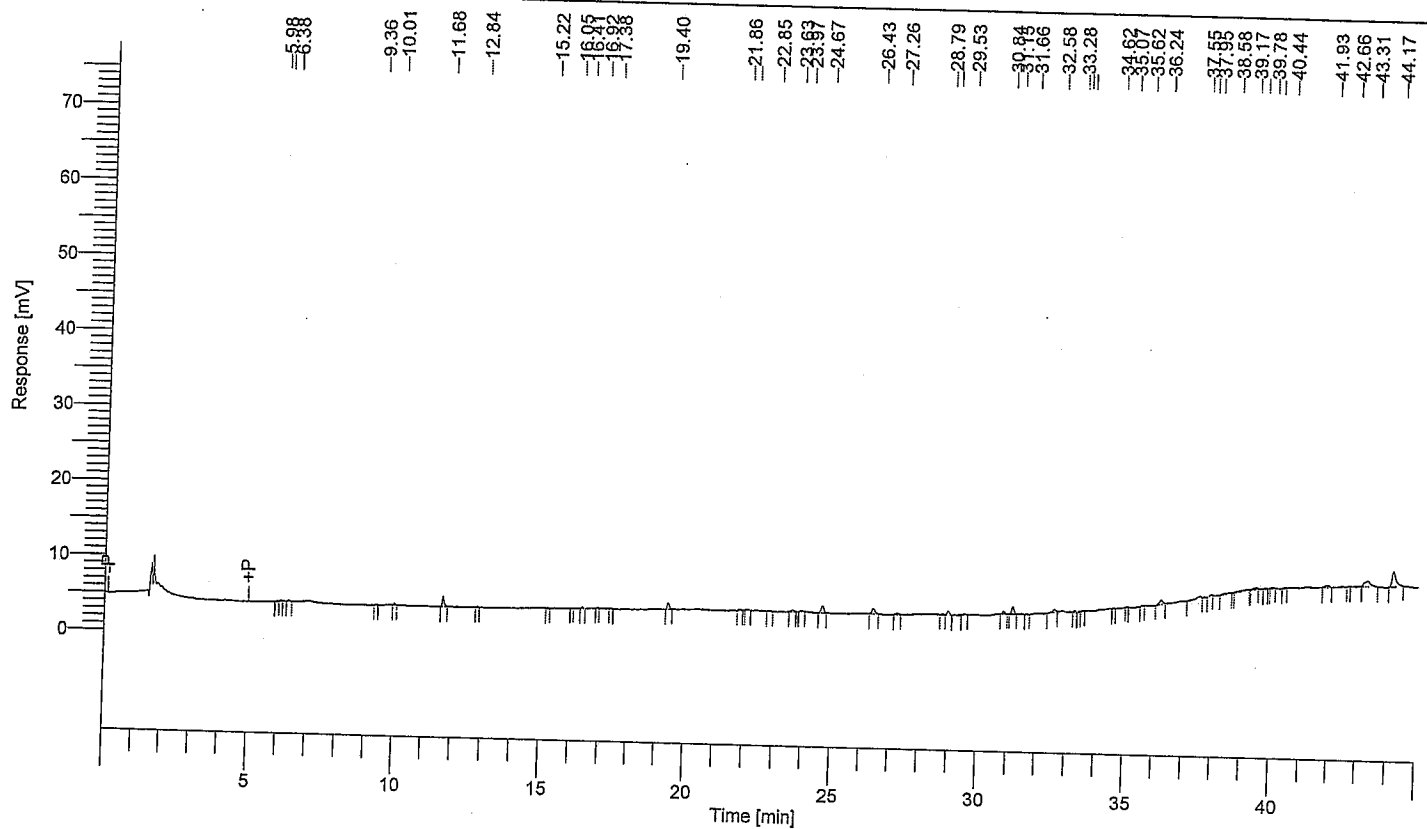
1979703

Software Version : 63.1.0504
 Reprocess Number : totalchrom: 62285
 Sample Name : 22700 1:10
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 50.000000
 Cycle : 18

Date : 10/19/2007 1:27:23 PM

Data Acquisition Time : 10/19/2007 6:50:53 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET7#018.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100207 AV SET 7\SET 7.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.68	5518
19.40	4323
24.67	5897
26.43	5274
28.99	2985
30.84	2027
31.15	6002
32.58	3330
36.24	4929
37.55	3540
38.58	2414
39.17	3841
41.93	2516
43.31	10931
44.17	18497

82023

<0.40 ppm total PCB

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100208 050810/19/2007
07102008 Avant Level IV QAQC
 Set #8

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SF
PREP DATE:	10-19-07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AA11900004		
PREP. DATE:	10-8-2007		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS
1	SPIKE 1	50.0
2	22701	50.0
3	22701 ms	50.0
4	22702	50.0
5	22702 dup	50.0
6	22703	50.0
7	22704	50.0
8	22705	50.0
9	22705 msd	50.0
10	22706	50.0
11	227707	50.0
12	22708	50.0
13	blank	
14		
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	SF	ALICUOT RATIO:	50/100
COLUMN I.D.:	809200	FINAL VOLUME:	2.0 mL
DATE USED:	10-19-2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGV (cm/s)	Not Given	A1016 I.D.	Y11300003
INST. CAL I.D.	MX50100154	A1221 I.D.	Y11400003
INST. CAL PREP. DATE:	10-7-94	A1232 I.D.	Y11500003
ANALYTE 1		A1242 I.D.	Y11600003
RETENTION TIME (MIN)	14.37	A1248 I.D.	X117 Y11700003
R.T. ACCURACY (%)	99	A1254 I.D.	X11800011
SENSITIVITY (AREA)	46080	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	101	CAL PREP DATE:	10-2-2007
ANALYTE 2			
RETENTION TIME (MIN)	16.57		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	885683		
SENS. ACCURACY (%)	89		

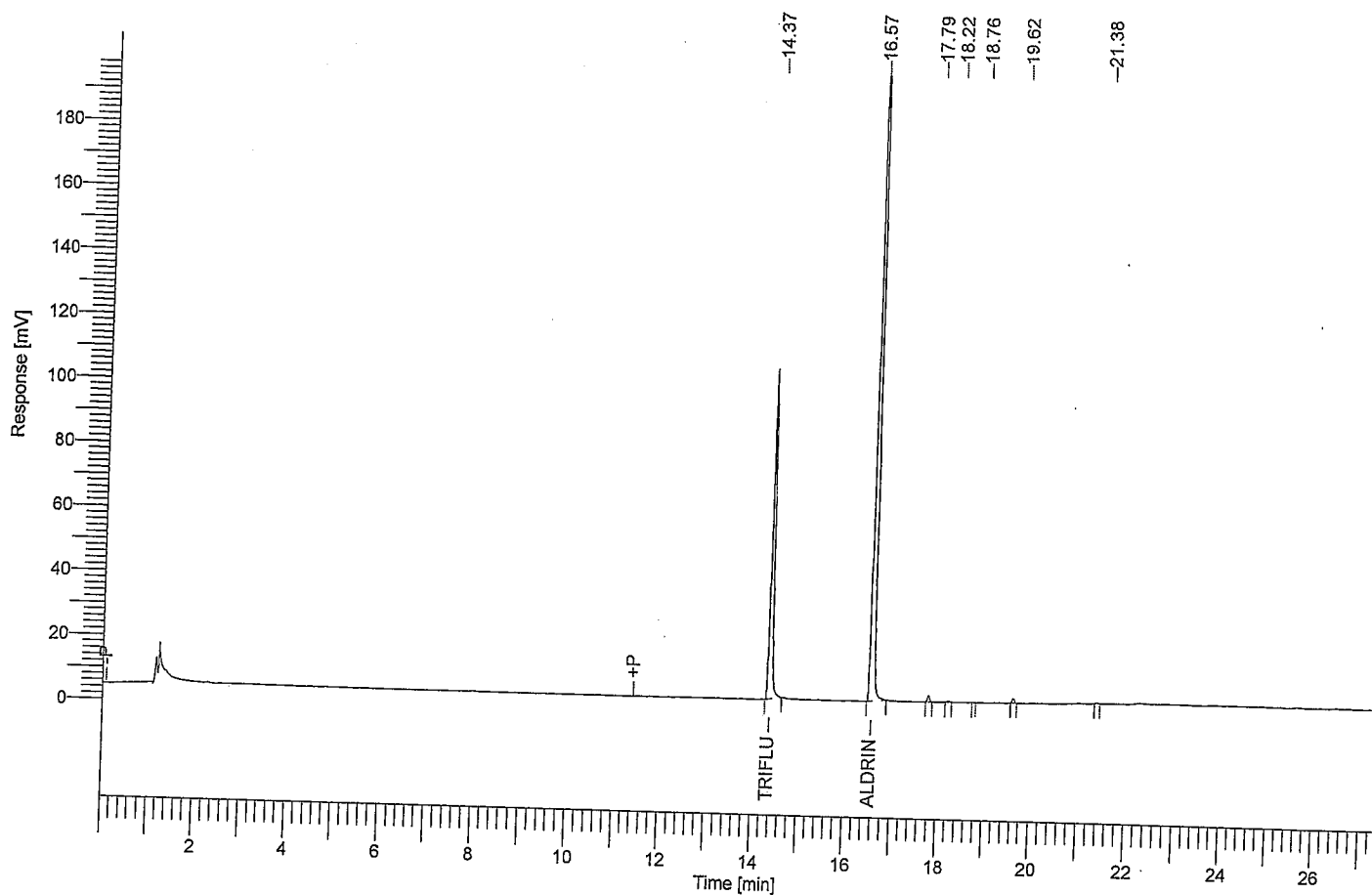
COMMENTS

Solvent rinse sample glassware three times with acetone and three times with hexane before washing. Use 0.5 mL Arochlor 1260 INT for the matrix spike and the matrix spike duplicate.
 90% Methanol / Di-Water PD: 10-16-07 PH7 Buffer PD: 10-18-07
 15% EE/Hexane PD: 10-11-07 TBA Sulfite Reagent PD: 10-16-07
 C18 Lot # - 0730406 Florisil Lot # - 195937/20A

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62302
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 1

Date : 10/19/2007 2:29:10 PM
Data Acquisition Time : 10/19/2007 2:01:31 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC001-20071019-142910.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [$\mu\text{V}\cdot\text{s}$]
14.37	TRIFLURALIN	400186.38
16.57	ALDRIN	885682.75
		1285869.13

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq

Printed by : envweigh on: 10/19/2007 1:40:54 PM
 Created by : envweigh on: 10/19/2007 1:40:29 PM
 Edited by : envweigh on: 10/19/2007 1:40:46 PM
 Number of Times Edited : 1

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 24
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1016	02	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1221	03	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1232	04	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1242	05	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1248	06	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1254	07	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	AROCHLOR 1260	08	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
9	Sample	BLANK SLUDGE	09	07100208	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
10	Sample	SPIKE SLUDGE	10	07100208	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22701 1:10	11	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22701 MS 1:10	12	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22702 1:10	13	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
14	Sample	22702 DUP 1:10	14	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
15	Sample	22703 1:10	15	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22704 1:10	16	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	FLUSH	17	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
18	Sample	AROCHLOR 1248	18	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
19	Sample	22705 1:10	19	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	22705 MSD 1:10	20	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
21	Sample	22706 1:10	21	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
22	Sample	22707 1:10	22	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
23	Sample	22708 1:10	23	07100208	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
24	Sample	FLUSH	24	07100208	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
6	A	0	6	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
7	A	0	7	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
8	A	0	8	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
9	A	0	9	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
10	A	0	10	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
11	A	0	11	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
12	A	0	12	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
13	A	0	13	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
14	A	0	14	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
15	A	0	15	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
16	A	0	16	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
17	A	0	17	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
18	A	0	18	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
19	A	0	19	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
20	A	0	20	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
21	A	0	21	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
22	A	0	22	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
23	A	0	23	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
24	A	0	24	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb

Row	Raw Data File	Result File	Baseline
1	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#001	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#001	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#001
2	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#002	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#002	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#002
3	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#003	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#003	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#003
4	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#004	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#004	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#004
5	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#005	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#005	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#005
6	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#006	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#006	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#006
7	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#007	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#007	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#007
8	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#008	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#008	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#008
9	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#009	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#009	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#009
10	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#010	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#010	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#010
11	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#011	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#011	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#011
12	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#012	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#012	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#012

Sequence Process Information - Channel A

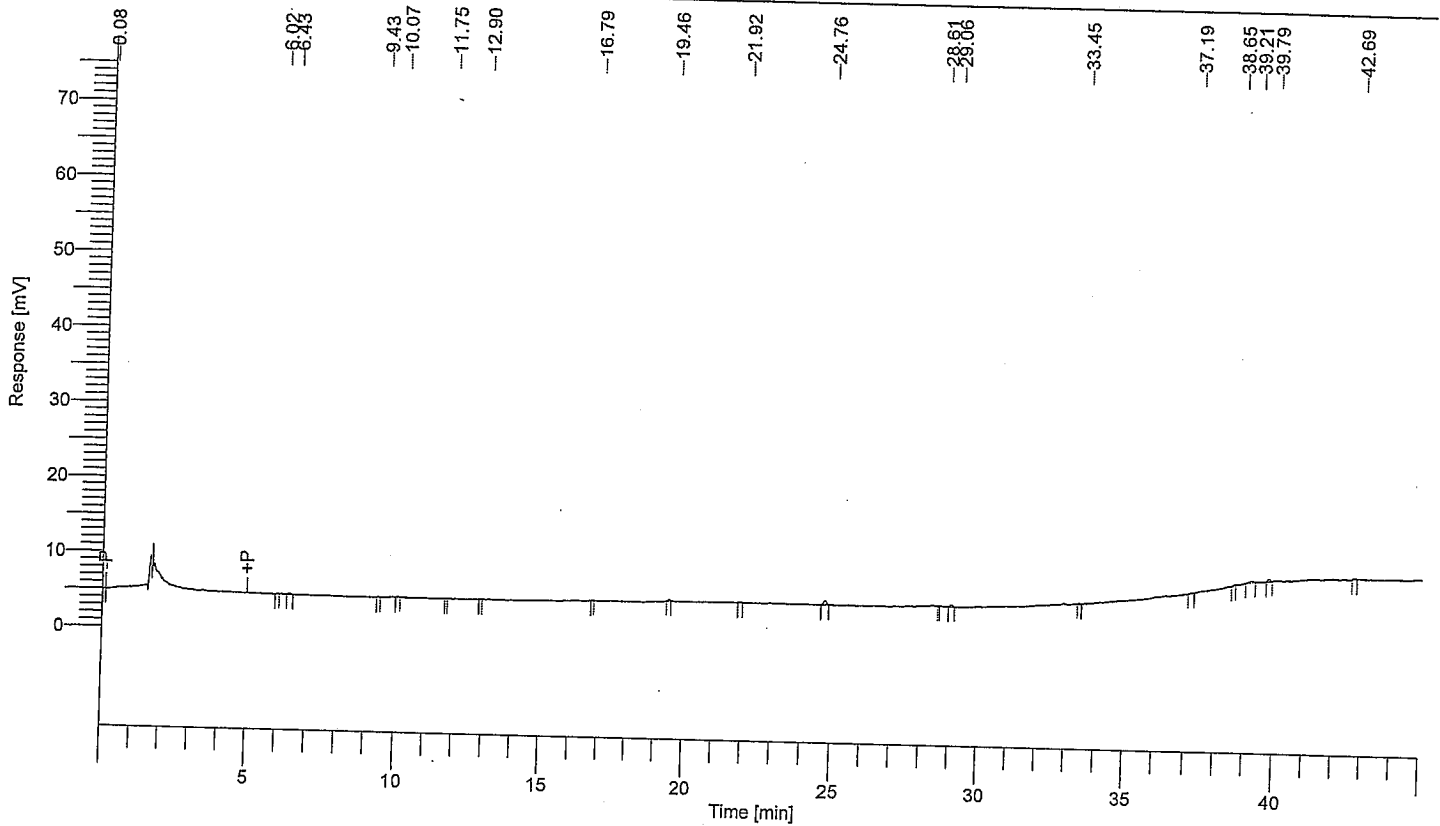
Row	Raw Data File	Process Information A	Channel A	Result File	Baseline	
13	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#013			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#013		
14	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#014			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#014		
15	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#015			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#015		
16	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#016			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#016		
17	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#017			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#017		
18	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#018			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#018		
19	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#019			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#019		
20	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#020			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#020		
21	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#021			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#021		
22	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#022			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#022		
23	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#023			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#023		
24	C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#024			C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#024		
Row	Modified	Calib Rpt	Cal Level	Update RT	Printer	Plotter
1	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
2	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
3	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
4	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
5	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
6	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
7	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
8	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
9	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
10	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
11	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
12	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
13	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
14	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
15	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
16	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
17	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
18	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
19	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
20	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
21	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
22	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
23	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
24	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default

Software Version : 6.3.1.0504
Reprocess Number : totalchron: 62307
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/1
Sample Amount : 1.000000
Cycle : 1

Date : 10/20/2007 12:25:32 PM
Data Acquisition Time : 10/19/2007 3:51:34 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#001.rst
Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

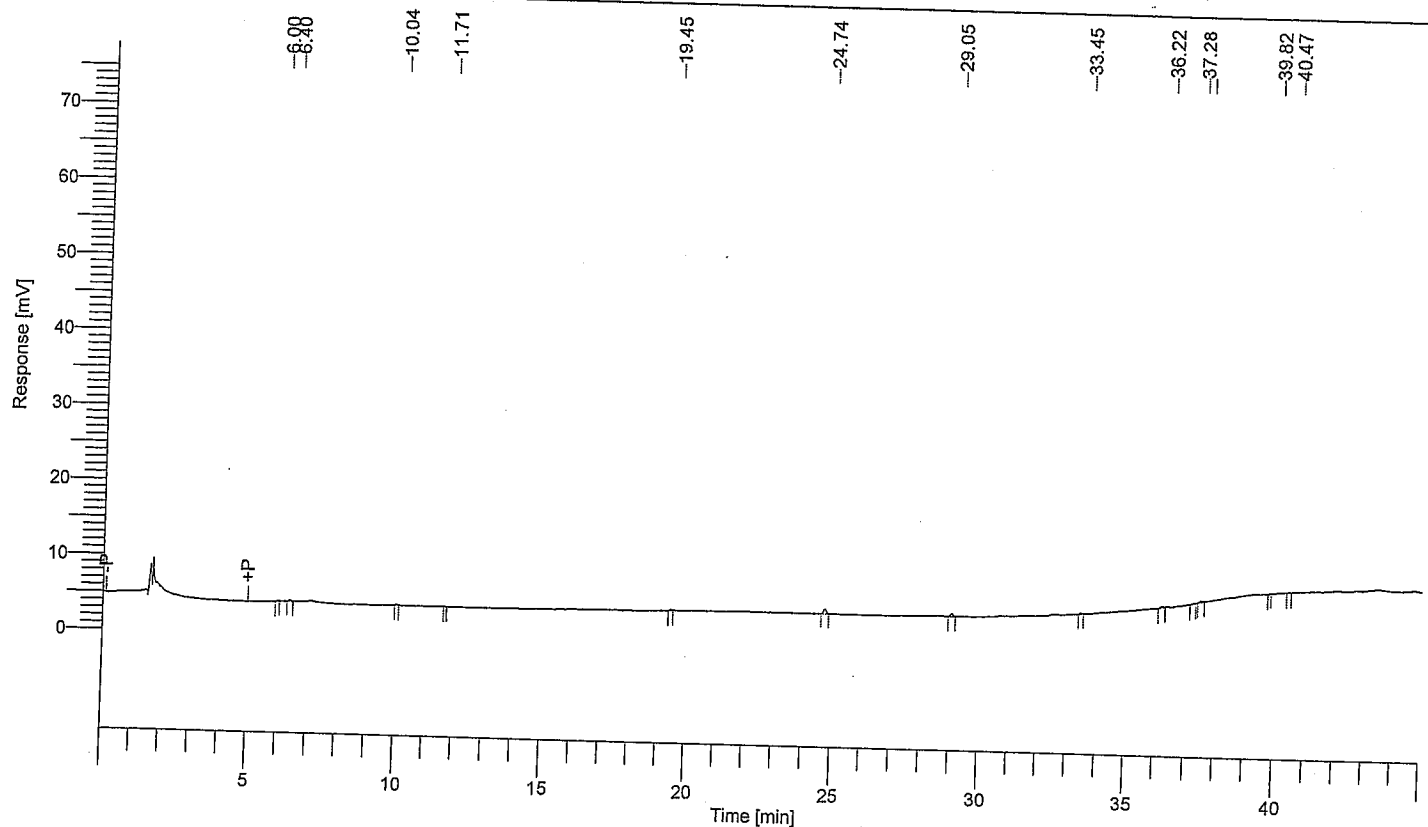
Time [min]	Area [μV·s]
24.76	3593
39.21	2109
	5703

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62323
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/17
Sample Amount : 1.000000
Cycle : 17

Date : 10/20/2007 12:25:48 PM
Data Acquisition Time : 10/20/2007 5:53:28 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#017.rst
Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V-s]
24.74	4183
29.05	2626
6808	

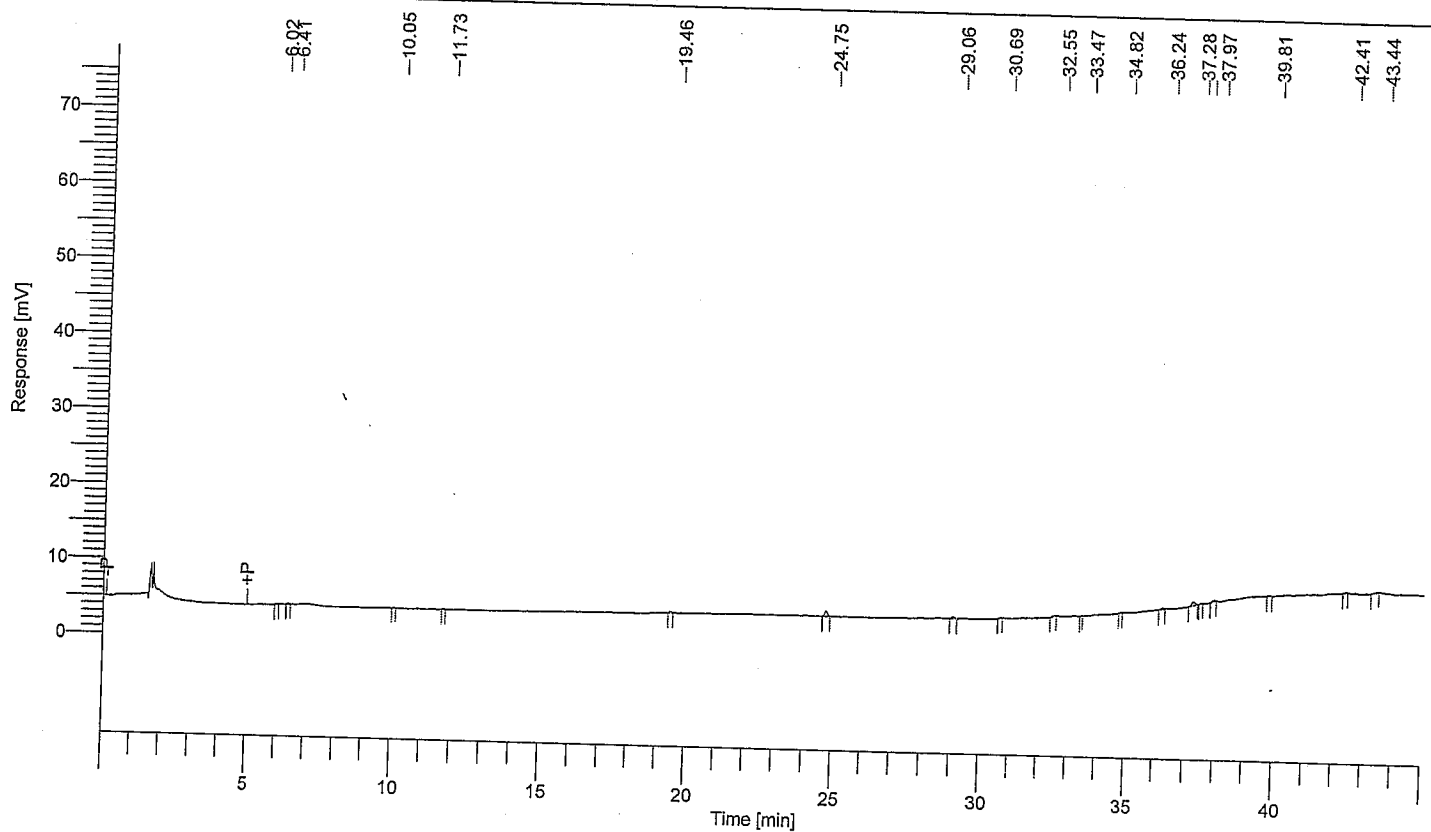
Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62338
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/24
Sample Amount : 1.000000
Cycle : 1

Date : 10/20/2007 1:51:44 PM

Data Acquisition Time : 10/20/2007 12:02:18 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#024.rst
Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq

Sample Notes:
METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

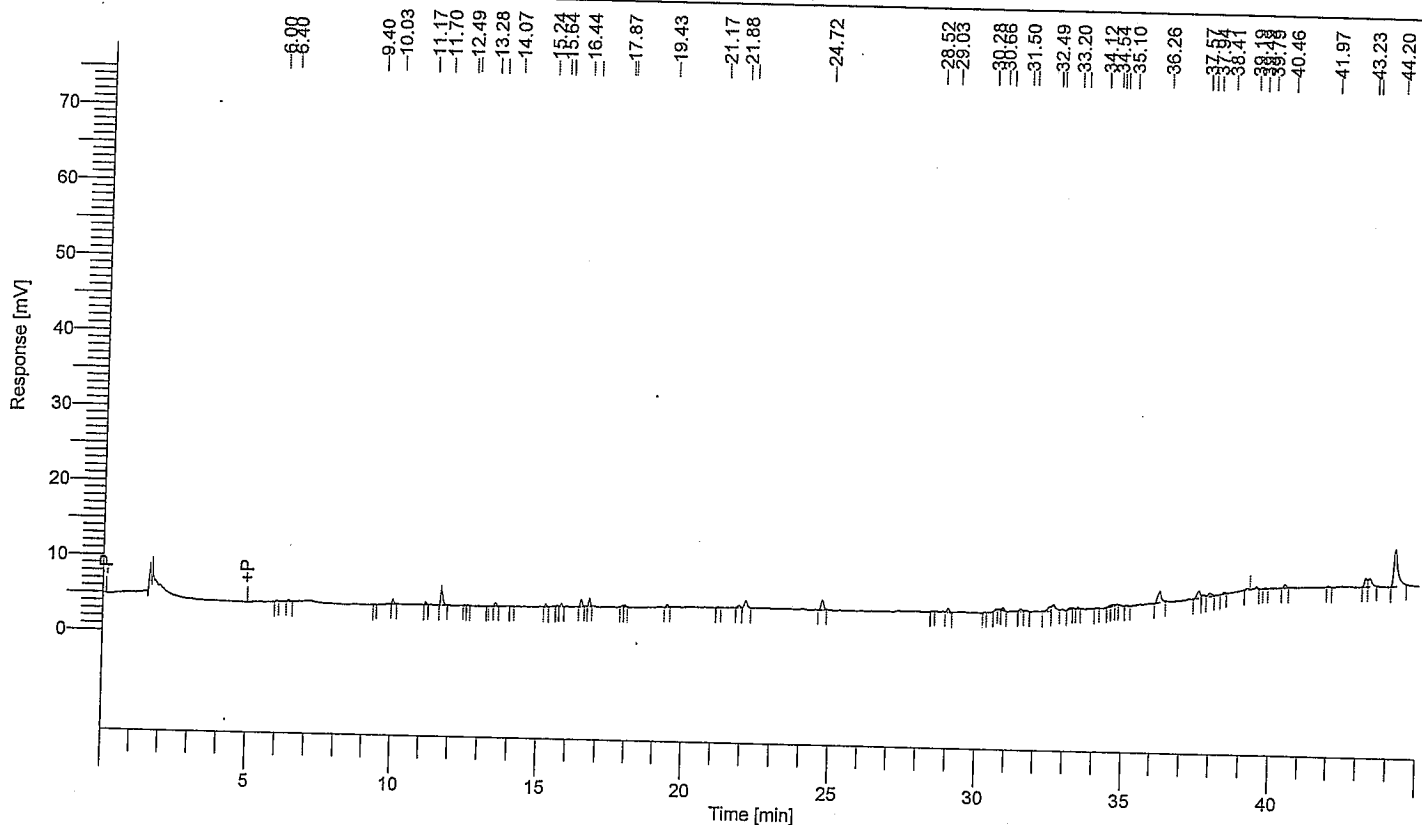
Time [min]	Area [μ V-s]
24.75	4492
37.28	4226
8719	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62315
 Sample Name : BLANK SLUDGE
 Instrument Name : GC14
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

Date : 11/20/2007 12:25:41 PM
 Data Acquisition Time : 10/19/2007 10:52:49 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#009.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.03	2562
11.70	11720
13.53	2126
16.44	4153
16.72	3879
21.88	2228
22.11	6369
24.72	8398
29.03	2876
31.50	2126
32.49	4824
32.61	6297
36.26	13020
37.57	7765
37.75	2599
37.94	3398
40.46	2771
43.23	7266
43.35	8219
44.20	45553

148147

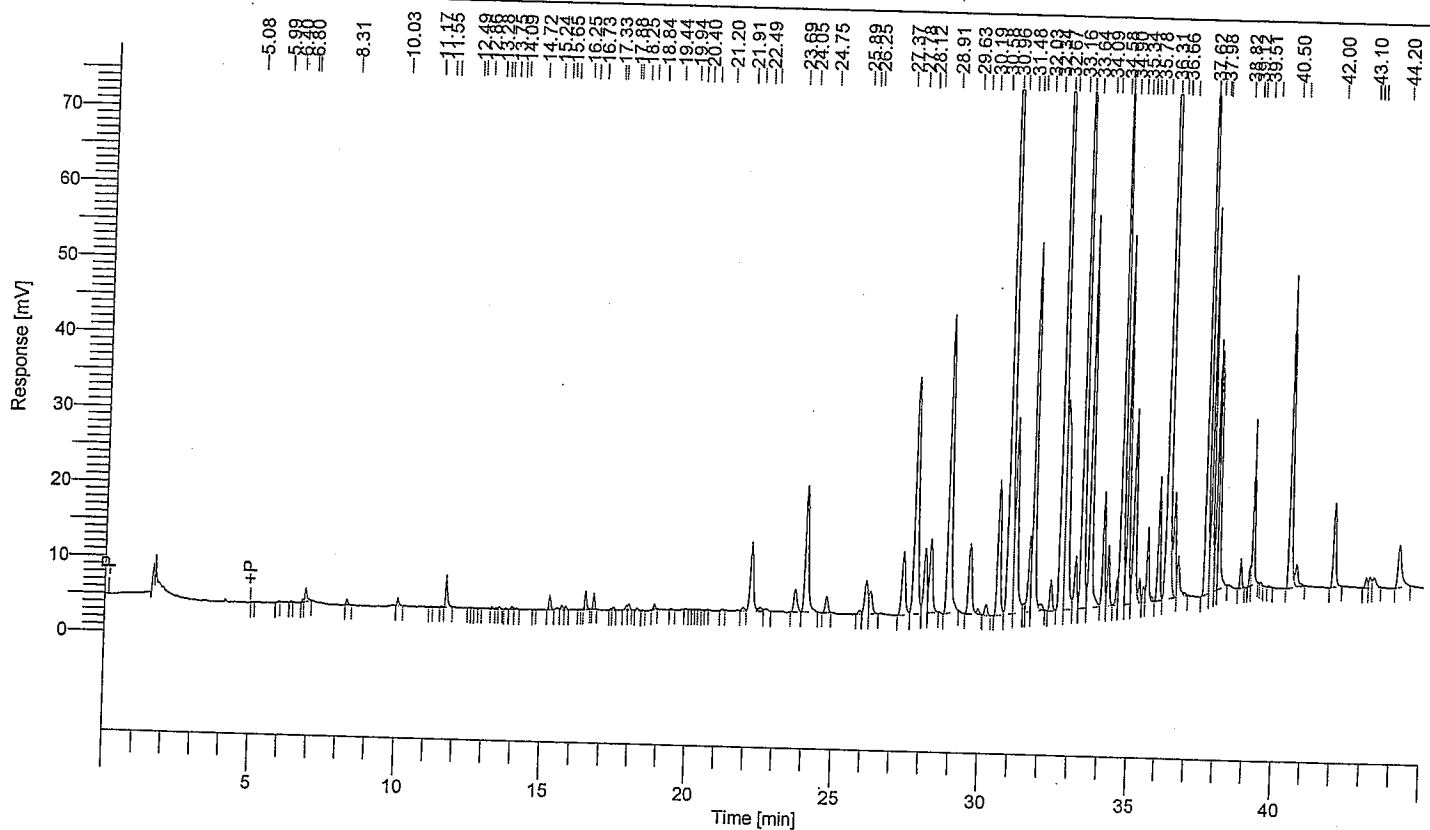
(BDL)

<0.04 ppm.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62316
 Sample Name : SPIKE SLUDGE
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

Date : 10/20/2007 12:25:42 PM
 Data Acquisition Time : 10/19/2007 11:45:24 PM
 Channel : A
 Operator : enwwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#010.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV.s]
6.90	9187
8.31	3379
10.03	4705
11.71	19336
15.24	8498
15.65	2862
16.45	10186
16.73	7708
17.88	2814
17.96	3913
18.25	2062
18.84	2795
21.91	2504
22.18	70314
22.49	4290
22.71	3259
23.69	23899
24.05	131323
24.75	13765
25.89	3256
26.11	34692
26.25	24495
27.37	71910
27.78	265148
28.12	67001
28.30	76217
28.91	314120

$$\sum \text{area} = 1018232$$

$$\text{avg} = \frac{1018232}{328645} = 3.0983$$

$$\text{ppm} = \frac{3.0983}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.1239$$

$$\% \text{ Recovery} = \frac{0.1239}{0.1} \times 100 = 124\%$$

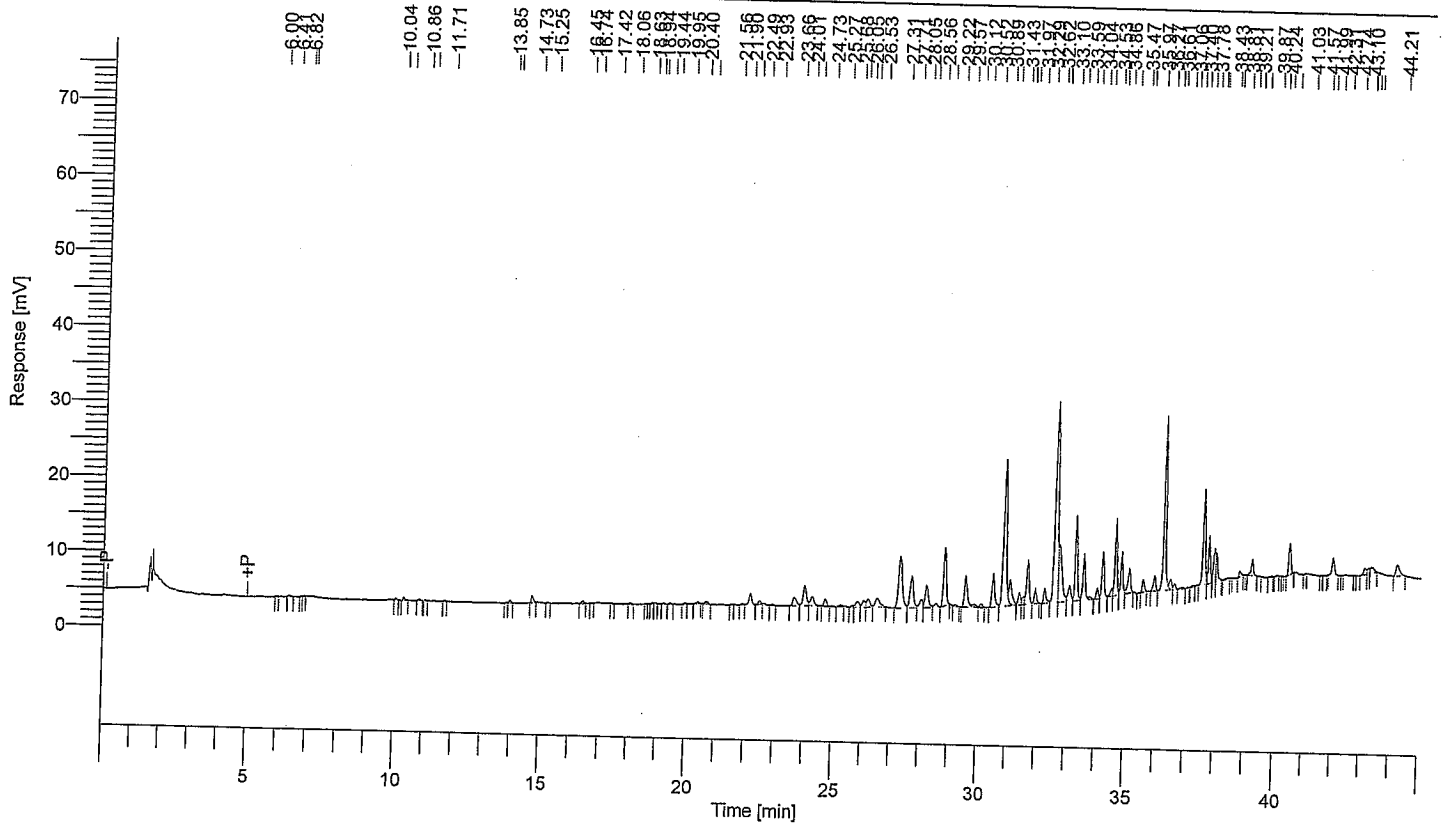
Time [min]	Area [μ V·s]
29.63	70363
29.91	4185
30.19	8378
30.58	114552
30.96	837037
31.16	183504
31.48	6152
31.63	56125
31.75	295160
32.03	6024
32.34	22198
32.67	614953
32.81	269462
33.16	42807
33.38	519736
33.64	289935
34.09	77743
34.26	42187
34.58	13177
34.70	442649
34.90	257297
35.15	160679
35.34	16604
35.49	9895
35.62	53647
35.78	2707
36.01	80488
36.31	1041188
36.52	77501
36.66	34478
36.91	2004
37.62	497060)
37.80	239105)
37.98	135124)
38.03	146943)
38.82	16016
39.12	8817
39.23	101610
40.50	221115
40.75	23730
42.00	66648
43.10	7475
43.23	8730
43.35	9596
44.20	49550

8367973

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62320
 Sample Name : 22702 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 50.000000
 Cycle : 14

Date : 10/20/2007 12:25:45 PM
 Data Acquisition Time : 10/20/2007 3:15:37 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#014.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.73	4307
20.67	2176
22.17	9880
22.49	2709
23.66	10496
24.01	20993
24.28	10061
24.73	6092
25.82	6403
26.05	6744
26.21	8913
26.53	13649
27.31	60902
27.71	33708
28.05	9044
28.24	23650
28.56	3759
28.85	54308
29.57	31529
29.86	3543
30.12	2707
30.52	28824
30.89	141511
31.10	22846
31.43	9700
31.57	5032
31.69	35465

$$\sum \text{area} = 132076$$

$$\text{ng wing} = \frac{132076}{328645} = 0.4019$$

$$\text{ppm} = \frac{0.4019}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1608$$

< 0.40 ppm total PCB.

Both sample & duplicate are less than 0.40 ppm.
 8/10/20/2007.

Time [min]	Area [μ V-s]
31.97	10984
32.29	11954
32.62	170867
32.74	61489
33.10	13430
33.32	62804
33.59	33246
33.79	2381
34.04	6504
34.22	34214
34.53	4908
34.65	52871
34.86	28672
35.10	20195
35.59	8551
35.97	11715
36.27	124140
36.49	6840
36.61	4203
37.59	63610 ~
37.78	31204 ~
37.96	20017 -
38.01	17245 ~
38.81	3600
39.21	12268
40.48	22082
41.99	13889
43.10	6016
43.23	3907
43.34	6703
44.21	12322

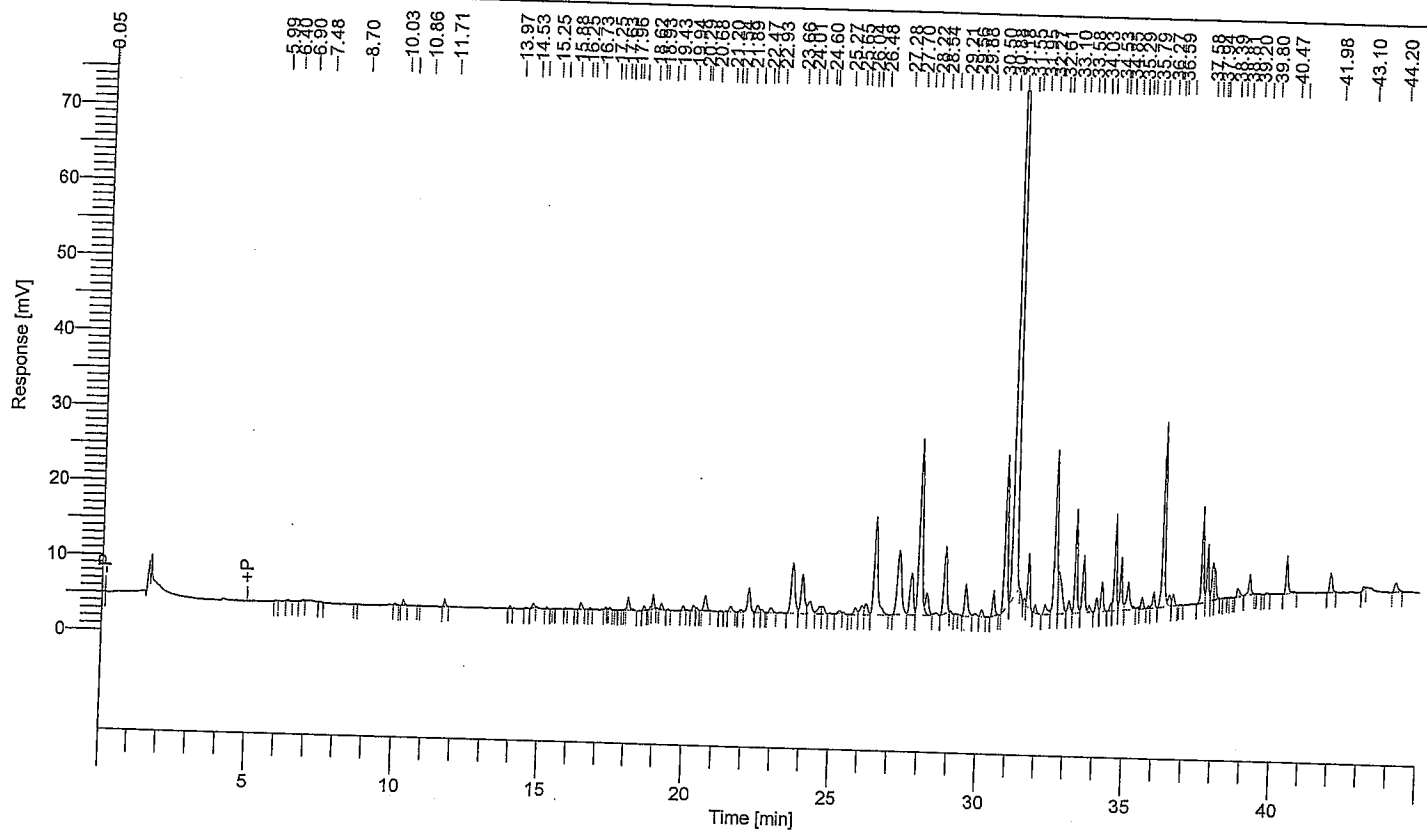
1451783

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62318
 Sample Name : 22701 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 12

Date : 10/20/2007 12:25:44 PM
 Data Acquisition Time : 10/20/2007 1:30:30 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#012.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.31	3244
11.71	4138
14.77	2674
16.40	4890
18.06	9791
18.62	2693
18.93	8190
19.21	3876
19.94	2715
20.29	3857
20.68	12093
21.54	4832
21.89	2147
22.16	22207
22.47	7213
22.62	2479
22.93	4982
23.66	58950
24.01	45087
24.27	16395
24.60	8168
24.71	6375
25.27	2304
25.82	6688
26.04	10399
26.19	11421
26.48	114599

$$\Sigma \text{area} = 140158$$

$$\text{ng} \mu\text{inj} = \frac{140158}{328645} = 0.4265$$

$$\text{ppm} = \frac{0.4265}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1706$$

$$\% \text{Recovery} = \frac{0.1706 - 0.0839}{0.1} \times 100 = 87\%$$

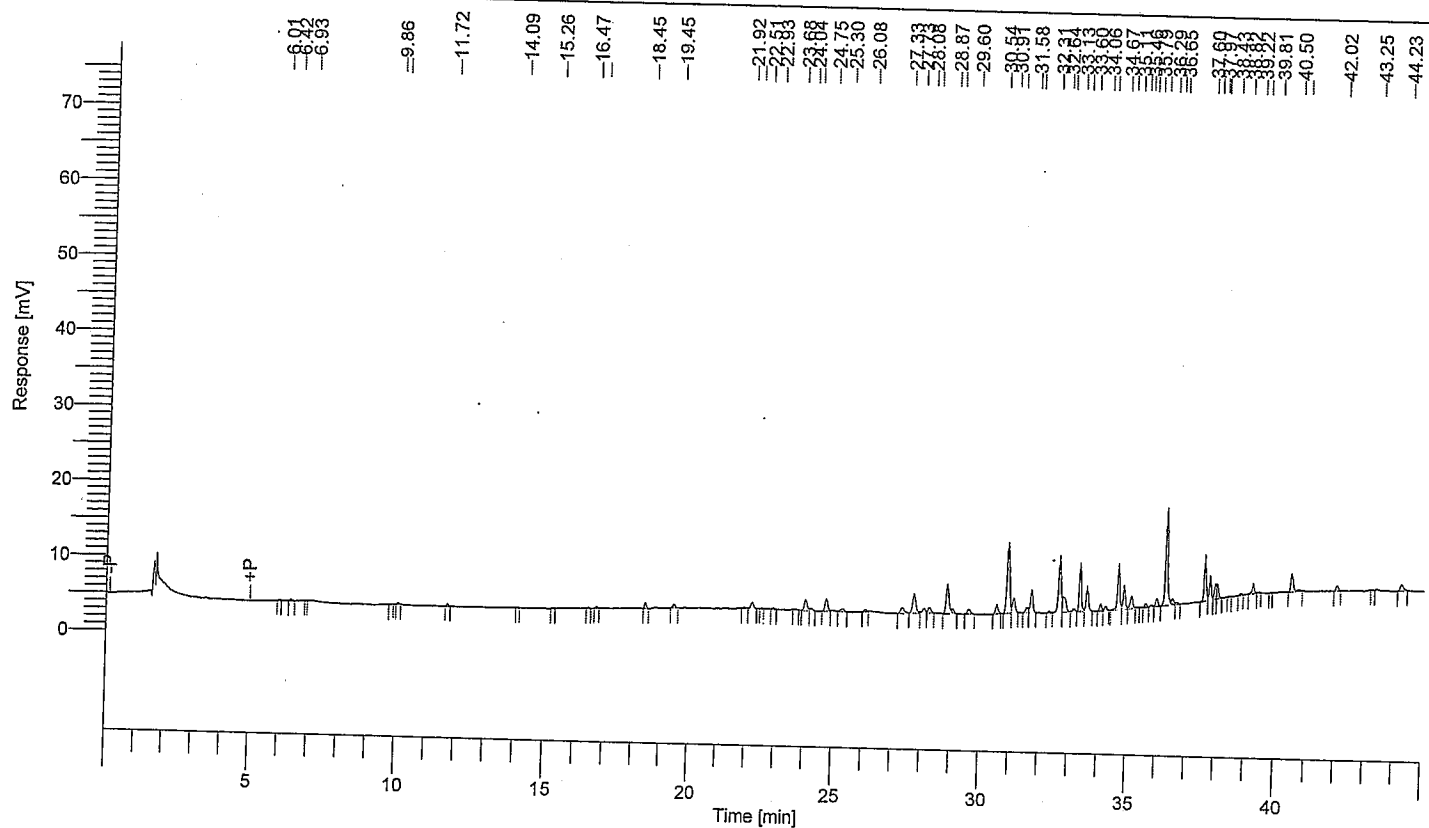
Time [min]	Area [μ V-s]
27.28	82175
27.70	42107
27.97	177941
28.22	20501
28.54	3432
28.84	61237
29.56	31652
29.88	3025
30.09	5616
30.50	19045
30.88	126091
31.18	934512
31.55	2839
31.68	37731
31.95	6751
32.27	10574
32.61	135680
32.74	50532
33.10	10215
33.31	73627
33.58	40967
33.77	4899
34.03	9404
34.20	21295
34.53	4299
34.64	65458
34.85	36431
35.09	27940
35.57	7732
35.96	10617
36.27	129103
36.48	7980
36.59	8358
37.58	63625
37.77	37460
37.94	21437
38.00	17636
38.81	7197
39.20	14691
40.47	25804
41.98	14793
43.10	2125
44.20	9378

2806319

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62326
 Sample Name : 22705 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/20
 Sample Amount : 50.000000
 Cycle : 20

Date : 10/20/2007 12:25:50 PM
 Data Acquisition Time : 10/20/2007 8:31:30 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#020.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.45	3373
19.45	2931
22.19	5364
24.04	10816
24.23	2243
24.75	10853
25.30	3159
27.33	6641
27.73	20154
28.08	4595
28.26	5259
28.87	28700
29.05	3046
29.60	4706
30.54	7035
30.91	62805
31.11	11905
31.58	3902
31.71	18121
32.64	47541
32.77	18175
33.13	2368
33.34	35485
33.60	17652
34.06	4791
34.23	3082
34.67	32705

$$\Sigma \text{area} = 63589$$

$$\text{ng conc} = \frac{63589}{328645} = 0.1935$$

$$\text{ppm} = \frac{0.1935}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0774$$

$$\% \text{Recovery} = \frac{0.0774}{0.1} \times 100 = 77.2$$

Time [min]	Area [μ V·s]
34.87	17986
35.11	10525
35.60	2519
35.99	4851
36.29	69342
36.50	4507
37.60	31685
37.79	15460
37.97	9025
38.03	8415
39.22	7109
40.50	13182
42.02	3909
44.23	6296
<hr/>	
582215	

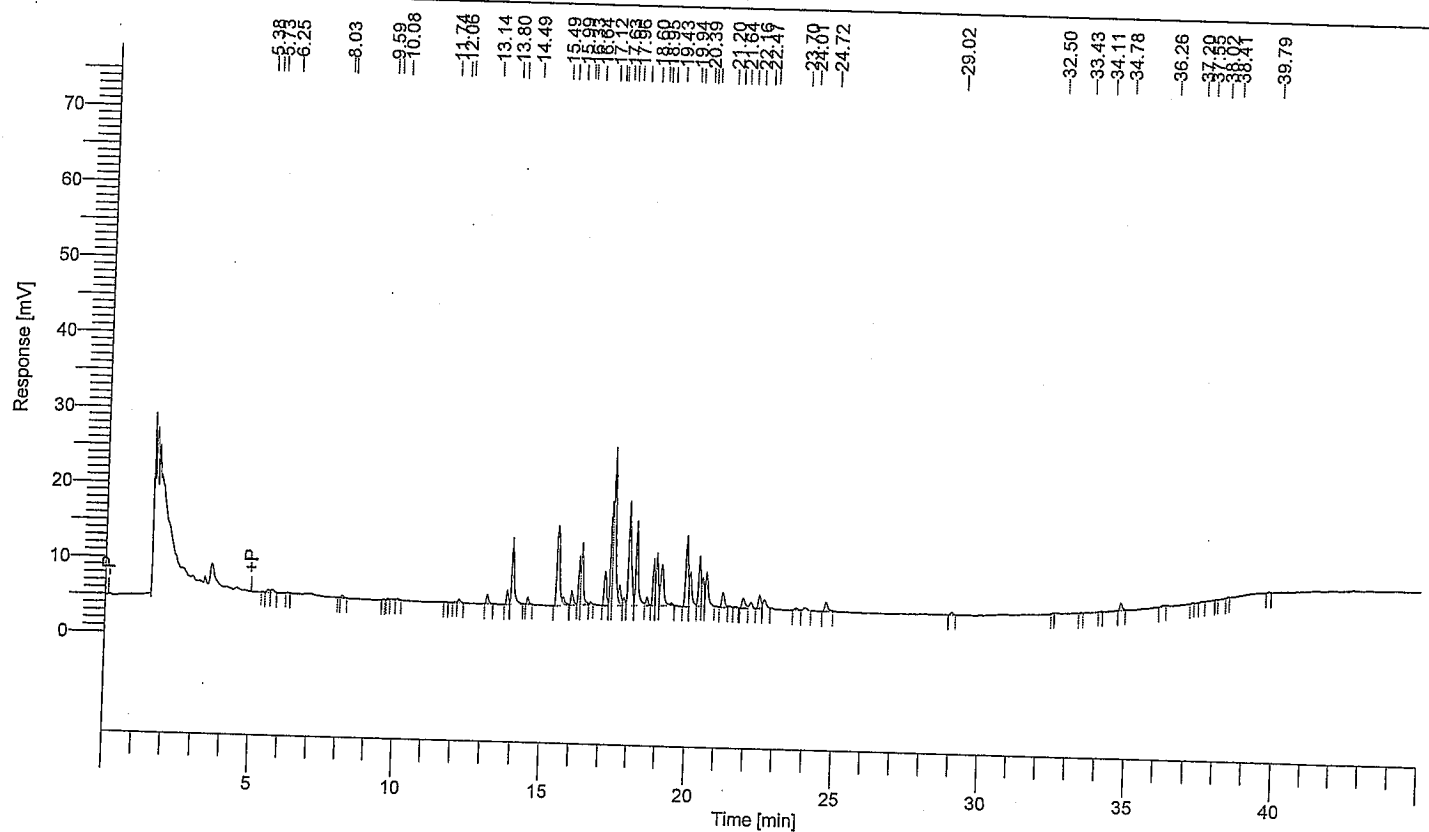
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62308
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/20/2007 12:25:33 PM

Data Acquisition Time : 10/19/2007 4:44:25 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#002.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

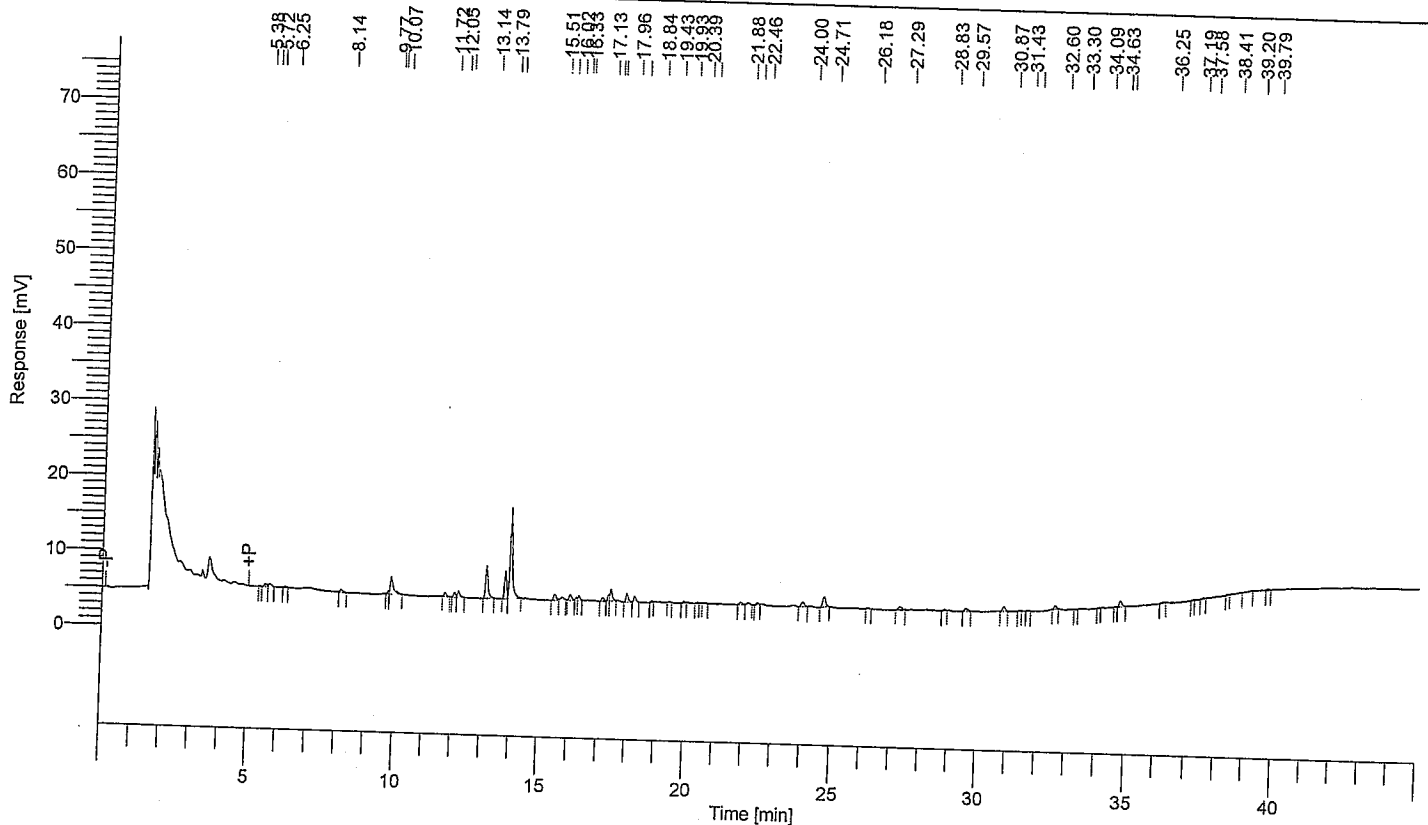
Time [min]	Area [μV·s]
5.58	2432
5.73	3111
8.15	2084
12.19	2842
13.14	6309
13.80	9248
13.98	50006
14.49	4516
15.49	74939
15.69	5309
15.99	10517
16.24	24831
16.33	42112
17.12	27339
17.33	53229
17.41	125613
17.63	14670
17.79	5810
17.96	91018
18.24	69897
18.60	6176
18.84	29161
18.95	40026
19.11	39253
19.94	54446
20.07	29765
20.39	37146

Time [min]	Area [μ V-s]
20.51	20020
20.63	30698
21.20	11978
21.90	10510
22.16	5821
22.47	12189
22.64	8678
23.70	2106
24.01	3196
24.72	9275
29.02	2334
34.78	5403
<hr/>	
984011	

Software Version : 6.3.1.0502
 Reprocess Number : totalchrom: 62309
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

Date : 10/20/2007 12:25:34 PM
 Data Acquisition Time : 10/19/2007 5:37:06 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#003.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

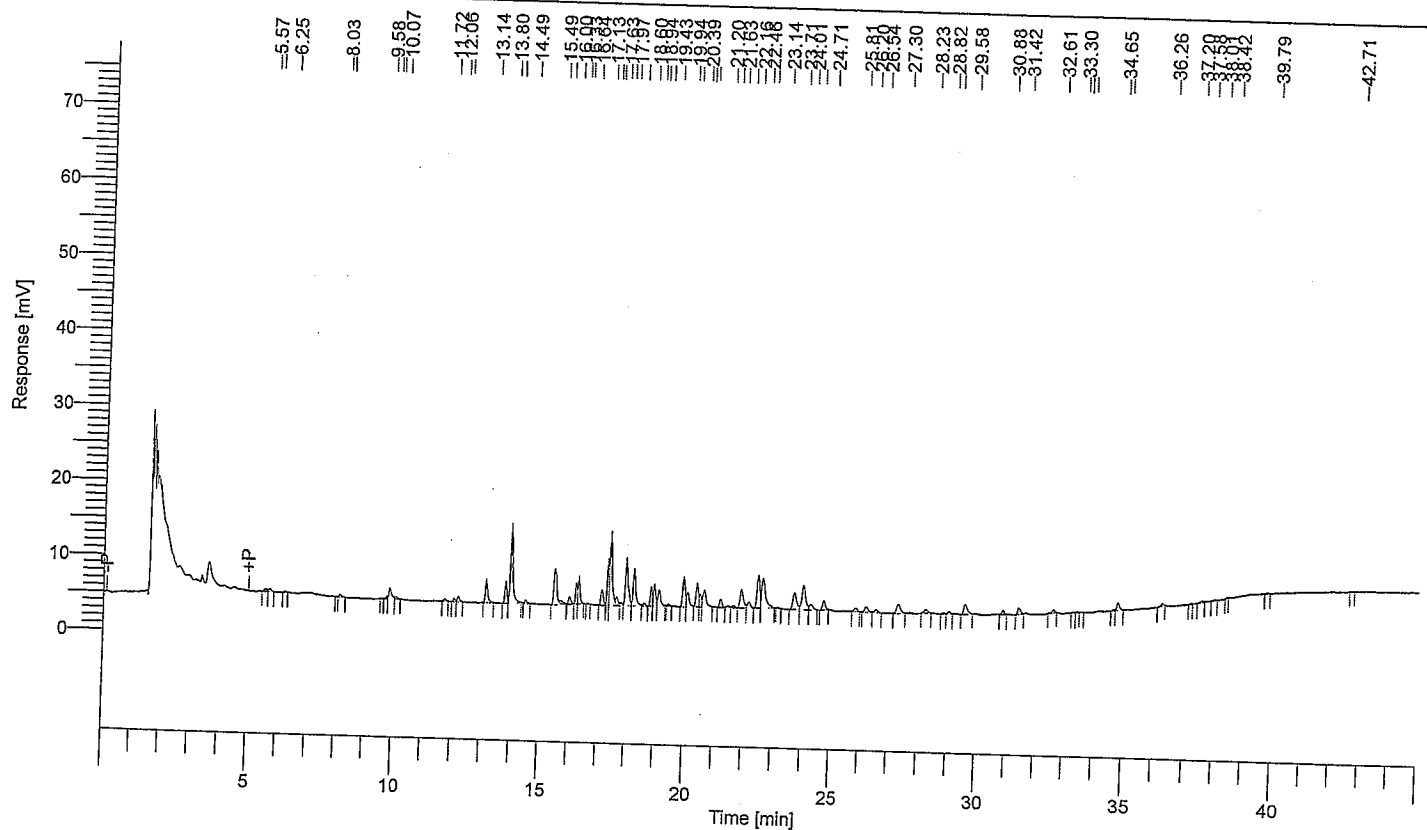
Time [min]	Area [μV·s]
5.58	2244
5.72	2860
8.14	2215
9.85	16387
11.72	3007
12.05	3065
12.19	4774
13.14	23640
13.79	18155
13.97	72446
15.51	5512
15.76	3294
16.02	4827
16.33	2653
17.13	2671
17.33	3045
17.41	8359
17.96	6320
18.24	4022
21.88	2509
22.15	2036
24.00	4360
24.71	9625
27.29	3705

Time [min]	Area [μ V-s]
29.57	2889
30.87	3676
32.60	2396
34.77	4792
<hr/>	
225485	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62310
 Sample Name : AROCHLOR 1232
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

Date : 10/20/2007 12:25:16 PM
 Data Acquisition Time : 10/19/2007 6:29:45 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#004.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
5.57	2303
5.72	2676
8.14	2309
9.86	9631
10.07	2079
12.06	2086
12.19	3854
13.14	16328
13.80	14221
13.97	61689
14.49	2074
15.49	33945
15.69	3452
16.00	5979
16.24	10568
16.33	17642
17.13	12704
17.33	23405
17.41	58870
17.63	6176
17.79	2265
17.97	40818
18.24	30721
18.84	11742
18.94	15703
19.11	14178
19.94	22980

Time [min]	Area [μ V-s]
20.07	12344
20.39	17210
20.51	8531
20.64	16221
21.20	8575
21.90	19844
22.16	5605
22.46	30294
22.63	38391
23.71	20959
24.01	29014
24.27	6368
24.71	8376
25.81	3424
26.20	5733
26.54	3378
27.30	10886
28.23	4360
29.02	2197
29.58	11673
30.88	3535
31.42	6418
32.61	2607
34.77	6503
<hr/>	
	710843

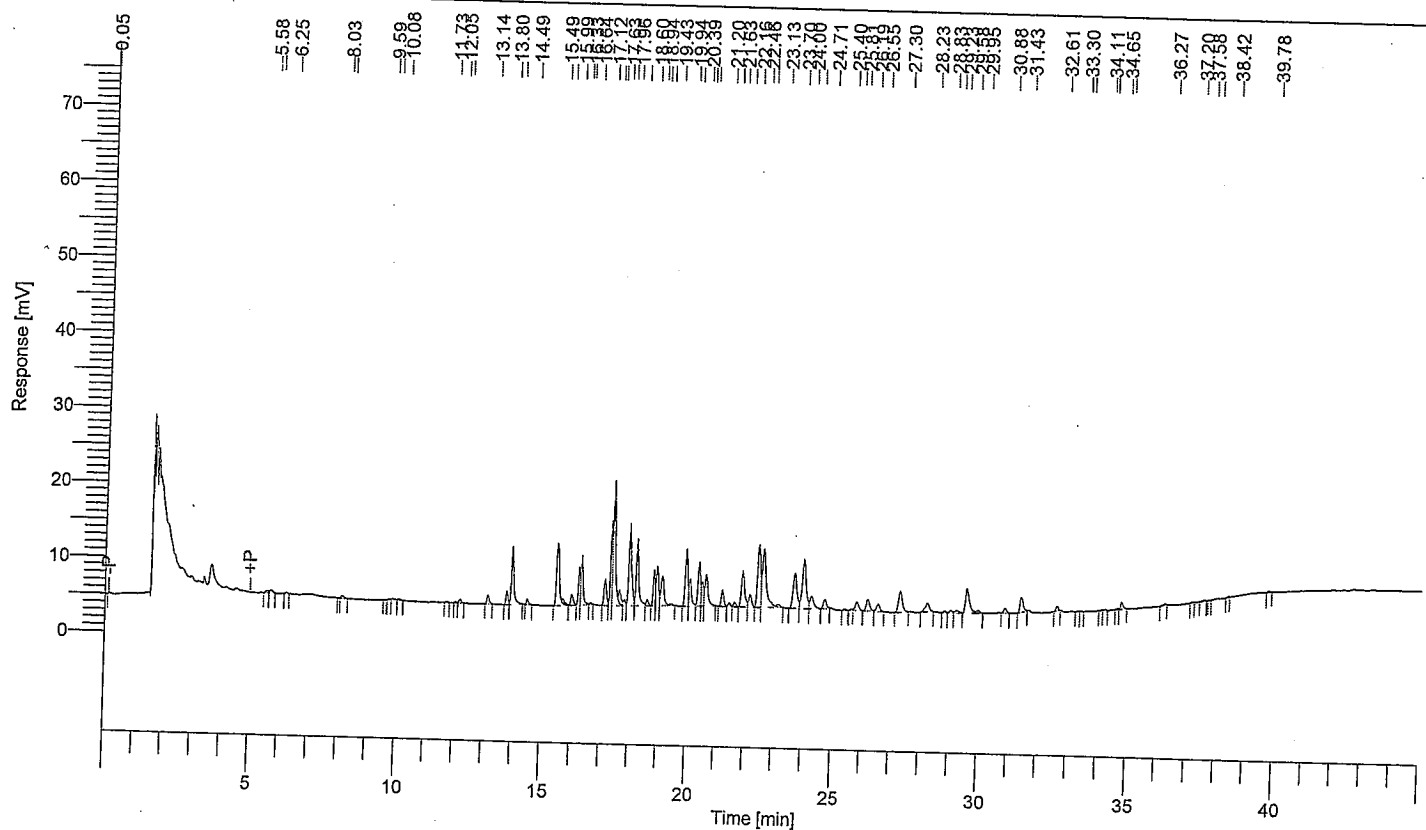
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62311
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

Date : 10/20/2007 12:25:37 PM

Data Acquisition Time : 10/19/2007 7:22:24 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
5.58	2033
5.72	2899
8.15	2239
12.19	2673
13.14	5798
13.80	8740
13.98	45420
14.49	3541
15.49	59188
15.69	4123
15.99	8486
16.24	19746
16.33	33428
17.12	21817
17.33	42124
17.41	99208
17.63	10984
17.79	4143
17.96	71782
18.24	55548
18.60	4520
18.83	23087
18.94	29933
19.11	28941
19.94	43494
20.07	23515
20.39	33872

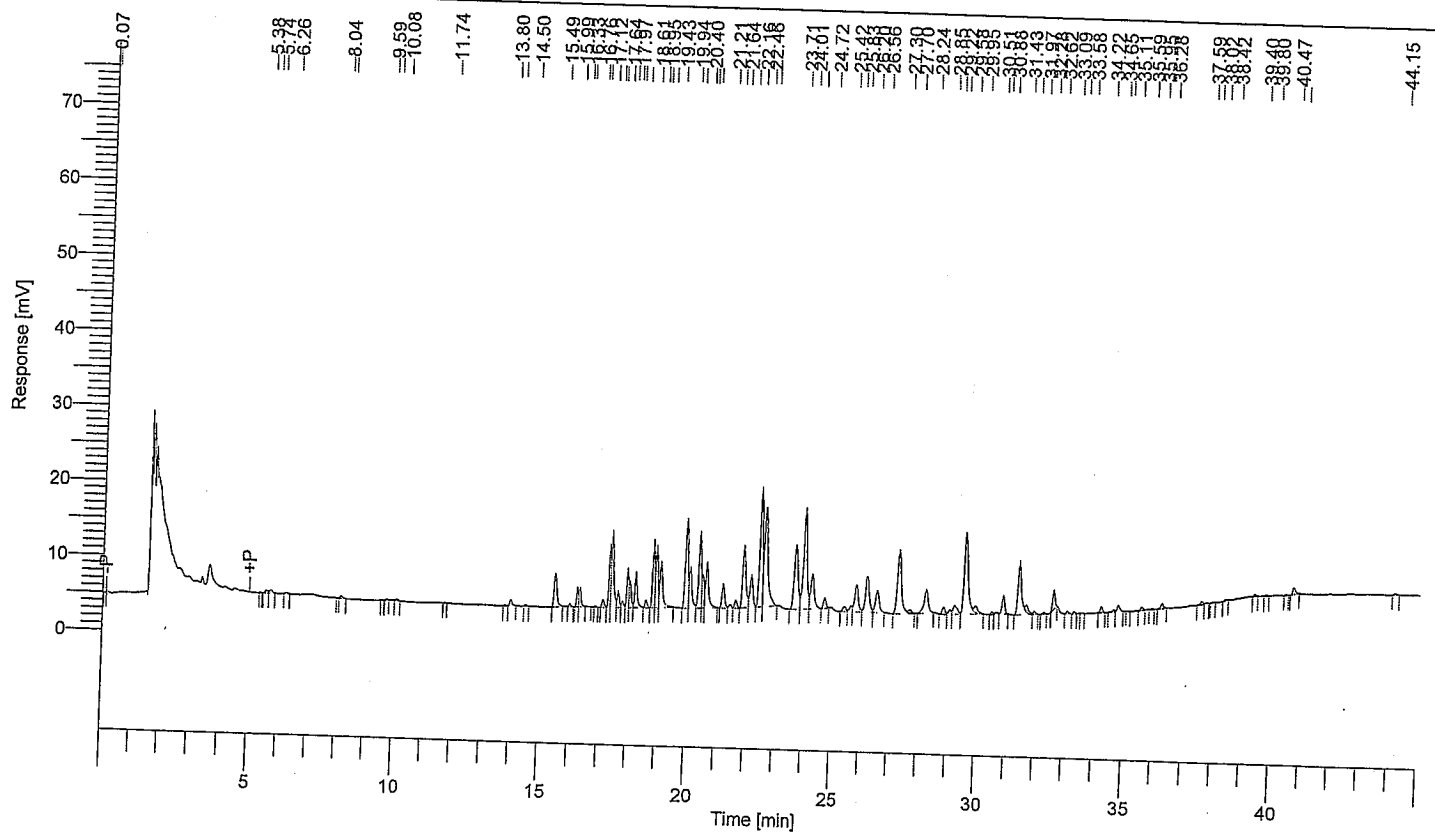
Time [min]	Area [μ V·s]
20.50	16526
20.63	31588
21.20	13293
21.43	2955
21.63	3547
21.89	37397
22.16	11383
22.46	60772
22.63	77829
23.13	2772
23.70	42760
24.00	58711
24.27	15192
24.71	8643
25.81	9348
26.19	13029
26.55	7905
27.30	25188
28.23	11275
29.04	2162
29.23	2887
29.58	30820
29.95	2481
30.88	4423
31.43	15487
32.61	3246
34.78	5651
<hr/>	
1208554	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62312
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 1.000000
 Cycle : 6

Date : 10/20/2007 12:25:38 PM
 Data Acquisition Time : 10/19/2007 8:14:59 PM
 Channel : A
 Operator : enweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#006.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
5.58	2246
5.74	3005
8.15	2181
13.99	4342
15.49	28655
16.25	10159
16.33	12602
17.12	5843
17.33	32483
17.41	58666
17.64	12196
17.79	4361
17.97	24125
18.05	17467
18.25	28163
18.61	4835
18.84	42747
18.95	47470
19.12	43817
19.94	70100
20.08	35217
20.40	58855
20.51	22416
20.64	41620
21.21	19986
21.44	2525
21.64	5791

Time [min]	Area [μ V-s]
21.90	63446
22.16	30507
22.46	112078
22.63	120043
23.71	81879
24.01	118966
24.28	41033
24.72	9242
25.42	5002
25.65	5357
25.83	32666
26.20	43015
26.56	26655
27.30	82930
27.70	3810
28.24	29847
28.85	6281
29.07	3836
29.22	11268
29.58	105525
29.95	8614
30.88	17165
31.43	64345
31.68	7251
31.97	2817
32.62	13303
34.22	4068
34.65	2001
34.79	5590
35.59	2414
36.28	4617
37.59	2749
40.71	6281

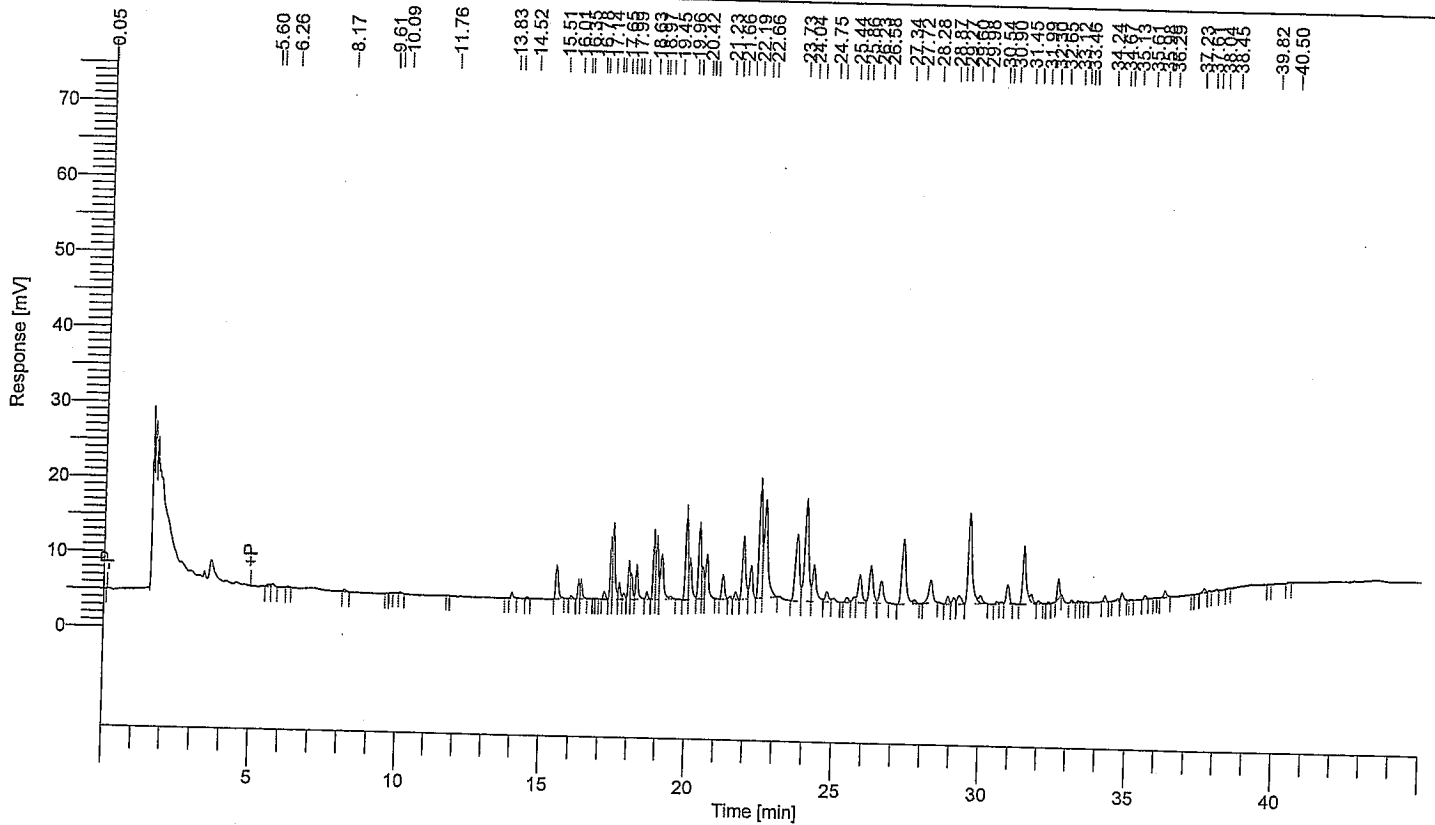
1716473

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62324
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 1.000000
 Cycle : 18

Date : 10/20/2007 12:25:48 PM
 Data Acquisition Time : 10/20/2007 6:48:09 AM
 Channel : A
 Operator : enweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#018.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2013
5.74	2699
14.00	3863
15.51	28805
16.01	2070
16.27	10402
16.35	12521
17.14	5772
17.35	32143
17.43	58624
17.65	12254
17.82	4296
17.99	23670
18.07	17954
18.27	27694
18.63	4778
18.86	42955
18.97	47952
19.14	45021
19.45	2251
19.96	70394
20.10	34726
20.42	59529
20.53	21031
20.67	39405
21.23	20298
21.47	2331

Time [min]	Area [μ V·s]
21.66	5786
21.93	64164
22.19	30427
22.49	113492
22.66	121048
23.73	82701
24.04	123527
24.31	47253
24.75	11499
24.99	4760
25.44	5178
25.67	5602
25.86	33547
26.23	43775
26.58	27283
27.34	84153
27.72	3867
28.28	29726
28.87	6686
29.08	6109
29.27	11738
29.60	106416
29.98	9251
30.54	2071
30.90	18203
31.45	64833
31.71	7665
31.99	2795
32.65	13889
34.24	4324
34.67	2238
34.81	6675
35.61	2499
36.29	5780
37.61	3818

1748226

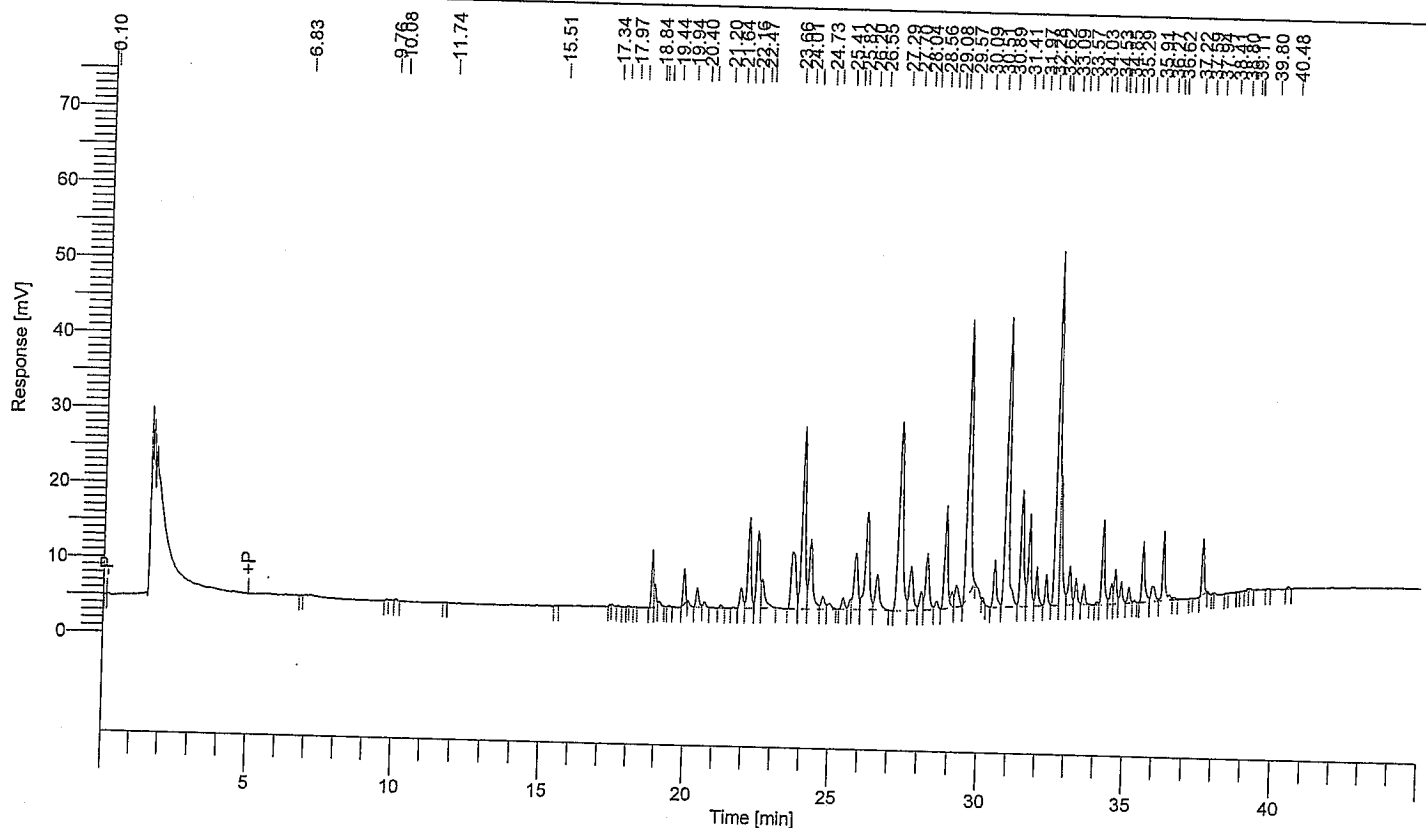
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62313
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

Date : 10/20/2007 12:25:39 PM

Data Acquisition Time : 10/19/2007 9:07:38 PM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.84	38575
18.95	16289
19.10	4599
19.94	25006
20.40	16039
20.64	4586
21.20	2597
21.90	20111
22.16	84370
22.47	81753
22.63	34926
23.66	90214
24.01	199988
24.28	88002
24.73	15135
24.95	7466
25.41	11211
25.66	7489
25.82	68083
26.20	129837
26.55	47180
27.29	243463
27.70	53704
28.04	18024
28.24	62650
28.56	8009
28.84	100013

$$\Sigma \text{area} = 203265$$

$$\text{Calibration factor} = \frac{203265}{2} = 101632.5$$

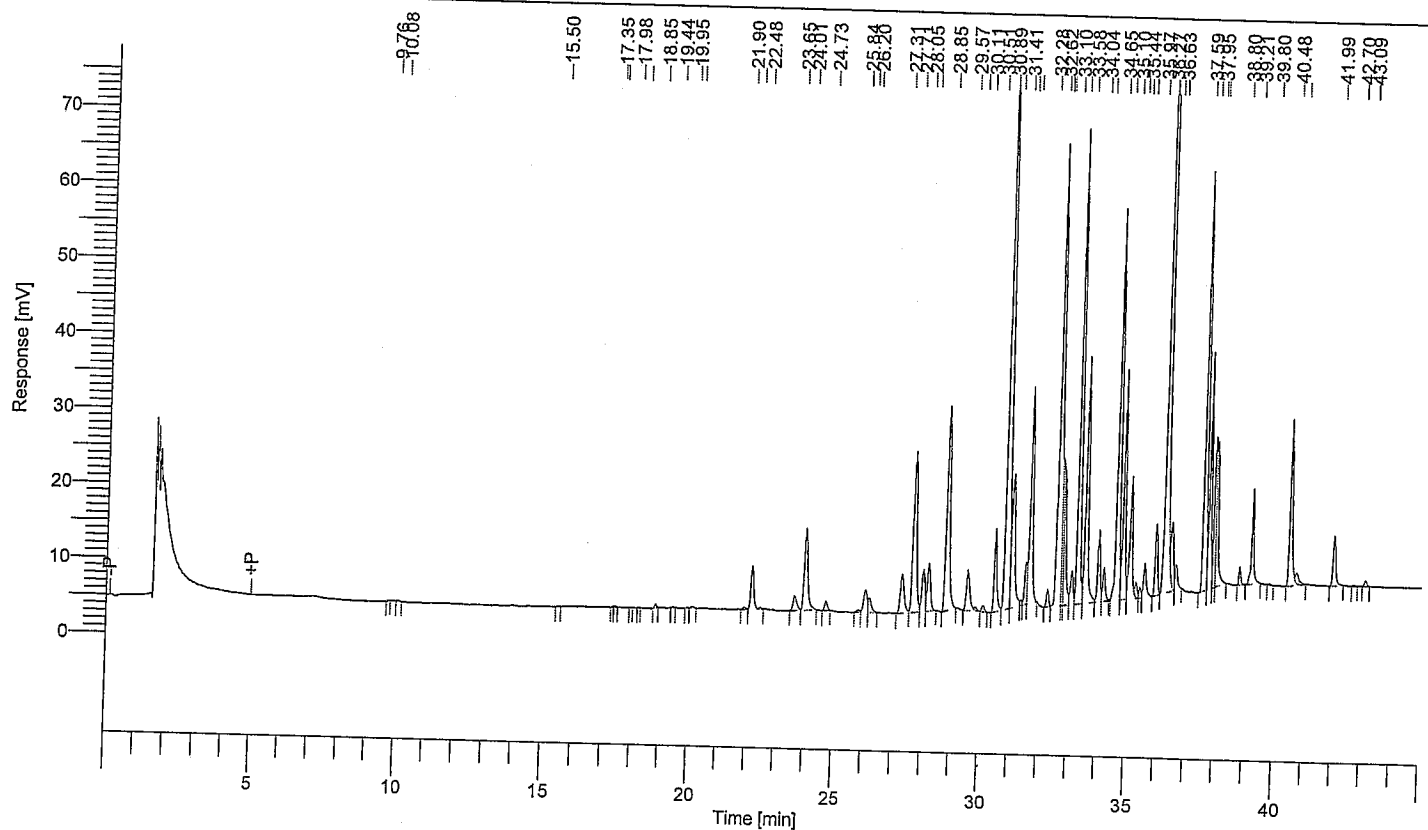
Time [min]	Area [μ V-s]
29.08	12804
29.21	26709
29.57	306487
30.51	43991
30.89	299533
31.41	126953
31.69	83983
31.97	32582
32.28	24447
32.62	316100
32.73	104221
33.09	37644
33.31	21425
33.57	14378
34.22	72853
34.53	17061
34.64	26468
34.85	18806
35.10	11455
35.58	54676
35.91	19815
36.27	54101
36.48	3188
37.59	38413
<hr/>	
3247410	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62314
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 1.000000
 Cycle : 8

Date : 10/20/2007 12:25:40 PM
 Data Acquisition Time : 10/19/2007 10:00:13 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.85	2144
21.90	2235
22.17	39076
23.65	17122
24.01	90921
24.73	8153
25.84	2165
26.06	23490
26.20	15550
27.31	46715
27.71	179049
28.05	44693
28.23	52128
28.85	219005
29.57	45657
29.84	2848
30.11	4890
30.51	73214
30.89	552007
31.09	134895
31.41	3198
31.56	27938
31.69	183876
32.28	12571
32.62	417732
32.74	67144
32.80	106083

$$\Sigma \text{area} = 657290$$

$$\text{calibration factor} = \frac{657290}{2}$$

$$= 328645$$

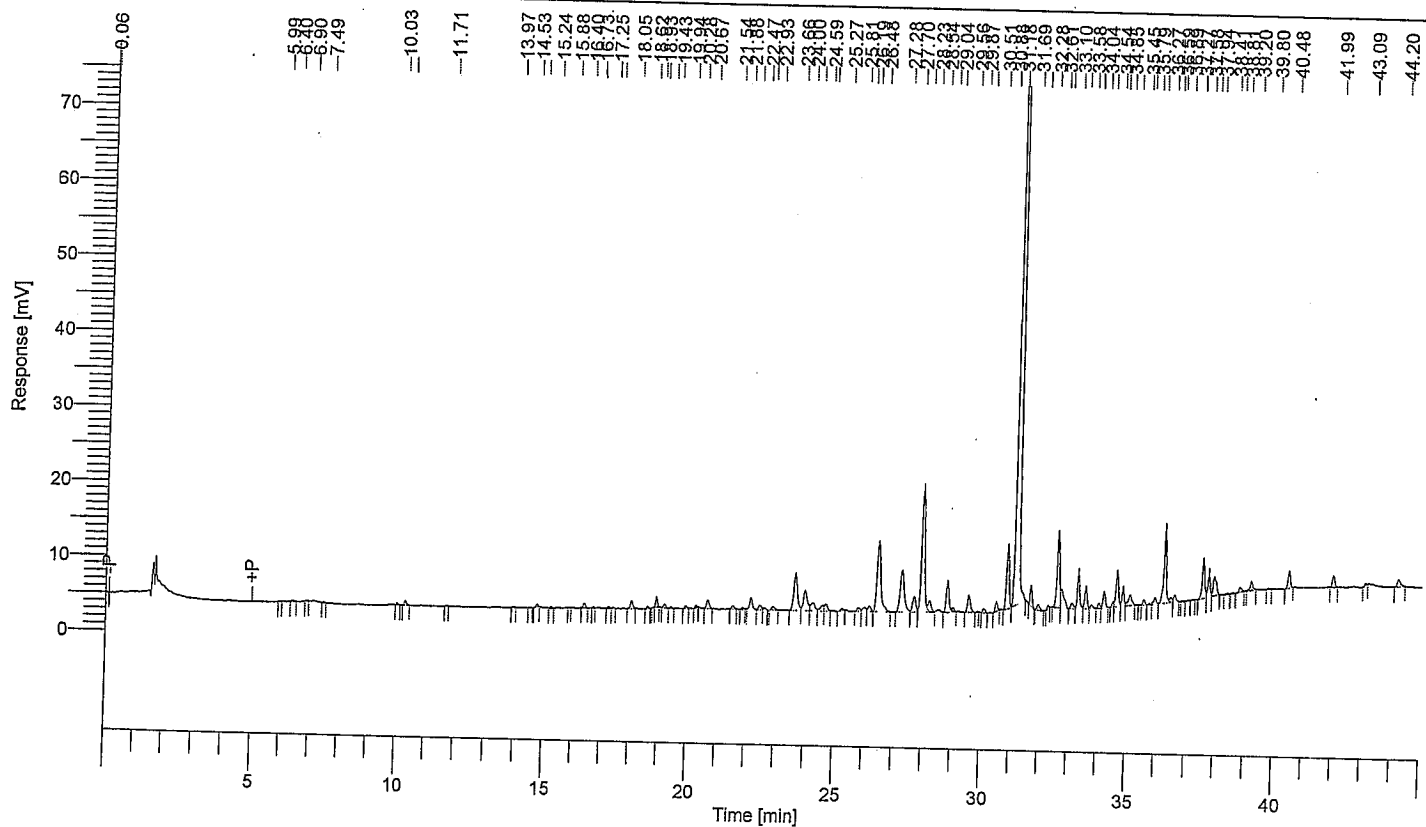
Time [min]	Area [μ V·s]
33.10	30567
33.32	350522
33.58	195993
34.04	50807
34.22	27556
34.65	300731
34.86	175008
35.10	108417
35.29	10956
35.44	6750
35.58	29949
35.97	48873
36.27	670688
36.48	52065
36.63	21606
37.59	304395 ~
37.78	163036 ~
37.95	93858 ~
38.01	96001 ~
38.80	10815
39.21	72050
40.48	136377
40.74	13392
41.99	42398
43.09	4521

5391829

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 623;7
 Sample Name : 22701 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

Date : 10/20/2007 12:25:43 PM
 Data Acquisition Time : 10/20/2007 12:37:59 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#011.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V-s]
30.09	3093
30.51	7199
30.88	52901
31.18	733117
31.69	13742
31.96	4807
32.28	2085
32.61	62858
32.74	20180
33.10	4699
33.32	29245
33.58	16302
33.78	2873
34.04	3311
34.21	12618
34.54	2696
34.65	27006
34.85	13855
35.10	11445
35.57	3657
35.96	4902
36.27	59312
36.48	3486
36.59	5025
37.58	30640 ~
37.77	19381 ~
37.94	18918 ~
38.81	3840
39.20	7267
40.48	12435
41.99	8615
44.20	7647

1703942

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62319
 Sample Name : 22702 1:10
 Instrument Name : GC014
 Rack/Vial : 0/13
 Sample Amount : 50.000000
 Cycle : 13

Date : 10/20/2007 12:25:44 PM

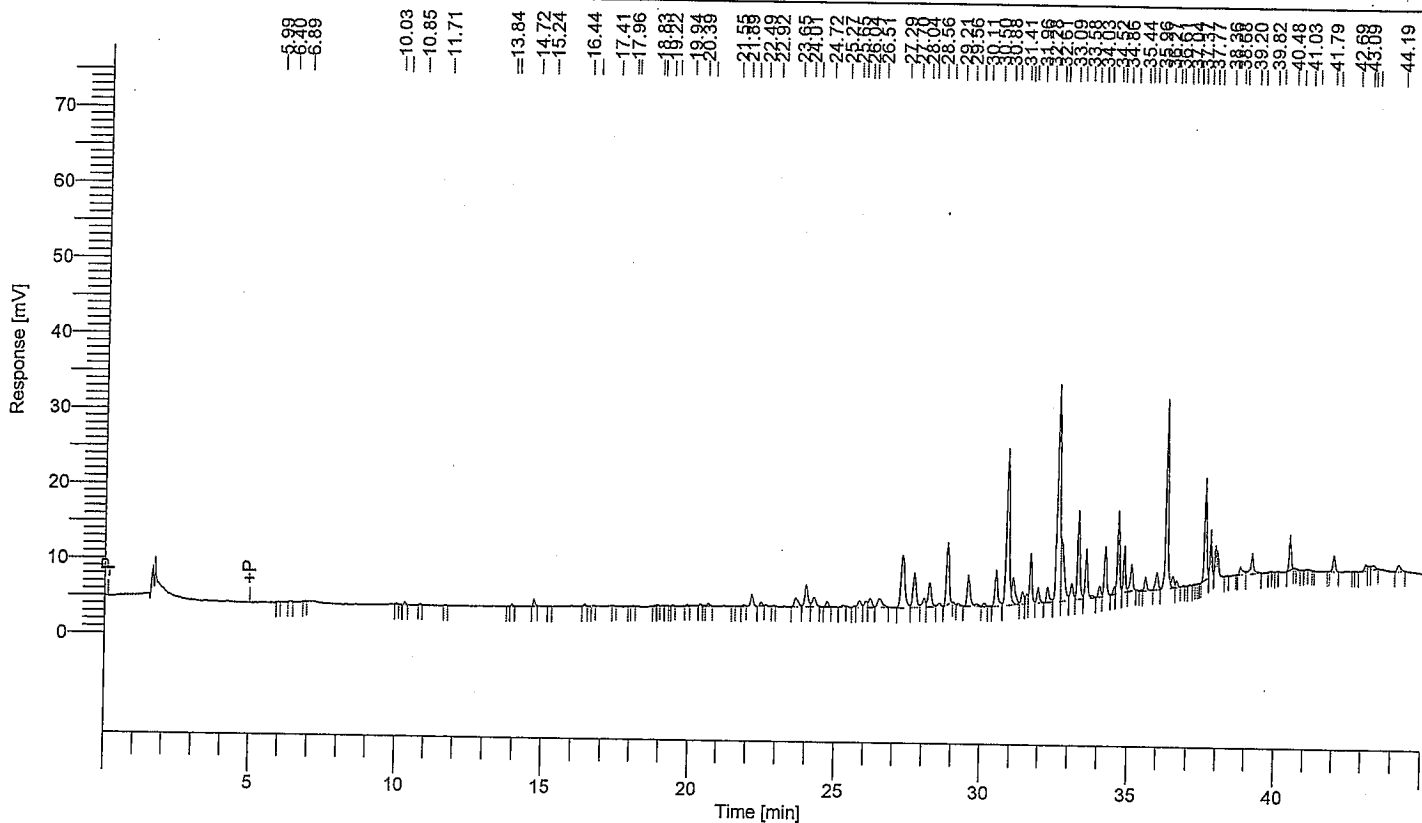
Data Acquisition Time : 10/20/2007 2:23:04 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#013.rst

Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.72	4138
22.16	10193
22.49	2743
23.65	11263
24.01	21688
24.27	10228
24.72	4706
25.82	6795
26.04	6193
26.19	9724
26.51	13045
27.29	63792
27.70	35998
28.04	9247
28.23	24120
28.56	3741
28.84	57094
29.56	32006
29.84	2443
30.11	2706
30.50	30772
30.88	149252
31.09	24979
31.41	10754
31.56	6804
31.69	39480
31.96	12138

0.40 ppm total PCB.

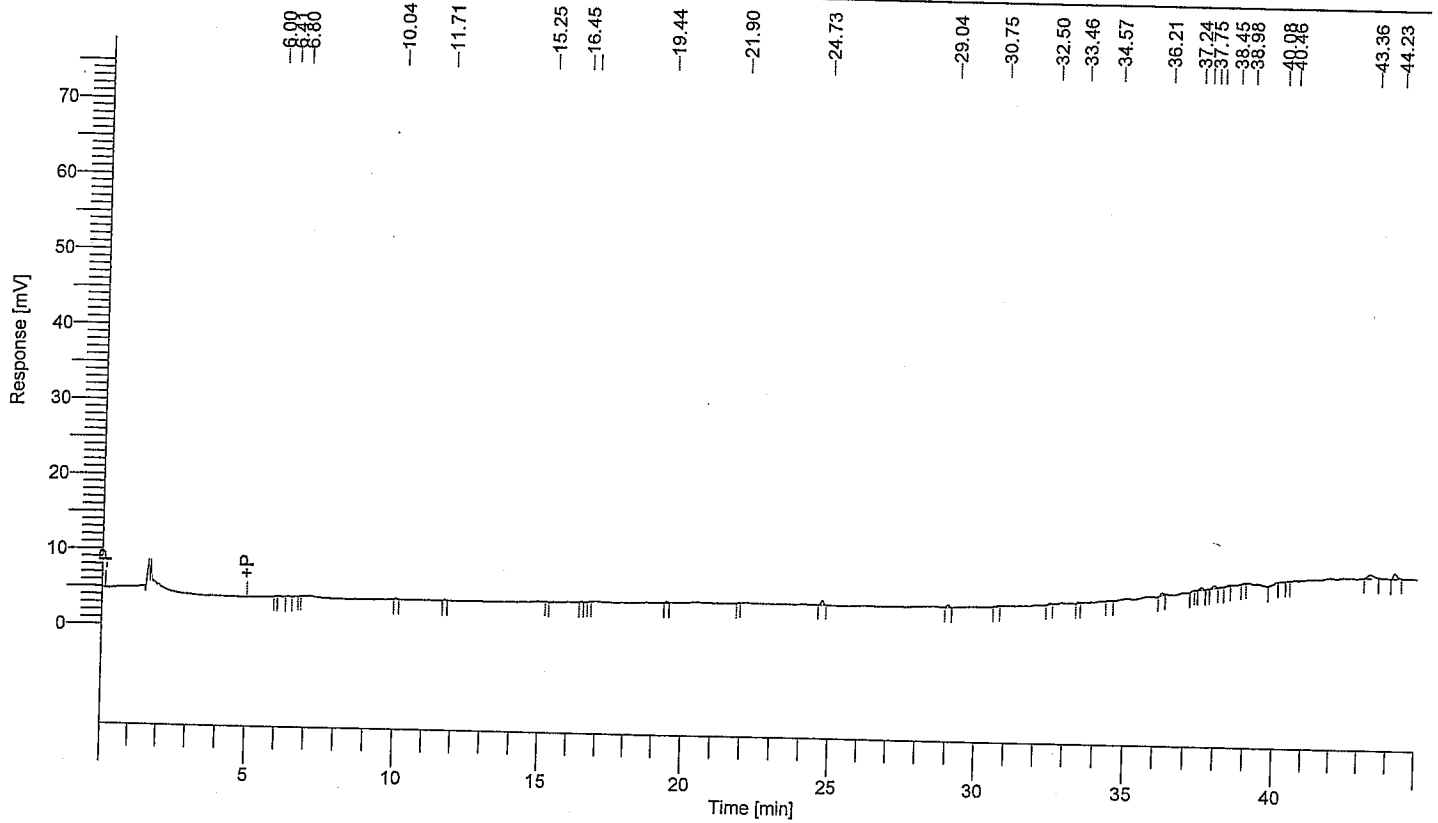
Time [min]	Area [μ V·s]
32.28	13615
32.61	181378
32.74	63621
33.09	14347
33.31	68788
33.58	35597
33.79	2488
34.03	7265
34.21	35621
34.52	4295
34.65	57262
34.86	31153
35.10	20125
35.57	9798
35.96	13654
36.27	131582
36.48	8255
36.61	4887
37.58	64718
37.77	26391
37.95	6438
38.80	8240
39.20	19049
40.48	21943
41.98	12588
43.09	5848
43.20	3151
43.34	4785
44.19	7042

1489964

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62321
 Sample Name : 22703 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

Date : 10/20/2007 12:25:46 PM
 Data Acquisition Time : 10/20/2007 4:08:13 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#015.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.73	3994
29.04	2388
36.21	2407
37.53	2384
37.95	2479
43.36	6661
44.23	6042

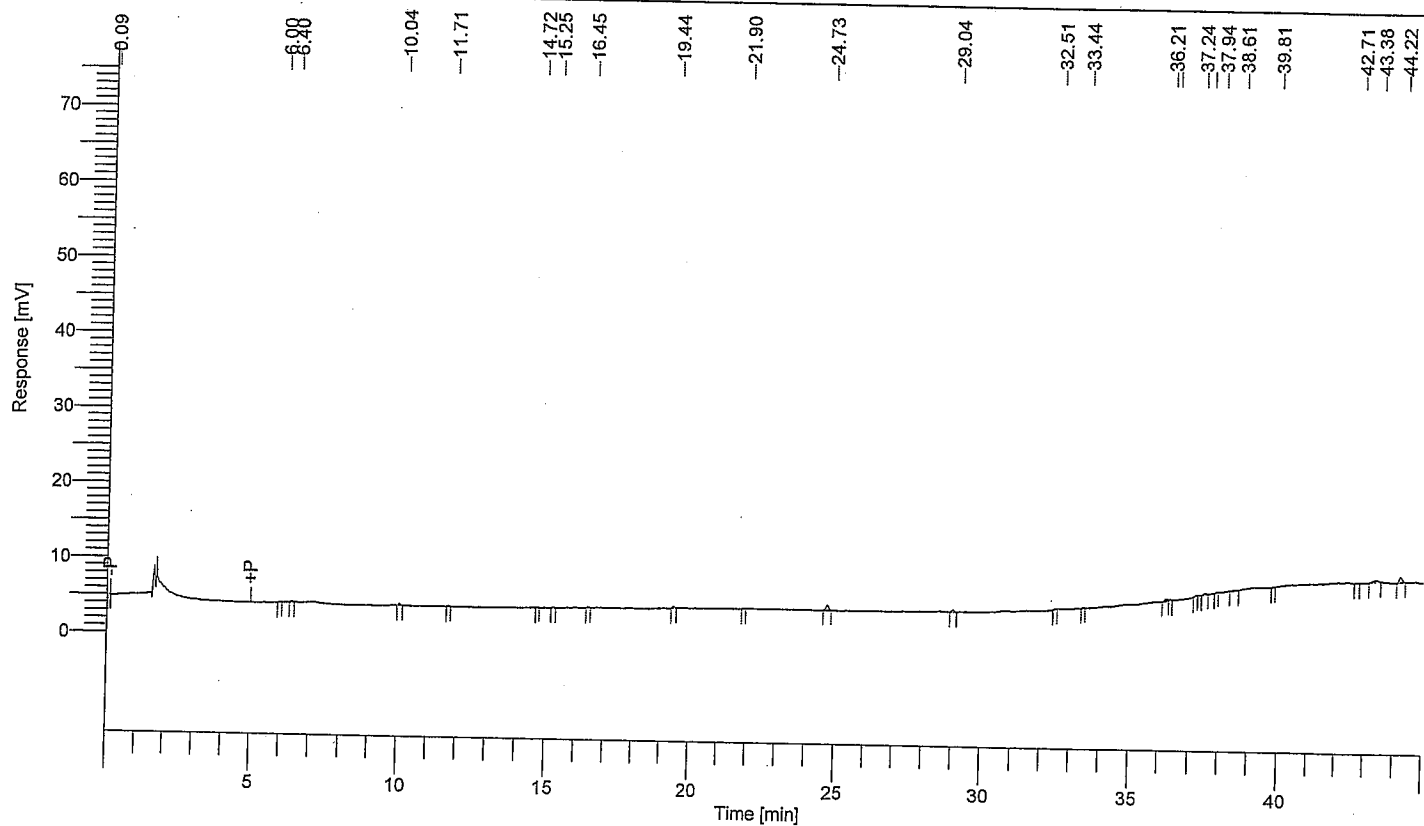
26354

< 0.40 ppm. total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62322
 Sample Name : 22704 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

Date : 10/20/2007 12:25:47 PM
 Data Acquisition Time : 10/20/2007 5:00:50 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#016.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.73	4573
29.04	2085
36.21	2016
43.38	3319
44.22	5225

17218

<0.40 ppm total PCB.

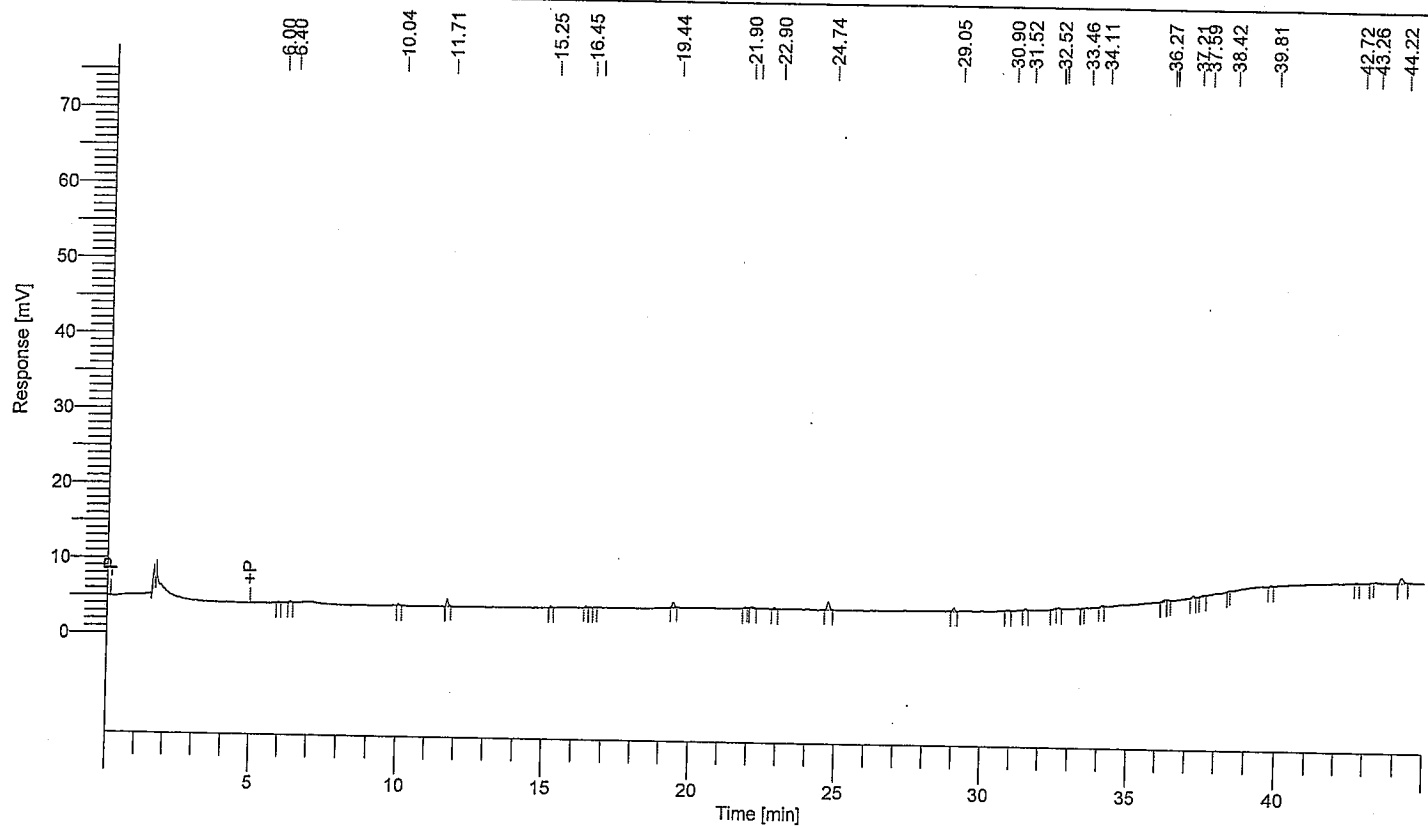
Software Version : 6.3.1 0504
 Reprocess Number : totalchrom: 62325
 Sample Name : 22705 1:10
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 50.000000
 Cycle : 19

Date : 10/20/2007 12:25:49 PM

Data Acquisition Time : 10/20/2007 7:38:49 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#019.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.71	4178
19.44	3671
24.74	6764
29.05	2908
44.22	5927

23448

<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62327
 Sample Name : 22706 1:10
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 50.000000
 Cycle : 21

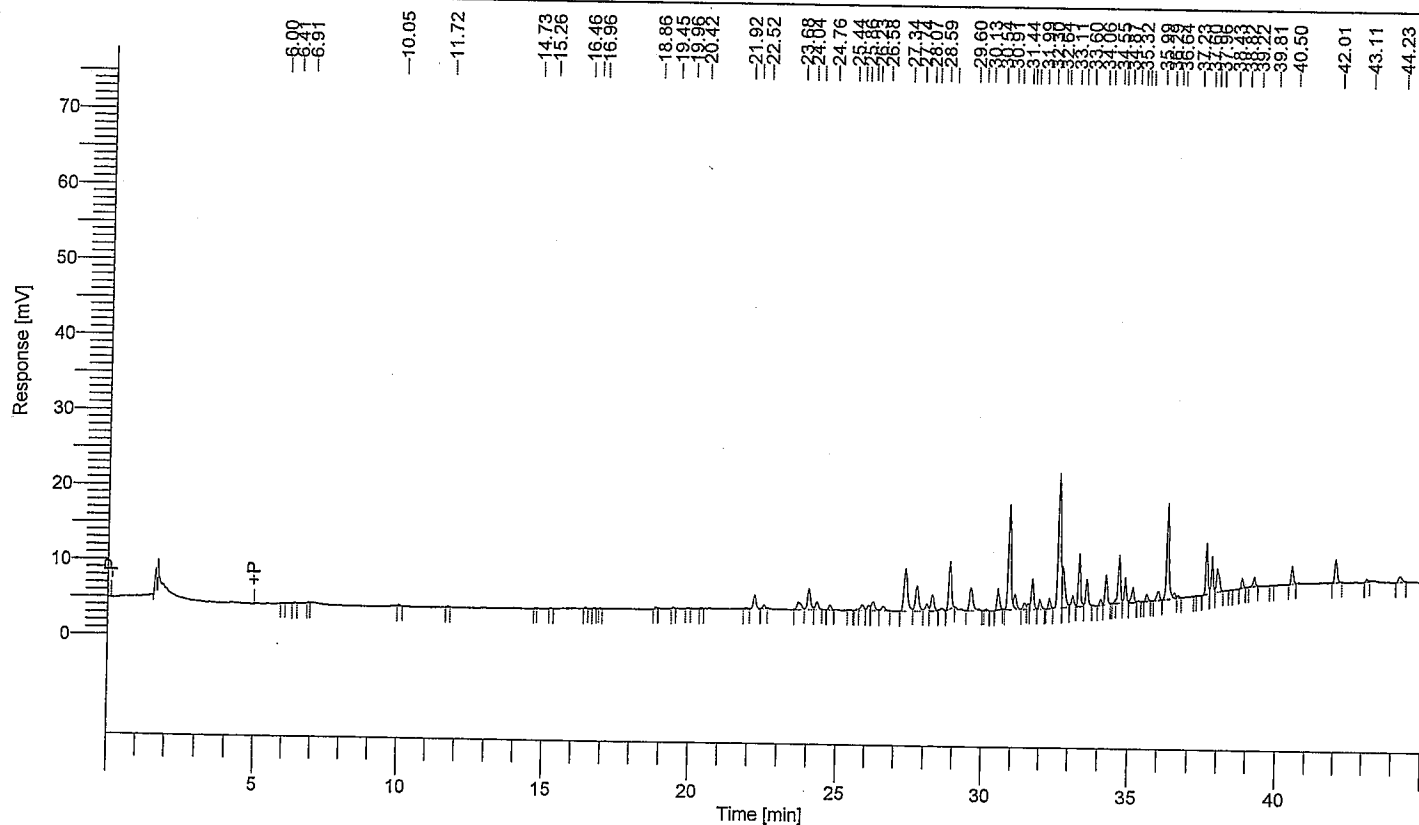
Date : 10/20/2007 12:25:51 PM

Data Acquisition Time : 10/20/2007 9:24:11 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#021.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
22.19	11354
22.52	2897
23.68	10133
24.04	20914
24.31	7454
24.76	3952
25.86	6452
26.08	4759
26.23	10524
26.58	5459
27.34	50978
27.74	26890
28.07	7075
28.26	16735
28.59	2501
28.87	42394
29.60	23597
30.54	16374
30.91	96965
31.11	11590
31.44	5554
31.58	3885
31.72	24468
31.99	7315
32.30	7227
32.64	113585
32.76	38415

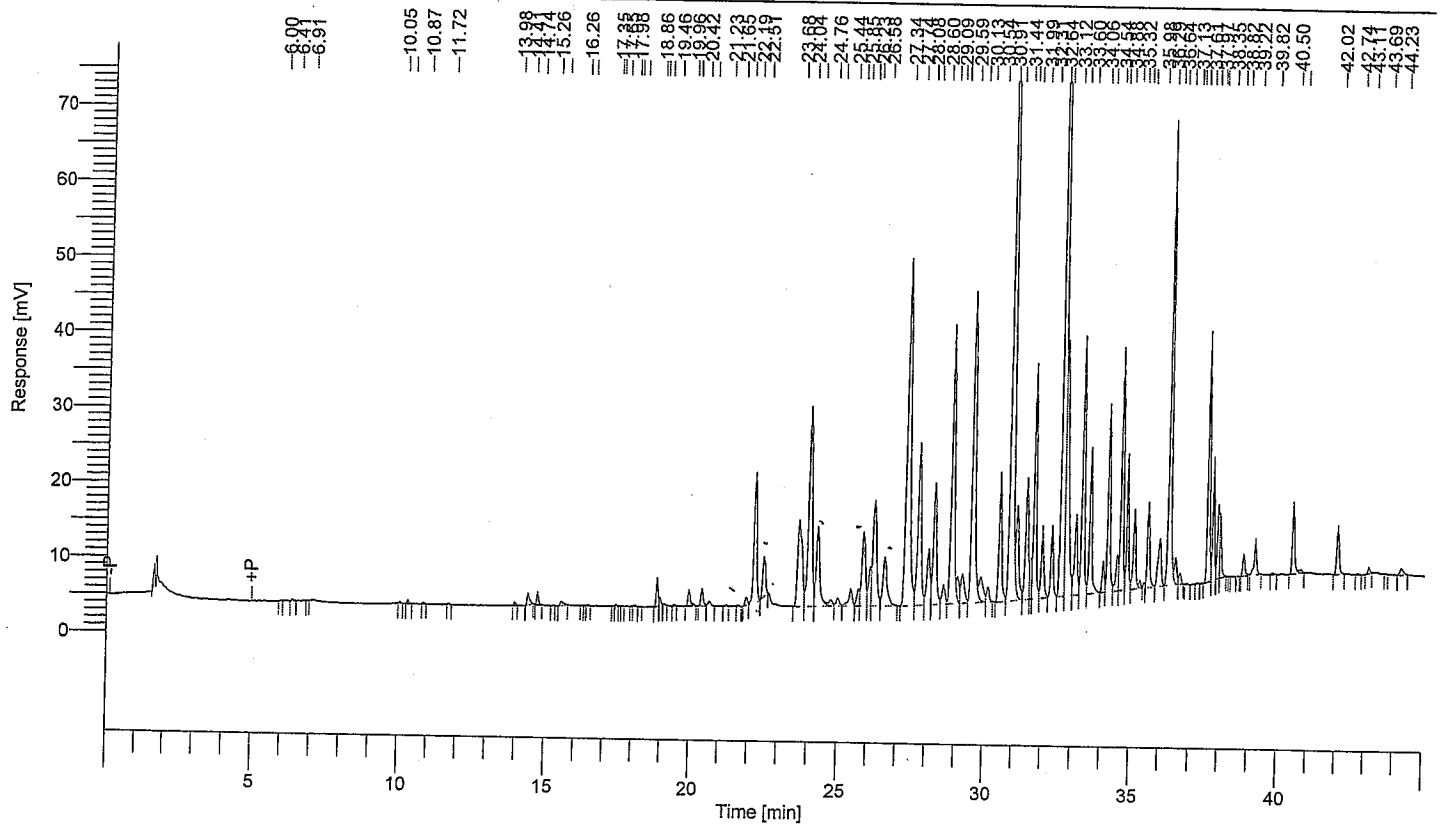
<0.40 ppm total PCB.

Time [min]	Area [μ V-s]
33.11	9256
33.34	37096
33.60	18711
34.06	4047
34.23	21676
34.67	34014
34.87	17490
35.12	12086
35.60	5108
35.99	7205
36.29	67925
36.50	3815
37.60	34598
37.79	22321
37.96	21564
38.82	5884
39.22	6886
40.50	12118
42.01	17891
43.11	2076
44.23	6252
<hr/>	
947467	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62328
 Sample Name : 22707 1:10
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

Date : 10/20/2007 12:25:51 PM
 Data Acquisition Time : 10/20/2007 10:16:52 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#022.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.33	2511
14.41	10139
14.74	6991
15.55	4347
18.86	18414
18.96	5890
19.96	11783
20.42	13702
20.66	4200
21.92	6115
22.19	113826
22.51	36151
23.68	123997
24.04	212516
24.31	98346
24.76	8253
24.99	8520
25.44	21134
25.70	14157
25.85	84928
26.10	30675
26.23	131026
26.58	65615
27.34	404921
27.74	178033
28.08	56438
28.27	127639

$$\Sigma \text{area (Arochlor 1254)} = 248889$$

$$\text{ng injected} = \frac{248889}{101632.5} = 2.4489$$

$$\text{ppm} = \frac{2.4489}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.9796$$

$$\Sigma \text{area (Arochlor 1260)} = 325793$$

$$\text{ng injected} = \frac{325793}{328645} = 0.9913$$

$$\text{ppm} = \frac{0.9913}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.3965$$

$$\text{Total PCB} = 1.3761 \text{ ppm.}$$

Time [min]	Area [μ V-s]
28.60	19897
28.87	280098
29.09	20129
29.24	34106
29.59	311110
29.88	30774
30.13	13640
30.54	113777
30.91	658781
31.12	79221
31.44	106429
31.59	25724
31.72	191646
31.99	58251
32.31	55412
32.64	660520
32.76	246295
33.12	73728
33.34	195464
33.60	110092
34.06	21630
34.23	142122
34.54	26356
34.67	175785
34.88	95427
35.12	64170
35.32	4972
35.47	2542
35.59	62765
35.98	42539
36.29	317646
36.50	19486
36.64	7503
37.61	164172
37.79	80678
37.97	47551
38.02	33392
38.82	14773
39.22	28847
40.50	50020
40.76	3439
42.02	36775
43.11	4171
44.23	6792
<hr/>	
6538910	

Plot Title

Start Time End Time Scale Offset

SET8#007.raw

Sample Name : AROCHLOR 1254

Sample Number: 07

Instrument File Name: c:\pest\gc14\methods\pcb

17.00 40.00 70.00 0.00

SET8#008.raw

Sample Name : AROCHLOR 1260

Sample Number: 08

Instrument File Name: c:\pest\gc14\methods\pcb

17.00 40.00 70.00 0.00

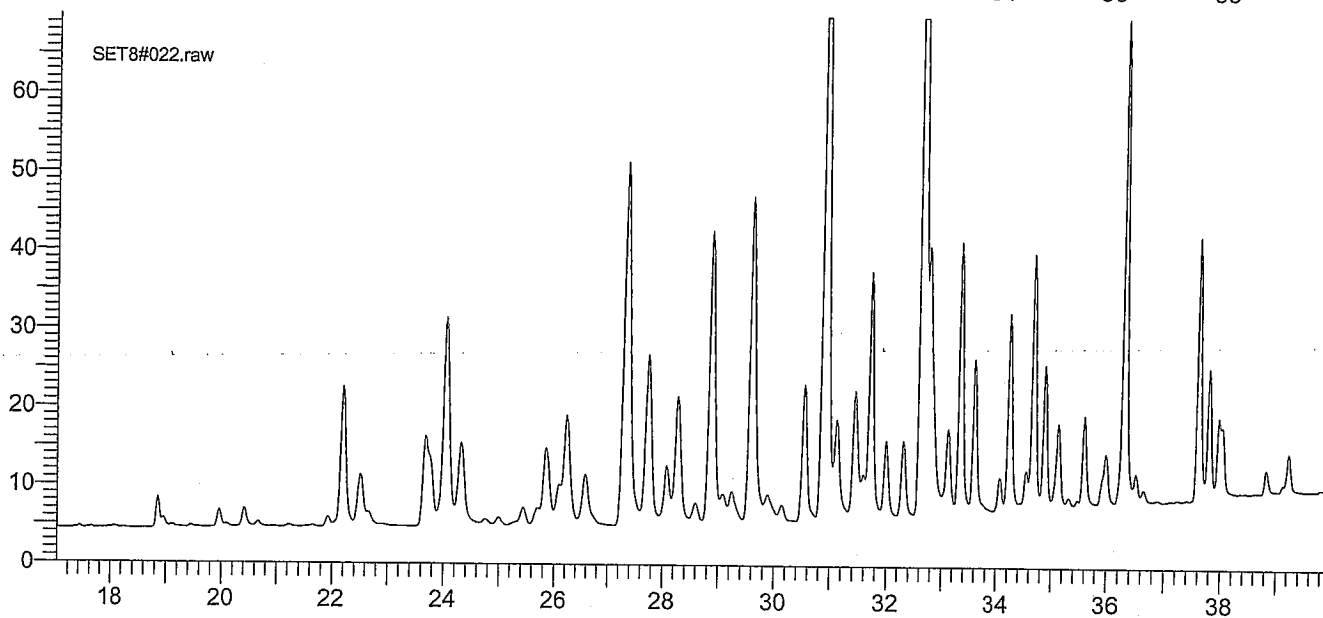
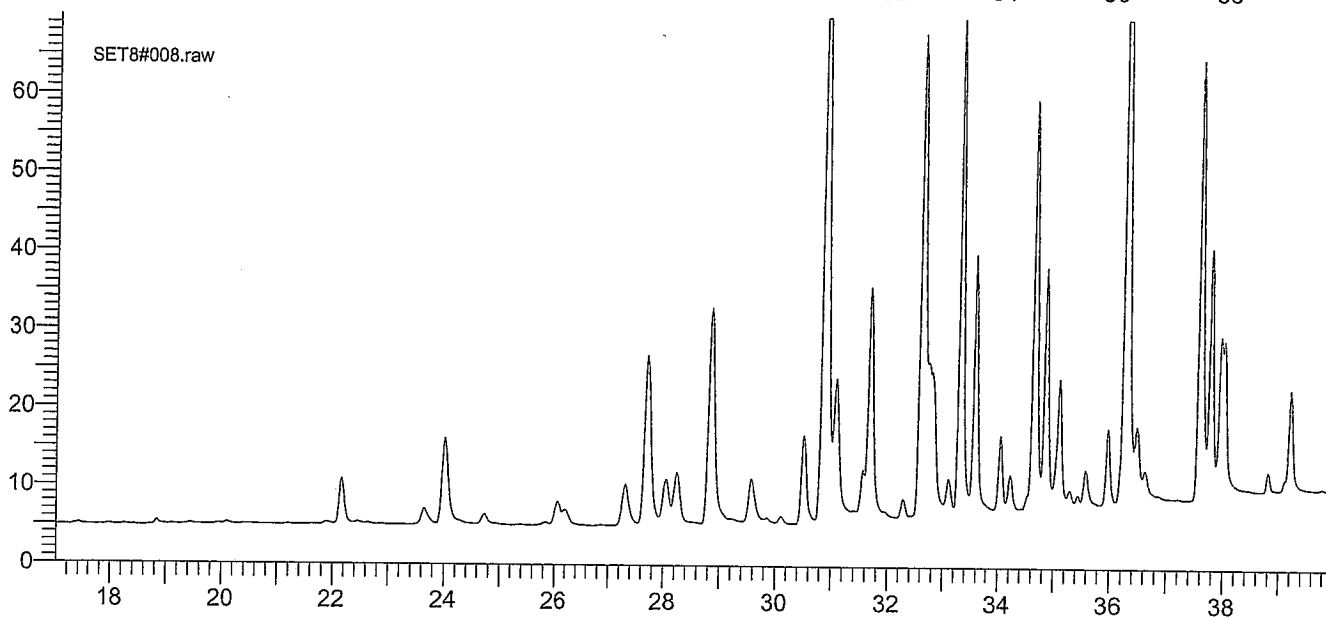
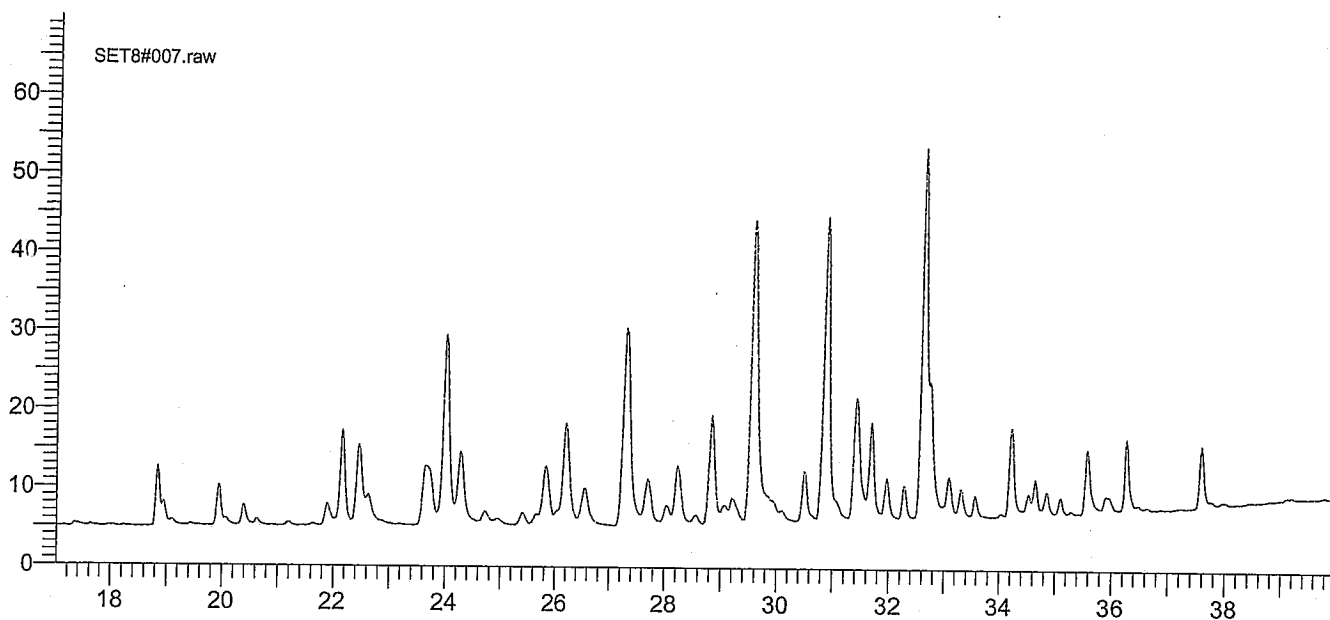
SET8#022.raw

Sample Name : 22707 1:10

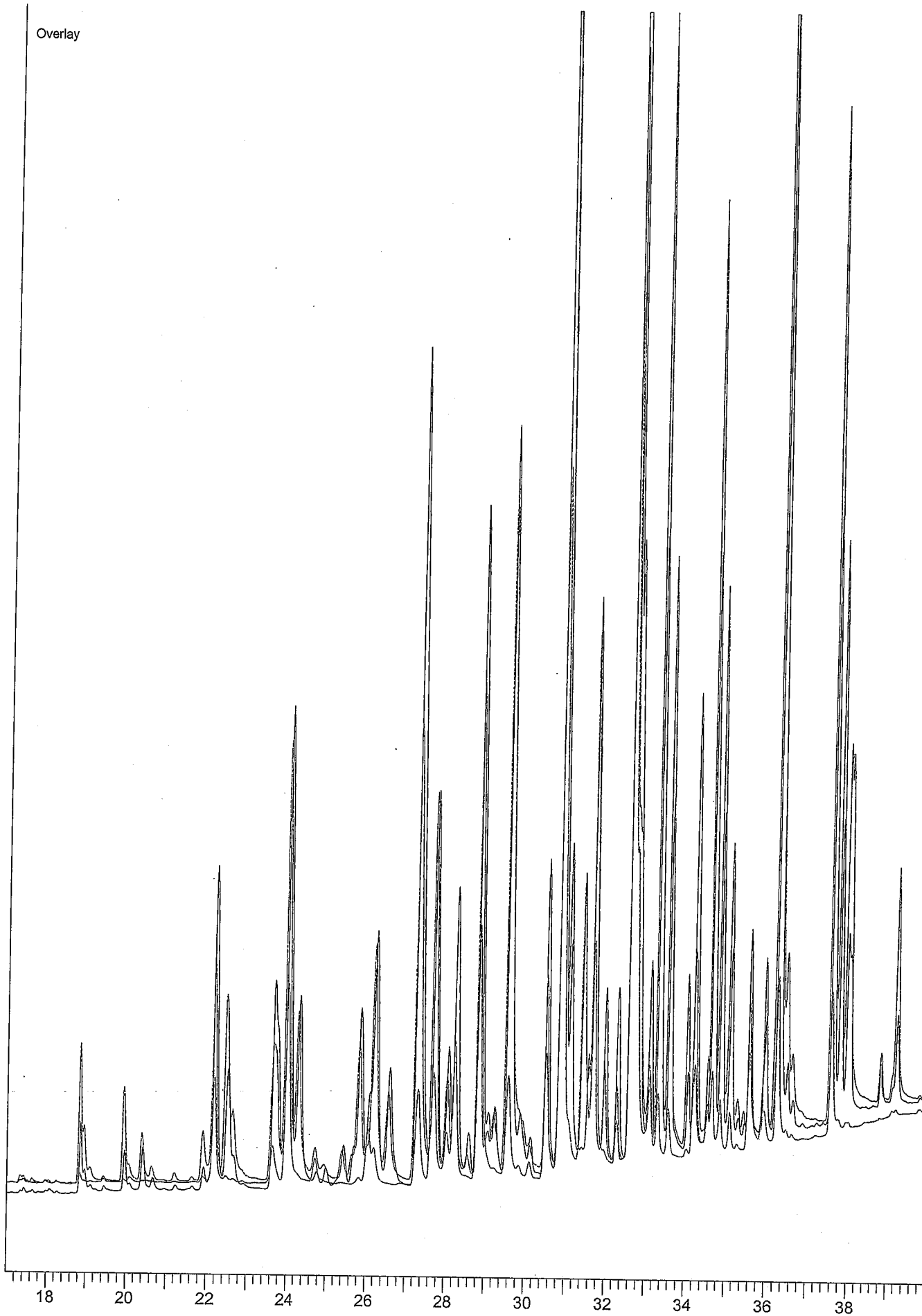
Sample Number: 22

Instrument File Name: c:\pest\gc14\methods\pcb

17.00 40.00 70.00 0.00



Overlay



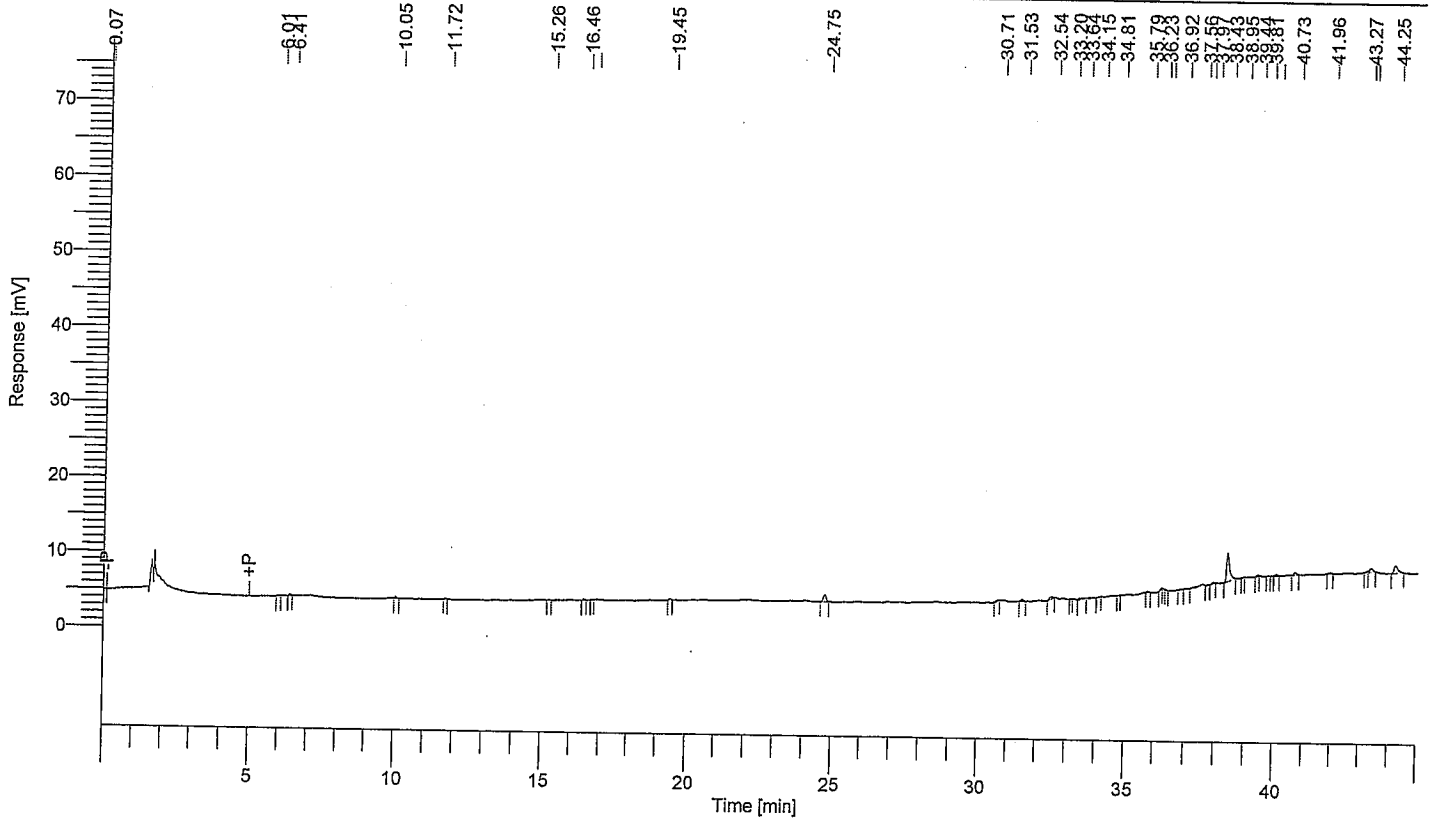
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62329
 Sample Name : 22708 1:10
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 50.000000
 Cycle : 23

Date : 10/20/2007 12:25:52 PM
 Data Acquisition Time : 10/20/2007 11:09:33 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET8#023.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100208 AV SET 8\SET 8.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.75	6107
37.56	3581
38.43	24228
43.40	3566
44.25	9606
	47088

< 0.40ppm total PCB.

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100209 ~~050~~ 10/19/2007

07102009- Avant Level IV QAQC

Set #9

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SF
PREP DATE:	10-20-07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AA11900004		
PREP. DATE:	10-8-07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS
1	SPIKE 1	50.0
2	22709	50.0
3	22709 ms	50.0
4	22710	50.0
5	22711	50.0
6	22711 msd	50.0
7	22712	50.0
8	22712 dup	50.0
9	22713	50.0
10	22714	50.0
11	22715	50.0
12	22716	50.0
13	22717	50.0
14	blank	—
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION	SAMPLE INFORMATION
INST. METHOD: PCB	BALANCE #: 01
G.C.#: 14	OVEN#/TEMP: NA
OPERATOR: SVB	ALICUOT RATIO: 50/100
COLUMN I.D.: 809200	FINAL VOLUME: 2.0 mL
DATE USED: 10/20/2007	INJECTION VOL. 2 uL
DETECTOR: ECD	EXTRACT STORAGE: F7

INSTRUMENT CALIBRATION INFORMATION	METHOD CALIBRATION INFORMATION
LGV (cm/s) NOT GIVEN	A1016 I.D. Y11300003
INST. CAL I.D. MX50100154	A1221 I.D. Y11400003
INST. CAL PREP. DATE: 9/14/2007	A1232 I.D. Y11500003
ANALYTE 1	A1242 I.D. Y11600003
RETENTION TIME (MIN) 14.38	A1248 I.D. Y11700005
R.T. ACCURACY (%) 99	A1254 I.D. X11800011
SENSITIVITY (AREA) 393680	A1260 I.D. AA11900003
SENS. ACCURACY (%) 99	CAL PREP DATE: 10/2/2007
ANALYTE 2	
RETENTION TIME (MIN) 16.58	
R.T. ACCURACY (%) 99	
SENSITIVITY (AREA) 867777	
SENS. ACCURACY (%) 87	

COMMENTS

Solvent rinse sample glassware three times with acetone and three times with hexane before washing. Use 0.5 mL Arochlor 1260 INT for the matrix spike and the matrix spike duplicate.

90% Methanol / Di-water PD: 10-16-07

PH 7 Buffer PD: 10-18-07

15% EE / Hexane PD: 10-11-07

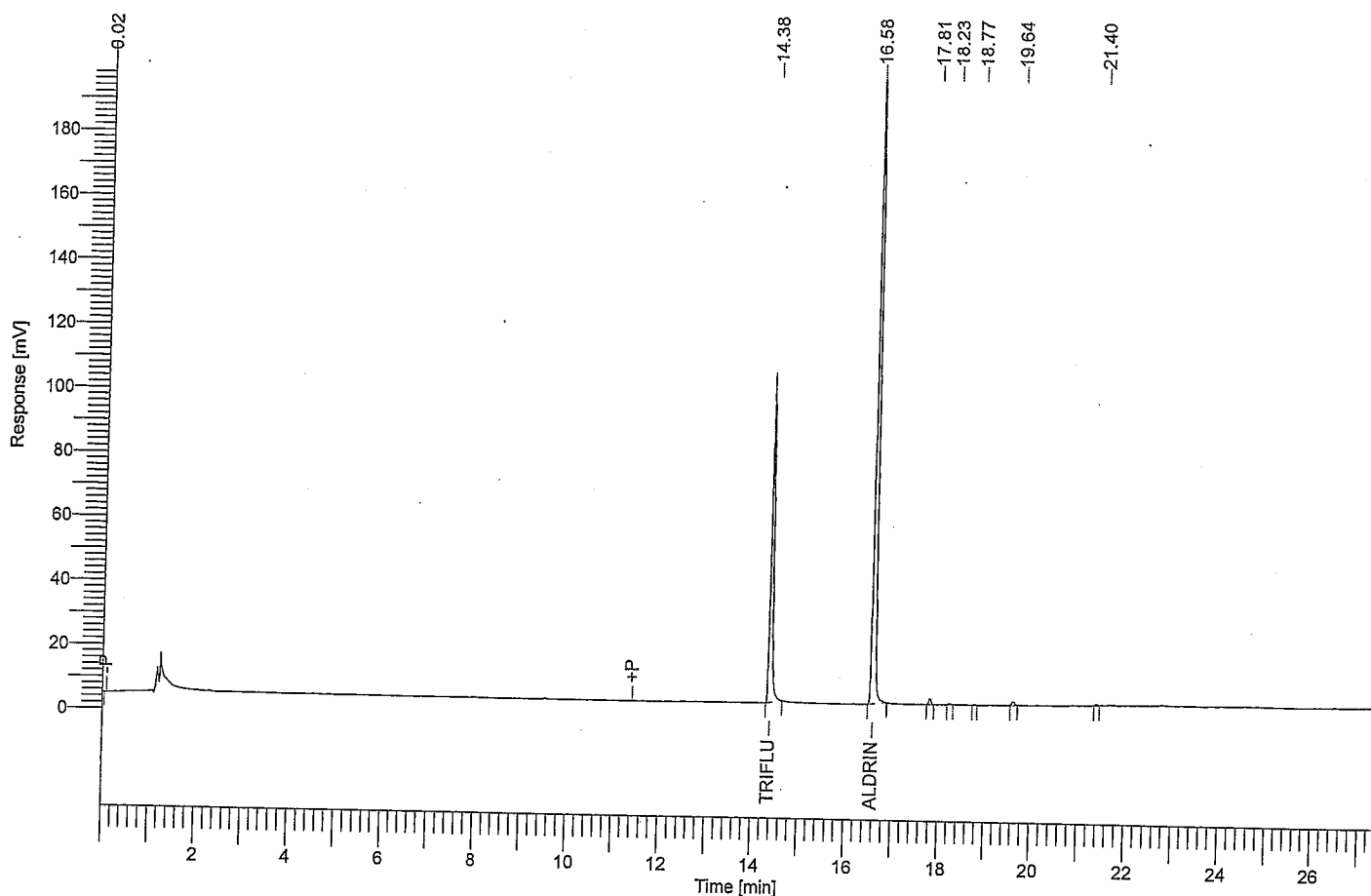
C18 Lot # - 0730406

Florisil Lot # - 195937120A

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62339
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 1

Date : 10/20/2007 2:15:25 PM
Data Acquisition Time : 10/20/2007 1:47:44 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC001-20071020-141525.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [$\mu\text{V}\cdot\text{s}$]
14.38	TRIFLURALIN	393680.01
16.58	ALDRIN	867776.53
		1261456.54

TotalChrom Sequence File C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET 9\seq
 Printed by : envweigh on: 10/20/2007 12:31:34 PM
 Created by : envweigh on: 10/20/2007 12:26:58 PM
 Edited by : envweigh on: 10/20/2007 12:31:29 PM
 Number of Times Edited : 1

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 25
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1242	02	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1248	03	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1254	04	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1260	05	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	BLANK SOIL	06	07100209	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	SPIKE SOIL	07	07100209	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
8	Sample	22709 1:10	08	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
9	Sample	22709 MS 1:10	09	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
10	Sample	22710 1:10	10	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22711 1:10	11	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22711 MSD 1:10	12	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22712 1:10	13	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
14	Sample	FLUSH	14	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
15	Sample	AROCHLOR 1248	15	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
16	Sample	22712 DUP 1:10	16	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	22713 1:10	17	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
18	Sample	22714 1:10	18	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
19	Sample	22715 1:10	19	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	22716 1:10	20	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
21	Sample	22717 1:10	21	07100209	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
22	Sample	FLUSH	22	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
23	Sample	AROCHLOR 1016	23	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
24	Sample	AROCHLOR 1221	24	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
25	Sample	AROCHLOR 1232	25	07100209	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
2	A	0	2	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
3	A	0	3	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
4	A	0	4	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
5	A	0	5	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
6	A	0	6	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
7	A	0	7	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
8	A	0	8	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
9	A	0	9	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
10	A	0	10	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
11	A	0	11	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
12	A	0	12	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
13	A	0	13	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
14	A	0	14	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
15	A	0	15	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
16	A	0	16	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
17	A	0	17	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
18	A	0	18	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
19	A	0	19	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
20	A	0	20	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
21	A	0	21	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
22	A	0	22	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
23	A	0	23	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
24	A	0	24	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
25	A	0	25	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb	c:\pestlgc14\methods\pcb
Row				Raw Data File		Result File	Baseline

1 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#001 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#001
 2 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#002 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#002
 3 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#003 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#003
 4 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#004 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#004
 5 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#005 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#005
 6 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#006 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#006
 7 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#007 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#007
 8 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#008 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#008
 9 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#009 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#009
 10 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#010 C:\PESTIOCTOBER 2007\07100209 AV SET 9\SET9#010

Sequence Process Information - Channel A

Row	Raw Data File	Result File	Baseline			
11	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#011	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#011				
12	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#012	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#012				
13	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#013	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#013				
14	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#014	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#014				
15	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#015	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#015				
16	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#016	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#016				
17	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#017	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#017				
18	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#018	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#018				
19	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#019	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#019				
20	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#020	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#020				
21	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#021	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#021				
22	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#022	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#022				
23	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#023	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#023				
24	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#024	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#024				
25	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#025	C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#025				
Row	Modified	Calib Rpt	Cal Level	Update RT	Printer	Plotter
1	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
2	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
3	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
4	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
5	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
6	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
7	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
8	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
9	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
10	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
11	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
12	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
13	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
14	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
15	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
16	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
17	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
18	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
19	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
20	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
21	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
22	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
23	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
24	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
25	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62364
 Sample Name : BLANK SOIL
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 50.000000
 Cycle : 6

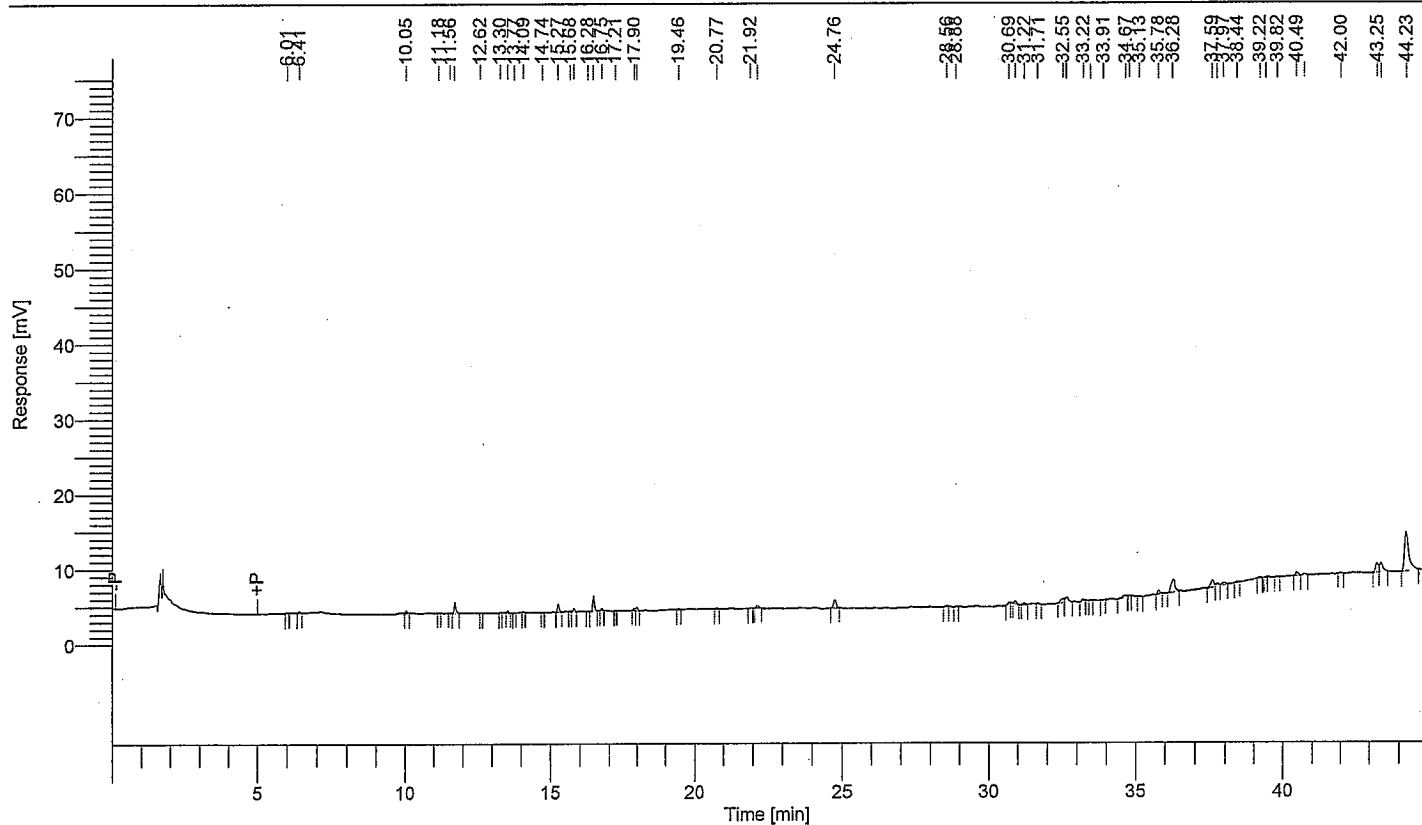
Date : 10/21/2007 11:21:16 AM
 Data Acquisition Time : 10/20/2007 6:50:36 PM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#006.rst

Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.72	5885
15.27	4715
16.46	8151
17.99	2143
22.15	2385
24.76	7169
30.91	2138
32.55	4119
32.66	5790
34.67	2850
35.78	3022
36.28	13995
37.59	7383
37.75	2595
37.97	2404
40.49	2839
43.25	7631
43.38	9390
44.23	49160

143764

BDL

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62365
 Sample Name : SPIKE SOIL
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 50.000000
 Cycle : 7

Date : 10/21/2007 11:21:17 AM

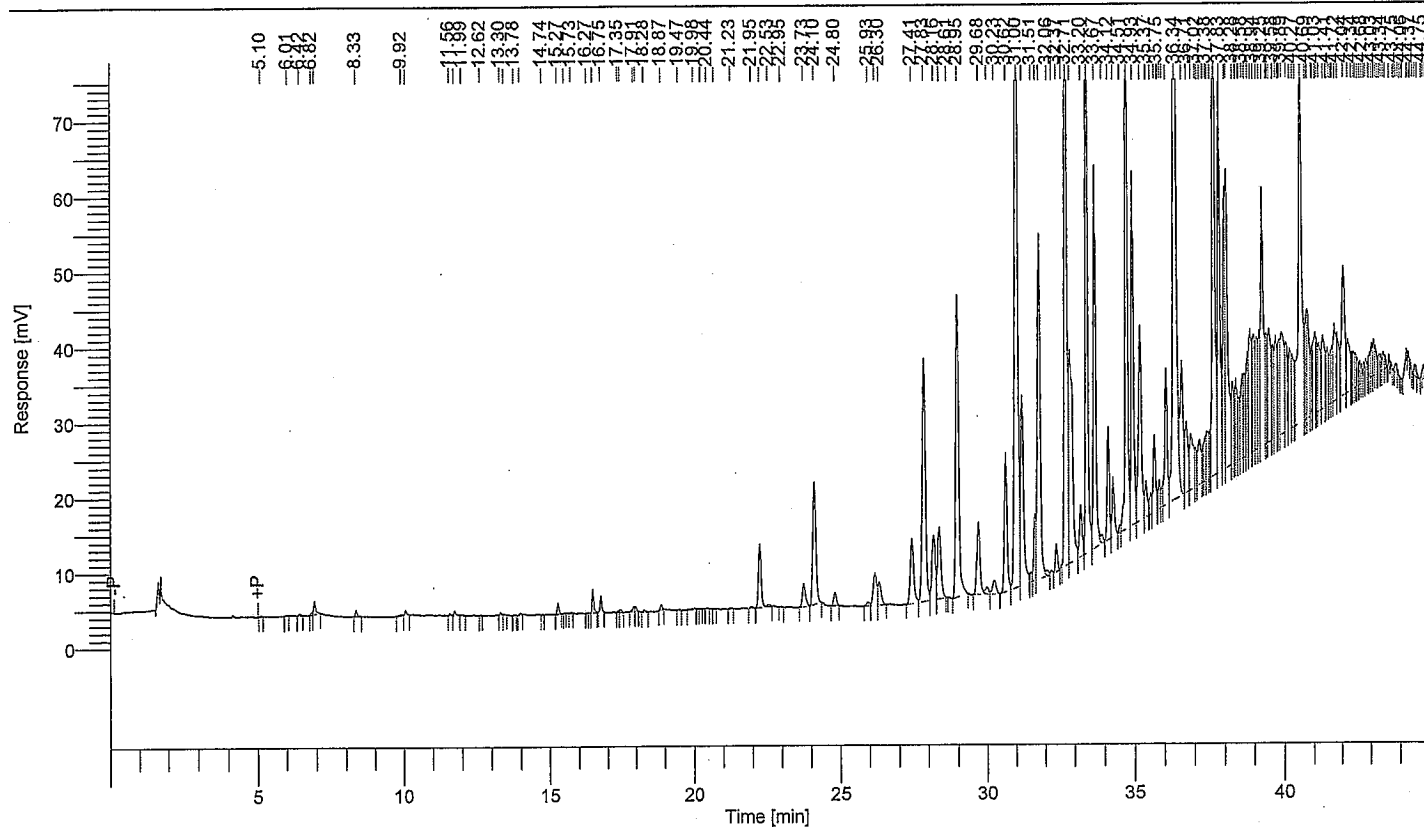
Data Acquisition Time : 10/20/2007 7:43:15 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#007.rst

Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
6.92	9185
8.33	4118
10.05	3202
11.73	3377
15.27	6260
16.47	13383
16.75	8204
17.91	3383
17.97	2919
18.87	2857
22.23	55008
23.73	23939
24.10	123288
24.80	11456
25.93	3442
26.16	34245
26.30	24269
27.41	72294
27.83	259781
28.16	66003
28.35	76062
28.95	310325
29.68	72056
29.97	8019
30.23	15347
30.62	115634
31.00	826655

$$\sum \text{area} = 474140$$

$$\text{ng inj} = \frac{474140}{160412.5}$$

$$= 2.9558$$

$$\text{ppm} = \frac{2.9558}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.1182$$

$$\% \text{Recovery} = \frac{0.1182}{0.1} \times 100 = 118\%$$

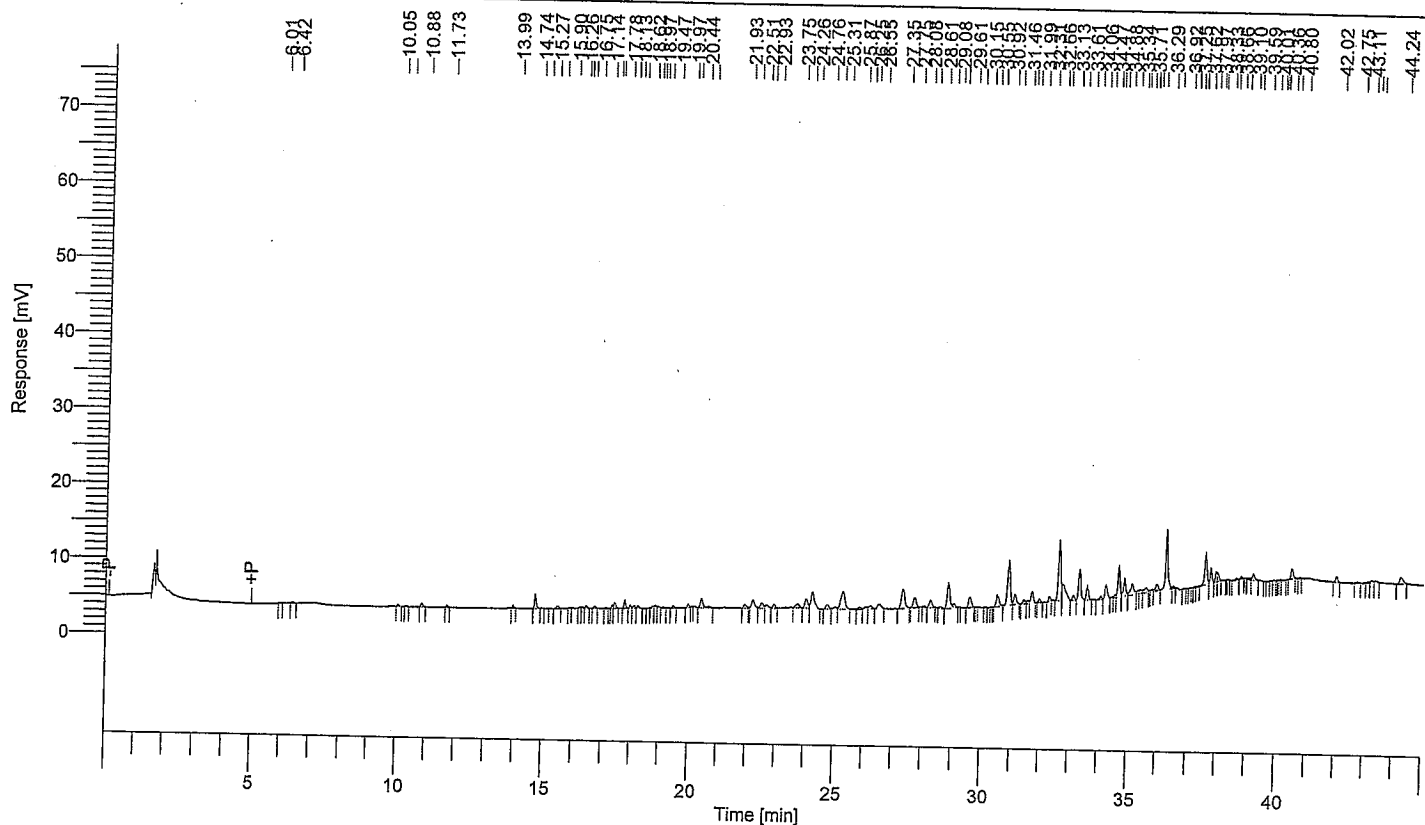
Time [min]	Area [μ V-s]
31.19	184168
31.51	8422
31.67	46044
31.79	291368
32.06	5445
32.21	2742
32.37	19103
32.71	602505
32.84	265022
33.20	43361
33.41	508469
33.67	279321
33.91	9399
34.12	78412
34.29	44931
34.51	4083
34.72	441321
34.93	254492
35.17	180417
35.37	31274
35.51	14262
35.64	60104
35.75	3746
35.83	21638
35.93	8447
36.04	101281
36.34	1067509
36.55	121505
36.71	75411
36.87	73175
37.02	18559
37.07	7374
37.16	45371
37.27	13314
37.38	31762
37.42	33038
37.51	20135
37.64	565125
37.83	307795
38.01	165729
38.06	238945
38.28	60577
38.36	24089
38.39	46601
38.48	31153
38.58	61900
38.66	57362
38.77	66012
38.86	111657
38.94	29161
38.96	57730
39.06	80145
39.14	65926
39.25	241742
39.38	43944
39.42	25261
39.48	94420
39.58	28097
39.60	33063
39.69	82558
39.77	25578
39.81	48678
39.89	125350
40.05	68080
40.17	79130
40.27	47403
40.34	15557
40.52	387889
40.69	33519
40.75	44647
40.77	83323
40.90	26600
40.94	16386
41.03	69425
41.08	30342
41.16	66064
41.32	74485
41.41	12280
41.46	37774
41.52	9994
41.57	22526
41.63	29562
41.72	74252
41.82	57243
42.04	146734
42.20	55342

Time [min]	Area [μ V-s]
42.31	7338
42.34	13044
42.39	18019
42.45	16722
42.52	16915
42.61	13562
42.68	8624
42.76	8167
42.82	10910
42.91	9264
42.95	11687
43.03	18607
43.09	19168
43.16	14018
43.21	3744
43.28	8337
43.30	4252
43.34	4773
43.42	10799
43.48	5472
43.62	2481
43.85	4787
44.23	5679
44.53	8204
44.61	2117
<hr/>	
11625490	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62374
 Sample Name : 22712 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

Date : 10/21/2007 11:21:25 AM
 Data Acquisition Time : 10/21/2007 3:36:23 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#016.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
10.88	2014
14.74	8021
15.50	2464
17.43	3774
17.78	4220
20.44	7933
21.93	3232
22.20	8183
22.51	5275
22.68	3593
22.93	3221
23.75	4898
24.04	8415
24.26	18335
24.76	4317
25.05	2099
25.31	23308
25.87	2054
26.09	2038
26.25	3295
26.55	5104
27.35	21553
27.75	9129
28.28	6088
28.88	24305
29.08	3099
29.61	9527

< 0.40 ppm total PCB.

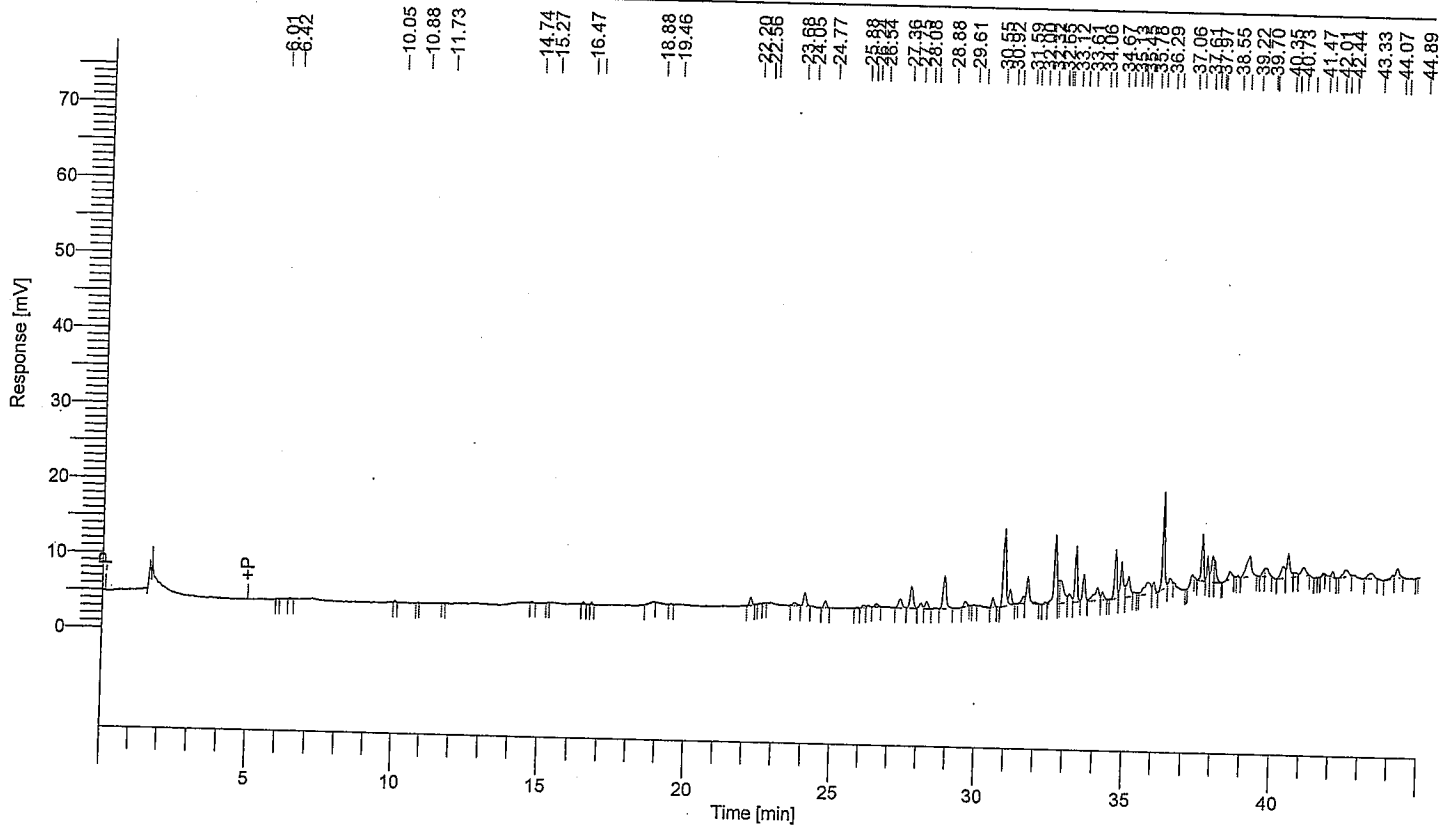
Both sample & duplicate have less than 0.40 ppm total PCB. OF 10/22/2007.

Time [min]	Area [μ V-s]
30.55	9952
30.92	38926
31.14	8914
31.46	3135
31.73	9091
31.99	2549
32.31	2616
32.66	48334
32.77	19349
33.13	3542
33.35	23567
33.61	9994
34.06	2074
34.24	10361
34.68	21274
34.88	13036
35.12	12132
35.34	2147
35.42	3201
35.61	5028
35.99	4747
36.29	42455
37.62	22686
37.80	10306
37.97	5481
38.03	4500
39.22	4566
40.51	6914
42.02	4098
44.24	7087
<hr/>	
561555	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62367
 Sample Name : 22709 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

Date : 10/21/2007 11:21:19 AM
 Data Acquisition Time : 10/20/2007 9:28:25 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#009.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
22.20	6009
23.68	3536
24.05	11846
24.77	5843
26.09	2557
26.24	2206
26.54	3584
27.36	10177
27.75	21954
28.08	5234
28.27	6812
28.88	33436
29.61	4265
30.55	6892
30.92	69203
31.12	11360
31.59	6669
31.73	24161
32.65	60811
32.78	10837
32.83	29666
33.12	9042
33.34	40130
33.61	19270
34.06	20142
34.24	7043
34.67	36811

$$\sum \text{area (Area for 1260)} = 44177$$

$$\text{ng/g} = \frac{44177}{160412.5} = 0.2754$$

$$\text{ppm} = \frac{0.2754}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1102$$

$$\% \text{ Recovery} = \frac{0.1102}{0.1} \times 100 = 110\%$$

Time [min]	Area [μ V-s]
34.89	33977
35.13	24245
35.32	3688
35.78	26968
35.99	8674
36.29	69200
36.51	4615
37.29	5475
37.61	29620
37.80	15676
37.97	19910
38.03	14731
38.55	8407
39.22	34013
39.70	4681
39.76	9450
40.35	15128
40.50	22973
40.73	5008
41.03	12143
42.01	3973
42.44	11060
43.33	9511
44.07	4241
44.23	10555

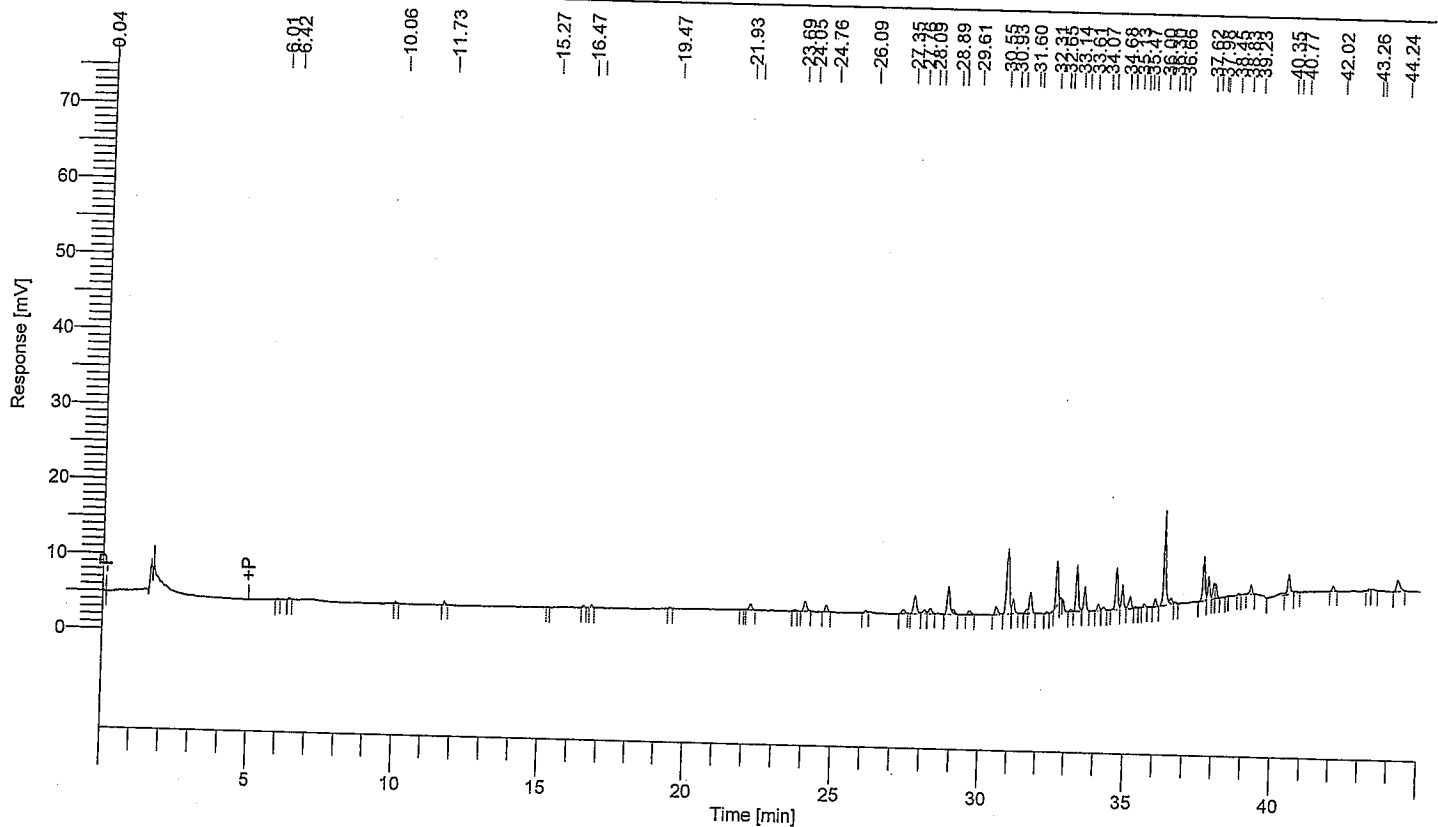
877417

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62370
 Sample Name : 22711 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 12

Date : 10/21/2007 11:21:21 AM
 Data Acquisition Time : 10/21/2007 12:06:08 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#012.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.73	2039
22.20	5324
24.05	9428
24.76	5862
27.35	4039
27.76	18156
28.09	4120
28.28	4959
28.89	27022
29.08	2986
29.61	3822
30.55	7405
30.93	60581
31.13	11686
31.60	2573
31.73	17518
32.65	34131
33.35	33974
33.61	16466
34.07	4861
34.25	2747
34.68	30606
34.88	16735
35.13	9567
35.62	2039
36.00	4762
36.30	69936

$$\sum \text{area} = 31274$$

$$\text{ng-ing} = \frac{31274}{100412.5}$$

$$= 0.1950$$

$$\text{ppm} = \frac{0.1950}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0780$$

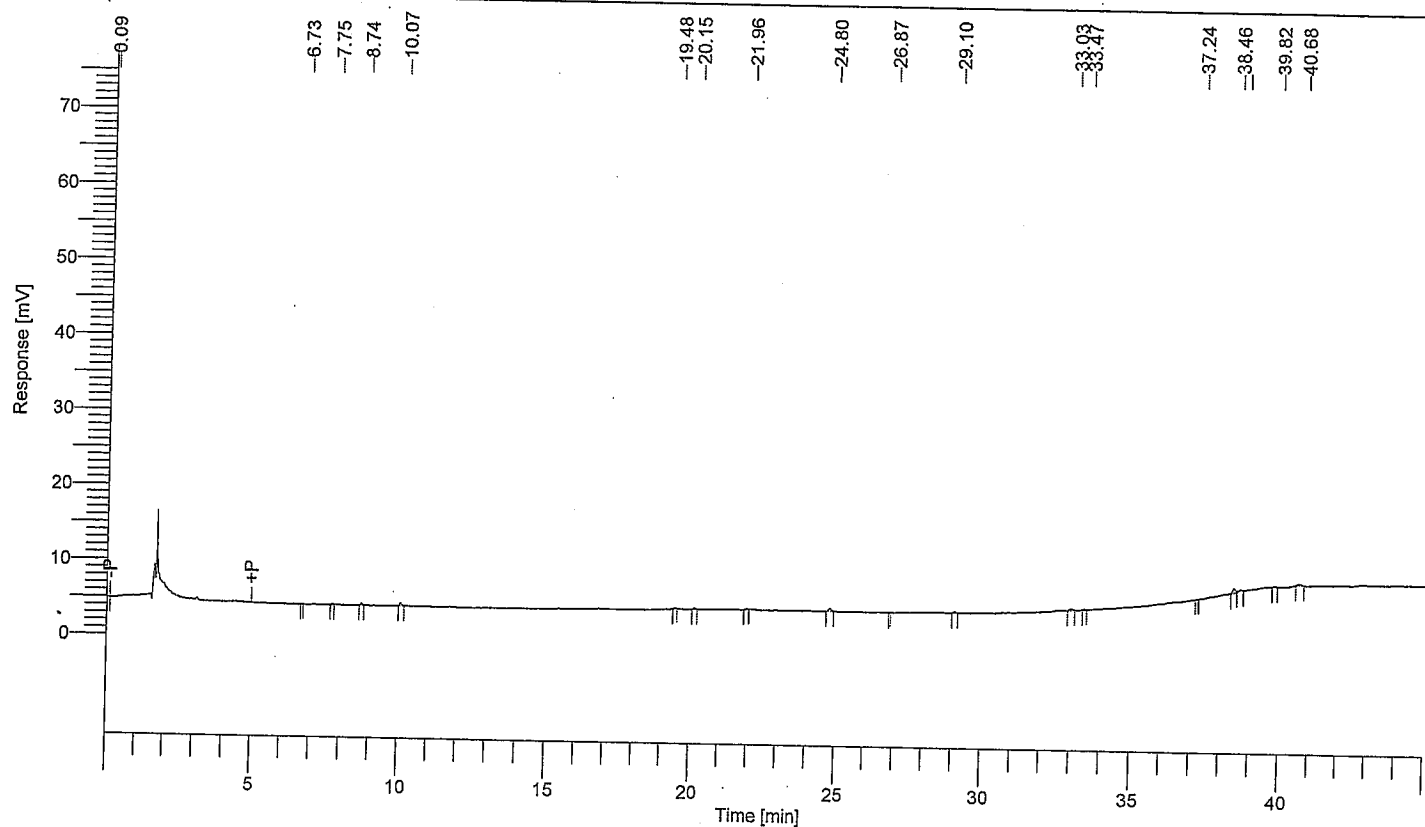
$$\% \text{ Recovery} = \frac{0.0780}{0.1} \times 100 = 78\%$$

Time [min]	Area [μ V·s]
36.51	4341
37.62	31980
37.80	15606
37.98	9238
38.04	7801
39.23	6497
40.35	5440
40.51	16875
42.02	3937
44.24	11747
<hr/>	
526809	

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62359
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/1
Sample Amount : 1.000000
Cycle : 1

Date : 10/21/2007 11:21:10 AM
Data Acquisition Time : 10/20/2007 2:27:00 PM
Channel : A
Operator : enwweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#001.rst
Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
Sample Notes:
METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V-s]
24.80	2700
38.46	3867
6567	

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62372
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/14
Sample Amount : 1.000000
Cycle : 14

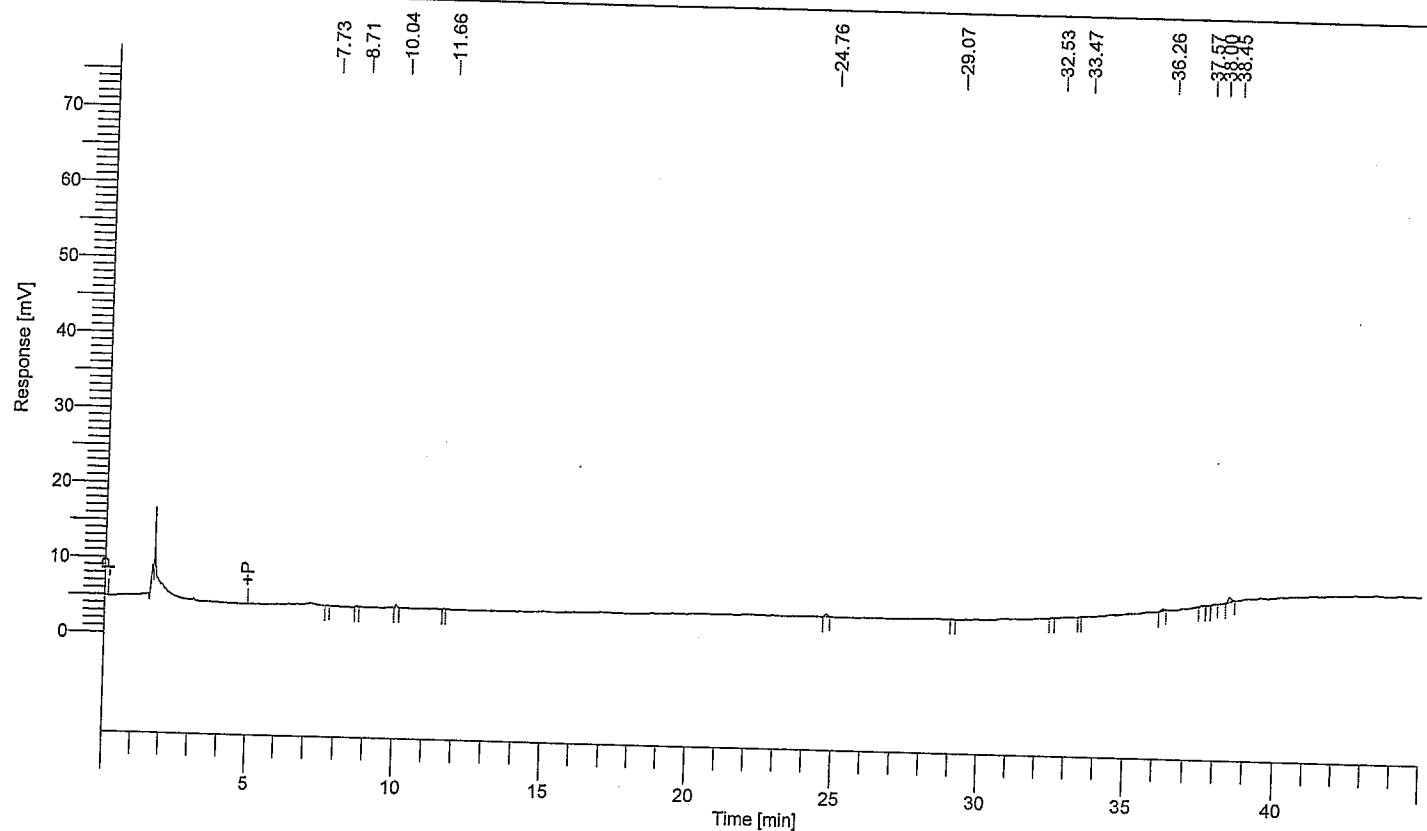
Date : 10/21/2007 11:21:23 AM

Data Acquisition Time : 10/21/2007 1:51:13 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#014.rst
Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V·s]
24.76	2226
38.45	4788
7013	

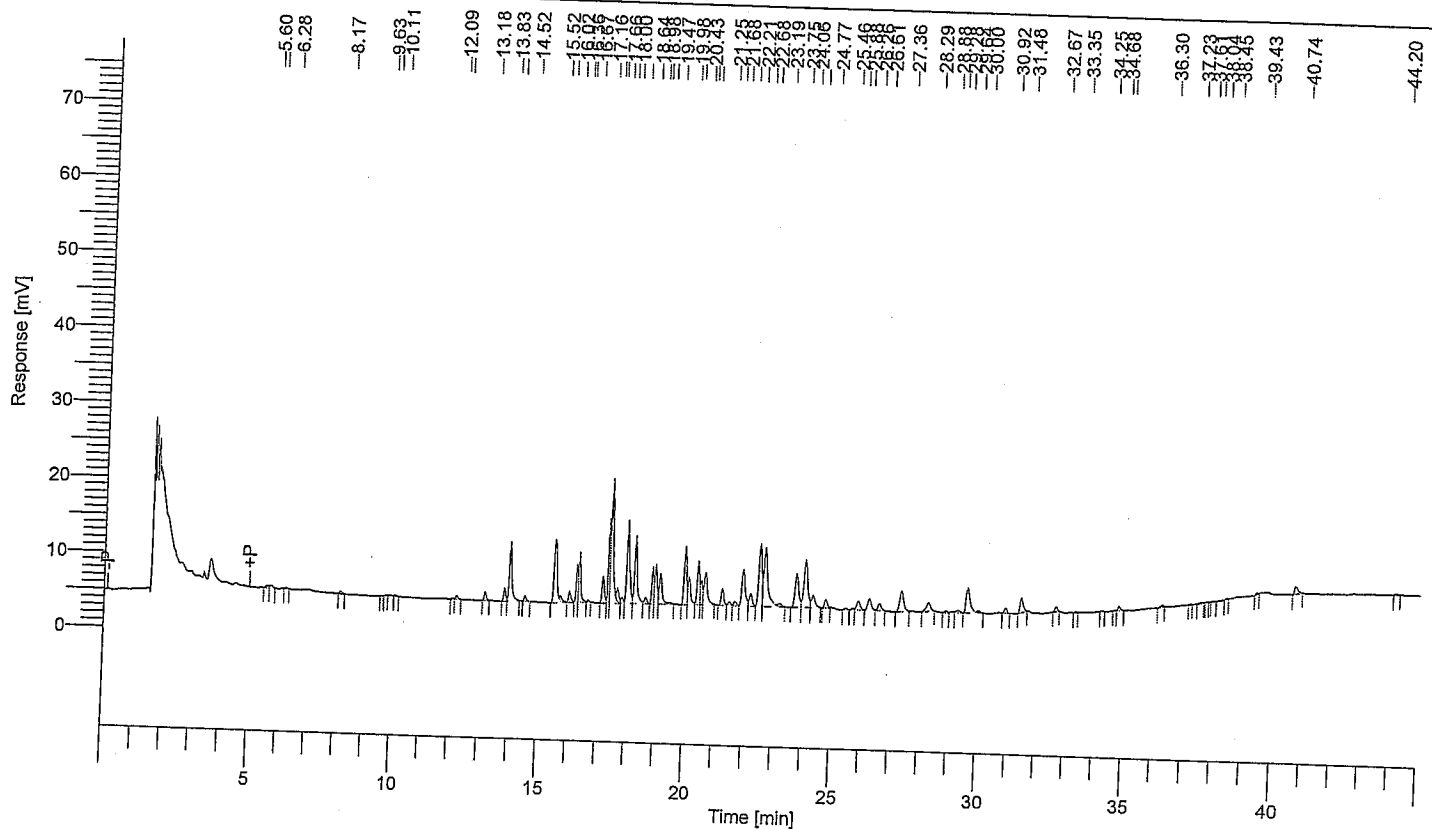
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62300
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/21/2007 11:21:12 AM

Data Acquisition Time : 10/20/2007 3:19:53 PM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#002.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

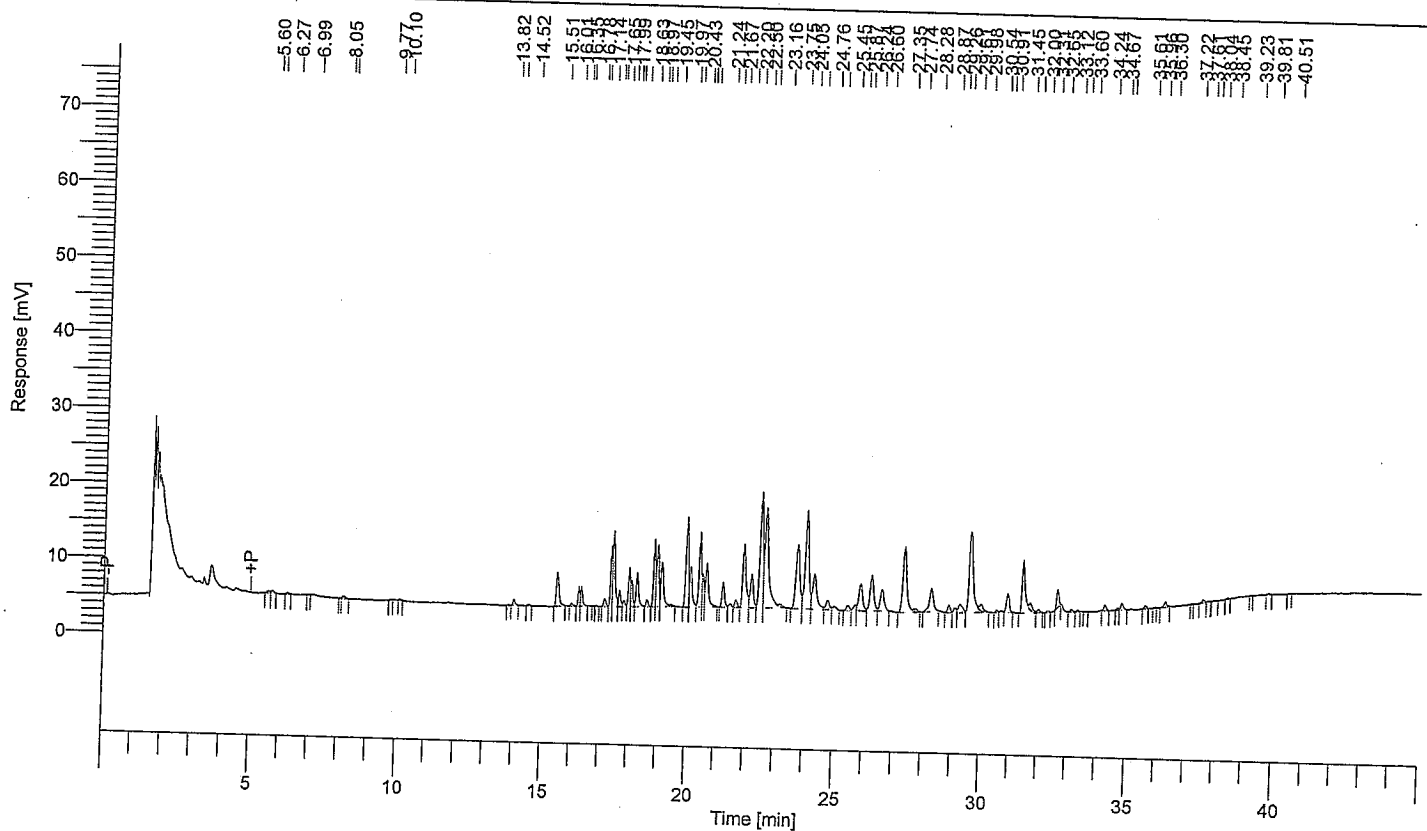
Time [min]	Area [μV·s]
5.60	2194
5.75	2847
12.23	2626
13.18	5834
13.83	8609
14.01	44352
14.52	3739
15.52	59365
15.72	4321
16.02	8577
16.27	19731
16.36	33985
17.16	21864
17.36	42730
17.44	97954
17.66	11283
17.82	4353
18.00	71636
18.28	55530
18.64	4808
18.87	23136
18.98	30520
19.15	29202
19.98	43512
20.11	23138
20.43	33459
20.55	16637

Time [min]	Area [μV-s]
20.68	30473
21.25	13418
21.48	2888
21.68	3587
21.94	37469
22.21	11345
22.51	60878
22.68	77627
23.19	3062
23.75	42768
24.06	58569
24.33	14770
24.77	7050
25.88	9969
26.26	13606
26.61	7539
27.36	24887
28.29	11529
29.28	2985
29.64	30728
30.92	4489
31.48	15728
32.67	3638
34.81	3333
40.74	8128

1206405

Data Acquisition Time : 10/20/2007 4:2:35 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
5.60	2028
5.74	2380
8.16	2143
14.00	3910
15.51	28929
16.01	2202
16.27	10239
16.35	12621
17.14	5891
17.35	31934
17.43	58673
17.65	12349
17.81	4416
17.99	24088
18.07	17145
18.27	27766
18.63	4617
18.86	42199
18.97	47022
19.14	44244
19.97	69634
20.10	34872
20.43	59452
20.53	20749
20.67	41494
21.24	20225
21.47	2611

Time [min]	Area [μ V·s]
21.67	6133
21.93	64531
22.20	32714
22.50	114910
22.67	129883
23.16	3786
23.75	81677
24.05	120626
24.32	46475
24.76	10637
25.00	4171
25.45	5286
25.70	5387
25.87	32762
26.24	42610
26.60	26192
27.35	82183
27.74	4100
28.28	29251
28.87	6394
29.11	4222
29.26	11389
29.61	104350
29.98	8966
30.54	2038
30.91	17040
31.45	63287
31.71	7398
32.00	2961
32.65	13299
34.24	3954
34.81	5336
35.61	2148
36.30	4400
37.61	2575

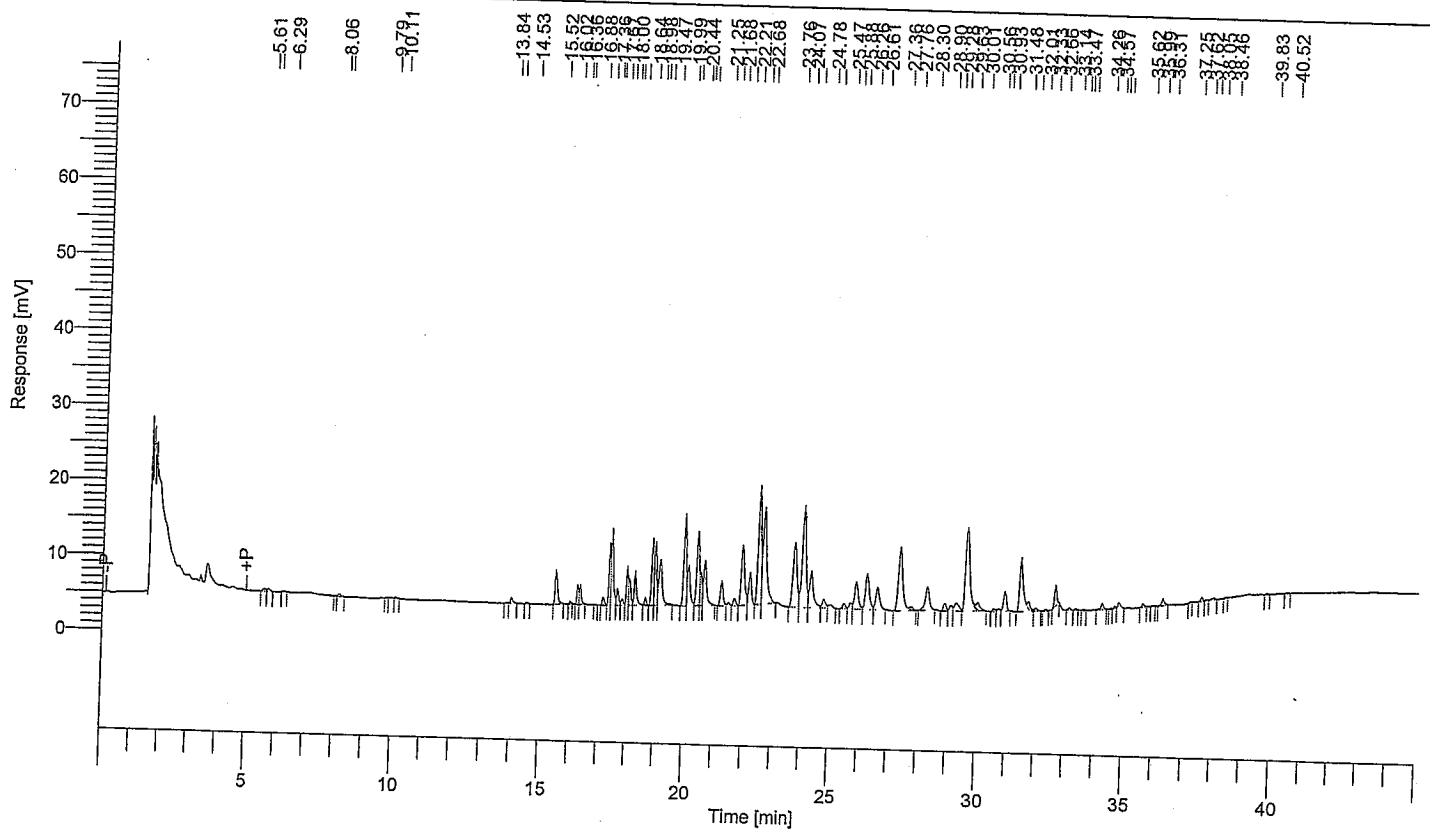
1736903

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62373
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 1.000000
 Cycle : 15

Date : 10/21/2007 11:21:24 AM
 Data Acquisition Time : 10/21/2007 2:43:46 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#015.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	2190
5.75	2789
8.18	2052
14.02	3957
15.52	28513
16.28	10127
16.36	12270
17.15	5769
17.36	31948
17.44	58632
17.67	12387
17.83	4306
18.00	23872
18.09	17440
18.28	27551
18.64	4692
18.88	43373
18.98	47343
19.15	45041
19.99	70203
20.12	35257
20.44	59501
20.55	21474
20.68	41540
21.25	20413
21.49	2404
21.68	5874

Time [min]	Area [μ V-s]
21.95	63894
22.21	30503
22.51	113051
22.68	120223
23.76	82574
24.07	122607
24.34	47706
24.78	9637
25.01	4843
25.47	5321
25.70	5439
25.88	33637
26.26	43986
26.61	27472
27.36	84461
27.76	3580
28.30	30002
28.90	6739
29.11	5537
29.28	11651
29.63	106332
30.01	10502
30.56	2079
30.93	18187
31.48	65177
31.72	7704
32.01	3144
32.66	14535
34.26	5226
34.82	5110
35.62	2386
36.31	5612
37.62	2709

1742483

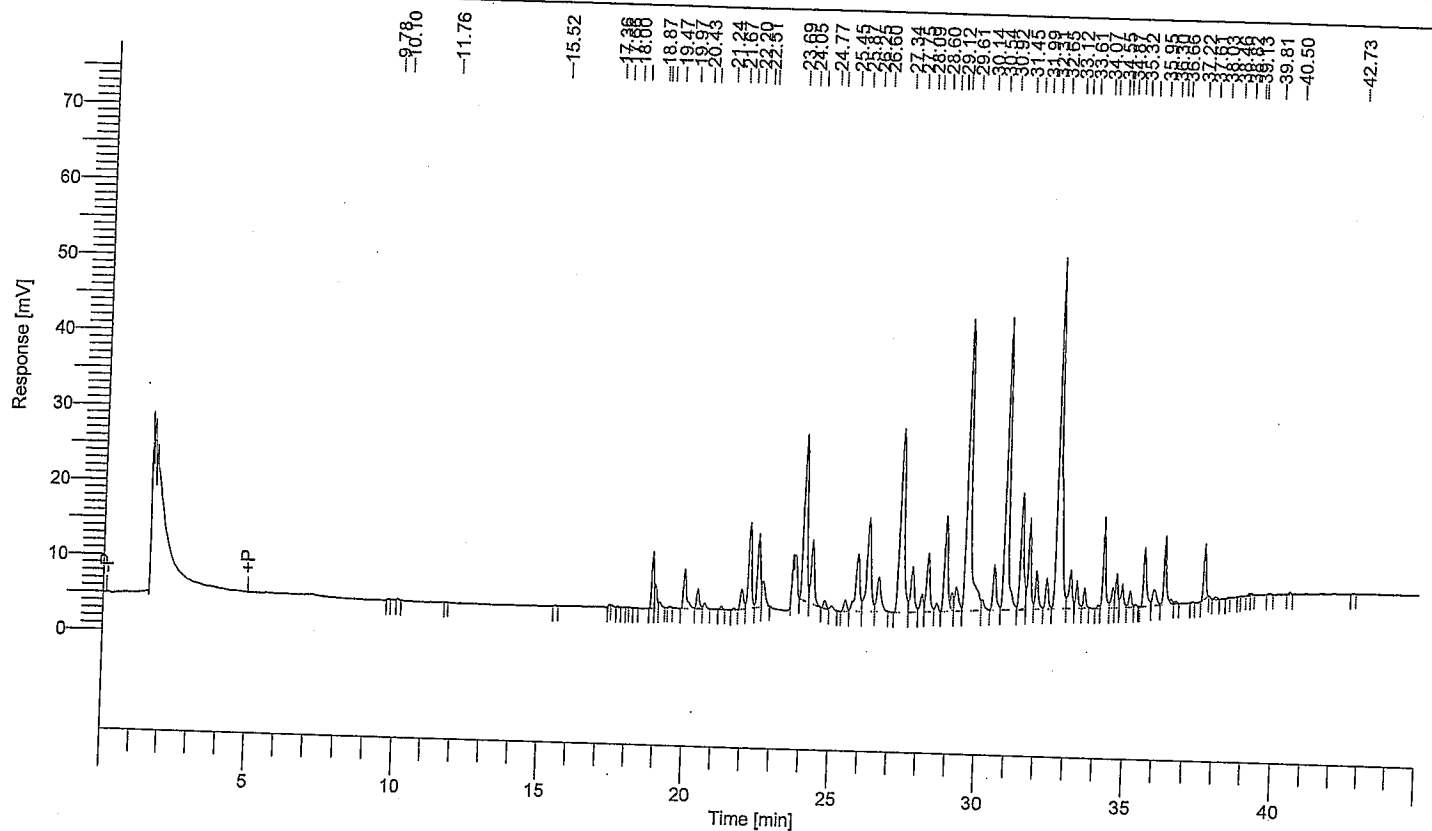
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62362
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

Date : 10/21/2007 11:21:14 AM

Page 1 of 2

Data Acquisition Time : 10/20/2007 5:05:14 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#004.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.87	38975
18.97	16597
19.13	4746
19.97	36660
20.43	17099
20.67	4924
21.24	2410
21.94	19989
22.20	81615
22.51	76703
22.67	25809
23.69	6544
24.05	175218
24.33	68672
24.77	7103
25.00	3806
25.45	11279
25.87	75695
26.25	129990
26.60	45466
27.34	244599
27.75	53252
28.09	18615
28.29	62676
28.60	8146
28.88	102278
29.12	14036

Time [min]	Area [μV·s]
29.25	30941
29.61	384193
30.14	10664
30.54	44945
30.92	300530
31.45	127570
31.72	84113
31.99	33498
32.31	24837
32.65	419225
33.12	38939
33.34	21585
33.61	14364
34.07	2351
34.24	74274
34.55	16429
34.67	25935
34.87	22270
35.13	12164
35.61	54482
35.95	19451
36.30	52825
36.50	3046
37.61	38446
38.03	2306

3212286

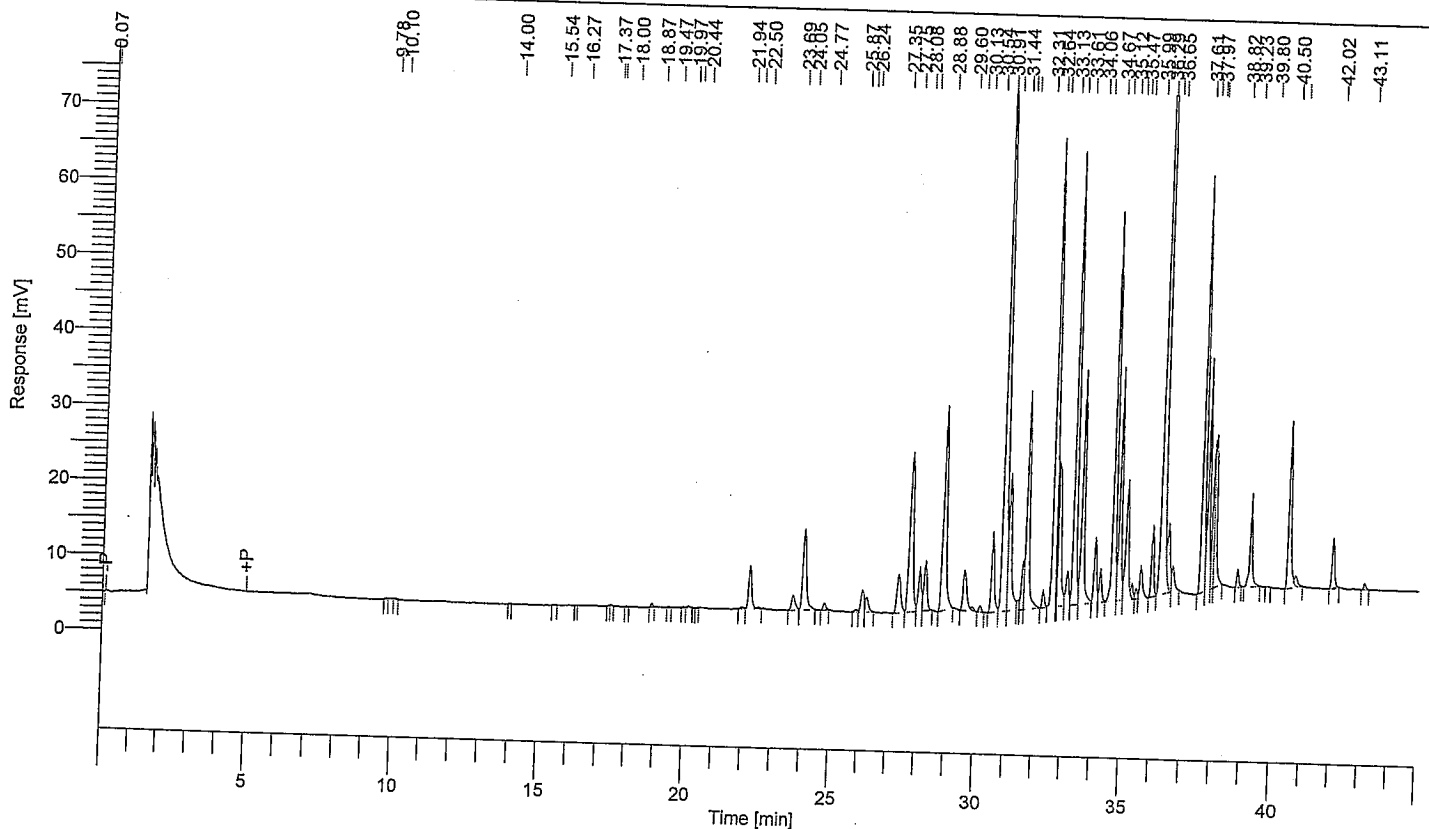
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62363
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

Date : 10/21/2007 11:21:15 AM

Page 1 of 2

Data Acquisition Time : 10/20/2007 5:57:57 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.87	2097
22.20	38920
23.69	17270
24.05	91676
24.77	6103
26.10	23668
26.24	15183
27.35	46665
27.75	178512
28.08	44485
28.28	51163
28.88	221898
29.60	45681
29.88	2881
30.13	4957
30.54	75015
30.91	556518
31.12	143140
31.44	6860
31.59	32457
31.72	205039
32.31	12985
32.64	401031
32.76	42686
32.80	145798
33.13	31013
33.34	349869

$$\sum \text{area} = 649414$$

$$\text{Calibration factor} = \frac{649414}{2} = 324707$$

$$\sum \text{area} = 320825$$

$$\text{Calibration factor} = \frac{320825}{2} = 160412.5$$

Time [min]	Area [μV·s]
33.61	197144
34.06	50466
34.24	27648
34.67	300337
34.88	174607
35.12	108449
35.32	10516
35.47	6714
35.60	29486
35.99	48496
36.29	664355
36.50	54732
36.65	20714
37.61	302154
37.79	162750
37.97	81153
38.02	103357
38.82	10845
39.23	73774
40.50	135908
40.76	11428
42.02	40653
43.11	4690

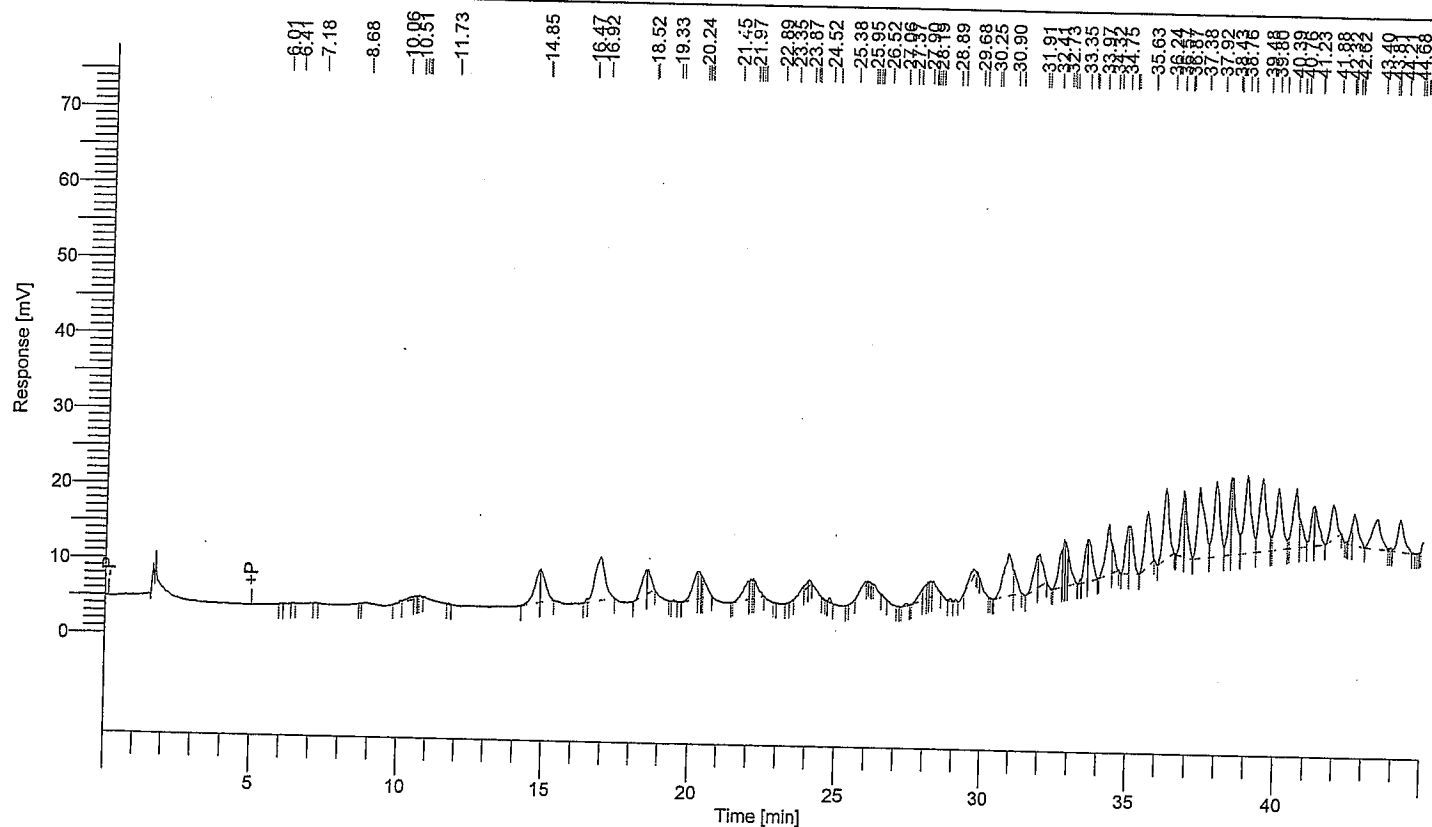
5413948

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62366
 Sample Name : 22709 1:10
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 50.000000
 Cycle : 8

Date : 10/21/2007 11:21:18 AM

Data Acquisition Time : 10/20/2007 8:35:50 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.51	7197
10.62	2180
14.85	54933
14.89	54122
16.47	2475
16.92	131657
18.52	38153
18.57	29294
20.24	43291
20.31	22502
20.38	8460
20.43	25228
21.97	33396
22.07	12779
22.14	10153
22.21	22445
23.87	7227
24.01	5858
24.05	4221
24.75	3757
25.95	7439
27.37	2736
27.90	13915
28.04	14201
28.10	9833
28.19	12828
28.28	16948

<0.40 ppm total PCB

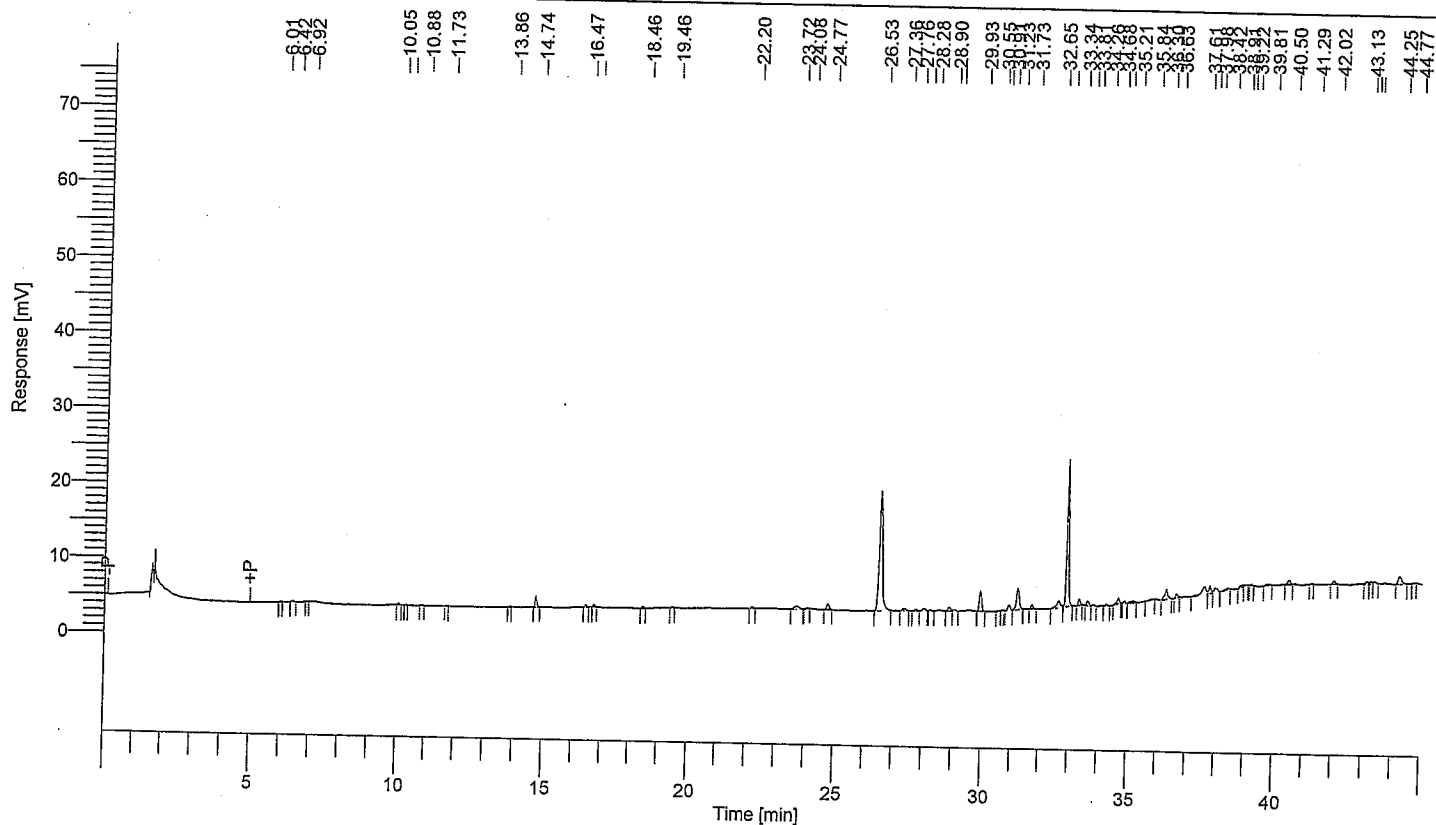
Time [min]	Area [μ V·s]
29.68	16410
30.90	114386
31.09	27644
31.91	43469
31.98	43946
32.73	45126
32.79	29531
32.84	27215
32.93	34681
33.35	2236
33.59	42276
33.63	56547
34.32	84609
34.45	24045
34.98	51592
35.03	59726
35.63	101625
36.24	123561
36.83	68285
36.87	57235
37.38	154617
37.92	144691
38.43	69511
38.47	95380
38.76	6914
38.96	167461
39.48	156775
39.80	5796
40.03	132050
40.39	4169
40.62	100134
40.76	32363
41.23	43950
41.25	52461
41.88	58723
42.53	12889
42.62	54061
43.40	81964
44.21	67872

3093156

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62368
 Sample Name : 22710 1:10
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

Date : 10/21/2007 11:21:20 AM
 Data Acquisition Time : 10/20/2007 10:21:00 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#010.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.74	5797
23.72	4978
24.77	5041
26.53	125677
27.36	2554
28.03	2494
28.90	3425
29.93	16451
30.91	4815
31.23	18625
31.73	3356
32.65	7839
32.93	100587
33.34	3847
33.63	3288
34.68	4528
35.21	2455
36.30	9925
36.63	2344
37.61	10424
37.80	5402
37.98	4334
40.50	3544
42.02	2556
44.25	8493

LO.40 ppm total PCB

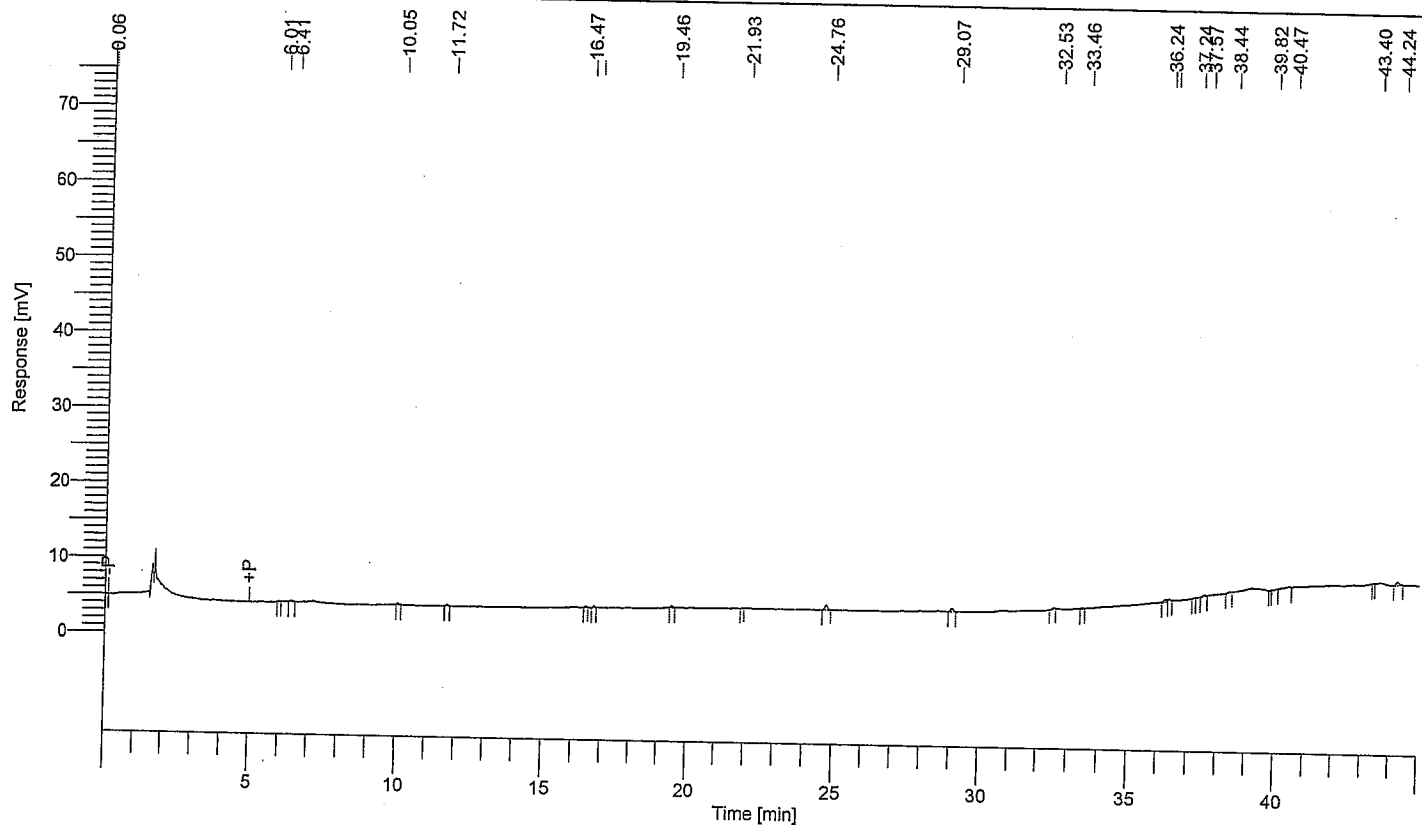
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62369
 Sample Name : 22711 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

Date : 10/21/2007 11:21:20 AM
 Data Acquisition Time : 10/20/2007 11:13:35 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#011.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.76	4446
29.07	2866
36.24	2209
44.24	3642
	13163

<0.40 ppm total PCB

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62371
 Sample Name : 22712 1:10
 Instrument Name : GC014
 Rack/Vial : 0/13
 Sample Amount : 50.000000
 Cycle : 13

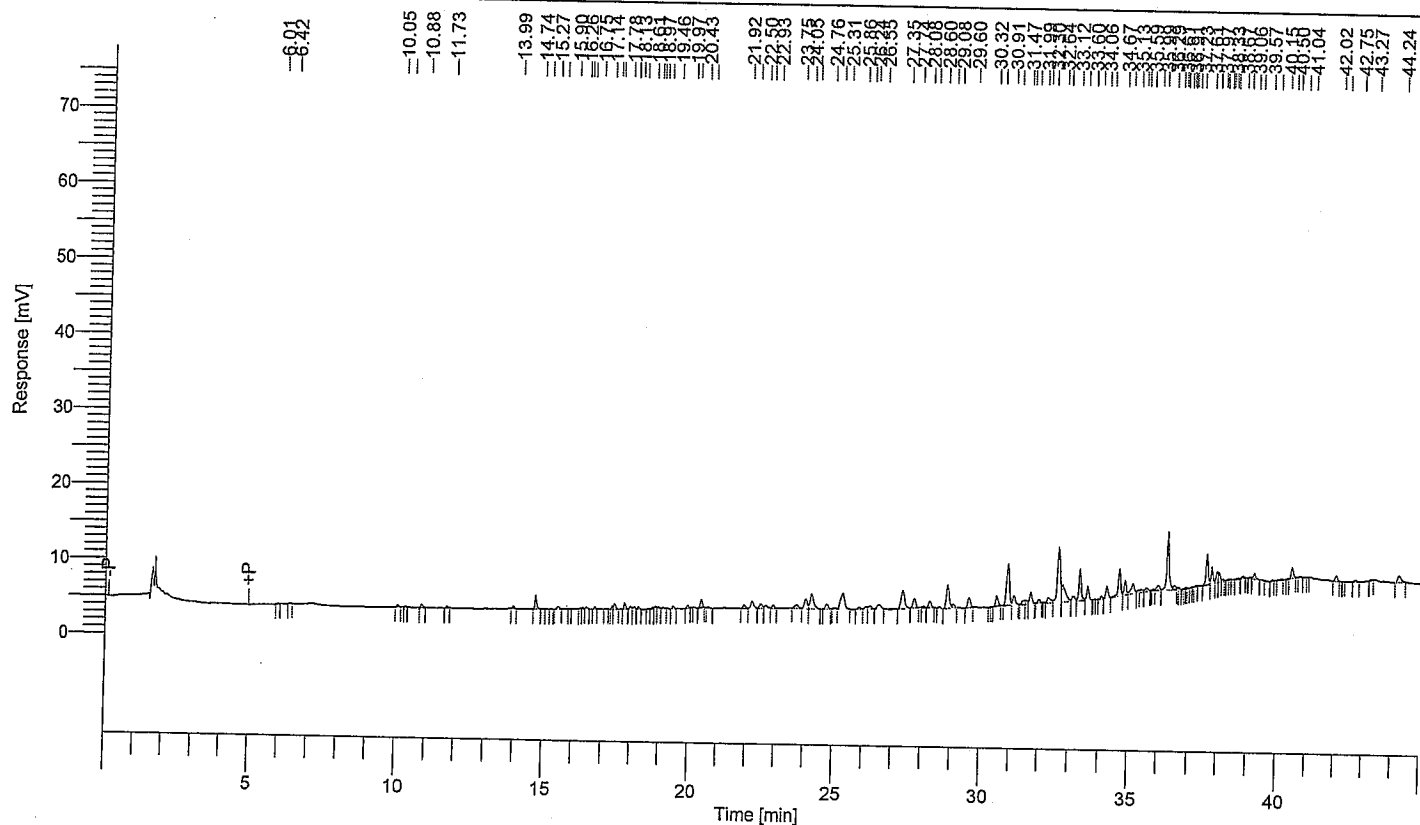
Date : 10/21/2007 11:21:22 AM

Data Acquisition Time : 10/21/2007 12:58:40 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#013.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V-s]
31.47	3571
31.56	2848
31.72	9059
31.89	2762
32.30	5905
32.64	49199
32.78	20618
33.12	4338
33.34	23493
33.60	9539
34.24	9342
34.67	21810
34.88	11226
35.13	10306
35.40	2536
35.59	3169
35.99	4306
36.29	44528
36.51	3552
37.61	22944
37.79	11391
37.97	6413
38.02	5421
39.22	4688
40.50	7397
42.02	3809
44.24	6914

539105

Software Version : 6.3.1.0504
 Reprcess Number : totalchrom: 62375
 Sample Name : 22713 1:10
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 50.000000
 Cycle : 17

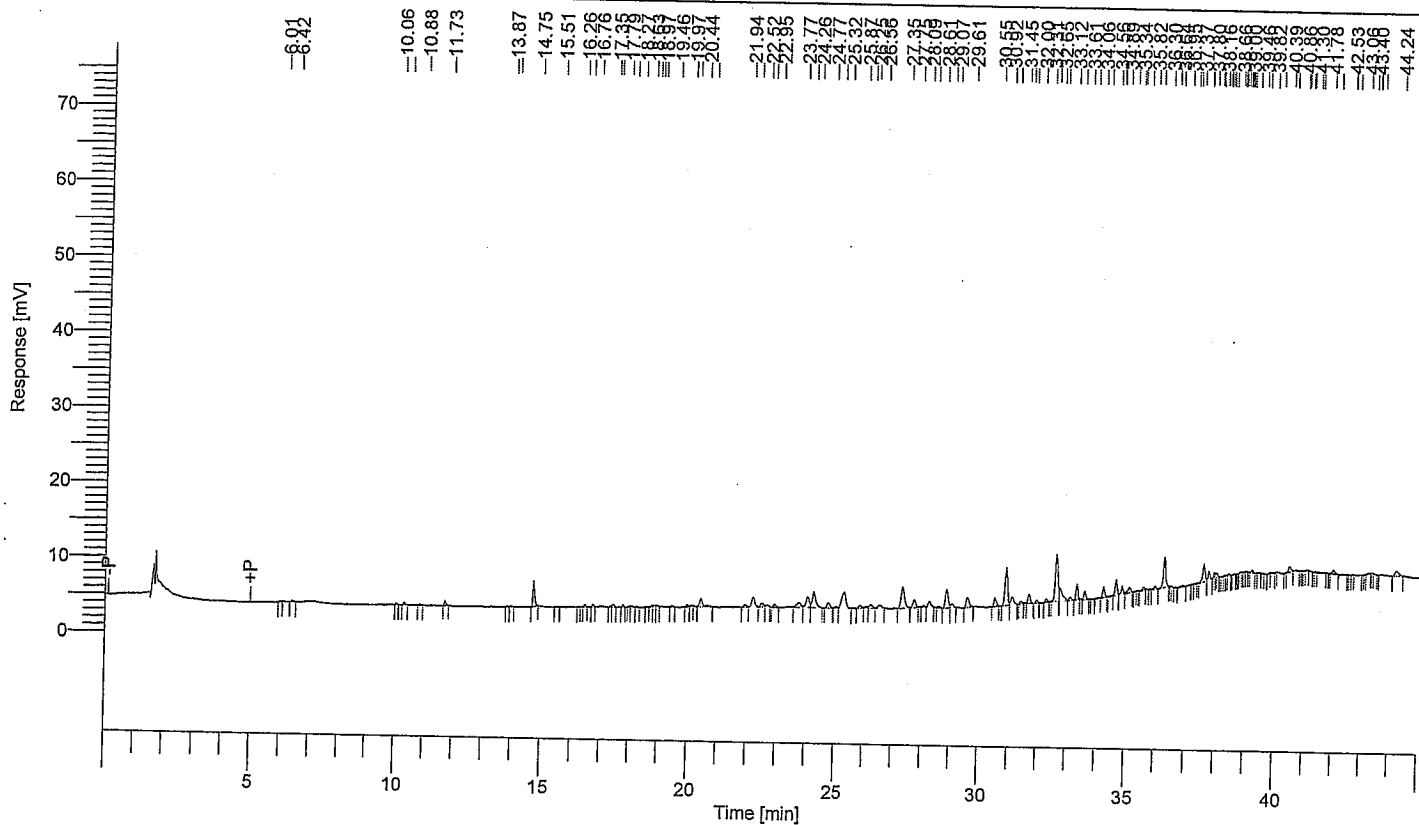
Date : 10/21/2007 11:21:25 AM

Data Acquisition Time : 10/21/2007 4:29:00 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#017.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.73	2679
14.75	13862
20.44	6890
21.94	2018
22.20	9521
22.52	3308
22.95	2320
23.77	6016
24.06	10317
24.26	18278
24.77	4341
25.32	21880
25.87	2522
26.25	3801
26.56	3458
27.35	22960
27.75	6876
28.28	4962
28.88	17323
29.07	3430
29.61	9202
30.55	6708
30.92	33115
31.14	7474
31.72	6514
32.00	2030
32.31	2128

<0.40 ppm total PCB

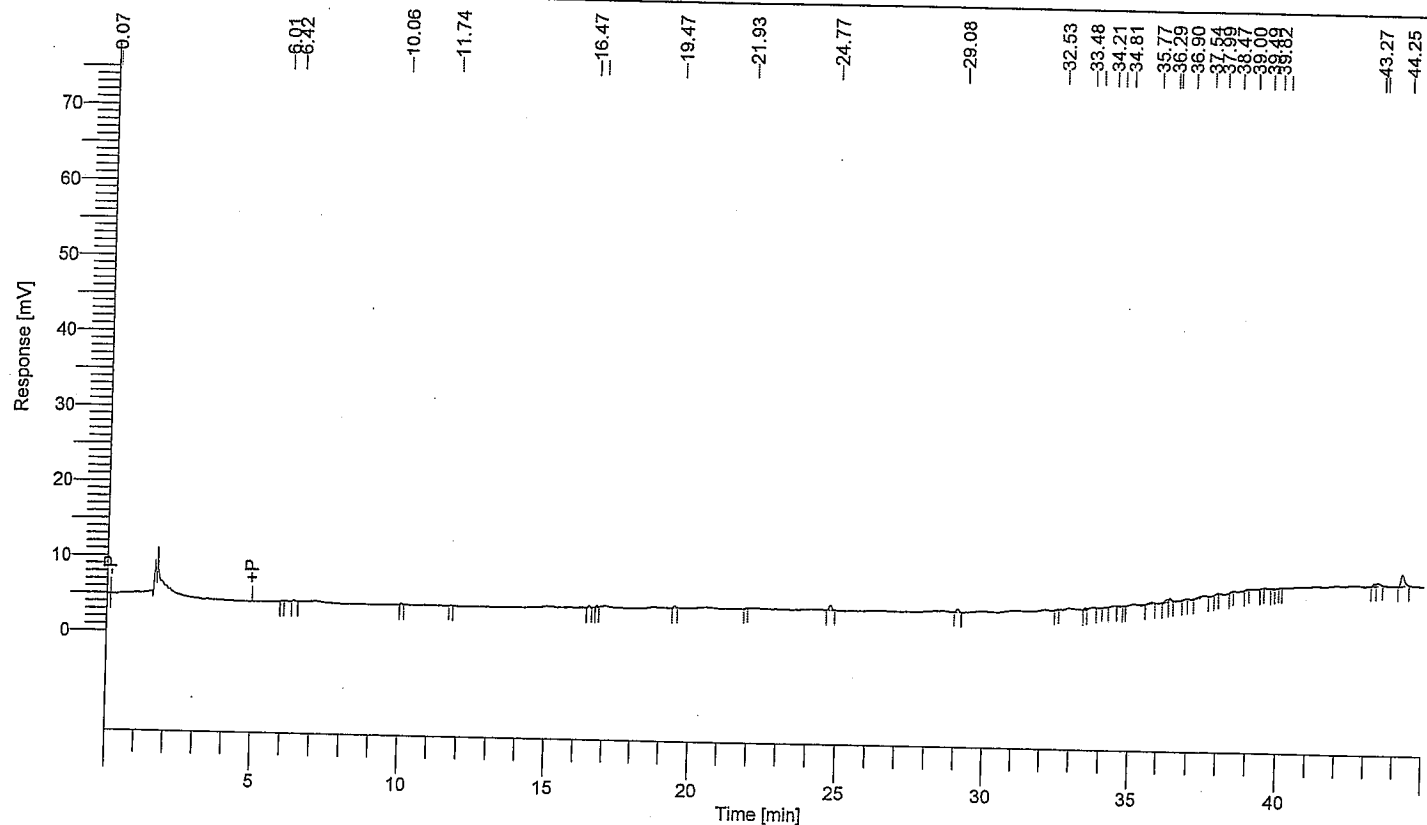
Time [min]	Area [μ V-s]
32.65	37679
32.77	14347
33.12	2455
33.35	9554
33.51	5716
34.24	6970
34.68	10334
34.89	5296
35.13	5386
36.00	2145
36.30	22319
37.62	12673
37.80	5956
40.50	4378
42.01	3216
44.24	6136
<hr/>	
388489	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62376
 Sample Name : 22714 1:10
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 50.000000
 Cycle : 18

Date : 10/21/2007 11:21:26 AM

Data Acquisition Time : 10/21/2007 5:21:37 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#018.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.77	4410
29.08	2772
35.77	2220
36.29	2643
36.39	2252
37.54	4213
43.27	2057
43.40	2938
44.25	12756
	36262

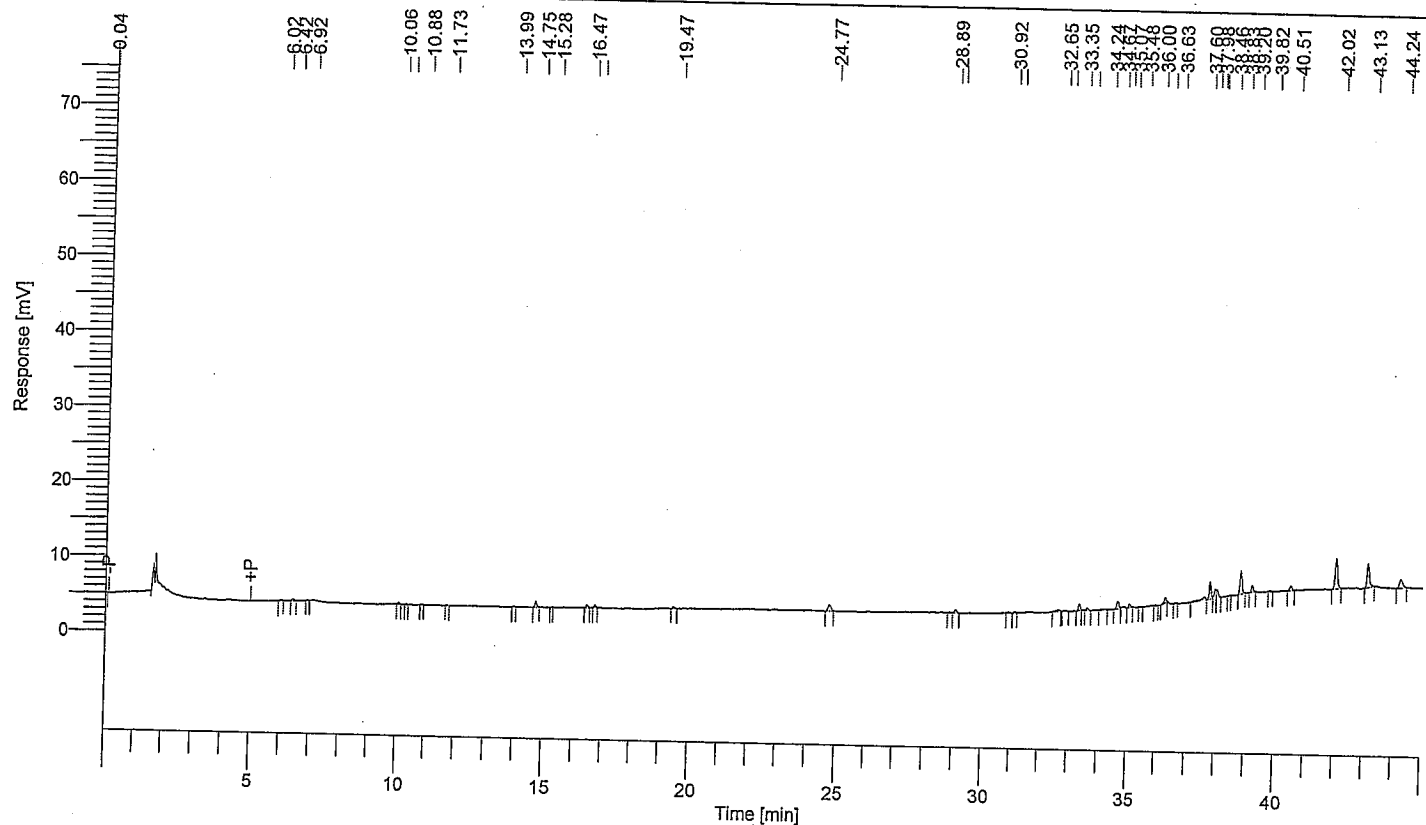
<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62377
 Sample Name : 22715 1:10
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 50.000000
 Cycle : 19

Date : 10/21/2007 11:21:27 AM

Data Acquisition Time : 10/21/2007 6:14:18 AM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#019.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS.

Time [min]	Area [μV·s]
14.75	3348
24.77	5451
29.08	2734
33.35	3962
34.67	5465
35.07	2100
36.30	3566
37.60	4157
37.80	10659
37.98	5193
38.04	4094
38.83	14109
39.20	4318
40.51	3067
42.02	23680
43.13	19375
44.24	8556

123833

< 0.40 ppm total PCB

Software Version : 63.1.0504
 Reprocess Number : totalchrom: 62378
 Sample Name : 22716 1:10
 Instrument Name : GC014
 Rack/Vial : 0/20
 Sample Amount : 50.000000
 Cycle : 20

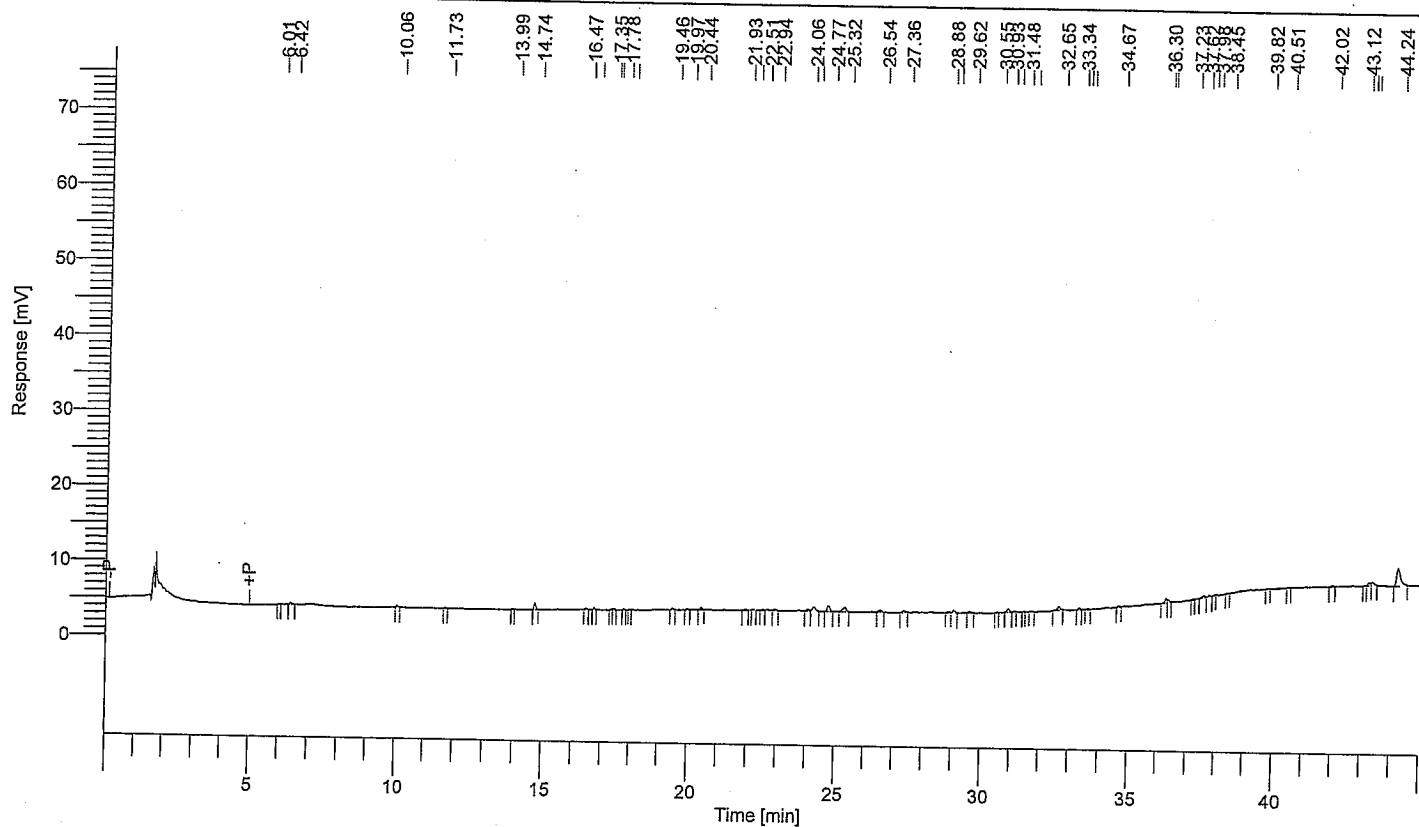
Date : 10/21/2007 11:21:28 AM

Data Acquisition Time : 10/21/2007 7:06:58 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#020.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.74	3814
24.26	4160
24.77	5078
25.32	5289
26.54	2036
29.08	2345
30.93	2963
32.65	3439
36.30	3408
37.62	2045
43.27	2471
43.39	2665
44.24	19923

<0.40 ppm total PCB.

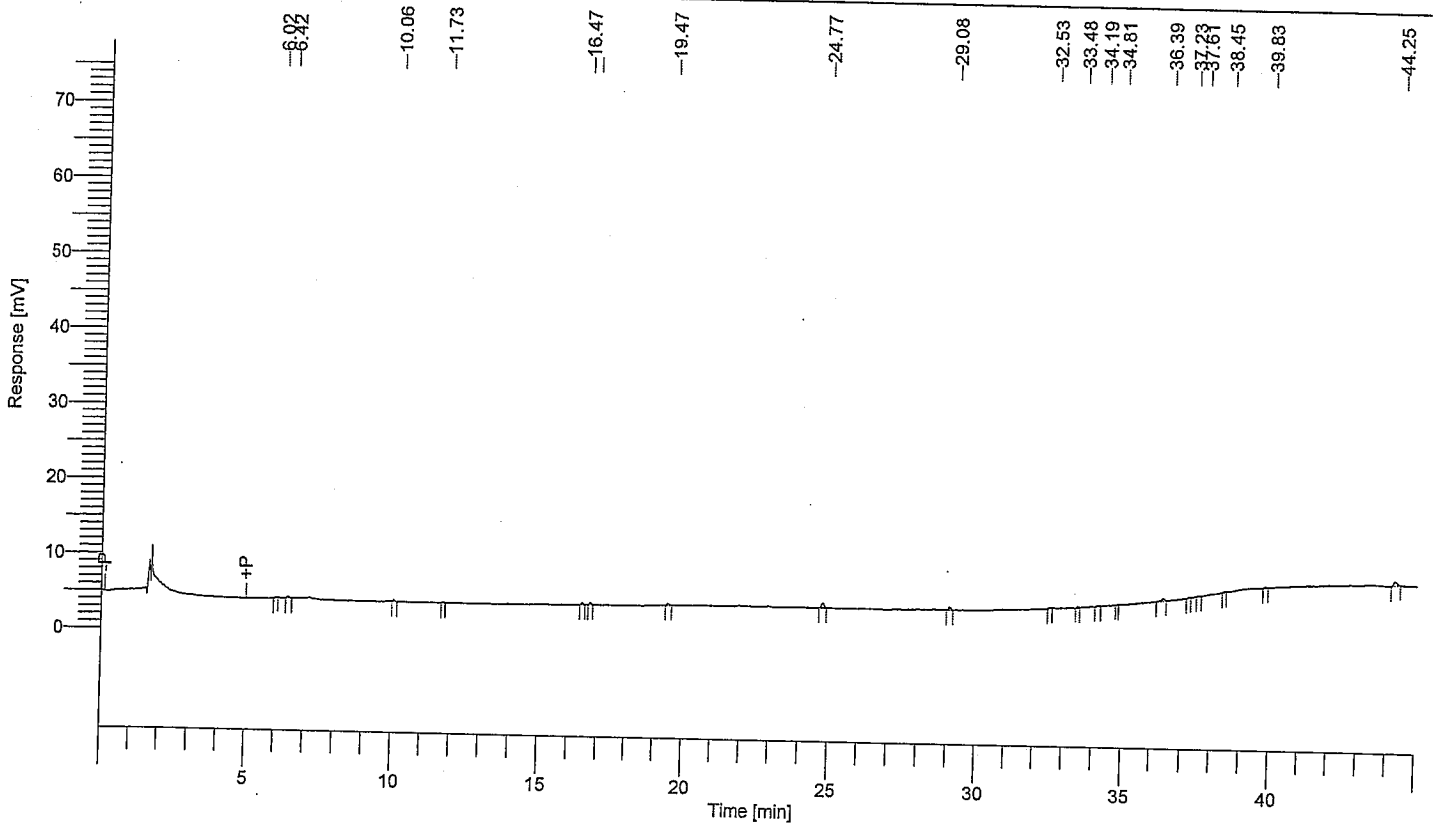
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62379
 Sample Name : 22717 1:10
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 50.000000
 Cycle : 21

Date : 10/21/2007 11:21:28 AM

Data Acquisition Time : 10/21/2007 7:59:40 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET9#021.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100209 AV SET 9\SET 9.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.77	4189
29.08	2484
36.39	2405
44.25	4159

13237

< 0.40 ppm total PCB.

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100210 Avant Level IV QAQC
Set #10

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SF
PREP DATE:	10-22-07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AA11900004		
PREP. DATE:	10-8-07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS
1	SPIKE 1	50.0
2	22718	50.0
3	22718 MS	50.0
4	22719	50.0
5	22720	50.0
6	22720 DUP	50.0
7	22721	50.0
8	22722	50.0
9	22723	50.0
10	22783	50.0
11	22783 MSD	50.0
12	22784	50.0
13	22785	50.0
14	blank	-
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	SJP	ALQUOT RATIO:	50/100
COLUMN I.D.:	80A260	FINAL VOLUME:	2.0 mL
DATE USED:	10-23-2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGV (cm/s)	NOT GIVEN	A1016 I.D.	Y11300003
INST. CAL I.D.	MX50100154	A1221 I.D.	Y11400003
INST. CAL PREP. DATE:	9/14/2007	A1232 I.D.	Y11500003
ANALYTE 1		A1242 I.D.	Y11600003
RETENTION TIME (MIN)	14.36	A1248 I.D.	Y11700005
R.T. ACCURACY (%)	99	A1254 I.D.	X11800011
SENSITIVITY (AREA)	346411	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	87	CAL PREP DATE:	10/2/2007
ANALYTE 2			
RETENTION TIME (MIN)	16.56		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	715716		
SENS. ACCURACY (%)	72		

COMMENTS

Solvent rinse sample glassware three times with acetone and three times with hexane before washing. Use 0.5 mL Arochlor 1260 INT for the matrix spike and the matrix spike duplicate.

15% Ethyl Ether / Hexane PD: 10-3-07

Florisil Lot# - 195937120A

C18 Lot# - 0730406

pH 7 Buffer PD: 10-18-07

90% Methanol / Di-Water PD: 10-20-07

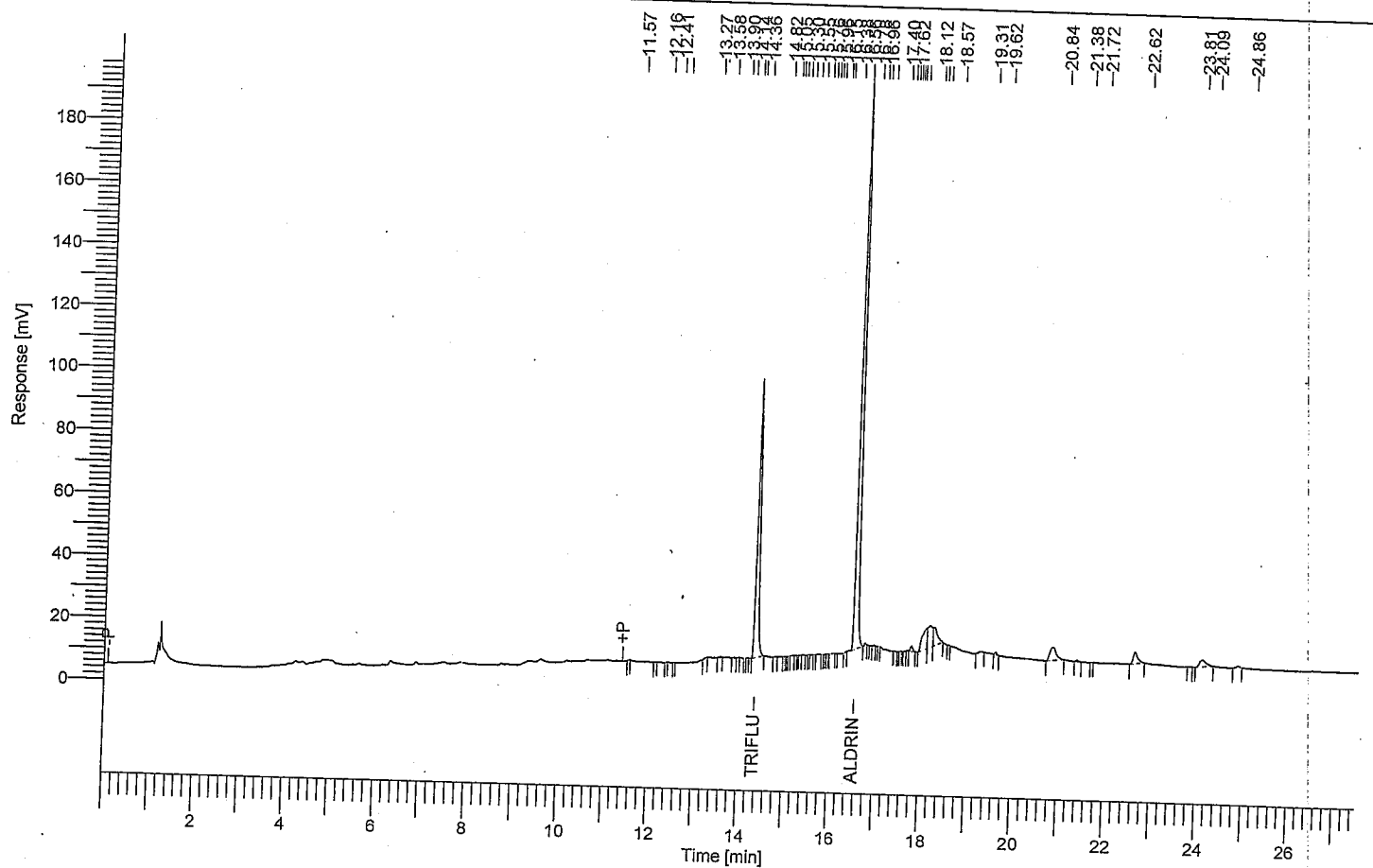
Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62485
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

Date : 10/23/2007 1:33:25 PM

Data Acquisition Time : 10/23/2007 11:46:02 AM
Channel : A
Operator : enweigh
Dilution Factor : 1.000000

Page 1 of 1

Result File : C:\PEST\GC14\Data ECD\EIC003.rst
Sequence File : C:\PEST\GC14\Sequences\EIC-20071023-102942.idx
Sample Notes:
ECD INSTRUMENT CALIBRATION



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [μV·s]
14.36	TRIFLURALIN	346411.17
16.56	ALDRIN	715715.76
		1062126.93

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq

Printed by : envweigh on: 10/23/2007 1:31:43 PM
 Created by : envweigh on: 10/23/2007 1:31:11 PM
 Edited by : envweigh on: 10/23/2007 1:31:41 PM
 Number of Times Edited : 1

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 23
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	AROCHLOR 1016	01	07100210	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1221	02	07100210	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1232	03	07100210	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1242	04	07100210	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1248	05	07100210	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1254	06	07100210	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1260	07	07100210	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	BLANK SOIL	08	07100210	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
9	Sample	SPIKE SOIL	09	07100210	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
10	Sample	22718 1:10	10	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22718 MS 1:10	11	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22719 1:10	12	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22720 1:10	13	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
14	Sample	22720 DUP 1:10	14	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
15	Sample	22721 1:10	15	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	FLUSH	16	07100210	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
17	Sample	AROCHLOR 1248	17	07100210	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
18	Sample	22722 1:10	18	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
19	Sample	22723 1:10	19	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	22783 1:10	20	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
21	Sample	22783 MSD 1:10	21	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
22	Sample	22784 1:10	22	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
23	Sample	22785 1:10	23	07100210	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
6	A	0	6	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
7	A	0	7	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
8	A	0	8	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
9	A	0	9	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
10	A	0	10	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
11	A	0	11	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
12	A	0	12	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
13	A	0	13	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
14	A	0	14	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
15	A	0	15	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
16	A	0	16	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
17	A	0	17	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
18	A	0	18	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
19	A	0	19	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
20	A	0	20	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
21	A	0	21	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
22	A	0	22	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
23	A	0	23	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb

Row Raw Data File Result File Baseline

1 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_001 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_001
 2 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_002 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_002
 3 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_003 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_003
 4 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_004 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_004
 5 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_005 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_005
 6 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_006 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_006
 7 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_007 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_007
 8 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_008 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_008
 9 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_009 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_009
 10 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_010 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_010
 11 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_011 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_011
 12 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_012 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_012
 13 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_013 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_013
 14 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_014 C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_014

Sequence Process Information - Channel A

Row	Raw Data File	Result File	Baseline			
15	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_015	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_015				
16	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_016	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_016				
17	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_017	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_017				
18	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_018	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_018				
19	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_019	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_019				
20	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_020	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_020				
21	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_021	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_021				
22	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_022	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_022				
23	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_023	C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_023				
Row	Modified	Calib Rpt	Cal Level	Update RT	Printer	Plotter
1	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
2	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
3	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
4	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
5	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
6	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
7	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
8	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
9	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
10	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
11	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
12	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
13	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
14	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
15	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
16	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
17	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
18	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
19	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
20	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
21	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
22	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default
23	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-		Default	Default

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62527
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 1.000000
 Cycle : 16

Date : 10/24/2007 9:43:03 AM

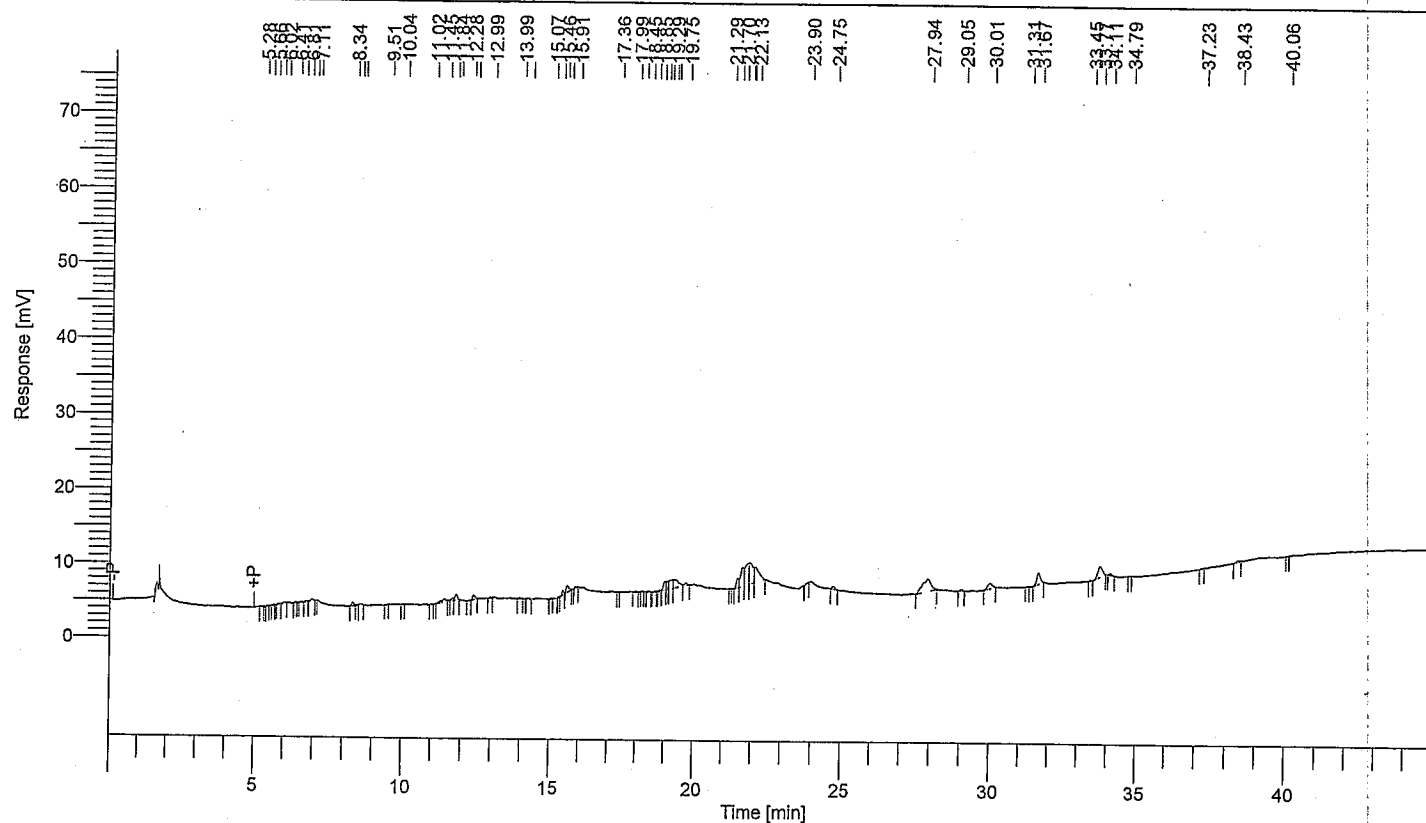
Data Acquisition Time : 10/24/2007 3:04:44 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_016.rst

Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
8.34	2651
11.45	4093
11.84	4329
12.42	3535
15.46	2675
15.61	5546
19.02	6636
19.12	4771
19.29	9641
19.37	14038
19.75	2181
21.53	7032
21.70	20010
21.91	28213
21.95	24675
22.13	23411
24.75	2466
27.94	33259
30.01	8709
31.67	13613
33.77	16012

237496

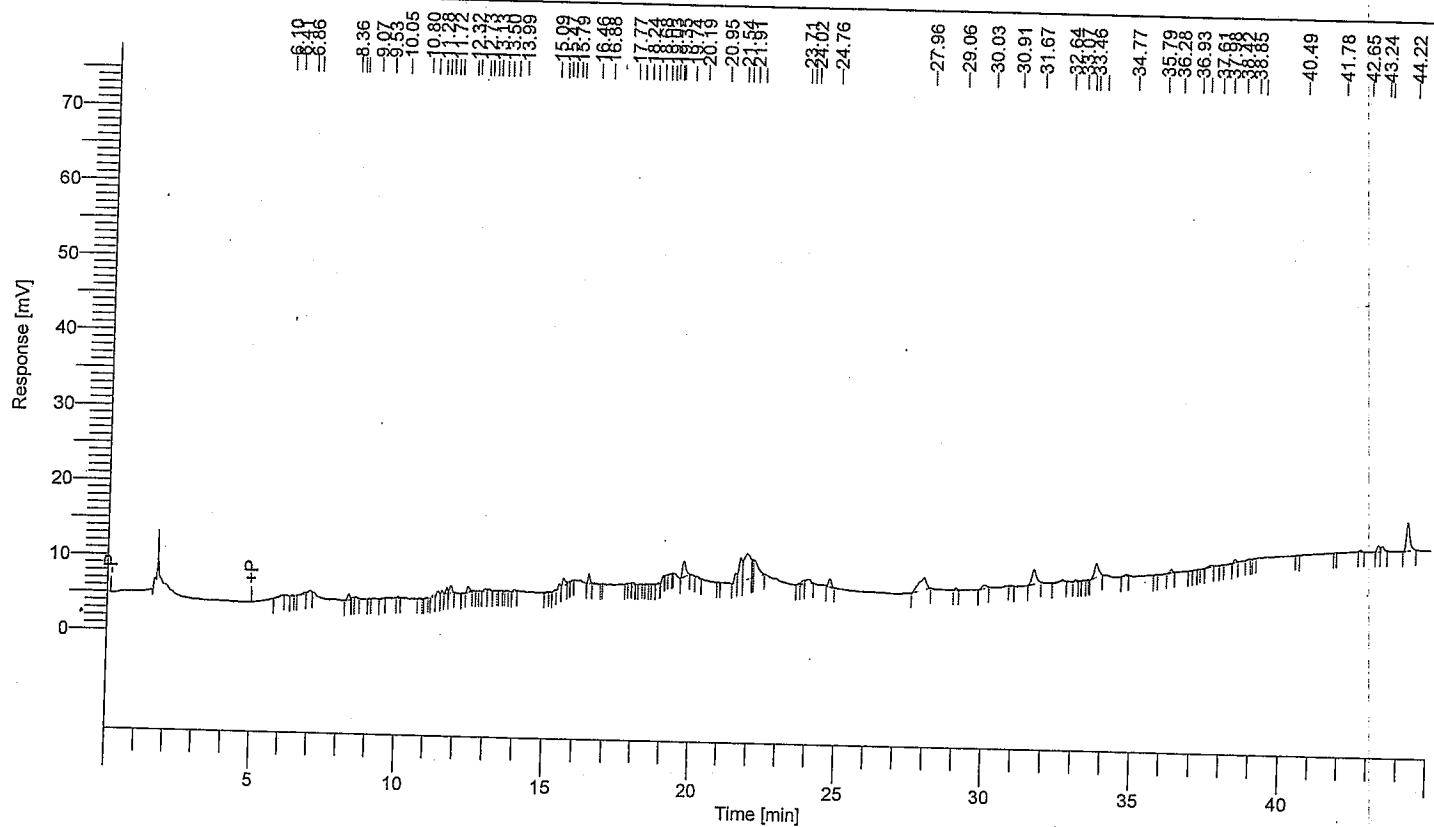
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62519
 Sample Name : BLANK SOIL
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 50.000000
 Cycle : 8

Date : 10/24/2007 9:42:42 AM

Data Acquisition Time : 10/23/2007 8:04:11 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
6.86	2366
7.04	2658
8.36	4961
11.43	3782
11.56	2797
11.72	4166
11.86	5951
12.43	4139
13.01	2111
15.47	2971
15.62	6316
16.48	5508
19.74	17532
21.54	7542
21.70	24575
21.91	56722
22.16	23745
23.87	3437
24.02	6389
24.76	7542
27.96	30832
30.03	5175
31.67	18455
32.64	3187
33.76	18657
36.28	2777
37.61	2322

BDL

<0.04 ppm total PCB.

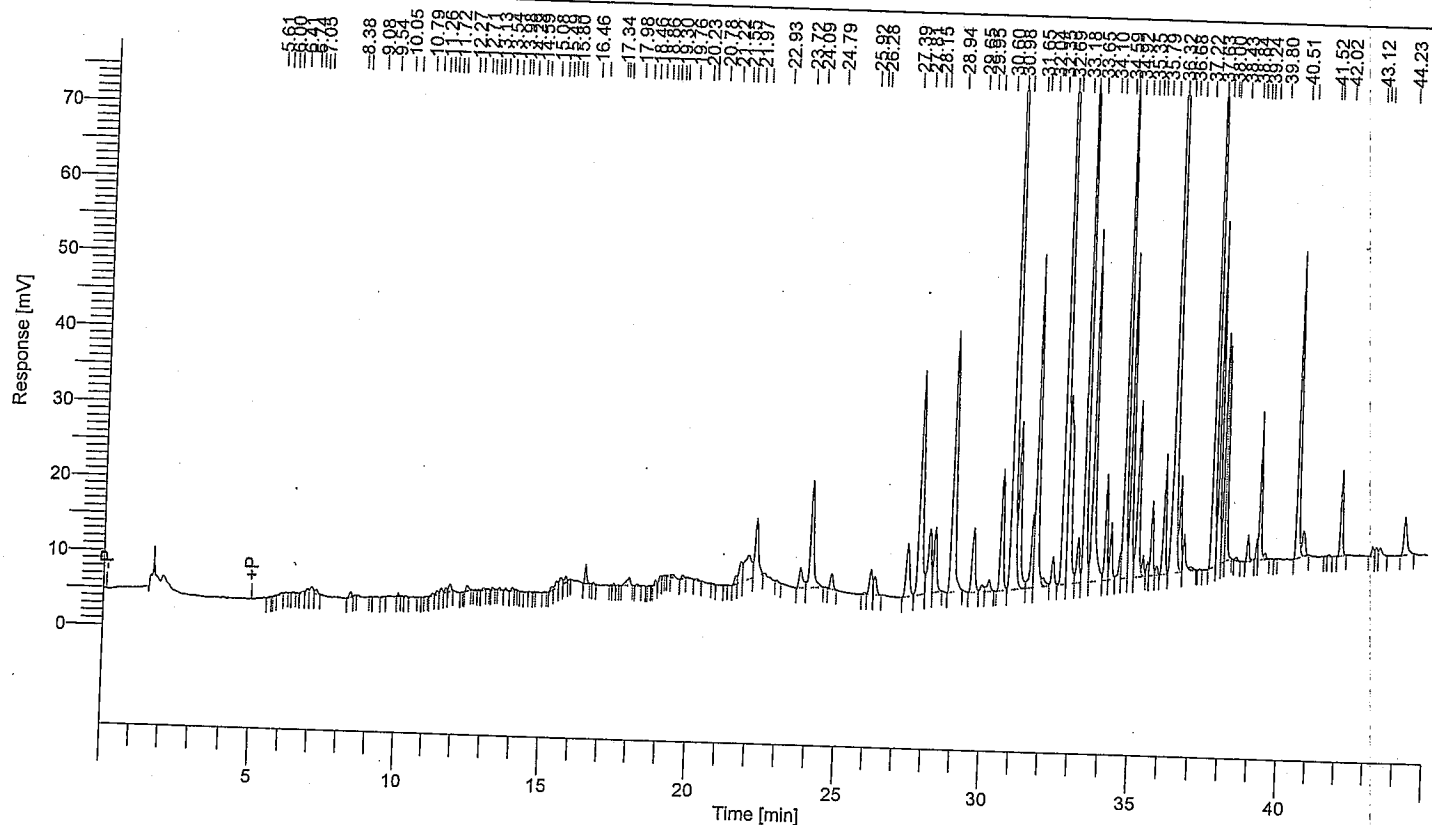
Time [min]	Area [μ V·s]
38.42	2021
43.24	4737
43.37	4565
44.22	28713
<hr/>	
316651	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62520
 Sample Name : SPIKE SOIL
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

Date : 10/24/2007 9:42:44 AM

Data Acquisition Time : 10/23/2007 8:56:43 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_009.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.90	4801
7.05	7024
7.19	4041
8.38	4336
11.41	3042
11.55	4237
11.72	3493
11.85	5886
12.43	4222
15.33	2886
15.49	6282
15.62	7069
15.80	4883
16.46	10927
17.98	10949
18.86	2493
19.03	3443
19.41	3807
19.76	2451
21.55	6829
21.71	21842
21.97	55652
22.22	62189
23.72	24068
24.09	119662
24.79	13608
25.92	2075

$$\begin{aligned} \text{Area} &= 912119 \\ \text{mg/kg} &= \frac{912119}{349066.5} \\ &= 2.6130 \end{aligned}$$

$$\text{ppm} = \frac{2.6130}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.1045$$

$$\% \text{ Recovery} = \frac{0.1045}{0.1} \times 100 = 105\%$$

Time [min]	Area [μ V·s]
26.14	26188
26.28	17825
27.39	57326
27.81	241213
28.15	76502
28.33	65022
28.94	267202
29.65	59564
29.95	7210
30.19	12701
30.60	98363
30.98	739126
31.18	139114
31.65	57198
31.77	273978
32.04	10504
32.35	21651
32.69	546493
32.82	232624
33.18	38211
33.39	456900
33.65	285199
34.10	75936
34.27	41448
34.59	16527
34.71	386953
34.92	225622
35.16	141005
35.35	14478
35.50	8756
35.62	49452
35.79	6492
36.03	74099
36.32	936105
36.53	67786
36.68	29860
36.91	3608
37.63	454089
37.82	209681
38.00	130655
38.05	117694
38.43	2310
38.84	15505
39.14	10814
39.24	97042
39.42	4177
40.51	206959
40.74	24991
42.02	60569
43.12	7556
43.25	6870
43.38	7855
44.23	38159

7605362

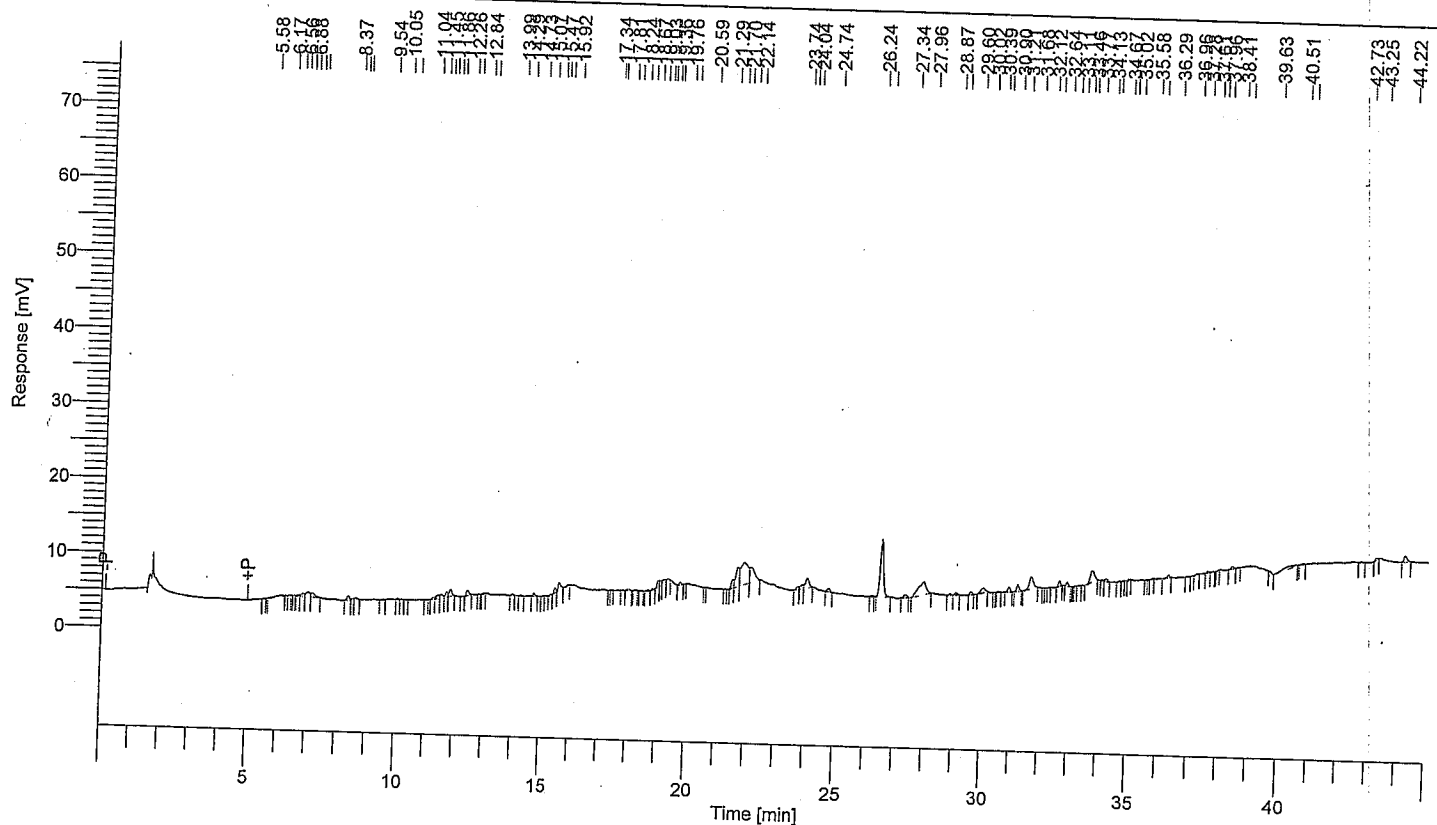
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62525
 Sample Name : 22720 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 50.000000
 Cycle : 14

Date : 10/24/2007 9:42:58 AM
 Data Acquisition Time : 10/24/2007 1:19:27 AM
 Channel : A
 Operator : er:vwiegh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_014.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.17	2816
6.88	2912
7.04	5426
7.17	4644
8.37	3217
11.45	3418
11.55	2728
11.72	3861
11.86	6115
12.43	4058
15.47	3107
15.62	6767
19.03	4585
19.11	3192
19.27	4228
21.54	6418
21.70	21418
21.92	51127
22.14	22359
23.74	2366
23.90	4035
24.04	11464
24.74	3067
26.52	58063
27.34	2780
27.96	32589
29.60	2112

<0.40ppm total PCB.

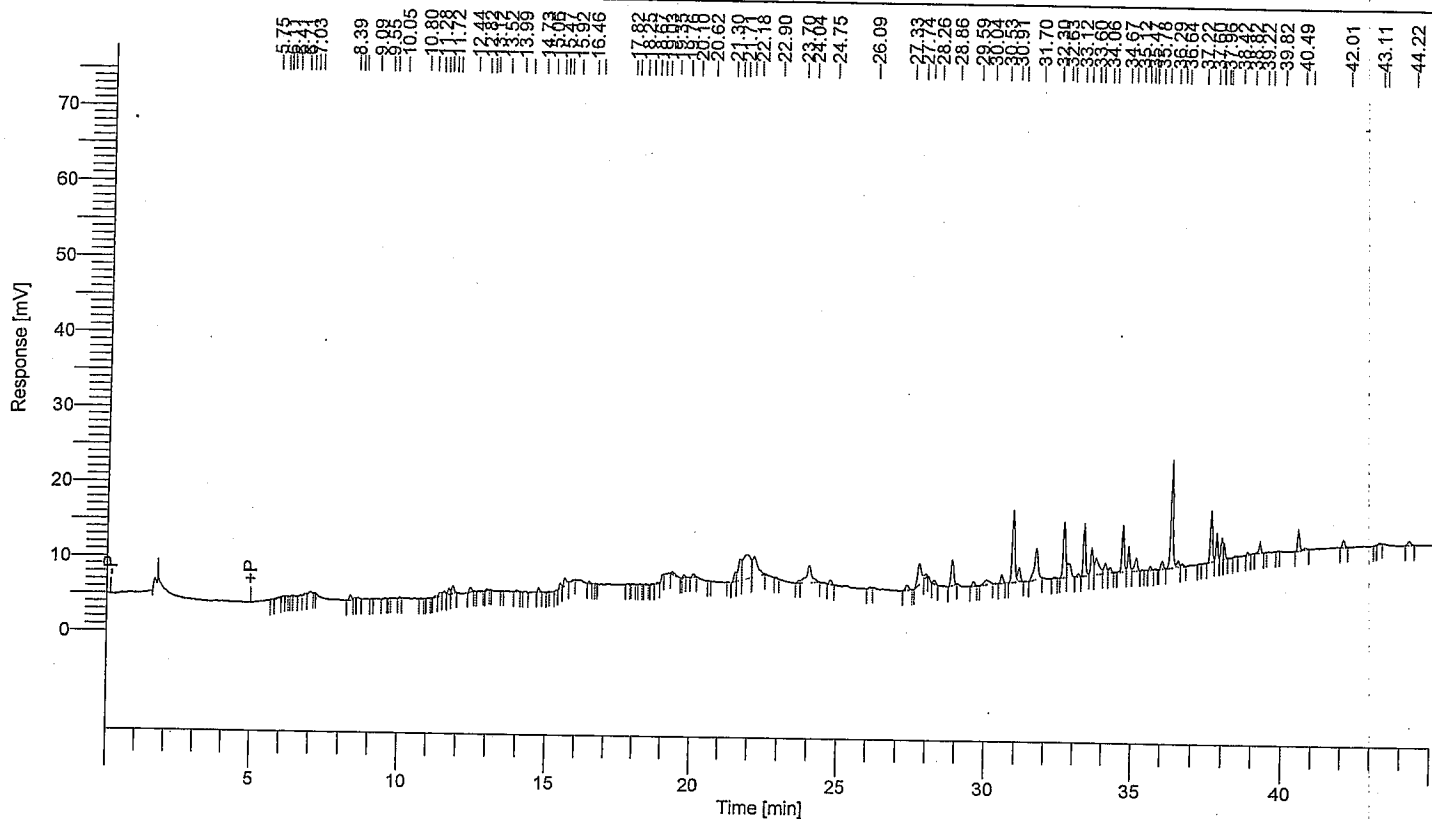
Both Sample and The duplicate
 have less than 0.40ppm total PCB.
 SKP 10/24/2007

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
30.02	6879
30.90	3812
31.21	5162
31.68	14827
32.64	3917
32.91	2737
33.77	15940
34.26	2200
36.29	2527
38.41	2061
40.51	9075
44.22	5856
<hr/>	
353865	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62522
 Sample Name : 22718 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

Date : 10/24/2007 9:42:49 AM
 Data Acquisition Time : 10/23/2007 10:41:49 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_011.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
7.03	2083
8.39	4114
11.44	3519
11.56	3632
11.72	4487
11.86	6286
12.44	3952
14.73	2649
15.47	3214
15.62	7045
19.03	2124
19.35	2850
20.10	2482
21.54	7349
21.71	23481
21.93	54972
22.18	32412
23.70	2117
24.04	29869
24.75	3927
27.33	5222
27.74	24803
27.97	3430
28.26	3113
28.86	22588
29.59	3683
30.04	8030

$$\begin{aligned} \sum \text{area} &= 71797 \\ \text{ng/min} &= \frac{71797}{349066.5} \\ &= 0.2057 \end{aligned}$$

$$\text{ppm} = \frac{0.2057}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0823$$

$$\% \text{Recovery} = \frac{0.0823}{0.1} \times 100 = 82\%$$

Time [min]	Area [μ V-s]
30.53	6617
30.91	61662
31.12	10347
31.70	36541
32.63	45569
32.77	17203
33.12	2230
33.34	37178
33.60	20342
33.75	23468
34.06	9425
34.23	4590
34.67	32958
34.87	18080
35.12	12095
35.59	2471
35.99	4942
36.29	71415
36.50	4671
37.60	33134
37.79	16739
37.96	13404
38.02	8520
39.22	7756
40.49	14444
40.75	2096
42.01	5757
44.22	3740

800829

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62532
 Sample Name : 22783 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 50.000000
 Cycle : 21

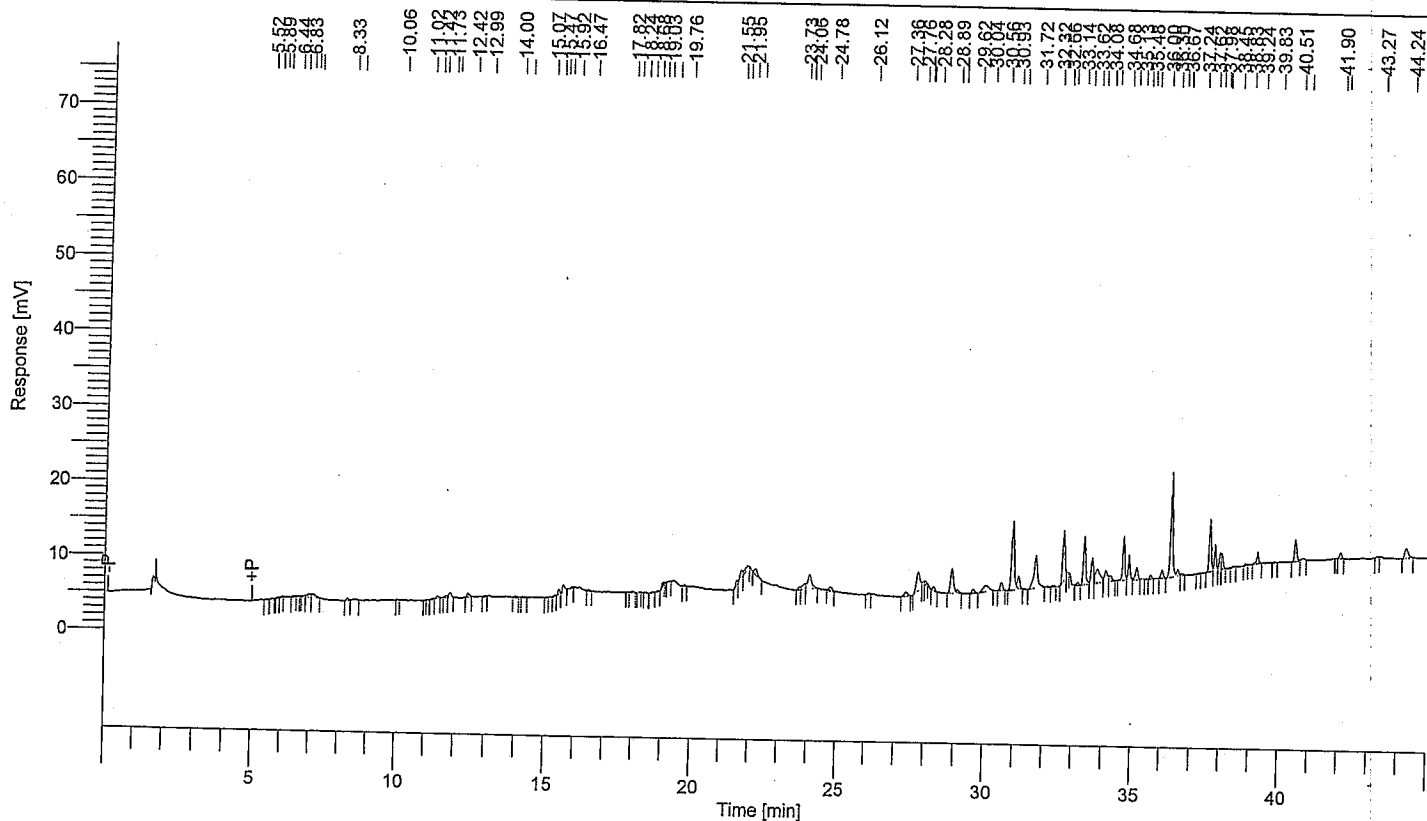
Date : 10/24/2007 9:43:14 AM

Data Acquisition Time : 10/24/2007 7:28:14 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_021.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.99	4018
7.12	3982
11.85	3897
12.42	2912
15.47	2833
15.62	6143
19.03	2420
21.55	3651
21.72	7418
21.95	5275
22.19	5599
23.73	2198
23.89	5495
24.06	19548
24.78	3520
27.36	4395
27.76	22331
27.95	2746
27.99	2247
28.28	2828
28.89	24250
29.07	2335
29.62	3397
30.04	11458
30.56	6658
30.93	61722
31.13	9410

$$\sum \text{area} = 69325$$

$$\text{ng/min} = \frac{69325}{349066.5} = 0.1986$$

$$\text{ppm} = \frac{0.1986}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0794$$

$$\% \text{Recovery} = \frac{0.0794}{0.1} \times 100 = 79\%$$

Time [min]	Area [μ V·s]
31.72	38440
32.66	36534
32.79	2219
33.14	2003
33.36	35942
33.62	18975
33.80	21741
34.08	11847
34.25	5014
34.68	31302
34.89	17309
35.13	9445
35.61	2430
36.00	5018
36.30	72595
36.52	4622
37.62	34775
37.80	16290
37.98	9751
38.04	8509
39.24	7782
40.51	15085
42.03	4206
44.24	10084
<hr/>	
654605	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62512
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/1
 Sample Amount : 1.000000
 Cycle : 1

Date : 10/24/2007 9:42:19 AM

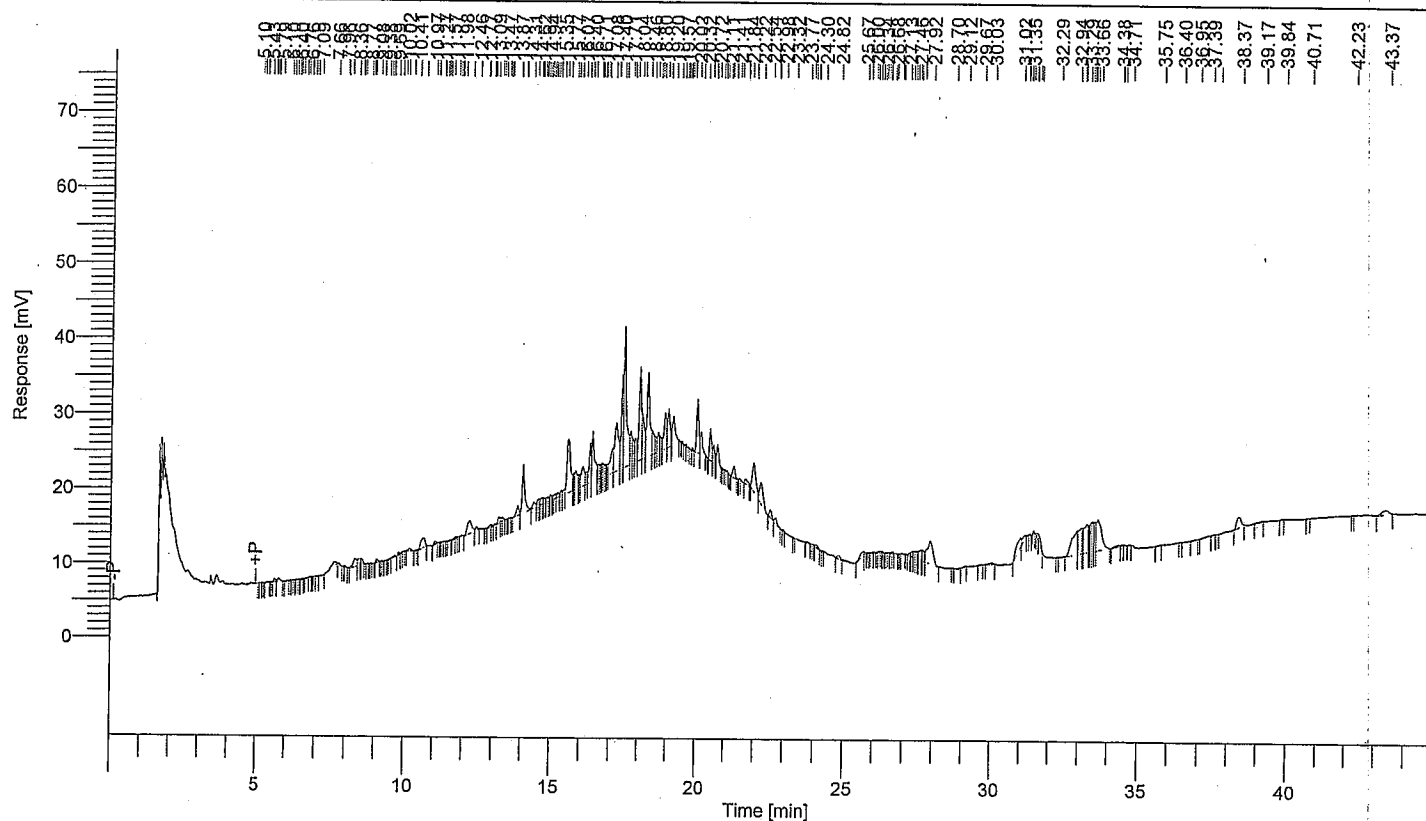
Data Acquisition Time : 10/23/2007 1:55:24 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_001.rst

Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.79	3176
7.66	6148
8.36	9494
8.50	5062
8.56	3717
10.21	2035
10.66	13591
12.23	18626
12.46	2523
13.23	3883
13.29	2094
13.87	7992
14.05	37809
14.43	5446
14.58	4403
14.70	3709
14.76	2337
14.88	2506
14.99	2586
15.15	2267
15.22	3532
15.35	3173
15.45	3309
15.57	61952
15.77	6800
15.84	15912
15.95	6343

Time [min]	Area [μ V·s]
16.07	21649
16.20	6767
16.31	24906
16.40	47310
16.60	8108
16.65	5443
16.71	5817
16.76	6428
16.84	5057
16.87	4658
17.08	25752
17.20	61717
17.40	57011
17.48	125739
17.71	22222
17.77	13154
17.87	18864
18.04	73285
18.12	32479
18.31	80819
18.46	17941
18.58	8592
18.68	12032
18.74	7403
18.80	3444
18.91	28224
19.03	30792
19.20	29392
20.02	38401
20.15	15992
20.48	21936
20.59	10895
20.72	14649
21.28	7964
21.69	4548
21.98	30280
22.22	24933
22.54	5605
22.73	4084
24.06	2612
24.82	3014
25.67	5507
27.32	3004
27.39	4099
27.46	2806
27.50	2368
27.63	8680
27.92	42222
30.03	2444
31.02	17469
31.18	5206
31.64	5013
32.94	43637
33.09	29032
33.14	9582
33.29	38778
33.37	10651
33.43	14799
33.48	14891
33.55	14725
33.66	55838
34.38	2385
38.37	14212
43.37	9419

1567107

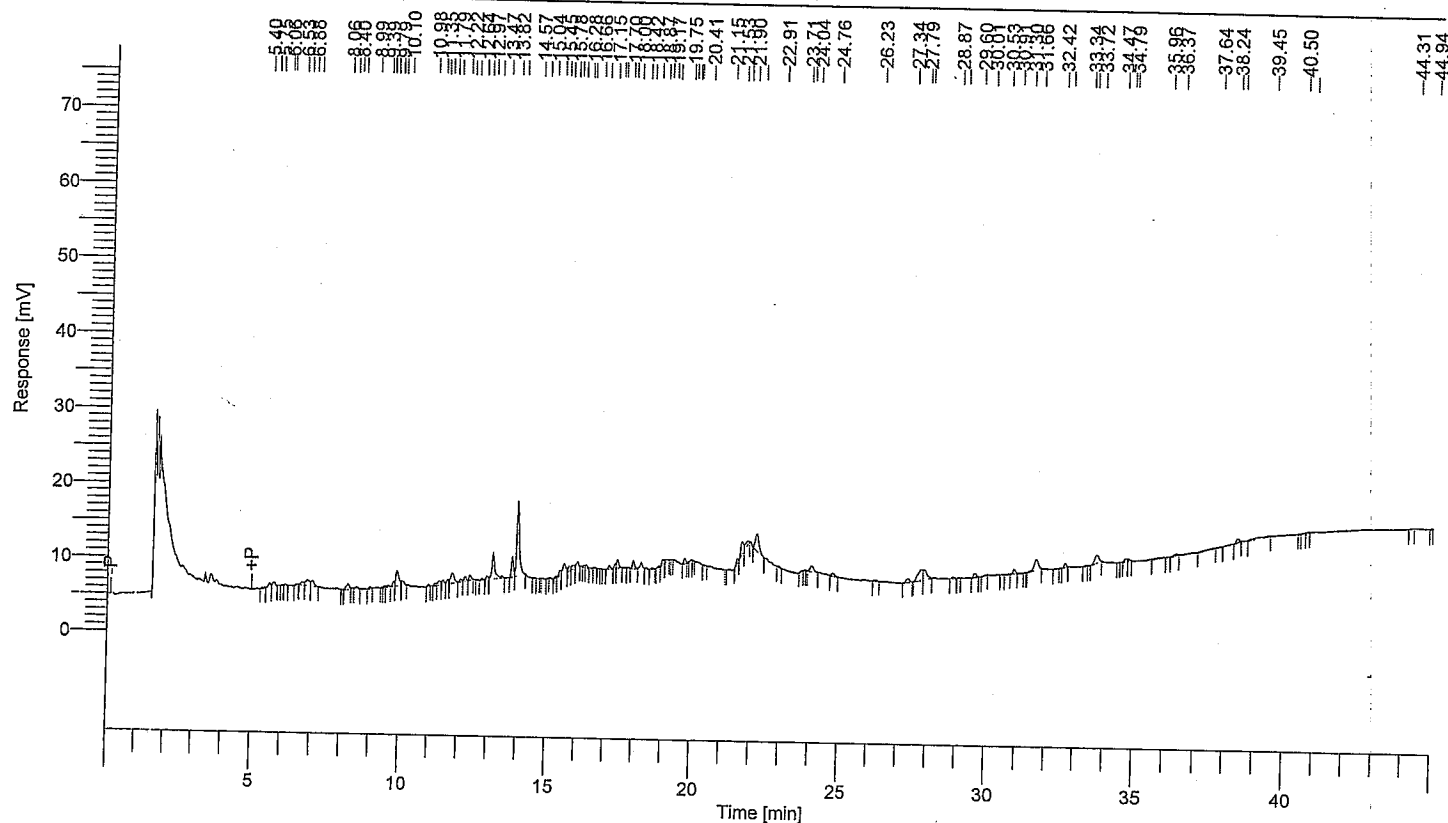
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62513
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/24/2007 9:42:23 AM

Data Acquisition Time : 10/23/2007 2:48:19 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_002.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2997
5.75	3683
6.70	2799
6.88	7314
7.04	5326
8.25	5943
8.53	2165
9.79	2956
9.89	14999
10.10	4132
11.35	3766
11.48	3498
11.64	2837
11.79	11899
12.08	2058
12.22	3218
12.39	3320
12.97	2479
13.17	23966
13.82	12925
14.00	61259
15.45	3387
15.59	11020
15.78	4274
15.90	3852
16.05	3996
17.15	2759

Time [min]	Area [μ V·s]
17.36	2228
17.43	5942
18.00	6066
18.27	5372
19.01	3897
19.17	2130
19.75	3522
21.53	2884
21.69	10637
21.90	5517
22.18	19067
24.04	6546
24.76	2839
27.34	4250
27.79	16781
27.89	11581
29.60	3608
30.91	3294
31.66	13540
32.64	2704
33.72	10743
34.70	2569
38.41	3173
39.45	4638

366357

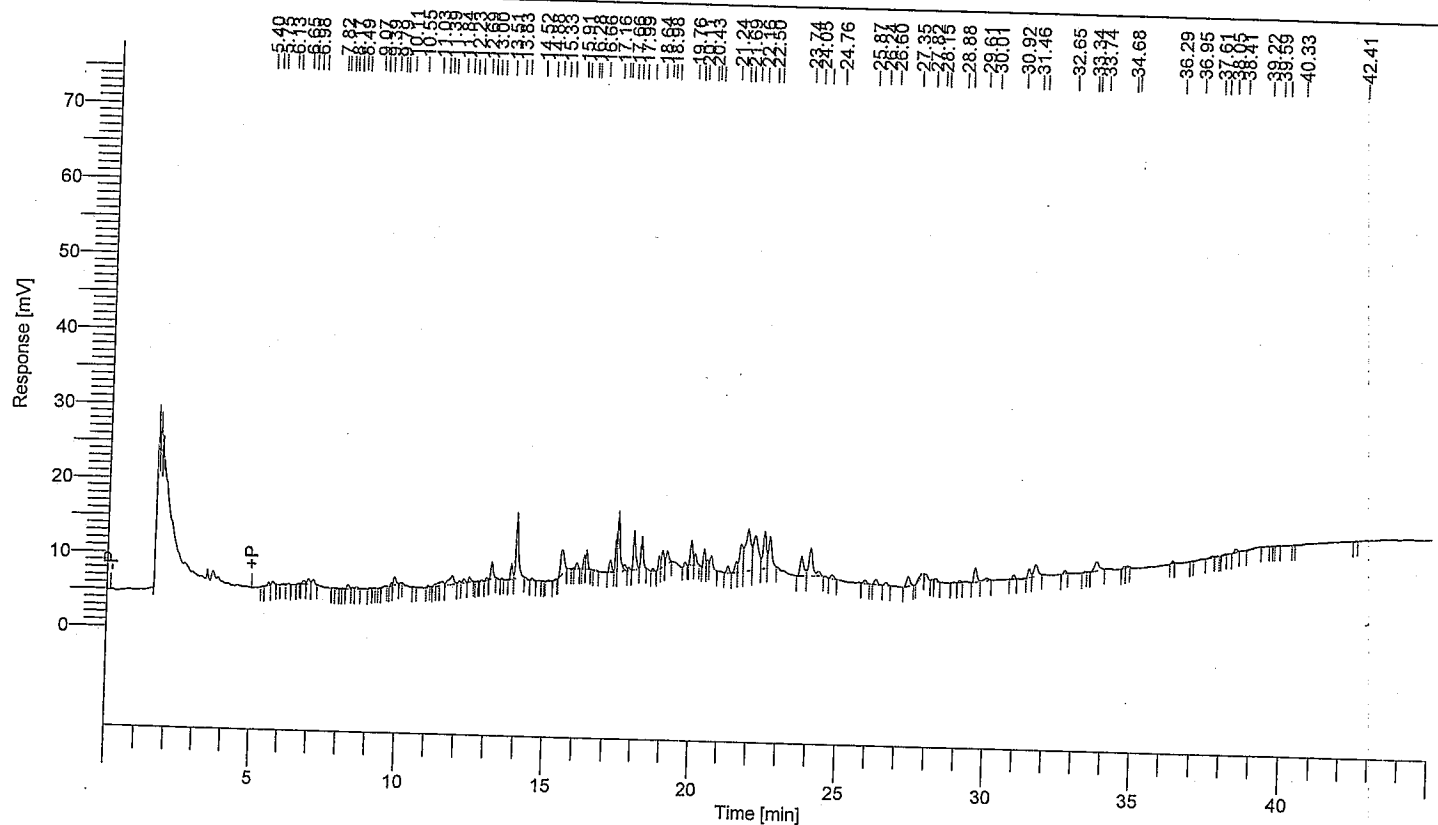
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62514
 Sample Name : AROCHLOR 1232
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

Date : 10/24/2007 9:42:26 AM

Data Acquisition Time : 10/23/2007 3:41:01 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_003.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2497
5.75	2745
6.81	2857
6.98	4824
7.15	4175
8.33	3376
9.89	6772
11.39	2924
11.52	4701
11.84	13737
12.23	3437
12.42	3463
13.17	12214
13.83	10110
14.00	52848
15.53	27604
16.04	4388
16.28	7143
16.36	11856
17.16	9855
17.36	19091
17.44	47672
17.66	4631
17.82	2053
17.99	30417
18.27	20964
18.87	8275

Time [min]	Area [μ V·s]
18.98	13277
19.15	11900
19.98	18106
20.11	8357
20.43	12679
20.54	5882
20.67	12316
21.24	5414
21.53	9046
21.69	31471
21.93	74044
22.16	59083
22.50	38930
22.66	31664
23.74	24326
24.05	33590
24.32	4617
24.76	3781
25.87	3243
26.24	4905
26.60	2947
27.35	10221
27.82	4323
28.28	2627
29.61	13445
30.01	3398
30.92	3209
31.46	7392
31.65	15298
32.65	2489
33.74	14312
38.41	3301

814224

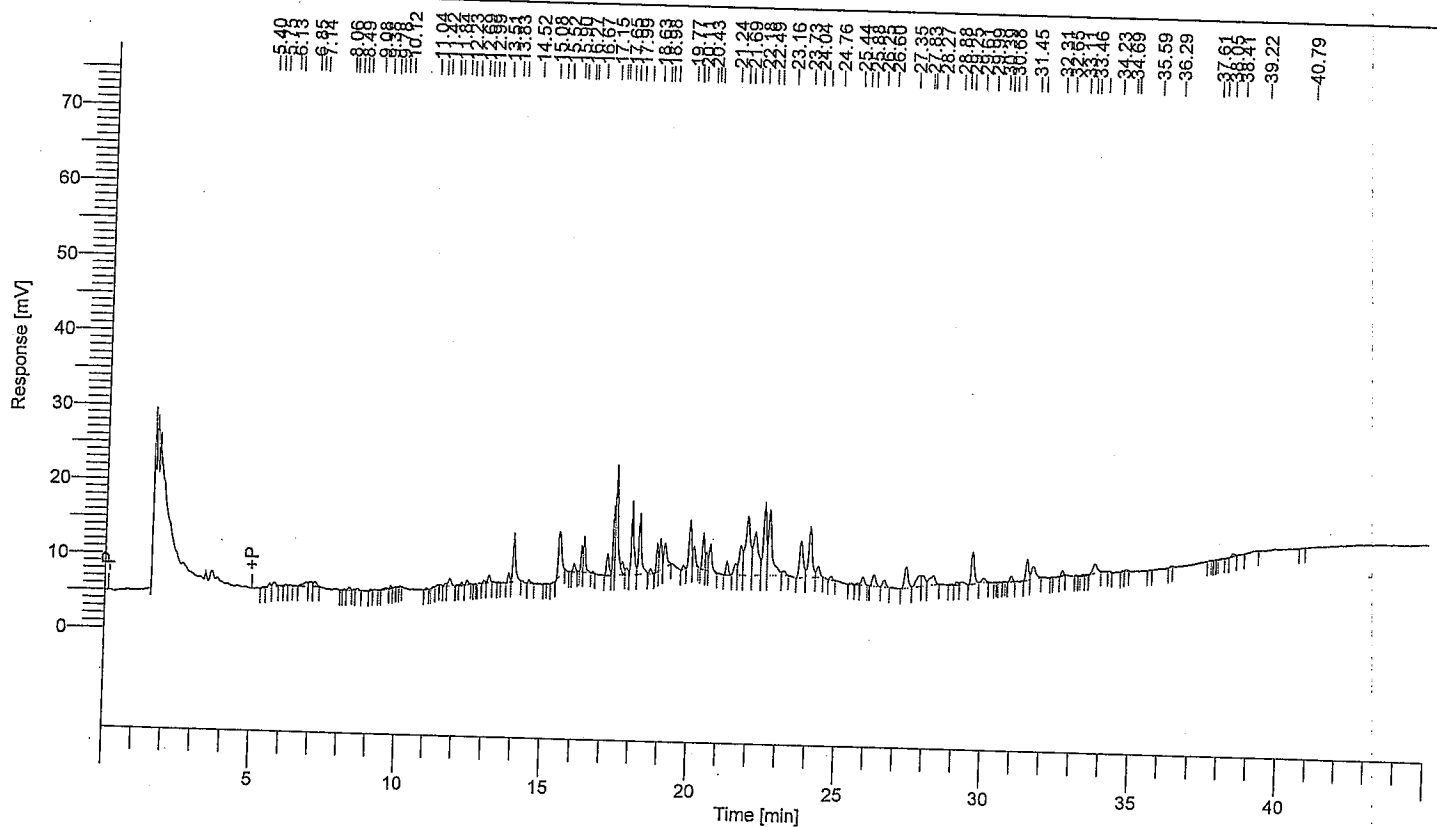
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62515
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

Date : 10/24/2007 9:42:29 AM

Data Acquisition Time : 10/23/2007 4:33:39 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_004.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.59	2881
5.75	3692
6.85	6179
6.99	5126
7.14	4827
8.34	2774
9.62	2043
11.84	7138
12.23	2245
12.42	3262
13.16	5165
13.83	5971
14.00	39356
14.52	2803
15.52	45517
16.02	5627
16.27	13414
16.35	25600
17.15	17906
17.35	35886
17.43	86517
17.65	10799
17.81	5960
17.99	62633
18.27	50737
18.63	3824
18.87	17246

Time [min]	Area [μ V-s]
18.98	24957
19.14	23872
19.77	3108
19.97	35683
20.11	15703
20.43	26362
20.54	12276
20.67	24906
21.24	10637
21.53	11038
21.69	32554
21.93	93958
22.18	71235
22.49	74514
22.66	86257
23.16	5186
23.73	43703
24.04	60052
24.33	10926
24.76	3198
25.88	8490
26.25	12280
26.60	7417
27.35	23924
27.83	16767
27.91	12247
28.27	16832
29.08	2969
29.25	3830
29.61	32127
29.99	5227
30.92	4334
31.45	19213
31.66	17681
32.65	3634
33.75	12572
38.41	2642
39.22	2072

1349511

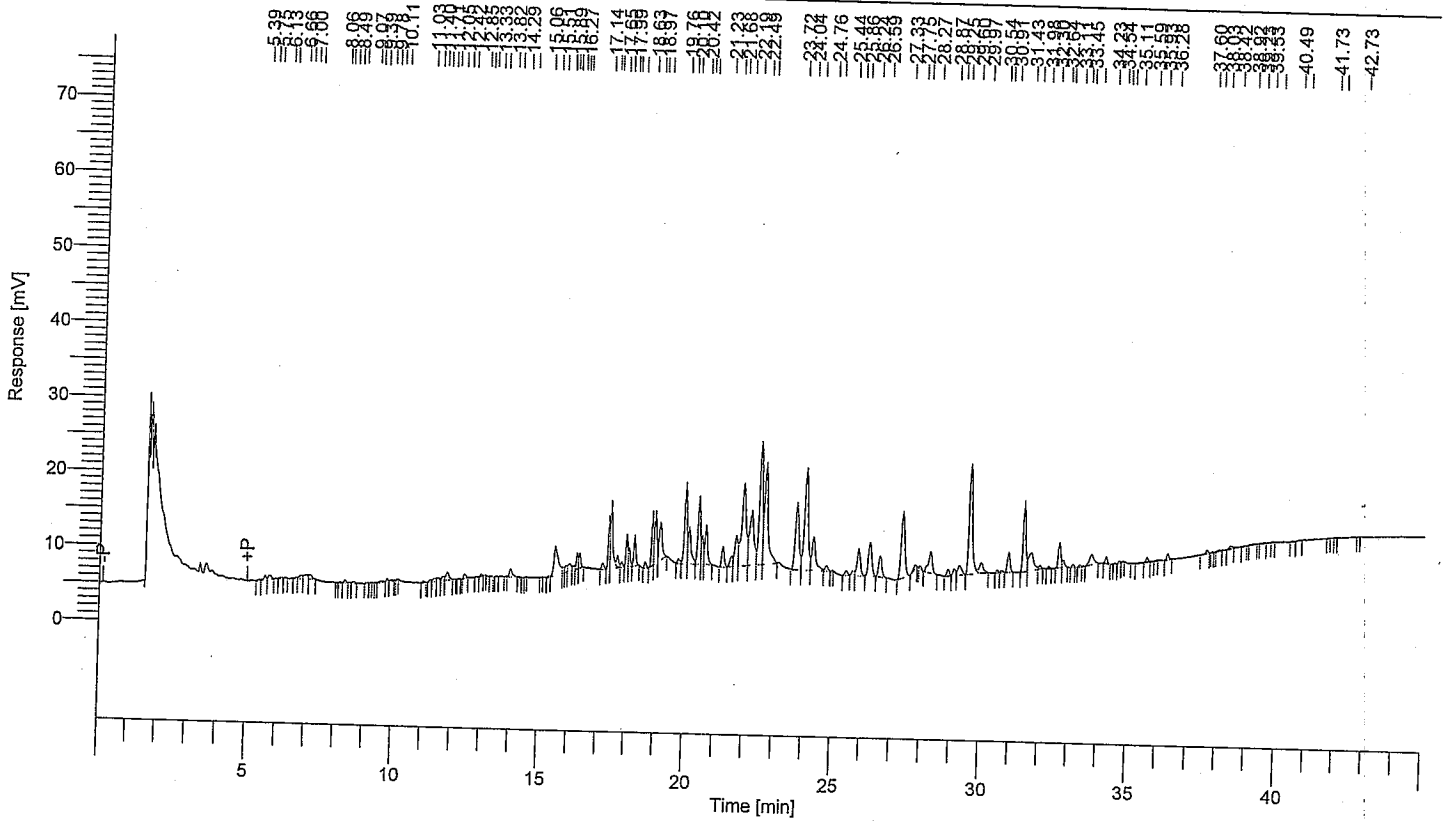
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62516
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

Date : 10/24/2007 9:42:32 AM

Data Acquisition Time : 10/23/2007 5:26:18 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V-s]
18.63	4031
18.86	33950
18.97	39839
19.13	38122
19.76	3523
19.97	61803
20.10	34676
20.42	51349
20.53	18401
20.66	32640
21.23	15856
21.53	9572
21.68	31771
21.92	110291
22.19	79180
22.49	119873
22.66	119122
23.72	80925
24.04	118533
24.31	43455
24.76	4853
25.44	4147
25.69	4906
25.86	27516
26.24	36234
26.59	22308
27.33	74032
27.75	3365
28.27	25919
28.87	5885
29.09	6037
29.25	11863
29.60	109810
29.97	13534
30.54	2057
30.91	16991
31.43	64841
31.69	27080
31.98	3245
32.64	20311
32.76	5872
33.74	14383
34.23	4603
35.59	2924
36.28	4108
37.60	2315
38.42	2222

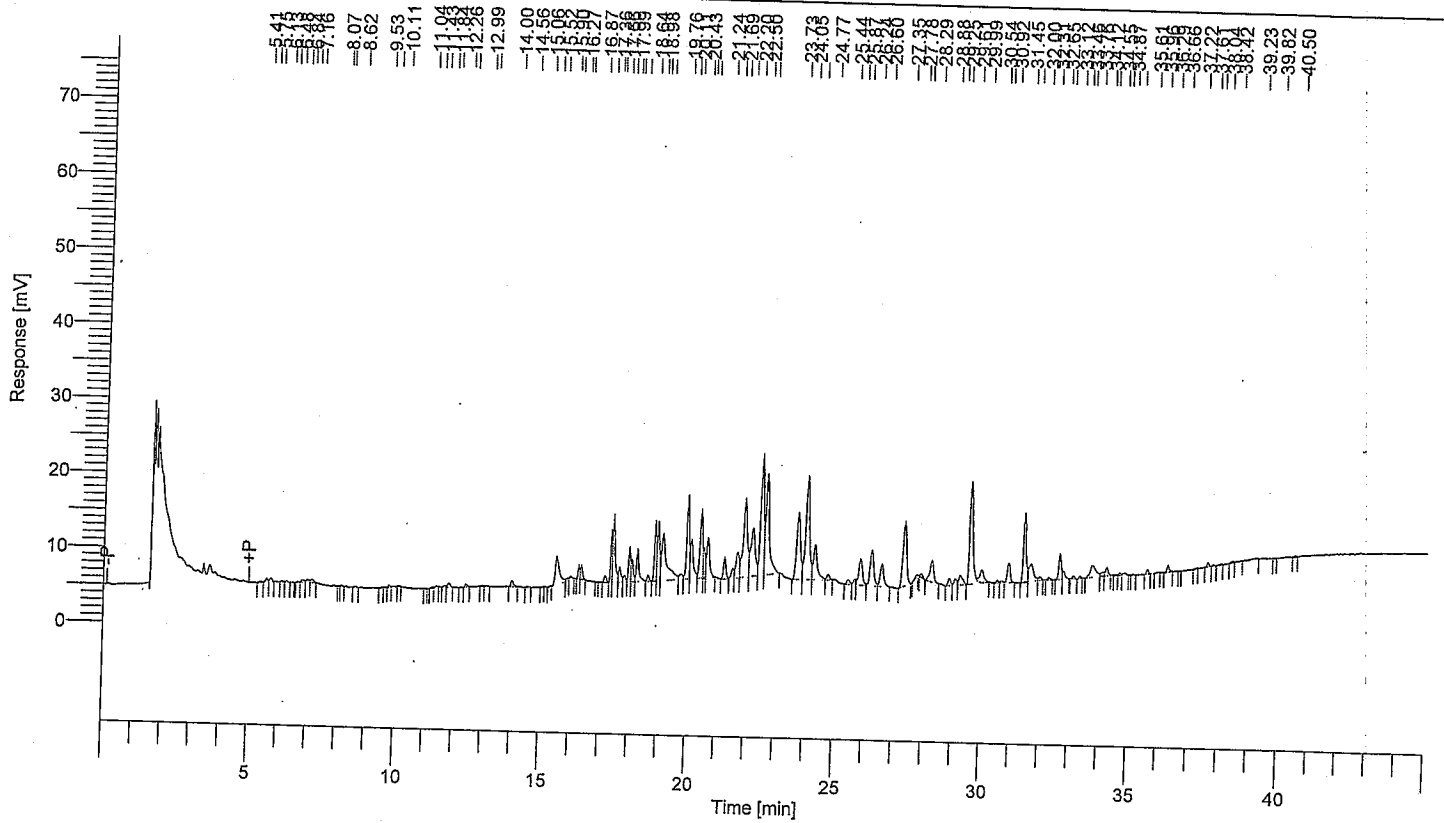
1842060

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62528
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 1.000000
 Cycle : 17

Date : 10/24/2007 9:43:05 AM

Data Acquisition Time : 10/24/2007 3:57:26 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_017.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2740
5.75	3084
6.84	2405
7.00	2793
7.16	3307
11.84	3434
12.42	2244
14.00	5554
15.52	35969
15.90	2611
16.01	3001
16.27	7223
16.35	8727
17.15	4839
17.36	27274
17.44	53742
17.66	11782
17.82	5061
17.99	21467
18.08	15783
18.27	26948
18.64	4186
18.87	37155
18.98	47137
19.14	76141
19.76	5538
19.97	65807

Time [min]	Area [μ V-s]
20.11	37439
20.43	54596
20.54	19660
20.67	36078
21.24	17131
21.53	8423
21.69	27315
21.93	98432
22.20	68761
22.50	118119
22.67	119555
23.73	83441
24.05	123048
24.32	44901
24.77	4899
25.44	4603
25.68	3627
25.87	30399
26.24	41172
26.60	25965
27.35	74318
27.91	2772
28.29	25367
28.88	5955
29.09	5803
29.25	11819
29.61	109598
29.99	18167
30.54	2030
30.92	17768
31.45	65825
31.68	24822
32.00	2955
32.65	21482
32.77	6099
33.12	2212
33.76	21063
34.12	3816
34.24	6366
34.87	2431
35.61	2977
36.29	4776
37.61	2657
39.23	2036

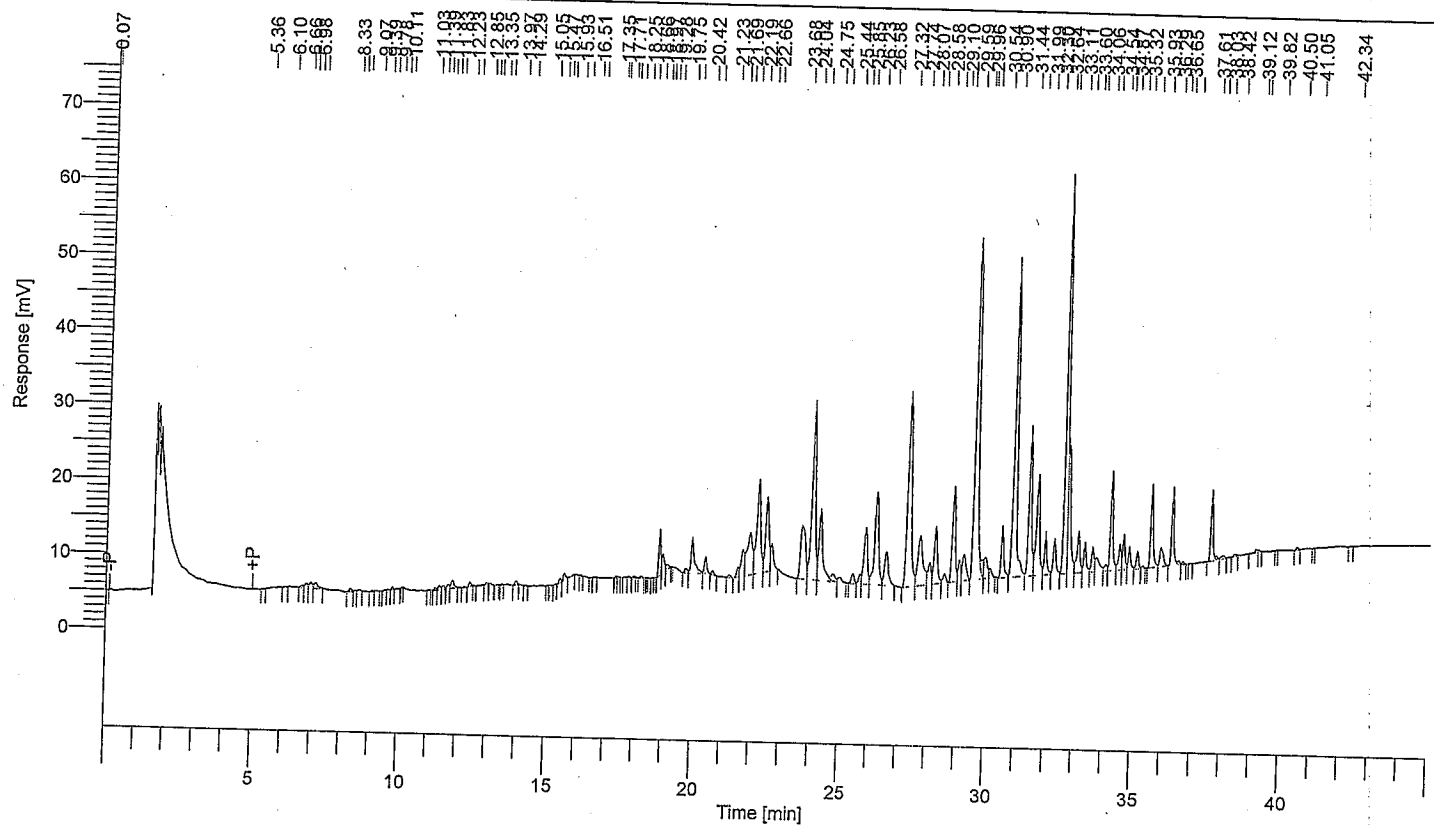
1896627

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62517
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 1.000000
 Cycle : 6

Date : 10/24/2007 9:42:35 AM

Data Acquisition Time : 10/23/2007 6:18:57 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_006.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.81	4152
6.98	5648
7.15	6910
8.33	2615
11.39	3272
11.53	2629
11.68	3021
11.83	7294
12.42	2801
13.00	2222
13.97	2356
15.47	2652
15.60	5434
18.86	30118
18.97	14836
19.12	4987
19.75	3639
19.96	37355
20.42	12498
20.66	2674
21.23	2351
21.53	6750
21.69	28953
21.92	71644
22.19	114407
22.48	80800
22.66	25789

Time [min]	Area [μ V-s]
23.68	83474
24.04	194151
24.31	89466
24.75	10073
25.00	6002
25.44	9316
25.69	7444
25.85	61469
26.23	119740
26.58	41051
27.32	235846
27.74	78915
28.07	24084
28.27	62069
28.58	8789
28.87	92851
29.10	18819
29.24	29928
29.59	362425
29.88	13566
29.96	23283
30.12	8017
30.54	44905
30.90	298196
31.44	137882
31.71	101887
31.99	37874
32.30	28901
32.64	320663
32.76	111342
33.11	41253
33.34	24180
33.60	19290
33.72	20192
34.06	5812
34.24	78758
34.54	21071
34.67	26959
34.87	18447
35.13	12289
35.59	62988
35.93	20051
36.29	55456
36.50	2940
37.61	47331
37.79	2808
38.03	3405
39.12	2861

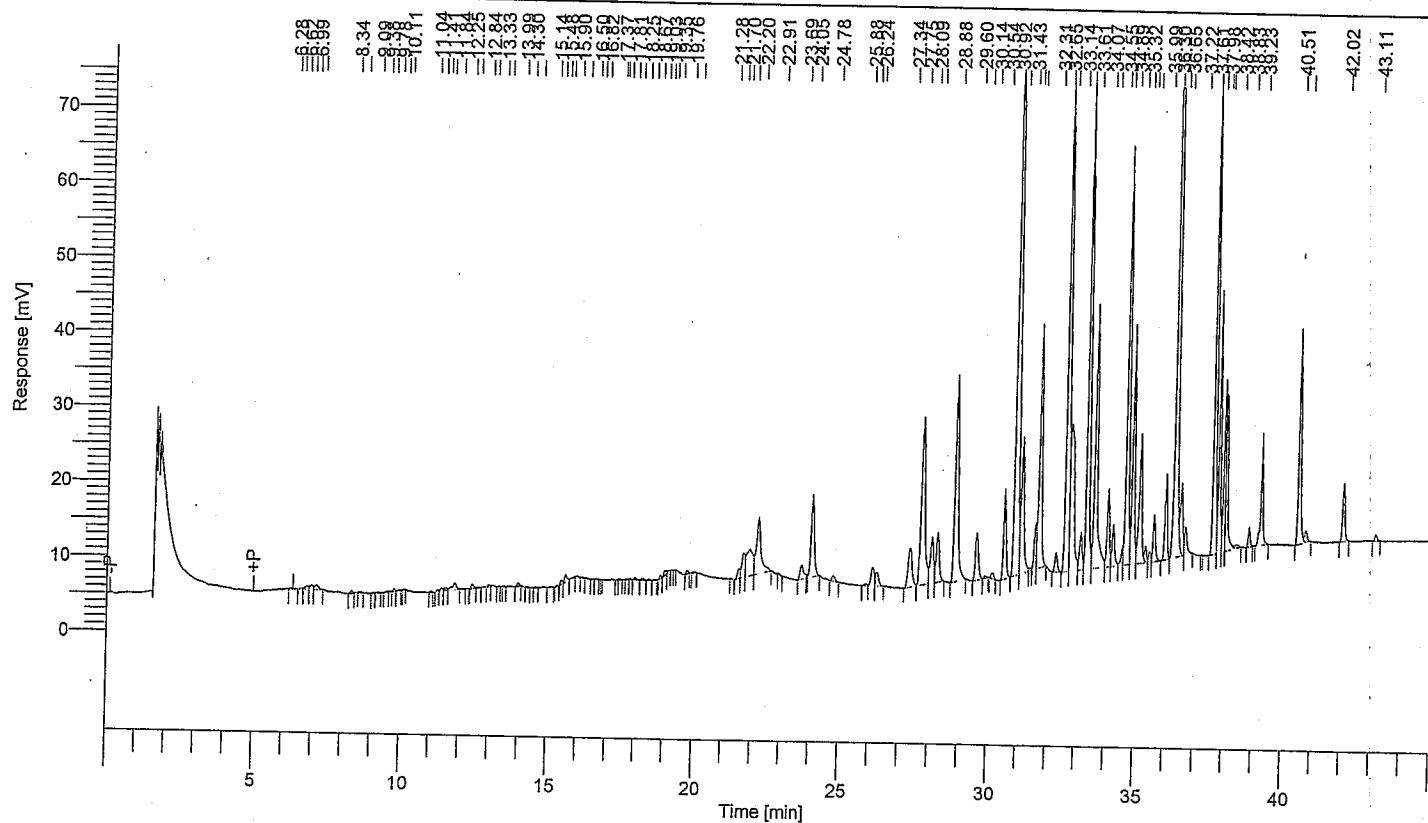
3616319

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62518
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

Date : 10/24/2007 9:42:39 AM
 Data Acquisition Time : 10/23/2007 7:11:37 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
6.81	4174
6.99	4767
7.16	6099
11.84	8518
12.42	3121
13.99	2203
15.48	2623
15.61	5650
19.03	3340
19.76	2216
21.54	7785
21.70	25562
21.90	55995
22.20	81481
23.69	15948
24.05	82085
24.78	5197
26.10	20133
26.24	14204
27.34	44562
27.75	199602
28.09	50739
28.28	50219
28.88	215352
29.60	43127
30.14	4462
30.54	73813

$$\begin{aligned} \Sigma \text{area} &= 698133 \\ \text{calibration factor} &= \frac{698133}{2} \\ &= 349066.5 \end{aligned}$$

Time [min]	Area [μ V·s]
30.92	561195
31.13	124682
31.60	27474
31.72	197530
32.31	14153
32.65	418746
32.79	193357
33.14	31655
33.35	358406
33.61	225494
34.07	58390
34.24	32409
34.55	10120
34.68	301504
34.89	178365
35.13	111358
35.32	11405
35.47	6749
35.60	35759
35.99	53975
36.30	706711
36.51	54895
36.65	22297
37.61	335669
37.80	165956
37.98	98135
38.03	98373
38.42	4346
38.83	11058
39.23	78224
40.51	149395
40.76	10444
42.02	43259
43.11	5131

5769599

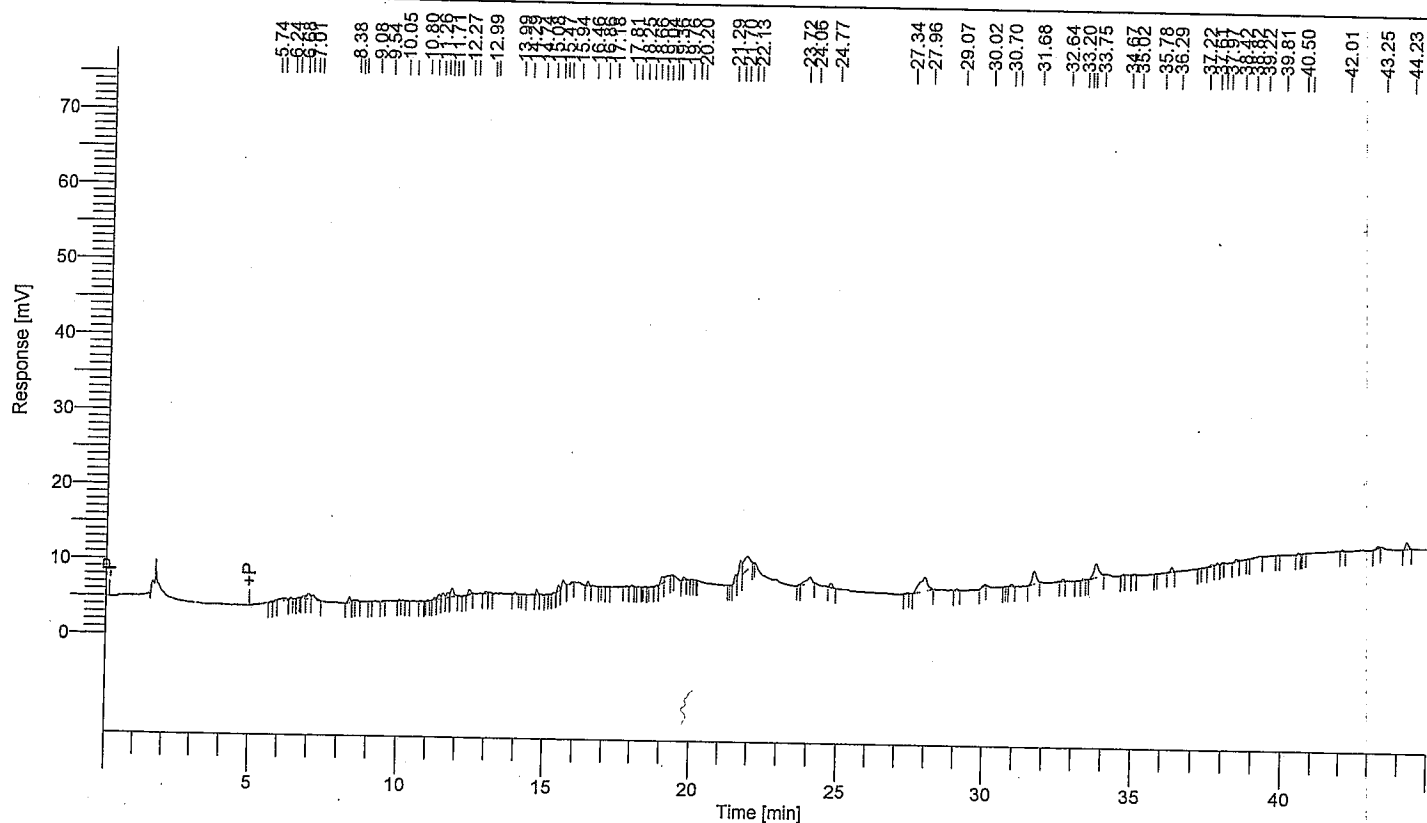
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62521
 Sample Name : 22718 1:10
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

Date : 10/24/2007 9:42:47 AM
 Data Acquisition Time : 10/23/2007 9:49:17 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_010.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.24	5202
7.01	5420
7.16	5203
8.38	4319
11.42	3905
11.55	4477
11.71	4161
11.85	7777
12.44	3754
14.74	2917
15.47	3553
15.62	7355
16.46	2394
19.04	5333
19.25	6351
21.54	5201
21.70	15878
21.94	28199
24.06	11497
24.77	3536
27.96	35453
31.68	15331
33.75	21441
36.29	3511
44.23	6643

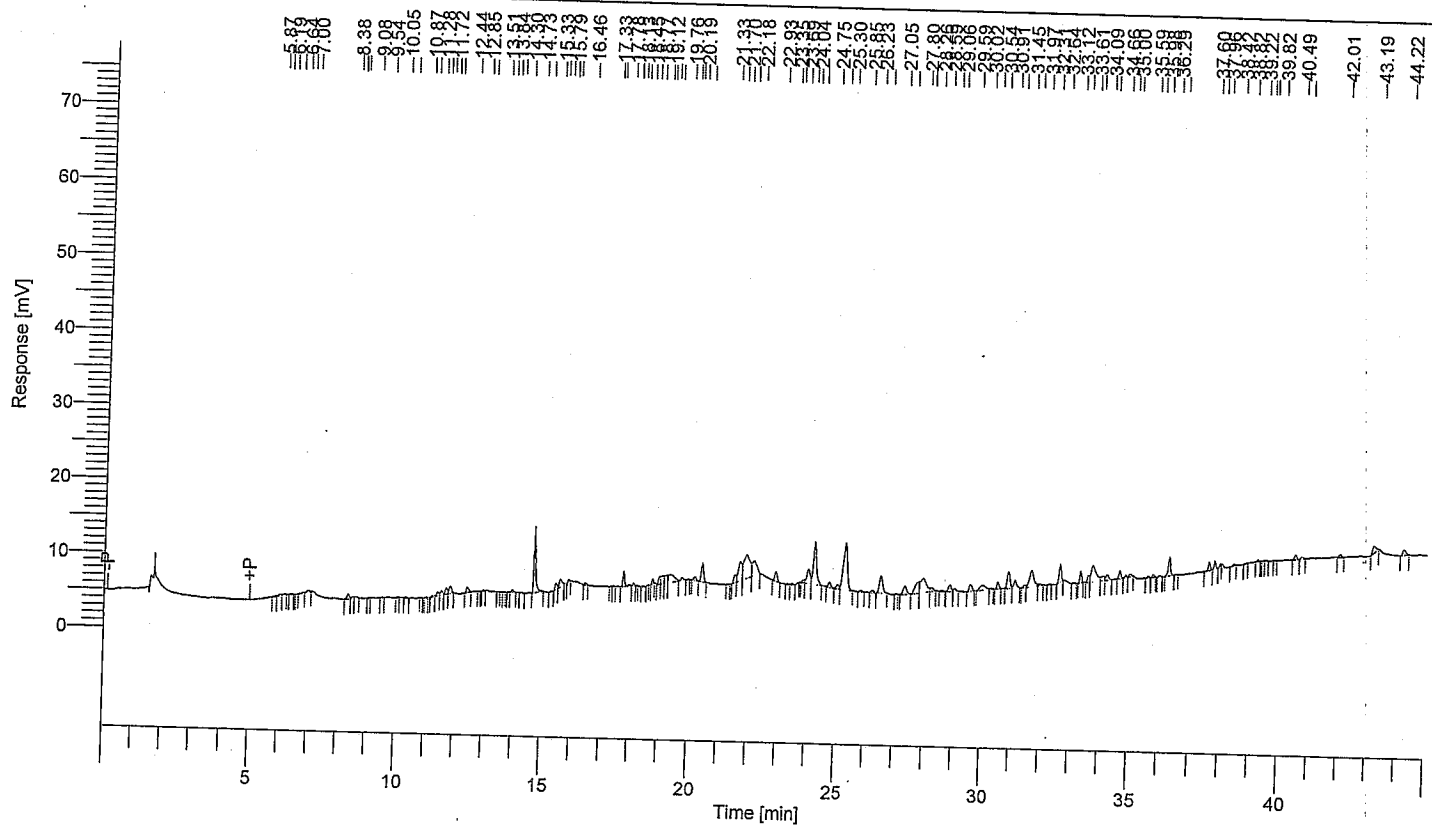
<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62523
 Sample Name : 22719 1:10
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 12

Date : 11/24/2007 9:42:52 AM
 Data Acquisition Time : 10/23/2007 11:34:21 PM
 Channel : A
 Operator : einweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_012.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V·s]
25.04	3611
25.30	58076
26.23	2070
26.52	17529
27.33	9095
27.80	13817
27.95	27892
28.26	3950
28.88	6115
29.06	2353
29.59	5854
30.02	9386
30.54	5022
30.91	14283
31.12	6244
31.69	21792
32.64	11573
33.33	7113
33.61	4601
33.75	25619
34.09	5009
34.24	5137
34.66	4994
36.29	12682
37.60	5285
37.79	4756
40.49	3154
42.01	2271
43.19	7165
44.22	5219

616314

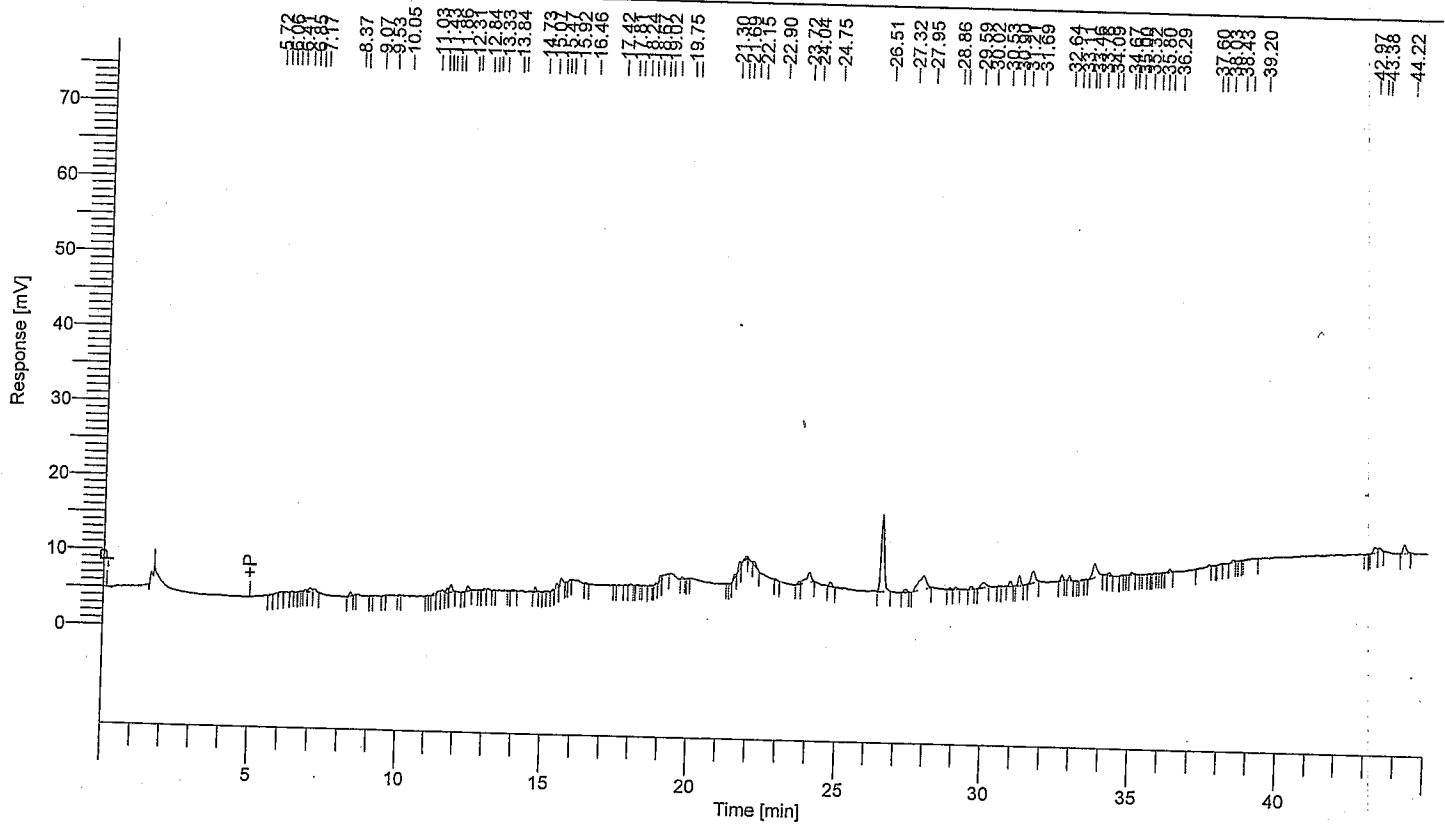
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62524
 Sample Name : 22720 1:10
 Instrument Name : GC014
 Rack/Vial : 0/13
 Sample Amount : 50.000000
 Cycle : 13

Date : 10/24/2007 9:42:55 AM

Data Acquisition Time : 10/24/2007 12:26:54 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_013.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
7.02	4235
7.17	3217
8.37	2761
11.43	3303
11.55	3241
11.72	3516
11.86	6387
12.43	4023
14.73	2606
15.47	2921
15.61	5592
19.02	4129
19.27	4022
21.53	2759
21.69	6207
21.92	5185
22.15	3032
23.72	2233
24.04	15868
24.75	3511
26.51	78749
27.32	2687
27.95	33645
29.07	2050
29.59	2179
30.02	7689
30.90	3888

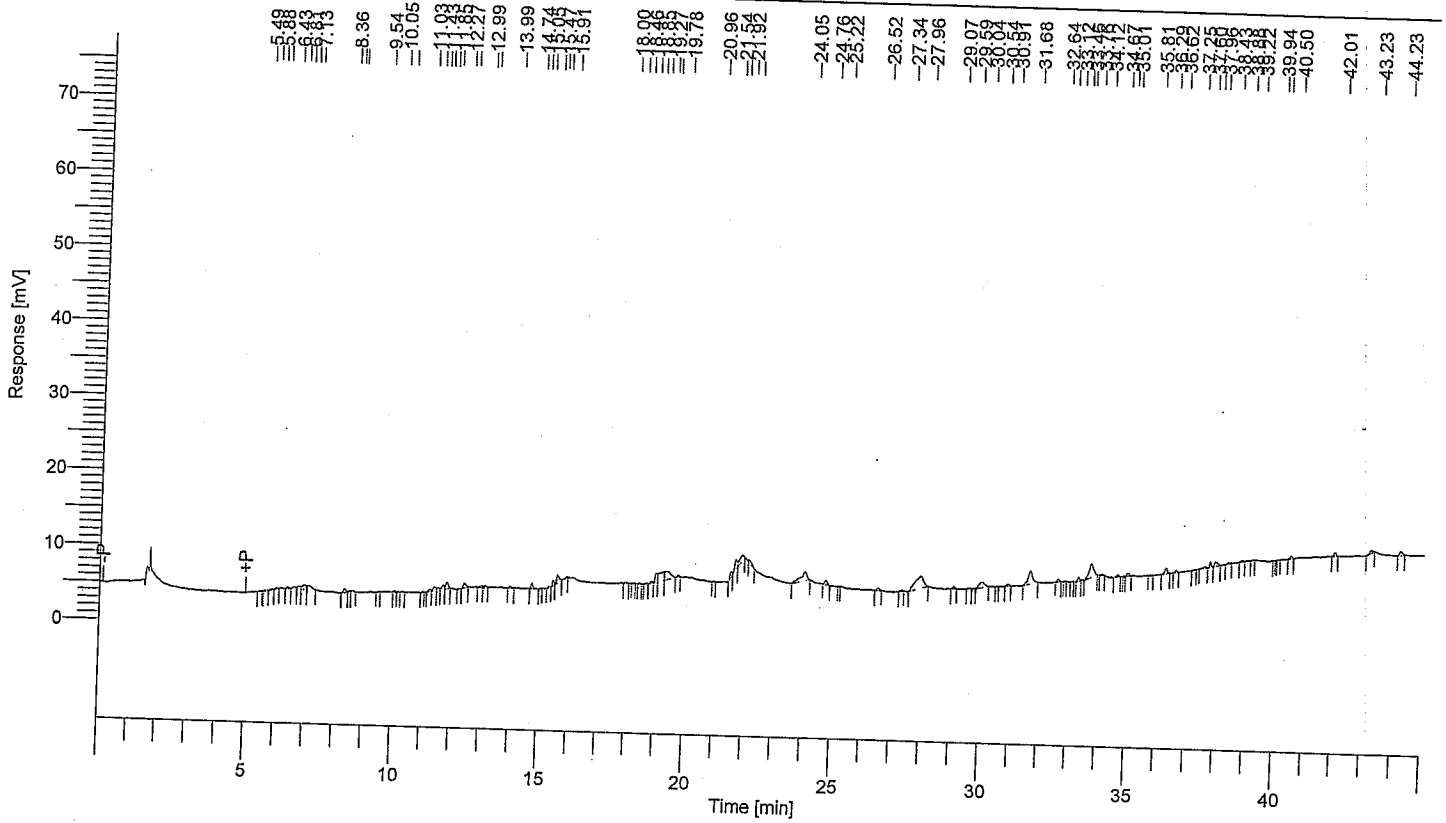
50.40 ppm total PCB.

Time [min]	Area [μ V·s]
31.21	7442
31.69	14356
32.64	3880
32.91	3228
33.76	19662
34.26	2521
36.29	2665
37.60	2294
39.20	2017
43.23	5775
43.38	3567
44.22	8149
<hr/>	
295188	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62526
 Sample Name : 22721 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

Date : 10/24/2007 9:43:00 AM
 Data Acquisition Time : 10/24/2007 2:12:04 AM
 Channel : A
 Operator : enweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_015.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
6.65	2430
6.81	3328
6.98	5415
7.13	5260
8.36	3047
11.43	3425
11.72	3242
11.85	5243
12.43	3541
14.74	3261
15.47	3019
15.61	6739
19.03	6821
19.27	13039
19.37	14819
21.54	3913
21.70	9005
21.92	8877
22.14	2941
24.05	16243
24.76	3560
27.96	30986
30.04	9424
31.68	17877
33.34	2396
33.76	19404
35.01	2123

<0.40 ppm total PCB.

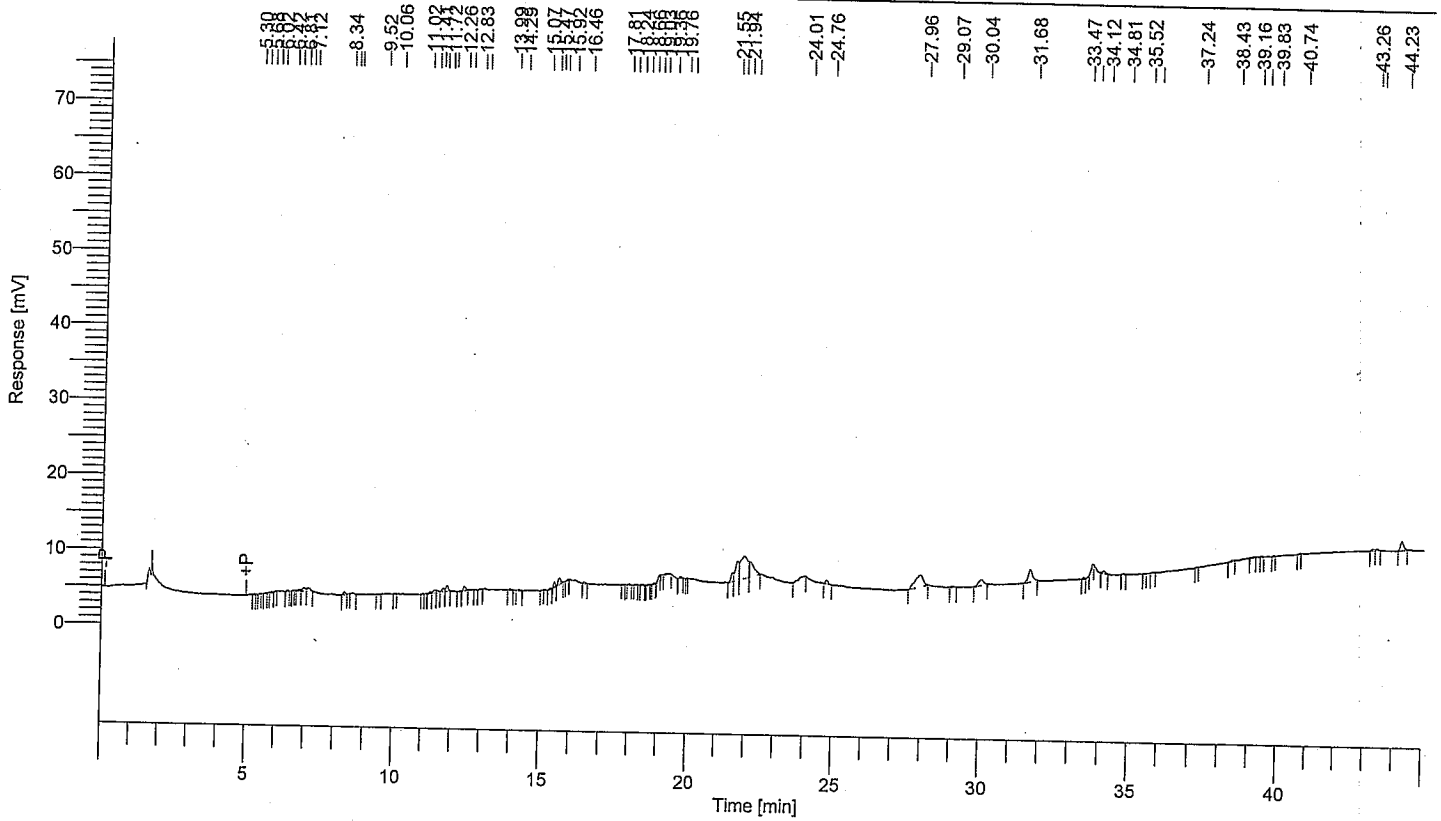
Time [min]	Area [μ V-s]
36.29	4385
37.79	2919
37.96	3816
42.01	2576
43.23	2440
44.23	3580

229093

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62529
 Sample Name : 22722 1:10
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 50.000000
 Cycle : 18

Date : 10/24/2007 9:43:07 AM
 Data Acquisition Time : 10/24/2007 4:50:07 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_018.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
6.99	3296
7.12	2933
8.34	2118
11.41	2764
11.72	2775
11.84	4281
12.42	3327
15.47	2871
15.61	5559
21.55	6914
21.70	21299
21.94	51359
22.15	21167
24.01	3286
24.76	3050
27.96	31718
30.04	9599
31.68	16529
33.76	2106
34.12	2296
44.23	8783

<0.40 ppm total PCB.

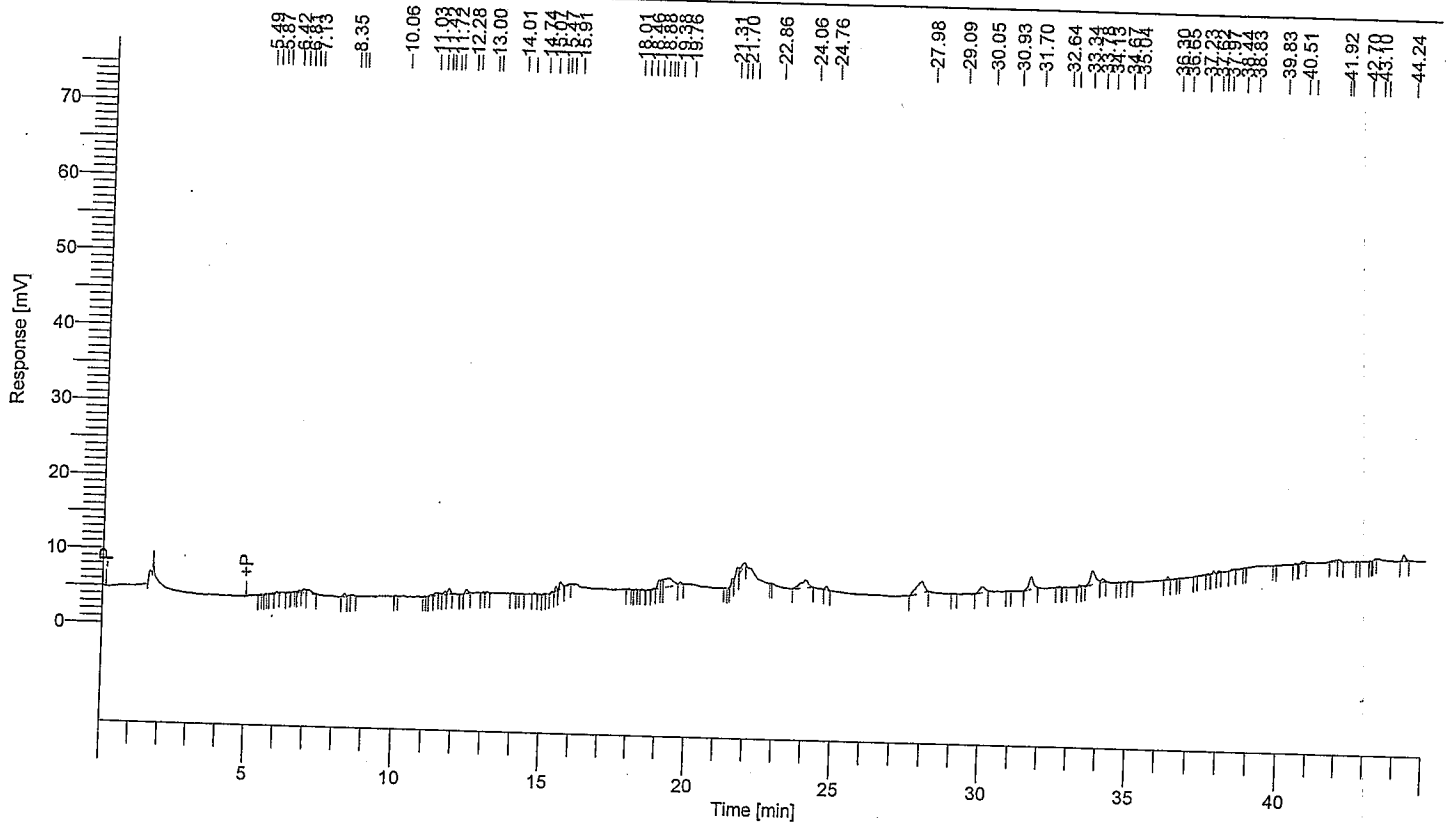
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62530
 Sample Name : 22723 1:10
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 50.000000
 Cycle : 19

Date : 10/24/2007 9:43:10 AM

Data Acquisition Time : 10/24/2007 5:42:48 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_019.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.98	3874
7.13	5730
8.35	2246
11.42	2555
11.72	2454
11.85	4435
12.43	3275
15.47	2544
15.62	6229
19.03	6851
19.14	5600
19.38	24237
21.55	3602
21.70	7615
21.95	6985
24.06	20387
24.76	3163
27.98	29565
30.05	9489
31.70	16503
33.78	23184
34.13	3309
36.30	2003
41.92	2591
42.02	2057
44.24	5548

<0.40 ppm total PCB.

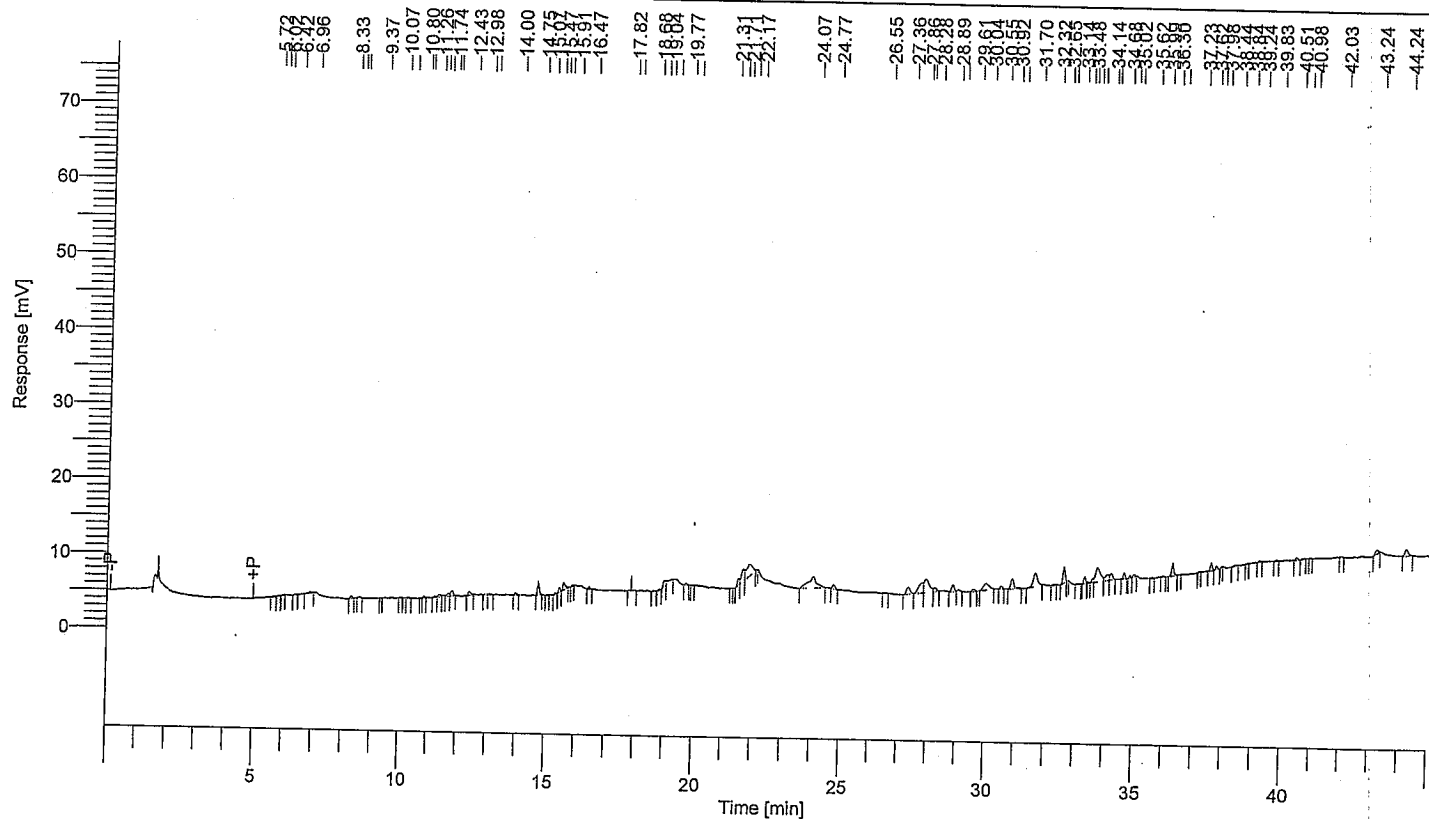
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62533
 Sample Name : 22784 1:10
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

Date : 10/24/2007 9:43:16 AM

Data Acquisition Time : 10/24/2007 8:20:59 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_022.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.41	2347
11.74	2450
11.84	4270
12.43	2885
14.75	7335
15.47	2587
15.62	5448
19.04	4798
19.27	3519
21.56	5268
21.71	11702
21.93	24501
24.07	30959
24.77	3337
27.36	7895
27.86	14525
27.97	22610
28.28	3433
28.89	5876
30.04	11932
30.92	9432
31.70	16702
32.65	11286
33.36	4267
33.64	2596
33.77	22632
34.14	7111

CO.40 ppm total PCB.

Time [min]	Area [μ V·s]
34.25	5540
34.68	3647
36.30	9062
37.62	4873
37.80	2266
43.24	3506
44.24	6544

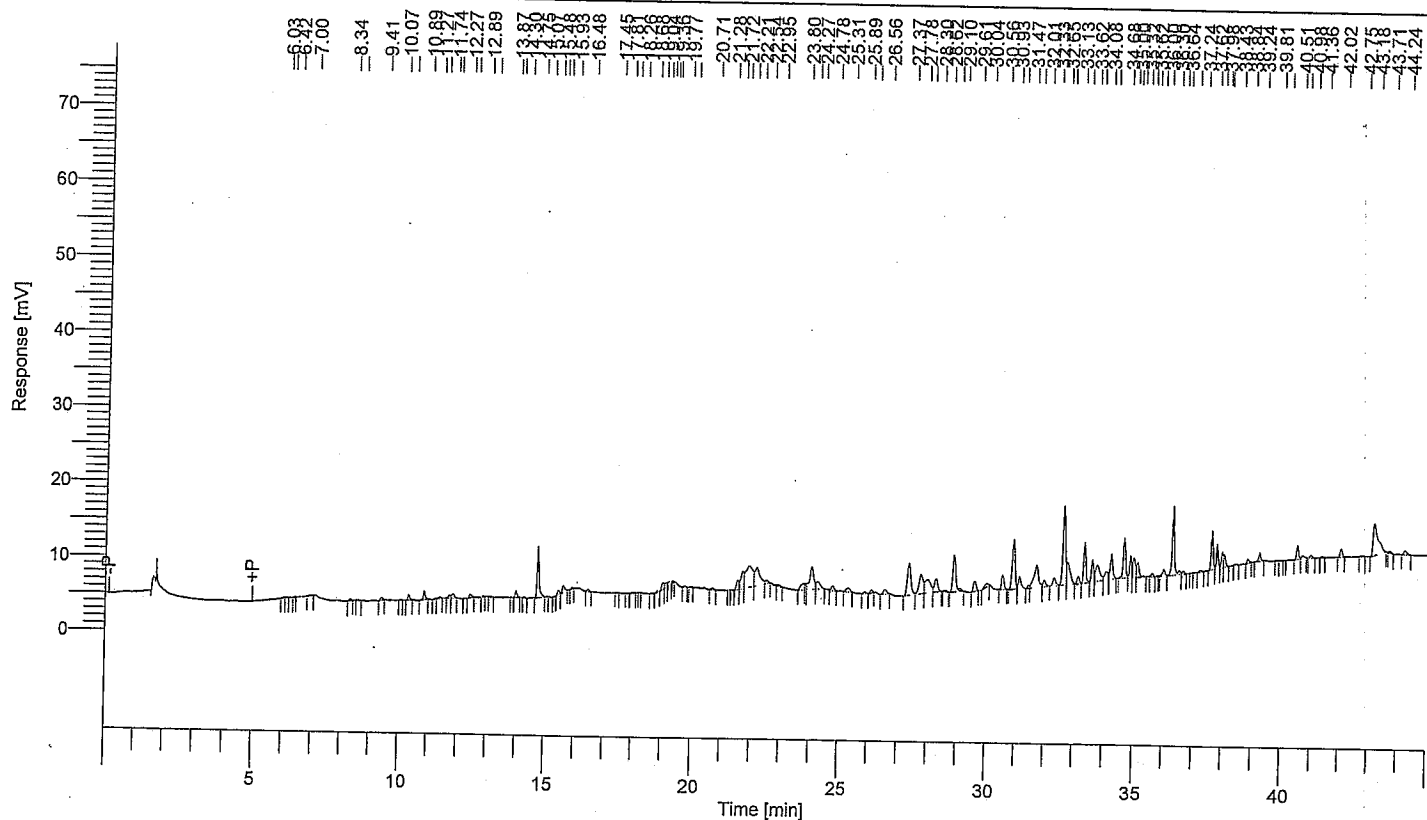
287143

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62536
 Sample Name : 22785 1:10
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 50.000000
 Cycle : 1

Date : 10/24/2007 10:06:12 AM
 Data Acquisition Time : 10/24/2007 9:13:44 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10_023.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100210 AV SET 10\SET#10.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.34	3221
10.89	5104
11.74	2008
11.85	3692
12.43	2761
14.00	3720
14.75	31377
15.48	2615
15.62	5207
19.04	5076
19.17	3386
19.29	3257
21.56	7461
21.72	17544
21.95	48745
22.21	29826
22.54	3497
23.80	7214
24.07	31906
24.27	9754
24.78	3949
25.31	4209
26.12	2429
26.56	4635
27.37	35550
27.78	25400
27.99	24911

$$\text{Area} = 55660$$

$$\text{avg.} = \frac{55660}{349066.5} = 0.1595$$

$$\text{ppm} = \frac{0.1595}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0638$$

< 0.40 ppm total PCB.

Time [min]	Area [μ V·s]
28.30	13911
28.90	34152
29.61	8474
30.04	4157
30.56	10855
30.93	44594
31.14	10665
31.72	31047
32.01	6685
32.33	7453
32.65	64833
32.78	25083
33.13	5866
33.35	29219
33.62	15287
33.78	23494
34.08	8637
34.25	20051
34.68	28324
34.89	14058
35.00	16392
35.13	11577
35.62	2451
36.00	4488
36.30	47565
36.51	2717
36.64	2083
37.62	24726 ~
37.80	14816 —
37.98	9046 ~
38.04	7072 ^
38.84	2400
39.24	6242
40.51	9253
40.70	2237
40.98	2127
42.02	5981
43.18	50423
44.24	3933

960829

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100802 Avant Level IV QAQC
Set #11

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	ZB
PREP DATE:	10/26/07 - 10/24/2007 CSL 10/29/2007

SPIKING INFORMATION		
SPIKE SOL'N:	A1260 INTERM	
SPIKE VOL:	0.5 mL	
LIBRARY I.D.:	A1190004	
PREP. DATE:	10-8-2007	

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS
1	SPIKE 1	50.0
2	22786	50.0
3	22786 MS	50.0
4	22787	50.0
5	22788	50.0
6	22789	50.0
7	22789 DUP	50.0
8	22790	50.0
9	22791	50.0
10	22792	50.0
11	22792 MSD	50.0
12	22793	50.0
13	BLANK	50.0
14		
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION	SAMPLE INFORMATION
INST. METHOD: PCB	BALANCE #: 01
G.C.#: 14	OVEN#/TEMP: NA
OPERATOR: JSP	ALICUOT RATIO: 50/100
COLUMN I.D.: 809200	FINAL VOLUME: 2.0 mL
DATE USED: 10/25/2007	INJECTION VOL: 2 uL
DETECTOR: ECD	EXTRACT STORAGE: F7

INSTRUMENT CALIBRATION INFORMATION	METHOD CALIBRATION INFORMATION
LGV (cm/s) NOT GIVEN	A1016 I.D. Y11300003
INST. CAL I.D. MX50100154	A1221 I.D. Y11400003
INST. CAL PREP. DATE: 9/14/2007	A1232 I.D. Y11500003
ANALYTE 1	A1242 I.D. Y11600003
RETENTION TIME (MIN) 14.37	A1248 I.D. Y11700005
R.T. ACCURACY (%) 99	A1254 I.D. X11800011
SENSITIVITY (AREA) 408242	A1260 I.D. AA11900003
SENS. ACCURACY (%) 103	CAL PREP DATE: 10/2/2007
ANALYTE 2	
RETENTION TIME (MIN) 16.58	
R.T. ACCURACY (%) 99	
SENSITIVITY (AREA) 823697	
SENS. ACCURACY (%) 83	

COMMENTS

Solvent rinse sample glassware three times with acetone and three times with hexane before washing. Use 0.5 mL Arochlor 1260 INT for the matrix spike and the matrix spike duplicate.

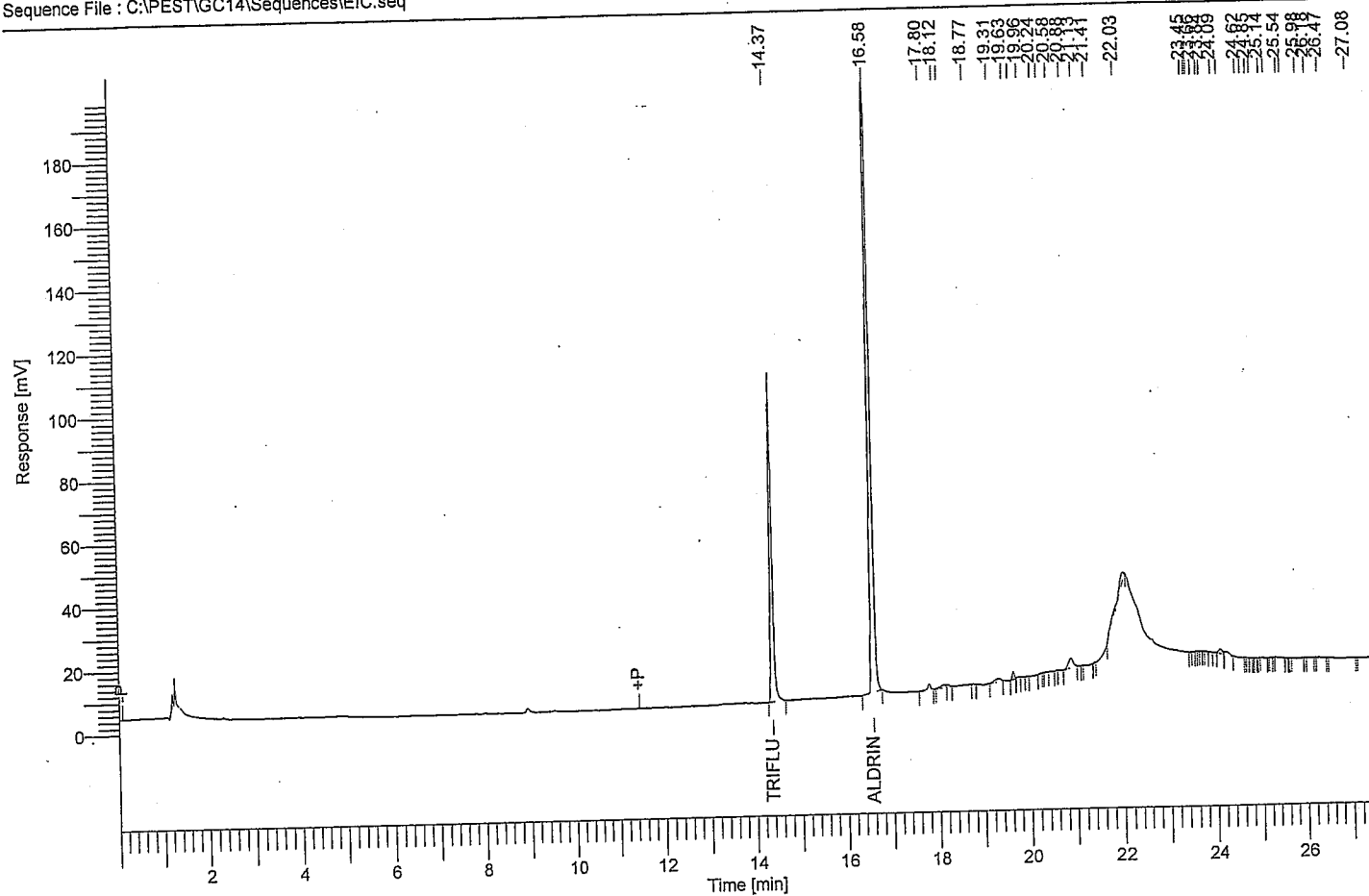
90% METHANOL : 10/20/07
pH 7 BUFFER SOLN : 10/24/07
15% ACETONE 10/22/07
TBA SOLN 10/16/07

CSL 0730406

Software Version : 6.3.1.0504
 Sample Name : EIC
 Instrument Name : GC014
 Rack/Vial : 0/48
 Sample Amount : 1.000000
 Cycle : 3

Date : 10/25/2007 3:29:44 PM
 Data Acquisition Time : 10/25/2007 12:25:15 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003-20071025-125257.rst
 Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [$\mu\text{V}\cdot\text{s}$]
14.37	TRIFLURALIN	408241.61
16.58	ALDRIN	823696.54
		1231938.14

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Printed by : envweigh on: 10/25/2007 1:04:34 PM
 Created by : envweigh on: 10/25/2007 1:00:58 PM
 Edited by : envweigh on: 10/25/2007 1:04:28 PM
 Number of Times Edited : 1

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 23
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1016	02	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1221	03	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1232	04	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1242	05	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1248	06	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1254	07	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	AROCHLOR 1260	08	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
9	Sample	BLANK SOIL	09	07100802	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
10	Sample	SPIKE SOIL	10	07100802	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22786 1:10	11	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22786 MS 1:10	12	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22787 1:10	13	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
14	Sample	22788 1:10	14	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
15	Sample	22789 1:10	15	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22789 DUP 1:10	16	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	FLUSH	17	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
18	Sample	AROCHLOR 1248	18	07100802	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
19	Sample	22790 1:10	19	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	22791 1:10	20	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
21	Sample	22792 1:10	21	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
22	Sample	22792 MSD 1:10	22	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
23	Sample	22793 1:10	23	07100802	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
6	A	0	6	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
7	A	0	7	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
8	A	0	8	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
9	A	0	9	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
10	A	0	10	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
11	A	0	11	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
12	A	0	12	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
13	A	0	13	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
14	A	0	14	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
15	A	0	15	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
16	A	0	16	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
17	A	0	17	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
18	A	0	18	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
19	A	0	19	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
20	A	0	20	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
21	A	0	21	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
22	A	0	22	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
23	A	0	23	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
Row	Raw Data File				Result File		Baseline

1	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_001	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_001
2	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_002	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_002
3	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_003	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_003
4	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_004	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_004
5	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_005	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_005
6	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_006	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_006
7	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_007	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_007
8	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_008	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_008
9	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_009	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_009
10	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_010	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_010
11	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_011	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_011
12	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_012	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_012
13	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_013	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_013
14	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_014	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_014

Sequence Process Information - Channel A

Row	Raw Data File	Result File	Baseline			
15	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_015	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_015				
16	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_016	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_016				
17	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_017	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_017				
18	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_018	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_018				
19	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_019	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_019				
20	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_020	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_020				
21	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_021	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_021				
22	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_022	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_022				
23	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_023	C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_023				
Row	Modified	Calib Rpt	Cal Level	Update RT	Printer	Plotter
1	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
2	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
3	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
4	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
5	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
6	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
7	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
8	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
9	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
10	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
11	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
12	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
13	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
14	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
15	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
16	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
17	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
18	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
19	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
20	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
21	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
22	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
23	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62693
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/1
 Sample Amount : 1.000000
 Cycle : 1

Date : 10/29/2007 11:08:48 AM
 Data Acquisition Time : 10/25/2007 3:41:46 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

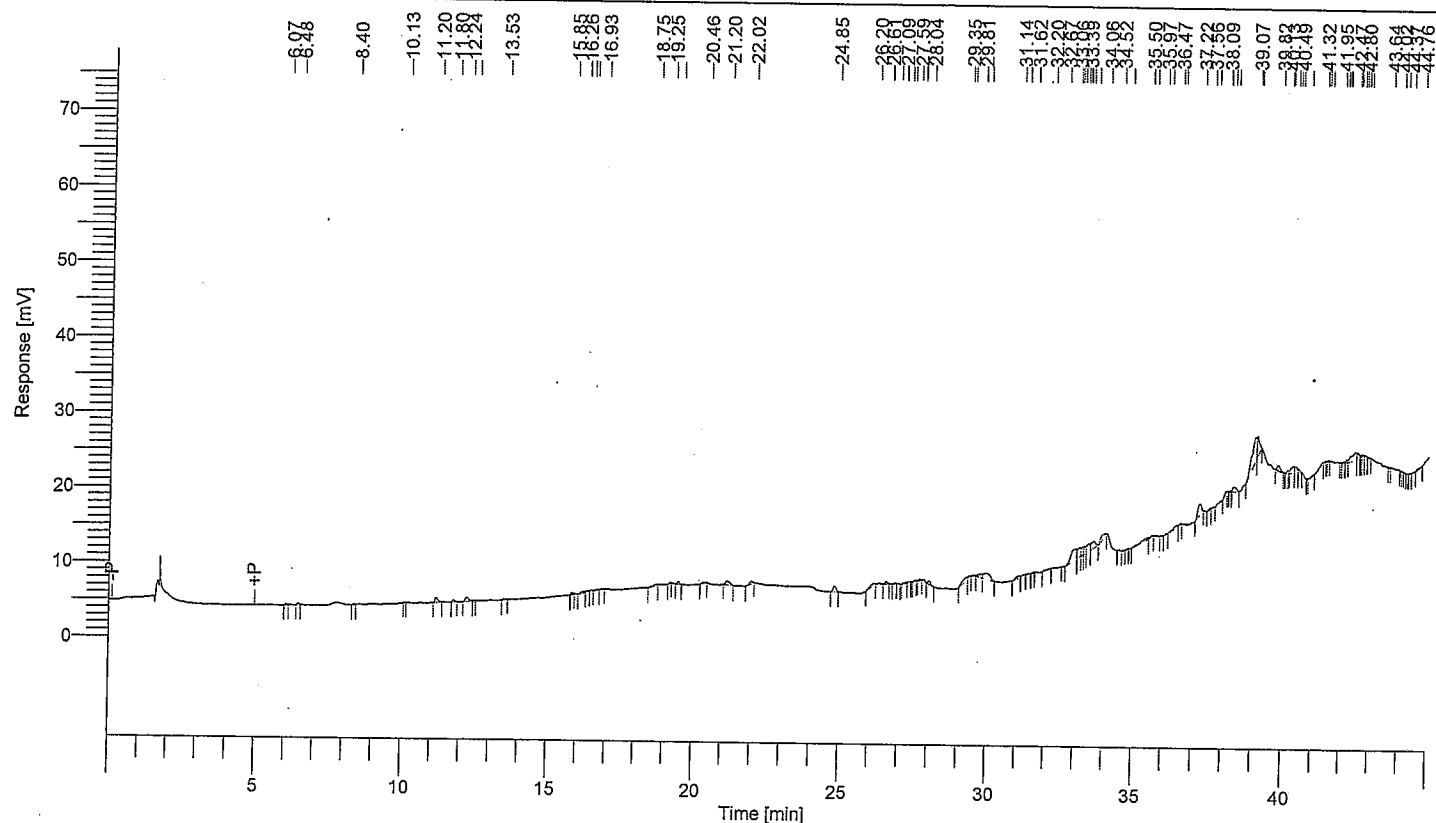
Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_001.rst

Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.20	4476
12.24	4585
16.26	2040
21.20	4984
22.02	2451
24.85	5103
26.20	3050
26.61	2027
28.04	2782
29.35	6449
29.81	3993
30.00	11989
31.14	2918
33.06	19208
33.10	2854
33.19	8222
33.30	5531
33.39	4683
33.50	7908
33.66	9286
34.06	5725
35.50	4926
36.47	2944
37.22	13344
38.35	5759
39.07	36565

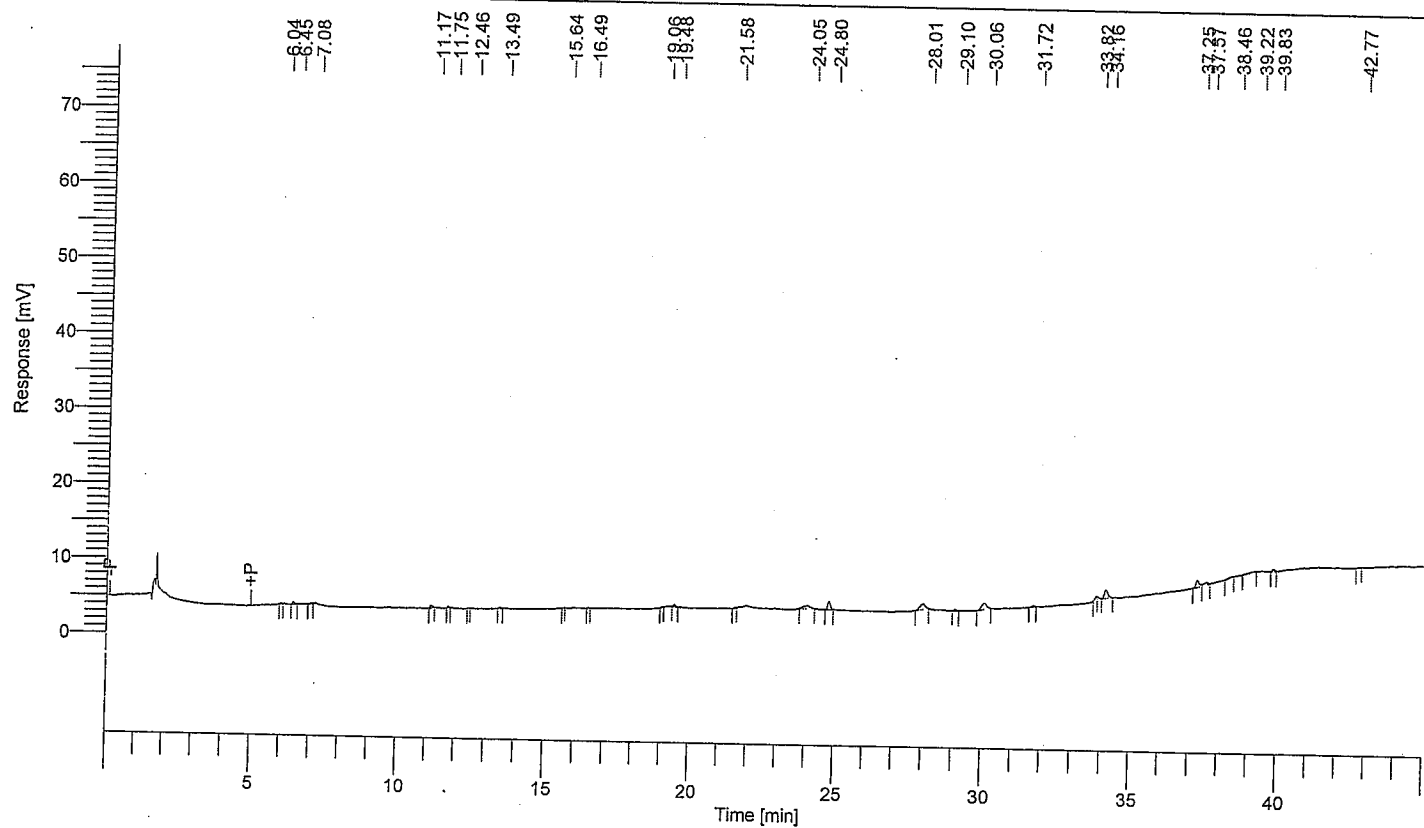
Time [min]	Area [μV·s]
39.11	15620
39.82	4513
40.33	6566
40.41	4546
41.32	2532
42.47	13086
42.52	6613
42.72	3468
42.80	2803
<hr/>	
243549	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62709
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 1.000000
 Cycle : 17

Date : 10/29/2007 11:09:32 AM
 Data Acquisition Time : 10/26/2007 5:45:02 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_017.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

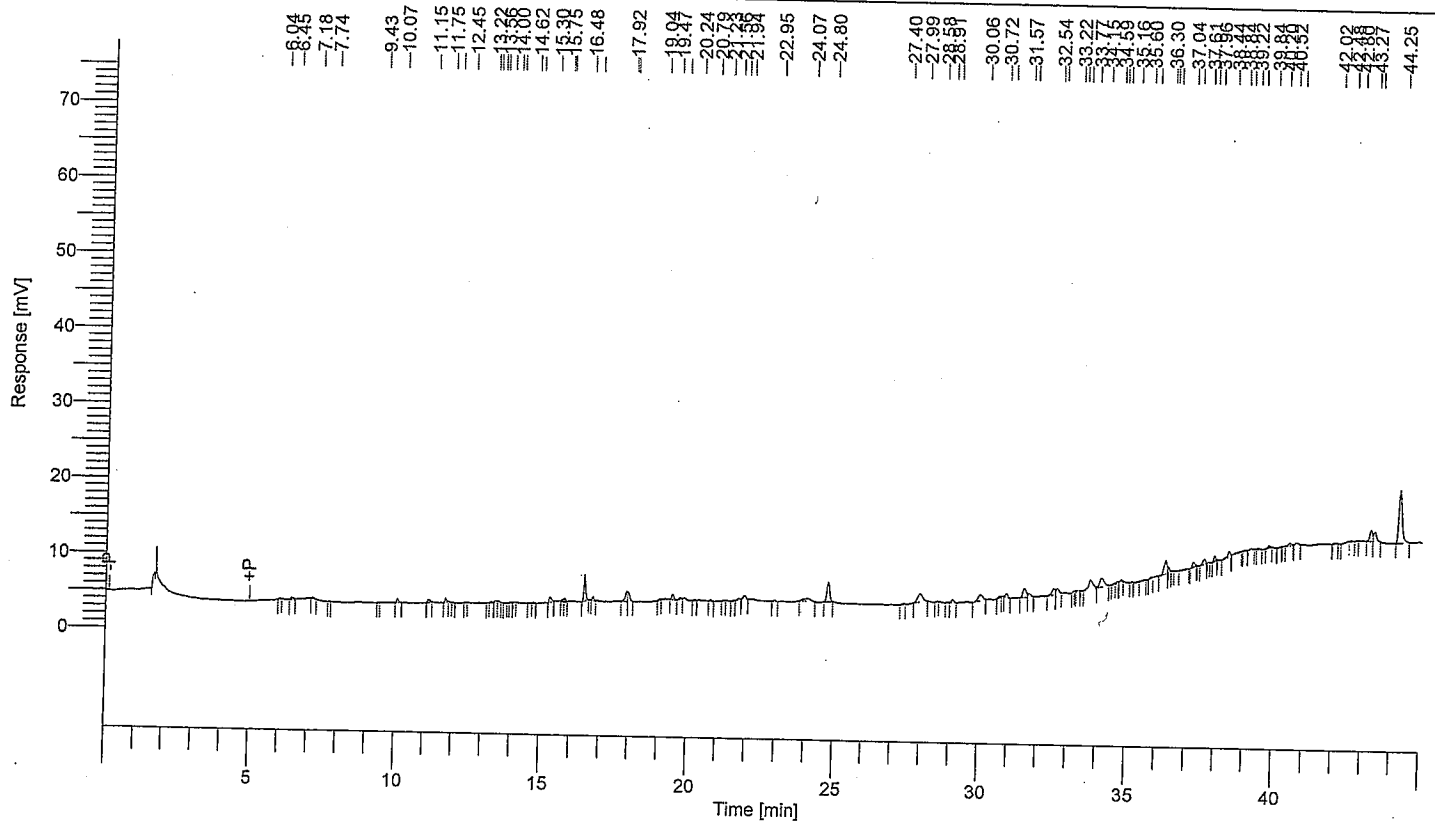
Time [min]	Area [μV·s]
11.17	2039
24.05	6200
24.80	7145
28.01	9115
30.06	10671
34.16	9806
37.25	7283
37.57	2889
<hr/>	
55148	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62701
 Sample Name : BLANK SOIL
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

Date : 10/9/2007 11:09:11 AM
 Data Acquisition Time : 10/25/2007 10:43:39 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_009.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.07	2459
11.15	2532
11.75	2223
15.30	3696
16.48	14016
17.92	7273
17.97	5617
19.47	3337
21.94	3110
24.07	6772
24.80	17210
27.99	13920
29.10	2644
30.06	9136
30.94	2861
31.57	8861
31.71	3029
32.54	6166
32.66	4567
33.77	12603
34.15	12091
36.30	13145
36.39	2824
37.24	3943
37.61	4583
37.96	2696

BDL

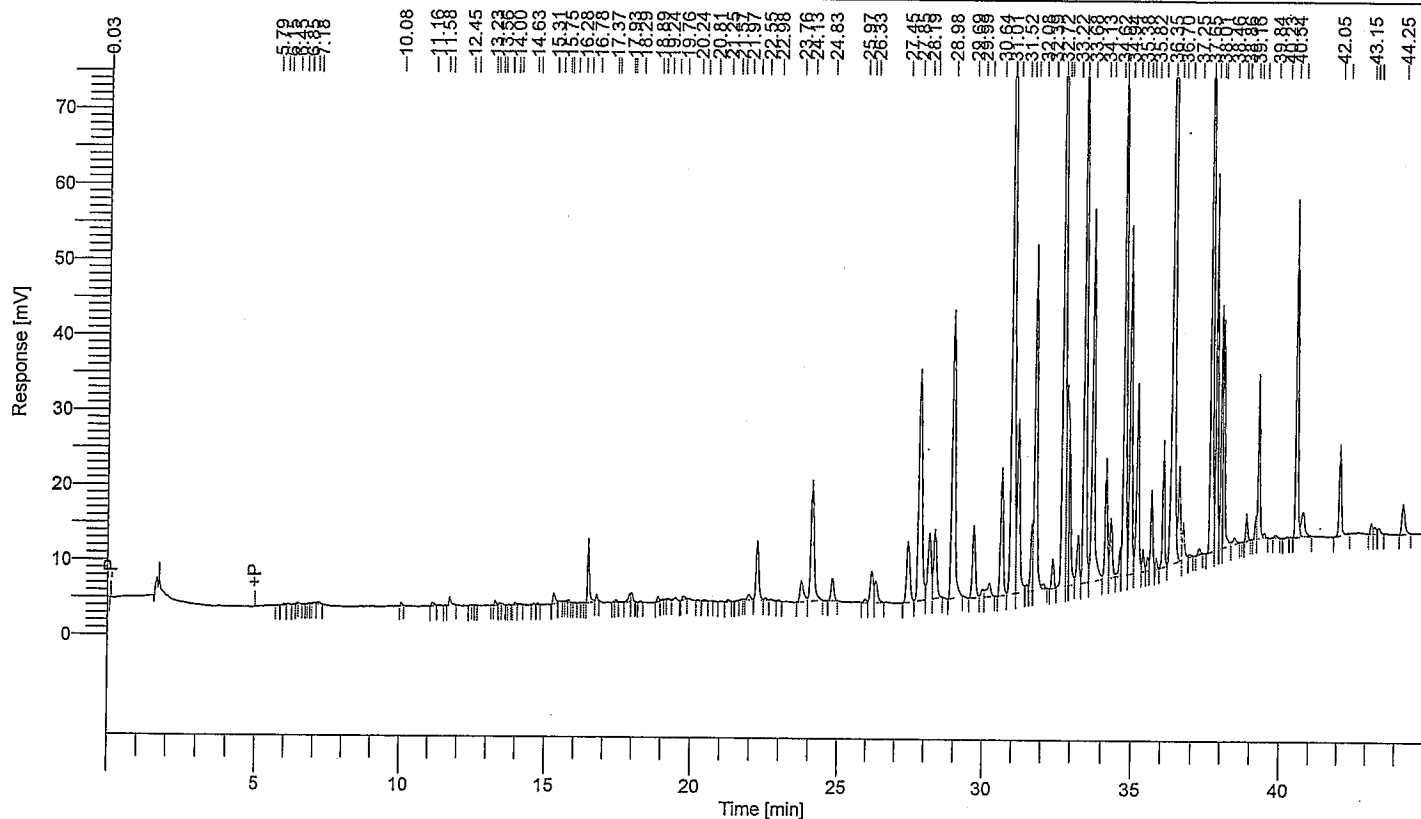
Time [min]	Area [μ V-s]
38.44	4658
38.84	2459
40.52	2498
40.75	2186
43.27	9095
43.40	8938
44.25	51667
<hr/>	
252815	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62702
 Sample Name : SPIKE SOIL
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

Date : 10/29/2007 11:09:14 AM
 Data Acquisition Time : 10/25/2007 11:36:18 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_010.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V-s]
30.24	18193
30.64	105942
31.01	777131
31.22	157878
31.52	5861
31.68	41388
31.81	275381
32.08	4630
32.39	20356
32.72	583858
32.85	146373
32.92	96985
33.22	37440
33.42	483399
33.68	283781
34.13	84712
34.30	46902
34.62	17631
34.74	413303
34.94	238854
35.19	146933
35.38	15250
35.53	8624
35.65	52592
35.82	7072
36.05	77868
36.35	1000411
36.56	65853
36.70	27291
36.94	2145
37.25	5190
37.65	486056 -
37.84	222293 -
38.01	137464 -
38.08	129744 -
38.46	7388
38.86	14735
39.16	11434
39.26	100997
39.45	3099
39.84	2274
40.54	220221
40.79	28031
42.05	66534
43.15	7722
43.27	5819
43.40	4771
44.25	28766

7892948

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62704
 Sample Name : 22786 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 12

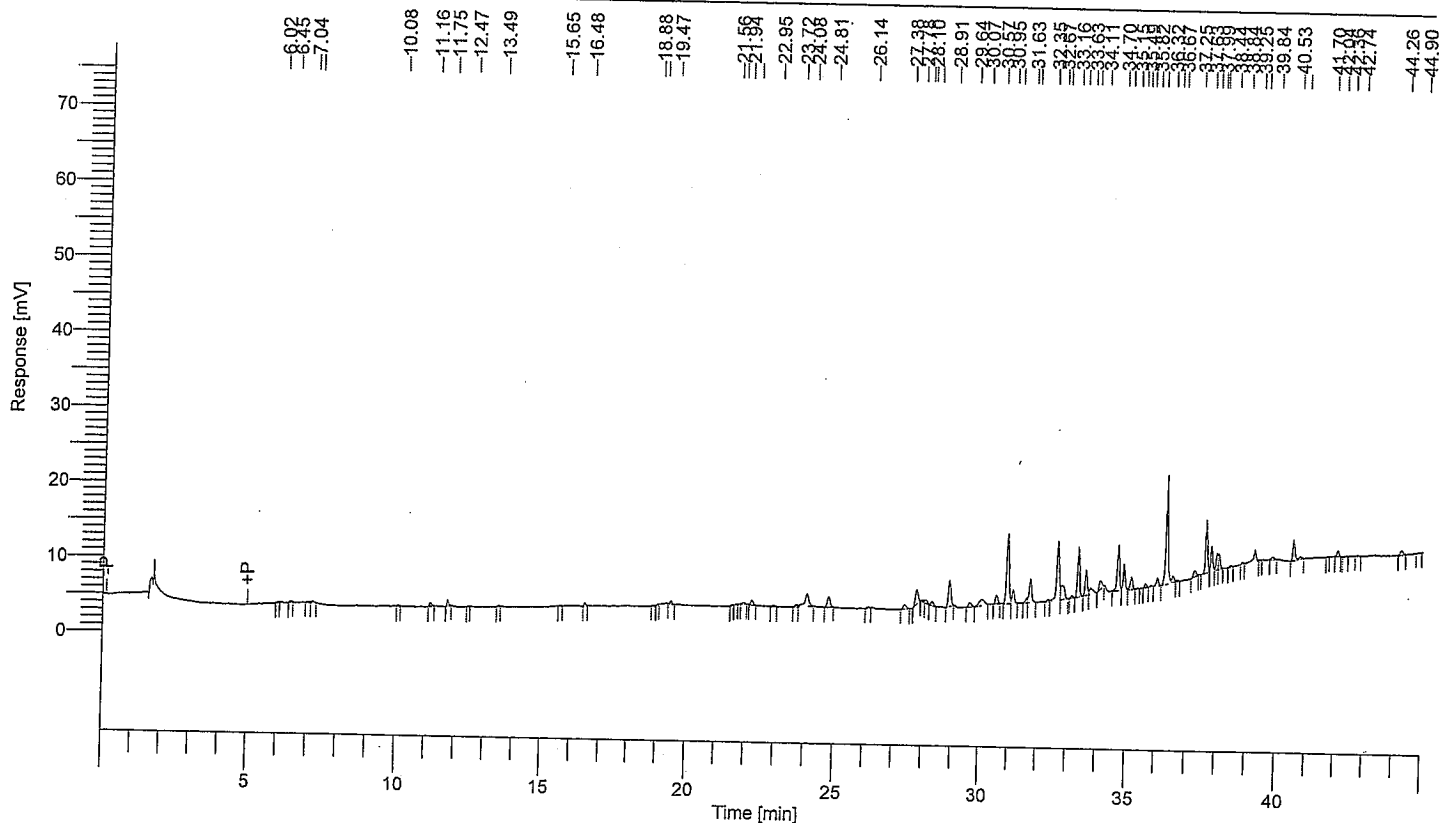
Date : 10/29/2007 11:09:18 AM
 Data Acquisition Time : 10/26/2007 1:21:37 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_012.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.16	2692
11.75	3102
22.23	3527
24.08	16030
24.81	9248
27.38	4174
27.78	13090
28.10	2637
28.30	2956
28.91	21750
29.64	3977
30.07	10391
30.57	6351
30.95	60068
31.15	10385
31.63	2894
31.75	19986
32.67	47246
32.80	16711
33.37	32821
33.63	16895
33.79	6824
34.11	8090
34.70	31046
34.90	16721
35.15	9141

$$\sum \text{Area} = 68716$$

$$\text{avg} = \frac{68716}{359060} = 0.1914$$

$$\text{ppm} = \frac{0.1914}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0766$$

$$\% \text{Recovery} = \frac{0.0766}{0.1} \times 100 = 77\%$$

Time [min]	Area [μ V·s]
35.63	2611
36.02	4882
36.32	74622
36.53	4578
37.25	5126
37.63	34721 ~
37.82	15967 ~
37.99	9439 ~
38.05	8589 ~
39.25	10249
39.84	2169
40.53	14019
40.77	2386
42.04	4119
44.26	3889
<hr/>	
576120	

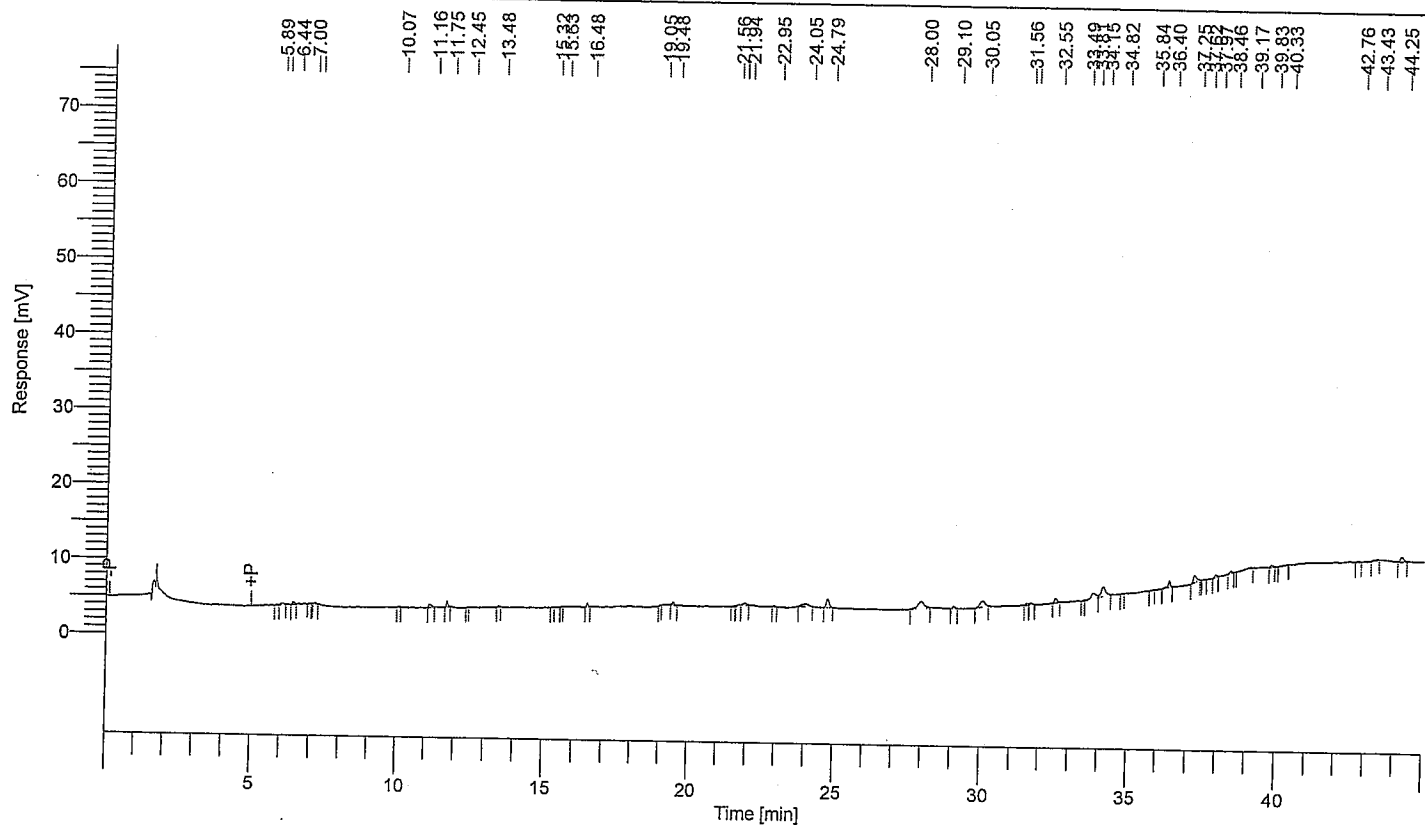
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62708
 Sample Name : 22789 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

Date : 10/29/2007 11:09:29 AM
 Data Acquisition Time : 10/26/2007 4:52:21 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_016.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
11.16	2640
11.75	2990
21.94	2717
24.05	5688
24.79	7758
28.00	14023
30.05	9381
32.55	3012
33.81	9426
34.15	13024
36.40	4655
37.25	7584
44.25	4444

87341

<0.40 ppm total PCB.

(Both sample and duplicate have less than 0.40 ppm PCB).

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62714
 Sample Name : 22792 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

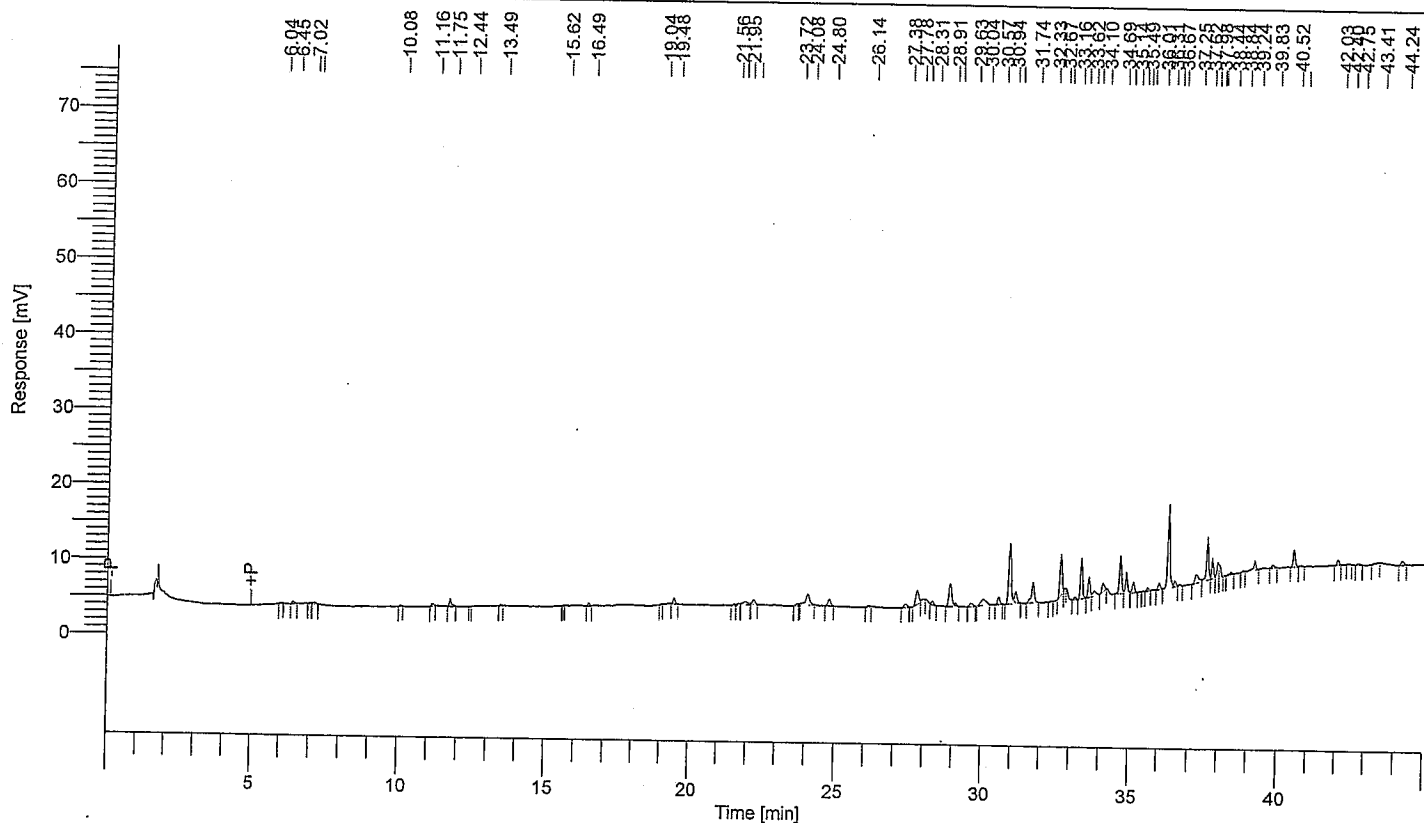
Date : 10/29/2007 11:09:44 AM

Data Acquisition Time : 10/26/2007 10:08:55 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_022.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.75	5126
19.48	3873
21.95	5697
22.23	4127
24.08	15107
24.80	5731
27.38	3486
27.78	13040
28.31	2663
28.91	22022
29.63	3187
30.04	10224
30.57	5555
30.94	53129
31.14	8160
31.74	19584
32.67	30105
33.36	27012
33.62	13316
33.81	5665
34.10	7227
34.69	25513
34.90	14956
35.14	7824
36.01	3887
36.31	59145

$$\sum \text{area} = 59014$$

$$\text{mg conc} = \frac{59014}{359060}$$

$$= 0.1644$$

$$\text{ppm} = \frac{0.1644}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0657 \quad \text{OSR 10/29/2007}$$

$$\% \text{Recovery} = \frac{0.0657}{0.1} \times 100 = 66\%$$

Time [min]	Area [μ V·s]
36.52	4202
37.25	10959
37.62	30676 ~
37.81	12763 ~
37.98	9089 ~
38.04	6486 ~
39.24	7729
39.83	2326
40.52	11600
42.03	3699
44.24	3931
<hr/>	
478820	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62394
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

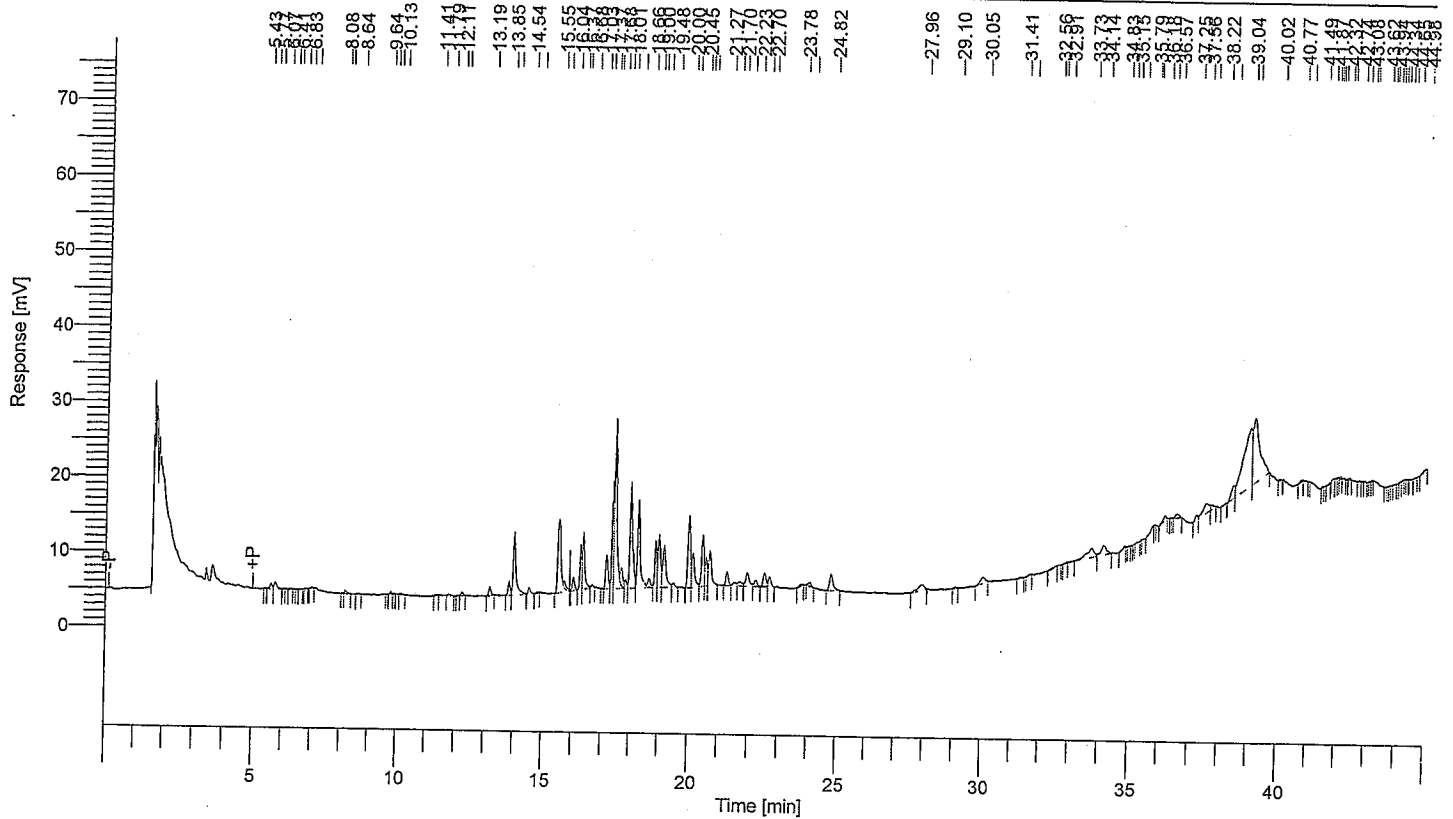
Date : 10/29/2007 1:08:51 AM

Data Acquisition Time : 10/25/2007 4:34:33 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_002.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
5.62	3851
5.77	6421
8.19	2740
12.24	2325
13.19	6242
13.85	9103
14.03	56937
14.54	4776
15.55	77669
15.73	5894
16.04	9596
16.29	22941
16.37	41886
17.16	27381
17.37	55134
17.45	129587
17.68	15906
17.84	6321
18.01	91963
18.29	73508
18.66	8038
18.89	29423
19.00	41397
19.17	42872
19.48	3370
20.00	53596

Time [min]	Area [μ V·s]
20.13	30648
20.45	38134
20.57	19769
20.69	31177
21.27	11209
21.53	3530
21.70	4730
21.95	14799
22.23	5657
22.53	12749
22.70	8410
24.07	3313
24.82	17434
27.96	10970
30.05	9158
32.56	2153
33.73	21736
34.14	14954
35.79	2556
36.18	5114
36.57	4872
37.25	3879
37.56	17515
37.76	3987
38.49	14098
39.04	158411
39.19	138096
41.87	2970
41.94	2253
44.98	2049

1445206

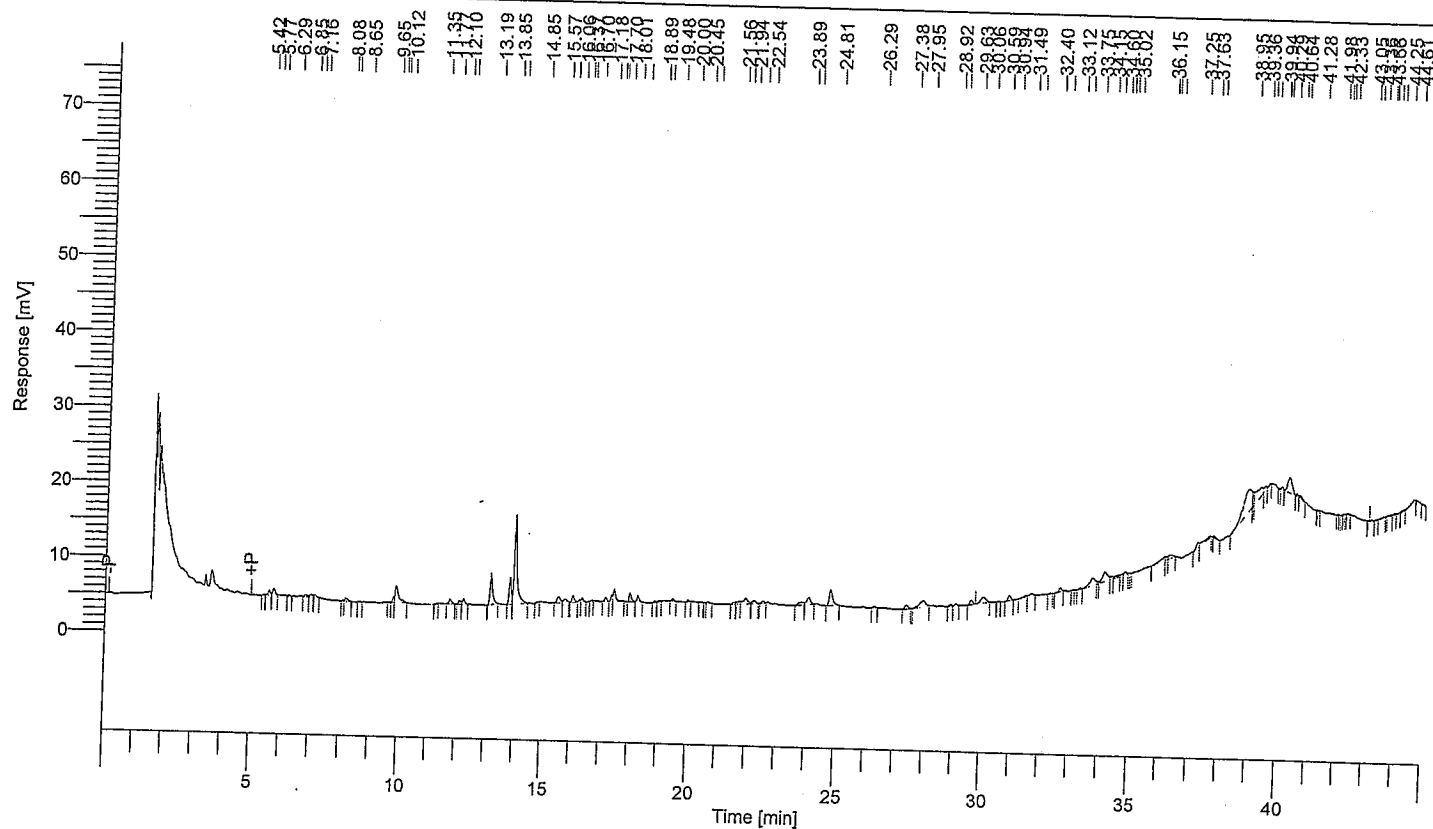
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62695
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

Date : 10/29/2007 11:08:54 AM

Data Acquisition Time : 10/25/2007 5:27:20 PM
 Channel : A
 Operator : envvweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_003.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	3225
5.77	4918
7.02	2179
8.19	2950
9.82	3090
9.91	17171
11.77	4065
12.10	2700
12.25	4330
13.19	24601
13.85	18162
14.02	81770
15.57	6162
15.78	3650
16.06	5125
16.37	2778
17.18	2677
17.37	2940
17.45	9125
18.01	6727
18.29	4177
21.73	2614
21.94	8731
22.23	2918
23.89	4952
24.08	8581

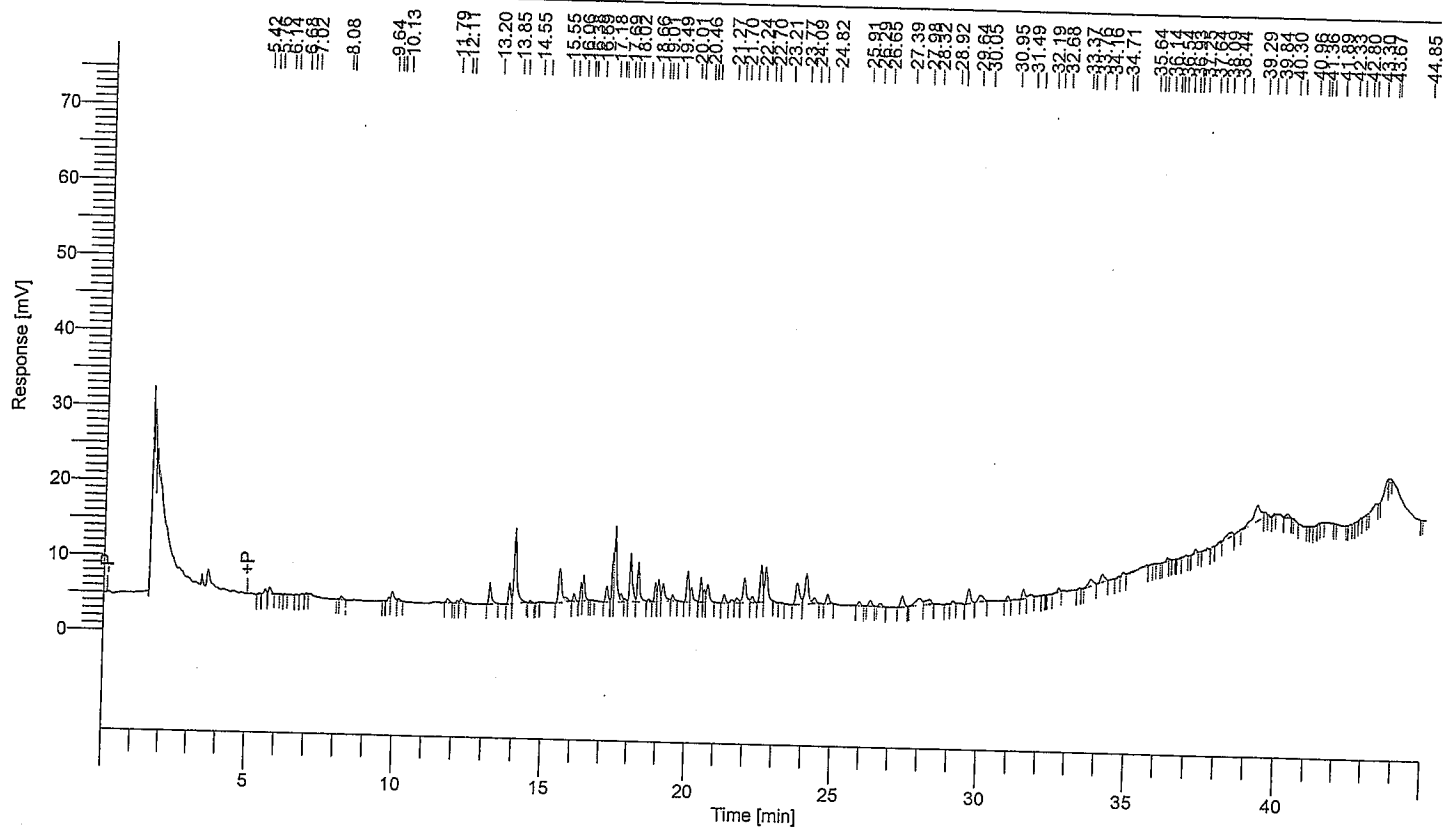
Time [min]	Area [μ V·s]
24.81	17811
27.38	3993
27.95	12271
29.63	4034
30.06	9977
30.94	4145
31.74	3377
32.67	2885
33.75	13295
34.15	15418
34.38	2416
34.60	2742
34.83	2263
36.15	6156
36.22	2484
36.39	4689
37.25	5212
37.63	5208
38.95	59816
39.36	23420
39.49	3711
40.29	21284
40.64	2246
44.61	2337
<hr/>	
	471510

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62696
 Sample Name : AROCHLOR 1232
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

Date : 10/29/2007 11:08:56 AM
 Data Acquisition Time : 10/25/2007 6:20:08 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_004.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V·s]
19.49	4538
20.01	22641
20.14	12540
20.46	17623
20.58	8479
20.70	16220
21.27	6658
21.53	3043
21.70	4757
21.97	25551
22.24	5620
22.53	32281
22.70	34161
23.77	26015
24.09	36208
24.36	5011
24.82	9322
25.91	3979
26.29	5579
26.65	3789
27.39	11187
27.98	14416
28.32	9009
29.12	2159
29.64	14064
30.05	10130
30.95	3746
31.49	9018
31.74	3750
32.68	2812
33.76	10230
34.16	9206
34.85	3353
35.64	7824
36.33	2526
37.25	3196
38.09	2269
38.44	9695
39.29	37910
39.54	3138
40.30	4216
43.30	2916
43.67	7865
43.73	3175

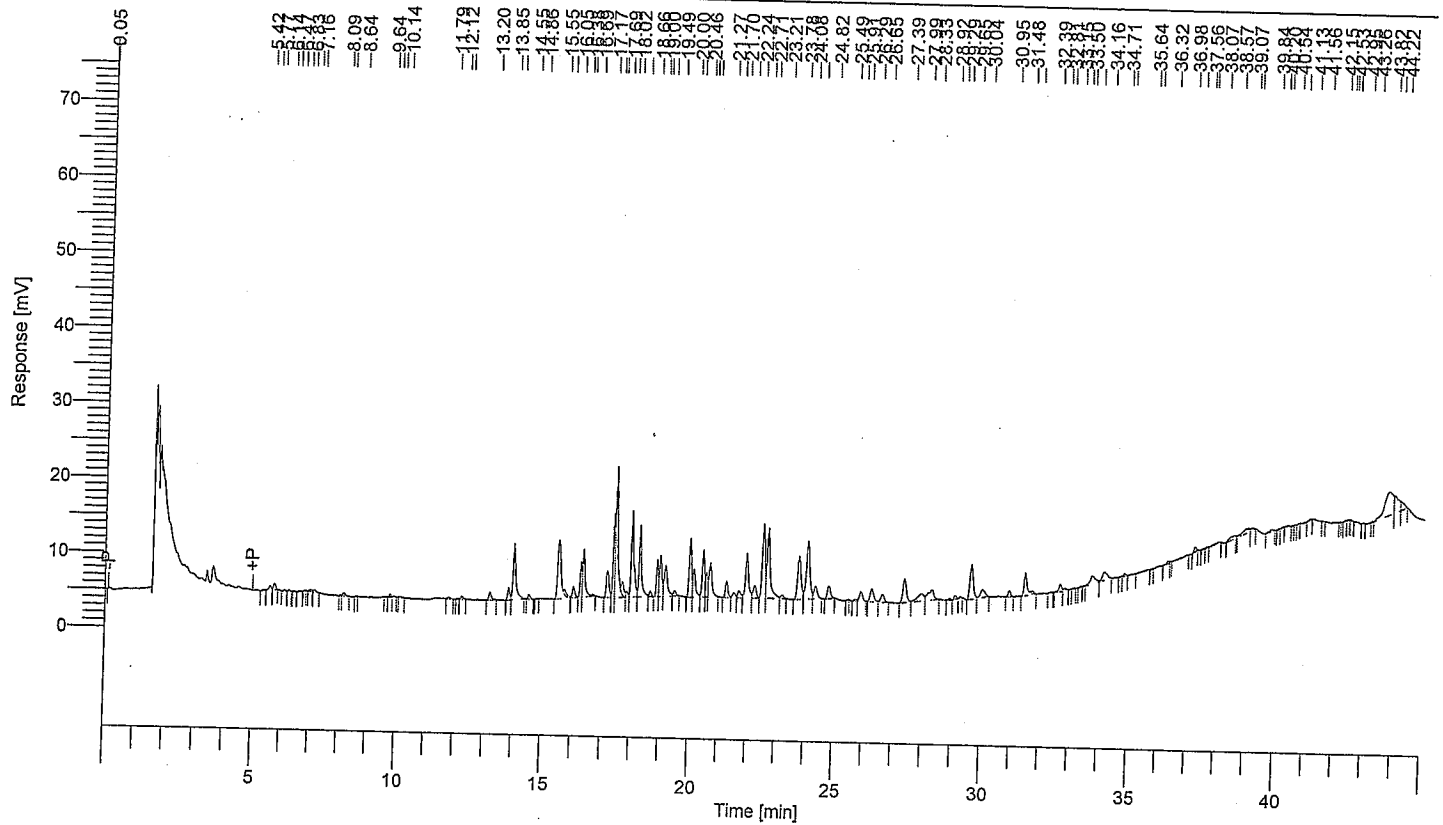
895576

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62697
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

Date : 10/29/2007 11:09:00 AM
 Data Acquisition Time : 10/25/2007 7:12:55 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_005.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	3875
5.77	5062
7.16	2046
8.19	2883
12.25	2334
13.20	6924
13.85	8302
14.03	48754
14.55	3370
15.55	62241
15.74	4938
16.05	8651
16.30	18480
16.38	34647
17.17	21527
17.38	43252
17.46	102741
17.69	12169
17.84	4299
18.02	72732
18.30	56987
18.66	3705
18.90	22157
19.00	30590
19.17	32125
19.49	4445

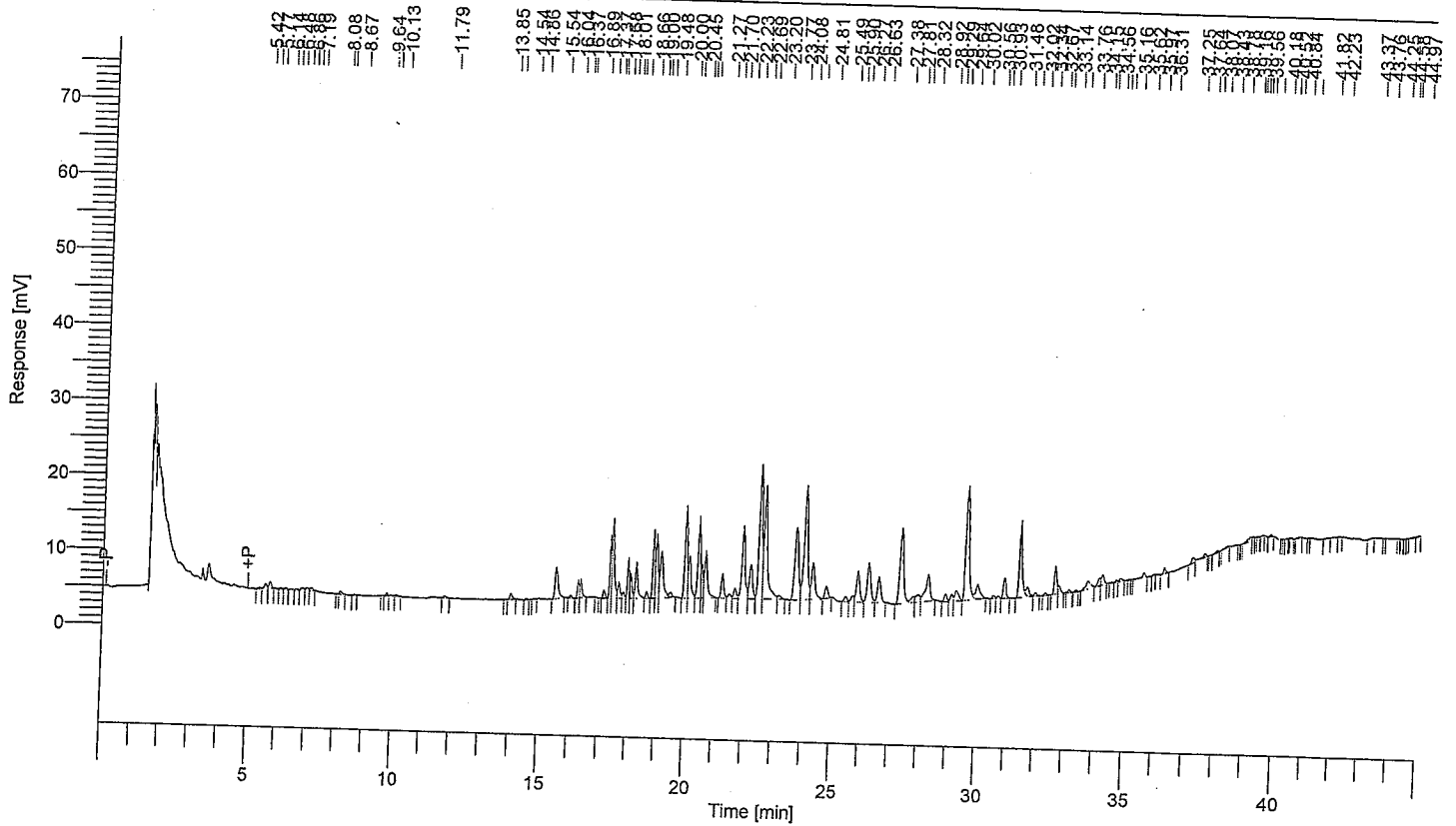
Time [min]	Area [μ V·s]
20.00	43162
20.14	24560
20.46	34524
20.57	16276
20.70	31902
21.27	13180
21.52	4641
21.70	7305
21.96	44333
22.24	12377
22.53	66221
22.71	78646
23.21	3672
23.78	48656
24.08	66269
24.36	13803
24.82	12867
25.91	9749
26.29	14244
26.65	8992
27.39	26537
27.99	15273
28.33	19237
29.13	2567
29.65	33901
30.04	12233
30.95	5073
31.48	21790
31.73	2924
32.67	6191
32.81	2037
33.76	12390
34.16	12024
36.98	3273
37.25	3515
38.07	2572
38.57	6220
39.07	9529
39.18	2411
43.82	60578
44.00	24271
44.22	8726

1467887

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62698
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 1.000000
 Cycle : 6

Date : 10/29/2007 11:09:02 AM
 Data Acquisition Time : 10/25/2007 8:05:38 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_006.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	4112
5.77	5333
6.86	2217
7.02	2348
7.19	2419
8.19	2566
14.03	4604
15.54	29496
16.29	9474
16.37	12005
17.16	5530
17.37	32100
17.45	61419
17.68	12731
17.84	4518
18.01	24806
18.10	16866
18.29	29456
18.66	4495
18.89	42212
19.00	49491
19.16	50424
19.48	4622
20.00	71315
20.13	36721
20.45	62025

Time [min]	Area [μ V·s]
20.57	21437
20.69	43766
21.27	20260
21.51	4098
21.70	9760
21.96	72932
22.23	33523
22.52	124992
22.69	134072
23.20	4073
23.77	90212
24.08	128717
24.35	42182
24.81	11380
25.49	5306
25.73	6108
25.90	33833
26.27	45148
26.63	27747
27.38	86720
27.81	7210
27.98	10130
28.32	38526
28.92	6551
29.13	6098
29.29	12933
29.64	117362
30.02	21663
30.56	2303
30.93	18630
31.48	73812
31.73	9696
32.02	2686
32.67	22332
32.79	6148
33.76	11616
34.15	6986
34.26	8552
34.84	2580
35.62	3967
36.31	4251
37.25	4968
37.64	4624
39.16	5124
39.24	2169

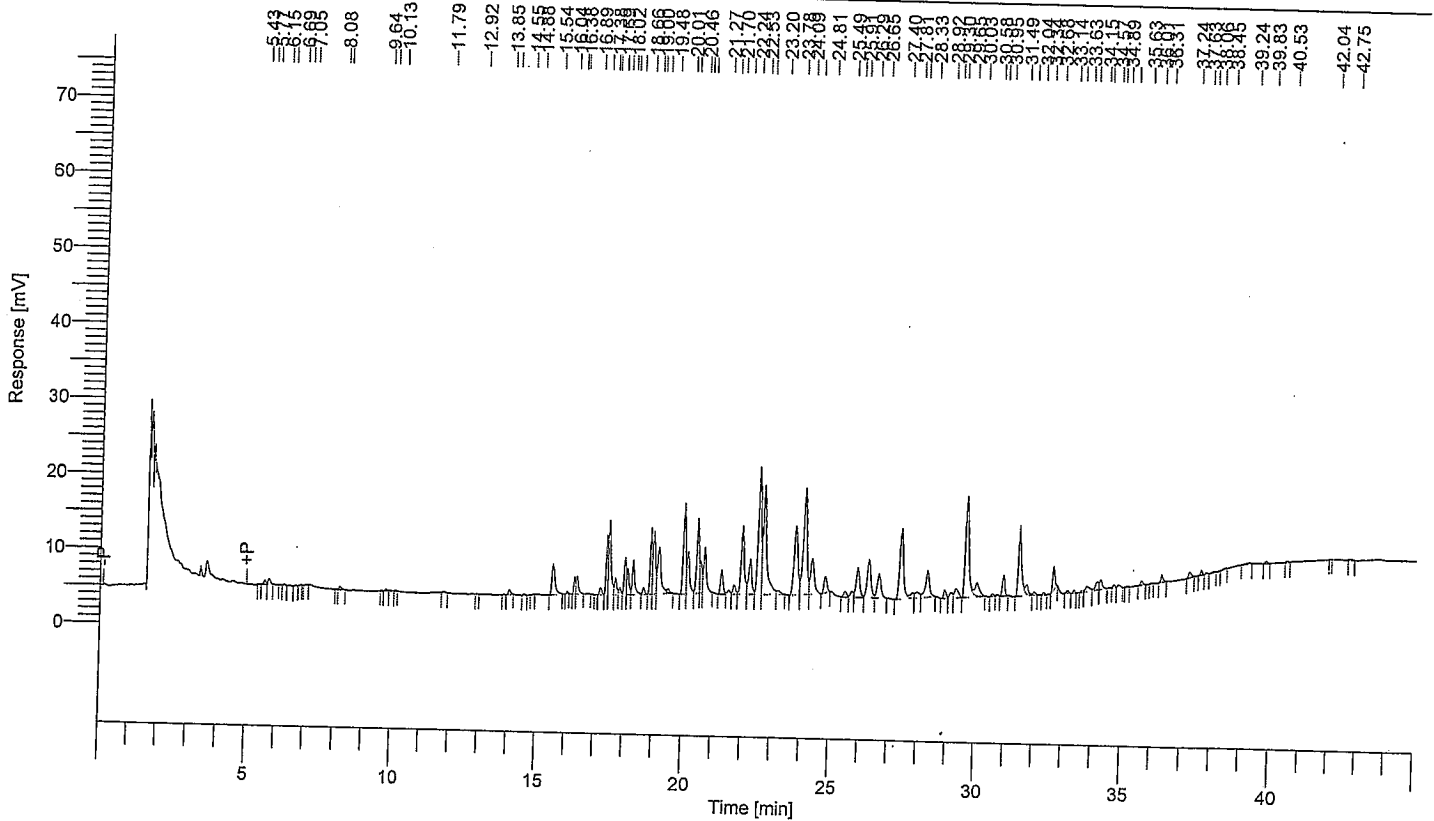
1940491

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62710
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 1.000000
 Cycle : 18

Date : 10/29/2007 11:09:34 AM
 Data Acquisition Time : 10/26/2007 6:37:47 AM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_018.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.62	2917
5.77	4404
8.19	2582
14.03	3703
15.54	30121
16.30	9019
16.38	12499
17.16	5392
17.38	30730
17.46	59701
17.69	13330
17.85	4829
18.02	23447
18.10	17534
18.30	28406
18.66	4420
18.90	41211
19.00	48624
19.17	50347
19.48	3757
20.01	68945
20.14	35914
20.46	58702
20.57	21396
20.71	39466
21.27	19864

Time [min]	Area [μ V-s]
21.52	3274
21.70	8382
21.97	68919
22.24	33951
22.53	119688
22.71	135088
23.20	4897
23.78	86945
24.09	126931
24.36	42361
24.81	15560
25.49	5132
25.74	5832
25.91	33454
26.29	45046
26.65	28762
27.40	85163
27.81	6360
27.97	8314
28.33	35523
28.92	6863
29.14	5259
29.30	11721
29.65	113715
30.03	20186
30.95	18275
31.49	72637
31.75	9602
32.04	2525
32.68	16617
33.14	2003
33.80	6952
34.15	8750
34.26	8336
34.89	2581
35.63	2958
36.31	5233
37.24	5080
37.63	2802

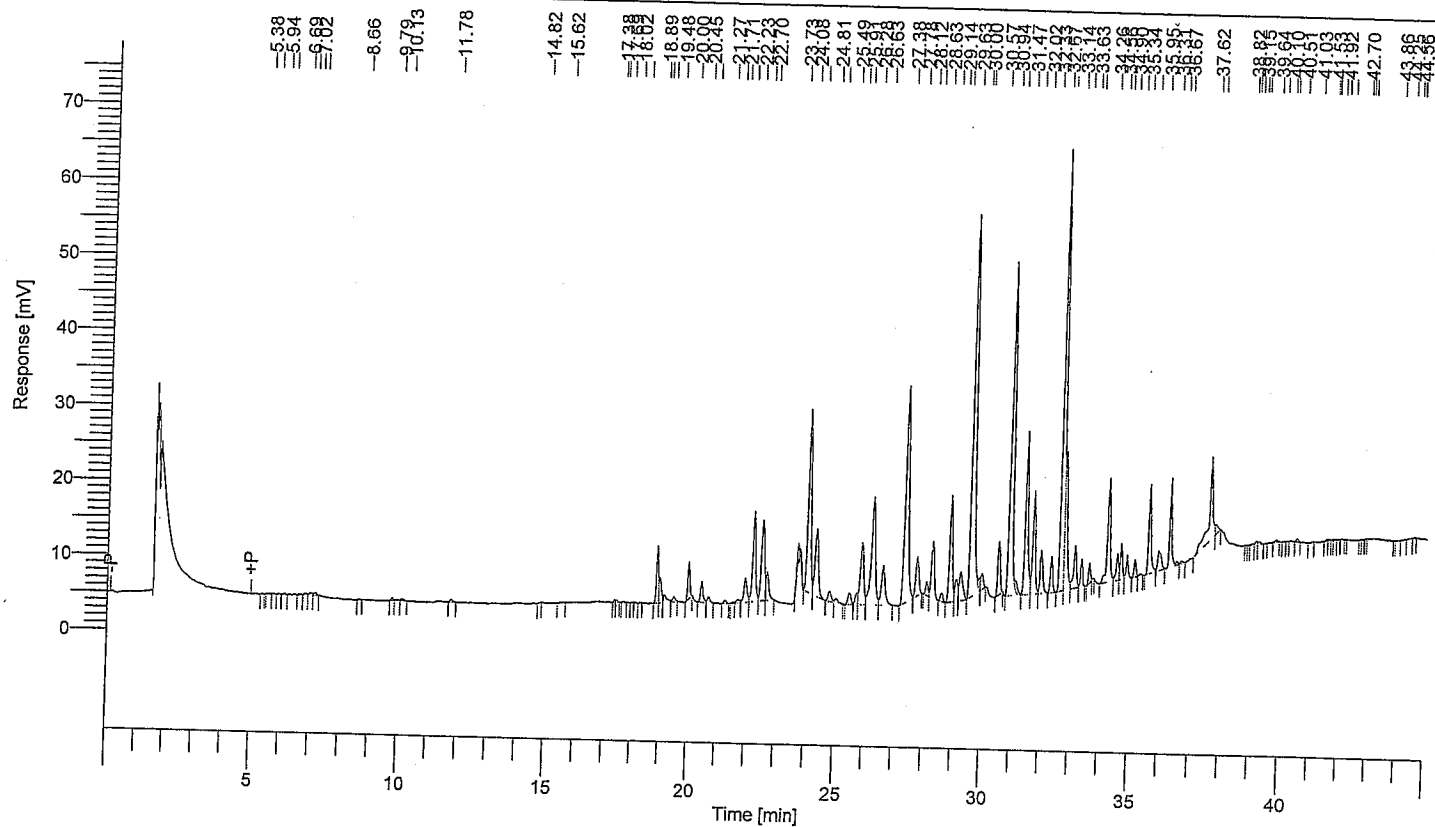
1862936

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62699
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

Date : 10/29/2007 11:09:05 AM
 Data Acquisition Time : 10/25/2007 8:58:21 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_007.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
7.02	2353
7.18	2211
11.78	2308
18.89	38351
19.00	18943
19.15	8770
19.48	3815
20.00	25113
20.45	16201
20.70	5019
21.27	2554
21.71	3241
21.96	23573
22.23	82774
22.53	81263
22.70	27154
23.73	12579
24.08	177450
24.36	70033
24.81	10050
25.04	4464
25.49	11440
25.74	8984
25.91	70447
26.28	135188
26.63	47356

Time [min]	Area [μ V·s]
27.38	247162
27.78	38298
28.12	11044
28.32	54415
28.63	6536
28.91	100616
29.14	20343
29.28	31800
29.63	381439
29.92	7691
30.00	15227
30.57	40728
30.94	305457
31.14	9195
31.47	149860
31.74	86150
32.02	33703
32.33	26675
32.67	344727
32.80	107884
33.14	36564
33.36	18144
33.63	12819
34.26	89300
34.56	20093
34.69	24172
34.90	16002
35.14	10721
35.62	66995
35.95	20387
36.31	56361
36.53	2547
36.67	2160
37.62	92003
37.80	8347
39.15	2490
39.23	2462
40.51	2190

3394340

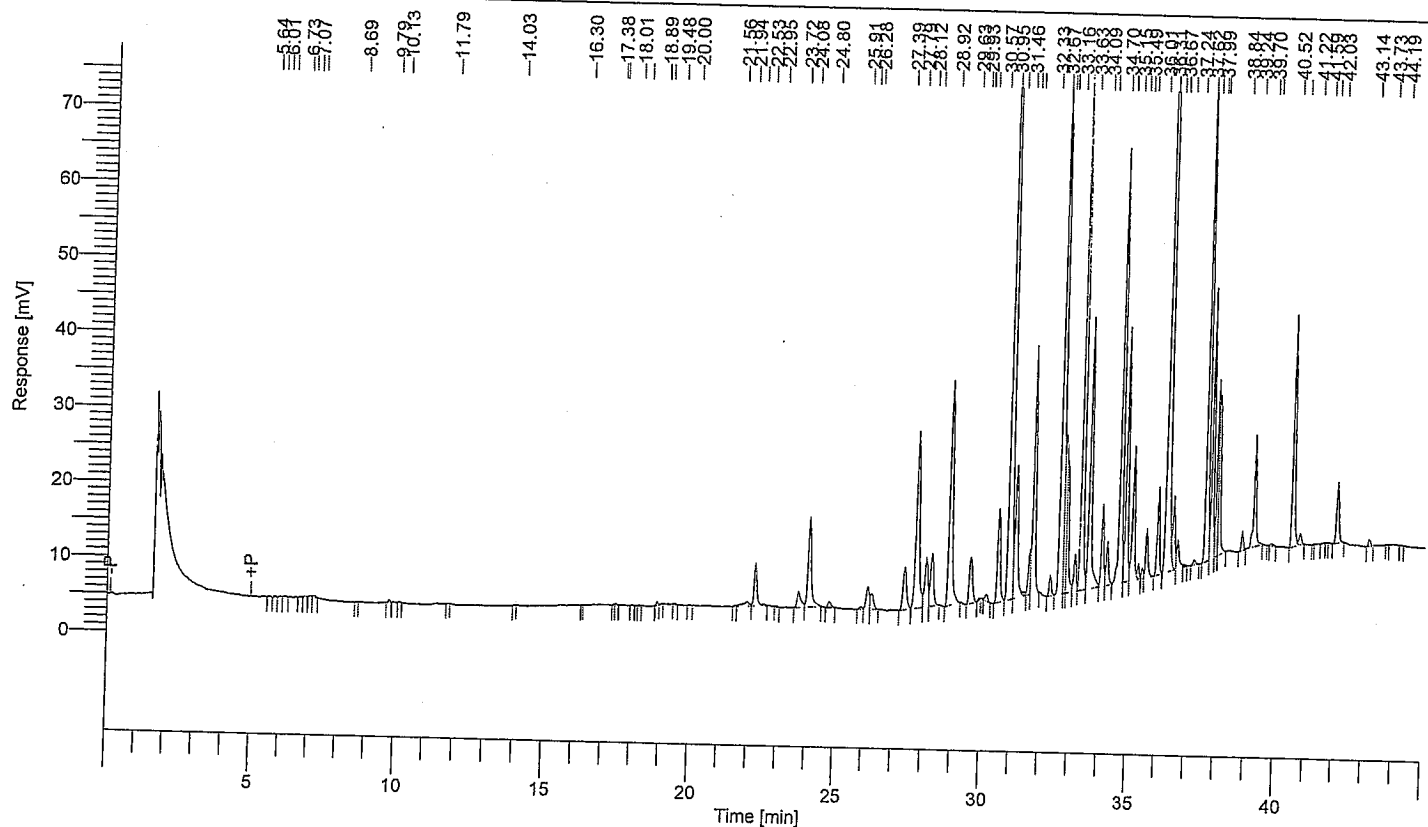
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62700
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 1.000000
 Cycle : 8

Date : 10/29/2007 11:09:08 AM

Data Acquisition Time : 10/25/2007 9:51:00 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_008.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
7.07	2110
7.22	2116
18.89	2207
21.94	9604
22.23	39984
23.72	19737
24.08	97425
24.80	6079
25.91	2288
26.14	22911
26.28	16033
27.39	48497
27.79	193338
28.12	51734
28.31	52524
28.92	227270
29.63	45037
30.17	5450
30.57	79083
30.95	595043
31.15	127092
31.46	4094
31.63	27704
31.74	202233
32.33	14394
32.67	443874

$$\sum \text{area} = 718120$$

$$CF = \frac{718120}{2}$$

$$= 359060$$

Time [min]	Area [μV·s]
32.80	108087
32.87	86859
33.16	28613
33.37	371512
33.63	216378
34.09	61604
34.26	34393
34.70	323745
34.90	181334
35.15	111161
35.34	10346
35.49	6149
35.62	36789
36.01	57135
36.31	754074
36.52	54302
36.67	23040
37.24	4449
37.62	355557 -
37.81	169076 -
37.99	96279 -
38.04	97208 -
38.84	11641
39.24	86090
39.83	2002
40.52	157343
40.79	8926
42.03	46774
43.14	4880

5843608

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62703
 Sample Name : 22786 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

Date : 10/29/2007 11:09:17 AM
 Data Acquisition Time : 10/26/2007 12:28:57 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

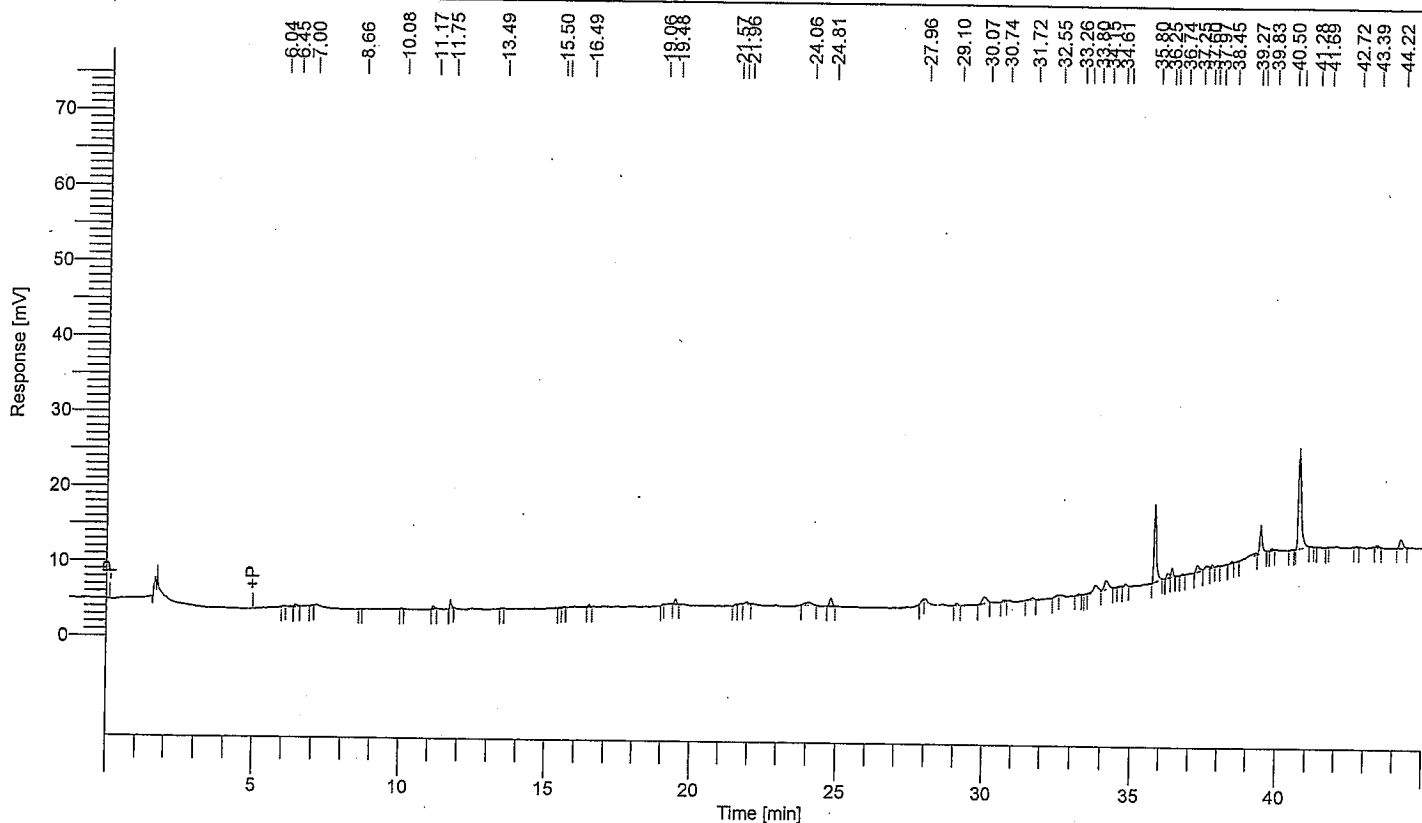
Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_011.rst

Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.17	2224
11.75	4331
19.48	3326
21.75	2008
21.96	3138
24.06	6030
24.81	6766
30.07	9672
31.72	2985
33.80	10880
34.15	11919
34.80	2043
35.80	60183
36.25	4189
36.40	4824
37.25	7832
37.60	4505
37.77	2477
39.27	6019
39.44	21129
40.74	85930
44.22	9130

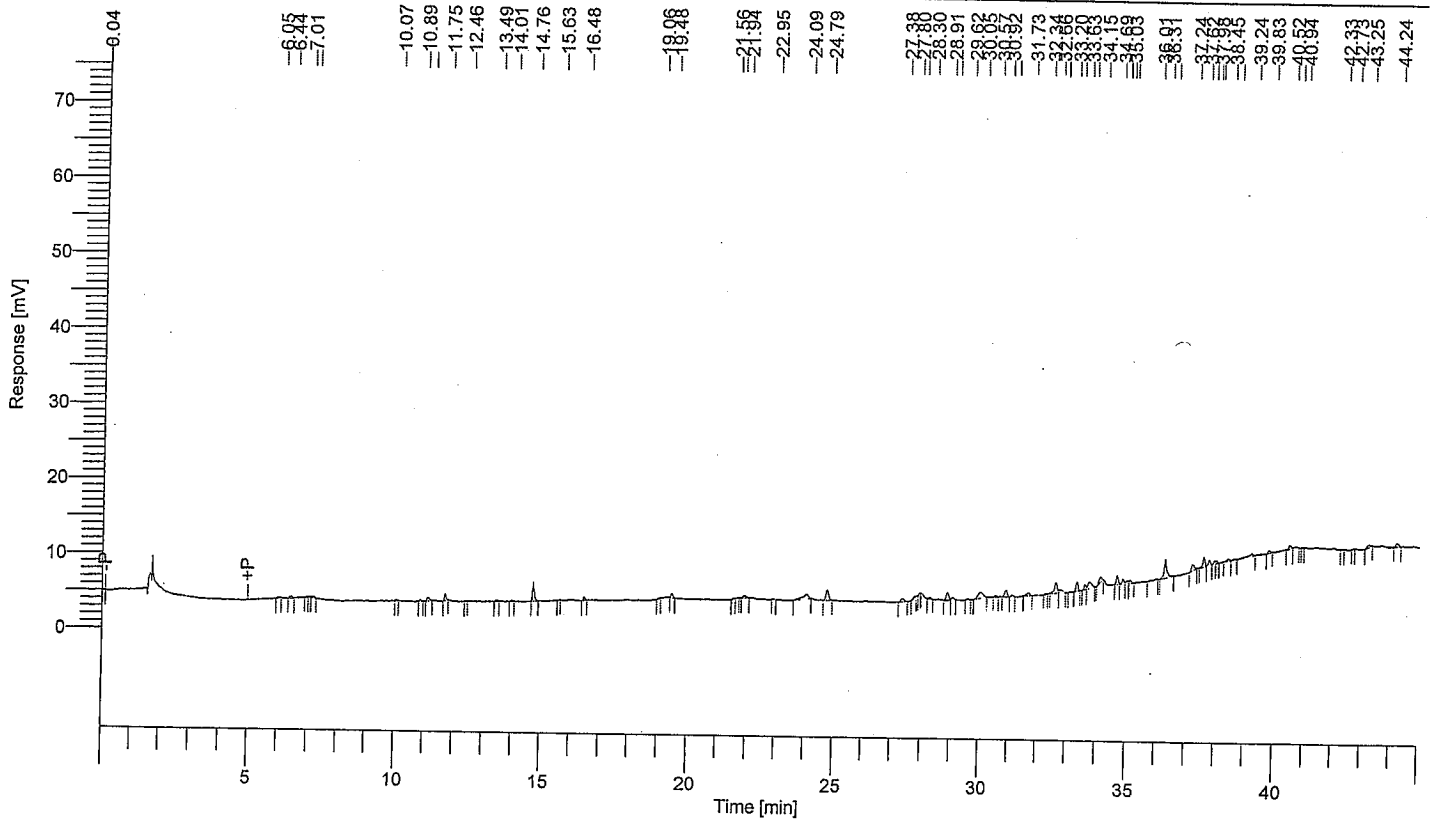
<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62705
 Sample Name : 22787 1:10
 Instrument Name : GC014
 Rack/Vial : 0/13
 Sample Amount : 50.000000
 Cycle : 13

Date : 10/29/2007 11:09:21 AM
 Data Acquisition Time : 10/26/2007 2:14:18 AM
 Channel : A
 Operator : enweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_013.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.44	2010
11.16	2732
11.75	3286
14.76	10185
19.48	2643
21.94	2330
24.09	8426
24.79	8824
27.38	3273
28.91	6289
30.05	10365
30.92	5912
31.73	3703
32.66	9401
32.82	3349
33.36	5698
33.63	3132
33.78	7768
34.15	4760
34.69	5577
34.90	3472
35.03	2197
35.14	2282
36.31	14636
37.24	5649
37.62	6310

LO.40 ppm Total PCB

Time [min]	Area [μ V-s]
37.81	3133
39.24	4020
40.52	2753
43.25	2641
44.24	3125
<hr/>	
159882	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62706
 Sample Name : 22788 1:10
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 50.000000
 Cycle : 14

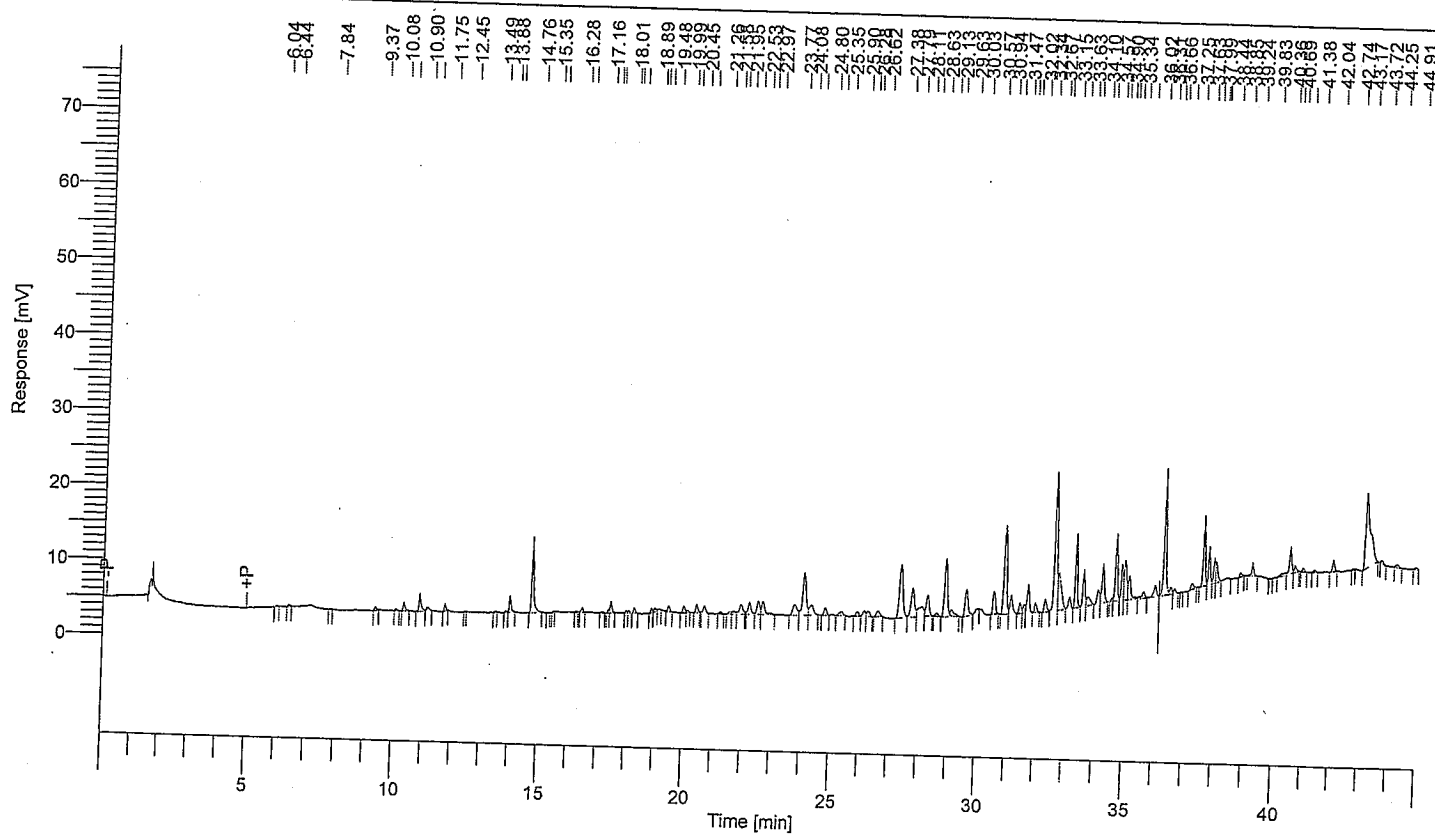
Date : 10/29/2007 11:09:24 AM

Data Acquisition Time : 10/26/2007 3:06:59 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_014.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
9.37	2018
10.35	5140
10.90	11305
11.16	2789
11.75	3653
14.01	9174
14.76	46347
16.49	2828
17.45	6753
18.29	3220
18.89	2466
19.00	2759
19.48	3663
19.99	4529
20.45	5856
20.70	5950
21.70	2829
21.95	10479
22.23	11047
22.53	12316
22.69	12778
23.77	14447
24.08	47175
24.33	12637
24.80	6417
25.35	4231

<0.40 ppm total PCB.

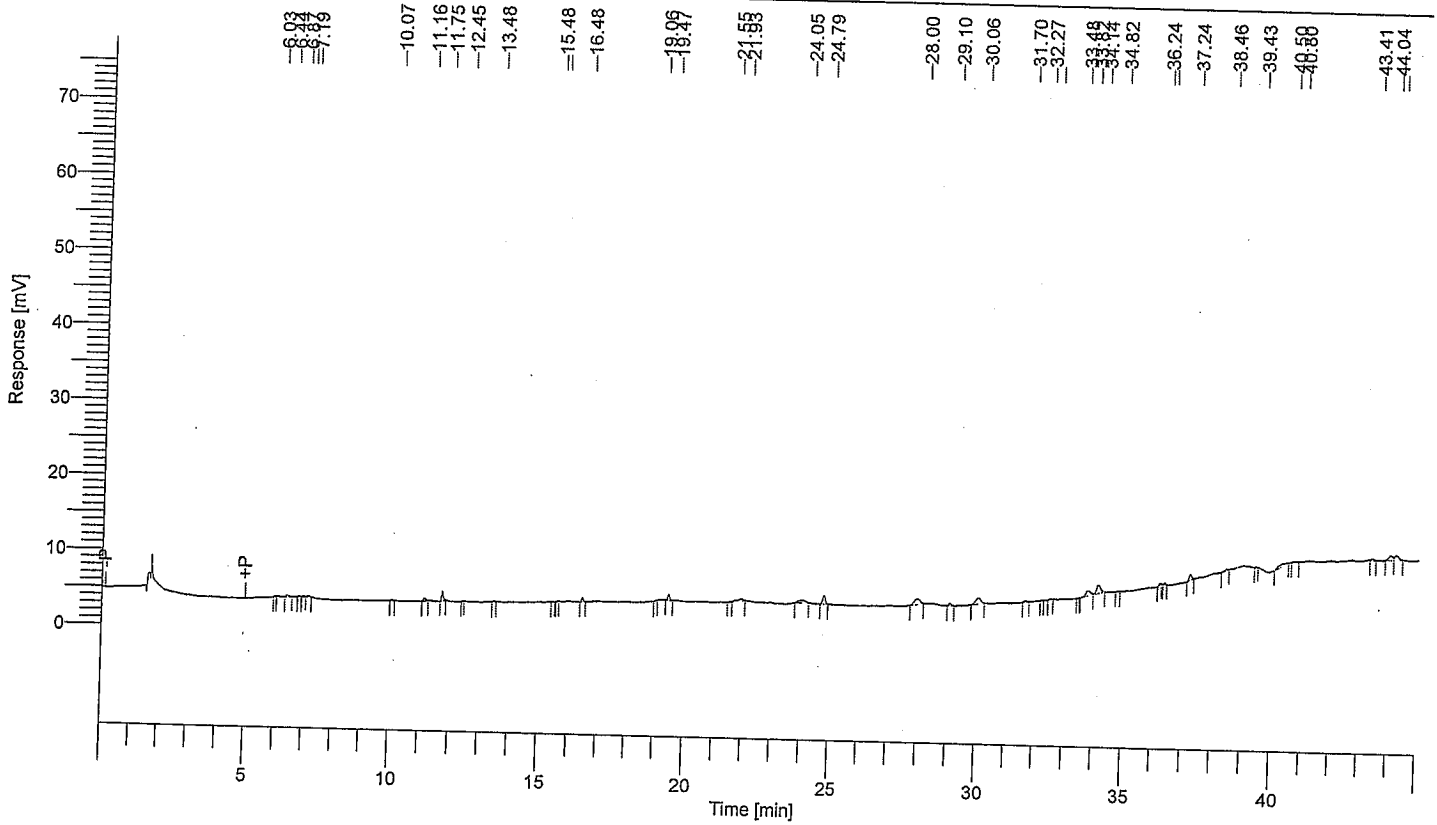
Time [min]	Area [μ V-s]
25.90	4378
26.14	5175
26.28	5342
26.62	6272
27.38	60931
27.79	31432
28.11	18103
28.31	20013
28.63	2407
28.91	55053
29.13	7337
29.63	24187
30.03	2332
30.57	17998
30.94	79803
31.16	16146
31.47	8365
31.63	5927
31.75	21434
32.02	6848
32.34	9950
32.67	108668
32.80	40052
33.15	8786
33.37	47090
33.63	23691
33.78	9582
34.10	11087
34.26	31040
34.70	43927
34.90	22990
35.00	30624
35.15	18563
35.62	6326
36.02	8712
36.31	85638
36.53	4873
36.66	3591
37.25	5590
37.63	42555
37.82	23010
37.99	14433
38.05	12197
38.44	2829
38.85	2949
39.24	9742
40.36	4355
40.52	18362
40.69	5393
40.97	2553
42.04	8080
43.17	111373
43.72	2377
44.25	2701

1435982

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62707
 Sample Name : 22789 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

Date : 10/29/2007 11:09:27 AM
 Data Acquisition Time : 10/26/2007 3:59:40 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_015.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.44	2011
11.16	2134
11.75	4768
16.48	2076
19.47	3663
21.93	4153
24.05	5596
24.79	7441
28.00	9879
29.10	2069
30.06	9798
33.82	7861
34.14	10581
37.24	4816
40.50	6410
44.04	6404
44.24	5601

95260

<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62711
 Sample Name : 22790 1:10
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 50.000000
 Cycle : 19

Date : 10/29/2007 11:09:37 AM

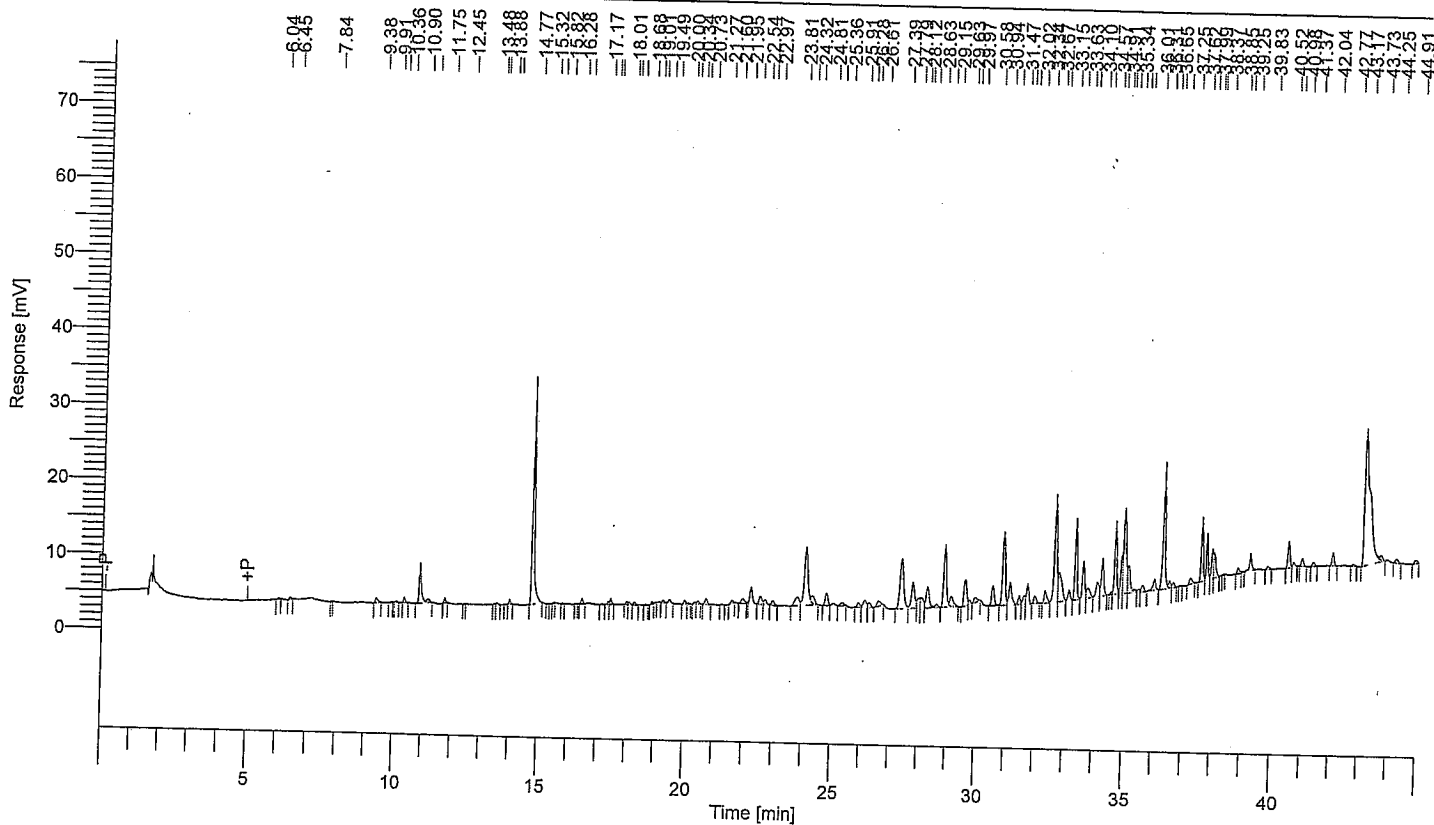
Data Acquisition Time : 10/26/2007 7:30:31 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_019.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
9.38	3565
10.36	3179
10.90	26390
11.19	3670
11.75	2611
14.01	2488
14.77	134822
16.49	3281
17.45	3411
19.49	2586
20.00	2396
20.73	4703
21.60	2170
21.95	4638
22.23	13586
22.54	7312
22.70	4359
22.97	3817
23.81	12930
24.09	66234
24.32	8751
24.81	10787
25.06	2388
25.36	3157
25.91	3979
26.13	7867

<0.40 ppm total PCB

Time [min]	Area [μ V-s]
26.28	4266
26.61	6032
27.39	58013
27.79	28983
28.01	9718
28.12	10684
28.32	22363
28.63	3271
28.92	56860
29.15	10968
29.63	23583
29.77	2891
29.97	5463
30.58	15296
30.94	66959
31.16	20867
31.47	6685
31.63	6341
31.75	15695
32.02	5822
32.34	10746
32.67	83355
32.80	36268
33.15	7918
33.37	52970
33.63	26941
33.78	11417
34.10	12658
34.26	29441
34.70	48602
34.91	22171
34.99	68825
35.14	22000
35.34	2324
35.62	4995
36.01	7789
36.31	86072
36.52	5342
36.65	3743
37.25	5586
37.62	39889
37.82	26842
37.99	16593
38.05	15876
38.85	4064
39.25	12571
40.52	16910
40.69	3052
40.98	5769
41.37	3018
42.04	9695
43.17	238787
43.73	5097
44.25	3384
44.91	2728

1679277

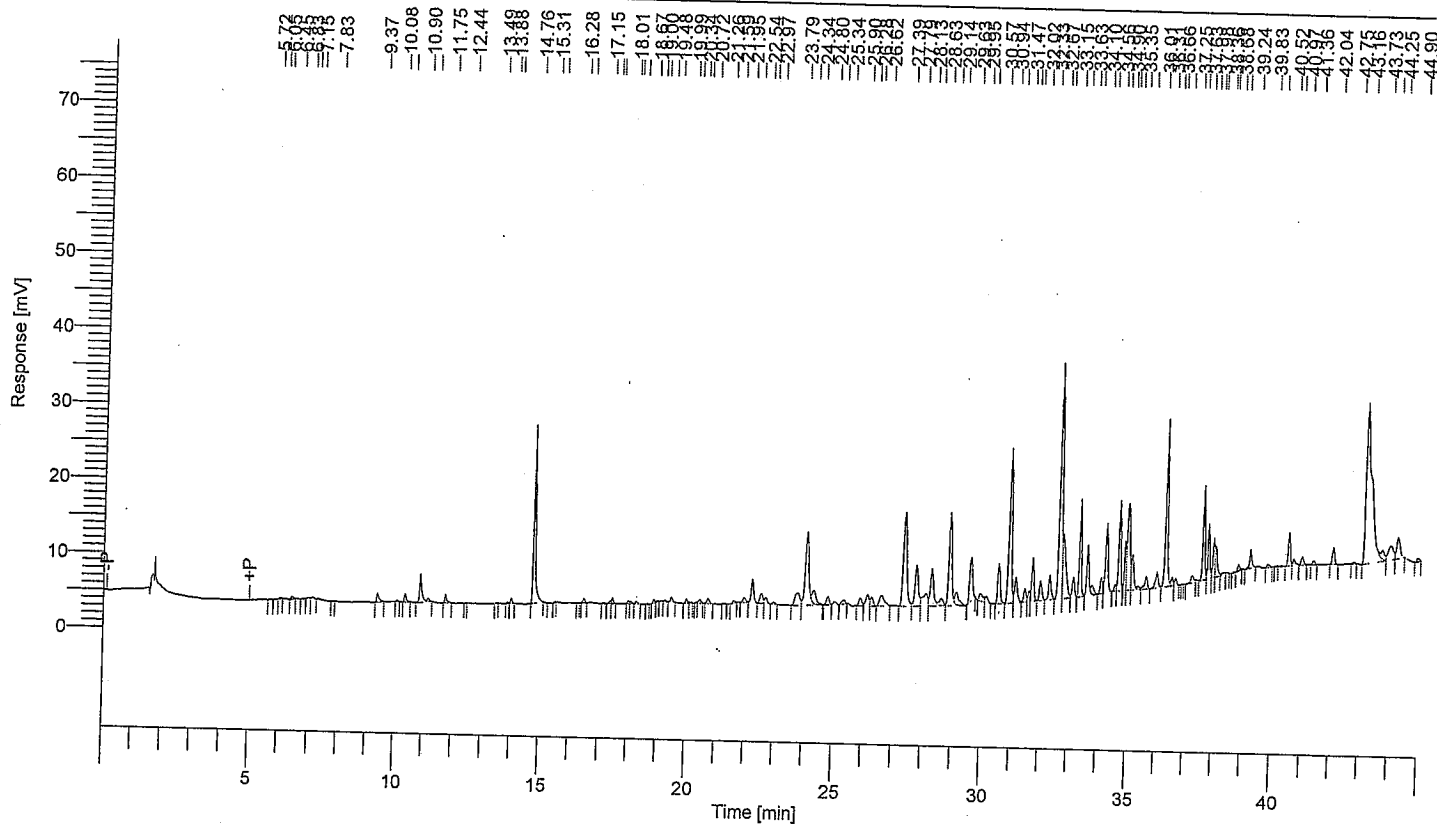
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62712
 Sample Name : 22791 1:10
 Instrument Name : GC014
 Rack/Vial : 0/20
 Sample Amount : 50.000000
 Cycle : 20

Date : 10/29/2007 11:09:39 AM

Data Acquisition Time : 10/26/2007 8:23:17 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_020.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



Time [min]	Area [μ V-s]
26.62	16058
27.39	105435
27.79	44226
28.13	21663
28.31	39738
28.63	8519
28.91	90505
29.14	15806
29.63	35202
29.95	9721
30.15	5174
30.57	31694
30.94	136933
31.15	23350
31.47	10127
31.62	7323
31.74	32118
32.02	14659
32.33	19470
32.67	185434
32.79	66314
33.15	15157
33.37	63923
33.63	35865
33.78	8628
34.10	12853
34.26	52428
34.56	3613
34.70	58735
34.90	28258
35.00	70689
35.14	27706
35.35	2717
35.62	11625
36.01	13250
36.31	116388
36.52	5963
36.66	4926
37.25	7190
37.63	59085
37.81	33723
37.98	23826
38.05	19959
38.36	2857
38.85	4010
39.24	12913
39.83	2428
40.52	21257
40.69	5718
40.97	5954
41.36	2634
42.04	11953
43.16	280235
43.73	11342
44.00	23815
44.25	22319
44.90	2415

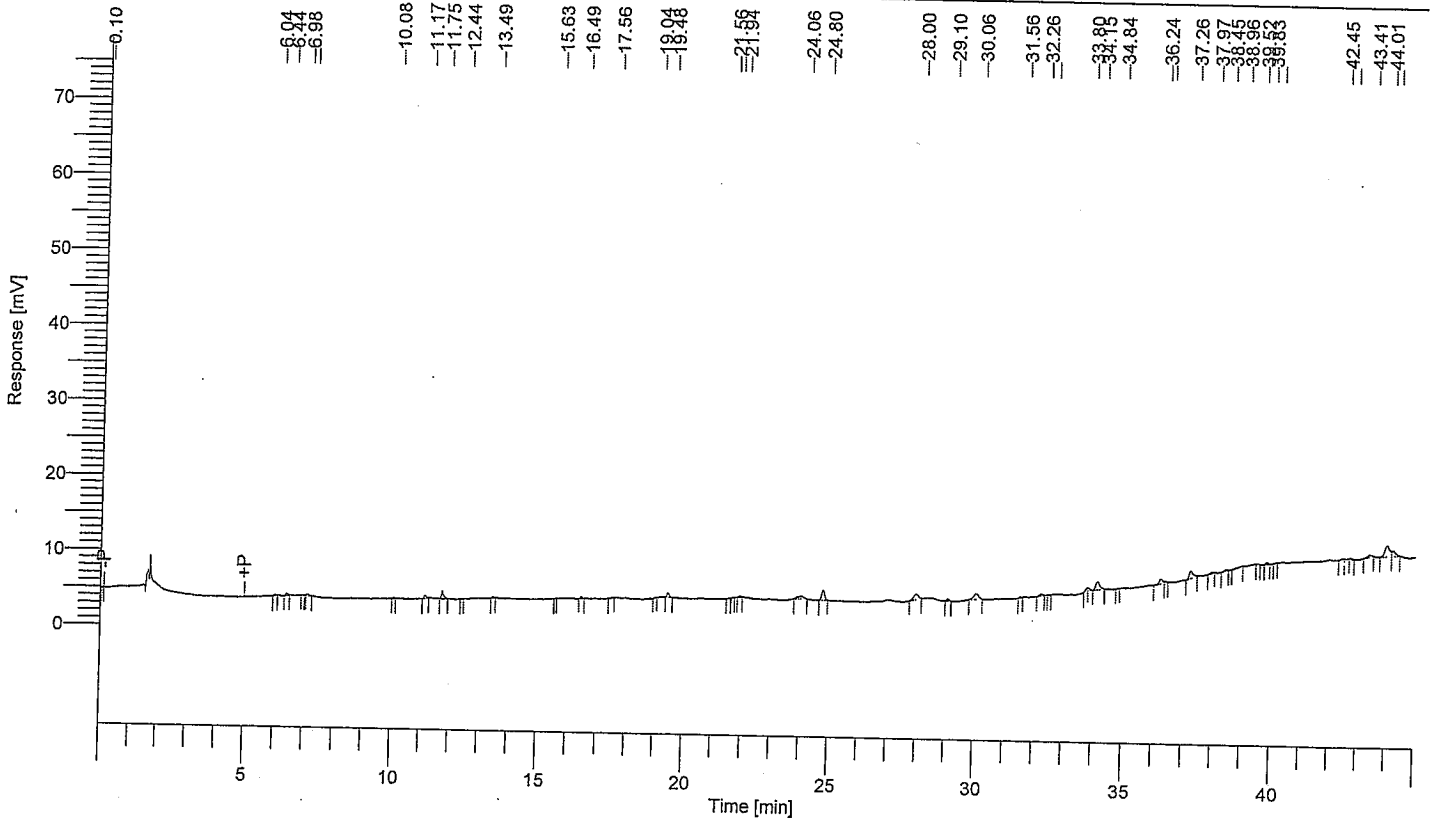
2369696

Software Version : 6.3.1.C504
 Reprocess Number : totalchrom: 62713
 Sample Name : 22792 1:10
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 50.000000
 Cycle : 21

Date : 10/29/2007 11:09:41 AM
 Data Acquisition Time : 10/28/2007 9:16:06 AM
 Channel : A
 Operator : envveigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_021.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.17	2395
11.75	5141
19.48	2777
24.06	5238
24.80	9124
28.00	8774
30.06	8589
34.15	10084
36.24	4895
37.26	9092
43.41	2638
44.01	17795
44.23	6358

92899

< 0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62715
 Sample Name : 22793 1:10
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 50.000000
 Cycle : 23

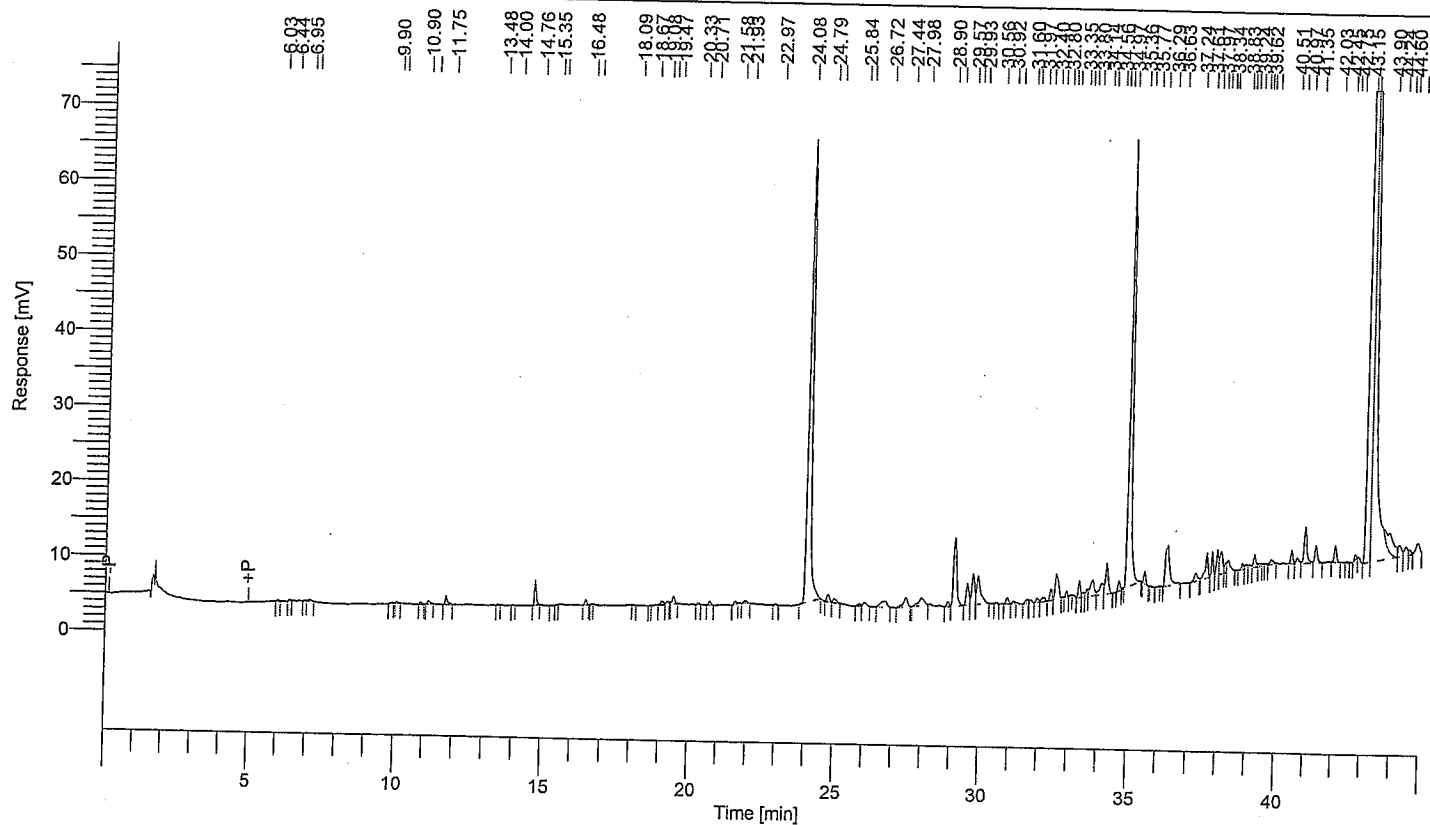
Date : 10/29/2007 11:09:46 AM
 Data Acquisition Time : 10/26/2007 11:01:48 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11_023.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100802 AV SET 11\SET#11.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
11.16	2797
11.75	6167
14.76	13581
16.48	3422
19.08	3582
19.26	2587
19.47	5762
20.71	2702
21.58	2123
21.93	2481
24.08	470143
24.79	5886
25.01	4115
25.84	2174
26.03	4409
26.72	11811
27.44	12826
27.98	14146
28.90	3756
29.13	67316
29.57	19439
29.75	28304
29.93	36541
30.92	4934
31.60	3764
31.72	2784

<0.40 ppm total PCB.

Time [min]	Area [μ V·s]
31.97	3225
32.16	4803
32.40	8065
32.58	24810
32.93	3704
33.35	10925
33.48	3779
33.62	4863
33.80	20861
34.14	14668
34.27	26696
34.68	6698
34.97	349127
35.53	7234
36.29	53610
37.24	8289
37.61	21144
37.81	14594
37.97	16204
38.10	21122
38.25	6456
38.34	11546
38.83	3631
38.96	3496
39.07	2740
39.24	10833
39.41	2408
39.82	4663
40.51	8827
40.71	5373
40.97	31579
41.35	14054
42.03	12042
42.75	3180
43.15	1106580
43.27	642269
43.90	46455
44.24	13287
44.46	9611
44.60	4469
44.87	12703

3318180

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100803 Avant Level IV QAQC
Set #12

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SF
PREP DATE:	10-26-07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AA11900004		
PREP. DATE:	08-07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS
1	SPIKE 1	50.0
2	22794	50.0
3	22795	50.0
4	22795 ms	50.0
5	22796	50.0
6	22796 msd	50.0
7	22797	50.0
8	22797 dup	50.0
9	22798	50.0
10	Blank	-
11		
12		
13		
14		
15		
16		
17		
18		
19		

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	SF	ALiquot RATIO:	50/100
COLUMN I.D.:	809200	FINAL VOLUME:	2.0 mL
DATE USED:	10/26/2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGV (cm/s)	NOT GIVEN	A1016 I.D.	Y11300003
INST. CAL I.D.	MX50100154	A1221 I.D.	Y11400003
INST. CAL PREP. DATE:	9/14/2007	A1232 I.D.	Y11500003
ANALYTE 1		A1242 I.D.	Y11600003
RETENTION TIME (MIN)	14.37	A1248 I.D.	Y11700005
R.T. ACCURACY (%)	99	A1254 I.D.	X11800011
SENSITIVITY (AREA)	468242	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	103	CAL PREP DATE: 10/2/2007	
ANALYTE 2			
RETENTION TIME (MIN)	16.58		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	823617		
SENS. ACCURACY (%)	83		

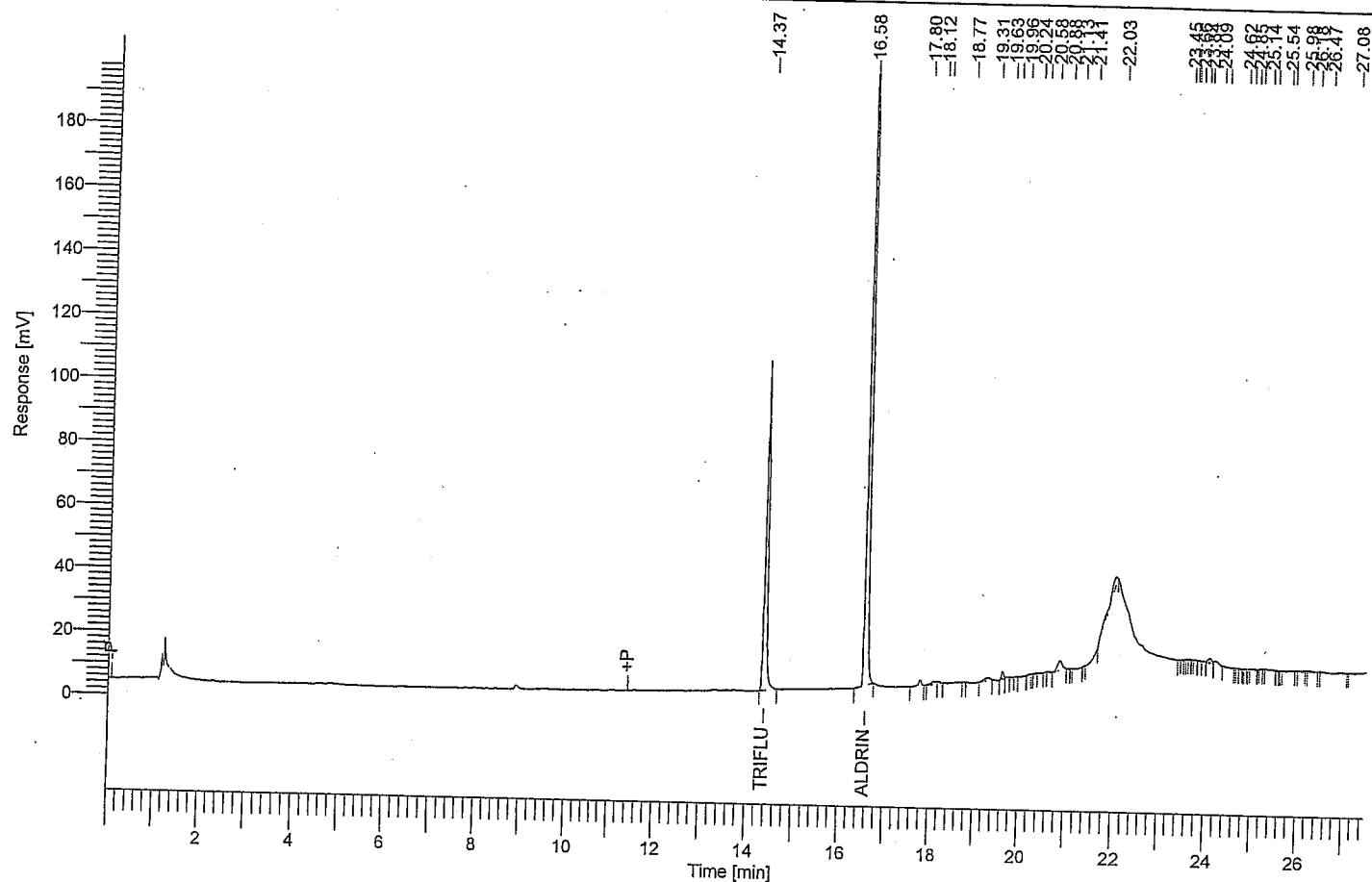
COMMENTS

Solvent rinse sample glassware three times with acetone and three times with hexane before washing. Use 0.5 mL Arochlor 1260 INT for the matrix spike and the matrix spike duplicate.

Software Version : 6.3.1.0504
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

Date : 10/25/2007 3:29:44 PM
Data Acquisition Time : 10/25/2007 12:25:15 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003-20071025-125257.rst
Sequence File : C:\PEST\GC14\Sequences\EIC.seq



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [μV·s]
14.37	TRIFLURALIN	408241.61
16.58	ALDRIN	823696.54
		1231938.14

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WW,SL\COMB.seq

Printed by : envweigh on: 10/29/2007 8:50:15 AM
 Created by : envweigh on: 10/26/2007 10:32:38 AM
 Edited by : envweigh on: 10/29/2007 8:50:12 AM
 Number of Times Edited : 2

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 59
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1016	02	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1221	03	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1232	04	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1242	05	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1248	06	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1254	07	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	AROCHLOR 1260	08	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
9	Sample	BLANK WATER SET 1	09	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
10	Sample	SPIKE WATER SET 1	10	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
11	Sample	23322	11	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
12	Sample	FLUSH	12	PCB SLUDGE	1.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
13	Sample	23323	13	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
14	Sample	23410	14	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
15	Sample	FLUSH	15	PCB SLUDGE	1.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
16	Sample	23411	16	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
17	Sample	23413	17	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
18	Sample	FLUSH	18	PCB SLUDGE	1.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
19	Sample	23414	19	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
20	Sample	23416	20	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
21	Sample	FLUSH	21	PCB SLUDGE	1.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
22	Sample	23417	22	PCB WW	500.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
23	Sample	23417 DUP	23	PCB WW	500.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
24	Sample	FLUSH	24	PCB SLUDGE	1.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
25	Sample	AROCHLOR 1254	25	PCB SLUDGE	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
26	Sample	BLANK WATER SET 2	26	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
27	Sample	SPIKE WATER SET 2	27	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
28	Sample	23564	28	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
29	Sample	23565	29	PCB SLUDGE	500.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
30	Sample	23565 DUP	30	PCB SLUDGE	400.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
31	Sample	BLANK WW	31	PCB SLUDGE	200.000000	1.000000	2.000	1.000000	5.000000	1.000000	0.000000	100.000
32	Sample	SPIKE WW	32	PCB SLUDGE	200.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
33	Sample	23412	33	PCB SLUDGE	100.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
34	Sample	23412 DUP	34	PCB SLUDGE	100.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
35	Sample	FLUSH	35	PCB SLUDGE	1.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
36	Sample	AROCHLOR 1242	36	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
37	Sample	AROCHLOR 1248	37	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
38	Sample	AROCHLOR 1254	38	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
39	Sample	AROCHLOR 1260	39	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
40	Sample	BLANK SOIL	40	PCB SLUDGE	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
41	Sample	SPIKE SOIL	41	PCB SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
42	Sample	AV 22794 1:10	42	PCB SLUDGE	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
43	Sample	AV 22795 1:10	43	PCB SLUDGE	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
44	Sample	AV 22795 MS 1:10	44	PCB SLUDGE	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
45	Sample	AV 22796 1:10	45	PCB SLUDGE	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
46	Sample	AV 22796 MSD 1:10	46	PCB SLUDGE	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
47	Sample	AV 22797 1:10	47	PCB SLUDGE	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
48	Sample	AV 22797 DUP 1:10	48	PCB SLUDGE	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
49	Sample	AV 22798 1:10	49	PCB SLUDGE	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
50	Sample	AROCHLOR 1016	50	PCB WW	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
51	Sample	23540 1:5	51	PCB WW	50.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
52	Sample	23566 1:5	52	PCB WW	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
53	Sample	23648 1:5	53	PCB WW	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
54	Sample	23649 1:5	54	PCB WW	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
55	Sample	23540	55	PCB WW	50.000000	1.000000	2.000	5.000000	2.000000	1.000000	0.000000	100.000
56	Sample	23566	56	PCB WW	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
57	Sample	23648	57	PCB WW	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
58	Sample	23649	58	PCB WW	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
59	Sample	FLUSH	59	PCB SLUDGE	1.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000

[illegible]

Row

Raw Data File

Result File

Baseline Modified

[illegible]

1	-	-	-	Default	Default
2	-	-	-	Default	Default
3	-	-	-	Default	Default
4	-	-	-	Default	Default
5	-	-	-	Default	Default
6	-	-	-	Default	Default
7	-	-	-	Default	Default
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9	-	-	-	Default	Default
10	-	-	-	Default	Default
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13	-	-	-	Default	Default
14	-	-	-	Default	Default
15	-	-	-	Default	Default
16	-	-	-	Default	Default
17	-	-	-	Default	Default
18	-	-	-	Default	Default
19	-	-	-	Default	Default
20	-	-	-	Default	Default
21	-	-	-	Default	Default
22	-	-	-	Default	Default
23	-	-	-	Default	Default
24	-	-	-	Default	Default
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42	-	-	-	Default	Default
43	-	-	-	Default	Default
44	-	-	-	Default	Default
45	-	-	-	Default	Default
46	-	-	-	Default	Default
47	-	-	-	Default	Default
48	-	-	-	Default	Default

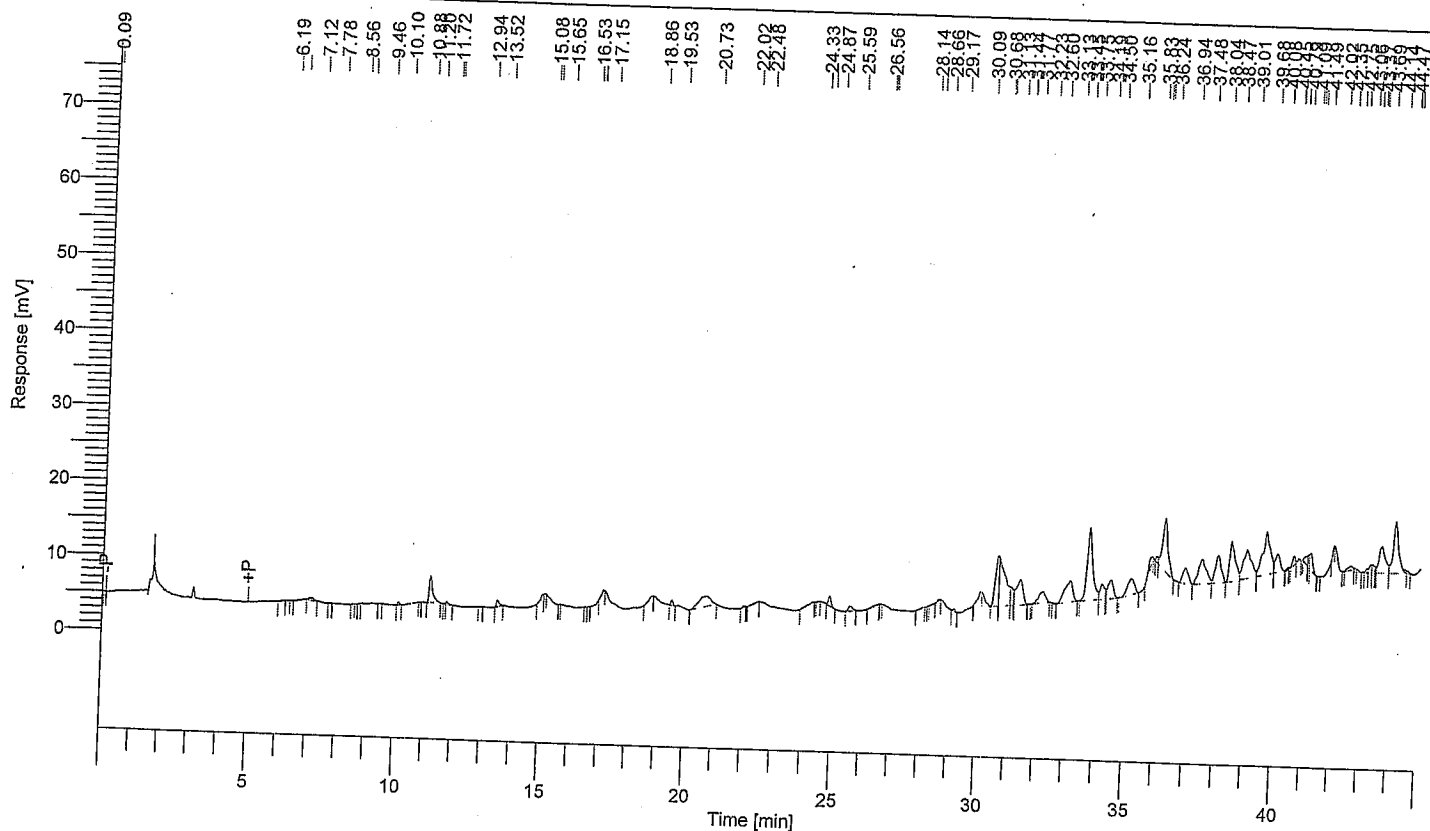
Sequence Process Information - Channel A

Row	Calib Rpt	Cal Level	Update RT	Printer	Plotter
49 -	-	-	-	Default	Default
50 -	-	-	-	Default	Default
51 -	-	-	-	Default	Default
52 -	-	-	-	Default	Default
53 -	-	-	-	Default	Default
54 -	-	-	-	Default	Default
55 -	-	-	-	Default	Default
56 -	-	-	-	Default	Default
57 -	-	-	-	Default	Default
58 -	-	-	-	Default	Default
59 -	-	-	-	Default	Default

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62657
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/35
 Sample Amount : 1.000000
 Cycle : 35

Date : 10/29/2007 6:15:28 AM
 Data Acquisition Time : 10/27/2007 9:39:54 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,VVV,SLICOMB035.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,VVV,SLICOMB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV-s]
	6.19	817
	7.12	4020
	10.10	1685
	11.20	30919
	11.78	2127
	13.52	5403
	15.08	3047
	15.15	1165
	17.15	2242
	18.86	2543
	19.53	3288
	20.73	40047
	22.02	1020
	22.48	1645
	24.33	2968
	24.87	8149
	25.59	6313
	26.56	2557
	28.14	1019
	28.66	1070
	29.17	1679
	30.09	1964
	30.68	51396
	30.72	99370
	31.13	14799
	31.44	53759
	32.23	22876

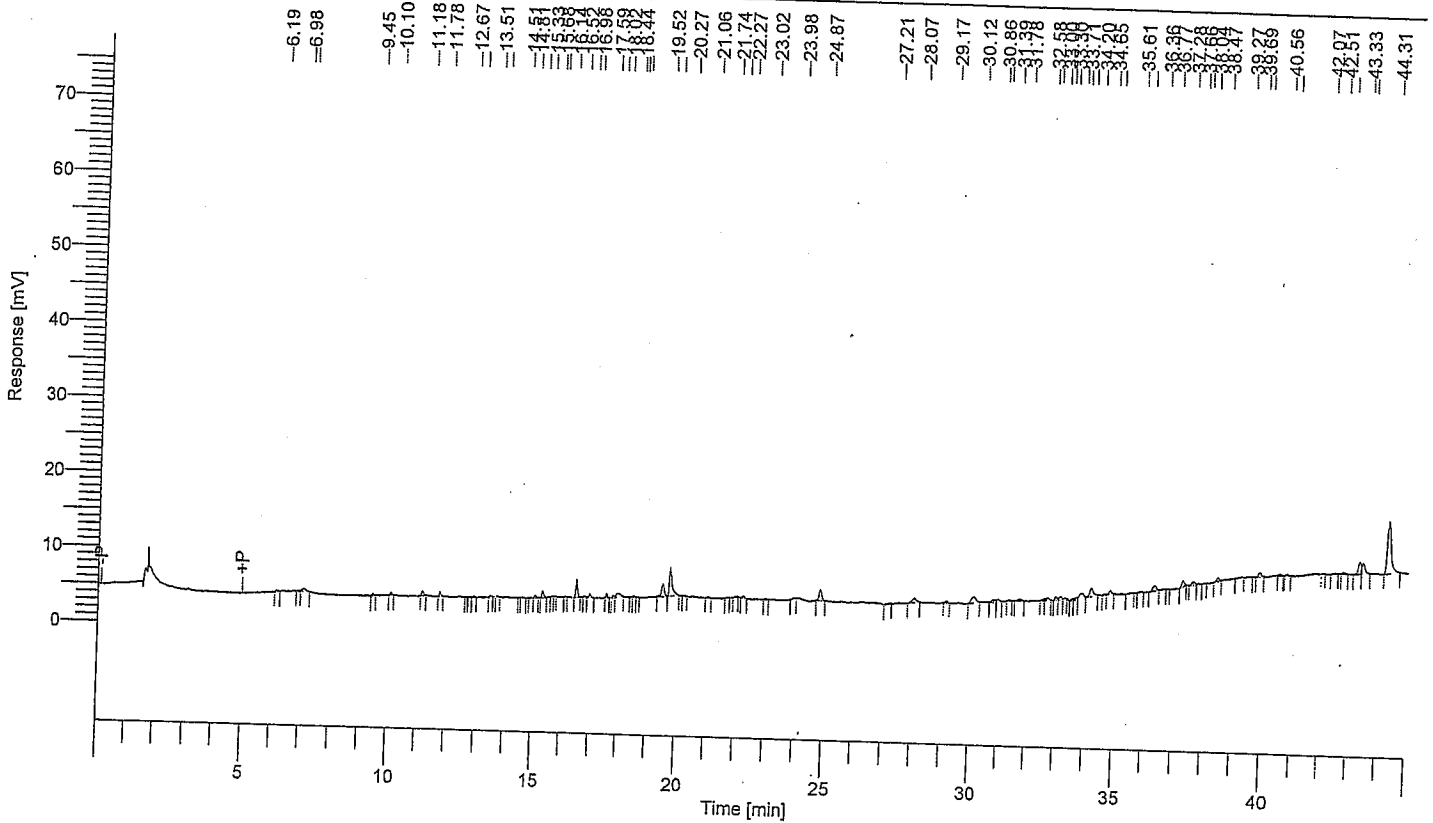
Component Name	Time [min]	Area [μV·s]
	33.13	50820
	33.75	124884
	34.19	20369
	34.50	30276
	35.16	33645
	35.83	10559
	36.00	3591
	36.24	86389
	36.94	25488
	37.48	59962
	38.04	50173
	38.47	70528
	39.01	72756
	39.68	106697
	40.08	28991
	40.45	1204
	40.63	8131
	40.79	1932
	41.09	8112
	41.16	6835
	41.23	16284
	42.02	1922
	42.59	6676
	42.75	760
	43.06	641
	43.19	2781
	43.32	6375
	43.37	6636
	43.69	53691
	44.14	88398
	44.47	2271
	44.57	1878

1357543

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62662
 Sample Name : BLANK SOIL
 Instrument Name : GC014
 Rack/Vial : 0/40
 Sample Amount : 50.000000
 Cycle : 40

Date : 10/29/2007 6:15:49 AM
 Data Acquisition Time : 10/28/2007 1:04:13 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB040.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	6.19	1280
	6.98	736
	7.12	3310
	9.45	1260
	10.10	1473
	11.18	3372
	11.78	2258
	12.93	940
	13.51	792
	13.74	760
	15.08	1479
	15.33	4101
	16.52	9512
	16.80	692
	16.98	2616
	17.59	2201
	17.82	1439
	18.02	5114
	18.53	967
	19.52	9903
	19.77	24955
	21.06	1099
	22.00	985
	22.27	1656
	23.02	655
	23.98	952
	24.87	9628

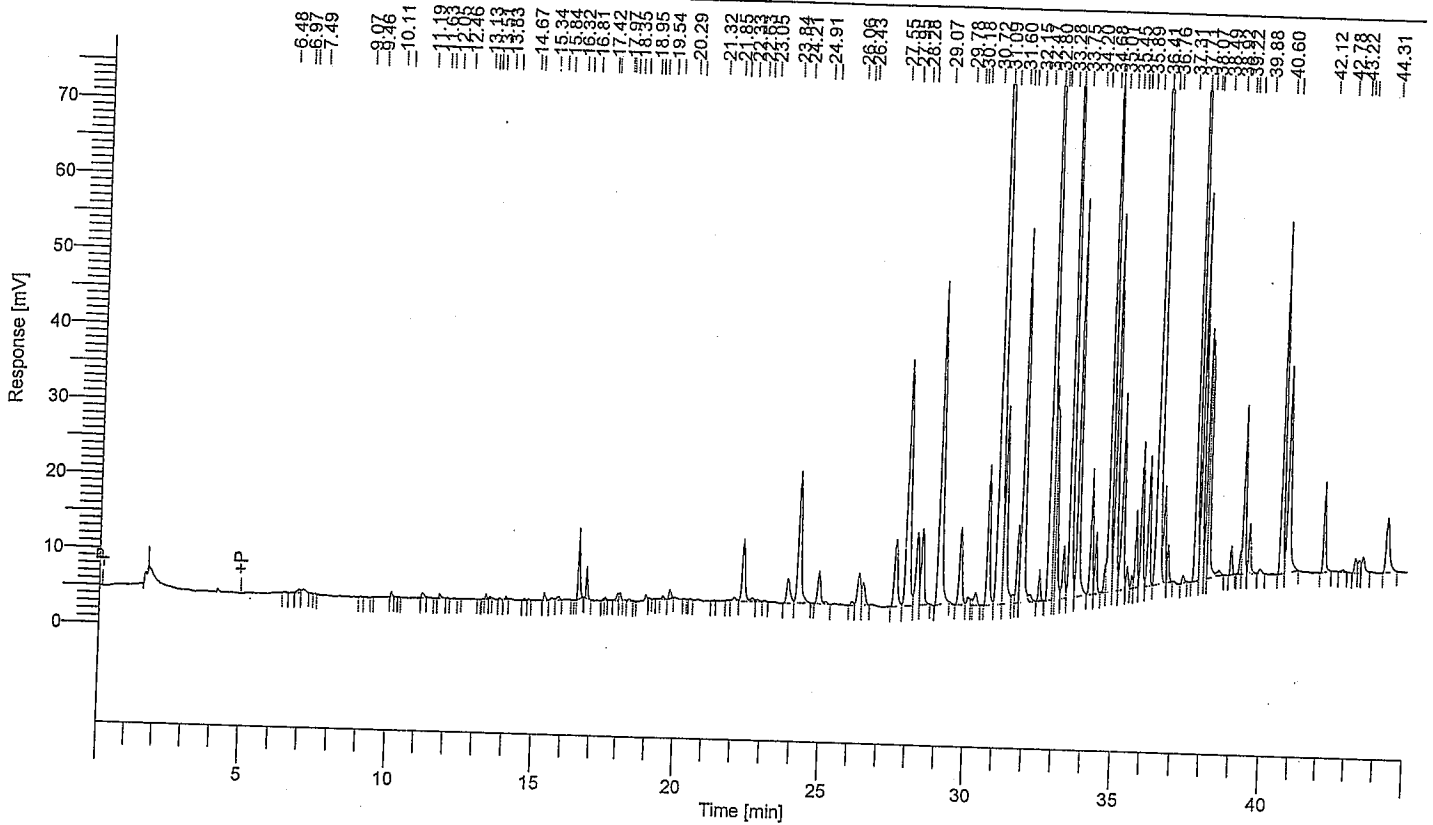
Component Name	Time [min]	Area [μV-s]
	27.21	738
	28.07	6395
	29.17	1581
	30.12	9451
	30.86	3016
	31.01	2786
	31.39	894
	31.78	2607
	32.58	1103
	32.73	2313
	33.00	2364
	33.16	2619
	33.30	724
	33.57	1363
	33.71	2121
	33.91	7370
	34.20	9965
	34.65	967
	34.86	3473
	35.61	1326
	35.90	1177
	36.36	6303
	37.28	5246
	37.66	3458
	37.81	1048
	38.47	2918
	39.27	862
	39.87	3336
	40.56	1126
	40.80	1125
	42.51	920
	42.80	1510
	43.33	10731
	43.46	10313
	44.31	56779

264163

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62663
 Sample Name : SPIKE SOIL
 Instrument Name : GC014
 Rack/Vial : 0/41
 Sample Amount : 50.000000
 Cycle : 41

Date : 10/29/2007 6:15:53 AM
 Data Acquisition Time : 10/28/2007 1:56:59 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB041.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	6.48	888
	6.97	3455
	7.12	4617
	9.07	663
	10.11	2616
	11.19	3970
	11.79	3207
	12.05	566
	13.36	2429
	13.51	928
	13.83	1030
	14.05	1450
	14.67	1170
	14.81	925
	15.34	4839
	15.62	2568
	15.84	3683
	16.53	38402
	16.81	15887
	17.42	817
	17.50	1513
	17.97	6096
	18.03	5454
	18.19	1188
	18.35	1876
	18.55	687
	18.95	4498

$$\sum \text{area} = 1013133$$

OSK
10/29/2007

$$CF = \frac{\text{ng inj}}{\text{ng}} = \frac{1013133}{383560} = 2.6414$$

$$PPM = \frac{2.6414}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.1057$$

$$\% \text{Rec} = \frac{0.1057}{0.1} \times 100 = 106\%$$

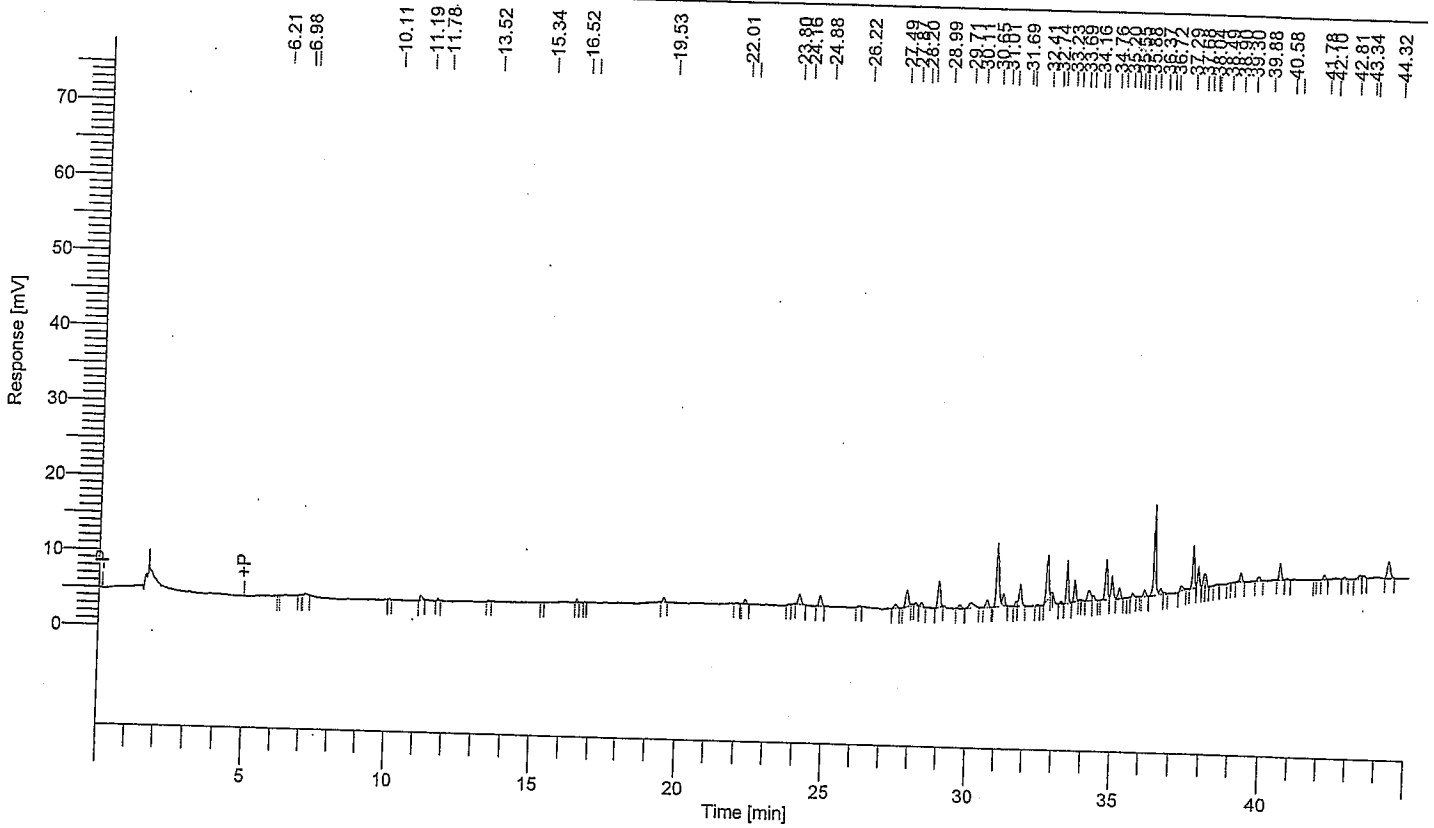
Component Name	Time [min]	Area [μ V-s]
	19.07	1491
	19.21	571
	19.54	2543
	19.78	6220
	20.29	657
	20.52	703
	21.32	645
	21.85	980
	22.04	4651
	22.33	55729
	22.63	4265
	22.83	2883
	23.05	1103
	23.84	26875
	24.21	139315
	24.91	30142
	25.14	2605
	26.06	3260
	26.29	32594
	26.43	22533
	27.55	71562
	27.95	265418
	28.28	70243
	28.46	77477
	29.07	318609
	29.78	70112
	30.07	7675
	30.18	3317
	30.31	12107
	30.72	115079
	31.09	846567
	31.29	179960
	31.60	7121
	31.74	55530
	31.88	298103
	32.15	7889
	32.47	21928
	32.80	627108
	32.92	144992
	32.99	113579
	33.28	40417
	33.49	510355
	33.75	286430
	34.20	84637
	34.37	44836
	34.68	13566
	34.80	444319
	35.01	251592
	35.25	154364
	35.45	14284
	35.59	7281
	35.72	50356
	35.89	94271
	36.11	81469
	36.41	1034779
	36.62	67963
	36.76	26883
	37.31	6022
	37.71	504147
	37.90	232380
	38.07	133972
	38.13	142634
	38.49	6750
	38.92	15836
	39.22	10851
	39.32	104767
	39.51	35184
	39.88	3595
	40.60	223232
	40.81	177119
	42.12	68742
	42.78	2339
	43.22	10967
	43.34	9764
	43.47	15553
	44.31	59512

8740732

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62666
 Sample Name : AV 22795 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/44
 Sample Amount : 50.000000
 Cycle : 44

Date : 10/29/2007 6:16:06 AM
 Data Acquisition Time : 10/28/2007 4:35:13 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W\WWW,SLICOMB044.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W\WWW,SLICOMB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	6.98	636
	7.15	2094
	10.11	670
	11.19	3933
	11.78	1118
	13.52	1024
	16.52	1944
	19.53	2918
	22.01	1129
	22.29	3499
	24.16	9510
	24.88	8952
	26.22	1267
	27.49	3976
	27.87	15697
	28.20	1776
	28.39	3430
	28.99	22282
	29.71	3486
	30.11	8293
	30.65	8120
	31.01	57597
	31.22	8975
	31.69	3041
	31.81	16878
	32.41	952
	32.74	32489

$$\sum \text{area} = 53865$$

$$\text{mg/L} = \frac{53865}{383560}$$

$$= 0.1404$$

$$\text{ppm} = \frac{0.1404}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0562$$

$$\% \text{Recovery} = \frac{0.0562}{0.1} \times 100 = 56\%$$

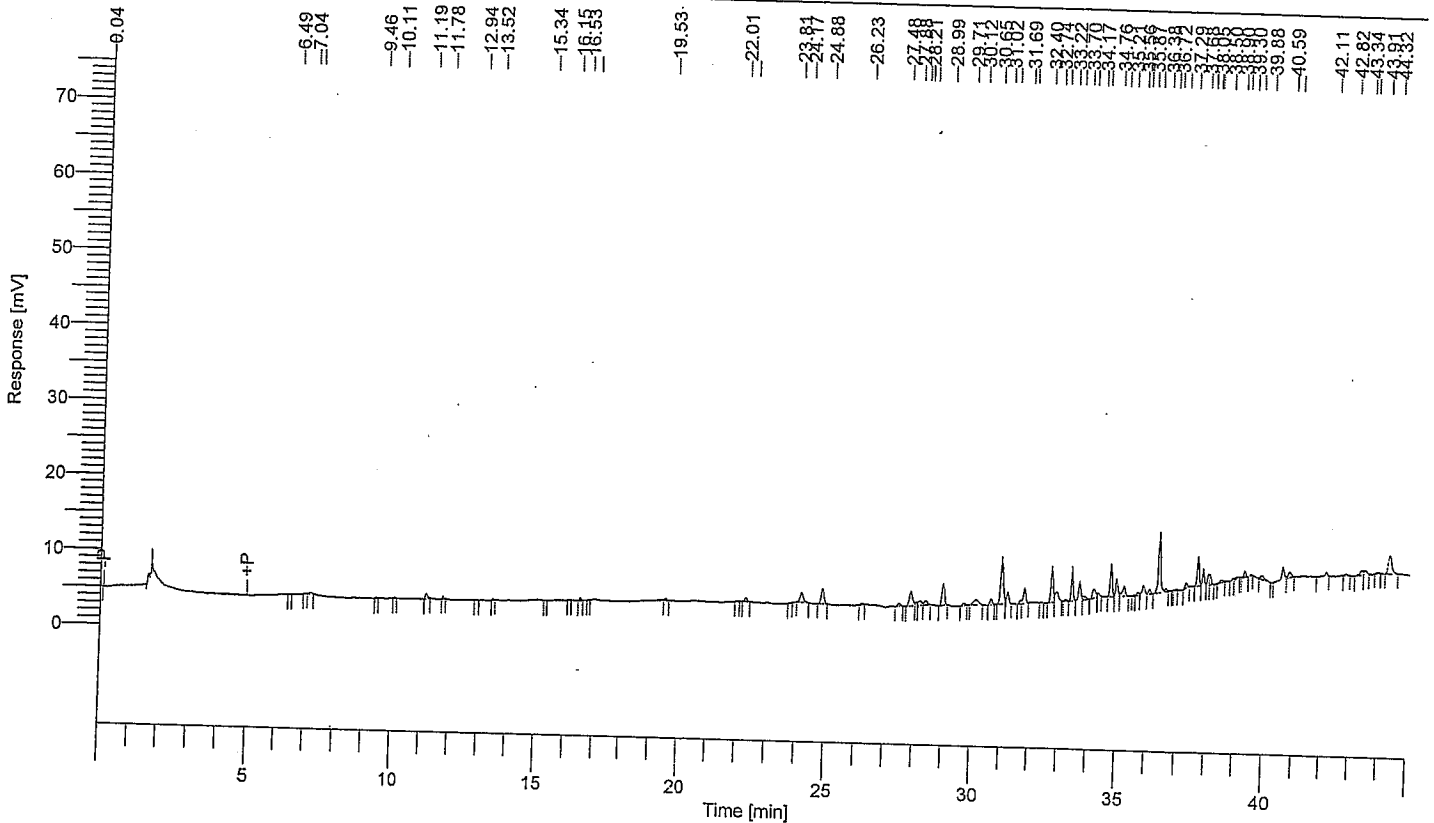
Component Name	Time [min]	Area [μV·s]
	32.88	841
	33.23	1505
	33.43	28907
	33.69	13877
	34.16	11217
	34.32	3813
	34.76	28363
	34.96	16274
	35.20	8738
	35.69	2560
	36.07	3990
	36.37	60140
	36.58	4636
	36.72	1375
	37.29	4903
	37.68	27421
	37.87	12102
	38.04	7596
	38.10	6746
	38.49	1000
	38.90	643
	39.30	6175
	39.88	3207
	40.58	11414
	40.84	1056
	42.10	3478
	42.81	1553
	43.34	3666
	43.46	2281
	44.32	16776
		519936

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62683
 Sample Name : AV 22796 MSD 1:10
 Instrument Name : GC014
 Rack/Vial : 0/46
 Sample Amount : 50.000000
 Cycle : 1

Date : 10/29/2007 8:50:56 AM
 Data Acquisition Time : 10/28/2007 6:20:31 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB046.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV-s]
	7.20	1453
	9.46	533
	10.11	521
	11.19	3791
	11.78	1438
	12.94	511
	13.52	996
	16.53	1465
	19.53	1160
	22.01	679
	22.30	3185
	24.17	10272
	24.88	13375
	26.23	1161
	27.48	2678
	27.88	15578
	28.10	2663
	28.21	4907
	28.40	4213
	28.99	18471
	29.71	1995
	30.12	8272
	30.65	4191
	31.02	41681
	31.22	9308
	31.69	2131

$$\Sigma \text{area} = 39922$$

$$\text{avg. inj} = \frac{39922}{383560}$$

$$= 0.1041$$

$$\text{ppm} = \frac{0.1041}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0416$$

$$\% \text{Recovery} = \frac{0.0416}{0.1} \times 100 = 42\%$$

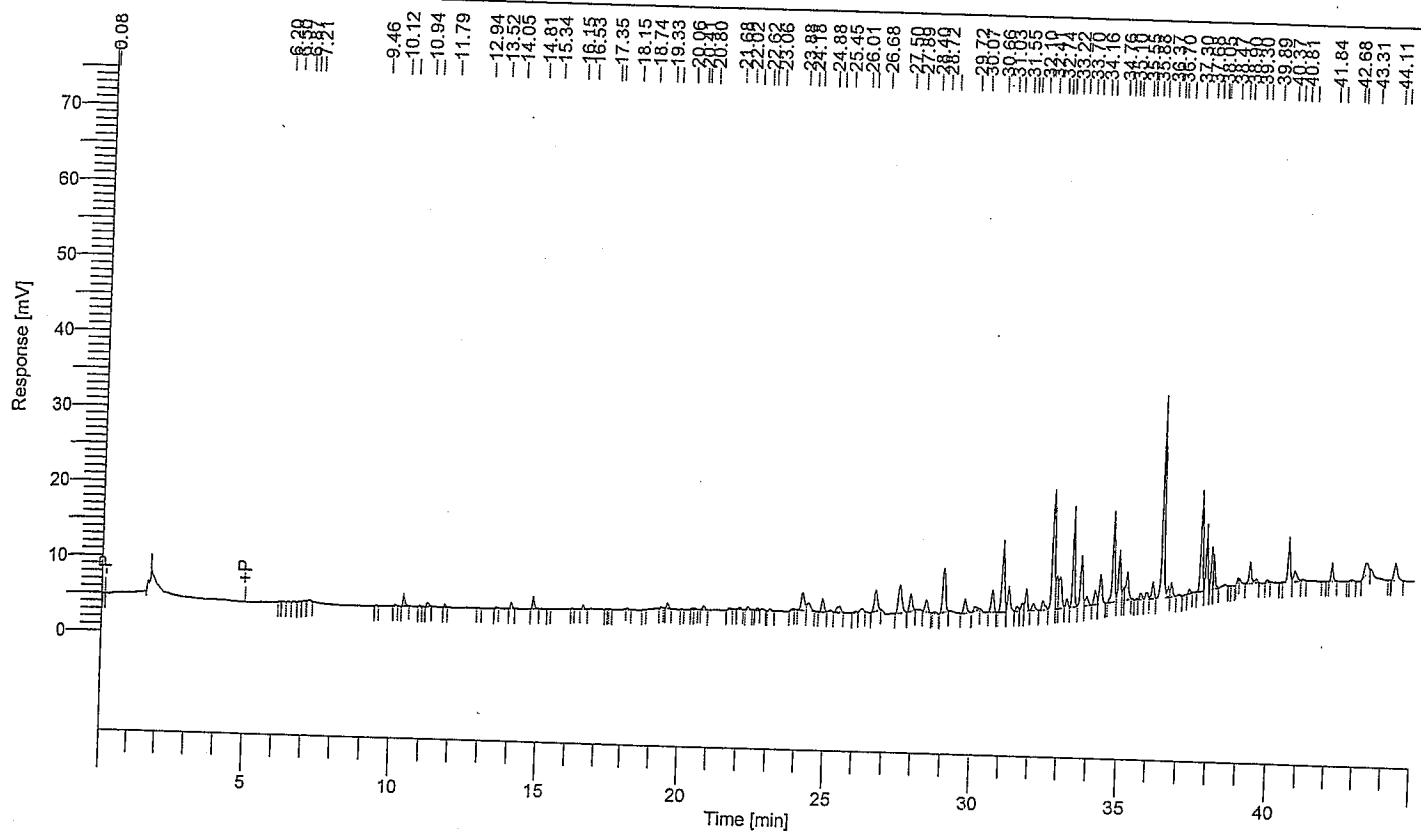
Component Name	Time [min]	Area [μV·s]
	31.82	11557
	32.40	579
	32.74	28132
	32.93	11663
	33.22	1034
	33.43	22602
	33.70	13466
	33.86	4108
	34.17	9872
	34.33	2533
	34.76	21066
	34.96	11843
	35.21	9815
	35.56	518
	35.69	2550
	35.87	8090
	36.08	2970
	36.38	44501
	36.59	2380
	36.72	553
	37.29	3834
	37.68	18097
	37.87	9468
	38.05	6411
	38.10	5946
	38.50	2363
	38.90	858
	39.07	1583
	39.30	3678
	39.50	918
	39.88	3987
	40.59	10478
	40.82	5790
	42.11	3271
	42.82	1420
	43.34	4897
	43.47	3634
	43.91	1052
	44.32	18233
		472381

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62685
 Sample Name : AV 22797 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/48
 Sample Amount : 50.000000
 Cycle : 3

Date : 10/29/2007 8:51:02 AM

Data Acquisition Time : 10/28/2007 8:05:48 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WW,SL\COMB048.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WW,SL\COMB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	6.50	914
	6.87	771
	7.04	899
	7.21	1681
	9.46	617
	10.12	900
	10.40	7485
	10.94	755
	11.20	3051
	11.79	1401
	12.94	638
	13.52	852
	14.05	3289
	14.81	7446
	16.53	2729
	18.15	1006
	19.33	814
	19.54	3582
	20.41	1054
	20.51	939
	20.80	3230
	21.68	1342
	22.02	1871
	22.30	2333
	22.62	1738
	22.78	1361

$$\sum \text{area} = 145303$$

$$\text{avg} = \frac{145303}{383560}$$

$$= 0.380.3788$$

$$\text{ppm} = \frac{0.3788}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.1515$$

<0.40ppm total PCB.

Component Name	Time [min]	Area [μ V-s]
	23.06	1754
	23.88	872
	24.18	19373
	24.38	9449
	24.88	11682
	25.13	1622
	25.45	7401
	26.01	1316
	26.23	3361
	26.68	21554
	27.50	32080
	27.89	15490
	28.40	10695
	28.72	1394
	29.01	39259
	29.72	12393
	30.07	4740
	30.66	17272
	31.03	63519
	31.23	22347
	31.55	4021
	31.70	5708
	31.82	17748
	32.10	6417
	32.41	9225
	32.74	98901
	32.87	21515
	33.00	31174
	33.22	6425
	33.44	69284
	33.70	36815
	33.89	9384
	34.16	11819
	34.33	24415
	34.76	64661
	34.97	32375
	35.10	6321
	35.21	24885
	35.55	828
	35.69	4401
	35.88	5813
	36.08	10844
	36.37	133080
	36.59	7587
	36.70	10503
	36.96	1399
	37.30	3543
	37.68	63683 —
	37.87	38212 —
	38.05	23567 —
	38.11	19841 —
	38.47	2261
	38.74	620
	38.90	1252
	39.30	15195
	39.50	3017
	39.89	1941
	40.59	31100
	40.81	10962
	41.06	1330
	42.11	13371
	42.82	1580
	43.31	12703
	44.33	17028

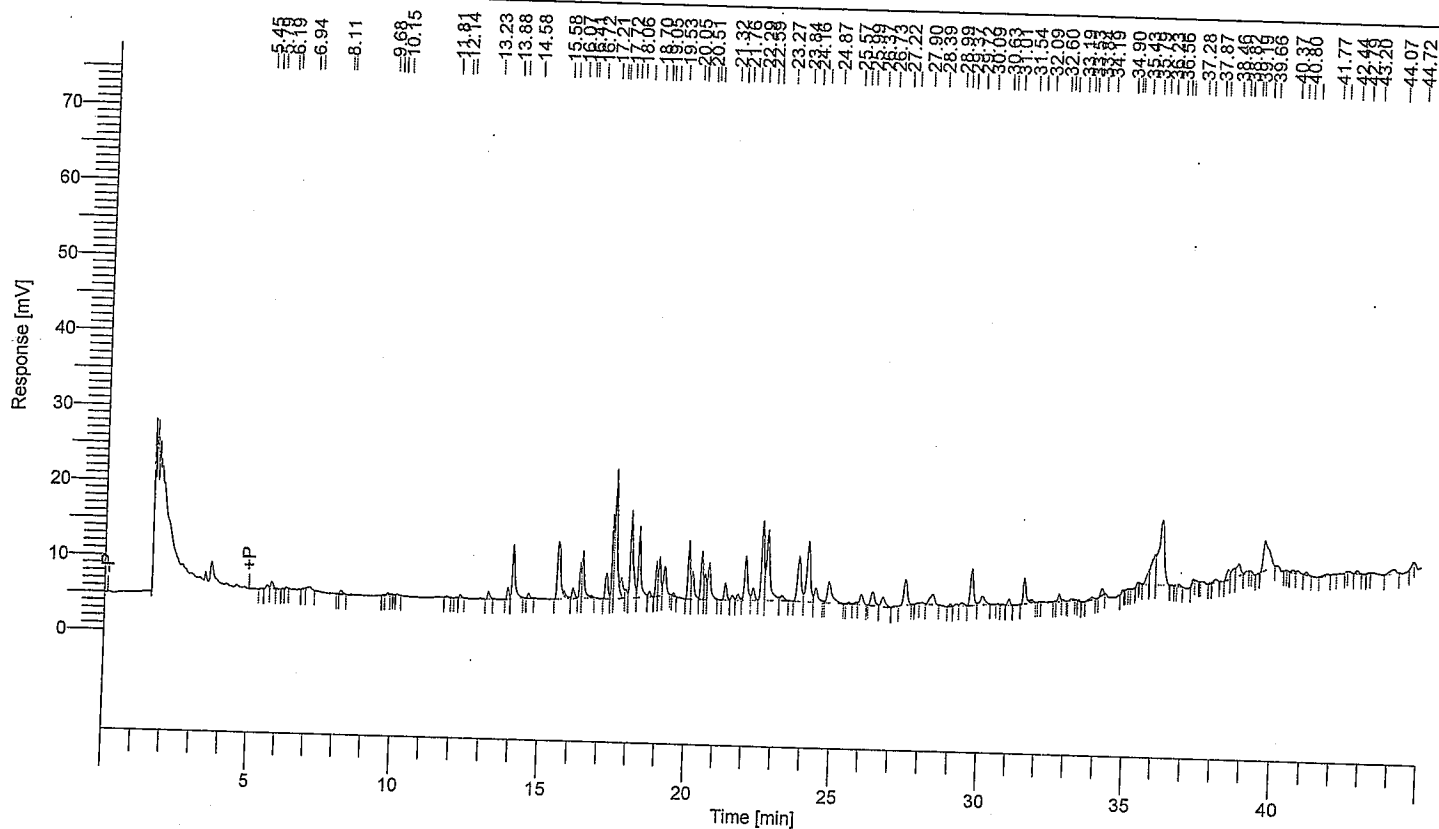
1267022

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62658
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/36
 Sample Amount : 1.000000
 Cycle : 36

Date : 10/29/2007 6:15:32 AM

Data Acquisition Time : 10/27/2007 10:32:48 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,VVV,SLICOMB036.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,VVV,SLICOMB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μ V·s]
	5.45	1052
	5.64	3453
	5.79	6194
	6.32	857
	6.94	1569
	7.10	4373
	8.21	3287
	9.83	1204
	10.15	950
	11.81	1101
	12.14	601
	12.28	2083
	13.23	5505
	13.88	7822
	14.06	44538
	14.58	3682
	15.58	59321
	15.77	4662
	16.07	8445
	16.32	18209
	16.41	35115
	16.72	1316
	17.21	21131
	17.41	42565
	17.50	106241
	17.72	17520
	17.88	7334

Component Name	Time [min]	Area [μ V·s]
	18.06	76726
	18.33	60104
	18.70	4347
	18.94	21671
	19.05	29140
	19.21	25549
	19.53	1777
	20.05	43625
	20.18	23698
	20.51	35085
	20.62	16827
	20.75	33420
	21.32	13602
	21.56	3903
	21.76	5684
	22.02	42882
	22.29	11811
	22.59	69379
	22.77	84617
	23.27	6523
	23.84	50529
	24.16	68871
	24.43	17670
	24.87	31179
	25.57	1546
	25.81	1709
	25.99	10284
	26.37	16026
	26.73	12063
	27.22	1334
	27.47	28442
	28.39	15427
	28.99	1834
	29.19	2302
	29.37	4408
	29.72	35784
	30.09	12522
	30.63	573
	30.76	701
	31.01	5526
	31.54	23026
	31.79	3083
	32.73	5428
	32.85	1211
	33.19	1625
	33.40	1094
	33.84	3574
	34.19	5565
	34.90	1200
	35.43	870
	35.79	12674
	36.00	43130
	36.23	115678
	36.82	2056
	37.28	2493
	37.87	1030
	38.04	3698
	38.46	9762
	38.68	11320
	38.82	16425
	39.09	2049
	39.47	513
	39.66	55579
	40.60	2557
	40.80	2787
	41.06	2894
	41.77	2696
	42.04	744
	42.79	2913
	44.07	9010
	44.72	680

1686591

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62659
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/37
 Sample Amount : 1.000000
 Cycle : 37

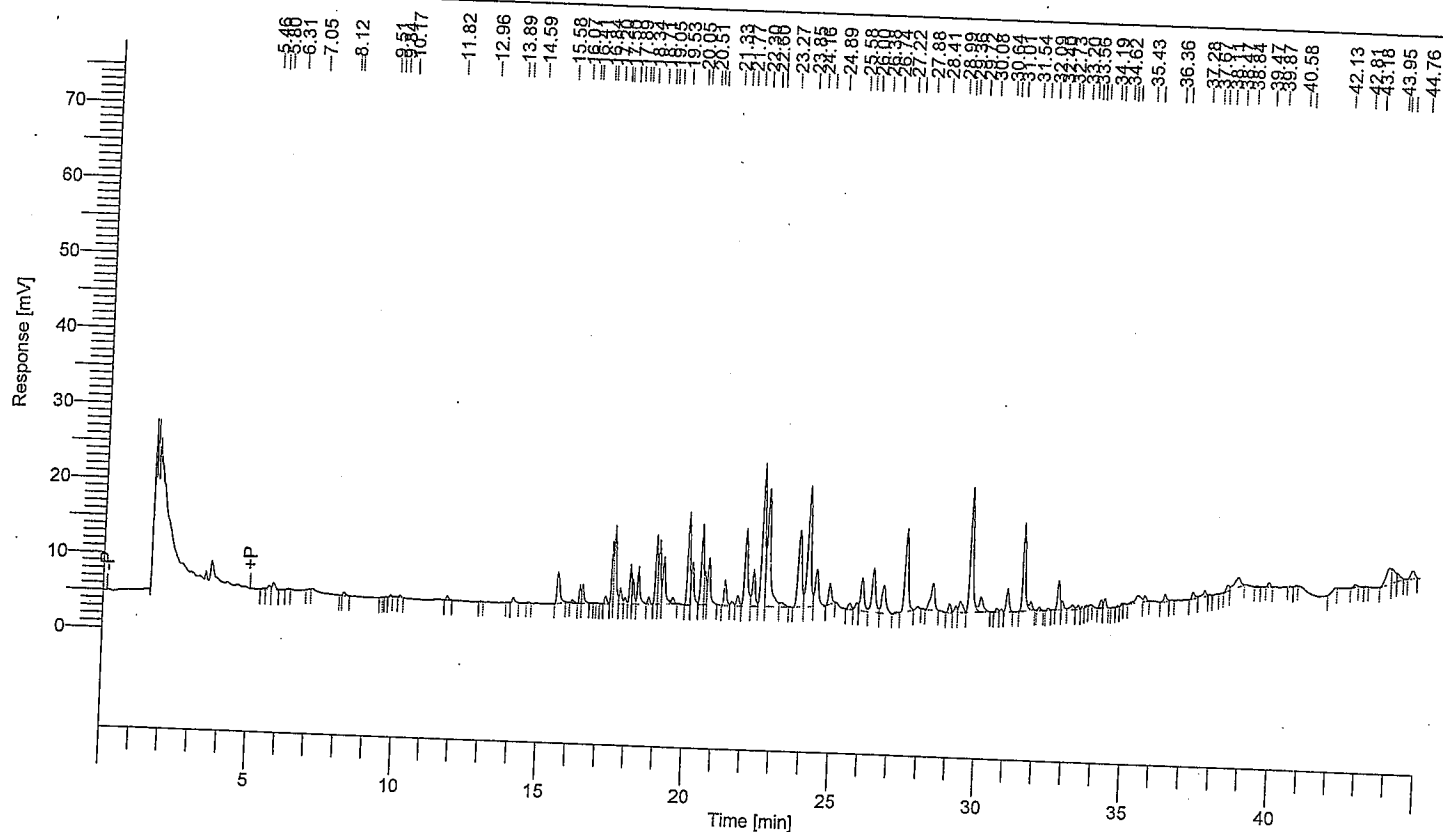
Date : 10/29/2007 6:15:35 AM

Page 1 of 2

Data Acquisition Time : 10/27/2007 11:25:40 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB037.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μ V-s]
	5.46	1193
	5.65	3963
	5.80	7197
	6.31	950
	8.22	3101
	9.84	1132
	10.17	1403
	11.82	2599
	12.96	524
	13.89	523
	14.07	4444
	14.59	1090
	15.58	28167
	16.07	2512
	16.33	9608
	16.41	12743
	16.93	572
	17.20	5566
	17.42	31964
	17.50	59694
	17.73	12525
	17.89	4424
	18.06	24560
	18.15	16927
	18.34	28664
	18.71	4845
	18.94	42552

Component Name	Time [min]	Area [μV·s]
	19.05	48444
	19.22	46072
	19.53	4977
	20.05	70844
	20.19	35870
	20.51	61344
	20.63	21876
	20.76	41885
	21.33	20802
	21.58	3729
	21.77	9088
	22.03	74489
	22.30	34643
	22.60	133386
	22.77	139538
	23.27	6230
	23.85	91881
	24.16	132645
	24.44	42716
	24.89	20161
	25.58	5988
	25.82	7101
	26.00	38099
	26.38	52555
	26.74	36616
	27.22	1746
	27.48	89838
	27.88	2918
	28.41	34530
	28.99	7734
	29.22	5704
	29.36	14523
	29.72	124935
	30.08	20863
	30.64	2564
	30.79	2141
	31.01	19804
	31.54	76585
	31.80	7474
	32.09	2303
	32.40	1576
	32.73	22287
	32.85	6987
	33.20	5250
	33.41	3516
	33.56	1685
	33.68	1549
	33.83	721
	34.19	6990
	34.32	7068
	34.62	587
	34.75	864
	34.90	863
	35.43	12395
	35.67	4920
	36.36	6246
	36.58	849
	37.28	6739
	37.67	7419
	37.86	1200
	38.11	839
	38.47	5484
	38.84	19095
	39.47	1075
	39.87	2964
	40.58	744
	40.78	644
	42.13	2913
	42.81	2217
	43.18	617
	43.95	26442
	44.05	17300
	44.24	6913
	44.76	9405

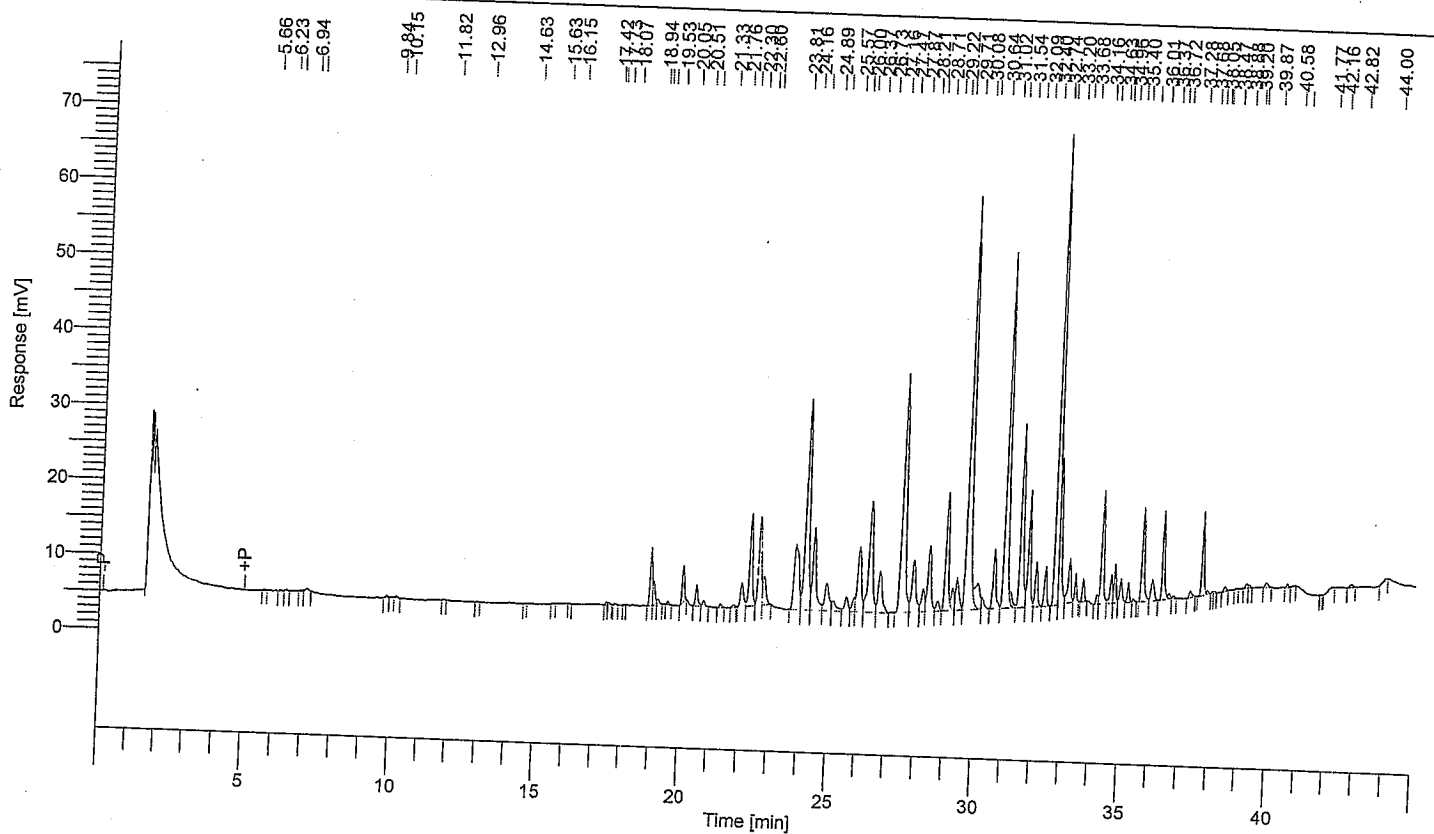
2104447

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62660
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/38
 Sample Amount : 1.000000
 Cycle : 38

Date : 10/29/2007 6:15:40 AM
 Data Acquisition Time : 10/28/2007 12:18:31 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB038.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	5.66	631
	6.23	1180
	6.43	1075
	6.94	1124
	7.13	2391
	7.84	1337
	10.15	1364
	11.82	718
	12.96	530
	17.42	1504
	17.50	1489
	17.73	1024
	18.94	38581
	19.05	16933
	19.20	4787
	19.53	1942
	20.05	25133
	20.51	16630
	20.76	5200
	21.33	2366
	21.76	1941
	22.03	21791
	22.30	83694
	22.60	84902
	22.77	27314
	23.81	100584
	24.16	228158

Component Name	Time [min]	Area [μV·s]
	24.44	101549
	24.89	38369
	25.12	15612
	25.57	17269
	25.84	12431
	26.00	79049
	26.37	149593
	26.73	55727
	27.16	1386
	27.47	277753
	27.87	64735
	28.21	24806
	28.40	72035
	28.71	9623
	28.99	115017
	29.22	17944
	29.36	36201
	29.71	422296
	30.08	43512
	30.23	10085
	30.64	52088
	31.02	329895
	31.21	12650
	31.54	163541
	31.81	91824
	32.09	36654
	32.40	28440
	32.74	361636
	32.86	115259
	33.20	39602
	33.42	17940
	33.68	13995
	34.16	7533
	34.32	87704
	34.63	21201
	34.75	25117
	34.96	18355
	35.21	13514
	35.40	1911
	35.68	70244
	36.01	20794
	36.37	61764
	36.57	3989
	36.72	1967
	37.28	5712
	37.68	53405
	37.86	2744
	38.05	1248
	38.10	1275
	38.47	3260
	39.20	2790
	39.29	1854
	39.87	3778
	40.58	2087
	40.84	595
	42.16	3829
	42.82	2457
	44.00	2814

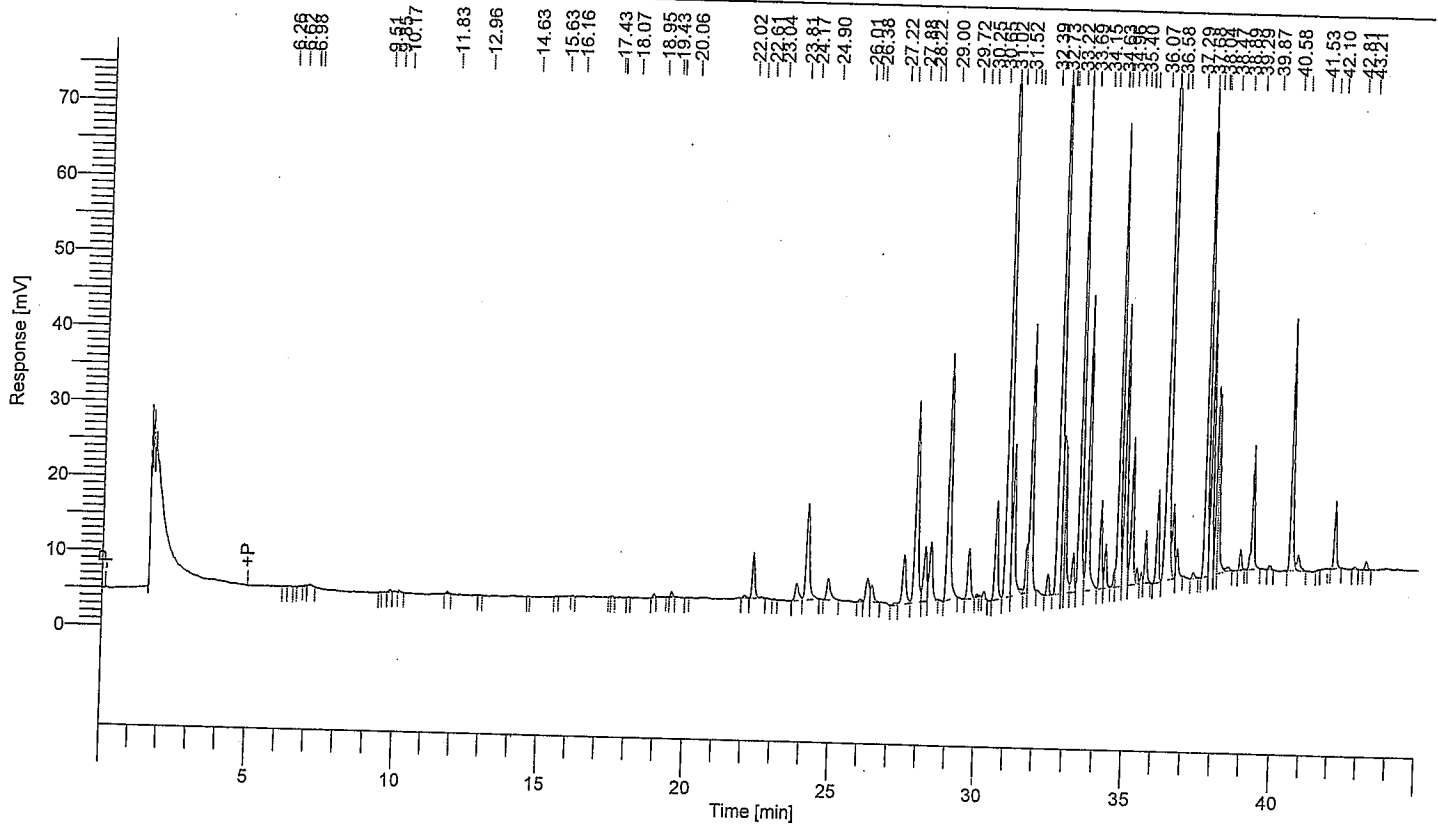
3924781

Software Version : 6.3.0.0504
 Reprocess Number : totalchrom: 62681
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/39
 Sample Amount : 1.000000
 Cycle : 39

Date : 11/29/2007 6:15:44 AM

Data Acquisition Time : 10/28/2007 1:11:22 AM
 Channel : A
 Operator : erivweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB039.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	6.26	700
	6.98	887
	7.12	2843
	9.85	1341
	10.17	1333
	11.83	1611
	12.96	550
	16.16	520
	17.51	1066
	18.95	2035
	19.54	3464
	20.06	504
	22.02	2275
	22.31	39767
	22.61	1233
	23.04	682
	23.81	20241
	24.17	104545
	24.90	25613
	26.01	2200
	26.23	24846
	26.38	17540
	27.22	3053
	27.49	56700
	27.88	209830
	28.22	54177
	28.40	59540

$$\begin{aligned} \text{Area} &= 767120 \\ \text{CF} &= \frac{767120}{2} \\ &= 383560 \end{aligned}$$

Component Name	Time [min]	Area [μV·s]
	29.00	248608
	29.72	48235
	30.01	1474
	30.25	4579
	30.65	83626
	31.02	639073
	31.23	140962
	31.52	4819
	31.69	30896
	31.81	214195
	32.39	15568
	32.73	470771
	32.86	117371
	32.93	86280
	33.22	31643
	33.43	381779
	33.69	217792
	34.15	62961
	34.32	33652
	34.63	8457
	34.75	335142
	34.96	194224
	35.20	119020
	35.40	10713
	35.54	6513
	35.67	36447
	36.07	59159
	36.37	787014
	36.58	55733
	36.73	21402
	37.29	5107
	37.68	377340
	37.87	178440
	38.04	107995
	38.10	103345
	38.47	5105
	38.89	12279
	39.29	87185
	39.87	3074
	40.58	169936
	40.84	16851
	41.82	718
	42.10	51437
	42.81	1930
	43.21	6181

6234133

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62664
 Sample Name : AV 22794 1:10
 Instrument Name : GC014
 Rack/Vial : 0/42
 Sample Amount : 50.000000
 Cycle : 42

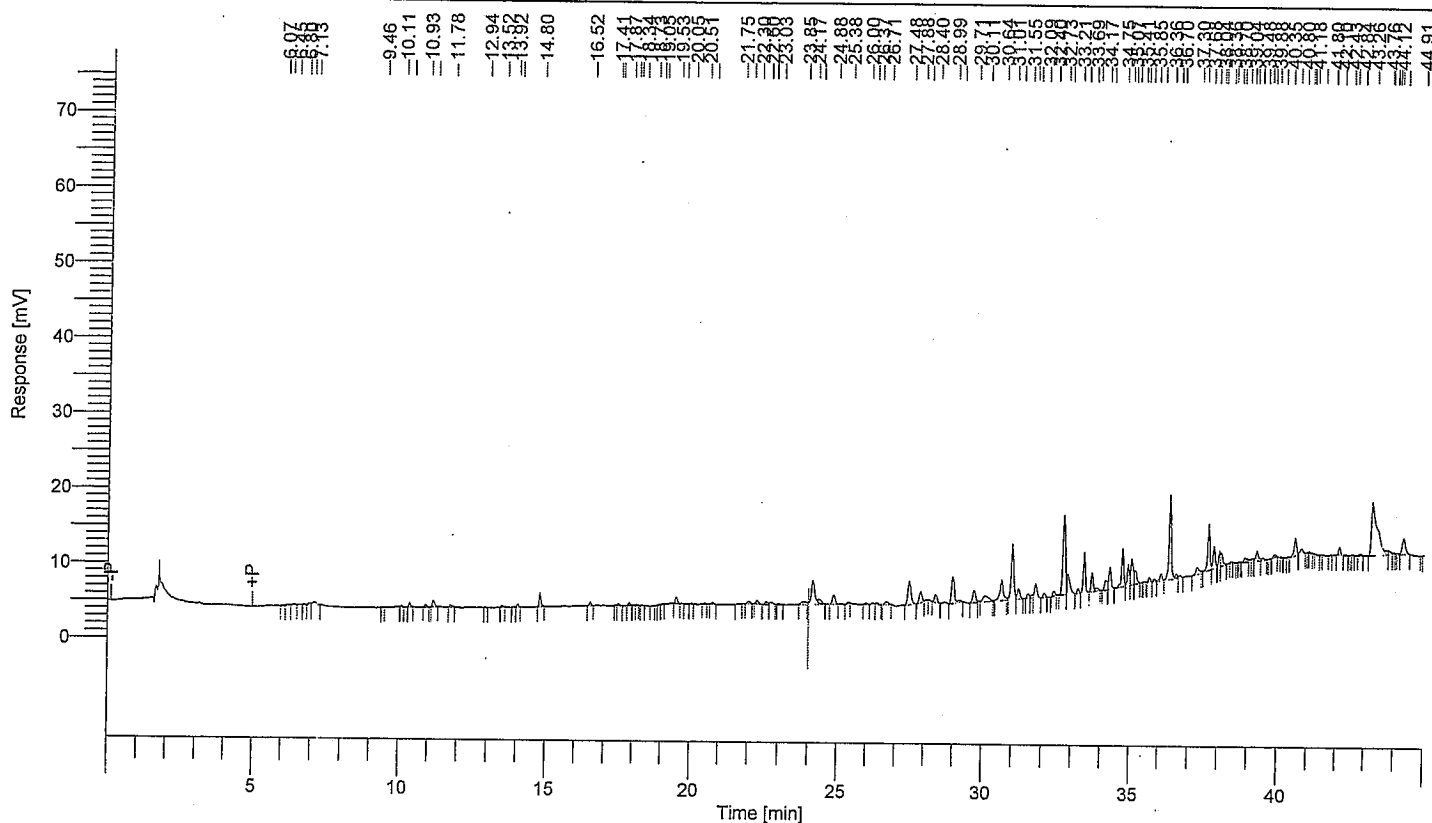
Date : 10/29/2007 6:15:58 AM

Data Acquisition Time : 10/28/2007 2:49:47 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WW,SL\COMB042.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WW,SL\COMB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	6.24	904
	6.45	932
	6.80	766
	6.97	1479
	7.13	3501
	10.11	749
	10.39	2309
	10.93	1361
	11.19	4449
	11.78	1742
	13.52	1144
	13.92	502
	14.05	1473
	14.80	7249
	16.52	2203
	17.49	1435
	17.87	1678
	19.53	4392
	20.05	578
	20.51	720
	20.78	1444
	21.75	763
	22.01	1771
	22.30	2736
	22.60	2498
	22.77	1981
	23.03	927

60.40 ppm total PCB.

Component Name	Time [min]	Area [μ V·s]
	23.85	4384
	24.17	27340
	24.37	4245
	24.88	8277
	25.38	739
	26.00	1466
	26.22	1797
	26.37	1820
	26.71	3435
	27.48	24864
	27.88	10012
	28.10	781
	28.40	6544
	28.99	23698
	29.22	1959
	29.71	11087
	30.11	10634
	30.64	22212
	31.01	49733
	31.22	7940
	31.55	3865
	31.69	2688
	31.81	11268
	32.09	2764
	32.40	3330
	32.73	63835
	32.86	20310
	33.21	3295
	33.43	27638
	33.69	13402
	33.84	3091
	34.17	9200
	34.32	16812
	34.75	27109
	34.96	13573
	35.07	20907
	35.20	10280
	35.68	3344
	35.85	1838
	36.06	5200
	36.36	59589
	36.58	2784
	36.70	1894
	37.30	7801
	37.46	551
	37.68	32154
	37.86	14687
	38.04	7815
	38.10	8912
	38.42	580
	38.89	4167
	39.04	1531
	39.13	1425
	39.30	8263
	39.48	2146
	39.88	2134
	40.58	13330
	40.80	4920
	41.07	1011
	42.10	5528
	42.84	1340
	43.26	97196
	43.76	3161
	43.81	3554
	43.95	1198
	44.04	736
	44.12	952
	44.31	15610

843372

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62665
 Sample Name : AV 22795 1:10
 Instrument Name : GC014
 Rack/Vial : 0/43
 Sample Amount : 50.000000
 Cycle : 43

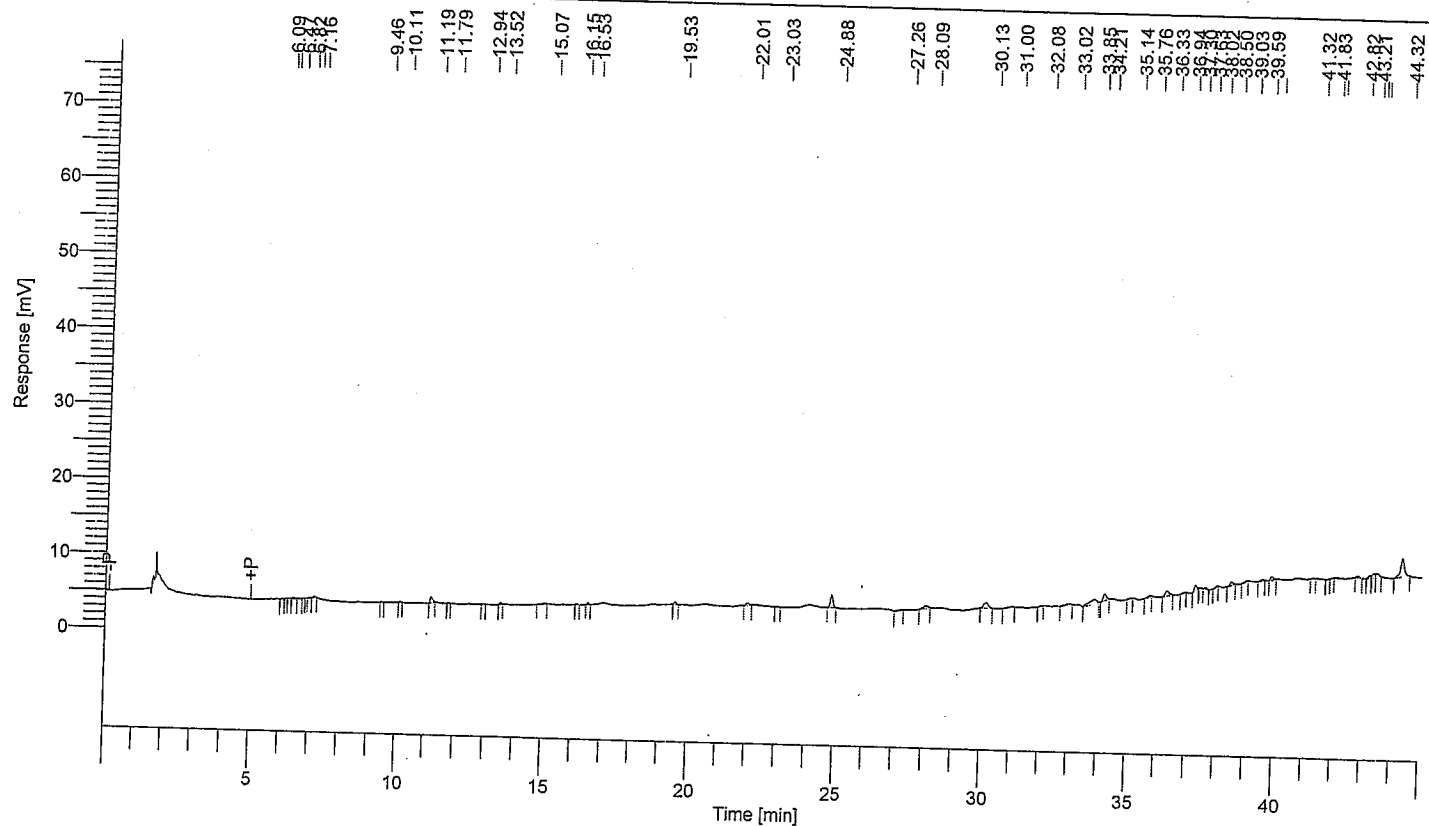
Date : 10/29/2007 6:16:03 AM

Data Acquisition Time : 10/28/2007 3:42:29 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB043.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV-s]
	6.47	780
	7.16	983
	9.46	560
	10.11	538
	11.19	4184
	13.52	1103
	15.07	972
	16.53	1183
	19.53	1695
	22.01	2251
	23.03	643
	24.88	11446
	27.26	1188
	28.09	3775
	30.13	7656
	31.00	1878
	32.08	540
	33.02	2085
	33.85	10690
	34.21	6546
	35.14	633
	35.76	1503
	36.33	6216
	36.94	629
	37.30	4214
	37.63	1272
	38.02	778

20.40 ppm total PCB.

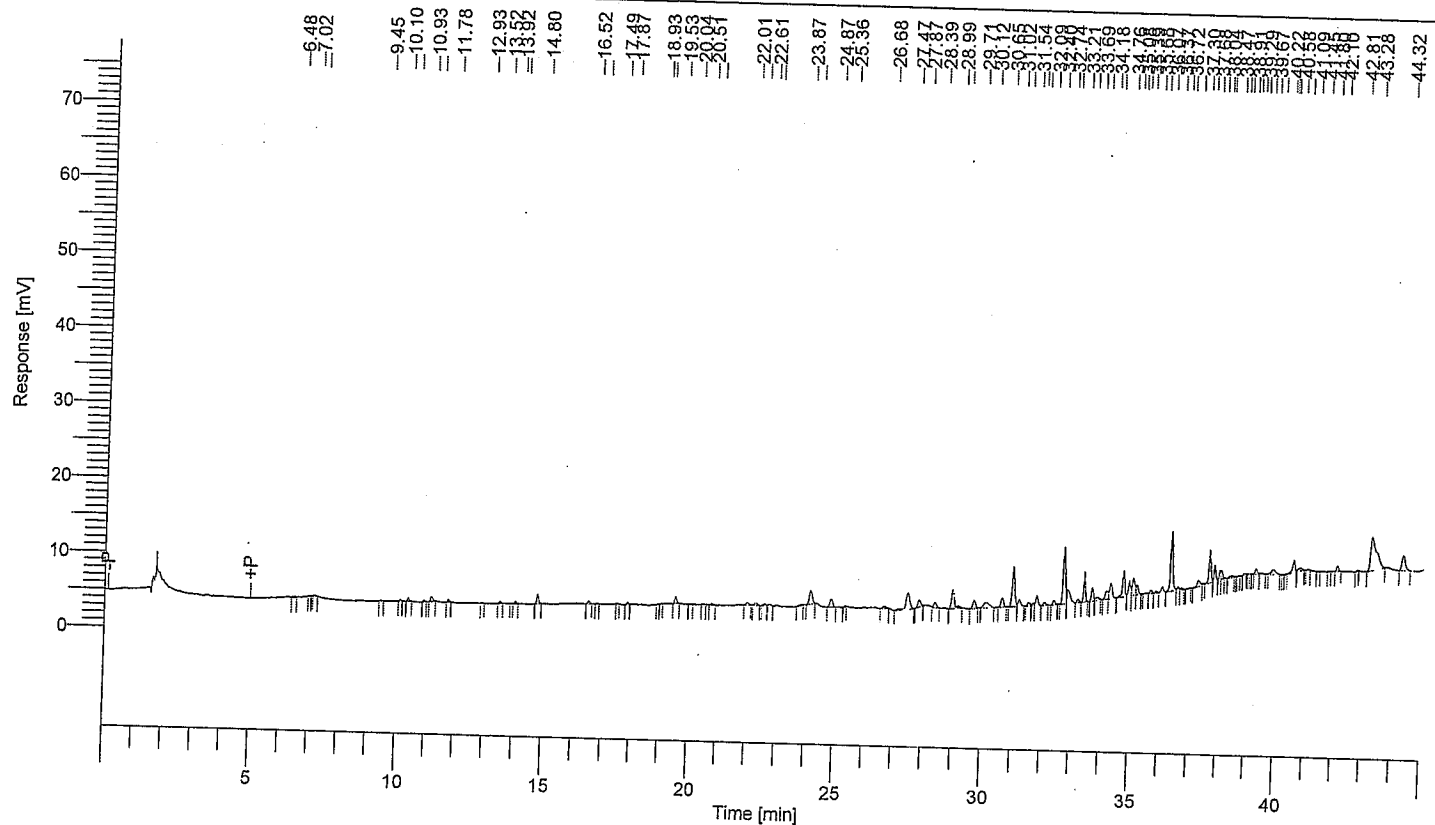
Component Name	Time [min]	Area [μ V-s]
	38.50	3551
	39.03	706
	39.59	1369
	39.88	3061
	42.82	1611
	43.21	1951
	43.35	3886
	43.46	3887
	44.32	20928
		116892

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62667
 Sample Name : AV 22796 1:10
 Instrument Name : GC014
 Rack/Vial : 0/45
 Sample Amount : 50.000000
 Cycle : 45

Date : 10/29/2007 6:16:10 AM

Data Acquisition Time : 10/28/2007 5:27:52 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,VVV,SL\COMB045.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,VVV,SL\COMB.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



Component Name	Time [min]	Area [μV·s]
	29.18	1709
	29.71	6682
	30.12	8754
	30.65	7163
	31.02	33858
	31.22	5554
	31.54	2563
	31.69	1710
	31.81	7914
	32.09	1982
	32.40	3153
	32.74	44755
	32.86	14912
	33.21	2319
	33.43	17894
	33.69	8895
	33.89	2975
	34.18	7375
	34.32	13191
	34.76	18917
	34.96	9407
	35.08	14146
	35.21	6833
	35.68	2217
	35.86	1525
	36.07	3764
	36.37	39217
	36.59	1798
	36.72	1126
	37.30	6073
	37.47	704
	37.68	21231
	37.86	9232
	38.04	4996
	38.11	4396
	38.47	1872
	38.91	747
	39.29	4252
	39.49	1407
	39.89	7094
	40.58	9721
	40.81	3710
	41.09	683
	42.10	3464
	43.28	59726
	44.32	14860

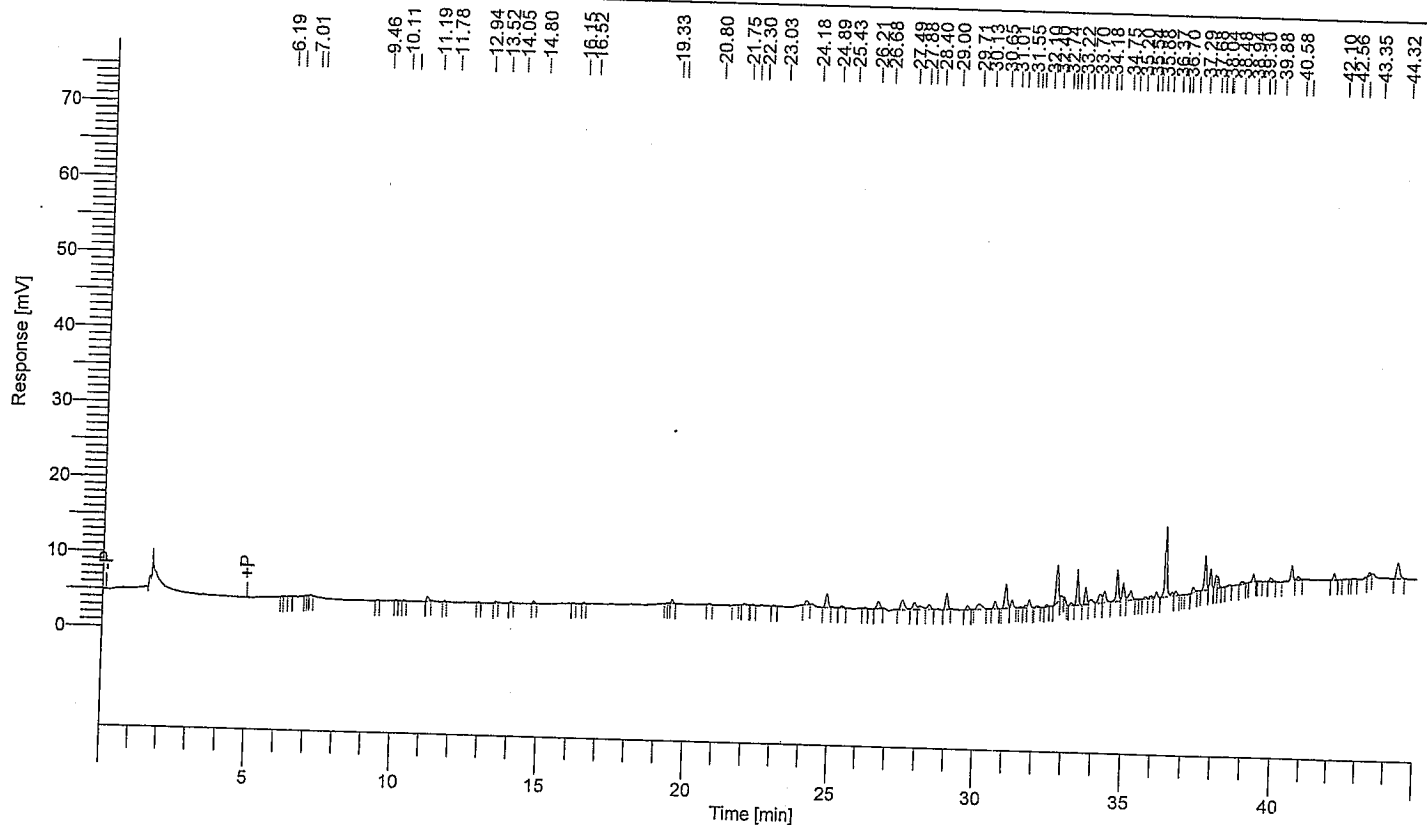
551216

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62684
 Sample Name : AV 22797 1:10
 Instrument Name : GC014
 Rack/Vial : 0/47
 Sample Amount : 50.000000
 Cycle : 2

Date : 10/29/2007 8:50:59 AM
 Data Acquisition Time : 10/28/2007 7:13:10 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB047.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,WWW,SLICOMB.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	6.47	589
	9.46	654
	10.11	598
	10.39	757
	11.19	3347
	11.78	737
	12.94	579
	13.52	1033
	14.05	833
	14.80	1548
	16.52	804
	19.53	2492
	20.80	783
	21.75	621
	22.01	1460
	22.30	724
	23.03	1141
	24.18	3735
	24.89	11931
	25.43	2023
	26.21	989
	26.68	6840
	27.49	11420
	27.88	7587
	28.09	5464
	28.40	4505

<0.40 ppm total PCB.

Component Name	Time [min]	Area [μV·s]
	29.00	13665
	29.71	3282
	30.13	8569
	30.65	5526
	31.01	21404
	31.22	6227
	31.55	676
	31.69	1746
	31.82	6020
	32.10	1540
	32.40	1392
	32.74	27897
	32.88	2041
	33.00	1140
	33.22	1747
	33.43	22545
	33.70	12087
	33.89	5456
	34.18	9481
	34.33	10657
	34.75	22776
	34.96	11781
	35.20	10477
	35.70	1589
	35.88	2302
	36.06	3827
	36.37	44653
	36.58	2638
	36.70	3351
	37.29	4619
	37.68	21036
	37.87	12220
	38.04	7203
	38.10	6394
	38.48	1093
	38.94	2061
	39.30	4500
	39.49	618
	39.88	3421
	40.58	11681
	40.82	3405
	42.10	4806
	42.56	883
	42.82	1089
	43.35	2073
	44.32	15502
		442291

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom; 62686
 Sample Name : AV 22798 1:10
 Instrument Name : GC014
 Rack/Vial : 0/49
 Sample Amount : 50.000000
 Cycle : 4

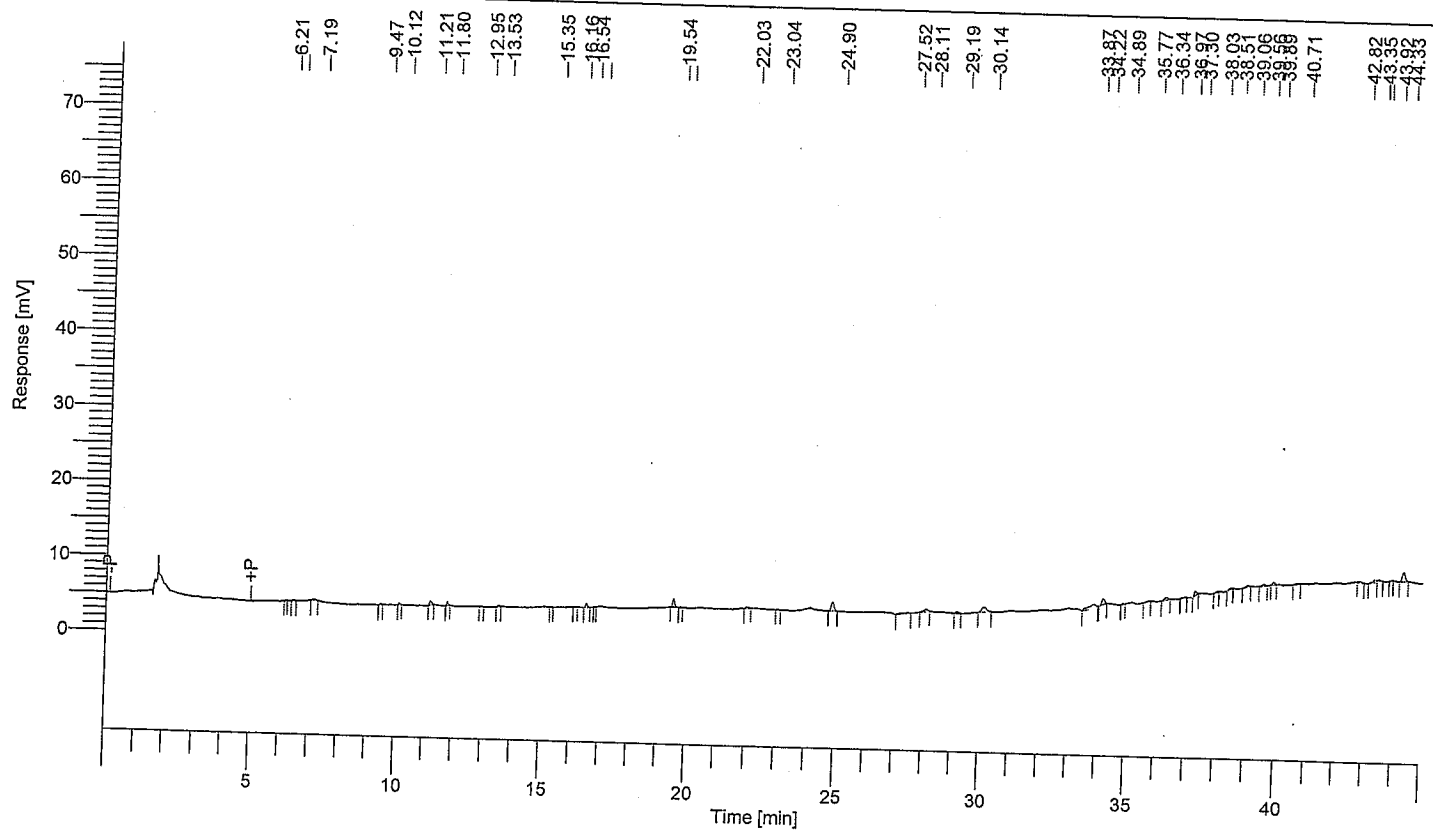
Date : 10/29/2007 8:51:06 AM

Data Acquisition Time : 10/28/2007 8:58:31 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,VWV,SL\COMB049.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100803 AV SET 12, W,VWV,SL\COMB.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS (PCB'S)

Component Name	Time [min]	Area [μV·s]
	6.48	523
	7.19	1265
	9.47	691
	10.12	1130
	11.21	2990
	11.80	1732
	12.95	600
	13.53	1013
	16.54	2062
	19.54	5555
	22.03	1528
	23.04	517
	24.90	8180
	27.52	2135
	28.11	3493
	29.19	1622
	30.14	7914
	33.87	8668
	34.22	5256
	34.89	617
	35.77	675
	36.34	2939
	36.97	711
	37.30	3282
	38.03	758
	38.51	967

<0.40 ppm total PCB.

Component Name	Time [min]	Area [μV-s]
	39.06	1550
	39.56	1743
	39.89	1808
	40.71	704
	42.82	1344
	43.35	3061
	43.49	2144
	44.33	8257
	<hr/>	
	87433	

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100804 Avant Level IV QAQC

Set #13

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	SF
PREP DATE:	10-29-07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AR1900004		
PREP. DATE:	10-8-07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS
1	SPIKE 1	50.0
2	22799	50.0
3	22800	50.0
4	22801	50.0
5	22802	50.0
6	22803	50.0
7	22803 DUP	50.0
8	22804	50.0
9	22805	50.0
10	22806	50.0
11	22806 MS	50.0
12	22937	50.0
13	22937 MSD	50.0
14	BLANK	—
15		
16		
17		
18		
19		
		-

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	SIF	ALiquot RATIO:	50/100
COLUMN I.D.:	809200	FINAL VOLUME:	2.0 mL
DATE USED:	10/29/2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGV (cm/s)	NOT GIVEN	A1016 I.D.	Y11300003
INST. CAL I.D.	MX50100154	A1221 I.D.	Y11400003
INST. CAL PREP. DATE:	9/14/2007	A1232 I.D.	Y11500003
ANALYTE 1		A1242 I.D.	Y11600003
RETENTION TIME (MIN)	14.39	A1248 I.D.	Y11700005
R.T. ACCURACY (%)	99	A1254 I.D.	X11800011
SENSITIVITY (AREA)	406674	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	102	CAL PREP DATE: 10/2/2007	
ANALYTE 2			
RETENTION TIME (MIN)	16.59		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	857821		
SENS. ACCURACY (%)	86		

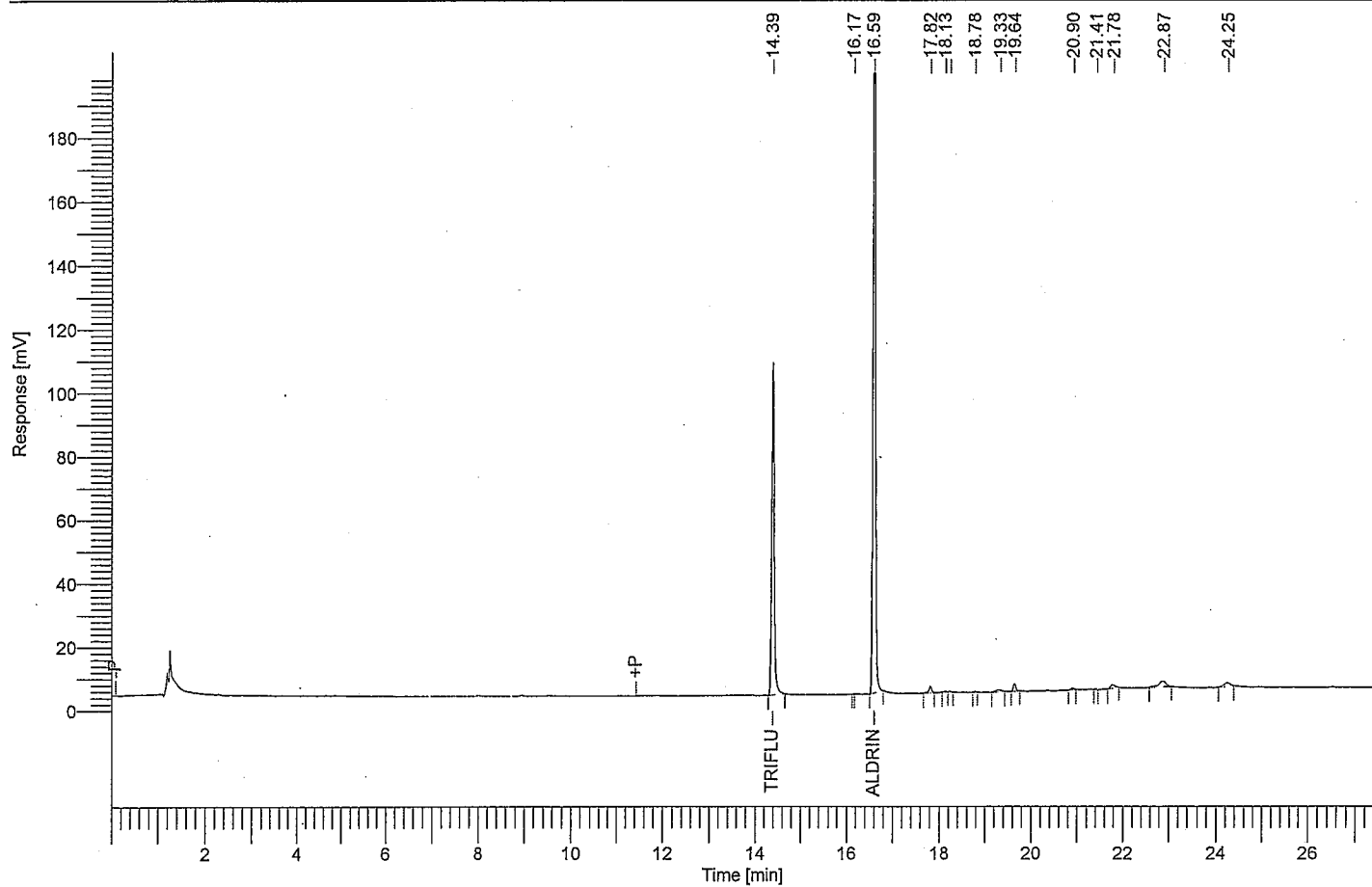
COMMENTS
Solvent rinse sample glassware three times with acetone and three times with hexane before washing. Use 0.5 mL Arochlor 1260 INT for the matrix spike and the matrix spike duplicate. 15% EE/Hexane PD: 10-25-07 TBASulfide PD: 10-06-07 pH7 Buffer PD: 10-24-07 Florisil Lot# - 195937161 90% Methanol /Di-Water PD: 10-25-07 C18 Lot# - 0730406

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62722
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 2

Date : 10/29/2007 2:38:53 PM
Data Acquisition Time : 10/29/2007 1:58:25 PM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC002-20071029-142604.rst
Sequence File : C:\PEST\GC14\Sequences\EIC-20071029-130745.idx
Sample Notes:

ECD INSTRUMENT CALIBRATION



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [μV·s]
14.39	TRIFLURALIN	406673.80
16.59	ALDRIN	857820.71
		1264494.51

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Printed by : envweigh on: 10/29/2007 1:05:26 PM

Created by : envweigh on: 10/29/2007 1:02:45 PM

Edited by : envweigh on: 10/29/2007 1:04:56 PM

Number of Times Edited : 1

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 24
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1016	02	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1221	03	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1232	04	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1242	05	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1248	06	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1254	07	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	AROCHLOR 1260	08	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
9	Sample	BLANK SOIL	09	07100804	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
10	Sample	SPIKE SOIL	10	07100804	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22799 1:10	11	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22800 1:10	12	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22801 1:10	13	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
14	Sample	22802 1:10	14	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
15	Sample	22803 1:10	15	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22803 DUP 1:10	16	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	FLUSH	17	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
18	Sample	AROCHLOR 1248	18	07100804	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
19	Sample	22804 1:10	19	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	22805 1:10	20	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
21	Sample	22806 1:10	21	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
22	Sample	22806 MS 1:10	22	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
23	Sample	22937	23	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
24	Sample	22937 MSD	24	07100804	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
6	A	0	6	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
7	A	0	7	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
8	A	0	8	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
9	A	0	9	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
10	A	0	10	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
11	A	0	11	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
12	A	0	12	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
13	A	0	13	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
14	A	0	14	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
15	A	0	15	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
16	A	0	16	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
17	A	0	17	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
18	A	0	18	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
19	A	0	19	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
20	A	0	20	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
21	A	0	21	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
22	A	0	22	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
23	A	0	23	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
24	A	0	24	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb

Row	Raw Data File	Result File	Baseline
-----	---------------	-------------	----------

1	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_001	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_001	
2	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_002	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_002	
3	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_003	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_003	
4	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_004	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_004	
5	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_005	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_005	
6	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_006	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_006	
7	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_007	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_007	
8	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_008	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_008	
9	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_009	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_009	
10	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_010	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_010	
11	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_011	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_011	
12	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_012	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_012	

10/29/2007 1:05:26 PM Sequence: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sequence Process Information - Channel A

Row	Raw Data File	Result File	Baseline			
13	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_013	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_013				
14	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_014	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_014				
15	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_015	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_015				
16	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_016	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_016				
17	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_017	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_017				
18	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_018	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_018				
19	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_019	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_019				
20	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_020	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_020				
21	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_021	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_021				
22	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_022	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_022				
23	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_023	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_023				
24	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_024	C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_024				
Row	Modified	Calib Rpt	Cal Level	Update RT	Printer	Plotter
1	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
2	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
3	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
4	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
5	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
6	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
7	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
8	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
9	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
10	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
11	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
12	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
13	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
14	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
15	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
16	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
17	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
18	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
19	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
20	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
21	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
22	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
23	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default
24	<Inst>_<Chan>_<SDOM>_<Mon>_<Year>_### -	-	-	-	Default	Default

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62754
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/1
 Sample Amount : 1.000000
 Cycle : 1

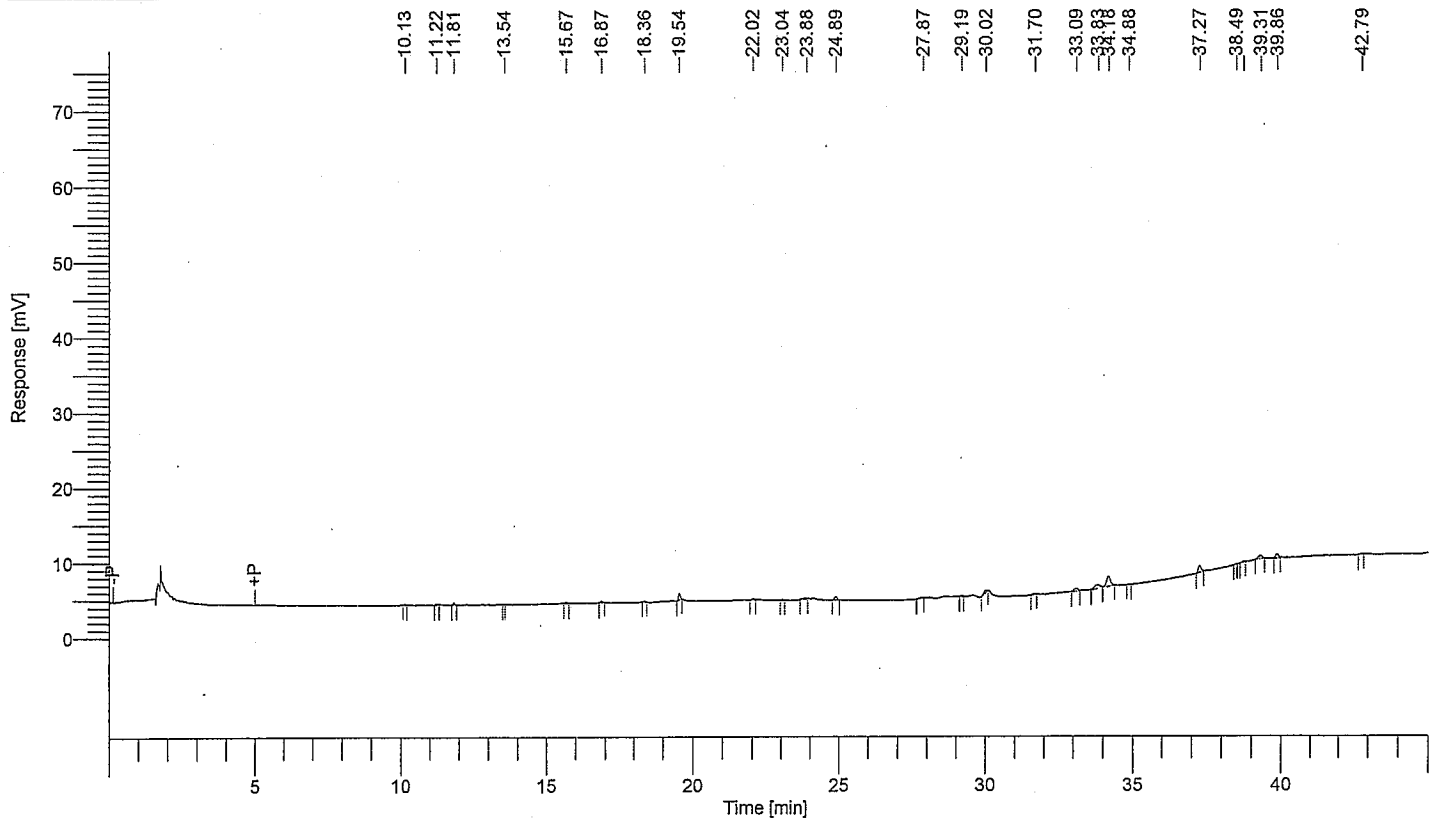
Date : 10/30/2007 11:49:37 AM
 Data Acquisition Time : 10/29/2007 2:44:22 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_001.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.54	3866
24.89	2758
30.02	2780
33.09	3097
33.83	6243
34.18	12375
37.27	6191
39.31	4235
39.86	2968
<hr/>	
44514	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62770
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 1.000000
 Cycle : 17

Date : 10/30/2007 11:50:16 AM

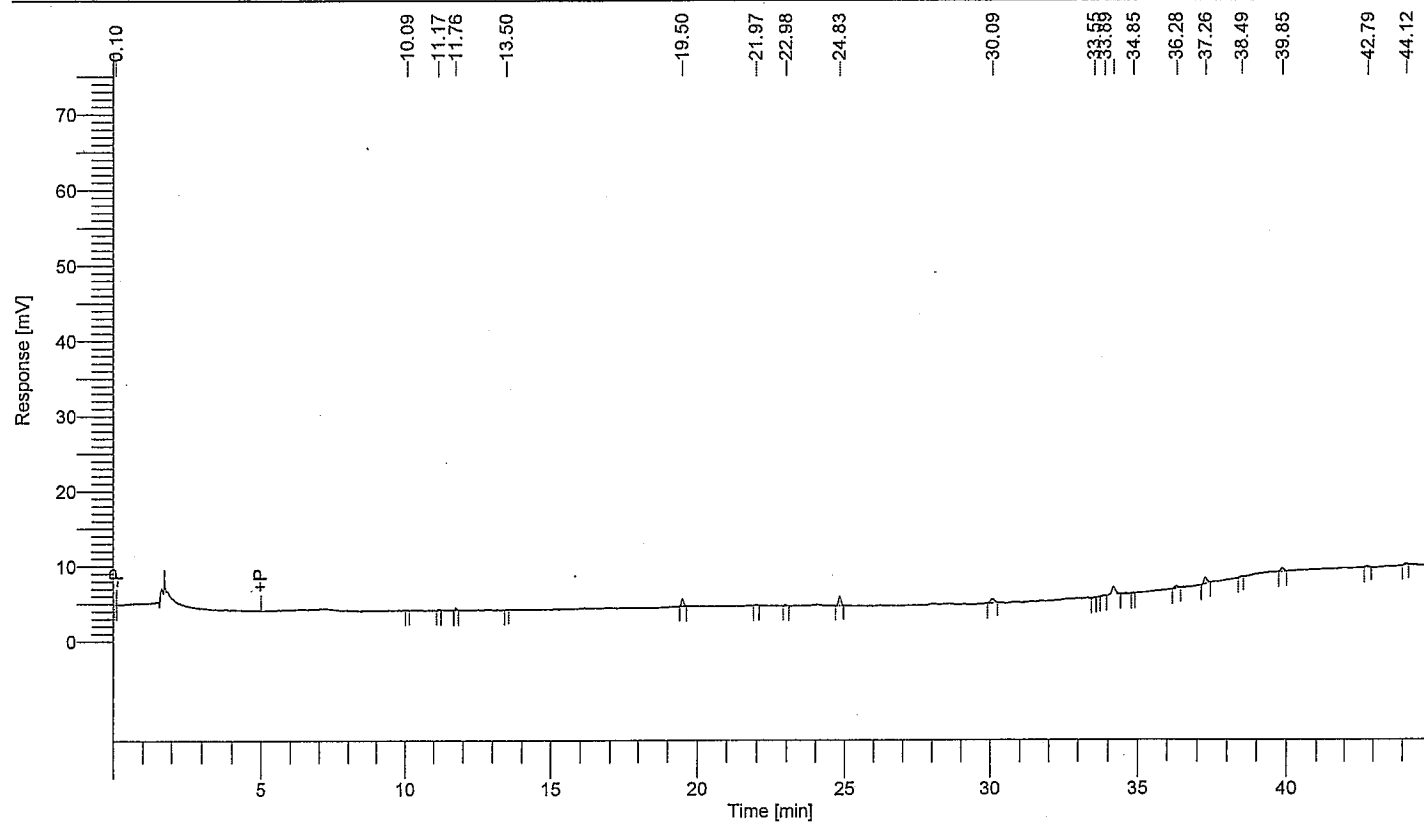
Data Acquisition Time : 10/30/2007 4:45:43 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_017.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

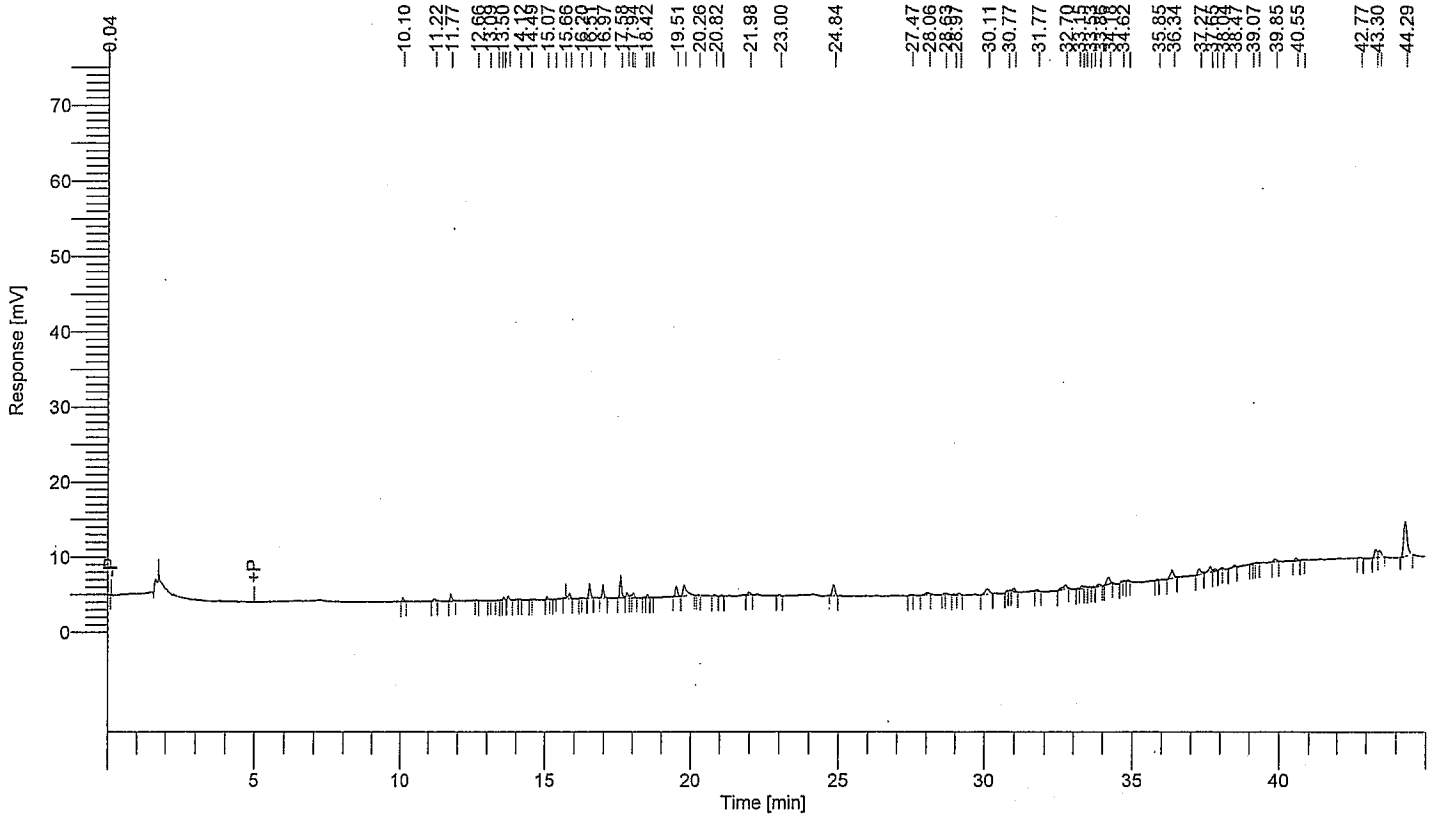
Time [min]	Area [μV·s]
19.50	4960
24.83	7705
30.09	5022
34.18	9594
36.28	2455
37.26	6199
39.85	2968

38903

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62762
 Sample Name : BLANK SOIL
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

Date : 10/30/2007 11:49:57 AM
 Data Acquisition Time : 10/29/2007 9:45:16 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_009.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
10.10	2263
11.77	4099
13.73	2630
15.83	3196
16.51	8062
16.97	7264
17.58	12989
17.80	3024
18.02	3207
19.51	6809
19.78	13153
24.84	9241
28.06	2850
30.11	6870
30.99	2422
32.70	5301
33.29	2423
33.86	2239
34.18	6537
36.34	8384
37.27	6242
37.65	5139
39.85	2264
43.30	6676
43.43	6427
44.29	36421

<0.04 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62763
 Sample Name : SPIKE SOIL
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

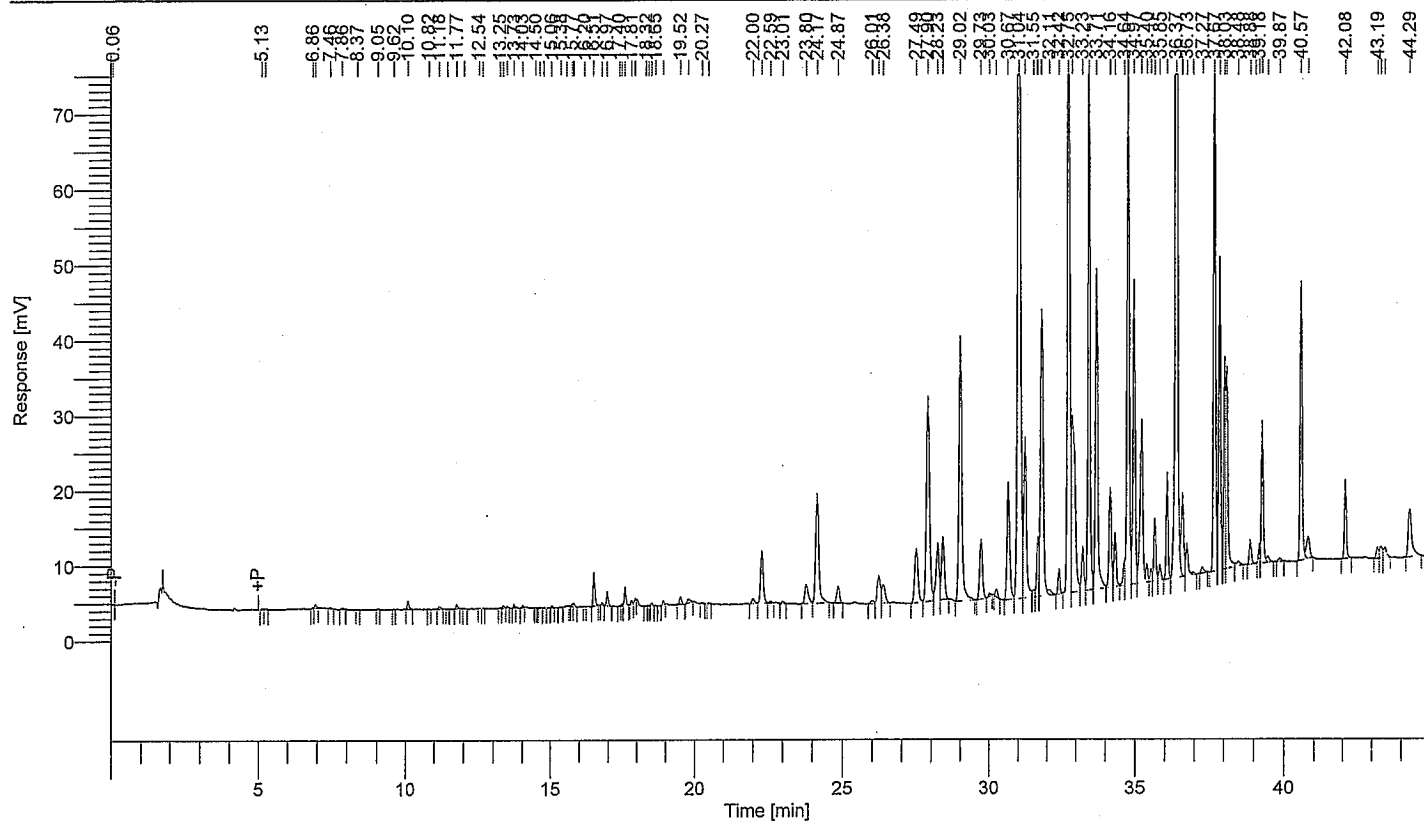
Date : 10/30/2007 11:49:59 AM
 Data Acquisition Time : 10/29/2007 10:37:48 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_010.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
6.95	2015
10.10	4657
11.77	2230
16.51	18686
16.97	7587
17.58	9887
18.92	2327
19.52	5155
19.78	3993
22.00	4084
22.29	43847
23.80	20326
24.17	110079
24.87	14197
26.01	2764
26.23	27875
26.38	18293
27.49	57887
27.90	209089
28.23	56019
28.41	58763
29.02	267263
29.73	54053
30.03	2108
30.26	4955
30.67	93521
31.04	692138

$$\sum \text{area} = 849501$$

$$\text{ng/mg} = \frac{849501}{350914}$$

$$= 2.4208$$

$$\text{ppm} = \frac{2.4208}{50} \times \frac{3}{2} \times \frac{100}{50} = 0.0968$$

$$\% \text{Rec} = \frac{0.0968}{0.1} \times 100 = 97\%$$

10/30/2007 11:49:59 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_010.rst

Time [min]	Area [μ V·s]
31.24	144911
31.55	5609
31.70	41229
31.83	240746
32.11	5928
32.42	17664
32.75	514769
32.89	213078
33.23	33575
33.45	423793
33.71	236231
34.16	71517
34.33	38865
34.64	13500
34.76	366106
34.97	208960
35.21	129671
35.40	12509
35.55	7663
35.68	43720
35.85	10459
36.07	67089
36.37	866897
36.58	60365
36.73	25742
36.96	2209
37.27	5607
37.67	419277 ^
37.86	196693 ^
38.03	119662 ^
38.10	113869 ^
38.48	5189
38.88	14018
39.18	8777
39.29	90576
39.47	4963
39.87	2705
40.57	188797
40.82	20639
42.08	56684
43.19	8183
43.31	10154
43.43	9976
44.29	53272

6925643

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62769
 Sample Name : 22803 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

Date : 10/30/2007 11:50:13 AM

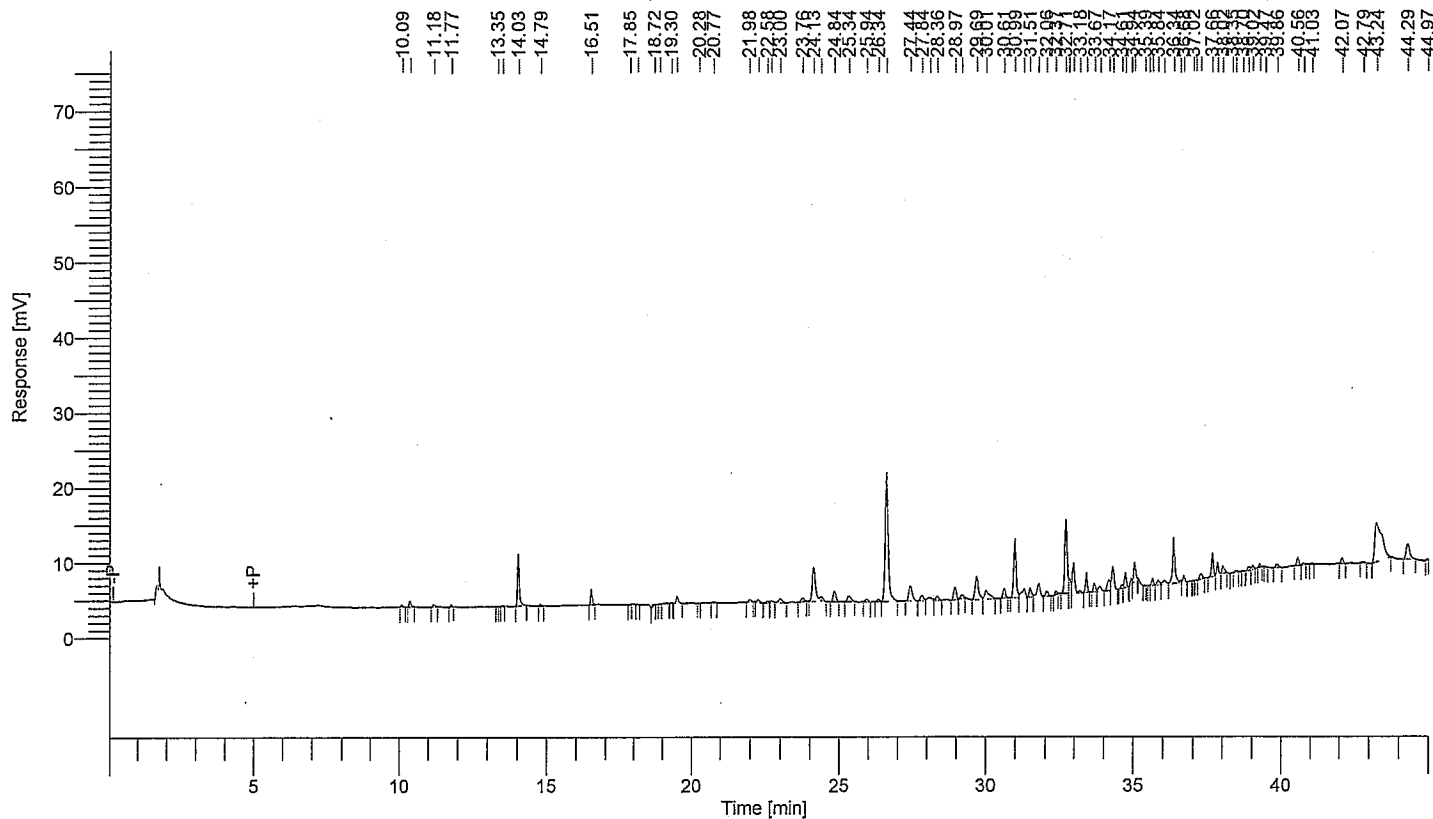
Data Acquisition Time : 10/30/2007 3:53:06 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_016.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
10.38	3619
14.03	29907
16.51	7967
19.51	5436
22.27	2393
22.71	2229
23.00	5143
23.76	3777
24.13	35414
24.39	4131
24.84	9463
25.34	6350
25.94	2249
26.63	135916
27.44	17316
27.84	5269
28.11	4627
28.36	3870
28.97	10791
29.20	3070
29.69	23323
30.01	12935
30.61	7043
30.99	48003
31.29	9978
31.51	7647
31.79	11038

< 0.40 ppm total PCB.

Both sample & duplicate
 have less than 0.40 ppm total PCB.
 88 10/30/2007

10/30/2007 11:50:13 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_016.rst

Time [min]	Area [μ V·s]
32.06	3614
32.71	58069
32.83	9956
32.98	23271
33.40	12485
33.67	6108
33.86	5364
34.17	9588
34.30	19612
34.61	2139
34.72	9322
34.94	3072
35.05	12191
35.66	4349
35.84	3792
36.04	3906
36.34	35462
36.68	4354
37.27	5124
37.66	14257
37.85	7175
38.02	5562
38.89	2636
39.02	2602
39.86	2841
40.56	5123
42.07	3974
43.24	81958
44.29	15484

792295

Software Version : 6.3.1.0504
 Sample Name : 22806 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

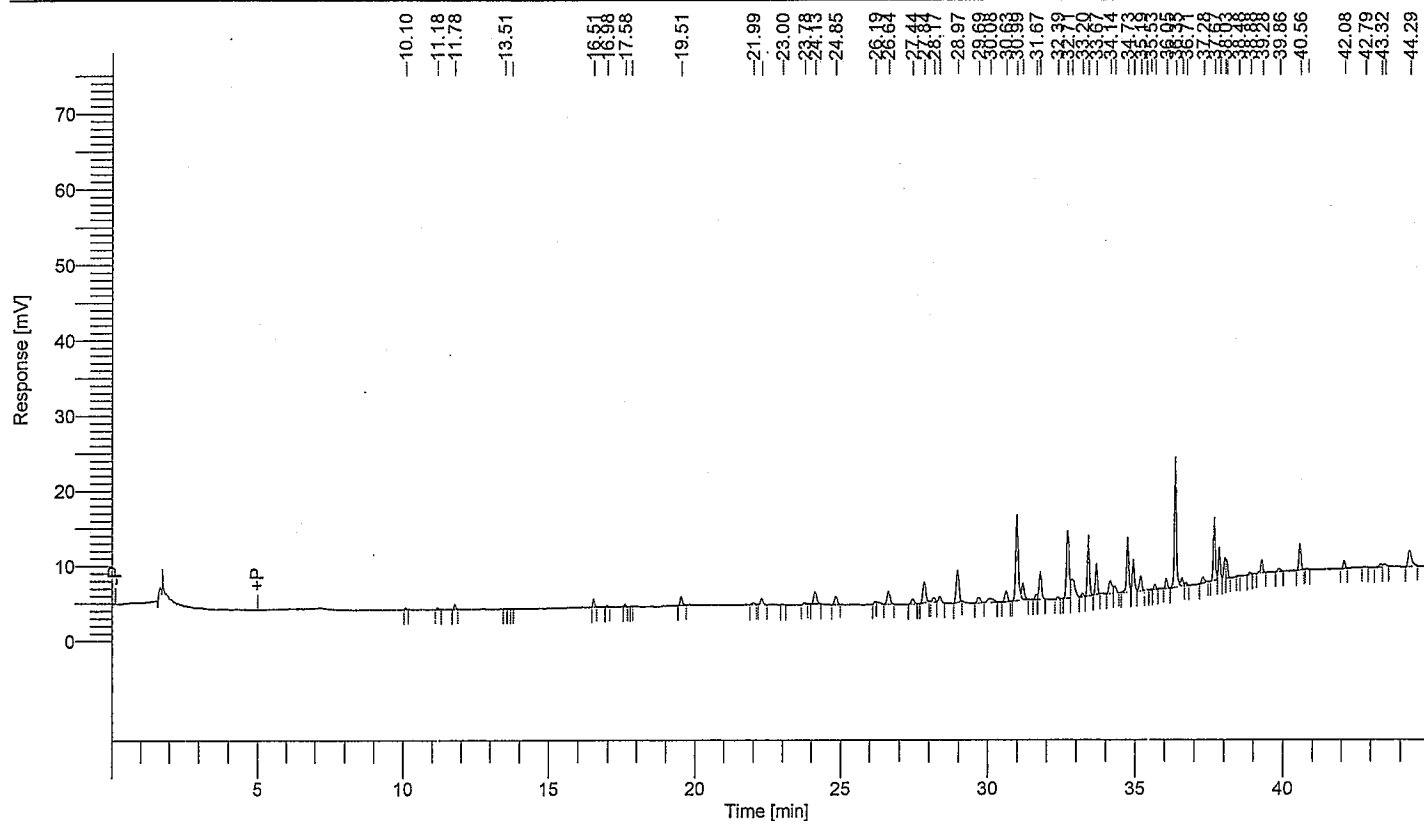
Date : 10/31/2007 9:04:43 AM
 Data Acquisition Time : 10/30/2007 9:09:04 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_022.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.78	2665
16.51	4390
19.51	6190
22.27	5174
24.13	11650
24.85	7192
26.64	13543
27.44	5421
27.84	19553
28.17	3550
28.36	4901
28.97	28690
29.69	5437
30.08	6598
30.63	8439
30.99	76632
31.19	12823
31.67	3200
31.79	21772
32.71	57088
32.86	23165
33.20	2494
33.41	41123
33.67	19223
34.14	12594
34.30	5928
34.73	38450
34.94	21023
35.19	12185

$$\sum \text{area (Area for 126)} = 80363$$

$$\text{recovery} = \frac{80363}{358914} = 0.2290$$

$$\text{ppm} = \frac{0.2290}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0916$$

$$\% \text{ Recovery} = \frac{0.0916}{0.1} \times 100 = 92\%$$

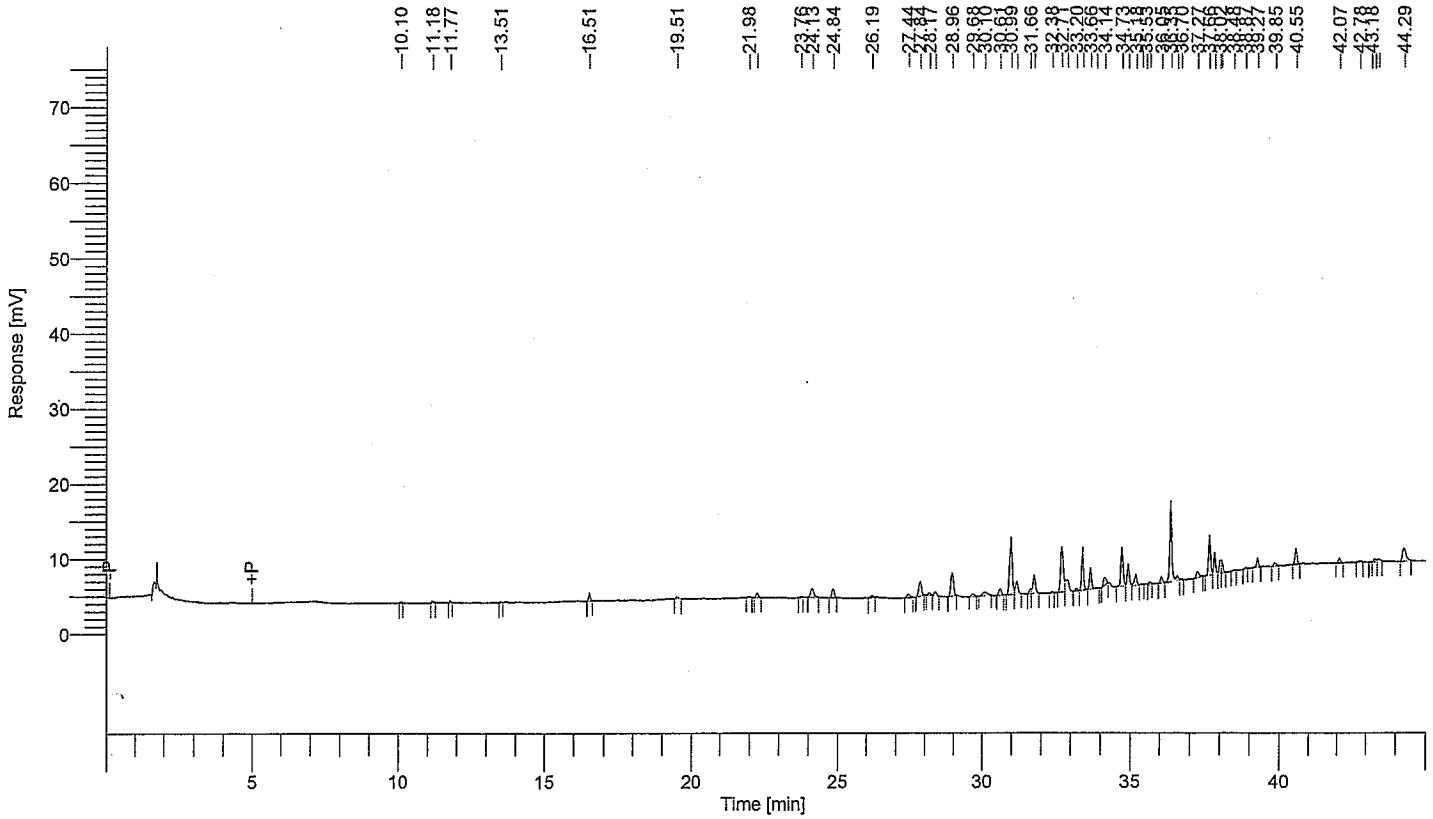
10/31/2007 9:04:43 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_022.rst

Time [min]	Area [μ V·s]
35.67	3362
36.05	6070
36.35	86402
36.56	5927
36.71	2099
37.28	5809
37.67	40360 ~
37.85	18861 ~
38.03	10836 ~
38.08	10306 ~
39.28	8971
39.86	2586
40.56	16939
42.08	5474
43.32	3045
43.44	2586
44.29	16427
<hr/>	
727156	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62777
 Sample Name : 22937 MSD 1:10 SEP 10/31/2007
 Instrument Name : GC014
 Rack/Vial : 0/24
 Sample Amount : 50.000000
 Cycle : 24

Date : 10/30/2007 11:50:33 AM
 Data Acquisition Time : 10/30/2007 10:54:34 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_024.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
16.51	4068
22.27	3412
24.13	8726
24.84	7279
27.44	3596
27.84	13983
28.17	2082
28.36	3312
28.96	21071
29.68	2600
30.10	6040
30.81	5352
30.99	50469
31.19	10156
31.66	2696
31.79	14774
32.71	36485
32.89	13903
33.40	28558
33.66	13923
34.14	6989
34.73	26962
34.93	14490
35.18	8585
36.05	3925
36.35	54658
36.56	3427

$$\Sigma \text{area (Aroclor 1260)} = 52422$$

$$\text{ng conc} = \frac{52422}{350914} = 0.1494$$

$$\text{ppm} = \frac{0.1494}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0598$$

$$\% \text{ Recovery} = \frac{0.0598}{0.1} \times 100 = 60\%$$

10/30/2007 11:50:33 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_024.rst

Time [min]	Area [μ V·s]
37.27	5874
37.66	25415
37.84	12859
38.02	7320
38.08	6728
39.27	5756
39.85	2407
40.55	10116
42.07	3549
43.30	2134
44.29	13498
<hr/>	
	467279

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62755
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

Date : 10/30/2007 11:49:39 AM

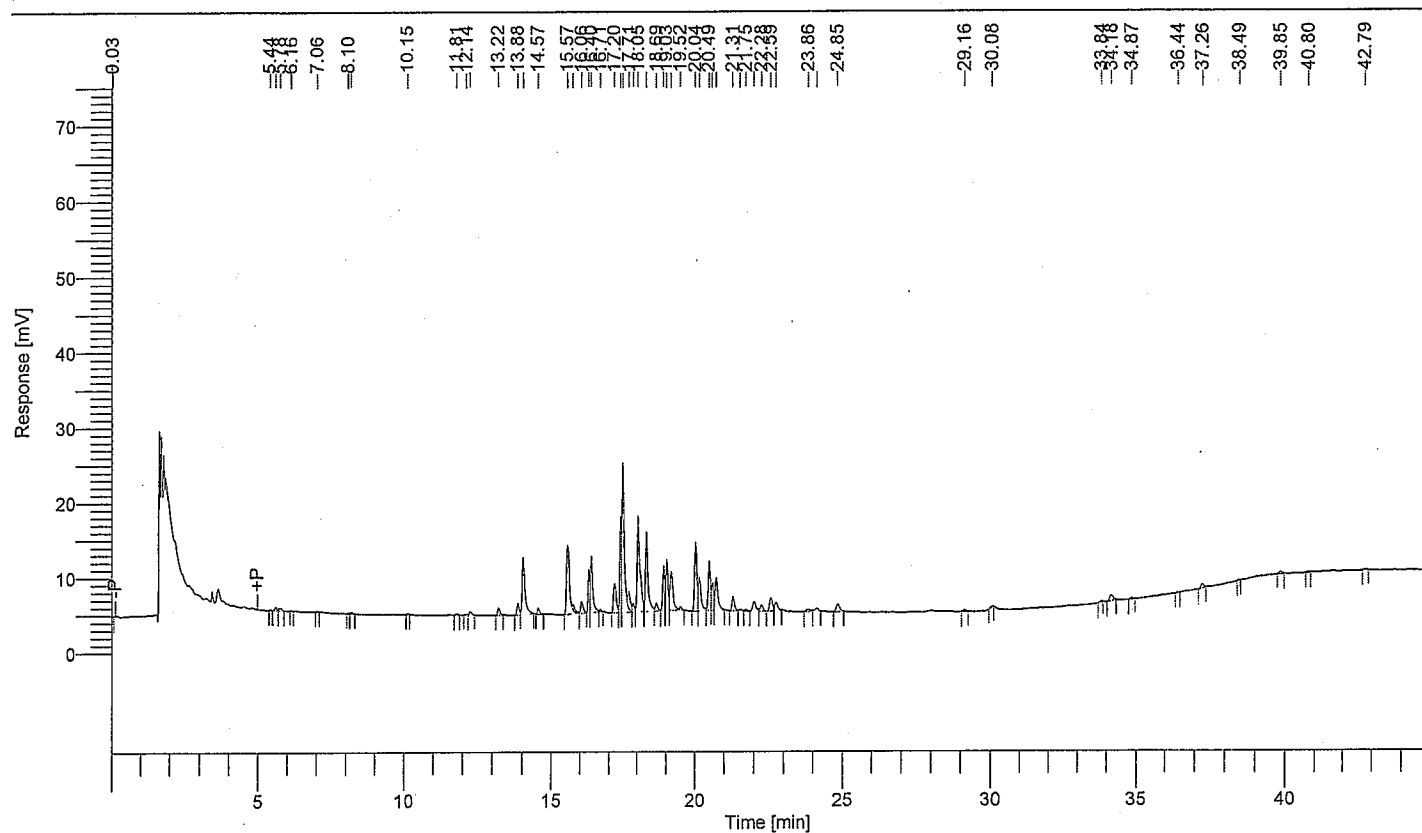
Data Acquisition Time : 10/29/2007 3:37:04 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_002.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
5.63	2371
5.78	2444
12.27	2530
13.22	5627
13.88	8113
14.05	48336
14.57	4100
15.57	71853
15.76	5536
16.06	9024
16.32	21902
16.40	40853
17.20	25071
17.40	49513
17.48	120146
17.71	16125
17.87	6554
18.05	86828
18.33	67268
18.69	6390
18.93	28075
19.03	38281
19.20	38403
19.52	2358
20.04	52012
20.17	28854
20.49	35938

10/30/2007 11:49:39 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_002.rst

Time [min]	Area [μ V·s]
20.61	18847
20.74	29570
21.31	11418
22.01	9777
22.28	5249
22.59	12091
22.76	8206
23.86	3034
24.15	3424
24.85	7757
34.18	5960
37.26	3630
<hr/>	
943467	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62756
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

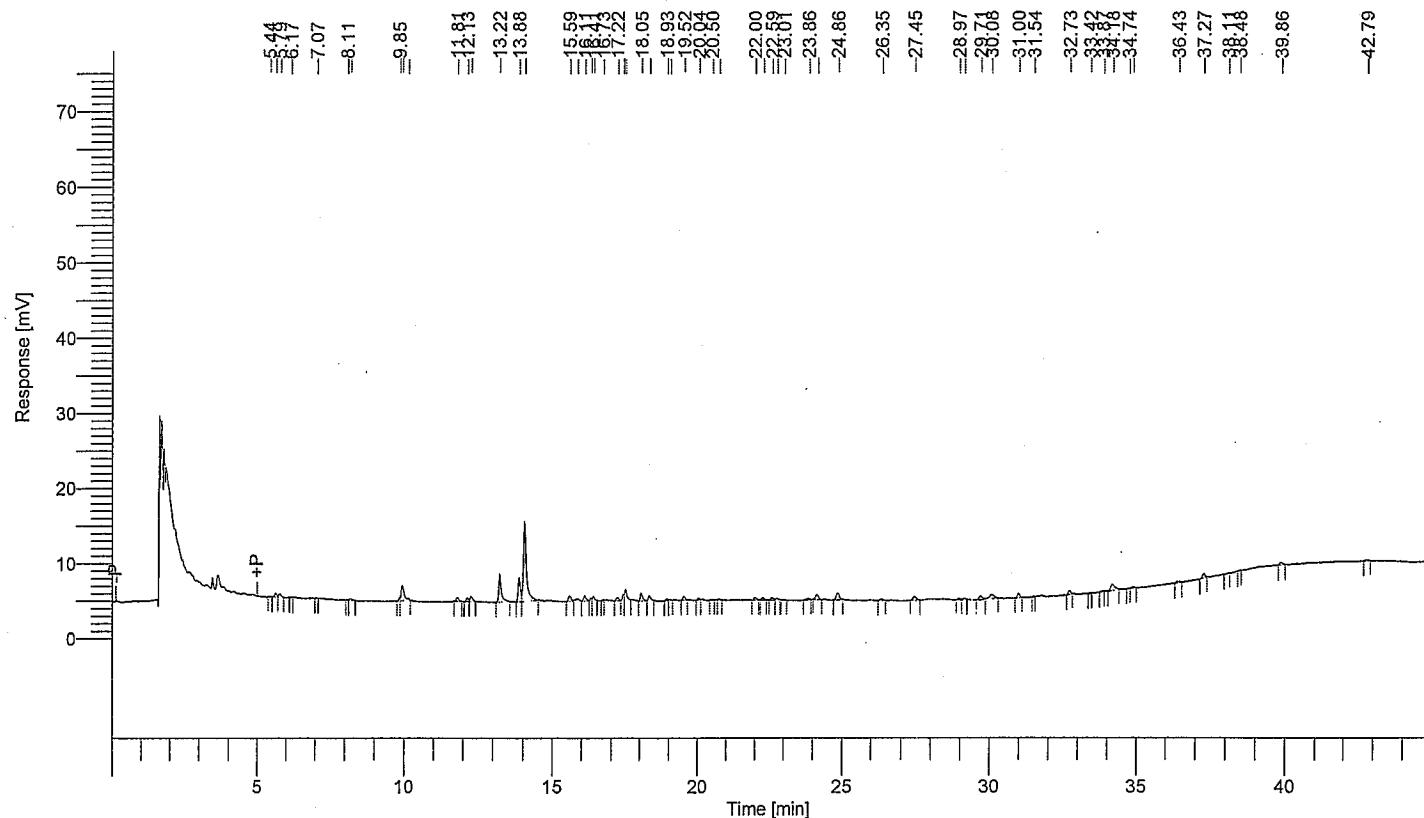
Date : 10/30/2007 11:49:41 AM
 Data Acquisition Time : 10/29/2007 4:29:42 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_003.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.64	2552
5.79	2691
9.94	14094
11.81	3031
12.13	2667
12.27	3999
13.22	24167
13.88	16711
14.05	74384
15.59	5064
15.84	2676
16.11	3742
16.41	2437
17.22	2311
17.41	2656
17.49	8291
18.05	5986
18.33	3607
19.52	2476
22.00	2064
22.59	2050
24.15	4375
24.86	6667
27.45	3974
29.71	3553
30.08	5875
31.00	3909

10/30/2007 11:49:41 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_003.rst

Time [min]	Area [μ V-s]
32.73	2458
34.18	7468
37.27	3361
39.86	2006
<hr/>	
231302	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62757
 Sample Name : AROCHLOR 1232
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

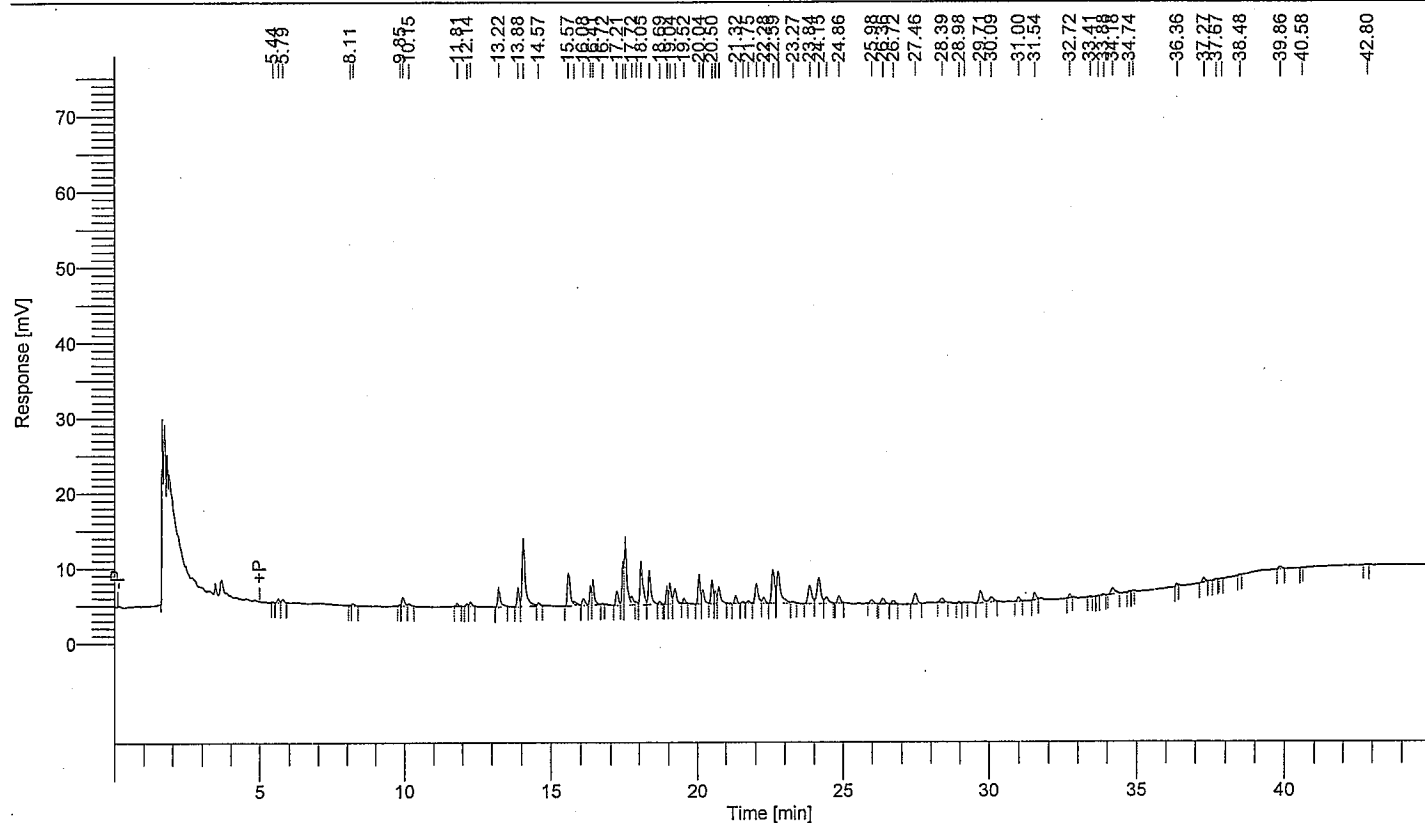
Date : 10/30/2007 11:49:43 AM
 Data Acquisition Time : 10/29/2007 5:22:21 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_004.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.63	2679
5.79	2668
9.94	8271
10.15	2160
11.81	2333
12.27	3431
13.22	16272
13.88	13073
14.06	65077
14.57	2092
15.57	32925
15.77	3394
16.08	5549
16.32	9843
16.41	17886
17.21	11607
17.41	22326
17.49	56165
17.72	6769
17.87	2448
18.05	38443
18.33	28906
18.93	11090
19.04	15282
19.21	14305
19.52	3438
20.04	22155

10/30/2007 11:49:43 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_004.rst

Time [min]	Area [μ V·s]
20.18	11980
20.50	16826
20.61	8328
20.74	15432
21.32	6417
21.75	2186
22.02	20371
22.28	5267
22.59	31532
22.76	40290
23.84	21592
24.15	31074
24.42	7050
24.86	6254
25.98	3713
26.36	6011
26.72	3342
27.46	11633
28.39	4396
29.71	13126
30.09	6525
31.00	3684
31.54	5807
32.72	2417
34.18	7305
37.27	3839
39.86	2040

719023

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62758
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

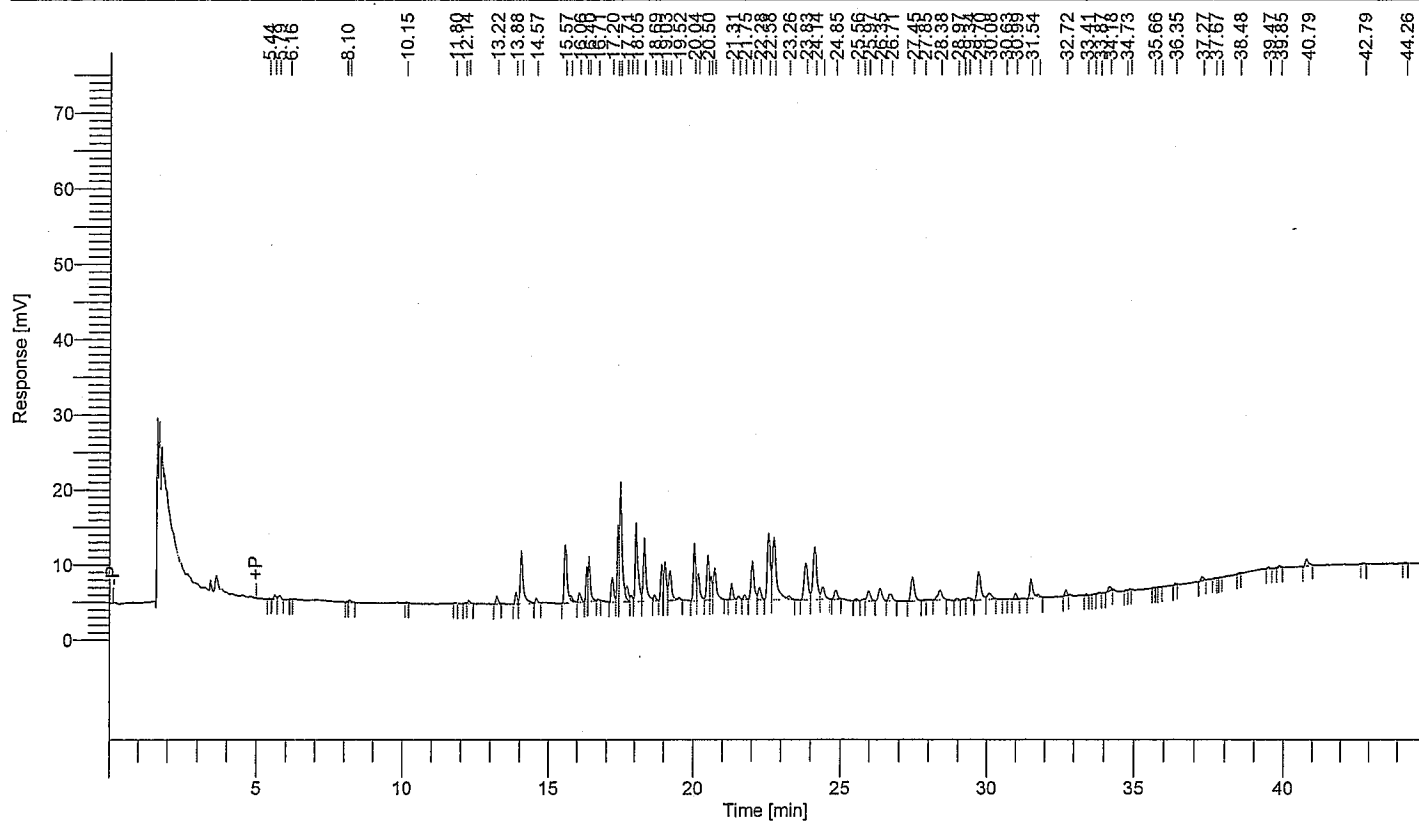
Date : 10/30/2007 11:49:46 AM
 Data Acquisition Time : 10/29/2007 6:14:56 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_005.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.63	2924
5.79	3124
12.27	2415
13.22	5353
13.88	8040
14.06	47798
14.57	3555
15.57	57532
15.76	3983
16.06	6999
16.32	17666
16.40	32236
17.20	20358
17.40	39318
17.49	97876
17.71	12218
17.87	4745
18.05	69577
18.33	54590
18.69	4554
18.93	22000
19.03	29334
19.20	28562
20.04	42604
20.17	23024
20.50	33379
20.61	16104

Time [min]	Area [μ V-s]
20.73	30452
21.31	12800
21.55	2939
21.75	3999
22.01	38407
22.28	11425
22.58	63485
22.75	78760
23.26	3449
23.83	44043
24.14	60208
24.41	14513
24.85	8517
25.97	10676
26.35	14445
26.71	8474
27.45	26597
28.38	12685
29.34	3316
29.70	32572
30.08	8056
30.99	4920
31.54	20750
32.72	3800
34.18	3673
37.27	3348
40.79	6622

1222798

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62759
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 1.000000
 Cycle : 6

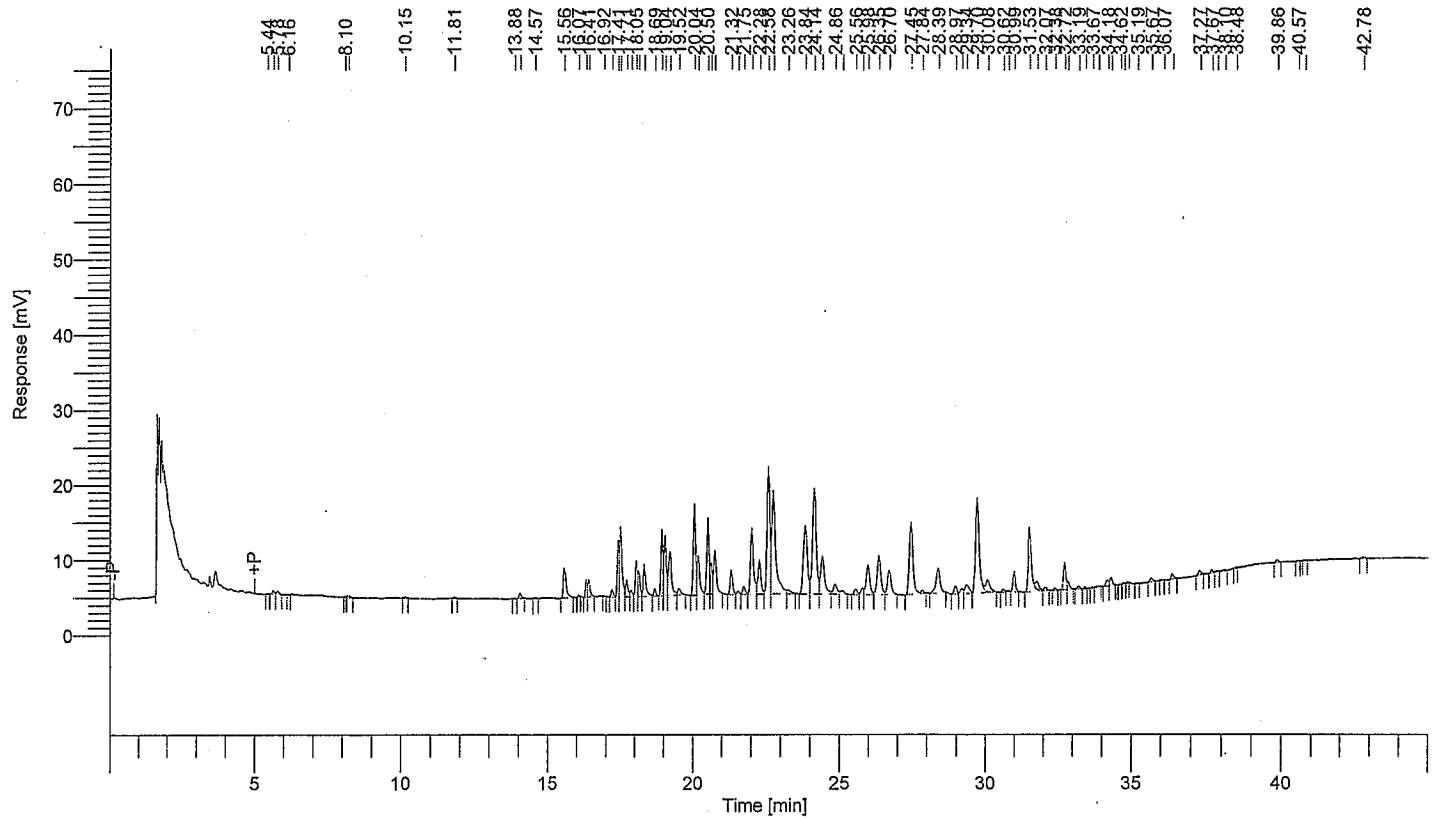
Date : 10/30/2007 11:49:48 AM
 Data Acquisition Time : 10/29/2007 7:07:31 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_006.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.63	2769
5.78	3045
14.06	3843
15.56	28050
16.32	9151
16.41	11401
17.19	5281
17.41	29646
17.49	56775
17.71	12974
17.87	4581
18.05	22612
18.13	16769
18.33	27008
18.69	4482
18.93	40551
19.04	46078
19.20	44196
19.52	5593
20.04	67356
20.17	33781
20.50	56910
20.61	20791
20.74	37853
21.32	19404
21.56	2597
21.75	6505

10/30/2007 11:49:48 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_006.rst

Time [min]	Area [μ V-s]
22.01	65826
22.28	32546
22.58	118737
22.76	130805
23.26	4596
23.84	82652
24.14	125126
24.41	46995
24.86	10821
25.10	4259
25.56	5408
25.79	5724
25.98	34241
26.35	44663
26.70	28024
27.45	84086
27.84	2787
28.39	31049
28.97	6986
29.19	4824
29.34	11558
29.70	109972
30.08	17055
30.62	2276
30.99	17986
31.53	67745
31.78	8500
32.07	2694
32.72	21083
32.84	5925
33.19	2059
34.18	5147
34.30	6902
35.67	2933
36.35	3855
37.27	3516
37.67	2291

1781653

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62771
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 1.000000
 Cycle : 18

Date : 10/30/2007 11:50:19 AM

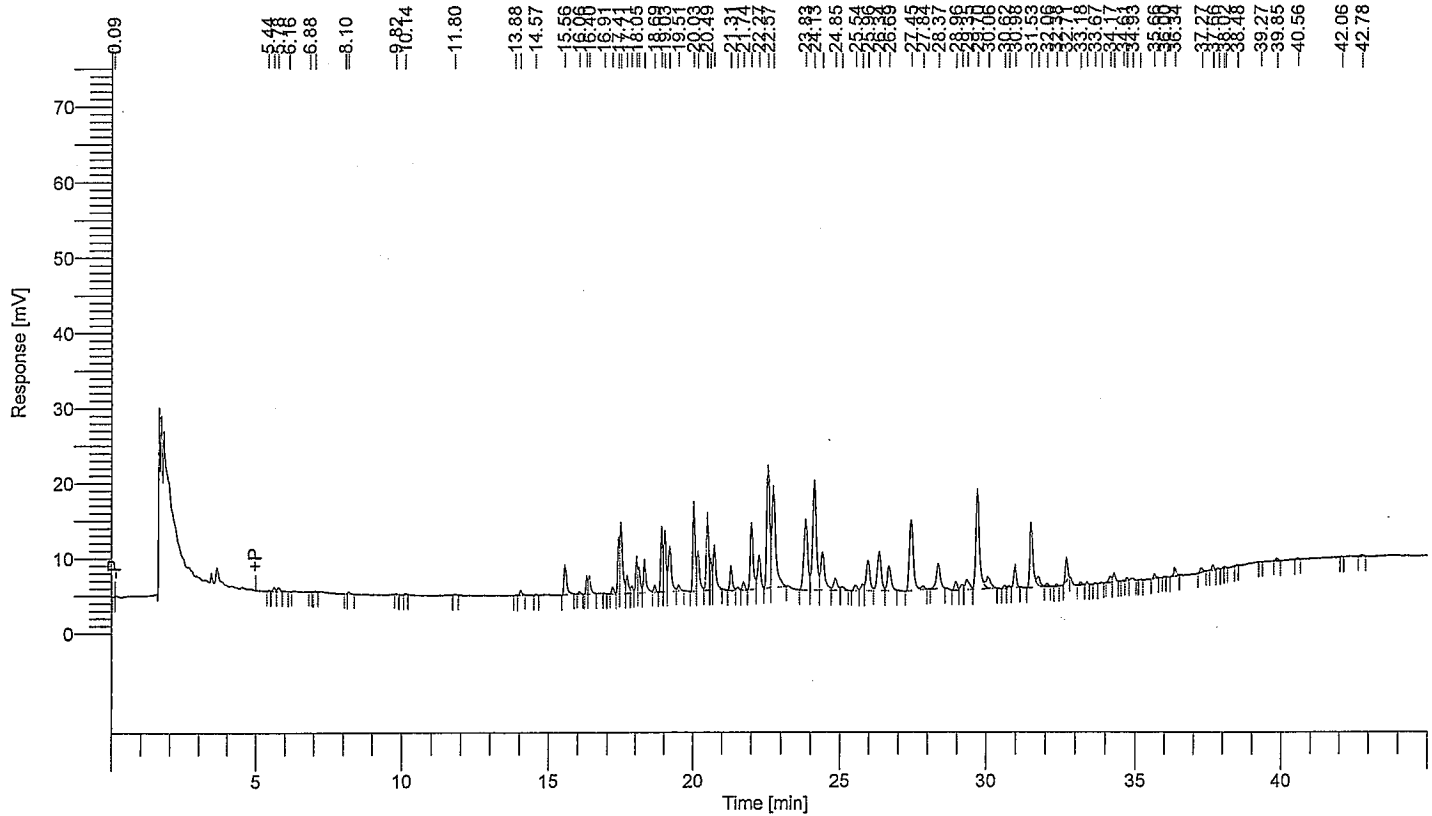
Data Acquisition Time : 10/30/2007 5:38:21 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_018.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.63	2768
5.78	3221
14.05	3539
15.56	28030
16.31	9255
16.40	12677
17.19	5246
17.41	30022
17.48	58366
17.71	14631
17.87	5547
18.05	23322
18.13	18027
18.32	28247
18.69	4600
18.92	41330
19.03	46603
19.20	45218
19.51	5151
20.03	68107
20.17	34848
20.49	58189
20.61	21279
20.74	39378
21.31	19793
21.55	2394
21.74	6056

10/30/2007 11:50:19 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_018.rst

Time [min]	Area [μ V·s]
22.01	64760
22.27	30203
22.57	116530
22.75	122345
23.83	85117
24.13	127359
24.41	48960
24.85	14363
25.08	4373
25.54	5397
25.78	5995
25.96	34030
26.34	45520
26.69	28333
27.45	86730
27.84	3403
28.37	30803
28.96	7619
29.18	5274
29.35	13035
29.70	114967
30.06	16746
30.62	2070
30.98	19322
31.53	70324
31.78	8449
32.06	2156
32.71	16233
33.18	2059
34.17	4850
34.30	7200
34.73	2162
34.93	2685
35.66	3285
36.34	6820
37.27	4102
37.66	3558

1802982

Software Version : 6.3.1.C504
 Reprocess Number : totalchrom: 62760
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

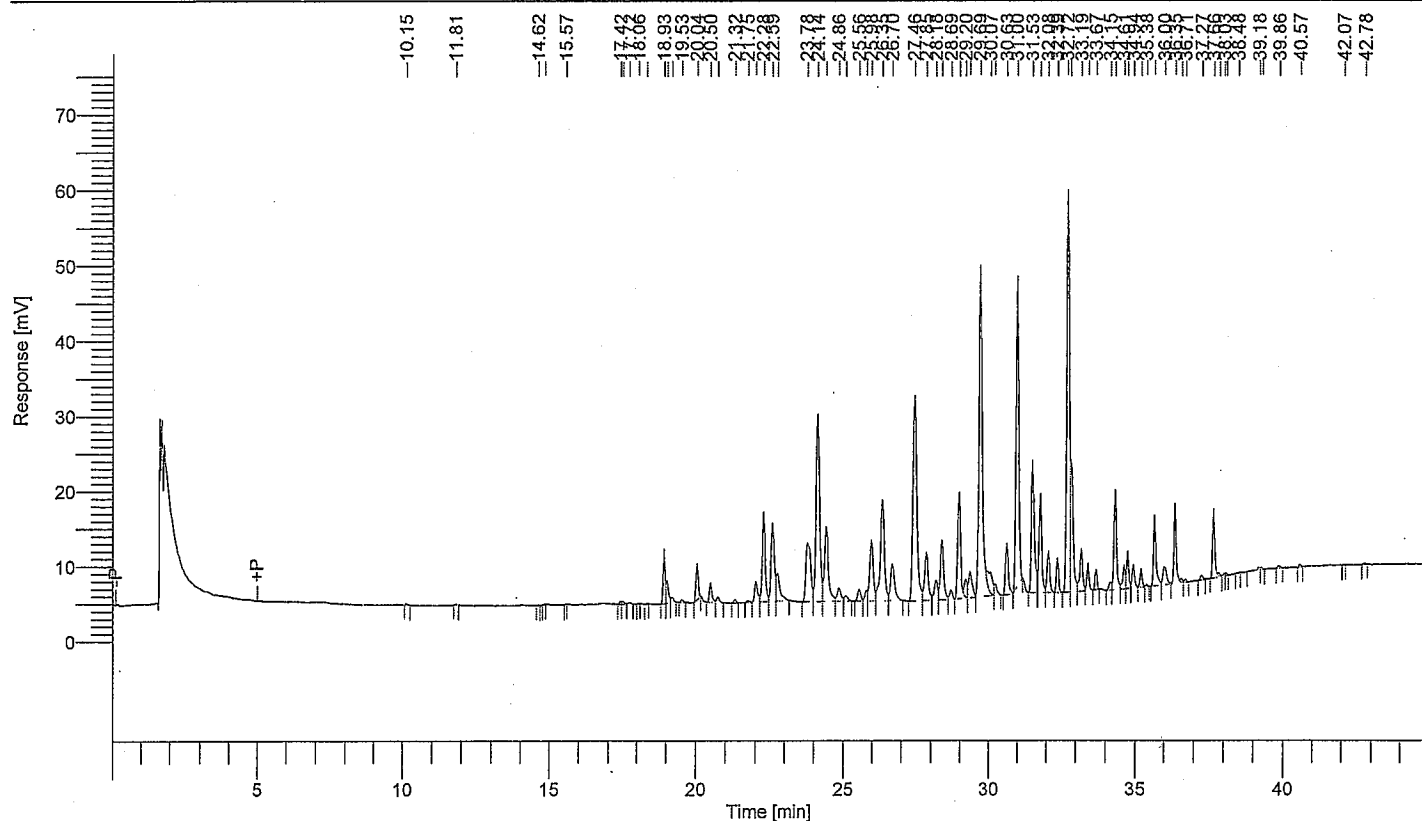
Date : 10/30/2007 11:49:51 AM
 Data Acquisition Time : 10/29/2007 8:00:07 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_007.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



10/30/2007 11:49:51 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_007.rst

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
28.98	105036
29.20	15389
29.34	30338
29.69	375650
30.07	32039
30.21	9395
30.63	44549
31.00	276511
31.53	134511
31.80	84441
32.08	33209
32.39	25934
32.72	327244
32.82	113434
33.19	37705
33.41	19953
33.67	13331
34.15	6045
34.31	82273
34.61	19448
34.74	27392
34.94	17472
35.19	12241
35.66	60427
36.00	21001
36.35	56682
36.57	3025
36.71	2146
37.27	3616
37.66	46968
37.85	2516
39.18	3025

3445253

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62761
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 1.000000
 Cycle : 8

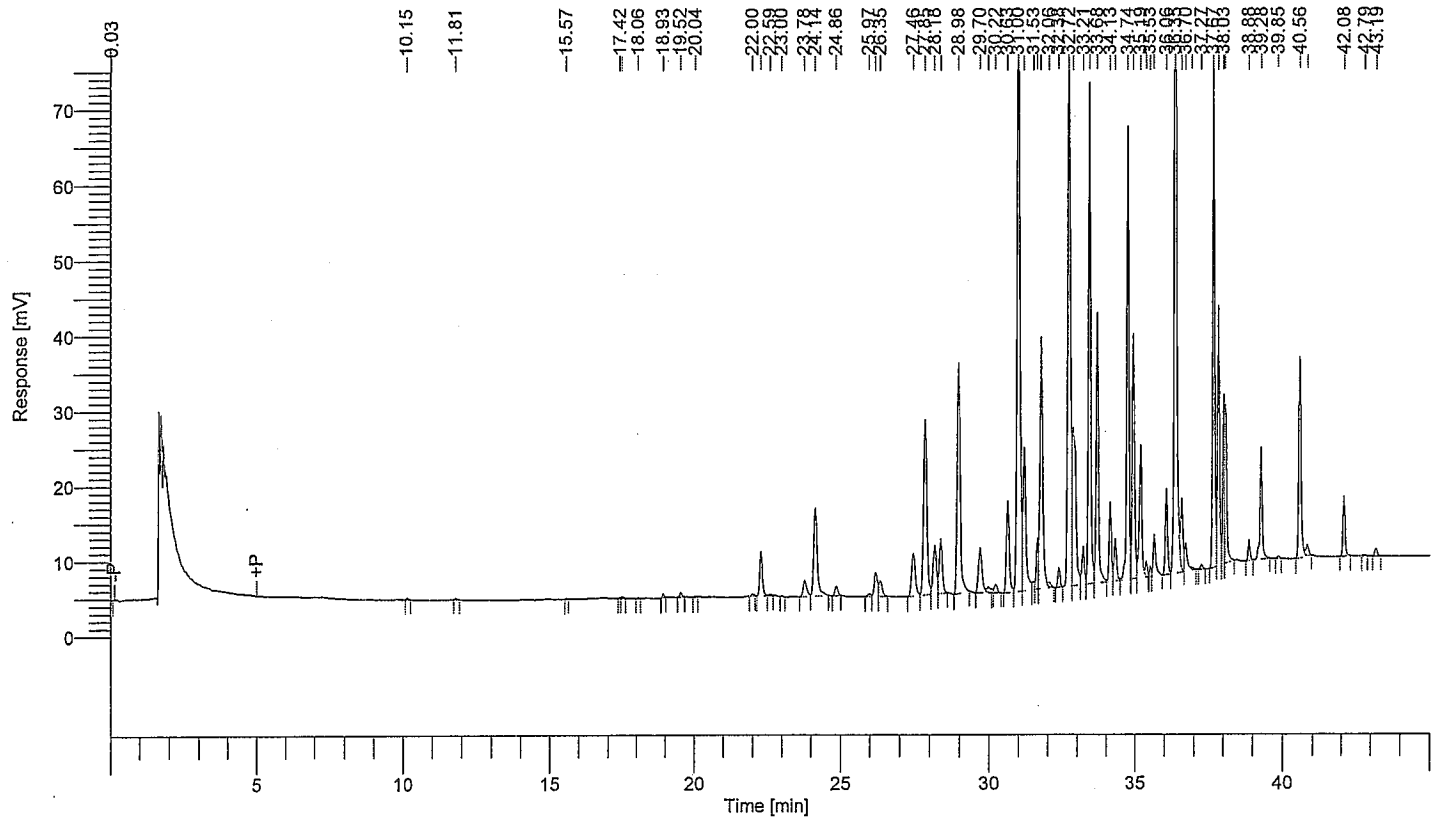
Date : 10/31/2007 11:49:54 AM
 Data Acquisition Time : 10/29/2007 8:52:41 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_008.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



10/30/2007 11:49:54 AM Result: C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_008.rst

Time [min]	Area [μ V·s]
32.85	190251
33.21	30611
33.41	370113
33.68	205306
34.13	58531
34.31	33298
34.74	322948
34.95	181312
35.19	112040
35.38	10496
35.53	6427
35.66	34138
36.06	56168
36.35	728969
36.56	54583
36.70	25521
37.27	3488
37.67	336628
37.85	170826
38.03	93371
38.08	101003
38.88	11868
39.28	80307
40.56	150922
40.83	9585
42.08	45538
43.19	5786
<hr/>	
5801692	

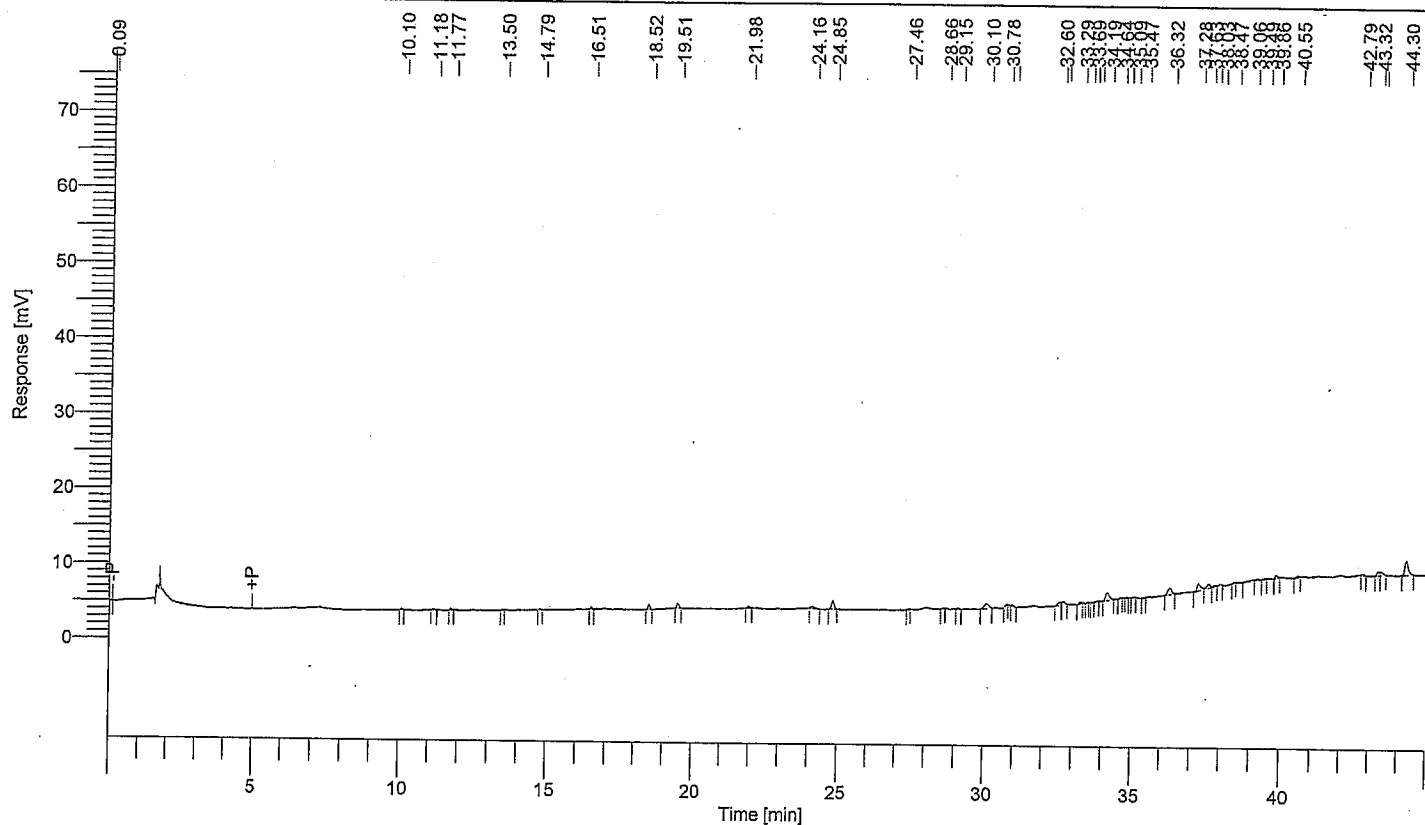
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62764
 Sample Name : 22799 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

Date : 10/30/2007 11:50:02 AM
 Data Acquisition Time : 10/29/2007 11:30:18 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_011.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.52	2939
19.51	3191
24.16	2136
24.85	7202
30.10	6636
32.60	3190
32.72	2633
34.19	9470
36.32	7556
37.28	8570
37.63	4536
39.86	2482
43.32	3328
43.43	3245
44.30	14623

81738

50.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62765
 Sample Name : 22800 1:10
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 12

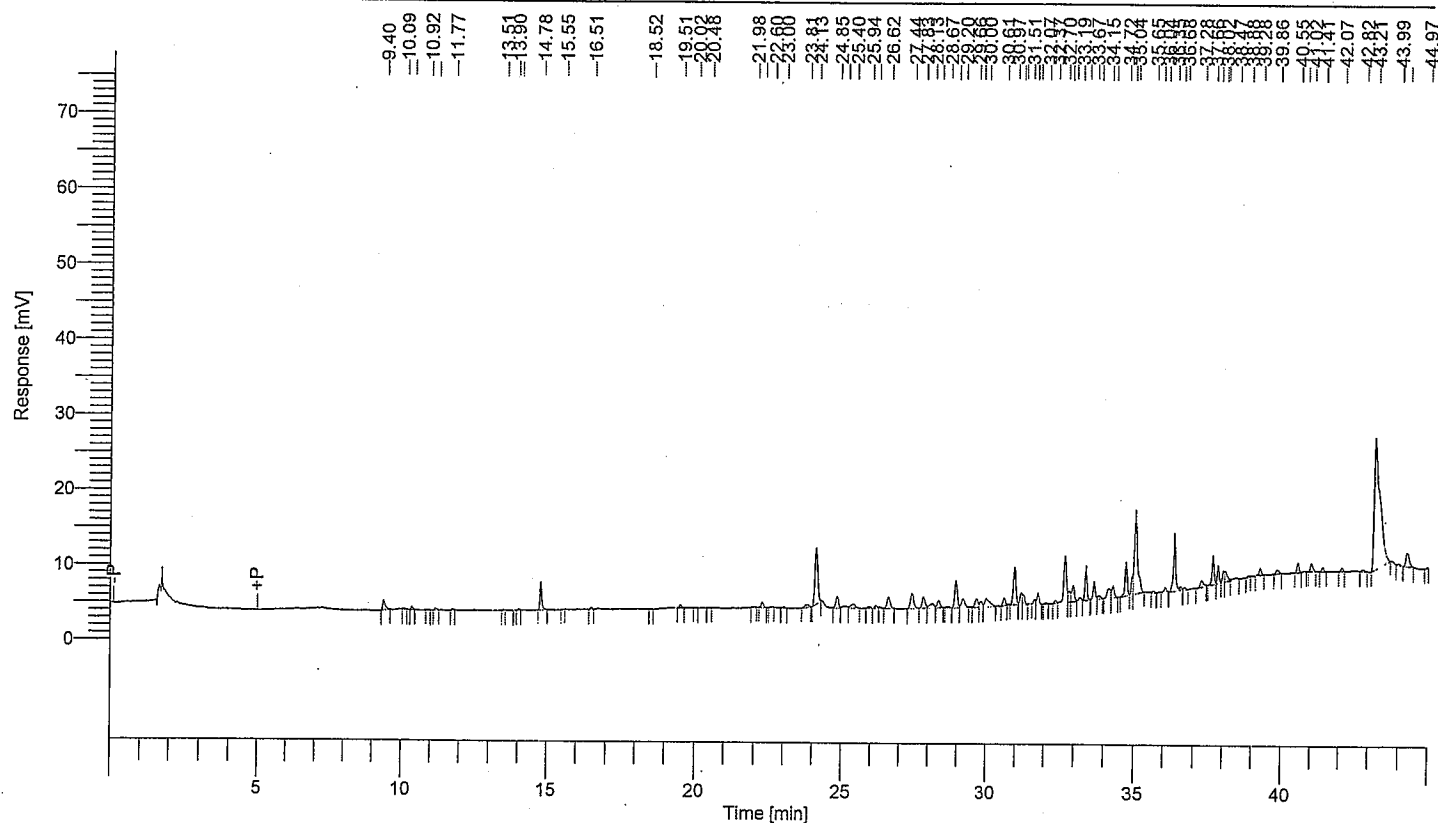
Date : 10/30/2007 11:50:04 AM
 Data Acquisition Time : 10/30/2007 12:22:50 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_012.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
9.40	8027
14.78	16026
19.51	2054
22.26	4212
23.81	4064
24.13	51765
24.85	10391
25.10	2699
25.40	6034
26.62	12564
27.44	16691
27.83	10968
28.13	6646
28.36	6511
28.96	23720
29.20	8923
29.66	8138
29.82	5106
30.00	12918
30.61	5138
30.97	32078
31.19	8678
31.26	7048
31.66	3379
31.78	8162
32.37	2155
32.70	38475

50.40 ppm total PCB.

Time [min]	Area [μ V-s]
32.84	7020
32.98	14833
33.19	2923
33.40	23207
33.67	11868
33.81	3374
34.15	10061
34.30	9195
34.72	23876
34.94	8692
35.04	78282
36.04	3192
36.35	42890
36.56	2652
37.28	7223
37.66	19125
37.84	10874
38.02	6954
38.08	8372
38.47	2597
39.28	5001
39.86	3154
40.55	6073
41.02	6233
41.41	3122
42.07	2685
43.21	228809
44.29	13685
<hr/>	
	888541

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62766
 Sample Name : 22801 1:10
 Instrument Name : GC014
 Rack/Vial : 0/13
 Sample Amount : 50.000000
 Cycle : 13

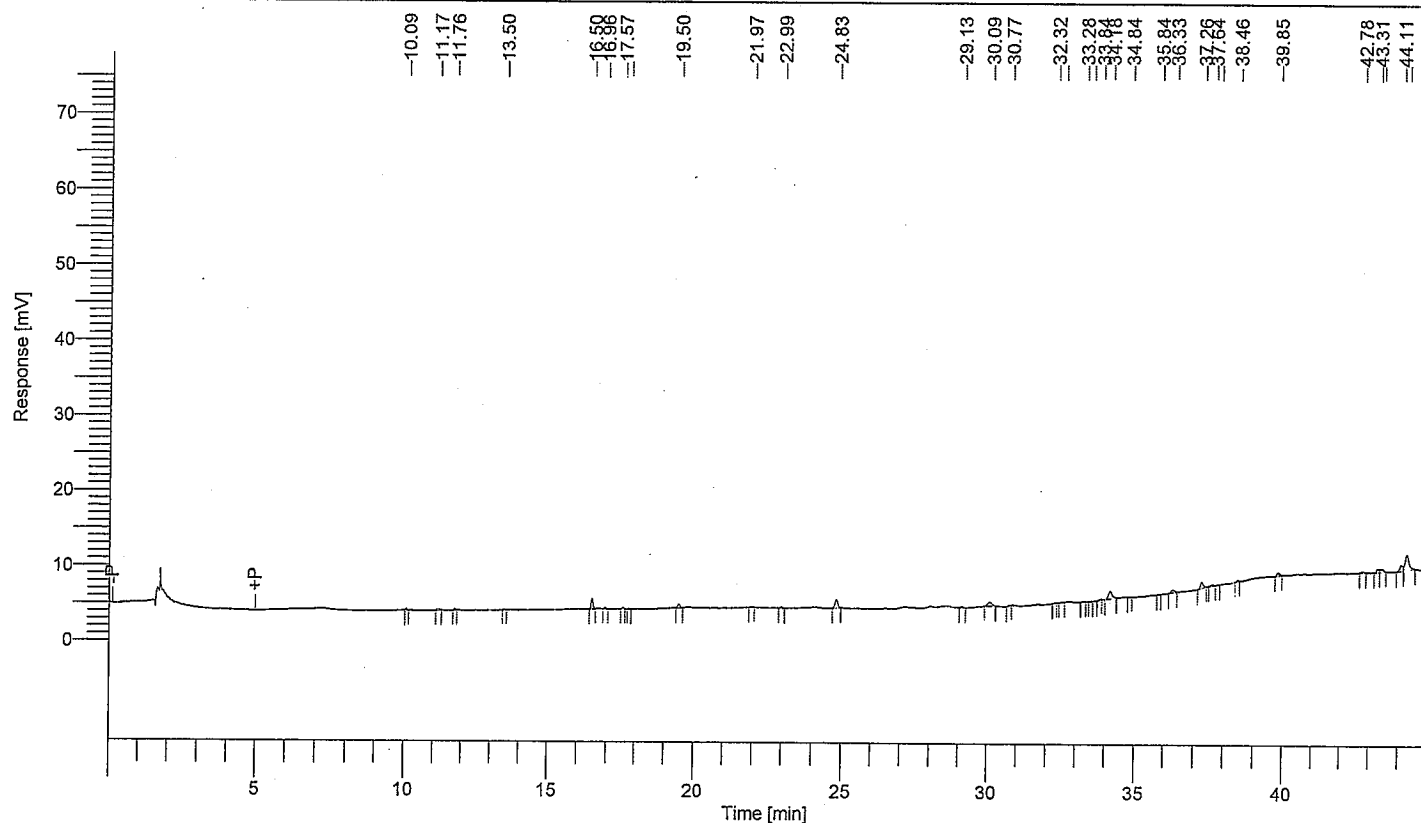
Date : 10/30/2007 11:50:06 AM
 Data Acquisition Time : 10/30/2007 1:15:23 AM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_013.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
16.50	5633
19.50	2494
24.83	7183
30.09	5196
34.18	8865
36.33	2933
37.26	5318
39.85	2695
43.31	2919
43.42	3362
44.11	6397
44.29	18205

71199

<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62767
 Sample Name : 22802 1:10
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 50.000000
 Cycle : 14

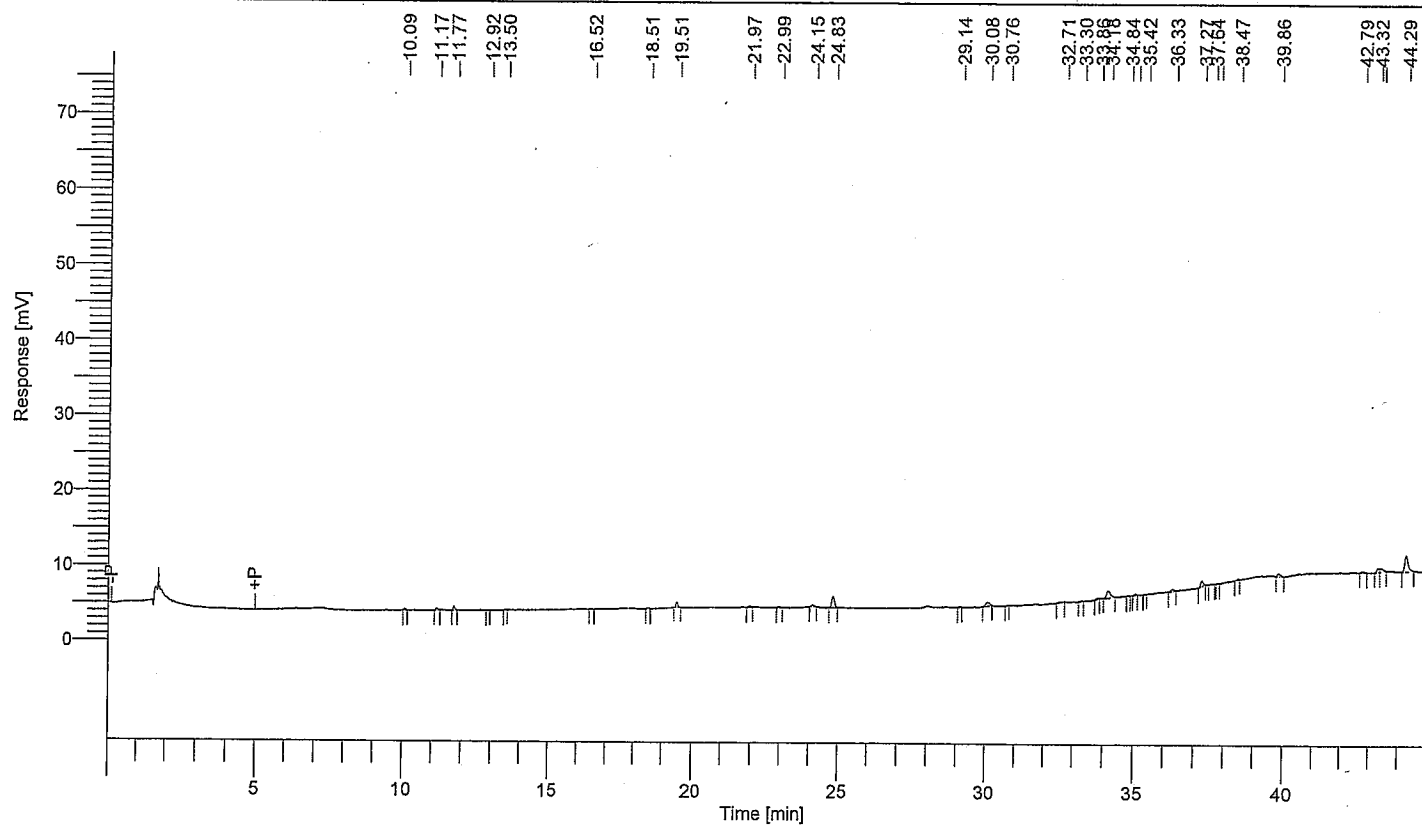
Date : 10/30/2007 11:50:08 AM
 Data Acquisition Time : 10/30/2007 2:07:56 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_014.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB

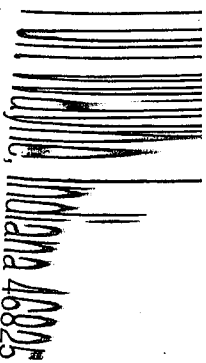


REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

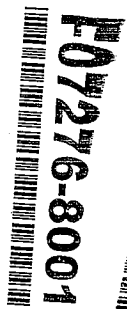
Time [min]	Area [μV·s]
19.51	3548
24.83	9595
30.08	5008
34.18	8676
37.27	4891
39.86	2624
43.32	3416
43.44	3557
44.29	16264

57578

<0.40 ppm total PCB.



E-mail: avant@avantgrp.com
Phone: (260) 497-9620
Fax: (260) 497-9670



CHAIN OF CUSTODY RECORD

Project Number
07-791-30

Project Name
CFW05

Samplers: (Signatures)

Mark Anderson

Sample Identification

Date

Time

Grab

Comp

Matrix

Number of Containers

Parameters

Remarks

Environmental
022783

Pb, As, Pb,
Cd, Hg, % moisture

*USE IDEM RISC

*NEED MS/MSD

*NEED LEAD IN QA/QC

Detection Limits not to
Exceed:

Pb: 10

PbAs: 1

Asenic: 1

Cd: 1

Hg: 1

Environmental
022794

Relinquished by: (Signature)

Date / Time

John Chute

Received by: (Signature)

Date / Time

John Chute

Received by: (Signature)

Relinquished by: (Signature)

Date / Time

John Chute

Received by: (Signature)

Relinquished by: (Signature)

Date / Time

John Chute

Received by: (Signature)

Relinquished by: (Signature)

Date / Time

John Chute

Received by: (Signature)

2 1 1 1

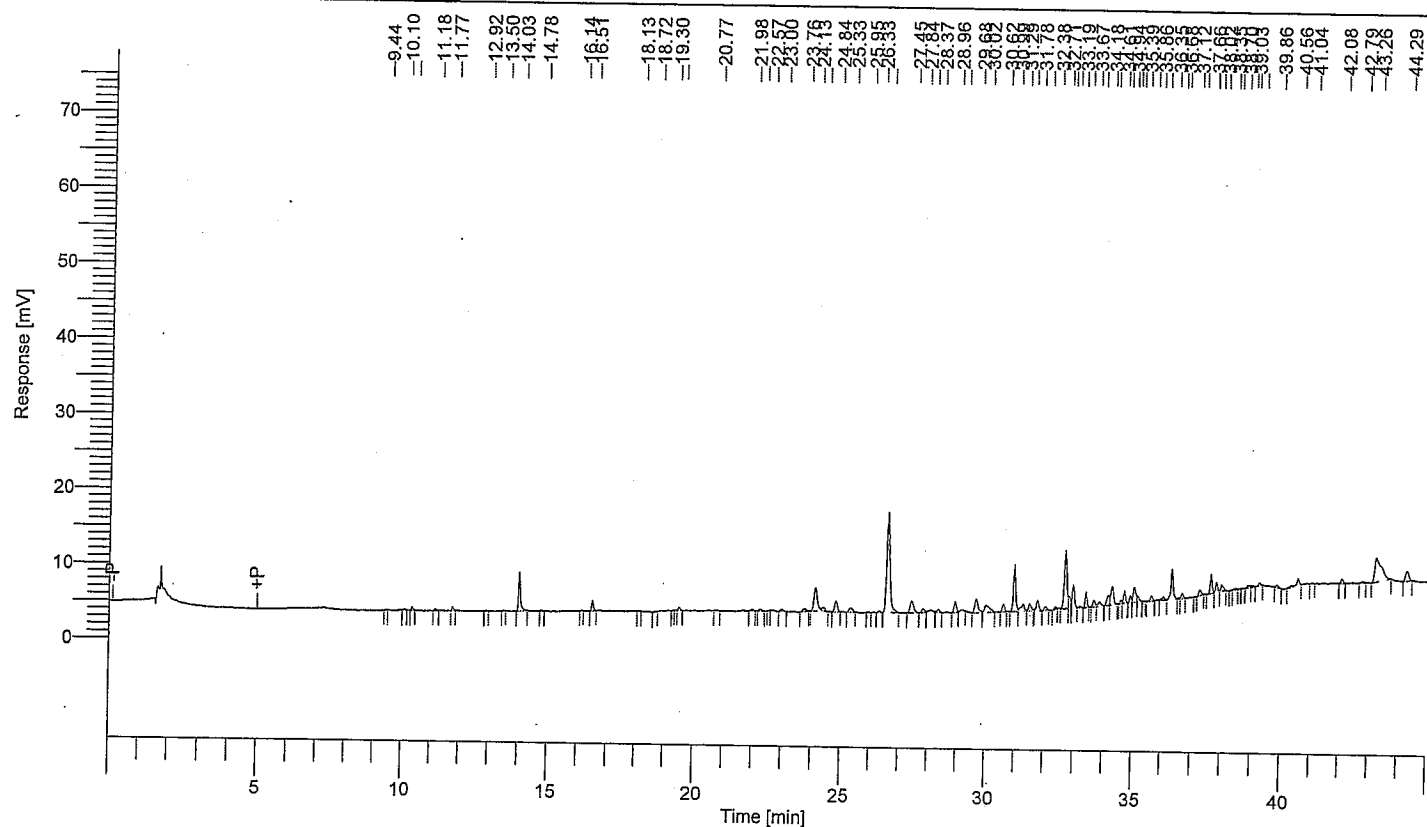
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62768
 Sample Name : 22803 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

Date : 10/30/2007 11:50:11 AM
 Data Acquisition Time : 10/30/2007 3:00:29 AM
 Channel : A
 Operator : enweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_015.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.03	22795
16.51	5537
23.00	2135
23.76	3023
24.13	24947
24.39	3670
24.84	9438
25.33	5005
26.62	106848
27.45	13329
27.84	3990
28.10	4184
28.37	2858
28.96	8313
29.68	13772
30.02	11043
30.62	5609
30.99	37711
31.29	8272
31.52	6039
31.78	8468
32.06	2679
32.71	46323
32.83	8117
32.98	17574
33.41	9697
33.67	4712

CO.40 ppm total PCB.

Time [min]	Area [μ V·s]
33.87	4879
34.18	8854
34.31	16044
34.73	7649
34.94	3602
35.06	12785
35.17	4082
35.65	3621
36.05	2606
36.35	21920
36.68	3042
37.27	5028
37.66	11747
37.85	5991
38.02	4839
38.92	2149
39.86	2226
40.56	6468
42.08	3027
43.26	49051
44.29	9115
<hr/>	
584812	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62772
 Sample Name : 22804 1:10
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 50.000000
 Cycle : 19

Date : 10/30/2007 11:50:21 AM

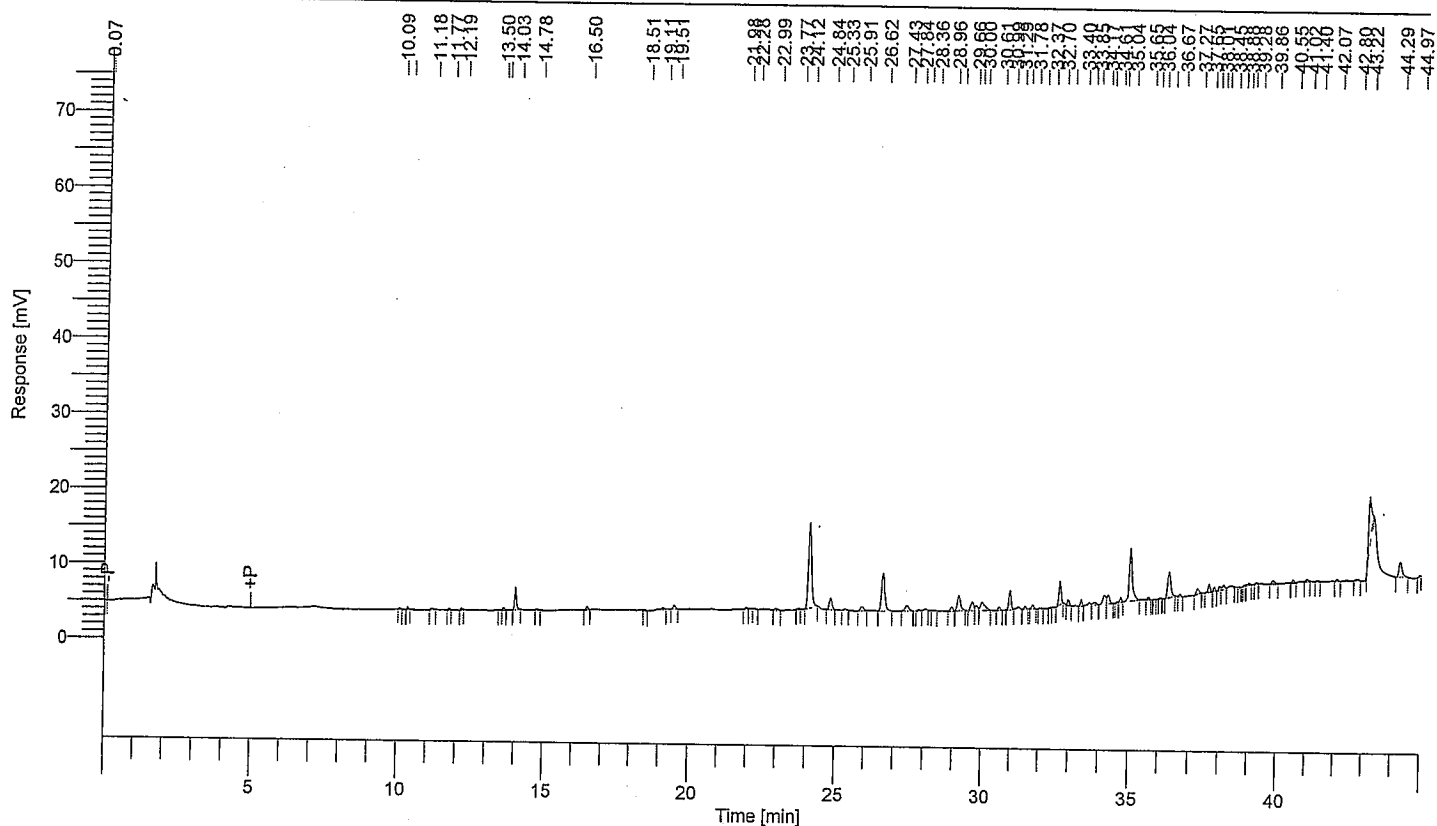
Data Acquisition Time : 10/30/2007 6:30:57 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_019.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.03	12489
16.50	2054
19.11	3528
19.51	2656
24.12	83064
24.84	9979
25.91	4163
26.62	40903
27.43	7052
28.96	3602
29.20	14878
29.66	8346
29.81	4142
30.00	12028
30.61	2181
30.99	15789
31.29	2722
31.78	2983
32.70	15791
32.98	3631
33.40	4039
33.67	2750
33.85	3151
34.17	8511
34.30	7539
34.73	2934
35.04	48616

<0.40 ppm total PCB.

Time [min]	Area [μ V·s]
36.33	25636
37.27	4719
37.65	5207
37.85	2173
38.01	2417
38.15	3593
38.45	2586
39.86	2894
43.22	40979
44.29	15392
<hr/>	
435117	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62773
 Sample Name : 22805 1:10
 Instrument Name : GC014
 Rack/Vial : 0/20
 Sample Amount : 50.000000
 Cycle : 20

Date : 10/30/2007 11:50:24 AM

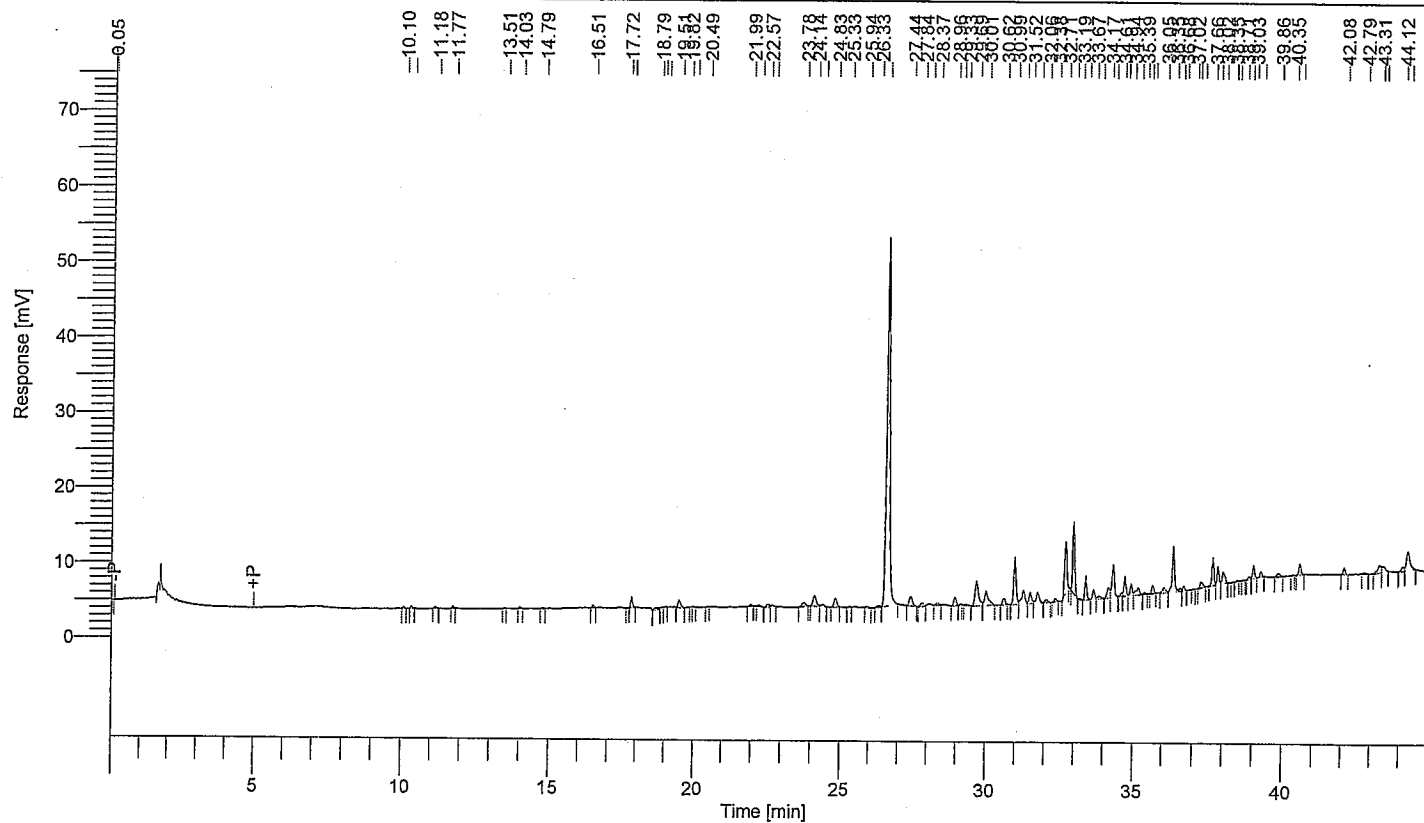
Data Acquisition Time : 10/30/2007 7:23:38 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_020.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
17.85	6009
18.79	3002
19.51	6038
22.57	2775
23.78	4614
24.14	10618
24.41	2249
24.83	7864
26.62	376107
27.44	9404
27.84	3269
28.10	2711
28.37	2310
28.96	6895
29.69	26423
30.01	18173
30.62	4804
30.99	39502
31.28	14047
31.52	9897
31.78	10160
32.06	2283
32.38	2223
32.71	37205
32.98	48711
33.41	15692
33.67	6493

<0.40 ppm total PCB.

Time [min]	Area [μ V·s]
33.86	3099
34.17	9257
34.32	25963
34.73	12767
34.94	7269
35.18	8563
35.66	5584
36.05	4866
36.35	33468
36.68	3015
37.27	5705
37.66	17237
37.85	10477
38.02	10051
38.88	2088
39.03	7835
39.28	3392
39.86	3154
40.56	6749
42.08	4668
43.31	8251
43.43	6130
44.12	4000
44.30	21319
<hr/>	
904386	

Software Version : 6.3.1.11504
 Reprocess Number : totalchrom: 62774
 Sample Name : 22806 1:10
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 50.000000
 Cycle : 21

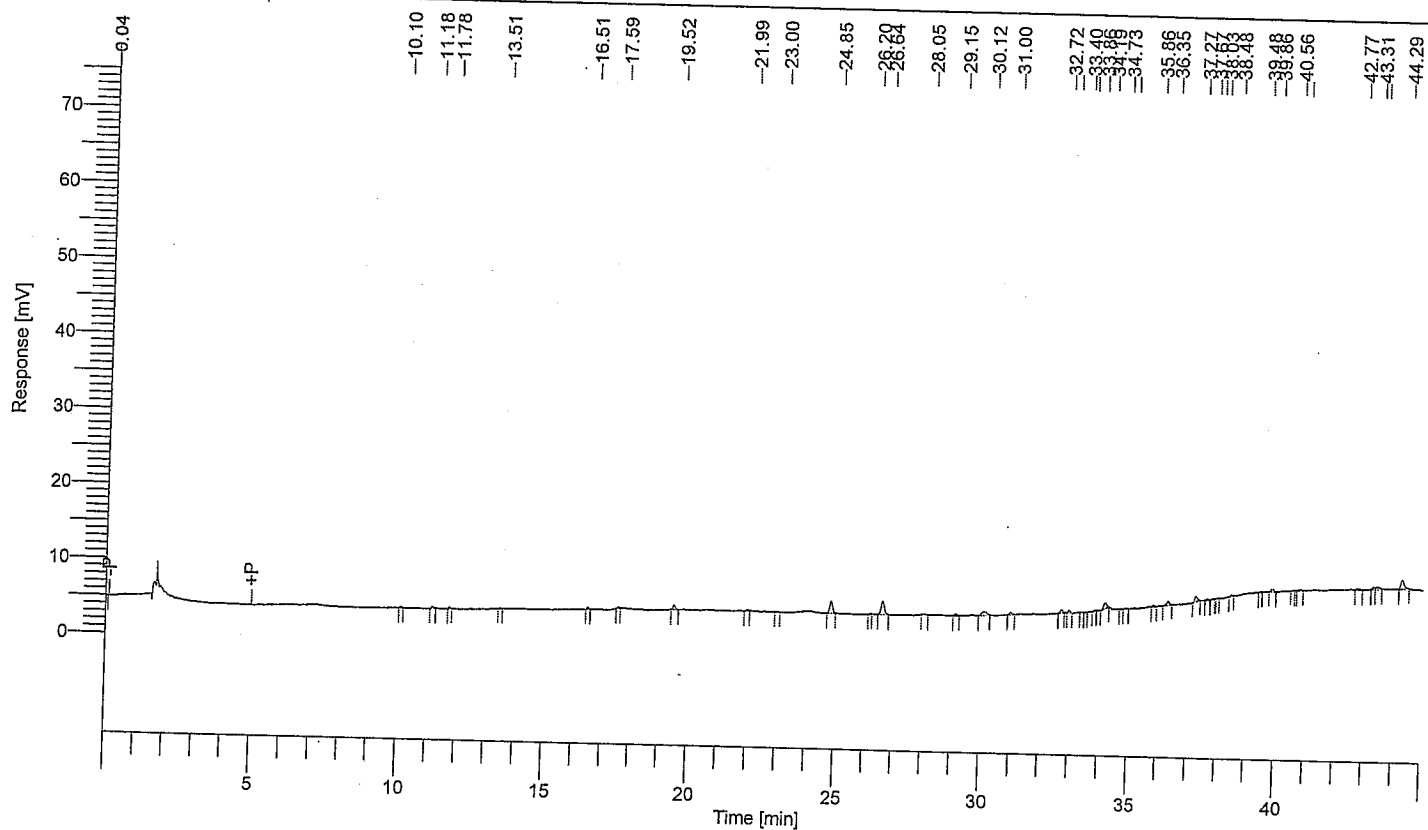
Date : 10/10/2007 11:50:26 AM

Data Acquisition Time : 10/30/2007 8:16:19 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_021.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.52	3170
24.85	10407
26.64	13882
30.12	5331
31.00	2012
32.72	2248
34.19	5253
36.35	3363
37.27	4708
39.86	2233
43.45	2293
44.29	9063

63962

~~< 0.0~~ < 0.40 ppm total PCB
 1518
 10/31/2007

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62776
 Sample Name : 22937
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 50.000000
 Cycle : 23

Date : 10/30/2007 11:50:31 AM

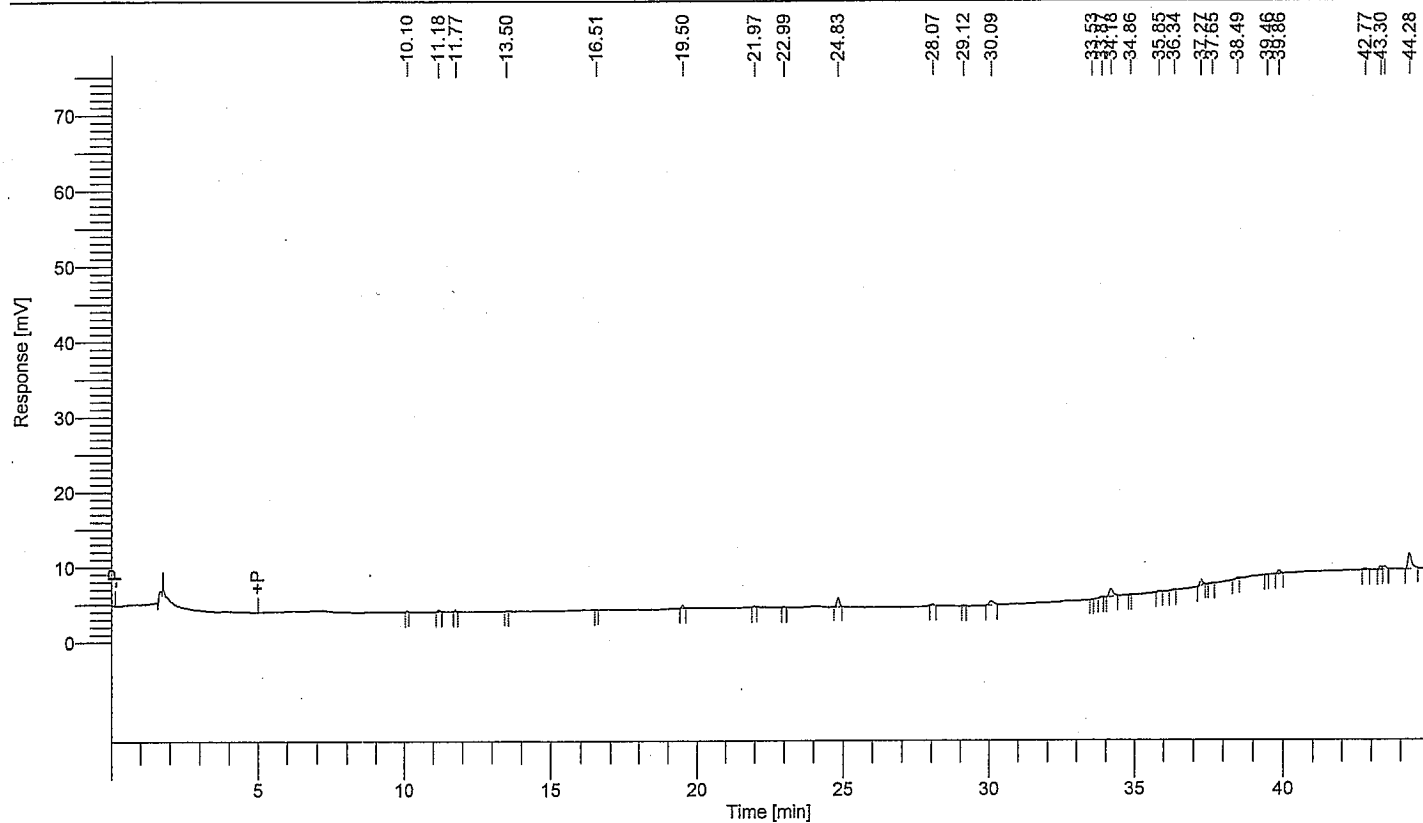
Data Acquisition Time : 10/30/2007 10:01:49 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET#13_023.rst

Sequence File : C:\PEST\OCTOBER 2007\07100804 AV SET 13\SET 13.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.83	7461
30.09	5456
34.18	9283
37.27	5450
39.86	2811
43.30	2597
43.43	2548
44.28	17097

52702

< 0.40 ppm total PCB.

A & L GREAT LAKES LABORATORIES

DIVISION OF ENVIRONMENTAL CHEMISTRY

QUALITY ASSURANCE BENCH SHEET

Q.A. NUMBER:

07100805 Avant Level IV QAQC
Set #14

GENERAL INFORMATION	
ANALYSIS:	PCB
MATRIX:	SOIL AND SLUDGE
METHOD:	RAM 10-019 w/PCB Option
TECHNICIAN:	7B
PREP DATE:	10/30/07

SPIKING INFORMATION			
SPIKE SOL'N:	A1260 INTERM		
SPIKE VOL:	0.5 mL		
LIBRARY I.D.:	AA1190004		
PREP. DATE:	10/8/07		

VESSEL I.D.	LAB NUMBER	SAMPLE GRAMS
1	SPIKE 1	50.0
2	22938	50.0
3	22939	50.0
4	22940	50.0
5	22941	50.0
6	22941 dup	50.0
7	22942	50.0
8	22942 ms	50.0
9	22943	50.0
10	22943 ms	50.0
11	22944	50.0
12	22945	50.0
13	22946	50.0
14	22947	50.0
15	22948	50.0
16	22949	50.0
17	blank	
18		
19		

INSTRUMENT INFORMATION		SAMPLE INFORMATION	
INST. METHOD:	PCB	BALANCE #:	01
G.C.#:	14	OVEN#/TEMP:	NA
OPERATOR:	SKP	ALICUOT RATIO:	50/100
COLUMN I.D.:	809200	FINAL VOLUME:	2.0 mL
DATE USED:	10/31/2007	INJECTION VOL.	2 uL
DETECTOR:	ECD	EXTRACT STORAGE:	F7

INSTRUMENT CALIBRATION INFORMATION		METHOD CALIBRATION INFORMATION	
LGV (cm/s)	NOT GIVEN	A1016 I.D.	Y11300003
INST. CAL I.D.	MX50100154	A1221 I.D.	Y11400003
INST. CAL PREP. DATE:	9/14/2007	A1232 I.D.	Y11500003
ANALYTE 1		A1242 I.D.	Y11600003
RETENTION TIME (MIN)	14.37	A1248 I.D.	Y11700005
R.T. ACCURACY (%)	99	A1254 I.D.	X11800011
SENSITIVITY (AREA)	401507	A1260 I.D.	AA11900003
SENS. ACCURACY (%)	101	CAL PREP DATE: 10/2/2007	
ANALYTE 2			
RETENTION TIME (MIN)	16.58		
R.T. ACCURACY (%)	99		
SENSITIVITY (AREA)	877357		
SENS. ACCURACY (%)	88		

COMMENTS

Solvent rinse sample glassware three times with acetone and three times with hexane before washing. Use 0.5 mL Arochlor 1260 INT for the matrix spike and the matrix spike duplicate.

C18 L&R # 0730406

Fluoresce L&R # 195937116/198737255A

90% methanol 10/25/07

pH 7 buffer 10/24/07

15% ee/1400 10/22/07

TRANSURE 10/26/07

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62817
Sample Name : EIC
Instrument Name : GC014
Rack/Vial : 0/48
Sample Amount : 1.000000
Cycle : 3

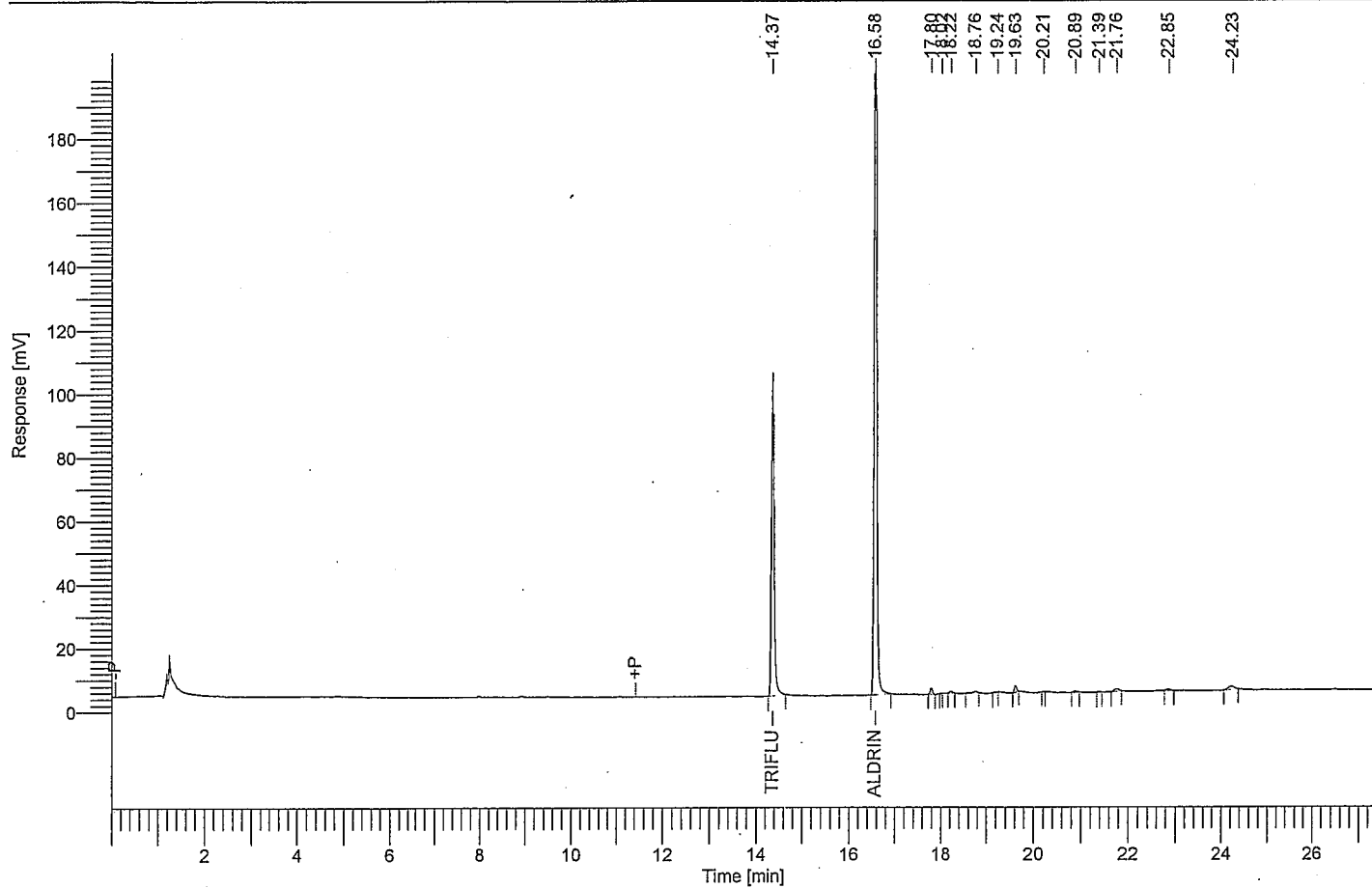
Date : 10/31/2007 9:36:51 AM

Data Acquisition Time : 10/31/2007 8:30:23 AM
Channel : A
Operator : envweigh
Dilution Factor : 1.000000

Result File : C:\PEST\GC14\Data ECD\EIC003-20071031-085804.rst
Sequence File : C:\PEST\GC14\Sequences\EIC-20071031-071258.idx

Sample Notes:

ECD INSTRUMENT CALIBRATION



REPORT FOR EIC INSTRUMENT CHECK

Retention Time [min]	Component Name	Area [μ V·s]
14.37	TRIFLURALIN	401507.10
16.58	ALDRIN	877357.14
		1278864.24

TotalChrom Sequence File C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Printed by : envweigh on: 11/1/2007 11:15:50 AM
 Created by : envweigh on: 10/31/2007 9:31:20 AM
 Edited by : envweigh on: 11/1/2007 9:37:18 AM
 Number of Times Edited : 3

Description: PCB TEMPLATE

Sequence File Header Information:

Number of Rows : 29
 Instrument Type : PE AutoSystem GC with built-in Autosampler
 Injection Type : SINGLE
 Raw tokens channel A :
 Result tokens channel A :
 Modified tokens channel A :
 Raw tokens channel B :
 Result tokens channel B :
 Modified tokens channel B :

Sequence Sample Descriptions - Channel A

Row	Type	Name	Number	Study name	Sample Amt	Int Std Amt	Sample Vol	Dil Factor	Multiplier	Divisor	Addend	Norm Factor
1	Sample	FLUSH	01	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
2	Sample	AROCHLOR 1016	02	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
3	Sample	AROCHLOR 1221	03	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
4	Sample	AROCHLOR 1232	04	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
5	Sample	AROCHLOR 1242	05	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
6	Sample	AROCHLOR 1248	06	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
7	Sample	AROCHLOR 1254	07	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
8	Sample	AROCHLOR 1260	08	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
9	Sample	BLANK SOIL	09	07100805	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
10	Sample	SPIKE SOIL	10	07100805	50.000000	1.000000	2.000	1.000000	2.000000	1.000000	0.000000	100.000
11	Sample	22938 1:10	11	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
12	Sample	22939 1:10	12	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
13	Sample	22940 1:10	13	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
14	Sample	22941 1:10	14	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
15	Sample	22941 DUP 1:10	15	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
16	Sample	22942 1:10	16	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
17	Sample	22942 MS 1:10	17	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
18	Sample	22943 1:10	18	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
19	Sample	22943 MS 1:10	19	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
20	Sample	FLUSH	20	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
21	Sample	AROCHLOR 1248	21	07100805	1.000000	1.000000	2.000	1.000000	1.000000	1.000000	0.000000	100.000
22	Sample	22944 1:10	22	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
23	Sample	22945 1:10	23	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
24	Sample	22946 1:10	24	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
25	Sample	22946 1:10	25	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
26	Sample	22948 1:10	26	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
27	Sample	22949 1:10	27	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
28	Sample	22939 1:10 dup inj	12	07100805	50.000000	1.000000	2.000	10.000000	2.000000	1.000000	0.000000	100.000
29	Sample	22938 1:200	28	07100805	50.000000	1.000000	2.000	200.000000	2.000000	1.000000	0.000000	100.000

Sequence Process Information - Channel A

Row	Site	Rack	Vial	Inst Method	Proc Method	Calib Method	Rpt Fmt File
1	A	0	1	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
2	A	0	2	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
3	A	0	3	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
4	A	0	4	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
5	A	0	5	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
6	A	0	6	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
7	A	0	7	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
8	A	0	8	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
9	A	0	9	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
10	A	0	10	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
11	A	0	11	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
12	A	0	12	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
13	A	0	13	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
14	A	0	14	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
15	A	0	15	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
16	A	0	16	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
17	A	0	17	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
18	A	0	18	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
19	A	0	19	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
20	A	0	20	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
21	A	0	21	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
22	A	0	22	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
23	A	0	23	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
24	A	0	24	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
25	A	0	25	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
26	A	0	26	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
27	A	0	27	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
28	A	0	12	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb
29	A	0	28	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb	c:\pest\gc14\methods\pcb

Software Version : 6.3.1.0504
 Reprocess Number : to:alchrom: 62878
 Sample Name : FLUSH
 Instrument Name : GC014
 Rack/Vial : 0/1
 Sample Amount : 1.000000
 Cycle : 1

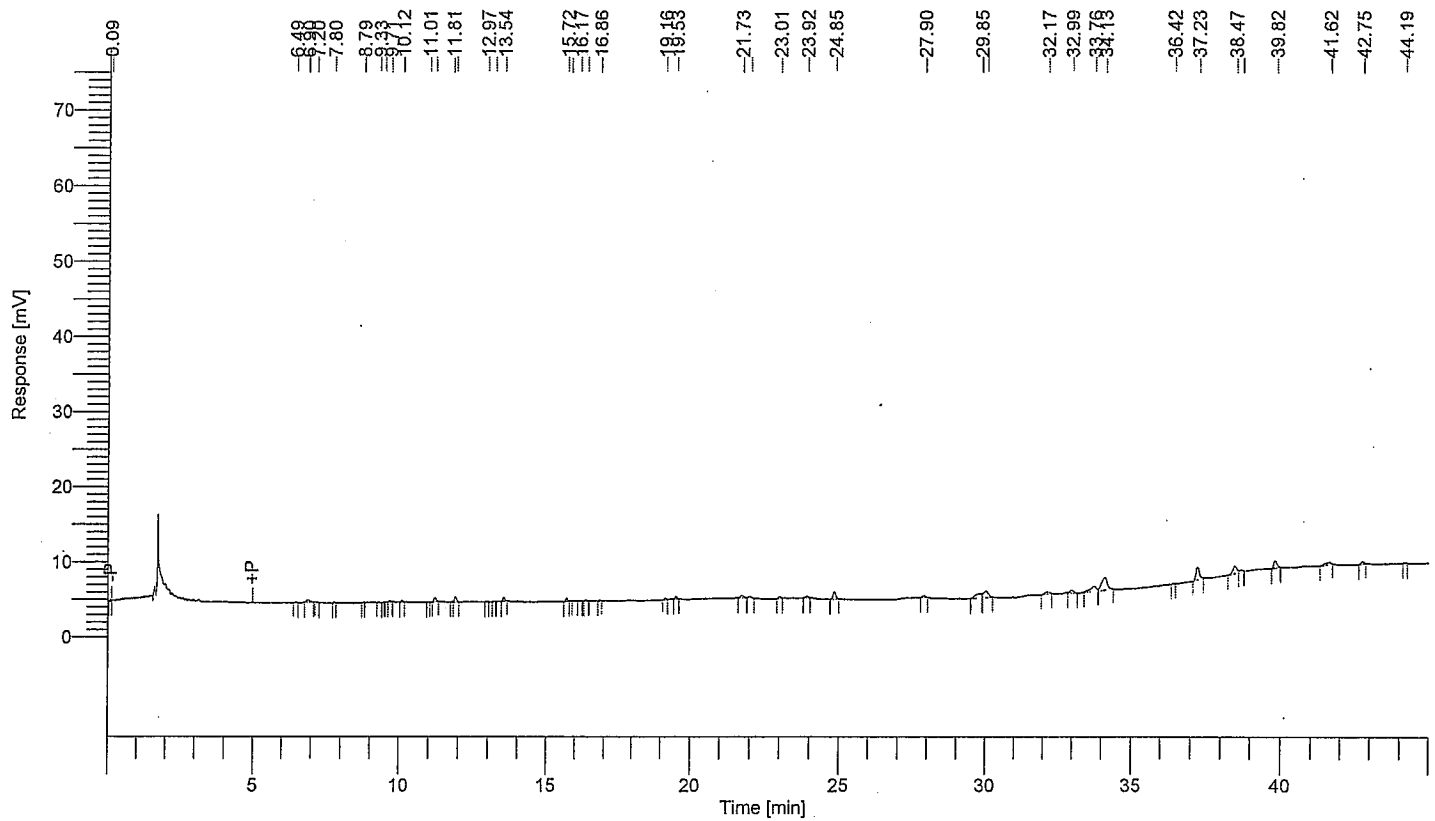
Date : 11/1/2007 9:14:06 AM
 Data Acquisition Time : 10/31/2007 9:57:44 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_001.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
6.90	2845
11.22	3084
11.91	3323
13.54	2428
21.73	2644
24.85	6443
29.85	8342
30.03	10183
32.17	3331
32.99	3229
33.76	9553
34.13	22729
37.23	13896
38.47	8308
38.69	2001
39.82	7025
41.62	4202
42.75	2192

115757

Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62897
Sample Name : FLUSH
Instrument Name : GC014
Rack/Vial : 0/20
Sample Amount : 1.000000
Cycle : 20

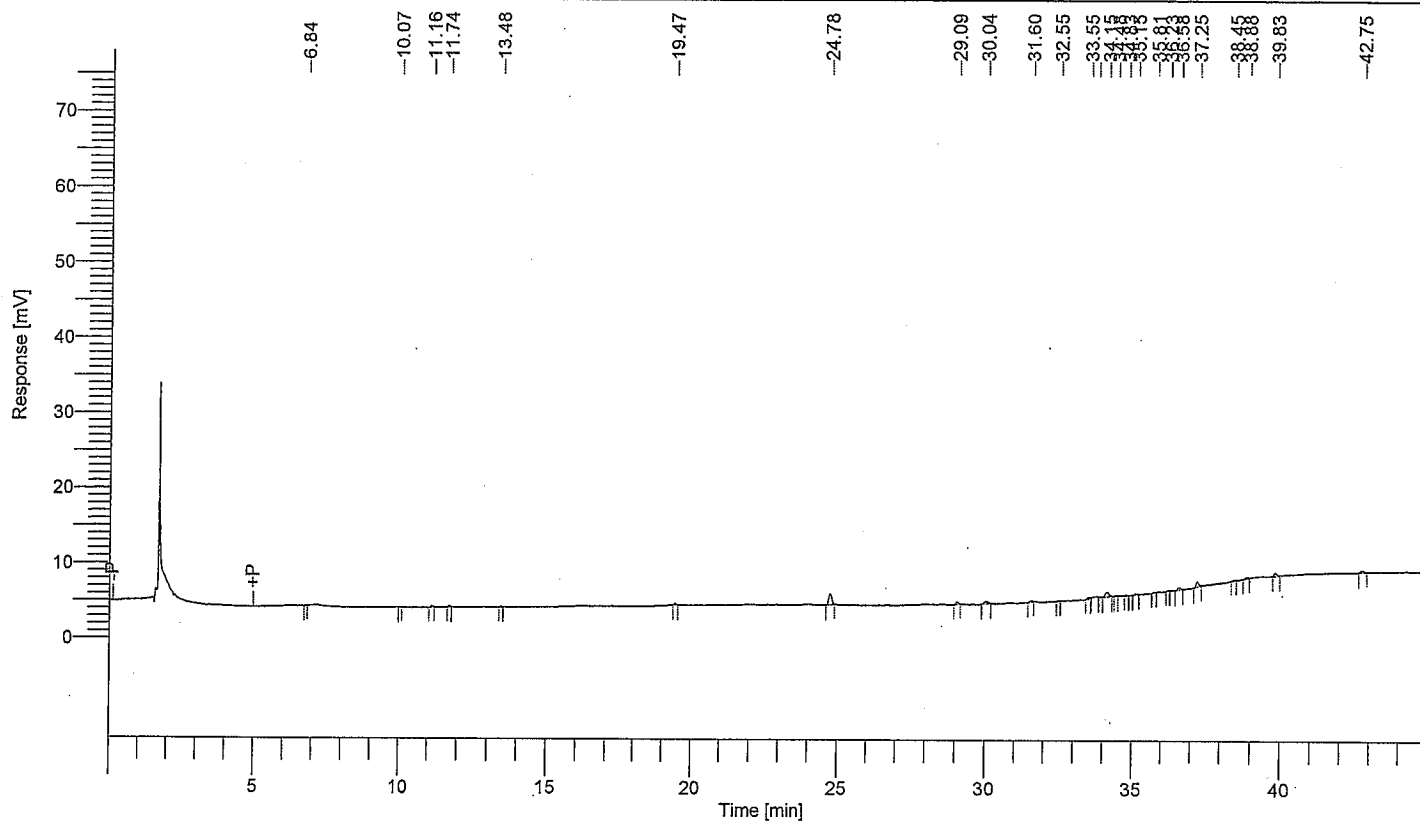
Date : 11/1/2007 9:14:55 AM
Data Acquisition Time : 11/1/2007 2:38:12 AM
Channel : A
Operator : enwweigh
Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_020.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μ V·s]
24.78	9697
29.09	2075
30.04	2973
34.15	5157
36.58	2734
37.25	4436
39.83	2815
<hr/>	
29887	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62886
 Sample Name : BLANK SOIL
 Instrument Name : GC014
 Rack/Vial : 0/9
 Sample Amount : 50.000000
 Cycle : 9

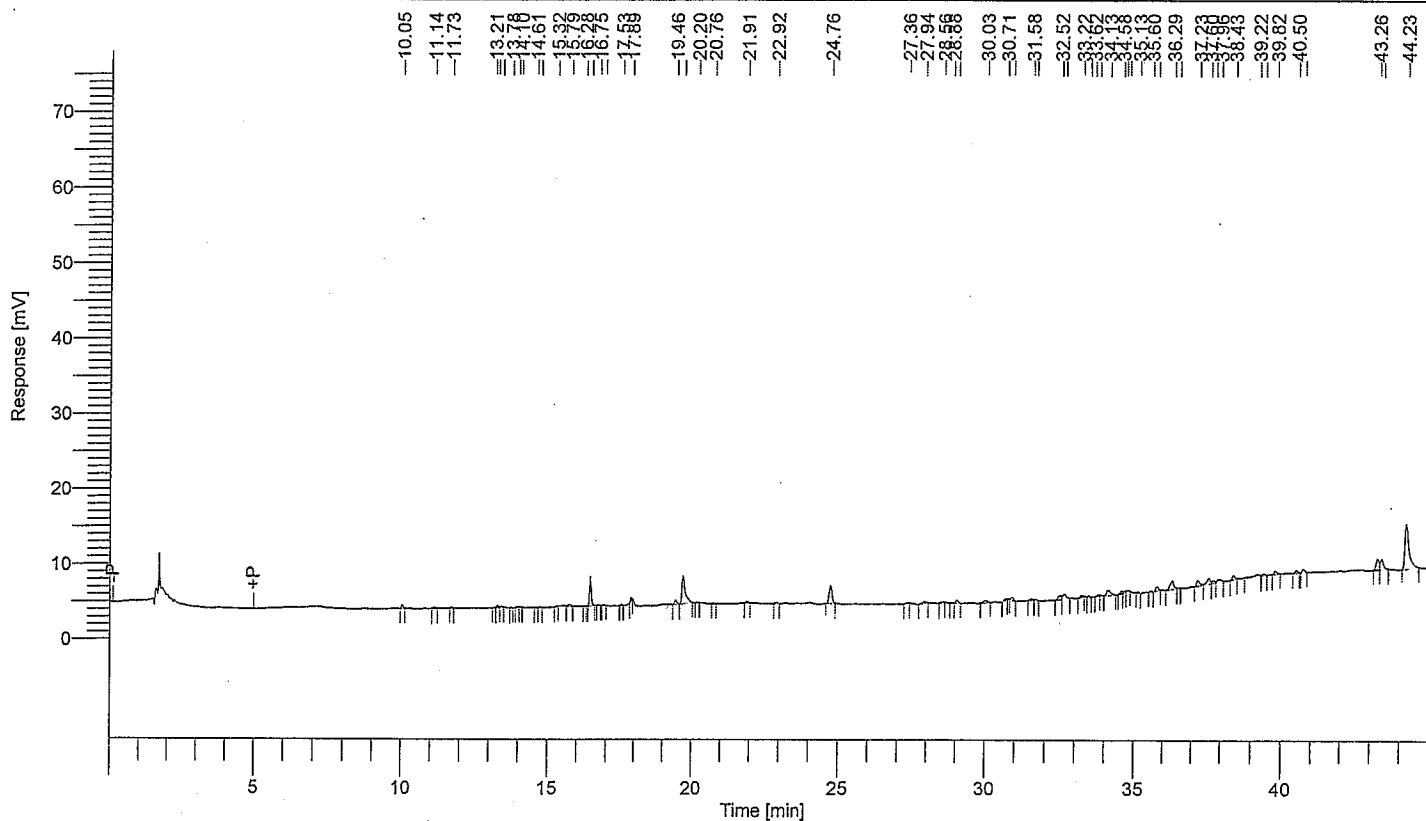
Date : 11/1/2007 9:14:29 AM
 Data Acquisition Time : 10/31/2007 4:59:22 PM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_009.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
16.47	15403
19.46	2865
19.71	28740
24.76	15412
27.94	2054
29.06	2801
30.03	3165
30.92	2223
32.52	4029
32.65	5347
34.13	7184
35.79	3207
36.29	10725
37.23	6316
37.60	6220
37.77	2474
37.96	3049
38.43	2749
39.22	3356
39.82	2811
40.50	2133
40.74	2637
43.26	9482
43.38	10276
44.23	56042

BDL

< 0.04 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62887
 Sample Name : SPIKE SOIL
 Instrument Name : GC014
 Rack/Vial : 0/10
 Sample Amount : 50.000000
 Cycle : 10

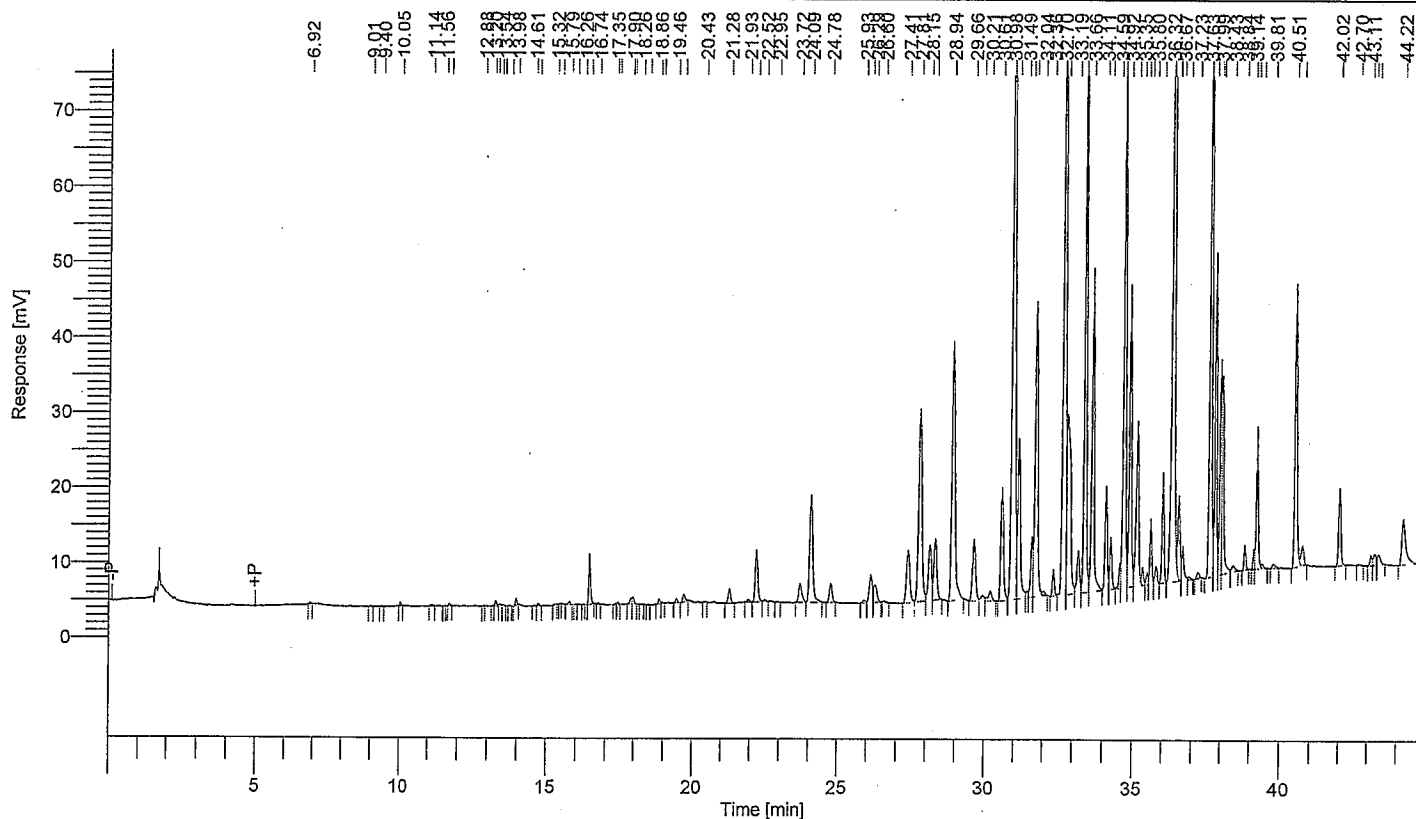
Date : 11/1/2007 9:14:31 AM
 Data Acquisition Time : 10/31/2007 5:51:57 PM
 Channel : A
 Operator : enweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_010.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
13.30	3169
13.98	3486
15.79	2391
16.46	26259
17.90	4289
17.97	4651
18.86	2712
19.46	2643
19.71	5714
21.28	10531
21.93	2204
22.22	44041
23.72	19515
24.09	108979
24.78	16362
25.93	2487
26.14	27949
26.29	17963
27.41	58413
27.81	208146
28.15	54464
28.34	60051
28.94	263683
29.66	57421
29.95	5614
30.21	10680
30.61	93786

$$\Sigma \text{area} = 866845$$

$$\text{avg} = \frac{866845}{361889.5} = 2.3953$$

$$\text{ppm} = \frac{2.3953}{50} \times \frac{2}{2} \times \frac{100}{50} = 0.0958$$

$$\% \text{Recovery} = \frac{0.0958}{0.1} \times 100 = 96\%$$

Time [min]	Area [μ V-s]
30.98	689048
31.18	146759
31.49	5551
31.65	38678
31.77	240246
32.04	4454
32.36	18320
32.70	514710
32.82	216768
33.19	34023
33.40	426147
33.66	235978
34.11	69391
34.27	37967
34.59	12723
34.71	367683
34.92	211609
35.16	130744
35.35	12418
35.51	7214
35.63	44045
35.80	11376
36.03	67581
36.32	875276
36.53	61296
36.67	26832
36.92	2873
37.23	4936
37.63	426964 -
37.82	201057 ^
37.99	113826 ^
38.05	124998 -
38.43	5861
38.84	13704
39.14	9265
39.24	92174
39.42	3639
39.81	3852
40.51	194226
40.76	18000
42.02	58673
43.11	6935
43.24	9484
43.37	9767
44.22	55860
<hr/>	
6980534	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62892
 Sample Name : 22941 DUP 1:10
 Instrument Name : GC014
 Rack/Vial : 0/15
 Sample Amount : 50.000000
 Cycle : 15

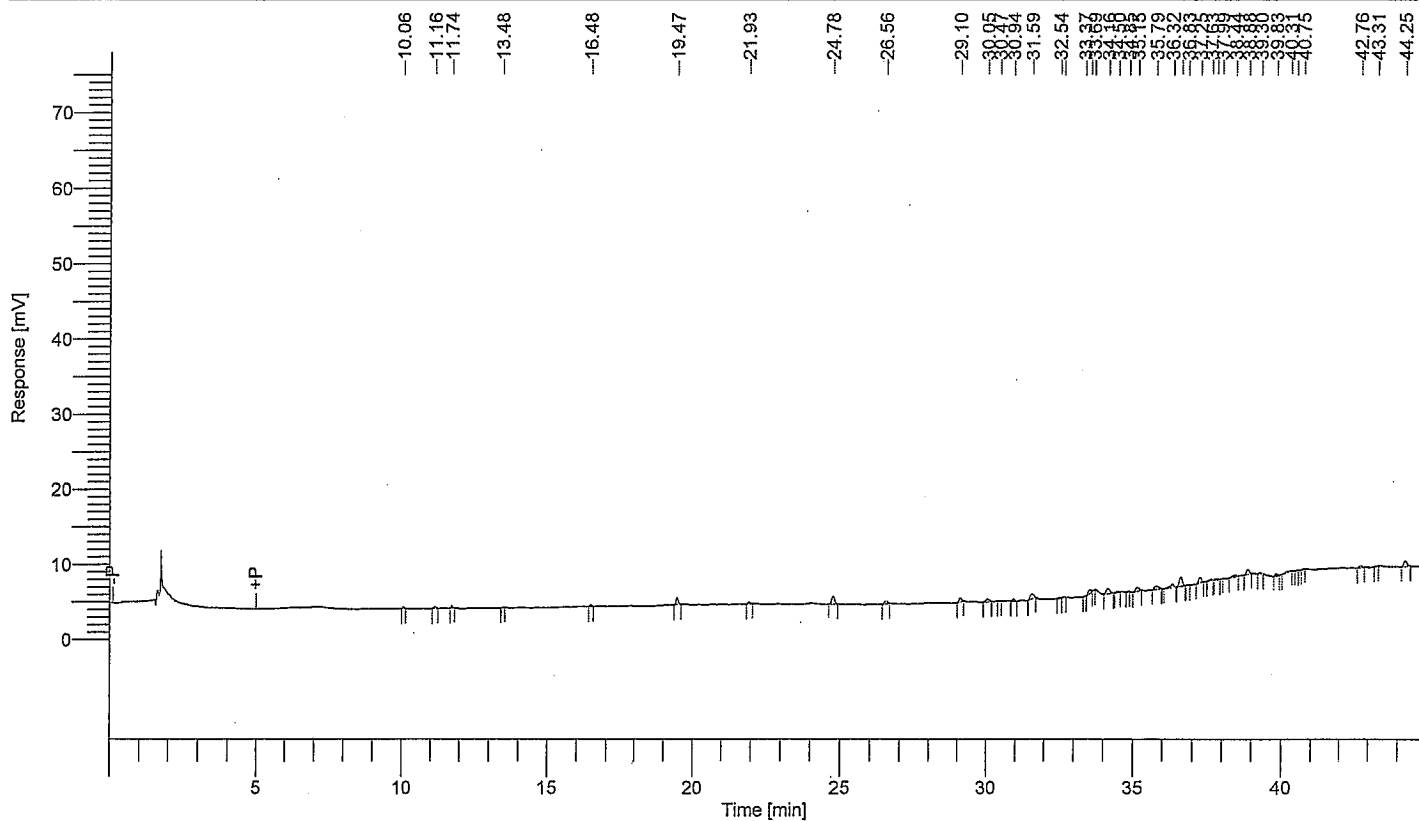
Date : 11/1/2007 9:14:44 AM
 Data Acquisition Time : 10/31/2007 10:14:54 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_015.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
19.47	4815
24.78	7002
26.56	2697
29.10	3068
30.05	3234
31.59	5281
33.57	3531
34.16	5688
35.15	4020
35.79	4501
36.32	4216
36.59	9028
37.25	4969
38.44	2323
38.88	4135
44.25	5319

73826

<0.40 ppm total PCB. Both sample
 and duplicate have less than
 0.40 ppm total PCB. SEP 11/1/2007

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62894
 Sample Name : 22942 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/17
 Sample Amount : 50.000000
 Cycle : 17

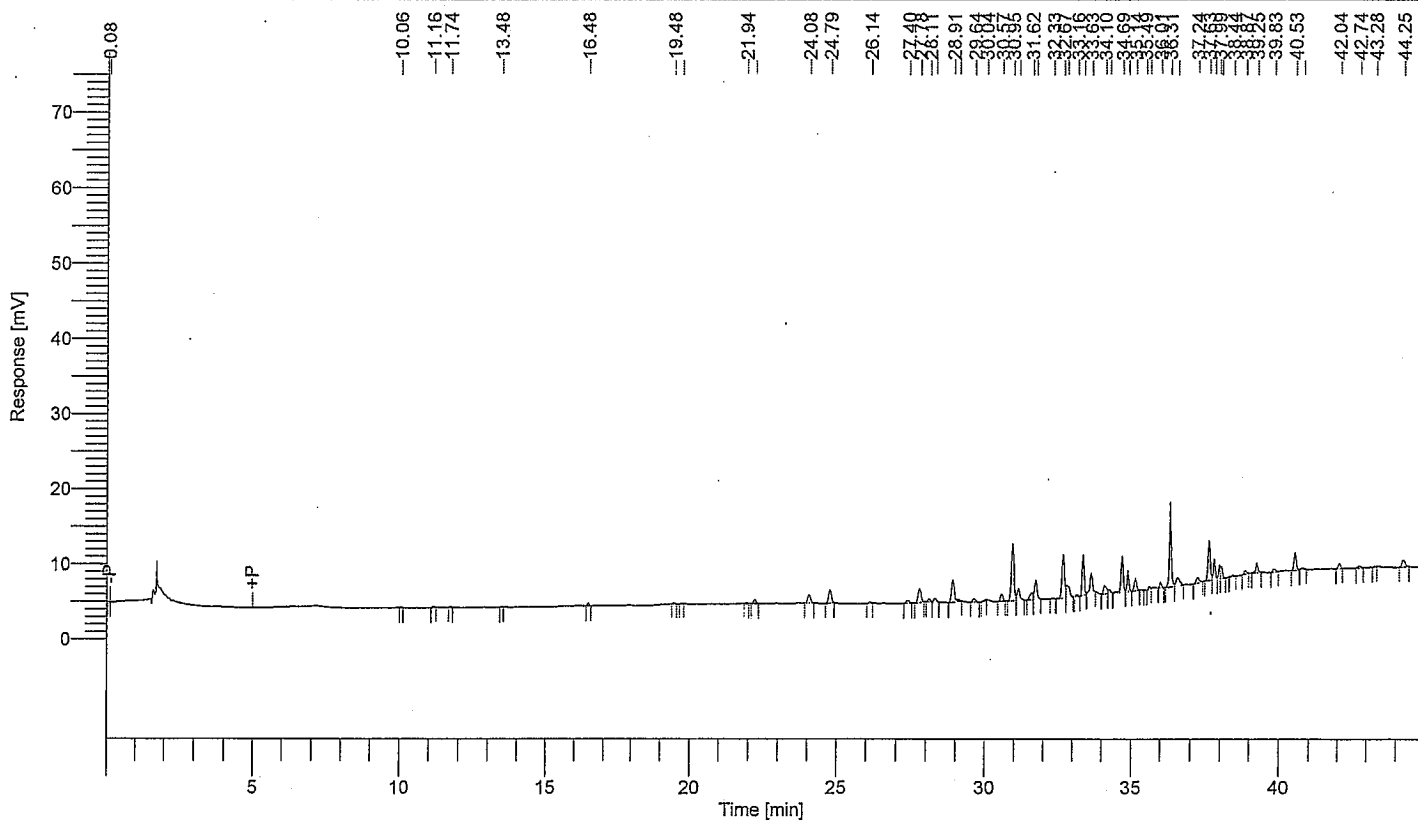
Date : 11/1/2007 9:14:47 AM
 Data Acquisition Time : 11/1/2007 12:00:08 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_017.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
22.22	3275
24.08	7731
24.79	11481
27.40	2960
27.78	13320
28.11	2526
28.31	3351
28.91	20406
29.64	3293
30.57	5366
30.95	49816
31.15	10151
31.62	5981
31.75	15905
32.67	36966
32.80	13203
33.36	25988
33.63	15441
34.10	8220
34.26	3056
34.69	26240
34.90	13190
35.14	9084
36.01	3286
36.31	57055
36.55	9922
37.24	5483

$$\Sigma \text{area} = 99704$$

$$\text{avg} = \frac{99704}{361887.5} = 0.1539$$

$$\text{ppm} = \frac{0.1539}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.0616$$

$$\% \text{Recovery} = \frac{0.0616}{0.1} \times 100 = 62\%$$

Time [min]	Area [μ V-s]
37.63	27424 ✓
37.81	13910 -
37.99	7193 ✓
38.05	7177 -
38.87	2811
39.25	6816
39.83	2826
40.53	12111
42.04	3713
44.25	6875
<hr/>	
473555	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62896
 Sample Name : 22943 MS 1:10
 Instrument Name : GC014
 Rack/Vial : 0/19
 Sample Amount : 50.000000
 Cycle : 19

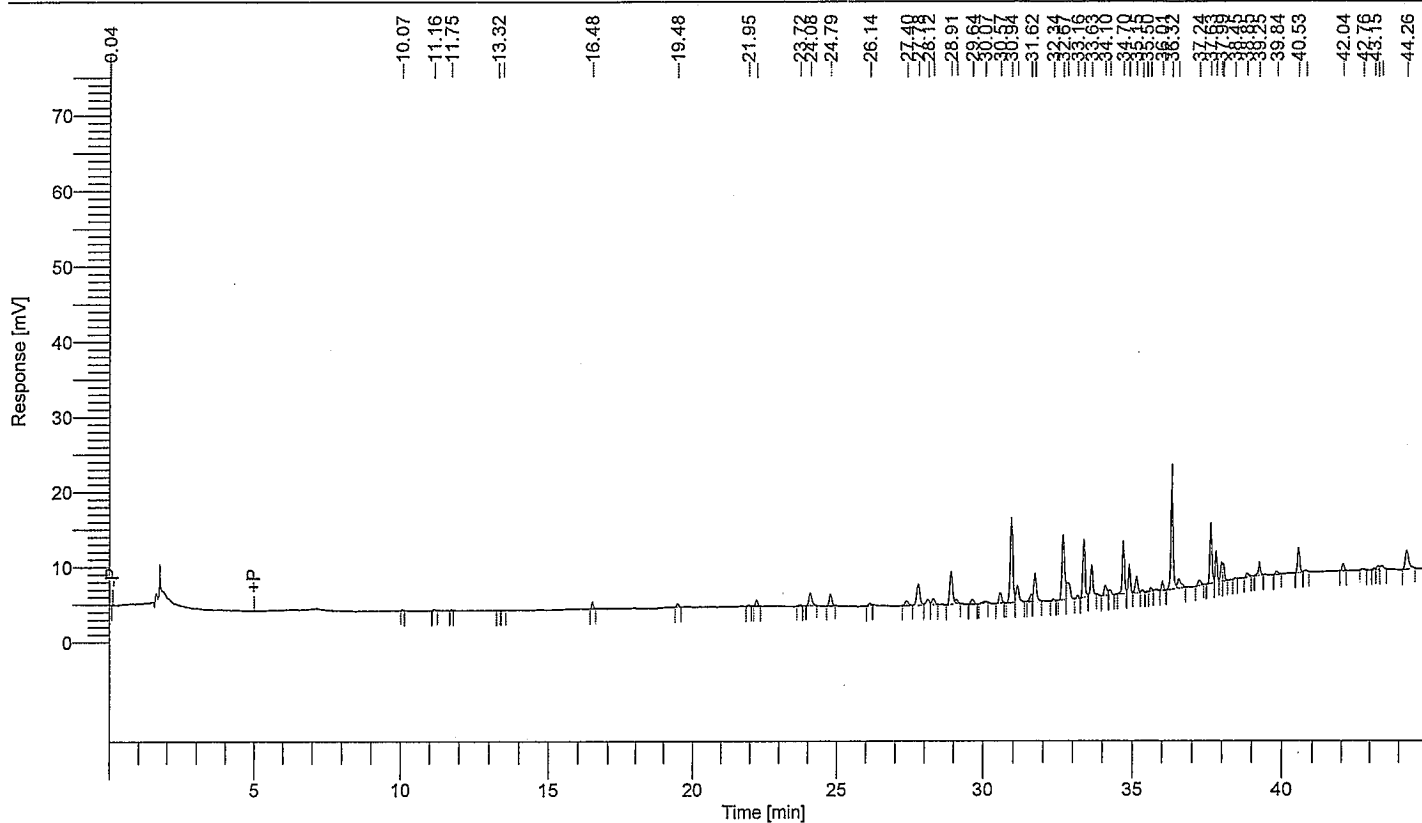
Date : 11/1/2007 9:14:52 AM
 Data Acquisition Time : 11/1/2007 1:45:30 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_019.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
16.48	3631
19.48	2303
22.23	4529
24.08	12038
24.79	10441
27.40	5230
27.78	22024
28.12	5815
28.31	5778
28.91	30607
29.10	2993
29.64	4728
30.57	8108
30.94	71912
31.15	14982
31.62	5591
31.74	22474
32.67	52247
32.81	20236
33.16	2138
33.37	39435
33.63	20369
34.10	9773
34.26	4228
34.70	36097
34.90	19586
35.15	12933

$$\Sigma \text{area} = 78708$$

$$\text{ng conc} = \frac{78708}{361889.5} = 0.2175$$

$$\text{ppm} = \frac{0.2175}{50} \times \frac{2}{2} \times \frac{100}{50} \times 10 = 0.086 \quad 0.0870$$

$$\% \text{Recovery} = \frac{0.0870}{0.1} \times 100 = 87\%$$

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
35.63	2140
36.01	5355
36.32	82125
36.53	10636
37.24	4764
37.63	39001 ✓
37.81	19044 ✓
37.99	10291 ✓
38.05	10372 ✓
38.85	2785
39.25	9145
39.84	2836
40.53	17279
42.04	4887
43.28	3143
43.40	3575
44.26	20206
<hr/>	
697808	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62879
 Sample Name : AROCHLOR 1016
 Instrument Name : GC014
 Rack/Vial : 0/2
 Sample Amount : 1.000000
 Cycle : 2

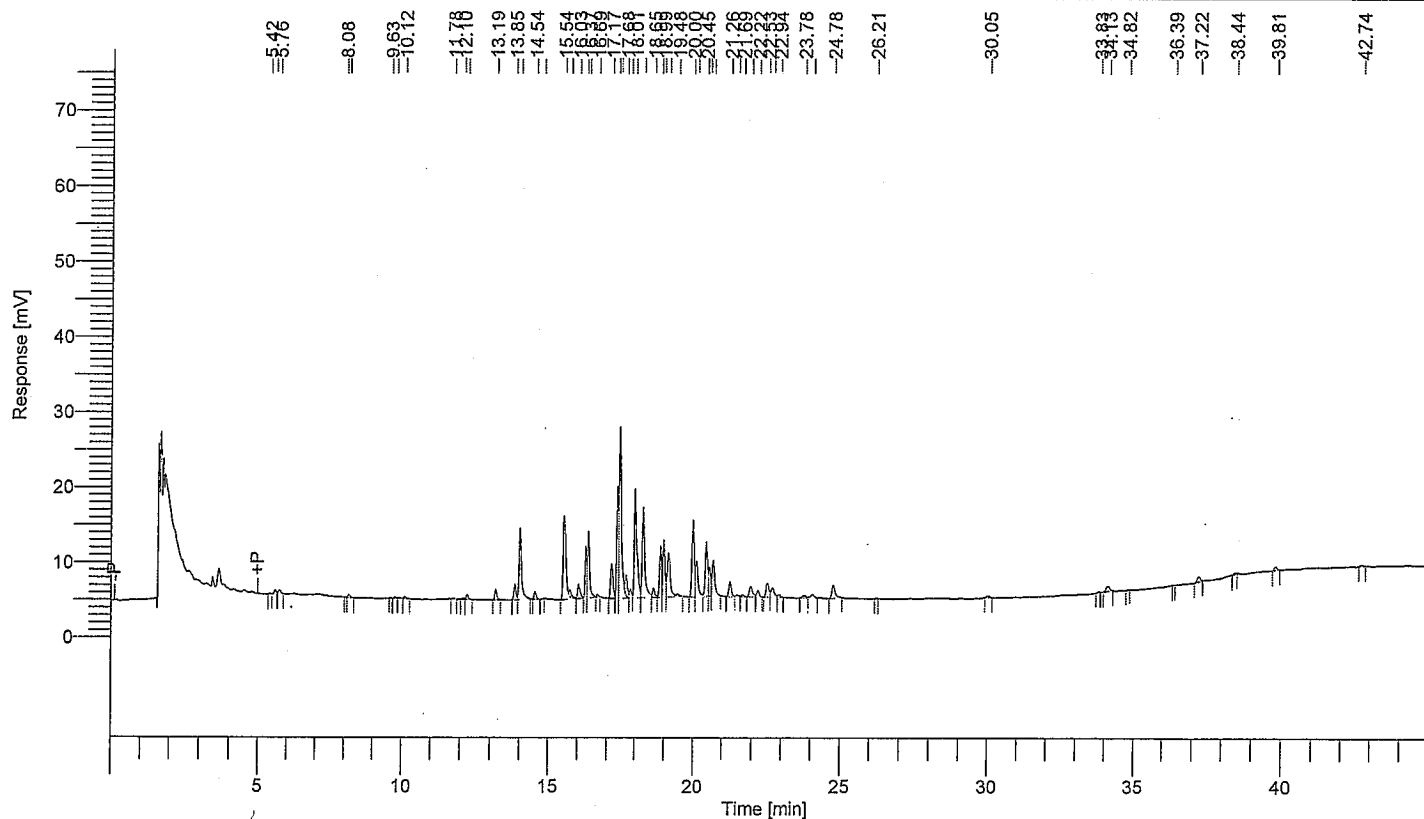
Date : 11/1/2007 9:14:08 AM
 Data Acquisition Time : 10/31/2007 10:50:29 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_002.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.61	3042
5.76	3204
8.18	2256
12.24	3332
13.19	7147
13.85	10071
14.03	55079
14.54	4939
15.54	79466
15.74	5294
16.03	10705
16.29	26241
16.37	43774
17.17	28433
17.37	57043
17.45	130173
17.68	16396
17.83	6600
18.01	95693
18.29	73734
18.65	7132
18.89	31738
18.99	41777
19.16	42365
19.48	2530
20.00	57093
20.12	30307

Time [min]	Area [μ V-s]
20.45	39622
20.56	20137
20.69	31174
21.26	12121
21.96	11006
22.22	5528
22.53	13123
22.70	10791
22.94	2364
23.78	2870
24.07	3701
24.78	13590
30.05	2012
34.13	6002
37.22	5016
39.81	2854

1057473

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62880
 Sample Name : AROCHLOR 1221
 Instrument Name : GC014
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 3

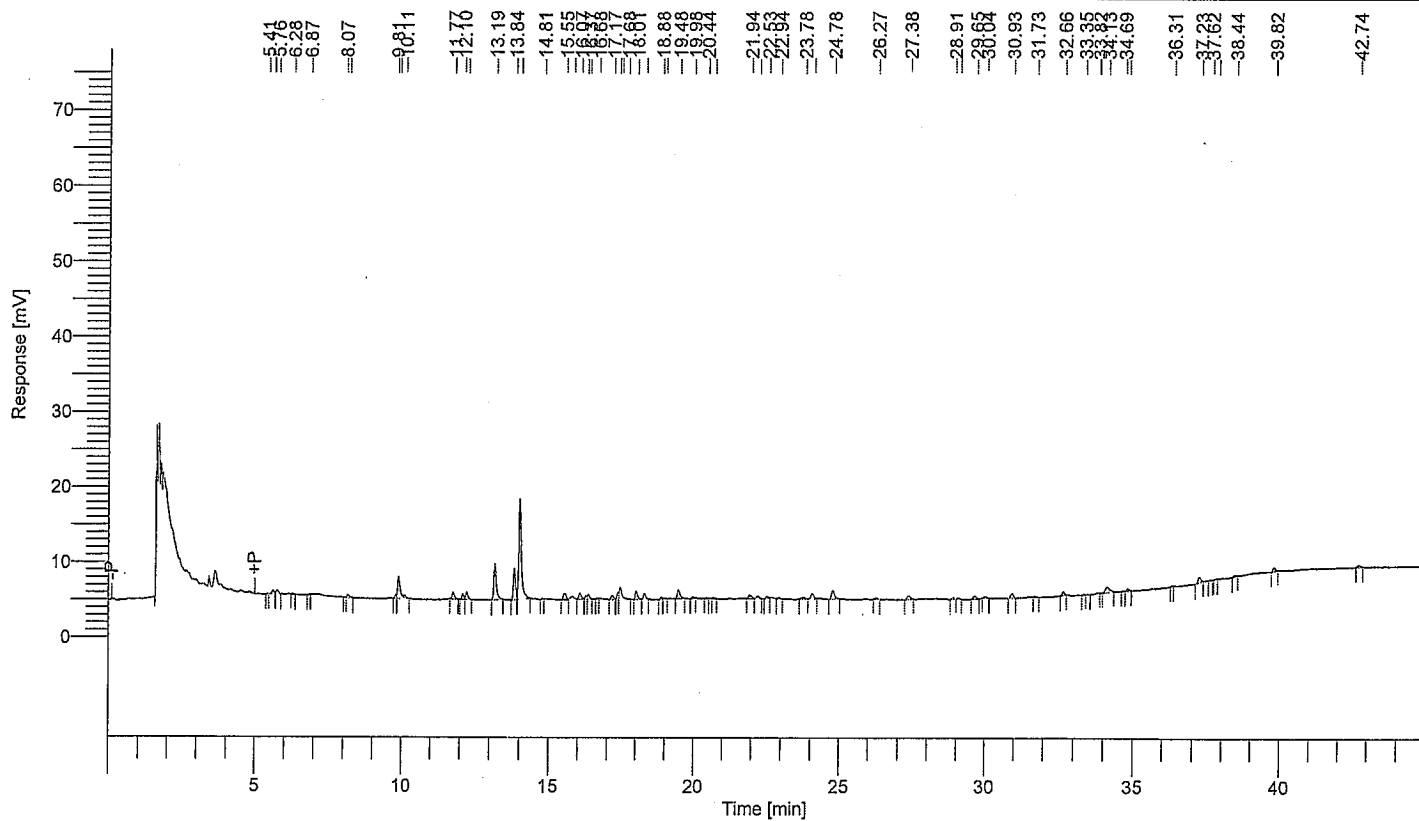
Date : 11/1/2007 9:14:11 AM
 Data Acquisition Time : 10/31/2007 11:43:12 AM
 Channel : A
 Operator : enweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_003.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2868
5.76	3201
8.18	2245
9.90	19036
10.11	2368
11.77	4888
12.10	3617
12.24	5254
13.19	27466
13.84	20177
14.02	80230
15.55	5861
15.81	3498
16.07	4934
16.37	2852
17.17	3016
17.37	3411
17.46	9834
18.01	6507
18.29	3892
19.48	7087
21.94	3383
22.22	2264
24.07	4961
24.78	8497
27.38	3974
29.65	3143

Time [min]	Area [μ V-s]
30.93	4017
32.66	2520
34.13	7248
37.23	5146
39.82	2996
<hr/>	
270390	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62881
 Sample Name : AROCHLOR 1232
 Instrument Name : GC014
 Rack/Vial : 0/4
 Sample Amount : 1.000000
 Cycle : 4

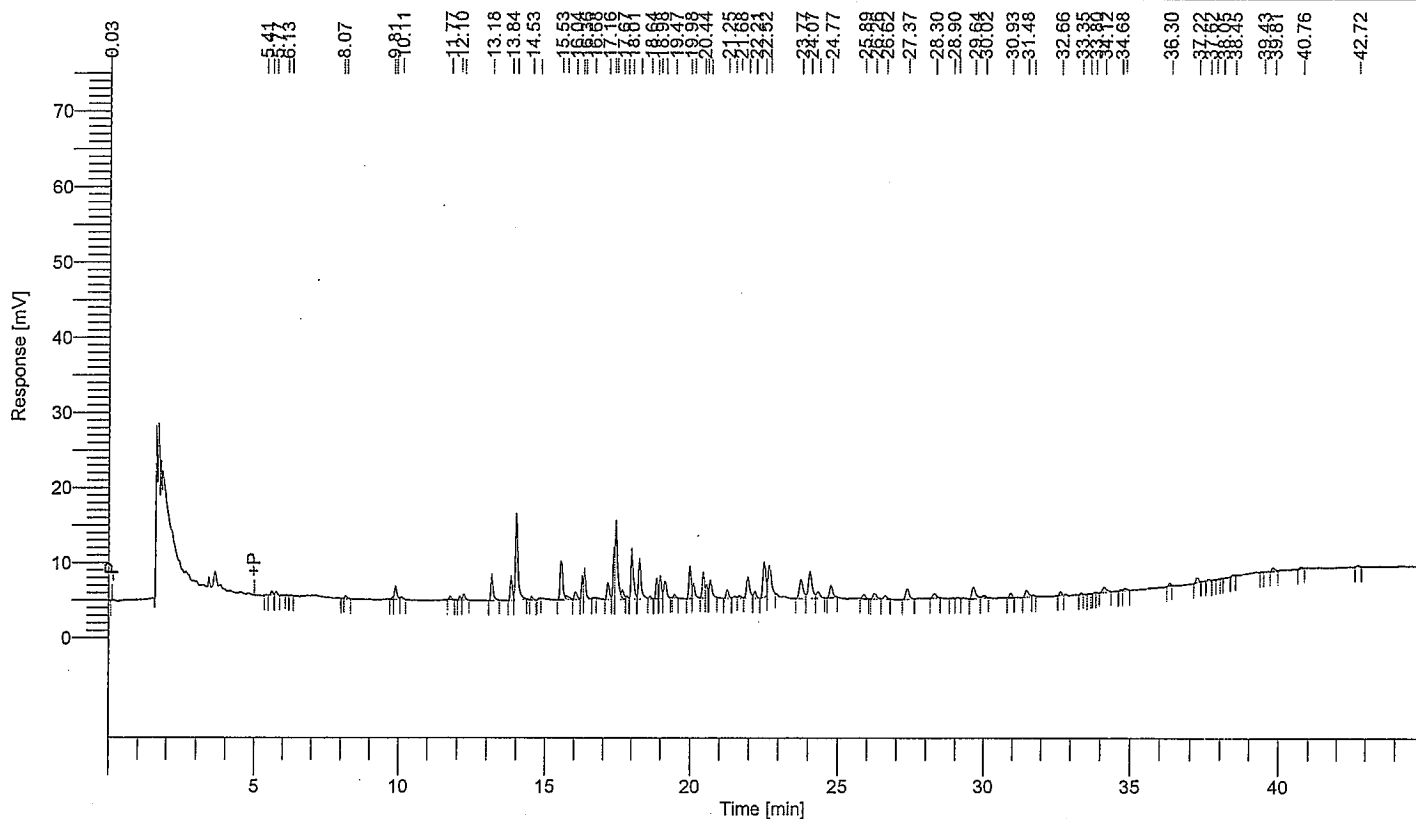
Date : 11/1/2007 9:14:14 AM
 Data Acquisition Time : 10/31/2007 12:35:55 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_004.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	2856
5.77	3165
8.18	2323
9.90	10721
10.11	2175
11.77	2525
12.10	2459
12.23	4553
13.18	19230
13.84	15922
14.01	68549
14.53	2135
15.53	36679
15.73	3707
16.04	6784
16.28	12051
16.36	19809
17.16	13371
17.37	25951
17.45	61193
17.67	6879
17.83	2269
18.01	43086
18.28	32542
18.64	2130
18.88	12676
18.98	16539

Time [min]	Area [μ V-s]
19.15	14634
19.47	2392
19.98	24251
20.12	12200
20.44	18124
20.55	8839
20.68	15772
21.25	7229
21.68	2351
21.95	22375
22.21	6025
22.52	31428
22.69	32077
23.77	22809
24.07	31925
24.34	6968
24.77	11935
25.89	3860
26.26	6411
26.62	3666
27.37	12164
28.30	4708
29.64	13601
30.02	3033
30.93	3672
31.48	8128
32.66	2376
34.12	6219
34.82	2339
37.22	4147
39.81	2975
<hr/>	
780908	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62882
 Sample Name : AROCHLOR 1242
 Instrument Name : GC014
 Rack/Vial : 0/5
 Sample Amount : 1.000000
 Cycle : 5

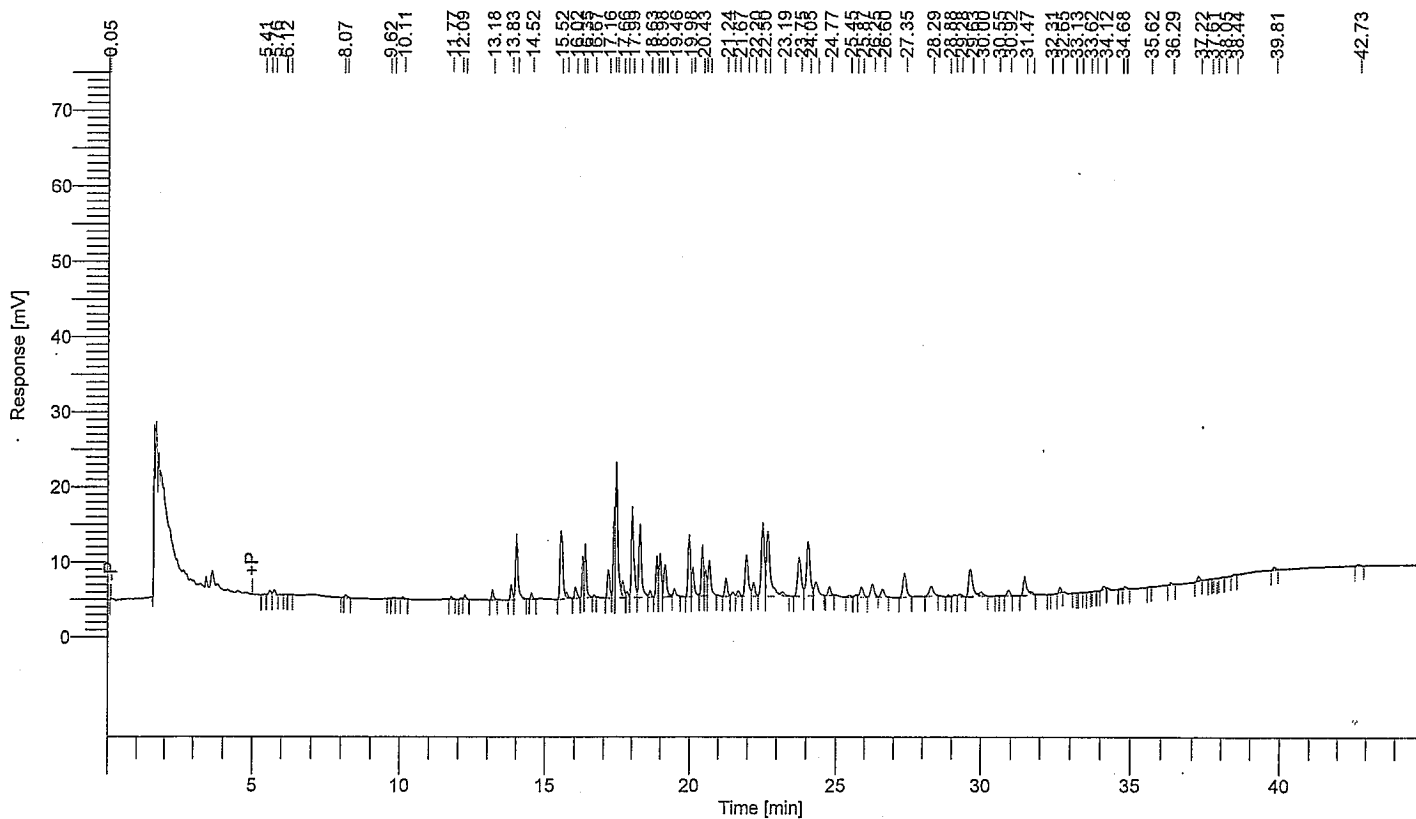
Date : 11/1/2007 9:14:18 AM
 Data Acquisition Time : 10/31/2007 1:28:38 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_005.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.60	3479
5.76	3923
8.17	2448
12.22	3011
13.18	6929
13.83	9578
14.01	49878
14.52	3825
15.52	63599
15.72	3787
16.02	8398
16.27	21061
16.35	34928
17.16	23223
17.36	46147
17.44	104473
17.66	12169
17.82	4454
17.99	76018
18.28	58774
18.63	4471
18.87	24751
18.98	31435
19.14	30032
19.46	6087
19.98	46252
20.11	23918

Time [min]	Area [μ V-s]
20.43	35901
20.54	16886
20.67	30904
21.24	14341
21.49	3441
21.67	4656
21.94	41842
22.20	12949
22.50	66528
22.68	85052
23.19	3891
23.75	46195
24.05	63670
24.33	15518
24.77	7602
25.87	11072
26.25	15197
26.60	9122
27.35	26727
28.29	12335
29.09	2121
29.28	3328
29.63	34099
30.00	5629
30.92	4873
31.47	20900
32.65	3611
34.12	2473
34.81	2384
37.22	3965
39.81	2332
42.73	2006
<hr/>	
1318598	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62883
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/6
 Sample Amount : 1.000000
 Cycle : 6

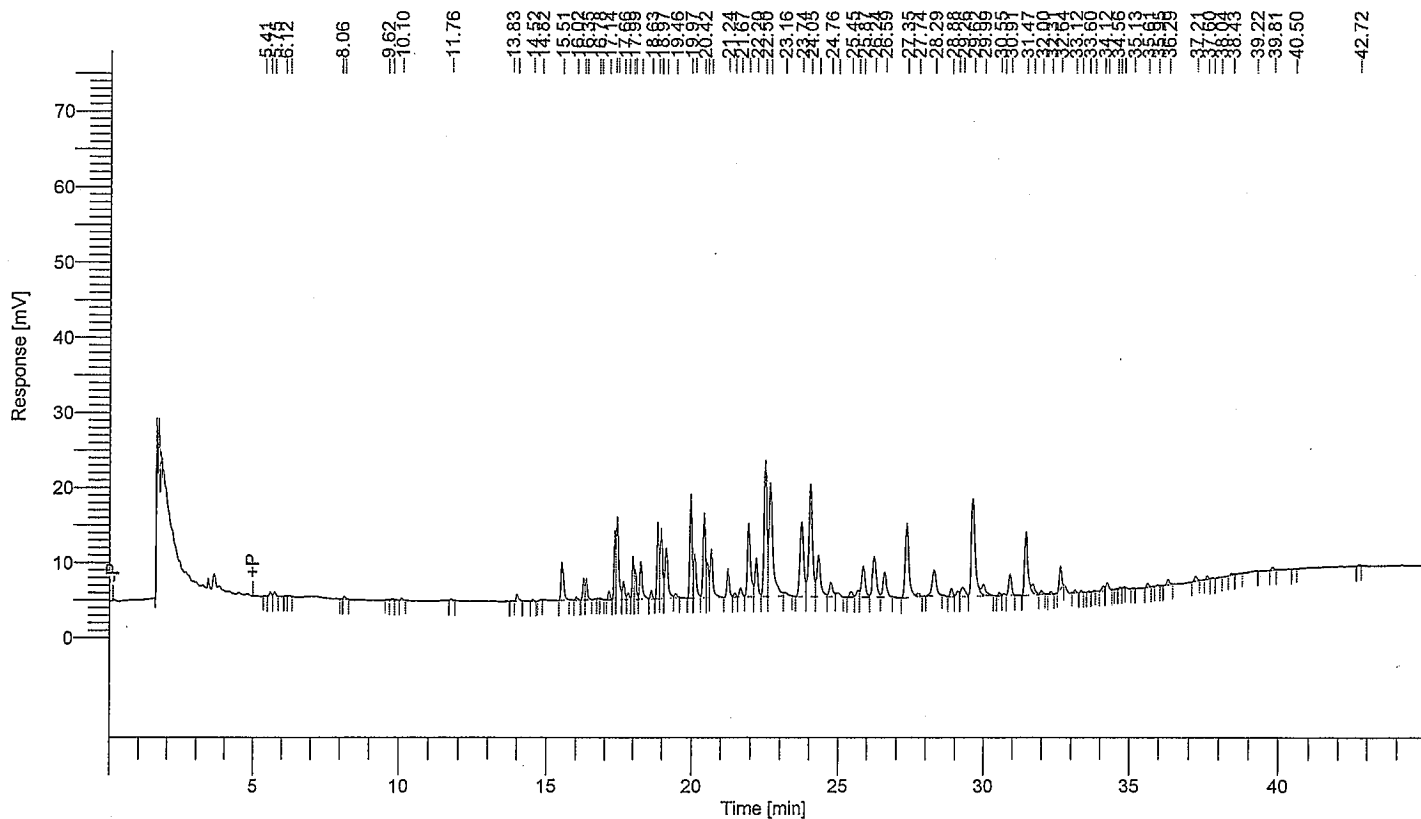
Date : 11/ /2007 9:14:20 AM
 Data Acquisition Time : 10/31/2007 2:21:17 PM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_006.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
5.60	2848
5.75	3394
14.01	4843
15.51	31197
16.02	2322
16.27	11303
16.35	13475
17.14	6166
17.36	34942
17.44	62946
17.66	13371
17.82	4690
17.99	25926
18.08	18553
18.27	30377
18.63	5244
18.86	46292
18.97	50757
19.14	46995
19.46	3208
19.97	75947
20.10	36695
20.42	64812
20.53	23462
20.67	45683
21.24	22205
21.48	3204

Time [min]	Area [μ V-s]
21.67	7668
21.93	72426
22.20	35522
22.50	127937
22.67	140817
23.16	4927
23.74	90516
24.05	133534
24.32	49275
24.76	16127
24.99	4751
25.45	5803
25.70	6336
25.87	35978
26.24	47355
26.59	29511
27.35	90485
27.74	3387
28.29	32110
28.88	7049
29.10	5087
29.26	12786
29.62	118526
29.99	15495
30.55	2468
30.91	19377
31.47	71617
31.71	9484
32.00	2975
32.64	15797
33.12	2175
34.12	3997
34.23	6925
35.61	3266
36.29	4487
37.21	4243
37.60	2200
39.81	2213
<hr/>	
1935484	

Software Version : 6.3.00504
 Reprocess Number : totalchrom: 62898
 Sample Name : AROCHLOR 1248
 Instrument Name : GC014
 Rack/Vial : 0/21
 Sample Amount : 1.000000
 Cycle : 21

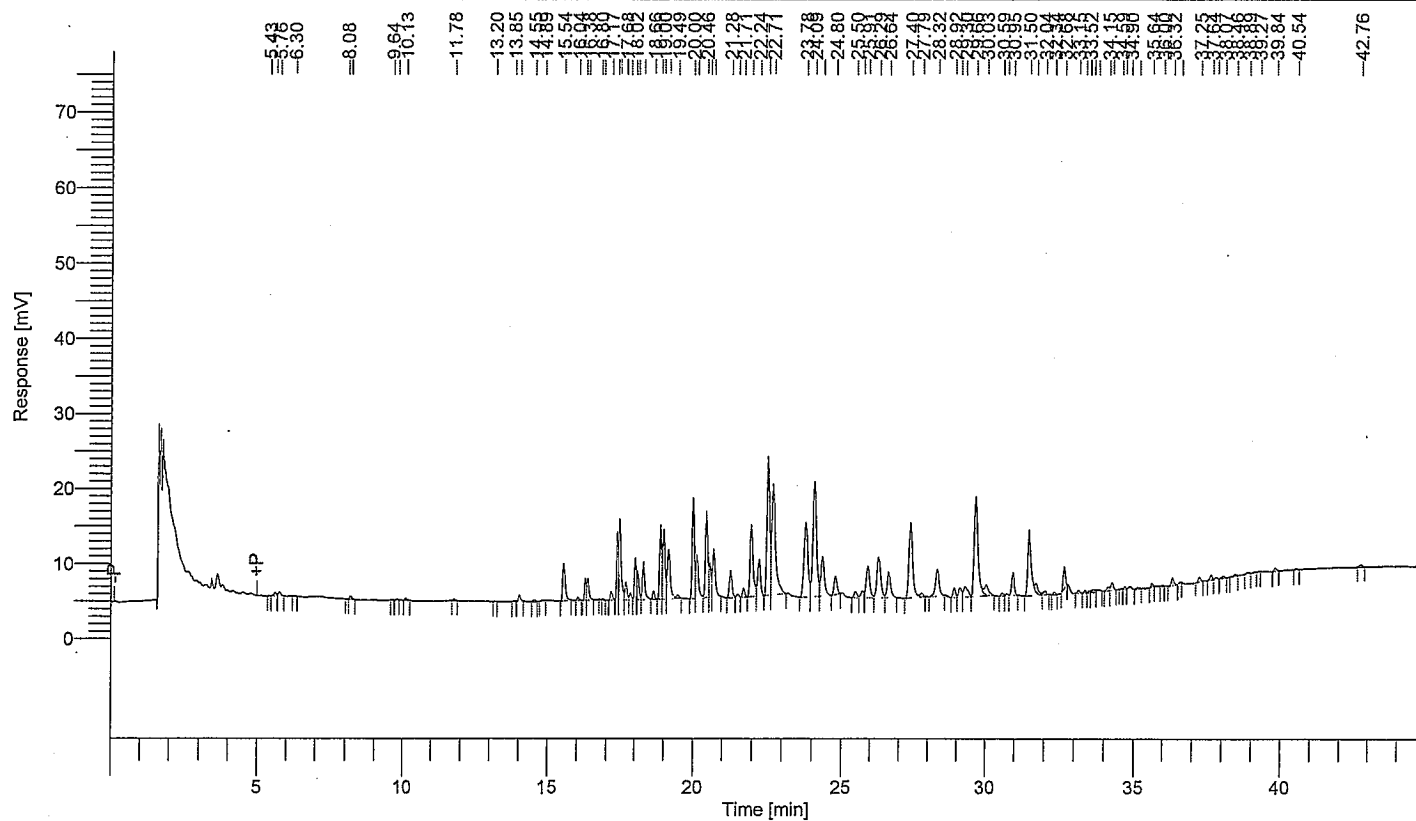
Date : 11/1/2007 9:14:57 AM
 Data Acquisition Time : 11/1/2007 3:30:53 AM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_021.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
5.62	2653
5.76	3368
8.19	2329
14.03	4255
15.54	30991
16.29	11245
16.38	13311
17.17	6024
17.38	34799
17.46	61611
17.68	13156
17.84	4611
18.02	25477
18.10	18388
18.30	29172
18.66	4959
18.89	46649
19.00	50597
19.17	47022
19.49	2700
20.00	75324
20.14	35880
20.46	63756
20.57	22089
20.70	40983
21.28	21649
21.52	2541

Time [min]	Area [μ V·s]
21.71	6415
21.97	70105
22.24	32209
22.53	125693
22.71	129225
23.78	89982
24.09	132101
24.37	45199
24.80	16923
25.50	5788
25.73	6459
25.91	36383
26.29	47969
26.64	30571
27.40	90792
27.79	3589
28.32	32457
28.92	7623
29.12	9288
29.30	14335
29.66	119685
30.03	14413
30.59	2337
30.95	20166
31.50	76003
31.75	9380
32.04	3209
32.68	15703
33.15	2021
33.64	3000
33.80	2040
34.15	3256
34.27	6753
34.90	2939
35.64	2199
36.32	6116
37.25	3930
37.64	3450
39.84	2286
<hr/>	
1907529	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62884
 Sample Name : AROCHLOR 1254
 Instrument Name : GC014
 Rack/Vial : 0/7
 Sample Amount : 1.000000
 Cycle : 7

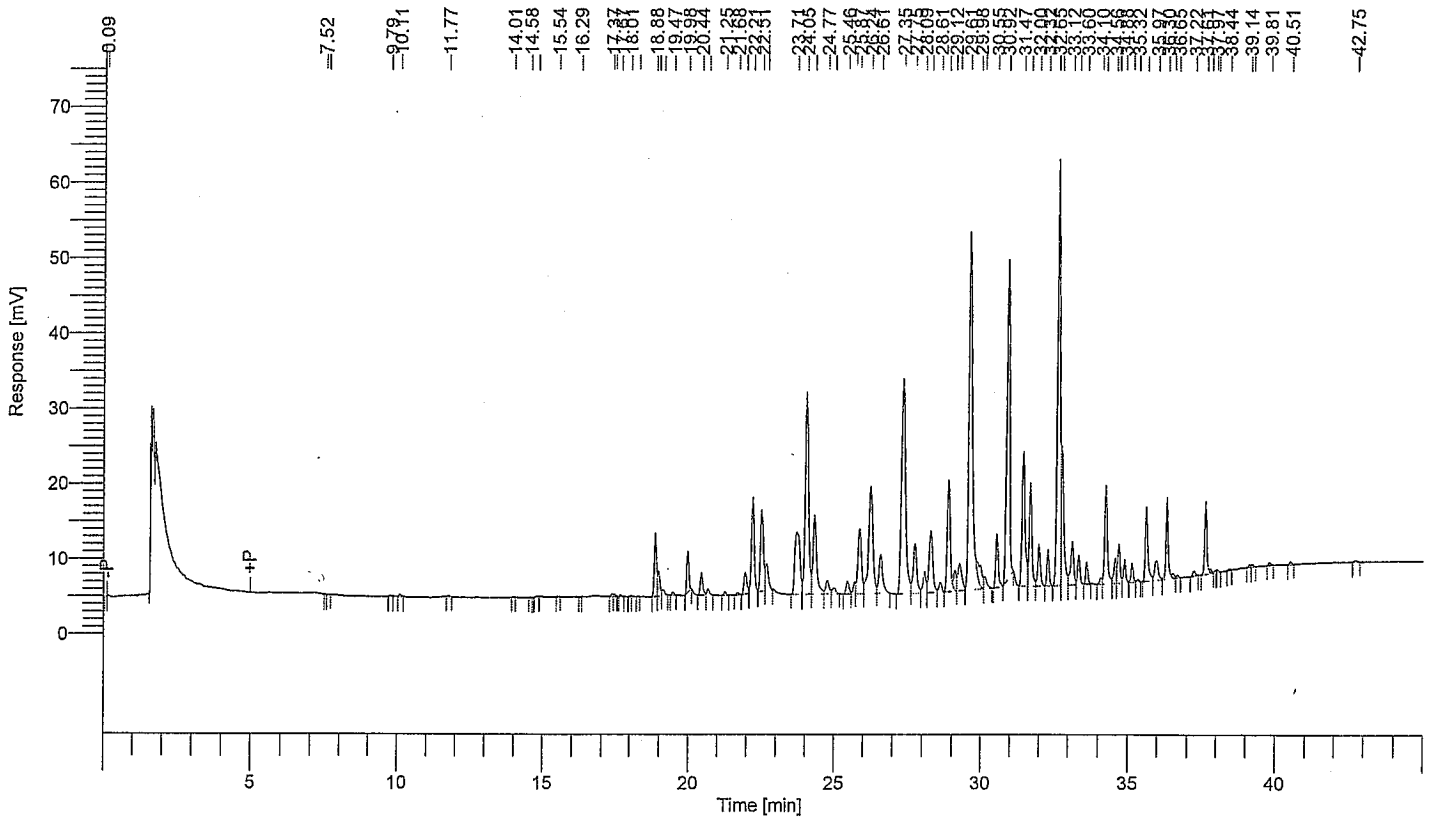
Date : 11/1/2007 9:14:23 AM
 Data Acquisition Time : 10/31/2007 3:13:56 PM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_007.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.88	41500
18.98	17271
19.14	4776
19.98	27504
20.44	17435
20.68	4950
21.25	2683
21.95	20914
22.21	85108
22.51	80703
22.68	25923
23.71	97561
24.05	217202
24.33	93042
24.77	15661
25.01	6831
25.46	12609
25.72	8993
25.87	74419
26.24	140798
26.61	48753
27.35	267675
27.75	57847
28.09	21195
28.29	68564
28.61	9110
28.88	110602

Time [min]	Area [μ V-s]
29.12	16786
29.26	33972
29.61	401217
29.98	29906
30.12	11554
30.55	46886
30.92	292190
31.47	141847
31.72	90820
32.00	35403
32.32	27084
32.65	349919
32.77	111458
33.12	40809
33.34	21348
33.60	14746
34.10	4967
34.24	85504
34.56	18325
34.68	29565
34.88	18895
35.13	13055
35.62	65199
35.97	22860
36.30	60198
36.51	3363
36.65	2012
37.22	4320
37.61	50337
37.80	3085
39.81	2354
40.51	2086

3631698

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62885
 Sample Name : AROCHLOR 1260
 Instrument Name : GC014
 Rack/Vial : 0/8
 Sample Amount : 1.000000
 Cycle : 8

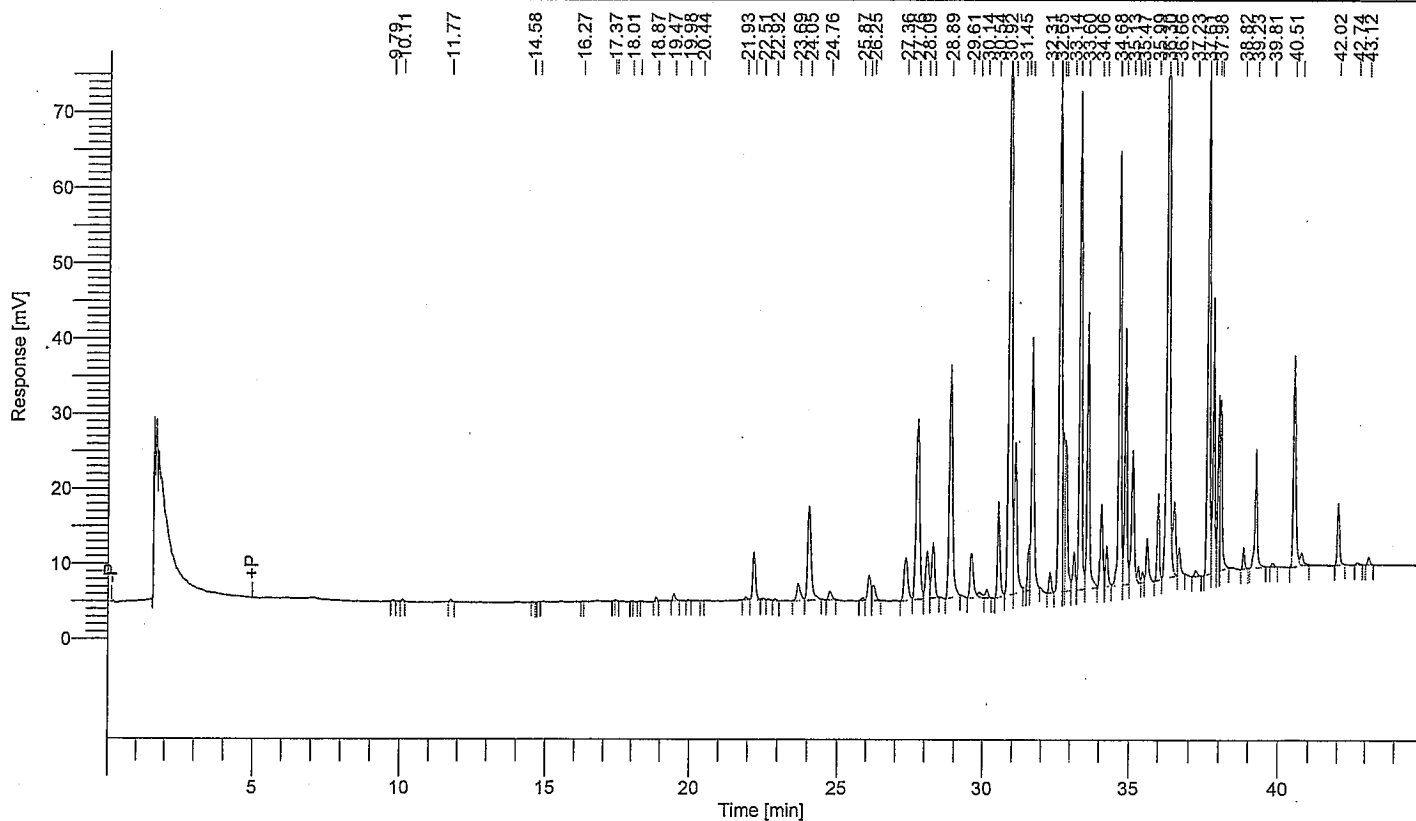
Date : 11/1/2007 9:14:26 AM
 Data Acquisition Time : 10/31/2007 4:06:44 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 1.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_008.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
18.87	2270
19.47	5081
21.93	2714
22.20	40871
23.69	19775
24.05	100268
24.76	8015
25.87	2354
26.10	25583
26.25	16767
27.36	51568
27.76	195354
28.09	49042
28.28	54961
28.89	238099
29.61	50438
29.89	6225
30.14	7626
30.54	81766
30.92	608081
31.12	137786
31.45	3090
31.60	29339
31.72	204420
32.31	14775
32.65	447525
32.77	89945

$$\sum \text{Area} = 723779$$

$$\text{AF} = \frac{723779}{2}$$

$$= 361889.5$$

Time [min]	Area [μ V-s]
32.83	114014
33.14	32509
33.35	380622
33.60	211665
34.08	59752
34.24	33032
34.68	330929
34.88	186614
35.13	115764
35.32	10883
35.47	6602
35.61	34609
35.99	56648
36.30	741899
36.51	55778
36.66	21501
37.23	5277
37.61	345930 ~
37.80	176632 ~
37.98	94537 ~
38.03	106680 -
38.82	12332
39.23	84773
39.81	3085
40.51	158314
40.77	13089
42.02	48380
43.12	6239

5941807

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62888
 Sample Name : 22938 1:10
 Instrument Name : GC014
 Rack/Vial : 0/11
 Sample Amount : 50.000000
 Cycle : 11

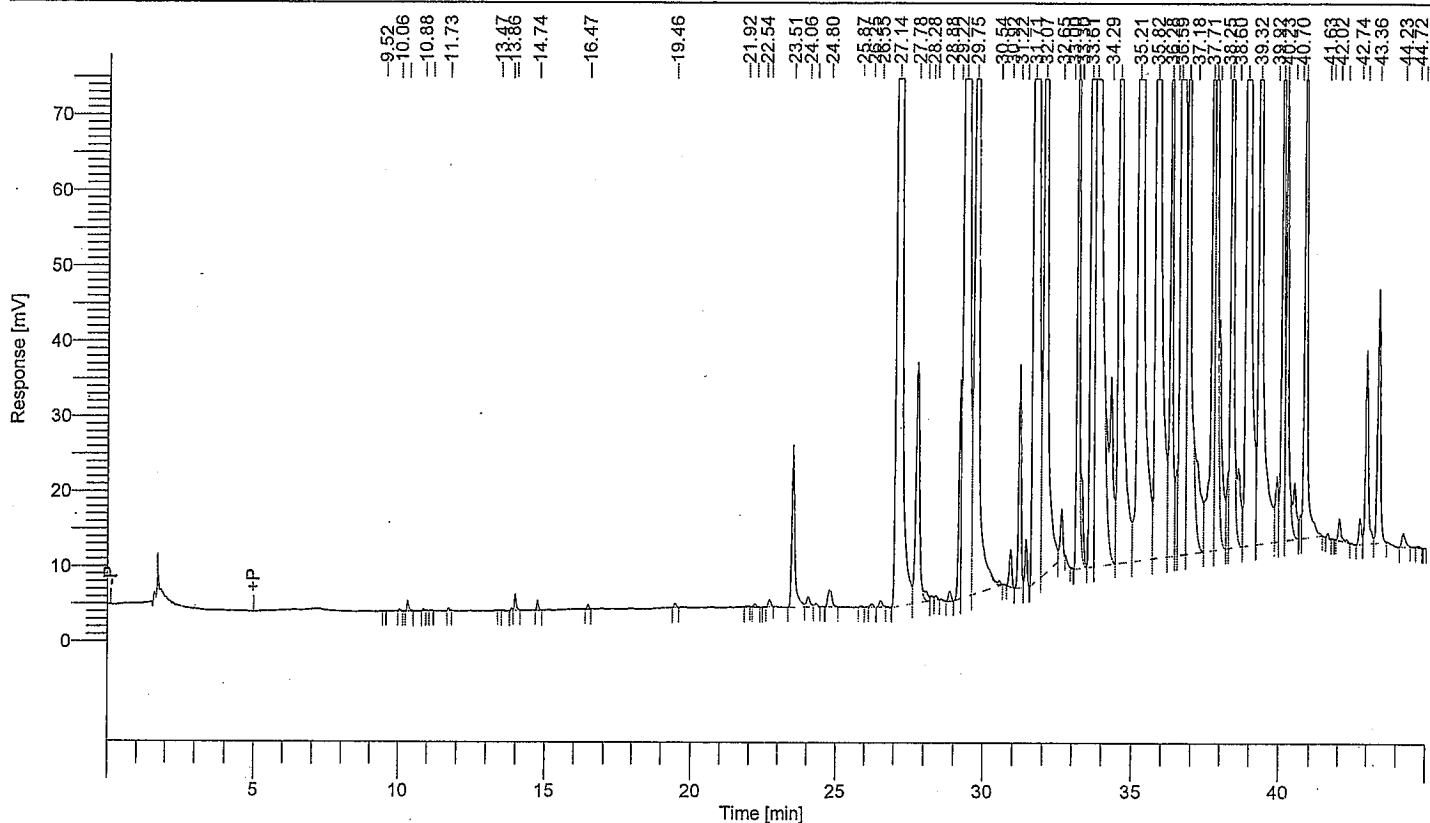
Date : 11/1/2007 9:14:34 AM
 Data Acquisition Time : 10/31/2007 6:44:28 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_011.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV-s]
10.34	6402
13.99	9368
14.74	5381
16.47	2611
19.46	2835
22.20	2774
22.70	5838
23.51	157798
24.06	12253
24.32	3493
24.80	22395
26.25	2547
26.55	6542
27.14	2750428
27.78	261638
28.07	13333
28.28	4289
28.41	3316
28.88	8568
29.22	140118
29.38	6725772
29.75	1671223
30.54	7061
30.92	29399
31.22	166260
31.44	35583
31.71	6946799

See 1:200 dilution.

Pattern does not indicate the presence of PCB's. SVP 11/1/2007

11/1/2007 9:14:34 AM Result: C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_011.rst

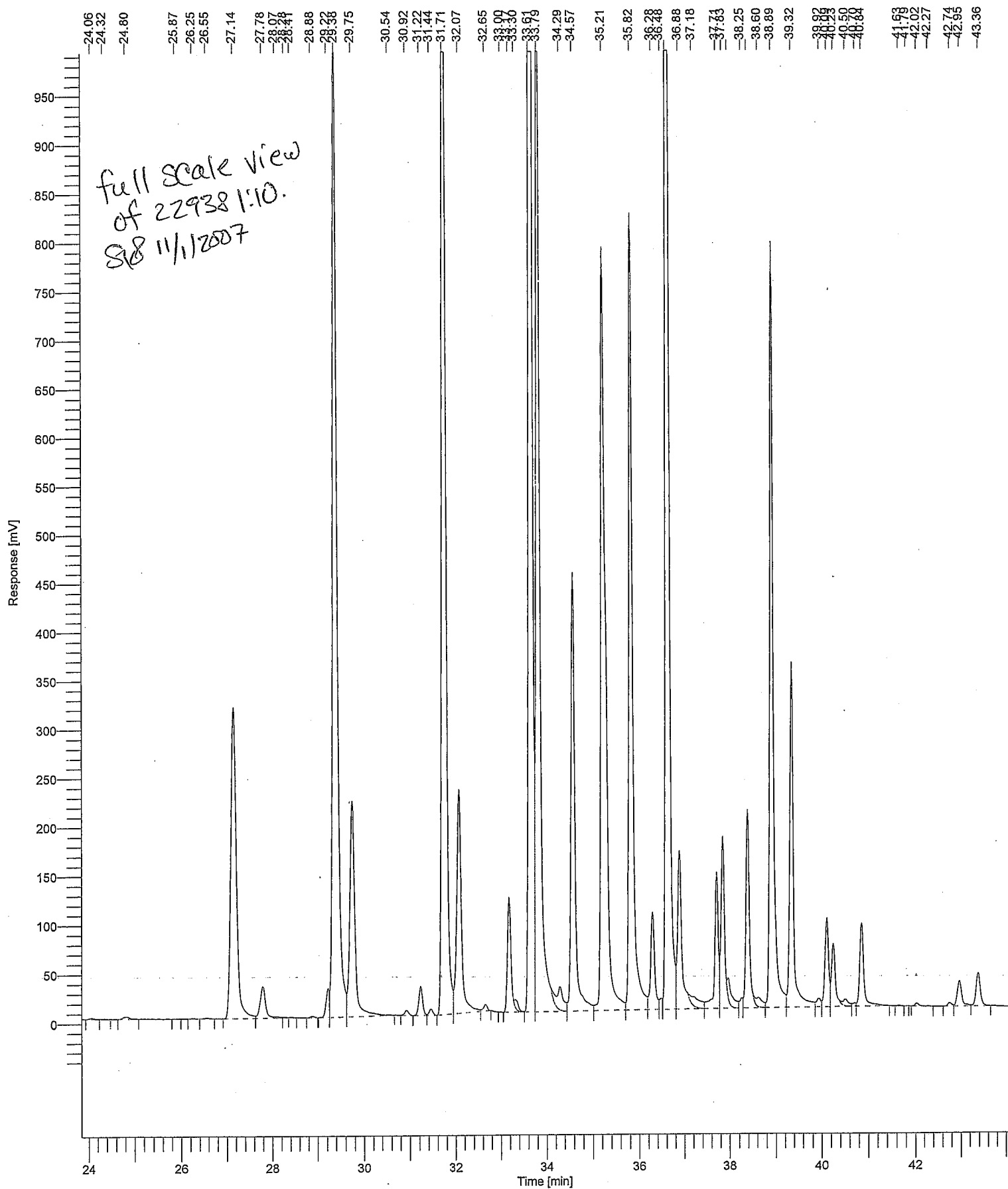
Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
32.07	1634344
32.65	39680
33.17	646408
33.30	53870
33.61	7371094
33.79	6492322
34.29	253311
34.57	2636147
35.21	5628789
35.82	4562657
36.28	601437
36.48	52734
36.59	6851129
36.88	1100376
37.18	152491
37.71	763492
37.83	961136
37.95	172232
38.25	50440
38.37	1048219
38.60	100364
38.89	4105046
39.32	1952903
39.92	58460
40.09	486792
40.23	396650
40.50	59989
40.70	16435
40.84	511169
41.63	2917
42.02	18637
42.27	2340
42.74	20860
42.95	172152
43.36	220400
44.23	14307

68215749

Warning -- Signal level out-of-range in peak

Chromatogram

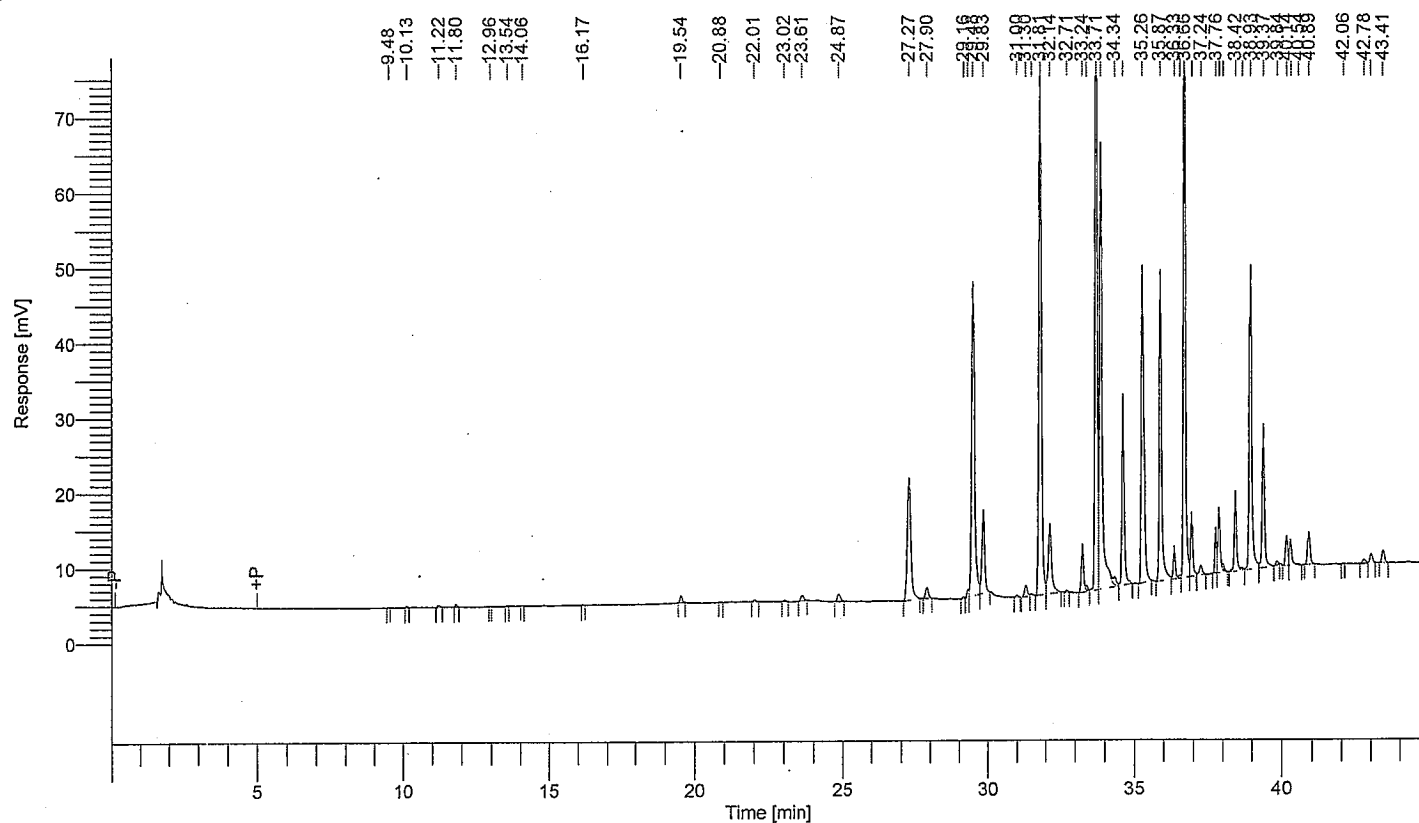
Sample Name : 22938 1:10 Sample #: 11 Page 1 of 1
 FileName : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_011.raw
 Date : 11/1/2007 11:51:15 AM
 Method : Time of Injection: 10/31/2007 6:44:28 PM
 Start Time : 23.84 min End Time : 44.09 min Low Point : -48.06 mV High Point : 993.88 mV
 Plot Offset: -48.06 mV Plot Scale: 1041.9 mV



Software Version : 6.3.1.0504
Reprocess Number : totalchrom: 62906
Sample Name : 22938 1:200
Instrument Name : GC014
Rack/Vial : 0/28
Sample Amount : 50.000000
Cycle : 1

Date : 11/1/2007 11:42:17 AM
Data Acquisition Time : 11/1/2007 10:57:11 AM
Channel : A
Operator : envweigh
Dilution Factor : 200.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_029.rst
Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR
POLYCHLORINATED BIPHENYLS

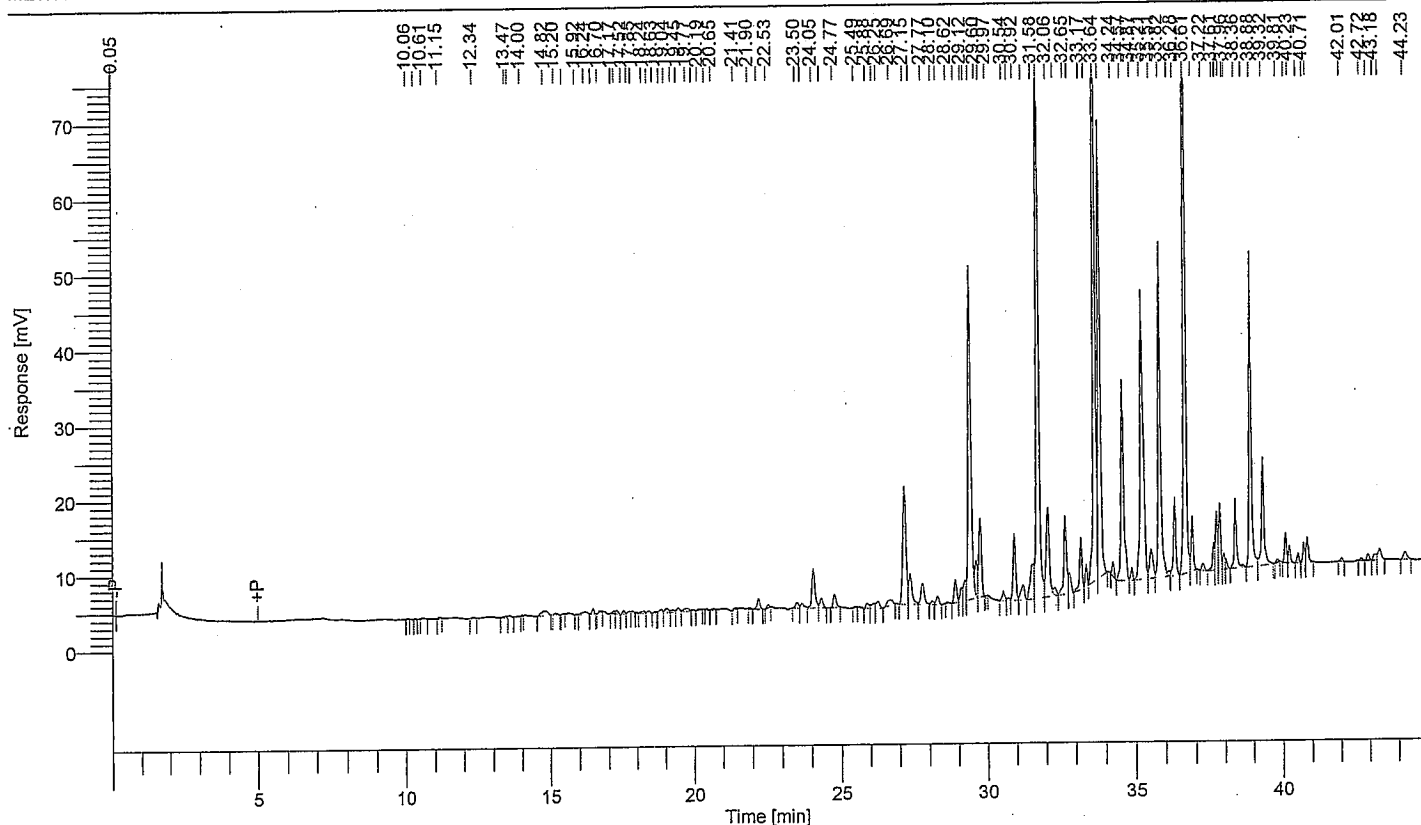
Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
19.54	4703
23.61	5254
24.87	7002
27.27	134738
27.90	10217
29.31	5015
29.48	305332
29.83	74043
31.30	10650
31.52	2002
31.81	428878

11/1/2007 11:42:17 AM Result: C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_029.rst

Time [min]	Area [μ V·s]
32.14	73122
33.24	35023
33.37	3629
33.71	483091
33.87	395463
34.34	10721
34.62	134128
35.26	280251
35.87	235845
36.33	22488
36.52	2084
36.66	462505
36.92	46167
37.24	8992
37.76	27180
37.88	44885
38.00	3758
38.42	53581
38.65	2341
38.93	215395
39.37	96412
39.84	2691
40.14	20754
40.28	19675
40.89	22388
42.78	3877
43.00	7049
43.41	10517
	3711844

Data Acquisition Time : 10/31/2007 7:37:04 PM
Channel : A
Operator : envweigh
Dilution Factor : 10.000000

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [$\mu\text{V}\cdot\text{s}$]
13.47	2209
14.82	10044
16.24	5013
16.47	3574
17.27	2886
17.52	2410
18.24	2724
18.42	2445
18.85	3872
19.04	5056
19.25	2860
19.45	3815
19.77	5292
22.20	9292
22.53	2632
23.50	5504
23.68	4851
24.05	39801
24.33	9903
24.77	12202
25.88	5303
26.10	5511
26.25	7287
26.69	10036
27.15	122840
27.34	32783
27.77	21492

See following for duplicate injection (used to verify if response was due to carryover from previous injection). Overlay w/ Aroclor 1260 and Aroclor 1254 follow. JVP 11/1/2007

20.40 ppm total PCB.

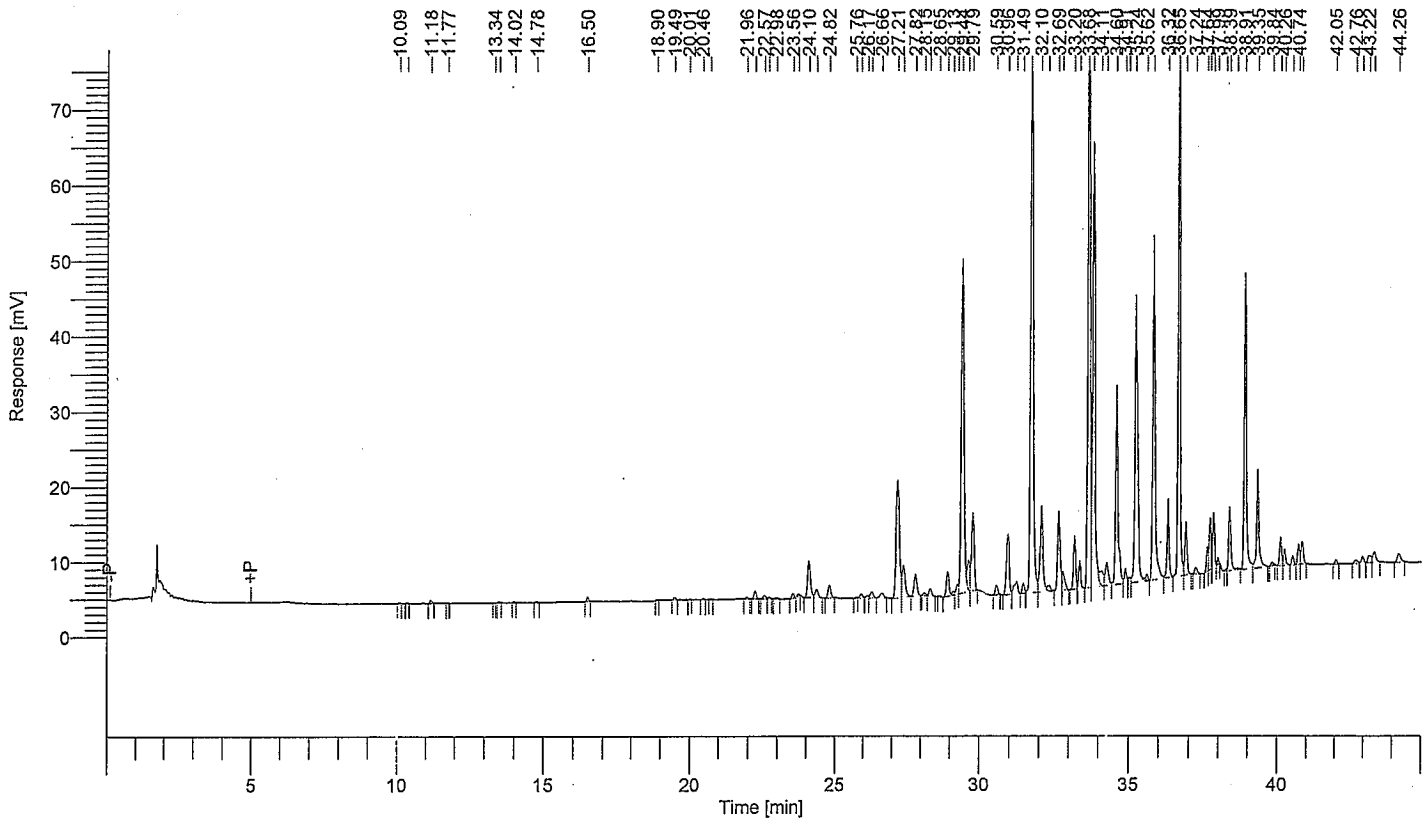
Time [min]	Area [μ V·s]
28.10	2782
28.28	7296
28.88	20141
29.12	10953
29.21	16770
29.39	312975
29.60	26443
29.74	67845
30.54	8101
30.71	2244
30.92	58194
31.21	18189
31.58	36962
31.73	455417
32.06	87596
32.29	7855
32.65	64877
32.78	17444
33.17	37292
33.34	13216
33.64	525954
33.80	343962
34.24	9402
34.57	159366
34.87	8595
35.21	276717
35.51	31372
35.82	262769
36.10	5853
36.28	56147
36.61	429878
36.87	39361
37.22	6146
37.61	17815
37.70	38460
37.82	46920
37.96	9934
38.03	5204
38.36	47693
38.60	2002
38.88	211583
39.32	88105
39.81	2205
40.08	19774
40.23	11931
40.50	6334
40.71	13588
40.83	18845
42.01	2387
42.94	4931
43.18	6394
43.35	10909
44.23	7892

4342656

Software Version : 6.3.1.0504
 Sample Name : 22939 1:10 dup inj
 Instrument Name : GC014
 Rack/Vial : 0/12
 Sample Amount : 50.000000
 Cycle : 1

Date : 11/1/2007 10:55:17 AM
 Data Acquisition Time : 11/1/2007 9:43:19 AM
 Channel : A
 Operator : tcprocess
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_028.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

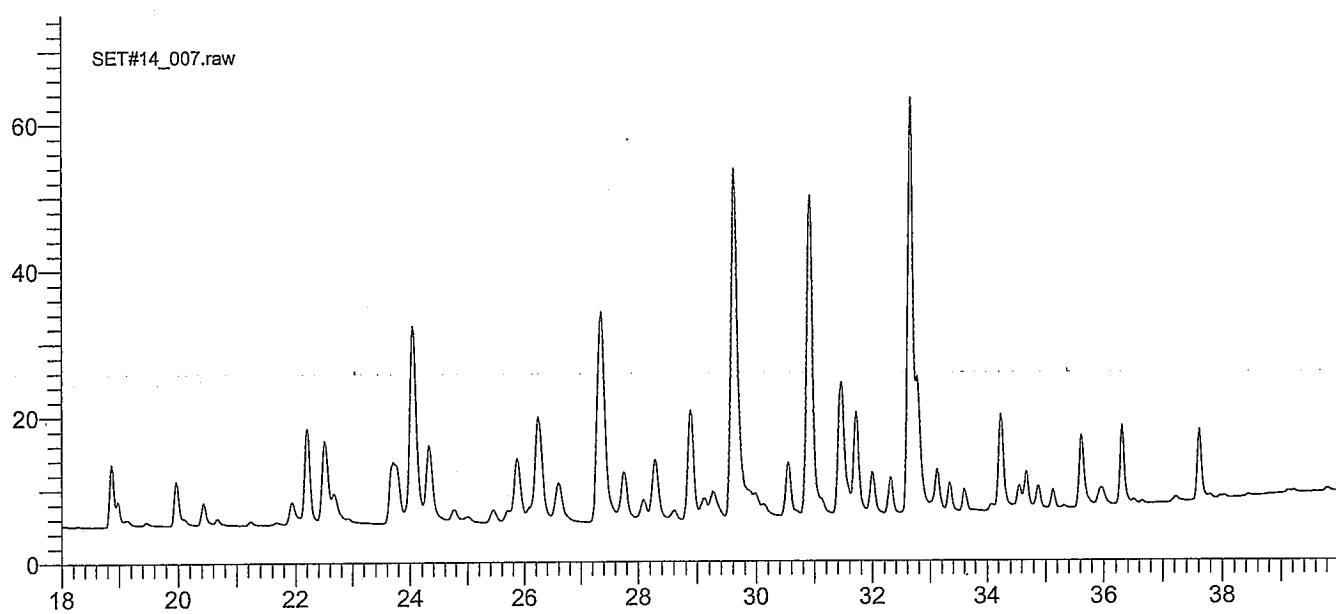
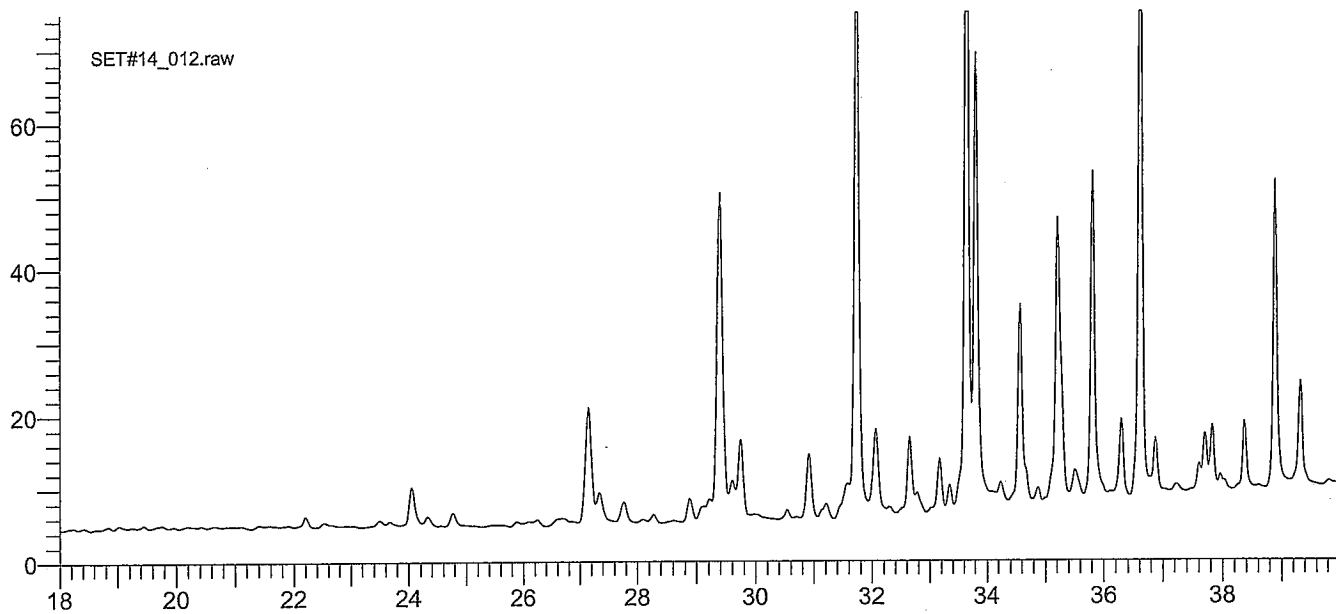
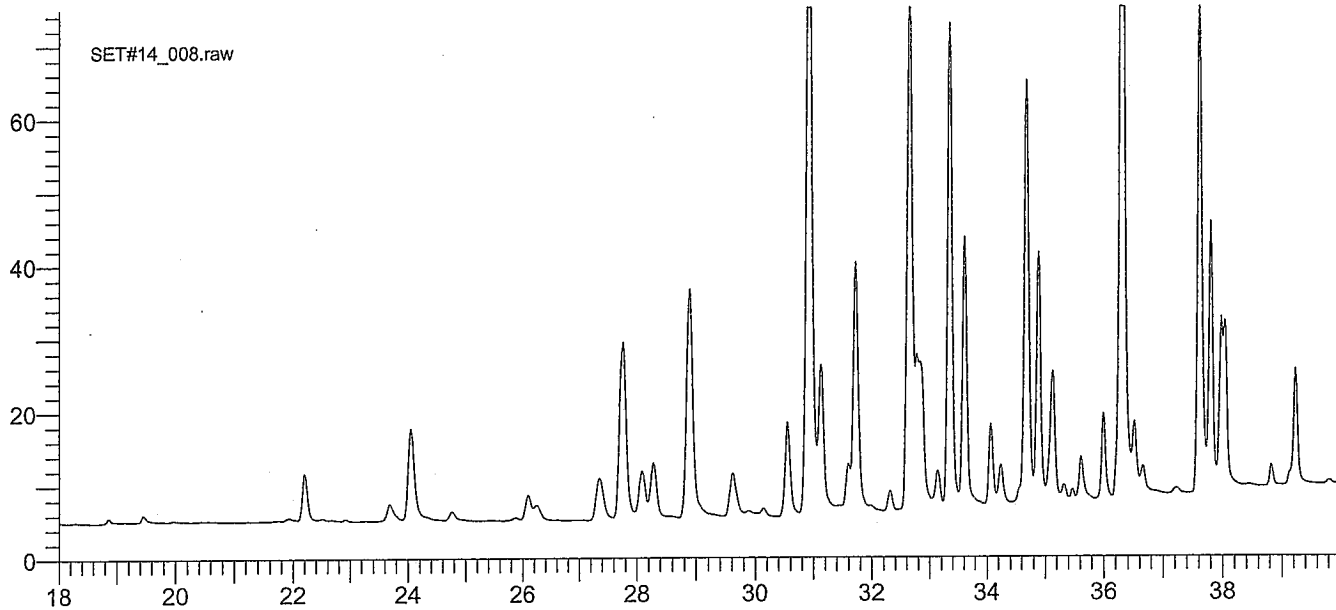
Time [min]	Area [μV·s]
11.18	2067
16.50	2268
22.25	5825
22.57	3005
23.56	3220
24.10	36388
24.38	8240
24.82	11267
25.93	3816
26.30	5997
26.66	5143
27.21	122964
27.40	35002
27.82	20145
28.33	6364
28.93	21992
29.13	2438
29.27	7229
29.44	296628
29.65	22759
29.79	65577
30.59	6893
30.96	55902
31.26	14746
31.49	7902
31.77	426575
32.10	79437
32.34	5772
32.69	60469
32.81	15543
33.20	36746

11/1/2007 10:55:17 AM Result: C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_028.rst

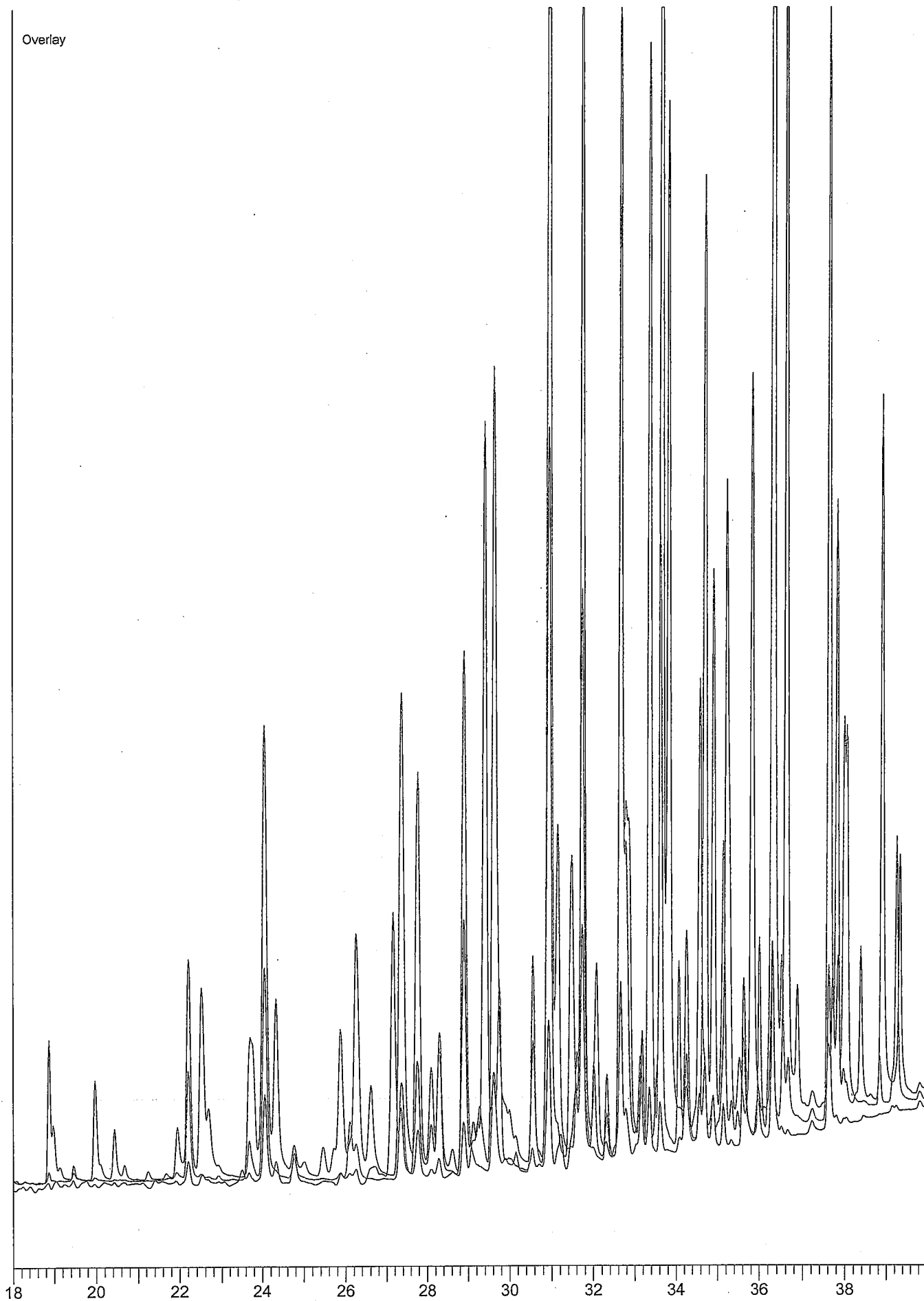
Time [min]	Area [μ V·s]
33.38	18995
33.68	478005
33.84	349414
34.11	17404
34.28	22983
34.60	156482
34.91	10258
35.03	4214
35.24	250354
35.62	5531
35.85	247282
36.32	49616
36.65	381657
36.91	34389
37.24	5256
37.64	13051
37.73	32270
37.86	35141
37.99	2985
38.39	41779
38.91	188346
39.35	72512
39.84	2077
40.11	18275
40.26	11136
40.53	5515
40.74	13337
40.86	15124
42.05	3034
42.76	3018
42.98	4751
43.22	7749
43.39	10563
44.26	8870

3919694

Plot Title		Start Time	End Time	Scale	Offset
SET#14_008.raw		18.00	39.99	75.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET#14_012.raw		18.00	39.99	75.00	0.00
Sample Name :	22939 1:10				
Sample Number:	12				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET#14_007.raw		18.00	39.99	75.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay



Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62890
 Sample Name : 22940 1:10
 Instrument Name : GC014
 Rack/Vial : 0/13
 Sample Amount : 50.000000
 Cycle : 13

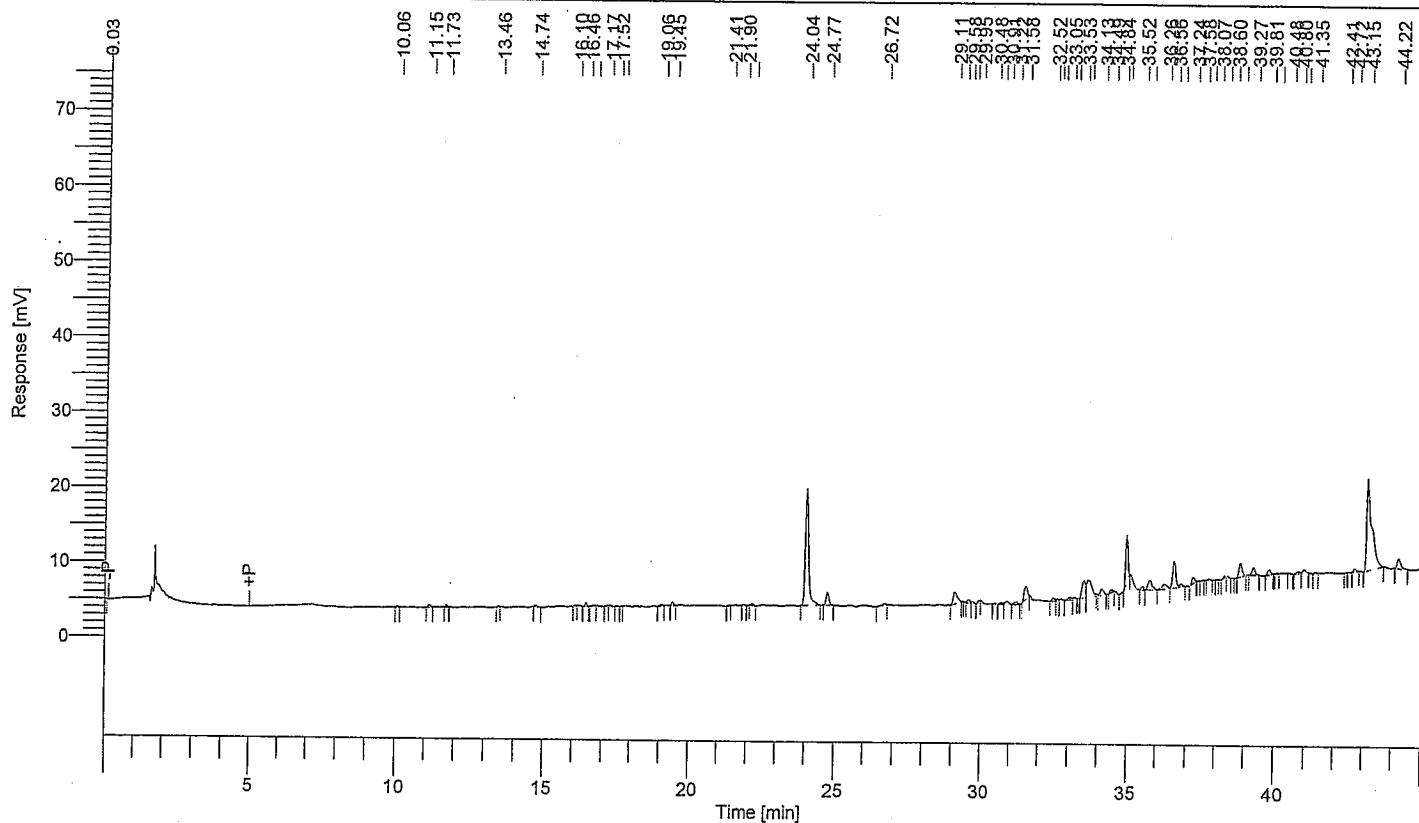
Date : 11/1/2007 9:14:40 AM
 Data Acquisition Time : 10/31/2007 8:29:41 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_013.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
16.46	2391
19.45	2304
24.04	125088
24.77	11269
26.72	2347
29.11	16202
29.58	2994
30.91	3413
31.22	2796
31.58	14110
32.52	2697
33.05	2778
33.53	17118
33.67	29678
34.13	7149
34.49	2301
34.98	31825
35.52	2480
35.77	13606
36.26	7998
36.56	27171
36.81	2482
37.24	5686
38.55	12123
39.27	7747
39.81	4368
40.80	2437

<0.40 ppm total PCB.

Time [min]	Area [μ V·s]
40.96	3060
42.72	2615
43.15	148775
44.22	10640
<hr/>	
527647	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62891
 Sample Name : 22941 1:10
 Instrument Name : GC014
 Rack/Vial : 0/14
 Sample Amount : 50.000000
 Cycle : 14

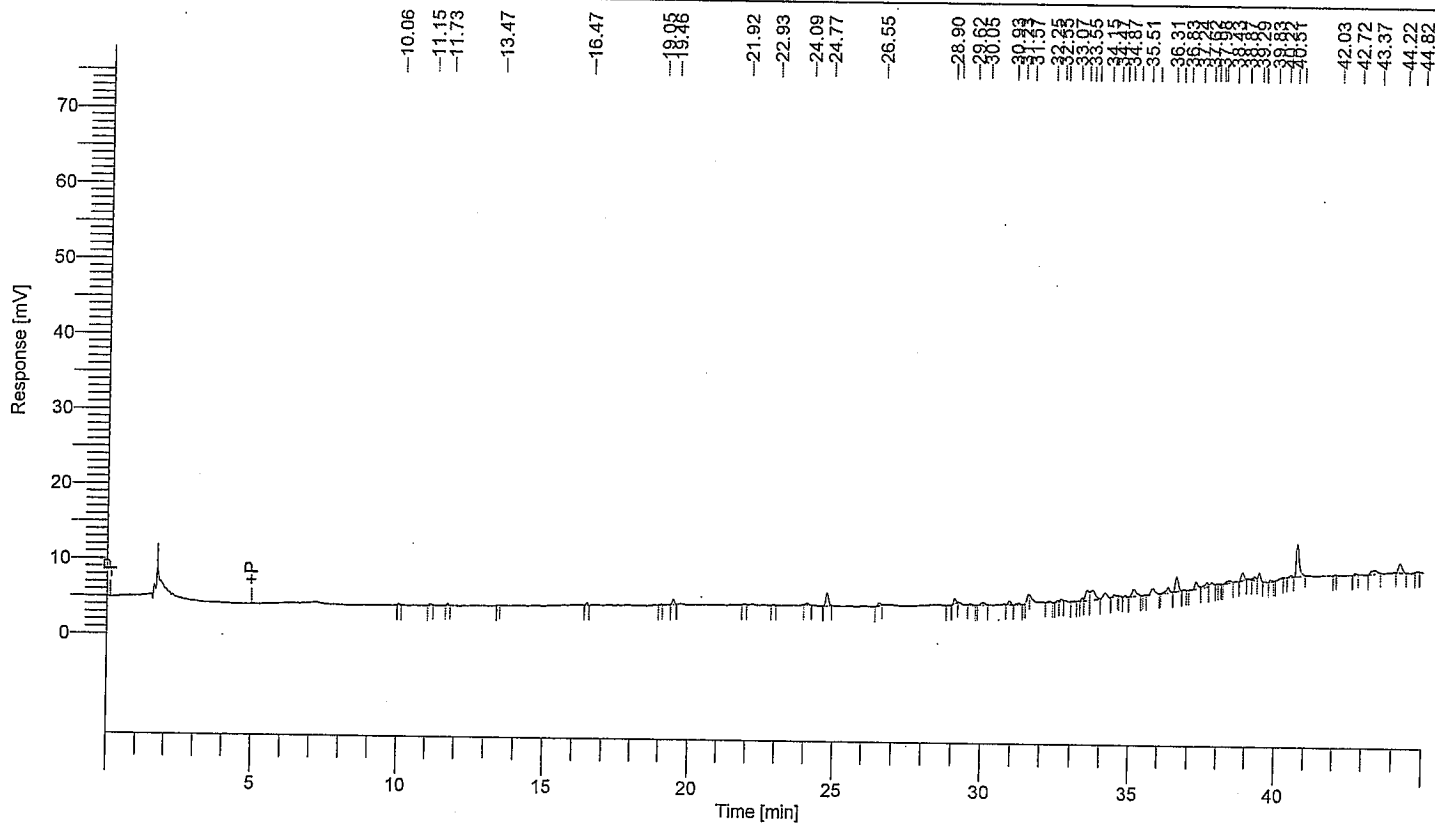
Date : 11/1/2007 9:14:42 AM
 Data Acquisition Time : 10/31/2007 9:22:18 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_014.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.46	3394
24.77	11628
26.55	2597
29.10	3866
30.05	3541
30.93	3073
33.36	2142
33.55	11282
33.73	15727
34.15	6743
35.14	9731
35.79	8344
36.31	6066
36.57	14696
37.24	8169
37.62	5721
37.81	4133
38.43	3569
38.87	6840
39.29	3155
39.43	5363
40.74	29605
43.37	6430
44.22	9709

185523

<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62893
 Sample Name : 22942 1:10
 Instrument Name : GC014
 Rack/Vial : 0/16
 Sample Amount : 50.000000
 Cycle : 16

Date : 11/1/2007 9:14:46 AM

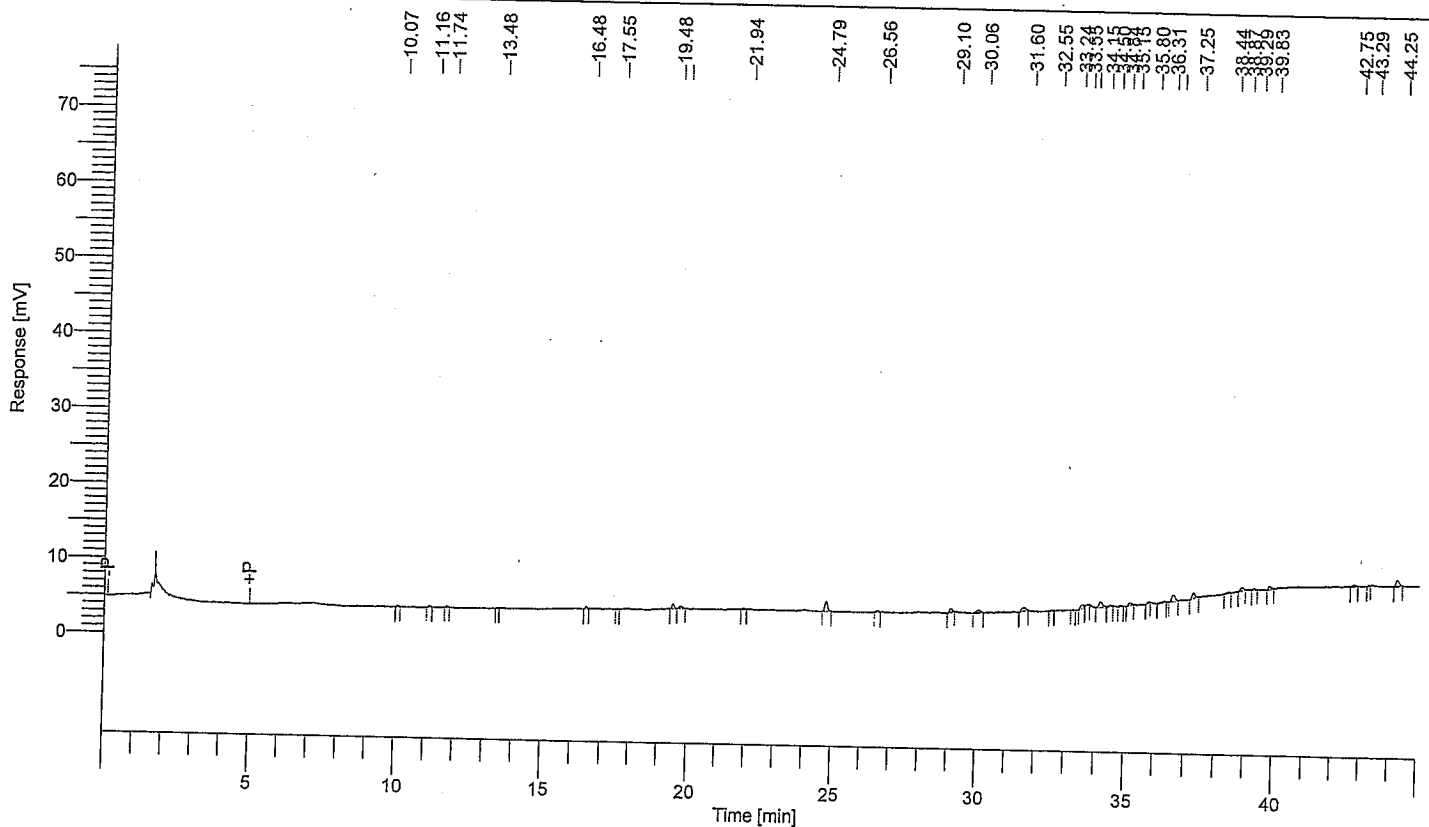
Data Acquisition Time : 10/31/2007 11:07:32 PM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_016.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.48	3291
19.74	2254
24.79	9012
29.10	3145
30.06	3709
31.60	4551
33.55	3311
34.15	5859
35.15	2663
36.58	6723
37.25	5688
38.87	2652
39.83	2713
44.25	5614

61183

20.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62895
 Sample Name : 22943 1:10
 Instrument Name : GC014
 Rack/Vial : 0/18
 Sample Amount : 50.000000
 Cycle : 18

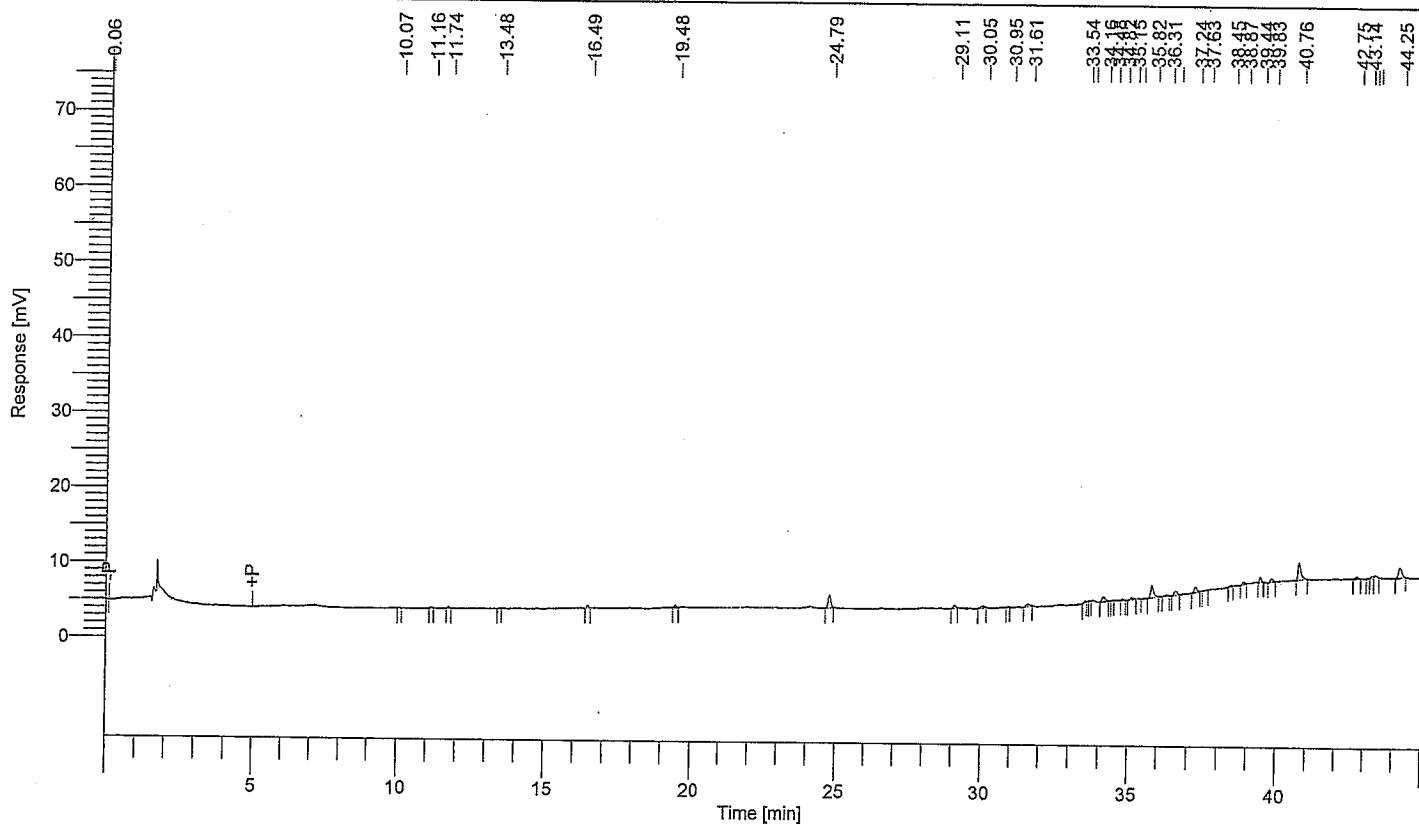
Date : 11/1/2007 9:14:50 AM
 Data Acquisition Time : 11/1/2007 12:52:50 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_018.rst

Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq

Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
24.79	10878
29.11	2283
30.05	2478
31.61	2639
34.16	4981
35.15	2064
35.82	12319
36.59	4139
37.24	5093
39.44	3314
39.83	2814
40.76	16754
43.40	2142
44.25	11012

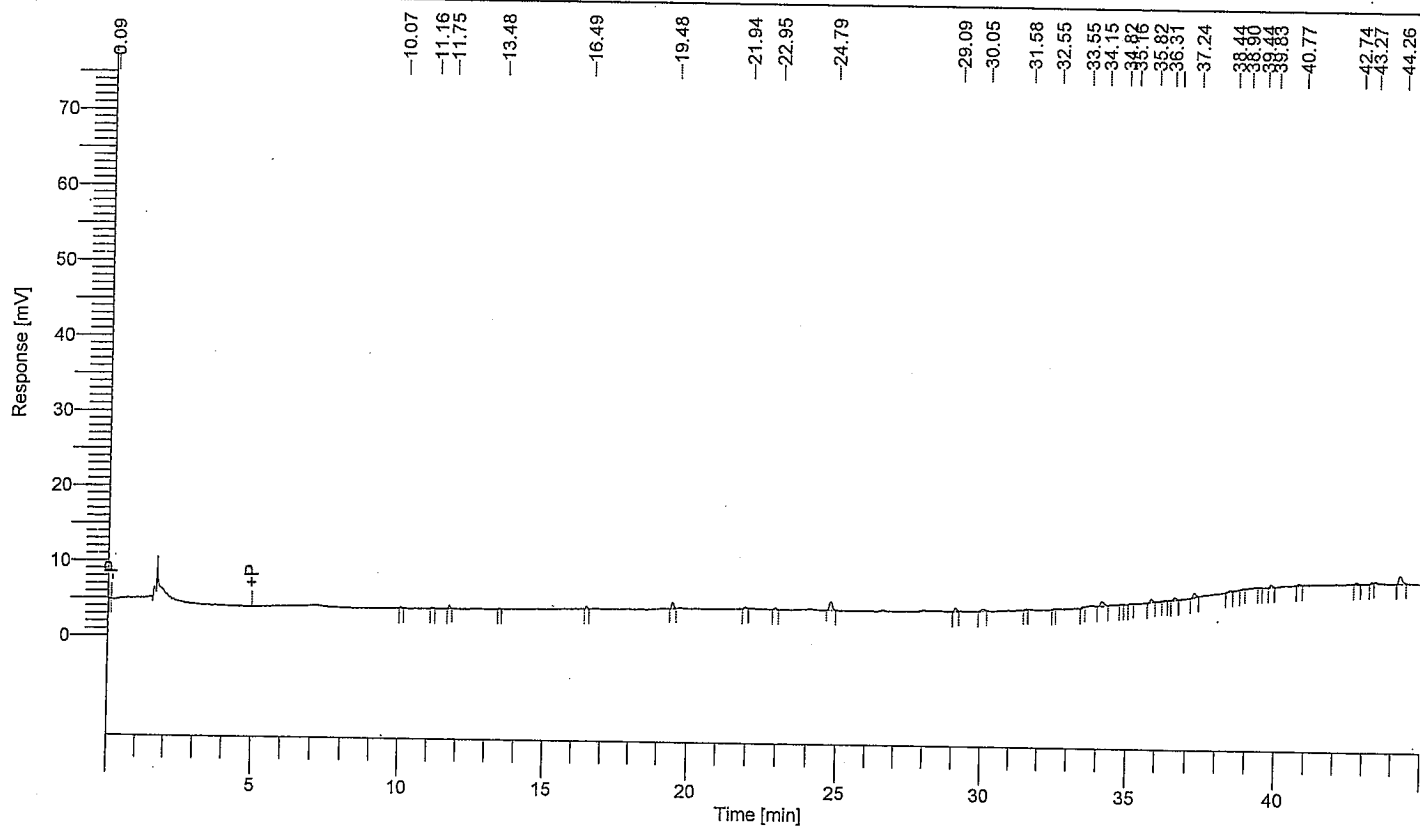
<0.40 ppm total PCB.

82911

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62899
 Sample Name : 22944 1:10
 Instrument Name : GC014
 Rack/Vial : 0/22
 Sample Amount : 50.000000
 Cycle : 22

Date : 11/1/2007 9:14:59 AM
 Data Acquisition Time : 11/1/2007 4:23:33 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_022.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.48	4003
24.79	7797
29.09	2736
30.05	2618
34.15	5324
35.82	2937
36.58	2290
37.24	4433
39.83	2030
44.26	8263

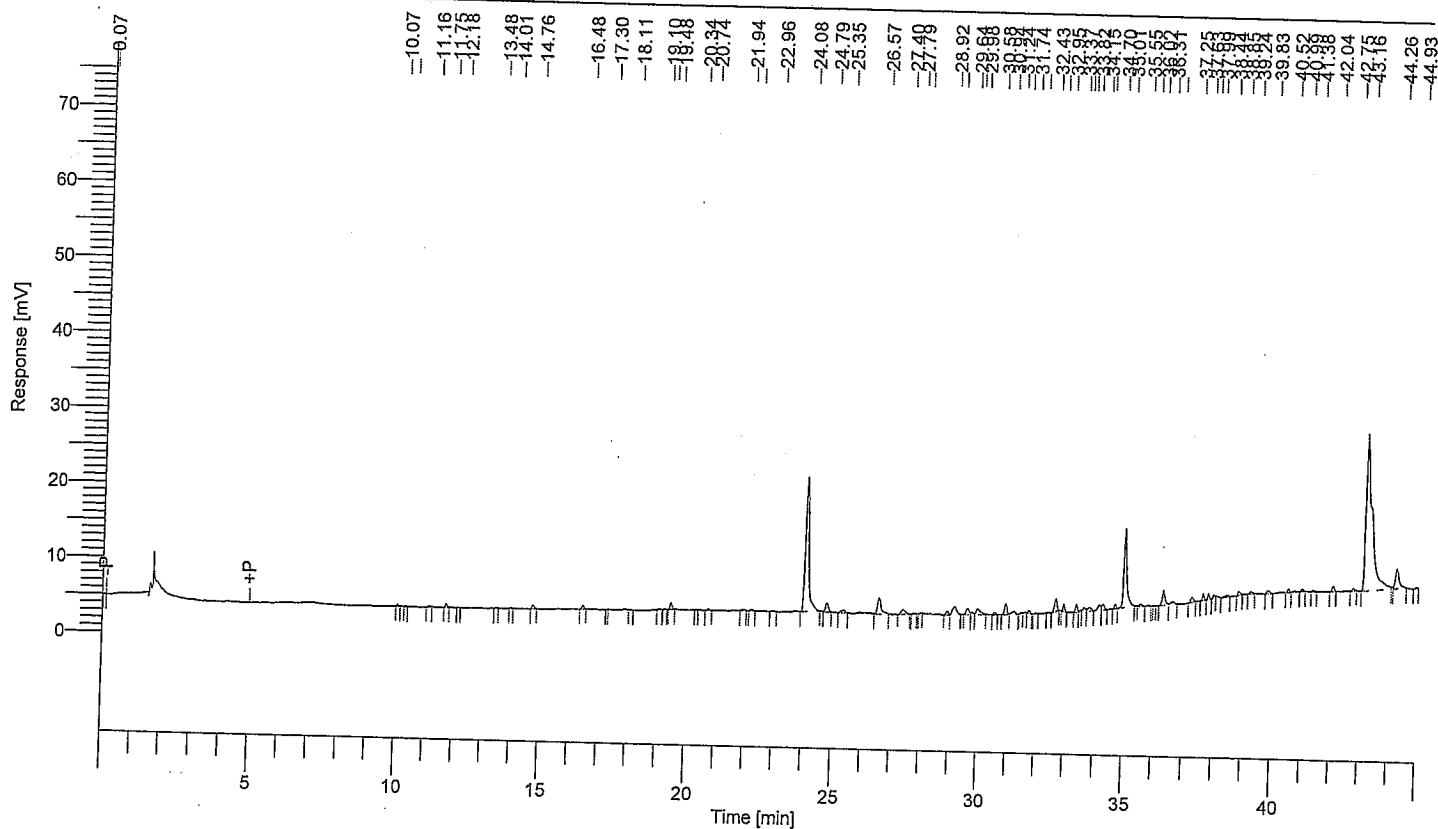
42431

<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62900
 Sample Name : 22945 1:10
 Instrument Name : GC014
 Rack/Vial : 0/23
 Sample Amount : 50.000000
 Cycle : 23

Date : 11/1/2007 9:15:02 AM
 Data Acquisition Time : 11/1/2007 5:16:18 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_023.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
14.76	2517
16.48	2614
19.48	4489
24.08	144006
24.79	7523
25.35	3433
26.57	18561
27.40	6402
28.92	3100
29.16	9638
29.64	5732
29.88	7990
30.94	9463
31.24	3541
32.67	9910
32.95	4475
33.37	4894
33.63	3449
33.82	4532
34.15	5248
34.28	5185
34.70	2550
35.01	67114
35.55	2129
36.31	13673
36.61	3476
37.25	4346

< 0.40 ppm total PCB

Time [min]	Area [μ V·s]
37.63	3808
37.81	3318
38.85	2434
39.83	3026
40.52	2099
42.04	3687
43.16	306644
44.26	23288
<hr/>	
	708291

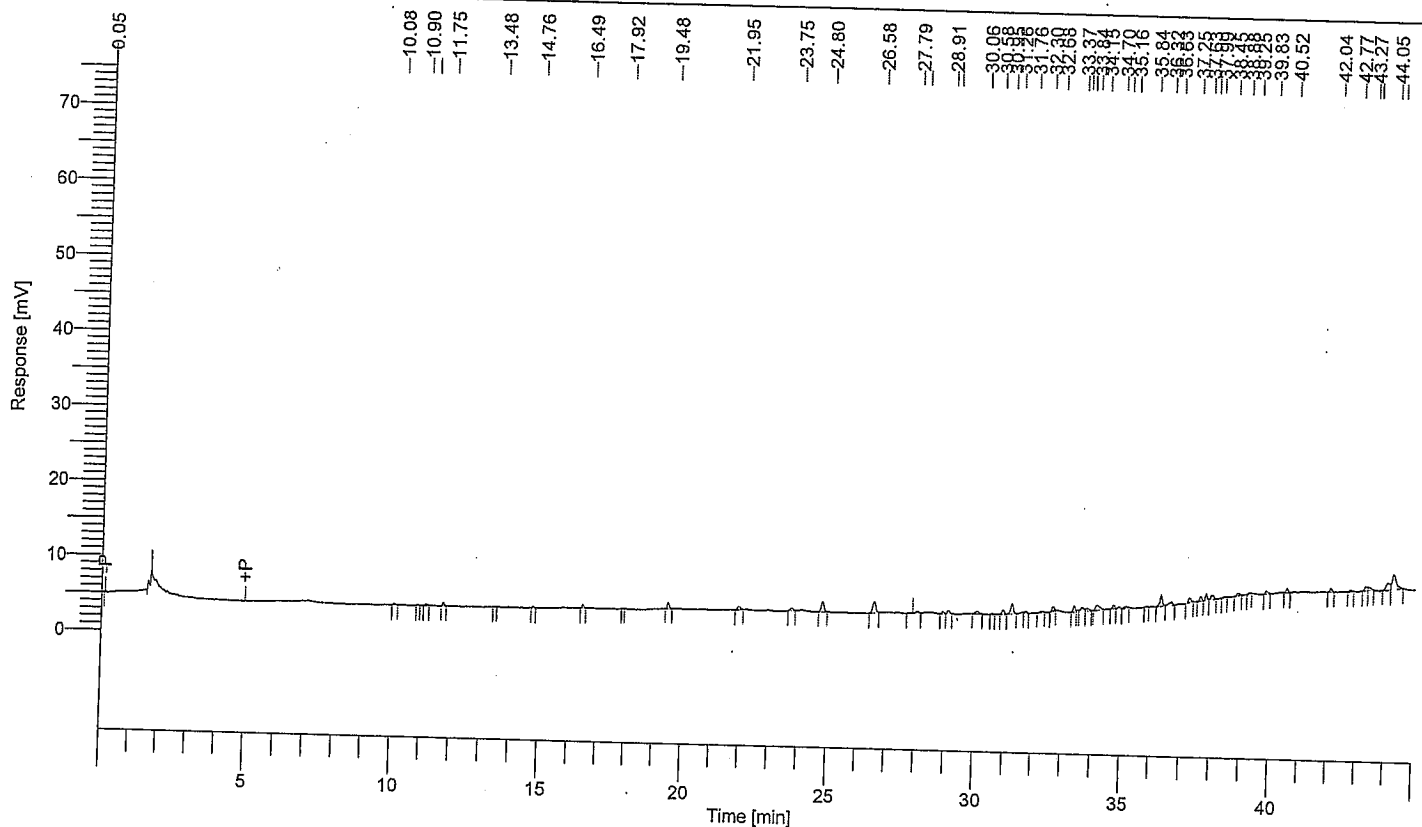
Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62901
 Sample Name : 22946 1:10
 Instrument Name : GC014
 Rack/Vial : 0/24
 Sample Amount : 50.000000
 Cycle : 24

Date : 11/1/2007 9:15:05 AM

Data Acquisition Time : 11/1/2007 6:09:04 AM
 Channel : A
 Operator : enwweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_024.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
16.49	2039
19.48	3985
21.95	2992
23.75	2485
24.80	8851
26.58	11206
29.10	2598
30.06	3050
30.95	3078
31.26	8358
32.68	3115
33.37	4160
33.64	3995
33.84	2389
34.15	6233
34.70	2489
36.32	8641
36.63	3583
37.25	4144
37.63	3039
37.82	3903
37.99	4113
38.88	2055
39.83	2188
40.52	2618
42.04	2451

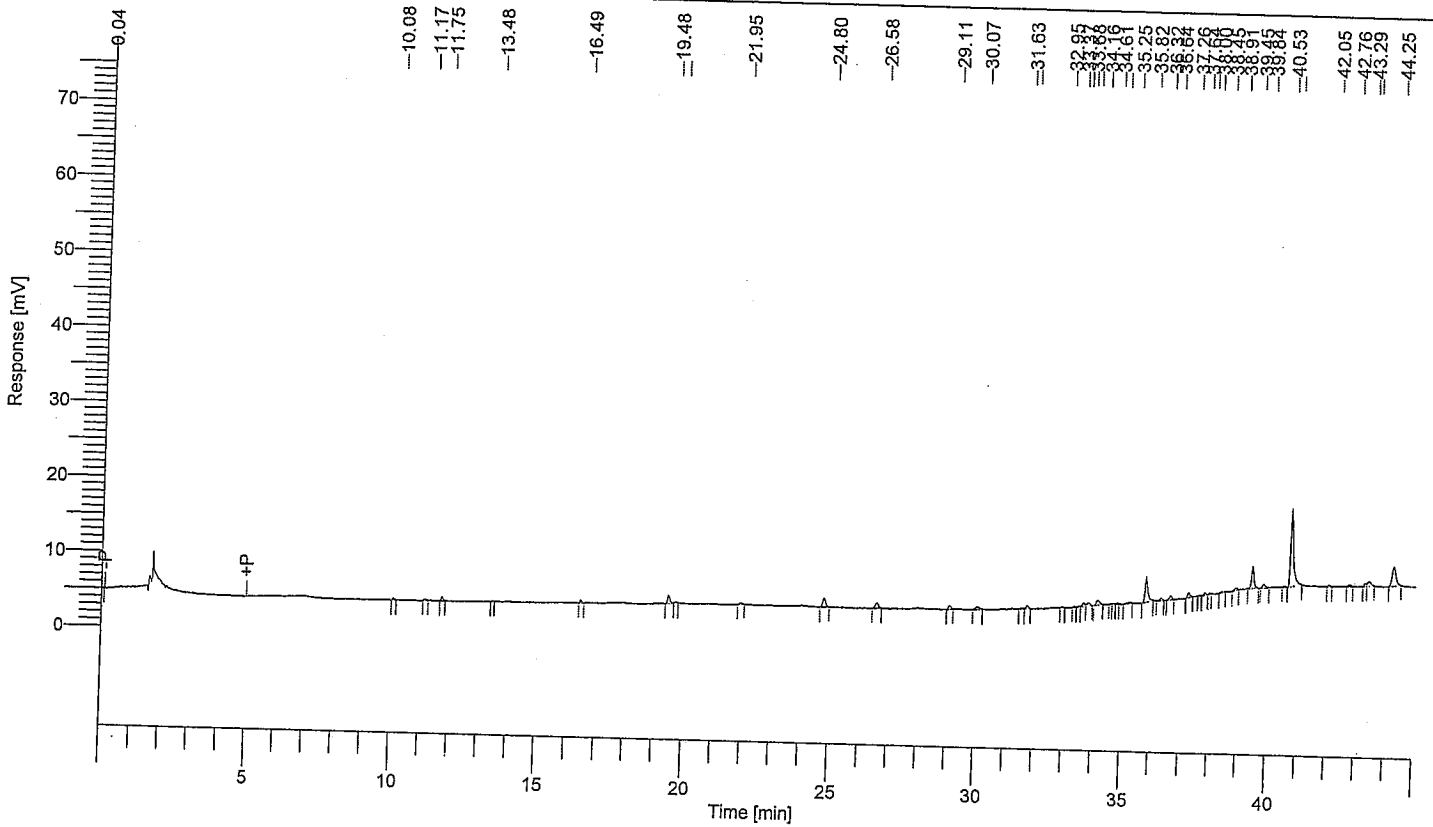
50.40 ppm total PCB

Time [min]	Area [μ V-s]
43.27	3394
43.40	2677
44.05	9105
44.25	19697
<hr/>	
142634	

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62902
 Sample Name : 22946 1:10
 Instrument Name : GC014
 Rack/Vial : 0/25
 Sample Amount : 50.000000
 Cycle : 25

Date : 11/1/2007 9:15:07 AM
 Data Acquisition Time : 11/1/2007 7:02:10 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_025.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq
 Sample Notes:
 METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
11.75	2167
19.48	5819
24.80	7795
26.58	5514
29.11	2882
30.07	3426
31.77	2413
33.68	3016
33.84	2992
34.16	5189
35.82	22879
36.64	3449
37.26	4550
39.45	15472
39.84	3254
40.75	69691
43.29	2224
43.41	4912
44.25	21882

189525

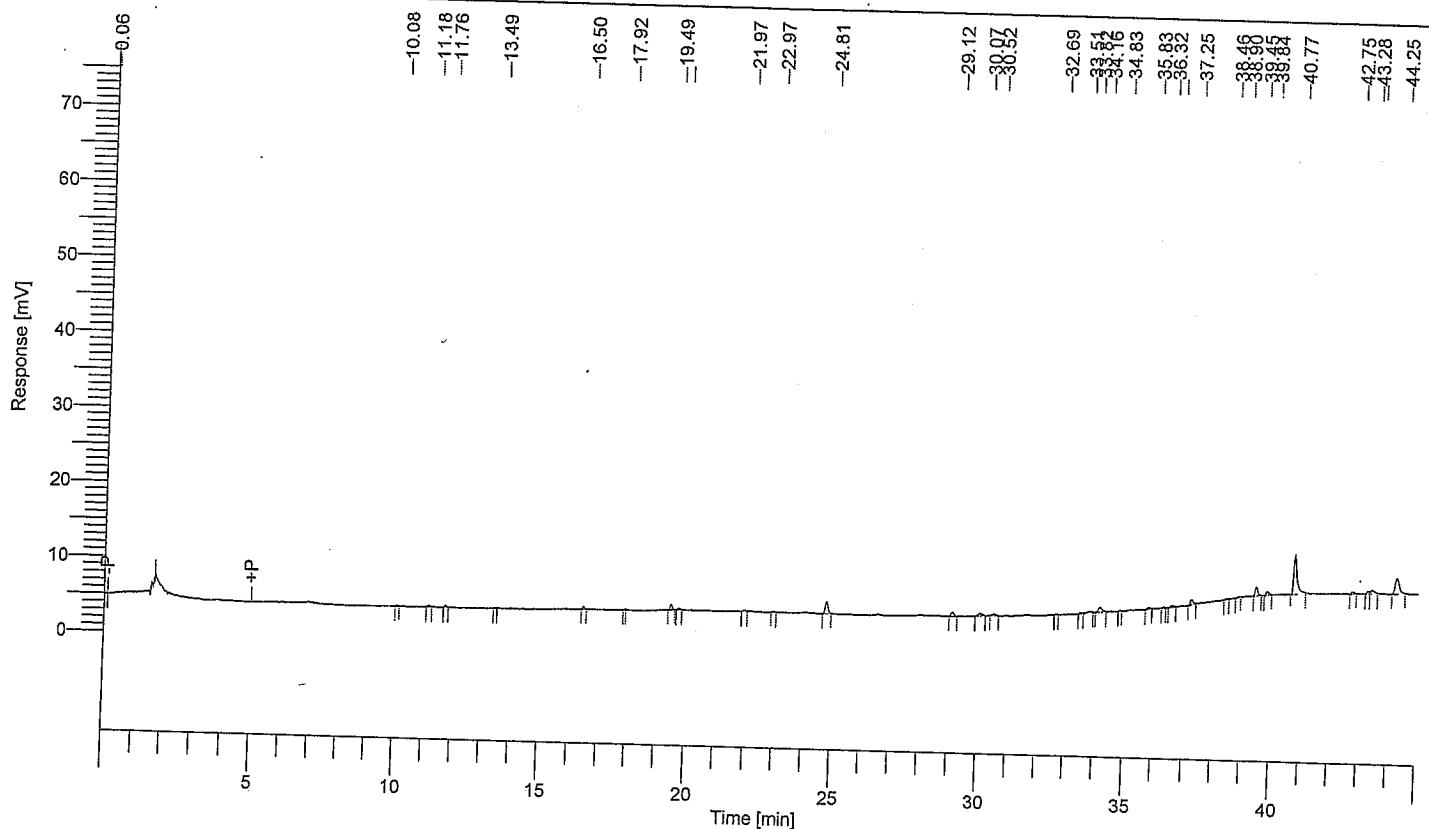
0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62903
 Sample Name : 22948 1:10
 Instrument Name : GC014
 Rack/Vial : 0/26
 Sample Amount : 50.000000
 Cycle : 26

Date : 11/1/2007 9:15:10 AM
 Data Acquisition Time : 11/1/2007 7:55:17 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_026.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.49	3565
24.81	10663
29.12	3079
30.07	3451
33.82	2012
34.16	5672
37.25	4663
39.45	6678
39.84	2970
40.77	40863
43.42	3560
44.25	18970

106147

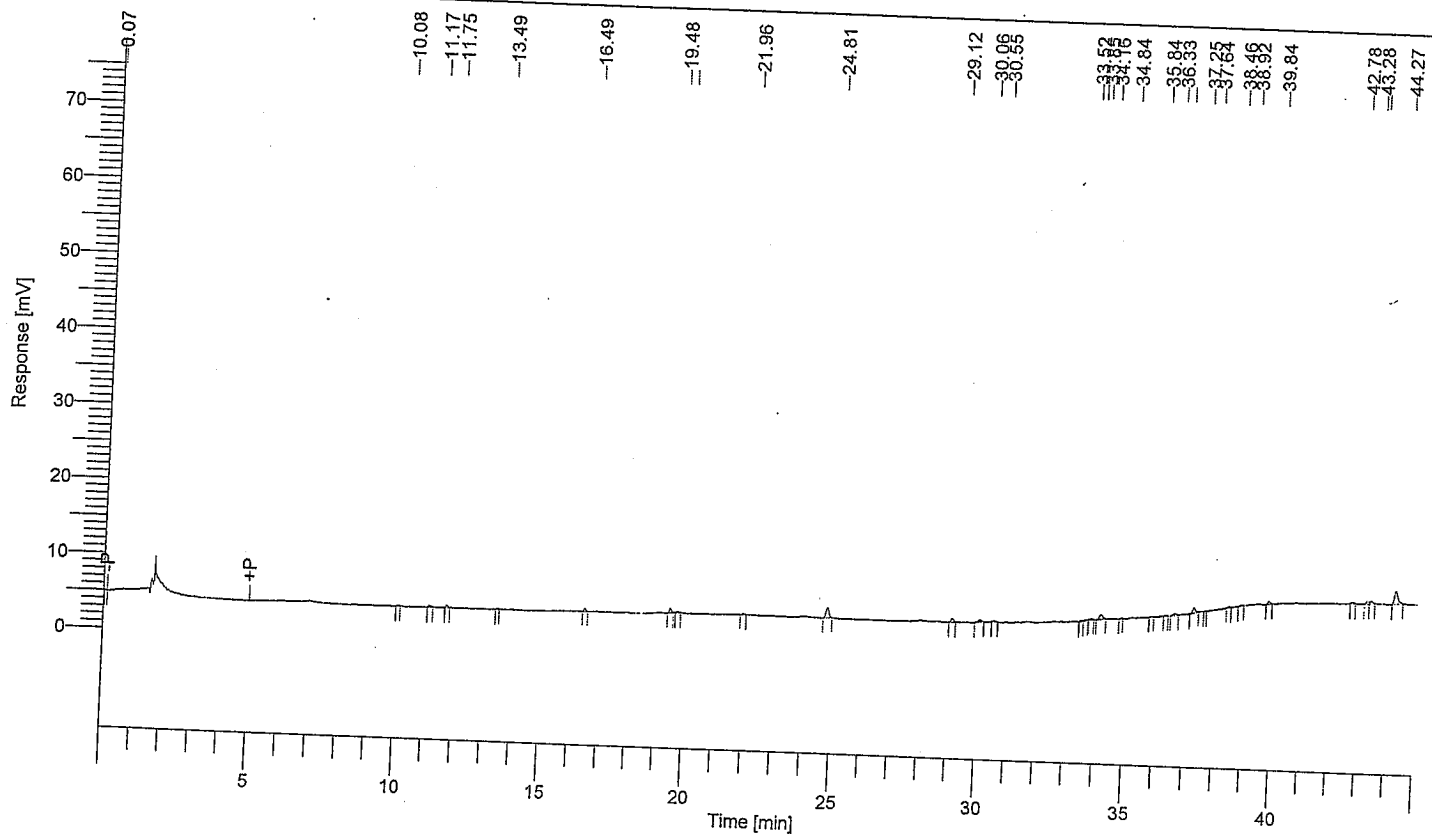
<0.40 ppm total PCB.

Software Version : 6.3.1.0504
 Reprocess Number : totalchrom: 62904
 Sample Name : 22949 1:10
 Instrument Name : GC014
 Rack/Vial : 0/27
 Sample Amount : 50.000000
 Cycle : 1

Date : 11/1/2007 9:36:01 AM
 Data Acquisition Time : 11/1/2007 8:48:20 AM
 Channel : A
 Operator : envweigh
 Dilution Factor : 10.000000

Result File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET#14_027.rst
 Sequence File : C:\PEST\OCTOBER 2007\07100805 AV SET 14\SET 14.seq
 Sample Notes:

METHOD FOR THE ANALYSIS OF PCB



REPORT FOR THE ANALYSIS OF SOIL, SLUDGE, WATER AND WASTEWATER SAMPLES FOR POLYCHLORINATED BIPHENYLS

Time [min]	Area [μV·s]
19.48	2912
24.81	9122
29.12	2706
30.06	2605
34.16	4989
37.25	4917
39.84	2216
43.28	2248
43.41	2100
44.27	13485

47301

< 0.40 ppm total PCB.

Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22708 (As)	TP-34 (3.5')	7.969	2%	100%	96%	7%	BDL	105%
22708 (Cd)	TP-34 (3.5')	0.309	5%	93%	89%	6%	BDL	96%
22708 (Hg)	TP-34 (3.5')	BDL	0%	82%	83%	2%	BDL	88%
22708 (Pb)	TP-34 (3.5')	10.754	0%	96%	92%	7%	BDL	94%

Comments:

Julian: 281 142

Date: 10/8/07

Tech: DLG, MCU

1	22705	17	22716	33	22812
2	22706	18	22717	34	22767
3	22707	19	22718	35	22766
4	22708	20	22719	36	22765
5	22708-2	21	22720	37	22768
6	22708-51	22	22721	38	22817
7	22708-52	23	22722	39	22710
8	Blank	24	22723	40	22771
9	22709	25	Blank	41	22750
10	22710	26	22673	42	22750-2
11	22711	27	22735	43	22750-51
12	22712	28	22739	44	22750-52
13	22713	29	22811	45	CRM
14	22714	30	22769	46	Cleaners
15	22715	31	22756	47	
16	Control	32	Control	48	

2
2
2
2



Julian 281 179
 Tech 1226

Empty Wt (g)

1	492.437
2	136.73
3	136.603
4	136.808
5	136.359
6	136.398
7	136.427
8	136.172
9	136.497
10	136.535
11	136.426
12	136.591
13	136.477
14	136.481
15	136.505
16	136.307
17	136.431
18	136.567
19	135.990
20	136.614
21	136.389
22	136.367
23	136.655
24	136.378
25	136.418
26	136.460
27	136.567
28	136.565
29	136.579
30	136.418
31	136.204
32	135.897
33	136.196
34	136.379
35	136.619
36	135.961
37	136.570
38	136.657
39	136.430
40	136.725
41	136.437
42	136.432
43	136.014
44	136.164
45	136.426
46	
47	
48	

Pre-Digest Wt (g)

507.453
151.626
151.428
151.461
150.921
153.645
153.679
150.308
151.105
151.161
151.077
151.131
150.955
151.169
151.092
154.512
151.018
151.172
150.540
151.182
150.981
150.953
151.250
150.961
150.549
151.054
151.168
151.187
151.149
151.064
150.855
154.056
150.575
152.379
152.835
152.159
152.850
151.246
150.984
151.301
151.072
151.098
153.237
153.333
152.844

Post Digestion Wt (g)

507.274
151.551
151.323
151.435
150.880
153.617
153.605
150.271
151.039
151.092
150.995
151.029
150.823
151.110
150.995
154.473
150.939
151.091
150.453
151.134
150.893
150.892
151.188
150.888
150.470
150.996
151.013
151.115
151.039
150.997
150.796
154.013
150.505
152.282
152.729
152.078
152.583
151.182
150.925
151.149
151.011
151.011
153.200
153.288
152.780

% Change

1.192
0.499
0.718
0.177
0.282
0.162
0.429
0.262
0.452
0.472
0.560
0.702
0.912
0.402
0.665
0.214
0.542
0.555
0.598
0.329
0.603
0.418
0.425
0.501
0.559
0.397
1.062
0.492
0.755
0.457
0.403
0.237
0.487
0.606
0.654
0.500
0.417
0.439
0.405
1.043
0.417
0.593
0.215
0.262
0.390
#DIV/0!
#DIV/0!
#DIV/0!

281 1+2

METHOD DOCUMENTATION

EPA 3051-48

MF50-T48

Weight:0.25-0.50

Reagents [ml]:

HNO3 10.0

-

-

Ph	Temp	Ramp	Hold	Fan
1	175		05:30	0
2	180	04:30		1
3	0		20:00	2
4				

p-Rate:0.5bar/s IR:140°C P:1400W

Drive:Rot

Notes:

sediments, soil, sludge, contaminated
soil and oils (oil <0,25g!)
for 4 and 8 vessels!

PROCESS STATUS

Process Finished

Power reduction at 00:39 (I,S,T)

PROCESS LIMITS

p - Limit [bar]: 20

T - Limit [°C]: 200

IR - Limit [°C]: 140

PROCESS MAXIMA

p - MAX [bar]: 16.9

T - MAX [°C]: 144

IR - MAX [°C]:	1	82
	2	98
	3	93
	4	94
	5	91
	6	92
	7	89
	8	89
	9	100
	10	96
	11	96
	12	99
	13	99
	14	95
	15	98
	16	85

Toil - MAX [°C]: 31.0 Tgas - MAX [°C]: 31.2 Current MAX [A]: 18.5

Tmagn1-MAX [°C]: 110.6 Tmagn2-MAX [°C]: 98.9 Status Word : 00001000

Multiwave V2.01 (PB V15) (c) Anton Paar GmbH Jan 22 2007

Device Name: SN: Sensor:p/T SN:1523

Report printed at 2007-10-08 17:35:08

Process started at 2007-10-08 16:52:00

Process finished 2007-10-08 17:26:35

	Julian Date	Sample ID	Initial Weight (g)	Initial Volume (ml)	Aliquot Volume (ml)	Diluted to Volume (ml)	Date	Initials
1	281	22705	0.5760	49.5600	5.6947	50.8180	10/9/2007	DLG
2	281	22706	0.5070	50.8560	5.0696	54.6335	10/9/2007	DLG
3	281	22707	0.5110	50.1640	5.6205	50.5786	10/9/2007	DLG
4	281	22708	0.5180	50.0130	5.1569	49.9493	10/9/2007	DLG
5	281	22708-2	0.4770	49.6590	5.4004	49.8545	10/9/2007	DLG
6	281	22708-S1	0.5350	49.9610	5.1021	51.1176	10/9/2007	DLG
7	281	22708-S2	0.5770	50.2840	4.8857	51.1411	10/9/2007	DLG
8	281	Mblank	1.0000	49.8990	5.1686	49.3570	10/9/2007	DLG
9	281	22709	0.5310	50.0860	5.6960	51.1565	10/9/2007	DLG
10	281	22710	0.5770	49.8890	5.1332	50.6800	10/9/2007	DLG
11	281	22711	0.5850	50.1270	5.3290	49.9700	10/9/2007	DLG
12	281	22712	0.5160	49.9930	5.2011	50.9288	10/9/2007	DLG
13	281	22713	0.4730	50.0530	4.8657	50.1777	10/9/2007	DLG
14	281	22714	0.5950	50.0490	6.6411	49.6696	10/9/2007	DLG
15	281	22715	0.5000	49.9960	5.5394	5.9353	10/9/2007	DLG
16	281	Mcontrol	1.0000	50.1250	5.0751	50.1597	10/9/2007	DLG
17	281	22716	0.5290	50.1570	4.8635	49.7025	10/9/2007	DLG
18	281	22717	0.5140	50.1160	5.6825	49.9697	10/9/2007	DLG
19	281	22718	0.4800	49.9510	4.9768	50.2198	10/9/2007	DLG
20	281	22719	0.5330	49.4740	5.1551	50.8985	10/9/2007	DLG
21	281	22720	0.4990	50.0140	5.4155	52.0362	10/9/2007	DLG
22	281	22721	0.5070	50.0520	5.1354	50.3970	10/9/2007	DLG
23	281	22722	0.5390	50.9930	5.1199	50.0952	10/9/2007	DLG
24	281	22723	0.4920	50.0980	5.1866	50.6285	10/9/2007	DLG
25	281	Mblank	1.0000	49.6740	5.1860	49.9620	10/9/2007	DLG
26	281	22673	0.4940	52.6420	5.0200	49.9930	10/9/2007	DLG
27	281	22735	0.5470	50.2080	5.3900	50.0800	10/9/2007	DLG
28	281	22739	0.4950	50.1240	4.9160	50.0730	10/9/2007	DLG
29	281	22811	0.4780	50.1770	5.2080	50.3330	10/9/2007	DLG
30	281	22769	0.4810	50.1240	5.2360	50.0290	10/9/2007	DLG
31	281	22756	0.5470	50.0290	5.3030	50.3740	10/9/2007	DLG
32	281	Mcontrol	1.0000	50.1120	5.3660	50.4340	10/9/2007	DLG
33	281	22812	0.2350	50.1510	4.9560	24.9230	10/9/2007	DLG
34	281	22767	1.9090	50.0000	5.1150	50.0470	10/9/2007	DLG
35	281	22766	2.1150	50.0390	5.1700	50.0120	10/9/2007	DLG
36	281	22765	2.1190	49.9820	5.1080	49.9880	10/9/2007	DLG
37	281	22768	1.9830	50.7380	5.3610	50.0810	10/9/2007	DLG
38	281	22817	0.4840	49.7780	5.0550	50.4560	10/9/2007	DLG
39	281	22770	0.4830	49.8450	5.1610	50.0150	10/9/2007	DLG
40	281	22771	0.5120	0.0000	0.0000	0.0000	10/9/2007	DLG
41	281	22750	0.5100	49.4950	5.3150	50.1740	10/9/2007	DLG
42	281	22750-2	0.5260	49.2440	5.2130	49.9690	10/9/2007	DLG
43	281	22750-S1	0.5150	49.8550	5.3000	49.9870	10/9/2007	DLG
44	281	22750-S2	0.4850	49.9470	5.0080	49.9950	10/9/2007	DLG
45	281	CRM	0.2480	50.0220	5.3100	50.3310	10/9/2007	DLG

Quantitative Method Report

File Name: Fast AVANT.mth
File Path: C:\elandata_icpms\Method\Fast AVANT.mth

Timing Parameters

Sweeps/Reading: 10
Readings/Replicate: 1
Number of Replicates: 3
Tuning File: default.tun
Optimization File: c:\elandata_icpms\optimize\al opt.dac
QC Enabled: Yes
Settling Time: Normal

	Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
[>	Ge	73.922	Peak Hopping	1	100.0 ms	1000 ms
[	As	74.922	Peak Hopping	1	150.0 ms	1500 ms
[	Cd	113.904	Peak Hopping	1	50.0 ms	500 ms
[>	Rh	102.905	Peak Hopping	1	100.0 ms	1000 ms
[>	Lu	174.941	Peak Hopping	1	100.0 ms	1000 ms
[	Hg	199.968	Peak Hopping	1	150.0 ms	1500 ms
[>	Tm	168.934	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	205.975	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	206.976	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	207.977	Peak Hopping	1	100.0 ms	1000 ms
[	Pb-1	207.977	Peak Hopping	1	50.0 ms	500 ms

Signal Processing

Detector Mode: Dual
Measurement Units: cps
AutoLens: On
Spectral Peak Processing: Average
Signal Profile Processing: Average
Blank Subtraction: Subtracted after internal standard
Baseline Readings: 0
Smoothing: Yes, Factor 5

Equations

Analyte	Mass	Corrections
Ge	73.922	- 0.116645 * Se 77
Pb-1	207.977	Pb208 +1*Pb206+1*Pb207

Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Ge	73.922	Linear Thru Zero	ppm	ppb				

As	74.922	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Cd	113.904	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Rh	102.905	Linear Thru Zero	ppm	ppb				
Lu	174.941	Linear Thru Zero	ppm	ppb				
Hg	199.968	Linear Thru Zero	ppm	ppb	0.25	0.5	1	5
Tm	168.934	Linear Thru Zero	ppm	ppb				
Pb	205.975	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	206.976	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb-1	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10

Analyte	Mass	Std 5	Std 6	Std 7
Ge	73.922			
As	74.922	20	50	125
Cd	113.904	20	50	125
Rh	102.905			
Lu	174.941			
Hg	199.968	10		
Tm	168.934			
Pb	205.975	20	50	125
Pb	206.976	20	50	125
Pb	207.977	20	50	125
Pb-1	207.977	20	50	125

	AS Pos	Sample Flush	Sample Flush	Read Delay	Read Delay	Wash	Wash
blank	1	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.25 ppb	2	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.5 ppb	3	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
2.0 ppb	4	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
10.0 ppb	5	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
20.0 ppb	6	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
50.0 ppb	7	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
125.0 ppb	8	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 8		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 9		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 10		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 11		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 12		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 13		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 14		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 15		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 16		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 17		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 18		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 19		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 20		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 21		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Standard 22	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 23	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 24	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 25	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 26	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 27	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 28	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 29	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 30	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Reporting Options

Report Template for Printing: a&l qc.rop
 Send to Printer: No
 Report Template for File:
 Send to File: No
 Report Filename:
 Create NetCDF File: No
 Send to Serial Port: No
 Port: COM1

Sampling Devices

Peristaltic Pump Control: Yes
 Autosampler: AS-93plus
 Autosampler Tray File: c:\program files\esi\esi sc\esi.try
 Sampling Device Type: (None)
 Dil. Factor: 10
 Dil. to Vol. (mL): 10
 1st Dil. Pos.: 1
 Probe Purge Pos.: 10

PERKIN ELMER ICP-MS BATCH REPORT

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Sample Information

A/S Loc.	Analyst	Batch ID	Sample ID	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
404	CRT	276-1,2 Avant	Mblank				
405	CRT	276-1,2 Avant	CRM	233.000	49.953	4.964	25.014
406	CRT	276-1,2 Avant	Mcontrol				
407	CRT	276-1,2 Avant	22649	553.000	50.264	5.029	50.414
408	CRT	276-1,2 Avant	22650	501.000	49.704	4.866	49.431
409	CRT	276-1,2 Avant	22650-2	494.000	50.214	4.904	48.770
410	CRT	276-1,2 Avant	22650-S1	509.000	49.616	4.893	48.094
411	CRT	276-1,2 Avant	22650-S2	517.000	49.488	4.783	49.905
101	CRT	281-1 Avant	22705	576.000	49.560	5.695	50.818
102	CRT	281-1 Avant	22706	507.000	50.856	5.070	54.633
103	CRT	281-1 Avant	22707	511.000	50.164	5.620	50.579
104	CRT	281-1 Avant	22708	518.000	50.013	5.157	49.949
105	CRT	281-1 Avant	22708-2	477.000	49.659	5.400	49.855
106	CRT	281-1 Avant	22708-S1	535.000	49.961	5.102	51.118
107	CRT	281-1 Avant	22708-S2	577.000	50.284	4.886	51.141
108	CRT	281-1 Avant	Mblank				
109	CRT	281-1 Avant	22709	531.000	50.086	5.696	51.157
110	CRT	281-1 Avant	22710	577.000	49.889	5.133	50.680
111	CRT	281-1 Avant	22711	585.000	50.127	5.329	49.970
112	CRT	281-1 Avant	22712	516.000	49.993	5.201	50.929
113	CRT	281-1 Avant	22713	473.000	50.053	4.866	50.178
114	CRT	281-1 Avant	22714	595.000	50.049	6.641	49.670
115	CRT	281-1 Avant	22715	500.000	49.996	5.539	5.935
116	CRT	281-1 Avant	Mcontrol				
117	CRT	281-1 Avant	22716	529.000	50.157	4.864	49.703
118	CRT	281-1 Avant	22717	514.000	50.116	5.683	49.970
119	CRT	281-1 Avant	22718	480.000	49.951	4.977	50.220
120	CRT	281-1 Avant	22719	533.000	49.474	5.155	50.898
121	CRT	281-1 Avant	22720	499.000	50.014	5.415	52.036
201	CRT	281-1 Avant	22721	507.000	50.052	5.135	50.397
202	CRT	281-1 Avant	22722	539.000	50.993	5.120	50.095
203	CRT	281-1 Avant	22723	492.000	50.098	5.187	50.629
204	CRT	282-1 Avant	22783	501.000	50.042	6.544	50.842
205	CRT	282-1 Avant	22784	501.000	50.179	5.869	50.485
206	CRT	282-1 Avant	22785	498.000	50.393	4.975	50.837
207	CRT	282-1 Avant	22786	495.000	50.090	5.093	51.224
208	CRT	282-1 Avant	22787	496.000	50.116	5.391	49.901
209	CRT	282-1 Avant	22788	507.000	50.027	5.351	48.583
210	CRT	282-1 Avant	22789	498.000	50.088	5.772	48.663
211	CRT	282-1 Avant	Mblank				

212	CRT	282-1 Avant	22790	509.000	50.131	4.978	48.606
213	CRT	282-1 Avant	22791	490.000	50.061	4.890	51.005
214	CRT	282-1 Avant	22792	485.000	50.198	4.927	49.953
215	CRT	282-1 Avant	22805	489.000	50.166	5.421	49.804
216	CRT	282-1 Avant	22805-2	504.000	50.188	5.082	49.494
217	CRT	282-1 Avant	22805-S1	484.000	51.806	5.400	50.729
218	CRT	282-1 Avant	22805-S2	495.000	50.031	5.222	50.122
219	CRT	282-1 Avant	Mcontrol				
220	CRT	282-1 Avant	22793	520.000	50.580	4.978	50.040
221	CRT	282-1 Avant	22794	499.000	50.897	5.121	50.227
301	CRT	282-1 Avant	22795	500.000	51.396	5.131	50.452
302	CRT	282-1 Avant	22796	501.000	49.974	4.917	50.022
303	CRT	282-1 Avant	22797	525.000	49.933	4.733	50.272
304	CRT	282-1 Avant	22798	507.000	49.756	5.300	50.375
305	CRT	282-1 Avant	22799	494.000	50.007	5.582	50.622
306	CRT	282-2 Avant	Mblank				
307	CRT	282-2 Avant	22800	506.000	50.125	5.055	49.999
308	CRT	282-2 Avant	22801	537.000	50.085	5.519	49.835
309	CRT	282-2 Avant	22802	505.000	50.285	5.701	50.511
310	CRT	282-2 Avant	22806	511.000	50.021	5.789	50.487
311	CRT	282-2 Avant	22806-2	500.000	50.057	4.997	50.442
312	CRT	282-2 Avant	22806-S1	499.000	50.357	5.141	50.474
313	CRT	282-2 Avant	22806-S2	526.000	50.044	5.297	50.716
314	CRT	282-2 Avant	Mcontrol				
315	CRT	282-2 Avant	22803	539.000	50.140	6.230	50.306
316	CRT	282-2 Avant	22804	538.000	50.164	5.372	51.383
317	CRT	282-2 Avant	22937	523.000	50.172	5.013	50.404
318	CRT	282-2 Avant	22938	518.000	50.202	5.805	49.746
319	CRT	282-2 Avant	22939	530.000	50.111	5.508	50.887
320	CRT	282-2 Avant	22940	481.000	49.990	5.371	49.374
321	CRT	282-2 Avant	22941	479.000	50.111	5.085	49.689
401	CRT	282-2 Avant	22942	484.000	50.358	4.788	50.888
402	CRT	282-2 Avant	22943	628.000	52.196	5.475	52.123
403	CRT	282-2 Avant	22944	517.000	50.155	4.881	49.624

Calibration Report

Analyte	Mass	Curve Type	Slope	Intercept	Corr Coeff
Ge	73.922	Linear Thru Zero	0.000000	0.000	0.000000
As	74.922	Linear Thru Zero	0.004141	0.000	0.999997
Cd	113.904	Linear Thru Zero	0.005971	0.000	0.999996
Rh	102.905	Linear Thru Zero	0.000000	0.000	0.000000
Lu	174.941	Linear Thru Zero	0.000000	0.000	0.000000
Hg	199.968	Linear Thru Zero	0.001025	0.000	0.999993
Tm	168.934	Linear Thru Zero	0.000000	0.000	0.000000
Pb	205.975	Linear Thru Zero	0.006359	0.000	0.999995
Pb	206.976	Linear Thru Zero	0.004847	0.000	0.999988
Pb	207.977	Linear Thru Zero	0.012248	0.000	0.999982
Pb-1	207.977	Linear Thru Zero	0.035702	0.000	0.999986

A&L Great Lakes Lab ICP-MS Report

Sample ID: blank
 Sample Date/Time: Tuesday, October 16, 2007 11:27:22
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\blank.004
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:27:22 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279948.553			
As	75	65.334			
Cd	114	54.667			
Rh	103	740898.656			
Lu	175	1024534.048			
Hg	200	17.778			
Tm	169	846006.277			
Pb	206	128.001			
Pb	207	124.001			
Pb	208	272.004			
Pb-1	208	796.010			

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.25 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:28:42
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\0.25 ppb.005
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:28:42 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279664.488	279948.553		
As	75	357.785	65.334	0.000253	3.209
Cd	114	1187.411	54.667	0.000249	4.682
Rh	103	760516.234	740898.656		
Lu	175	1022128.494	1024534.048		
Hg	200	302.672	17.778	0.000272	1.910
Tm	169	844841.502	846006.277		
Pb	206	1467.452	128.001	0.000249	0.431
Pb	207	1132.071	124.001	0.000246	1.235
Pb	208	2912.133	272.004	0.000255	3.686
Pb-1	208	8423.789	796.010	0.000253	2.425

QC Calculated Values

Inter	Anal	Mass	Std	Symbol	Int Std	% Recovery	QC Std	% Recovery	Duplicate	Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74										
[	As	75										
[	Cd	114										
[>	Rh	103										
[>	Lu	175										
[	Hg	200										
[>	Tm	169										
[	Pb	206										
[	Pb	207										
[	Pb	208										
[	Pb-1	208										

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.5 ppb
Sample Date/Time: Tuesday, October 16, 2007 11:30:02
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\0.5 ppb.006
Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 11:30:02 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279779.141	279948.553		
As	75	677.581	65.334	0.000529	3.449
Cd	114	2383.646	54.667	0.000522	3.417
Rh	103	747781.190	740898.656		
Lu	175	1030058.092	1024534.048		
Hg	200	580.019	17.778	0.000532	0.540
Tm	169	859415.075	846006.277		
Pb	206	2868.453	128.001	0.000501	1.255
Pb	207	2214.936	124.001	0.000502	1.831
Pb	208	5594.388	272.004	0.000505	2.243
Pb-1	208	16272.164	796.010	0.000504	1.619

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 2.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:31:23
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\2.0 ppb.007
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:31:23 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	282701.069	279948.553		
As	75	2455.443	65.334	0.002042	3.613
Cd	114	8961.749	54.667	0.001977	0.196
Rh	103	754462.499	740898.656		
Lu	175	1027316.864	1024534.048		
Hg	200	1084.065	17.778	0.001013	4.275
Tm	169	849515.178	846006.277		
Pb	206	10999.318	128.001	0.002012	0.907
Pb	207	8631.763	124.001	0.002066	1.398
Pb	208	21471.327	272.004	0.002037	1.223
Pb-1	208	62573.734	796.010	0.002037	0.947

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 10.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:32:43
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\10.0 ppb.008
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:32:43 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279329.169	279948.553		
As	75	11831.695	65.334	0.010173	1.695
Cd	114	45154.542	54.667	0.010022	0.356
Rh	103	753628.538	740898.656		
Lu	175	1025918.552	1024534.048		
Hg	200	5277.754	17.778	0.005001	1.155
Tm	169	848647.370	846006.277		
Pb	206	55495.875	128.001	0.010259	0.763
Pb	207	42244.259	124.001	0.010240	0.324
Pb	208	106521.828	272.004	0.010222	0.787
Pb-1	208	310783.789	796.010	0.010231	0.595

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 20.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:34:04
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\20.0 ppb.009
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:34:04 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279911.159	279948.553		
As	75	23158.126	65.334	0.019923	0.804
Cd	114	89874.075	54.667	0.020007	1.138
Rh	103	751905.942	740898.656		
Lu	175	1028619.316	1024534.048		
Hg	200	10558.796	17.778	0.009996	1.202
Tm	169	855572.201	846006.277		
Pb	206	109019.814	128.001	0.020013	0.686
Pb	207	83846.221	124.001	0.020189	0.367
Pb	208	211573.418	272.004	0.020164	0.695
Pb-1	208	616012.872	796.010	0.020141	0.557

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 50.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:35:24
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\50.0 ppb.010
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:35:24 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	283617.623	279948.553		
As	75	59064.367	65.334	0.050233	0.436
Cd	114	226919.206	54.667	0.050339	0.845
Rh	103	754769.365	740898.656		
Lu	175	1033601.406	1024534.048		
Hg	200	119.334	17.778	0.000096	7.287
Tm	169	857856.431	846006.277		
Pb	206	274697.821	128.001	0.050329	0.448
Pb	207	210222.632	124.001	0.050531	0.990
Pb	208	533014.763	272.004	0.050704	0.242
Pb-1	208	1550949.979	796.010	0.050614	0.376

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 125.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:36:44
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\125.0 ppb.011
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:36:44 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	282104.439	279948.553		
As	75	145974.868	65.334	0.124904	0.699
Cd	114	567030.262	54.667	0.124862	0.707
Rh	103	760456.604	740898.656		
Lu	175	1045202.098	1024534.048		
Hg	200	66.000	17.778	0.000045	10.036
Tm	169	867666.704	846006.277		
Pb	206	688993.599	128.001	0.124845	0.764
Pb	207	524666.588	124.001	0.124737	0.780
Pb	208	1325129.831	272.004	0.124674	0.559
Pb-1	208	3863919.850	796.010	0.124713	0.556

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICV

Sample Date/Time: Tuesday, October 16, 2007 11:51:41

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCV.022

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 11:51:41 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	287198.420	279948.553		
As	75	72523.018	65.334	0.060924	0.711
Cd	114	249711.872	54.667	0.057145	0.604
Rh	103	731663.928	740898.656		
Lu	175	933025.068	1024534.048		
Hg	200	5372.699	17.778	0.005601	2.211
Tm	169	779468.220	846006.277		
Pb	206	257660.781	128.001	0.051956	0.798
Pb	207	217938.493	124.001	0.057657	0.069
Pb	208	532659.677	272.004	0.055770	1.061
Pb-1	208	1540918.628	796.010	0.055347	0.702

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	102.590				
[	As	75		101.541			
[	Cd	114		95.242			
[>	Rh	103	98.754				
[>	Lu	175	91.068				
[	Hg	200		93.345			
[>	Tm	169	92.135				
|	Pb	206		86.594			
|	Pb	207		96.095			
|	Pb	208		92.950			
[	Pb-1	208		92.245			

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICB

Sample Date/Time: Tuesday, October 16, 2007 11:53:05

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCB.023

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 11:53:05 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	283967.786	279948.553		
As	75	84.445	65.334	0.000015	43.886
Cd	114	153.335	54.667	0.000023	16.180
Rh	103	730683.291	740898.656		
Lu	175	930739.660	1024534.048		
Hg	200	61.556	17.778	0.000048	10.796
Tm	169	772357.724	846006.277		
Pb	206	346.007	128.001	0.000047	3.362
Pb	207	264.337	124.001	0.000040	3.319
Pb	208	615.021	272.004	0.000039	11.481
Pb-1	208	1840.385	796.010	0.000040	8.199

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		101.436				
[	As	75						
[	Cd	114						
[>	Rh	103		98.621				
[>	Lu	175		90.845				
[	Hg	200						
[>	Tm	169		91.295				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22705

Sample Date/Time: Tuesday, October 16, 2007 11:54:29

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22705.024

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL): 49.560

Initial Sample Quantity (mg): 576.000

Aliquot Volume (mL): 5.695

Diluted to Volume (mL): 50.818

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 11:54:29 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	275777.970	279948.553		
As	75	5279.533	65.334	3.506457	1.684
Cd	114	510.681	54.667	0.082568 BDL	5.325
Rh	103	713478.711	740898.656		
Lu	175	936650.002	1024534.048		
Hg	200	79.111	17.778	0.050258 BDL	18.396
Tm	169	778608.086	846006.277		
Pb	206	42844.072	128.001	6.625346	1.582
Pb	207	34348.110	124.001	6.965107	1.242
Pb	208	85414.732	272.004	6.857038	0.460
Pb-1	208	248021.647	796.010	6.830438	0.704

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	98.510				
|	As 75					
|	Cd 114					
>	Rh 103	96.299				
>	Lu 175	91.422				
|	Hg 200					
>	Tm 169	92.033				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

⑩ Sample is BDL for Cd + Hg,
because the sample intensity
is less than the intensity of
the lowest calibration
standard. CWT 10-29-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22706
Sample Date/Time: Tuesday, October 16, 2007 11:55:50
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22706.025
Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
Sample Prep Volume (mL): 50.856
Initial Sample Quantity (mg): 507.000
Aliquot Volume (mL): 5.070
Diluted to Volume (mL): 54.633
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 11:55:50 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	281154.857	279948.553		
As	75	5588.829	65.334	5.128554	2.293
Cd	114	1370.103	54.667	0.329192	2.063
Rh	103	724084.250	740898.656		
Lu	175	954836.286	1024534.048		
Hg	200	185.780	17.778	0.186899	13.599
Tm	169	797547.729	846006.277		
Pb	206	156084.940	128.001	33.240449	0.691
Pb	207	129062.022	124.001	36.059501	0.350
Pb	208	321698.685	272.004	35.572037	0.675
Pb-1	208	928544.332	796.010	35.222893	0.376

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	100.431				
[	As 75					
[	Cd 114					
>	Rh 103	97.731				
>	Lu 175	93.197				
[	Hg 200					
>	Tm 169	94.272				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ Hg is BPL, because the sample intensity is less than the intensity of the lowest calibration standard. Cnt 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22707

Sample Date/Time: Tuesday, October 16, 2007 11:57:11

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22707.026

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal

Sample Prep Volume (mL): 50.164

Initial Sample Quantity (mg): 511.000

Aliquot Volume (mL): 5.620

Diluted to Volume (mL): 50.579

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 11:57:11 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	271442.037	279948.553		
As	75	10722.097	65.334	8.377130	0.880
Cd	114	6052.681	54.667	1.257445	1.632
Rh	103	706035.816	740898.656		
Lu	175	987037.904	1024534.048		
Hg	200	202.224	17.778	0.161835	5.626
Tm	169	813699.914	846006.277		
Pb	206	907545.676	128.001	154.923454	1.500
Pb	207	760517.061	124.001	170.339775	1.499
Pb	208	1878789.499	272.004	166.585758	2.051
Pb-1	208	5425641.736	796.010	164.983703	1.875

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	96.961				
[	As 75					
[	Cd 114					
>	Rh 103	95.295				
>	Lu 175	96.340				
[	Hg 200					
>	Tm 169	96.181				
|	Pb 206					
|	Pb 207					
|	Pb 208					
[	Pb-1 208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, Pb is over the calibration range. See ICP data from 10.17.07. Cut 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22708
 Sample Date/Time: Tuesday, October 16, 2007 11:58:31
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22708.027
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL): 50.013
 Initial Sample Quantity (mg): 518.000
 Aliquot Volume (mL): 5.157
 Diluted to Volume (mL): 49.949
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:58:31 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	289602.850	279948.553		
As	75	10286.929	65.334	7.968773	1.226
Cd	114	1541.464	54.667	0.308565	4.781
Rh	103	754562.546	740898.656		
Lu	175	984428.428	1024534.048		
Hg	200	84.445	17.778	0.062458	11.613
Tm	169	817548.276	846006.277		
Pb	206	58010.563	128.001	10.412184	1.182
Pb	207	46336.830	124.001	10.907252	0.220
Pb	208	116035.022	272.004	10.812643	0.151
Pb-1	208	336417.436	796.010	10.754154	0.308

QC Calculated Values

InterAnalMassdard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[> Ge 74	103.449				
[As 75					
[Cd 114					
[> Rh 103	101.844				
[> Lu 175	96.085				
[Hg 200					
[> Tm 169	96.636				
[Pb 206					
[Pb 207					
[Pb 208					
[Pb-1 208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard.
 Oct 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22708-2
Sample Date/Time: Tuesday, October 16, 2007 11:59:52
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata\icpms\DataSet\101607 Avant 281, 282, 276 rerun\22708-2.028
Calibration File: C:\elandata\icpms\System\October 2007\101607 276 Avancr.cal
Sample Prep Volume (mL): 49.659
Initial Sample Quantity (mg): 477.000
Aliquot Volume (mL): 5.400
Diluted to Volume (mL): 49.855
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 11:59:52 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	296886.174	279948.553		
As	75	10106.281	65.334	7.846402	1.141
Cd	114	1610.143	54.667	0.323279	0.280
Rh	103	773247.345	740898.656		
Lu	175	1008198.206	1024534.048		
Hg	200	78.889	17.778	0.037149 BPL	17.967
Tm	169	840079.940	846006.277		
Pb	206	57817.275	128.001	10.378246	0.701
Pb	207	46225.571	124.001	10.881714	0.814
Pb	208	116127.767	272.004	10.821746	1.090
Pb-1	208	336298.381	796.010	10.750887	0.847

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	106.050				
[	As	75			1.548		
[	Cd	114			4.658		
[>	Rh	103	104.366				
[>	Lu	175	98.406				
[	Hg	200			8.877 0%		
[>	Tm	169	99.299				
|	Pb	206			0.326		
|	Pb	207			0.234		
|	Pb	208			0.084		
[	Pb-1	208			0.030		

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22708-S1
 Sample Date/Time: Tuesday, October 16, 2007 12:01:12
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22708-S1.029
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal
 Sample Prep Volume (mL): 49.961
 Initial Sample Quantity (mg): 535.000
 Aliquot Volume (mL): 5.102
 Diluted to Volume (mL): 51.118
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 12:01:12 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	297331.929	279948.553		
As	75	624507.625	65.334	474.504677	0.318
Cd	114	2116886.934	54.667	433.343998	1.223
Rh	103	765476.991	740898.656		
Lu	175	1013774.225	1024534.048		
Hg	200	514.015	17.778	0.446886	2.321
Tm	169	844398.553	846006.277		
Pb	206	2479961.142	128.001	432.087275	1.047
Pb	207	2112890.832	124.001	483.009501	0.224
Pb	208	5134766.598	272.004	464.527263	0.590
Pb-1	208	14862385.169	796.010	461.257890	0.533

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	106.209				
[	As	75				99.727	
[	Cd	114				92.567	
[>	Rh	103	103.317				
[>	Lu	175	98.950				
[	Hg	200				82.170	
[>	Tm	169	99.810				
|	Pb	206				90.137	
|	Pb	207				100.917	
|	Pb	208				96.986	
[	Pb-1	208				96.300	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22708-S2

Sample Date/Time: Tuesday, October 16, 2007 12:02:33

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22708-S2.030

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal

Sample Prep Volume (mL): 50.284

Initial Sample Quantity (mg): 577.000

Allquot Volume (mL): 4.886

Diluted to Volume (mL): 51.141

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:02:33 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	293552.365	279948.553		
As	75	592442.354	65.334	444.565657	1.201
Cd	114	2010696.307	54.667	407.967188	0.084
Rh	103	752926.820	740898.656		
Lu	175	1001532.979	1024534.048		
Hg	200	511.348	17.778	0.438905	3.588
Tm	169	829352.511	846006.277		
Pb	206	2345591.548	128.001	405.662335	0.094
Pb	207	1907543.885	124.001	432.860489	0.481
Pb	208	4839692.322	272.004	434.608907	0.475
Pb-1	208	13932520.076	796.010	429.215343	0.269

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	104.859				
[	As	75			6.515	95.765	
[	Cd	114			6.033	89.379	
[>	Rh	103	101.623				
[>	Lu	175	97.755				
[	Hg	200			1.802	82.871	
[>	Tm	169	98.031				
[	Pb	206			6.309	86.713	
[	Pb	207			10.951	92.570	
[	Pb	208			6.655	92.974	
[	Pb-1	208			7.197	91.804	

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mblank
 Sample Date/Time: Tuesday, October 16, 2007 12:03:54
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\Mblank.031
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 12:03:54 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	293762.227	279948.553		
As	75	123.556	65.334	0.000045	54.517
Cd	114	292.005	54.667	0.000051	42.512
Rh	103	767386.073	740898.656		
Lu	175	972331.000	1024534.048		
Hg	200	27.778	17.778	0.000011	41.873
Tm	169	814696.350	846006.277		
Pb	206	407.009	128.001	0.000055	29.013
Pb	207	358.674	124.001	0.000061	39.308
Pb	208	854.708	272.004	0.000059	34.557
Pb-1	208	2475.100	796.010	0.000059	34.285

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		104.934				
[	As	75						
[	Cd	114						
[>	Rh	103		103.575				
[>	Lu	175		94.905				
[	Hg	200						
[>	Tm	169		96.299				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22709
 Sample Date/Time: Tuesday, October 16, 2007 12:05:14
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22709.032
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL): 50.086
 Initial Sample Quantity (mg): 531.000
 Aliquot Volume (mL): 5.696
 Diluted to Volume (mL): 51.157
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 12:05:14 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	287376.168	279948.553		
As	75	39620.153	65.334	28.155871	0.121
Cd	114	13188.895	54.667	2.569073	2.235
Rh	103	725435.068	740898.656		
Lu	175	994756.662	1024534.048		
Hg	200	39.778	17.778	0.018677	43.528
Tm	169	824513.784	846006.277		
Pb	206	898053.989	128.001	145.071778	1.001
Pb	207	757145.037	124.001	160.480676	1.437
Pb	208	1879907.161	272.004	157.683438	1.375
Pb-1	208	5415013.348	796.010	155.816691	1.316

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	102.653				
[	As	75					
[	Cd	114					
[>	Rh	103	97.913				
[>	Lu	175	97.094				
[	Hg	200					
[>	Tm	169	97.460				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

@Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, Pb is over the calibration range. See ICP data from 10.17.07, Oct 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22710
Sample Date/Time: Tuesday, October 16, 2007 12:06:35
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22710.033
Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
Sample Prep Volume (mL): 49.889
Initial Sample Quantity (mg): 577.000
Aliquot Volume (mL): 5.133
Diluted to Volume (mL): 50.680
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 12:06:35 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	289660.186	279948.553		
As	75	14024.810	65.334	9.932949	0.119
Cd	114	4237.654	54.667	0.798778	1.859
Rh	103	748561.887	740898.656		
Lu	175	970262.820	1024534.048		
Hg	200	158.668	17.778	0.121705 BDL	7.320
Tm	169	810263.586	846006.277		
Pb	206	2065844.634	128.001	342.174382	2.450
Pb	207	1660239.734	124.001	360.860413	0.188
Pb	208	4262724.445	272.004	366.653920	0.302
Pb-1	208	12251533.259	796.010	361.506909	0.336

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	103.469				
|	As 75					
|	Cd 114					
>	Rh 103	101.034				
>	Lu 175	94.703				
|	Hg 200					
>	Tm 169	95.775				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, Pb results are over the calibration range. See ICP data from 10.17.07.
Clt 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Tuesday, October 16, 2007 12:07:57
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCV.034
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 12:07:57 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	286996.318	279948.553		
As	75	73420.659	65.334	0.061737	1.397
Cd	114	249208.796	54.667	0.057371	0.618
Rh	103	727373.867	740898.656		
Lu	175	924587.325	1024534.048		
Hg	200	5376.701	17.778	0.005656	0.971
Tm	169	771746.642	846006.277		
Pb	206	254829.700	128.001	0.051903	1.138
Pb	207	215187.049	124.001	0.057505	1.182
Pb	208	525535.044	272.004	0.055579	0.634
Pb-1	208	1521086.838	796.010	0.055186	0.695

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	102.518				
[	As	75		102.894			
[	Cd	114		95.618			
[>	Rh	103	98.175				
[>	Lu	175	90.245				
[	Hg	200		94.272			
[>	Tm	169	91.222				
|	Pb	206		86.504			
|	Pb	207		95.842			
|	Pb	208		92.632			
[	Pb-1	208		91.976			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB

Sample Date/Time: Tuesday, October 16, 2007 12:09:20

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCB.035

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:09:20 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	599254.926	279948.553		
As	75	93.778	65.334	-0.000014	128.531
Cd	114	97.334	54.667	0.000000	16146.851
Rh	103	1493264.584	740898.656		
Lu	175	2062786.516	1024534.048		
Hg	200	114.223	17.778	0.000048	77.156
Tm	169	1676801.572	846006.277		
Pb	206	328.006	128.001	0.000013	163.101
Pb	207	261.670	124.001	0.000008	254.645
Pb	208	641.023	272.004	0.000011	185.292
Pb-1	208	1871.722	796.010	0.000011	187.236

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	214.059				
[	As 75					
[	Cd 114					
[>	Rh 103	201.548				
[>	Lu 175	201.339				
[	Hg 200					
[>	Tm 169	198.202				
|	Pb 206					
|	Pb 207					
	Pb 208					
[Pb-1 208					

Sample ID: CCB

Report Date/Time: Tuesday, October 16, 2007 16:08:03

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22711
 Sample Date/Time: Tuesday, October 16, 2007 12:10:43
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22711.036
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal
 Sample Prep Volume (mL): 50.127
 Initial Sample Quantity (mg): 585.000
 Aliquot Volume (mL): 5.329
 Diluted to Volume (mL): 49.970
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 12:10:43 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	282563.549	279948.553		
As	75	17169.755	65.334	11.744686	0.456
Cd	114	699.360	54.667	0.120273 BDL	1.449
Rh	103	722746.448	740898.656		
Lu	175	952970.829	1024534.048		
Hg	200	72.889	17.778	0.046353 BDL	8.104
Tm	169	797100.077	846006.277		
Pb	206	78259.144	128.001	12.385945	2.120
Pb	207	62893.150	124.001	13.056510	1.373
Pb	208	157296.824	272.004	12.924999	0.614
Pb-1	208	455745.942	796.010	12.846832	0.937

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	100.934				
[	As	75					
[	Cd	114					
>	Rh	103	97.550				
>	Lu	175	93.015				
[	Hg	200					
>	Tm	169	94.219				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

(10) Cd + Hg are BDL, because
 the sample intensity is less
 than the intensity of the
 lowest calibration standard.

OK 10-29-07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22712

Sample Date/Time: Tuesday, October 16, 2007 12:12:03

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22712.037

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal

Sample Prep Volume (mL): 49.993

Initial Sample Quantity (mg): 516.000

Aliquot Volume (mL): 5.201

Diluted to Volume (mL): 50.929

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:12:03 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	277689.787	279948.553		
As	75	14453.038	65.334	11.870687	0.534
Cd	114	8231.726	54.667	1.840729	2.295
Rh	103	706040.276	740898.656		
Lu	175	948730.406	1024534.048		
Hg	200	261.559	17.778	0.239096 BDL	5.926
Tm	169	787008.801	846006.277		
Pb	206	884962.322	128.001	167.721151	1.236
Pb	207	724053.384	124.001	180.054412	0.941
Pb	208	1813611.621	272.004	178.473021	1.650
Pb-1	208	5236238.949	796.010	176.772088	1.480

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	99.193				
[	As	75					
[	Cd	114					
>	Rh	103	95.295				
>	Lu	175	92.601				
[	Hg	200					
>	Tm	169	93.026				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, Pb is over the calibration range. See ICP data from 10.17.07. Crt 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22713

Sample Date/Time: Tuesday, October 16, 2007 12:13:24

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22713.038

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL): 50.053

Initial Sample Quantity (mg): 473.000

Aliquot Volume (mL): 4.866

Diluted to Volume (mL): 50.178

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:13:24 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	267732.473	279948.553		
As	75	7707.044	65.334	7.524119	0.704
Cd	114	6496.322	54.667	1.726891	1.463
Rh	103	682093.989	740898.656		
Lu	175	926587.216	1024534.048		
Hg	200	189.558	17.778	0.199380 BDL	2.856
Tm	169	771706.923	846006.277		
Pb	206	702814.401	128.001	156.267648	0.667
Pb	207	577001.094	124.001	168.325221	0.499
Pb	208	1438832.656	272.004	166.101036	0.398
Pb-1	208	4157480.806	796.010	164.651382	0.412

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	95.636				
[	As	75					
[	Cd	114					
>	Rh	103	92.063				
>	Lu	175	90.440				
[	Hg	200					
>	Tm	169	91.218				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

(10) Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, Pb is over the calibration range. See KP data from 10.17.07.

CU 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22714
Sample Date/Time: Tuesday, October 16, 2007 12:14:44
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22714.039
Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal
Sample Prep Volume (mL): 50.049
Initial Sample Quantity (mg): 595.000
Aliquot Volume (mL): 6.641
Diluted to Volume (mL): 49.670
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 12:14:44 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	282869.500	279948.553		
As	75	17897.825	65.334	9.577329	0.623
Cd	114	981.386	54.667	0.134431 BDL	6.101
Rh	103	727795.149	740898.656		
Lu	175	952617.876	1024534.048		
Hg	200	76.223	17.778	0.038518 BDL	16.231
Tm	169	790414.353	846006.277		
Pb	206	118753.549	128.001	14.846453	1.061
Pb	207	97219.798	124.001	15.946371	0.246
Pb	208	241997.631	272.004	15.709672	0.963
Pb-1	208	699968.609	796.010	15.588042	0.802

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	101.043				
[	As	75					
[	Cd	114					
>	Rh	103	98.231				
>	Lu	175	92.981				
[	Hg	200					
>	Tm	169	93.429				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Cd + Hg are BDL, because
the sample intensity is less
than the intensity of the
lowest calibration standard.
cut 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22715
 Sample Date/Time: Tuesday, October 16, 2007 12:16:05
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22715.040
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal
 Sample Prep Volume (mL): 49.996
 Initial Sample Quantity (mg): 500.000
 Aliquot Volume (mL): 5.539
 Diluted to Volume (mL): 5.935
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 12:16:05 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	293757.914	279948.553		
As	75	18835.939	65.334	1.652885	0.432
Cd	114	35007.956	54.667	0.833435	1.220
Rh	103	752468.896	740898.656		
Lu	175	980653.738	1024534.048		
Hg	200	220.669	17.778	0.021706 BPL	3.470
Tm	169	820227.184	846006.277		
Pb	206	4030983.864	128.001	82.799831	1.225
Pb	207	3342506.078	124.001	90.081645	0.709
Pb	208	8301703.197	272.004	88.541087	1.058
Pb-1	208	23976896.336	796.010	87.727550	1.031

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	104.933				
L	As	75					
L	Cd	114					
>	Rh	103	101.562				
>	Lu	175	95.717				
L	Hg	200					
>	Tm	169	96.953				
L	Pb	206					
L	Pb	207					
L	Pb	208					
L	Pb-1	208					

(10) Hg is BPL, because
 the sample intensity is
 less than the intensity of
 the lowest calibration standard.

Cut 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mcontrol
 Sample Date/Time: Tuesday, October 16, 2007 12:17:26
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\Mcontrol.041
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 12:17:26 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	292300.158	279948.553		
As	75	636316.731	65.334	0.525656	0.616
Cd	114	2118053.898	54.667	0.479839	1.052
Rh	103	739244.420	740898.656		
Lu	175	963680.008	1024534.048		
Hg	200	464.012	17.778	0.000453	5.203
Tm	169	804159.922	846006.277		
Pb	206	2297848.439	128.001	0.449296	1.227
Pb	207	1872941.720	124.001	0.480506	1.555
Pb	208	4689180.143	272.004	0.476072	1.261
Pb-1	208	13549150.444	796.010	0.471905	1.296

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		104.412				
[	As	75					105.122	
[	Cd	114					95.958	
[>	Rh	103		99.777				
[>	Lu	175		94.060				
[	Hg	200					88.377	
[>	Tm	169		95.054				
|	Pb	206					89.848	
|	Pb	207					96.089	
|	Pb	208					95.203	
[	Pb-1	208					94.369	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22716

Sample Date/Time: Tuesday, October 16, 2007 12:18:46

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\Elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22716.042

Calibration File: C:\Elandata_icpms\System\October 2007\101607 276 Avanr.cal

Sample Prep Volume (mL): 50.157

Initial Sample Quantity (mg): 529.000

Aliquot Volume (mL): 4.864

Diluted to Volume (mL): 49.703

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:18:46 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	278312.217	279948.553		
As	75	13494.899	65.334	11.290838	0.978
Cd	114	2150.921	54.667	0.489682	3.354
Rh	103	695727.431	740898.656		
Lu	175	930962.347	1024534.048		
Hg	200	132.223	17.778	0.117825 BDL	2.719
Tm	169	777004.155	846006.277		
Pb	206	238060.573	128.001	46.658133	0.683
Pb	207	196620.649	124.001	50.559768	0.837
Pb	208	486029.732	272.004	49.460851	0.906
Pb-1	208	1406740.686	796.010	49.110794	0.844

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
> Ge	74	99.415				
[As	75					
[Cd	114					
> Rh	103	93.903				
> Lu	175	90.867				
[Hg	200					
> Tm	169	91.844				
[Pb	206					
[Pb	207					
[Pb	208					
[Pb-1	208					

(10) Hg is BDL, because
the sample intensity is less
than the intensity of the
lowest calibration standard.

Cut 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22717

Sample Date/Time: Tuesday, October 16, 2007 12:20:07

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22717.043

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL): 50.116

Initial Sample Quantity (mg): 514.000

Aliquot Volume (mL): 5.683

Diluted to Volume (mL): 49.970

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:20:07 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	286205.251	279948.553		
As	75	15157.518	65.334	10.916492	0.860
Cd	114	637.356	54.667	0.116018 BPL	12.898
Rh	103	723897.801	740898.656		
Lu	175	913493.218	1024534.048		
Hg	200	32.889	17.778	0.015577 BPL	27.774
Tm	169	763263.519	846006.277		
Pb	206	44964.975	128.001	7.922148	1.248
Pb	207	35995.826	124.001	8.316372	1.204
Pb	208	89059.967	272.004	8.145465	0.505
Pb-1	208	259080.735	796.010	8.128888	0.705

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
> Ge	74	102.235				
[As	75					
[Cd	114					
> Rh	103	97.705				
> Lu	175	89.162				
[Hg	200					
> Tm	169	90.220				
[Pb	206					
[Pb	207					
[Pb	208					
[Pb-1	208					

(10) Cd + Hg are BPL,
because the sample intensity
is less than the intensity of
the lowest calibration standard.

CRT 10.29-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22718
 Sample Date/Time: Tuesday, October 16, 2007 12:21:28
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22718.044
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
 Sample Prep Volume (mL): 49.951
 Initial Sample Quantity (mg): 480.000
 Aliquot Volume (mL): 4.977
 Diluted to Volume (mL): 50.220
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 12:21:28 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	293370.847	279948.553		
As	75	11004.657	65.334	9.452938	0.628
Cd	114	1343.433	54.667	0.305328	3.291
Rh	103	742299.908	740898.656		
Lu	175	950064.963	1024534.048		
Hg	200	88.889	17.778	0.078667 BDL	2.181
Tm	169	794711.119	846006.277		
Pb	206	182624.246	128.001	37.919972	1.110
Pb	207	151227.188	124.001	41.196161	0.772
Pb	208	375750.848	272.004	40.510155	0.736
Pb-1	208	1085353.130	796.010	40.141901	0.658

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		104.795				
[	As	75						
[	Cd	114						
>	Rh	103		100.189				
>	Lu	175		92.731				
[	Hg	200						
>	Tm	169		93.937				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

⑩ Hg is BDL, because
 the sample intensity is less
 than the intensity of the lowest
 Calibration Standard. Cut 10-29-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22719

Sample Date/Time: Tuesday, October 16, 2007 12:22:49

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22719.045

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL): 49.474

Initial Sample Quantity (mg): 533.000

Aliquot Volume (mL): 5.155

Diluted to Volume (mL): 50.898

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:22:49 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	282240.353	279948.553		
As	75	7147.253	65.334	5.552965	1.399
Cd	114	1560.134	54.667	0.325630	4.211
Rh	103	710876.549	740898.656		
Lu	175	961571.415	1024534.048		
Hg	200	60.667	17.778	0.040946 BPL	19.336
Tm	169	799330.459	846006.277		
Pb	206	124281.147	128.001	22.386405	1.359
Pb	207	103516.706	124.001	24.461426	0.735
Pb	208	255887.773	272.004	23.932625	1.332
Pb-1	208	739573.400	796.010	23.728989	1.216

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	100.819				
[	As 75					
[	Cd 114					
>	Rh 103	95.948				
>	Lu 175	93.855				
[	Hg 200					
>	Tm 169	94.483				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ Hg is BPL, because the sample intensity is less than the intensity of the lowest calibration standard. Cut 10.29.07.

Sample ID: 22719

Report Date/Time: Tuesday, October 16, 2007 16:08:18

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A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV

Sample Date/Time: Tuesday, October 16, 2007 12:24:13

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCV.046

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:24:13 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	303483.533	279948.553		
As	75	78728.991	65.334	0.062589	0.285
Cd	114	261154.186	54.667	0.057825	1.731
Rh	103	756337.116	740898.656		
Lu	175	940864.492	1024534.048		
Hg	200	5378.702	17.778	0.005560	1.006
Tm	169	795308.471	846006.277		
Pb	206	254389.265	128.001	0.050278	1.645
Pb	207	216899.025	124.001	0.056242	0.931
Pb	208	527215.512	272.004	0.054102	1.069
Pb-1	208	1525719.314	796.010	0.053712	1.103

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		108.407				
[	As	75			104.315			
[	Cd	114			96.374			
[>	Rh	103		102.084				
[>	Lu	175		91.833				
[	Hg	200			92.666			
[>	Tm	169		94.007				
[	Pb	206			83.797			
[	Pb	207			93.736			
[	Pb	208			90.171			
[Pb-1	208			89.519			

Sample ID: CCV

Report Date/Time: Tuesday, October 16, 2007 16:08:19

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A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB

Sample Date/Time: Tuesday, October 16, 2007 12:25:36

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCB.047

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Alliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:25:36 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	575753.372	279948.553		
As	75	105.334	65.334	-0.000008	232.034
Cd	114	82.000	54.667	-0.000001	322.563
Rh	103	1395663.952	740898.656		
Lu	175	1867688.151	1024534.048		
Hg	200	103.112	17.778	0.000047	74.887
Tm	169	1540169.396	846006.277		
Pb	206	249.003	128.001	0.000004	216.986
Pb	207	202.336	124.001	0.000000	3838.945
Pb	208	492.014	272.004	0.000002	407.217
Pb-1	208	1435.366	796.010	0.000002	417.887

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		205.664				
[	As	75						
[	Cd	114						
[>	Rh	103		188.374				
[>	Lu	175		182.296				
[	Hg	200						
[>	Tm	169		182.052				
|	Pb	206						
|	Pb	207						
	Pb	208						
[Pb-1	208						

Sample ID: CCB

Report Date/Time: Tuesday, October 16, 2007 16:08:21

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22720

Sample Date/Time: Tuesday, October 16, 2007 12:26:59

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22720.048

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL): 50.014

Initial Sample Quantity (mg): 499.000

Aliquot Volume (mL): 5.415

Diluted to Volume (mL): 52.036

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:26:59 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	291910.748	279948.553		
As	75	7522.222	65.334	5.939173	0.982
Cd	114	1577.470	54.667	0.333786	1.795
Rh	103	735861.229	740898.656		
Lu	175	953198.031	1024534.048		
Hg	200	94.667	17.778	0.077030 BDL	4.501
Tm	169	796393.434	846006.277		
Pb	206	108837.447	128.001	20.672396	0.374
Pb	207	87791.969	124.001	21.874687	0.552
Pb	208	218089.209	272.004	21.507483	0.704
Pb-1	208	632807.833	796.010	21.408581	0.612

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	104.273				
[	As 75					
[	Cd 114					
[>	Rh 103	99.320				
[>	Lu 175	93.037				
[	Hg 200					
[>	Tm 169	94.136				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest Calibration Standard. Cut 10-29-07

Sample ID: 22720

Report Date/Time: Tuesday, October 16, 2007 16:08:22

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22721

Sample Date/Time: Tuesday, October 16, 2007 12:28:20

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22721.049

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal

Sample Prep Volume (mL): 50.052

Initial Sample Quantity (mg): 507.000

Allquot Volume (mL): 5.135

Diluted to Volume (mL): 50.397

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:28:20 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	286500.191	279948.553		
As	75	9153.497	65.334	7.419577	0.808
Cd	114	1435.447	54.667	0.307292	1.240
Rh	103	729513.009	740898.656		
Lu	175	949987.589	1024534.048		
Hg	200	304.227	17.778	0.286316	6.693
Tm	169	792954.659	846006.277		
Pb	206	484559.929	128.001	93.070507	0.565
Pb	207	388064.737	124.001	97.802502	1.121
Pb	208	970618.152	272.004	96.803190	0.712
Pb-1	208	2813860.970	796.010	96.273958	0.720

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		102.340				
|	As	75						
|	Cd	114						
>	Rh	103		98.463				
>	Lu	175		92.724				
|	Hg	200						
>	Tm	169		93.729				
|	Pb	206						
|	Pb	207						
|	Pb	208						
|	Pb-1	208						

Sample ID: 22721

Report Date/Time: Tuesday, October 16, 2007 16:08:24

Page 1

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22722

Sample Date/Time: Tuesday, October 16, 2007 12:29:40

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22722.050

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL): 50.993

Initial Sample Quantity (mg): 539.000

Aliquot Volume (mL): 5.120

Diluted to Volume (mL): 50.095

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:29:40 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	289916.675	279948.553		
As	75	15685.300	65.334	12.041336	0.440
Cd	114	516.681	54.667	0.098337 BDL	13.487
Rh	103	729664.692	740898.656		
Lu	175	934931.364	1024534.048		
Hg	200	31.778	17.778	0.015078 BDL	39.459
Tm	169	776013.383	846006.277		
Pb	206	43555.122	128.001	8.148444	1.624
Pb	207	34776.099	124.001	8.529696	0.885
Pb	208	86892.625	272.004	8.437133	1.526
Pb-1	208	252116.469	796.010	8.398276	1.240

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	103.561				
[	As	75					
[	Cd	114					
[>	Rh	103	98.484				
[>	Lu	175	91.254				
[	Hg	200					
[>	Tm	169	91.727				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Cd + Hg are BDL

because the sample intensity is less than the ^{intensity} lowest calibration standard. Crt 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22723

Sample Date/Time: Tuesday, October 16, 2007 12:31:01

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22723.051

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL): 50.098

Initial Sample Quantity (mg): 492.000

Aliquot Volume (mL): 5.187

Diluted to Volume (mL): 50.629

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 12:31:01 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	300389.589	279948.553		
As	75	12855.751	65.334	10.216720	1.280
Cd	114	1616.144	54.667	0.342244	2.987
Rh	103	758748.372	740898.656		
Lu	175	961239.908	1024534.048		
Hg	200	98.889	17.778	0.082884 BDL	4.863
Tm	169	804792.523	846006.277		
Pb	206	238242.523	128.001	46.245663	0.983
Pb	207	197217.382	124.001	50.224329	0.578
Pb	208	488319.294	272.004	49.214823	0.480
Pb-1	208	1412098.493	796.010	48.822980	0.504

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	107.302				
[	As	75					
[	Cd	114					
[>	Rh	103	102.409				
[>	Lu	175	93.822				
[	Hg	200					
[>	Tm	169	95.128				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Hg is BDL, because
the sample intensity is
less than the intensity of
the lowest calibration standard.

Cut 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Tuesday, October 16, 2007 12:40:28
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCV.058
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avannr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 12:40:28 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	281958.263	279948.553		
As	75	73624.262	65.334	0.063002	0.907
Cd	114	244251.780	54.667	0.057733	0.406
Rh	103	708402.445	740898.656		
Lu	175	883097.239	1024534.048		
Hg	200	5239.732	17.778	0.005771	0.555
Tm	169	743453.483	846006.277		
Pb	206	241184.720	128.001	0.050988	0.958
Pb	207	203640.115	124.001	0.056484	1.273
Pb	208	497621.694	272.004	0.054625	1.400
Pb-1	208	1440068.223	796.010	0.054229	1.271

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		100.718				
|	As	75			105.003			
|	Cd	114			96.221			
>	Rh	103		95.614				
>	Lu	175		86.195				
|	Hg	200			96.178			
>	Tm	169		87.878				
|	Pb	206			84.980			
|	Pb	207			94.140			
|	Pb	208			91.041			
|	Pb-1	208			90.382			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
Sample Date/Time: Tuesday, October 16, 2007 12:41:52
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCB.059
Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 12:41:52 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	580450.898	279948.553		
As	75	77.778	65.334	-0.000022	39.981
Cd	114	81.334	54.667	-0.000001	497.549
Rh	103	1405558.499	740898.656		
Lu	175	1924153.685	1024534.048		
Hg	200	141.557	17.778	0.000063	47.985
Tm	169	1568948.545	846006.277		
Pb	206	263.337	128.001	0.000005	203.611
Pb	207	224.669	124.001	0.000002	515.009
Pb	208	542.016	272.004	0.000005	245.899
Pb-1	208	1572.039	796.010	0.000005	252.659

QC Calculated Values

Inter	Anal	Mass	Std Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		207.342				
[	As	75						
[	Cd	114						
[>	Rh	103		189.710				
[>	Lu	175		187.808				
[	Hg	200						
[>	Tm	169		185.454				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22708 (As)	TP-34 (3.5')	8.008	2%	101%	97%	7%	BDL	103%
22708 (Cd)	TP-34 (3.5')	0.336	4%	100%	97%	5%	BDL	101%
22708 (Hg)	TP-34 (3.5')	BDL	0%	84%	81%	6%	BDL	96%
22708 (Pb)	TP-34 (3.5')	11.659	1%	104%	101%	6%	BDL	104%

Comments:

PERKIN ELMER ICP-MS BATCH REPORT

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Sample Information

A/S Loc.	Analyst	Batch ID	Sample ID	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
101	CRT	281-1 Avant	22708	518.000	50.013	5.157	49.949
102	CRT	281-1 Avant	22708-2	477.000	49.659	5.400	49.855
103	CRT	281-1 Avant	22708-S1	535.000	49.961	5.102	51.118
104	CRT	281-1 Avant	22708-S2	577.000	50.284	4.886	51.141
105	CRT	281-1 Avant	Mblank				
106	CRT	281-1 Avant	Mcontrol				
107	CRT	281-1 Avant	22673	494.000	52.642	5.020	49.993

Calibration Report

Analyte	Mass	Curve Type	Slope	Intercept	Corr Coeff
Ge	73.922	Linear Thru Zero	0.000000	0.000	0.000000
As	74.922	Linear Thru Zero	0.005722	0.000	0.999945
Cd	113.904	Linear Thru Zero	0.008017	0.000	0.999968
Rh	102.905	Linear Thru Zero	0.000000	0.000	0.000000
Lu	174.941	Linear Thru Zero	0.000000	0.000	0.000000
Hg	199.968	Linear Thru Zero	0.001335	0.000	0.999997
Tm	168.934	Linear Thru Zero	0.000000	0.000	0.000000
Pb	205.975	Linear Thru Zero	0.008047	0.000	0.999999
Pb	206.976	Linear Thru Zero	0.006123	0.000	0.999998
Pb	207.977	Linear Thru Zero	0.015569	0.000	0.999985
Pb-1	207.977	Linear Thru Zero	0.045308	0.000	0.999993

A&L Great Lakes Lab ICP-MS Report

Sample ID: blank
 Sample Date/Time: Wednesday, October 17, 2007 10:09:59
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\blank.026
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:09:59 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	230304.656			
As	75	55.778			
Cd	114	44.000			
Rh	103	587818.255			
Lu	175	775011.743			
Hg	200	18.444			
Tm	169	644666.503			
Pb	206	124.001			
Pb	207	107.334			
Pb	208	267.671			
Pb-1	208	766.676			

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74					
[	As 75					
[	Cd 114					
[>	Rh 103					
[>	Lu 175					
[	Hg 200					
[>	Tm 169					
|	Pb 206					
|	Pb 207					
|	Pb 208					
[	Pb-1 208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.25 ppb
 Sample Date/Time: Wednesday, October 17, 2007 10:11:19
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata\cpms\DataSet\101707 281 Avant\0.25 ppb.027
 Calibration File: C:\elandata\cpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:11:19 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	230292.664	230304.656		
As	75	405.120	55.778	0.000265	4.013
Cd	114	1180.743	44.000	0.000243	3.315
Rh	103	584773.074	587818.255		
Lu	175	776960.757	775011.743		
Hg	200	287.338	18.444	0.000259	1.036
Tm	169	644505.595	644666.503		
Pb	206	1457.117	124.001	0.000257	1.930
Pb	207	1132.071	107.334	0.000260	7.313
Pb	208	2816.770	267.671	0.000254	1.343
Pb-1	208	8222.727	766.676	0.000255	0.369

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.5 ppb
 Sample Date/Time: Wednesday, October 17, 2007 10:12:40
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\0.5 ppb.028
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:12:40 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	232320.214	230304.656		
As	75	728.474	55.778	0.000506	1.536
Cd	114	2408.986	44.000	0.000510	6.006
Rh	103	578876.191	587818.255		
Lu	175	768606.024	775011.743		
Hg	200	532.238	18.444	0.000501	3.006
Tm	169	640754.826	644666.503		
Pb	206	2773.090	124.001	0.000514	1.878
Pb	207	2160.257	107.334	0.000523	2.640
Pb	208	5347.906	267.671	0.000509	0.943
Pb-1	208	15629.159	766.676	0.000512	1.226

QC Calculated Values

Inter	Anal	Mass	Std Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 2.0 ppb
 Sample Date/Time: Wednesday, October 17, 2007 10:14:00
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\2.0 ppb.029
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:14:00 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	230875.823	230304.656		
As	75	2765.532	55.778	0.002051	1.303
Cd	114	9470.264	44.000	0.002007	1.693
Rh	103	585899.578	587818.255		
Lu	175	781040.528	775011.743		
Hg	200	1083.620	18.444	0.001022	2.465
Tm	169	649249.365	644666.503		
Pb	206	10667.926	124.001	0.002018	1.662
Pb	207	8056.568	107.334	0.002000	1.457
Pb	208	20251.871	267.671	0.001977	1.367
Pb-1	208	59228.236	766.676	0.001987	0.997

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 10.0 ppb
Sample Date/Time: Wednesday, October 17, 2007 10:15:21
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata\icpms\DataSet\101707 281 Avant\10.0 ppb.030
Calibration File: C:\elandata\icpms\System\October 2007\101707 281 Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 10:15:21 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	230500.783	230304.656		
As	75	13719.678	55.778	0.010361	1.604
Cd	114	48477.580	44.000	0.010397	0.456
Rh	103	581057.455	587818.255		
Lu	175	775429.209	775011.743		
Hg	200	5181.476	18.444	0.004990	0.902
Tm	169	646588.913	644666.503		
Pb	206	53061.420	124.001	0.010176	1.746
Pb	207	40352.366	107.334	0.010166	1.082
Pb	208	101853.763	267.671	0.010092	0.782
Pb-1	208	297121.311	766.676	0.010117	0.948

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 20.0 ppb
 Sample Date/Time: Wednesday, October 17, 2007 10:16:42
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\20.0 ppb.031
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:16:42 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	232178.473	230304.656		
As	75	26707.397	55.778	0.020062	1.879
Cd	114	94506.020	44.000	0.019984	1.211
Rh	103	589663.682	587818.255		
Lu	175	772552.048	775011.743		
Hg	200	10330.756	18.444	0.010003	0.903
Tm	169	647011.935	644666.503		
Pb	206	104515.076	124.001	0.020052	1.363
Pb	207	78599.394	107.334	0.019813	1.637
Pb	208	199073.807	267.671	0.019736	0.485
Pb-1	208	581262.085	766.676	0.019802	0.776

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 50.0 ppb
 Sample Date/Time: Wednesday, October 17, 2007 10:18:02
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\50.0 ppb.032
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:18:02 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	230128.271	230304.656		
As	75	67566.159	55.778	0.051269	1.341
Cd	114	240635.452	44.000	0.050928	1.364
Rh	103	589275.019	587818.255		
Lu	175	785535.148	775011.743		
Hg	200	126.223	18.444	0.000103	8.369
Tm	169	655254.684	644666.503		
Pb	206	264189.133	124.001	0.050083	0.662
Pb	207	200431.134	107.334	0.049932	1.162
Pb	208	504013.017	267.671	0.049379	0.931
Pb-1	208	1472646.301	766.676	0.049579	0.889

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
|	As	75					
|	Cd	114					
[>	Rh	103					
[>	Lu	175					
|	Hg	200					
[>	Tm	169					
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 125.0 ppb
 Sample Date/Time: Wednesday, October 17, 2007 10:19:23
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\125.0 ppb.033
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:19:23 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	235140.260	230304.656		
As	75	167508.160	55.778	0.124453	1.419
Cd	114	590631.459	44.000	0.124600	1.676
Rh	103	591286.659	587818.255		
Lu	175	789638.663	775011.743		
Hg	200	80.667	18.444	0.000059	8.625
Tm	169	656483.659	644666.503		
Pb	206	660141.643	124.001	0.124944	0.182
Pb	207	502720.196	107.334	0.125044	0.753
Pb	208	1280768.605	267.671	0.125284	0.683
Pb-1	208	3724399.048	766.676	0.125191	0.569

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICV
 Sample Date/Time: Wednesday, October 17, 2007 10:20:44
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\ICV.034
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:20:44 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	233608.885	230304.656		
As	75	82236.294	55.778	0.061480	1.430
Cd	114	289060.839	44.000	0.061282	1.150
Rh	103	588260.001	587818.255		
Lu	175	787650.647	775011.743		
Hg	200	6333.539	18.444	0.006008	0.412
Tm	169	652443.130	644666.503		
Pb	206	302065.046	124.001	0.057516	1.042
Pb	207	256484.484	107.334	0.064180	0.797
Pb	208	626447.131	267.671	0.061645	0.629
Pb-1	208	1811443.793	766.676	0.061255	0.690

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		101.435				
|	As	75			102.466			
|	Cd	114			102.136			
>	Rh	103		100.075				
>	Lu	175		101.631				
|	Hg	200			100.126			
>	Tm	169		101.206				
|	Pb	206			95.860			
|	Pb	207			106.967			
|	Pb	208			102.742			
|	Pb-1	208			102.091			

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICB
 Sample Date/Time: Wednesday, October 17, 2007 10:22:08
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\ICB.035
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:22:08 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	230805.514	230304.656		
As	75	79.556	55.778	0.000018	41.712
Cd	114	106.667	44.000	0.000014	41.452
Rh	103	583616.605	587818.255		
Lu	175	769264.868	775011.743		
Hg	200	108.001	18.444	0.000087	19.188
Tm	169	641098.439	644666.503		
Pb	206	267.337	124.001	0.000028	4.473
Pb	207	250.337	107.334	0.000037	8.564
Pb	208	574.018	267.671	0.000031	12.095
Pb-1	208	1665.710	766.676	0.000031	9.127

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	100.217				
[	As	75					
[	Cd	114					
[>	Rh	103	99.285				
[>	Lu	175	99.258				
[	Hg	200					
[>	Tm	169	99.447				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22708
Sample Date/Time: Wednesday, October 17, 2007 10:23:29
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata\icpms\DataSet\101707 281 Avant\22708.036
Calibration File: C:\elandata\icpms\System\October 2007\101707 281 Avant.cal
Sample Prep Volume (mL): 50.013
Initial Sample Quantity (mg): 518.000
Aliquot Volume (mL): 5.157
Diluted to Volume (mL): 49.949
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 10:23:29 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	228713.904	230304.656		
As	75	11263.418	55.778	8.008386	0.566
Cd	114	1724.164	44.000	0.335519	2.068
Rh	103	584246.797	587818.255		
Lu	175	788860.986	775011.743		
Hg	200	141.112	18.444	0.108696 BDL	7.919
Tm	169	655069.357	644666.503		
Pb	206	63700.400	124.001	11.279371	0.895
Pb	207	51244.028	107.334	11.922826	1.060
Pb	208	127921.063	267.671	11.704949	0.887
Pb-1	208	370786.554	766.676	11.658810	0.884

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	99.309				
[	As	75					
[	Cd	114					
>	Rh	103	99.392				
>	Lu	175	101.787				
[	Hg	200					
>	Tm	169	101.614				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Cut 11.6.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22708-2
Sample Date/Time: Wednesday, October 17, 2007 10:24:49
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata\icpms\DataSet\101707 281 Avant\22708-2.037
Calibration File: C:\elandata\icpms\System\October 2007\101707 281 Avant.cal
Sample Prep Volume (mL): 49.659
Initial Sample Quantity (mg): 477.000
Aliquot Volume (mL): 5.400
Diluted to Volume (mL): 49.855
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 10:24:49 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	228746.355	230304.656		
As	75	10770.377	55.778	7.867272	0.313
Cd	114	1706.160	44.000	0.348640	4.356
Rh	103	571860.889	587818.255		
Lu	175	779651.892	775011.743		
Hg	200	101.334	18.444	0.076405 <i>BDL</i>	17.303
Tm	169	647655.124	644666.503		
Pb	206	61023.473	124.001	11.230596	0.708
Pb	207	48890.783	107.334	11.822969	0.085
Pb	208	121550.543	267.671	11.559561	0.140
Pb-1	208	353015.342	766.676	11.536733	0.070

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	99.323				
[	As	75			1.778		
[	Cd	114			3.836		
[>	Rh	103	97.285				
[>	Lu	175	100.599				
[	Hg	200			34.894 <i>0%</i>		
[>	Tm	169	100.464				
|	Pb	206			0.433		
|	Pb	207			0.841		
|	Pb	208			1.250		
[	Pb-1	208			1.053		

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22708-S1
 Sample Date/Time: Wednesday, October 17, 2007 10:26:10
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\22708-S1.038
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL): 49.961
 Initial Sample Quantity (mg): 535.000
 Aliquot Volume (mL): 5.102
 Diluted to Volume (mL): 51.118
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:26:10 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	227259.306	230304.656		
As	75	669858.721	55.778	481.914843	0.879
Cd	114	2293238.424	44.000	466.989041	1.348
Rh	103	573071.538	587818.255		
Lu	175	790442.581	775011.743		
Hg	200	586.019	18.444	0.503142	2.849
Tm	169	656058.560	644666.503		
Pb	206	2662919.886	124.001	472.002929	1.780
Pb	207	2268079.491	107.334	528.323283	1.597
Pb	208	5433674.738	267.671	497.742778	1.500
Pb-1	208	15798348.851	766.676	497.304005	1.451

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		98.678				
[	As	75					101.303	
[	Cd	114					99.753	
[>	Rh	103		97.491				
[>	Lu	175		101.991				
[	Hg	200					84.307	
[>	Tm	169		101.767				
[	Pb	206					98.484	
[	Pb	207					110.386	
[	Pb	208					103.895	
[	Pb-1	208					103.811	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22708-S2
 Sample Date/Time: Wednesday, October 17, 2007 10:27:31
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\22708-S2.039
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL): 50.284
 Initial Sample Quantity (mg): 577.000
 Aliquot Volume (mL): 4.886
 Diluted to Volume (mL): 51.141
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:27:31 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	226774.106	230304.656		
As	75	638989.353	55.778	449.138653	0.651
Cd	114	2228090.755	44.000	444.508141	0.405
Rh	103	570335.094	587818.255		
Lu	175	793295.834	775011.743		
Hg	200	568.684	18.444	0.473745	2.672
Tm	169	653518.746	644666.503		
Pb	206	2547097.130	124.001	441.852211	1.267
Pb	207	2178794.567	107.334	496.725739	1.570
Pb	208	5266887.033	267.671	472.211503	1.401
Pb-1	208	15259665.762	766.676	470.132534	1.399

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		98.467				
[	As	75				7.041	96.759	
[	Cd	114				4.933	97.385	
[>	Rh	103		97.026				
[>	Lu	175		102.359				
[	Hg	200				6.018	80.621	
[>	Tm	169		101.373				
|	Pb	206				6.599	94.462	
|	Pb	207				6.165	106.356	
|	Pb	208				5.264	101.027	
[	Pb-1	208				5.617	100.582	

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mblank
 Sample Date/Time: Wednesday, October 17, 2007 10:28:51
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\Mblank.040
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:28:51 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	226008.286	230304.656		
As	75	146.890	55.778	0.000071	27.112
Cd	114	362.007	44.000	0.000071	20.981
Rh	103	562751.839	587818.255		
Lu	175	739904.181	775011.743		
Hg	200	36.000	18.444	0.000019	30.501
Tm	169	614531.236	644666.503		
Pb	206	458.012	124.001	0.000069	18.011
Pb	207	413.343	107.334	0.000083	18.215
Pb	208	935.382	267.671	0.000071	22.393
Pb-1	208	2742.119	766.676	0.000072	20.891

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		98.134				
[	As	75						
[	Cd	114						
[>	Rh	103		95.736				
[>	Lu	175		95.470				
[	Hg	200						
[>	Tm	169		95.325				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mcontrol
 Sample Date/Time: Wednesday, October 17, 2007 10:30:12
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\Mcontrol.041
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:30:12 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	228216.835	230304.656		
As	75	671373.273	55.778	0.514101	1.114
Cd	114	2310805.111	44.000	0.505552	0.890
Rh	103	570144.944	587818.255		
Lu	175	788852.310	775011.743		
Hg	200	543.794	18.444	0.000499	0.442
Tm	169	654754.889	644666.503		
Pb	206	2598433.782	124.001	0.493168	0.535
Pb	207	2208807.978	107.334	0.550938	0.096
Pb	208	5326754.321	267.671	0.522510	0.153
Pb-1	208	15460750.403	766.676	0.521141	0.148

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		99.093				
[	As	75					102.806	
[	Cd	114					101.096	
[>	Rh	103		96.993				
[>	Lu	175		101.786				
[	Hg	200					96.015	
[>	Tm	169		101.565				
[	Pb	206					98.620	
[	Pb	207					110.171	
[	Pb	208					104.488	
[	Pb-1	208					104.214	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22673
 Sample Date/Time: Wednesday, October 17, 2007 10:31:32
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata\cpms\DataSet\101707 281 Avant\22673.042
 Calibration File: C:\elandata\cpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL): 52.642
 Initial Sample Quantity (mg): 494.000
 Aliquot Volume (mL): 5.020
 Diluted to Volume (mL): 49.993
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:31:32 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	235114.243	230304.656		
As	75	24699.957	55.778	19.437214	0.887
Cd	114	10913.214	44.000	2.457625	1.175
Rh	103	585442.885	587818.255		
Lu	175	803525.613	775011.743		
Hg	200	638.911	18.444	0.613379	3.157
Tm	169	664047.753	644666.503		
Pb	206	1508725.769	124.001	299.618112	0.212
Pb	207	1257206.668	107.334	328.111777	0.586
Pb	208	3231281.580	267.671	331.657204	0.432
Pb-1	208	9228495.598	766.676	325.487961	0.238

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	102.088				
[	As 75					
[	Cd 114					
[>	Rh 103	99.596				
[>	Lu 175	103.679				
[	Hg 200					
[>	Tm 169	103.006				
|	Pb 206					
|	Pb 207					
|	Pb 208					
[	Pb-1 208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Wednesday, October 17, 2007 10:32:54
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\CCV.043
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:32:54 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	225300.358	230304.656		
As	75	79817.356	55.778	0.061870	1.314
Cd	114	272800.188	44.000	0.060792	1.276
Rh	103	559720.168	587818.255		
Lu	175	738380.766	775011.743		
Hg	200	5742.036	18.444	0.005809	1.812
Tm	169	614346.018	644666.503		
Pb	206	272474.111	124.001	0.055092	0.466
Pb	207	232395.910	107.334	0.061754	0.359
Pb	208	567943.571	267.671	0.059354	0.493
Pb-1	208	1640757.163	766.676	0.058921	0.284

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		97.827				
[	As	75			103.117			
[	Cd	114			101.320			
[>	Rh	103		95.220				
[>	Lu	175		95.273				
[	Hg	200			96.813			
[>	Tm	169		95.297				
[	Pb	206			91.820			
[	Pb	207			102.923			
[	Pb	208			98.923			
[	Pb-1	208			98.202			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Wednesday, October 17, 2007 10:34:18
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101707 281 Avant\CCB.044
 Calibration File: C:\elandata_icpms\System\October 2007\101707 281 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 10:34:18 Wed 17-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	229562.565	230304.656		
As	75	86.667	55.778	0.000024	21.219
Cd	114	167.335	44.000	0.000027	22.094
Rh	103	572284.605	587818.255		
Lu	175	741134.452	775011.743		
Hg	200	82.445	18.444	0.000066	7.941
Tm	169	617565.509	644666.503		
Pb	206	350.673	124.001	0.000047	1.885
Pb	207	285.338	107.334	0.000048	8.666
Pb	208	686.359	267.671	0.000045	2.981
Pb-1	208	2008.730	766.676	0.000046	3.235

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		99.678				
[	As	75						
[	Cd	114						
[>	Rh	103		97.357				
[>	Lu	175		95.629				
[	Hg	200						
[>	Tm	169		95.796				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22708(Pb)	TP-34 (3.5')	12.117	16%	92%	81%	6%	BDL	104%
22805(Pb)	HA-2 (0.5')	53.327	5%	107%	103%	3%	BDL	102%
22806(Pb)	HA-2 (1.5')	8.765	0%	102%	96%	6%	BDL	101%
22684(Pb)	TP-24 (18")	BDL	0%	91%	98%	7%	BDL	100%

Comments:

101707 Avant Pb. Rack Loading Guide 10/17/2007, 2:09:39 PM

Auto Sampler Type: SPS3 (Varian)

Rack: 0 Type: 6-tube stds

Tube	Sample Label	Type	Weight	Volume	Dilution
1	Blank	Blk	1.0000	1.00	1.00
2	0.5 ppm	Std	1.0000	1.00	1.00
3	1.0 ppm	Std	1.0000	1.00	1.00
4	10.0 ppm	Std	1.0000	1.00	1.00
5	20.0 ppm	Std	1.0000	1.00	1.00
6	100.0 ppm	Std	1.0000	1.00	1.00

Rack: 1 Type: 21 (3 * 7) tube

Tube	Sample Label	Type	Weight	Volume	Dilution
1	22707	Samp	0.5110	50.16	1.00
2	22708	Samp	0.5180	50.01	1.00
3	22708-2	Samp	0.4770	49.66	1.00
4	22708-S1	Samp	0.5350	49.96	1.00
5	22708-S2	Samp	0.5770	50.28	1.00
6	Mblank	Samp	1.0000	1.00	1.00
7	22709	Samp	0.5310	50.09	1.00
8	22710	Samp	0.5770	49.89	1.00
9	22712	Samp	0.5160	49.99	1.00
10	22713	Samp	0.4730	50.05	1.00
11	Mcontrol	Samp	1.0000	1.00	1.00
12	22673	Samp	0.4940	52.64	1.00
13	22784	Samp	0.5010	50.18	1.00
14	22785	Samp	0.4980	50.39	1.00
15	22787	Samp	0.4960	50.12	1.00
16	22788	Samp	0.5070	50.03	1.00
17	Mblank	Samp	1.0000	1.00	1.00
18	22790	Samp	0.5090	50.13	1.00
19	22791	Samp	0.4900	50.06	1.00
20	22805	Samp	0.4890	50.17	1.00
21	22805-2	Samp	0.5040	50.19	1.00

Rack: 2 Type: 21 (3 * 7) tube

Tube	Sample Label	Type	Weight	Volume	Dilution
1	22805-S1	Samp	0.4840	51.81	1.00
2	22805-S2	Samp	0.4950	50.03	1.00
3	Mcontrol	Samp	1.0000	1.00	1.00
4	22793	Samp	0.5200	50.58	1.00
5	22794	Samp	0.4990	50.90	1.00
6	22796	Samp	0.5010	49.97	1.00
7	22797	Samp	0.5250	49.93	1.00
8	22799	Samp	0.4940	50.01	1.00
9	Mblank	Samp	1.0000	1.00	1.00
10	22800	Samp	0.5060	50.13	1.00
11	22806	Samp	0.5110	50.02	1.00
12	22806-2	Samp	0.5000	50.06	1.00
13	22806-S1	Samp	0.4990	50.36	1.00
14	22806-S2	Samp	0.5260	50.04	1.00
15	Mcontrol	Samp	1.0000	1.00	1.00
16	22803	Samp	0.5390	50.14	1.00

101707 Avant Pb. Rack Loading Guide 10/17/2007, 2:09:39 PM

Tube	Sample Label	Type	Weight	Volume	Dilution
17	22938	Samp	0.5180	50.20	1.00
18	22674	Samp	0.5070	49.88	1.00
19	22676	Samp	0.5900	50.00	1.00
20	22677	Samp	0.5640	50.12	1.00
21	22680	Samp	0.4800	50.00	1.00

Rack: 3 Type: 21 (3 * 7) tube

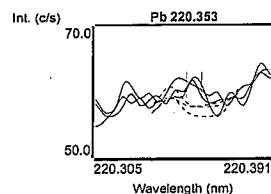
Tube	Sample Label	Type	Weight	Volume	Dilution
1	22683	Samp	0.4920	50.69	1.00
2	22684	Samp	0.4940	49.90	1.00
3	22684-2	Samp	0.5120	50.28	1.00
4	22684-S1	Samp	0.5380	50.10	1.00
5	22684-S2	Samp	0.5020	49.86	1.00
6	Mblank	Samp	1.0000	1.00	1.00
7	Mcontrol	Samp	1.0000	1.00	1.00

Rack: 4 Type: 6-tube stds

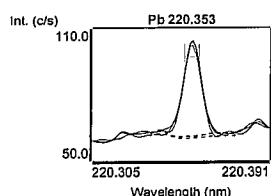
Tube	Sample Label	Type	Weight	Volume	Dilution
1	200.0 ppm	Std	1.0000	1.00	1.00
2	rinse	Std	1.0000	1.00	1.00
3	Initial Calib Verif	ICV	1.0000	1.00	1.00
4	Initial Calib Blank	ICB	1.0000	1.00	1.00
5	Cont Calib Verif	CCV	1.0000	1.00	1.00
6	Cont Calib Blank	CCB	1.0000	1.00	1.00

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM

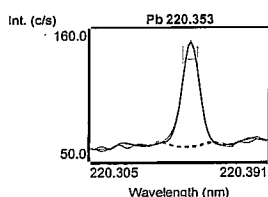
Blank (Blk)		10/17/2007, 7:57:02 AM		Rack 0, Tube 1	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	0.000000	mg/L	1.198	32.5	3.68936



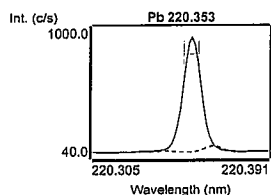
0.5 ppm (Std)		10/17/2007, 8:01:00 AM		Rack 0, Tube 2	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	0.500000	mg/L	1.509	4.2	36.2124



1.0 ppm (Std)		10/17/2007, 8:04:58 AM		Rack 0, Tube 3	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	1.00000	mg/L	0.960	1.3	72.0134

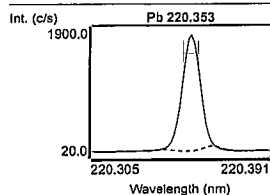


10.0 ppm (Std)		10/17/2007, 8:08:57 AM		Rack 0, Tube 4	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	10.0000	mg/L	10.408	1.5	704.542

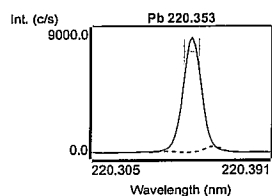


20.0 ppm (Std)		10/17/2007, 8:12:54 AM		Rack 0, Tube 5	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	20.0000	mg/L	5.510	0.4	1386.93

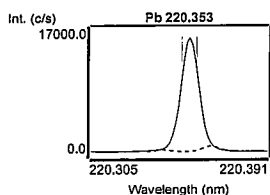
101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



100.0 ppm (Std)		10/17/2007, 8:16:52 AM		Rack 0, Tube 6	
Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	100.000	mg/L	60.056	0.9	6926.90



200.0 ppm (Std)		10/17/2007, 8:20:51 AM		Rack 4, Tube 1	
Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	200.000	mg/L	45.850	0.3	13339.8



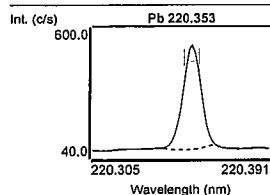
Pb 220.353 Calibration (mg/L)		10/17/2007, 8:20:51 AM		Correlation Coefficient: 0.999843		
Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		3.68936	0.000000	-0.005725	-	-
0.5 ppm		36.2124	0.500000	0.473555	-0.026445	-5.3
1.0 ppm		72.0134	1.00000	1.00114	0.001143	0.1
10.0 ppm		704.542	10.0000	10.3225	0.322492	3.2
20.0 ppm		1386.93	20.0000	20.3786	0.378637	1.9
100.0 ppm		6926.90	100.000	102.019	2.01920	2.0
200.0 ppm		13339.8	200.000	196.524	-3.47565	-1.7

Curve Type: Linear

Equation: $y = 67.9x + 4.1$

Initial Calib Verif (ICV)		10/17/2007, 8:28:48 AM		Rack 4, Tube 3			
Weight: 1		Volume: 1		Dilution: 1			
Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.46118	mg/L	0.056831	1.0	374.663	5.46118 mg/L	109.22363

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Initial Calib Blank (ICB)

10/17/2007, 8:32:46 AM

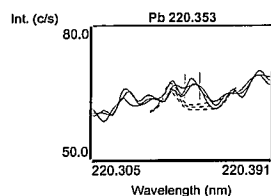
Rack 4, Tube 4

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.010319	mg/L	0.002119	20.5	4.77808	0.010319 mg/L	0.01032



22707 (Samp)

10/17/2007, 8:36:44 AM

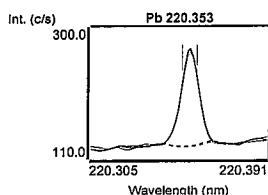
Rack 1, Tube 1

Weight: 0.511

Volume: 50.164

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	1.81425	mg/L	0.021008	1.2	127.189	178.102 mg/L	1.00000



22708 (Samp)

10/17/2007, 8:40:43 AM

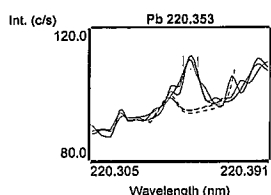
Rack 1, Tube 2

Weight: 0.518

Volume: 50.013

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.125501	mg/L	0.010635	8.5	12.5941	12.1171 mg/L	1.00000



22708-2 (Samp)

10/17/2007, 8:44:40 AM

Rack 1, Tube 3

Weight: 0.477

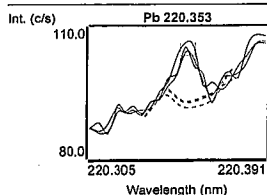
Volume: 49.659

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.099002	mg/L	0.017516	17.7	10.7959	10.3068 mg/L	1.00000

$$\frac{12.117 - 10.307}{(12.117 + 10.307)/2} \times 100 = 16\% \text{ RPD}$$
 Intensity < low at 10.17.07

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



22708-S1 (Samp)

10/17/2007, 8:48:38 AM

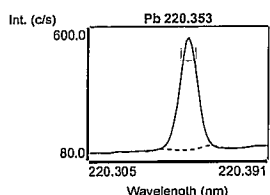
Rack 1, Tube 4

Weight: 0.535

Volume: 49.961

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.07405	mg/L	0.041173	0.8	348.393	473.840 mg/L	1.00000



$$\frac{473.840 - 12.117}{500} \times 100 = 92\%$$

CMT 10.17.07

22708-S2 (Samp)

10/17/2007, 8:52:36 AM

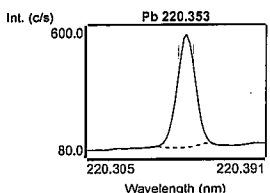
Rack 1, Tube 5

Weight: 0.577

Volume: 50.284

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.12491	mg/L	0.005671	0.1	351.844	446.622 mg/L	1.00000



$$\frac{446.622 - 10.307}{500} \times 100 = 87\%$$

CMT 10.17.07

$$\begin{aligned} \text{RPD} &= \frac{840}{473.622 - 446.622} \\ &= \frac{27.218}{460.231} \times 100 = 6\% \end{aligned}$$

Mblank (Samp)

10/17/2007, 8:56:34 AM

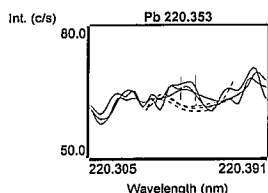
Rack 1, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.007771uv	mg/L	0.014057	180.9	4.60516	0.007771 mg/L	1.00000



22709 (Samp)

10/17/2007, 9:00:31 AM

Rack 1, Tube 7

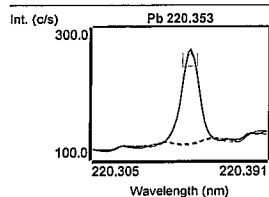
Weight: 0.531

Volume: 50.086

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	1.66046	mg/L	0.030102	1.8	116.753	156.621 mg/L	1.00000

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



22710 (Samp)

10/17/2007, 9:04:28 AM

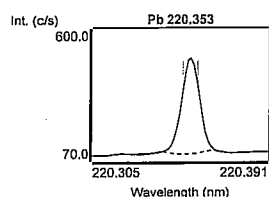
Rack 1, Tube 8

Weight: 0.577

Volume: 49.889

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	4.65152	mg/L	0.009650	0.2	319.721	402.183 mg/L	1.00000



22712 (Samp)

10/17/2007, 9:08:26 AM

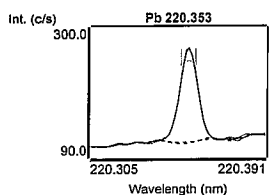
Rack 1, Tube 9

Weight: 0.516

Volume: 49.993

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	1.85002	mg/L	0.017772	1.0	129.617	179.241 mg/L	1.00000



22713 (Samp)

10/17/2007, 9:12:24 AM

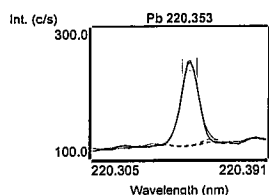
Rack 1, Tube 10

Weight: 0.473

Volume: 50.053

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	1.60912	mg/L	0.021982	1.4	113.270	170.278 mg/L	1.00000



Cont Calib Verif (CCV)

10/17/2007, 9:16:22 AM

Rack 4, Tube 5

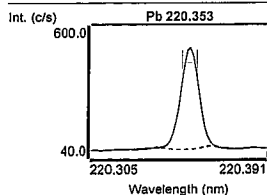
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.29335	mg/L	0.047675	0.9	363.275	5.29335 mg/L	105.86707

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Cont Calib Blank (CCB)

10/17/2007, 9:20:20 AM

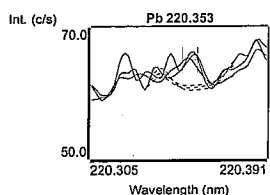
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.002003uv	mg/L	0.007873	393.0	4.21378	0.002003 mg/L	0.00200



Mcontrol (Samp)

10/17/2007, 9:24:18 AM

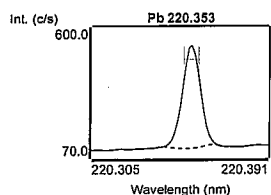
Rack 1, Tube 11

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.20484	mg/L	0.033105	0.6	357.269	5.20484 mg/L	1.00000



$$\frac{5.205 - 0.008}{5} \times 100 = 104\%$$

Ox 10.17.07

22673 (Samp)

10/17/2007, 9:28:16 AM

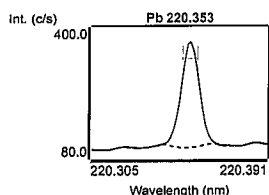
Rack 1, Tube 12

Weight: 0.494

Volume: 52.642

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	3.08412	mg/L	0.030659	1.0	213.361	328.653 mg/L	1.00000



Cont Calib Verif (CCV)

10/17/2007, 9:32:14 AM

Rack 4, Tube 5

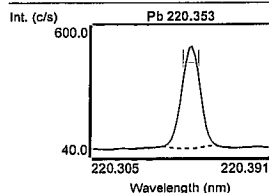
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.28983	mg/L	0.079650	1.5	363.036	5.28983 mg/L	105.79665

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Cont Calib Blank (CCB)

10/17/2007, 9:36:13 AM

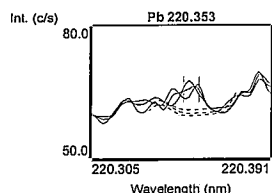
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.018083uv	mg/L	0.017883	98.9	5.30494	0.018083 mg/L	0.01808



22784 (Samp)

10/17/2007, 9:43:54 AM

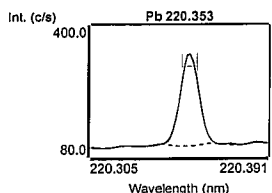
Rack 1, Tube 13

Weight: 0.501

Volume: 50.179

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.76908	mg/L	0.029365	1.1	191.982	277.345 mg/L	1.00000



22785 (Samp)

10/17/2007, 9:47:52 AM

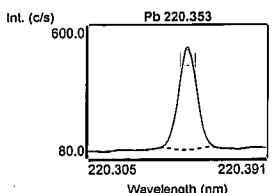
Rack 1, Tube 14

Weight: 0.498

Volume: 50.393

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	4.79939	mg/L	0.064822	1.4	329.755	485.654 mg/L	1.00000



22787 (Samp)

10/17/2007, 9:51:50 AM

Rack 1, Tube 15

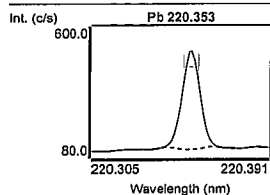
Weight: 0.496

Volume: 50.116

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	4.71741	mg/L	0.051480	1.1	324.192	476.648 mg/L	1.00000

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



22788 (Samp)

10/17/2007, 9:55:48 AM

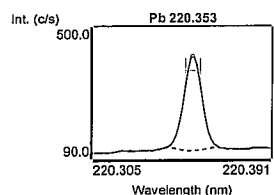
Rack 1, Tube 16

Weight: 0.507

Volume: 50.027

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	3.58103	mg/L	0.051807	1.4	247.080	353.349 mg/L	1.00000



Mblank (Samp)

10/17/2007, 9:59:46 AM

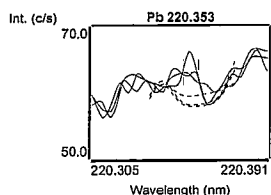
Rack 1, Tube 17

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.006017uv	mg/L	0.026340	437.7	4.48616	0.006017 mg/L	1.00000



22790 (Samp)

10/17/2007, 10:03:44 AM

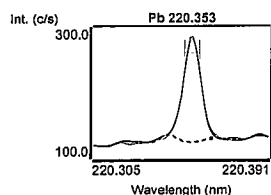
Rack 1, Tube 18

Weight: 0.509

Volume: 50.131

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	1.92144	mg/L	0.025149	1.3	134.463	189.241 mg/L	1.00000



22791 (Samp)

10/17/2007, 10:07:43 AM

Rack 1, Tube 19

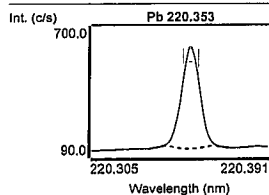
Weight: 0.49

Volume: 50.061

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.84840	mg/L	0.033712	0.6	400.939	597.504 mg/L	1.00000

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



22805 (Samp)

10/17/2007, 10:11:40 AM

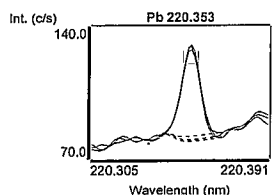
Rack 1, Tube 20

Weight: 0.489

Volume: 50.166

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.519817	mg/L	0.030326	5.8	39.3516	53.3274 mg/L	1.00000



22805-2 (Samp)

10/17/2007, 10:15:39 AM

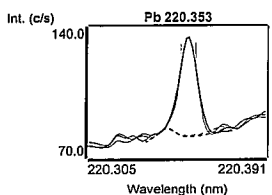
Rack 1, Tube 21

Weight: 0.504

Volume: 50.188

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.564935	mg/L	0.002844	0.5	42.4132	56.2559 mg/L	1.00000



$$\frac{56.256 - 53.327}{(56.256 + 53.327)/2} \times 100 = 5\% \text{ RPD}$$

OK 10.17.07

22805-S1 (Samp)

10/17/2007, 10:19:38 AM

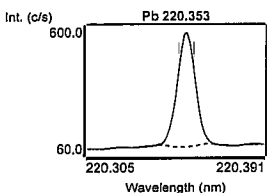
Rack 2, Tube 1

Weight: 0.484

Volume: 51.806

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.48630	mg/L	0.067563	1.2	376.368	587.238 mg/L	1.00000



$$\frac{587.238 - 53.327}{500} \times 100 = 107\%$$

OK 10.17.07

Cont Calib Verif (CCV)

10/17/2007, 10:23:37 AM

Rack 4, Tube 5

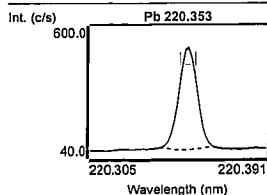
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.19696	mg/L	0.060897	1.2	356.734	5.19696 mg/L	103.93925

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Cont Calib Blank (CCB)

10/17/2007, 10:27:35 AM

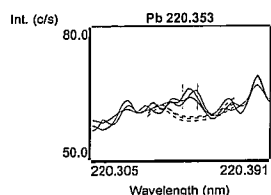
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.013482	mg/L	0.008237	61.1	4.99269	0.013482 mg/L	0.01348



22805-S2 (Samp)

10/17/2007, 10:31:34 AM

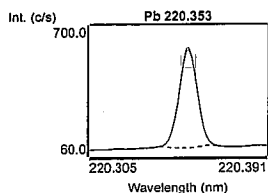
Rack 2, Tube 2

Weight: 0.495

Volume: 50.031

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.66638	mg/L	0.064242	1.1	388.588	572.717 mg/L	1.00000



$$\frac{572.717 - 56.25e}{500} \times 100 = 103\%$$

$$RPD = \frac{587.238 - 572.717}{(587.238 + 572.717)/2} \times 100 = 3\% \text{ RPD}$$

OK 10-17-07

Mcontrol (Samp)

10/17/2007, 10:35:32 AM

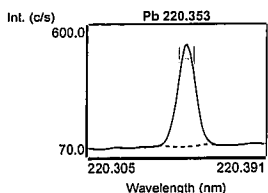
Rack 2, Tube 3

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.11288	mg/L	0.028994	0.6	351.028	5.11288 mg/L	1.00000



$$\frac{5.113 - 0.006}{5} \times 100 = 102\%$$

OK 10-17-07

22793 (Samp)

10/17/2007, 10:39:31 AM

Rack 2, Tube 4

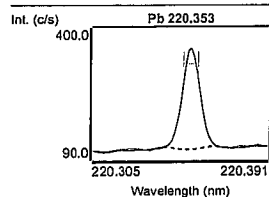
Weight: 0.52

Volume: 50.58

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.87528	mg/L	0.017043	0.6	199.189	279.676 mg/L	1.00000

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



22794 (Samp)

10/17/2007, 10:43:30 AM

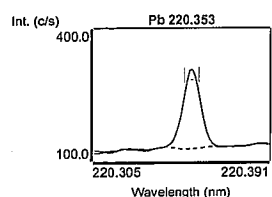
Rack 2, Tube 5

Weight: 0.499

Volume: 50.897

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.23892	mg/L	0.021201	0.9	156.007	228.365 mg/L	1.00000



22796 (Samp)

10/17/2007, 10:47:29 AM

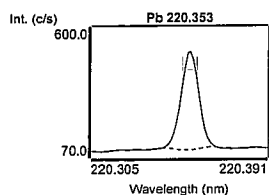
Rack 2, Tube 6

Weight: 0.501

Volume: 49.974

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	4.67635	mg/L	0.012262	0.3	321.406	466.459 mg/L	1.00000



22797 (Samp)

10/17/2007, 10:51:28 AM

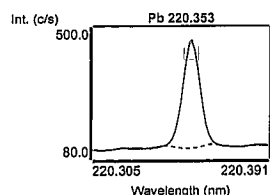
Rack 2, Tube 7

Weight: 0.525

Volume: 49.933

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	4.06206	mg/L	0.025616	0.6	279.722	386.345 mg/L	1.00000



22799 (Samp)

10/17/2007, 10:55:27 AM

Rack 2, Tube 8

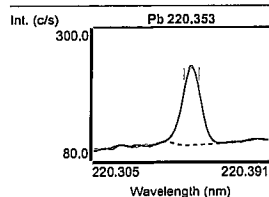
Weight: 0.494

Volume: 50.007

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	1.51926	mg/L	0.027400	1.8	107.172	153.793 mg/L	1.00000

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Mblank (Samp)

10/17/2007, 10:59:26 AM

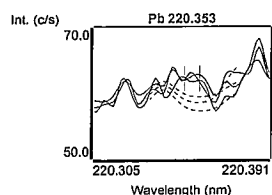
Rack 2, Tube 9

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	-0.006992uv	mg/L	0.010713	153.2	3.60338	-0.006992 mg/L	1.00000



22800 (Samp)

10/17/2007, 11:03:25 AM

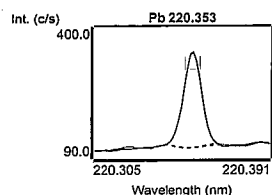
Rack 2, Tube 10

Weight: 0.506

Volume: 50.125

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.64447	mg/L	0.005402	0.2	183.526	261.964 mg/L	1.00000



22806 (Samp)

10/17/2007, 11:07:24 AM

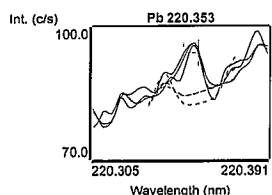
Rack 2, Tube 11

Weight: 0.511

Volume: 50.021

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.089544	mg/L	0.026807	29.9	10.1541	8.76535 mg/L	1.00000



Cont Calib Verif (CCV)

10/17/2007, 11:11:24 AM

Rack 4, Tube 5

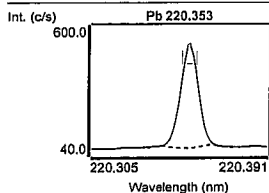
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.22066	mg/L	0.075614	1.4	358.342	5.22066 mg/L	104.41314

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Cont Calib Blank (CCB)

10/17/2007, 11:15:23 AM

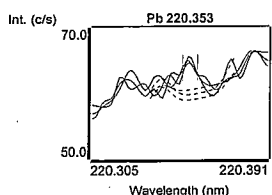
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.000624	µg/L	0.008445	1354.1	4.12016	0.000624 mg/L	0.00062



22806-2 (Samp)

10/17/2007, 11:19:22 AM

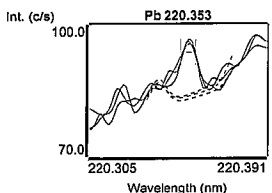
Rack 2, Tube 12

Weight: 0.5

Volume: 50.057

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.087929	mg/L	0.005551	6.3	10.0445	8.80293 mg/L	1.00000



$$\frac{8.803 - 8.765}{(8.803 + 8.765)/2} \times 100 = 0\% \text{ RPD}$$

Ckt 10.17.07

22806-S1 (Samp)

10/17/2007, 11:23:22 AM

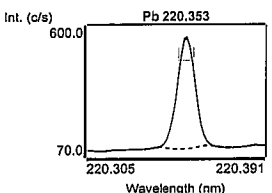
Rack 2, Tube 13

Weight: 0.499

Volume: 50.357

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.15309	mg/L	0.046913	0.9	353.757	520.028 mg/L	1.00000



$$\frac{520.028 - 8.765}{500} \times 100 = 102\%$$

Ckt 10.17.07

22806-S2 (Samp)

10/17/2007, 11:27:21 AM

Rack 2, Tube 14

Weight: 0.526

Volume: 50.044

Dilution: 1

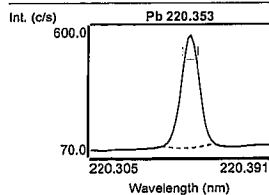
Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.16075	mg/L	0.053416	1.0	354.276	490.997 mg/L	1.00000

$$\text{RPD} = \frac{520.028 - 490.997}{(520.028 + 490.997)/2} \times 100 = 6\%$$

$$\frac{490.997 - 8.803}{500} \times 100 = 96\%$$

Ckt 10.17.07

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Mcontrol (Samp)

10/17/2007, 11:31:19 AM

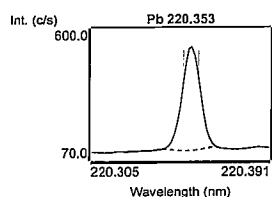
Rack 2, Tube 15

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.07218	mg/L	0.024716	0.5	348.267	5.07218 mg/L	1.00000



$$\frac{5.072 - 0}{5} \times 100 = 101\%$$

OK 10-17-07

22803 (Samp)

10/17/2007, 11:35:17 AM

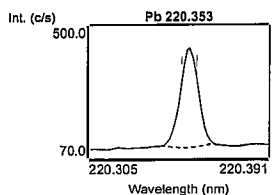
Rack 2, Tube 16

Weight: 0.539

Volume: 50.14

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	3.71669	mg/L	0.061198	1.6	256.286	345.742 mg/L	1.00000



22938 (Samp)

10/17/2007, 11:39:15 AM

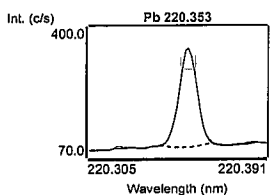
Rack 2, Tube 17

Weight: 0.518

Volume: 50.202

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.81087	mg/L	0.002760	0.1	194.818	272.416 mg/L	1.00000



Cont Calib Verif (CCV)

10/17/2007, 11:58:42 AM

Rack 4, Tube 5

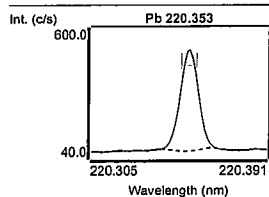
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.25931	mg/L	0.084164	1.6	360.964	5.25931 mg/L	105.18616

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Cont Calib Blank (CCB)

10/17/2007, 11:47:13 AM

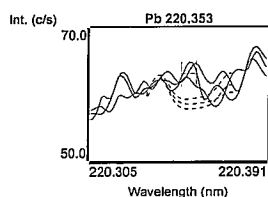
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.005914uv	mg/L	0.010669	180.4	4.47913	0.005914 mg/L	0.00591



22674 (Samp)

10/17/2007, 12:02:40 PM

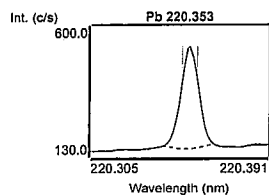
Rack 2, Tube 18

Weight: 0.507

Volume: 49.883

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	4.67301	mg/L	0.047108	1.0	321.179	459.770 mg/L	1.00000



22676 (Samp)

10/17/2007, 12:06:38 PM

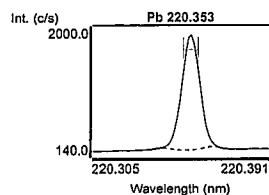
Rack 2, Tube 19

Weight: 0.59

Volume: 50.004

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	20.8732	mg/L	0.207964	1.0	1420.49	1769.05 mg/L	1.00000



22677 (Samp)

10/17/2007, 12:10:36 PM

Rack 2, Tube 20

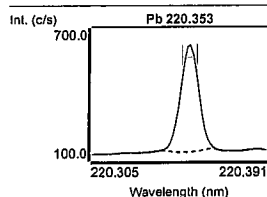
Weight: 0.564

Volume: 50.123

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	6.21432	mg/L	0.049376	0.8	425.770	552.270 mg/L	1.00000

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



22680 (Samp)

10/17/2007, 12:14:34 PM

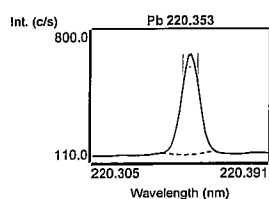
Rack 2, Tube 21

Weight: 0.48

Volume: 49.998

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	6.66590	mg/L	0.063992	1.0	456.413	694.337 mg/L	1.00000



22683 (Samp)

10/17/2007, 12:18:32 PM

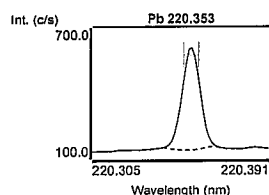
Rack 3, Tube 1

Weight: 0.492

Volume: 50.695

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	6.30225	mg/L	0.095066	1.5	431.736	649.375 mg/L	1.00000



22684 (Samp)

10/17/2007, 12:22:31 PM

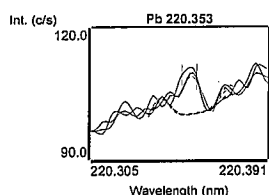
Rack 3, Tube 2

Weight: 0.494

Volume: 49.904

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.066235	mg/L	0.020596	31.1	8.57242	6.69107 mg/L	1.00000



⑩ sample intensity less than the intensity of the lowest standard. Sample is BDL.

CAT 10.17.07

22684-2 (Samp)

10/17/2007, 12:26:28 PM

Rack 3, Tube 3

Weight: 0.512

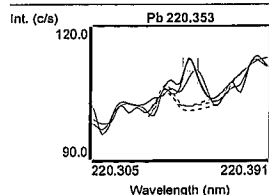
Volume: 50.279

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.059976	mg/L	0.011128	18.6	8.14771	5.88973 mg/L	1.00000

⑩ sample intensity less than lowest standard intensity.
 Sample BDL. Both sample and duplicate are BDL.
 RPD is 0% cat 10.17.07

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



22684-S1 (Samp)

10/17/2007, 12:30:26 PM

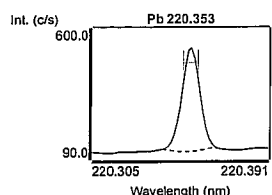
Rack 3, Tube 4

Weight: 0.538

Volume: 50.096

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	4.96080	mg/L	0.034839	0.7	340.709	461.927 mg/L	1.00000



$$\frac{461.927 - 6.691}{500} \times 100 = 91\%$$

22684-S2 (Samp)

10/17/2007, 12:34:24 PM

Rack 3, Tube 5

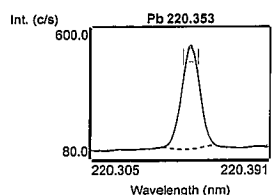
Weight: 0.502

Volume: 49.859

Dilution: 1

Ckt 10.17.07

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.00568	mg/L	0.053358	1.1	343.754	497.168 mg/L	1.00000



$$\frac{497.168 - 5.890}{500} \times 100 = 98\%$$

$$RPD = \frac{(497.168 - 461.927)}{(497.168 + 461.927)/2} \times 100 = 7\%$$

Mblank (Samp)

10/17/2007, 12:38:22 PM

Rack 3, Tube 6

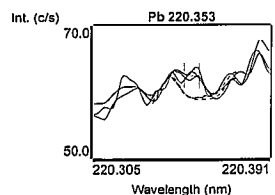
Weight: 1

Volume: 1

Dilution: 1

Ckt 10.17.07

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	-0.013227uv	mg/L	0.006276	47.5	3.18029	-0.013227 mg/L	1.00000



Cont Calib Verif (CCV)

10/17/2007, 12:42:21 PM

Rack 4, Tube 5

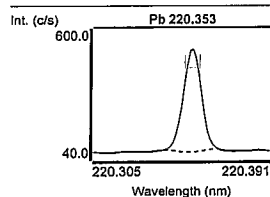
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.17969	mg/L	0.039172	0.8	355.562	5.17969 mg/L	103.59376

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Cont Calib Blank (CCB)

10/17/2007, 12:46:21 PM

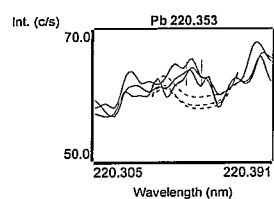
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.007958	mg/L	0.002863	36.0	4.61789	0.007958 mg/L	0.00796



Mcontrol (Samp)

10/17/2007, 12:50:19 PM

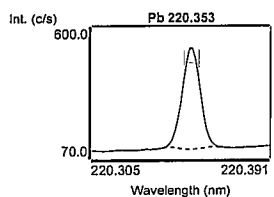
Rack 3, Tube 7

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.01413	mg/L	0.019586	0.4	344.327	5.01413 mg/L	1.00000



$$\frac{5.014 - 0}{5} \times 100 = 100\%$$

Cont Calib Verif (CCV)

10/17/2007, 12:54:17 PM

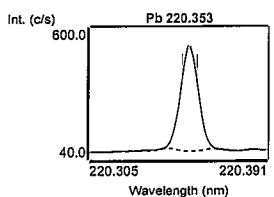
Rack 4, Tube 5

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.16862	mg/L	0.035712	0.7	354.810	5.16862 mg/L	103.37234



Cont Calib Blank (CCB)

10/17/2007, 12:58:17 PM

Rack 4, Tube 6

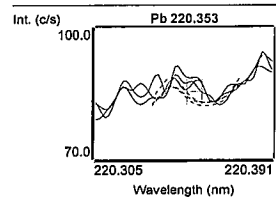
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	-0.030821uv	mg/L	0.002842	9.2	1.98641	-0.030821 mg/L	-

101707 Avant Pb. All Data Report 10/17/2007, 2:06:12 PM



Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22650(Pb)	TP-8 (0-0.5')	33.339	1%	99%	100%	1%	BDL	101%
22672(Pb)	TP-21 (3')	11.955	12%	94%	93%	0%	BDL	103%
22698(Pb)	TP-36 (18")	BDL	0%	111%	109%	2%	BDL	105%
22672(Pb)	TP-21 (3')	10.766	8%	106%	110%	3%	BDL	102%

Comments:

101607 Avant Pb. Rack Loading Guide 10/16/2007, 3:20:08 PM

Auto Sampler Type: SPS3 (Varian)

Rack: 0 Type: 6-tube stds

Tube	Sample Label	Type	Weight	Volume	Dilution
1	Blank	Blk	1.0000	1.00	1.00
2	0.5 ppm	Std	1.0000	1.00	1.00
3	1.0 ppm	Std	1.0000	1.00	1.00
4	10.0 ppm	Std	1.0000	1.00	1.00
5	20.0 ppm	Std	1.0000	1.00	1.00
6	100.0 ppm	Std	1.0000	1.00	1.00

Rack: 1 Type: 21 (3 * 7) tube

Tube	Sample Label	Type	Weight	Volume	Dilution
1	22645 (276)	Samp	0.4900	49.64	1.00
2	CRM	Samp	0.2330	49.95	1.00
3	Mblank	Samp	1.0000	1.00	1.00
4	Mcontrol	Samp	1.0000	1.00	1.00
5	22649	Samp	0.5530	50.26	1.00
6	22650	Samp	0.5010	49.70	1.00
7	22650-2	Samp	0.4940	50.21	1.00
8	22650-S1	Samp	0.5090	49.62	1.00
9	22650-S2	Samp	0.5170	49.49	1.00
10	22652	Samp	0.5220	49.80	1.00
11	Mblank	Samp	1.0000	1.00	1.00
12	22653	Samp	0.5410	50.25	1.00
13	22656	Samp	0.5510	50.45	1.00
14	22672	Samp	0.4910	50.51	1.00
15	22672-2	Samp	0.5570	49.68	1.00
16	22672-S1	Samp	0.5360	49.76	1.00
17	22672-S2	Samp	0.5410	50.11	1.00
18	Mcontrol (276)	Samp	1.0000	1.00	1.00
19	22685 (277)	Samp	0.4920	49.94	1.00
20	22687	Samp	0.4790	50.49	1.00
21	Mblank	Samp	1.0000	1.00	1.00

Rack: 2 Type: 21 (3 * 7) tube

Tube	Sample Label	Type	Weight	Volume	Dilution
1	22689	Samp	0.5290	50.16	1.00
2	22690	Samp	0.5120	50.46	1.00
3	22692	Samp	0.5780	50.77	1.00
4	22694	Samp	0.5050	50.17	1.00
5	Mcontrol	Samp	1.0000	1.00	1.00
6	22695	Samp	0.4800	50.43	1.00
7	22698	Samp	0.5000	50.81	1.00
8	22698-2	Samp	0.4940	50.40	1.00
9	22698-S1	Samp	0.4970	51.22	1.00
10	22698-S2	Samp	0.5090	49.23	1.00
11	22699	Samp	0.5420	50.38	1.00
12	22701-d	Samp	0.5110	49.20	10.00
13	22702 (277)	Samp	0.5080	50.04	1.00
14	22658 (283)	Samp	0.5110	50.10	1.00
15	22659	Samp	0.5490	49.74	1.00
16	22661	Samp	0.5170	50.51	1.00

101607 Avant Pb. Rack Loading Guide 10/16/2007, 3:20:08 PM

Tube	Sample Label	Type	Weight	Volume	Dilution
17	22662	Samp	0.5100	49.76	1.00
18	22664	Samp	0.4860	49.63	1.00
19	22665	Samp	0.4920	50.15	1.00
20	22667	Samp	0.5200	50.90	1.00
21	22668	Samp	0.5510	50.10	1.00

Rack: 3 Type: 21 (3 * 7) tube

Tube	Sample Label	Type	Weight	Volume	Dilution
1	22670	Samp	0.5030	50.06	1.00
2	22671	Samp	0.5120	50.14	1.00
3	22672	Samp	0.4980	50.22	1.00
4	22672-2	Samp	0.5280	50.25	1.00
5	22672-S1	Samp	0.4900	50.31	1.00
6	22672-S2	Samp	0.4830	50.22	1.00
7	22945	Samp	0.4970	50.05	1.00
8	Mblank	Samp	1.0000	1.00	1.00
9	Mcontrol	Samp	1.0000	1.00	1.00
10	Sample 60	Samp	1.0000	1.00	1.00
11	Sample 61	Samp	1.0000	1.00	1.00
12	Sample 62	Samp	1.0000	1.00	1.00

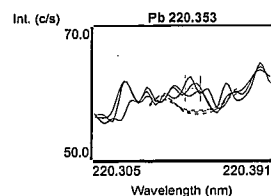
Rack: 4 Type: 6-tube stds

Tube	Sample Label	Type	Weight	Volume	Dilution
1	200.0 ppm	Std	1.0000	1.00	1.00
2	rinse	Std	1.0000	1.00	1.00
3	Initial Calib Verif	ICV	1.0000	1.00	1.00
4	Initial Calib Blank	ICB	1.0000	1.00	1.00
5	Cont Calib Verif	CCV	1.0000	1.00	1.00
6	Cont Calib Blank	CCB	1.0000	1.00	1.00

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM

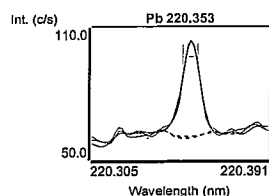
Blank (Blk) 10/16/2007, 7:56:24 AM Rack 0, Tube 1

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	0.000000	mg/L	0.495	14.2	3.49610



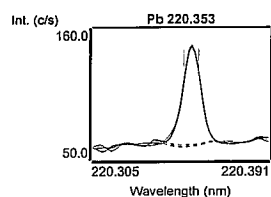
0.5 ppm (Std) 10/16/2007, 8:00:08 AM Rack 0, Tube 2

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	0.500000	mg/L	0.339	0.9	36.3240



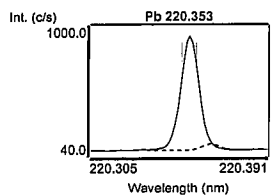
1.0 ppm (Std) 10/16/2007, 8:03:53 AM Rack 0, Tube 3

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	1.00000	mg/L	1.682	2.4	69.4627



10.0 ppm (Std) 10/16/2007, 8:07:38 AM Rack 0, Tube 4

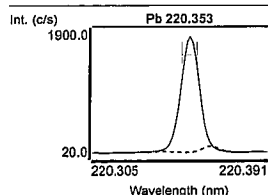
Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	10.0000	mg/L	5.281	0.8	688.496



20.0 ppm (Std) 10/16/2007, 8:11:24 AM Rack 0, Tube 5

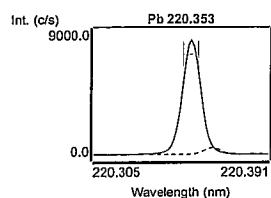
Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	20.0000	mg/L	3.883	0.3	1382.27

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



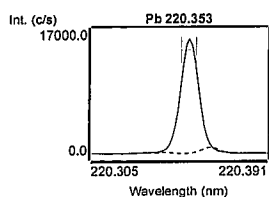
100.0 ppm (Std) 10/16/2007, 8:15:11 AM Rack 0, Tube 6

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	100.000	mg/L	13.500	0.2	6829.18



200.0 ppm (Std) 10/16/2007, 8:18:57 AM Rack 4, Tube 1

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	200.000	mg/L	111.852	0.8	13435.4



Pb 220.353 Calibration (mg/L)		10/16/2007, 8:18:57 AM		Correlation Coefficient: 0.999970		
Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		3.49610	0.000000	0.013618	-	-
0.5 ppm		36.3240	0.500000	0.493366	-0.006634	-1.3
1.0 ppm		69.4627	1.00000	0.977656	-0.022344	-2.2
10.0 ppm		688.496	10.0000	10.0242	0.024231	0.2
20.0 ppm		1382.27	20.0000	20.1631	0.163105	0.8
100.0 ppm		6829.18	100.000	99.7644	-0.235603	-0.2
200.0 ppm		13435.4	200.000	196.308	-3.69179	-1.8

Curve Type: Linear

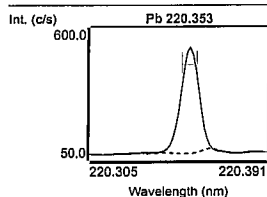
Equation: $y = 68.4x + 2.6$

Initial Calib Verif (ICV) 10/16/2007, 8:26:27 AM Rack 4, Tube 3

Weight: 1 Volume: 1 Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.31309	mg/L	0.024008	0.5	366.125	5.31309 mg/L	106.26183

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



Initial Calib Blank (ICB)

10/16/2007, 8:30:12 AM

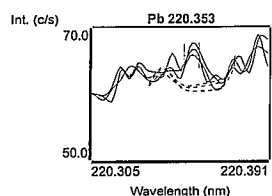
Rack 4, Tube 4

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.033436	mg/L	0.006575	19.7	4.85221	0.033436 mg/L	0.03344



22645 (276) (Samp)

10/16/2007, 8:33:58 AM

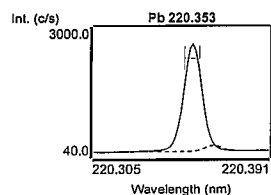
Rack 1, Tube 1

Weight: 0.49

Volume: 49.644

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	30.3505	mg/L	0.257064	0.8	2079.37	3074.94 mg/L	1.00000



CRM (Samp)

10/16/2007, 8:37:43 AM

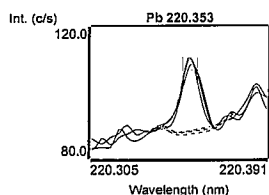
Rack 1, Tube 2

Weight: 0.233

Volume: 49.953

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.237588	mg/L	0.003922	1.7	18.8218	50.9366 mg/L	1.00000



Mblank (Samp)

10/16/2007, 8:53:31 AM

Rack 1, Tube 3

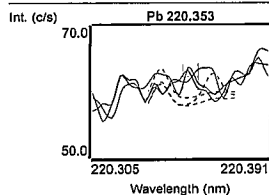
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.016768	mg/L	0.006889	41.1	3.71165	0.016768 mg/L	1.00000

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



Mcontrol (Samp)

10/16/2007, 8:57:16 AM

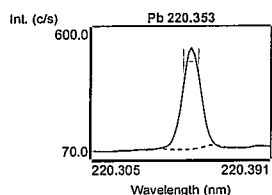
Rack 1, Tube 4

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.08449	mg/L	0.008587	0.2	350.482	5.08449 mg/L	1.00000



$$\frac{5.084 \text{ ppm} - 0.017 \text{ ppm}}{5.00 \text{ ppm}} \times 100 = 1.01 \times 100 = 101\%$$

22649 (Samp)

10/16/2007, 9:01:01 AM

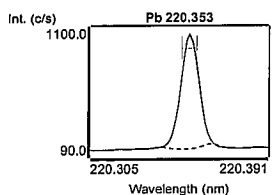
Rack 1, Tube 5

Weight: 0.553

Volume: 50.264

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	11.2065	mg/L	0.137427	1.2	769.397	1018.60 mg/L	1.00000



22650 (Samp)

10/16/2007, 9:04:46 AM

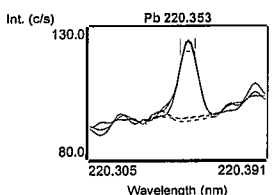
Rack 1, Tube 6

Weight: 0.501

Volume: 49.704

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.336050	mg/L	0.007304	2.2	25.5593	33.3394 mg/L	1.00000



22650-2 (Samp)

10/16/2007, 9:08:30 AM

Rack 1, Tube 7

Weight: 0.494

Volume: 50.214

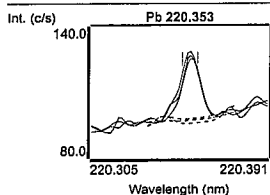
Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.331704	mg/L	0.019394	5.8	25.2619	33.7169 mg/L	1.00000

$$\frac{(33.717 - 33.339)}{(33.717 + 33.339)/2} \times 100 = 1\% \text{ RPD}$$

on 10.17.07

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



22650-S1 (Samp)

10/16/2007, 9:12:14 AM

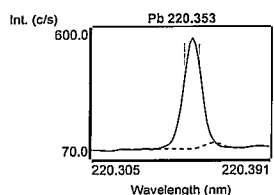
Rack 1, Tube 8

Weight: 0.509

Volume: 49.616

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.41041	mg/L	0.034514	0.6	372.784	527.393 mg/L	1.00000



$$\frac{(527.393 - 33.339)}{500} \times 100 = 99\%$$

CR# 10.17.07

22650-S2 (Samp)

10/16/2007, 9:15:59 AM

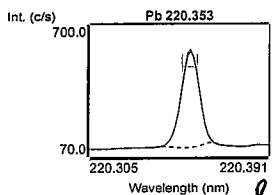
Rack 1, Tube 9

Weight: 0.517

Volume: 49.488

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.57146	mg/L	0.093580	1.7	383.804	533.308 mg/L	1.00000



$$\frac{(533.308 - 33.717)}{500} \times 100 = 100\%$$

$$RPD = \frac{533.308 - 527.393}{(533.308 + 527.393)/2} \times 100 = 1\% \quad CR# 10.17.07$$

22652 (Samp)

10/16/2007, 9:19:44 AM

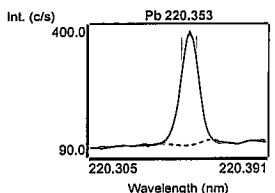
Rack 1, Tube 10

Weight: 0.522

Volume: 49.803

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	3.21729	mg/L	0.036579	1.1	222.715	306.955 mg/L	1.00000



Cont Calib Verif (CCV)

10/16/2007, 9:23:30 AM

Rack 4, Tube 5

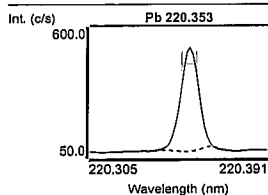
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.28072	mg/L	0.055084	1.0	363.910	5.28072 mg/L	105.61443

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



Cont Calib Blank (CCB)

10/16/2007, 9:27:15 AM

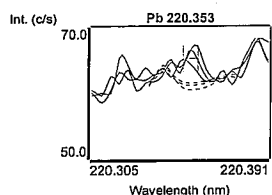
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.022513	mg/L	0.018249	81.1	4.10479	0.022513 mg/L	0.02251



Mblank (Samp)

10/16/2007, 9:31:01 AM

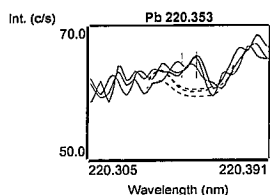
Rack 1, Tube 11

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.021635	mg/L	0.010447	48.3	4.04467	0.021635 mg/L	1.00000



22653 (Samp)

10/16/2007, 9:35:03 AM

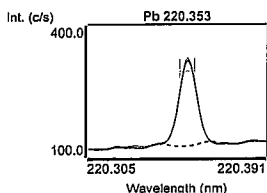
Rack 1, Tube 12

Weight: 0.541

Volume: 50.253

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.43875	mg/L	0.035951	1.5	169.442	226.533 mg/L	1.00000



22656 (Samp)

10/16/2007, 9:38:47 AM

Rack 1, Tube 13

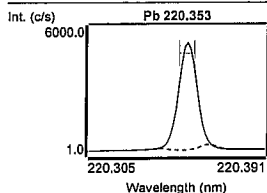
Weight: 0.551

Volume: 50.448

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	63.8966	mg/L	0.396740	0.6	4374.84	5850.19 mg/L	1.00000

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



22672 (Samp)

10/16/2007, 12:32:05 PM

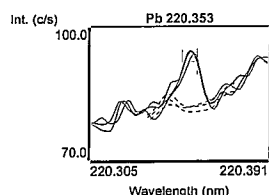
Rack 1, Tube 14

Weight: 0.491

Volume: 50.51

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.116215	mg/L	0.018324	15.8	10.5166	11.9552 mg/L	1.00000



22672-2 (Samp)

10/16/2007, 9:46:17 AM

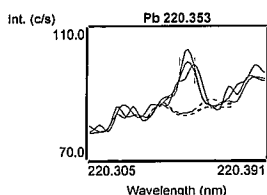
Rack 1, Tube 15

Weight: 0.557

Volume: 49.68

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.151555	mg/L	0.034356	22.7	12.9348	13.5175 mg/L	1.00000



$$\frac{(13.518 - 11.955)}{(13.518 + 11.955)/2} \times 100 = 12\% \text{ RPD}$$

CUT 10.17.07

22672-S1 (Samp)

10/16/2007, 9:50:02 AM

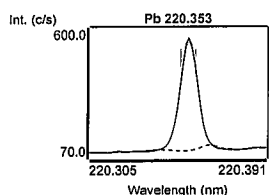
Rack 1, Tube 16

Weight: 0.536

Volume: 49.761

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.16601	mg/L	0.088071	1.7	356.060	479.600 mg/L	1.00000



$$\frac{479.600 - 11.955}{500} \times 100 = 94\%$$

CUT 10.17.07

22672-S2 (Samp)

10/16/2007, 9:53:48 AM

Rack 1, Tube 17

Weight: 0.541

Volume: 50.111

Dilution: 1

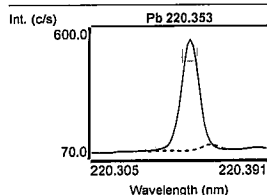
Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.17814	mg/L	0.024268	0.5	356.891	479.633 mg/L	1.00000

$$\text{RPD} = \frac{479.633 - 479.600}{(479.633 + 479.600)/2} \times 100 = 0.033\%$$

$$\frac{479.633 - 13.518}{500} \times 100 = 93\%$$

CUT 10.17.07

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



Mcontrol (276) (Samp)

10/16/2007, 9:57:35 AM

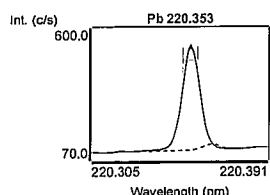
Rack 1, Tube 18

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.18001	mg/L	0.043155	0.8	357.018	5.18001 mg/L	1.00000



$$\frac{5.180 - 0.022}{5} \times 100 = 103\%$$

Oct 10.17.07

22685 (277) (Samp)

10/16/2007, 10:01:21 AM

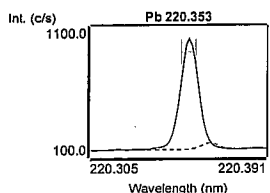
Rack 1, Tube 19

Weight: 0.492

Volume: 49.937

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	10.7038	mg/L	0.110300	1.0	734.997	1086.41 mg/L	1.00000



22687 (Samp)

10/16/2007, 10:05:06 AM

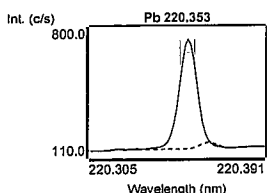
Rack 1, Tube 20

Weight: 0.479

Volume: 50.488

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	7.32119	mg/L	0.075228	1.0	503.534	771.675 mg/L	1.00000



Cont Calib Verif (CCV)

10/16/2007, 10:08:52 AM

Rack 4, Tube 5

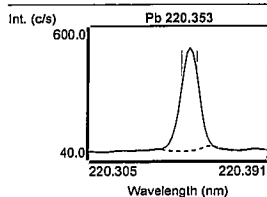
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.33772	mg/L	0.010340	0.2	367.810	5.33772 mg/L	106.75442

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



Cont Calib Blank (CCB)

10/16/2007, 10:12:38 AM

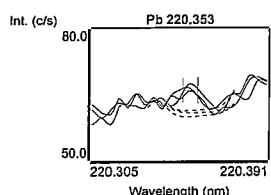
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.038390	mg/L	0.008853	23.1	5.19118	0.038390 mg/L	0.03839



Mblank (Samp)

10/16/2007, 10:55:54 AM

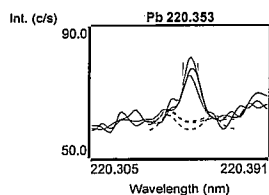
Rack 1, Tube 21

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.176495	mg/L	0.050644	28.7	14.6414	0.176495 mg/L	1.00000



22689 (Samp)

10/16/2007, 10:47:39 AM

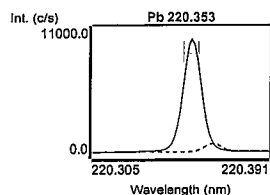
Rack 2, Tube 1

Weight: 0.529

Volume: 50.162

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	119.718	mg/L	0.763887	0.6	8194.54	11352.1 mg/L	1.00000



22690 (Samp)

10/16/2007, 10:59:40 AM

Rack 2, Tube 2

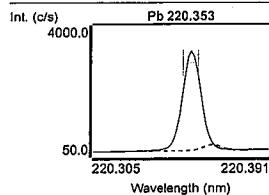
Weight: 0.512

Volume: 50.458

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	38.1815	mg/L	0.092900	0.2	2615.22	3762.81 mg/L	1.00000

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



22692 (Samp)

10/16/2007, 11:03:27 AM

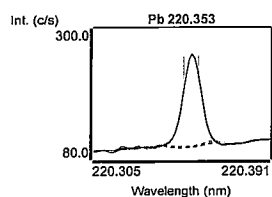
Rack 2, Tube 3

Weight: 0.578

Volume: 50.77

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	1.85546	mg/L	0.012923	0.7	129.529	162.979 mg/L	1.00000



22694 (Samp)

10/16/2007, 11:07:13 AM

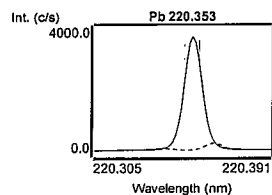
Rack 2, Tube 4

Weight: 0.505

Volume: 50.172

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	43.1316	mg/L	0.200327	0.5	2953.94	4285.14 mg/L	1.00000



Mcontrol (Samp)

10/16/2007, 11:10:58 AM

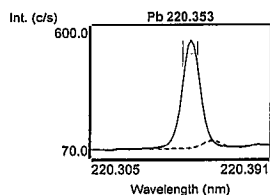
Rack 2, Tube 5

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.42748	mg/L	0.051195	0.9	373.952	5.42748 mg/L	1.00000



$$\frac{5.427 - 0.176}{5} \times 100 = 105\%$$

OK 10.17.07

22695 (Samp)

10/16/2007, 11:16:47 AM

Rack 2, Tube 6

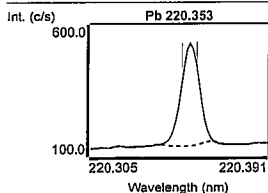
Weight: 0.48

Volume: 50.426

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	4.99246	mg/L	0.072819	1.5	344.185	524.479 mg/L	1.00000

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



22698 (Samp)

10/16/2007, 12:37:14 PM

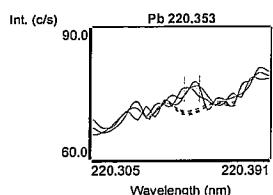
Rack 2, Tube 7

Weight: 0.5

Volume: 50.807

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.039800	mg/L	0.005876	14.8	5.28770	4.04428 mg/L	1.00000



⑩ sample intensity (5.3 c/s) below the intensity of the low standard (36.3 c/s). Sample BDL. CWT 10.17.07

22698-2 (Samp)

10/16/2007, 12:41:24 PM

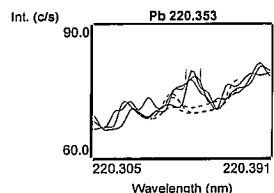
Rack 2, Tube 8

Weight: 0.494

Volume: 50.4

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.059120	mg/L	0.010632	18.0	6.60967	6.03165 mg/L	1.00000



Sample intensity (6.03 c/s) less than the intensity of the lowest standard (36.3 c/s). Sample is BDL. Both sample + dup are BDL. RPD = 0% CWT 10.17.07

22698-S1 (Samp)

10/16/2007, 11:28:06 AM

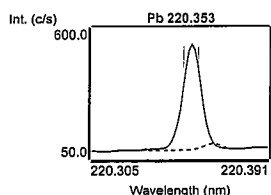
Rack 2, Tube 9

Weight: 0.497

Volume: 51.223

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.43850	mg/L	0.062405	1.1	374.706	560.516 mg/L	1.00000



4.044 10.17.07

$$\frac{560.52 - 4.044}{500} \times 100 = 111\%$$

CWT 10.17.07

Cont Calib Verif (CCV)

10/16/2007, 11:41:19 AM

Rack 4, Tube 5

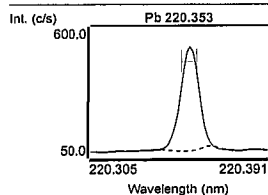
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.40911	mg/L	0.038026	0.7	372.696	5.40911 mg/L	108.18227

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



Cont Calib Blank (CCB)

10/16/2007, 11:45:05 AM

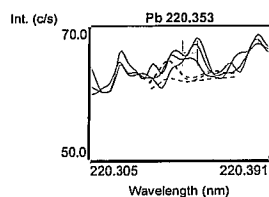
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.019954	mg/L	0.011281	56.5	3.92964	0.019954 mg/L	0.01995



22698-S2 (Samp)

10/16/2007, 11:48:51 AM

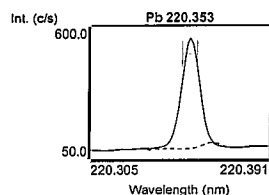
Rack 2, Tube 10

Weight: 0.509

Volume: 49.231

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.68525	mg/L	0.025065	0.4	391.591	549.883 mg/L	1.00000



$$\frac{549.88 - 6.032}{500} \times 100 = 109\%$$

$$\text{LPD } \frac{560.516 - 549.883}{(560.516 + 549.883)/2} \times 100 = \frac{10.633}{555.200} \times 100 = 2\%$$

CR 10.17.07

22699 (Samp)

10/16/2007, 11:52:37 AM

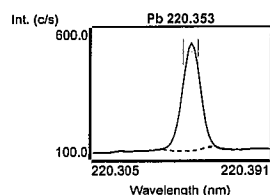
Rack 2, Tube 11

Weight: 0.542

Volume: 50.379

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.42773	mg/L	0.052510	1.0	373.969	504.509 mg/L	1.00000



22701-d (Samp)

10/16/2007, 11:56:23 AM

Rack 2, Tube 12

Weight: 0.511

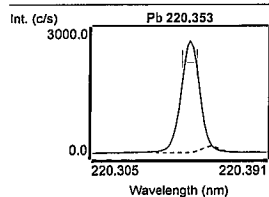
Volume: 49.201

Dilution: 10

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	30.0732	mg/L	0.252007	0.8	2060.39	28955.6 mg/L	1.00000 10.0

CR 10.17.07

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



22702 (277) (Samp)

10/16/2007, 12:00:08 PM

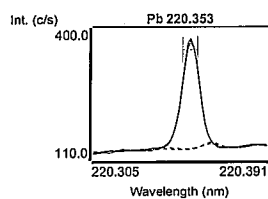
Rack 2, Tube 13

Weight: 0.508

Volume: 50.044

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	3.12033	mg/L	0.028642	0.9	216.080	307.390 mg/L	1.00000



22658 (283) (Samp)

10/16/2007, 12:03:54 PM

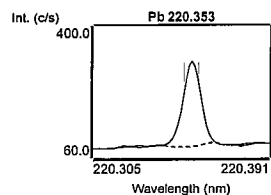
Rack 2, Tube 14

Weight: 0.511

Volume: 50.102

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.64284	mg/L	0.009095	0.3	183.407	259.123 mg/L	1.00000



22659 (Samp)

10/16/2007, 12:07:39 PM

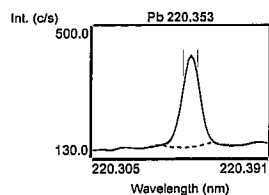
Rack 2, Tube 15

Weight: 0.549

Volume: 49.743

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	3.42529	mg/L	0.038155	1.1	236.948	310.353 mg/L	1.00000



22661 (Samp)

10/16/2007, 12:11:24 PM

Rack 2, Tube 16

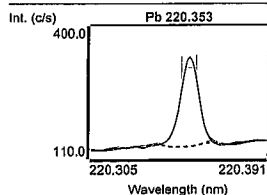
Weight: 0.517

Volume: 50.513

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.46514	mg/L	0.036003	1.5	171.248	240.855 mg/L	1.00000

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



22662 (Samp)

10/16/2007, 12:15:08 PM

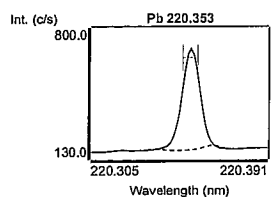
Rack 2, Tube 17

Weight: 0.51

Volume: 49.756

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	6.78135	mg/L	0.058169	0.9	466.594	661.594 mg/L	1.00000



22664 (Samp)

10/16/2007, 12:18:53 PM

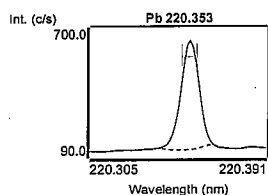
Rack 2, Tube 18

Weight: 0.486

Volume: 49.626

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	6.25358	mg/L	0.057808	0.9	430.480	638.560 mg/L	1.00000



22665 (Samp)

10/16/2007, 12:45:09 PM

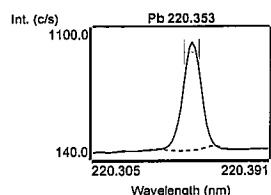
Rack 2, Tube 19

Weight: 0.492

Volume: 50.15

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	10.3641	mg/L	0.110079	1.1	711.754	1056.42 mg/L	1.00000



Cont Calib Verif (CCV)

10/16/2007, 12:48:54 PM

Rack 4, Tube 5

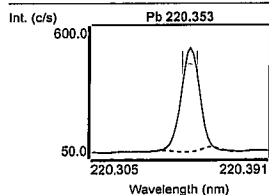
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.27251	mg/L	0.036842	0.7	363.348	5.27251 mg/L	105.45022

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



Cont Calib Blank (CCB)

10/16/2007, 12:52:40 PM

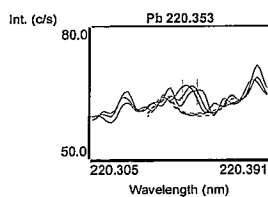
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.036705	mg/L	0.008845	24.1	5.07590	0.036705 mg/L	0.03671



22667 (Samp)

10/16/2007, 12:56:25 PM

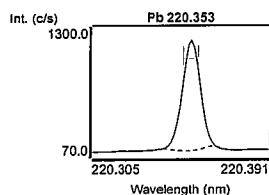
Rack 2, Tube 20

Weight: 0.52

Volume: 50.903

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	12.4901	mg/L	0.159083	1.3	857.228	1222.66 mg/L	1.00000



22668 (Samp)

10/16/2007, 1:00:09 PM

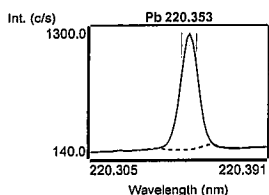
Rack 2, Tube 21

Weight: 0.551

Volume: 50.103

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	13.1951	mg/L	0.062213	0.5	905.470	1199.84 mg/L	1.00000



22670 (Samp)

10/16/2007, 1:03:54 PM

Rack 3, Tube 1

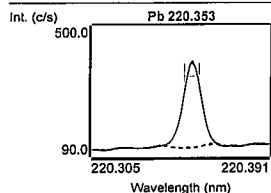
Weight: 0.503

Volume: 50.063

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	3.19810	mg/L	0.046001	1.4	221.401	318.303 mg/L	1.00000

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



22671 (Samp)

10/16/2007, 1:07:38 PM

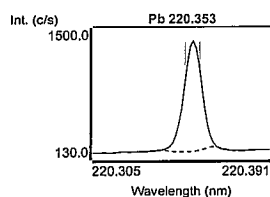
Rack 3, Tube 2

Weight: 0.512

Volume: 50.142

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	14.5041	mg/L	0.119742	0.8	995.043	1420.44 mg/L	1.00000



22672 (Samp)

10/16/2007, 1:11:23 PM

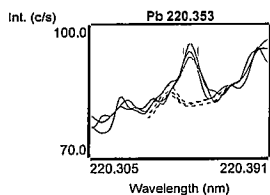
Rack 3, Tube 3

Weight: 0.498

Volume: 50.219

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.106765	mg/L	0.009574	9.0	9.86992	10.7663 mg/L	1.00000



22672-2 (Samp)

10/16/2007, 1:15:08 PM

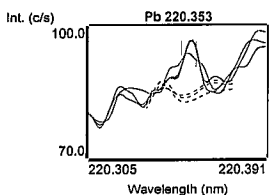
Rack 3, Tube 4

Weight: 0.528

Volume: 50.253

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.103926	mg/L	0.018488	17.8	9.67563	9.89125 mg/L	1.00000



$$\frac{10.766 - 9.891}{(10.766 + 9.891)/2} \times 100 = 8\% \text{ RPD}$$

OK 10-17-07

22672-S1 (Samp)

10/16/2007, 1:18:53 PM

Rack 3, Tube 5

Weight: 0.49

Volume: 50.307

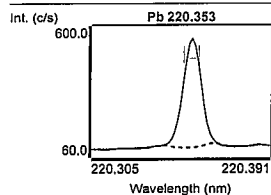
Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.27892	mg/L	0.053983	1.0	363.787	541.973 mg/L	1.00000

$$\frac{541.973 - 10.766}{500} \times 100 = 106\%$$

OK 10-17-07

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



22672-S2 (Samp)

10/16/2007, 1:22:38 PM

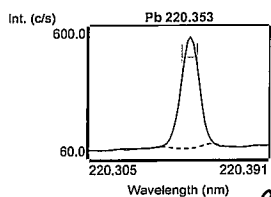
Rack 3, Tube 6

Weight: 0.483

Volume: 50.216

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.37701	mg/L	0.021147	0.4	370.498	559.030 mg/L	1.00000



$$\frac{559.030 - 9.891}{500} \times 100 = 110\%$$

$$RPD = \frac{559.030 - 541.973}{(559.030 + 541.973)/2} \times 100 = \frac{17.057}{550.500} \times 100 = 3\%$$

OK 10.17.07

22945 (Samp)

10/16/2007, 1:26:23 PM

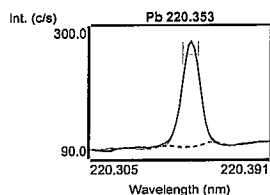
Rack 3, Tube 7

Weight: 0.497

Volume: 50.051

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.09435	mg/L	0.004686	0.2	145.875	210.914 mg/L	1.00000



Mblank (Samp)

10/16/2007, 1:30:07 PM

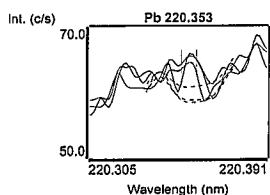
Rack 3, Tube 8

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.036764	mg/L	0.010492	28.5	5.07996	0.036764 mg/L	1.00000



Cont Calib Verif (CCV)

10/16/2007, 1:33:53 PM

Rack 4, Tube 5

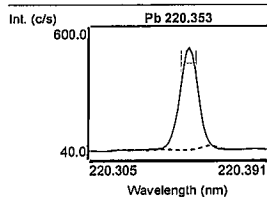
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.32772	mg/L	0.037482	0.7	367.126	5.32772 mg/L	106.55433

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



Cont Calib Blank (CCB)

10/16/2007, 1:37:39 PM

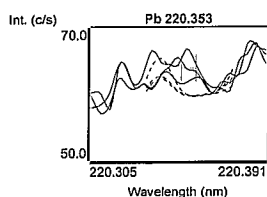
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.020926uv	mg/L	0.027063	129.3	3.99618	0.020926 mg/L	0.02093



Mcontrol (Samp)

10/16/2007, 1:41:25 PM

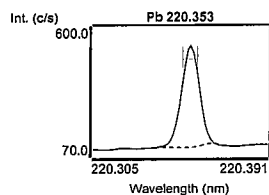
Rack 3, Tube 9

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.14132	mg/L	0.029056	0.6	354.371	5.14132 mg/L	1.00000



$$\frac{5.141 - 0.037}{5} \times 100 = 102\%$$

Sample 60 (Samp)

10/16/2007, 2:35:58 PM

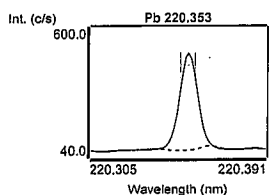
Rack 3, Tube 10

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.24209	mg/L	0.044586	0.9	361.266	5.24209 mg/L	1.00000



Sample 61 (Samp)

10/16/2007, 2:39:43 PM

Rack 3, Tube 11

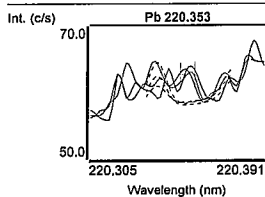
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.024848	mg/L	0.004216	17.0	4.26456	0.024848 mg/L	1.00000

101607 Avant Pb. All Data Report 10/17/2007, 3:03:25 PM



Sample 62 (Samp)

10/16/2007, 2:43:28 PM

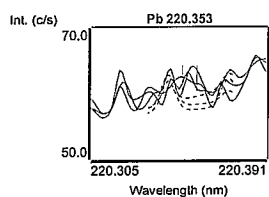
Rack 3, Tube 12

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.018400	mg/L	0.014296	77.7	3.82331	0.018400 mg/L	1.00000



Cont Calib Verif (CCV)

10/16/2007, 2:00:09 PM

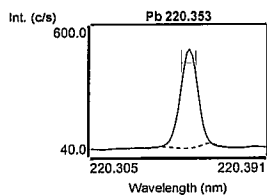
Rack 4, Tube 5

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.25073	mg/L	0.024779	0.5	361.858	5.25073 mg/L	105.01464



Cont Calib Blank (CCB)

10/16/2007, 2:03:54 PM

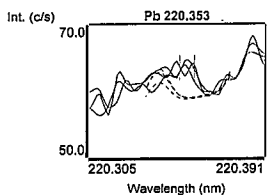
Rack 4, Tube 6

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.027935	mg/L	0.005795	20.7	4.47581	0.027935 mg/L	0.02794



Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22645(Pb)	TP-9 (0-0.5')	0.870	NA	119%	NA	NA	BDL	118%
22656(Pb)	TP-6 (0-0.5')	0.640	NA	111%	NA	NA	BDL	118%
22676 (Pb)	TP-20 (1.5')	0.95	NA	119%	NA	NA	BDL	118%
22690(Pb)	TP-16 (0-0.5')	1.440	NA	112%	NA	NA	BDL	118%
22694(Pb)	TP-15 (3')	392.510	16%	119%	106%	10%	BDL	118%

Comments:

22694 had low matrix spike (9%) and matrix spike duplicate (8%) recoveries. This may have been due to the high concentration of Pb in the sample. The sample was diluted and spiked post-digestion. These recoveries for the matrix spike (119%) and matrix spike duplicate (106%) were within QC limits. CRT 11-7-07.

110107 tclp 304. Rack Loading Guide 11/2/2007, 6:46:03 AM

Auto Sampler Type: SPS3 (Varian)

Rack: 0 Type: 6-tube stds

Tube	Sample Label	Type	Weight	Volume	Dilution
1	Blank	Blk	1.0000	1.00	1.00
2	TCLP A (0.5 ppm)	Std	1.0000	1.00	1.00
3	TCLP B (1.0 ppm)	Std	1.0000	1.00	1.00
4	TCLP C (5.0 ppm)	Std	1.0000	1.00	1.00
5	TCLP D (10 ppm)	Std	1.0000	1.00	1.00
6	TCLP E (20 ppm)	Std	1.0000	1.00	1.00

Rack: 1 Type: 21 (3 * 7) tube

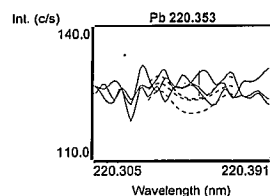
Tube	Sample Label	Type	Weight	Volume	Dilution
1	22689	Samp	45.0000	50.12	1.00
2	22645	Samp	45.0000	50.35	1.00
3	22656	Samp	45.0000	50.25	1.00
4	22676	Samp	45.0000	51.00	1.00
5	22690	Samp	45.0000	50.30	1.00
6	22694	Samp	45.0000	50.29	50.00
7	22694-2	Samp	45.0000	50.46	50.00
8	Mblank	Samp	45.0000	50.81	1.00
9	22689-S1	Samp	45.0000	51.24	1.00
10	22645-S1	Samp	45.0000	51.65	1.00
11	22656-S1	Samp	45.0000	51.19	1.00
12	22676-S1	Samp	45.0000	51.32	1.00
13	22690-S1	Samp	45.0000	51.49	1.00
14	22694-S1	Samp	45.0000	51.45	50.00
15	22694-S2	Samp	45.0000	51.14	50.00
16	Mcontrol	Samp	45.0000	51.10	1.00
17	22694 post-dig spike	Samp	45.0000	50.29	50.00
18	22694-2 post-dig spi	Samp	45.0000	50.46	50.00

Rack: 4 Type: 6-tube stds

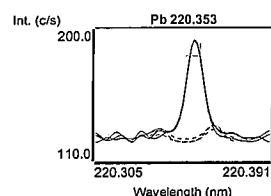
Tube	Sample Label	Type	Weight	Volume	Dilution
1	rinse	Std	1.0000	1.00	1.00
2	ICV	ICV	1.0000	1.00	1.00
3	ICB	ICB	1.0000	1.00	1.00
4	CCV	CCV	1.0000	1.00	1.00
5	CCB	CCB	1.0000	1.00	1.00

110107 tcip 304. All Data Report 11/2/2007, 6:46:16 AM

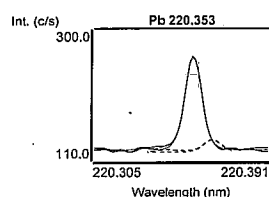
Blank (Blk)		11/1/2007, 7:28:57 AM		Rack 0, Tube 1	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	0.000000	mg/L	1.117	24.4	4.58001



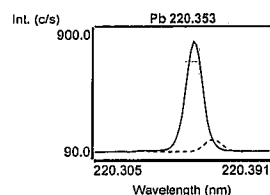
TCLP A (0.5 ppm) (Std)		11/1/2007, 7:32:44 AM		Rack 0, Tube 2	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	0.500000	mg/L	0.954	1.7	56.9815



TCLP B (1.0 ppm) (Std)		11/1/2007, 7:36:32 AM		Rack 0, Tube 3	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	1.00000	mg/L	1.637	1.5	109.201

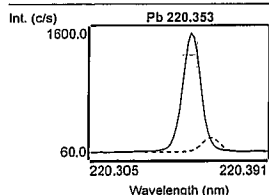


TCLP C (5.0 ppm) (Std)		11/1/2007, 7:40:21 AM		Rack 0, Tube 4	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	5.00000	mg/L	8.562	1.6	549.056



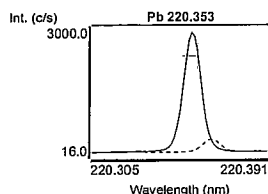
TCLP D (10 ppm) (Std)		11/1/2007, 7:44:10 AM		Rack 0, Tube 5	
Label	Sol'n Conc.	Units	SD(Int) %RSD(Int)	Int. (c/s)	
Pb 220.353	10.0000	mg/L	10.972	1.0	1108.13

110107 tcip 304. All Data Report 11/2/2007, 6:46:16 AM



TCLP E (20 ppm) (Std) 11/1/2007, 7:47:59 AM Rack 0, Tube 6

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	20.0000	mg/L	23.315	1.1	2132.85



Pb 220.353 Calibration (mg/L) 11/1/2007, 7:47:59 AM Correlation Coefficient: 0.999823

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		4.58001	0.000000	0.012051	-	-
TCLP A (0.5 ppr		56.9815	0.500000	0.496541	-0.003459	-0.7
TCLP B (1.0 ppn		109.201	1.00000	0.979351	-0.020649	-2.1
TCLP C (5.0 ppn		549.056	5.00000	5.04613	0.046125	0.9
TCLP D (10 pprr		1108.13	10.0000	10.2152	0.215212	2.2
TCLP E (20 ppm		2132.85	20.0000	19.6895	-0.310495	-1.6

Curve Type: Linear

Equation: $y = 108.2x + 3.3$

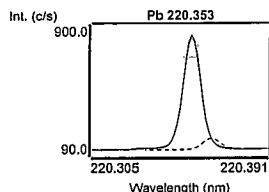
ICV (ICV) 11/1/2007, 7:55:36 AM Rack 4, Tube 2

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.12774	mg/L	0.068482	1.3	557.882	5.12774 mg/L	102.55471



ICB (ICB) 11/1/2007, 7:59:25 AM Rack 4, Tube 3

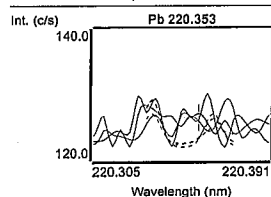
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.004893	mg/L	0.002600	53.1	3.80575	0.004893 mg/L	0.00489Z

110107 tcip 304. All Data Report 11/2/2007, 6:46:16 AM



22689 (Samp)

11/1/2007, 8:03:14 AM

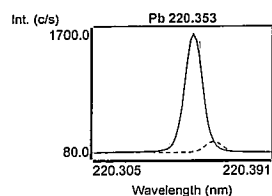
Rack 1, Tube 1

Weight: 45

Volume: 50.124

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	11.0532	mg/L	0.077231	0.7	1198.77	12.3118 mg/L	1.00000



22645 (Samp)

11/1/2007, 8:07:03 AM

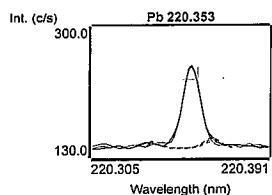
Rack 1, Tube 2

Weight: 45

Volume: 50.346

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.773924	mg/L	0.010050	1.3	86.9827	0.865867 mg/L	1.00000



22656 (Samp)

11/1/2007, 8:10:52 AM

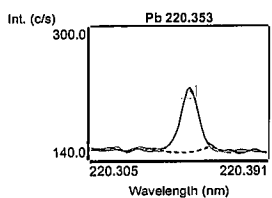
Rack 1, Tube 3

Weight: 45

Volume: 50.252

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.568322	mg/L	0.022079	3.9	64.7452	0.634652 mg/L	1.00000



22676 (Samp)

11/1/2007, 8:14:40 AM

Rack 1, Tube 4

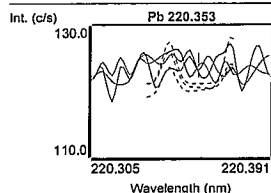
Weight: 45

Volume: 51

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.833651	mg/L	0.010914	1.3	93.4426	0.944804 mg/L	1.00000

110107 tcip 304. All Data Report 11/2/2007, 6:46:16 AM



22689-S1 (Samp)

11/1/2007, 8:35:45 AM

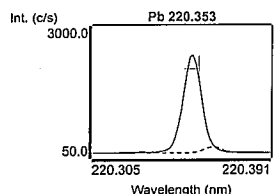
Rack 1, Tube 9

Weight: 45

Volume: 51.241

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	17.0588	mg/L	0.044116	0.3	1848.32	19.4246 mg/L	1.00000



$$\% \text{ Recovery} = \frac{19.425 - 12.312}{5} \times 100 = 143\%$$

Matrix spike failed QC Limit - redigest sample.
CPT 11-1-07

22645-S1 (Samp)

11/1/2007, 8:39:32 AM

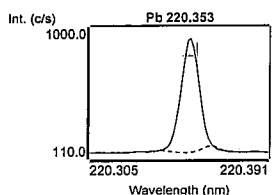
Rack 1, Tube 10

Weight: 45

Volume: 51.647

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.94366	mg/L	0.031246	0.5	646.132	6.82161 mg/L	1.00000



$$\% \text{ Recovery} = \frac{6.822 - 0.866}{5} \times 100 = 119\%$$

CCV (CCV)

11/1/2007, 8:43:21 AM

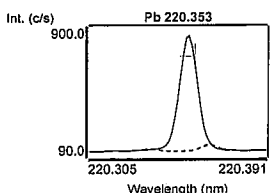
Rack 4, Tube 4

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.32990	mg/L	0.049505	0.9	579.748	5.32990 mg/L	106.59790



CCB (CCB)

11/1/2007, 8:47:10 AM

Rack 4, Tube 5

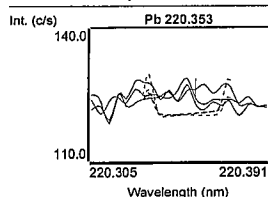
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.018855	mg/L	0.010083	53.5	5.31588	0.018855 mg/L	0.01885Z

110107 tclp 304. All Data Report 11/2/2007, 6:46:16 AM



22656-S1 (Samp)

11/1/2007, 8:50:58 AM

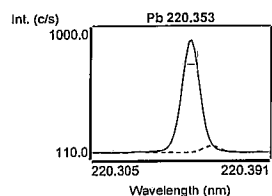
Rack 1, Tube 11

Weight: 45

Volume: 51.193

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.42200	mg/L	0.055610	1.0	589.710	6.16819 mg/L	1.00000



$$\% \text{ Recovery} = \frac{6.168 - 0.635}{5} \times 100 = 111\%$$

22676-S1 (Samp)

11/1/2007, 8:54:46 AM

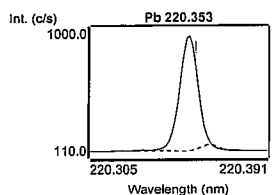
Rack 1, Tube 12

Weight: 45

Volume: 51.322

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	6.03418	mg/L	0.046219	0.8	655.922	6.88191 mg/L	1.00000



$$\% \text{ Recovery} = \frac{6.882 - 0.945}{5} \times 100 = 119\%$$

22690-S1 (Samp)

11/1/2007, 9:06:02 AM

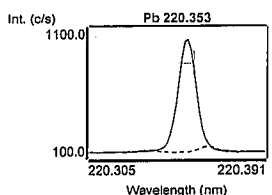
Rack 1, Tube 13

Weight: 45

Volume: 51.488

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	6.14236	mg/L	0.036696	0.6	667.622	7.02795 mg/L	1.00000



$$\% \text{ Recovery} = \frac{7.028 - 1.436}{5} \times 100 = 112\%$$

22694-S1 (Samp)

11/1/2007, 9:36:32 AM

Rack 1, Tube 14

Weight: 45

Volume: 51.452

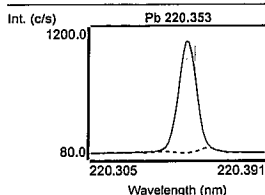
Dilution: 50

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	7.25218	mg/L	0.021166	0.3	787.658	414.599 mg/L	1.00000

$$\% \text{ Recovery} = \frac{414.599 - 392.512}{5} \times 100 = 9\%$$

5 (50)
Matrix spike failed QC limit. Do a post-digestion spike cert 11-1-07

110107 tcip 304. All Data Report 11/2/2007, 6:46:16 AM



22694-S2 (Samp)

11/1/2007, 9:40:20 AM

Rack 1, Tube 15

Weight: 45

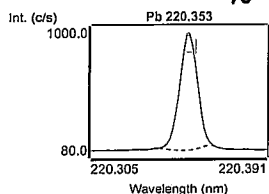
Volume: 51.137

Dilution: 50

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	6.25069	mg/L	0.081008	1.3	679.339	355.157 mg/L	1.00000

% Recovery =

$$\frac{355.157 - 334.484}{5(50)} \times 100 = 8\%$$



Matrix spike failed QC limit. Do a post-digestion spike. CWT 11-1-07

Mcontrol (Samp)

11/1/2007, 9:46:00 AM

Rack 1, Tube 16

Weight: 45

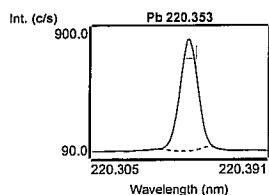
Volume: 51.102

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.20525	mg/L	0.021601	0.4	566.266	5.91108 mg/L	1.00000

% Recovery =

$$\frac{5.911 - 0.000}{5} \times 100 = 118\%$$



CCV (CCV)

11/1/2007, 9:17:26 AM

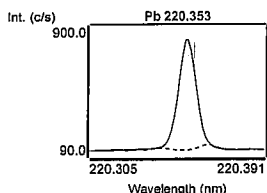
Rack 4, Tube 4

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.30330	mg/L	0.049236	0.9	576.871	5.30330 mg/L	106.06601



CCB (CCB)

11/1/2007, 9:21:15 AM

Rack 4, Tube 5

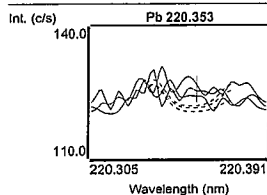
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.009376	mg/L	0.013137	140.1	4.29066	0.009376 mg/L	0.00938Z

110107 tcip 304. All Data Report 11/2/2007, 6:46:16 AM



22694 post-dig spike (Samp)

11/1/2007, 10:20:51 AM

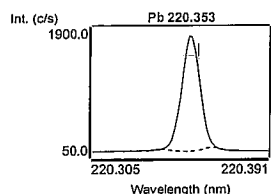
Rack 1, Tube 17

Weight: 45

Volume: 50.287

Dilution: 50

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	12.3473	mg/L	0.075650	0.6	1338.74	689.899 mg/L	1.00000



% Recovery of Pb
for post-digestion spike
 $\frac{689.899 - 392.512}{5(50)} \times 100 = 119\%$

22694-2 post-dig spi (Samp)

11/1/2007, 10:24:40 AM

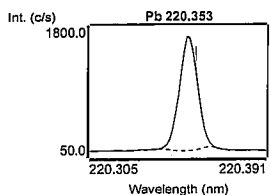
Rack 1, Tube 18

Weight: 45

Volume: 50.456

Dilution: 50

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	11.0839	mg/L	0.086421	0.8	1202.09	621.389 mg/L	1.00000



% Recovery of Pb
for post-digestion spike
 $\frac{621.389 - 355.157}{5(50)} \times 100 = 106\%$

% RPD for Matrix
spikes.
 $\frac{689.899 - 621.389}{(689.899 + 621.389)/2} \times 100 =$
 $\frac{68.510}{655.644} \times 100 = 10\%$

CCV (CCV)

11/1/2007, 10:28:29 AM

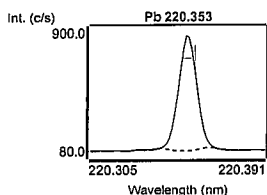
Rack 4, Tube 4

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.21698	mg/L	0.016026	0.3	567.534	5.21698 mg/L	104.33951



CCB (CCB)

11/1/2007, 10:32:18 AM

Rack 4, Tube 5

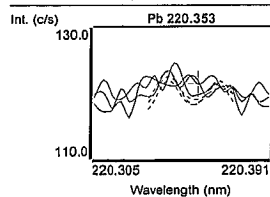
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	-0.007660uv	mg/L	0.008670	113.2	2.44811	-0.007660 mg/L	-0.00766Z

110107 tcp 304. All Data Report 11/2/2007, 6:46:16 AM



Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22689(Pb)	TP-16 (2')	12.520	NA	103%	NA	NA	BDL	118%
22701(Pb)	TP-32 (2')	3.310	4%	113%	109%	1%	BDL	118%

Comments:

110107 tclp 305. Rack Loading Guide 11/2/2007, 6:47:20 AM

Auto Sampler Type: SPS3 (Varian)

Rack: 0 Type: 6-tube stds

Tube	Sample Label	Type	Weight	Volume	Dilution
1	Blank	Blk	1.0000	1.00	1.00
2	TCLP A (0.5 ppm)	Std	1.0000	1.00	1.00
3	TCLP B (1.0 ppm)	Std	1.0000	1.00	1.00
4	TCLP C (5.0 ppm)	Std	1.0000	1.00	1.00
5	TCLP D (10 ppm)	Std	1.0000	1.00	1.00
6	TCLP E (20 ppm)	Std	1.0000	1.00	1.00

Rack: 1 Type: 21 (3 * 7) tube

Tube	Sample Label	Type	Weight	Volume	Dilution
1	22689	Samp	45.0000	50.66	1.00
2	22701	Samp	45.0000	51.29	1.00
3	22701-2	Samp	45.0000	51.55	1.00
4	22710	Samp	45.0000	51.24	1.00
5	Mblank	Samp	45.0000	51.38	1.00
6	22689-S	Samp	45.0000	51.53	1.00
7	22701-S1	Samp	45.0000	51.98	1.00
8	22701-S2	Samp	45.0000	52.18	1.00
9	22710-S	Samp	45.0000	52.39	1.00
10	Mcontrol	Samp	45.0000	52.48	1.00

Rack: 4 Type: 6-tube stds

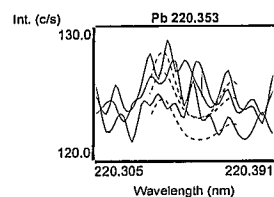
Tube	Sample Label	Type	Weight	Volume	Dilution
1	rinse	Std	1.0000	1.00	1.00
2	ICV	ICV	1.0000	1.00	1.00
3	ICB	ICB	1.0000	1.00	1.00
4	CCV	CCV	1.0000	1.00	1.00
5	CCB	CCB	1.0000	1.00	1.00

⑩ 22710 is not an Avent sample. Cxt 11.1.07.

110107 tc1p 305. All Data Report 11/2/2007, 6:47:08 AM

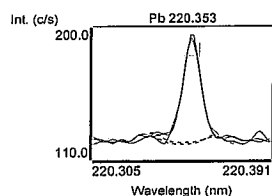
Blank (Blk) 11/1/2007, 4:37:26 PM Rack 0, Tube 1

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	0.000000	mg/L	0.151	5.0	3.01235



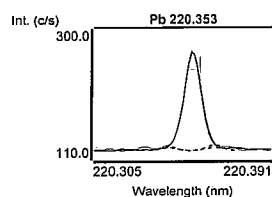
TCLP A (0.5 ppm) (Std) 11/1/2007, 4:41:14 PM Rack 0, Tube 2

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	0.500000	mg/L	1.552	2.6	58.9188



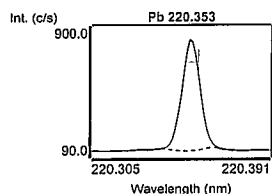
TCLP B (1.0 ppm) (Std) 11/1/2007, 4:45:02 PM Rack 0, Tube 3

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	1.000000	mg/L	1.778	1.5	116.075



TCLP C (5.0 ppm) (Std) 11/1/2007, 4:48:50 PM Rack 0, Tube 4

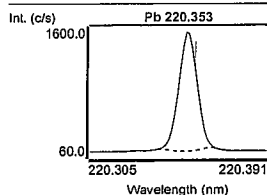
Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	5.000000	mg/L	1.340	0.2	542.669



TCLP D (10 ppm) (Std) 11/1/2007, 4:52:40 PM Rack 0, Tube 5

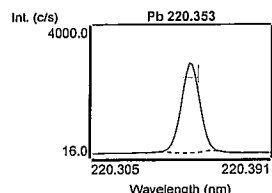
Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	10.0000	mg/L	10.952	1.0	1121.14

110107 tcip 305. All Data Report 11/2/2007, 6:47:08 AM



TCLP E (20 ppm) (Std) 11/1/2007, 4:56:29 PM Rack 0, Tube 6

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Pb 220.353	20.0000	mg/L	23.216	1.0	2253.78



Pb 220.353 Calibration (mg/L) 11/1/2007, 4:56:29 PM Correlation Coefficient: 0.999944

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		3.01235	0.000000	-0.000218	-	-
TCLP A (0.5 ppr		58.9188	0.500000	0.515185	0.015185	3.0
TCLP B (1.0 ppn		116.075	1.00000	1.04211	0.042110	4.2
TCLP C (5.0 ppn		542.669	5.00000	4.97489	-0.025107	-0.5
TCLP D (10 ppn		1121.14	10.0000	10.3078	0.307848	3.1
TCLP E (20 ppm		2253.78	20.0000	20.7496	0.749620	3.7

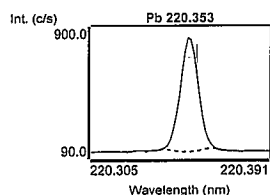
Curve Type: Linear

Equation: $y = 108.5 x + 3.0$

ICV (ICV) 11/1/2007, 5:04:06 PM Rack 4, Tube 2

Weight: 1 Volume: 1 Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.27601	mg/L	0.054695	1.0	575.332	5.27601 mg/L	105.52019

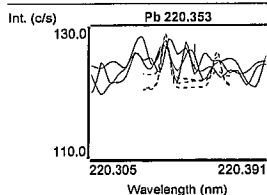


ICB (ICB) 11/1/2007, 5:07:54 PM Rack 4, Tube 3

Weight: 1 Volume: 1 Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.007436	mg/L	0.004222	56.8	3.84257	0.007436 mg/L	0.00744Z

110107 tclp 305. All Data Report 11/2/2007, 6:47:08 AM



22689 (Samp)

11/1/2007, 5:11:43 PM

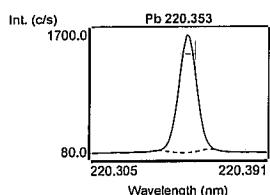
Rack 1, Tube 1

Weight: 45

Volume: 50.658

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	11.1237	mg/L	0.068090	0.6	1209.64	12.5223 mg/L	1.00000



22701 (Samp)

11/1/2007, 5:15:32 PM

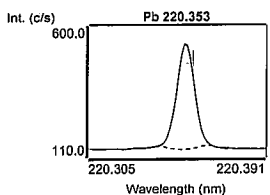
Rack 1, Tube 2

Weight: 45

Volume: 51.295

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	2.90199	mg/L	0.013188	0.5	317.819	3.30795 mg/L	1.00000



22701-2 (Samp)

11/1/2007, 5:19:20 PM

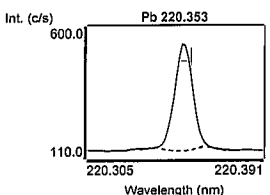
Rack 1, Tube 3

Weight: 45

Volume: 51.546

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	3.00688	mg/L	0.024924	0.8	329.197	3.44429 mg/L	1.00000



$$\% \text{RPD} = \frac{3.444 - 3.308}{(3.444 + 3.308)/2} \times 100 =$$

$$\frac{0.136}{3.376} \times 100 = 4\%$$

CER 11-2-07

22710 (Samp)

11/1/2007, 5:23:08 PM

Rack 1, Tube 4

Weight: 45

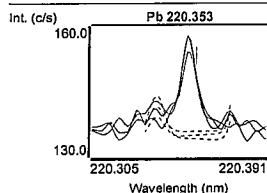
Volume: 51.243

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	0.130448	mg/L	0.019912	15.3	17.1858	0.148546 mg/L	1.00000

Not an Avant Sample. CER 11-1-07

110107 tclp 305. All Data Report 11/2/2007, 6:47:08 AM



Mblank (Samp)

11/1/2007, 5:26:56 PM

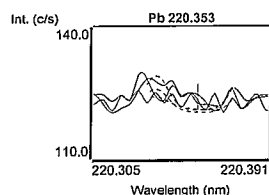
Rack 1, Tube 5

Weight: 45

Volume: 51.375

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	-0.001440uv	mg/L	0.005063	351.7	2.87982	-0.001643 mg/L	1.00000



22689-S (Samp)

11/1/2007, 5:30:44 PM

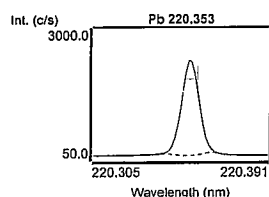
Rack 1, Tube 6

Weight: 45

Volume: 51.53

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	15.4120	mg/L	0.033565	0.2	1674.80	17.6485 mg/L	1.00000



% Recovery =
$$\frac{17.649 - 12.522}{5} \times 100 = 103\%$$

Oct 11.2.07

22701-S1 (Samp)

11/1/2007, 5:34:31 PM

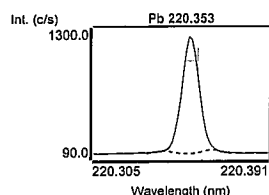
Rack 1, Tube 7

Weight: 45

Volume: 51.977

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	7.74788	mg/L	0.036031	0.5	843.459	8.94915 mg/L	1.00000



% Recovery =
$$\frac{8.949 - 3.308}{5} \times 100 = 113\%$$

Oct 11.2.07

22701-S2 (Samp)

11/1/2007, 5:38:19 PM

Rack 1, Tube 8

Weight: 45

Volume: 52.179

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	7.65090	mg/L	0.068132	0.9	832.939	8.87147 mg/L	1.00000

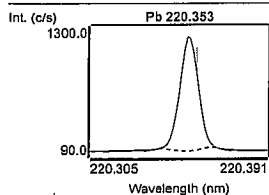
% Recovery =
$$\frac{8.871 - 3.444}{5} \times 100 = 109\%$$

% RPD of Matrix spikes

$$\frac{8.949 - 8.871}{(8.949 + 8.871)/2} \times 100 = \frac{0.078}{8.910} \times 100 = 1\%$$

Oct 11.2.07

110107 tclp 305. All Data Report 11/2/2007, 6:47:08 AM



22710-S (Samp)

11/1/2007, 5:42:07 PM

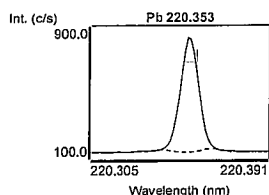
Rack 1, Tube 9

Weight: 45

Volume: 52.392

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	4.94103	mg/L	0.013572	0.3	538.996	5.75268 mg/L	1.00000



Not an Avant sample. CRT 11-1-07

Mcontrol (Samp)

11/1/2007, 5:45:55 PM

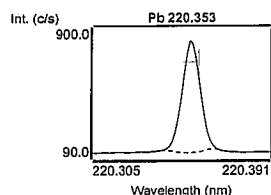
Rack 1, Tube 10

Weight: 45

Volume: 52.477

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	DF
Pb 220.353	5.05845	mg/L	0.053786	1.1	551.733	5.89894 mg/L	1.00000



% Recovery =

$$\frac{5.899 - 0.000}{5} \times 100 = 118\%$$

CCV (CCV)

11/1/2007, 5:49:44 PM

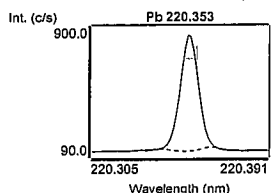
Rack 4, Tube 4

Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	5.17535	mg/L	0.023716	0.5	564.413	5.17535 mg/L	103.50697



CCB (CCB)

11/1/2007, 5:53:33 PM

Rack 4, Tube 5

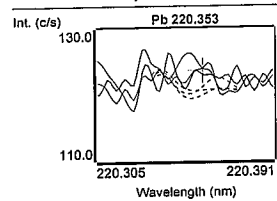
Weight: 1

Volume: 1

Dilution: 1

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	Calc Conc.	QC Value
Pb 220.353	0.003496uv	mg/L	0.009887	282.8	3.41515	0.003496 mg/L	0.00350Z

110107 tclp 305. All Data Report 11/2/2007, 6:47:08 AM



Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22650 (As)	TP-8 (0-0.5')	5.783	7%	103%	104%	2%	BDL	101%
22650 (Cd)	TP-8 (0-0.5')	0.256	7%	100%	102%	1%	BDL	98%
22650 (Hg)	TP-8 (0-0.5')	BDL	0%	98%	96%	4%	BDL	93%
22650 (Pb)	TP-8 (0-0.5')	30.148	9%	111%	115%	1%	BDL	106%

Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22650 (As)	TP-8 (0-0.5')	5.665	8%	102%	97%	0%	BDL	101%
22650 (Cd)	TP-8 (0-0.5')	0.249	18%	94%	90%	1%	BDL	91%
22650 (Hg)	TP-8 (0-0.5')	BDL	0%	92%	90%	2%	BDL	85%
22650 (Pb)	TP-8 (0-0.5')	28.281	6%	98%	96%	2%	BDL	95%

Comments:

Sample 22649, TP-8 (5'), was reanalyzed on October 16, 2007. The second QC data set was from the second analysis. CRT 11-01-07.

Julian: 276 1+2

Date: 10-3-07

Tech: DLG

1	22645	17	22649	33	22660
2	22646	18	22650	34	22661
3	22647	19	22650-2	35	22662
4	F6208	20	22650-s1	36	22663
5	F6204	21	22650-s2	37	22664
6	F6205	22	22651	38	22665
7	F6206	23	22652	39	22666
8	Blank	24	Blank 2	40	22667
9	CRM	25	22653	41	22668
10	37261	26	22654	42	22669
11	22648	27	22655	43	22670
12	F6207	28	22656	44	22671
13	F6207-2	29	22657	45	22672
14	F6207-s1	30	22658	46	22672-2
15	F6207-s2	31	22659	47	22672-s1
16	Control	32	Control 2	48	22672-s2

⑩ Samples 22658 to 22672
were redigested on 10.10.07.
The duplicate analysis failed
the QC limit on the digests
from 10.3.07. Ckt 10.17.07

Julian
Tech
276 142
DVC

Empty Wt (g)

1	493.246
2	136.377
3	136.265
4	136.213
5	135.782
6	136.410
7	136.347
8	136.228
9	136.365
10	136.190
11	136.212
12	136.477
13	136.311
14	136.378
15	136.587
16	136.220
17	136.030
18	136.168
19	136.404
20	136.343
21	136.396
22	136.692
23	136.300
24	136.296
25	136.363
26	136.225
27	136.276
28	136.403
29	136.581
30	136.306
31	136.228
32	136.434
33	136.233
34	135.797
35	136.399
36	136.206
37	136.278
38	136.464
39	136.065
40	136.666
41	135.639
42	136.155
43	136.408
44	136.259
45	136.075
46	136.389
47	136.321
48	136.319

Pre-Digest Wt (g)

507.640
151.075
150.940
150.874
150.136
150.743
150.674
150.418
150.783
150.635
150.888
150.796
150.618
153.248
153.534
154.518
150.774
150.855
151.088
153.615
153.708
151.660
151.178
150.503
151.026
150.951
150.656
151.100
151.290
151.017
150.804
154.739
150.971
150.511
151.100
150.899
150.975
151.163
151.238
151.347
150.469
150.863
151.113
150.970
150.753
151.155
153.674
153.671

Post Digestion Wt (g)

506.802
151.050
150.923
150.846
150.115
150.716
150.666
150.406
150.736
150.620
150.866
150.788
150.591
153.189
153.503
154.494
150.735
150.832
151.059
153.595
153.687
151.647
151.149
150.493
151.007
150.930
150.901
151.074
151.252
150.984
150.882
154.716
150.937
150.501
151.078
150.874
150.964
151.118
151.227
151.332
150.434
150.842
151.070
150.958
150.692
151.142
153.641
153.641

% Change

5.822
0.169
0.115
0.191
0.146
0.188
0.126
0.085
0.326
0.104
0.150
0.056
0.189
0.350
0.183
0.131
0.265
0.157
0.197
0.116
0.121
0.087
0.195
0.070
0.130
0.143
0.375
0.177
0.258
0.224
0.150
0.126
0.231
0.068
0.150
0.170
0.075
0.306
0.072
0.102
0.236
0.143
0.292
0.082
0.416
0.088
0.190
0.173

2761+2

METHOD DOCUMENTATION

EPA 3051-48

MF50-T48

Weight:0.25-0.50

Reagents [ml]:

HNO3 10.0

Ph	Temp	Ramp	Hold	Fan
1	175		05:30	0
2	180	04:30		1
3	0		20:00	2
4				

p-Rate:0.5bar/s IR:140°C P:1400W

Drive:Rot

Notes:

sediments, soil, sludge, contaminated
soil and oils (oil <0,25g!)
for 4 and 8 vessels!

PROCESS STATUS

Process Finished

Power reduction at 00:45 (I,S,p,T)

PROCESS LIMITS

p - Limit [bar]: 20

T - Limit [°C]: 200

IR - Limit [°C]: 140

PROCESS MAXIMA

p - MAX [bar]: 18.6

T - MAX [°C]: 156

IR - MAX [°C]:	1	85
	2	98
	3	85
	4	91
	5	87
	6	87
	7	88
	8	86
	9	97
	10	98
	11	99
	12	94
	13	87
	14	86
	15	88
	16	81

Toil - MAX [°C]: 29.7 Tgas - MAX [°C]: 30.0 Current MAX [A]: 18.4

Tmagn1-MAX [°C]: 109.3 Tmagn2-MAX [°C]: 96.6 Status Word : 00001000

Multiwave V2.01 (PB V15) (c) Anton Paar GmbH Jan 22 2007

Device Name: SN: Sensor:p/T SN:1523

Report printed at 2007-10-03 16:56:02

Process started at 2007-10-03 15:50:00

Process finished 2007-10-03 16:22:44

Quantitative Method Report

File Name: Fast AVANT.mth
File Path: C:\elandata_icpms\Method\Fast AVANT.mth

Timing Parameters

Sweeps/Reading: 10
Readings/Replicate: 1
Number of Replicates: 3
Tuning File: default.tun
Optimization File: c:\elandata_icpms\optimize\al opt.dac
QC Enabled: Yes
Settling Time: Normal

	Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
[>	Ge	73.922	Peak Hopping	1	100.0 ms	1000 ms
[	As	74.922	Peak Hopping	1	150.0 ms	1500 ms
[	Cd	113.904	Peak Hopping	1	50.0 ms	500 ms
[>	Rh	102.905	Peak Hopping	1	100.0 ms	1000 ms
[>	Lu	174.941	Peak Hopping	1	100.0 ms	1000 ms
[	Hg	199.968	Peak Hopping	1	150.0 ms	1500 ms
[>	Tm	168.934	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	205.975	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	206.976	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	207.977	Peak Hopping	1	100.0 ms	1000 ms
[	Pb-1	207.977	Peak Hopping	1	50.0 ms	500 ms

Signal Processing

Detector Mode: Dual
Measurement Units: cps
AutoLens: On
Spectral Peak Processing: Average
Signal Profile Processing: Average
Blank Subtraction: Subtracted after internal standard
Baseline Readings: 0
Smoothing: Yes, Factor 5

Equations

Analyte	Mass	Corrections
Ge	73.922	- 0.116645 * Se 77
Pb-1	207.977	Pb208 +1*Pb206+1*Pb207

Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Ge	73.922	Linear Thru Zero	ppm	ppb				

As	74.922	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Cd	113.904	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Rh	102.905	Linear Thru Zero	ppm	ppb				
Lu	174.941	Linear Thru Zero	ppm	ppb				
Hg	199.968	Linear Thru Zero	ppm	ppb	0.25	0.5	1	5
Tm	168.934	Linear Thru Zero	ppm	ppb				
Pb	205.975	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	206.976	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb-1	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10

Analyte	Mass	Std 5	Std 6	Std 7
Ge	73.922			
As	74.922	20	50	125
Cd	113.904	20	50	125
Rh	102.905			
Lu	174.941			
Hg	199.968	10		
Tm	168.934			
Pb	205.975	20	50	125
Pb	206.976	20	50	125
Pb	207.977	20	50	125
Pb-1	207.977	20	50	125

	AS Pos	Sample Flush	Sample Flush	Read Delay	Read Delay	Wash	Wash
blank	1	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.25 ppb	2	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.5 ppb	3	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
2.0 ppb	4	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
10.0 ppb	5	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
20.0 ppb	6	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
50.0 ppb	7	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
125.0 ppb	8	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 8		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 9		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 10		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 11		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 12		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 13		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 14		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 15		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 16		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 17		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 18		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 19		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 20		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 21		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Standard 22	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 23	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 24	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 25	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 26	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 27	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 28	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 29	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 30	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Reporting Options

Report Template for Printing: a&l qc.rop
 Send to Printer: No
 Report Template for File:
 Send to File: No
 Report Filename:
 Create NetCDF File: No
 Send to Serial Port: No
 Port: COM1

Sampling Devices

Peristaltic Pump Control: Yes
 Autosampler: AS-93plus
 Autosampler Tray File: c:\program files\esi\esi sc\esi.try
 Sampling Device Type: (None)
 Dil. Factor: 10
 Dil. to Vol. (mL): 10
 1st Dil. Pos.: 1
 Probe Purge Pos.: 10

PERKIN ELMER ICP-MS BATCH REPORT

Sample File: C:\Elandata\Sample\October 2007\100407 Avant proj 276.sam

Sample Information

A/S Loc.	Analyst	Batch ID	Sample ID	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vo
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
101	CRT	276-1,2 Avant	22645	490.000	49.644	5.072	50.12
102	CRT	276-1,2 Avant	22645-d	490.000	49.644	5.072	50.12
103	CRT	276-1,2 Avant	22646	533.000	50.031	5.017	51.37
104	CRT	276-1,2 Avant	22647	507.000	50.282	5.092	50.58
105	CRT	276-1,2 Avant	Mblank				
106	CRT	276-1,2 Avant	CRM	233.000	49.953	4.964	25.01
107	CRT	276-1,2 Avant	22648	516.000	49.949	4.887	48.75
108	CRT	276-1,2 Avant	Mcontrol				
109	CRT	276-1,2 Avant	22649	553.000	50.264	5.029	50.41
110	CRT	276-1,2 Avant	22650	501.000	49.704	5.077	50.37
111	CRT	276-1,2 Avant	22650-2	494.000	50.214	4.985	49.80
112	CRT	276-1,2 Avant	22650-S1	509.000	49.616	5.329	53.21
113	CRT	276-1,2 Avant	22650-S2	517.000	49.488	5.284	52.35
114	CRT	276-1,2 Avant	22651	545.000	49.253	5.118	51.16
115	CRT	276-1,2 Avant	22651-d	545.000	49.253	5.118	51.16
116	CRT	276-1,2 Avant	22652	522.000	49.803	4.868	49.88
117	CRT	276-1,2 Avant	22653	541.000	50.253	5.070	50.88
118	CRT	276-1,2 Avant	22654	525.000	50.279	5.144	51.01
119	CRT	276-1,2 Avant	22655	479.000	50.320	5.078	50.02
120	CRT	276-1,2 Avant	22656	551.000	50.448	5.044	50.10
121	CRT	276-1,2 Avant	22657	496.000	50.290	5.171	51.12

Calibration Report

Analyte	Mass	Curve Type	Slope	Intercept	Corr Coeff
Ge	73.922	Linear Thru Zero	0.000000	0.000	0.000000
As	74.922	Linear Thru Zero	0.004912	0.000	0.999998
Cd	113.904	Linear Thru Zero	0.006971	0.000	0.999998
Rh	102.905	Linear Thru Zero	0.000000	0.000	0.000000
Lu	174.941	Linear Thru Zero	0.000000	0.000	0.000000
Hg	199.968	Linear Thru Zero	0.000877	0.000	0.999983
Tm	168.934	Linear Thru Zero	0.000000	0.000	0.000000
Pb	205.975	Linear Thru Zero	0.006195	0.000	0.999992
Pb	206.976	Linear Thru Zero	0.004694	0.000	0.999992
Pb	207.977	Linear Thru Zero	0.011932	0.000	0.999985
Pb-1	207.977	Linear Thru Zero	0.034753	0.000	0.999987

Quantitative Method Report

File Name: Fast AVANT.mth
File Path: C:\elandata_icpms\Method\Fast AVANT.mth

Timing Parameters

Sweeps/Reading: 10
Readings/Replicate: 1
Number of Replicates: 3
Tuning File: default.tun
Optimization File: c:\elandata_icpms\optimize\al opt.dac
QC Enabled: Yes
Settling Time: Normal

	Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
[>	Ge	73.922	Peak Hopping	1	100.0 ms	1000 ms
[	As	74.922	Peak Hopping	1	150.0 ms	1500 ms
[	Cd	113.904	Peak Hopping	1	50.0 ms	500 ms
[>	Rh	102.905	Peak Hopping	1	100.0 ms	1000 ms
[>	Lu	174.941	Peak Hopping	1	100.0 ms	1000 ms
[	Hg	199.968	Peak Hopping	1	150.0 ms	1500 ms
[>	Tm	168.934	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	205.975	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	206.976	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	207.977	Peak Hopping	1	100.0 ms	1000 ms
[	Pb-1	207.977	Peak Hopping	1	50.0 ms	500 ms

Signal Processing

Detector Mode: Dual
Measurement Units: cps
AutoLens: On
Spectral Peak Processing: Average
Signal Profile Processing: Average
Blank Subtraction: Subtracted after internal standard
Baseline Readings: 0
Smoothing: Yes, Factor 5

Equations

Analyte	Mass	Corrections
Ge	73.922	- 0.116645 * Se 77
Pb-1	207.977	Pb208 +1*Pb206+1*Pb207

Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Ge	73.922	Linear Thru Zero	ppm	ppb				

As	74.922	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Cd	113.904	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Rh	102.905	Linear Thru Zero	ppm	ppb				
Lu	174.941	Linear Thru Zero	ppm	ppb				
Hg	199.968	Linear Thru Zero	ppm	ppb	0.25	0.5	1	5
Tm	168.934	Linear Thru Zero	ppm	ppb				
Pb	205.975	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	206.976	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb-1	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10

Analyte	Mass	Std 5	Std 6	Std 7
Ge	73.922			
As	74.922	20	50	125
Cd	113.904	20	50	125
Rh	102.905			
Lu	174.941			
Hg	199.968	10		
Tm	168.934			
Pb	205.975	20	50	125
Pb	206.976	20	50	125
Pb	207.977	20	50	125
Pb-1	207.977	20	50	125

	AS Pos	Sample Flush	Sample Flush	Read Delay	Read Delay	Wash	Wash
blank	1	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.25 ppb	2	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.5 ppb	3	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
2.0 ppb	4	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
10.0 ppb	5	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
20.0 ppb	6	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
50.0 ppb	7	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
125.0 ppb	8	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 8		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 9		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 10		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 11		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 12		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 13		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 14		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 15		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 16		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 17		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 18		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 19		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 20		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 21		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Standard 22	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 23	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 24	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 25	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 26	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 27	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 28	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 29	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 30	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Sampling Devices

Peristaltic Pump Control: Yes
 Autosampler: AS-93plus
 Autosampler Tray File: c:\program files\esi\esi sc\esi.try
 Sampling Device Type: (None)
 Dil. Factor: 10
 Dil. to Vol. (mL): 10
 1st Dil. Pos.: 1
 Probe Purge Pos.: 10

A&L Great Lakes Lab ICP-MS Report

Sample ID: blank
Sample Date/Time: Thursday, October 04, 2007 15:55:48
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\blank.016
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:55:48 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	229698.802			
As	75	46.889			
Cd	114	16.000			
Rh	103	486476.992			
Lu	175	566481.272			
Hg	200	7.333			
Tm	169	488001.615			
Pb	206	37.000			
Pb	207	39.000			
Pb	208	77.000			
Pb-1	208	230.001			

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

(10) All Pb values reported from ICP-MS
data used the Pb-1 208 isotope.
CW 10.17.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.25 ppb
Sample Date/Time: Thursday, October 04, 2007 15:57:09
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\0.25 ppb.017
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:57:09 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	229728.946	229698.802		
As	75	338.229	46.889	0.000258	5.062
Cd	114	885.376	16.000	0.000255	3.243
Rh	103	489406.739	486476.992		
Lu	175	562905.065	566481.272		
Hg	200	117.779	7.333	0.000224	3.298
Tm	169	486768.795	488001.615		
Pb	206	856.707	37.000	0.000272	6.178
Pb	207	616.354	39.000	0.000253	0.614
Pb	208	1567.135	77.000	0.000257	1.867
Pb-1	208	4607.332	230.001	0.000259	1.948

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.5 ppb

Sample Date/Time: Thursday, October 04, 2007 15:58:29

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\Digest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\0.5 ppb.018

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:58:29 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	230417.707	229698.802		
As	75	625.133	46.889	0.000511	6.101
Cd	114	1775.507	16.000	0.000516	2.763
Rh	103	489441.036	486476.992		
Lu	175	566905.330	566481.272		
Hg	200	246.670	7.333	0.000481	3.202
Tm	169	488384.616	488001.615		
Pb	206	1599.141	37.000	0.000516	0.432
Pb	207	1192.412	39.000	0.000503	2.692
Pb	208	3048.511	77.000	0.000510	1.111
Pb-1	208	8888.575	230.001	0.000510	0.345

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74					
[	As	75					
[	Cd	114					
>	Rh	103					
>	Lu	175					
[	Hg	200					
>	Tm	169					
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 2.0 ppb
 Sample Date/Time: Thursday, October 04, 2007 15:59:50
 Dual Detector Mode: Dual
 Sample File: C:\elandata\SampleIDigest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\2.0 ppb.019
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:59:50 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	231568.044	229698.802		
As	75	2351.637	46.889	0.002026	1.329
Cd	114	7085.427	16.000	0.002055	2.033
Rh	103	493625.965	486476.992		
Lu	175	568413.885	566481.272		
Hg	200	490.680	7.333	0.000970	4.419
Tm	169	489364.934	488001.615		
Pb	206	6244.812	37.000	0.002048	1.908
Pb	207	4728.230	39.000	0.002041	2.080
Pb	208	12065.669	77.000	0.002053	1.161
Pb-1	208	35104.379	230.001	0.002051	0.543

QC Calculated Values

Inter	Ana	Mass	dard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 10.0 ppb
Sample Date/Time: Thursday, October 04, 2007 16:01:11
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\10.0 ppb.020
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:01:11 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	229062.845	229698.802		
As	75	11555.784	46.889	0.010231	1.573
Cd	114	34750.977	16.000	0.010128	0.989
Rh	103	491976.134	486476.992		
Lu	175	572180.674	566481.272		
Hg	200	2539.466	7.333	0.005044	3.126
Tm	169	493091.297	488001.615		
Pb	206	30301.438	37.000	0.009907	2.116
Pb	207	23190.545	39.000	0.010003	0.897
Pb	208	58877.072	77.000	0.009994	0.483
Pb-1	208	171246.126	230.001	0.009980	0.814

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 20.0 ppb
Sample Date/Time: Thursday, October 04, 2007 16:02:31
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\20.0 ppb.021
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:02:31 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	232980.977	229698.802		
As	75	23037.602	46.889	0.020089	0.484
Cd	114	68174.779	16.000	0.019927	0.488
Rh	103	490671.834	486476.992		
Lu	175	571500.768	566481.272		
Hg	200	5010.492	7.333	0.009982	1.631
Tm	169	488838.116	488001.615		
Pb	206	62006.169	37.000	0.020464	0.554
Pb	207	47060.871	39.000	0.020495	0.725
Pb	208	120689.374	77.000	0.020682	1.243
Pb-1	208	350445.788	230.001	0.020618	0.945

QC Calculated Values

InterAnal	Mass	Std	Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 50.0 ppb
 Sample Date/Time: Thursday, October 04, 2007 16:03:52
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\Digest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\50.0 ppb.022
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:03:52 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	232168.918	229698.802		
As	75	57203.639	46.889	0.050125	1.214
Cd	114	173846.682	16.000	0.050218	0.339
Rh	103	496571.020	486476.992		
Lu	175	578625.135	566481.272		
Hg	200	62.889	7.333	0.000109	23.624
Tm	169	498296.006	488001.615		
Pb	206	155076.633	37.000	0.050226	0.559
Pb	207	117436.676	39.000	0.050200	1.396
Pb	208	298601.736	77.000	0.050218	1.603
Pb-1	208	869716.782	230.001	0.050217	1.346

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 125.0 ppb
 Sample Date/Time: Thursday, October 04, 2007 16:05:12
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\SampleIDigest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\125.0 ppb.023
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:05:12 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	234241.684	229698.802		
As	75	143771.508	46.889	0.124917	0.557
Cd	114	436563.499	16.000	0.124913	0.103
Rh	103	501358.188	486476.992		
Lu	175	588321.675	566481.272		
Hg	200	37.778	7.333	0.000058	5.820
Tm	169	507514.542	488001.615		
Pb	206	392554.778	37.000	0.124842	0.733
Pb	207	297445.147	39.000	0.124840	0.652
Pb	208	755868.120	77.000	0.124803	0.982
Pb-1	208	2201736.166	230.001	0.124815	0.666

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICV
Sample Date/Time: Thursday, October 04, 2007 16:06:33
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\ICV.024
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:06:33 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	232128.382	229698.802		
As	75	72062.490	46.889	0.063162	0.570
Cd	114	215579.612	16.000	0.062141	1.061
Rh	103	497656.390	486476.992		
Lu	175	574677.597	566481.272		
Hg	200	3128.316	7.333	0.006191	1.052
Tm	169	497577.942	488001.615		
Pb	206	180186.977	37.000	0.058442	0.392
Pb	207	154792.074	39.000	0.066261	0.343
Pb	208	378401.145	77.000	0.063724	1.139
Pb-1	208	1091781.342	230.001	0.063125	0.769

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		101.058				
[	As	75			105.270			
[	Cd	114			103.569			
>	Rh	103		102.298				
>	Lu	175		101.447				
[	Hg	200			103.180			
>	Tm	169		101.962				
|	Pb	206			97.403			
|	Pb	207			110.434			
|	Pb	208			106.206			
[	Pb-1	208			105.208			

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICB

Sample Date/Time: Thursday, October 04, 2007 16:07:57

Dual Detector Mode: Dual

Sample File: C:\Elandata\SampleDigest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\ICB.025

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:07:57 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	229027.175	229698.802		
As	75	80.000	46.889	0.000030	17.173
Cd	114	90.667	16.000	0.000022	10.740
Rh	103	489640.901	486476.992		
Lu	175	566730.508	566481.272		
Hg	200	44.889	7.333	0.000076	12.563
Tm	169	491370.569	488001.615		
Pb	206	101.334	37.000	0.000021	18.677
Pb	207	85.334	39.000	0.000020	4.452
Pb	208	213.669	77.000	0.000023	14.353
Pb-1	208	614.006	230.001	0.000022	9.148

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		99.708				
[	As	75						
[	Cd	114						
[>	Rh	103		100.650				
[>	Lu	175		100.044				
[	Hg	200						
[>	Tm	169		100.690				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22645

Sample Date/Time: Thursday, October 04, 2007 16:09:18

Dual Detector Mode: Dual

Sample File: C:\Elandata\SampleDigest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22645.026

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL): 49.644

Initial Sample Quantity (mg): 490.000

Aliquot Volume (mL): 5.072

Diluted to Volume (mL): 50.122

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:09:18 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	212597.987	229698.802		
As	75	27671.829	46.889	26.487999	0.414
Cd	114	32341.441	16.000	9.901503	0.625
Rh	103	468875.366	486476.992		
Lu	175	654969.721	566481.272		
Hg	200	644.023	7.333	1.107895	5.560
Tm	169	551316.351	488001.615		
Pb	206	11542832.031	37.000	3383.588405	1.039
Pb	207	9573587.190	39.000	3704.433091	1.722
Pb	208	23816780.643	77.000	3625.365956	1.356
Pb-1	208	68749980.506	230.001	3592.945655	1.295

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference
[>	Ge 74	92.555		
[	As 75			
[	Cd 114			
[>	Rh 103	96.382		
[>	Lu 175	115.621		
[	Hg 200			
[>	Tm 169	112.974		
[	Pb 206			
[	Pb 207			
[	Pb 208			
[	Pb-1 208			

⑩ See ICP data from 10-16-07. This data for Pb is over calibration range. CRT 10-17-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22645-d
Sample Date/Time: Thursday, October 04, 2007 16:10:38
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22645-d.027
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL): 49.644
Initial Sample Quantity (mg): 490.000
Aliquot Volume (mL): 5.072
Diluted to Volume (mL): 50.122
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:10:38 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	228680.062	229698.802		
As	75	5600.836	46.889	4.950299	0.502
Cd	114	6247.480	16.000	1.809469	1.593
Rh	103	494628.691	486476.992		
Lu	175	618313.533	566481.272		
Hg	200	135.779	7.333	0.235980	7.835
Tm	169	524992.811	488001.615		
Pb	206	1781138.031	37.000	548.269402	0.667
Pb	207	1478984.661	39.000	600.838922	0.338
Pb	208	4098605.471	77.000	655.107714	1.172
Pb-1	208	11457333.634	230.001	628.732903	0.903

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	99.556				
[	As	75					6.556
[	Cd	114					8.627
[>	Rh	103	101.676				
[>	Lu	175	109.150				
[	Hg	200					6.499
[>	Tm	169	107.580				
|	Pb	206					18.981
|	Pb	207					18.903
|	Pb	208					9.649
[	Pb-1	208					12.505

⑩ this dilution for
QC purpose only. cut 10-17-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22646

Sample Date/Time: Thursday, October 04, 2007 16:11:59

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\Digest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22646.028

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL): 50.031

Initial Sample Quantity (mg): 533.000

Aliquot Volume (mL): 5.017

Diluted to Volume (mL): 51.379

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:11:59 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	213720.453	229698.802		
As	75	8553.578	46.889	7.792656	0.500
Cd	114	770.033	16.000	0.221399 BDL	2.702
Rh	103	469731.121	486476.992		
Lu	175	618095.487	566481.272		
Hg	200	40.667	7.333	0.057886 BDL	21.899
Tm	169	523895.257	488001.615		
Pb	206	30376.679	37.000	8.984974	0.606
Pb	207	24716.560	39.000	9.645491	0.245
Pb	208	62173.956	77.000	9.547715	1.086
Pb-1	208	179441.150	230.001	9.460607	0.877

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	93.044				
[	As	75					
[	Cd	114					
>	Rh	103	96.558				
>	Lu	175	109.111				
[	Hg	200					
>	Tm	169	107.355				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ BDL because the intensity of the sample is less than the intensity of the lowest calibration standard for Hg. CRT 10-17-07
Cd result also BDL for the same reason. CRT 10-17-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22647
Sample Date/Time: Thursday, October 04, 2007 16:13:20
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata\icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22647.029
Calibration File: C:\elandata\icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL): 50.282
Initial Sample Quantity (mg): 507.000
Aliquot Volume (mL): 5.092
Diluted to Volume (mL): 50.587
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:13:20 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	219081.239	229698.802		
As	75	24558.460	46.889	22.445597	0.752
Cd	114	2556.359	16.000	0.741900	0.100
Rh	103	484006.617	486476.992		
Lu	175	638568.665	566481.272		
Hg	200	89.112	7.333	0.142272	14.394
Tm	169	544294.301	488001.615		
Pb	206	317547.215	37.000	92.770044	0.776
Pb	207	265318.604	39.000	102.295175	1.108
Pb	208	656229.141	77.000	99.538944	0.721
Pb-1	208	1895324.102	230.001	98.704583	0.778

BDL

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	95.378				
[	As	75					
[	Cd	114					
[>	Rh	103	99.492				
[>	Lu	175	112.725				
[	Hg	200					
[>	Tm	169	111.535				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

⑩ BDL because the intensity of the sample is less than the lowest calibration standard for Hg. Crt 10-17-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mblank
Sample Date/Time: Thursday, October 04, 2007 16:14:40
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\Mblank.030
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:14:40 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	226340.897	229698.802		
As	75	41.333	46.889	-0.000004	66.643
Cd	114	32.000	16.000	0.000005	41.181
Rh	103	492726.078	486476.992		
Lu	175	595572.713	566481.272		
Hg	200	18.444	7.333	0.000021	55.886
Tm	169	509040.940	488001.615		
Pb	206	205.336	37.000	0.000053	6.982
Pb	207	170.668	39.000	0.000054	7.419
Pb	208	405.009	77.000	0.000053	9.080
Pb-1	208	1186.022	230.001	0.000054	7.380

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	98.538				
[	As	75					
[	Cd	114					
[>	Rh	103	101.285				
[>	Lu	175	105.135				
[	Hg	200					
[>	Tm	169	104.311				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: CRM
 Sample Date/Time: Thursday, October 04, 2007 16:16:01
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\Digest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\CRM.031
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL): 49.953
 Initial Sample Quantity (mg): 233.000
 Aliquot Volume (mL): 4.964
 Diluted to Volume (mL): 25.014
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:16:01 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	216247.160	229698.802		
As	75	3508.232	46.889	3.523253	1.720
Cd	114	5233.506	16.000	1.737140	0.286
Rh	103	465523.429	486476.992		
Lu	175	629498.384	566481.272		
Hg	200	1551.688	7.333	3.019065	1.957
Tm	169	534619.490	488001.615		
Pb	206	102009.205	37.000	33.261323	0.873
Pb	207	85028.518	39.000	36.586993	0.716
Pb	208	213192.377	77.000	36.092437	0.879
Pb-1	208	613422.476	230.001	35.654558	0.842

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	94.144				
[	As	75					
[	Cd	114					
[>	Rh	103	95.693				
[>	Lu	175	111.124				
[	Hg	200					
[>	Tm	169	109.553				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22648
Sample Date/Time: Thursday, October 04, 2007 16:17:21
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\22648.032
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL): 49.949
Initial Sample Quantity (mg): 516.000
Aliquot Volume (mL): 4.887
Diluted to Volume (mL): 48.751
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:17:21 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	218236.141	229698.802		
As	75	11369.105	46.889	10.201341	0.726
Cd	114	2018.891	16.000	0.598925	3.210
Rh	103	463536.742	486476.992		
Lu	175	598829.824	566481.272		
Hg	200	48.000	7.333	0.073869 BDL	19.258
Tm	169	512412.383	488001.615		
Pb	206	54337.628	37.000	16.518582	1.468
Pb	207	43902.126	39.000	17.609896	1.221
Pb	208	109490.385	77.000	17.278857	0.807
Pb-1	208	317220.525	230.001	17.188041	0.908

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	95.010				
[	As	75					
[	Cd	114					
[>	Rh	103	95.284				
[>	Lu	175	105.710				
[	Hg	200					
[>	Tm	169	105.002				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ BDL because the intensity of the sample is less than the intensity of the lowest Calibration standard for Hg.
CMT 10.17.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mcontrol
 Sample Date/Time: Thursday, October 04, 2007 16:18:42
 Dual Detector Mode: Dual
 Sample File: C:\elandata\SampleIDigest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\Mcontrol.033
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:18:42 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	222613.631	229698.802		
As	75	552382.150	46.889	0.505128	0.563
Cd	114	1616997.172	16.000	0.491205	0.126
Rh	103	472246.506	486476.992		
Lu	175	625819.614	566481.272		
Hg	200	274.449	7.333	0.000485	3.037
Tm	169	528516.197	488001.615		
Pb	206	1500915.538	37.000	0.458395	0.946
Pb	207	1288692.052	39.000	0.519462	1.043
Pb	208	3483899.128	77.000	0.552447	1.591
Pb-1	208	9757405.846	230.001	0.531226	1.412

QC Calculated Values

Inter	Anat	Mass	dard	Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74			96.915				
[	As	75						101.026	
[	Cd	114						98.240	
[>	Rh	103			97.075				
[>	Lu	175			110.475				
[	Hg	200						92.933	
[>	Tm	169			108.302				
|	Pb	206						91.669	
|	Pb	207						103.882	
|	Pb	208						110.479	
[	Pb-1	208						106.235	

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Thursday, October 04, 2007 16:20:04
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\SampleDigest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\CCV.034
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:20:04 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	226495.057	229698.802		
As	75	69387.134	46.889	0.062329	0.855
Cd	114	209050.309	16.000	0.062414	1.502
Rh	103	480545.091	486476.992		
Lu	175	560799.621	566481.272		
Hg	200	2890.237	7.333	0.005861	0.813
Tm	169	487972.655	488001.615		
Pb	206	167511.960	37.000	0.055404	0.878
Pb	207	144094.669	39.000	0.062902	1.480
Pb	208	353106.543	77.000	0.060644	2.014
Pb-1	208	1017819.715	230.001	0.060015	1.737

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	98.605				
[	As	75		103.882			
[	Cd	114		104.024			
[>	Rh	103	98.781				
[>	Lu	175	98.997				
[	Hg	200		97.678			
[>	Tm	169	99.994				
[	Pb	206		92.340			
[	Pb	207		104.837			
[	Pb	208		101.073			
[	Pb-1	208		100.024			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Thursday, October 04, 2007 16:21:28
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\Digest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\CCB.035
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:21:28 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	224761.040	229698.802		
As	75	82.223	46.889	0.000033	28.474
Cd	114	72.000	16.000	0.000017	15.268
Rh	103	469404.726	486476.992		
Lu	175	554342.736	566481.272		
Hg	200	41.556	7.333	0.000071	17.255
Tm	169	472592.681	488001.615		
Pb	206	155.668	37.000	0.000041	3.223
Pb	207	130.001	39.000	0.000042	8.600
Pb	208	321.006	77.000	0.000044	6.068
Pb-1	208	927.680	230.001	0.000043	3.011

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		97.850				
[	As	75						
[	Cd	114						
[>	Rh	103		96.491				
[>	Lu	175		97.857				
[	Hg	200						
[>	Tm	169		96.842				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22650

Sample Date/Time: Thursday, October 04, 2007 16:24:12

Dual Detector Mode: Dual

Sample File: C:\elandata\SampleDigest 2007\277.sam

Method File:

Dataset File: C:\elandata\icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22650.037

Calibration File: C:\elandata\icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL): 49.704

Initial Sample Quantity (mg): 501.000

Aliquot Volume (mL): 5.077

Diluted to Volume (mL): 50.370

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:24:12 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	215664.283	229698.802		
As	75	6268.161	46.889	5.783174	0.572
Cd	114	859.374	16.000	0.255640	2.135
Rh	103	466279.194	486476.992		
Lu	175	609451.589	566481.272		
Hg	200	74.223	7.333	0.122106 BDL	4.327
Tm	169	519796.309	488001.615		
Pb	206	93840.927	37.000	28.665747	1.439
Pb	207	76319.338	39.000	30.764359	1.762
Pb	208	191765.958	77.000	30.411980	1.946
Pb-1	208	553692.181	230.001	30.148289	1.832

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	93.890				
|	As 75					
|	Cd 114					
>	Rh 103	95.848				
>	Lu 175	107.585				
|	Hg 200					
>	Tm 169	106.515				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

⑩ BDL because the sample intensity is ^{less} than the intensity of the lowest calibration standard for Hg. CRT 10.17.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22650-2
 Sample Date/Time: Thursday, October 04, 2007 16:25:33
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\SampleDigest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\22650-2.038
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL): 50.214
 Initial Sample Quantity (mg): 494.000
 Aliquot Volume (mL): 4.985
 Diluted to Volume (mL): 49.804
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:25:33 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	216229.249	229698.802		
As	75	6514.778	46.889	6.187296	0.734
Cd	114	893.377	16.000	0.273288	4.464
Rh	103	468196.936	486476.992		
Lu	175	618723.562	566481.272		
Hg	200	80.667	7.333	0.136067	10.781
Tm	169	528267.097	488001.615		
Pb	206	98977.435	37.000	30.699543	1.195
Pb	207	82184.865	39.000	33.644456	1.150
Pb	208	206500.009	77.000	33.256528	1.381
Pb-1	208	594162.317	230.001	32.853114	1.115

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	94.136				
[	As	75			6.752		
[	Cd	114			6.673		
[>	Rh	103	96.242				
[>	Lu	175	109.222				
[	Hg	200			10.815		
[>	Tm	169	108.251				
|	Pb	206			6.852		
|	Pb	207			8.943		
|	Pb	208			8.935		
[	Pb-1	208			8.587		

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22650-S1

Sample Date/Time: Thursday, October 04, 2007 16:26:53

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\Digest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22650-S1.039

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL): 49.616

Initial Sample Quantity (mg): 509.000

Alliquot Volume (mL): 5.329

Diluted to Volume (mL): 53.210

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:26:53 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	226424.820	229698.802		
As	75	579172.857	46.889	506.865144	0.445
Cd	114	1714316.710	16.000	487.929116	0.122
Rh	103	490626.125	486476.992		
Lu	175	651240.205	566481.272		
Hg	200	359.118	7.333	0.597631	1.646
Tm	169	554697.875	488001.615		
Pb	206	1734903.097	37.000	491.429635	1.705
Pb	207	1480375.700	39.000	553.443943	0.633
Pb	208	4037899.337	77.000	593.836157	1.067
Pb-1	208	11291077.472	230.001	570.125583	1.053

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	98.575				
[	As	75				102.968	
[	Cd	114				100.200	
[>	Rh	103	100.853				
[>	Lu	175	114.962				
[	Hg	200				97.981	
[>	Tm	169	113.667				
[	Pb	206				95.146	
[	Pb	207				107.462	
[	Pb	208				115.833	
[	Pb-1	208				111.014	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22650-S2
 Sample Date/Time: Thursday, October 04, 2007 16:28:14
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\Digest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22650-S2.040
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL): 49.488
 Initial Sample Quantity (mg): 517.000
 Aliquot Volume (mL): 5.284
 Diluted to Volume (mL): 52.351
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:28:14 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	228418.830	229698.802		
As	75	589104.174	46.889	497.938008	0.868
Cd	114	1744989.585	16.000	484.970813	0.355
Rh	103	489534.132	486476.992		
Lu	175	659880.348	566481.272		
Hg	200	357.785	7.333	0.572359	6.223
Tm	169	561951.122	488001.615		
Pb	206	1816329.519	37.000	494.808221	1.686
Pb	207	1550713.560	39.000	557.547107	1.967
Pb	208	4253682.661	77.000	601.670450	2.093
Pb-1	208	11874408.401	230.001	576.661658	1.986

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		99.443				
[	As	75				1.777	103.832	
[	Cd	114				0.608	102.221	
[>	Rh	103		100.628				
[>	Lu	175		116.488				
[	Hg	200				4.320	95.890	
[>	Tm	169		115.154				
|	Pb	206				0.685	98.522	
|	Pb	207				0.739	111.327	
|	Pb	208				1.311	120.703	
[	Pb-1	208				1.140	115.483	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22651

Sample Date/Time: Thursday, October 04, 2007 16:29:35

Dual Detector Mode: Dual

Sample File: C:\Elandata\SampleDigest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 ia 277-1 rush, 276-2 Avant\22651.041

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL): 49.253

Initial Sample Quantity (mg): 545.000

Aliquot Volume (mL): 5.118

Diluted to Volume (mL): 51.166

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:29:35 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	222113.979	229698.802		
As	75	5310.217	46.889	4.360333	1.327
Cd	114	680.026	16.000	0.179572 BDL	14.225
Rh	103	479794.315	486476.992		
Lu	175	602954.807	566481.272		
Hg	200	30.000	7.333	0.037926 BDL	6.019
Tm	169	514745.608	488001.615		
Pb	206	20102.203	37.000	5.687294	3.272
Pb	207	16360.711	39.000	6.104533	2.603
Pb	208	41302.292	77.000	6.065597	2.430
Pb-1	208	119067.498	230.001	6.003419	2.516

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	96.698				
|	As 75					
|	Cd 114					
>	Rh 103	98.626				
>	Lu 175	106.439				
|	Hg 200					
>	Tm 169	105.480				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

⑩ BDL for Cd + Hg because
the intensity of the sample
is less than the intensity
of the lowest standard.
CMT 10-17-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22651-d
Sample Date/Time: Thursday, October 04, 2007 16:30:55
Dual Detector Mode: Dual
Sample File: C:\Elandata\SampleDigest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22651-d.042
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL): 49.253
Initial Sample Quantity (mg): 545.000
Aliquot Volume (mL): 5.118
Diluted to Volume (mL): 51.166
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:30:55 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	227072.948	229698.802		
As	75	1284.535	46.889	1.003084	1.870
Cd	114	153.335	16.000	0.036775	27.005
Rh	103	485537.483	486476.992		
Lu	175	584909.346	566481.272		
Hg	200	14.000	7.333	0.011256	40.174
Tm	169	503999.252	488001.615		
Pb	206	4647.855	37.000	1.334658	3.476
Pb	207	3724.763	39.000	1.407461	1.797
Pb	208	9367.491	77.000	1.395913	2.419
Pb-1	208	27107.600	230.001	1.386553	2.474

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	98.857				
[	As 75					15.024
[	Cd 114					2.397
[>	Rh 103	99.807				
[>	Lu 175	103.253				
[	Hg 200					48.389
[>	Tm 169	103.278				
[	Pb 206					17.337
[	Pb 207					15.280
[	Pb 208					15.068
[	Pb-1 208					15.480

⑩ this dilution
for QC purpose only

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22652

Sample Date/Time: Thursday, October 04, 2007 16:32:16

Dual Detector Mode: Dual

Sample File: C:\Elandata\SampleDigest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22652.043

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL): 49.803

Initial Sample Quantity (mg): 522.000

Alliquot Volume (mL): 4.868

Diluted to Volume (mL): 49.887

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:32:16 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	220986.370	229698.802		
As	75	13842.309	46.889	12.428436	1.598
Cd	114	12402.455	16.000	3.597855	0.942
Rh	103	482891.754	486476.992		
Lu	175	651271.023	566481.272		
Hg	200	564.906	7.333	0.952488	2.985
Tm	169	555940.867	488001.615		
Pb	206	975875.157	37.000	277.024456	1.593
Pb	207	825284.702	39.000	309.197797	2.287
Pb	208	2331978.805	77.000	343.703348	2.207
Pb-1	208	6465117.468	230.001	327.156678	2.107

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery
>	Ge	74	96.207
|	As	75	
|	Cd	114	
>	Rh	103	99.263
>	Lu	175	114.968
|	Hg	200	
>	Tm	169	113.922
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	Pb-1	208	

QC Std % Recovery

Duplicate Rel. % Difference

Spike % Recovery

Dilution % Difference

Results are over calibration range. Cut 10.17.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22653

Sample Date/Time: Thursday, October 04, 2007 16:33:37

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\Digest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\22653.044

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL): 50.253

Initial Sample Quantity (mg): 541.000

Aliquot Volume (mL): 5.070

Diluted to Volume (mL): 50.886

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:33:37 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	212019.783	229698.802		
As	75	6612.404	46.889	5.880650	0.526
Cd	114	9371.496	16.000	2.643704	1.305
Rh	103	473280.359	486476.992		
Lu	175	651811.701	566481.272		
Hg	200	169.113	7.333	0.262080	5.578
Tm	169	552551.764	488001.615		
Pb	206	789555.416	37.000	215.035224	0.605
Pb	207	653618.192	39.000	234.958632	1.268
Pb	208	1631648.877	77.000	230.703387	0.487
Pb-1	208	4706471.362	230.001	229.485100	0.419

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	92.303				
|	As	75					
|	Cd	114					
>	Rh	103	97.287				
>	Lu	175	115.063				
|	Hg	200					
>	Tm	169	113.227				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Results are over the calibration range. See ICP data from 10-16-07, CRT 10-17-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22654
Sample Date/Time: Thursday, October 04, 2007 16:34:57
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22654.045
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL): 50.279
Initial Sample Quantity (mg): 525.000
Aliquot Volume (mL): 5.144
Diluted to Volume (mL): 51.017
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:34:57 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	223972.209	229698.802		
As	75	4455.314	46.889	3.807354	1.919
Cd	114	516.681	16.000	0.140766	6.984
Rh	103	484803.320	486476.992		
Lu	175	606351.291	566481.272		
Hg	200	20.222	7.333	0.022100	15.707
Tm	169	516554.221	488001.615		
Pb	206	16112.603	37.000	4.770590	0.870
Pb	207	12680.840	39.000	4.951459	1.550
Pb	208	32695.702	77.000	5.025838	0.633
Pb-1	208	94184.846	230.001	4.970292	0.596

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	97.507				
[	As	75					
[	Cd	114					
[>	Rh	103	99.656				
[>	Lu	175	107.038				
[	Hg	200					
[>	Tm	169	105.851				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

⑩ Sample is BDL for Cd + Hg
because the intensity is less
than the lowest calibration
standard. Ckt 10.17.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Thursday, October 04, 2007 16:36:20
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\Digest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\CCV.046
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:36:20 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	233272.099	229698.802		
As	75	71213.175	46.889	0.062109	0.779
Cd	114	215341.621	16.000	0.061862	0.451
Rh	103	499339.264	486476.992		
Lu	175	600937.256	566481.272		
Hg	200	3195.673	7.333	0.006048	0.499
Tm	169	514273.030	488001.615		
Pb	206	182539.345	37.000	0.057287	0.817
Pb	207	156485.840	39.000	0.064819	1.718
Pb	208	383103.596	77.000	0.062423	0.560
Pb-1	208	1105232.377	230.001	0.061831	0.753

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		101.556				
[	As	75			103.516			
[	Cd	114			103.103			
[>	Rh	103		102.644				
[>	Lu	175		106.082				
[	Hg	200			100.798			
[>	Tm	169		105.383				
|	Pb	206			95.478			
|	Pb	207			108.032			
|	Pb	208			104.039			
[	Pb-1	208			103.052			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
Sample Date/Time: Thursday, October 04, 2007 16:37:44
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\Digest 2007\277.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\CCB.047
Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:37:44 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	226855.177	229698.802		
As	75	75.778	46.889	0.000026	16.235
Cd	114	52.667	16.000	0.000011	61.387
Rh	103	492761.427	486476.992		
Lu	175	584577.044	566481.272		
Hg	200	46.000	7.333	0.000075	2.235
Tm	169	501387.367	488001.615		
Pb	206	154.001	37.000	0.000037	12.316
Pb	207	151.335	39.000	0.000047	25.899
Pb	208	344.673	77.000	0.000044	16.867
Pb-1	208	994.682	230.001	0.000044	17.412

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	98.762				
|	As	75					
|	Cd	114					
>	Rh	103	101.292				
>	Lu	175	103.194				
|	Hg	200					
>	Tm	169	102.743				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22655
 Sample Date/Time: Thursday, October 04, 2007 16:39:06
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\Digest 2007\277.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22655.048
 Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal
 Sample Prep Volume (mL): 50.320
 Initial Sample Quantity (mg): 479.000
 Aliquot Volume (mL): 5.078
 Diluted to Volume (mL): 50.024
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:39:06 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	224344.950	229698.802		
As	75	19584.629	46.889	18.352600	1.533
Cd	114	6773.857	16.000	2.066196	1.569
Rh	103	485560.403	486476.992		
Lu	175	618340.751	566481.272		
Hg	200	144.890	7.333	0.260944	8.489
Tm	169	530873.860	488001.615		
Pb	206	402445.622	37.000	126.636821	1.733
Pb	207	334540.390	39.000	138.939656	0.969
Pb	208	830867.300	77.000	135.743445	0.488
Pb-1	208	2398720.613	230.001	134.551785	0.548

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	97.669				
[	As	75					
[	Cd	114					
[>	Rh	103	99.812				
[>	Lu	175	109.155				
[	Hg	200					
[>	Tm	169	108.785				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22656

Sample Date/Time: Thursday, October 04, 2007 16:40:26

Dual Detector Mode: Dual

Sample File: C:\elandata\SampleDigest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 1a 277-1 rush, 276-2 Avant\22656.049

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL): 50.448

Initial Sample Quantity (mg): 551.000

Aliquot Volume (mL): 5.044

Diluted to Volume (mL): 50.107

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:40:26 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	192318.661	229698.802		
As	75	25399.435	46.889	24.415583	0.611
Cd	114	115635.521	16.000	34.155684	0.643
Rh	103	441665.150	486476.992		
Lu	175	676706.610	566481.272		
Hg	200	1126.292	7.333	1.711838	4.430
Tm	169	566504.922	488001.615		
Pb	206	25572014.926	37.000	6628.744866	1.386
Pb	207	21428243.814	39.000	7331.882909	1.948
Pb	208	53747943.265	77.000	7234.879546	2.152
Pb-1	208	154496145.269	230.001	7139.931261	1.977

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	83.726				
|	As 75					
|	Cd 114					
>	Rh 103	90.788				
>	Lu 175	119.458				
|	Hg 200					
>	Tm 169	116.087				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

⑩ Results are over the calibration range for Pb. See results from ICP on 10.16.07. CRT 10.17.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22657

Sample Date/Time: Thursday, October 04, 2007 16:41:47

Dual Detector Mode: Dual

Sample File: C:\Elandata\SampleIDigest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\100407 la 277-1 rush, 276-2 Avant\22657.050

Calibration File: C:\elandata_icpms\System\October 2007\100407 276-1Avant.cal

Sample Prep Volume (mL): 50.290

Initial Sample Quantity (mg): 496.000

Aliquot Volume (mL): 5.171

Diluted to Volume (mL): 51.126

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:41:47 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	214607.140	229698.802		
As	75	5445.186	46.889	5.136238	0.877
Cd	114	553.350	16.000	0.165939	11.176
Rh	103	466409.429	486476.992		
Lu	175	601682.664	566481.272		
Hg	200	34.222	7.333	0.050482	19.755
Tm	169	512382.833	488001.615		
Pb	206	35817.761	37.000	11.300975	2.244
Pb	207	29325.892	39.000	12.207428	1.537
Pb	208	73030.510	77.000	11.962806	1.851
Pb-1	208	211204.673	230.001	11.877867	1.863

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
> Ge	74	93.430				
As	75					
Cd	114					
> Rh	103	95.875				
> Lu	175	106.214				
Hg	200					
> Tm	169	104.996				
Pb	206					
Pb	207					
Pb	208					
Pb-1	208					

⑩ Samples are BDL for Cd + Hg because the sample intensity is less than the intensity of the lowest calibration standard. CRT 10.17.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV

Sample Date/Time: Thursday, October 04, 2007 16:52:34

Dual Detector Mode: Dual

Sample File: C:\Elandata\SampleDigest 2007\277.sam

Method File:

Dataset File: C:\elandata_icpms\Dataset\100407 la 277-1 rush, 276-2 Avanti\CCV.058

Calibration File:

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Allquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:52:34 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	229458.510	229698.802		
As	75	70634.686	46.889	0.062631	0.915
Cd	114	220756.199	16.000	0.062568	1.227
Rh	103	506169.233	486476.992		
Lu	175	631932.119	566481.272		
Hg	200	3415.753	7.333	0.006148	1.655
Tm	169	538557.701	488001.615		
Pb	206	192987.926	37.000	0.057830	1.176
Pb	207	165181.625	39.000	0.065323	1.531
Pb	208	403251.981	77.000	0.062737	1.226
Pb-1	208	1164673.513	230.001	0.062211	1.219

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		99.895				
[	As	75			104.385			
[	Cd	114			104.281			
[>	Rh	103		104.048				
[>	Lu	175		111.554				
[	Hg	200			102.473			
[>	Tm	169		110.360				
[	Pb	206			96.384			
[	Pb	207			108.871			
[	Pb	208			104.561			
[Pb-1	208			103.685			

Sample ID: CCV

Report Date/Time: Friday, October 05, 2007 10:33:38

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A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB

Sample Date/Time: Thursday, October 04, 2007 16:53:58

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\100407 Avant proj 276.sam

Method File:

Dataset File: C:\elandata_icpms\Dataset\100407 la 277-1 rush, 276-2 Avant\CCB.059

Calibration File:

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:53:58 Thu 04-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	226891.564	229698.802		
As	75	68.667	46.889	0.000020	55.157
Cd	114	74.667	16.000	0.000017	28.084
Rh	103	498988.459	486476.992		
Lu	175	613795.972	566481.272		
Hg	200	49.333	7.333	0.000077	14.026
Tm	169	524493.214	488001.615		
Pb	206	254.004	37.000	0.000066	8.735
Pb	207	208.669	39.000	0.000068	8.116
Pb	208	522.682	77.000	0.000070	5.813
Pb-1	208	1508.036	230.001	0.000069	6.548

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		98.778				
[	As	75						
[	Cd	114						
[>	Rh	103		102.572				
[>	Lu	175		108.352				
[	Hg	200						
[>	Tm	169		107.478				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

PERKIN ELMER ICP-MS BATCH REPORT

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Sample Information

A/S Loc.	Analyst	Batch ID	Sample ID	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
404	CRT	276-1,2 Avant	Mblank				
405	CRT	276-1,2 Avant	CRM	233.000	49.953	4.964	25.014
406	CRT	276-1,2 Avant	Mcontrol				
407	CRT	276-1,2 Avant	22649	553.000	50.264	5.029	50.414
408	CRT	276-1,2 Avant	22650	501.000	49.704	4.866	49.431
409	CRT	276-1,2 Avant	22650-2	494.000	50.214	4.904	48.770
410	CRT	276-1,2 Avant	22650-S1	509.000	49.616	4.893	48.094
411	CRT	276-1,2 Avant	22650-S2	517.000	49.488	4.783	49.905
101	CRT	281-1 Avant	22705	576.000	49.560	5.695	50.818
102	CRT	281-1 Avant	22706	507.000	50.856	5.070	54.633
103	CRT	281-1 Avant	22707	511.000	50.164	5.620	50.579
104	CRT	281-1 Avant	22708	518.000	50.013	5.157	49.949
105	CRT	281-1 Avant	22708-2	477.000	49.659	5.400	49.855
106	CRT	281-1 Avant	22708-S1	535.000	49.961	5.102	51.118
107	CRT	281-1 Avant	22708-S2	577.000	50.284	4.886	51.141
108	CRT	281-1 Avant	Mblank				
109	CRT	281-1 Avant	22709	531.000	50.086	5.696	51.157
110	CRT	281-1 Avant	22710	577.000	49.889	5.133	50.680
111	CRT	281-1 Avant	22711	585.000	50.127	5.329	49.970
112	CRT	281-1 Avant	22712	516.000	49.993	5.201	50.929
113	CRT	281-1 Avant	22713	473.000	50.053	4.866	50.178
114	CRT	281-1 Avant	22714	595.000	50.049	6.641	49.670
115	CRT	281-1 Avant	22715	500.000	49.996	5.539	5.935
116	CRT	281-1 Avant	Mcontrol				
117	CRT	281-1 Avant	22716	529.000	50.157	4.864	49.703
118	CRT	281-1 Avant	22717	514.000	50.116	5.683	49.970
119	CRT	281-1 Avant	22718	480.000	49.951	4.977	50.220
120	CRT	281-1 Avant	22719	533.000	49.474	5.155	50.898
121	CRT	281-1 Avant	22720	499.000	50.014	5.415	52.036
201	CRT	281-1 Avant	22721	507.000	50.052	5.135	50.397
202	CRT	281-1 Avant	22722	539.000	50.993	5.120	50.095
203	CRT	281-1 Avant	22723	492.000	50.098	5.187	50.629
204	CRT	282-1 Avant	22783	501.000	50.042	6.544	50.842
205	CRT	282-1 Avant	22784	501.000	50.179	5.869	50.485
206	CRT	282-1 Avant	22785	498.000	50.393	4.975	50.837
207	CRT	282-1 Avant	22786	495.000	50.090	5.093	51.224
208	CRT	282-1 Avant	22787	496.000	50.116	5.391	49.901
209	CRT	282-1 Avant	22788	507.000	50.027	5.351	48.583
210	CRT	282-1 Avant	22789	498.000	50.088	5.772	48.663
211	CRT	282-1 Avant	Mblank				

212	CRT	282-1 Avant	22790	509.000	50.131	4.978	48.606
213	CRT	282-1 Avant	22791	490.000	50.061	4.890	51.005
214	CRT	282-1 Avant	22792	485.000	50.198	4.927	49.953
215	CRT	282-1 Avant	22805	489.000	50.166	5.421	49.804
216	CRT	282-1 Avant	22805-2	504.000	50.188	5.082	49.494
217	CRT	282-1 Avant	22805-S1	484.000	51.806	5.400	50.729
218	CRT	282-1 Avant	22805-S2	495.000	50.031	5.222	50.122
219	CRT	282-1 Avant	Mcontrol				
220	CRT	282-1 Avant	22793	520.000	50.580	4.978	50.040
221	CRT	282-1 Avant	22794	499.000	50.897	5.121	50.227
301	CRT	282-1 Avant	22795	500.000	51.396	5.131	50.452
302	CRT	282-1 Avant	22796	501.000	49.974	4.917	50.022
303	CRT	282-1 Avant	22797	525.000	49.933	4.733	50.272
304	CRT	282-1 Avant	22798	507.000	49.756	5.300	50.375
305	CRT	282-1 Avant	22799	494.000	50.007	5.582	50.622
306	CRT	282-2 Avant	Mblank				
307	CRT	282-2 Avant	22800	506.000	50.125	5.055	49.999
308	CRT	282-2 Avant	22801	537.000	50.085	5.519	49.835
309	CRT	282-2 Avant	22802	505.000	50.285	5.701	50.511
310	CRT	282-2 Avant	22806	511.000	50.021	5.789	50.487
311	CRT	282-2 Avant	22806-2	500.000	50.057	4.997	50.442
312	CRT	282-2 Avant	22806-S1	499.000	50.357	5.141	50.474
313	CRT	282-2 Avant	22806-S2	526.000	50.044	5.297	50.716
314	CRT	282-2 Avant	Mcontrol				
315	CRT	282-2 Avant	22803	539.000	50.140	6.230	50.306
316	CRT	282-2 Avant	22804	538.000	50.164	5.372	51.383
317	CRT	282-2 Avant	22937	523.000	50.172	5.013	50.404
318	CRT	282-2 Avant	22938	518.000	50.202	5.805	49.746
319	CRT	282-2 Avant	22939	530.000	50.111	5.508	50.887
320	CRT	282-2 Avant	22940	481.000	49.990	5.371	49.374
321	CRT	282-2 Avant	22941	479.000	50.111	5.085	49.689
401	CRT	282-2 Avant	22942	484.000	50.358	4.788	50.888
402	CRT	282-2 Avant	22943	628.000	52.196	5.475	52.123
403	CRT	282-2 Avant	22944	517.000	50.155	4.881	49.624

Calibration Report

Analyte	Mass	Curve Type	Slope	Intercept	Corr Coeff
Ge	73.922	Linear Thru Zero	0.000000	0.000	0.000000
As	74.922	Linear Thru Zero	0.004141	0.000	0.999997
Cd	113.904	Linear Thru Zero	0.005971	0.000	0.999996
Rh	102.905	Linear Thru Zero	0.000000	0.000	0.000000
Lu	174.941	Linear Thru Zero	0.000000	0.000	0.000000
Hg	199.968	Linear Thru Zero	0.001025	0.000	0.999993
Tm	168.934	Linear Thru Zero	0.000000	0.000	0.000000
Pb	205.975	Linear Thru Zero	0.006359	0.000	0.999995
Pb	206.976	Linear Thru Zero	0.004847	0.000	0.999988
Pb	207.977	Linear Thru Zero	0.012248	0.000	0.999982
Pb-1	207.977	Linear Thru Zero	0.035702	0.000	0.999986

A&L Great Lakes Lab ICP-MS Report

Sample ID: blank
Sample Date/Time: Tuesday, October 16, 2007 11:27:22
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\blank.004
Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 11:27:22 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279948.553			
As	75	65.334			
Cd	114	54.667			
Rh	103	740898.656			
Lu	175	1024534.048			
Hg	200	17.778			
Tm	169	846006.277			
Pb	206	128.001			
Pb	207	124.001			
Pb	208	272.004			
Pb-1	208	796.010			

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

⑩ All Pb values reported from
ICP-MS data used the Pb-1 208 isotope.
CUT 10.17.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.25 ppb
Sample Date/Time: Tuesday, October 16, 2007 11:28:42
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata\icpms\DataSet\101607 Avant 281, 282, 276 rerun\0.25 ppb.005
Calibration File: C:\elandata\icpms\System\October 2007\101607 276 Avandr.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 11:28:42 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279664.488	279948.553		
As	75	357.785	65.334	0.000253	3.209
Cd	114	1187.411	54.667	0.000249	4.682
Rh	103	760516.234	740898.656		
Lu	175	1022128.494	1024534.048		
Hg	200	302.672	17.778	0.000272	1.910
Tm	169	844841.502	846006.277		
Pb	206	1467.452	128.001	0.000249	0.431
Pb	207	1132.071	124.001	0.000246	1.235
Pb	208	2912.133	272.004	0.000255	3.686
Pb-1	208	8423.789	796.010	0.000253	2.425

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.5 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:30:02
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\0.5 ppb.006
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:30:02 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279779.141	279948.553		
As	75	677.581	65.334	0.000529	3.449
Cd	114	2383.646	54.667	0.000522	3.417
Rh	103	747781.190	740898.656		
Lu	175	1030058.092	1024534.048		
Hg	200	580.019	17.778	0.000532	0.540
Tm	169	859415.075	846006.277		
Pb	206	2868.453	128.001	0.000501	1.255
Pb	207	2214.936	124.001	0.000502	1.831
Pb	208	5594.388	272.004	0.000505	2.243
Pb-1	208	16272.164	796.010	0.000504	1.619

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74					
[	As 75					
[	Cd 114					
[>	Rh 103					
[>	Lu 175					
[	Hg 200					
[>	Tm 169					
|	Pb 206					
|	Pb 207					
|	Pb 208					
[	Pb-1 208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 2.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:31:23
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\2.0 ppb.007
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:31:23 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	282701.069	279948.553		
As	75	2455.443	65.334	0.002042	3.613
Cd	114	8961.749	54.667	0.001977	0.196
Rh	103	754462.499	740898.656		
Lu	175	1027316.864	1024534.048		
Hg	200	1084.065	17.778	0.001013	4.275
Tm	169	849515.178	846006.277		
Pb	206	10999.318	128.001	0.002012	0.907
Pb	207	8631.763	124.001	0.002066	1.398
Pb	208	21471.327	272.004	0.002037	1.223
Pb-1	208	62573.734	796.010	0.002037	0.947

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 10.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:32:43
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\10.0 ppb.008
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:32:43 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279329.169	279948.553		
As	75	11831.695	65.334	0.010173	1.695
Cd	114	45154.542	54.667	0.010022	0.356
Rh	103	753628.538	740898.656		
Lu	175	1025918.552	1024534.048		
Hg	200	5277.754	17.778	0.005001	1.155
Tm	169	848647.370	846006.277		
Pb	206	55495.875	128.001	0.010259	0.763
Pb	207	42244.259	124.001	0.010240	0.324
Pb	208	106521.828	272.004	0.010222	0.787
Pb-1	208	310783.789	796.010	0.010231	0.595

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74					
[	As 75					
[	Cd 114					
[>	Rh 103					
[>	Lu 175					
[	Hg 200					
[>	Tm 169					
|	Pb 206					
|	Pb 207					
|	Pb 208					
[	Pb-1 208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 20.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:34:04
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\20.0 ppb.009
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:34:04 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279911.159	279948.553		
As	75	23158.126	65.334	0.019923	0.804
Cd	114	89874.075	54.667	0.020007	1.138
Rh	103	751905.942	740898.656		
Lu	175	1028619.316	1024534.048		
Hg	200	10558.796	17.778	0.009996	1.202
Tm	169	855572.201	846006.277		
Pb	206	109019.814	128.001	0.020013	0.686
Pb	207	83846.221	124.001	0.020189	0.367
Pb	208	211573.418	272.004	0.020164	0.695
Pb-1	208	616012.872	796.010	0.020141	0.557

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 50.0 ppb
Sample Date/Time: Tuesday, October 16, 2007 11:35:24
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\50.0 ppb.010
Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 11:35:24 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	283617.623	279948.553		
As	75	59064.367	65.334	0.050233	0.436
Cd	114	226919.206	54.667	0.050339	0.845
Rh	103	754769.365	740898.656		
Lu	175	1033601.406	1024534.048		
Hg	200	119.334	17.778	0.000096	7.287
Tm	169	857856.431	846006.277		
Pb	206	274697.821	128.001	0.050329	0.448
Pb	207	210222.632	124.001	0.050531	0.990
Pb	208	533014.763	272.004	0.050704	0.242
Pb-1	208	1550949.979	796.010	0.050614	0.376

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 125.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 11:36:44
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\125.0 ppb.011
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:36:44 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	282104.439	279948.553		
As	75	145974.868	65.334	0.124904	0.699
Cd	114	567030.262	54.667	0.124862	0.707
Rh	103	760456.604	740898.656		
Lu	175	1045202.098	1024534.048		
Hg	200	66.000	17.778	0.000045	10.036
Tm	169	867666.704	846006.277		
Pb	206	688993.599	128.001	0.124845	0.764
Pb	207	524666.588	124.001	0.124737	0.780
Pb	208	1325129.831	272.004	0.124674	0.559
Pb-1	208	3863919.850	796.010	0.124713	0.556

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICV

Sample Date/Time: Tuesday, October 16, 2007 11:38:05

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\ICV.012

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Allquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 11:38:05 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	290900.719	279948.553		
As	75	71505.005	65.334	0.059304	0.691
Cd	114	271374.227	54.667	0.058781	0.622
Rh	103	773016.985	740898.656		
Lu	175	1060103.844	1024534.048		
Hg	200	6428.717	17.778	0.005898	1.645
Tm	169	873211.291	846006.277		
Pb	206	311894.851	128.001	0.056141	1.019
Pb	207	266032.747	124.001	0.062829	0.555
Pb	208	646664.530	272.004	0.060440	0.969
Pb-1	208	1871256.659	796.010	0.059999	0.852

QC Calculated Values

Inter/Ana	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	103.912				
[	As	75		98.841			
[	Cd	114		97.969			
[>	Rh	103	104.335				
[>	Lu	175	103.472				
[	Hg	200		98.305			
[>	Tm	169	103.216				
|	Pb	206		93.569			
|	Pb	207		104.715			
|	Pb	208		100.734			
[Pb-1	208		99.998			

Sample ID: ICV

Report Date/Time: Tuesday, October 16, 2007 16:02:40

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A&L Great Lakes Lab ICP-MS Report

Sample ID: ICB

Sample Date/Time: Tuesday, October 16, 2007 11:39:29

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\ICB.013

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 11:39:29 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	288261.567	279948.553		
As	75	72.889	65.334	0.000005	200.767
Cd	114	106.667	54.667	0.000011	82.483
Rh	103	769818.605	740898.656		
Lu	175	1050055.266	1024534.048		
Hg	200	89.112	17.778	0.000066	17.047
Tm	169	871669.332	846006.277		
Pb	206	404.676	128.001	0.000049	7.895
Pb	207	378.008	124.001	0.000059	5.004
Pb	208	909.046	272.004	0.000059	8.918
Pb-1	208	2600.775	796.010	0.000057	6.377

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		102.969				
[	As	75						
[	Cd	114						
[>	Rh	103		103.903				
[>	Lu	175		102.491				
[	Hg	200						
[>	Tm	169		103.033				
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

Sample ID: ICB

Report Date/Time: Tuesday, October 16, 2007 16:02:41

Page 1

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mblank
 Sample Date/Time: Tuesday, October 16, 2007 11:40:51
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\Mblank.014
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:40:51 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	281431.316	279948.553		
As	75	66.667	65.334	0.000001	673.487
Cd	114	107.334	54.667	0.000011	24.050
Rh	103	763113.254	740898.656		
Lu	175	1054599.307	1024534.048		
Hg	200	80.889	17.778	0.000058	5.634
Tm	169	870444.879	846006.277		
Pb	206	275.671	128.001	0.000026	15.920
Pb	207	226.669	124.001	0.000023	4.121
Pb	208	541.016	272.004	0.000025	10.953
Pb-1	208	1584.373	796.010	0.000025	8.028

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		100.530				
[	As	75						
[	Cd	114						
[>	Rh	103		102.998				
[>	Lu	175		102.935				
[	Hg	200						
[>	Tm	169		102.889				
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: CRM
 Sample Date/Time: Tuesday, October 16, 2007 11:42:12
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata\icpms\DataSet\101607 Avant 281, 282, 276 rerun\CRM.015
 Calibration File: C:\elandata\icpms\System\October 2007\101607 276 Avancr.cal
 Sample Prep Volume (mL): 49.953
 Initial Sample Quantity (mg): 233.000
 Aliquot Volume (mL): 4.964
 Diluted to Volume (mL): 25.014
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:42:12 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279457.978	279948.553		
As	75	3861.931	65.334	3.544037	0.872
Cd	114	6894.616	54.667	1.665659	3.968
Rh	103	742905.002	740898.656		
Lu	175	1012128.690	1024534.048		
Hg	200	2776.202	17.778	2.872298	0.887
Tm	169	841565.202	846006.277		
Pb	206	162065.247	128.001	32.686719	0.687
Pb	207	136311.570	124.001	36.069628	0.260
Pb	208	334917.373	272.004	35.074250	0.291
Pb-1	208	968211.563	796.010	34.784093	0.304

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	99.825				
[	As	75					
[	Cd	114					
[>	Rh	103	100.271				
[>	Lu	175	98.789				
[	Hg	200					
[>	Tm	169	99.475				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mcontrol
Sample Date/Time: Tuesday, October 16, 2007 11:43:32
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\Mcontrol.016
Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 11:43:32 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	296510.171	279948.553		
As	75	620739.798	65.334	0.505490	0.312
Cd	114	2064000.159	54.667	0.457461	0.782
Rh	103	755592.440	740898.656		
Lu	175	996335.408	1024534.048		
Hg	200	509.125	17.778	0.000482	5.256
Tm	169	825797.208	846006.277		
Pb	206	2355653.673	128.001	0.448552	0.925
Pb	207	1945268.476	124.001	0.486016	1.164
Pb	208	4832479.827	272.004	0.477781	0.789
Pb-1	208	13965881.804	796.010	0.473692	0.804

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		105.916				
[	As	75					101.098	
[	Cd	114					91.490	
[>	Rh	103		101.983				
[>	Lu	175		97.248				
[	Hg	200					84.748	
[>	Tm	169		97.611				
[	Pb	206					89.705	
[	Pb	207					97.199	
[	Pb	208					95.551	
[	Pb-1	208					94.734	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22649
 Sample Date/Time: Tuesday, October 16, 2007 11:44:52
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata\icpms\DataSet\101607 Avant 281, 282, 276 rerun\22649.017
 Calibration File: C:\elandata\icpms\System\October 2007\101607 276 Avanr.cal
 Sample Prep Volume (mL): 50.264
 Initial Sample Quantity (mg): 553.000
 Aliquot Volume (mL): 5.029
 Diluted to Volume (mL): 50.414
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:44:52 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	280276.792	279948.553		
As	75	18896.508	65.334	14.782431	0.967
Cd	114	41411.439	54.667	8.691646	0.185
Rh	103	726050.437	740898.656		
Lu	175	991065.831	1024534.048		
Hg	200	766.032	17.778	0.671555	2.412
Tm	169	825916.495	846006.277		
Pb	206	6173890.953	128.001	1070.929700	0.604
Pb	207	5201553.494	124.001	1183.887667	1.132
Pb	208	12841991.031	272.004	1156.652882	1.004
Pb-1	208	37059426.509	796.010	1145.080491	0.944

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	100.117				
[	As	75					
[	Cd	114					
[>	Rh	103	97.996				
[>	Lu	175	96.733				
[	Hg	200					
[>	Tm	169	97.625				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

(10) Results for Pb are
 over the calibration range.
 See ICP data from 10.16.07.
 Cnt 10.17.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22650

Sample Date/Time: Tuesday, October 16, 2007 11:46:14

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22650.018

Calibration File:

Sample Prep Volume (mL): 49.704

Initial Sample Quantity (mg): 501.000

Allquot Volume (mL): 4.866

Diluted to Volume (mL): 49.431

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 11:46:14 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	278321.034	279948.553		
As	75	6543.688	65.334	5.665323	0.834
Cd	114	1108.068	54.667	0.249291	2.159
Rh	103	714480.325	740898.656		
Lu	175	945892.483	1024534.048		
Hg	200	126.445	17.778	0.114361	7.790
Tm	169	785849.026	846006.277		
Pb	206	132763.771	128.001	26.748983	0.326
Pb	207	109069.391	124.001	28.829327	0.485
Pb	208	273107.411	272.004	28.570267	0.464
Pb-1	208	788047.985	796.010	28.281014	0.331

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	99.419				
[	As 75					
[	Cd 114					
[>	Rh 103	96.434				
[>	Lu 175	92.324				
[	Hg 200					
[>	Tm 169	92.889				
|	Pb 206					
|	Pb 207					
|	Pb 208					
[	Pb-1 208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22650-2

Sample Date/Time: Tuesday, October 16, 2007 11:47:35

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22650-2.019

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal

Sample Prep Volume (mL): 50.214

Initial Sample Quantity (mg): 494.000

Aliquot Volume (mL): 4.904

Diluted to Volume (mL): 48.770

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 11:47:35 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	274749.386	279948.553		
As	75	6952.213	65.334	6.120135	1.116
Cd	114	1295.426	54.667	0.300092	1.498
Rh	103	701704.551	740898.656		
Lu	175	933588.354	1024534.048		
Hg	200	129.334	17.778	0.119495	3.442
Tm	169	774569.113	846006.277		
Pb	206	140268.599	128.001	28.763222	0.950
Pb	207	114268.031	124.001	30.740032	0.895
Pb	208	284967.586	272.004	30.340547	0.644
Pb-1	208	824471.802	796.010	30.113814	0.703

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	98.143				
[	As	75			7.718		
[	Cd	114			18.494		
[>	Rh	103	94.710				
[>	Lu	175	91.123				
[	Hg	200			4.391		
[>	Tm	169	91.556				
|	Pb	206			7.257		
|	Pb	207			6.415		
|	Pb	208			6.010		
[Pb-1	208			6.277		

Sample ID: 22650-2

Report Date/Time: Tuesday, October 16, 2007 16:02:51

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22650-S1
 Sample Date/Time: Tuesday, October 16, 2007 11:48:57
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22650-S1.020
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal
 Sample Prep Volume (mL): 49.616
 Initial Sample Quantity (mg): 509.000
 Aliquot Volume (mL): 4.893
 Diluted to Volume (mL): 48.094
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:48:57 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279968.823	279948.553		
As	75	595062.092	65.334	491.716840	0.351
Cd	114	2010499.180	54.667	448.558454	0.720
Rh	103	719176.908	740898.656		
Lu	175	962274.273	1024534.048		
Hg	200	584.019	17.778	0.551020	0.501
Tm	169	796293.410	846006.277		
Pb	206	2471295.782	128.001	467.572677	1.070
Pb	207	2095957.384	124.001	520.335823	1.281
Pb	208	5073007.918	272.004	498.364072	0.556
Pb-1	208	14713269.001	796.010	495.862088	0.737

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		100.007				
[	As	75					101.518	
[	Cd	114					93.584	
[>	Rh	103		97.068				
[>	Lu	175		93.923				
[	Hg	200					92.326	
[>	Tm	169		94.124				
|	Pb	206					92.294	
|	Pb	207					102.895	
|	Pb	208					98.360	
[	Pb-1	208					97.895	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22650-S2

Sample Date/Time: Tuesday, October 16, 2007 11:50:18

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\22650-S2.021

Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avandr.cal

Sample Prep Volume (mL): 49.488

Initial Sample Quantity (mg): 517.000

Allquot Volume (mL): 4.783

Diluted to Volume (mL): 49.905

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 11:50:18 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	281584.636	279948.553		
As	75	574914.221	65.334	492.369118	0.553
Cd	114	1939299.110	54.667	451.021534	0.609
Rh	103	719206.119	740898.656		
Lu	175	962196.902	1024534.048		
Hg	200	571.796	17.778	0.562057	1.051
Tm	169	799830.776	846006.277		
Pb	206	2424167.430	128.001	475.981308	1.086
Pb	207	2020046.378	124.001	520.332210	2.433
Pb	208	5014036.500	272.004	511.188849	1.073
Pb-1	208	14472286.808	796.010	506.158672	0.904

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	100.584				
[	As	75			0.133	97.474	
[	Cd	114			0.548	90.269	
[>	Rh	103	97.072				
[>	Lu	175	93.916				
[	Hg	200			1.983	89.858	
[>	Tm	169	94.542				
|	Pb	206			1.782	90.008	
|	Pb	207			0.001	98.476	
|	Pb	208			2.541	96.697	
[	Pb-1	208			2.055	95.747	

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
Sample Date/Time: Tuesday, October 16, 2007 11:51:41
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCV.022
Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avanr.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 11:51:41 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	287198.420	279948.553		
As	75	72523.018	65.334	0.060924	0.711
Cd	114	249711.872	54.667	0.057145	0.604
Rh	103	731663.928	740898.656		
Lu	175	933025.068	1024534.048		
Hg	200	5372.699	17.778	0.005601	2.211
Tm	169	779468.220	846006.277		
Pb	206	257660.781	128.001	0.051956	0.798
Pb	207	217938.493	124.001	0.057657	0.069
Pb	208	532659.677	272.004	0.055770	1.061
Pb-1	208	1540918.628	796.010	0.055347	0.702

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	102.590				
|	As 75		101.541			
|	Cd 114		95.242			
>	Rh 103	98.754				
>	Lu 175	91.068				
|	Hg 200		93.345			
>	Tm 169	92.135				
|	Pb 206		86.594			
|	Pb 207		96.095			
|	Pb 208		92.950			
|	Pb-1 208		92.245			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Tuesday, October 16, 2007 11:53:05
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101607 Avant 276-1 rerun, 281-1, 282-1,2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 281, 282, 276 rerun\CCB.023
 Calibration File: C:\elandata_icpms\System\October 2007\101607 276 Avannr.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 11:53:05 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	283967.786	279948.553		
As	75	84.445	65.334	0.000015	43.886
Cd	114	153.335	54.667	0.000023	16.180
Rh	103	730683.291	740898.656		
Lu	175	930739.660	1024534.048		
Hg	200	61.556	17.778	0.000048	10.796
Tm	169	772357.724	846006.277		
Pb	206	346.007	128.001	0.000047	3.362
Pb	207	264.337	124.001	0.000040	3.319
Pb	208	615.021	272.004	0.000039	11.481
Pb-1	208	1840.385	796.010	0.000040	8.199

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		101.436				
[	As	75						
[	Cd	114						
[>	Rh	103		98.621				
[>	Lu	175		90.845				
[	Hg	200						
[>	Tm	169		91.295				
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22684 (As)	TP-24 (18")	5.302	4%	100%	111%	7%	BDL	102%
22684 (Cd)	TP-24 (18")	BDL	0%	98%	110%	8%	BDL	98%
22684 (Hg)	TP-24 (18")	BDL	0%	95%	103%	5%	BDL	94%
22684 (Pb)	TP-24 (18")	6.352	9%	102%	115%	8%	BDL	103%

Comments:

Julian: 285142

Date: 10-12-07

Tech: DCG, MCO

1	22889	17	22993	33	22676
2	22890	18	22964	34	22677
3	22891	19	22963	35	22678
4	22926	20	23134	36	22679
2	22953	START 21	4052	37	22680
2	22991	22	4053	38	22681
2	22992	23	4054	39	22682
8	CRN	24	4055	40	22683
9	37931	25	4056	41	22684
10	37982	26	21477 ^{ag}	42	22684-2
7	22999	27	23029	43	22684-51
2	22994-2	28	23030	44	22684-52
2	22994-51	29	22674	45	
2	22994-52	30	22675	46	
15	Blank	31	Blank	47	
16	Control	32	Control	48	

Julian 285142
Tech DLD, MLC

Empty Wt (g)

1	492.202
2	136.4
3	136.500
4	136.665
5	136.403
6	136.486
7	136.602
8	136.524
9	136.577
10	136.003
11	136.348
12	136.444
13	136.398
14	136.748
15	136.251
16	136.348
17	136.062
18	136.713
19	136.480
20	136.467
21	136.455
22	136.249
23	136.237
24	136.402
25	136.435
26	136.445
27	136.418
28	136.661
29	136.307
30	136.394
31	136.283
32	136.403
33	136.497
34	136.541
35	136.741
36	136.507
37	136.262
38	136.631
39	136.380
40	136.841
41	136.297
42	136.455
43	136.269
44	136.467
45	
46	
47	
48	

Pre-Digest Wt (g)

506.750
151.014
151.264
151.331
152.690
152.840
152.944
151.198
151.188
150.540
152.754
152.815
155.396
155.743
150.738
154.849
151.007
151.619
151.393
151.325
151.363
151.169
151.198
151.348
151.318
151.336
151.405
151.521
151.229
151.505
150.723
154.933
151.487
151.509
151.726
151.416
151.145
151.614
151.375
151.658
151.235
151.390
153.866
154.035

Post Digestion Wt (g)

505.991
150.959
151.209
151.260
152.603
152.815
152.879
151.144
151.137
150.421
152.694
152.758
155.325
155.702
150.701
154.797
150.976
151.571
151.360
151.291
151.278
151.146
151.140
151.289
151.214
151.242
151.341
151.430
151.179
151.394
150.671
154.895
151.389
151.445
151.630
151.354
151.046
151.554
151.309
151.492
151.162
151.303
153.825
153.949

% Change

5.217
0.379
0.377
0.485
0.534
0.153
0.398
0.368
0.349
0.819
0.366
0.348
0.374
0.216
0.255
0.281
0.207
0.322
0.221
0.229
0.570
0.154
0.388
0.395
0.699
0.631
0.427
0.613
0.335
0.735
0.360
0.205
0.654
0.428
0.641
0.416
0.665
0.400
0.440
1.120
0.489
0.583
0.233
0.490
#DIV/0!
#DIV/0!
#DIV/0!
#DIV/0!

285 1 + 2

METHOD DOCUMENTATION

EPA 3051-48

MF50-T48

Weight:0.25-0.50

Reagents [ml]:

HNO3 10.0

Ph	Temp	Ramp	Hold	Fan
1	175		05:30	0
2	180	04:30		1
3	0		20:00	2
4				

p-Rate:0.5bar/s IR:140°C P:1400W

Drive:Rot

Notes:

sediments, soil, sludge, contaminated
soil and oils (oil <0,25g!)
for 4 and 8 vessels!

PROCESS STATUS

Process Finished

Power reduction at 00:59 (I,S,T)

PROCESS LIMITS

p - Limit [bar]: 20

T - Limit [°C]: 200

IR - Limit [°C]: 140

PROCESS MAXIMA

p - MAX [bar]: 14.6

T - MAX [°C]: 152

IR - MAX [°C]:	1	81
	2	95
	3	88
	4	91
	5	86
	6	86
	7	82
	8	102
	9	100
	10	104
	11	88
	12	85
	13	85
	14	88
	15	86
	16	86

Toil - MAX [°C]: 30.9 Tgas - MAX [°C]: 31.0 Current MAX [A]: 18.3

Tmagn1-MAX [°C]: 111.7 Tmagn2-MAX [°C]: 99.5 Status Word : 00001000

Multiwave V2.01 (PB V15) (c) Anton Paar GmbH Jan 22 2007

Device Name: SN: Sensor:p/T SN:1523

Report printed at 2007-10-12 17:22:38

Process started at 2007-10-12 16:50:00

Process finished 2007-10-12 17:21:37

Quantitative Method Report

File Name: Fast AVANT.mth
File Path: C:\elandata_icpms\Method\Fast AVANT.mth

Timing Parameters

Sweeps/Reading: 10
Readings/Replicate: 1
Number of Replicates: 3
Tuning File: default.tun
Optimization File: c:\elandata_icpms\optimize\al opt.dac
QC Enabled: Yes
Settling Time: Normal

	Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
[>	Ge	73.922	Peak Hopping	1	100.0 ms	1000 ms
[	As	74.922	Peak Hopping	1	150.0 ms	1500 ms
[	Cd	113.904	Peak Hopping	1	50.0 ms	500 ms
[>	Rh	102.905	Peak Hopping	1	100.0 ms	1000 ms
[>	Lu	174.941	Peak Hopping	1	100.0 ms	1000 ms
[	Hg	199.968	Peak Hopping	1	150.0 ms	1500 ms
[>	Tm	168.934	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	205.975	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	206.976	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	207.977	Peak Hopping	1	100.0 ms	1000 ms
[	Pb-1	207.977	Peak Hopping	1	50.0 ms	500 ms

Signal Processing

Detector Mode: Dual
Measurement Units: cps
AutoLens: On
Spectral Peak Processing: Average
Signal Profile Processing: Average
Blank Subtraction: Subtracted after internal standard
Baseline Readings: 0
Smoothing: Yes, Factor 5

Equations

Analyte	Mass	Corrections
Ge	73.922	- 0.116645 * Se 77
Pb-1	207.977	Pb208 +1*Pb206+1*Pb207

Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Ge	73.922	Linear Thru Zero	ppm	ppb				

As	74.922	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Cd	113.904	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Rh	102.905	Linear Thru Zero	ppm	ppb				
Lu	174.941	Linear Thru Zero	ppm	ppb				
Hg	199.968	Linear Thru Zero	ppm	ppb	0.25	0.5	1	5
Tm	168.934	Linear Thru Zero	ppm	ppb				
Pb	205.975	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	206.976	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb-1	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10

Analyte	Mass	Std 5	Std 6	Std 7
Ge	73.922			
As	74.922	20	50	125
Cd	113.904	20	50	125
Rh	102.905			
Lu	174.941			
Hg	199.968	10		
Tm	168.934			
Pb	205.975	20	50	125
Pb	206.976	20	50	125
Pb	207.977	20	50	125
Pb-1	207.977	20	50	125

	AS Pos	Sample Flush	Sample Flush	Read Delay	Read Delay	Wash	Wash
blank	1	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.25 ppb	2	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.5 ppb	3	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
2.0 ppb	4	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
10.0 ppb	5	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
20.0 ppb	6	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
50.0 ppb	7	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
125.0 ppb	8	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 8		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 9		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 10		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 11		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 12		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 13		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 14		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 15		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 16		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 17		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 18		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 19		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 20		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 21		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Standard 22	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 23	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 24	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 25	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 26	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 27	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 28	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 29	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 30	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Reporting Options

Report Template for Printing: a&l qc.rop
 Send to Printer: No
 Report Template for File:
 Send to File: No
 Report Filename:
 Create NetCDF File: No
 Send to Serial Port: No
 Port: COM1

Sampling Devices

Peristaltic Pump Control: Yes
 Autosampler: AS-93plus
 Autosampler Tray File: c:\program files\esi\esi sc\esi.try
 Sampling Device Type: (None)
 Dil. Factor: 10
 Dil. to Vol. (mL): 10
 1st Dil. Pos.: 1
 Probe Purge Pos.: 10

PERKIN ELMER ICP-MS BATCH REPORT

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 282-1, 285-2.sam

Sample Information

A/S Loc.	Analyst	Batch ID	Sample ID	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
204	CRT	282-1 Avant	22783	501.000	50.042	6.544	50.842
205	CRT	282-1 Avant	22784	501.000	50.179	5.869	50.485
206	CRT	282-1 Avant	22785	498.000	50.393	4.975	50.837
207	CRT	282-1 Avant	22786	495.000	50.090	5.093	51.224
208	CRT	282-1 Avant	22787	496.000	50.116	5.391	49.901
209	CRT	282-1 Avant	22788	507.000	50.027	5.351	48.583
210	CRT	282-1 Avant	22789	498.000	50.088	5.772	48.663
211	CRT	282-1 Avant	Mblank				
212	CRT	282-1 Avant	22790	509.000	50.131	4.978	48.606
213	CRT	282-1 Avant	22791	490.000	50.061	4.890	51.005
214	CRT	282-1 Avant	22792	485.000	50.198	4.927	49.953
215	CRT	282-1 Avant	22805	489.000	50.166	5.421	49.804
216	CRT	282-1 Avant	22805-2	504.000	50.188	5.082	49.494
217	CRT	282-1 Avant	22805-S1	484.000	51.806	5.400	50.729
218	CRT	282-1 Avant	22805-S2	495.000	50.031	5.222	50.122
219	CRT	282-1 Avant	Mcontrol				
220	CRT	282-1 Avant	22793	520.000	50.580	4.978	50.040
221	CRT	282-1 Avant	22794	499.000	50.897	5.121	50.227
301	CRT	282-1 Avant	22795	500.000	51.396	5.131	50.452
302	CRT	282-1 Avant	22796	501.000	49.974	4.917	50.022
303	CRT	282-1 Avant	22797	525.000	49.933	4.733	50.272
304	CRT	282-1 Avant	22798	507.000	49.756	5.300	50.375
305	CRT	282-1 Avant	22799	494.000	50.007	5.582	50.622
306	CRT	282-2 Avant	Mblank				
307	CRT	282-2 Avant	22800	506.000	50.125	5.055	49.999
308	CRT	282-2 Avant	22801	537.000	50.085	5.519	49.835
309	CRT	282-2 Avant	22802	505.000	50.285	5.701	50.511
310	CRT	282-2 Avant	22806	511.000	50.021	5.789	50.487
311	CRT	282-2 Avant	22806-2	500.000	50.057	4.997	50.442
312	CRT	282-2 Avant	22806-S1	499.000	50.357	5.141	50.474
313	CRT	282-2 Avant	22806-S2	526.000	50.044	5.297	50.716
314	CRT	282-2 Avant	Mcontrol				
315	CRT	282-2 Avant	22803	539.000	50.140	6.230	50.306
316	CRT	282-2 Avant	22804	538.000	50.164	5.372	51.383
317	CRT	282-2 Avant	22937	523.000	50.172	5.013	50.404
318	CRT	282-2 Avant	22938	518.000	50.202	5.805	49.746
319	CRT	282-2 Avant	22939	530.000	50.111	5.508	50.887
320	CRT	282-2 Avant	22940	481.000	49.990	5.371	49.374
321	CRT	282-2 Avant	22941	479.000	50.111	5.085	49.689
401	CRT	282-2 Avant	22942	484.000	50.358	4.788	50.888

402	CRT	282-2 Avant	22943	628.000	52.196	5.475	52.123
403	CRT	282-2 Avant	22944	517.000	50.155	4.881	49.624
10	CRT	CCV	CCV				
420	CRT	CCB	CCB				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
9	CRT	ICV	ICV				
421	CRT	ICB	ICB				
101	CRT	285-2 Avant	22674	507.000	49.883	4.989	49.950
102	CRT	285-2 Avant	22675	547.000	50.579	5.135	50.479
103	CRT	285-2 Avant	22676	590.000	50.004	5.247	48.689
104	CRT	285-2 Avant	22677	564.000	50.123	5.346	50.303
105	CRT	285-2 Avant	22678	539.000	50.257	5.310	49.653
106	CRT	285-2 Avant	22679	494.000	50.116	5.143	50.418
107	CRT	285-2 Avant	22680	480.000	49.998	5.293	50.000
108	CRT	285-2 Avant	22681	548.000	50.749	5.325	50.056
109	CRT	285-2 Avant	22682	519.000	50.399	5.235	49.953
110	CRT	285-2 Avant	22683	492.000	50.695	5.095	50.220
111	CRT	285-2 Avant	22684	494.000	49.904	4.861	50.103
112	CRT	285-2 Avant	22684-2	512.000	50.279	4.985	50.216
113	CRT	285-2 Avant	22684-S1	538.000	50.096	4.939	49.949
114	CRT	285-2 Avant	22684-S2	502.000	49.859	5.481	50.039
115	CRT	285-2 Avant	Mblank				
116	CRT	285-2 Avant	Mcontrol				

Calibration Report

Analyte	Mass	Curve Type	Slope	Intercept	Corr Coeff
Ge	73.922	Linear Thru Zero	0.000000	0.000	0.000000
As	74.922	Linear Thru Zero	0.004255	0.000	0.999983
Cd	113.904	Linear Thru Zero	0.005715	0.000	0.999997
Rh	102.905	Linear Thru Zero	0.000000	0.000	0.000000
Lu	174.941	Linear Thru Zero	0.000000	0.000	0.000000
Hg	199.968	Linear Thru Zero	0.000871	0.000	0.999770
Tm	168.934	Linear Thru Zero	0.000000	0.000	0.000000
Pb	205.975	Linear Thru Zero	0.005078	0.000	0.999995
Pb	206.976	Linear Thru Zero	0.003842	0.000	0.999995
Pb	207.977	Linear Thru Zero	0.009668	0.000	0.999998
Pb-1	207.977	Linear Thru Zero	0.028256	0.000	0.999997

A&L Great Lakes Lab ICP-MS Report

Sample ID: blank
 Sample Date/Time: Tuesday, October 16, 2007 17:17:38
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\blank.071
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:17:38 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	271413.845			
As	75	44.000			
Cd	114	45.333			
Rh	103	649483.618			
Lu	175	765881.162			
Hg	200	26.000			
Tm	169	648445.704			
Pb	206	91.000			
Pb	207	69.000			
Pb	208	184.002			
Pb-1	208	528.004			

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.25 ppb
 Sample Date/Time: Tuesday, October 16, 2007 17:18:58
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\0.25 ppb.072
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:18:58 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	268678.153	271413.845		
As	75	334.228	44.000	0.000254	5.402
Cd	114	924.714	45.333	0.000238	3.099
Rh	103	645514.220	649483.618		
Lu	175	758296.591	765881.162		
Hg	200	179.335	26.000	0.000233	6.420
Tm	169	642700.306	648445.704		
Pb	206	900.711	91.000	0.000248	5.402
Pb	207	682.692	69.000	0.000249	1.056
Pb	208	1758.170	184.002	0.000254	2.437
Pb-1	208	5099.744	528.004	0.000252	2.235

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.5 ppb
 Sample Date/Time: Tuesday, October 16, 2007 17:20:19
 Dual Detector Mode: Dual
 Sample File: C:\Elan\data\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\Elan\data\icpms\DataSet\101607 Avant 282-1,2, 285-2\0.5 ppb.073
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:20:19 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	267517.015	271413.845		
As	75	343.340	44.000	0.000264	0.155
Cd	114	974.052	45.333	0.000254	0.702
Rh	103	641166.171	649483.618		
Lu	175	756574.763	765881.162		
Hg	200	200.669	26.000	0.000266	5.352
Tm	169	638273.499	648445.704		
Pb	206	894.377	91.000	0.000248	4.911
Pb	207	708.361	69.000	0.000261	1.877
Pb	208	1735.166	184.002	0.000252	2.992
Pb-1	208	5073.070	528.004	0.000252	1.575

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 2.0 ppb
Sample Date/Time: Tuesday, October 16, 2007 17:21:39
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\2.0 ppb.074
Calibration File:
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 17:21:39 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	265140.682	271413.845		
As	75	2313.183	44.000	0.002012	0.630
Cd	114	7318.279	45.333	0.002004	1.679
Rh	103	635163.567	649483.618		
Lu	175	746683.777	765881.162		
Hg	200	709.139	26.000	0.001051	3.179
Tm	169	630074.430	648445.704		
Pb	206	6367.896	91.000	0.001963	0.811
Pb	207	4822.613	69.000	0.001964	1.951
Pb	208	12206.857	184.002	0.001975	0.982
Pb-1	208	35604.223	528.004	0.001971	0.407

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 10.0 ppb
Sample Date/Time: Tuesday, October 16, 2007 17:23:00
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\10.0 ppb.075
Calibration File:
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 17:23:00 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	263373.926	271413.845		
As	75	11517.291	44.000	0.010240	0.590
Cd	114	37005.841	45.333	0.010182	2.191
Rh	103	635275.367	649483.618		
Lu	175	748116.774	765881.162		
Hg	200	3277.480	26.000	0.004990	1.735
Tm	169	632692.491	648445.704		
Pb	206	32186.219	91.000	0.009992	1.849
Pb	207	24591.556	69.000	0.010090	2.343
Pb	208	61592.995	184.002	0.010041	2.323
Pb-1	208	179963.765	528.004	0.010039	2.223

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 20.0 ppb
Sample Date/Time: Tuesday, October 16, 2007 17:24:21
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\20.0 ppb.076
Calibration File:
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 17:24:21 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	262332.834	271413.845		
As	75	22340.753	44.000	0.019978	0.795
Cd	114	71571.315	45.333	0.019857	1.040
Rh	103	630295.786	649483.618		
Lu	175	740075.428	765881.162		
Hg	200	6480.087	26.000	0.010012	1.336
Tm	169	619722.864	648445.704		
Pb	206	62969.355	91.000	0.019983	1.259
Pb	207	47403.606	69.000	0.019882	0.610
Pb	208	119865.728	184.002	0.019976	0.339
Pb-1	208	350104.417	528.004	0.019965	0.526

QC Calculated Values

Inter	Anal	Mass	Std Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 50.0 ppb
Sample Date/Time: Tuesday, October 16, 2007 17:25:41
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\50.0 ppb.077
Calibration File:
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 17:25:41 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	260903.592	271413.845		
As	75	56293.535	44.000	0.050676	0.841
Cd	114	179664.095	45.333	0.049893	0.760
Rh	103	629925.411	649483.618		
Lu	175	741363.570	765881.162		
Hg	200	83.112	26.000	0.000090	29.566
Tm	169	625954.588	648445.704		
Pb	206	158049.475	91.000	0.049703	0.948
Pb	207	119592.909	69.000	0.049703	0.419
Pb	208	302120.520	184.002	0.049900	1.345
Pb-1	208	881883.423	528.004	0.049838	1.086

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 125.0 ppb
Sample Date/Time: Tuesday, October 16, 2007 17:27:02
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\125.0 ppb.078
Calibration File:
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 17:27:02 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	261871.061	271413.845		
As	75	138985.037	44.000	0.124715	1.208
Cd	114	449606.503	45.333	0.125052	0.107
Rh	103	629035.244	649483.618		
Lu	175	746935.074	765881.162		
Hg	200	48.000	26.000	0.000035	30.507
Tm	169	631280.565	648445.704		
Pb	206	401126.747	91.000	0.125124	1.575
Pb	207	303524.683	69.000	0.125132	1.705
Pb	208	763316.432	184.002	0.125042	0.832
Pb-1	208	2231284.295	528.004	0.125069	1.035

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICV
 Sample Date/Time: Tuesday, October 16, 2007 17:28:23
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\ICV.079
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:28:23 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	263125.159	271413.845		
As	75	68654.488	44.000	0.061289	0.594
Cd	114	219702.449	45.333	0.060903	1.028
Rh	103	631130.386	649483.618		
Lu	175	748022.167	765881.162		
Hg	200	3911.286	26.000	0.005962	2.119
Tm	169	624112.904	648445.704		
Pb	206	183791.736	91.000	0.057970	0.271
Pb	207	155363.703	69.000	0.064770	0.684
Pb	208	377535.401	184.002	0.062543	1.179
Pb-1	208	1094226.241	528.004	0.062024	0.909

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		96.946				
[	As	75			102.148			
[	Cd	114			101.505			
[>	Rh	103		97.174				
[>	Lu	175		97.668				
[	Hg	200			99.371			
[>	Tm	169		96.248				
|	Pb	206			96.617			
|	Pb	207			107.949			
|	Pb	208			104.239			
[	Pb-1	208			103.373			

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICB

Sample Date/Time: Tuesday, October 16, 2007 17:29:47

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\ICB.080

Calibration File:

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 17:29:47 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	260156.461	271413.845		
As	75	63.778	44.000	0.000020	34.003
Cd	114	96.667	45.333	0.000015	42.153
Rh	103	624530.754	649483.618		
Lu	175	740934.322	765881.162		
Hg	200	62.889	26.000	0.000059	42.392
Tm	169	626402.994	648445.704		
Pb	206	211.002	91.000	0.000039	9.294
Pb	207	186.669	69.000	0.000050	3.267
Pb	208	445.011	184.002	0.000044	9.115
Pb-1	208	1287.693	528.004	0.000044	7.398

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		95.852				
[	As	75						
[	Cd	114						
[>	Rh	103		96.158				
[>	Lu	175		96.743				
[	Hg	200						
[>	Tm	169		96.601				
[	Pb	206						
[	Pb	207						
[Pb	208						
[Pb-1	208						

Sample ID: ICB

Report Date/Time: Wednesday, October 17, 2007 11:35:43

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A&L Great Lakes Lab ICP-MS Report

Sample ID: ICV
 Sample Date/Time: Tuesday, October 16, 2007 17:31:08
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\ICV.081
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:31:08 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	266798.179	271413.845		
As	75	68867.431	44.000	0.060632	0.732
Cd	114	220633.387	45.333	0.060294	0.965
Rh	103	640178.999	649483.618		
Lu	175	760027.230	765881.162		
Hg	200	3959.084	26.000	0.005940	1.561
Tm	169	641304.511	648445.704		
Pb	206	183507.304	91.000	0.056329	0.656
Pb	207	155502.091	69.000	0.063087	1.084
Pb	208	377714.065	184.002	0.060890	0.443
Pb-1	208	1094437.525	528.004	0.060369	0.544

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		98.299				
[	As	75						
[	Cd	114						
[>	Rh	103		98.567				
[>	Lu	175		99.236				
[	Hg	200						
[>	Tm	169		98.899				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICB

Sample Date/Time: Tuesday, October 16, 2007 17:32:32

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\ICB.082

Calibration File:

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Allquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 17:32:32 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	255159.164	271413.845		
As	75	62.889	44.000	0.000020	47.650
Cd	114	80.000	45.333	0.000011	15.330
Rh	103	611729.067	649483.618		
Lu	175	727335.372	765881.162		
Hg	200	65.334	26.000	0.000064	14.476
Tm	169	614039.902	648445.704		
Pb	206	206.336	91.000	0.000039	6.364
Pb	207	186.002	69.000	0.000051	15.802
Pb	208	415.343	184.002	0.000041	9.937
Pb-1	208	1223.023	528.004	0.000042	9.240

QC Calculated Values

InterAnalyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	94.011				
[	As	75					
[	Cd	114					
[>	Rh	103	94.187				
[>	Lu	175	94.967				
[	Hg	200					
[>	Tm	169	94.694				
[	Pb	206					
[	Pb	207					
[Pb	208					
[Pb-1	208					

Sample ID: ICB

Report Date/Time: Wednesday, October 17, 2007 11:35:46

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22674

Sample Date/Time: Tuesday, October 16, 2007 17:33:53

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22674.083

Calibration File:

Sample Prep Volume (mL): 49.883

Initial Sample Quantity (mg): 507.000

Alliquot Volume (mL): 4.989

Diluted to Volume (mL): 49.950

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 17:33:53 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	255718.493	271413.845		
As	75	7226.649	44.000	6.505423	0.240
Cd	114	27143.142	45.333	7.491768	1.443
Rh	103	623430.045	649483.618		
Lu	175	864774.103	765881.162		
Hg	200	1107.179	26.000	1.409604	5.650
Tm	169	719880.009	648445.704		
Pb	206	1800636.354	91.000	485.216171	1.051
Pb	207	1486609.725	69.000	529.437362	1.233
Pb	208	3785491.701	184.002	535.718326	1.757
Pb-1	208	10858229.480	528.004	525.789046	1.561

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	94.217				
|	As	75					
|	Cd	114					
>	Rh	103	95.989				
>	Lu	175	112.912				
|	Hg	200					
>	Tm	169	111.016				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Results are over the calibration range for Pb. See ICP results from 10.17.07. CWT 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22675
 Sample Date/Time: Tuesday, October 16, 2007 17:35:14
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22675.084
 Calibration File:
 Sample Prep Volume (mL): 50.579
 Initial Sample Quantity (mg): 547.000
 Aliquot Volume (mL): 5.135
 Diluted to Volume (mL): 50.479
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:35:14 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	263013.920	271413.845		
As	75	8610.743	44.000	6.959813	0.988
Cd	114	388.008	45.333	0.086387 BDL	10.021
Rh	103	633202.990	649483.618		
Lu	175	777409.360	765881.162		
Hg	200	38.667	26.000	0.016459 BDL	9.841
Tm	169	654091.633	648445.704		
Pb	206	24340.211	91.000	6.636359	0.744
Pb	207	18939.714	69.000	6.825779	2.095
Pb	208	47377.807	184.002	6.783232	0.247
Pb-1	208	138035.538	528.004	6.762624	0.310

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	96.905				
|	As	75					
|	Cd	114					
>	Rh	103	97.493				
>	Lu	175	101.505				
|	Hg	200					
>	Tm	169	100.871				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

(10) Cd + Hg are BDL, because
 the sample intensity is less than
 the intensity of the lowest
 calibration standard.

CN 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22676

Sample Date/Time: Tuesday, October 16, 2007 17:36:34

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22676.085

Calibration File:

Sample Prep Volume (mL): 50.004

Initial Sample Quantity (mg): 590.000

Aliquot Volume (mL): 5.247

Diluted to Volume (mL): 48.689

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 17:36:34 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	267012.007	271413.845		
As	75	25849.588	44.000	17.866136	0.838
Cd	114	156499.621	45.333	32.062401	0.325
Rh	103	671488.537	649483.618		
Lu	175	938986.166	765881.162		
Hg	200	3415.308	26.000	3.253414	2.000
Tm	169	769561.800	648445.704		
Pb	206	9841716.194	91.000	1981.338603	2.548
Pb	207	8267176.898	69.000	2199.573543	2.209
Pb	208	20385318.996	184.002	2155.388405	2.651
Pb-1	208	58879531.085	528.004	2130.119407	2.570

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	98.378				
L	As	75					
L	Cd	114					
>	Rh	103	103.388				
>	Lu	175	122.602				
L	Hg	200					
>	Tm	169	118.678				
L	Pb	206					
L	Pb	207					
L	Pb	208					
L	Pb-1	208					

⑩ Results are over the
Calibration range for Pb. See
ICP data from 10-17-07.
CRL 10-29-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22677
Sample Date/Time: Tuesday, October 16, 2007 17:37:55
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata\icpms\DataSet\101607 Avant 282-1,2, 285-2\22677.086
Calibration File:
Sample Prep Volume (mL): 50.123
Initial Sample Quantity (mg): 564.000
Aliquot Volume (mL): 5.346
Diluted to Volume (mL): 50.303
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 17:37:55 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	264560.051	271413.845		
As	75	12962.791	44.000	9.598473	0.966
Cd	114	19991.963	45.333	4.519674	1.384
Rh	103	645748.051	649483.618		
Lu	175	881722.266	765881.162		
Hg	200	1011.612	26.000	1.068816	5.676
Tm	169	729238.311	648445.704		
Pb	206	2500514.817	91.000	564.677374	0.797
Pb	207	1990174.672	69.000	593.985347	0.207
Pb	208	5112359.902	184.002	606.323574	1.063
Pb-1	208	14715409.294	528.004	597.162110	0.883

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	97.475				
L	As	75					
L	Cd	114					
>	Rh	103	99.425				
>	Lu	175	115.125				
L	Hg	200					
>	Tm	169	112.459				
L	Pb	206					
L	Pb	207					
L	Pb	208					
L	Pb-1	208					

(10) Results are over the
Calibration range for Pb.
See ICP data from
10.17.07. CW 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22678
 Sample Date/Time: Tuesday, October 16, 2007 17:39:15
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22678.087
 Calibration File:
 Sample Prep Volume (mL): 50.257
 Initial Sample Quantity (mg): 539.000
 Aliquot Volume (mL): 5.310
 Diluted to Volume (mL): 49.653
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:39:15 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	263430.910	271413.845		
As	75	4803.046	44.000	3.703196	1.701
Cd	114	250.670	45.333	0.049249 BDL	9.102
Rh	103	638222.384	649483.618		
Lu	175	812617.290	765881.162		
Hg	200	34.000	26.000	0.007894 BDL	42.985
Tm	169	680661.408	648445.704		
Pb	206	20243.187	91.000	5.082550	1.261
Pb	207	15771.338	69.000	5.234172	0.678
Pb	208	39311.482	184.002	5.183369	1.261
Pb-1	208	114637.489	528.004	5.172159	0.890

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	97.059				
|	As	75					
|	Cd	114					
>	Rh	103	98.266				
>	Lu	175	106.102				
|	Hg	200					
>	Tm	169	104.968				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

(10) Cd + Hg are BDL, because
 the sample intensity is less
 than the intensity of the
 lowest calibration standard.

CNT 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22679
 Sample Date/Time: Tuesday, October 16, 2007 17:40:36
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata\icpms\DataSet\101607 Avant 282-1,2, 285-2\22679.088
 Calibration File:
 Sample Prep Volume (mL): 50.116
 Initial Sample Quantity (mg): 494.000
 Aliquot Volume (mL): 5.143
 Diluted to Volume (mL): 50.418
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:40:36 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	266887.003	271413.845		
As	75	11033.136	44.000	9.626145	0.849
Cd	114	800.036	45.333	0.204971 BDL	11.045
Rh	103	649513.035	649483.618		
Lu	175	798050.165	765881.162		
Hg	200	42.445	26.000	0.024967 BDL	18.032
Tm	169	675227.429	648445.704		
Pb	206	80970.345	91.000	23.460453	0.270
Pb	207	66077.333	69.000	25.303020	0.841
Pb	208	163234.642	184.002	24.838411	0.583
Pb-1	208	473516.962	528.004	24.653964	0.475

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	98.332				
L	As	75					
L	Cd	114					
>	Rh	103	100.005				
>	Lu	175	104.200				
L	Hg	200					
>	Tm	169	104.130				
L	Pb	206					
L	Pb	207					
L	Pb	208					
L	Pb-1	208					

(10) Cd & Hg are BDL, because
 the sample intensity is less
 than the intensity of the
 lowest calibration standard.
 CRT 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22680
 Sample Date/Time: Tuesday, October 16, 2007 17:41:57
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22680.089
 Calibration File:
 Sample Prep Volume (mL): 49.998
 Initial Sample Quantity (mg): 480.000
 Aliquot Volume (mL): 5.293
 Diluted to Volume (mL): 50.000
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:41:57 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	268125.784	271413.845		
As	75	11770.727	44.000	10.115135	0.908
Cd	114	21335.007	45.333	5.658390	0.835
Rh	103	647798.418	649483.618		
Lu	175	871470.477	765881.162		
Hg	200	856.263	26.000	1.071370	2.216
Tm	169	725181.365	648445.704		
Pb	206	2668673.442	91.000	713.131734	1.204
Pb	207	2189439.604	69.000	773.264293	1.124
Pb	208	5389932.341	184.002	756.470771	1.394
Pb-1	208	15637977.728	528.004	750.966133	1.269

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		98.789				
|	As	75						
|	Cd	114						
>	Rh	103		99.741				
>	Lu	175		113.787				
|	Hg	200						
>	Tm	169		111.834				
|	Pb	206						
|	Pb	207						
|	Pb	208						
|	Pb-1	208						

(10) Results are over the
 calibration range for Pb.
 See ICP data from 10.17.07.
 OK 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22681
 Sample Date/Time: Tuesday, October 16, 2007 17:43:17
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\Elandata\icpms\DataSet\101607 Avant 282-1,2, 285-2\22681.090
 Calibration File:
 Sample Prep Volume (mL): 50.749
 Initial Sample Quantity (mg): 548.000
 Aliquot Volume (mL): 5.325
 Diluted to Volume (mL): 50.056
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:43:17 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	262798.358	271413.845		
As	75	6647.541	44.000	5.142599	1.638
Cd	114	1076.064	45.333	0.248185	4.670
Rh	103	633217.796	649483.618		
Lu	175	766064.321	765881.162		
Hg	200	70.667	26.000	0.058280 BDL	5.005
Tm	169	648079.675	648445.704		
Pb	206	117745.344	91.000	31.125114	0.233
Pb	207	99754.335	69.000	34.854478	0.668
Pb	208	244937.580	184.002	34.007018	0.843
Pb-1	208	707374.838	528.004	33.604367	0.694

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	96.826				
|	As	75					
|	Cd	114					
>	Rh	103	97.496				
>	Lu	175	100.024				
|	Hg	200					
>	Tm	169	99.944				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Hg is BDL because the sample intensity is less than the intensity of the lowest calibration standard.
 CRT 10-29-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV

Sample Date/Time: Tuesday, October 16, 2007 17:44:39

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCV.091

Calibration File:

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 17:44:39 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	273512.533	271413.845		
As	75	70558.985	44.000	0.060596	0.334
Cd	114	225879.190	45.333	0.059487	0.825
Rh	103	664273.923	649483.618		
Lu	175	790031.170	765881.162		
Hg	200	4012.442	26.000	0.005790	2.380
Tm	169	666669.381	648445.704		
Pb	206	189133.038	91.000	0.055845	1.101
Pb	207	159262.312	69.000	0.062152	0.475
Pb	208	388011.994	184.002	0.060169	0.211
Pb-1	208	1124419.338	528.004	0.059662	0.193

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	100.773				
[	As 75		100.993			
[	Cd 114		99.144			
[>	Rh 103	102.277				
[>	Lu 175	103.153				
[	Hg 200		96.494			
[>	Tm 169	102.810				
[	Pb 206		93.074			
[	Pb 207		103.587			
[	Pb 208		100.282			
[Pb-1 208		99.436			

Sample ID: CCV

Report Date/Time: Wednesday, October 17, 2007 11:35:59

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A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Tuesday, October 16, 2007 17:46:03
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCB.092
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:46:03 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	277163.937	271413.845		
As	75	53.778	44.000	0.000007	50.050
Cd	114	63.334	45.333	0.000004	56.649
Rh	103	665557.278	649483.618		
Lu	175	793719.632	765881.162		
Hg	200	56.445	26.000	0.000043	38.436
Tm	169	668285.503	648445.704		
Pb	206	263.004	91.000	0.000050	18.151
Pb	207	217.669	69.000	0.000057	11.255
Pb	208	525.349	184.002	0.000052	12.554
Pb-1	208	1531.370	528.004	0.000052	12.259

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	102.119				
[	As	75					
[	Cd	114					
[>	Rh	103	102.475				
[>	Lu	175	103.635				
[	Hg	200					
[>	Tm	169	103.060				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22682
 Sample Date/Time: Tuesday, October 16, 2007 17:47:26
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\Elandata\icpms\DataSet\101607 Avant 282-1,2, 285-2\22682.093
 Calibration File:
 Sample Prep Volume (mL): 50.399
 Initial Sample Quantity (mg): 519.000
 Aliquot Volume (mL): 5.235
 Diluted to Volume (mL): 49.953
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:47:26 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	274420.069	271413.845		
As	75	2069.124	44.000	1.606818	2.411
Cd	114	644.690	45.333	0.144100	1.809
Rh	103	672558.135	649483.618		
Lu	175	818924.601	765881.162		
Hg	200	57.556	26.000	0.036535	28.618
Tm	169	690727.383	648445.704		
Pb	206	159900.669	91.000	42.220649	0.345
Pb	207	133524.448	69.000	46.599062	0.954
Pb	208	327553.729	184.002	45.423886	1.029
Pb-1	208	948532.575	528.004	45.008051	0.875

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	101.108				
[	As	75					
[	Cd	114					
[>	Rh	103	103.553				
[>	Lu	175	106.926				
[	Hg	200					
[>	Tm	169	106.520				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

(10) Cd + Hg are BDL, because the intensity of the sample is less than the intensity of the lowest calibration standard. CRT 10.29-07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22683
 Sample Date/Time: Tuesday, October 16, 2007 17:48:47
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata\icpms\DataSet\101607 Avant 282-1,2, 285-2\22683.094
 Calibration File:
 Sample Prep Volume (mL): 50.695
 Initial Sample Quantity (mg): 492.000
 Aliquot Volume (mL): 5.095
 Diluted to Volume (mL): 50.220
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:48:47 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	270616.879	271413.845		
As	75	13782.663	44.000	12.119041	0.222
Cd	114	14773.331	45.333	3.986792	1.300
Rh	103	656429.673	649483.618		
Lu	175	890555.457	765881.162		
Hg	200	212.669	26.000	0.238918	9.357
Tm	169	733011.585	648445.704		
Pb	206	2301903.123	91.000	628.144296	0.804
Pb	207	1866277.890	69.000	673.030871	0.544
Pb	208	4764146.647	184.002	682.739449	0.380
Pb-1	208	13696474.306	528.004	871.608618	0.434

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	99.706				
[	As	75					
[	Cd	114					
[>	Rh	103	101.069				
[>	Lu	175	116.279				
[	Hg	200					
[>	Tm	169	113.041				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

⑩ Results are over the calibration range for Pb. See ICP data from 10.17.07. Ckt 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22684
 Sample Date/Time: Tuesday, October 16, 2007 17:50:07
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\Elandata\icpms\DataSet\101607 Avant 282-1,2, 285-2\22684.095
 Calibration File:
 Sample Prep Volume (mL): 49.904
 Initial Sample Quantity (mg): 494.000
 Aliquot Volume (mL): 4.861
 Diluted to Volume (mL): 50.103
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:50:07 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	268927.708	271413.845		
As	75	5869.228	44.000	5.301572	1.363
Cd	114	814.703	45.333	0.215449 BDL	4.483
Rh	103	650501.558	649483.618		
Lu	175	840271.216	765881.162		
Hg	200	28.667	26.000	0.000204 BDL	973.072
Tm	169	703869.245	648445.704		
Pb	206	21200.360	91.000	6.147572	0.524
Pb	207	16825.893	69.000	6.450187	2.083
Pb	208	41938.521	184.002	6.386270	0.914
Pb-1	208	121903.295	528.004	6.352066	0.535

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std	% Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		99.084				
|	As	75						
|	Cd	114						
>	Rh	103		100.157				
>	Lu	175		109.713				
|	Hg	200						
>	Tm	169		108.547				
|	Pb	206						
|	Pb	207						
|	Pb	208						
|	Pb-1	208						

(10) Cd + Hg are BDL, because
 the intensity of the sample
 is less than the intensity of
 the lowest calibration standard.
 Oct 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22684-2
Sample Date/Time: Tuesday, October 16, 2007 17:51:28
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22684-2.096
Calibration File:
Sample Prep Volume (mL): 50.279
Initial Sample Quantity (mg): 512.000
Aliquot Volume (mL): 4.985
Diluted to Volume (mL): 50.216
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 17:51:28 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	269855.788	271413.845		
As	75	6444.506	44.000	5.515530	1.576
Cd	114	1006.722	45.333	0.253433 BDL	2.811
Rh	103	656239.139	649483.618		
Lu	175	849898.051	765881.162		
Hg	200	25.333	26.000	-0.004697 BDL	105.433
Tm	169	709898.675	648445.704		
Pb	206	20533.832	91.000	5.607917	0.216
Pb	207	16268.880	69.000	5.873142	0.587
Pb	208	40966.778	184.002	5.875302	0.459
Pb-1	208	118736.269	528.004	5.826959	0.356

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	99.426				
[	As	75			3.956		
[	Cd	114			18.202		
[>	Rh	103	101.040				
[>	Lu	175	110.970				
[	Hg	200			218.196		
[>	Tm	169	109.477				
|	Pb	206			9.181		
|	Pb	207			9.365		
|	Pb	208			8.334		
[	Pb-1	208			8.623		

Cd + Hg are BDL, so %RPO
is 0%. cut 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22684-S1
 Sample Date/Time: Tuesday, October 16, 2007 17:52:49
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22684-S1.097
 Calibration File:
 Sample Prep Volume (mL): 50.096
 Initial Sample Quantity (mg): 538.000
 Aliquot Volume (mL): 4.939
 Diluted to Volume (mL): 49.949
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:52:49 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	277776.482	271413.845		
As	75	597167.681	44.000	475.782133	0.751
Cd	114	1883400.946	45.333	460.042444	0.195
Rh	103	674558.671	649483.618		
Lu	175	899873.529	765881.162		
Hg	200	401.120	26.000	0.445219	3.910
Tm	169	752087.278	648445.704		
Pb	206	1775607.117	91.000	437.828392	1.080
Pb	207	1513263.206	69.000	493.160419	1.061
Pb	208	3852345.279	184.002	498.884082	0.462
Pb-1	208	10993560.882	528.004	487.134103	0.631

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	102.344				
[	As	75				100.030	
[	Cd	114				97.664	
[>	Rh	103	103.861				
[>	Lu	175	117.495				
[	Hg	200				94.518	
[>	Tm	169	115.983				
|	Pb	206				91.807	
|	Pb	207				103.500	
|	Pb	208				104.728	
[	Pb-1	208				102.239	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22684-S2

Sample Date/Time: Tuesday, October 16, 2007 17:54:09

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22684-S2.098

Calibration File:

Sample Prep Volume (mL): 49.859

Initial Sample Quantity (mg): 502.000

Aliquot Volume (mL): 5.481

Diluted to Volume (mL): 50.039

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 17:54:09 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	274251.947	271413.845		
As	75	653671.881	44.000	507.939327	0.558
Cd	114	2079372.955	45.333	497.519068	1.662
Rh	103	663132.247	649483.618		
Lu	175	874251.448	765881.162		
Hg	200	423.788	26.000	0.469205	1.717
Tm	169	729482.899	648445.704		
Pb	206	1920318.854	91.000	470.091673	1.179
Pb	207	1635859.177	69.000	529.245044	0.545
Pb	208	4203413.669	184.002	540.400249	0.698
Pb-1	208	11963005.369	528.004	526.248999	0.721

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	101.046				
[	As	75			6.538	111.017	
[	Cd	114			7.828	109.695	
[>	Rh	103	102.101				
[>	Lu	175	114.150				
[	Hg	200			5.246	103.452	
[>	Tm	169	112.497				
|	Pb	206			7.107	102.506	
|	Pb	207			7.059	115.495	
|	Pb	208			7.989	117.968	
[	Pb-1	208			7.720	114.853	

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mblank
 Sample Date/Time: Tuesday, October 16, 2007 17:55:30
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\Mblank.099
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:55:30 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	282327.525	271413.845		
As	75	120.223	44.000	0.000062	42.542
Cd	114	292.005	45.333	0.000062	50.143
Rh	103	686411.486	649483.618		
Lu	175	811694.203	765881.162		
Hg	200	17.333	26.000	-0.000014	30.255
Tm	169	689695.553	648445.704		
Pb	206	350.674	91.000	0.000073	24.394
Pb	207	307.672	69.000	0.000089	35.878
Pb	208	773.367	184.002	0.000087	25.535
Pb-1	208	2205.080	528.004	0.000084	26.816

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	104.021				
[	As	75					
[	Cd	114					
[>	Rh	103	105.686				
[>	Lu	175	105.982				
[	Hg	200					
[>	Tm	169	106.361				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mcontrol
 Sample Date/Time: Tuesday, October 16, 2007 17:56:51
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\Mcontrol.100
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:56:51 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	288434.019	271413.845		
As	75	623850.031	44.000	0.508321	0.485
Cd	114	1929916.210	45.333	0.492285	0.754
Rh	103	685972.254	649483.618		
Lu	175	862381.056	765881.162		
Hg	200	371.785	26.000	0.000456	0.561
Tm	169	722788.926	648445.704		
Pb	206	1691226.223	91.000	0.460836	0.944
Pb	207	1441819.798	69.000	0.519241	1.114
Pb	208	3684077.876	184.002	0.527232	1.068
Pb-1	208	10501201.772	528.004	0.514214	1.019

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		106.271				
[	As	75					101.652	
[	Cd	114					98.445	
[>	Rh	103		105.618				
[>	Lu	175		112.600				
[	Hg	200					94.078	
[>	Tm	169		111.465				
|	Pb	206					92.153	
|	Pb	207					103.830	
|	Pb	208					105.429	
[	Pb-1	208					102.826	

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Tuesday, October 16, 2007 17:58:13
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCV.101
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:58:13 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	292517.543	271413.845		
As	75	75871.981	44.000	0.060926	0.294
Cd	114	237319.919	45.333	0.059015	1.062
Rh	103	703552.522	649483.618		
Lu	175	823778.026	765881.162		
Hg	200	4240.322	26.000	0.005869	1.132
Tm	169	702838.420	648445.704		
Pb	206	197845.150	91.000	0.055411	0.307
Pb	207	166437.127	69.000	0.061611	0.350
Pb	208	404419.517	184.002	0.059487	0.973
Pb-1	208	1173121.312	528.004	0.059043	0.660

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		107.775				
[	As	75			101.543			
[	Cd	114			98.358			
[>	Rh	103		108.325				
[>	Lu	175		107.560				
[	Hg	200			97.816			
[>	Tm	169		108.388				
|	Pb	206			92.351			
|	Pb	207			102.684			
|	Pb	208			99.145			
[	Pb-1	208			98.406			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Tuesday, October 16, 2007 17:59:36
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCB.102
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:59:36 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	290452.003	271413.845		
As	75	109.334	44.000	0.000050	15.741
Cd	114	220.003	45.333	0.000043	20.776
Rh	103	693467.649	649483.618		
Lu	175	821909.542	765881.162		
Hg	200	47.778	26.000	0.000028	38.637
Tm	169	691493.054	648445.704		
Pb	206	481.013	91.000	0.000109	9.089
Pb	207	401.676	69.000	0.000124	6.290
Pb	208	978.053	184.002	0.000117	8.546
Pb-1	208	2838.794	528.004	0.000117	7.364

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	107.014				
[	As	75					
[	Cd	114					
[>	Rh	103	106.772				
[>	Lu	175	107.316				
[	Hg	200					
[>	Tm	169	106.639				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22698 (As)	TP-36 (18")	1.643	1%	105%	104%	2%	BDL	110%
22698 (Cd)	TP-36 (18")	BDL	0%	104%	103%	2%	BDL	110%
22698 (Hg)	TP-36 (18")	BDL	0%	99%	97%	3%	BDL	113%
22698 (Pb)	TP-36 (18")	5.211	2%	115%	113%	2%	BDL	117%

Comments:

Julian: 277 1+2

Date: 10-4-07

Tech: DLC

1	22673	17	22499	33	22695
2	22674	18	22752	34	22696
3	22675	19	22683	35	22697
4	22676	20	22684	36	22698
5	22677	21	22685	37	22698-2
6	22678	22	22686	38	22698-51
7	22679	23	22687	39	22698-52
8	Blank	24	Blank 2	40	22699
9	22680	25	22688	41	22700
10	22681	26	22689	42	22701
11	C12M	27	22690	43	22702
12	22682	28	22691	44	22703
13	22682-2	29	22692	45	22704
14	22682-51	30	22693	46	Cleaning
15	22682-52	31	22694	47	↓
16	Control	32	Control 2	48	

⑩ 22673 lost more than 10% of its ^{cat} upedigestion weight. It will be redigested. 10.8.07

Julian 227172
Tech 5262

Empty Wt (g)

1	492.962
2	136.372
3	135.890
4	136.663
5	136.275
6	136.461
7	136.461
8	136.260
9	136.408
10	136.547
11	136.494
12	136.516
13	136.338
14	136.422
15	136.602
16	136.275
17	136.590
18	136.449
19	136.554
20	136.502
21	136.395
22	136.646
23	136.272
24	136.375
25	136.379
26	136.479
27	136.178
28	136.323
29	136.461
30	136.342
31	136.328
32	135.827
33	136.530
34	136.835
35	136.565
36	136.304
37	136.510
38	136.478
39	136.210
40	136.803
41	136.235
42	136.072
43	136.629
44	136.362
45	136.375
46	
47	
48	

Pre-Digest Wt (g)

507.197
150.746
150.313
151.100
150.776
150.971
150.813
150.186
150.782
150.995
150.673
150.961
150.811
153.445
153.588
154.307
151.039
150.894
150.958
150.975
150.773
151.079
150.663
150.309
150.788
150.919
150.606
150.823
150.988
150.811
150.795
153.881
150.854
151.292
150.976
150.725
150.930
153.519
153.243
151.195
150.692
150.506
150.973
150.880
150.863

Post Digestion Wt (g)

505.750
150.678
150.251
151.040
150.745
150.928
150.755
150.130
150.715
150.919
150.619
150.898
150.778
153.379
153.558
154.278
151.005
150.840
150.916
150.940
150.714
150.999
150.617
150.275
150.737
150.840
150.553
150.749
150.954
150.772
150.756
153.837
150.766
151.251
150.913
150.672
150.832
153.460
153.184
151.092
150.586
150.433
150.866
150.845
150.795

% Change

(10.165)
0.458
0.454
0.416
0.214
0.296
0.404
0.402
0.466
0.526
0.381
0.436
0.228
0.388
0.177
0.161
0.235
0.374
0.292
0.242
0.410
0.554
0.320
0.244
0.354
0.547
0.367
0.510
0.234
0.270
0.270
0.244
0.614
0.284
0.437
0.368
0.680
0.346
0.346
0.716
0.733
0.506
0.746
0.241
0.469
#DIV/0!
#DIV/0!
#DIV/0!

Sealed

277 142

METHOD DOCUMENTATION

EPA 3051-48

MF50-T48

Weight:0.25-0.50

Reagents [ml]:

HNO3 10.0

-

-

Ph	Temp	Ramp	Hold	Fan
1	175		05:30	0
2	180	04:30		1
3	0		20:00	2
4				

p-Rate:0.5bar/s IR:140°C P:1400W

Drive:Rot

Notes:

sediments, soil, sludge, contaminated

soil and oils (oil <0,25g!)

for 4 and 8 vessels!

PROCESS STATUS

Process Finished

Power reduction at 00:50 (I,p,S,T)

PROCESS LIMITS

p - Limit [bar]: 20

T - Limit [°C]: 200

IR - Limit [°C]: 140

PROCESS MAXIMA

p - MAX [bar]: 19.8

T - MAX [°C]: 166

IR - MAX [°C]: 1 90

2 99

3 89

4 97

5 99

6 93

7 92

8 89

9 98

10 95

11 102

12 100

13 96

14 84

15 87

16 80

Toil - MAX [°C]: 31.7 Tgas - MAX [°C]: 31.9 Current MAX [A]: 18.5

Tmagn1-MAX [°C]: 111.4 Tmagn2-MAX [°C]: 98.7 Status Word : 00001000

Multiwave V2.01 (PB V15) (c) Anton Paar GmbH Jan 22 2007

Device Name: SN: Sensor:p/T SN:1523

Report printed at 2007-10-04 18:47:23

Process started at 2007-10-04 18:06:00

Process finished 2007-10-04 18:39:18

Julian Date	Sample ID	Initial Weight (g)	Initial Volume (ml)	Aliquot Volume (ml)	Diluted to Volume (ml)	Date	Initials
1 277	22673	0.4760	49.8610	0.0000	0.0000	10/5/2007	DLG
2 277	22674	0.5350	49.2530	5.0580	50.1180	10/5/2007	DLG
3 277	23675	0.5020	49.4400	4.9390	50.2090	10/5/2007	DLG
4 277	22676	0.5440	49.8800	4.9910	50.4480	10/5/2007	DLG
5 277	22677	0.6250	50.2320	5.3750	50.3720	10/5/2007	DLG
6 277	22678	0.6150	50.0840	5.6500	50.0120	10/5/2007	DLG
7 277	22679	0.4720	50.4730	5.1760	50.0680	10/5/2007	DLG
8 277	Mblank	1.0000	50.1640	4.9870	49.9120	10/5/2007	DLG
9 277	22680	0.5220	51.3620	5.3490	50.3510	10/5/2007	DLG
10 277	22681	0.4980	49.8250	5.8170	50.2360	10/5/2007	DLG
11 277	CRM	0.2630	50.2590	5.1120	49.5500	10/5/2007	DLG
12 277	22682	0.5130	50.3690	5.8060	50.4640	10/5/2007	DLG
13 277	22682-2	0.5350	51.0580	5.6100	51.1040	10/5/2007	DLG
14 277	22682-S1	0.5330	49.7440	5.4110	50.3530	10/5/2007	DLG
15 277	22682-S2	0.4920	50.2920	4.9490	49.1890	10/5/2007	DLG
16 277	MControl	1.0000	50.0040	4.8640	50.0060	10/5/2007	DLG
17 277	22499	0.5440	50.5940	5.3890	49.8370	10/5/2007	DLG
18 277	22752	0.5130	49.9490	5.1600	50.7570	10/5/2007	DLG
19 277	22683	0.5670	49.7570	5.0800	49.8400	10/5/2007	DLG
20 277	22684	0.5770	49.5520	5.0600	49.2690	10/5/2007	DLG
21 277	22685	0.4920	49.9370	5.1060	49.4590	10/5/2007	DLG
22 277	22686	0.5400	49.4690	5.3050	49.9040	10/5/2007	DLG
23 277	22687	0.4790	50.4880	5.1780	51.0650	10/5/2007	DLG
24 277	Mblank	1.0000	49.8950	4.9740	49.7940	10/5/2007	DLG
25 277	22688	0.4900	50.2900	5.6460	50.0440	10/5/2007	DLG
26 277	22689	0.5290	50.1620	5.2910	49.9560	10/5/2007	DLG
27 277	22690	0.5120	50.4580	5.0600	49.9920	10/5/2007	DLG
28 277	22691	0.5690	50.6060	5.6230	50.4410	10/5/2007	DLG
29 277	22692	0.5780	50.7700	5.6100	50.0510	10/5/2007	DLG
30 277	22693	0.5210	50.1940	5.0260	50.4770	10/5/2007	DLG
31 277	22694	0.5050	50.1720	5.2700	50.2000	10/5/2007	DLG
32 277	Mcontrol	1.0000	49.9700	5.5140	54.7550	10/5/2007	DLG
33 277	22695	0.4800	50.4260	4.9930	50.1560	10/5/2007	DLG
34 277	22696	0.5390	50.4400	4.9690	50.0350	10/5/2007	DLG
35 277	22697	0.5040	50.2370	5.2330	50.1380	10/5/2007	DLG
36 277	22698	0.5000	50.8070	5.5100	50.7860	10/5/2007	DLG
37 277	22698-2	0.4940	50.4000	5.0940	49.4470	10/5/2007	DLG
38 277	22698-S1	0.4970	51.2230	5.0590	50.7160	10/5/2007	DLG
39 277	22698-S2	0.5090	49.2310	4.6840	49.7570	10/5/2007	DLG
40 277	22699	0.5420	50.3790	5.3440	50.1500	10/5/2007	DLG
41 277	22700	0.5310	50.7880	4.8520	50.2700	10/5/2007	DLG
42 277	22701	0.5110	49.2010	4.8860	50.0140	10/5/2007	DLG
43 277	22702	0.5080	50.0440	5.4720	50.1520	10/5/2007	DLG
44 277	22703	0.5600	49.4060	5.1320	50.1210	10/5/2007	DLG
45 277	22704	0.5370	49.3500	5.7640	50.7450	10/5/2007	DLG

Quantitative Method Report

File Name: Fast AVANT.mth
File Path: C:\elandata_icpms\Method\Fast AVANT.mth

Timing Parameters

Sweeps/Reading: 10
Readings/Replicate: 1
Number of Replicates: 3
Tuning File: default.tun
Optimization File: c:\elandata_icpms\optimize\al opt.dac
QC Enabled: Yes
Settling Time: Normal

	Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
[>	Ge	73.922	Peak Hopping	1	100.0 ms	1000 ms
[	As	74.922	Peak Hopping	1	150.0 ms	1500 ms
[	Cd	113.904	Peak Hopping	1	50.0 ms	500 ms
[>	Rh	102.905	Peak Hopping	1	100.0 ms	1000 ms
[>	Lu	174.941	Peak Hopping	1	100.0 ms	1000 ms
[	Hg	199.968	Peak Hopping	1	150.0 ms	1500 ms
[>	Tm	168.934	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	205.975	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	206.976	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	207.977	Peak Hopping	1	100.0 ms	1000 ms
[	Pb-1	207.977	Peak Hopping	1	50.0 ms	500 ms

Signal Processing

Detector Mode: Dual
Measurement Units: cps
AutoLens: On
Spectral Peak Processing: Average
Signal Profile Processing: Average
Blank Subtraction: Subtracted after internal standard
Baseline Readings: 0
Smoothing: Yes, Factor 5

Equations

Analyte	Mass	Corrections
Ge	73.922	- 0.116645 * Se 77
Pb-1	207.977	Pb208 +1*Pb206+1*Pb207

Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Ge	73.922	Linear Thru Zero	ppm	ppb				

As	74.922	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Cd	113.904	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Rh	102.905	Linear Thru Zero	ppm	ppb				
Lu	174.941	Linear Thru Zero	ppm	ppb				
Hg	199.968	Linear Thru Zero	ppm	ppb	0.25	0.5	1	5
Tm	168.934	Linear Thru Zero	ppm	ppb				
Pb	205.975	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	206.976	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb-1	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10

Analyte	Mass	Std 5	Std 6	Std 7
Ge	73.922			
As	74.922	20	50	125
Cd	113.904	20	50	125
Rh	102.905			
Lu	174.941			
Hg	199.968	10		
Tm	168.934			
Pb	205.975	20	50	125
Pb	206.976	20	50	125
Pb	207.977	20	50	125
Pb-1	207.977	20	50	125

	AS Pos	Sample Flush	Sample Flush	Read Delay	Read Delay	Wash	Wash
blank	1	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.25 ppb	2	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.5 ppb	3	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
2.0 ppb	4	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
10.0 ppb	5	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
20.0 ppb	6	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
50.0 ppb	7	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
125.0 ppb	8	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 8		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 9		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 10		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 11		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 12		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 13		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 14		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 15		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 16		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 17		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 18		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 19		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 20		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 21		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Standard 22	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 23	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 24	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 25	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 26	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 27	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 28	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 29	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 30	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Reporting Options

Report Template for Printing: a&l qc.rop
Send to Printer: No
Report Template for File:
Send to File: No
Report Filename:
Create NetCDF File: No
Send to Serial Port: No
Port: COM1

Sampling Devices

Peristaltic Pump Control: Yes
Autosampler: AS-93plus
Autosampler Tray File: c:\program files\esi\esi sc\esi.try
Sampling Device Type: (None)
Dil. Factor: 10
Dil. to Vol. (mL): 10
1st Dil. Pos.: 1
Probe Purge Pos.: 10

PERKIN ELMER ICP-MS BATCH REPORT

Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam

Sample Information

A/S Loc.	Analyst	Batch ID	Sample ID	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vo
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
218	CRT	277-1,2 Avant	22685	492.000	49.937	5.106	49.45
219	CRT	277-1,2 Avant	22686	540.000	49.469	5.305	49.90
220	CRT	277-1,2 Avant	22687	479.000	50.488	5.178	51.06
221	CRT	277-1,2 Avant	Mblank				
301	CRT	277-1,2 Avant	22688	490.000	50.290	5.646	50.04
302	CRT	277-1,2 Avant	22689	529.000	50.162	5.291	49.95
303	CRT	277-1,2 Avant	22690	512.000	50.458	5.060	49.99
304	CRT	277-1,2 Avant	22691	569.000	50.606	5.623	50.44
305	CRT	277-1,2 Avant	22692	578.000	50.770	5.610	50.05
306	CRT	277-1,2 Avant	22693	521.000	50.194	5.026	50.47
307	CRT	277-1,2 Avant	22694	505.000	50.172	5.270	50.20
308	CRT	277-1,2 Avant	Mcontrol				
309	CRT	277-1,2 Avant	22695	480.000	50.426	4.993	50.15
310	CRT	277-1,2 Avant	22696	539.000	50.440	4.969	50.03
311	CRT	277-1,2 Avant	22697	504.000	50.237	5.233	50.13
312	CRT	277-1,2 Avant	22698	500.000	50.807	5.510	50.78
313	CRT	277-1,2 Avant	22698-2	494.000	50.400	5.094	49.44
314	CRT	277-1,2 Avant	22698-S1	497.000	51.223	5.059	50.71
315	CRT	277-1,2 Avant	22698-S2	509.000	49.231	4.684	49.75
316	CRT	277-1,2 Avant	22699	542.000	50.379	5.344	50.15
317	CRT	277-1,2 Avant	22700	531.000	50.788	4.852	50.27
318	CRT	277-1,2 Avant	22701	511.000	49.201	4.886	50.01
319	CRT	277-1,2 Avant	22702	508.000	50.044	5.472	50.15
320	CRT	277-1,2 Avant	22703	560.000	49.406	5.132	50.12
321	CRT	277-1,2 Avant	22704	537.000	49.350	5.764	50.74

Calibration Report

Analyte	Mass	Curve Type	Slope	Intercept	Corr Coeff
Ge	73.922	Linear Thru Zero	0.000000	0.000	0.000000
As	74.922	Linear Thru Zero	0.004562	0.000	0.999916
Cd	113.904	Linear Thru Zero	0.007212	0.000	0.999919
Rh	102.905	Linear Thru Zero	0.000000	0.000	0.000000
Lu	174.941	Linear Thru Zero	0.000000	0.000	0.000000
Hg	199.968	Linear Thru Zero	0.001016	0.000	0.998166
Tm	168.934	Linear Thru Zero	0.000000	0.000	0.000000
Pb	205.975	Linear Thru Zero	0.007119	0.000	0.999924
Pb	206.976	Linear Thru Zero	0.005457	0.000	0.999923
Pb	207.977	Linear Thru Zero	0.013853	0.000	0.999926
Pb-1	207.977	Linear Thru Zero	0.040282	0.000	0.999926

A&L Great Lakes Lab ICP-MS Report

Sample ID: blank
 Sample Date/Time: Wednesday, October 10, 2007 14:18:47
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata\icpms\DataSet\101007 Avant 277-1,2\blank.004
 Calibration File: C:\elandata\icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 14:18:47 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	254720.029			
As	75	80.889			
Cd	114	32.000			
Rh	103	581718.755			
Lu	175	868821.646			
Hg	200	14.667			
Tm	169	716592.309			
Pb	206	91.667			
Pb	207	68.334			
Pb	208	206.336			
Pb-1	208	572.672			

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.25 ppb
 Sample Date/Time: Wednesday, October 10, 2007 14:20:08
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\0.25 ppb.005
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 14:20:08 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	255223.216	254720.029		
As	75	386.453	80.889	0.000262	5.324
Cd	114	1127.403	32.000	0.000259	5.205
Rh	103	585247.664	581718.755		
Lu	175	871031.622	868821.646		
Hg	200	250.226	14.667	0.000266	11.578
Tm	169	727966.359	716592.309		
Pb	206	1389.106	91.667	0.000250	2.737
Pb	207	1063.396	68.334	0.000250	2.698
Pb	208	2773.090	206.336	0.000254	1.282
Pb-1	208	7998.681	572.672	0.000253	1.483

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.5 ppb
Sample Date/Time: Wednesday, October 10, 2007 14:21:29
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\0.5 ppb.006
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 14:21:29 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	256908.530	254720.029		
As	75	679.581	80.889	0.000510	3.730
Cd	114	2283.620	32.000	0.000528	0.640
Rh	103	591473.037	581718.755		
Lu	175	878149.804	868821.646		
Hg	200	468.012	14.667	0.000508	1.576
Tm	169	727767.322	716592.309		
Pb	206	2684.063	91.667	0.000500	3.822
Pb	207	2085.239	68.334	0.000508	2.627
Pb	208	5302.213	206.336	0.000505	2.349
Pb-1	208	15373.729	572.672	0.000505	1.454

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 2.0 ppb
 Sample Date/Time: Wednesday, October 10, 2007 14:22:49
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\2.0 ppb.007
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 14:22:49 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	315638.430	254720.029		
As	75	512.019	80.889	0.000342	87.397
Cd	114	1641.533	32.000	0.000360	78.705
Rh	103	719086.380	581718.755		
Lu	175	1093167.306	868821.646		
Hg	200	339.119	14.667	0.000334	72.528
Tm	169	903115.525	716592.309		
Pb	206	1958.935	91.667	0.000338	75.773
Pb	207	1528.496	68.334	0.000344	75.122
Pb	208	3972.424	206.336	0.000349	75.381
Pb-1	208	11432.279	572.672	0.000347	75.366

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74						
[	As	75						
[	Cd	114						
>	Rh	103						
>	Lu	175						
[	Hg	200						
>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 10.0 ppb
 Sample Date/Time: Wednesday, October 10, 2007 14:24:10
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\10.0 ppb.008
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 14:24:10 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	257493.304	254720.029		
As	75	11992.795	80.889	0.010141	0.383
Cd	114	43586.917	32.000	0.010176	0.525
Rh	103	593445.487	581718.755		
Lu	175	878535.177	868821.646		
Hg	200	4609.391	14.667	0.005145	0.730
Tm	169	730581.327	716592.309		
Pb	206	52174.981	91.667	0.010015	0.938
Pb	207	39796.587	68.334	0.009967	1.736
Pb	208	100980.420	206.336	0.009959	2.052
Pb-1	208	293932.409	572.672	0.009970	1.735

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74						
L	As	75						
[	Cd	114						
>	Rh	103						
>	Lu	175						
L	Hg	200						
>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
L	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 20.0 ppb
 Sample Date/Time: Wednesday, October 10, 2007 14:25:30
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\20.0 ppb.009
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 14:25:30 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	258672.842	254720.029		
As	75	23892.913	80.889	0.020182	1.223
Cd	114	86422.874	32.000	0.020076	0.940
Rh	103	596636.313	581718.755		
Lu	175	892285.905	868821.646		
Hg	200	9079.199	14.667	0.009993	0.825
Tm	169	738058.459	716592.309		
Pb	206	106013.029	91.667	0.020159	1.587
Pb	207	80870.830	68.334	0.020061	1.123
Pb	208	204886.568	206.336	0.020017	1.481
Pb-1	208	596656.996	572.672	0.020048	1.450

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 50.0 ppb
 Sample Date/Time: Wednesday, October 10, 2007 14:26:51
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\50.0 ppb.010
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 14:26:51 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	259577.781	254720.029		
As	75	59905.183	80.889	0.050523	0.349
Cd	114	217066.501	32.000	0.050493	1.263
Rh	103	595979.370	581718.755		
Lu	175	889867.798	868821.646		
Hg	200	117.112	14.667	0.000113	10.501
Tm	169	739671.981	716592.309		
Pb	206	264439.272	91.667	0.050205	0.651
Pb	207	203264.809	68.334	0.050343	1.303
Pb	208	513822.064	206.336	0.050126	1.237
Pb-1	208	1495348.209	572.672	0.050169	1.131

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 125.0 ppb
 Sample Date/Time: Wednesday, October 10, 2007 14:28:12
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\125.0 ppb.011
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 14:28:12 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	260770.472	254720.029		
As	75	148509.291	80.889	0.124777	0.647
Cd	114	541911.803	32.000	0.124803	0.146
Rh	103	602011.539	581718.755		
Lu	175	911786.281	868821.646		
Hg	200	63.334	14.667	0.000052	12.162
Tm	169	755951.349	716592.309		
Pb	206	672328.491	91.667	0.124918	0.734
Pb	207	515226.071	68.334	0.124882	1.043
Pb	208	1308965.839	206.336	0.124977	1.135
Pb-1	208	3805486.240	572.672	0.124954	1.010

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std	% Recovery	QC Std	% Recovery	Duplicate Rel.	% Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74									
[	As	75									
[	Cd	114									
[>	Rh	103									
[>	Lu	175									
[	Hg	200									
[>	Tm	169									
[	Pb	206									
[	Pb	207									
[	Pb	208									
[	Pb-1	208									

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICV
 Sample Date/Time: Wednesday, October 10, 2007 14:45:48
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\CCV.024
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 14:45:48 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	268500.292	254720.029		
As	75	76232.739	80.889	0.062173	0.422
Cd	114	274269.466	32.000	0.060627	0.913
Rh	103	627154.222	581718.755		
Lu	175	941757.029	868821.646		
Hg	200	5854.107	14.667	0.006099	0.684
Tm	169	779894.229	716592.309		
Pb	206	321367.375	91.667	0.057866	0.839
Pb	207	274324.744	68.334	0.064440	0.743
Pb	208	668235.641	206.336	0.061828	0.921
Pb-1	208	1932163.401	572.672	0.061482	0.868

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		105.410				
|	As	75			103.622			
|	Cd	114			101.046			
[>	Rh	103		107.811				
[>	Lu	175		108.395				
|	Hg	200			101.646			
[>	Tm	169		108.834				
|	Pb	206			96.444			
|	Pb	207			107.400			
|	Pb	208			103.047			
|	Pb-1	208			102.470			

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICB

Sample Date/Time: Wednesday, October 10, 2007 14:47:11

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\CCB.025

Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 14:47:11 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	267215.030	254720.029		
As	75	63.334	80.889	-0.000018	57.384
Cd	114	58.667	32.000	0.000006	32.812
Rh	103	615188.249	581718.755		
Lu	175	929415.545	868821.646		
Hg	200	89.334	14.667	0.000078	3.527
Tm	169	763205.456	716592.309		
Pb	206	411.009	91.667	0.000058	9.677
Pb	207	345.007	68.334	0.000065	2.007
Pb	208	871.375	206.336	0.000062	7.982
Pb-1	208	2498.766	572.672	0.000061	6.250

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		104.905				
[	As	75						
[	Cd	114						
[>	Rh	103		105.754				
[>	Lu	175		106.974				
[	Hg	200						
[>	Tm	169		106.505				
[	Pb	206						
[	Pb	207						
[Pb	208						
[Pb-1	208						

Sample ID: ICB

Report Date/Time: Monday, October 15, 2007 15:55:09

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22685
 Sample Date/Time: Wednesday, October 10, 2007 14:57:58
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22685.033
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL): 49.937
 Initial Sample Quantity (mg): 492.000
 Aliquot Volume (mL): 5.106
 Diluted to Volume (mL): 49.459
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 14:57:58 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	229708.976	254720.029		
As	75	12530.853	80.889	11.688864	0.465
Cd	114	45691.204	32.000	11.298335	0.760
Rh	103	550916.478	581718.755		
Lu	175	940484.464	868821.646		
Hg	200	641.134	14.667	0.642943	4.566
Tm	169	776235.319	716592.309		
Pb	206	6849577.294	91.667	1218.716993	0.617
Pb	207	5767360.136	68.334	1338.609251	0.347
Pb	208	14378299.027	206.336	1314.582566	0.613
Pb-1	208	41373535.484	572.672	1300.896090	0.508

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	90.181				
	As 75					
	Cd 114					
>	Rh 103	94.705				
>	Lu 175	108.248				
	Hg 200					
>	Tm 169	108.323				
	Pb 206					
	Pb 207					
	Pb 208					
	Pb-1 208					

(10) Results are over
 calibration range.
 See ICP data from 10-16-07
 CWT 10-29-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22686

Sample Date/Time: Wednesday, October 10, 2007 14:59:18

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22686.034

Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal

Sample Prep Volume (mL): 49.469

Initial Sample Quantity (mg): 540.000

Allquot Volume (mL): 5.305

Diluted to Volume (mL): 49.904

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 14:59:18 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	215505.047	254720.029		
As	75	7500.649	80.889	6.515241	1.115
Cd	114	1086.065	32.000	0.242921 BDL	0.733
Rh	103	520141.195	581718.755		
Lu	175	905279.211	868821.646		
Hg	200	44.667	14.667	0.027505 BDL	15.068
Tm	169	740937.690	716592.309		
Pb	206	68635.125	91.667	11.198680	0.983
Pb	207	54007.954	68.334	11.496012	0.283
Pb	208	136646.669	206.336	11.454660	0.774
Pb-1	208	395936.416	572.672	11.415026	0.686

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	84.605				
|	As	75					
|	Cd	114					
>	Rh	103	89.415				
>	Lu	175	104.196				
|	Hg	200					
>	Tm	169	103.397				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Cd + Hg are BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Cx 10-29-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22687
Sample Date/Time: Wednesday, October 10, 2007 15:00:39
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22687.035
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL): 50.488
Initial Sample Quantity (mg): 479.000
Aliquot Volume (mL): 5.178
Diluted to Volume (mL): 51.065
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:00:39 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	225031.374	254720.029		
As	75	10315.850	80.889	10.373953	0.289
Cd	114	21363.741	32.000	5.699968	0.621
Rh	103	539443.511	581718.755		
Lu	175	922850.216	868821.646		
Hg	200	792.257	14.667	0.860706	4.177
Tm	169	758385.402	716592.309		
Pb	206	4562190.045	91.667	878.374206	0.773
Pb	207	3797981.027	68.334	953.921285	0.352
Pb	208	9486437.169	206.336	938.558766	0.395
Pb-1	208	27333045.409	572.672	980.004106	0.409

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	88.345				
[	As	75					
[	Cd	114					
[>	Rh	103	92.733				
[>	Lu	175	106.219				
[	Hg	200					
[>	Tm	169	105.832				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

⑩ Results are over the calibration range for Pb. See ICP data from 10.16.07. CRT 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV

Sample Date/Time: Wednesday, October 10, 2007 15:02:03

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\CCV.036

Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:02:03 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	250551.960	254720.029		
As	75	71334.786	80.889	0.062348	0.778
Cd	114	262802.471	32.000	0.060922	1.034
Rh	103	598067.626	581718.755		
Lu	175	924494.344	868821.646		
Hg	200	6005.539	14.667	0.006375	1.060
Tm	169	769018.235	716592.309		
Pb	206	330083.113	91.667	0.060283	1.080
Pb	207	281923.717	68.334	0.067171	1.385
Pb	208	690391.623	206.336	0.064788	0.758
Pb-1	208	1992790.076	572.672	0.064314	0.846

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		98.364				
[	As	75			103.914			
[	Cd	114			101.536			
[>	Rh	103		102.810				
[>	Lu	175		106.408				
[	Hg	200			106.245			
[>	Tm	169		107.316				
[	Pb	206			100.472			
[	Pb	207			111.952			
[	Pb	208			107.979			
[Pb-1	208			107.191			

Sample ID: CCV

Report Date/Time: Monday, October 15, 2007 15:55:39

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A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
Sample Date/Time: Wednesday, October 10, 2007 15:03:26
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\CCB.037
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:03:26 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	248774.946	254720.029		
As	75	62.445	80.889	-0.000015	41.797
Cd	114	80.667	32.000	0.000011	32.624
Rh	103	587374.642	581718.755		
Lu	175	912937.736	868821.646		
Hg	200	79.778	14.667	0.000069	10.789
Tm	169	755637.021	716592.309		
Pb	206	570.685	91.667	0.000088	8.255
Pb	207	460.678	68.334	0.000094	4.440
Pb	208	1190.412	206.336	0.000093	10.135
Pb-1	208	3412.186	572.672	0.000092	8.710

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		97.666				
[	As	75						
[	Cd	114						
[>	Rh	103		100.972				
[>	Lu	175		105.078				
[	Hg	200						
[>	Tm	169		105.449				
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mblank
Sample Date/Time: Wednesday, October 10, 2007 15:04:48
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\Mblank.038
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:04:48 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	248036.940	254720.029		
As	75	66.222	80.889	-0.000011	36.336
Cd	114	91.334	32.000	0.000014	4.678
Rh	103	581769.453	581718.755		
Lu	175	907324.124	868821.646		
Hg	200	53.111	14.667	0.000041	24.435
Tm	169	751074.521	716592.309		
Pb	206	570.685	91.667	0.000089	8.331
Pb	207	487.346	68.334	0.000101	6.004
Pb	208	1168.742	206.336	0.000092	5.726
Pb-1	208	3395.515	572.672	0.000092	5.777

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	97.376				
[	As	75					
[	Cd	114					
[>	Rh	103	100.009				
[>	Lu	175	104.432				
[	Hg	200					
[>	Tm	169	104.812				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22688

Sample Date/Time: Wednesday, October 10, 2007 15:06:09

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22688.039

Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal

Sample Prep Volume (mL): 50.290

Initial Sample Quantity (mg): 490.000

Allquot Volume (mL): 5.646

Diluted to Volume (mL): 50.044

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:06:09 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	239772.364	254720.029		
As	75	13151.729	80.889	10.876332	1.496
Cd	114	1392.774	32.000	0.303960	7.959
Rh	103	565301.656	581718.755		
Lu	175	917671.194	868821.646		
Hg	200	93.556	14.667	0.076148 BDL	9.781
Tm	169	750886.794	716592.309		
Pb	206	83654.155	91.667	14.220851	0.538
Pb	207	67471.128	68.334	14.964126	0.658
Pb	208	169336.269	206.336	14.790986	1.012
Pb-1	208	489797.822	572.672	14.713687	0.875

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	94.132				
L	As 75					
L	Cd 114					
>	Rh 103	97.178				
>	Lu 175	105.623				
L	Hg 200					
>	Tm 169	104.786				
|	Pb 206					
|	Pb 207					
|	Pb 208					
L	Pb-1 208					

(10) Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Cut 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22689

Sample Date/Time: Wednesday, October 10, 2007 15:07:29

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22689.040

Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal

Sample Prep Volume (mL): 50.162

Initial Sample Quantity (mg): 529.000

Aliquot Volume (mL): 5.291

Diluted to Volume (mL): 49.956

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:07:29 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	202563.550	254720.029		
As	75	112098.230	80.889	108.556740	0.624
Cd	114	136540.433	32.000	34.056997	0.485
Rh	103	497578.243	581718.755		
Lu	175	889472.615	868821.646		
Hg	200	2977.154	14.667	2.933784	3.129
Tm	169	725835.128	716592.309		
Pb	206	85578337.553	91.667	14830.462642	1.705
Pb	207	70597043.449	68.334	15959.616208	1.644
Pb	208	177333113.319	206.336	15792.263932	2.246
Pb-1	208	510841607.640	572.672	15644.965668	2.072

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		79.524				
[	As	75						
[	Cd	114						
>	Rh	103		85.536				
>	Lu	175		102.377				
[	Hg	200						
>	Tm	169		101.290				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

(10) Results are over the calibration range for Pb See ICP data from 10.16.07. ckt 10.29-07

Sample ID: 22689

Report Date/Time: Monday, October 15, 2007 15:55:46

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22690

Sample Date/Time: Wednesday, October 10, 2007 15:08:50

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22690.041

Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal

Sample Prep Volume (mL): 50.458

Initial Sample Quantity (mg): 512.000

Allquot Volume (mL): 5.060

Diluted to Volume (mL): 49.992

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:08:50 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	218595.500	254720.029		
As	75	24716.444	80.889	24.066960	0.218
Cd	114	78425.514	32.000	20.606870	1.456
Rh	103	513634.267	581718.755		
Lu	175	870187.253	868821.646		
Hg	200	899.156	14.667	0.973684	1.261
Tm	169	709849.101	716592.309		
Pb	206	22450024.105	91.667	4325.949073	0.777
Pb	207	18490323.851	68.334	4647.838831	0.560
Pb	208	46398239.322	206.336	4594.264817	0.946
Pb-1	208	133736826.599	572.672	4554.105732	0.862

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	85.818				
[	As 75					
[	Cd 114					
>	Rh 103	88.296				
>	Lu 175	100.157				
[	Hg 200					
>	Tm 169	99.059				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ Results are over the
Calibration range for Pb.
See ICP data from 10.16.07
CU 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22691
Sample Date/Time: Wednesday, October 10, 2007 15:10:11
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22691.042
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL): 50.606
Initial Sample Quantity (mg): 569.000
Aliquot Volume (mL): 5.623
Diluted to Volume (mL): 50.441
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:10:11 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	226733.679	254720.029		
As	75	11745.360	80.889	9.005638	1.328
Cd	114	2074.903	32.000	0.417415	1.971
Rh	103	542028.784	581718.755		
Lu	175	905670.052	868821.646		
Hg	200	103.778	14.667	0.078659 BDL	6.755
Tm	169	747574.823	716592.309		
Pb	206	166714.788	91.667	24.983528	1.791
Pb	207	135228.365	68.334	26.437828	2.034
Pb	208	340861.930	206.336	26.247577	2.099
Pb-1	208	983667.012	572.672	26.049968	2.023

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		89.013				
L	As	75						
L	Cd	114						
>	Rh	103		93.177				
>	Lu	175		104.241				
L	Hg	200						
>	Tm	169		104.324				
L	Pb	206						
L	Pb	207						
L	Pb	208						
L	Pb-1	208						

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. CUT 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22692
 Sample Date/Time: Wednesday, October 10, 2007 15:11:31
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22692.043
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL): 50.770
 Initial Sample Quantity (mg): 578.000
 Aliquot Volume (mL): 5.610
 Diluted to Volume (mL): 50.051
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:11:31 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	240332.314	254720.029		
As	75	12143.438	80.889	8.626404	0.874
Cd	114	2196.932	32.000	0.414462	3.214
Rh	103	567885.419	581718.755		
Lu	175	931248.195	868821.646		
Hg	200	646.245	14.667	0.521917	2.702
Tm	169	764786.350	716592.309		
Pb	206	1162937.963	91.667	167.390085	1.402
Pb	207	949881.031	68.334	178.356784	1.410
Pb	208	2488375.550	206.336	184.044127	0.663
Pb-1	208	7089570.093	572.672	180.330575	0.883

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	94.352				
|	As 75					
|	Cd 114					
>	Rh 103	97.622				
>	Lu 175	107.185				
|	Hg 200					
>	Tm 169	106.725				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

(10) Results are over the
 calibration range for Pb. See
 ICP data from 10.16.07.
 Oct 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22693
Sample Date/Time: Wednesday, October 10, 2007 15:12:52
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22693.044
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL): 50.194
Initial Sample Quantity (mg): 521.000
Aliquot Volume (mL): 5.026
Diluted to Volume (mL): 50.477
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:12:52 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	249744.232	254720.029		
As	75	7536.234	80.889	6.333610	1.498
Cd	114	584.019	32.000	0.126555 BDL	2.985
Rh	103	585128.437	581718.755		
Lu	175	922000.563	868821.646		
Hg	200	53.556	14.667	0.039214 BDL	31.251
Tm	169	757921.339	716592.309		
Pb	206	59633.281	91.667	10.677857	1.149
Pb	207	48469.548	68.334	11.324267	2.383
Pb	208	121568.836	206.336	11.184543	2.106
Pb-1	208	351240.500	572.672	11.113930	1.944

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	98.047				
[	As	75					
[	Cd	114					
[>	Rh	103	100.586				
[>	Lu	175	106.121				
[	Hg	200					
[>	Tm	169	105.767				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Cd + Hg are BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Oct 10-29-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22694
Sample Date/Time: Wednesday, October 10, 2007 15:14:12
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22694.045
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL): 50.172
Initial Sample Quantity (mg): 505.000
Aliquot Volume (mL): 5.270
Diluted to Volume (mL): 50.200
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:14:12 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	240983.731	254720.029		
As	75	16230.698	80.889	13.908202	0.775
Cd	114	5693.783	32.000	1.284346	0.990
Rh	103	578469.156	581718.755		
Lu	175	949675.366	868821.646		
Hg	200	155.779	14.667	0.137112 BDL	7.306
Tm	169	788703.695	716592.309		
Pb	206	26792700.408	91.667	4516.830347	1.382
Pb	207	22762119.675	68.334	5006.085648	1.926
Pb	208	56559790.521	206.336	4900.279992	2.411
Pb-1	208	162674401.125	572.672	4846.850218	2.157

QC Calculated Values

InterAnal	Mass	Std	Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		94.607				
[	As	75						
[	Cd	114						
>	Rh	103		99.441				
>	Lu	175		109.306				
[	Hg	200						
>	Tm	169		110.063				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, the Pb results are over the calibration range. See ICP data from 10.16.07. Ckt 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mcontrol
 Sample Date/Time: Wednesday, October 10, 2007 15:15:33
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\Mcontrol.046
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:15:33 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	243335.020	254720.029		
As	75	613019.959	80.889	0.552214	0.360
Cd	114	2244172.783	32.000	0.549626	1.331
Rh	103	566149.010	581718.755		
Lu	175	937110.991	868821.646		
Hg	200	594.242	14.667	0.000607	2.784
Tm	169	772149.156	716592.309		
Pb	206	3016169.074	91.667	0.548793	1.426
Pb	207	2579005.046	68.334	0.612172	1.875
Pb	208	6278984.907	206.336	0.587093	1.874
Pb-1	208	18153143.935	572.672	0.583722	1.798

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	95.530				
[	As	75				110.445	
[	Cd	114				109.922	
[>	Rh	103	97.323				
[>	Lu	175	107.860				
[	Hg	200				113.280	
[>	Tm	169	107.753				
[	Pb	206				109.741	
[	Pb	207				122.414	
[	Pb	208				117.400	
[	Pb-1	208				116.726	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22695
Sample Date/Time: Wednesday, October 10, 2007 15:16:54
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\Elandata_icpms\DataSet\101007 Avant 277-1,2\22695.047
Calibration File: C:\Elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL): 50.426
Initial Sample Quantity (mg): 480.000
Aliquot Volume (mL): 4.993
Diluted to Volume (mL): 50.156
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:16:54 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	227403.626	254720.029		
As	75	8546.238	80.889	8.621125	0.211
Cd	114	23103.322	32.000	6.198734	2.113
Rh	103	544714.988	581718.755		
Lu	175	930119.678	868821.646		
Hg	200	944.271	14.667	1.036257	3.311
Tm	169	765628.749	716592.309		
Pb	206	2897900.520	91.667	561.105231	0.996
Pb	207	2427766.579	68.334	613.221059	0.894
Pb	208	5971318.534	206.336	594.143097	1.745
Pb-1	208	17268304.166	572.672	590.889116	1.453

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	89.276				
[	As 75					
[	Cd 114					
[>	Rh 103	93.639				
[>	Lu 175	107.055				
[	Hg 200					
[>	Tm 169	106.843				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ Results are over the
Calibration range for Pb.
See ICP data from 10.16.07
Clt. 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Wednesday, October 10, 2007 15:18:16
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\CCV.048
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:18:16 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	253232.853	254720.029		
As	75	71874.341	80.889	0.062154	0.761
Cd	114	262545.914	32.000	0.060982	0.323
Rh	103	596864.962	581718.755		
Lu	175	921447.836	868821.646		
Hg	200	5814.081	14.667	0.006191	1.196
Tm	169	760071.469	716592.309		
Pb	206	320152.953	91.667	0.059154	0.651
Pb	207	272886.115	68.334	0.065779	0.934
Pb	208	665695.260	206.336	0.063203	0.692
Pb-1	208	1924429.588	572.672	0.062836	0.579

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	99.416				
[	As	75		103.590			
[	Cd	114		101.636			
[>	Rh	103	102.604				
[>	Lu	175	106.057				
[	Hg	200		103.179			
[>	Tm	169	106.067				
[	Pb	206		98.590			
[	Pb	207		109.631			
[	Pb	208		105.338			
[	Pb-1	208		104.727			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB

Sample Date/Time: Wednesday, October 10, 2007 15:19:39

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam

Method File:

Dataset File: C:\elandata\icpms\DataSet\101007 Avant 277-1,2\CCB.049

Calibration File: C:\elandata\icpms\System\October 2007\101007 277-2 Avant.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:19:39 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	251649.122	254720.029		
As	75	79.556	80.889	-0.000000	2515.972
Cd	114	88.667	32.000	0.000013	45.571
Rh	103	594741.094	581718.755		
Lu	175	916554.564	868821.646		
Hg	200	69.334	14.667	0.000058	13.238
Tm	169	758767.073	716592.309		
Pb	206	1387.773	91.667	0.000239	4.402
Pb	207	1116.735	68.334	0.000252	0.676
Pb	208	2778.758	206.336	0.000244	4.158
Pb-1	208	8062.024	572.672	0.000244	2.973

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	98.794				
[	As	75					
[	Cd	114					
[>	Rh	103	102.239				
[>	Lu	175	105.494				
[	Hg	200					
[>	Tm	169	105.885				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22696
 Sample Date/Time: Wednesday, October 10, 2007 15:21:02
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\Elandata\icpms\DataSet\101007 Avant 277-1,2\22696.050
 Calibration File: C:\Elandata\icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL): 50.440
 Initial Sample Quantity (mg): 539.000
 Aliquot Volume (mL): 4.969
 Diluted to Volume (mL): 50.035
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:21:02 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	247071.392	254720.029		
As	75	11117.906	80.889	9.230389	0.955
Cd	114	974.719	32.000	0.242457 BDL	9.445
Rh	103	579587.434	581718.755		
Lu	175	931553.478	868821.646		
Hg	200	110.223	14.667	0.094097 BDL	13.570
Tm	169	766978.588	716592.309		
Pb	206	63139.518	91.667	10.880222	0.826
Pb	207	50748.285	68.334	11.409288	1.893
Pb	208	127462.051	206.336	11.284723	0.950
Pb-1	208	368811.905	572.672	11.230114	1.046

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	96.997				
[	As	75					
[	Cd	114					
>	Rh	103	99.634				
>	Lu	175	107.220				
[	Hg	200					
>	Tm	169	107.031				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

⑩ Cd + Hg are BDL, because the sample intensity is less than the intensity of the lowest calibration standard.

Cut 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22697

Sample Date/Time: Wednesday, October 10, 2007 15:22:23

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22697.051

Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal

Sample Prep Volume (mL): 50.237

Initial Sample Quantity (mg): 504.000

Aliquot Volume (mL): 5.233

Diluted to Volume (mL): 50.138

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:22:23 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	214636.775	254720.029		
As	75	5671.991	80.889	5.466267	1.069
Cd	114	3048.512	32.000	0.786762	3.170
Rh	103	508296.393	581718.755		
Lu	175	888110.497	868821.646		
Hg	200	157.779	14.667	0.154072 BDL	8.812
Tm	169	728913.095	716592.309		
Pb	206	544420.750	91.667	100.185070	0.435
Pb	207	452902.808	68.334	108.724561	0.407
Pb	208	1130700.288	206.336	106.918725	0.412
Pb-1	208	3258724.134	572.672	105.973389	0.403

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	84.264				
|	As	75					
|	Cd	114					
>	Rh	103	87.378				
>	Lu	175	102.220				
|	Hg	200					
>	Tm	169	101.719				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Hg is BDL because the sample intensity is less than the intensity of the lowest calibration standard.
Oct 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22698
 Sample Date/Time: Wednesday, October 10, 2007 15:23:44
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22698.052
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL): 50.807
 Initial Sample Quantity (mg): 500.000
 Aliquot Volume (mL): 5.510
 Diluted to Volume (mL): 50.786
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:23:44 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	241538.159	254720.029		
As	75	2008.889	80.889	1.642544	3.784
Cd	114	372.008	32.000	0.078582 BDL	4.656
Rh	103	563597.443	581718.755		
Lu	175	895329.662	868821.646		
Hg	200	64.889	14.667	0.051224 BDL	4.680
Tm	169	743713.406	716592.309		
Pb	206	28369.200	91.667	5.002730	1.233
Pb	207	23076.255	68.334	5.310110	1.628
Pb	208	57883.368	206.336	5.244897	3.151
Pb-1	208	167212.190	572.672	5.210936	2.555

QC Calculated Values

InterAnalyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	94.825				
[	As	75					
[	Cd	114					
>	Rh	103	96.885				
>	Lu	175	103.051				
[	Hg	200					
>	Tm	169	103.785				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Sample is BDL for Hg + Cd,

because the intensity is less than the intensity of the lowest calibration standard.

CUT 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22698-2
 Sample Date/Time: Wednesday, October 10, 2007 15:25:04
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22698-2.053
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL): 50.400
 Initial Sample Quantity (mg): 494.000
 Aliquot Volume (mL): 5.094
 Diluted to Volume (mL): 49.447
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:25:04 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	244278.374	254720.029		
As	75	1939.985	80.889	1.655290	0.746
Cd	114	324.673	32.000	0.070284	12.428
Rh	103	572909.055	581718.755		
Lu	175	910496.623	868821.646		
Hg	200	62.222	14.667	0.050195	22.393
Tm	169	746927.796	716592.309		
Pb	206	27387.194	91.667	5.083114	0.620
Pb	207	22300.654	68.334	5.401036	0.484
Pb	208	55817.532	206.336	5.321789	1.838
Pb-1	208	161322.913	572.672	5.290346	1.188

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		95.901				
[	As	75				0.773		
[	Cd	114				11.149		
[>	Rh	103		98.486				
[>	Lu	175		104.797				
[	Hg	200				2.028		
[>	Tm	169		104.233				
|	Pb	206				1.594		
|	Pb	207				1.698		
|	Pb	208				1.455		
[	Pb-1	208				1.512		

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22698-S1
 Sample Date/Time: Wednesday, October 10, 2007 15:26:25
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22698-S1.054
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL): 51.223
 Initial Sample Quantity (mg): 497.000
 Aliquot Volume (mL): 5.059
 Diluted to Volume (mL): 50.716
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:26:25 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	253728.355	254720.029		
As	75	608410.735	80.889	543.094975	0.775
Cd	114	2218133.928	32.000	536.998344	0.778
Rh	103	591711.837	581718.755		
Lu	175	946530.346	868821.646		
Hg	200	546.905	14.667	0.570217	6.254
Tm	169	776561.798	716592.309		
Pb	206	3010215.868	91.667	562.605407	0.988
Pb	207	2570416.217	68.334	626.699975	1.508
Pb	208	6256854.249	206.336	600.906058	1.584
Pb-1	208	18094340.583	572.672	597.631840	1.437

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	99.611				
[	As	75				104.777	
[	Cd	114				103.931	
[>	Rh	103	101.718				
[>	Lu	175	108.944				
[	Hg	200				99.439	
[>	Tm	169	108.369				
[	Pb	206				107.836	
[	Pb	207				120.177	
[	Pb	208				115.198	
[	Pb-1	208				114.572	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22698-S2

Sample Date/Time: Wednesday, October 10, 2007 15:27:46

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22698-S2.055

Calibration File:

Sample Prep Volume (mL): 49.231

Initial Sample Quantity (mg): 509.000

Aliquot Volume (mL): 4.684

Diluted to Volume (mL): 49.757

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:27:46 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	257335.183	254720.029		
As	75	609856.369	80.889	533.752362	0.742
Cd	114	2237614.446	32.000	528.110412	0.786
Rh	103	603592.454	581718.755		
Lu	175	963124.098	868821.646		
Hg	200	544.683	14.667	0.554532	3.968
Tm	169	787492.620	716592.309		
Pb	206	3020504.021	91.667	553.592412	1.071
Pb	207	2583772.095	68.334	617.747486	0.859
Pb	208	6252804.578	206.336	588.886189	1.233
Pb-1	208	18109885.272	572.672	586.558877	1.150

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	101.027				
[	As	75			1.735	103.548	
[	Cd	114			1.669	102.784	
[>	Rh	103	103.760				
[>	Lu	175	110.854				
[	Hg	200			2.789	97.006	
[>	Tm	169	109.894				
|	Pb	206			1.615	106.693	
|	Pb	207			1.439	119.115	
|	Pb	208			2.020	113.511	
[	Pb-1	208			1.870	113.066	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22699
 Sample Date/Time: Wednesday, October 10, 2007 15:29:07
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\Elandata_icpms\DataSet\101007 Avant 277-1,2\22699.056
 Calibration File: C:\Elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL): 50.379
 Initial Sample Quantity (mg): 542.000
 Aliquot Volume (mL): 5.344
 Diluted to Volume (mL): 50.150
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:29:07 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	212302.088	254720.029		
As	75	6217.237	80.889	5.539286	0.194
Cd	114	13421.904	32.000	3.189031	1.795
Rh	103	507960.710	581718.755		
Lu	175	900207.300	868821.646		
Hg	200	290.449	14.667	0.262392	2.412
Tm	169	741587.189	716592.309		
Pb	206	3303355.898	91.667	545.809089	0.355
Pb	207	2777276.283	68.334	598.628411	0.610
Pb	208	6897729.332	206.336	585.646824	0.413
Pb-1	208	19876090.846	572.672	580.365036	0.416

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	83.347				
|	As 75					
|	Cd 114					
>	Rh 103	87.321				
>	Lu 175	103.612				
|	Hg 200					
>	Tm 169	103.488				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

⑩ Results are over the
 Calibration range for Pb. See
 ICP data from 10-16-07.
 Cnt 10-29-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22700
Sample Date/Time: Wednesday, October 10, 2007 15:30:28
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22700.057
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL): 50.788
Initial Sample Quantity (mg): 531.000
Aliquot Volume (mL): 4.852
Diluted to Volume (mL): 50.270
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:30:28 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	238956.876	254720.029		
As	75	3025.170	80.889	2.681054	1.194
Cd	114	2510.347	32.000	0.608583	3.817
Rh	103	559793.568	581718.755		
Lu	175	904059.400	868821.646		
Hg	200	71.111	14.667	0.000202 BDL	10.182
Tm	169	748405.628	716592.309		
Pb	206	353175.521	91.667	65.672487	0.566
Pb	207	292237.484	68.334	70.891902	0.762
Pb	208	730786.587	206.336	69.827986	0.122
Pb-1	208	2106986.178	572.672	69.237755	0.115

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
> Ge	74	93.812				
As	75					
Cd	114					
> Rh	103	96.231				
> Lu	175	104.056				
Hg	200					
> Tm	169	104.440				
Pb	206					
Pb	207					
Pb	208					
Pb-1	208					

(10) Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Cnt 10.29-01

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22701
Sample Date/Time: Wednesday, October 10, 2007 15:31:48
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22701.058
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL): 49.201
Initial Sample Quantity (mg): 511.000
Aliquot Volume (mL): 4.886
Diluted to Volume (mL): 50.014
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:31:48 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	207266.012	254720.029		
As	75	6081.591	80.889	6.270728	2.812
Cd	114	95739.501	32.000	26.387647	0.704
Rh	103	495685.271	581718.755		
Lu	175	912947.718	868821.646		
Hg	200	341.118	14.667	0.345936	8.040
Tm	169	752318.470	716592.309		
Pb	206	169801314.942	91.667	31249.837396	1.703
Pb	207	145354499.317	68.334	34896.751954	2.018
Pb	208	363962496.703	206.336	34419.856043	2.062
Pb-1	208	1043080807.665	572.672	33924.255716	1.991

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	81.370				
[	As 75					
[	Cd 114					
[>	Rh 103	85.210				
[>	Lu 175	105.079				
[	Hg 200					
[>	Tm 169	104.986				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ Results are over the calibration range for Pb. See ICP data from 10.16.07. Cnt 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22702
 Sample Date/Time: Wednesday, October 10, 2007 15:33:09
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata\icpms\DataSet\101007 Avant 277-1,2\22702.059
 Calibration File: C:\elandata\icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL): 50.044
 Initial Sample Quantity (mg): 508.000
 Aliquot Volume (mL): 5.472
 Diluted to Volume (mL): 50.152
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:33:09 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	196935.031	254720.029		
As	75	15058.684	80.889	15.072148	0.240
Cd	114	8196.361	32.000	2.169326	2.246
Rh	103	471483.285	581718.755		
Lu	175	875117.707	868821.646		
Hg	200	274.893	14.667	0.264014	2.219
Tm	169	721248.286	716592.309		
Pb	206	1782586.866	91.667	313.477591	1.183
Pb	207	1486671.925	68.334	341.054419	1.203
Pb	208	3900850.894	206.336	352.498108	1.081
Pb-1	208	11070960.579	572.672	344.052158	1.109

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	77.314				
[	As	75					
[	Cd	114					
[>	Rh	103	81.050				
[>	Lu	175	100.725				
[	Hg	200					
[>	Tm	169	100.650				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

(10) Results are over the calibration range. See ICP data from 10.16.07 for Pb. Cut 10.29.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV

Sample Date/Time: Wednesday, October 10, 2007 15:34:31

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\CCV.060

Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:34:31 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	229554.200	254720.029		
As	75	64910.474	80.889	0.061924	0.796
Cd	114	247853.349	32.000	0.062535	0.598
Rh	103	549479.373	581718.755		
Lu	175	895040.807	868821.646		
Hg	200	5895.022	14.667	0.006463	0.649
Tm	169	738707.695	716592.309		
Pb	206	325954.319	91.667	0.061968	0.361
Pb	207	275824.764	68.334	0.068406	0.496
Pb	208	673813.201	206.336	0.065823	0.620
Pb-1	208	1949405.485	572.672	0.065492	0.454

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	90.120				
[	As	75		103.207			
[	Cd	114		104.225			
[>	Rh	103	94.458				
[>	Lu	175	103.018				
[	Hg	200		107.713			
[>	Tm	169	103.086				
[	Pb	206		103.280			
[	Pb	207		114.010			
[	Pb	208		109.705			
[	Pb-1	208		109.153			

Sample ID: CCV

Report Date/Time: Monday, October 15, 2007 15:56:15

Page 1

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Wednesday, October 10, 2007 15:35:55
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\Elandata\icpms\DataSet\101007 Avant 277-1,2\CCB.061
 Calibration File: C:\Elandata\icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:35:55 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	233190.004	254720.029		
As	75	92.667	80.889	0.000018	68.901
Cd	114	183.335	32.000	0.000039	6.347
Rh	103	548928.837	581718.755		
Lu	175	880839.285	868821.646		
Hg	200	68.222	14.667	0.000060	8.983
Tm	169	727123.231	716592.309		
Pb	206	8135.974	91.667	0.001554	2.609
Pb	207	6927.639	68.334	0.001729	2.061
Pb	208	17196.254	206.336	0.001686	2.231
Pb-1	208	49456.120	572.672	0.001669	2.132

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		91.548				
[	As	75						
[	Cd	114						
[>	Rh	103		94.363				
[>	Lu	175		101.383				
[	Hg	200						
[>	Tm	169		101.470				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22703
Sample Date/Time: Wednesday, October 10, 2007 15:37:17
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22703.062
Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
Sample Prep Volume (mL): 49.406
Initial Sample Quantity (mg): 560.000
Aliquot Volume (mL): 5.132
Diluted to Volume (mL): 50.121
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:37:17 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	232421.555	254720.029		
As	75	5388.932	80.889	4.318790	2.594
Cd	114	518.682	32.000	0.106133 BDL	15.776
Rh	103	550459.040	581718.755		
Lu	175	901848.633	868821.646		
Hg	200	92.223	14.667	0.072326 BDL	16.161
Tm	169	741680.448	716592.309		
Pb	206	38733.343	91.667	6.307068	2.279
Pb	207	31500.820	68.334	6.691977	1.602
Pb	208	78873.696	206.336	6.597889	2.253
Pb-1	208	227981.555	572.672	6.559241	2.117

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	91.246				
[	As 75					
[	Cd 114					
>	Rh 103	94.626				
>	Lu 175	103.801				
[	Hg 200					
>	Tm 169	103.501				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

(10) Cd + Hg are BDL because the sample intensity is less than the intensity of the lowest calibration standard. CRT 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22704
 Sample Date/Time: Wednesday, October 10, 2007 15:38:38
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\22704.063
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL): 49.350
 Initial Sample Quantity (mg): 537.000
 Aliquot Volume (mL): 5.764
 Diluted to Volume (mL): 50.745
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:38:38 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	237439.748	254720.029		
As	75	5581.713	80.889	4.113574	1.736
Cd	114	534.682	32.000	0.101864 BDL	5.881
Rh	103	555219.797	581718.755		
Lu	175	903927.290	868821.646		
Hg	200	75.334	14.667	0.052910 BDL	13.382
Tm	169	747056.076	716592.309		
Pb	206	37707.711	91.667	5.722536	1.092
Pb	207	30394.060	68.334	6.018113	0.363
Pb	208	76339.202	206.336	5.951325	0.707
Pb-1	208	220780.176	572.672	5.919941	0.697

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	93.216				
[	As	75					
[	Cd	114					
>	Rh	103	95.445				
>	Lu	175	104.041				
[	Hg	200					
>	Tm	169	104.251				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Cd + Hg are BDL because
 the sample intensity is less than
 the intensity of the lowest calibration
 standard. CUT 10.29.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Wednesday, October 10, 2007 15:53:29
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\CCV.074
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:53:29 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	252191.303	254720.029		
As	75	71311.042	80.889	0.061920	0.306
Cd	114	259898.287	32.000	0.061489	0.410
Rh	103	585972.329	581718.755		
Lu	175	907910.931	868821.646		
Hg	200	5915.924	14.667	0.006395	1.882
Tm	169	758290.023	716592.309		
Pb	206	321695.330	91.667	0.059580	0.879
Pb	207	274780.387	68.334	0.066389	0.528
Pb	208	678602.004	206.336	0.064581	0.501
Pb-1	208	1953679.726	572.672	0.063942	0.539

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		99.007				
[	As	75			103.200			
[	Cd	114			102.482			
[>	Rh	103		100.731				
[>	Lu	175		104.499				
[	Hg	200			106.580			
[>	Tm	169		105.819				
[	Pb	206			99.300			
[	Pb	207			110.649			
[	Pb	208			107.634			
[	Pb-1	208			106.570			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Wednesday, October 10, 2007 15:54:52
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101007 Avant 277-2.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101007 Avant 277-1,2\CCB.075
 Calibration File: C:\elandata_icpms\System\October 2007\101007 277-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:54:52 Wed 10-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	248244.988	254720.029		
As	75	147.335	80.889	0.000060	16.418
Cd	114	206.669	32.000	0.000042	20.180
Rh	103	579481.654	581718.755		
Lu	175	899779.620	868821.646		
Hg	200	68.667	14.667	0.000059	18.225
Tm	169	741633.340	716592.309		
Pb	206	1211.414	91.667	0.000211	1.928
Pb	207	1008.056	68.334	0.000232	2.875
Pb	208	2432.326	206.336	0.000216	3.339
Pb-1	208	7084.121	572.672	0.000217	2.959

QC Calculated Values

Inter	Anat	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		97.458				
[	As	75						
[	Cd	114						
[>	Rh	103		99.615				
[>	Lu	175		103.563				
[	Hg	200						
[>	Tm	169		103.494				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22805 (As)	HA-2 (0.5')	7.591	0%	106%	108%	2%	BDL	104%
22805 (Cd)	HA-2 (0.5')	0.753	9%	106%	106%	3%	BDL	101%
22805 (Hg)	HA-2 (0.5')	BDL	2%	100%	97%	6%	BDL	89%
22805 (Pb)	HA-2 (0.5')	55.660	4%	109%	110%	3%	BDL	101%

Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22806(As)	HA-2 (1.5')	5.757	3%	103%	107%	5%	BDL	103%
22806 (Cd)	HA-2 (1.5')	BDL	6%	101%	104%	6%	BDL	99%
22806 (Hg)	HA-2 (1.5')	BDL	0%	87%	90%	5%	BDL	92%
22806(Pb)	HA-2 (1.5')	8.701	1%	99%	102%	6%	BDL	95%

Comments:

Julian: 282 142

Date: 10-9-07

Tech: DLG, MCU

1	22783	17	22793	33	22803
2	22784	18	22794	34	22804
3	22785	19	22795	35	22937
4	22786	20	22796	36	22938
5	22787	21	22797	37	22939
6	22788	22	22798	38	22940
7	22789	23	22799	39	22941
8	Blank	24	Blank	40	22942
9	22790	25	22800	41	22943
10	22791	26	22801	42	22944
11	22792	27	22802	43	
12	22805	28	22806	44	
13	22805-2	29	22806-2	45	
14	22806-51	30	22806-51	46	
15	22806-52	31	22806-52	47	
16	Control	32	Control 2	48	

Julian 2021 + 2
Tech > LG, MLCU

Empty Wt (g)	Pre-Digest Wt (g)	Post Digestion Wt (g)	% Change
1 491.601	506.247	506.185	0.423
2 136.592	151.216	151.061	1.051
3 136.470	150.985	150.880	0.720
4 136.407	150.959	150.875	0.577
5 136.393	150.958	150.938	0.137
6 136.334	150.901	150.856	0.309
7 136.423	151.019	150.967	0.356
8 136.304	150.362	150.316	0.327
9 136.517	151.097	151.005	0.631
10 136.287	151.026	150.955	0.482
11 136.590	151.022	151.022	0.462
12 136.547	151.130	151.038	0.631
13 136.529	151.125	151.065	0.411
14 136.849	153.972	153.890	0.479
15 136.451	153.618	153.559	0.344
16 136.699	154.773	154.599	0.963
17 136.589	151.139	150.920	1.505
18 136.719	151.246	151.142	0.716
19 136.505	151.085	151.003	0.562
20 136.705	151.280	151.210	0.480
21 136.432	151.035	150.954	0.555
22 136.463	151.073	151.001	0.493
23 135.867	150.465	150.379	0.589
24 135.918	150.043	149.987	0.396
25 136.602	151.097	150.966	0.904
26 136.508	151.142	151.088	0.369
27 136.434	150.988	150.876	0.770
28 136.550	151.102	151.049	0.364
29 136.791	151.335	151.250	0.584
30 136.246	153.441	153.386	0.320
31 136.310	153.508	153.448	0.349
32 136.616	154.756	154.652	0.573
33 136.320	150.944	150.945	-0.007
34 136.726	151.328	151.189	0.952
35 136.401	151.008	150.927	0.555
36 136.484	151.110	151.059	0.349
37 136.380	150.942	150.870	0.494
38 136.634	150.991	150.027	6.714
39 136.335	150.902	150.769	0.913
40 136.733	151.242	151.137	0.724
41 136.568	151.314	151.239	0.509
42 136.367	150.987	150.919	0.465
43			#DIV/0!
44			#DIV/0!
45			#DIV/0!
46			#DIV/0!
47			#DIV/0!
48			#DIV/0!

282 1+2
METHOD DOCUMENTATION

EPA 3051-48

MF50-T48

Weight:0.25-0.50

Reagents [ml]:

HNO3 10.0

Ph	Temp	Ramp	Hold	Fan
1	175		05:30	0
2	180	04:30		1
3	0		20:00	2
4				

p-Rate:0.5bar/s IR:140°C P:1400W

Drive:Rot

Notes:

sediments, soil, sludge, contaminated
soil and oils (oil <0,25g!)
for 4 and 8 vessels!

PROCESS STATUS

Process Finished

Power reduction at 00:41 (I,S,T)

PROCESS LIMITS

p - Limit [bar]: 20

T - Limit [°C]: 200

IR - Limit [°C]: 140

PROCESS MAXIMA

p - MAX [bar]: 10.3

T - MAX [°C]: 145

IR - MAX	[°C]
1	81
2	100
3	93
4	91
5	94
6	92
7	89
8	89
9	103
10	99
11	102
12	99
13	93
14	87
15	92
16	79

Toil - MAX [°C]: 30.0 Tgas - MAX [°C]: 30.2 Current MAX [A]: 18.5

Tmagn1-MAX [°C]: 110.4 Tmagn2-MAX [°C]: 98.1 Status Word : 00001000

Multiwave V2.01 (PB V15) (c) Anton Paar GmbH Jan 22 2007

Device Name: SN: Sensor:p/T SN:1523

Report printed at 2007-10-09 17:24:44

Process started at 2007-10-09 16:35:00

Process finished 2007-10-09 17:08:06

PERKIN ELMER ICP-MS BATCH REPORT

Sample File: C:\Elandata\Sample\October 2007\101607 Avant 282-1, 285-2.sam

Sample Information

A/S Loc.	Analyst	Batch ID	Sample ID	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
204	CRT	282-1 Avant	22783	501.000	50.042	6.544	50.842
205	CRT	282-1 Avant	22784	501.000	50.179	5.869	50.485
206	CRT	282-1 Avant	22785	498.000	50.393	4.975	50.837
207	CRT	282-1 Avant	22786	495.000	50.090	5.093	51.224
208	CRT	282-1 Avant	22787	496.000	50.116	5.391	49.901
209	CRT	282-1 Avant	22788	507.000	50.027	5.351	48.583
210	CRT	282-1 Avant	22789	498.000	50.088	5.772	48.663
211	CRT	282-1 Avant	Mblank				
212	CRT	282-1 Avant	22790	509.000	50.131	4.978	48.606
213	CRT	282-1 Avant	22791	490.000	50.061	4.890	51.005
214	CRT	282-1 Avant	22792	485.000	50.198	4.927	49.953
215	CRT	282-1 Avant	22805	489.000	50.166	5.421	49.804
216	CRT	282-1 Avant	22805-2	504.000	50.188	5.082	49.494
217	CRT	282-1 Avant	22805-S1	484.000	51.806	5.400	50.729
218	CRT	282-1 Avant	22805-S2	495.000	50.031	5.222	50.122
219	CRT	282-1 Avant	Mcontrol				
220	CRT	282-1 Avant	22793	520.000	50.580	4.978	50.040
221	CRT	282-1 Avant	22794	499.000	50.897	5.121	50.227
301	CRT	282-1 Avant	22795	500.000	51.396	5.131	50.452
302	CRT	282-1 Avant	22796	501.000	49.974	4.917	50.022
303	CRT	282-1 Avant	22797	525.000	49.933	4.733	50.272
304	CRT	282-1 Avant	22798	507.000	49.756	5.300	50.375
305	CRT	282-1 Avant	22799	494.000	50.007	5.582	50.622
306	CRT	282-2 Avant	Mblank				
307	CRT	282-2 Avant	22800	506.000	50.125	5.055	49.999
308	CRT	282-2 Avant	22801	537.000	50.085	5.519	49.835
309	CRT	282-2 Avant	22802	505.000	50.285	5.701	50.511
310	CRT	282-2 Avant	22806	511.000	50.021	5.789	50.487
311	CRT	282-2 Avant	22806-2	500.000	50.057	4.997	50.442
312	CRT	282-2 Avant	22806-S1	499.000	50.357	5.141	50.474
313	CRT	282-2 Avant	22806-S2	526.000	50.044	5.297	50.716
314	CRT	282-2 Avant	Mcontrol				
315	CRT	282-2 Avant	22803	539.000	50.140	6.230	50.306
316	CRT	282-2 Avant	22804	538.000	50.164	5.372	51.383
317	CRT	282-2 Avant	22937	523.000	50.172	5.013	50.404
318	CRT	282-2 Avant	22938	518.000	50.202	5.805	49.746
319	CRT	282-2 Avant	22939	530.000	50.111	5.508	50.887
320	CRT	282-2 Avant	22940	481.000	49.990	5.371	49.374
321	CRT	282-2 Avant	22941	479.000	50.111	5.085	49.689
401	CRT	282-2 Avant	22942	484.000	50.358	4.788	50.888

402	CRT	282-2 Avant	22943	628.000	52.196	5.475	52.123
403	CRT	282-2 Avant	22944	517.000	50.155	4.881	49.624
10	CRT	CCV	CCV				
420	CRT	CCB	CCB				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
1	CRT	precal blank	precal blank				
9	CRT	ICV	ICV				
421	CRT	ICB	ICB				
101	CRT	285-2 Avant	22674	507.000	49.883	4.989	49.950
102	CRT	285-2 Avant	22675	547.000	50.579	5.135	50.479
103	CRT	285-2 Avant	22676	590.000	50.004	5.247	48.689
104	CRT	285-2 Avant	22677	564.000	50.123	5.346	50.303
105	CRT	285-2 Avant	22678	539.000	50.257	5.310	49.653
106	CRT	285-2 Avant	22679	494.000	50.116	5.143	50.418
107	CRT	285-2 Avant	22680	480.000	49.998	5.293	50.000
108	CRT	285-2 Avant	22681	548.000	50.749	5.325	50.056
109	CRT	285-2 Avant	22682	519.000	50.399	5.235	49.953
110	CRT	285-2 Avant	22683	492.000	50.695	5.095	50.220
111	CRT	285-2 Avant	22684	494.000	49.904	4.861	50.103
112	CRT	285-2 Avant	22684-2	512.000	50.279	4.985	50.216
113	CRT	285-2 Avant	22684-S1	538.000	50.096	4.939	49.949
114	CRT	285-2 Avant	22684-S2	502.000	49.859	5.481	50.039
115	CRT	285-2 Avant	Mblank				
116	CRT	285-2 Avant	Mcontrol				

Calibration Report

Analyte	Mass	Curve Type	Slope	Intercept	Corr Coeff
Ge	73.922	Linear Thru Zero	0.000000	0.000	0.000000
As	74.922	Linear Thru Zero	0.004165	0.000	0.999996
Cd	113.904	Linear Thru Zero	0.005628	0.000	0.999990
Rh	102.905	Linear Thru Zero	0.000000	0.000	0.000000
Lu	174.941	Linear Thru Zero	0.000000	0.000	0.000000
Hg	199.968	Linear Thru Zero	0.000897	0.000	0.999996
Tm	168.934	Linear Thru Zero	0.000000	0.000	0.000000
Pb	205.975	Linear Thru Zero	0.005428	0.000	0.999997
Pb	206.976	Linear Thru Zero	0.004112	0.000	0.999990
Pb	207.977	Linear Thru Zero	0.010356	0.000	0.999986
Pb-1	207.977	Linear Thru Zero	0.030253	0.000	0.999989

Quantitative Method Report

File Name: Fast AVANT.mth
File Path: C:\elandata_icpms\Method\Fast AVANT.mth

Timing Parameters

Sweeps/Reading: 10
Readings/Replicate: 1
Number of Replicates: 3
Tuning File: default.tun
Optimization File: c:\elandata_icpms\optimize\al opt.dac
QC Enabled: Yes
Settling Time: Normal

	Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
[>	Ge	73.922	Peak Hopping	1	100.0 ms	1000 ms
[	As	74.922	Peak Hopping	1	150.0 ms	1500 ms
[	Cd	113.904	Peak Hopping	1	50.0 ms	500 ms
[>	Rh	102.905	Peak Hopping	1	100.0 ms	1000 ms
[>	Lu	174.941	Peak Hopping	1	100.0 ms	1000 ms
[	Hg	199.968	Peak Hopping	1	150.0 ms	1500 ms
[>	Tm	168.934	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	205.975	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	206.976	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	207.977	Peak Hopping	1	100.0 ms	1000 ms
[	Pb-1	207.977	Peak Hopping	1	50.0 ms	500 ms

Signal Processing

Detector Mode: Dual
Measurement Units: cps
AutoLens: On
Spectral Peak Processing: Average
Signal Profile Processing: Average
Blank Subtraction: Subtracted after internal standard
Baseline Readings: 0
Smoothing: Yes, Factor 5

Equations

Analyte	Mass	Corrections
Ge	73.922	- 0.116645 * Se 77
Pb-1	207.977	Pb208 +1*Pb206+1*Pb207

Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Ge	73.922	Linear Thru Zero	ppm	ppb				

Standard 22	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 23	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 24	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 25	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 26	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 27	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 28	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 29	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 30	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Reporting Options

Report Template for Printing: a&l qc.rop
 Send to Printer: No
 Report Template for File:
 Send to File: No
 Report Filename:
 Create NetCDF File: No
 Send to Serial Port: No
 Port: COM1

Sampling Devices

Peristaltic Pump Control: Yes
 Autosampler: AS-93plus
 Autosampler Tray File: c:\program files\esi\esi sc\esi.try
 Sampling Device Type: (None)
 Dil. Factor: 10
 Dil. to Vol. (mL): 10
 1st Dil. Pos.: 1
 Probe Purge Pos.: 10

A&L Great Lakes Lab ICP-MS Report

Sample ID: blank
 Sample Date/Time: Tuesday, October 16, 2007 15:19:07
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\blank.004
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:19:07 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	291178.840			
As	75	46.222			
Cd	114	33.333			
Rh	103	731294.861			
Lu	175	930295.892			
Hg	200	10.222			
Tm	169	772309.854			
Pb	206	67.667			
Pb	207	60.000			
Pb	208	142.668			
Pb-1	208	413.003			

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.25 ppb
Sample Date/Time: Tuesday, October 16, 2007 15:20:27
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\0.25 ppb.005
Calibration File:
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:20:27 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	291534.729	291178.840		
As	75	354.674	46.222	0.000254	4.637
Cd	114	1079.397	33.333	0.000256	3.954
Rh	103	727273.757	731294.861		
Lu	175	925631.960	930295.892		
Hg	200	216.225	10.222	0.000248	5.468
Tm	169	767169.484	772309.854		
Pb	206	1157.740	67.667	0.000262	5.535
Pb	207	899.711	60.000	0.000266	5.253
Pb	208	2261.281	142.668	0.000267	1.913
Pb-1	208	6580.014	413.003	0.000266	2.669

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.5 ppb
 Sample Date/Time: Tuesday, October 16, 2007 15:21:48
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\0.5 ppb.006
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:21:48 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	292217.040	291178.840		
As	75	676.247	46.222	0.000518	1.584
Cd	114	2111.579	33.333	0.000504	2.700
Rh	103	732947.018	731294.861		
Lu	175	931240.241	930295.892		
Hg	200	445.122	10.222	0.000520	3.162
Tm	169	774864.308	772309.854		
Pb	206	2185.929	67.667	0.000504	1.883
Pb	207	1734.165	60.000	0.000525	2.355
Pb	208	4267.668	142.668	0.000514	1.416
Pb-1	208	12455.432	413.003	0.000514	0.689

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 2.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 15:23:08
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\2.0 ppb.007
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:23:08 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	292367.883	291178.840		
As	75	2521.016	46.222	0.002032	1.470
Cd	114	8330.482	33.333	0.002015	1.015
Rh	103	731441.525	731294.861		
Lu	175	931557.138	930295.892		
Hg	200	847.151	10.222	0.001001	1.913
Tm	169	778632.300	772309.854		
Pb	206	8600.400	67.667	0.002019	1.673
Pb	207	6509.330	60.000	0.002014	2.045
Pb	208	16462.560	142.668	0.002024	0.672
Pb-1	208	48034.851	413.003	0.002021	0.674

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 10.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 15:24:29
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\10.0 ppb.008
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:24:29 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	293041.948	291178.840		
As	75	12446.738	46.222	0.010161	1.091
Cd	114	41762.376	33.333	0.010279	0.828
Rh	103	721324.942	731294.861		
Lu	175	926691.922	930295.892		
Hg	200	4186.297	10.222	0.005022	1.434
Tm	169	775522.866	772309.854		
Pb	206	42729.520	67.667	0.010135	0.361
Pb	207	32820.806	60.000	0.010273	0.880
Pb	208	82269.919	142.668	0.010226	0.459
Pb-1	208	240090.165	413.003	0.010216	0.416

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 20.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 15:25:50
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\20.0 ppb.009
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:25:50 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	292703.734	291178.840		
As	75	24149.589	46.222	0.019773	0.404
Cd	114	82035.161	33.333	0.019914	0.876
Rh	103	731619.891	731294.861		
Lu	175	931516.536	930295.892		
Hg	200	8357.841	10.222	0.009988	1.232
Tm	169	781935.139	772309.854		
Pb	206	84148.334	67.667	0.019810	0.373
Pb	207	64117.691	60.000	0.019921	1.458
Pb	208	161677.857	142.668	0.019947	1.223
Pb-1	208	471621.738	413.003	0.019919	1.087

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 50.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 15:27:10
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\50.0 ppb.010
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:27:10 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	292462.622	291178.840		
As	75	61261.061	46.222	0.050257	0.461
Cd	114	206066.057	33.333	0.050493	0.313
Rh	103	724981.234	731294.861		
Lu	175	932724.771	930295.892		
Hg	200	94.000	10.222	0.000100	16.908
Tm	169	772625.448	772309.854		
Pb	206	210613.870	67.667	0.050210	1.283
Pb	207	160521.204	60.000	0.050506	0.604
Pb	208	405323.127	142.668	0.050642	0.925
Pb-1	208	1181781.328	413.003	0.050546	0.852

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 125.0 ppb
 Sample Date/Time: Tuesday, October 16, 2007 15:28:31
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\125.0 ppb.011
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:28:31 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	290027.801	291178.840		
As	75	150916.358	46.222	0.124920	1.481
Cd	114	511649.466	33.333	0.124794	0.063
Rh	103	728402.012	731294.861		
Lu	175	930632.064	930295.892		
Hg	200	44.889	10.222	0.000042	13.207
Tm	169	777964.855	772309.854		
Pb	206	527632.654	67.667	0.124935	0.266
Pb	207	399283.454	60.000	0.124788	0.379
Pb	208	1005110.165	142.668	0.124733	0.216
Pb-1	208	2937136.438	413.003	0.124777	0.080

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74						
|	As	75						
|	Cd	114						
>	Rh	103						
>	Lu	175						
|	Hg	200						
>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
|	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICV
 Sample Date/Time: Tuesday, October 16, 2007 15:29:51
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata\Icpms\DataSet\101607 Avant 282-1,2, 285-2\ICV.012
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:29:51 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	288711.988	291178.840		
As	75	74059.110	46.222	0.061556	0.623
Cd	114	249159.126	33.333	0.061460	1.438
Rh	103	720220.097	731294.861		
Lu	175	926056.671	930295.892		
Hg	200	5010.936	10.222	0.006018	1.494
Tm	169	769011.668	772309.854		
Pb	206	239434.683	67.667	0.057346	1.144
Pb	207	203909.244	60.000	0.064461	0.771
Pb	208	498269.615	142.668	0.062547	1.355
Pb-1	208	1439883.157	413.003	0.061874	1.229

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		99.153				
[	As	75			102.594			
[	Cd	114			102.434			
[>	Rh	103		98.486				
[>	Lu	175		99.544				
[	Hg	200			100.303			
[>	Tm	169		99.573				
[	Pb	206			95.577			
[	Pb	207			107.434			
[	Pb	208			104.246			
[	Pb-1	208			103.124			

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICB
 Sample Date/Time: Tuesday, October 16, 2007 15:31:16
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\ICB.013
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:31:16 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	285842.761	291178.840		
As	75	71.556	46.222	0.000022	23.143
Cd	114	101.334	33.333	0.000017	7.272
Rh	103	714906.686	731294.861		
Lu	175	915156.528	930295.892		
Hg	200	77.111	10.222	0.000082	11.152
Tm	169	762326.724	772309.854		
Pb	206	276.671	67.667	0.000051	11.771
Pb	207	242.337	60.000	0.000058	11.511
Pb	208	585.352	142.668	0.000056	6.747
Pb-1	208	1689.712	413.003	0.000056	5.929

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		98.167				
|	As	75						
|	Cd	114						
>	Rh	103		97.759				
>	Lu	175		98.373				
|	Hg	200						
>	Tm	169		98.707				
|	Pb	206						
|	Pb	207						
|	Pb	208						
|	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22783
Sample Date/Time: Tuesday, October 16, 2007 15:32:39
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22783.014
Calibration File:
Sample Prep Volume (mL): 50.042
Initial Sample Quantity (mg): 501.000
Aliquot Volume (mL): 6.544
Diluted to Volume (mL): 50.842
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:32:39 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	274012.970	291178.840		
As	75	15320.677	46.222	10.389101	0.638
Cd	114	1028.725	33.333	0.198463 BDL	3.905
Rh	103	692627.969	731294.861		
Lu	175	929303.582	930295.892		
Hg	200	72.889	10.222	0.058351 BDL	13.172
Tm	169	772134.265	772309.854		
Pb	206	59624.581	67.667	11.027517	0.801
Pb	207	48060.718	60.000	11.731507	1.027
Pb	208	119582.027	142.668	11.591536	0.748
Pb-1	208	346849.353	413.003	11.509367	0.674

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		94.105				
L	As	75						
L	Cd	114						
>	Rh	103		94.713				
>	Lu	175		99.893				
L	Hg	200						
>	Tm	169		99.977				
L	Pb	206						
L	Pb	207						
L	Pb	208						
L	Pb-1	208						

⑩ Cd + Hg are BDL, because
the sample intensity is less than the
intensity of the lowest ^{calibration} standard. CRT 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22784
 Sample Date/Time: Tuesday, October 16, 2007 15:33:59
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22784.015
 Calibration File:
 Sample Prep Volume (mL): 50.179
 Initial Sample Quantity (mg): 501.000
 Aliquot Volume (mL): 5.869
 Diluted to Volume (mL): 50.485
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:33:59 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	270325.172	291178.840		
As	75	15054.233	46.222	11.488211	1.574
Cd	114	3780.120	33.333	0.852619	2.897
Rh	103	673104.202	731294.861		
Lu	175	935826.634	930295.892		
Hg	200	346.007	10.222	0.344468	1.276
Tm	169	767799.347	772309.854		
Pb	206	1348665.317	67.667	278.818972	1.299
Pb	207	1127252.074	60.000	307.585656	0.643
Pb	208	2841731.834	142.668	307.905781	1.027
Pb-1	208	8159381.059	413.003	302.643609	1.019

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		92.838				
[	As	75						
[	Cd	114						
>	Rh	103		92.043				
>	Lu	175		100.595				
[	Hg	200						
>	Tm	169		99.416				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

⑩ See ICP data from 10.17.07.
 Pb results are over the
 calibration range. cut 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22785
 Sample Date/Time: Tuesday, October 16, 2007 15:35:20
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22785.016
 Calibration File:
 Sample Prep Volume (mL): 50.393
 Initial Sample Quantity (mg): 498.000
 Allquot Volume (mL): 4.975
 Diluted to Volume (mL): 50.837
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:35:20 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	271366.394	291178.840		
As	75	18387.467	46.222	16.783849	1.149
Cd	114	12112.733	33.333	3.300852	2.739
Rh	103	672547.028	731294.861		
Lu	175	903909.245	930295.892		
Hg	200	391.120	10.222	0.486120	7.335
Tm	169	743288.376	772309.854		
Pb	206	1891501.323	67.667	484.762860	0.336
Pb	207	1573947.691	60.000	532.422611	1.518
Pb	208	3968808.512	142.668	533.099844	1.408
Pb-1	208	11403066.038	413.003	524.335283	1.235

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	93.196				
[	As 75					
[	Cd 114					
[>	Rh 103	91.967				
[>	Lu 175	97.164				
[	Hg 200					
[>	Tm 169	96.242				
|	Pb 206					
|	Pb 207					
|	Pb 208					
[	Pb-1 208					

(10) See ICP data from 10.17.07.
 Pb results are over the calibration
 range. CMT 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22786
 Sample Date/Time: Tuesday, October 16, 2007 15:36:40
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22786.017
 Calibration File:
 Sample Prep Volume (mL): 50.090
 Initial Sample Quantity (mg): 495.000
 Aliquot Volume (mL): 5.093
 Diluted to Volume (mL): 51.224
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:36:40 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	268974.077	291178.840		
As	75	15303.092	46.222	13.865056	0.382
Cd	114	750.031	33.333	0.193408 BDL	3.093
Rh	103	672568.839	731294.861		
Lu	175	890965.365	930295.892		
Hg	200	48.889	10.222	0.049828 BDL	26.386
Tm	169	739564.784	772309.854		
Pb	206	50458.343	67.667	12.775963	1.408
Pb	207	40500.699	60.000	13.533708	1.238
Pb	208	100908.351	142.668	13.390239	0.956
Pb-1	208	292775.744	413.003	13.299529	1.065

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		92.374				
L	As	75						
L	Cd	114						
>	Rh	103		91.970				
>	Lu	175		95.772				
L	Hg	200						
>	Tm	169		95.760				
L	Pb	206						
L	Pb	207						
L	Pb	208						
L	Pb-1	208						

(10) Cd + Hg results are BDL,
 because the sample intensity is
 less than the intensity of the
 lowest calibration standard. CMT
 10.18 er

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22787
 Sample Date/Time: Tuesday, October 16, 2007 15:38:01
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata\lcpms\DataSet\101607 Avant 282-1,2, 285-2\22787.018
 Calibration File:
 Sample Prep Volume (mL): 50.116
 Initial Sample Quantity (mg): 496.000
 Aliquot Volume (mL): 5.391
 Diluted to Volume (mL): 49.901
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:38:01 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	268616.512	291178.840		
As	75	35313.343	46.222	29.487122	0.223
Cd	114	4091.587	33.333	1.020220	3.121
Rh	103	661659.803	731294.861		
Lu	175	892925.393	930295.892		
Hg	200	711.806	10.222	0.819300	4.594
Tm	169	736750.691	772309.854		
Pb	206	1968386.260	67.667	460.327462	1.038
Pb	207	1642630.256	60.000	507.052145	0.526
Pb	208	4174246.957	142.668	511.843684	0.598
Pb-1	208	11959510.431	413.003	501.812523	0.591

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	92.251				
[	As 75					
[	Cd 114					
[>	Rh 103	90.478				
[>	Lu 175	95.983				
[	Hg 200					
[>	Tm 169	95.396				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

(10) See ICP data from 10.17.07.
 Pb results are over the calibration range. Ckt 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22788
 Sample Date/Time: Tuesday, October 16, 2007 15:39:22
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22788.019
 Calibration File:
 Sample Prep Volume (mL): 50.027
 Initial Sample Quantity (mg): 507.000
 Aliquot Volume (mL): 5.351
 Diluted to Volume (mL): 48.583
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:39:22 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	269318.821	291178.840		
As	75	20334.272	46.222	16.208743	0.982
Cd	114	9680.485	33.333	2.295482	1.348
Rh	103	669140.995	731294.861		
Lu	175	910337.948	930295.892		
Hg	200	356.451	10.222	0.379979	1.147
Tm	169	754099.888	772309.854		
Pb	206	1596348.684	67.667	349.380694	0.724
Pb	207	1327118.487	60.000	383.376233	0.842
Pb	208	3348950.275	142.668	384.142751	0.588
Pb-1	208	9621367.721	413.003	377.801634	0.508

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	92.493				
[	As	75					
[	Cd	114					
[>	Rh	103	91.501				
[>	Lu	175	97.855				
[	Hg	200					
[>	Tm	169	97.642				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ See ICP data from 10.17.07.
 Pb results are over the calibration
 range. Out 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22789
 Sample Date/Time: Tuesday, October 16, 2007 15:40:42
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22789.020
 Calibration File:
 Sample Prep Volume (mL): 50.088
 Initial Sample Quantity (mg): 498.000
 Aliquot Volume (mL): 5.772
 Diluted to Volume (mL): 48.663
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:40:42 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	260154.860	291178.840		
As	75	6894.614	46.222	5.364631	1.890
Cd	114	558.684	33.333	0.124592 BDL	9.130
Rh	103	640210.980	731294.861		
Lu	175	838608.077	930295.892		
Hg	200	38.222	10.222	0.032721 BDL	12.237
Tm	169	694091.144	772309.854		
Pb	206	32300.959	67.667	7.256293	0.275
Pb	207	25538.830	60.000	7.571277	1.478
Pb	208	63838.773	142.668	7.515291	1.459
Pb-1	208	185517.335	413.003	7.476432	1.216

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	89.345				
[	As 75					
[	Cd 114					
[>	Rh 103	87.545				
[>	Lu 175	90.144				
[	Hg 200					
[>	Tm 169	89.872				
|	Pb 206					
|	Pb 207					
|	Pb 208					
[	Pb-1 208					

⑩ Hg & Cd results are BDL,
 because the sample intensity is
 less than the intensity of the
 lowest calibration standard.

Cat 10.1827

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Tuesday, October 16, 2007 15:42:05
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\Elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCV.021
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:42:05 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	269806.334	291178.840		
As	75	69569.180	46.222	0.061885	1.697
Cd	114	229651.890	33.333	0.061271	1.149
Rh	103	665897.431	731294.861		
Lu	175	844897.403	930295.892		
Hg	200	4685.207	10.222	0.006168	0.365
Tm	169	702955.278	772309.854		
Pb	206	214485.113	67.667	0.056197	0.283
Pb	207	183298.822	60.000	0.063390	0.391
Pb	208	445917.703	142.668	0.061235	0.399
Pb-1	208	1289619.341	413.003	0.060624	0.314

QC Calculated Values

InterAnal	Mass	Std	Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		92.660				
[	As	75			103.142			
[	Cd	114			102.119			
[>	Rh	103		91.057				
[>	Lu	175		90.820				
[	Hg	200			102.798			
[>	Tm	169		91.020				
|	Pb	206			93.661			
|	Pb	207			105.651			
|	Pb	208			102.058			
[	Pb-1	208			101.040			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
Sample Date/Time: Tuesday, October 16, 2007 15:43:29
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCB.022
Calibration File:
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:43:29 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	271291.395	291178.840		
As	75	58.667	46.222	0.000014	12.491
Cd	114	92.667	33.333	0.000017	12.710
Rh	103	660423.267	731294.861		
Lu	175	842191.575	930295.892		
Hg	200	58.667	10.222	0.000065	22.738
Tm	169	696069.743	772309.854		
Pb	206	257.670	67.667	0.000052	2.697
Pb	207	233.003	60.000	0.000063	5.799
Pb	208	534.016	142.668	0.000056	7.780
Pb-1	208	1558.705	413.003	0.000056	6.428

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	93.170				
[	As	75					
[	Cd	114					
[>	Rh	103	90.309				
[>	Lu	175	90.529				
[	Hg	200					
[>	Tm	169	90.128				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mblank
 Sample Date/Time: Tuesday, October 16, 2007 15:44:51
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\Mblank.023
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:44:51 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	269147.853	291178.840		
As	75	48.000	46.222	0.000005	81.245
Cd	114	44.000	33.333	0.000004	90.876
Rh	103	663892.480	731294.861		
Lu	175	836494.692	930295.892		
Hg	200	34.000	10.222	0.000033	19.246
Tm	169	697584.472	772309.854		
Pb	206	159.001	67.667	0.000026	32.444
Pb	207	140.668	60.000	0.000030	11.643
Pb	208	358.674	142.668	0.000032	11.596
Pb-1	208	1017.017	413.003	0.000031	13.260

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	92.434				
[	As	75					
[	Cd	114					
[>	Rh	103	90.783				
[>	Lu	175	89.917				
[	Hg	200					
[>	Tm	169	90.324				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22790
 Sample Date/Time: Tuesday, October 16, 2007 15:46:12
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22790.024
 Calibration File:
 Sample Prep Volume (mL): 50.131
 Initial Sample Quantity (mg): 509.000
 Aliquot Volume (mL): 4.978
 Diluted to Volume (mL): 48.606
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:46:12 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	266125.956	291178.840		
As	75	14022.585	46.222	12.130956	0.936
Cd	114	6563.035	33.333	1.684435	0.950
Rh	103	662652.965	731294.861		
Lu	175	897165.852	930295.892		
Hg	200	199.780	10.222	0.228816 BDL	7.303
Tm	169	740210.857	772309.854		
Pb	206	769003.611	67.667	184.043526	0.664
Pb	207	643360.568	60.000	203.234712	0.520
Pb	208	1590332.226	142.668	199.486835	0.353
Pb-1	208	4593028.631	413.003	197.225484	0.170

QC Calculated Values

InterAnal	Mass	Std	% Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	91.396				
[	As	75					
[	Cd	114					
[>	Rh	103	90.614				
[>	Lu	175	96.439				
[	Hg	200					
[>	Tm	169	95.844				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, see ICP data from 10-17-07 for Pb results. Results are over the calibration range. Ckt 10-18-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22791
Sample Date/Time: Tuesday, October 16, 2007 15:47:32
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22791.025
Calibration File:
Sample Prep Volume (mL): 50.061
Initial Sample Quantity (mg): 490.000
Aliquot Volume (mL): 4.890
Diluted to Volume (mL): 51.005
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:47:32 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	270629.640	291178.840		
As	75	14392.495	46.222	13.567069	0.278
Cd	114	9329.452	33.333	2.638926	1.650
Rh	103	667228.977	731294.861		
Lu	175	899650.119	930295.892		
Hg	200	279.560	10.222	0.356149	6.619
Tm	169	746795.912	772309.854		
Pb	206	2200725.883	67.667	578.528239	0.322
Pb	207	1864936.071	60.000	647.098147	0.512
Pb	208	4634335.322	142.668	638.512250	1.048
Pb-1	208	13334332.598	413.003	628.917284	0.844

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	92.943				
[	As	75					
[	Cd	114					
[>	Rh	103	91.239				
[>	Lu	175	96.706				
[	Hg	200					
[>	Tm	169	96.696				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

(10) See ICP data from 10-17-07.
Pb results are over the calibration
range. Ckt 10-18-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22792
Sample Date/Time: Tuesday, October 16, 2007 15:48:53
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22792.026
Calibration File:
Sample Prep Volume (mL): 50.198
Initial Sample Quantity (mg): 485.000
Aliquot Volume (mL): 4.927
Diluted to Volume (mL): 49.953
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:48:53 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	254282.763	291178.840		
As	75	5295.764	46.222	5.207809	1.881
Cd	114	429.343	33.333	0.120042 BDL	4.688
Rh	103	622840.834	731294.861		
Lu	175	855541.294	930295.892		
Hg	200	26.667	10.222	0.023600 BDL	16.636
Tm	169	703842.614	772309.854		
Pb	206	17568.628	67.667	4.808635	0.538
Pb	207	13734.369	60.000	4.959367	0.593
Pb	208	34218.279	142.668	4.907644	1.005
Pb-1	208	99739.554	413.003	4.896911	0.563

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	87.329				
[	As 75					
[	Cd 114					
[>	Rh 103	85.170				
[>	Lu 175	91.964				
[	Hg 200					
[>	Tm 169	91.135				
|	Pb 206					
|	Pb 207					
|	Pb 208					
[	Pb-1 208					

⑩ Cd + Hg results are BDL,
because the sample intensities
are less than the intensity for the
lowest ^{calibration} standard. COT 10-18-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22805
 Sample Date/Time: Tuesday, October 16, 2007 15:50:14
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22805.027
 Calibration File:
 Sample Prep Volume (mL): 50.166
 Initial Sample Quantity (mg): 489.000
 Aliquot Volume (mL): 5.421
 Diluted to Volume (mL): 49.804
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:50:14 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	258267.728	291178.840		
As	75	8703.499	46.222	7.590512	1.758
Cd	114	2932.473	33.333	0.752717	3.377
Rh	103	645898.248	731294.861		
Lu	175	835328.095	930295.892		
Hg	200	91.334	10.222	0.103285 BDL	20.737
Tm	169	692103.986	772309.854		
Pb	206	208497.094	67.667	52.294657	0.409
Pb	207	172930.541	60.000	57.249590	0.978
Pb	208	427738.044	142.668	56.226594	0.872
Pb-1	208	1236903.724	413.003	55.660191	0.788

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	88.697				
[	As 75					
[	Cd 114					
[>	Rh 103	88.323				
[>	Lu 175	89.792				
[	Hg 200					
[>	Tm 169	89.615				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

Hg is BDL, because the sample
 intensity is less than the intensity
 of the lowest calibration standard
 CRT 10-18-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22805-2
Sample Date/Time: Tuesday, October 16, 2007 15:51:34
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22805-2.028
Calibration File:
Sample Prep Volume (mL): 50.188
Initial Sample Quantity (mg): 504.000
Aliquot Volume (mL): 5.082
Diluted to Volume (mL): 49.494
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:51:34 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	266675.399	291178.840		
As	75	8729.968	46.222	7.586374	0.954
Cd	114	3199.897	33.333	0.827059	2.018
Rh	103	660418.483	731294.861		
Lu	175	860815.664	930295.892		
Hg	200	90.445	10.222	0.101672	10.401
Tm	169	711643.014	772309.854		
Pb	206	215797.642	67.667	54.164114	0.133
Pb	207	179693.330	60.000	59.530631	0.852
Pb	208	444268.020	142.668	58.444370	0.588
Pb-1	208	1284027.012	413.003	57.824073	0.467

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	91.585				
[	As	75			0.055		
[	Cd	114			9.412		
[>	Rh	103	90.308				
[>	Lu	175	92.531				
[	Hg	200			1.554		
[>	Tm	169	92.145				
[	Pb	206			3.512		
[	Pb	207			3.907		
[	Pb	208			3.868		
[	Pb-1	208			3.814		

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22805-S1
 Sample Date/Time: Tuesday, October 16, 2007 15:52:55
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22805-S1.029
 Calibration File:
 Sample Prep Volume (mL): 51.806
 Initial Sample Quantity (mg): 484.000
 Aliquot Volume (mL): 5.400
 Diluted to Volume (mL): 50.729
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:52:55 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	270325.729	291178.840		
As	75	606351.667	46.222	541.554645	0.792
Cd	114	1984260.058	33.333	531.339735	1.514
Rh	103	667287.915	731294.861		
Lu	175	873126.371	930295.892		
Hg	200	486.680	10.222	0.612265	5.609
Tm	169	724762.840	772309.854		
Pb	206	2241137.111	67.667	572.904857	1.471
Pb	207	1843934.916	60.000	622.157939	1.337
Pb	208	4601204.906	142.668	616.463069	1.318
Pb-1	208	13287481.838	413.003	609.422066	1.317

QC Calculated Values

Inter	Anal	Mass	Std	Int	Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74			92.838				
[	As	75						106.104	
[	Cd	114						105.523	
[>	Rh	103			91.247				
[>	Lu	175			93.855				
[	Hg	200						99.866	
[>	Tm	169			93.844				
|	Pb	206						102.853	
|	Pb	207						111.598	
|	Pb	208						110.683	
[	Pb-1	208						109.402	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22805-S2
 Sample Date/Time: Tuesday, October 16, 2007 15:54:16
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22805-S2.030
 Calibration File:
 Sample Prep Volume (mL): 50.031
 Initial Sample Quantity (mg): 495.000
 Aliquot Volume (mL): 5.222
 Diluted to Volume (mL): 50.122
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:54:16 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	265114.325	291178.840		
As	75	603005.881	46.222	529.784620	0.833
Cd	114	1962677.176	33.333	513.178905	0.792
Rh	103	659235.518	731294.861		
Lu	175	868467.797	930295.892		
Hg	200	472.012	10.222	0.575763	1.686
Tm	169	722545.110	772309.854		
Pb	206	2241901.037	67.667	554.541837	0.808
Pb	207	1840973.225	60.000	601.058717	0.744
Pb	208	4593168.902	142.668	595.476393	0.944
Pb-1	208	13269212.066	413.003	588.890821	0.793

QC Calculated Values

InterAnal	Mass	Std Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	91.049				
[	As	75			2.197	107.610	
[	Cd	114			3.477	105.637	
[>	Rh	103	90.146				
[>	Lu	175	93.354				
[	Hg	200			6.145	96.787	
[>	Tm	169	93.556				
|	Pb	206			3.257	103.227	
|	Pb	207			3.450	111.766	
|	Pb	208			3.463	110.832	
[	Pb-1	208			3.427	109.595	

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mcontrol
Sample Date/Time: Tuesday, October 16, 2007 15:55:36
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\Mcontrol.031
Calibration File:
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:55:36 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	271631.926	291178.840		
As	75	587419.574	46.222	0.519219	0.086
Cd	114	1879194.914	33.333	0.505875	0.760
Rh	103	660048.220	731294.861		
Lu	175	864005.015	930295.892		
Hg	200	380.675	10.222	0.000479	3.699
Tm	169	716404.883	772309.854		
Pb	206	1789644.436	67.667	0.460222	0.582
Pb	207	1515966.756	60.000	0.514567	1.149
Pb	208	3812427.697	142.668	0.513852	1.402
Pb-1	208	10930466.587	413.003	0.504327	1.214

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		93.287				
[	As	75					103.843	
[	Cd	114					101.174	
[>	Rh	103		90.257				
[>	Lu	175		92.874				
[	Hg	200					89.162	
[>	Tm	169		92.761				
|	Pb	206					92.039	
|	Pb	207					102.907	
|	Pb	208					102.764	
|	Pb-1	208					100.859	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22793
 Sample Date/Time: Tuesday, October 16, 2007 15:56:57
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\Elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22793.032
 Calibration File:
 Sample Prep Volume (mL): 50.580
 Initial Sample Quantity (mg): 520.000
 Aliquot Volume (mL): 4.978
 Diluted to Volume (mL): 50.040
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:56:57 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	268510.276	291178.840		
As	75	14339.970	46.222	12.501008	1.734
Cd	114	10084.927	33.333	2.697100	2.376
Rh	103	647651.504	731294.861		
Lu	175	872630.986	930295.892		
Hg	200	288.005	10.222	0.347669	4.941
Tm	169	725261.506	772309.854		
Pb	206	1096028.479	67.667	272.210951	0.623
Pb	207	894725.055	60.000	293.306101	0.384
Pb	208	2315242.368	142.668	301.374941	0.692
Pb-1	208	6621238.271	413.003	295.045609	0.537

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	92.215				
[	As 75					
[	Cd 114					
[>	Rh 103	88.562				
[>	Lu 175	93.801				
[	Hg 200					
[>	Tm 169	93.908				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ See ICP data from 10.17.07.
 Pb results are over the
 Calibration range. Crt 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Tuesday, October 16, 2007 15:58:21
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCV.033
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:58:21 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	274716.718	291178.840		
As	75	70650.601	46.222	0.061714	1.238
Cd	114	230340.467	33.333	0.060710	0.853
Rh	103	674024.671	731294.861		
Lu	175	824032.754	930295.892		
Hg	200	4347.039	10.222	0.005867	0.609
Tm	169	687522.969	772309.854		
Pb	206	201455.053	67.667	0.053968	0.570
Pb	207	169613.470	60.000	0.059970	1.733
Pb	208	411828.862	142.668	0.057820	1.550
Pb-1	208	1194726.246	413.003	0.057421	1.360

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		94.346				
[	As	75			102.857			
[	Cd	114			101.183			
>	Rh	103		92.169				
>	Lu	175		88.577				
[	Hg	200			97.783			
>	Tm	169		89.022				
|	Pb	206			89.947			
|	Pb	207			99.951			
|	Pb	208			96.366			
[	Pb-1	208			95.702			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Tuesday, October 16, 2007 15:59:45
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCB.034
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:59:45 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	272818.895	291178.840		
As	75	99.778	46.222	0.000050	27.425
Cd	114	159.335	33.333	0.000035	12.530
Rh	103	662895.639	731294.861		
Lu	175	814902.168	930295.892		
Hg	200	52.222	10.222	0.000059	34.535
Tm	169	681672.543	772309.854		
Pb	206	390.675	67.667	0.000090	15.179
Pb	207	332.339	60.000	0.000100	9.316
Pb	208	788.701	142.668	0.000094	6.311
Pb-1	208	2300.416	413.003	0.000094	7.227

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		93.695				
[	As	75						
[	Cd	114						
[>	Rh	103		90.647				
[>	Lu	175		87.596				
[	Hg	200						
[>	Tm	169		88.264				
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22794
 Sample Date/Time: Tuesday, October 16, 2007 16:28:45
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22794.035
 Calibration File:
 Sample Prep Volume (mL): 50.897
 Initial Sample Quantity (mg): 499.000
 Aliquot Volume (mL): 5.121
 Diluted to Volume (mL): 50.227
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:28:45 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	250575.953	291178.840		
As	75	8311.576	46.222	7.929448	1.456
Cd	114	11129.476	33.333	3.255824	0.403
Rh	103	606069.747	731294.861		
Lu	175	812569.313	930295.892		
Hg	200	255.781	10.222	0.338713	1.609
Tm	169	677733.309	772309.854		
Pb	206	806847.056	67.667	219.402488	0.243
Pb	207	669039.260	60.000	240.132190	0.190
Pb	208	1672417.576	142.668	238.352556	0.266
Pb-1	208	4820721.469	413.003	235.194487	0.168

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	86.056				
[	As	75					
[	Cd	114					
[>	Rh	103	82.876				
[>	Lu	175	87.345				
[	Hg	200					
[>	Tm	169	87.754				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

⑩ See ICP data from 10.17.07.
 Pb results are over the calibration
 range. Cat 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22795
 Sample Date/Time: Tuesday, October 16, 2007 16:30:05
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22795.036
 Calibration File:
 Sample Prep Volume (mL): 51.396
 Initial Sample Quantity (mg): 500.000
 Aliquot Volume (mL): 5.131
 Diluted to Volume (mL): 50.452
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:30:05 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	258011.269	291178.840		
As	75	18464.958	46.222	17.331913	0.868
Cd	114	906.712	33.333	0.251726 BDL	5.479
Rh	103	626645.582	731294.861		
Lu	175	787405.524	930295.892		
Hg	200	18.889	10.222	0.014645 BDL	13.420
Tm	169	659568.428	772309.854		
Pb	206	23066.565	67.667	6.495830	0.426
Pb	207	18060.262	60.000	6.710335	0.966
Pb	208	44739.185	142.668	6.601497	0.741
Pb-1	208	130605.196	413.003	6.597333	0.629

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		88.609				
L	As	75						
L	Cd	114						
>	Rh	103		85.690				
>	Lu	175		84.640				
L	Hg	200						
>	Tm	169		85.402				
L	Pb	206						
L	Pb	207						
L	Pb	208						
L	Pb-1	208						

(10) Cd + Hg are BDL, because
 the sample intensity is less
 than the intensity of the lowest
 calibration standard. CWT 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22796
 Sample Date/Time: Tuesday, October 16, 2007 16:31:26
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22796.037
 Calibration File:
 Sample Prep Volume (mL): 49.974
 Initial Sample Quantity (mg): 501.000
 Aliquot Volume (mL): 4.917
 Diluted to Volume (mL): 50.022
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:31:26 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	274693.827	291178.840		
As	75	18740.185	46.222	16.584327	0.345
Cd	114	18320.445	33.333	4.965571	1.299
Rh	103	664097.266	731294.861		
Lu	175	845275.688	930295.892		
Hg	200	219.558	10.222	0.281374	7.223
Tm	169	704076.741	772309.854		
Pb	206	1632430.730	67.667	433.508455	1.035
Pb	207	1327882.351	60.000	465.460463	1.208
Pb	208	3404967.013	142.668	473.888116	0.623
Pb-1	208	9770247.108	413.003	465.497722	0.764

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	94.339				
[	As	75					
[	Cd	114					
[>	Rh	103	90.811				
[>	Lu	175	90.861				
[	Hg	200					
[>	Tm	169	91.165				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

(10) See ICP data from 10-17-07.
 7b results are over the
 Calibration range. Oct 10-18-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22797
 Sample Date/Time: Tuesday, October 16, 2007 16:32:46
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\Elandata\icpms\DataSet\101607 Avant 282-1,2, 285-2\22797.038
 Calibration File:
 Sample Prep Volume (mL): 49.933
 Initial Sample Quantity (mg): 525.000
 Aliquot Volume (mL): 4.733
 Diluted to Volume (mL): 50.272
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:32:46 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	272465.208	291178.840		
As	75	21882.751	46.222	19.443557	1.020
Cd	114	10073.579	33.333	2.722211	0.717
Rh	103	662246.735	731294.861		
Lu	175	860092.837	930295.892		
Hg	200	294.227	10.222	0.372850	5.221
Tm	169	716899.219	772309.854		
Pb	206	1382637.625	67.667	358.954370	0.928
Pb	207	1159118.620	60.000	397.191025	0.712
Pb	208	2943204.481	142.668	400.463929	0.470
Pb-1	208	8428165.206	413.003	392.571498	0.577

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		93.573				
[	As	75						
[	Cd	114						
>	Rh	103		90.558				
>	Lu	175		92.454				
[	Hg	200						
>	Tm	169		92.825				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

⑩ See ICP data from 10.17.07.
 Pb results are over the calibration
 range. Ckt 10.18-a

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22798
Sample Date/Time: Tuesday, October 16, 2007 16:34:07
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\Elandata\icpms\DataSet\101607 Avant 282-1,2, 285-2\22798.039
Calibration File:
Sample Prep Volume (mL): 49.756
Initial Sample Quantity (mg): 507.000
Aliquot Volume (mL): 5.300
Diluted to Volume (mL): 50.375
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:34:07 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	270231.094	291178.840		
As	75	16895.242	46.222	13.969402	1.550
Cd	114	705.361	33.333	0.170479 BDL	2.605
Rh	103	656801.422	731294.861		
Lu	175	839192.670	930295.892		
Hg	200	36.445	10.222	0.033713 BDL	7.801
Tm	169	696703.713	772309.854		
Pb	206	58874.733	67.667	14.506644	0.598
Pb	207	47059.839	60.000	15.304121	0.810
Pb	208	116468.385	142.668	15.040523	0.356
Pb-1	208	338871.343	413.003	14.980567	0.380

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	92.806				
[	As 75					
[	Cd 114					
>	Rh 103	89.813				
>	Lu 175	90.207				
[	Hg 200					
>	Tm 169	90.210				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

(10) Cd + Hg are BDL, because the sample intensity is less than the intensity of the lowest calibration standard. CLK 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22799
 Sample Date/Time: Tuesday, October 16, 2007 16:35:28
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata\cpms\DataSet\101607 Avant 282-1,2, 285-2\22799.040
 Calibration File:
 Sample Prep Volume (mL): 50.007
 Initial Sample Quantity (mg): 494.000
 Aliquot Volume (mL): 5.582
 Diluted to Volume (mL): 50.622
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:35:28 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	273287.614	291178.840		
As	75	16897.693	46.222	13.593758	1.073
Cd	114	2489.675	33.333	0.600889	4.227
Rh	103	667551.074	731294.861		
Lu	175	857407.368	930295.892		
Hg	200	186.224	10.222	0.210984 BDL	4.338
Tm	169	713148.243	772309.854		
Pb	206	600062.472	67.667	142.297481	1.220
Pb	207	497840.236	60.000	155.824938	1.112
Pb	208	1230740.162	142.668	152.962778	0.161
Pb-1	208	3559383.033	413.003	151.438287	0.325

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	93.856				
|	As	75					
|	Cd	114					
>	Rh	103	91.283				
>	Lu	175	92.165				
|	Hg	200					
>	Tm	169	92.340				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Hg results are BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, see ICP data from 10.17.07. Pb results are over the calibration range. Ckt 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mblank
 Sample Date/Time: Tuesday, October 16, 2007 16:36:48
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\Mblank.041
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:36:48 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	266493.690	291178.840		
As	75	45.778	46.222	0.000003	29.736
Cd	114	41.333	33.333	0.000003	95.309
Rh	103	646692.884	731294.861		
Lu	175	778476.309	930295.892		
Hg	200	11.111	10.222	0.000004	92.332
Tm	169	652928.446	772309.854		
Pb	206	223.669	67.667	0.000047	18.154
Pb	207	189.669	60.000	0.000052	15.751
Pb	208	451.345	142.668	0.000049	19.998
Pb-1	208	1316.027	413.003	0.000049	18.959

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	91.522				
[	As	75					
[	Cd	114					
[>	Rh	103	88.431				
[>	Lu	175	83.681				
[	Hg	200					
[>	Tm	169	84.542				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22800
 Sample Date/Time: Tuesday, October 16, 2007 16:38:09
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata\cpms\DataSet\101607 Avant 282-1,2, 285-2\22800.042
 Calibration File:
 Sample Prep Volume (mL): 50.125
 Initial Sample Quantity (mg): 506.000
 Aliquot Volume (mL): 5.055
 Diluted to Volume (mL): 49.999
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:38:09 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	277550.482	291178.840		
As	75	19868.578	46.222	16.804186	0.301
Cd	114	7389.002	33.333	1.903225	1.067
Rh	103	673034.128	731294.861		
Lu	175	857381.309	930295.892		
Hg	200	233.114	10.222	0.284824	7.542
Tm	169	716827.603	772309.854		
Pb	206	951531.270	67.667	239.617897	0.775
Pb	207	790146.642	60.000	262.654245	1.675
Pb	208	1966376.491	142.668	256.535495	1.127
Pb-1	208	5674430.894	413.003	256.385861	1.107

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	95.320				
[	As	75					
[	Cd	114					
[>	Rh	103	92.033				
[>	Lu	175	92.162				
[	Hg	200					
[>	Tm	169	92.816				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

(10) See ICP data from 10.17.07.
 Pb results are over the calibration
 range. CRT 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22801
 Sample Date/Time: Tuesday, October 16, 2007 16:39:30
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22801.043
 Calibration File:
 Sample Prep Volume (mL): 50.085
 Initial Sample Quantity (mg): 537.000
 Aliquot Volume (mL): 5.519
 Diluted to Volume (mL): 49.835
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:39:30 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	266319.278	291178.840		
As	75	20047.859	46.222	15.192054	1.088
Cd	114	1182.744	33.333	0.265932	7.189
Rh	103	649310.928	731294.861		
Lu	175	819093.907	930295.892		
Hg	200	33.556	10.222	0.028188 BDL	12.489
Tm	169	685876.199	772309.854		
Pb	206	67862.124	67.667	15.340050	1.280
Pb	207	54673.017	60.000	16.309096	1.172
Pb	208	135558.636	142.668	16.059375	1.213
Pb-1	208	393652.414	413.003	15.964260	1.200

QC Calculated Values

InterAnal	Mass	Standard	Symbol	Int Std	% Recovery	QC Std	% Recovery	Duplicate	Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74			91.462						
[	As	75									
[	Cd	114									
[>	Rh	103			88.789						
[>	Lu	175			88.047						
[	Hg	200									
[>	Tm	169			88.808						
[	Pb	206									
[	Pb	207									
[	Pb	208									
[	Pb-1	208									

(10) Hg results are BDL,
 because the sample intensity is
 less than the intensity of the
 lowest standard. CMT 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22802
 Sample Date/Time: Tuesday, October 16, 2007 16:40:50
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22802.044
 Calibration File:
 Sample Prep Volume (mL): 50.285
 Initial Sample Quantity (mg): 505.000
 Aliquot Volume (mL): 5.701
 Diluted to Volume (mL): 50.511
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:40:50 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	276339.538	291178.840		
As	75	14617.744	46.222	11.171673	0.587
Cd	114	1720.163	33.333	0.393448	5.841
Rh	103	673175.236	731294.861		
Lu	175	875851.820	930295.892		
Hg	200	129.779	10.222	0.134869 BDL	3.792
Tm	169	730040.910	772309.854		
Pb	206	409865.782	67.667	91.237916	0.073
Pb	207	338177.728	60.000	99.360970	0.779
Pb	208	838799.239	142.668	97.865331	0.467
Pb-1	208	2425641.988	413.003	96.879559	0.267

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	94.904				
|	As 75					
|	Cd 114					
>	Rh 103	92.053				
>	Lu 175	94.148				
|	Hg 200					
>	Tm 169	94.527				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

⑩ Sample is BDL for Hg.

Sample intensity is less than
 the intensity of the lowest
 Calibration standard. Oct 10:18:07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV

Sample Date/Time: Tuesday, October 16, 2007 16:42:12

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCV.045

Calibration File:

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Allquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:42:12 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	274987.757	291178.840		
As	75	70645.879	46.222	0.061652	1.033
Cd	114	228138.618	33.333	0.061274	1.360
Rh	103	661473.473	731294.861		
Lu	175	804664.354	930295.892		
Hg	200	4167.177	10.222	0.005760	1.149
Tm	169	673555.458	772309.854		
Pb	206	194921.211	67.667	0.053300	0.392
Pb	207	166078.650	60.000	0.059941	0.630
Pb	208	402344.442	142.668	0.057662	0.567
Pb-1	208	1165688.745	413.003	0.057189	0.384

QC Calculated Values

Inter	Anal	Mass	Std	% Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		94.439				
[	As	75			102.753			
[	Cd	114			102.123			
[>	Rh	103		90.452				
[>	Lu	175		86.496				
[	Hg	200			95.993			
[>	Tm	169		87.213				
|	Pb	206			88.833			
|	Pb	207			99.901			
|	Pb	208			96.103			
[Pb-1	208			95.315			

Sample ID: CCV

Report Date/Time: Wednesday, October 17, 2007 07:40:32

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A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB

Sample Date/Time: Tuesday, October 16, 2007 16:43:36

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCB.046

Calibration File:

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:43:36 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	272791.990	291178.840		
As	75	47.111	46.222	0.000003	200.755
Cd	114	59.334	33.333	0.000008	9.271
Rh	103	657102.436	731294.861		
Lu	175	790642.406	930295.892		
Hg	200	46.222	10.222	0.000053	16.195
Tm	169	666106.581	772309.854		
Pb	206	166.335	67.667	0.000030	8.718
Pb	207	137.334	60.000	0.000031	32.117
Pb	208	362.007	142.668	0.000035	10.829
Pb-1	208	1027.684	413.003	0.000033	11.243

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	93.685				
[	As 75					
[	Cd 114					
[>	Rh 103	89.855				
[>	Lu 175	84.988				
[	Hg 200					
[>	Tm 169	86.249				
[	Pb 206					
[	Pb 207					
[Pb 208					
[Pb-1 208					

Sample ID: CCB

Report Date/Time: Wednesday, October 17, 2007 07:40:33

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22806

Sample Date/Time: Tuesday, October 16, 2007 16:44:59

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22806.047

Calibration File:

Sample Prep Volume (mL): 50.021

Initial Sample Quantity (mg): 511.000

Allquot Volume (mL): 5.789

Diluted to Volume (mL): 50.487

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:44:59 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	268853.074	291178.840		
As	75	7592.948	46.222	5.756734	0.320
Cd	114	724.029	33.333	0.161925 BDL	4.984
Rh	103	650929.481	731294.861		
Lu	175	805123.133	930295.892		
Hg	200	50.000	10.222	0.048648 BDL	7.706
Tm	169	677689.119	772309.854		
Pb	206	36105.239	67.667	8.365536	0.146
Pb	207	29242.975	60.000	8.941544	1.087
Pb	208	71980.532	142.668	8.741013	0.657
Pb-1	208	209309.278	413.003	8.700904	0.407

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	92.333				
[	As	75					
[	Cd	114					
[>	Rh	103	89.011				
[>	Lu	175	86.545				
[	Hg	200					
[>	Tm	169	87.748				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

(10) Sample is BDL for Cd+Hg.
The sample intensity is less than the intensity of the lowest calibration standard. Cnt 10-18-07

Sample ID: 22806

Report Date/Time: Wednesday, October 17, 2007 07:40:35

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22806-2
 Sample Date/Time: Tuesday, October 16, 2007 16:46:19
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22806-2.048
 Calibration File:
 Sample Prep Volume (mL): 50.057
 Initial Sample Quantity (mg): 500.000
 Aliquot Volume (mL): 4.997
 Diluted to Volume (mL): 50.442
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:46:19 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	272207.031	291178.840		
As	75	6682.011	46.222	5.917987	1.040
Cd	114	592.019	33.333	0.152511	10.476
Rh	103	662512.932	731294.861		
Lu	175	814481.363	930295.892		
Hg	200	34.000	10.222	0.034584 BDL	14.474
Tm	169	684596.111	772309.854		
Pb	206	30991.091	67.667	8.411236	1.121
Pb	207	24985.307	60.000	8.948794	1.650
Pb	208	61898.740	142.668	8.804533	0.765
Pb-1	208	179773.878	413.003	8.753578	0.921

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	93.484				
|	As	75			2.762		
|	Cd	114			5.988		
>	Rh	103	90.595				
>	Lu	175	87.551				
|	Hg	200			33.794		
>	Tm	169	88.643				
|	Pb	206			0.545		
|	Pb	207			0.081		
|	Pb	208			0.724		
|	Pb-1	208			0.604		

Both are BDL.
 RPD = 0%

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22806-S1
Sample Date/Time: Tuesday, October 16, 2007 16:47:40
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\elandata\icpms\DataSet\101607 Avant 282-1,2, 285-2\22806-S1.049
Calibration File:
Sample Prep Volume (mL): 50.357
Initial Sample Quantity (mg): 499.000
Aliquot Volume (mL): 5.141
Diluted to Volume (mL): 50.474
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 16:47:40 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	264589.369	291178.840		
As	75	575311.933	46.222	517.233263	0.493
Cd	114	1826790.099	33.333	499.667157	0.561
Rh	103	643609.578	731294.861		
Lu	175	793620.351	930295.892		
Hg	200	358.674	10.222	0.486870	5.084
Tm	169	668293.405	772309.854		
Pb	206	1683691.764	67.667	459.999345	2.174
Pb	207	1418322.318	60.000	511.421575	1.447
Pb	208	3572790.988	142.668	511.583972	1.863
Pb-1	208	10247596.058	413.003	502.306709	1.847

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	90.868				
[	As	75				103.060	
[	Cd	114				100.825	
[>	Rh	103	88.010				
[>	Lu	175	85.308				
[	Hg	200				86.883	
[>	Tm	169	86.532				
|	Pb	206				90.896	
|	Pb	207				101.141	
|	Pb	208				101.221	
[	Pb-1	208				99.357	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22806-S2
 Sample Date/Time: Tuesday, October 16, 2007 16:49:01
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22806-S2.050
 Calibration File:
 Sample Prep Volume (mL): 50.044
 Initial Sample Quantity (mg): 526.000
 Aliquot Volume (mL): 5.297
 Diluted to Volume (mL): 50.716
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:49:01 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	253316.671	291178.840		
As	75	570027.555	46.222	492.156326	0.398
Cd	114	1806226.317	33.333	471.669675	0.606
Rh	103	619764.463	731294.861		
Lu	175	767655.591	930295.892		
Hg	200	358.452	10.222	0.462913	3.815
Tm	169	644052.734	772309.854		
Pb	206	1661021.131	67.667	432.801037	0.509
Pb	207	1395299.097	60.000	479.869503	0.766
Pb	208	3526606.590	142.668	481.615500	0.664
Pb-1	208	10109533.408	413.003	472.619994	0.640

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		86.997				
[	As	75				4.969	106.708	
[	Cd	114				5.765	103.521	
[>	Rh	103		84.749				
[>	Lu	175		82.517				
[	Hg	200				5.045	90.239	
[>	Tm	169		83.393				
[	Pb	206				6.093	93.065	
[	Pb	207				6.366	103.264	
[	Pb	208				6.035	103.695	
[	Pb-1	208				6.090	101.729	

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mcontrol
 Sample Date/Time: Tuesday, October 16, 2007 16:50:21
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\Mcontrol.051
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:50:21 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	259490.473	291178.840		
As	75	554123.200	46.222	0.512755	1.426
Cd	114	1728316.902	33.333	0.497172	1.132
Rh	103	617702.752	731294.861		
Lu	175	767490.495	930295.892		
Hg	200	327.784	10.222	0.000464	3.657
Tm	169	644397.056	772309.854		
Pb	206	1516822.248	67.667	0.433689	0.730
Pb	207	1278940.626	60.000	0.482667	0.893
Pb	208	3223075.506	142.668	0.482969	0.453
Pb-1	208	9241913.886	413.003	0.474086	0.538

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		89.117				
[	As	75					102.550	
[	Cd	114					99.434	
>	Rh	103		84.467				
>	Lu	175		82.500				
[	Hg	200					92.009	
>	Tm	169		83.438				
|	Pb	206					86.728	
|	Pb	207					96.523	
|	Pb	208					96.584	
[	Pb-1	208					94.807	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22803
 Sample Date/Time: Tuesday, October 16, 2007 16:51:42
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22803.052
 Calibration File:
 Sample Prep Volume (mL): 50.140
 Initial Sample Quantity (mg): 539.000
 Aliquot Volume (mL): 6.230
 Diluted to Volume (mL): 50.306
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:51:42 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	263311.436	291178.840		
As	75	99051.137	46.222	67.818335	0.183
Cd	114	8392.540	33.333	1.780820	1.220
Rh	103	626773.053	731294.861		
Lu	175	781210.884	930295.892		
Hg	200	360.674	10.222	0.377350	4.550
Tm	169	654552.740	772309.854		
Pb	206	1446280.909	67.667	305.763094	0.649
Pb	207	1228110.222	60.000	342.700919	0.475
Pb	208	3163040.766	142.668	350.473593	0.497
Pb-1	208	9000472.664	413.003	341.395202	0.379

QC Calculated Values

Inter	Analyte	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		90.429				
L	As	75						
L	Cd	114						
>	Rh	103		85.707				
>	Lu	175		83.974				
L	Hg	200						
>	Tm	169		84.753				
L	Pb	206						
L	Pb	207						
L	Pb	208						
L	Pb-1	208						

(10) See ICP data from 10.17.07.
 7b results are over the calibration
 range. cut 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22804
 Sample Date/Time: Tuesday, October 16, 2007 16:53:03
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22804.053
 Calibration File:
 Sample Prep Volume (mL): 50.164
 Initial Sample Quantity (mg): 538.000
 Aliquot Volume (mL): 5.372
 Diluted to Volume (mL): 51.383
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:53:03 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	264958.294	291178.840		
As	75	65666.985	46.222	53.041590	1.012
Cd	114	3317.940	33.333	0.814888	5.467
Rh	103	639623.129	731294.861		
Lu	175	797534.512	930295.892		
Hg	200	188.002	10.222	0.22371 BDL	1.585
Tm	169	672569.602	772309.854		
Pb	206	498144.624	67.667	121.678046	0.473
Pb	207	421002.571	60.000	135.736116	0.357
Pb	208	1040765.048	142.668	133.248492	0.525
Pb-1	208	3000677.290	413.003	131.510694	0.315

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	90.995				
[	As 75					
[	Cd 114					
>	Rh 103	87.464				
>	Lu 175	85.729				
[	Hg 200					
>	Tm 169	87.085				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ Hg is BDL. Sample intensity is less than the intensity of the lowest calibration standard.

CRT 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22937
 Sample Date/Time: Tuesday, October 16, 2007 16:54:23
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22937.054
 Calibration File:
 Sample Prep Volume (mL): 50.172
 Initial Sample Quantity (mg): 523.000
 Aliquot Volume (mL): 5.013
 Diluted to Volume (mL): 50.404
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:54:23 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	262383.229	291178.840		
As	75	12597.834	46.222	11.083394	0.903
Cd	114	2194.265	33.333	0.579950	2.983
Rh	103	639799.640	731294.861		
Lu	175	781348.536	930295.892		
Hg	200	163.557	10.222	0.213165 BDL	5.928
Tm	169	653732.269	772309.854		
Pb	206	295120.414	67.667	80.202257	0.850
Pb	207	245284.205	60.000	87.987828	0.298
Pb	208	602653.651	142.668	85.841878	0.636
Pb-1	208	1745711.920	413.003	85.121731	0.475

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	90.111				
[	As	75					
[	Cd	114					
>	Rh	103	87.489				
>	Lu	175	83.989				
[	Hg	200					
>	Tm	169	84.646				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

(10) Hg is BDL. Sample intensity
 is less than the intensity of
 the lowest calibration standard.

CLT 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22938
 Sample Date/Time: Tuesday, October 16, 2007 16:55:44
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22938.055
 Calibration File:
 Sample Prep Volume (mL): 50.202
 Initial Sample Quantity (mg): 518.000
 Allquot Volume (mL): 5.805
 Diluted to Volume (mL): 49.746
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:55:44 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	261154.803	291178.840		
As	75	41628.651	46.222	31.756130	0.627
Cd	114	5689.116	33.333	1.333626	3.361
Rh	103	626121.498	731294.861		
Lu	175	767763.599	930295.892		
Hg	200	96.667	10.222	0.106395 BDL	9.179
Tm	169	648660.313	772309.854		
Pb	206	1019933.562	67.667	240.592955	1.016
Pb	207	849606.558	60.000	264.527419	0.837
Pb	208	2186716.081	142.668	270.339305	0.460
Pb-1	208	6242972.281	413.003	264.212275	0.590

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	89.689				
[	As	75					
[	Cd	114					
>	Rh	103	85.618				
>	Lu	175	82.529				
[	Hg	200					
>	Tm	169	83.990				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, see ICP data from 10.17.07. Pb results are over the calibration range. Oct 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22939
 Sample Date/Time: Tuesday, October 16, 2007 16:57:05
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22939.056
 Calibration File:
 Sample Prep Volume (mL): 50.111
 Initial Sample Quantity (mg): 530.000
 Aliquot Volume (mL): 5.508
 Diluted to Volume (mL): 50.887
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:57:05 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	261003.745	291178.840		
As	75	9191.088	46.222	7.352998	0.855
Cd	114	7192.177	33.333	1.770390	1.401
Rh	103	628032.115	731294.861		
Lu	175	845628.189	930295.892		
Hg	200	127.112	10.222	0.135596 BDL	4.876
Tm	169	701446.963	772309.854		
Pb	206	510162.878	67.667	117.030739	1.182
Pb	207	433310.233	60.000	131.196406	0.723
Pb	208	1057938.968	142.668	127.194442	0.731
Pb-1	208	3059351.048	413.003	125.914883	0.800

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		89.637				
[	As	75						
[	Cd	114						
>	Rh	103		85.879				
>	Lu	175		90.899				
[	Hg	200						
>	Tm	169		90.825				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

(10) Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. CNT 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Tuesday, October 16, 2007 16:58:27
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCV.057
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:58:27 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279562.247	291178.840		
As	75	72184.342	46.222	0.061961	0.803
Cd	114	231089.065	33.333	0.061476	0.629
Rh	103	667788.711	731294.861		
Lu	175	808134.756	930295.892		
Hg	200	4174.736	10.222	0.005745	1.769
Tm	169	676485.415	772309.854		
Pb	206	195192.757	67.667	0.053143	0.628
Pb	207	165617.659	60.000	0.059520	1.177
Pb	208	402842.216	142.668	0.057487	1.463
Pb-1	208	1166494.847	413.003	0.056984	1.211

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	96.010				
[	As	75		103.268			
[	Cd	114		102.459			
[>	Rh	103	91.316				
[>	Lu	175	86.869				
[	Hg	200		95.754			
[>	Tm	169	87.592				
|	Pb	206		88.571			
|	Pb	207		99.199			
|	Pb	208		95.811			
[	Pb-1	208		94.973			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB

Sample Date/Time: Tuesday, October 16, 2007 16:59:51

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCB.058

Calibration File:

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 16:59:51 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	283795.346	291178.840		
As	75	78.223	46.222	0.000028	16.846
Cd	114	82.000	33.333	0.000013	36.608
Rh	103	678110.339	731294.861		
Lu	175	813588.695	930295.892		
Hg	200	55.334	10.222	0.000064	4.266
Tm	169	685357.637	772309.854		
Pb	206	217.669	67.667	0.000042	12.819
Pb	207	186.002	60.000	0.000047	8.977
Pb	208	481.346	142.668	0.000050	10.538
Pb-1	208	1366.363	413.003	0.000048	10.590

QC Calculated Values

Inter	Anal	Mass	Std	Symbol	Int	Std	% Recovery	QC Std	% Recovery	Duplicate	Rel. % Difference	Spike	% Recovery	Dilution	% Difference
[>	Ge	74					97.464								
[	As	75													
[	Cd	114													
[>	Rh	103					92.727								
[>	Lu	175					87.455								
[	Hg	200													
[>	Tm	169					88.741								
[	Pb	206													
[	Pb	207													
[	Pb	208													
[	Pb-1	208													

Sample ID: CCB

Report Date/Time: Wednesday, October 17, 2007 07:40:52

Page 1

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22940
 Sample Date/Time: Tuesday, October 16, 2007 17:01:13
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22940.059
 Calibration File:
 Sample Prep Volume (mL): 49.990
 Initial Sample Quantity (mg): 481.000
 Aliquot Volume (mL): 5.371
 Diluted to Volume (mL): 49.374
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:01:13 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	251250.879	291178.840		
As	75	2242.499	46.222	2.010887	2.369
Cd	114	491.347	33.333	0.129622 BDL	7.046
Rh	103	607218.269	731294.861		
Lu	175	837962.815	930295.892		
Hg	200	49.556	10.222	0.051167 BDL	45.905
Tm	169	690189.114	772309.854		
Pb	206	22234.160	67.667	5.654851	1.321
Pb	207	18025.857	60.000	6.049824	1.795
Pb	208	44378.770	142.668	5.914570	2.355
Pb-1	208	129017.556	413.003	5.886357	2.046

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	86.287				
L	As 75					
L	Cd 114					
>	Rh 103	83.033				
>	Lu 175	90.075				
L	Hg 200					
>	Tm 169	89.367				
L	Pb 206					
L	Pb 207					
L	Pb 208					
L	Pb-1 208					

⑩ Cd + Hg are BDL, because the sample intensity is less than the intensity of the lowest calibration standard. CMT 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22941
 Sample Date/Time: Tuesday, October 16, 2007 17:02:34
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22941.060
 Calibration File:
 Sample Prep Volume (mL): 50.111
 Initial Sample Quantity (mg): 479.000
 Aliquot Volume (mL): 5.085
 Diluted to Volume (mL): 49.689
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:02:34 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	266186.091	291178.840		
As	75	7468.400	46.222	6.848485	1.102
Cd	114	728.029	33.333	0.197645 BDL	5.016
Rh	103	641913.666	731294.861		
Lu	175	783247.954	930295.892		
Hg	200	99.778	10.222	0.132650 BDL	7.918
Tm	169	658176.594	772309.854		
Pb	206	50469.109	67.667	14.423855	1.169
Pb	207	39356.365	60.000	14.844986	0.243
Pb	208	99505.014	142.668	14.906005	0.780
Pb-1	208	288835.502	413.003	14.811204	0.602

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	91.417				
[	As	75					
[	Cd	114					
>	Rh	103	87.778				
>	Lu	175	84.193				
[	Hg	200					
>	Tm	169	85.222				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Cd + Hg are BDL, because the sample intensity is less than the intensity of the lowest Calibration Standard. Cnt 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22942
 Sample Date/Time: Tuesday, October 16, 2007 17:03:54
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22942.061
 Calibration File:
 Sample Prep Volume (mL): 50.358
 Initial Sample Quantity (mg): 484.000
 Aliquot Volume (mL): 4.788
 Diluted to Volume (mL): 50.888
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:03:54 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	280842.687	291178.840		
As	75	11616.976	46.222	10.940345	0.515
Cd	114	412.676	33.333	0.108379 BDL	11.216
Rh	103	690710.115	731294.861		
Lu	175	849295.835	930295.892		
Hg	200	36.445	10.222	0.039432 BDL	27.975
Tm	169	712063.387	772309.854		
Pb	206	33487.586	67.667	9.563449	0.134
Pb	207	26478.526	60.000	9.977825	0.640
Pb	208	64995.630	142.668	9.726140	0.448
Pb-1	208	189957.373	413.003	9.731162	0.393

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74		96.450				
L	As	75						
L	Cd	114						
>	Rh	103		94.450				
>	Lu	175		91.293				
L	Hg	200						
>	Tm	169		92.199				
L	Pb	206						
L	Pb	207						
L	Pb	208						
L	Pb-1	208						

(10) Cd + Hg are BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Cnt 10.18 or

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22943
Sample Date/Time: Tuesday, October 16, 2007 17:05:15
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
Method File:
Dataset File: C:\Elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\22943.062
Calibration File:
Sample Prep Volume (mL): 52.196
Initial Sample Quantity (mg): 628.000
Aliquot Volume (mL): 5.475
Diluted to Volume (mL): 52.123
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 17:05:15 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	279406.198	291178.840		
As	75	12605.623	46.222	8.541420	0.707
Cd	114	1141.406	33.333	0.233030	9.871
Rh	103	669575.699	731294.861		
Lu	175	845325.300	930295.892		
Hg	200	158.446	10.222	0.155556 BDL	5.746
Tm	169	709032.397	772309.854		
Pb	206	178370.846	67.667	36.659626	1.015
Pb	207	137680.246	60.000	37.346947	0.769
Pb	208	350457.705	142.668	37.749210	1.390
Pb-1	208	1016966.502	413.003	37.499039	1.231

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	95.957				
L	As 75					
L	Cd 114					
>	Rh 103	91.560				
>	Lu 175	90.866				
L	Hg 200					
>	Tm 169	91.807				
L	Pb 206					
L	Pb 207					
L	Pb 208					
L	Pb-1 208					

(10) Hg is BDL because the sample intensity is less than the intensity of the lowest calibration standard.

CU 10.18.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22944
 Sample Date/Time: Tuesday, October 16, 2007 17:06:36
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\Elandata\Icpms\DataSet\101607 Avant 282-1,2, 285-2\22944.063
 Calibration File:
 Sample Prep Volume (mL): 50.155
 Initial Sample Quantity (mg): 517.000
 Aliquot Volume (mL): 4.881
 Diluted to Volume (mL): 49.624
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:06:36 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	271491.877	291178.840		
As	75	7182.170	46.222	6.227420	0.153
Cd	114	800.702	33.333	0.207014 BDL	12.372
Rh	103	652863.267	731294.861		
Lu	175	827977.132	930295.892		
Hg	200	639.578	10.222	0.837073	3.035
Tm	169	692754.776	772309.854		
Pb	206	142861.571	67.667	37.456387	1.063
Pb	207	112842.837	60.000	39.049323	1.634
Pb	208	283495.873	142.668	38.957328	1.393
Pb-1	208	822696.155	413.003	38.700538	1.331

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	93.239				
L	As	75					
L	Cd	114					
>	Rh	103	89.275				
>	Lu	175	89.001				
L	Hg	200					
>	Tm	169	89.699				
L	Pb	206					
L	Pb	207					
L	Pb	208					
L	Pb-1	208					

⑩ Cd is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. CRT 10-18-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Tuesday, October 16, 2007 17:07:58
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCV.064
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:07:58 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	273343.704	291178.840		
As	75	70662.676	46.222	0.062034	0.374
Cd	114	225913.256	33.333	0.060897	0.824
Rh	103	659065.623	731294.861		
Lu	175	779508.525	930295.892		
Hg	200	4054.237	10.222	0.005784	1.187
Tm	169	656299.547	772309.854		
Pb	206	186741.482	67.667	0.052407	0.771
Pb	207	157979.530	60.000	0.058517	0.292
Pb	208	383007.687	142.668	0.056334	0.937
Pb-1	208	1110736.387	413.003	0.055926	0.782

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	93.875				
[	As 75					
[	Cd 114					
[>	Rh 103	90.123				
[>	Lu 175	83.791				
[	Hg 200					
[>	Tm 169	84.979				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Tuesday, October 16, 2007 17:09:22
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101707 281-1 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101607 Avant 282-1,2, 285-2\CCB.065
 Calibration File:
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 17:09:22 Tue 16-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	270290.163	291178.840		
As	75	50.889	46.222	0.000007	142.403
Cd	114	72.000	33.333	0.000012	41.018
Rh	103	643438.125	731294.861		
Lu	175	773654.012	930295.892		
Hg	200	56.000	10.222	0.000069	16.771
Tm	169	649317.034	772309.854		
Pb	206	149.335	67.667	0.000026	14.355
Pb	207	119.001	60.000	0.000026	8.771
Pb	208	289.671	142.668	0.000025	3.178
Pb-1	208	847.678	413.003	0.000025	2.114

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		92.826				
[	As	75						
[	Cd	114						
[>	Rh	103		87.986				
[>	Lu	175		83.162				
[	Hg	200						
[>	Tm	169		84.075				
[	Pb	206						
[	Pb	207						
[	Pb	208						
[	Pb-1	208						

Laboratory ID#	Sample (ID)	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Matrix Spike Duplicate Recovery	Matrix Spike Duplicate RPD	Method Blank	Method Control %Recovery
22672 (As)	TP-21 (3')	4.846	9%	104%	105%	6%	BDL	99%
22672 (Cd)	TP-21 (3')	0.811	4%	104%	107%	7%	BDL	97%
22672 (Hg)	TP-21 (3')	BDL	0%	97%	97%	5%	BDL	93%
22672 (Pb)	TP-21 (3')	7.738	12%	110%	113%	8%	BDL	100%

Comments:

Julian: 283 182

Date: 10/10/07

Tech: MLU, DLG

2

2

1	22820	17	22851 - S1	33	22670
2	22828	18	22851 - S2	34	22671
3	22852	19	Blank	35	22672
4	22818	20	Control	36	22672 - 2
5	22877	21	22658	37	22672 - 51
6	22841	22	22659	38	22672 - 52
7	22894	23	22660	39	22945
8	22771	24	22661	40	22946
9	22819	25	22662	41	22947
10	22821	26	22663	42	22948
11	23028	27	22664	43	22949
12	22875	28	22665	44	Blank 2
13	22850	29	22666	45	Control 2
14	22851 CRM	30	22667	46	37631
15	22851	31	22668	47	37971
16	22851 - 2	32	22669	48	

0.25

0.25

283 H2

METHOD DOCUMENTATION

EPA 3051-48

MF50-T48

Weight:0.25-0.50

Reagents [ml]:

HNO3 10.0

Ph	Temp	Ramp	Hold	Fan
1	175		05:30	0
2	180	04:30		1
3	0		20:00	2
4				

p-Rate:0.5bar/s IR:140°C P:1400W

Drive:Rot

Notes:

sediments, soil, sludge, contaminated
soil and oils (oil <0,25g!)
for 4 and 8 vessels!

PROCESS STATUS

Process Finished

Power reduction at 00:32 (I,S,p,T)

PROCESS LIMITS

p - Limit [bar]: 20

T - Limit [°C]: 200

IR - Limit [°C]: 140

PROCESS MAXIMA

p - MAX [bar]: 18.3

T - MAX [°C]: 151

IR - MAX	[°C]: 1	77
	2	93
	3	84
	4	85
	5	87
	6	75
	7	80
	8	92
	9	96
	10	95
	11	92
	12	92
	13	86
	14	98
	15	85
	16	85

Toil - MAX [°C]: 31.2 Tgas - MAX [°C]: 31.3 Current MAX [A]: 17.8

Tmagn1-MAX [°C]: 112.0 Tmagn2-MAX [°C]: 99.1 Status Word : 00001000

Multiwave V2.01 (PB V15) (c) Anton Paar GmbH Jan 22 2007

Device Name: SN: Sensor:p/T SN:1523

Report printed at 2007-10-10 18:36:08

Process started at 2007-10-10 18:01:00

Process finished 2007-10-10 18:34:55

Julian 283 152
Tech Mch, PLC

Empty Wt (g)

1	493.024
2	136.62
3	136.790
4	136.542
5	136.454
6	136.521
7	136.480
8	136.440
9	136.680
10	136.032
11	136.348
12	136.519
13	136.426
14	136.498
15	136.301
16	136.198
17	136.483
18	136.915
19	136.046
20	136.439
21	136.431
22	136.367
23	136.906
24	136.504
25	136.448
26	136.506
27	136.228
28	136.527
29	136.084
30	136.507
31	136.555
32	136.360
33	136.516
34	136.555
35	136.424
36	136.613
37	136.258
38	136.583
39	136.615
40	136.831
41	136.424
42	136.335
43	136.316
44	136.314
45	136.203
46	136.470
47	136.597
48	

Pre-Digest Wt (g)

507.201
151.122
151.350
153.450
152.582
151.134
150.933
151.006
151.298
150.634
150.896
151.711
151.038
150.771
150.880
150.728
153.606
154.078
150.131
154.624
151.041
150.906
150.480
151.077
150.940
151.120
150.794
151.067
150.672
151.075
151.107
150.928
151.060
151.088
150.999
151.200
153.415
153.744
151.136
151.422
150.996
150.982
150.884
150.403
154.203
150.778
150.840

Post Digestion Wt (g)

506.604
151.031
151.266
153.386
152.558
151.110
150.895
150.962
151.254
150.630
150.880
151.709
150.961
150.652
150.820
150.692
153.611
154.007
150.070
154.601
151.005
150.882
150.461
151.037
150.883
151.068
150.760
151.046
150.617
151.030
151.050
150.888
151.009
150.973
151.013
151.131
153.393
153.703
151.070
151.371
150.922
150.896
150.839
150.348
154.358
150.684
150.753
#NAME?

% Change

4.211
0.635
0.567
0.379
0.149
0.164
0.263
0.302
0.301
0.027
0.110
0.013
0.527
0.834
0.412
0.248
-0.029
0.414
0.433
0.126
0.246
0.165
0.130
0.274
0.393
0.356
0.233
0.144
0.377
0.309
0.392
0.412
0.351
0.791
-0.096
0.473
0.128
0.239
0.455
0.350
0.508
0.587
0.309
0.390
0.231
0.657
0.611
#NAME?

	Julian Date	Sample ID	Initial Weight (g)	Initial Volume (ml)	Aliquot Volume (ml)	Diluted to Volume (ml)	Date	Initials
1	283	22820	0.4910	50.1540	5.1430	50.2040	10/12/2007	DLG
2	283	22828	0.5030	49.9660	5.2040	50.0980	10/12/2007	DLG
3	283	22852	0.5250	50.1440	5.1280	50.1340	10/12/2007	DLG
4	283	22818	2.0830	50.0620	5.2240	50.4440	10/12/2007	DLG
5	283	22897	2.0220	49.9640	5.1530	50.2690	10/12/2007	DLG
6	283	22841	0.5480	50.4930	4.9560	50.1290	10/12/2007	DLG
7	283	22894	0.5170	50.7330	5.1030	50.1110	10/12/2007	DLG
8	283	22771	0.5110	50.0260	5.1550	50.2640	10/12/2007	DLG
9	283	22819	0.5610	50.2410	4.9280	50.1610	10/12/2007	DLG
10	283	22821	0.5530	49.7370	5.2790	50.1080	10/12/2007	DLG
11	283	23028	0.4830	49.5070	5.2670	50.3780	10/12/2007	DLG
12	283	22875	0.5960	50.3210	5.0540	50.1040	10/12/2007	DLG
13	283	22850	0.5390	50.1480	5.1500	50.0430	10/12/2007	DLG
14	283	CRM	0.2450	51.0500	5.1940	49.9200	10/12/2007	DLG
15	283	22851	0.5340	50.9460	5.1830	50.3360	10/12/2007	DLG
16	283	22851-2	0.4830	50.0880	5.0200	49.9220	10/12/2007	DLG
17	283	22851-S1	0.5270	49.1830	4.8960	49.3300	10/12/2007	DLG
18	283	22851-S2	0.5510	49.2150	5.0820	49.9380	10/12/2007	DLG
19	283	Mblank	1.0000	50.2730	5.0320	49.9900	10/12/2007	DLG
20	283	Mcontrol	1.0000	50.0270	5.0320	49.9840	10/12/2007	DLG
21	283	22658	0.5110	50.1020	5.5730	49.2030	10/12/2007	DLG
22	283	22659	0.5490	49.7430	5.6840	49.1810	10/12/2007	DLG
23	283	22660	0.5220	50.6200	5.9940	51.8790	10/12/2007	DLG
24	283	22661	0.5170	50.5130	6.6440	50.8730	10/12/2007	DLG
25	283	22662	0.5100	49.7560	5.3230	52.3910	10/12/2007	DLG
26	283	22663	0.5190	49.9190	5.1870	50.0420	10/12/2007	DLG
27	283	22664	0.4860	49.6260	4.9380	50.3570	10/12/2007	DLG
28	283	22665	0.4920	50.1500	5.4430	51.1640	10/12/2007	DLG
29	283	22666	0.4910	49.9880	4.8610	51.2070	10/12/2007	DLG
30	283	22667	0.5200	50.9030	5.3160	50.8590	10/12/2007	DLG
31	283	22668	0.5510	50.1030	5.2420	50.3190	10/12/2007	DLG
32	283	22669	0.4810	50.0950	5.0020	50.1750	10/12/2007	DLG
33	283	22670	0.5030	50.0630	5.0090	50.0720	10/12/2007	DLG
34	283	22671	0.5120	50.1420	5.0580	49.9810	10/12/2007	DLG
35	283	22672	0.4980	50.2190	4.9610	49.8670	10/12/2007	DLG
36	283	22672-2	0.5280	50.2530	5.3140	51.1400	10/12/2007	DLG
37	283	22672-S1	0.4900	50.3070	5.2030	50.5350	10/12/2007	DLG
38	283	22672-S2	0.4830	50.2160	5.0550	50.8430	10/12/2007	DLG
39	283	22945	0.4970	50.0510	4.9140	50.1430	10/12/2007	DLG
40	283	22946	0.5000	50.2130	4.9040	50.0680	10/12/2007	DLG
41	283	22947	0.5200	50.0830	5.4670	52.2280	10/12/2007	DLG
42	283	22948	0.6030	50.2210	5.1630	50.2050	10/12/2007	DLG
43	283	22949	0.4930	50.2210	5.3710	50.2020	10/12/2007	DLG
44	283	Mblank	1.0000	50.1640	5.1310	51.1250	10/12/2007	DLG
45	283	Mcontrol	1.0000	50.1360	4.9140	50.2320	10/12/2007	DLG
46	283	37631	0.2600	0.0000	0.0000	0.0000	10/12/2007	DLG
47	283	37971	0.2420	50.2790	10.0510	50.0040	10/12/2007	DLG

Quantitative Method Report

File Name: Fast AVANT.mth
File Path: C:\elandata_icpms\Method\Fast AVANT.mth

Timing Parameters

Sweeps/Reading: 10
Readings/Replicate: 1
Number of Replicates: 3
Tuning File: default.tun
Optimization File: c:\elandata_icpms\optimize\al opt.dac
QC Enabled: Yes
Settling Time: Normal

	Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
[>	Ge	73.922	Peak Hopping	1	100.0 ms	1000 ms
[	As	74.922	Peak Hopping	1	150.0 ms	1500 ms
[	Cd	113.904	Peak Hopping	1	50.0 ms	500 ms
[>	Rh	102.905	Peak Hopping	1	100.0 ms	1000 ms
[>	Lu	174.941	Peak Hopping	1	100.0 ms	1000 ms
[	Hg	199.968	Peak Hopping	1	150.0 ms	1500 ms
[>	Tm	168.934	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	205.975	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	206.976	Peak Hopping	1	100.0 ms	1000 ms
|	Pb	207.977	Peak Hopping	1	100.0 ms	1000 ms
[	Pb-1	207.977	Peak Hopping	1	50.0 ms	500 ms

Signal Processing

Detector Mode: Dual
Measurement Units: cps
AutoLens: On
Spectral Peak Processing: Average
Signal Profile Processing: Average
Blank Subtraction: Subtracted after internal standard
Baseline Readings: 0
Smoothing: Yes, Factor 5

Equations

Analyte	Mass	Corrections
Ge	73.922	- 0.116645 * Se 77
Pb-1	207.977	Pb208 +1*Pb206+1*Pb207

Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Ge	73.922	Linear Thru Zero	ppm	ppb				

As	74.922	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Cd	113.904	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Rh	102.905	Linear Thru Zero	ppm	ppb				
Lu	174.941	Linear Thru Zero	ppm	ppb				
Hg	199.968	Linear Thru Zero	ppm	ppb	0.25	0.5	1	5
Tm	168.934	Linear Thru Zero	ppm	ppb				
Pb	205.975	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	206.976	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10
Pb-1	207.977	Linear Thru Zero	ppm	ppb	0.25	0.5	2	10

Analyte	Mass	Std 5	Std 6	Std 7
Ge	73.922			
As	74.922	20	50	125
Cd	113.904	20	50	125
Rh	102.905			
Lu	174.941			
Hg	199.968	10		
Tm	168.934			
Pb	205.975	20	50	125
Pb	206.976	20	50	125
Pb	207.977	20	50	125
Pb-1	207.977	20	50	125

	AS Pos	Sample Flush	Sample Flush	Read Delay	Read Delay	Wash	Wash
blank	1	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.25 ppb	2	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
0.5 ppb	3	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
2.0 ppb	4	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
10.0 ppb	5	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
20.0 ppb	6	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
50.0 ppb	7	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
125.0 ppb	8	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 8		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 9		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 10		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 11		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 12		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 13		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 14		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 15		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 16		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 17		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 18		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 19		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 20		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 21		0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Standard 22	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 23	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 24	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 25	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 26	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 27	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 28	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 29	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm
Standard 30	0 s	-6 rpm	31 s	-6 rpm	5 s	-6 rpm

Reporting Options

Report Template for Printing: a&l qc.rop
 Send to Printer: No
 Report Template for File:
 Send to File: No
 Report Filename:
 Create NetCDF File: No
 Send to Serial Port: No
 Port: COM1

Sampling Devices

Peristaltic Pump Control: Yes
 Autosampler: AS-93plus
 Autosampler Tray File: c:\program files\esi\esi sc\esi.try
 Sampling Device Type: (None)
 Dil. Factor: 10
 Dil. to Vol. (mL): 10
 1st Dil. Pos.: 1
 Probe Purge Pos.: 10

PERKIN ELMER ICP-MS BATCH REPORT

Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam

Sample Information

A/S Loc.	Analyst	Batch ID	Sample ID	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vo
1	CRT	precalblank	precalblank				
1	CRT	precalblank	precalblank				
1	CRT	precalblank	precalblank				
101	CRT	283-2 Avant	22658	511.000	50.102	5.573	49.20
102	CRT	283-2 Avant	22659	549.000	49.743	5.684	49.18
103	CRT	283-2 Avant	22660	522.000	50.620	5.994	51.87
104	CRT	283-2 Avant	22661	517.000	50.513	6.644	50.87
105	CRT	283-2 Avant	22662	510.000	49.756	5.323	52.39
106	CRT	283-2 Avant	22663	519.000	49.919	5.187	50.04
107	CRT	283-2 Avant	22664	486.000	49.626	4.938	50.35
108	CRT	283-2 Avant	22665	492.000	50.150	5.443	51.16
109	CRT	283-2 Avant	22666	491.000	49.988	4.861	51.20
110	CRT	283-2 Avant	22667	520.000	50.903	5.316	50.85
111	CRT	283-2 Avant	22668	551.000	50.103	5.242	50.31
112	CRT	283-2 Avant	22669	481.000	50.095	5.002	50.17
113	CRT	283-2 Avant	22670	503.000	50.063	5.009	50.07
114	CRT	283-2 Avant	22671	512.000	50.142	5.058	49.98
115	CRT	283-2 Avant	22672	498.000	50.219	4.961	49.86
116	CRT	283-2 Avant	22672-2	528.000	50.253	5.314	51.14
117	CRT	283-2 Avant	22672-S1	490.000	50.307	5.203	50.53
118	CRT	283-2 Avant	22672-S2	483.000	50.216	5.055	50.84
119	CRT	283-2 Avant	22945	497.000	50.051	4.914	50.14
120	CRT	283-2 Avant	22946	500.000	50.213	4.904	50.06
121	CRT	283-2 Avant	22947	520.000	50.083	5.467	52.22
201	CRT	283-2 Avant	22948	603.000	50.221	5.163	50.20
202	CRT	283-2 Avant	22949	493.000	50.221	5.371	50.20
203	CRT	283-2 Avant	Mblank				
204	CRT	283-2 Avant	Mcontrol				

Calibration Report

Analyte	Mass	Curve Type	Slope	Intercept	Corr Coeff
Ge	73.922	Linear Thru Zero	0.000000	0.000	0.000000
As	74.922	Linear Thru Zero	0.004524	0.000	0.999998
Cd	113.904	Linear Thru Zero	0.007103	0.000	0.999985
Rh	102.905	Linear Thru Zero	0.000000	0.000	0.000000
Lu	174.941	Linear Thru Zero	0.000000	0.000	0.000000
Hg	199.968	Linear Thru Zero	0.001039	0.000	0.999915
Tm	168.934	Linear Thru Zero	0.000000	0.000	0.000000
Pb	205.975	Linear Thru Zero	0.007357	0.000	0.999970
Pb	206.976	Linear Thru Zero	0.005641	0.000	0.999951
Pb	207.977	Linear Thru Zero	0.014531	0.000	0.999979
Pb-1	207.977	Linear Thru Zero	0.042061	0.000	0.999974

A&L Great Lakes Lab ICP-MS Report

Sample ID: blank
 Sample Date/Time: Friday, October 12, 2007 15:12:22
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata\icpms\DataSet\101207 283-1 Avant\blank.004
 Calibration File: C:\elandata\icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:12:22 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	258364.986			
As	75	51.778			
Cd	114	42.667			
Rh	103	583470.866			
Lu	175	881817.451			
Hg	200	11.111			
Tm	169	716881.847			
Pb	206	127.668			
Pb	207	104.001			
Pb	208	260.670			
Pb-1	208	753.009			

QC Calculated Values

Inter	Anal	Mass	Std	Symbol	Int	Std	% Recovery	QC Std	% Recovery	Duplicate	Rel. % Difference	Spike	% Recovery	Dilution	% Difference
[>	Ge	74													
[	As	75													
[	Cd	114													
[>	Rh	103													
[>	Lu	175													
[	Hg	200													
[>	Tm	169													
[	Pb	206													
[	Pb	207													
[	Pb	208													
[	Pb-1	208													

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.25 ppb
Sample Date/Time: Friday, October 12, 2007 15:13:42
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\0.25 ppb.005
Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:13:42 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	257087.260	258364.986		
As	75	371.341	51.778	0.000275	4.670
Cd	114	1085.398	42.667	0.000250	3.160
Rh	103	585894.389	583470.866		
Lu	175	878925.821	881817.451		
Hg	200	243.114	11.111	0.000254	5.121
Tm	169	712812.292	716881.847		
Pb	206	1503.791	127.668	0.000263	4.353
Pb	207	1183.744	104.001	0.000269	2.498
Pb	208	2886.792	260.670	0.000254	2.279
Pb-1	208	8461.118	753.009	0.000257	2.433

QC Calculated Values

InterAnal	Mass	Std	Symbol	Int	Std	% Recovery	QC Std	% Recovery	Duplicate	Rel.	% Difference	Spike	% Recovery	Dilution	% Difference
[>	Ge	74													
[	As	75													
[	Cd	114													
[>	Rh	103													
[>	Lu	175													
[	Hg	200													
[>	Tm	169													
|	Pb	206													
|	Pb	207													
|	Pb	208													
[	Pb-1	208													

A&L Great Lakes Lab ICP-MS Report

Sample ID: 0.5 ppb
Sample Date/Time: Friday, October 12, 2007 15:15:03
Dual Detector Mode: Dual
Sample File: C:\ELandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\0.5 ppb.006
Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:15:03 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	256160.277	258364.986		
As	75	661.580	51.778	0.000527	4.097
Cd	114	2226.940	42.667	0.000525	4.866
Rh	103	585911.257	583470.866		
Lu	175	880261.337	881817.451		
Hg	200	485.124	11.111	0.000518	1.514
Tm	169	725940.387	716881.847		
Pb	206	2713.405	127.668	0.000484	1.732
Pb	207	2109.578	104.001	0.000490	2.837
Pb	208	5442.295	260.670	0.000491	1.645
Pb-1	208	15707.574	753.009	0.000490	1.599

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 2.0 ppb
 Sample Date/Time: Friday, October 12, 2007 15:16:23
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\2.0 ppb.007
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:16:23 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	257273.103	258364.986		
As	75	2515.015	51.778	0.002117	2.155
Cd	114	8716.177	42.667	0.002096	0.423
Rh	103	582512.419	583470.866		
Lu	175	879086.259	881817.451		
Hg	200	939.604	11.111	0.001017	0.977
Tm	169	717326.716	716881.847		
Pb	206	11005.324	127.668	0.002061	1.087
Pb	207	8468.943	104.001	0.002067	1.556
Pb	208	21494.391	260.670	0.002037	3.036
Pb-1	208	62463.050	753.009	0.002045	2.255

QC Calculated Values

Inter	Anal	Mass	Std	Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74							
[	As	75							
[	Cd	114							
[>	Rh	103							
[>	Lu	175							
[	Hg	200							
[>	Tm	169							
[	Pb	206							
[	Pb	207							
[	Pb	208							
[	Pb-1	208							

A&L Great Lakes Lab ICP-MS Report

Sample ID: 10.0 ppb
 Sample Date/Time: Friday, October 12, 2007 15:17:44
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\10.0 ppb.008
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:17:44 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	259752.298	258364.986		
As	75	11985.675	51.778	0.010156	1.771
Cd	114	42273.394	42.667	0.010170	0.889
Rh	103	584586.721	583470.866		
Lu	175	874050.856	881817.451		
Hg	200	4666.753	11.111	0.005128	0.923
Tm	169	712388.540	716881.847		
Pb	206	53885.231	127.668	0.010258	0.897
Pb	207	41135.526	104.001	0.010212	1.340
Pb	208	104967.637	260.670	0.010118	3.056
Pb-1	208	304956.031	753.009	0.010155	2.438

QC Calculated Values

Inter	Anal	Mass	Std Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74						
[	As	75						
[	Cd	114						
[>	Rh	103						
[>	Lu	175						
[	Hg	200						
[>	Tm	169						
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 20.0 ppb
 Sample Date/Time: Friday, October 12, 2007 15:19:05
 Dual Detector Mode: Dual
 Sample File: C:\ELANDATA\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\20.0 ppb.009
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:19:05 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	257827.474	258364.986		
As	75	23530.862	51.778	0.020134	1.366
Cd	114	84188.696	42.667	0.020240	0.855
Rh	103	585303.965	583470.866		
Lu	175	890058.521	881817.451		
Hg	200	9197.319	11.111	0.009933	1.712
Tm	169	725303.494	716881.847		
Pb	206	107115.250	127.668	0.020049	2.133
Pb	207	81847.191	104.001	0.019978	1.362
Pb	208	209361.858	260.670	0.019839	0.877
Pb-1	208	607686.156	753.009	0.019894	1.153

QC Calculated Values

Inter	Anal	Mass	dard Symbol	Int Std	% Recovery	QC Std	% Recovery	Duplicate	Rel. % Difference	Spike	% Recovery	Dilution	% Difference
[>	Ge	74											
[	As	75											
[	Cd	114											
[>	Rh	103											
[>	Lu	175											
[	Hg	200											
[>	Tm	169											
|	Pb	206											
|	Pb	207											
|	Pb	208											
[	Pb-1	208											

A&L Great Lakes Lab ICP-MS Report

Sample ID: 50.0 ppb
Sample Date/Time: Friday, October 12, 2007 15:20:25
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\50.0 ppb.010
Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:20:25 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	261985.803	258364.986		
As	75	59240.621	51.778	0.049941	0.615
Cd	114	210741.671	42.667	0.050611	0.423
Rh	103	586100.663	583470.866		
Lu	175	884893.342	881817.451		
Hg	200	109.556	11.111	0.000107	14.323
Tm	169	718747.902	716881.847		
Pb	206	269459.973	127.668	0.050934	0.727
Pb	207	207849.489	104.001	0.051237	1.103
Pb	208	530947.510	260.670	0.050809	1.176
Pb-1	208	1539204.482	753.009	0.050888	1.048

QC Calculated Values

InterAnal	Mass	Std Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 125.0 ppb
 Sample Date/Time: Friday, October 12, 2007 15:21:46
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\125.0 ppb.011
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:21:46 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	259383.844	258364.986		
As	75	146711.709	51.778	0.124988	0.361
Cd	114	528868.601	42.667	0.124702	1.057
Rh	103	596982.981	583470.866		
Lu	175	901997.249	881817.451		
Hg	200	51.778	11.111	0.000043	20.385
Tm	169	737650.368	716881.847		
Pb	206	676260.660	127.668	0.124597	0.621
Pb	207	518093.177	104.001	0.124491	0.809
Pb	208	1336714.952	260.670	0.124692	1.501
Pb-1	208	3867783.741	753.009	0.124648	1.225

QC Calculated Values

InterAnal	Mass	Std	Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74					
[	As	75					
[	Cd	114					
[>	Rh	103					
[>	Lu	175					
[	Hg	200					
[>	Tm	169					
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICV
 Sample Date/Time: Friday, October 12, 2007 15:23:07
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\ICV.012
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:23:07 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	261387.594	258364.986		
As	75	73260.238	51.778	0.061915	0.765
Cd	114	257943.776	42.667	0.061556	0.468
Rh	103	589806.644	583470.866		
Lu	175	896982.844	881817.451		
Hg	200	5736.921	11.111	0.006145	1.721
Tm	169	729580.418	716881.847		
Pb	206	307726.233	127.668	0.057308	1.105
Pb	207	264648.601	104.001	0.064278	1.396
Pb	208	646786.828	260.670	0.060983	1.648
Pb-1	208	1865948.490	753.009	0.060782	1.461

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	101.170				
[	As	75		103.192			
[	Cd	114		102.593			
[>	Rh	103	101.086				
[>	Lu	175	101.720				
[	Hg	200		102.410			
[>	Tm	169	101.771				
[	Pb	206		95.514			
[	Pb	207		107.130			
[	Pb	208		101.639			
[	Pb-1	208		101.304			

A&L Great Lakes Lab ICP-MS Report

Sample ID: ICB

Sample Date/Time: Friday, October 12, 2007 15:24:31

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\ICB.013

Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:24:31 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	258434.414	258364.986		
As	75	78.000	51.778	0.000023	72.832
Cd	114	97.334	42.667	0.000013	38.334
Rh	103	587554.365	583470.866		
Lu	175	896562.441	881817.451		
Hg	200	73.111	11.111	0.000066	3.518
Tm	169	722782.579	716881.847		
Pb	206	172.668	127.668	0.000008	73.208
Pb	207	137.334	104.001	0.000008	21.576
Pb	208	367.341	260.670	0.000010	50.917
Pb-1	208	1044.684	753.009	0.000009	50.942

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	100.027				
[	As	75					
[	Cd	114					
[>	Rh	103	100.700				
[>	Lu	175	101.672				
[	Hg	200					
[>	Tm	169	100.823				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22658

Sample Date/Time: Friday, October 12, 2007 15:25:51

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22658.014

Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal

Sample Prep Volume (mL): 50.102

Initial Sample Quantity (mg): 511.000

Aliquot Volume (mL): 5.573

Diluted to Volume (mL): 49.203

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:25:51 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	260112.330	258364.986		
As	75	13076.732	51.778	9.582004	0.562
Cd	114	6876.600	42.667	1.410025	0.789
Rh	103	590599.619	583470.866		
Lu	175	930786.399	881817.451		
Hg	200	234.670	11.111	0.109612 BDL	6.951
Tm	169	751673.864	716881.847		
Pb	206	1494755.502	127.668	233.966634	0.805
Pb	207	1247892.341	104.001	254.729040	0.679
Pb	208	3224679.145	260.670	255.527012	1.300
Pb-1	208	9192006.133	753.009	251.648844	1.006

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	100.676				
|	As	75					
|	Cd	114					
>	Rh	103	101.222				
>	Lu	175	105.553				
|	Hg	200					
>	Tm	169	104.853				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. Also, see ICP data from 10.16.07 for Pb results. Results are over the calibration range CRT 10.26.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22659
 Sample Date/Time: Friday, October 12, 2007 15:27:12
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22659.015
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL): 49.743
 Initial Sample Quantity (mg): 549.000
 Aliquot Volume (mL): 5.684
 Diluted to Volume (mL): 49.181
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:27:12 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	198925.973	258364.986		
As	75	7101.884	51.778	6.152213	0.330
Cd	114	25484.341	42.667	5.829079	0.421
Rh	103	481836.361	583470.866		
Lu	175	885165.983	881817.451		
Hg	200	1141.405	11.111	0.963626	1.011
Tm	169	712146.710	716881.847		
Pb	206	2105482.221	127.668	315.034136	0.649
Pb	207	1709189.914	104.001	333.528240	0.151
Pb	208	4395203.408	260.670	332.952874	0.546
Pb-1	208	12605078.952	753.009	329.895859	0.337

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	76.994				
[	As	75					
[	Cd	114					
[>	Rh	103	82.581				
[>	Lu	175	100.380				
[	Hg	200					
[>	Tm	169	99.339				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

(10) See ICP data from 10-16-07
 for Pb results. Results are
 over the calibration range.
 Cpt 10-26-07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22660

Sample Date/Time: Friday, October 12, 2007 15:28:33

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22660.016

Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal

Sample Prep Volume (mL): 50.620

Initial Sample Quantity (mg): 522.000

Allquot Volume (mL): 5.994

Diluted to Volume (mL): 51.879

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:28:33 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	243850.232	258364.986		
As	75	9802.838	51.778	7.423276	1.710
Cd	114	696.694	42.667	0.136095	9.912
Rh	103	568604.405	583470.866		
Lu	175	922581.462	881817.451		
Hg	200	59.111	11.111	0.041563	18.529
Tm	169	746015.130	716881.847		
Pb	206	59094.477	127.668	9.016604	0.367
Pb	207	47817.438	104.001	9.516325	1.873
Pb	208	120037.080	260.670	9.274055	2.314
Pb-1	208	346986.075	753.009	9.261517	1.823

QC Calculated Values

InterAnal	Mass	Std	Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	94.382				
[	As	75					
[	Cd	114					
>	Rh	103	97.452				
>	Lu	175	104.623				
[	Hg	200					
>	Tm	169	104.064				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Cd + Hg are BDL, ^{because} ~~because~~ the sample intensity is less than the intensity of the lowest calibration standard. Oct 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22661

Sample Date/Time: Friday, October 12, 2007 15:29:53

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22661.017

Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal

Sample Prep Volume (mL): 50.513

Initial Sample Quantity (mg): 517.000

Aliquot Volume (mL): 6.644

Diluted to Volume (mL): 50.873

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:29:53 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	228217.629	258364.986		
As	75	13476.427	51.778	9.732524	1.555
Cd	114	25339.268	42.667	4.912060	0.931
Rh	103	542455.876	583470.866		
Lu	175	926798.433	881817.451		
Hg	200	960.051	11.111	0.736761	4.470
Tm	169	747733.710	716881.847		
Pb	206	1696419.692	127.668	230.692063	0.427
Pb	207	1428970.441	104.001	253.432418	0.872
Pb	208	3678433.085	260.670	253.259010	1.739
Pb-1	208	10482256.302	753.009	249.335063	1.252

QC Calculated Values

InterAnal	Mass	Std	Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	88.331				
[	As	75					
[	Cd	114					
>	Rh	103	92.971				
>	Lu	175	105.101				
[	Hg	200					
>	Tm	169	104.304				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ See ICP data for Pb results from 10-16-07. Results are over the calibration range. Ckt 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22662

Sample Date/Time: Friday, October 12, 2007 15:31:14

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22662.018

Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal

Sample Prep Volume (mL): 49.756

Initial Sample Quantity (mg): 510.000

Aliquot Volume (mL): 5.323

Diluted to Volume (mL): 52.391

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:31:14 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	210536.965	258364.986		
As	75	10258.675	51.778	10.299774	0.646
Cd	114	47155.992	42.667	12.471404	1.100
Rh	103	510730.944	583470.866		
Lu	175	918713.438	881817.451		
Hg	200	3034.507	11.111	3.041481	2.427
Tm	169	749590.004	716881.847		
Pb	206	3779246.249	127.668	658.034443	0.939
Pb	207	3186599.862	104.001	723.599377	1.157
Pb	208	7970408.173	260.670	702.626233	1.034
Pb-1	208	22906662.456	753.009	667.639535	0.962

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	81.488				
[	As	75					
[	Cd	114					
>	Rh	103	87.533				
>	Lu	175	104.184				
[	Hg	200					
>	Tm	169	104.563				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

(10) See ICP data from 10-16-07 for Pb results. Results are over the calibration range. Ckt 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22663
Sample Date/Time: Friday, October 12, 2007 15:32:34
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22663.019
Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL): 49.919
Initial Sample Quantity (mg): 519.000
Aliquot Volume (mL): 5.187
Diluted to Volume (mL): 50.042
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:32:34 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	246310.234	258364.986		
As	75	6262.379	51.778	5.175334	1.704
Cd	114	395.342	42.667	0.079953 BPL	4.987
Rh	103	577022.209	583470.866		
Lu	175	927356.106	881817.451		
Hg	200	48.445	11.111	0.035408 BPL	6.435
Tm	169	754134.755	716881.847		
Pb	206	30210.786	127.668	5.030509	1.376
Pb	207	24162.738	104.001	5.246666	1.184
Pb	208	60913.731	260.670	5.134840	0.831
Pb-1	208	176200.986	753.009	5.131589	0.872

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	95.334				
[	As	75					
[	Cd	114					
>	Rh	103	98.895				
>	Lu	175	105.164				
[	Hg	200					
>	Tm	169	105.197				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Hg + Cd are BPL, because the sample intensity is less than the intensity of the lowest calibration standard.

Oct 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22664

Sample Date/Time: Friday, October 12, 2007 15:33:55

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22664.020

Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal

Sample Prep Volume (mL): 49.626

Initial Sample Quantity (mg): 486.000

Aliquot Volume (mL): 4.938

Diluted to Volume (mL): 50.357

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:33:55 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	244281.385	258364.986		
As	75	23238.108	51.778	21.854629	1.540
Cd	114	14731.929	42.667	3.776814	2.225
Rh	103	570273.692	583470.866		
Lu	175	937648.339	881817.451		
Hg	200	676.247	11.111	0.710214	2.397
Tm	169	758580.914	716881.847		
Pb	206	3418306.568	127.668	637.889044	1.755
Pb	207	2848523.398	104.001	693.270085	2.528
Pb	208	7094655.196	260.670	670.295588	2.255
Pb-1	208	20456140.359	753.009	667.708641	2.198

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	94.549				
[	As 75					
[	Cd 114					
>	Rh 103	97.738				
>	Lu 175	106.331				
[	Hg 200					
>	Tm 169	105.817				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ See ICP data for Pb results from 10-16-07. Results are over the calibration range.
CUT 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Friday, October 12, 2007 15:35:16
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\CCV.021
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:35:16 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	251605.358	258364.986		
As	75	71890.483	51.778	0.063127	1.293
Cd	114	257513.630	42.667	0.061830	0.075
Rh	103	586217.435	583470.866		
Lu	175	912330.934	881817.451		
Hg	200	5906.140	11.111	0.006220	2.394
Tm	169	739767.708	716881.847		
Pb	206	321412.704	127.668	0.059040	1.704
Pb	207	275650.168	104.001	0.066037	1.854
Pb	208	672645.009	260.670	0.062558	2.467
Pb-1	208	1942352.890	753.009	0.062409	2.251

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	97.384				
[	As	75		105.212			
[	Cd	114		103.050			
[>	Rh	103	100.471				
[>	Lu	175	103.460				
[	Hg	200		103.669			
[>	Tm	169	103.192				
|	Pb	206		98.400			
|	Pb	207		110.061			
|	Pb	208		104.264			
[	Pb-1	208		104.015			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB

Sample Date/Time: Friday, October 12, 2007 15:36:40

Dual Detector Mode: Dual

Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\CCB.022

Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal

Sample Prep Volume (mL):

Initial Sample Quantity (mg):

Aliquot Volume (mL):

Diluted to Volume (mL):

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:36:40 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	249576.164	258364.986		
As	75	49.778	51.778	-0.000000	3956.191
Cd	114	65.334	42.667	0.000005	79.796
Rh	103	584369.246	583470.866		
Lu	175	896399.052	881817.451		
Hg	200	71.556	11.111	0.000065	23.089
Tm	169	723171.400	716881.847		
Pb	206	403.676	127.668	0.000052	12.656
Pb	207	331.006	104.001	0.000056	24.064
Pb	208	832.038	260.670	0.000054	9.848
Pb-1	208	2398.758	753.009	0.000054	11.512

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	96.598				
[	As	75					
[	Cd	114					
[>	Rh	103	100.154				
[>	Lu	175	101.654				
[	Hg	200					
[>	Tm	169	100.877				
|	Pb	206					
|	Pb	207					
	Pb	208					
[Pb-1	208					

Sample ID: CCB

Report Date/Time: Monday, October 15, 2007 10:34:58

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A&L Great Lakes Lab ICP-MS Report

Sample ID: 22665
Sample Date/Time: Friday, October 12, 2007 15:38:04
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22665.023
Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL): 50.150
Initial Sample Quantity (mg): 492.000
Aliquot Volume (mL): 5.443
Diluted to Volume (mL): 51.164
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:38:04 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	209846.641	258364.986		
As	75	14202.864	51.778	14.295305	1.545
Cd	114	56428.597	42.667	14.918292	0.177
Rh	103	509869.656	583470.866		
Lu	175	912827.451	881817.451		
Hg	200	2737.968	11.111	2.754996	2.021
Tm	169	734313.697	716881.847		
Pb	206	6115276.210	127.668	1084.570103	0.234
Pb	207	5165072.407	104.001	1194.637308	0.633
Pb	208	12811569.326	260.670	1150.360924	0.527
Pb-1	208	36903487.269	753.009	1144.791684	0.368

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	81.221				
[	As 75					
[	Cd 114					
[>	Rh 103	87.386				
[>	Lu 175	103.517				
[	Hg 200					
[>	Tm 169	102.432				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ See ICP data for Pb results from 10-16-07. Results are over the calibration range. CRT 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22666
 Sample Date/Time: Friday, October 12, 2007 15:39:24
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22666.024
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL): 49.988
 Initial Sample Quantity (mg): 491.000
 Aliquot Volume (mL): 4.861
 Diluted to Volume (mL): 51.207
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:39:24 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	246867.737	258364.986		
As	75	1877.972	51.778	1.756013	2.308
Cd	114	291.338	42.667	0.065640 BDL	5.300
Rh	103	573959.080	583470.866		
Lu	175	892773.425	881817.451		
Hg	200	56.667	11.111	0.052503 BDL	18.941
Tm	169	725281.036	716881.847		
Pb	206	18401.946	127.668	3.673506	3.335
Pb	207	14887.514	104.001	3.875206	1.436
Pb	208	37889.136	260.670	3.829269	2.252
Pb-1	208	109067.732	753.009	3.808185	2.319

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	95.550				
[	As	75					
[	Cd	114					
>	Rh	103	98.370				
>	Lu	175	101.242				
[	Hg	200					
>	Tm	169	101.172				
[	Pb	206					
[	Pb	207					
[	Pb	208					
[	Pb-1	208					

⑩ Cd + Hg are BDL,

because the sample intensity is less than the intensity of the lowest calibration standard.

CLT 10.26.07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22667
Sample Date/Time: Friday, October 12, 2007 15:40:45
Dual Detector Mode: Dual
Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata\jcpms\DataSet\101207 283-1 Avant\22667.025
Calibration File: C:\elandata\jcpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL): 50.903
Initial Sample Quantity (mg): 520.000
Aliquot Volume (mL): 5.316
Diluted to Volume (mL): 50.859
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:40:45 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	247507.605	258364.986		
As	75	23101.539	51.778	19.283085	1.294
Cd	114	51105.244	42.667	11.573129	0.549
Rh	103	581719.043	583470.866		
Lu	175	955682.234	881817.451		
Hg	200	29639.131	11.111	27.950680	1.686
Tm	169	770362.127	716881.847		
Pb	206	7494345.232	127.668	1238.480992	1.040
Pb	207	6297704.770	104.001	1357.296811	1.120
Pb	208	15841203.325	260.670	1325.696027	1.254
Pb-1	208	45474456.651	753.009	1314.472134	1.169

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	95.798				
[	As	75					
[	Cd	114					
>	Rh	103	99.700				
>	Lu	175	108.376				
[	Hg	200					
>	Tm	169	107.460				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ See ICP data from 10-16-07
for Pb results. Results are
over the calibration range for
Pb. CW 10-26-07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22668
Sample Date/Time: Friday, October 12, 2007 15:42:06
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22668.026
Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL): 50.103
Initial Sample Quantity (mg): 551.000
Aliquot Volume (mL): 5.242
Diluted to Volume (mL): 50.319
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:42:06 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	211698.735	258364.986		
As	75	20209.773	51.778	18.382152	0.655
Cd	114	86827.347	42.667	20.818760	0.541
Rh	103	512263.262	583470.866		
Lu	175	908667.278	881817.451		
Hg	200	5066.967	11.111	4.674473	0.919
Tm	169	731531.579	716881.847		
Pb	206	8066350.254	127.668	1308.258181	0.347
Pb	207	6754166.113	104.001	1428.650727	0.980
Pb	208	16835654.843	260.670	1382.422253	0.874
Pb-1	208	48491826.053	753.009	1375.650254	0.758

QC Calculated Values

Inter	Anal	Mass	Std	Symbol	Int	Std	% Recovery	QC Std	% Recovery	Duplicate	Rel. % Difference	Spike	% Recovery	Dilution	% Difference
>	Ge	74					81.938								
L	As	75													
L	Cd	114													
>	Rh	103					87.796								
>	Lu	175					103.045								
L	Hg	200													
>	Tm	169					102.044								
L	Pb	206													
L	Pb	207													
L	Pb	208													
L	Pb-1	208													

(10) See ICP data from 10-16-07
for Pb results. Results are
over the calibration range.
Att 10-26-07.

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22669
Sample Date/Time: Friday, October 12, 2007 15:43:26
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22669.027
Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL): 50.095
Initial Sample Quantity (mg): 481.000
Aliquot Volume (mL): 5.002
Diluted to Volume (mL): 50.175
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:43:26 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	244147.422	258364.986		
As	75	3343.726	51.778	3.116498	0.546
Cd	114	958.717	42.667	0.236433 BDL	2.324
Rh	103	570482.640	583470.866		
Lu	175	906872.281	881817.451		
Hg	200	162.668	11.111	0.167708 BDL	1.879
Tm	169	738623.743	716881.847		
Pb	206	61874.859	127.668	11.871704	1.634
Pb	207	50348.059	104.001	12.598933	2.538
Pb	208	126918.239	260.670	12.328707	2.028
Pb-1	208	366059.396	753.009	12.285015	1.948

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	94.497				
L	As 75					
L	Cd 114					
>	Rh 103	97.774				
>	Lu 175	102.841				
L	Hg 200					
>	Tm 169	103.033				
L	Pb 206					
L	Pb 207					
L	Pb 208					
L	Pb-1 208					

⑩ Cd + Hg are BDL, because the sample intensity is less than the intensity of the lowest calibration standard.
Clt 10.2607

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22670
Sample Date/Time: Friday, October 12, 2007 15:44:47
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22670.028
Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL): 50.063
Initial Sample Quantity (mg): 503.000
Aliquot Volume (mL): 5.009
Diluted to Volume (mL): 50.072
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:44:47 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	244656.019	258364.986		
As	75	13935.118	51.778	12.482768	0.825
Cd	114	18266.335	42.667	4.430336	1.178
Rh	103	576150.053	583470.866		
Lu	175	951632.383	881817.451		
Hg	200	616.243	11.111	0.608167	2.969
Tm	169	763658.400	716881.847		
Pb	206	1699951.080	127.668	301.027795	1.589
Pb	207	1424553.831	104.001	328.985057	0.992
Pb	208	3703269.599	260.670	332.000710	0.764
Pb-1	208	10531044.110	753.009	326.178755	0.587

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	94.694				
|	As	75					
|	Cd	114					
>	Rh	103	98.745				
>	Lu	175	107.917				
|	Hg	200					
>	Tm	169	106.525				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Results are over the calibration range. See ICP data from 10.16.07 for Pb results. CRT 10.26.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22671
 Sample Date/Time: Friday, October 12, 2007 15:46:07
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22671.029
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL): 50.142
 Initial Sample Quantity (mg): 512.000
 Aliquot Volume (mL): 5.058
 Diluted to Volume (mL): 49.981
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:46:07 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	225733.617	258364.986		
As	75	18143.198	51.778	17.151127	0.675
Cd	114	100168.226	42.667	25.327403	0.728
Rh	103	538576.088	583470.866		
Lu	175	933881.306	881817.451		
Hg	200	3644.508	11.111	3.623351	1.202
Tm	169	747848.960	716881.847		
Pb	206	8487292.105	127.668	1492.958320	0.897
Pb	207	7114463.204	104.001	1632.102161	0.941
Pb	208	17730710.529	260.670	1578.985748	0.547
Pb-1	208	51063176.367	753.009	1571.062519	0.641

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	87.370				
L	As	75					
L	Cd	114					
>	Rh	103	92.306				
>	Lu	175	105.904				
L	Hg	200					
>	Tm	169	104.320				
L	Pb	206					
L	Pb	207					
L	Pb	208					
L	Pb-1	208					

(10) Results are over the calibration range. See ICP data from 10-16-07 for Pb results. Cnt 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22672
 Sample Date/Time: Friday, October 12, 2007 15:47:28
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22672.030
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL): 50.219
 Initial Sample Quantity (mg): 498.000
 Aliquot Volume (mL): 4.961
 Diluted to Volume (mL): 49.867
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:47:28 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	247576.374	258364.986		
As	75	5403.383	51.778	4.845885	2.001
Cd	114	3315.271	42.667	0.810816	2.014
Rh	103	576025.389	583470.866		
Lu	175	902637.918	881817.451		
Hg	200	96.445	11.111	0.094950 BDL	12.833
Tm	169	731091.545	716881.847		
Pb	206	39824.039	127.668	7.480809	0.468
Pb	207	32405.660	104.001	7.938902	1.494
Pb	208	81643.666	260.670	7.764377	0.382
Pb-1	208	235517.031	753.009	7.738185	0.449

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	95.824				
|	As	75					
|	Cd	114					
>	Rh	103	98.724				
>	Lu	175	102.361				
|	Hg	200					
>	Tm	169	101.982				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Hg result is BDL
 because the sample intensity
 is less than the intensity of
 the lowest calibration standard.
 CKT 10.21607

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22672-2
 Sample Date/Time: Friday, October 12, 2007 15:48:49
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22672-2.031
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL): 50.253
 Initial Sample Quantity (mg): 528.000
 Aliquot Volume (mL): 5.314
 Diluted to Volume (mL): 51.140
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:48:49 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	246608.445	258364.986		
As	75	5444.741	51.778	4.429652	0.754
Cd	114	3485.335	42.667	0.780067	0.880
Rh	103	569245.137	583470.866		
Lu	175	892017.045	881817.451		
Hg	200	71.778	11.111	0.059808	7.011
Tm	169	722829.112	716881.847		
Pb	206	38920.813	127.668	6.681833	1.550
Pb	207	31450.321	104.001	7.041486	2.273
Pb	208	79377.371	260.670	6.899052	0.616
Pb-1	208	229125.877	753.009	6.880161	0.991

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	95.450				
[	As	75			8.975		
[	Cd	114			3.866		
[>	Rh	103	97.562				
[>	Lu	175	101.157				
[	Hg	200					
[>	Tm	169	100.830				
[	Pb	206			11.283		
[	Pb	207			11.981		
[	Pb	208			11.802		
[	Pb-1	208			11.739		

0% ~~42.359~~

Both sample and duplicate are BDL.

Duplicate Rel % Diff = 0

Cut 10.26er

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22672-S1
 Sample Date/Time: Friday, October 12, 2007 15:50:09
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22672-S1.032
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL): 50.307
 Initial Sample Quantity (mg): 490.000
 Aliquot Volume (mL): 5.203
 Diluted to Volume (mL): 50.535
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:50:09 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	251600.627	258364.986		
As	75	598070.292	51.778	523.967458	0.926
Cd	114	2117004.833	42.667	518.654653	0.891
Rh	103	572989.769	583470.866		
Lu	175	915769.793	881817.451		
Hg	200	557.573	11.111	0.572299	0.219
Tm	169	738548.249	716881.847		
Pb	206	2863582.569	127.668	525.531013	0.791
Pb	207	2464929.249	104.001	589.965843	1.322
Pb	208	5979401.115	260.670	555.578875	2.179
Pb-1	208	17287314.047	753.009	554.935112	1.824

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	97.382				
[	As	75				104.134	
[	Cd	114				103.865	
[>	Rh	103	98.204				
[>	Lu	175	103.850				
[	Hg	200				96.642	
[>	Tm	169	103.022				
[	Pb	206				103.928	
[	Pb	207				116.761	
[	Pb	208				109.899	
[	Pb-1	208				109.775	

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22672-S2

Sample Date/Time: Friday, October 12, 2007 15:51:30

Dual Detector Mode: Dual

Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam

Method File:

Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22672-S2.033

Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal

Sample Prep Volume (mL): 50.216

Initial Sample Quantity (mg): 483.000

Allquot Volume (mL): 5.055

Diluted to Volume (mL): 50.843

Computer Name: ELANDRCE

Acquisition Date/Time-Short: 15:51:30 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	252577.580	258364.986		
As	75	607318.550	51.778	555.762203	0.305
Cd	114	2189535.532	42.667	557.955143	0.826
Rh	103	577721.965	583470.866		
Lu	175	910911.166	881817.451		
Hg	200	556.239	11.111	0.601830	4.128
Tm	169	743845.069	716881.847		
Pb	206	2961216.054	127.668	565.855579	1.073
Pb	207	2544653.042	104.001	634.149904	1.002
Pb	208	6197074.683	260.670	599.506213	0.741
Pb-1	208	17900018.462	753.009	598.266718	0.768

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		97.760				
[	As	75				5.889	105.339	
[	Cd	114				7.301	106.555	
[>	Rh	103		99.015				
[>	Lu	175		103.299				
[	Hg	200				5.030	96.964	
[>	Tm	169		103.761				
|	Pb	206				7.390	106.750	
|	Pb	207				7.219	119.721	
|	Pb	208				7.606	113.130	
[	Pb-1	208				7.515	112.898	

Sample ID: 22672-S2

Report Date/Time: Monday, October 15, 2007 10:35:14

Page 1

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Friday, October 12, 2007 15:52:53
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\CCV.034
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:52:53 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	253778.300	258364.986		
As	75	73038.678	51.778	0.063581	1.034
Cd	114	259903.354	42.667	0.062388	0.330
Rh	103	586375.259	583470.866		
Lu	175	890464.070	881817.451		
Hg	200	5710.015	11.111	0.006161	2.114
Tm	169	728336.322	716881.847		
Pb	206	307370.862	127.668	0.057349	2.142
Pb	207	264345.615	104.001	0.064326	1.877
Pb	208	644902.808	260.670	0.060922	2.129
Pb-1	208	1861522.094	753.009	0.060753	2.029

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		98.225				
[	As	75			105.969			
[	Cd	114			103.981			
[>	Rh	103		100.498				
[>	Lu	175		100.981				
[	Hg	200			102.687			
[>	Tm	169		101.598				
[	Pb	206			95.581			
[	Pb	207			107.209			
[	Pb	208			101.536			
[	Pb-1	208			101.255			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Friday, October 12, 2007 15:54:16
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\CCB.035
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:54:16 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	254948.482	258364.986		
As	75	122.890	51.778	0.000062	11.112
Cd	114	134.668	42.667	0.000022	17.807
Rh	103	580902.197	583470.866		
Lu	175	880625.370	881817.451		
Hg	200	79.778	11.111	0.000075	18.199
Tm	169	709512.006	716881.847		
Pb	206	440.011	127.668	0.000060	20.060
Pb	207	364.674	104.001	0.000066	18.919
Pb	208	897.711	260.670	0.000062	12.285
Pb-1	208	2600.107	753.009	0.000062	14.286

QC Calculated Values

Inter	Anal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74		98.678				
[	As	75						
[	Cd	114						
[>	Rh	103		99.560				
[>	Lu	175		99.865				
[	Hg	200						
[>	Tm	169		98.972				
|	Pb	206						
|	Pb	207						
|	Pb	208						
[	Pb-1	208						

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22945
 Sample Date/Time: Friday, October 12, 2007 15:55:39
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22945.036
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL): 50.051
 Initial Sample Quantity (mg): 497.000
 Aliquot Volume (mL): 4.914
 Diluted to Volume (mL): 50.143
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:55:39 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	226352.558	258364.986		
As	75	6394.026	51.778	6.371621	1.420
Cd	114	6951.325	42.667	1.885448	3.246
Rh	103	530392.537	583470.866		
Lu	175	898295.842	881817.451		
Hg	200	352.674	11.111	0.375887	2.907
Tm	169	725222.357	716881.847		
Pb	206	1062105.861	127.668	204.540088	0.656
Pb	207	878200.543	104.001	220.562327	0.485
Pb	208	2319180.267	260.670	226.119088	0.302
Pb-1	208	6578666.939	753.009	221.599554	0.339

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	87.610				
|	As 75					
|	Cd 114					
>	Rh 103	90.903				
>	Lu 175	101.869				
|	Hg 200					
>	Tm 169	101.163				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

⑩ See ICP data from 10-16-07.
 The results are over the
 calibration range. CRT 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22946
 Sample Date/Time: Friday, October 12, 2007 15:56:59
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22946.037
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL): 50.213
 Initial Sample Quantity (mg): 500.000
 Aliquot Volume (mL): 4.904
 Diluted to Volume (mL): 50.068
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 15:56:59 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	245830.760	258364.986		
As	75	9174.185	51.778	8.412116	2.032
Cd	114	2094.241	42.667	0.524717	4.712
Rh	103	564877.518	583470.866		
Lu	175	903806.638	881817.451		
Hg	200	132.668	11.111	0.182492 BDL	9.636
Tm	169	733337.950	716881.847		
Pb	206	192995.650	127.668	36.654233	1.445
Pb	207	162418.545	104.001	40.229863	1.450
Pb	208	406754.830	260.670	39.111710	1.179
Pb-1	208	1168923.856	753.009	38.831836	1.257

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge	74	95.149				
|	As	75					
|	Cd	114					
>	Rh	103	96.813				
>	Lu	175	102.494				
|	Hg	200					
>	Tm	169	102.296				
|	Pb	206					
|	Pb	207					
|	Pb	208					
|	Pb-1	208					

⑩ Hg is BDL, because the sample intensity is less than the intensity of the lowest calibration standard. CPT 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22947
Sample Date/Time: Friday, October 12, 2007 15:58:20
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\Elandata_icpms\DataSet\101207 283-1 Avant\22947.038
Calibration File: C:\Elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL): 50.083
Initial Sample Quantity (mg): 520.000
Aliquot Volume (mL): 5.467
Diluted to Volume (mL): 52.228
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:58:20 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	246616.609	258364.986		
As	75	14978.997	51.778	12.313965	1.476
Cd	114	626.022	42.667	0.131685 BDL	6.770
Rh	103	574572.545	583470.866		
Lu	175	900937.516	881817.451		
Hg	200	56.889	11.111	0.044770 BDL	22.060
Tm	169	732476.787	716881.847		
Pb	206	55702.466	127.668	9.490456	1.745
Pb	207	44683.213	104.001	9.927754	1.443
Pb	208	111796.222	260.670	9.642622	1.469
Pb-1	208	323978.123	753.009	9.654248	1.479

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
> Ge	74	95.453				
[As	75					
[Cd	114					
> Rh	103	98.475				
> Lu	175	102.168				
[Hg	200					
> Tm	169	102.175				
[Pb	206					
[Pb	207					
[Pb	208					
[Pb-1	208					

⑩ Cd + Hg are BDL, because the sample intensity is less than the intensity of the lowest calibration standard.

CNT 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22948
Sample Date/Time: Friday, October 12, 2007 15:59:41
Dual Detector Mode: Dual
Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
Method File:
Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22948.039
Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
Sample Prep Volume (mL): 50.221
Initial Sample Quantity (mg): 603.000
Aliquot Volume (mL): 5.163
Diluted to Volume (mL): 50.205
Computer Name: ELANDRCE
Acquisition Date/Time-Short: 15:59:41 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	244261.862	258364.986		
As	75	16422.153	51.778	12.000318	0.246
Cd	114	677.359	42.667	0.127754 BDL	1.828
Rh	103	567437.331	583470.866		
Lu	175	903799.475	881817.451		
Hg	200	68.889	11.111	0.049589 BDL	4.773
Tm	169	728000.995	716881.847		
Pb	206	76527.124	127.668	11.552450	0.897
Pb	207	61453.011	104.001	12.098813	0.969
Pb	208	154303.579	260.670	11.793841	1.648
Pb-1	208	446587.292	753.009	11.792522	1.384

QC Calculated Values

InterAnalMess	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	94.541				
[	As 75					
[	Cd 114					
[>	Rh 103	97.252				
[>	Lu 175	102.493				
[	Hg 200					
[>	Tm 169	101.551				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

⑩ Hg + Cd are BDL, because the sample intensity is less than the intensity of the lowest calibration standard. CRT 10-26-07

A&L Great Lakes Lab ICP-MS Report

Sample ID: 22949
 Sample Date/Time: Friday, October 12, 2007 16:01:01
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\22949.040
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL): 50.221
 Initial Sample Quantity (mg): 493.000
 Aliquot Volume (mL): 5.371
 Diluted to Volume (mL): 50.202
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:01:01 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	248123.061	258364.986		
As	75	17802.972	51.778	15.059338	0.729
Cd	114	718.029	42.667	0.158317 BDL	10.838
Rh	103	572654.608	583470.866		
Lu	175	894175.155	881817.451		
Hg	200	38.000	11.111	0.027424 BDL	14.287
Tm	169	725297.248	716881.847		
Pb	206	62001.395	127.668	11.040750	1.088
Pb	207	49936.140	104.001	11.595671	1.158
Pb	208	125709.918	260.670	11.333004	0.839
Pb-1	208	363357.371	753.009	11.317114	0.775

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
>	Ge 74	96.036				
|	As 75					
|	Cd 114					
>	Rh 103	98.146				
>	Lu 175	101.401				
|	Hg 200					
>	Tm 169	101.174				
|	Pb 206					
|	Pb 207					
|	Pb 208					
|	Pb-1 208					

(10) Cd + Hg are BDL, because
 the sample intensity is less
 than the intensity of the
 lowest calibration standard

CU 10.26.07

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mblank
 Sample Date/Time: Friday, October 12, 2007 16:02:22
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\Mblank.041
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:02:22 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	252997.255	258364.986		
As	75	60.667	51.778	0.000009	105.141
Cd	114	32.000	42.667	-0.000003	63.987
Rh	103	593798.731	583470.866		
Lu	175	888559.663	881817.451		
Hg	200	19.111	11.111	0.000009	41.266
Tm	169	730895.808	716881.847		
Pb	206	202.669	127.668	0.000013	17.265
Pb	207	168.668	104.001	0.000015	33.306
Pb	208	413.343	260.670	0.000014	35.765
Pb-1	208	1198.023	753.009	0.000014	29.440

QC Calculated Values

InterAnalMass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge 74	97.922				
[	As 75					
[	Cd 114					
[>	Rh 103	101.770				
[>	Lu 175	100.765				
[	Hg 200					
[>	Tm 169	101.955				
[	Pb 206					
[	Pb 207					
[	Pb 208					
[	Pb-1 208					

A&L Great Lakes Lab ICP-MS Report

Sample ID: Mcontrol
 Sample Date/Time: Friday, October 12, 2007 16:03:43
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\Mcontrol.042
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:03:43 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	249652.177	258364.986		
As	75	557301.013	51.778	0.493464	1.063
Cd	114	1933804.231	42.667	0.482897	0.604
Rh	103	563759.305	583470.866		
Lu	175	918074.515	881817.451		
Hg	200	462.012	11.111	0.000472	6.207
Tm	169	740892.047	716881.847		
Pb	206	2588107.786	127.668	0.474815	1.186
Pb	207	2228363.015	104.001	0.533177	1.239
Pb	208	5368745.920	260.670	0.498685	1.158
Pb-1	208	15553962.641	753.009	0.499136	1.074

QC Calculated Values

InterAnal	Mass	Standard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	96.628				
[	As	75				98.691	
[	Cd	114				96.580	
[>	Rh	103	96.622				
[>	Lu	175	104.112				
[	Hg	200				92.726	
[>	Tm	169	103.349				
|	Pb	206				94.960	
|	Pb	207				106.632	
|	Pb	208				99.734	
[	Pb-1	208				99.824	

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCV
 Sample Date/Time: Friday, October 12, 2007 16:05:06
 Dual Detector Mode: Dual
 Sample File: C:\elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\CCV.043
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:05:06 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	259485.416	258364.986		
As	75	74120.492	51.778	0.063109	1.637
Cd	114	258975.022	42.667	0.061742	0.411
Rh	103	590402.132	583470.866		
Lu	175	888084.301	881817.451		
Hg	200	5624.406	11.111	0.006084	0.932
Tm	169	723417.368	716881.847		
Pb	206	303113.459	127.668	0.056944	2.089
Pb	207	261444.156	104.001	0.064055	2.067
Pb	208	643959.718	260.670	0.061246	1.789
Pb-1	208	1852477.051	753.009	0.060870	1.850

QC Calculated Values

InterAnal	Mass	dard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	100.434				
|	As	75		105.182			
|	Cd	114		102.903			
[>	Rh	103	101.188				
[>	Lu	175	100.711				
|	Hg	200		101.406			
[>	Tm	169	100.912				
|	Pb	206		94.906			
|	Pb	207		106.759			
|	Pb	208		102.076			
|	Pb-1	208		101.450			

A&L Great Lakes Lab ICP-MS Report

Sample ID: CCB
 Sample Date/Time: Friday, October 12, 2007 16:06:30
 Dual Detector Mode: Dual
 Sample File: C:\Elandata\Sample\October 2007\101207 283-2 Avant.sam
 Method File:
 Dataset File: C:\elandata_icpms\DataSet\101207 283-1 Avant\CCB.044
 Calibration File: C:\elandata_icpms\System\October 2007\101207 283-2 Avant.cal
 Sample Prep Volume (mL):
 Initial Sample Quantity (mg):
 Aliquot Volume (mL):
 Diluted to Volume (mL):
 Computer Name: ELANDRCE
 Acquisition Date/Time-Short: 16:06:30 Fri 12-Oct-07

Concentration Results

Analyte	Mass	Meas. Intens. Mean	Blank Intensity	Conc. Mean	Conc. RSD
Ge	74	260369.376	258364.986		
As	75	94.223	51.778	0.000036	9.208
Cd	114	109.334	42.667	0.000015	42.345
Rh	103	600653.559	583470.866		
Lu	175	889966.128	881817.451		
Hg	200	60.222	11.111	0.000053	9.700
Tm	169	726609.329	716881.847		
Pb	206	244.670	127.668	0.000022	6.744
Pb	207	213.003	104.001	0.000026	26.442
Pb	208	556.017	260.670	0.000028	8.411
Pb-1	208	1569.707	753.009	0.000026	10.392

QC Calculated Values

InterAnal	Mass	dard Symbol	Int Std % Recovery	QC Std % Recovery	Duplicate Rel. % Difference	Spike % Recovery	Dilution % Difference
[>	Ge	74	100.776				
[	As	75					
[	Cd	114					
[>	Rh	103	102.945				
[>	Lu	175	100.924				
[	Hg	200					
[>	Tm	169	101.357				
|	Pb	206					
|	Pb	207					
|	Pb	208					
[	Pb-1	208					

Quality Control Report of PCB Analysis for Avant Group: Project CFWOS

Laboratory ID#	Sample ID	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Batch QC
22645	TP-9 (0-0.5')	0.49			
22646	TP-9 (4')	<0.40			
22647	TP-9 (2')	<0.40			
22648	TP-8 (10')	<0.40			
22649	TP-8 (5')	4.51	34.36%		
22650	TP-8 (0-0.5')	<0.40			
22651	TP-7 (5')	<0.40		92%	
22652	TP-8 (2')	3.16		See below	
Method Blank	NA				<0.04 ppm
Laboratory Control Spike Recovery (%)	NA				106%
22653	TP-7 (0-0.5')	<0.40			
22654	TP-6 (4')	<0.40			
22655	TP-6 (2')	<0.40	0%		
22656	TP-6 (0-0.5')	2.44			
22657	TP-5 (5')	<0.40		70%	
22658	TP-5 (2')	<0.40		28%, see below	
22659	TP-5 (0-0.5')	1.19			
22660	TP-14 (3')	<0.40			
Method Blank	NA				<0.04 ppm
Laboratory Control Spike Recovery (%)	NA				103%
22661	TP-14 (2')	0.78			
22662	TP-14 (0-0.5')	0.50			
22663	TP-4 (3.5')	<0.40	0%		
22664	TP-4 (2')	<0.40			
22665	TP-4 (0-0.5')	3.26			
22666	TP-13 (3')	<0.40			
22667	TP-13 (1')	1.69		482%, see below	
22668	TP-13 (0-0.5)	4.79		-1425%, see below	
Method Blank	NA				<0.04 ppm
Laboratory Control Spike Recovery (%)	NA				86%
22669	TP-12 (4')	<0.40			
22670	TP-12 (2')	0.45			
22671	TP-12 (0-0.5')	3.82			
22672	TP-21 (3')	0.40			
22673	TP-21 (1-1.5')	<0.40	48.72%		
22674	TP-21 (0-0.5')	1.03			
22675	TP-20 (2.5')	<0.40		48%	
22676	TP-20 (1.5')	4.75		-21%, see below	
Method Blank	NA				<0.04 ppm
Laboratory Control Spike Recovery (%)	NA				136%

Comments:

Matrix spike recovery for laboratory ID #22651 could not be calculated due to the high concentration of PCB's in the sample. Matrix spike recovery for 22658 is low due to the heterogeneity of the sample. Matrix spike recoveries for 22667, 22668 and 22676 are out of tolerance due to the high concentration of PCB's in the samples and the heterogeneity of the samples themselves.

Quality Control Report of PCB Analysis for Avant Group: Project CFWOS

Laboratory ID#	Sample ID	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Batch QC
22677	TP-20 (0-0.5')	0.52			
22678	TP-22 (8')	<0.40			
22679	TP-22 (4')	<0.40		128%	
22680	TP-22 (0-0.5')	<0.40			
22681	TP-23 (3')	<0.40			
22682	TP-23 (18")	<0.40		111%	
22683	TP-23 (0-0.5')	<0.40			
22684	TP-24 (18")	<0.40	0		
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				103%
22685	TP-24 (0-0.5')	<0.40			
22686	TP-25 (19")	<0.40			
22687	TP-25 (0-0.5')	<0.40		79%	
22688	TP-16 (4')	<0.40			
22689	TP-16 (2')	4.74			
22690	TP-16 (0-0.5')	<0.40		126%	
22691	TP-17 (1-18")	<0.40			
22692	TP-17 (0-0.5')	<0.40	0		
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				101%
22693	TP-15 (6.5')	<0.40		80%	
22694	TP-15 (3')	<0.40			
22695	TP-15 (0-0.5')	1.44			
22696	TP-33 (18")	<0.40	0		
22697	TP-33 (0-0.5')	<0.40			
22698	TP-36 (18")	<0.40			
22699	TP-36 (0-0.5')	<0.40			
22700	TP-32 (3')	<0.40		89%	
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				104%
22701	TP-32 (3')	<0.40		87%	
22702	TP-32 (0-0.5')	<0.40	0		
22703	TP-35 (2')	<0.40			
22704	TP-35 (0-0.5')	<0.40			
22705	TP-31 (3.5')	<0.40		77%	
22706	TP-31 (1')	<0.40			
22707	TP-31 (0-0.5')	1.38			
22708	TP-34 (3.5')	<0.40			
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				124%

Comments:

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Laboratory ID#	Sample ID	Result (ppm)	Duplicate RPD	Matrix Spike Recovery	Batch QC
22709	TP-34 (2')	<0.40		110%	
22710	TP-34 (0-0.5')	<0.40			
22711	TP-30 (3')	<0.40		78%	
22712	TP-30 (18")	<0.40	0		
22713	TP-30 (0-0.5')	<0.40			
22714	TP-28 (2.5')	<0.40			
22715	TP-28 (1')	<0.40			
22716	TP-28 (0-0.5')	<0.40			
22717	TP-29 (2.5')	<0.40			
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				118%
22718	TP-29 (1')	<0.40		82%	
22719	TP-29 (0-0.5')	<0.40			
22720	DUP-1	<0.40	0		
22721	DUP-2	<0.40			
22722	DUP-3	<0.40			
22723	DUP-4	<0.40			
22783	TP-10 (2.5')	<0.40		79%	
22784	TP-10 (1')	<0.40			
22785	TP-10 (0-0.5')	<0.40			
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				105%
22786	TP-11 (4')	<0.40		77%	
22787	TP-11 (2')	<0.40			
22788	TP-11 (0-0.5')	<0.40			
22789	TP-3 (2.5')	<0.40	0		
22790	TP-3 (1')	<0.40			
22791	TP-3 (0-0.5')	<0.40			
22792	TP-2 (4')	<0.40		66%	
22793	TP-2 (2')	<0.40			
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				109%
22794	TP-2 (0-0.5')	<0.40			
22795	TP-1 (4.5')	<0.40		56%	
22796	TP-1 (2.5')	<0.40		42%	
22797	TP-1 (0-0.5')	<0.40	0		
22798	TP-37 (18")	<0.40			
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				106%

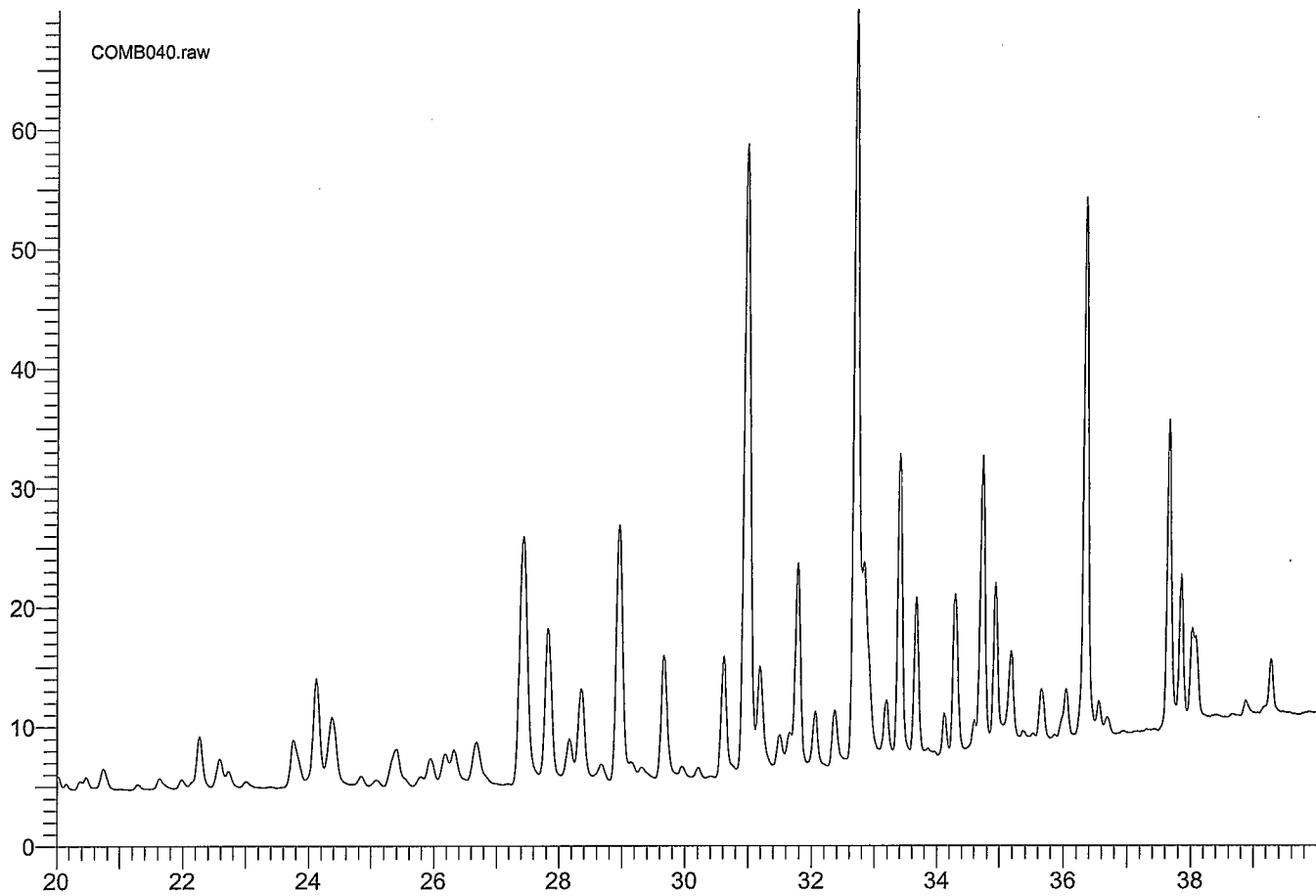
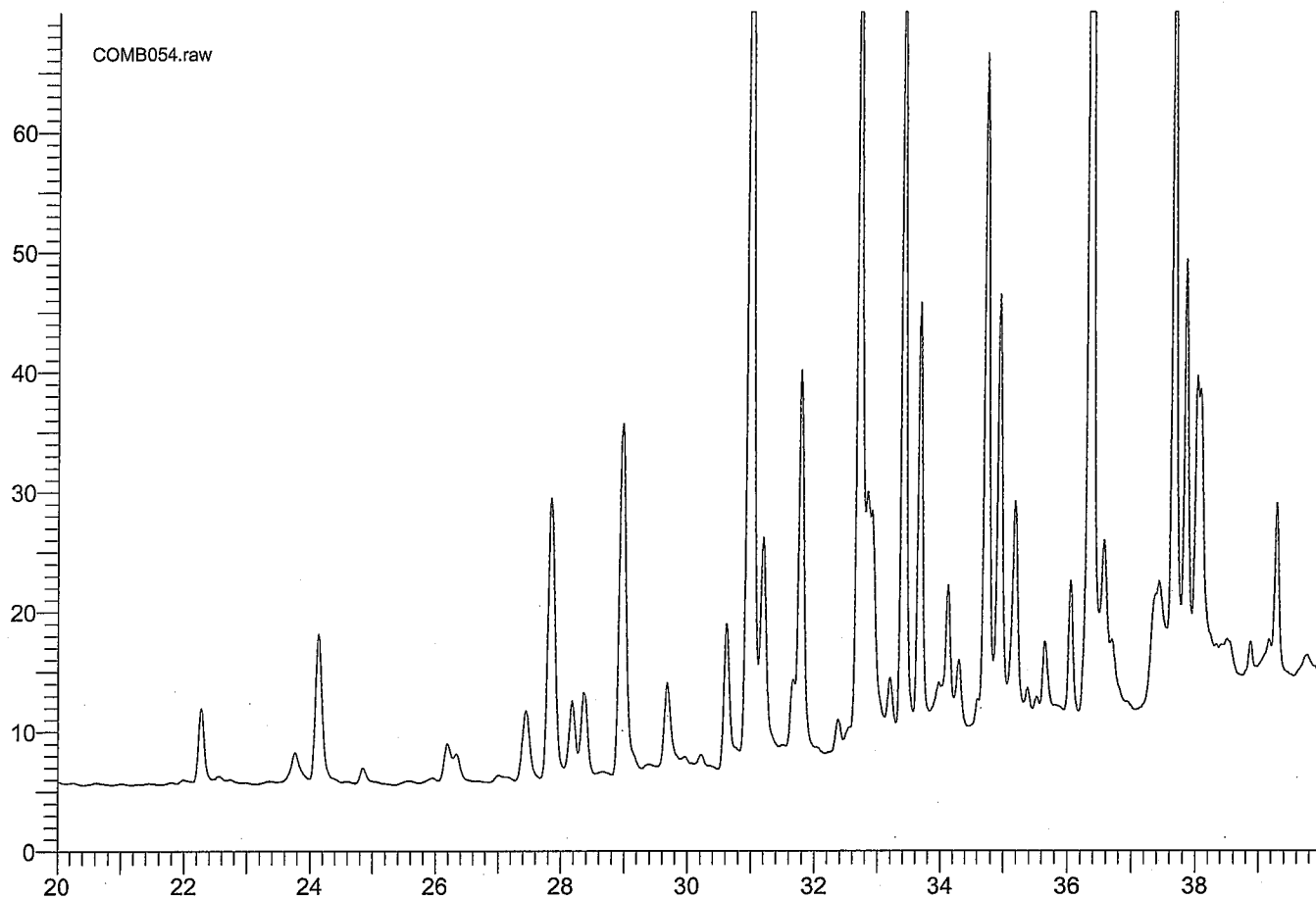
Comments:

Quality Control Report of PCB Analysis for Avant Group: Project CFWOS

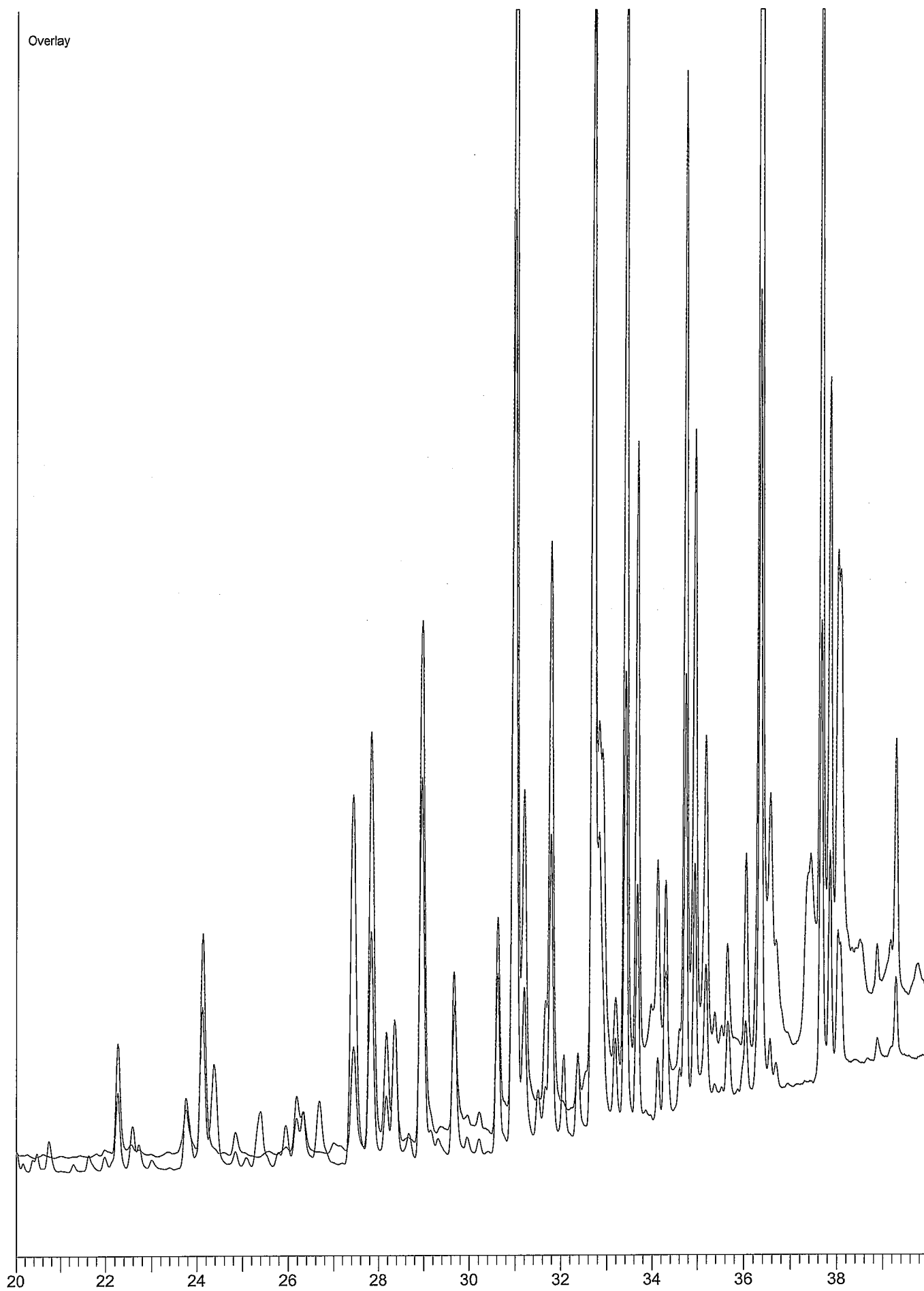
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22799	TP-37 (1')	<0.40			
22800	TP-37 (0-0.5')	<0.40			
22801	DUP-5	<0.40			
22802	DUP-6	<0.40			
22803	HA-1 (0.5')	<0.40	0		
22804	HA-1 (2.0')	<0.40			
22805	HA-2 (0.5')	<0.40			
22806	HA-2 (1.5')	<0.40		92%	
22937	TP-19 (4')	<0.40		60%	
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				97%
22938	TP-19 (2')	<0.40			
22939	TP-19 (0-0.5')	<0.40			
22940	TP-27 (0-0.5')	<0.40			
22941	TP-27 (2.5')	<0.40	0		
22942	TP-27 (4')	<0.40		62%	
22943	TP-26 (4')	<0.40		87%	
22944	TP-26 (2')	<0.40			
22945	TP-26 (0-0.5')	<0.40			
22946	TP-18 (0-0.5')	<0.40			
22947	TP-18 (2')	<0.40			
22948	DUP-7	<0.40			
22949	DUP-8	<0.40			
Method Blank	NA	<0.04			
Laboratory Control Spike Recovery (%)	NA				96%

Comments:

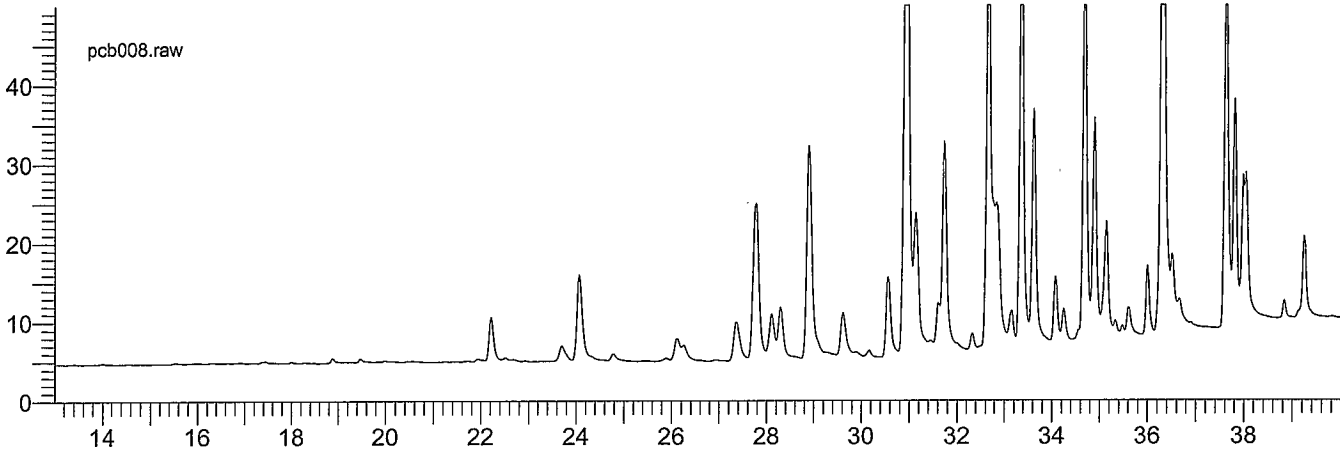
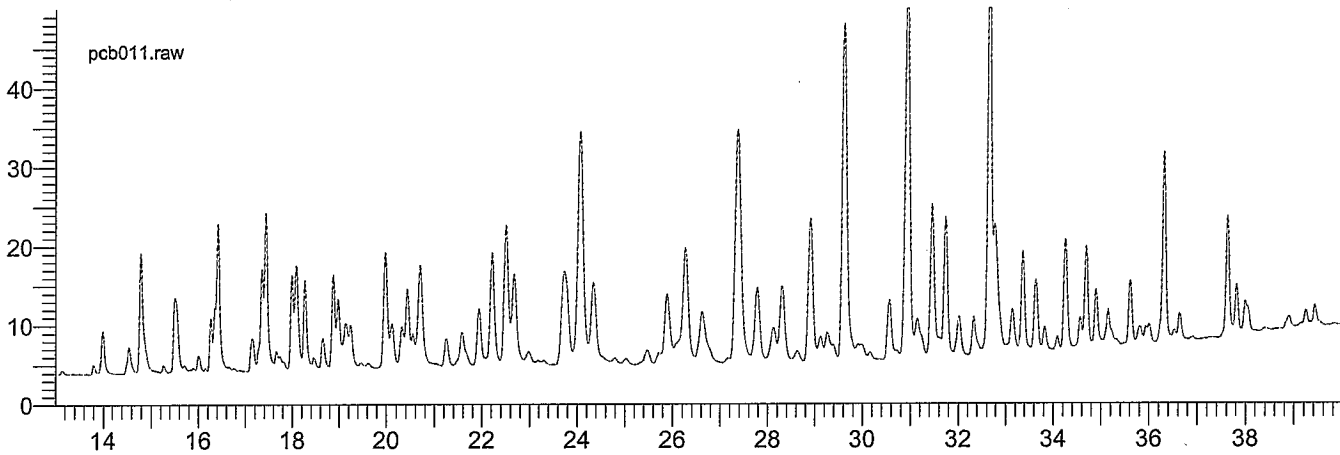
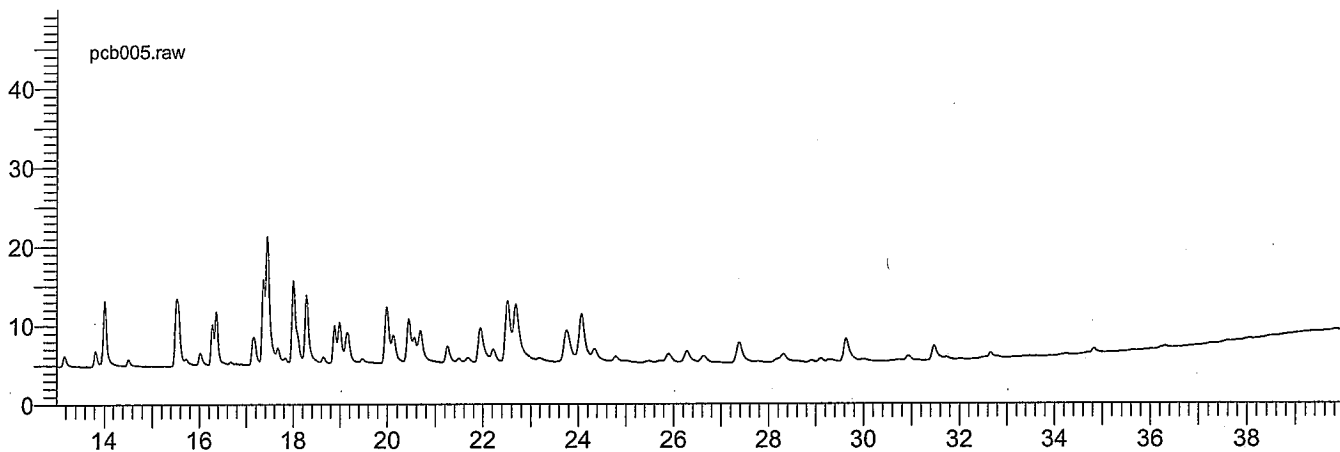
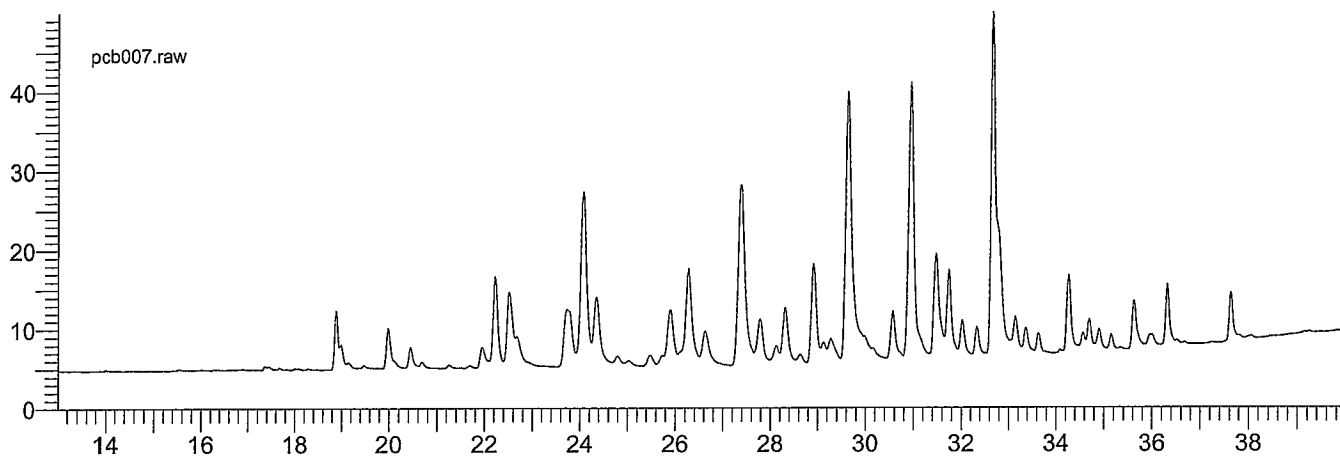
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Sample Number:	54			
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Sample Number:	40			
Instrument File Name:	c:\pest\gc14\methods\pcb			



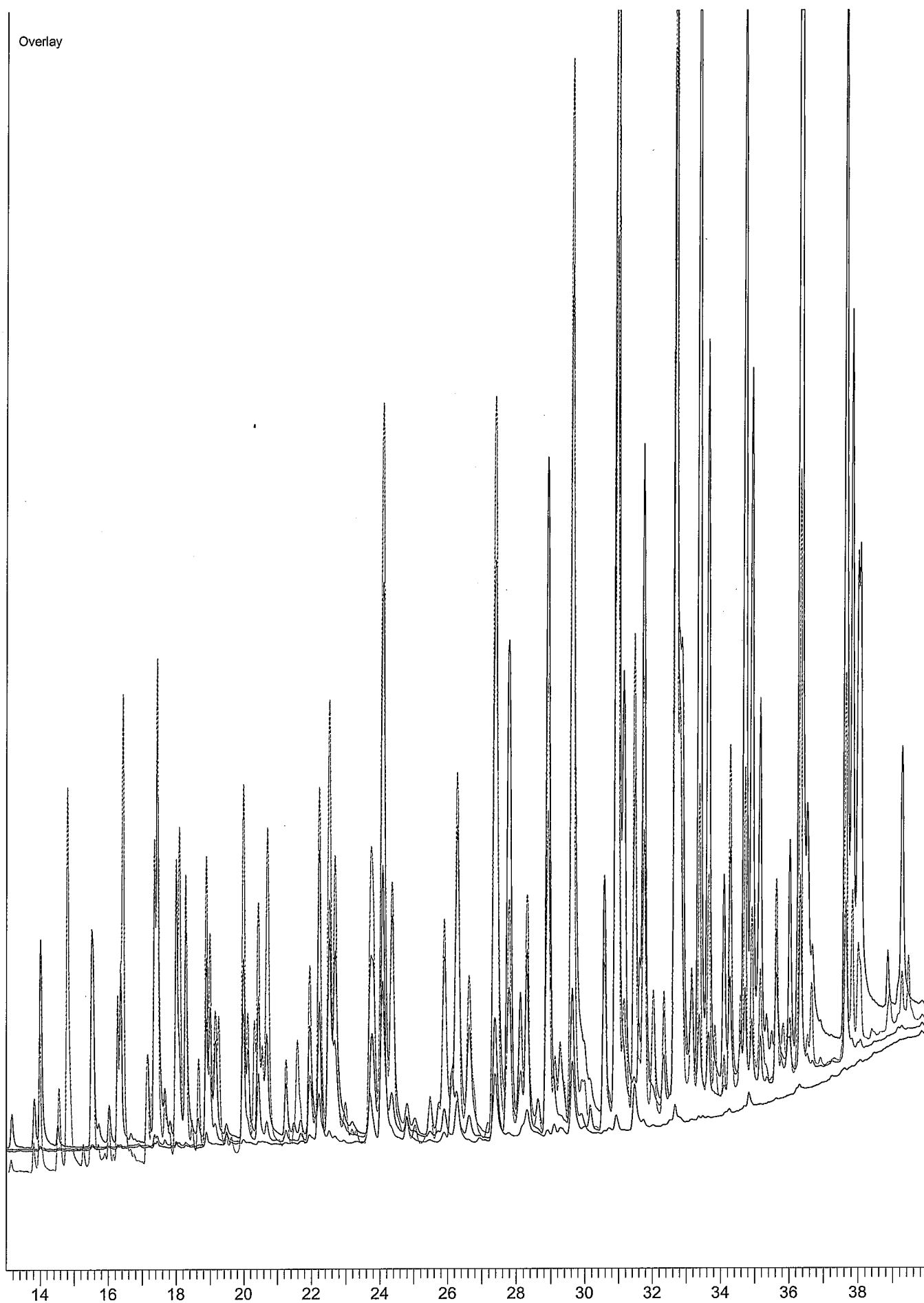
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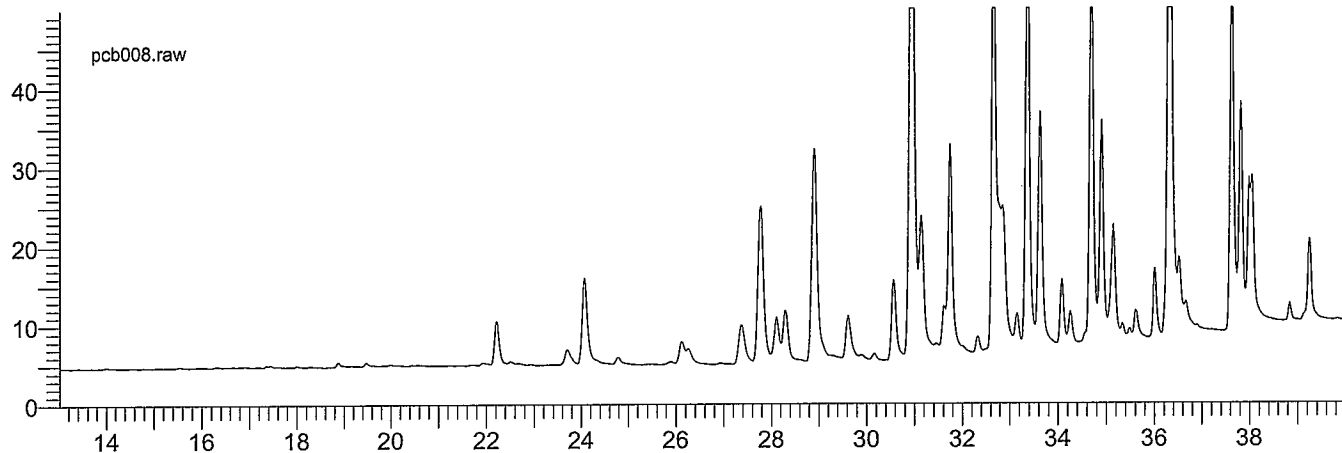
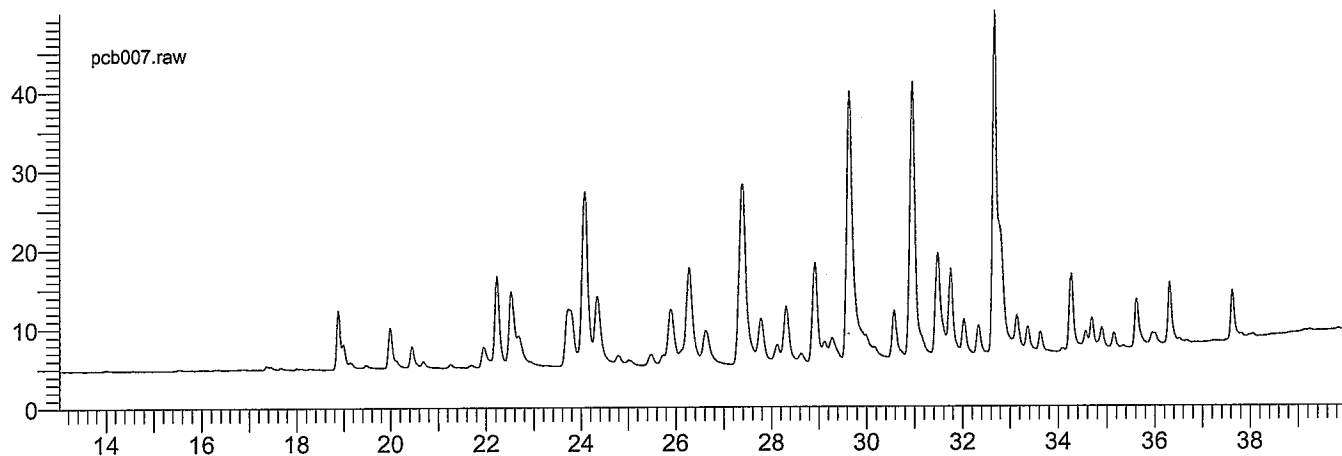
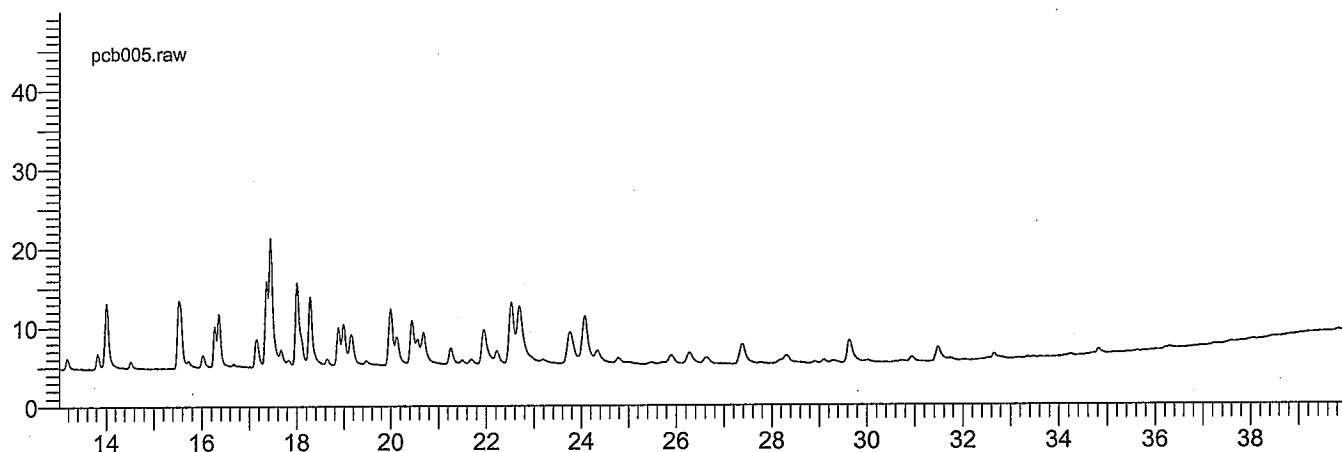
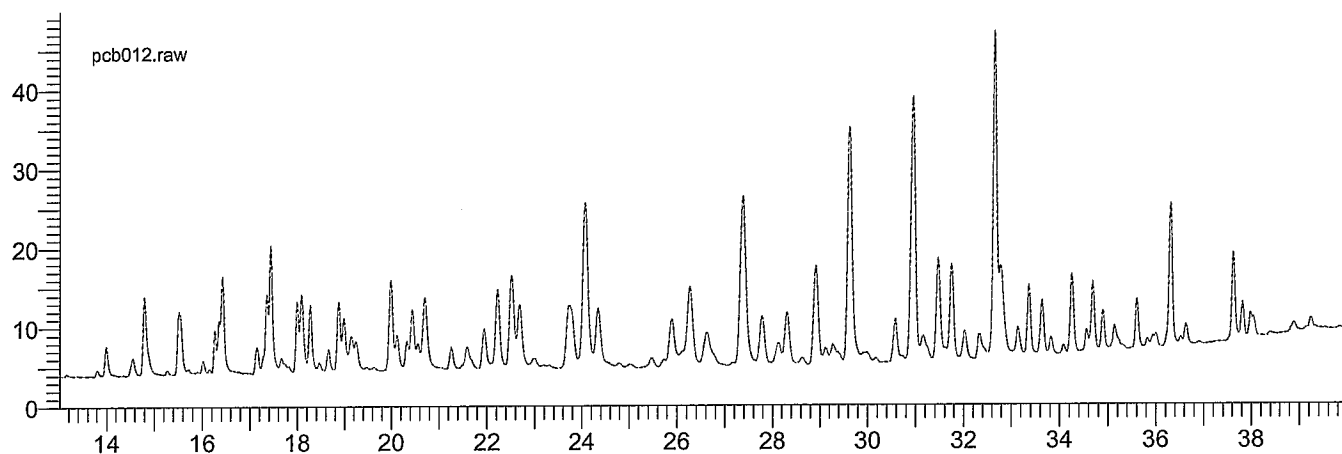
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pcb011.raw Sample Name : ###22649 1:20 Sample Number: 11 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	40.00	50.00	0.00
pcb008.raw Sample Name : AROCHLOR 1260 Sample Number: 08 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	40.00	50.00	0.00



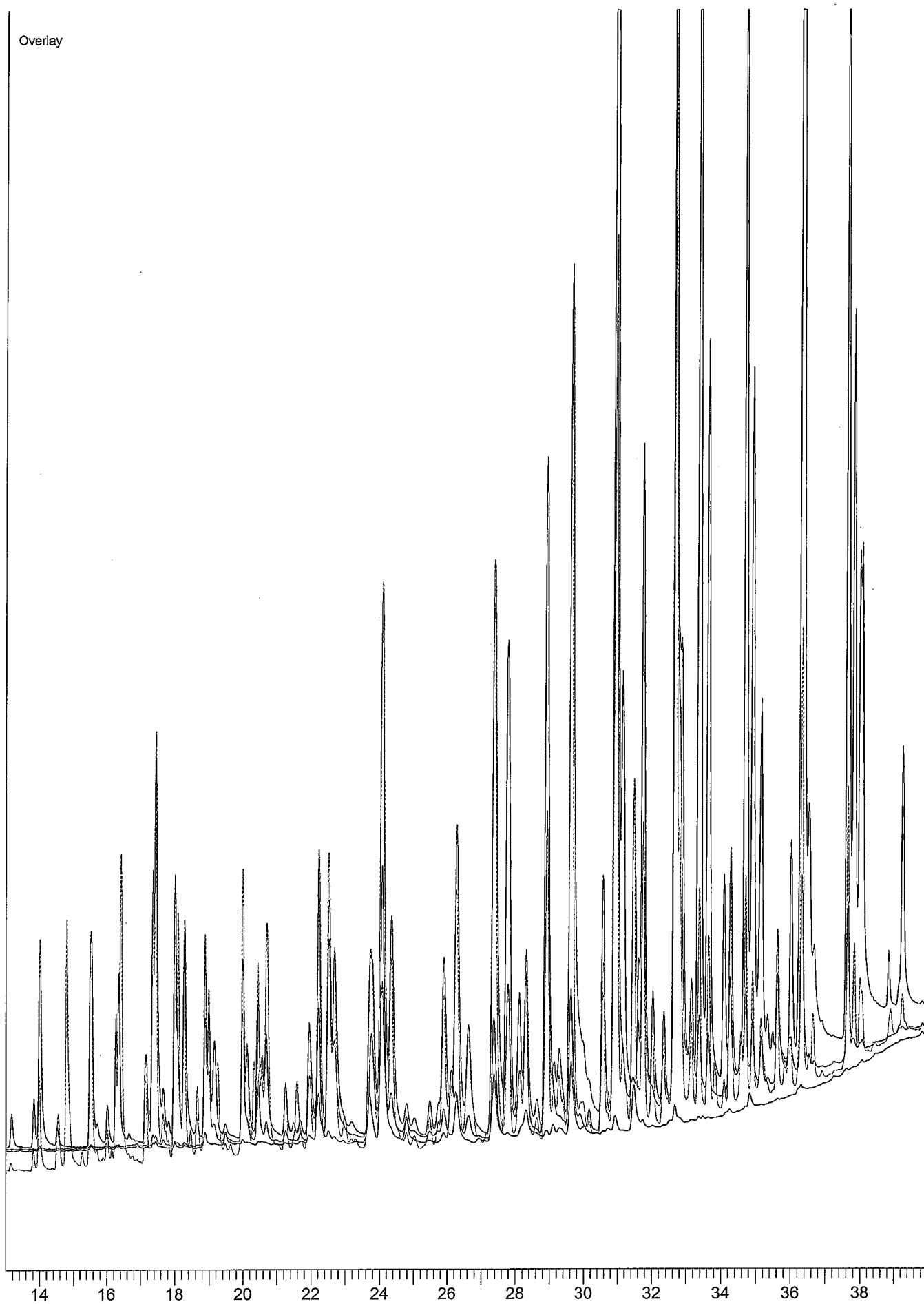
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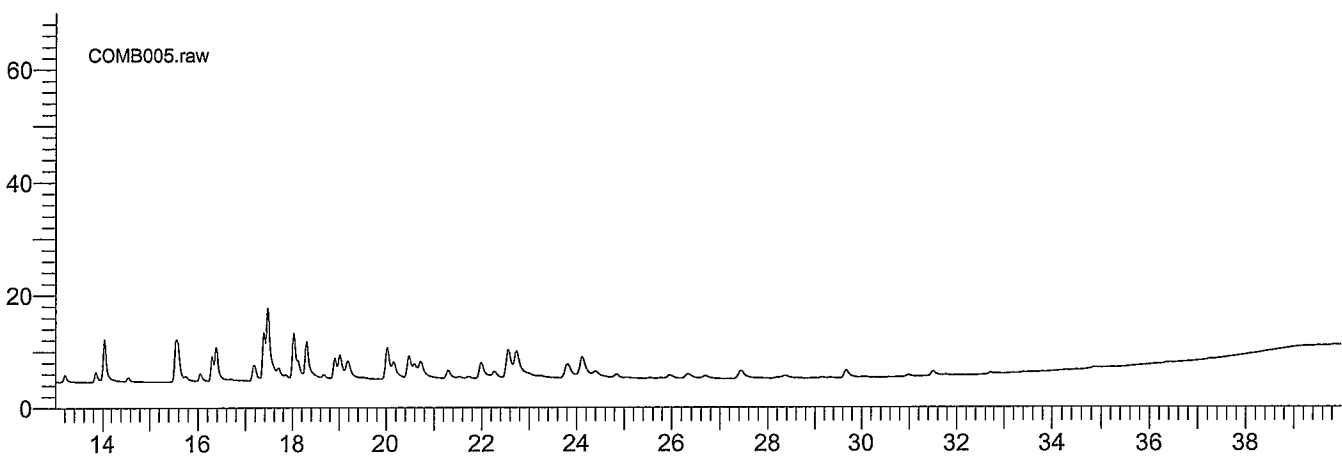
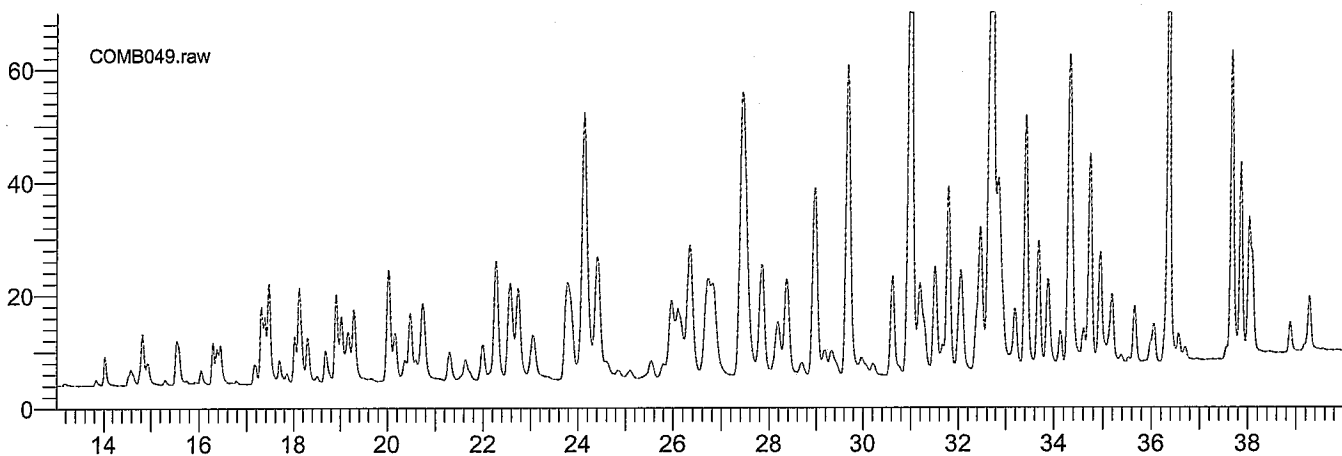
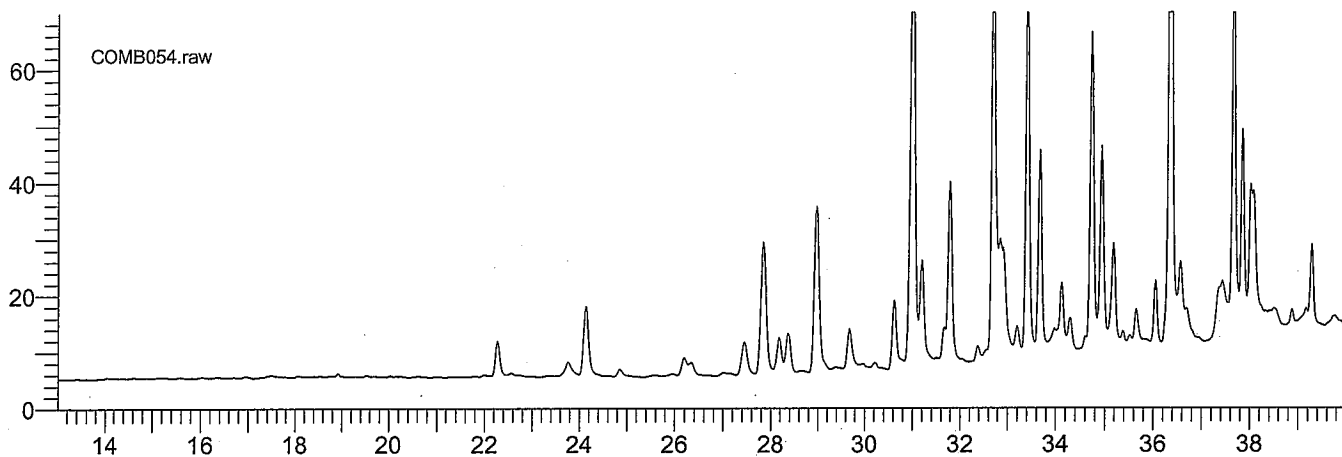
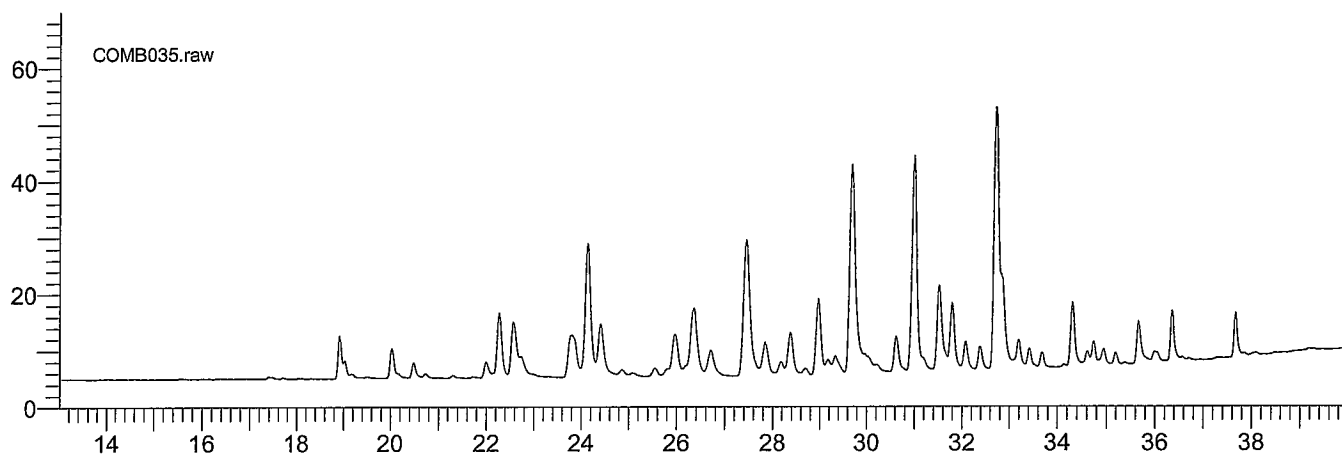
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pcb007.raw Sample Name : AROCHLOR 1254 Sample Number: 07 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	50.00	0.00
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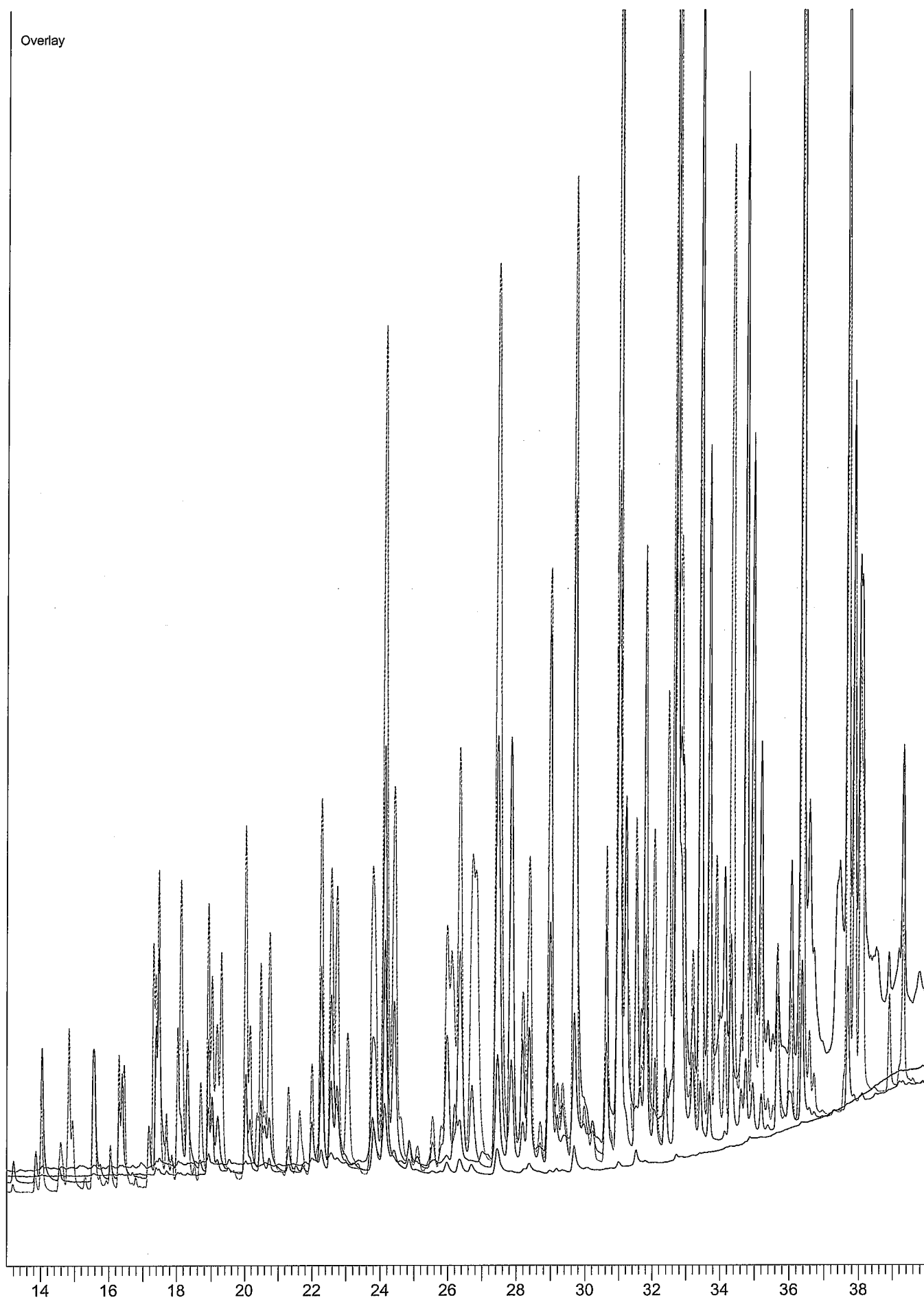
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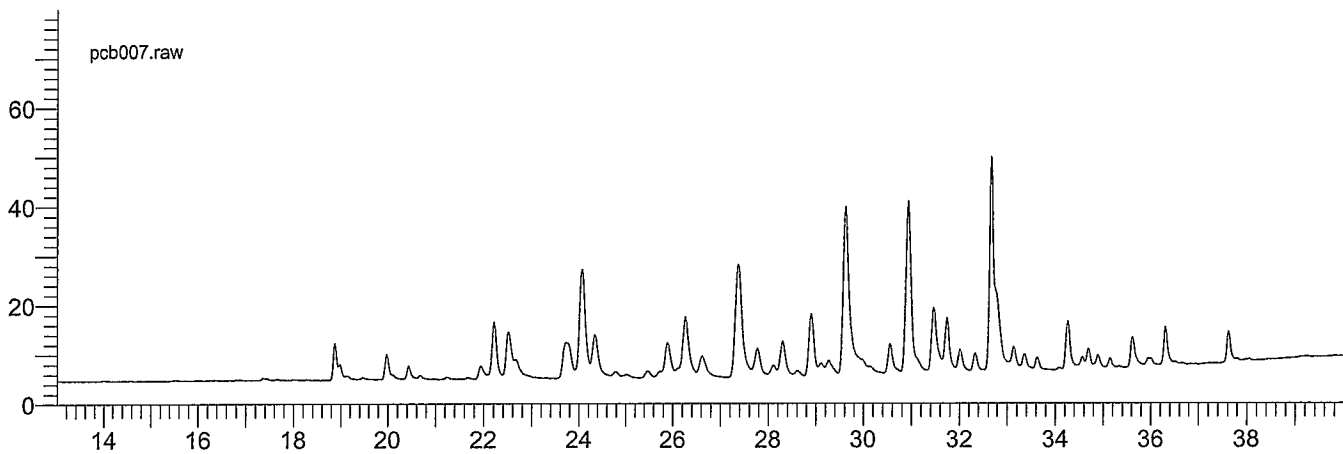
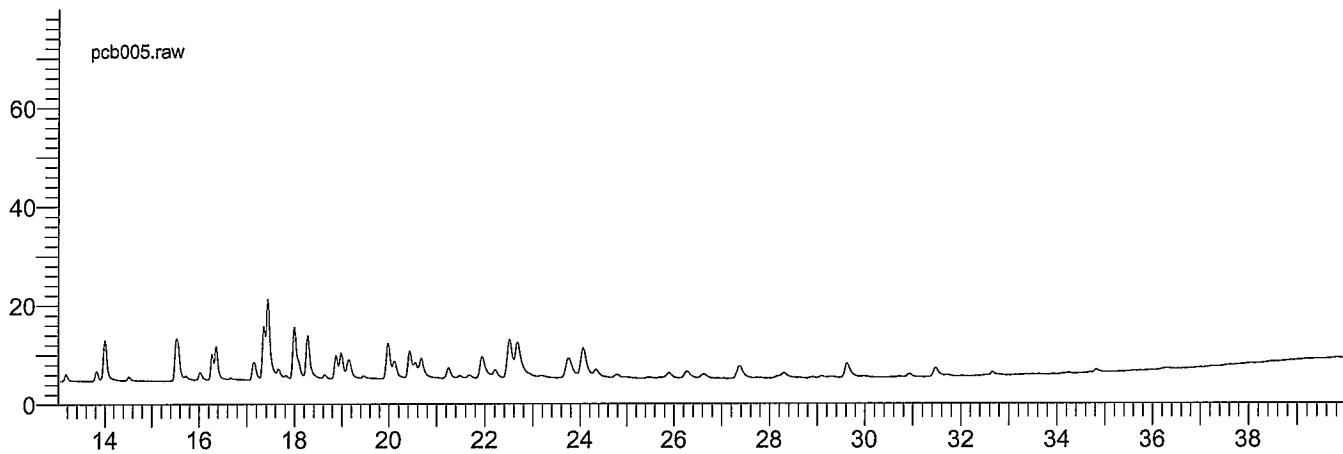
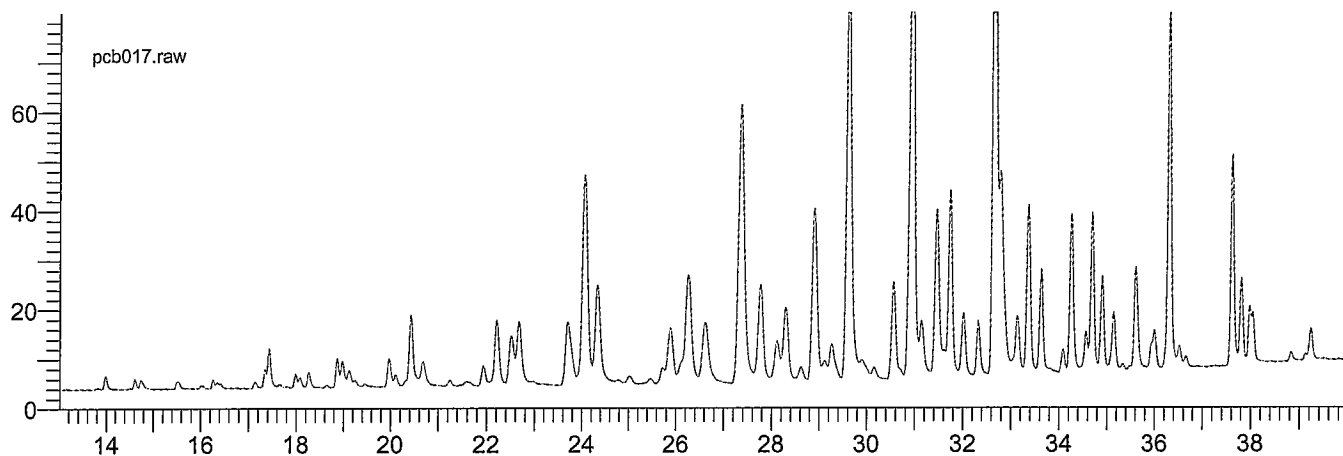
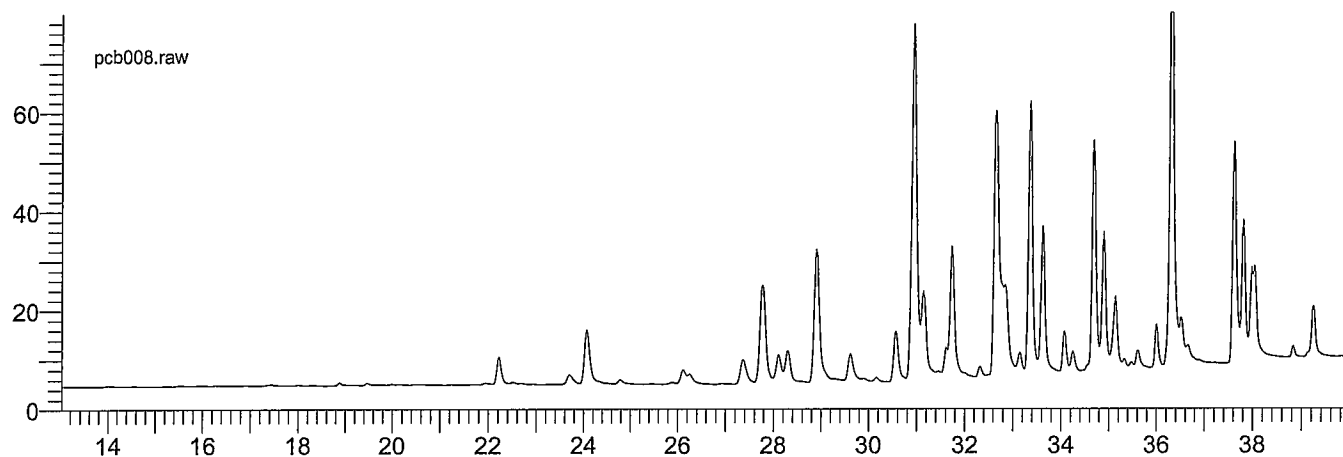
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COMB054.raw Sample Name : AROCHLOR 1260 Sample Number: 54 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	70.00	0.00
COMB049.raw Sample Name : 22652 1:10 Sample Number: 49 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	70.00	0.00
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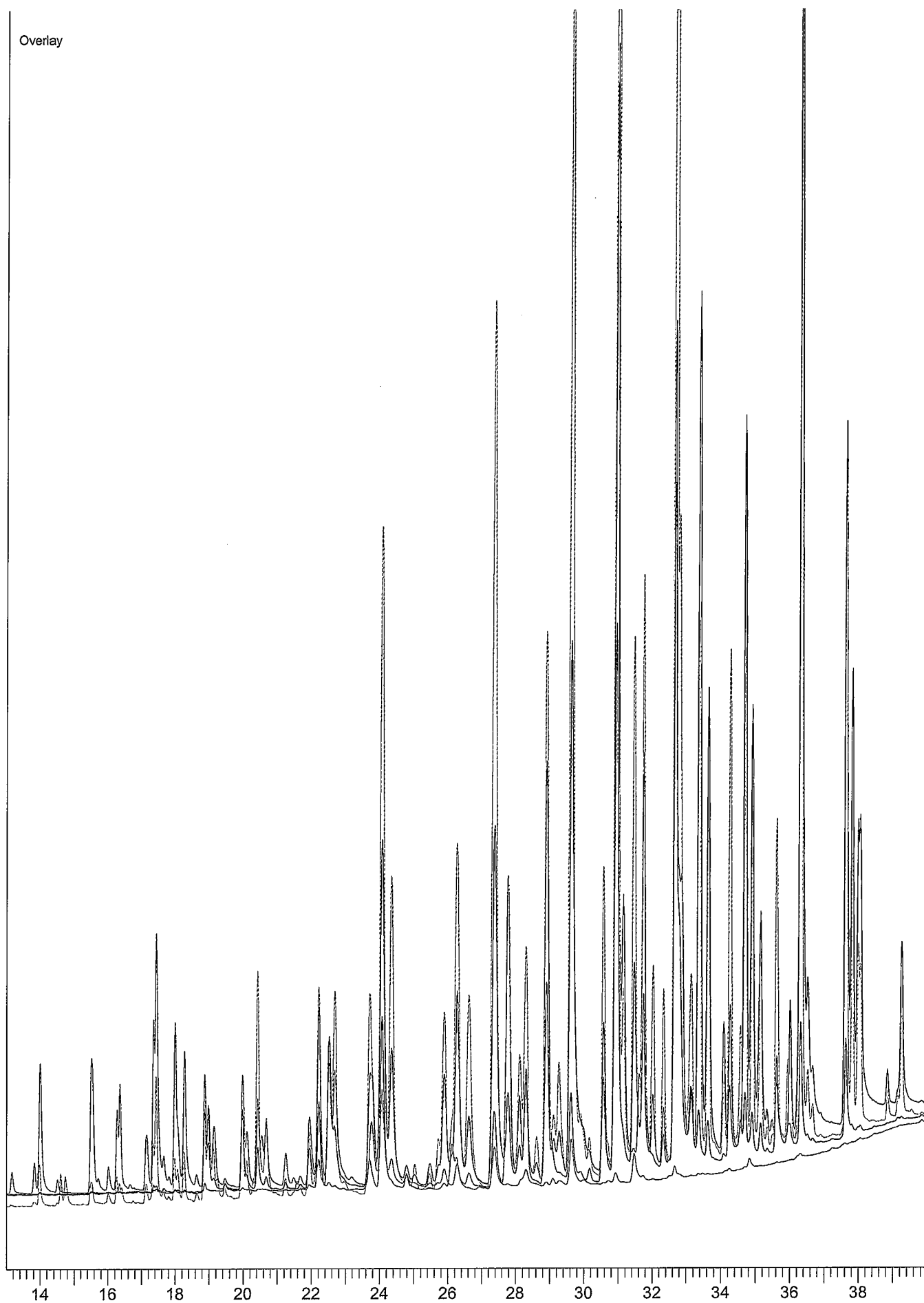
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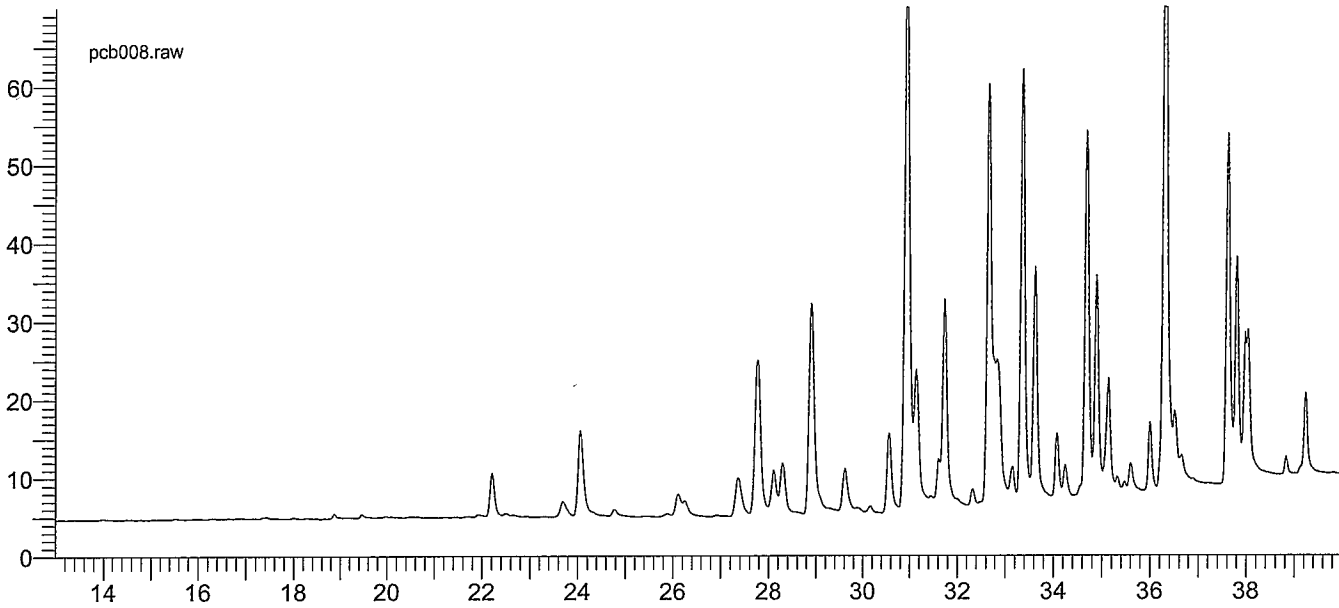
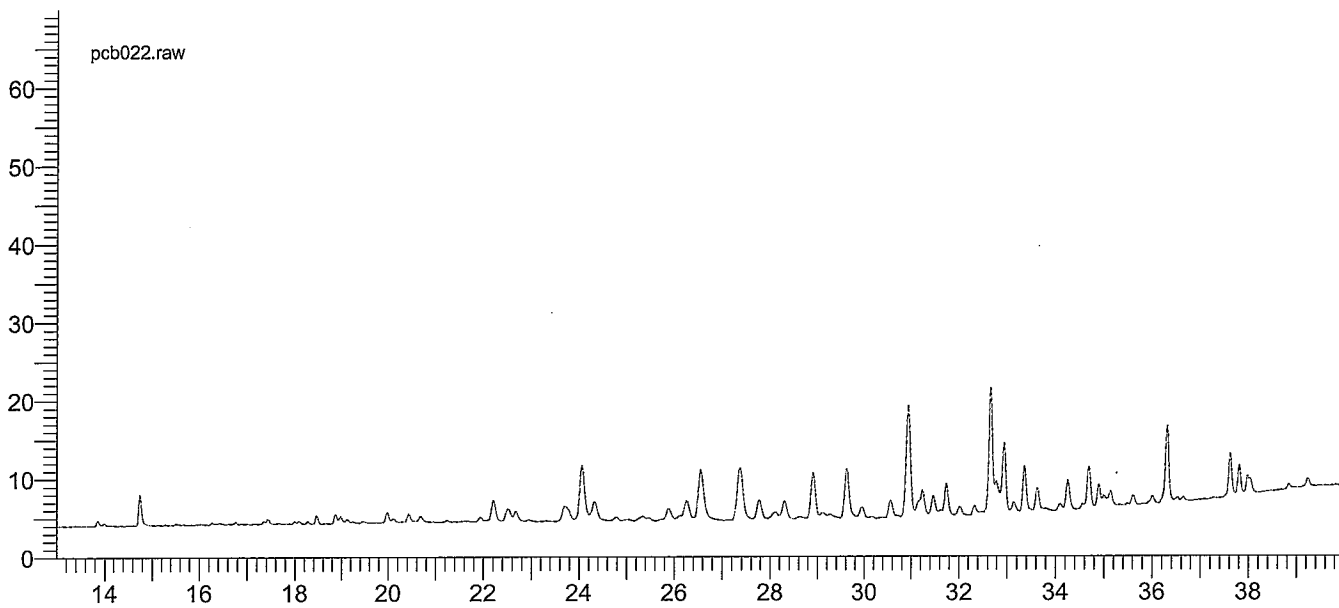
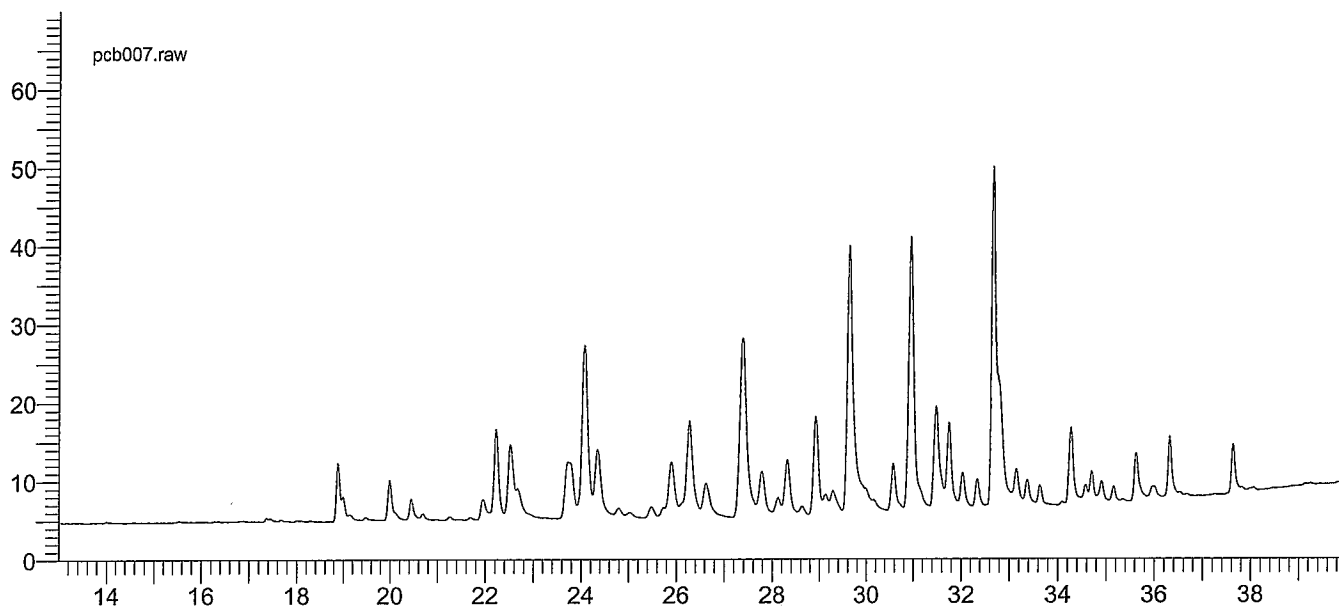
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pcb005.raw Sample Name : AROCHLOR 1242 Sample Number: 05 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	40.00	80.00	0.00
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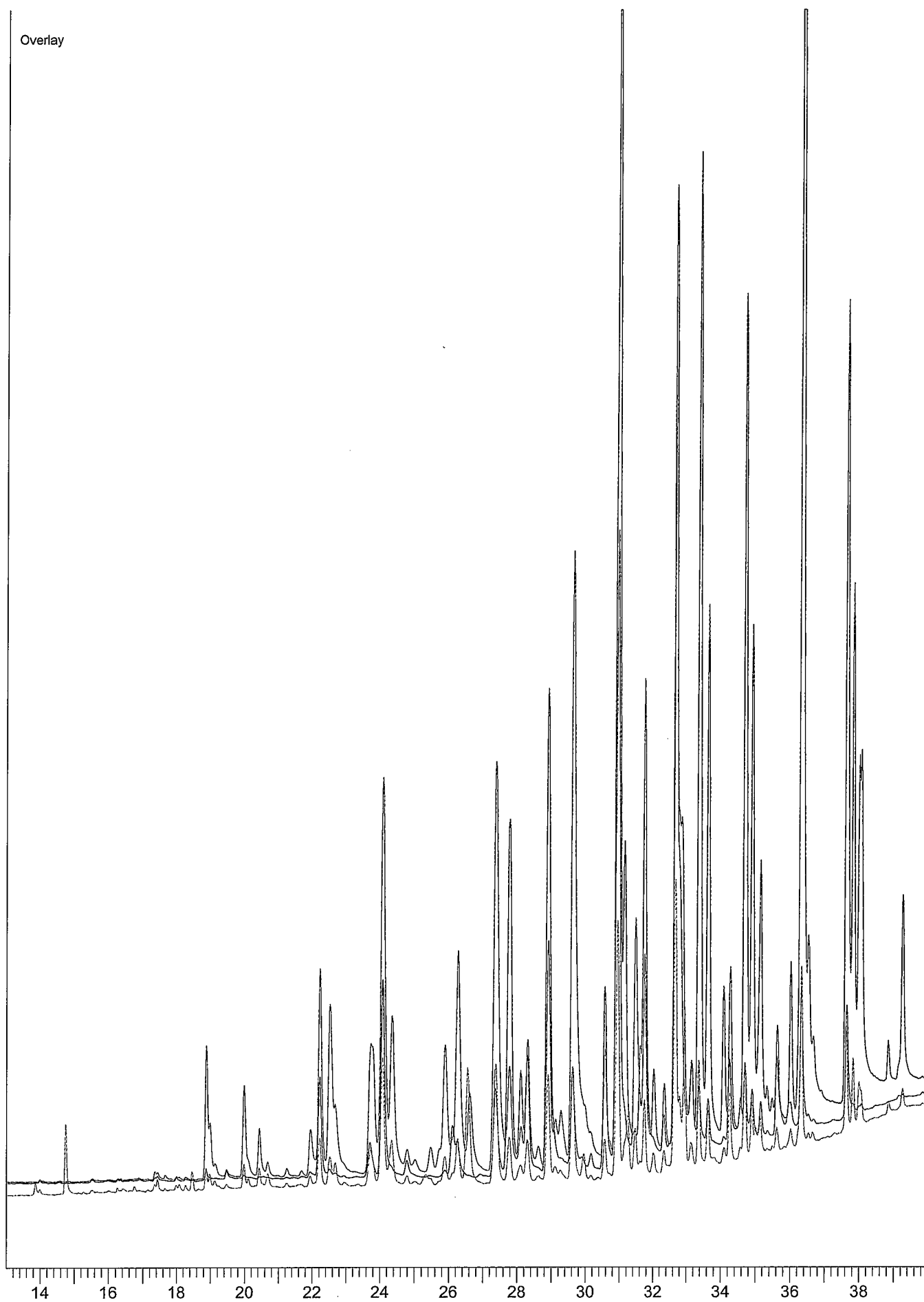
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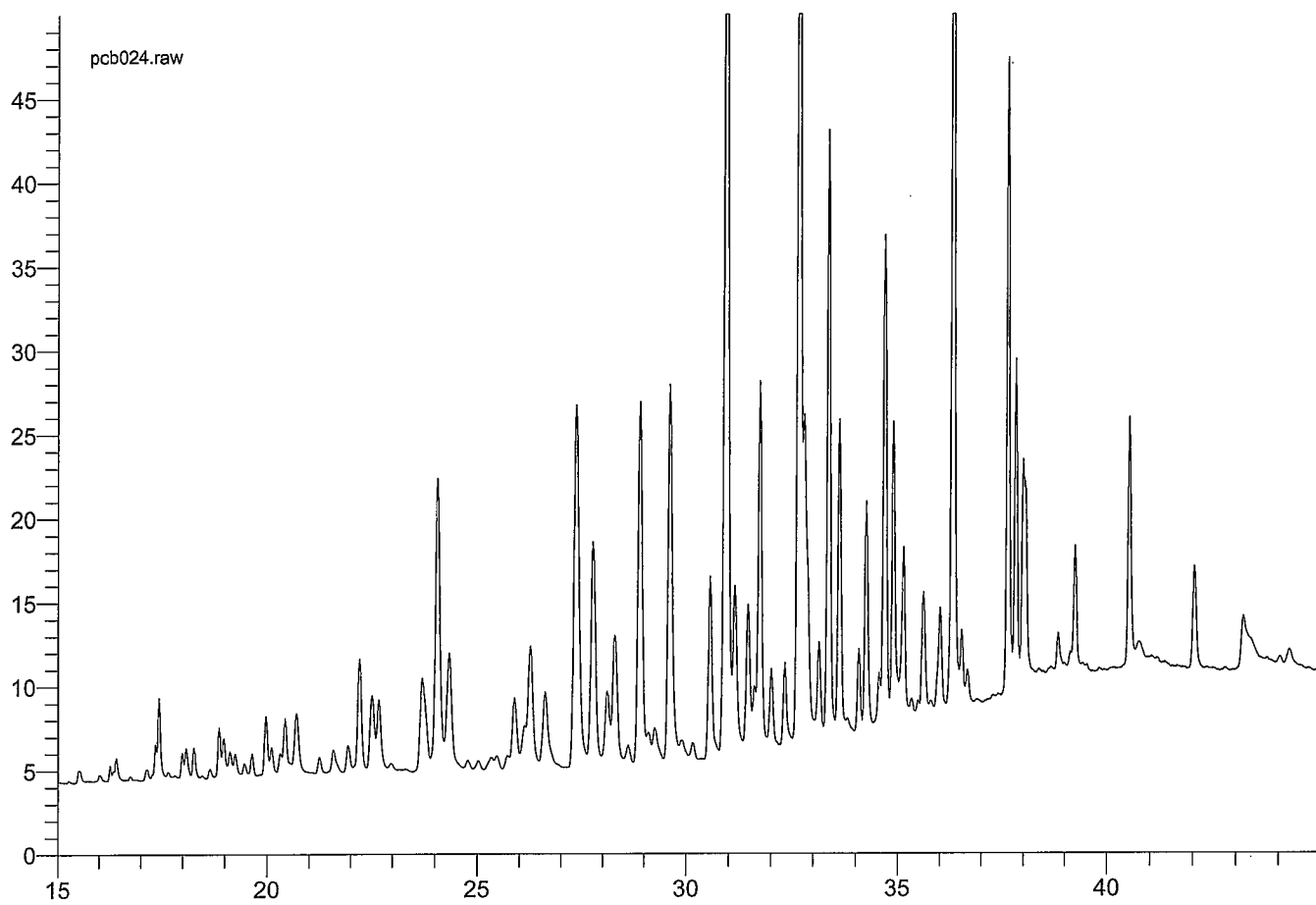
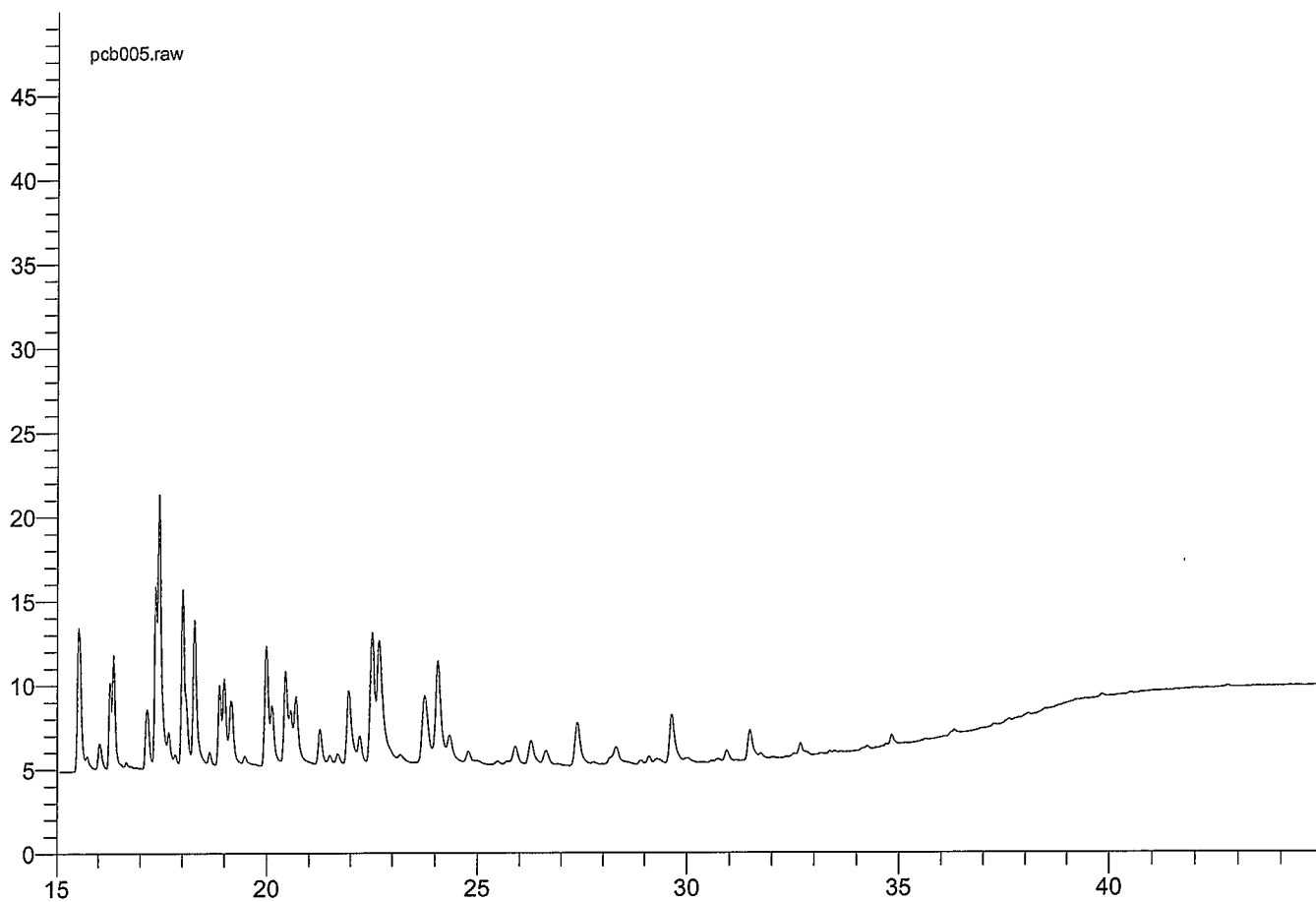
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Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
pcb022.raw		13.00	40.00	70.00	0.00
Sample Name :	22658 1:10				
Sample Number:	22				
Instrument File Name:	c:\pest\gc14\methods\pcb				
pcb008.raw		13.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				



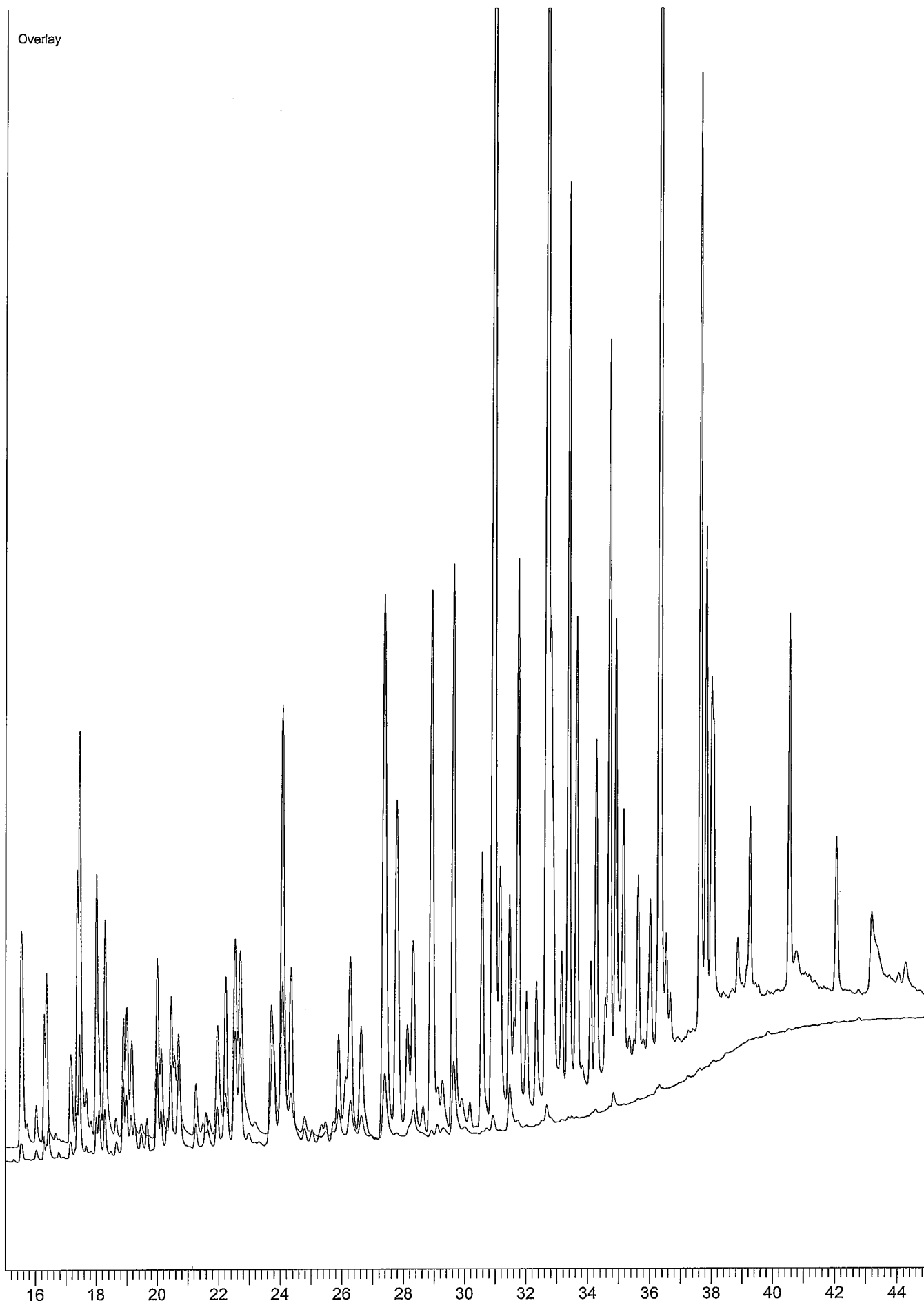
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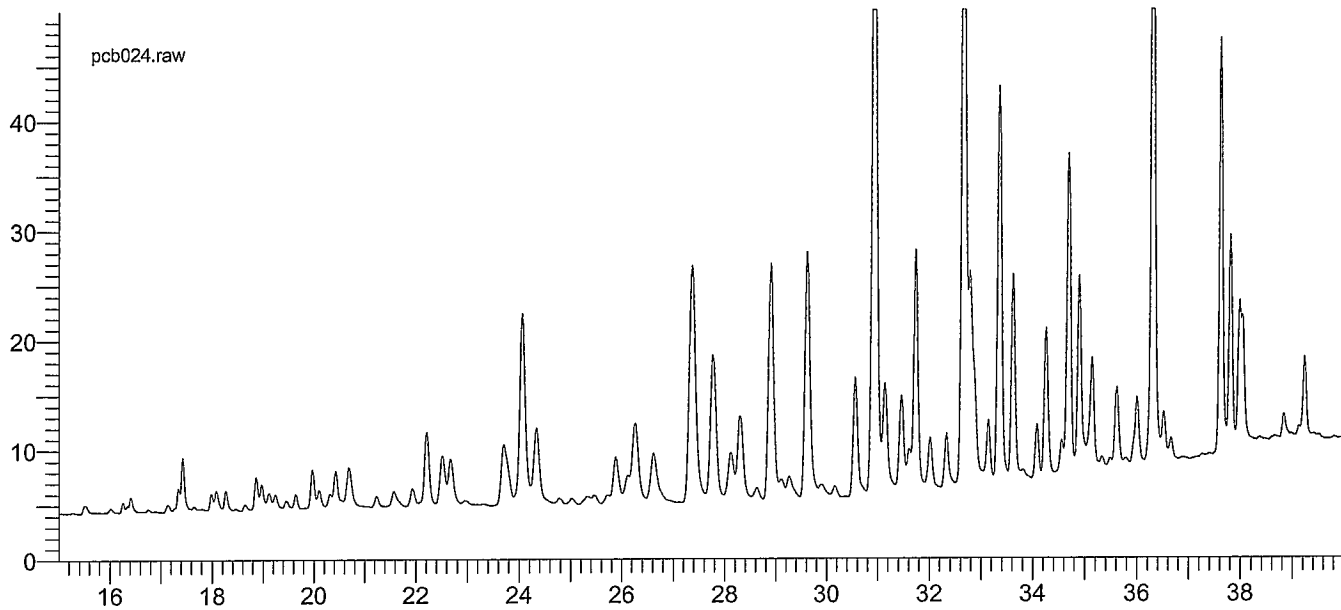
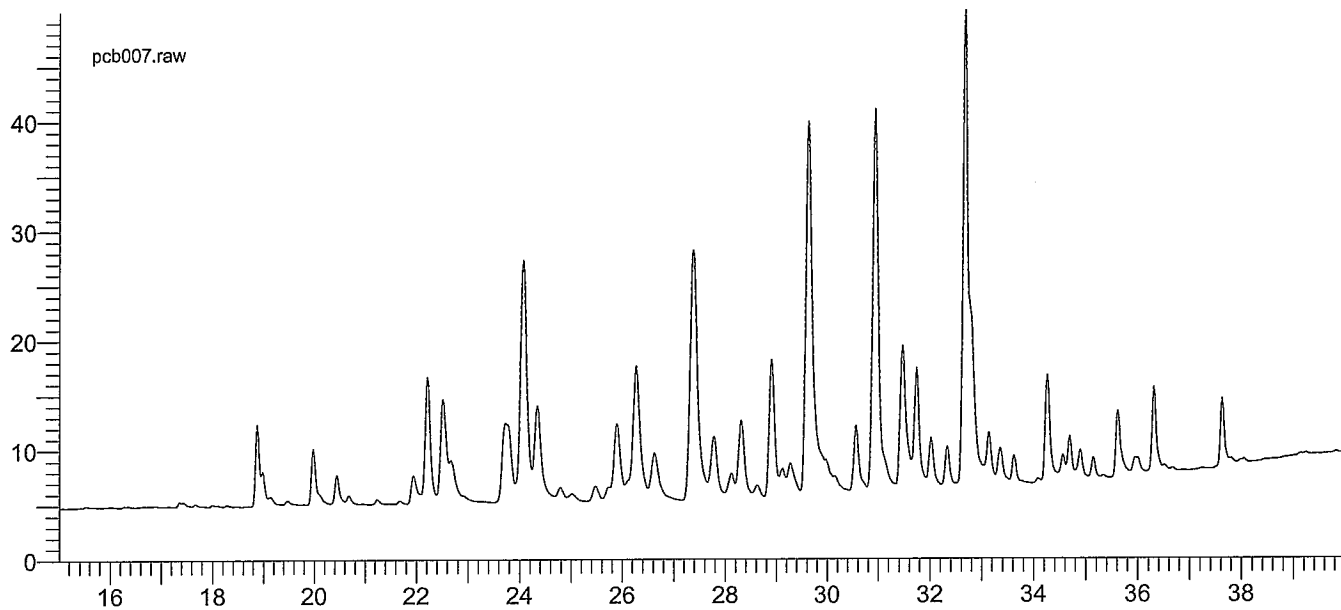
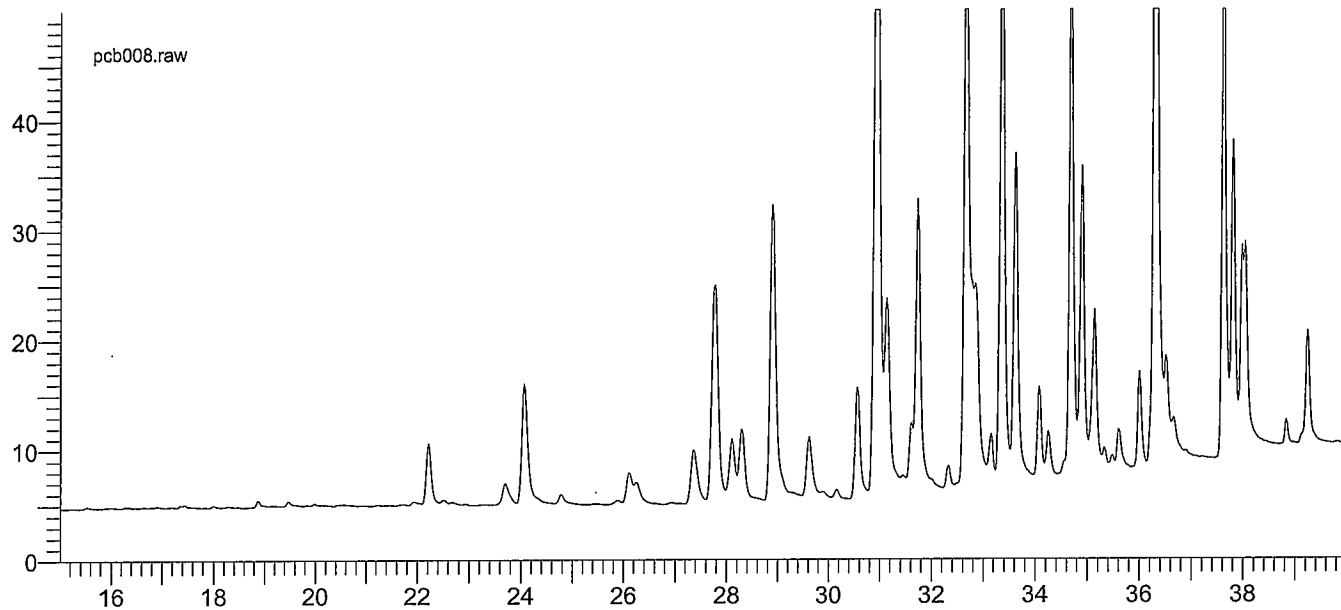
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Sample Number: 05				
Instrument File Name: c:\pest\gc14\methods\pcb				
pcb024.raw	15.00	44.99	50.00	0.00
Sample Name : 22659 1:10				
Sample Number: 24				
Instrument File Name: c:\pest\gc14\methods\pcb				



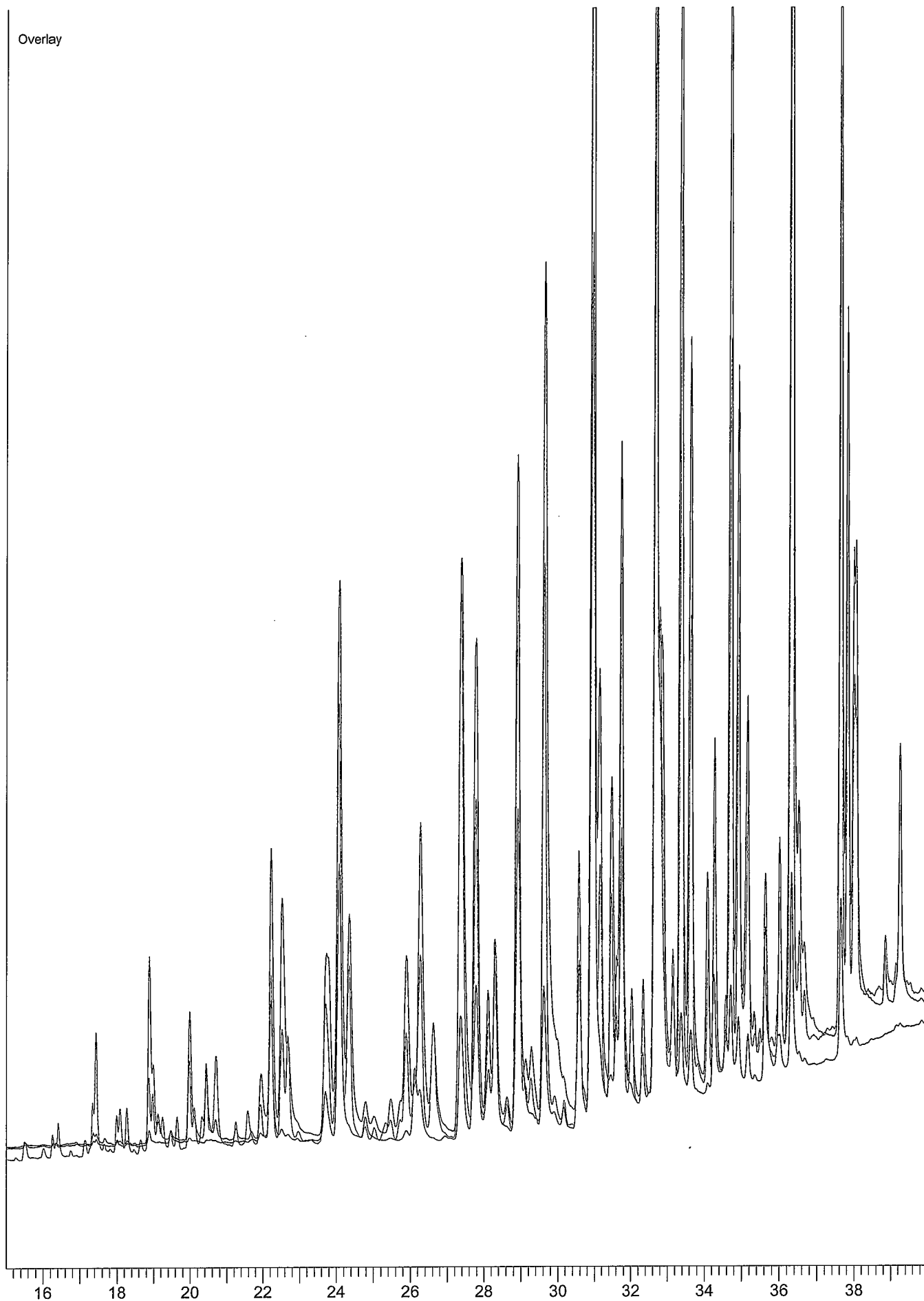
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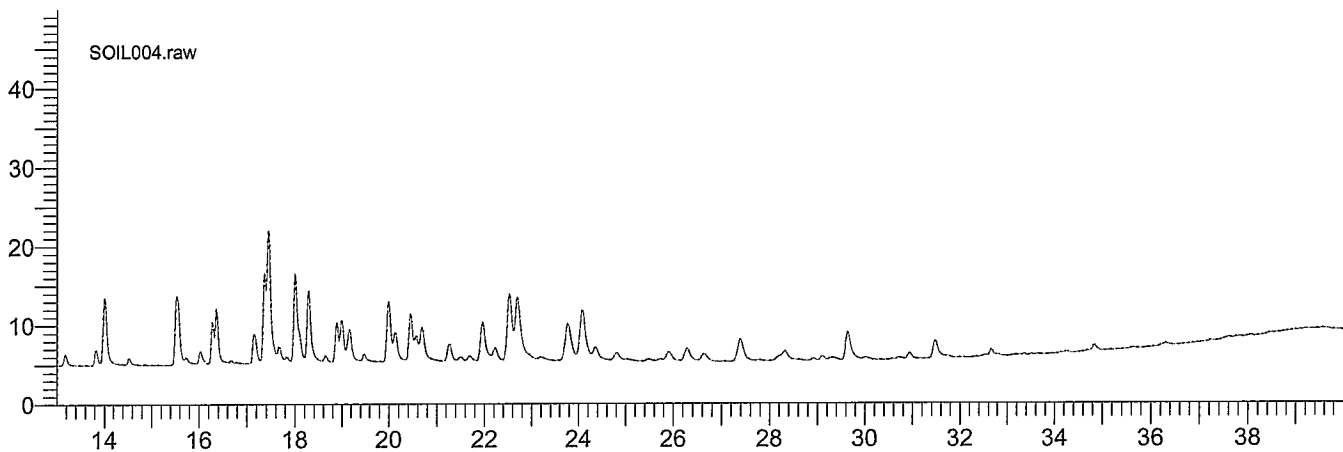
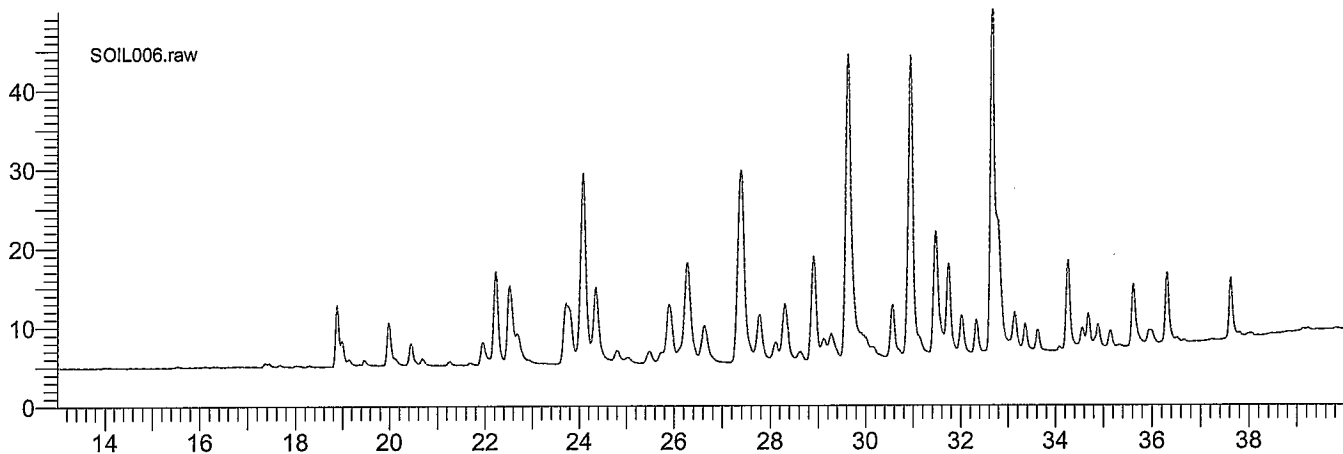
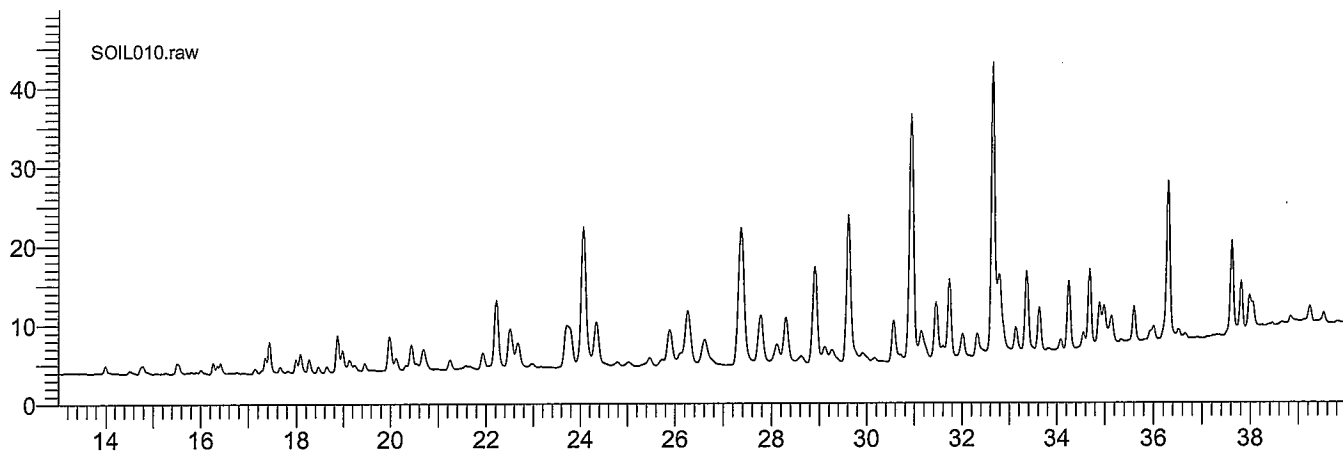
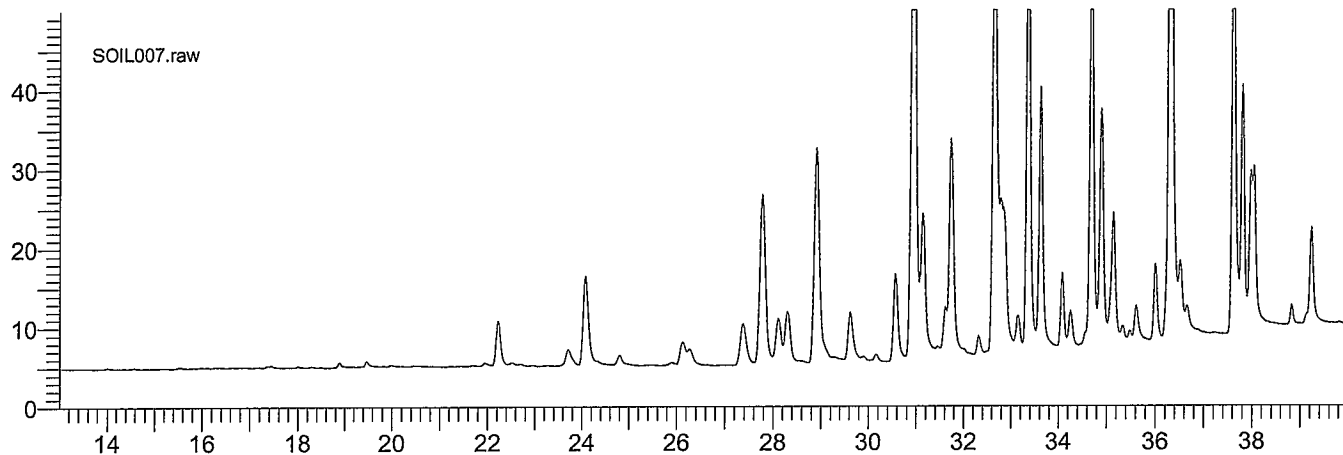
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Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				
pcb007.raw		15.00	40.00	50.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
pcb024.raw		15.00	40.00	50.00	0.00
Sample Name :	22659 1:10				
Sample Number:	24				
Instrument File Name:	c:\pest\gc14\methods\pcb				



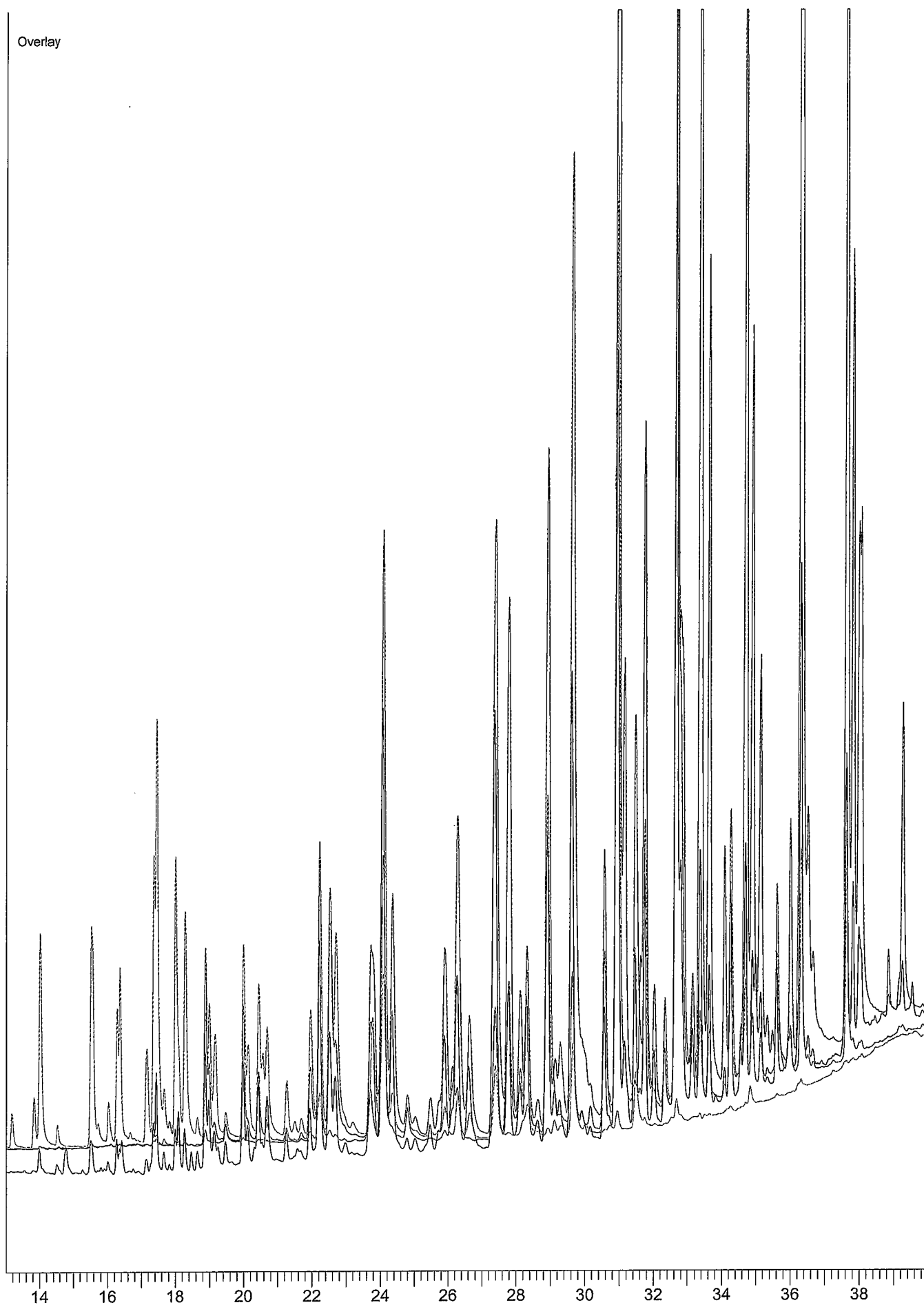
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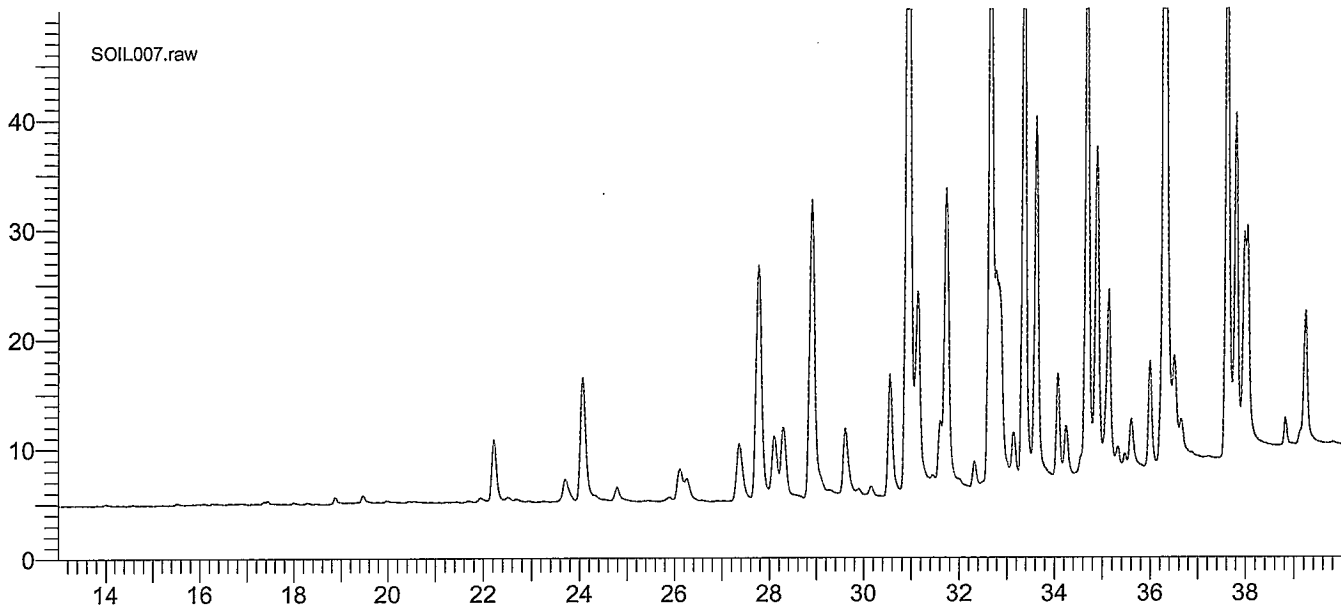
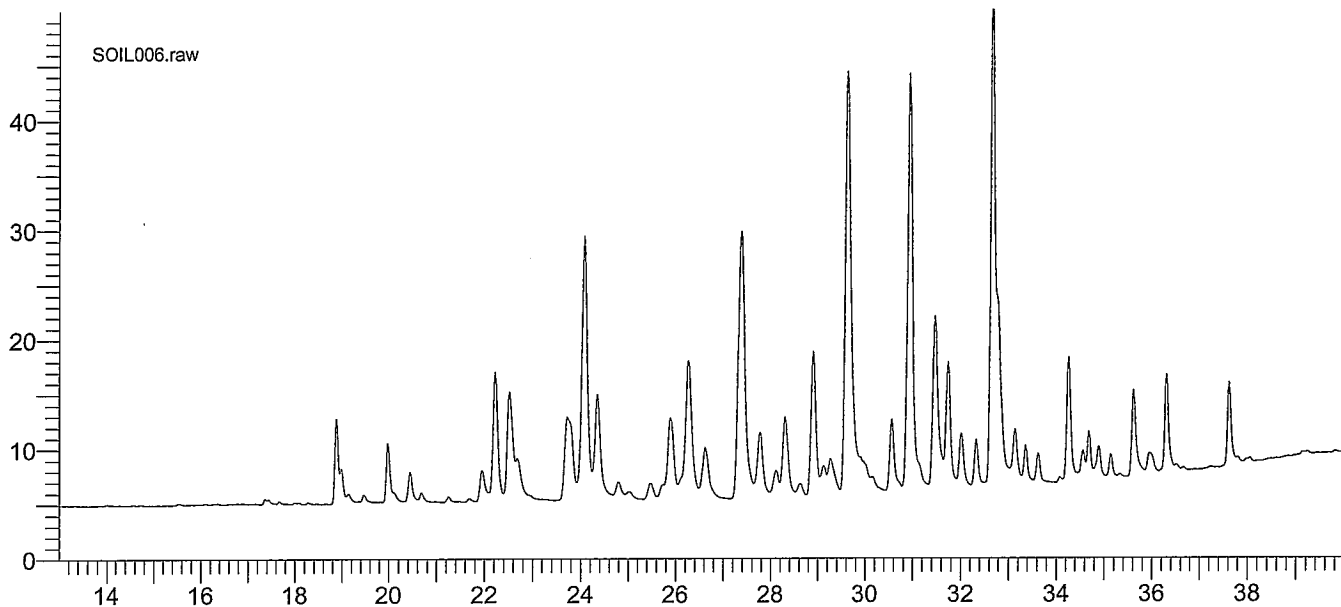
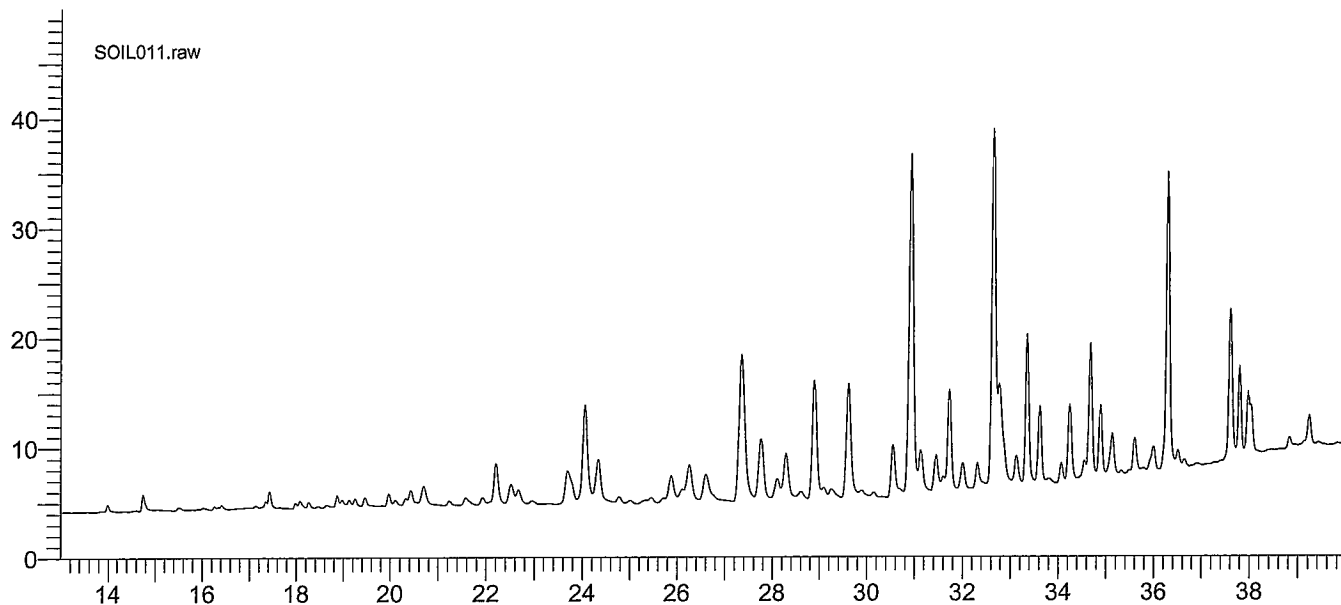
Plot Title		Start Time	End Time	Scale	Offset
SOIL007.raw		13.00	39.99	50.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	36				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL010.raw		13.00	39.99	50.00	0.00
Sample Name :	22661 1:10				
Sample Number:	39				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw		13.00	39.99	50.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL004.raw		13.00	39.99	50.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	33				
Instrument File Name:	c:\pest\gc14\methods\pcb				



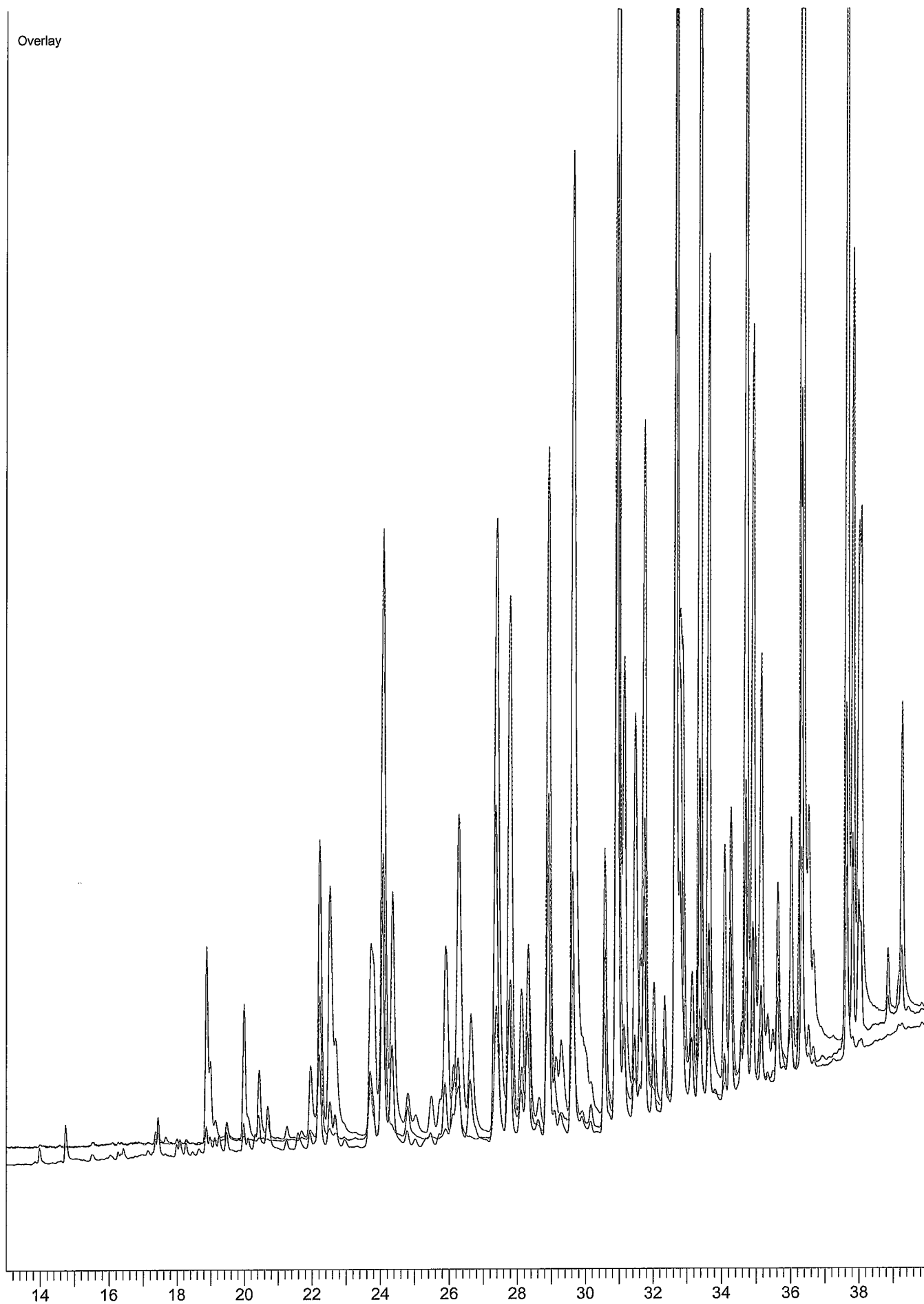
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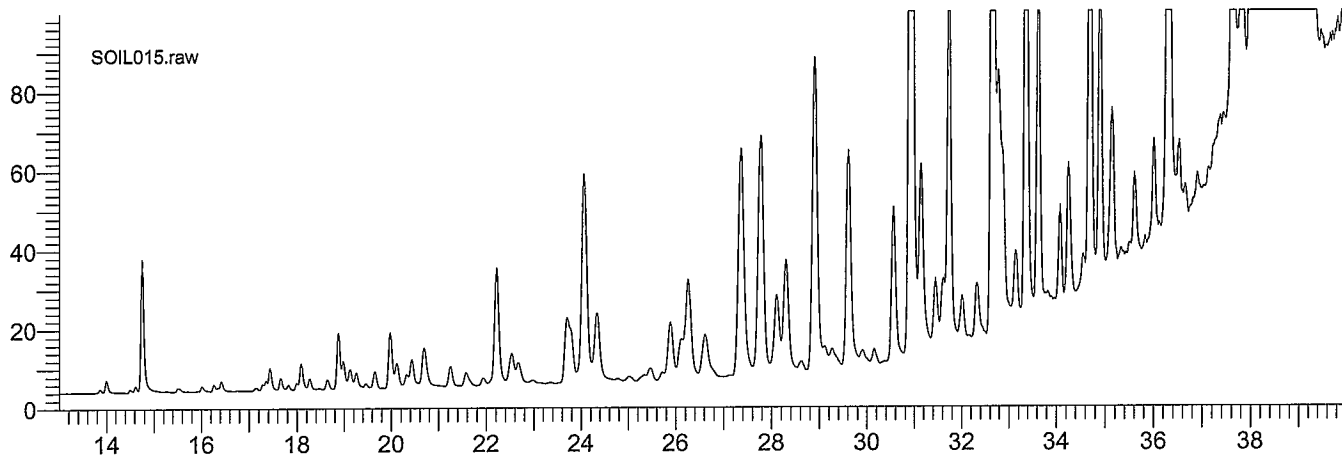
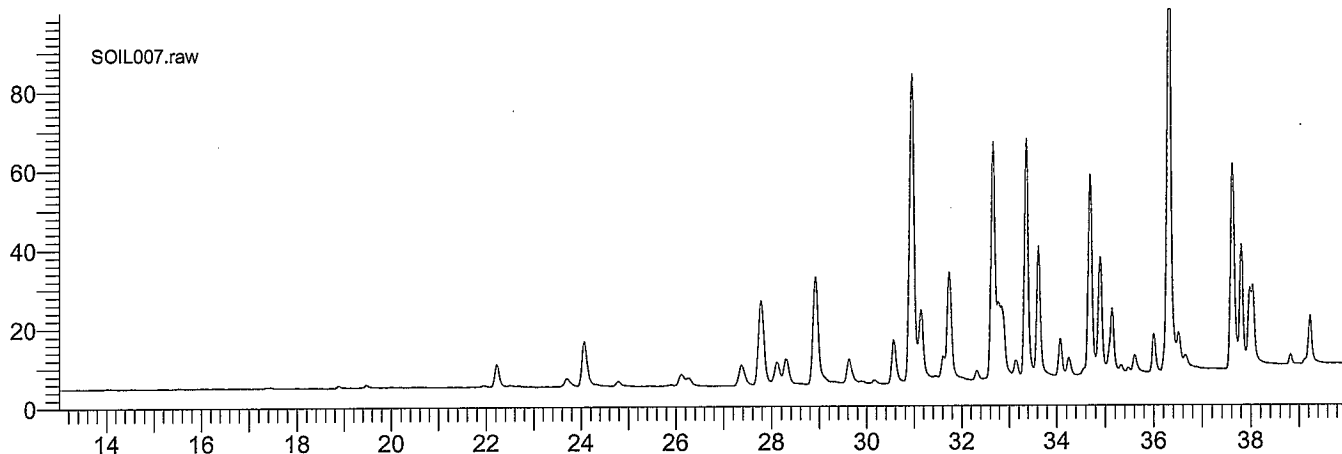
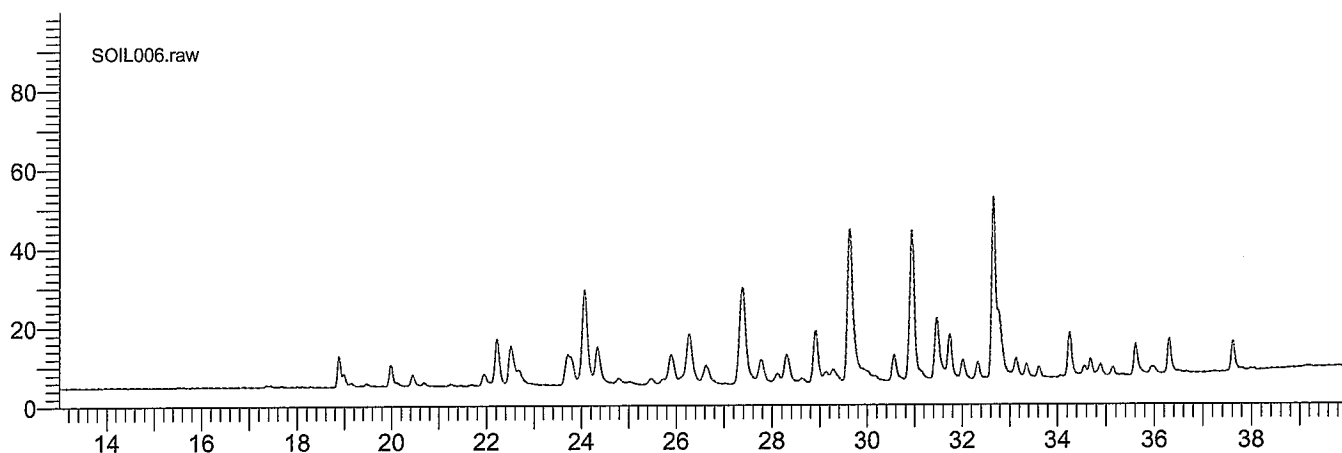
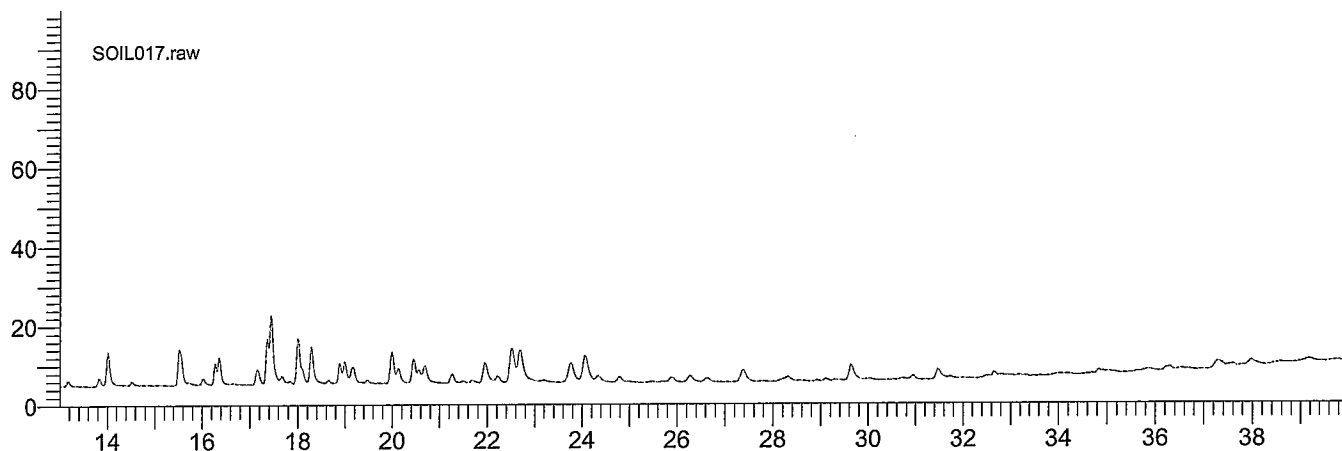
Plot Title		Start Time	End Time	Scale	Offset
SOIL011.raw		13.00	40.00	50.00	0.00
Sample Name :	22662 1:10				
Sample Number:	40				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw		13.00	40.00	50.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL007.raw		13.00	40.00	50.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	36				
Instrument File Name:	c:\pest\gc14\methods\pcb				



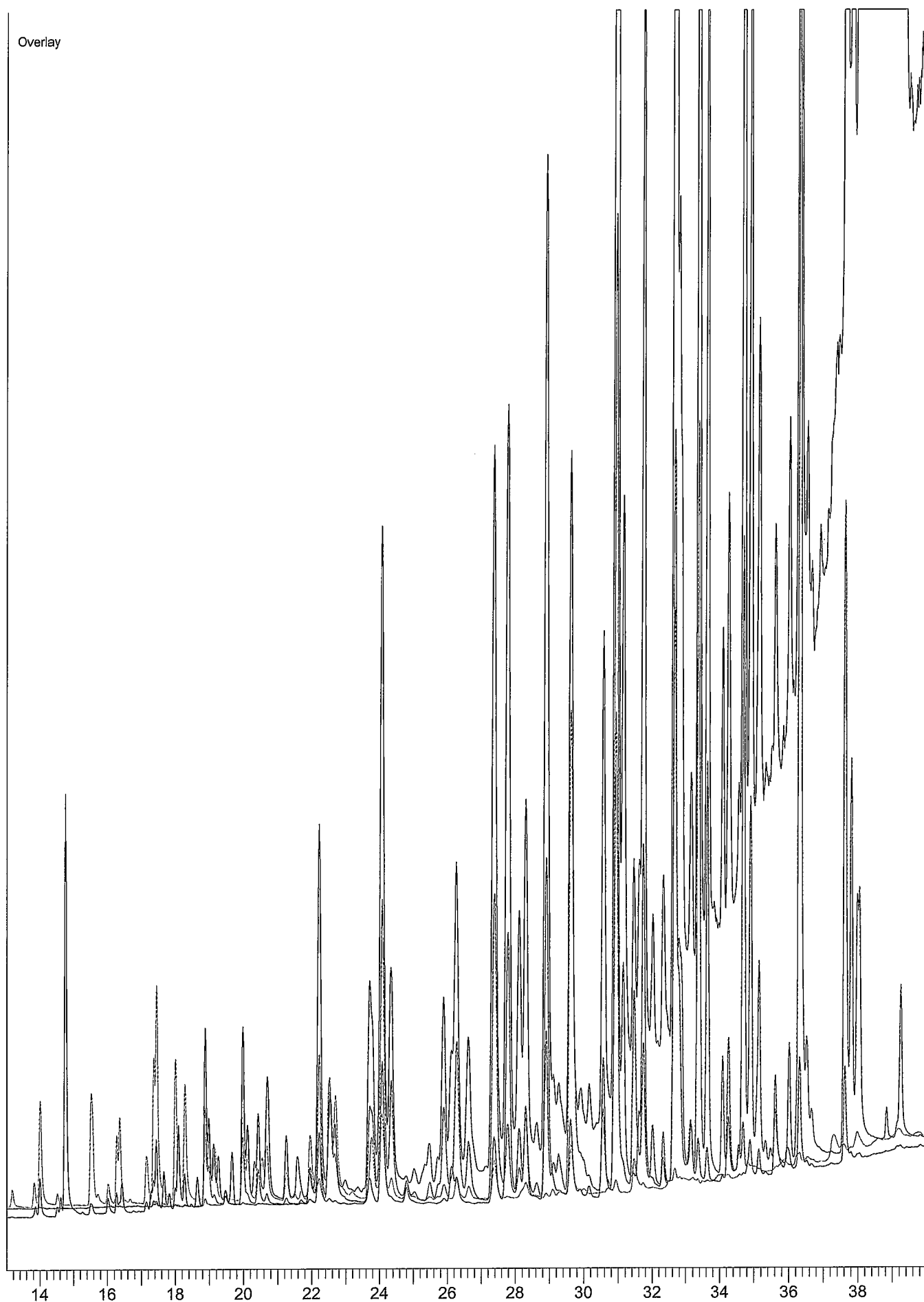
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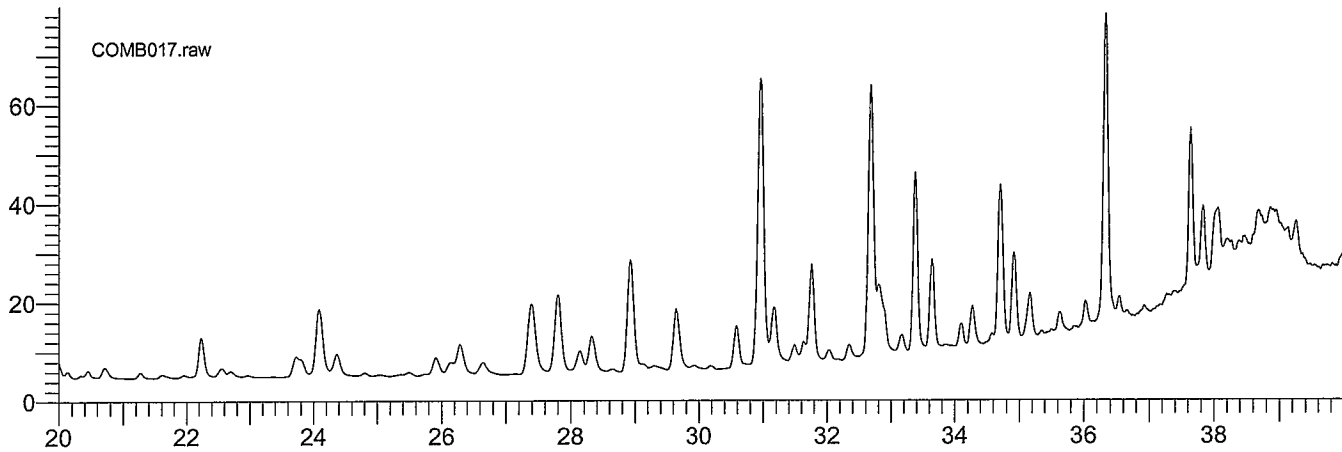
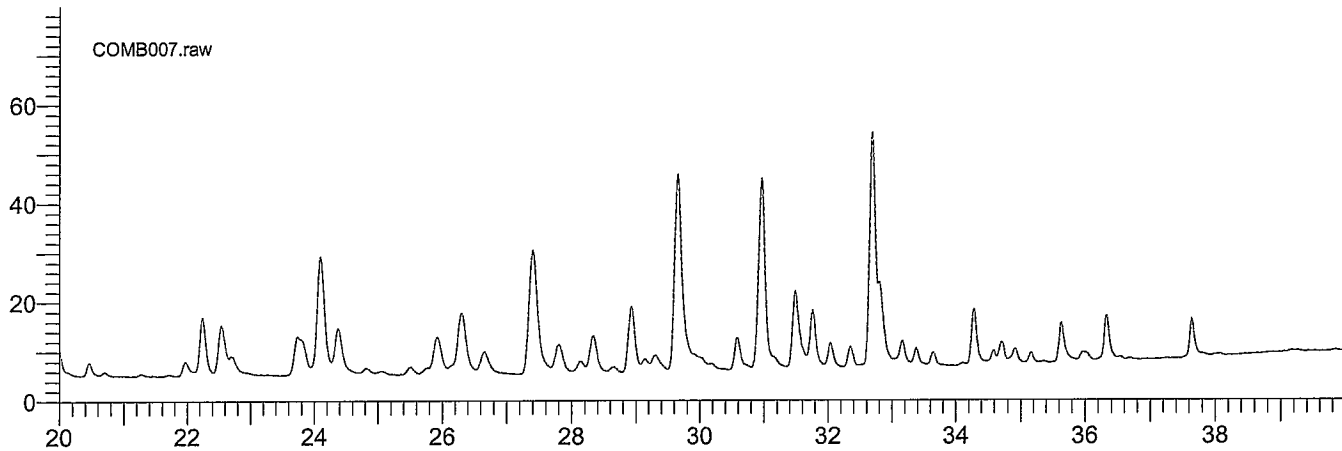
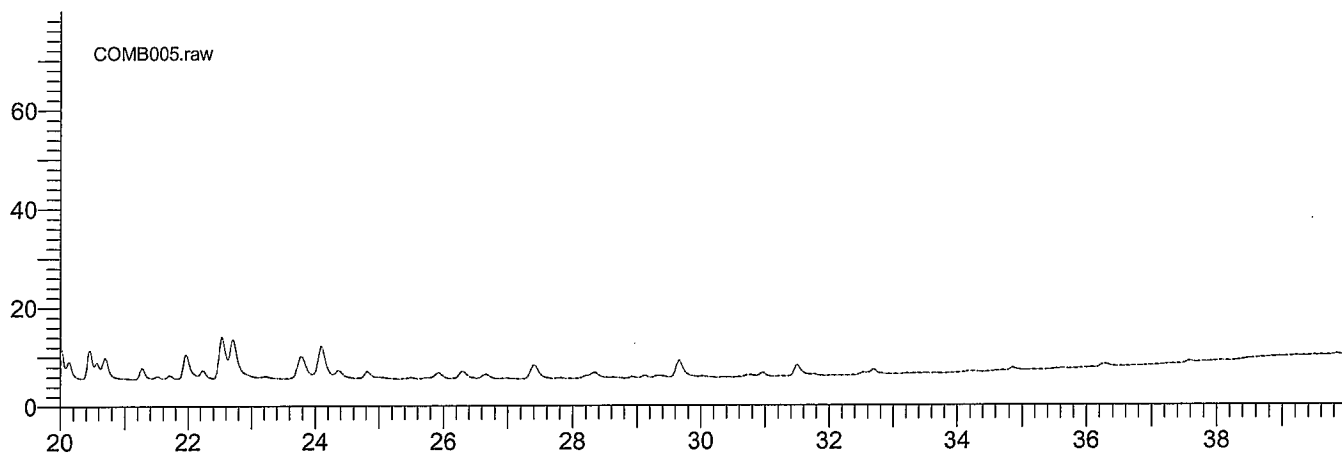
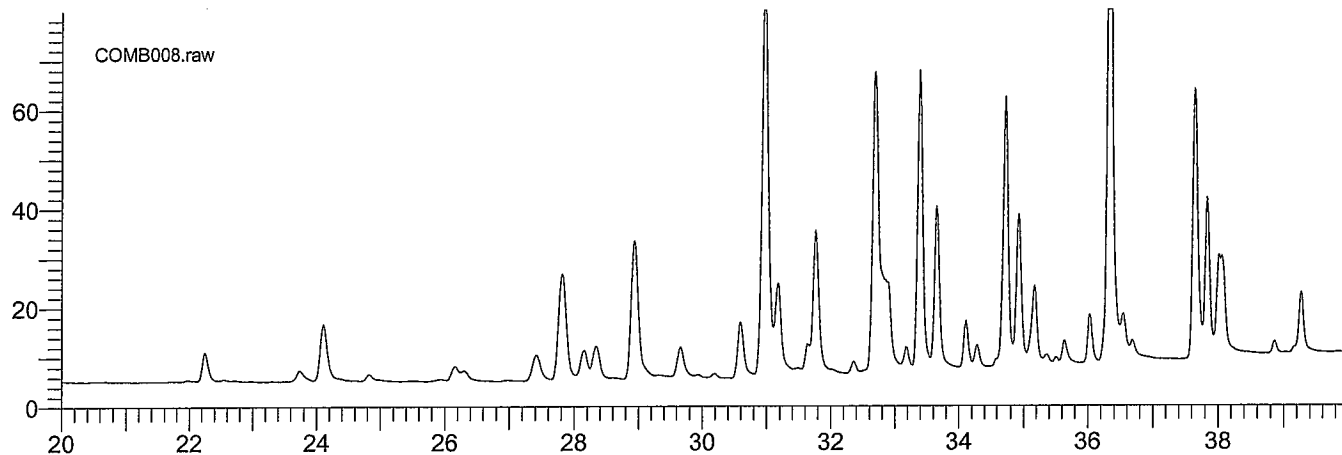
Plot Title		Start Time	End Time	Scale	Offset
SOIL017.raw		13.00	40.00	100.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	46				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw		13.00	40.00	100.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL007.raw		13.00	40.00	100.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	36				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL015.raw		13.00	40.00	100.00	0.00
Sample Name :	22665 1:10				
Sample Number:	44				
Instrument File Name:	c:\pest\gc14\methods\pcb				



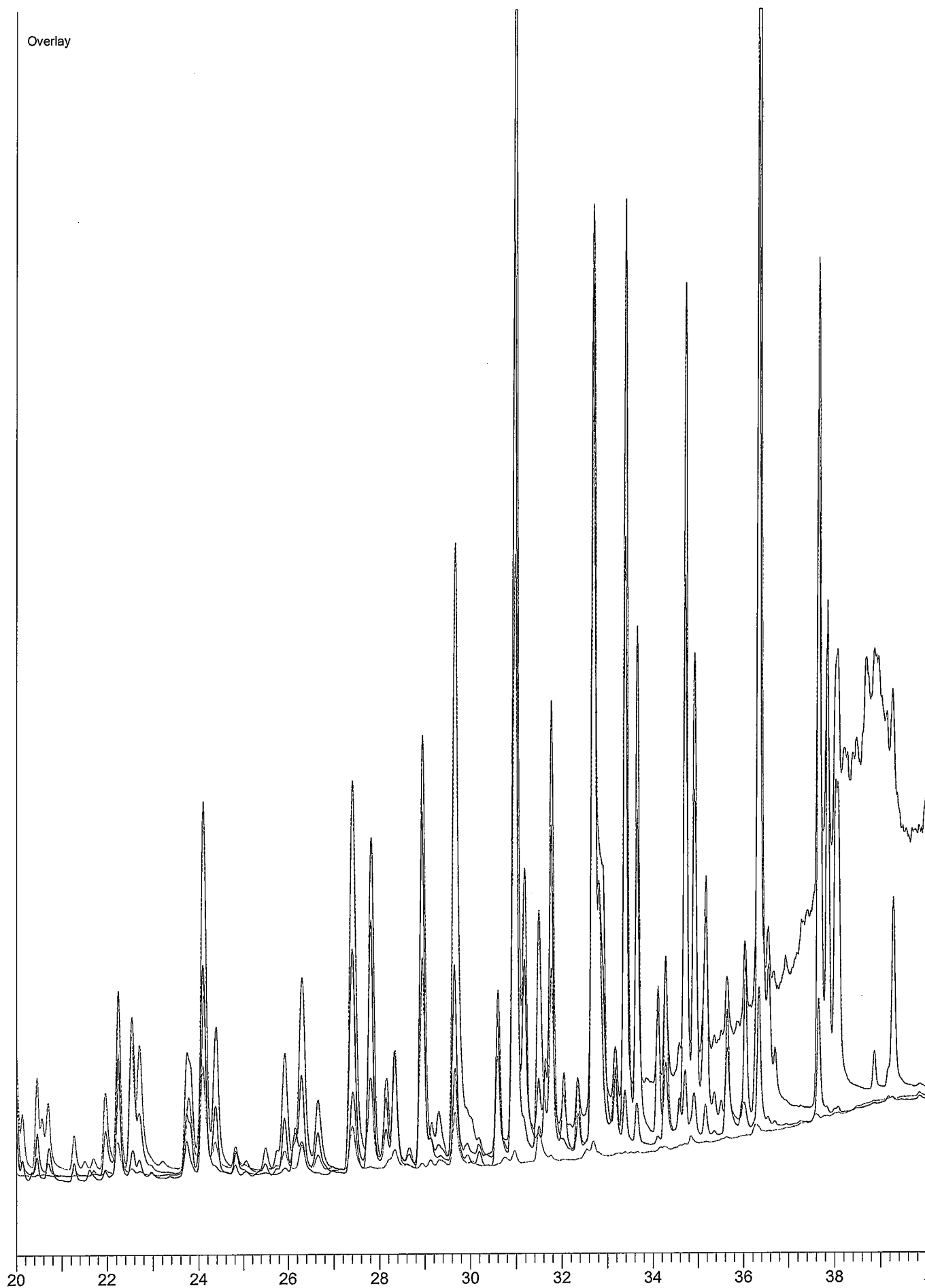
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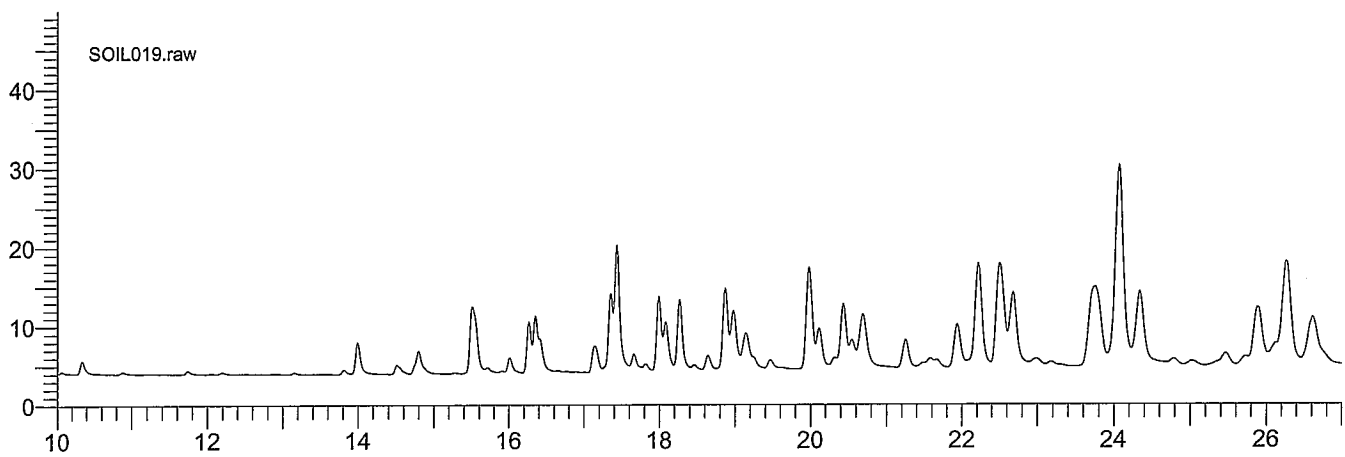
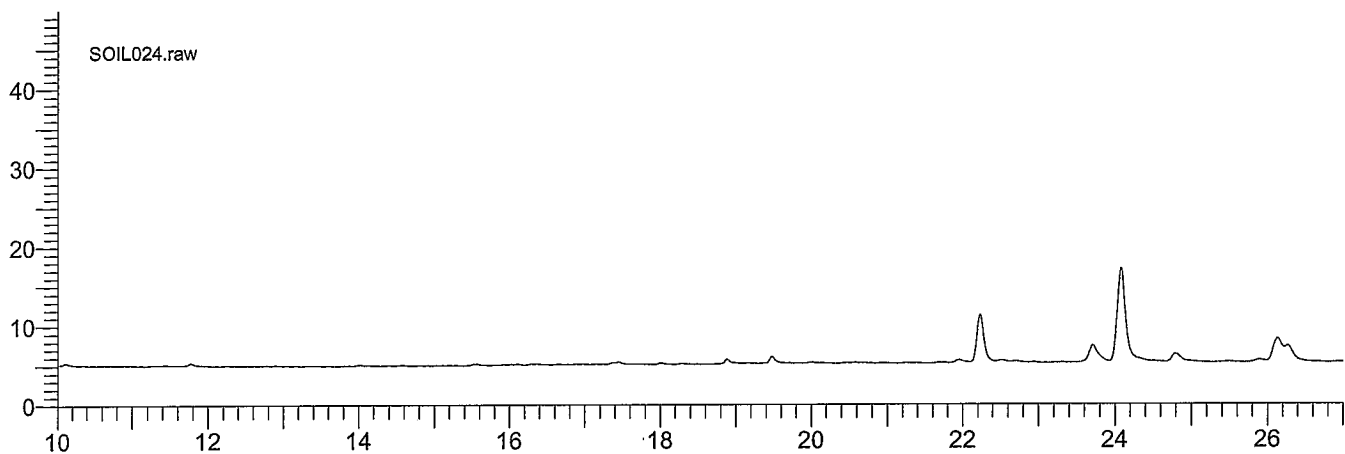
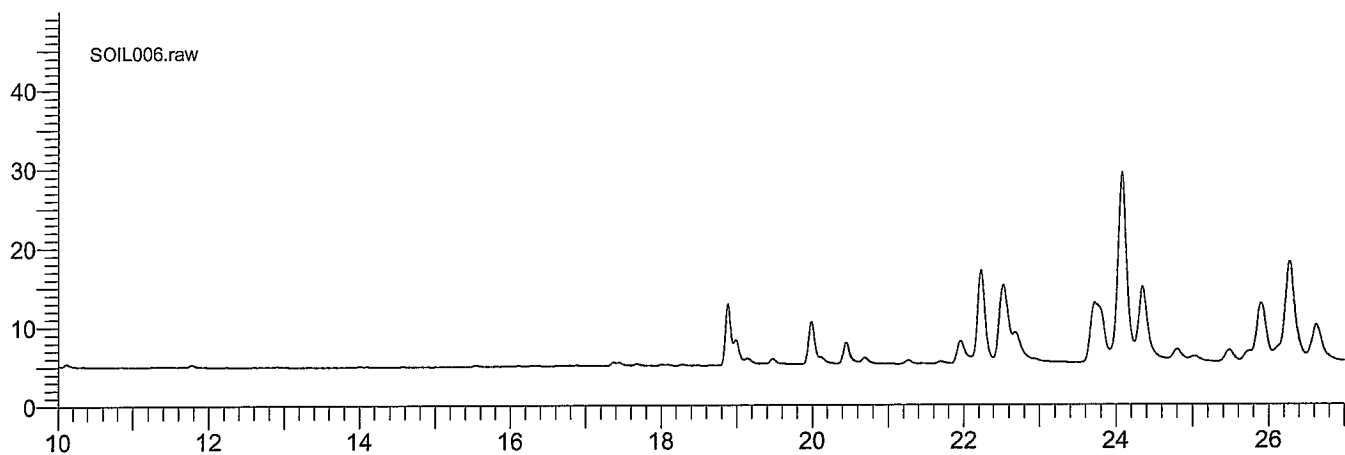
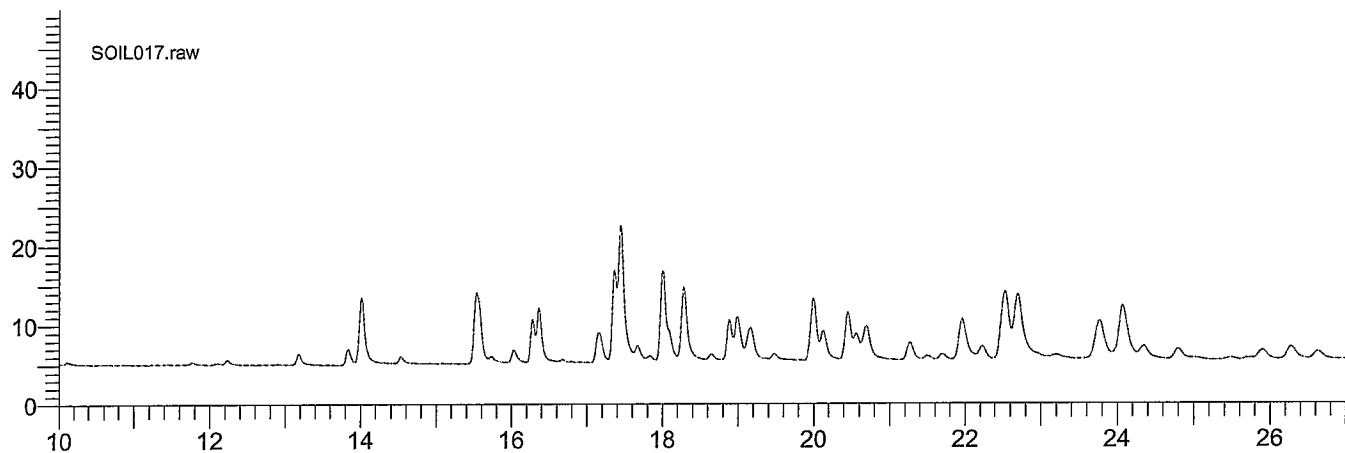
Plot Title		Start Time	End Time	Scale	Offset
COMB008.raw		20.00	39.99	80.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB005.raw		20.00	39.99	80.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	05				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB007.raw		20.00	39.99	80.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB017.raw		20.00	39.99	80.00	0.00
Sample Name :	##SET 3###22665 1:50				
Sample Number:	17				
Instrument File Name:	c:\pest\gc14\methods\pcb				



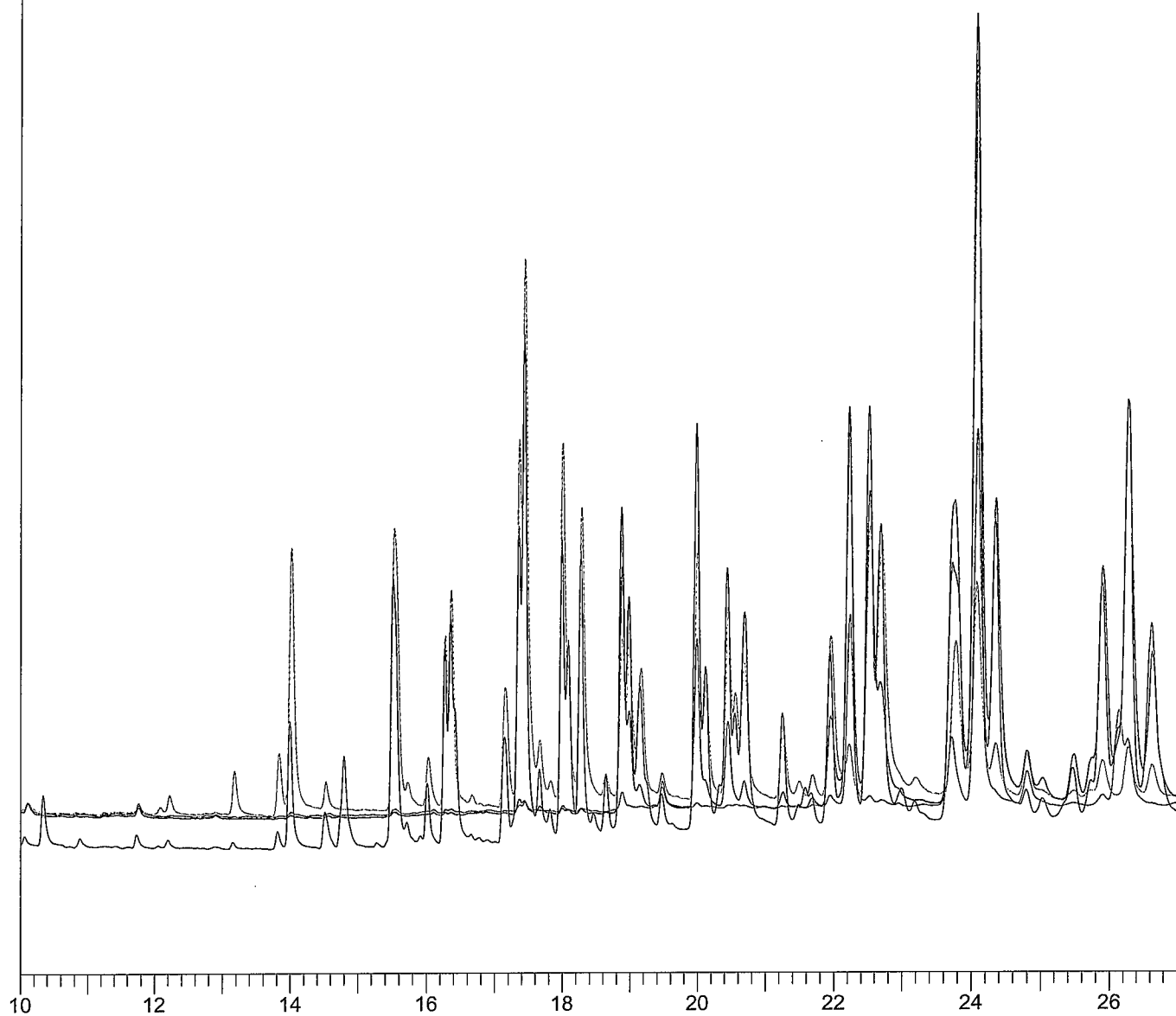
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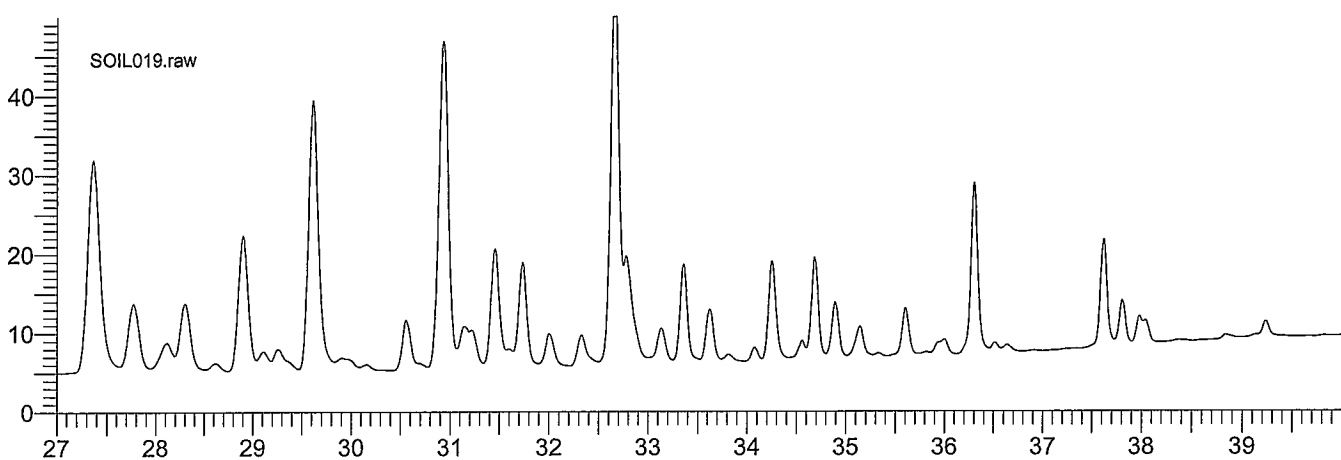
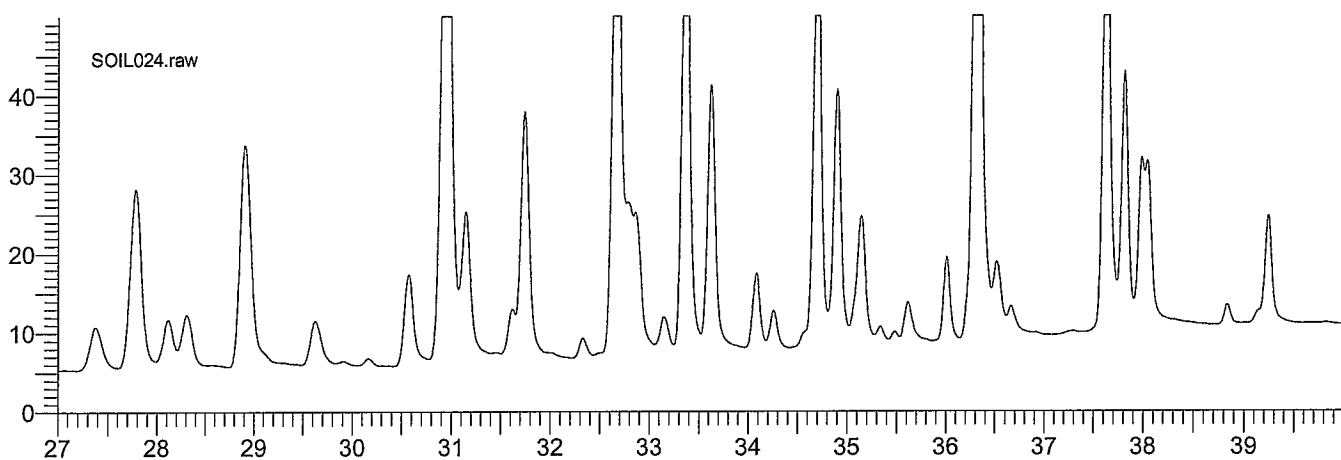
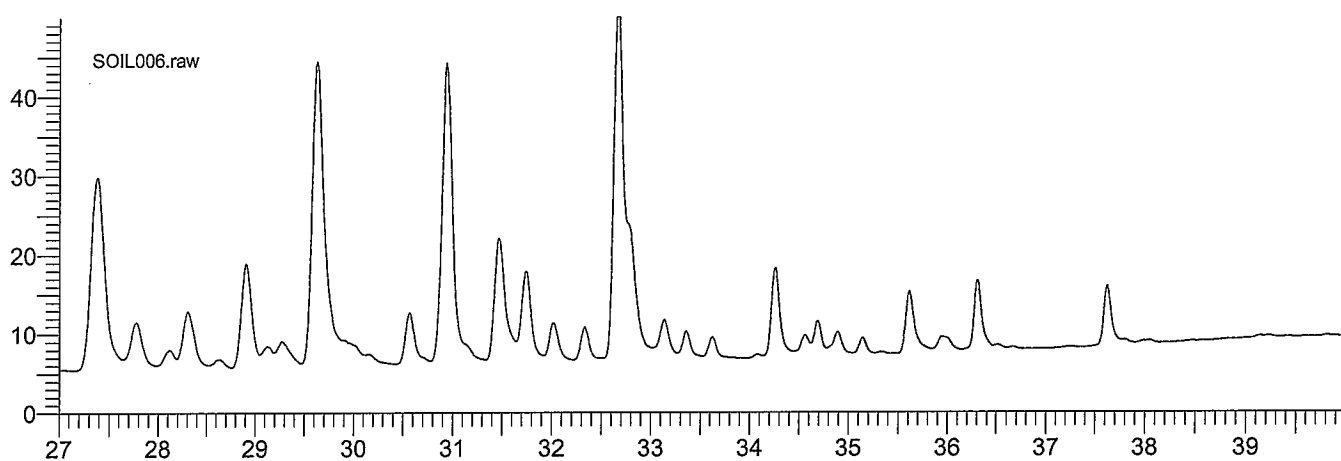
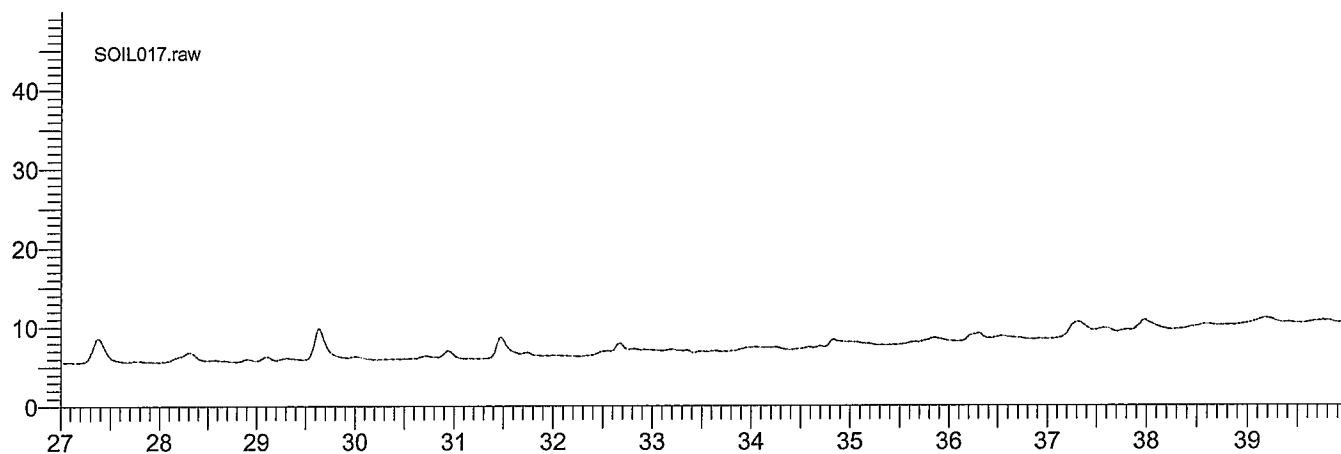
Plot Title		Start Time	End Time	Scale	Offset
SOIL017.raw		10.00	27.00	50.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	46				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw		10.00	27.00	50.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL024.raw		10.00	27.00	50.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	53				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL019.raw		10.00	27.00	50.00	0.00
Sample Name :	22667 1:10				
Sample Number:	48				
Instrument File Name:	c:\pest\gc14\methods\pcb				



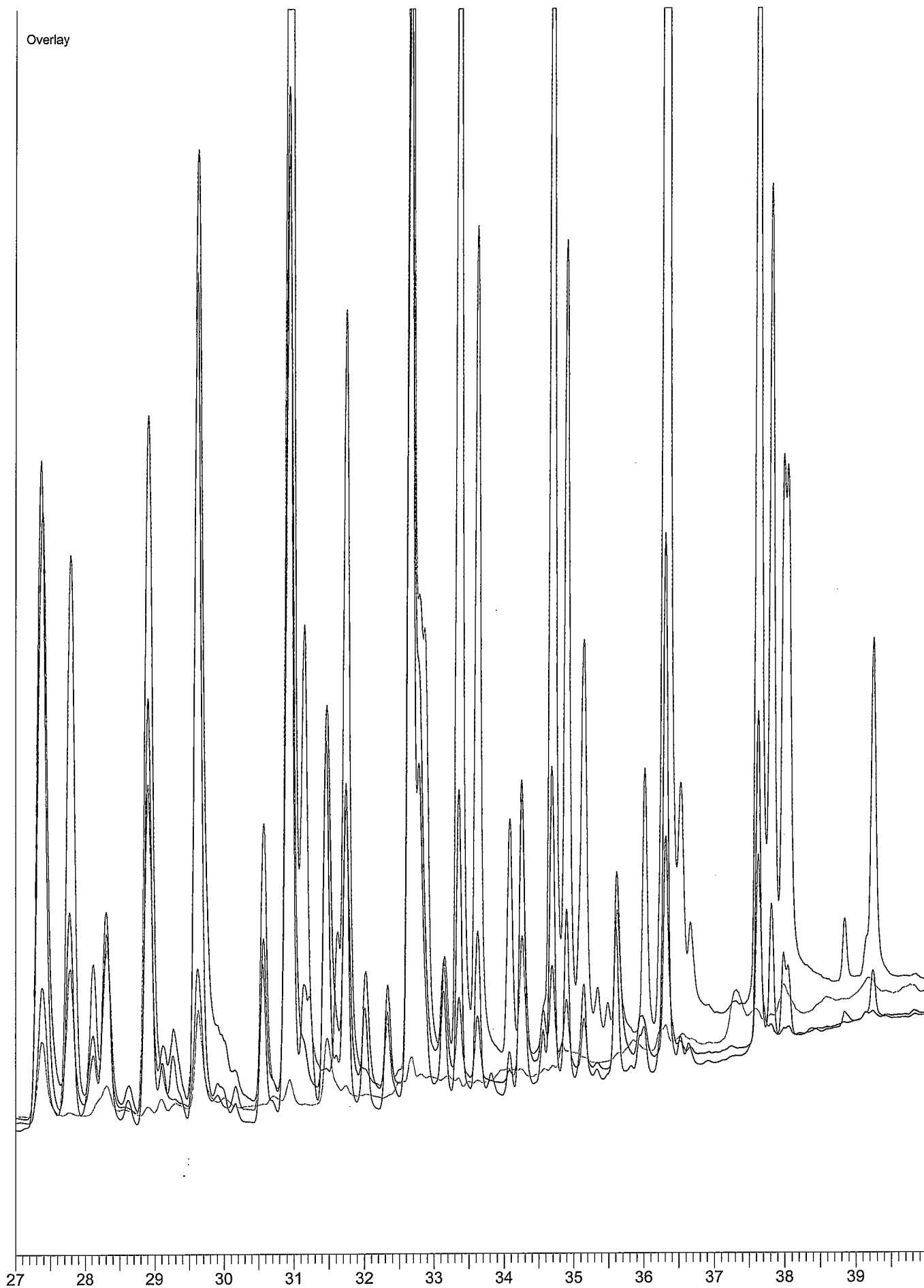
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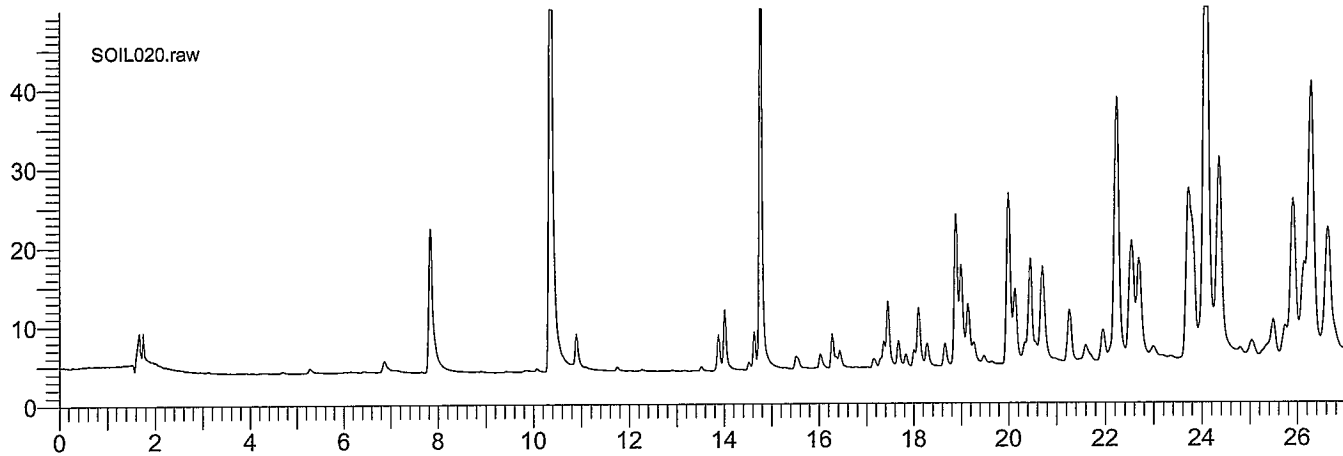
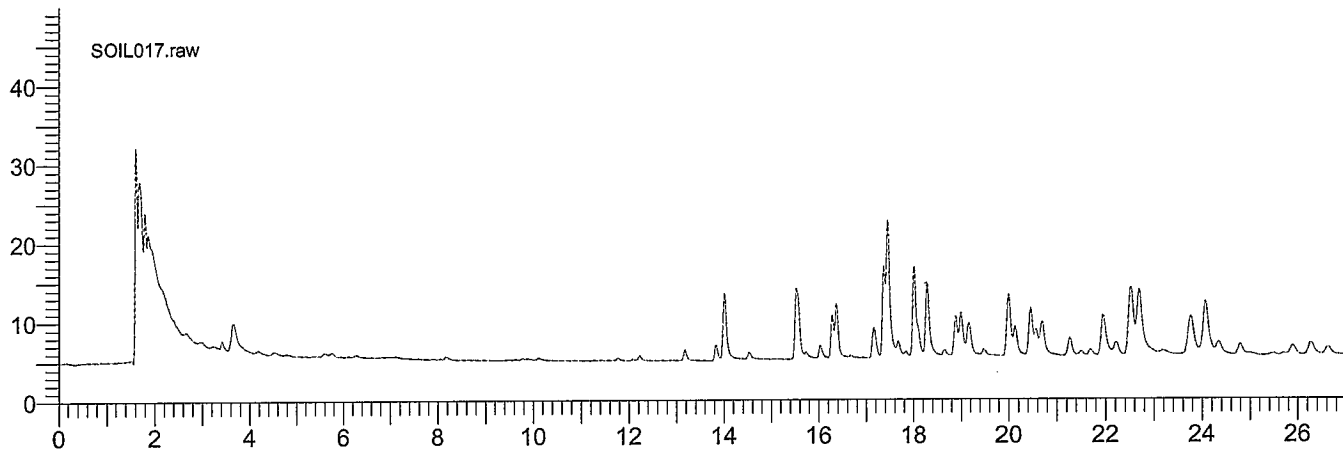
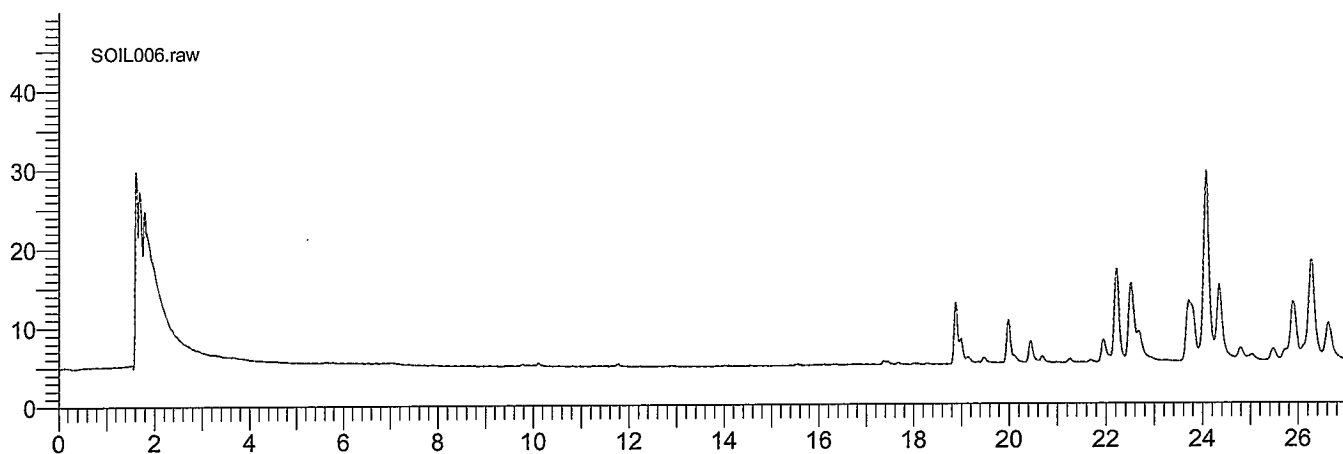
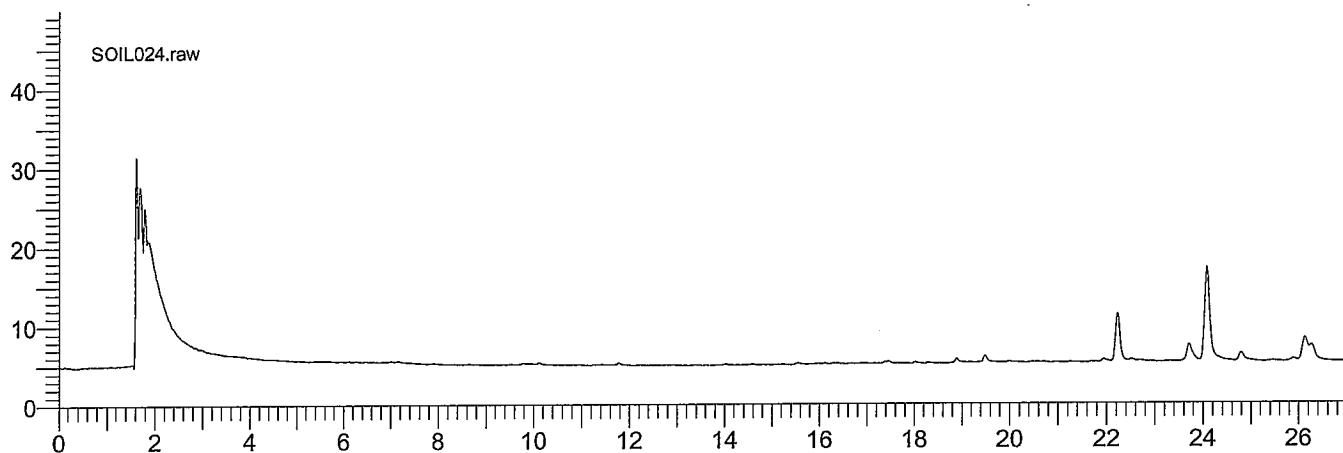
Plot Title	Start Time	End Time	Scale	Offset
SOIL017.raw Sample Name : AROCHLOR 1242 Sample Number: 46 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	40.00	50.00	0.00
SOIL006.raw Sample Name : AROCHLOR 1254 Sample Number: 35 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	40.00	50.00	0.00
SOIL024.raw Sample Name : AROCHLOR 1260 Sample Number: 53 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	40.00	50.00	0.00
SOIL019.raw Sample Name : 22667 1:10 Sample Number: 48 Instrument File Name: c:\pest\gc14\methods\pcb	27.00	40.00	50.00	0.00



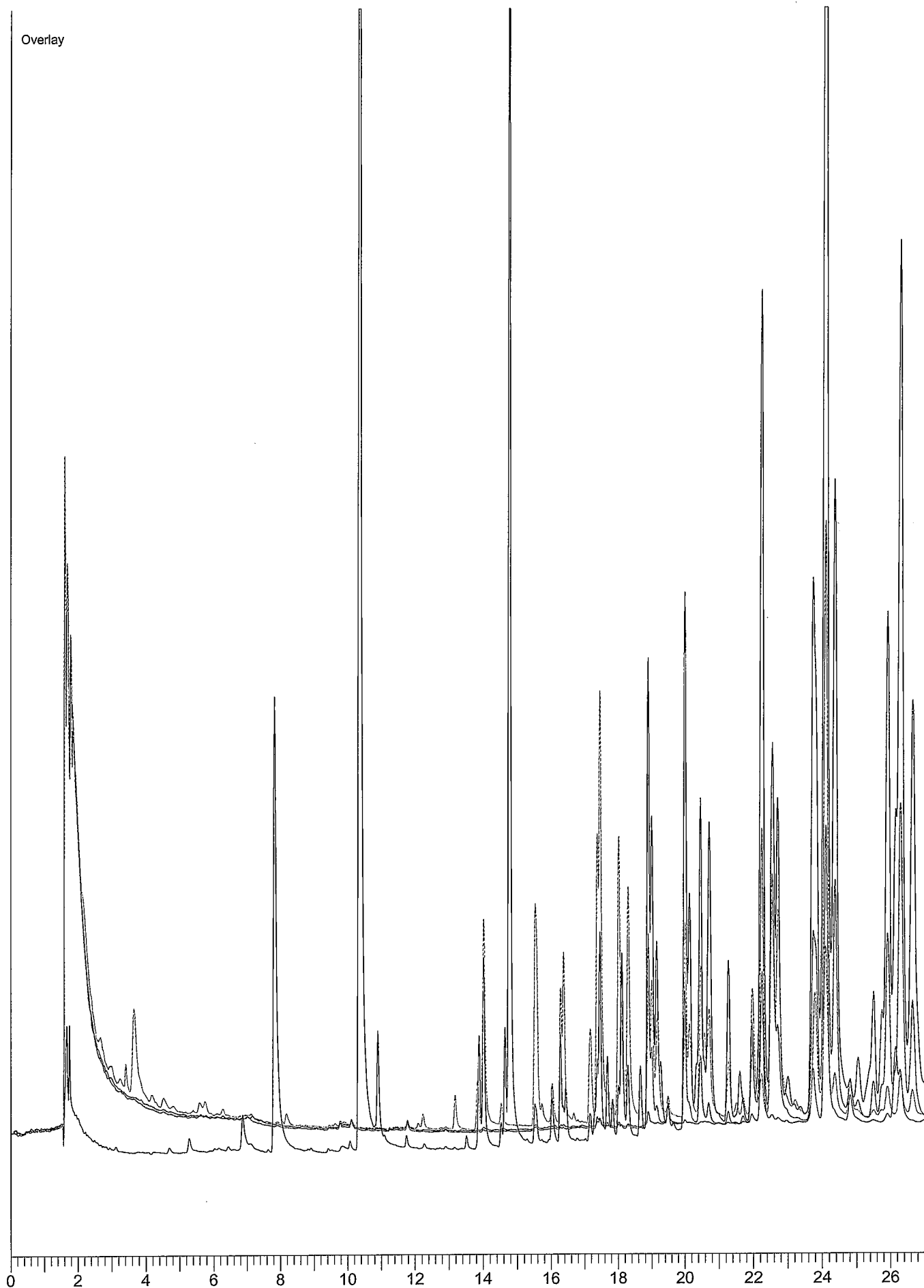
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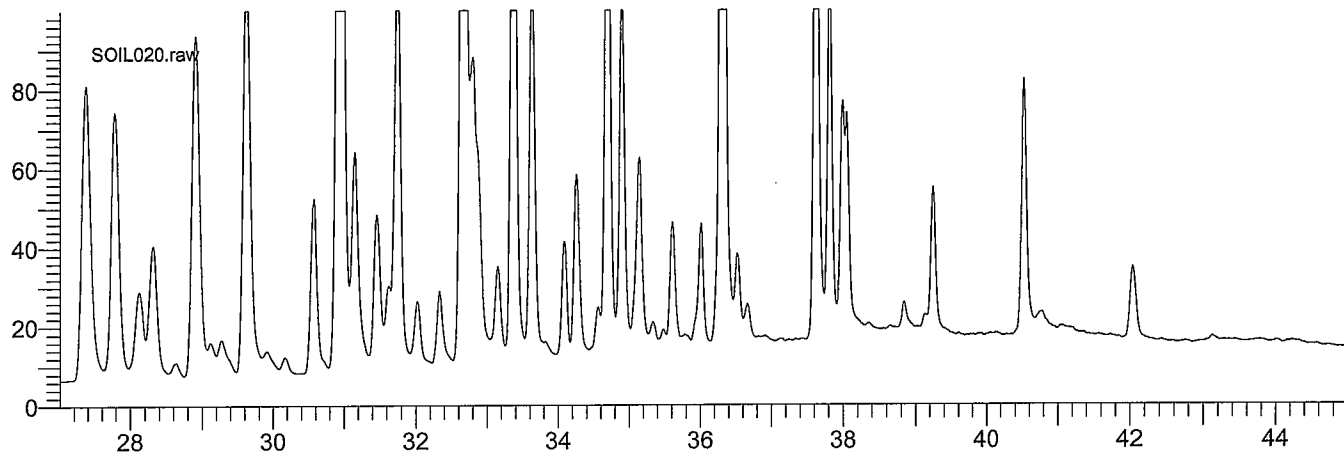
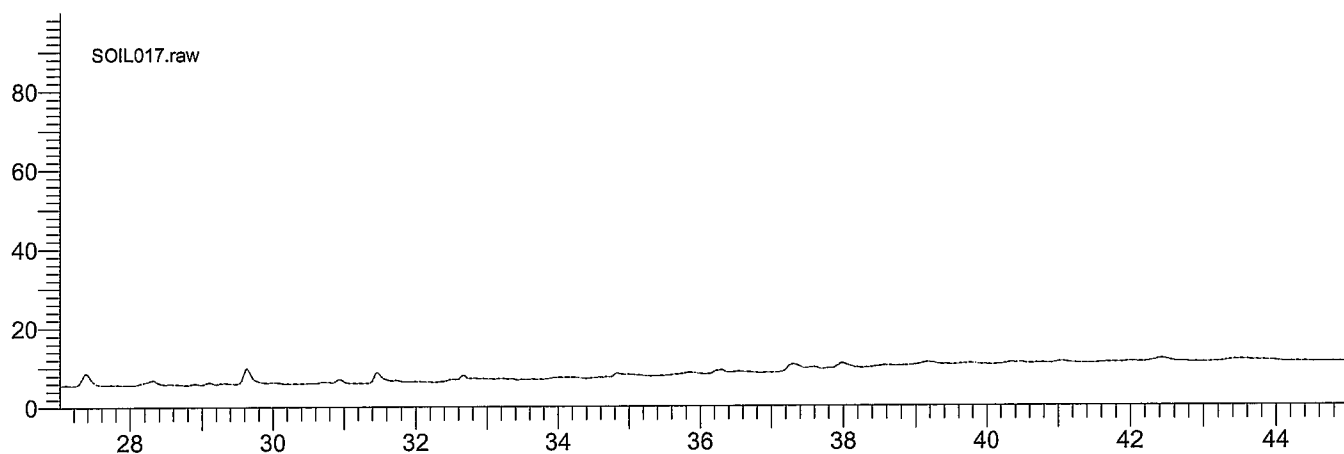
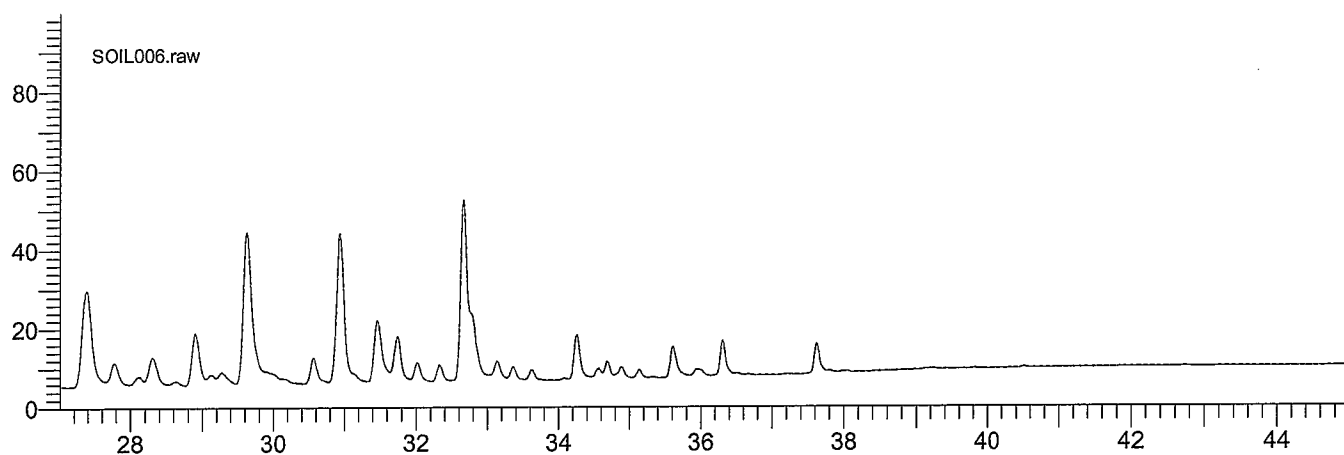
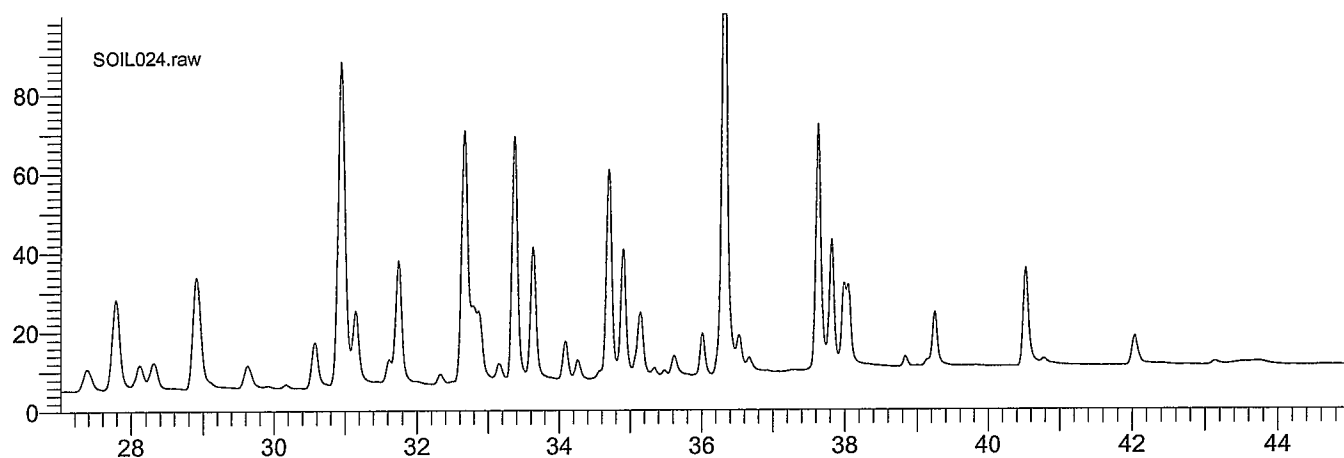
Plot Title		Start Time	End Time	Scale	Offset
SOIL024.raw		0.00	27.00	50.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	53				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw		0.00	27.00	50.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL017.raw		0.00	27.00	50.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	46				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL020.raw		0.00	27.00	50.00	0.00
Sample Name :	22668 1:10				
Sample Number:	49				
Instrument File Name:	c:\pest\gc14\methods\pcb				



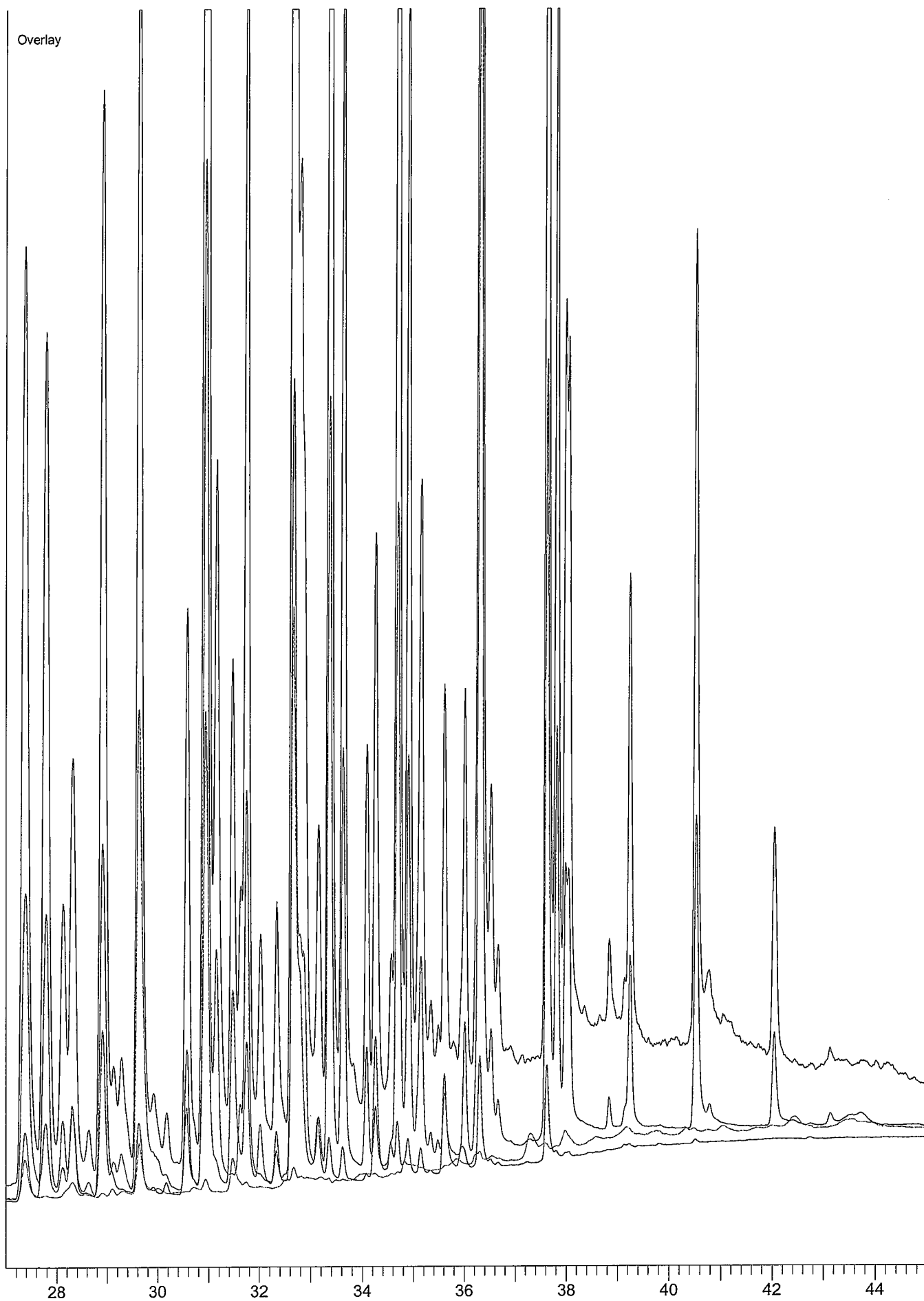
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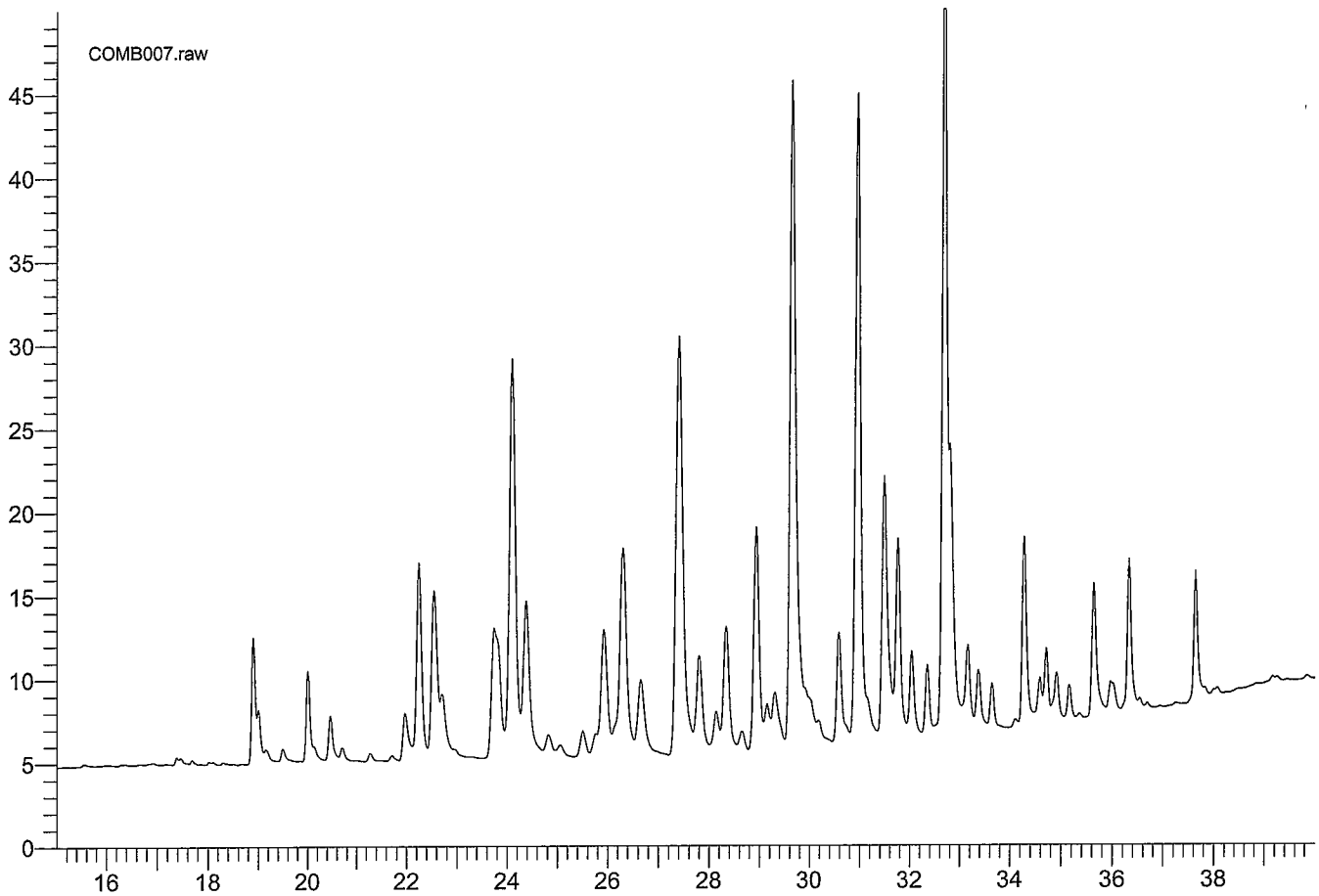
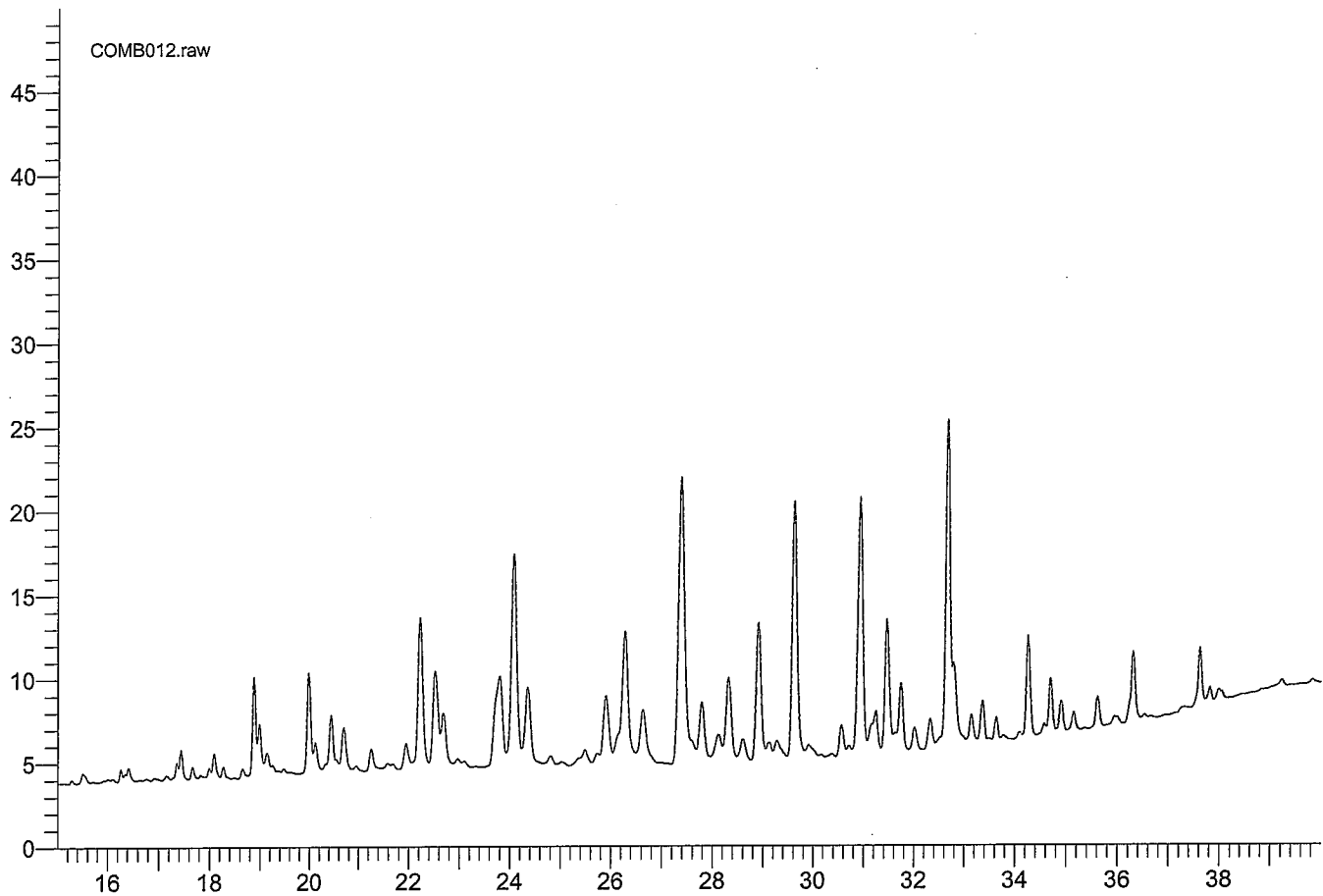
Plot Title		Start Time	End Time	Scale	Offset
SOIL024.raw		27.00	45.00	100.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	53				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL006.raw		27.00	45.00	100.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	35				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL017.raw		27.00	45.00	100.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	46				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SOIL020.raw		27.00	45.00	100.00	0.00
Sample Name :	22668 1:10				
Sample Number:	49				
Instrument File Name:	c:\pest\gc14\methods\pcb				



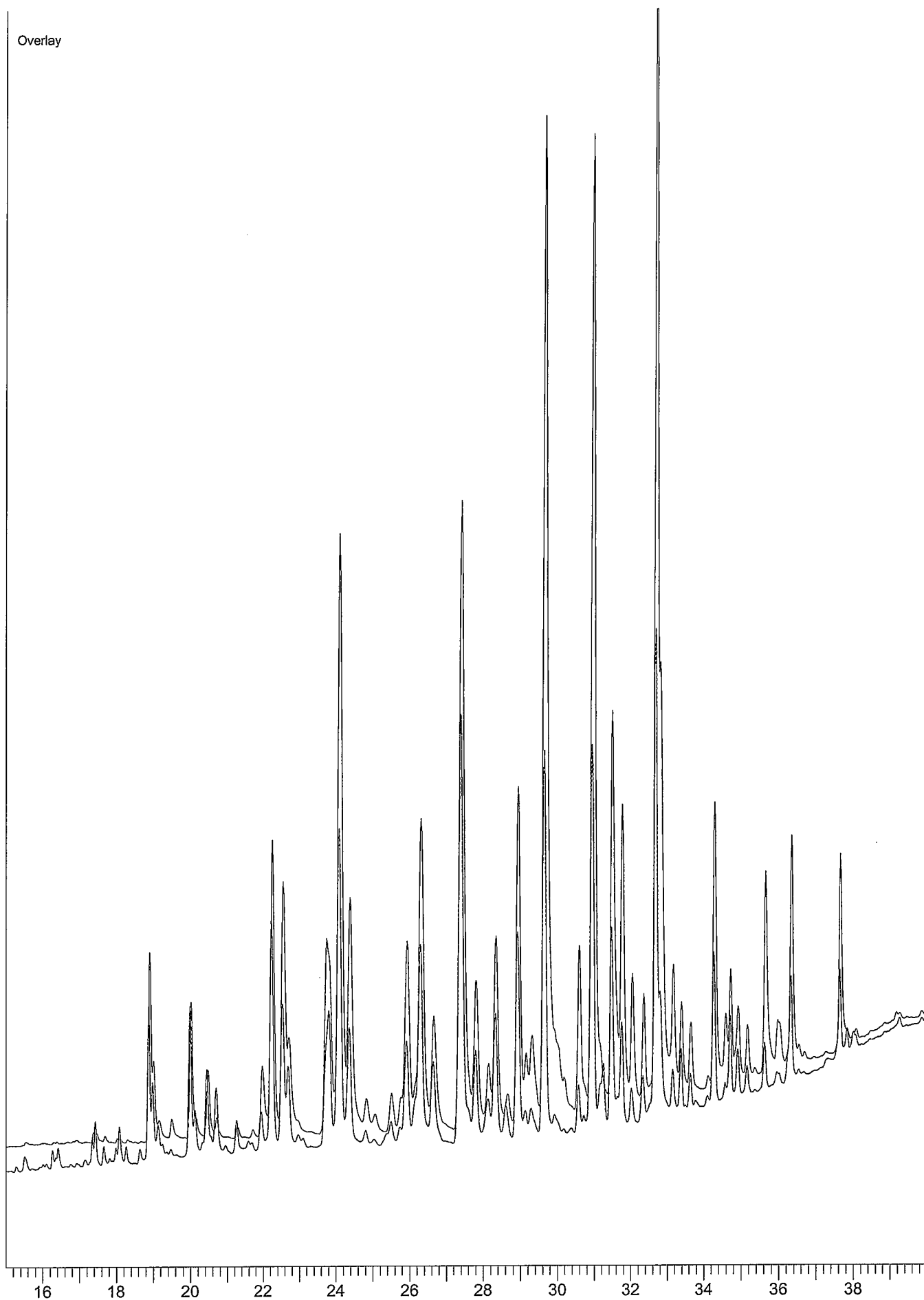
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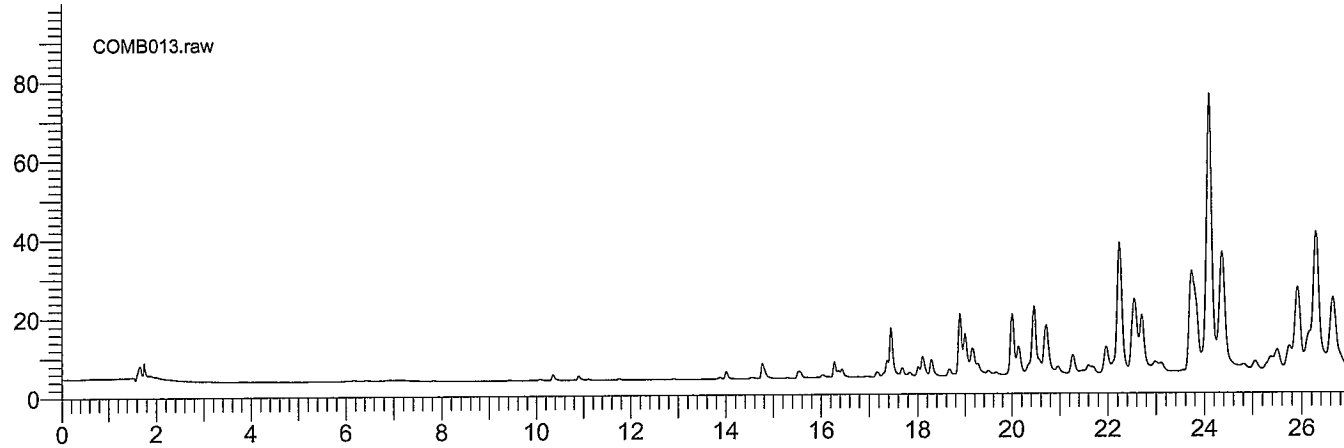
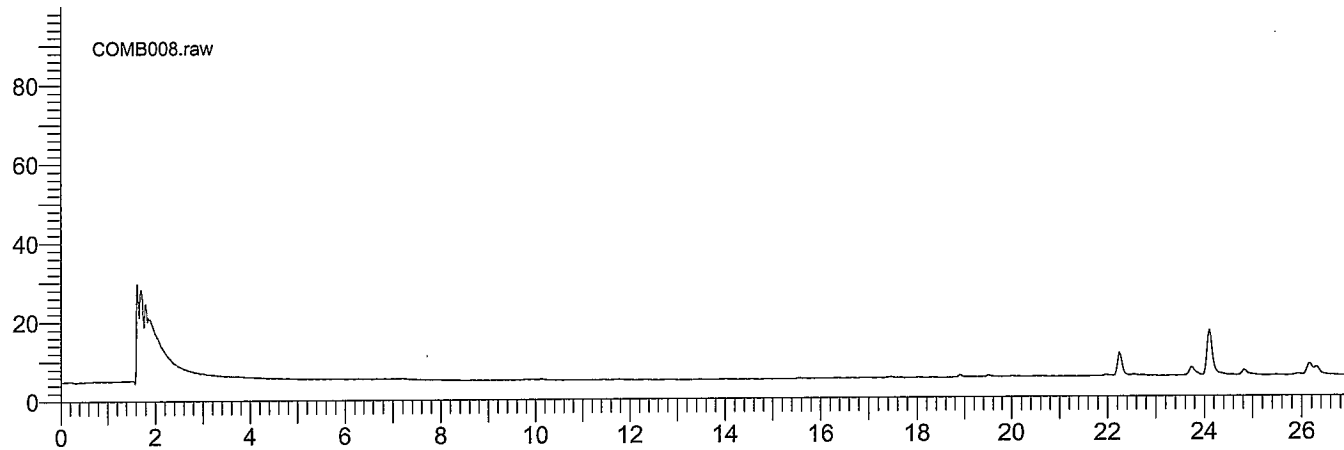
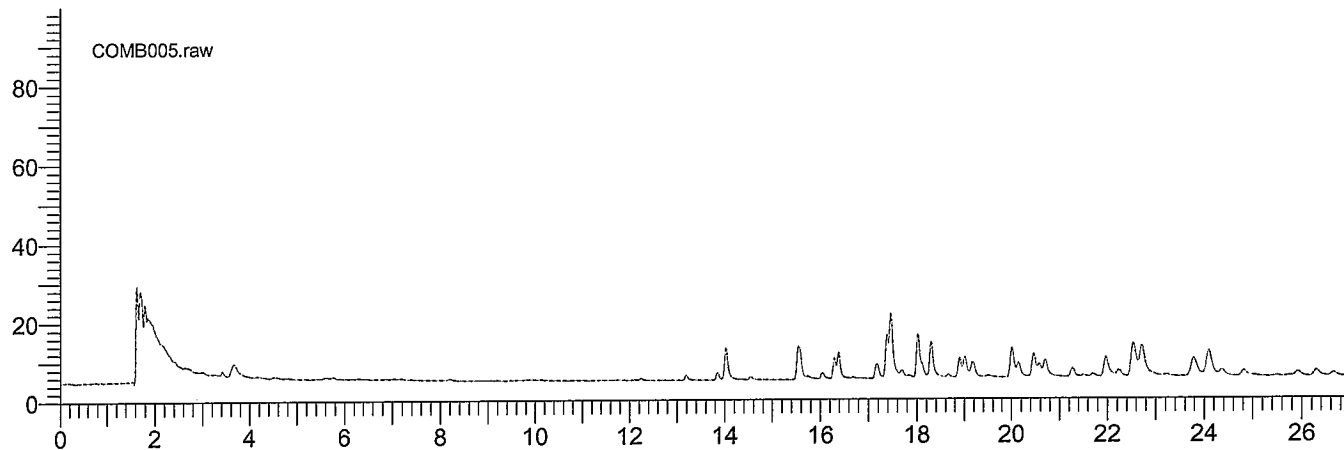
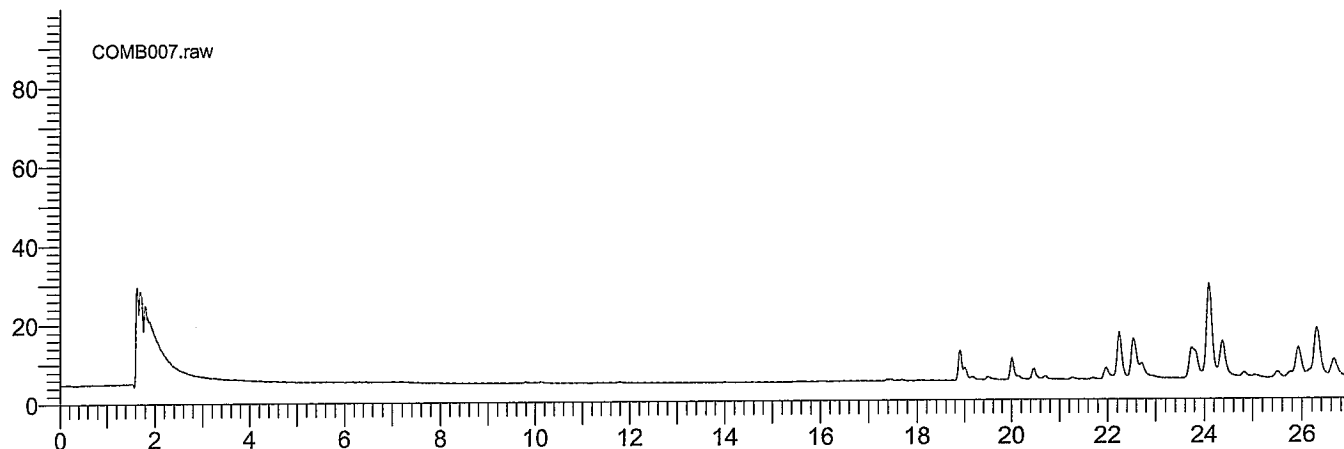
Plot Title		Start Time	End Time	Scale	Offset
COMB012.raw		15.00	40.00	50.00	0.00
Sample Name :	22670 1:10				
Sample Number:	12				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB007.raw		15.00	40.00	50.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				



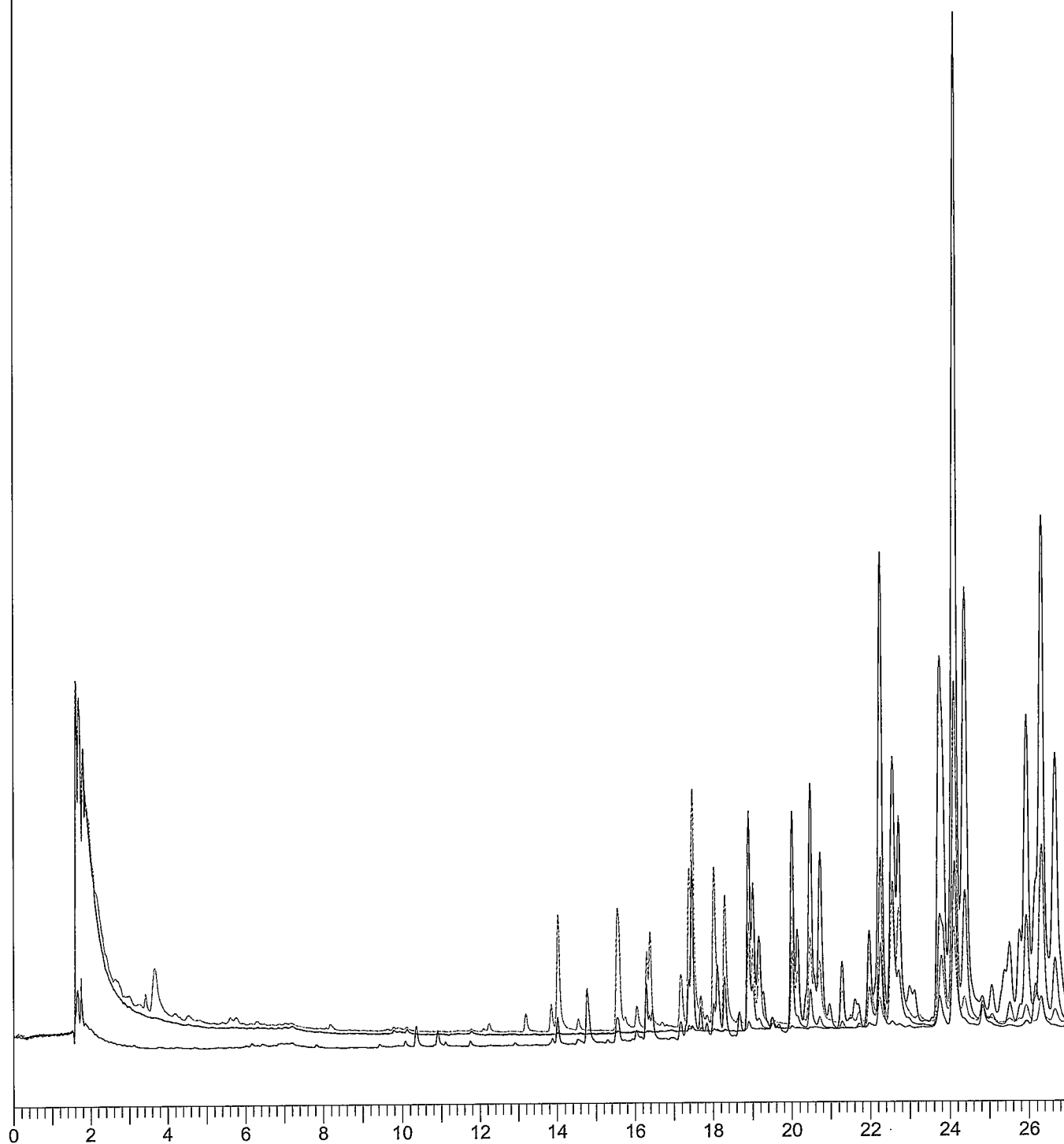
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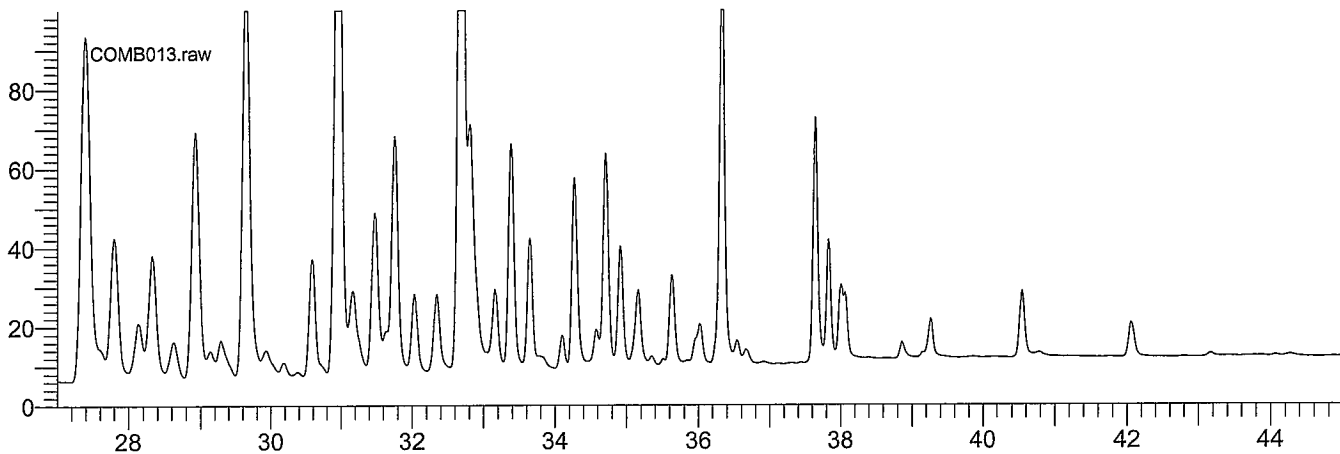
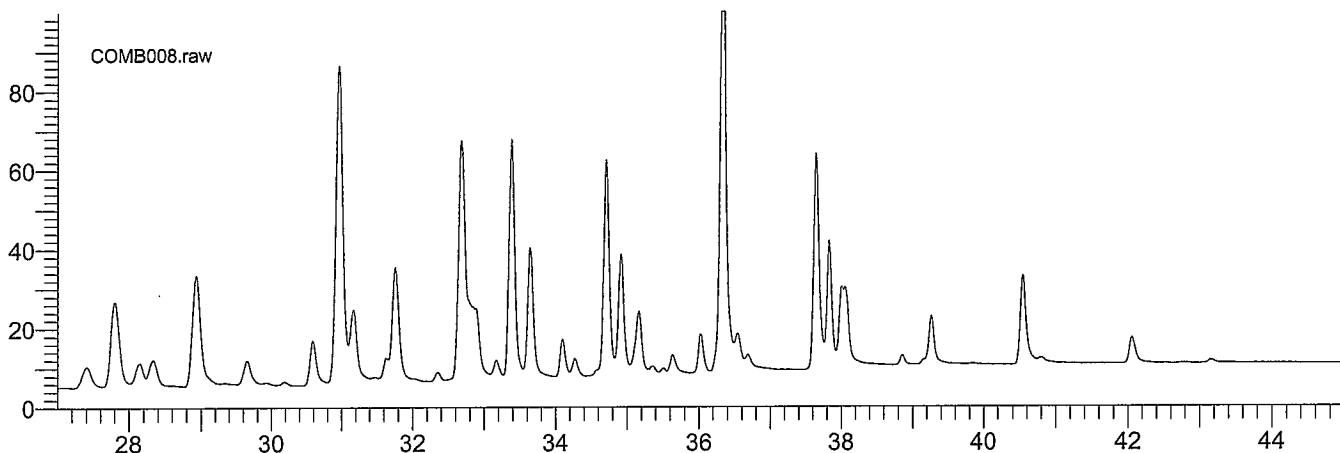
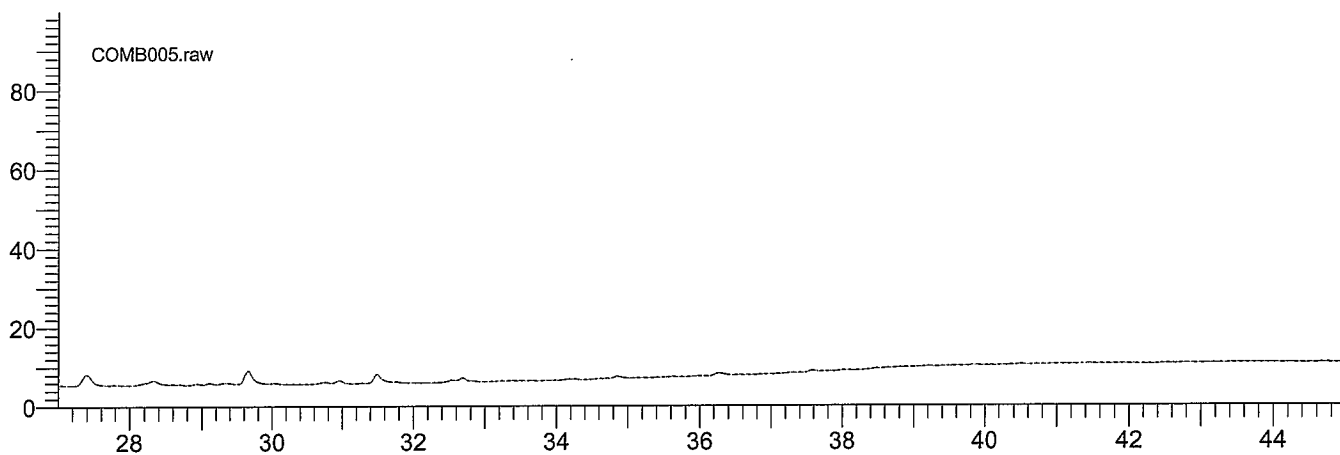
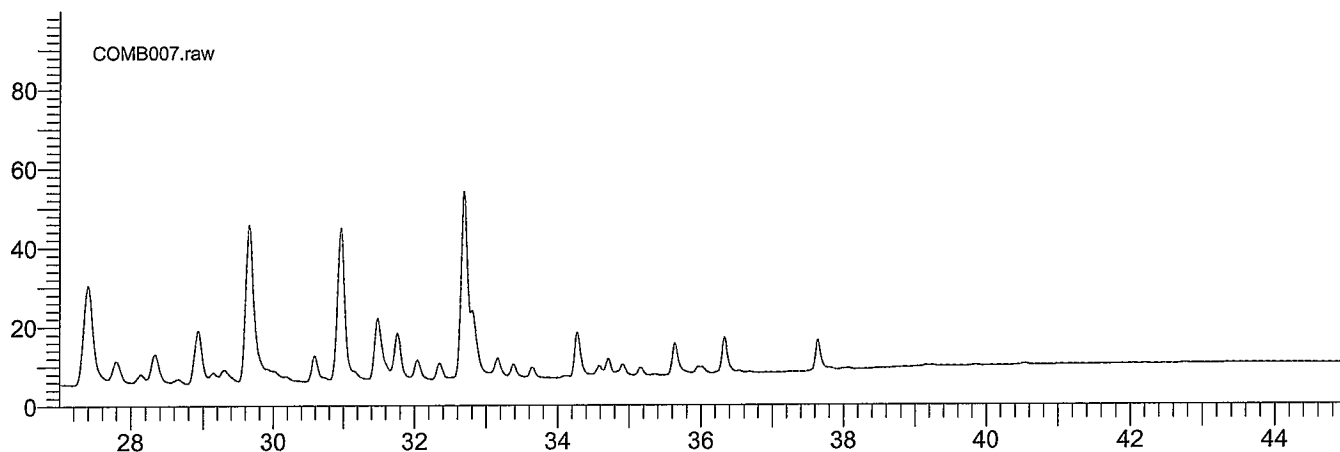
Plot Title		Start Time	End Time	Scale	Offset
COMB007.raw		0.00	26.98	100.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB005.raw		0.00	26.98	100.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	05				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB008.raw		0.00	26.98	100.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB013.raw		0.00	26.98	100.00	0.00
Sample Name :	22671 1:10				
Sample Number:	13				
Instrument File Name:	c:\pest\gc14\methods\pcb				



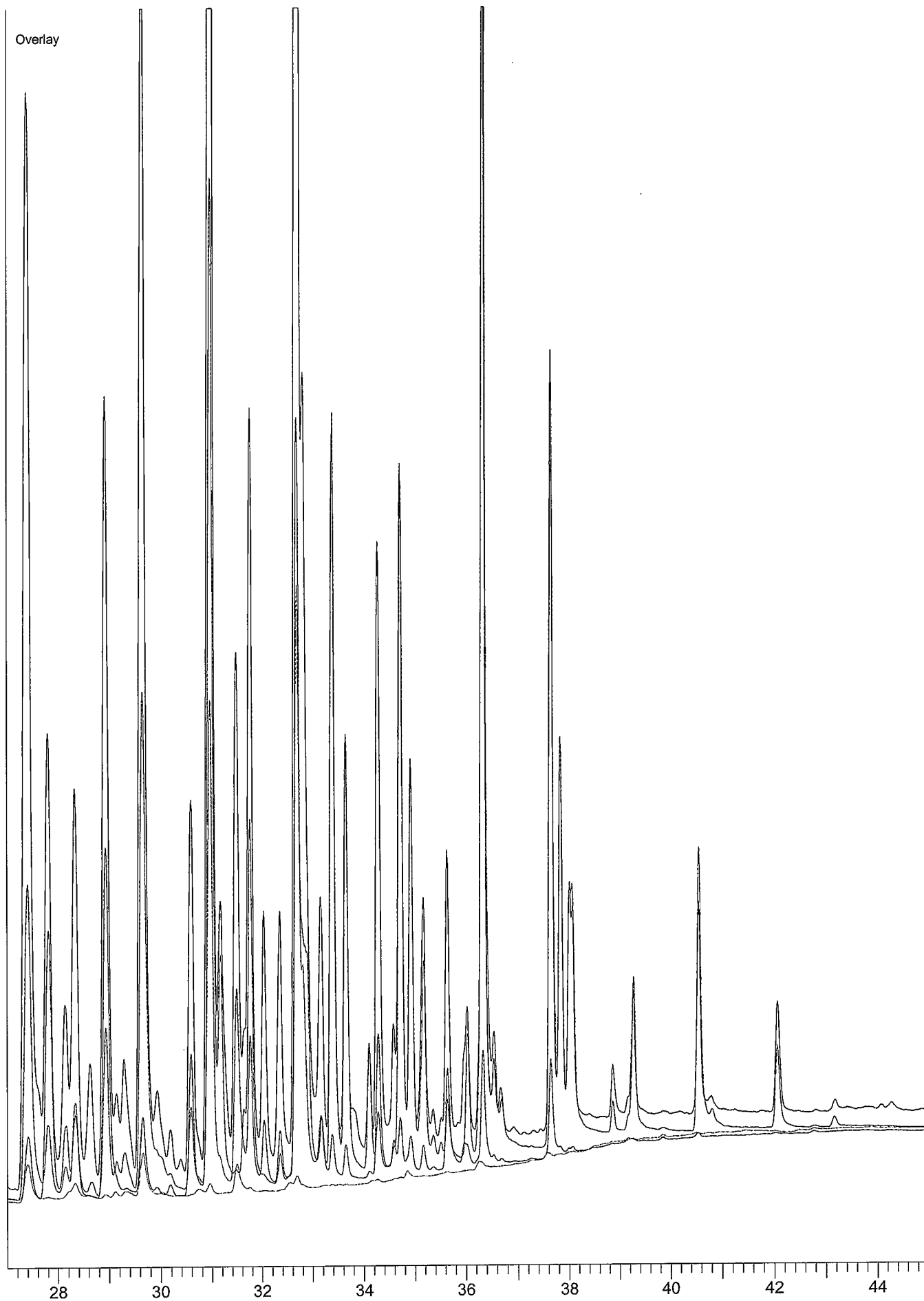
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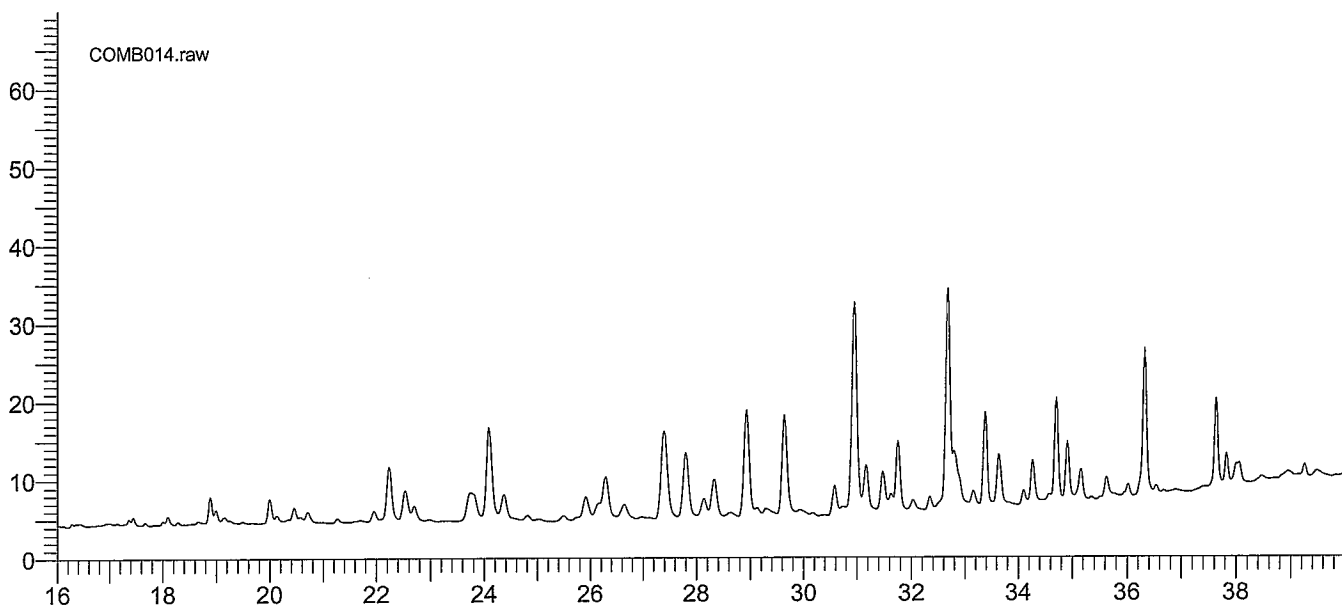
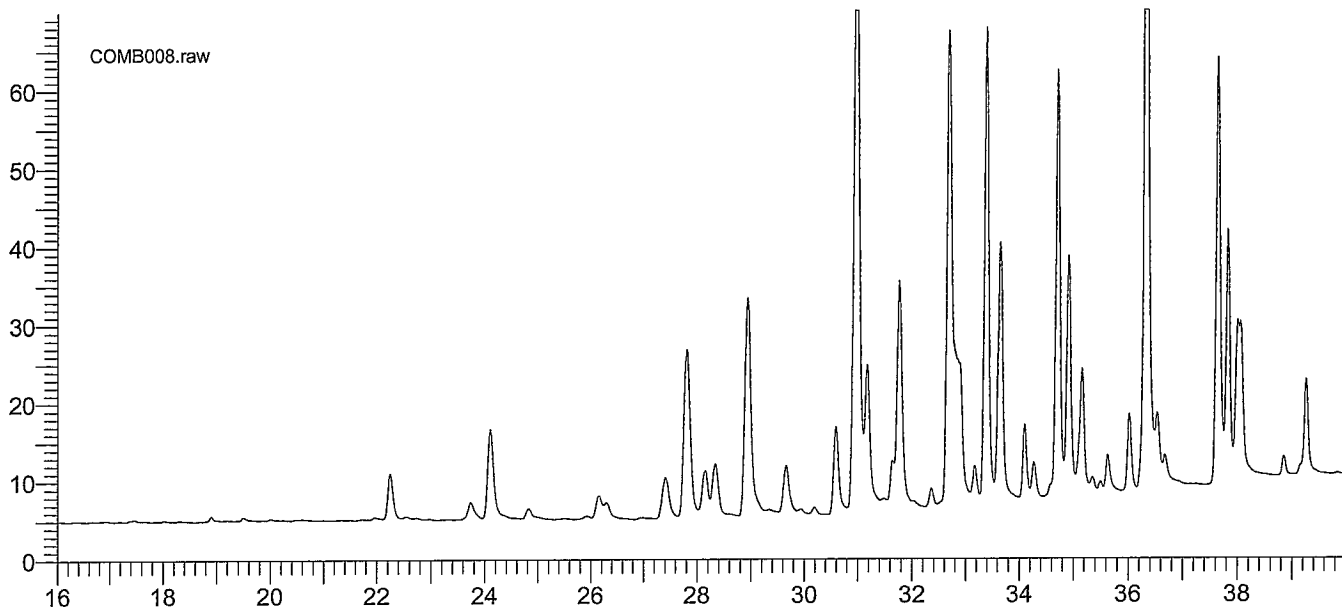
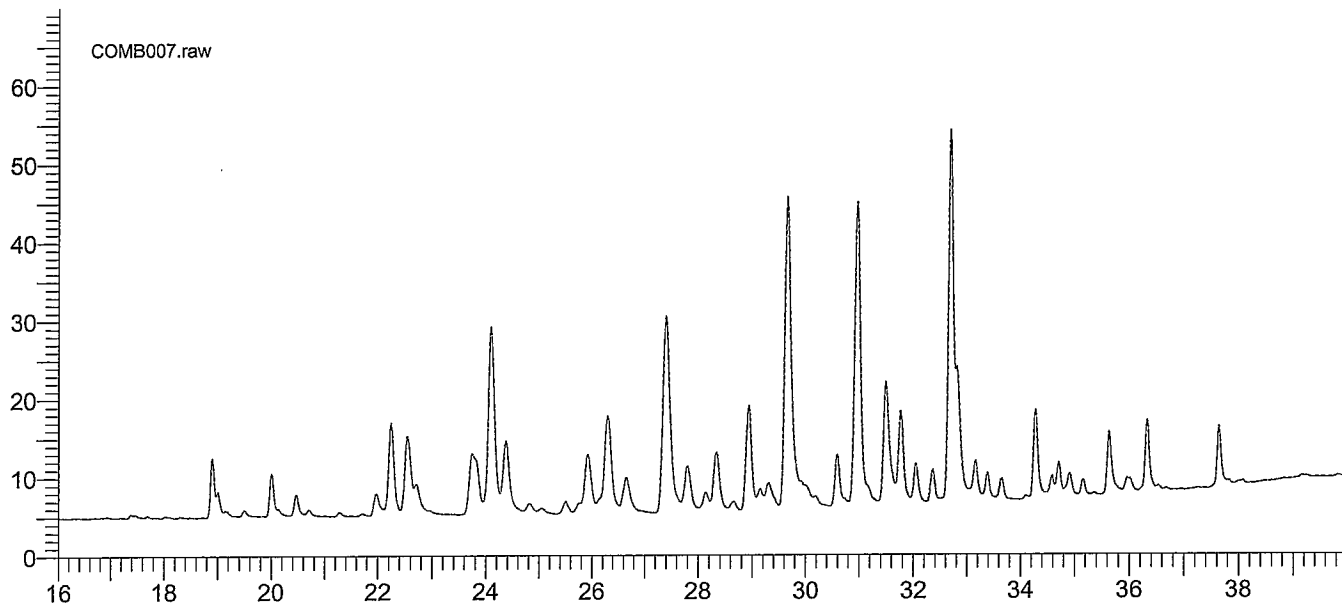
Plot Title		Start Time	End Time	Scale	Offset
COMB007.raw		27.00	45.00	100.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB005.raw		27.00	45.00	100.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	05				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB008.raw		27.00	45.00	100.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB013.raw		27.00	45.00	100.00	0.00
Sample Name :	22671 1:10				
Sample Number:	13				
Instrument File Name:	c:\pest\gc14\methods\pcb				



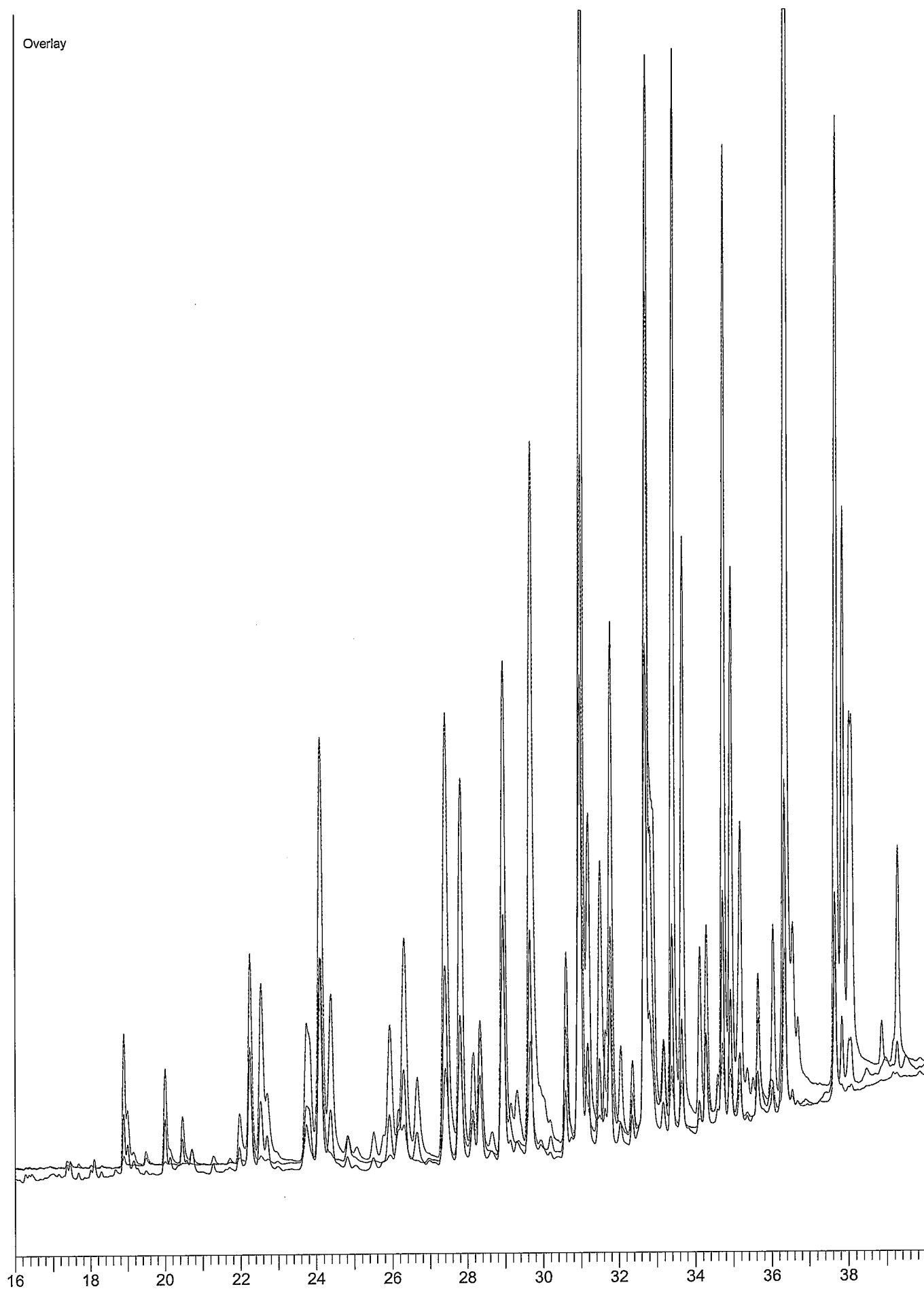
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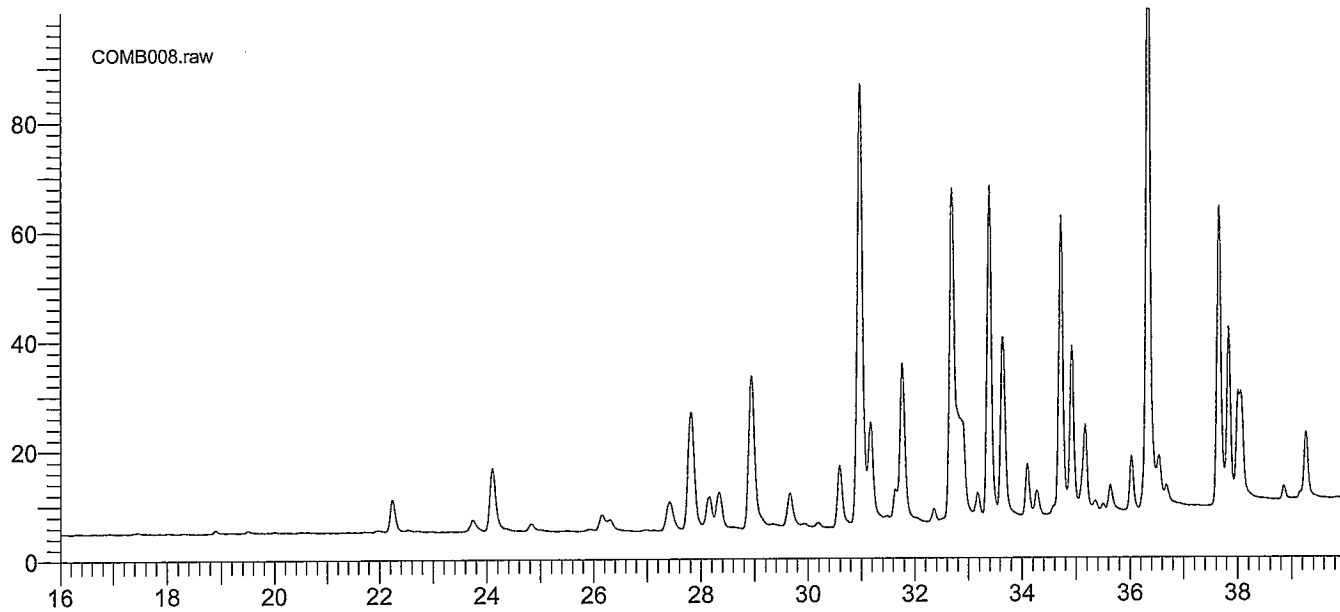
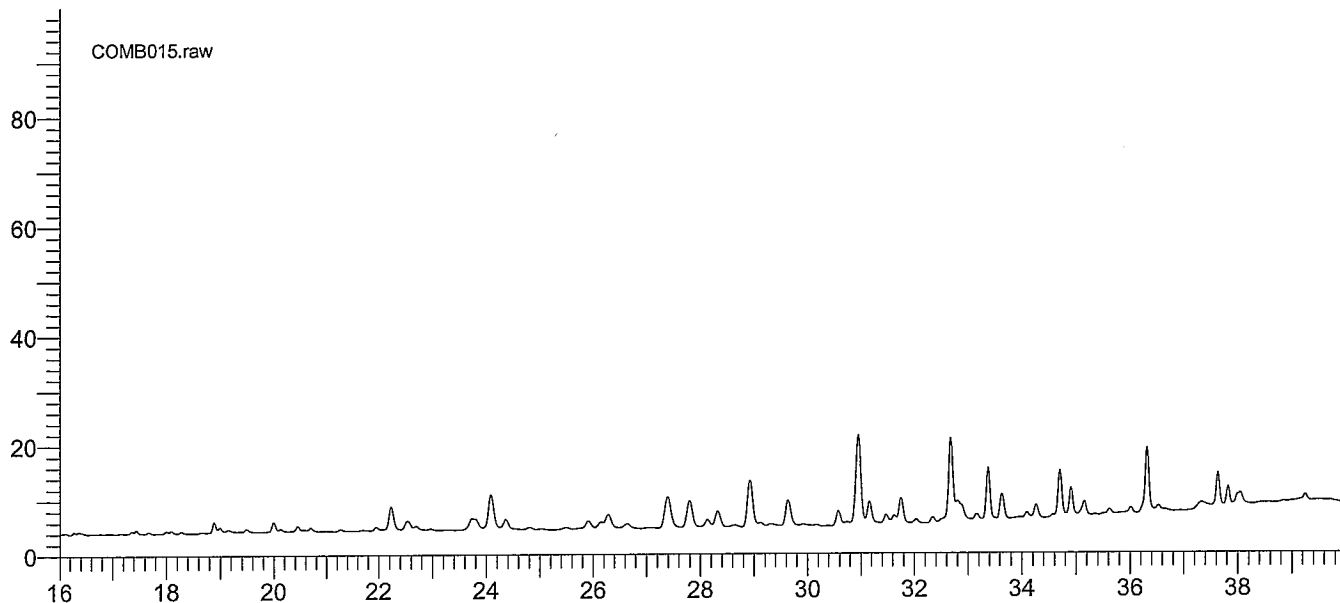
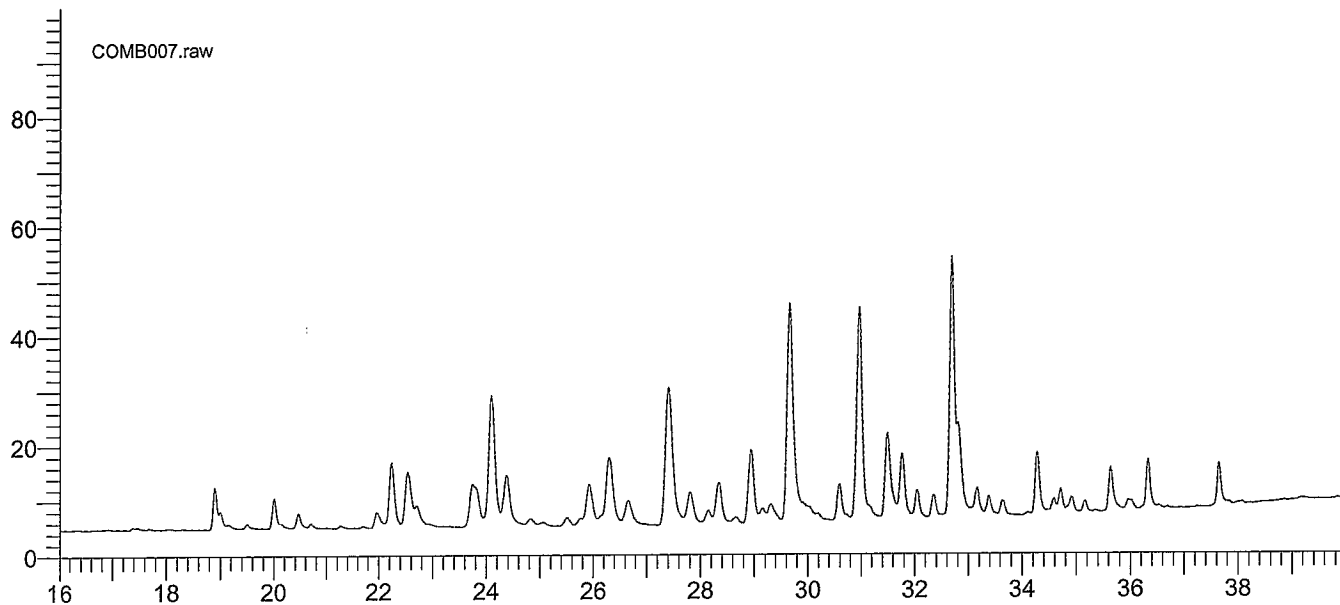
Plot Title		Start Time	End Time	Scale	Offset
COMB007.raw		16.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB008.raw		16.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB014.raw		16.00	40.00	70.00	0.00
Sample Name :	22672 1:10				
Sample Number:	14				
Instrument File Name:	c:\pest\gc14\methods\pcb				



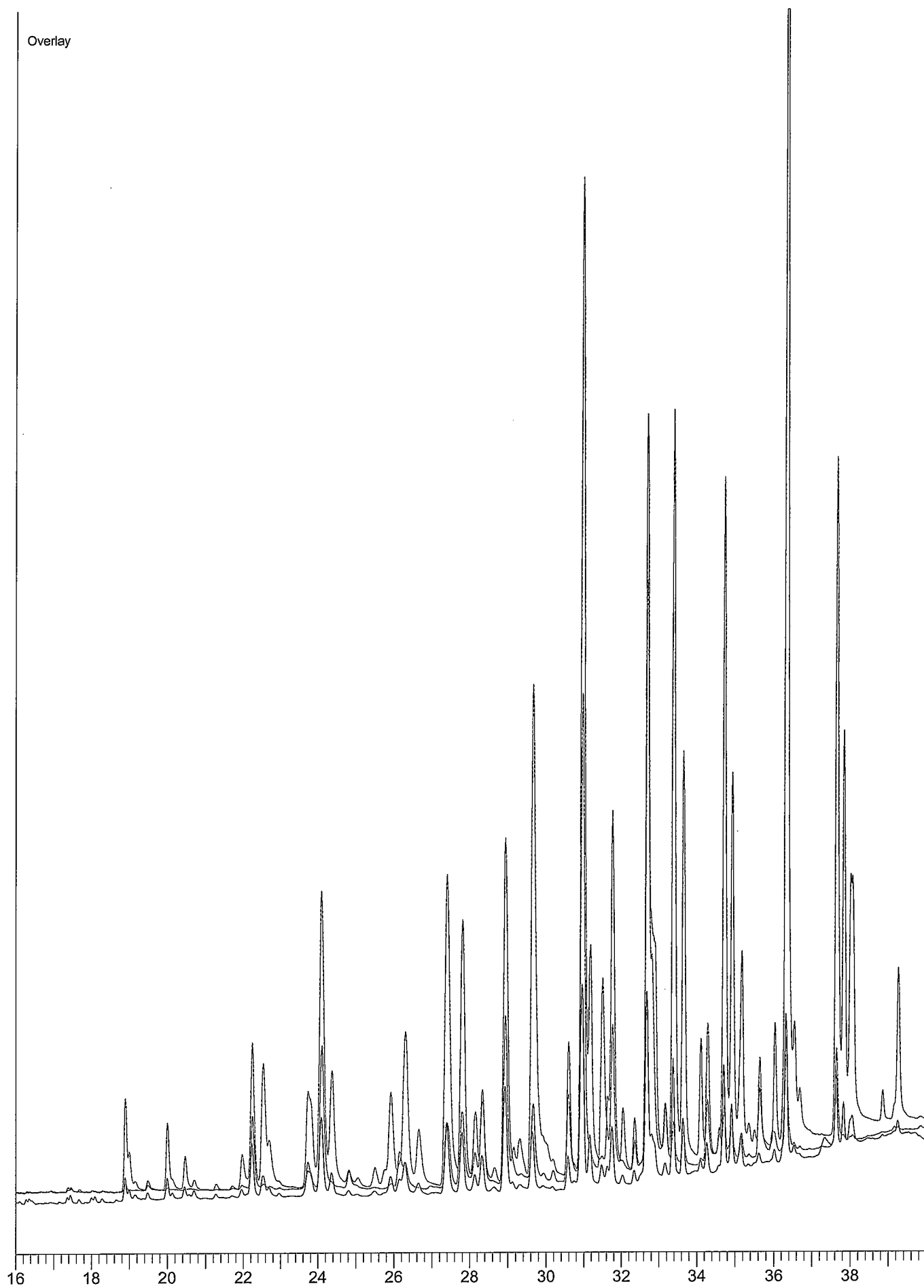
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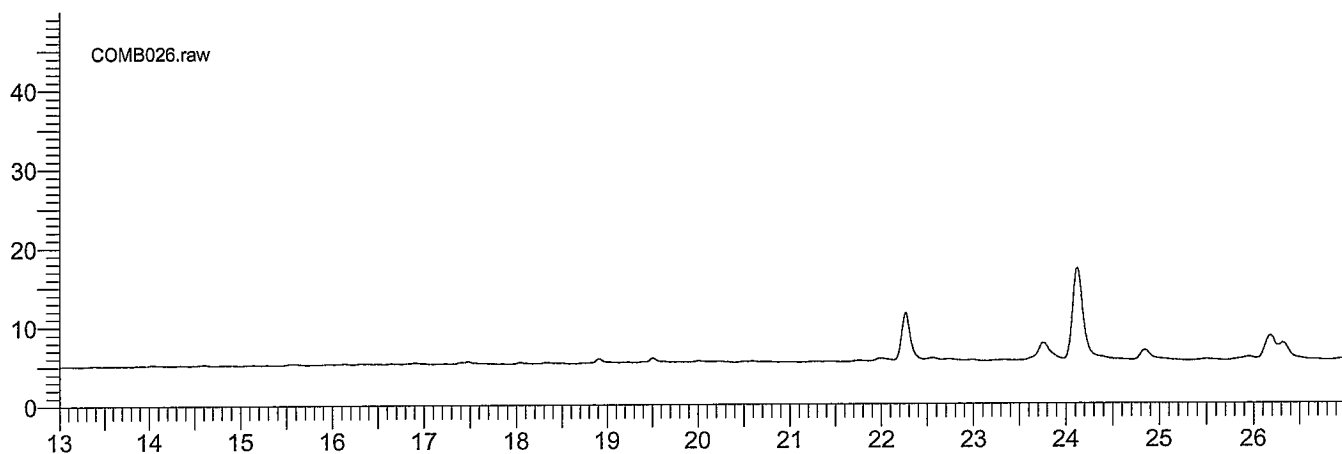
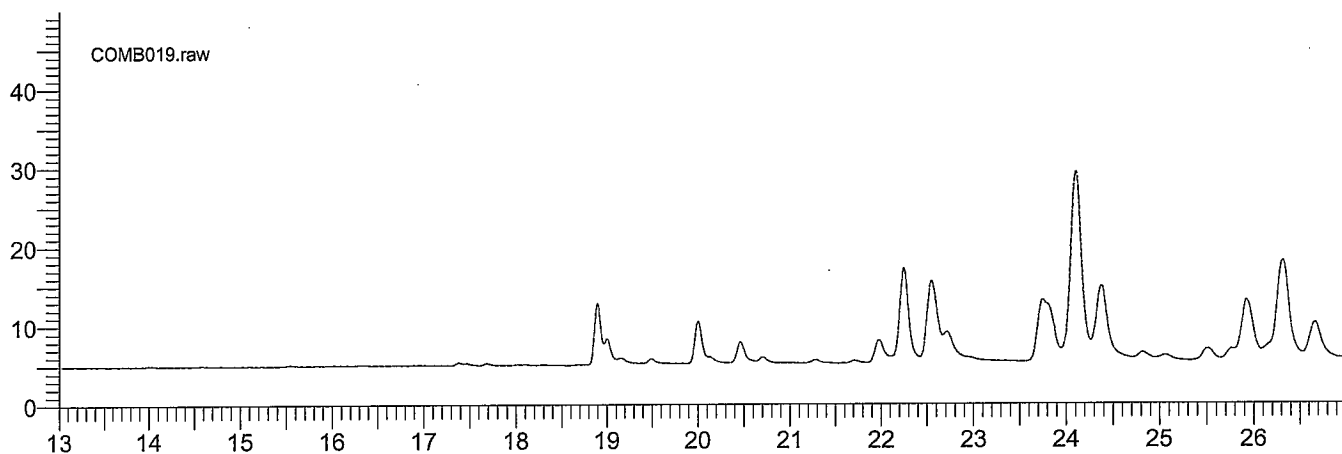
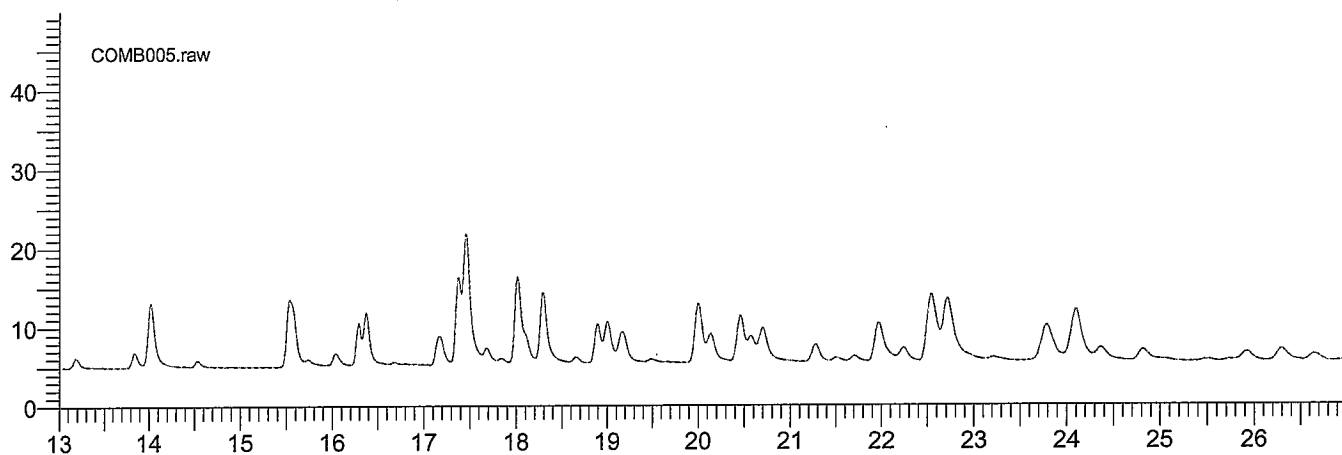
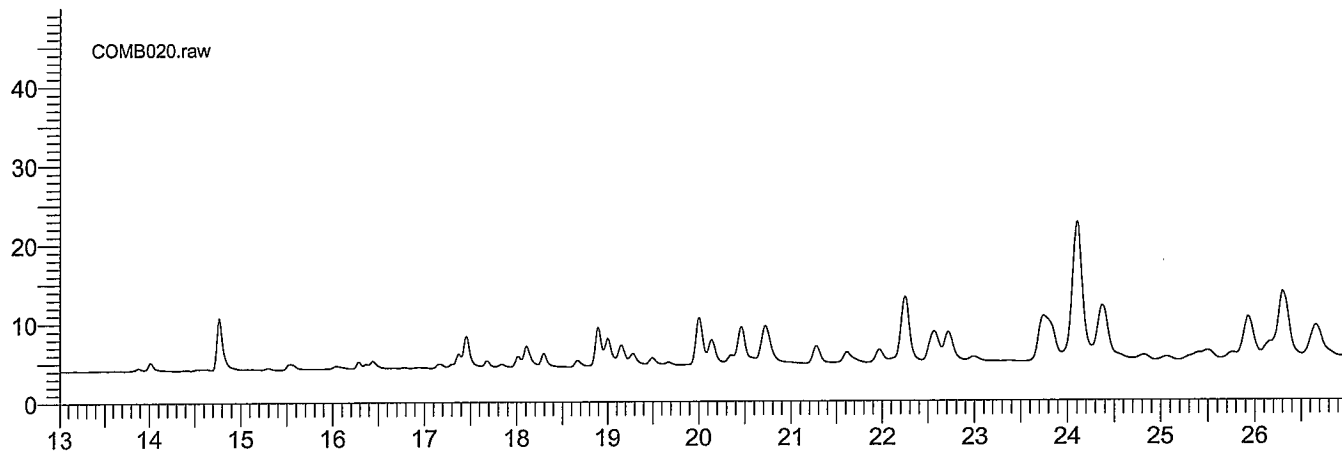
Plot Title		Start Time	End Time	Scale	Offset
COMB007.raw		16.00	40.00	100.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB015.raw		16.00	40.00	100.00	0.00
Sample Name :	22673 1:10				
Sample Number:	15				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB008.raw		16.00	40.00	100.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				



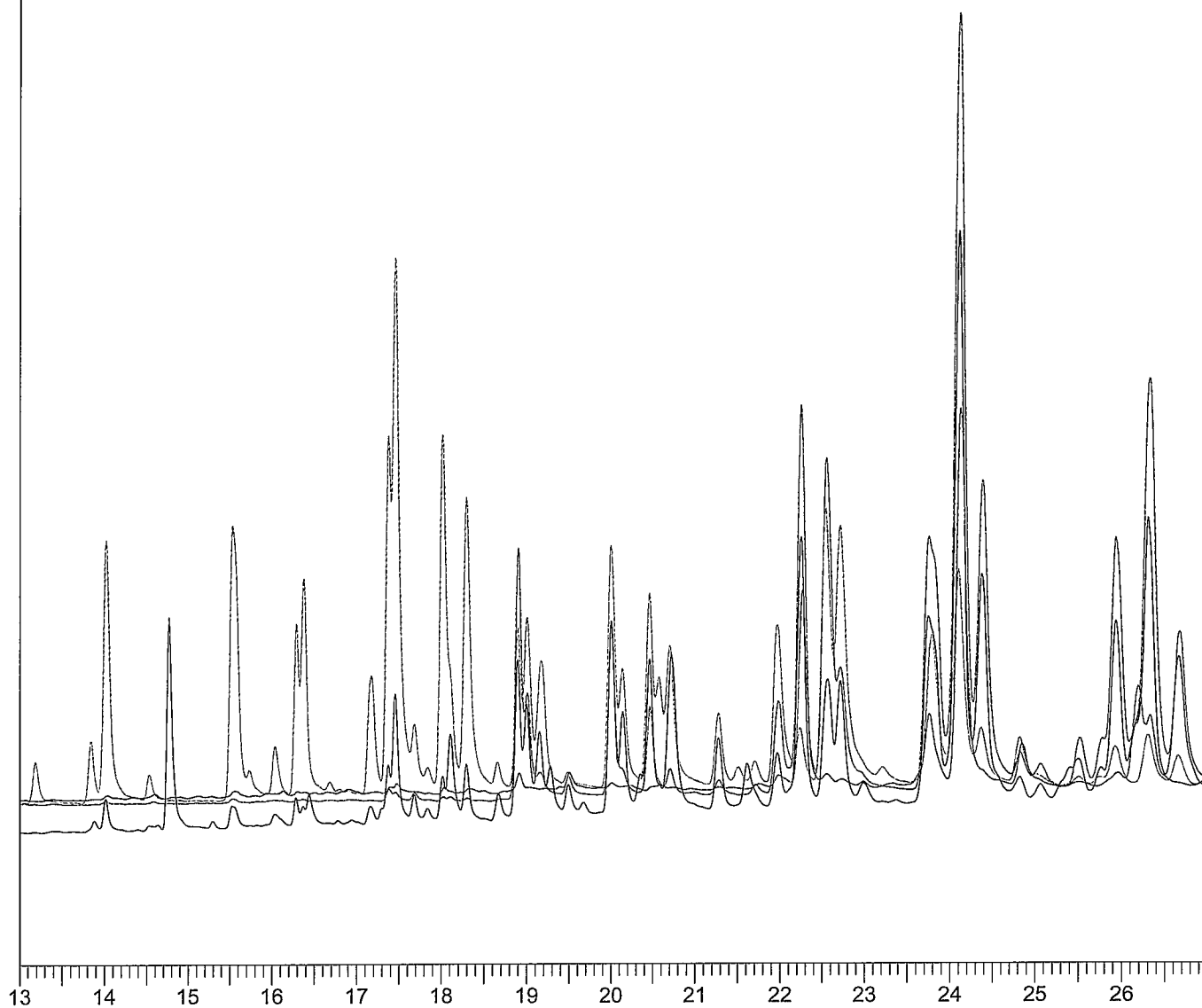
Overlay



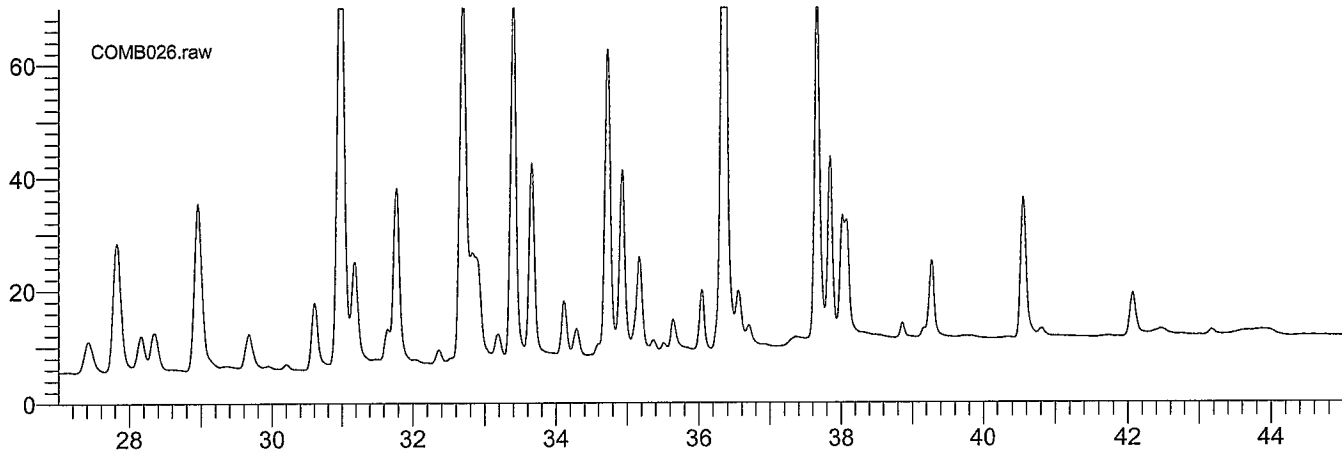
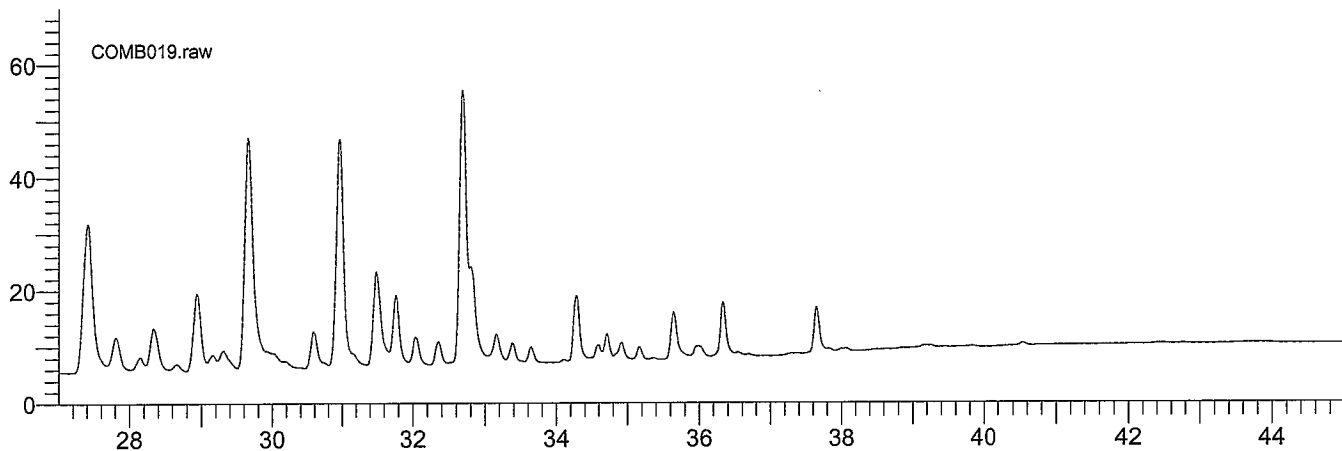
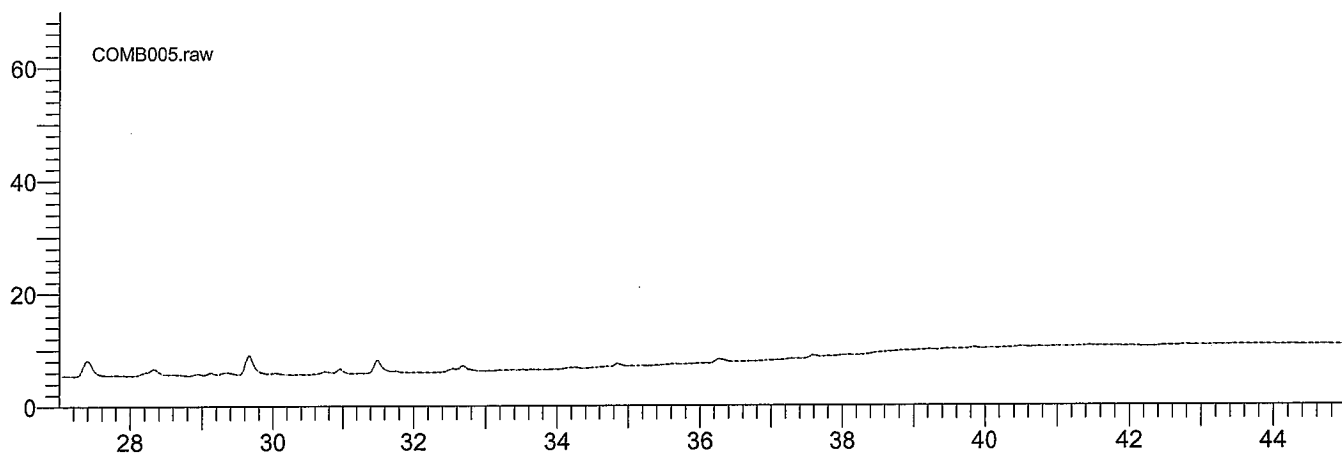
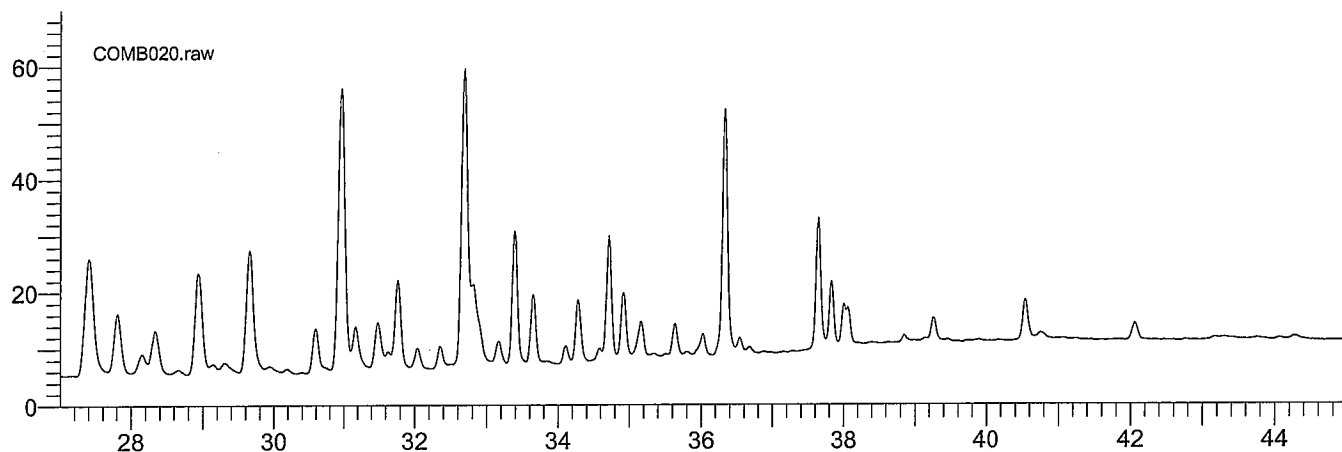
Plot Title	Start Time	End Time	Scale	Offset
COMB020.raw Sample Name : 22674 1:10 Sample Number: 20 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	27.00	50.00	0.00
COMB005.raw Sample Name : AROCHLOR 1242 Sample Number: 05 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	27.00	50.00	0.00
COMB019.raw Sample Name : AROCHLOR 1254 Sample Number: 19 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	27.00	50.00	0.00
COMB026.raw Sample Name : AROCHLOR 1260 Sample Number: 26 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	27.00	50.00	0.00



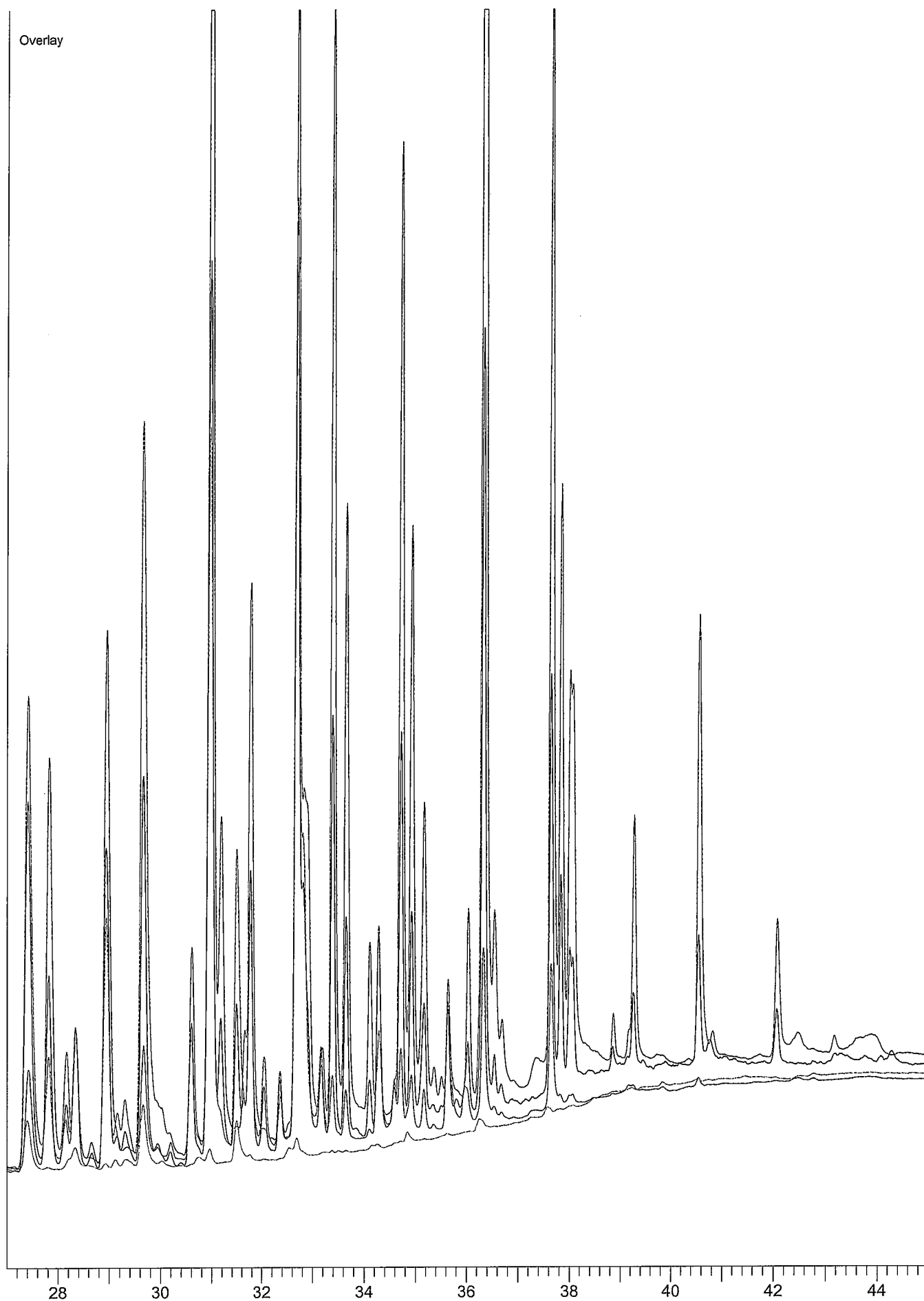
Overlay



Plot Title		Start Time	End Time	Scale	Offset
COMB020.raw		27.00	45.00	70.00	0.00
Sample Name :	22674 1:10				
Sample Number:	20				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB005.raw		27.00	45.00	70.00	0.00
Sample Name :	AROCHLOR 1242				
Sample Number:	05				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB019.raw		27.00	45.00	70.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	19				
Instrument File Name:	c:\pest\gc14\methods\pcb				
COMB026.raw		27.00	45.00	70.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	26				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay



Plot Title

Start Time End Time Scale Offset

SET5#007.raw
Sample Name : AROCHLOR 1260
Sample Number: 07
Instrument File Name: c:\pest\gc14\methods\pcb

13.00 44.99 70.00 0.00

SET5#005.raw
Sample Name : AROCHLOR 1248
Sample Number: 05
Instrument File Name: c:\pest\gc14\methods\pcb

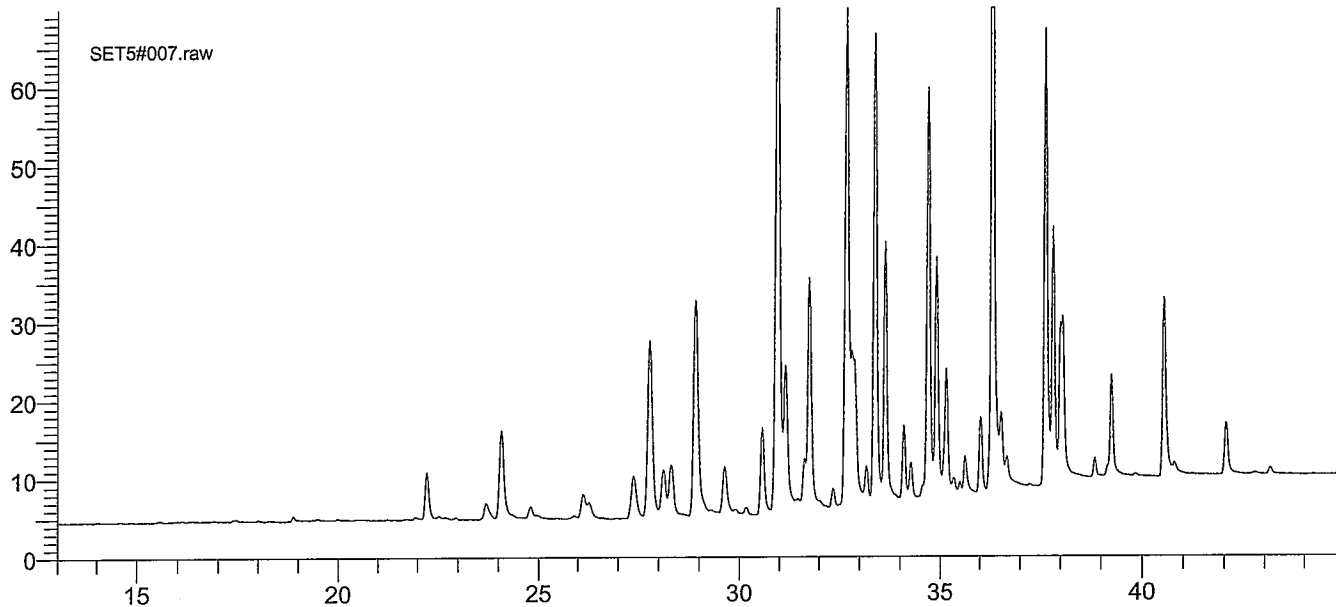
13.00 44.99 70.00 0.00

SET5#008.raw
Sample Name : ~~###SET4###22676 1:10~~
Sample Number: 08
Instrument File Name: c:\pest\gc14\methods\pcb

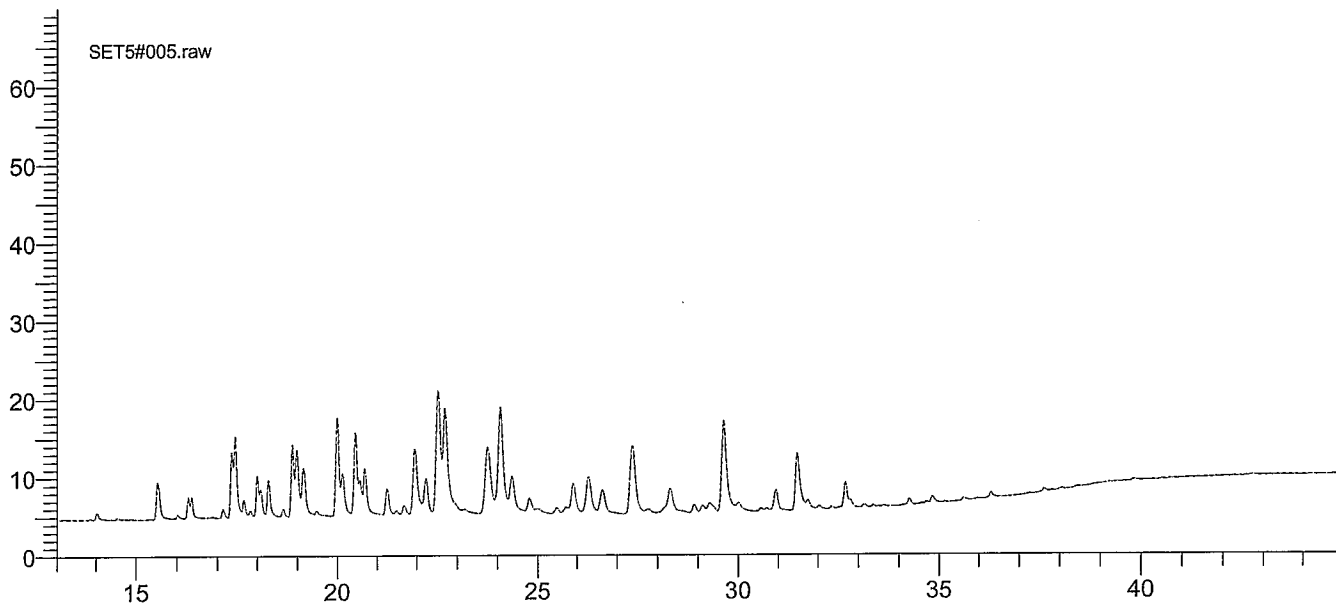
13.00 44.99 70.00 0.00

SO 080
10/17/2007

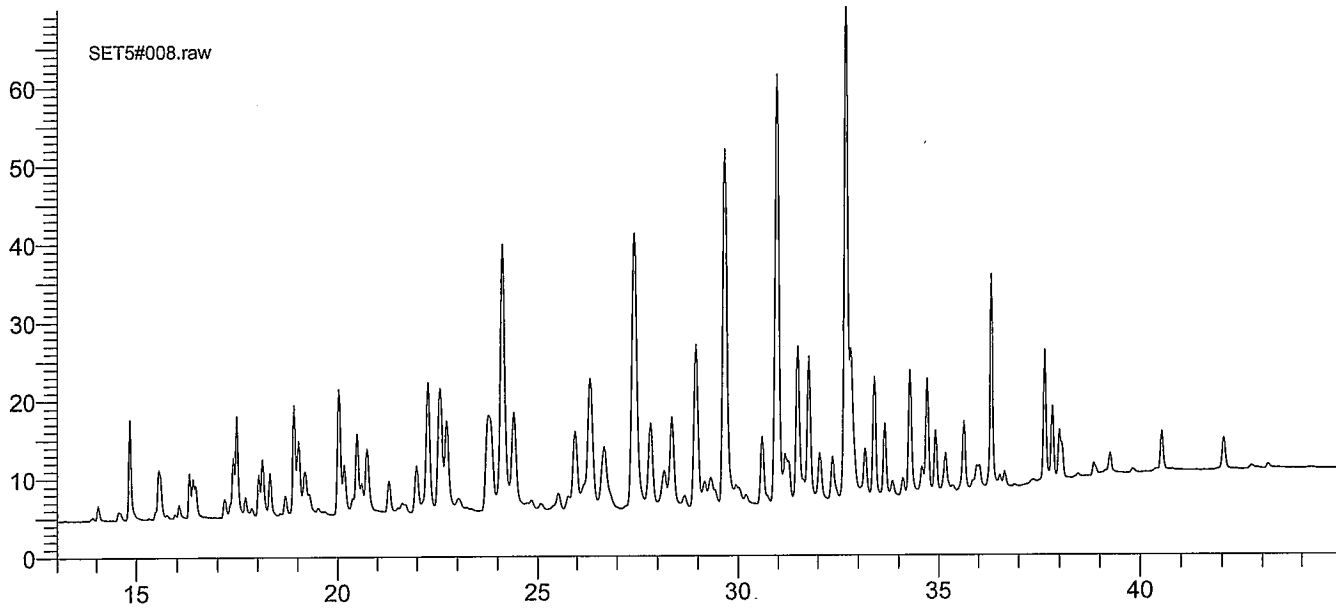
SET5#007.raw



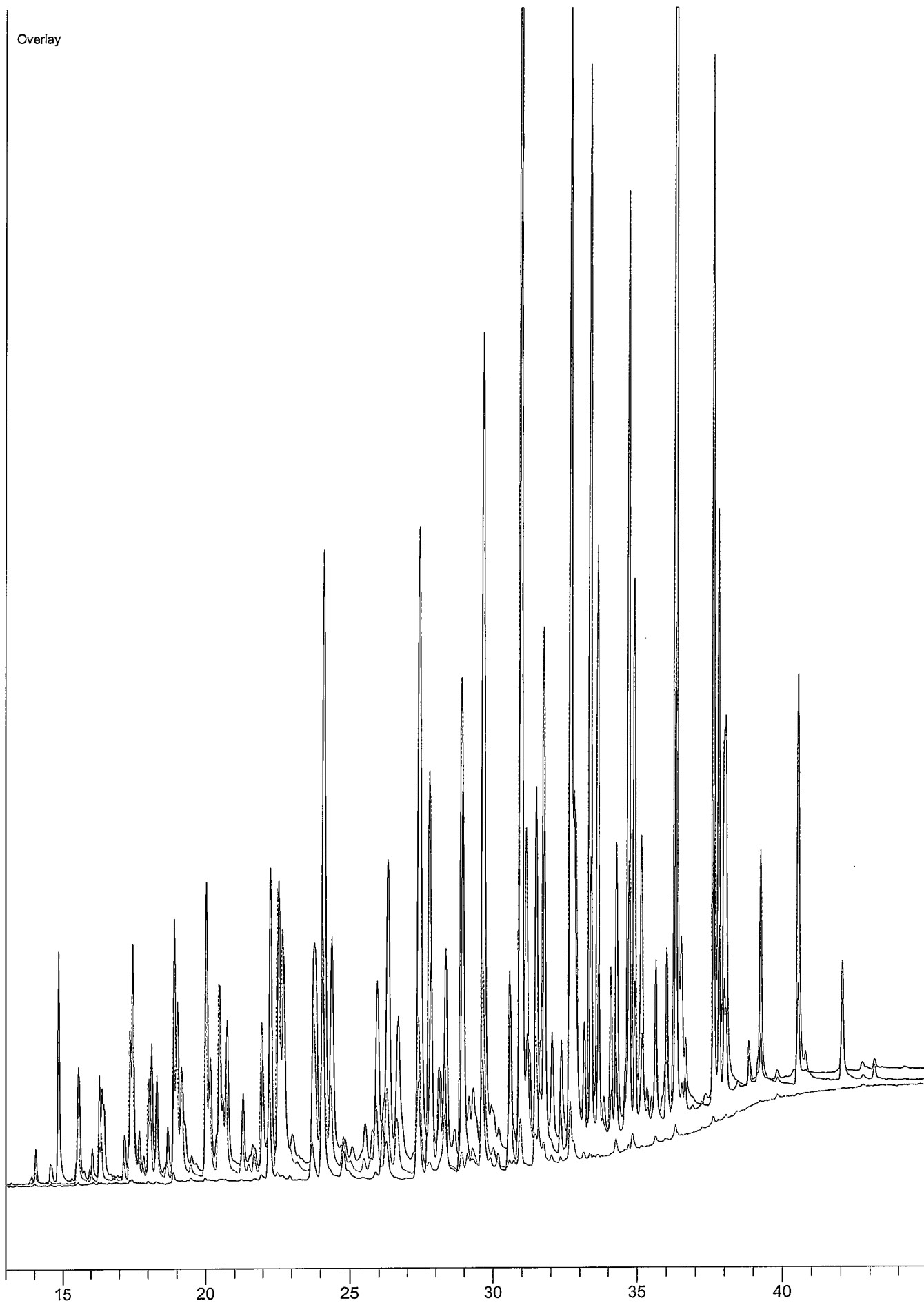
SET5#005.raw



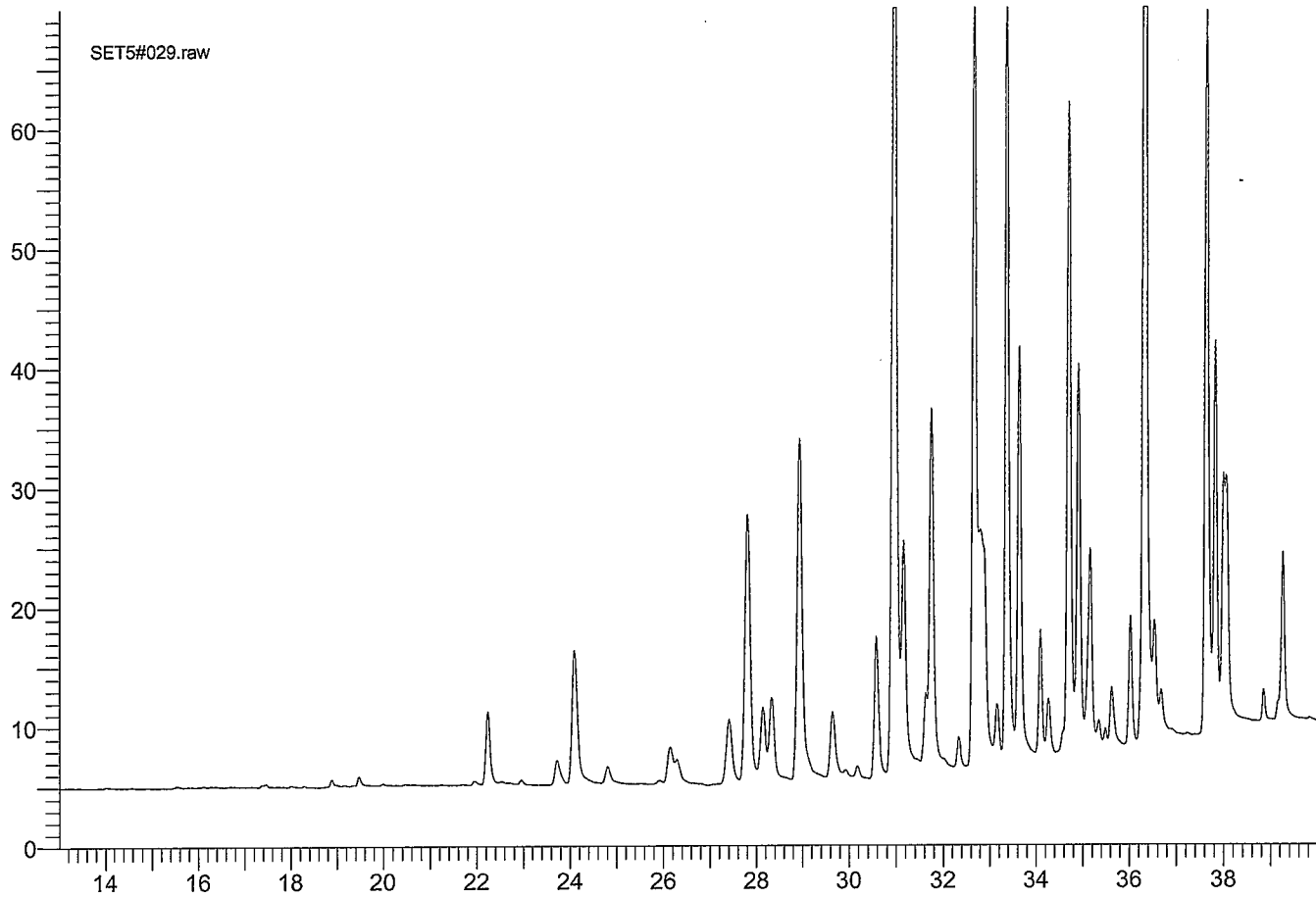
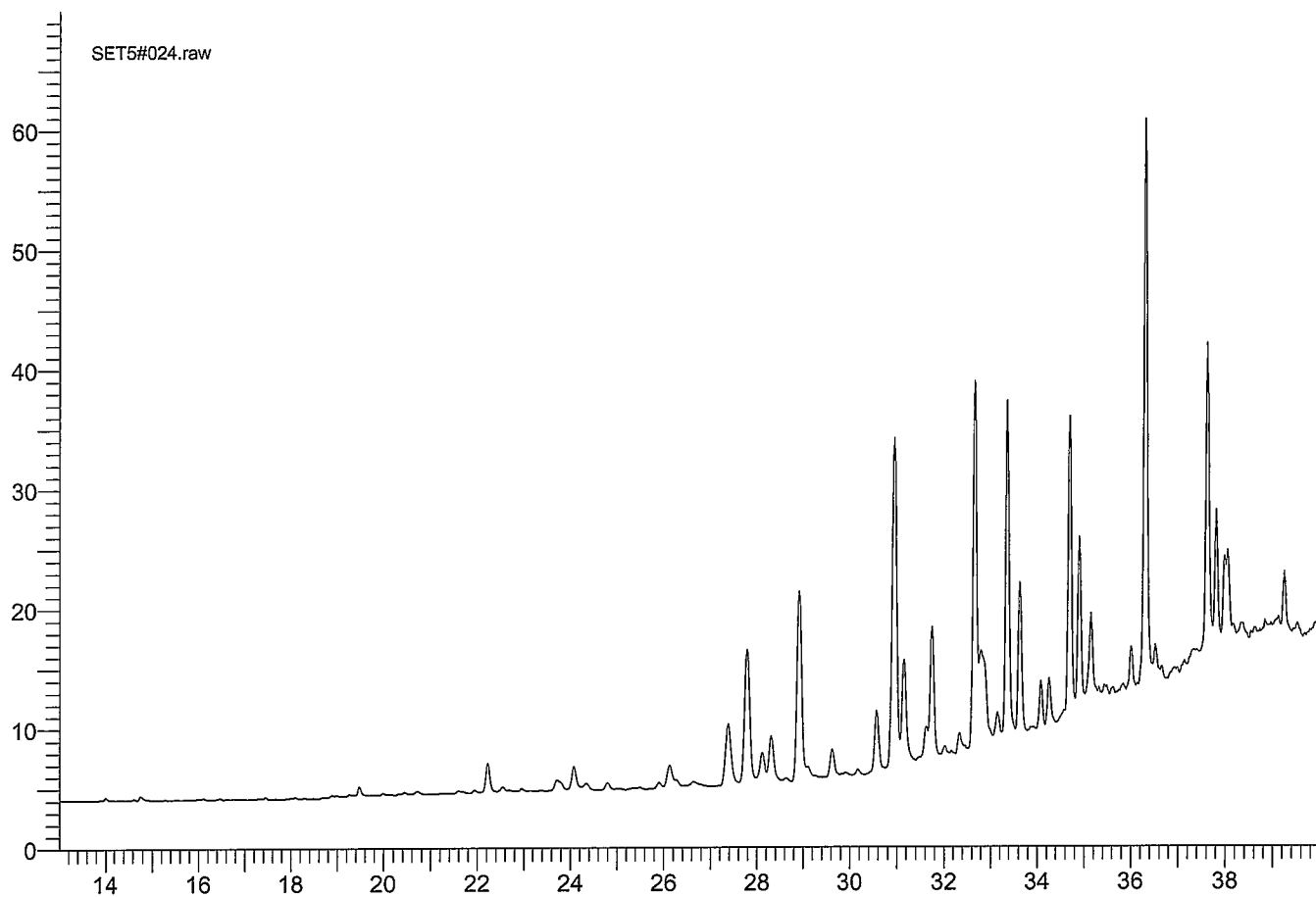
SET5#008.raw



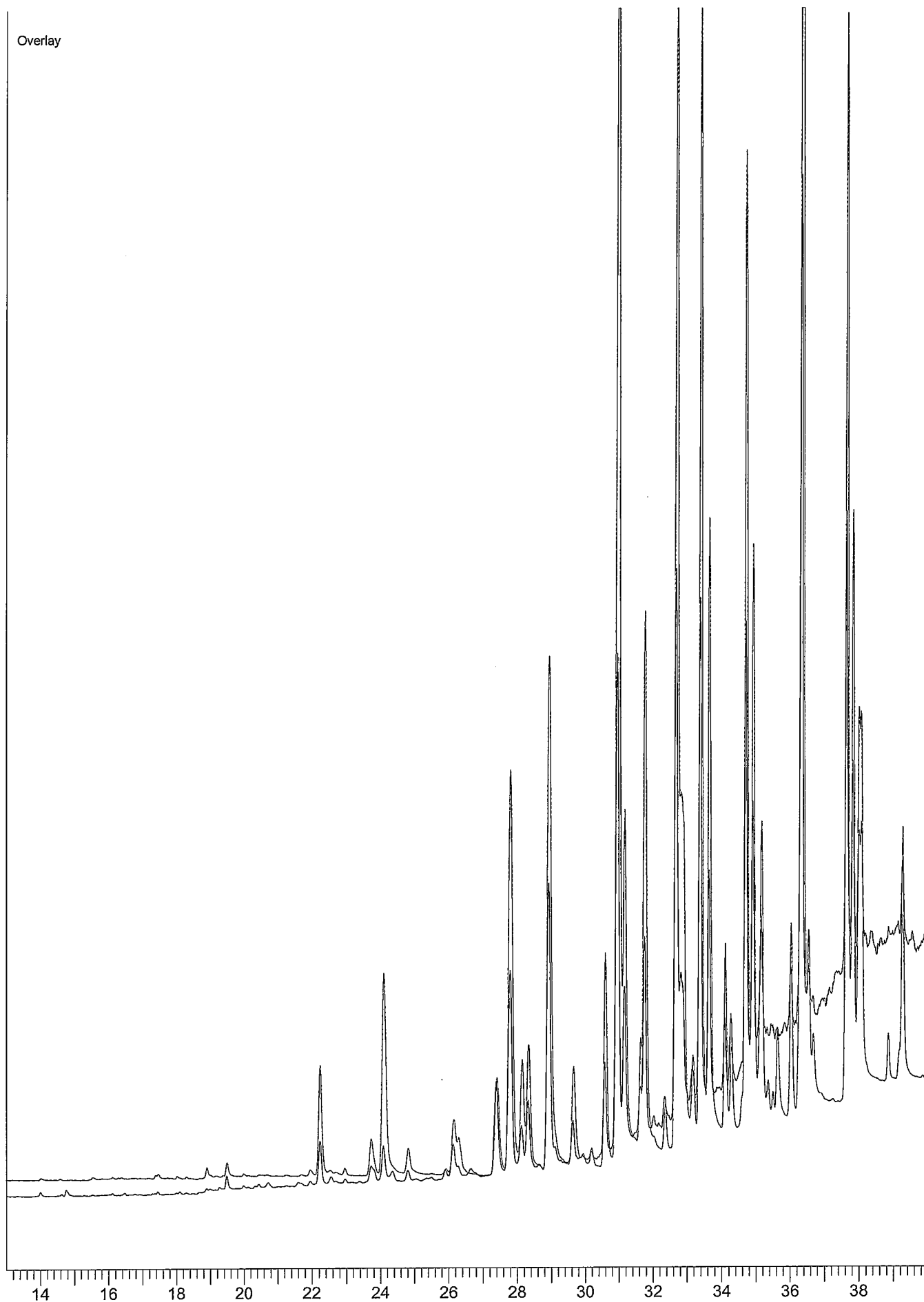
Overlay



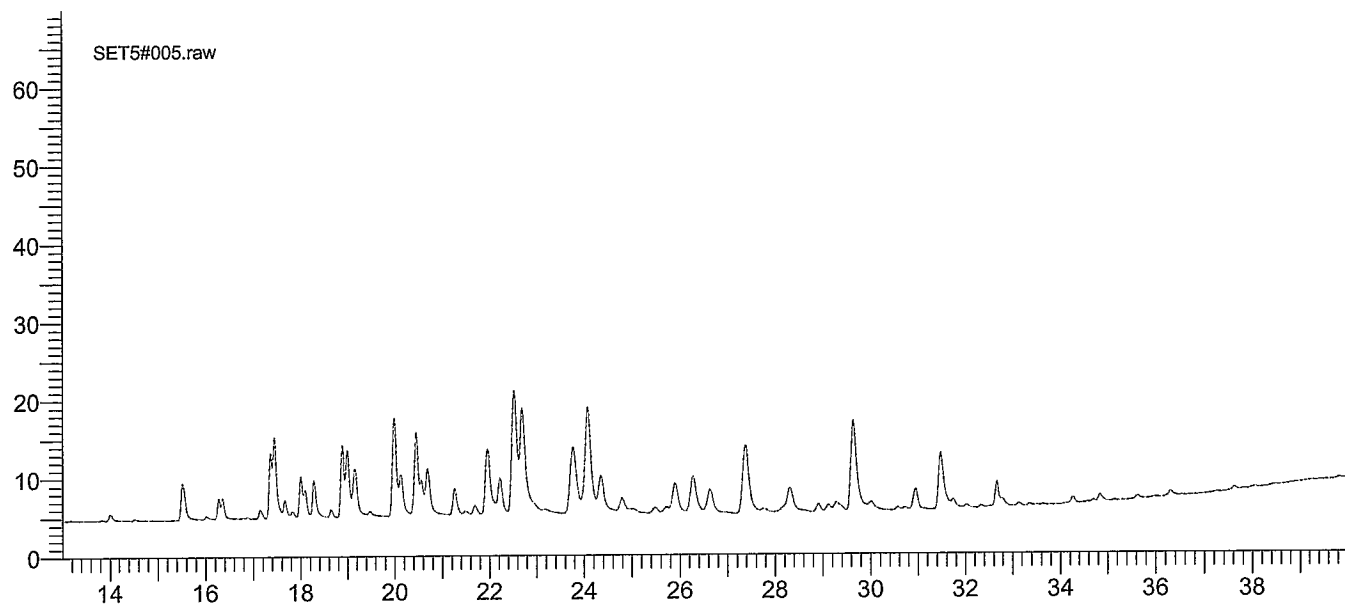
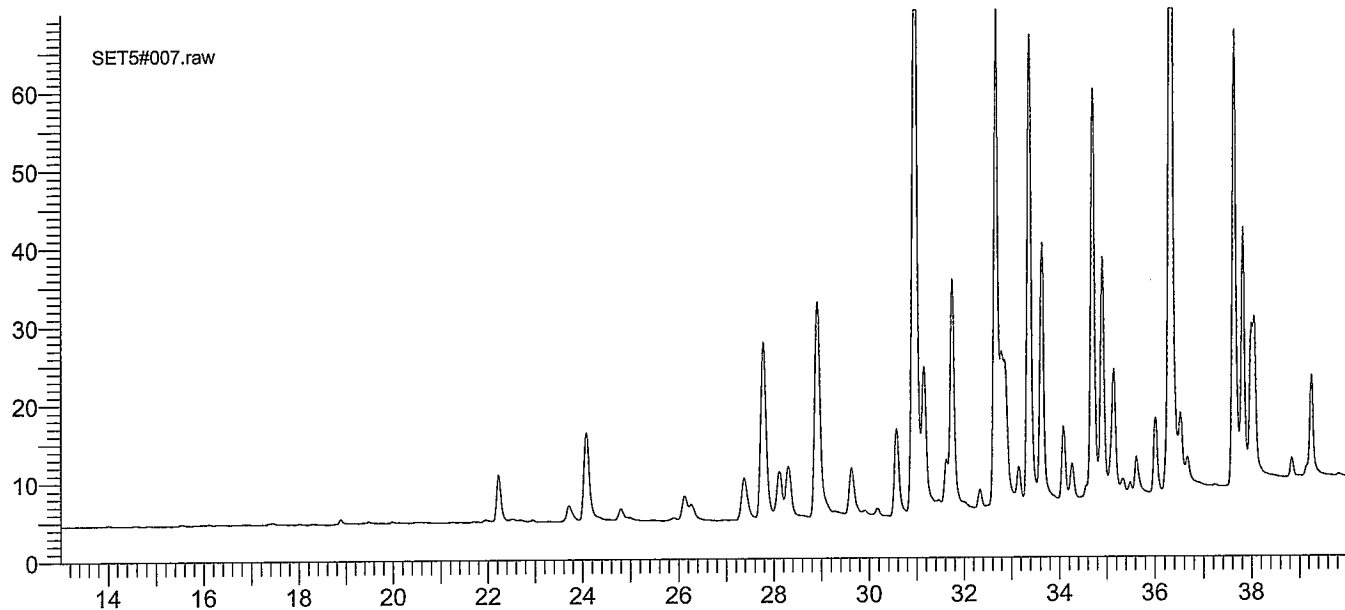
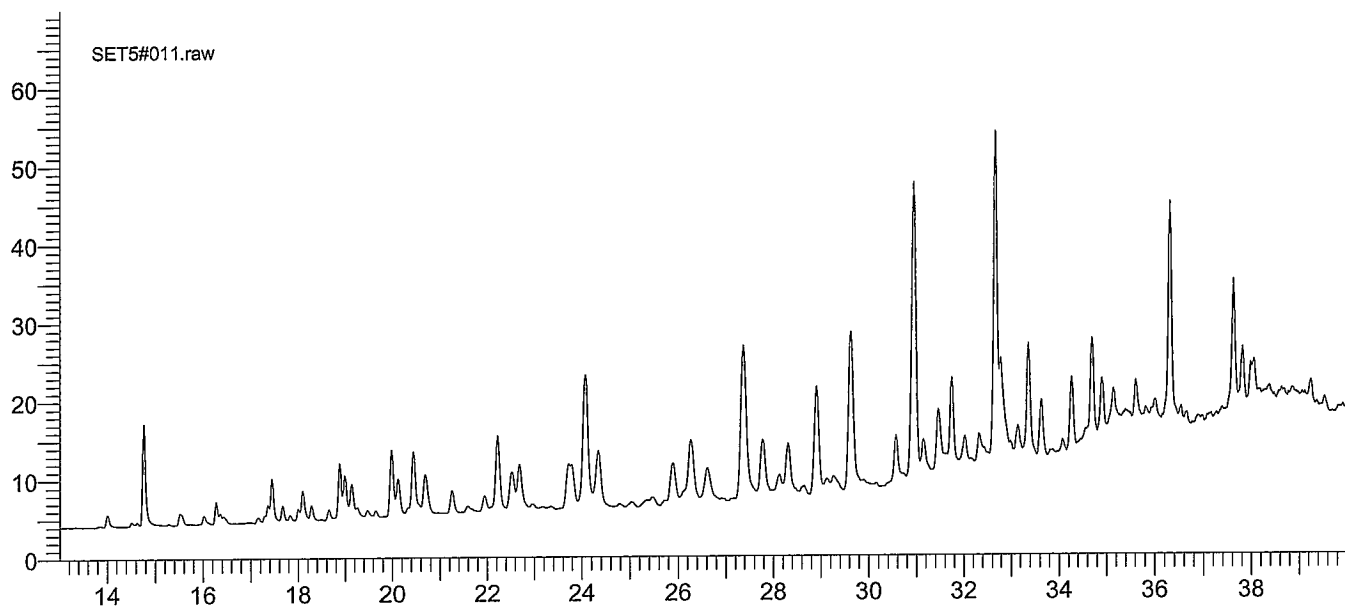
Plot Title	Start Time	End Time	Scale	Offset
SET5#024.raw	13.00	40.00	70.00	0.00
Sample Name :	22683 1:10			
Sample Number:	24			
Instrument File Name:	c:\pest\gc14\methods\pcb			
SET5#029.raw	13.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1260			
Sample Number:	29			
Instrument File Name:	c:\pest\gc14\methods\pcb			



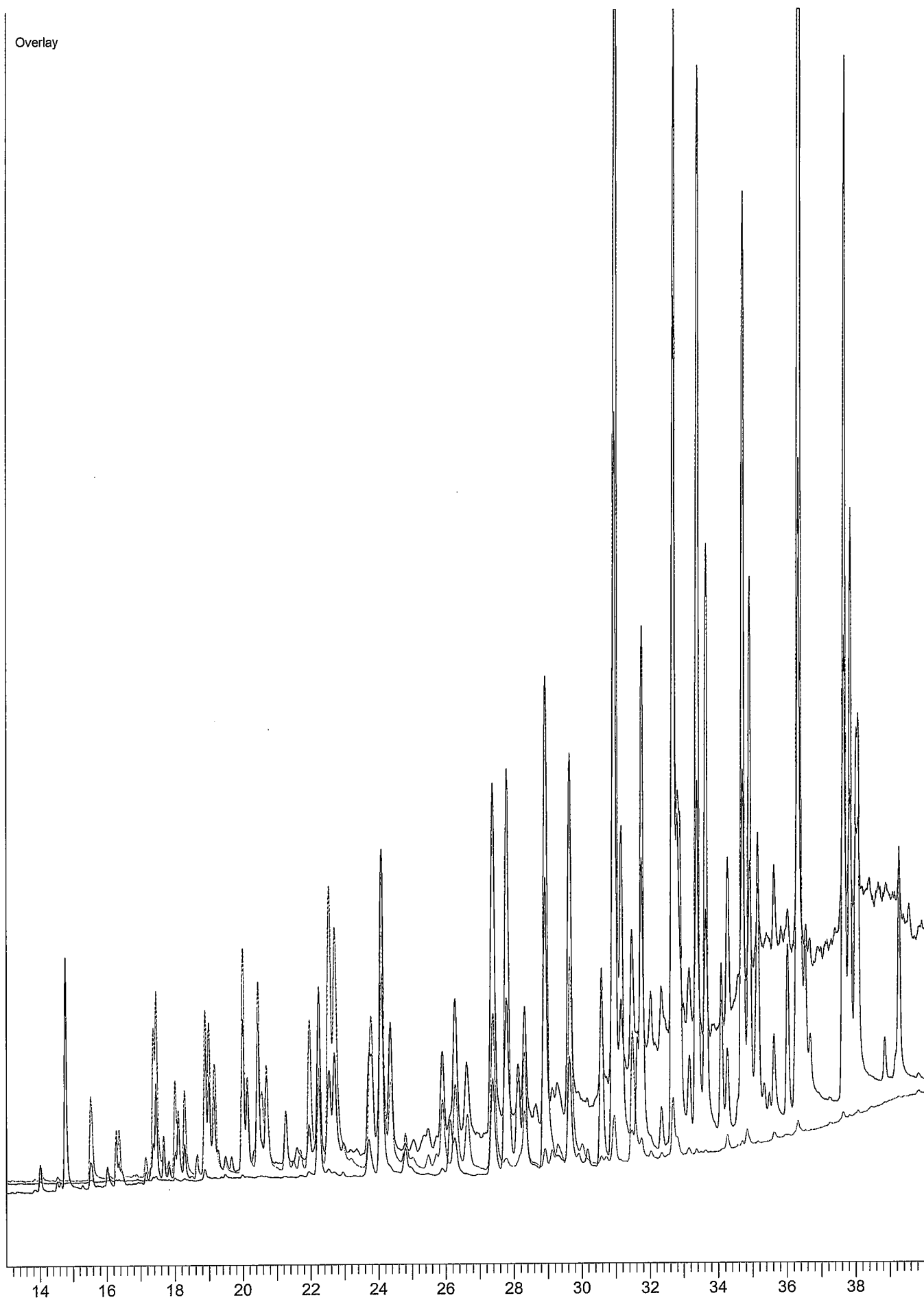
Overlay



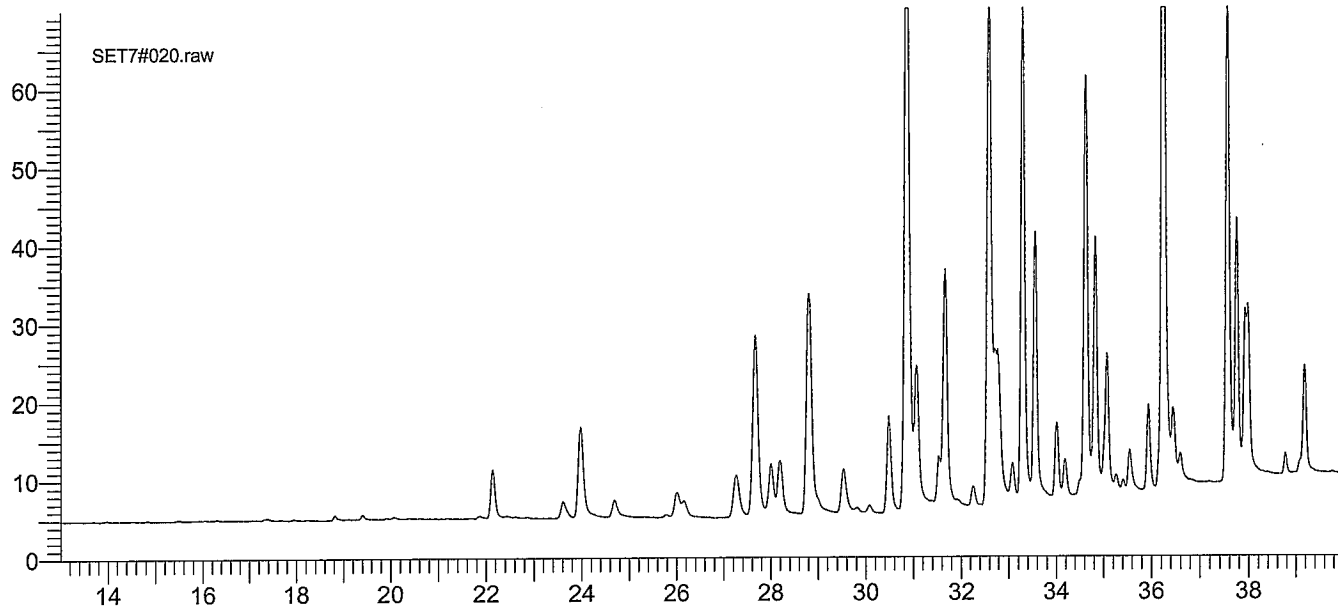
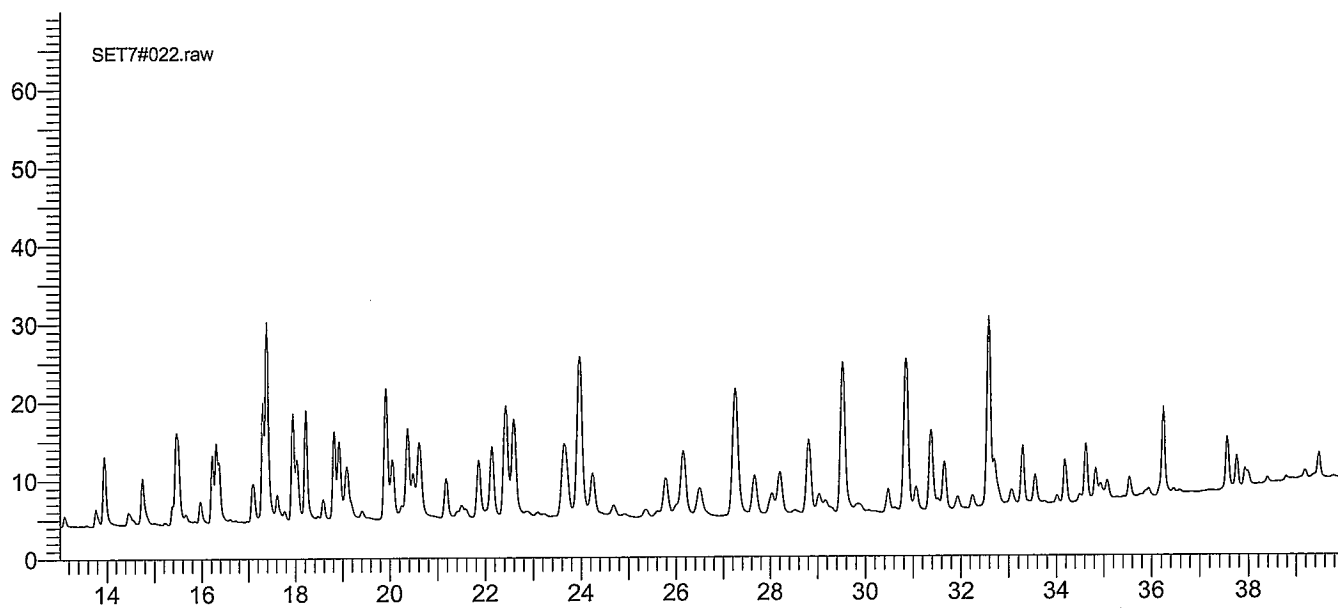
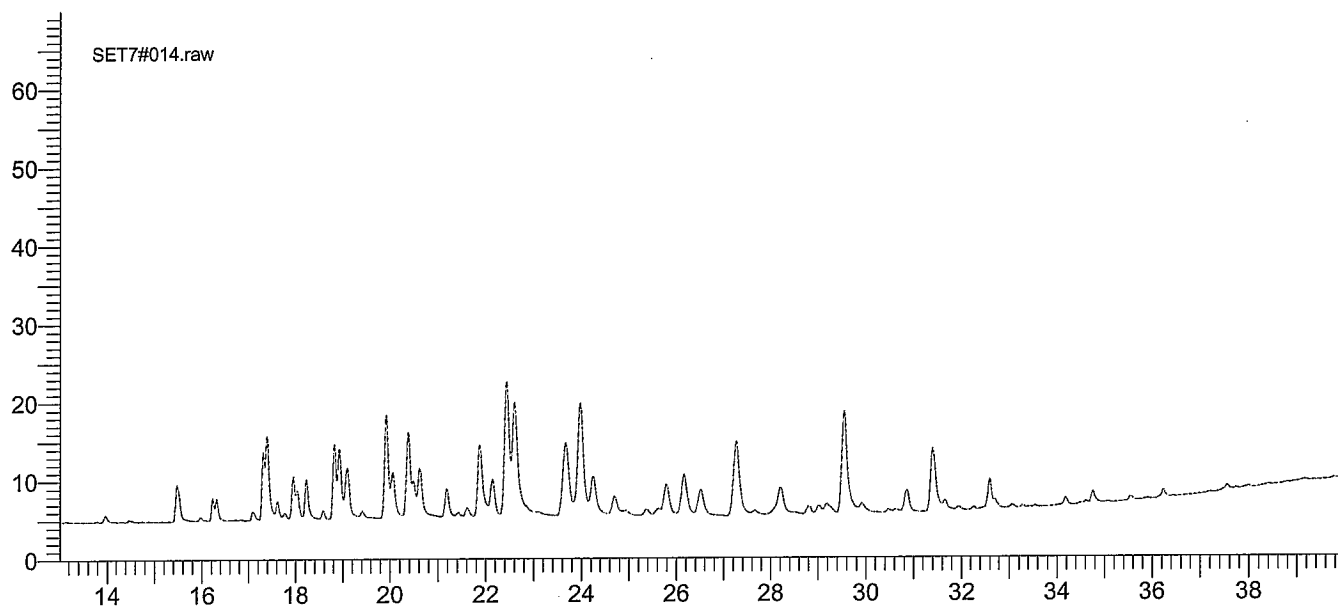
Plot Title	Start Time	End Time	Scale	Offset
SET5#011.raw Sample Name : 22677 1:10 Sample Number: 11 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	70.00	0.00
SET5#007.raw Sample Name : AROCHLOR 1260 Sample Number: 07 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	70.00	0.00
SET5#005.raw Sample Name : AROCHLOR 1248 Sample Number: 05 Instrument File Name: c:\pest\gc14\methods\pcb	13.00	39.99	70.00	0.00



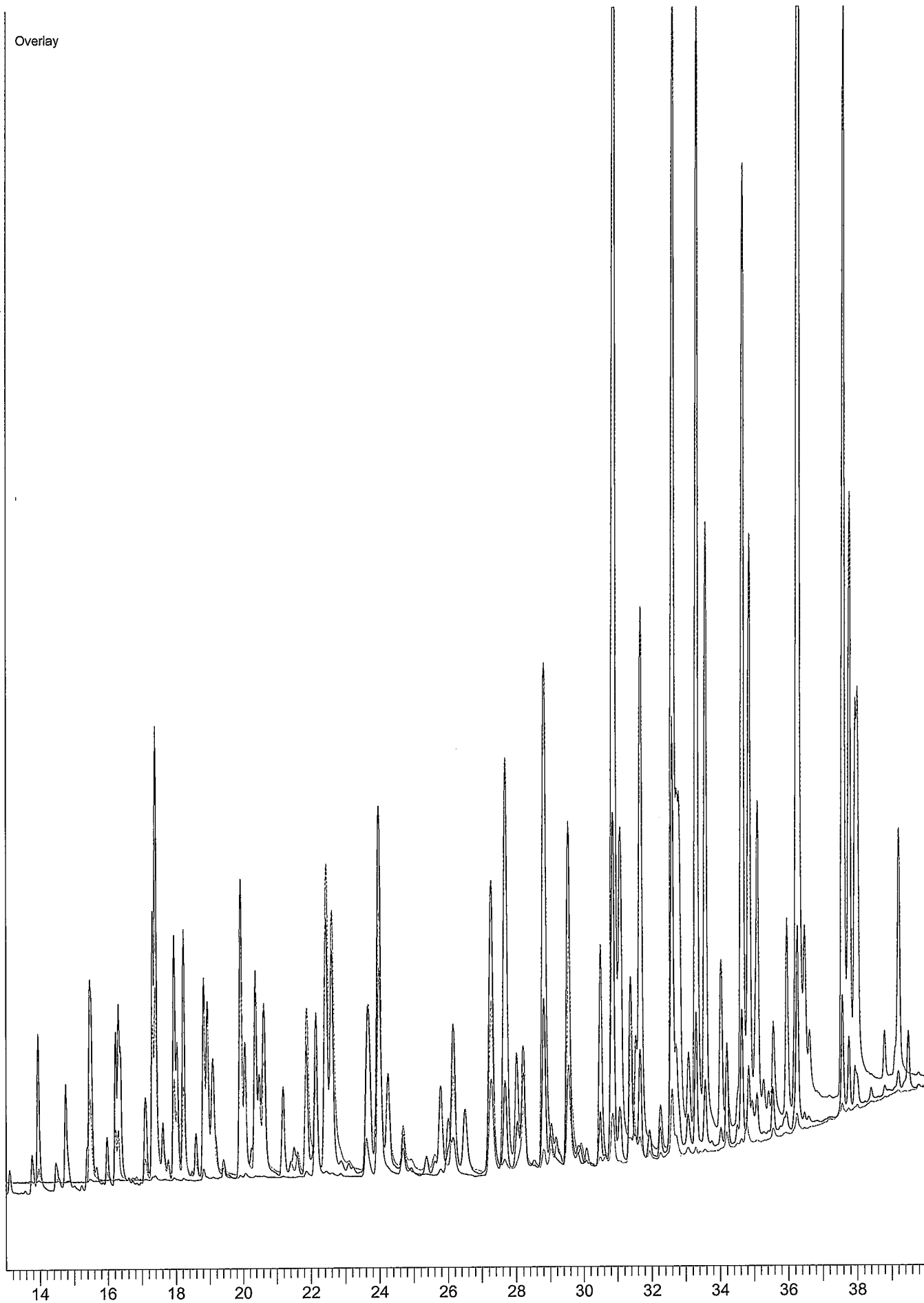
Overlay



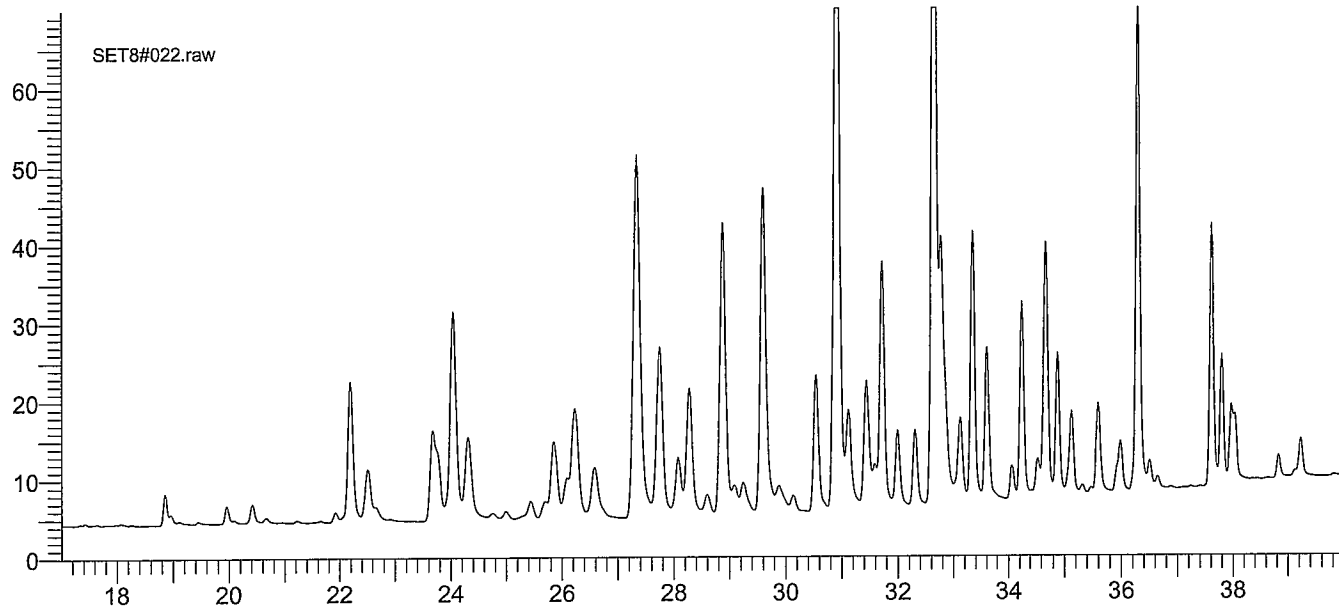
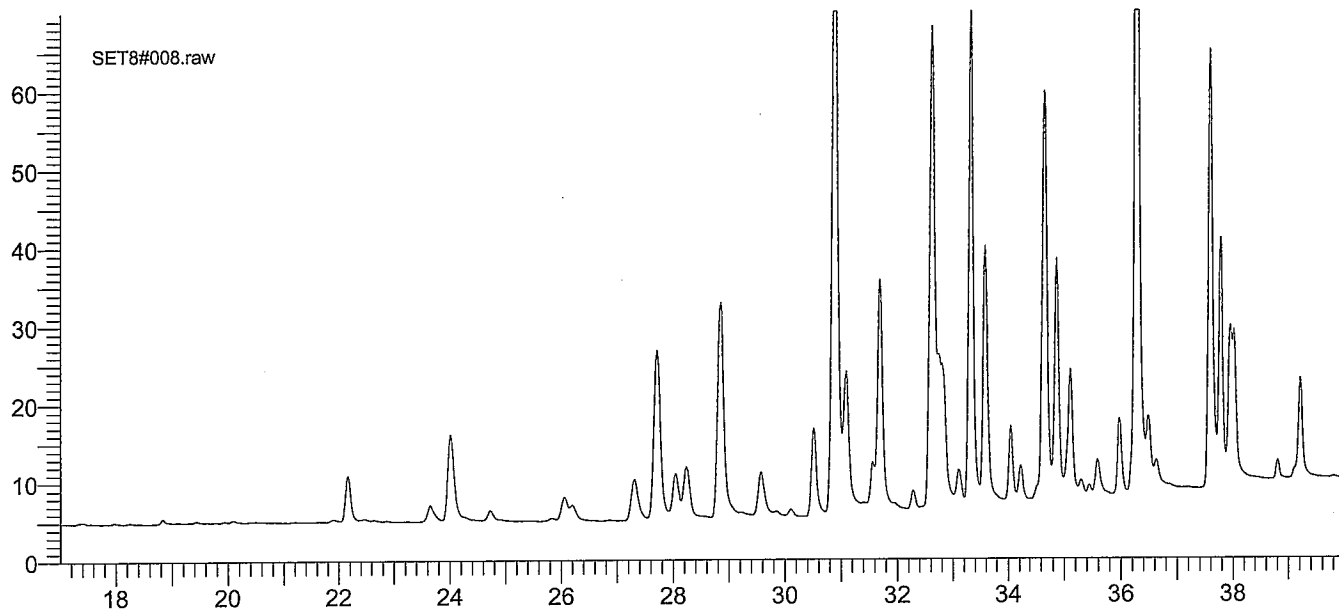
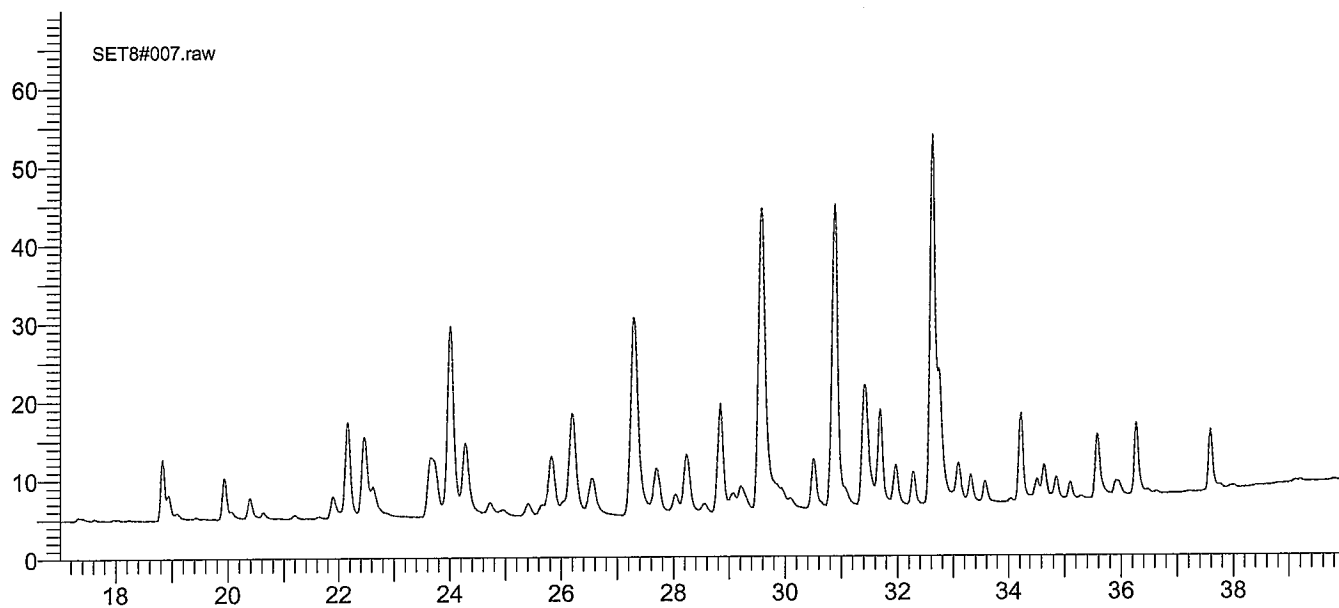
Plot Title		Start Time	End Time	Scale	Offset
SET7#014.raw		13.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1248				
Sample Number:	14				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET7#022.raw		13.00	40.00	70.00	0.00
Sample Name :	###SET 6## 22689 1:50				
Sample Number:	22				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET7#020.raw		13.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	20				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay



Plot Title		Start Time	End Time	Scale	Offset
SET8#007.raw		17.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1254				
Sample Number:	07				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET8#008.raw		17.00	40.00	70.00	0.00
Sample Name :	AROCHLOR 1260				
Sample Number:	08				
Instrument File Name:	c:\pest\gc14\methods\pcb				
SET8#022.raw		17.00	40.00	70.00	0.00
Sample Name :	22707 1:10				
Sample Number:	22				
Instrument File Name:	c:\pest\gc14\methods\pcb				



Overlay

