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SAUGET - SAUGET
LAB · DATA 157664

SUBSURFACE SOIL
ORGANICS

SUBSURFACE SOIL ORGANICS

CASE NARRATIVE

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ANALYTICAL SERVICES CENTER, P.O. BOX D, BUFFALO, NEW YORK 14225, TEL. 716-631-0360
International Specialists in the Environmental Sciences

March 6, 1987

Job #s U-4727
U-4738
U-4767
U-4819

Sample #				
	DC-H2-16	DC-H5-21	DC-K2-25	DC-GB-29
	DC-H3-17	DC-H6-22	DC-G1-26	DC-G2-30
	DC-H3-18	DC-H7-23	DC-G1-27	DC-G2-31
	DC-H4-19	DC-H8-24	DC-H9-28	DC-K3-32
	DC-HB-20			

CASE NARRATIVE

Enclosed are the organic analytical results for soil samples received on January 8, 10, 15, and 24, 1987. All samples were received in good condition.

All results in this pack are reported on a wet weight basis (as received). Percent moisture informtion has been reported on Form I if available.

Sample DC-H4-19, DC-H2-16, DC-G2-30, DC-G2-31 were analyzed for volatile organics under medium level methodologies because of the level of contaminants present.

The response factor for the following exceeded the 25% difference level in the continuing calibration check:

1,1-dichloroethene - file C6409 (1/15/87)
file C6436 (1/16/87)

Since 1,1-dichloroethene was not detected in any of the samples, the response factor should have no effect on data quality.

Compounds are reported as UNKNOWN if, in the judgment of our mass spectral specialist, no valid tentative identification can be made.

Results flagged "E" indicate an approximate concentration. The amount detected in the analysis exceeds the calibrated range. True values are possibly underestimated.

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All results are expressed on an "as received" basis. To convert these results to a dry weight concentration, all values reported (including U or "less than" values but excluding pH values) should be multiplied by a factor equal to:

$$\left(\frac{1}{1 - M}\right)$$

where M is the moisture percentage expressed as a decimal. (10% moisture, M = 0.1)

For this case, factors are as follows:

Field ID	Lab ID	% Moisture	Multiply By
DC-H2-16	0097	34	1.51 → 1.52
DC-H3-17	0098	22	1.28
DC-H3-18	0099	24	1.32
DC-H4-19	0100	28	1.31 → 1.39
DC-HB-20	0101	22	1.28
DC-H5-21	0102	19	1.23
DC-H6-22	0156	26	1.35
DC-H7-23	0157	15	1.18
DC-H8-24	0158	23	1.30
DC-K2-25	0394	18	1.22
DC-G1-26	0395	25	1.33
DC-G1-27	0396	25	1.33
DC-H9-28	0397	21	1.27
DC-GB-29	0398	21	1.27
DC-G2-30	0399	21	1.27
DC-G2-31	0400	21	1.27
DC-K3-32	0643	34	1.51 → 1.52

(Note Mem = 1.30, 99% limits 1.07 - 1.53)

NO ~~GB 29 Post Results~~

Due to the level of contaminants, particularly PCBs, in the semivolatile and pesticide/PCB fractions, extracts could not be concentrated and/or required dilutions preventing determination of surrogate recoveries.

As agreed upon in a November 24, 1986, conversation with Ron Turpin of IEPA, PCB second column confirmation was not performed on all smples from this batch. A few samples were selected and the PCBs confirmed. The initial analyses were deemed sufficiently similar to justify the minimal number of second column confirmation.

If you have any questions, please contact me at (716)-631-0360.

Andrew P. Clifton / AJK

Andrew P. Clifton, Director
Analytical Services Center

APC/drb

Enclosures

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International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: IL 3140
Project Name: DEAN CREEK PROJECT
Project Manager: MIKE MILLER
Samplers: (Signatures) Daniel V. Sewall
Field Team Leader: DAN SEWALL

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	VOA	SVOA	METALS	PESTICIDES	PCBs		REMARKS
AC-N2-16	1-5-87	1200	X			UNKNOWN / OVA SCREEN > 1000 PPM	BORING N-2 5'-20'	4	1	1	2				VERY STRONG ORGANIC ODOR
AC-N3-17	1-6-87	1000	X			UNKNOWN / OVA SCREEN 68 PPM	BORING N-3 10'-20'	4	1	1	2				
AC-N3-18	1-6-87	1000	X			UNKNOWN / OVA SCREEN 68 PPM	BORING N-3 10'-20'	4	1	1	2				DUPLICATE OF AC-N3-17
AC-N4-19	1-6-87	1500	X			UNKNOWN / OVA SCREEN > 1000 PPM	BORING N-4 10'-25'	4	1	1	2				VERY STRONG ORGANIC ODOR
AC-N0-20	1-7-87	1300	X			UNKNOWN	SOIL BLANK	4	1	1	2				BLANK
AC-N5-21	1-7-87	1330	X			UNKNOWN / OVA SCREEN 76 PPM	BORING N-5 0'-10'	4	1	1	2				SLIGHT ORGANIC ODOR.

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
Daniel Sewall	1-7-87 / 1730	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 2219748322
Relinquished By: (Signature) Fed. Express	Date/Time: 1-8-87 / 0900	Received For Laboratory By: (Signature) William H. Hoover	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 1-7-87

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

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CHAIN-OF-CUSTODY RECORD

Project No.:	Project Name:	Project Manager:
1L3140	DEAD CREEK PROJECT	MIKE MILLER

Samplers: (Signatures)	Field Team Leader:
Daniel T. Sewall	DAN SEWALL

STATION NUMBER	DATE	TIME	SAMPLE TYPE: COMP	GRAB	AIR	SAMPLE INFORMATION: EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	HSL ORGANICS (4 OZ)	METALS & CYANIDE (5 OZ)	VOLATILE ORGANICS (120 ML)				REMARKS
C-HL-22	1-8-87	0930	X			UNKNOWN / OVA SCREEN 62 PPM	BORING H-6, 35'-50'	4	1	1	2				SLIGHT ORGANIC ODOR
C-HL-23	1-8-87	1400	X			UNKNOWN / OVA SCREEN 4.6 PPM	BORING H-6, 35'-50'	4	1	1	2				
C-HL-24	1-9-87	1100	X			UNKNOWN / OVA SCREEN 182 PPM	BORING H-8 5'-15'	4	1	1	2				SLIGHT ORGANIC ODOR

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
Daniel T. Sewall	1-9-87/1530	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 2219748333
Fed Express	HK-87/0950	Received For Laboratory By: (Signature) William H. Howard	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 1/9/87

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CHAIN-OF-CUSTODY RECORD

Project No.:	Project Name:	Project Manager:
1L 3140	DEAD CREEK PROJECT	MIKE MILLER

Samplers: (Signatures) [signature] [signature]

Field Team Leader: DAN SEWALL

STATION NUMBER	DATE	TIME	SAMPLE TYPE: COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	HSL ORGANICS (8 oz)	METALS & CYANIDE (8 oz)	VOLATILE ORGANICS (120 ml)				REMARKS	
-12-25	1-12-87	1100	X			UNKNOWN / OVA SCREEN 300 PPM	BORING K-2, 0'-10'	4	1	1	2				SLIGHT ORGANIC ODOR.	264
-61-26	1-12-87	1430	X			UNKNOWN / OVA SCREEN 6.2 PPM	BORING G-1, 0'-10'	4	1	1	2					265
61-27	1-12-87	1445	X			UNKNOWN / OVA SCREEN (NEGATIVE RESPONSE)	BORING G-1, 10'-20'	4	1	1	2					266
-49-28	1-13-87	1400	X			UNKNOWN / OVA SCREEN 32 PPM	BORING H-9, 15'-25'	4	1	1	2					267
68-29	1-14-87	1545	X			UNKNOWN /	SOIL BLANK	4	1	1	2				BLANK SOIL	268
-62-30	1-14-87	1015	X			UNKNOWN / OVA SCREEN 58 PPM	BORING G-2 5'-15'	4	1	1	2				SLIGHT ORGANIC ODOR	269
-62-31	1-14-87	1015	X			UNKNOWN / OVA SCREEN 58 PPM	BORING G-2 5'-15'	4	1	1	2				DUPLICATE OF DC-62-30	400

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
[signature]	1-14-87 / 1800	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 228 519 9011
Relinquished By: (Signature) [signature]	Date/Time: 1-15-87 / 0930	Received For Laboratory By: (Signature) [signature]	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 1-14-87

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CHAIN-OF-CUSTODY RECORD

Project No.: 12 3140

Project Name: DEAD CREEK PROJECT

Project Manager: MIKE MILLER

Samplers: (Signatures) Daniel T. Sewall

Field Team Leader: DAN SEWALL

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	VOL ORGANICS - 8 oz	PESTICIDES & CYANIDE - 8 oz	SEMI-VOLATILE ORGANICS - 4 oz				REMARKS
KC-K3-32	1-22-87	1800	X			UNKNOWN / OVA SCREEN 320 ppm	BORING K-3 12'-20'	4	1	1	8				

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
Daniel T. Sewall	1-23-87/1600	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	
						BL/Airbill Number: 2285199033 — Date: 1-23-87
Relinquished By: (Signature) Fed. Express	Date/Time: 1-24-87/1000	Received For Laboratory By: (Signature) William H. Hand	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

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SURROGATE PERCENT RECOVERY SUMMARY

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SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-4727 Contract Laboratory Ecology & Environment Contract No. IL-3140

Low X Medium ____

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)			SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE ** (20-150)
DC-H3-17	101	92	106	88	85	101			96	123*	62	107
DC-H3-18	98	92	113	82	100	118			82	44	92	INF
DC-H5-21	101	112	94	100	108	88			83	46	48	INF
DC-H8-20	104	94	109	60	86	94			68	66	78	93
DC-H6-22	94	99	108	72	80	79			76	77	63	INF
DC-H7-23	93	97	108	92	95	103			99	106	64	116
DC-H8-24	104	98	113	85	113	77			83	58	67	DL
DC-K2-25	84	78	88	98	113	82			76	87	61	INF
DC-G1-26	106	93	103	84	89	120			70	82	49	111
DC-G1-27	100	103	115	68	78	136			58	69	61	115
DC-H9-28	104	90	104	71	86	88			74	56	71	108
DC-G8-29	108	85	104	90	91	146*			66	84	49	113
DC-K2-32	110	110	108	98	108	73			62	81	53	DL
DC-H2-16	NR	NR	NR	DL	DL	DL			DL	DL	DL	DL
DC-H4-19	NR	NR	NR	DL	DL	DL			DL	DL	DL	DL
DC-K3-32MS	107	92	105	99	108	77			64	72	54	DL
DC-K3-32MSD	109	94	106	105	111	81			65	82	60	DL
DC-H3-18MS	90	91	100	NR	←						→	NR
DC-H3-18MSD	92	94	104	NR	←						→	NR
DC-G1-27MS	97	89	98	NR	←						→	NR
DC-G1-27MSD	100	88	99	NR	←						→	NR
C 6410	93	102	103	NR	←						→	NR
C 6437	105	95	94	NR	←						→	NR
C 6656	113	100	109	NR	←						→	NR
C 6555	90	88	92	NR	←						→	NR.

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: ____ out of ____ ; outside of QC limits

Semi-Volatiles: ____ out of ____ ; outside of QC limits

Pesticides: ____ out of ____ ; outside of QC limits

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Comments: NR = NOT REQUIRED
DL = DILUTED OUT
INF = INTERFERENCE

FORM II

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SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-4727 Contract Laboratory Ecology & Environment Contract No. IL-3140

Low X Medium ____

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)	SEMI-VOLATILE:	SEMI-VOLATILE:	SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO PHENOL (19-122)	PESTICIDE: ** DIBUTYL-CHLORENDATE (20-150)
D1573	NR	NR	NR	44	46	54			99	101	62	NR
DCH5-21MS	NR	NR	NR	85	94	114			97	87	89	NR
DCH5-21MSD	NR	NR	NR	89	102	110			95	55	95	NR
D1658	NR	NR	NR	86	94	116			75	80	63	NR
D1537	NR	NR	NR	88	93	108			99	101	62	NR
D1584	NR	NR	NR	50	71	116			46	49	65	NR
DC-62-30	NR	NR	NR	DL	DL	DL			DL	DL	DL	DL
DC-62-31	NR	NR	NR	DL	DL	DL			DL	DL	DL	DL
DC-H5-21MS	NR	←								→	NR	INF
DC-H5-21MSD	NR	←								→	NR	INF

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 69 ; outside of QC limits

Semi-Volatiles: 2 out of 150 ; outside of QC limits

Pesticides: 0 out of 21 ; outside of QC limits

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Comments: NR = NOT REQUIRED
DL = DILUTED OUT
INF = INTERFERENCE

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SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. -4727 Contract Laboratory Ecology & Environment Inc. Contract No. IL-3140

Low _____ Medium X

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLOROETHANE-D4 (70-121)	SEMI-VOLATILE: NITROBENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUOROBIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)	SEMI-VOLATILE:	SEMI-VOLATILE:	SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUOROPHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMOPHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE** (20-150)
C6330	104	108	108									
DC-H4-19	96	98	98									
DC-H4-19MS	98	100	96									
DC-H4-19MSD	90	92	88									
DC-H2-16	90	90	86									
C6515	93	95	101									
DC-G2-30	100	103	103									
DC-G2-31	97	98	103									
C6384	114	102	92									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 27 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

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Comments: _____

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MS/MSD SUMMARY

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level X Medium Level

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. DC-H3-18	1,1-Dicholoroethene	110	0	170	154	150	136	12	22	59-172
	Trichloroethene	↓	0	100	91	96	87	4	24	62-137
	Chlorobenzene	↓	58	160	93	160	93	0	21	60-133
	Toluene	↓	110	240	118	230	109	4	21	59-139
	Benzene	↓	54	180	114	180	114	0	21	66-142
B/N SMO SAMPLE NO. DC-K3-32	1,2,4-Trichlorobenzene	3300	0	2700	82	2800	85	3.6	23	38-107
	Acenaphthene	3300	0	3000	91	3100	94	3.3	19	31-137
	2,4 Dinitrotoluene	3300	0	3900	118*	4100	124*	5.0	47	28-89
	Pyrene	3300	420	2400	60	2300	57	4.2	36	35-142
	N-Nitrosodi-n-Propylamine	3300	0	2800	85	2600	79	7.4	38	41-126
	1,4-Dichlorobenzene	3300	0	2400	73	2400	73	0	27	28-104
ACID SMO SAMPLE NO. DC-K3-32	Pentachlorophenol	6600	0	4500	68	4800	73	6.4	47	17-109
	Phenol	6600	0	4800	73	4900	74	8.1	35	26-90
	2-Chlorophenol	6600	0	5200	79	5400	82	3.8	50	25-102
	4-Chloro-3-Methylphenol	6600	0	2700	41	2700	41	0	33	26-103
	4-Nitrophenol	6600	0	2400	36	3300	50	32	50	11-114
PEST SMO SAMPLE NO. DC-K3-32	Lindane	26.7	0	DL		DL			50	46-127
	Heptachlor	26.7	0	DL		DL			31	35-130
	Aldrin	26.7	0	DL		DL			43	34-132
	Dieldrin	66.7	0	DL		DL			38	31-134
	Endrin	66.7	0	DL		DL			45	42-139
	4,4'-DDT	66.7	0	DL		DL			50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5; outside QC limits
B/N 0 out of 6; outside QC limits
ACID 0 out of 5; outside QC limits
PEST ___ out of ___; outside QC limits

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N 2 out of 12; outside QC limits
ACID 0 out of 10; outside QC limits
PEST ___ out of ___; outside QC limits

Comments: PESTICIDE MS AND MSD DILUTED OUT DUE TO PCB'S PRESENT IN THE SAMPLE.

FORM III

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level X Medium Level

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. DC-G1-27	1,1-Dicholorethene	95	0	120	127	130	137	8	22	59-172
	Trichloroethene			71	75	75	79	5	24	62-137
	Chlorobenzene			79	83	88	93	11	21	60-133
	Toluene			78	82	87	92	11	21	59-139
	Benzene			84	88	92	97	9	21	66-142
B/N SMO SAMPLE NO. DC-HB-20	1,2,4-Trichlorobenzene	3300	0	3000	91	3200	97	6	23	38-107
	Acenaphthene			3200	97	3500	106	9	19	31-137
	2,4 Dinitrotoluene			4800	145*	5600	170*	15	47	28-89
	Pyrene			4000	121	3700	112	8	36	35-142
	N-Nitrosodi-n-Propylamine			3000	91	3000	91	0	38	41-126
	1,4-Dichlorobenzene			2600	79	2800	85	7	27	28-104
ACID SMO SAMPLE NO. DC-HB-20	Pentachlorophenol	6600	0	5200	79	6000	91	14	47	17-109
	Phenol			6800	103*	6800	103*	0	35	26-90
	2-Chlorophenol			5700	86	6400	97	11	50	25-102
	4-Chloro-3-Methylphenol			6200	94	6800	103	9	33	26-103
	4-Nitrophenol			5400	82	7300	111	30	50	11-114
PEST SMO SAMPLE NO. DC-HB-20	Lindane	26.5	0	24.2	91	24.2	91	0	50	46-127
	Heptachlor	26.5		30.4	115	27.3	103	11	31	35-130
	Aldrin	26.5		20.3	77	18.7	71	8	43	34-132
	Dieldrin	66.3		63.2	95	56.9	86	10	38	31-134
	Endrin	66.3		53.0	80	51.5	78	3	45	42-139
	4,4'-DDT	66.3		INF	-	INF	-	-	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5; outside QC limits
B/N 0 out of 6; outside QC limits
ACID 0 out of 5; outside QC limits
PEST 0 out of 6; outside QC limits

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N 2 out of 12; outside QC limits
ACID 2 out of 10; outside QC limits
PEST 0 out of 12; outside QC limits

Comments:
INF = INTERFERENCE

FORM III

7/85

495095

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level X Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA SMO SAMPLE NO. DC-K3-32	1,1-Dicholorethene	56	0	62	111	60	107	3	22	59-172
	Trichloroethene	↓	↓	50	89	49	88	2	24	62-137
	Chlorobenzene			54	96	55	98	2	21	60-133
	Toluene			54	96	56	100	4	21	59-139
	Benzene			60	107	61	109	2	21	66-142
B/N SMO SAMPLE NO. _____	1,2,4-Trichlorobenzene								23	38-107
	Acenaphthene								19	31-137
	2,4 Dinitrotoluene								47	28-89
	Pyrene								36	35-142
	N-Nitrosodi-n-Propylamine								38	41-126
	1,4-Dichlorobenzene								27	28-104
ACID SMO SAMPLE NO. _____	Pentachlorophenol								47	17-109
	Phenol								35	26-90
	2-Chlorophenol								50	25-102
	4-Chloro-3-Methylphenol								33	26-103
	4-Nitrophenol								50	11-114
PEST SMO SAMPLE NO. _____	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
	4,4'-DDT								50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

Comments: _____

FORM III

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. V-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level _____ Medium Level X

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA SMO SAMPLE NO. X-H4-19	1,1-Dicholorethene	50000	0	28000	56*	53000	106	62*	22	59-172
	Trichloroethene	↓	0	28000	56*	37000	74	28*	24	62-137
	Chlorobenzene		9200	60000	104	65000	112	8	21	60-133
	Toluene		55000	150000	190*	170000	230*	13	21	59-139
	Benzene		16000	71000	110	86000	140	19	21	66-142
B/N SMO SAMPLE NO.	1,2,4-Trichlorobenzene								23	38-107
	Acenaphthene								19	31-137
	2,4 Dinitrotoluene								47	28-89
	Pyrene								36	35-142
	N-Nitrosodi-n-Propylamine								38	41-126
	1,4-Dichlorobenzene								27	28-104
ACID SMO SAMPLE NO.	Pentachlorophenol								47	17-109
	Phenol								35	28-90
	2-Chlorophenol								50	25-102
	4-Chloro-3-Methylphenol								33	26-103
	4-Nitrophenol								50	11-114
PEST SMO SAMPLE NO.	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
	4,4'-DDT								50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 2 out of 5; outside QC limits
B/N ____ out of ____; outside QC limits
ACID ____ out of ____; outside QC limits
PEST ____ out of ____; outside QC limits

RECOVERY: VOAs 4 out of 10; outside QC limits
B/N ____ out of ____; outside QC limits
ACID ____ out of ____; outside QC limits
PEST ____ out of ____; outside QC limits

Comments: _____

FORM III

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STANDARDS DATA

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INITIAL CALIBRATION DATA

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HSL Compounds

Case No: U-4727 Instrument ID: HP-5995C

Contractor: E & EM INC. Calibration Date: 07/14/86

Contract No: II-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:	>C3505 RF 100.00	>C3500 RF 250.00	>C3501 RF 500.00	>C3502 RF 750.00	>C3503 RF 1000.00	$\overline{RF}$	% RSD	CCC	SPCC	
Compound										
CHLOROMETHANE 50	1.83030	2.98119	2.68303	1.98464	2.03565	2.30296	21.718		**	
BROMOMETHANE 94	1.12916	2.03110	1.78724	1.13974	1.07212	1.43187	31.072			
VINYL CHLORIDE 62	1.29793	2.25090	1.81480	1.33200	1.32627	1.60438	26.217	*		
CHLOROETHANE 64	.63087	.90688	.69912	.60274	.61992	.69191	18.156			
METHYLENE CHLORIDE 84	2.02322	1.43855	1.20025	1.26031	.97834	1.38013	28.644			
ACETONE 43	1.82548	2.34411	1.47396	1.33672	1.11317	1.61869	29.708			
~~TRICHLOROFLUOROMETHANE 101~~	~~3.86178~~	~~3.31082~~	~~2.95600~~	~~2.88267~~	~~2.68360~~	~~3.13900~~	~~14.758~~			
CARBON DISULFIDE 76	4.78482	3.89176	3.40709	3.72181	3.34401	3.82990	15.125			
1,1-DICHLOROETHENE 61	3.28335	3.33314	3.06918	2.76682	2.68799	3.02810	9.682	*		
1,1-DICHLOROETHANE 63	3.41019	3.92213	3.61341	2.93357	2.94262	3.36439	12.773		**	
TRANS-1,2-DICHLOROETHENE 96	1.57932	1.84750	1.68174	1.33898	1.34149	1.55781	14.152			
CHLOROFORM 83	3.76351	4.28933	3.89481	2.94600	2.94612	3.56796	16.810	*		
1,2-DICHLOROETHANE 62	3.71406	4.39110	3.91144	2.88767	2.87971	3.55680	18.611			
~~1,2-DICHLOROETHANE-D4(SURR) 65~~	~~2.49928~~	~~3.43723~~	~~3.57775~~	~~2.73084~~	~~2.73981~~	~~2.99858~~	~~15.920~~			(Conc=250.0,250.0,250.0,
2-BUTANONE 72	.08583	.06613	.07162	.05146	.06484	.06798	18.283			
1,1,1-TRICHLOROETHANE 97	.80804	.54601	.53518	.59001	.51014	.59787	20.236			
CARBON TETRACHLORIDE 117	.80174	.53704	.52968	.57726	.50644	.59043	20.469			
VINYL ACETATE 43	1.11275	1.25689	1.26570	1.09893	1.21686	1.19023	6.667			
BROMODICHLOROMETHANE 83	.84389	.62463	.59798	.63866	.57245	.65552	16.525			
1,2-DICHLOROPROPANE 63	.49204	.49341	.47136	.44626	.44491	.46960	5.026	*		
TRANS-1,3-DICHLOROPROPENE 75	.81912	.69538	.68300	.69776	.62213	.70348	10.178			
TRICHLOROETHENE 130	.44634	.42371	.39853	.38452	.36368	.40336	8.047			
DIBROMOCHLOROMETHANE 129	.71128	.56494	.52585	.53419	.45559	.55837	16.903			
1,1,2-TRICHLOROETHANE 97	.44527	.37334	.34812	.35174	.29571	.36284	14.939			
BENZENE 78	1.33421	1.20242	1.13581	1.12616	1.03138	1.16600	9.612			
CIS-1,3-DICHLOROPROPENE 75	.67756	.52506	.49322	.50605	.42953	.52628	17.453			
2-CHLOROETHYLVINYLETHER 63	.35845	.34245	.33476	.30801	.31038	.33081	6.505			
BROMOFORM 173	.66385	.64313	.63732	.57829	.58969	.62246	5.895		**	
4-METHYL-2-PENTANONE 43	.90759	1.26859	1.32155	.96430	1.15534	1.12348	16.246			
2-HEXANONE 43	.77024	1.05625	1.09202	.77051	.95286	.92838	16.482			
TETRACHLOROETHENE 164	.50876	.52353	.48547	.41857	.41486	.47024	10.787			
1,1,2,2-TETRACHLOROETHANE 83	.87842	.82654	.81458	.77936	.70534	.80085	8.008		**	
~~TOLUENE-D8 (SURR) 98~~	~~1.32339~~	~~1.30288~~	~~1.45130~~	~~1.33957~~	~~1.31679~~	~~1.36277~~	~~4.895~~			(Conc=250.0,250.0,250.0,
TOLUENE 92	1.05387	.94123	.86637	.82455	.79257	.89572	11.662	*		
CHLOROBENZENE 112	1.29244	1.13242	1.05881	1.03357	1.00289	1.10402	10.480		**	
ETHYLBENZENE 91	2.21736	1.84487	1.78724	1.76922	1.65807	1.85535	11.501	*		

RF - Response Factor (Subscript is amount in NGS)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Case No: U-4727 Instrument ID: HP-5995C

Contractor: E & EM INC. Calibration Date: 07/14/86

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:	>C3505	>C3500	>C3501	>C3502	>C3503				
	RF	RF	RF	RF	RF				
Compound	100.00	250.00	500.00	750.00	1000.00	$\overline{RF}$	% RSD	CCC	SPCC
~~4-BROMOFLUOROBENZENE(SURR)~~	~~95~~	~~.70434~~	~~.69639~~	~~.76293~~	~~.69405~~	~~.69743~~	~~.71103~~	~~4.116~~	
STYRENE	104	1.16847	.95414	.94402	.94119	.90518	.98260	10.741	
TOTAL XYLENES	91	1.72862	1.35739	1.34084	1.33821	1.30097	1.41320	12.562	

(Conc=250.0,250.0,250.0,

RF - Response Factor (Subscript is amount in NGS)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Initial Calibration Data
HSL Compounds

Nc U-4727 Instrument ID: HP-5995C

ractor: E & E, INC. Calibration Date: 08/27/86

ract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:	>C4686	>C4687	>C4688	>C4689	>C4690					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
.OROMETHANE 50	1.51261	1.36840	1.38855	1.59462	1.27699	1.42823	8.775		**	
IOMETHANE 94	1.10195	.64400	.65596	.67527	.88877	.79319	25.172			
YL CHLORIDE 62	.59555	.59313	.51670	.86164	.50281	.61396	23.593	*		
.OROETHANE 64	.54660	.41755	.42217	.51621	.27098	.43470	24.782			
THYLENE CHLORIDE 84	2.70137	2.01268	1.84853	1.83985	1.65935	2.01235	20.123			
ONE 43	.70413	.54300	.43570	.42038	.42083	.50481	24.290			
HLOROFLUOROMETHANE 101	2.95527	2.76905	2.77094	3.00577	2.59619	2.81945	5.825			
ON DISULFIDE 76	4.47571	4.27118	4.37298	4.71046	4.13194	4.39246	4.975			
DICHLOROETHENE 61	3.05700	2.94252	2.96034	3.20994	2.81701	2.99736	4.882	*		
DICHLOROETHANE 63	3.31645	3.14080	3.18457	3.45580	3.04764	3.22905	4.939		**	
S-1,2-DICHLOROETHENE 96	1.54663	1.48573	1.49992	1.63148	1.42083	1.51692	5.160			
ROFORM 83	3.27718	3.10039	3.11083	3.32612	2.98113	3.15897	4.459	*		
DICHLOROETHANE 62	2.71789	2.71336	2.71294	2.54085	2.69616	2.67624	2.845			
-DICHLOROETHANE-D4(SURR) 65	2.36053	2.49545	2.60707	2.53585	2.83050	2.56588	6.743			(Conc=50.0,50.0,50.0,50.0,50.0)
ITANONE 72	.04297	.03739	.03140	.02315	.03315	.03361	21.881			
,1-TRICHLOROETHANE 97	.55645	.54439	.54279	.54039	.52853	.54251	1.838			
ON TETRACHLORIDE 117	.53155	.52778	.51992	.51554	.49734	.51843	2.579			
L ACETATE 43	.58349	.57735	.56023	.49965	.54462	.55307	6.058			
ODICHLOROMETHANE 83	.61487	.60306	.59880	.56560	.60562	.59759	3.150			
-DICHLOROPROPANE 63	.46335	.46387	.45272	.42721	.44731	.45089	3.328	*		
S-1,3-DICHLOROPROPENE 75	.77766	.77132	.75522	.70766	.75337	.75304	3.639			
HLOROETHENE 130	.40368	.39124	.37168	.36700	.35459	.37764	5.201			
ROMOCHLOROMETHANE 129	.48448	.48927	.45953	.37680	.43233	.44848	10.267			
,2-TRICHLOROETHANE 97	.32361	.33708	.31349	.24522	.30582	.30504	11.616			
ZENE 78	1.20688	1.15514	1.11285	1.07162	1.05278	1.11985	5.593			
-1,3-DICHLOROPROPENE 75	.40793	.40307	.38548	.35067	.36868	.38317	6.232			
LOROETHYLVINYLETHER 63	.05797	.03012	.02283	.05812	.01766	.03734	51.985			
OFORM 173	.46077	.52902	.51955	.37555	.53655	.48429	13.987		**	
THYL-2-PENTANONE 43	.35724	.41899	.40640	.38859	.46595	.40583	10.149			
EXANONE 43	.31485	.34100	.31768	.26628	.35929	.31982	10.946			
RACHLOROETHENE 164	.49236	.47235	.45158	.46337	.41058	.45805	6.645			
,2,2-TETRACHLOROETHANE 83	.57441	.66566	.66212	.46259	.68781	.61052	15.292		**	
ENE-D8 (SURR) 98	1.44881	1.45525	1.48425	1.54822	1.52029	1.49136	2.852			(Conc=50.0,50.0,50.0,50.0,50.0)
UENE 92	.97767	.91986	.89142	.91055	.86557	.91301	4.566	*		
OROBENZENE 112	1.09059	1.03528	1.02098	1.01667	.98461	1.02963	3.767		**	
YLBENZENE 91	1.93098	1.85270	1.81066	1.86300	1.79389	1.85025	2.889	*		

- Response Factor (Subscript is amount in UG/L)

- Average Response Factor

D - Percent Relative Standard Deviation

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Initial Calibration Data
HSL Compounds

: No: U-4727 Instrument ID: HP-5995C

.ractor: E & E, INC. Calibration Date: 08/27/86

:ract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:	>C4686	>C4687	>C4688	>C4689	>C4690				
	RF	RF	RF	RF	RF				
Compound	20.00	50.00	100.00	150.00	200.00	$\overline{RF}$	% RSD	CCC	SPCC
ROMOFLUOROBENZENE(SURR) 95	.87576	.87437	.88850	.88341	.93945	.89230	3.024		(Conc=50.0,50.0,50.0,50.0,50.0)
YRENE 104	1.05690	.98537	.96584	.98433	.97498	.99348	3.656		
TAL XYLENES 91	1.52761	1.39765	1.39801	1.44575	1.40835	1.43547	3.842		

- Response Factor (Subscript is amount in UG/L)

- Average Response Factor

- Percent Relative Standard Deviation

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Initial Calibration Data
HSL Compounds

Case No: U-4727 Instrument ID: HP-5995C

Contractor: E & E, INC. Calibration Date: 01/14/87

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:		>C6377	>C6378	>C6379	>C6380	>C6381					
Compound		RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
CHLOROMETHANE	50	1.73198	2.20608	2.14716	2.34286	2.16679	2.11897	10.828		**	
BROMOMETHANE	94	1.83791	2.03111	1.76247	2.11936	1.92443	1.93506	7.423			
VINYL CHLORIDE	62	1.78047	2.04477	1.75322	2.16703	1.97141	1.94338	9.052	*		
CHLOROETHANE	64	1.04753	1.21712	1.07751	1.13115	.95116	1.08489	9.097			
METHYLENE CHLORIDE	84	3.24637	1.92366	1.86076	1.94554	1.83051	2.16137	28.144			
ACETONE	43	1.22790	.62635	.70962	.65370	.99209	.84193	30.912			
TRICHLOROFLUOROMETHANE	101	3.29003	2.28141	2.25577	2.54150	2.34591	2.54292	17.003			
CARBON DISULFIDE	76	8.10286	5.80634	6.27296	7.05327	7.09767	6.86662	12.806			
1,1-DICHLOROETHENE	61	2.89850	2.08459	2.15363	2.41797	2.35170	2.38128	13.438	*		
1,1-DICHLOROETHANE	63	3.91418	2.84525	2.96709	3.32135	3.27415	3.26440	12.720		**	
TRANS-1,2-DICHLOROETHENE	96	1.89625	1.38584	1.46643	1.64514	1.61504	1.60174	12.239			
CHLOROFORM	83	3.41153	2.45909	2.44042	2.71813	2.54217	2.71427	14.919	*		
1,2-DICHLOROETHANE	62	5.28416	3.76119	3.64713	4.06102	3.74427	4.09955	16.590			
1,2-DICHLOROETHANE-D4(SURR)	65	3.65801	3.25479	3.04411	3.62456	3.30881	3.37805	7.700			(Conc=50.0,50.0,50.0,50.0,50.0)
2-BUTANONE	72	.07803	.05237	.04570	.05098	.06050	.05752	21.967			
1,1,1-TRICHLOROETHANE	97	1.02997	.74036	.72782	.81063	.78062	.81788	15.042			
CARBON TETRACHLORIDE	117	1.01795	.72248	.70972	.80758	.77158	.80586	15.493			
VINYL ACETATE	43	.93560	.70952	.69595	.80146	.00990	.63049	57.076			
BROMODICHLOROMETHANE	83	1.10168	.78663	.76560	.87319	.81269	.86796	15.755			
1,2-DICHLOROPROPANE	63	.53747	.38627	.40758	.46778	.43214	.44625	13.294	*		
TRANS-1,3-DICHLOROPROPENE	75	1.12243	.84302	.84728	.96302	.89176	.93350	12.439			
TRICHLOROETHENE	130	.55161	.38188	.39293	.44629	.57575	.46969	19.075			
DIBROMOCHLOROMETHANE	129	.83715	.59339	.58504	.66065	.62578	.66040	15.628			
1,1,2-TRICHLOROETHANE	97	.50116	.37548	.36623	.41559	.37861	.40741	13.666			
BENZENE	78	1.53013	1.10265	1.13468	1.29182	1.20812	1.25348	13.640			
CIS-1,3-DICHLOROPROPENE	75	.68891	.51300	.51050	.57377	.52592	.56242	13.364			
2-CHLOROETHYLVINYLETHER	63	.23459	.18415	.14747	.17661	.15511	.17959	19.056			
BROMOFORM	173	.59977	.44040	.44220	.52746	.48725	.49942	13.343		**	
4-METHYL-2-PENTANONE	43	.66615	.48982	.47837	.55355	.53930	.54544	13.679			
2-HEXANONE	43	.51722	.35755	.35118	.42430	.42210	.41447	16.167			
TETRACHLOROETHENE	164	.58800	.41804	.42813	.47898	.45711	.47405	14.362			
1,1,2,2-TETRACHLOROETHANE	83	.78571	.59870	.60340	.70270	.35593	.60929	26.488		**	
TOLUENE-D8 (SURR)	98	1.65446	1.41678	1.33573	1.58626	1.39985	1.47861	9.134			(Conc=50.0,50.0,50.0,50.0,50.0)
TOLUENE	92	1.30537	.92399	.94771	1.06508	1.01639	1.05171	14.490	*		
CHLOROBENZENE	112	1.73795	1.23310	1.23016	1.36751	1.30639	1.37502	15.325		**	
ETHYLBENZENE	91	3.16000	2.19123	2.17165	2.46641	2.36759	2.47138	16.353	*		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Initial Calibration Data
HSL Compounds

Case No: V-4727 Instrument ID: HP-5995C

Contractor: E & E, INC. Calibration Date: 01/14/87

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:	>C6377	>C6378	>C6379	>C6380	>C6381				
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95 1.05017	.87444	.80186	.95893	.84310	.90570	10.956		(Conc=50.0,50.0,50.0,50.0,50.0)
STYRENE	104 2.46820	1.79593	1.72215	1.94924	1.84164	1.95543	15.252		
TOTAL XYLENES	91 3.51210	2.50635	2.39171	2.74226	2.61552	2.75359	16.105		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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HSL Compounds

No: U-4727 Instrument ID: HP-5970D

ractor: E & E, INC. Calibration Date: ~~06/20/86~~ 6-19-86

rac. No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Compound		Laboratory ID: >D0036 RF 20.00	>D0037 RF 50.00	>D0038 RF 80.00	>D0039 RF 120.00	>D0040 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
OL-D5 (SURR)	99	1.45905	1.41913	1.41915	1.33738	1.36821	1.40059	3.415		
AFLUOROPHENOL	184	-	-	-	-	-	-	-		
UOROPHENOL (SURR)	112	.92276	.93267	.97441	.89171	.88493	.92130	3.895		
ENOL	94	1.27336	1.40484	1.36645	1.32617	1.33444	1.34105	3.646	*	
METHYL PHENOL	108	.94183	1.07660	1.05407	1.08273	1.00266	1.03158	5.743		
CHLOROPHENOL	128	1.07483	1.16854	1.16604	1.17284	1.10940	1.13833	3.865		
METHYL PHENOL	108	.96587	1.08143	1.13309	1.12036	1.07834	1.07582	6.129		
NITROPHENOL	139	.17264	.20916	.21365	.21306	.20457	.20262	8.462	*	
-DIMETHYLPHENOL	122	.26750	.29889	.30065	.29911	.27965	.28916	5.145		
DIC ACID	105	-	.15595	.20240	.22265	.23506	.20401	17.036		
-DICHLOROPHENOL	162	.28939	.33168	.32894	.32204	.30635	.31568	5.601	*	
LORO-3-METHYLPHENOL	107	.29459	.33844	.35108	.35646	.33826	.33577	7.252	*	
6-TRICHLOROPHENOL	196	.42290	.47918	.46473	.45782	.45268	.45546	4.555	*	
5-TRICHLOROPHENOL	196	-	.49037	.49512	.49589	.47584	.48930	1.901		
6-TRIBROMOPHENOL(SURR)	330	.29588	.32928	.34498	.31993	.33911	.32584	5.917		
-DINITROPHENOL	184	-	.13902	.16374	.19064	.18943	.17071	14.351		**
TROPHENOL	139	-	.28898	.31865	.33700	.34792	.32314	7.977		**
-DINITRO-2-METHYLPHENOL	198	-	.10474	.11556	.12900	.13233	.12041	10.560		
TACHLOROPHENOL	266	-	.17917	.18989	.19137	.19048	.18773	3.054	*	

Response Factor (Subscript is amount in UG/L)

- Average Response Factor

) - Percent Relative Standard Deviation

- Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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HSL Compounds

Case No: U-4727 Instrument ID: HP-5970 B

Contractor: E & E, INC. Calibration Date: 07/30/86

Co. ct No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>82318	>82317	>82320	>82321	>82322				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
ANILINE	93	1.53020	1.25644	1.62634	1.62245	1.58163	1.52341	10.122		
BIS(-2-CHLOROETHYL)ETHER	93	1.34445	1.22081	1.26618	1.07095	1.29722	1.23992	8.441		
1,3-DICHLOROBENZENE	146	1.46014	1.37957	1.42964	1.38860	1.33586	1.38276	4.559		
1,4-DICHLOROBENZENE	146	1.66736	1.29358	1.43871	1.25577	1.18343	1.36777	14.007	*	
BENZYL ALCOHOL	79	.98994	1.18557	1.00496	1.07361	1.14382	1.07958	7.887		
1,2-DICHLOROBENZENE	146	1.61074	1.48247	1.44441	1.30085	1.30196	1.42808	9.176		
BIS(2-CHLOROISOPROPYL)ETHER	45	3.10167	2.81979	3.04493	2.94413	2.94039	2.97018	3.652		
N-NITROSO-DI-N-PROPYLAMINE	70	1.28828	1.23766	1.29486	1.34328	1.29730	1.29228	2.904		**
HEXACHLOROETHANE	117	.79392	.72848	.72662	.65702	.63961	.70913	8.755		
NITROBENZENE-D5 (SURR)	82	.38965	.37305	.41065	.42325	.40762	.40084	4.898		
NITROBENZENE	77	.42892	.38234	.41415	.43943	.43255	.41948	5.417		
ISOPHORONE	82	.84007	.76477	.79107	.82839	.82546	.80995	3.848		
BIS(-2-CHLOROETHOXY)METHANE	93	.46623	.44982	.45355	.46561	.44362	.45577	2.178		
1,2,4-TRICHLOROBENZENE	180	.39238	.38210	.37397	.37375	.37036	.37851	2.345		
NAPHTHALENE	128	1.10454	.97856	1.02942	.88370	.92738	.98472	8.778		
4-CHLOROANILINE	127	.38955	.37023	.40760	.39766	.40786	.39458	3.953		
HEXACHLOROBUTADIENE	225	.28342	.26841	.25835	.24768	.23237	.25803	7.555	*	
2-METHYLNAPHTHALENE	142	.70829	.65392	.61126	.58244	.56184	.62355	9.404		
HEXACHLOROCYCLOPENTADIENE	237	.42682	.38196	.48139	.49313	.48657	.45397	10.605		**
2-FLUOROBIPHENYL (SURR)	172	1.43778	1.49608	1.31182	1.22836	1.17905	1.33061	10.128		
2-CHLORONAPHTHALENE	162	1.26208	1.35393	1.18900	1.10195	1.13384	1.20816	8.413		
2-NITROANILINE	65	.39563	.49064	.43475	.41930	.45448	.43896	8.209		
DIMETHYL PHTHALATE	163	1.53551	1.62787	1.36166	1.32005	1.34038	1.43709	9.517		
4-NITROANILINE	138	.22174	.31144	.26162	.25592	.24885	.25992	12.546		
DIBENZOFURAN	168	1.77467	1.85500	1.58680	1.39667	1.46174	1.61498	12.191		
ACENAPHTHYLENE	152	1.97143	2.08657	1.83063	1.60600	1.52393	1.80371	13.185		
FLUORENE	166	1.35721	1.41769	1.10410	1.09087	1.00139	1.19425	15.240		
3-NITROANILINE	138	.13030	.18696	.13633	.16461	.15450	.15454	14.725		
ACENAPHTHENE	153	1.32952	1.38687	1.10696	1.08827	1.02367	1.18706	13.524	*	
2,4-DINITROTOLUENE	165	.35218	.43871	.35920	.36773	.39158	.38188	9.185		
2,6-DINITROTOLUENE	165	.33892	.38691	.34388	.34507	.33955	.35087	5.793		
DIETHYLPHTHALATE	149	1.54518	1.59131	1.28601	1.21661	1.31157	1.39014	12.017		
4-CHLOROPHENYL-PHENYLETHER	204	.69494	.72268	.58641	.55946	.56319	.62534	12.397		
N-NITROSODIPHENYLAMINE	169	.46709	.47088	.43295	.40737	.34790	.42524	11.873	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26935	.26406	.28047	.26087	.25818	.26659	3.303		
HEXACHLOROBENZENE	284	.36253	.33008	.33921	.34548	.32747	.34094	4.119		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Initial Calibration Data
HSL Compounds

Case No: V-4727 Instrument ID: HP-5970B

Contractor: E & E, INC. Calibration Date: 07/30/86

Contract No: IL3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>82318	>82317	>82320	>82321	>82322				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENANTHRENE	178	1.04931	1.01512	.98050	.95298	.88999	.97758	6.231		
ANTHRACENE	178	1.12091	1.02625	1.04493	.93788	.90233	1.00646	8.678		
DI-N-BUTYLPHTHALATE	149	1.27178	1.10891	1.06851	1.11508	1.07179	1.12721	7.409		
FLUORANTHENE	202	.93206	.85951	.80155	.77543	.70727	.81517	10.452	*	
BENZIDINE		-	-	-	-	-	-	-		
PYRENE	202	1.67420	1.68596	1.76714	1.46297	1.41935	1.60192	9.479		
TERPHENYL-D14 (SURR)	244	1.14639	1.09283	1.18955	1.06562	1.05822	1.11052	5.053		
BUTYLBENZYLPHTHALATE	149	.65885	.67321	.68349	.67508	.67739	.67361	1.353		
3,3'DICHLOROBENZIDINE	252	.27363	.29497	.31038	.35282	.36231	.31882	11.871		
BENZO(A)ANTHRACENE	228	1.11295	1.16545	1.14131	1.09826	1.08387	1.12037	2.943		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.89359	.90143	.88579	.90223	.92113	.90083	1.461		
CHRYSENE	228	1.21768	1.19377	1.18843	.98625	1.04715	1.12666	9.164		
DI-N-OCTYL PHTHALATE	149	1.66258	1.75298	1.71967	1.71622	1.68266	1.70682	2.056	*	
BENZO(B)FLUORANTHENE	252	1.07961	1.23626	1.14532	1.32040	1.29211	1.21474	8.303		
BENZO(K)FLUORANTHENE	252	1.41040	1.33474	1.35790	1.08149	1.00129	1.23716	14.793		
BENZO(A)PYRENE	252	1.10805	1.15079	1.13626	1.11791	1.09145	1.12089	2.078	*	
INDENO(1,2,3-CD)PYRENE	276	.91950	1.10814	1.04174	1.09483	1.04427	1.04154	7.135		
DIBENZ(A,H)ANTHRACENE	278	.98398	1.11071	1.10486	1.07317	1.06502	1.06755	4.748		
BENZO(G,H,I)PERYLENE	276	1.10921	1.20556	1.17094	1.16451	1.14309	1.15866	3.073		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Initial Calibration Data
HSL Compounds

Case No: U-4727

Instrument ID: HP-5970 B

Contractor: E & E, INC.

Calibration Date: ~~07/31/86~~ 7/30/86

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>82323	>82324	>82325	>82326	>82327				
		RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENOL-D5 (SURR)	99	1.33554	1.32424	1.47714	1.37903	1.37876	1.37894	4.369		
PENTAFLUOROPHENOL	184	-	-	-	-	-	-	-		
2-FLUOROPHENOL (SURR)	112	.86601	.96224	.81732	.89616	.80413	.86917	7.349		
PHENOL	94	1.21969	1.30210	1.34366	1.27248	1.24820	1.27723	3.756	*	
2-METHYL PHENOL	108	.95956	1.15622	1.11972	1.02900	1.04621	1.06214	7.299		
2-CHLOROPHENOL	128	1.03433	1.21901	1.21545	1.19049	1.20231	1.17232	6.650		
4-METHYL PHENOL	108	.99078	1.16029	1.06554	1.03758	1.09853	1.06894	5.901		
2-NITROPHENOL	139	.16395	.20209	.20713	.20379	.18968	.19333	9.154	*	
2,4-DIMETHYLPHENOL	122	.24782	.29464	.30384	.29645	.25225	.27900	9.574		
BENZOIC ACID	105	-	.22663	.22609	.24641	.25765	.23920	6.486		
2,4-DICHLOROPHENOL	162	.27062	.28484	.33611	.32608	.29302	.30213	9.219	*	
4-CHLORO-3-METHYLPHENOL	107	.29131	.34908	.34637	.34264	.32554	.33099	7.251	*	
2,4,6-TRICHLOROPHENOL	196	.39345	.50875	.46278	.44935	.41174	.44521	10.146	*	
2,4,5-TRICHLOROPHENOL	196	.42313	.61321	.54332	.51580	.50391	.51987	13.220		
2,4,6-TRIBROMOPHENOL(SURR)	330	.29141	.38528	.33464	.31533	.31443	.32822	10.781		
2,4-DINITROPHENOL	184	-	.16377	.13943	.16124	.18313	.16189	11.845		**
4-NITROPHENOL	139	-	.19015	.15858	.14172	.15885	.16233	12.448		**
4,6-DINITRO-2-METHYLPHENOL	198	-	.13952	.13065	.14342	.15487	.14211	7.867		
PENTACHLOROPHENOL	266	-	.17560	.16016	.16451	.18549	.17144	6.650	*	

RF - Response Factor (Subscript is amount in UG/L)

$\overline{F}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Initial Calibration Data
HSL Compounds

e No: U-4727 Instrument ID: HP-5970D

Contractor: E & E, INC. Calibration Date: 10/17/86

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>D0965	>D0966	>D0967	>D0968	>D0969				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
ANILINE	93	1.44667	1.40722	1.59651	1.68331	1.56844	1.54043	7.321		
BIS(-2-CHLOROETHYL)ETHER	93	1.24523	1.09828	1.23677	1.16323	1.17789	1.18428	5.058		
1,3-DICHLOROBENZENE	146	1.57666	1.39985	1.51213	1.50440	1.38815	1.47624	5.436		
1,4-DICHLOROBENZENE	146	1.61777	1.38930	1.48504	1.45121	1.40035	1.46874	6.256	*	
BENZYL ALCOHOL	79	1.01010	1.00872	1.21875	1.21807	1.21800	1.13473	10.082		
1,2-DICHLOROBENZENE	146	1.63938	1.36507	1.53750	1.47276	1.44493	1.49193	6.908		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68736	2.47650	2.77020	2.69646	2.77634	2.68137	4.535		
N-NITROSO-DI-N-PROPYLAMINE	70	1.12218	1.08234	1.21987	1.19548	1.28596	1.18117	6.816		**
HEXACHLOROETHANE	117	.74389	.66875	.73696	.70875	.68371	.70841	4.605		
NITROBENZENE-D5 (SURR)	82	.35564	.33927	.38027	.40789	.38878	.37437	7.253		
NITROBENZENE	77	.39592	.35266	.39754	.39299	.35937	.37969	5.744		
ISOPHORONE	82	.79161	.70915	.78705	.75762	.73425	.75594	4.631		
BIS(-2-CHLOROETHOXY)METHANE	93	.40059	.38692	.42170	.42353	.43054	.41266	4.415		
1,2,4-TRICHLOROBENZENE	180	.41095	.34484	.39226	.39897	.37508	.38442	6.671		
NAPHTHALENE	128	1.07749	.91373	.97630	.97339	.89249	.96668	7.446		
4-CHLOROANILINE	127	.33401	.32798	.42540	.44310	.35932	.37796	14.044		
HEXACHLOROBUTADIENE	225	.29443	.24392	.26045	.25805	.23855	.25908	8.420	*	
2-METHYLNAPHTHALENE	142	.67945	.60785	.66493	.68192	.59005	.64484	6.646		
HEXACHLOROCYCLOPENTADIENE	237	.56264	.50376	.58602	.60451	.58378	.56814	6.852		**
2-FLUOROBIPHENYL (SURR)	172	1.70967	1.49275	1.58507	1.65769	1.62088	1.61321	5.059		
2-CHLORONAPHTHALENE	162	1.47542	1.23459	1.36421	1.37148	1.41834	1.37281	6.493		
2-NITROANILINE	65	.43757	.43867	.51133	.51859	.47610	.47645	8.082		
DIMETHYL PHTHALATE	163	1.83005	1.68051	1.71649	1.69378	1.67688	1.71954	3.704		
4-NITROANILINE	138	.23949	.23631	.27642	.27327	.26589	.25828	7.365		
DIBENZOFURAN	168	2.04488	1.83571	1.94866	1.91782	1.79656	1.90873	5.115		
ACENAPHTHYLENE	152	2.24178	1.99625	2.09922	2.09894	2.07505	2.10065	4.229		
FLUORENE	166	1.55490	1.33626	1.34395	1.28944	1.20896	1.34670	9.518		
3-NITROANILINE	138	-	.04883	.11452	.11792	.08856	.09246	34.506		
ACENAPHTHENE	153	1.52777	1.33286	1.39452	1.37214	1.26556	1.37857	7.016	*	
2,4-DINITROTOLUENE	165	.35967	.32328	.34179	.32754	.30831	.33212	5.867		
2,6-DINITROTOLUENE	165	.38599	.35678	.37953	.36730	.36597	.37112	3.126		
DIETHYLPHTHALATE	149	1.88063	1.62618	1.53368	1.45917	1.43355	1.58664	11.383		
4-CHLOROPHENYL-PHENYLETHER	204	.78893	.66962	.70193	.69165	.66856	.70414	7.032		
N-NITROSODIPHENYLAMINE	169	.51567	.44734	.53097	.55655	.53802	.51771	8.111	*	
4-BROMOPHENYL-PHENYL ETHER	248	.31338	.30497	.33954	.35732	.35891	.33482	7.486		
[illegible]CHLOROBENZENE	284	.46739	.39403	.43794	.45768	.43251	.43791	6.473		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

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Initial Calibration Data
HSL Compounds

No: U-4727 Instrument ID: HP-5970D

Contractor: E & E, INC. Calibration Date: 10/17/86

Contract No: II-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>D0965 RF 20.00	>D0966 RF 50.00	>D0967 RF 80.00	>D0968 RF 120.00	>D0969 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENANTHRENE	178	1.06808	.96082	1.02609	1.02304	.99723	1.01505	3.896		
ANTHRACENE	178	1.03628	.92880	1.01124	1.03132	.98608	.99874	4.387		
DI-N-BUTYLPHTHALATE	149	1.16959	.91435	.95835	.92928	.88461	.97124	11.741		
FLUORANTHENE	202	.74009	.58463	.63445	.60617	.54197	.62146	11.974		*
BENZIDINE		-	.65247	-	-	-	.65247	-		
PYRENE	202	2.67187	2.75714	2.57294	2.60959	2.82056	2.68642	3.814		
TERPHENYL-D14 (SURR)	244	1.42937	1.47810	1.43384	1.50928	1.55799	1.48172	3.638		
BUTYLBENZYLPHTHALATE	149	.62104	.62940	.71297	.68630	.76414	.68277	8.728		
3,3'DICHLOROBENZIDINE	252	.08557	.07185	.16233	.19359	.14980	.13263	39.182		
BENZO(A)ANTHRACENE	228	.79361	.77498	.97287	1.00315	1.03158	.91524	13.276		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.78298	.70108	.85062	.83155	.91270	.81579	9.708		
CHRYSENE	228	1.34326	1.12613	1.17809	1.12675	1.18262	1.19137	7.479		
DI-N-OCTYL PHTHALATE	149	1.37470	1.35508	1.83002	1.65900	1.98983	1.64173	16.968		*
BENZO(B)FLUORANTHENE	252	.92969	.97296	1.14091	1.25304	1.37734	1.13479	16.551		
BENZO(K)FLUORANTHENE	252	1.68215	1.48612	1.68304	1.46335	1.43849	1.55063	7.844		
BENZO(A)PYRENE	252	1.05697	.98485	1.15488	1.16496	1.18217	1.10877	7.641		*
INDENO(1,2,3-CD)PYRENE	276	.63778	.93612	1.09730	1.40393	.87647	.99032	28.681		
DIBENZ(A,H)ANTHRACENE	278	.73019	.64673	.79793	.98482	.89827	.81159	16.475		
BENZO(G,H,I)PERYLENE	276	1.11119	1.00417	1.06321	1.25211	1.11363	1.10886	8.264		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

recycled paper
ecology and environment

CONTINUING CALIBRATION DATA

Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: 01/15/86

C .tractor: E & E, INC.

Time: 12:14

Contract No: IL-3140

Laboratory ID: >D1525

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.54043	.96656	37.25		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	.85247	28.02		
1,3-DICHLOROBENZENE	146	1.47624	1.35434	8.26		
1,4-DICHLOROBENZENE	146	1.46874	1.35911	7.46	*	
BENZYL ALCOHOL	79	1.13473	.76849	32.28		
1,2-DICHLOROBENZENE	146	1.49193	1.35793	8.98		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	1.96466	26.73		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	.80634	31.73		**
HEXACHLOROETHANE	117	.70841	.56116	20.79		
NITROBENZENE-D5 (SURR)	82	.37437	.29393	21.49		
NITROBENZENE	77	.37969	.28816	24.11		
ISOPHORONE	82	.75594	.52503	30.55		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.32630	20.93		
1,2,4-TRICHLOROBENZENE	180	.38442	.40244	4.69		
NAPHTHALENE	128	.96668	.87925	9.04		
4-CHLOROANILINE	127	.37796	.31398	16.93		
HEXACHLOROBUTADIENE	225	.25908	.29572	14.14	*	
2-METHYLNAPHTHALENE	142	.64484	.56946	11.69		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.65012	14.43		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.89286	17.34		
2-CHLORONAPHTHALENE	162	1.37281	1.47945	7.77		
2-NITROANILINE	65	.47645	.28984	39.17		
DIMETHYL PHTHALATE	163	1.71954	1.34123	22.00		
4-NITROANILINE	138	.25828	.19009	26.40		
DIBENZOFURAN	168	1.90873	1.69977	10.95		
ACENAPHTHYLENE	152	2.10065	1.93943	7.67		
FLUORENE	166	1.34670	1.13373	15.81		
3-NITROANILINE	138	.09246	.11186	20.99		
ACENAPHTHENE	153	1.37857	1.25755	8.78	*	
2,4-DINITROTOLUENE	165	.33212	.23045	30.61		
2,6-DINITROTOLUENE	165	.37112	.27426	26.10		
DIETHYLPHTHALATE	149	1.58664	1.09629	30.90		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.63216	10.22		
N-NITROSODIPHENYLAMINE	169	.51771	.51305	.90	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.32387	3.27		
HEXACHLOROBENZENE	284	.43791	.33202	24.18		

R - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: 01/15/86

Contractor: E & E, INC.

Time: 12:14

Contract No: II-3140

Laboratory ID: >D1525

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	1.01505	.93191	8.19		
ANTHRACENE	178	.99874	.89589	10.30		
DI-N-BUTYLPHTHALATE	149	.97124	.74861	22.92		
FLUORANTHENE	202	.62146	.61224	1.48	*	
BENZIDINE		.65247	.33012	49.40		
PYRENE	202	2.68642	1.58539	40.98		
TERPHENYL-D14 (SURR)	244	1.48172	.97630	34.11		
BUTYLBENZYLPHTHALATE	149	.68277	.53624	21.46		
3,3'DICHLOROBENZIDINE	252	.13263	.26118	96.92		
BENZO(A)ANTHRACENE	228	.91524	1.00124	9.40		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.92463	13.34		
CHRYSENE	228	1.19137	.98762	17.10		
DI-N-OCTYL PHTHALATE	149	1.64173	1.36071	17.12	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.30626	15.11		
BENZO(K)FLUORANTHENE	252	1.55063	.91981	40.68		
BENZO(A)PYRENE	252	1.10877	1.02598	7.47	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.17108	18.25		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.05448	29.93		
BENZO(G,H,I)PERYLENE	276	1.10886	1.21117	9.23		

F - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: 01/15/86

C tractor: E & E, INC.

Time: 13:17

Contract No: IL-3140

Laboratory ID: >D1526

Instrument ID: HP-5970D

Initial Calibration Date: ~~06/20/86~~ 6/19/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.40059	.94445	32.57		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.75623	17.92		
PHENOL	94	1.34105	1.02794	23.35	*	
2-METHYL PHENOL	108	1.03158	.83254	19.29		
2-CHLOROPHENOL	128	1.13833	1.01639	10.71		
4-METHYL PHENOL	108	1.07582	.88124	18.09		
2-NITROPHENOL	139	.20262	.19044	6.01	*	
2,4-DIMETHYLPHENOL	122	.28916	.24189	16.35		
BENZOIC ACID	105	.20401	.17979	11.87		
2,4-DICHLOROPHENOL	162	.31568	.32268	2.22	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.27350	18.55	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.51393	12.84	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.51105	4.45		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.25407	22.03		
2,4-DINITROPHENOL	184	.17071	.13615	20.25		**
4-NITROPHENOL	139	.32314	.13925	56.91		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12101	.50		
PENTACHLOROPHENOL	266	.18773	.16122	14.12	*	

R' - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: V-4727 Calibration Date: 01/15/87

Contractor: E & E, INC. Time: 13:02

Contract No: IL-3140 Laboratory ID: >83268

Instrument ID: HP-5970B Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.52341	1.48065	2.81		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	1.19292	3.79		
1,3-DICHLOROBENZENE	146	1.38276	1.37183	.79		
1,4-DICHLOROBENZENE	146	1.36777	1.37111	.24	*	
BENZYL ALCOHOL	79	1.07958	.95302	11.72		
1,2-DICHLOROBENZENE	146	1.42808	1.39868	2.06		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.77506	6.57		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	1.08060	16.38		**
HEXACHLOROETHANE	117	.70913	.65698	7.35		
NITROBENZENE-D5 (SURR)	82	.40084	.35391	11.71		
NITROBENZENE	77	.41948	.36491	13.01		
ISOPHORONE	82	.80995	.64229	20.70		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.43364	4.86		
1,2,4-TRICHLOROBENZENE	180	.37851	.33225	12.22		
NAPHTHALENE	128	.98472	.98412	.06		
4-CHLOROANILINE	127	.39458	.35732	9.44		
HEXACHLOROBUTADIENE	225	.25803	.20502	20.54	*	
2-METHYLNAPHTHALENE	142	.62355	.58480	6.21		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.40500	10.79		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.52854	14.88		
2-CHLORONAPHTHALENE	162	1.20816	1.31210	8.60		
2-NITROANILINE	65	.43896	.37727	14.05		
DIMETHYL PHTHALATE	163	1.43709	1.38383	3.71		
3-NITROANILINE	138	.25992	.20556	20.91		
DIBENZOFURAN	168	1.61498	1.69856	5.18		
ACENAPHTHYLENE	152	1.80371	2.08251	15.46		
FLUORENE	166	1.19425	1.18292	.95		
5-NITROANILINE	138	.15454	.09685	37.33		
ACENAPHTHENE	153	1.18706	1.29900	9.43	*	
2,4-DINITROTOLUENE	165	.38188	.26791	29.85		
2,6-DINITROTOLUENE	165	.35087	.28653	18.33		
DIETHYLPHTHALATE	149	1.39014	1.23675	11.03		
4-C[illegible]ROPHENYL-PHENYLETHER	204	.62534	.56929	8.96		
4-N[illegible]ISODIPHENYLAMINE	169	.42524	.46304	8.89	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.24256	9.01		
HEXACHLOROBENZENE	284	.34094	.25497	25.21		

RF - Response Factor from daily standard file at 50.00 UG/L

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Continuing Calibration Check
HSL Compounds

Case No: V-4727 Calibration Date: 01/15/87

Contractor: E & E, INC. Time: 13:02

Contract No: IL-3140 Laboratory ID: >83268

Instrument ID: HP-5970B Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.97758	.99022	1.29		
ANTHRACENE	178	1.00646	.92697	7.90		
DI-N-BUTYLPHTHALATE	149	1.12721	.96237	14.62		
FLUORANTHENE	202	.81517	.69056	15.29	*	
BENZIDINE		-	-	-		
PYRENE	202	1.60192	1.91452	19.51		
TERPHENYL-D14 (SURR)	244	1.11052	.92868	16.37		
BUTYLBENZYLPHTHALATE	149	.67361	.66455	1.34		
3,3'DICHLOROBENZIDINE	252	.31882	.12309	61.39		
BENZO(A)ANTHRACENE	228	1.12037	1.02658	8.37		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.87571	2.79		
CHRYSENE	228	1.12666	1.04974	6.83		
DI-N-OCTYL PHTHALATE	149	1.70682	1.84215	7.93	*	
BENZO(B)FLUORANTHENE	252	1.21474	1.05898	12.82		
BENZO(K)FLUORANTHENE	252	1.23716	1.32179	6.84		
BENZO(A)PYRENE	252	1.12089	1.00560	10.29	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.95161	8.63		
DIBENZ(A,H)ANTHRACENE	278	1.06755	.89511	16.15		
BENZO(G,H,I)PERYLENE	276	1.15866	1.00302	13.43		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4727 Calibration Date: 01/15/87

Contractor: E & E, INC. Time: 14:03

Contract No: IL-3140 Laboratory ID: >B3269

Instrument ID: HP-5970 B Initial Calibration Date: 07/31/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.37894	1.33044	3.52		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.86917	.89373	2.83		
PHENOL	94	1.27723	1.30905	2.49	*	
2-METHYL PHENOL	108	1.06214	1.00268	5.60		
2-CHLOROPHENOL	128	1.17232	1.11446	4.94		
4-METHYL PHENOL	108	1.06894	1.09374	2.32		
2-NITROPHENOL	139	.19333	.19317	.08	*	
2,4-DIMETHYLPHENOL	122	.27900	.26197	6.10		
BENZOIC ACID	105	.23920	.14738	38.39		
2,4-DICHLOROPHENOL	162	.30213	.29752	1.53	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.27128	18.04	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.45243	1.62	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.43579	16.17		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32822	.18572	43.42		
2,4-DINITROPHENOL	184	.16189	.12432	23.21		**
4-NITROPHENOL	139	.16233	.15690	3.35		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.11002	22.58		
PENTACHLOROPHENOL	266	.17144	.12869	24.94	*	

Continuing Calibration Check
HSL Compounds

Case No: V-4727 Calibration Date: 01/20/87

Con .ctor: E & E, INC. Time: 13:33

Contract No: IL-3140 Laboratory ID: >B3291

Instrument ID: HP-5970B Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.52341	1.39116	8.68		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	1.20638	2.71		
1,3-DICHLOROBENZENE	146	1.38276	1.32056	4.50		
1,4-DICHLOROBENZENE	146	1.36777	1.28856	5.79	*	
BENZYL ALCOHOL	79	1.07958	.76513	29.13		
1,2-DICHLOROBENZENE	146	1.42808	1.31808	7.70		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.97248	.08		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	1.07295	16.97		**
HEXACHLOROETHANE	117	.70913	.65557	7.55		
NITROBENZENE-D5 (SURR)	82	.40084	.36271	9.51		
NITROBENZENE	77	.41948	.36533	12.91		
ISOPHORONE	82	.80995	.69058	14.74		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.42350	7.08		
1,2,4-TRICHLOROBENZENE	180	.37851	.35279	6.80		
NAPHTHALENE	128	.98472	.95844	2.67		
4-CHLOROANILINE	127	.39458	.39323	.34		
HEXACHLOROBUTADIENE	225	.25803	.23039	10.71	*	
2-METHYLNAPHTHALENE	142	.62355	.59681	4.29		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.43028	5.22		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.49367	12.25		
2-CHLORONAPHTHALENE	162	1.20816	1.22380	1.29		
2-NITROANILINE	65	.43896	.40650	7.39		
DIMETHYL PHTHALATE	163	1.43709	1.51825	5.65		
3-NITROANILINE	138	.25992	.29096	11.94		
DIBENZOFURAN	168	1.61498	1.78395	10.46		
ACENAPHTHYLENE	152	1.80371	1.98457	10.03		
FLUORENE	166	1.19425	1.32893	11.28		
5-NITROANILINE	138	.15454	.10897	29.48		
ACENAPHTHENE	153	1.18706	1.22483	3.18	*	
2,4-DINITROTOLUENE	165	.38188	.37977	.55		
2,6-DINITROTOLUENE	165	.35087	.33652	4.09		
DIETHYLPHTHALATE	149	1.39014	1.48178	6.59		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.67678	8.23		
4-NITROSODIPHENYLAMINE	169	.42524	.46088	8.38	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.26325	1.25		
HEXACHLOROBENZENE	284	.34094	.28949	15.09		

RF Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: 01/20/87

Con .ctor: E & E, INC.

Time: 13:33

Contract No: IL-3140

Laboratory ID: >83291

Instrument ID: HP-5970 B

Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound			$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE		178	.97758	.98690	.95		
ANTHRACENE		178	1.00646	.92323	8.27		
DI-N-BUTYLPHTHALATE		149	1.12721	.98853	12.30		
FLUORANTHENE		202	.81517	.82248	.90	*	
BENZIDINE			-	-	-		
PYRENE		202	1.60192	1.77486	10.80		
TERPHENYL-D14	(SURR)	244	1.11052	.99935	10.01		
BUTYLBENZYLPHTHALATE		149	.67361	.58782	12.74		
3,3'DICHLOROBENZIDINE		252	.31882	.08281	74.03		
BENZO(A)ANTHRACENE		228	1.12037	1.02558	8.46		
BIS(2-ETHYLHEXYL)PHTHALATE		149	.90083	.74832	16.93		
CHRYSENE		228	1.12666	.97265	13.67		
DI-N-OCTYL PHTHALATE		149	1.70682	1.66924	2.20	*	
BENZO(B)FLUORANTHENE		252	1.21474	1.30232	7.21		
BENZO(K)FLUORANTHENE		252	1.23716	1.10108	11.00		
BENZO(A)PYRENE		252	1.12089	.99921	10.86	*	
INDENO(1,2,3-CD)PYRENE		276	1.04154	.84428	18.94		
DIBENZ(A,H)ANTHRACENE		278	1.06755	.78309	26.65		
BENZO(G,H,I)PERYLENE		276	1.15866	.88425	23.68		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

and environment

Continuing Calibration Check
HSL Compounds

:ase No: U-4727 Calibration Date: 01/20/87

:on :tor: E & E, INC. Time: 14:36

:ontract No: IL-3140 Laboratory ID: >83292

.nstrument ID: HP-5970 B Initial Calibration Date: 07/31/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
'HENOL-D5	(SURR) 99	1.37894	1.27450	7.57		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.86917	.90565	4.20		
PHENOL	94	1.27723	1.33681	4.67	*	
2-METHYL PHENOL	108	1.06214	1.01216	4.71		
2-CHLOROPHENOL	128	1.17232	1.20217	2.55		
4-METHYL PHENOL	108	1.06894	.99502	6.92		
:-NITROPHENOL	139	.19333	.19963	3.26	*	
:,4-DIMETHYLPHENOL	122	.27900	.26620	4.59		
BENZOIC ACID	105	.23920	.19344	19.13		
,4-DICHLOROPHENOL	162	.30213	.30974	2.52	*	
-CHLORO-3-METHYLPHENOL	107	.33099	.29467	10.97	*	
,4,6-TRICHLOROPHENOL	196	.44521	.45215	1.56	*	
,4,5-TRICHLOROPHENOL	196	.51987	.50164	3.51		
,4,6-TRIBROMOPHENOL	(SURR) 330	.32822	.28473	13.25		
,4-DINITROPHENOL	184	.16189	.18382	13.55		**
-NITROPHENOL	139	.16233	.20722	27.66		**
,6-DINITRO-2-METHYLPHENOL	198	.14211	.12904	9.20		
ENTACHLOROPHENOL	266	.17144	.17573	2.50	*	

:F Response Factor from daily standard file at 50.00 UG/L

$\overline{F}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

CC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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recycled paper

Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: 01/22/~~86~~ 87

Contractor: E & E, INC.

Time: 12:50

Contract No: IL-3140

Laboratory ID: >D1578

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.54043	1.16876	24.13		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.16876	1.31		
1,3-DICHLOROBENZENE	146	1.47624	1.34359	8.99		
1,4-DICHLOROBENZENE	146	1.46874	1.38951	5.39	*	
BENZYL ALCOHOL	79	1.13473	.78342	30.96		
1,2-DICHLOROBENZENE	146	1.49193	1.38083	7.45		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.72719	1.71		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.13863	3.60		**
HEXACHLOROETHANE	117	.70841	.63911	9.78		
NITROBENZENE-D5 (SURR)	82	.37437	.35324	5.64		
NITROBENZENE	77	.37969	.35931	5.37		
ISOPHORONE	82	.75594	.66957	11.43		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.40032	2.99		
1,2,4-TRICHLOROBENZENE	180	.38442	.34726	9.67		
NAPHTHALENE	128	.96668	.90396	6.49		
4-CHLOROANILINE	127	.37796	.32855	13.07		
HEXACHLOROBUTADIENE	225	.25908	.21934	15.34	*	
2-METHYLNAPHTHALENE	142	.64484	.60286	6.51		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.47623	16.18		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.80410	11.83		
2-CHLORONAPHTHALENE	162	1.37281	1.47408	7.38		
2-NITROANILINE	65	.47645	.39720	16.63		
DIMETHYL PHTHALATE	163	1.71954	1.41982	17.43		
4-NITROANILINE	138	.25828	.20087	22.23		
DIBENZOFURAN	168	1.90873	1.69564	11.16		
ACENAPHTHYLENE	152	2.10065	2.01881	3.90		
FLUORENE	166	1.34670	1.13092	16.02		
3-NITROANILINE	138	.09246	.12055	30.38		
ACENAPHTHENE	153	1.37857	1.29358	6.17	*	
2,4-DINITROTOLUENE	165	.33212	.23179	30.21		
2,6-DINITROTOLUENE	165	.37112	.28527	23.13		
DIETHYLPHTHALATE	149	1.58664	1.22233	22.96		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.58384	17.08		
N-NITROSODIPHENYLAMINE	169	.51771	.55473	7.15	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.30041	10.28		
HEXACHLOROBENZENE	284	.43791	.29105	33.54		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

ecology and environment

ecology and environment recycled paper

Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: 01/22/~~86~~87 ARL

Contractor: E & E, INC.

Time: 12:50

Contract No: IL-3140

Laboratory ID: >D1578

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	1.01505	.96341	5.09		
ANTHRACENE	178	.99874	.90753	9.13		
DI-N-BUTYLPHTHALATE	149	.97124	.87385	10.03		
FLUORANTHENE	202	.62146	.60006	3.44	*	
BENZIDINE		.65247	.32493	50.20		
PYRENE	202	2.68642	1.53605	42.82		
TERPHENYL-D14 (SURR)	244	1.48172	.89065	39.89		
BUTYLBENZYLPHTHALATE	149	.68277	.66995	1.88		
3,3'DICHLOROBENZIDINE	252	.13263	.28964	118.38		
BENZO(A)ANTHRACENE	228	.91524	1.01204	10.58		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.96257	17.99		
CHRYSENE	228	1.19137	1.00501	15.64		
DI-N-OCTYL PHTHALATE	149	1.64173	1.82282	11.03	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.34739	18.74		
BENZO(K)FLUORANTHENE	252	1.55063	.98509	36.47		
BENZO(A)PYRENE	252	1.10877	1.04511	5.74	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.10491	11.57		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.00261	23.54		
BENZO(G,H,I)PERYLENE	276	1.10886	1.13371	2.24		

I - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: 01/22/~~86~~ 87

Contractor: E & E, INC.

Time: 16:52

Contract No: IL-3140

Laboratory ID: >D1582

Instrument ID: HP-5970D

Initial Calibration Date: ~~06/20/86~~ 6/19/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR) 99	1.40059	1.47718	5.47		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.92130	.89170	3.21		
PHENOL	94	1.34105	1.33679	.32	*	
2-METHYL PHENOL	108	1.03158	1.03028	.13		
2-CHLOROPHENOL	128	1.13833	1.15990	1.89		
4-METHYL PHENOL	108	1.07582	1.06710	.81		
2-NITROPHENOL	139	.20262	.19968	1.45	*	
2,4-DIMETHYLPHENOL	122	.28916	.26804	7.30		
BENZOIC ACID	105	.20401	.17008	16.63		
2,4-DICHLOROPHENOL	162	.31568	.30386	3.74	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.27505	18.08	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.50004	9.79	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.48219	1.45		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32584	.21241	34.81		
2,4-DINITROPHENOL	184	.17071	.12603	26.17		**
4-NITROPHENOL	139	.32314	.16065	50.28		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12267	1.87		
PENTACHLOROPHENOL	266	.18773	.14662	21.90	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: V-4727

Calibration Date: 02/11/87

Contractor: E & E, INC.

Time: 11:10

Contract No: IL-3140

Laboratory ID: >D1653

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.54043	1.35218	12.22		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.03091	12.95		
1,3-DICHLOROBENZENE	146	1.47624	1.42519	3.46		
1,4-DICHLOROBENZENE	146	1.46874	1.48287	.96	*	
BENZYL ALCOHOL	79	1.13473	.70069	38.25		
1,2-DICHLOROBENZENE	146	1.49193	1.39444	6.53		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.59309	3.29		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.03447	12.42		**
HEXACHLOROETHANE	117	.70841	.68989	2.61		
NITROBENZENE-D5 (SURR)	82	.37437	.37278	.42		
NITROBENZENE	77	.37969	.38503	1.41		
ISOPHORONE	82	.75594	.74318	1.69		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.40537	1.77		
1,2,4-TRICHLOROBENZENE	180	.38442	.36126	6.02		
NAPHTHALENE	128	.96668	.97161	.51		
4-CHLOROANILINE	127	.37796	.32455	14.13		
HEXACHLOROBUTADIENE	225	.25908	.21537	16.87	*	
2-METHYLNAPHTHALENE	142	.64484	.59085	8.37		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.46710	17.78		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.45517	9.80		
2-CHLORONAPHTHALENE	162	1.37281	1.21489	11.50		
2-NITROANILINE	65	.47645	.35390	25.72		
DIMETHYL PHTHALATE	163	1.71954	1.19499	30.51		
4-NITROANILINE	138	.25828	.18952	26.62		
DIBENZOFURAN	168	1.90873	1.43102	25.03		
ACENAPHTHYLENE	152	2.10065	1.78816	14.88		
FLUORENE	166	1.34670	1.00044	25.71		
3-NITROANILINE	138	.09246	.11722	26.78		
ACENAPHTHENE	153	1.37857	1.12807	18.17	*	
2,4-DINITROTOLUENE	165	.33212	.20536	38.17		
2,6-DINITROTOLUENE	165	.37112	.24781	33.23		
DIETHYLPHTHALATE	149	1.58664	1.05590	33.45		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.44822	36.35		
N-NITROSODIPHENYLAMINE	169	.51771	.46538	10.11	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.24970	25.42		
HEXACHLOROBENZENE	284	.43791	.26255	40.05		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: V-4727

Calibration Date: 02/11/87

Contractor: E & E, INC.

Time: 11:10

Contract No: II-3140

Laboratory ID: >D1653

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	1.01505	1.02956	1.43		
ANTHRACENE	178	.99874	.98791	1.08		
DI-N-BUTYLPHTHALATE	149	.97124	.98375	1.29		
FLUORANTHENE	202	.62146	.71699	15.37	*	
BENZIDINE		.65247	.31357	51.94		
PYRENE	202	2.68642	1.77289	34.01		
TERPHENYL-D14 (SURR)	244	1.48172	.89520	39.58		
BUTYLBENZYLPHTHALATE	149	.68277	.61289	10.24		
3,3'DICHLOROBENZIDINE	252	.13263	.21569	62.63		
BENZO(A)ANTHRACENE	228	.91524	1.07959	17.96		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.83814	2.74		
CHRYSENE	228	1.19137	1.00620	15.54		
DI-N-OCTYL PHTHALATE	149	1.64173	1.59567	2.81	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.38021	21.63		
BENZO(K)FLUORANTHENE	252	1.55063	1.14716	26.02		
BENZO(A)PYRENE	252	1.10877	1.09395	1.34	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.04102	5.12		
DIBENZ(A,H)ANTHRACENE	278	.81159	.98308	21.13		
BENZO(G,H,I)PERYLENE	276	1.10886	1.10675	.19		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: V-4727

Calibration Date: 02/11/87

C tractor: E & E, INC.

Time: 13:14

Contract No: II-3140

Laboratory ID: >D1655

Instrument ID: HP-5970D

Initial Calibration Date: 06/20/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.40059	1.40939	.63		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	1.01866	10.57		
PHENOL	94	1.34105	1.34428	.24	*	
2-METHYL PHENOL	108	1.03158	1.03994	.81		
2-CHLOROPHENOL	128	1.13833	1.18025	3.68		
4-METHYL PHENOL	108	1.07582	1.03686	3.62		
2-NITROPHENOL	139	.20262	.20824	2.78	*	
2,4-DIMETHYLPHENOL	122	.28916	.27851	3.68		
BENZOIC ACID	105	.20401	.16179	20.70		
2,4-DICHLOROPHENOL	162	.31568	.30765	2.54	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.28622	14.75	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.48957	7.49	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.51519	5.29		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.17744	45.54		
2,4-DINITROPHENOL	184	.17071	.13694	19.78		**
4-NITROPHENOL	139	.32314	.14254	55.89		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.13655	13.41		
PENTACHLOROPHENOL	266	.18773	.14700	21.69	*	

P - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: 02/13/87

Contractor: E & E, INC.

Time: 14:33

Contract No: IL-3140

Laboratory ID: >D1703

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.54043	.71982	53.27		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	.99627	15.88		
1,3-DICHLOROBENZENE	146	1.47624	1.48455	.56		
1,4-DICHLOROBENZENE	146	1.46874	1.49879	2.05	*	
BENZYL ALCOHOL	79	1.13473	.67274	40.71		
1,2-DICHLOROBENZENE	146	1.49193	1.42724	4.34		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.10425	21.52		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	.87841	25.63		**
HEXACHLOROETHANE	117	.70841	.60613	14.44		
NITROBENZENE-D5 (SURR)	82	.37437	.30688	18.03		
NITROBENZENE	77	.37969	.31471	17.12		
ISOPHORONE	82	.75594	.59597	21.16		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.34578	16.21		
1,2,4-TRICHLOROBENZENE	180	.38442	.42387	10.26		
NAPHTHALENE	128	.96668	.93179	3.61		
4-CHLOROANILINE	127	.37796	.22103	41.52		
HEXACHLOROBUTADIENE	225	.25908	.31183	20.36	*	
2-METHYLNAPHTHALENE	142	.64484	.64326	.25		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.60030	5.66		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.46691	9.07		
2-CHLORONAPHTHALENE	162	1.37281	1.25238	8.77		
2-NITROANILINE	65	.47645	.24908	47.72		
DIMETHYL PHTHALATE	163	1.71954	1.04323	39.33		
4-NITROANILINE	138	.25828	.14561	43.62		
DIBENZOFURAN	168	1.90873	1.47744	22.60		
ACENAPHTHYLENE	152	2.10065	1.66478	20.75		
FLUORENE	166	1.34670	.97688	27.46		
3-NITROANILINE	138	.09246	.06483	29.88		
ACENAPHTHENE	153	1.37857	1.09654	20.46	*	
2,4-DINITROTOLUENE	165	.33212	.16315	50.87		
2,6-DINITROTOLUENE	165	.37112	.22667	38.92		
DIETHYLPHTHALATE	149	1.58664	.80790	49.08		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.53538	23.97		
N-NITROSODIPHENYLAMINE	169	.51771	.45723	11.68	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.35172	5.05		
HEXACHLOROBENZENE	284	.43791	.35401	19.16		

R - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: V-4727

Calibration Date: 02/13/87

Contractor: E & E, INC.

Time: 14:33

Contract No: IL-3140

Laboratory ID: >D1703

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	1.01505	.98760	2.70		
ANTHRACENE	178	.99874	.96841	3.04		
DI-N-BUTYLPHTHALATE	149	.97124	.65038	33.04		
FLUORANTHENE	202	.62146	.59122	4.87	*	
BENZIDINE		.65247	.37234	42.93		
PYRENE	202	2.68642	1.79406	33.22		
TERPHENYL-D14 (SURR)	244	1.48172	.97525	34.18		
BUTYLBENZYLPHTHALATE	149	.68277	.49961	26.83		
3,3'DICHLOROBENZIDINE	252	.13263	.20305	53.10		
BENZO(A)ANTHRACENE	228	.91524	1.05866	15.67		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	1.04507	28.11		
CHRYSENE	228	1.19137	1.00717	15.46		
DI-N-OCTYL PHTHALATE	149	1.64173	1.28296	21.85	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.19157	5.00		
BENZO(K)FLUORANTHENE	252	1.55063	1.10034	29.04		
BENZO(A)PYRENE	252	1.10877	1.06335	4.10	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.07170	8.22		
DIBENZ(A,H)ANTHRACENE	278	.81159	.98151	20.94		
BENZO(G,H,I)PERYLENE	276	1.10886	1.09342	1.39		

I - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: 02/13/87

ntractor: E & E, INC.

Time: 17:43

Contract No: IL-3140

Laboratory ID: >D1706

Instrument ID: HP-5970D

Initial Calibration Date: ~~06/20/86~~ 6/19/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.40059	1.13617	18.88		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.85819	6.85		
PHENOL	94	1.34105	1.10072	17.92	*	
2-METHYL PHENOL	108	1.03158	.84649	17.94		
2-CHLOROPHENOL	128	1.13833	1.13002	.73		
4-METHYL PHENOL	108	1.07582	.87007	19.13		
2-NITROPHENOL	139	.20262	.19621	3.16	*	
2,4-DIMETHYLPHENOL	122	.28916	.24174	16.40		
BENZOIC ACID	105	.20401	.13807	32.33		
2,4-DICHLOROPHENOL	162	.31568	.32539	3.08	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.29402	12.43	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.53804	18.13	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.55593	13.62		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.33315	2.24		
2,4-DINITROPHENOL	184	.17071	.17110	.23		**
4-NITROPHENOL	139	.32314	.19450	39.81		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12108	.56		
PENTACHLOROPHENOL	266	.18773	.18849	.41	*	

J - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: V-4727 Calibration Date: 01/12/87

Contractor: E & E, INC. Time: 10:45

Contract No: IL-3140 Laboratory ID: >C6327

Instrument ID: HP-5995C Initial Calibration Date: 08/27/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	1.42823	.42180	70.47		**
BROMOMETHANE	94	.79319	.43583	45.05		-
VINYL CHLORIDE	62	.61396	.48234	21.44	*	
CHLOROETHANE	64	.43470	.55592	27.89		
METHYLENE CHLORIDE	84	2.81235	2.27967	13.28		
ACETONE	43	.50481	1.22841	143.34		
TRICHLOROFLUOROMETHANE	101	2.81945	2.15166	23.69		
CARBON DISULFIDE	76	4.39246	7.18208	63.51		
,1-DICHLOROETHENE	61	2.99736	2.28089	23.90	*	
,1-DICHLOROETHANE	63	3.22905	3.37963	4.66		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.68611	11.15		
CHLOROFORM	83	3.15897	2.64063	16.41	*	
,2-DICHLOROETHANE	62	2.67624	3.50713	31.05		
,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.83486	10.48		
2-BUTANONE	72	.03361	.07284	116.71		
,1,1-TRICHLOROETHANE	97	.54251	.73708	35.87		
CARBON TETRACHLORIDE	117	.51843	.71133	37.21		
VINYL ACETATE	43	.55307	.82176	48.58		
BROMODICHLOROMETHANE	83	.59759	.79589	33.18		
,2-DICHLOROPROPANE	63	.45089	.48966	8.60	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.96720	28.44		
TRICHLOROETHENE	130	.37764	.48288	27.87		
DIBROMOCHLOROMETHANE	129	.44848	.62984	40.44		
,1,2-TRICHLOROETHANE	97	.30504	.41938	37.48		
BENZENE	78	1.11985	1.32913	18.69		
CIS-1,3-DICHLOROPROPENE	75	.38317	.56866	48.41		
2-CHLOROETHYLVINYLETHER	63	.03734	.21043	463.52		
BROMOFORM	173	.48429	.49217	1.63		**
4-METHYL-2-PENTANONE	43	.40583	.61172	50.73		
2-HEXANONE	43	.31982	.46394	45.06		
TETRACHLOROETHENE	164	.45805	.51891	13.29		
,1,2,2-TETRACHLOROETHANE	83	.61052	.66826	9.46		**
TOLUENE-D8 (SURR)	98	1.49136	1.49685	.37		
TOLUENE	92	.91301	1.07129	17.34	*	
CHLOROBENZENE	112	1.02963	1.38361	34.38		**
ETHYLBENZENE	91	1.85025	2.27120	22.75	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper
ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4727 Calibration Date: 01/12/87

Contractor: E & E, INC. Time: 10:45

Contract No: IL-3140 Laboratory ID: >C6327

Instrument ID: HP-5995C Initial Calibration Date: 08/27/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.89230	.81877	8.24		
STYRENE	104	.99348	1.73613	74.75		
TOTAL XYLENES	91	1.43547	2.38295	66.00		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

recycled paper.
ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4727 Calibration Date: 01/15/87

Contractor: E & EM INC. Time: 18:32

Contract No: IL-3140 Laboratory ID: >C6489

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	1.59756	30.63		**
BROMOMETHANE	94	1.43187	1.80151	25.81		
VINYL CHLORIDE	62	1.60438	1.84488	14.99	*	
CHLOROETHANE	64	.69191	1.08815	57.27		
METHYLENE CHLORIDE	84	1.38013	1.99831	44.79		
ACETONE	43	1.61869	1.76388	8.97		
TRICHLOROFLUOROMETHANE	101	3.13900	1.91641	38.95		
CARBON DISULFIDE	76	3.82990	6.50492	69.85		
1,1-DICHLOROETHENE	61	3.02810	2.15023	28.99	*	
1,1-DICHLOROETHANE	63	3.36439	3.03519	9.78		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.46111	6.21		
CHLOROFORM	83	3.56796	3.49774	1.97	*	
1,2-DICHLOROETHANE	62	3.55680	3.23810	8.96		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.57052	14.28		
2-BUTANONE	72	.06798	.11156	64.11		
1,1,1-TRICHLOROETHANE	97	.59787	.62003	3.71		
CARBON TETRACHLORIDE	117	.59043	.59715	1.14		
VINYL ACETATE	43	1.19023	.99209	16.65		
BROMODICHLOROMETHANE	83	.65552	.69111	5.43		
1,2-DICHLOROPROPANE	63	.46960	.43444	7.49	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.78861	12.10		
TRICHLOROETHENE	130	.40336	.41223	2.20		
DIBROMOCHLOROMETHANE	129	.55837	.53838	3.58		
1,1,2-TRICHLOROETHANE	97	.36284	.39330	8.40		
BENZENE	78	1.16600	1.19482	2.47		
CIS-1,3-DICHLOROPROPENE	75	.52628	.45880	12.82		
2-CHLOROETHYLVINYLETHER	63	.33081	.22061	33.31		
BROMOFORM	173	.62246	.44462	28.57		**
4-METHYL-2-PENTANONE	43	1.12348	.98929	11.94		
2-HEXANONE	43	.92838	.79016	14.89		
TETRACHLOROETHENE	164	.47024	.47127	.22		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.77556	3.16		**
TOLUENE-D8 (SURR)	98	1.36277	1.46223	7.30		
TOLUENE	92	.89572	1.02745	14.71	*	
CHLOROBENZENE	112	1.10402	1.30525	18.23		**
ET BENZENE	91	1.85535	2.20622	18.91	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper
ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: V-4727

Calibration Date: 01/15/87

Contractor: E & EM INC.

Time: 18:32

Contract No: IZ-3140

Laboratory ID: >C6409

Instrument ID: HP-5995C

Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.78782	10.80		
STYRENE	104	.98260	1.63958	66.86		
TOTAL XYLENES	91	1.41320	2.28244	61.51		

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: V-4727 Calibration Date: 01/16/87

Contractor: E & EM INC. Time: 19:31

Contract No: IL-3140 Laboratory ID: >C6436

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	1.82913	20.58		**
BROMOMETHANE	94	1.43187	1.23595	13.68		
VINYL CHLORIDE	62	1.60438	1.26613	21.08	*	
CHLOROETHANE	64	.69191	.61530	11.07		
METHYLENE CHLORIDE	84	1.38013	1.73012	25.36		
ACETONE	43	1.61869	1.16081	28.29		
TRICHLOROFLUOROMETHANE	101	3.13900	2.04252	34.93		
CARBON DISULFIDE	76	3.82990	6.42598	67.78		
1,1-DICHLOROETHENE	61	3.02810	2.07241	31.56	*	
1,1-DICHLOROETHANE	63	3.36439	2.93689	12.71		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.43892	7.63		
CHLOROFORM	83	3.56796	3.48434	2.34	*	
1,2-DICHLOROETHANE	62	3.55680	3.21328	9.66		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.48736	17.05		
2-BUTANONE	72	.06798	.11196	64.71		
1,1,1-TRICHLOROETHANE	97	.59787	.69376	16.04		
CARBON TETRACHLORIDE	117	.59043	.69767	18.16		
VINYL ACETATE	43	1.19023	.95612	19.67		
BROMODICHLOROMETHANE	83	.65552	.74941	14.32		
1,2-DICHLOROPROPANE	63	.46960	.43873	6.57	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.85195	21.11		
TRICHLOROETHENE	130	.40336	.44861	11.22		
DIBROMOCHLOROMETHANE	129	.55837	.63124	13.05		
1,1,2-TRICHLOROETHANE	97	.36284	.41105	13.29		
BENZENE	78	1.16600	1.22923	5.42		
CIS-1,3-DICHLOROPROPENE	75	.52628	.50085	4.83		
2-CHLOROETHYLVINYLETHER	63	.33081	.23092	30.19		
BROMOFORM	173	.62246	.56986	8.45		**
4-METHYL-2-PENTANONE	43	1.12348	.95185	15.28		
2-HEXANONE	43	.92838	.82263	11.39		
TETRACHLOROETHENE	164	.47024	.47814	1.68		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.77133	3.69		**
TOLUENE-D8 (SURR)	98	1.36277	1.36052	.17		
TOLUENE	92	.89572	.99192	10.74	*	
CHLOROBENZENE	112	1.10402	1.24220	12.52		**
ETHYLBENZENE	91	1.85535	2.16463	16.67	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

and environment

Continuing Calibration Check
HSL Compounds

Ca 'o: V-4727 | Calibration Date: 01/16/87

Contractor: E & EM INC. | Time: 19:31

Contract No: IL-3140 | Laboratory ID: >C6436

Instrument ID: HP-5995C | Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 | Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.77272	8.68		
STYRENE	104	.98260	1.65652	68.59		
TOTAL XYLENES	91	1.41320	2.26739	60.44		

k - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Continuing Calibration Check
HSL Compounds

Case No: U-4727

Calibration Date: ~~01/22/87~~ BJK 1/21/87

Contractor: E & E, INC.

Time: 12:53

Contract No: IL-3140

Laboratory ID: >C6506

Instrument ID: HP-5995C

Initial Calibration Date: 01/14/87

Minimum $\overline{RF}$ for SPCC is .3

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.11897	2.17593	2.69		**
BROMOMETHANE	94	1.93506	1.47071	24.00		
VINYL CHLORIDE	62	1.94338	1.66282	14.44	*	
CHLOROETHANE	64	1.08489	.69899	35.57		
METHYLENE CHLORIDE	84	2.16137	2.06016	4.68		
ACETONE	43	.84193	1.06615	26.63		
TRICHLOROFLUOROMETHANE	101	2.54292	4.32396	70.04		
CARBON DISULFIDE	76	6.86662	6.27348	8.64		
1,1-DICHLOROETHENE	61	2.38128	1.83433	22.97	*	
1,1-DICHLOROETHANE	63	3.26440	4.01561	23.01		**
TRANS-1,2-DICHLOROETHENE	96	1.60174	1.85982	16.11		
CHLOROFORM	83	2.71427	2.65335	2.24	*	
1,2-DICHLOROETHANE	62	4.09955	3.31583	19.12		
1,2-DICHLOROETHANE-D4(SURR)	65	3.37805	2.47837	26.63		
2-BUTANONE	72	.05752	.04846	15.75		
1,1,1-TRICHLOROETHANE	97	.81788	.71872	12.12		
CARBON TETRACHLORIDE	117	.80586	.75748	6.00		
VINYL ACETATE	43	.63049	.84733	34.39		
BROMODICHLOROMETHANE	83	.86796	.71693	17.40		
1,2-DICHLOROPROPANE	63	.44625	.49057	9.93	*	
TRANS-1,3-DICHLOROPROPENE	75	.93350	.87572	6.19		
TRICHLOROETHENE	130	.46969	.47654	1.46		
DIBROMOCHLOROMETHANE	129	.66040	.55609	15.80		
1,1,2-TRICHLOROETHANE	97	.40741	.35745	12.26		
BENZENE	78	1.25348	1.37188	9.45		
CIS-1,3-DICHLOROPROPENE	75	.56242	.48632	13.53		
2-CHLOROETHYLVINYLETHER	63	.17959	.17671	1.60		
BROMOFORM	173	.49942	.43508	12.88		**
4-METHYL-2-PENTANONE	43	.54544	.50536	7.35		
2-HEXANONE	43	.41447	.38834	6.30		
TETRACHLOROETHENE	164	.47405	.59372	25.24		
1,1,2,2-TETRACHLOROETHANE	83	.60929	.62918	3.27		**
TOLUENE-D8 (SURR)	98	1.47861	1.48975	.75		
TOLUENE	92	1.05171	1.12769	7.22	*	
CHLOROBENZENE	112	1.37502	1.34655	2.07		**
ETHYLBENZENE	91	2.47138	2.34172	5.25	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

ecology and environment

Continuing Calibration Check
HSL Compounds

ase No: U-4727

Calibration Date: ~~01/22/87~~ BJK 1/21/87

ontractor: E & E, INC.

Time: 12:53

ontract No: II-3140

Laboratory ID: >C6506

nstrument ID: HP-5995C

Initial Calibration Date: 01/14/87

Minimum $\overline{RF}$ for SPCC is .3

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.90570	.77572	14.35		
STYRENE	104	1.95543	1.40045	28.38		
TOTAL XYLENES	91	2.75359	1.97389	28.32		

- Response Factor from daily standard file at 50.00 UG/L

- Average Response Factor from Initial Calibration Form VI

iff - % Difference from original average or curve

recycled paper

ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: V-4727 Calibration Date: 01/23/87

Contractor: E & EM INC. Time: 11:41

Contract No: IL-3140 Laboratory ID: >C6554

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	2.08763	9.35		**
BROMOMETHANE	94	1.43187	1.57240	9.81		
VINYL CHLORIDE	62	1.60438	1.79673	11.99	*	
CHLOROETHANE	64	.69191	.96490	39.46		
METHYLENE CHLORIDE	84	1.38013	1.94712	41.08		
ACETONE	43	1.61869	1.60546	.82		
RICHLOROFLUOROMETHANE	101	3.13900	4.03413	28.52		
ARBON DISULFIDE	76	3.82990	5.54408	44.76		
,1-DICHLOROETHENE	61	3.02810	3.50489	15.75	*	
,1-DICHLOROETHANE	63	3.36439	3.75232	11.53		**
RANS-1,2-DICHLOROETHENE	96	1.55781	1.76492	13.29		
HLOROFORM	83	3.56796	3.91505	9.73	*	
,2-DICHLOROETHANE	62	3.55680	3.64434	2.46		
,2-DICHLOROETHANE-D4(SURR)	65	2.99858	3.11129	3.76		
-BUTANONE	72	.06798	.09266	36.31		
,1,1-TRICHLOROETHANE	97	.59787	.68559	14.67		
ARBON TETRACHLORIDE	117	.59043	.71959	21.88		
INYL ACETATE	43	1.19023	1.13213	4.88		
ROMODICHLOROMETHANE	83	.65552	.71461	9.01		
,2-DICHLOROPROPANE	63	.46960	.47243	.60	*	
RANS-1,3-DICHLOROPROPENE	75	.70348	.86181	22.51		
RICHLOROETHENE	130	.40336	.44543	10.43		
IBROMOCHLOROMETHANE	129	.55837	.59099	5.84		
,1,2-TRICHLOROETHANE	97	.36284	.41652	14.79		
ENZENE	78	1.16600	1.28646	10.33		
IS-1,3-DICHLOROPROPENE	75	.52628	.51908	1.37		
-CHLOROETHYLVINYLETHER	63	.33081	.25223	23.75		
ROMOFORM	173	.62246	.52674	15.38		**
-METHYL-2-PENTANONE	43	1.12348	.96287	14.30		
-HEXANONE	43	.92838	.73785	20.52		
ETRACHLOROETHENE	164	.47024	.52413	11.46		
,1,2,2-TETRACHLOROETHANE	83	.80085	.88032	9.92		**
OLUENE-D8 (SURR)	98	1.36277	1.62118	18.96		
OLUENE	92	.89572	1.08298	20.91	*	
LOROBENZENE	112	1.10402	1.31159	18.80		**
THYLBENZENE	91	1.85535	2.27886	22.83	*	

- Response Factor from daily standard file at 250.00 NGS

- Average Response Factor from Initial Calibration Form VI

iff - % Difference from original average or curve

recycled paper ecology and environment

Continuing Calibration Check
HSL Compounds

No: V-4727 Calibration Date: 01/23/87

Contractor: E & EM INC. Time: 11:41

Contract No: IL3140 Laboratory ID: >C6554

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.90068	26.67		
STYRENE	104	.98260	1.36919	39.34		
TOTAL XYLENES	91	1.41320	1.93501	36.92		

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

ecology and environment

Continuing Calibration Check
HSL Compounds

as : V-4727 Calibration Date: 02/02/87

ontractor: E & EM INC. Time: 10:41

ontract No: IL-3140 Laboratory ID: >C6655

nstrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	2.54496	10.51		**
BROMOMETHANE	94	1.43187	1.76896	23.54		
VINYL CHLORIDE	62	1.60438	1.98217	23.55	*	
CHLOROETHANE	64	.69191	1.03659	49.82		
METHYLENE CHLORIDE	84	1.38013	1.56648	13.50		
CETONE	43	1.61869	1.65062	1.97		
RICHLOROFLUOROMETHANE	101	3.13900	2.69263	14.22		
ARBON DISULFIDE	76	3.82990	3.70160	3.35		
,1-DICHLOROETHENE	61	3.02810	2.76279	8.76	*	
,1-DICHLOROETHANE	63	3.36439	3.55055	5.53		**
RANS-1,2-DICHLOROETHENE	96	1.55781	1.57159	.88		
HLOROFORM	83	3.56796	3.71506	4.12	*	
,2-DICHLOROETHANE	62	3.55680	3.39272	4.61		
,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.70500	9.79		
-BUTANONE	72	.06798	.09519	40.02		
,1,1-TRICHLOROETHANE	97	.59787	.56968	4.72		
ARBON TETRACHLORIDE	117	.59043	.58180	1.46		
INYL ACETATE	43	1.19023	1.04455	12.24		
ROMODICHLOROMETHANE	83	.65552	.63340	3.37		
,2-DICHLOROPROPANE	63	.46960	.45909	2.24	*	
RANS-1,3-DICHLOROPROPENE	75	.70348	.79589	13.14		
RICHLOROETHENE	130	.40336	.39071	3.13		
IBROMOCHLOROMETHANE	129	.55837	.50732	9.14		
,1,2-TRICHLOROETHANE	97	.36284	.38578	6.32		
ENZENE	78	1.16600	1.17042	.38		
IS-1,3-DICHLOROPROPENE	75	.52628	.45401	13.73		
-CHLOROETHYLVINYLETHER	63	.33081	.22031	33.40		
ROMOFORM	173	.62246	.46283	25.64		**
-METHYL-2-PENTANONE	43	1.12348	.92572	17.60		
-HEXANONE	43	.92838	.75123	19.08		
ETRACHLOROETHENE	164	.47024	.44765	4.80		
,1,2,2-TETRACHLOROETHANE	83	.80085	.84735	5.81		**
OLUENE-D8 (SURR)	98	1.36277	1.35250	.75		
OLUENE	92	.89572	1.00181	11.84	*	
HLOROBENZENE	112	1.10402	1.17872	6.77		**
THYLBENZENE	91	1.85535	2.06797	11.46	*	

F - Response Factor from daily standard file at 250.00 NGS

$\overline{F}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: V-4727 Calibration Date: 02/02/87

Contractor: E & EM INC. Time: 10:41

Contract No: IL-3140 Laboratory ID: >C6655

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.75462	6.13		
STYRENE	104	.98260	1.28311	30.58		
TOTAL XYLENES	91	1.41320	1.78440	26.27		

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form-VI

%Diff - % Difference from original average or curve

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PESTICIDE STANDARDS

1. FORM VIII
2. FORM IX
3. FORM X

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Pesticide Evaluation Standards Summary
(Page 1)

Case No: V-4727 Region: _____
Contract No: IL-3140
Date of Analysis 1-15-87 1-16-87

Laboratory: ECOLOGY + ENVIRONMENT INC
GC Column: OV-1
Instrument ID: VARIAN 6000 #2

Evaluation Check for Linearity

Laboratory ID	RUN 1	RUN 2	RUN 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	645	618	598	3.8
Endrin	748	727	709	2.7
4,4'- DDT(1)	375	384	379	1.2
Dibutyl Chlorendate	441	436	381	7.9

Evaluation Check for 4,4'- DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	RUN 2	9:58	NA	NA	2.9
Eval Mix B	*RUN 19	20:22	NA	NA	3.1
Eval Mix B	RUN 28	14:26	NA	NA	4.0
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

* PEAK HEIGHT

(1) See Exhibit E, Section 7 5 4
(2) See Exhibit E, Section 7 3 1 2 2 1

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Pesticide Evaluation Standards Summary
(Page 2)

Evaluation of Retention Time Shift for Dibutyl Chlorendate

Report all standards, blanks and samples

	SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No.	Lab ID	Time of Analysis	Percent Diff
	EVAL Mix A	Run 1	9:24	–				
	EVAL Mix B	2	9:58	0.07				
	EVAL Mix C	3	10:31	0.22				
	IND. Mix A	4	11:27	0.15				
	IND. Mix B	5	12:01	0.07				
	TOXAPHENE	6	12:34	0.29				
	CHLORDANE	7	13:08	0.26				
	PCB 1016/1260	8	13:41	0.91				
	PCB 1221	9	14:15	0.04				
	PCB 1232	10	14:49	0.15				
	PCB 1242	11	15:22	0.04				
	PCB 1248	12	15:56	0				
	PCB 1254	13	16:30	0.37				
	BLANK	14	17:22	0.15				
C-HB-20	0101	15	17:57	0.40				
C-HB-20MS	0101 MS	16	18:34	INF.				
C-HB-20MSD	0101 MSD	17	19:12	INF.				
C-H3-17	0098	18	19:46	0.33				
	EVAL Mix B	19	20:22	0.18				
C-H3-18	0099	20	20:56	0.40				
C-H7-23	0157	21	21:30	0.15				
C-H6-22	0156	22	22:13	INF.				
C-H5-21	0102	23	22:48	INF.				
C-H4-19	0100	24	23:25	DL				
	PCB 1016/1260	25	9:42	0.37				
C-H8-24	0158	26	10:16	DL				
C-H2-16	0097	27	11:20	DL				
	EVAL Mix B	28	14:26	0.99				
	IND. Mix A	29	14:59	0.73				
	IND. Mix B	30	15:33	0.73				

INF. = INTERFERENCE

Form VIII (Continued)

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4727 Laboratory ECOLOGY + ENVIRONMENT, INC.

Contract No. IL-3140 GC Column QV-1 GC Instrument ID VARIAN 6000 2A

1341
Run # 8
1-15-87

	DATE OF ANALYSIS 1-15-87				DATE OF ANALYSIS 1-16-87			
	TIME OF ANALYSIS 11:27 / 12:01				TIME OF ANALYSIS 9:42			
	LABORATORY ID Run #4 / Run #5				LABORATORY ID Run #25			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.17	2.15-2.19	662					
beta-BHC	2.31	2.29-2.33	215					
delta-BHC	2.59	2.57-2.61	588					
gamma-BHC	2.52	2.50-2.54	576					
Heptachlor	3.98	3.96-4.01	556					
Aldrin	4.89	4.85-4.93	595					
Heptachlor Epoxide	5.92	5.88-5.96	557					
Endosulfan I	7.32	7.26-7.38	527					
Dieldrin	8.52	8.45-8.59	567					
4,4'-DDE	8.41	8.34-8.48	534	QUANT.				
Endrin	9.48	9.40-9.56	498					
Endosulfan II	9.67	9.58-9.76	514					
4,4'-DDD	10.53	10.44-10.62	460	QUANT.				
Endosulfan Sulfate	12.35	12.25-12.45	398					
4,4'-DDT	13.72	13.62-13.82	404	QUANT.				
Methoxychlor	20.10	19.96-20.24	215					
Endrin Ketone	15.79	15.65-15.93	543					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	22.43	22.11-22.75	58	QUANT	22.69	64		10

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4727 Laboratory Ecology + Environment, Inc.
Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN 6000 2A

1-15-87
13:41
Run 8

DATE OF ANALYSIS	1-15-87				DATE OF ANALYSIS	1-16-87		
TIME OF ANALYSIS	11:27 / 12:01				TIME OF ANALYSIS	14:59 / 15:33		
LABORATORY ID	Run #4 / Run #5				LABORATORY ID	Run #29 / Run #30		
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.17	2.15-2.19	662		2.17	733		11
beta-BHC	2.31	2.29-2.33	215		2.30	220		2.3
delta-BHC	2.59	2.57-2.61	588		2.59	638		8.5
gamma-BHC	2.52	2.50-2.54	576		2.52	616		6.9
Heptachlor	3.98	3.96-4.01	556		3.98	553		0.54
Aldrin	4.89	4.85-4.93	595		4.90	644		8.2
Heptachlor Epoxide	5.92	5.88-5.96	557		5.94	603		8.3
Endosulfan I	7.32	7.26-7.38	527		7.35	573		8.7
Dieldrin	8.52	8.45-8.59	567		8.55	609		7.4
4,4'-DDE	8.41	8.34-8.48	534	QUANT.	8.44	587		9.9
Endrin	9.48	9.40-9.56	498		9.52	529		6.2
Endosulfan II	9.67	9.58-9.76	514		9.70	551		7.2
4,4'-DDD	10.53	10.44-10.62	460	QUANT.	10.57	514		12
Endosulfan Sulfate	12.35	12.25-12.45	398		12.40	433		8.8
4,4'-DDT	13.72	13.62-13.82	404	QUANT.	13.78	381		5.7
Methoxychlor	20.10	19.96-20.24	215		20.19	215		Ø
Endrin Ketone	15.79	15.65-15.93	543		15.86	607		12
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	22.43	22.11-22.75	58	QUANT				

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

FORM IX

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Pesticide/PCB Identification

Case No. V-4727

Contract No. IL3140

Laboratory ECOLOGY + ENVIRONMENT INC.

SAMPLE ID	PRIMARY COLUMN	PESTICIDE/ PCB	RT OF TENTATIVE ID	RT WINDOW OF APPROPRIATE STANDARD	CONFIRMATION COLUMN	RT ON CONFIRMATORY COLUMN	RT WINDOW OF APPROPRIATE STANDARD	GC/MS CONFIRMED (Y or N)
0097	OV-1	PCB1260	22.56	22.11 - 22.75	SP2250/SP2340	20.51	20.27-20.73	N
0102		4,4'-DDE	8.45	8.34 - 8.48		7.25	7.17-7.31	N
0102		4,4'-DDD	10.50	10.44-10.62		11.08	10.97-11.17	N
0102		4,4'-DDT	13.81	13.62-13.82		13.27	13.21-13.51	N
0102		PCB1260	22.53	22.11-22.75		20.44	20.27-20.73	N
0158		4,4'-DDE	8.47	8.34-8.48		7.25	7.17-7.31	N
0158	↓	4,4'-DDT	13.82	13.62-13.82	↓	13.35	13.21-13.51	N

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FORM X

DC-H2-16

DC-H5-21

DC-H8-24

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Pesticide Evaluation Standards Summary
(Page 1)

Case No: V-4727 Region: _____
Contract No: IL-3140
Date of Analysis 1-20-87

Laboratory: ECOLOGY AND ENVIRONMENT INC
GC Column: SP2250 / SP2401
Instrument ID: VARIAN 6000 #2

Evaluation Check for Linearity

Laboratory ID	RUN 1	RUN 2	RUN 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	858	844	895	3.0
Endrin	807	815	892	5.6
4,4'- DDT(1)	355	483	511	18
Dibutyl Chlorendate	600	615	616	1.5

Evaluation Check for 4,4'- DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	RUN 2	10:56	2.9	8.4	NA
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7 5 4
(2) See Exhibit E, Section 7 3 1 2 2 1

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Pesticide Evaluation Standards Summary
(Page 2)
Evaluation of Retention Time Shift for Dibutyl Chlorendate
Report all standards, blanks and samples

SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No.	Lab ID	Time of Analysis	Percent Diff
EVAL MIX A	RUN 1	10:05	—				
EVAL MIX B	RUN 2	10:56	0.04				
EVAL MIX C	RUN 3	11:38	0.04				
IND MIX A	RUN 4	12:16	0.17				
IND MIX B	RUN 5	12:49	0.08				
PCB 1016/1260	RUN 6	13:23	0.04				
C-HZ-16 0097	RUN 7	14:20	DL				
C-HB-20 0102	RUN 8	14:54	INF.				
DC-HB-24 0158	RUN 9	15:28	DL				
IND MIX A	RUN 10	16:47	0.08				
IND MIX B	RUN 11	17:20	0.13				

DL = DILUTED OUT

INF. = INTERFERENCE

Form VIII (Continued)

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4727 Laboratory ECOLOGY AND ENVIRONMENT INC.

Contract No. IL-3140 GC Column SP2250/SP2401 GC Instrument ID VARIAN 6000 #2

	DATE OF ANALYSIS 1-20-87				DATE OF ANALYSIS 1-20-87			
	TIME OF ANALYSIS 12:16	12:49	13:23		TIME OF ANALYSIS 16:47	17:20		
	LABORATORY ID RUN4	RUN5	RUN6		LABORATORY ID RUN10	RUN11		
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE	7.24	7.17-7.31	751	CONF.	7.25	767		2.1
Endrin								
Endosulfan II								
4,4'-DDD	11.07	10.97-11.17	629	CONF.	11.08	589		6.4
Endosulfan Sulfate								
4,4'-DDT	13.36	13.21-13.51	110 *	CONF.	13.37	95 *		14
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	20.50	20.27-20.73	108	CONF.				

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

FORM IX

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Pesticide Evaluation Standards Summary
(Page 1)

Case No: V-4727 Region: _____
Contract No: IL-3140
Date of Analysis 1-21-87 — 1-23-87

Laboratory: ECOLOGY AND ENVIRONMENT II
GC Column: OV-1
Instrument ID: VARIAN 6000 GC#2

Evaluation Check for Linearity

Laboratory ID	RUN 1	RUN 2	RUN 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval Mix C	% RSD (≤10%)
Aldrin	653	649	624	2.4
Endrin	715	690	668	3.4
4,4'- DDT(1)	378	370	380	1.4
Dibutyl Chlorendate	455	456	448	0.96

Evaluation Check for 4,4'- DDT/Endrin Breakdown

(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	RUN 2	17:27			7.5
Eval Mix B	RUN 19	17:27			3.4
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4
(2) See Exhibit E, Section 7.3.1.2.2.1

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4727 Laboratory ECOLOGY + ENVIRONMENT, INC

Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN 6000 GC #2

1-22-87
0:53 / 9:51
RUN 8 / RUN 12

DATE OF ANALYSIS	1-22-87				DATE OF ANALYSIS	1-23-87		
TIME OF ANALYSIS	22.39	23.12			TIME OF ANALYSIS	14:01	14:36	
LABORATORY ID	Run 4	Run 5			LABORATORY ID	Run 24	Run 25	
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.24	2.22-2.26	719		2.23	758		5.4
beta-BHC	2.38	2.36-2.40	249		2.37	249		Ø
delta-BHC	2.67	2.65-2.69	651		2.67	678		4.1
gamma-BHC	2.60	2.58-2.62	637		2.60	673		5.7
Heptachlor	4.11	4.08-4.14	569		4.11	627		10
Aldrin	5.05	5.01-5.09	670		5.05	706		5.4
Heptachlor Epoxide	6.12	6.08-6.16	624		6.12	670		7.4
Endosulfan I	7.57	7.51-7.63	592		7.56	637		7.6
Dieldrin	8.80	8.73-8.87	631		8.80	696		10
4,4'-DDE	8.69	8.62-8.76	603	QUANT	8.67	625		3.6
Endrin	9.80	9.72-9.88	537		9.78	556		3.5
Endosulfan II	9.98	9.89-10.07	586		9.99	617		5.3
4,4'-DDD	10.89	10.80-10.98	526		10.85	552		4.9
Endosulfan Sulfate	12.76	12.66-12.86	436		12.72	465		6.7
4,4'-DDT	14.18	14.08-14.28	175*		14.18	185*		5.7
Methoxychlor	20.80	20.66-20.94	170		20.81	189		11
Endrin Ketone	16.33	16.19-16.47	628		16.28	652		3.8
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	6.22	6.16-6.28	40.5	QUANT				
Aroclor - 1254								
Aroclor - 1260	23.21	22.89-23.53	67.8	QUANT				

* SEE EXHIBIT E, PART 7

* PEAK HEIGHT

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

FORM IV

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Pesticide/PCB Identification

Case No. U-4727

Contract No. IL-3140

Laboratory ECOLOGY + ENVIRONMENT, INC.

SAMPLE ID	PRIMARY COLUMN	~~PESTICIDE~~/ PCB	RT OF TENTATIVE ID	RT WINDOW OF APPROPRIATE STANDARD	CONFIRMATION COLUMN	RT ON CONFIRMATORY COLUMN	RT WINDOW OF APPROPRIATE STANDARD	GC/MS CONFIRMED (Y or N)
DC-K2-25 0394	OV-1	1248	6.19	6.16-6.28				
DC-K2-25 0394		1260	23.02	22.89-23.53				
DC-G1-26 0395		1260	23.06	22.89-23.53				
DC-G2-30 0399		DDE	8.71	8.62-8.76				
DC-G2-31 0400		DDE	8.71	8.62-8.76				

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FORM X

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Pesticide Evaluation Standards Summary
(Page 1)

Case No: U-4727 Region: _____
Contract No: IL-3140
Date of Analysis FEB. 11, 1987
FEB. 12, 1987

Laboratory: ECOLOGY AND ENVIRONMENT IN
GC Column: OV-1
Instrument ID: VARIAN 6000 GC#2

Evaluation Check for Linearity

Laboratory ID	RUN 1	RUN 2	RUN 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	623	594	608	2.4
Endrin	613	579	559	4.7
4,4'- DDT(1)	350	355	356	0.91
Dibutyl Chlorendate	442	427	441	1.9

Evaluation Check for 4,4'- DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	RUN #2	12:36	NA	NA	5.6
Eval Mix B	RUN #19	3:31	NA	NA	8.7
Eval Mix B	RUN #31	15:53	NA	NA	9.3
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

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Pesticide Evaluation Standards Summary
(Page 2)
Evaluation of Retention Time Shift for Dibutyl Chlorendate
Report all standards, blanks and samples

SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No	Lab ID	Time of Analysis	Percent Diff
EVAL A	RUN 1	12:00	—				
EVAL B	2	12:36	0.04				
EVAL C	3	12:11	0.04				
IND A	4	14:25	0.07				
IND B	5	15:00	0.07				
TOXAPHENE	6	16:39	0.07				
CHLORDANE	7	16:20	0.07				
AROCLOR 1016	8	16:55	1.1				
AROCLOR 1221	9	17:31	0.25				
AROCLOR 1232	10	18:07	0.21				
AROCLOR 1242	11	19:00	0.28				
AROCLOR 1248	12	20:53	0.42				
AROCLOR 1254	13	21:27	0.28				
BLANK 1-26	14	22:07	0.35				
K3-32 0643	15	23:13	DL				
K3-32MS 0643 MS	16	0:17	DL				
K3-32MSD 0643 MSD	17	1:22	DL				
BLANK 2-2	18	2:27	0.49				
EVAL B	19	3:31	0.35				
BLANK 2-3	20	4:35	0				
0752	21	5:40	INF.				
0753	22	6:44	0				
0754	23	7:49	0.56				
0754MS	24	8:54	0.35				
IND A	25	9:58	0.39				
0754MSD	26	10:48	0.35				
0755	27	11:27	0.32				
0756	28	12:32	DL				
0757	29	13:37	DL				
0758	30	15:06	DL				
EVAL B	31	15:53	0.32				
0799	32	16:30	DL				
0800	33	17:35	DL				
0801	34	18:41	DL				
IND A	35	21:44	0.39				
IND B	36	22:23	0.53				

DL = DILUTED OUT

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. V-4727 Laboratory ECOLOGY AND ENVIRONMENT, INC

Contract No. IL-3140 QC Column OV-1 QC Instrument ID VARIAN 6000 GC#2

FEB 11, 1987	DATE OF ANALYSIS FEB 11, 1987	DATE OF ANALYSIS FEB 12, 1987
16:55 19:00	TIME OF ANALYSIS 14:25 / 15:00	TIME OF ANALYSIS 9:58
RUN8 RUN11	LABORATORY ID RUN 4 / RUN5	LABORATORY ID RUN25

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.23	2.20-2.26	650					
beta-BHC	2.37	2.34-2.40	205					
delta-BHC	2.67	2.64-2.70	565					
gamma-BHC	2.59	2.56-2.62	591		2.59	651		10
Heptachlor	4.11	4.07-4.15	531		4.09	585		10
Aldrin	5.05	5.01-5.09	618		5.04	692		12
Heptachlor Epoxide	6.12	6.07-6.17	572		6.10	641		12
Endosulfan I	7.58	7.52-7.64	543		7.55	595		9.6
Dieldrin	8.82	8.75-8.89	580		8.79	632		9.0
4,4'-DDE	8.71	8.64-8.78	512					
Endrin	9.83	9.75-9.91	415					
Endosulfan II	10.02	9.93-10.11	544		9.98	569		4.6
4,4'-DDD	10.92	10.83-11.01	457					
Endosulfan Sulfate	12.80	12.70-12.90	345					
4,4'-DDT	14.22	14.12-14.32	369		14.16	363		1.6
Methoxychlor	20.86	20.72-21.00	198		20.79	213		7.6
Endrin Ketone	16.38	16.24-16.52	543					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242	3.58	3.53-3.63	19	QUANT				
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	23.28	22.96-23.60	65	QUANT				

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

FORM IX

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4727 Laboratory ECOLOGY AND ENVIRONMENT, INC

Contract No. IL-3140 GC Column QV-1 GC Instrument ID VARIAN 6000 GC/EC

FEB 11 1987 16:55 19:00 RUN 8. RUN 11	DATE OF ANALYSIS FEB 11, 1987				DATE OF ANALYSIS FEB 12, 1987			
	TIME OF ANALYSIS 14:25 / 15:00				TIME OF ANALYSIS 21:44 / 22:23			
	LABORATORY ID RUN 4 / RUN 5				LABORATORY ID RUN 35 / RUN 36			

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFFERENCE
alpha-BHC	2.23	2.20-2.26	650		2:21	723		11
beta-BHC	2.37	2.34-2.40	205		2.35	236		15
delta-BHC	2.67	2.64-2.70	565		2.65	640		13
gamma-BHC	2.59	2.56-2.62	591		2.59	664		11
Heptachlor	4.11	4.07-4.15	531		4.09	587		11
Aldrin	5.05	5.01-5.09	618		5.04	688		11
Heptachlor Epoxide	6.12	6.07-6.17	572		6.10	642		12
Endosulfan I	7.58	7.52-7.64	543		7.55	607		12
Dieldrin	8.82	8.75-8.89	580		8.79	649		12
4,4'-DDE	8.71	8.64-8.78	512		8.66	585		14
Endrin	9.83	9.75-9.91	415		9.77	486		17
Endosulfan II	10.02	9.93-10.11	544		9.99	589		8.3
4,4'-DDD	10.92	10.83-11.01	457		10.85	529		16
Endosulfan Sulfate	12.80	12.70-12.90	345		12.73	405		17
4,4'-DDT	14.22	14.12-14.32	369		14.16	390		5.7
Methoxychlor	20.86	20.72-21.00	198		20.77	221		12
Endrin Ketone	16.38	16.24-16.52	543		16.31	617		12
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242	3.58	3.53-3.63	19	QUANT.				
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	23.28	22.96-23.60	65	QUANT.				

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (>20% DIFFERENCE)

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Pesticide/PCB Identification

Case No. U-4727

Laboratory ECOLOGY & ENVIRONMENT INC.

Contract No. IL-3140

SAMPLE ID	PRIMARY COLUMN	PESTICIDE/ PCB	RT OF TENTATIVE ID	RT WINDOW OF APPROPRIATE STANDARD	CONFIRMATION COLUMN	RT ON CONFIRMATORY COLUMN	RT WINDOW OF APPROPRIATE STANDARD	GC/MS CONFIRMED (Y or N)
DC-K3-32	OV-1	PCB1242	3.59	3.53-3.63	SP2250/SP2401	2.70	2.67-2.73	N
DC-K3-32MS	↓	↓	3.58	↓	↓			
DC-K3-32MSD	↓	↓	3.58	↓	↓			

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505095

FORM X

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GC/MS TUNING

1. DFTPP FORM V

2. BFB FORM V

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GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 6-19-86 Time 1436

Lab ID D0034 Data Release Authorized By: C Jojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	67.0
70	less than 2.0% of mass 69	0.21 (0.31)[1]
127	40.0 - 60.0% of mass 198	46.9
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.93
275	10.0 - 30.0% of mass 198	21.0
365	greater than 1.00% of mass 198	2.47
441	present, but less than mass 443	9.97
442	greater than 40.0% of mass 198	68.1
443	17.0 - 23.0% of mass 442	13.0 (19.1)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	AP STD- 20 ug/L	D0036	6-19-86	1632
	50 ug/L	D0037		1736
	80 ug/L	D0038		1836
	120 ug/L	D0039		1928
	160 ug/L	D0040		2024

FORM V

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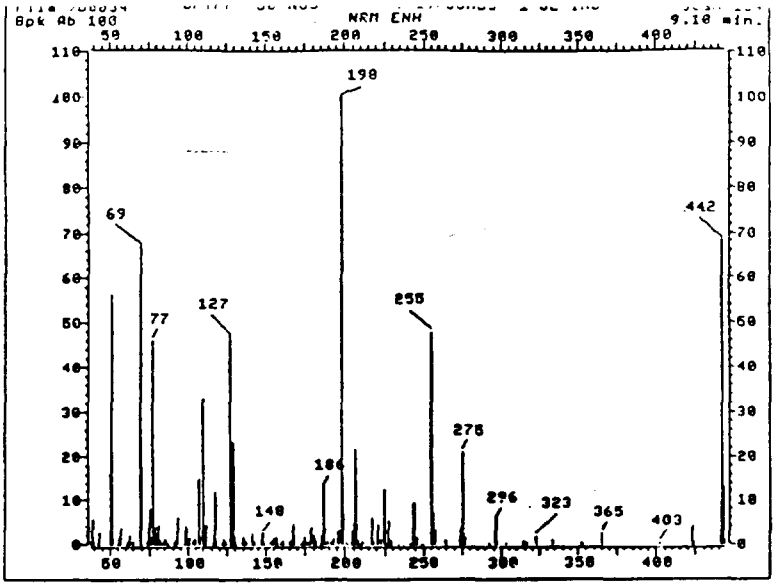

>D0034 DFTPP 50 NGS 6/19/86MDS 1 UL INJ
154 NRM ENH

File: >D0034 Scan #: 154 Retn. time: 9.10

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.95	.85	88.00	.15	140.90	2.50	187.05	3.60	244.05	9.39
38.95	5.95	91.00	.79	142.00	.76	188.05	.18	245.05	1.11
39.95	1.12	92.00	.77	143.00	.54	188.95	.65	245.95	1.70
42.95	.73	93.00	6.11	146.10	.22	190.95	.47	248.95	.22
43.95	2.79	96.90	.15	147.00	1.32	191.95	.88	254.95	47.84
50.05	16.29	98.00	4.02	148.00	2.71	193.05	1.32	255.95	7.03
51.05	56.44	99.00	3.31	149.00	.51	195.95	3.12	257.05	.55
51.95	2.66	100.00	.23	151.00	.22	197.95	100.00	257.95	2.94
55.05	.23	101.00	1.74	153.00	.73	198.95	6.93	264.95	.97
55.95	1.77	103.00	.67	154.00	.53	200.05	.26	272.95	1.38
56.95	3.87	104.00	1.30	155.00	1.49	201.35	.40	273.95	3.92
61.05	.42	104.90	1.19	156.00	1.90	203.05	.68	274.95	21.00
61.90	.64	107.00	14.80	157.80	.22	203.95	3.15	275.95	2.42
63.00	2.24	108.00	2.15	159.00	.38	205.05	5.24	276.95	1.62
64.10	.20	110.00	32.99	160.00	.68	206.05	21.54	292.75	.38
65.00	.66	111.00	4.57	160.90	.87	207.05	4.61	295.95	5.75
69.00	67.05	111.90	.29	164.90	.82	208.05	1.11	296.85	.76
70.00	.21	116.00	.83	166.00	.71	208.75	.12	302.85	.58
73.10	.90	117.00	11.76	167.00	4.52	210.05	.17	314.90	.61
74.00	4.82	118.00	.87	168.00	2.21	210.95	.79	316.00	.38
[illegible].00	8.23	122.00	.85	171.80	.17	216.95	5.98	323.10	1.91
76.10	1.92	123.00	1.52	172.90	.45	217.95	.60	334.00	.98
77.00	46.20	123.90	.70	174.00	1.01	220.95	4.54	352.00	.46
78.10	2.96	124.80	.57	175.00	1.81	222.95	1.57	353.00	.49
79.00	4.13	127.00	46.89	176.00	.31	224.05	12.35	365.00	2.47
80.00	2.58	128.00	3.90	177.00	.77	225.05	3.21	402.90	.57
81.00	4.32	129.00	23.30	177.90	.16	225.95	.20	423.00	3.98
81.90	1.06	129.90	2.11	178.90	3.64	226.95	5.42	423.80	.60
83.10	.34	130.80	.38	180.00	2.16	227.95	.79	441.05	9.97
84.00	.38	134.00	.49	180.90	.97	228.95	.96	442.05	68.07
85.00	1.30	135.00	1.64	184.05	.18	233.85	.14	443.05	13.00
86.00	1.03	136.10	.61	185.05	2.02	237.05	.18	444.05	1.14
86.90	.40	137.10	.66	186.05	13.07	242.05	.54		

MS data file header from : >D0034

Sample: DFTPP 50 NGS Operator: MANAGER MS 6/19/86 14:36
Misc : 6/19/86MDS 1 UL INJ
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # :***
Method file: DFTPPD Tuning file: MTDON3 No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures :	120.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

Case No. V-4,727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 7-30-86 Time 1051

Lab ID B2316 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	52.4
68	less than 2.0% of mass 69	None Present (0)[1]
69	mass 69 relative abundance	63.5
70	less than 2.0% of mass 69	None Present (0)[1]
127	40.0 - 60.0% of mass 198	42.6
197	less than 1.0% of mass 198	None Present
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.54
275	10.0 - 30.0% of mass 198	22.1
365	greater than 1.00% of mass 198	2.32
441	present, but less than mass 443	10.8
442	greater than 40.0% of mass 198	76.7
443	17.0 - 23.0% of mass 442	14.5 (18.9)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50 ng	B2317	7-30-86	1108
	20 ng	B2318		1207
	80 ng	B2320		1414
	120 ng	B2321		1505
	160 ng	B2322		1557
	AP STD - 20 ng	B2323		1657
	50 ng	B2324		1748
	80 ng	B2325		1839
	120 ng	B2326		1931
	160 ng	B2327		2022

FORM V

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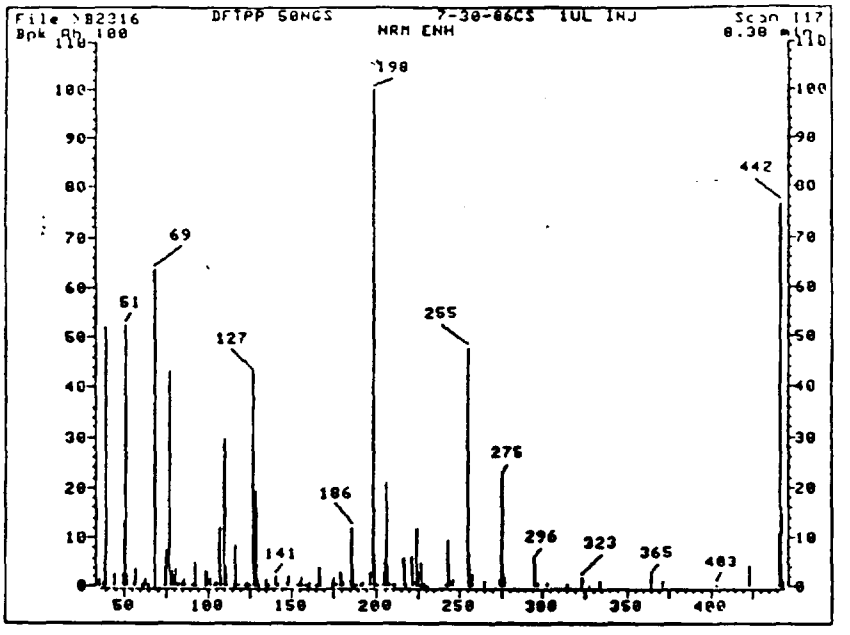

>B2316 DFTPP 50NGS 7-30-86CS 1UL INJ
117 NRM ENH

File: >B2316 Scan #: 117 Retn. time: 8.38

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.46	91.10	.41	137.10	.39	191.05	.20	244.05	9.41
38.15	.49	92.00	.52	141.00	2.08	191.95	.73	245.05	1.02
39.15	5.09	93.00	4.94	142.10	.36	192.95	.62	246.05	1.49
40.05	51.88	94.00	.24	143.00	.28	196.05	2.98	255.05	47.58
44.05	2.55	98.00	3.16	147.10	.97	197.95	100.00	256.05	6.77
49.05	2.49	99.00	2.89	148.00	1.99	198.95	6.54	257.00	.27
50.05	13.27	101.00	1.69	153.00	.44	199.95	.28	258.00	2.64
51.15	52.38	103.00	.35	154.00	.36	201.35	.26	265.00	.91
52.10	2.35	104.00	.66	155.05	.90	202.95	.36	273.00	1.41
56.00	.87	104.90	.71	156.05	1.52	204.05	2.91	274.00	3.64
57.00	3.48	107.00	12.01	158.05	.26	205.05	4.95	275.00	22.14
61.10	.36	108.00	1.77	159.95	.35	206.05	20.98	276.00	2.79
62.10	.35	110.00	29.62	161.05	.58	207.05	4.00	276.90	1.69
63.00	1.39	111.00	3.98	164.95	.45	207.95	.42	296.00	5.45
65.10	.47	112.00	.28	166.05	.39	210.25	.26	297.10	.75
69.00	63.51	116.10	.39	167.05	4.02	211.05	.51	303.10	.57
73.10	.22	117.00	8.26	168.05	1.77	216.95	5.83	315.00	.48
74.10	3.84	118.10	.34	174.05	.73	217.95	.43	323.00	1.78
75.00	7.43	122.10	.46	174.95	1.54	221.05	6.08	326.90	.16
77.10	42.88	123.10	.70	176.05	.35	223.05	1.08	334.00	.96
78.10	2.86	124.00	.34	176.95	.78	224.05	11.72	364.95	2.32
79.10	3.13	125.00	.25	178.95	3.03	225.05	2.92	371.95	.89
80.00	2.00	127.00	42.62	180.05	1.56	226.15	.18	402.95	.53
81.00	3.61	128.10	2.95	181.05	.83	227.05	4.81	423.05	4.16
82.00	.44	129.00	19.25	185.05	1.25	227.95	.54	423.95	.76
83.00	.58	129.90	1.48	186.05	11.94	229.05	.84	441.05	10.76
84.90	.58	131.00	.18	187.05	3.14	230.95	.21	442.05	76.66
86.00	1.30	135.10	1.37	188.05	.18	242.05	.34	443.05	14.52
87.00	.26	136.00	.27	188.95	.45	243.05	.32	444.05	1.19

MS data file header from : >B2316

Sample: DFTPP 50NGS Operator: USER8 MS 7/30/86 10:51
Misc : 7-30-86CS 1UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPP8 Tuning file: MT8ON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	120.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 10-17-86 Time 1108

Lab ID D0960 Data Release Authorized By: C Sbytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.2
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	68.4
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	42.6
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.46
275	10.0 - 30.0% of mass 198	21.2
365	greater than 1.00% of mass 198	2.03
441	present, but less than mass 443	8.55
442	greater than 40.0% of mass 198	50.1
443	17.0 - 23.0% of mass 442	9.72 (19.4)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD 20ug/L	D0965	10-17-86	1554
	50 ug/L	D0966		1652
	80 ug/L	D0967		1747
	120 ug/L	D0968		1839
	160 ug/L	D0969		1931

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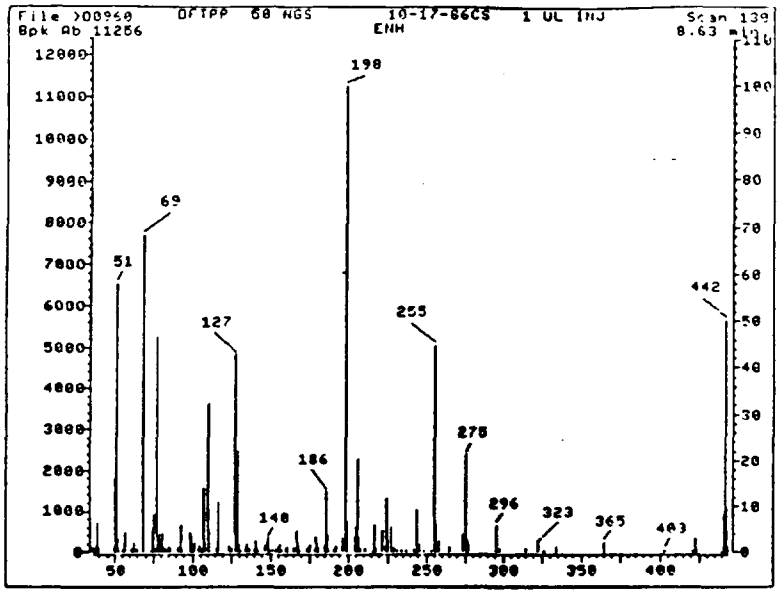

>D0960 DFTPP 50 NGS 10-17-86CS 1 UL INJ
130 NRM ENH

File: >D0960 Scan #: 130 Retn. time: 8.63

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.16	86.05	1.06	141.00	2.41	192.05	.93	248.80	.36
37.05	.11	91.00	.97	142.10	.82	192.95	1.34	253.20	.38
38.05	1.42	91.90	.80	142.70	.07	196.05	2.84	255.00	44.75
39.05	6.27	93.00	5.85	146.15	.43	197.95	100.00	256.00	6.54
39.95	.92	93.90	.45	146.95	1.26	198.95	6.46	256.90	.49
40.15	.32	98.00	4.29	147.95	2.82	202.55	.07	258.00	2.44
49.05	1.18	99.00	3.39	149.05	.55	204.05	3.39	264.95	.97
50.00	15.98	100.00	.44	151.35	.45	205.10	5.41	273.15	1.45
51.00	58.17	101.00	1.91	152.95	.83	206.00	20.24	273.95	3.35
52.10	2.54	103.00	.66	153.95	.54	207.10	3.06	275.05	21.18
52.80	.06	104.10	1.26	155.05	1.26	208.00	.73	276.05	2.69
55.10	.28	105.10	1.12	156.05	1.66	211.00	.84	276.95	1.72
56.10	1.70	105.90	.12	156.75	.32	216.20	.17	296.00	5.89
57.00	4.39	107.10	13.81	159.95	.92	217.00	5.97	297.10	.81
61.00	.82	107.95	1.96	161.05	1.05	218.00	.65	314.95	.40
62.10	.81	110.05	32.14	165.05	.94	221.10	4.61	315.15	.12
63.10	2.02	111.05	4.47	167.00	4.55	221.80	.19	323.00	1.62
65.10	.76	116.05	.75	168.00	2.08	223.00	1.50	326.70	.38
68.95	68.36	117.05	10.78	168.90	.45	224.05	11.74	334.10	.93
73.05	.54	122.95	1.38	173.00	.60	225.05	2.51	365.00	2.03
74.05	4.85	124.05	.68	174.00	.93	227.05	5.44	401.90	.38
74.95	8.24	125.05	.60	175.00	1.61	228.05	.62	403.10	.46
76.05	.59	127.00	42.62	177.80	.11	229.05	.93	420.75	.36
77.05	46.36	128.10	3.57	178.00	.40	230.95	.38	421.05	.09
78.15	3.18	129.00	21.86	179.00	3.29	234.05	.32	422.95	3.01
79.05	3.88	130.00	1.67	180.10	1.87	236.75	.38	423.95	.58
80.05	2.68	131.00	.42	181.10	1.09	241.95	.67	439.40	.20
81.05	3.98	134.10	.63	185.05	1.78	242.25	.11	439.80	.07
82.05	.91	135.10	1.72	186.05	13.11	242.90	.15	441.00	8.55
83.05	.85	136.00	.74	187.05	3.55	244.00	9.07	442.00	50.14
84.05	.53	136.90	.68	188.05	.36	245.00	1.13	443.00	9.72
84.95	1.02	140.00	.29	191.15	.49	246.00	1.80	444.10	.94

MS data file header from : >D0960

Sample: DFTPP 50 NGS Operator: USER6 MS 10/17/86 11:08
Misc : 10-17-86CS 1 UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDON2 No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 120. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 0.0 0.0

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GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4727 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID D Date 1-15-87 Time 11:45

Lab ID D1524 Data Release Authorized By: [illegible]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.59
68	less than 2.0% of mass 69	0.00 ( )[1]
69	mass 69 relative abundance	34.49
70	less than 2.0% of mass 69	0.00 ( )[1]
127	40.0 - 60.0% of mass 198	49.17
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	7.48
275	10.0 - 30.0% of mass 198	24.39
365	greater than 1.00% of mass 198	1.72
441	present, but less than mass 443	7.10
442	greater than 40.0% of mass 198	46.10
443	17.0 - 23.0% of mass 442	7.95 ( )[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50ng	D1525	1-15-87	1214
	AP STD - 50ng	D1526		1317
	BLANK (1/12)	D1537		2129
DC-H3-17	098	D1538		2222
DC-H7-23	157	D1539		2318

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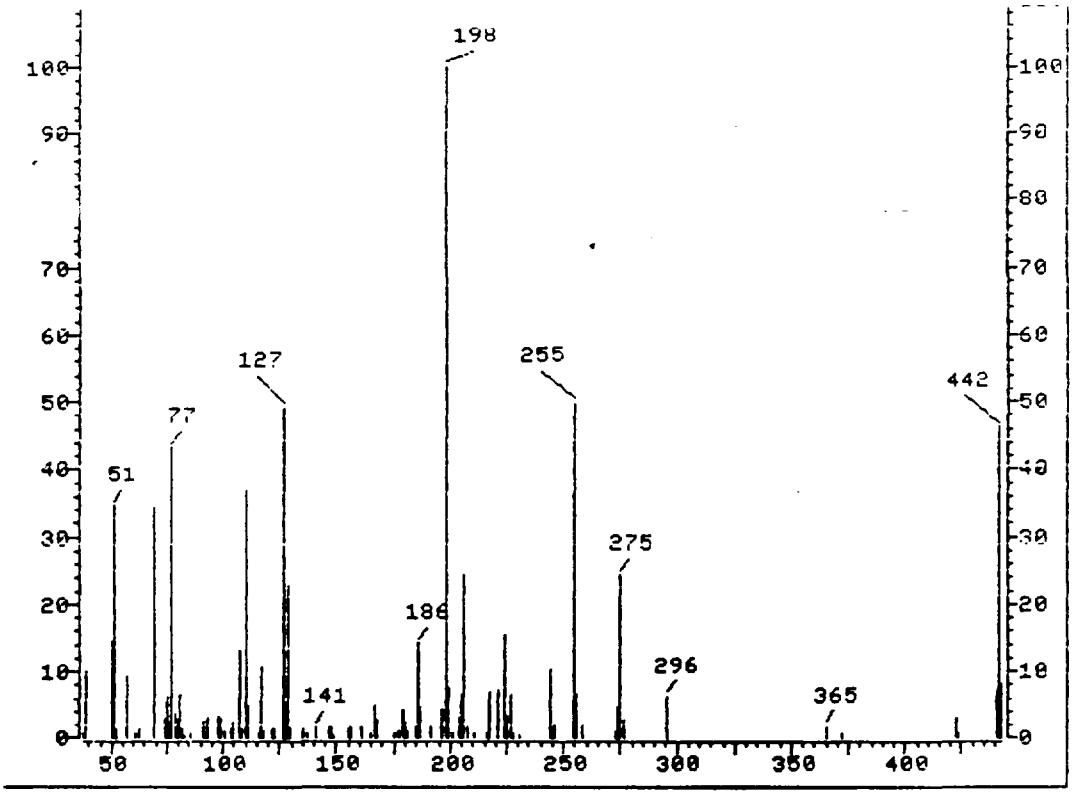

D1524 DFTPP 50 NGS 1/15/87MDS 1UL INJ
71 SUB NRM ENH

ile: >D1524 Scan #: 71 Retn. time: 7.42

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	.61	92.10	.87	129.90	1.57	185.95	14.14	231.05	.52
39.05	10.06	93.00	3.10	135.00	1.45	187.05	4.50	244.00	10.45
50.00	14.52	98.00	3.16	137.10	.61	191.85	1.56	244.90	.85
51.00	34.59	99.00	2.98	141.00	1.64	196.05	4.23	245.90	1.90
52.10	1.31	101.00	1.13	146.95	1.64	197.95	100.00	255.00	49.83
57.00	9.23	103.90	1.50	147.95	1.64	198.95	7.48	256.00	6.60
61.00	.69	105.00	2.17	149.05	.52	201.15	.69	258.00	2.09
63.10	1.31	107.10	13.32	155.05	1.35	204.05	2.91	272.95	1.12
68.95	34.49	108.05	1.51	156.05	1.57	205.00	6.33	274.05	4.44
74.05	2.88	108.85	.66	160.95	1.59	206.00	24.48	275.05	24.39
74.85	6.05	109.95	36.82	164.85	.76	208.00	1.56	276.05	2.64
75.85	2.33	111.05	4.90	165.15	.71	210.20	.61	276.95	1.18
77.05	43.20	116.05	.82	167.00	4.75	211.00	.76	296.00	6.22
79.05	3.70	116.95	10.52	168.00	2.52	216.10	.68	364.90	1.72
79.85	2.66	117.95	.93	175.00	.83	217.00	6.94	372.00	.79
81.05	6.60	122.05	1.21	176.90	1.16	221.10	7.04	422.95	2.90
82.15	1.42	123.05	1.24	179.00	4.12	223.95	15.30	423.95	.60
82.45	.49	127.00	49.17	180.00	2.19	224.95	3.26	441.00	7.10
86.05	.82	128.00	4.79	181.00	.93	227.05	6.41	442.00	46.10
91.20	2.22	129.00	22.72	185.05	1.81	227.95	.82	443.00	7.95

5 data file header from : >D1524

ar e: DFTPP 50 NGS Operator: USER6 MS 1/15/86 11:45
sc : 1/15/87MDS 1UL INJ BTL# 1
/s. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 150. 280. 0. 0. 0.

87

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GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U 4727 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID B Date 1-15-87 Time 12:10

Lab ID B3267 Data Release Authorized By: C Sojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.56
68	less than 2.0% of mass 69	0.00 (0.00)[1]
69	mass 69 relative abundance	65.23
70	less than 2.0% of mass 69	0.00 (0.00)[1]
127	40.0 - 60.0% of mass 198	45.06
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.46
275	10.0 - 30.0% of mass 198	19.37
365	greater than 1.00% of mass 198	1.89
441	present, but less than mass 443	8.83
442	greater than 40.0% of mass 198	55.80
443	17.0 - 23.0% of mass 442	11.22 (20.0)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD-50mg	B3268	1-15-87	1302
	AP STD-50 µg	B3269		1403
DC-HB-20	101	B3273		1912
DC-HB-20MS	101 MS	B3274		2005
DC-HB-20MSD	101 MSD	B3275		2057
DC-H3-18	099	B3276		2150
DC-H5-21	102	B3277		2243
DC-H8-24	158	B3278		2336

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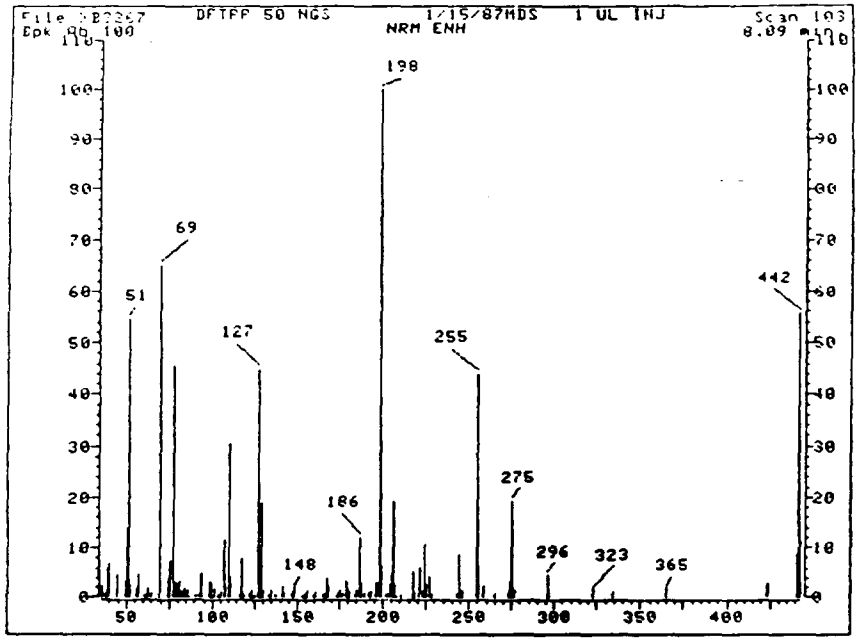

>B3267 DFTPP 50 NGS 1/15/87MDS 1 UL INJ
103 NRM ENH

File: >B3267 Scan #: 103 Retn. time: 8.09

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	2.36	85.10	.48	127.00	45.06	177.05	.69	225.05	2.57
38.15	.62	85.90	1.46	128.10	3.51	178.95	3.20	227.05	4.31
39.15	5.70	87.00	.24	129.00	19.09	179.95	1.76	227.95	.27
40.05	6.66	91.00	.55	129.90	1.35	181.05	.90	228.95	.87
44.05	4.42	92.00	.77	134.10	.30	185.05	1.39	243.15	.63
48.95	3.30	93.00	4.85	135.10	1.25	186.05	11.96	244.05	8.67
49.15	.68	94.00	.30	137.10	.43	187.05	3.08	245.05	.96
50.15	13.76	98.00	3.27	141.10	1.86	188.95	.76	245.95	1.46
51.15	54.56	99.10	3.10	142.00	.70	192.05	.96	255.05	44.11
52.10	2.76	100.10	.19	142.20	.45	193.05	.99	256.05	6.25
56.00	1.56	101.00	1.53	147.00	.93	195.95	3.08	258.00	2.20
57.00	4.64	102.90	.30	148.00	1.89	197.95	100.00	264.90	.86
61.10	.39	103.90	.54	153.00	.37	198.95	6.46	273.00	1.23
61.90	.55	105.10	1.12	154.10	.49	201.45	.62	274.00	3.41
63.10	1.78	107.10	11.62	155.05	.94	202.95	.27	275.00	19.37
65.10	.84	108.00	1.94	156.05	1.44	204.05	2.64	276.00	2.15
69.00	65.23	110.00	30.53	160.05	.30	205.05	4.64	277.00	1.44
74.00	4.08	111.10	4.14	161.05	.89	206.05	19.21	296.00	4.69
75.00	7.39	116.10	.37	165.05	.78	207.05	2.70	297.00	.58
77.10	45.40	117.00	7.82	166.15	.55	207.95	.25	323.00	1.58
78.10	3.07	117.90	.58	167.05	3.93	210.35	.27	334.00	.95
79.00	3.08	119.10	.51	167.95	1.86	216.95	5.29	364.95	1.89
80.00	2.51	122.00	.64	172.95	.22	217.95	.61	423.05	2.97
81.00	3.38	123.00	1.22	174.05	.73	221.05	6.05	441.05	8.83
82.10	.95	124.00	.33	175.05	1.27	223.05	1.25	442.05	55.80
83.00	.96	125.00	.39	176.05	.27	224.05	10.79	443.05	11.22
83.90	1.60								

MS data file header from : >B3267

Sample: DFTPP 50 NGS Operator: USER8 MS 1/15/87 12:10
Misc : 1/15/87MDS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPB Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	120.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4727 Contractor Ecology & Env. Inc Contract No. IL-3140

Instrument ID B Date 1-20-87 Time 11:50

Lab ID B3290 Data Release Authorized By: [illegible]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.10
68	less than 2.0% of mass 69	0.00 (0.0)[1]
69	mass 69 relative abundance	59.68
70	less than 2.0% of mass 69	0.00 (0.0)[1]
127	40.0 - 60.0% of mass 198	41.33
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.33
275	10.0 - 30.0% of mass 198	18.95
365	greater than 1.00% of mass 198	1.73
441	present, but less than mass 443	7.50
442	greater than 40.0% of mass 198	52.25
443	17.0 - 23.0% of mass 442	10.09 (19.3)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50ng	B3291	1-20-87	1333
	AP STD - 50ng	B3292		1436
DC-H6-22	156	B3294		1629
DC-H4-19	100	B3299		2104
DC-H9-28	397	B3301		2247

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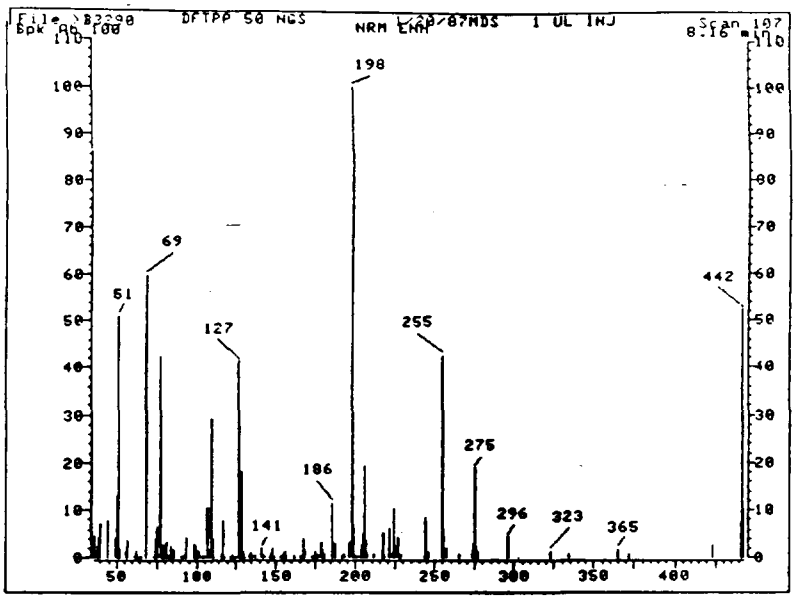

>B3290 DFTPP 50 NGS 1/20/87MDS 1 UL INJ
107 NRM ENH

File: >B3290 Scan #: 107 Retn. time: 8.16

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	4.48	85.00	.98	131.00	.23	180.10	1.61	226.95	4.18
38.15	2.25	85.90	1.84	134.00	.25	181.10	.85	227.95	.55
39.05	4.30	91.00	.49	135.00	.98	185.10	1.30	228.95	.88
39.95	7.13	92.00	.42	136.00	.33	186.00	11.33	243.15	.54
44.05	7.67	93.00	4.33	137.10	.41	187.00	3.06	244.05	8.57
49.05	3.97	98.00	2.94	141.00	2.00	191.00	.20	244.95	1.00
50.05	12.83	99.00	2.73	142.00	.45	192.00	.86	245.95	1.42
51.05	51.10	100.00	.20	143.00	.30	193.00	.77	254.95	42.41
52.05	1.93	101.00	1.59	146.10	.20	196.00	3.27	255.95	5.75
55.95	1.24	102.90	.32	146.90	.88	197.95	100.00	257.95	1.89
57.05	3.63	104.00	.53	148.00	1.95	198.95	6.33	264.95	.87
62.05	.36	105.00	.49	148.90	.28	199.95	.25	272.95	1.17
63.05	1.45	107.00	10.65	153.00	.40	201.25	.45	274.05	3.12
63.95	.23	108.00	1.75	153.90	.32	202.95	.28	274.95	18.95
65.15	.48	110.00	29.35	155.00	.97	203.95	2.50	275.95	2.38
68.90	59.68	111.00	3.98	156.00	1.26	204.95	4.74	276.95	1.39
73.00	.27	112.00	.31	157.10	.29	205.95	19.22	295.95	4.44
74.00	3.85	116.10	.57	161.10	.54	206.95	3.48	302.85	.21
75.00	6.60	117.00	7.74	165.00	.43	208.05	.67	322.95	1.42
77.00	42.22	118.00	.34	166.00	.34	210.95	.84	333.90	.87
78.00	2.65	122.00	.41	167.00	3.80	215.95	.22	365.00	1.73
79.00	2.61	123.00	.70	168.00	1.65	216.95	5.29	372.00	.69
80.00	1.88	125.00	.31	173.00	.26	217.85	.36	423.00	2.70
81.00	3.16	127.00	41.33	175.10	1.36	220.95	6.26	441.10	7.50
82.00	.49	128.00	3.19	175.90	.54	222.95	1.03	442.00	52.25
83.10	.42	129.00	18.05	177.00	.73	223.95	10.33	443.00	10.09
84.00	2.30	130.00	1.33	179.00	3.26	224.95	2.45		

MS data file header from : >B3290

Sample: DFTPP 50 NGS Operator: MANAGER MS 1/20/87 11:50
Misc : 1/20/87MDS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPB Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	120.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. V-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 1-22-87 Time 1219

Lab ID D1577 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.6
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	69.6
70	less than 2.0% of mass 69	0.73 (1.0)[1]
127	40.0 - 60.0% of mass 198	42.9
197	less than 1.0% of mass 198	0.76
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.87
275	10.0 - 30.0% of mass 198	20.2
365	greater than 1.00% of mass 198	1.10
441	present, but less than mass 443	6.31
442	greater than 40.0% of mass 198	54.0
443	17.0 - 23.0% of mass 442	11.0 (20.4)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50ng	D1578	1-22-87	1250
	AP STD - 50ng	D1582		1652
DC-G1-26	395	D1583		1757
	BLANK (1/16)	D1584		1901
DC-G1-27	396	D1585		2003
DC-H2-16	097	D1587		2147
DC-GB-29	398	D1589		2332

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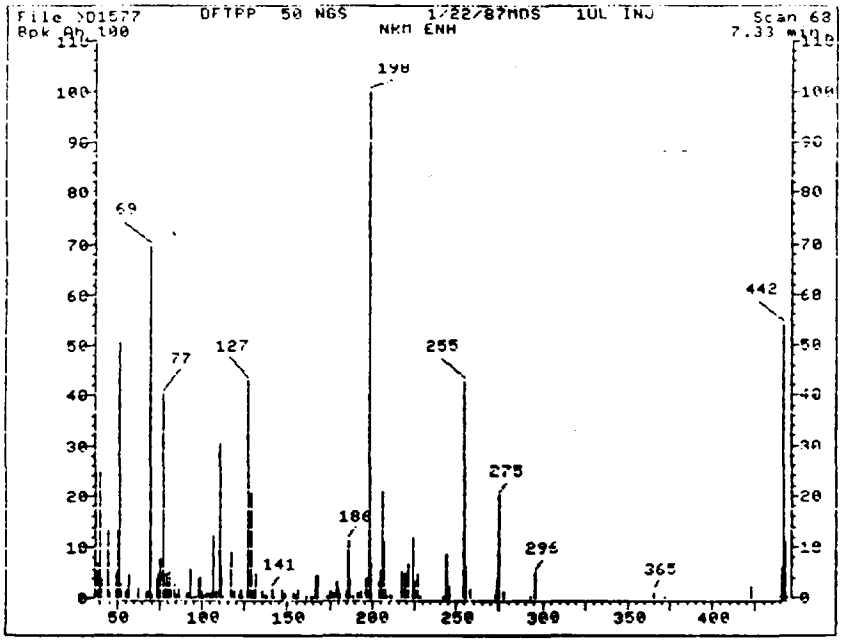

>D1577 DFTPP 50 NGS 1/22/87MDS 1UL INJ
68 NKM ENH

File: >D1577 Scan #: 68 Retn. time: 7.33

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.95	6.66	84.05	2.57	128.05	4.04	177.10	.94	224.10	12.09
39.95	24.74	84.85	.67	128.95	20.50	179.00	3.39	225.10	3.16
41.05	3.58	85.05	.42	130.05	1.66	180.00	2.04	227.10	4.99
44.05	13.47	86.05	2.14	131.05	4.90	180.80	.67	228.90	.50
44.95	1.01	91.05	.91	135.00	1.21	181.00	.84	241.85	.42
48.85	5.01	91.95	.50	137.10	.76	185.00	1.50	242.05	.42
49.15	1.90	93.00	5.71	137.90	.51	186.00	11.41	242.95	.29
50.05	13.37	93.80	.23	141.00	1.90	187.10	3.76	244.05	8.83
51.05	50.59	95.70	.25	141.80	.50	189.00	.45	246.05	2.19
52.00	2.49	98.00	3.92	146.50	.45	191.20	.34	255.00	42.78
55.10	1.33	99.10	4.40	147.10	1.73	192.00	1.09	256.00	6.24
56.10	2.39	100.00	1.36	148.10	.81	193.10	1.43	258.10	1.90
57.00	4.69	101.10	.60	149.00	.95	196.05	3.80	273.10	.70
62.30	.48	103.10	.93	153.00	.93	196.55	.76	273.40	1.00
63.10	2.09	105.00	1.14	154.75	.88	197.95	100.00	274.10	3.51
67.10	1.50	107.00	12.37	155.05	.44	199.05	6.87	275.00	20.16
69.00	69.64	108.10	1.38	155.45	.43	204.05	3.19	277.05	1.28
70.00	.73	110.10	30.37	156.05	1.56	204.95	5.46	292.85	.30
73.05	3.89	111.10	6.14	160.85	.44	206.05	20.77	296.00	5.13
73.95	4.98	112.10	.25	163.95	.30	207.05	10.94	365.05	1.10
74.95	7.91	116.95	9.12	165.05	.34	207.95	2.05	372.15	.47
77.05	40.39	118.65	.30	167.05	4.54	208.75	.53	423.10	2.23
78.15	2.10	118.95	1.40	168.05	4.51	210.75	.63	440.15	.56
79.05	4.82	121.85	.59	173.70	.40	211.35	.49	441.05	6.31
80.05	2.93	123.05	1.75	173.90	.38	217.00	5.06	442.05	54.00
80.95	5.06	124.05	.47	175.00	1.36	219.10	4.79	443.05	10.98
81.95	1.53	127.05	42.88	175.80	.31	221.00	6.91	444.05	.50
83.35	.74								

MS data file header from : >D1577

Sample: DFTPP 50 NGS Operator: USER6 MS 1/22/87 12:19
Misc : 1/22/87MDS 1UL INJ BIL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 150. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

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GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. V-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 2-11-87 Time 1050

Lab ID D1652 Data Release Authorized By: C Stoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.9
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	91.5
70	less than 2.0% of mass 69	0.34 (0.37)[1]
127	40.0 - 60.0% of mass 198	44.9
197	less than 1.0% of mass 198	0.78
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	7.27
275	10.0 - 30.0% of mass 198	19.0
365	greater than 1.00% of mass 198	1.85
441	present, but less than mass 443	7.93
442	greater than 40.0% of mass 198	44.8
443	17.0 - 23.0% of mass 442	9.23 (20.0)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD-50ng	D1653	2-11-87	1110
	AP STD-50ng	D1655		1314
	BLANK (1/26)	D1658		1604
DC-K2-25	394	D1661		1856
DC-K3-32	643	D1662		1948
DC-K3-32 MS	643 MS	D1663		2040
DC-K3-32 MSD	643 MSD	D1664		2132
DC-G2-30	399	D1665		2224

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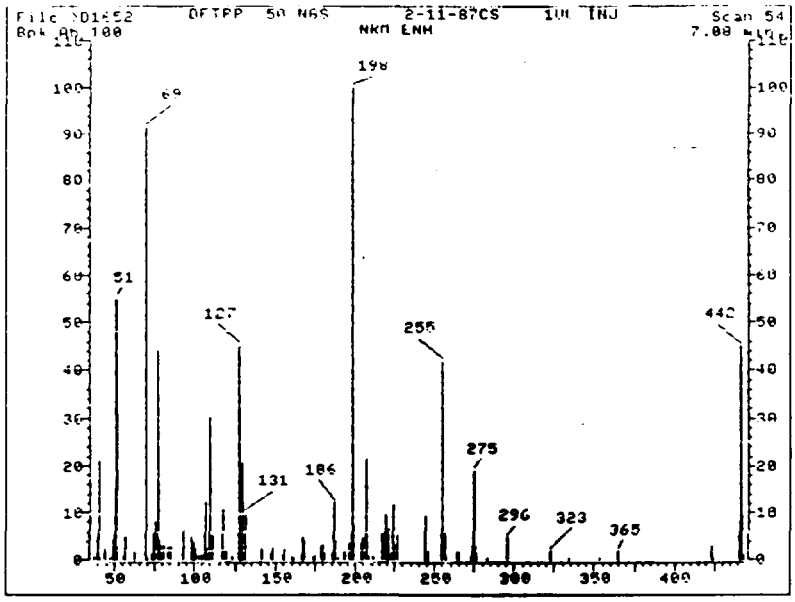

>D1652 DFTPP 50 NGS 2-11-87CS 1UL INJ
54 NKM ENH

File: >D1652 Scan #: 54 Retn. time: 7.08

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.85	.56	78.05	4.22	129.05	20.57	196.05	3.75	245.95	2.04
37.15	.68	79.05	3.40	130.25	2.36	196.65	.78	255.00	41.86
37.35	.66	81.05	3.40	131.05	9.82	197.95	100.00	256.10	5.90
37.75	.33	84.15	2.55	140.90	2.28	198.95	7.27	257.40	.66
39.15	4.72	85.95	2.77	147.00	1.33	204.05	3.47	263.80	1.62
40.05	21.19	93.00	6.12	148.10	2.69	205.05	4.46	265.10	1.61
41.35	.34	98.00	4.74	154.95	1.12	206.05	21.52	273.10	.28
44.15	2.41	99.10	4.04	156.05	2.44	207.05	5.10	274.10	3.02
47.05	.50	100.00	3.63	160.85	.87	208.15	.66	275.10	19.04
49.15	4.40	101.00	2.17	161.05	.43	211.05	.77	276.05	2.82
50.05	15.19	102.90	1.11	166.05	.91	211.25	.77	277.05	1.34
51.05	54.90	104.70	1.20	167.05	4.93	217.00	5.61	283.15	.38
52.10	2.61	107.00	12.39	168.05	4.36	219.10	9.69	296.00	4.76
55.90	.74	108.10	2.35	173.90	.66	220.30	.41	323.05	1.91
56.10	.65	109.00	.29	175.10	.71	221.00	6.39	334.05	.37
56.90	4.83	110.00	30.26	178.80	2.89	221.80	.74	353.80	.34
63.00	1.84	111.10	5.05	180.10	3.35	223.10	1.43	364.85	1.85
69.10	91.46	117.05	10.49	181.00	1.49	224.10	11.59	423.10	2.87
69.90	.34	119.05	2.00	185.10	1.28	225.00	3.25	424.10	.50
73.15	1.28	119.25	.80	186.10	12.14	227.10	5.13	441.15	7.93
74.05	5.50	122.95	.87	187.10	4.02	244.15	9.32	442.05	44.22
74.95	8.21	127.05	44.92	189.10	.55	244.95	.56	443.05	9.23
77.05	44.18	128.05	3.80	193.10	1.63	245.35	.37	443.95	.96

MS data file header from : >D1652

Sample: DFTPP 50 NGS Operator: USER6 MS 2/11/87 10:50
Misc : 2-11-87CS 1UL INJ BIL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTUUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures :	150.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 2-13-87 Time 1405

Lab ID D1702 Data Release Authorized By: C Sojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	47.8
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	70.0
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	43.3
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.44
275	10.0 - 30.0% of mass 198	23.4
365	greater than 1.00% of mass 198	3.61
441	present, but less than mass 443	9.61
442	greater than 40.0% of mass 198	65.0
443	17.0 - 23.0% of mass 442	14.3 (22.0)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BW STD-50 ng	D1703	2-13-87	1433
	AP STD-50 ng	D1706	2-13-87	1743
DC-62-31	400	D1713	2-14-87	0012

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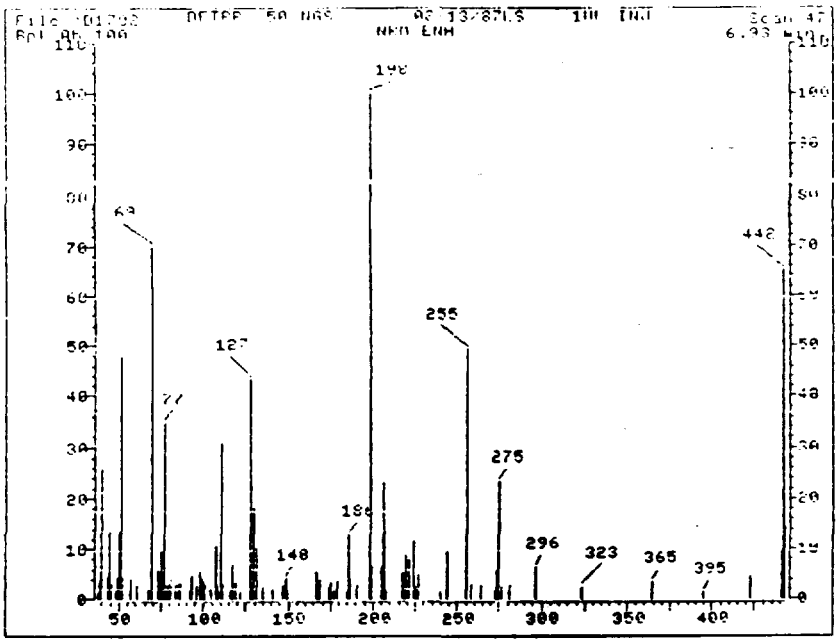

>D1702 DFTPP 50 NGS 02/13/87LS 1UL INJ
47 NRM ENH

File: >D1702 Scan #: 47 Retn. time: 6.93

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.85	1.11	77.95	2.00	116.15	2.05	186.10	12.83	240.15	1.28
38.95	3.61	78.85	2.78	117.05	6.94	186.80	4.00	244.05	9.66
39.95	25.65	79.85	3.05	118.85	3.22	190.90	2.67	255.00	49.36
43.05	4.72	81.05	4.66	121.85	1.50	197.95	100.00	256.90	6.72
43.95	13.60	83.75	2.61	127.05	43.31	198.95	6.44	257.90	3.00
44.95	2.89	85.85	3.00	128.15	3.05	204.45	2.17	263.90	2.61
47.95	2.33	86.05	3.22	129.05	17.88	205.05	6.55	272.90	2.05
48.25	1.33	92.05	1.78	131.05	10.16	206.05	22.99	273.30	1.78
48.95	4.33	92.80	4.72	135.00	2.22	207.05	13.44	273.90	5.22
50.05	13.60	96.00	2.61	140.90	2.05	207.85	2.11	275.00	25.43
51.05	47.81	98.00	5.55	147.00	2.78	216.80	5.27	276.05	2.39
51.90	4.16	99.00	4.11	148.10	4.11	218.10	1.85	281.15	2.61
57.00	3.89	99.90	3.55	149.10	1.89	218.90	8.77	296.10	6.39
60.90	2.67	100.80	3.11	167.05	5.39	221.00	7.66	322.85	2.33
67.50	2.11	101.10	2.50	168.05	3.94	224.10	11.60	364.85	3.61
69.00	70.02	104.10	2.11	174.10	2.39	225.10	2.44	394.70	1.78
73.05	5.94	107.00	10.55	175.00	3.16	225.90	7.00	423.00	4.55
74.05	4.11	108.00	2.22	176.90	1.78	226.10	1.94	440.95	9.61
75.05	9.72	110.00	30.71	178.90	3.55	226.40	1.50	441.95	65.02
76.05	2.78	110.90	3.11	185.00	1.28	227.10	4.89	443.05	14.22
77.05	34.76	111.10	3.00						

:MSH
Sample: DFTPP 50 NGS Operator: USER6 MS 2/13/87 14:05
Misc : 02/13/87LS 1UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTUNN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 150. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

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Bromofluorobenzene (BFB)

Case No. U-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5995C Date 7-14-86 Time 1426

Lab ID C3498 Data Release Authorized By: C Sojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	28.2
75	30.0 - 60.0% of the base peak	54.4
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	8.01
173	Less than 1.0% of the base peak	NONE PRESENT
174	Greater than 50.0% of the base peak	92.7
175	5.0 - 9.0% of mass 174	7.74 (8.35)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	90.9 (98.0)[1]
177	5.0 - 9.0% of mass 176	6.77 (7.45)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
-	VOA STD - 250 ng C3500	7-14-86	1553
-	- 500 ng C3501		1649
-	- 750 ng C3502		1744
-	- 1000 ng C3503		1839
-	- 100 ng C3505		2051

FORM V 7/85

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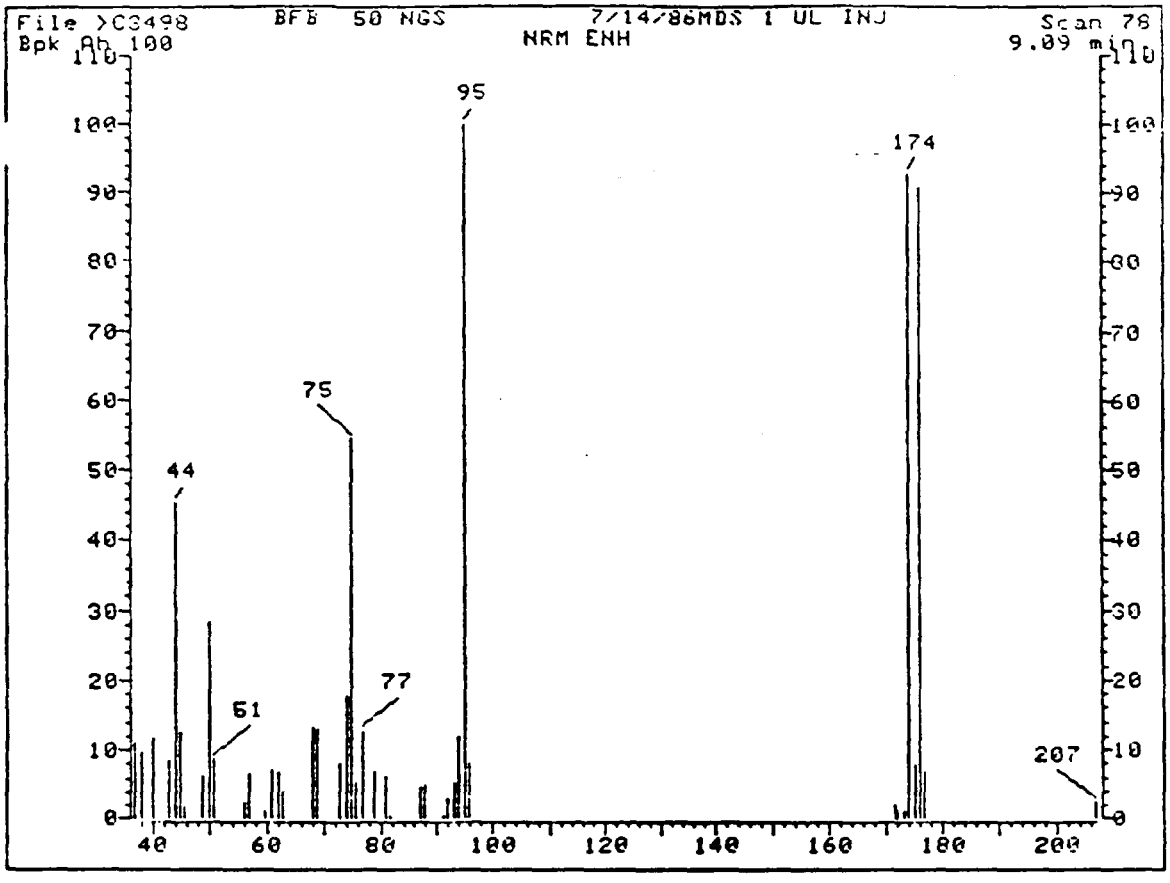

>C3498 BFB 50 NGS 7/14/86MDS 1 UL INJ
78 NRM ENH

File: >C3498 Scan #: 78 Retn. time: 9.09

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	11.06	51.05	8.60	73.15	8.12	87.00	4.44	171.70	2.10
38.10	9.79	55.95	2.40	74.05	17.82	88.00	4.79	172.00	1.15
40.00	11.49	57.05	6.57	75.05	54.39	91.20	.35	173.00	.89
43.10	8.50	59.95	.91	75.95	5.13	92.00	2.89	173.90	92.72
44.00	45.24	61.05	7.01	76.95	12.72	93.00	5.31	175.00	7.74
45.00	12.63	62.05	6.81	78.95	6.69	94.00	11.83	175.90	90.86
45.90	1.68	62.85	3.98	80.95	6.07	95.00	100.00	176.90	6.77
49.10	6.23	68.05	13.30	81.95	.49	96.00	8.01	206.95	2.20
50.00	28.25	69.05	12.87						

MS data file header from : >C3498

Sample: BFB 50 NGS Operator: USER8 MS 7/14/86 14:
Misc : 7/14/86MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS PERFORMANCE STANDARD

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4727 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5995C Date 8-26-86 Time 2211

Lab ID C4684 Data Release Authorized By: C Stojkowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	21.2
75	30.0 - 60.0% of the base peak	46.7
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.15
173	Less than 1.0% of the base peak	NONE PRESENT
174	Greater than 50.0% of the base peak	83.9
175	5.0 - 9.0% of mass 174	5.45 (6.50) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	84.6 (100.8) [1]
177	5.0 - 9.0% of mass 176	6.26 (7.40) [2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
—	VOA-STD-20 ug/L C4686	8-26-86	2334
—	VOA STD-50 ug/L C4687	8-27-86	0032
—	" 100 ug/L C4688		0131
—	" 150 ug/L C4689		0231
—	" 200 ug/L C4690		0332

FORM V

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497095

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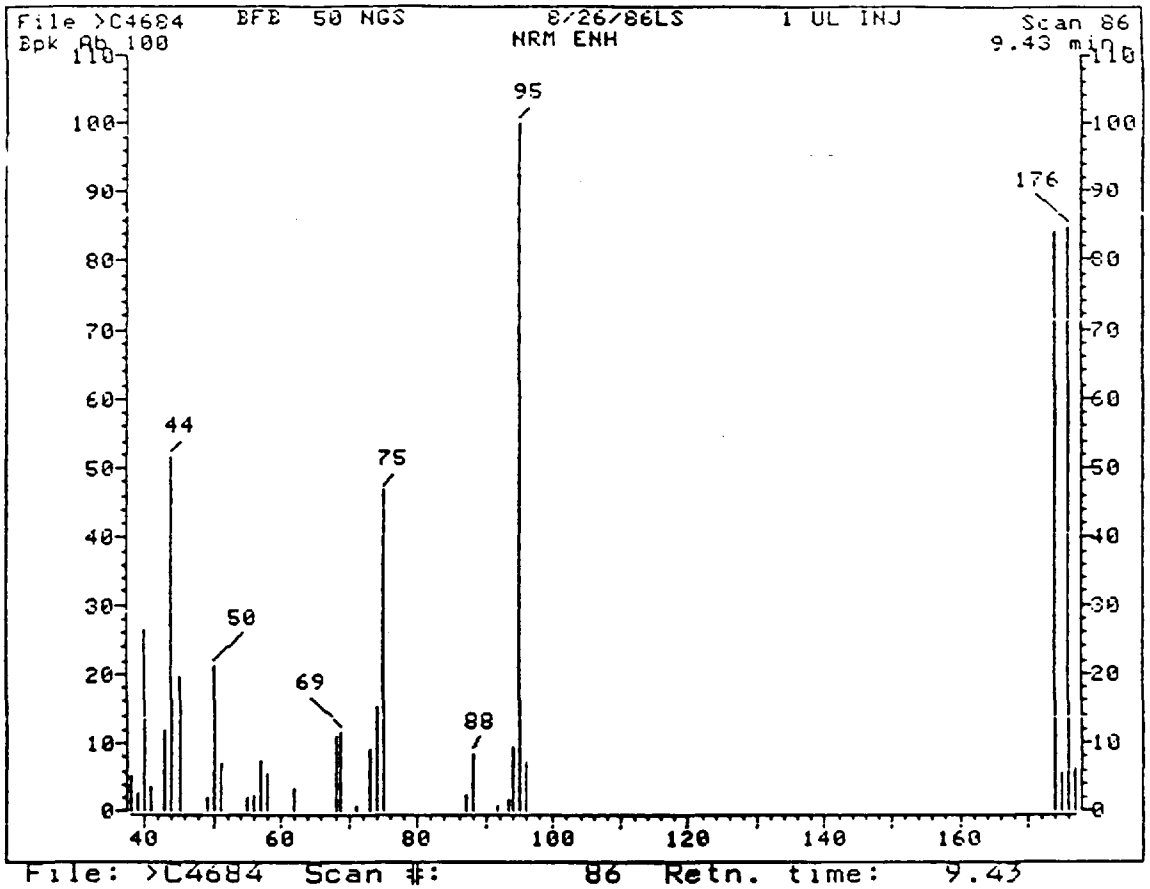

File: >C4684 Scan #: 86 Retn. time: 9.43

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.10	5.34	49.00	2.07	61.95	3.34	75.05	46.71	95.05	100.00
39.10	2.64	50.00	21.23	68.05	11.11	87.05	2.38	96.05	7.15
40.00	26.21	51.10	7.22	68.95	11.71	88.05	8.43	173.95	83.88
41.00	3.58	54.90	2.15	71.05	.79	91.85	.72	174.95	5.45
43.00	11.79	56.00	2.32	72.95	8.96	93.35	1.79	175.95	84.63
44.00	51.65	57.10	7.54	74.05	15.22	94.05	9.33	176.95	6.26
45.10	19.50	58.00	5.60						

MS data file header from : >C4684

Sample: BFB 50 NGS Operator: USER6 MS 8/26/86 22:
Misc : 8/26/86LS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4727 Contractor E & E, Inc Contract No. IL-3140

Instrument ID HP5995C Date 1-12-87 Time 10:20

Lab ID YC6326 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.91
75	30.0 - 60.0% of the base peak	54.76
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.32
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	88.18
175	5.0 - 9.0% of mass 174	6.98 (7.91)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	88.01 (99.80)[1]
177	5.0 - 9.0% of mass 176	6.23 (7.07)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check YC6327	1-12-87	10:45
BLK C6330	Method Blank YC6330	1-12-87	13:48
DC-H4-19	0100 YC6332	1-12-87	16:05
DC-H4-19-MS	0100 MS YC6334	1-12-87	17:54
DC-H4-19-MSD	0100 MSD YC6335	1-12-87	18:48

FORM V

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497093

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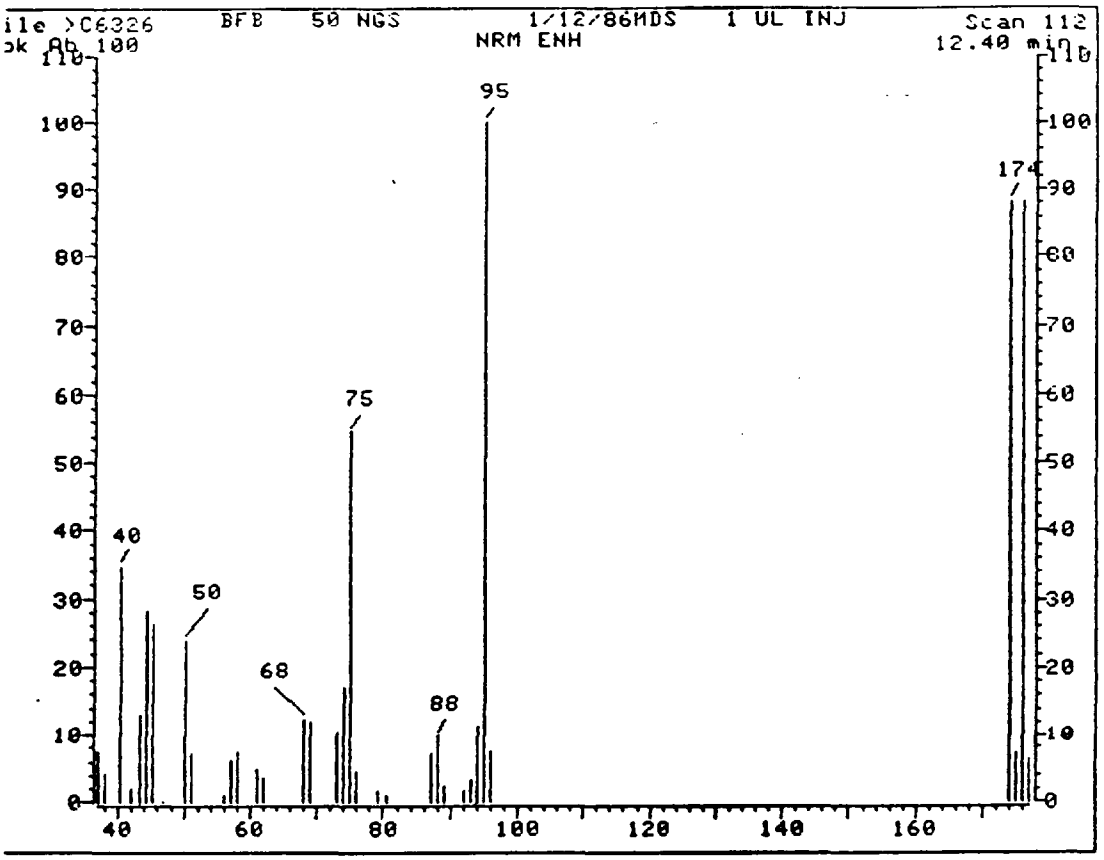

C6326 BFB 50 NGS 1/12/86MDS 1 UL INJ
112 NRM ENH

ile: >C6326 Scan #: 112 Retn. time: 12.40

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	7.53	46.90	.17	61.95	3.62	79.05	1.59	94.15	11.33
38.00	4.27	50.10	23.91	68.05	12.29	80.65	.91	95.05	100.00
40.10	34.80	51.10	7.17	69.05	11.95	87.05	7.13	96.15	7.32
41.90	1.95	56.00	1.03	72.95	10.37	88.05	9.93	173.95	88.18
43.10	12.82	57.10	6.23	74.05	17.16	88.95	2.29	175.05	6.98
44.10	28.31	58.10	7.50	74.95	54.76	91.95	1.66	175.95	88.01
45.10	26.25	60.95	4.73	76.05	4.72	93.05	3.32	177.05	6.23

IS data file header from : >C6326

ample: BFB 50 NGS Operator: USER8 MS 1/12/87 10:20
lisc : 1/12/86MDS 1 UL INJ
y: #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
hod file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	5.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4767 Contractor E&E Inc Contract No IL-3140

Instrument ID HP5995C Date 1-14-87 Time 09:56

Lab ID >C6376 Data Release Authorized By: C Szytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	27.07
75	30.0 - 60.0% of the base peak	59.78
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	8.49
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	85.31
175	5.0 - 9.0% of mass 174	6.98 (8.18)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	85.23 (99.90)[1]
177	5.0 - 9.0% of mass 176	5.51 (6.47)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	5 Point Calibration		
	20 ug/L >C6377	1-14-87	10:25
	50 ug/L >C6378	1-14-87	11:20
	100 ug/L >C6379	1-14-87	12:14
	150 ug/L >C6380	1-14-87	13:09
	200 ug/L >C6381	1-14-87	14:05
X C6384	Method Blank >6384	1-14-87	17:28
DC-H2-16	0097 >6385	1-14-87	18:23

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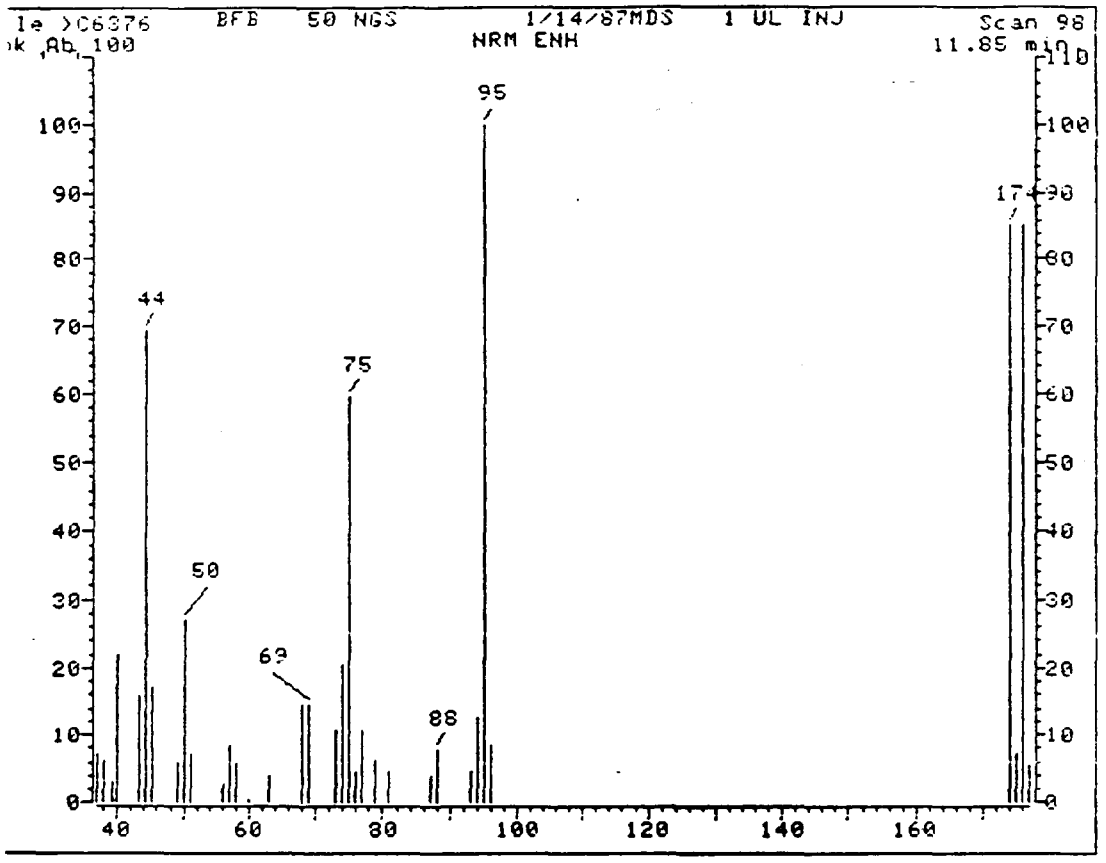

C6376 BFB 50 NGS 1/14/87MDS 1 UL INJ
98 NRM ENH

'ile: >C6376 Scan #: 98 Retn. time: 11.85

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	7.09	49.00	5.73	62.95	3.80	76.95	10.59	95.05	100.00
38.00	6.24	50.10	27.07	68.05	14.43	78.95	6.04	96.05	8.49
39.10	2.99	51.00	7.16	69.05	14.59	80.95	4.70	173.95	85.31
40.00	21.94	56.10	2.79	73.05	10.71	87.05	4.07	174.95	6.98
43.10	15.68	57.00	8.26	74.05	20.48	87.95	7.81	175.95	85.23
44.10	69.38	58.00	6.00	75.05	59.78	92.95	4.57	177.05	5.51
45.10	16.91	60.05	.30	76.05	4.71	94.05	12.56		

1S data file header from : >C6376

Sample: BFB 50 NGS Operator: USER8 MS 1/14/87 9:56
Disc : 1/14/87MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	5.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4727 Contractor E&E, Inc Contract No. IL-3140

Instrument ID #P5995C Date 1-15-87 Time 16:39

Lab ID >C6407 Data Release Authorized By: C Hoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	25.86
75	30.0 - 60.0% of the base peak	57.44
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.55
173	Less than 1.0% of the base peak	0.22
174	Greater than 50.0% of the base peak	89.78
175	5.0 - 9.0% of mass 174	7.43 (8.27)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	90.54 (100.85)[1]
177	5.0 - 9.0% of mass 176	6.16 (6.81)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C6409	1-15-87	18:32
C6410	Method Blank >C6410	1-15-87	19:26
DC-H3-17	0098 >C6411	1-15-87	20:30
DC-H3-18	0099 >C6412	1-15-87	21:24
DC-H8-20	0101 >C6413	1-15-87	22:25
DC-H5-21	0102 >C6414	1-15-87	23:22
DC-H3-18MS	0099 MS >C6415	1-16-87	00:16
DC-H3-18MSD	0099 MSD >C6416	1-16-87	01:11
DC-H6-22	0156 >C6417	1-16-87	02:05
DC-H7-23	0157 >C6418	1-16-87	03:00
DC-H8-24	0158 >C6419	1-16-87	03:54

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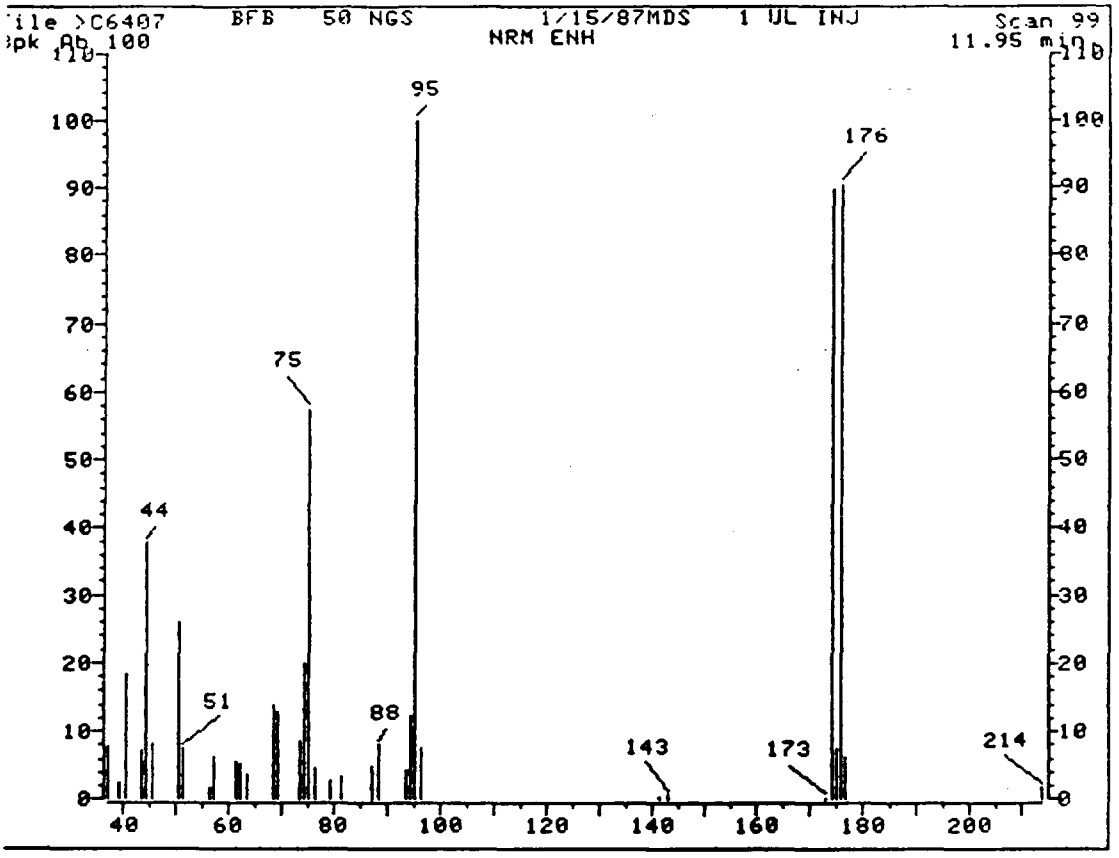

>C6407 BFB 50 NGS 1/15/87MDS 1 UL INJ
99 NRM ENH

File: >C6407 Scan #: 99 Retn. time: 11.95

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	7.78	51.10	7.34	69.05	12.83	87.05	4.81	142.85	.61
39.00	2.27	55.95	1.73	73.05	8.40	88.05	7.96	172.90	.22
40.10	18.36	57.05	6.31	74.05	19.78	93.00	4.28	173.90	89.78
43.00	6.99	60.95	5.56	75.05	57.44	94.00	12.26	174.90	7.43
44.10	37.74	61.95	5.21	76.05	4.51	95.00	100.00	175.90	90.54
45.10	8.03	63.05	3.51	78.95	2.69	96.00	7.55	176.80	6.16
50.10	25.86	68.05	13.84	80.95	3.22	140.95	.27	213.85	1.67

MS data file header from : >C6407

Sample: BFB 50 NGS Operator: USER8 MS 1/15/87 16:39
Misc : 1/15/87MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	5.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4767 Contractor E&E, Inc Contract No. IL-3140

Instrument ID HP5995C Date 1-16-87 Time 17:46

Lab ID 7C6434 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	28.09
75	30.0 - 60.0% of the base peak	58.76
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.04
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	90.16
175	5.0 - 9.0% of mass 174	7.40 (8.2)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	89.50 (99.2)[1]
177	5.0 - 9.0% of mass 176	6.67 (7.4)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check 7C6436	1-16-87	19:31
C6437	Method Blank 7C6437	1-16-87	20:37
DC-GI-27	0396 7C6439	1-16-87	22:32
DC-GB-29	0398 7C6440	1-16-87	23:30
DC-GI-26	0395 7C6441	1-17-87	00:23
DC-H9-28	0397 7C6444	1-17-87	03:07
DC-GI-27 MSD	0396MSD 7C6443	1-17-87	02:11
DC-GI-27 MS	0396 MS 7C6442	1-17-87	01:17

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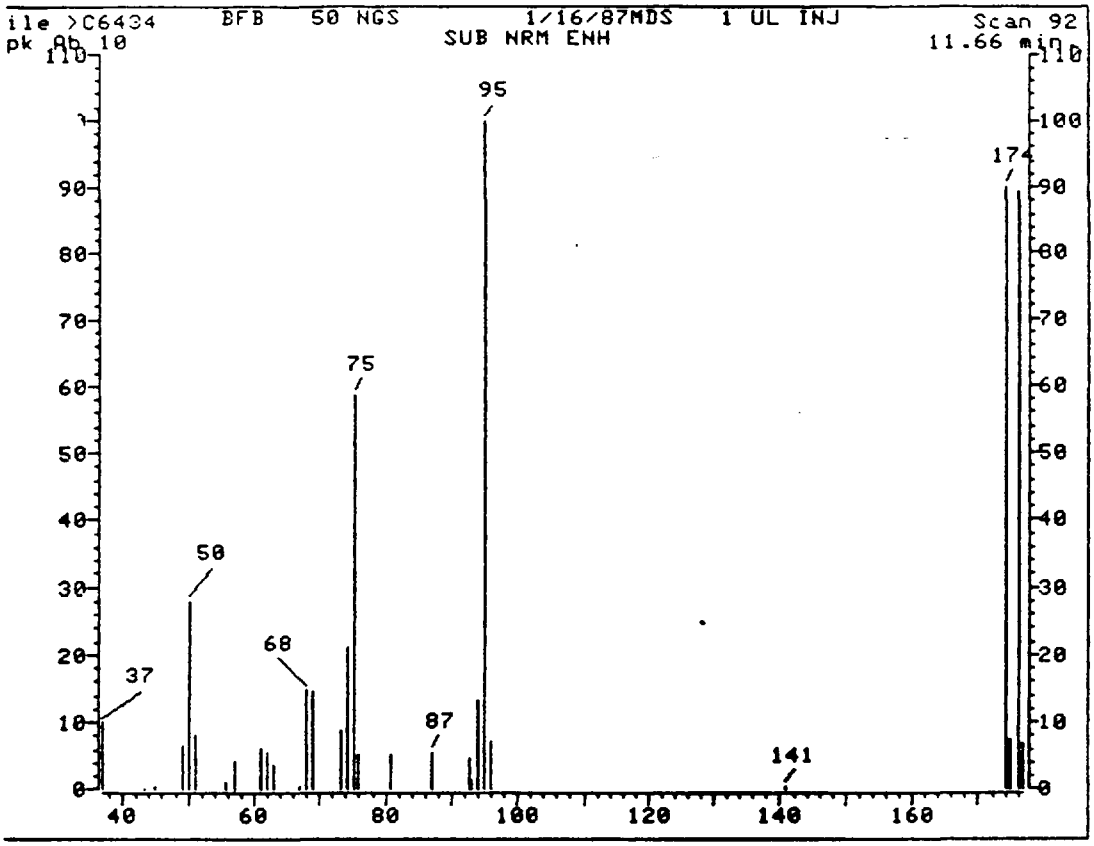

>C6434 BFB 50 NGS 1/16/87MDS 1 UL INJ
92 SUB NRM ENH

File: >C6434 Scan #: 92 Retn. time: 11.66

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	9.86	55.75	1.12	68.05	14.72	80.85	5.22	96.10	7.04
43.10	.05	56.95	4.40	69.05	14.44	87.05	5.54	140.85	.53
45.00	.56	61.05	6.28	73.05	8.74	92.80	4.53	174.00	90.16
49.00	6.60	62.05	5.44	74.05	21.11	93.00	1.26	174.90	7.40
50.10	28.09	62.95	3.67	75.05	58.76	94.00	13.12	176.00	89.50
51.00	8.04	67.05	.51	75.95	5.25	95.00	100.00	176.90	6.67

MS data file header from : >C6434

Sample: BFB 50 NGS Operator: MANAGER MS 1/16/87 17:46
Misc : 1/16/87MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	5.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4767 Contractor E&E, Inc Contract No. IL-3140

Instrument ID HP5995C Date 1-21-87 Time 12:28

Lab ID 7C6505 Data Release Authorized By: C Slotowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	24.67
75	30.0 - 60.0% of the base peak	53.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.28
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	87.42
175	5.0 - 9.0% of mass 174	6.10 (6.98) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	87.13 (99.67) [1]
177	5.0 - 9.0% of mass 176	5.98 (6.86) [2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check 7C6506	1-21-87	12:53
C6515	Method Blank 7C6515	1-21-87	21:26
DC-G2-30	0399 7C6516	1-21-87	22:10
DC-G2-31	0400 7C6517	1-21-87	23:05

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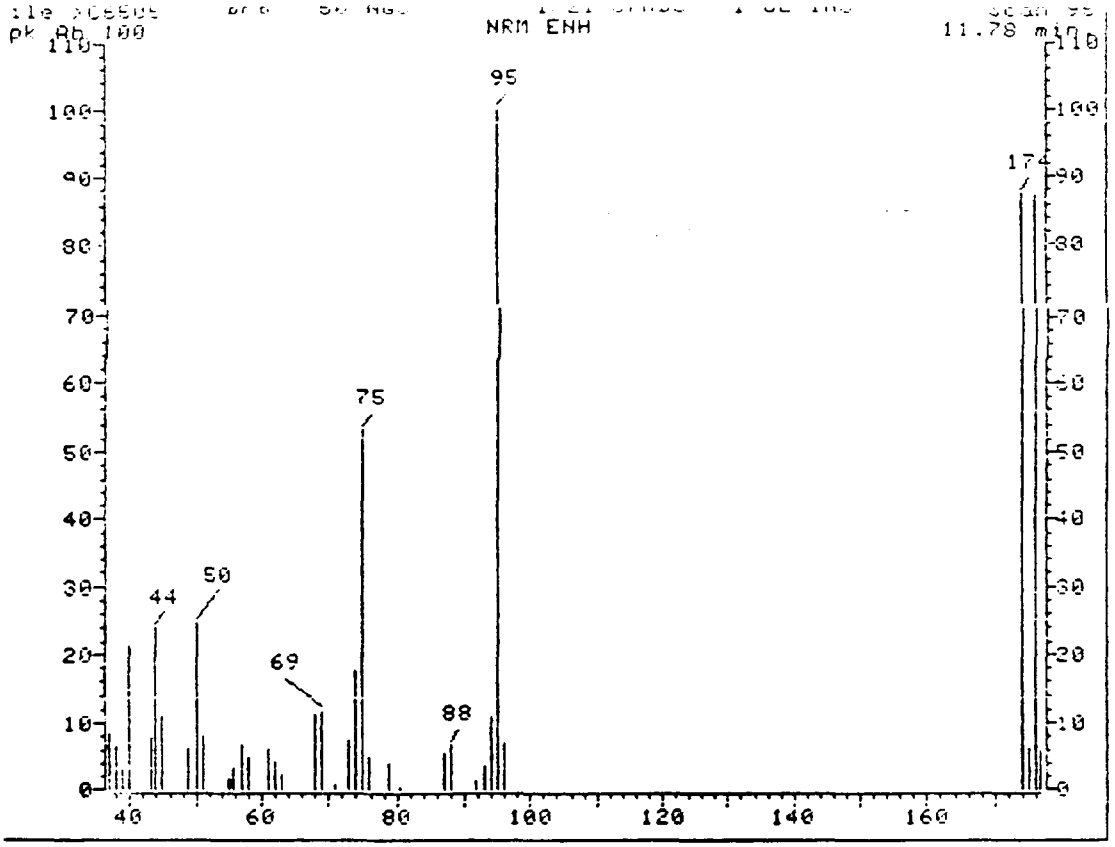

>C6505 BFB 50 NGS 1/21/87MOS 1 UL INJ
95 NRM ENH

File: >C6505 Scan #: 95 Retn. time: 11.78

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	8.32	50.10	24.67	62.95	2.23	75.95	4.85	94.00	10.88
38.00	6.53	51.10	8.03	67.95	11.29	78.95	4.04	95.00	100.00
38.90	3.32	55.20	1.64	68.95	11.75	80.55	.53	96.00	7.28
40.00	21.16	55.85	3.15	70.85	.80	87.05	5.68	173.90	87.42
43.10	7.78	56.95	6.71	72.95	7.61	87.95	6.72	174.90	6.10
44.00	23.95	57.95	5.00	73.95	17.63	91.75	1.37	175.90	87.13
45.00	11.03	61.05	6.04	74.95	53.22	93.00	3.47	176.80	5.98
48.90	6.16	62.05	4.15						

MS data file header from : >C6505

Sample: BFB 50 NGS Operator: USER8 MS 1/22/87 12:28
Misc : 1/21/87MOS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	5.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4767 Contractor E&E, Inc Contract No IL-3140

Instrument ID HP5995C Date 1-23-87 Time 11:15

Lab ID >C6553 Data Release Authorized By: C Hojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	27.24
75	30.0 - 60.0% of the base peak	57.72
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	6.89
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	88.19
175	5.0 - 9.0% of mass 174	5.68 (6.44)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	87.21 (98.88)[1]
177	5.0 - 9.0% of mass 176	5.68 (6.52)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C6554	1-23-87	11:41
C 6555	Method Blank >C6555	1-23-87	12:43
DC-K2-25	0394 >C6563	1-23-87	20:21

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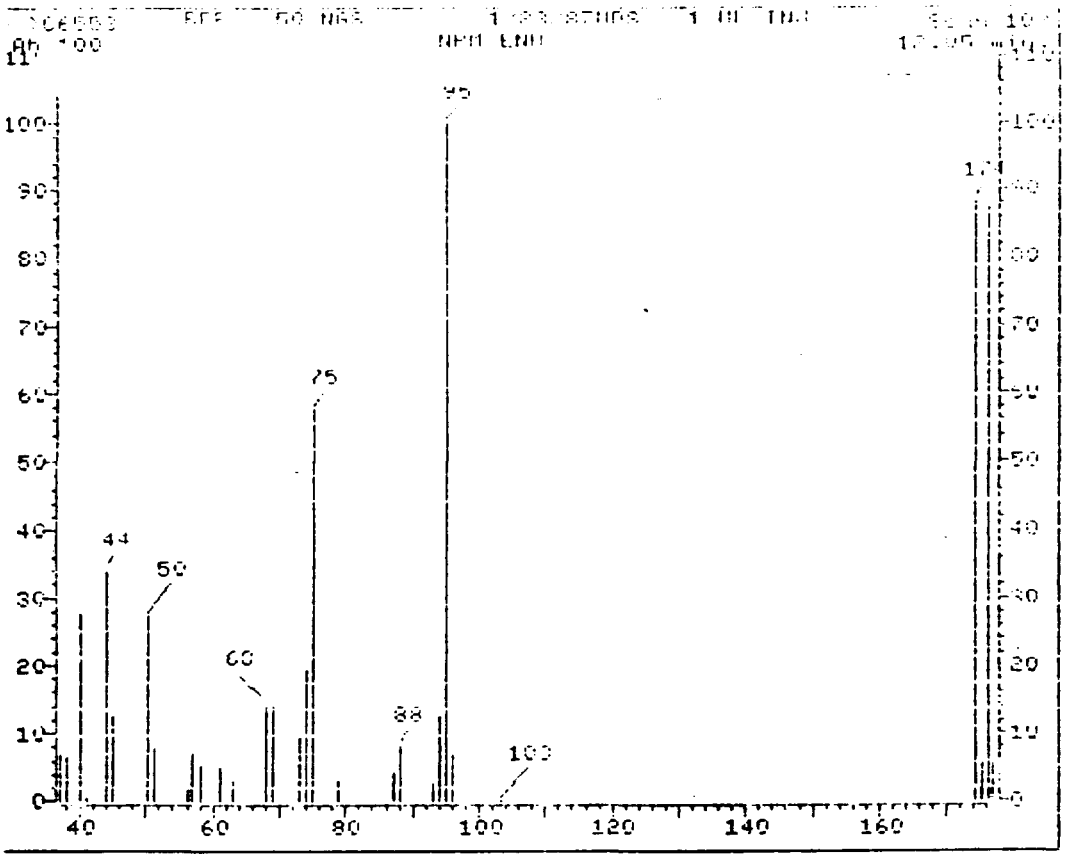

.553 BFB 50 NGS 1/23/87MDS 1 UL INJ
103 NRM ENH

e: >C6553 Scan #: 103 Retn. time: 12.05

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
.10	6.91	51.10	7.70	67.95	13.92	87.05	4.27	96.05	6.39
.00	6.59	56.10	1.80	69.05	13.83	89.05	7.96	101.40	[illegible]
.10	27.55	56.90	7.29	72.95	9.31	92.95	2.63	174.05	88.19
.10	.54	58.10	5.27	74.05	19.45	93.15	.05	175.05	[illegible]
.10	34.06	61.05	5.04	75.05	57.72	94.15	12.58	176.05	87.21
.10	12.48	63.05	2.85	79.05	3.07	95.15	100.00	176.95	[illegible]
.10	27.24								

data file header from : >C6553

ple: BFB 50 NGS Operator: USER8 MS 1 [illegible]87 11:19
c : 1/23/87MDS 1 UL INJ
. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
ethod file: BFB001 Tuning file: MTDU4 No. of extra records: 1
urce temp.: 200 Analyzer temp.: 220 Transfer line temp. : [illegible]

Chromatographic temperatures : 220. 225. 0. 0. 0.
Chromatographic times, min. : 5.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. 4-4819 Contractor E&E, Inc Contract No. IL-3140

Instrument ID HP5995C Date 2-2-87 Time 10:16

Lab ID >C6654 Data Release Authorized By: C Hojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	25.47
75	30.0 - 60.0% of the base peak	58.54
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.62
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	87.47
175	5.0 - 9.0% of mass 174	5.95 (6.80) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	87.61 (100.1) [1]
177	5.0 - 9.0% of mass 176	6.14 (7.01) [2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C6655	2-2-87	10:41
C6656	Method Blank >C6656	2-2-87	12:05
DC-K3-32	643 >C6657	2-2-87	18:59
DC-K3-32MS	643 MS >C6663	2-2-87	18:27
DC-K3-32MSD	643 MSD >C6664	2-2-87	19:21

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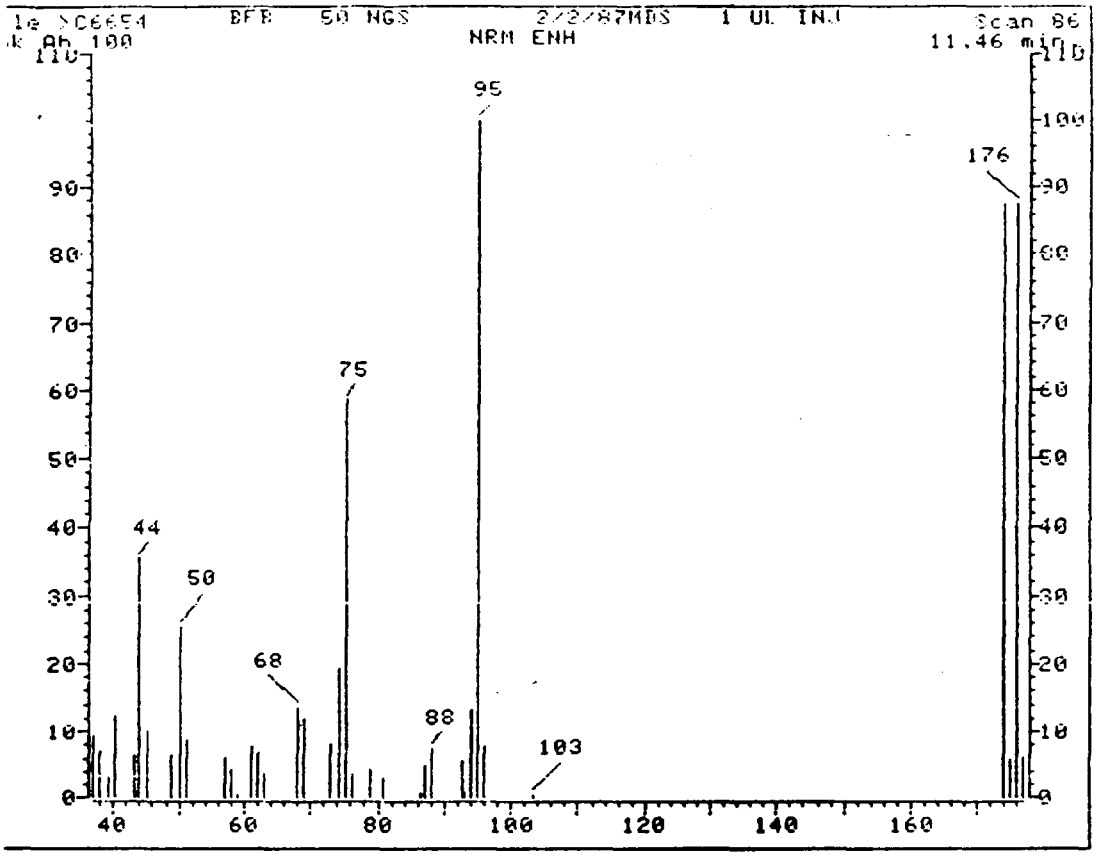

C6654 BFB 50 NGS 2/2/87MDS 1 UL INJ
86 NRM ENH

ile: >C6654 Scan #: 86 Retn. time: 11.46

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	9.40	50.00	25.47	68.05	13.55	86.55	.66	95.15	100.00
38.00	7.13	51.10	8.62	68.95	12.02	87.05	4.88	96.15	7.62
39.20	2.90	57.10	6.06	73.05	7.99	88.15	7.57	103.20	.54
40.10	12.36	58.10	4.32	74.05	19.37	92.65	1.89	173.95	87.47
43.10	6.39	59.20	.43	75.05	58.54	92.85	5.38	174.95	5.95
44.00	35.49	60.95	7.91	76.05	3.45	93.15	.84	175.95	87.61
45.10	10.06	62.05	6.82	78.95	4.17	94.15	13.07	176.95	6.14
48.90	6.37	63.15	3.71	80.95	2.92				

S data file header from : >C6654

ample: BFB 50 NGS Operator: USER8 MS 2/02/87 10:16
isc : 2/2/87MDS 1 UL INJ
y: #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	5.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

SAMPLE DATA

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SAMPLE NUMBER DC-G1-26

481095

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Sample Number
DC-G1-26

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4767

Lab Sample ID No: 0395 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 1-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-17-87

Conc./Dil Factor: 2 pH 7.7

Percent Moisture: (Not Decanted) 25

Concentration "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	6 BJ
67-64-1	Acetone	24 B
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	27 B
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	10u
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	10u
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4767

Sample Number
DC-G1-26

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 25

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
[illegible]-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-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	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	210	BJ
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	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

Laboratory Name ecology and environment, inc.

Case No U-4767

Sample Number DC-G1-26

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 1

Percent Moisture (decanted) 24.7

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8u
319-85-7	Beta-BHC	8u
319-86-8	Delta-BHC	8u
58-89-9	Gamma-BHC (Lindane)	8u
76-44-8	Heptachlor	8u
309-00-2	Aldrin	8u
1024-57-3	Heptachlor Epoxide	8u
959-98-8	Endosulfan I	8u
60-57-1	Dieldrin	16u
72-55-9	4, 4'-DDE	16u
72-20-8	Endrin	16u
33213-65-9	Endosulfan II	16u
72-54-8	4, 4'-DDD	16u
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4 4'-DDT	16u
72-43-5	Methoxychlor	80u
53494-70-5	Endrin Ketone	16u
57-74-9	Chlordane	80u
8001-35-2	Toxaphene	160u
12674-11-2	Aroclor-1016	80u
11104-28-2	Aroclor-1221	80u
11141-16-5	Aroclor-1232	80u
53469-21-9	Aroclor-1242	80u
12672-29-6	Aroclor-1248	80u
11097-69-1	Aroclor-1254	160u
11096-82-5	Aroclor-1260	98 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name E & E, Inc

Case No U-4767

Sample Number DC-G1-26

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	33 BJ
2.	Hexane isomer	VOA	22.3	110 BJ
3.				
4.	UNKNOWN	BNA	9.04	300 J
5.	UNKNOWN	BNA	20.20	970 J
6.				
7.				
8.				
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29.				
30				

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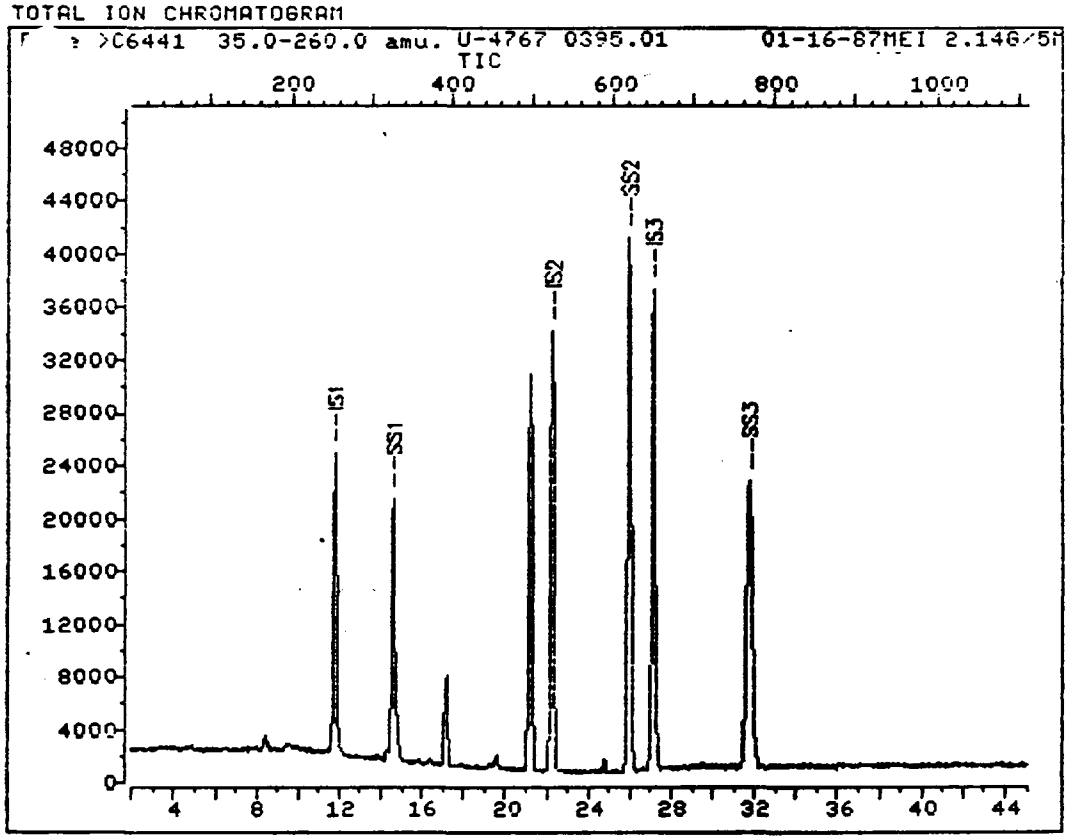
TOTAL ION CHROMATOGRAM



Data File: >C6441::D1
Name: U-4767 0395.01 DC-G1-26
Misc: 01-16-87MEI 2.14G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870116 20:48

Operator ID: MANAGER
Quant Time: 870117 01:09
Injected at: 870117 00:23

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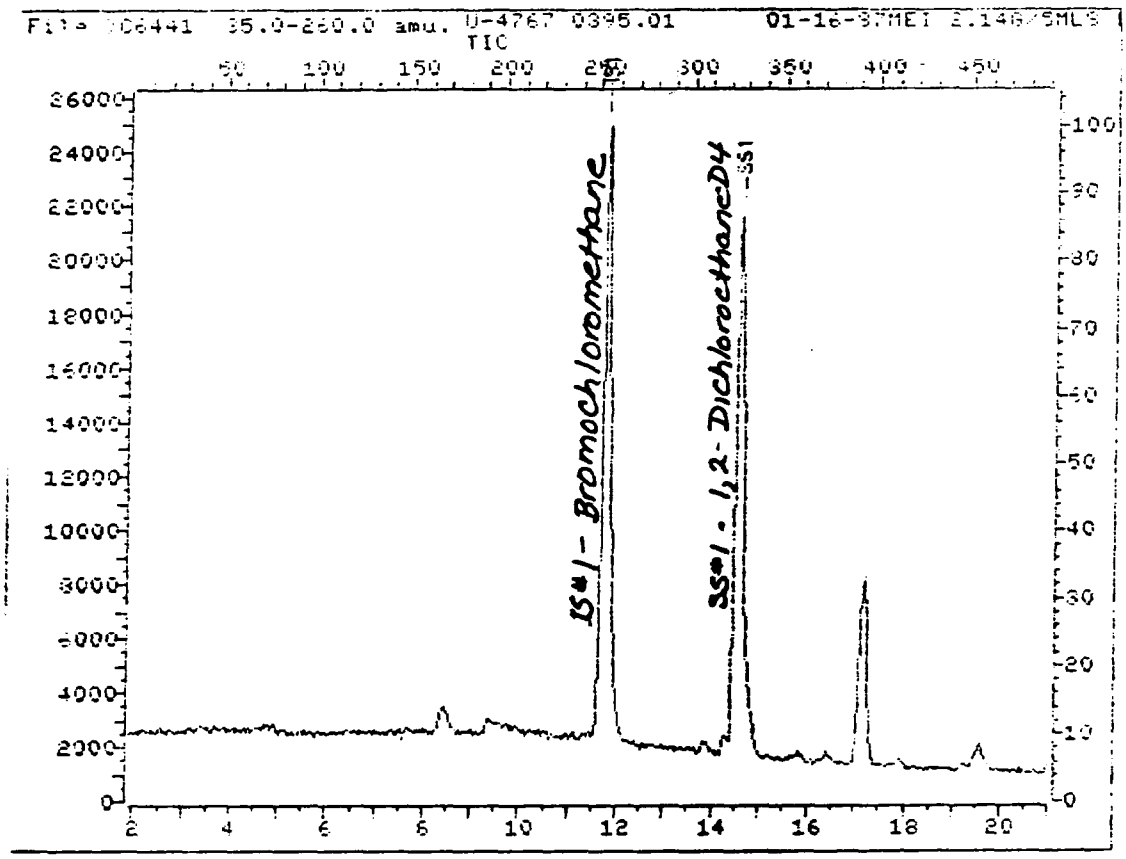
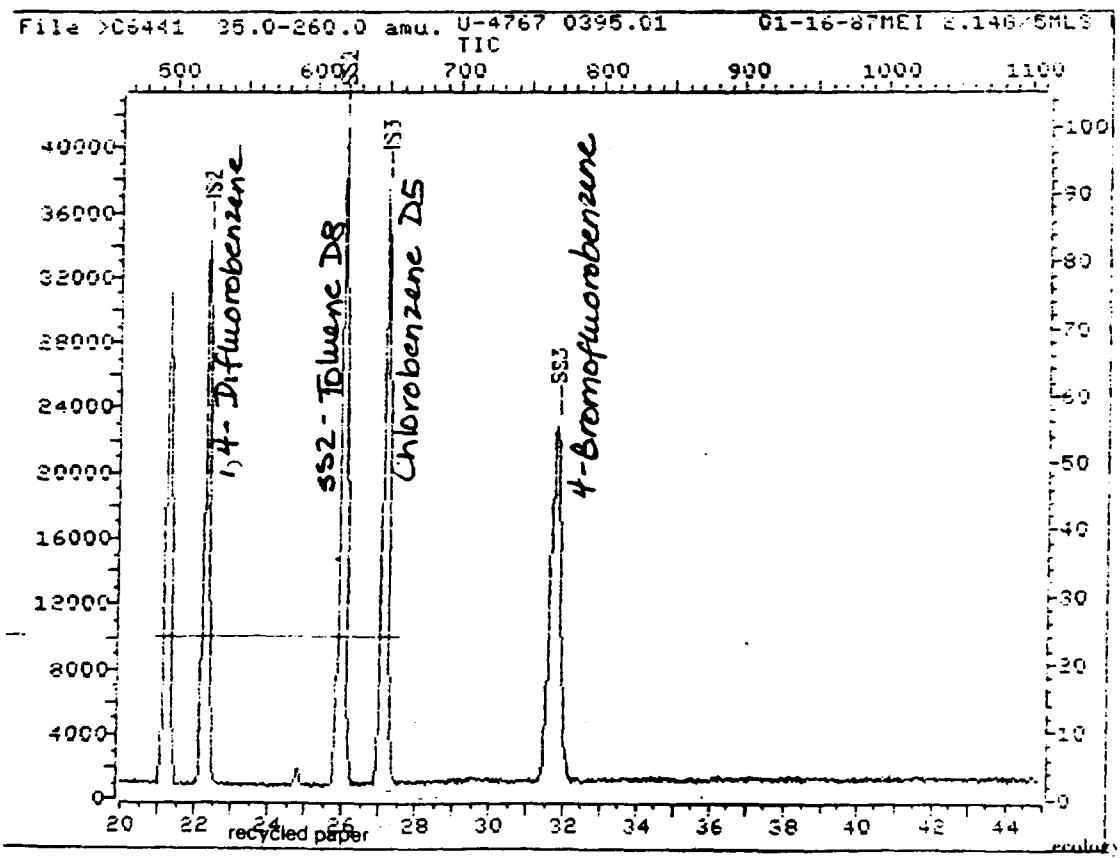
DC-G1.-26





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QUANT REPORT

ɔe,utor ID: MANAGER Quant Rev: 4 Quant Time: 870117 01:09
ɹtput File: ^C6441::D2 Injected at: 870117 00:23
ata File: >C6441::D1 Dilution Factor: 1.00
ame: U-4767 0395.01 DC-G1-26
isc: 01-16-87MEI 2.14G/5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870116 20:48

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.76	254	32525	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.43	168	2819	12.52	NGS	100
7)	ACETONE		43	9.47	195	7715	51.09	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.60	327	83533	258.13	NGS	82
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.28	525	133741	250.00	NGS	100
17)	2-BUTANONE		72	14.75	331	3408	56.90	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.13	650	105266	250.00	NGS	100
6)	TOLUENE-D8	(SURR)	98	25.97	620	152087	265.48	NGS	93
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.75	769	75707	232.68	NGS	100

* Compound is ISTD

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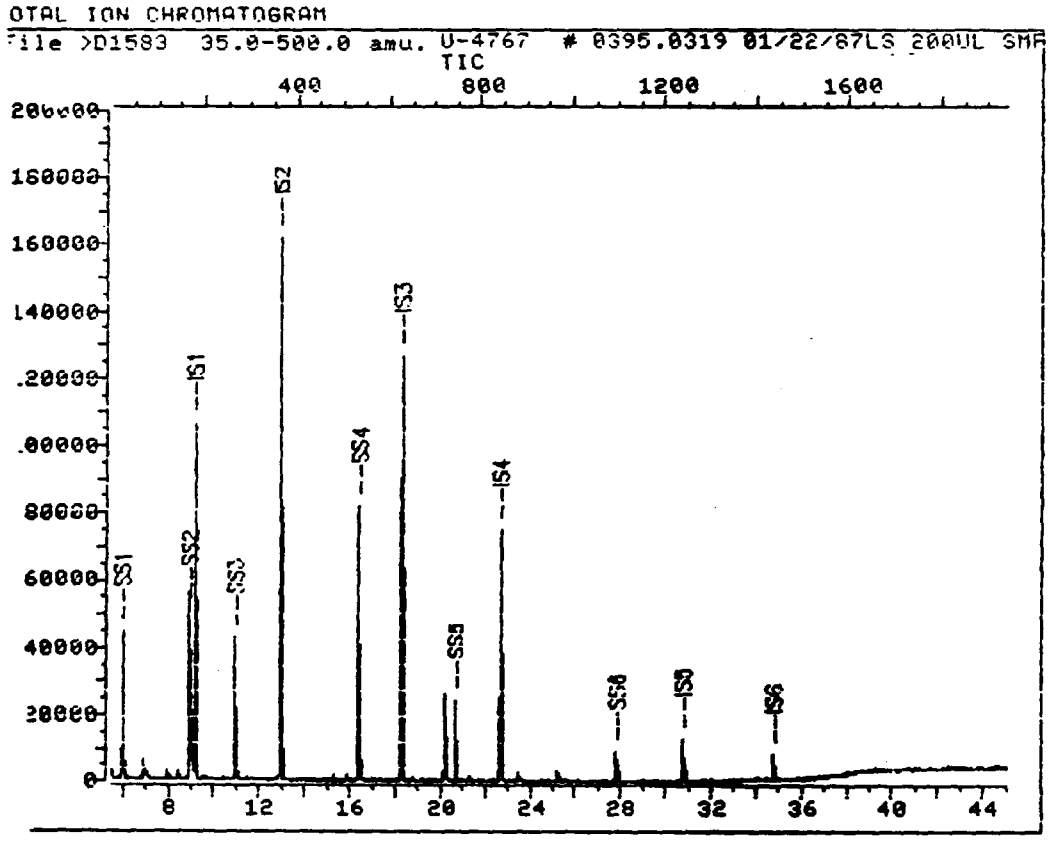

Data File: >D1583::D3
Name: U-4767 # 0395.0319 DC-G1-26
Misc: 01/22/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

Operator ID: USER6
Quant Time: 860122 18:45
Injected at: 860122 17:57

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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 860122 18:45
Output File: ^D1583::Q2 Injected at: 860122 17:57
Data File: >D1583::D3 Dilution Factor: 2.00
Name: U-4767 # 0395.0319 DC-61-26
Misc: 01/22/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.14	179	50706	40.00 UG/L	89
2)	PHENOL-D5	(SURR)	99	8.90	167	65549	70.01 UG/L	97
5)	2-FLUOROPHENOL	(SURR)	112	5.93	21	46297	81.91 UG/L	99
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.92~~	~~266~~	~~5910~~	~~8.19 UG/L~~	~~91~~
19)	*NAPHTHALENE-D8	(IS)	136	12.89	363	184081	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.92	266	34176	42.05 UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	18.23	625	69780	40.00 UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.40	535	70215	44.62 UG/L	92
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.23~~	~~625~~	~~21677~~	~~17.50 UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.67	745	9024	48.70 UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.23~~	~~625~~	~~8904~~	~~35.78 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.63	841	80854	40.00 UG/L	98
63)	DI-N-BUTYLPHTHALATE		149	25.22	968	5593	6.33 UG/L	96
65)	*CHRYSENE-D12	(IS)	240	30.76	1240	15100	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.82	1096	10113	60.16 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.81	1439	10748	40.00 UG/L	100

* Compound is ISTD

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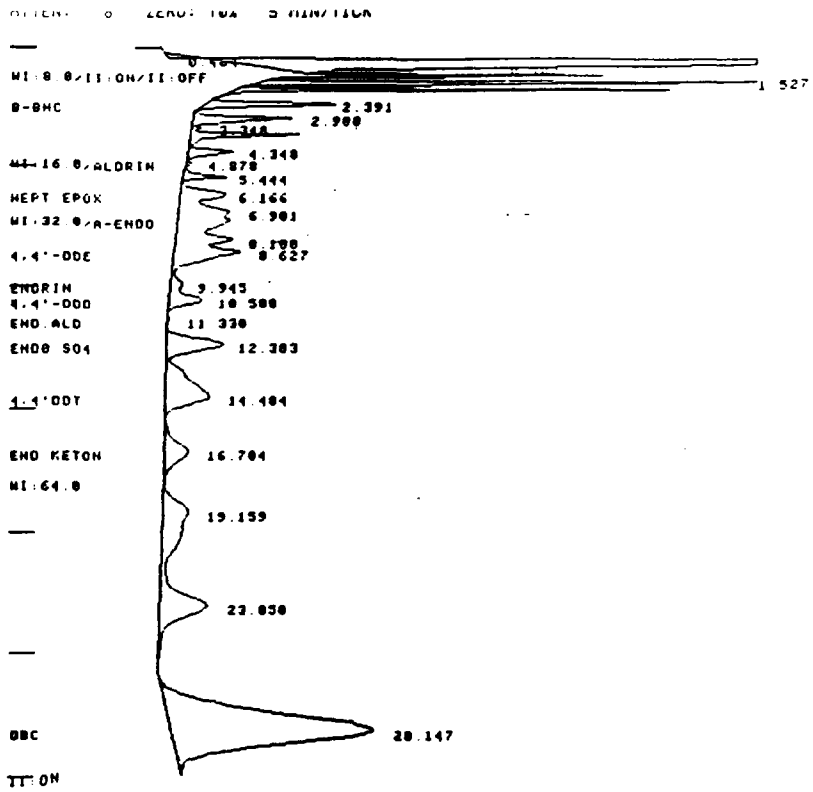

0.000859 x 168 x 1000 x $\frac{1}{1.5}$ = 130 ug/kg 1260
.958

DC-G1-26

CHANNEL: 1A - 1 TITLE: RUN# 16 11:51 22 JAN 87

SAMPLE: 0395.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.242		107562	BB	2.94
2		0.0000	1.527		360335	BV	4.69
3		0.0000	1.797		343325	VV	5.38
4	B-BHC 160	10.5136	2.391	0.021	157281	VV	7.88
5		0.0000	2.988		126535	VV	8.56
6		0.0000	3.107		30213	VV	? 9.88
7		0.0000	3.668		145703	VV	8.81
8	~~HEPTACHLO~~	2.3995	4.348	0.248	81909	VB	13.13
9		0.0000	5.444		67895	VV	10.75
10	~~HEPT EPOX~~	3.9956	6.166	0.056	149697	VV	25.13
11		0.0000	6.901		166244	VV	? 31.56
12	~~A-ENDO~~	6.2111	7.287	-0.273	220798	VV	? 65.44
13		0.0000	8.100		178092	VV	? 28.63
14	~~4,4'-DDE~~	7.1662	8.627	-0.063	259162	VV	? 29.56
15	~~B-ENDO~~	1.1664	9.945	-0.035	41044	VV	? 23.13
16	~~4,4'-DDD~~	3.4241	10.500	-0.300	169009	VV	22.75
17	~~ENDO SO4~~	9.2373	12.303	-0.377	241787	VV	33.06
18	~~4,4'-DDT~~	16.5811	14.484	0.384	367156	VV	? 61.31
19	~~ENDO KETON~~	4.5378	16.704	0.384 168	171058	VB	51.94
20		0.0000	19.159		350290	BV	117.44
21		0.0000	23.050		350012	VV	54.38
22	DBC 111%	73.8205	28.147	-0.183	2116907	VB	84.75

PCB 1260 T

TOTALS: 139.0534 -0.218 6189014

DETECTED PKS: 31 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 34.3 OFFSET: 19

NOTES:
NOTEBOOK:259-83 ANALYST:P. BRUTSCHER
SECURE AREA: D JOB # U-47867
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW CLP751

128

SAMPLE NUMBER DC-G1-27

481095

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Sample Number
DC-G1-27

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4767
Lab Sample ID No: 0396 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 1-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-16-87

Conc./Dil Factor: 2 pH 7.5

Percent Moisture: (Not Decanted) 25

Concentration reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	11 B
67-64-1	Acetone	200 B
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	22 B
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	10u
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	7 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	10u
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 V-4767

Sample Number DC-G1-27

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 25

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-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	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	220	BJ
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	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

Laboratory Name ecology and environment, inc.

Case No U-4767

Sample Number DC-G1-27

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 1

Percent Moisture (decanted) 25.2

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8u
319-85-7	Beta-BHC	8u
319-86-8	Delta-BHC	8u
58-89-9	Gamma-BHC (Lindane)	8u
76-44-8	Heptachlor	8u
309-00-2	Aldrin	8u
1024-57-3	Heptachlor Epoxide	8u
959-98-8	Endosulfan I	8u
60-57-1	Dieldrin	16u
72-55-9	4, 4'-DDE	16u
72-20-8	Endrin	16u
33213-65-9	Endosulfan II	16u
72-54-8	4, 4'-DDD	16u
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4, 4'-DDT	16u
72-43-5	Methoxychlor	80u
53494-70-5	Endrin Ketone	16u
57-74-9	Chlordane	80u
8001-35-2	Toxaphene	160u
12674-11-2	Aroclor-1016	80u
11104-28-2	Aroclor-1221	80u
11141-16-5	Aroclor-1232	80u
53469-21-9	Aroclor-1242	80u
12672-29-6	Aroclor-1248	80u
11097-69-1	Aroclor-1254	160u
11096-82-5	Aroclor-1260	160u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name E & E, Inc

Case No U-4767

Sample Number DC-G1-27

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	27 BJ
2.	Hexane isomer	VOA	21.3	90 BJ
3.				
4.	UNKNOWN	BNA	20.19	320 J
5.				
6.				
7.				
8.				
9.				
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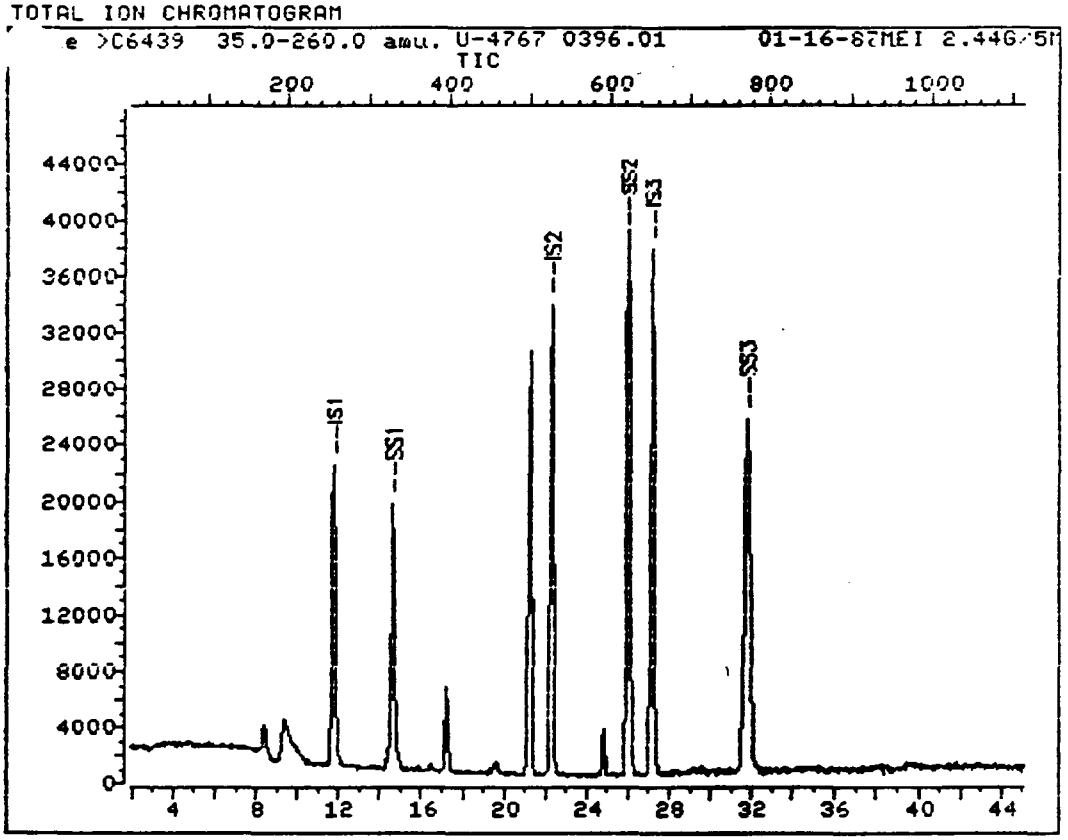
29.				
30				

TOTAL ION CHROMATOGRAM



Data File: >C6439::D1
Name: U-4767 0396.01 DC-GI-27
Misc: 01-16-87MEI 2.44G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870116 20:48

Operator ID: MANAGER
Quant Time: 870116 23:18
Injected at: 870116 22:32

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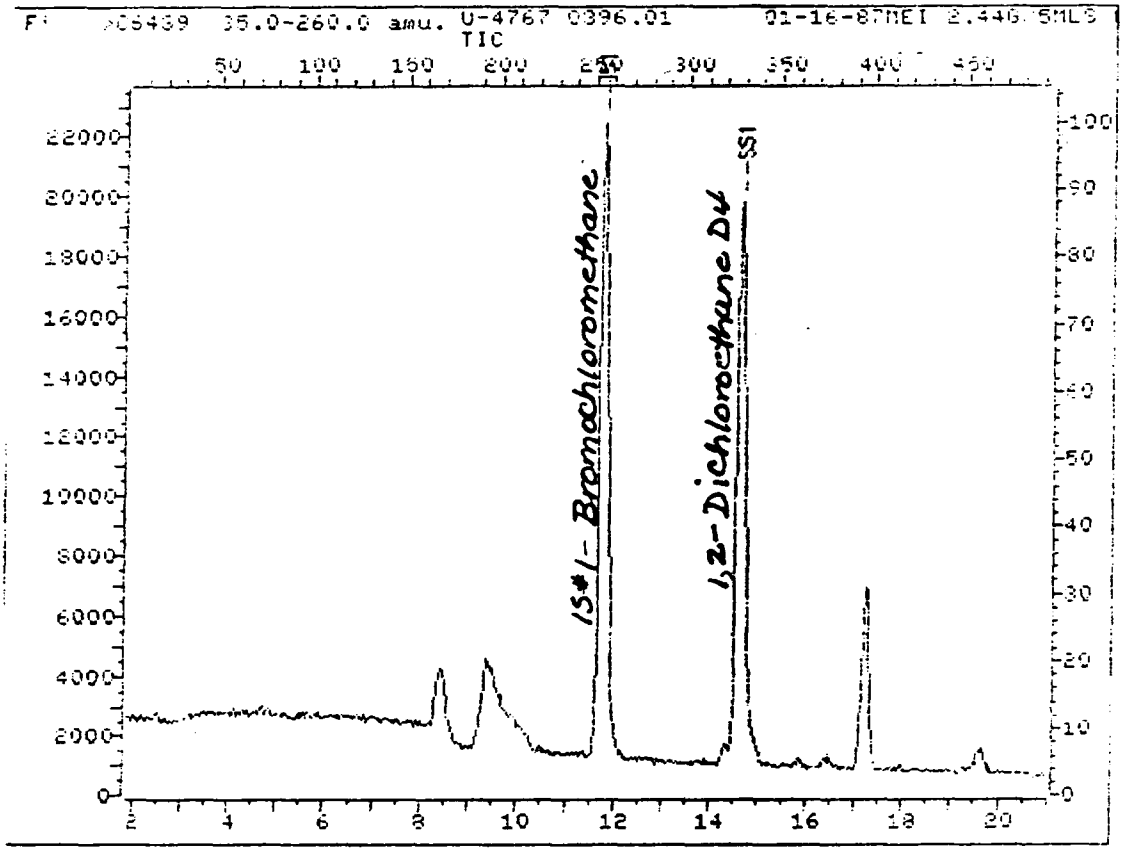
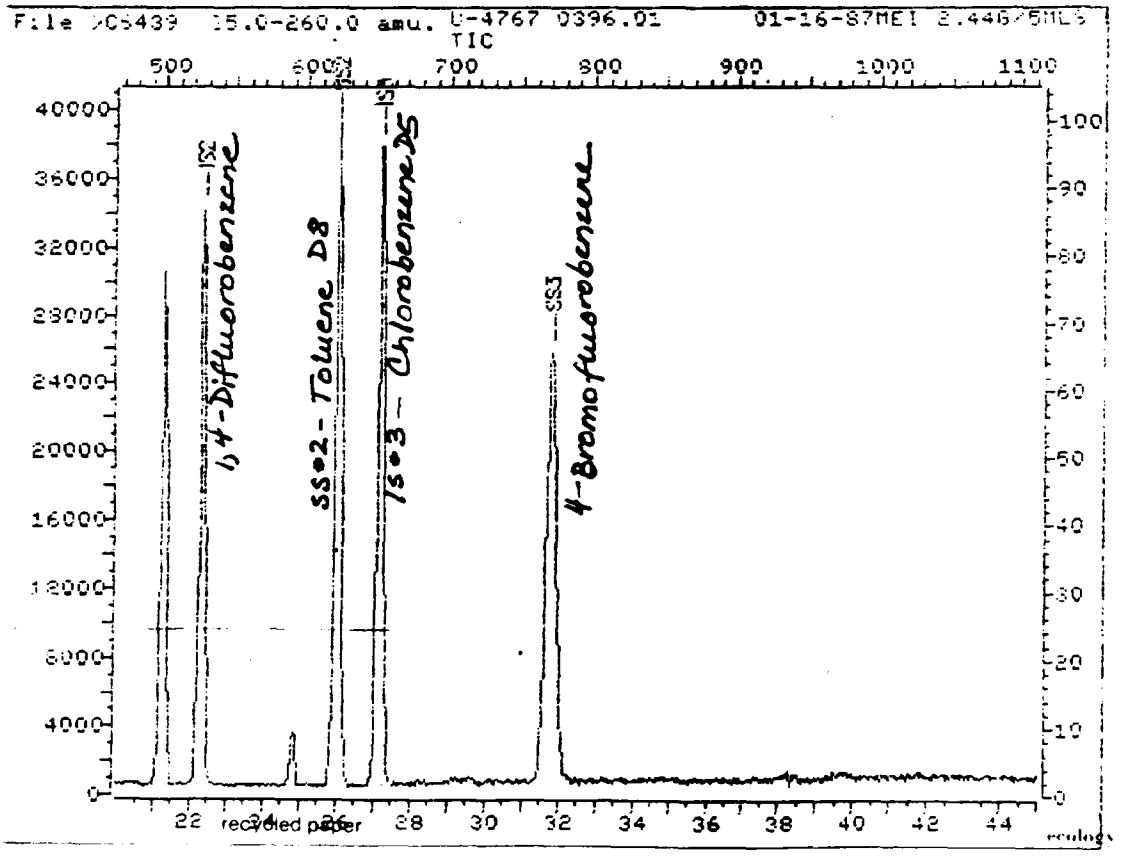
DG-G1-27





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QUANT REPORT

perator ID: MANAGER Quant Rev: 4 Quant Time: 870116 23:18
utput File: ^C6439::D2 Injected at: 870116 22:32
ata File: >C6439::D1 Dilution Factor: 1.00
ame: U-4767 0396.01 DC-G1-27
isc: 01-16-87MEI 2.44G/5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870116 20:48

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128 11.75	255	30808	250.00	NGS	100
6)	METHYLENE CHLORIDE		84 8.41	169	5576	26.15	NGS	100
7)	ACETONE		43 9.42	195	71445	499.45	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.62	329	87800	286.44	NGS	78
6)	*1,4-DIFLUOROBENZENE	(IS)	114 22.30	527	131211	250.00	NGS	100
7)	2-BUTANONE		72 14.81	334	3220	54.80	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117 27.15	652	111867	250.00	NGS	100
4)	TETRACHLOROETHENE		164 24.82	592	3814	17.83	NGS	86
6)	TOLUENE-D8	(SURR)	98 25.99	622	152855	251.08	NGS	92
0)	4-BROMOFLUOROBENZENE	(SURR)	95 31.78	771	89060	257.57	NGS	100

* Compound is ISTD

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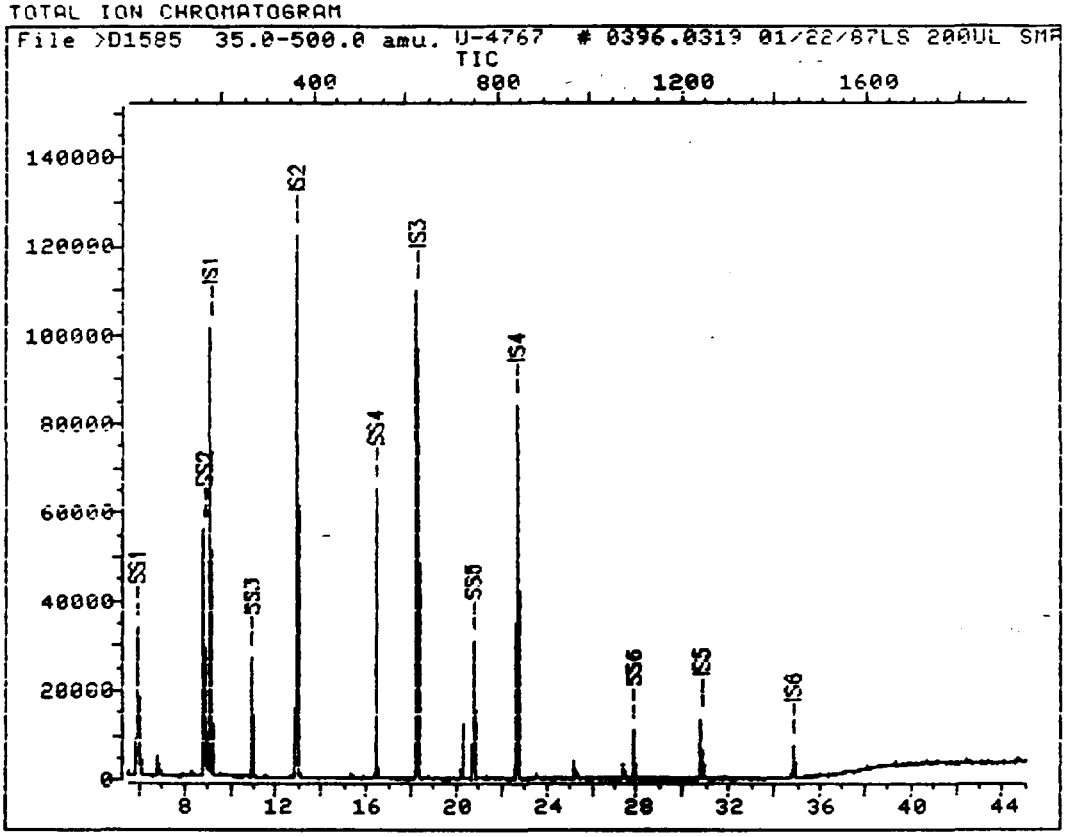
TOTAL ION CHROMATOGRAM



Data File: >D1585::D3
Name: U-4767 # 0396.0319 DC-G1-27
Misc: 01/22/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BIL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

Operator ID: USER6
Quant Time: 860122 20:51
Injected at: 860122 20:03

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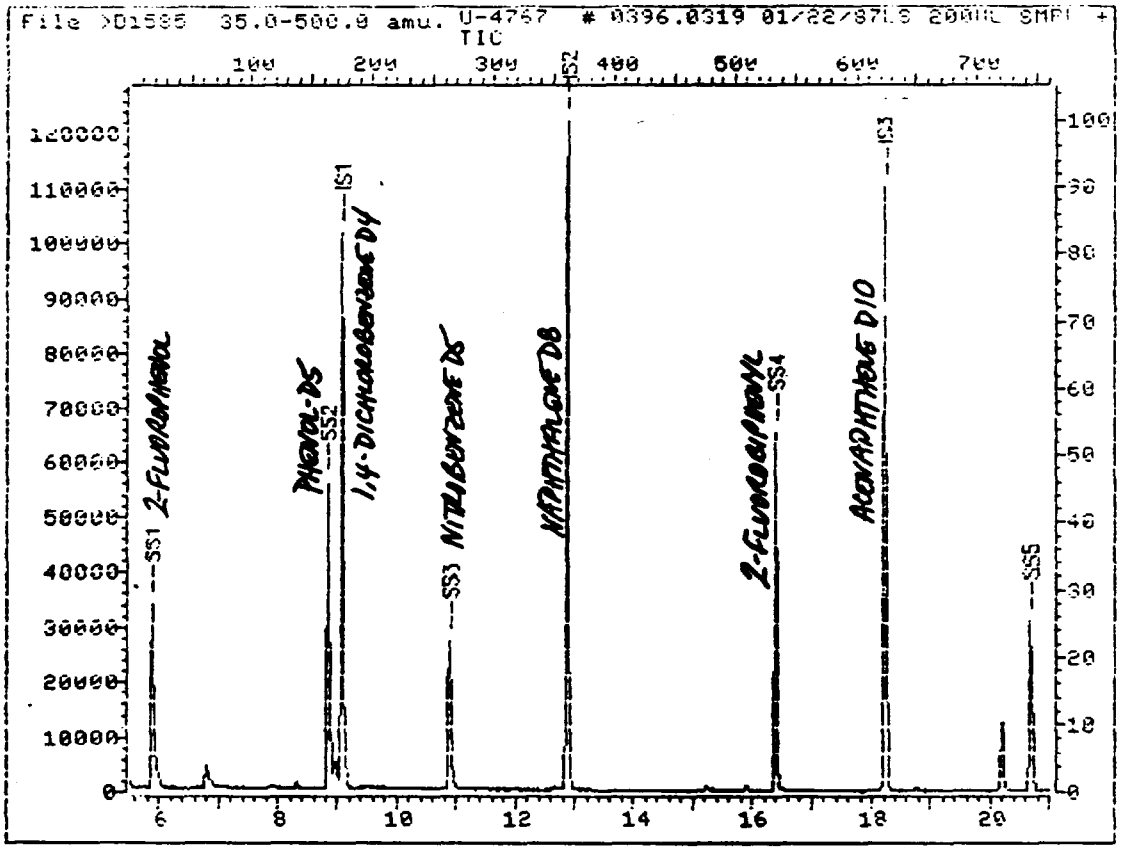
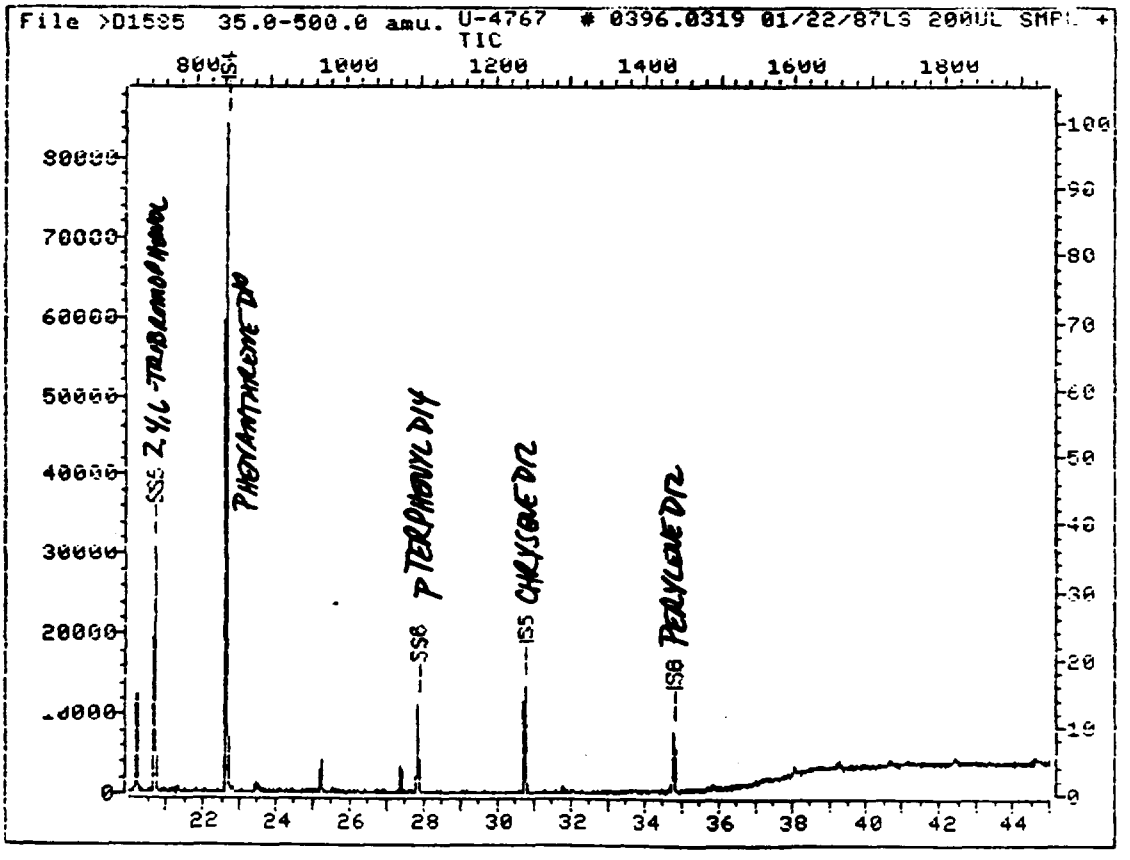
DC-GI-27





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QUANT REPORT

)erator ID: USER6 Quant Rev: 4 Quant Time: 860122 20:51
uutput File: ^D1585::Q2 Injected at: 860122 20:03
Data File: >D1585::D3 Dilution Factor: 2.00
Name: U-4767 # 0396.0319 DC-GI-27
Misc: 01/22/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BIL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.07	175	43611	40.00 UG/L	87
2)	PHENOL-D5	(SURR)	99	8.82	163	46524	57.77 UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	5.87	18	33362	68.63 UG/L	83
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.88~~	~~264~~	~~3840~~	~~6.19 UG/L~~ No GM	~~96~~
19)	*NAPHTHALENE-D8	(IS)	136	12.88	362	159183	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.88	264	24017	34.17 UG/L	93
34)	*ACENAPHTHENE-D10	(IS)	162	18.21	624	64666	40.00 UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	16.40	535	56619	38.83 UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.23~~	~~629~~	~~20264~~	~~17.66 UG/L~~ No GM	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.68	745	10535	61.36 UG/L	97
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.21~~	~~624~~	~~8292~~	~~39.96 UG/L~~ No GM	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.63	841	85095	40.00 UG/L	99
63)	DI-N-BUTYLPHTHALATE		149	25.22	968	6219	6.69 UG/L gls	98
65)	*CHRYSENE-D12	(IS)	240	30.76	1240	16820	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.83	1096	12700	67.82 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.79	1438	10881	40.00 UG/L	100

* Compound is ISTD

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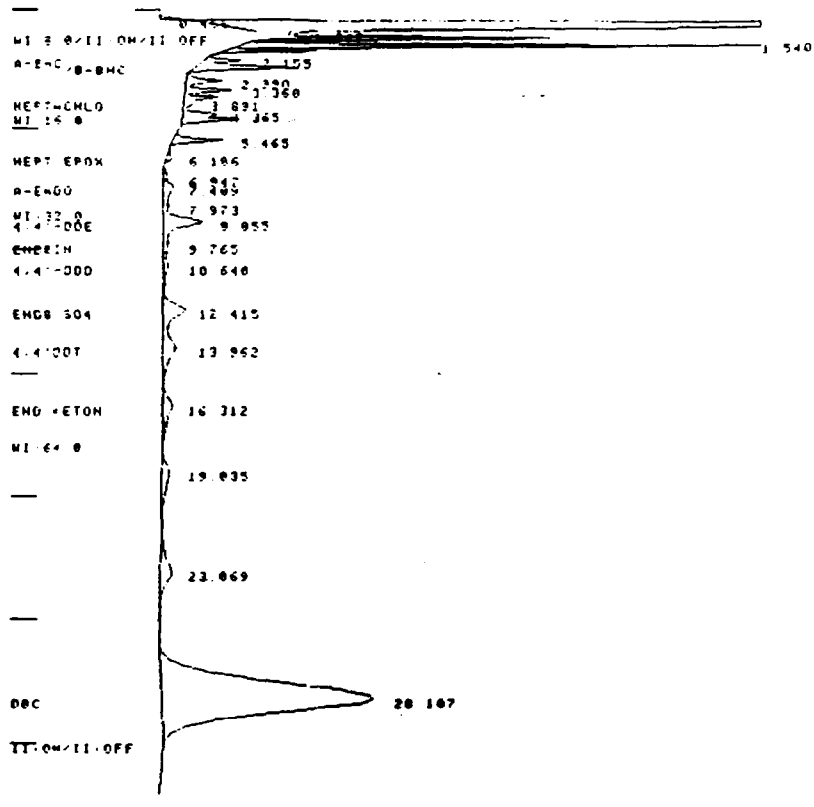
CHART SPEED 2.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



CHANNEL: 1A - 1 TITLE: RUN# 16 14:12 22 JAN 87

DC-G1-27

SAMPLE: 0396.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.255		137422	BV	3.63
2		0.0000	1.540		384585	VV	4.75
3		0.0000	1.748		79800	VB	5.75
4	~~[illegible]~~	0.7424	2.155	-0.075	32035	BV	5.50
5	~~[illegible]~~	7.7003	2.421	0.051	115195	VV	7.38
6		0.0000	2.990		51697	VV	8.88
7		0.0000	3.360		53093	VV	8.06
8		0.0000	3.686		40342	VV	8.56
9	~~HEPTACHLO~~	1.4783	4.365	0.265	50463	VV	? 12.44
10		0.0000	4.621		81709	VB	11.69
11		0.0000	5.465		72585	BB	11.06
12	~~A-ENDO~~	1.2659	7.409	-0.151	45002	VV	40.19
13	~~DIELDRIN~~	3.4857	8.855	0.055	131870	VV	23.88
14	~~ENDRIN~~	0.8635	9.765	-0.035	27834	VV	? 49.38
15	~~4,4'-DDD~~	1.0067	10.640	-0.240	31755	VV	? 43.75
16	~~ENDO SO4~~	4.5054	12.415	-0.345	117929	VV	34.50
17	~~4,4'DDT~~	4.5971	13.962	-0.218	101793	VV	57.00
18	~~END KETON~~	2.1891	16.312	-0.008	82521	VB	49.00
19		0.0000	19.035		80533	BV	73.31
20		0.0000	23.069		120971	VV	56.63
21	DBC 115%	76.6946	28.187	-0.143	2199326	VB	80.63
TOTALS:		104.5290		-0.844	4036460		

DETECTED PKS: 30 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: -14

NOTES:
NOTEBOOK:259-63 ANALYST:P. BRUTSCHER
SECURE AREA: D JOB # U-47~~40~~ 67
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 50 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PRIMARY ANALYSIS

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SAMPLE NUMBER DC-GB-29

481095

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ecology and environment

Sample Number
DC-GB-29

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4767
Lab Sample ID No: 0398 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Slogtowicz Date Sample Received: 1-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-16-87

Conc./Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 21

Reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	78J
67-64-1	Acetone	20u
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	21B
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	10u
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	10u
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 V-4767

Sample Number DC-GB-29

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
1-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-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	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	290	BJ
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	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

Laboratory Name ecology and environment, inc.

Case No V-4767

Sample Number DC-GB-29

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 1

Percent Moisture (decanted) 21.5

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8u
319-85-7	Beta-BHC	8u
319-86-8	Delta-BHC	8u
58-89-9	Gamma-BHC (Lindane)	8u
76-44-8	Heptachlor	8u
309-00-2	Aldrin	8u
1024-57-3	Heptachlor Epoxide	8u
959-98-8	Endosulfan I	8u
60-57-1	Dieldrin	16u
72-55-9	4, 4'-DDE	16u
72-20-8	Endrin	16u
33213-65-9	Endosulfan II	16u
72-54-8	4, 4'-DDD	16u
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4, 4'-DDT	16u
72-43-5	Methoxychlor	80u
53494-70-5	Endrin Ketone	16u
57-74-9	Chlordane	80u
8001-35-2	Toxaphene	160u
12674-11-2	Aroclor-1016	80u
11104-28-2	Aroclor-1221	80u
11141-16-5	Aroclor-1232	80u
53469-21-9	Aroclor-1242	80u
12672-29-6	Aroclor-1248	80u
11097-69-1	Aroclor-1254	160u
11096-82-5	Aroclor-1260	160u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name E & E, Inc

Case No U-4767

Sample Number DC-GB-29

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	33 BJ
2.	Hexane isomer	VOA	21.2	100 BJ
3.				
4.	UNKNOWN	BNA	8.93	360 J
5.	UNKNOWN	BNA	20.22	320 J
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
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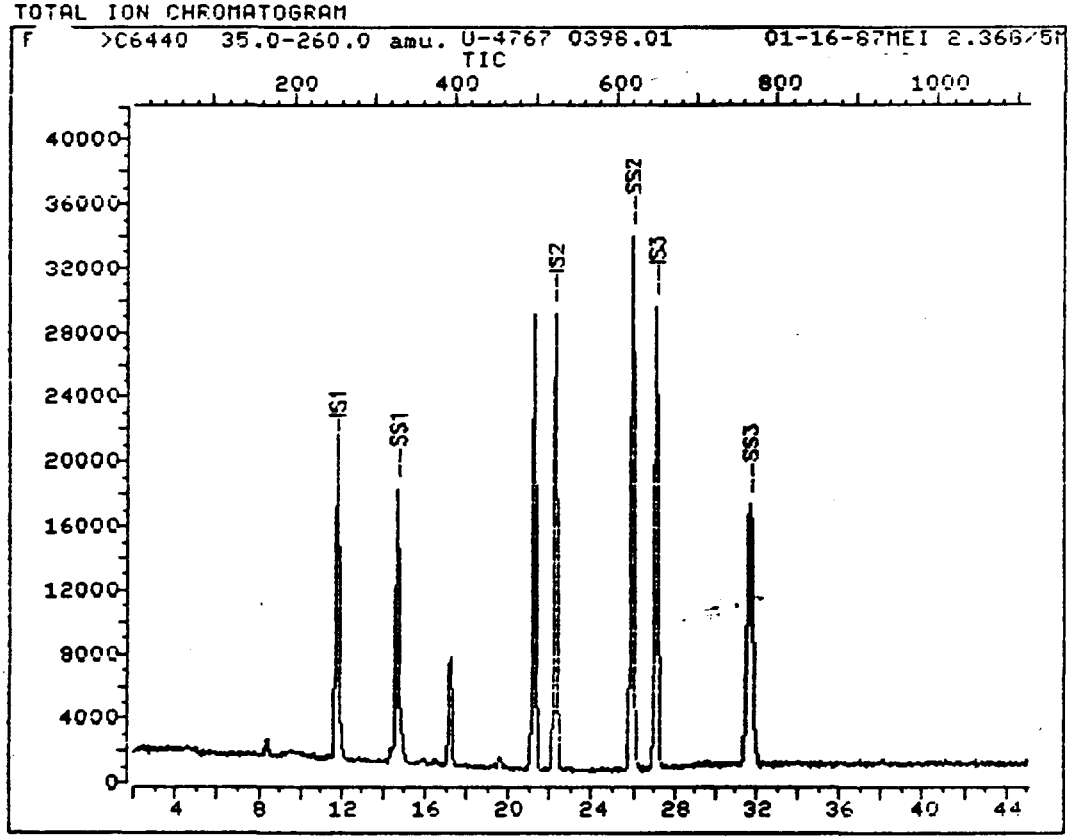
28.				
29.				
30				

TOTAL ION CHROMATOGRAM



Data File: >C6440::D1
Name: U-4767 0398.01 DC-GB-29
Misc: 01-16-87MEI 2.36G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870116 20:48

Operator ID: MANAGER
Quant Time: 870117 00:15
Injected at: 870116 23:30

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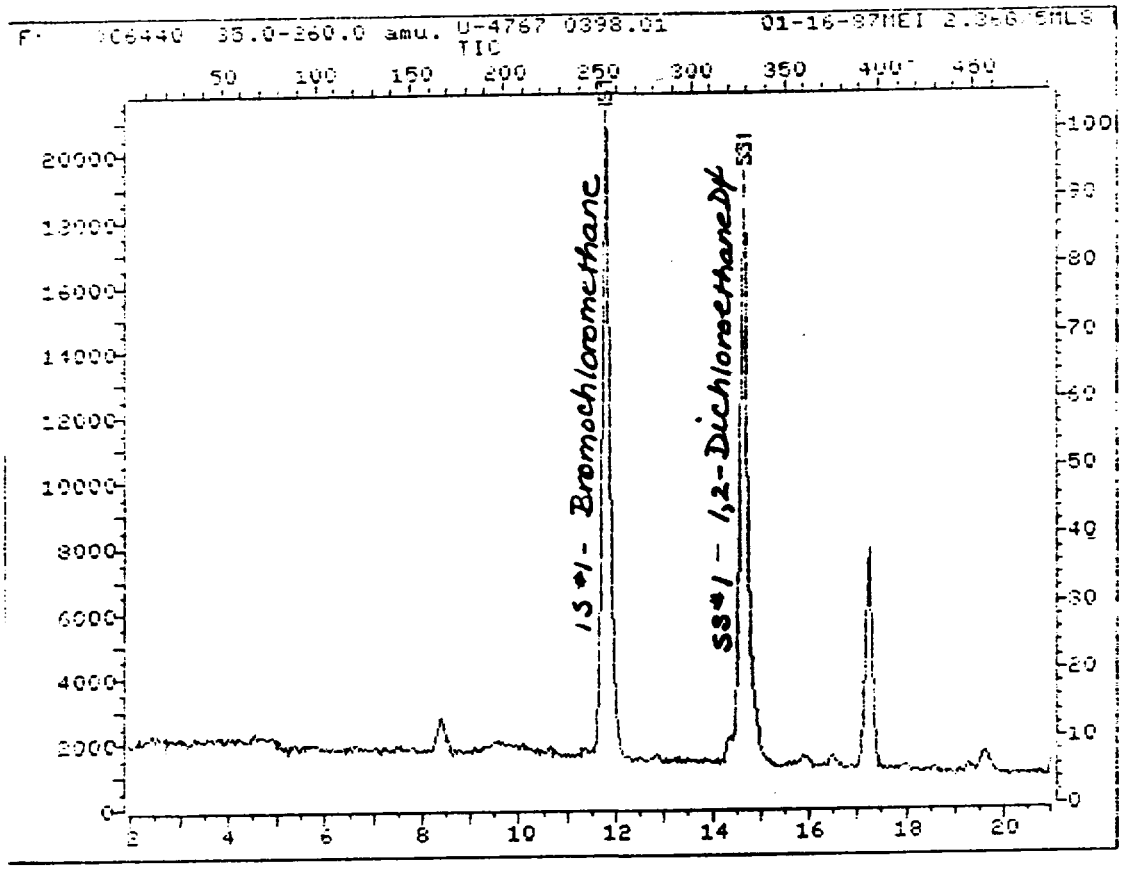
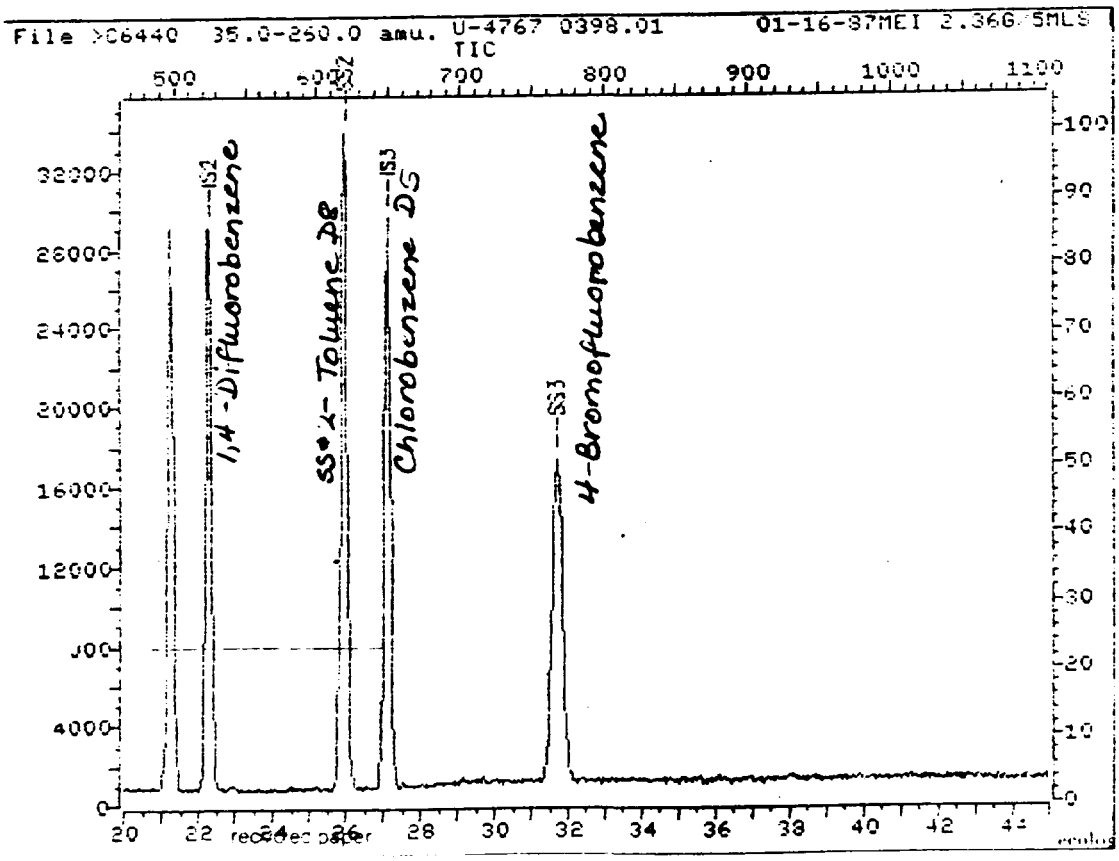
DC-GB-29





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QUANT REPORT

perator ID: MANAGER Quant Rev: 4 Quant Time: 870117 00:15
utput File: ^C6440::D2 Injected at: 870116 23:30
ata File: >C6440::D1 Dilution Factor: 1.00
ame: U-4767 0398.01 DC-GB-29
isc: 01-16-87MEI 2.36G/5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870116 20:48

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.76	254	27947	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.39	167	3033	15.68	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.64	328	72130	259.41	NGS	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	118638	250.00	NGS	100
17)	2-BUTANONE		72	14.83	333	2575	48.46	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.09	649	85503	250.00	NGS	100
5)	TOLUENE-D8	(SURR)	98	25.93	619	126466	271.79	NGS	95
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.68	767	56142	212.44	NGS	100

* Compound is ISTD

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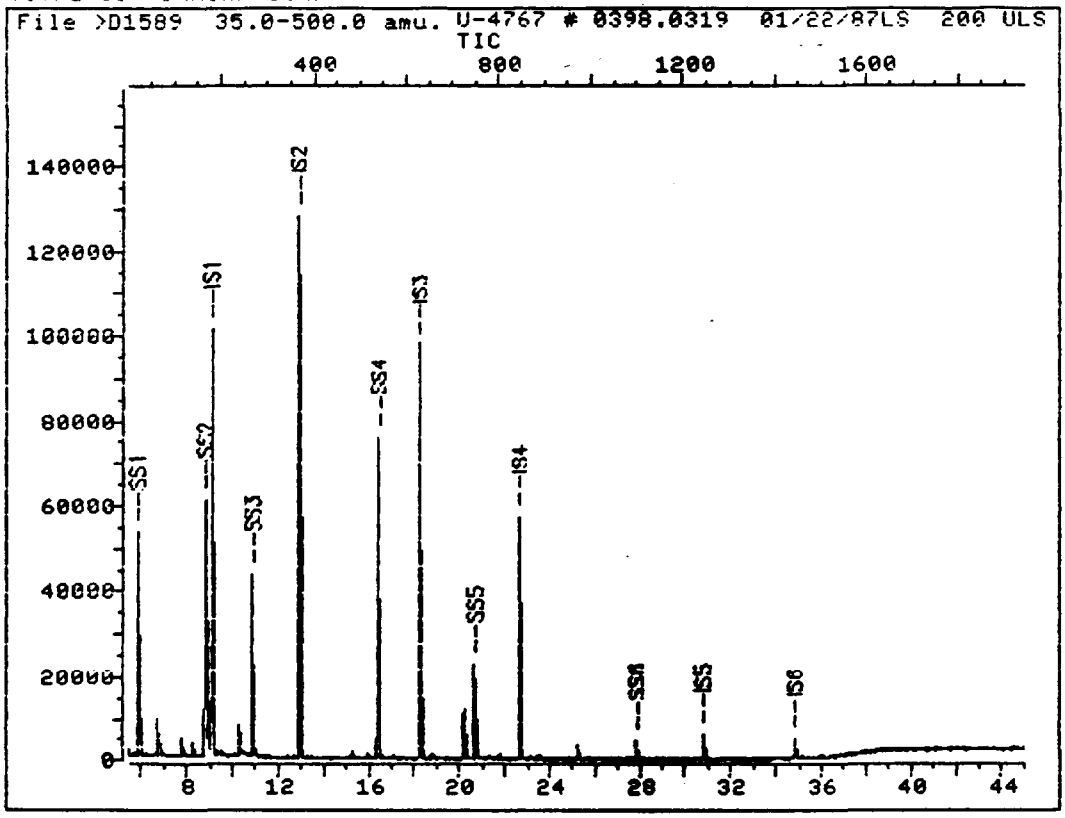
TOTAL ION CHROMATOGRAM



Data File: >D1589::D3
Name: U-4767 # 0398.0319 DC-GB-29
Misc: 01/22/87LS 200 ULS SAMPLE + 200 ULS MECL2 + 4 ULS IS BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

Operator ID: USER6
Quant Time: 860123 00:19
Injected at: 860122 23:32

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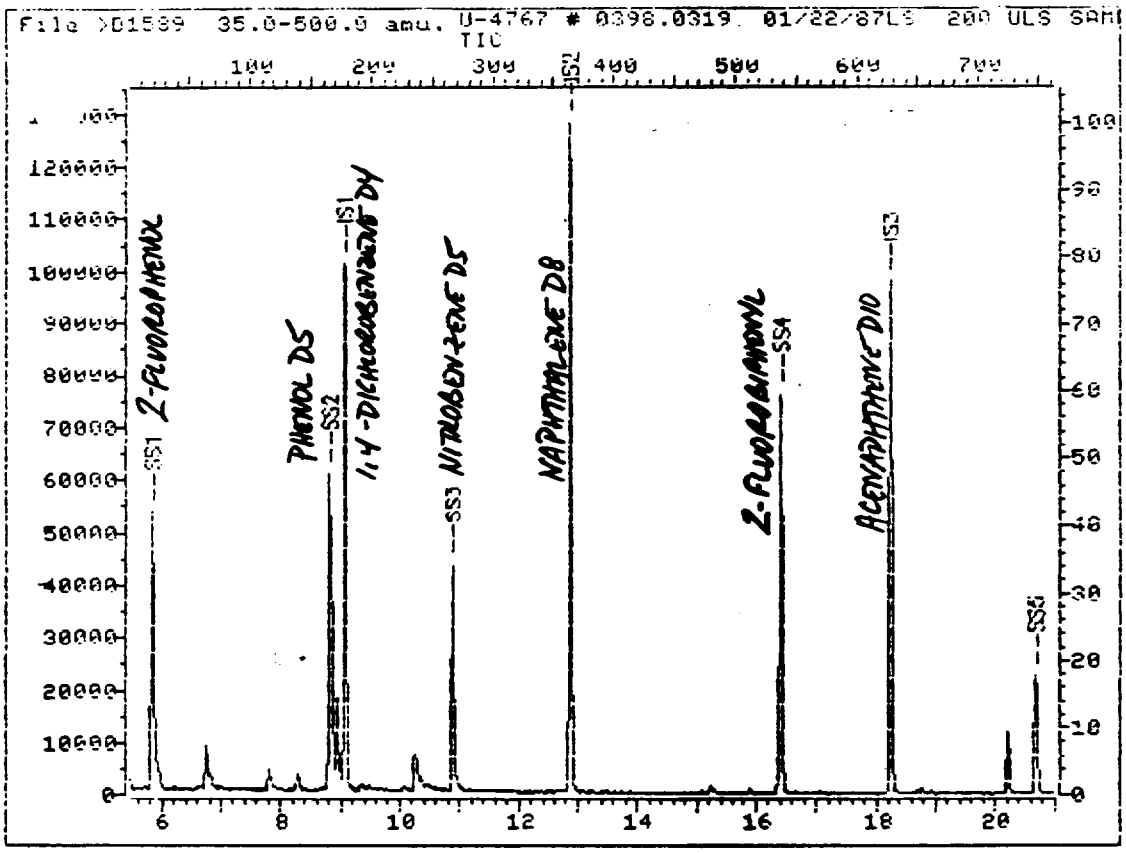
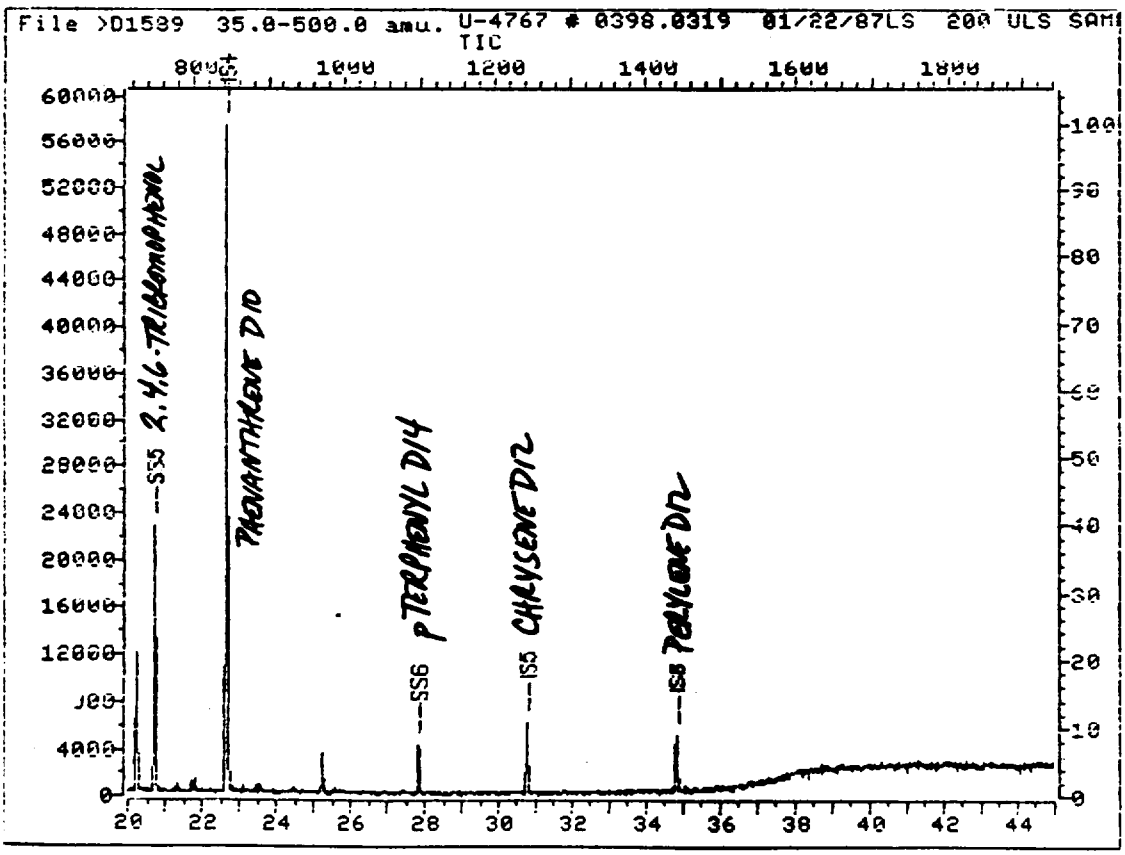
DC-GB-29





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 860123 00:19
Output File: ^D1589::Q2 Injected at: 860122 23:32
Data File: >D1589::D3 Dilution Factor: 2.00
Name: U-4767 # 0398.0319 DC-GB-29
Misc: 01/22/87LS 200 ULS SAMPLE + 200 ULS MECL2 + 4 ULS IS BTL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.06	177	48288	40.00 UG/L	86
2)	PHENOL-D5	(SURR)	99	8.81	165	58592	65.71 UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	5.84	19	45077	83.75 UG/L	77
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.87~~	~~266~~	~~5402~~	~~7.86 UG/L~~	~~91~~
19)	*NAPHTHALENE-D8	(IS)	136	12.87	364	165097	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.87	266	32946	45.19 UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	18.22	627	62568	40.00 UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	16.41	538	64041	45.39 UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.24~~	~~628~~	~~19126~~	~~17.22 UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.69	748	8168	49.17 UG/L	96
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.22~~	~~627~~	~~8020~~	~~35.95 UG/L~~	~~99~~
55)	*PHENANTHRENE-D10	(IS)	188	22.64	844	60187	40.00 UG/L	98
63)	DI-N-BUTYLPHTHALATE		149	25.23	971	5669	8.62 UG/L	97
65)	*CHRYSENE-D12	(IS)	240	30.77	1243	8044	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.84	1099	6552	73.16 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.82	1442	6376	40.00 UG/L	100

* Compound is ISTD

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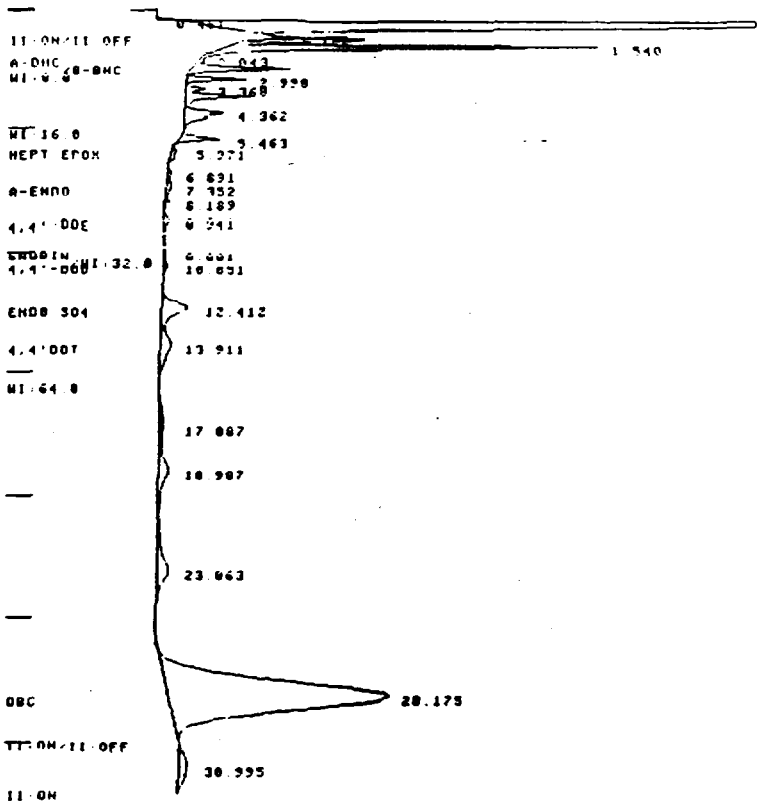
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



CHANNEL: 1A - 1 TITLE: RUN# 21 19:19 22 JAN 87

SAMPLE: 0398.03.19 METHOD: CEPA CALCULATION: ES - ANALYS

DC-GB-29

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.254		164151	BB	3.44
2		0.0000	1.540		394488	BV	4.56
3	~~B-BHC~~	6.8949	2.395	0.025	103146	VB	7.13
4		0.0000	2.998		64191	BV	7.69
5		0.0000	3.368		22292	VV	8.38
6		0.0000	3.687		93477	VV	9.19
7	~~HEPTACHLO~~	1.9850	4.362	0.262	67761	VV	14.44
8		0.0000	4.613		36962	VB	? 16.19
9		0.0000	5.463		59905	BV	10.63
10	~~ENDO SO4~~	4.4935	12.412	-0.348	117617	BV	32.13
11	~~4,4'DDT~~	3.9101	13.911	-0.269	86581	VB	52.25
12	~~END KETON~~	1.1198	17.087	0.767	42214	BV	?102.00
13		0.0000	18.987		95289	VV	56.44
14		0.0000	23.063		99448	VB	56.86
15	DBC 43%	75.5072	28.175	-0.155	2165276	BB	80.81
16		0.0000	30.995		63797	BB	66.63
TOTALS:		93.9106		0.282	3676595		

DETECTED PKS: 30 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: -9

NOTES:
NOTEBOOK:259-83 ANALYST:R. SAMSON
SECURE AREA: D JOB # U-474847
INST:VARIAN 600082 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW CLP762

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SAMPLE NUMBER DC-G2-30

481095

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Sample Number
DC-G2-30

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-4767
Lab Sample ID No: 0399
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Bojtowicz
Date Sample Received: 1-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-21-87

Conc./Dil Factor: 3 pH 7.9

Percent Moisture: (Not Decanted) 21

Concentration "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3000U
74-83-9	Bromomethane	3000U
75-01-4	Vinyl Chloride	3000U
75-00-3	Chloroethane	3000U
75-09-2	Methylene Chloride	4900B
67-64-1	Acetone	3700B
75-15-0	Carbon Disulfide	1500U
75-35-4	1, 1-Dichloroethene	1500U
75-34-3	1, 1-Dichloroethane	1500U
156-60-5	Trans-1, 2-Dichloroethene	1500U
67-66-3	Chloroform	1500U
107-06-2	1, 2-Dichloroethane	1500U
78-93-3	2-Butanone	12000B
71-55-6	1, 1, 1-Trichloroethane	1500U
56-23-5	Carbon Tetrachloride	1500U
108-05-4	Vinyl Acetate	3000U
75-27-4	Bromodichloromethane	1500U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1500U
10061-02-6	Trans-1, 3-Dichloropropene	1500U
79-01-6	Trichloroethene	1500U
124-48-1	Dibromochloromethane	1500U
79-00-5	1, 1, 2-Trichloroethane	1500U
71-43-2	Benzene	1500U
10061-01-5	cis-1, 3-Dichloropropene	1500U
110-75-8	2-Chloroethylvinylether	3000U
75-25-2	Bromoform	1500U
108-10-1	4-Methyl-2-Pentanone	3000U
591-78-6	2-Hexanone	3000U
127-18-4	Tetrachloroethene	11000
79-34-5	1, 1, 2, 2-Tetrachloroethane	1500U
108-88-3	Toluene	320J
108-90-7	Chlorobenzene	460J
100-41-4	Ethylbenzene	1500U
100-42-5	Styrene	1500U
	Total Xylenes	1500U

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4767

Sample Number DC-G2-30

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 2-11-87

Conc/Dil Factor: 50

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	8200	U
111-44-4	bis(-2-Chloroethyl)Ether	8200	U
95-57-8	2-Chlorophenol	8200	U
541-73-1	1 3-Dichlorobenzene	8200	U
106-46-7	1. 4-Dichlorobenzene	2800	J
100-51-6	Benzyl Alcohol	8200	U
95-50-1	1. 2-Dichlorobenzene	8200	U
95-48-7	2-Methylphenol	8200	U
39638-32-9	bis(2-chloroisopropyl)Ether	8200	U
106-44-5	4-Methylphenol	8200	U
621-64-7	N-Nitroso-Di-n-Propylamine	8200	U
67-72-1	Hexachloroethane	8200	U
98-95-3	Nitrobenzene	8200	U
78-59-1	Isophorone	8200	U
88-75-5	2-Nitrophenol	8200	U
105-67-9	2. 4-Dimethylphenol	8200	U
65-85-0	Benzoic Acid	40000	U
111-91-1	bis(-2-Chloroethoxy)Methane	8200	U
120-83-2	2. 4-Dichlorophenol	8200	U
120-82-1	1. 2. 4-Trichlorobenzene	8200	U
91-20-3	Naphthalene	3900	J
106-47-8	4-Chloroaniline	8200	U
87-68-3	Hexachlorobutadiene	8200	U
59-50-7	4-Chloro-3-Methylphenol	8200	U
91-57-6	2-Methylnaphthalene	8200	U
77-47-4	Hexachlorocyclopentadiene	8200	U
88-06-2	2 4. 6-Trichlorophenol	8200	U
95-95-4	2. 4. 5-Trichlorophenol	40000	U
91-58-7	2-Chloronaphthalene	8200	U
88-74-4	2-Nitroaniline	40000	U
131-11-3	Dimethyl Phthalate	8200	U
208-96-8	Acenaphthylene	8200	U
99-09-2	3-Nitroaniline	40000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	8200	U
51-28-5	2. 4-Dinitrophenol	40000	U
100-02-7	4-Nitrophenol	40000	U
132-64-9	Dibenzofuran	8200	U
121-14-2	2 4-Dinitrotoluene	8200	U
606-20-2	2. 6-Dinitrotoluene	8200	U
84-66-2	Diethylphthalate	8200	U
7005-72-3	4-Chlorophenyl-phenylether	8200	U
86-73-7	Fluorene	8200	U
100-01-6	4-Nitroaniline	40000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	40000	U
86-30-6	N-Nitrosodiphenylamine (1)	8200	U
101-55-3	4-Bromophenyl-phenylether	8200	U
118-74-1	Hexachlorobenzene	32000	
87-86-5	Pentachlorophenol	490,000	E
85-01-8	Phenanthrene	8200	U
120-12-7	Anthracene	8200	U
84-74-2	Di-n-Butylphthalate	8200	U
206-44-0	Fluoranthene	8200	U
129-00-0	Pyrene	8200	U
85-68-7	Butylbenzylphthalate	8200	U
91-94-1	3. 3'-Dichlorobenzidine	16000	U
56-55-3	Benzo(a)Anthracene	8200	U
117-81-7	bis(2-Ethylhexyl)Phthalate	8200	U
218-01-9	Chrysene	8200	U
117-84-0	Di-n-Octyl Phthalate	8200	U
205-99-2	Benzo(b)Fluoranthene	8200	U
207-08-9	Benzo(k)Fluoranthene	8200	U
50-32-8	Benzo(a)Pyrene	8200	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	8200	U
53-70-3	Dibenz(a h)Anthracene	8200	U
191-24-2	Benzo(g h i)Perylene	8200	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4767

Sample Number DC-G2-30

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 100

Percent Moisture (decanted) 20.7

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	800u
319-85-7	Beta-BHC	800u
319-86-8	Delta-BHC	800u
58-89-9	Gamma-BHC (Lindane)	800u
76-44-8	Heptachlor	800u
309-00-2	Aldrin	800u
1024-57-3	Heptachlor Epoxide	800u
959-98-8	Endosulfan I	800u
60-57-1	Dieldrin	1600u
72-55-9	4, 4'-DDE	2420
72-20-8	Endrin	1600u
33213-65-9	Endosulfan II	1600u
72-54-8	4, 4'-DDD	1600u
1031-07-8	Endosulfan Sulfate	1600u
50-29-3	4, 4'-DDT	1600u
72-43-5	Methoxychlor	8000u
53494-70-5	Endrin Ketone	1600u
57-74-9	Chlordane	8000u
8001-35-2	Toxaphene	16000u
12674-11-2	Aroclor-1016	8000u
11104-28-2	Aroclor-1221	8000u
11141-16-5	Aroclor-1232	8000u
53469-21-9	Aroclor-1242	8000u
12672-29-6	Aroclor-1248	8000u
11097-69-1	Aroclor-1254	16000u
11096-82-5	Aroclor-1260	16000u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name E & E, Inc

Case No U-4767

Sample Number DC-G2-30

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	1400 BJ
2.	Hexane isomer	VOA	21.3	5400 BJ
3.	Dichlorobenzene isomer	VOA	40.4	1100 J
4.	Dichlorobenzene isomer	VOA	40.5	1800 J
5.				
6.	TETRACHLOROPHENOL ISOMER	BNA	19.27	14000 J
7.	NONYL PHENOL ISOMER		21.73	22000 J
8.	UNKNOWN		22.12	120000 J
9.	UNKNOWN HYDROCARBON		25.61	20000 J
10.	UNKNOWN		26.35	39000 J
11.	UNKNOWN HYDROCARBON		26.80	15000 J
12.	UNKNOWN HYDROCARBON		26.86	27000 J
13.	UNKNOWN HYDROCARBON		27.55	66000 J
14.	UNKNOWN HYDROCARBON		27.98	21,000 J
15.	UNKNOWN HYDROCARBON		29.68	15,000 J
16.	UNKNOWN HYDROCARBON		29.86	40,000 J
17. 4443554	EICOSYLCYCLOHEXANE		31.97	17,000 J
18.	UNKNOWN HYDROCARBON		36.82	61,000 J
19. 39001020	OCTACHLORODIBENZOFURAN COELUTING		37.09	120,000 J
20. 3268879	OCTACHLORODIBENZO[B,E][1,4]DIOXIN			
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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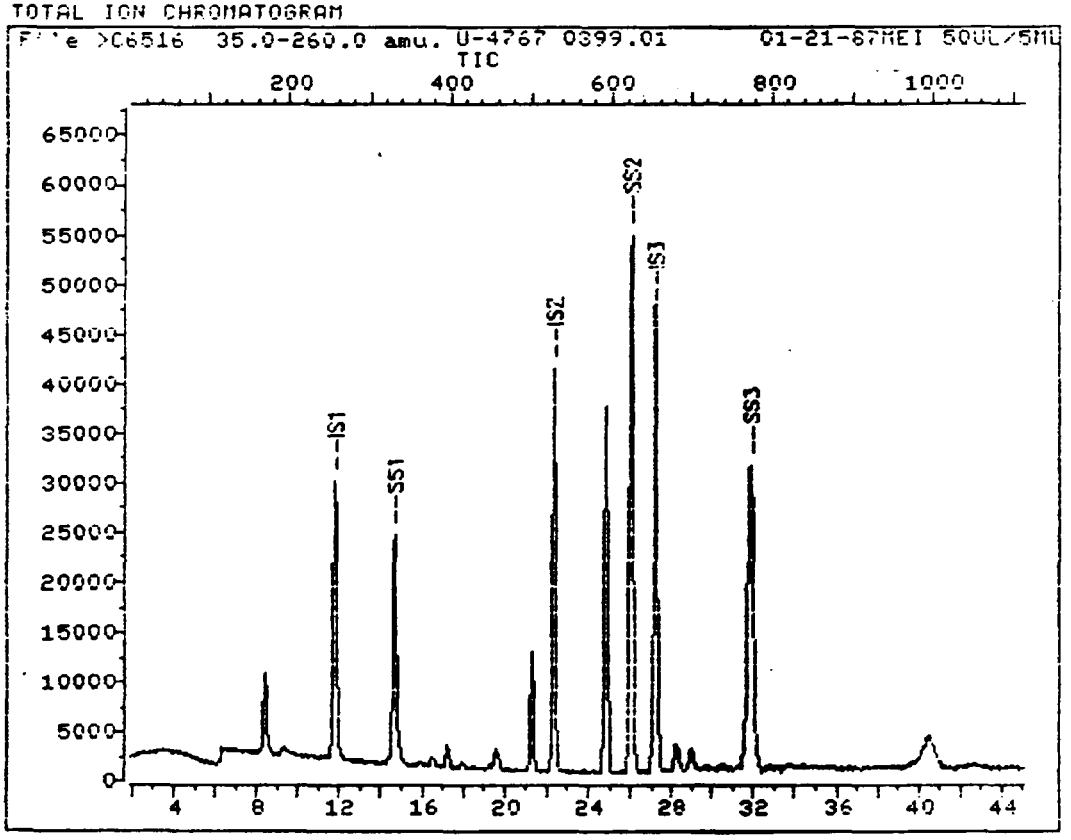
TOTAL ION CHROMATOGRAM



Data File: >C6516::D3
Name: U-4767 0399.01 DC-G2-30
Misc: 01-21-87MEI 50UL/5MLS DI + 10UL IS/SS (2.74G/10ML MEOH

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870122 13:44

Operator ID: USER8
Quant Time: 870122 22:56
Injected at: 870122 22:10

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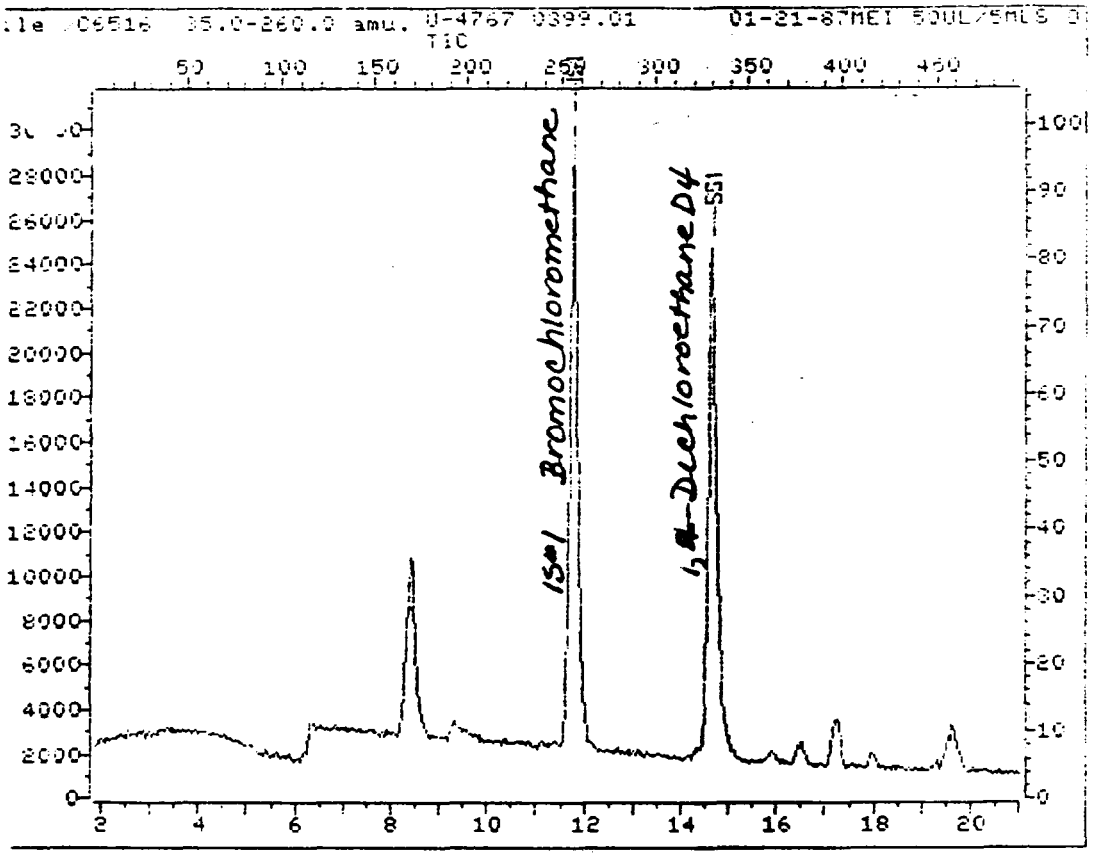
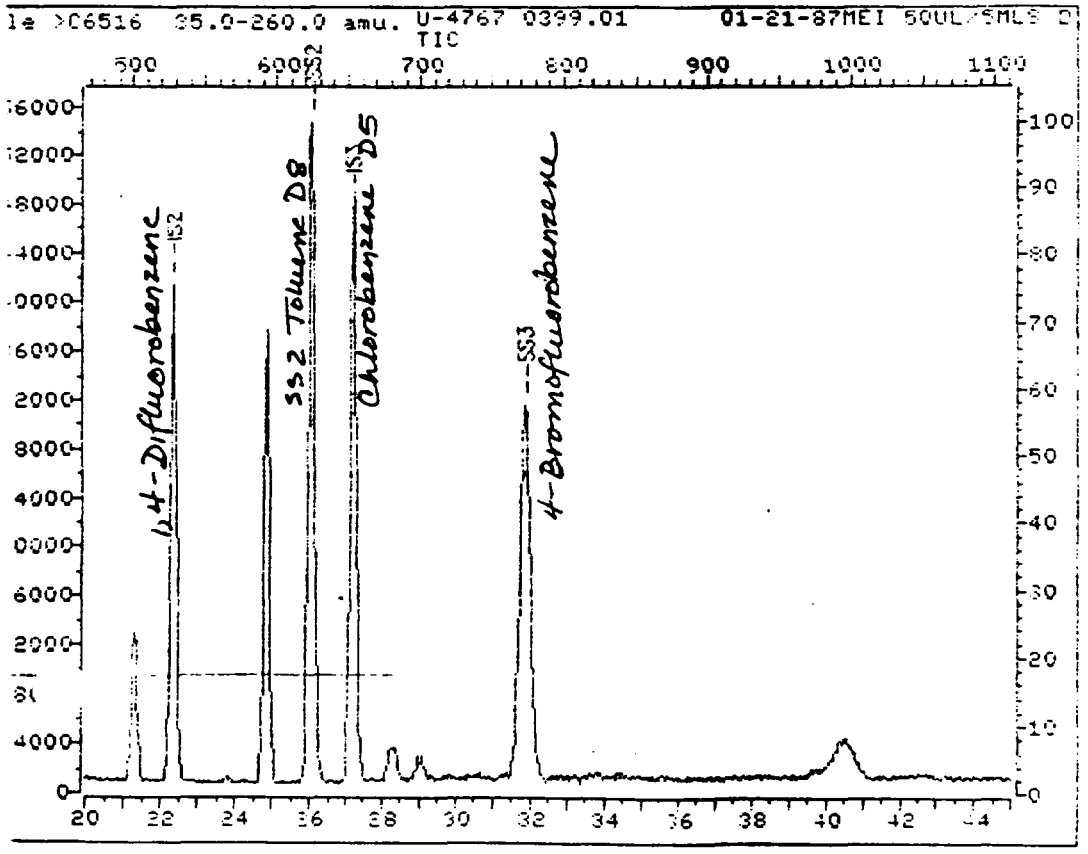
DC-G2-30





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QUANT REPORT

) tor ID: USER8 Quant Rev: 4 .Quant Time: 870122 22:56
itput File: ^C6516::Q2 Injected at: 870122 22:10
ita File: >C6516::D3 Dilution Factor: 1.00
ime: U-4767 0399.01 DC-G2-30
sc: 01-21-87MEI 50UL/5MLS DI + 10UL IS/SS (2.74G/10ML MEOH

) File: VOACR::D2
.tle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ist Calibration: 870122 13:44

	Compound			R.T.	Scan#	Area	Conc	Units	q
.)	*BROMOCHLOROMETHANE	(IS)	128	11.77	256	40733	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.40	169	22644	13.49	UG/L	100
7)	ACETONE		43	9.33	193	8923	10.27	UG/L	100
.5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.64	330	104109	51.56	UG/L	83
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.33	528	163989	50.00	UG/L	100
.7)	2-BUTANONE		72	14.76	333	5136	32.32	UG/L	100
.)	*CHLOROBENZENE-D5	(IS)	117	27.18	653	140208	50.00	UG/L	100
4)	TETRACHLOROETHENE		164	24.85	593	48768	29.29	UG/L	91
,)	TOLUENE-D8	(SURR)	98	26.05	624	208834	49.99	UG/L	94
?)	TOLUENE		92	26.25	629	2780	.88	UG/L	97
3)	CHLOROBENZENE		112	27.34	657	4800	1.27	UG/L	94
1)	4-BROMOFLUOROBENZENE	(SURR)	95	31.84	773	112269	51.61	UG/L	100
;)	1,3-DICHLOROBENZENE		146	40.46	995	34675	34675.00	NO CAL	IB100
4)	1,2-DICLHLOROBENZENE		146	40.46	995	34675	34675.00	NO CAL	IB100
;)	1,4-DICHLOROBENZENE		146	40.46	995	34675	34675.00	NO CAL	IB100

· Compound is ISTD

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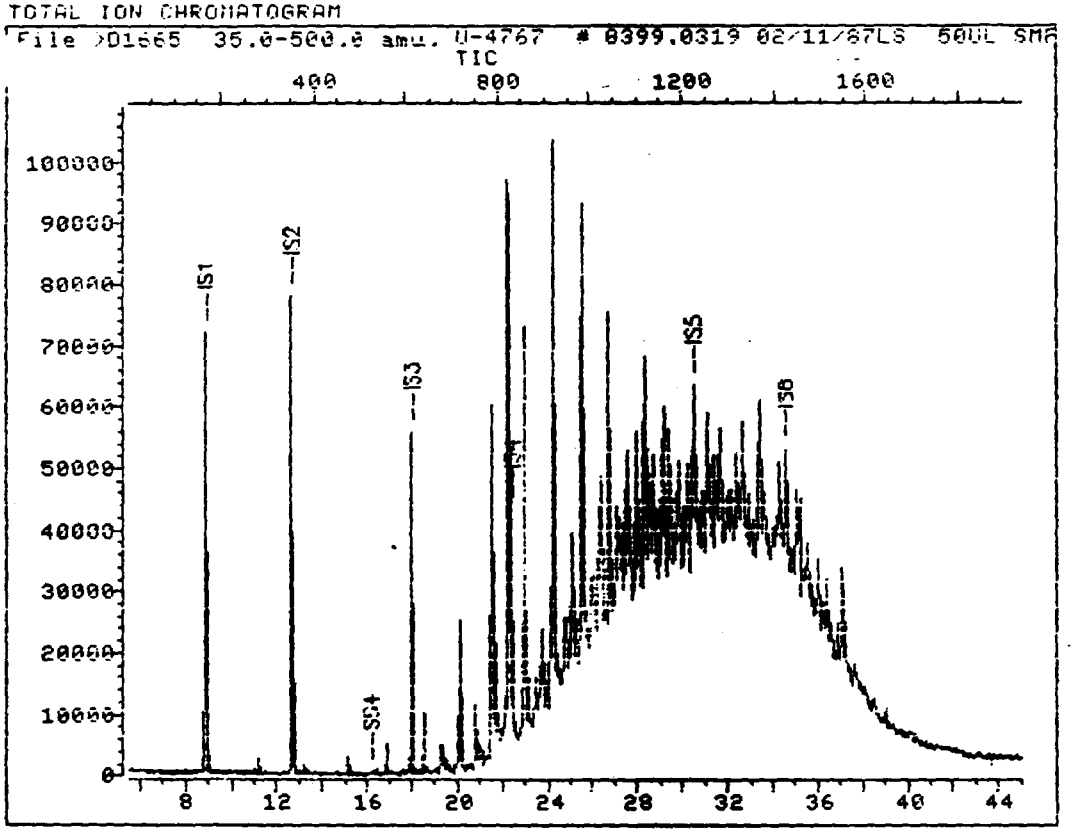
TOTAL ION CHROMATOGRAM



Data File: >D1665::D3
Name: U-4767 # 0399.0319 DC-G2-3D
Misc: 02/11/87LS 50UL SMPL+ 450UL MECL2 + 5UL IS BTL# 5

Id File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

Operator ID: USER6
Quant Time: 870211 23:12
Injected at: 870211 22:24

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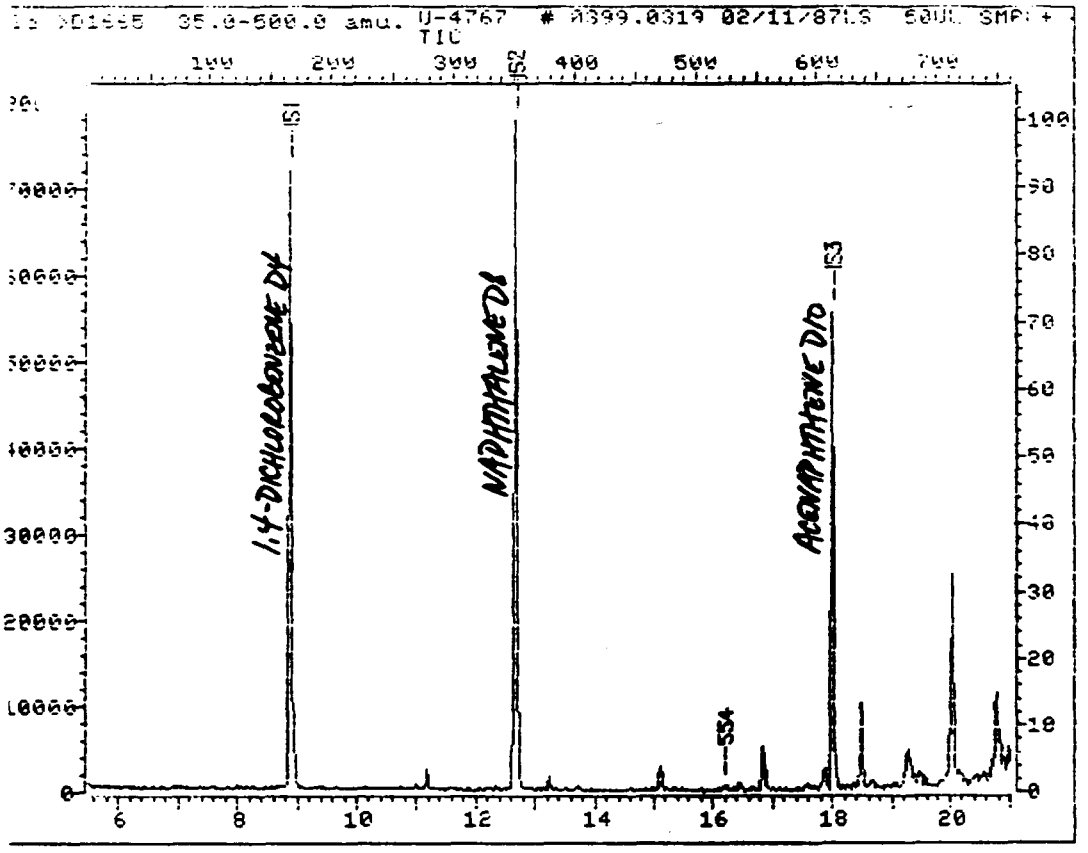
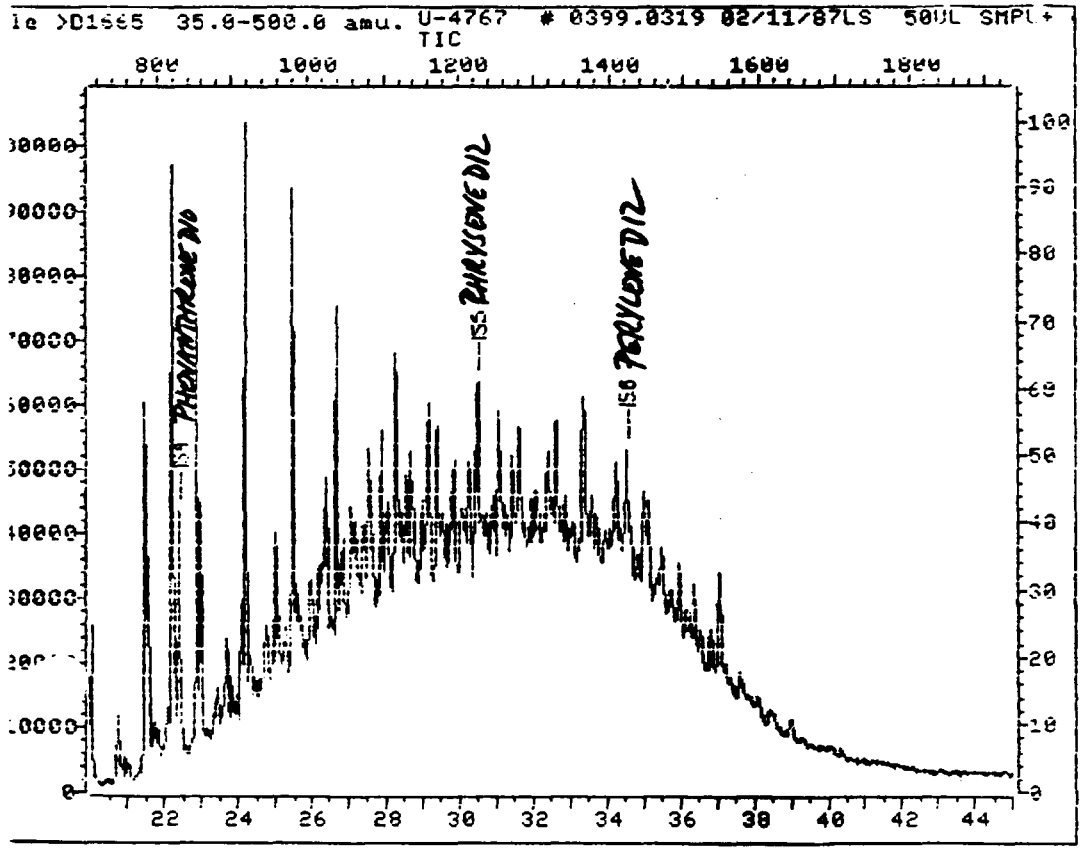
DC-G2-30





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870211 23:12
Output File: ^D1665::Q2 Injected at: 870211 22:24
Data File: >D1665;:D3 Dilution Factor: 10.00
Name: U-4767 # 0399.0319 DC-GZ-30
Misc: 02/11/87LS 50UL SMPL+ 450UL MECL2 + 5UL IS BTL# 5

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

FINAL VOLUME - 5.0ml

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152 8.88	166	37002	40.00	UG/L	87
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146 8.92~~	~~168~~	~~2353~~	~~17.85~~	~~UG/L~~	~~No BM~~
10)	1,4-DICHLOROBENZENE		146 8.92	168	2353	17.15	UG/L	94
~~12)~~	~~1,2-DICHLOROBENZENE~~		~~146 8.92~~	~~168~~	~~2353~~	~~17.15~~	~~UG/L~~	~~No BM~~
19)	*NAPHTHALENE-D8	(IS)	136 12.67	352	102396	40.00	UG/L	100
29)	NAPHTHALENE		128 12.71	354	5847	23.51	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162 18.00	614	33996	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172 16.19	525	837	6.77	UG/L	85
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163 18.00~~	~~614~~	~~6407~~	~~63.08~~	~~UG/L~~	~~No BM~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165 18.00~~	~~614~~	~~4584~~	~~217.65~~	~~UG/L~~	~~No BM~~
55)	*PHENANTHRENE-D10	(IS)	188 22.41	830	35383	40.00	UG/L	98
59)	HEXACHLOROBENZENE		284 21.53	787	4344	187.05	UG/L	94
60)	PENTACHLOROPHENOL		266 22.20	820	38210	2938.43	UG/L	100
65)	*CHRYSENE-D12	(IS)	240 30.52	1227	21545	40.00	UG/L	100
74)	*PERYLENE-D12	(IS)	264 34.55	1424	18792	40.00	UG/L	100

* Compound is ISTD

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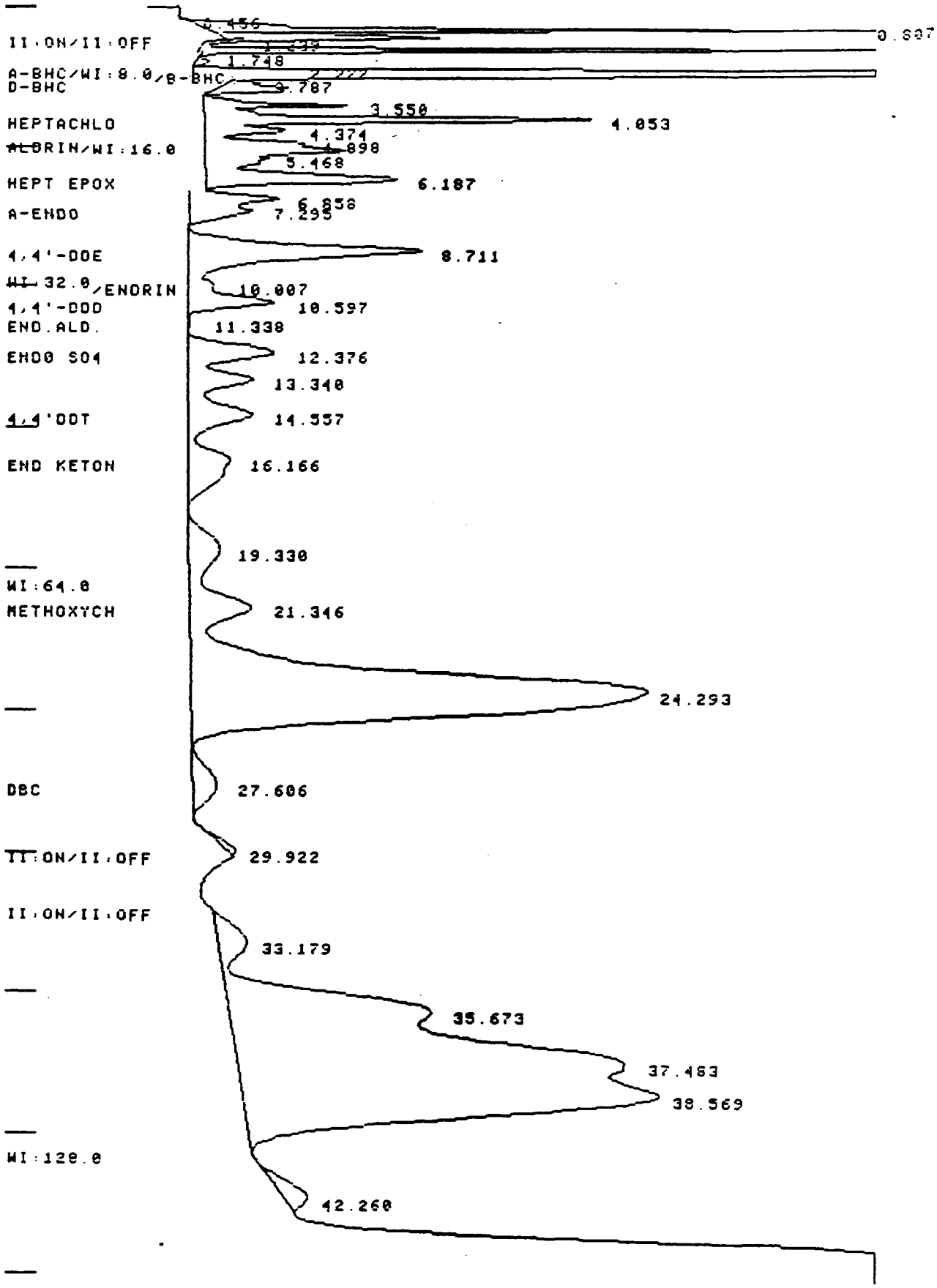

DC-G2-30

CHANNEL: 1A TITLE: RUN# 22

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CHANNEL: 1A - 1 TITLE: RUN# 22 20:06 22 JAN 87

DC-G2-30

SAMPLE: 0399.03.19 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.504		1128710	VV	4.69
2	~~A-BHC~~	142.5715	2.222	-0.008	61524	VV	? 6.06
3	~~B-BHC~~	72199.22	2.432	0.062	10800817	VV	6.88
4	~~G-BHC~~	51.4528	2.787	0.117	20102	T	? 10.00
5		0.0000	2.937		51429	T	? 10.00
6		0.0000	3.050		57330	T	? 10.63
7		0.0000	3.550		185051	T	9.94
8		0.0000	3.807		38282	T	? 11.44
9	~~HEPTACHLO~~	1414.380	4.053	-0.047	482811	T	10.25
10		0.0000	4.374		155272	T	? 21.31
11		0.0000	4.898		127231	T	? 17.00
12	~~ALDRIN~~	701.3527	5.164	0.114	281972	T	? 27.69
13		0.0000	5.468		78125	T	? 23.38
14		0.0000	5.641		64899	T	? 30.56
15	~~HEPT EPOX~~	1248.116	6.187	0.077	467610	T	23.50
16		0.0000	6.858		188075	VV	? 16.81
17	~~A-ENDO~~	488.5473	7.295	-0.265	173673	VV	? 33.38
~~X~~18	4,4'-DDE	2418.624/.793	8.711	0.021	874678	VV	28.81
19	~~B-ENDO~~	175.7491	10.007	0.027	61844	VV	? 38.44
20	~~4,4'-DDD~~	832.8198	10.597	-0.283	262703	VV	26.81
21	~~ENDO-SUL~~	1283.553	12.376	-0.364	335970	VV	35.94
22		0.0000	13.340		252778	VV	34.69
23	~~4,4'-DDT~~	1455.823	14.557	0.377	322363	VV	42.81
24	~~END KETON~~	933.1870	16.166	-0.154	351776	VV	81.25
25		0.0000	19.330		274784	VV	? 88.56
26	~~METHOXYCH~~	3040.551	21.346	0.556	386873	VV	57.50
27		0.0000	24.293		4952463	VV	98.19
28	~~DBC~~	670.5165	27.606	-0.724	192280	VV	93.81
29		0.0000	33.179		219741	BV	85.56
30		0.0000	35.673		1460873	VV	? 92.44
31		0.0000	37.483		3484132	VV	?151.56
32		0.0000	38.569		3916735	VV	?141.56
33		0.0000	42.260		117458	VV	?138.75
TOTALS:		87056.47		-0.514	31830370		

DETECTED PKS: 46 REJECTED PKS: 13

DIVISOR: 1.50000 MULTIPLIER: 100000.000

NOISE: 11.4 OFFSET: -17

NOTES:
NOTEBOOK:259-83 ANALYST:R. SAMSON
SECURE AREA: D JOB # U-474847
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PRIMARY ANALYSIS

POST RUN:

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SAMPLE NUMBER DC-G2-31

481095

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ecology and environment

Sample Number
DC-G2-31

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: 4-4767
Lab Sample ID No: 0400 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 1-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:
Date Analyzed: 1-21-87
Conc./Dil Factor: 3 pH 7.8
Percent Moisture: (Not Decanted) 21

Concentration "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3000u
74-83-9	Bromomethane	3000u
75-01-4	Vinyl Chloride	3000u
75-00-3	Chloroethane	3000u
75-09-2	Methylene Chloride	5600B
67-64-1	Acetone	2400BJ
75-15-0	Carbon Disulfide	1500u
75-35-4	1, 1-Dichloroethene	1500u
75-34-3	1, 1-Dichloroethane	1500u
156-60-5	Trans-1, 2-Dichloroethene	1500u
67-66-3	Chloroform	1500u
107-06-2	1, 2-Dichloroethane	1500u
78-93-3	2-Butanone	14000B
71-55-6	1, 1, 1-Trichloroethane	1500u
56-23-5	Carbon Tetrachloride	1500u
108-05-4	Vinyl Acetate	3000u
75-27-4	Bromodichloromethane	1500u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1500u
10061-02-6	Trans-1, 3-Dichloropropene	1500u
79-01-6	Trichloroethene	1500u
124-48-1	Dibromochloromethane	1500u
79-00-5	1, 1, 2-Trichloroethane	1500u
71-43-2	Benzene	1500u
10061-01-5	cis-1, 3-Dichloropropene	1500u
110-75-8	2-Chloroethylvinylether	3000u
75-25-2	Bromoform	1500u
108-10-1	4-Methyl-2-Pentanone	3000u
591-78-6	2-Hexanone	3000u
127-18-4	Tetrachloroethene	4100
79-34-5	1, 1, 2, 2-Tetrachloroethane	1500u
108-88-3	Toluene	1500u
108-90-7	Chlorobenzene	1500u
100-41-4	Ethylbenzene	1500u
100-42-5	Styrene	1500u
	Total Xylenes	1500u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4767

Sample Number DC-G2-31

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-16-87

Date Analyzed: 2-14-87

Conc/Dil Factor: 200

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	33,000 U
111-44-4	bis(-2-Chloroethyl)Ether	33,000 U
95-57-8	2-Chlorophenol	33,000 U
541-73-1	1 3-Dichlorobenzene	33000 U
106-46-7	1. 4-Dichlorobenzene	33,000 U
100-51-6	Benzyl Alcohol	33000 U
95-50-1	1. 2-Dichlorobenzene	33000 U
95-48-7	2-Methylphenol	33000 U
39638-32-9	bis(2-chloroisopropyl)Ether	33000 U
106-44-5	4-Methylphenol	33000 U
621-64-7	N-Nitroso-Di-n-Propylamine	33000 U
67-72-1	Hexachloroethane	33000 U
98-95-3	Nitrobenzene	33000 U
78-59-1	Isophorone	33000 U
88-75-5	2-Nitrophenol	33000 U
105-67-9	2. 4-Dimethylphenol	33000 U
65-85-0	Benzoic Acid	160,000 U
111-91-1	bis(-2-Chloroethoxy)Methane	33000 U
120-83-2	2. 4-Dichlorophenol	33000 U
120-82-1	1. 2. 4-Trichlorobenzene	33000 U
91-20-3	Naphthalene	3800 J
106-47-8	4-Chloroaniline	33000 U
87-68-3	Hexachlorobutadiene	33000 U
59-50-7	4-Chloro-3-Methylphenol	33000 U
91-57-6	2-Methylnaphthalene	33000 U
77-47-4	Hexachlorocyclopentadiene	33000 U
88-06-2	2 4 6-Trichlorophenol	33000 U
95-95-4	2. 4. 5-Trichlorophenol	160000 U
91-58-7	2-Chloronaphthalene	33000 U
88-74-4	2-Nitroaniline	160,000 U
[illegible]1-11-3	Dimethyl Phthalate	33000 U
[illegible]3-96-8	Acenaphthylene	33000 U
99-09-2	3-Nitroaniline	160,000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	33000 U
51-28-5	2. 4-Dinitrophenol	160,000 U
100-02-7	4-Nitrophenol	160,000 U
132-64-9	Dibenzofuran	33000 U
121-14-2	2 4-Dinitrotoluene	33000 U
606-20-2	2. 6-Dinitrotoluene	33000 U
84-66-2	Diethylphthalate	33000 U
7005-72-3	4-Chlorophenyl-phenylether	33000 U
86-73-7	Fluorene	33000 U
100-01-6	4-Nitroaniline	160,000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	160,000 U
86-30-6	N-Nitrosodiphenylamine (1)	33000 U
101-55-3	4-Bromophenyl-phenylether	33000 U
118-74-1	Hexachlorobenzene	22000
87-86-5	Pentachlorophenol	780,000
85-01-8	Phenanthrene	33000 U
120-12-7	Anthracene	33000 U
84-74-2	Di-n-Butylphthalate	33000 U
206-44-0	Fluoranthene	33000 U
129-00-0	Pyrene	33000 U
85-68-7	Butylbenzylphthalate	33000 U
91-94-1	3. 3'-Dichlorobenzidine	66000 U
56-55-3	Benzo(a)Anthracene	33000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	33000 U
218-01-9	Chrysene	33000 U
117-84-0	Di-n-Octyl Phthalate	33000 U
205-99-2	Benzo(b)Fluoranthene	33000 U
207-08-9	Benzo(k)Fluoranthene	33000 U
50-32-8	Benzo(a)Pyrene	33000 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	33000 U
53-70-3	Dibenz(a h)Anthracene	33000 U
191-24-2	Benzo(g h i)Perylene	33000 U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4767

Sample Number DC-G2-31

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 1-23-87

Conc/Dil Factor: 100

Percent Moisture (decanted) 20.6

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	800µ
319-85-7	Beta-BHC	800µ
319-86-8	Delta-BHC	800µ
58-89-9	Gamma-BHC (Lindane)	800µ
76-44-8	Heptachlor	800µ
309-00-2	Aldrin	800µ
1024-57-3	Heptachlor Epoxide	800µ
959-98-8	Endosulfan I	800µ
60-57-1	Dieldrin	1600µ
72-55-9	4, 4'-DDE	2900
72-20-8	Endrin	1600µ
33213-65-9	Endosulfan II	1600µ
72-54-8	4, 4'-DDD	1600µ
1031-07-8	Endosulfan Sulfate	1600µ
50-29-3	4, 4'-DDT	1600µ
72-43-5	Methoxychlor	8000µ
53494-70-5	Endrin Ketone	1600µ
57-74-9	Chlordane	8000µ
8001-35-2	Toxaphene	16000µ
12674-11-2	Aroclor-1016	8000µ
11104-28-2	Aroclor-1221	8000µ
11141-16-5	Aroclor-1232	8000µ
53469-21-9	Aroclor-1242	8000µ
12672-29-6	Aroclor-1248	8000µ
11097-69-1	Aroclor-1254	16000µ
11096-82-5	Aroclor-1260	16000µ

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name E & E, Inc

Case No U-4767

Sample Number DC-G2-31

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	2400 BJ
2.	Hexane isomer	VOA	21.3	7300 BJ
3.				
4.	UNKNOWN HYDROCARBON	BNA	19.91	120,000 J
5.	UNKNOWN HYDROCARBON		22.77	500,000 J
6.	UNKNOWN HYDROCARBON		22.89	330,000 J
7.	UNKNOWN HYDROCARBON		24.09	690,000 J
8.	UNKNOWN HYDROCARBON		25.36	730,000 J
9.	UNKNOWN HYDROCARBON		26.30	140,000 J
10.	UNKNOWN HYDROCARBON		26.59	240,000 J
11.	UNKNOWN HYDROCARBON		27.42	160,000 J
12.	UNKNOWN HYDROCARBON		27.73	170,000 J
13.	UNKNOWN HYDROCARBON		28.16	390,000 J
14.	UNKNOWN HYDROCARBON		28.55	96,000 J
15.	UNKNOWN HYDROCARBON		29.06	290,000 J
16.	UNKNOWN HYDROCARBON		29.27	270,000 J
17.	UNKNOWN HYDROCARBON		29.74	100,000 J
18.	UNKNOWN HYDROCARBON		30.29	100,000 J
19.	UNKNOWN HYDROCARBON		30.96	230,000 J
20.	UNKNOWN HYDROCARBON		31.31	130,000 J
21.	UNKNOWN HYDROCARBON		31.50	170,000 J
22.	UNKNOWN HYDROCARBON		32.52	320,000 J
23.	UNKNOWN HYDROCARBON		35.02	310,000 J
24.				
25.				
26.				
27.				
28.				
29.				
30				

Form 1, Part B

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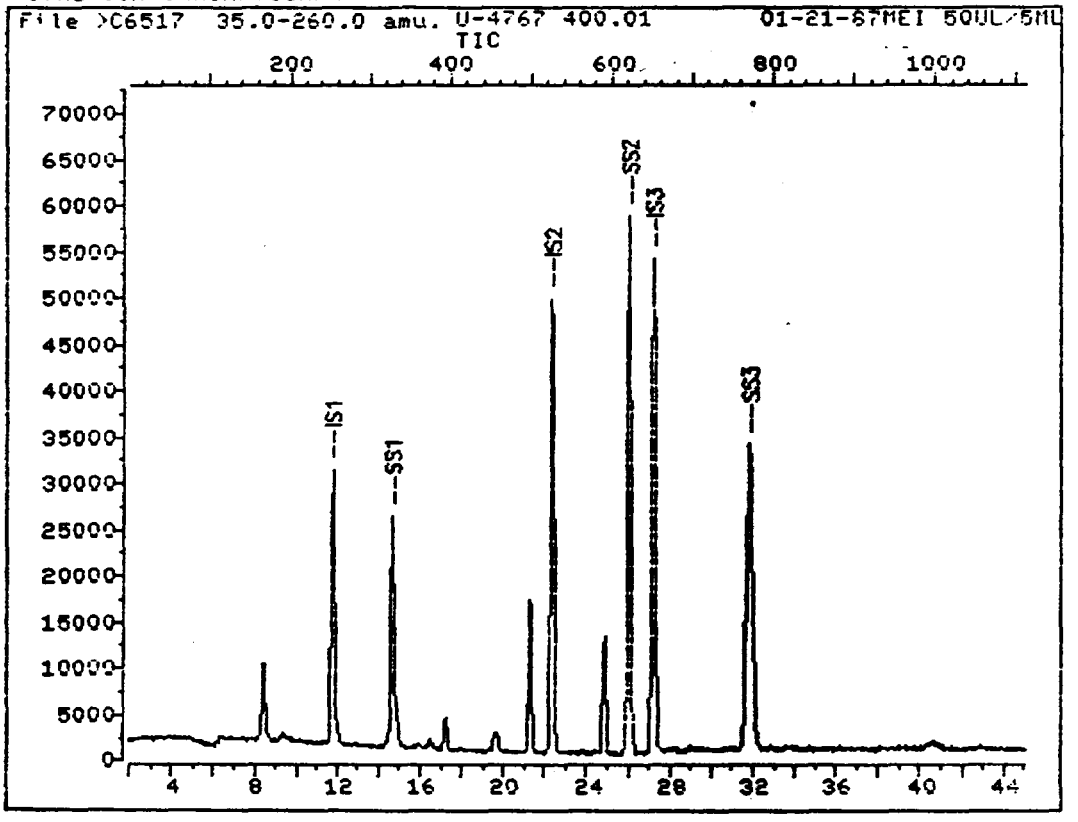
TOTAL ION CHROMATOGRAM



Data File: >C6517::D3
Name: U-4767 400.01 DC-G2-31
Misc: 01-21-87MEI 50UL/5MLS DI + 10UL IS/SS (2.32G/10MLS MEO

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870122 13:44

Operator ID: USER8
Quant Time: 870122 23:51
Injected at: 870122 23:05

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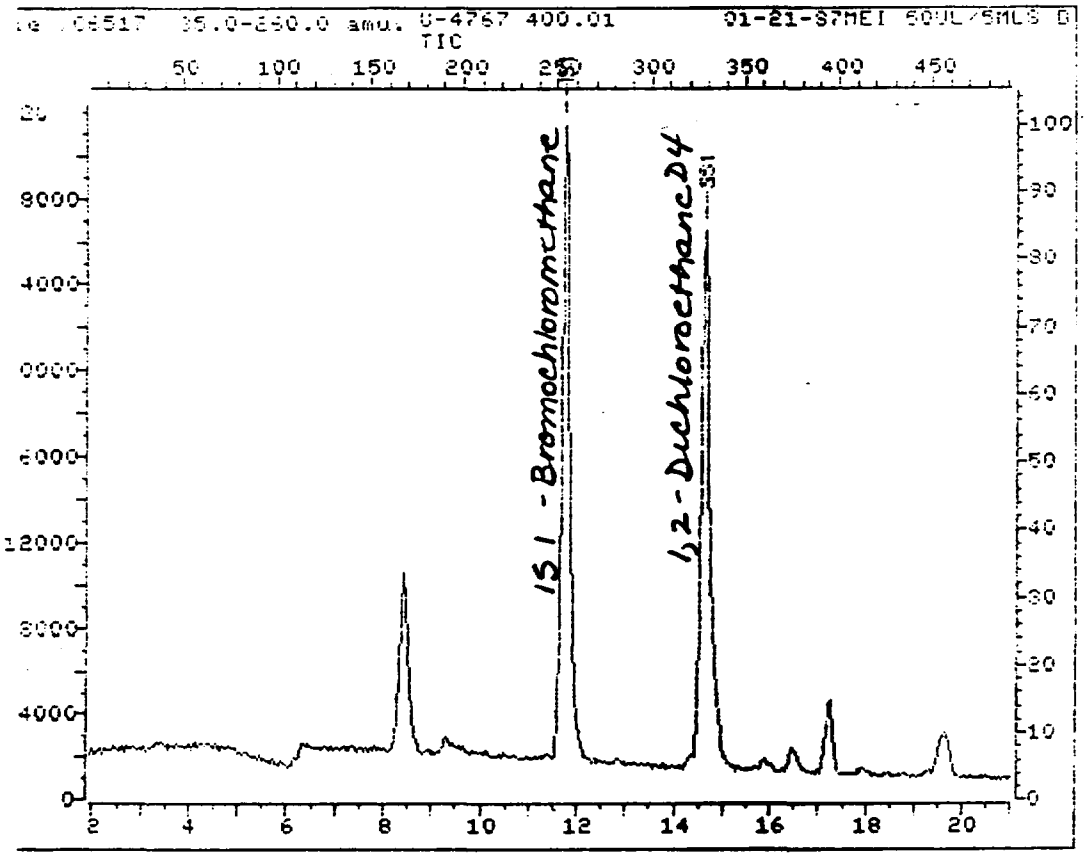
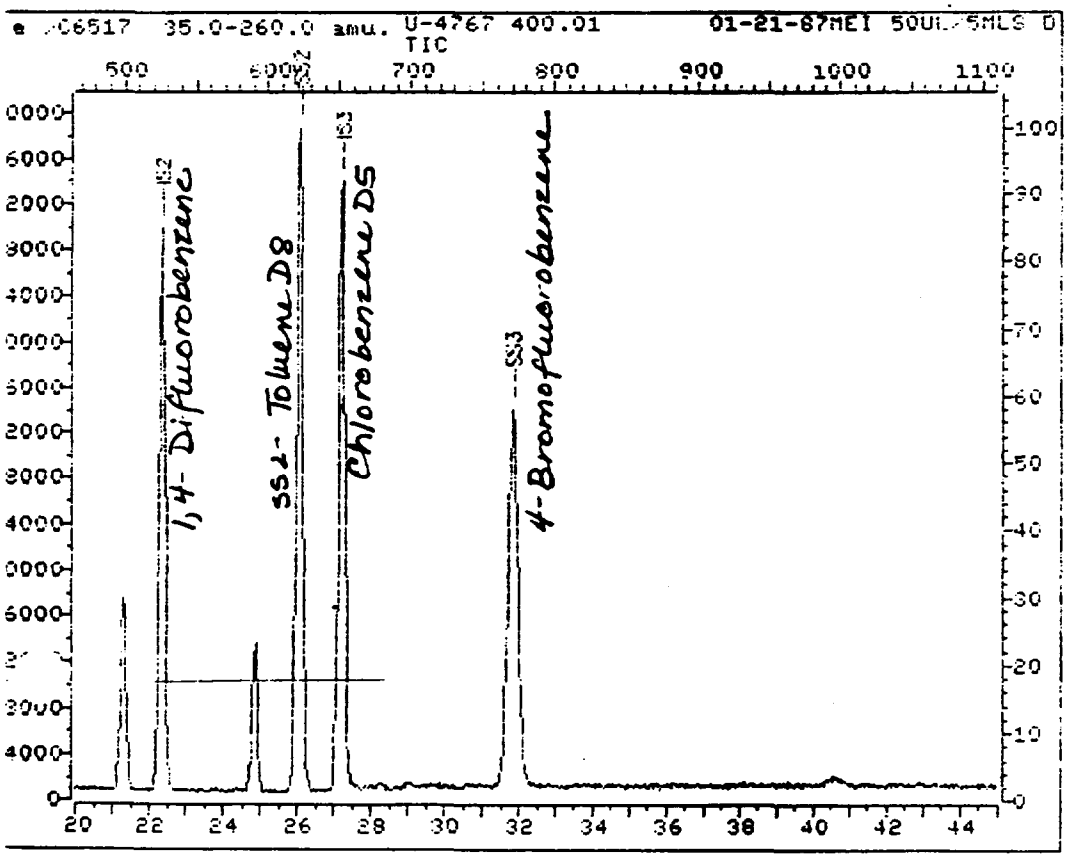
DC-G2-31





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QUANT REPORT

e .or ID: USER8 Quant Rev: 4 .Quant Time: 870122 23:51
tput File: ^C6517::Q2 Injected at: 870122 23:05
ta File: >C6517::D3 Dilution Factor: 1.00
me: U-4767 400.01 DC-G2-31
sc: 01-21-87MEI 50UL/5MLS DI + 10UL IS/SS (2.32G/10MLS MEO

File: VOACR::D2
tle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
st Calibration: 870122 13:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
.)	*BROMOCHLOROMETHANE	(IS)	128 11.76	254	43930	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84 8.39	167	23671	13.08	UG/L	100
7)	ACETONE		43 9.36	192	5210	5.56	UG/L	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.63	328	112037	51.45	UG/L	82
6)	*1,4-DIFLUOROBENZENE	(IS)	114 22.32	526	200294	50.00	UG/L	100
7)	2-BUTANONE		72 14.79	332	6289	32.40	UG/L	100
)	*CHLOROBENZENE-D5	(IS)	117 27.21	652	157697	50.00	UG/L	100
.)	TETRACHLOROETHENE		164 24.84	591	17947	9.58	UG/L	93
)	TOLUENE-D8	(SURR)	98 26.04	622	227357	48.39	UG/L	94
)	4-BROMOFLUOROBENZENE	(SURR)	95 31.83	771	119503	48.84	UG/L	100

Compound is ISTD

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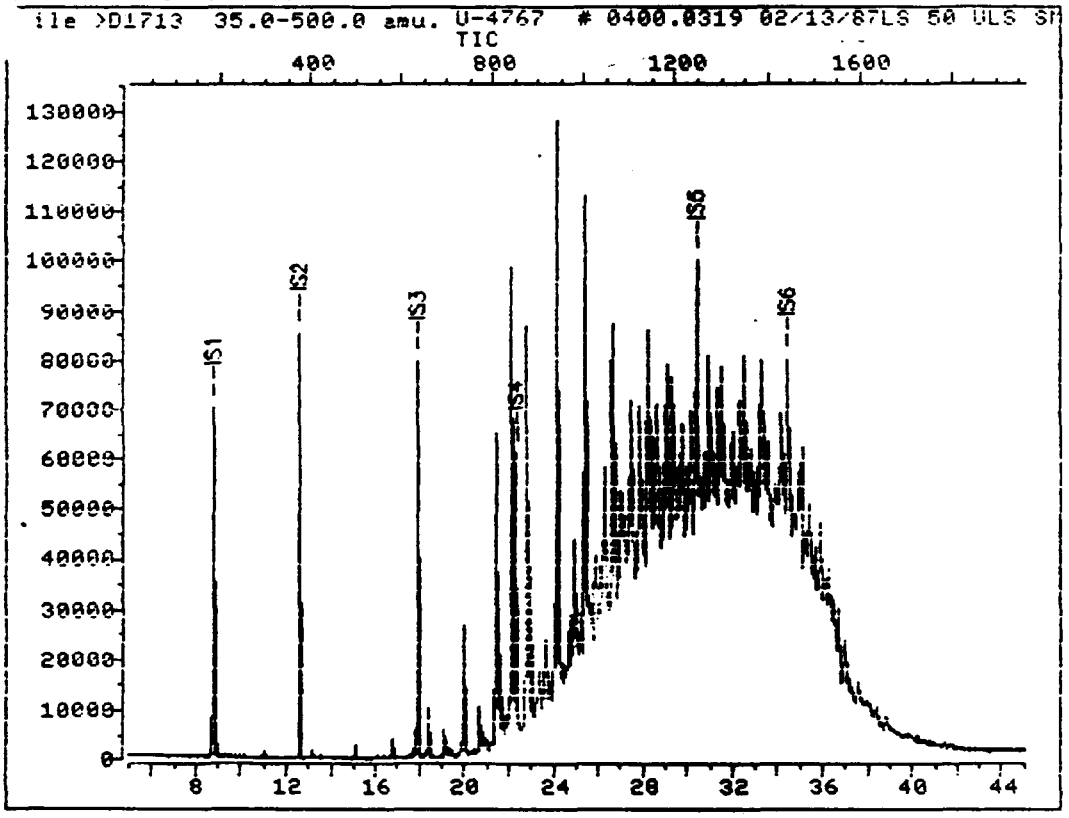
TOTAL ION CHROMATOGRAM



Data File: >D1713::D3
Name: U-4767 # 0400.0319 DC-G2-31
Misc: 02/13/87LS 50 ULS SMPL + 950 ULS MECL2 + 10 UL IS BTL# 5

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

Operator ID: USER6
Quant Time: 870214 01:00
Injected at: 870214 00:12

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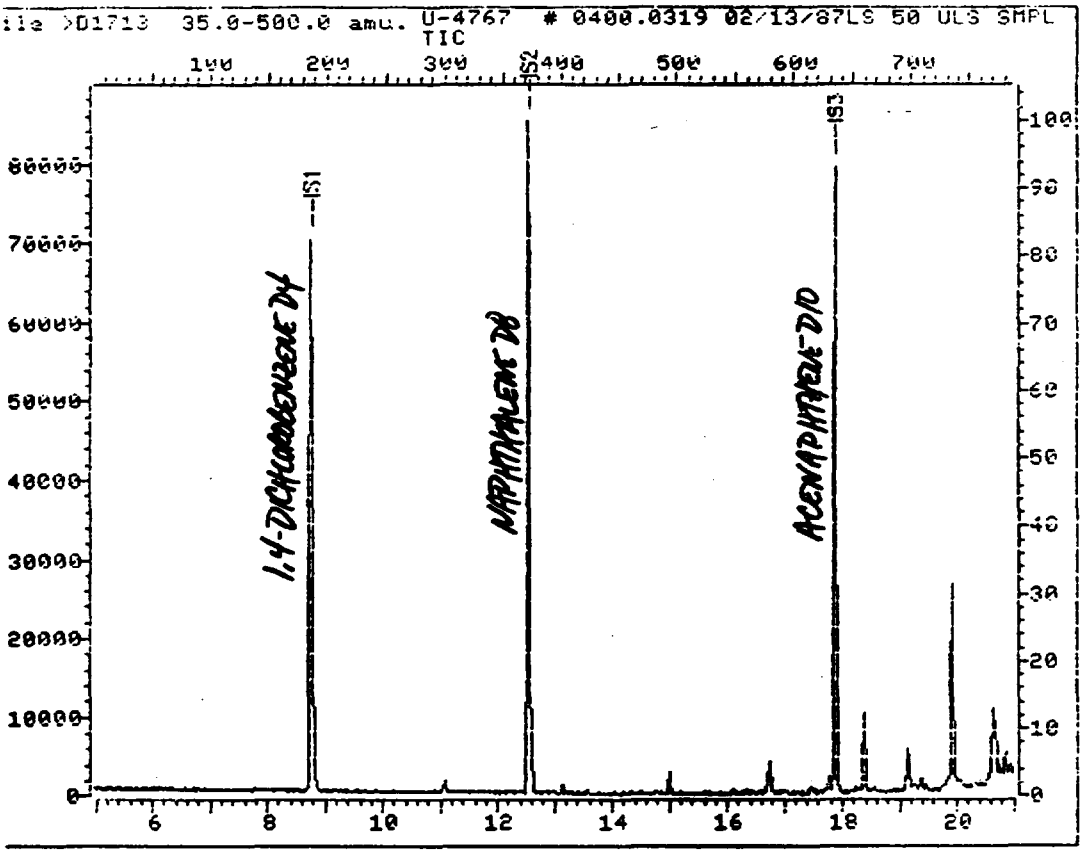
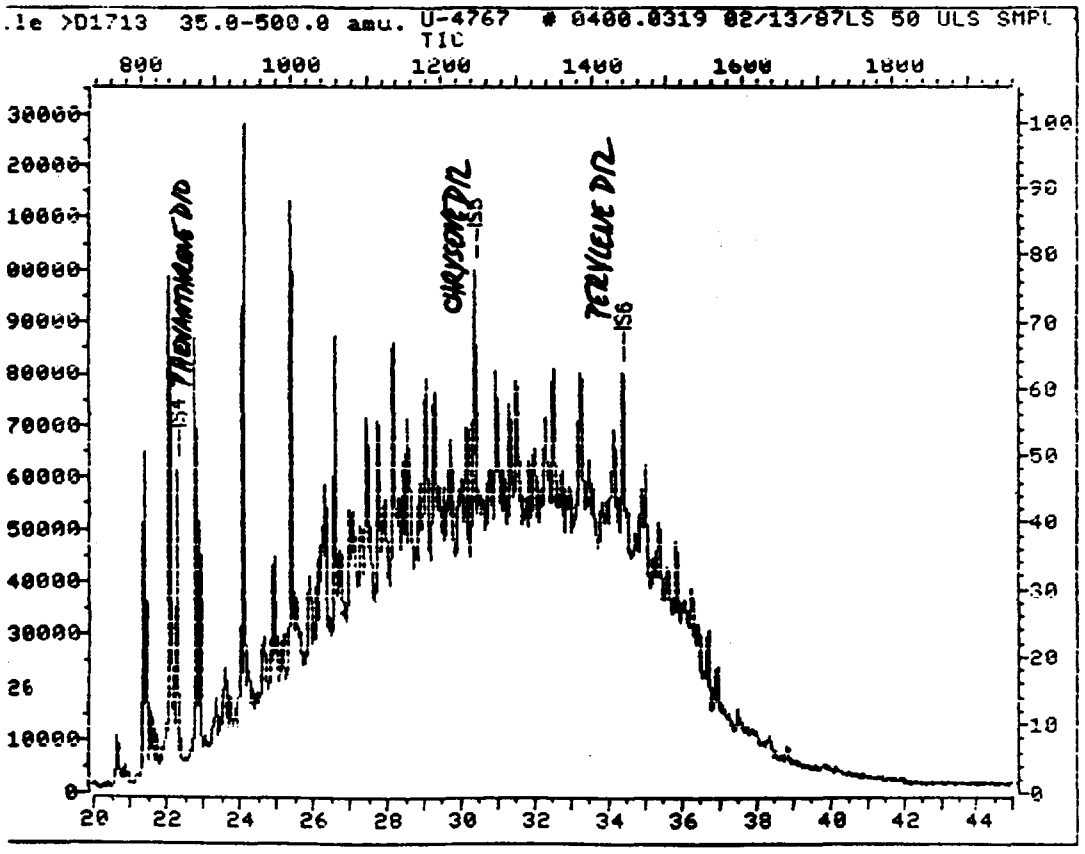


DC-G2-31



recycled paper

ecology and environment

QUANT REPORT

O, ·ator ID: USER6 Quant Rev: 4 Quant Time: 870214 01:00
Output File: ^D1713::Q2 Injected at: 870214 00:12
Data File: >D1713::D3 Dilution Factor: 20.00
Name: U-4767 # 0400.0319 DC-G2-31
Misc: 02/13/87LS 50 ULS SMPL + 950 ULS MECL2 + 10 UL IS BTL# 5

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

FINAL VOLUME - 10.0 ml

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.75	186	29446	40.00 UG/L	89
19)	*NAPHTHALENE-D8	(IS)	136	12.54	372	103409	40.00 UG/L	100
29)	NAPHTHALENE		128	12.60	375	1382	11.47 UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	17.87	634	44302	40.00 UG/L	96
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.87~~	~~634~~	~~8518~~	~~147.44 UG/L~~	
~~62)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.87~~	~~634~~	~~5558~~	~~442.78 UG/L~~	
55)	*PHENANTHRENE-D10	(IS)	188	22.28	850	53208	40.00 UG/L	95
59)	HEXACHLOROBENZENE		284	21.40	807	1547	65.70 UG/L	77
60)	PENTACHLOROPHENOL		266	22.07	840	29462	2350.05 UG/L	100
65)	*CHRYSENE-D12	(IS)	240	30.35	1245	37389	40.00 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.38	1442	34836	40.00 UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.26~~	~~1387~~	~~1236~~	~~22.12 UG/L~~	
~~76)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.56~~	~~1402~~	~~1260~~	~~22.55 UG/L~~	

* Compound is ISTD

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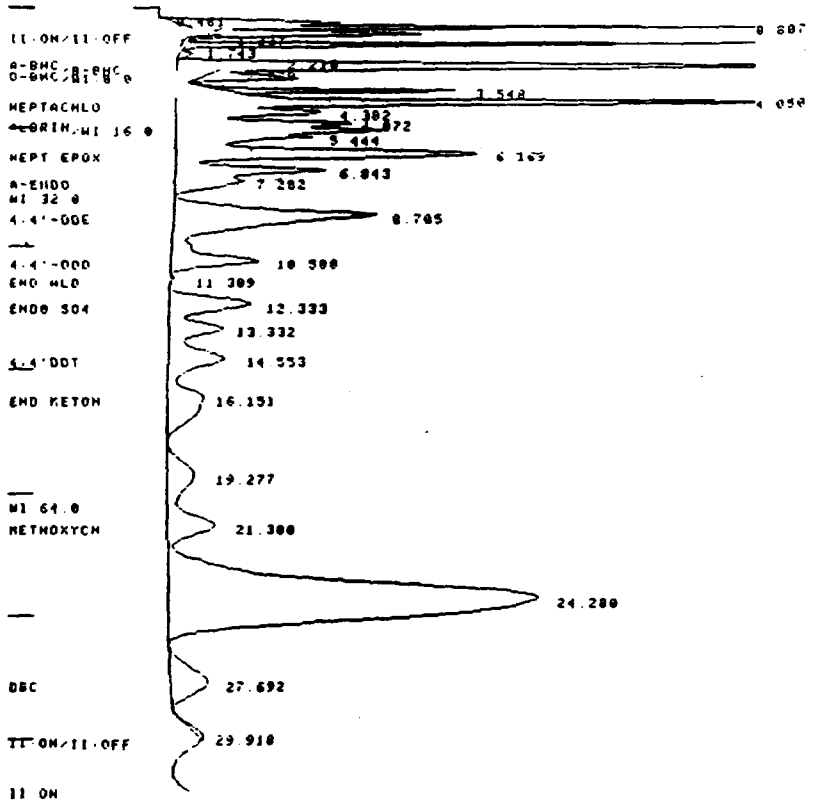
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-G2-31

CHANNEL: 1A - 1 TITLE: RUN# 23 9:55 23 JAN 87

SAMPLE: 0400.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG wet	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.500		1120651	VV		4.38
2	A-BHC	162.9293	2.218	-0.012	78309	VV	?	5.94
3	B-BHC	67256.52	2.426	0.056	10061401	VV		6.69
4	D-BHC	135.9831	2.778	0.108	53127	T	?	9.44
5		0.0000	2.938		58749	T	?	9.63
6		0.0000	3.052		97773	T	?	10.31
7		0.0000	3.548		255267	T		9.63
8	HEPTACHLO	2828.764	4.050	-0.050	965623	VV		10.13
9		0.0000	4.382		354483	VV	?	22.19
10		0.0000	4.872		326191	VV	?	14.81
11	ALDRIN	996.7983	5.187	0.137	400753	VV	?	21.69
12		0.0000	5.444		289027	VV	?	25.19
13	HEPT EPOX	2285.875	6.169	0.059	693575	VV		22.94
14		0.0000	6.843		366998	VV		18.75
15	A-ENDO	630.3549	7.202	-0.276	224034	VB	?	39.44
*16	4,4'-DDE	2905.471/1.99	8.705	0.015	1050743	BV		37.25
17	4,4'-DDD	1146.903	10.500	-0.292	361777	VV		25.75
18	ENDO SO4	1413.856	12.333	-0.427	370077	VV		36.00
19		0.0000	13.332		242415	VV		34.38
20	4,4'DDT	1562.959	14.553	0.373	346086	VV		44.13
21	END KETON	950.3611	16.151	-0.169	358250	VV		82.44
22		0.0000	19.277		263045	VV		82.63
23	METHOXYCH	2505.411	21.300	0.510	318783	VV		53.19
24		0.0000	24.200		4531006	VV		96.19
25	DBC	1139.260	27.692	-0.638	326699	VV		78.00

TOTALS: 86020.65 -0.608 23705898

DETECTED PKS: 39 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 100000.000

NOISE: 11.4 OFFSET: 19

NOTES:
NOTEBOOK:259-83 ANALYST:P. BRUTSCHER
SECURE AREA: D JOB # U-47867
INST:VARIAN 6000X2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PRIMARY ANALYSIS

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SAMPLE NUMBER DC-42-16

481095

178

Sample Number
DC-H2-16

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727

Lab Sample ID No: 0097 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 1-8-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-14-87

Conc./Dil Factor: 7 pH 7.5

Percent Moisture: (Not Decanted) 34

Concentration in µg/kg as received

CAS Number		ug/l or ug/Kg (Circle One)	CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	7000U	78-87-5	1, 2-Dichloropropane	3500U
74-83-9	Bromomethane	7000U	10061-02-6	Trans-1, 3-Dichloropropene	3500U
75-01-4	Vinyl Chloride	7000U	79-01-6	Trichloroethene	3500U
75-00-3	Chloroethane	7000U	124-48-1	Dibromochloromethane	3500U
75-09-2	Methylene Chloride	8700B	79-00-5	1, 1, 2-Trichloroethane	3500U
67-64-1	Acetone	14000B	71-43-2	Benzene	15000
75-15-0	Carbon Disulfide	3500U	10061-01-5	cis-1, 3-Dichloropropene	3500U
75-35-4	1, 1-Dichloroethene	3500U	110-75-8	2-Chloroethylvinylether	7000U
75-34-3	1, 1-Dichloroethane	3500U	75-25-2	Bromoform	3500U
156-60-5	Trans-1, 2-Dichloroethene	3500U	108-10-1	4-Methyl-2-Pentanone	5200J
67-66-3	Chloroform	3500U	591-78-6	2-Hexanone	7000U
107-06-2	1, 2-Dichloroethane	3500U	127-18-4	Tetrachloroethene	3500U
78-93-3	2-Butanone	18000B	79-34-5	1, 1, 2, 2-Tetrachloroethane	3500U
71-55-6	1, 1, 1-Trichloroethane	3500U	108-88-3	Toluene	7400
56-23-5	Carbon Tetrachloride	3500U	108-90-7	Chlorobenzene	80000
108-05-4	Vinyl Acetate	7000U	100-41-4	Ethylbenzene	2900J
75-27-4	Bromodichloromethane	3500U	100-42-5	Styrene	3500U
				Total Xylenes	1000J

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4727

Sample Number DC-H2-16

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-21-87

Conc/Dil Factor: 250

Percent Moisture (Decanted) 34

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	41000 u
111-44-4	bis(-2-Chloroethyl)Ether	41000 u
95-57-8	2-Chlorophenol	41000 u
541-73-1	1 3-Dichlorobenzene	8800 J
106-46-7	1. 4-Dichlorobenzene	590000
100-51-6	Benzyl Alcohol	41000u
95-50-1	1. 2-Dichlorobenzene	60000
95-48-7	2-Methylphenol	41000u
39638-32-9	bis(2-chloroisopropyl)Ether	41000 u
106-44-5	4-Methylphenol	41000u
621-64-7	N-Nitroso-Di-n-Propylamine	41000u
67-72-1	Hexachloroethane	41000u
98-95-3	Nitrobenzene	41000u
78-59-1	Isophorone	41000u
88-75-5	2-Nitrophenol	41000u
105-67-9	2. 4-Dimethylphenol	41000u
65-85-0	Benzoic Acid	200000u
111-91-1	bis(-2-Chloroethoxy)Methane	41000u
120-83-2	2. 4-Dichlorophenol	41000u
120-82-1	1. 2. 4-Trichlorobenzene	140000
91-20-3	Naphthalene	1500000
106-47-8	4-Chloroaniline	41000u
87-68-3	Hexachlorobutadiene	41000u
59-50-7	4-Chloro-3-Methylphenol	41000u
91-57-6	2-Methylnaphthalene	230000
77-47-4	Hexachlorocyclopentadiene	41000u
88-06-2	2 4. 6-Trichlorophenol	41000u
95-95-4	2. 4. 5-Trichlorophenol	200 000 u
91-58-7	2-Chloronaphthalene	41000u
88-74-4	2-Nitroaniline	200 000 u
[illegible]-11-3	Dimethyl Phthalate	41000u
[illegible]-96-8	Acenaphthylene	41000u
99-09-2	3-Nitroaniline	200000 u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	250 000
51-28-5	2. 4-Dinitrophenol	200000u
100-02-7	4-Nitrophenol	200000u
132-64-9	Dibenzofuran	400 000
121-14-2	2 4-Dinitrotoluene	41000u
606-20-2	2. 6-Dinitrotoluene	41000u
84-66-2	Diethylphthalate	41000u
7005-72-3	4-Chlorophenyl-phenylether	41000u
86-73-7	Fluorene	320000
100-01-6	4-Nitroaniline	200000u
534-52-1	4. 6-Dinitro-2-Methylphenol	200000u
86-30-6	N-Nitrosodiphenylamine (1)	41000u
101-55-3	4-Bromophenyl-phenylether	41000u
118-74-1	Hexachlorobenzene	41000u
87-86-5	Pentachlorophenol	200000u
85-01-8	Phenanthrene	1400000
120-12-7	Anthracene	450000
84-74-2	Di-n-Butylphthalate	17000 JB
206-44-0	Fluoranthene	880000
129-00-0	Pyrene	440000
85-68-7	Butylbenzylphthalate	41000u
91-94-1	3. 3'-Dichlorobenzidine	82000u
56-55-3	Benzo(a)Anthracene	250000
117-81-7	bis(2-Ethylhexyl)Phthalate	41000u
218-01-9	Chrysene	220000
117-84-0	Di-n-Octyl Phthalate	41000u
205-99-2	Benzo(b)Fluoranthene	140000
207-08-9	Benzo(k)Fluoranthene	41000u
50-32-8	Benzo(a)Pyrene	180000
193-39-5	Indeno(1 2. 3-cd)Pyrene	90000
53-70-3	Dibenz(a h)Anthracene	21000 J
191-24-2	Benzo(g h i)Perylene	75000

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4727

Sample Number
DC-H2-16

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-16-87

Conc/Dil Factor: 250

Percent Moisture (decanted) 34

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	2000 u
319-85-7	Beta-BHC	2000 u
319-86-8	Delta-BHC	2000 u
58-89-9	Gamma-BHC (Lindane)	2000 u
76-44-8	Heptachlor	2000 u
309-00-2	Aldrin	2000 u
1024-57-3	Heptachlor Epoxide	2000 u
959-98-8	Endosulfan I	2000 u
60-57-1	Dieldrin	4000 u
72-55-9	4, 4'-DDE	4000 u
72-20-8	Endrin	4000 u
33213-65-9	Endosulfan II	4000 u
72-54-8	4, 4'-DDD	4000 u
1031-07-8	Endosulfan Sulfate	4000 u
50-29-3	4, 4'-DDT	4000 u
72-43-5	Methoxychlor	20,000 u
53494-70-5	Endrin Ketone	4000 u
57-74-9	Chlordane	20,000 u
8001-35-2	Toxaphene	40,000 u
12674-11-2	Aroclor-1016	20,000 u
11104-28-2	Aroclor-1221	20,000 u
11141-16-5	Aroclor-1232	20,000 u
53469-21-9	Aroclor-1242	20,000 u
12672-29-6	Aroclor-1248	20,000 u
11097-69-1	Aroclor-1254	40,000 u
11096-82-5	Aroclor-1260	92,400

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Form 1

7/85
491095

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Laboratory Name Ecology & Environment, Inc

Case No U-4727

Sample Number
DC-H2-16

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.		Hexene isomer	VOA	17.3	10000 BJ
2.		Hexane isomer	VOA	21.3	32000 BJ
3.		Unknown hydrocarbon	VOA	27.0	2600 J
4.		Unknown hydrocarbon	VOA	28.3	2900 J
5.		Dichlorobenzene isomer	VOA	40.7	176,000 J
6.					
7.	90120	1-Methylnaphthalene	BNA	15.4	130000 J
8.	634662	1,2,3,4-Tetrachlorobenzene		15.7	660000 J
9.	95943	1,2,4,5-Tetrachlorobenzene		16.5	1400000 J
10.	643583	2-Methyl-1,1'-Biphenyl		17.0	230000 J
11.		~~Unknown~~ cur		~~18.2~~ cur	
12.	83329	1,2-Dihydroacenaphthylene		18.3	240000 J
13.	101815	1,1'-Methylenebis benzene		18.4	120000 J
14.	539037	N-(4-chlorophenyl)-Acetamide		20.1	140000 J
15.	62442	Phenacetin		21.8	260000 J
16.	486259	9H-Fluoren-9-one		22.1	130000 J
17.	120514	Benzoic acid, phenylmethyl ester		22.6	370000 J
18.	10544500	Molecular Sulfur		25.9	170000 J
19.					
20.					
21.					
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24.					
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26.					
27.					
28.					
29.					
30					

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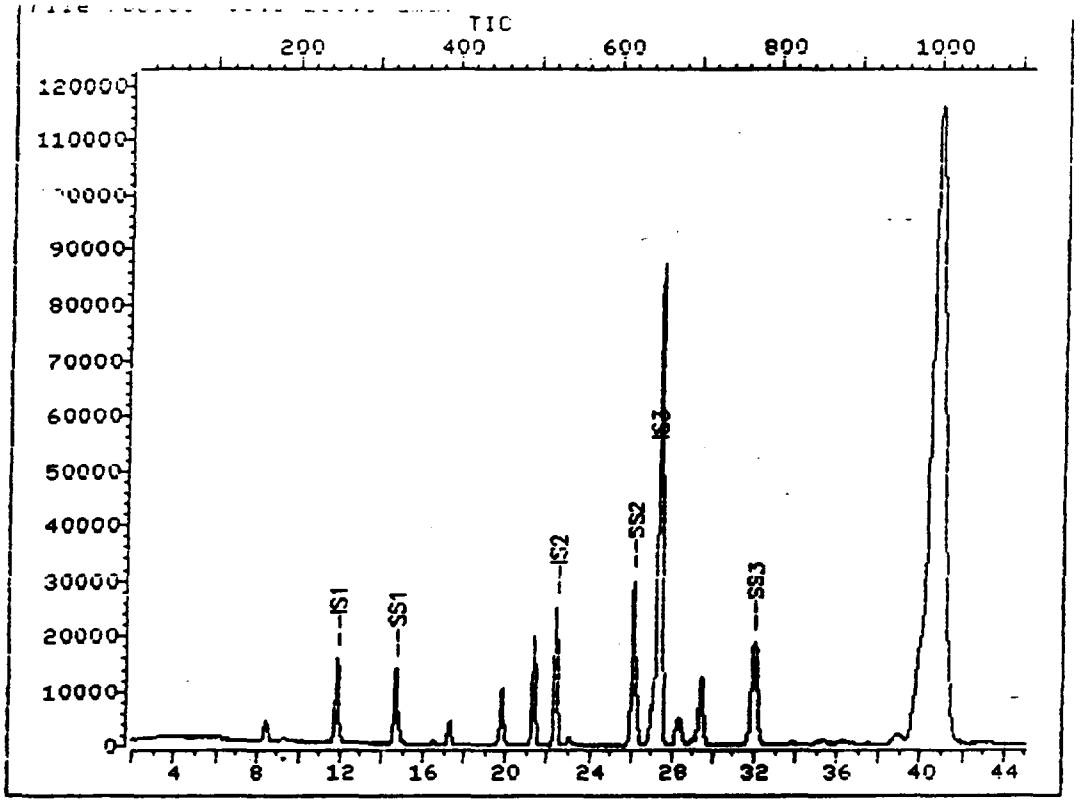

Data File: >C6385::D3
Name: DEAD CREEK #0097.01 DC-H2-16
Misc: 01-14-87MEI 50UL EXT./5MLS DI (1.22G/10MLS) + 10UL IS/

Id File: VCI27::D2
Title: IF8
Last Calibration: 870114 17:51

Operator ID: USER8
Quant Time: 870114 19:23
Injected at: 870114 18:23

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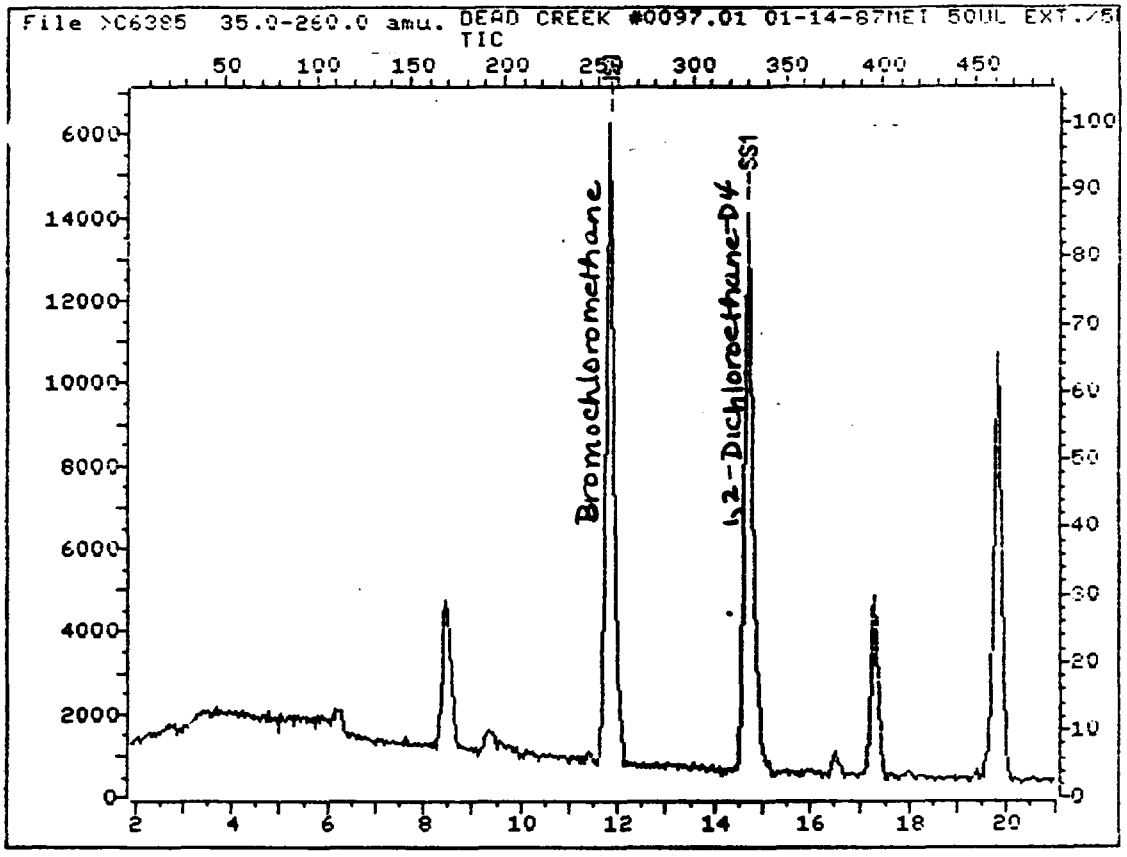
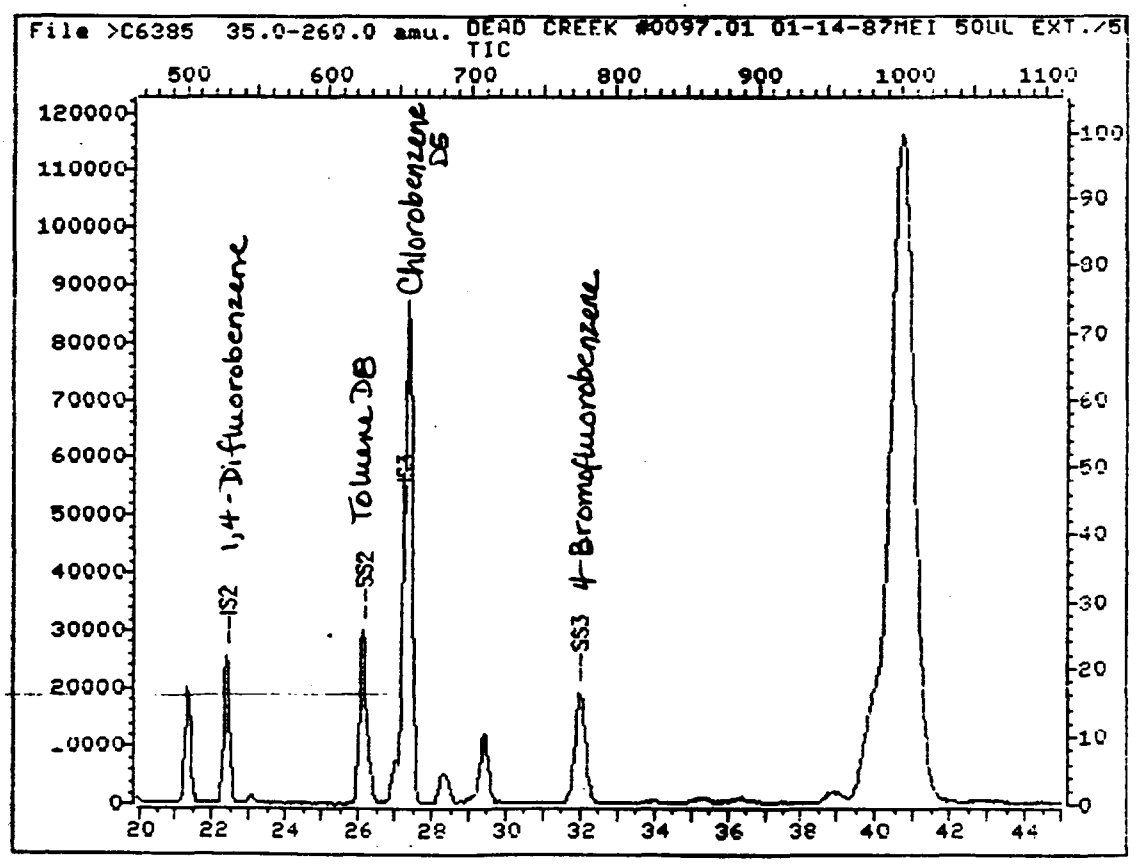
DC-H2-16





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perator ID: USER8 Quant Rev: 4 Quant Time: 870114 19:23
utput File: ^C6385::Q2 Injected at: 870114 18:23
ata File: >C6385::D3 Dilution Factor: 1.00
ame: DEAD CREEK #0097.01 DC-H2-16
isc: 01-14-87MEI 50UL EXT./5MLS DI (1.22G/10MLS) + 10UL IS/

) File: VCI27::D2
itle: IFB
ast Calibration: 870114 17:51

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.83	256	22869	50.00	UG/L	100
5)	METHYLENE CHLORIDE	84	8.46	169	10513	10.63	UG/L	100
7)	ACETONE	43	9.35	192	6516	16.92	UG/L	100
5)	1,2-DICHLOROETHANE-D4(SURR)	65	14.67	329	66799	43.23	UG/L	79
6)	*1,4-DIFLUOROBENZENE (IS)	114	22.39	528	99481	50.00	UG/L	100
17)	2-BUTANONE	72	14.82	333	2526	22.07	UG/L	100
17)	~~2-BUTANONE~~	~~72~~	~~15.01~~	~~338~~	~~179~~	~~1.56~~	~~UG/L~~ no w/	100
27)	BENZENE	78	19.83	462	45123	18.09	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.24	653	86270	50.00	UG/L	100
32)	4-METHYL-2-PENTANONE	43	23.09	546	5992	6.37	UG/L	93
76)	TOLUENE-D8 (SURR)	98	26.11	624	114556	44.90	UG/L	93
7)	TOLUENE	92	26.31	629	16271	8.97	UG/L	92
3)	CHLOROBENZENE	112	27.40	657	232142	97.85	UG/L	97
9)	ETHYLBENZENE	91	29.42	709	14961	3.51	UG/L	86
1)	4-BROMOFLUOROBENZENE(SURR)	95	31.98	775	70594	45.17	UG/L	100
2)	TOTAL XYLENES	91	35.08	855	3459	.73	UG/L	100
2)	TOTAL XYLENES	91	36.71	897	2430	.51	UG/L	100

* Compound is ISTD

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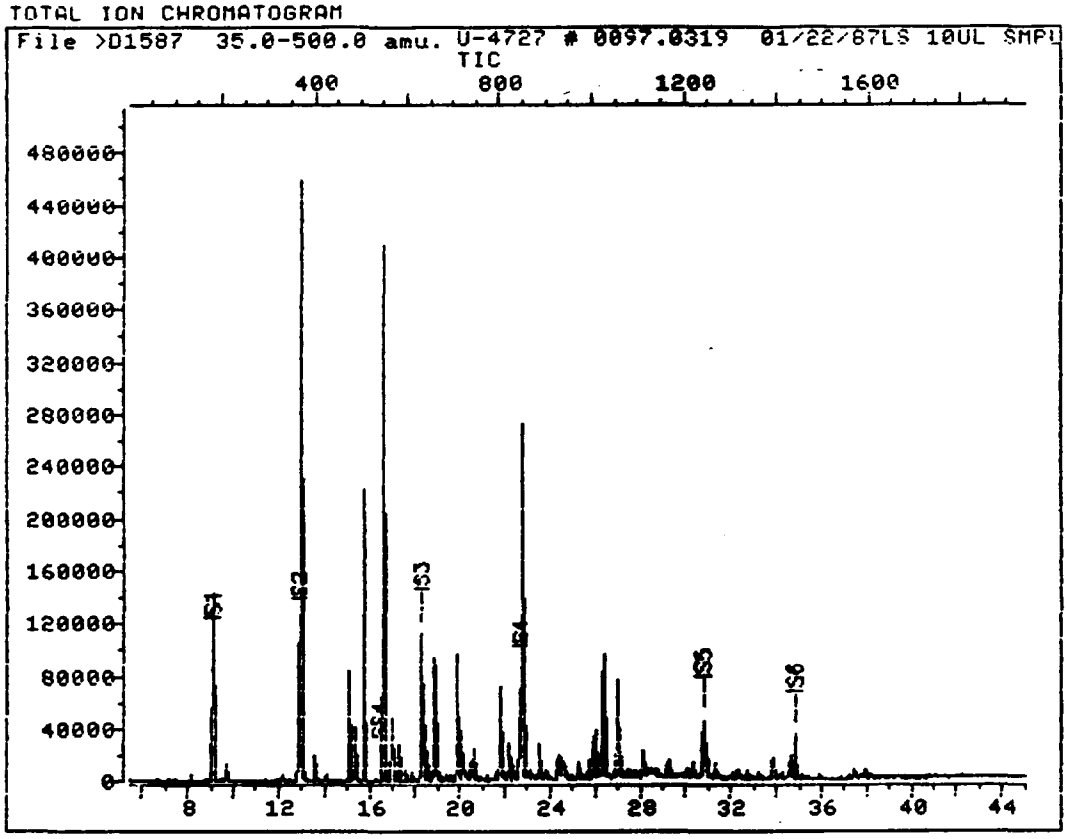
TOTAL ION CHROMATOGRAM



Data File: >D1587::D3
Name: U-4727 # 0097.0319 DC-H2-16
Misc: 01/22/87LS 10UL SMPL + 490UL MECL2 + 5UL IS (50X) BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

Operator ID: USER6
Quant Time: 860122 22:35
Injected at: 860122 21:47

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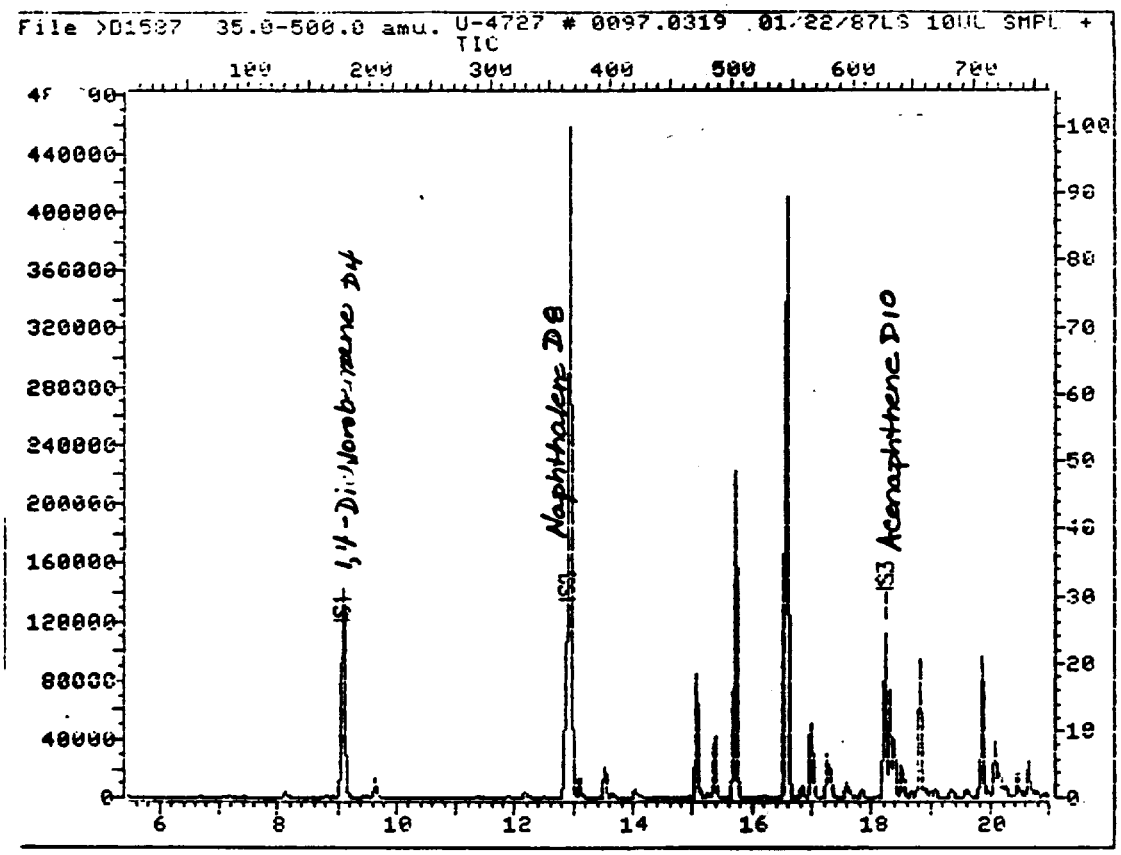
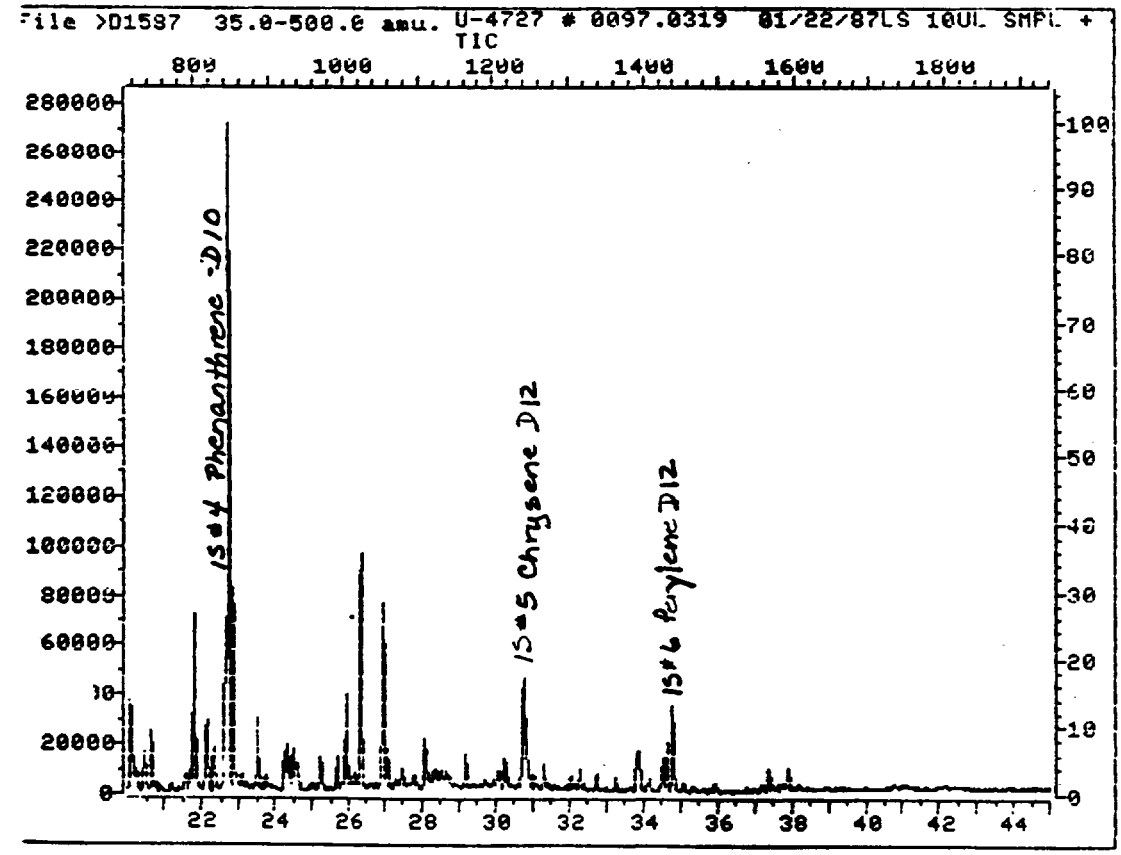
DC-H2-16





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 860122 22:35
Output File: ^D1587::Q2 Injected at: 860122 21:47
Data File: >D1587::D3 Dilution Factor: 50.00
Name: U-4727 # 0097.0319 DC-H2-16
Misc: 01/22/87LS 10UL SMPL + 490UL MECL2 + 5UL IS (50X) BTL# 4

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152 9.06	177	36410	40.00	UG/L	86
9)	1,3-DICHLOROBENZENE		146 8.94	171	1293	52.86	UG/L	98
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146 9.10~~	~~179~~	~~88976~~	~~3632.60~~	~~UG/L~~	~~99~~
~~10)~~	~~1,4-DICHLOROBENZENE~~		~~146 8.94~~	~~171~~	~~1293~~	~~51.11~~	~~UG/L~~	~~99~~
10)	1,4-DICHLOROBENZENE		146 9.10	179	88976	3517.38	UG/L	98
12)	1,2-DICHLOROBENZENE		146 9.65	206	9089	361.56	UG/L	98
19)	*NAPHTHALENE-D8	(IS)	136 12.87	364	139340	40.00	UG/L	100
28)	1,2,4-TRICHLOROBENZENE		180 12.83	362	20695	855.38	UG/L	100
29)	NAPHTHALENE		128 12.95	368	571811	9079.40	UG/L	101
~~30)~~	~~4-CHLOROANILINE~~		~~127 12.95~~	~~368~~	~~79382~~	~~1464.45~~	~~UG/L~~	
33)	2-METHYLNAPHTHALENE		142 15.07	472	57815	1376.50	UG/L	96
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142 15.37~~	~~487~~	~~38367~~	~~710.24~~	~~UG/L~~	
34)	*ACENAPHTHENE-D10	(IS)	162 18.23	627	58180	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172 16.41	538	574	10.94	UG/L	98
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163 18.23~~	~~627~~	~~10226~~	~~441.28~~	~~UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168 18.39~~	~~635~~	~~29870~~	~~924.87~~	~~UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168 18.51~~	~~641~~	~~11430~~	~~231.72~~	~~UG/L~~	~~100~~
43)	DIBENZOFURAN		168 18.82	656	117711	2386.38	UG/L	100
~~44)~~	~~ACENAPHTHYLENE~~		~~152 17.27~~	~~580~~	~~2192~~	~~32.33~~	~~UG/L~~	
44)	ACENAPHTHYLENE		152 17.74	603	1455	24.78	UG/L	91
45)	FLUORENE		166 19.86	707	62642	1904.10	UG/L	99
47)	ACENAPHTHENE		153 18.31	631	57703	1533.42	UG/L	96
~~47)~~	~~ACENAPHTHENE~~		~~153 18.51~~	~~641~~	~~7203~~	~~204.70~~	~~UG/L~~	
~~47)~~	~~ACENAPHTHENE~~		~~153 18.78~~	~~654~~	~~3572~~	~~94.92~~	~~UG/L~~	
~~50)~~	~~4-NITROPHENOL~~		~~139 19.02~~	~~666~~	~~201~~	~~43.01~~	~~UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139 19.17~~	~~673~~	~~404~~	~~86.45~~	~~UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139 19.33~~	~~681~~	~~611~~	~~130.74~~	~~UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139 19.67~~	~~698~~	~~219~~	~~46.86~~	~~UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139 19.86~~	~~707~~	~~5367~~	~~1148.45~~	~~UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165 18.23~~	~~627~~	~~2528~~	~~907.15~~	~~UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165 18.39~~	~~635~~	~~7033~~	~~847.50~~	~~UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165 18.51~~	~~641~~	~~3760~~	~~453.09~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188 22.65	844	72145	40.00	UG/L	95
~~57)~~	~~N-NITROSODIPHENYLAMINE~~		~~169 20.06~~	~~717~~	~~6545~~	~~322.08~~	~~UG/L~~	~~63~~
61)	PHENANTHRENE		178 22.71	847	284435	8184.53	UG/L	99
~~61)~~	~~PHENANTHRENE~~		~~178 22.84~~	~~853~~	~~87795~~	~~2526.27~~	~~UG/L~~	~~94~~
~~62)~~	~~ANTHRACENE~~		~~178 22.71~~	~~847~~	~~284435~~	~~8688.56~~	~~UG/L~~	~~99~~
62)	ANTHRACENE		178 22.84	853	87795	2681.85	UG/L	94
[illegible])	DI-N-BUTYLPHTHALATE		149 25.22	970	3184	101.01	UG/L	84
64)	FLUORANTHENE		202 26.34	1025	114726	5300.15	UG/L	96
65)	*CHRYSENE-D12	(IS)	240 30.75	1241	40513	40.00	UG/L	100
67)	PYRENE		202 26.96	1055	82865	2663.18	UG/L	94
~~67)~~	~~PYRENE~~		~~202 27.06~~	~~1060~~	~~1971~~	~~63.35~~	~~UG/L~~	~~21~~
71)	BENZO(A)ANTHRACENE		228 30.73	1240	31004	1512.36	UG/L	94
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228 30.83~~	~~1245~~	~~27015~~	~~1317.78~~	~~UG/L~~	~~92~~

DC-H2-16

	Compound		R.T.	Scan#	Area	Conc	Units	q
~~73)~~	~~CHRYSENE~~	~~228~~	~~30.73~~	~~1240~~	~~31884~~	~~1522.93~~	~~UG/L~~	~~93~~ Cu
73)	CHRYSENE	228	30.83	1245	27015	1326.99	UG/L yes	94
~~73)~~	~~CHRYSENE~~	~~228~~	~~31.04~~	~~1255~~	~~2696~~	~~132.43~~	~~UG/L~~	~~5~~ Cu
74)	*PERYLENE-D12 (IS)	264	34.81	1440	38828	40.00	UG/L	100
76)	BENZO(B)FLUORANTHENE	252	33.85	1393	22506	860.38	UG/L yes	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~	~~252~~	~~34.12~~	~~1406~~	~~4574~~	~~174.86~~	~~UG/L~~	~~100~~ Cu
~~77)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~33.85~~	~~1393~~	~~22506~~	~~1176.82~~	~~UG/L~~	~~100~~
~~77)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.12~~	~~1406~~	~~4574~~	~~239.17~~	~~UG/L~~	~~100~~
~~78)~~	~~BENZO(A)PYRENE~~	~~252~~	~~34.52~~	~~1426~~	~~12224~~	~~602.47~~	~~UG/L~~	~~100~~
78)	BENZO(A)PYRENE	252	34.65	1432	21691	1069.06	UG/L yes	100
~~78)~~	~~BENZO(A)PYRENE~~	~~252~~	~~34.87~~	~~1443~~	~~6074~~	~~299.36~~	~~UG/L~~	~~100~~ Cu
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~37.19~~	~~1557~~	~~2494~~	~~116.27~~	~~UG/L~~	~~100~~
79)	INDENO(1,2,3-CD)PYRENE	276	37.38	1566	11523	537.19	UG/L yes	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.21~~	~~1558~~	~~2415~~	~~124.07~~	~~UG/L~~	~~100~~ Cu
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.40~~	~~1567~~	~~1994~~	~~78.81~~	~~UG/L~~	~~100~~
80)	DIBENZ(A,H)ANTHRACENE	278	37.48	1571	2522	129.57	UG/L yes	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.70~~	~~1582~~	~~3108~~	~~159.67~~	~~UG/L~~	~~100~~ Cu
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.77~~	~~1585~~	~~2791~~	~~143.39~~	~~UG/L~~	~~100~~
81)	BENZO(G,H,I)PERYLENE	276	37.91	1592	9976	453.25	UG/L yes	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.21~~	~~1607~~	~~3569~~	~~162.18~~	~~UG/L~~	~~100~~ Cu

* Compound is ISTD

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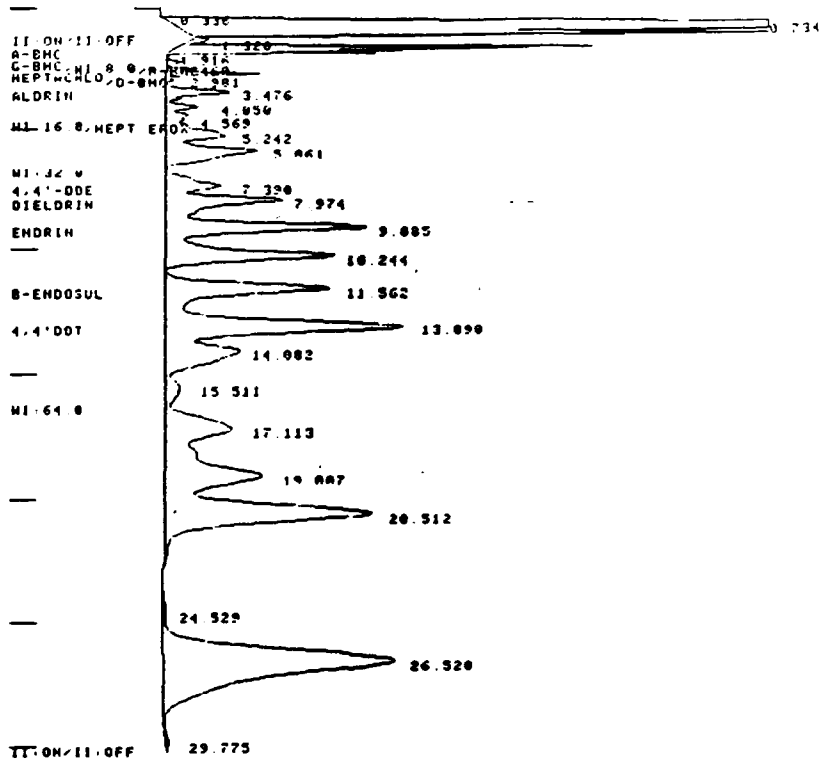

RECALCULATE ON FILE: R.ST.065

CHANNEL: 1B - 1 TITLE: RUN# 7 14:20 20 JAN 87

SAMPLE: 0097.01.19A1 METHOD: PEPA CALCULATION: ES - ANALYS

DC- H2-16

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.489		494928	VV		4.25
2	~~A-BHC~~	2908.069	1.654	-0.126	705921	VB		4.44
3	~~G-BHC~~	145.7666	2.104	-0.146	29808	VB		7.25
4	~~B-BHC~~	933.0611	2.460	-0.100	76771	BV	?	8.50
5	~~HEPTACHLO~~	948.1844	2.703	-0.067	183042	VV		7.38
6	~~ALDRIN~~	1042.480	3.476	0.136	231499	VV		14.31
7		0.0000	3.730		30355	VV	?	9.50
8		0.0000	4.050		91319	VV		10.69
9		0.0000	4.354		62980	VV	?	12.44
10		0.0000	4.569		49800	VV	?	18.44
11	~~HEPT EPOX~~	252.4484	4.850	-0.160	49942	VV	?	19.63
12		0.0000	5.242		355445	VV		24.69
13		0.0000	5.861		659850	VV		27.06
14	~~4,4'-DDE~~	2139.008	7.390	0.150	385595	VV		26.63
15	~~DIELDRIN~~	3993.722	7.974	0.284	779768	VV		22.25
16	~~ENDRIN~~	8857.854	9.005	-0.225	1234627	VV		23.19
17		0.0000	10.244		1183801	VV		24.68
18	~~B-ENDOSUL~~	6881.539	11.562	0.262	1234558	VV		26.54
19	~~4,4'DDT~~	18791.95	13.090	-0.270	2045682	VV		32.56
20		0.0000	14.002		864236	VV		50.31
21	~~ENG. ACD.~~	1249.874	15.511	0.681	166066	VV		52.68
22	~~ENDO-SOL~~	12073.36	17.113	-0.777	881232	VV		53.85
23		0.0000	19.007		1469381	VV		52.44
24		0.0000	20.512		2528667	VB		45.54
25	~~DDE~~	271.6707	24.529	0.879	37159	BV	?	76.69
26	~~METHOXYCH~~	79755.10	26.520	0.930	4359074	VV		68.50

TOTALS: 140244.9 1.451 20191506

DETECTED PKS: 38 REJECTED PKS: 12

DIVISOR: 1.50000 MULTIPLIER: 250000.000

NOISE: 34.3 OFFSET: -7

RACK: 1 VIAL: 7 INJ: 1

NOTES:
NOTEBOOK:259-82 ANALYST:K. JUREK
SECURE AREA: O JOB# U-4727,4730
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C

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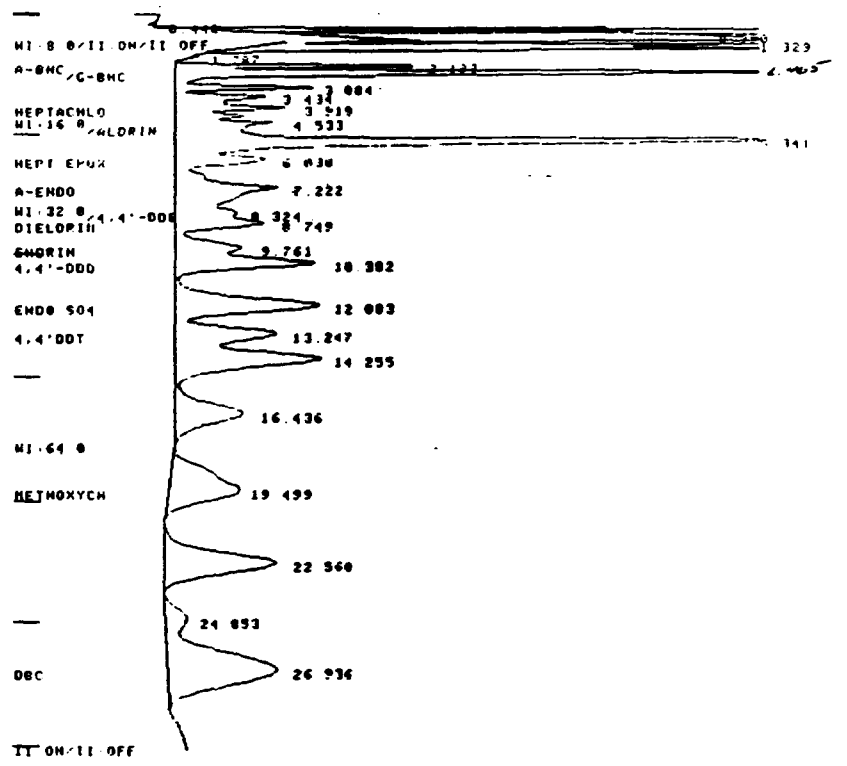
ATTEN: 8 ZERO: 101 5 MIN/TICK



PCB 1260 = 4631 × 0.00116 × 1/0.9885 = 254,000 = 146,000 ug/Kg Dry

DC-H2-16

CHANNEL: 1A - 1 TITLE: RUN# 27 11:28 16 JAN 87

SAMPLE: 0097.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.329		353191	BV	4.25
2		0.0000	1.481		1040776	VB	4.94
3	A-BHC	1349.314	2.103	0.013	214394	BV	5.81
4	G-BHC	12859.63	2.465	-0.055	1778117	VV	7.13
5		0.0000	3.084		167628	VV	8.44
6		0.0000	3.434		162598	VV	? 10.50
7		0.0000	3.705		41644	VV	? 6.69
8	HEPTACHLO	1283.781	3.918	-0.052	171456	VV	12.94
9		0.0000	4.215		106412	VV	? 14.69
10		0.0000	4.533		185502	VV	? 16.75
11	ALDRIN	575.7552	4.699	-0.191	82209	VV	?
12		0.0000	5.341		2107168	VV	12.88
13	HEPT EPOX	2084.488	6.038	0.118	278844	VV	26.44
14	A-ENDO	4643.662	7.222	-0.098	587492	VV	46.81
15	4,4'-DDE	1417.671	8.324	-0.076	181796	VV	? 38.94
16	DIELDRIN	2147.718	8.749	0.239	292228	VV	? 31.13
17	B-ENDO	1950.594	9.761	0.101	240777	VV	? 33.56
18	4,4'-DDD	4607.194	10.382	PCB 0.138	508161	VV	29.39
19	ENDO SO4	7418.347	12.083	PCB 0.257	709254	VV	37.50
20	4,4'DDT	4919.206	13.247	-0.473	477331	VV	38.94
21		0.0000	14.255		786002	VV	42.13
22	ENDO KETON	3541.520	16.436	0.646	461514	VB	50.88
23	METHOXYCH	12819.46	19.499	-0.601	561320	BV	76.56
24		0.0000	22.560	SA 468	337340	VV	56.44
25		0.0000	24.053		146509	VV	? 60.00
26	DBC	11398.15	26.936	-0.444	1178728	VB	89.13

TOTALS: 73016.50 -1.268 13748391

DETECTED PKS: 32 REJECTED PKS: 6

DIVISOR: 1.50000 MULTIPLIER: 250000.000

NOISE: 34.3 OFFSET: -6

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

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SAMPLE NUMBER DC-H3-17

481095

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Sample Number
DC-H3-17

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727
Lab Sample ID No: 0098 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Zoytowicz Date Sample Received: 1-8-87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 1-15-87
Conc/Dil Factor: 2 pH 3.4
Percent Moisture: (Not Decanted) 22

Concentration in µg/kg as received

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	41 B
67-64-1	Acetone	360 B
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	150
107-06-2	1, 2-Dichloroethane	9 J
78-93-3	2-Butanone	20u
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	8 J
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	200
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	710 E
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	380
108-90-7	Chlorobenzene	240
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4727

Sample Number DC-H3-17

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed 1-15-87

Conc/Dil Factor 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1. 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1. 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2. 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1100J
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2. 4-Dichlorophenol	230J
120-82-1	1. 2. 4-Trichlorobenzene	330u
91-20-3	Naphthalene	220J
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2 4. 6-Trichlorophenol	330u
95-95-4	2. 4. 5-Trichlorophenol	1700u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1700u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1700u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2. 4-Dinitrophenol	1700u
100-02-7	4-Nitrophenol	1700u
132-64-9	Dibenzofuran	160J
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2. 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1700u
534-52-1	4. 6-Dinitro-2-Methylphenol	1700u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1700u
85-01-8	Phenanthrene	200J
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	900 B
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3. 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1 2. 3-cd)Pyrene	330u
53-70-3	Dibenz(a h)Anthracene	330u
191-24-2	Benzo(g h i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4727

Sample Number
DC-H3-17

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed 1-15-87

Conc/Dil Factor 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8u
319-85-7	Beta-BHC	8u
319-86-8	Delta-BHC	8u
58-89-9	Gamma-BHC (Lindane)	8u
76-44-8	Heptachlor	8u
309-00-2	Aldrin	8u
1024-57-3	Heptachlor Epoxide	8u
959-98-8	Endosulfan I	8u
60-57-1	Dieldrin	16u
72-55-9	4,4'-DDE	16u
72-20-8	Endrin	16u
33213-65-9	Endosulfan II	16u
72-54-8	4,4'-DDD	16u
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4,4'-DDT	16u
72-43-5	Methoxychlor	80u
53494-70-5	Endrin Ketone	16u
57-74-9	Chlordane	80u
8001-35-2	Toxaphene	160u
12674-11-2	Aroclor-1016	80u
11104-28-2	Aroclor-1221	80u
11141-16-5	Aroclor-1232	80u
53469-21-9	Aroclor-1242	80u
12672-29-6	Aroclor-1248	80u
11097-69-1	Aroclor-1254	160u
11096-82-5	Aroclor-1260	160u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc

Case No 11-4727

Sample Number DC-H3-17

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction V	RT or Scan Number min	Estimated Concentration (ug/kg)
1.	Hexene isomer	VOA	17.3	31 BJ
2.	Hexane isomer	VOA	21.3	90 BJ
3. 79925	Bicyclo [2.2.1] heptane, 2,2-dimethyl-3-methylene-	VOA	28.2	13 J
4.				
5.	Dichlorobenzene isomer	VOA	39.7	5 BJ
6.	Dichlorobenzene isomer	VOA	40.6	31 J
7.				
8.	Tetrachlorobenzene isomer	BNA	15.7	300 J
9.	Tetrachlorobenzene isomer	↓	16.5	630 J
10. 10544500	Molecular Sulfur	↓	26.0	1100 J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
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19.				
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29.				
30				

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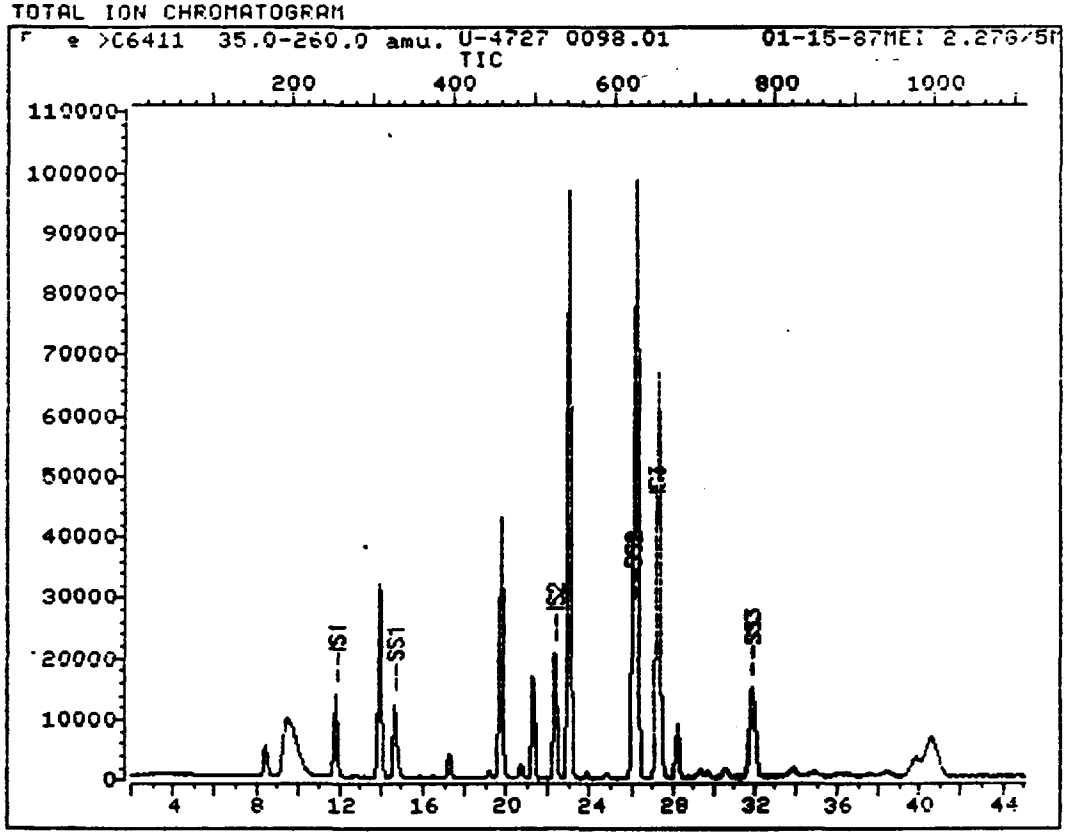
TOTAL ION CHROMATOGRAM



Data File: >C6411::D3
Name: U-4727 0098.01 DC-H3-17
Misc: 01-15-87MEI 2.27G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870115 21:16
Injected at: 870115 20:30

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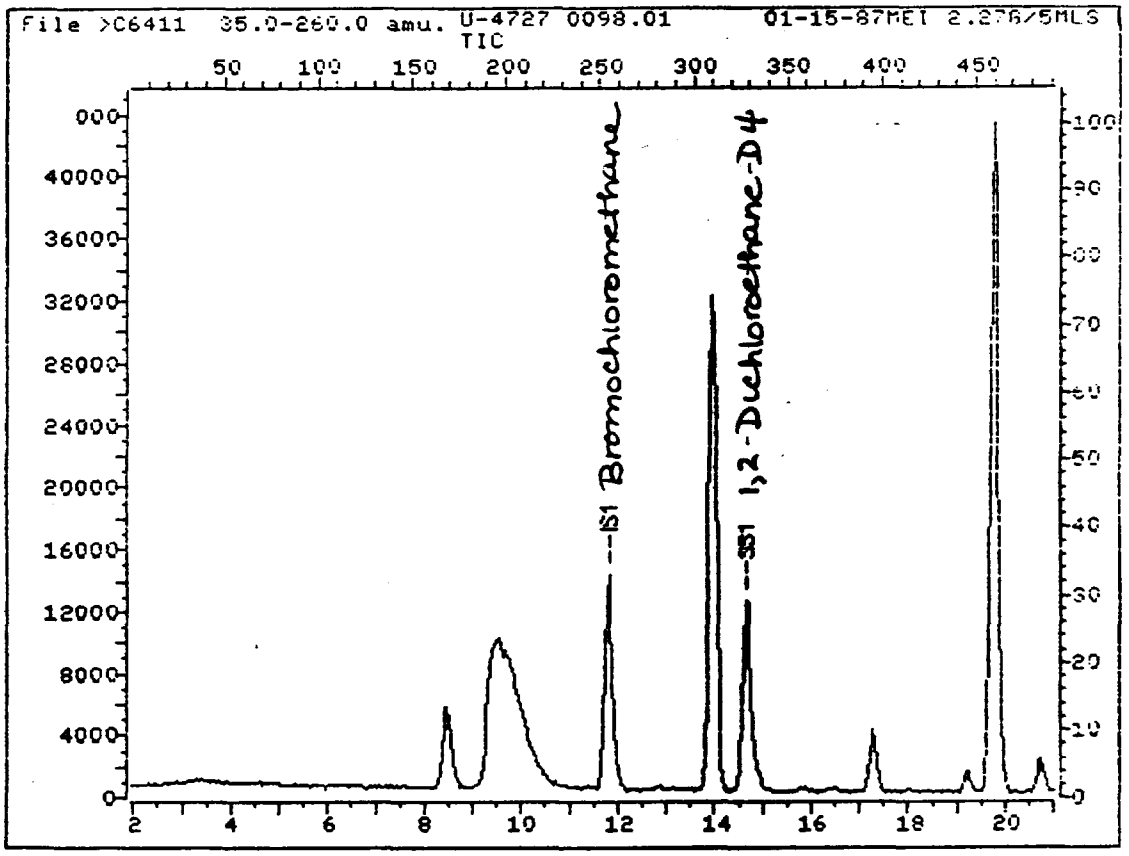
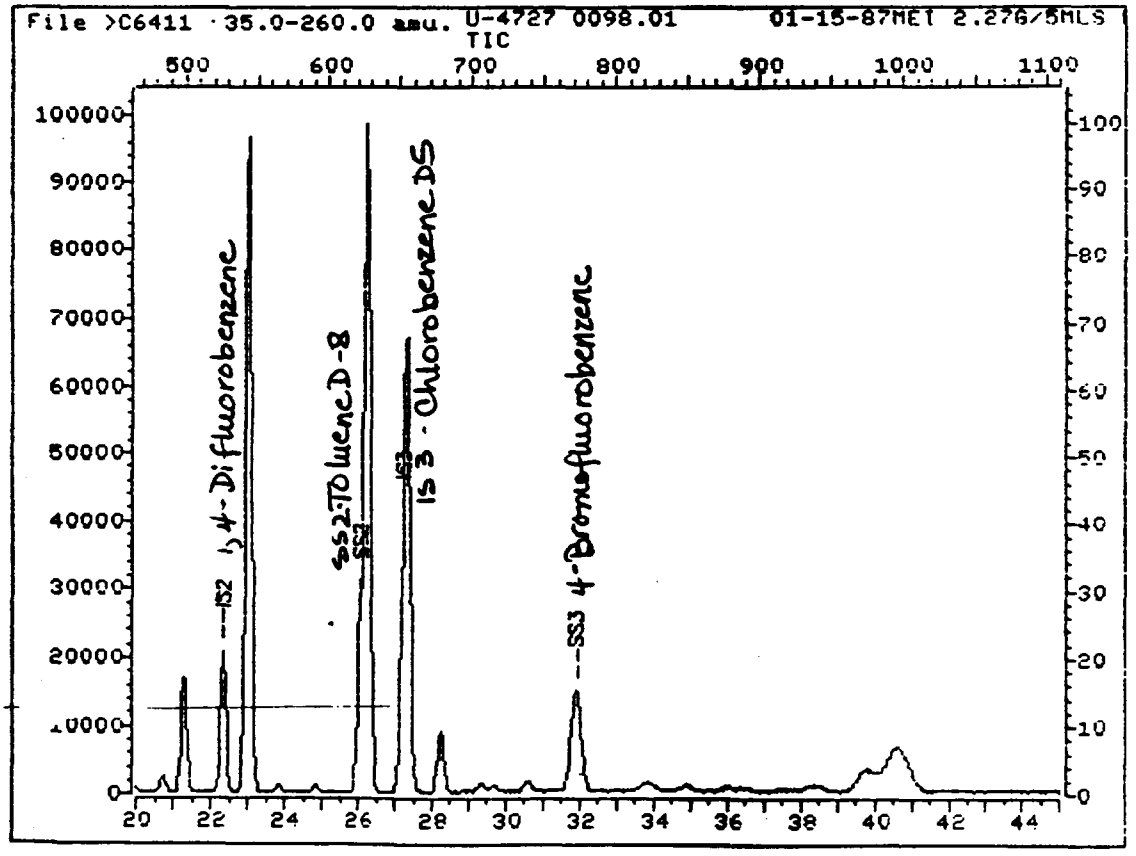
DC-H3-17





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QUANT REPORT

ɔe tor ID: MANAGER Quant Rev: 4 Quant Time: 870115 21:16
ɹtput File: ^C6411::Q2 Injected at: 870115 20:30
ɜta File: >C6411::D3 Dilution Factor: 1.00
ɜme: U-4727 0098.01 DC-H3-17
isc: 01-15-87MEI 2.27G/5MLS DI + 10UL IS/SS

) File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ɜst Calibration: 870115 19:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.81	255	19238	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.43	168	14442	93.92	NGS	100
7)	ACETONE	43	9.48	195	109492	806.67	NGS	100
13)	CHLOROFORM	83	13.94	310	89166	331.28	NGS	100
14)	1,2-DICHLOROETHANE	62	14.76	331	4808	19.30	NGS	89
5)	1,2-DICHLOROETHANE-D4(SURR)	65	14.64	328	52512	265.47	NGS	82
5)	*1,4-DIFLUOROBENZENE (IS)	114	22.32	526	85823	250.00	NGS	100
4)	TRICHLOROETHENE	130	19.22	446	2497	17.64	NGS	78
7)	BENZENE	78	19.76	460	182383	444.65	NGS	100
~~1)~~	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.76~~	~~460~~	~~3735~~	~~23.71~~	~~NGS~~ no CW	100
1)	*CHLOROBENZENE-D5 (IS)	117	27.21	652	65723	250.00	NGS	100
2)	4-METHYL-2-PENTANONE	43	23.02	544	417769	1606.33	NGS	93
~~5)~~	~~2-HEXANONE~~	~~43~~	~~23.88~~	~~566~~	~~2469~~	~~11.89~~	~~NGS~~ no CW	100
5)	TOLUENE-D8 (SURR)	98	26.05	622	96716	251.60	NGS	95
7)	TOLUENE	92	26.24	627	234086	866.64	NGS	94
3)	CHLOROBENZENE	112	27.34	655	185705	541.20	NGS	99
1)	4-BROMOFLUOROBENZENE(SURR)	95	31.88	772	47490	229.30	NGS	100
5)	~~1,3-DICHLOROBENZENE~~	146	39.83	977	25097	25097.00	NO CALIB	100
4)	1,2-DICHLOROBENZENE		39.83	977	25097	25097.00	NO CALIB	100
5)	1,4-DICHLOROBENZENE	146	39.83	977	25097	25097.00	NO CALIB	100
5)	1,4-DICHLOROBENZENE	146	40.49	994	50157	50157.00	NO CALIB	100

CW

+ Compound is ISTD

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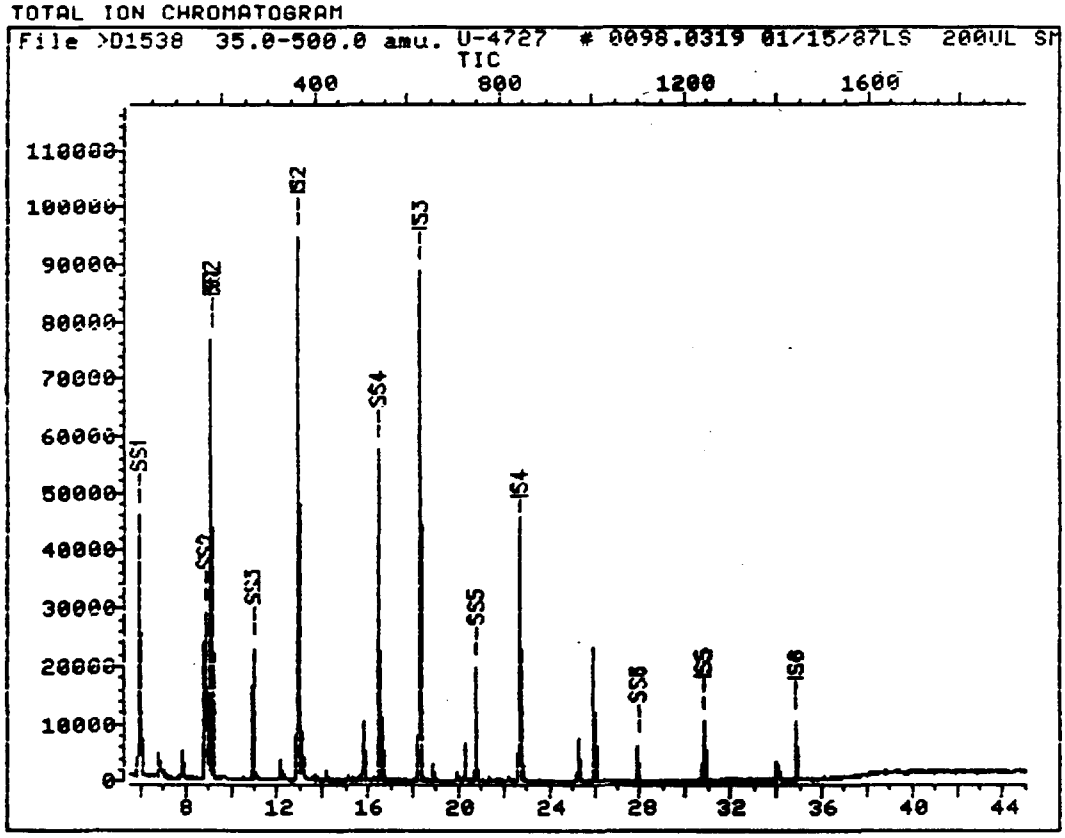
TOTAL ION CHROMATOGRAM



Data File: >D1538::D1
Name: U-4727 # 0098.0319 DC-H3-17
Misc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 5

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860116 11:51
Injected at: 860115 22:22

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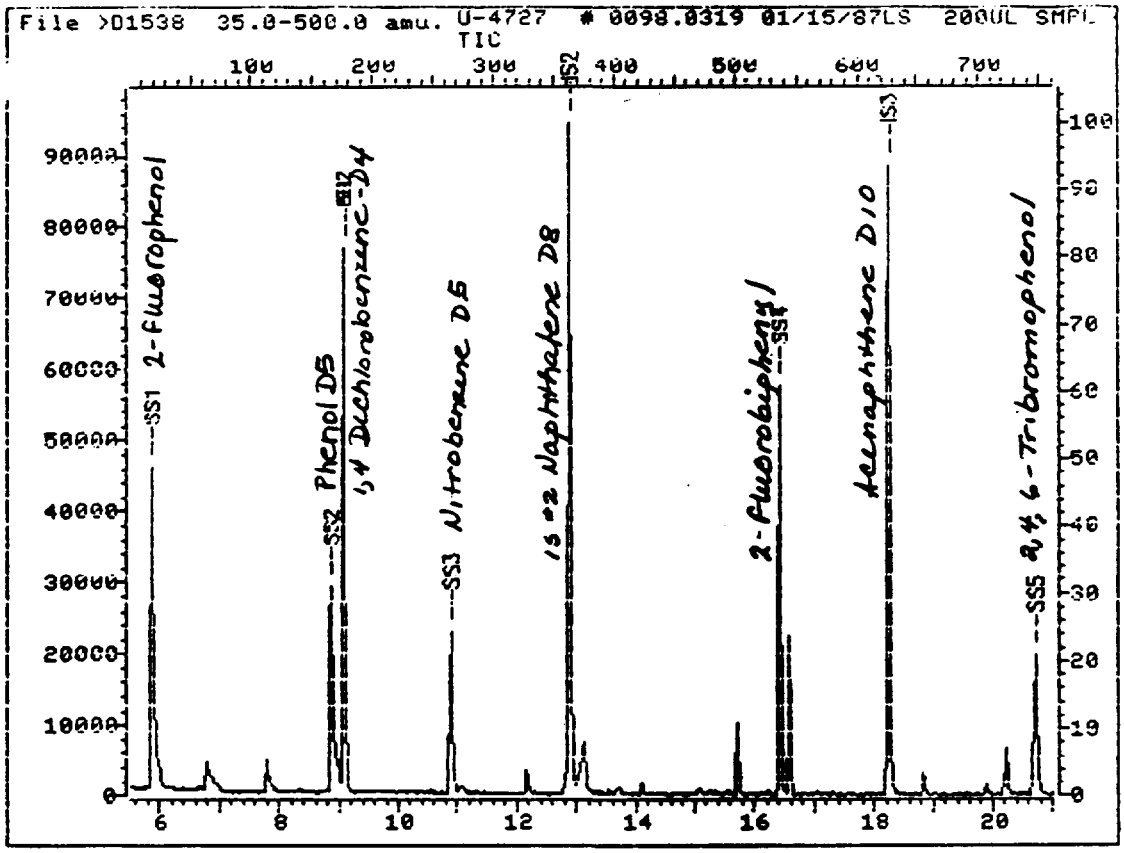
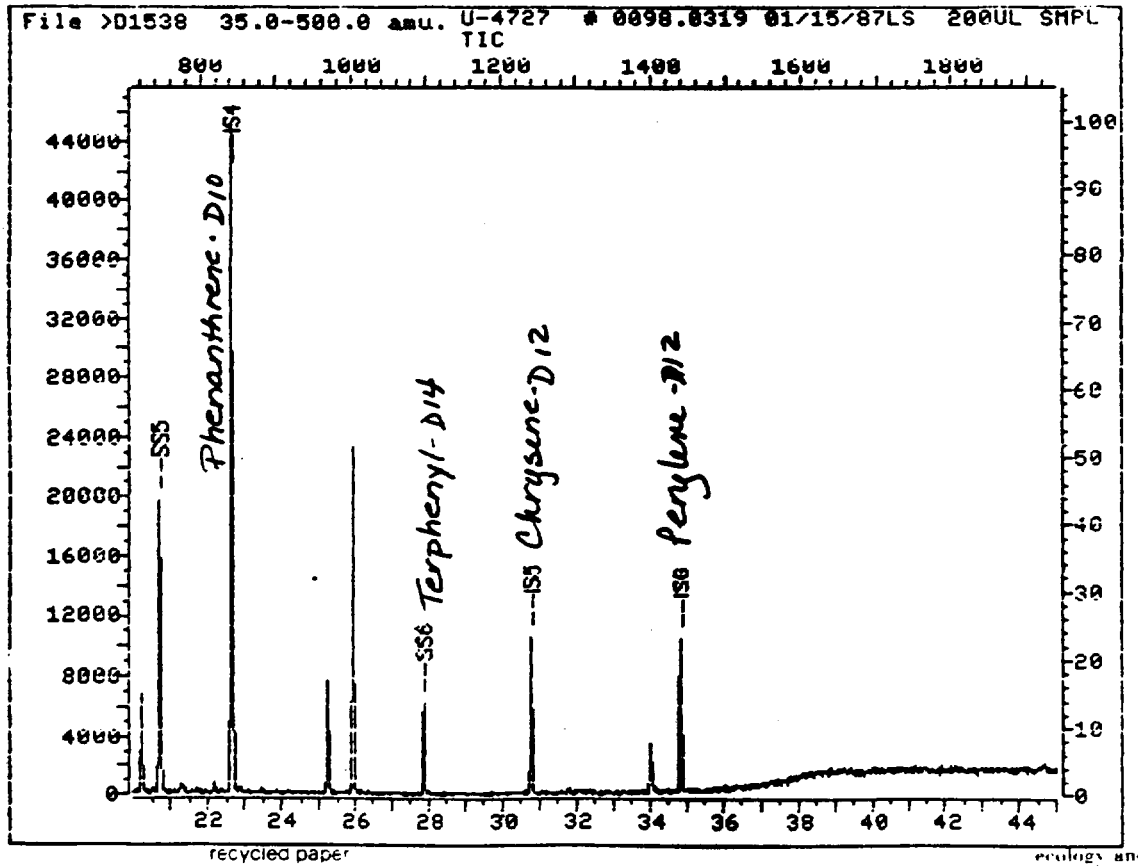


DC-H3-17



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QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 860116 11:51
utput File: ^D1538::Q2 Injected at: 860115 22:22
ata File: >D1538::D1 Dilution Factor: 2.00
ame: U-4727 # 0098.0319 DC-43-17
isc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 5

D File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 860115 14:20

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.08	176	34424	40.00 UG/L	88
2)	PHENOL-D5	(SURR)	99	8.86	165	37924	93.32 UG/L 90	91
2)	PHENOL-D5	(SURR)	99	9.08	176	1249	3.07 UG/L	78
5)	2-FLUOROPHENOL	(SURR)	112	5.87	18	40089	123.20 UG/L 123	82
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.90~~	~~265~~	~~3227~~	~~9.30 UG/L~~ CW	~~4~~
9)	*NAPHTHALENE-D8	(IS)	136	12.89	363	121457	40.00 UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	10.90	265	19620	43.97 UG/L 88	98
5)	BENZOIC ACID		105	13.14	375	9037	33.11 UG/L	93
7)	2,4-DICHLOROPHENOL		162	12.83	360	3366	6.87 UG/L	95
9)	NAPHTHALENE		128	12.93	365	8854	6.63 UG/L	100
~~0)~~	~~4-CHLOROANILINE~~		~~127~~	~~12.93~~	~~365~~	~~1331~~	~~2.79 UG/L~~ CW	~~1~~
4)	*ACENAPHTHENE-D10	(IS)	162	18.25	626	51656	40.00 UG/L	98
3)	2-FLUOROBIPHENYL	(SURR)	172	16.42	536	52195	42.71 UG/L 85	92
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.25~~	~~628~~	~~16926~~	~~10.85 UG/L~~ CW	~~100~~
3)	DIBENZOFURAN		168	18.84	655	5115	4.66 UG/L	100
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.72	747	10143	61.83 UG/L 62	96
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.25~~	~~626~~	~~6840~~	~~38.62 UG/L~~ CW	~~00~~
3)	DIETHYLPHTHALATE		149	20.19	721	1325	1.87 UG/L	90
5)	*PHENANTHRENE-D10	(IS)	188	22.65	842	57729	40.00 UG/L	87
1)	PHENANTHRENE		178	22.71	845	3976	5.91 UG/L	93
~~2)~~	~~ANTHRACENE~~		~~178~~	~~22.71~~	~~845~~	~~3976~~	~~6.15 UG/L~~ CW	~~99~~
3)	DI-N-BUTYLPHTHALATE		149	25.24	969	14675	27.17 UG/L	98
5)	*CHRYSENE-D12	(IS)	240	30.78	1241	15092	40.00 UG/L	100
3)	TERPHENYL-D14	(SURR)	244	27.86	1098	9294	50.46 UG/L 101	100
4)	*PERYLENE-D12	(IS)	264	34.83	1440	13419	40.00 UG/L	100

* Compound is ISTD

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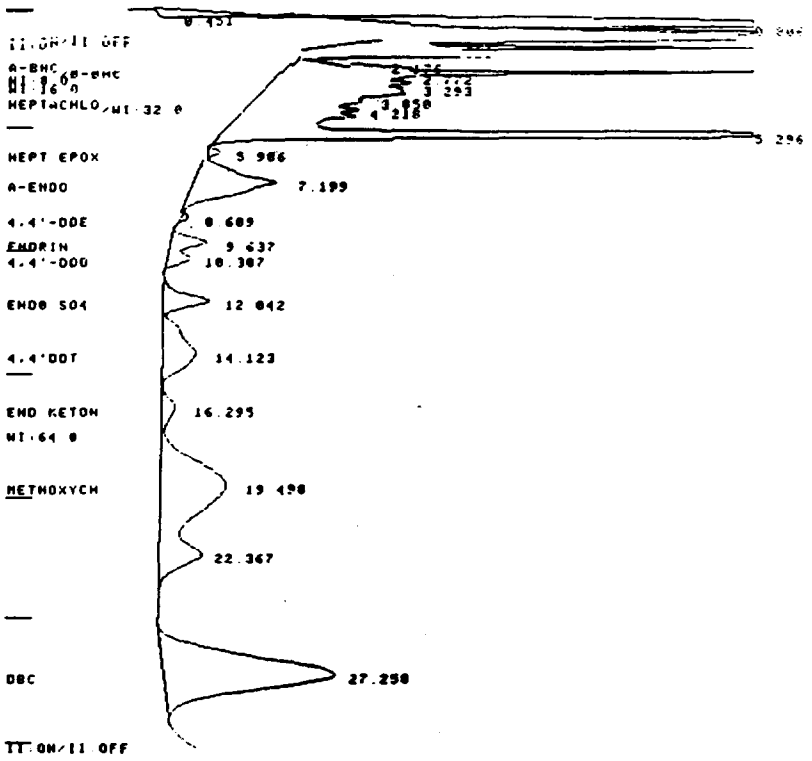
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-H3-17

CHANNEL: 1A - 1 TITLE: RUN# 18 19:46 15 JAN 87

SAMPLE: 0098.03.19 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.321		24790	BV	2.56
2		0.0000	1.493		523309	VB	4.81
3	~~A-BHC~~	5.7418	2.176	0.006	228082	BV	? 9.19
4	~~G-BHC~~	37.9456	2.450	-0.070	1311696	VV	7.00
5	~~B-BHC~~	4.5028	2.772	0.182	158732	VV	?115.25
6		0.0000	3.054		228199	VV	? 22.19
7		0.0000	3.293		158715	VV	? 13.69
8		0.0000	3.498		402947	VV	? 45.56
9	~~HEPTACHLO~~	5.9971	3.850	-0.120	200238	VV	? 27.69
10		0.0000	4.218		244144	VV	? 23.19
11		0.0000	4.406		360217	VV	? 16.75
12		0.0000	5.296		2111780	VV	11.31
13	~~HEPT EPOX~~	0.6162	5.986	0.066	20606	T	16.00
14	~~A-ENDO~~	18.7556	7.199	-0.121	593216	VV	44.25
15	~~G-ENDO~~	4.1555	9.637	-0.023	120235	VV	27.63
16	~~4,4'-DDD~~	2.7075	10.307	-0.213	74657	VB	24.06
17	~~ENDO SO4~~	8.2358	12.042	-0.298	196853	BV	32.50
18	~~4,4'DDT~~	14.9991	14.123	0.403	363857	VV	? 81.50
19	~~END KETON~~	2.7375	16.295	0.505	89185	VV	54.69
20	~~METHOXYCH~~	88.2061	19.490	-0.602	1137576	VV	140.63
21		0.0000	22.367		346466	VB	64.88
22	DBC 107%	71.7487	27.250	-0.122	1854954	BB	87.25
TOTALS:		266.3494		-0.407	10758454		

DETECTED PKS: 29 REJECTED PKS: 7

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: -4

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW RSTY714

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SAMPLE NUMBER DC-H3-18

481095

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Sample Number
DC-43-18

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727
Lab Sample ID No: 0099 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [illegible] Date Sample Received: 1-8-87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 1-15-86
Conc./Dil Factor: 2 pH 3.7
Percent Moisture: (Not Decanted, 24

Concentration in µg/kg as received

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	29 B
67-64-1	Acetone	860BE
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	40
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	20u
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	54
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	420
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	110
108-90-7	Chlorobenzene	58
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Form I

Laboratory Name Ecology & Environment, Inc

Case No. IL-3140 V-4727

Sample Number DC-H3-18

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	320 J
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1, 3-Dichlorobenzene	330u
106-46-7	1, 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1, 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	130 J
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2, 4-Dimethylphenol	70J
65-85-0	Benzoic Acid	2000
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	250J
120-82-1	1, 2, 4-Trichlorobenzene	110J
91-20-3	Naphthalene	1000
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	210J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1700u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1700u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1700u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u 190J
51-28-5	2, 4-Dinitrophenol	1700u
100-02-7	4-Nitrophenol	1700u
132-64-9	Dibenzofuran	900
121-14-2	2, 4-Dinitrotoluene	330u
606-20-2	2, 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	490
100-01-6	4-Nitroaniline	1700u
534-52-1	4, 6-Dinitro-2-Methylphenol	1700u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1700u
85-01-8	Phenanthrene	1000
120-12-7	Anthracene	150J
84-74-2	Di-n-Butylphthalate	960 B
206-44-0	Fluoranthene	110J
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	190J
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330u
53-70-3	Dibenzo(a, h)Anthracene	330u
191-24-2	Benzo(g, h, i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4727

Sample Number DC-143-18

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 1

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8u
319-85-7	Beta-BHC	8u
319-86-8	Delta-BHC	8u
58-89-9	Gamma-BHC (Lindane)	8u
76-44-8	Heptachlor	8u
309-00-2	Aldrin	8u
1024-57-3	Heptachlor Epoxide	8u
959-98-8	Endosulfan I	8u
60-57-1	Dieldrin	16u
72-55-9	4,4'-DDE	16u
72-20-8	Endrin	16u
33213-65-9	Endosulfan II	16u
72-54-8	4,4'-DDD	16u
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4,4'-DDT	16u
72-43-5	Methoxychlor	80u
53494-70-5	Endrin Ketone	16u
57-74-9	Chlordane	80u
8001-35-2	Toxaphene	160u
12674-11-2	Aroclor-1016	80u
11104-28-2	Aroclor-1221	80u
11141-16-5	Aroclor-1232	80u
53469-21-9	Aroclor-1242	80u
12672-29-6	Aroclor-1248	80u
11097-69-1	Aroclor-1254	160 u
11096-82-5	Aroclor-1260	190

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4727

Sample Number DC-H3-18

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	28BJ
2.	Hexane isomer	VOA	22.4	81BJ
3.	Unknown hydrocarbon	VOA	28.2	15 J
4.				
5. 634902	1,2,3,5-Tetrachlorobenzene	BNA	15.6	2000 J
6.	Tetrachlorobenzene isomer	BNA	16.5	3000 J
7.	Unknown	BNA	20.1	310BJ
8. 486259	9H-Fluoren-9-one	BNA	22.0	380 J
9. 10544500	Molecular Sulfur	BNA	25.8	1400 J
10.				
11.				
12.				
13.				
14.				
15.				
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30				

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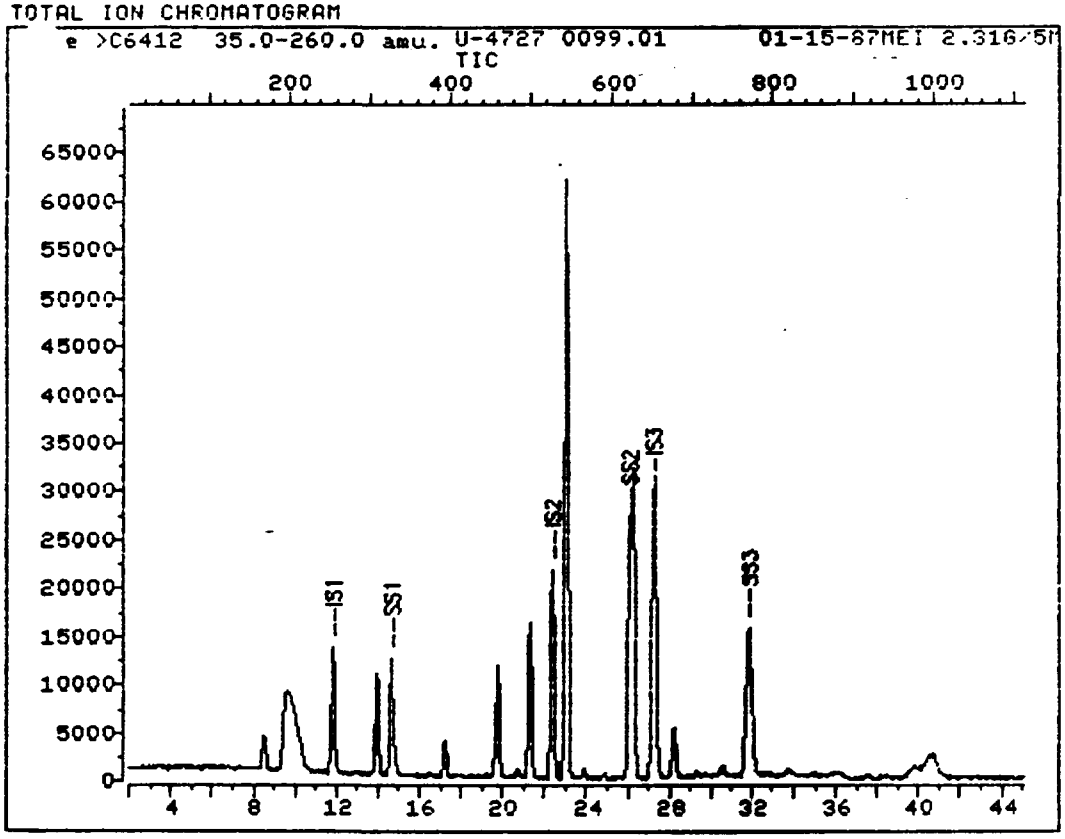
TOTAL ION CHROMATOGRAM



Data File: >C6412::D3
Name: U-4727 0099.01 DC-H3-18
Misc: 01-15-87MEI 2.31G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870115 22:10
Injected at: 870115 21:24

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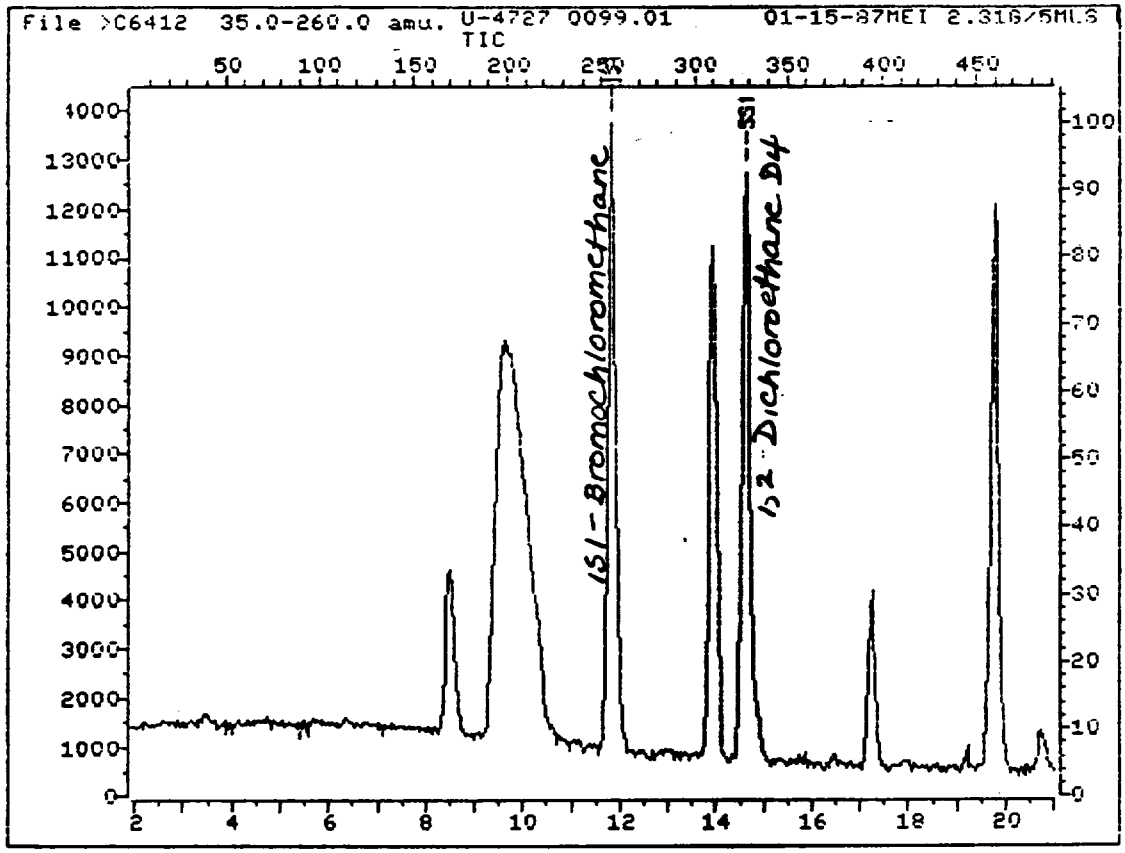
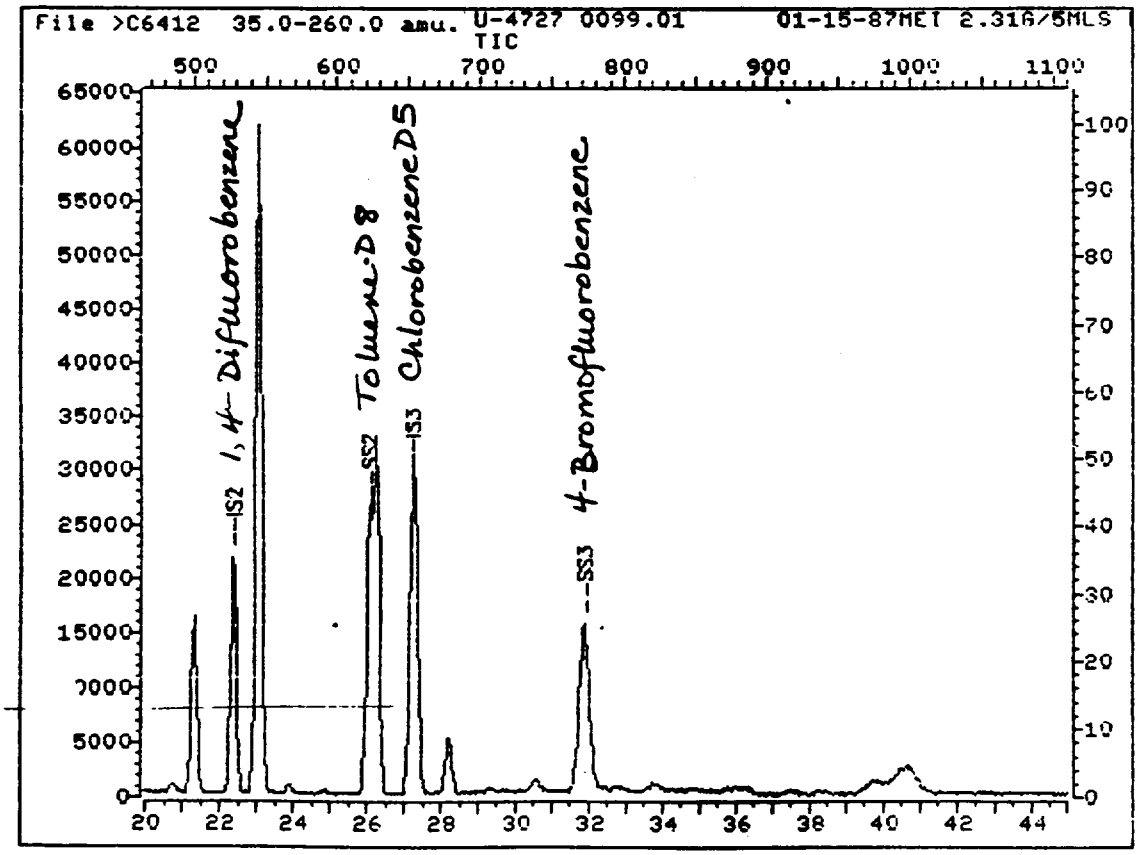
DC-H3-18





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QUANT REPORT

ɔe.ɹtor ID: MANAGER Quant Rev: 4 Quant Time: 870115 22:10
ɹtput File: ^C6412::Q2 Injected at: 870115 21:24
ɜta File: >C6412::D3 Dilution Factor: 1.00
ɜme: U-4727 0099.01 DC-H3-18
isc: 01-15-87MEI 2.31G/5MLS DI + 10UL IS/SS

) File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ɜst Calibration: 870115 19:30

	Compound			R.T.	Scan#	Area	Conc	Units		q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.81	255	17986	250.00	NGS		100
6)	METHYLENE CHLORIDE		84	8.51	170	9838	68.43	NGS		100
7)	ACETONE		43	9.64	199	250970	1977.69	NGS		100
13)	CHLOROFORM		83	13.94	310	23257	92.42	NGS		100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.64	328	52382	283.25	NGS	113	80 ✓
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.36	527	86135	250.00	NGS		100
7)	BENZENE		78	19.76	460	51638	125.44	NGS		100
1)	*CHLOROBENZENE-D5	(IS)	117	27.21	652	69111	250.00	NGS		100
2)	4-METHYL-2-PENTANONE		43	23.06	545	266920	976.00	NGS		92 ✓
3)	TOLUENE-D8	(SURR)	98	26.05	622	98875	244.60	NGS	98	91
7)	TOLUENE		92	26.24	627	72905	256.68	NGS		94
3)	CHLOROBENZENE		112	27.34	655	47974	132.96	NGS		99
1)	4-BROMOFLUOROBENZENE	(SURR)	95	31.88	772	49849	228.89	NGS	92	100 ✓
3)	~~1,3-DICHLOROBENZENE~~		146	39.64	972	3540	3540.00	NO CALIB		100
4)	1,2-DICHLOROBENZENE			39.64	972	3540	3540.00	NO CALIB		100
5)	1,4-DICHLOROBENZENE		146	39.64	972	3540	3540.00	NO CALIB		100

CW

* Compound is ISTD

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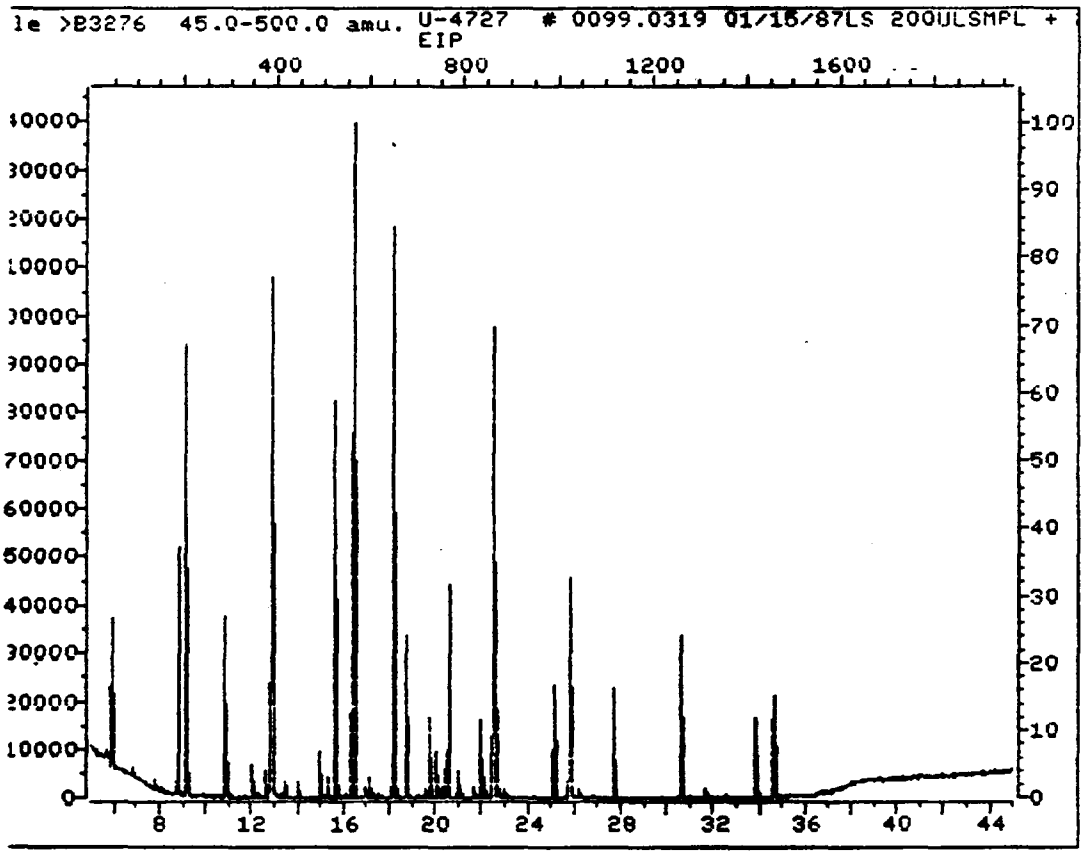

S data file header from : >B3276

DC-H3-18

ample: U-4727 # 0099.0319 Operator: MANAGER MS 1/15/87 21:50
isc : 01/15/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)
ys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: BNA002 Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	30.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	19.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

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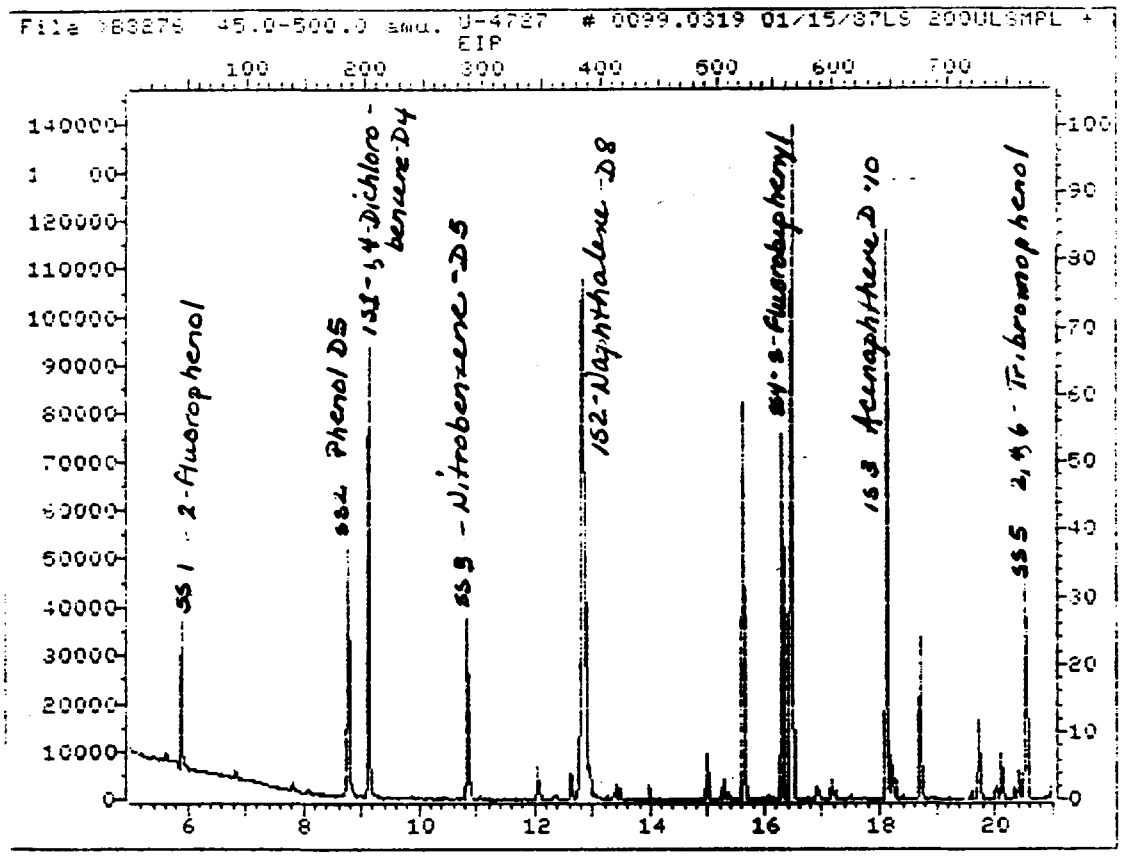
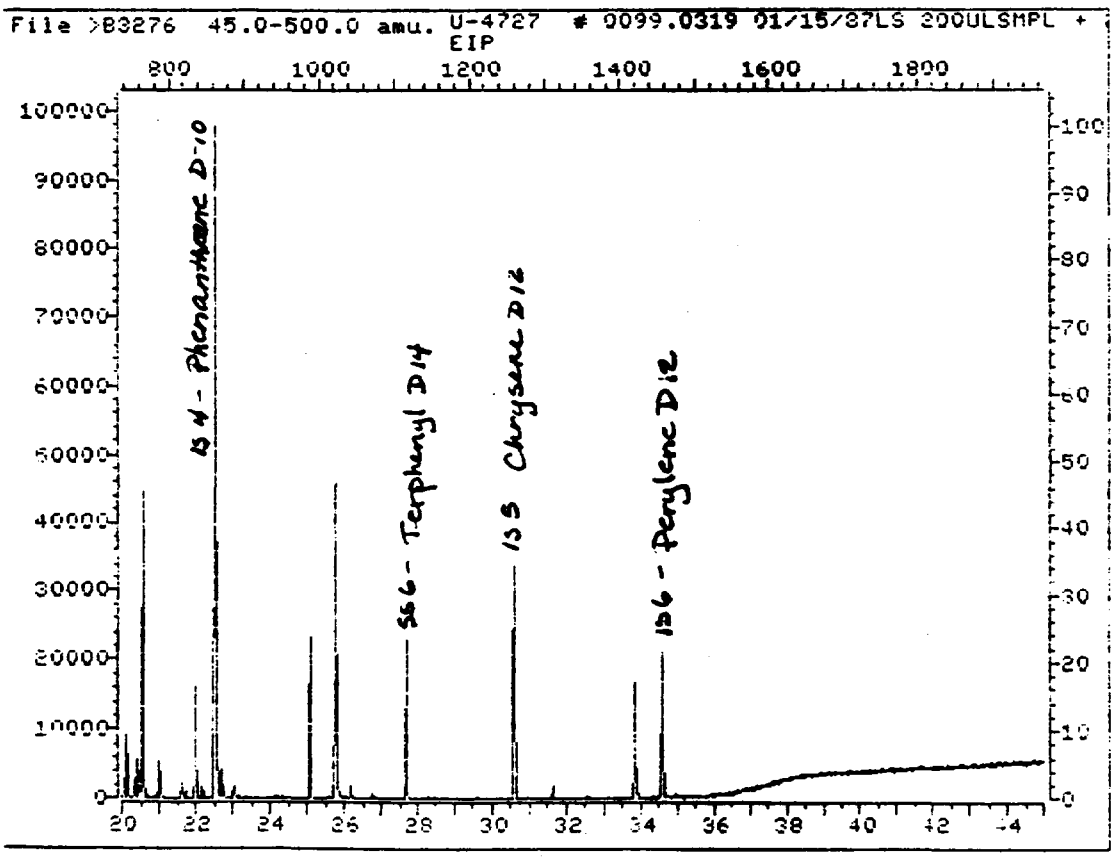


DC-H3-18



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QUANT REPORT

ɔe .tor ID: MANAGER Quant Rev: 4 Quant Time: 870115 22:37
utput File: ^B3276::D2 Injected at: 870115 21:50
ata File: >B3276::D4 Dilution Factor: 2.00
ame: U-4727 # 0099.0319 DC-H3-18
isc: 01/15/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)

values < 2 ng/L not reported as present (< Det)

D File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 870115 15:26

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152 9.14	204	36683	40.00	UG/L	84
2)	PHENOL-D5	(SURR)	99 8.77	186	49910	81.81	UG/L 82	85
5)	2-FLUOROPHENOL	(SURR)	112 5.90	45	18051	44.05	UG/L 44	68
6)	PHENOL		94 8.79	187	5789	9.64	UG/L	53
13)	~~2-METHYL PHENOL~~		~~108 10.89~~	~~290~~	~~1957~~	~~4.26~~	~~UG/L~~ No CW	79
14)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45 9.89~~	~~241~~	~~494~~	~~.39~~	~~UG/L~~	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45 9.97~~	~~245~~	~~305~~	~~.24~~	~~UG/L~~	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45 10.01~~	~~247~~	~~390~~	~~.31~~	~~UG/L~~	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45 10.15~~	~~254~~	~~231~~	~~.18~~	~~UG/L~~	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45 10.76~~	~~284~~	~~234~~	~~.18~~	~~UG/L~~	100
6)	4-METHYL PHENOL		108 10.89	290	1957	3.90	UG/L	91
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70 10.85~~	~~288~~	~~3633~~	~~7.33~~	~~UG/L~~ CW	76
9)	*NAPHTHALENE-D8	(IS)	136 12.82	385	135642	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82 10.85	288	24709	41.18	UG/L 82	92
4)	2,4-DIMETHYLPHENOL		122 12.37	363	953	2.15	UG/L	96
4)	~~2,4-DIMETHYLPHENOL~~		~~122 12.88~~	~~384~~	~~3556~~	~~8.01~~	~~UG/L~~	~~42~~ CW
5)	BENZOIC ACID		105 12.96	392	14832	59.36	UG/L	95
7)	2,4-DICHLOROPHENOL		162 12.61	375	3751	7.44	UG/L	95
8)	1,2,4-TRICHLOROBENZENE		180 12.78	383	1853	3.29	UG/L	100
9)	NAPHTHALENE		128 12.88	388	52171	31.27	UG/L	100
0)	~~4-CHLOROANILINE~~		~~127 12.88~~	~~388~~	~~6829~~	~~11.27~~	~~UG/L~~	~~13~~ CW
3)	2-METHYLNAPHTHALENE		142 14.99	492	6276	6.33	UG/L	95
3)	~~2-METHYLNAPHTHALENE~~		~~142 15.28~~	~~506~~	~~3003~~	~~3.03~~	~~UG/L~~	~~99~~ CW
4)	*ACENAPHTHENE-D10	(IS)	162 18.12	646	56651	40.00	UG/L	96
8)	2-FLUOROBIPHENYL	(SURR)	172 16.31	557	54097	49.98	UG/L 100	95
0)	2-NITROANILINE		65 16.99	590	367	1.37	UG/L	91
1)	~~DIMETHYL PHTHALATE~~		~~163 17.82~~	~~631~~	~~316~~	~~.32~~	~~UG/L~~	~~100~~ CW
1)	~~DIMETHYL PHTHALATE~~		~~163 18.12~~	~~646~~	~~17173~~	~~17.52~~	~~UG/L~~	~~100~~
3)	~~DIBENZOFURAN~~		~~168 18.29~~	~~654~~	~~2208~~	~~1.84~~	~~UG/L~~	~~100~~
3)	~~DIBENZOFURAN~~		~~168 18.41~~	~~660~~	~~697~~	~~.58~~	~~UG/L~~	~~100~~
3)	DIBENZOFURAN		168 18.71	675	32649	27.14	UG/L	100
5)	FLUORENE		166 19.75	726	12215	14.58	UG/L	97
7)	ACENAPHTHENE		153 18.21	650	5286	5.75	UG/L	98
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330 20.54	765	12127	92.21	UG/L 92	99
0)	~~4-NITROPHENOL~~		~~139 18.71~~	~~675~~	~~10363~~	~~97.77~~	~~UG/L~~	~~100~~ CW
2)	~~2,6-DINITROTOLUENE~~		~~165 18.12~~	~~646~~	~~7196~~	~~35.46~~	~~UG/L~~	~~100~~
2)	~~2,6-DINITROTOLUENE~~		~~165 18.29~~	~~654~~	~~609~~	~~3.00~~	~~UG/L~~	~~100~~
3)	DIETHYLPHTHALATE		149 20.04	740	1660	1.90	UG/L	95
5)	PHENANTHRENE-D10	(IS)	188 22.52	862	87828	40.00	UG/L	96
1)	PHENANTHRENE		178 22.58	865	32732	30.11	UG/L	98
1)	~~PHENANTHRENE~~		~~178 22.70~~	~~871~~	~~4488~~	~~4.13~~	~~UG/L~~	~~97~~ CW
2)	~~ANTHRACENE~~		~~178 22.98~~	~~865~~	~~32732~~	~~32.16~~	~~UG/L~~	~~98~~
2)	ANTHRACENE		178 22.70	871	4488	4.41	UG/L	97
3)	DI-N-BUTYLPHTHALATE		149 25.10	989	30515	28.88	UG/L	99
4)	FLUORANTHENE		202 26.18	1042	2516	3.32	UG/L	92

DC-H3-18

	Compound			R.T.	Scan#	Area	Conc	Units	q
2)	PYRENE		202	26.79	1072	1182	1.51	UG/L	96
3)	TERPHENYL-D14	(SURR)	244	27.68	1116	22207	58.51	UG/L	100
3)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.66	1312	2050	5.73	UG/L	88
4)	*PERYLENE-D12	(IS)	264	34.61	1457	22778	40.00	UG/L	100

* Compound is ISTD

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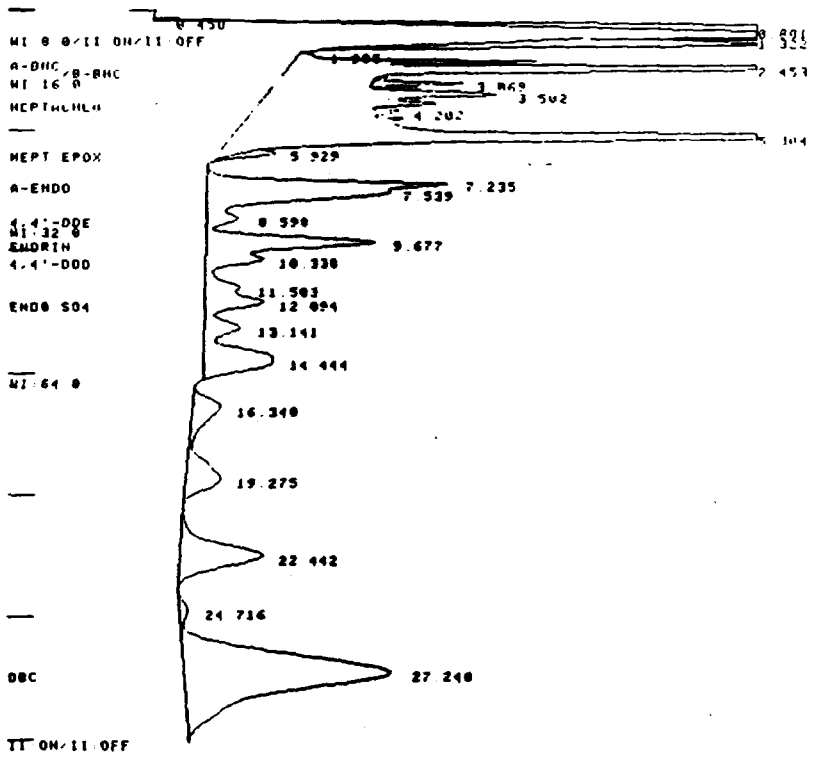
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



PCB 1260 = 231 X 0.00022 X 1/1.1955 X 1000 = 250 ug/Kg Dry

CHANNEL: 1A - 1 TITLE: RUN# 20 20:56 15 JAN 87

DC-H3-18

SAMPLE: 0099.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG DRY	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.322		204392	BV	3.31
2		0.0000	1.490		1086125	VB	4.81
3	~~A-BHC~~	6.3051	2.175	0.005	253632	VV	6.69
4	~~B-BHC~~	111.5339	2.453	-0.067	3855480	VV	6.56
5		0.0000	3.066		84296	T	12.63
6		0.0000	3.502		638551	VV	26.13
7	~~HEPTACHLOR~~	10.7346	3.887	-0.083	358415	VV	? 19.63
8		0.0000	4.202		289902	VV	? 23.63
9		0.0000	4.518		297528	VV	? 15.31
10		0.0000	5.304		4709786	VV	11.89
11	~~HEPT EPOX~~	1.4202	5.929	0.009	47497	T	8.31
12	~~A-ENDO~~	22.5063	7.235	-0.085	711844	BV	? 22.00
13		0.0000	7.539		566862	VV	? 35.13
14	~~DIELDRIN~~	3.3127	8.590	0.088	112684	VV	? 33.13
15	~~B-ENDO~~	21.5613	9.677	0.017	665370	VV	30.13
16	~~4,4'-DDE~~	6.8212	10.338	-0.182	188091	VV	? 32.06
17		0.0000	11.503	PCB	~~125701~~	VV	? 34.38
18	~~ENDO SO4~~	11.0338	12.094	1260	263731	VV	? 37.50
19	~~4,4'-DDT~~	6.8860	13.141	-0.579	167044	VV	37.19
20		0.0000	14.444	EA=231	497366	VB	58.00
21	~~END METON~~	6.8802	16.340	0.550	224149	BV	55.13
22	~~METHOXYCH~~	24.2795	19.275	-0.825	313128	VV	68.88
23		0.0000	22.442		656642	VV	58.44
24		0.0000	24.716		44776	VV	? 50.94
25	DBC INF	100.4870	27.240	-0.140	2597939	VB	94.25

TOTALS: 333.8418 -1.538 18959932

DETECTED PKS: 33 REJECTED PKS: 8

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 45.7 OFFSET: -11

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:

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ecology and environment

SAMPLE NUMBER DC-H4-19

481095 217

Sample Number
DC-H4-19

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727

Lab Sample ID No: 0100 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 1-8-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-12-87

Conc./Dil Factor: 700 pH 8.1

Percent Moisture: (Not Decanted) 28

Concentration in ug/kg as received

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	7000 U
74-83-9	Bromomethane	7000 U
75-01-4	Vinyl Chloride	7000 U
75-00-3	Chloroethane	7000 U
75-09-2	Methylene Chloride	40000 B
67-64-1	Acetone	13000 B
75-15-0	Carbon Disulfide	3500 U
75-35-4	1, 1-Dichloroethene	3500 U
75-34-3	1, 1-Dichloroethane	3500 U
156-60-5	Trans-1, 2-Dichloroethene	3500 U
67-66-3	Chloroform	3500 U
107-06-2	1, 2-Dichloroethane	3500 U
78-93-3	2-Butanone	18000 B
71-55-6	1, 1, 1-Trichloroethane	3500 U
56-23-5	Carbon Tetrachloride	3500 U
108-05-4	Vinyl Acetate	7000 U
75-27-4	Bromodichloromethane	3500 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	3500 U
10061-02-6	Trans-1, 3-Dichloropropene	3500 U
79-01-6	Trichloroethene	3500 U
124-48-1	Dibromochloromethane	3500 U
79-00-5	1, 1, 2-Trichloroethane	3500 U
71-43-2	Benzene	16000
10061-01-5	cis-1, 3-Dichloropropene	3500 U
110-75-8	2-Chloroethylvinylether	7000 U
75-25-2	Bromoform	3500 U
108-10-1	4-Methyl-2-Pentanone	7000 U
591-78-6	2-Hexanone	7000 U
127-18-4	Tetrachloroethene	3500 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	3500 U
108-88-3	Toluene	55000
108-90-7	Chlorobenzene	9200
100-41-4	Ethylbenzene	9200
100-42-5	Styrene	3500 U
	Total Xylenes	17000

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4727

Sample Number DC-H4-19

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed: 1-20-87

Conc/Dil Factor: 100

Percent Moisture (Decanted) 28

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	17000u
111-44-4	bis(-2-Chloroethyl)Ether	17000u
95-57-8	2-Chlorophenol	17000u
541-73-1	1 3-Dichlorobenzene	5500 J
106-46-7	1. 4-Dichlorobenzene	49000
100-51-6	Benzyl Alcohol	5700 J
95-50-1	1. 2-Dichlorobenzene	17000u
95-48-7	2-Methylphenol	17000u
39638-32-9	bis(2-chloroisopropyl)Ether	17000u
106-44-5	4-Methylphenol	17000u
621-64-7	N-Nitroso-Di-n-Propylamine	17000u
67-72-1	Hexachloroethane	17000u
98-95-3	Nitrobenzene	17000u
78-59-1	Isophorone	17000u
88-75-5	2-Nitrophenol	17000u
105-67-9	2. 4-Dimethylphenol	17000u
65-85-0	Benzoic Acid	83000u
111-91-1	bis(-2-Chloroethoxy)Methane	17000u
120-83-2	2. 4-Dichlorophenol	6100 J
120-82-1	1. 2. 4-Trichlorobenzene	140000
91-20-3	Naphthalene	17000u
106-47-8	4-Chloroaniline	83000u
87-68-3	Hexachlorobutadiene	17000u
59-50-7	4-Chloro-3-Methylphenol	17000u
91-57-6	2-Methylnaphthalene	17000u
77-47-4	Hexachlorocyclopentadiene	17000u
88-06-2	2 4 6-Trichlorophenol	17000u
95-95-4	2. 4. 5-Trichlorophenol	83000u
91-58-7	2-Chloronaphthalene	17000u
88-74-4	2-Nitroaniline	83000u
131-11-3	Dimethyl Phthalate	17000u
-96-8	Acenaphthylene	17000u
99-09-2	3-Nitroaniline	83000u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	17000u
51-28-5	2. 4-Dinitrophenol	83000u
100-02-7	4-Nitrophenol	83000u
132-64-9	Dibenzofuran	17000u
121-14-2	2 4-Dinitrotoluene	17000u
606-20-2	2. 6-Dinitrotoluene	17000u
84-66-2	Diethylphthalate	17000u
7005-72-3	4-Chlorophenyl-phenylether	17000u
86-73-7	Fluorene	17000u
100-01-6	4-Nitroaniline	1,400,000
534-52-1	4. 6-Dinitro-2-Methylphenol	83000u
86-30-6	N-Nitrosodiphenylamine (1)	5100 J
101-55-3	4-Bromophenyl-phenylether	17000u
118-74-1	Hexachlorobenzene	17000u
87-86-5	Pentachlorophenol	83000u
85-01-8	Phenanthrene	17000u
120-12-7	Anthracene	17000u
84-74-2	Di-n-Butylphthalate	17000u
206-44-0	Fluoranthene	17000u
129-00-0	Pyrene	17000u
85-68-7	Butylbenzylphthalate	17000u
91-94-1	3. 3'-Dichlorobenzidine	34000u
56-55-3	Benzo(a)Anthracene	17000u
117-81-7	bis(2-Ethylhexyl)Phthalate	17000u
218-01-9	Chrysene	17000u
117-84-0	Di-n-Octyl Phthalate	17000u
205-99-2	Benzo(b)Fluoranthene	17000u
207-08-9	Benzo(k)Fluoranthene	17000u
50-32-8	Benzo(a)Pyrene	17000u
193-39-5	Indeno(1 2. 3-cd)Pyrene	17000u
53-70-3	Dibenz(a h)Anthracene	17000u
191-24-2	Benzo(g h i)Perylene	17000u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4127

Sample Number DC-H4-19

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 20,000

Percent Moisture (decanted) 28

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	160,000 u
319-85-7	Beta-BHC	160,000 u
319-86-8	Delta-BHC	160,000 u
58-89-9	Gamma-BHC (Lindane)	160,000 u
76-44-8	Heptachlor	160,000 u
309-00-2	Aldrin	160,000 u
1024-57-3	Heptachlor Epoxide	160,000 u
959-98-8	Endosulfan I	160,000 u
60-57-1	Dieldrin	320,000 u
72-55-9	4,4'-DDE	320,000 u
72-20-8	Endrin	320,000 u
33213-65-9	Endosulfan II	320,000 u
72-54-8	4,4'-DDD	320,000 u
1031-07-8	Endosulfan Sulfate	320,000 u
50-29-3	4,4'-DDT	320,000 u
72-43-5	Methoxychlor	1,600,000 u
53494-70-5	Endrin Ketone	320,000 u
57-74-9	Chlordane	1,600,000 u
8001-35-2	Toxaphene	3,200,000 u
12674-11-2	Aroclor-1016	1,600,000 u
11104-28-2	Aroclor-1221	1,600,000 u
11141-16-5	Aroclor-1232	1,600,000 u
53469-21-9	Aroclor-1242	1,600,000 u
12672-29-6	Aroclor-1248	1,600,000 u
11097-69-1	Aroclor-1254	3,200,000 u
11096-82-5	Aroclor-1260	13,000,000

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4727

Sample Number DC-H4-19

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.		Hexene isomer	VOA	17.5	4100 BJ
2.		Hexane isomer	VOA	21.5	11000 BJ
3.		Unknown hydrocarbon	VOA	28.5	7300 J
4.		Dichlorobenzene isomer	VOA	39.5	36,000 J
5.		Dichlorobenzene isomer	VOA	41.4	310,000 J
6.					
7.	87616	1,2,3-Trichlorobenzene	BNA	13.5	22000 J
8.		Tetrachlorobenzene isomer		15.7	38000 J
9.		Tetrachlorobenzene isomer		16.5	180000 J
10.	**	** PCB's - trichlorobiphenyls		23-35	see p.3
11.		through decachlorobiphenyls		range	
12.		Unknown hydrocarbon		27.0	13,000 J
13.		Unknown hydrocarbon		28.1	11,000 J
14.	5890	o,p'-DDD		28.8	8900 J
15.	352	p,p'-DDD		29.7	98,000 J
16.		Unknown hydrocarbon		33.3	28,000 J
17.		Unknown hydrocarbon		34.2	20,000 J
18.		Unknown hydrocarbon		35.1	15,000 J
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

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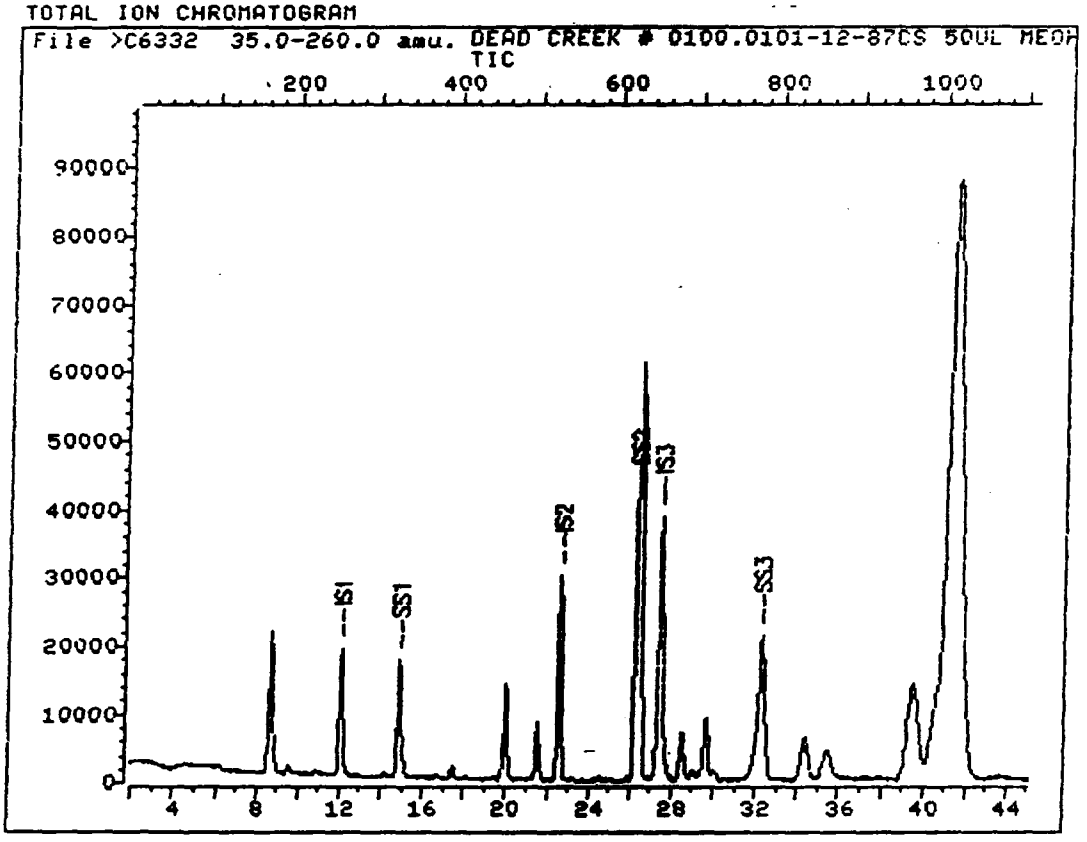
TOTAL ION CHROMATOGRAM



Data File: >C6332::D2
Name: DEAD CREEK # 0100.01 DC-H4-19
Misc: 01-12-87CS 50UL MEOH EXT (1.19G/10ML)IN 5ML DI + 10UL

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870112 13:11

Operator ID: USER8
Quant Time: 870112 16:51
Injected at: 870112 16:05

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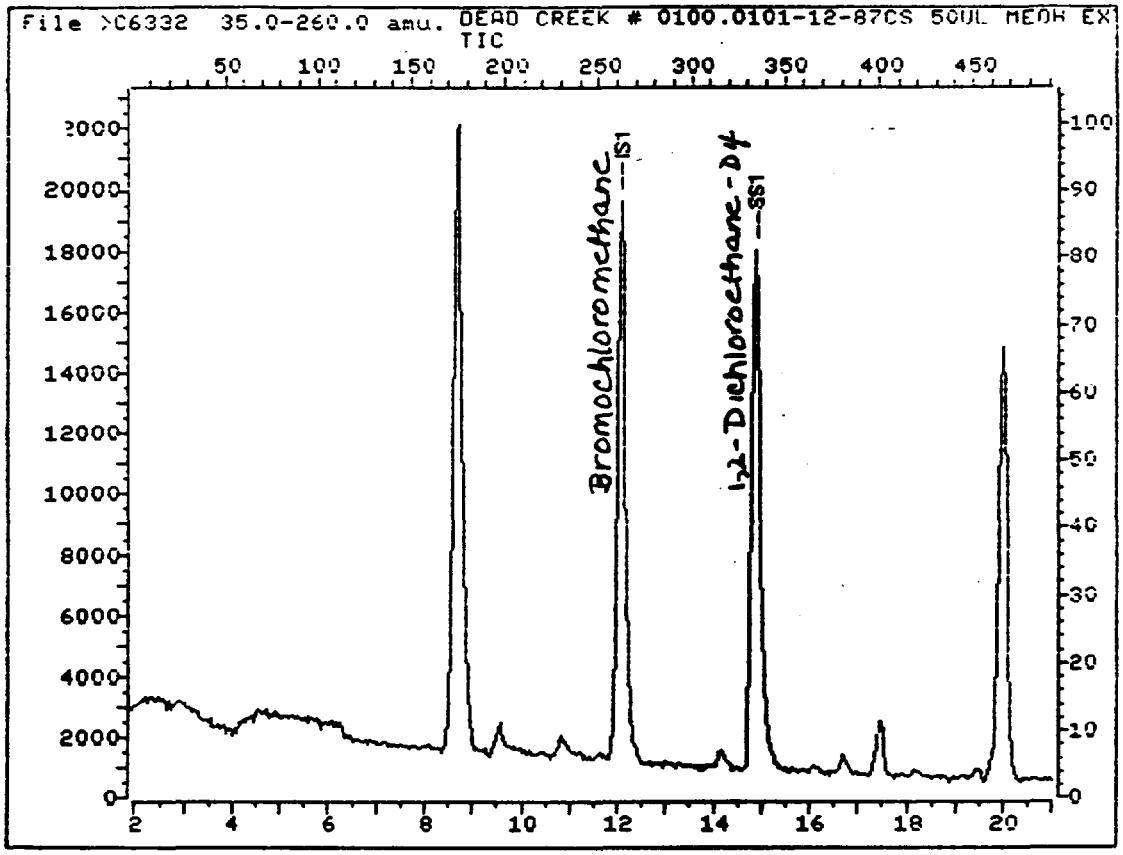
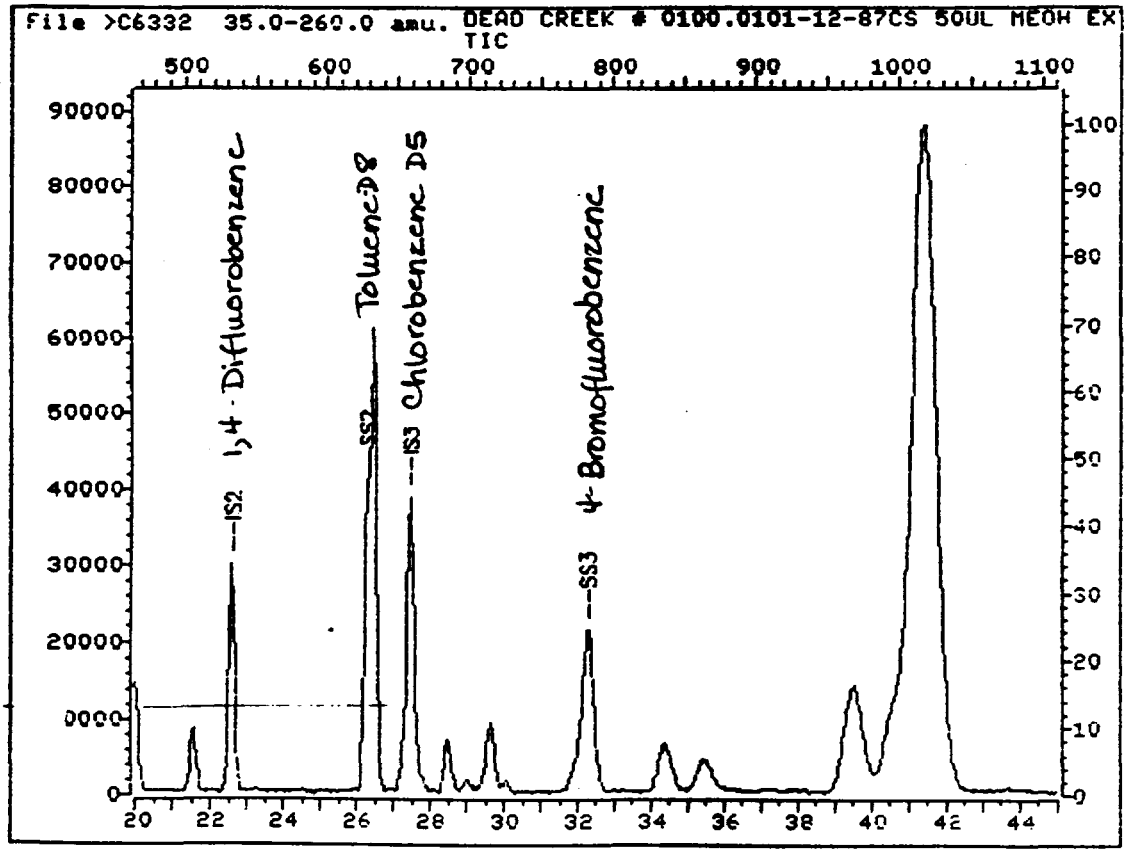
DC-H4-19





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870112 16:51
Output File: ^C6332::D2 Injected at: 870112 16:05
Data File: >C6332::D2 Dilution Factor: 1.00
Name: DEAD CREEK # 0100.01 DC-H4-19
Misc: 01-12-87CS 50UL MEOH EXT (1.19G/10ML)IN 5ML DI + 10UL

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870112 13:11

	Compound		R.T.	Scan#	Area	Conc	Units
1)	*BROMOCHLOROMETHANE (IS)	128	12.07	262	28336	50.00	UG/L
6)	METHYLENE CHLORIDE	84	8.70	175	62302	48.22	UG/L
7)	ACETONE	43	9.55	197	11381	16.35	UG/L
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.87	334	78198	48.67	UG/L
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.59	533	128521	50.00	UG/L
17)	2-BUTANONE	72	15.02	338	4016	21.45	UG/L
27)	BENZENE	78	19.99	466	64044	18.75	UG/L
31)	*CHLOROBENZENE-D5 (IS)	117	27.45	658	104766	50.00	UG/L
36)	TOLUENE-D8 (SURR)	98	26.27	628	149662	47.72	UG/L
37)	TOLUENE	92	26.47	633	145390	64.77	UG/L
38)	CHLOROBENZENE	112	27.56	661	32293	11.14	UG/L
39)	ETHYLBENZENE	91	29.66	715	54519	11.46	UG/L
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.26	782	83618	48.74	UG/L
42)	TOTAL XYLENES	91	34.35	836	52610	10.54	UG/L
42)	TOTAL XYLENES	91	35.44	864	45402	9.09	UG/L
43)	1,3-DICHLOROBENZENE	146	39.48	968	66936	66936.00	NO CALIB
43)	1,3-DICHLOROBENZENE	146	41.38	1017	903168	903168.0	NO CALIB
44)	1,2-DICLHLOROBENZENE	146	39.48	968	66936	66936.00	NO CALIB
44)	1,2-DICLHLOROBENZENE	146	41.38	1017	998427	998427.0	NO CALIB
45)	1,4-DICHLOROBENZENE	146	39.48	968	66936	66936.00	NO CALIB
45)	1,4-DICHLOROBENZENE	146	41.38	1017	998427	998427.0	NO CALIB

* Compound is ISTD

GK

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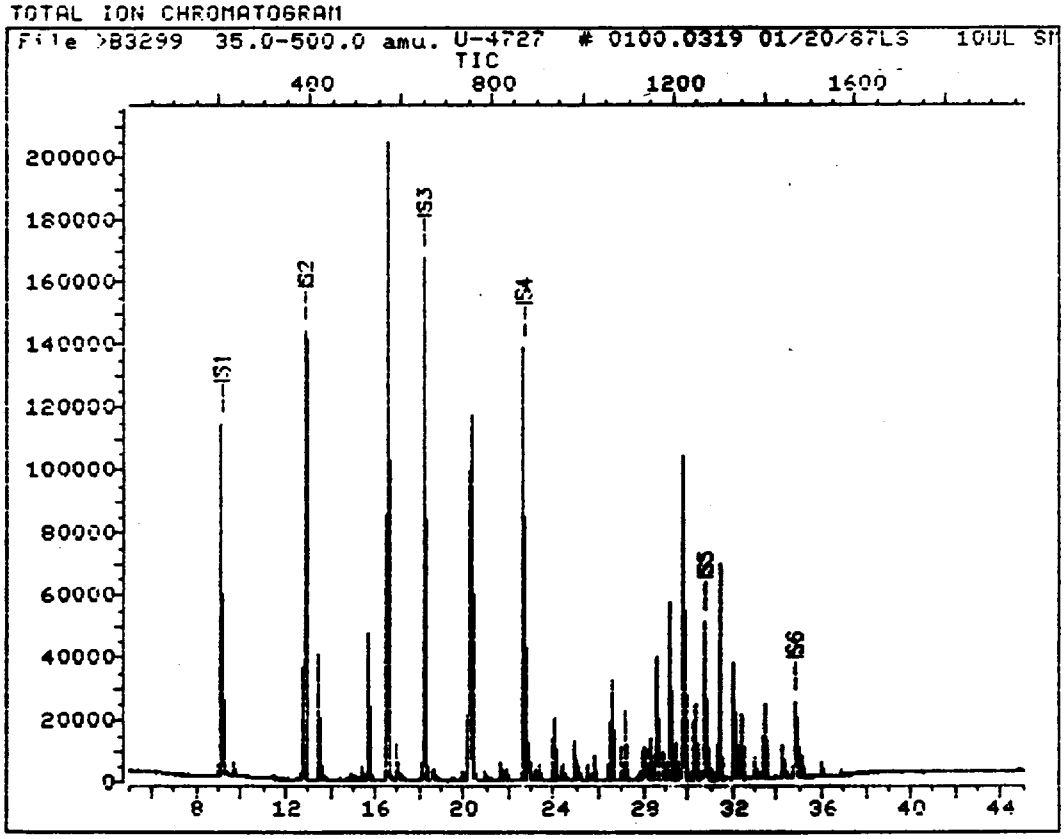
TOTAL ION CHROMATOGRAM



Data File: >B3299::D4
Name: U-4727 # 0100.0319 DC-H4-19
Misc: 01/20/87LS 10UL SMPL + 990UL MECL2 + 10UL IS (100X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870120 15:41

Operator ID: MANAGER
Quant Time: 870120 21:52
Injected at: 870120 21:04

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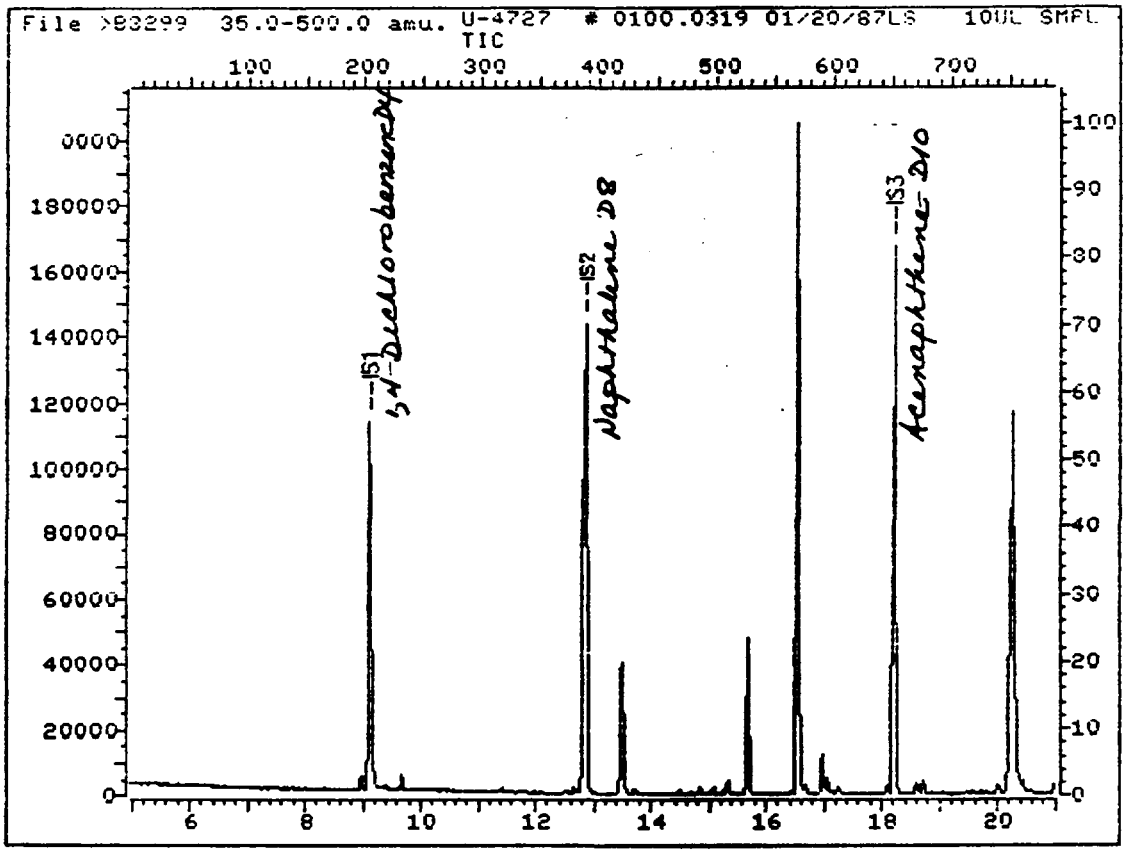
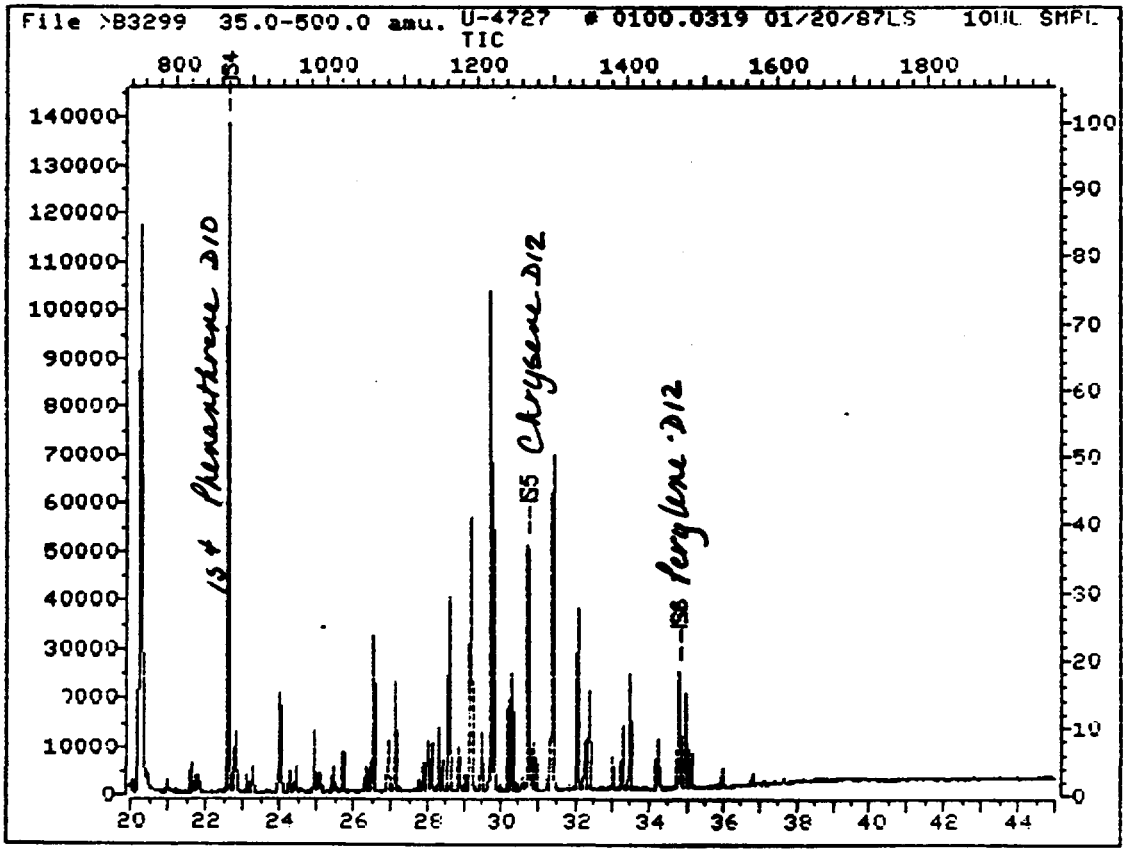


DC-H4-19



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DC [illegible]

QUANT REPORT

ıe :or ID: MANAGER Quant Rev: 4 Quant Time: 870120 21:52
ıtput File: ^B3299::Q2 Injected at: 870120 21:04
ıta File: >B3299::D4 Dilution Factor: 100.00
ıme: U-4727 # 0100.0319 DC-H4-19
.sc: 01/20/87LS 10UL SMPL + 990UL MECL2 + 10UL IS (100X)

) File: BNABR::D2
.tle: BNA ID FILE FOR THE HP 5970 (B)
ıst Calibration: 870120 15:41

Values <50 ug/L are 10X or less than ~~10X~~ Det. Limit not reported

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152 9.10	203	49507	40.00	UG/L	89
9)	1,3-DICHLOROBENZENE		146 8.97	197	2707	165.62	UG/L	99
~~8)~~	~~1,3-DICHLOROBENZENE~~		~~146 9.14~~	~~205~~	~~23460~~	~~1435.37~~	~~UG/L~~	~~98~~
~~10)~~	~~1,4-DICHLOROBENZENE~~		~~146 8.97~~	~~197~~	~~2707~~	~~169.74~~	~~UG/L~~	~~98~~
10)	1,4-DICHLOROBENZENE		146 9.14	205	23460	1471.02	UG/L	94
12)	1,2-DICHLOROBENZENE		146 9.66	231	2801	171.70	UG/L	98
2)	*NAPHTHALENE-D8	(IS)	136 12.86	388	188856	40.00	UG/L	100
2)	2,4-DICHLOROPHENOL		162 12.65	378	2685	183.60	UG/L	97
3)	1,2,4-TRICHLOROBENZENE		180 12.82	386	67890	4075.87	UG/L	100
3)	1,2,4-TRICHLOROBENZENE		180 12.88	389	341	20.47	UG/L	100
)	NAPHTHALENE		128 12.92	391	1632	36.06	UG/L	100
5)	2-METHYLNAPHTHALENE		142 15.03	495	879	31.19	UG/L	98
~~5)~~	~~2-METHYLNAPHTHALENE~~		~~142 15.34~~	~~510~~	~~765~~	~~27.15~~	~~UG/L~~	~~87~~
6)	*ACENAPHTHENE-D10	(IS)	162 18.20	651	90590	40.00	UG/L	96
~~.)~~	~~DIMETHYL PHTHALATE~~		~~163 18.20~~	~~651~~	~~27789~~	~~808.18~~	~~UG/L~~	~~100~~
~~.)~~	~~DIMETHYL PHTHALATE~~		~~163 18.27~~	~~654~~	~~136~~	~~3.96~~	~~UG/L~~	~~00~~
5)	DIBENZOFURAN		168 18.37	659	295	7.30	UG/L	100
5)	3-NITROANILINE		138 20.28	753	102985	41728.04	UG/L	41 E
~~)~~	~~2,6-DINITROTOLUENE~~		~~165 18.20~~	~~651~~	~~11349~~	~~1489.09~~	~~UG/L~~	~~00~~
5)	*PHENANTHRENE-D10	(IS)	188 22.62	868	145223	40.00	UG/L	94
2)	N-NITROSODIPHENYLAMINE		169 20.01	740	2581	154.25	UG/L	62
1)	PENTACHLOROPHENOL		266 22.39	857	287	44.98	UG/L	100
5)	*CHRYSENE-D12	(IS)	240 30.73	1267	47172	40.00	UG/L	100
~~5)~~	~~BENZIDINE~~		~~184 27.13~~	~~1090~~	~~2133~~	~~2133.00~~	~~NO CAL~~	~~100~~
~~)~~	~~3,3'DICHLOROBENZIDINE~~		~~252 30.75~~	~~1268~~	~~1418~~	~~1452.05~~	~~UG/L~~	~~100~~
~~)~~	~~3,3'DICHLOROBENZIDINE~~		~~252 30.87~~	~~1274~~	~~819~~	~~838.67~~	~~UG/L~~	~~100~~
~~)~~	~~3,3'DICHLOROBENZIDINE~~		~~252 30.98~~	~~1279~~	~~406~~	~~415.75~~	~~UG/L~~	~~100~~
~~)~~	~~3,3'DICHLOROBENZIDINE~~		~~252 31.40~~	~~1300~~	~~5046~~	~~5167.17~~	~~UG/L~~	~~100~~
6)	*PERYLENE-D12	(IS)	264 34.78	1466	33835	40.00	UG/L	100
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252 33.50~~	~~1403~~	~~321~~	~~29.14~~	~~UG/L~~	~~00~~
~~)~~	~~BENZO(K)FLUORANTHENE~~		~~252 33.50~~	~~1403~~	~~321~~	~~34.47~~	~~UG/L~~	~~100~~

* Compound is ISTD

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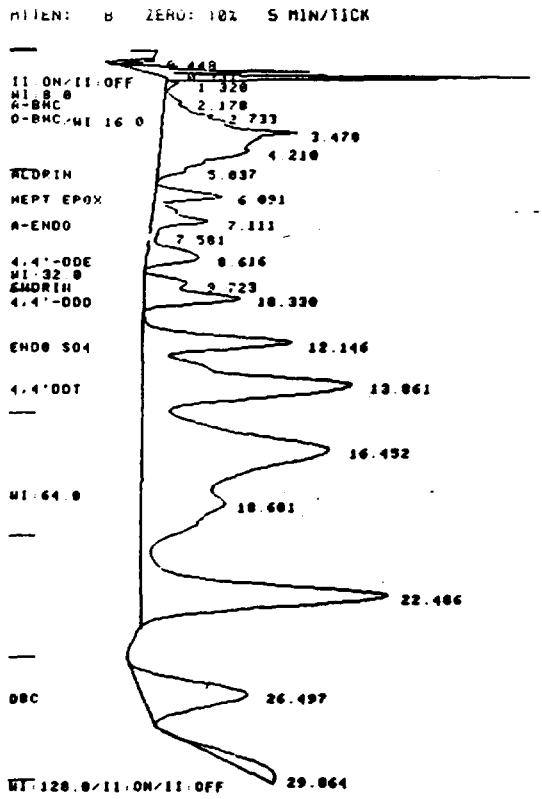

PCB 1260 = 909 x 0.00102 x 1/1.0785 x 20,000,000 = 17,000,000 ug/kg dry

DC-H4-19

CHANNEL: 1A - 1 TITLE: RUN# 24 23:25 15 JAN 87

SAMPLE: 0100.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG dry	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~A-BHC~~	17.4575	2.178	0.000	34673	BV	? 17.94
2	~~D-BHC~~	71.0701	2.733	0.143	125268	VV	? 17.56
3		0.0000	3.028		105148	VV	? 19.94
4		0.0000	3.478		372906	VV	? 28.25
5		0.0000	3.642		304912	VV	?
6	~~HEPTACHLO~~	224.8762	4.210	0.240	375418	VV	? 47.06
7	~~ALDRIN~~	29.6682	5.037	0.147	52952	VB	? 13.06
8	~~HEPT EPOX~~	113.8066	6.091	0.171	199434	BV	21.56
9	~~A-ENDO~~	155.0927	7.111	0.209	246269	VV	22.38
10	~~DIELDRIN~~	144.1059	8.616	0.106	245096	VB	? 34.19
11	~~D-ENDO~~	87.4131	9.723	0.063	134876	BV	? 29.38
12	~~4,4'-DDD~~	261.6072	10.330	-0.190	360682	VV	29.56
13	~~ENDO SO4~~	581.5173	12.146	-0.194	694972	VV	35.00
14	~~4,4'DDT~~	1421.707	13.861	0.141	1724427	VV	58.19
15	~~END KETON~~	1566.682	16.452	0.662	2552031	VV	?106.69
16		0.0000	18.601		955182	VV	?161.44
17		0.0000	22.486		1993211	VB	59.19
18	~~DBC~~	690.9203	26.497	-0.083	893135	BV	74.88
19		0.0000	29.864		156539	VB	?146.19

PCB 1260 409

TOTALS: 5366.004 0.205 11518131

DETECTED PKS: 28 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 20000.0000

NOISE: 68.6 OFFSET: -13 20000000.0

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SANSON
SECURE AREA: D JOB#:U-4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW RSTY720

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SAMPLE NUMBER DC-HB-20

481095

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Sample Number
DC-HB-20

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727

Lab Sample ID No: 0101 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 1-8-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-15-87

Conc/Dil Factor: 2 pH 7.6

Percent Moisture: (Not Decanted) 22

Concentration in ug/kg as received

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	46 B
67-64-1	Acetone	38 B
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	20u
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	10u
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	11 J
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	10u
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 V-4727

Sample Number DC-HB-20

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2. 4-Dinitrophenol	1700u
100-02-7	4-Nitrophenol	1700u
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2. 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1700u
534-52-1	4. 6-Dinitro-2-Methylphenol	1700u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1700u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	880 B
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3. 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1 2 3-cd)Pyrene	330u
53-70-3	Dibenz(a h)Anthracene	330u
191-24-2	Benzo(g h i)Perylene	330u

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4727

Sample Number DC-HB-20

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed 1-15-87

Conc/Dil Factor 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8u
319-85-7	Beta-BHC	8u
319-86-8	Delta-BHC	8u
58-89-9	Gamma-BHC (Lindane)	8u
76-44-8	Heptachlor	8u
309-00-2	Aldrin	8u
1024-57-3	Heptachlor Epoxide	8u
959-98-8	Endosulfan I	8u
60-57-1	Dieldrin	16u
72-55-9	4, 4'-DDE	16u
72-20-8	Endrin	16u
33213-65-9	Endosulfan II	16u
72-54-8	4, 4'-DDD	16u
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4, 4'-DDT	16u
72-43-5	Methoxychlor	80u
53494-70-5	Endrin Ketone	16u
57-74-9	Chlordane	80u
8001-35-2	Toxaphene	160u
12674-11-2	Aroclor-1016	80u
11104-28-2	Aroclor-1221	80u
11141-16-5	Aroclor-1232	80u
53469-21-9	Aroclor-1242	80u
12672-29-6	Aroclor-1248	80u
11097-69-1	Aroclor-1254	160u
11096-82-5	Aroclor-1260	160

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No 4-4727

Sample Number DC-HB-20

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3	29 BJ
2.	Hexane isomer	VOA	21.3	98 BJ
3.				
4.	Unknown Ketone	BNA	6.8	320 BJ
5.	Unknown		8.9	190 J
6.	Unknown		20.1	340 BJ
7.	Unknown hydrocarbon		33.8	1700 BJ
8.				
9.				
10.				
11.				
12.				
13.				
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30				

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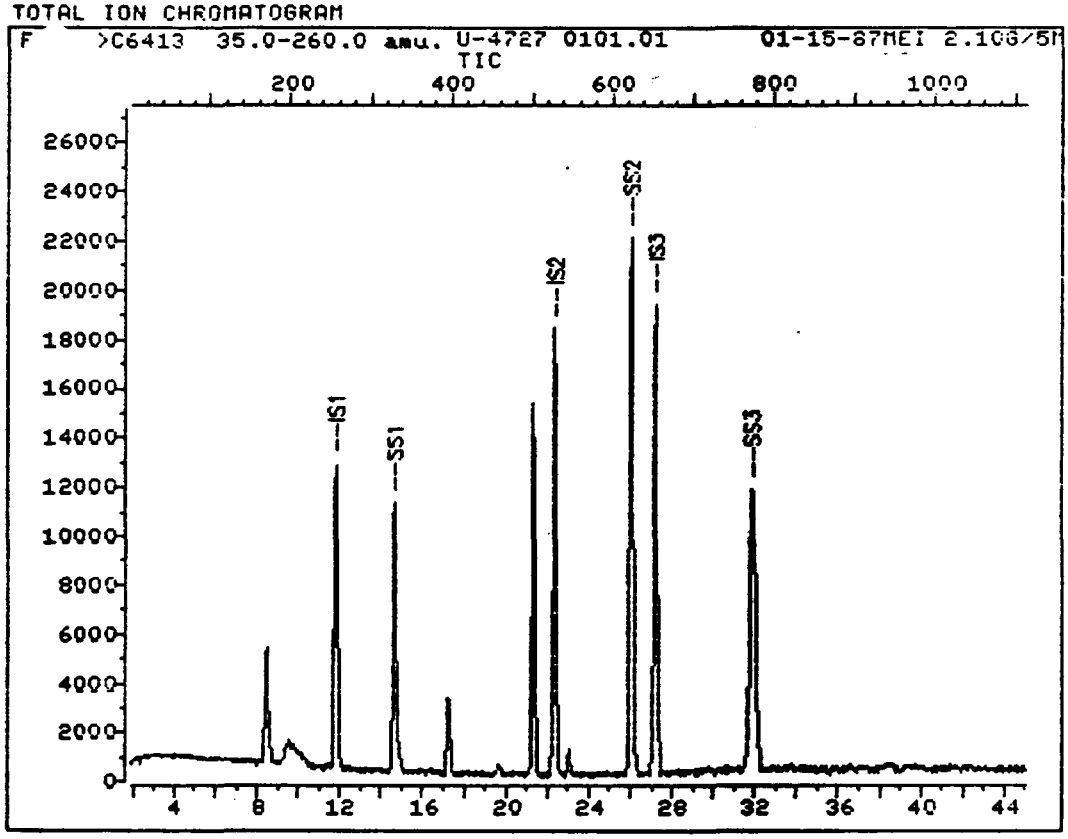
TOTAL ION CHROMATOGRAM



Data File: >C6413::D3
Name: U-4727 0101.01 DC-HB-20
Misc: 01-15-87MEI 2.10G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870115 23:11
Injected at: 870115 22:25

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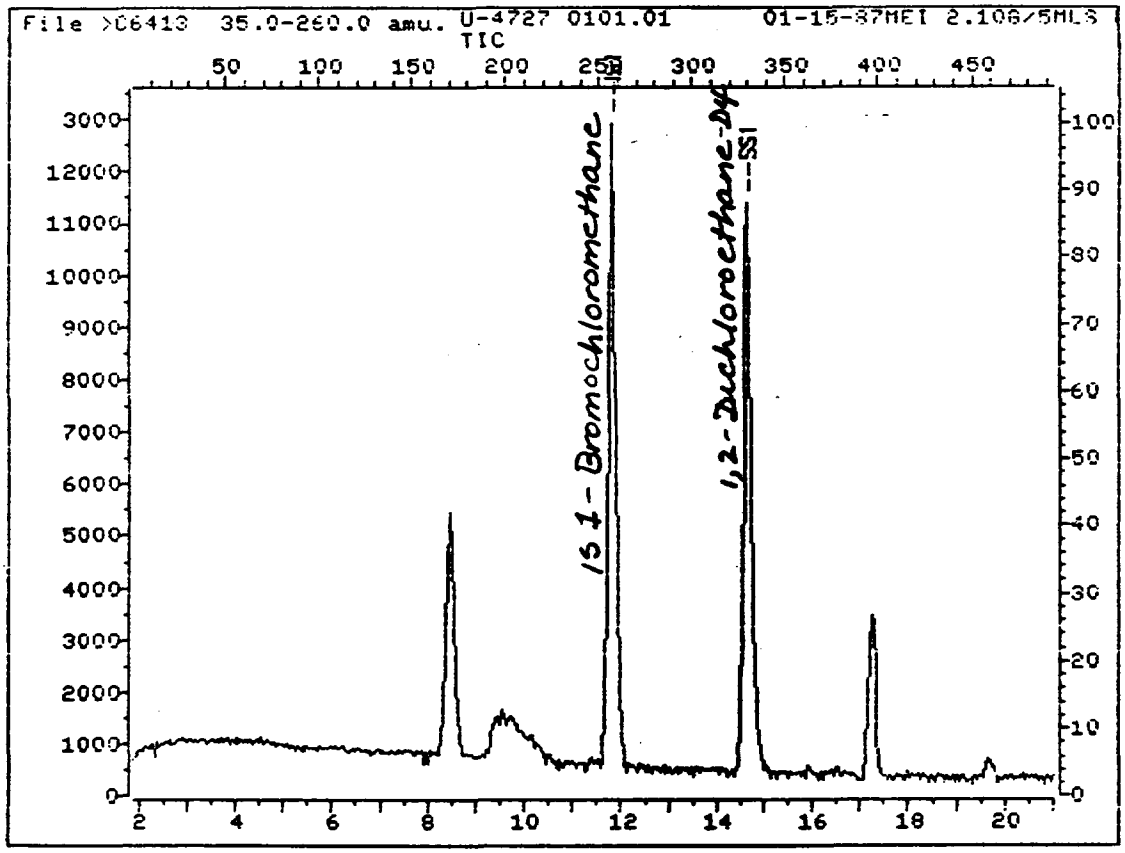
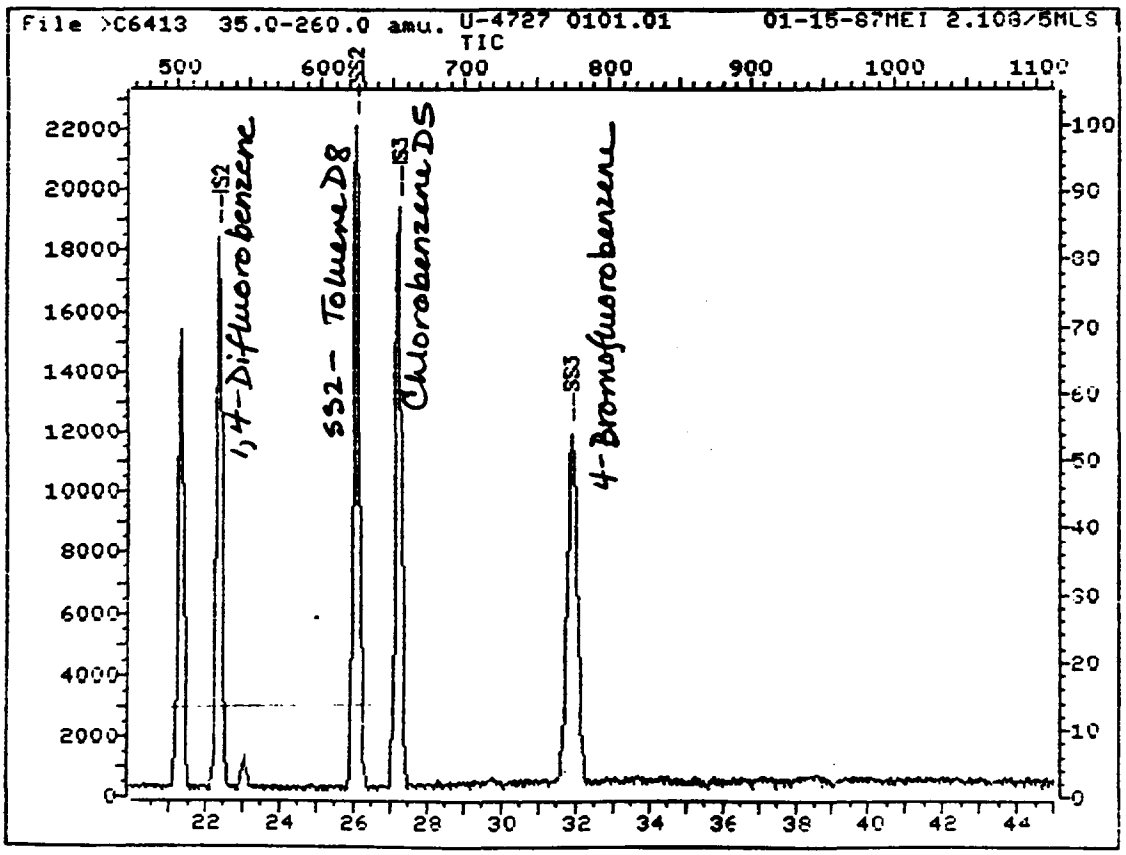
DC-HB-20





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QUANT REPORT

ıe :or ID: MANAGER Quant Rev: 4 Quant Time: 870115 23:11
ıtput File: ^C6413::Q1 Injected at: 870115 22:25
ıta File: >C6413::D3 Dilution Factor: 1.00
ıme: U-4727 0101.01 DC-HB-20
sc: 01-15-87MEI 2.10G/5MLS DI + 10UL IS/SS

) File: VOACRS::D2
tle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ıst Calibration: 870115 19:30

	Compound			R.T.	Scan#	Area	Conc	Units	q
ı)	*BROMOCHLOROMETHANE	(IS)	128	11.82	257	17256	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.45	170	13426	97.34	NGS	100
7)	ACETONE		43	9.53	198	9677	79.48	NGS	100
.5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.65	330	48337	272.43	NGS	78
ı6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.38	529	73678	250.00	NGS	100
ı1)	*CHLOROBENZENE-D5	(IS)	117	27.23	654	55750	250.00	NGS	100
?)	4-METHYL-2-PENTANONE		43	23.03	546	5112	23.17	NGS	96
ı)	TOLUENE-D8	(SURR)	98	26.06	624	84480	259.08	NGS	91
ı)	4-BROMOFLUOROBENZENE	(SURR)	95	31.89	774	41186	234.43	NGS	100

· Compound is ISTD

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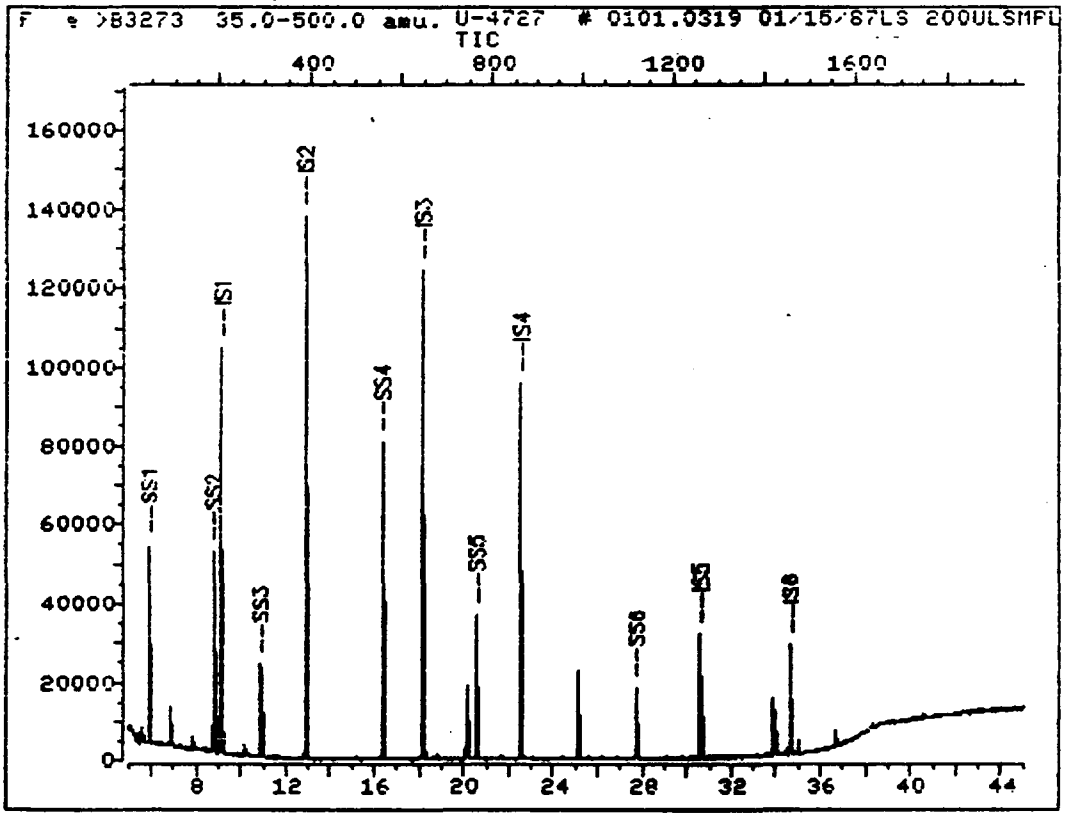
TOTAL ION CHROMATOGRAM



Data File: >B3273::D4
Name: U-4727 # 0101.0319 DC-HB-20
Misc: 01/15/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870115 15:26

Operator ID: MANAGER
Quant Time: 870115 20:00
Injected at: 870115 19:12

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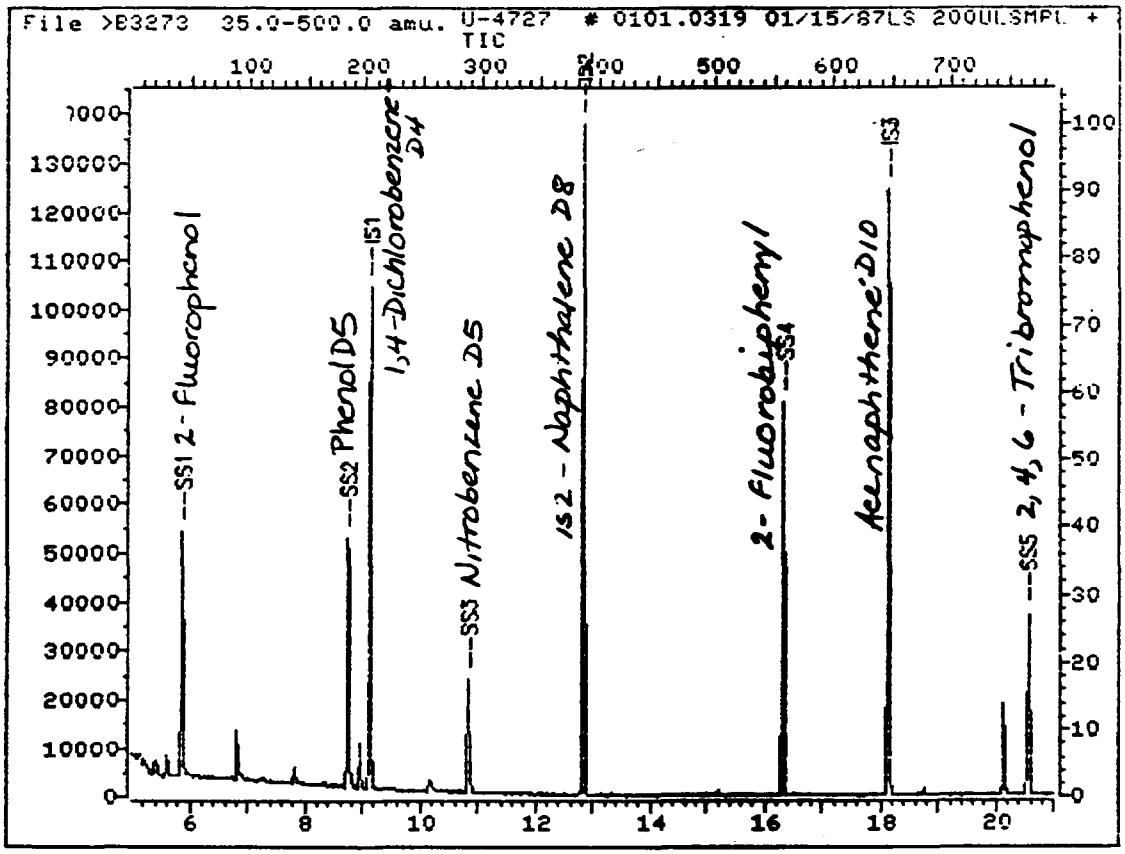
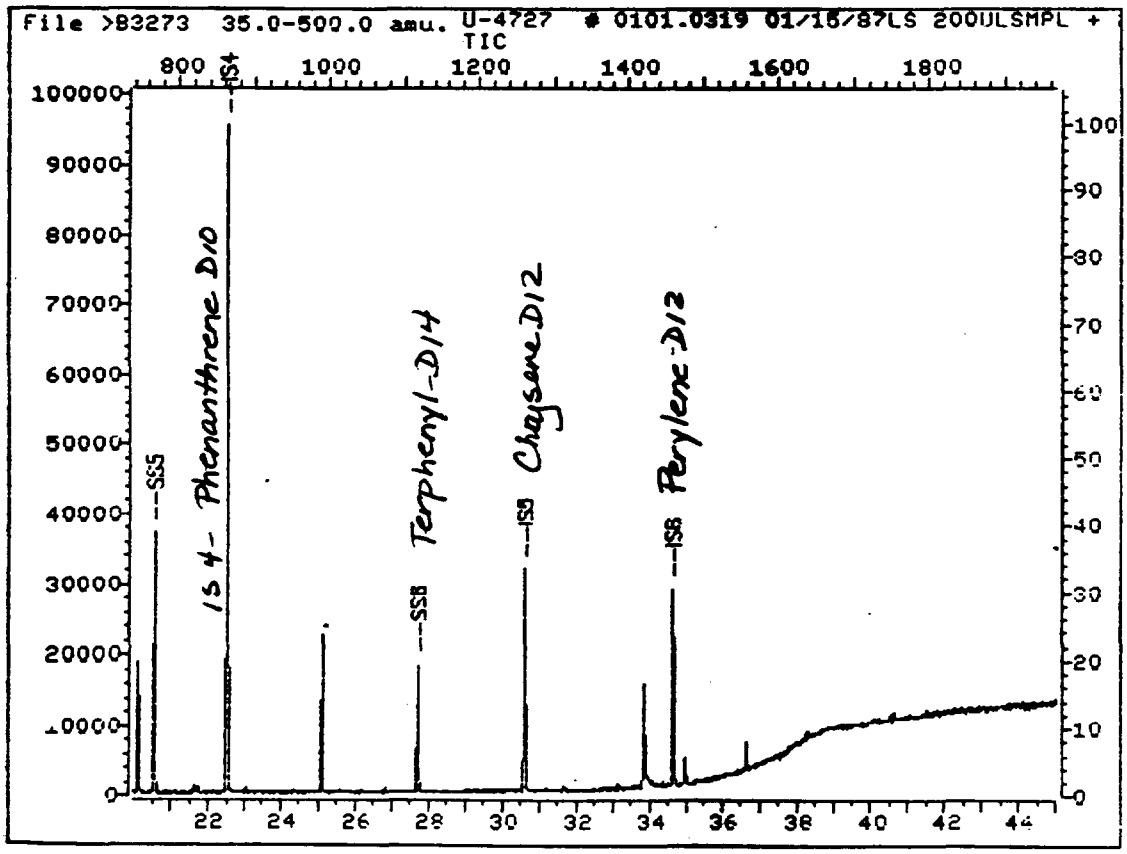


DC-HB-20



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QUANT REPORT

pt tor ID: MANAGER Quant Rev: 4 Quant Time: 870115 20:00
utput File: ^B3273::D2 Injected at: 870115 19:12
ata File: >B3273::D4 Dilution Factor: 2.00
ame: U-4727 # 0101.0319 JC-48-20
isc: 01/15/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)

D File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 870115 15:26

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.13	204	39718	40.00 UG/L	85
2)	PHENOL-D5	(SURR)	99	8.74	185	44989	68.11 UG/L 68	85
5)	2-FLUOROPHENOL	(SURR)	112	5.88	44	29348	66.14 UG/L 66	90
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.86~~	~~289~~	~~2846~~	~~5.30 UG/L~~ aw	~~87~~
19)	*NAPHTHALENE-D8	(IS)	136	12.83	386	143749	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.84	288	19001	29.88 UG/L 60	86
3)	2-METHYLNAPHTHALENE		142	15.01	493	384	.37 UG/L yes	92
4)	*ACENAPHTHENE-D10	(IS)	162	18.14	647	65197	40.00 UG/L	97
3)	2-FLUOROBIPHENYL	(SURR)	172	16.33	558	53284	42.77 UG/L 86	94
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.14~~	~~647~~	~~19577~~	~~17.36 UG/L~~ aw	~~100~~
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.56	766	11795	77.93 UG/L 78	99
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.14~~	~~647~~	~~8520~~	~~36.49 UG/L~~ aw	~~100~~
5)	*PHENANTHRENE-D10	(IS)	188	22.53	863	84257	40.00 UG/L	97
3)	DI-N-BUTYLPHTHALATE		149	25.11	990	26905	26.54 UG/L yes	99
5)	*CHRYSENE-D12	(IS)	240	30.60	1260	32738	40.00 UG/L	100
3)	TERPHENYL-D14	(SURR)	244	27.71	1118	17714	46.61 UG/L 94	100
4)	*PERYLENE-D12	(IS)	264	34.62	1458	27604	40.00 UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.89~~	~~1422~~	~~694~~	~~1.09 UG/L~~ aw	~~100~~
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.99~~	~~1425~~	~~351~~	~~.55 UG/L~~	~~100~~
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.69~~	~~1412~~	~~286~~	~~.63 UG/L~~ ND	~~100~~
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.73~~	~~1414~~	~~123~~	~~.27 UG/L~~	~~100~~
~~7)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.69~~	~~1412~~	~~286~~	~~.78 UG/L~~	~~100~~
~~7)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.73~~	~~1414~~	~~123~~	~~.34 UG/L~~ ND	~~100~~

* Compound is ISTD

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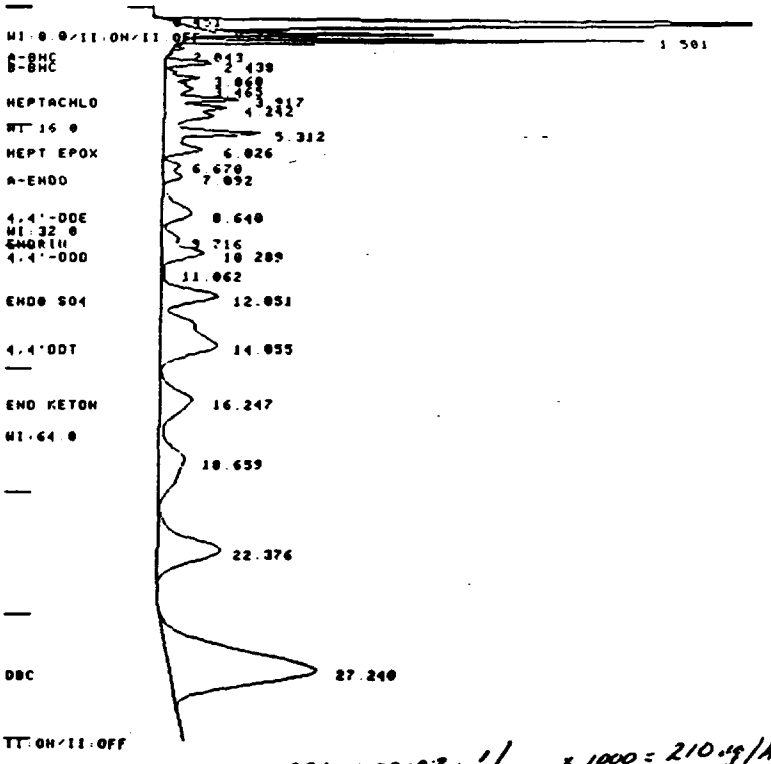
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



PCB1260 = 231 x 0.00107 x 1/1.176 x 1000 = 210 ug/Kg Dry

CHANNEL: 1A - 1 TITLE: RUN# 15 17:57 15 JAN 87

DC-H8-2D

SAMPLE: 8101.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.501		295506	BV	4.38
2	~~G-BHC~~	2.1175	2.438	-0.002	73197	VV	13.06
3		0.0000	3.060		47343	VV	10.13
4		0.0000	3.270		23155	VV	? 10.00
5		0.0000	3.465		59288	VV	? 20.88
6	~~HEPTACHLO~~	3.4747	3.817	-0.053	116015	VV	11.19
7		0.0000	4.242		110690	VV	? 14.13
8	~~ALDRIN~~	3.8655	4.504	-0.306	137983	VV	? 27.88
9		0.0000	5.312		218992	VV	13.69
10	~~HEPT EPOX~~	3.1018	6.026	0.106	103733	VV	22.44
11		0.0000	6.670		37635	VV	? 17.06
12	~~A-ENDO~~	1.6970	7.092	-0.220	53675	VV	? 26.44
13	~~DIELDRIN~~	4.6263	8.640	PCB 130	157368	VV	? 37.50
14	~~B-ENDO~~	1.7378	9.716	0.056	53626	VV	? 33.25
15	~~4,4'-DDD~~	5.8238	10.289	1260	160587	VV	29.06
16	~~ENDO-SO4~~	11.1305	12.051	-0.289	265041	VV	35.19
17	~~4,4'-DDT~~	21.8951	14.055	0.335	531142	VV	? 66.94
18	~~END-KETON~~	7.9198	16.247	0.457	259019	VV	57.69
19		0.0000	18.659	44.231	306306	VV	91.19
20		0.0000	22.376		520582	VV	58.94
21	DBC 93%	62.1105	27.240	-0.140	1605773	VB	90.38

TOTALS: 129.5002 -0.245 5135656

DETECTED PKS: 31 REJECTED PKS: 10

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -4

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW RSTY711

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SAMPLE NUMBER DC-H5-21

481095

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Sample Number
DC-H5-21

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: 4-4727
Lab Sample ID No: 0102 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 1-8-87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 1-15-87
Conc./Dil Factor: 2 pH 7.1
Percent Moisture: (Not Decanted) 19

Concentration in µg/kg as received

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	32B
67-64-1	Acetone	12BJ
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	20u
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	10u
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	10u
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4727

Sample Number DC-H5-21

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2. 4-Dinitrophenol	~~330u~~ 1700u
100-02-7	4-Nitrophenol	1700u
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2. 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1700u
534-52-1	4. 6-Dinitro-2-Methylphenol	330u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1700u
85-01-8	Phenanthrene	770
120-12-7	Anthracene	180J
84-74-2	Di-n-Butylphthalate	670 B
206-44-0	Fluoranthene	790
129-00-0	Pyrene	760
85-68-7	Butylbenzylphthalate	330u
91-94-1	3. 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	450
117-81-7	bis(2-Ethylhexyl)Phthalate	440
218-01-9	Chrysene	610
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	830
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1 2. 3-cd)Pyrene	330u
53-70-3	Dibenz(a h)Anthracene	330u
191-24-2	Benzo(g h i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4727

Sample Number DC-H5-21

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 10

Percent Moisture (decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	80µ
319-85-7	Beta-BHC	80µ
319-86-8	Delta-BHC	80µ
58-89-9	Gamma-BHC (Lindane)	80µ
76-44-8	Heptachlor	80µ
309-00-2	Aldrin	80µ
1024-57-3	Heptachlor Epoxide	80µ
959-98-8	Endosulfan I	80µ
60-57-1	Dieldrin	160µ
72-55-9	4, 4'-DDE	410
72-20-8	Endrin	160µ
33213-65-9	Endosulfan II	160µ
72-54-8	4, 4'-DDD	350
1031-07-8	Endosulfan Sulfate	160µ
50-29-3	4, 4'-DDT	750
72-43-5	Methoxychlor	800µ
53494-70-5	Endrin Ketone	160µ
57-74-9	Chlordane	800µ
8001-35-2	Toxaphene	1600µ
12674-11-2	Aroclor-1016	800µ
11104-28-2	Aroclor-1221	800µ
11141-16-5	Aroclor-1232	800µ
53469-21-9	Aroclor-1242	800µ
12672-29-6	Aroclor-1248	800µ
11097-69-1	Aroclor-1254	1600µ
11096-82-5	Aroclor-1260	4200

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4727

Sample Number
DC-45-21

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3	18 BJ
2.	Hexane isomer	VOA	21.4	62 BJ
3.	Unknown hydrocarbon	VOA	35.6	96 J
4.	Unknown hydrocarbon	VOA	38.4	31 J
5.	Unknown hydrocarbon	VOA	42.2	120 J
6.				
7.	Unknown hydrocarbon	BNA	13.7	340 J
8.	Unknown hydrocarbon		14.4	240 J
9.	Unknown hydrocarbon		14.8	340 J
10.	Unknown hydrocarbon		15.6	440 J
11.	Unknown hydrocarbon		16.6	300 J
12.	Unknown		18.3	220 J
13.	Unknown hydrocarbon		20.0	300 J
14.	Dimethyl dodecane isomer		20.9	270 J
15.	Trimethyl dodecane isomer		21.7	340 J
16.	Unknown hydrocarbon		23.1	210 J
17. 10544500	Molecular Sulfur		25.9	31,000 J
18.	Tetramethyl phenanthrene		29.1	2100 J
19.	Terphenyl isomer		29.8	2400 J
20.	Terphenyl isomer		30.1	3800 J
21.	Terphenyl isomer		30.2	2000 J
22.	Unknown hydrocarbon		31.1	2900 J
23.	Unknown hydrocarbon		31.3	2500 J
24.	Unknown		32.2	2900 J
25.	Unknown hydrocarbon		32.5	2300 J
26.	Unknown hydrocarbon		32.8	1800 J
27.				
28.				
29.				
30				

Form 1, Part B

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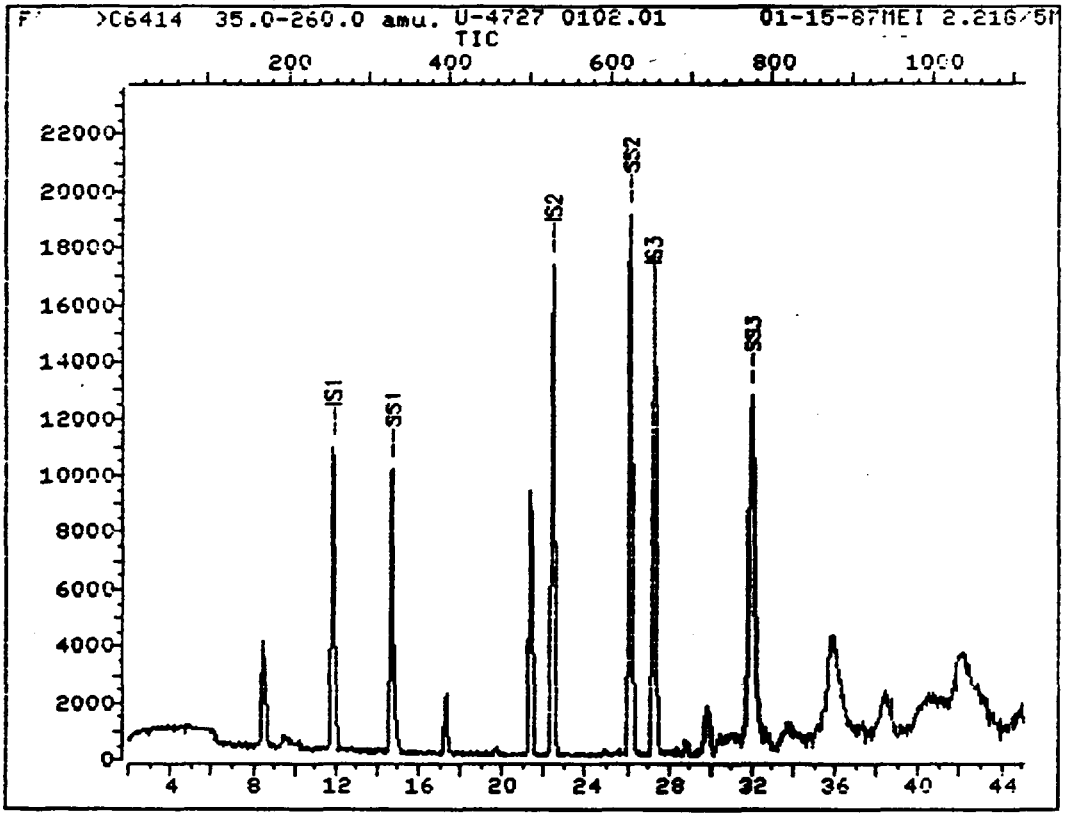
TOTAL ION CHROMATOGRAM



Data File: >C6414::D3
Name: U-4727 0102.01 DC-H5-21
Misc: 01-15-87MEI 2.21G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870116 09:29
Injected at: 870115 23:22

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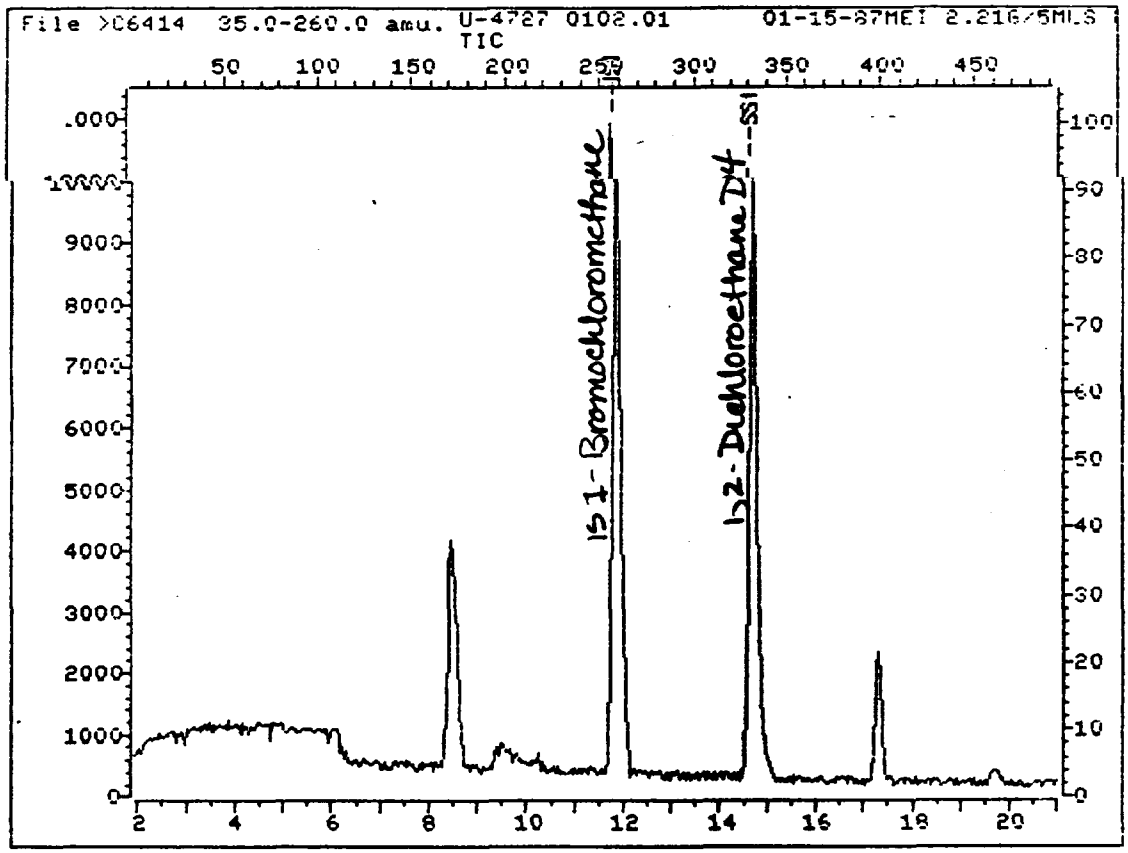
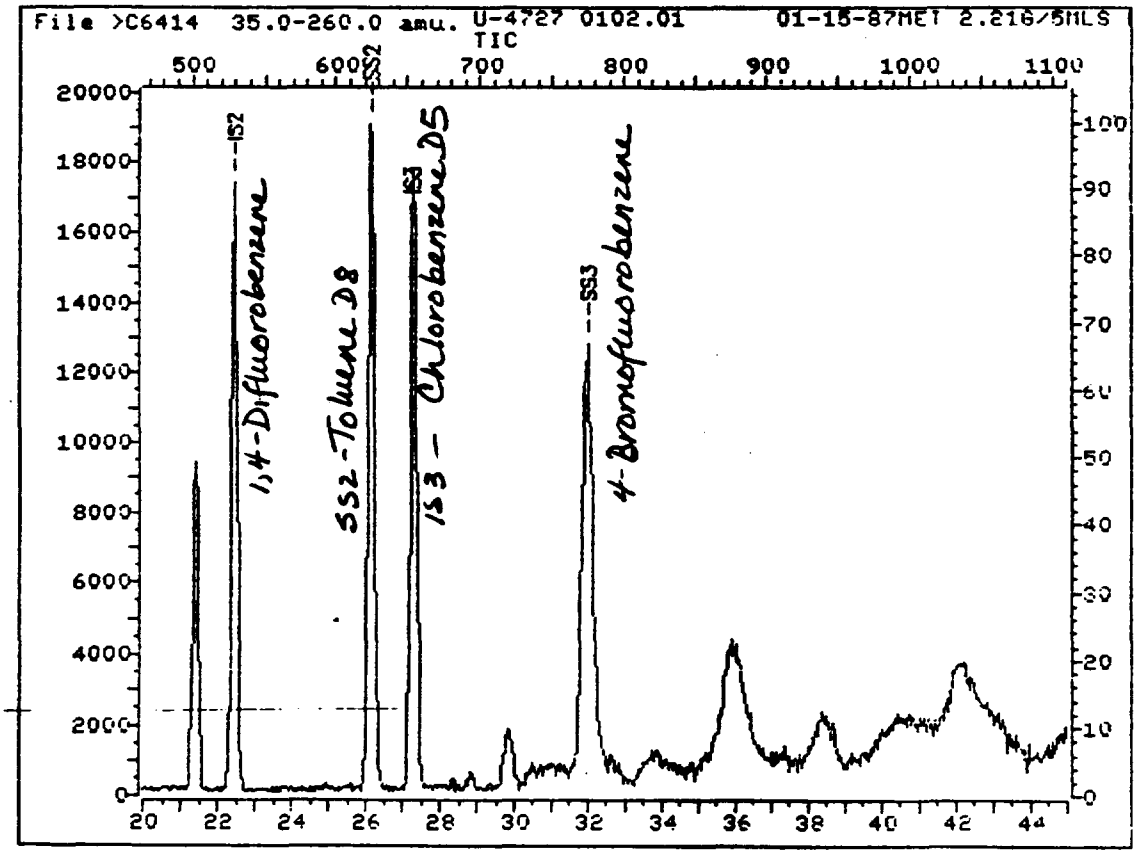
DC-H5-21





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QUANT REPORT

ɔerator ID: MANAGER Quant Rev: 4 Quant Time: 870116 09:29
ɹtput File: ^C6414::D2 Injected at: 870115 23:22
ɜta File: >C6414::D3 Dilution Factor: 1.00
ɜme: U-4727 0102.01 DC-H5-21
isc: 01-15-87MEI 2.21G/5MLS DI + 10UL IS/SS

) File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ɜst Calibration: 870115 19:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.84	256	20851	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.47	169	11698	70.19	NGS	100
7)	ACETONE	43	9.52	196	4057	27.58	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.71	330	50694	236.45	NGS	76
6)	*1,4-DIFLUOROBENZENE	(IS) 114	22.44	529	68016	250.00	NGS	100
1)	*CHLOROBENZENE-D5	(IS) 117	27.26	653	51259	250.00	NGS	100
5)	TOLUENE-D8	(SURR) 98	26.12	624	75891	253.13	NGS	94
1)	4-BROMOFLUOROBENZENE	(SURR) 95	31.99	775	45450	281.37	NGS	100

* Compound is ISTD

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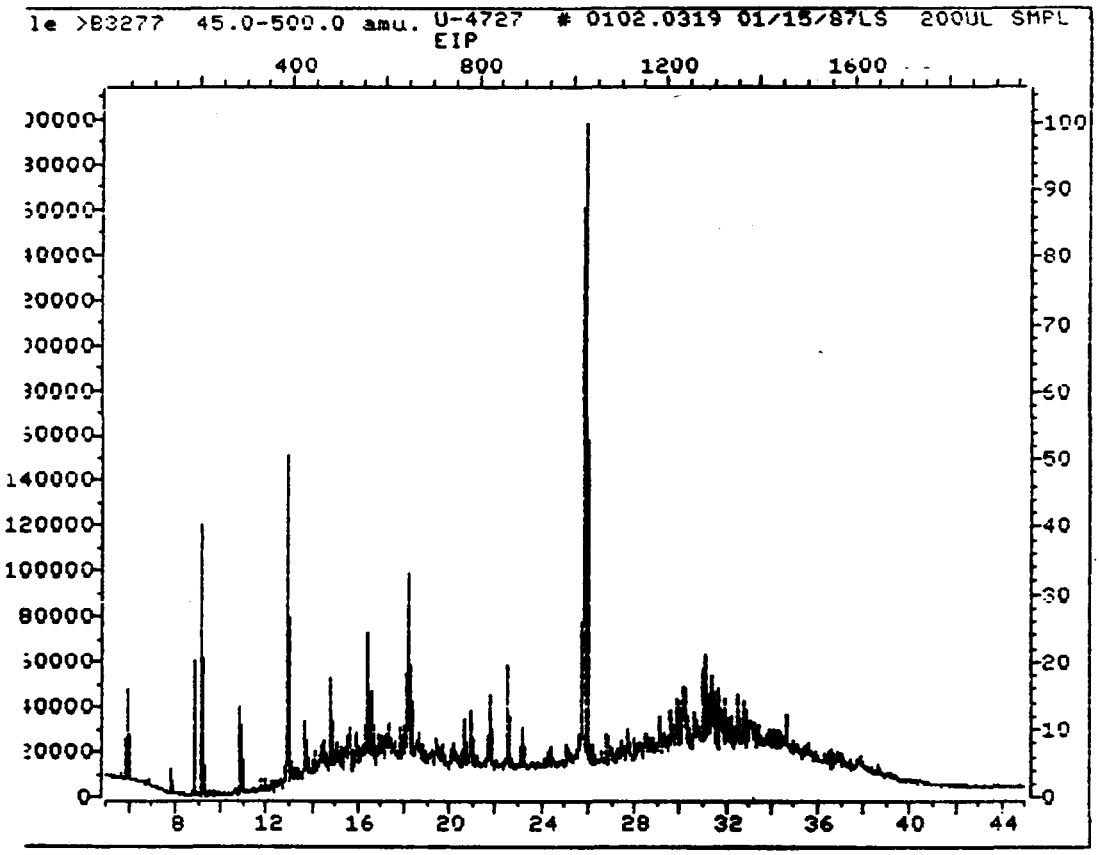

DC-HS-21

S data file header from : >B3277

ample: U-4727 # 0102.0319 Operator: MANAGER MS 1/15/87 22:43
isc : 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)
ys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: BNA002 Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	30.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	19.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

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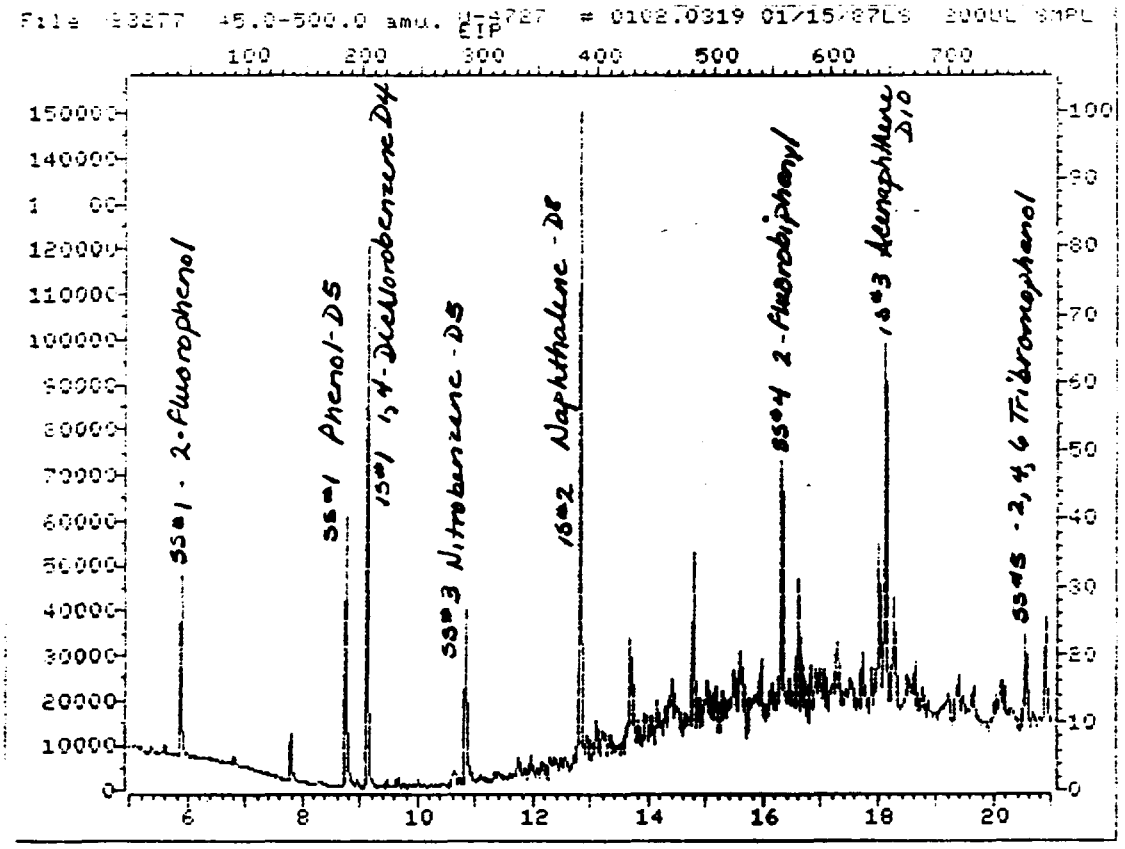
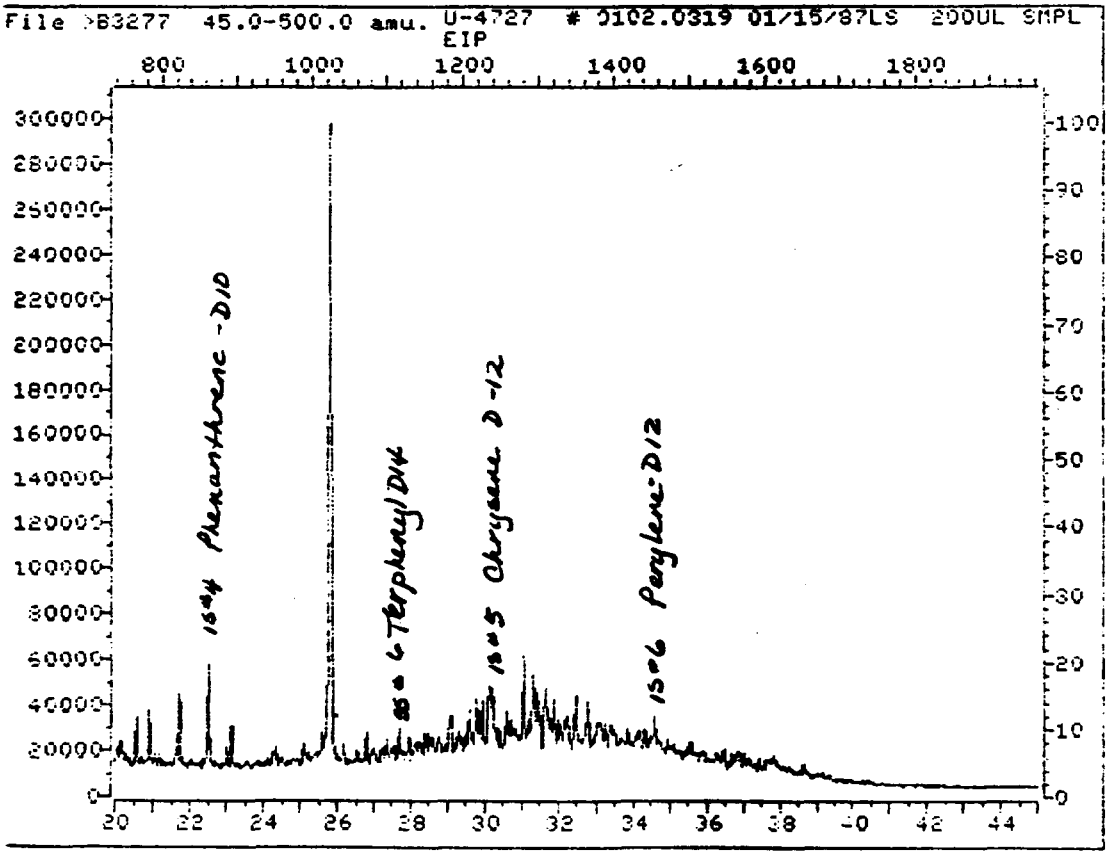


DC-H5-21



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QUANT REPORT

ɔt utor ID: MANAGER Quant Rev: 4 Quant Time: 870115 23:31
utput File: ^B3277::D2 Injected at: 870115 22:43
ata File: >B3277::D4 Dilution Factor: 2.00
ame: U-4727 # 0102.0319 DC-HS-21
isc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)

) File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 870115 15:26

<2 values not reported CW

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.12	204	44914	40.00 UG/L	86
2)	PHENOL-D5	(SURR)	99	8.76	186	62003	83.01 UG/L 83	81
5)	2-FLUOROPHENOL	(SURR)	112	5.89	45	22965	45.77 UG/L 46	67
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~9.85~~	~~240~~	~~364~~	~~.23 UG/L~~	~~100~~ CW
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~9.98~~	~~246~~	~~845~~	~~.54 UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.12~~	~~253~~	~~462~~	~~.30 UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.20~~	~~257~~	~~445~~	~~.29 UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.36~~	~~265~~	~~688~~	~~.44 UG/L~~	~~100~~
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.63~~	~~278~~	~~1121~~	~~1.85 UG/L~~ NO	~~48~~
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.83~~	~~288~~	~~5989~~	~~9.74 UG/L~~	~~74~~
9)	*NAPHTHALENE-D8	(IS)	136	12.82	386	149516	40.00 UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	10.83	288	32745	49.51 UG/L	87
8)	1,2,4-TRICHLOROBENZENE		180	12.76	383	562	.91 UG/L	100
9)	NAPHTHALENE		128	12.87	388	2790	1.52 UG/L	100
3)	2-METHYLNAPHTHALENE		142	14.98	492	2151	1.97 UG/L	97
~~5)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.29~~	~~507~~	~~1550~~	~~1.42 UG/L~~	~~88~~ CW
4)	*ACENAPHTHENE-D10	(IS)	162	18.12	646	42563	40.00 UG/L	97
3)	2-FLUOROBIPHENYL	(SURR)	172	16.31	557	44209	54.36 UG/L	95
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.41~~	~~611~~	~~364~~	~~.49 UG/L~~	~~100~~ CW
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.69~~	~~625~~	~~190~~	~~.27 UG/L~~	~~100~~
1)	DIMETHYL PHTHALATE		163	17.94	637	173	.23 UG/L NO	100
1)	DIMETHYL PHTHALATE		163	18.00	640	351	.48 UG/L NO	100
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.14~~	~~647~~	~~13058~~	~~17.74 UG/L~~	~~100~~
3)	DIBENZOFURAN		168	18.71	675	1326	1.47 UG/L	100
5)	FLUORENE		166	19.75	726	1040	1.65 UG/L	93
7)	ACENAPHTHENE		153	18.20	650	1288	1.86 UG/L	93
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.55	765	4780	48.38 UG/L 48	93
~~9)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.04~~	~~740~~	~~249~~	~~3.76 UG/L~~	~~100~~ CW
~~9)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.30~~	~~753~~	~~313~~	~~4.73 UG/L~~	~~100~~
~~0)~~	~~4-NITROPHENOL~~		~~139~~	~~18.71~~	~~675~~	~~892~~	~~10.69 UG/L~~	~~100~~
~~0)~~	~~4-NITROPHENOL~~		~~139~~	~~18.82~~	~~680~~	~~220~~	~~2.64 UG/L~~	~~100~~
~~0)~~	~~4-NITROPHENOL~~		~~139~~	~~19.22~~	~~700~~	~~135~~	~~1.62 UG/L~~ NO	~~100~~
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~18.69~~	~~672~~	~~474~~	~~3.33 UG/L~~	~~100~~
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~18.92~~	~~685~~	~~316~~	~~2.22 UG/L~~	~~100~~
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.14~~	~~696~~	~~240~~	~~1.68 UG/L~~	~~100~~
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.22~~	~~700~~	~~263~~	~~1.85 UG/L~~	~~100~~ NO
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.47~~	~~712~~	~~335~~	~~2.35 UG/L~~	~~100~~
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.93~~	~~617~~	~~221~~	~~1.45 UG/L~~	~~100~~
2.	2,6-DINITROTOLUENE		165	17.61	621	529	3.47 UG/L	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.90~~	~~635~~	~~692~~	~~4.54 UG/L~~	~~100~~
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.02~~	~~641~~	~~216~~	~~1.42 UG/L~~	~~100~~
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.12~~	~~646~~	~~6086~~	~~39.92 UG/L~~ 254	~~100~~
5)	*PHENANTHRENE-D10	(IS)	188	22.51	861	38207	40.00 UG/L	98
~~7)~~	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~20.04~~	~~740~~	~~354~~	~~1.60 UG/L~~	~~47~~ CW
1)	PHENANTHRENE		178	22.57	864	10965	29.19 UG/L	97

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DC-HB-20

	Compound		R.T.	Scan#	Area	Conc	Units	q
~~2)~~	~~ANTHRACENE~~		~~178~~	~~22.57~~	~~864~~	~~10965~~	~~24.77~~ ~~UG/L~~	~~97~~
2)	ANTHRACENE		178	22.71	871	2356	5.32 UG/L	89
3)	DI-N-BUTYLPHTHALATE		149	25.09	988	9236	20.10 UG/L	95
4)	FLUORANTHENE		202	26.18	1041	7845	23.79 UG/L	95
5)	*CHRYSENE-D12	(IS)	240	30.59	1257	12701	40.00 UG/L	100
7)	PYRENE		202	26.81	1072	6941	22.84 UG/L	68
~~2)~~	~~PYRENE~~		~~202~~	~~26.91~~	~~1077~~	~~372~~	~~1.22~~ ~~UG/L~~	~~1~~
~~2)~~	~~PYRENE~~		~~202~~	~~26.99~~	~~1081~~	~~330~~	~~1.09~~ ~~UG/L~~	~~93~~
~~2)~~	~~PYRENE~~		~~202~~	~~27.26~~	~~1094~~	~~984~~	~~2.97~~ ~~UG/L~~	~~1~~
3)	TERPHENYL-D14	(SURR)	244	27.69	1115	6472	43.90 UG/L	100
1)	BENZO(A)ANTHRACENE		228	30.57	1256	2215	13.59 UG/L	75
~~1)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.67~~	~~1261~~	~~3064~~	~~18.88~~ ~~UG/L~~	~~95~~
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.67	1310	1843	13.26 UG/L	94
~~73)~~	~~CHRYSENE~~		~~228~~	~~30.57~~	~~1256~~	~~2215~~	~~13.29~~ ~~UG/L~~	~~77~~
73)	CHRYSENE		228	30.67	1261	3064	18.38 UG/L	96
74)	*PERYLENE-D12	(IS)	264	34.63	1455	10269	40.00 UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.00~~	~~1375~~	~~1072~~	~~4.53~~ ~~UG/L~~	~~100~~
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.10~~	~~1380~~	~~330~~	~~1.40~~ ~~UG/L~~	~~100~~
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.47~~	~~1398~~	~~305~~	~~1.29~~ ~~UG/L~~	~~100~~
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.65~~	~~1407~~	~~138~~	~~.58~~ ~~UG/L~~	~~100~~
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.86~~	~~1417~~	~~185~~	~~.78~~ ~~UG/L~~	~~100~~
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.24~~	~~1387~~	~~785~~	~~4.63~~ ~~UG/L~~	~~100~~
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.37~~	~~1393~~	~~749~~	~~4.41~~ ~~UG/L~~	~~100~~
5)	BENZO(B)FLUORANTHENE		252	33.67	1408	4226	24.91 UG/L	100
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.94~~	~~1421~~	~~875~~	~~5.16~~ ~~UG/L~~	~~100~~
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.12~~	~~1430~~	~~590~~	~~3.48~~ ~~UG/L~~	~~100~~
~~7)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.24~~	~~1387~~	~~785~~	~~5.77~~ ~~UG/L~~	~~100~~
~~7)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.37~~	~~1393~~	~~749~~	~~5.51~~ ~~UG/L~~	~~100~~
~~7)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.67~~	~~1408~~	~~4226~~	~~31.09~~ ~~UG/L~~	~~100~~
~~7)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.94~~	~~1421~~	~~875~~	~~6.44~~ ~~UG/L~~	~~100~~
~~7)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.12~~	~~1430~~	~~590~~	~~4.34~~ ~~UG/L~~	~~100~~
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.12~~	~~1430~~	~~897~~	~~6.95~~ ~~UG/L~~	~~100~~
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.35~~	~~1441~~	~~4061~~	~~31.46~~ ~~UG/L~~	~~100~~
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.47~~	~~1447~~	~~3079~~	~~23.85~~ ~~UG/L~~	~~100~~
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.69~~	~~1458~~	~~1095~~	~~8.48~~ ~~UG/L~~	~~100~~
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.94~~	~~1470~~	~~850~~	~~6.58~~ ~~UG/L~~	~~100~~
~~3)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~36.69~~	~~1556~~	~~315~~	~~2.58~~ ~~UG/L~~	~~100~~
~~3)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~36.78~~	~~1560~~	~~270~~	~~2.21~~ ~~UG/L~~	~~100~~
~~3)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~36.84~~	~~1563~~	~~366~~	~~3.00~~ ~~UG/L~~	~~100~~
~~3)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.18~~	~~1580~~	~~1653~~	~~13.53~~ ~~UG/L~~	~~100~~
~~3)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.41~~	~~1591~~	~~466~~	~~3.81~~ ~~UG/L~~	~~100~~
~~3)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.00~~	~~1571~~	~~353~~	~~3.07~~ ~~UG/L~~	~~100~~
~~3)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.29~~	~~1585~~	~~321~~	~~2.79~~ ~~UG/L~~	~~100~~
~~3)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.41~~	~~1591~~	~~272~~	~~2.37~~ ~~UG/L~~	~~100~~
~~3)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.65~~	~~1603~~	~~654~~	~~5.69~~ ~~UG/L~~	~~100~~
~~1)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~37.41~~	~~1591~~	~~466~~	~~3.62~~ ~~UG/L~~	~~100~~
1)	BENZO(G,H,I)PERYLENE		276	37.71	1606	4065	31.57 UG/L	100
~~1)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~37.88~~	~~1614~~	~~829~~	~~6.44~~ ~~UG/L~~	~~100~~
~~1)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~37.98~~	~~1619~~	~~679~~	~~5.27~~ ~~UG/L~~	~~100~~
~~1)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~38.12~~	~~1626~~	~~489~~	~~3.80~~ ~~UG/L~~	~~100~~

* Compound is ISTD

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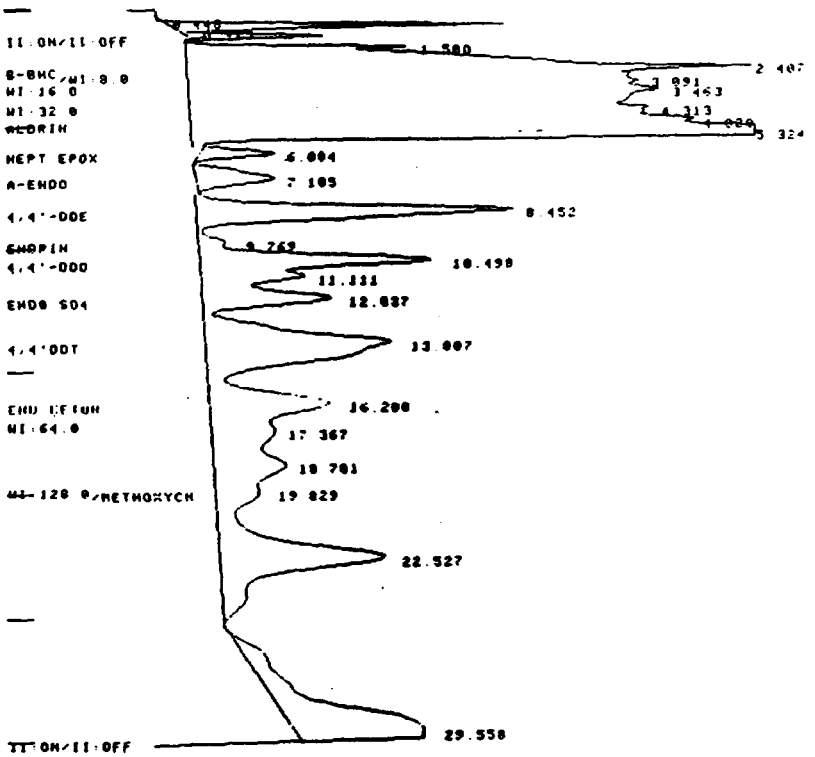
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



PCB 1260 = 448 x 0.00100 1/1.2mg x 10,000 = 5200 ug/kg Dry

CHANNEL: 1A - 1 TITLE: RUN# 23 22:48 15 JAN 87

SAMPLE: 0102.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

DC-H5-21

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.580		197572	VV	? 6.69
2	~~G-BHC~~	783.3704	2.407	-0.113	2707939	VV	? 21.94
3		0.0000	2.829		934655	VV	? 18.13
4		0.0000	3.091		876835	VV	? 16.50
5		0.0000	3.463		1430974	VV	? 29.19
6	~~HEPTACHLO~~	405.7069	3.714	-0.256	1354609	VV	? 76.81
7		0.0000	4.313		1322185	VV	? 25.19
8	~~ALDRIN~~	380.0050	4.820	-0.070	1356472	VV	? 34.00
9		0.0000	5.324		9298302	VV	12.25
10	~~HEPT EPOX~~	56.0154	6.004	0.164	187331	T	22.31
11	~~A-ENDO~~	109.5190	7.105	-0.215	346397	T	43.06
12	4,4'-DDE	410.9314	8.452	0.052	~~1312401~~	VV	33.56
13	~~B-ENDO~~	24.5734	9.769	0.109	76832	VV	? 39.75
14	4,4'-DDD	346.0361	10.498	PCB 0.022	~~954171~~	VV	33.94
15	~~ENDRIN~~	148.6997	11.111	1260 0.081	~~352297~~	VV	? 40.44
16	~~ENDO SO4~~	258.9450	12.037	-0.303	618931	VV	44.19
17	4,4'DDT	751.3815	13.007	0.007	~~1832742~~	VV	81.94
18	~~ENDO KETON~~	268.1983	16.200	0.490	873758	VV	? 63.50
19		0.0000	17.367		~~454558~~	VV	?124.63
20		0.0000	18.781	ΣA = 448	659618	VV	?116.50
21	~~METHOXYCH~~	182.3043	19.829	-0.271	~~236114~~	VV	122.00
22		0.0000	22.527		1713155	VV	74.69
23		0.0000	29.558		1584982	VB	?155.56

TOTALS: 4117.687 0.133 30683838

DETECTED PKS: 30 REJECTED PKS: 7

DIVISOR: 1.50000 MULTIPLIER: 10000.0000

NOISE: 11.4 OFFSET: 12

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW PST:719

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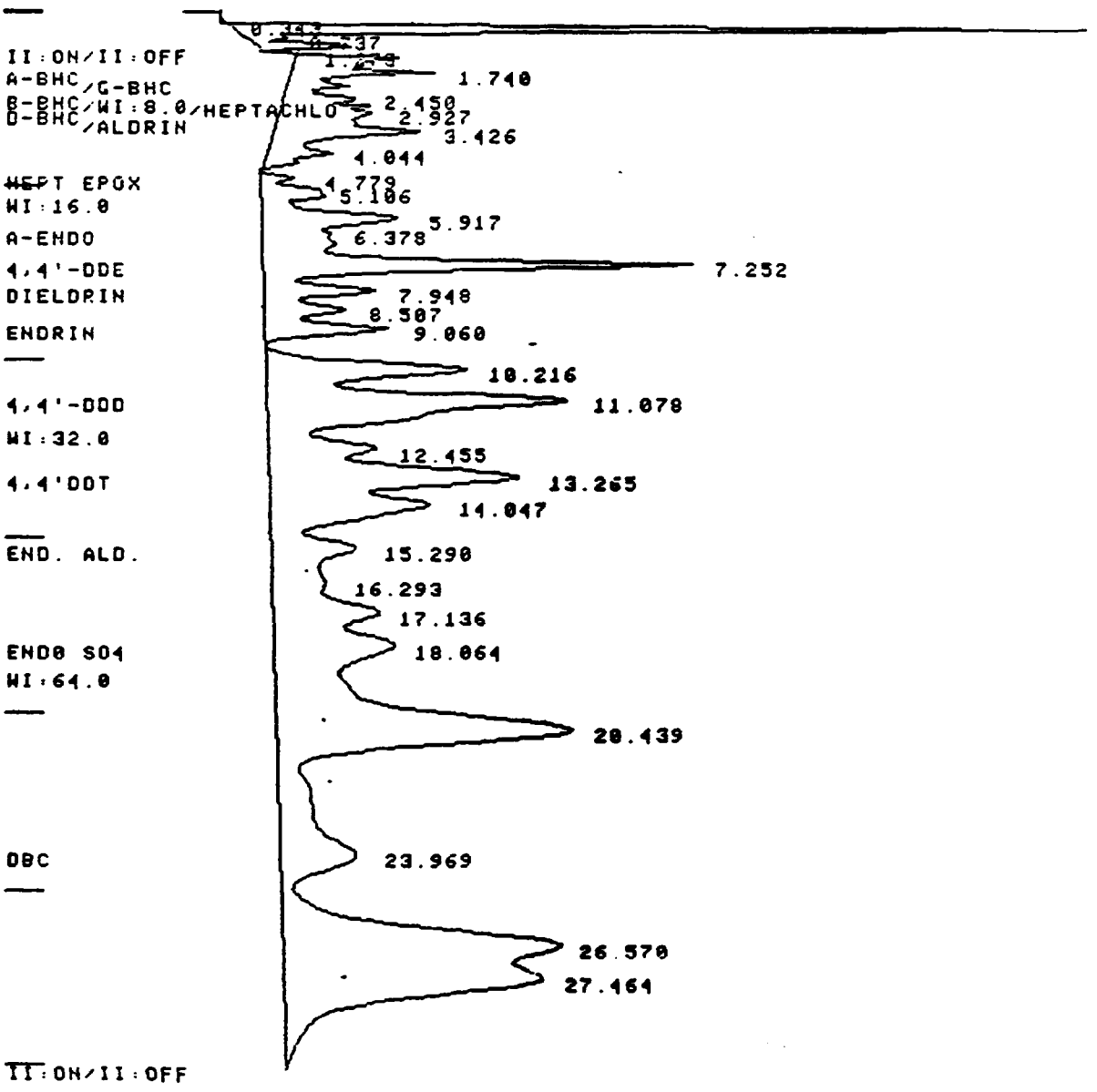
CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



DC-H5-21

RECALCULATE ON FILE: R.ST.866

CHANNEL: 1B - 1 TITLE: RUN#8 14:54 20 JAN 87

SAMPLE: 0102.01.19A1 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.273		182722	BV ?	4.94
2		0.0000	1.428		93991	VV ?	
3	~~A-BHC~~	53.1772	1.740	-0.040	322713	VV	5.44

254

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CHANNEL: 18 - 1 TITLE: RUN# 8 14:54 20 JAN 87

DC-HS-21

SAMPLE: 0102.01.19A1 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.273		182722	BV	? 4.94
2		0.0000	1.428		93991	VV	?
3	~~A-BHC~~	53.1772	1.740	-0.040	322713	VV	5.44
4	~~G-BHC~~	23.2217	2.085	-0.165	118716	VV	? 8.06
5	~~B-BHC~~	96.0892	2.450	-0.110	197483	VV	8.00
6	~~HEPTACHLO~~	38.3805	2.733	-0.037	185229	VV	? 12.06
7	~~D-BHC~~	51.3375	2.927	-0.053	240019	VV	? 11.38
8		0.0000	3.191		118664	VV	? 8.00
9	~~ALDRIN~~	87.1089	3.426	0.086	483597	VV	15.00
10		0.0000	4.044		187131	VV	9.44
11		0.0000	4.304		58813	VB	4.50
12		0.0000	4.779		62554	BV	11.06
13	~~HEPT-EPOX~~	22.0682	5.106	0.096	109144	VV	? 15.94
14		0.0000	5.236		151785	VV	? 23.75
15		0.0000	5.917		638068	VV	25.31
16	~~A-ENDO~~	36.3303	6.378	0.078	166833	VV	? 15.38
17		0.0000	6.651		256030	VV	? 43.81
18	4,4'-DDE	347.9525	#7.252	0.012	1568118	VV	18.63
19	~~DIELDRIN~~	82.1483	7.948	0.258	400983	VV	21.00
20		0.0000	8.507		285476	VV	23.94
21	~~ENDRIN~~	137.6673	9.060	-0.250	479709	VV	22.88
22		0.0000	10.216		1017283	VV	28.44
4,4'-DDD 23	~~4,4'-DDD~~	579.0280	#11.078	0.018	2185974	VV	43.75
24		0.0000	12.455		593662	VV	? 38.13
25	4,4'DDT	610.5579	#13.265	-0.095	1661625	VV	41.19
26		0.0000	14.047		1197987	VV	? 54.81
27	~~END. ALD.~~	188.5786	15.290	0.460	626393	VV	? 42.63
28		0.0000	16.293		343462	VV	? 45.19
29		0.0000	17.136		823343	VV	? 66.38
30	~~ENDO-SUL~~	665.4073	18.064	0.174	1214198	VV	? 80.50
31		0.0000	#20.439	1260	3723362	VV	61.44
32	~~DDD~~ INF.	405.4136	23.969	0.319	1386307	VV	?111.75
33	~~METHOXYCH~~	2241.719	26.570	0.980	3063071	VV	? 69.56
34		0.0000	27.464		2734369	VB	? 83.75

TOTALS: 5666.186 1.731 26878818

DETECTED PKS: 41 REJECTED PKS: 7

DIVISOR: 1.50000 MULTIPLIER: 10000.0000

NOISE: 34.3 OFFSET: -19

RACK: 1 VIAL: 8 INJ: 1

NOTES:

NOTEBOOK:259-82 ANALYST:K. JUREK
SECURE AREA: D JOB# U-4727,4738
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER

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SAMPLE NUMBER DC-H6-22

481095

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Sample Number
DC-H6-22

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4738

Lab Sample ID No: 0156 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Boytowicz Date Sample Received: 1-10-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-16-87

Conc./Dil Factor: 2 pH 7.5

Percent Moisture: (Not Decanted) 26

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	24 B
67-64-1	Acetone	2100BE
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	20u
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	14
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	7 J
591-78-6	2-Hexanone	20 u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	10u
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

E — This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

Laboratory Name Ecology & Environment, Inc

Case No IL-3140 V-4738

Sample Number DC-H6-22

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed: 1-20-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 26

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	U
111-91-1	bis(-2-Chloroethoxyl)Methane	330	U
120-83-2	2. 4-Dichlorophenol	330	U
120-82-1	1. 2. 4-Trichlorobenzene	45	J
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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
[illegible]-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-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	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	35	J
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	650	B
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	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

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Laboratory Name ecology and environment, inc.

Case No U-4738

Sample Number DC-H6-22

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 5

Percent Moisture (decanted) 26

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	40u
319-85-7	Beta-BHC	40u
319-86-8	Delta-BHC	40u
58-89-9	Gamma-BHC (Lindane)	40u
76-44-8	Heptachlor	40u
309-00-2	Aldrin	40u
1024-57-3	Heptachlor Epoxide	40u
959-98-8	Endosulfan I	40u
60-57-1	Dieldrin	80u
72-55-9	4, 4'-DDE	80u
72-20-8	Endrin	80u
33213-65-9	Endosulfan II	80u
72-54-8	4, 4'-DDD	80u
1031-07-8	Endosulfan Sulfate	80u
50-29-3	4, 4'-DDT	80u
72-43-5	Methoxychlor	400u
53494-70-5	Endrin Ketone	80u
57-74-9	Chlordane	400u
8001-35-2	Toxaphene	800u
12674-11-2	Aroclor-1016	400u
11104-28-2	Aroclor-1221	400u
11141-16-5	Aroclor-1232	400u
53469-21-9	Aroclor-1242	400u
12672-29-6	Aroclor-1248	400u
11097-69-1	Aroclor-1254	800u
11096-82-5	Aroclor-1260	1300

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i ✓

Laboratory Name E&E

Case No U-4738

Sample Number DC-H6-22

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3	32 BJ
2.	Hexane isomer	VOA	21.3	130 BJ
3.				
4.	UNKNOWN	BNA	6.79	300 J
5.	TETRACHLOROBENZENE ISOMER	BNA	16.52	210 J
6.	UNKNOWN	BNA	20.20	300 B J
7. 10544500	MOLECULAR SULFUR	BNA	25.90	880 J
8.	UNKNOWN	BNA	34.01	920 B J
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
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26.				
27.				
28.				
29.				
30				

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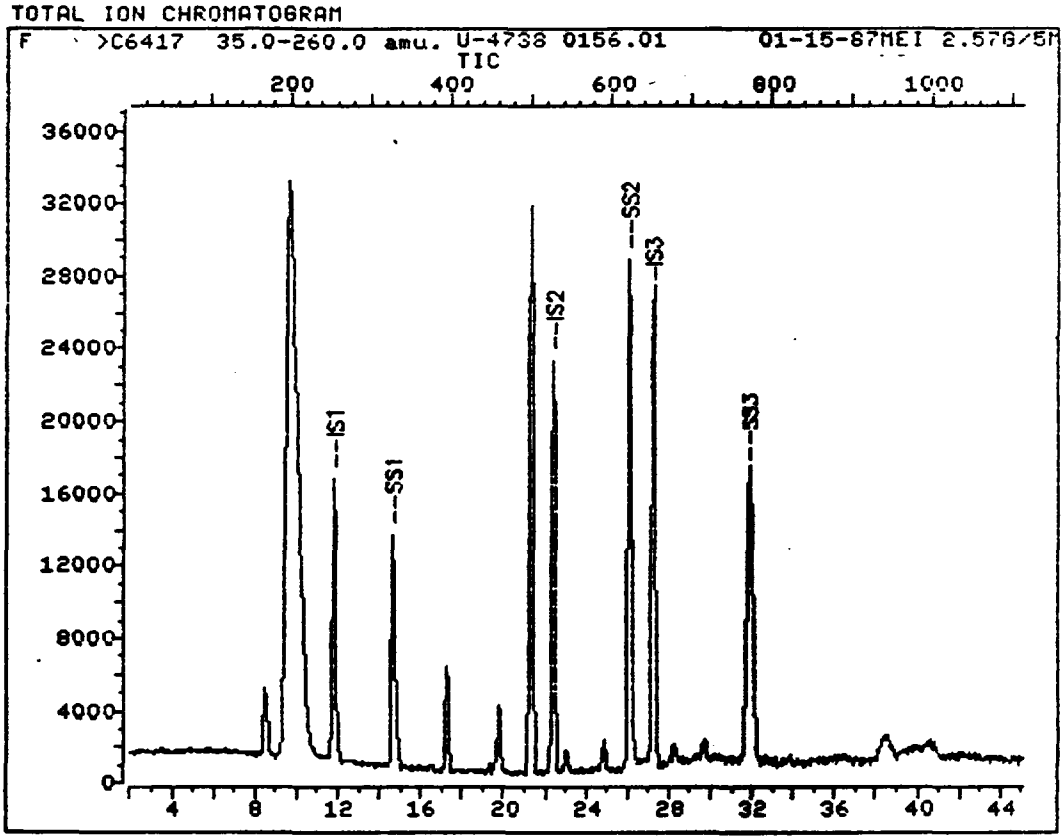
TOTAL ION CHROMATOGRAM



Data File: >C6417::D3
Name: U-4738 0156.01 DC-H6-22
Misc: 01-15-87MEI 2.57G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870116 02:51
Injected at: 870116 02:05

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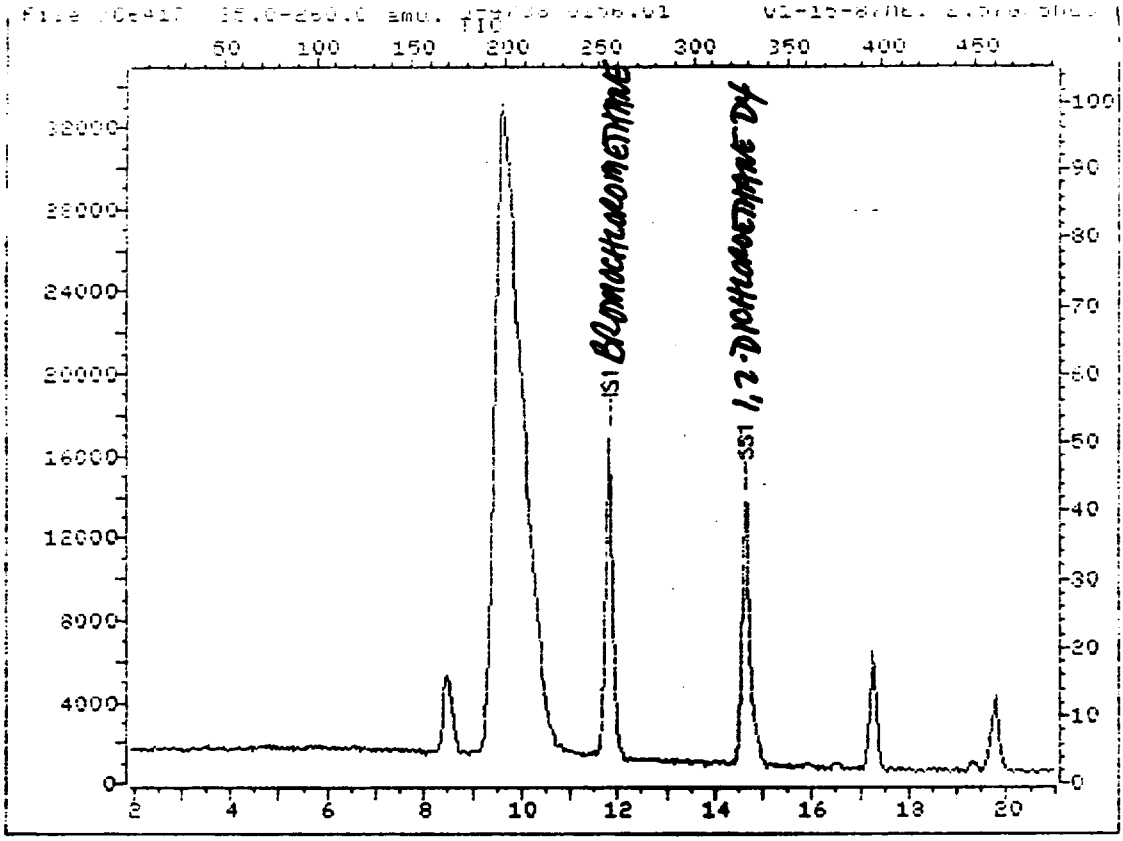
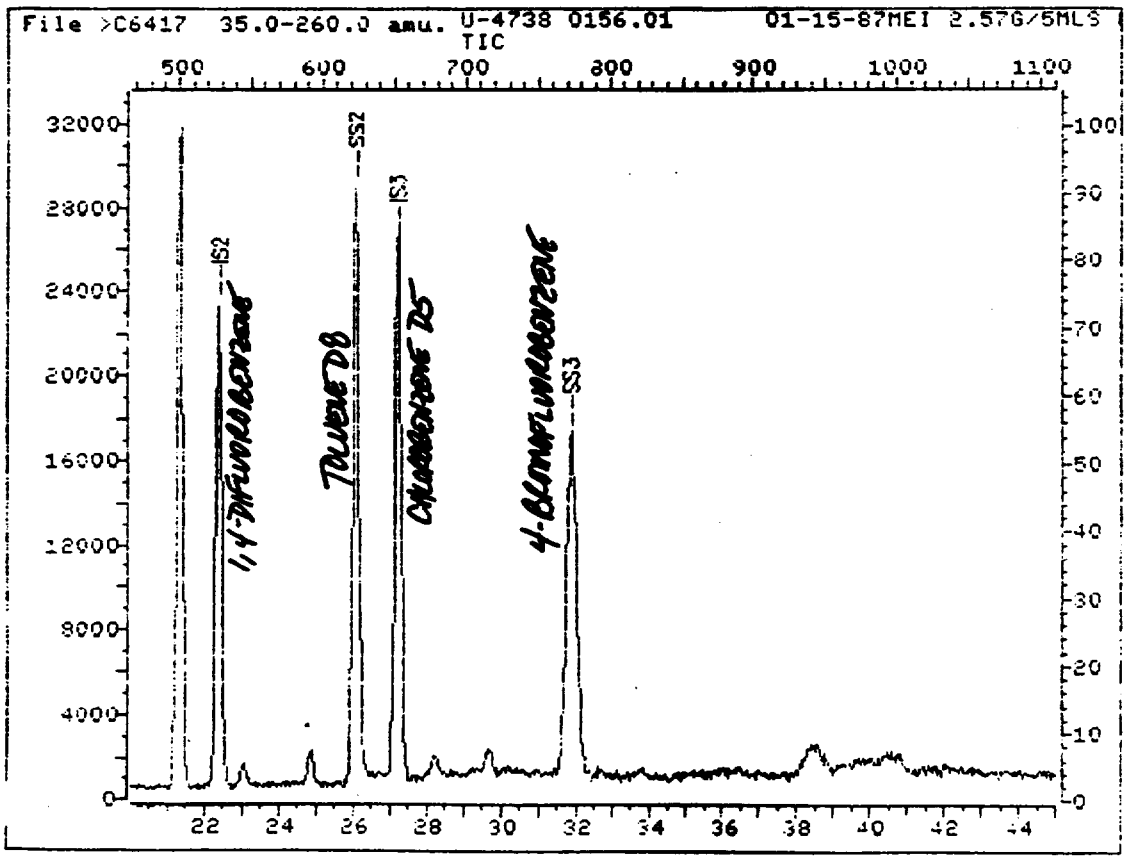
DC-H6-22





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QUANT REPORT

pe tor ID: MANAGER Quant Rev: 4 Quant Time: 870116 02:51
utput File: ^C6417::Q1 Injected at: 870116 02:05
ata File: >C6417::D3 Dilution Factor: 1.00
ame: U-4738 0156.01 DC-H6-22
isc: 01-15-87MEI 2.57G/5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870115 19:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.83	256	21529	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.49	170	10697	62.16	NGS	100
7)	ACETONE	43	9.62	199	831072	5471.25	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.62	328	59624	269.35	NGS	81
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.38	528	91635	250.00	NGS	100
7)	BENZENE	78	19.78	461	15643	35.72	NGS	100
1)	*CHLOROBENZENE-D5	(IS) 117	27.19	652	75082	250.00	NGS	100
2)	4-METHYL-2-PENTANONE	43	23.04	545	5291	17.81	NGS	96
~~3)~~	~~2-HEXANONE~~	~~43~~	~~24.87~~	~~592~~	~~2712~~	~~11.43~~	~~NGS~~ no cw	100
6)	TOLUENE-D8	(SURR) 98	26.07	623	103247	235.11	NGS	95
0)	4-BROMOFLUOROBENZENE	(SURR) 95	31.86	772	58858	248.76	NGS	100

* Compound is ISTD

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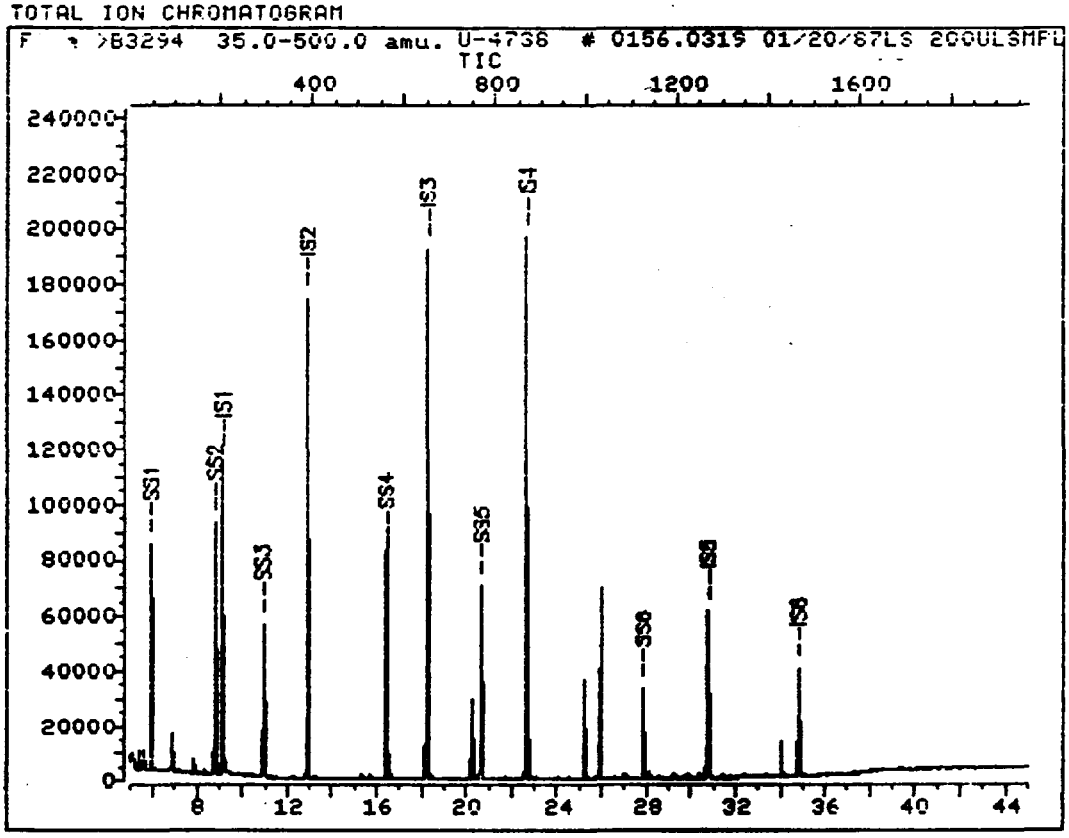
TOTAL ION CHROMATOGRAM



Data File: >B3294::D4
Name: U-4738 # 0156.0319 DC-H6-22
Misc: 01/20/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870120 15:41

Operator ID: MANAGER
Quant Time: 870120 17:17
Injected at: 870120 16:29

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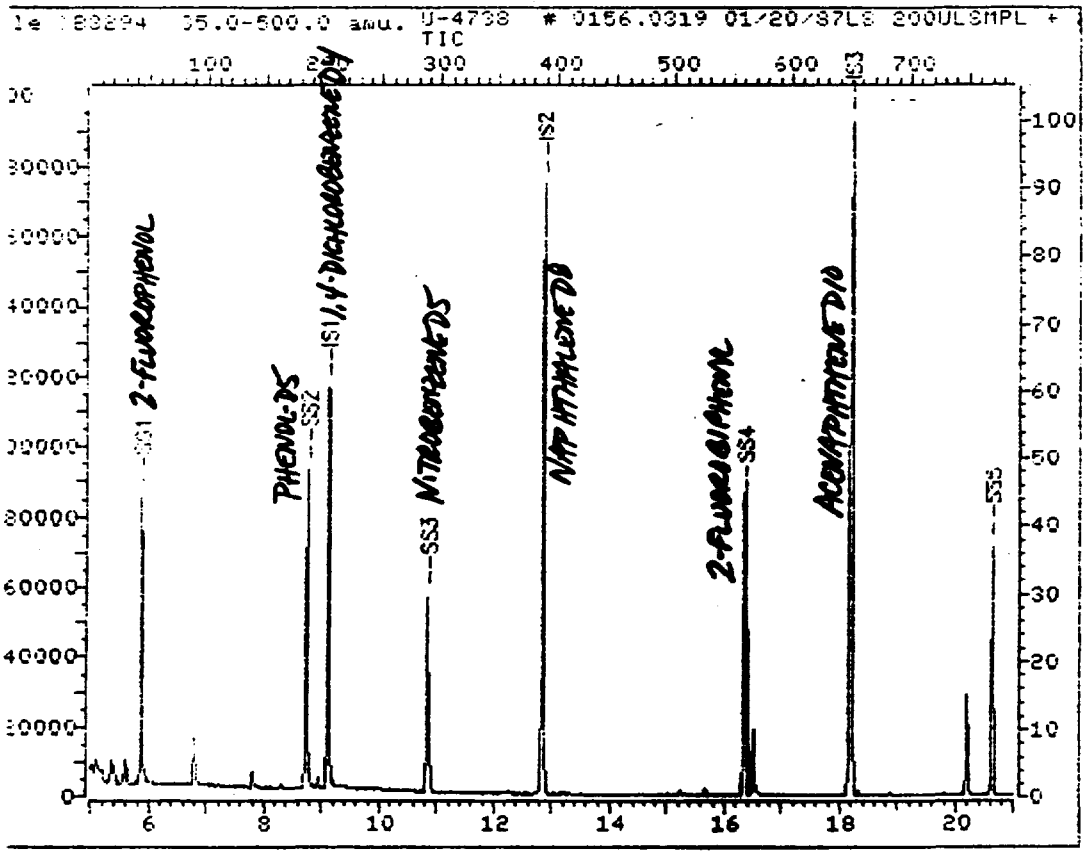
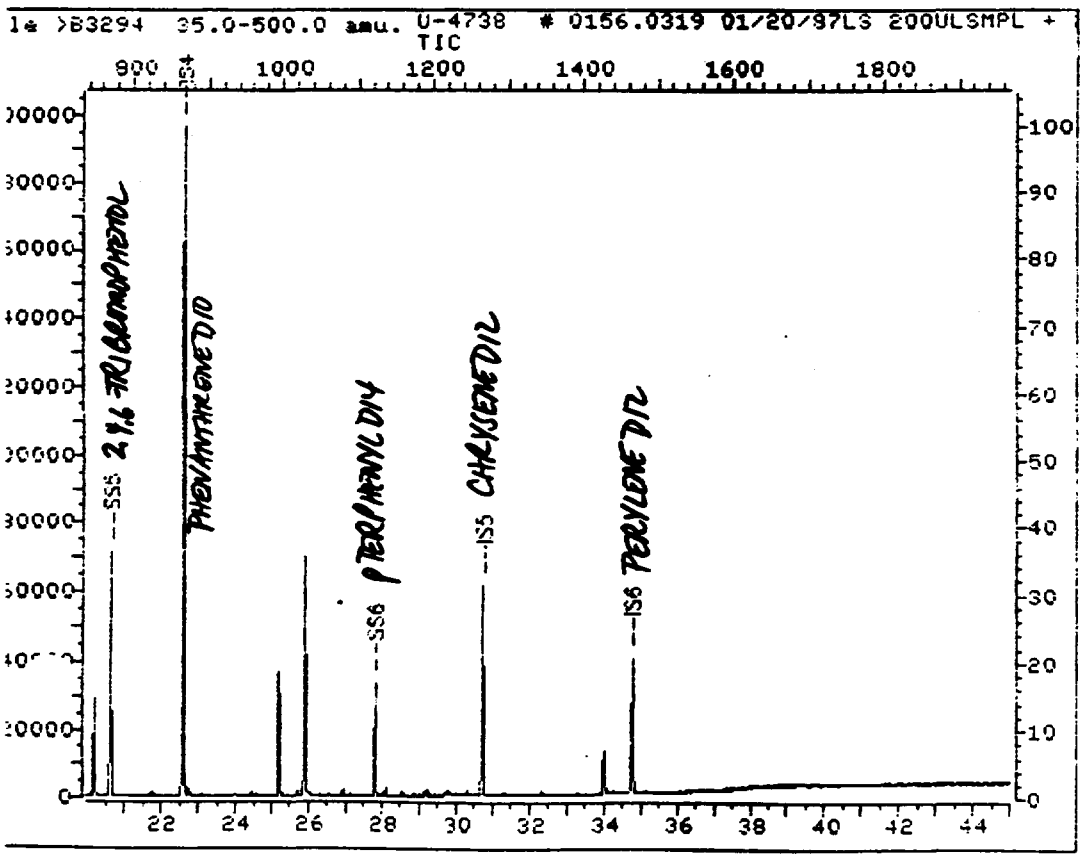
DC-H6-22





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QUANT REPORT

ɔe..tor ID: MANAGER Quant Rev: 4 Quant Time: 870120 17:17
ıtput File: ^B3294::Q2 Injected at: 870120 16:29
ata File: >B3294::D4 Dilution Factor: 2.00
ame: U-4738 # 0156.0319 DC-H6-22
isc: 01/20/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)

) File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 870120 15:41

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	9.10	203	52913	40.00	UG/L	89
2)	PHENOL-D5 (SURR)	99	8.76	186	63856	75.75	UG/L	90
5)	2-FLUOROPHENOL (SURR)	112	5.87	44	46352	77.38	UG/L	79
~~9)~~	~~1,3-DICHLOROBENZENE~~	~~146~~	~~9.14~~	~~205~~	~~324~~	~~.37~~	~~UG/L~~ No Bfr	93
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.85~~	~~289~~	~~5193~~	~~7.32~~	~~UG/L~~	87
9)	*NAPHTHALENE-D8 (IS)	136	12.86	388	202821	40.00	UG/L	100
1)	NITROBENZENE-D5 (SURR)	82	10.85	289	32927	35.81	UG/L	97
3)	1,2,4-TRICHLOROBENZENE	180	12.80	385	1203	1.35	UG/L yes	100
~~)~~	~~NAPHTHALENE~~	~~128~~	~~12.91~~	~~390~~	~~1371~~	~~.56~~	~~UG/L~~ yes	100
~~)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~15.04~~	~~495~~	~~392~~	~~.26~~	~~UG/L~~ yes No Bfr	98
~~)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~15.32~~	~~509~~	~~258~~	~~.17~~	~~UG/L~~	85
4)	*ACENAPHTHENE-D10 (IS)	162	18.21	651	106769	40.00	UG/L	98
3)	2-FLUOROBIPHENYL (SURR)	172	16.36	560	80040	40.15	UG/L	95
~~)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~18.21~~	~~651~~	~~32134~~	~~15.86~~	~~UG/L~~ No Bfr	100
~~)~~	~~DIBENZOFURAN~~	~~168~~	~~18.78~~	~~679~~	~~592~~	~~.25~~	~~UG/L~~ No Bfr	100
3)	2,4,6-TRIBROMOPHENOL(SURR)	330	20.63	770	24117	63.47	UG/L	98
~~)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~18.21~~	~~651~~	~~13878~~	~~30.90~~	~~UG/L~~	100
~~)~~	~~DIETHYLPHTHALATE~~	~~149~~	~~20.12~~	~~745~~	~~1512~~	~~.76~~	~~UG/L~~ yes	98
5)	*PHENANTHRENE-D10 (IS)	188	22.62	868	197889	40.00	UG/L	98
.)	PHENANTHRENE	178	22.66	870	2583	1.06	UG/L yes	96
~~)~~	~~ANTHRACENE~~	~~178~~	~~22.66~~	~~870~~	~~2583~~	~~1.13~~	~~UG/L~~	96
5)	DI-N-BUTYLPHTHALATE	149	25.20	995	47928	19.60	UG/L yes	99
5)	*CHRYSENE-D12 (IS)	240	30.73	1267	64272	40.00	UG/L	100
3)	TERPHENYL-D14 (SURR)	244	27.81	1123	31574	39.33	UG/L	100
4)	*PERYLENE-D12 (IS)	264	34.76	1465	45468	40.00	UG/L	100

* Compound is ISTD

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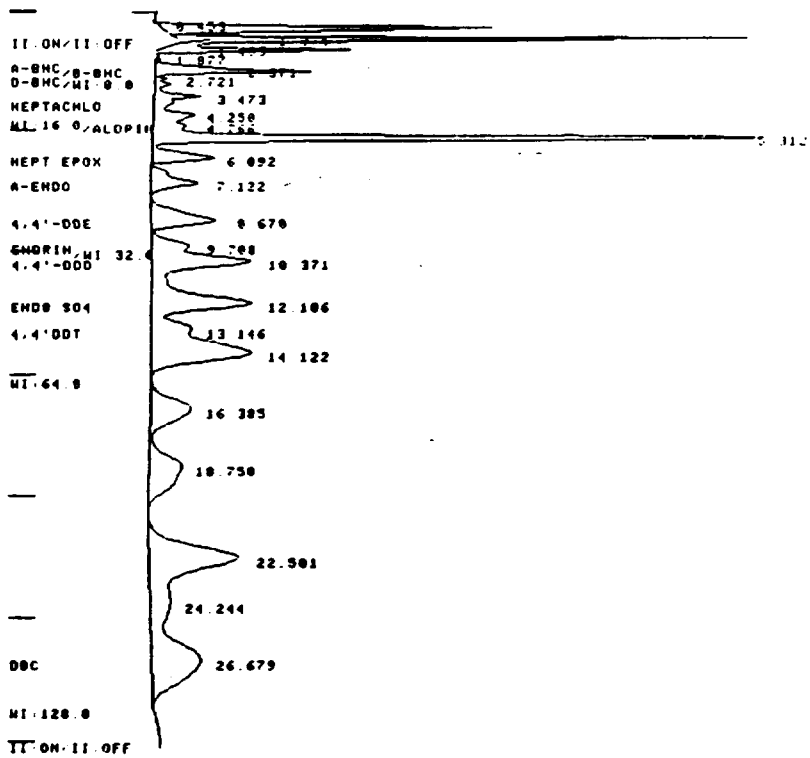
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



PCB 1260 = 398 x 0.000028 1/1.116 x 5000 = 1800 ug/Kg Dry

DC-H6-22

CHANNEL: 1A - 1 TITLE: RUN# 22 22:13 15 JAN 87

SAMPLE: 0156.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.485		139661	VB	4.75
2	~~A-BHC~~	6.4790	2.173	0.003	51473	BV	5.94
3	~~B-BHC~~	78.0319	2.371	0.071	180489	VV	6.94
4		0.0000	3.003		23795	VV	11.51
5		0.0000	3.473		73013	VV	10.56
6	~~HEPTACHLO~~	6.7642	3.719	-0.251	45170	VV	? 33.63
7		0.0000	4.250		121964	VV	? 14.81
8	~~ALDRIN~~	9.1286	4.766	-0.124	65171	VV	? 17.50
9		0.0000	5.312		1126324	VV	12.31
10	~~HEPT EPOX~~	24.2003	6.092	0.172	161865	VV	20.00
11	~~A-ENDO~~	27.5397	7.122	-0.198	174209	VB	23.94
12	~~DIELDRIN~~	39.4005	8.670	-0.150	268050	BV	? 30.88
13	~~B-ENDO~~	19.8451	9.708	-0.148	122482	VV	? 29.94
14	~~4,4'-DDD~~	78.6242	10.371	-0.149	433602	VV	33.25
15	~~ENDO-SO4~~	113.6745	12.106	-0.234	543410	VV	37.31
16		0.0000	13.146		154796	VV	? 40.19
17	~~4,4'DDT~~	138.5001	14.122	0.402	671962	VB	54.56
18	~~END KETON~~	46.9965	16.385	0.595	306218	BV	58.69
19		0.0000	18.750		371621	VV	90.00
20		0.0000	22.501		785904	VV	64.81
21		0.0000	24.244		219246	VV	?191.63
22	DBC INF	123.0577	26.679	-0.701	636294	VB	111.13
TOTALS:		704.2424		-0.206	6676719		

PCB 1260

SA = 398

DETECTED PKS: 31 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 5000.00000

NOISE: 57.1 OFFSET: -9

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW RSTY719

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SAMPLE NUMBER DC-H7-23

481095

Sample Number: DC-H7-23

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4738

Lab Sample ID No: 0157 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 1-10-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-16-87

Conc./Dil Factor: 2 pH 7.9

Percent Moisture: (Not Decanted) 15

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	32B
67-64-1	Acetone	270B
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	28J
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	10u
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	10u
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4738

Sample Number DC-H7-23

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
3-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-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	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	900	B
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	520	
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	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

Laboratory Name ecology and environment, inc.

Case No U-4738

Sample Number DC-H7-23

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 1

Percent Moisture (decanted) 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8u
319-85-7	Beta-BHC	8u
319-86-8	Delta-BHC	8u
58-89-9	Gamma-BHC (Lindane)	8u
76-44-8	Heptachlor	8u
309-00-2	Aldrin	8u
1024-57-3	Heptachlor Epoxide	8u
959-98-8	Endosulfan I	8u
60-57-1	Dieldrin	16u
72-55-9	4,4'-DDE	16u
72-20-8	Endrin	16u
33213-65-9	Endosulfan II	16u
72-54-8	4,4'-DDD	16u
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4,4'-DDT	16u
72-43-5	Methoxychlor	80u
53494-70-5	Endrin Ketone	16u
57-74-9	Chlordane	80u
8001-35-2	Toxaphene	160u
12674-11-2	Aroclor-1016	80u
11104-28-2	Aroclor-1221	80u
11141-16-5	Aroclor-1232	80u
53469-21-9	Aroclor-1242	80u
12672-29-6	Aroclor-1248	80u
11097-69-1	Aroclor-1254	160u
11096-82-5	Aroclor-1260	160u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name E&E

Case No U-4738

Sample Number DC-H7-23

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3	96 BJ
2.	Hexane isomer	VOA	~~22~~ 21.3	90 BJ
3.				
4.	UNKNOWN	BNA	20.23	280 BJ
5. 10544500	MOLECULAR SULFUR	1	25.95	660 J
6.	UNKNOWN	1	34.01	1300 BJ
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
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28.				
29.				
30				

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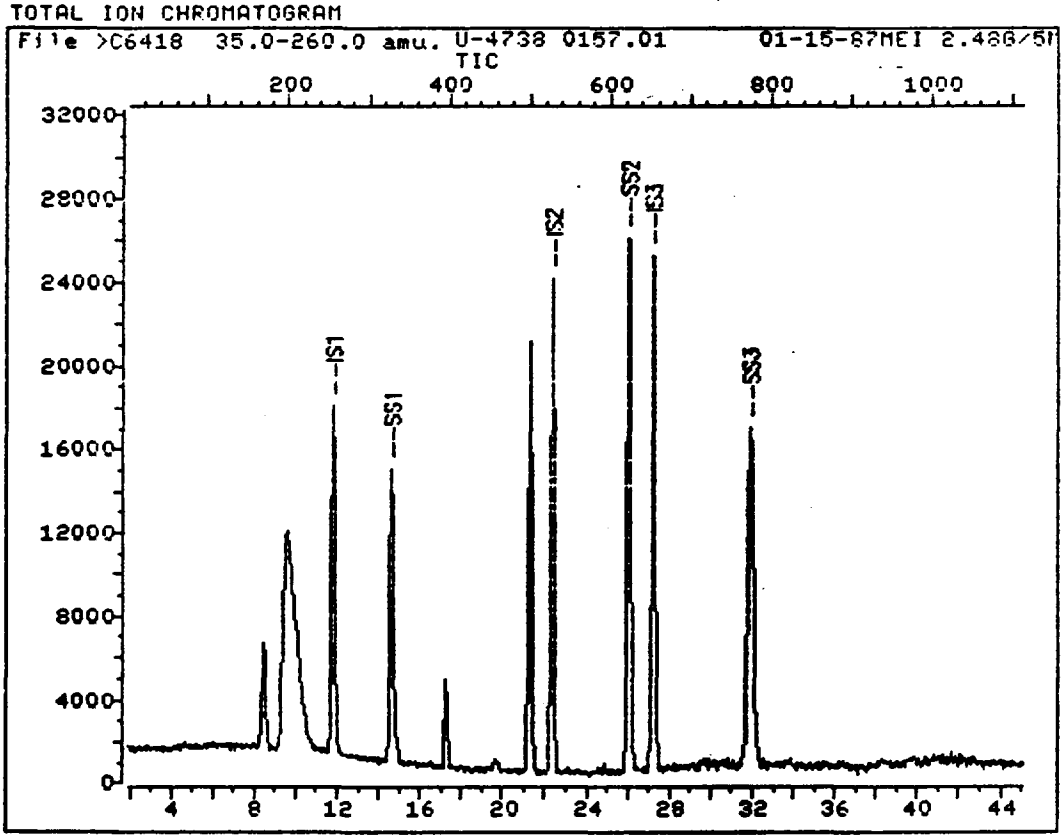
TOTAL ION CHROMATOGRAM



Data File: >C6418::D3
Name: U-4738 0157.01 DC-H7-23
Misc: 01-15-87MEI 2.48G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870116 03:46
Injected at: 870116 03:00

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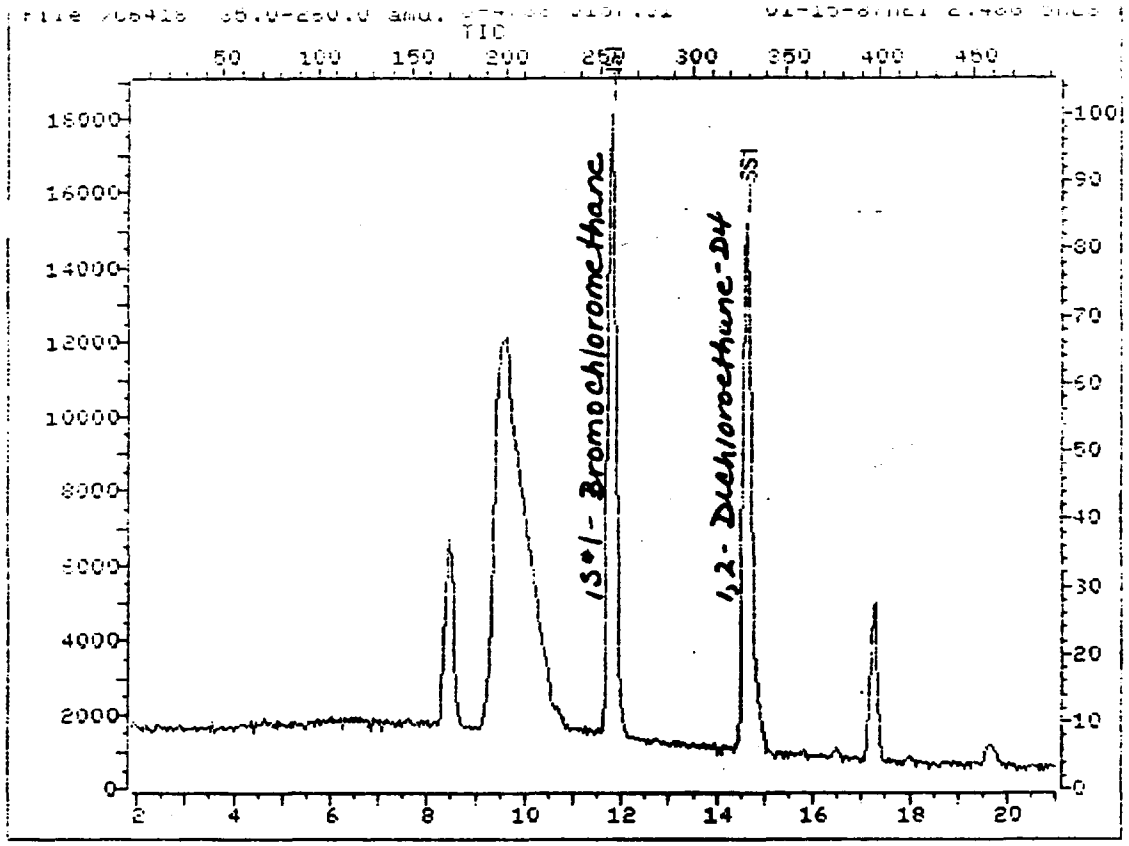
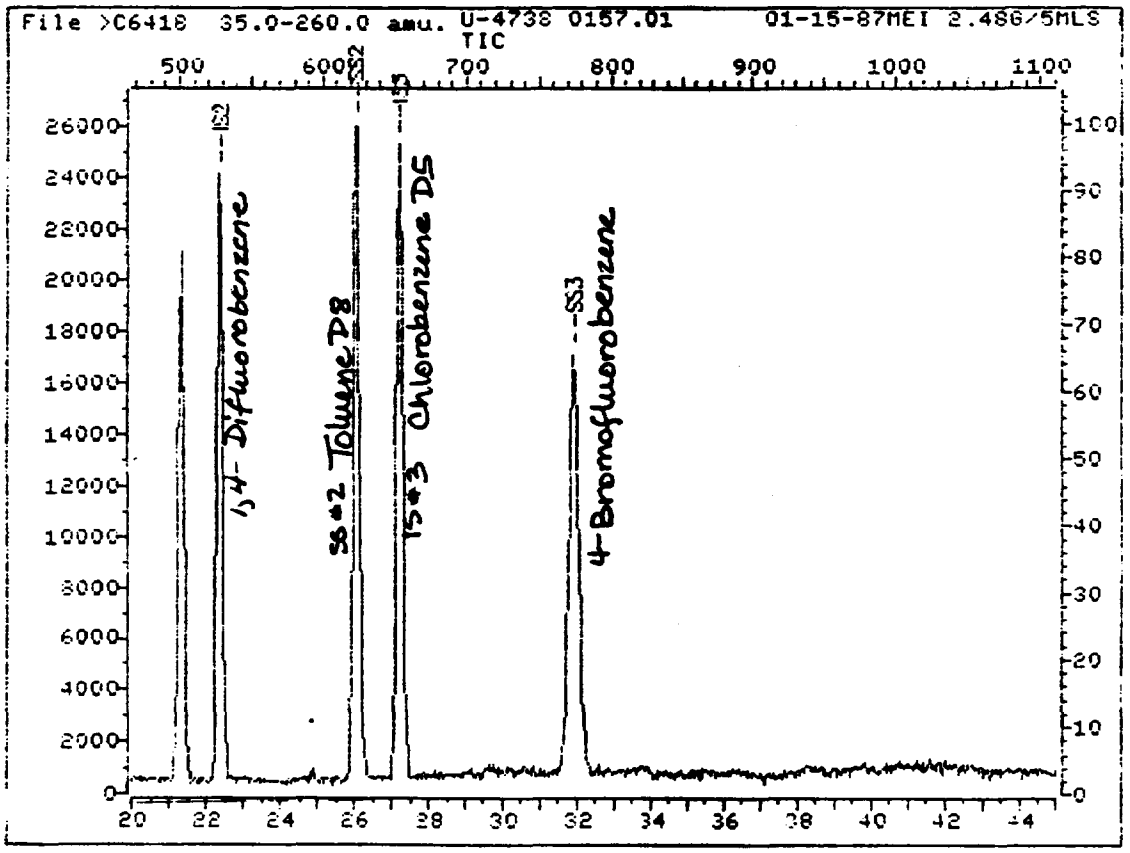
DC-H7-23





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QUANT REPORT

ɔe tor ID: MANAGER Quant Rev: 4 Quant Time: 870116 03:46
utput File: ^C6418::Q1 Injected at: 870116 03:00
ata File: >C6418::D3 Dilution Factor: 1.00
ame: U-4738 0157.01 DC-H7-23
isc: 01-15-87MEI 2.48G/5MLS DI + 10UL IS/SS

ɔ File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870115 19:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.81	256	22615	250.00 NGS	100
6)	METHYLENE CHLORIDE		84	8.47	170	14449	79.93 NGS	100
7)	ACETONE		43	9.56	198	105508	661.24 NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.64	329	62782	270.00 NGS	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.36	528	93165	250.00 NGS	100
17)	2-BUTANONE		72	14.80	333	2919	70.21 NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.21	653	73544	250.00 NGS	100
6)	TOLUENE-D8	(SURR)	98	26.05	623	99853	232.13 NGS	94
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.92	774	56213	242.55 NGS	100

* Compound is ISTD

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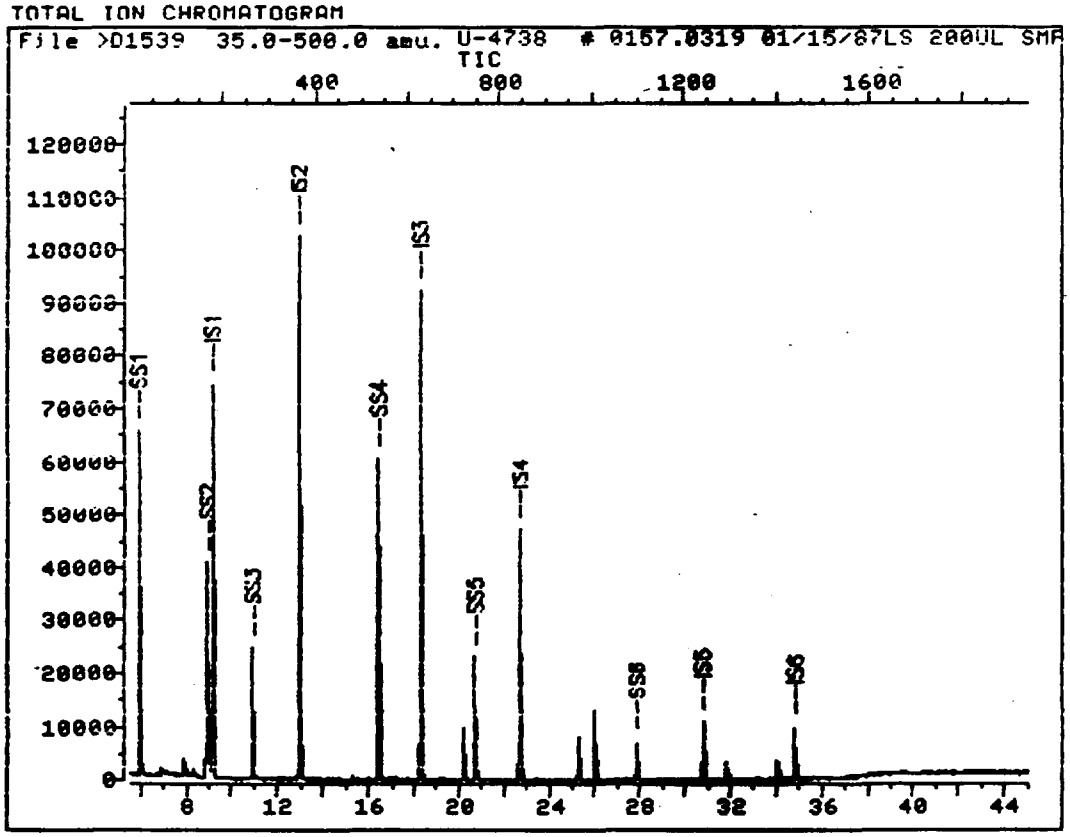
TOTAL ION CHROMATOGRAM



Data File: >D1539::D1
Name: U-4738 # 0157.0319 DC-H7-23
Misc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BIL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860116 12:25
Injected at: 860115 23:18

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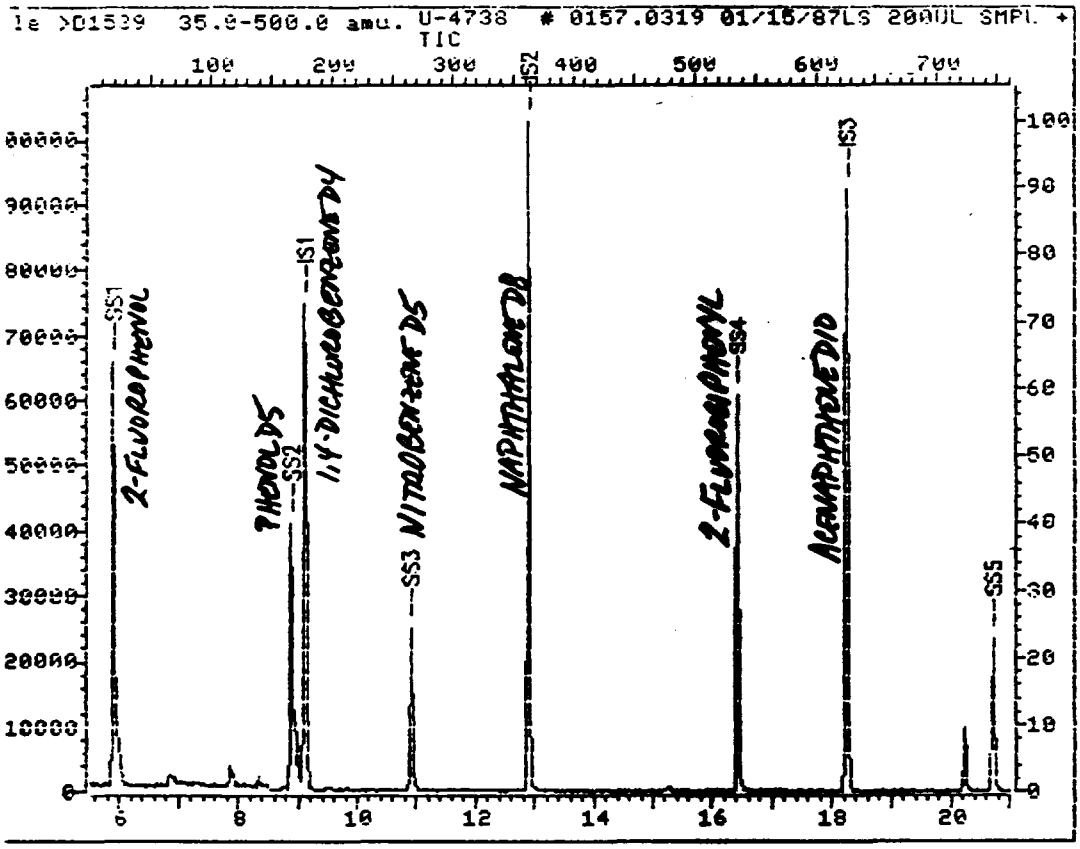
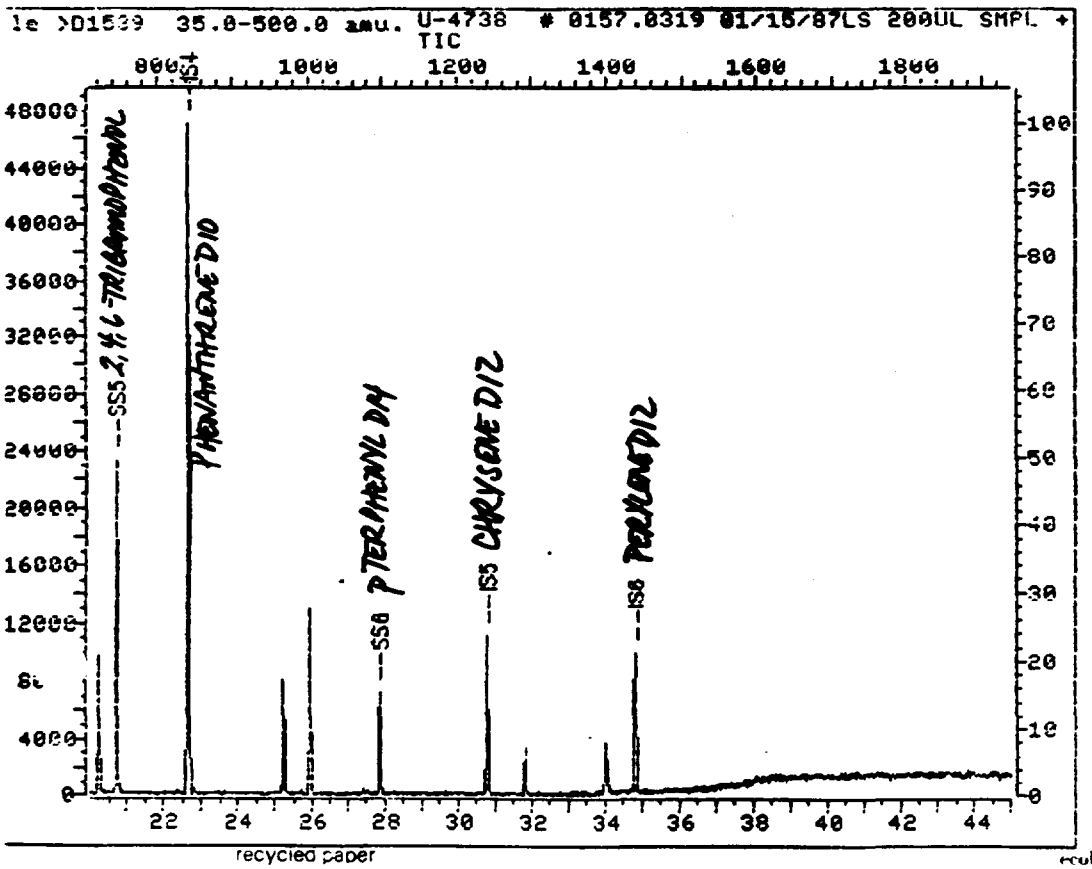
DC-H7-23





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QUANT REPORT

pe ator ID: USER6 Quant Rev: 4 Quant Time: 860116 12:25
utput File: ^D1539::Q2 Injected at: 860115 23:18
ata File: >D1539::D1 Dilution Factor: 2.00
ame: U-4738 # 0157.0319 DC-H7-23
isc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

D File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 860115 14:20

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.10	177	36099	40.00 UG/L	90
2)	PHENOL-D5	(SURR)	99	8.88	166	42222	99.07 UG/L	94
5)	2-FLUOROPHENOL	(SURR)	112	5.89	19	36331	106.47 UG/L	79
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.90~~	~~265~~	~~3487~~	~~9.36 UG/L~~ No qn	87
19)	*NAPHTHALENE-D8	(IS)	136	12.89	363	126007	40.00 UG/L	100
10)	NITROBENZENE-D5	(SURR)	82	10.90	265	21311	46.03 UG/L	92
4)	*ACENAPHTHENE-D10	(IS)	162	18.25	626	51164	40.00 UG/L	96
8)	2-FLUOROBIPHENYL	(SURR)	172	16.42	536	57519	47.51 UG/L	95
~~1)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~18.25~~	~~626~~	~~16303~~	~~19.81 UG/L~~ No qn	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.71	747	10331	63.58 UG/L	90
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.25~~	~~626~~	~~6848~~	~~39.80 UG/L~~ No qn	100
5)	*PHENANTHRENE-D10	(IS)	188	22.67	843	58335	40.00 UG/L	93
3)	DI-N-BUTYLPHTHALATE		149	25.24	969	14816	27.14 UG/L	98
5)	*CHRYSENE-D12	(IS)	240	30.78	1241	15897	40.00 UG/L	100
8)	TERPHENYL-D14	(SURR)	244	27.86	1098	9953	51.30 UG/L	100
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.81	1292	2855	15.54 UG/L	98
4)	*PERYLENE-D12	(IS)	264	34.83	1440	14111	40.00 UG/L	100

* Compound is ISTD

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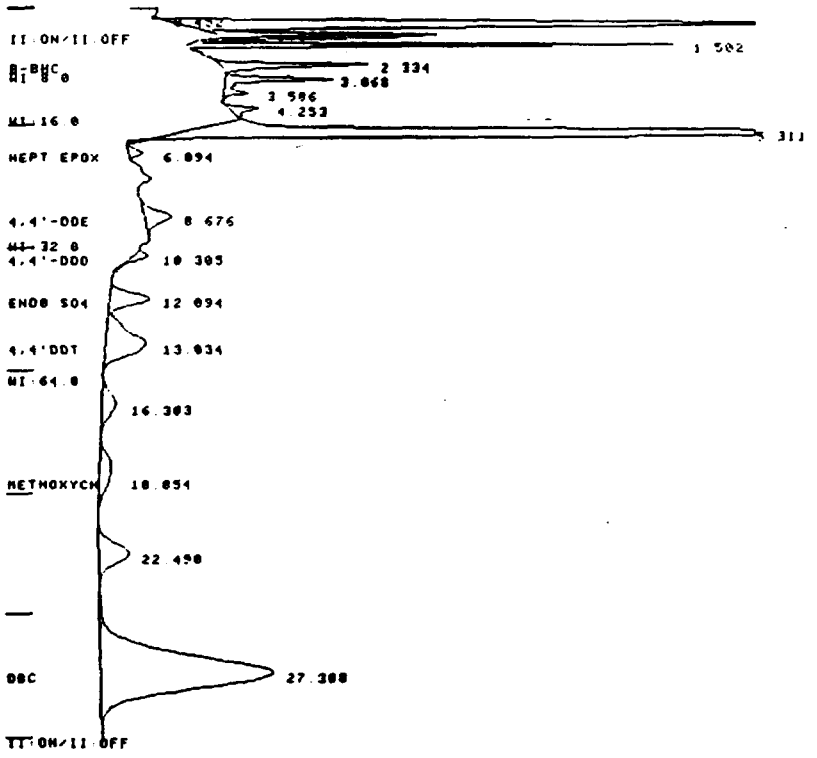
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-H7-23

CHANNEL: 1A - 1 TITLE: RUN# 21 21:30 15 JAN 87

SAMPLE: 0157.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.225		29291	BV	1.94
2		0.0000	1.502		282408	VB	4.56
3	~~B-BHC~~	14.8077	2.334	0.034	190815	BB	7.00
4		0.0000	3.068		132889	BV	8.19
5		0.0000	3.586		39598	VB	10.75
6	~~HEPTACHLOR~~	1.4694	4.253	0.283	49063	BB	14.50
7		0.0000	5.311		3380641	BB	11.63
8	~~HEPT EPOX~~	0.9421	6.094	0.174	31506	BB	19.25
9	~~DIELDRIN~~	3.1539	8.676	0.166	107283	BB	33.56
10	~~4,4'-DDE~~	1.6874	10.305	-0.215	46530	BB	15.69
11	~~ENDO SO4~~	7.1688	12.094	-0.246	171350	BV	31.75
12	~~4,4'DDT~~	14.0122	13.034	0.114	339916	VB	57.31
13	~~ENDO-METON~~	3.8319	16.303	0.513	124840	BV	61.44
14		0.0000	18.054		137803	VB	89.88
15		0.0000	22.490		238410	BV	57.38
16	DBC 146%	77.2519	27.308	0.008	1997232	VB	89.25
TOTALS:		124.3255		0.831	7299575		

DETECTED PKS: 22 REJECTED PKS: 6

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 182.8 OFFSET: 20

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4727,4730
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW PSTY717

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SAMPLE NUMBER DC-H8-24

481095

280

Sample Number
DC-H8-24

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4738
Lab Sample ID No: 0158 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Slotowicz Date Sample Received: 1-10-87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 1-16-87
Conc./Dil Factor: 2 pH 7.3
Percent Moisture: (Not Decanted) 23

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	29B
67-64-1	Acetone	580BE
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	20u
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	10u
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	10u
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

E — This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

Form I 11/85

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4738

Sample Number DC-H8-24

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)	
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	48	J
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	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	34	J
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	120	J
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2 4. 6-Trichlorophenol	330	U
95-95-4	2. 4. 5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
[illegible]-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	100	J
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	110	J
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	190	J
100-01-6	4-Nitroaniline	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	130	J
120-12-7	Anthracene.	99	J
84-74-2	Di-n-Butylphthalate	780	B
206-44-0	Fluoranthene	270	J
129-00-0	Pyrene	930	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	890	
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	2600	
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	340	
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	600	
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	380	

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4738

Sample Number DC-H8-24

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed 1-16-87

Conc/Dil Factor 25

Percent Moisture (decanted) 23

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	200u
319-85-7	Beta-BHC	200u
319-86-8	Delta-BHC	200u
58-89-9	Gamma-BHC (Lindane)	200u
76-44-8	Heptachlor	200u
309-00-2	Aldrin	200u
1024-57-3	Heptachlor Epoxide	200u
959-98-8	Endosulfan I	200u
60-57-1	Dieldrin	400u
72-55-9	4,4'-DDE	600
72-20-8	Endrin	400u
33213-65-9	Endosulfan II	400u
72-54-8	4,4'-DDD	400u
1031-07-8	Endosulfan Sulfate	400u
50-29-3	4,4'-DDT	600
72-43-5	Methoxychlor	2000u
53494-70-5	Endrin Ketone	400u
57-74-9	Chlordane	2000u
8001-35-2	Toxaphene	4000u
12674-11-2	Aroclor-1016	2000u
11104-28-2	Aroclor-1221	2000u
11141-16-5	Aroclor-1232	2000u
53469-21-9	Aroclor-1242	2000u
12672-29-6	Aroclor-1248	2000u
11097-69-1	Aroclor-1254	4000u
11096-82-5	Aroclor-1260	4000u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Form 1

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7 85
491095

Laboratory Name E&E, Inc

Case No U-4738

Sample Number DC-H8-24

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number mix	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3	21 BJ
2.	Hexane isomer	VOA	21.3	70 BJ
3.				
4.	INDENE ISOMER	BNA	17.43	3600 J
5.	UNKNOWN HYDROCARBON		18.16	2600 J
6.	UNKNOWN HYDROCARBON		20.33	2600 J
7.	UNKNOWN HYDROCARBON		21.80	4500 J
8.	UNKNOWN HYDROCARBON		21.88	3800 J
9.	UNKNOWN HYDROCARBON		23.21	3000 J
10.	UNKNOWN HYDROCARBON		24.53	3700 J
11.	UNKNOWN HYDROCARBON		25.82	4600 J
12. 10544500	MOLECULAR SULFUR		26.07	26000 J
13.	UNKNOWN HYDROCARBON		27.05	6600 J
14.	TRIMETHYLPHENANTHRENE ISOMER		27.58	3300 J
15.	UNKNOWN HYDROCARBON		28.54	2800 J
16.	UNKNOWN HYDROCARBON		29.37	16000 J
17. 84151	1,1':2',1''-TERPHENYL		30.23	4200 J
18.	UNKNOWN HYDROCARBON		30.44	14000 J
19.	UNKNOWN HYDROCARBON		31.47	9400 J
20.	UNKNOWN HYDROCARBON		32.45	6700 J
21.	UNKNOWN HYDROCARBON		33.42	5600 J
22.	UNKNOWN HYDROCARBON		34.34	4000 J
23.	UNKNOWN HYDROCARBON		35.23	2900 J
24.				
25.				
26.				
27.				
28.				
29.				
30				

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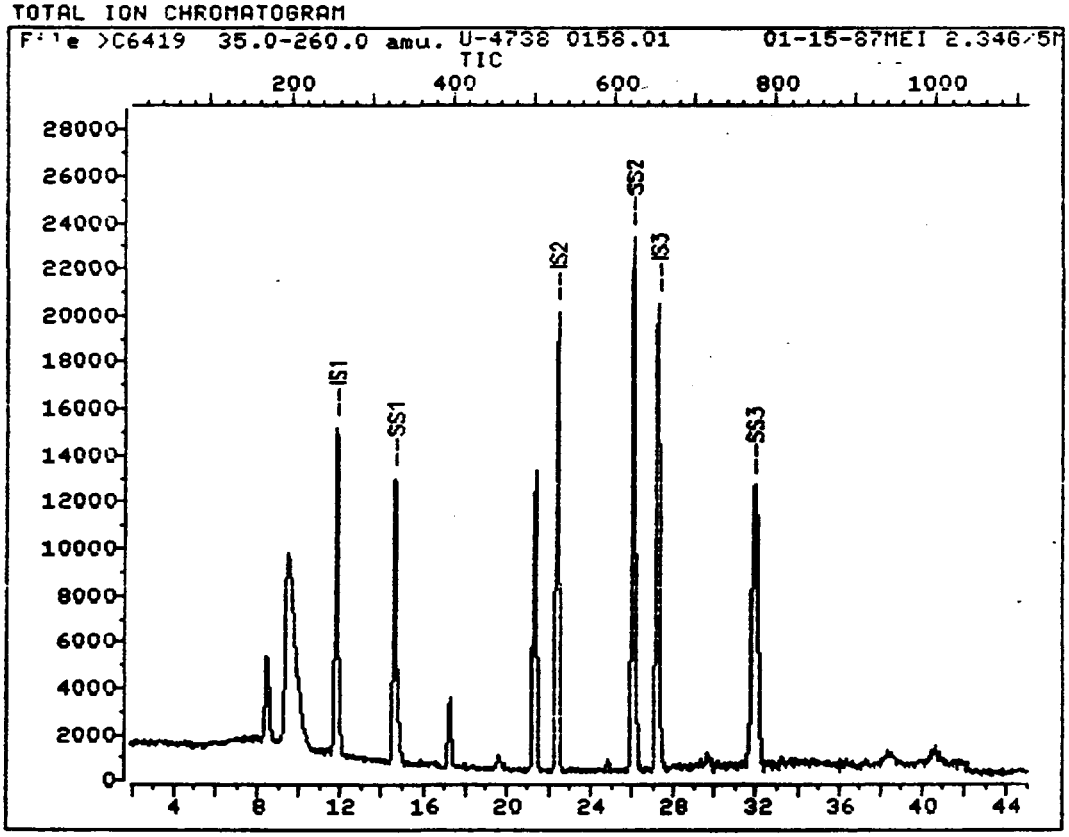
TOTAL ION CHROMATOGRAM



Data File: >C6419::D3
Name: U-4738 0158.01 DC-H8-24
Misc: 01-15-87MEI 2.34G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870116 04:40
Injected at: 870116 03:54

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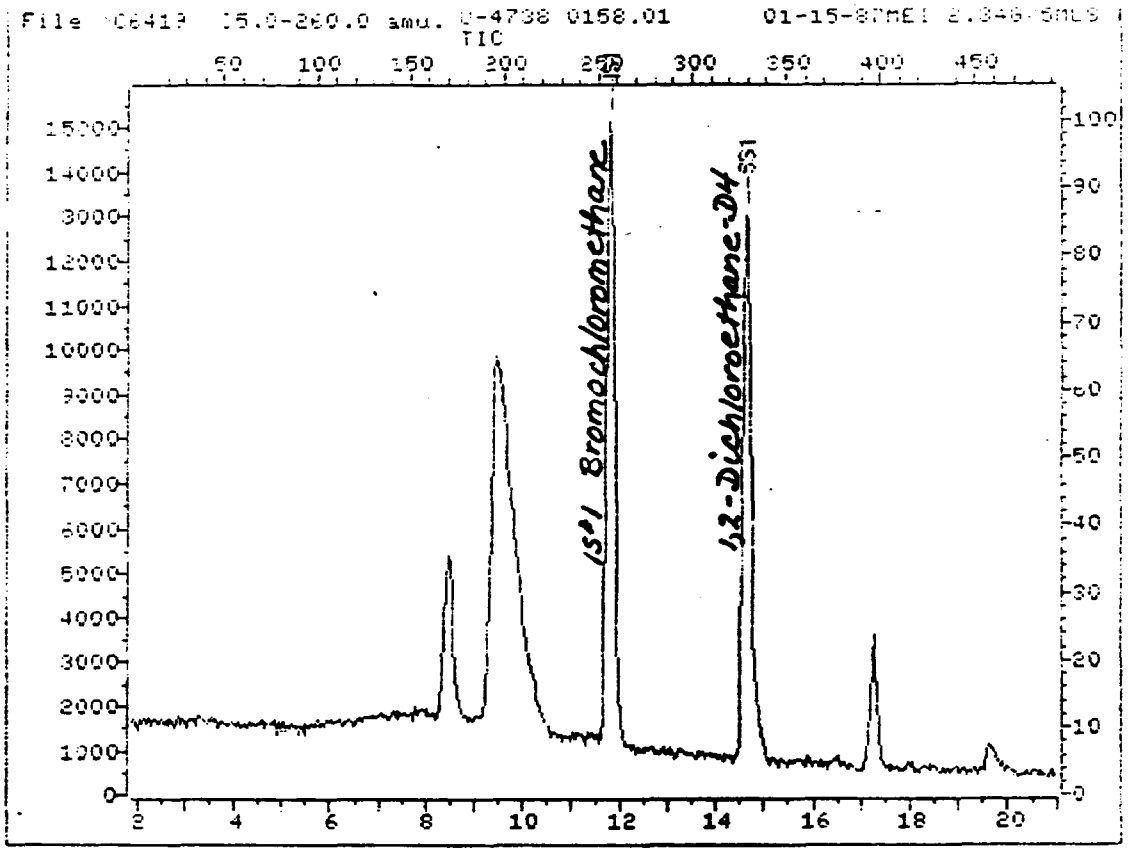
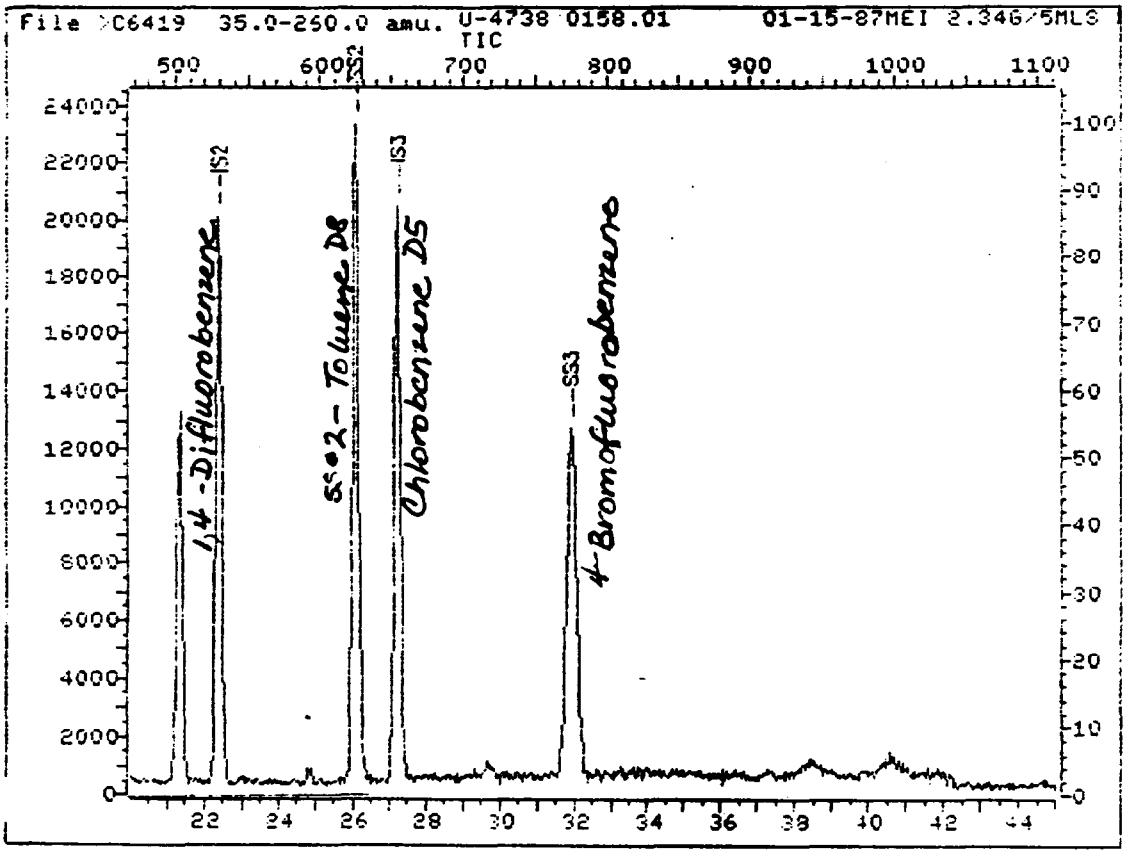
DC-H8-24





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QUANT REPORT

p tor ID: MANAGER Quant Rev: 4 Quant Time: 870116 04:40
utput File: ^C6419::Q1 Injected at: 870116 03:54
ata File: >C6419::D3 Dilution Factor: 1.00
ame: U-4738 0158.01 DC-H8-24
isc: 01-15-87MEI 2.34G/5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870115 19:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.79	256	19475	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.45	170	10473	67.28	NGS	100
7)	ACETONE	43	9.46	196	186186	1355.01	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.62	329	56469	282.00	NGS	77
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.38	529	74907	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS) 117	27.24	654	56242	250.00	NGS	100
6)	TOLUENE-D8	(SURR) 98	26.07	624	85503	259.92	NGS	90
0)	4-BROMOFLUOROBENZENE	(SURR) 95	31.90	774	43300	244.31	NGS	100
5)	1,4-DICHLOROBENZENE	146	40.51	996	2986	2986.00	NO CALIB	100

* Compound is ISTD

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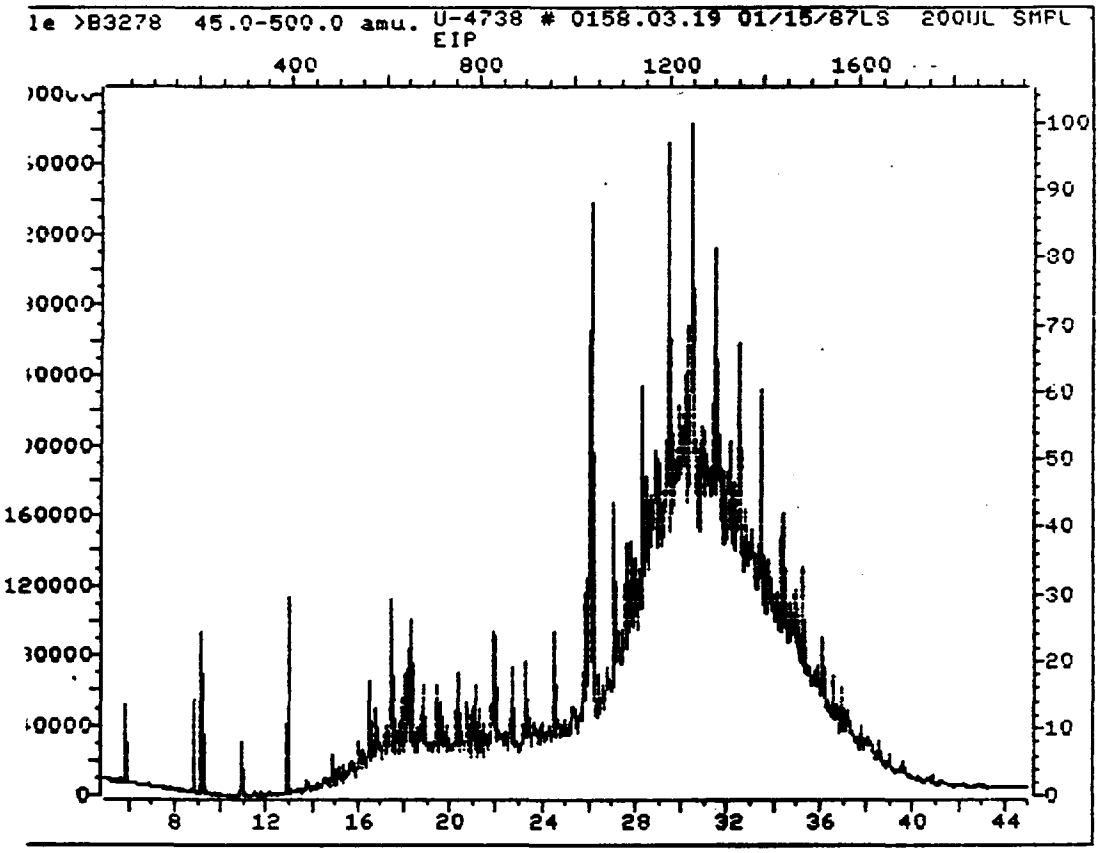

S data file header from : >B3278 DC-H8-24

ample: U-4738 # 0158.03.19 Operator: MANAGER MS 1/15/87 23:36
isc : 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)
ys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: BNA002 Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	30.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	19.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

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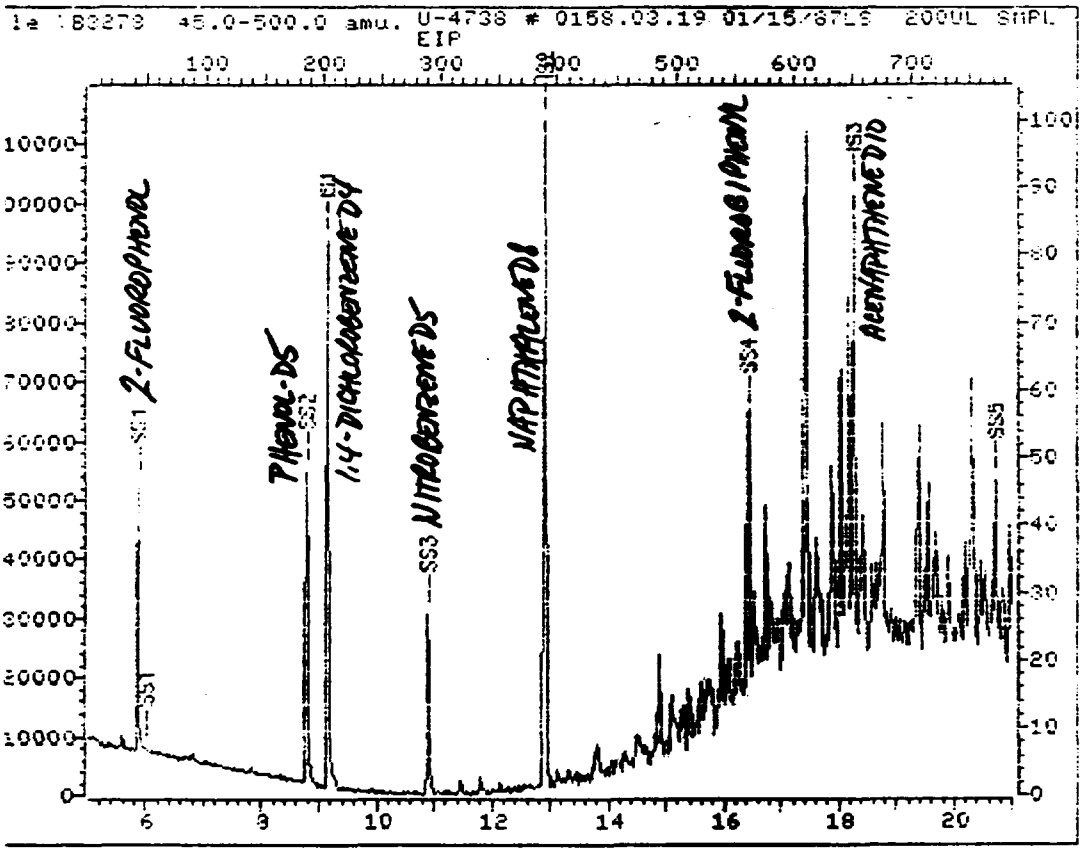
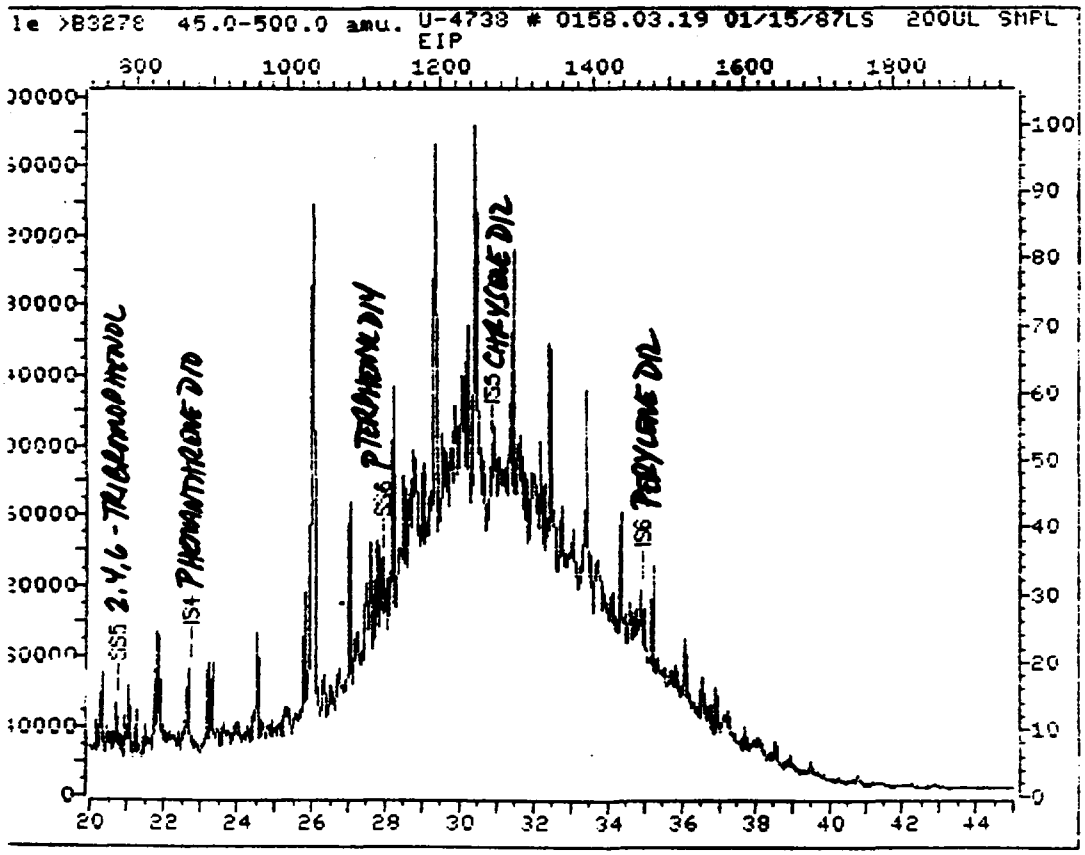
DC-H8-24





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QUANT REPORT

ɔe tor ID: MANAGER Quant Rev: 4 Quant Time: 870116 08:24
ɹtput File: ^B3278::D2 Injected at: 870115 23:36
ɜta File: >B3278::D4 Dilution Factor: 2.00
ɜme: U-4738 # 0158.03.19 DC-H8-24
isc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)

) File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (8)
ɜst Calibration: 870115 15:26

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.14	204	41325	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	8.78	186	57261	83.32	UG/L	82
5)	2-FLUOROPHENOL	(SURR)	112	5.87	43	26641	57.71	UG/L	75
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~5.99~~	~~49~~	~~336~~	~~.73~~	~~UG/L~~	1
~~8)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.18~~	~~206~~	~~1011~~	~~1.43~~	~~UG/L~~	93
10)	1,4-DICHLOROBENZENE		146	9.18	206	1011	1.43	UG/L	95
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.14~~	~~253~~	~~231~~	~~.16~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.77~~	~~284~~	~~398~~	~~.28~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.83~~	~~287~~	~~718~~	~~.60~~	~~UG/L~~	100
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.89~~	~~290~~	~~3935~~	~~7.05~~	~~UG/L~~	73
9)	*NAPHTHALENE-D8	(IS)	136	12.90	389	140048	40.00	UG/L	100
1)	NITROBENZENE-D5	(SURR)	82	10.89	290	26387	42.59	UG/L	88
~~1)~~	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~12.86~~	~~387~~	~~464~~	~~.80~~	~~UG/L~~	100
9)	NAPHTHALENE		128	12.96	392	1746	1.01	UG/L	100
5)	2-METHYLNAPHTHALENE		142	15.10	497	3837	3.75	UG/L	99
~~5)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.39~~	~~511~~	~~2836~~	~~2.77~~	~~UG/L~~	92
5)	*ACENAPHTHENE-D10	(IS)	162	18.26	652	39645	40.00	UG/L	97
3)	2-FLUOROBIPHENYL	(SURR)	172	16.43	562	42661	56.32	UG/L	94
~~3)~~	~~2-NITROANILINE~~		~~65~~	~~17.43~~	~~611~~	~~1717~~	~~9.19~~	~~UG/L~~	87
~~1)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~17.55~~	~~617~~	~~620~~	~~.98~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~17.67~~	~~621~~	~~654~~	~~.95~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~17.79~~	~~629~~	~~913~~	~~1.33~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~18.02~~	~~640~~	~~508~~	~~.73~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~18.26~~	~~652~~	~~11937~~	~~17.41~~	~~UG/L~~	100
~~3)~~	~~4-NITROANILINE~~		~~138~~	~~18.02~~	~~640~~	~~886~~	~~9.67~~	~~UG/L~~	83
~~5)~~	~~DIBENZOFURAN~~		~~168~~	~~18.43~~	~~660~~	~~840~~	~~1.00~~	~~UG/L~~	100
~~5)~~	~~DIBENZOFURAN~~		~~168~~	~~18.55~~	~~666~~	~~596~~	~~.78~~	~~UG/L~~	100
5)	DIBENZOFURAN		168	18.86	681	2729	3.24	UG/L	100
~~6)~~	~~ACENAPHTHYLENE~~		~~152~~	~~17.30~~	~~605~~	~~565~~	~~.55~~	~~UG/L~~	26
~~6)~~	~~ACENAPHTHYLENE~~		~~152~~	~~17.63~~	~~621~~	~~1068~~	~~1.03~~	~~UG/L~~	8
~~6)~~	~~ACENAPHTHYLENE~~		~~152~~	~~17.88~~	~~633~~	~~1664~~	~~1.61~~	~~UG/L~~	16
6)	FLUORENE		166	19.90	732	3404	5.81	UG/L	96
7)	ACENAPHTHENE		153	18.35	656	1922	2.99	UG/L	99
~~7)~~	~~ACENAPHTHENE~~		~~153~~	~~18.59~~	~~668~~	~~384~~	~~.60~~	~~UG/L~~	59
~~7)~~	~~ACENAPHTHENE~~		~~153~~	~~18.65~~	~~671~~	~~839~~	~~1.30~~	~~UG/L~~	73
~~7)~~	~~ACENAPHTHENE~~		~~153~~	~~18.81~~	~~679~~	~~3697~~	~~5.74~~	~~UG/L~~	46
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.71	772	6135	66.66	UG/L	98
~~1)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.18~~	~~746~~	~~3872~~	~~62.85~~	~~UG/L~~	100
~~1)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.37~~	~~755~~	~~2828~~	~~45.98~~	~~UG/L~~	100
~~1)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.47~~	~~760~~	~~4382~~	~~71.12~~	~~UG/L~~	100
~~1)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.55~~	~~764~~	~~4111~~	~~66.73~~	~~UG/L~~	100
~~1)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.65~~	~~769~~	~~4663~~	~~75.69~~	~~UG/L~~	100
~~1)~~	~~4-NITROPHENOL~~		~~139~~	~~18.86~~	~~681~~	~~1125~~	~~18.47~~	~~UG/L~~	100
~~1)~~	~~4-NITROPHENOL~~		~~139~~	~~19.00~~	~~688~~	~~728~~	~~9.36~~	~~UG/L~~	100
~~1)~~	~~4-NITROPHENOL~~		~~139~~	~~19.22~~	~~699~~	~~731~~	~~9.68~~	~~UG/L~~	100
~~1)~~	~~4-NITROPHENOL~~		~~139~~	~~19.39~~	~~707~~	~~1864~~	~~15.77~~	~~UG/L~~	100

No GPA

No GPA

No GPA

No GPA

No GPA

No GPA

990

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
50)	4-NITROPHENOL		139	19.67	721	1625	20.90	UG/L	100
5	2,4-DINITROTOLUENE		165	18.81	679	575	4.33	UG/L	100
51)	2,4-DINITROTOLUENE		165	19.12	694	637	4.80	UG/L	100
51)	2,4-DINITROTOLUENE		165	19.22	699	531	4.00	UG/L	100
51)	2,4-DINITROTOLUENE		165	19.39	707	1027	7.74	UG/L	100
51)	2,4-DINITROTOLUENE		165	19.67	721	1640	12.35	UG/L	100
52)	2,6-DINITROTOLUENE		165	17.79	629	1497	10.54	UG/L	100
52)	2,6-DINITROTOLUENE		165	17.88	633	817	5.75	UG/L	100
52)	2,6-DINITROTOLUENE		165	18.02	640	1153	8.12	UG/L	100
52)	2,6-DINITROTOLUENE		165	18.26	652	6310	44.44	UG/L	100
52)	2,6-DINITROTOLUENE		165	18.43	660	1397	9.84	UG/L	100
55)	*PHENANTHRENE-D10	(IS)	188	22.70	869	43193	40.00	UG/L	90
57)	N-NITROSODIPHENYLAMINE		169	20.06	740	940	3.76	UG/L	42
57)	N-NITROSODIPHENYLAMINE		169	20.18	746	3497	13.99	UG/L	84
57)	N-NITROSODIPHENYLAMINE		169	20.38	761	3030	12.12	UG/L	48
57)	N-NITROSODIPHENYLAMINE		169	20.55	764	8442	33.77	UG/L	34
57)	N-NITROSODIPHENYLAMINE		169	20.65	769	8204	32.82	UG/L	38
61)	PHENANTHRENE		178	22.59	864	667	1.25	UG/L	1
61)	PHENANTHRENE		178	22.67	868	267	.50	UG/L	1
61)	PHENANTHRENE		178	22.74	871	2078	3.89	UG/L	91
61)	PHENANTHRENE		178	22.88	878	1494	2.79	UG/L	69
62)	ANTHRACENE		178	22.59	864	660	1.32	UG/L	1
62)	ANTHRACENE		178	22.67	868	267	.53	UG/L	1
62)	ANTHRACENE		178	22.74	871	2071	4.14	UG/L	91
62)	ANTHRACENE		178	22.88	878	1485	2.97	UG/L	69
63)	DI-N-BUTYLPHTHALATE		149	25.02	983	378	.73	UG/L	1
63)	DI-N-BUTYLPHTHALATE		149	25.15	989	267	.51	UG/L	6
63)	DI-N-BUTYLPHTHALATE		149	25.29	996	12149	23.38	UG/L	99
63)	DI-N-BUTYLPHTHALATE		149	25.41	1002	193	.37	UG/L	14
64)	FLUORANTHENE		202	26.03	1032	665	1.78	UG/L	4
64)	FLUORANTHENE		202	26.11	1036	2444	6.56	UG/L	1
64)	FLUORANTHENE		202	26.33	1047	2554	6.85	UG/L	1
64)	FLUORANTHENE		202	26.40	1050	3003	8.05	UG/L	32
64)	FLUORANTHENE		202	26.72	1066	1133	3.04	UG/L	5
65)	*CHRYSENE-D12	(IS)	240	30.87	1268	26836	40.00	UG/L	100
66)	BENZIDINE		184	26.93	1076	505	505.00	NO CALIB	100
66)	BENZIDINE		184	27.05	1082	435	435.00	NO CALIB	100
66)	BENZIDINE		184	27.30	1095	1279	1279.00	NO CALIB	100
66)	BENZIDINE		184	27.50	1104	649	649.00	NO CALIB	100
66)	BENZIDINE		184	27.58	1108	419	419.00	NO CALIB	100
67)	PYRENE		202	26.72	1066	1130	1.76	UG/L	60
67)	PYRENE		202	27.01	1080	17957	27.96	UG/L	88
67)	PYRENE		202	27.13	1086	1039	1.62	UG/L	1
67)	PYRENE		202	27.21	1090	3753	5.84	UG/L	1
67)	PYRENE		202	27.40	1103	7774	12.10	UG/L	1
68)	TERPHENYL-D14	(SURR)	244	27.91	1124	11980	38.46	UG/L	100
70)	3,3'DICHLOROBENZIDINE		252	30.71	1260	1265	30.64	UG/L	100
70)	3,3'DICHLOROBENZIDINE		252	30.89	1269	1132	27.42	UG/L	100
70)	3,3'DICHLOROBENZIDINE		252	31.01	1275	776	18.79	UG/L	100
70)	3,3'DICHLOROBENZIDINE		252	31.22	1285	1157	28.02	UG/L	100
70)	3,3'DICHLOROBENZIDINE		252	31.47	1297	890	21.55	UG/L	100
71)	BENZO(A)ANTHRACENE		228	30.85	1267	9183	26.67	UG/L	87
71)	BENZO(A)ANTHRACENE		228	30.95	1272	24235	70.38	UG/L	92
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.59	1303	157	.53	UG/L	3
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.92	1319	1435	4.88	UG/L	0
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.16	1331	474	1.61	UG/L	50
73)	CHRYSENE		228	30.85	1267	9949	27.97	UG/L	86
73)	CHRYSENE		228	30.95	1272	27704	78.67	UG/L	91

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	Compound			R.T.	Scan#	Area	Conc	Units	q
4)	*PERYLENE-D12	(IS)	264	34.92	1465	28855	40.00	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.25~~	~~1384~~	~~819~~	~~1.23~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.52~~	~~1397~~	~~490~~	~~.74~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.73~~	~~1407~~	~~562~~	~~.85~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.93~~	~~1417~~	~~439~~	~~.66~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.14~~	~~1427~~	~~755~~	~~1.14~~	~~UG/L~~	100
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.54~~	~~1398~~	~~1668~~	~~3.50~~	~~UG/L~~	100
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.67~~	~~1404~~	~~1152~~	~~2.42~~	~~UG/L~~	100
~~5)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.77~~	~~1409~~	~~865~~	~~1.81~~	~~UG/L~~	100
5)	BENZO(B)FLUORANTHENE		252	33.95	1418	4913	10.31	UG/L	100
~~6)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.40~~	~~1440~~	~~1095~~	~~2.30~~	~~UG/L~~	100
~~7)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.54~~	~~1398~~	~~1715~~	~~4.49~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.67~~	~~1404~~	~~1153~~	~~3.02~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.77~~	~~1409~~	~~880~~	~~2.30~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.95~~	~~1418~~	~~4945~~	~~12.95~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.40~~	~~1440~~	~~1096~~	~~2.87~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.48~~	~~1448~~	~~1095~~	~~3.02~~	~~UG/L~~	100
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.63~~	~~1451~~	~~8938~~	~~24.64~~	~~UG/L~~	100
3)	BENZO(A)PYRENE		252	34.75	1457	6519	17.97	UG/L	100
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.90~~	~~1464~~	~~1678~~	~~4.63~~	~~UG/L~~	100
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.98~~	~~1468~~	~~3197~~	~~8.79~~	~~UG/L~~	100
~~1)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.11~~	~~1572~~	~~1080~~	~~3.15~~	~~UG/L~~	100
~~1)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.44~~	~~1588~~	~~487~~	~~1.42~~	~~UG/L~~	100
~~1)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.50~~	~~1595~~	~~421~~	~~1.23~~	~~UG/L~~	100
~~1)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.60~~	~~1600~~	~~571~~	~~1.66~~	~~UG/L~~	100
~~1)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.97~~	~~1614~~	~~4531~~	~~13.20~~	~~UG/L~~	100
~~1)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.30~~	~~1581~~	~~417~~	~~1.29~~	~~UG/L~~	100
~~1)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.56~~	~~1594~~	~~656~~	~~2.03~~	~~UG/L~~	100
~~1)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.68~~	~~1600~~	~~327~~	~~1.01~~	~~UG/L~~	100
~~1)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.79~~	~~1605~~	~~236~~	~~.73~~	~~UG/L~~	100
~~1)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.95~~	~~1608~~	~~860~~	~~2.66~~	~~UG/L~~	100
~~1)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~37.60~~	~~1600~~	~~571~~	~~1.50~~	~~UG/L~~	100
1)	BENZO(G,H,I)PERYLENE		276	37.97	1614	4117	11.38	UG/L	100
~~1)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~38.15~~	~~1623~~	~~664~~	~~1.84~~	~~UG/L~~	100
~~1)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~38.26~~	~~1628~~	~~667~~	~~1.84~~	~~UG/L~~	100
~~1)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~38.42~~	~~1636~~	~~1463~~	~~4.04~~	~~UG/L~~	100

* Compound is ISTD

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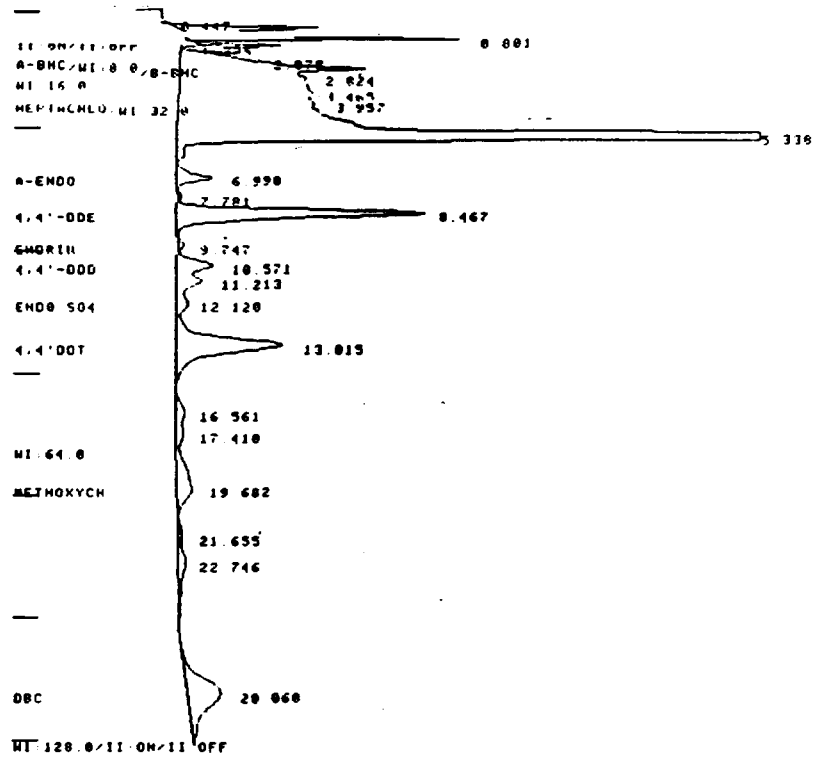
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-H8-24

CHANNEL: 1A - 1 TITLE: RUN# 26 10:46 16 JAN 87

SAMPLE: 0158.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.492		47983	VV	7.06
2	~~A-BHC~~	150.6523	2.078	-0.092	239373	VV	? 9.38
3	~~B-BHC~~	889.4457	2.397	0.097	458463	VV	? 18.75
4		0.0000	2.824		263574	VV	? 17.94
5		0.0000	3.129		218497	VV	? 20.50
6		0.0000	3.465		458270	VV	? 30.88
7	~~HEPTACHLO~~	316.4716	3.957	-0.013	422665	VV	? 33.88
8		0.0000	5.338		5582947	VV	12.38
9	~~A-ENDO~~	77.0440	6.990	-0.322	97472	T	19.69
* 4,4'-DDE 10	~~CHLORIN~~	~~[illegible]~~ 602	8.467	-0.043	772376	VV	22.81
11	~~4,4'-DDD~~	122.1925	10.571	0.051	134775	VV	31.00
12	~~ENDO ALD.~~	101.2674	11.213	0.583	101713	VV	? 36.00
13	~~ENDO SO4~~	59.7617	12.120	-0.220	57137	VV	? 44.50
#14	4,4'DDT	603.3267	13.815	0.095	585433	VV	36.94
15	~~END KETON~~	41.3628	16.561	0.771	53902	VV	? 52.81
16		0.0000	17.410		40515	VV	? 70.44
17	~~METHOXYCH~~	341.8118	19.682	-0.418	176331	VV	102.44
18		0.0000	21.655		25275	VV	? 81.69
19		0.0000	22.746		84963	VV	?169.25
20	~~DBC~~	341.1358	28.060	0.680	352782	VB	140.44
TOTALS:		3612.126		1.169	10174446		

DETECTED PKS: 29 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 11.4 OFFSET: -7

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW RSTY722

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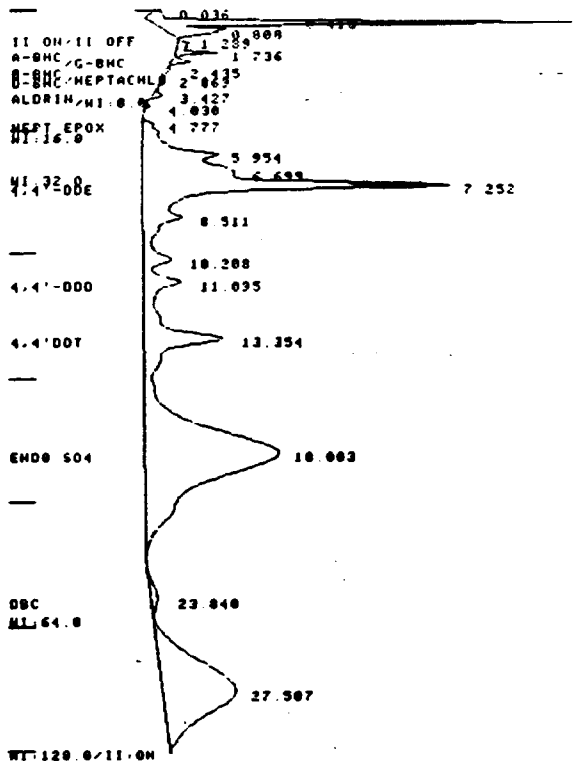
CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



RECALCULATE ON FILE: R.ST.067

DC-H8-24

CHANNEL: 1B - 1 TITLE: RUN#9 15:28 20 JAN 87

SAMPLE: 0158.01.19A1 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~A-BHC~~	38.3661	1.736	-0.044	93132	VB	4.63
2	~~G-BHC~~	18.1147	2.071	-0.179	37043	BB	5.19
3		0.0000	4.777		36829	BV	? 12.56
4	~~HEPT-EPOX~~	28.4102	5.040	0.030	56204	VV	? 16.94
5	~~A-ENDO~~	310.7551	5.954	-0.346	570809	VV	? 25.50
6		0.0000	6.699		755014	VV	? 35.94
7	4,4'-DDE	1181.522	7.252	0.012	2129908	VV	19.94
8		0.0000	8.511		404968	VV	? 42.31
9		0.0000	10.208		243316	VV	32.63
10	~~4,4'-DDD~~	234.1998	11.095	0.035	353665	VV	31.69
11	4,4'DDT	973.8108	13.354	-0.006	1060085	VV	34.75
12	~~ENDO-SO4~~	6619.258	18.003	0.113	4831381	VV	?128.94
13	~~DBC~~	74.3269	23.840	0.190	101664	VV	? 70.88
14		0.0000	27.507		2586546	VB	?182.19
TOTALS:		9478.765		-0.195	13260564		

DETECTED PKS: 34 REJECTED PKS: 20

DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 34.3 OFFSET: 14

RACK: 1 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:259-82 ANALYST:K. JUREK
SECURE AREA: D JOB# U-4727,4738
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
DEAD CREEK PEST/PCB CONFIRMATIONS

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SAMPLE NUMBER DC-H9-28

481095 295

Sample Number
DC-H9-28

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4767
Lab Sample ID No: 0397 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Hoytoura Date Sample Received: 1-15-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 1-17-87
Conc./Dil Factor: 2 pH 7.5
Percent Moisture: (Not Decanted) 21

Concentration "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	5 BJ
67-64-1	Acetone	1200 BE
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	28 B
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	10u
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	10u
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4767

Sample Number DC-H9-28

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-16-87

Date Analyzed: 1-20-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-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	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	270	BJ
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	240	J
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	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

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Laboratory Name ecology and environment, inc.

Case No U-4767

Sample Number DC-H9-28

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 1

Percent Moisture (decanted) 21.1

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8u
319-85-7	Beta-BHC	8u
319-86-8	Delta-BHC	8u
58-89-9	Gamma-BHC (Lindane)	8u
76-44-8	Heptachlor	8u
309-00-2	Aldrin	8u
1024-57-3	Heptachlor Epoxide	8u
959-98-8	Endosulfan I	8u
60-57-1	Dieldrin	16u
72-55-9	4, 4'-DDE	16u
72-20-8	Endrin	16u
33213-65-9	Endosulfan II	16u
72-54-8	4, 4'-DDD	16u
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4, 4'-DDT	16u
72-43-5	Methoxychlor	80u
53494-70-5	Endrin Ketone	16u
57-74-9	Chlordane	80u
8001-35-2	Toxaphene	160u
12674-11-2	Aroclor-1016	80u
11104-28-2	Aroclor-1221	80u
11141-16-5	Aroclor-1232	80u
53469-21-9	Aroclor-1242	80u
12672-29-6	Aroclor-1248	80u
11097-69-1	Aroclor-1254	160u
11096-82-5	Aroclor-1260	160u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name E & E, Inc

Case No U-4767

Sample Number DC-H9-28

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	32 BJ
2.	Hexane isomer	VOA	21.3	120 BJ
3.				
4.	UNKNOWN	BNA	6.79	250 J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

Form 1, Part B

7 85

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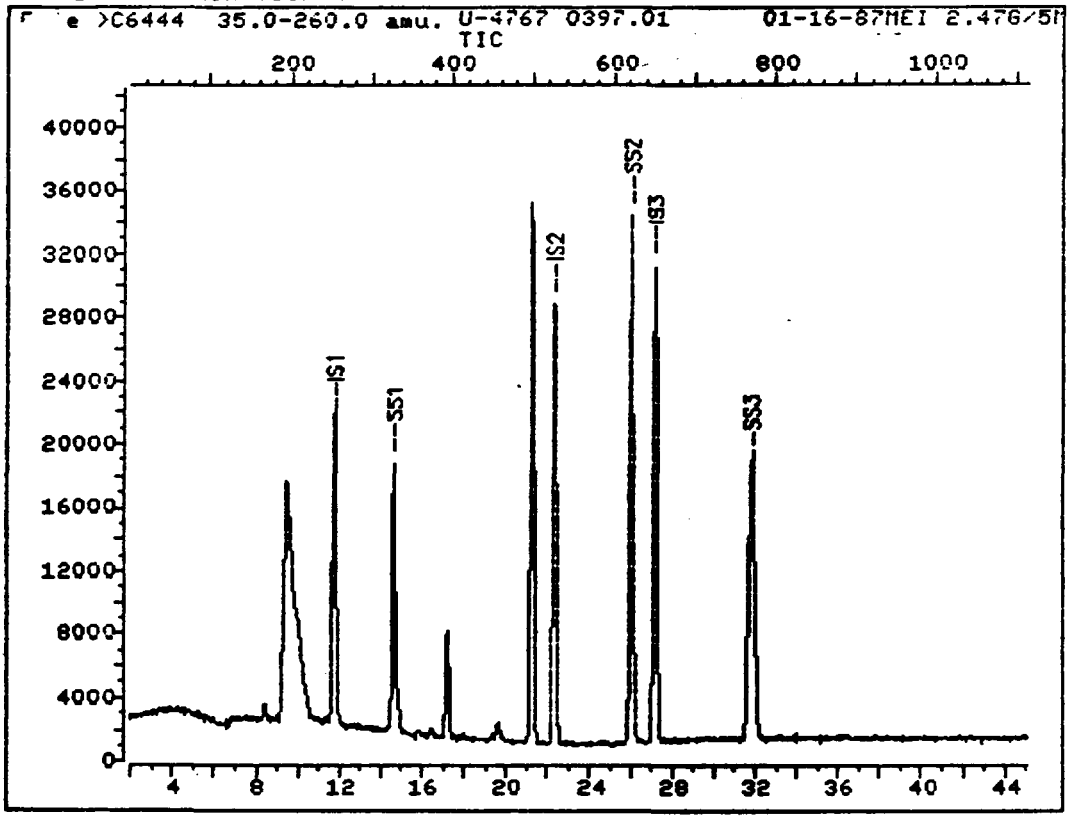
TOTAL ION CHROMATOGRAM



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Name: U-4767 0397.01 DC-H9-28
Misc: 01-16-87MEI 2.47G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870116 20:48

Operator ID: MANAGER
Quant Time: 870117 03:53
Injected at: 870117 03:07

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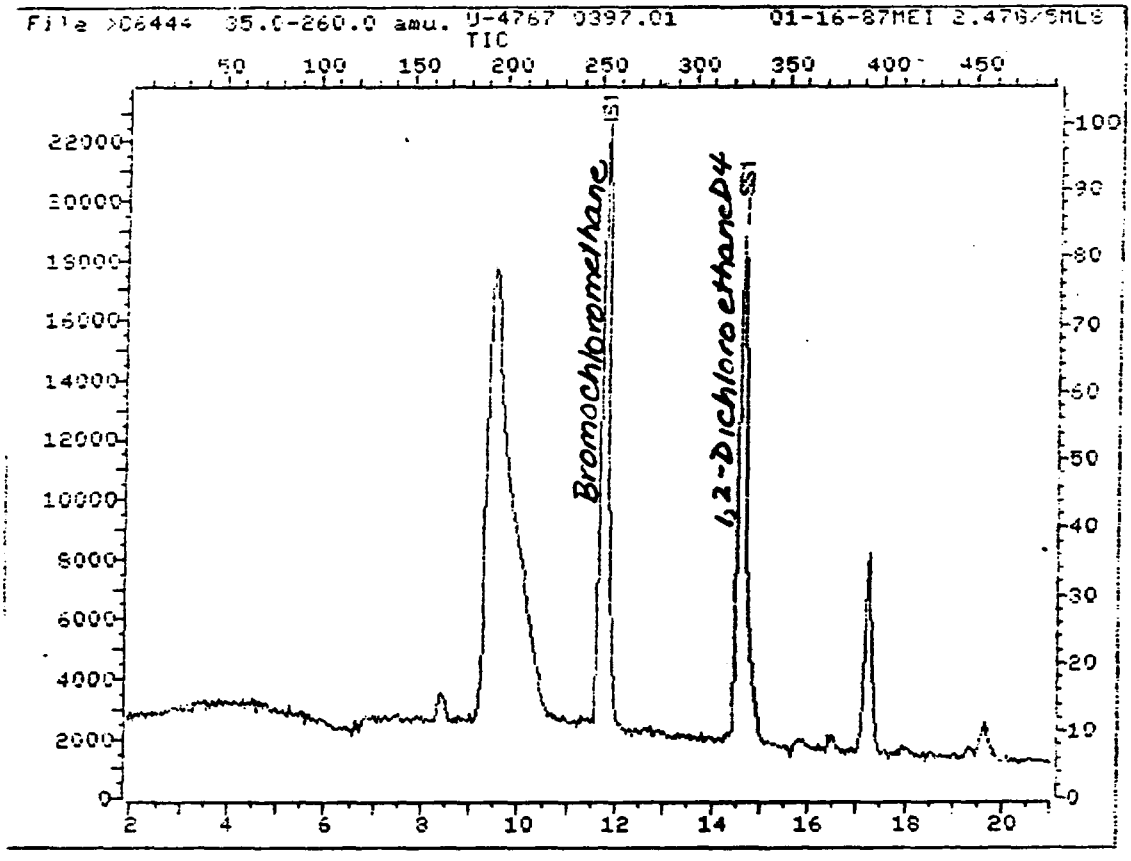
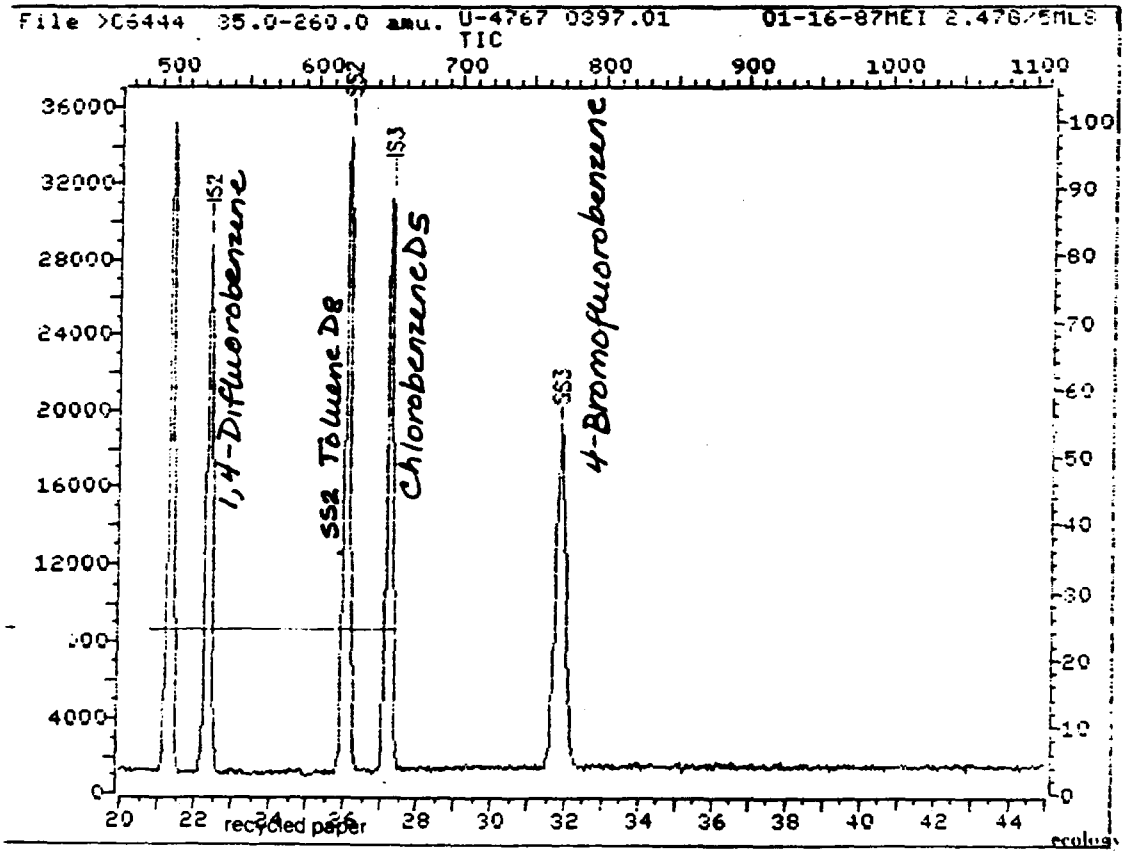
DC-49-28





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QUANT REPORT

pe tor ID: MANAGER Quant Rev: 4 Quant Time: 870117 03:53
utput File: ^C6444::D2 Injected at: 870117 03:07
ata File: >C6444::D1 Dilution Factor: 1.00
ame: U-4767 0397.01 DC-H9-28
isc: 01-16-87MEI 2.47G/5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870116 20:48

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.73	253	27153	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.39	167	2386	12.70	NGS	100
7)	ACETONE	43	9.44	194	377545	2994.55	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.60	327	70101	259.48	NGS	83
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.32	526	110720	250.00	NGS	100
7)	2-BUTANONE	72	14.75	331	3373	68.02	NGS	100
1)	*CHLOROBENZENE-D5	(IS) 117	27.17	651	87216	250.00	NGS	100
5)	TOLUENE-D8	(SURR) 98	26.04	622	124076	261.41	NGS	94
0)	4-BROMOFLUOROBENZENE	(SURR) 95	31.79	770	60862	225.77	NGS	100

* Compound is ISTD

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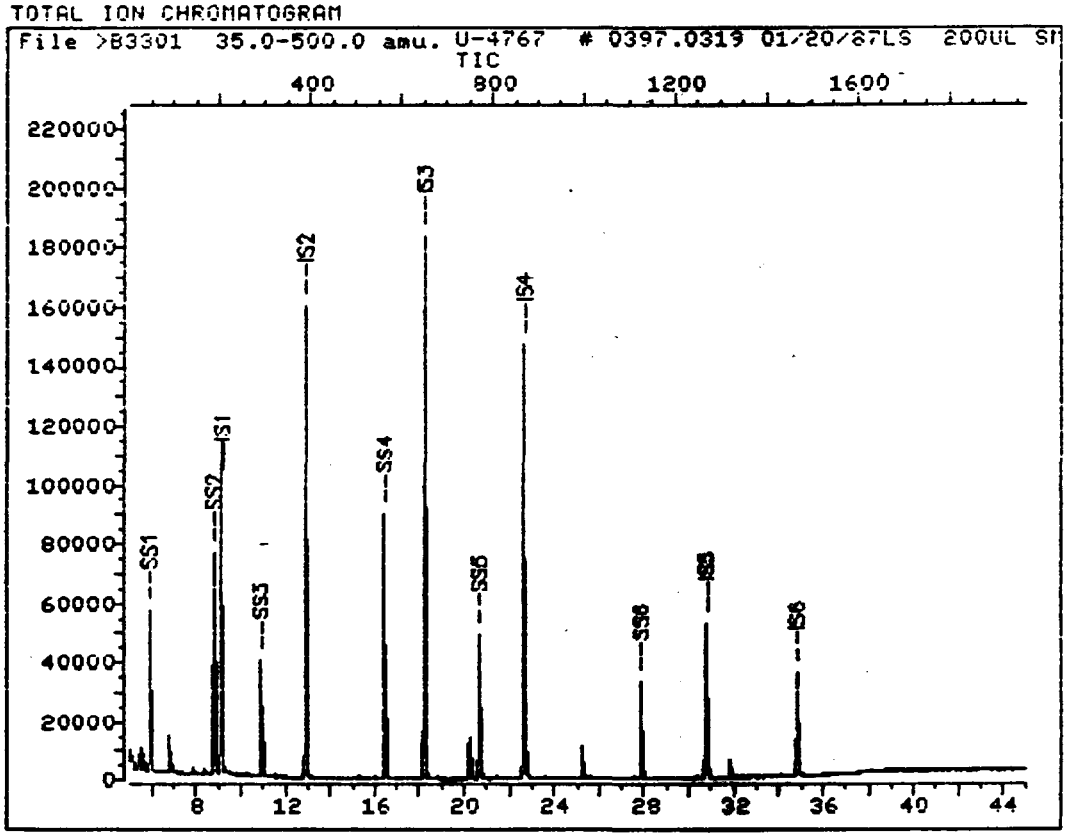
TOTAL ION CHROMATOGRAM



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Misc: 01/20/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2x)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870120 15:41

Operator ID: MANAGER
Quant Time: 870120 23:34
Injected at: 870120 22:47

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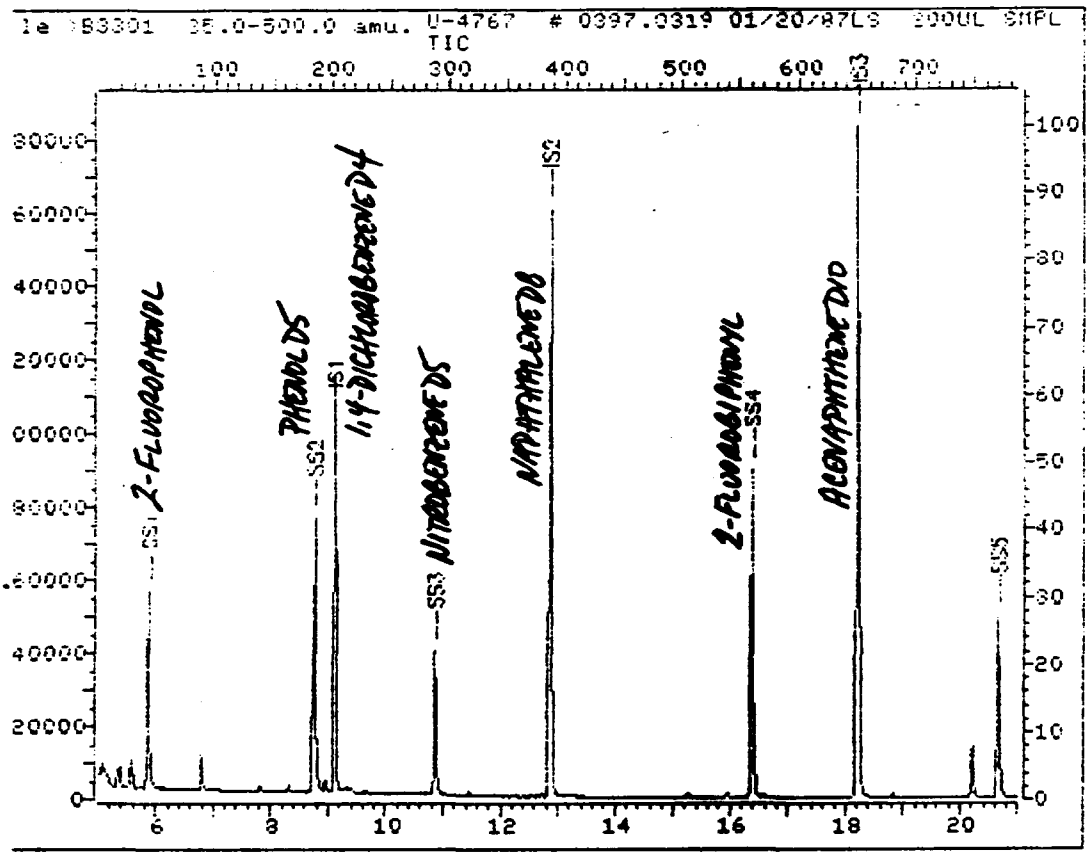
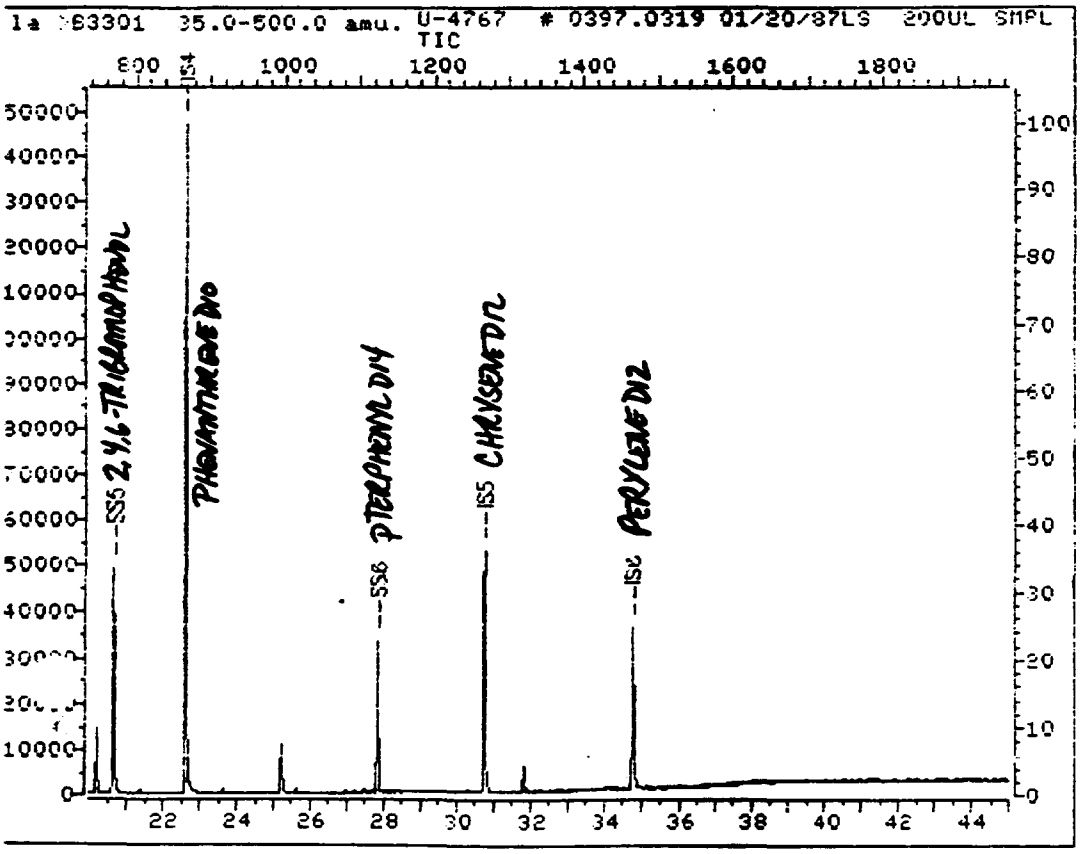
DC-H9-28





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QUANT REPORT

e tor ID: MANAGER Quant Rev: 4 Quant Time: 870120 23:34
tput File: ^B3301::Q2 Injected at: 870120 22:47
ta File: >B3301::D4 Dilution Factor: 2.00
me: U-4767 # 0397.0319 DC-H9-28
sc: 01/20/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2x)

File: BNABR::D2
tle: BNA ID FILE FOR THE HP 5970 (B)
st Calibration: 870120 15:41

	Compound		MK	R.T.	Scan#	Area	Conc	Units		q
)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.10	202	51768	40.00	UG/L		91
2)	PHENOL-D5	(SURR)	99	8.76	185	61149	74.14	UG/L	74	91
5)	2-FLUOROPHENOL	(SURR)	112	5.87	43	33057	56.41	UG/L		67
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.85~~	~~288~~	~~4817~~	~~6.94~~	~~UG/L~~		85
9)	*NAPHTHALENE-D8	(IS)	136	12.87	387	193093	40.00	UG/L		100
0)	NITROBENZENE-D5	(SURR)	82	10.85	288	31186	35.62	UG/L	72	93
)	*ACENAPHTHENE-D10	(IS)	162	18.21	650	98735	40.00	UG/L		97
)	2-FLUOROBIPHENYL	(SURR)	172	16.38	560	79547	43.15	UG/L	86	93
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.21~~	~~650~~	~~29769~~	~~15.89~~	~~UG/L~~		100
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.27~~	~~653~~	~~364~~	~~.19~~	~~UG/L~~		100
)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.65	770	25013	71.18	UG/L	71	99
)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.21~~	~~650~~	~~12844~~	~~30.92~~	~~UG/L~~		100
)	*PHENANTHRENE-D10	(IS)	188	22.62	867	174834	40.00	UG/L		95
)	DI-N-BUTYLPHTHALATE		149	25.23	995	17246	8.21	UG/L		99
)	*CHRYSENE-D12	(IS)	240	30.75	1267	72113	40.00	UG/L		100
)	TERPHENYL-D14	(SURR)	244	27.83	1123	39539	43.89	UG/L	88	100
)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.81	1319	4859	7.20	UG/L		94
)	*PERYLENE-D12	(IS)	264	34.78	1465	53202	40.00	UG/L		100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.64~~	~~1409~~	~~239~~	~~.22~~	~~UG/L~~		100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.86~~	~~1420~~	~~290~~	~~.26~~	~~UG/L~~		100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.05~~	~~1429~~	~~269~~	~~.24~~	~~UG/L~~		100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.11~~	~~1432~~	~~529~~	~~.48~~	~~UG/L~~		100

Compound is ISTD

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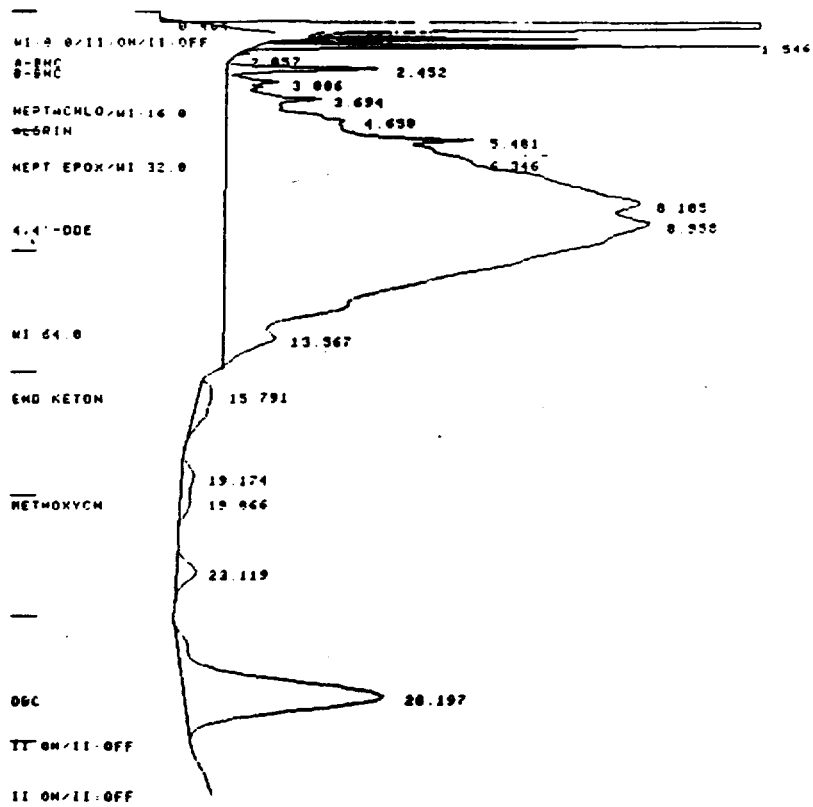
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-49-28

CHANNEL: 1A - 1 TITLE: RUN# 18 16:49 22 JAN 87

SAMPLE: 0397.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.261		136483	BB	3.63
2		0.0000	1.546		341981	BV	4.56
3	A-BHC	12.3288	2.452	0.082	184436	VV	9.19
4		0.0000	3.006		82815	VV	12.31
5		0.0000	3.184		41142	VV	? 11.75
6		0.0000	3.694		253071	VV	? 18.38
7	HEPTACHLO	2.5337	4.031	-0.069	86490	VV	? 41.81
8		0.0000	4.658		431511	VV	? 37.06
9	ALDRIN	3.7926	4.892	-0.158	152477	VV	? 11.06
10		0.0000	5.481		852464	VV	? 37.81
11	HEPT EPOX	30.9449	6.346	0.236	1159358	VV	? 35.56
12		0.0000	8.105		5298442	VV	? 72.69
13	DIELDRIN	222.2408	8.958	0.158	8407649	VV	?251.31
14	4,4'-DDT	13.6876	13.567	-0.613	301312	VB	? 66.31
15	END KETON	4.1813	15.791	-0.529	154605	BV	70.75
16		0.0000	19.174		87450	VV	? 52.38
17	METHOXYCH	5.6216	19.866	-0.924	71528	VB	? 95.31
18		0.0000	23.119		128307	BB	50.94
19	DBC 168%	72.0285	28.197	-0.133	2065517	BB	81.50

TOTALS: 367.1997 -1.950 20237042

DETECTED PKS: 26 REJECTED PKS: 7

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: 0

NOTES:
NOTEBOOK:259-63 ANALYST:P. BRUTSCHER
SECURE AREA: D JOB # U-47A647
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW CLP758

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SAMPLE NUMBER DC-K2-25

481095

397

DC-K2-25

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4767

Lab Sample ID No: 0394 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 1-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-23-87

Conc./Dil Factor: 1.5 pH 7.8

Percent Moisture: (Not Decanted) 18

Reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	15u
74-83-9	Bromomethane	15u
75-01-4	Vinyl Chloride	15u
75-00-3	Chloroethane	15u
75-09-2	Methylene Chloride	11 B
67-64-1	Acetone	36 B
75-15-0	Carbon Disulfide	8u
75-35-4	1, 1-Dichloroethene	8u
75-34-3	1, 1-Dichloroethane	8u
156-60-5	Trans-1, 2-Dichloroethene	8u
67-66-3	Chloroform	8u
107-06-2	1, 2-Dichloroethane	8u
78-93-3	2-Butanone	24 B
71-55-6	1, 1, 1-Trichloroethane	8u
56-23-5	Carbon Tetrachloride	8u
108-05-4	Vinyl Acetate	15u
75-27-4	Bromodichloromethane	8u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	8u
10061-02-6	Trans-1, 3-Dichloropropene	8u
79-01-6	Trichloroethene	8u
124-48-1	Dibromochloromethane	8u
79-00-5	1, 1, 2-Trichloroethane	8u
71-43-2	Benzene	8u
10061-01-5	cis-1, 3-Dichloropropene	8u
110-75-8	2-Chloroethylvinylether	15u
75-25-2	Bromoform	8u
108-10-1	4-Methyl-2-Pentanone	15u
591-78-6	2-Hexanone	15u
127-18-4	Tetrachloroethene	8u
79-34-5	1, 1, 2, 2-Tetrachloroethane	8u
108-88-3	Toluene	8u
108-90-7	Chlorobenzene	8u
100-41-4	Ethylbenzene	8u
100-42-5	Styrene	8u
	Total Xylenes	8u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Form I 11/85

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4767

Sample Number DC-K2-25

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 1-16-87

Date Analyzed: 2-11-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 18

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1, 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Psopylamine	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	1600	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	39	J
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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
8-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	180	J
51-28-5	2, 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	85	J
121-14-2	2, 4-Dinitrotoluene	330	U
606-20-2	2, 6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	160	J
100-01-6	4-Nitroaniline	1600	U
534-52-1	4, 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	1400	
120-12-7	Anthracene	340	
84-74-2	Di-n-Butylphthalate	310	BJ
206-44-0	Fluoranthene	1800	
129-00-0	Pyrene	1100	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3, 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	720	
117-81-7	bis(2-Ethylhexyl)Phthalate	880	
218-01-9	Chrysene	730	
117-84-0	Di-n-Octyl Phthalate	120	J
205-99-2	Benzo(b)Fluoranthene	1000	
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	770	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	500	
53-70-3	Dibenz(a, h)Anthracene	330	U
191-24-2	Benzo(g, h, i)Perylene	490	

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4767

Sample Number DC-K2-25

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 10

Percent Moisture (decanted) 17.6

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	80u
319-85-7	Beta-BHC	80u
319-86-8	Delta-BHC	80u
58-89-9	Gamma-BHC (Lindane)	80u
76-44-8	Heptachlor	80u
309-00-2	Aldrin	80u
1024-57-3	Heptachlor Epoxide	80u
959-98-8	Endosulfan I	80u
60-57-1	Dieldrin	160u
72-55-9	4,4'-DDE	160u
72-20-8	Endrin	160u
33213-65-9	Endosulfan II	160u
72-54-8	4,4'-DDD	160u
1031-07-8	Endosulfan Sulfate	160u
50-29-3	4,4'-DDT	160u
72-43-5	Methoxychlor	800u
53494-70-5	Endrin Ketone	160u
57-74-9	Chlordane	800u
8001-35-2	Toxaphene	1600u
12674-11-2	Aroclor-1016	800u
11104-28-2	Aroclor-1221	800u
11141-16-5	Aroclor-1232	800u
53469-21-9	Aroclor-1242	800u
12672-29-6	Aroclor-1248	4000
11097-69-1	Aroclor-1254	1600u
11096-82-5	Aroclor-1260	5200

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name E & E, Inc

Case No U-4767

Sample Number
DC-K2-25

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3	21 BJ
2.	Hexane isomer	VOA	21.3	64 BJ
3.				
4.	UNKNOWN	BNA	6.52	320 J
5.	UNKNOWN		7.56	570 J
6.	UNKNOWN		8.74	250 J
7.	UNKNOWN		19.98	280 J
8. 10544500	MOLECULAR SULFUR		25.69	12000 J
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
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29.				
30				

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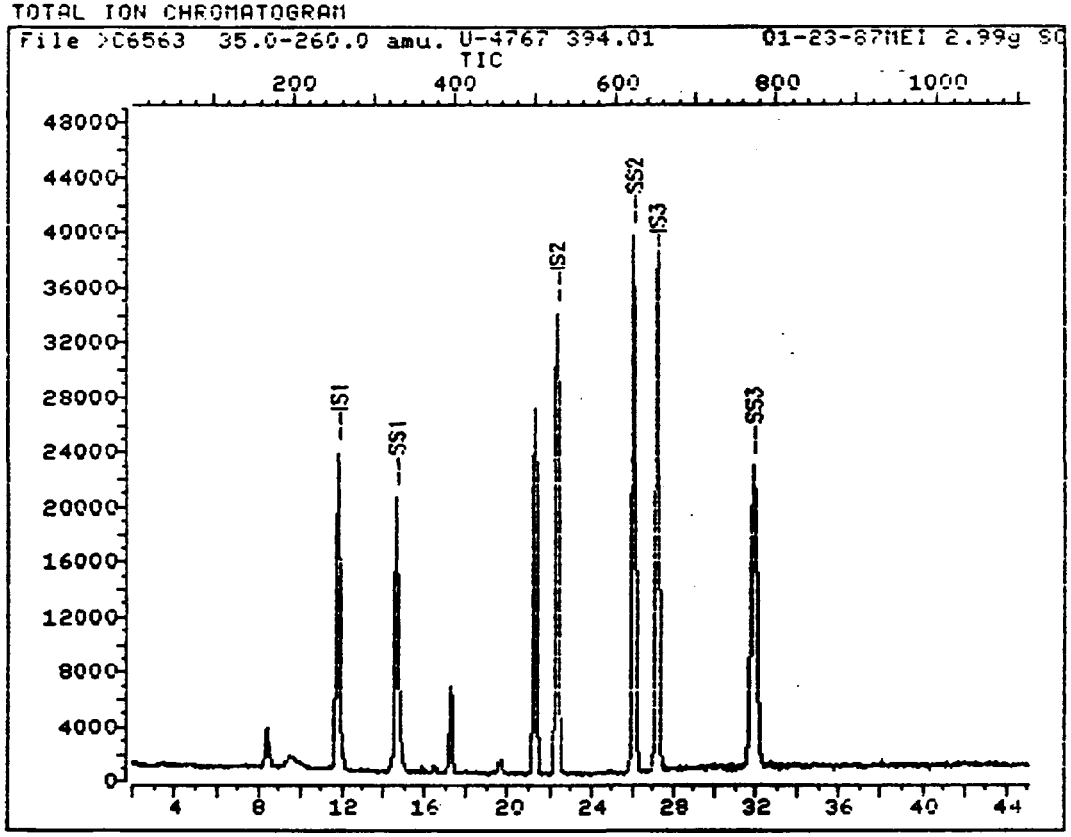
TOTAL ION CHROMATOGRAM



Data File: >C6563::D3
Name: U-4767 394.01 DC-K2-25
Misc: 01-23-87MEI 2.99g SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870123 16:03

Operator ID: USER8
Quant Time: 870123 21:07
Injected at: 870123 20:21

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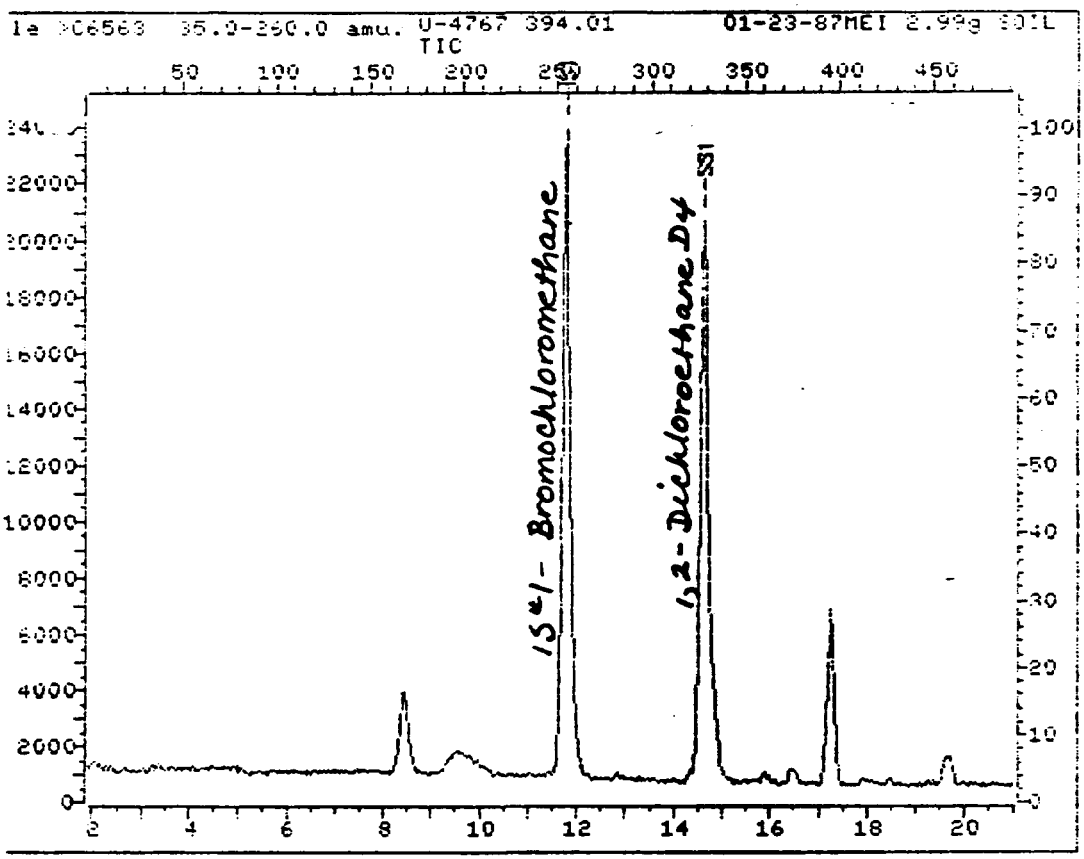
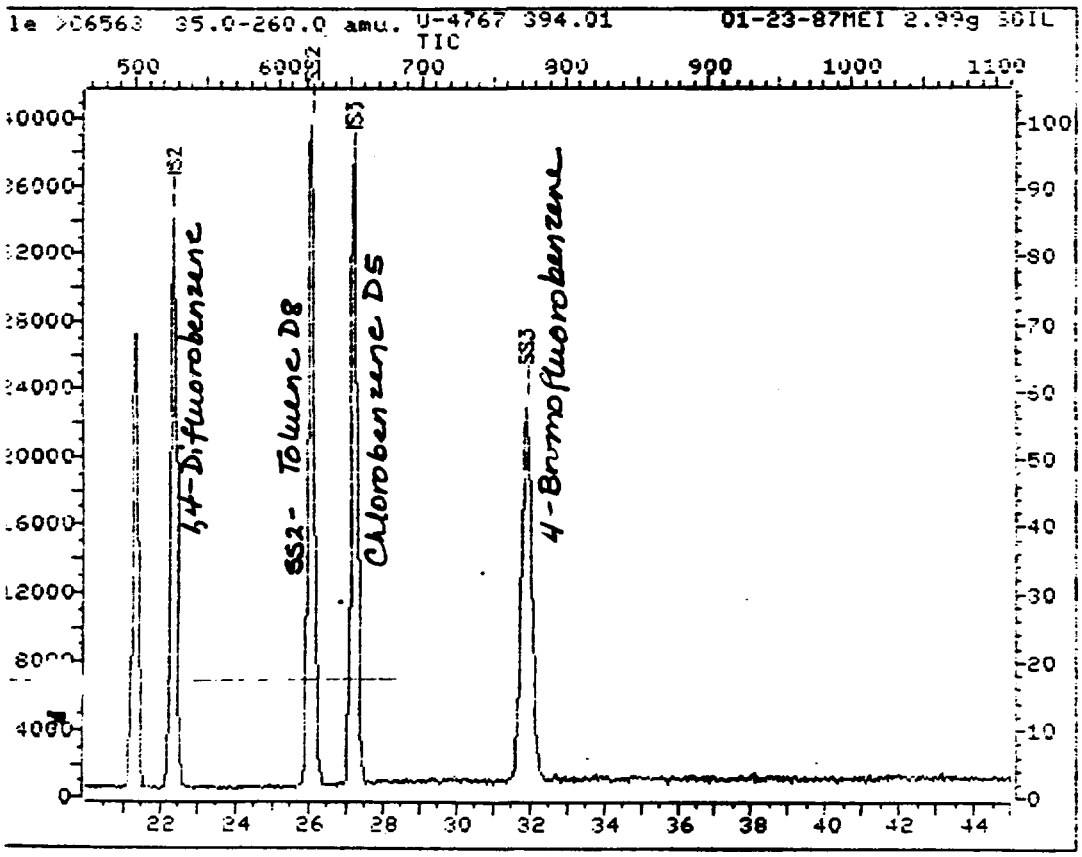
DC-K225





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QUANT REPORT

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ɹtput File: ^C6563::Q2 Injected at: 870123 20:21
ɜta File: >C6563::D3 Dilution Factor: 1.00
ɜme: U-4767 394.01 DC-K2-25
isc: 01-23-87MEI 2.99g SOIL IN 5ML DI + 10UL IS/SS

) File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ɜst Calibration: 870123 16:03

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.80	255	32016	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.42	168	8081	32.41	NGS	100
7)	ACETONE		43	9.62	199	22073	107.36	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65.	14.63	328	87294	219.09	NGS	81
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.35	527	134139	250.00	NGS	100
17)	2-BUTANONE		72	14.82	333	3514	70.68	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.19	652	107443	250.00	NGS	100
5)	TOLUENE-D8	(SURR)	98	26.07	623	146556	210.35	NGS	93
1)	4-BROMOFLUOROBENZENE	(SURR)	95	31.90	773	75484	195.00	NGS	100

* Compound is ISTD

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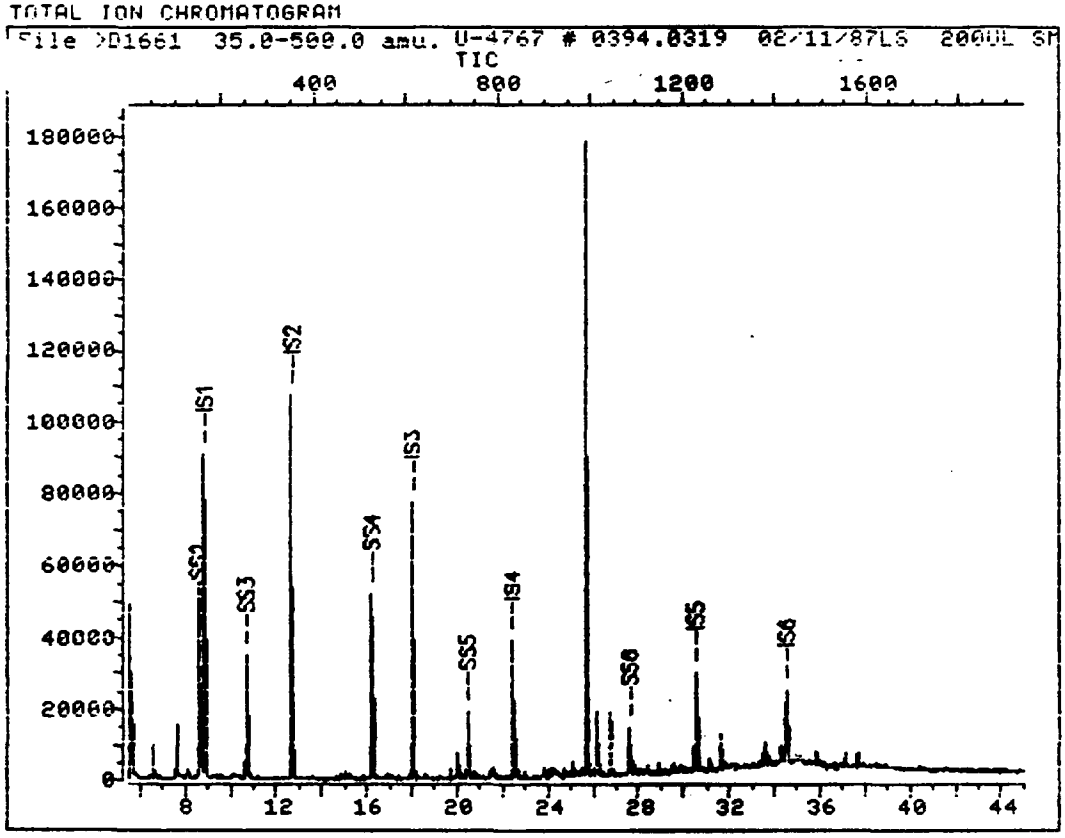
TOTAL ION CHROMATOGRAM



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Misc: 02/11/87LS 200UL SMPL+ 200UL MECL2 + 4UL IS BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

Operator ID: USER6
Quant Time: 870211 19:43
Injected at: 870211 18:56

2fluorophenol (surr) 5.58 45862 8671 BJK

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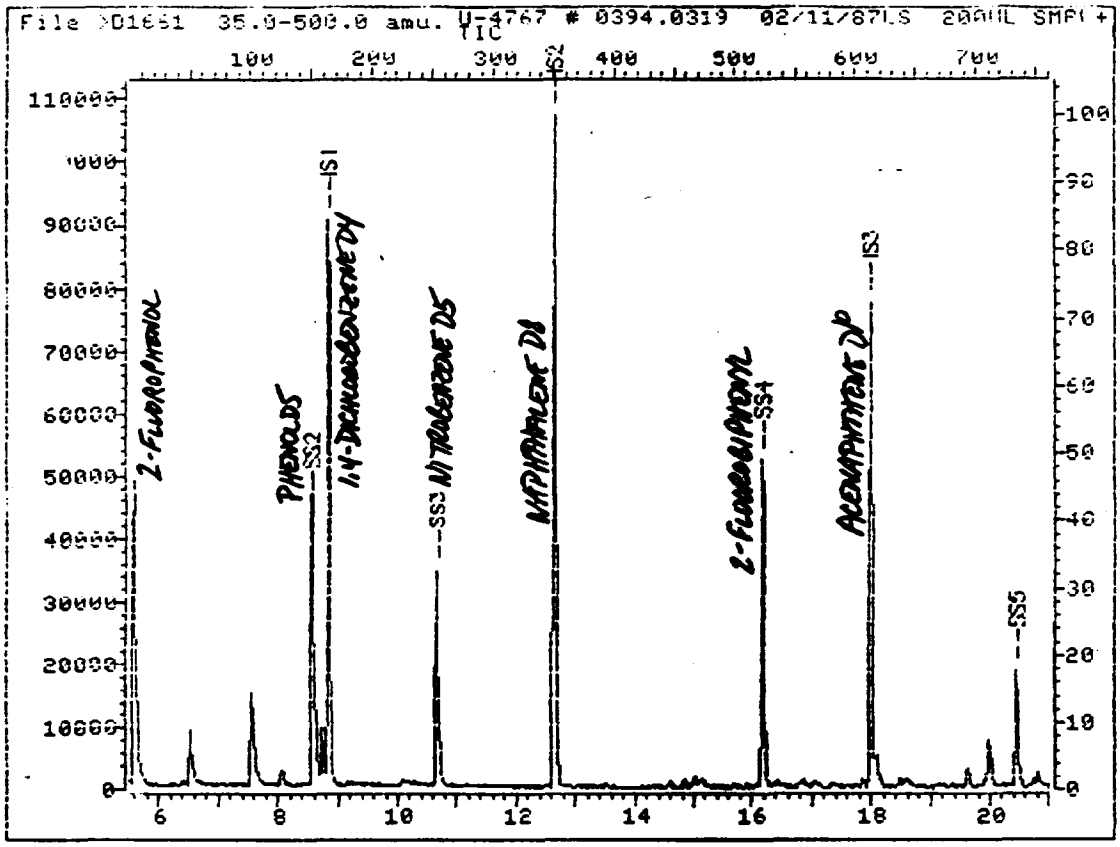
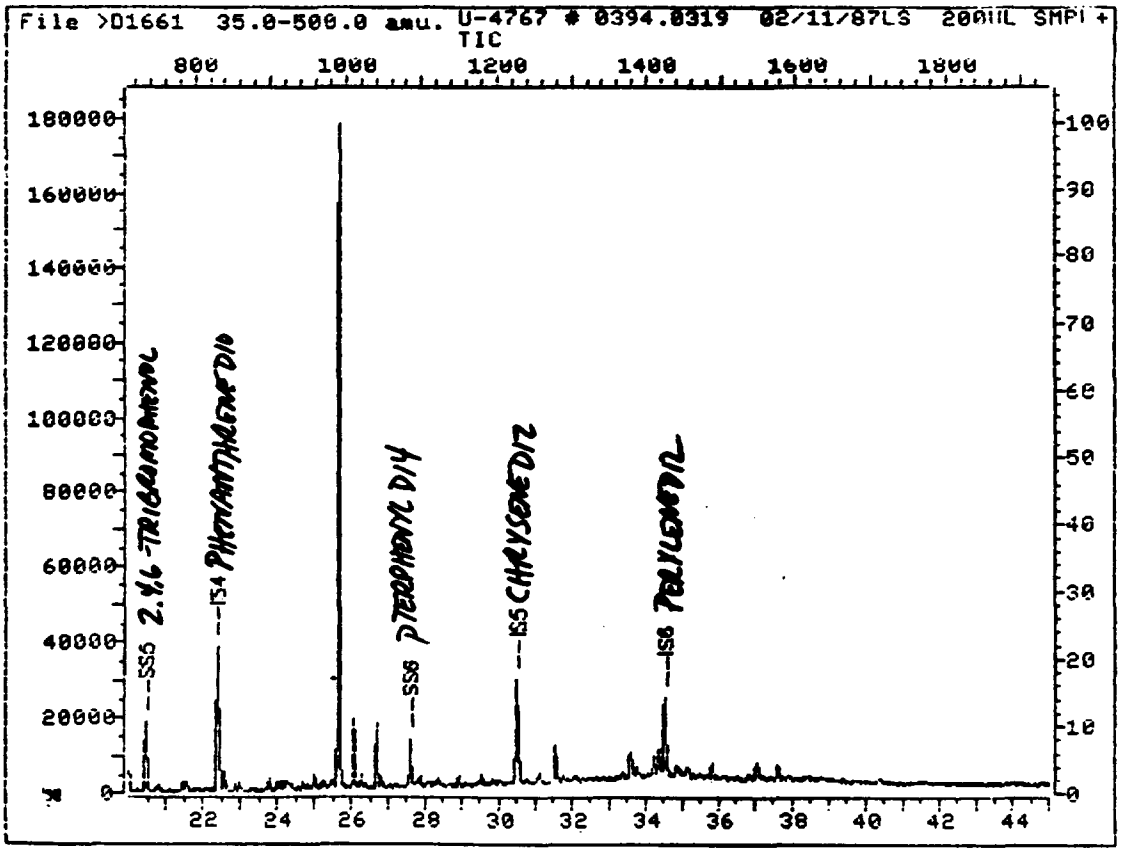
DC-K2-25





recycled paper

ecology and environment

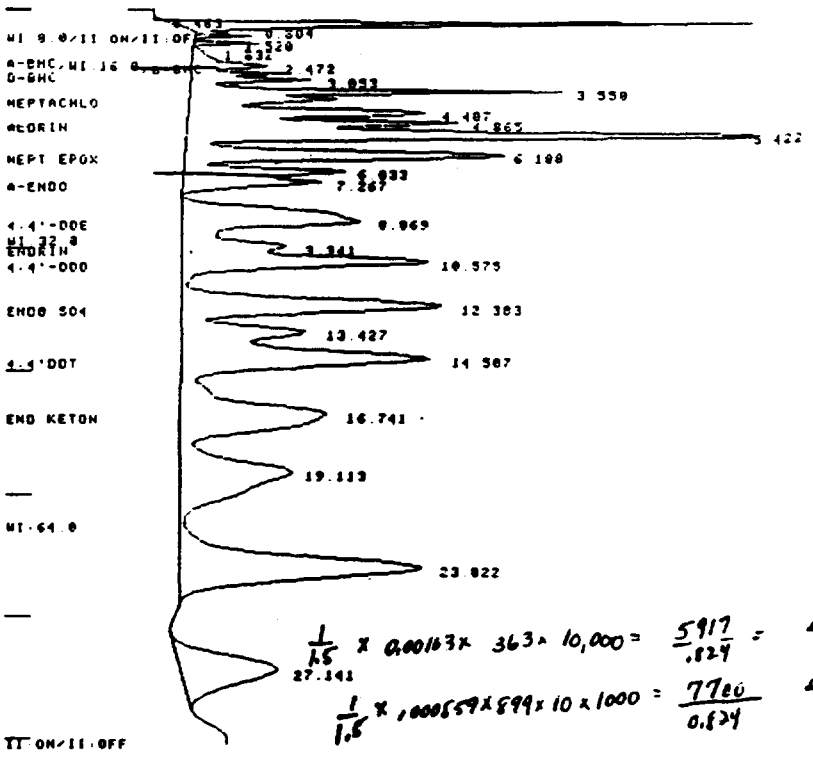
QUANT REPORT

L rator ID: USER6 Quant Rev: 4 Quant Time: 870211 19:43
Output File: ^D1661::Q2 Injected at: 870211 18:56
Data File: >D1661::D3 Dilution Factor: 2.00
Name: U-4767 # 0394.0319 DC-K2-25
Misc: 02/11/87LS 200UL SMPL+ 200UL MECL2 + 4UL IS BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.84	164	41537	40.00 UG/L	91
2)	PHENOL-D5	(SURR)	99	8.55	150	56761	77.57 UG/L	93
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.65~~	~~253~~	~~5039~~	~~9.39 UG/L~~	~~84~~
19)	*NAPHTHALENE-D8	(IS)	136	12.65	351	130865	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.65	253	29947	49.11 UG/L	98
29)	NAPHTHALENE		128	12.71	354	1857	1.17 UG/L yes	100
34)	*ACENAPHTHENE-D10	(IS)	162	17.98	613	51272	40.00 UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.17	524	52632	56.43 UG/L	95
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.98~~	~~613~~	~~9947~~	~~12.99 UG/L~~	~~[illegible]~~
43)	DIBENZOFURAN		168	18.60	643	2343	2.55 UG/L yes	100
45)	FLUORENE		166	19.63	694	3085	4.81 UG/L yes	95
47)	ACENAPHTHENE		153	18.09	618	3873	5.36 UG/L yes	90
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.45	734	6980	61.38 UG/L	95
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.63~~	~~694~~	~~190~~	~~2.08 UG/L~~	~~[illegible]~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.98~~	~~613~~	~~6651~~	~~41.88 UG/L~~	~~[illegible]~~
55)	*PHENANTHRENE-D10	(IS)	188	22.38	829	48421	40.00 UG/L	97
61)	PHENANTHRENE		178	22.47	833	25903	41.57 UG/L yes	98
~~61)~~	~~PHENANTHRENE~~		~~178~~	~~22.59~~	~~839~~	~~6142~~	~~9.86 UG/L~~	~~[illegible]~~
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.47~~	~~833~~	~~25903~~	~~43.32 UG/L~~	~~[illegible]~~
62)	ANTHRACENE		178	22.59	839	6142	10.27 UG/L yes	92
63)	DI-N-BUTYLPHTHALATE		149	24.99	957	5619	9.44 UG/L yes	96
64)	FLUORANTHENE		202	26.07	1010	23031	53.07 UG/L yes	98
65)	*CHRYSENE-D12	(IS)	240	30.50	1227	28122	40.00 UG/L	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~26.87~~	~~1049~~	~~187~~	~~187.00 NO CAL~~	~~[illegible]~~
67)	PYRENE		202	26.68	1040	20249	32.49 UG/L yes	96
~~67)~~	~~PYRENE~~		~~202~~	~~26.79~~	~~1045~~	~~207~~	~~1.13 UG/L~~	~~[illegible]~~
68)	TERPHENYL-D14	(SURR)	244	27.58	1084	12983	41.26 UG/L	100
71)	BENZO(A)ANTHRACENE		228	30.46	1225	8201	21.61 UG/L yes	92
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.56~~	~~1230~~	~~7782~~	~~20.51 UG/L~~	~~[illegible]~~
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.56	1279	7774	26.39 UG/L yes	89
~~73)~~	~~CHRYSENE~~		~~228~~	~~30.46~~	~~1225~~	~~8201~~	~~23.19 UG/L~~	~~[illegible]~~
73)	CHRYSENE		228	30.56	1230	7782	22.00 UG/L yes	94
74)	*PERYLENE-D12	(IS)	264	34.53	1425	25144	40.00 UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	33.37	1368	1888	3.76 UG/L yes	100
76)	BENZO(B)FLUORANTHENE		252	33.58	1378	13505	31.13 UG/L yes	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.84~~	~~1391~~	~~1729~~	~~3.99 UG/L~~	~~100~~
77)	BENZO(K)FLUORANTHENE		252	33.58	1378	13505	32.46 UG/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.84~~	~~1391~~	~~1729~~	~~4.80 UG/L~~	~~100~~
~~7~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.25~~	~~1411~~	~~5574~~	~~16.21 UG/L~~	~~100~~
7b	BENZO(A)PYRENE		252	34.37	1417	7910	23.01 UG/L yes	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.60~~	~~1428~~	~~2384~~	~~6.93 UG/L~~	~~100~~
79)	INDENO(1,2,3-CD)PYRENE		276	37.10	1551	4927	15.06 UG/L yes	100
81)	BENZO(G,H,I)PERYLENE		276	37.61	1576	5116	14.71 UG/L yes	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~37.92~~	~~1591~~	~~1307~~	~~3.76 UG/L~~	~~[illegible]~~

CHART SPEED 0.5 CM/MIN
ATTEN: 6 ZERO: 10% 5 MIN/TICK



$\frac{1}{1.5} \times 0.00163 \times 363 \times 10{,}000 = \frac{5917}{.824} =$ 4,800 ~~4200~~ ug/kg 7248

$\frac{1}{1.5} \times .000559 \times 899 \times 10 \times 1000 = \frac{7700}{0.824}$ 6300 ~~4400~~ ug/kg 1260

CHANNEL: 1A - 1 TITLE: RUN# 14 11:16 22 JAN 87

DC-K2-25

SAMPLE: 0394.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.520		41727	BV	4.75
2	~~A-BHC~~	11.3028	2.216	-0.014	48775	VV	? 17.94
3	~~B-BHC~~	87.4173	2.472	0.102	130774	VV	13.00
4	~~D-BHC~~	31.1448	2.707	0.117	121679	VV	9.56
5		0.0000	3.053	PCB	166898	VV	10.25
6		0.0000	3.550	1248	561806	VV	10.25
7	~~HEPTACHLO~~	90.3806	3.874	4.226	368522	VV	? 22.63
8		0.0000	4.407		640125	VV	22.36
9	~~ALDRIN~~	128.0312	4.865	-0.185	514737	VV	? 15.36
10		0.0000	5.422		~~2000029~~	VV	12.00
11	~~HEPT EPOX~~	250.8094	6.188	363 0.078	939664	VV	22.25
12		0.0000	6.833		383470	VV	? 16.50
13	~~A-ENDO~~	112.5594	7.267	-0.293	460136	VV	? 26.25
14	~~DIELDRIN~~	282.5071	8.069	0.069	1068760	VV	? 50.44
15	~~B-ENDO~~	103.9271	9.941	-0.039	365707	VV	? 31.69
16	~~4,4'-DDD~~	306.3873	10.575	PCB 1260 0.305	966462	VV	29.88
17	~~ENDO SO4~~	466.6063	12.383	0.377	1221342	VV	36.31
18		0.0000	13.427		551553	VV	? 34.38
19	~~4,4'-DDT~~	633.5145	14.507	0.327	1402791	VV	42.81
20	~~END KETON~~	360.9860	16.741	0.421 899	1360780	VV	69.44
21		0.0000	19.113		1207795	VV	85.75
22		0.0000	23.022		1902793	VB	58.19
23	~~GDD~~ INF.	316.2698	27.141	-1.189	906948	BB	81.88
TOTALS:		3181.843		-1.514	17281274		

DETECTED PKS: 31 REJECTED PKS: 8

DIVISOR: 1.50000 MULTIPLIER: 10000.0000

NOISE: 11.4 OFFSET: 2

NOTES:
NOTEBOOK:259-83 ANALYST:P. BRUTSCHER
SECURE AREA: D JOB # U-474867
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW CLP750

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SAMPLE NUMBER DC-K3-32

481095

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DC-K3-32

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc

Case No: U-4819

Sample ID No: 643

QC Report No:

Sample Matrix: Soil

Contract No: EL-3140

Data Release Authorized By: C. Hoytowicz

Date Sample Received: 1-24-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-2-87

Conc/Dil Factor: 1 pH 9.6

Percent Moisture: (Not Decanted) 34

Reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	6 B
67-64-1	Acetone	660 EB
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	19 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4819

Sample Number DC-K3-32

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 1-26-87

Date Analyzed: 2-11-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 34

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-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	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	370	
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	880	B
206-44-0	Fluoranthene	800	
129-00-0	Pyrene	420	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	220	J
117-81-7	bis(2-Ethylhexyl)Phthalate	3100	B
218-01-9	Chrysene	360	
117-84-0	Di-n-Octyl Phthalate	200	J
205-99-2	Benzo(b)Fluoranthene	410	
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	250	J
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

Laboratory Name ecology and environment, inc.

Case No U-4819

Sample Number DC-K3-32

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared: 1/26/87

Date Analyzed 2/11/87

Conc/Dil Factor 25

Percent Moisture (decanted) 34

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	200 u
319-85-7	Beta-BHC	200 u
319-86-8	Delta-BHC	200 u
58-89-9	Gamma BHC (Lindane)	200 u
76-44-8	Heptachlor	200 u
309-00-2	Aldrin	200 u
1024-57-3	Heptachlor Epoxide	200 u
959-98-8	Endosulfan I	200 u
60-57-1	Dieldrin	400 u
72-55-9	4,4'-DDE	400 u
72-20-8	Endrin	400 u
33213-65-9	Endosulfan II	400 u
72-54-8	4,4'-DDD	400 u
1031-07-8	Endosulfan Sulfate	400 u
50-29-3	4,4'-DDT	400 u
72-43-5	Methoxychlor	2000 u
53494-70-5	Endrin Ketone	400 u
57-74-9	Chlordane	2000 u
8001-35-2	Toxaphene	4000 u
12674-11-2	Aroclor-1016	2000 u
11104-28-2	Aroclor-1221	2000 u
11141-16-5	Aroclor-1232	2000 u
53469-21-9	Aroclor-1242	12,500
12672-29-6	Aroclor-1248	2000 u
11097-69-1	Aroclor-1254	4000 u
11096-82-5	Aroclor-1260	4000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No ~~H-4477~~ CW U-4819

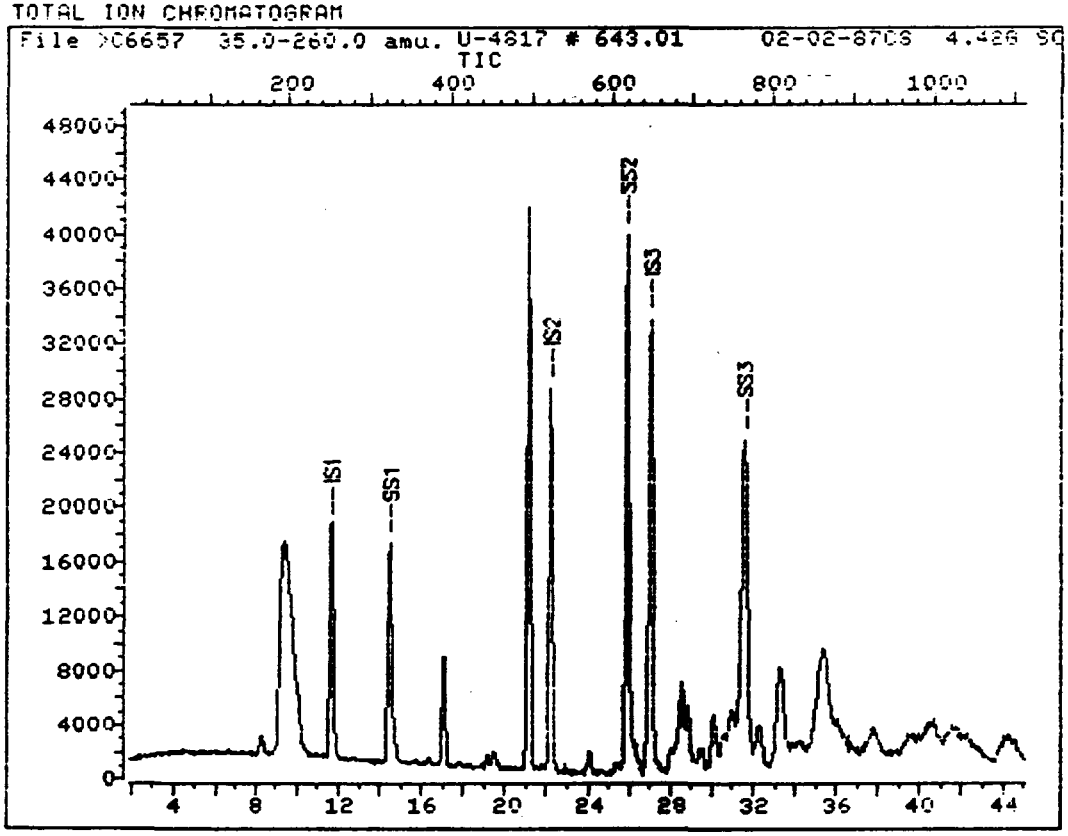
Sample Number DC-K3-32

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.1	24 BJ
2.	Hexane isomer	VOA	21.1	81 BJ
3.	Unknown hydrocarbon	VOA	28.6	14 J
4.	Unknown hydrocarbon	VOA	28.9	7 J
5.	Ethyl methyl cyclohexane isomer	VOA	30.1	8 J
6.	Unknown hydrocarbon	VOA	30.6	4 J
7.	Unknown hydrocarbon	VOA	31.0	9 J
8.	Unknown hydrocarbon	VOA	32.3	6 J
9.	Unknown hydrocarbon	VOA	33.3	26 J
10.	Unknown hydrocarbon	VOA	35.3	14 J
11.	UNKNOWN HYDROCARBON	BNA	7.03	230 J
12.	UNKNOWN HYDROCARBON		7.58	530 J
13.	UNKNOWN HYDROCARBON		9.17	310 J
14.	UNKNOWN HYDROCARBON		9.37	360 J
15.	CYCLOHEXANONE ISOMER		11.16	160 J
16.	METHYLDECAHYDRONAPHTHALENE		11.51	220 J
17.	UNKNOWN HYDROCARBON		13.51	600 J
18.	UNKNOWN HYDROCARBON		14.61	670 J
19.	UNKNOWN HYDROCARBON		15.43	420 J
20.	UNKNOWN		15.79	200 J
21.	UNKNOWN HYDROCARBON		16.45	590 J
22.	UNKNOWN HYDROCARBON		17.87	850 J
23.	CYCLOHEXASULFUR		18.16	460 J
24.	UNKNOWN HYDROCARBON		20.75	710 J
25.	UNKNOWN HYDROCARBON		21.49	500 J
26.	UNKNOWN HYDROCARBON		21.57	750 J
27.	UNKNOWN HYDROCARBON		23.00	440 J
28. 10544500	MOLECULAR SULFUR		25.75	32000 J
29.				
30				

TOTAL ION CHROMATOGRAM



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Name: U-4817 # 643.01 DC-K3-32
Misc: 02-02-87CS 4.42G SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

Operator ID: USER8
Quant Time: 870202 13:45
Injected at: 870202 12:59

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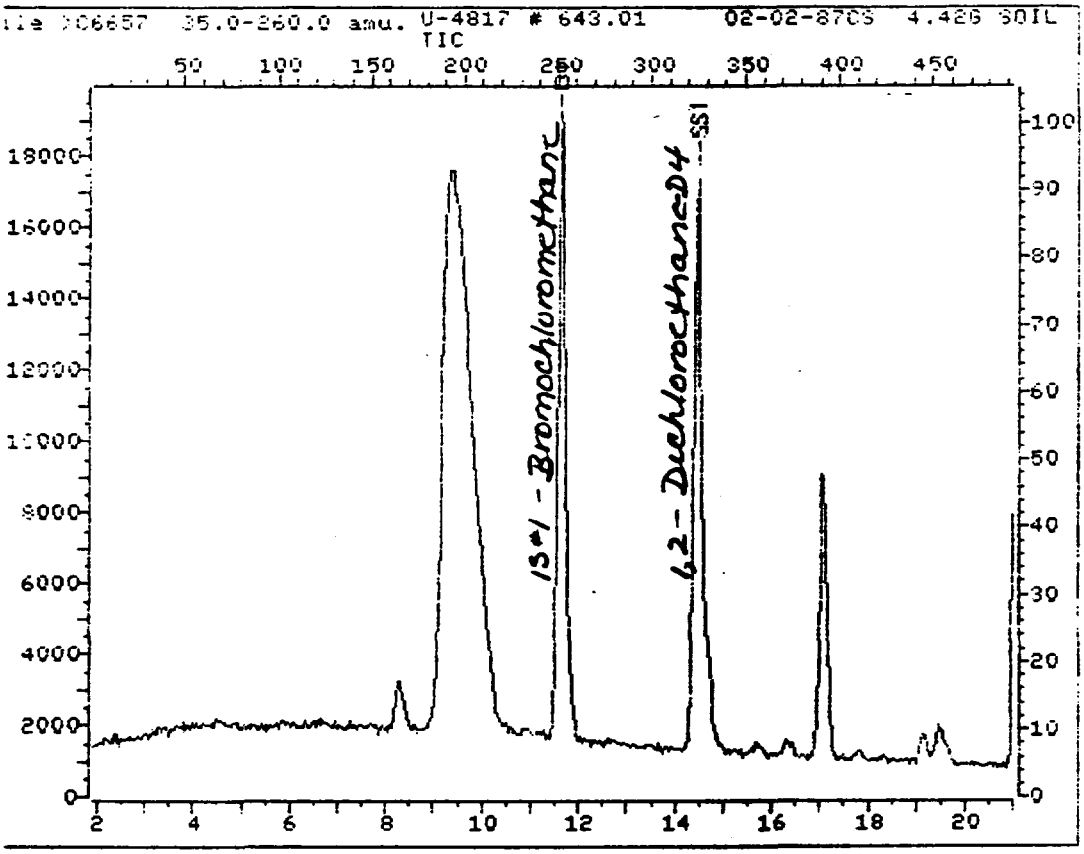
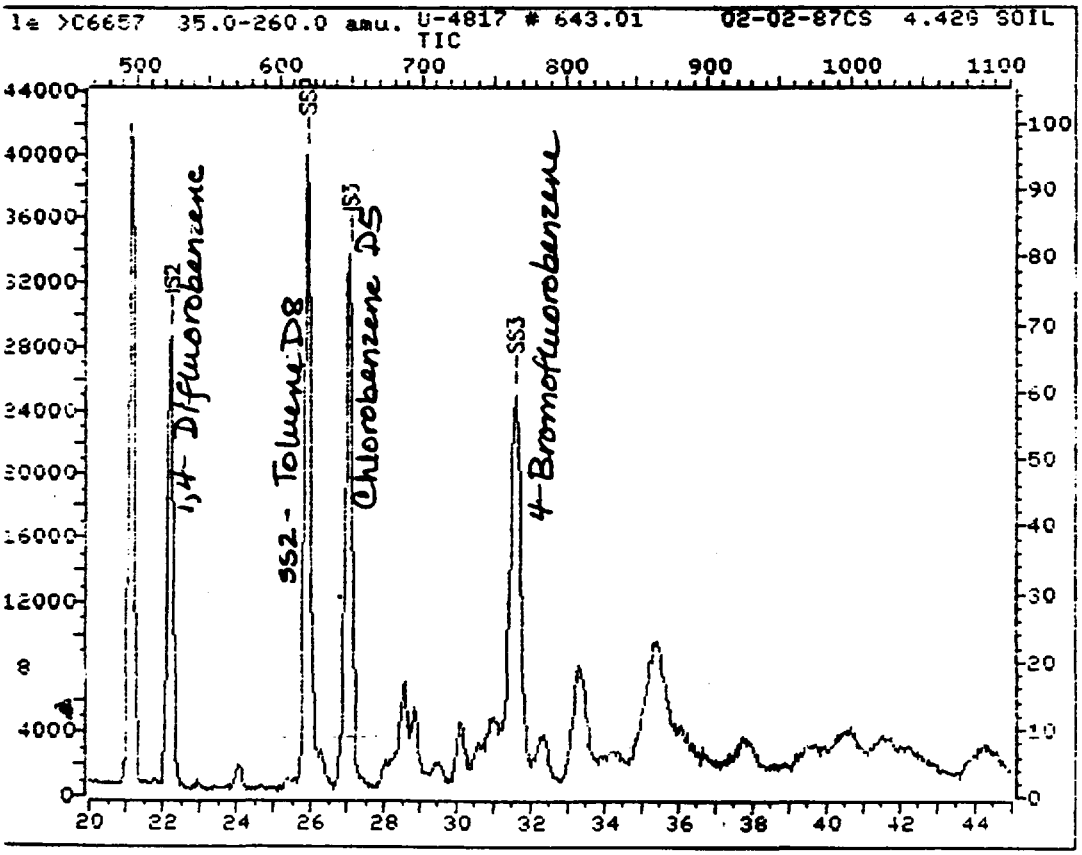
DC-K3-32





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870202 13:45
Output File: ^C6657::Q2 Injected at: 870202 12:59
Data File: >C6657::D1 Dilution Factor: 1.00
Name: U-481 Lab# 643.01 DC-K3-32
Misc: 02-02-87CS 4.42G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.62	251	23617	250.00	NGS 100
6)	METHYLENE CHLORIDE		84	8.29	165	3699	25.00	NGS ~~100~~
7)	ACETONE		43	9.37	193	451641	2896.43	NGS ~~100~~
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.49	325	68993	269.99	NGS 108 81
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	524	112913	250.00	NGS 100
17)	2-BUTANONE		72	14.68	330	3697	85.99	NGS ~~100~~
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	649	89695	250.00	NGS ~~100~~
36)	TOLUENE-D8	(SURR)	98	25.89	619	133661	275.45	NGS 110 ~~95~~
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.56	765	74678	275.83	NGS 110 ~~100~~

* Compound is ISTD

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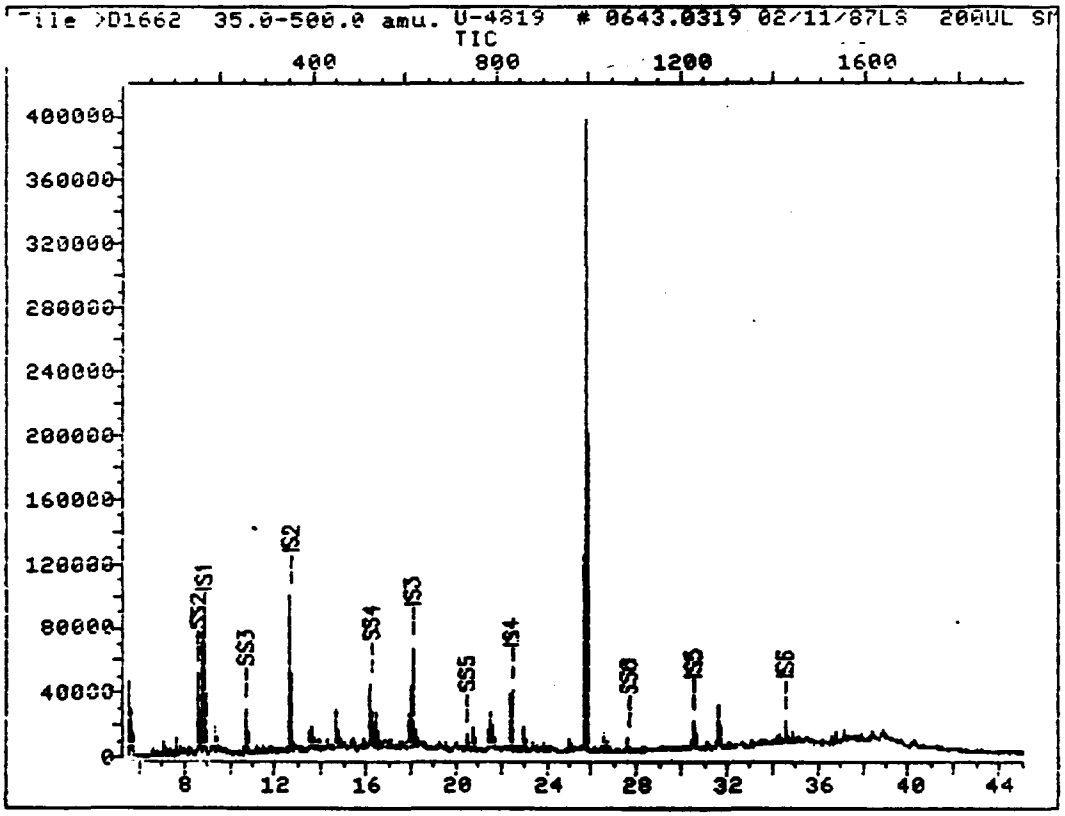
TOTAL ION CHROMATOGRAM



Data File: >D1662::D3
Name: U-4819 # 0643.0319 DC-K3-32
Misc: 02/11/87LS 200UL SMPL+ 200UL MECL2 + 4UL IS B:L# 2

Id File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

Operator ID: USER6
Quant Time: 870211 20:35
Injected at: 870211 19:48

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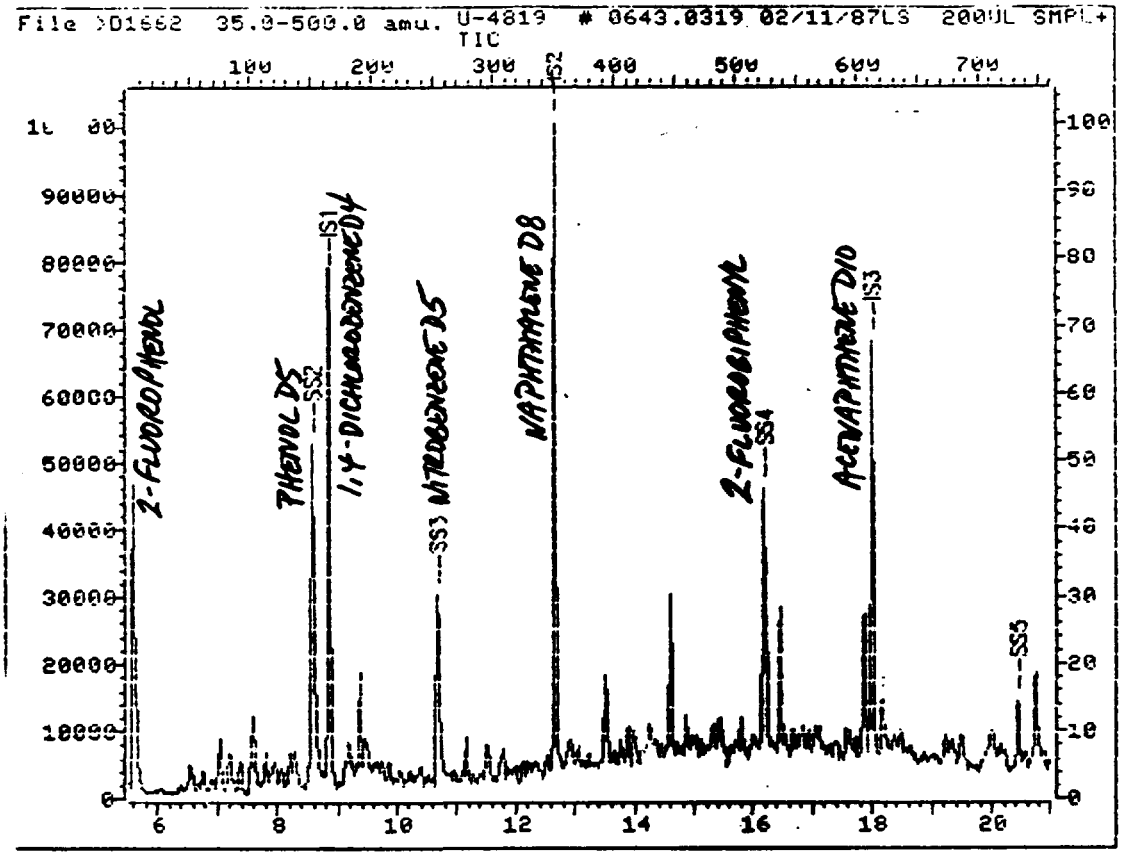
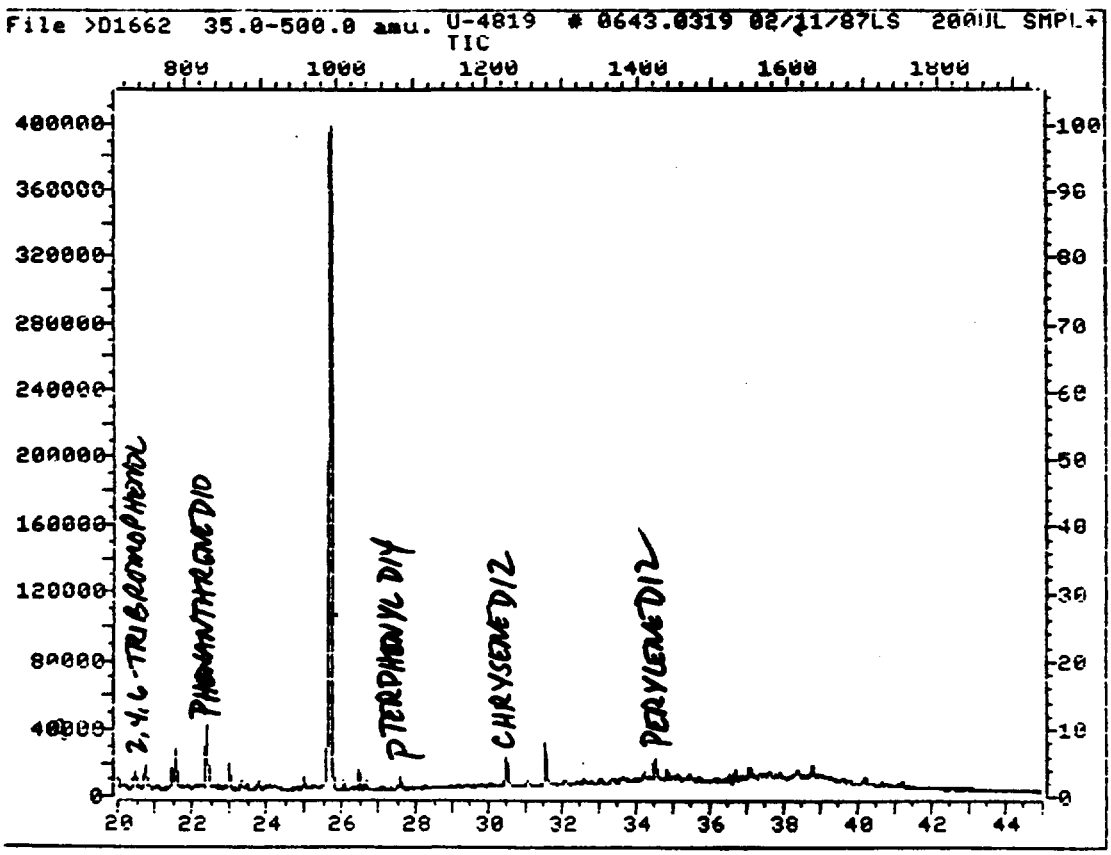
ecology and environment

DC-K3-32





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ecology and environment

QUANT REPORT

U. rator ID: USER6 Quant Rev: 4 Quant Time: 870211 20:35
Output File: ^D1662::Q2 Injected at: 870211 19:48
Data File: >D1662::D3 Dilution Factor: 2.00
Name: U-4819 # 0643.0319 DC-K3-32
Misc: 02/11/87LS 200UL SMPL+ 200UL MECL2 + 4UL IS BTL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.84	164	39775	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	8.58	151	43728	62.40	UG/L	97
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.66~~	~~253~~	~~5533~~	~~10.76~~	~~UG/L~~	~~93~~
19)	*NAPHTHALENE-D8	(IS)	136	12.65	351	112717	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.66	253	25683	48.90	UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	18.00	613	34603	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.18	524	33905	53.87	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.00~~	~~613~~	~~6567~~	~~12.71~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.45	733	4090	53.29	UG/L	95
~~50)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.00~~	~~613~~	~~4209~~	~~43.92~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.40	829	32695	40.00	UG/L	93
61)	PHENANTHRENE		178	22.46	832	4690	11.15	UG/L ug/L	95
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.46~~	~~832~~	~~4690~~	~~11.62~~	~~UG/L~~	95
63)	DI-N-BUTYLPHTHALATE		149	24.99	956	10600	26.37	UG/L ug/L	95
64)	FLUORANTHENE		202	26.07	1009	7008	23.92	UG/L ug/L	96
65)	*CHRYSENE-D12	(IS)	240	30.50	1226	20048	40.00	UG/L	100
67)	PYRENE		202	26.69	1039	5533	12.45	UG/L ug/L	90
68)	TERPHENYL-D14	(SURR)	244	27.58	1083	8172	36.43	UG/L	100
71)	BENZO(A)ANTHRACENE		228	30.46	1224	1755	6.49	UG/L ug/L	90
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.56~~	~~1229~~	~~2715~~	~~10.04~~	~~UG/L~~	92
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.56	1278	19522	92.95	UG/L ug/L	87
~~73)~~	~~CHRYSENE~~		~~228~~	~~30.46~~	~~1224~~	~~1755~~	~~6.96~~	~~UG/L~~	89
73)	CHRYSENE		228	30.56	1229	2715	10.77	UG/L ug/L	93
74)	*PERYLENE-D12	(IS)	264	34.52	1423	17913	40.00	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	33.36	1366	2142	6.00	UG/L ug/L	100
76)	BENZO(B)FLUORANTHENE		252	33.58	1377	3838	12.42	UG/L ug/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.58~~	~~1377~~	~~3838~~	~~14.94~~	~~UG/L~~	100
78)	BENZO(A)PYRENE		252	34.38	1416	1811	7.39	UG/L ug/L	100

* Compound is ISTD

2 fluorophenol (surr) 5.58 41157 81.25 BM

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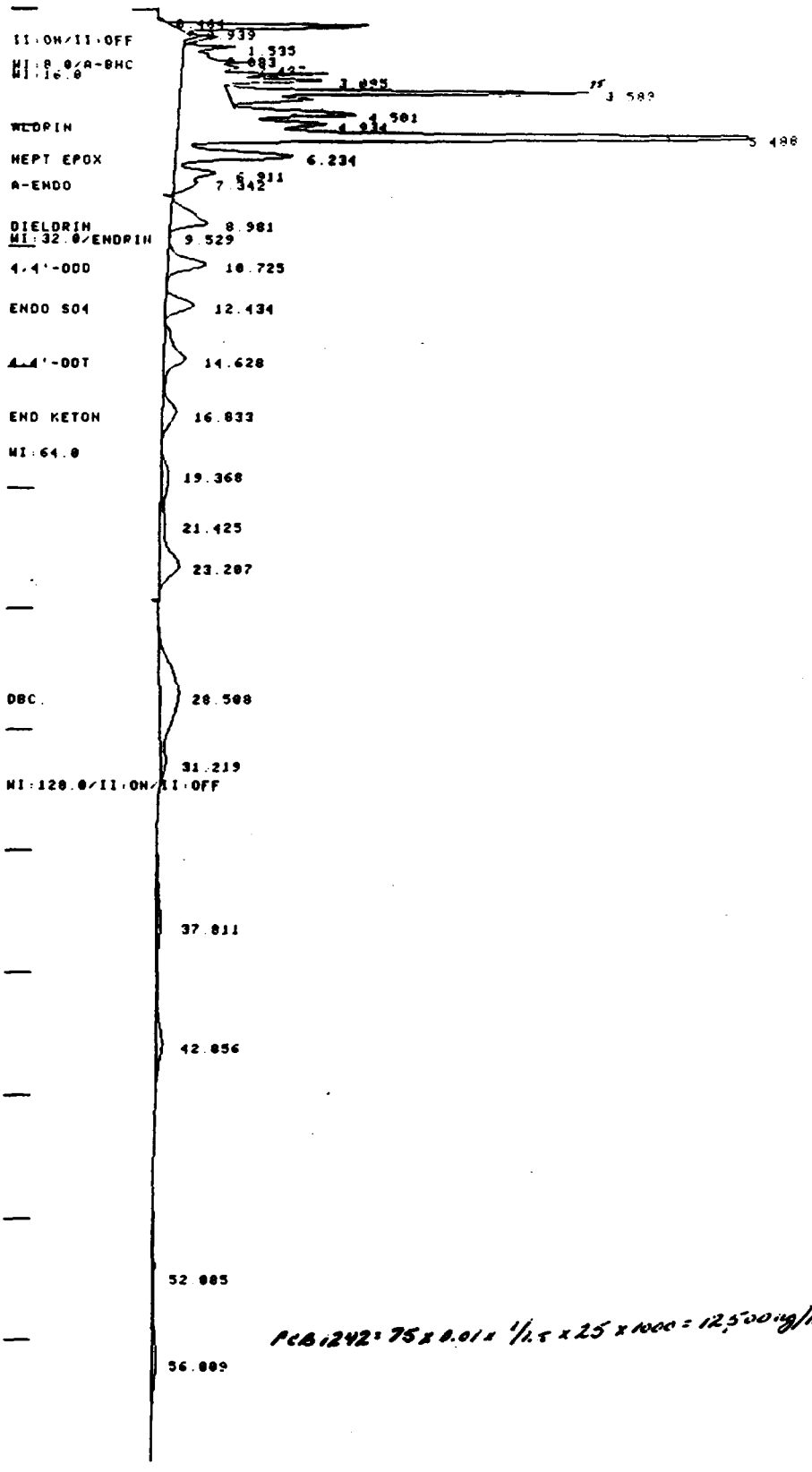
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



PCB 1242: 75 x 0.01 x 1/1.5 x 25 x 1000 = 12,500 ug/Kg WET

DC-K3-32

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CHANNEL: 1A - 1 TITLE: RUN# 15 23:13 11 FEB 87

DC-K3-32

SAMPLE: 0643 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.255		23253	BB	3.69
2		0.0000	1.535		56913	BV	5.88
3		0.0000	1.840		40595	VV	? 8.88
4		0.0000	2.083		45898	VV	? 9.00
5	~~A-BHC~~	58.7797	2.246	0.016	91643	VV	? 12.50
6	~~G-BHC~~	73.1752	2.487	-0.103	103728	VV	? 14.06
7		0.0000	2.824		214474	VV	11.38
8		0.0000	3.095		217014	VV	11.19
9		0.0000	*3.589		682422	75 MM	10.75
10	~~HEPTACHLO~~	209.3431	3.913	-0.187	266817	VV	? 21.25
11		0.0000	4.501		512537	VV	23.50
12	~~ALDRIN~~	232.7696	4.934	-0.116	338347	VV	? 21.69
13		0.0000	5.488		2700194	VV	12.13
14	~~HEPT-EPOX~~	250.4044	6.234	0.124	343546	VV	20.94
15		0.0000	6.911		107662	VV	17.88
16	~~A-ENDO~~	56.8443	7.342	-0.228	74101	VV	? 34.00
17	~~DIELDRIN~~	129.6437	8.981	0.161	180413	VV	? 35.13
18	~~4,4'-DDD~~	141.0260	10.725	-0.185	154831	VV	29.50
19	~~ENDO-SO4~~	145.7286	12.434	-0.366	120603	VV	34.31
20	~~4,4'-DDT~~	178.3516	14.628	0.418	157753	VV	43.19
21	~~END-KETON~~	76.8576	16.833	0.463	100100	VB	53.38
22		0.0000	19.368		79314	BV	99.44
23	~~METHOXYCH~~	85.2909	21.425	0.575	40590	VV	? 62.63
24		0.0000	23.207		169167	VB	61.13
25	~~DDS~~	337.3905	28.508	0.098	363900	BV	?176.31
26		0.0000	31.219		34512	VB	?111.75
27		0.0000	37.811		79814	BV	145.31
28		0.0000	42.856		78250	VB	103.00
29		0.0000	52.085		35919	BV	?173.75
30		0.0000	56.009		68543	VB	141.31
TOTALS:		1975.605		0.670	7482853		

DETECTED PKS: 36 REJECTED PKS: 6

DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 11.4 OFFSET: 8

RACK: 1 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW SCA078

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BLANK DATA

1. FORM I PAGES 1 THROUGH 4
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTINGS (GC)

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ecology and environment

C6330

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727

Lab Sample ID No: Method Blank QC Report No:

Sample Matrix: water for soil Contract No: IL-3140

Data Release Authorized By: C Stogowicz Date Sample Received:

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-12-87

Conc./Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	2800
67-64-1	Acetone	2400
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	4800
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	1000u
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	1000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	1000u
108-90-7	Chlorobenzene	1000u
100-41-4	Ethylbenzene	1000u
100-42-5	Styrene	1000u
	Total Xylenes	1000u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Form I 11/85

Laboratory Name E&E, Inc

Case No U-4727

Sample Number BLK C6330

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.5	980 J
2.	Hexane isomer	VOA	21.6	3200 J
3.				
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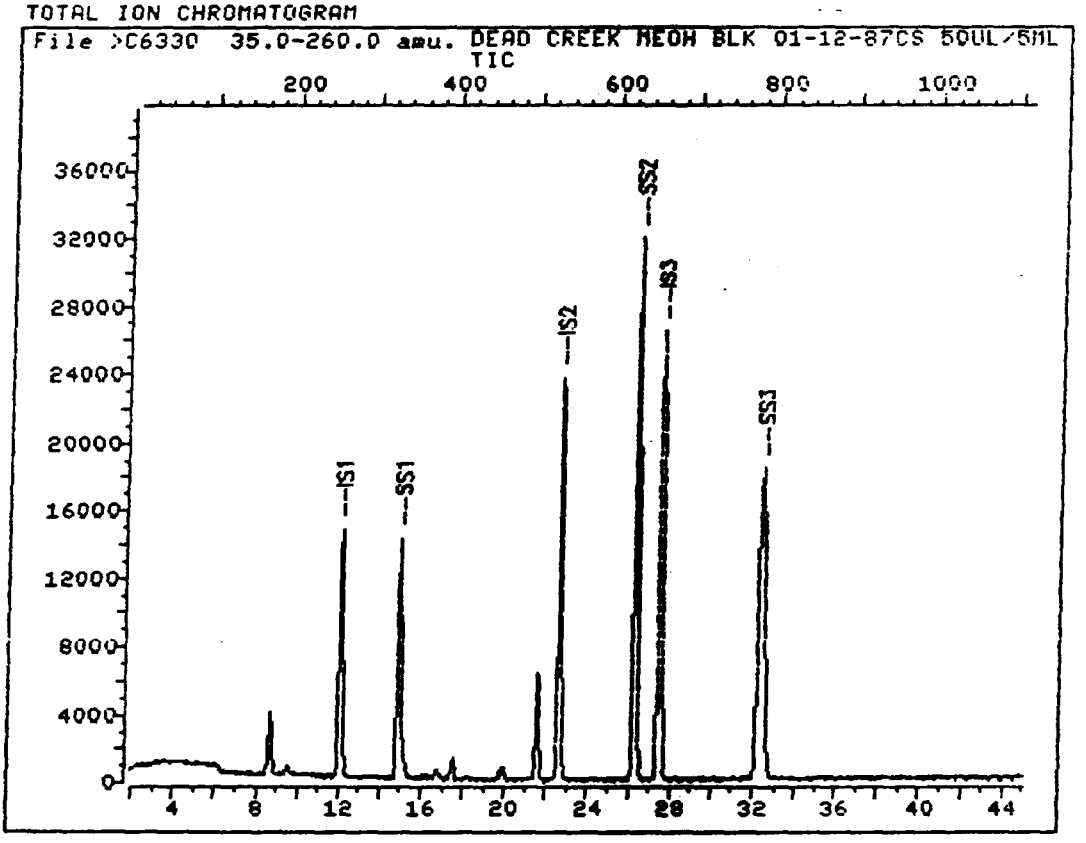
TOTAL ION CHROMATOGRAM



Data File: >C6330::D1
Name: DEAD CREEK MEOH BLK
Misc: 01-12-87CS 50UL/5ML DI + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870112 13:11

Operator ID: USER8
Quant Time: 870112 14:34
Injected at: 870112 13:48

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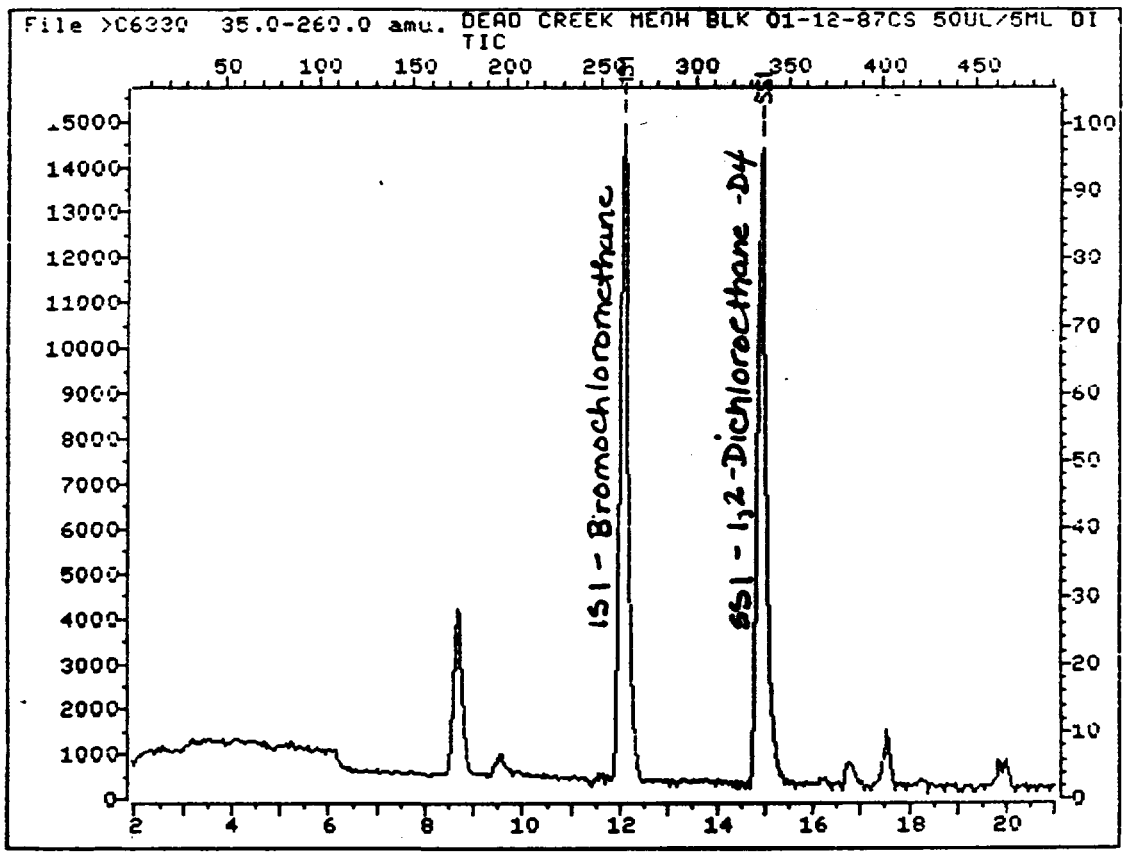
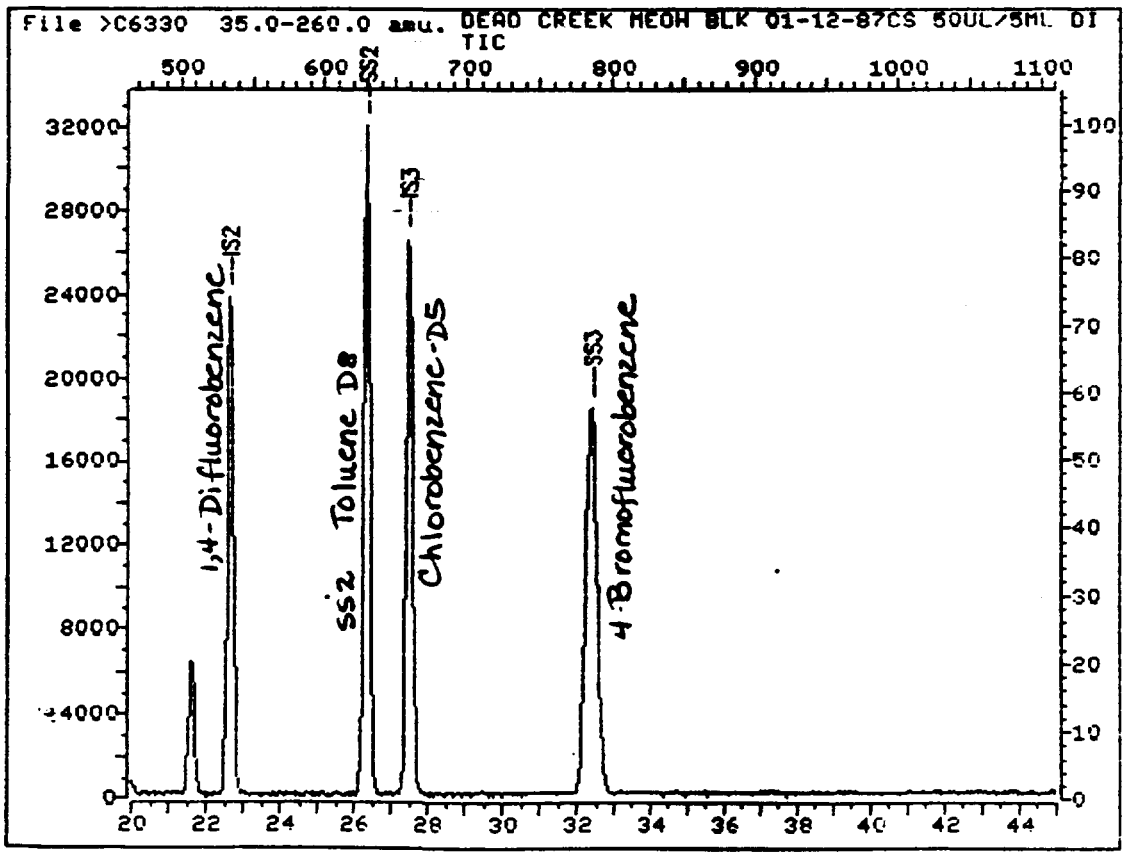
BLKC6330





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870112 14:34
Output File: ^C6330::D2 Injected at: 870112 13:48
Data File: >C6330::D1 Dilution Factor: 1.00
Name: DEAD CREEK MEOH BLK
Misc: 01-12-87CS 50UL/5ML DI + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870112 13:11

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	12.07	262	22259	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.66	174	11020	10.86	UG/L	100
7)	ACETONE	43	9.55	197	5354	9.79	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.95	336	68045	53.92	UG/L	79
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.63	534	100837	50.00	UG/L	100
17)	2-BUTANONE	72	15.06	339	2728	18.57	UG/L	100
31)	*CHLOROBENZENE-D5	(IS) 117	27.49	659	83690	50.00	UG/L	100
36)	TOLUENE-D8	(SURR) 98	26.35	630	130452	52.07	UG/L	92
40)	4-BROMOFLUOROBENZENE	(SURR) 95	32.41	786	73990	53.99	UG/L	100

* Compound is ISTD

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C6584

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727

Sample ID No: Method Blank QC Report No:

Sample Matrix: Water for Soil Contract No: IL-3140

Data Release Authorized By: C Slotowicz Date Sample Received: 1-8-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-14-87

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	2500
67-64-1	Acetone	18000
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	7300
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	1000u
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	1000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	1000u
108-90-7	Chlorobenzene	1000u
100-41-4	Ethylbenzene	1000u
100-42-5	Styrene	1000u
	Total Xylenes	1000u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name E & E, Inc

Case No U-4767

Sample Number C6384

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3	2800
2.	Hexane isomer	VOA	21.3	10000
3.				
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7.				
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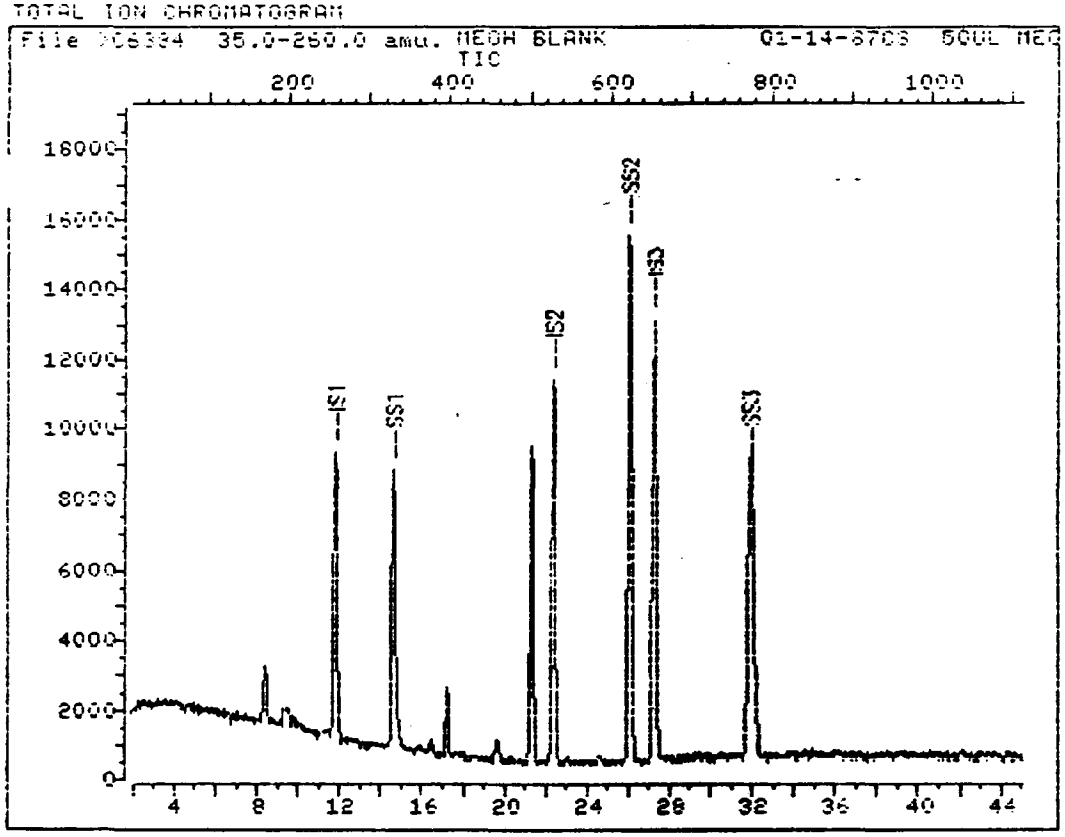
ecology and environment

TOTAL ION CHROMATOGRAM



Data File: >C6384::D3
Name: MEOH BLANK
Misc: 01-14-87CS 50UL MEOH IN 5ML DI + 10UL IS/SS

Id File: VCI27::D2
Title: IFB
Last Calibration: 870114 17:51

Operator ID: USER8
Quant Time: 870114 19:22
Injected at: 870114 17:28

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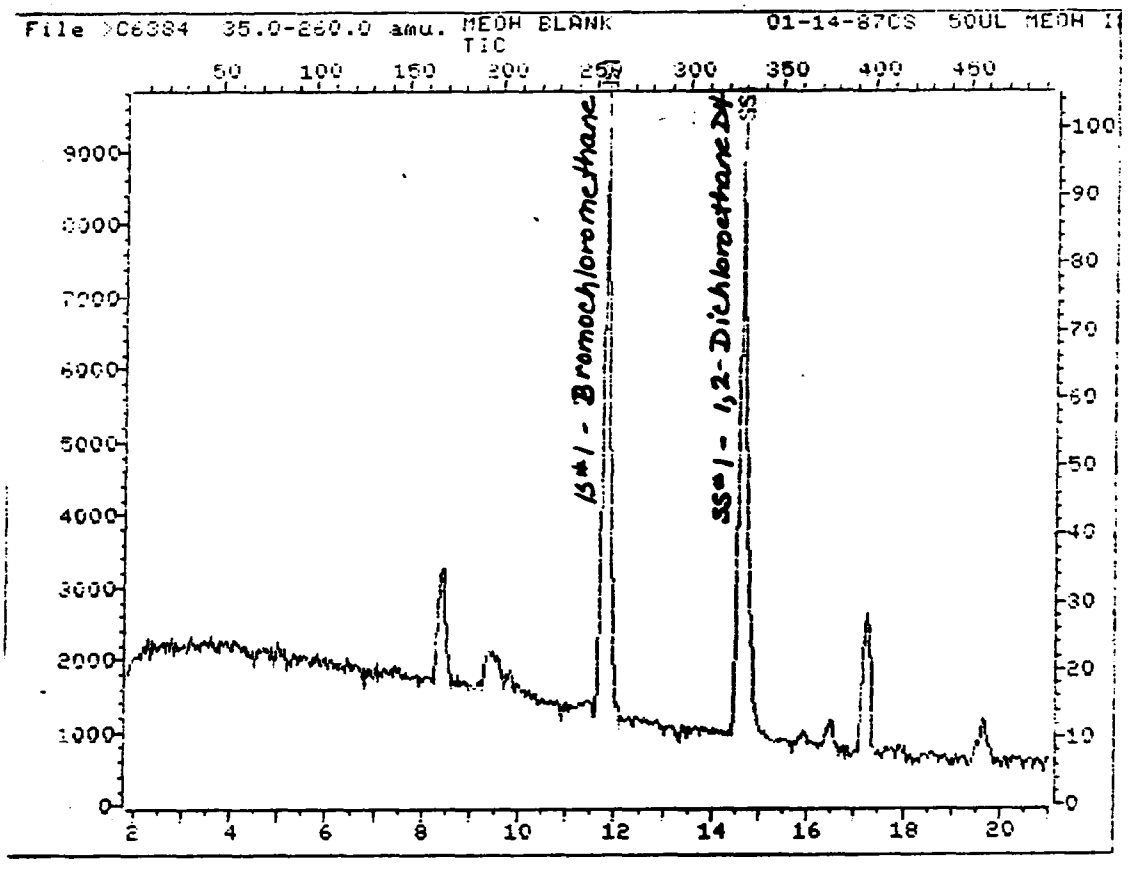
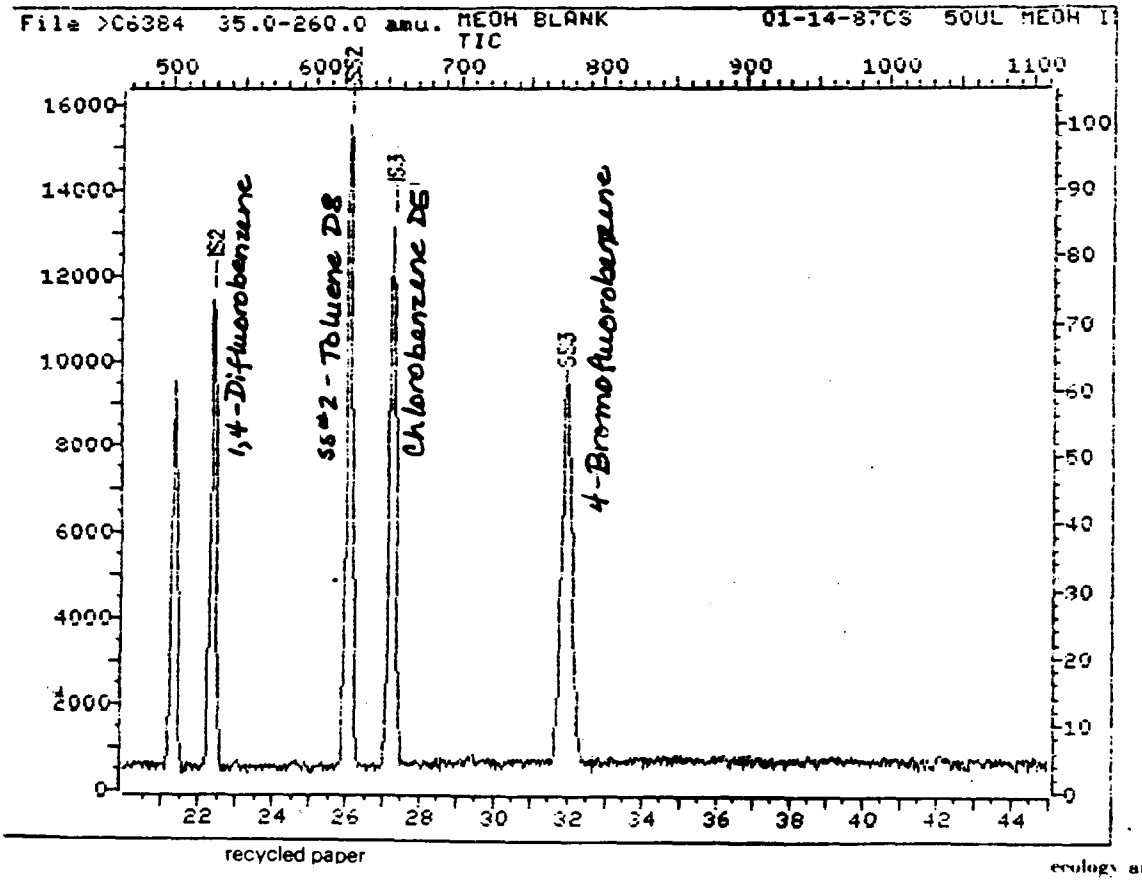
ecology and environment

C6384





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ecology and environment

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870114 19:22
Output File: ^C6384::Q2 Injected at: 870114 17:28
Data File: >C6384::D3 Dilution Factor: 1.00
Name: MEOH BLANK
Misc: 01-14-87CS 50UL MEOH IN 5ML DI + 10UL IS/SS

ID File: VCI27::D2
Title: IFB
Last Calibration: 870114 17:51

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.78	256	10993	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.40	169	4686	9.86	UG/L	100
7)	ACETONE		43	9.37	194	13578	73.35	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.61	329	34236	46.10	UG/L	80
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.37	529	45068	50.00	UG/L	100
~~17)~~	~~2-BUTANONE~~		~~72~~	~~14.65~~	~~330~~	~~95~~	~~1.83~~	~~UG/L~~ no cal	100
17)	2-BUTANONE		72	14.77	333	1524	29.40	UG/L	100
~~17)~~	~~2-BUTANONE~~		~~72~~	~~14.92~~	~~337~~	~~125~~	~~2.41~~	~~UG/L~~ no cal	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.25	654	35414	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.06	624	59785	57.09	UG/L	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.90	774	32627	50.86	UG/L	100

* Compound is ISTD

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Sample Number: C6410

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-4727
Lab Sample ID No: Method Blank
QC Report No:
Sample Matrix: Water for Soil
Contract No: IL-3140
Data Release Authorized By: B Slotowicz
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-15-87

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	11
67-64-1	Acetone	6JT
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name E&E, Inc

Case No U-4727

Sample Number C6410

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene Isomer	VOA	17.3	11 J
2.	Hexane Isomer	VOA	21.3	37 J
3.				
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6.				
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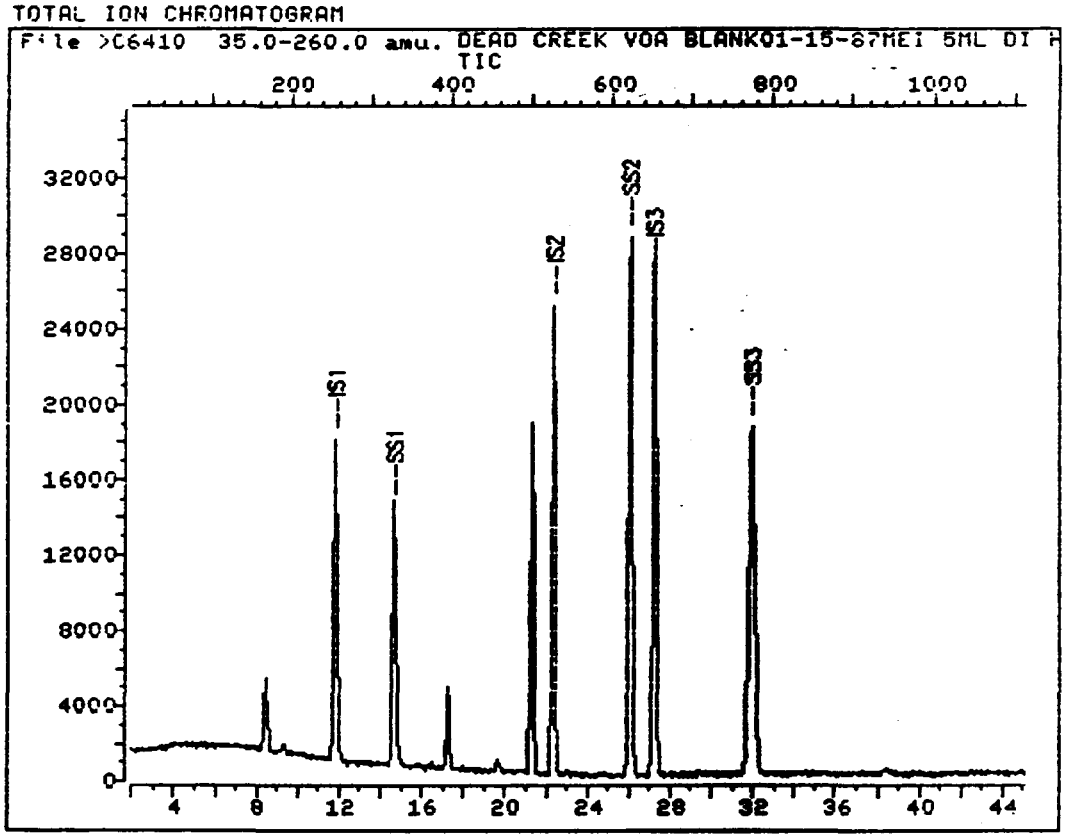
TOTAL ION CHROMATOGRAM



Data File: >C6410::D3
Name: DEAD CREEK VOA BLANK
Misc: 01-15-87MEI 5ML DI H20 + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870115 20:12
Injected at: 870115 19:26

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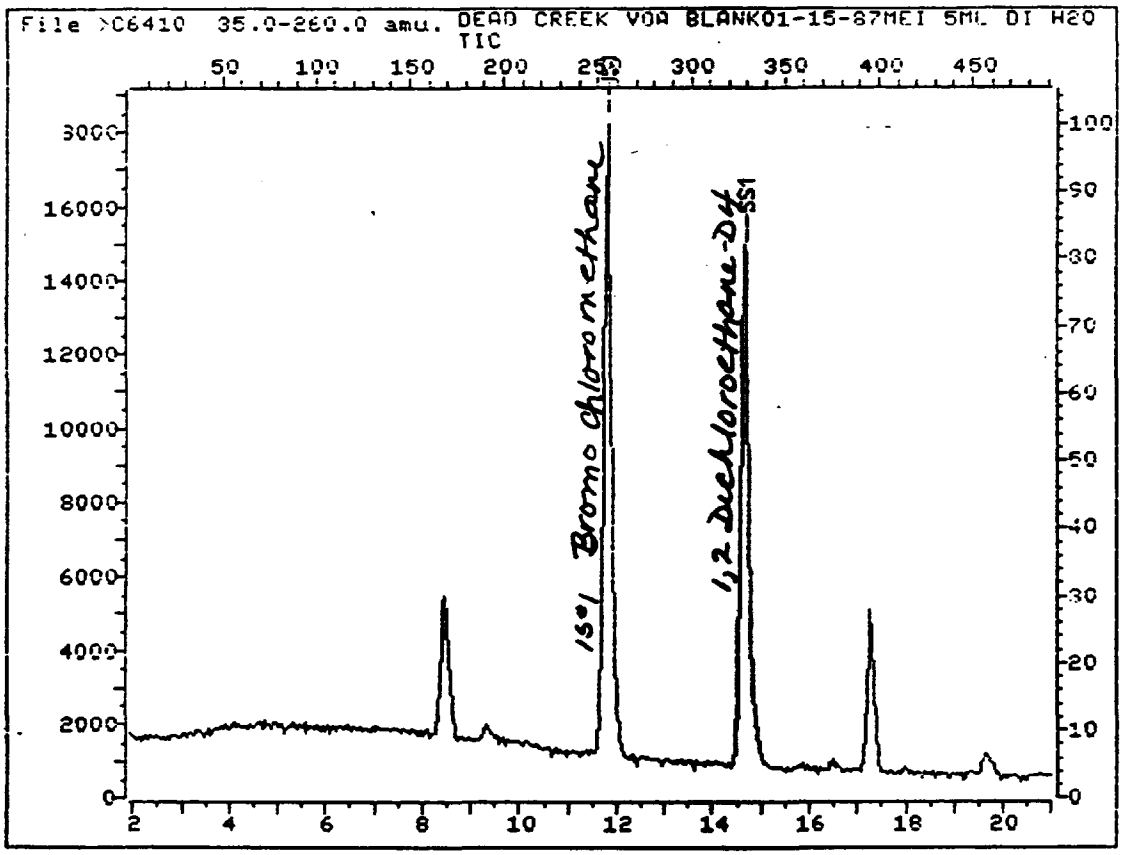
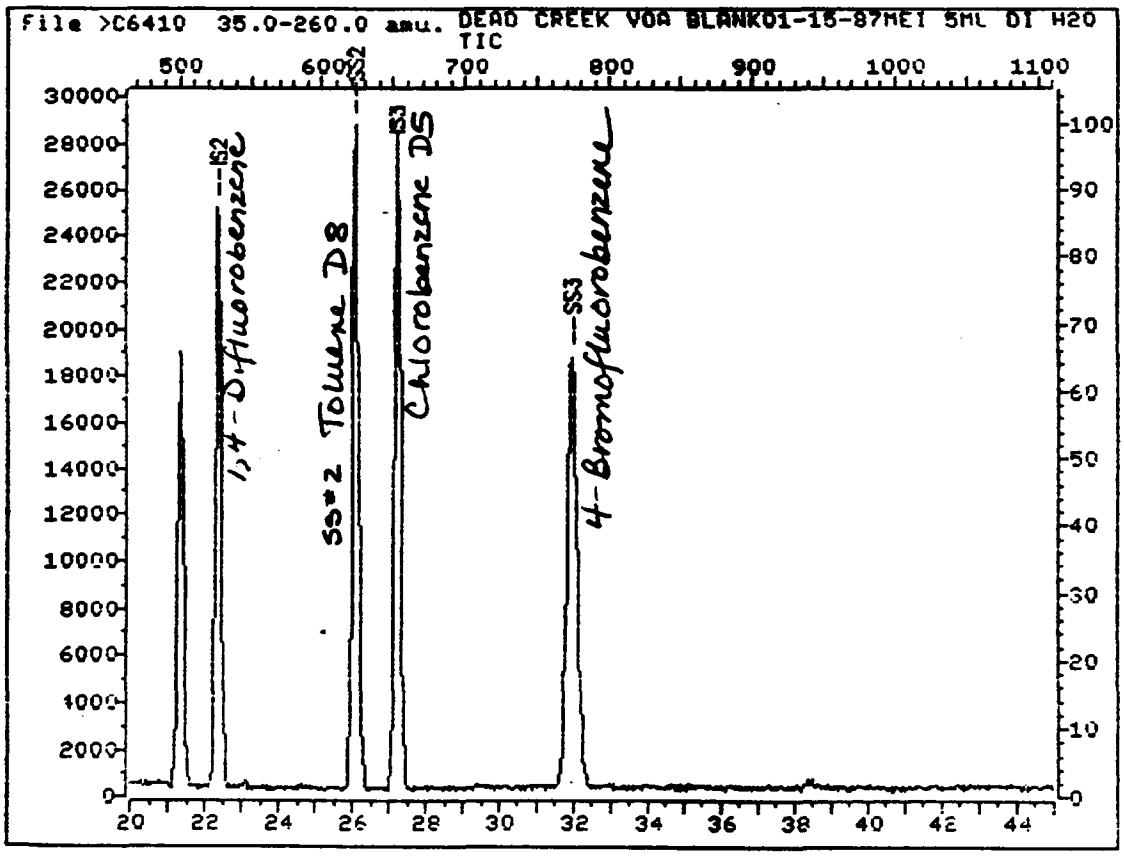
C6410





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QUANT REPORT

ɔe tor ID: MANAGER Quant Rev: 4 Quant Time: 870115 20:12
ɹtput File: ^C6410::Q2 Injected at: 870115 19:26
ɜta File: >C6410::D3 Dilution Factor: 1.00
ɜme: DEAD CREEK VOA BLANK
isc: 01-15-87MEI 5ML DI H20 + 10UL IS/SS

) File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ɜst Calibration: 870115 19:30

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.81	255	23851	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.47	169	10531	55.24	NGS	100
7)	ACETONE		43	9.36	192	4977	29.58	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.68	329	62873	256.38	NGS	80
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.36	527	99619	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.21	652	82566	250.00	NGS	100
6)	TOLUENE-D8	(SURR)	98	26.09	623	112082	232.09	NGS	93
1)	4-BROMOFLUOROBENZENE	(SURR)	95	31.95	774	66319	254.89	NGS	100

* Compound is ISTD

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C6457

.Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc.

Case No: U-4767

Sample ID No: Method Blank

QC Report No:

Sample Matrix: Water for Soil

Contract No: IL-3140

Data Release Authorized By: C Stoytowicz

Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-16-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	45
67-64-1	Acetone	11
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	14
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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

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

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

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Laboratory Name E & E, Inc

Case No U-4767

Sample Number C6437

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	16 J
2.	Hexane isomer	VOA	21.2	50 J
3.				
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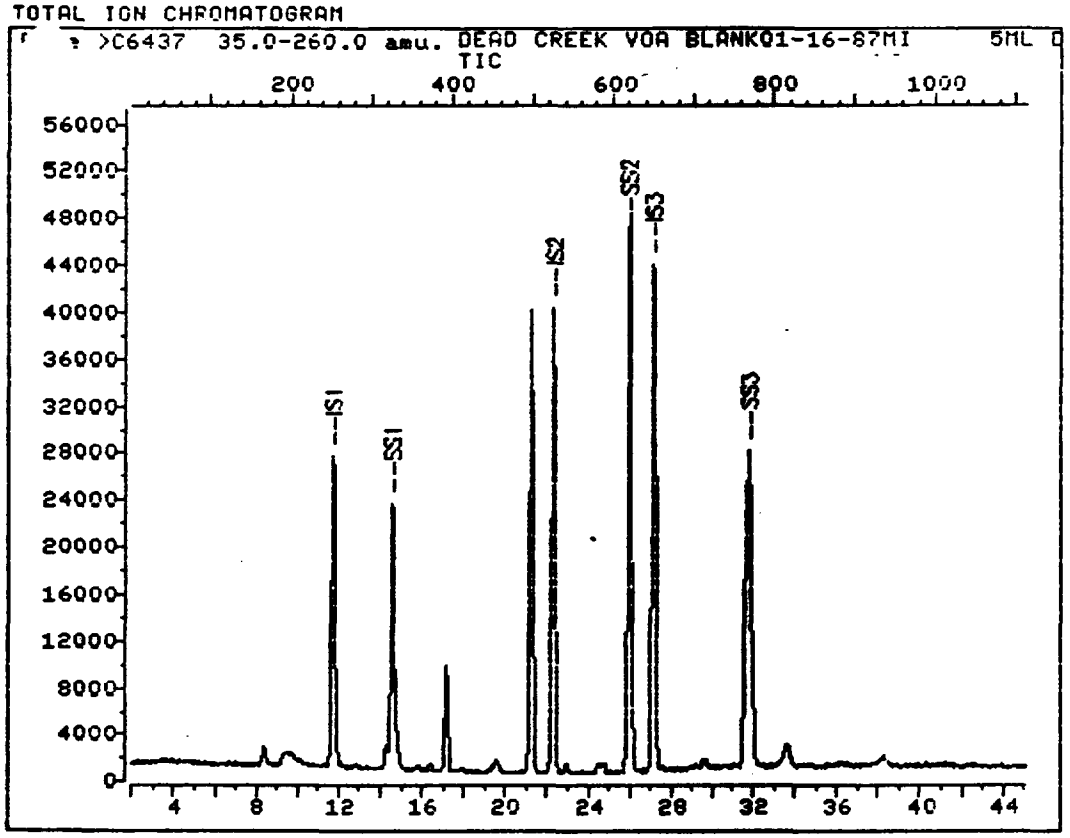
TOTAL ION CHROMATOGRAM



Data File: >C6437::D1
Name: DEAD CREEK VOA BLANK
Misc: 01-16-87MI 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870116 20:48

Operator ID: MANAGER
Quant Time: 870116 21:29
Injected at: 870116 20:37

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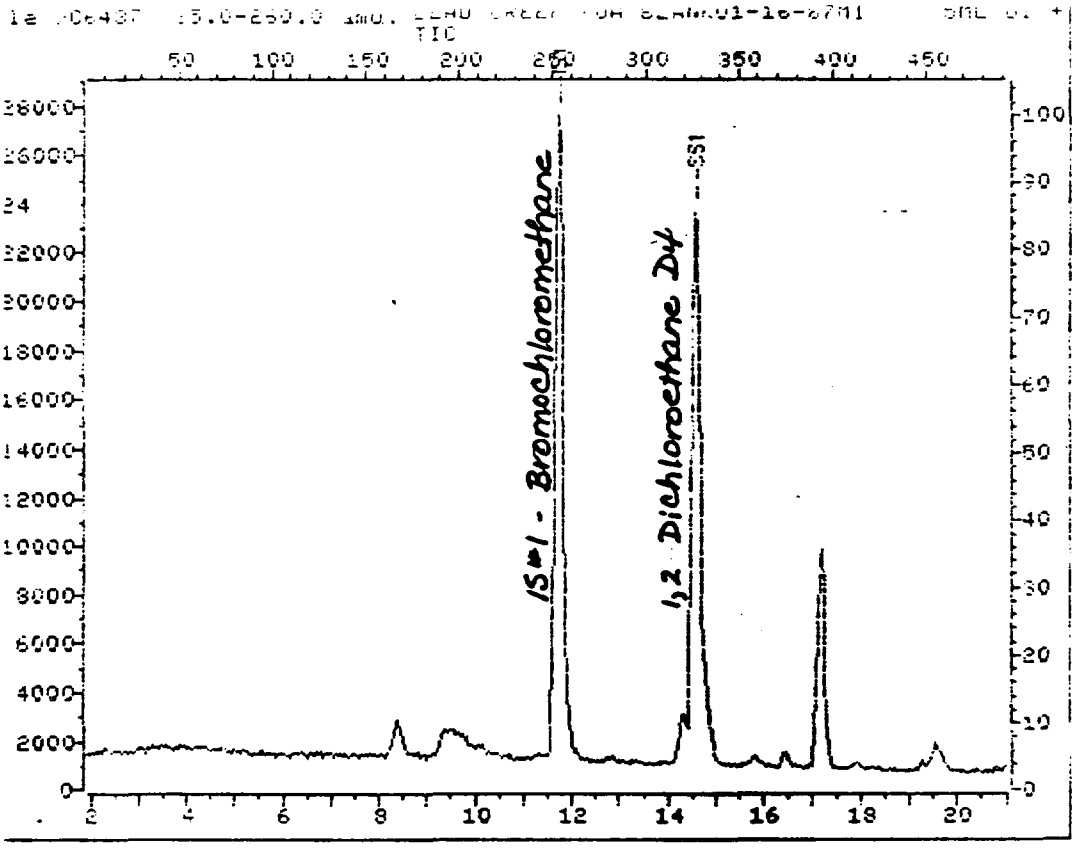
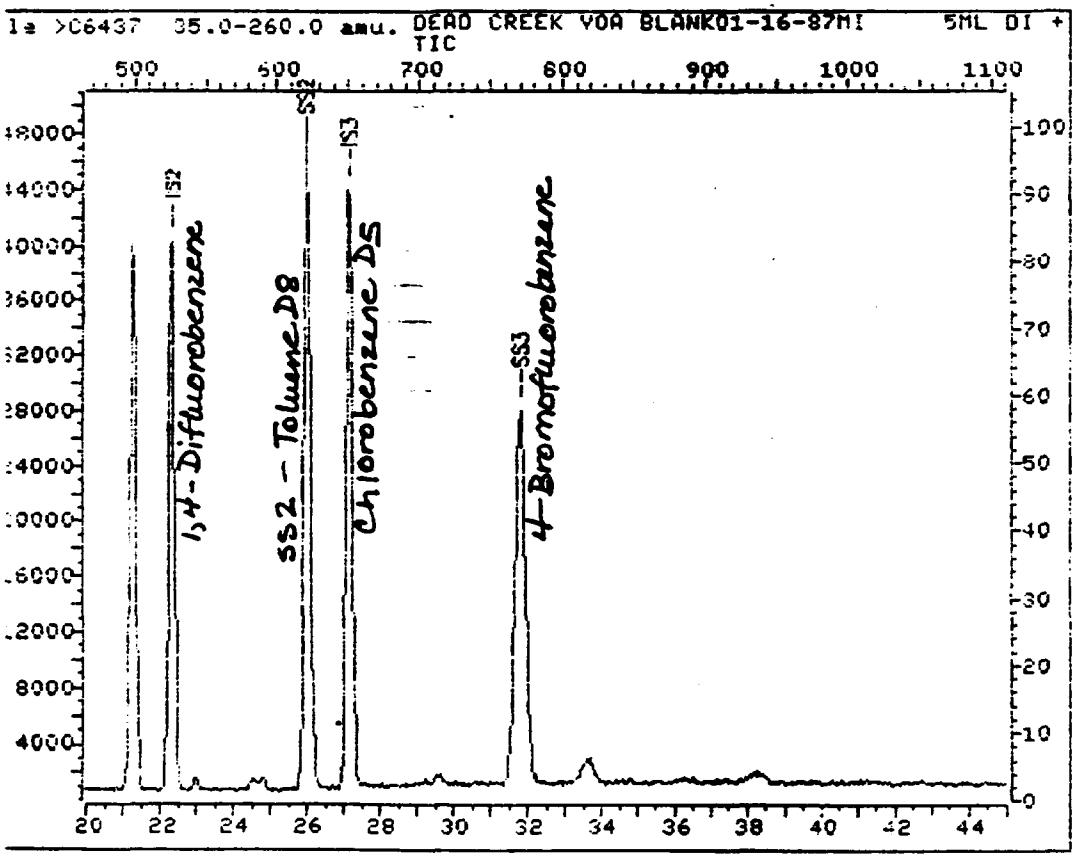
ecology and environment

C6437





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ecology and environment

QUANT REPORT

ɔe tor ID: MANAGER Quant Rev: 4 Quant Time: 870116 21:29
ɹtput File: ^C6437::D2 Injected at: 870116 20:37
ata File: >C6437::D1 Dilution Factor: 1.00
ame: DEAD CREEK VOA BLANK
isc: 01-16-87MI 5ML DI + 10UL IS/SS

) File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870116 20:48

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128 11.72	253	37681	250.00	NGS	100
6)	METHYLENE CHLORIDE		84 8.38	167	4416	16.93	NGS	100
7)	ACETONE		43 9.35	192	9699	55.44	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.55	326	94948	253.26	NGS	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114 22.31	526	164178	250.00	NGS	100
17)	2-BUTANONE		72 14.75	331	5045	68.61	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117 27.12	650	128708	250.00	NGS	100
2)	~~4-METHYL-2-PENTANONE~~		~~43 22.97~~	~~543~~	~~5314~~	~~10.84~~	~~NGS~~	86
5)	~~2-HEXANONE~~		~~43 24.52~~	~~583~~	~~5165~~	~~12.20~~	~~NGS~~	100
3)	TOLUENE-D8	(SURR)	98 25.96	620	184458	263.35	NGS	94
1)	4-BROMOFLUOROBENZENE	(SURR)	95 31.79	770	94406	237.31	NGS	100

* Compound is ISTD

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ecology and environment

C6515

.Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4767
Sample ID No: Method Blank
QC Report No:
Sample Matrix: Water for Soil
Contract No: IL-3140
Data Release Authorized By: CSojtowicz
Date Sample Received:

Volatile Compounds

Concentration: Low **Medium** (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-21-87

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	890 J
67-64-1	Acetone	1200 J
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	7100
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	1000u
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	1000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	1000u
108-90-7	Chlorobenzene	1000u
100-41-4	Ethylbenzene	1000u
100-42-5	Styrene	1000u
	Total Xylenes	1000u

Data Reporting Qualifiers

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

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

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

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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

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

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

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Laboratory Name ecology and environment, inc.

Case No u-4767

Sample Number C6515

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	3900 J
2.	Hexane isomer	VOA	21.3	11000 J
3.				
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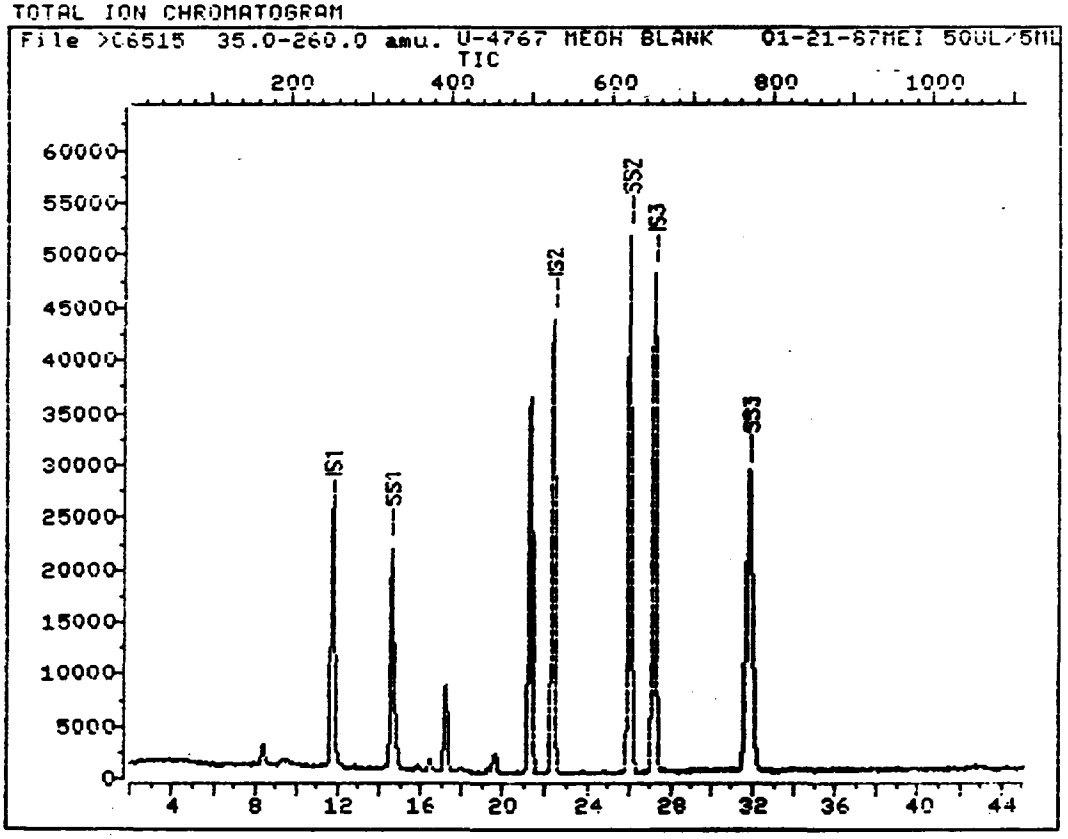
TOTAL ION CHROMATOGRAM



Data File: >C6515::D3
Name: U-4767 MEOH BLANK
Misc: 01-21-87MEI 50UL/5MLS DI + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870122 13:44

Operator ID: USER8
Quant Time: 870122 22:02
Injected at: 870122 21:16

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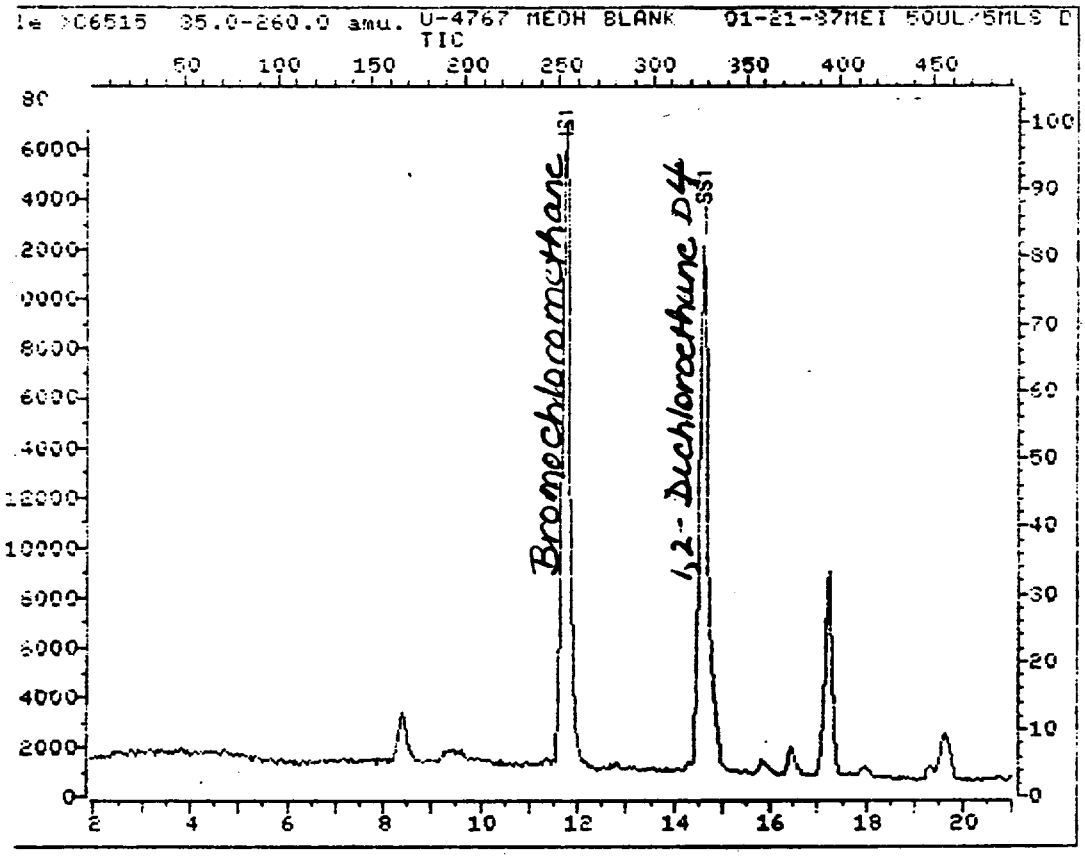
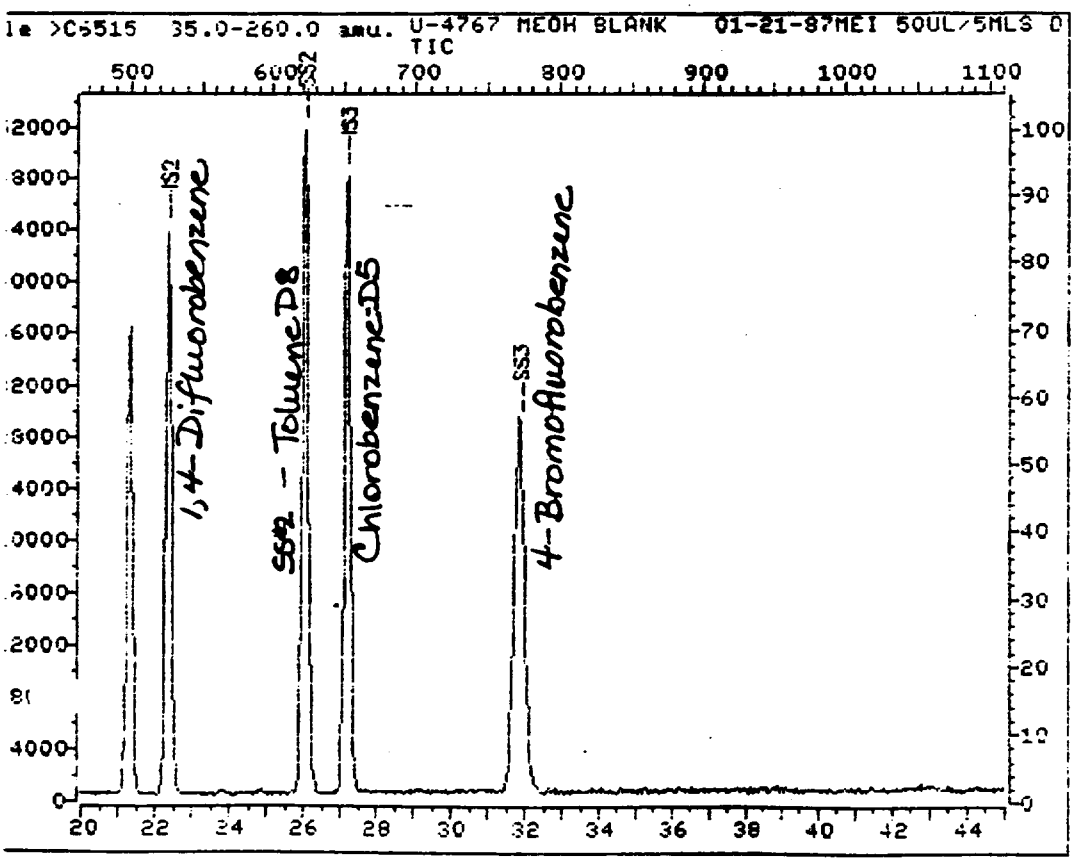
C6515





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ecology and environment

QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 870122 22:02
ut t File: ^C6515::Q2 Injected at: 870122 21:16
ata File: >C6515::D3 Dilution Factor: 1.00
ame: U-4767 MEOH BLANK
isc: 01-21-87MEI 50UL/5MLS DI + 10UL IS/SS

D File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870122 13:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.72	253	35581	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.42	168	5237	3.57	UG/L	100
7)	ACETONE	43	9.32	191	3713	4.89	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.59	327	88929	50.42	UG/L	83
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.35	527	171413	50.00	UG/L	100
17)	2-BUTANONE	72	14.79	332	4701	28.30	UG/L	100
1)	*CHLOROBENZENE-D5	(IS) 117	27.20	652	139372	50.00	UG/L	100
6)	TOLUENE-D8	(SURR) 98	26.04	622	193594	46.62	UG/L	91
~~7)~~	~~TOLUENE~~	~~92~~	~~26.19~~	~~626~~	~~2859~~	~~.91~~	~~UG/L~~	93
0)	4-BROMOFLUOROBENZENE	(SURR) 95	31.87	772	102569	47.44	UG/L	100

* Compound is ISTD

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ecology and environment

L 6555

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment

Case No:

Sample ID No: Method Blank

QC Report No:

Sample Matrix: Water for Soil

Contract No: IL3140

Data Release Authorized By: [illegible]

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-23-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	3 J
67-64-1	Acetone	10
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	11
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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

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

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

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Laboratory Name E & E, Inc

Case No U-4767

Sample Number C6555

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	17 J
2.	Hexane isomer	VOA	21.3	48 J
3.				
4.				
5.				
6.				
7.				
8.				
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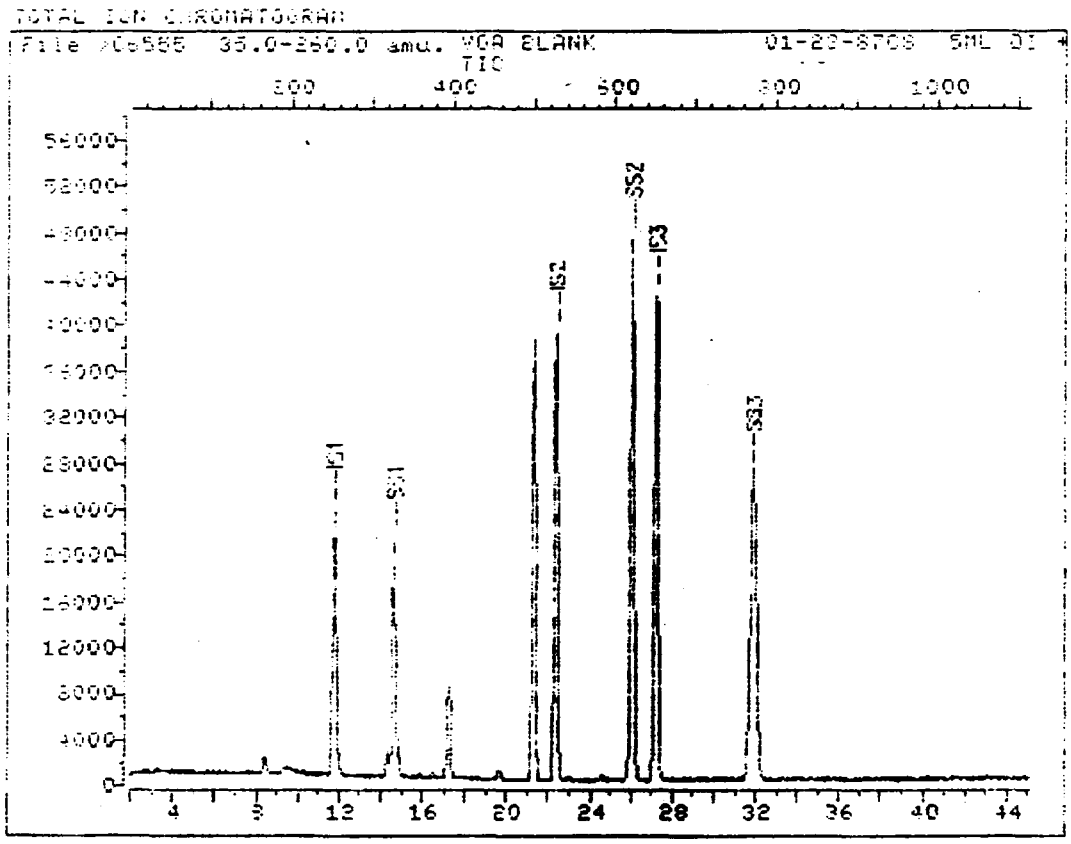
ecology and environment



Data File: >C6555::D3
Name: VOA BLANK
Misc: 01-23-87CS 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870123 16:03

Operator ID: USER8
Quant Time: 870123 16:06
Injected at: 870123 12:43

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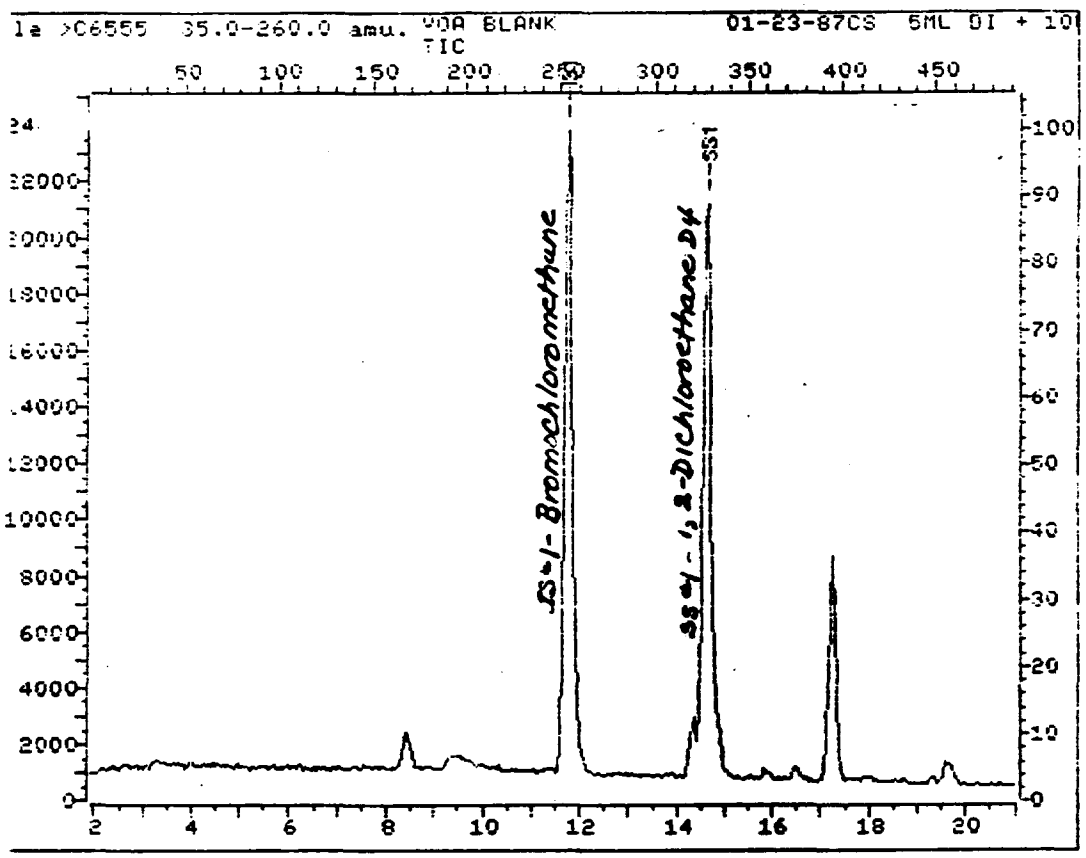
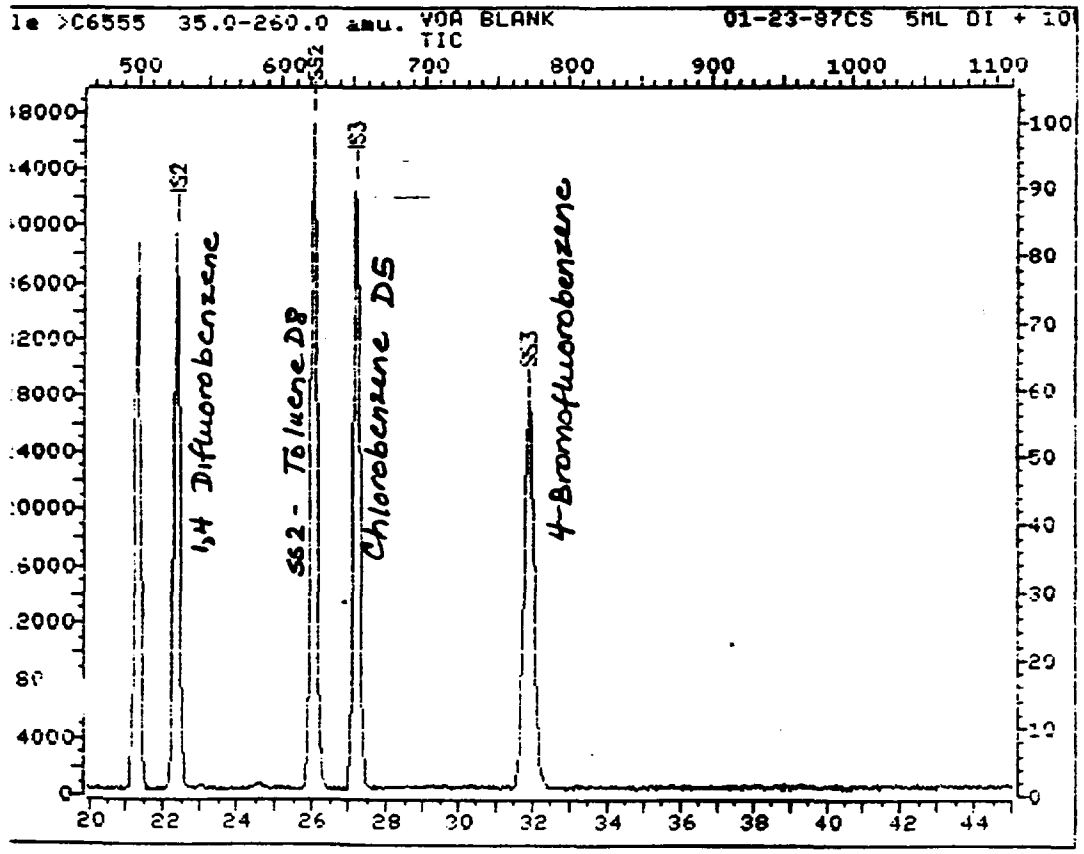
ecology and environment

C6555





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ecology and environment

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870123 16:06
Output File: >C6555::D2 Injected at: 870123 12:43
Data File: >C6555::D3 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 01-23-87CS 5ML DI + 10UL IS/SS

ID File: VOACPS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870123 16:03

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.76	254	31155	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.42	168	3555	14.65	NGS	100
7)	ACETONE	43	9.43	194	10487	52.42	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.63	328	88814	229.06	NGS	82
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.35	527	152635	250.00	NGS	100
17)	2-BUTANONE	72	14.79	332	3193	56.44	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.20	652	123940	250.00	NGS	100
33)	~~2-HEXANONE~~	~~43~~	~~24.60~~	~~585~~	~~2589~~	~~7.[illegible]~~	~~NGS~~	100
36)	TOLUENE-D8 (SURR)	98	26.03	622	180235	224.25	NGS	94
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.86	772	98183	219.90	NGS	100

* Compound is ISTD

362

C6636

.Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment

Sample ID No: Method Blank

Sample Matrix: Water for Soil

Data Release Authorized By: C Slotowicz

Case No:

QC Report No:

Contract No: IL-3140

Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-2-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	2 J
67-64-1	Acetone	18
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	15
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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

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

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

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Laboratory Name E & E, Inc

Case No U-4767

Sample Number C6656

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.1	18 J
2.	Hexane isomer	VOA	21.1	50 J
3.				
4.				
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6.				
7.				
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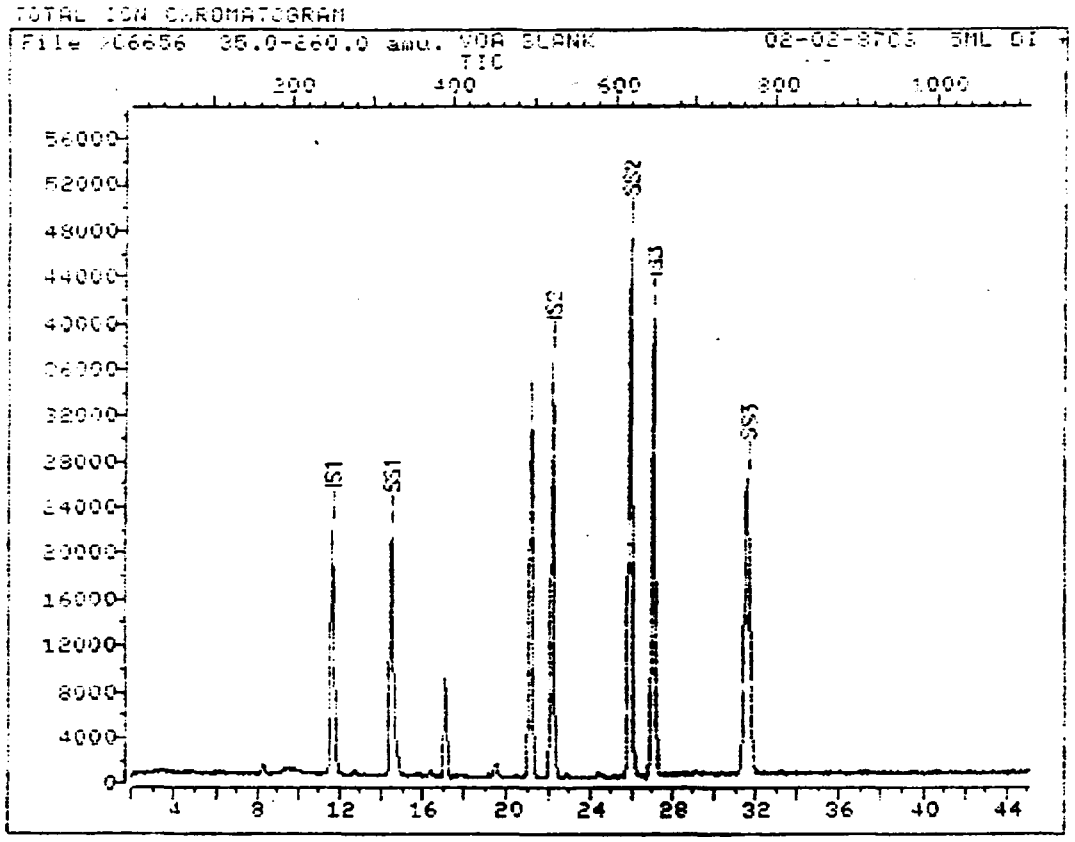

Data File: >C6656::D1
Name: VOA BLANK
Misc: 02-02-87CS 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA IC FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

Operator ID: USERS
Quant Time: 870202 12:51
Injected at: 870202 12:05

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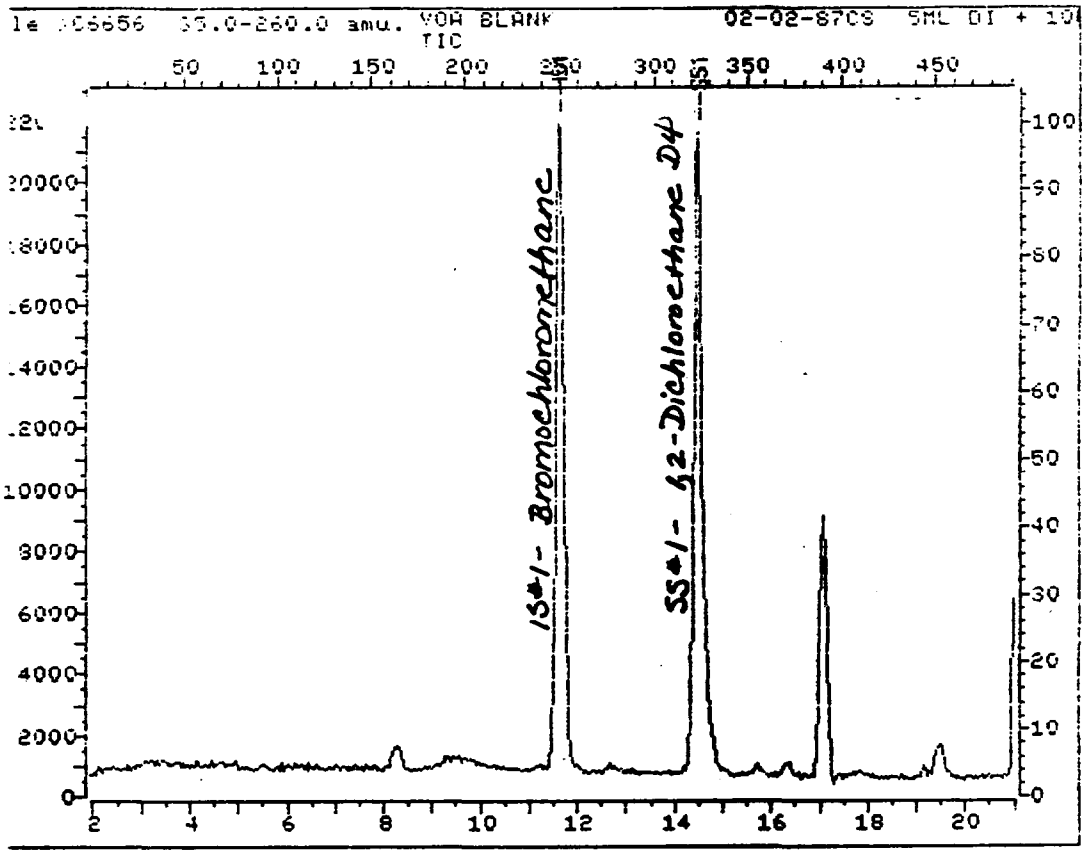
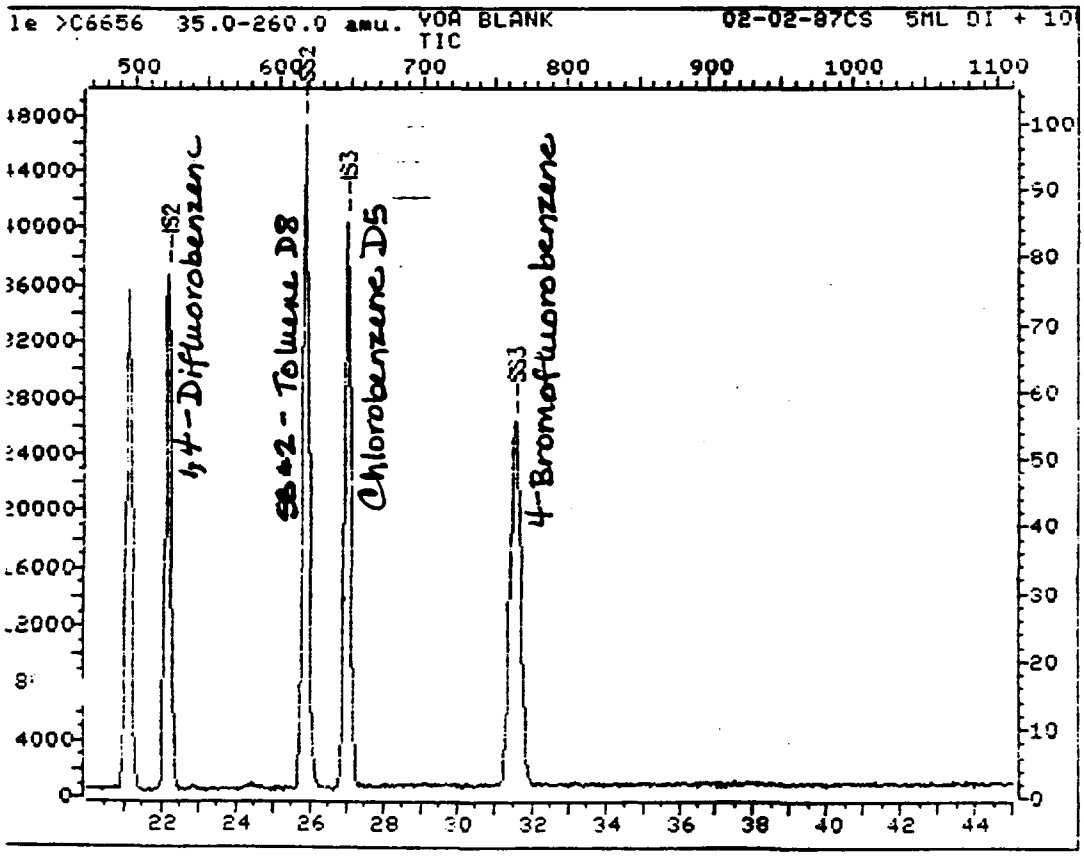
C6656





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870202 12:51
Output File: ^C6656::02 Injected at: 870202 12:05
Data File: >C6656::01 Dilution Factor: 1.00
Name: HOA BLANK
Misc: 02-02-87CE 5ML DI - 10UL IS/SS

ID File: HOACRS::02
Title: HOA ID FILE FOR HP-5998 (CONT. CAL.)
Last Calibration: 870202 11:35

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.60	250	30258	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.23	163	1698	8.96	NGS	100
7)	ACETONE		43	9.43	194	17499	87.59	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.47	324	89214	272.50	NGS	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.19	523	143099	250.00	NGS	100
17)	2-BUTANONE		72	14.70	330	4075	74.79	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.04	648	114639	250.00	NGS	100
~~32)~~	~~4-METHYL-2-PENTANONE~~		~~43~~	~~22.05~~	~~540~~	~~2661~~	~~[illegible]~~	~~NGS~~	~~93~~
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.40~~	~~580~~	~~3441~~	~~[illegible]~~	~~NGS~~	~~100~~
36)	TOLUENE-D8	(SURR)	98	25.87	618	175173	282.45	NGS	89
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.58	765	86569	250.17	NGS	100

MEW

* Compound is ISTD

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Laboratory Name Ecology & Environment Inc.

Case No: U-4727

Sample Number D1537

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
9-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-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	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	730	
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	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	Dibenzo(a h)Anthracene	330	U
191-24-2	Benzo(g h i)Perylene	330	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name Ecology & Environment Inc.

Case No U-4727

Sample Number D1537

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	BNA	20.23	180 J
2.	UNKNOWN	BNA	34.02	480 J
3.				
4.				
5.				
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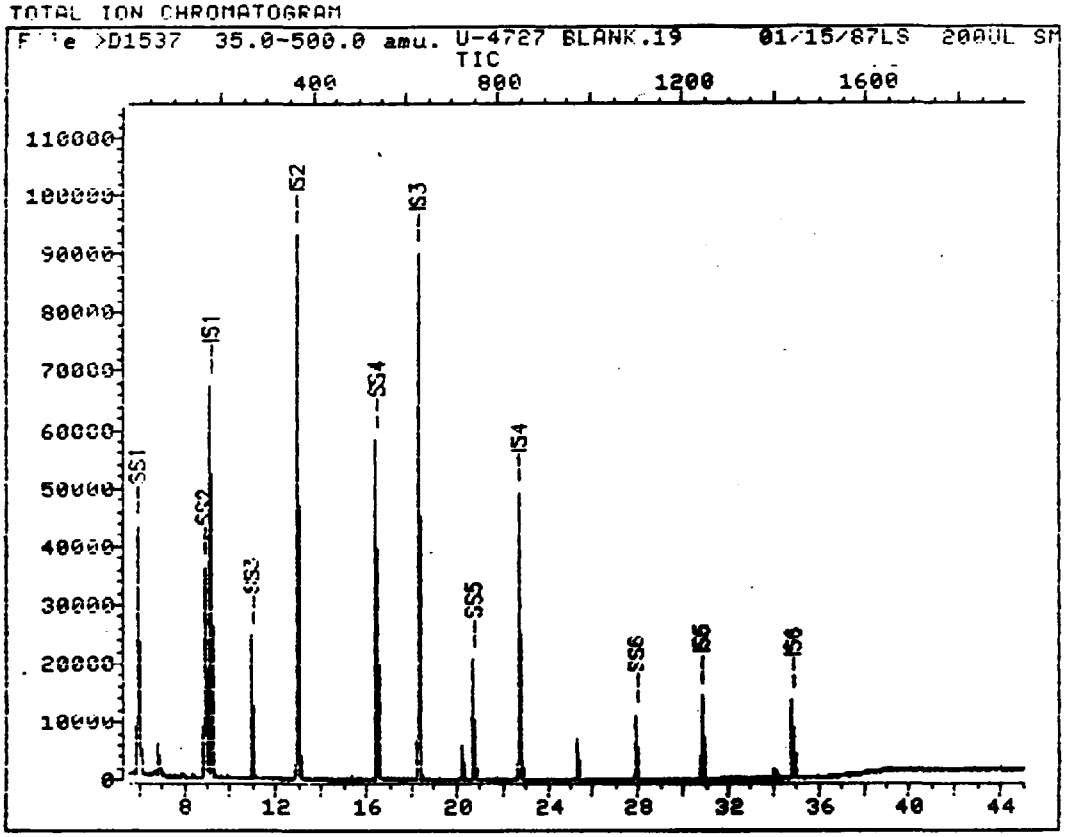

Data File: >D1537::D1
Name: U-4727 BLANK.19
Misc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) (1BFL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860116 12:22
Injected at: 860115 21:29

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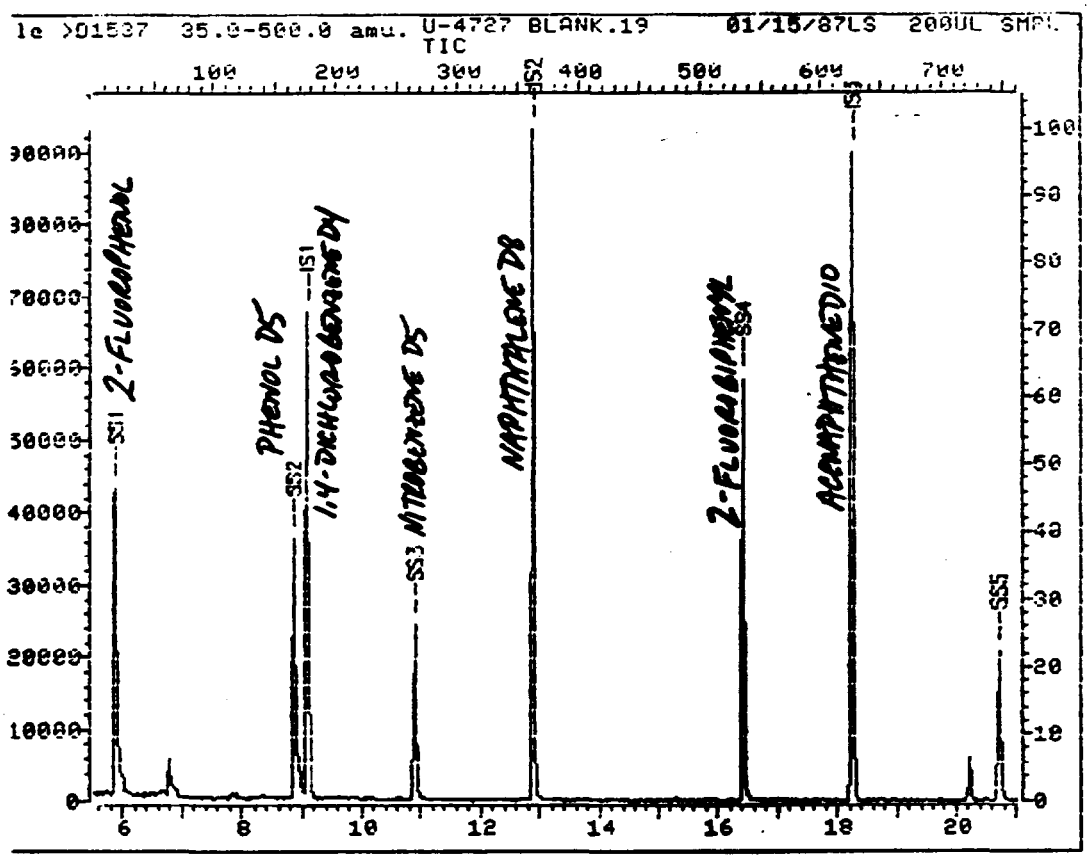

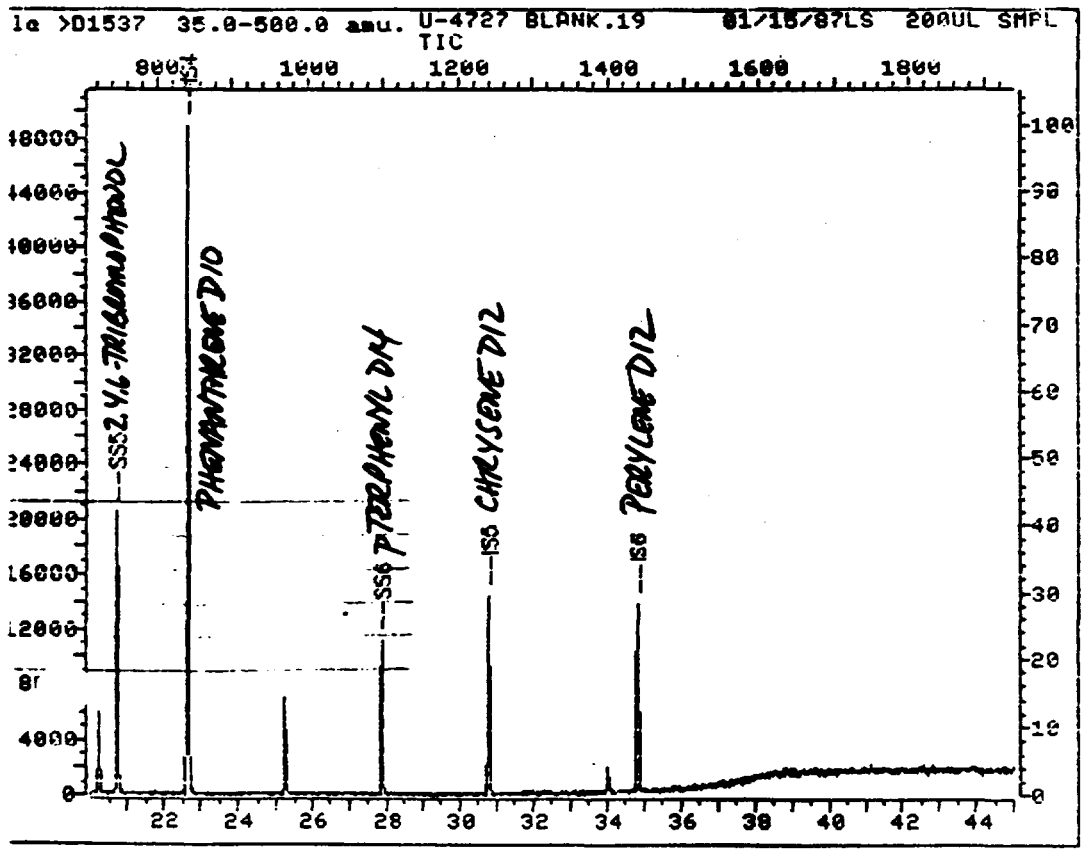

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QUANT REPORT

pe tor ID: USER6 Quant Rev: 4 Quant Time: 860116 12:22
utput File: ^D1537::Q2 Injected at: 860115 21:29
ata File: >D1537::D1 Dilution Factor: 2.00
ame: U-4727 BLANK.19
isc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) (1BTL# 4

D File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 860115 14:20

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.08	176	32367	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	8.86	165	37881	99.14	UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	5.87	18	30925	101.07	UG/L	77
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.90~~	~~265~~	~~3025~~	~~9.27~~	~~UG/L~~ NoQ	92
19)	*NAPHTHALENE-D8	(IS)	136	12.89	363	119552	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.90	265	19322	43.99	UG/L	97
4)	*ACENAPHTHENE-D10	(IS)	162	18.25	626	50619	40.00	UG/L	97
3)	2-FLUOROBIPHENYL	(SURR)	172	16.42	536	55511	46.35	UG/L	91
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.25~~	~~626~~	~~16015~~	~~18.87~~	~~UG/L~~ NoQ	100
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.72	747	10006	62.24	UG/L	97
2)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.25~~	~~626~~	~~6560~~	~~37.80~~	~~UG/L~~ NoQ	100
5)	*PHENANTHRENE-D10	(IS)	188	22.67	843	62176	40.00	UG/L	92
3)	DI-N-BUTYLPHTHALATE		149	25.26	970	12720	21.86	UG/L YES	99
5)	*CHRYSENE-D12	(IS)	240	30.78	1241	21498	40.00	UG/L	100
3)	TERPHENYL-D14	(SURR)	244	27.86	1098	14200	54.12	UG/L	100
4)	*PERYLENE-D12	(IS)	264	34.83	1440	18455	40.00	UG/L	100

* Compound is ISTD

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4767

Sample Number D1584

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
9-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-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	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	370	
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	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

Laboratory Name Ecology & Environment Inc.

Case No U-4767

Sample Number D1584

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No Semi-Volatile Compounds Found			
2.				
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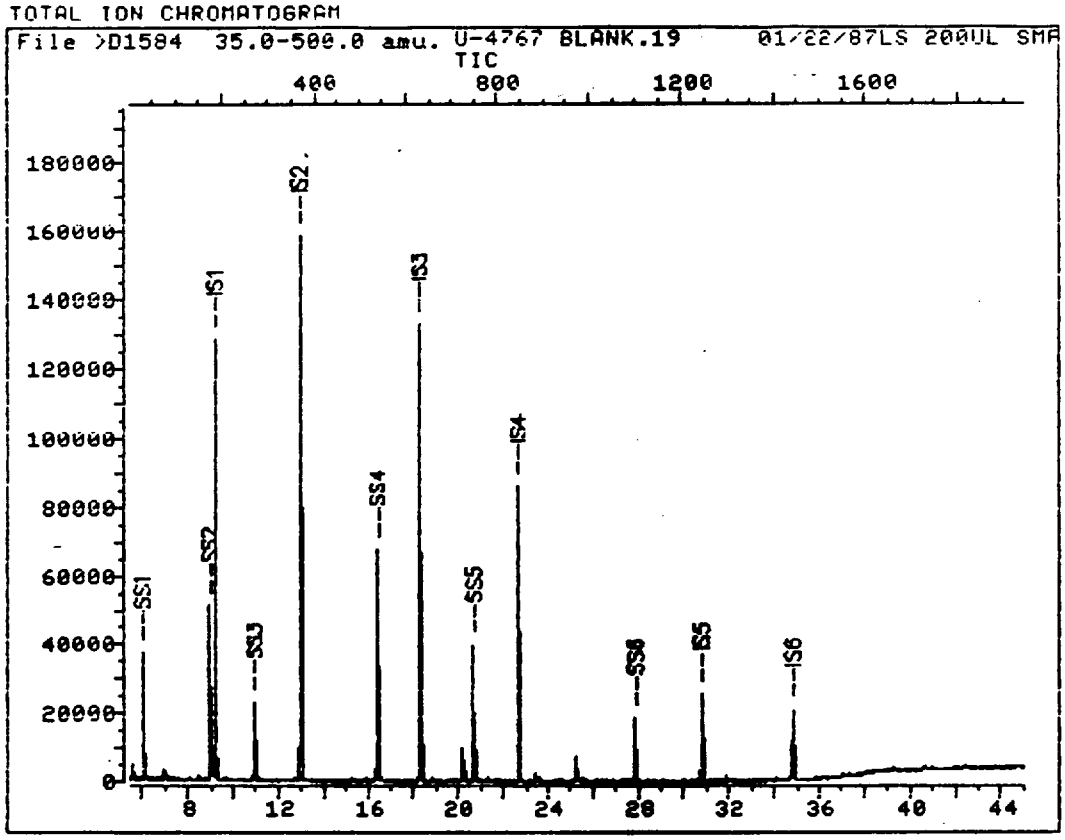
TOTAL ION CHROMATOGRAM



Data File: >D1584::D3
Name: U-4767 BLANK.19
Misc: 01/22/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) (1BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

Operator ID: USER6
Quant Time: 860122 19:49
Injected at: 860122 19:01

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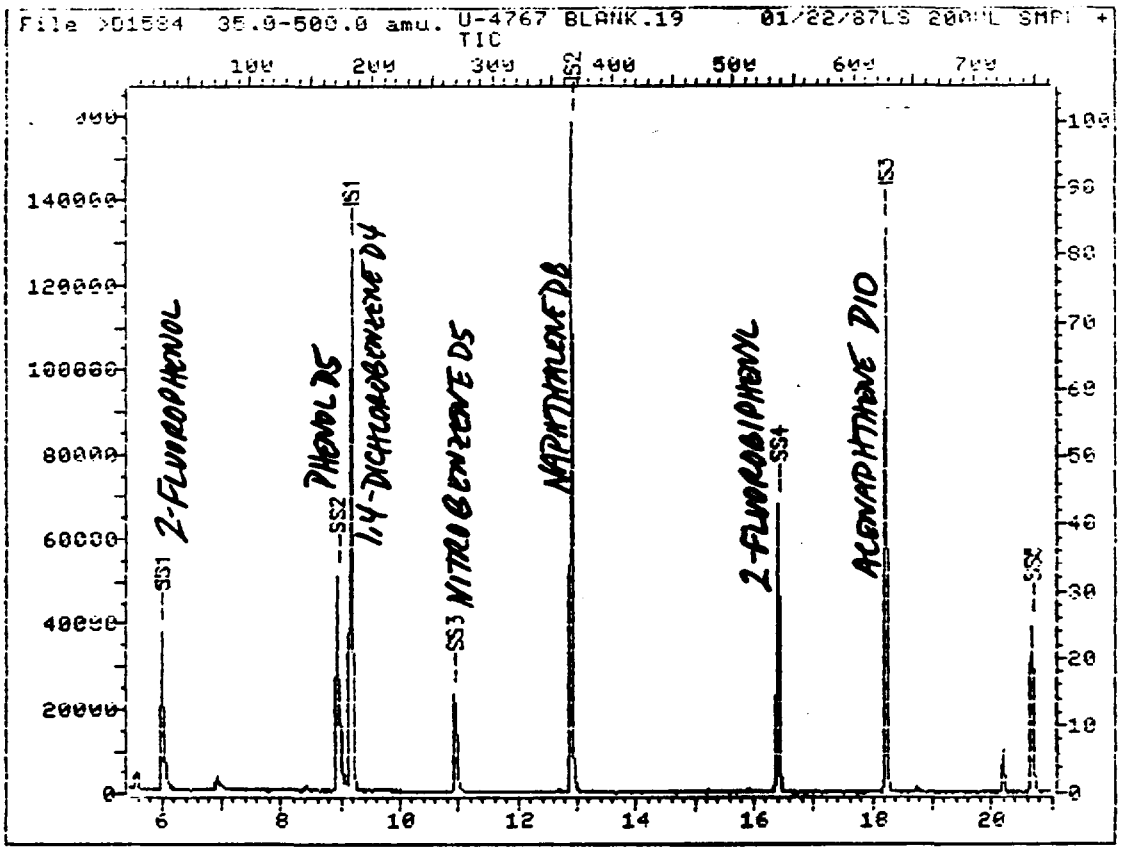

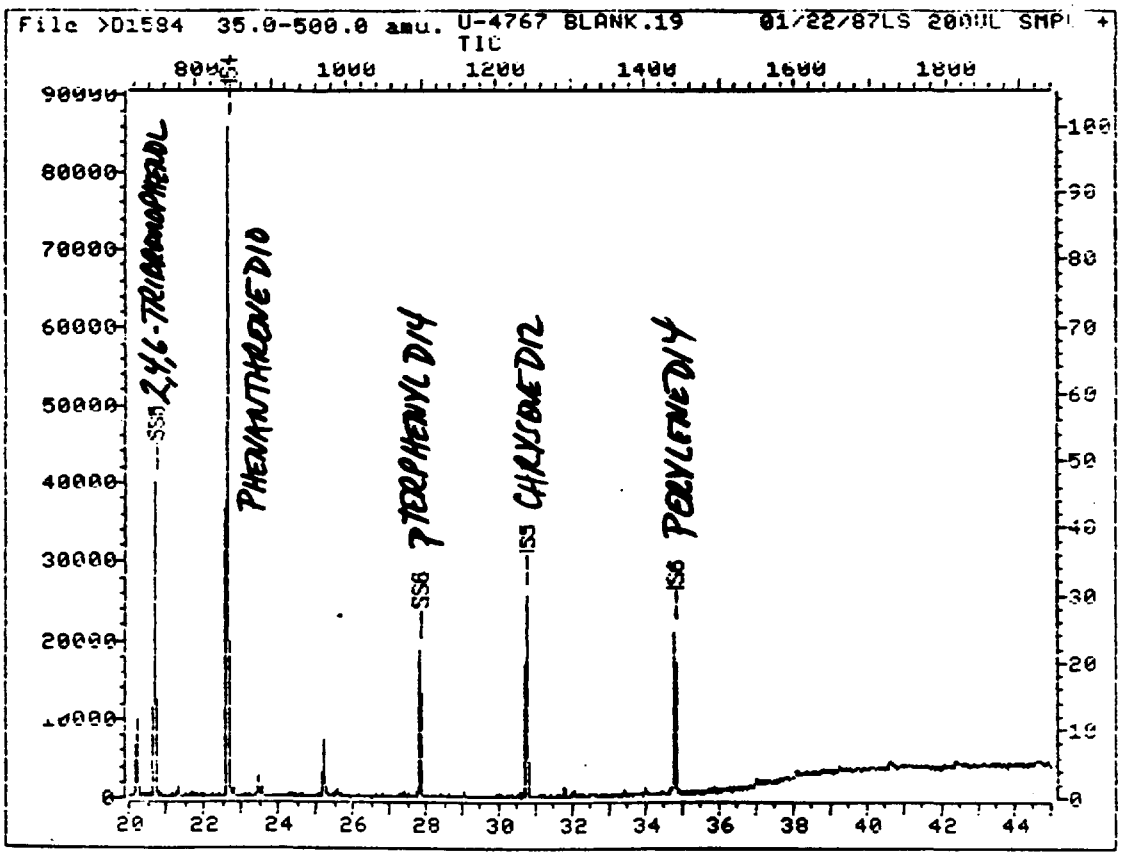

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QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 860122 19:49
Output File: ^D1584::Q2 Injected at: 860122 19:01
Data File: >D1584::D3 Dilution Factor: 2.00
Name: U-4767 BLANK.19 (1/16)
Misc: 01/22/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) (1BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	9.18	183	52311	40.00	UG/L	87
2)	PHENOL-D5 (SURR)	99	8.94	171	44509	46.08	UG/L	95
5)	2-FLUOROPHENOL (SURR)	112	6.00	27	28377	48.67	UG/L	88
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.93~~	~~269~~	~~3261~~	~~4.38~~	~~UG/L~~	~~92~~
19)	*NAPHTHALENE-D8 (IS)	136	12.91	366	187374	40.00	UG/L	100
20)	NITROBENZENE-D5 (SURR)	82	10.93	269	20523	24.81	UG/L	94
34)	*ACENAPHTHENE-D10 (IS)	162	18.22	627	73729	40.00	UG/L	98
38)	2-FLUOROBIPHENYL (SURR)	172	16.41	538	58675	35.29	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~18.22~~	~~627~~	~~22652~~	~~17.31~~	~~UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL(SURR)	330	20.69	748	12666	64.70	UG/L	96
~~52)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~18.22~~	~~627~~	~~9123~~	~~34.70~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10 (IS)	188	22.64	844	93363	40.00	UG/L	96
63)	DI-N-BUTYLPHTHALATE	149	25.23	971	11466	11.24	UG/L yes	98
65)	*CHRYSENE-D12 (IS)	240	30.75	1242	31232	40.00	UG/L	100
68)	TERPHENYL-D14 (SURR)	244	27.84	1099	20169	58.01	UG/L	100
74)	*PERYLENE-D12 (IS)	264	34.80	1441	24502	40.00	UG/L	100

* Compound is ISTD

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Laboratory Name Ecology & Environment Inc.

Case No V-4819

Sample Number D1658

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-26-87

Date Analyzed: 2-11-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	330	U
111-44-4	bis(-2-ChloroethylEther	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
39638-32-9	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	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
[illegible]-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2, 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2, 6-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	1600	U
534-52-1	4, 6-Dinitro-2-Methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	850	
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3, 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-EthylhexyllPhthalate	380	
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	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

Laboratory Name Ecology & Environment Inc.

Case No U-4819

Sample Number D1658

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	BNA	27.12	1900 J
2.	UNKNOWN	BNA	30.04	790 J
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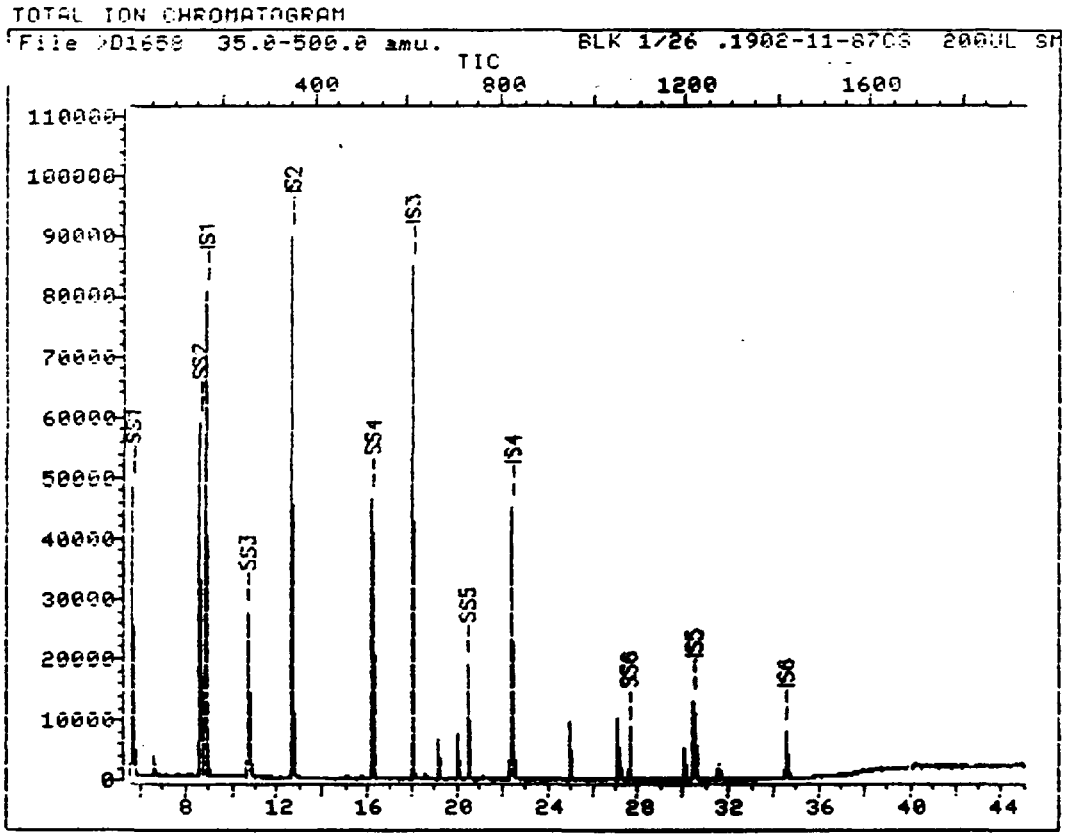

Data File: >D1658::D3
Name: BLK 1/26 .19
Misc: 02-11-87CS 200UL SMPL+ 200UL MECL2 + 4UL IS BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

Operator ID: USER6
Quant Time: 870211 16:52
Injected at: 870211 16:04

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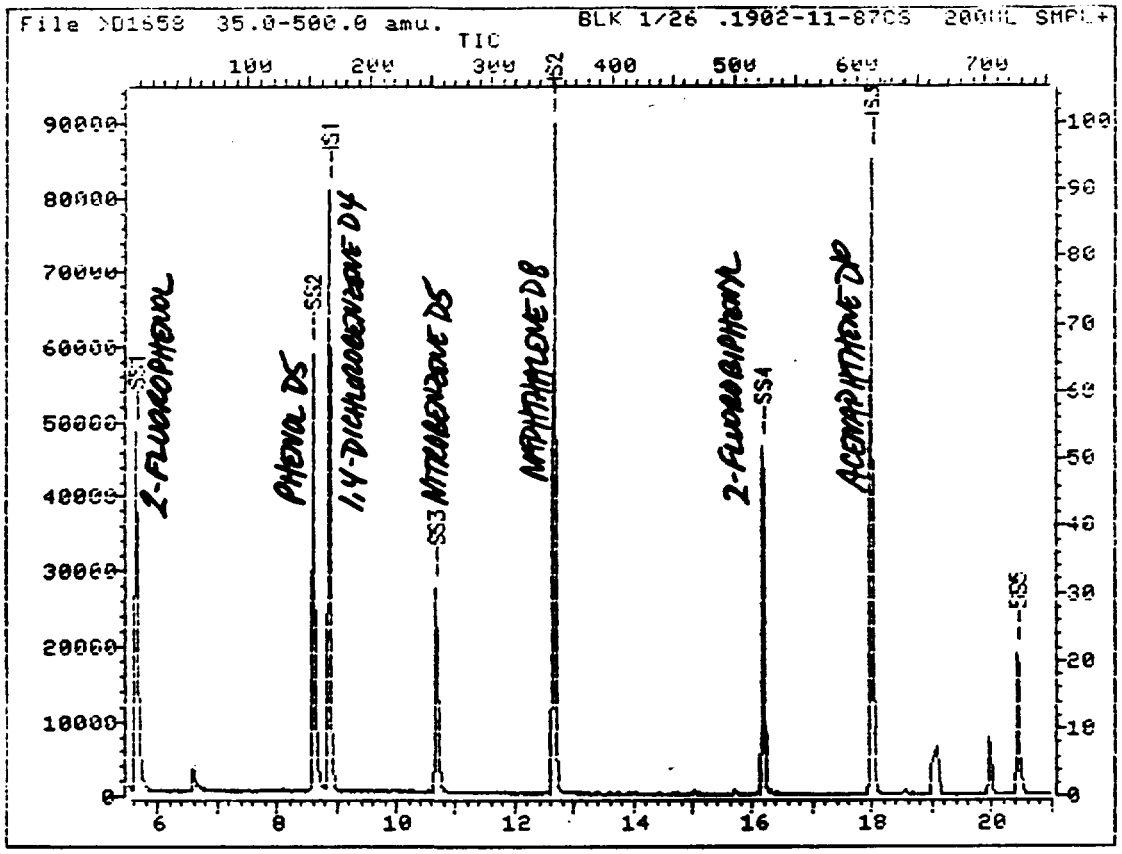

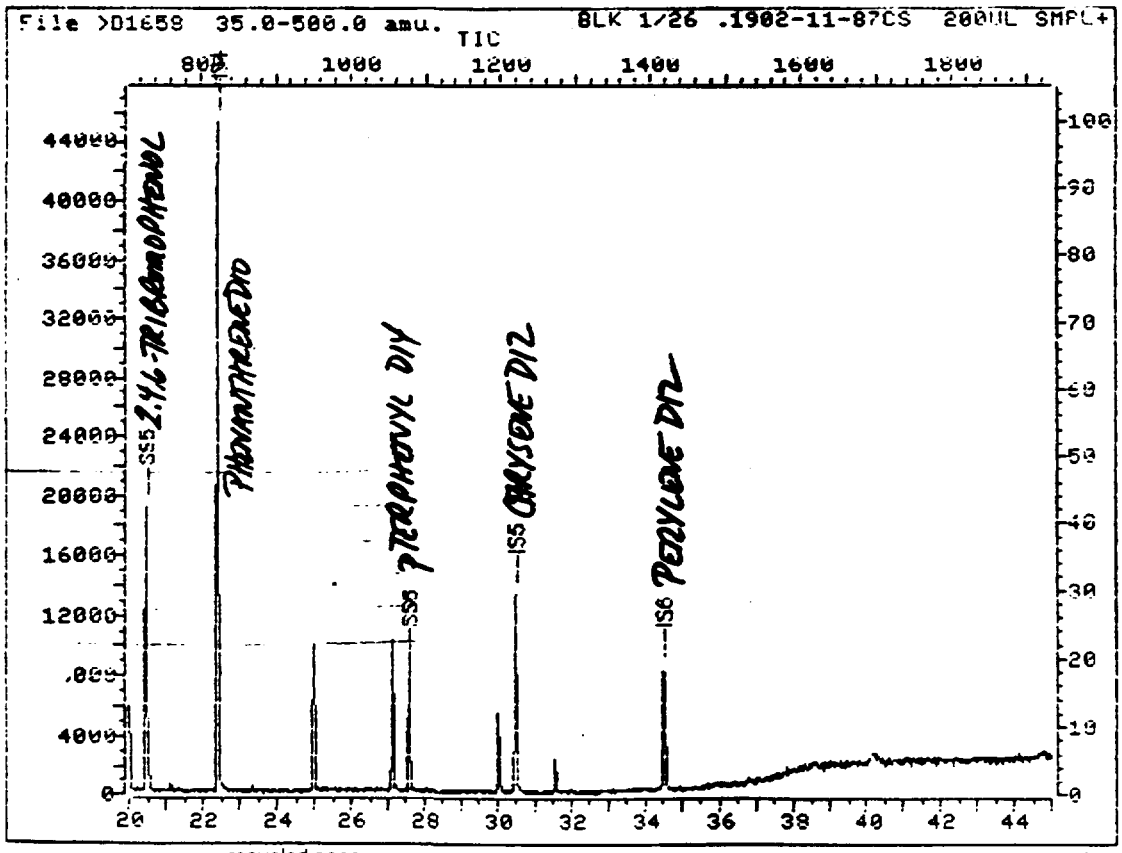

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QUANT REPORT

:rator ID: USER6 Quant Rev: 4.- Quant Time: 870211 16:52
Output File: ^D1658::Q2 Injected at: 870211 16:04
Data File: >D1658::D3 Dilution Factor: 2.00
Name: BLK 1/26 .19
Misc: 02-11-87CS 200UL SMPL+ 200UL MECL2 + 4UL IS BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.88	166	34881	40.00	UG/L	85
2)	PHENOL-D5	(SURR)	99	8.59	152	46170	75.13	UG/L	99
5)	2-FLUOROPHENOL	(SURR)	112	5.62	6	35438	79.79	UG/L	91
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.67~~	~~254~~	~~4036~~	~~8.95~~	~~UG/L~~ No gh	87
19)	*NAPHTHALENE-D8	(IS)	136	12.65	351	119277	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.67	254	23997	43.18	UG/L	98
34)	*ACENAPHTHENE-D10	(IS)	162	17.98	613	54687	40.00	UG/L	93
38)	2-FLUOROBIPHENYL	(SURR)	172	16.17	524	46846	47.09	UG/L	94
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.98~~	~~613~~	~~10489~~	~~12.84~~	~~UG/L~~ No gh	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.44	727	7613	62.76	UG/L	94
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.98~~	~~613~~	~~7465~~	~~44.07~~	~~UG/L~~ No gh	100
55)	*PHENANTHRENE-D10	(IS)	188	22.40	823	55524	40.00	UG/L	93
63)	DI-N-BUTYLPHTHALATE		149	24.99	950	17495	25.62	UG/L yes	98
65)	*CHRYSENE-D12	(IS)	240	30.48	1220	18506	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.57	1077	12020	58.04	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.54	1272	2232	11.51	UG/L yes	84
74)	*PERYLENE-D12	(IS)	264	34.52	1418	12527	40.00	UG/L	100

* Compound is ISTD

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Laboratory Name ecology and environment, inc.

Case No U-4727

Sample Number BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-9	4, 4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4, 4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4, 4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

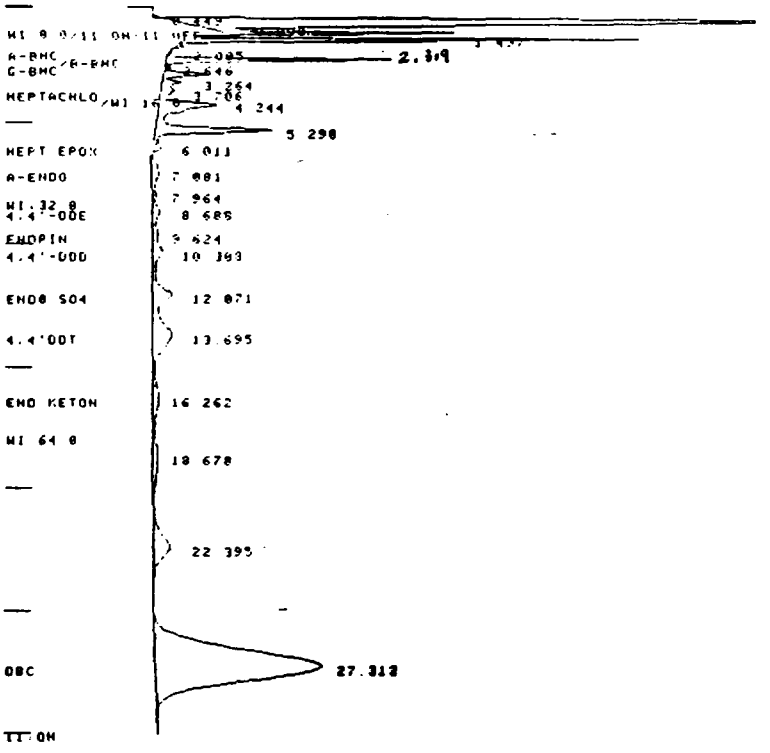
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



CHANNEL: 1A - 1 TITLE: RUN# 14 17:22 15 JAN 87

SAMPLE: BLK.19 1-12 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/µl	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.497		286507	BV	4.44
2	~~G-BHC~~	14.1994	2.319	0.019	182976	VV	5.94
3		0.0000	2.941		56852	VV	8.81
4		0.0000	3.264		22601	VV	7.94
5		0.0000	3.577		24140	VV	? 13.81
6	~~HEPTACHLO~~	4.6062	4.244	0.274	153797	VV	14.50
7		0.0000	5.290		217883	VV	11.56
8	~~A-ENDO~~	1.4667	7.081	-0.239	46390	VV	? 76.13
9	DIELDRIN	1.2867	8.688	0.178	43770	VV	? 32.88
10	~~ENDRIN~~	0.9815	9.624	-0.036	27821	VV	? 39.50
11	~~4,4'-DDD~~	2.3841	10.308	-0.212	65739	VV	? 48.13
12	~~ENDO SO4~~	4.5363	12.071	-0.269	108426	VV	41.63
13	~~4,4'-DDT~~	7.7200	13.695	-0.025	187277	VV	76.56
14	~~ENO KETON~~	2.3443	16.262	0.472	76376	VV	? 93.06
15		0.0000	18.678		77194	VV	?129.38
16		0.0000	22.395		157112	VV	66.88
17	DBC 102%	67.9391	27.313	-0.067	1756463	VB	83.69
TOTALS:		107.3844		0.095	3491324		

DETECTED PKS: 30 REJECTED PKS: 13

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -9

NOTES:
NOTEBOOK:259-76 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW RSTY710

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Laboratory Name ecology and environment, inc.

Case No V-4767

Sample Number BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared: 1-16-87

Date Analyzed: 1-22-87

Conc/Dil Factor: 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16 U
72-55-9	4, 4'-DDE	16 U
72-20-8	Endrin	16 U
33213-65-9	Endosulfan II	16 U
72-54-8	4, 4'-DDD	16 U
1031-07-8	Endosulfan Sulfate	16 U
50-29-3	4, 4'-DDT	16 U
72-43-5	Methoxychlor	80 U
53494-70-5	Endrin Ketone	16 U
57-74-9	Chlordane	80 U
8001-35-2	Toxaphene	160 U
12674-11-2	Aroclor-1016	80 U
11104-28-2	Aroclor-1221	80 U
11141-16-5	Aroclor-1232	80 U
53469-21-9	Aroclor-1242	80 U
12672-29-6	Aroclor-1248	80 U
11097-69-1	Aroclor-1254	160 U
11096-82-5	Aroclor-1260	160 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

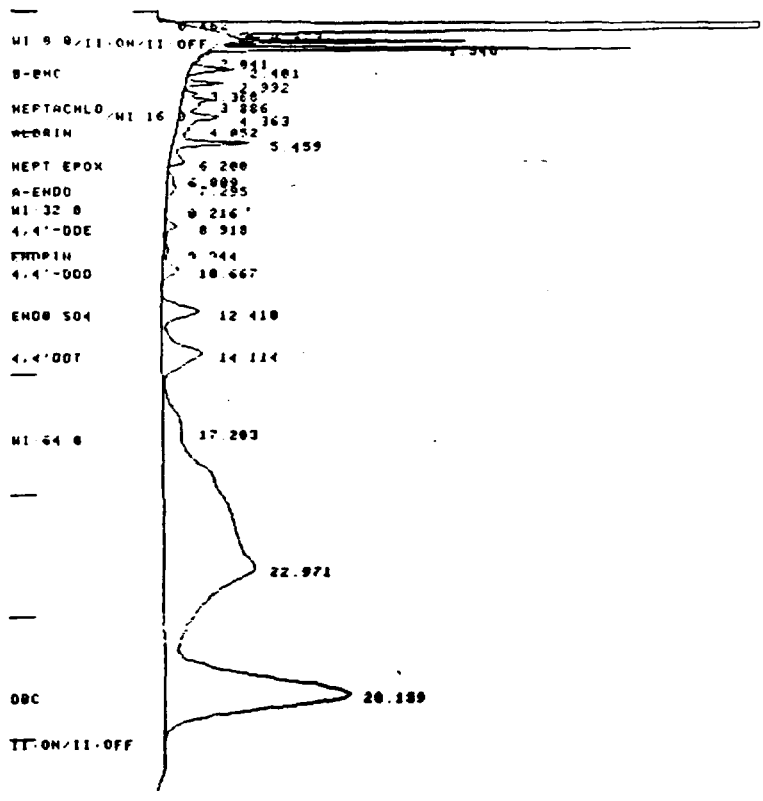
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

385

CHART SPEED 0.5 CM/MIN
ATTEN: 6 ZERO: 101 5 MIN/TICK



CHANNEL: 1A - 1 TITLE: RUN: 23 18:41 22 JAN 87

SAMPLE: BLK.19 1-16 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.254		94201	BB	3.50
2		0.0000	1.540		255522	BV	4.63
3	~~B-BHC~~	3.7130	2.401	0.031	55545	VV	9.00
4		0.0000	2.992		41641	VV	7.44
5		0.0000	3.681		42555	VV	? 12.31
6	~~HEPTACHLO~~	1.1005	3.886	-0.214	37565	VV	? 22.75
7		0.0000	4.363		97729	VV	13.69
8	~~ALDRIN~~	0.6654	4.052	-0.198	26751	VV	? 9.86
9		0.0000	5.459		132242	VV	11.13
10	~~HEPT EPOX~~	1.1393	6.200	0.090	42684	VV	17.31
11	~~A-ENDO~~	0.8251	7.295	-0.265	29331	VB	? 32.75
12	~~DIELDRIN~~	0.0610	8.918	0.110	32572	VV	21.56
13	~~4,4'-DDD~~	1.7910	10.667	-0.213	56496	VV	26.63
14	~~ENDO SO4~~	5.0646	12.410	-0.350	153505	VV	31.75
15	~~4,4'DDT~~	12.1174	14.114	-0.066	268315	VV	52.75
16	~~END KETON~~	4.2006	17.203	0.093	158347	VV	? 66.44
17		0.0000	22.971		3255604	VV	240.06
18	DBC 105%	70.3401	28.139	-0.191	2017100	VB	84.44
TOTALS:		102.6178		-0.375	6797705		

DETECTED PKS: 30 REJECTED PKS: 12

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -2

NOTES:
NOTEBOOK:259-83 ANALYST:R. SAMSON
SECURE AREA: D JOB # U-474867
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW CLP761

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Laboratory Name ecology and environment, inc.

Case No U-4819

Sample Number BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 1/26/87

Date Analyzed 2/11/87

Conc/Dil Factor 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80 U
53494-70-5	Endrin Ketone	16 U
57-74-9	Chlordane	80 U
8001-35-2	Toxaphene	160 U
12674-11-2	Aroclor-1016	80 U
11104-28-2	Aroclor-1221	80 U
11141-16-5	Aroclor-1232	80 U
53469-21-9	Aroclor-1242	80 U
12672-29-6	Aroclor-1248	80 U
11097-69-1	Aroclor-1254	160 U
11096-82-5	Aroclor 1260	160 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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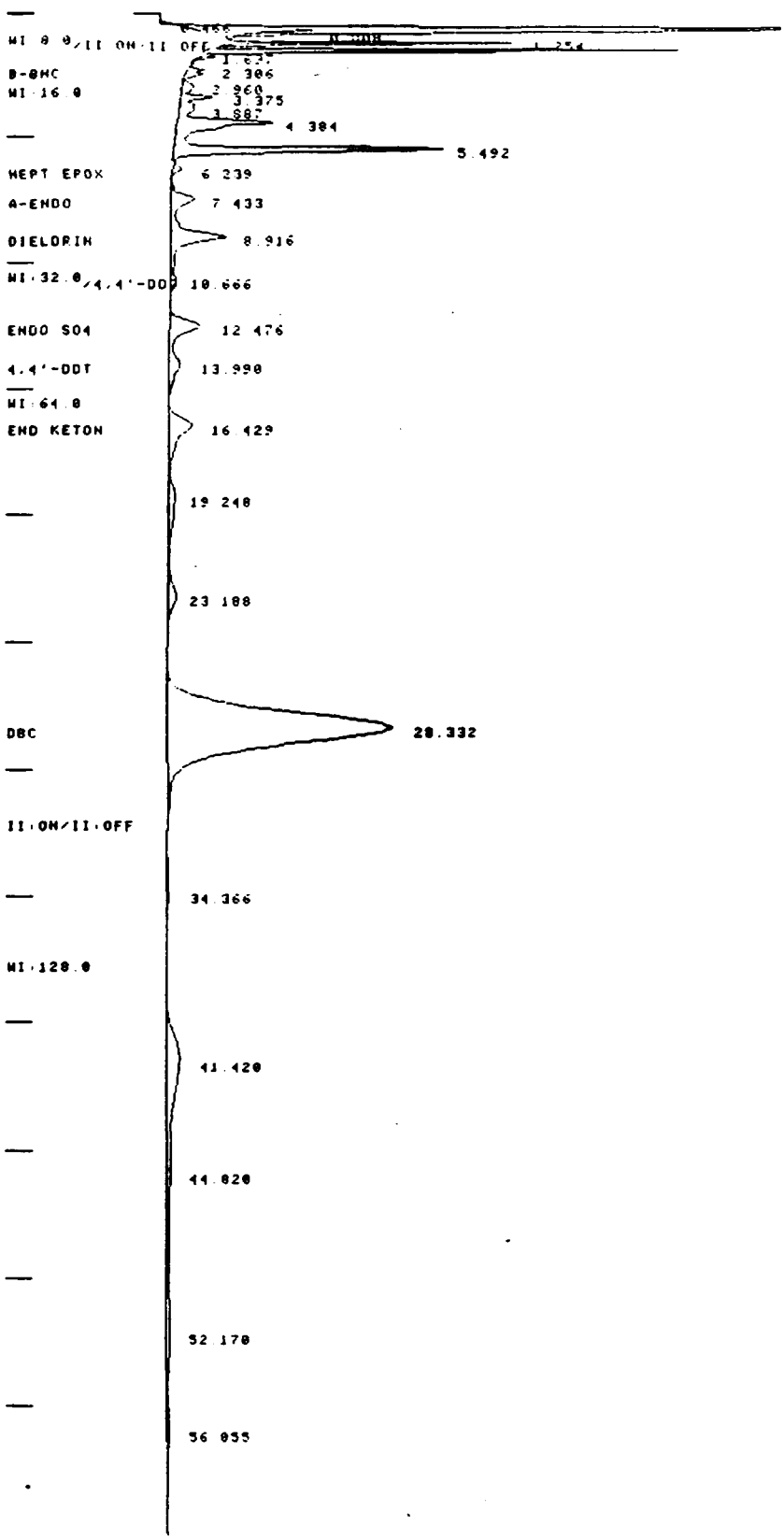
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



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ecology and environment

CHANNEL: 1A - 1 TITLE: RUN# 14 22:07 11 FEB 87

SAMPLE: BLK.19 1/26 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.254		121515	BS	3.88
2		0.0000	1.542		298102	BV	5.00
3		0.0000	3.370		37752	VV	8.38
4		0.0000	3.705		23429	VV	? 16.31
5		0.0000	3.882		27768	VV	? 20.69
6		0.0000	4.384		256579	VV	15.86
7		0.0000	5.492		448224	VV	12.06
8	~~A-ENDO~~	2.7672	7.433	-0.137	90181	VV	25.19
9	~~DIELDRIN~~	6.5963	8.916	0.096	229487	VV	25.25
10	~~4,4'-DDD~~	0.9627	10.666	-0.244	26424	VB	? 35.13
11	~~ENDO SO4~~	6.1892	12.476	-0.324	128053	BV	32.00
12	~~4,4'-DDT~~	3.1809	13.990	-0.220	70338	VB	49.63
13	~~END KETON~~	4.4586	16.429	0.059	145173	BV	44.06
14		0.0000	19.248		81710	VV	100.38
15		0.0000	23.188		64831	VB	60.31
16	DBC 134%	89.2434	28.332	-0.078	2406387	BB	83.13
17		0.0000	41.420		268886	BV	183.75
18		0.0000	44.820		66422	VV	?
19		0.0000	52.170		127780	VV	?213.63
20		0.0000	56.055		28573	VV	?192.31
TOTALS:		113.3984		-0.848	4947614		

DETECTED PKS: 34 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -12

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C

200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW SCA077

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MATRIX SPIKE DATA

1. FORM I OF NON-SPIKED COMPOUNDS
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTING (GC)

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Sample Number:
DC-G1-27-MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-4767
Lab Sample ID No: 0396 MS
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 1-15-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-17-87

Conc./Dil Factor: 2 pH 7.5

Percent Moisture: (Not Decanted) 25

Concentration "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	10 B
67-64-1	Acetone	260 B
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-05-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	32 B
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	12
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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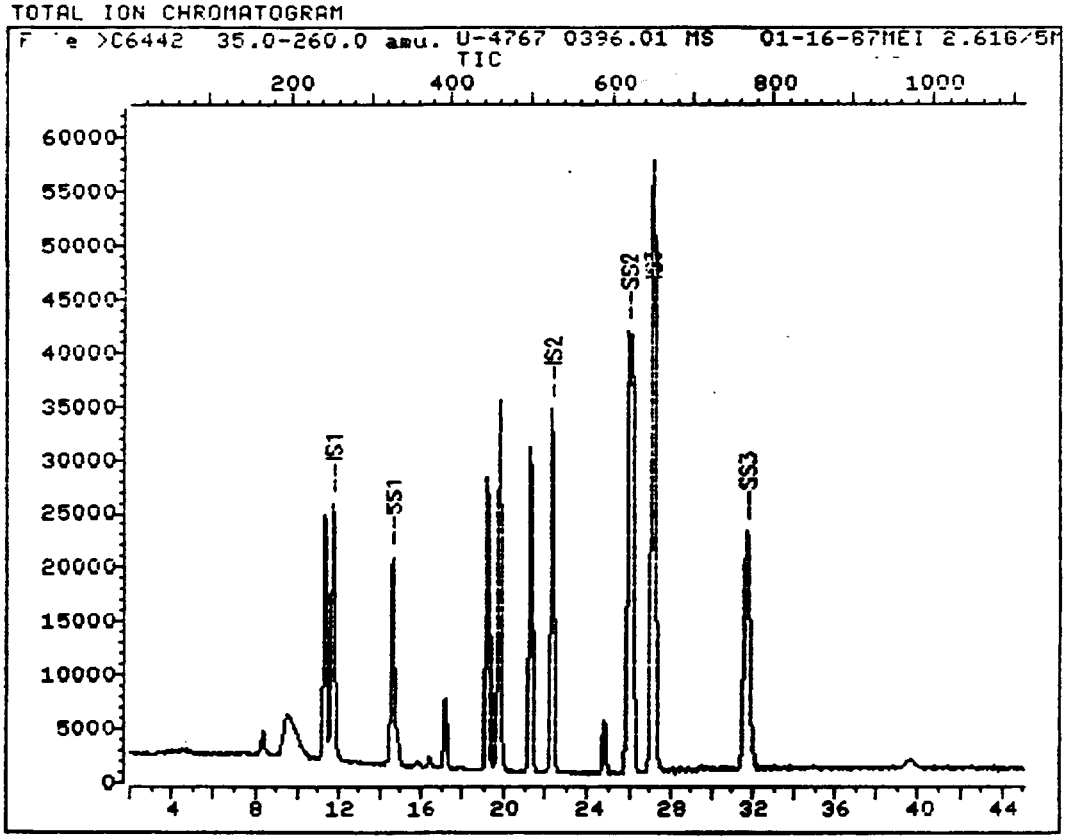
TOTAL ION CHROMATOGRAM



Data File: >C6442::D1
Name: U-4767 0396.01 MS DC-G1-27-MS
Misc: 01-16-87MEI 2.61G/5MLS DI + 10UL IS/SS/MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870116 20:48

Operator ID: MANAGER
Quant Time: 870117 02:03
Injected at: 870117 01:17

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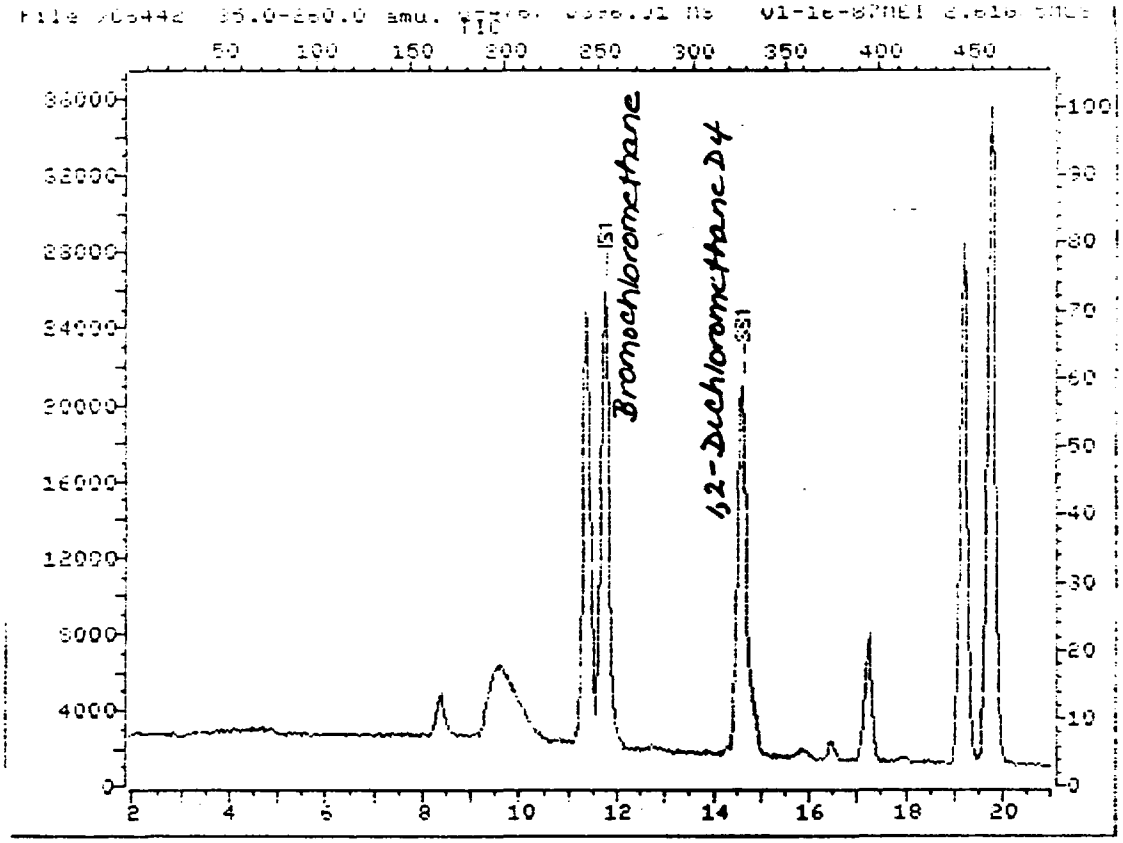
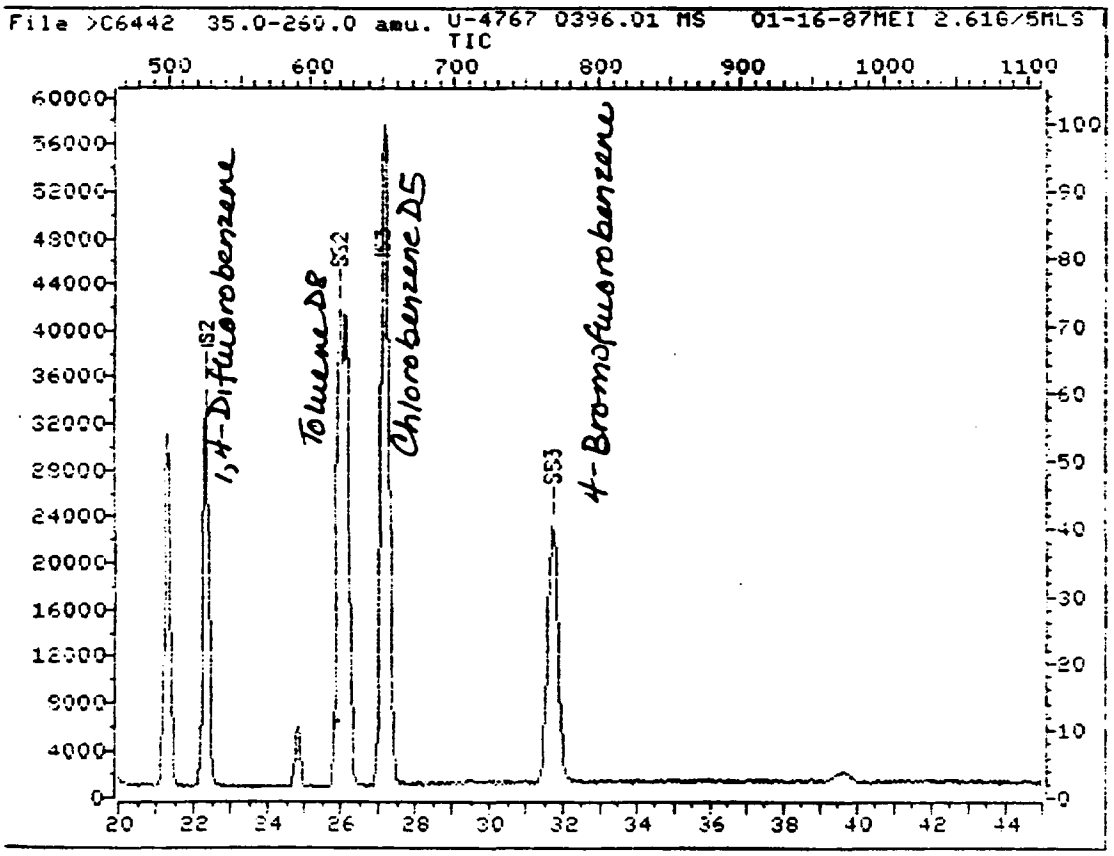


DC-G1-27-MS



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ecology and environment

QUANT REPORT

pe tor ID: MANAGER Quant Rev: 4 Quant Time: 870117 02:03
utput File: ^C6442::D2 Injected at: 870117 01:17
ata File: >C6442::D1 Dilution Factor: 1.00
ame: U-4767 0396.01 MS DC-G1-27 MS
isc: 01-16-87MEI 2.61G/5MLS DI + 10UL IS/SS/MS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870116 20:48

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.73	253	34663	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.39	167	6052	25.23	NGS	100
7)	ACETONE	43	9.55	197	109737	681.82	NGS	100
10)	1,1-DICHLOROETHENE	61	11.34	243	91895	319.81	NGS	96
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.60	327	84425	244.80	NGS	83
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.32	526	133968	250.00	NGS	100
7)	2-BUTANONE	72	14.75	331	5076	84.60	NGS	100
4)	TRICHLOROETHENE	130	19.18	445	45261	188.28	NGS	86
7)	BENZENE	78	19.76	460	146377	222.22	NGS	100
3)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.76~~	~~460~~	~~3074~~	~~11.45~~	~~NGS~~	100
1)	*CHLOROBENZENE-D5	(IS) 117	27.09	649	110079	250.00	NGS	100
4)	TETRACHLOROETHENE	164	24.80	590	6687	31.76	NGS	92
6)	TOLUENE-D8	(SURR) 98	25.97	620	145676	243.18	NGS	93
7)	TOLUENE	92	26.16	625	90287	206.72	NGS	95
3)	CHLOROBENZENE	112	27.21	652	114365	209.09	NGS	96
0)	4-BROMOFLUOROBENZENE	(SURR) 95	31.72	768	75374	221.53	NGS	100
3)	1,3-DICHLOROBENZENE	146	39.59	971	9004	9004.00	NO CALIB	100
4)	1,2-DICHLOROBENZENE		39.59	971	9004	9004.00	NO CALIB	100
5)	1,4-DICHLOROBENZENE	146	39.59	971	9004	9004.00	NO CALIB	100

* Compound is ISTD

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ecology and environment

DC-H3-18 MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727

Lab Sample ID No: 0099 MS QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 1-8-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-16-87

Conc./Dil Factor: 2 pH 3.7

Percent Moisture: (Not Decanted) 24

Concentration reported as received

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	36B
67-64-1	Acetone	760BE
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	4J
107-06-2	1, 2-Dichloroethane	4J
78-93-3	2-Butanone	40u
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	350
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

E — This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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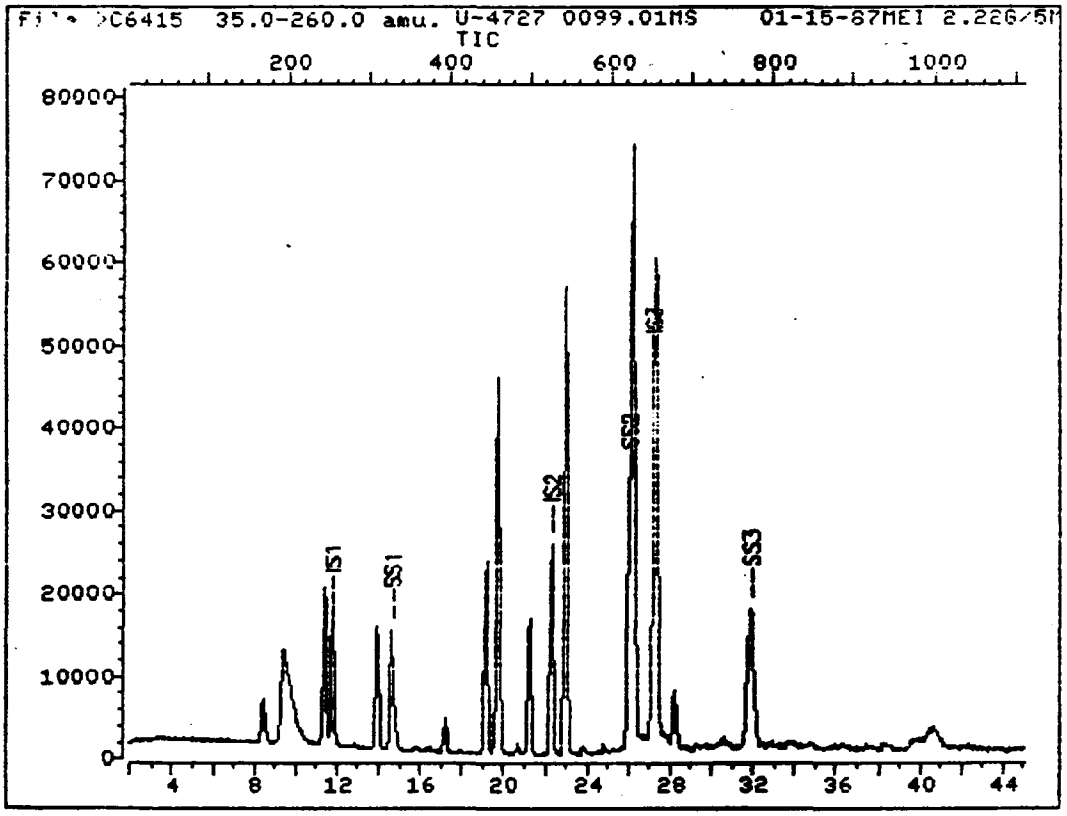
TOTAL ION CHROMATOGRAM



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Misc: 01-15-87MEI 2.22G/5MLS DI + 10UL IS/SS/MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870116 01:02
Injected at: 870116 00:16

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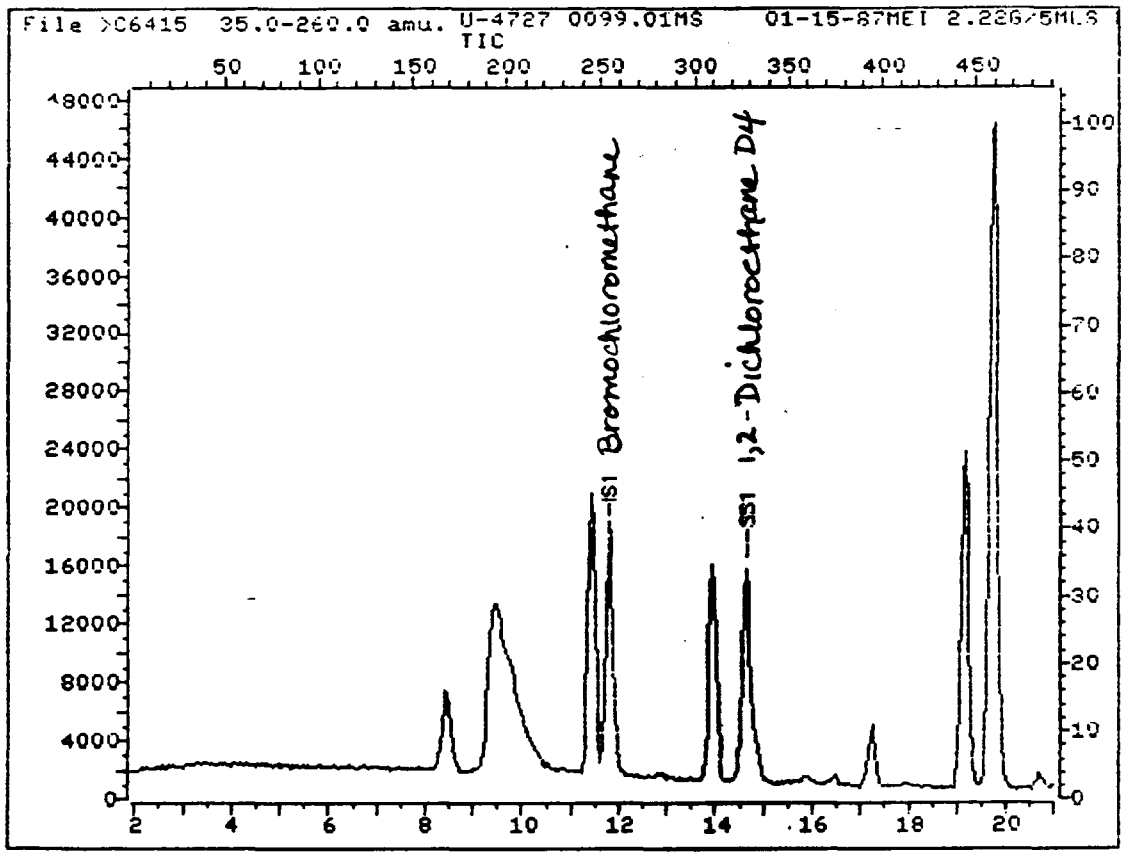
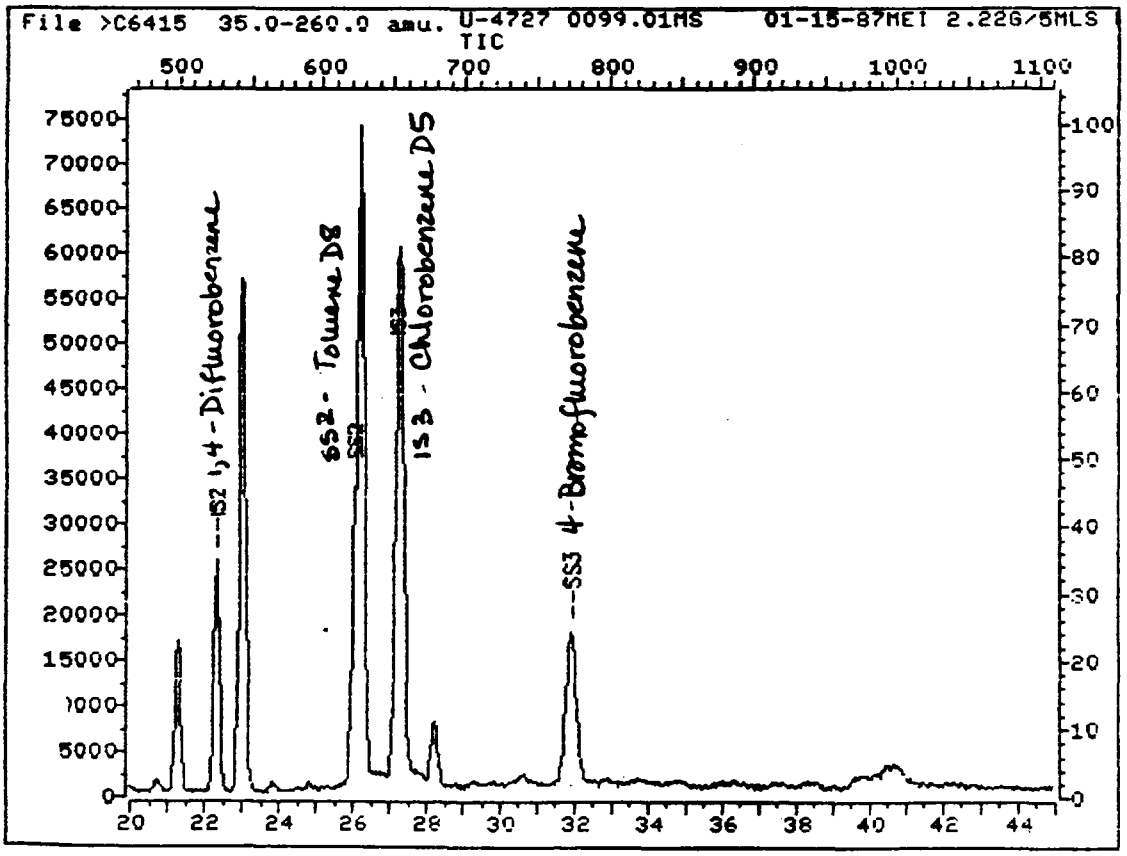
ecology and environment

DC-H3-18MS





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ecology and environment

QUANT REPORT

ɔe :or ID: MANAGER Quant Rev: 4 Quant Time: 870116 01:02
ɪtput File: ^C6415::Q1 Injected at: 870116 00:16
ɪta File: >C6415::D3 Dilution Factor: 1.00
ɪme: U-4727 0099.01MS DC-H3-18MS
.sc: 01-15-87MEI 2.22G/5MLS DI + 10UL IS/SS/MS

) File: VOACRS::D2
.tle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ɪst Calibration: 870115 19:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.77	254	23827	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.43	168	15322	80.45	NGS	100
7)	ACETONE	43	9.48	195	284274	1690.98	NGS	100
10)	1,1-DICHLOROETHENE	61	11.42	245	76265	372.14	NGS	96
13)	CHLOROFORM	83	13.98	311	34431	103.28	NGS	100
14)	1,2-DICHLOROETHANE	62	14.71	330	2617	8.48	NGS	75
5)	1,2-DICHLOROETHANE-D4(SURR)	65	14.64	328	61369	250.49	NGS	8[illegible]
)	*1,4-DIFLUOROBENZENE (IS)	114	22.32	526	102338	250.00	NGS	100
')	2-BUTANONE	72	14.83	333	4058	88.86	NGS	100
)	TRICHLOROETHENE	130	19.18	445	38298	226.96	NGS	81
')	BENZENE	78	19.76	460	200420	409.77	NGS	100
)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.76~~	~~468~~	~~3985~~	~~20.79~~	~~NGS~~ no CW	100
)	*CHLOROBENZENE-D5 (IS)	117	27.21	652	80232	250.00	NGS	100
)	4-METHYL-2-PENTANONE	43	22.98	543	248568	782.91	NGS	94
)	~~2-HEXANONE~~	~~43~~	~~23.87~~	~~566~~	~~2414~~	~~9.52~~	~~NGS~~ no CW	100
)	TOLUENE-D8 (SURR)	98	26.05	622	104948	223.64	NGS	91
')	TOLUENE	92	26.20	626	173091	524.94	NGS	99
)	CHLOROBENZENE	112	27.30	654	148861	355.37	NGS	98
)	4-BROMOFLUOROBENZENE(SURR)	95	31.91	773	57462	227.27	NGS	100
)	~~1,3-DICHLOROBENZENE~~	~~146~~	~~39.79~~	~~976~~	~~10439~~	~~10439.00~~	~~NO CALIB~~	~~100~~
)	1,2-DICHLOROBENZENE		~~39.79~~	~~976~~	~~10439~~	~~10439.00~~	~~NO CALIB~~	~~100~~
)	1,4-DICHLOROBENZENE	146	39.79	976	10439	~~10439.00~~	~~NO CALIB~~	100

Compound is ISTD

CW

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IL-KS-32MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4819

Sample ID No: 643 MS QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Wojtowicz Date Sample Received: 1-24-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-2-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

Reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	6 B
67-64-1	Acetone	1100 EB
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	39 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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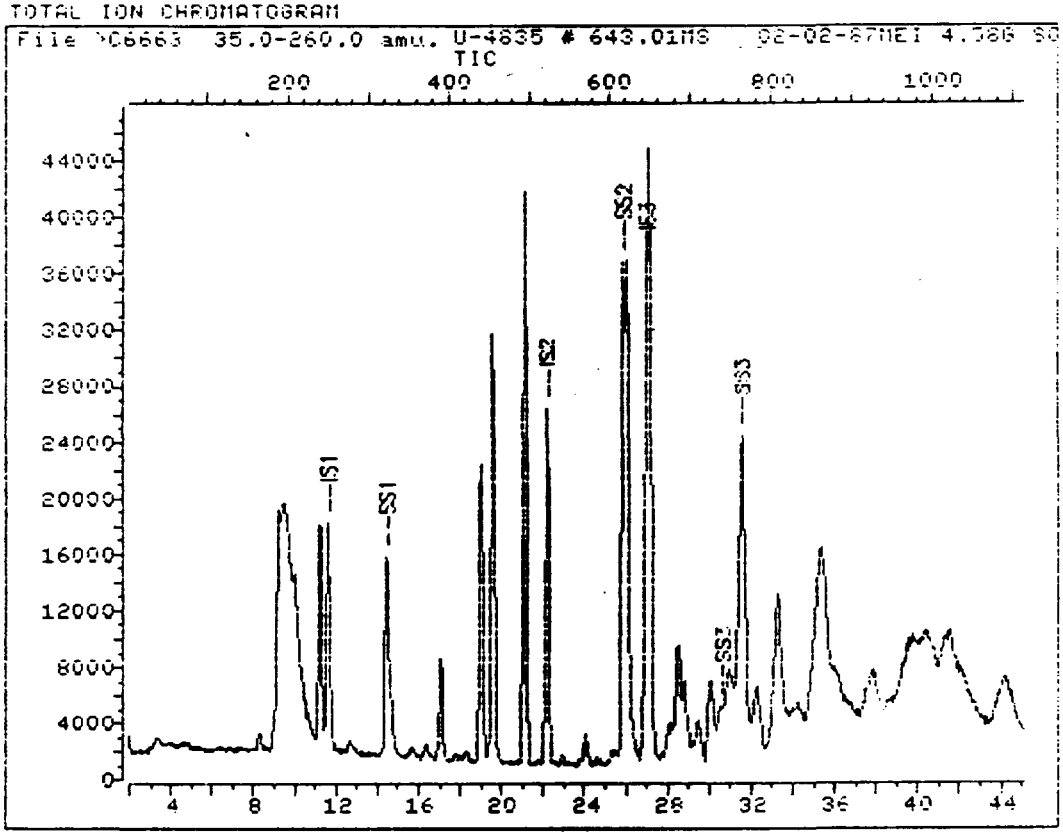
TOTAL ION CHROMATOGRAM



Data File: >C6663::D1
Name: U-48~~35~~ 62 Cw # 643.01MS DC-K3-32 MS
Misc: 02-02-87MEI 4.58G SOIL IN 5ML DI + 10UL IS/SS/MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

Operator ID: USER8
Quant Time: 870202 19:13
Injected at: 870202 18:27

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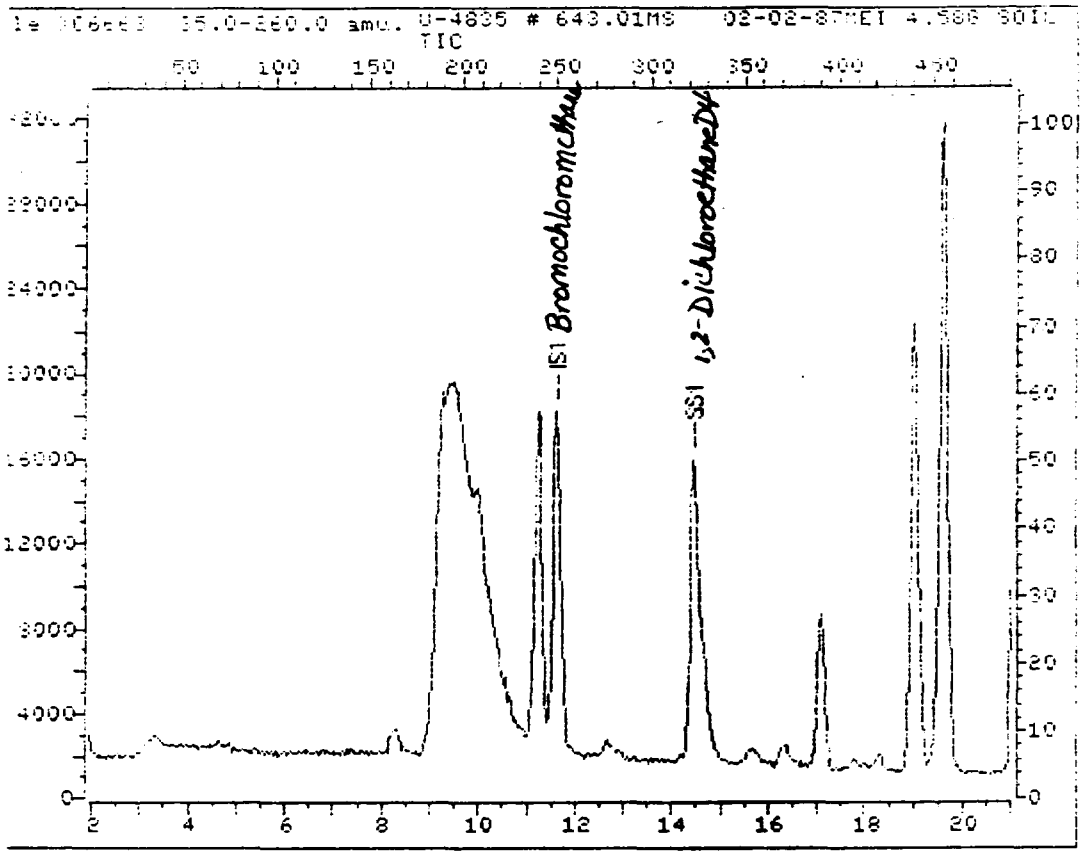
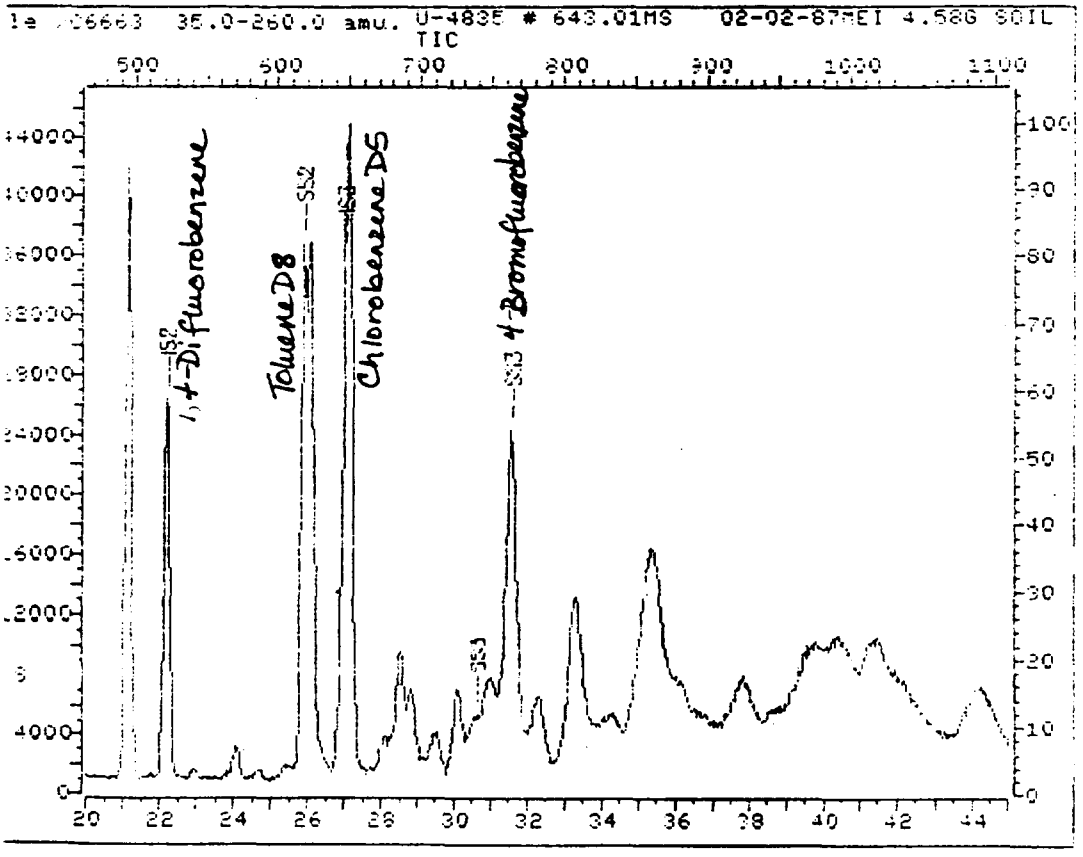
DC-K3-32 MS





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870202 19:13
Output File: ^C6663::Q2 Injected at: 870202 18:27
Data File: >C6663::D1 Dilution Factor: 1.00
Name: U-48~~35~~ 19 Cw# 643.01MS DC-K3-32 MS
Misc: 02-02-87MEI 4.58G SOIL IN 5ML DI + 10UL IS/SS/MS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

	Compound		R.T.	Scan#	Area	Conc	Units	
1)	*BROMOCHLOROMETHANE (IS)	128	11.62	250	21269	250.00	NGS	1
6)	METHYLENE CHLORIDE	84	8.28	164	3446	25.86	NGS	1
7)	ACETONE	43	9.45	194	692306	4929.98	NGS	1
* 9)	~~CARBON DISULFIDE~~	~~76~~	~~9.99~~	~~208~~	~~22669~~	~~31.90~~	~~NGS~~ NO CW	1
10)	1,1-DICHLOROETHENE	61	11.23	240	65543	278.85	NGS	
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.45	323	60486	262.83	NGS	
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.17	522	101202	250.00	NGS	1
17)	2-BUTANONE	72	14.68	329	6840	177.51	NGS	1
24)	TRICHLOROETHENE	130	19.03	441	35352	223.51	NGS	
27)	BENZENE	78	19.61	456	127739	269.61	NGS	
28)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.65~~	~~457~~	~~2511~~	~~13.66~~	~~NGS~~ NO CW	1
31)	*CHLOROBENZENE-D5 (IS)	117	27.02	647	78344	250.00	NGS	1
33)	~~2-HEXANONE~~	~~43~~	~~24.69~~	~~587~~	~~2424~~	~~10.30~~	~~NGS~~ NO CW	1
36)	TOLUENE-D8 (SURR)	98	25.89	618	113408	267.57	NGS	
37)	TOLUENE	92	26.09	623	76383	243.30	NGS	
38)	CHLOROBENZENE	112	27.13	650	89400	242.02	NGS	
40)	~~4-BROMOFLUOROBENZENE(SURR)~~	~~95~~	~~30.63~~	~~730~~	~~3121~~	~~13.20~~	~~NGS~~ NO CW	1
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.56	764	54553	230.69	NGS	1

* Compound is ISTD

* Lab Contaminant from Charcoal tube desorption

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Sample Number
DC-H4-19MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727

Lab Sample ID No: 0100 MS QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoftowicz Date Sample Received: 1-8-87

Volatile Compounds

Concentration: ~~Low~~ Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-12-87

Conc./Dil Factor: 700 pH 8.1

Percent Moisture: (Not Decanted) 28

Concentration in ug/kg, as received

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	7000u
74-83-9	Bromomethane	7000u
75-01-4	Vinyl Chloride	7000u
75-00-3	Chloroethane	7000u
75-09-2	Methylene Chloride	11000B
67-64-1	Acetone	12000B
75-15-0	Carbon Disulfide	3500u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	3500u
156-60-5	Trans-1, 2-Dichloroethene	3500u
67-66-3	Chloroform	3500u
107-06-2	1, 2-Dichloroethane	3500u
78-93-3	2-Butanone	25000B
71-55-6	1, 1, 1-Trichloroethane	3500u
56-23-5	Carbon Tetrachloride	3500u
108-05-4	Vinyl Acetate	7000u
75-27-4	Bromodichloromethane	3500u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	3500u
10061-02-6	Trans-1, 3-Dichloropropene	3500u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	3500u
79-00-5	1, 1, 2-Trichloroethane	3500u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	3500u
110-75-8	2-Chloroethylvinylether	7000u
75-25-2	Bromoform	3500u
108-10-1	4-Methyl-2-Pentanone	7000u
591-78-6	2-Hexanone	7000u
127-18-4	Tetrachloroethene	3500u
79-34-5	1, 1, 2, 2-Tetrachloroethane	3500u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	10000
100-42-5	Styrene	3500u
	Total Xylenes	18000

Data Reporting Qualifiers

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

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

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

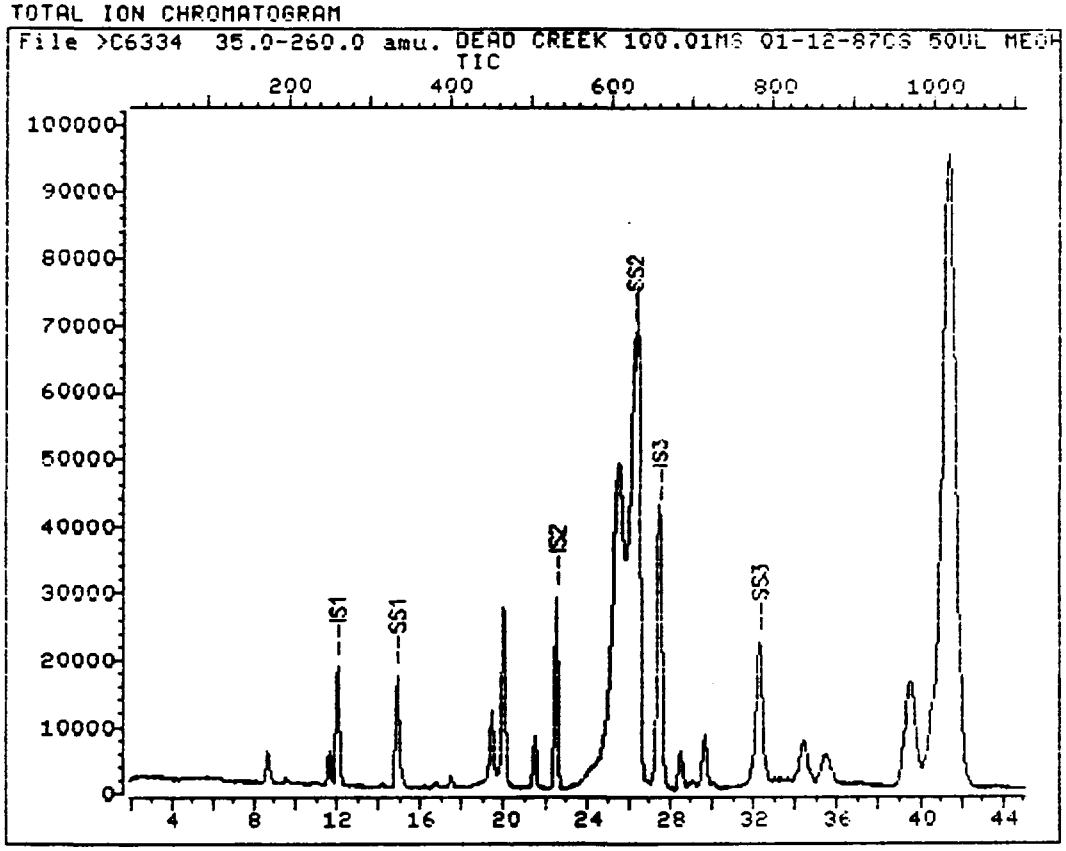
J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

TOTAL ION CHROMATOGRAM



Data File: >C6334::D1
Name: DEAD CREEK 100.01MS DC-H4-19MS
Misc: 01-12-87CS 50UL MEOH EXT (1.04G/10ML)5ML DI H20 + 10UL

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870112 13:11

Operator ID: USER8
Quant Time: 870112 18:40
Injected at: 870112 17:54

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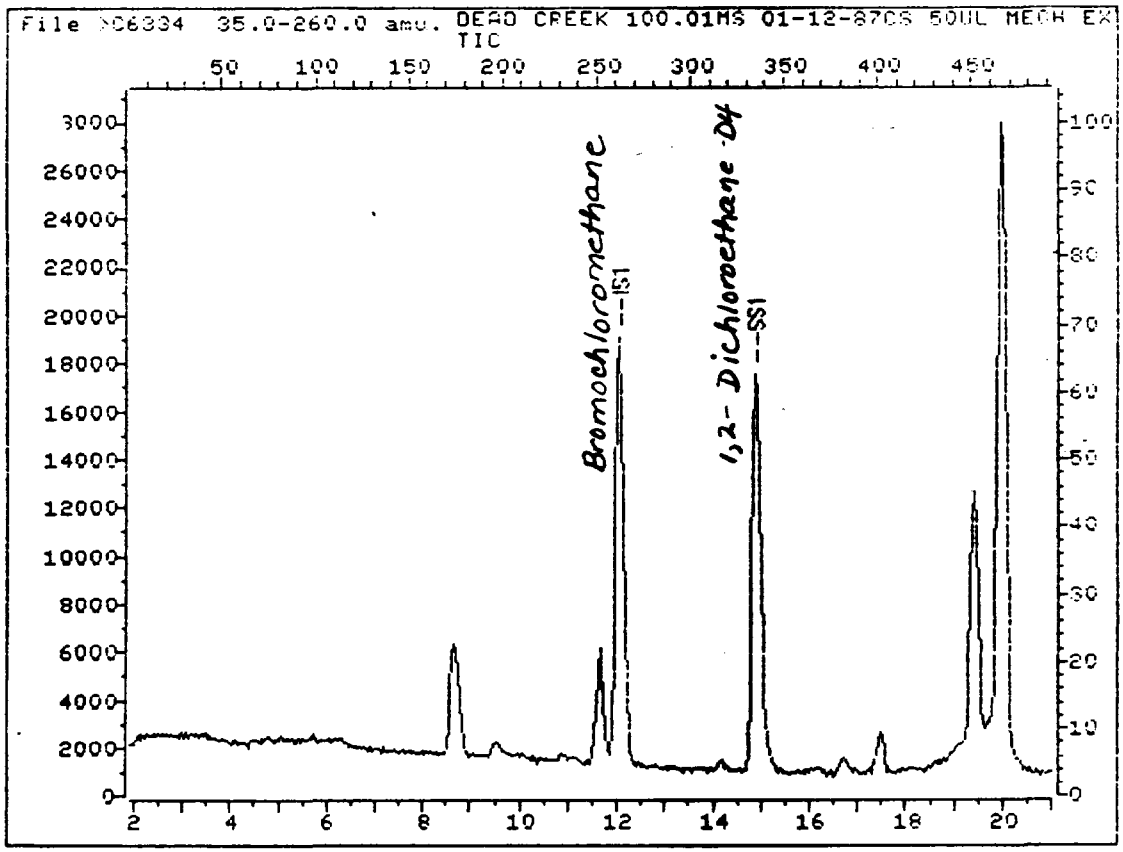
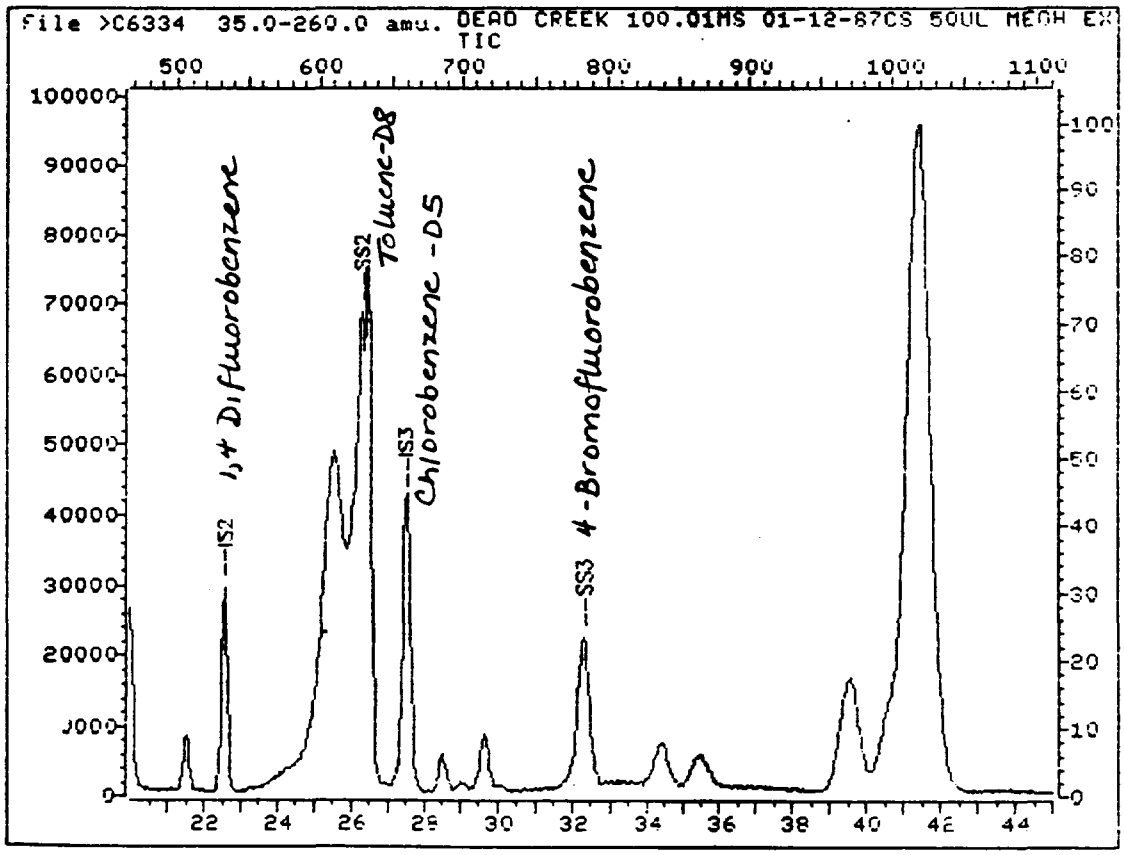
DC-H4-19MS





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870112 18:40
Output File: ^C6334::D2 Injected at: 870112 17:54
Data File: >C6334::D1 Dilution Factor: 1.00
Name: DEAD CREEK 100.01MS DC-H4-19-MS
Misc: 01-12-87CS 50UL MEOH EXT (1.04G/10ML)5ML DI H2O + 10UL

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870112 13:11

MS x2

	Compound		R.T.	Scan#	Area	Conc	Units
1)	*BROMOCHLOROMETHANE (IS)	128	12.05	262	27724	50.00	UG/L
6)	METHYLENE CHLORIDE	84	8.67	175	14650	11.59	UG/L
7)	ACETONE	43	9.57	198	8685	12.75	UG/L
10)	1,1-DICHLOROETHENE	61	11.66	252	18677	14.77	UG/L
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.88	335	75626	48.11	UG/L
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.57	533	120344	50.00	UG/L
17)	2-BUTANONE	72	15.04	339	4516	25.76	UG/L
24)	TRICHLOROETHENE	130	19.38	451	16896	14.54	UG/L
27)	BENZENE	78	19.97	466	114311	35.73	UG/L
~~28)~~	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.97~~	~~466~~	~~4172~~	~~3.05~~	~~UG/L~~ no cal
31)	*CHLOROBENZENE-D5 (IS)	117	27.47	659	99348	50.00	UG/L
~~32)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~23.26~~	~~551~~	~~2404~~	~~1.98~~	~~UG/L~~ no cal
36)	TOLUENE-D8 (SURR)	98	26.29	629	144565	48.61	UG/L
37)	TOLUENE	92	26.49	634	157361	73.93	UG/L
38)	CHLOROBENZENE	112	27.59	662	82675	30.07	UG/L
39)	ETHYLBENZENE	91	29.68	716	47978	10.63	UG/L
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.32	784	81358	50.01	UG/L
42)	TOTAL XYLENES	91	34.42	838	46483	9.82	UG/L
42)	TOTAL XYLENES	91	35.47	865	40704	8.60	UG/L
~~43)~~	~~1,3-DICHLOROBENZENE~~	~~146~~	~~39.46~~	~~968~~	~~68927~~	~~68927.00~~	~~NO CALIE~~
43)	1,3-DICHLOROBENZENE	146	41.29	1015	502261	502261.0	NO CALIE
44)	1,2-DICLHLOROBENZENE	146	39.46	968	68927	68927.00	NO CALIE
44)	1,2-DICLHLOROBENZENE	146	41.29	1015	502261	502261.0	NO CALIE
45)	1,4-DICHLOROBENZENE	146	39.46	968	68927	68927.00	NO CALIE
45)	1,4-DICHLOROBENZENE	146	41.29	1015	502261	502261.0	NO CALIE

* Compound is ISTD

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4727

Sample Number DC-HB-20-MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2. 4-Dinitrophenol	1700u
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	SPIKE
606-20-2	2. 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1700u
534-52-1	4. 6-Dinitro-2-Methylphenol	1700u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	SPIKE
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	810 B
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	SPIKE
85-68-7	Butylbenzylphthalate	330u
91-94-1	3. 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1 2. 3-cd)Pyrene	330u
53-70-3	Dibenz(a h)Anthracene	330u
191-24-2	Benzo(g h i)Perylene	330u

(1)-Cannot be separated from diphenylamine

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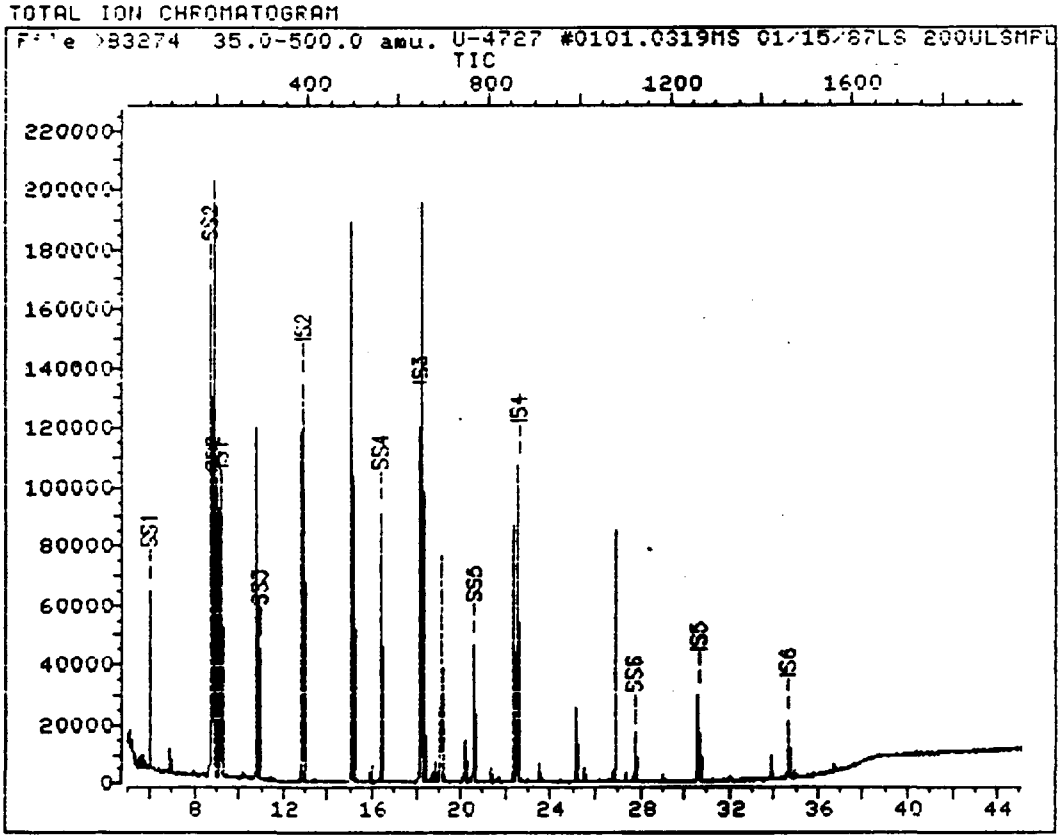
TOTAL ION CHROMATOGRAM



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Misc: 01/15/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)

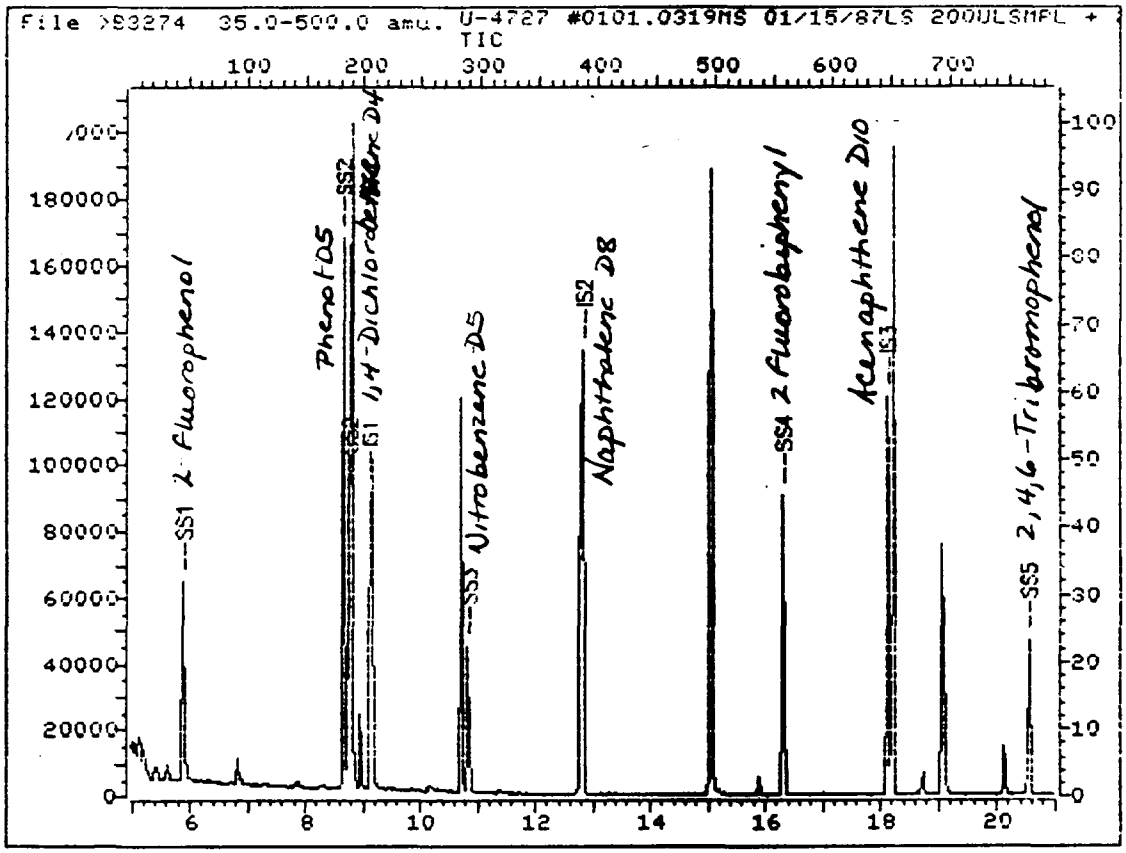
Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870115 15:26

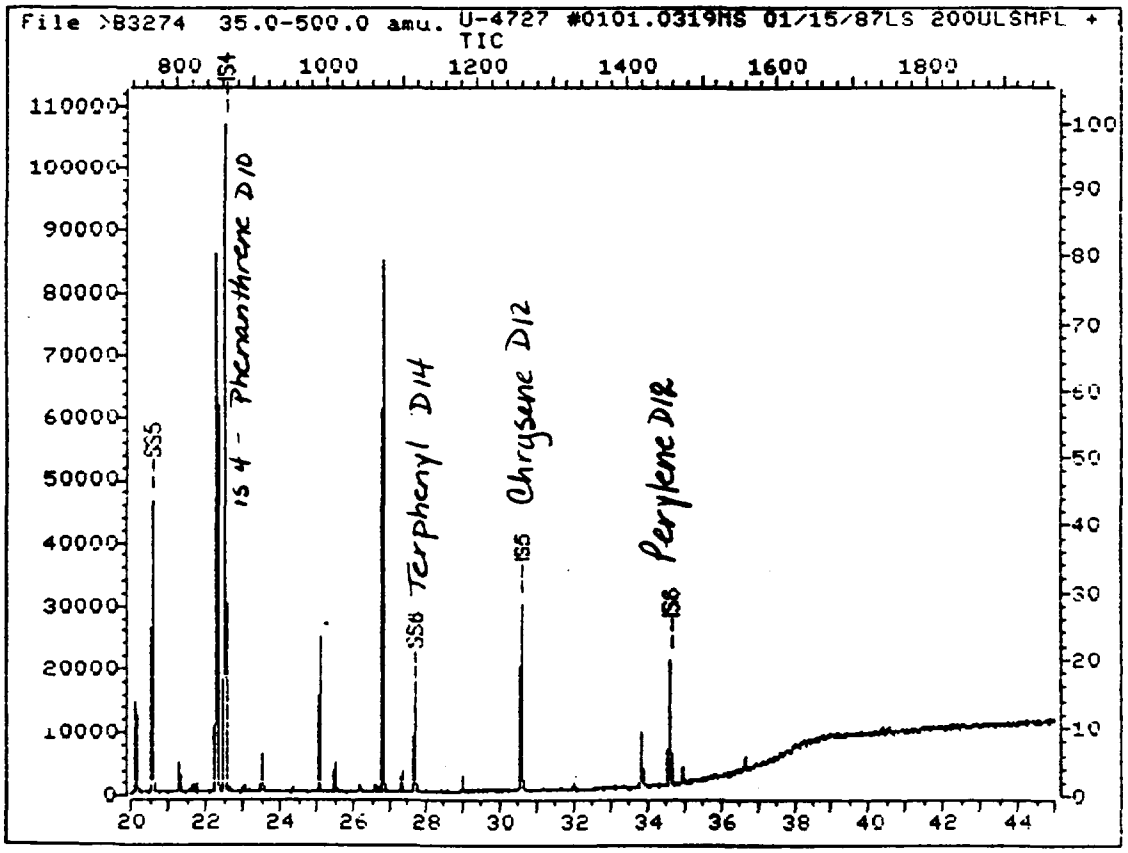
Operator ID: MANAGER
Quant Time: 870115 20:52
Injected at: 870115 20:05

recycled paper

ecology and environment

DC-HB-20-MS





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QUANT REPORT

ɔe .or ID: MANAGER Quant Rev: 4 Quant Time: 870115 20:52
ıtput File: ^B3274::D2 Injected at: 870115 20:05
ıta File: >B3274::D4 Dilution Factor: 2.00
ıme: U-4727 #0101.0319MS DC-HB-20MS
.sc: 01/15/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)

) File: BNABR::D2
.tle: BNA ID FILE FOR THE HP 5970 (B)
ıst Calibration: 870115 15:26

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	9.12	204	40636	40.00	UG/L	86
2)	PHENOL-D5 (SURR)	99	8.67	182	4392	6.50	UG/L	38
2)	PHENOL-D5 (SURR)	99	8.77	187	60795	89.96	UG/L	87
5)	2-FLUOROPHENOL (SURR)	112	5.90	46	39280	86.53	UG/L	78
6)	PHENOL	94	8.81	189	135678	204.05	UG/L	51
~~7)~~	~~ANILINE~~	~~93~~	~~8.67~~	~~182~~	~~1939~~	~~2.58~~	~~UG/L~~ No GM	40
~~)~~	~~1,3-DICHLOROBENZENE~~	~~146~~	~~9.16~~	~~206~~	~~54063~~	~~77.58~~	~~UG/L~~	99
)	1,4-DICHLOROBENZENE	146	9.16	206	54063	77.63	UG/L	96
~~)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~	~~45~~	~~10.72~~	~~283~~	~~401~~	~~.28~~	~~UG/L~~ No GM	100
)	2-CHLOROPHENOL	128	8.67	182	96746	170.90	UG/L	97
)	N-NITROSO-DI-N-PROPYLAMINE	70	10.72	283	49407	90.01	UG/L	94
~~)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.85~~	~~289~~	~~4507~~	~~8.21~~	~~UG/L~~ No GM	82
)	*NAPHTHALENE-D8 (IS)	136	12.84	387	148719	40.00	UG/L	100
)	NITROBENZENE-D5 (SURR)	82	10.85	289	28004	42.57	UG/L	95
)	1,2,4-TRICHLOROBENZENE	180	12.78	384	56341	91.22	UG/L	100
)	4-CHLORO-3-METHYLPHENOL	107	15.05	496	93547	185.50	UG/L	91
~~)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~15.05~~	~~496~~	~~75687~~	~~69.62~~	~~UG/L~~ No GM	18
~~)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~15.28~~	~~507~~	~~676~~	~~.62~~	~~UG/L~~	80
)	*ACENAPHTHENE-D10 (IS)	162	18.12	647	66471	40.00	UG/L	97
)	2-FLUOROBIPHENYL (SURR)	172	16.31	558	59496	46.85	UG/L	93
~~)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~18.14~~	~~648~~	~~19701~~	~~17.13~~	~~UG/L~~ No GM	100
)	ACENAPHTHENE	153	18.23	652	105166	97.44	UG/L	96
)	2,4,6-TRIBROMOPHENOL(SURR)	330	20.54	766	13670	88.59	UG/L	99
)	4-NITROPHENOL	139	19.10	695	21062	161.57	UG/L	100
)	2,4-DINITROTOLUENE	165	19.06	693	32180	144.56	UG/L	100
~~)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~18.12~~	~~647~~	~~8693~~	~~36.51~~	~~UG/L~~ No GM	100
)	*PHENANTHRENE-D10 (IS)	188	22.52	863	96840	40.00	UG/L	98
)	PENTACHLOROPHENOL	266	22.29	852	24284	155.89	UG/L	100
)	DI-N-BUTYLPHTHALATE	149	25.10	990	28358	24.34	UG/L	99
)	*CHRYSENE-D12 (IS)	240	30.59	1260	27803	40.00	UG/L	100
)	PYRENE	202	26.80	1074	80711	121.30	UG/L	88
)	TERPHENYL-D14 (SURR)	244	27.68	1117	18385	56.96	UG/L	100
)	*PERYLENE-D12 (IS)	264	34.61	1458	19598	40.00	UG/L	100

· Compound is ISTD

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4819

Sample Number DC-K3-32 MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 1-26-87

Date Analyzed 2-11-87

Conc/Dil Factor 2

Percent Moisture (Decanted) 34

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

REPORTED "AS RECEIVED" BASIS

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	SPIKE	
111-44-4	bis(-2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	SPIKE	
541-73-1	1 3-Dichlorobenzene	330	U
106-46-7	1 4-Dichlorobenzene	SPIKE	
100-51-6	Benzyl Alcohol	330	U
95-50-1	1 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE	
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	1600	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	SPIKE	
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	SPIKE	
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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
)-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	SPIKE	
51-28-5	2, 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	SPIKE	
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	SPIKE	
606-20-2	2, 6-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	1600	U
534-52-1	4, 6-Dinitro-2-Methylphenol	1600	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	SPIKE	
85-01-8	Phenanthrene •	280	J
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate •	1100	
206-44-0	Fluoranthene •	570	
129-00-0	Pyrene	SPIKE	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3, 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene •	250	J
117-81-7	bis(2-Ethylhexyl)Phthalate •	3000	
218-01-9	Chrysene •	260	J
117-84-0	Di-n-Octyl Phthalate •	170	J
205-99-2	Benzo(b)Fluoranthene •	330	
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene •	170	J
193-39-5	Indeno(1 2, 3-cd)Pyrene	330	U
53-70-3	Dibenza h)Anthracene	330	U
191-24-2	Benzo(g h i)Perylene	330	U

(1)-Cannot be separated from diphenylamine

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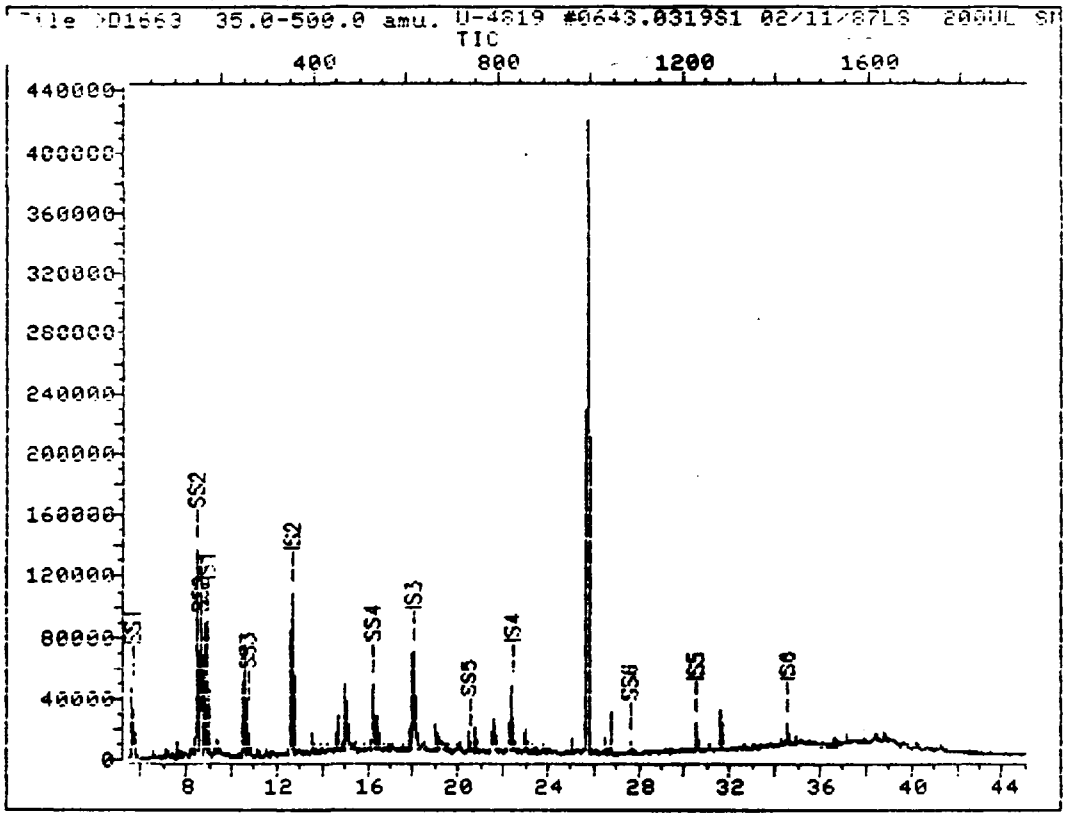
TOTAL ION CHROMATOGRAM



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Name: U-4819 #0643.0319S1 DC-K3-32 MS
Misc: 02/11/87LS 200UL SMPL+ 200UL MECL2 + 4UL IS BIL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

Operator ID: USER6
Quant Time: 870211 21:28
Injected at: 870211 20:40

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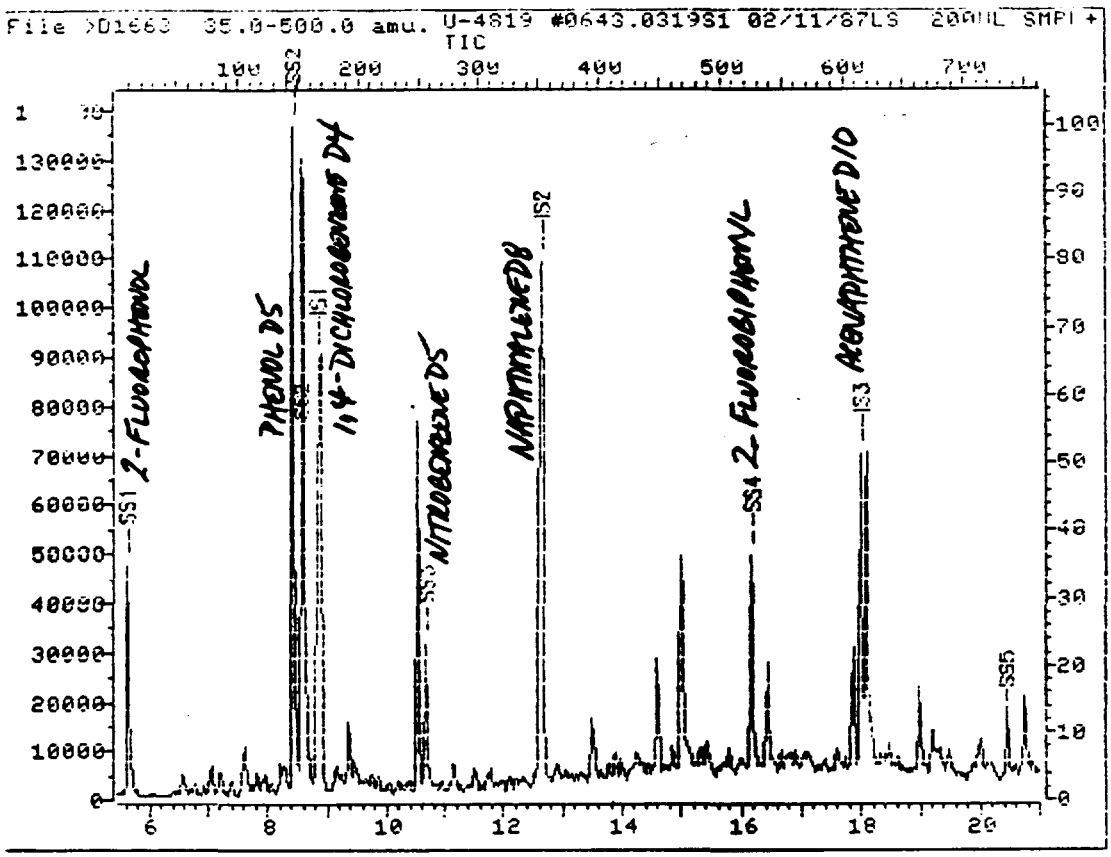
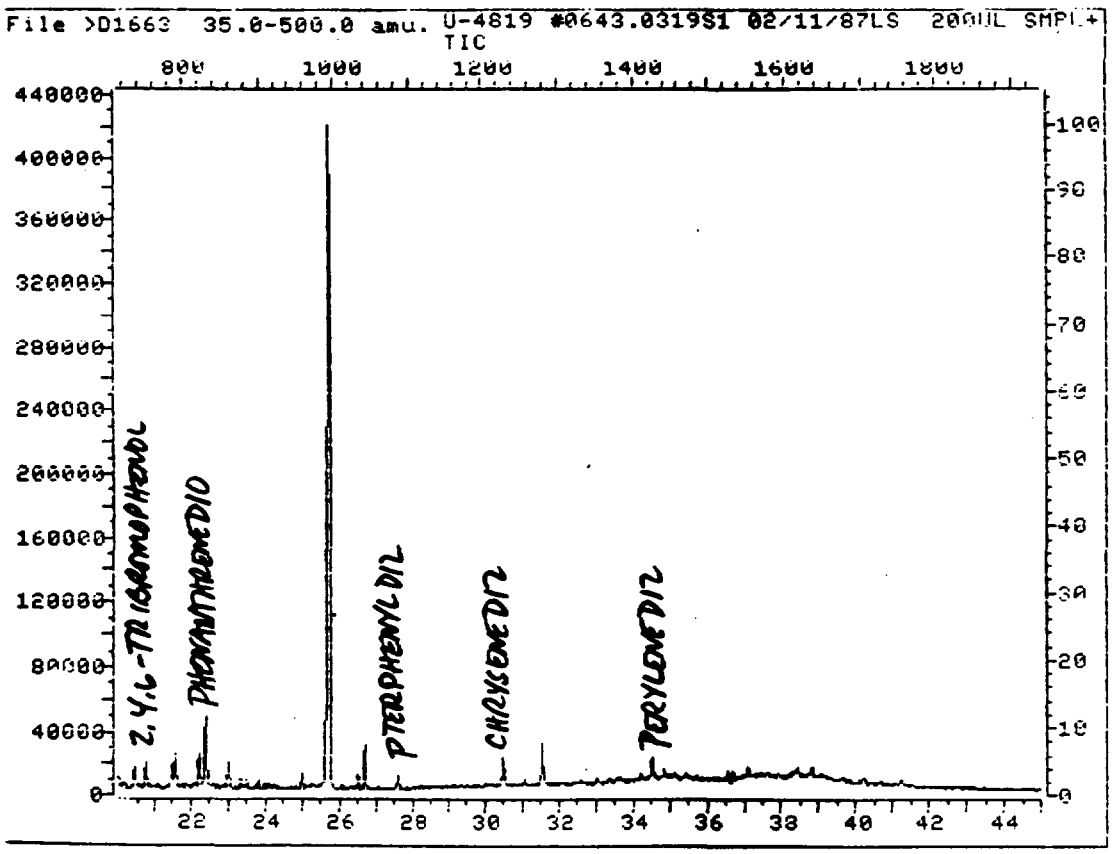
DC-K3-32 MS





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ecology and environment

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870211 21:28
Output File: ^D1663::Q2 Injected at: 870211 20:40
Data File: >D1663::D3 Dilution Factor: 2.00
Name: U-4819 #U643.0319S1 DC-K3-32MS
Misc: 02/11/87LS 200UL SMPL+ 200UL MECL2 + 40UL IS BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.85	167	38588	40.00 UG/L	88
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.43~~	~~146~~	~~4435~~	~~6.52 UG/L~~	~~42~~
2)	PHENOL-D5	(SURR)	99	8.57	153	43903	64.58 UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	5.61	8	35629	72.51 UG/L	89
6)	PHENOL		94	8.61	155	93870	144.77 UG/L	61
~~7)~~	~~ANILINE~~		~~93~~	~~8.43~~	~~146~~	~~1796~~	~~2.75 UG/L~~	9
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.89~~	~~169~~	~~50580~~	~~73.58 UG/L~~	98
10)	1,4-DICHLOROBENZENE		146	8.89	169	50580	70.72 UG/L	99
~~12)~~	~~1,2-DICHLOROBENZENE~~		~~146~~	~~8.89~~	~~169~~	~~50580~~	~~70.72 UG/L~~	98
15)	2-CHLOROPHENOL		128	8.43	146	88484	155.43 UG/L	96
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.53	249	42225	84.62 UG/L	92
~~18)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.67~~	~~256~~	~~4836~~	~~9.69 UG/L~~	91
19)	*NAPHTHALENE-D8	(IS)	136	12.65	353	114306	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.67	256	26359	49.49 UG/L	95
28)	1,2,4-TRICHLOROBENZENE		180	12.60	351	42140	81.64 UG/L	100
32)	4-CHLORO-3-METHYLPHENOL		107	14.99	468	33158	81.08 UG/L	98
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.99~~	~~468~~	~~23594~~	~~22.96 UG/L~~	20
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.13~~	~~475~~	~~2028~~	~~2.48 UG/L~~	75
34)	*ACENAPHTHENE-D10	(IS)	162	17.99	615	37975	40.00 UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.17	526	37490	54.27 UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.99~~	~~615~~	~~7438~~	~~13.11 UG/L~~	100
47)	ACENAPHTHENE		153	18.09	620	47507	88.72 UG/L	94
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.44	735	4523	53.70 UG/L	97
50)	4-NITROPHENOL		139	19.19	674	4856	71.77 UG/L	100
51)	2,4-DINITROTOLUENE		165	18.99	664	11421	117.16 UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.99~~	~~615~~	~~4848~~	~~41.15 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.40	831	33428	40.00 UG/L	97
60)	PENTACHLOROPHENOL		266	22.21	822	8217	133.77 UG/L	100
61)	PHENANTHRENE		178	22.46	834	3585	8.33 UG/L	92
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.46~~	~~834~~	~~3585~~	~~8.58 UG/L~~	92
63)	DI-N-BUTYLPHTHALATE		149	25.01	959	13347	32.47 UG/L	97
64)	FLUORANTHENE		202	26.09	1012	5087	16.98 UG/L	89
~~65)~~	~~*CHRYSENE-D12~~	~~(IS)~~	~~240~~	~~30.49~~	~~1228~~	~~20636~~	~~40.00 UG/L~~	~~100~~
67)	PYRENE		202	26.70	1042	33223	72.65 UG/L	94
68)	TERPHENYL-D14	(SURR)	244	27.58	1085	8884	38.47 UG/L	100
71)	BENZO(A)ANTHRACENE		228	30.58	1232	2062	7.40 UG/L	91
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.56	1280	19376	89.62 UG/L	91
73)	CHRYSENE		228	30.58	1232	2062	7.94 UG/L	92
74	*PERYLENE-D12	(IS)	264	34.53	1426	17647	40.00 UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	33.37	1369	1787	5.08 UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.57	1379	3022	9.93 UG/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.57~~	~~1379~~	~~3022~~	~~11.94 UG/L~~	100
78)	BENZO(A)PYRENE		252	34.37	1418	1227	5.08 UG/L	100

* Compound failed QC

Laboratory Name ecology and environment, inc.

Case No U-4727

Sample Number DC-HB-20 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed 1-15-87

Conc/Dil Factor 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8µ
319-85-7	Beta-BHC	8µ
319-86-8	Delta-BHC	8µ
58-89-9	Gamma-BHC (Lindane)	24.2 S
76-44-8	Heptachlor	30.4 S
309-00-2	Aldrin	20.3 S
1024-57-3	Heptachlor Epoxide	8µ
959-98-8	Endosulfan I	8µ
60-57-1	Dieldrin	63.2 S
72-55-9	4,4'-DDE	16µ
72-20-8	Endrin	53.0 S
33213-65-9	Endosulfan II	16µ
72-54-8	4,4'-DDD	16µ
1031-07-8	Endosulfan Sulfate	16µ
50-29-3	4,4'-DDT	125µ
72-43-5	Methoxychlor	80µ
53494-70-5	Endrin Ketone	16µ
57-74-9	Chlordane	16µ
8001-35-2	Toxaphene	160µ
12674-11-2	Aroclor-1016	80µ
11104-28-2	Aroclor-1221	80µ
11141-16-5	Aroclor-1232	80µ
53469-21-9	Aroclor-1242	80µ
12672-29-6	Aroclor-1248	80µ
11097-69-1	Aroclor-1254	160µ
11096-82-5	Aroclor-1260	610

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

S = spiked compounds

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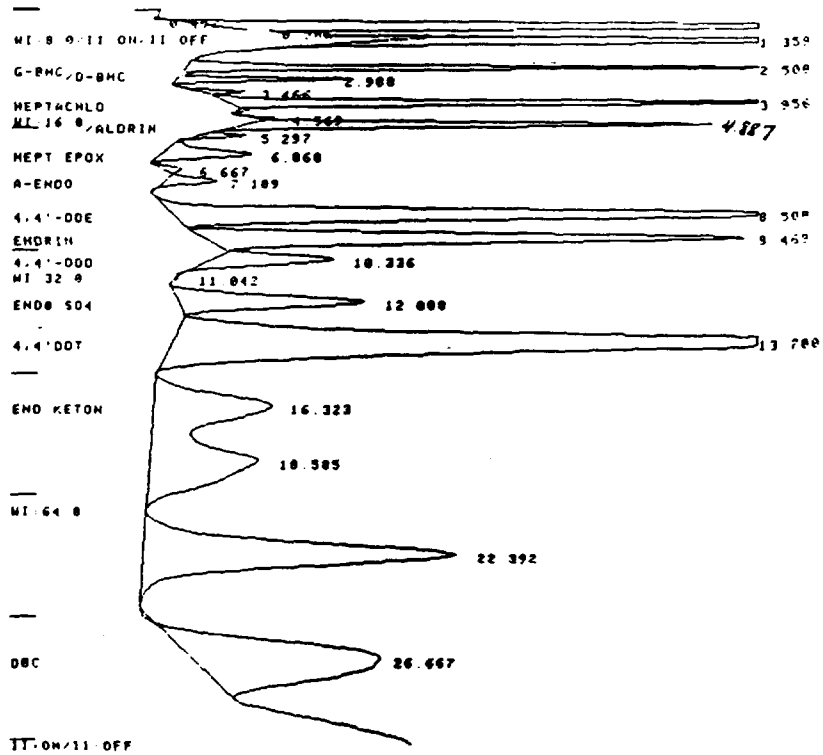
7 85
491095

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



PCB1260 = 618 x 0.00148 x 1/1.176 x 1000 = 780 ug/Kg Dry

RECALCULATE ON FILE: RSTY712

CHANNEL: 1A - 1 TITLE: RUN# 16 18:34 15 JAN.87

DC-HB20MS

SAMPLE: 0101.S1 MS METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG Dry	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.359		15059579	BB	? 5.63
2	G-BHC	30.9943	2.508	-0.012	839982	BV	6.63
3		0.0000	2.988		194993	VV	8.06
4		0.0000	3.466		47367	BB	? 10.25
5	HEPTACHLO	38.9661	3.956	-0.014	1020010	BB	10.38
6	ALDRIN	25.9693	4.877	-0.013	726771	BB	13.25
7		0.0000	5.297		53998	BB	? 12.63
8	~~HEPT EPOX~~	9.2828	6.060	0.140	243388	BB	18.81
9		0.0000	6.667		25943	BB	? 16.25
10	~~A-ENDO~~	4.6645	7.109	-0.211	115665	BB	21.75
11	DIELDRIN	81.0090	8.508	-0.002	2160399	BB	23.50
12	ENDRIN	68.0181	9.469	-0.011	1592778	BB	25.50
13	~~4,4'-DDD~~	18.3454	10.336	-0.184	396595	BB	35.25
14	~~ENDO SO4~~	40.4638	12.088	-0.252	758258	BB	36.21
15	4,4'DDT INF	237.7362	13.700	-0.020	~~4521433~~	VV	41.69
16	~~END KETON~~	43.7004	16.323	0.533	1116185	VV	76.13
17		0.0000	18.585		1327107	VB	?101.44
18		0.0000	22.392		2567904	BV	61.50
19	~~DBC~~	110.3904	26.667	-0.713	2237518	VB	121.63

PCB 1260

2A=618

TOTALS: 709.5403 -0.759 35005884

DETECTED PKS: 28 REJECTED PKS: 9

DIVISOR: 1.17600 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: -10

NOTES:
NOTEBOOK:259-76 ANALYST:R. SAMSON
SECURE AREA:D JOB#U=4727,4738
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 5' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

416

Laboratory Name ecology and environment, inc.

Case No U-4819

Sample Number DC-K3-32 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 1/26/87

Date Analyzed 2/12/87

Conc/Dil Factor 25

Percent Moisture (decanted) 34

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	200 u	
319-85-7	Beta-BHC	200 u	
319-86-8	Delta-BHC	200 u	
58-89-9	Gamma-BHC (Lindane)	200 u	S
76-44-8	Heptachlor	200 u	S
309-00-2	Aldrin	200 u	S
1024-57-3	Heptachlor Epoxide	200 u	
959-98-8	Endosulfan I	200 u	
60-57-1	Dieldrin	400 u	S
72-55-9	4, 4'-DDE	400 u	
72-20-8	Endrin	400 u	S
33213-65-9	Endosulfan II	400 u	
72-54-8	4, 4'-DDD	400 u	
1031-07-8	Endosulfan Sulfate	400 u	
50-29-3	4, 4'-DDT	400 u	S
72-43-5	Methoxychlor	2000 u	
53494-70-5	Endrin Ketone	400 u	
57-74-9	Chlordane	2000 u	
8001-35-2	Toxaphene	4000 u	
12674-11-2	Aroclor-1016	2000 u	
11104-28-2	Aroclor-1221	2000 u	
11141-16-5	Aroclor-1232	2000 u	
53469-21-9	Aroclor-1242	10,000	
12672-29-6	Aroclor-1248	2000 u	
11097-69-1	Aroclor-1254	4000 u	
11096-82-5	Aroclor-1260	4000 u	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

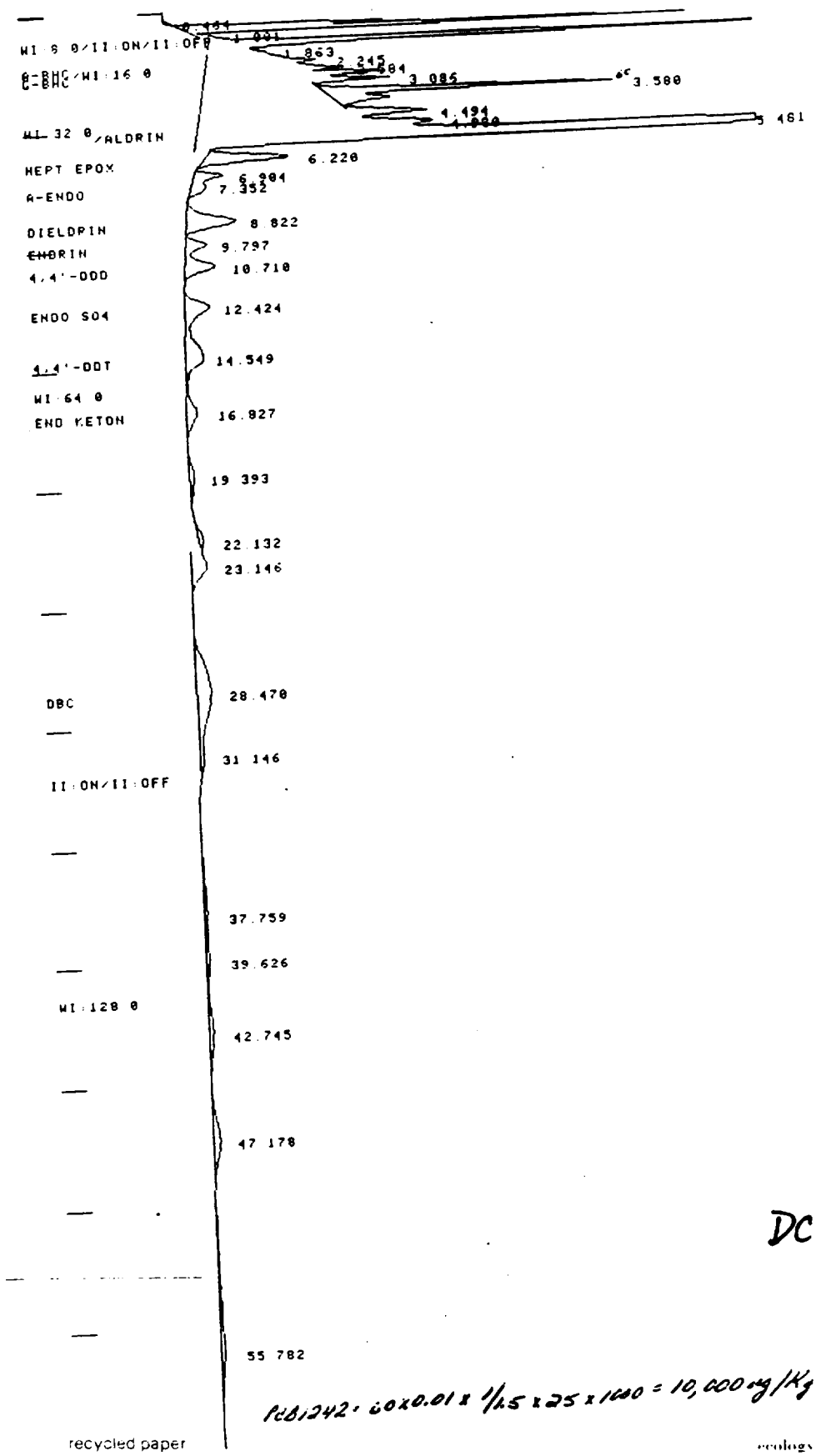
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4 ~~0.17~~

S = Spiked Compound

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-K3-32 MS

418

PCB1242 = 60x0.01 x 1/1.5 x 25 x 1000 = 10,000 ug/Kg WET

55 782

PCB/242: 60x0.01 x 1/1.5 x 25 x 1000 = 10,000 ug/Kg WET

DC-K3-32 MS

0:17 12 FEB 87

CHANNEL: 1A - 1 TITLE: RUN# 16

CALCULATION: ES - ANALYS

SAMPLE: 0643 MS METHOD: CEPA

PEAK NO	PEAK NAME	RESULT UG/Kg WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.399		1089766	VV	4.94
2	~~A-BHC~~	176.7772	2.245	0.015	275612	VV	? 18.94
3	~~G-BHC~~	202.9257	2.584	-0.006	287653	VV	? 27.69
4		0.0000	2.821		304193	VV	? 14.13
5		0.0000	3.086		321501	VV	? 15.63
6		0.0000	*3.580		829163	~~VV~~	12.75
7	~~HEPTACHLO~~	417.5093	3.912	-0.188	532134	VV	? 30.31
8		0.0000	4.494		730454	VV	? 32.81
9	~~ALDRIN~~	422.7962	4.980	-0.070	614564	VV	? 29.25
10		0.0000	5.481		4846901	VV	11.94
11	~~HEPT EPOX~~	158.3291	6.220	0.110	217222	T	19.19
12		0.0000	6.904		67209	T	16.19
13	~~A-ENDO~~	38.9259	7.352	-0.218	50743	T	? 26.75
14	~~DIELDRIN~~	150.5612	8.822	0.002	209522	T	31.50
15	~~ENDRIN~~	63.2332	9.797	-0.033	62912	T	23.63
16	~~4,4'-DDE~~	107.7167	10.710	-0.200	118261	T	28.31
17	~~ENDO SO4~~	160.0836	12.424	-0.376	132483	T	39.38
18	~~4,4'-DDT~~	180.4986	14.549	0.339	159652	T	? 57.75
19	~~END KETON~~	61.4684	16.804	0.434	80057	T	49.81
20		0.0000	19.393		43532	T	94.63
21		0.0000	22.132		20829	T	? 78.44
22		0.0000	23.146		116346	VB	? 71.56
23	~~DDD~~	258.7523	28.470	0.060	279083	BV	?184.00
24		0.0000	31.146		28019	VB	? 91.38
25		0.0000	37.759		60136	BV	?138.69
26		0.0000	39.626		48518	VV	?128.56
27		0.0000	42.745		74873	VV	113.31
28		0.0000	47.178		107522	VB	108.39
29		0.0000	55.782		99545	BB	170.65
TOTALS:		2399.577		-0.131	11808405		

DETECTED PKS: 37 REJECTED PKS: 8

DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 11.4 OFFSET: -14

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW SCA079

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MATRIX SPIKE DUPLICATE DATA

1. FORM I OF NON-SPIKED COMPOUNDS
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTING (GC)

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Sample Number: DC-G1-27-MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4767

Lab Sample ID No: 0396 MSD QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Slogtowicz Date Sample Received: 1-15-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-17-87

Conc./Dil Factor: 2 pH 7.5

Percent Moisture: (Not Decanted) 25

Concentration "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	10B
67-64-1	Acetone	120B
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	35B
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	13
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

Form I 11/85

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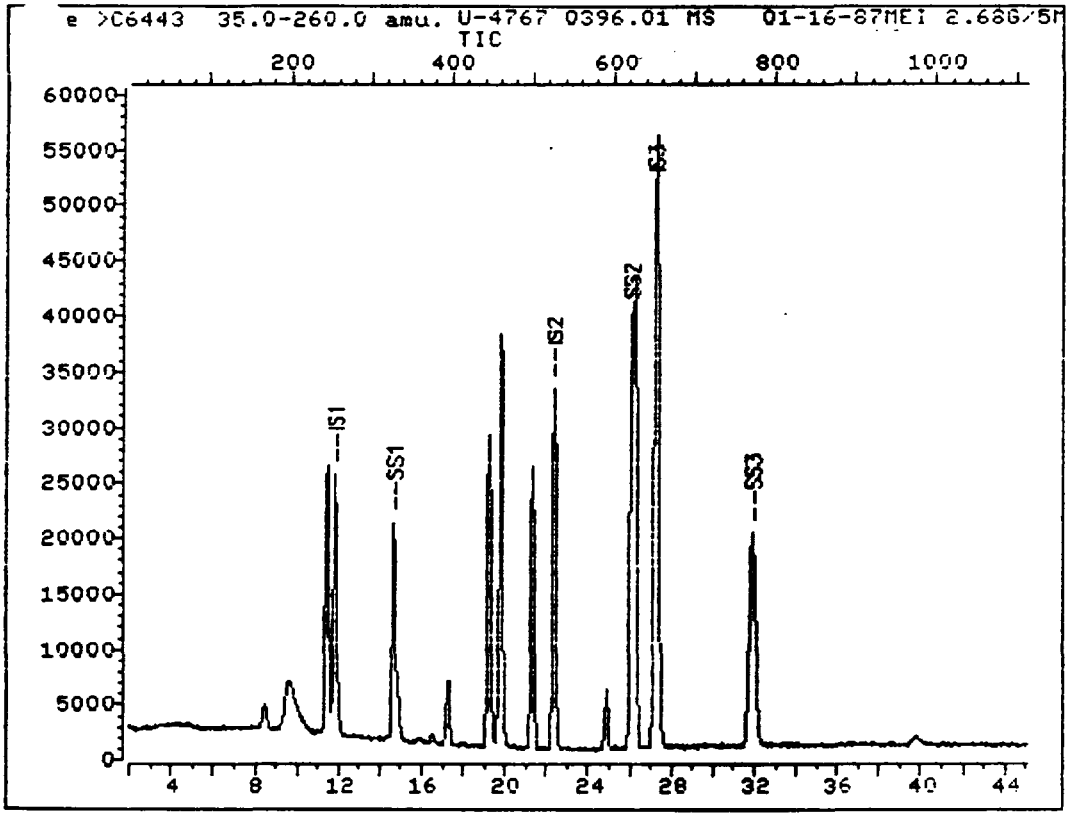
TOTAL ION CHROMATOGRAM



Data File: >C6443::D1
Name: U-4767 0396.01 MS DC- G1-27 MSD
Misc: 01-16-87MEI 2.68G/5MLS DI + 10UL IS/SS/MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870116 20:48

Operator ID: MANAGER
Quant Time: 870117 02:56
Injected at: 870117 02:11

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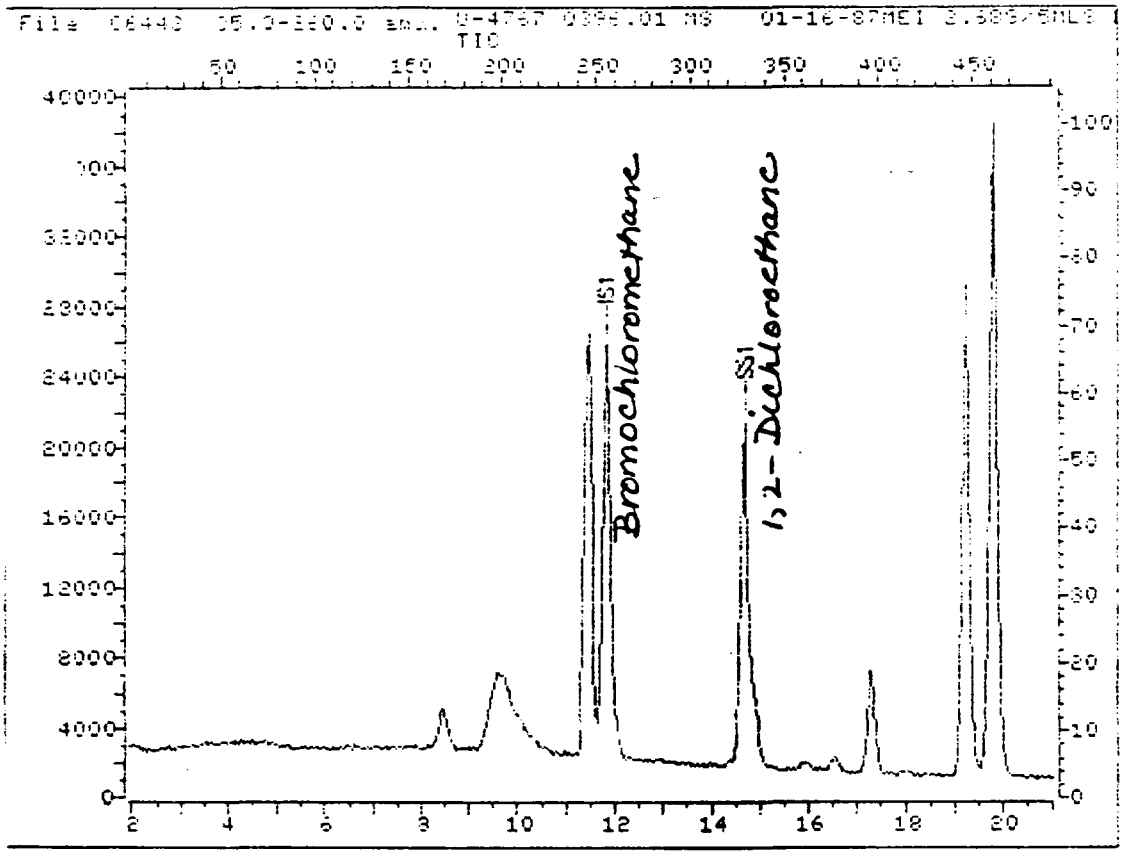
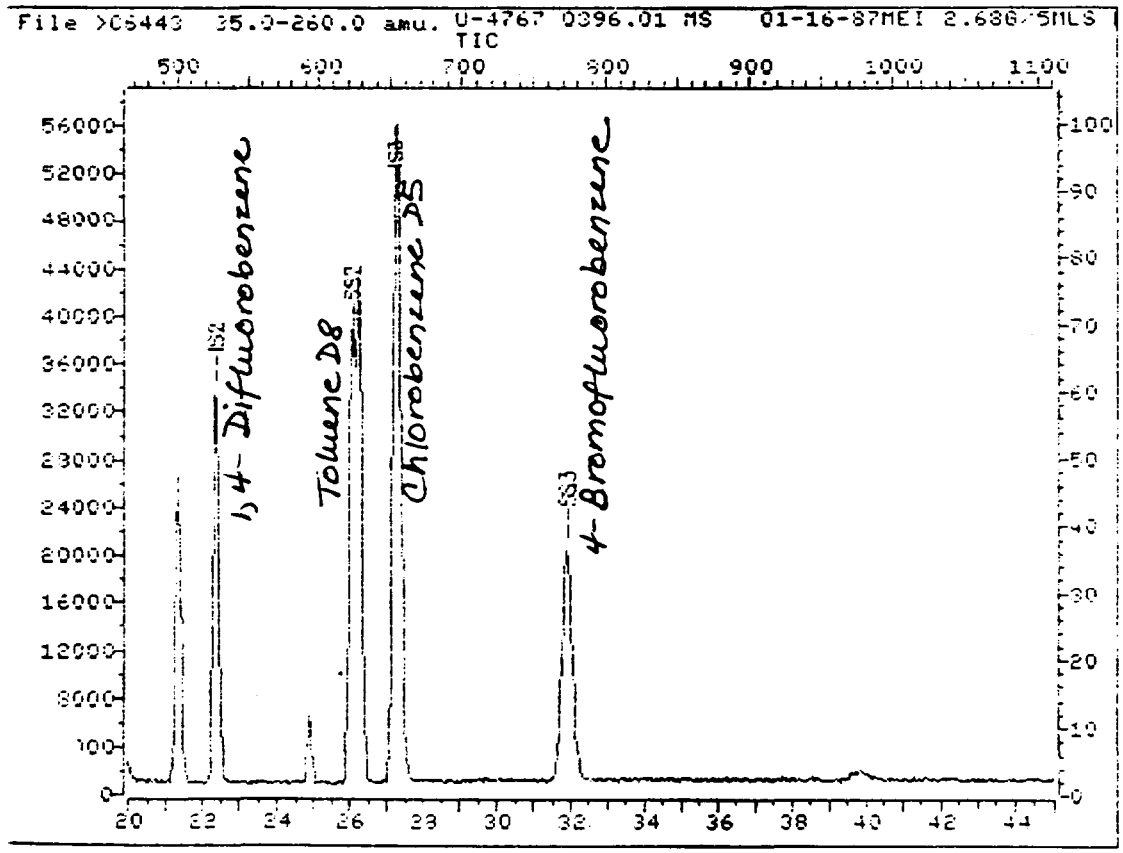
DC-G1-27-MSD





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ecology and environment

QUANT REPORT

ɔt ,tor ID: MANAGER Quant Rev: 4 Quant Time: 870117 02:56
ɹtput File: ^C6443::D2 Injected at: 870117 02:11
ata File: >C6443::D1 Dilution Factor: 1.00
ame: U-4767 0396.01 MS ~~DG-G1~~ DC-G1-27MSD
isc: 01-16-87MEI 2.68G/5MLS DI + 10UL IS/SS/MS

) File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
est Calibration: 870116 20:48

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.80	255	33854	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.47	169	6476	27.64	NGS	100
7)	ACETONE	43	9.59	198	51588	328.19	NGS	100
10)	1,1-DICHLOROETHENE	61	11.45	246	98877	352.33	NGS	95
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.67	329	83119	246.77	NGS	82
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.36	527	132374	250.00	NGS	100
7)	2-BUTANONE	72	14.87	334	5606	94.56	NGS	100
4)	TRICHLOROETHENE	130	19.21	446	46929	197.57	NGS	85
7)	BENZENE	78	19.80	461	158240	243.12	NGS	100
3)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.80~~	~~461~~	~~3206~~	~~12.09~~	~~NGS~~ NDM	100
1)	*CHLOROBENZENE-D5 (IS)	117	27.22	652	101844	250.00	NGS	100
4)	TETRACHLOROETHENE	164	24.88	592	6953	35.70	NGS	92
6)	TOLUENE-D8 (SURR)	98	26.04	622	138012	249.01	NGS	93
7)	TOLUENE	92	26.24	627	93316	230.93	NGS	94
3)	CHLOROBENZENE	112	27.33	655	118489	234.15	NGS	99
0)	4-BROMOFLUOROBENZENE(SURR)	95	31.91	773	68806	218.58	NGS	100
3)	1,3-DICHLOROBENZENE	146	39.75	975	3308	3308.00	NO CALIB	100
4)	1,2-DICHLOROBENZENE		39.75	975	3308	3308.00	NO CALIB	100
5)	1,4-DICHLOROBENZENE	146	39.75	975	3308	3308.00	NO CALIB	100

* Compound is ISTD

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Sample Number
DC-H3-18 MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727
Lab Sample ID No: 0099 MSD QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 1-8-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 1-16-87
Conc/Dil Factor: 2 pH 3.7
Percent Moisture: (Not Decanted) 24

Concentrations reported as received

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	33 B
67-64-1	Acetone	670 BE
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10u
67-66-3	Chloroform	47
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	34 J
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	320
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	10u
100-42-5	Styrene	10u
	Total Xylenes	10u

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

425

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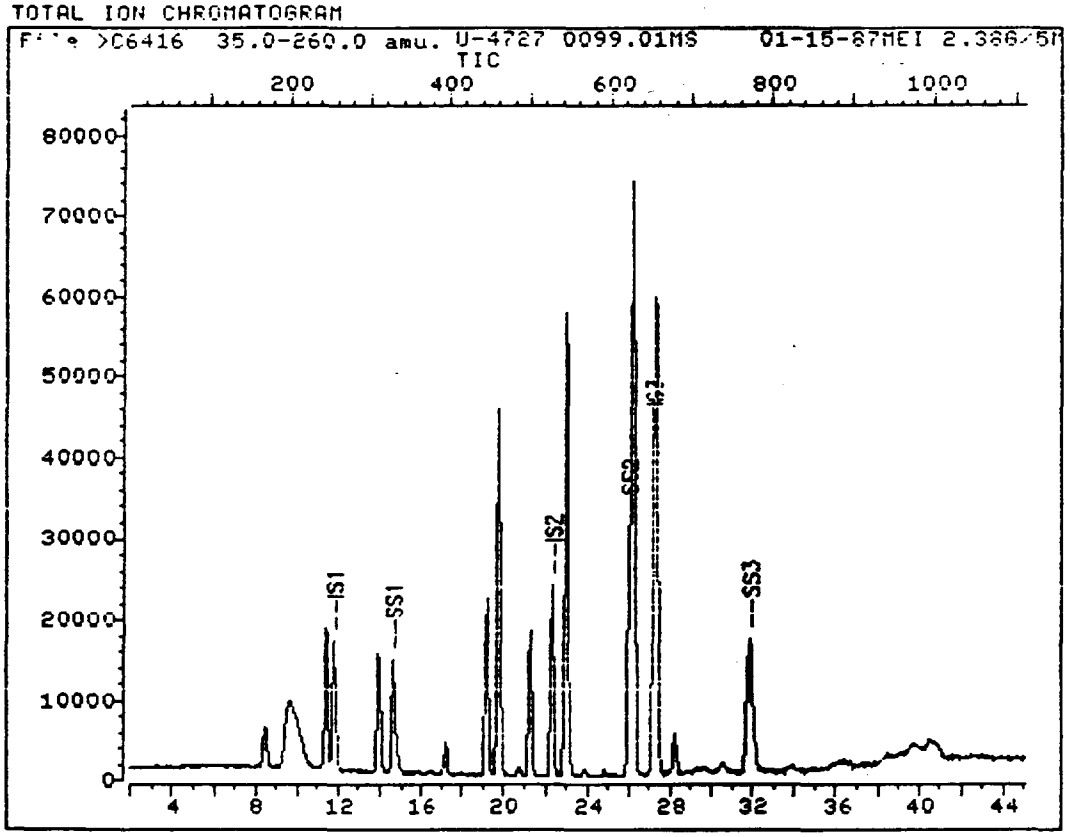
TOTAL ION CHROMATOGRAM



Data File: >C6416::D3
Name: U-4727 0099.01MSD DC-H3-18MSD
Misc: 01-15-87MEI 2.38G/5MLS DI + 10UL IS/SS/MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870115 19:30

Operator ID: MANAGER
Quant Time: 870116 01:57
Injected at: 870116 01:11

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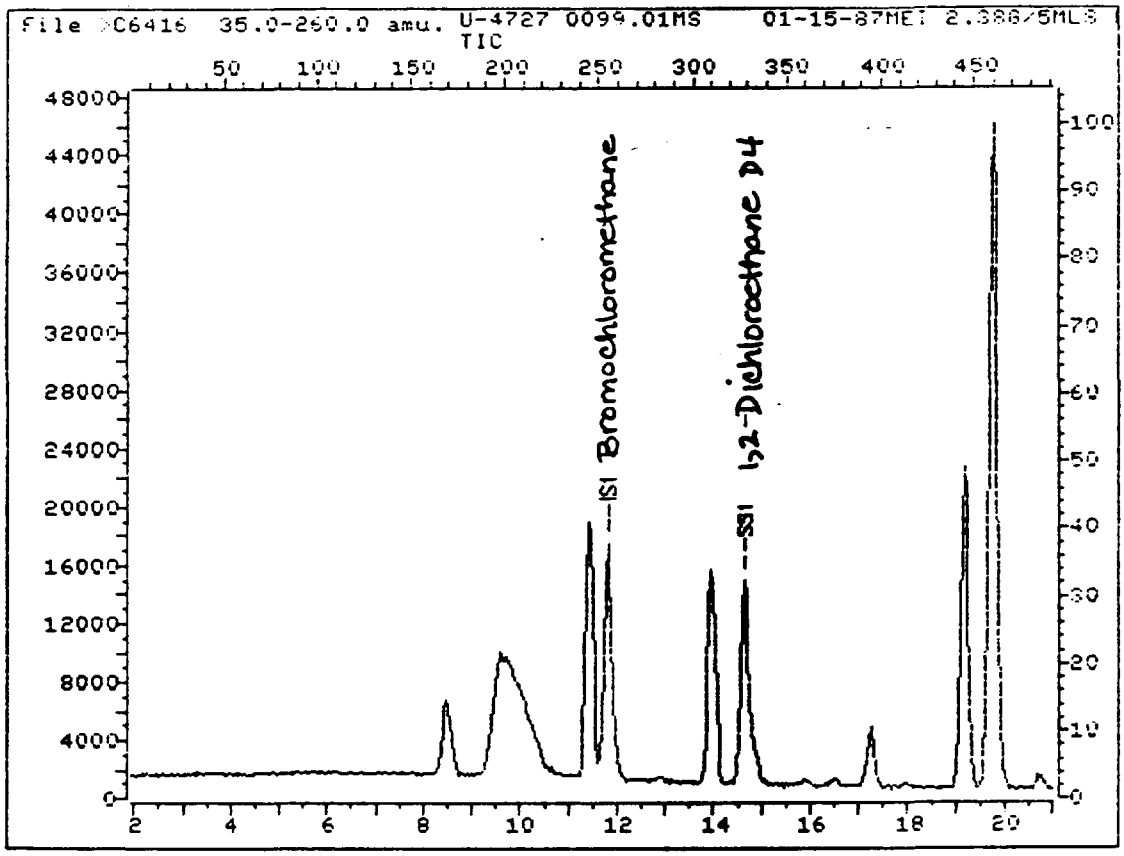
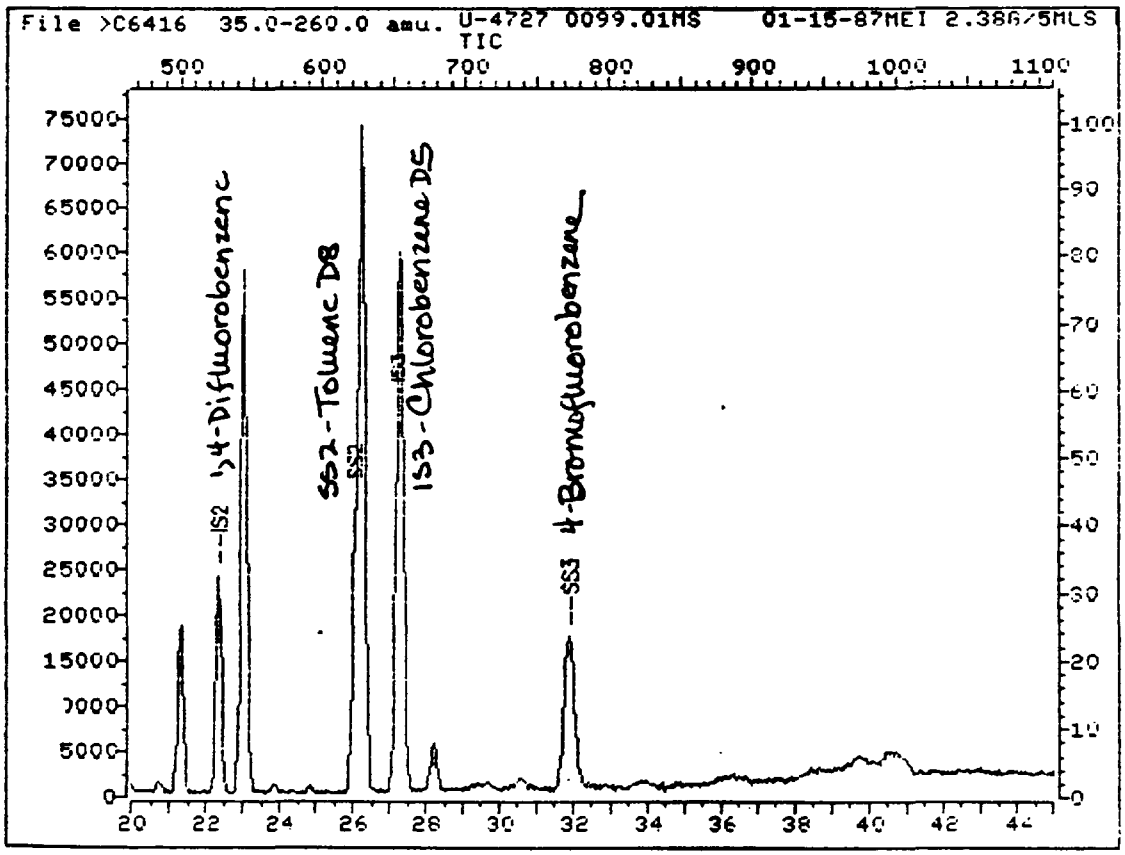
DC-H3-18MSD





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ecology and environment

QUANT REPORT

ɔe :or ID: MANAGER Quant Rev: 4 Quant Time: 870116 01:57
ɹtput File: ^C6416::Q1 Injected at: 870116 01:11
ɜta File: >C6416::D3 Dilution Factor: 1.00
ɜme: U-4727 0099.01MSD IC-H3-18MSD
ɪsc: 01-15-87MEI 2.38G/5MLS DI + 10UL IS/SS/MS

) File: VOACRS::D2
ɪtle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ɜst Calibration: 870115 19:30

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.81	255	22905	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.47	169	14322	78.23	NGS	100
7)	ACETONE		43	9.60	198	257462	1593.14	NGS	100
10)	1,1-DICHLOROETHENE		61	11.42	245	70401	357.36	NGS	96
13)	CHLOROFORM		83	13.98	311	36250	113.12	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.64	328	61417	260.78	NGS	82
5)	*1,4-DIFLUOROBENZENE	(IS)	114	22.36	527	96449	250.00	NGS	100
2)	2-BUTANONE		72	14.83	333	3527	81.95	NGS	100
4)	TRICHLOROETHENE		130	19.18	445	36213	227.70	NGS	79
2)	BENZENE		78	19.76	460	196139	425.50	NGS	100
3)	~~CIS-1,3-DICHLOROPROPENE~~		~~75~~	~~19.76~~	~~460~~	~~3908~~	~~22.08~~	~~NGS~~ no cal	100
.)	*CHLOROBENZENE-D5	(IS)	117	27.21	652	77575	250.00	NGS	100
2)	4-METHYL-2-PENTANONE		43	23.02	544	237348	773.18	NGS	92
5)	TOLUENE-D8	(SURR)	98	26.05	622	104179	229.61	NGS	96
2)	TOLUENE		92	26.24	627	172921	542.38	NGS	95
3)	CHLOROBENZENE		112	27.34	655	150150	370.72	NGS	99
1)	4-BROMOFLUOROBENZENE	(SURR)	95	31.92	773	57634	235.76	NGS	100
5)	~~1,3-DICHLOROBENZENE~~		146	39.79	976	6437	6437.00	NO CALIB	100
4)	1,2-DICHLOROBENZENE			~~39.79~~	~~976~~	6437	6437.00	NO CALIB	100
5)	1,4-DICHLOROBENZENE		146	39.79	976	6437	~~6437.00~~	~~NO CALIB~~	100

CW

· Compound is ISTD

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DC-K3-32MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc

Case No: U-4819

Sample ID No: 643 MSD

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Stojtowicz

Date Sample Received: 1-24-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-2-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

Reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	7 B
67-64-1	Acetone	1100 EB
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	53 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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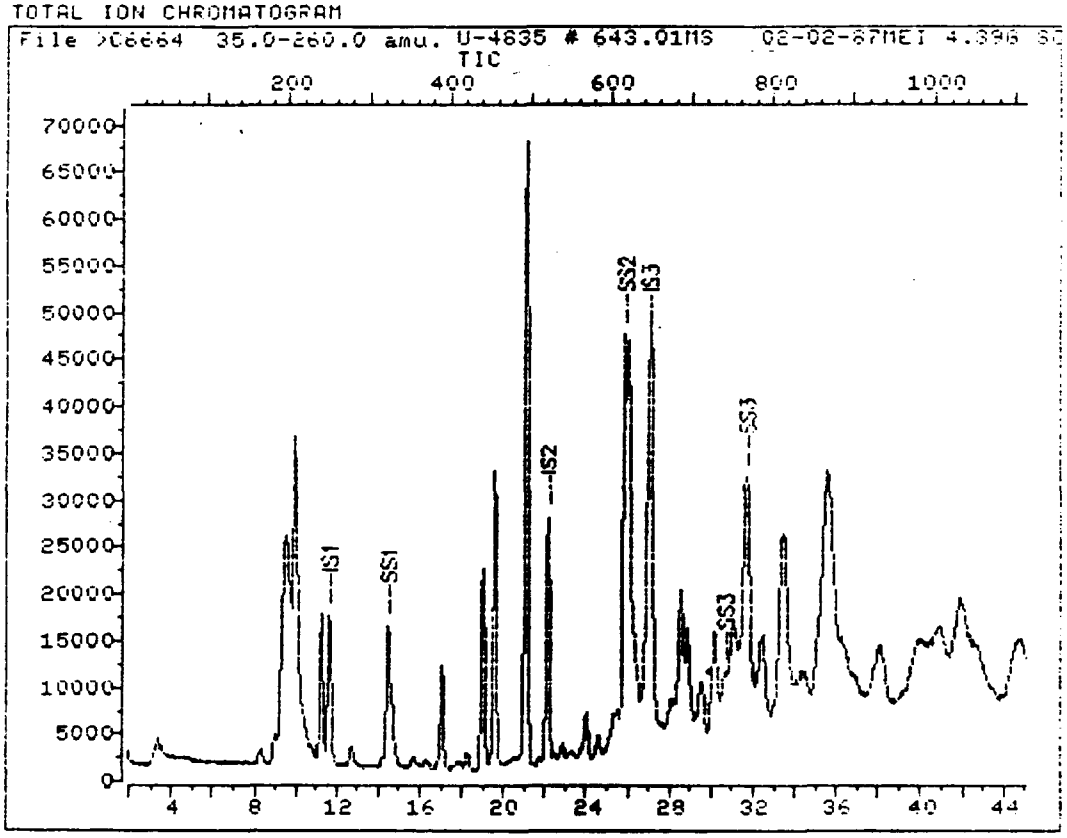
TOTAL ION CHROMATOGRAM



Data File: >C6664::D1
Name: U-4835 # 643.01MSD DC-K3-32MSD
Misc: 02-02-87MEI 4.39G SOIL IN 5ML DI + 10UL IS/SS MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

Operator ID: USER8
Quant Time: 870202 20:07
Injected at: 870202 19:21

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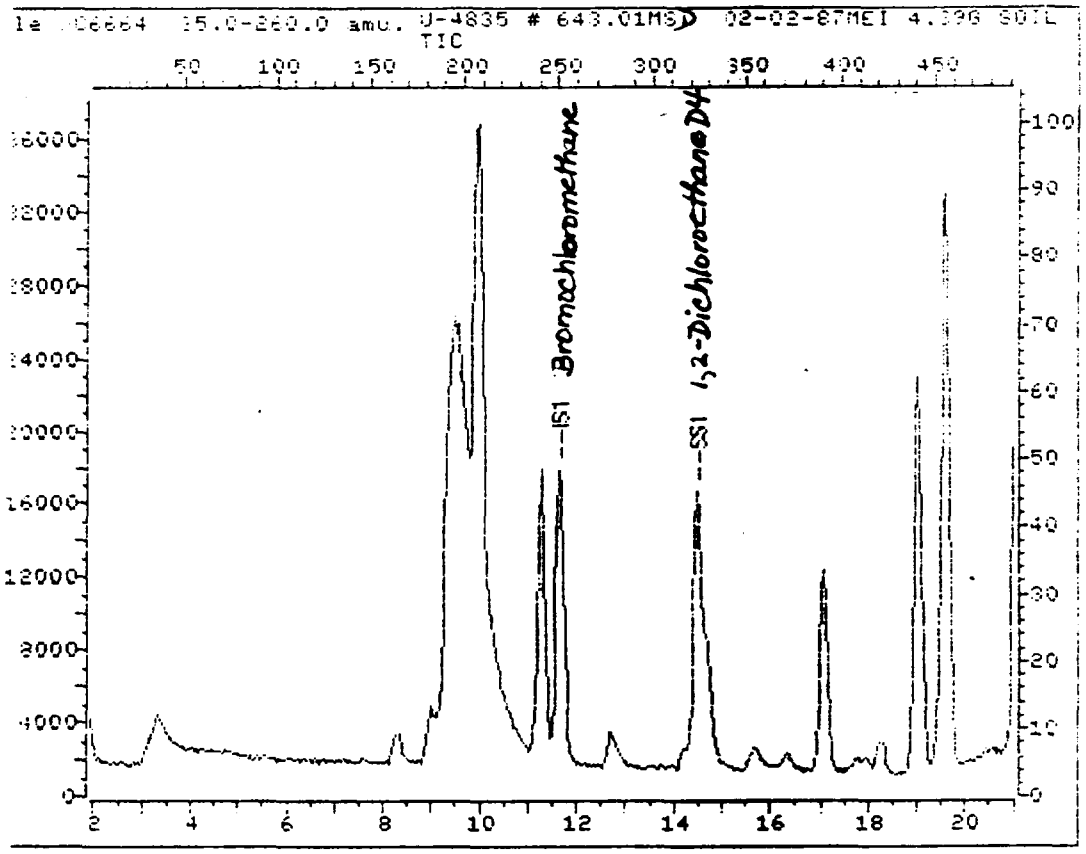
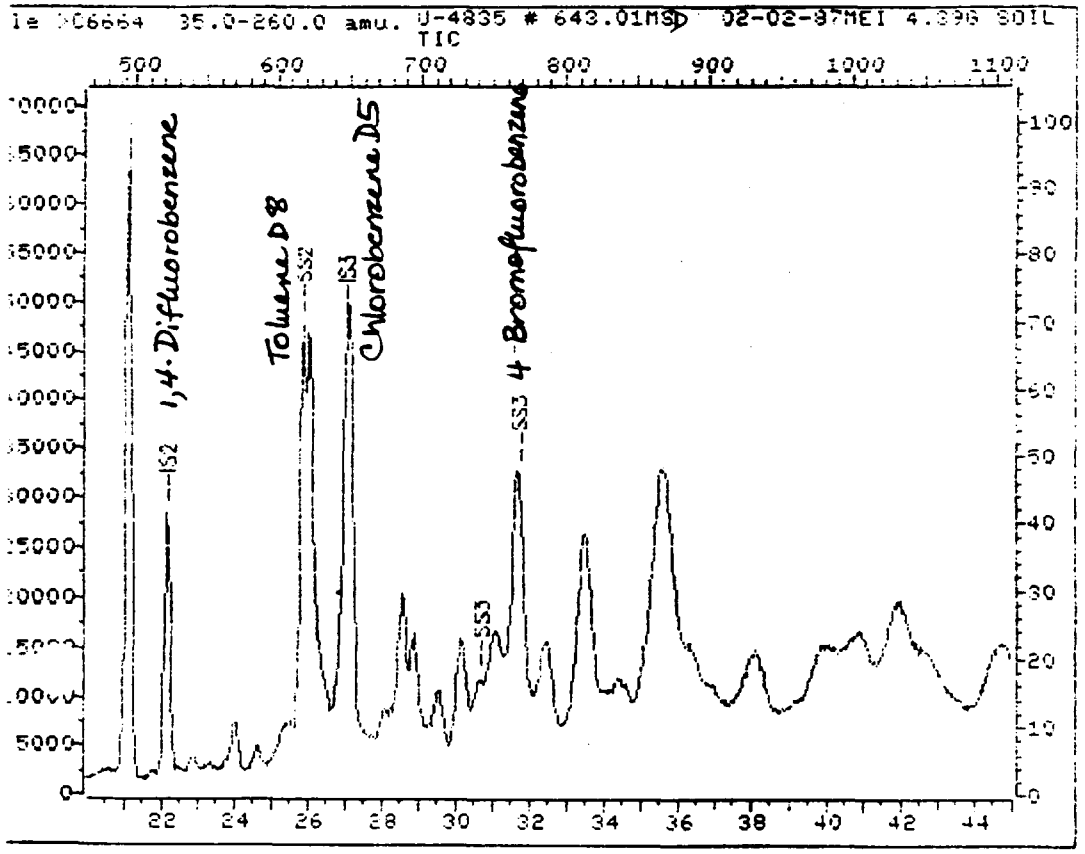
ecology and environment

DC-K3-32 MSD





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870202 20:07
Output File: ^C6664::Q2 Injected at: 870202 19:21
Data File: >C6664::D1 Dilution Factor: 1.00
Name: U-4835 # 643.01MSD DC-K3-32MSD
Misc: 02-02-87MEI 4.39G SOIL IN 5ML DI + 10UL IS/SS/MS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

	Compound		R.T.	Scan#	Area	Conc	Units	
1)	*BROMOCHLOROMETHANE (IS)	128	11.64	251	21792	250.00	NGS	1
6)	METHYLENE CHLORIDE	84	8.31	165	4293	31.44	NGS	1
7)	ACETONE	43	9.47	195	711665	4946.21	NGS	1
* ~~9)~~	~~CARBON DISULFIDE~~	~~76~~	~~9.97~~	~~208~~	~~213096~~	~~660.43~~	~~NGS~~	1
10)	1,1-DICHLOROETHENE	61	11.25	241	64842	269.25	NGS	
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.47	324	62285	264.16	NGS	
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.15	522	102130	250.00	NGS	1
17)	2-BUTANONE	72	14.71	330	8978	230.88	NGS	1
24)	TRICHLOROETHENE	130	19.01	441	35141	220.16	NGS	
27)	BENZENE	78	19.59	456	131040	274.06	NGS	1
31)	*CHLOROBENZENE-D5 (IS)	117	27.04	648	79397	250.00	NGS	1
~~32)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~22.89~~	~~541~~	~~4124~~	~~14.03~~	~~NGS~~	
~~33)~~	~~2-HEXANONE~~	~~43~~	~~24.64~~	~~586~~	~~2953~~	~~12.38~~	~~NGS~~	1
~~35)~~	~~1,1,2,2-TETRACHLOROETHANE~~	~~83~~	~~24.01~~	~~570~~	~~3552~~	~~13.20~~	~~NGS~~	1
35)	~~1,1,2,2-TETRACHLOROETHANE~~	~~83~~	~~25.33~~	~~604~~	~~2674~~	~~9.94~~	~~NGS~~	1
36)	TOLUENE-D8 (SURR)	98	25.88	618	117596	273.77	NGS	
37)	TOLUENE	92	26.03	622	79397	249.55	NGS	
38)	CHLOROBENZENE	112	27.16	651	92355	246.71	NGS	
~~40)~~	~~4-BROMOFLUOROBENZENE(SURR)~~	~~95~~	~~30.70~~	~~742~~	~~7420~~	~~30.96~~	~~NGS~~	1
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.71	768	56552	235.97	NGS	1

NO CW

NO CW

* Compound is ISTD

* Lab contaminant from charcoal tube desorbtions taking place

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Sample Number
DC-H4-19MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4727
Lab Sample ID No: 0100 MSD QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Hogtowers Date Sample Received: 1-8-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 1-12-87

Conc./Dil Factor: 700 pH 8.1

Percent Moisture: (Not Decanted) 28

Reported as received

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	7000u
74-83-9	Bromomethane	7000u
75-01-4	Vinyl Chloride	7000u
75-00-3	Chloroethane	7000u
75-09-2	Methylene Chloride	12000 B
67-64-1	Acetone	13000 B
75-15-0	Carbon Disulfide	3500u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	3500u
156-60-5	Trans-1, 2-Dichloroethene	3500u
67-66-3	Chloroform	3500u
107-06-2	1, 2-Dichloroethane	3500u
78-93-3	2-Butanone	17000 B
71-55-6	1, 1, 1-Trichloroethane	3500u
56-23-5	Carbon Tetrachloride	3500u
108-05-4	Vinyl Acetate	7000u
75-27-4	Bromodichloromethane	3500u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	3500u
10061-02-6	Trans-1, 3-Dichloropropene	3500u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	3500u
79-00-5	1, 1, 2-Trichloroethane	3500u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	3500u
110-75-8	2-Chloroethylvinylether	7000u
75-25-2	Bromoform	3500u
108-10-1	4-Methyl-2-Pentanone	7000u
591-78-6	2-Hexanone	7000u
127-18-4	Tetrachloroethene	3500u
79-34-5	1, 1, 2, 2-Tetrachloroethane	3500u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	11000
100-42-5	Styrene	3500u
	Total Xylenes	19000

Data Reporting Qualifiers

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

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

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

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

Form I

11/85

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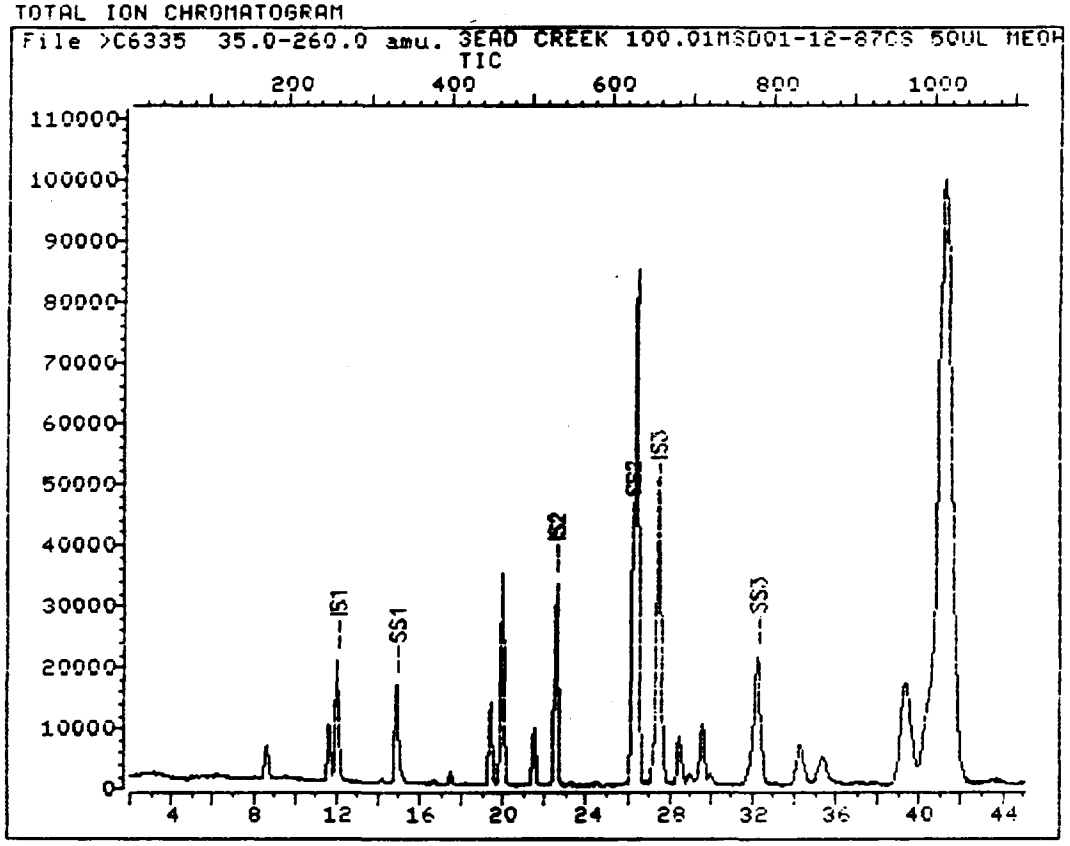
TOTAL ION CHROMATOGRAM



Data File: >C6335::D1
Name: 3EAD CREEK 100.01MSD DC-H4-19 MSD
Misc: 01-12-87CS 50UL MEOH EXT (1.02G/10ML)5ML DI H2O + 10UL

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870112 13:11

Operator ID: USER8
Quant Time: 870112 19:46
Injected at: 870112 18:48

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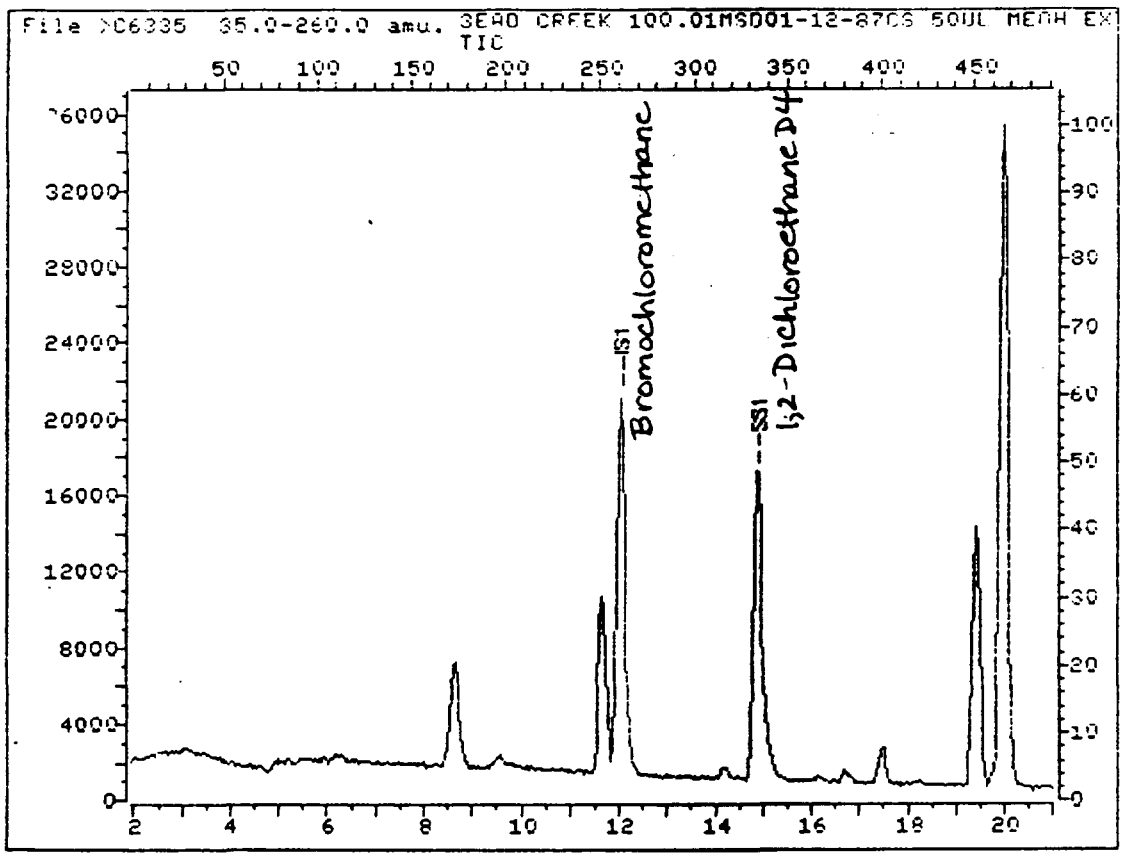
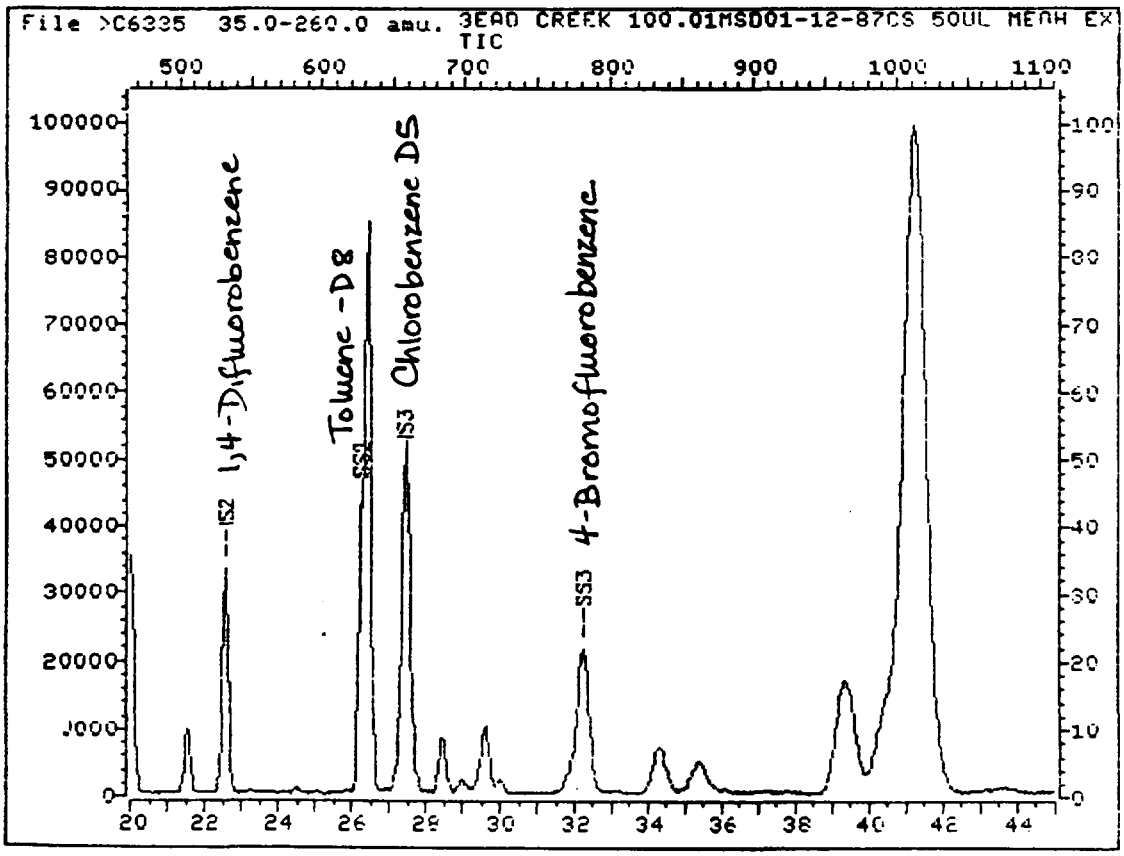
DC-H4-19MSD





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870112 19:46
Output File: ^C6335::D2 Injected at: 870112 18:48
Data File: >C6335::D1 Dilution Factor: 1.00
Name: BEAD CREEK 100.01MSD DC-H4-19-MSD
Misc: 01-12-87CS 50UL MEOH EXT (1.02G/10ML)5ML DI H20 + 10UL

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870112 13:11

	Compound		R.T.	Scan#	Area	Conc	Units
1)	*BROMOCHLOROMETHANE (IS)	128	12.03	261	30305	50.00	UG/L
6)	METHYLENE CHLORIDE	84	8.66	174	16603	12.02	UG/L
7)	ACETONE	43	9.55	197	9856	13.24	UG/L
10)	1,1-DICHLOROETHENE	61	11.65	251	36468	26.38	UG/L
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.91	335	75440	43.91	UG/L
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.55	532	137481	50.00	UG/L
17)	2-BUTANONE	72	15.06	339	3558	17.76	UG/L
24)	TRICHLOROETHENE	130	19.41	451	24648	18.56	UG/L
27)	BENZENE	78	19.99	466	156544	42.83	UG/L
~~28)~~	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.99~~	~~466~~	~~3177~~	~~2.03~~	~~UG/L~~ NOC
31)	*CHLOROBENZENE-D5 (IS)	117	27.41	657	111393	50.00	UG/L
~~32)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~23.25~~	~~550~~	~~2391~~	~~1.75~~	~~UG/L~~ NOC
36)	TOLUENE-D8 (SURR)	98	26.24	627	151252	45.36	UG/L
37)	TOLUENE	92	26.43	632	203342	85.20	UG/L
38)	CHLOROBENZENE	112	27.52	660	99553	32.30	UG/L
39)	ETHYLBENZENE	91	29.62	714	59370	11.73	UG/L
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.22	781	83123	45.57	UG/L
42)	TOTAL XYLENES	91	34.28	834	55367	10.43	UG/L
42)	TOTAL XYLENES	91	35.36	862	46838	8.82	UG/L
~~42)~~	~~TOTAL XYLENES~~	~~91~~	~~37.15~~	~~908~~	~~3305~~	~~.62~~	~~UG/L~~ NOC
~~43)~~	~~1,3-DICHLOROBENZENE~~	~~146~~	~~39.28~~	~~963~~	~~69677~~	~~69677.00~~	~~NO CALI~~
43)	1,3-DICHLOROBENZENE	146	41.19	1012	1068579	1068579.	NO CALI
44)	1,2-DICLHLOROBENZENE	146	39.28	963	69677	69677.00	NO CALI
44)	1,2-DICLHLOROBENZENE	146	41.19	1012	1095973	1095973.	NO CALI
45)	1,4-DICHLOROBENZENE	146	39.28	963	69677	69677.00	NO CALI
45)	1,4-DICHLOROBENZENE	146	41.19	1012	1095973	1095973.	NO CALI

CW

* Compound is ISTD

OK

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140 U-4727

Sample Number
DC-HB-20 MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1-12-87

Date Analyzed: 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) ~~34~~ 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2, 4-Dinitrophenol	1700u
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	SPIKE
606-20-2	2, 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1700u
534-52-1	4, 6-Dinitro-2-Methylphenol	1700u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	SPIKE
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	830 B
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	SPIKE
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	1660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330u
53-70-3	Dibenz(a, h)Anthracene	330u
191-24-2	Benzo(g, h, i)Perylene	330u

(1)-Cannot be separated from diphenylamine

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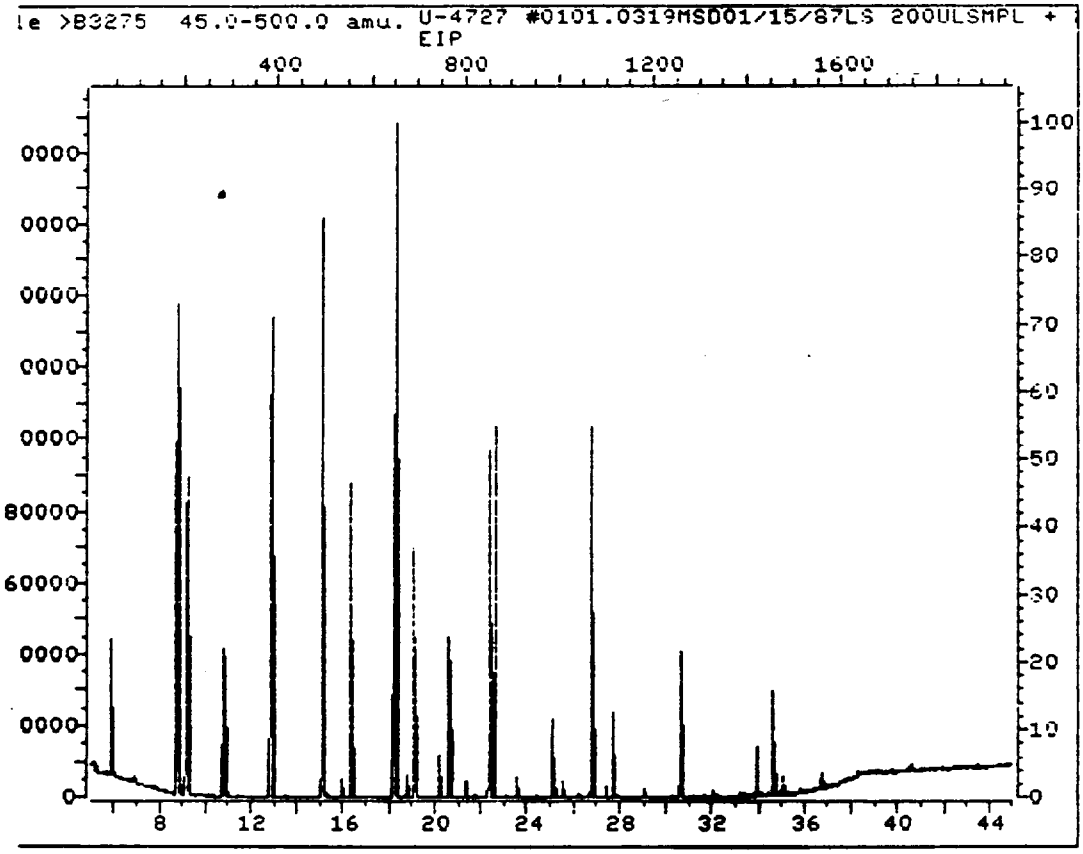

DC-HB-20 MSD

i data file header from : >B3275

mple: U-4727 #0101.0319MSD Operator: MANAGER MS 1/15/87 20:57
sc : 01/15/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)
s. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: BNA002 Tuning file: MTBON No. of extra records: 1
ource temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	30.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	19.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

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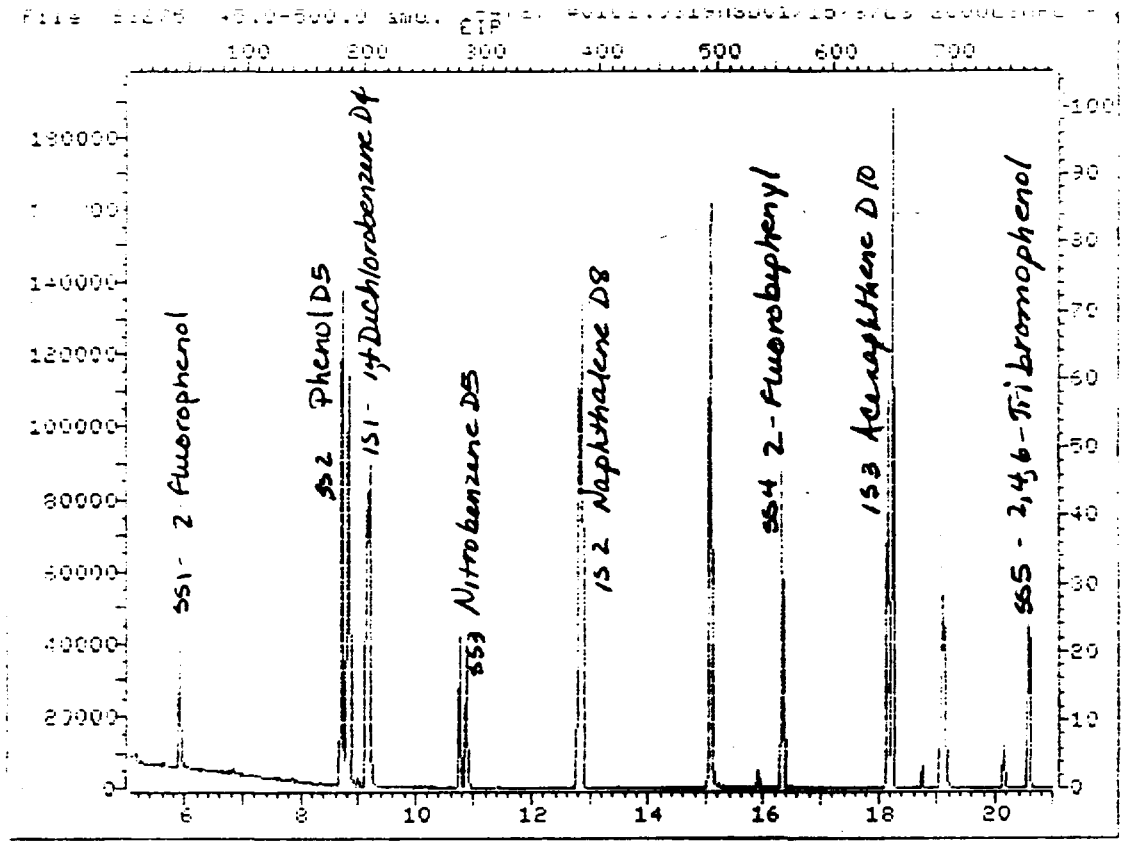
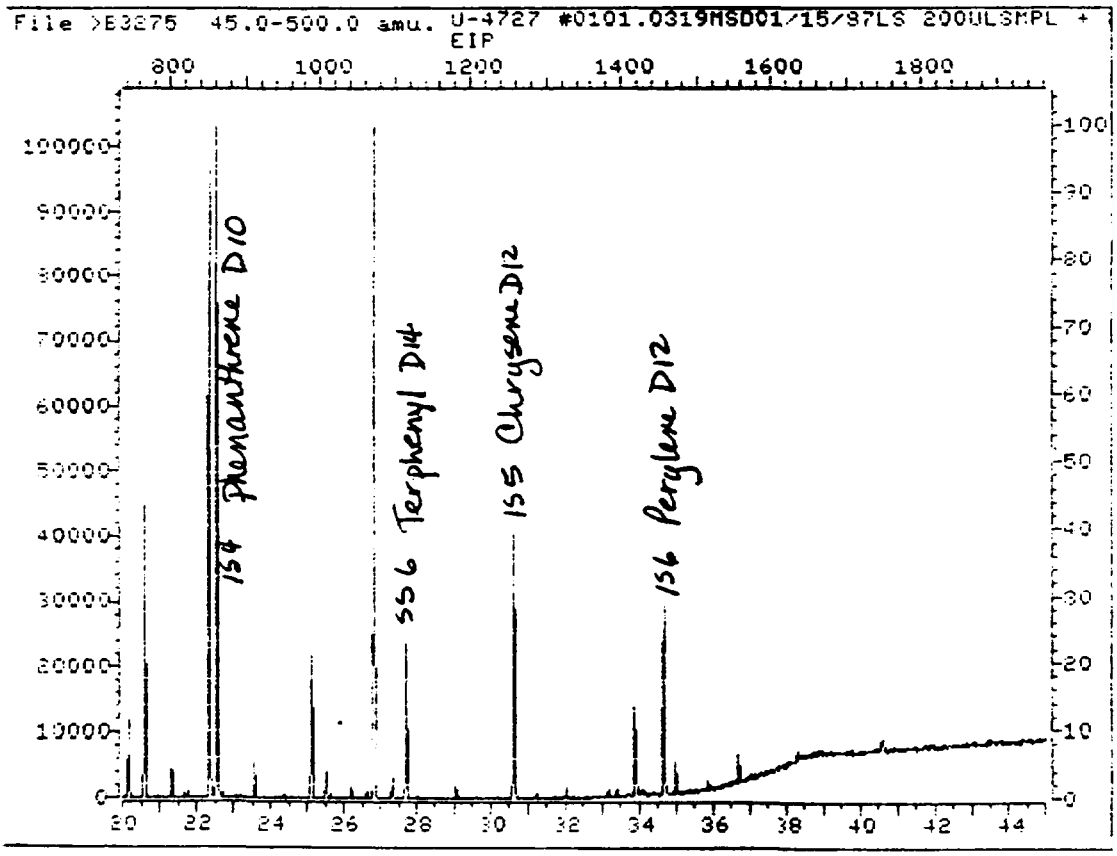
ecology and environment



DC-HB-20 MSD



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QUANT REPORT

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ɔɛ   tor ID: MANAGER              Quant Rev: 4      Quant Time:   870115 21:45
ɹtput File: ^B3275::D2                            Injected at:   870115 20:57
ata File:    >B3275::D4                     Dilution Factor:            2.00
ame: U-4727 #0101.0319MSD DC-H B-20MSD
isc: 01/15/87LS 200ULSMPL + 200UL MECL2 + 4UL IS (2X)

) File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 870115 15:26
```

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.14	202	37225	40.00 UG/L	90
2)	PHENOL-D5	(SURR)	99	8.71	181	4513	7.29 UG/L	40
2)	PHENOL-D5	(SURR)	99	8.82	186	54762	88.46 UG/L	87
5)	2-FLUOROPHENOL	(SURR)	112	5.91	43	22971	55.24 UG/L	88
6)	PHENOL		94	8.84	187	123804	203.25 UG/L	50
7)	~~ANILINE~~		~~93~~	~~8.71~~	~~181~~	~~1797~~	~~2.61 UG/L~~ cw	14
~~7)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.20~~	~~205~~	~~52654~~	~~82.49 UG/L~~ cw	98
1)	1,4-DICHLOROBENZENE		146	9.20	205	52654	82.53 UG/L	97
2)	~~1,2-DICHLOROBENZENE~~		~~146~~	~~9.20~~	~~205~~	~~52654~~	~~80.90 UG/L~~ cw	96
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~9.89~~	~~239~~	~~590~~	~~.46 UG/L~~	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.04~~	~~246~~	~~572~~	~~.44 UG/L~~	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.08~~	~~248~~	~~879~~	~~.68 UG/L~~	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.20~~	~~254~~	~~561~~	~~.43 UG/L~~	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.75~~	~~281~~	~~658~~	~~.51 UG/L~~	100
5)	2-CHLOROPHENOL		128	8.71	181	100099	193.03 UG/L	95
7)	N-NITROSO-DI-N-PROPYLAMINE		70	10.75	281	45514	90.52 UG/L	92
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.87~~	~~287~~	~~4447~~	~~8.84 UG/L~~ cw	79
9)	*NAPHTHALENE-D8	(IS)	136	12.86	385	143794	40.00 UG/L	100
1)	NITROBENZENE-D5	(SURR)	82	10.87	287	28214	44.35 UG/L	91
3)	1,2,4-TRICHLOROBENZENE		180	12.80	382	57960	97.05 UG/L	100
2)	4-CHLORO-3-METHYLPHENOL		107	15.08	494	98901	202.83 UG/L	88
3)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.02~~	~~491~~	~~556~~	~~.53 UG/L~~ cw	95
3)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.08~~	~~494~~	~~80754~~	~~76.83 UG/L~~	18
3)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.30~~	~~505~~	~~707~~	~~.67 UG/L~~	80
4)	*ACENAPHTHENE-D10	(IS)	162	18.15	645	62482	40.00 UG/L	96
3)	2-FLUOROBIPHENYL	(SURR)	172	16.34	556	60820	50.95 UG/L	96
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.17~~	~~646~~	~~18799~~	~~17.39 UG/L~~ cw	100
7)	ACENAPHTHENE		153	18.25	650	105878	104.36 UG/L	96
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.57	764	13772	94.95 UG/L	96
1)	4-NITROPHENOL		139	19.12	693	26847	219.09 UG/L	100
1)	2,4-DINITROTOLUENE		165	19.08	691	34847	166.54 UG/L	100
2)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.15~~	~~645~~	~~8883~~	~~35.78 UG/L~~ cw	100
5)	*PHENANTHRENE-D10	(IS)	188	22.54	861	95134	40.00 UG/L	97
1)	PENTACHLOROPHENOL		266	22.32	850	27703	181.03 UG/L	100
1)	PHENANTHRENE		178	22.60	864	1622	1.38 UG/L	98
2)	~~ANTHRACENE~~		~~178~~	~~22.60~~	~~864~~	~~1622~~	~~1.47 UG/L~~ cw	98
5)	DI-N-BUTYLPHTHALATE		149	25.12	988	28665	25.05 UG/L	98
4)	~~FLUORANTHENE~~		~~202~~	~~26.20~~	~~1041~~	~~2102~~	~~2.56 UG/L~~ cw	96
5)	CHRYSENE-D12	(IS)	240	30.61	1258	37418	40.00 UG/L	100
7)	PYRENE		202	26.83	1072	100733	112.49 UG/L	91
3)	TERPHENYL-D14	(SURR)	244	27.70	1115	23899	55.02 UG/L	[illegible]
4)	*PERYLENE-D12	(IS)	264	34.64	1456	27944	40.00 UG/L	100
3)	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.68~~	~~1409~~	~~1034~~	~~2.24 UG/L~~ cw	100
~~3)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.68~~	~~1409~~	~~1034~~	~~2.80 UG/L~~	100
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.35~~	~~1442~~	~~325~~	~~.93 UG/L~~	100
	~~BENZO(G,H,I)PERYLENE~~							

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4819

Sample Number DC-K3-32 MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared

Date Analyzed: 2-11-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 34

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

REPORTED "AS RECEIVED" BASIS

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	SPIKE
111-44-4	bis(-2-Chloroethyl)Ether	330 U
95-57-8	2-Chlorophenol	SPIKE
541-73-1	1 3-Dichlorobenzene	330 U
106-46-7	1 4-Dichlorobenzene	SPIKE
100-51-6	Benzyl Alcohol	330 U
95-50-1	1 2-Dichlorobenzene	330 U
95-48-7	2-Methylphenol	330 U
39638-32-9	bis(2-chloroisopropyl)Ether	330 U
106-44-5	4-Methylphenol	330 U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE
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	1600 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	SPIKE
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	SPIKE
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	1600 U
91-58-7	2-Chloronaphthalene	330 U
88-74-4	2-Nitroaniline	1600 U
131-11-3	Dimethyl Phthalate	330 U
208-96-8	Acenaphthylene	330 U
-09-2	3-Nitroaniline	1600 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2. 4-Dinitrophenol	1600 U
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	330 U
121-14-2	2 4-Dinitrotoluene	SPIKE
606-20-2	2. 6-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	1600 U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600 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	SPIKE
85-01-8	Phenanthrene •	330 U
120-12-7	Anthracene	330 U
84-74-2	Di-n-Butylphthalate •	1000
206-44-0	Fluoranthene •	340 J
129-00-0	Pyrene	SPIKE
85-68-7	Butylbenzylphthalate	330 U
91-94-1	3 3'-Dichlorobenzidine	660 U
56-55-3	Benzo(a)Anthracene •	160 J
117-81-7	bis(2-Ethylhexyl)Phthalate •	1400
218-01-9	Chrysene •	170 J
117-84-0	Di-n-Octyl Phthalate •	200 J
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

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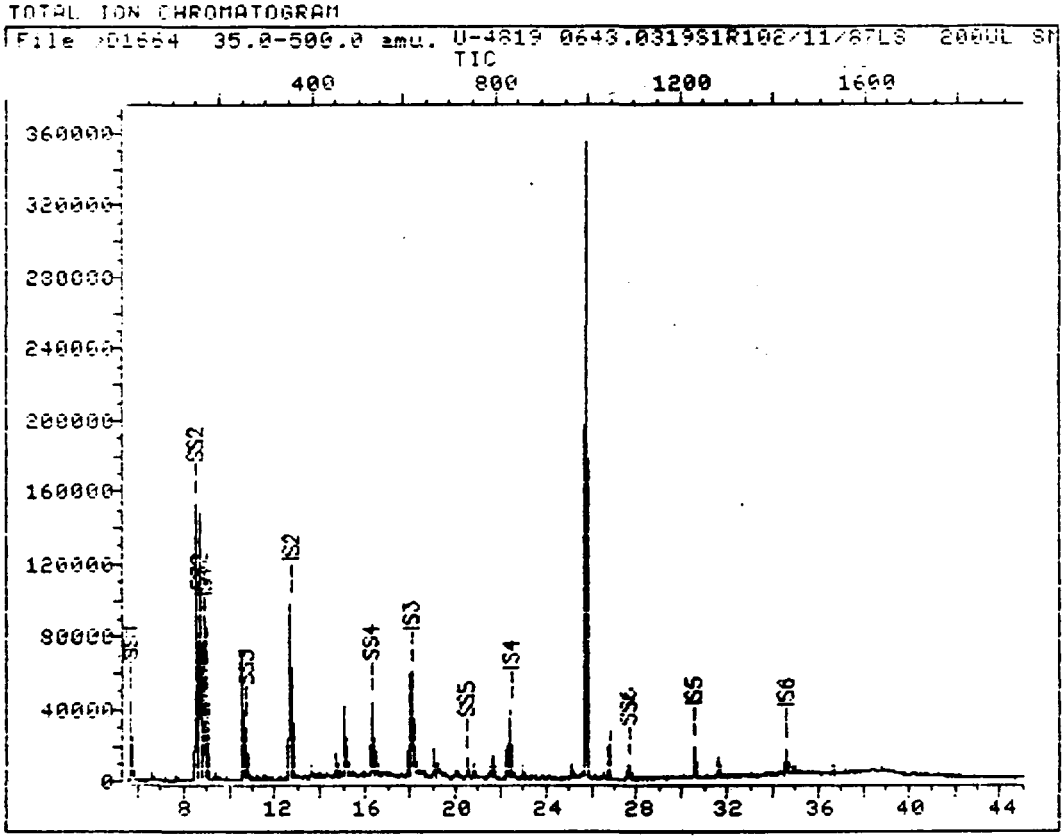
TOTAL ION CHROMATOGRAM



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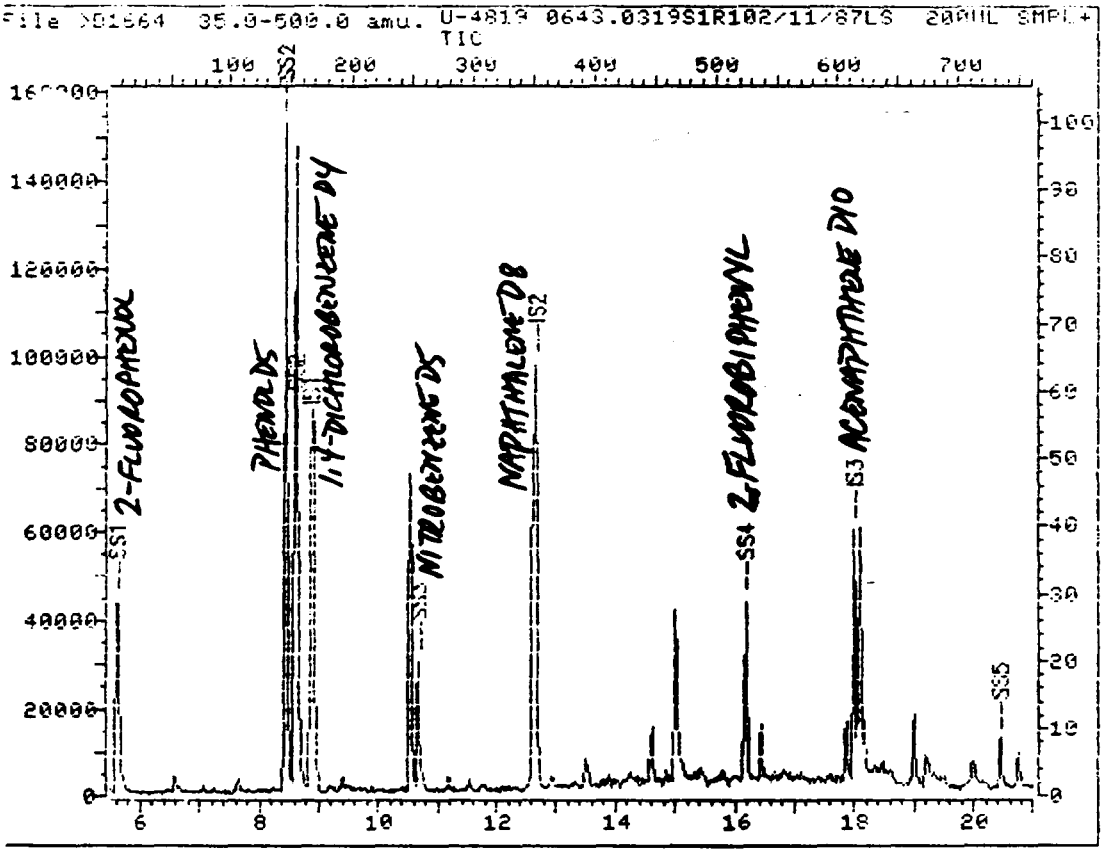
Name: U-4819 0643.0319S1R1 DC-K3-32MSD
Misc: 02/11/87LS 200UL SMPL+ 200UL MECL2 + 4UL IS BTL# 4

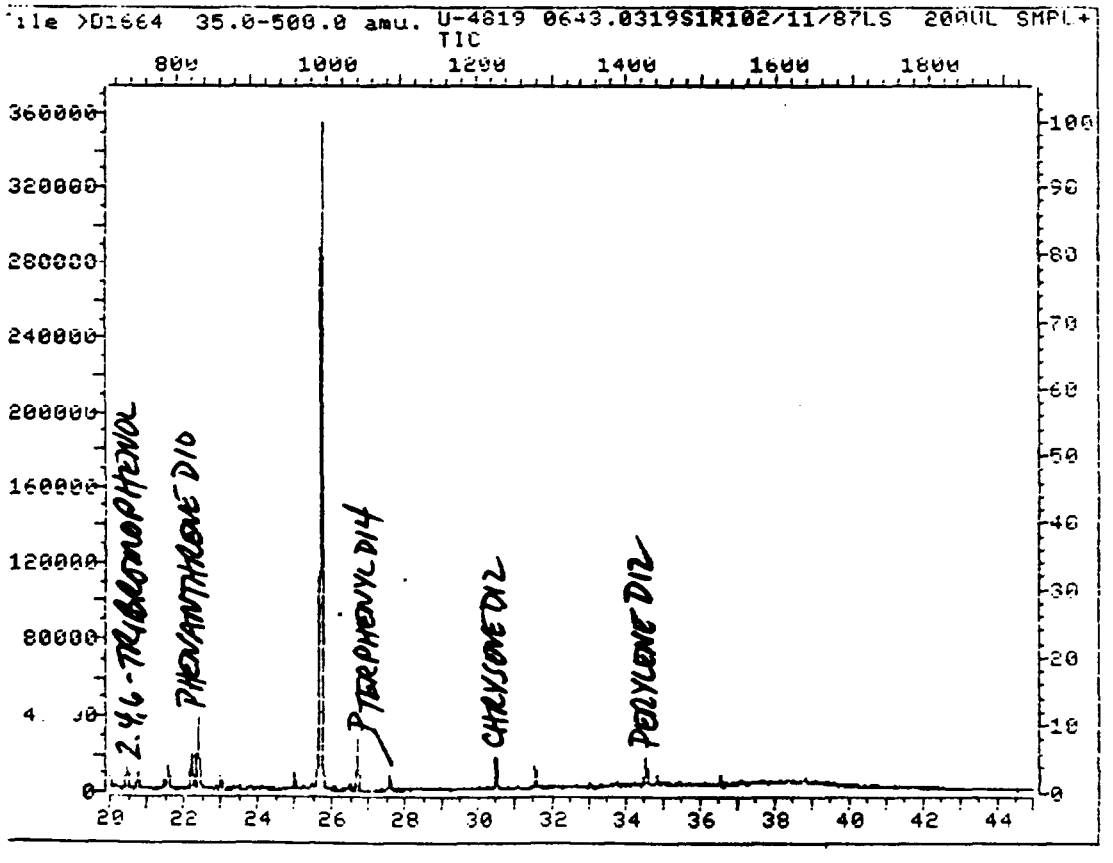
Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

Operator ID: USER6
Quant Time: 870211 22:20
Injected at: 870211 21:32

recycled paper ecology and environment

DC-K3-32 MSD





recycled paper

ecology and environment

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870211 22:20
Output File: ^D1664::Q2 Injected at: 870211 21:32
Data File: >D1664::D3 Dilution Factor: 2.00
Name: U-4819 0643.0319S1R1 DC-K3-32 MSD
Misc: 02/11/87LS 200UL SMPL+ 200UL MECL2 + 4UL IS BIL# 4

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870211 14:58

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.87	166	39352	40.00 UG/L	87
~~1)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.44~~	~~145~~	~~4766~~	~~6.87 UG/L~~ No GPM	41
2)	PHENOL-D5	(SURR)	99	8.60	153	44935	64.82 UG/L	99
5)	2-FLUOROPHENOL	(SURR)	112	5.61	6	41113	82.05 UG/L	98
6)	PHENOL		94	8.62	154	97998	148.20 UG/L	62
~~7)~~	~~ANILINE~~		~~93~~	~~8.44~~	~~145~~	~~1840~~	~~2.77 UG/L~~ No GPM	4
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.93~~	~~169~~	~~53359~~	~~76.11 UG/L~~ No GPM	97
10)	1,4-DICHLOROBENZENE		146	8.93	169	53359	73.15 UG/L	96
~~12)~~	~~1,2-DICHLOROBENZENE~~		~~146~~	~~8.93~~	~~169~~	~~53359~~	~~73.15 UG/L~~ No GPM	95
15)	2-CHLOROPHENOL		128	8.44	145	94138	162.15 UG/L	97
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.54	248	39613	77.85 UG/L	99
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.60~~	~~255~~	~~5208~~	~~10.22 UG/L~~ No GPM	84
19)	*NAPHTHALENE-D8	(IS)	136	12.66	352	105590	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.68	255	25760	52.35 UG/L	94
28)	1,2,4-TRICHLOROBENZENE		180	12.62	350	40510	84.96 UG/L	100
32)	4-CHLORO-3-METHYLPHENOL		107	15.00	467	30252	80.08 UG/L	98
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.00~~	~~467~~	~~23219~~	~~30.41 UG/L~~ No GPM	19
34)	*ACENAPHTHENE-D10	(IS)	162	18.00	614	33414	40.00 UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.18	525	33827	55.66 UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.08~~	~~614~~	~~6500~~	~~12.78 UG/L~~ No GPM	100
47)	ACENAPHTHENE		153	18.08	618	43523	92.37 UG/L	95
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.44	734	4459	60.17 UG/L	91
50)	4-NITROPHENOL		139	19.20	673	5276	88.62 UG/L	100
50)	4-NITROPHENOL		139	19.43	684	321	5.39 UG/L	100
50)	4-NITROPHENOL		139	19.49	687	265	4.45 UG/L	100
51)	2,4-DINITROTOLUENE		165	18.98	662	10465	122.01 UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.98~~	~~614~~	~~4414~~	~~42.65 UG/L~~ No GPM	100
55)	*PHENANTHRENE-D10	(IS)	188	22.40	830	31166	40.00 UG/L	97
60)	PENTACHLOROPHENOL		266	22.20	820	8248	144.02 UG/L	100
63)	DI-N-BUTYLPHTHALATE		149	25.01	958	11823	30.85 UG/L	97
64)	FLUORANTHENE		202	26.09	1011	2864	10.25 UG/L	91
65)	*CHRYSENE-D12	(IS)	240	30.49	1227	20595	40.00 UG/L	100
67)	PYRENE		202	26.70	1041	31662	69.37 UG/L	93
68)	TERPHENYL-D14	(SURR)	244	27.58	1084	9342	40.54 UG/L	100
71)	BENZO(A)ANTHRACENE		228	30.58	1231	1344	4.84 UG/L	90
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.55	1279	8782	40.70 UG/L	87
73)	CHRYSENE		228	30.58	1231	1344	5.19 UG/L	89
7	*PERYLENE-D12	(IS)	264	34.53	1425	17769	40.00 UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.57	1378	1860	6.07 UG/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.57~~	~~1378~~	~~1860~~	~~7.50 UG/L~~ No GPM	100

* Compound is ISTD

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Laboratory Name ecology and environment, inc.

Case No U-4727

Sample Number DC-HB-2D-MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 1-12-87

Date Analyzed 1-15-87

Conc/Dil Factor: 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/L or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8u
319-85-7	Beta-BHC	8u
319-86-8	Delta-BHC	8u
58-89-9	Gamma-BHC (Lindane)	24.2 S
76-44-8	Heptachlor	27.3 S
309-00-2	Aldrin	18.7 S
1024-57-3	Heptachlor Epoxide	8u
959-98-8	Endosulfan I	8u
60-57-1	Dieldrin	56.9 S
72-55-9	4, 4'-DDE	16u
72-20-8	Endrin	57.5 S
33213-65-9	Endosulfan II	16u
72-54-8	4, 4'-DDD	16u
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4, 4'-DDT	125u
72-43-5	Methoxychlor	80u
53494-70-5	Endrin Ketone	16u
57-74-9	Chlordane	80u
8001-35-2	Toxaphene	160u
12674-11-2	Aroclor-1016	80u
11104-28-2	Aroclor-1221	80u
11141-16-5	Aroclor-1232	80u
53469-21-9	Aroclor-1242	80u
12672-29-6	Aroclor-1248	80u
11097-69-1	Aroclor-1254	160u
11096-82-5	Aroclor-1260	340

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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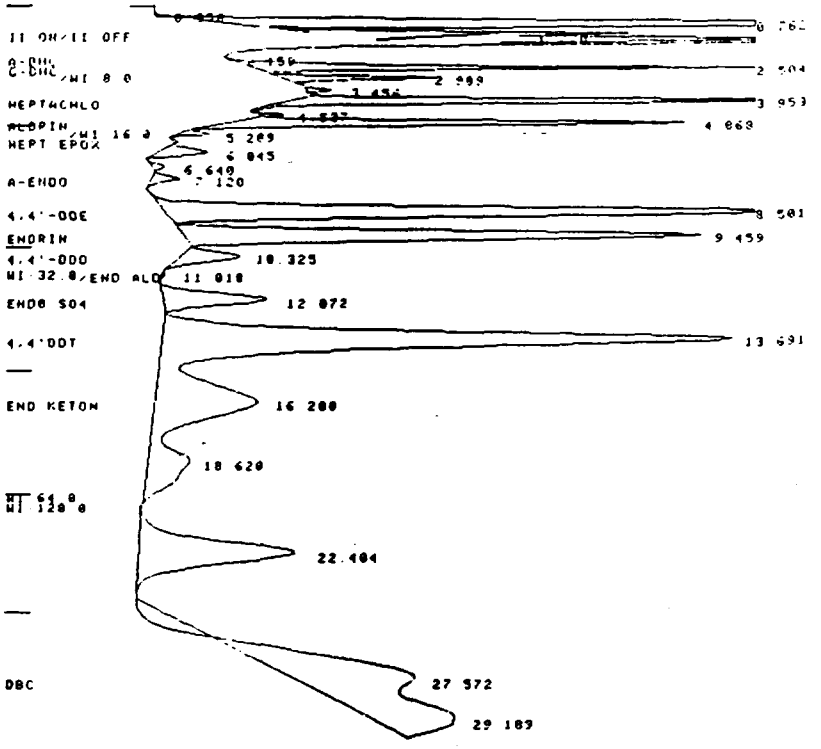
S= spiked compound

CHART SPEED 0.5 CM/MIN
ATTEN: 0 ZERO: 10% 5 MIN/TICK



PCB 1260 = 346x0.00148 x 1/1.176 x 1000 = 440 ug/Kg Dry

RECALCULATE ON FILE: RSTY713

CHANNEL: 1A - 1 TITLE: RUN# 17 19:12 15 JAN 87

DC-HB-20MSD

MSD

SAMPLE: 0101.SIR1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG Dry	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.356		14743535	VV	5.44
2		0.0000	1.483		40134	T	? 2.94
3	6-BHC	30.6269	2.504	-0.016	830024	VV	6.75
4		0.0000	2.989		172947	VV	11.13
5		0.0000	3.456		22298	BB	? 16.38
6	HEPTACHLO	35.4827	3.953	-0.017	928825	BB	10.50
7		0.0000	4.537		26602	BB	? 16.13
8	ALDRIN	24.1767	4.868	-0.022	676605	BB	12.00
9		0.0000	5.289		25312	BB	6.88
10	~~HEPT EPOX~~	3.8219	6.045	0.125	100208	BB	16.25
11		0.0000	6.640		22567	BB	? 15.00
12	~~A-ENDO~~	2.4319	7.120	-0.200	60303	BB	20.94
13	DIELDRIN	72.5035	8.501	-0.009	1933568	BB	22.63
14	ENDRIN	65.6465	9.459	-0.021	1537244	BB	25.00
15	~~4,4'-DDE~~	8.0349	10.325	PCB 1260	176701	BB	? 36.56
16	~~ENDO SO4~~	22.2189	12.072	-0.268	416363	BB	36.63
17	4,4'DDT ZNF	162.2900	13.691	-0.029	~~3086544~~	VV	39.69
18	~~END KETON~~	44.6915	16.200	0.410	1141501	VV	? 93.88
19		0.0000	18.620		465772	VB	98.94
20		0.0000	22.404	ΣA = 346	1260261	BV	60.00
21	~~DBC~~	61.0450	27.572	0.192	1237330	VV	?154.63
22		0.0000	29.189		940445	VV	?103.19

TOTALS: 532.9705 -0.050 29842096

DETECTED PKS: 36 REJECTED PKS: 14

DIVISOR: 1.17600 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: -12

NOTES:
NOTEBOOK:259-76 ANALYST:R. SAMSON
SECURE AREA:D JOB#U=4727,4738
INST:VARIAN 6020#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

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Laboratory Name ecology and environment, inc.

Case No U-4819

Sample Number DC-K3-32 MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 1/26/87

Date Analyzed 2/12/87

Conc/Dil Factor 25

Percent Moisture (decanted) 34

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	200 U
319-85-7	Beta-BHC	200 U
319-86-8	Delta-BHC	200 U
58-89-9	Gamma-BHC (Lindane)	200 U S
76-44-8	Heptachlor	200 U S
309-00-2	Aldrin	200 U S
1024-57-3	Heptachlor Epoxide	200 U
959-98-8	Endosulfan I	200 U
60-57-1	Dieldrin	400 U S
72-55-9	4,4'-DDE	400 U
72-20-8	Endrin	400 U S
33213-65-9	Endosulfan II	400 U
72-54-8	4,4'-DDD	400 U
1031-07-8	Endosulfan Sulfate	400 U
50-29-3	4,4'-DDT	400 U S
72-43-5	Methoxychlor	2000 U
53494-70-5	Endrin Ketone	400 U
57-74-9	Chlordane	2000 U
8001-35-2	Toxaphene	4000 U
12674-11-2	Aroclor-1016	2000 U
11104-28-2	Aroclor-1221	2000 U
11141-16-5	Aroclor-1232	2000 U
53469-21-9	Aroclor-1242	6,200
12672-29-6	Aroclor-1248	2000 U
11097-69-1	Aroclor-1254	4000 U
11096-82-5	Aroclor-1260	4000 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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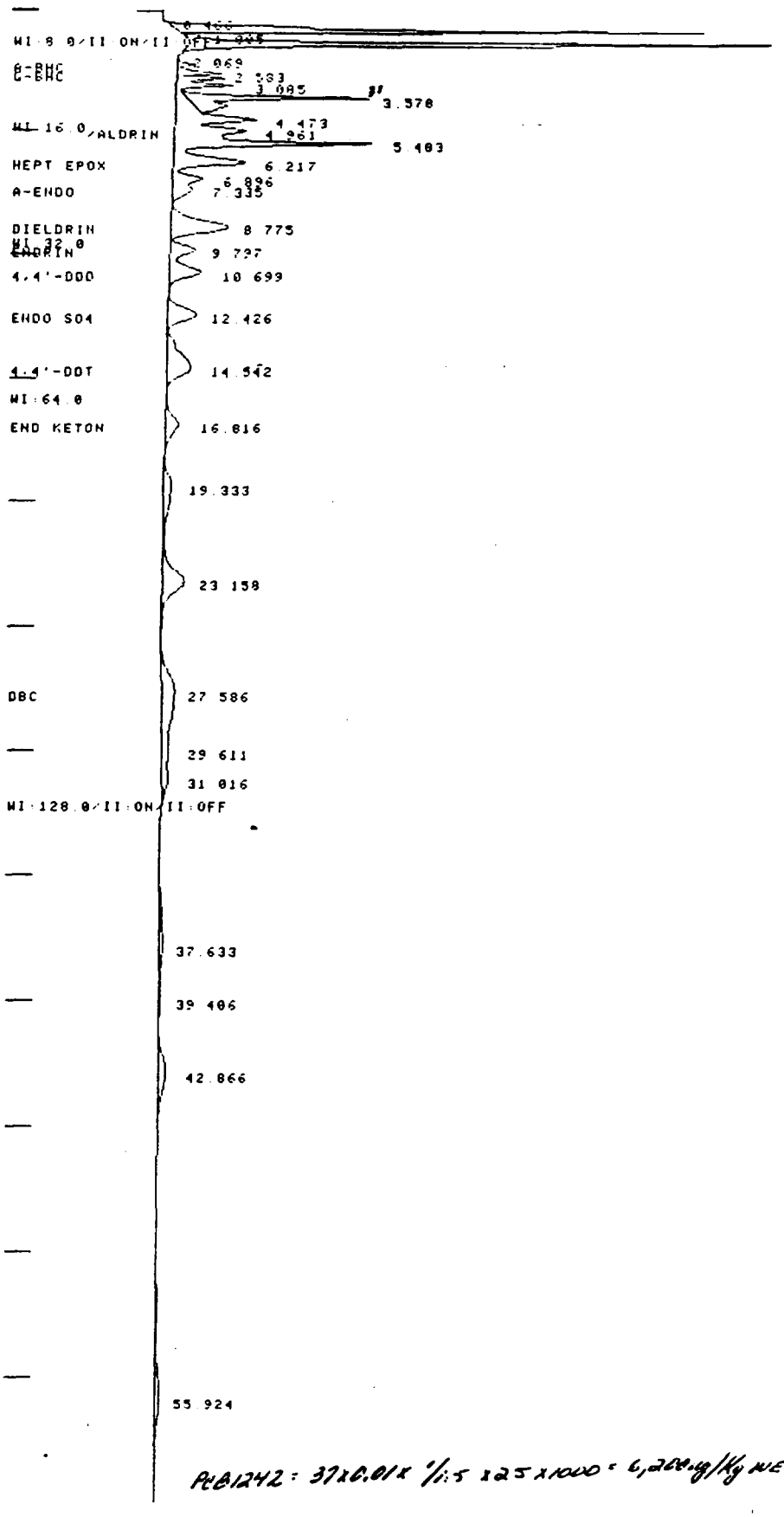
S = Spiked Compound

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



PCB1242 = 37x0.01x 1/1.5 x25x1000 = 6,200 ug/Kg WET

DC-K3-32 MSD

448

CHANNEL: 1A - 1 TITLE: RUN# 17 1:22 12 FEB 87

SAMPLE: 0643 MSD METHOD: CEPA CALCULATION: ES - ANALYS

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CHANNEL: 1A - 1 TITLE: RUN# 17 1:22 12 FEB 87

DC-K3·32 MSD

SAMPLE: 0643 MSD METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.400		1032764	VB	4.94
2	~~G-BHC~~	34.2716	2.583	-0.007	48581	VV	7.25
3		0.0000	2.815		53923	VV	8.13
4		0.0000	3.085		61789	VV	8.19
5		0.0000	*3.578		262890	37mm VV	9.94
6	~~HEPTACHL~~O	103.7367	3.914	-0.186	132217	VV	? 26.44
7		0.0000	4.473		205274	VV	? 21.06
8	~~ALDRIN~~	114.1046	4.961	-0.089	165859	VV	? 19.88
9		0.0000	5.483		379759	VV	12.81
10	~~HEPT-EPOX~~	156.2205	6.217	0.107	214329	VV	22.00
11		0.0000	6.896		71392	VV	18.06
12	~~A-ENDO~~	48.3400	7.335	-0.235	63015	VV	? 31.75
13	~~DIELDRIN~~	171.3085	8.775	-0.045	238394	VV	31.19
14	~~ENDRIN~~	85.4109	9.797	-0.033	84977	VV	24.63
15	~~4,4'-DDD~~	113.3657	10.699	-0.211	124463	VV	28.63
16	~~ENDO-SO4~~	152.8409	12.426	-0.374	126489	VV	35.00
17	~~4,4'-DDT~~	213.6210	14.542	0.332	188949	VB	? 57.94
18	~~END-KETON~~	62.7146	16.816	0.446	81680	BV	49.38
19		0.0000	19.333		93728	VV	90.94
20		0.0000	23.158		186958	VV	56.94
21	~~DBC~~	208.6842	27.586	-0.824	225081	VV	? 96.38
22		0.0000	29.611		40166	VV	?
23		0.0000	31.016		43540	VB	? 98.06
24		0.0000	37.633		68029	BV	160.00
25		0.0000	42.866		92518	VB	98.44
26		0.0000	55.924		90950	BB	130.38
TOTALS:		1464.619		-1.119	4377714		

DETECTED PKS: 36 REJECTED PKS: 10

DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 11.4 OFFSET: -13

RACK: 2 VIAL: 2 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW SCA080

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