SDMS Document
112447

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER CONSULTANTS

ST. PAUL
MINNESOTA

WILTON
CONNECTICUT

TAMPA
FLORIDA

ALBUQUERQUE
NEW MEXICO

EXTON
PENNSYLVANIA

FISHKILL
NEW YORK

SIOUX FALLS
SOUTH DAKOTA

HRC 001 0944

ENVIRONMENTAL PROTECTION
AGENCY, REGION II

1988 DEC 12 PM 3:31

ERRD SITE COMPLIANCE
BRANCH

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

ANALYTICAL RESULTS OF SAMPLES OBTAINED FROM EXCAVATED SOILS

Prepared for

Occidental Chemical Corporation

December 1988

LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water Consultants
72 Danbury Road
Wilton, CT 06897

HRC 001 0945

HRC 001 0946

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

ANALYTICAL RESULTS OF SAMPLES OBTAINED FROM EXCAVATED SOILS

In September 1988, Ruco Polymer Corporation had two underground fuel oil tanks removed, one of which had failed a Petrotite test. The operation was conducted under the supervision of the New York State Department of Environmental Conservation (NYSDEC) and the Nassau County Department of Health. During the removal it was noted that some of the soils were stained with petroleum hydrocarbons. Approximately 200 cubic yards of soil were removed and stockpiled, and the excavation was backfilled with 225 cubic yards of clean fill. The excavated soil was placed on plastic sheeting and was also covered with plastic sheeting. The soils were segregated into two general areas as shown on figure 1. While the figure indicates that there are five piles near the water tank these are intermingled for half of their height.

Ruco personnel obtained two samples from each pile (A through G) and composited them for chemical analysis. Along with trace amounts of solvents and aromatic hydrocarbons the composite sample contained 3,600 mg/kg (milligrams per kilogram) total petroleum hydrocarbons and 34 mg/kg Arochlor 1248 (PCB's). Subsequently, two samples were obtained from each of the seven soil piles, and composited the two from each pile to yield seven samples (designated Hicksville A through G). The samples obtained by Ruco were also split for individual analysis (designated Hicksville 1 through 14). Thus, there were three samples from each pile of soil. Figure 2 shows the sample locations. Samples 1 and 2 were obtained from the bottom of the tank excavation.

The analytical results, presented on table 1 of the attached laboratory report, show that the concentration of PCB's in the stockpiled soils range from 23 to 420 mg/kg. The three samples from each pile are relatively consistent, eliminating the possibility of segregation. The samples from the bottom of the excavation had concentrations of 0.7 and 24 mg/kg.

LEGGETTE, BRASHEARS & GRAHAM, INC.

Robert Lamonica

Robert Lamonica, CPG
Vice President

cmp
December 6, 1988
88r15

HRC 001 0948

FIGURE

PRC 001 0949

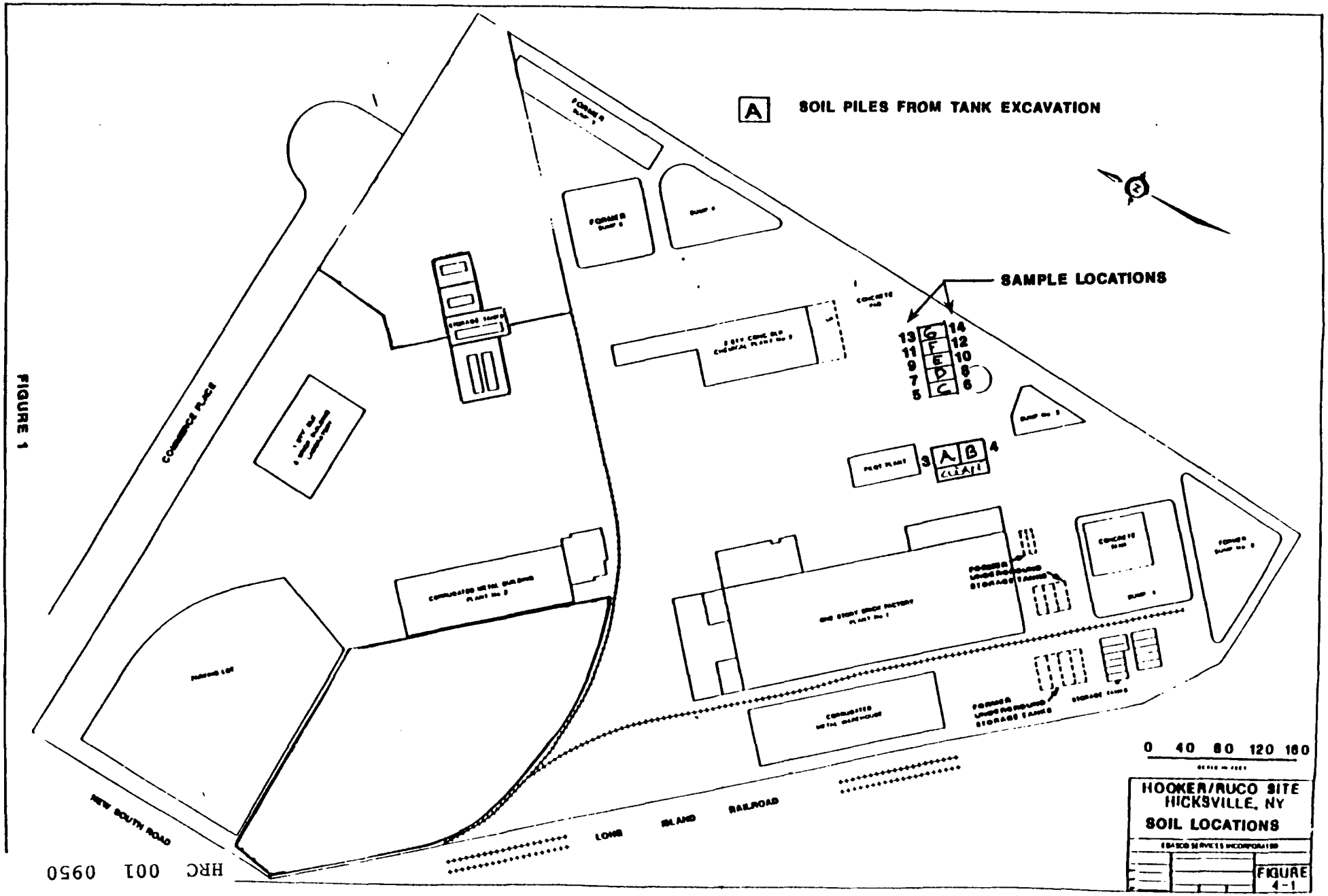
A SOIL PILES FROM TANK EXCAVATION
SAMPLE LOCATIONS
13 G 14
11 F 12
9 E 10
7 D 8
5 C 6
3 A B 4
CLEAN
COMMERCE PLACE
NEW SOUTH ROAD
LONG ISLAND RAILROAD
0 40 80 120 160
HOOKER/RUCO SITE
HICKSVILLE, NY
SOIL LOCATIONS
FIGURE 4-1

FIGURE 1

APPENDIX

HRC 001 0951

OxyChem
Technology Center

MEMO

To A. F. Weston **Date** November 11, 1988

From R. Cortellucci

Subject AROCLOR 1248 CONTENT OF THE SOILS FROM HICKSVILLE, NY

RECEIVED
NOV 09 1988
SPECIAL ENVIRONMENTAL

COPIES: R.G. Badger, P.T. Holt, W.E. Leroux, J.J. Duffy, TIC

PROJECT PERSONNEL: W. Fenlon, M. Ruszaj

SUMMARY

On October 5, 1988, twenty-one soil samples from Hicksville, NY were submitted for determination of their Aroclor 1248 content. Of those samples submitted, twenty sites had concentrations of Aroclor 1248 higher than 10 ppm, and of those twenty sites ten had concentrations higher than 100 ppm. One site had an Aroclor 1248 concentration less than 10 ppm.

INTRODUCTION

In order to determine the extent of contamination, soil samples from twenty-one sites at Hicksville, New York were analyzed for their Aroclor 1248 content. These samples were analyzed using the EPA CLP methodology, making slight variations of the method where needed.

EXPERIMENTAL

Before the work-up, each sample was forced through a #8 mesh sieve to separate the friable material from the non-friable material, (U.S. Standard Testing Sieve, #8 mesh, A.S.T.E-11 specifications, 2.36 mm opening). After sieving, the soils were tumbled for one hour to improve homogeneity (Rotary Tumbler, Model 33B, Lortone, Inc.). These samples were now ready for analysis. One gram of sample was transferred to a 50 mL beaker, sodium sulfate was stirred in until the sample had a sandy texture, 50 uL of 20 ppm hexachlorobenzene (C66) in acetone was added as an internal standard and 10.0 mL of hexane was then added as the extraction solvent. The sample was then extracted for two minutes using a sonic distrupter (heat Systems, Ultrasonics, Inc.), after which time the extract was decanted to a 7 mL Teflon-lined screw-top vial until analysis. Recovery experiments were performed in the same manner, with the addition of Aroclor 1248 occurring before the addition of hexane.

Determination of the moisture content of each sample was done by transferring approximately five grams (0.01 g accuracy) to a tared aluminum pan and heating for two hours at 110°C. After cooling in a dessicator, the samples were re-weighed and the moisture content was determined.

HRC 001 0952

RESULTS AND DISCUSSION

The results of this analysis can be found in Table I. The concentration of Aroclor 1248 is given in ug/g on a dry weight basis. Also given in Table I are the recoveries of the C66 surrogate, expressed as a percent of the original 1.0 ug added. Because it was not required by the CLP this figure has not been corrected for percent moisture.

Table II contains the results of three duplicate analyses. Sites #5, #11 and #C were chosen for duplicate analysis. Site #1 was spiked with a 2 ug/g Aroclor 1248 and site s #13 and #B were spiked with 50 ug/g of Aroclor 1248. This data is found in Table III. Spiking three different samples provided an extra dimension to the recovery process. Hexane blanks were analyzed between each sample and in all cases the level of Aroclor 1248 was ND0.1. A 200 ppb reference standard of Aroclor 1248 was analyzed twice, the first analysis produced a % recovery of 103% and the second produced a % recovery of 87%. Table IV contains the moisture content of each soil. Percent moisture was determined by:

$$\frac{\text{grams wet weight - grams dry weight}}{\text{grams wet weight}} \times 100$$

Remi Cortellucci

Remi Cortellucci
Chemist
Central Sciences

/jb
Attachments

TABLE I

Concentration of Aroclor1248
Hicksville, N.Y.
ug/g dry weight basis

Sample I.D.	OCC Log #	Aroclor 1248	% C66 Recovery
Hicksville #1	88-2422	0.7	167
Hicksville #2	88-2423	24	85
Hicksville #3	88-2424	100	96
Hicksville #4	88-2425	170	89
Hicksville #5	88-2426	62*	81
Hicksville #6	88-2427	140	75
Hicksville #7	88-2428	420	110
Hicksville #8	88-2429	230	111
Hicksville #9	88-2430	72	99
Hicksville #10	88-2431	58	81
Hicksville #11	88-2432	140*	94
Hicksville #12	88-2433	100	93
Hicksville #13	88-2434	23	130
Hicksville #14	88-2435	100	89
Hicksville #A	88-2436	50	124
Hicksville #B	88-2437	37	146
Hicksville #C	88-2438	60*	87
Hicksville #D	88-2439	240	104
Hicksville #E	88-2440	67	90
Hicksville #F	88-2441	92	96
Hicksville #G	88-2442	69	93

* Represents the average of duplicate results.

TABLE II

Results of Duplicate Analysis
Hicksville, N.Y.
ug/g dry weight basis

Sample I.D.	Experiment #1	Experiment #2
Hicksville #5	56	68
Hicksville #11	140	140
Hicksville #C	58	61

TABLE III

Results of Spiking Experiments
Hicksville, N.Y.
ug/g dry weight basis

Sample I.D.	Analysis	Added	Expected	Found	Recovered (%)
Hicksville #1	0.7	2.0	2.7	2.3	1.6 (80)
Hicksville #13	23	50	73	77	54 (108)
Hicksville #B	37	50	87	78	41 (82)

TABLE IV

Moisture Content
Soils From Hicksville, N.Y.

Sample I.D.	% Moisture
Hicksville #1	1.8
Hicksville #2	8.6
Hicksville #3	2.7
Hicksville #4	5.5
Hicksville #5	6.8
Hicksville #6	5.9
Hicksville #7	2.7
Hicksville #8	1.8
Hicksville #9	4.3
Hicksville #10	7.2
Hicksville #11	1.2
Hicksville #12	3.8
Hicksville #13	6.1
Hicksville #14	3.8
Hicksville #A	7.8
Hicksville #B	7.5
Hicksville #C	4.8
Hicksville #D	4.6
Hicksville #E	6.3
Hicksville #F	2.7
Hicksville #G	4.4

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: _____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) _____ Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) _____ Lab File ID: _____

Level: (low/med) _____ Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: _____

Extraction: (SepF/Cont/Sonc) _____ Date Analyzed: _____

GPC Cleanup: (Y/N) _____ pH: _____ Dilution Factor: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _____	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248		
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0957

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: 1.11 (g/mL) 10 Lab File ID: _____

Level: (low/med) _____ Date Received: 10/5/88

% Moisture: not dec. 9.[illegible] dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	24.[illegible]	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0958

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) 10 Lab File ID: _____

Level: (low/med) _____ Date Received: 10/5/88

% Moisture: not dec. 2.7 dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	120	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0959

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) 10 Lab File ID: _____

Level: (low/med) _____ Date Received: 10/5/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	170	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0960

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) 10 Lab File ID: _____

Level: (low/med) _____ Date Received: 10/5/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	62.	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0961

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) 10 Lab File ID: _____

Level: (low/med) _____ Date Received: 10/5/88

% Moisture: not dec. 50 dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	140	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0962

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) 10 Lab File ID: _____

Level: (low/med) _____ Date Received: 10/5/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	420	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0963

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: _____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) _____ Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) _____ Lab File ID: _____

Level: (low/med) _____ Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: _____

Extraction: (SepF/Cont/Sonc) _____ Date Analyzed: _____

GPC Cleanup: (Y/N) _____ pH: _____ Dilution Factor: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _____	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248		
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0964

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: [illegible]

Sample wt/vol: [illegible] (g/mL) 10 Lab File ID: _____

Level: (low/med) Med Date Received: 10/5/88

% Moisture: not dec. 4.3 dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC	[illegible]	
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	7.2	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0965

FORM I PEST 10/86

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) 10 Lab File ID: _____

Level: (low/med) _____ Date Received: 10/5/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	140	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0966

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) 10 Lab File ID: _____

Level: (low/med) med Date Received: 10/5/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	120.	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0967

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: [illegible]

Sample wt/vol: [illegible] (g/mL) 10 Lab File ID: _____

Level: (low/med) Med Date Received: 10/5/88

% Moisture: not dec. [illegible] dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	23.	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0968

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: [illegible]

Sample wt/vol: [illegible] (g/mL) 10 Lab File ID: _____

Level: (low/med) [illegible] Date Received: 10/5/88

% Moisture: not dec. [illegible] dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	100	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0969

FORM I PEST 10/86

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: [illegible]

Sample wt/vol: [illegible] (g/mL) 10 Lab File ID: _____

Level: (low/med) [illegible] Date Received: 10/5/88

% Moisture: not dec. 7.8 dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	50.	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0970

2D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: [illegible]

Sample wt/vol: [illegible] (g/mL) 10 Lab File ID: _____

Level: (low/med) [illegible] Date Received: 10/5/88

% Moisture: not dec. [illegible] dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	37.0	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0971

FORM I PEST 10/86

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

[illegible]

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: [illegible]

Sample wt/vol: [illegible] (g/mL) 10 Lab File ID: _____

Level: (low/med) [illegible] Date Received: 10/5/88

% Moisture: not dec. 4.6 dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC	[illegible]	
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	5%	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0972

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: _____ (g/mL) 10 Lab File ID: _____

Level: (low/med) _____ Date Received: 10/5/88

% Moisture: not dec. 4.6 dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248		
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0973

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: _____

Sample wt/vol: 6.95 (g/mL) 10 Lab File ID: _____

Level: (low/med) Med Date Received: 10/5/88

% Moisture: not dec. 6.5 dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	2.6	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0974

FORM I PEST 10/86

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: [illegible]

Sample wt/vol: [illegible] (g/mL) 10 Lab File ID: _____

Level: (low/med) [illegible] Date Received: 10/5/88

% Moisture: not dec. [illegible] dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	92.	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0975

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: [illegible]

Sample wt/vol: 1.3 (g/mL) 10 Lab File ID: _____

Level: (low/med) med Date Received: 10/5/88

% Moisture: not dec. 4.1 dec. _____ Date Extracted: 10/14/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/24/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/g	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC(Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-22-9	Aroclor-1242		
12672-29-6	Aroclor-1248	64.0	
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

HRC 001 0976

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Occidental Chem. Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Level: (low/med) Med

	EPA SAMPLE NO.	S1 (C66) #	OTHER
01	Hackett #1	67 *	1
02	Hackett #2	55	0
03	Hackett #3	0	0
04	Hackett #4	59	0
05	Hackett #5	51	0
06	Hackett #6	35	0
07	Hackett #7	46	0
08	Hackett #8	41	0
09	Hackett #9	44	0
10	Hackett #10	51	0
11	Hackett #11	34	0
12	Hackett #12	33	0
13	Hackett #13	[illegible]	0
14	Hackett #14	53	0
15	Hackett #A	134	0
16	Hackett #B	146	0
17	Hackett #C	57	0
18	Hackett #D	104	0
19	Hackett #E	42	0
20	Hackett #F	42	0
21	Hackett #G	33	0
22			
23			
24			
25			
26			
27			
28			
29			
30			

ADVISORY QC LIMITS (24-154)

S1 (C66) = Hexachlorobenzene

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

HRC 001 0977

FORM II PEST-2 10/86

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: Occidental Chem Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

EPA Sample No. for Method Blank: _____ Lab Sample ID: _____

Matrix: (soil/water) _____ Level: (low/med) _____ Lab File ID: _____

Date Extracted: _____ Extraction: (SepF/Cont/Sonc) _____

Date Analyzed (1): _____ Date Analyzed (2): _____

Time Analyzed (1): _____ Time Analyzed (2): _____

Instrument ID (1): _____ Instrument ID (2): _____

GC Column ID (1): _____ GC Column ID (2): _____

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

	EPA SAMPLE NO.	LAB SAMPLE ID (1)	DATE ANALYZED 1	LAB SAMPLE ID (2)	DATE ANALYZED 2
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

COMMENTS: No soil blank sample was submitted for analysis.

HRC 001 0978

page __ of __

FORM IV PEST

10/86

8E

PESTICIDE EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shift for ~~Dibutylchlorendate~~ C66

Lab Name: Occidental Chem Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP-5890 (S/N 2750A/4755) GC Column ID: DB-5 (S/N 126307)

Dates of Analyses: 10/22/88 to 10/25/88

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE OF ANALYSIS	TIME OF ANALYSIS	% D	*
01	C66	100ppb STD	10-22-88	12:59	0	
02	Hackwill #1	88-2422	10-22-88	2:55	.02	
03	Hackwill #2	88-2423	10-22-88	5:13	.02	
04	Hackwill #3	88-2424	10-22-88	7:33	.03	
05	Hackwill #4	88-2425	10-22-88	9:53	.04	
06	Hackwill #5	88-2426	10-23-88	12:13	.01	
07	Hackwill #6	88-2427	10-23-88	4:50	.03	
08	Hackwill #7	88-2428	10-23-88	7:09	.01	
09	Hackwill #8	88-2429	10-23-88	9:28	.02	
10	Hackwill #9	88-2430	10-23-88	11:47	.02	
11	Hackwill #10	88-2431	10-23-88	2:26	0	
12	Hackwill #11	88-2432	10-23-88	4:24	.03	
13	Hackwill #12	88-2433	10-23-88	6:44	.02	
14	Hackwill #13	88-2434	10-23-88	9:03	.01	
15	Hackwill #14	88-2435	10-23-88	11:22	0	
16	Hackwill A	88-2436	10-24-88	1:41	0	
17	Hackwill B	88-2437	10-24-88	4:01	.01	
18	Hackwill C	88-2438	10-24-88	6:20	.01	
19	Hackwill D	88-2439	10-24-88	10:57	.03	
20	Hackwill E	88-2440	10-24-88	1:17	.01	
21	Hackwill F	88-2441	10-24-88	3:41	.02	
22	Hackwill G	88-2442	10-24-88	6:00	.01	
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

page __ of __

FORM VIII PEST-2 10/86

HRC 001 0979

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: [illegible] Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: [illegible] (S/N 2750A14785) GC Column ID: [illegible] (BC 126307)

	DATE(S) OF ANALYSIS FROM: [illegible] TO: [illegible] TIME(S) OF ANALYSIS FROM: _____ TO: _____				DATE OF ANALYSIS [illegible] TIME OF ANALYSIS [illegible] LAB SAMPLE ID [illegible] (STANDARD)			
COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC								
Heptaclor								
Aldrin								
Hept. Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endo.Sulfate								
4,4'-DDT								
Methoxychlor								
Endrin Ketone								
a. Chlordane								
g. Chlordane								
Toxaphene								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248		[illegible]	[illegible]	57400		[illegible]	[illegible]	[illegible]
Aroclor-1254								
Aroclor-1260								

HRC 001 0980

Under QNT Y/N: enter Y if quantitation was performed, N if not performed. %D must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and %D. Identification of such analytes is based primarily on pattern recognition

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Hicksville #1

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 (BC 126 507) GC Column ID (2): _____

Instrument ID (1): HP-5890 (S/N 2750A14755) Instrument ID (2): _____

Lab Sample ID (1): 88-2422 Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1		12	27	Y	
02	Column 2					
03	Column 1					
04	Column 2					
05	Column 1					
06	Column 2					
07	Column 1					
08	Column 2					
09	Column 1					
10	Column 2					
11	Column 1					
12	Column 2					

Comments: _____

HRC 001 0981

page __ of __

FORM X PEST

10/86

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 (illegible) GC Column ID (2): _____

Instrument ID (1): HP-5890 (illegible) Instrument ID (2): _____

Lab Sample ID (1): (illegible) Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1		12	27	Y	
02	Column 2					
03	Column 1					
04	Column 2					
05	Column 1					
06	Column 2					
07	Column 1					
08	Column 2					
09	Column 1					
10	Column 2					
11	Column 1					
12	Column 2					

Comments: _____

HRC 001 0982

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 GC Column ID (2): _____

Instrument ID (1): HP-5890 Instrument ID (2): _____

Lab Sample ID (1): _____ Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1		12	27	Y	
02	Column 2					
03	Column 1					
04	Column 2					
05	Column 1					
06	Column 2					
07	Column 1					
08	Column 2					
09	Column 1					
10	Column 2					
11	Column 1					
12	Column 2					

Comments: _____

HRC 001 0983

page __ of __

FORM X PEST

10/86

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 [illegible] GC Column ID (2): _____

Instrument ID (1): HP-5890 [illegible] Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 0984

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 GC Column ID (2): _____

Instrument ID (1): HP-5890 Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1		12	27	Y	
02	Column 2					
03	Column 1					
04	Column 2					
05	Column 1					
06	Column 2					
07	Column 1					
08	Column 2					
09	Column 1					
10	Column 2					
11	Column 1					
12	Column 2					

Comments: _____

HRC 001 0985

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible] #6

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 [illegible] GC Column ID (2): _____

Instrument ID (1): HP-5890 [illegible] Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 0986

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible]

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 [illegible] GC Column ID (2): _____

Instrument ID (1): HP-5890 [illegible] Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 0987

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible]

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 [illegible] GC Column ID (2): _____

Instrument ID (1): HP-5890 [illegible] Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 0988

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 GC Column ID (2): _____

Instrument ID (1): HP-5890 Instrument ID (2): _____

Lab Sample ID (1): _____ Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1		12	27	Y	
02	Column 2					
03	Column 1					
04	Column 2					
05	Column 1					
06	Column 2					
07	Column 1					
08	Column 2					
09	Column 1					
10	Column 2					
11	Column 1					
12	Column 2					

Comments: _____

HRC 001 0989

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 (mm/mm) GC Column ID (2): _____

Instrument ID (1): HP-5890 (mm/mm) Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1		12	27	Y	
02	Column 2					
03	Column 1					
04	Column 2					
05	Column 1					
06	Column 2					
07	Column 1					
08	Column 2					
09	Column 1					
10	Column 2					
11	Column 1					
12	Column 2					

Comments: _____

HRC 001 0990

page __ of __

FORM X PEST

10/86

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 GC Column ID (2): _____

Instrument ID (1): HP-5890 Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1		12	27	Y	
02	Column 2					
03	Column 1					
04	Column 2					
05	Column 1					
06	Column 2					
07	Column 1					
08	Column 2					
09	Column 1					
10	Column 2					
11	Column 1					
12	Column 2					

Comments: _____

HRC 001 0991

page __ of __

FORM X PEST

10/86

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible]

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 [illegible] GC Column ID (2): _____

Instrument ID (1): HP-5890 [illegible] Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 0992

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 GC Column ID (2): _____

Instrument ID (1): HP-5890 Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 0993

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 GC Column ID (2): _____

Instrument ID (1): HP-5890 Instrument ID (2): _____

Lab Sample ID (1): _____ Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 0994

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible]

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 ([illegible]) GC Column ID (2): _____

Instrument ID (1): HP-5890 ([illegible]) Instrument ID (2): _____

Lab Sample ID (1): 98-[illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1	12	27	Y	
02	Column 2				
03	Column 1				
04	Column 2				
05	Column 1				
06	Column 2				
07	Column 1				
08	Column 2				
09	Column 1				
10	Column 2				
11	Column 1				
12	Column 2				

Comments: _____

HRC 001 0995

page __ of __

FORM X PEST

10/86

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible]-B

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 ([illegible]) GC Column ID (2): _____

Instrument ID (1): HP-5890 ([illegible]) Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1	12	27	Y	
02	Column 2				
03	Column 1				
04	Column 2				
05	Column 1				
06	Column 2				
07	Column 1				
08	Column 2				
09	Column 1				
10	Column 2				
11	Column 1				
12	Column 2				

Comments: _____

HRC 001 0996

page __ of __

FORM X PEST

10/86

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 GC Column ID (2): _____

Instrument ID (1): HP-5890 Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1		12	27	Y	
02	Column 2					
03	Column 1					
04	Column 2					
05	Column 1					
06	Column 2					
07	Column 1					
08	Column 2					
09	Column 1					
10	Column 2					
11	Column 1					
12	Column 2					

Comments: _____

HRC 001 0997

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible]

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 [illegible] GC Column ID (2): _____

Instrument ID (1): HP-5890 [illegible] Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 0998

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible]

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 [illegible] GC Column ID (2): _____

Instrument ID (1): HP-5890 [illegible] Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 0999

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible]

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 [illegible] GC Column ID (2): _____

Instrument ID (1): HP-5890 [illegible] Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1 _____	12	27	Y	_
02	Column 2 _____	_____	_____	_	_
03 _____	Column 1 _____	_____	_____	_	_
04	Column 2 _____	_____	_____	_	_
05 _____	Column 1 _____	_____	_____	_	_
06	Column 2 _____	_____	_____	_	_
07 _____	Column 1 _____	_____	_____	_	_
08	Column 2 _____	_____	_____	_	_
09 _____	Column 1 _____	_____	_____	_	_
10	Column 2 _____	_____	_____	_	_
11 _____	Column 1 _____	_____	_____	_	_
12	Column 2 _____	_____	_____	_	_

Comments: _____

HRC 001 1000

10

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

[illegible]

Lab Name: Occidental Chemical Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

GC Column ID (1): DB-5 ([illegible]) GC Column ID (2): _____

Instrument ID (1): HP-5890 ([illegible]) Instrument ID (2): _____

Lab Sample ID (1): [illegible] Lab Sample ID (2): _____

Lab File ID: _____ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME		RT WINDOW OF STANDARD FROM	TO	QUANT? (Y/N)	GC/MS? (Y/N)
01 Aroclor 1248	Column 1		12	27	Y	
02	Column 2					
03	Column 1					
04	Column 2					
05	Column 1					
06	Column 2					
07	Column 1					
08	Column 2					
09	Column 1					
10	Column 2					
11	Column 1					
12	Column 2					

Comments: _____

HRC 001 1001

page __ of __

FORM X PEST

10/86

LEGGETTE, BRASHEARS & GRAHAM, INC.

CONSULTING HYDROGEOLOGISTS 72 DANBURY RD. WILTON CT. 06897 (203) 762-1207

PROJ. NO.

CLIENT/LOCATION: Occidental Chemical/Hicksville NY

SAMPLERS: (Signature) Daniel St Germain

STA. NO.	DATE	TIME	PUMP	BAIL	REMARKS/ COLOR, ODOR, ETC.	NO. OF CONTAINERS	TYPE OF SAMPLE (SOIL, GW, SW, ETC.)	PRODUCT PRESENT	TEMP.	pH	CONDUCTIVITY	PARAMETERS TO BE ANALYSED FOR
A	9/27	9:30 hrs				1						PCB
B	9/27	9:30 hrs				1						
C	9/27	9:30 hrs				1						
D	9/27	9:30 hrs				1						
E	9/27	9:30 hrs				1						
F	9/27	9:30 hrs				1						
G	9/27	9:30 hrs				1						

WEATHER CONDITIONS: Sunny 70°F

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Daniel St Germain	9/22/88 13:00 hrs	W. J. Fenton, Jr.		10/5/88 11:00 AM.	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: ALL SAMPLES Rec'd. @ R.T. - PARTIAL Filled JARS.	

HRC 001 1002

CHAIN OF CUSTODY

LEGGETTE, BRASHEARS & GRAHAM, INC.

CONSULTING HYDROGEOLOGISTS 72 DANBURY RD. WILTON CT. 06897 (203) 762-1207

PROJ. NO.

CLIENT/LOCATION N.Y.
Qydental Chemical/Hicksville

SAMPLERS: (Signature)
Daniel St. Germain

STA. NO.	DATE	TIME	PUMP	BAIL	REMARKS/ COLOR, ODOR, ETC.	NO. OF CONTAINERS	TYPE OF SAMPLE (SOIL, GW, SW, ETC.)	PRODUCT PRESENT	TEMP.	pH	CONDUCTIVITY	PARAMETERS TO BE ANALYSED FOR
#1	9/27	9:15 hrs				1						PCB
#2	9/27	9:15 hrs				1						
#3	9/27	9:15 hrs				1						
#4	9/27	9:15 hrs				1						
#5	9/27	9:15 hrs				1						
#6	9/27	9:15 hrs				1						
#7	9/27	9:15 hrs				1						
#8	9/27	9:15 hrs				1						
#9	9/27	9:15 hrs				1						
#10	9/27	9:15 hrs				1						
#11	9/27	9:15 hrs			#11 was Broke (Salvaged)	1						
#12	9/27	9:15 hrs				1						
#13	9/27	9:15 hrs				1						WEATHER CONDITIONS
#14	9/27	9:15 hrs				1						Sunny 70°F

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Daniel St. Germain	9-27-88 13:00 hrs	William J. Fenlon, Jr.		10/5/88 11:00 A.M	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks #11 - SAMPLE CONTAINER was Broken - SALVAGED & PLACED in new container All samples were @ R.T JARS were PARTIALLY Filled	

CHAIN OF CUSTODY

HRC 001 1003