J. Scera
PASSF 1.7v1
10/16/85

ecology and environment, inc.

108 SOUTH WASHINGTON, SUITE 302, SEATTLE, WASHINGTON 98104, TEL. 206-624-9537

International Specialists in the Environmental Sciences

MEMORANDUM

DATE: October 16, 1985

TO: John Osborn, FIT RPO, EPA, Seattle

FROM: John Ryding, Chemist, E&E, Seattle
Andrew Hafferty, Senior Chemist, E&E, Seattle

THRU: D.A. Buecker, FIT RPM, E&E, Seattle

SUBJ: QA of Case 4768 (Organics)
Resource Recovery WA 0280

REF: TDD R10-8510-01

CC: Gerald Muth, DPO, EPA, Region X
Harold Takenaka, DPO, EPA, Region IX
Bill Ritthaler, E&E, Seattle

The Quality Assurance review of two samples, Case 4768, collected at Resource Recovery has been completed. Two soil samples were analyzed at low level for semi-volatiles and pesticides/PCBs by EAL Corporation of Richmond, California. The samples were numbered:

JA546 JA547

Data Qualifications

The following comments refer to the laboratory performance in meeting the Quality Control specifications outlined in IFB WA84A-266.

1) Timeliness - Acceptable

2) Instrument Tuning - Acceptable

3) Initial and Continuing Calibration - Acceptable

4) Detection Limits

Limits for multi-component pesticides and PCBs were above the CRDL.

recycled paper

USEPA SF
1371156

5) Pesticide Standards

a) Linearity

On column SP-2250/SP-2401 (quantitation)

Compound	% RSD	QC Limit
Aldrin	15%	10%
Endrin	12%	10%
4,4'-DDT	21%	10%

On column SE-30/SP-2401 (confirmation). This is a questionable choice as a confirmation column.

Compound	% RSD	QC Limit
4,4'-DDT	16%	10%

b) 4,4'-DDT/Endrin Breakdown - Acceptable

c) Dibutylchlorendate Retention Time Shift - Acceptable

d) Standards Summary - Acceptable

6) Blanks

Bis(2-ethylhexyl)phthalate was found in the BNA blank. The pesticide blank is not acceptable. The laboratory should take immediate action to eliminate an ongoing pesticide blank problem noted by the reviewers.

7) Surrogates

Acceptable as reported; however, most of the surrogate recoveries could not be reproduced from the raw data.

8) Matrix Spike and Matrix Spike Duplicate

The following compounds exceeded QC limits for % recovery:

Compound	% Recovery	QC Limit
1,2,4-Trichlorobenzene (MSD)	34	38-107%
Pyrene (MS)	32	35-142%
Pyrene (MSD)	24	35-142%
Lindane (MS)	328	46-127%
Lindane (MSD)	364	46-127%
Heptachlor (MS)	24	35-130%

Heptachlor (MSD)	197	35-130%
Aldrin (MS)	373	34-132%
Aldrin (MSD)	392	34-132%
Endrin (MSD)	153	42-139%
4,4'-DDT (MS)	149	23-134%
4,4'-DDT (MSD)	163	23-134%

The % recoveries could not be reproduced from the raw data.

The following compounds exceed QC limits for RPD:

Compound	RPD	QC Limit
Acenaphthene	41	<19
1,4-Dichlorobenzene	28	<27
Phenol	68	<35
4-Nitrophenol	55	<50
Heptachlor	157	<31

9) Samples

The BNA fraction data was flagged "J" due to the non-reproducibility of the contaminant concentrations and surrogate recoveries. All positive hits of the pesticide fraction were flagged "R" due to severe contamination of the blank. All pesticide data was flagged "J" due to poor linearity.

10) Tentatively Identified Compounds

4-Hydroxy-4-methyl-2-pentanone (diacetone alcohol) was detected and identified on the TIC data sheets in nearly every sample. This compound was detected in the blank but at significantly lower levels than in the samples. However, this compound is an aldol condensation product of an acetone reaction which has been noted in several other EAL data packages, e.g., E&E, QA memo data October 3, 1985; Case 4680 from R. McGinnis and A. Hafferty to J. Osborn, RPO, USEPA, Region X. The data is not reliable and has been deleted from the data sheets in this report.

Data Use

The usefulness of the data is based on the criteria outlined in the "Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses (R-582-5-5-01)."

Considering the above mentioned factors, the data is useful for LIMITED PURPOSES ONLY.

Pesticide/PCB data is suspect.

Data Qualifiers

U - The material was analyzed for, but was not detected. The associated numerical value is estimated sample quantitation limit.

J - The associated numerical value is an estimated quantity because quality control criteria were not met.

R - Quality Control indicates that data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.

Q - No analytical result.

N - Presumptive evidence of presence of material (tentative identification).

JR:dlk

Sample Number
JA-546

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: EAL CORPORATION

Case No: 4768

Lab Sample ID No: 3202- 74-1

QC Report No:

Sample Matrix: SOIL/SEDIMENT

Contract No: 68 -01-6960

Data Release Authorized By: Bennett J Tyson

Date Sample Received: 8.8.85

Volatile Compounds

Concentration: Low Medium (Circle One)

JR

Date Extracted/Prepared:

Date Analyzed:

Conc/Dil Factor: pH 6

Percent Moisture: 508%

Percent Moisture (Decanted):

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5u
67-64-1	Acetone	10u
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
591-78-6	2-Hexanone	10u
108-10-1	4-Methyl-2-Pentanone	10u
127-18-4	Tetrachloroethene	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit or

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name EAL CORPORATION

Case Number 4768

Sample Number JA-546

3202-74-1

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8-12-85

Date Analyzed: 8-12-85

Conc/Dil Factor: 1

JMR 10/16/85

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	350 U ~~330u~~
108-95-2	Phenol	~~330u~~
62-53-3	Aniline	~~330u~~
111-44-4	bis(-2-Chloroethyl)Ether	~~330u~~
95-57-8	2-Chlorophenol	~~330u~~
541-73-1	1, 3-Dichlorobenzene	~~330u~~
106-46-7	1, 4-Dichlorobenzene	~~330u~~
100-51-6	Benzyl Alcohol	~~330u~~
95-50-1	1, 2-Dichlorobenzene	~~330u~~
95-48-7	2-Methylphenol	~~330u~~
39638-32-9	bis(2-chloroisopropyl)Ether	~~330u~~
106-44-5	4-Methylphenol	~~330u~~
621-64-7	N-Nitroso-Di-n-Propylamine	~~330u~~
67-72-1	Hexachloroethane	~~330u~~
98-95-3	Nitrobenzene	~~330u~~
78-59-1	Isophorone	~~330u~~
88-75-5	2-Nitrophenol	~~330u~~
105-67-9	2, 4-Dimethylphenol	~~330u~~
65-85-0	Benzoic Acid	1700U ~~1600u~~
111-91-1	bis(-2-Chloroethoxy)Methane	350 U ~~330u~~
120-83-2	2, 4-Dichlorophenol	~~330u~~
120-82-1	1, 2, 4-Trichlorobenzene	~~330u~~
91-20-3	Naphthalene	~~330u~~
106-47-8	4-Chloroaniline	~~330u~~
87-68-3	Hexachlorobutadiene	~~330u~~
59-50-7	4-Chloro-3-Methylphenol	~~330u~~
91-57-6	2-Methylnaphthalene	~~330u~~
77-47-4	Hexachlorocyclopentadiene	~~330u~~
88-06-2	2, 4, 6-Trichlorophenol	~~330u~~
95-95-4	2, 4, 5-Trichlorophenol	1700U ~~1600u~~
91-58-7	2-Chloronaphthalene	350U ~~330u~~
88-74-4	2-Nitroaniline	1700U ~~1600u~~
131-11-3	Dimethyl Phthalate	350U ~~330u~~
[illegible]	Acenaphthylene	~~330u~~
[illegible]	3-Nitroaniline	1700U ~~1600u~~

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	350U ~~330u~~
51-28-5	2, 4-Dinitrophenol	1700U ~~1600u~~
100-02-7	4-Nitrophenol	~~1600u~~
132-64-9	Dibenzofuran	350U ~~330u~~
121-14-2	2, 4-Dinitrotoluene	~~330u~~
606-20-2	2, 6-Dinitrotoluene	~~330u~~
84-66-2	Diethylphthalate	~~330u~~
7005-72-3	4-Chlorophenyl-phenylether	~~330u~~
86-73-7	Fluorene	~~330u~~
100-01-6	4-Nitroaniline	1700U ~~1600u~~
534-52-1	4, 6-Dinitro-2-Methylphenol	~~1600u~~
86-30-6	N-Nitrosodiphenylamine (1)	350U ~~330u~~
101-55-3	4-Bromophenyl-phenylether	~~330u~~
118-74-1	Hexachlorobenzene	~~330u~~
87-86-5	Pentachlorophenol	1700U ~~1600u~~
85-01-8	Phenanthrene	350U ~~330u~~
120-12-7	Anthracene	~~330u~~
84-74-2	Di-n-Butylphthalate	~~330u~~
206-44-0	Fluoranthene	~~330u~~
92-87-5	Benzidine	1700U ~~1600u~~
129-00-0	Pyrene	350U ~~330u~~
85-68-7	Butylbenzylphthalate	~~330u~~
91-94-1	3, 3'-Dichlorobenzidine	700U ~~660u~~
56-55-3	Benzo(a)Anthracene	350U ~~330u~~
117-81-7	bis(2-Ethylhexyl)Phthalate	386 U ~~330u~~
218-01-9	Chrysene	350U ~~330u~~
117-84-0	Di-n-Octyl Phthalate	~~330u~~
205-99-2	Benzo(b)Fluoranthene	~~330u~~
207-08-9	Benzo(k)Fluoranthene	~~330u~~
50-32-8	Benzo(a)Pyrene	450N ~~330u~~
193-39-5	Indeno(1, 2, 3-cd)Pyrene	350U ~~330u~~
53-70-3	Dibenz(a, h)Anthracene	~~330u~~
191-24-2	Benzo(g, h, i)Perylene	~~330u~~

(1)-Cannot be separated from diphenylamine

Laboratory Name EAL Corporation
Case Number CASE 4768

Sample Number
JA-546

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticide/PCBs

Concentration	LOW
Date Extracted	8/12/85
Date Analysed	9/15/85
Dilution Factor	1.00

JMR 10/16/85

CAS Number		UG/KG		
319-84-6	Alpha BHC	2.	U	J
319-85-7	Beta BHC	2.	U	J
319-86-8	Delta BHC	2.		R
58-89-9	Gamma BHC	2.	U	J
76-44-8	Heptachlor	2.	U	
309-00-2	Aldrin	2.	U	
1024-57-3	Heptachlor epox.	9.8	R	
959-98-8	a Endosulfan	2.	U	J
60-57-1	Dieldrin	4.	U	
72-55-9	4,4-DDE	4.	U	
72-20-8	Endrin	4.	U	
33213-65-9	b Endosulfan	4.	U	
72-54-8	4,4-DDD	4.	U	
7421-93-4	Endrin aldehyde	4.	U	
1031-07-8	Endosulfan sulf.	20.	R	
50-29-3	4,4-DDT	4.	U	J
72-43-5	Methoxychlor	20.	U	
53494-70-5	Endrin ketone	4.	U	
57-74-9	Chlordane	50.	U	
8001-35-2	Toxaphene	600.	U	
12674-11-2	Aroclor-1016	40.	U	
11104-28-2	Aroclor-1221	60.	U	
11141-16-5	Aroclor-1232	70.	U	
53469-21-9	Aroclor-1242	40.	U	
12672-29-6	Aroclor-1248	50.	U	
11097-69-1	Aroclor-1254	100.	U	
11096-82-5	Aroclor-1260	100.	U	

Vi =Volume of extract injected (ul)
Vs =Volume of water extracted (ml)
Ws =Weight of sample extracted (g)
Vt =Volume of total extract (ul)

Vs or Ws 28.5100 Vt 10000.0 Vi 4.0

Laboratory Name EAL CORPORATION

Case Number 4768

Sample Number JA-546

3202-74-1

JMR 10/16/85

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. ~~541-05-9~~	~~hexamethylcyclotrisiloxane~~	~~VOA~~		
2.				
3.	~~unknown~~	BNA	~~311~~	~~2900~~
4. ~~123-42-2~~	~~$C_6H_{12}O_2$ - 4-hydroxy-4-methyl-2-pentanone~~	"	~~305~~	~~980~~
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

JA-547

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: EAL CORPORATION

Case No: 4768

Lab Sample ID No: 3202- 74-2

QC Report No:

Sample Matrix: SOIL/SEDIMENT

Contract No: 68 -01-6960

Data Release Authorized By: Emmett J Tyson

Date Sample Received: 8.8.85

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed:

Conc/Dil Factor: pH 6

Percent Moisture: 5.19%

Percent Moisture (Decanted):

JR

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5u
67-64-1	Acetone	10u
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
591-78-6	2-Hexanone	10u
108-10-1	4-Methyl-2-Pentanone	10u
127-18-4	Tetrachloroethene	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J).

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name EAL CORPORATION

Case Number 4768

Sample Number JA-547

3202-74-2R

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8-12-85

Date Analyzed: 8-12-85

Conc/Dil Factor: 1

JMR 10/16/85

CAS Number		ug/l or ug/Kg (Circle One)	
62-75-9	N-Nitrosodimethylamine	350U ~~330u~~	J
108-95-2	Phenol	~~330u~~	
62-53-3	Aniline	~~330u~~	
111-44-4	bis(-2-Chloroethyl)Ether	~~330u~~	
95-57-8	2-Chlorophenol	~~330u~~	
541-73-1	1, 3-Dichlorobenzene	~~330u~~	
106-46-7	1, 4-Dichlorobenzene	~~330u~~	
100-51-6	Benzyl Alcohol	~~330u~~	
95-50-1	1, 2-Dichlorobenzene	~~330u~~	
95-48-7	2-Methylphenol	~~330u~~	
39638-32-9	bis(2-chloroisopropyl)Ether	~~330u~~	
106-44-5	4-Methylphenol	~~330u~~	
621-64-7	N-Nitroso-Di-n-Propylamine	~~330u~~	
67-72-1	Hexachloroethane	~~330u~~	
98-95-3	Nitrobenzene	~~330u~~	
78-59-1	Isophorone	~~330u~~	
88-75-5	2-Nitrophenol	~~330u~~	
105-67-9	2, 4-Dimethylphenol	~~330u~~	
65-85-0	Benzoic Acid	1700U ~~1600u~~	
111-91-1	bis(-2-Chloroethoxy)Methane	350U ~~330u~~	
120-83-2	2, 4-Dichlorophenol	~~330u~~	
120-82-1	1, 2, 4-Trichlorobenzene	~~330u~~	
91-20-3	Naphthalene	~~330u~~	
106-47-8	4-Chloroaniline	~~330u~~	
87-68-3	Hexachlorobutadiene	~~330u~~	
59-50-7	4-Chloro-3-Methylphenol	~~330u~~	
91-57-6	2-Methylnaphthalene	~~330u~~	
77-47-4	Hexachlorocyclopentadiene	~~330u~~	
88-06-2	2, 4, 6-Trichlorophenol	~~330u~~	
95-95-4	2, 4, 5-Trichlorophenol	1700U ~~1600u~~	
91-58-7	2-Chloronaphthalene	350U ~~330u~~	
88-74-4	2-Nitroaniline	1700U ~~1600u~~	
131-11-3	Dimethyl Phthalate	350U ~~330u~~	
208-96-8	Acenaphthylene	~~330u~~	
99-09-2	3-Nitroaniline	1700U ~~1600u~~	

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	350U ~~330u~~	J
51-28-5	2, 4-Dinitrophenol	1700U ~~1600u~~	
100-02-7	4-Nitrophenol	~~1600u~~	
132-64-9	Dibenzofuran	350U ~~330u~~	
121-14-2	2, 4-Dinitrotoluene	~~330u~~	
606-20-2	2, 6-Dinitrotoluene	~~330u~~	
84-66-2	Diethylphthalate	~~330u~~	
7005-72-3	4-Chlorophenyl-phenylether	~~330u~~	
86-73-7	Fluorene	~~330u~~	
100-01-6	4-Nitroaniline	1700U ~~1600u~~	
534-52-1	4, 6-Dinitro-2-Methylphenol	~~1600u~~	
86-30-6	N-Nitrosodiphenylamine (1)	350U ~~330u~~	
101-55-3	4-Bromophenyl-phenylether	~~330u~~	
118-74-1	Hexachlorobenzene	~~330u~~	
87-86-5	Pentachlorophenol	1700U ~~1600u~~	
85-01-8	Phenanthrene	350U ~~330u~~	
120-12-7	Anthracene	~~330u~~	
84-74-2	Di-n-Butylphthalate	~~330u~~	
206-44-0	Fluoranthene	~~330u~~	
92-87-5	Benzidine	1700U ~~1600u~~	
129-00-0	Pyrene	350U ~~330u~~	
85-68-7	Butylbenzylphthalate	~~330u~~	
91-94-1	3, 3'-Dichlorobenzidine	700U ~~600u~~	
56-55-3	Benzo(a)Anthracene	350U ~~330u~~	
117-81-7	bis(2-Ethylhexyl)Phthalate	~~330u~~	
218-01-9	Chrysene	~~330u~~	
117-84-0	Di-n-Octyl Phthalate	~~330u~~	
205-99-2	Benzo(b)Fluoranthene	~~330u~~	
207-08-9	Benzo(k)Fluoranthene	~~330u~~	
50-32-8	Benzo(a)Pyrene	365 ~~330u~~	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	350U ~~330u~~	
53-70-3	Dibenz(a, h)Anthracene	~~330u~~	
191-24-2	Benzo(g, h, i)Perylene	~~330u~~	

(1)-Cannot be separated from diphenylamine

Sample Number
JA-547

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticide/PCBs

Concentration	LOW
Date Extracted	8/12/85
Date Analysed	9/15/85
Dilution Factor	1.00

JMR 10/16/85

CAS Number		UG/KG		
319-84-6	Alpha BHC	2.	U	J
319-85-7	Beta BHC	2.	U	J
319-86-8	Delta BHC	3.2	R	
58-89-9	Gamma BHC	2.	U	J
76-44-8	Heptachlor	2.	U	
309-00-2	Aldrin	2.	U	
1024-57-3	Heptachlor epox.	12.	R	
959-98-8	a Endosulfan	2.	U	J
60-57-1	Dieldrin	4.	U	
77-55-9	4,4-DDE	4.	U	
72-20-8	Endrin	4.	U	
33213-65-9	b Endosulfan	4.	U	
72-54-8	4,4-DDD	12.	R	
7421-93-4	Endrin aldehyde	4.	U	J
1031-07-8	Endosulfan sulf.	33.	R	
50-29-3	4,4-DDT	4.	U	J
72-43-5	Methoxychlor	20.	U	
53494-70-5	Endrin ketone	4.	U	
57-74-9	Chlordane	60.	U	
8001-35-2	Toxaphene	700.	U	
12674-11-2	Aroclor-1016	50.	U	
11104-28-2	Aroclor-1221	80.	U	
11141-16-5	Aroclor-1232	90.	U	
53469-21-9	Aroclor-1242	50.	U	
12672-29-6	Aroclor-1248	60.	U	
11097-69-1	Aroclor-1254	200.	U	
11096-82-5	Aroclor-1260	100.	U	

Vi =Volume of extract injected (ul)
Vs =Volume of water extracted (ml)
Ws =Weight of sample extracted (g)
Vt =Volume of total extract (ul)

Vs _____ or Ws 28.5500 Vt 10000.0 Vi 4.0

Case Number 4768

Sample Number JA-547

3202-74-2 R

J-MR 10/16/85

Organics Analysis Data Sheet
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Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. ~~541-05-9~~	~~hexamethylcyclotrisiloxane~~	~~VOA~~		
2.				
3.	~~unknown~~	BNA	301	~~2800~~
4. ~~123-42-2~~	~~$C_6H_{12}O_2$ 4-hydroxy-4-methyl-2-pentanone~~	"	302	~~1200~~
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