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US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

SDG NARRATIVE

SECTION I

LABORATORY: CHESTER LAB-NET HOUSTON DOC. CONT NO: 21882

CASE NO.: 21882 SDG NO.: EWW48

LAB NO.: H94-04.77 CONTRACT NO.: 68-D2-0020

US EPA RECORDS CENTER REGION 5
412407

I. RECEIPT

A. DATE: 4-12-94.

B. NO. OF SAMPLES : Five (5).

C. CLIENT SAMPLE IDs: EWW48, EWW51, EWW45, EWW46, EWW47.

D. SAMPLE TYPE: Leachate and Soil.

E. ANALYSIS REQUESTED: Full organics following the 3/91 CLP OLM01.9 SOW.

F. SHIPPING PROBLEMS: None.

G. DOCUMENTATION PROBLEMS: Original ES0128c* in Case 21477 X5606.
Original FS0329c* in Case 21788 HN110.
Original A*P0507* IN Case 21477 X5606.

H. QC DISTRIBUTION (MS AND MSD):

LEVEL	MATRIX	VOA	SV	PEST/PCB	ORGANICS
LOW	SOIL			EWW45	

II. PREPARATION

A. ANALYTICAL LEVELS: Low level.

B. EXTRACTION PROBLEMS: None.

III. ANALYSIS

A. ANALYSIS PROBLEMS: Volatiles - No more than one compound on the initial calibrations have a % RSD greater than 20.5 % and none with a response factor less than 0.010. No more than two compound on the continuing calibrations have a % D greater than 25 %. EWW48 MS/MSD was not preformed because it is a trip blank. Sample EWW45, EWW46, EWW47, EWW46RE, EWW47RE, internal standards were outside of QC limits payment should be allowed for the re-analysis EWW45 was not re-analyzed because it was part of the QC series.

Semivolatiles - No more than two compounds on the initial calibrations % RSD were outside of QC-limits. The continuing calibration checks have no more than four compounds above 25 % D but less than 40% and with a RRF greater than 0.010. The MS/MSD spike recovery for Pentachlorophenol was outside the QC limits. The MS spike recovery for 2,4-Dinitrotoluene was outside of QC limits.
Pest. - The MS/MSD % Recovery for 4,4'-DDT was outside of QC limits.

B. SURROGATE PROBLEMS: Volatiles - None.
Semivolatiles - None.
Pest. - Several surrogates were outside of advisory QC limit.

IV. COMMENTS

The latest revision of the NIST mass spectral library for the Finnigan NOVA 4X computers is not currently available. Finnigan has informed Keystone Lab - Houston that this software revision is currently in beta testing. Slight differences in values found on forms 1-10 and sample and standard quantitation reports may exist due to variations in rounding off procedures in the computers used.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions listed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Mark Fullerton

Mark Fullerton - Project Manager

May 12, 1994

Date

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EWW48	104	104	93	0	0
02	EWW51	100	103	91	0	0
03	VBLK1	103	111	91	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EWX45	111	80	100	0	0
02	EWX46	126	66	104	0	0
03	EWX46RE	130	74	87	0	0
04	EWX47	122	69	101	0	0
05	EWX47RE	133	71	95	0	0
06	EWX45MS	103	90	96	0	0
07	EWX45MSD	122	75	102	0	0
08	VBLK2	98	107	93	0	0
09	VBLK3	98	110	97	0	0

	QC LIMITS
SMC1 (TOL) = Toluene-d8	(84-138)
SMC2 (BFB) = Bromofluorobenzene	(59-113)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix Spike - EPA Sample No.: EWX45 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	520.0	0	417.0	80	59-172
Trichloroethene	520.0	0	424.6	82	62-137
Benzene	520.0	0	483.5	93	66-142
Toluene	520.0	0	433.9	83	59-139
Chlorobenzene	520.0	0	459.8	88	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	520.0	424.1	82	2	22	59-172
Trichloroethene	520.0	390.5	75	9	24	62-137
Benzene	520.0	489.0	94	1	21	66-142
Toluene	520.0	492.1	95	13	21	59-139
Chlorobenzene	520.0	449.3	86	2	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: 0 out of 10 outside limits

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Lab File ID: RB0414V01 Lab Sample ID: 940407702

Date Analyzed: 04/14/94 Time Analyzed: 1349

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: 4020

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWW48	940407703	RU04077V03	2045
02	EWW51	940407704	RU04077V04	2114

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK2

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Lab File ID: 5B0418V01 Lab Sample ID: 940407701

Date Analyzed: 04/18/94 Time Analyzed: 1200

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) Y

Instrument ID: 51EF

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWX45	940407705	EU04077V05	1906
02	EWX46	940407708	EU04077V08	2038
03	EWX47	940407709	EU04077V09	2108

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK3

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Lab File ID: 5B0421V01A Lab Sample ID: 940407701

Date Analyzed: 04/21/94 Time Analyzed: 1617

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) Y

Instrument ID: 51EF

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWX46RE	940407708	EU04077V08A	1822
02	EWX47RE	940407709	EU04077V09A	1852
03	EWX45MS	940407706	EU04077V06A	1721
04	EWX45MSD	940407707	EU04077V07A	1751

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407702

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: RB0414V01

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

% Moisture: not dec. ____ Date Analyzed: 04/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407702

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: RB0414V01

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

% Moisture: not dec. ____ Date Analyzed: 04/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK2

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407701

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5B0418V01

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

% Moisture: not dec. ____ Date Analyzed: 04/18/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

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	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK2

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407701

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5B0418V01

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

% Moisture: not dec. _____ Date Analyzed: 04/18/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK3

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407701

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5B0421V01A

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

% Moisture: not dec. ____ Date Analyzed: 04/21/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

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	10	U
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK3

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407701

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5B0421V01A

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

% Moisture: not dec. _____ Date Analyzed: 04/21/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWW48

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407703

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: RU04077V03

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. ____ Date Analyzed: 04/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U J
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	14	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

sm 2/6/95

mk

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWW48

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407703

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: RU04077V03

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. _____ Date Analyzed: 04/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWW51

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407704

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: PU04077V04

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. Date Analyzed: 04/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) UG/L

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

SMG 2/6/95
unk

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX45

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407705

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V05

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 90 Date Analyzed: 04/18/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

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

CAS NO.	COMPOUND		Q	
74-87-3	Chloromethane	100	U	
74-83-9	Bromomethane	100	U	
75-01-4	Vinyl Chloride	100	U	
75-00-3	Chloroethane	100	U	
75-09-2	Methylene Chloride	100	U J	unk
67-64-1	Acetone	250	J	unk
75-15-0	Carbon Disulfide	100	U	
75-35-4	1,1-Dichloroethene	100	U	
75-34-3	1,1-Dichloroethane	100	U	
540-59-0	1,2-Dichloroethene (total)	100	U	
67-66-3	Chloroform	100	U	
107-06-2	1,2-Dichloroethane	100	U	
78-93-3	2-Butanone	100	U J	unk
71-55-6	1,1,1-Trichloroethane	100	U	
56-23-5	Carbon Tetrachloride	100	U	
75-27-4	Bromodichloromethane	100	U	
78-87-5	1,2-Dichloropropane	100	U	
10061-01-5	cis-1,3-Dichloropropene	100	U	
79-01-6	Trichloroethene	100	U	
124-48-1	Dibromochloromethane	100	U	
79-00-5	1,1,2-Trichloroethane	100	U	
71-43-2	Benzene	100	U	
10061-02-6	Trans-1,3-Dichloropropene	100	U	
75-25-2	Bromoform	100	U	
108-10-1	4-Methyl-2-Pentanone	100	U J	unk
591-78-6	2-Hexanone	100	U J	unk
127-18-4	Tetrachloroethene	100	U	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	
108-88-3	Toluene	100	U	
108-90-7	Chlorobenzene	100	U	
100-41-4	Ethylbenzene	100	U	
100-42-5	Styrene	100	U	
1330-20-7	Xylene (total)	100	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWW51

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407704

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: PU04077V04

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. ____ Date Analyzed: 04/14/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX46

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407708

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V08

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 75 Date Analyzed: 04/18/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

SM 2/6/95

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) UG/LG	Q	
74-87-3	Chloromethane	40	U	
74-83-9	Bromomethane	40	U	
75-01-4	Vinyl Chloride	40	U	
75-00-3	Chloroethane	40	U	
75-09-2	Methylene Chloride	40	U J	unk
67-64-1	Acetone	110	U J	unk
75-15-0	Carbon Disulfide	40	U	
75-35-4	1,1-Dichloroethene	40	U	
75-34-3	1,1-Dichloroethane	40	U	
540-59-0	1,2-Dichloroethene (total)	40	U	
67-66-3	Chloroform	40	U	
107-06-2	1,2-Dichloroethane	40	U	
78-93-3	2-Butanone	40	U J	unk
71-55-6	1,1,1-Trichloroethane	40	U	
56-23-5	Carbon Tetrachloride	40	U	
75-27-4	Bromodichloromethane	40	U	
78-87-5	1,2-Dichloropropane	40	U	
10061-01-5	cis-1,3-Dichloropropene	40	U	
79-01-6	Trichloroethene	40	U	
124-48-1	Dibromochloromethane	40	U	
79-00-5	1,1,2-Trichloroethane	40	U	
71-43-2	Benzene	40	U	
10061-02-6	Trans-1,3-Dichloropropene	40	U	
75-25-2	Bromoform	40	U	
108-10-1	4-Methyl-2-Pentanone	40	U J	unk
591-78-6	2-Hexanone	40	U J	unk
127-18-4	Tetrachloroethene	40	U	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	
108-88-3	Toluene	40	U	
108-90-7	Chlorobenzene	40	U	
100-41-4	Ethylbenzene	40	U	
100-42-5	Styrene	40	U	
1330-20-7	Xylene (total)	40	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWX45

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407705

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V05

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 90 Date Analyzed: 04/18/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWX46

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407708

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V08

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 75 Date Analyzed: 04/18/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX46PE

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407708

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V08A

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 75 Date Analyzed: 04/21/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

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

CAS NO.	COMPOUND		Q	
74-87-3	Chloromethane	40	U J	unk
74-83-9	Bromomethane	40	U J	unk
75-01-4	Vinyl Chloride	40	U J	unk
75-00-3	Chloroethane	40	U	
75-09-2	Methylene Chloride	40	U J	unk
67-64-1	Acetone	40 ~~21~~	BJU MK	unk
75-15-0	Carbon Disulfide	40	U	5-18-94
75-35-4	1,1-Dichloroethene	40	U	
75-34-3	1,1-Dichloroethane	40	U	
540-59-0	1,2-Dichloroethene (total)	40	U	
67-66-3	Chloroform	40	U	
107-06-2	1,2-Dichloroethane	40	U	
78-93-3	2-Butanone	40	U J	unk
71-55-6	1,1,1-Trichloroethane	40	U	
56-23-5	Carbon Tetrachloride	40	U	
75-27-4	Bromodichloromethane	40	U	
78-87-5	1,2-Dichloropropane	40	U	
10061-01-5	cis-1,3-Dichloropropene	40	U	
79-01-6	Trichloroethene	40	U	
124-48-1	Dibromochloromethane	40	U	
79-00-5	1,1,2-Trichloroethane	40	U	
71-43-2	Benzene	40	U	
10061-02-6	Trans-1,3-Dichloropropene	40	U	
75-25-2	Bromoform	40	U	
108-10-1	4-Methyl-2-Pentanone	40	U J	unk
591-78-6	2-Hexanone	40	U J	unk
127-18-4	Tetrachloroethene	40	U	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	
108-88-3	Toluene	40	U	
108-90-7	Chlorobenzene	40	U	
100-41-4	Ethylbenzene	40	U	
100-42-5	Styrene	40	U	
1330-20-7	Xylene (total)	40	U	

SM 2/6/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWX46PE

ab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407708

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V08A

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 75 Date Analyzed: 04/21/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX47

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407709

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V09

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 69 Date Analyzed: 04/18/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

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

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

SW 2/6/95

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWX47

ab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407709

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V09

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 69 Date Analyzed: 04/18/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX47PE

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407703

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V09A

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 69 Date Analyzed: 04/21/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

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

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

SM 2/6/95

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWX47RE

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407709

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EU04077V09A

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: not dec. 69 Date Analyzed: 04/21/94

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	EWW51	73	66	79	76	69	67	82	72	0
02	SBLK1	78	60	67	65	59	57	73	66	0

		OC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	EWX45	50	57	59	56	63	55	59	49	0
02	EWX46	91	94	95	94	110	104	99	93	0
03	EWX47	87	90	85	84	104	59	90	85	0
04	EWX45MS	76	83	80	81	91	75	82	72	0
05	EWX45MSD	71	68	60	68	84	58	70	63	0
06	SBLK2	64	70	70	67	77	91	74	68	0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix Spike - EPA Sample No.: EWX45 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	25200	0	21080	84	26- 90
2-Chlorophenol	25200	0	20900	83	25-102
1,4-Dichlorobenzene	16800	0	12420	74	28-104
N-Nitroso-di-n-prop.(1)	16800	0	8687	52	41-126
1,2,4-Trichlorobenzene	16800	0	12720	76	38-107
4-Chloro-3-methylphenol	25200	0	21090	84	26-103
Acenaphthene	16800	0	15400	92	31-137
4-Nitrophenol	25200	0	19400	77	11-114
2,4-Dinitrotoluene	16800	0	15130	90 *	28- 89
Pentachlorophenol	25200	0	0	0 *	17-109
Pyrene	16800	388.0	13910	80	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	25200	18140	72	15	35	26- 90
2-Chlorophenol	25200	18000	71	16	50	25-102
1,4-Dichlorobenzene	16800	10910	65	13	27	28-104
N-Nitroso-di-n-prop.(1)	16800	7931	47	10	38	41-126
1,2,4-Trichlorobenzene	16800	11400	68	11	23	38-107
4-Chloro-3-methylphenol	25200	17650	70	18	33	26-103
Acenaphthene	16800	12750	76	19	19	31-137
4-Nitrophenol	25200	19690	78	1	50	11-114
2,4-Dinitrotoluene	16800	12080	72	22	47	28- 89
Pentachlorophenol	25200	0	0 *	0	47	17-109
Pyrene	16800	11070	64	22	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: 0 out of 11 outside limits
Spike Recovery: 3 out of 22 outside limits

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK1

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Lab File ID: 9B0412C01 Lab Sample ID: 940407701

Instrument ID: 4510 Date Extracted: 04/12/94

Matrix: (soil/water) WATER Date Analyzed: 04/14/94

Level: (low/med) LOW Time Analyzed: 1056

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWW51	940407704	9U04077C04	04/14/94

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK2

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Lab File ID: EB0412C01S Lab Sample ID: 940407702

Instrument ID: 4530 Date Extracted: 04/12/94

Matrix: (soil/water) SOIL Date Analyzed: 04/21/94

Level: (low/med) LOW Time Analyzed: 1827

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWX45	940407705	4U04097C10A	04/21/94
02	EWX46	940407708	EU04077C06	04/21/94
03	EWX47	940407709	EU04077C07	04/21/94
04	EWX45MS	940407706	4U04097C13A	04/21/94
05	EWX45MSD	940407707	4U04077C06A	04/28/94

COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

ab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407701

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9B0412C01

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

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 04/12/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

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

CAS NO.	COMPOUND	Q	
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

ab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407701

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9B0412C01

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

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 04/12/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

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

CAS NO.	COMPOUND	Q
51-28-5	2,4-Dinitrophenol	25 U
100-02-7	4-Nitrophenol	25 U
132-64-9	Dibenzofuran	10 U
121-14-2	2,4-Dinitrotoluene	10 U
84-66-2	Diethylphthalate	10 U
7005-72-3	4-Chlorophenyl-phenylether	10 U
86-73-7	Fluorene	10 U
100-01-6	4-Nitroaniline	25 U
534-52-1	4,6-Dinitro-2-methylphenol	25 U
86-30-6	N-Nitrosodiphenylamine (1)	10 U
101-55-3	4-Bromophenyl-phenylether	10 U
118-74-1	Hexachlorobenzene	10 U
87-86-5	Pentachlorophenol	25 U
85-01-8	Phenanthrene	10 U
120-12-7	Anthracene	10 U
86-74-8	Carbazole	10 U
84-74-2	Di-n-butylphthalate	10 U
206-44-0	Fluoranthene	10 U
129-00-0	Pyrene	10 U
85-68-7	Butylbenzylphthalate	10 U
91-94-1	3,3'-Dichlorobenzidine	10 U
56-55-3	Benzo(a)anthracene	10 U
218-01-9	Chrysene	10 U
117-81-7	bis(2-Ethylhexyl)phthalate	10 U
117-84-0	Di-n-octylphthalate	10 U
205-99-2	Benzo(b)fluoranthene	10 U
207-08-9	Benzo(k)fluoranthene	10 U
50-32-8	Benzo(a)pyrene	10 U
193-39-5	Indeno(1,2,3-cd)pyrene	10 U
53-70-3	Dibenz(a,h)anthracene	10 U
191-24-2	Benzo(g,h,i)perylene	10 U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407701

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9B0412C01

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

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 04/12/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407702

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EB0412C01S

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
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
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	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
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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407702

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EB0412C01S

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	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	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
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.
SBLK2

ab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407702

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EB0412C01S

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.25	650	J

D

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWW51

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407704

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9U04077C04

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 04/12/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.0

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

SM 2/6/95

CAS NO.	COMPOUND		Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U J	unk
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U J	unk
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U J	unk
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	25	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	25	U J	unk
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
99-09-2	3-Nitroaniline	25	U	
83-32-9	Acenaphthene	10	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWW51

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407704

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9U04077C04

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 04/12/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.0

CONCENTRATION UNITS: (ug/L or ug/kg) UG/L

CAS NO.	COMPOUND		Q	
51-28-5	2,4-Dinitrophenol	25	U J	unk
100-02-7	4-Nitrophenol	25	U J	unk
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	25	U	
534-52-1	4,6-Dinitro-2-methylphenol	25	U J	unk
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	25	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	10	U	
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	10	U J	unk
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	10	U	
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenz(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	

(1) - Cannot be separated from Diphenylamine

SM 2/6/95

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWW51

ab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940407704

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9U04077C04

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 04/12/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.0

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.70	3	J
2.	ALIPHATIC HYDROCARBON	15.15	6	J
3.	ALIPHATIC HYDROCARBON	15.97	16	J
4.	ALIPHATIC HYDROCARBON	16.75	25	J
5.	ALIPHATIC HYDROCARBON	17.52	22	J
6.	ALIPHATIC HYDROCARBON	18.25	28	J
7.	ALIPHATIC HYDROCARBON	18.97	19	J
8.	ALIPHATIC HYDROCARBON	19.65	12	J
9.	ALIPHATIC HYDROCARBON	20.32	7	J
10.	ALIPHATIC HYDROCARBON	20.95	3	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX45

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407705

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 4U04097C10A

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: 90 decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	3300	U	
111-44-4	bis(2-Chloroethyl)ether	3300	U	
95-57-8	2-Chlorophenol	3300	U	
541-73-1	1,3-Dichlorobenzene	3300	U	
106-46-7	1,4-Dichlorobenzene	3300	U	
95-50-1	1,2-Dichlorobenzene	3300	U	
95-48-7	2-Methylphenol	3300	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	3300	U	
106-44-5	4-Methylphenol	3300	U	
621-64-7	N-Nitroso-di-n-propylamine	3300	U	
67-72-1	Hexachloroethane	3300	U	
98-95-3	Nitrobenzene	3300	U	
78-59-1	Isophorone	3300	U	
88-75-5	2-Nitrophenol	3300	U	
105-67-9	2,4-Dimethylphenol	3300	U	
111-91-1	bis(2-Chloroethoxy)methane	3300	U	
120-83-2	2,4-Dichlorophenol	3300	U	
120-82-1	1,2,4-Trichlorobenzene	3300	U	
91-20-3	Naphthalene	3300	U	
106-47-8	4-Chloroaniline	3300	U J	unk
87-68-3	Hexachlorobutadiene	3300	U	
59-50-7	4-Chloro-3-methylphenol	3300	U	
91-57-6	2-Methylnaphthalene	3300	U	
77-47-4	Hexachlorocyclopentadiene	3300	U J	unk
88-06-2	2,4,6-Trichlorophenol	3300	U	
95-95-4	2,4,5-Trichlorophenol	8000	U	
91-58-7	2-Chloronaphthalene	3300	U	
88-74-4	2-Nitroaniline	8000	U J	unk
131-11-3	Dimethylphthalate	3300	U	
208-96-8	Acenaphthylene	3300	U	
606-20-2	2,6-Dinitrotoluene	3300	U	
99-09-2	3-Nitroaniline	8000	U J	unk
83-32-9	Acenaphthene	3300	U	

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWX45

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407705

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 4U04097C10A

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: 90 decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.22	2600	BJ u
2.	ALIPHATIC HYDROCARBON	14.30	3100	J
3.	ALIPHATIC HYDROCARBON	23.05	1000	J
4.	ALIPHATIC HYDROCARBON	24.43	3200	J
5.	ALIPHATIC HYDROCARBON	25.73	710	J

w/ 5/2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX45

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407705

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 4U04097C10A

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: 90 decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
				GM 2/6/9
51-28-5	2,4-Dinitrophenol	8000	U J	unk
100-02-7	4-Nitrophenol	8000	U	
132-64-9	Dibenzofuran	3300	U	
121-14-2	2,4-Dinitrotoluene	3300	U	
84-66-2	Diethylphthalate	3300	U	
7005-72-3	4-Chlorophenyl-phenylether	3300	U	
86-73-7	Fluorene	3300	U	
100-01-6	4-Nitroaniline	8000	U J	unk
534-52-1	4,6-Dinitro-2-methylphenol	8000	U	
86-30-6	N-Nitrosodiphenylamine (1)	3300	U J	unk
101-55-3	4-Bromophenyl-phenylether	3300	U	
118-74-1	Hexachlorobenzene	3300	U	
87-86-5	Pentachlorophenol	8000	U JR	unk
85-01-8	Phenanthrene	3300	U	
120-12-7	Anthracene	3300	U	
86-74-8	Carbazole	3300	U J	unk
84-74-2	Di-n-butylphthalate	3300	U	
206-44-0	Fluoranthene	430	J	
129-00-0	Pyrene	390	J	
85-68-7	Butylbenzylphthalate	3300	U	
91-94-1	3,3'-Dichlorobenzidine	3300	U J	unk
56-55-3	Benzo(a)anthracene	260	J	
218-01-9	Chrysene	260	J	
117-81-7	bis(2-Ethylhexyl)phthalate	1400	J	
117-84-0	Di-n-octylphthalate	3300	U	
205-99-2	Benzo(b)fluoranthene	3300	U	
207-08-9	Benzo(k)fluoranthene	3300	U	
50-32-8	Benzo(a)pyrene	3300	U	
193-39-5	Indeno(1,2,3-cd)pyrene	3300	U	
53-70-3	Dibenz(a,h)anthracene	3300	U	
191-24-2	Benzo(g,h,i)perylene	3300	U	

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX47

ab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407709

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EU04077C07

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: 69 decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
51-28-5	2,4-Dinitrophenol	2600	U J	unk
100-02-7	4-Nitrophenol	2600	U	
132-64-9	Dibenzofuran	1100	U	
121-14-2	2,4-Dinitrotoluene	1100	U	
84-66-2	Diethylphthalate	1100	U	
7005-72-3	4-Chlorophenyl-phenylether	1100	U	
86-73-7	Fluorene	1100	U	
100-01-6	4-Nitroaniline	2600	U J	unk
534-52-1	4,6-Dinitro-2-methylphenol	2600	U	
86-30-6	N-Nitrosodiphenylamine (1)	1100	U J	unk
101-55-3	4-Bromophenyl-phenylether	1100	U	
118-74-1	Hexachlorobenzene	1100	U	
87-86-5	Pentachlorophenol	2600	U J	unk
85-01-8	Phenanthrene	110	J	
120-12-7	Anthracene	1100	U	
86-74-8	Carbazole	1100	U J	unk
84-74-2	Di-n-butylphthalate	1100	U	
206-44-0	Fluoranthene	210	J	
129-00-0	Pyrene	170	J	
85-68-7	Butylbenzylphthalate	1100	U	
91-94-1	3,3'-Dichlorobenzidine	1100	U J	unk
56-55-3	Benzo(a)anthracene	120	J	
218-01-9	Chrysene	160	J	
117-81-7	bis(2-Ethylhexyl)phthalate	1000	J	
117-84-0	Di-n-octylphthalate	1100	U	
205-99-2	Benzo(b)fluoranthene	210	J	
207-08-9	Benzo(k)fluoranthene	1100	U	
50-32-8	Benzo(a)pyrene	140	J	
193-39-5	Indeno(1,2,3-cd)pyrene	1100	U	
53-70-3	Dibenz(a,h)anthracene	1100	U	
191-24-2	Benzo(g,h,i)perylene	1100	U	

SM 2/6/95

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
EWX47

ab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407709

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EU04077C07

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: 69 decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.22	1100	BJ u
2.	UNKNOWN	16.98	430	J
3.	ALIPHATIC HYDROCARBON	23.05	590	J
4.	ALIPHATIC COMPOUND	23.75	370	J
5.	ALIPHATIC HYDROCARBON	24.43	2300	J
6.	UNKNOWN	24.80	350	J
7.	ALIPHATIC COMPOUND	25.08	270	J
8.	ALIPHATIC COMPOUND	25.35	310	J
9.	UNKNOWN	25.42	290	J
10.	ALIPHATIC HYDROCARBON	25.73	3000	J
11.	UNKNOWN	26.02	860	J
12.	ALIPHATIC COMPOUND	26.12	340	J
13.	UNKNOWN	26.45	320	J
14.	UNKNOWN	26.60	780	J
15.	UNKNOWN	26.92	850	J

WL 5/24

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX46

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407708

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EU04077C06

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: 75 decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

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

SM 2/6/95

CAS NO.	COMPOUND		Q	
51-28-5	2,4-Dinitrophenol	3200	U J	unk
100-02-7	4-Nitrophenol	3200	U	
132-64-9	Dibenzofuran	1300	U	
121-14-2	2,4-Dinitrotoluene	1300	U	
84-66-2	Diethylphthalate	1300	U	
7005-72-3	4-Chlorophenyl-phenylether	1300	U	
86-73-7	Fluorene	120	J	
100-01-6	4-Nitroaniline	3200	U J	unk
534-52-1	4,6-Dinitro-2-methylphenol	3200	U	
86-30-6	N-Nitrosodiphenylamine (1)	1300	U J	unk
101-55-3	4-Bromophenyl-phenylether	1300	U	
118-74-1	Hexachlorobenzene	1300	U	
87-86-5	Pentachlorophenol	3200	U J	unk
85-01-8	Phenanthrene	1500		
120-12-7	Anthracene	310	J	
86-74-8	Carbazole	1300	U J	unk
84-74-2	Di-n-butylphthalate	1300	U	
206-44-0	Fluoranthene	3800		
129-00-0	Pyrene	2800		
85-68-7	Butylbenzylphthalate	1300	U	
91-94-1	3,3'-Dichlorobenzidine	1300	U J	unk
56-55-3	Benzo(a)anthracene	1700		
218-01-9	Chrysene	1500		
117-81-7	bis(2-Ethylhexyl)phthalate	730	J	
117-84-0	Di-n-octylphthalate	1300	U	
205-99-2	Benzo(b)fluoranthene	2300		
207-08-9	Benzo(k)fluoranthene	1000	J	
50-32-8	Benzo(a)pyrene	1700		
193-39-5	Indeno(1,2,3-cd)pyrene	1100	J	
53-70-3	Dibenz(a,h)anthracene	200	J	
191-24-2	Benzo(g,h,i)perylene	550	J	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX46

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407708

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EU04077C06

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: 75 decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	1300	U	
111-44-4	bis(2-Chloroethyl)ether	1300	U	
95-57-8	2-Chlorophenol	1300	U	
541-73-1	1,3-Dichlorobenzene	1300	U	
106-46-7	1,4-Dichlorobenzene	1300	U	
95-50-1	1,2-Dichlorobenzene	1300	U	
95-48-7	2-Methylphenol	1300	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	1300	U	
106-44-5	4-Methylphenol	1300	U	
621-64-7	N-Nitroso-di-n-propylamine	1300	U	
67-72-1	Hexachloroethane	1300	U	
98-95-3	Nitrobenzene	1300	U	
78-59-1	Isophorone	1300	U	
88-75-5	2-Nitrophenol	1300	U	
105-67-9	2,4-Dimethylphenol	1300	U	
111-91-1	bis(2-Chloroethoxy)methane	1300	U	
120-83-2	2,4-Dichlorophenol	1300	U	
120-82-1	1,2,4-Trichlorobenzene	1300	U	
91-20-3	Naphthalene	130	J	
106-47-8	4-Chloroaniline	1300	U J	unk
87-68-3	Hexachlorobutadiene	1300	U	
59-50-7	4-Chloro-3-methylphenol	1300	U	
91-57-6	2-Methylnaphthalene	1300	U	
77-47-4	Hexachlorocyclopentadiene	1300	U J	unk
88-06-2	2,4,6-Trichlorophenol	1300	U	
95-95-4	2,4,5-Trichlorophenol	3200	U	
91-58-7	2-Chloronaphthalene	1300	U	
88-74-4	2-Nitroaniline	3200	U J	unk
131-11-3	Dimethylphthalate	1300	U	
208-96-8	Acenaphthylene	180	J	
606-20-2	2,6-Dinitrotoluene	1300	U	
99-09-2	3-Nitroaniline	3200	U J	unk
83-32-9	Acenaphthene	1300	U	

SM 2161

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWX46

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407708

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EU04077C06

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: 75 decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.17	1700	BJ u
2.	UNKNOWN	2.68	430	J
3.	ALIPHATIC HYDROCARBON	14.25	5500	J
4.	UNKNOWN	16.95	440	J
5.	ALIPHATIC HYDROCARBON	23.02	1500	J
6.	UNKNOWN	23.52	690	J
7.	UNKNOWN	23.72	1600	J
8.	POLYAROMATIC HYDROCARBON	23.82	1200	J
9.	ALIPHATIC HYDROCARBON	24.40	4600	J
10.	ALIPHATIC HYDROCARBON	25.68	1200	J
11.	UNKNOWN	25.80	590	J

w/ 5/2

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX47

ab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: _____ SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940407709

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EU04077C07

Level: (low/med) LOW Date Received: 04/12/94

% Moisture: 69 decanted: (Y/N) N Date Extracted: 04/12/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 04/21/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) UG/KG	Q	
108-95-2	Phenol	1100	U	
111-44-4	bis(2-Chloroethyl)ether	1100	U	
95-57-8	2-Chlorophenol	1100	U	
541-73-1	1,3-Dichlorobenzene	1100	U	
106-46-7	1,4-Dichlorobenzene	1100	U	
95-50-1	1,2-Dichlorobenzene	1100	U	
95-48-7	2-Methylphenol	1100	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	1100	U	
106-44-5	4-Methylphenol	1100	U	
621-64-7	N-Nitroso-di-n-propylamine	1100	U	
67-72-1	Hexachloroethane	1100	U	
98-95-3	Nitrobenzene	1100	U	
78-59-1	Isophorone	1100	U	
88-75-5	2-Nitrophenol	1100	U	
105-67-9	2,4-Dimethylphenol	1100	U	
111-91-1	bis(2-Chloroethoxy)methane	1100	U	
120-83-2	2,4-Dichlorophenol	1100	U	
120-82-1	1,2,4-Trichlorobenzene	1100	U	
91-20-3	Naphthalene	1100	U	
106-47-8	4-Chloroaniline	1100	U J	unk
87-68-3	Hexachlorobutadiene	1100	U	
59-50-7	4-Chloro-3-methylphenol	1100	U	
91-57-6	2-Methylnaphthalene	1100	U	
77-47-4	Hexachlorocyclopentadiene	1100	U J	unk
88-06-2	2,4,6-Trichlorophenol	1100	U	
95-95-4	2,4,5-Trichlorophenol	2600	U	
91-58-7	2-Chloronaphthalene	1100	U	
88-74-4	2-Nitroaniline	2600	U J	unk
131-11-3	Dimethylphthalate	1100	U	
208-96-8	Acenaphthylene	1100	U	
606-20-2	2,6-Dinitrotoluene	1100	U	
99-09-2	3-Nitroaniline	2600	U J	unk
83-32-9	Acenaphthene	1100	U	

SM 2/6/95

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

GC Column(1): DB1701 ID: 0.53(mm) GC Column(2): DB-5 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK2	88	88	67	64			0
02	EWW51	61	58*	20*	18*			3

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

GC Column(1): DB1701 ID: 0.53(mm) GC Column(2): DB-5 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK1	98	82	110	91			0
02	EWX45	80	70	2545*	80			1
03	EWX46	77	62	124	74			0
04	EWX47	42*	38*	53*	43*			4
05	EWX45MS	86	74	113	99			0
06	EWX45MSD	84	76	152*	90			1

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Matrix Spike - EPA Sample No.: EWX45

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	166.000	0	125	75	46-127
Heptachlor	166.000	0	131	79	35-130
Aldrin	166.000	0	124	75	34-132
Dieldrin	333.000	0	211	63	31-134
Endrin	333.000	0	261	78	42-139
4,4'-DDT	333.000	736	1560	247 *	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	166.000	123	74	1	50	46-127
Heptachlor	166.000	128	77	3	31	35-130
Aldrin	166.000	123	74	1	43	34-132
Dieldrin	333.000	209	63	0	38	31-134
Endrin	333.000	251	75	4	45	42-139
4,4'-DDT	333.000	1540	241 *	2	50	23-134

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 2 out of 12 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK2

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Lab Sample ID: 940477-002 Lab File ID:

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc) CONT

Sulfur Cleanup: (Y/N) N Date Extracted: 04/12/94

Date Analyzed (1): 05/06/94 Date Analyzed (2): 05/06/94

Time Analyzed (1): 1448 Time Analyzed (2): 1448

Instrument ID (1): EVA30A Instrument ID (2): EVA30B

GC Column (1): DB1701 ID: 0.53 (mm) GC Column (2): DB-5 ID: 0.53 (mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWW51	940477-004	05/06/94	05/06/94

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK1

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Lab Sample ID: 940477-001 Lab File ID:

Matrix:(soil/water) SOIL Extraction:(SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 04/14/94

Date Analyzed (1): 05/08/94 Date Analyzed (2): 05/08/94

Time Analyzed (1): 1423 Time Analyzed (2): 1423

Instrument ID (1): AVA30A Instrument ID (2): AVA30B

GC Column (1): DB1701 ID: 0.53 (mm) GC Column (2): DB-5 ID: 0.53 (mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWX45	940477-005	05/08/94	05/08/94
02	EWX46	940477-008	05/08/94	05/08/94
03	EWX47	940477-009	05/08/94	05/08/94
04	EWX45MS	940477-006	05/08/94	05/08/94
05	EWX45MSD	940477-007	05/08/94	05/08/94

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940477-001

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/14/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/08/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK2

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940477-002

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 04/12/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/06/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWW51

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Matrix: (soil/water) WATER Lab Sample ID: 940477-004

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 04/12/94

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 04/12/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/06/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 5.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

J

SW 2/6/95

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX45

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940477-005

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 90 decanted: (Y/N) N Date Received: 04/12/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/14/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/08/94

Injection Volume: 1.00 (uL) Dilution Factor: 4.00

GPC Cleanup: (Y/N) Y pH: 8.3 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	68	U J
319-85-7	beta-BHC	68	U
319-86-8	delta-BHC	68	U
58-89-9	gamma-BHC (Lindane)	68	U
76-44-8	Heptachlor	68	U
309-00-2	Aldrin	68	U
1024-57-3	Heptachlor epoxide	68	U
959-98-8	Endosulfan I	68	U
60-57-1	Dieldrin	130	U
72-55-9	4,4'-DDE	78	J
72-20-8	Endrin	130	U
33213-65-9	Endosulfan II	130	U
72-54-8	4,4'-DDD	370	J
1031-07-8	Endosulfan sulfate	130	U J
50-29-3	4,4'-DDT	740	J
72-43-5	Methoxychlor	680	U J
53494-70-5	Endrin ketone	130	U
7421-93-4	Endrin aldehyde	130	U
5103-71-9	alpha-Chlordane	68	U
5103-74-2	gamma-Chlordane	68	U
8001-35-2	Toxaphene	6800	U
12674-11-2	Aroclor-1016	1300	U
11104-28-2	Aroclor-1221	2700	U
11141-16-5	Aroclor-1232	1300	U
53469-21-9	Aroclor-1242	1300	U
12672-29-6	Aroclor-1248	1300	U
11097-69-1	Aroclor-1254	1300	U
11096-82-5	Aroclor-1260	1300	U

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VMA 6/2

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX46

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940477-008

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 71 decanted: (Y/N) N Date Received: 04/12/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/14/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/08/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.3 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	5.9	U
319-85-7	beta-BHC	5.9	U
319-86-8	delta-BHC	5.9	U
58-89-9	gamma-BHC (Lindane)	5.9	U
76-44-8	Heptachlor	5.9	U
309-00-2	Aldrin	5.9	U
1024-57-3	Heptachlor epoxide	5.9	U
959-98-8	Endosulfan I	5.9	U
60-57-1	Dieldrin	11	U
72-55-9	4,4'-DDE	21	P
72-20-8	Endrin	11	U
33213-65-9	Endosulfan II	11	U
72-54-8	4,4'-DDD	30	P
1031-07-8	Endosulfan sulfate	11	U
50-29-3	4,4'-DDT	11	U
72-43-5	Methoxychlor	59	U
53494-70-5	Endrin ketone	11	U
7421-93-4	Endrin aldehyde	11	U
5103-71-9	alpha-Chlordane	5.9	U
5103-74-2	gamma-Chlordane	5.9	U
8001-35-2	Toxaphene	590	U J
12674-11-2	Aroclor-1016	110	U
11104-28-2	Aroclor-1221	230	U
11141-16-5	Aroclor-1232	110	U
53469-21-9	Aroclor-1242	110	U
12672-29-6	Aroclor-1248	110	U
11097-69-1	Aroclor-1254	110	U
11096-82-5	Aroclor-1260	110	U

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWX47

Lab Name: KEYSTONE ENV. Contract: 68-D2-0020

Lab Code: KEYTX Case No.: 21882 SAS No.: SDG No.: EWW48

Matrix: (soil/water) SOIL Lab Sample ID: 940477-009

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

% Moisture: 69 decanted: (Y/N) N Date Received: 04/12/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 04/14/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/08/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	5.5	U J	SM 2/6/95
319-85-7	beta-BHC	5.5	U	
319-86-8	delta-BHC	5.5	U	
58-89-9	gamma-BHC (Lindane)	5.5	U	
76-44-8	Heptachlor	5.5	U	
309-00-2	Aldrin	5.5	U	
1024-57-3	Heptachlor epoxide	5.5	U	
959-98-8	Endosulfan I	5.5	U	
60-57-1	Dieldrin	11	U	
72-55-9	4,4'-DDE	11	J	JMA 6/2
72-20-8	Endrin	11	U J	
33213-65-9	Endosulfan II	11	U	
72-54-8	4,4'-DDD	11	U	
1031-07-8	Endosulfan sulfate	11	U	
50-29-3	4,4'-DDT	11	U	
72-43-5	Methoxychlor	55	U	
53494-70-5	Endrin ketone	11	U	
7421-93-4	Endrin aldehyde	11	U	
5103-71-9	alpha-Chlordane	5.5	U	
5103-74-2	gamma-Chlordane	5.5	U	
8001-35-2	Toxaphene	550	U	
12674-11-2	Aroclor-1016	110	U	
11104-28-2	Aroclor-1221	220	U	
11141-16-5	Aroclor-1232	110	U	
53469-21-9	Aroclor-1242	110	U	
12672-29-6	Aroclor-1248	110	U	
11097-69-1	Aroclor-1254	110	U	
11096-82-5	Aroclor-1260	110	U	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. IL

Case No. 21882 Site Name Location: Ave. O & 118th st

Contractor or EPA Lab: Keystone Data User: B+V

No. of Samples: 5 Date Samples or Data Received: 5-16-94

Have Chain-of-Custody records been received? YES ✓ NO ____
Have traffic reports or packing lists been received? YES ✓ NO ____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____
_____ _____ _____ _____

Are basic data forms in? YES ✓ NO ____
No. of samples claimed: 5 No. of samples received: 5

Received by: Lynette Burnett Date: 5-16-94

Received by LSSS: Allison C Harvey Date: 5-16-94

Review started: 5-18-94 Reviewer Signature: M Kennedy

Total time spent on review: 5 1/2 Date review completed: 5-19-94

Copied by: Marvin Date: 05-26-94

Mailed to user by: [illegible] Harris Date: 5-27-94

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, SSCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓ if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____
_____

Received by Data Mgmt. Coordinator for Files Date: _____