US EPA RECORDS CENTER REGION 5
469470

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN551

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5641D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 22. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	15.	
67-64-1	Acetone	480.	E
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	13.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	5.	J
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	7.	
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	17.	
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	69.	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN551

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5641D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 22. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN552

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5649D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 18. Date Analyzed: 4/24/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	21.	
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	32.	
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	12.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	8.	
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN552

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5649D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 18. Date Analyzed: 4/24/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER720

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5643D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 19. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	13.	
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	20.	
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	12.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	13.	
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER720

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5643D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 19. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER992

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5637D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 14. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	22.	
67-64-1	Acetone	11.	U
75-15-0	Carbon Disulfide	38.	
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	3.	J
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	11.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	11.	U
591-78-6	2-Hexanone	11.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	5.	J
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER992

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5637D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 14. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER993

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5638D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 16. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	20.	
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	49.	
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	12.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	7.	
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	5.	J
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER993

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5638D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 16. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER994

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5639D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 24. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	17.	
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	7.	U
75-35-4	1,1-Dichloroethene	7.	U
75-34-3	1,1-Dichloroethane	7.	U
540-59-0	1,2-Dichloroethene (total)	7.	U
67-66-3	Chloroform	7.	U
107-06-2	1,2-Dichloroethane	7.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	7.	U
56-23-5	Carbon Tetrachloride	7.	U
108-05-4	Vinyl Acetate	13.	U
75-27-4	Bromodichloromethane	7.	U
78-87-5	1,2-Dichloropropane	7.	U
10061-01-5	cis-1,3-Dichloropropene	7.	U
79-01-6	Trichloroethene	7.	U
124-48-1	Dibromochloromethane	7.	U
79-00-5	1,1,2-Trichloroethane	7.	U
71-43-2	Benzene	7.	U
10061-02-6	trans-1,3-Dichloropropene	7.	U
75-25-2	Bromoform	7.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	7.	U
79-34-5	1,1,2,2-Tetrachloroethane	7.	U
108-88-3	Toluene	7.	U
108-90-7	Chlorobenzene	7.	U
100-41-4	Ethylbenzene	7.	U
100-42-5	Styrene	7.	U
1330-20-7	Xylene (total)	7.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER994

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5639D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 24. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER994

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5619D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 24. Date Analyzed: 4/22/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	11.	
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	7.	U
75-35-4	1,1-Dichloroethene	7.	U
75-34-3	1,1-Dichloroethane	7.	U
540-59-0	1,2-Dichloroethene (total)	7.	U
67-66-3	Chloroform	7.	U
107-06-2	1,2-Dichloroethane	7.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	7.	U
56-23-5	Carbon Tetrachloride	7.	U
108-05-4	Vinyl Acetate	13.	U
75-27-4	Bromodichloromethane	7.	U
78-87-5	1,2-Dichloropropane	7.	U
10061-01-5	cis-1,3-Dichloropropene	7.	U
79-01-6	Trichloroethene	7.	U
124-48-1	Dibromochloromethane	7.	U
79-00-5	1,1,2-Trichloroethane	7.	U
71-43-2	Benzene	7.	U
10061-02-6	trans-1,3-Dichloropropene	7.	U
75-25-2	Bromoform	7.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	7.	U
79-34-5	1,1,2,2-Tetrachloroethane	7.	U
108-88-3	Toluene	7.	U
108-90-7	Chlorobenzene	7.	U
100-41-4	Ethylbenzene	7.	U
100-42-5	Styrene	7.	U
1330-20-7	Xylene (total)	7.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER994

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5619D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 24. Date Analyzed: 4/22/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-69-4	Trichlorofluoromethane	9.27	20.	J
2.	- -	UNKNOWN Siloxane	30.65	20.	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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30.					

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER995

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5640D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 20. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	23.	
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	15.	
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	12.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	30.	
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER995

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5640D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 20. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-69-4	Trichlorofluoromethane	9.27	10.	J
2.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER995

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5620D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 20. Date Analyzed: 4/22/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	13.	
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	12.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	7.	
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	5.	J

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER995

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5620D

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 20. Date Analyzed: 4/22/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-69-4	Trichlorofluoromethane	9.38	9.	J
2.					
3.					
4.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN551

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9936B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 22. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420.	U
111-44-4	bis(2-chloroethyl)ether	420.	U
95-57-8	2-Chlorophenol	420.	U
541-73-1	1,3-Dichlorobenzene	420.	U
106-46-7	1,4-Dichlorobenzene	76.	J
100-51-6	Benzyl alcohol	420.	U
95-50-1	1,2-Dichlorobenzene	420.	U
95-48-7	2-Methylphenol	420.	U
108-60-1	bis(2-chloroisopropyl)ether	420.	U
106-44-5	4-Methylphenol	100.	J
621-64-7	N-Nitroso-di-n-propylamine	420.	U
67-72-1	Hexachloroethane	420.	U
98-95-3	Nitrobenzene	420.	U
78-59-1	Isophorone	420.	U
88-75-5	2-Nitrophenol	420.	U
105-67-9	2,4-Dimethylphenol	420.	U
65-85-0	Benzoic acid	2100.	U
111-91-1	bis(2-Chloroethoxy)methane	420.	U
120-83-2	2,4-Dichlorophenol	420.	U
120-82-1	1,2,4-Trichlorobenzene	420.	U
91-20-3	Naphthalene	420.	U
106-47-8	4-Chloroaniline	420.	U
87-68-3	Hexachlorobutadiene	420.	U
59-50-7	4-Chloro-3-methylphenol	420.	U
91-57-6	2-Methylnaphthalene	420.	U
77-47-4	Hexachlorocyclopentadiene	420.	U
88-06-2	2,4,6-Trichlorophenol	420.	U
95-95-4	2,4,5-Trichlorophenol	2100.	U
91-58-7	2-Chloronaphthalene	420.	U
88-74-4	2-Nitroaniline	2100.	U
131-11-3	Dimethylphthalate	420.	U
208-96-8	Acenaphthylene	420.	U
606-20-2	2,6-Dinitrotoluene	420.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN551

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9936B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 22. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2100.	U
83-32-9	Acenaphthene	420.	U
51-28-5	2,4-Dinitrophenol	2100.	U
100-02-7	4-Nitrophenol	2100.	U
132-64-9	Dibenzofuran	420.	U
121-14-2	2,4-Dinitrotoluene	420.	U
84-66-2	Diethylphthalate	420.	U
7005-72-3	4-Chlorophenyl-phenylether	420.	U
86-73-7	Fluorene	420.	U
100-01-6	4-Nitroaniline	2100.	U
534-52-1	4,6-Dinitro-2-methylphenol	2100.	U
86-30-6	N-Nitrosodiphenylamine (1)	420.	U
101-55-3	4-Bromophenyl-phenylether	420.	U
118-74-1	Hexachlorobenzene	420.	U
87-86-5	Pentachlorophenol	2100.	U
85-01-8	Phenanthrene	420.	U
120-12-7	Anthracene	420.	U
84-74-2	Di-n-butylphthalate	420.	U
206-44-0	Fluoranthene	55.	J
129-00-0	Pyrene	420.	U
85-68-7	Butylbenzylphthalate	420.	U
91-94-1	3,3'-Dichlorobenzidine	840.	U
56-55-3	Benzo(a)anthracene	420.	U
218-01-9	Chrysene	420.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1400.	B
117-84-0	Di-n-octylphthalate	420.	U
205-99-2	Benzo(b)fluoranthene	420.	U
207-08-9	Benzo(k)fluoranthene	420.	U
50-32-8	Benzo(a)pyrene	420.	U
193-39-5	Indeno(1,2,3-cd)pyrene	420.	U
53-70-3	Dibenz(a,h)anthracene	420.	U
191-24-2	Benzo(g,h,i)perylene	420.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN551

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9936B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 22. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	14676-29-0	Heptane, 3-ethyl-2-methyl- (	7.52	300.	J
2.	50876-31-8	Cyclohexane, 1,1,3,5-tetrame	7.72	400.	J
3.	- -	UNKNOWN	8.38	400.	J
4.	- -	UNKNOWN	9.63	300.	J
5.	2847-72-5	Decane, 4-methyl- (8CI9CI)	9.84	500.	J
6.	104-76-7	1-Hexanol, 2-ethyl- (8CI9CI)	10.02	700.	J
7.	- -	UNKNOWN	10.85	400.	J
8.	1120-21-4	Undecane (8CI9CI)	11.67	700.	J
9.	112-40-3	Dodecane (8CI9CI)	13.74	300.	J
10.	6044-71-9	Dodecane, 6-methyl- (8CI9CI)	14.02	600.	J
11.	- -	UNKNOWN HYDROCARBON	15.13	300.	J
12.	629-50-5	Tridecane (8CI9CI)	15.62	400.	J
13.	629-59-4	Tetradecane (8CI9CI)	17.37	400.	J
14.	629-62-9	Pentadecane (8CI9CI)	18.98	500.	J
15.	55045-08-4	Dodecane, 2-methyl-6-propyl-	20.52	400.	J
16.	- -	UNKNOWN HYDROCARBON	21.24	500.	J
17.	629-78-7	Heptadecane (8CI9CI)	21.97	500.	J
18.	1921-70-6	Pentadecane, 2,6,10,14-tetra	22.05	1000.	J
19.	- -	UNKNOWN HYDROCARBON	23.47	500.	J
20.	143-28-2	9-Octadecen-1-ol, (Z)- (8CI9	26.65	8000.	BJ
21.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN552

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9986B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 18. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/12/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	130.	BJ
111-44-4	bis(2-chloroethyl)ether	410.	U
95-57-8	2-Chlorophenol	410.	U
541-73-1	1,3-Dichlorobenzene	410.	U
106-46-7	1,4-Dichlorobenzene	410.	U
100-51-6	Benzyl alcohol	410.	U
95-50-1	1,2-Dichlorobenzene	410.	U
95-48-7	2-Methylphenol	410.	U
108-60-1	bis(2-chloroisopropyl)ether	410.	U
106-44-5	4-Methylphenol	410.	U
621-64-7	N-Nitroso-di-n-propylamine	410.	U
67-72-1	Hexachloroethane	410.	U
98-95-3	Nitrobenzene	410.	U
78-59-1	Isophorone	410.	U
88-75-5	2-Nitrophenol	410.	U
105-67-9	2,4-Dimethylphenol	410.	U
65-85-0	Benzoic acid	2000.	U
111-91-1	bis(2-Chloroethoxy)methane	410.	U
120-83-2	2,4-Dichlorophenol	410.	U
120-82-1	1,2,4-Trichlorobenzene	410.	U
91-20-3	Naphthalene	410.	U
106-47-8	4-Chloroaniline	410.	U
87-68-3	Hexachlorobutadiene	410.	U
59-50-7	4-Chloro-3-methylphenol	410.	U
91-57-6	2-Methylnaphthalene	410.	U
77-47-4	Hexachlorocyclopentadiene	410.	U
88-06-2	2,4,6-Trichlorophenol	410.	U
95-95-4	2,4,5-Trichlorophenol	2000.	U
91-58-7	2-Chloronaphthalene	410.	U
88-74-4	2-Nitroaniline	2000.	U
131-11-3	Dimethylphthalate	410.	U
208-96-8	Acenaphthylene	60.	J
606-20-2	2,6-Dinitrotoluene	410.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN552

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9986B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 18. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/12/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000.	U
83-32-9	Acenaphthene	410.	U
51-28-5	2,4-Dinitrophenol	2000.	U
100-02-7	4-Nitrophenol	2000.	U
132-64-9	Dibenzofuran	410.	U
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylether	410.	U
86-73-7	Fluorene	410.	U
100-01-6	4-Nitroaniline	2000.	U
534-52-1	4,6-Dinitro-2-methylphenol	2000.	U
86-30-6	N-Nitrosodiphenylamine (1)	410.	U
101-55-3	4-Bromophenyl-phenylether	410.	U
118-74-1	Hexachlorobenzene	410.	U
87-86-5	Pentachlorophenol	2000.	U
85-01-8	Phenanthrene	870.	
120-12-7	Anthracene	180.	J
84-74-2	Di-n-butylphthalate	49.	J
206-44-0	Fluoranthene	1100.	
129-00-0	Pyrene	2200.	
85-68-7	Butylbenzylphthalate	410.	U
91-94-1	3,3'-Dichlorobenzidine	810.	U
56-55-3	Benzo(a)anthracene	640.	
218-01-9	Chrysene	820.	
117-81-7	bis(2-Ethylhexyl)phthalate	2500.	B
117-84-0	Di-n-octylphthalate	410.	U
205-99-2	Benzo(b)fluoranthene	790.	
207-08-9	Benzo(k)fluoranthene	610.	
50-32-8	Benzo(a)pyrene	800.	
193-39-5	Indeno(1,2,3-cd)pyrene	1400.	
53-70-3	Dibenz(a,h)anthracene	410.	U
191-24-2	Benzo(g,h,i)perylene	1600.	

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EN552

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9986B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 18. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/12/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

Number TICs found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN	2.69	300.	J
2. - -	UNKNOWN	4.07	700.	J
3. - -	UNKNOWN	8.30	600.	J
4. 629-78-7	Heptadecane (8CI9CI)	21.91	300.	J
5. - -	UNKNOWN HYDROCARBON	22.00	700.	J
6. - -	UNKNOWN HYDROCARBON	23.42	400.	J
7. - -	UNKNOWN	24.09	500.	J
8. 610-48-0	Anthracene, 1-methyl- (8CI9C	24.39	800.	J
9. - -	UNKNOWN HYDROCARBON	24.60	400.	J
10. - -	UNKNOWN	25.40	1000.	J
11. 143-28-2	9-Octadecen-1-ol, (Z)- (8CI9	26.58	10000.	BJ
12. 112-88-9	1-Octadecene (8CI9CI)	26.88	500.	J
13. 243-17-4	11H-Benzo[b]fluorene (8CI9CI	28.21	300.	J
14. - -	UNKNOWN PHTHALATE	29.74	600.	J
15. 115-86-6	Phosphoric acid, triphenyl e	30.31	700.	J
16. - -	UNKNOWN	35.14	2000.	J
17. - -	UNKNOWN	38.57	1000.	J
18.				
19.				
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER720

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9987B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 19. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/12/88

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410.	U
111-44-4	bis(2-chloroethyl)ether	410.	U
95-57-8	2-Chlorophenol	410.	U
541-73-1	1,3-Dichlorobenzene	410.	U
106-46-7	1,4-Dichlorobenzene	410.	U
100-51-6	Benzyl alcohol	410.	U
95-50-1	1,2-Dichlorobenzene	410.	U
95-48-7	2-Methylphenol	410.	U
108-60-1	bis(2-chloroisopropyl)ether	410.	U
106-44-5	4-Methylphenol	410.	U
621-64-7	N-Nitroso-di-n-propylamine	410.	U
67-72-1	Hexachloroethane	410.	U
98-95-3	Nitrobenzene	410.	U
78-59-1	Isophorone	410.	U
88-75-5	2-Nitrophenol	410.	U
105-67-9	2,4-Dimethylphenol	410.	U
65-85-0	Benzoic acid	2000.	U
111-91-1	bis(2-Chloroethoxy)methane	410.	U
120-83-2	2,4-Dichlorophenol	410.	U
120-82-1	1,2,4-Trichlorobenzene	410.	U
91-20-3	Naphthalene	410.	U
106-47-8	4-Chloroaniline	410.	U
87-68-3	Hexachlorobutadiene	410.	U
59-50-7	4-Chloro-3-methylphenol	410.	U
91-57-6	2-Methylnaphthalene	410.	U
77-47-4	Hexachlorocyclopentadiene	410.	U
88-06-2	2,4,6-Trichlorophenol	410.	U
95-95-4	2,4,5-Trichlorophenol	2000.	U
91-58-7	2-Chloronaphthalene	410.	U
88-74-4	2-Nitroaniline	2000.	U
131-11-3	Dimethylphthalate	410.	U
208-96-8	Acenaphthylene	410.	U
606-20-2	2,6-Dinitrotoluene	410.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER720

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9987B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 19. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/12/88

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000.	U
83-32-9	Acenaphthene	410.	U
51-28-5	2,4-Dinitrophenol	2000.	U
100-02-7	4-Nitrophenol	2000.	U
132-64-9	Dibenzofuran	410.	U
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylether	410.	U
86-73-7	Fluorene	410.	U
100-01-6	4-Nitroaniline	2000.	U
534-52-1	4,6-Dinitro-2-methylphenol	2000.	U
86-30-6	N-Nitrosodiphenylamine (1)	410.	U
101-55-3	4-Bromophenyl-phenylether	410.	U
118-74-1	Hexachlorobenzene	410.	U
87-86-5	Pentachlorophenol	2000.	U
85-01-8	Phenanthrene	840.	
120-12-7	Anthracene	120.	J
84-74-2	Di-n-butylphthalate	410.	U
206-44-0	Fluoranthene	920.	
129-00-0	Pyrene	1100.	
85-68-7	Butylbenzylphthalate	410.	U
91-94-1	3,3'-Dichlorobenzidine	820.	U
56-55-3	Benzo(a)anthracene	280.	J
218-01-9	Chrysene	350.	J
117-81-7	bis(2-Ethylhexyl)phthalate	1800.	B
117-84-0	Di-n-octylphthalate	410.	U
205-99-2	Benzo(b)fluoranthene	190.	J
207-08-9	Benzo(k)fluoranthene	410.	U
50-32-8	Benzo(a)pyrene	310.	J
193-39-5	Indeno(1,2,3-cd)pyrene	480.	
53-70-3	Dibenz(a,h)anthracene	410.	U
191-24-2	Benzo(g,h,i)perylene	550.	

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER720

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9987B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 19. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/12/88

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

Number TICs found: 18

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	2.73	300.	J
2.	- -	UNKNOWN	4.13	6000.	J
3.	- -	UNKNOWN	6.57	200.	J
4.	- -	UNKNOWN	8.31	500.	J
5.	- -	UNKNOWN HYDROCARBON	22.00	300.	J
6.	629-74-3	1-Hexadecyne (8CI9CI)	24.07	500.	J
7.	629-73-2	1-Hexadecene (8CI9CI)	24.33	800.	J
8.	57-10-3	Hexadecanoic acid (9CI)	25.40	600.	J
9.	10544-50-0	Sulfur, mol. (S8) (8CI9CI)	26.03	700.	J
10.	143-28-2	9-Octadecen-1-ol, (Z)- (8CI9	26.59	20000.	BJ
11.	29354-98-1	Hexadecanol (VAN8CI9CI)	26.87	700.	J
12.	- -	UNKNOWN PNA	27.17	200.	J
13.	- -	UNKNOWN	27.25	300.	J
14.	243-42-5	Benzo[b]naphtho[2,3-d]furan	27.56	300.	J
15.	- -	UNKNOWN	28.90	400.	J
16.	123-79-5	Hexanedioic acid, dioctyl es	30.35	200.	BJ
17.	74685-29-3	9-Eicosene, (E)- (9CI)	35.12	600.	J
18.	- -	UNKNOWN	38.57	800.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER992

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9932B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 14. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	150.	BJ
111-44-4	bis(2-chloroethyl)ether	390.	U
95-57-8	2-Chlorophenol	390.	U
541-73-1	1,3-Dichlorobenzene	390.	U
106-46-7	1,4-Dichlorobenzene	390.	U
100-51-6	Benzyl alcohol	390.	U
95-50-1	1,2-Dichlorobenzene	390.	U
95-48-7	2-Methylphenol	390.	U
108-60-1	bis(2-chloroisopropyl)ether	390.	U
106-44-5	4-Methylphenol	390.	U
621-64-7	N-Nitroso-di-n-propylamine	390.	U
67-72-1	Hexachloroethane	390.	U
98-95-3	Nitrobenzene	390.	U
78-59-1	Isophorone	390.	U
88-75-5	2-Nitrophenol	390.	U
105-67-9	2,4-Dimethylphenol	390.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	390.	U
120-83-2	2,4-Dichlorophenol	390.	U
120-82-1	1,2,4-Trichlorobenzene	390.	U
91-20-3	Naphthalene	37.	J
106-47-8	4-Chloroaniline	390.	U
87-68-3	Hexachlorobutadiene	390.	U
59-50-7	4-Chloro-3-methylphenol	390.	U
91-57-6	2-Methylnaphthalene	48.	J
77-47-4	Hexachlorocyclopentadiene	390.	U
88-06-2	2,4,6-Trichlorophenol	390.	U
95-95-4	2,4,5-Trichlorophenol	1900.	U
91-58-7	2-Chloronaphthalene	390.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	390.	U
208-96-8	Acenaphthylene	66.	J
606-20-2	2,6-Dinitrotoluene	390.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER992

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9932B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 14. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	75.	J
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	73.	J
121-14-2	2,4-Dinitrotoluene	390.	U
84-66-2	Diethylphthalate	390.	U
7005-72-3	4-Chlorophenyl-phenylether	390.	U
86-73-7	Fluorene	130.	J
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine (1)	390.	U
101-55-3	4-Bromophenyl-phenylether	390.	U
118-74-1	Hexachlorobenzene	390.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	1300.	
120-12-7	Anthracene	240.	J
84-74-2	Di-n-butylphthalate	110.	J
206-44-0	Fluoranthene	2200.	
129-00-0	Pyrene	2500.	
85-68-7	Butylbenzylphthalate	390.	U
91-94-1	3,3'-Dichlorobenzidine	780.	U
56-55-3	Benzo(a)anthracene	1000.	
218-01-9	Chrysene	1100.	
117-81-7	bis(2-Ethylhexyl)phthalate	1400.	B
117-84-0	Di-n-octylphthalate	390.	U
205-99-2	Benzo(b)fluoranthene	1500.	
207-08-9	Benzo(k)fluoranthene	390.	U
50-32-8	Benzo(a)pyrene	910.	
193-39-5	Indeno(1,2,3-cd)pyrene	990.	
53-70-3	Dibenz(a,h)anthracene	390.	U
191-24-2	Benzo(g,h,i)perylene	860.	

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER992

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9932B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 14. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 1.00

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	8.36	400.	J
2.	17301-23-4	Undecane, 2,6-dimethyl- (8CI	14.02	400.	J
3.	- -	UNKNOWN HYDROCARBON	15.14	200.	J
4.	629-50-5	Tridecane (8CI9CI)	15.63	300.	J
5.	629-59-4	Tetradecane (8CI9CI)	17.36	300.	J
6.	629-62-9	Pentadecane (8CI9CI)	18.99	400.	J
7.	544-76-3	Hexadecane (8CI9CI)	20.52	300.	J
8.	- -	UNKNOWN HYDROCARBON	21.24	300.	J
9.	629-78-7	Heptadecane (8CI9CI)	21.98	400.	J
10.	1921-70-6	Pentadecane, 2,6,10,14-tetra	22.06	600.	J
11.	- -	UNKNOWN HYDROCARBON	23.48	300.	J
12.	629-92-5	Nonadecane (8CI9CI)	24.66	300.	J
13.	84-65-1	9,10-Anthracenedione (9CI)	25.42	200.	J
14.	10544-50-0	Sulfur, mol. (S8) (8CI9CI)	26.12	500.	J
15.	143-28-2	9-Octadecen-1-ol, (Z)- (8CI9	26.63	1000.	BJ
16.	243-42-5	Benzo[b]naphtho[2,3-d]furan	27.24	400.	J
17.	243-17-4	11H-Benzo[b]fluorene (8CI9CI	28.27	600.	J
18.	849-99-0	Hexanedioic acid, dicyclohex	30.41	800.	J
19.	- -	UNKNOWN	35.16	1000.	J
20.	- -	UNKNOWN HYDROCARBON	18.40	400.	J
21.					
22.					
23.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER993

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9933B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 16. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	240.	BJ
111-44-4	bis(2-chloroethyl)ether	400.	U
95-57-8	2-Chlorophenol	400.	U
541-73-1	1,3-Dichlorobenzene	400.	U
106-46-7	1,4-Dichlorobenzene	400.	U
100-51-6	Benzyl alcohol	400.	U
95-50-1	1,2-Dichlorobenzene	400.	U
95-48-7	2-Methylphenol	400.	U
108-60-1	bis(2-chloroisopropyl)ether	400.	U
106-44-5	4-Methylphenol	400.	U
621-64-7	N-Nitroso-di-n-propylamine	400.	U
67-72-1	Hexachloroethane	400.	U
98-95-3	Nitrobenzene	400.	U
78-59-1	Isophorone	400.	U
88-75-5	2-Nitrophenol	400.	U
105-67-9	2,4-Dimethylphenol	400.	U
65-85-0	Benzoic acid	2000.	U
111-91-1	bis(2-Chloroethoxy)methane	400.	U
120-83-2	2,4-Dichlorophenol	400.	U
120-82-1	1,2,4-Trichlorobenzene	400.	U
91-20-3	Naphthalene	400.	U
106-47-8	4-Chloroaniline	400.	U
87-68-3	Hexachlorobutadiene	400.	U
59-50-7	4-Chloro-3-methylphenol	400.	U
91-57-6	2-Methylnaphthalene	400.	U
77-47-4	Hexachlorocyclopentadiene	400.	U
88-06-2	2,4,6-Trichlorophenol	400.	U
95-95-4	2,4,5-Trichlorophenol	2000.	U
91-58-7	2-Chloronaphthalene	400.	U
88-74-4	2-Nitroaniline	2000.	U
131-11-3	Dimethylphthalate	400.	U
208-96-8	Acenaphthylene	75.	J
606-20-2	2,6-Dinitrotoluene	400.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER993

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9933B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 16. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000.	U
83-32-9	Acenaphthene	140.	J
51-28-5	2,4-Dinitrophenol	2000.	U
100-02-7	4-Nitrophenol	2000.	U
132-64-9	Dibenzofuran	96.	J
121-14-2	2,4-Dinitrotoluene	400.	U
84-66-2	Diethylphthalate	400.	U
7005-72-3	4-Chlorophenyl-phenylether	400.	U
86-73-7	Fluorene	270.	J
100-01-6	4-Nitroaniline	2000.	U
534-52-1	4,6-Dinitro-2-methylphenol	2000.	U
86-30-6	N-Nitrosodiphenylamine (1)	400.	U
101-55-3	4-Bromophenyl-phenylether	400.	U
118-74-1	Hexachlorobenzene	400.	U
87-86-5	Pentachlorophenol	2000.	U
85-01-8	Phenanthrene	2300.	
120-12-7	Anthracene	500.	
84-74-2	Di-n-butylphthalate	400.	U
206-44-0	Fluoranthene	5100.	
129-00-0	Pyrene	6000.	
85-68-7	Butylbenzylphthalate	400.	U
91-94-1	3,3'-Dichlorobenzidine	790.	U
56-55-3	Benzo(a)anthracene	2100.	
218-01-9	Chrysene	2000.	
117-81-7	bis(2-Ethylhexyl)phthalate	1500.	B
117-84-0	Di-n-octylphthalate	400.	U
205-99-2	Benzo(b)fluoranthene	1600.	
207-08-9	Benzo(k)fluoranthene	400.	U
50-32-8	Benzo(a)pyrene	1700.	
193-39-5	Indeno(1,2,3-cd)pyrene	1600.	
53-70-3	Dibenz(a,h)anthracene	400.	U
191-24-2	Benzo(g,h,i)perylene	1400.	

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER993

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9933B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 16. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	17301-22-3	Undecane, 2,5-dimethyl- (8CI	14.01	500.	J
2.	62238-12-4	Decane, 2,3,6-trimethyl- (9C	15.62	400.	J
3.	629-59-4	Tetradecane (8CI9CI)	17.35	400.	J
4.	629-62-9	Pentadecane (8CI9CI)	18.98	500.	J
5.	- -	UNKNOWN HYDROCARBON	20.51	400.	J
6.	629-78-7	Heptadecane (8CI9CI)	21.96	400.	J
7.	1921-70-6	Pentadecane, 2,6,10,14-tetra	22.04	600.	J
8.	- -	UNKNOWN HYDROCARBON	23.46	300.	J
9.	613-12-7	Anthracene, 2-methyl- (8CI9C	24.45	300.	J
10.	832-69-9	Phenanthrene, 1-methyl- (8CI	24.52	300.	J
11.	- -	UNKNOWN HYDROCARBON	24.65	400.	J
12.	203-64-5	4H-Cyclopenta[def]phenanthre	24.72	400.	J
13.	112-95-8	Eicosane (8CI9CI)	25.91	300.	J
14.	143-28-2	9-Octadecen-1-ol, (Z)- (8CI9	26.60	2000.	BJ
15.	243-42-5	Benzo[b]naphtho[2,3-d]furan	27.23	500.	J
16.	243-42-5	Benzo[b]naphtho[2,3-d]furan	27.61	500.	J
17.	243-17-4	11H-Benzo[b]fluorene (8CI9CI	28.25	900.	J
18.	123-79-5	Hexanedioic acid, dioctyl es	30.40	700.	BJ
19.	629-99-2	Pentacosane (8CI9CI)	31.44	400.	J
20.	- -	UNKNOWN	8.37	500.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER994

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9934B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 24. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	110.	BJ
111-44-4	bis(2-chloroethyl)ether	440.	U
95-57-8	2-Chlorophenol	440.	U
541-73-1	1,3-Dichlorobenzene	440.	U
106-46-7	1,4-Dichlorobenzene	440.	U
100-51-6	Benzyl alcohol	440.	U
95-50-1	1,2-Dichlorobenzene	440.	U
95-48-7	2-Methylphenol	440.	U
108-60-1	bis(2-chloroisopropyl)ether	440.	U
106-44-5	4-Methylphenol	440.	U
621-64-7	N-Nitroso-di-n-propylamine	440.	U
67-72-1	Hexachloroethane	440.	U
98-95-3	Nitrobenzene	440.	U
78-59-1	Isophorone	440.	U
88-75-5	2-Nitrophenol	440.	U
105-67-9	2,4-Dimethylphenol	440.	U
65-85-0	Benzoic acid	2200.	U
111-91-1	bis(2-Chloroethoxy)methane	440.	U
120-83-2	2,4-Dichlorophenol	440.	U
120-82-1	1,2,4-Trichlorobenzene	440.	U
91-20-3	Naphthalene	440.	U
106-47-8	4-Chloroaniline	440.	U
87-68-3	Hexachlorobutadiene	440.	U
59-50-7	4-Chloro-3-methylphenol	440.	U
91-57-6	2-Methylnaphthalene	440.	U
77-47-4	Hexachlorocyclopentadiene	440.	U
88-06-2	2,4,6-Trichlorophenol	440.	U
95-95-4	2,4,5-Trichlorophenol	2200.	U
91-58-7	2-Chloronaphthalene	440.	U
88-74-4	2-Nitroaniline	2200.	U
131-11-3	Dimethylphthalate	440.	U
208-96-8	Acenaphthylene	440.	U
606-20-2	2,6-Dinitrotoluene	440.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER994

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9934B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 24. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2200.	U
83-32-9	Acenaphthene	440.	U
51-28-5	2,4-Dinitrophenol	2200.	U
100-02-7	4-Nitrophenol	2200.	U
132-64-9	Dibenzofuran	440.	U
121-14-2	2,4-Dinitrotoluene	440.	U
84-66-2	Diethylphthalate	440.	U
7005-72-3	4-Chlorophenyl-phenylether	440.	U
86-73-7	Fluorene	440.	U
100-01-6	4-Nitroaniline	2200.	U
534-52-1	4,6-Dinitro-2-methylphenol	2200.	U
86-30-6	N-Nitrosodiphenylamine (1)	440.	U
101-55-3	4-Bromophenyl-phenylether	440.	U
118-74-1	Hexachlorobenzene	440.	U
87-86-5	Pentachlorophenol	2200.	U
85-01-8	Phenanthrene	87.	J
120-12-7	Anthracene	440.	U
84-74-2	Di-n-butylphthalate	440.	U
206-44-0	Fluoranthene	120.	J
129-00-0	Pyrene	150.	J
85-68-7	Butylbenzylphthalate	440.	U
91-94-1	3,3'-Dichlorobenzidine	870.	U
56-55-3	Benzo(a)anthracene	440.	U
218-01-9	Chrysene	440.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2100.	B
117-84-0	Di-n-octylphthalate	440.	U
205-99-2	Benzo(b)fluoranthene	440.	U
207-08-9	Benzo(k)fluoranthene	440.	U
50-32-8	Benzo(a)pyrene	440.	U
193-39-5	Indeno(1,2,3-cd)pyrene	440.	U
53-70-3	Dibenz(a,h)anthracene	440.	U
191-24-2	Benzo(g,h,i)perylene	440.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER994

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9934B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 24. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	8.38	400.	J
2.	1120-21-4	Undecane (8CI9CI)	11.66	200.	J
3.	17301-23-4	Undecane, 2;6-dimethyl- (8CI	14.01	400.	J
4.	- -	UNKNOWN HYDROCARBON	15.13	200.	J
5.	629-50-5	Tridecane (8CI9CI)	15.63	300.	J
6.	629-59-4	Tetradecane (8CI9CI)	17.36	300.	J
7.	56666-87-6	Benzene, 1-(2,2-dimethylprop	18.33	200.	J
8.	- -	UNKNOWN HYDROCARBON	18.39	300.	J
9.	629-62-9	Pentadecane (8CI9CI)	18.99	400.	J
10.	55045-08-4	Dodecane, 2-methyl-6-propyl-	20.52	400.	J
11.	- -	UNKNOWN HYDROCARBON	21.23	500.	J
12.	629-78-7	Heptadecane (8CI9CI)	21.96	400.	J
13.	1921-70-6	Pentadecane, 2,6,10,14-tetra	22.06	700.	J
14.	- -	UNKNOWN HYDROCARBON	23.34	200.	J
15.	- -	UNKNOWN HYDROCARBON	23.46	300.	J
16.	- -	UNKNOWN HYDROCARBON	24.65	300.	J
17.	143-28-2	9-Octadecen-1-ol, (Z)- (8CI9	26.63	4000.	BJ
18.	629-97-0	Docosane (8CI9CI)	28.25	600.	J
19.	- -	UNKNOWN HYDROCARBON	29.35	500.	J
20.	123-79-5	Hexanedioic acid, dioctyl es	30.40	2000.	BJ
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER995

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9935B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 20. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410.	U
111-44-4	bis(2-chloroethyl)ether	410.	U
95-57-8	2-Chlorophenol	410.	U
541-73-1	1,3-Dichlorobenzene	410.	U
106-46-7	1,4-Dichlorobenzene	410.	U
100-51-6	Benzyl alcohol	410.	U
95-50-1	1,2-Dichlorobenzene	410.	U
95-48-7	2-Methylphenol	410.	U
108-60-1	bis(2-chloroisopropyl)ether	410.	U
106-44-5	4-Methylphenol	120.	J
621-64-7	N-Nitroso-di-n-propylamine	410.	U
67-72-1	Hexachloroethane	410.	U
98-95-3	Nitrobenzene	410.	U
78-59-1	Isophorone	410.	U
88-75-5	2-Nitrophenol	410.	U
105-67-9	2,4-Dimethylphenol	410.	U
65-85-0	Benzoic acid	2100.	U
111-91-1	bis(2-Chloroethoxy)methane	410.	U
120-83-2	2,4-Dichlorophenol	410.	U
120-82-1	1,2,4-Trichlorobenzene	410.	U
91-20-3	Naphthalene	410.	U
106-47-8	4-Chloroaniline	410.	U
87-68-3	Hexachlorobutadiene	410.	U
59-50-7	4-Chloro-3-methylphenol	410.	U
91-57-6	2-Methylnaphthalene	410.	U
77-47-4	Hexachlorocyclopentadiene	410.	U
88-06-2	2,4,6-Trichlorophenol	410.	U
95-95-4	2,4,5-Trichlorophenol	2100.	U
91-58-7	2-Chloronaphthalene	410.	U
88-74-4	2-Nitroaniline	2100.	U
131-11-3	Dimethylphthalate	410.	U
208-96-8	Acenaphthylene	410.	U
606-20-2	2,6-Dinitrotoluene	410.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER995

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9935B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 20. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2100.	U
83-32-9	Acenaphthene	410.	U
51-28-5	2,4-Dinitrophenol	2100.	U
100-02-7	4-Nitrophenol	2100.	U
132-64-9	Dibenzofuran	410.	U
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylether	410.	U
86-73-7	Fluorene	410.	U
100-01-6	4-Nitroaniline	2100.	U
534-52-1	4,6-Dinitro-2-methylphenol	2100.	U
86-30-6	N-Nitrosodiphenylamine (1)	410.	U
101-55-3	4-Bromophenyl-phenylether	410.	U
118-74-1	Hexachlorobenzene	410.	U
87-86-5	Pentachlorophenol	2100.	U
85-01-8	Phenanthrene	560.	
120-12-7	Anthracene	99.	J
84-74-2	Di-n-butylphthalate	410.	U
206-44-0	Fluoranthene	1000.	
129-00-0	Pyrene	1100.	
85-68-7	Butylbenzylphthalate	410.	U
91-94-1	3,3'-Dichlorobenzidine	830.	U
56-55-3	Benzo(a)anthracene	370.	J
218-01-9	Chrysene	360.	J
117-81-7	bis(2-Ethylhexyl)phthalate	1300.	B
117-84-0	Di-n-octylphthalate	410.	U
205-99-2	Benzo(b)fluoranthene	410.	J
207-08-9	Benzo(k)fluoranthene	410.	U
50-32-8	Benzo(a)pyrene	320.	J
193-39-5	Indeno(1,2,3-cd)pyrene	410.	U
53-70-3	Dibenz(a,h)anthracene	410.	U
191-24-2	Benzo(g,h,i)perylene	410.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ER995

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9935B

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 20. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	7.72	200.	J
2.	- -	UNKNOWN	8.38	500.	J
3.	2847-72-5	Decane, 4-methyl- (8CI9CI)	9.82	500.	J
4.	104-76-7	1-Hexanol, 2-ethyl- (8CI9CI)	10.02	600.	J
5.	17302-32-8	Nonane, 3,7-dimethyl- (8CI9C	11.65	300.	J
6.	- -	UNKNOWN	12.49	300.	J
7.	17301-22-3	Undecane, 2,5-dimethyl- (8CI	14.02	400.	J
8.	- -	UNKNOWN HYDROCARBON	15.12	300.	J
9.	629-50-5	Tridecane (8CI9CI)	15.61	300.	J
10.	629-59-4	Tetradecane (8CI9CI)	17.36	300.	J
11.	- -	UNKNOWN HYDROCARBON	18.99	400.	J
12.	544-76-3	Hexadecane (8CI9CI)	20.50	400.	J
13.	- -	UNKNOWN HYDROCARBON	21.23	400.	J
14.	629-78-7	Heptadecane (8CI9CI)	21.96	400.	J
15.	- -	UNKNOWN HYDROCARBON	22.05	800.	J
16.	- -	UNKNOWN HYDROCARBON	23.47	400.	J
17.	143-28-2	9-Octadecen-1-ol, (Z)- (8CI9	26.63	8000.	BJ
18.	112-92-5	1-Octadecanol (8CI9CI)	26.91	900.	J
19.	- -	UNKNOWN	27.30	700.	J
20.	- -	UNKNOWN AROMATIC	27.57	700.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN551

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: A212

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 22. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 2/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.4	U
319-85-7	beta-BHC	8.4	U
319-86-8	delta-BHC	8.4	U
58-89-9	gamma-BHC (Lindane)	8.4	U
76-44-8	Heptachlor	8.4	U
309-00-2	Aldrin	8.4	U
1024-57-3	Heptachlor epoxide	8.4	U
959-98-8	Endosulfan I	8.4	U
60-57-1	Dieldrin	17.	U
72-55-9	4,4'-DDE	17.	U
72-20-8	Endrin	17.	U
33213-65-9	Endosulfan II	17.	U
72-54-8	4,4'-DDD	5.7	J
1031-07-8	Endosulfan sulfate	17.	U
50-29-3	4,4'-DDT	17.	U
72-43-5	Methoxychlor	84.	U
53494-70-5	Endrin ketone	17.	U
5103-71-9	alpha-Chlordane	84.	U
5103-74-2	gamma-Chlordane	84.	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Arochlor-1016	84.	U
11104-28-2	Arochlor-1221	84.	U
11141-16-5	Arochlor-1232	84.	U
53469-21-9	Arochlor-1242	84.	U
12672-29-6	Arochlor-1248	84.	U
11097-69-1	Arochlor-1254	170.	U
11096-82-5	Arochlor-1260	170.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EN552

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: A206

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 18. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 1/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	41.	U
319-85-7	beta-BHC	41.	U
319-86-8	delta-BHC	41.	U
58-89-9	gamma-BHC (Lindane)	41.	U
76-44-8	Heptachlor	41.	U
309-00-2	Aldrin	41.	U
1024-57-3	Heptachlor epoxide	4.4	J
959-98-8	Endosulfan I	41.	U
60-57-1	Dieldrin	190.	
72-55-9	4,4'-DDE	25.	J
72-20-8	Endrin	81.	U
33213-65-9	Endosulfan II	81.	U
72-54-8	4,4'-DDD	53.	J
1031-07-8	Endosulfan sulfate	81.	U
50-29-3	4,4'-DDT	230.	
72-43-5	Methoxychlor	410.	U
53494-70-5	Endrin ketone	81.	U
5103-71-9	alpha-Chlordane	10.	J
5103-74-2	gamma-Chlordane	12.	J
8001-35-2	Toxaphene	810.	U
12674-11-2	Arochlor-1016	410.	U
11104-28-2	Arochlor-1221	410.	U
11141-16-5	Arochlor-1232	410.	U
53469-21-9	Arochlor-1242	410.	U
12672-29-6	Arochlor-1248	410.	U
11097-69-1	Arochlor-1254	810.	U
11096-82-5	Arochlor-1260	810.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER720

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: A207

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 19. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 1/88

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	41.	U
319-85-7	beta-BHC	41.	U
319-86-8	delta-BHC	41.	U
58-89-9	gamma-BHC (Lindane)	41.	U
76-44-8	Heptachlor	41.	U
309-00-2	Aldrin	41.	U
1024-57-3	Heptachlor epoxide	7.5	J
959-98-8	Endosulfan I	41.	U
60-57-1	Dieldrin	51.	J
72-55-9	4,4'-DDE	71.	J
72-20-8	Endrin	82.	U
33213-65-9	Endosulfan II	82.	U
72-54-8	4,4'-DDD	66.	J
1031-07-8	Endosulfan sulfate	82.	U
50-29-3	4,4'-DDT	200.	
72-43-5	Methoxychlor	410.	U
53494-70-5	Endrin ketone	82.	U
5103-71-9	alpha-Chlordane	410.	U
5103-74-2	gamma-Chlordane	11.	J
8001-35-2	Toxaphene	820.	U
12674-11-2	Arochlor-1016	410.	U
11104-28-2	Arochlor-1221	410.	U
11141-16-5	Arochlor-1232	410.	U
53469-21-9	Arochlor-1242	410.	U
12672-29-6	Arochlor-1248	410.	U
11097-69-1	Arochlor-1254	820.	U
11096-82-5	Arochlor-1260	820.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER992

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: A200

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 14. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 1/88

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	39.	U
319-85-7	beta-BHC	39.	U
319-86-8	delta-BHC	39.	U
58-89-9	gamma-BHC (Lindane)	39.	U
76-44-8	Heptachlor	39.	U
309-00-2	Aldrin	39.	U
1024-57-3	Heptachlor epoxide	39.	U
959-98-8	Endosulfan I	39.	U
60-57-1	Dieldrin	10.	J
72-55-9	4,4'-DDE	26.	J
72-20-8	Endrin	78.	U
33213-65-9	Endosulfan II	78.	U
72-54-8	4,4'-DDD	120.	
1031-07-8	Endosulfan sulfate	78.	U
50-29-3	4,4'-DDT	200.	
72-43-5	Methoxychlor	390.	U
53494-70-5	Endrin ketone	78.	U
5103-71-9	alpha-Chlordane	390.	U
5103-74-2	gamma-Chlordane	17.	J
8001-35-2	Toxaphene	780.	U
12674-11-2	Arochlor-1016	390.	U
11104-28-2	Arochlor-1221	390.	U
11141-16-5	Arochlor-1232	390.	U
53469-21-9	Arochlor-1242	390.	U
12672-29-6	Arochlor-1248	390.	U
11097-69-1	Arochlor-1254	780.	U
11096-82-5	Arochlor-1260	780.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER993

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: A201

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 16. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 1/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	40.	U
319-85-7	beta-BHC	40.	U
319-86-8	delta-BHC	40.	U
58-89-9	gamma-BHC (Lindane)	40.	U
76-44-8	Heptachlor	40.	U
309-00-2	Aldrin	40.	U
1024-57-3	Heptachlor epoxide	40.	U
959-98-8	Endosulfan I	40.	U
60-57-1	Dieldrin	79.	U
72-55-9	4,4'-DDE	24.	J
72-20-8	Endrin	79.	U
33213-65-9	Endosulfan II	79.	U
72-54-8	4,4'-DDD	76.	J
1031-07-8	Endosulfan sulfate	79.	U
50-29-3	4,4'-DDT	84.	
72-43-5	Methoxychlor	400.	U
53494-70-5	Endrin ketone	79.	U
5103-71-9	alpha-Chlordane	15.	J
5103-74-2	gamma-Chlordane	15.	J
8001-35-2	Toxaphene	790.	U
12674-11-2	Arochlor-1016	400.	U
11104-28-2	Arochlor-1221	400.	U
11141-16-5	Arochlor-1232	400.	U
53469-21-9	Arochlor-1242	400.	U
12672-29-6	Arochlor-1248	400.	U
11097-69-1	Arochlor-1254	790.	U
11096-82-5	Arochlor-1260	790.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER994

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: A210

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 24. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 2/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.7	U
319-85-7	beta-BHC	8.7	U
319-86-8	delta-BHC	8.7	U
58-89-9	gamma-BHC (Lindane)	8.7	U
76-44-8	Heptachlor	8.7	U
309-00-2	Aldrin	8.7	U
1024-57-3	Heptachlor epoxide	7.0	J
959-98-8	Endosulfan I	8.7	U
60-57-1	Dieldrin	17.	U
72-55-9	4,4'-DDE	17.	U
72-20-8	Endrin	17.	U
33213-65-9	Endosulfan II	17.	U
72-54-8	4,4'-DDD	17.	U
1031-07-8	Endosulfan sulfate	17.	U
50-29-3	4,4'-DDT	17.	U
72-43-5	Methoxychlor	87.	U
53494-70-5	Endrin ketone	17.	U
5103-71-9	alpha-Chlordane	87.	U
5103-74-2	gamma-Chlordane	2.8	J
8001-35-2	Toxaphene	170.	U
12674-11-2	Arochlor-1016	87.	U
11104-28-2	Arochlor-1221	87.	U
11141-16-5	Arochlor-1232	87.	U
53469-21-9	Arochlor-1242	87.	U
12672-29-6	Arochlor-1248	87.	U
11097-69-1	Arochlor-1254	12.	J
11096-82-5	Arochlor-1260	170.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ER995

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: A211

Level: (low/med) LOW Date Received: 4/13/88

% Moisture: not dec. 20. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 2/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.3	U
319-85-7	beta-BHC	8.3	U
319-86-8	delta-BHC	8.3	U
58-89-9	gamma-BHC (Lindane)	8.3	U
76-44-8	Heptachlor	8.3	U
309-00-2	Aldrin	8.3	U
1024-57-3	Heptachlor epoxide	8.3	U
959-98-8	Endosulfan I	8.3	U
60-57-1	Dieldrin	17.	U
72-55-9	4,4'-DDE	4.6	J
72-20-8	Endrin	17.	U
33213-65-9	Endosulfan II	17.	U
72-54-8	4,4'-DDD	11.	J
1031-07-8	Endosulfan sulfate	17.	U
50-29-3	4,4'-DDT	17.	U
72-43-5	Methoxychlor	83.	U
53494-70-5	Endrin ketone	17.	U
5103-71-9	alpha-Chlordane	83.	U
5103-74-2	gamma-Chlordane	83.	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Arochlor-1016	83.	U
11104-28-2	Arochlor-1221	83.	U
11141-16-5	Arochlor-1232	83.	U
53469-21-9	Arochlor-1242	83.	U
12672-29-6	Arochlor-1248	83.	U
11097-69-1	Arochlor-1254	170.	U
11096-82-5	Arochlor-1260	170.	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 9351 CONTRACTOR EMSIN

Instrument # 7002 #4	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME: 4/22/88 8:36	4/22/88			4/23/88 14:47											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane		30.6	J												
Bromomethane															
Vinyl Chloride															
Chloroethane					45	J									
Methylene Chloride															
Acetone															
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene					32.9	J									
Chloroform															
2-Butanone		35.2	J												
1,2-Dichloroethane					28.9	J									
1,1,1-Trichloroethane					82.2	J									
Carbon Tetrachloride					96.2	J									
Vinyl Acetate															
Bromodichloromethane					51.2	J									
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane					29.1	J									
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene					70.1	J									
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone		35.6	J												
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

EN-551	EN-551
EN-552	EN-552
ER-720	ER-720
ER-992	ER-992
ER-993	ER-993
ER-994	ER-994
ER-995	ER-995

Reviewer's Initials/Date: Rmp 6/28/88

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 9351 CONTRACTOR EMSIN

Instrument # 8702 #2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	4/30/88			5/7/88 10:40											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

EN-551	EN-551
ER-992	ER-992
ER-993	ER-993
ER-994	ER-994
ER-995	ER-995

Reviewer Initials/Date: Rwp 6/28/88

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 9351 CONTRACTOR FMSIN

Instrument # 8702 #2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	4/30/88			5/2/88 10:40											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate					25.4	J									
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline					27.6	J									
4,6-Dinitro-2-Methylphenol					49.8	J									
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene					33.7	J									
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene					43.1	J									
Dibenz(a,h)Anthracene					41.7	J									
Benzo(g,h,i) Perylene					34.5	J									

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

Reviewer's Initials/Date: Rup 6/21/88

8/87

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 9351 CONTRACTOR EMSIN

Instrument # 8702 #2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	5/12/88			5/12/88 13:41											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate		30.9	J												
Acenaphthylene															
3-Nitroaniline		34.6	J												
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

EN-552	EN-552			
ER-220	ER-220			

Reviewer Initials/Date: Rwp 6/24/89

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 9351 CONTRACTOR EMSIN

Instrument # 8702 #2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	5/12/88			5/12/88 13:41											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene		32.6	J												
Diethylphthalate		33.1	J												
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline		43.1	J												
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene		33.2	J												
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene					35.5	J									
3,3'-dichlorobenzidine		36.4	J												

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

Reviewer's Initials/Date: Rup 6/28/88

8/87

RECEIVED
1988
EPA CENTRAL
REGIONAL LAB

CASE NARRATIVE-EMSIN

EMS LABORATORIES, INDIANAPOLIS, INDIANA

CASE NUMBER 9351
SDG NUMBER EN551

The following samples were analyzed for volatiles,semi-volatiles and pesticides/PCBs under contract 68-W8-0044.

EPA #s (EMSIN #s):

EN551 (100537), EN552 (100538), ER720 (100539), ER992 (100533), ER993 (100534), ER994 (100535), ER995 (100536)

Volatile analysis- The heated purge and trap unit has been very unstable for several months (since the power supply and analog boards were replaced (see CASE 9307). For this reason, the samples were run several times before the internal standards and surrogate recoveries would pass the criteria. The problem involves the "blob" peak which shows up in the chromatograms. This peak appeared at the beginning of the chromatograms until the week these samples were analyzed. Then it moved to the area where the first internal standard elutes. The variation in this peak causes irregular response in the internal standard. The peak is not reproducible, either. The manufacturer has been notified and has suggested that utilizing the purge cycle, and a longer purge time may remove the peak. This has been tried with minimal success. The chromatography column and transfer lines have been changed and/or cleaned.

Semi-volatile analysis- The analysis of the semi-volatile extracts was performed on two days because the internal standards failed half way through the sequence. Re-calibration was necessary before analysis could occur. The six day delay before restarting the analysis was in order to analyze other lab samples which were coming due. The initial calibration of 4/30/88 contains areas which were manually integrated due to poor peak shapes (especially with acid compounds at higher concentrations). The benzo(a)pyrene peak was manually integrated because a base-line drift caused the area to be too large. The extracted ion profile (with the manually set integration points) of benzo(a)pyrene is included with the calibration information.

Pesticide/PCB analysis-Only pesticides and PCBs which were confirmed are reported. Where overlap between PCBs and pesticides was noted, the areas were corrected for expected contribution and reported. The extracts of ER994, ER995, and EN551, caused a problem at the end of the analytical sequence, with a high base-line. Excessive breakdown of DDT and endrin was observed in the chromatograms immediately following the screening of these samples. For this reason, a 1:5 dilution was analyzed first while the analysis was still in control. The analysis of the straight extract was necessary because all analytes were "ND" in the dilutions.

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Susan Brotherton

Susan Brotherton
Organic Section Leader/CLP Project Officer
May 20, 1988

Case: 9351

Contractor: EMSIN

TENTATIVELY IDENTIFIED COMPOUNDS
WATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

Reviewer's Initials/Date: RWP 6/26/88

3/16

SUPERFUND 5051 APR 18 1988

SAMPLE DATE: 4/12/88
LOG IN DATE: 4/26/88
DUE DATE: 6/21/88

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 9351 SITE NAME Illinois Brickyard #17 LABORATORY EMSIN/CSMRI DATE SHIPPED 4/12/88

SUPERFUND DU NUMBER 4905 EPA RPM or OSC (S.M.S.)/(CES) _____ CERCLIS NUMBER ILD981006503 PAGE 1 OF 1

ACTIVITY NUMBER CT2100

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET111	WATER CYANIDE UG/L MIN74919	NITRATE/NITRITE MG/L MIN7284	AMMONIA MG/L MIN7294	RESIDUE: FILTERABLE TDS MG/L MIN7362	RESIDUE: NON-FILT TSS MG/L MIN7372			SEDIMENTS or SOILS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG/KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG/KG 211322	TOTAL METALS MG/KG MET413	CYANIDE MG/KG MIN44930	EP TOXICITY METALS MG/KG	AMMONIA MG/KG MIN42925				
88FB17579	ER992	MET051	✓	✓	✓										✓	✓	✓	✓	✓	✓						
88FB17580	ER993	MET052	✓	✓	✓										✓	✓	✓	✓	✓	✓						
88FB17581	ER994	MET053	✓	✓	✓										✓	✓	✓	✓	✓	✓						
88FB17582	ER995	MET054	✓	✓	✓										✓	✓	✓	✓	✓	✓						
88FB17583	EN551	MEP773	✓	✓	✓										✓	✓	✓	✓	✓	✓						
88FB17584	EN552	MEP774	✓	✓	✓										✓	✓	✓	✓	✓	✓						
88FB17585	ER720	MEP775	✓	✓	✓										✓	✓	✓	✓	✓	✓						
			COC in Data																							

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
1	VBLK	99	105	104		0
2	ER994	117	103	55 *		1
3	ER995	113	111	126 *		1
4	VBLK	98	93	106		0
5	ER992	98	86	108		0
6	ER993	103	80	93		0
7	ER994 RE	105	83	105		0
8	ER995 RE	115	65 *	93		1
9	EN551	105	89	103		0
10	ER720	105	79	91		0
11	ER720MS	105	83	115		0
12	ER720MSD	100	79	98		0
13	EN552	100	81	114		0
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
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25						
26						
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	QC LIMITS
S1 (TOL) = Toluene-d8	(81-117)
S2 (BFB) = Bromofluorobenzene	(74-121)
S3 (DCE) = 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
1	EN552	71	72	101	92	96	77		0
2	ER720	71	77	67	89	97	82		0
3	ER720MS	69	69	70	95	93	78		0
4	ER720MSD	69	70	68	95	94	88		0
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		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-137)
S4 (PHL)	= Phenol-d6	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
1	SBLK	65	69	72	76	71	56		0
2	ER992	63	64	92	76	79	62		0
3	ER993	52	57	87	60	63	39		0
4	ER994	59	61	100	71	73	52		0
5	ER995	62	66	112	69	74	55		0
6	EN551	58	63	110	63	70	55		0
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		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-137)
S4 (PHL)	= Phenol-d6	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (DBC) #	OTHER
1	PBLK	96	
2	ER992	129	
3	ER993	151 *	
4	EN552	127	
5	ER720	118	
6	ER720MS	136	
7	ER720MSD	124	
8	ER994	114	
9	ER995	96	
10	EN551	79	
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S1 (DBC) = Dibutyl chlorendate ADVISORY QC LIMITS (20-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3B
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Matrix Spike - EPA Sample No.: ER720 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	61.	0.	77.	125.	59-172
Trichloroethene	61.	0.	85.	138. *	62-137
Benzene	61.	0.	67.	109.	66-142
Toluene	61.	13.	90.	126.	59-139
Chlorobenzene	61.	0.	77.	125.	60-133

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	62.	70.	114.	9.	22	59-172
Trichloroethene	62.	77.	125.	10.	24	62-137
Benzene	62.	66.	106.	3.	21	66-142
Toluene	62.	84.	115.	9.	21	59-139
Chlorobenzene	62.	68.	110.	13.	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 1 out of 10 outside limits

COMMENTS:

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Matrix Spike - EPA Sample No.: ER720 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
Phenol	8230.	0.	7022.	85.	26- 90
2-Chlorophenol	8230.	0.	6574.	80.	25-102
1,4-Dichlorobenzene	4115.	0.	2910.	71.	28-104
N-Nitroso-di-n-prop.(1)	4115.	0.	4493.	109.	41-126
1,2,4-Trichlorobenzene	4115.	0.	2517.	61.	38-107
4-Chloro-3-methylphenol	8230.	0.	6413.	78.	26-103
Acenaphthene	4115.	0.	3003.	73.	31-137
4-Nitrophenol	8230.	0.	6730.	82.	11-114
2,4-Dinitrotoluene	4115.	0.	3274.	80.	28- 89
Pentachlorophenol	8230.	0.	130.	2. *	17-109
Pyrene	4115.	1077.	4180.	75.	35-142

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	8203.	6583.	80.	6.	35	26- 90
2-Chlorophenol	8203.	6223.	76.	5.	50	25-102
1,4-Dichlorobenzene	4102.	2266.	55.	25.	27	28-104
N-Nitroso-di-n-prop.(1)	4102.	4031.	98.	11.	38	41-126
1,2,4-Trichlorobenzene	4102.	2285.	56.	9.	23	38-107
4-Chloro-3-methylphenol	8203.	6366.	78.	0.	33	26-103
Acenaphthene	4102.	3000.	73.	0.	19	31-137
4-Nitrophenol	8203.	6360.	78.	5.	50	11-114
2,4-Dinitrotoluene	4102.	3859.	94. *	17.	47	28- 89
Pentachlorophenol	8203.	682.	8. *	136. *	47	17-109
Pyrene	4102.	3858.	68.	11.	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 11 outside limits
Spike Recovery: 3 out of 22 outside limits

COMMENTS:

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Matrix Spike - EPA Sample No.: ER720 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	32.92	.00	32.04	97.	46-127
Heptachlor	32.92	.00	32.54	99.	35-130
Aldrin	32.92	.00	58.19	177. *	34-132
Dieldrin	82.30	50.56	141.24	110.	31-134
Endrin	82.30	.00	102.72	125.	42-139
4,4'-DDT	82.30	196.16	462.04	323. *	23-134

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	32.81	30.87	94.	3.	50	46-127
Heptachlor	32.81	31.57	96.	3.	31	35-130
Aldrin	32.81	57.57	175. *	1.	43	34-132
Dieldrin	82.03	143.46	113.	3.	38	31-134
Endrin	82.03	93.77	114.	9.	45	42-139
4,4'-DDT	82.03	352.90	191. *	51. *	50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 6 outside limits
Spike Recovery: 4 out of 12 outside limits

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Lab File ID: 5616D Lab Sample ID:

Date Analyzed: 4/22/88 Time Analyzed: 15:20

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: 7002#4

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	ER994		5619D	17:45
2	ER995		5620D	18:34
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Lab File ID: 5636D Lab Sample ID:

Date Analyzed: 4/23/88 Time Analyzed: 15:52

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 7002#4

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	ER992		5637D	17:28
2	ER993		5638D	18:18
3	ER994		5639D	19:08
4	ER995		5640D	19:58
5	EN551		5641D	20:47
6	ER720		5643D	22:29
7	ER720MS		5644D	23:19
8	ER720MSD		5645D	0:09
9	EN552		5649D	2:39
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5616D

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 4/22/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5616D

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 4/22/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5636D

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 5. (g/mL) G Lab File ID: 5636D

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 4/23/88

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Lab File ID: 9931B Lab Sample ID:

Date Extracted: 4/14/88 Extraction: (SepF/Cont/Sonc)

Date Analyzed: 5/ 7/88 Time Analyzed: 11:35

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 8702#2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	ER992		9932B	5/ 7/88
2	ER993		9933B	5/ 7/88
3	ER994		9934B	5/ 7/88
4	ER995		9935B	5/ 7/88
5	EN551		9936B	5/ 7/88
6	ER1552		9986B	5/12/88
7	ER 720		9987B	5/12/88
8	ER 720 MS		9988B	5/12/88
9	ER 720 MSD		9989B	5/12/88
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9931B

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: .0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	140.	J
111-44-4	bis(2-chloroethyl)ether	330.	U
95-57-8	2-Chlorophenol	330.	U
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	330.	U
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	bis(2-chloroisopropyl)ether	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-di-n-propylamine	330.	U
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	330.	U
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	330.	U
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9931B

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: .0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	330.	U
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	670.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1300.	
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: 9931B

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 5/ 7/88

GPC Cleanup: (Y/N) N pH: .0 Dilution Factor: 1.00

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN	6.63	200.	J
2. - -	UNKNOWN	8.36	400.	J
3. 143-28-2	9-Octadecen-1-ol, (Z)- (8CI9	26.59	2000.	J
4. 123-79-5	Hexanedioic acid, dioctyl es	30.39	1000.	J
5.				
6.				
7.				
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30.				

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

Lab Sample ID: Lab File ID: A114

Matrix: (soil/water) SOIL Level:(low/med) LOW

Date Extracted: 4/14/88 Extraction: (SepF/Cont/Sonc)

Date Analyzed (1): 4/30/88 Date Analyzed (2): 5/ 3/88

Time Analyzed (1): 22:33 Time Analyzed (2): 0:30

Instrument ID (1): 8702#5 Instrument ID (2): 8702#3

GC Column ID (1): PACKED GC Column ID (2): CAP

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	ER992		5/ 1/88	5/ 3/88
2	ER993		5/ 1/88	5/ 3/88
3	EN552		5/ 1/88	5/ 4/88
4	ER720		5/ 1/88	5/ 4/88
5	ER720MS		5/ 1/88	5/ 4/88
6	ER720MSD		5/ 1/88	5/ 4/88
7	ER994		5/ 2/88	5/ 3/88
8	ER995		5/ 2/88	5/ 3/88
9	EN551		5/ 2/88	5/ 3/88
10				
11				
12				
13				
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26				

Comments:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK

Lab Name: EMSIN Contract: 68-W8-0044

Lab Code: EMSIN Case No.: 9351 SAS No.: SDG No.: EN551

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

Sample wt/vol: 30. (g/mL) G Lab File ID: A114

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 4/14/88

Extraction: (SepF/Cont/Sonc) Date Analyzed: 4/30/88

GPC Cleanup: (Y/N) N pH: .0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	6.7	U
319-85-7	beta-BHC	6.7	U
319-86-8	delta-BHC	6.7	U
58-89-9	gamma-BHC (Lindane)	6.7	U
76-44-8	Heptachlor	6.7	U
309-00-2	Aldrin	6.7	U
1024-57-3	Heptachlor epoxide	6.7	U
959-98-8	Endosulfan I	6.7	U
60-57-1	Dieldrin	13.	U
72-55-9	4,4'-DDE	13.	U
72-20-8	Endrin	13.	U
33213-65-9	Endosulfan II	13.	U
72-54-8	4,4'-DDD	13.	U
1031-07-8	Endosulfan sulfate	13.	U
50-29-3	4,4'-DDT	13.	U
72-43-5	Methoxychlor	67.	U
53494-70-5	Endrin ketone	13.	U
5103-71-9	alpha-Chlordane	67.	U
5103-74-2	gamma-Chlordane	67.	U
8001-35-2	Toxaphene	130.	U
12674-11-2	Arochlor-1016	67.	U
11104-28-2	Arochlor-1221	67.	U
11141-16-5	Arochlor-1232	67.	U
53469-21-9	Arochlor-1242	67.	U
12672-29-6	Arochlor-1248	67.	U
11097-69-1	Arochlor-1254	130.	U
11096-82-5	Arochlor-1260	130.	U

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 5/18/88 FIT Receipt Date 5/31/88 Review Completed 6/6/88

TO: Gerard Breen
FROM: Zena Gold-Kaufman ZGK
SUBJECT: Illinois Brickyard
PAN: ILO532SAQ (1 hour charged for review) Case # 9351

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 7	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

_____ Incomplete, awaiting Low Soil organics

FIT Data Review Findings:
~~Toxic~~ Metals detected include: Arsenic, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Silver, Vanadium, Cyanide detected in two samples.

Check Data Sheets for Transcription Errors

_____ Compounds were detected in sample(s); see enclosed sheet.

Book No. 8 ✓ Page No. 8 Date Sampled 4/12/88

0759:2

recycled paper

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MEMORANDUM

DATE: 6/6/88
TO: File
FROM: Zena Gold-Kaufman ZGK
SUBJECT: Illinois Brickyard

PAN ILO532

Below is a list of elements whose spike recoveries were biased low:

Element	Spike Recovery
Antimony	22%

The low recoveries rates biases the data low, thereby raising the detection limits and estimating any reported values. This means that in the worst case the true concentration is greater than the reported values and the data is an underestimation.

It is the opinion of this reviewer that the data is acceptable for HRS scoring.

0759:2

recycled paper

[illegible] QA/QC is provided in the attached data sheets.

I. REPORTING UNITS

A. Organics

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - ug/kg or ppb (parts per billion)

B. Metals

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - mg/kg or ppm (parts per million)

II. DEFINITION OF FOOTNOTES TO ANALYTICAL DATA

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscop
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Metals

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
R	M	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	N	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Other Symbols Used

NA Value not available due to insufficient data.
NR Value not calculated since chemical is not a carcinogen.
( ) Estimated value.

SITE NAME: Illinois Brickyard PAN # IL0532 DATE: 6/6/88

CASE # 9351 UNITS - mg/Kg REVIEWER: ZKT

COMPOUND	CRDL** RAS SOIL mg/Kg (ppm)	CRDL** RAS WATER ug/L (ppb)	CRDL** SAS DRINKING WATER ug/L (ppb)	MEP 773	774	775	051	052	053	054
ALUMINUM *	40	200	100	12800	9580	15900	13600	15100	13600	11000
ANTIMONY JR	2.4	60	5	—	—	—	—	—	—	—
ARSENIC	2	10	5	8.3	5.9	6.4	12	8.6	13	9.4
BARIUM * J	40	200	50	64	193	1720	202	94 *	112 *	90 *
BERYLLIUM	1	5	5	[0.26]	[0.25]	[0.74]	[0.98]	[0.71]	[0.53]	[0.25]
CADMIUM	1	5	0.5	—	1.5	2.0	2.9	1.4	2.4	—
CALCIUM *	1000	5000	1000	63400	45400	71900	48500	50500	64200	6000
CHROMIUM	2	10	10	25 *	151 *	46 *	26 *	28 *	23 *	18 *
COBALT	10	50	10	[13]	[5.9]	[6.2]	14	16	19	[12]
COPPER	5	25	10	33	47	71	78	50 *	45 *	29 *
IRON *	20	100	100	23900	15700	15400	30200	28600	28200	21500
LEAD	1	5	2	94	346	281	166	171	34	23
MAGNESIUM *	1000	5000	1000	30400	20300	31600	23700	26400	31100	31100
MANGANESE *	3	15	10	397	1220	1540	437	446	782 *	365 *
MERCURY	0.008	0.2	0.2	—	—	—	—	—	—	—
NICKEL	8	40	20	35	18	20	43	50	41	31
POTASSIUM *	1000	5000	2000	3400	1270	1800	2660	3100	2820	2810
SELENIUM	1	5	2	—	—	—	—	—	—	—
SILVER	2	10	5	3.4	—	—	—	3.6	3.4	3.3
SODIUM *	1000	5000	1000	—	—	—	—	—	—	—
THALLIUM UJ	2	10	2	—	—	—	—	—	—	—
VANADIUM	10	50	10	25	24	24	30	30	27	23
ZINC * J	4	20	20	80 E	238 E *	216 E *	221 E *	115 E *	129 *	72 E *
CYANIDE	2	10	10	—	2.0	2.0	—	—	—	—

* NOT GENERALLY USED FOR HRS SCORING

** SPECIFIC DETECTION LIMITS ARE HIGHLY MATRIX DEPENDENT. THE DETECTION LIMITS LISTED HEREIN ARE PROVIDED FOR GUIDANCE AND MAY NOT ALWAYS BE ACHIEVABLE.

5/31/88

16 pages

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 5.25.88

SUBJECT: Review of Region V CLP Data
Received for Review on 5-18-88

FROM. Curtis Ross, Director (5SCRL)
Central Regional Laboratory

TO: Data User: Fit

We have reviewed the data for the following case(s).

SITE NAME: Illinois Brickyard Fill (IL) SMO Case No. 9351

EPA Data Set No. SF5051 No. of Samples: 7 D.U./Activity Numbers 1905/C72122

CRL No. 88FB17 579-585

SMO Traffic No. MIET 051-054, MCP 773-775

CLP Laboratory: CSMRI Hrs. Required for Review: 3 + 1/2

Following are our findings:

This review covers seven soil samples analyzed for metals and cyanide.

The matrix spike recovery for Sb (22%) is significantly low and the data are unusable (R). The matrix spike recovery for Tl (66%) indicates a low bias and the data are estimated (UJ).

The duplicates for Ba (57 RPD) and Zn (37 RPD) are out of control limits and the data are estimated (J). For Zn, the serial dilution (29%) also indicates interference. The duplicates for Cr (21 RPD), Cu (30 RPD) and Mn (26 RPD) are within control limits for soils and the data are acceptable.

All QC data for Hg and CN are acceptable.

Reviewed by: Winston Vijjeswarapu
Date: May 23, 1988

Winston Vijjeswarapu

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (REV. 3-76)

5051

000001

U. S. EPA Contract Laboratory Program
Sample Management Office
P. O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS 8-557-2490

Page 1 of 1
Date 5-16-88

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name ANALYTICA INCORPORATED

Case No. 9351

SOW No. 785

Q. C. Report No. 4520

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEP 773	—		
↓ 774	—		
MEP 775	—		
MET 051	—		
↓ 052	—		
↓ 053	—		
MET 054	—		

RECEIVED
MAY 18 1988
U.S. EPA CENTRAL
REGIONAL LAB

Comments: SEVEN (7) LOW SOIL SAMPLES ANALYZED FOR TOTAL METALS AND CYANIDE.

ICP interelement and background corrections applied? Yes X No _____.

If yes, corrections applied before X or after _____ generation of raw data.

Footnotes:

NR - Not required by contract at this time.

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract-required detection limit, report the value in brackets (i.e. [10]). Indicate the analytical method used P (for ICP), A (for Flame AA) or F (for Furnace AA).
U - Indicates element was analyzed for but not detected. Report with the instrument detection limit value (e.g., 10U).
E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.
s - Indicates value determined by Method of Standard Addition.
N - Indicates spike sample recovery is not within control limits.
* - Indicates duplicate analysis is not within control limits
+ - Indicates the correlation coefficient for method of standard addition is less than 0.995
M - Indicates duplicate injection results exceeded control limits.

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P. O. Bos 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEP 773

Date 5-16-88

INORGANIC ANALYSIS DATA SHEET

LAB NAME ANALYTICA INCORPORATED

CASE NO. 9351

SOW NO. 785

Lab Receipt Date 4-13-88

LAB SAMPLE ID. NO. —

QC REPORT NO. 4520

Elements Identified and Measured

Concentration: Low X Medium

Matrix: Water Soil X Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	12800	P	13.	Magnesium	30400	P
2.	Antimony	16U	N F	14.	Manganese	397	* P
3.	Arsenic	8.3	F	15.	Mercury	0.13U	CV
4.	Barium	64	* P	16.	Nickel	35	P
5.	Beryllium	[0.26]	P	17.	Potassium	3400	P
6.	Cadmium	mrc 1.3U	P	18.	Selenium	1.3U	F
7.	Calcium	63400	P	19.	Silver	3.4	P
8.	Chromium	25	* P	20.	Sodium	504U	P
9.	Cobalt	[13]	P	21.	Thallium	2.6U	N F
10.	Copper	33	* P	22.	Vanadium	25	P
11.	Iron	23900	P	23.	Zinc	80	E * P
12.	Lead	94	F		Percent Solids (%)	77	

Cyanide 0.65U

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: SOIL, BROWN, FINE WITH ROOTS

Pb DETERMINED AT 20X DILUTION

Lab Manager

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P. O. Bos 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEP 774

Date 5-16-88

INORGANIC ANALYSIS DATA SHEET

LAB NAME ANALYTICA INCORPORATED

CASE NO. 9351

SOW NO. 785

Lab Receipt Date 4-13-88

LAB SAMPLE ID. NO. —

QC REPORT NO. 4520

Elements Identified and Measured

Concentration: Low X Medium

Matrix: Water Soil X Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	9580	P	13.	Magnesium	20300	P
2.	Antimony	15U	N F	14.	Manganese	1220	* P
3.	Arsenic	5.9	F	15.	Mercury	0.12U	CV
4.	Barium	193	* P	16.	Nickel	18	P
5.	Beryllium	[0.25]	P	17.	Potassium	1270	P
6.	Cadmium	1.5	P	18.	Selenium	1.2U	F
7.	Calcium	45400	P	19.	Silver	2.5U	P
8.	Chromium	151	* P	20.	Sodium	479U	P
9.	Cobalt	[5.9]	P	21.	Thallium	2.5U	N F
10.	Copper	47	* P	22.	Vanadium	24	P
11.	Iron	15700	P	23.	Zinc	238	E * P
12.	Lead	346	F		Percent Solids (%)	81	

Cyanide 2.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: SOIL, BROWN, FINE WITH ROOTS
Pb DETERMINED AT 20X DILUTION

Lab Manager

IFB Amend. One

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P. O. Bos 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MEP 775

Date 5-16-88

INORGANIC ANALYSIS DATA SHEET

LAB NAME ANALYTICA INCORPORATED

CASE NO. 9351

SOW NO. 785

Lab Receipt Date 4-13-88

LAB SAMPLE ID. NO. —

QC REPORT NO. 4520

Elements Identified and Measured

Concentration: Low X Medium

Matrix: Water Soil X Sludge Other

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	15900	P	13. Magnesium	31600	P
2. Antimony	15U	NF	14. Manganese	1540	*P
3. Arsenic	6.4	F	15. Mercury	0.12U	CV
4. Barium	1720	*P	16. Nickel	20	P
5. Beryllium	[0.74]	P	17. Potassium	1800	P
6. Cadmium	2.0	P	18. Selenium	1.2U	F
7. Calcium	71900	P	19. Silver	2.5U	P
8. Chromium	46	*P	20. Sodium	479U	P
9. Cobalt	[6.2]	P	21. Thallium	2.5U	NF
10. Copper	71	*P	22. Vanadium	24	P
11. Iron	15400	P	23. Zinc	216	E*P
12. Lead	281	SF	Percent Solids (%)	81	

Cyanide 2.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: SOIL, BROWN, FINE WITH ROOTS
Pb DETERMINED AT 50X DILUTION

Lab Manager [signature]

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P. O. Bos 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MET 051

Date 5-16-88

INORGANIC ANALYSIS DATA SHEET

LAB NAME ANALYTICA INCORPORATED

CASE NO. 9351

SOW NO. 785

Lab Receipt Date 4-13-88

LAB SAMPLE ID. NO. —

QC REPORT NO. 4520

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13600	P	13. Magnesium	23700	P
2. Antimony	15U	N F	14. Manganese	437	* P
3. Arsenic	12	F	15. Mercury	0.12U	CV
4. Barium	202	* P	16. Nickel	43	P
5. Beryllium	[0.98]	P	17. Potassium	2660	P
6. Cadmium	2.9	P	18. Selenium	1.2U	F
7. Calcium	48500	P	19. Silver	2.4U	P
8. Chromium	26	* P	20. Sodium	473U	P
9. Cobalt	14	P	21. Thallium	2.4U	N F
10. Copper	78	* P	22. Vanadium	30	P
11. Iron	30200	P	23. Zinc	221	E * P
12. Lead	166	F	Percent Solids (%)	82	

Cyanide 0.61U

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: SOIL, BROWN, FINE WITH ROOTS
Pb DETERMINED AT 20X DILUTION

Lab Manager [signature]

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P. O. Bos 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MET 052

Date 5-16-88

INORGANIC ANALYSIS DATA SHEET

LAB NAME ANALYTICA INCORPORATED

CASE NO. 9351

SOW NO. 785

Lab Receipt Date 4-13-88

LAB SAMPLE ID. NO. —

QC REPORT NO. 4520

Elements Identified and Measured

Concentration: Low X Medium

Matrix: Water Soil X Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	15100	P	13.	Magnesium	26400	P
2.	Antimony	14U ~~15U~~ MPC	N F	14.	Manganese	440	* P
3.	Arsenic	8.6	F	15.	Mercury	0.12U	CV
4.	Barium	94	* P	16.	Nickel	50	P
5.	Beryllium	[0.71]	P	17.	Potassium	3100	P
6.	Cadmium	1.4	P	18.	Selenium	1.2U	F
7.	Calcium	50500	P	19.	Silver	3.6	P
8.	Chromium	28	* P	20.	Sodium	462U	P
9.	Cobalt	16	P	21.	Thallium	2.4U	N F
10.	Copper	50	* P	22.	Vanadium	30	P
11.	Iron	28600	P	23.	Zinc	115	E * P
12.	Lead	171	S F		Percent Solids (%)	84	

Cyanide 0.60U

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: SOIL, BROWN, FINE WITH ROOTS
Pb DETERMINED AT 20X DILUTION

Lab Manager

IFB Amend. One

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P. O. Bos 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MET 053

Date 5-16-88

INORGANIC ANALYSIS DATA SHEET

LAB NAME ANALYTICA INCORPORATED

CASE NO. 9351

SOW NO. 785

Lab Receipt Date 4-13-88

LAB SAMPLE ID. NO. —

QC REPORT NO. 4520

Elements Identified and Measured

Concentration: Low X Medium

Matrix: Water Soil X Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	13600	P	13.	Magnesium	31100	P
2.	Antimony	16U	NF	14.	Manganese	782	* P
3.	Arsenic	13	F	15.	Mercury	0.13U	CV
4.	Barium	112	* P	16.	Nickel	41	P
5.	Beryllium	[0.53]	P	17.	Potassium	2820	P
6.	Cadmium	24	P	18.	Selenium	1.3U	F
7.	Calcium	64200	P	19.	Silver	3.4	P
8.	Chromium	23	* P	20.	Sodium	511U	P
9.	Cobalt	19	P	21.	Thallium	2.6U	N F
10.	Copper	45	* P	22.	Vanadium	27	P
11.	Iron	28200	P	23.	Zinc	129	E * P
12.	Lead	34	F		Percent Solids (%)	76	

Cyanide 0.66U

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: SOIL, BROWN, FINE WITH ROOTS
Pb DETERMINED AT 10X DILUTION

Lab Manager [signature]

Form I

U. S. EPA Contract Laboratory Program
Sample Managcment Office
P. O. Bos 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MET 054

Date 5-16-88

INORGANIC ANALYSIS DATA SHEET

LAB NAME ANALYTICA INCORPORATED

CASE NO. 9351

SOW NO. 785

Lab Receipt Date 4-13-88

LAB SAMPLE ID. NO. —

QC REPORT NO. 4520

Elements Identified and Measured

Concentration: Low X Medium

Matrix: Water Soil X Sludge Other

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	11000	P	13. Magnesium	31100	P
2. Antimony	15U	N F	14. Manganese	365	* P
3. Arsenic	9.4	F	15. Mercury	0.13U	CV
4. Barium	90	* P	16. Nickel	31	P
5. Beryllium	[0.25]	P	17. Potassium	2810	P
6. Cadmium	1.3U	P	18. Selenium	1.3U	F
7. Calcium	60000	P	19. Silver	3.3	P
8. Chromium	18	* P	20. Sodium	491U	P
9. Cobalt	[12]	P	21. Thallium	2.5U	N F
10. Copper	29	* P	22. Vanadium	23	P
11. Iron	21500	P	23. Zinc	72	E * P
12. Lead	23	F	Percent Solids (%)	79	

Cyanide 0.63U

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: SOIL, BROWN, FINE WITH ROOTS
Pb DETERMINED AT 5X DILUTION

Lab Manager

QC EXCEPTION SUMMARY REPORT

CASE # 9351
DATA SET #
LAB Q.C.# 4520
DATE:

SITE Ill. Brickyard
LAB CSMRI
REVIEWED BY Winston Vyas

MATRIX: Soil
CONC. : Low
MATRIX:
CONC. :

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK. MET052
SOIL SAMPLE DUP. MET051

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	Init Calver	Contin Calver	Prep Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk %R	AQ Dup RPD	AQ Spk %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
Aluminum																								
Antimony											22													
Arsenic																								
Barium										57														
Beryllium																								
Cadmium																								
Calcium																								
Chromium																								
Cobalt																								
Copper																								
Iron																								
Lead																								
Magnesium																								
Manganese																								
Mercury																								
Nickel																								
Potassium																								
Selenium																								
Silver																								
Sodium											66													
Thallium																								
Tin																								
Vanadium																								
Zinc										37					29									
Cyanide																								

FORM III

Q. C. Report No. 4520

BLANKS

LAB NAME ANALYTICA, INCORPORATED CASE NO. 9351

DATE 5-16-88 Units: ug/L

Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank[1] Matrix: LS (1)	Matrix: (2)
Metals:							
1. Aluminum	101U	101U	101U			20U	
2. Antimony	7U	7U	7U	7U		1.4U	
3. Arsenic	1U ~~10U~~	1U ~~10U~~	1U ~~10U~~			0.2U ~~2U~~	mpc
4. Barium	9U	9U	9U			1.8U	
5. Beryllium	1U	1U	1U			0.2U	
6. Cadmium	5U	5U	5U			1.0U	
7. Calcium	296U	296U	296U			59U	
8. Chromium	10U	10U	10U			2.0U	
9. Cobalt	10U	10U	10U			2.0U	
10. Copper	13U	13U	13U			~~2.6U~~ mpc	2.6U
11. Iron	10U	10U	10U			[4.6]	
12. Lead	2U	2U	2U	2U	2U	[0.42]	
13. Magnesium	114U	114U	[118]			23U	
14. Manganese	3U	3U	3U			0.6U	
15. Mercury	0.22U	0.22U	0.22U			0.12U	
16. Nickel	9U	9U	9U			1.8U	
17. Potassium	797U	797U	797U			159U	
18. Selenium	1U	[1.0]	[1.0]	1U		0.2U	
19. Silver	10U	10U	10U			2.0U	
20. Sodium	1940U	1940U	1940U			388U	
21. Thallium	2U ~~10U~~	2U ~~10U~~	2U ~~10U~~			0.4U ~~2U~~	mpc
22. Vanadium	8U	8U	8U			1.6U	
23. Zinc	9U	9U	9U			1.8U	
Other:							
Cyanide	10U	10U	10U			0.5U	

[1] Reporting Units: aqueous, ug/L; solid mg/kg

FORM III

Q. C. Report No. 4520
BLANKS

LAB NAME ANALYTICA, INCORPORATED CASE NO. 9351

DATE 5-16-88 Units: ug/L

Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank[1] Matrix: (1)	Matrix: (2)
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic							
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead		2U					
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium							
22. Vanadium							
23. Zinc							
Other:							
Cyanide							

[1] Reporting Units: aqueous, ug/L; solid mg/kg

FORM V

Q. C. Report No. 4520

SPIKE SAMPLE RECOVERY

LAB NAME ANALYTICA INCORPORATED

CASE NO. 9351

EPA Sample No. MET 052

DATE 5-16-88

Lab Sample ID No. —

Units mg/kg

Matrix Low Soil

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R(1)
Metals:					
1. Aluminum	75-125	12100	12700	NR	NR
2. Antimony	"	[4.4]	12U ~~79~~ mc	20	22 N
3. Arsenic	"	15	7.2	8	98
4. Barium	"	538	79 ~~0.6~~ mc	400	115
5. Beryllium	"	13	[0.6]	10	124
6. Cadmium	"	12	1.2	10	108
7. Calcium	"	35800	42400	NR	NR
8. Chromium	"	73	24	40	122
9. Cobalt	"	121	13	100	108
10. Copper	"	100	42	50	116
11. Iron	"	25200	24000	NR	NR
12. Lead	"	64	144	10	NR
13. Magnesium	"	20000	22200	NR	NR
14. Manganese	"	446	370	100	76
15. Mercury	"	0.52	0.1 U	0.5	~~103~~ mc 104
16. Nickel	"	156	42	100	114
17. Potassium	"	2360	2600	NR	NR
18. Selenium	"	1.8	1U	2	90
19. Silver	"	14	3.0	10	110
20. Sodium	"	388U	388U	NR	NR
21. Thallium	"	6.6	2U	10	66 N
22. Vanadium	"	140	26	100	114
23. Zinc	"	210	96	100	114
Other:					
Cyanide	"	5.3	0.5U	5	106

(1) %R = [(SSR - SR)/SA] x 100

"N" - Out of Control

"NR" - Not Required (by contract or due to initial sample amount > 4 X spike amount)

Comments:

Form VI

Q. C. Report No. 4520

DUPLICATES

LAB NAME ANALYTICA INCORPORATED

CASE NO. 9351

EPA Sample NO. MET051

DATE 5-16-88

Lab Sample ID No. –

Units mg/kg

Matrix Low Soil

Compound	Control Limit	Samples(S)	Duplicate(D)	RPD(1)
Metals:				
1. Aluminum	± 20 RPD ~~40 mg/kg~~ MPC	11200	11100	0.9
2. Antimony	± 12 mg/kg	12U	12U	NC
3. Arsenic	± 2 mg/kg	10	9.2	8.3
4. Barium	± 40 mg/kg	165	298	57 *
5. Beryllium	± 1 mg/kg	[0.8]	[0.8]	NC
6. Cadmium	± 1 mg/kg	2.4	1.6	40
7. Calcium	± 20 RPD ~~1000 mg/kg~~ MPC	39800	42800	7.3
8. Chromium	± 20 RPD ~~2 mg/kg~~ MPC	21	26	21 *
9. Cobalt	± 10 mg/kg	11	12	8.7
10. Copper	± 20 RPD ~~5 mg/kg~~ MPC	64	87	30 *
11. Iron	± 20 RPD ~~20 mg/kg~~ MPC	24800	25200	1.6
12. Lead	± 20 RPD ~~1 mg/kg~~ MPC	136	128	6.1
13. Magnesium	± 20 RPD ~~1000 mg/kg~~ MPC	19500	20800	6.5
14. Manganese	± 20 RPD ~~3 mg/kg~~ MPC	358	464	26 *
15. Mercury	± 0.1 mg/kg	0.1U	0.13	NC
16. Nickel	± 8 mg/kg	36	37	2.7
17. Potassium	± 1000 mg/kg	2180	2360	7.9
18. Selenium	± 1 mg/kg	1U	1U	NC
19. Silver	± 2 mg/kg	2U	3.8	NC
20. Sodium	± 1000 mg/kg	388U	388U	NC
21. Thallium	± 2 mg/kg	2U	2U	NC
22. Vanadium	± 10 mg/kg	25	25	0.0
23. Zinc	± 20 RPD ~~4 mg/kg~~ MPC	181	264	37 *
Other:				
Cynaide	± 2 mg/kg	0.5U	0.5U	NC

* Out of Control NC - Non calculable RPD due to value(s) less than CRDL

(1) RPD = [|S - D|/|(S + D)/2|] x 100

Form VII

Q. C. Report No. 4520

INSTUMENT DETECTION LIMITS AND
LABORATORY CONTROL SAMPLE

LAB NAME ANALYTICA INCORPORATED CASE NO. 9351 DATE 5-16-88

LCS NO. EPA-LV: ICV 1-4

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA ID#ICP-2.5	Instrument Detection Limits (IDL)-ug/l Furnace ID#2350/BD	Lab Control Sample (ug/L) mg/kg (circle one) True	Found	%R
Metals:						
1. Aluminum	200	101		1980	2080	105
2. Antimony	60		7	1010	1170	116
3. Arsenic	10		2	47		
4. Barium	200	9		1980	2200	111
5. Beryllium	5	1		481	551	114
6. Cadmium	5	5		489	532	109
7. Calcium	5000	296		49800	54000	108
8. Chromium	10	10		506	575	114
9. Cobalt	50	10		474	522	110
10. Copper	25	13		542	622	115
11. Iron	100	10		1990	2280	115
12. Lead	5	77	2	97.9	84	86
13. Magnesium	5000	114		25000	28500	114
14. Manganese	15	3		513	577	112
15. Mercury	0.2		0.2 CV	NR	NR	NR
16. Nickel	40	9		496	547	110
17. Potassium	5000	797		50200	51900	103
18. Selenium	5		1	104		
19. Silver	10	10		509	526	103
20. Sodium	5000	1940		50700	52700	104
21. Thallium	10		2	97.3	92	95
22. Vanadium	50	8		511	578	113
23. Zinc	20	9		3100	3240	105
Other:						
Cyanide	10	NR	NR	200	204	102

NR - Not Required

Form VII

Q. C. Report No. 4520
INSTUMENT DETECTION LIMITS AND
LABORATORY CONTROL SAMPLE

LAB NAME ANALYTICA INCORPORATED CASE NO. 9351 DATE 5-16-88
LCS NO. EPA-LV: ICV 1-4

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA ID# ICP-2.5	Instrument Detection Limits (IDL)-ug/l Furnace ID# 5000/BZ	Lab Control Sample ug/L mg/kg (circle one) True	Found	%R	
Metals:							
1. Aluminum	200	101		1980			
2. Antimony	60		6	1010			
3. Arsenic	10		1	47	54	115	
4. Barium	200	9		1980			
5. Beryllium	5	1		481			
6. Cadmium	5	5		489			
7. Calcium	5000	296		49800			
8. Chromium	10	10		506			
9. Cobalt	50	10		474			
10. Copper	25	13		542			
11. Iron	100	10		1990			
12. Lead	5	77		97.9			
13. Magnesium	5000	114		25000			
14. Manganese	15	3		513			
15. Mercury	0.2		0.2 CV	NR			
16. Nickel	40	9		496			
17. Potassium	5000	797		50200			
18. Selenium	5		1	104	106	102	
19. Silver	10	10		509			
20. Sodium	5000	1940		50700			
21. Thallium	10			97.3	~~108~~	~~111~~	MPC
22. Vanadium	50	8		511			
23. Zinc	20	9		3100			
Other:							
Cyanide	10	NR	NR	200			

NR - Not Required

SAMPLE DESCRIPTION

SITE NAME/TDD# ILLINOIS BRICK CO YARD #17 / F05-8706-036

CASE NUMBER 9351

SAMPLE #/STATION LOCATION S1

SAMPLING DATE 4/12/88 SAMPLING TIME 1410

ORGANIC TRAFFIC NUMBER ER992

INORGANIC TRAFFIC NUMBER MET051

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8oz	EXTRACTABLES	5-083006	E7232062
8oz	METALS & CYANIDE	5-083005	E7232062
120 mL	VOA	5-083007	D7254051
120 mL	VOA	5-083008	D7254051

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: BLACK-BROWN GRAINY

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# ILLINOIS BRICK Co YARD #17 / F05-8706-036

CASE NUMBER 9351

SAMPLE #/STATION LOCATION S2

SAMPLING DATE 4/12/88 SAMPLING TIME 1435

ORGANIC TRAFFIC NUMBER ER993

INORGANIC TRAFFIC NUMBER MET 052

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	EXTRACTABLES	5-083010	E7232062
8 oz	METALS & CYANIDE	5-083009	E7232062
120 mL	VOA	5-083011	D7254051
120 mL	VOA	5-083012	D7254051

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: BLACK-BROWN GRAINY

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# ILLINOIS BRICK Co YARD #17/F05-8706-036

CASE NUMBER 9351

SAMPLE #/STATION LOCATION S3

SAMPLING DATE 4/12/88 SAMPLING TIME 1500

ORGANIC TRAFFIC NUMBER ER 994

INORGANIC TRAFFIC NUMBER MET 053

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8oz	METALS & CYANIDE	5-083013	E7232062
8oz	EXTRACTABLES	5-083014	E7232062
120mL	VOA	5-083015	D7254051
120mL	VOA	5-083016	D7254051

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: GRAY WET

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# ILLINOIS BRICK CO YARD #17/F05-8706-036

CASE NUMBER 9351

SAMPLE #/STATION LOCATION S4

SAMPLING DATE 4/12/88 SAMPLING TIME 1555

ORGANIC TRAFFIC NUMBER ER 995

INORGANIC TRAFFIC NUMBER MET 054

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 OZ	METALS & CYANIDE	5-083017	E72320062
8 OZ	EXTRACTABLES	5-083018	E72320062
120 mL	VOA	5-083019	D72540051
120 mL	VOA	5-083020	D72540051

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: GRAY, CLAY-LIKE

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# ILLINOIS BRICK Co YARD #17/F05-8706-036

CASE NUMBER 9351

SAMPLE #/STATION LOCATION S5

SAMPLING DATE 4/12/88 SAMPLING TIME 1605

ORGANIC TRAFFIC NUMBER EN 551

INORGANIC TRAFFIC NUMBER MEP 773

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 OZ	METALS & CYANIDE	5-083021	E72320662
8 OZ	EXTRACTABLES	5-083022	E72320662
120 mL	VOA	5-083023	D72540051
120 mL	VOA	5-083024	D72540051

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: GRAY, CLAY-LIKE

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# ILLINOIS BRICK CO YARD #17/F05-8706-036

CASE NUMBER 9351

SAMPLE #/STATION LOCATION S6

SAMPLING DATE 4/12/88 SAMPLING TIME 1650

ORGANIC TRAFFIC NUMBER EN 552

INORGANIC TRAFFIC NUMBER MEP 774

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	METALS & CYANIDE	5-083025	E7232062
8 oz	EXTRACTABLES	5-083026	E7232062
120 mL	VOA	5-083027	D7254051
120 mL	VOA	5-083028	D7254051

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: BROWN GRAINY

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# ILLINOIS BRICK Co YARD #17/F05-8706-036

CASE NUMBER 9351

SAMPLE #/STATION LOCATION S7

SAMPLING DATE 4/12/88 SAMPLING TIME 1710

ORGANIC TRAFFIC NUMBER ER 720

INORGANIC TRAFFIC NUMBER MEP 775

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8oz	METALS & CYANIDE	5-083029	F6349132
8oz	EXTRACTABLES	5-083030	F6349132
120mL	VOA	5-083031	D7254051
120mL	VOA	5-083032	D7254051

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: BROWN GRAINY

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: NONE

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

To request information on the status of your property contact the gentleman listed below. You will need to give him the ID# listed below so he can reference your property. If we have taken samples from your property, wait about 4 months before you contact him because the lab analyses take a while to process.

Robert Hartian
Freedom of Information Officer
Office of Public Affairs (SPA-14)
U.S. EPA
230 S. Dearborn
Chicago, IL 60604
(312) 886-6686

ID# ILD 980606503

SAMPLERS: (Signature) Karen McSegue

Samples Offered (X) Accepted ( ) Declined

Name of Facility: ILLINOIS BRICK CO YARD #17

Facility Location

NO.	DATE	TIME	COMP.	GRAB	SPLIT SAMPLES	TAG NUMBERS	STATION DESCRIPTION	NO. OF CONTAINERS	REMARKS
1	4/12/88			✓			SOIL 1	1QT	
2	4/12/88			✓			SOIL 2		
3	4/12/88			✓			SOIL 3		
4	4/12/88			✓			SOIL 4		
5	4/12/88			✓			SOIL 5		
6	4/12/88			✓			SOIL 6		
7	4/12/88			✓			SOIL 7	✓	

Transferred by: (Signature) Karen McSegue

Time

Received by: (Signature)

Telephone

Title

Date

Time

Site Name: ILLINOIS BRICK CO. YARD #17
Location:
Case Number: 9351

SAMPLE SHIPMENT CHECKLIST:
LOW CONCENTRATION SAMPLES

Mark each item with an "X" to verify completion.

✓ 1. Is each sample bottle permanently labeled with the following information: Sample number, date, time of collection, and a brief description?

___ 2. Are sample volumes marked on all sample bottles (except VOA's)?

✓ 3. Is each sample bottle lid secured with strapping tape or evidence tape?

✓ 4. Have all bottles been packed in plastic bags?

✓ 5. Are all samples properly preserved and iced, when appropriate, for shipment?

✓ 6. Are samples packaged in such a way as to prevent breakage?

✓ 7. Has the proper cushioning material (ie-vermiculite) been used for sample packaging?

✓ 8. Is each cooler drain taped shut?

✓ 9. Have all coolers been labeled with the proper laboratory address and has this label been covered with clear tape?

✓ 10. Has each cooler been labeled with "This Side Up" stickers on all four sides and "Fragile" stickers on at least two sides?

✓ 11. Is there at least one Chain-Of-Custody record per cooler?

✓ 12. Have the proper sections of the sampling paperwork been put in a plastic bag and taped to the inside lid of the coolers?

✓ 13. Has each cooler been secured properly with strapping tape?

✓ 14. Have numbered custody seals been affixed to the front right and back left of each cooler and covered with clear tape?

✓ 15. Has the sampler double-checked all paperwork and packiging procedures for accuracy and completeness immediately prior to strapping each cooler for shipment?

✓ 16. Have photos of each cooler, showing ice, custody seals, and proper packaging procedures, been taken?

✓ 17. TYPE & TIME OF SAMPLE TAKEN LISTED ON COC?

I certify that all the above procedures have been followed and that all coolers have been properly packaged for shipment.

X Karen McLegue Sampler Signature

X _____ Team Leader Signature

NOTE: If there is any question that one of the above has been done incorrectly by any member of your team, DO NOT ship samples without checking your suspicions (even if this means re-opening coolers that have already been strapped shut!)

45T:GM

SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA, VA 22313
703/557-2490 FTS-557-2490

CASE NO: 9351

SAS NO. (IF APPLICABLE)

ORGANIC TRAFFIC REPORT

(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA (SI) ESI RIFS RD RA ER NPLD O&M OTHER _____
NON-SUPERFUND—_____ PROGRAM

SITE NAME: ILLINOIS BRICK CO YARD #17
CITY, STATE: CHICAGO, IL
SITE SPILL ID:

REGION NO: V
SAMPLING COMPANY ②: FIT
SAMPLER: (NAME) KAREN McTIGUE

SHIP TO: ③
ENV. MONITORING SYSTEMS
7901 W. MORRIS ST
INDIANAPOLIS, IN 46231
ATTN: STEVEN BROCHERTON

SAMPLING DATE: ④
BEGIN: 4/12/88 END: 4/12/88

DATE SHIPPED: 4/12/88 CARRIER: F ⑤
AIRBILL NO: 5768192732

SAMPLE DESCRIPTION ⑥
(ENTER IN BOX A)
1. SURFACE WATER
2. GROUND WATER
3. LEACHATE
4. SOIL
5. SEDIMENT
6. OIL (SAS)
7. WASTE (SAS)

TRIPLE VOLUME REQUIRED FOR MATRIX SPIKE/DUPLICATE AQUEOUS SAMPLE

SHIP MEDIUM AND HIGH CONCENTRATION SAMPLES IN PAINT CANS

SEE REVERSE FOR ADDITIONAL INSTRUCTIONS

SHIPMENT IS COMPLETE

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6 7	Ⓑ CONCENTRATION L = LOW/MED. H = HIGH (SAS)	Ⓒ RAS ANALYSIS: VOLATILE	BASE/NEUT /ACID	PESTICIDE /PCB's		Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION
ER 992	4	L	✓	✓	✓			S1
ER 993	4	L	✓	✓	✓			S2
ER 994	4	L	✓	✓	✓			S3
ER 995	4	L	✓	✓	✓			S4
EN 551	4	L	✓	✓	✓			S5
EN 552	4	L	✓	✓	✓			S6
ER 720	4	L	✓	✓	✓			S7

EPA Form 2075-7 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA, VA 22313
703/557-2490 FTS-557-2490

CASE NO: 9351

SAS NO: (IF APPLICABLE)

INORGANIC TRAFFIC REPORT

(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA (SI) ESI RIFS RD RA ER NPLD O&M OTHER _____
NON-SUPERFUND—_____ PROGRAM

SITE NAME: ILLINOIS BRICK CO YARD # 17
CITY, STATE: CHICAGO, IL
SITE SPILL ID:

REGION NO: V
SAMPLING COMPANY ②: FIT
SAMPLER: (NAME) KAREN McTIGUE

SHIP TO: ③
CSMRI ANALYTICA, INC
5930 McINTYRE ST
GOLDEN, Co. 80403
ATTN: AUDREY BYRNES

SAMPLING DATE: ④
BEGIN: 4/12/88 END: 4/12/88

DATE SHIPPED: 4/12/88 CARRIER: F ⑤
AIRBILL NO: 5768192743

SAMPLE DESCRIPTION ⑥
(ENTER IN BOX A)
1. SURFACE WATER
2. GROUND WATER
3. LEACHATE
4. SOIL
5. SEDIMENT
6. OIL (SAS)
7. WASTE (SAS)

DOUBLE VOLUME REQUIRED FOR MATRIX SPIKE/DUPLICATE AQUEOUS SAMPLE

SHIP MEDIUM AND HIGH CONCENTRATION SAMPLES IN PAINT CANS

SEE REVERSE FOR ADDITIONAL INSTRUCTIONS

SHIPMENT IS COMPLETE

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6 7	Ⓑ CONCENTRATION L = LOW M = MED H = HIGH (SAS)	Ⓒ RAS ANALYSIS: TOTAL METALS	CYANIDE	DISSOLVED METALS	HIGH ONLY (SAS): SULFIDE	pH	CONDUCTIVITY	OXIDANTS	Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION
MET 051	4	L	✓	✓							S1
MET 052	4	L	✓	✓							S2
MET 053	4	L	✓	✓							S3
MET 054	4	L	✓	✓							S4
MEP 773	4	L	✓	✓							S5
MEP 774	4	L	✓	✓							S6
MEP 775	4	L	✓	✓							S7

EPA Form 2075-6 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

ECOLOGY & ENVIRONMENT INC

COOLER TRACKING FORM

SITE NAME:	IL BRICK Co YARD #17	**PAN NO:**	FIL0532
LAB NAME:	ORGANIC - EMSIN INORGANIC - CSMRI	**DATE:**	4/12/88

COOLER NUMERS:

ORGANIC #35
INORGANIC #231

COOLERS – OUT ☑
– IN ☐

Low soils

Site Name Illinois Brick Yard #17 TDD F5-8706-036 IL0532 Case Number 9,351

OTR	ITR	CRL	NEIC TAG NUMBER	ORG CHAIN OF CUSTODY	INO CHAIN OF CUSTODY	SAS NUMBER
ER992	MET051			13279	13270	
ER993	MET052	See	See	13279	13270	
ER994	MET053			13279	13270	
ER995	MET054			13279	13270	
EN551	MEP773	LDY	LDY	13279	13270	
EN552	MEP774			13279	13270	
ER720	MEP775			13279	13270	

3, KG/df
-30-81

SMP-002

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 5/23/88 FIT Receipt Date 7/15/88 Review Completed 7/19/88

TO: G. BREEN
FROM: Mary Gzyra
SUBJECT: ILLINOIS BRICKYARD #17
PAN: IL 0532SA (1 hour charged for review) Case # 9351

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 7	Low Soil	#	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status ___ Completed!!

___ Incomplete, awaiting ___

FIT Data Review Findings:
VOA - CLA detected + aromatics.
Semi-VOA - HA, PAH, A + PH detected; ↑TIC's in all samples.
PEST. - detected in all samples
Aroclor 1254 detected in CR 994
Check Data Sheets for Transcription Errors

✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. 8 Page No. 8 Date Sampled 4/12

0759:2

recycled paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 7/13/88

SUBJECT: Review of Region V CLP Data
Received for Review on 5-23-88

FROM: Curtis Ross, Director (5SCRL) Patrick J. Chmielle for
Central Regional Laboratory

TO: Data User: Fit

We have reviewed the data for the following case(s).

SITE NAME: Illinois Brickyard #7 (IL) SMO Case No. 9351

EPA Data Set No. SF6051 No. of Samples: 7 D.U./Activity Numbers V9051C72122

CRL No. 88FB17879 - 585

SMO Traffic No. ER720, 992-995, EN551-552

CLP Laboratory: EMSIN Hrs. Required for Review: 12

Following are our findings:

The data enclosed in this package is acceptable for use with qualifications noted in report. Holding times for VOA analysis for sample 552 was missed and many calibration outliers were noted. Results for these samples were noted in the report to be flagged J.

Randy Reels 6/29/88

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications referenced above.
See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory.
See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

Illinois Brickyard #17
Case #9351

This case covers seven low soil samples for full CLP TCL analysis.

A. Holding Times: VOA analysis holding times for sample #EN-552 were missed by one day. VOA results for EN-552 should be flagged J estimated quantitation.

BNA & Pest/PCB holding times are acceptable.

B. Surrogates: Low Soils - Acceptable
3 of 39 VOAs were outside QC limits.
0 of 60 BNAs were outside QC limits.
1 of 10 Pest/PCBs were outside QC limits.

C. Matrix Spike/MSD: Low Soils - Acceptable
0 of 5 RPDs VOAs were outside QC limits.
1 of 11 RPDs BNAs were outside QC limits.
1 of 6 RPDs Pest were outside QC limits.

1 of 10 % recoveries were outside QC limits.
3 of 22 % recoveries were outside QC limits.
4 of 12 % recoveries were outside QC limits.

D. Method Blanks: Soils - Acceptable
VOAs - None detected.
BNAs - Phenol detected but below CRDL.
Pest/PCBs - None detected.

E. Calibrations: Acceptable
Outliers were noted in report.

F. GC/MS Tuning: Acceptable

G. Pesticides: Acceptable
Linearity - Acceptable DBC Sift - Acceptable
DDT Retention Times >12 mins. - Acceptable
Breakdown - Acceptable

H. Samples: All samples indicated positive sample results for VOA, BNA, and pesticide analysis as well as many TICs.

Reviewer [signature] Date 6-29-88

SAMPLE PROPOSAL
FIT REGION V

1. Date Form Completed 3-11-88

2. Account # FIL0532SA TDD # F05-8706-036

EPA I.D. # ILD980606503

3. Site Name, City, State ILLINOIS BRICK CO. YARD # 17

CHICAGO, IL

4. Team Leader GERARD BREEN Sampler KAREN MCTIGUE

5. Number and Type of Samples:

Soil/Sediment 6 SOILS Surface Water _____ Ground Water _____

Residential/Municipal Wells _____ Other _____

Number of Blanks _____ Number of Duplicates _____

6. RAS Parameters Requested:

A/B/N ✓ Pest/PCB ✓ Volatiles ✓ Metals ✓ Cyanide ✓

SAS Parameters Requested: _____

7. Expected Sampling Date(s): 4-12-88

Expected Shipping Date(s): 4-12-88

8. Lab Used For Analysis: Organic SOILS EMSIN (EMS lab. INDIANAPOLIS, IND.)

Inorganic SOILS CSMRI (Colorado)

SAS _____

9. Case Number 9351 SAS Number _____

10. Airbill Numbers: 1/12 These #s will not appear on the T.R.s & C.O.C.s

Organic Lab 6134126003 # Coolers 1 # Samples 7 soils

Inorganic Lab 6134126014 # Coolers 1 # Samples 7 soils

CRL/SAS Lab _____ # Coolers _____ # Samples _____

complete

Table 4- Cont.

Sample Collection Information and Parameters	Sample Number											
	≥ 1 EN551	≥ 2 552	≥ 3 ER720	≥ 4 992	≥ 5 993	≥ 6 994	≥ 7 995	≥ 8	≥ 9	≥ 10	≥ 11	≥ 12
Pesticides/PCBs Cont.												
Aroclor 1232												
Aroclor 1242												
Aroclor 1248												
Aroclor 1254						12 J						
Aroclor 1260												
Analyte Detected (values in ug/ [ppm])												
aluminum												
antimony												
arsenic												
barium												
beryllium												
cadmium												
calcium												
chromium												
cobalt												
copper												
iron												
lead												
magnesium												
manganese												
mercury												
nickel												
potassium												
selenium												
silver												
sodium												
thallium												
vanadium												
zinc												
cyanide												

-- Not detected.

Table 4- Cont.

Sample Collection Information and Parameters	Sample Number											
	> 1 EN551	> 2 552	> 3 ER 720	> 4 992	> 5 993	> 6 994	> 7 995	> 8	> 9	> 10	> 11	> 12
Semivolatile Organics, Cont.												
4-nitroaniline												
4,6-dinitro-2-methylphenol												
n-nitrosodiphenylamine												
4-bromophenyl-phenylether												
hexachlorobenzene												
pentachlorophenol												
phenanthrene		870	840	1300	2300	87 J	560					
anthracene		180 J	120 J	240 J	500		99 J					
di-n-butylphthalate		49 J		110 J								
fluoranthene	55 J	1100	920	2200	3100	120 J	1000					
pyrene		2200	1100	2500	6000	150 J	1100					
butylbenzylphthalate												
3,3'-dichlorobenzidine												
benzo[a]anthracene		640	280 J	1000	2100		370 J					
chrysene		820	350 J	1100	2000		360 J					
bis(2-ethylhexyl)phthalate	1400 B	2500 B	1800 B	1400 B	1500 B	2100 B	1300 B					
di-n-octylphthalate												
benzo[b]fluoranthene		790	190 J	1500 J	1600 J		410 J					
benzo[k]fluoranthene		610 J										
benzo[a]pyrene		800	310 J	910	1700		320 J					
indeno[1,2,3-cd]pyrene		1400	480	990 J	1600 J							
dibenzo[a,h]anthracene												
benzo[g,h,i]perylene		1600 J	550 J	860 J	1400 J							
Pesticides/PCBs												
alpha BHC												
beta BHC												
delta BHC												
gamma BHC (Lindane)												
Heptachlor												
Aldrin												
Heptachlor epoxide		4.4 J	7.5 J			7 J						
Endosulfan I												
Dieldrin		190	51 J	10 J								
4,4'-DDE		25 J	71 J	26 J	24 J		4.6 J					
Endrin												
Endosulfan II												
4,4'-DDD	5.7 J	53 J	66 J	120	76 J		11 J					
Endosulfan sulfate												
4,4'-DDT		230	200	200	84							
Methoxychlor (Marlate)												
Endrin ketone												
alpha Chlordane		10 J			15 J							
gamma Chlordane		12 J	11 J	17 J	15 J	2.8 J						
Toxaphene												
Aroclor 1016												
Aroclor 1221												

Table 4- Cont.

Sample Collection Information and Parameters	Sample Number											
	≥ 1 EN 551	≥ 2 552	≥ 3 ER 720	≥ 4 992	≥ 5 993	≥ 6 994	≥ 7 995	≥ 8	≥ 9	≥ 10	≥ 11	≥ 12
Volatile Organics, Cont.												
ethylbenzene	17											
styrene												
xylenes (total)	69						6 J					
Semivolatile Organics												
phenol		130 JB		150 JB	240 JB	110 JB						
bis(2-chloroethyl)ether												
2-chlorophenol												
1,3-dichlorobenzene												
1,4-dichlorobenzene	76 J											
benzylalcohol												
1,2-dichlorobenzene												
2-methylphenol												
bis(2-chloroisopropyl)ether												
4-methylphenol	100 J						120 J					
n-nitroso-di-n-dipropylamine												
hexachloroethane												
nitrobenzene												
isophorone												
2-nitrophenol												
2,4-dimethylphenol												
benzoic acid												
bis(2-chloroethoxy)methane												
2,4-dichlorophenol												
1,2,4-trichlorobenzene												
naphthalene				37 J								
4-chloroaniline												
hexachlorobutadiene												
4-chloro-3-methylphenol												
2-methylnaphthalene				48 J								
hexachlorocyclopentadiene												
2,4,6-trichlorophenol												
2,4,5-trichlorophenol												
2-chloronaphthalene												
2-nitroaniline												
dimethylphthalate												
acenaphthylene		60 J		66 J	75 J							
2,6-dinitrotoluene												
3-nitroaniline												
acenaphthene				76 J	140 J							
2,4-dinitrophenol												
4-nitrophenol												
dibenzofuran				73 J	96 J							
2,4-dinitrotoluene												
diethylphthalate												
4-chlorophenyl-phenylether												
fluorene				130 J	270 J							

Table 4-_>_
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED >_____ SAMPLES

ILLINOIS BRICKYARD #17 CASE # 9351

Sample Collection Information and Parameters	Sample Number >_1	>_2	>_3	>_4	>_5	>_6	>_7	>_8	>_9	>_10	>_11	>_12
Date												
Time												
Organic Traffic Report Number												
Inorganic Traffic Report Number												
Temperature												
Specific Conductivity												
pH												
Compound Detected (values in ug/ [ppb])	EN 551	552	ER 720	992	993	994	995					
Volatile Organics												
chloromethane												
bromomethane												
vinyl chloride												
chloroethane												
methylene chloride	15	21 J	13	22	20	17	23					
acetone	480 E											
carbon disulfide		32 J	20	38	49		15					
1,1-dichloroethene												
1,1-dichloroethane												
1,2-dichloroethene (total)												
chloroform												
1,2-dichloroethane												
2-butanone (MEK)				3 J								
1,1,1-trichloroethane												
carbon tetrachloride												
vinyl acetate												
bromodichloromethane												
1,2-dichloropropane												
cis-1,3-dichloropropene												
trichloroethene												
dibromochloromethane												
1,1,2-trichloroethane												
benzene	5 J											
trans-1,3-dichloropropene												
bromoform												
4-methyl-2-pentanone												
2-hexanone												
tetrachloroethene					7							
toluene	7	8 J	13	5 J	5 J		30					
1,1,2,2-tetrachloroethane												
chlorobenzene												

COMPOUND FOOTNOTES	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

ANALYTE FOOTNOTES		DEFINITION	INTERPRETATION
OLD	NEW		
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
R	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.
NA		Value not available due to insufficient data.	
NR		Value not recommended to be calculated, since chemical has proven to be a human carcinogen.	
( )		Estimated value.	

Source: Ecology and Environment, Inc. 1988.

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FIL05325A
PROJECT NAME: F05-8706-036/9351
SAMPLERS: (Signature) Karen McTague

COOLER # 35
LOW CONCENTRATION

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8OZ EXTRACTABLE	120ML VOA					REMARKS OTR	ITR	MATRIX
S1	4/12/88	1410		✓	S1	3	1	2					ER992	MET051	SOIL
S2	4/12/88	1435		✓	S2	3	1	2					ER993	MET052	SOIL
S3	4/12/88	1500		✓	S3	3	1	2					ER994	MET053	SOIL
S4	4/12/88	1555		✓	S4	3	1	2					ER995	MET054	SOIL
S5	4/12/88	1605		✓	S5	3	1	2					EN551	MEP773	SOIL
S6	4/12/88	1650		✓	S6	3	1	2					EN552	MEP774	SOIL
S7	4/12/88	1710		✓	S7	3	1	2					ER720	MEP775	SOIL

LOT # 8OZ E7232062, F6349132
120 ML D7254051

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Karen McTague	4/12/88 ~~3/12~~/KM 1800				
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	
				SHIPPED FED EX TO EMSIN AIRBILL - 5768192732 CUSTODY SEALS - 10654, 10655	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 13279

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn St
Chicago, Illinois 6060

CHAIN OF CUSTODY RECORD

PROJ. NO.: FIL0532SA
PROJECT NAME: F05-8706-036 / 9351
SAMPLERS: (Signature) Karen McFigue

COOLER # KTR232-23
LOW CONCENTRATION

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 OZ. METALS & CYANIDE						REMARKS ITR	OTR	MATRIX
S1	4/12/88	1410		✓	S1	1	1						MET051	ER 992	SOIL
S2	4/12/88	1435		✓	S2	1	1						MET052	ER 993	SOIL
S3	4/12/88	1500		✓	S3	1	1						MET053	ER 994	SOIL
S4	4/12/88	1555		✓	S4	1	1						MET054	ER 995	SOIL
S5	4/12/88	1605		✓	S5	1	1						MEP 773	EN 551	SOIL
S6	4/12/88	1650		✓	S6	1	1						MEP 774	EN 552	SOIL
S7	4/12/88	1710		✓	S7	1	1						MEP 775	ER 720	SOIL

LOT # E7232062
F6349132

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Karen McFigue	4/12/88 1800				
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 SHIPPED FED EX TO CSMRI AIRBILL - 5768192743 CUSTODY SEALS - 10665, 10666	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File