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L163020000005
ST. CLAIR
SAUGET - SAUGET
LAB DATA

SURFACE WATER
ORGANICS 158280

SURFACE WATER ORGANICS

CASE NARRATIVE

481095

ecology and environment, inc.
ANALYTICAL SERVICES CENTER, P.O. BOX D, BUFFALO, NEW YORK 14225, TEL. 716-631-0360
International Specialists in the Environment

December 8, 1986

Job # U-4431
U-4441

Sample # DC-SW-1 through DC-SW-13

CASE NARRATIVE

Enclosed are the organic analytical results for aqueous samples received on November 6 and 7, 1986. All samples were received in good condition.

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

The response factor for pentachlorophenol exceeded the 25% difference limit in the November 18 continuing calibration check. This is in violation of CLP protocol but does not affect data validity as pentachlorophenol was not detected in any of the samples.

Due to the oil content of sample DC-SW-12, the base neutral and acid phenolic extracts were analyzed separately at required dilutions. Surrogate recoveries for this sample do not fall within acceptable ranges because of this sample's matrix.

4,4'-DDT/Endrin breakdown exceeded 20% during primary pesticide analysis. As no pesticides were detected in any of the samples, data quality has not been affected.

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

Andrew P. Clifton

ecology and environment, inc.
195 SUGG ROAD, P.O. BOX D, BUFFALO, N.Y., 14225, TEL. 716-632-4491
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: IL3140
Project Name: DEAD BREEK
Project Manager: Mike Miller
Samplers: (Signatures) Ronald E Bork
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	2-500 ml ORGANICS	2-40 ml VOA	1-1 liter Metals	1-1 liter Cyanide			REMARKS
DC-SW-1	11-5-86	0900		X		unknown	DC-SW-1	6	2	2	1	1			Metals Preserved HNO_3
DC-SW-2	11-5-86	1120		X		↓	DC-SW-2	6	2	2	1	1			Cyanide Preserved NaOH
DC-SW-3	11-5-86	1130		X			DC-SW-3	6	2	2	1	1			

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
Ronald E Bork	11-5-86 2000	Fed. Express				
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 2219748274
Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 11-5-86
Fed. Express	11-6-86/0900	[illegible]				

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

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International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: IL3140
Project Name: DEAD CREEK
Project Manager: M. Miller
Samplers: (Signatures) Ronald E Bock
Field Team Leader: Dan Sewall

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	2-8 oz. Organics	2-40 ml VOA	1-Liter Metals	1-Liter Cyanide			REMARKS
DC-SW-4	11-5	1325		X		unknown	DC-SW-4	6	2	2	1	1			Metals Preserved HNO_3 Cyanide Preserved NaOH
DC-SW-5	11-5	1420		X		↓	DC-SW-5	6	2	2	1	1			
DC-SW-6	11-5	1430		X			DC-SW-6	6	2	2	1	1			

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Ronald E Bock	11-5-86 2000	Fed Express			
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)
Fed Express	11-6-86/0900	William H. Hawa-Q			

Ship Via: Federal Express
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Date: 11-5-86

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International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: IL3140
Project Name: DEAD CREEK
Project Manager: M. Miller
Samplers: (Signatures) Ronald E Bock
Field Team Leader: Dan Sewall

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	2-80 oz. ORGANICS	2-40 ml VOA	1-1 liter Metals	1-1 liter cyanide			REMARKS
DC-SW-7	11-5-86	1620		X		unknown	DC-SW-7	6	2	2	1	1			Metals Preserved HNO_3 Cyanide Preserved NaOH
DC-SW-3	11-5-86	1645		X		↓	DC-SW-8	6	2	2	1	1			
DC-SW-9	11-5-86	1730		X			DC-SW-9	6	2	2	1	1			
DC-SW-10	11-5-86	1745		X			DC-SW-10	6	2	2	1	1			

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
Ronald E Bock	11-5-86 2000	Fed Express			
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)
Fed Express	11-6-86/0900	[illegible]			

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BL/Airbill Number: 2219748274
Date: 11-5-86

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
*See CONCENTRATION RANGE on back of form.

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ecology and environment, inc.
195 SUGG ROAD, P.O. BOX D, BUFFALO, N.Y., 14225, TEL. 716-832-4491
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: IL3140
Project Name: DEAD CREEK
Project Manager: M. Miller
Samplers: (Signatures) Ronald E Bock
Field Team Leader: Dan Sewell

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	2-8oz organics	2-40 ml VOA	1-1 liter Metals	1-1 liter Cyanide			REMARKS
DC-SW-11	11-6-86	1005		X		BLANK	DC-SW-11	6	2	2	1	1			Metals preserved 1:1 HNO_3 Cyanide preserved NaOH
DC-SW-12	11-6-86	1215		X		HIGH OIL CONTENT	DC-SW-12	6	2	2	1	1			
DC-SW-13	11-6-86	1240		X			DC-SW-13	6	2	2	1	1			

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
David F. Sewell	11/6/86 1600	FEDERAL EXPRESS			
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)
Fed. Express	11-7-86 0930	[signature]			

Ship Via: FEDERAL EXPRESS
BL/Airbill Number: 2219748484
Date: 11/6/86

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
*See CONCENTRATION RANGE on back of form.

234055

SURROGATE PERCENT RECOVERY SUMMARY

WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-4431/U-4441 Contract Laboratory Ecology / Environment Inc. Contract No. IL-3140

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (88-110)	BFB (86-115)	1,2 DICHLORO-ETHANE-D4 (76-114)	NITRO-BENZENE-D5 (35-114)	2-FLUORO-BIPHENYL (43-116)	TERPHENYL-D14 (33-141)			PHENOL-D5 (10-94)	2-FLUORO-PHENOL (21-100)	2,4,6 TRIBROMO-PHENOL (10-123)	DIBUTYL-CHLORENDATE** (24-154)
Blank 1	106	102	102	NR ←						→	NR	NR
DC-SW-1	100	98	98	50	54	87			16	26	54	101
DC-SW-2	104	98	98	75	71	81			28	29	74	87
DC-SW-3	98	94	100	73	73	102			26	42	71	95
DC-SW-4	96	90	90	44	48	69			21	30	86	87†
DC-SW-5	102	100	102	62	67	98			22	36	70	88†
DC-SW-6	96	94	98	89	76	81			30	50	78	88†
DC-SW-7	96	94	98	102	89	93			30	60	76	95
DC-SW-8	102	96	102	95	84	94			31	58	84	81
DC-SW-9	96	98	106	~~*3~~ 97	86	100			32	54	82	67
DC-SW-10	102	100	104	80	80	101			22	33	76	91
Blank 2	100	98	100	NR ←						→	NR	NR
DC-SW-3-MS	96	90	90	NR ←							→	NR
DC-SW-3-MSD	100	100	100	NR ←							→	NR
DC-SW-11	100	102	92	74	68	105			22	30	78	95
DC-SW-12	94	92	86	0*	6*	5*			59	95	139*	DL
DC-SW-13	102	86	90	85	75	64			30	44	78	81
Blank 3	104	104	104	NR ←							→	NR
DC-SW-1 MS	NR ←									→	NR	98
DC-SW-1 MSD	NR ←									→	NR	101
BLANK	NR ←									→	NR	104
DC-SW-11 MS	NR	NR	NR	66	69	105			30	39	103	NR
DC-SW-11 MSD	NR	NR	NR	84	75	114			28	35	90	NR
BLANK(11/10)	NR	NR	NR	79	76	120			13	29	63	NR

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 54 ; outside of QC limits

Semi-Volatiles: 4 out of 96 ; outside of QC limits

Pesticides: 0 out of 16 ; outside of QC limits

Comments: †: PEAK HEIGHT USED BECAUSE OF SHOULDERING PEAK.
DL = SURROGATE DILUTED OUT
NR = NOT REQUIRED

MS/MSD SUMMARY

481095

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4431/V-4441 Contractor Ecology & Environment Inc. Contract No. IL-3140

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. DC-SW-3	1,1-Dichloroethene	50	0	48	96	49	98	2.1	14	61-145
	Trichloroethene			53	106	53	106	0	14	71-120
	Chlorobenzene			52	104	53	106	1.9	13	75-130
	Toluene			56	112	57	114	1.8	13	76-125
	Benzene			54	108	54	108	0	11	76-127
B/N SMO SAMPLE NO. DC-SW-11	1,2,4-Trichlorobenzene	100	0	52	52	66	66	24	28	39-98
	Acenaphthene	100	0	79	79	83	83	4.9	31	46-118
	2,4 Dinitrotoluene	100	0	110	110*	120	120*	8.7	38	24-96
	Pyrene	100	0	100	100	110	110	9.5	31	26-127
	N-Nitroso-Di-n-Propylamine	100	0	56	56	72	72	25	38	41-116
	1,4-Dichlorobenzene	100	0	45	45	55	55	20	28	36-97
ACID SMO SAMPLE NO. DC-SW-11	Pentachlorophenol	200	0	170	85	150	75	12	50	9-103
	Phenol	200	0	60	30	58	29	3.4	42	12-89
	2-Chlorophenol	200	0	120	60	120	60	0	40	27-123
	4-Chloro-3-Methylphenol	200	0	160	80	170	85	6.1	42	23-97
	4-Nitrophenol	200	0	36	18	38	19	5.4	50	10-80
PEST SMO SAMPLE NO. DC-SW-1	Lindane	0.20	0	0.23	115	0.24	120	4.3	15	56-123
	Heptachlor	0.20	0	0.18	90	0.19	95	5.4	20	40-131
	Aldrin	0.20	0	0.17	85	0.15	75	13	22	40-120
	Dieldrin	0.50	0	0.48	96	0.50	100	4.1	18	52-126
	Endrin	0.50	0	0.48	96	0.51	102	6.1	21	56-121
	4,4'-DDT	0.50	0	0.58	116	0.64	128*	10	27	38-127

* 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 0 out of 10 ; outside QC limits
PEST 1 out of 12 ; outside QC limits

Comments:

FORM III

7/85
494095

STANDARDS DATA

481095

//

INITIAL CALIBRATION DATA

Initial Calibration Data
HSL Compounds

Case U-4431/U-4441 Instrument ID: HP-5995C

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

Contract 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
CHLOROMETHANE	50	1.51261	1.36840	1.38855	1.59462	1.27699	1.42823	8.775		**
BROMOMETHANE	94	1.10195	.64400	.65596	.67527	.88877	.79319	25.172		
VINYL CHLORIDE	62	.59555	.59313	.51670	.86164	.50281	.61396	23.593	*	
CHLOROETHANE	64	.54660	.41755	.42217	.51621	.27098	.43470	24.782		
METHYLENE CHLORIDE	84	2.70137	2.01268	1.84853	1.83985	1.65935	2.01235	20.123		
ACETONE	43	.70413	.54300	.43570	.42038	.42083	.50481	24.290		
TRICHLOROFLUOROMETHANE	101	2.95527	2.76905	2.77094	3.00577	2.59619	2.81945	5.825		
CARBON DISULFIDE	76	4.47571	4.27118	4.37298	4.71046	4.13194	4.39246	4.975		
1,1-DICHLOROETHENE	61	3.05700	2.94252	2.96034	3.20994	2.81701	2.99736	4.882	*	
1,1-DICHLOROETHANE	63	3.31645	3.14080	3.18457	3.45580	3.04764	3.22905	4.939		**
TRANS-1,2-DICHLOROETHENE	96	1.54663	1.48573	1.49992	1.63148	1.42083	1.51692	5.160		
CHLOROFORM	83	3.27718	3.10039	3.11003	3.32612	2.98113	3.15897	4.459	*	
1,2-DICHLOROETHANE	62	2.71789	2.71336	2.71294	2.54085	2.69616	2.67624	2.845		
1,2-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)
2-BUTANONE	72	.04297	.03739	.03140	.02315	.03315	.03361	21.881		
1,1,1-TRICHLOROETHANE	97	.55645	.54439	.54279	.54039	.52853	.54251	1.838		
CARBON TETRACHLORIDE	117	.53155	.52778	.51992	.51554	.49734	.51843	2.579		
VINYL ACETATE	43	.58349	.57735	.56023	.49965	.54462	.55307	6.058		
BROMODICHLOROMETHANE	83	.61487	.60306	.59880	.56560	.60562	.59759	3.150		
1,2-DICHLOROPROPANE	63	.46335	.46387	.45272	.42721	.44731	.45089	3.328	*	
TRANS-1,3-DICHLOROPROPENE	75	.77766	.77132	.75522	.70766	.75337	.75304	3.639		
TRICHLOROETHENE	130	.40368	.39124	.37168	.36700	.35459	.37764	5.201		
DIBROMOCHLOROMETHANE	129	.48448	.48927	.45953	.37680	.43233	.44848	10.267		
1,1,2-TRICHLOROETHANE	97	.32361	.33708	.31349	.24522	.30582	.30504	11.616		
BENZENE	78	1.20688	1.15514	1.11285	1.07162	1.05278	1.11985	5.593		
CIS-1,3-DICHLOROPROPENE	75	.40793	.40307	.38548	.35067	.36868	.38317	6.232		
2-CHLOROETHYLVINYLETHER	63	.05797	.03012	.02283	.05812	.01766	.03734	51.985		
BROMOFORM	173	.46077	.52902	.51955	.37555	.53655	.48429	13.987		**
4-METHYL-2-PENTANONE	43	.35724	.41899	.40640	.38059	.46595	.40583	10.149		
2-HEXANONE	43	.31485	.34100	.31768	.26628	.35929	.31982	10.946		
TETRACHLOROETHENE	164	.49236	.47235	.45158	.46337	.41058	.45805	6.645		
1,1,2,2-TETRACHLOROETHANE	83	.57441	.66566	.66212	.46259	.68781	.61052	15.292		**
TOLUENE-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)
TOLUENE	92	.97767	.91986	.89142	.91055	.86557	.91301	4.566	*	
CHLOROBENZENE	112	1.09059	1.03528	1.02098	1.01667	.98461	1.02763	3.767		**
ETHYLBENZENE	91	1.93098	1.85270	1.81066	1.86300	1.79389	1.85025	2.889	*	

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

Initial Calibration Data
HSL Compounds

Ca: ı: U-4431/U-4441 Instrument ID: HP-5995C

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

Contract 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
4-BROMOFLUOROBENZENE(SURR) 95	.87576	.87437	.88850	.89341	.93945	.89230	3.024		(Conc=50.0,50.0,50.0,50.0,50.0)
STYRENE 104	1.05690	.98537	.96584	.98433	.97498	.99348	3.656		
TOTAL XYLENES 91	1.52761	1.39765	1.39801	1.44575	1.40835	1.43547	3.842		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

HSL Compounds

Case No: U-4431 | U-4441 Instrument ID: HP-5970 B

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

ract 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	1.30860	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	4.698		
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	.24760	.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	13.165		
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	.40732	.34790	.42524	11.873	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26935	.26406	.28047	.26087	.25818	.26659	3.303		
HEXACHLOROBENZENE	284	.36253	.33008	.33921	.34540	.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 (**)

HSL Compounds

Case No: U-4431/U-4441 Instrument ID: HP-5970B

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

Co...act No: IL-3140

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

Laboratory ID:		>B2318	>B2317	>B2320	>B2321	>B2322				
		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	1.09403	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	1.15266	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 (**)

Initial Calibration Data
HSL Compounds

Case No: U-4431/U-4441 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 RF 20.00	>82324 RF 50.00	>82325 RF 80.00	>82326 RF 120.00	>82327 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	1.09053	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	11.045		**
4-NITROPHENOL	139	-	.19015	.15858	.14172	.15885	.16233	12.448		**
4,6-DINITRO-2-METHYLPHENOL	198	-	.13952	.13065	.14342	.15487	.14211	7.067		
PENTACHLOROPHENOL	266	-	.17560	.16016	.16451	.18549	.17144	6.650	*	

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

- Average Response Factor

%RSD - Percent Relative Standard Deviation

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

CONTINUING CALIBRATION DATA

Continuing Calibration Check
HSL Compounds

Case No: U-4431 Calibration Date: 11/10/86

Contractor: E & E, INC. Time: 10:30

Contract No: IL-3140 Laboratory ID: >C5425

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	1.42259	.40		**
BROMOMETHANE	94	.79319	.72641	8.42		
VINYL CHLORIDE	62	.61396	.69001	12.39	*	
CHLOROETHANE	64	.43470	.76545	76.09		
METHYLENE CHLORIDE	84	2.01235	1.77434	11.83		
ACETONE	43	.50481	.68170	35.04		
TRICHLOROFLUOROMETHANE	101	2.81945	3.33284	18.21		
CARBON DISULFIDE	76	4.39246	4.89988	11.55		
1,1-DICHLOROETHENE	61	2.99736	2.90331	3.14	*	
1,1-DICHLOROETHANE	63	3.22905	3.17505	1.67		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.49694	1.32		
CHLOROFORM	83	3.15897	3.51174	11.17	*	
1,2-DICHLOROETHANE	62	2.67624	3.10623	16.07		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.80633	9.37		
2-BUTANONE	72	.03361	.04344	29.24		
1,1,1-TRICHLOROETHANE	97	.54251	.63655	17.33		
CARBON TETRACHLORIDE	117	.51843	.61358	18.35		
VINYL ACETATE	43	.55307	.32534	41.18		
BROMODICHLOROMETHANE	83	.59759	.67889	13.60		
1,2-DICHLOROPROPANE	63	.45089	.41418	8.14	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.80037	6.28		
TRICHLOROETHENE	130	.37764	.36272	3.95		
DIBROMOCHLOROMETHANE	129	.44848	.47956	6.93		
1,1,2-TRICHLOROETHANE	97	.30504	.26938	11.69		
BENZENE	78	1.11985	1.14189	1.97		
CIS-1,3-DICHLOROPROPENE	75	.38317	.46154	20.45		
2-CHLOROETHYLVINYLETHER	63	.03734	.13350	257.50		
BROMOFORM	173	.48429	.35977	25.71		**
4-METHYL-2-PENTANONE	43	.40583	.37959	6.47		
2-HEXANONE	43	.31982	.29497	7.77		
TETRACHLOROETHENE	164	.45805	.38216	16.57		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.59288	2.89		**
TOLUENE-D8 (SURR)	98	1.49136	1.44610	3.03		
TOLUENE	92	.91301	.92016	.78	*	
CHLOROBENZENE	112	1.02963	1.11694	8.48		**
ETHYLBENZENE	91	1.85025	1.99227	7.68	*	

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 (**)

Continuing Calibration Check
HSL Compounds

Case No: V-4431 Calibration Date: 11/10/86

Contractor: E & E, INC. Time: 10:30

Contract No: IL-3140 Laboratory ID: >C5425

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	.78014	12.57		
STYRENE	104	.99348	1.19915	20.70		
TOTAL XYLENES	91	1.43547	1.69237	17.90		

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

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

Continuing Calibration Check
HSL Compounds

Case No: U-4431 Calibration Date: 11/10/86

Contractor: E & E, INC. Time: 22:02

Contract No: I2-3140 Laboratory ID: >C5438

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	1.26816	11.21		**
BROMOMETHANE	94	.79319	1.09728	38.34		
VINYL CHLORIDE	62	.61396	.65088	6.01	*	
CHLOROETHANE	64	.43470	.36972	14.95		
METHYLENE CHLORIDE	84	2.01235	2.01162	.04		
ACETONE	43	.50481	.41076	18.63		
TRICHLOROFLUOROMETHANE	101	2.81945	3.48336	23.55		
CARBON DISULFIDE	76	4.39246	5.44904	24.05		
1,1-DICHLOROETHENE	61	2.99736	3.19958	6.75	*	
1,1-DICHLOROETHANE	63	3.22905	3.47134	7.50		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.63745	7.95		
CHLOROFORM	83	3.15897	3.73340	18.18	*	
1,2-DICHLOROETHANE	62	2.67624	3.15502	17.89		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.55184	.55		
2-BUTANONE	72	.03361	.04340	29.11		
1,1,1-TRICHLOROETHANE	97	.54251	.64253	18.44		
CARBON TETRACHLORIDE	117	.51843	.64452	24.32		
VINYL ACETATE	43	.55307	.33669	39.12		
BROMODICHLOROMETHANE	83	.59759	.68516	14.65		
1,2-DICHLOROPROPANE	63	.45089	.44349	1.64	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.82760	9.90		
TRICHLOROETHENE	130	.37764	.39352	4.20		
DIBROMOCHLOROMETHANE	129	.44848	.47687	6.33		
1,1,2-TRICHLOROETHANE	97	.30504	.33991	11.43		
BENZENE	78	1.11985	1.20201	7.34		
CIS-1,3-DICHLOROPROPENE	75	.38317	.46107	20.33		
2-CHLOROETHYLVINYLETHER	63	.03734	.07740	107.27		
BROMOFORM	173	.48429	.37838	21.87		**
4-METHYL-2-PENTANONE	43	.40583	.35130	13.44		
2-HEXANONE	43	.31982	.25412	20.54		
TETRACHLOROETHENE	164	.45805	.44342	3.19		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.61661	1.00		**
TOLUENE-D8 (SURR)	98	1.49136	1.41285	5.26		
TOLUENE	92	.91301	.99556	9.04	*	
[illegible]ROBENZENE	112	1.02963	1.23113	19.57		**
[illegible]LBENZENE	91	1.85025	2.08165	12.51	*	

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

Continuing Calibration Check
HSL Compounds

Case No: U-4431

Calibration Date: 11/10/86

Contractor: E & E, INC.

Time: 22:02

Contract No: IL-3140

Laboratory ID: >C5438

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	.74823	16.15		
STYRENE	104	.99348	1.24404	25.22		
TOTAL XYLENES	91	1.43547	1.70195	18.56		

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

Continuing Calibration Check
HSL Compounds

Case No: U-4441 Calibration Date: 11/11/86

Contractor: E & E, INC. Time: 12:14

Contract No: IL-3140 Laboratory ID: >C5452

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	1.30867	8.37		**
BROMOMETHANE	94	.79319	.86324	8.83		
VINYL CHLORIDE	62	.61396	.63810	3.93	*	
CHLOROETHANE	64	.43470	.72770	67.40		
METHYLENE CHLORIDE	84	2.01235	2.04297	1.52		
ACETONE	43	.50481	.72080	42.79		
TRICHLOROFLUOROMETHANE	101	2.81945	3.60288	27.79		
CARBON DISULFIDE	76	4.39246	5.78499	31.70		
1,1-DICHLOROETHENE	61	2.99736	3.26200	8.83	*	
1,1-DICHLOROETHANE	63	3.22905	3.65503	13.19		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.79921	18.61		
CHLOROFORM	83	3.15897	3.89482	23.29	*	
1,2-DICHLOROETHANE	62	2.67624	3.15914	18.04		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.36804	7.71		
2-BUTANONE	72	.03361	.04208	25.19		
1,1,1-TRICHLOROETHANE	97	.54251	.66071	21.79		
CARBON TETRACHLORIDE	117	.51843	.67519	30.24		
VINYL ACETATE	43	.55307	.37357	32.45		
BROMODICHLOROMETHANE	83	.59759	.68922	15.33		
1,2-DICHLOROPROPANE	63	.45089	.46088	2.22	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.86138	14.39		
TRICHLOROETHENE	130	.37764	.44424	17.64		
DIBROMOCHLOROMETHANE	129	.44948	.53773	19.90		
1,1,2-TRICHLOROETHANE	97	.30504	.36841	20.77		
BENZENE	78	1.11985	1.31405	17.34		
CIS-1,3-DICHLOROPROPENE	75	.38317	.48244	25.91		
2-CHLOROETHYLVINYLETHER	63	.03734	.15425	313.10		
BROMOFORM	173	.48429	.44442	8.23		**
4-METHYL-2-PENTANONE	43	.40583	.44417	9.45		
2-HEXANONE	43	.31982	.32695	2.23		
TETRACHLOROETHENE	164	.45805	.49565	8.21		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.66496	8.92		**
TOLUENE-D8 (SURR)	98	1.49136	1.38950	6.83		
TOLUENE	92	.91301	1.07129	17.34	*	
CHLOROBENZENE	112	1.02963	1.29958	26.22		**
ETHYLBENZENE	91	1.85025	2.12859	15.04	*	

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 (**)

Continuing Calibration Check
HSL Compounds

se no: V-4441 | Calibration Date: 11/11/86

ntractor: E & E, INC. | Time: 12:14

ntract No: IL-3140 | Laboratory ID: >C5452

strument 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
-BROMOFLUOROBENZENE(SURR)	95	.89230	.70915	20.53		
STYRENE	104	.99349	1.27872	28.71		
TOTAL XYLENES	91	1.43547	1.73411	20.80		

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

- Average Response Factor from Initial Calibration Form VI

ff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Co... No: U-4431/U-4441 Calibration Date: 11/18/86

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

Contract No: IL-3140 Laboratory ID: >B3045

Instrument ID: HP-5970 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	1.46869	3.59		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	.96383	22.27		
1,3-DICHLOROBENZENE	146	1.38276	1.41219	2.13		
1,4-DICHLOROBENZENE	146	1.36777	1.30386	4.67	*	
BENZYL ALCOHOL	79	1.07958	.74233	31.24		
1,2-DICHLOROBENZENE	146	1.42808	1.37978	3.38		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.16771	27.02		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	.97815	24.31		**
HEXACHLOROETHANE	117	.70913	.65049	8.27		
NITROBENZENE-D5 (SURR)	82	.40084	.35883	10.48		
NITROBENZENE	77	.41948	.34290	18.25		
ISOPHORONE	82	.80995	.65110	19.61		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.39615	13.08		
1,2,4-TRICHLOROBENZENE	180	.37851	.35786	5.46		
NAPHTHALENE	128	.98472	.94121	4.42		
4-CHLOROANILINE	127	.39458	.37748	4.33		
HEXACHLOROBUTADIENE	225	.25803	.24103	6.59	*	
2-METHYLNAPHTHALENE	142	.62355	.55010	11.78		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.54290	19.59		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.66802	25.36		
2-CHLORONAPHTHALENE	162	1.20816	1.32696	9.83		
2-NITROANILINE	65	.43896	.39061	11.02		
DIMETHYL PHTHALATE	163	1.43709	1.60092	11.40		
4-NITROANILINE	138	.25992	.24676	5.06		
DIBENZOFURAN	168	1.61498	1.63716	1.37		
ACENAPHTHYLENE	152	1.80371	1.95984	8.66		
FLUORENE	166	1.19425	1.12708	5.62		
3-NITROANILINE	138	.15454	.13682	11.47		
ACENAPHTHENE	153	1.18706	1.26508	6.57	*	
2,4-DINITROTOLUENE	165	.38188	.30353	20.52		
2,6-DINITROTOLUENE	165	.35087	.33987	3.13		
DIETHYLPHTHALATE	149	1.39014	1.40678	1.20		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.57055	8.76		
N-NITROSODIPHENYLAMINE	169	.42524	.49895	17.33	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.28387	6.48		
HEXACHLOROBENZENE	284	.34094	.30255	11.26		

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

Continuing Calibration Check
HSL Compounds

Case No: U-4431/U-4441 Calibration Date: 11/18/86

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

Contract No: IL-3140 Laboratory ID:)B3045

Instrument ID: HP-5970 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	.97411	.36		
ANTHRACENE	178	1.00646	.96697	3.92		
DI-N-BUTYLPHTHALATE	149	1.12721	1.09448	2.90		
FLUORANTHENE	202	.81517	.71598	12.17	*	
BENZIDINE		-	.10532	-		
PYRENE	202	1.60192	1.54671	3.45		
TERPHENYL-D14 (SURR)	244	1.11052	.89578	19.34		
BUTYLBENZYLPHTHALATE	149	.67361	.66526	1.24		
3,3'DICHLOROBENZIDINE	252	.31882	.24675	22.60		
BENZO(A)ANTHRACENE	228	1.12037	1.02196	8.78		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.90446	.40		
CHRYSENE	228	1.12666	1.04855	6.93		
DI-N-OCTYL PHTHALATE	149	1.70682	1.74502	2.24	*	
BENZO(B)FLUORANTHENE	252	1.21474	1.24619	2.59		
BENZO(K)FLUORANTHENE	252	1.23716	1.02457	17.18		
BENZO(A)PYRENE	252	1.12089	1.03663	7.52	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.96160	7.67		
DIBENZ(A,H)ANTHRACENE	278	1.06755	.89179	16.47		
BENZO(G,H,I)PERYLENE	276	1.15866	1.04333	9.95		

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

Continuing Calibration Check
HSL Compounds

Cas : U-4431/U-4441 Calibration Date: 11/18/86

Contractor: E & E, INC. Time: 12:53

Contract No: IL-3140 Laboratory ID: >B3047

Instrument ID: HP-5970 Initial Calibration Date: ~~07/31/86~~ BJC 7/30/86

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	1.16733	15.35		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.86917	.88496	1.82		
PHENOL	94	1.27723	1.22007	4.47	*	
2-METHYL PHENOL	108	1.06214	1.05484	.69		
2-CHLOROPHENOL	128	1.17232	1.34569	14.79		
3-METHYL PHENOL	108	1.06894	1.09565	2.50		
2-NITROPHENOL	139	.19333	.21283	10.09	*	
2,4-DIMETHYLPHENOL	122	.27900	.29041	4.09		
BENZOIC ACID	105	.23920	.17719	25.92		
2,4-DICHLOROPHENOL	162	.30213	.32067	6.14	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.27907	15.68	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.49626	11.47	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.50731	2.42		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32822	.21161	35.53		
2,4-DINITROPHENOL	184	.16189	.10612	34.45		**
4-NITROPHENOL	139	.16233	.09847	39.34		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.12741	10.34		
PENTACHLOROPHENOL	266	.17144	.12288	28.33	*	

Continuing Calibration Check
HSL Compounds

asr : U-4431/U-4441 Calibration Date: 11/19/86

ontractor: E & E, INC. Time: 11:04

ontract No: IL-3140 Laboratory ID: >B3061

nstrument ID: HP-5970 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
NILINE	93	1.52341	1.25877	17.37		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	.98288	20.73		
1,3-DICHLOROBENZENE	146	1.38276	1.23643	10.58		
1,4-DICHLOROBENZENE	146	1.36777	1.24909	8.68	*	
BENZYL ALCOHOL	79	1.07958	.90749	15.94		
1,2-DICHLOROBENZENE	146	1.42808	1.33091	6.80		
IS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.06869	30.35		
-NITROSO-DI-N-PROPYLAMINE	70	1.29228	.92695	28.27		**
EXACHLOROETHANE	117	.70913	.59440	16.18		
ITROBENZENE-D5 (SURR)	82	.40084	.33737	15.84		
ITROBENZENE	77	.41948	.33351	20.49		
SOPHORONE	82	.80995	.63968	21.02		
IS(-2-CHLOROETHOXY)METHANE	93	.45577	.37910	16.82		
,2,4-TRICHLOROBENZENE	180	.37851	.35706	5.67		
APHTHALENE	128	.98472	.88175	10.46		
-CHLOROANILINE	127	.39458	.37493	4.98		
EXACHLOROBUTADIENE	225	.25803	.24790	3.92	*	
-METHYLNAPHTHALENE	142	.62355	.56937	8.69		
CHLOROCYCLOPENTADIENE	237	.45397	.53475	17.79		**
LUOROBIPHENYL (SURR)	172	1.33061	1.66183	24.89		
-CHLORONAPHTHALENE	162	1.20816	1.37910	14.15		
-NITROANILINE	65	.43896	.37519	14.53		
IMETHYL PHTHALATE	163	1.43709	1.52557	6.16		
-NITROANILINE	138	.25992	.24509	5.70		
IBENZOFURAN	168	1.61498	1.67752	3.87		
ENAPHTHYLENE	152	1.80371	2.02041	12.01		
LUORENE	166	1.19425	1.17696	1.45		
-NITROANILINE	138	.15454	.12296	20.44		
ENAPHTHENE	153	1.18706	1.28802	8.51	*	
,4-DINITROTOLUENE	165	.38188	.29589	22.52		
,6-DINITROTOLUENE	165	.35087	.33204	5.37		
IETHYLPHTHALATE	149	1.39014	1.37306	1.23		
-CHLOROPHENYL-PHENYLETHER	204	.62534	.59399	5.01		
-NITROSODIPHENYLAMINE	169	.42524	.51150	20.29	*	
-BROMOPHENYL-PHENYL ETHER	248	.26659	.29745	11.58		
EXACHLOROBENZENE	284	.34094	.32197	5.56		

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

F - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average cr curve

CC - Calibrat heck Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

ase : U-4431/U-4441 Calibration Date: 11/19/86

ontractor: E & E, INC. Time: 11:04

ontract No: IL-3140 Laboratory ID:)B3061

nstrument ID: HP-5970 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
HENANTHRENE	178	.97758	.96367	1.42		
ANTHRACENE	178	1.00646	.98276	2.36		
DI-N-BUTYLPHTHALATE	149	1.12721	1.09508	2.85		
FLUORANTHENE	202	.81517	.72430	11.15	*	
BENZIDINE		-	.12944	-		
PYRENE	202	1.60192	1.45127	9.40		
ERPHENYL-D14 (SURR)	244	1.11052	.84194	24.18		
UTYLBENZYLPHTHALATE	149	.67361	.61953	8.03		
,3'DICHLOROBENZIDINE	252	.31882	.26978	15.38		
ENZO(A)ANTHRACENE	228	1.12037	.97682	12.81		
IS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.84660	6.02		
HRYSENE	228	1.12666	1.03635	8.02		
I-N-OCTYL PHTHALATE	149	1.70682	1.62867	4.58	*	
ENZO(B)FLUORANTHENE	252	1.21474	1.12971	7.00		
ENZO(K)FLUORANTHENE	252	1.23716	1.10679	10.54		
ENZO(A)PYRENE	252	1.12089	1.01346	9.58	*	
NDENO(1,2,3-CD)PYRENE	276	1.04154	.90120	13.47		
IBENZ(A,H)ANTHRACENE	278	1.06755	.90702	15.04		
ENZO(G,H,I)PERYLENE	276	1.15866	1.03410	10.75		

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 (**)

Continuing Calibration Check
HSL Compounds

Ca· 'o: V-4431/V-4441 Calibration Date: 11/19/86

Contractor: E & E, INC. Time: 12:04

Contract No: IL-3140 Laboratory ID:)B3062

Instrument ID: HP-5970 Initial Calibration Date: ~~07/31/86~~ AJK 7/30/86

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	1.23522	10.42		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.86917	.92474	6.39		
PHENOL	94	1.27723	1.28401	.53	*	
2-METHYL PHENOL	108	1.06214	1.00927	4.98		
2-CHLOROPHENOL	128	1.17232	1.23441	5.30		
4-METHYL PHENOL	108	1.06894	.99543	6.88		
2-NITROPHENOL	139	.19333	.20526	6.17	*	
2,4-DIMETHYLPHENOL	122	.27900	.28339	1.57		
BENZOIC ACID	105	.23920	.21284	11.02		
2,4-DICHLOROPHENOL	162	.30213	.31836	5.37	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.29043	12.25	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.49278	10.69	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.50977	1.94		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32822	.24468	25.45		
2,4-DINITROPHENOL	184	.16189	.16219	.18		**
4-NITROPHENOL	139	.16233	.11546	28.87		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.14891	4.78		
PENTACHLOROPHENOL	266	.17144	.15276	10.90	*	

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

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

PESTICIDE STANDARDS

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

481095

Pesticide Evaluation Standards Summary

(Page 1)

Case No: U-4431 U-4441 Region: _____

Contract No: IL-3140

Date of Analysis 11-11-86 11-12-86 11-13-86

Laboratory: ECOLOGY + ENVIRONMENT, INC

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	500	500	481	2.2
Endrin	535	540	512	2.8
4,4'- DDT(1)	206	225	236	6.8
Dibutyl Chlorendate	339	344	345	0.94

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	19:23			15.5
Eval Mix B	RUN #19	12:56			13.4
Eval Mix B	RUN #32	20:19			15.7
Eval Mix B	RUN #44	3:31			25
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 2 1 2 2 1

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	18:44	—				
EVAL MIX B	RUN #2	19:23	0.11				
EVAL MIX C	RUN #3	19:56	0.11				
IND MIX A	RUN #4	20:47	0.15				
IND MIX B	RUN #5	21:24	0.11				
TOXAPHENE	RUN #6	21:58	0.26				
CHLORDANE	RUN #7	22:47	0.15				
PCB 1016/1260	RUN #8	22:21	0.15				
PCB 1221	RUN #9	0:04	0.18				
PCB 1232	RUN #10	0:37	0.37				
PCB 1242	RUN #11	1:23	0.33				
PCB 1248	RUN #12	1:57	0.11				
PCB 1254	RUN #13	9:34	0.62				
BLANK	RUN #14	10:08	0.84				
DC-SW-1	RUN #15	10:41	0.89				
DC-SW-1 MS	RUN #16	11:15	0.77				
DC-SW-1 MSD	RUN #17	11:49	0.95				
DC-SW-2	RUN #18	12:22	0.91				
EVAL MIX B	RUN #19	12:56	0.99				
DC-SW-3	RUN #20	13:29	1.32				
DC-SW-4	RUN #21	14:03	0.99				
DC-SW-5	RUN #22	14:36	1.32				
DC-SW-6	RUN #23	15:10	1.54				
DC-SW-7	RUN #24	15:44	0.99				
IND MIX A	RUN #25	16:17	0.95				
IND MIX B	RUN #26	16:51	0.91				
DC-SW-8	RUN #27	17:24	0.91				
DC-SW-9	RUN #28	17:57	1.06				
DC-SW-10	RUN #29	18:39	1.02				
DC-SW-11	RUN #30	19:12	0.80				
DC-SW-12	RUN #31	19:45	DL				
EVAL MIX B	RUN #32	20:19	0.77				
DC-SW-13	RUN #33	20:52	DL				
DC-SW-13	RUN #34	21:32	0.84				
DC-SW-2	RUN #35	22:06	0.84				
DC-SW-3	RUN #36	22:39	0.73				
DC-SW-4	RUN #37	23:13	0.73				
IND MIX A	RUN #38	0:02	0.59				
IND MIX B	RUN #39	0:44	0.62				
DC-SW-7	RUN #40	1:17	0.44				
DC-SW-8	RUN #41	1:51	0.48				
DC-SW-9	RUN #42	2:24	0.26				
DC-SW-10	RUN #43	2:58	0.22				
EVAL MIX B	RUN #44	3:31	0.22				
IND MIX A	RUN #45	4:04	0.26				
IND MIX B	RUN #46	4:38	0.22				

DL = DILUTED OUT

Pesticide Evaluation Standards Summary
(Page 1)

Case No: U-4431 U-4441 Region: _____
Contract No: IL-3140
Date of Analysis 11-13-86 11-14-86

Laboratory: ECOLOGY + ENVIRONMENT, INC.
GC Column: SP2250/SP2401
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	610	644	2.7
Endrin	697	673	756	6.0
4,4'- DDT(1)	150	195	229	21
Dibutyl Chlorendate	337	356	380	6.0

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	21:29		7.4	
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					
Eval Mix B					

(1) See Exhibit E, Section 7 5 4

Pesticide Evaluation Standards Summary
(Page 2)

Evaluation of Retention Time Shift for Dibutyl Chlorendate

Report all standards, blanks and samples

SMO Sample No	Lab I.D	Time of Analysis	Percent Diff	SMO Sample No.	Lab I.D	Time of Analysis	Percent Diff
EVAL MIX A	RUN# 1	20:56	–				
EVAL MIX B	2	21:29	Ø				
EVAL MIX C	3	22:03	0.04				
IND MIX B	4	22:36	0.04				
PCB 1016/DW	5	23:10	0.04				
PCB 1254	6	23:45	Ø				
BLANK	7	0:18	Ø				
DC-SW-4	8	0:52	0.09				
DC-SW-5	9	1:26	0.04				
DC-SW-6	10	1:59	0.67				
DC-SW-13	11	2:33	0.40				
PCB 1254	12	3:07	0.31				
IND MIX B	13	3:41	0.40				

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4431/U-4441 Laboratory ECOLOGY + ENVIRONMENT, INC.
Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN 6000 GC#2

	DATE OF ANALYSIS 11-11-86				DATE OF ANALYSIS 11-12-86			
	TIME OF ANALYSIS 20:47 / 21:24				TIME OF ANALYSIS 16:17 / 16:51			
	LABORATORY ID Run# 4 / Run#5				LABORATORY ID Run#25 Run#26			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	2.14	2.10-2.18	580		2.12	587		1.2
beta-BHC	2.27	2.23-2.31	194		2.26	198		2.1
delta-BHC	2.56	2.52-2.60	529		2.54	538		1.7
gamma-BHC	2.49	2.47-2.51	488		2.47	494		1.2
Heptachlor	3.95	3.91-3.99	430		3.92	432		0.47
Aldrin	4.86	4.81-4.91	495		4.82	496		0.20
Heptachlor Epoxide	5.89	5.82-5.96	462		5.84	463		0.22
Endosulfan I	7.29	7.19-7.39	435		7.23	444		2.1
Dieldrin	8.49	8.37-8.61	471		8.41	490		4.0
4,4'-DDE	8.38	8.22-8.54	445		8.28	452		1.6
Endrin	9.45	9.26-9.64	420		9.35	432		2.9
Endosulfan II	9.64	9.52-9.76	421		9.55	439		4.3
4,4'-DDD	10.51	10.30-10.72	410		10.39	423		3.2
Endosulfan Sulfate	12.32	12.06-12.58	353		12.18	386		9.3
4,4'-DDT	13.69	13.52-13.86	110 *		13.54	110 *		Ø
Methoxychlor	20.09	19.79-20.39	138		19.87	139		0.72
Endrin Ketone	15.77	15.45-16.09	455		15.60	461		1.3
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254	9.48-22.25	±0.31	194	QUANT.				
Aroclor - 1260	7.10-22.47	±0.64	191	QUANT.				

7/85

* SEE EXHIBIT E, PART 7
* PEAK HEIGHT

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

FORM IX

504095

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4431/U-4441 Laboratory ECOLOGY + ENVIRONMENT, INC.

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

	DATE OF ANALYSIS 11-11-86				DATE OF ANALYSIS 11-13-86			
	TIME OF ANALYSIS 20:47 / 21:24				TIME OF ANALYSIS 0:02 / 0:44			
	LABORATORY ID RUN# 4 / RUN# 5				LABORATORY ID RUN# 38 / RUN# 39			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	2.14	2.10-2.18	580		2.13	573		1.2
beta-BHC	2.27	2.23-2.31	194		2.27	191		1.6
delta-BHC	2.56	2.52-2.60	529		2.55	508		0.04
gamma-BHC	2.49	2.47-2.51	488		2.48	476		2.5
Heptachlor	3.95	3.91-3.99	430		3.93	392		9.0
Aldrin	4.86	4.81-4.91	495		4.83	481		2.8
Heptachlor Epoxide	5.89	5.82-5.96	462		5.85	444		3.9
Endosulfan I	7.29	7.19-7.39	435		7.25	421		3.2
Dieldrin	8.49	8.37-8.61	471		8.44	452		4.0
4,4'-DDE	8.38	8.22-8.54	445		8.33	409		8.1
Endrin	9.45	9.26-9.64	420		9.40	382		13
Endosulfan II	9.64	9.52-9.76	421		9.58	367		13
4,4'-DDD	10.51	10.30-10.72	410		10.45	358		13
Endosulfan Sulfate	12.32	12.06-12.58	353		12.23	369		4.5
4,4'-DDT	13.69	18.52-13.86	210		13.60	71		66
Methoxychlor	20.09	19.79-20.39	138		19.94	61		56
Endrin Ketone	15.77	15.45-16.09	455		15.65	392		14
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254	3.43-22.25	±0.31	194	QUANT.				
Aroclor - 1260	7.10-22.47	±0.64	191	QUANT.				

* SEE EXHIBIT E, PART 7

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

FORM IX

7/85

504095

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4431/U-4441 Laboratory ECOLOGY + ENVIRONMENT, INC.
Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN 6000 GC#2

	DATE OF ANALYSIS 11-11-86 TIME OF ANALYSIS 20:47 / 21:24 LABORATORY ID Run# 4 / Run# 5				DATE OF ANALYSIS 11-13-86 TIME OF ANALYSIS 4:04 / 4:38 LABORATORY ID Run#45 / Run#46			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	2.14	2.10-2.18	580		2.13	571		1.6
beta-BHC	2.27	2.23-2.31	194		2.27	192		4.1
delta-BHC	2.56	2.52-2.60	529		2.55	500		5.5
gamma-BHC	2.49	2.47-2.51	488		2.49	475		2.7
Heptachlor	3.95	3.91-3.99	430		3.94	395		8.1
Aldrin	4.86	4.81-4.91	495		4.85	482		2.6
Heptachlor Epoxide	5.89	5.82-5.96	462		5.87	449		2.8
Endosulfan I	7.29	7.19-7.39	435		7.28	423		2.8
Dieldrin	8.49	8.37-8.61	471		8.47	455		3.4
4,4'-DDE	8.38	8.22-8.54	445		8.35	408		8.3
Endrin	9.45	9.26-9.64	420		9.42	377		10
Endosulfan II	9.64	9.52-9.76	421		9.61	373		11
4,4'-DDD	10.51	10.30-10.72	410		10.46	371		9.5
Endosulfan Sulfate	12.32	12.06-12.58	353		12.27	365		3.4
4,4'-DDT	13.69	13.52-13.86	210		13.64	87		59
Methoxychlor	20.09	19.79-20.39	138		20.00	69		50
Endrin Ketone	15.77	15.45-16.09	455		15.72	403		11
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254	3.43-22.25	± 0.31	194	QUANT.				
Aroclor - 1260	7.10-22.47	± 0.64	191	QUANT.				

* SEE EXHIBIT E, PART 7

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

7/85

FORM IX

504095

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4431/U-4441 Laboratory ECOLOGY + ENVIRONMENT, INC

Contract No. IL-3140 GC Column SP2250/SP2401 GC Instrument ID VARIAN 600 #2

	DATE OF ANALYSIS 11-13-86				DATE OF ANALYSIS 11-14-86			
	TIME OF ANALYSIS 22:36				TIME OF ANALYSIS 3:07 / 3:41			
	LABORATORY ID RUN #3 RUN #4				LABORATORY ID RUN #12 / RUN #13			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	1.68	1.65-1.71	720		1.68	746		3.6
beta-BHC	2.41	2.36-2.46	239		2.42	245		2.5
delta-BHC	2.81	2.76-2.86	392		2.82	421		7.4
gamma-BHC								
Heptachlor								
Aldrin	3.15	3.12-3.18	639		3.16	660		3.2
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE	6.81	6.67-6.95	547		6.83	558		2.0
Endrin	8.81	8.63-8.99	504	CONF.	8.84	502		0.40
Endosulfan II								
4,4'-DDD	10.43	10.11-10.65	366		10.47	418		14
Endosulfan Sulfate	17.06	16.76-17.36	246		17.12	265		3.7
4,4'-DDT								
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254	3.18-20.14	±0.25	241	CONF.	3.20-20.19	±0.25	229	5.0
Aroclor - 1260	6.92-19.78	±0.57	251	CONF.				

* SEE EXHIBIT E, PART 7

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

FORM IX

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504095

Pesticide/PCB Identification

Case No. U-4431 / U-4441

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-SW-4	OV-1	PCB 1260	7.02-22.26	7.10-22.47	SP2250/SP2401	6.97-19.22	6.92-19.25	
DC-SW-5	OV-1	PCB 1254	3.41-22.21	3.43-22.25	SP2250/SP2401	3.21-19.26	3.18-20.14	
DC-SW-6	OV-1	PCB 1254	3.42-22.22	3.43-22.25	SP2250/SP2401	3.23-19.30	3.18-20.14	

4/84
505095

FORM X

GC/MS TUNING

1. DFTPP FORM V

2. BFB FORM V

481095

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4431/U-4441 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 7-30-86 Time 1051

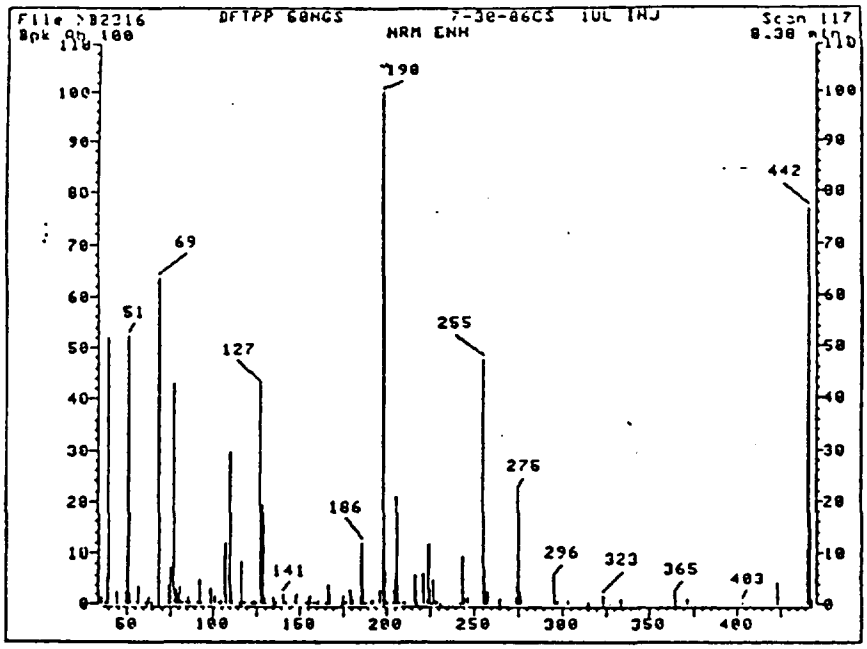
Lab ID B2316 Data Release Authorized By: C Slojtowicz

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	0 (0)[1]
69	mass 69 relative abundance	63.5
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	6.54
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



>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: 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

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4431/U-4441 Contractor ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Instrument ID HP5970B Date 11-18-86 Time 1011

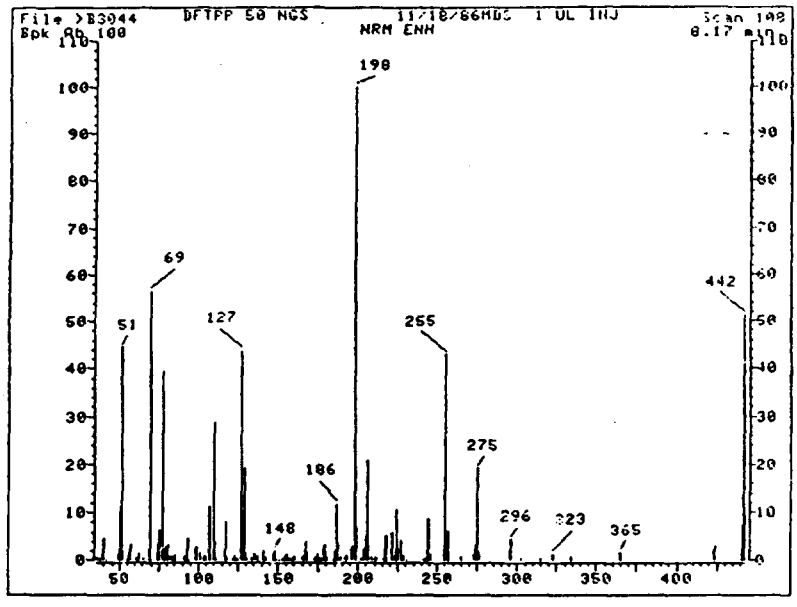
Lab ID B3044 Data Release Authorized By: [illegible]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	44.5
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	56.6
70	less than 2.0% of mass 69	0.16 (0.28)[1]
127	40.0 - 60.0% of mass 198	43.7
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.67
275	10.0 - 30.0% of mass 198	19.3
365	greater than 1.00% of mass 198	1.82
441	present, but less than mass 443	7.46
442	greater than 40.0% of mass 198	51.2
443	17.0 - 23.0% of mass 442	9.70 (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	B3045	11-18-86	1041
-	AP STD - 50 ng	B3047		1253
-	BLANK	B3049		1407
DC-SW-1	9641	B3050		1502
DC-SW-7	9647	B3051		1600
DC-SW-9	9649	B3052		1658
DC-SW-10	9650	B3053		1749
DC-SW-4	9644	B3054		1840
DC-SW-5	9645	B3055		1943
DC-SW-8	9648	B3056		2037
DC-SW-6	9646	B3057		2128



>B3044 DFTPP 50 NGS 11/18/86MDS 1 UL INJ
108 NRM ENH

File: >B3044 Scan #: 108 Retn. time: 8.17

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.95	.66	91.10	.71	137.10	.63	180.95	.83	227.95	.54
38.05	.38	92.10	.64	141.10	1.98	184.05	.15	229.05	.89
39.15	4.57	93.00	4.66	142.00	.61	185.15	1.54	231.05	.21
41.05	.13	94.10	.22	143.10	.49	186.05	11.69	240.95	.12
49.15	1.31	98.10	3.08	147.10	.93	187.05	3.23	242.05	.52
50.05	11.44	99.00	2.54	148.00	2.04	187.95	.16	243.15	.33
51.15	44.53	101.10	1.61	149.00	.34	189.05	.60	244.05	8.78
52.10	2.12	103.00	.33	151.20	.19	192.05	.83	245.05	1.05
55.10	.21	104.00	.93	153.00	.36	193.05	.89	246.05	1.50
56.00	1.40	105.10	.84	154.00	.47	196.05	3.08	255.05	42.97
57.00	3.27	107.00	11.45	155.05	1.05	197.95	100.00	256.05	6.21
60.90	.29	108.00	1.50	156.05	1.49	198.95	6.67	257.00	.49
62.00	.37	110.00	28.95	157.05	.26	201.55	.51	257.90	2.08
63.00	1.41	111.00	3.83	158.05	.28	202.95	.51	265.00	.82
65.10	.44	112.00	.27	159.05	.23	204.05	2.55	273.00	1.28
69.00	56.59	117.00	8.23	159.85	.62	205.05	4.84	274.00	3.39
70.00	.16	118.10	.58	160.95	.87	206.05	20.74	275.00	19.27
74.00	3.65	122.10	.50	165.05	.74	207.05	2.97	276.00	2.09
75.00	6.56	123.10	1.10	165.95	.63	208.05	.63	277.00	1.41
77.10	39.37	124.10	.54	166.95	4.07	210.15	.19	296.00	4.55
78.10	2.32	125.10	.52	167.95	1.03	210.95	.71	303.00	.56
79.00	2.87	127.00	43.72	173.05	.25	216.05	.24	315.00	.44
80.00	2.13	128.00	3.23	174.05	.77	216.95	5.24	323.10	1.42
81.00	3.36	129.10	19.33	174.95	1.39	218.05	.37	334.10	.77
82.00	.67	130.00	1.62	175.95	.32	221.05	5.95	364.95	1.82
83.00	.61	131.00	.46	177.05	.73	222.95	1.20	423.05	2.85
84.00	.56	134.10	.25	178.05	.18	224.05	10.66	441.05	7.46
85.00	.67	135.10	1.42	178.95	3.33	225.05	2.57	442.05	51.25
86.00	1.05	136.00	.33	180.05	1.92	226.95	4.28	443.05	9.70

MS data file header from : >B3044

Sample: DFTPP 50 NGS Operator: USER8 MS 11/18/86 10:11
Misc : 11/18/86MDS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPP8 Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 120. 200. 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

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4431/U-4441 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 11-19-86 Time 944

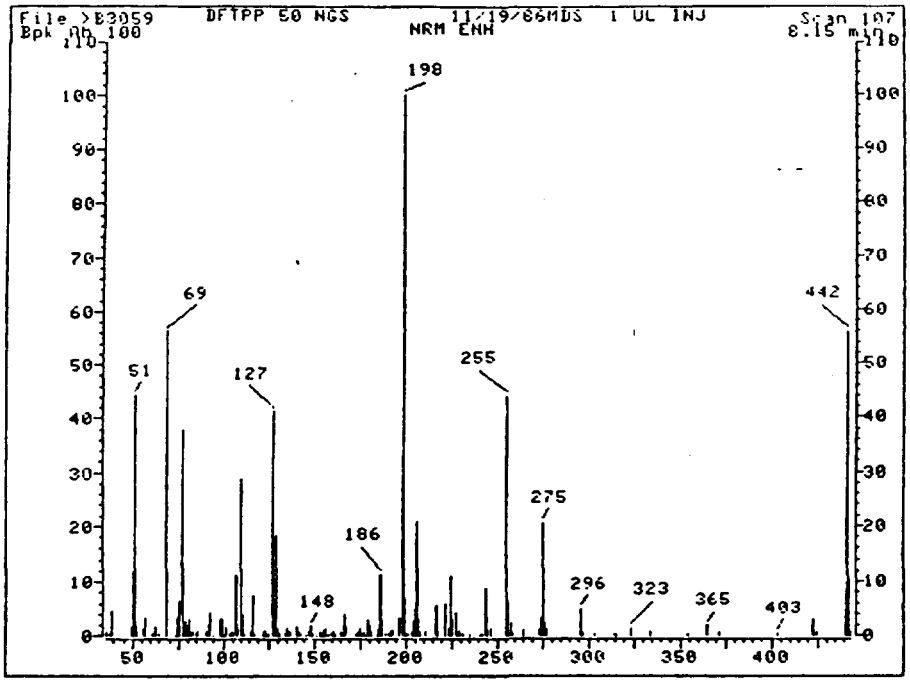
Lab ID B3059 Data Release Authorized By: C Stojkowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	44.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	56.3
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	41.3
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.69
275	10.0 - 30.0% of mass 198	20.6
365	greater than 1.00% of mass 198	1.89
441	present, but less than mass 443	8.29
442	greater than 40.0% of mass 198	55.9
443	17.0 - 23.0% of mass 442	10.3 (18.4)[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	B3061	11-19-86	1104
	AP STD-50ng	B3062		1204
DC-SW-2	9642	B3063		1309
DC-SW-3	9643	B3064		1411
DC-SW-11 MS	9680 MS	B3066		1617
DC-SW-11-MSD	9680 MSD	B3067		1708
DC-SW-11	9680	B3068		1816
DC-SW-13	9682	B3069		1907
DC-SW-12	9681 - AP	B3070		2001
DC-SW-12	9681 - BN	B3071		2052



>B3059 DFTPP 50 NGS 11/19/86MDS 1 UL INJ
107 NRM ENH

File: >B3059 Scan #: 107 Retn. time: 8.15

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	.72	99.00	2.87	147.10	.89	188.95	.43	245.05	1.13
38.15	.45	100.20	.17	148.10	1.85	191.15	.32	246.05	1.44
39.05	4.41	101.00	1.54	148.90	.25	192.05	.85	255.05	44.05
49.25	1.57	103.00	.51	151.00	.20	193.05	.94	256.05	6.06
50.15	11.88	104.00	.79	153.00	.61	196.05	3.30	257.00	.46
51.15	44.38	105.10	.80	154.10	.34	197.95	100.00	258.00	2.24
52.10	2.05	107.00	11.26	155.05	.99	199.05	6.69	259.00	.36
56.10	1.31	108.00	1.52	156.05	1.44	199.95	.26	265.00	.89
57.00	3.44	110.00	28.83	157.05	.21	201.55	.50	273.00	1.26
61.10	.32	111.00	3.78	157.95	.25	202.95	.57	274.00	3.42
62.00	.33	112.10	.26	160.05	.65	204.05	2.73	275.00	20.60
63.10	1.58	116.10	.60	161.05	.86	205.05	4.90	276.00	2.46
65.10	.40	117.00	7.44	161.95	.19	206.05	20.79	277.00	1.39
69.00	56.32	118.00	.40	164.95	.65	207.05	2.81	296.00	4.93
73.00	.16	122.00	.66	166.15	.53	208.05	.64	297.00	.65
74.10	3.42	123.00	1.10	167.05	3.84	211.05	.85	303.00	.50
75.00	6.39	124.00	.38	167.95	1.71	216.95	5.42	315.00	.55
77.10	37.81	125.00	.35	172.05	.22	217.95	.65	316.00	.11
78.00	2.52	127.00	41.30	173.05	.50	221.05	5.81	323.00	1.46
79.00	2.77	128.10	3.30	174.05	.79	222.95	1.26	334.10	.86
80.10	2.01	129.00	18.34	174.95	1.29	224.05	11.08	354.10	.41
81.00	3.11	130.10	1.40	176.05	.52	225.05	2.93	364.95	1.89
82.10	.63	131.10	.29	177.05	.85	226.95	4.37	371.95	.72
83.00	.61	134.10	.30	177.95	.16	227.95	.63	402.95	.47
84.90	.35	135.00	1.29	178.95	3.05	229.05	.90	422.95	2.92
86.00	.75	136.00	.56	180.05	2.01	230.95	.26	424.05	.57
91.00	.83	137.10	.67	180.95	.91	235.05	.16	441.05	8.29
92.10	.58	141.00	1.78	183.85	.15	241.05	.14	442.05	55.87
93.00	4.22	142.10	.69	185.05	1.29	242.05	.55	443.05	10.34
94.10	.18	142.90	.33	186.05	11.39	243.15	.37	444.05	.85
98.00	3.20	145.90	.20	187.05	2.96	244.05	8.84		

MS data file header from : >B3059

Sample: DFTPP 50 NGS Operator: USER8 MS 11/19/86 9:44
Misc : 11/19/86MDS 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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4431/U-4441 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5995C Date 8-26-86 Time 2211

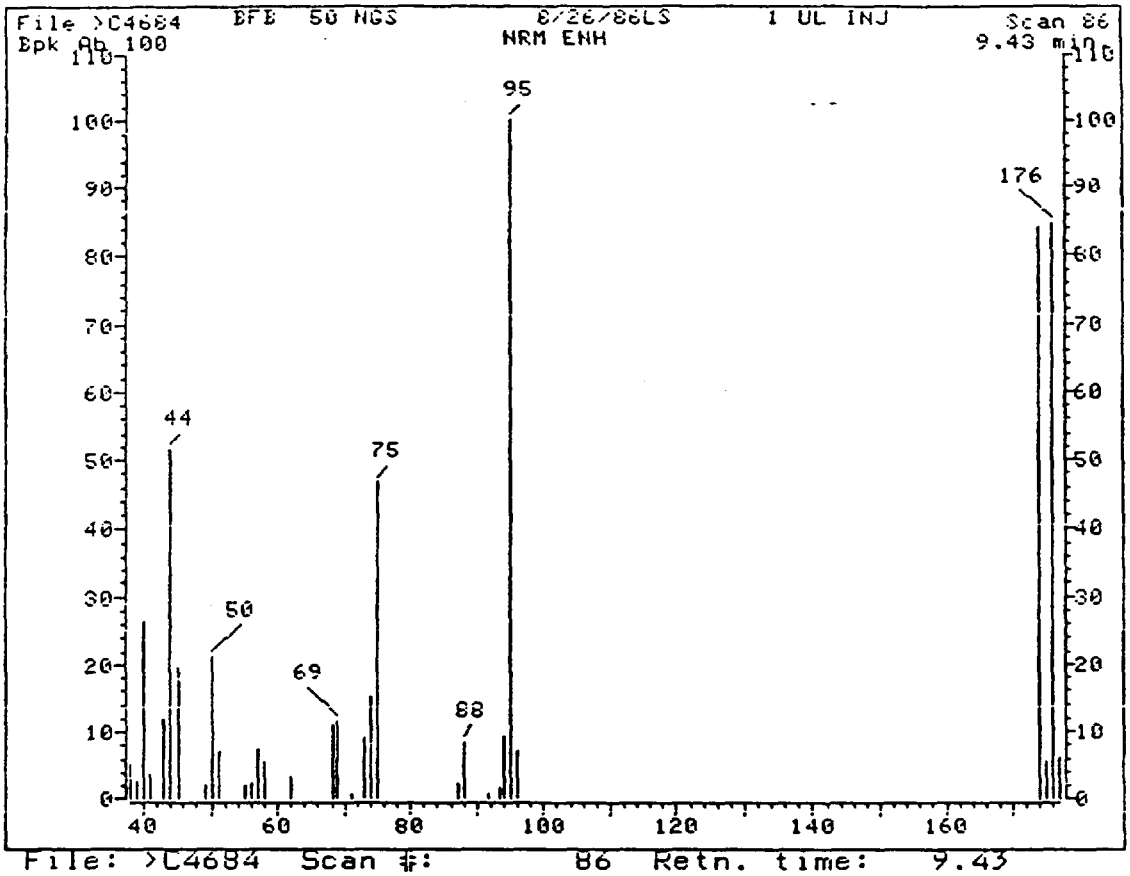
Lab ID C4684 Data Release Authorized By: C Wojtowicz

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



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 22:1
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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4431 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 11-10-86 Time 9:06

Lab ID >C5423 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.95
75	30.0 - 60.0% of the base peak	52.37
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.26
173	Less than 1.0% of the base peak	None
174	Greater than 50.0% of the base peak	84.58
175	5.0 - 9.0% of mass 174	5.56 (6.6)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	84.49 (99)[1]
177	5.0 - 9.0% of mass 176	5.01 (5.9)[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(TCL)Std	Cont Calib	>C5425	11-10-86	10:30
Blank 1		>C5426	11-10-86	11:25
DC-SW-3	9643	>C5429	11-10-86	14:14
DC-SW-1	9641	>C5430	11-10-86	15:10
DC-SW-2	9642	>C5431	11-10-86	16:07
DC-SW-3-MSD	9643 MSD	>C5433	11-10-86	18:00
DC-SW-3-MS	9643 MS	>C5434	11-10-86	18:57
DC-SW-4	9644	>C5435	11-10-86	20:05

FORM V 7/85

497095

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. u-4431 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 11-10-86 Time 21:17

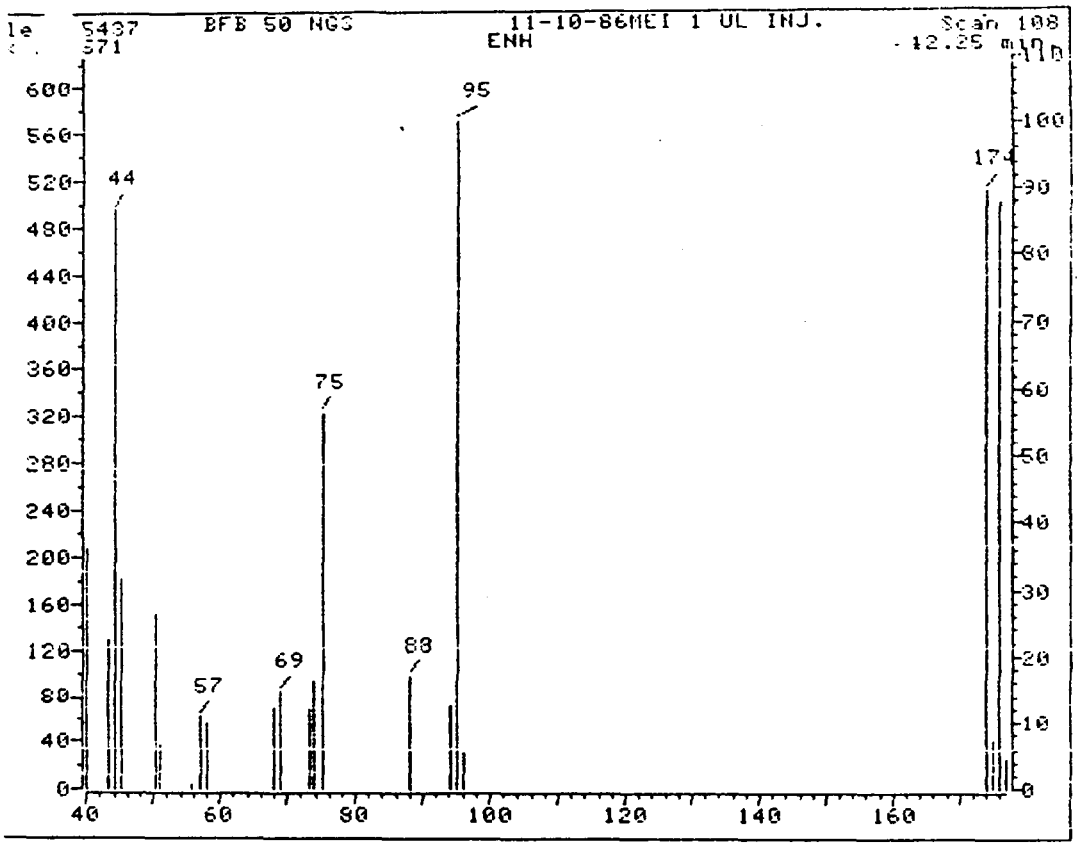
Lab ID >C5437 Data Release Authorized By: C Hojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	26.24
75	30.0 - 60.0% of the base peak	56.58
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	5.54
173	Less than 1.0% of the base peak	None
174	Greater than 50.0% of the base peak	89.69
175	5.0 - 9.0% of mass 174	7.18 (8.0)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	87.90 (98)[1]
177	5.0 - 9.0% of mass 176	4.47 (5.1)[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 TCL Std	Cont Calib	>C5438	11-10-86	22102
Blank 2		>C5439	11-10-86	23:35
DC-SW-5	9645	>C5440	11-11-86	00:32
DC-SW-6	9646	>C5441	11-11-86	1:29
DC-SW-7	9647	>C5442	11-11-86	2:26
DC-SW-8	9648	>C5444	11-11-86	4:19
DC-SW-9	9649	>C5445	11-11-86	5:16
DC-SW-10	9650	>C5446	11-11-86	6:12



C5437 BFB 50 NGS 11-10-86MEI 1 UL INJ.
108 ENH

ile: >C5437 Scan #: 108 Retn. time: 12.25

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
40.00	206.44	51.00	37.00	69.10	84.22	94.15	71.22	174.85	41.00
43.10	127.89	55.90	3.44	73.05	68.44	95.05	571.22	175.95	502.11
44.10	495.44	57.10	62.11	73.95	94.44	96.05	31.67	176.75	25.56
45.10	182.00	58.00	54.78	75.05	323.22	173.95	512.33	176.95	5.67
50.10	149.89	68.00	70.44	88.15	98.22				

5 data file header from : >C5437

ample: BFB 50 NGS Operator: USER8 MS 11/10/86 21:17
isc : 11-10-86MEI 1 UL INJ.
ys. #: 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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4441 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 11-11-86 Time 11:40

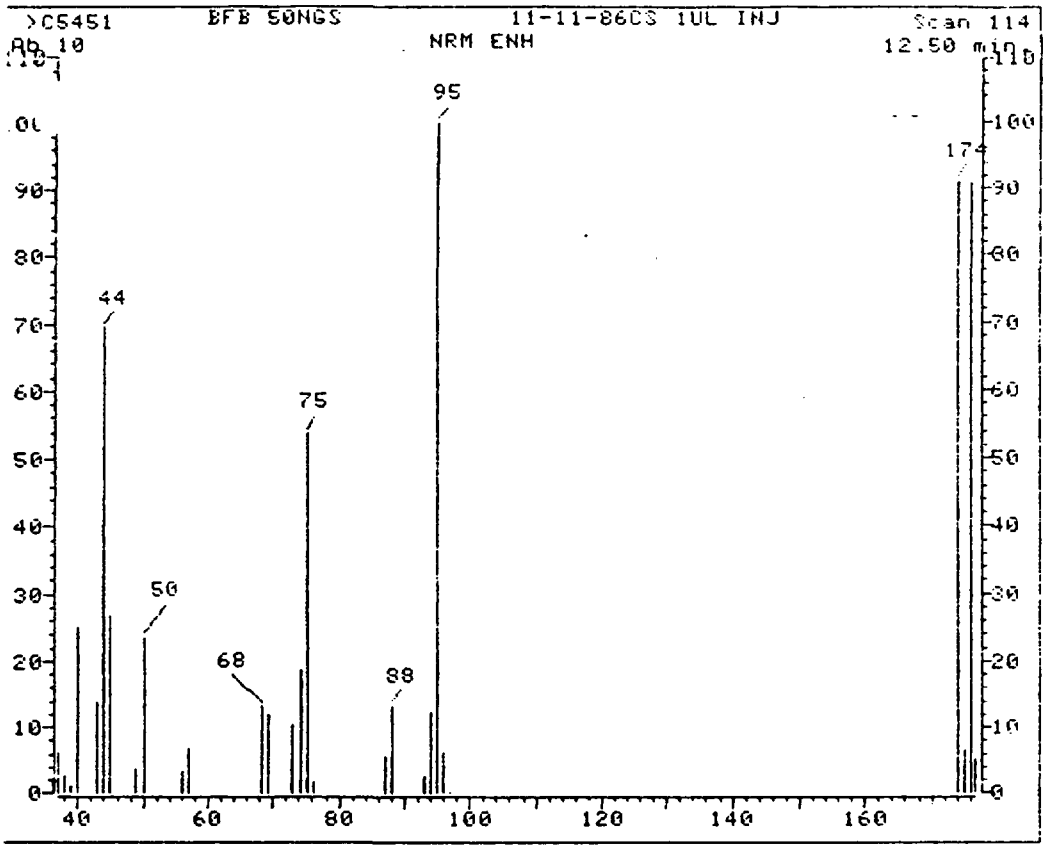
Lab ID >C5451 Data Release Authorized By: C Slojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.56
75	30.0 - 60.0% of the base peak	53.76
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.29
173	Less than 1.0% of the base peak	None
174	Greater than 50.0% of the base peak	91.04
175	5.0 - 9.0% of mass 174	6.34 (7.0)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	90.68 (100)[1]
177	5.0 - 9.0% of mass 176	5.08 (5.6)[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(TCL) Std	Cont Calib >C5452	11-11-86	12:14
Blank 3	>C5454	11-11-86	13:33
DC-SW-11	9680 >C5458	11-11-86	17:16
DC-SW-13	9682 >C5459	11-11-86	18:12
DC-SW-12	9681 >C5460	11-11-86	19:13



:451 BFB 50NGS 11-11-86CS 1UL INJ
114 NRM ENH

e: >C5451 Scan #: 114 Retn. time: 12.50

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
.00	6.20	45.00	26.66	69.10	12.07	88.15	13.26	97.05	.21
.00	2.56	48.90	3.75	72.95	10.45	92.95	2.62	173.95	91.04
.80	1.06	50.00	23.56	74.05	18.51	94.05	12.39	175.05	6.34
.00	25.19	55.90	3.16	75.05	53.76	95.05	100.00	175.95	90.68
.00	13.86	57.00	6.72	76.05	1.75	96.05	6.29	176.85	5.08
.00	69.42	68.10	13.10	86.95	5.67				

data file header from : >C5451

ple: BFB 50NGS Operator: USER3 MS 11/11/86 11:40
c : 11-11-86CS 1UL INJ
. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
lethod file: BFB001 Tuning file: MTCV4 No. of extra records: 1
urce 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

SAMPLE DATA

481095

SAMPLE NUMBER DC-SW-1

481095

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Sample Number
DC-SW-1

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No. 9641

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: C Stojtowicz

Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-10-86

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	~~5u~~ 6B
67-64-1	Acetone	~~10u~~ 12B
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~~ 27
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: Ecology & Environment

Case No: U-4431- U-4441

Sample Number: DC-SW-1

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-18-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l or ug/Kg) (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10u~~ 15 B
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2 3-cd)Pyrene	10u
53-70-3	Dibenzo(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-1

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	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 1,000 or W_s _____ V_t 10,000 V_i 4 µl

Laboratory Name ecology and environment, inc.

Case No u-4431

Sample Number DC-SW-1

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. -	Hexene isomer	VOA	17.4 min	2.7 B
2. -	Hexane isomer	VOA	21.4 min	9.9 B
3.				
4. 21964498	1,13-TETRADECADIENE	BNA	27.7	7.8 B
5. -	UNKNOWN	BNA	35.1	41 B
6.				
7.				
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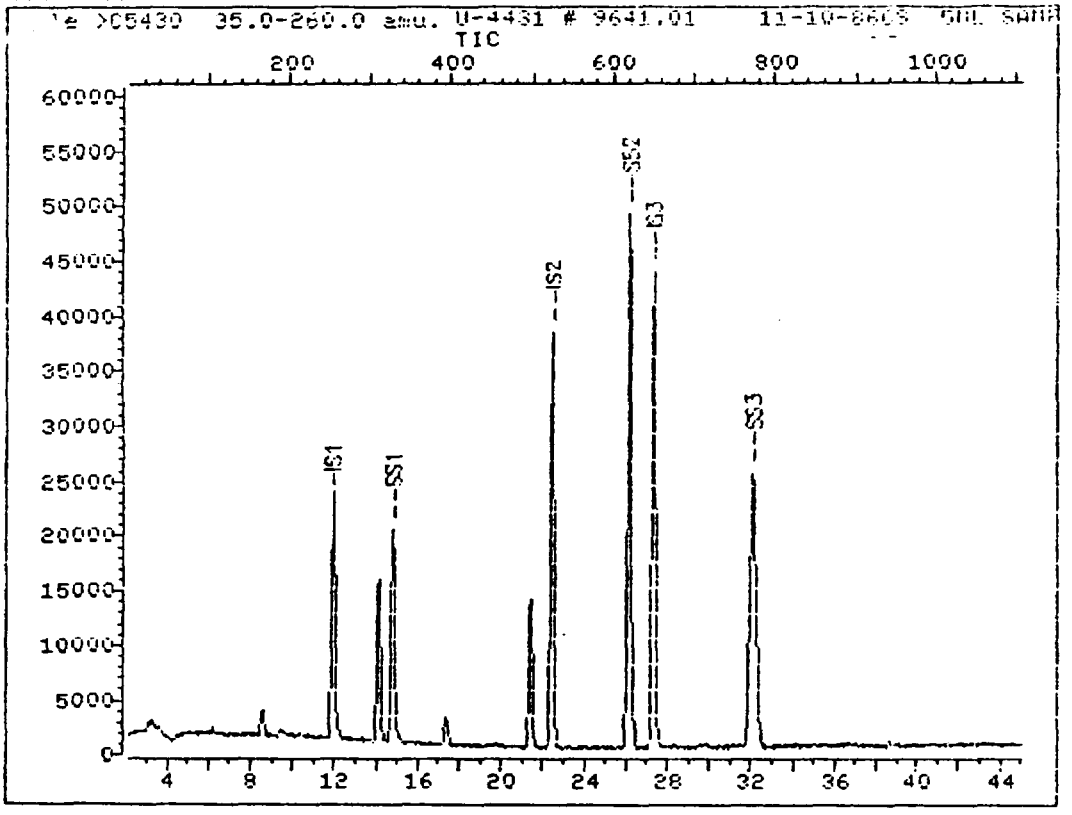
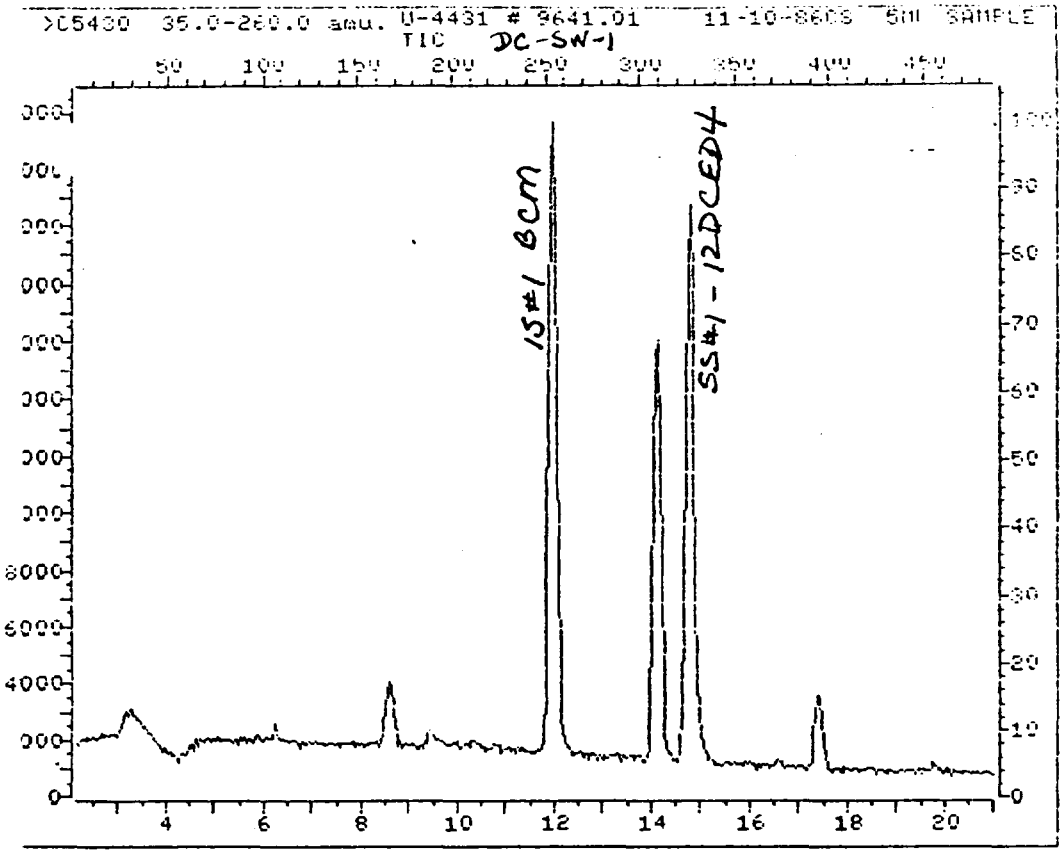
TOTAL ION CHROMATOGRAM

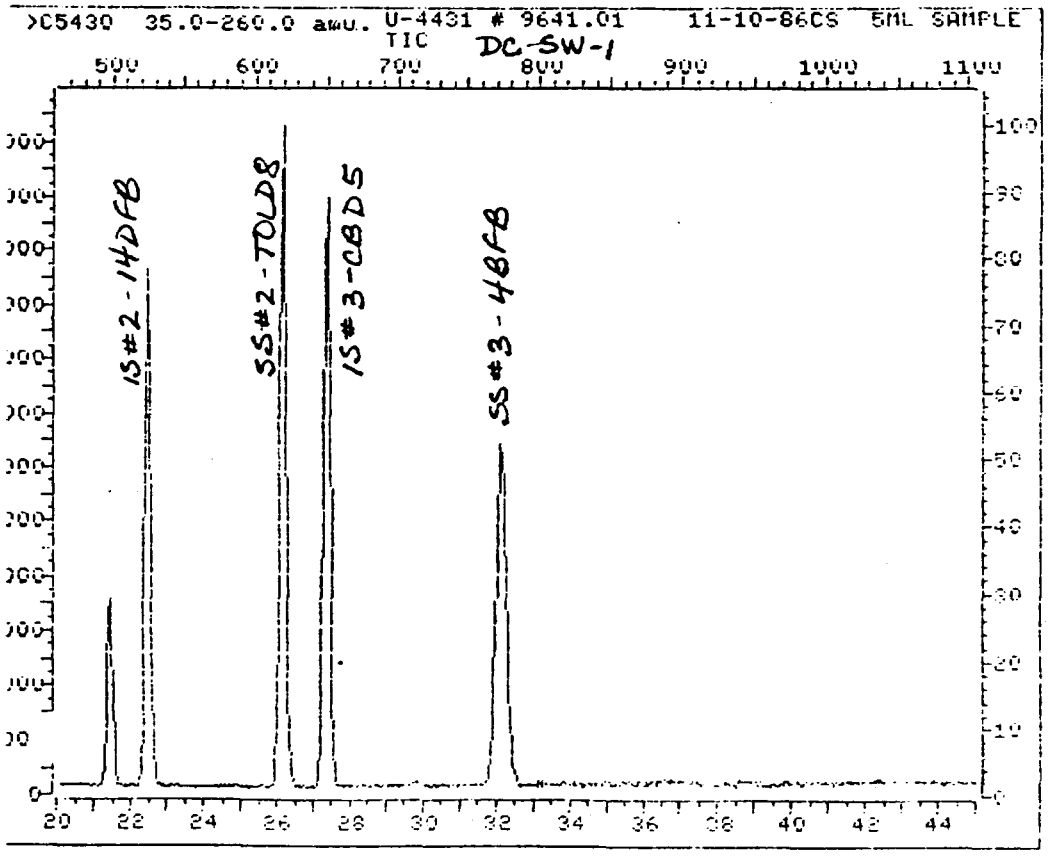


Data File: >C5430::D3
Name: U-4431 # 9641.01 DC-SW-1
Misc: 11-10-86CS 5ML SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

Operator ID: USER8
Quant Time: 861110 15:57
Injected at: 861110 15:10


>C5430 35.0-260.0 amu. U-4431 # 9641.01 11-10-86CS 5ML SAMPLE
TIC
DC-SW-1
IS#1 BCM
SS#1 - 12DCEB4


>C5430 35.0-260.0 amu. U-4431 # 9641.01 11-10-86CS 5ML SAMPLE
TIC
DC-SW-1
IS#2 - 14DFB
SS#2 - TOLD8
IS#3 - CBD5
SS#3 - 4BFB

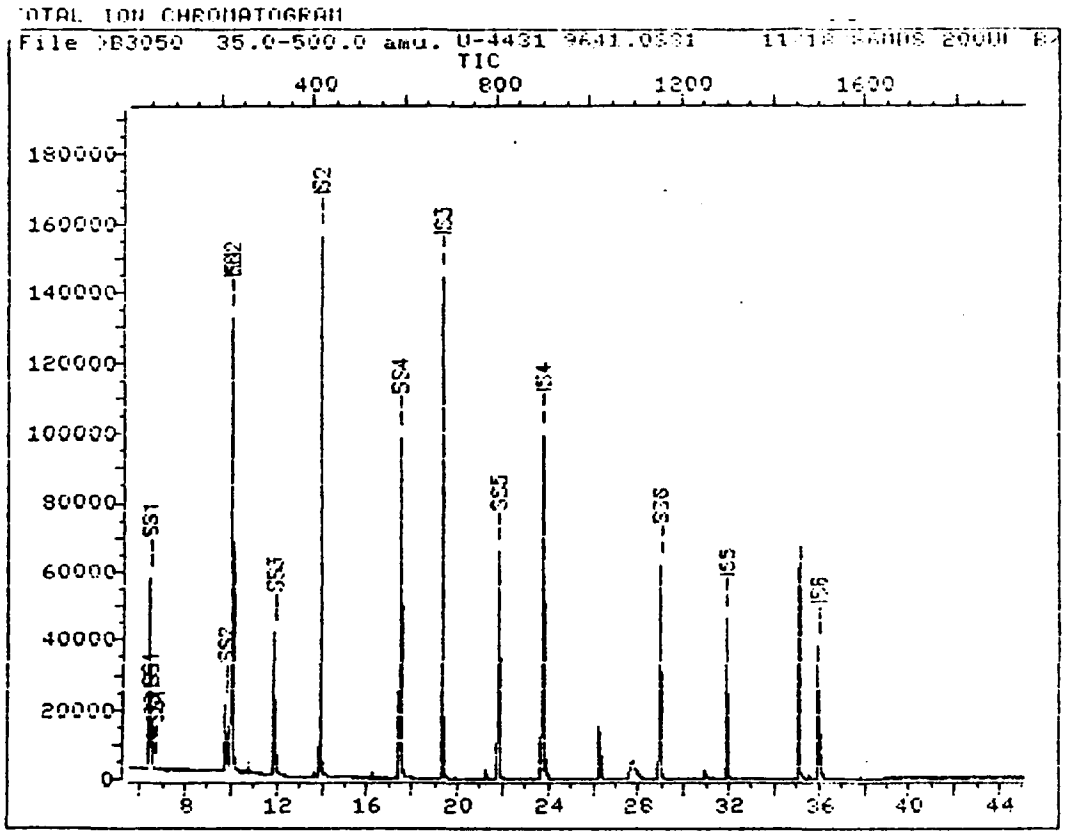
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861110 15:57
Output File: ^C5430::Q1 Injected at: 861110 15:10
Data File: >C5430::D3 Dilution Factor: 1.00
Name: U-4431 # 9641.01 DC-SW-1
Misc: 11-10-86CS 5ML SAMPLE + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.92	253	31961	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.59	167	6609	5.83	UG/L	100
7)	ACETONE		43	9.44	189	5252	12.05	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.33~~	~~212~~	~~2987~~	~~.95~~	~~UG/L~~ NO CW	100
13)	CHLOROFORM		83	14.13	310	61174	27.25	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.79	327	88288	49.22	UG/L ✓98	83
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.47	525	155089	50.00	UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.33	650	129654	50.00	UG/L	100
6)	TOLUENE-D8	(SURR)	98	26.16	620	188794	50.35	UG/L ✓100	94
0)	4-BROMOFLUOROBENZENE	(SURR)	95	32.10	773	98537	48.71	UG/L ✓98	100

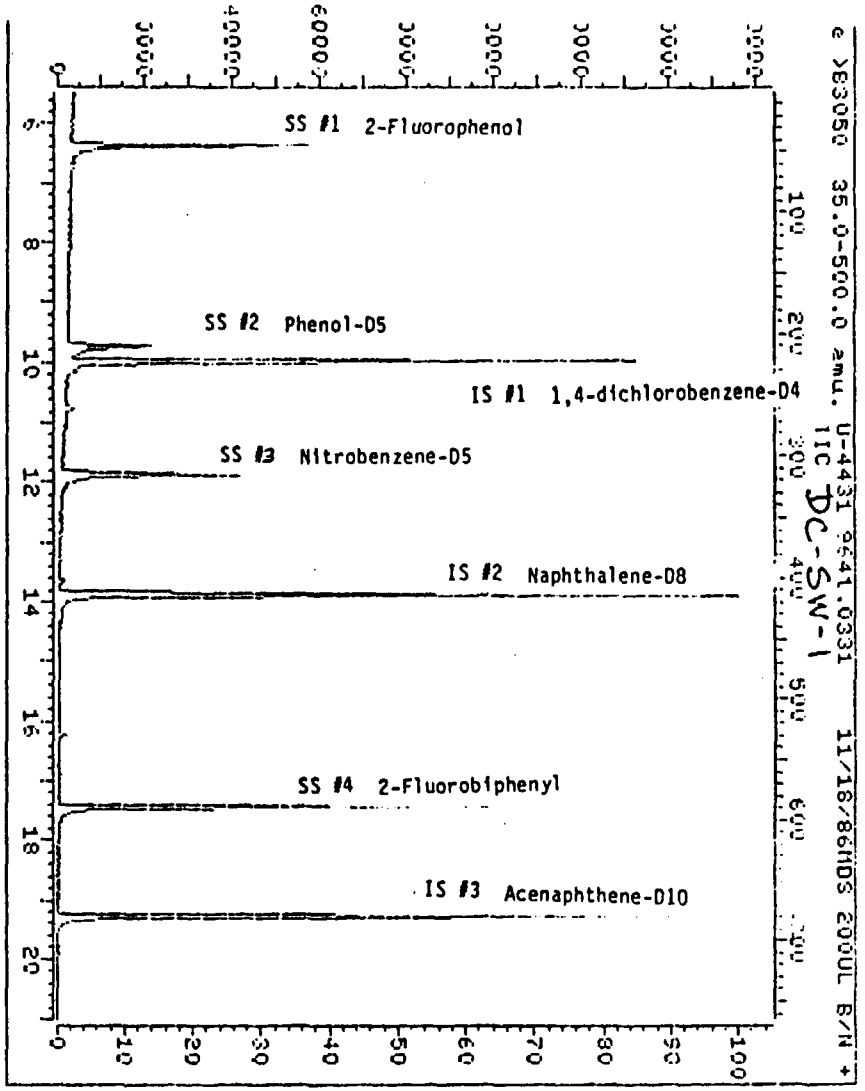
* Compound is ISTD

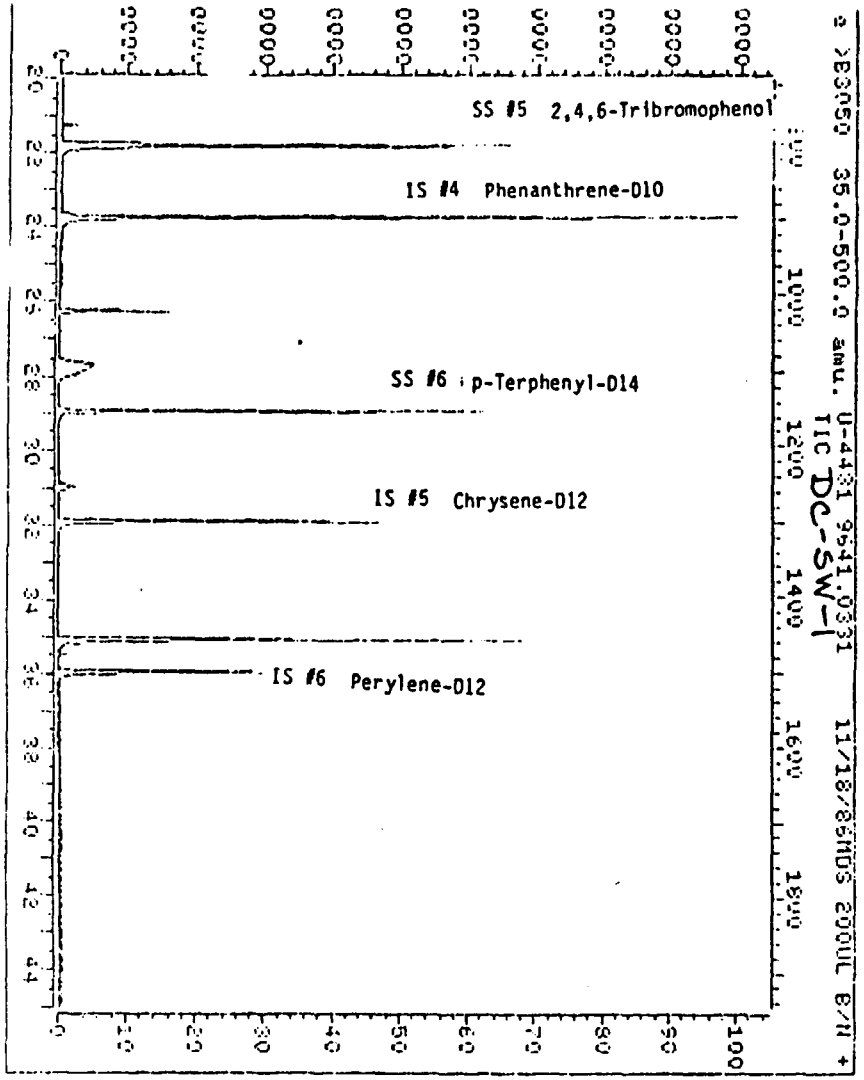


Data File: >B3050::D4
Name: U-4431 9641.0331 DC-SW-1
Misc: 11/18/86MDS 200UL B/N + 200UL A/P + 4UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

Operator ID: USER8
Quant Time: 861118 15:49
Injected at: 861118 15:02


e >B3050 35.0-500.0 amu. U-4431 9641.0331 11/18/86MDS 200UL B/N +
TIC DC-SW-1
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


e >B3050 35.0-500.0 amu. U-4431 9641.0331 11/18/86MDS 200UL B/N +
TIC DC-SW-1
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 15:49
Output File: ^B3050::D2 Injected at: 861118 15:02
Data File: >B3050::D4 Dilution Factor: 2.00
Name: U-4431 9641.0331 DC-SW-1
Misc: 11/18/86MDS 200UL B/N + 200UL A/P + 4UL IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

	Compound		m/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.97	222	59145	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	9.73	210	32497	28.59	UG/L	94
2)	PHENOL-D5	(SURR)	99	9.97	222	3507	3.09	UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	6.35	44	31698	40.72	UG/L	84
5)	2-FLUOROPHENOL	(SURR)	112	6.41	47	6198	7.96	UG/L	36
5)	2-FLUOROPHENOL	(SURR)	112	6.47	50	2338	3.00	UG/L	90
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.60~~	~~56~~	~~994~~	~~1.28~~	~~UG/L~~	71
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.66~~	~~59~~	~~592~~	~~.76~~	~~UG/L~~	81
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.86~~	~~315~~	~~7422~~	~~9.51~~	~~UG/L~~	80
19)	*NAPHTHALENE-D8	(IS)	136	13.87	414	202331	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.86	315	45136	49.74	UG/L	94
34)	*ACENAPHTHENE-D10	(IS)	162	19.28	680	89728	40.00	UG/L	99
38)	2-FLUOROBIPHENYL	(SURR)	172	17.43	589	100867	53.92	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.48~~	~~690~~	~~26214~~	~~14.83~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.76	802	32632	107.07	UG/L	95
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.28~~	~~650~~	~~11470~~	~~30.16~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.71	898	131947	40.00	UG/L	94
63)	DI-N-BUTYLPHTHALATE		149	26.27	1024	27112	15.02	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.88	1300	70123	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.91	1154	68509	87.25	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.95	1500	59558	40.00	UG/L	100

m/E

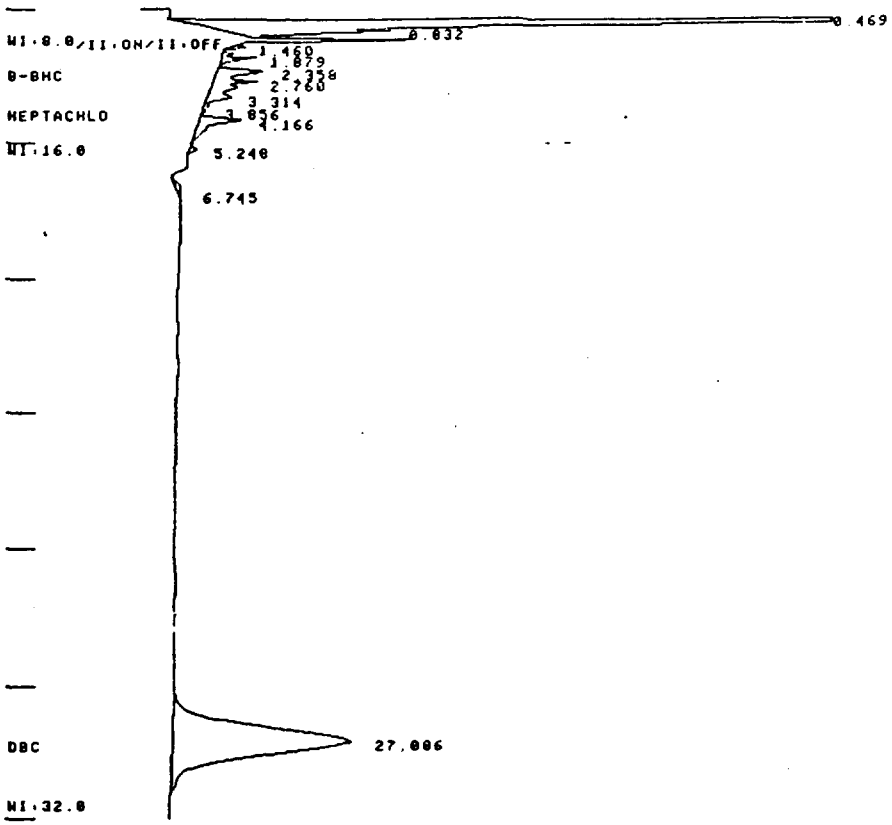
no cw

no cw

no cw

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 15 10:41 12 NOV 86

SAMPLE: 9641.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.879		33230	VB	6.94
2	~~D-BHC~~	0.0855	2.358	0.088	66387	BV	11.56
3	~~D-BHC~~	0.0246	2.760	0.210	52007	VV	8.19
4		0.0000	2.965		38793	VV	? 12.75
5		0.0000	3.314		37561	VV	9.94
6	~~HEPTACHLO~~	0.0365	4.166	0.226	62913	VV	11.69
7	DBC 101%	1.0052	27.086	-0.274	1434465	BB	? 65.88
TOTALS:		1.1518		0.250	1725356		

DETECTED PKS: 19 REJECTED PKS: 12

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: -5

RACK: 1 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY370

SAMPLE NUMBER DC-SW-2

481095

Sample Number
DC-SW-2

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No: 9642

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: C Krajtowicz

Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-10-86

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	5u GW 3BJ
67-64-1	Acetone	10u
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
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

Laboratory Name Ecology & Environment

Case No: U-4431- U-4441

Sample Number
DC-SW-2

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-19-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate BM ~~10u~~ 26 B	
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3 -Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate BM ~~10u~~ 4 J	
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2 3-cd)Pyrene	10u
53-70-3	Dibenzo(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No DC-SW-2

Sample Number DC-SW-2

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

Conc/Dil Factor: 1 10

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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	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 1,000 or W_s _____ V_t 10,000 V_i 4 µl

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-2

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.	Hexene isomer	VOA	17.4 min	2.8 B
2.	Hexane isomer	VOA	21.4 min	10 B
3.				
4. 21964498	1,13-TETRADECADIENE	BNA	27.6	16 B
5. –	UNKNOWN	BNA	30.1	11
6. –	UNKNOWN	BNA	35.0	96 B
7.				
8.				
9.				
10.				
11.				
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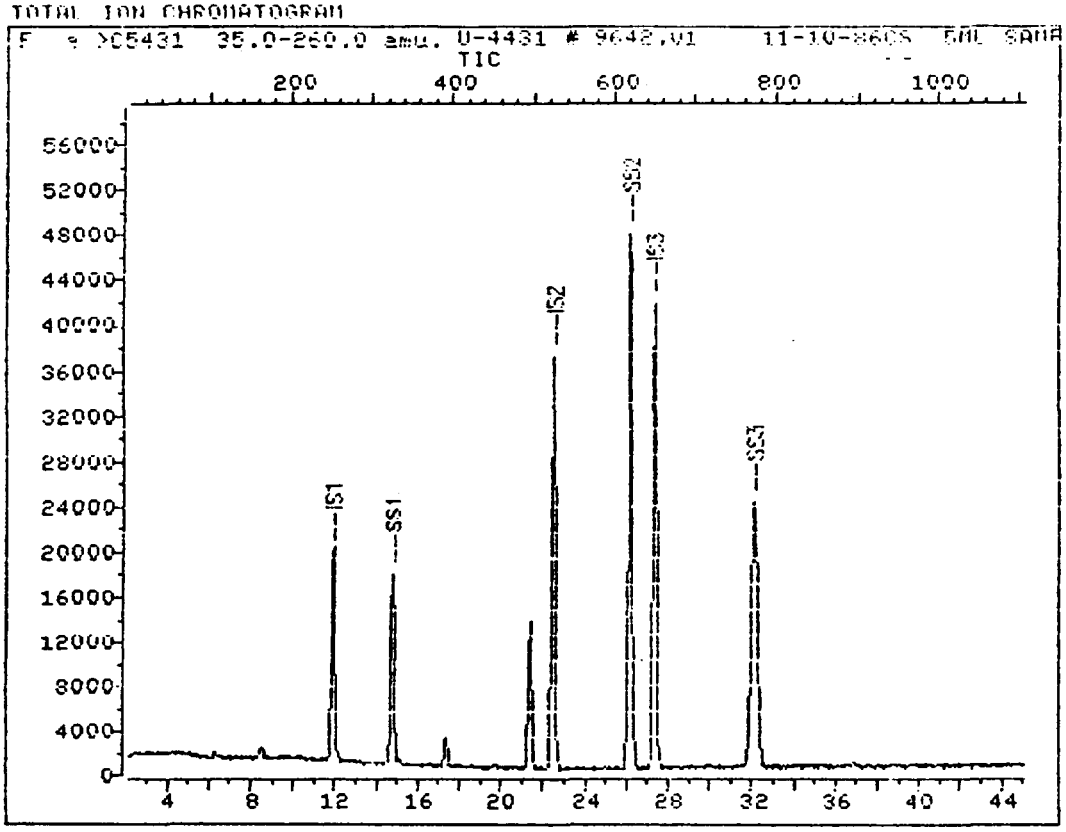
30				

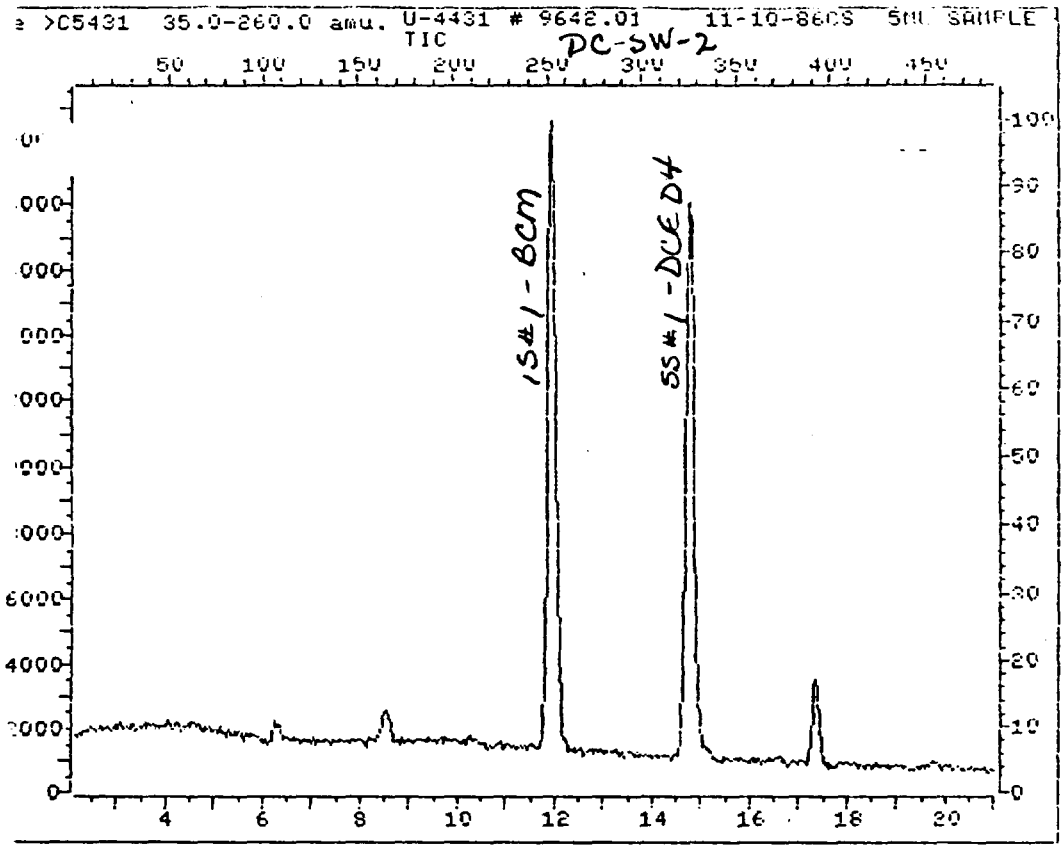
TOTAL ION CHROMATOGRAM

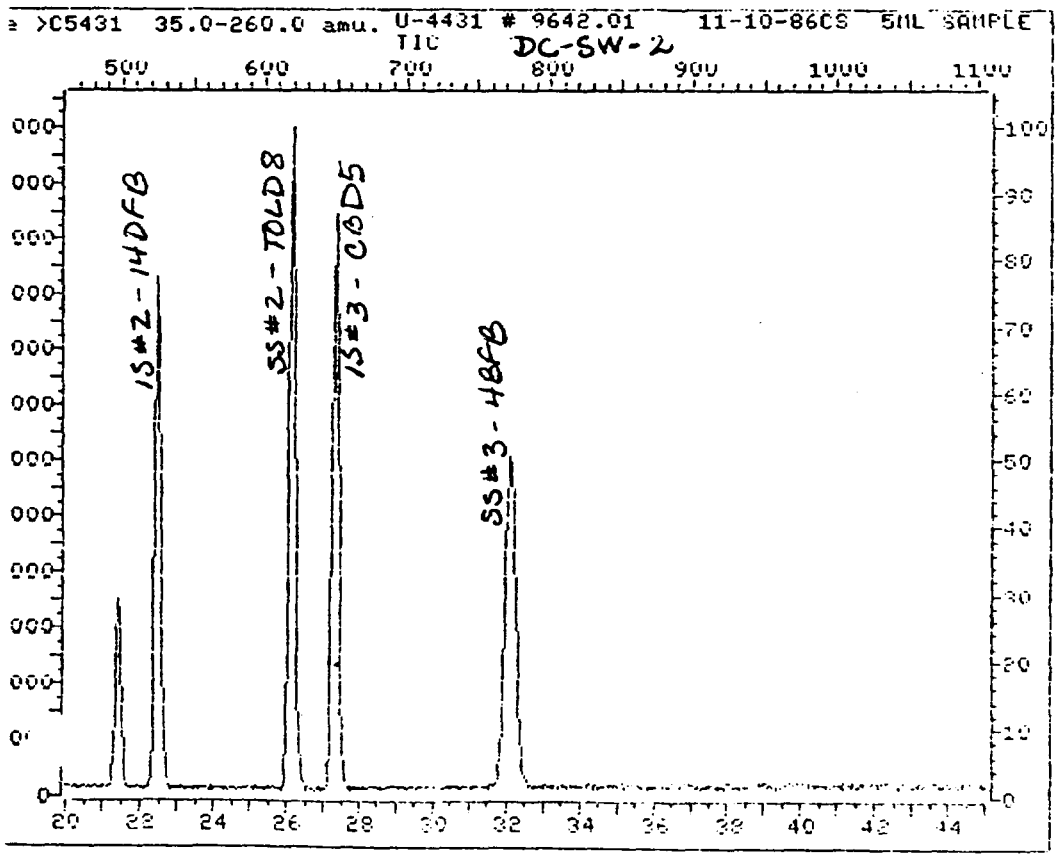


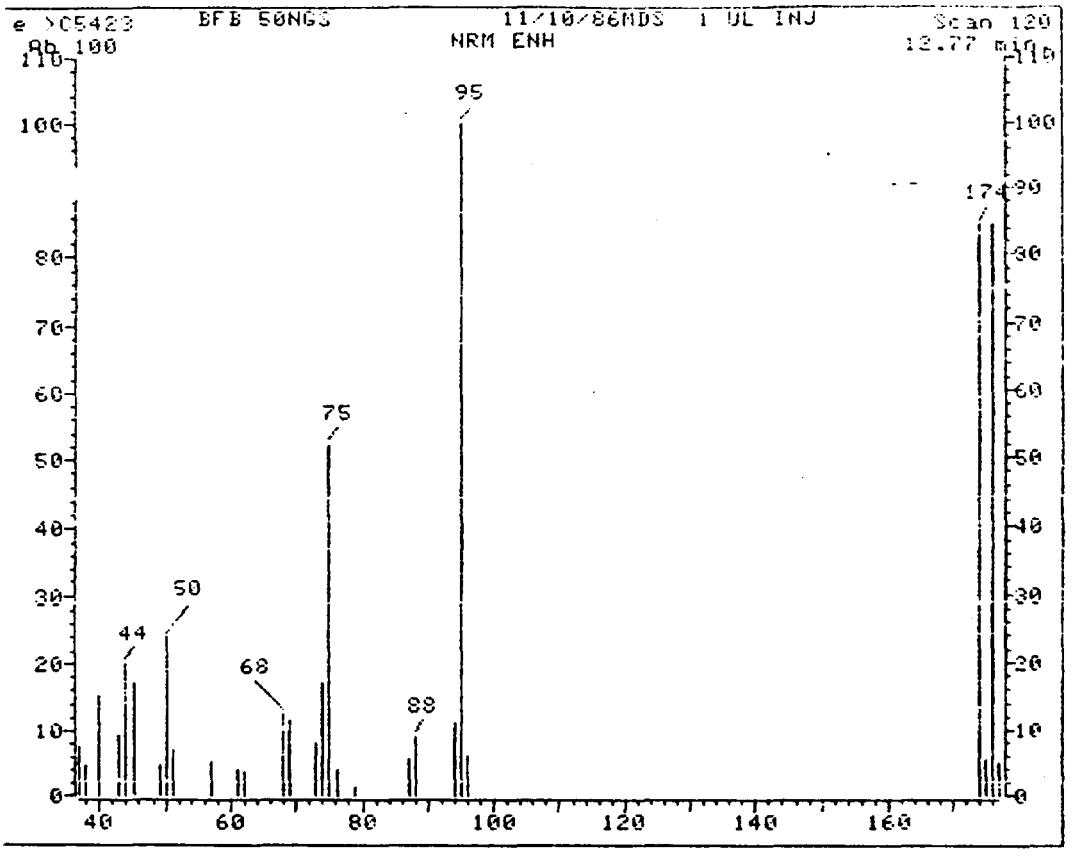
Data File: >C5431::D3
Name: U-4431 # 9642.01 DC-SW-2
Misc: 11-10-86CS 5ML SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

Operator ID: USER8
Quant Time: 861110 16:53
Injected at: 861110 16:07


>C5431 35.0-260.0 amu. U-4431 # 9642.01 11-10-86CS 5ML SAMPLE
TIC
DC-SW-2
IS#1-BCM
SS#1-DCEB D4


>C5431 35.0-260.0 amu. U-4431 # 9642.01 11-10-86CS 5ML SAMPLE
TIC
DC-SW-2
IS#2-14DFB
SS#2-TOLD8
IS#3-CBD5
SS#3-4BFB



C5423 BFB 50NGS 11/10/86MDS 1 UL INJ
120 NRM ENH

ile: >C5423 Scan #: 120 Retn. time: 12.77

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	7.87	49.00	4.42	68.10	12.46	78.95	1.42	95.95	6.26
38.00	4.53	50.00	23.95	69.00	11.62	86.95	5.65	173.85	84.58
40.00	15.06	51.10	7.01	73.05	8.01	87.95	9.11	174.95	5.56
43.00	9.27	57.00	5.12	73.95	17.16	94.05	11.22	175.95	84.49
44.00	20.03	61.00	3.87	74.95	52.37	95.05	100.00	176.95	5.01
45.10	16.98	62.00	3.70	76.05	3.82				

S data file header from : >C5423

ample: BFB 50NGS Operator: USER8 MS 11/10/86 9:06
isc : 11/10/86MDS 1 UL INJ
ps. #: 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

QUANT REPORT

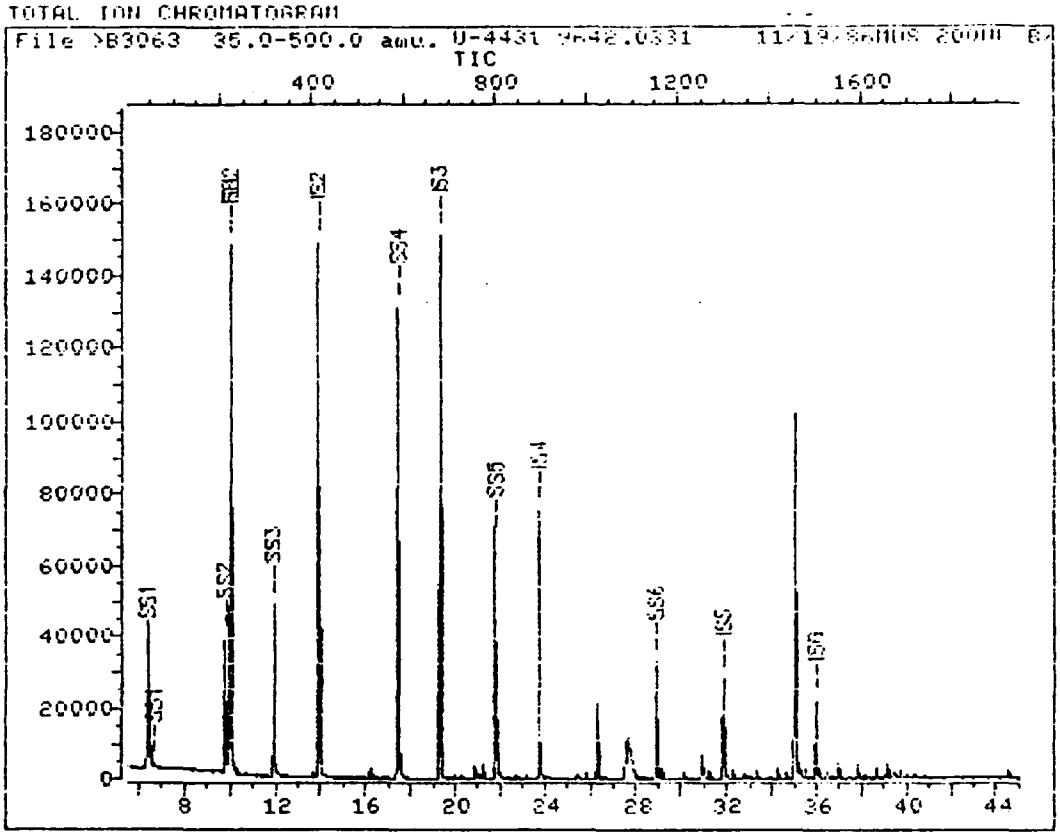
Operator ID: USER8 Quant Rev: 4 Quant Time: 861110 16:53
Output File: ^C5431::Q1 Injected at: 861110 16:07
Data File: >C5431::D3 Dilution Factor: 1.00
Name: U-4431 # 9642.01 DC-SW-2
Misc: 11-10-86CS 5ML SAMPLE + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.88	252	28853	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.51	165	3120	3.05	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.29~~	~~211~~	~~2797~~	~~.97~~	~~UG/L~~	~~100~~ no CW
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.75	326	79349	49.00	UG/L 98	82 ✓
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.47	525	150510	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.33	650	124690	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.16	620	187309	51.94	UG/L 104	89 ✓
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.10	723	94574	48.61	UG/L 97	100 ✓

* Compound is ISTD

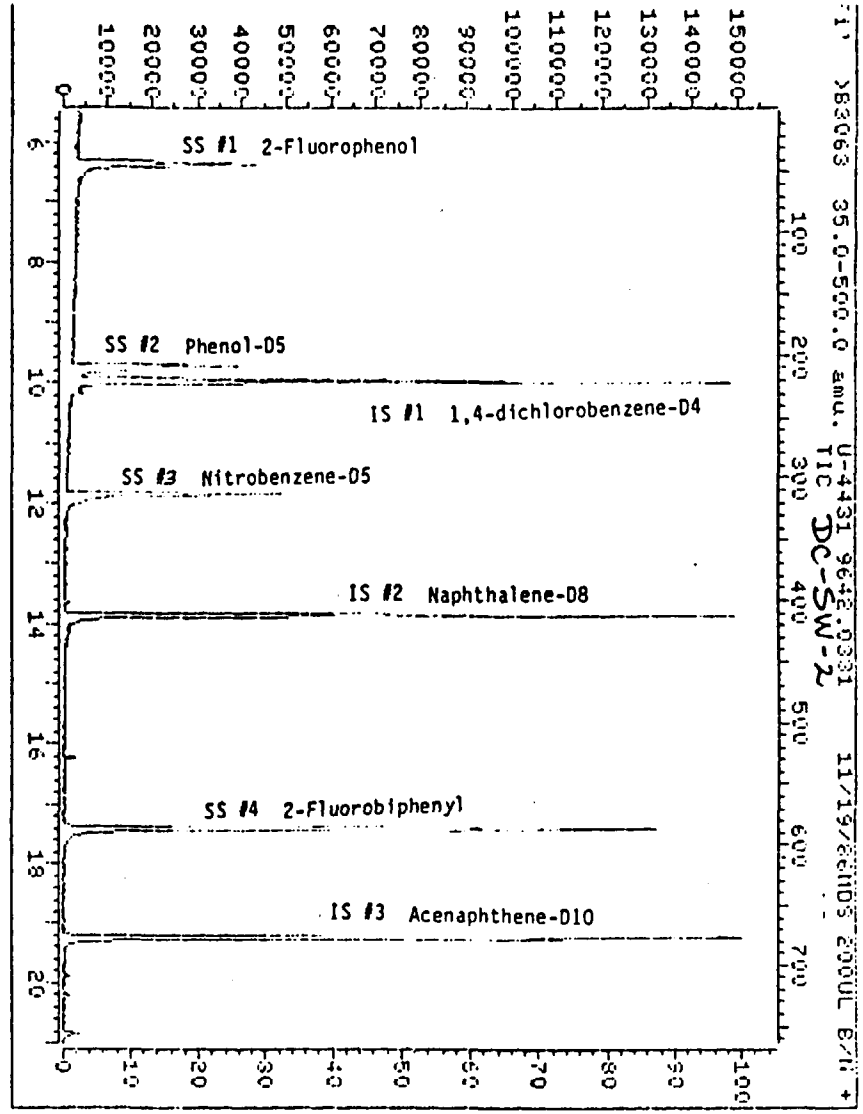
TOTAL ION CHROMATOGRAM

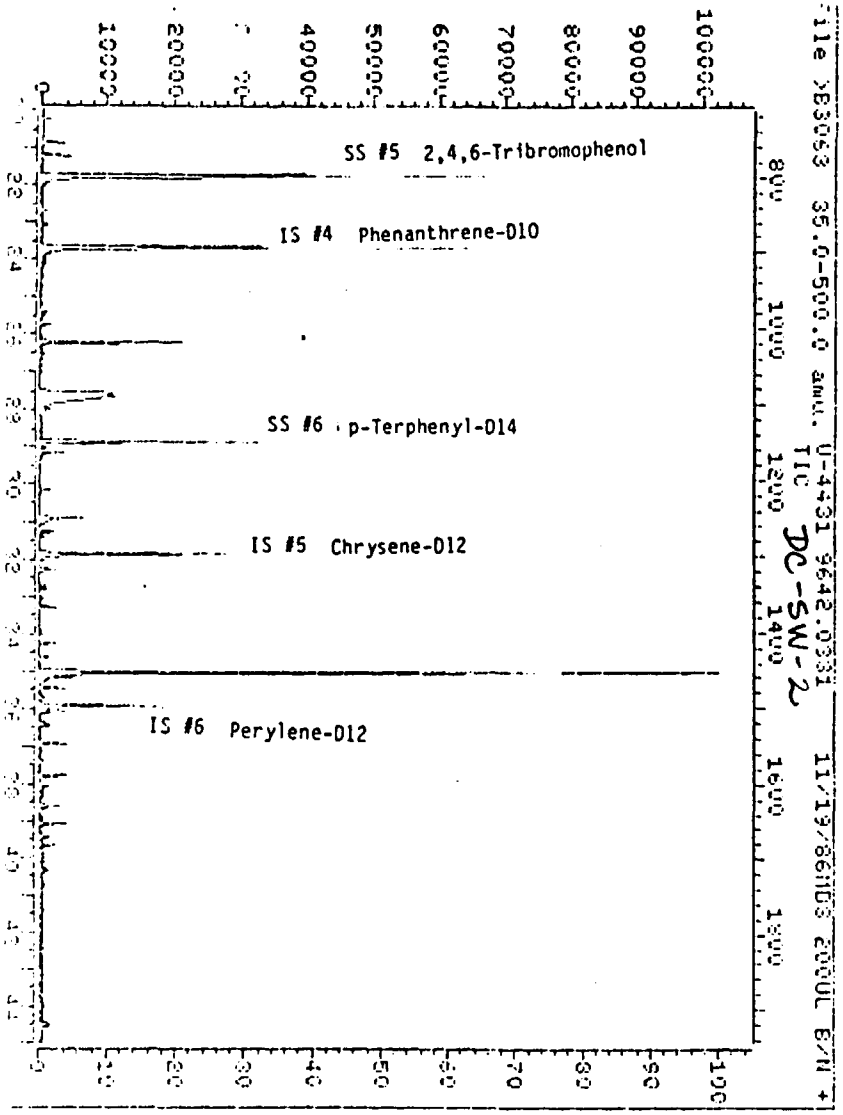


Data File: >B3063::D4
Name: U-4431 9642.0331 DC-SW-2
Misc: 11/19/86MDS 200UL B/N + 200UL A/P + 4UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

Operator ID: USER8
Quant Time: 861119 15:21
Injected at: 861119 13:09


File >B3063 35.0-500.0 amu. U-4431 9642.0331 11/19/86MDS 200UL E/N +
TIC
DC-SW-2
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B3063 35.0-500.0 amu. U-4431 9642.0331 11/19/86MDS 200UL E/N +
TIC
DC-SW-2
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 15:21
Output File: ^B3063::Q2 Injected at: 861119 13:09
Data File: >B3063::D4 Dilution Factor: 2.00
Name: U-4431 9642.0331 DC-SW-2
Misc: 11/19/86MDS 200UL B/N + 200UL A/P + 40UL IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.97	221	59229	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.73	209	50106	54.79	UG/L	90
2)	PHENOL-D5	(SURR)	99	9.97	221	1802	1.97	UG/L	87
5)	2-FLUOROPHENOL	(SURR)	112	6.33	42	40189	58.70	UG/L	100
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.61~~	~~56~~	~~507~~	~~.74~~	~~UG/L~~	~~100~~
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.46~~	~~414~~	~~9262~~	~~13.49~~	~~UG/L~~	~~79~~
19)	*NAPHTHALENE-D8	(IS)	136	13.85	412	188380	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.84	313	59383	74.75	UG/L	90
34)	*ACENAPHTHENE-D10	(IS)	162	19.24	677	81160	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.41	587	119883	71.11	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~164~~	~~19.24~~	~~677~~	~~34815~~	~~15.52~~	~~UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.72	799	36864	148.51	UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.24~~	~~677~~	~~10893~~	~~32.34~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.67	895	101627	40.00	UG/L	93
63)	DI-N-BUTYLPHTHALATE		149	26.23	1021	36388	26.16	UG/L	95
65)	*CHRYSENE-D12	(IS)	240	31.84	1297	44282	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.87	1151	37909	81.34	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.91	1497	36697	40.00	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	34.63	1434	3005	4.02	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.81~~	~~1483~~	~~409~~	~~.02~~	~~UG/L~~	~~100~~
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.89~~	~~1487~~	~~200~~	~~.30~~	~~UG/L~~	~~100~~

No Cpd

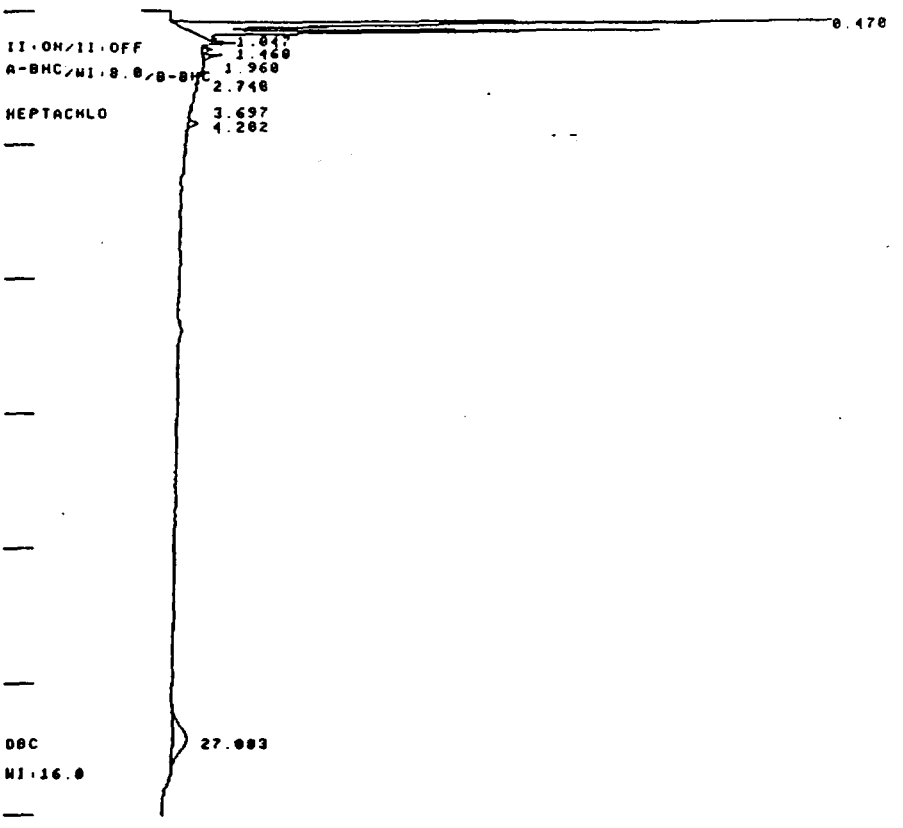
No Cpd

No Cpd

No Cpd?

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 18 12:22 12 NOV 86

SAMPLE: 9C42.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
DF=10

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	DBC	0.6954	27.083	-0.277	99243	BB	? 50.88
TOTALS:		0.6954		-0.277	99243		

DETECTED PKS: 13 REJECTED PKS: 12

DIVISOR: 1.00000 MULTIPLIER: 100.00000

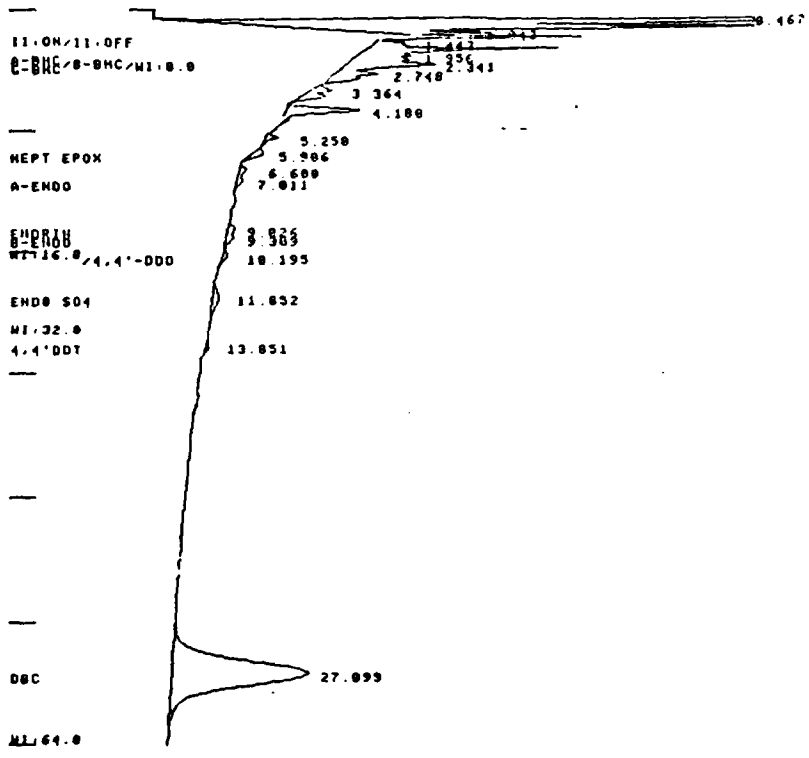
NOISE: 22.9 OFFSET: 18

RACK: 2 VIAL: 3 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY373

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



CHANNEL: 1A - 1 TITLE: RUN# 35 22:06 12 NOV 86

SAMPLE: 9642.04.16 METHOD: CEPA CALCULATION: ES - ANALYS

DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.571		25792	VV	? 7.63
2		0.0000	1.697		190515	VV	5.94
3		0.0000	1.956		53005	VV	? 10.94
4	A-BHC 0.05u	0.0287	2.137	0.007	66616	VV	? 13.88
5	~~B-BHC~~	0.1753	2.341	0.071	136105	VV	8.19
6	~~D-BHC~~	0.0255	2.748	0.198	54001	VV	6.50
7		0.0000	2.916		42865	VB	4.00
8		0.0000	3.364		23346	BV	7.06
9		0.0000	3.646		37703	VB	7.94
10	~~HEPTACHLO~~	0.0764	4.188	0.248	131572	BV	12.63
11	HEPT EPOX 0.05u	0.0110	5.906	0.026	20258	BB	11.75
12	~~ENDO SO4~~	0.0260	11.852	-0.458	36752	BB	? 41.06
13	DBC 87%	0.8685	27.099	-0.261	1239475	BB	66.94

TOTALS: 1.2115 -0.169 2058005

DETECTED PKS: 27 REJECTED PKS: 14

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: -28

RACK: 3 VIAL: 5 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY390

SAMPLE NUMBER DC-SW-3

481095

Sample Number
DC-SW-3

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No. 9643

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: C Stoytowicz

Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-10-86

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	5u EW 3BJ
67-64-1	Acetone	10u EW 7BJ
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.

Laboratory Name Ecology & Environment

Case No: U-4431- U-4441

Sample Number
DC-SW-3

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-19-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10u~~ 25B
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	~~10u~~ 2J
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4431

Sample Number
DC-SW-3

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

Conc/Dil Factor: 1 10

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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	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 1,000 or W_s _____ V_t 10,000 V_i 4 µl

Laboratory Name ecology and environment, inc.

Case No U-4431

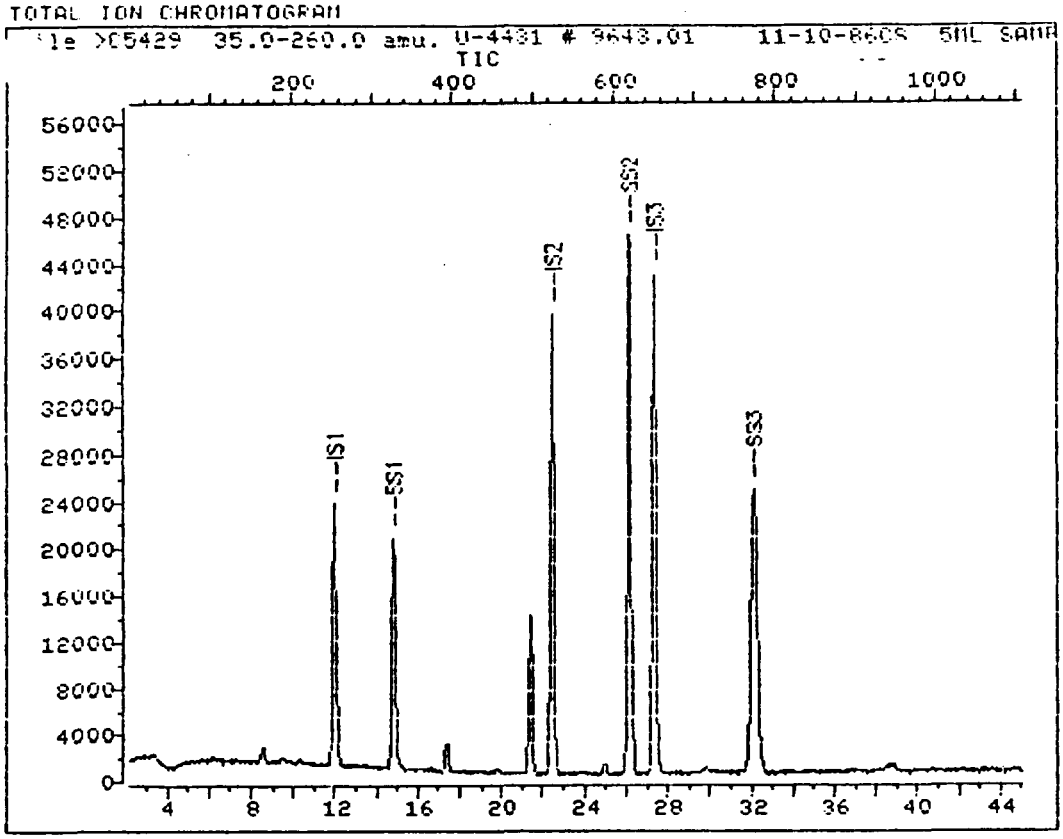
Sample Number DC-SW-3

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. –	Hexene isomer	VOA	17.4min	2.8 B
2. –	Hexane isomer	VOA	21.4min	10 B
3.				
4. 21964498	1,13-TETRADECADIENE	BNA	27.6	22 B
5. –	UNKNOWN	BNA	30.9	22
6. –	UNKNOWN	BNA	35.0	89 B
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

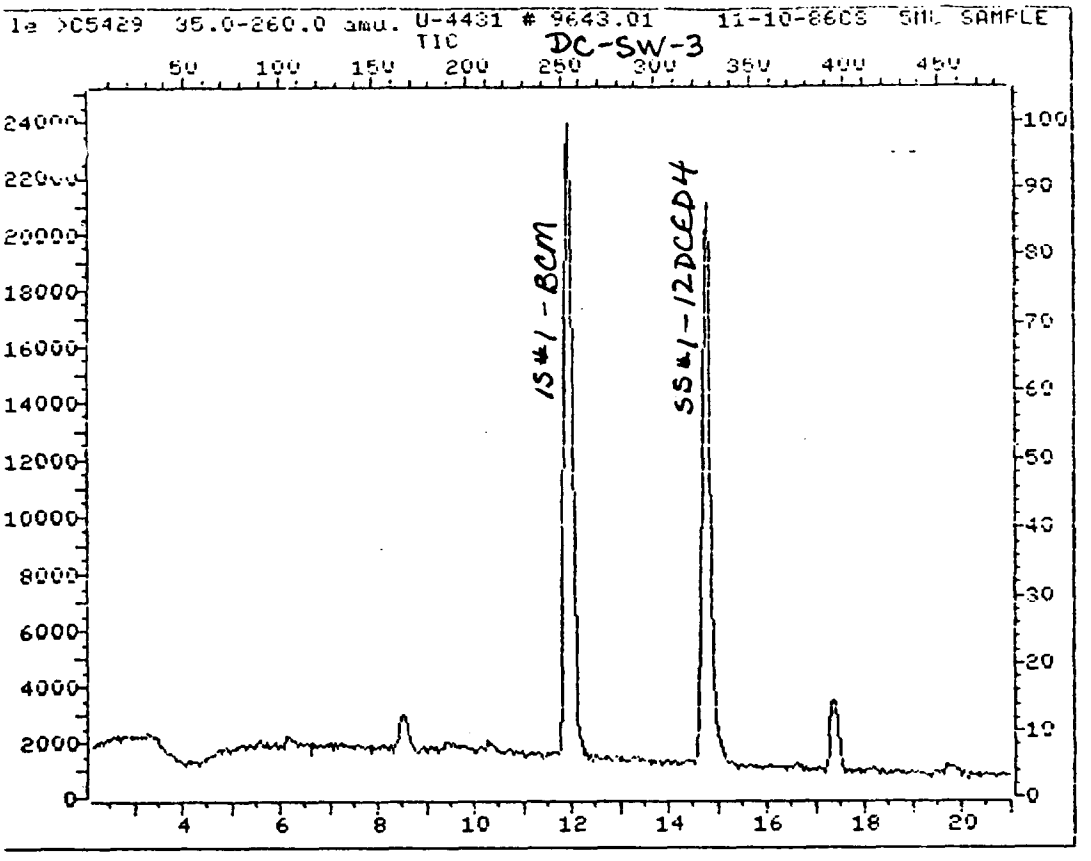
TOTAL ION CHROMATOGRAM

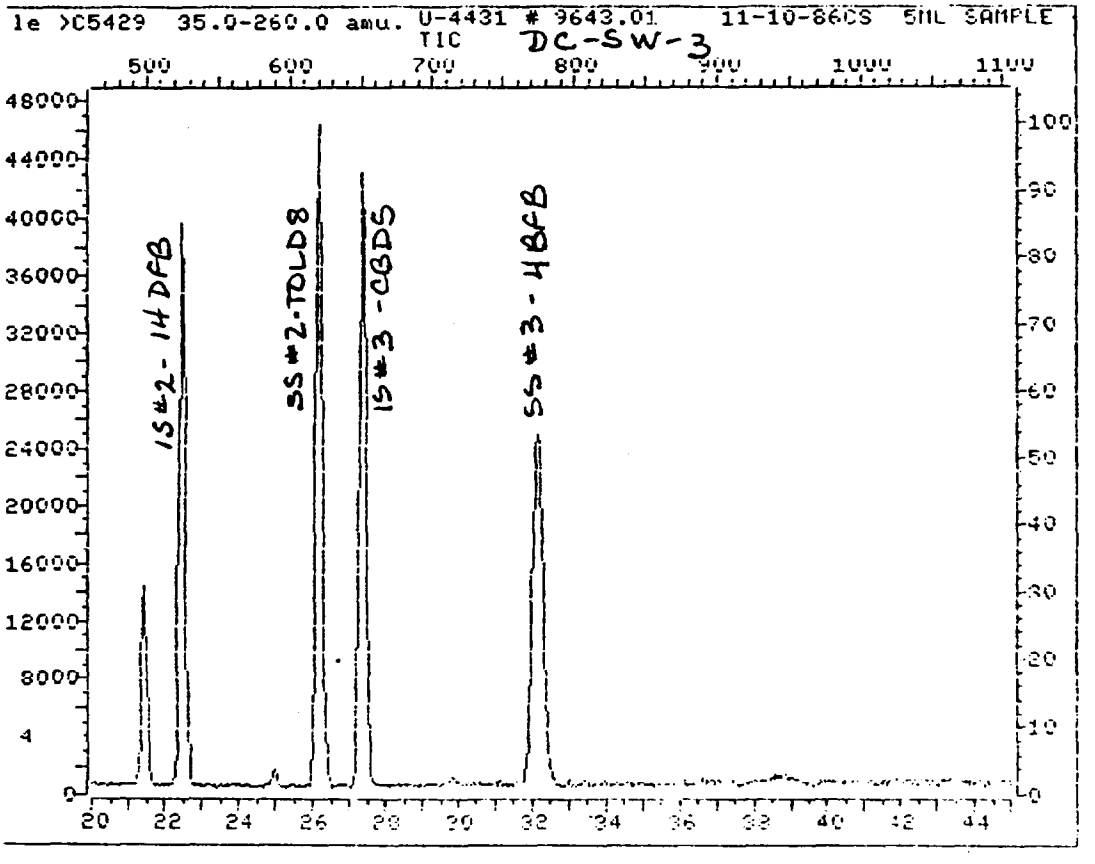


Data File: >C5429::D3
Name: U-4431 # 9643.01 DC-SW-3
Misc: 11-10-86CS 5ML SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

Operator ID: USER8
Quant Time: 861110 15:00
Injected at: 861110 14:14


le >C5429 35.0-260.0 amu. U-4431 # 9643.01 11-10-86CS 5ML SAMPLE
TIC
DC-SW-3
IS#1-BCM
SS#1-12DCEDH
50 100 150 200 250 300 350 400 450
24000 22000 20000 18000 16000 14000 12000 10000 8000 6000 4000 2000 0
100 90 80 70 60 50 40 30 20 10 0
4 6 8 10 12 14 16 18 20


le >C5429 35.0-260.0 amu. U-4431 # 9643.01 11-10-86CS 5ML SAMPLE
TIC
DC-SW-3
IS#2-14DFB
SS#2-TOLD8
IS#3-CBDS
SS#3-4BFB
500 600 700 800 900 1000 1100
48000 44000 40000 36000 32000 28000 24000 20000 16000 12000 8000 4 0
100 90 80 70 60 50 40 30 20 10 0
20 22 24 26 28 30 32 34 36 38 40 42 44

QUANT REPORT

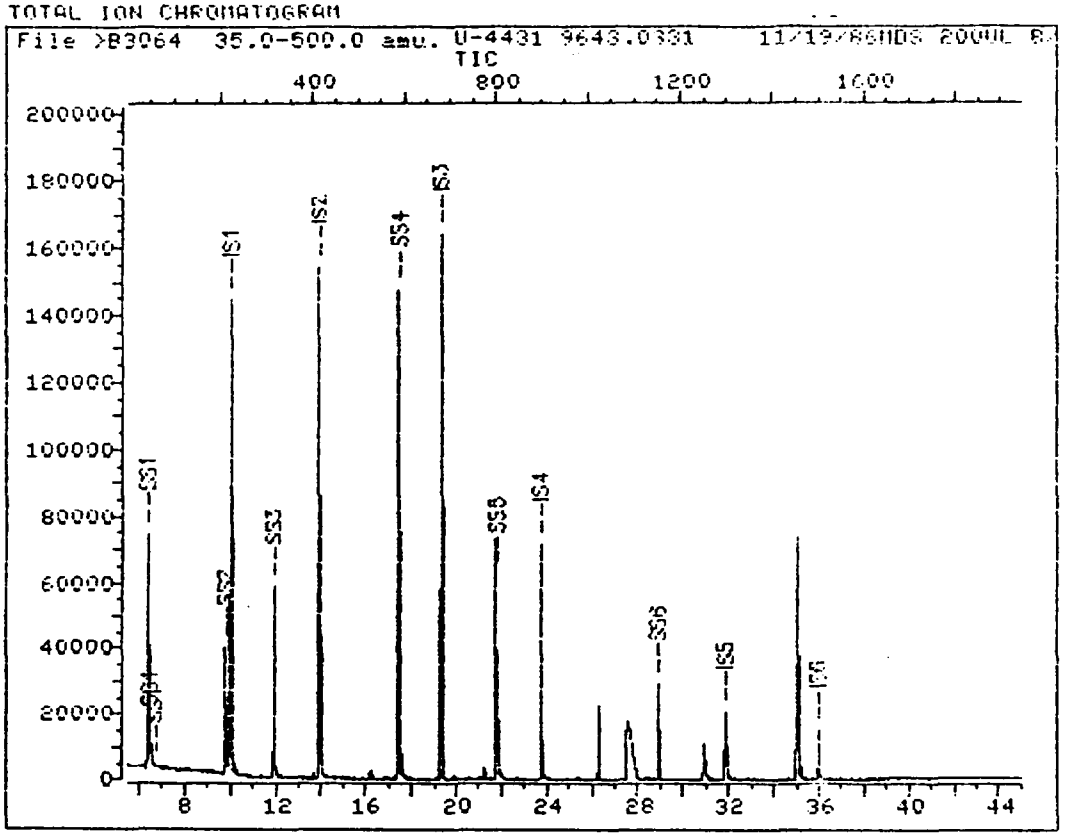
Operator ID: USER8 Quant Rev: 4 Quant Time: 861110 15:00
Output File: ^C5429::Q1 Injected at: 861110 14:14
Data File: >C5429::D3 Dilution Factor: 1.00
Name: U-4431 # 9643.01 DCSW-3
Misc: 11-10-86CS 5ML SAMPLE + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.95	254	32362	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.54	166	3683	3.21	UG/L	100
7)	ACETONE		43	9.39	188	3001	6.80	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.29~~	~~211~~	~~2688~~	~~.02~~	~~UG/L~~	~~100~~ 20 CW
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.79	327	90847	50.02	UG/L	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.47	525	156893	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.36	651	130210	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.15	620	186299	49.47	UG/L	92
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.13	774	96292	47.40	UG/L	100

* Compound is ISTD

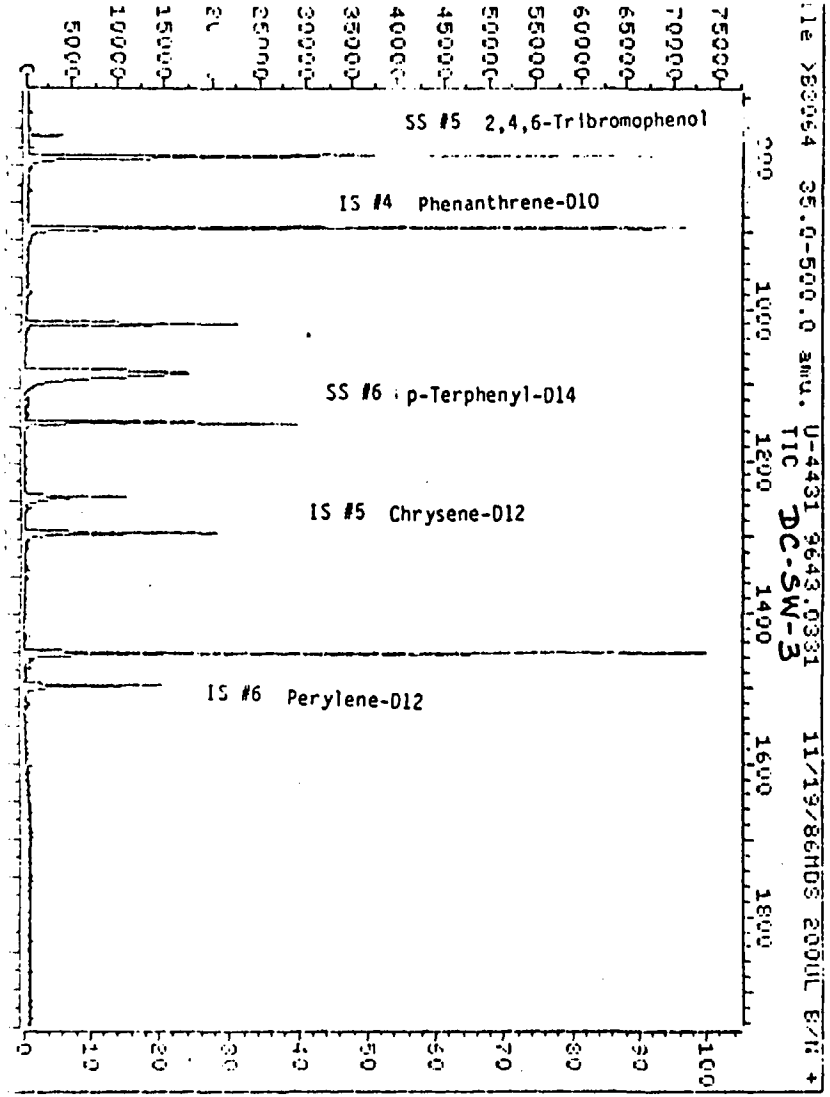
TOTAL ION CHROMATOGRAM

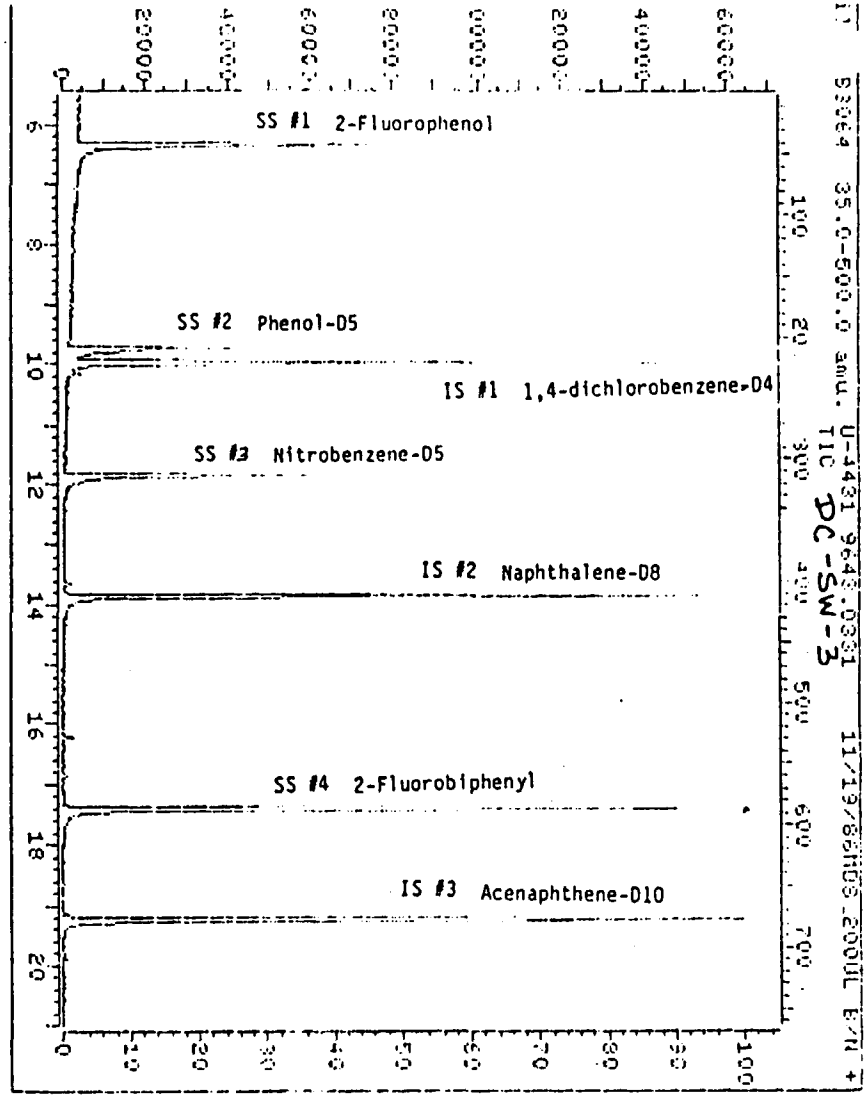


Data File: >B3064::D4
Name: U-4431 9643.0331 DC-SW-3
Misc: 11/19/86MDS 200UL B/N + 200UL A/P + 4UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

Operator ID: USER8
Quant Time: 861119 14:59
Injected at: 861119 14:11


File X80054 35.0-500.0 amu. U-4431 9643.0331 11/19/86HDS 200UL E/N
TIC DC-SW-3
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12


File X80064 35.0-500.0 amu. U-4431 9643.0331 11/19/86HDS 200UL E/N
TIC DC-SW-3
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10

QUANT REPORT

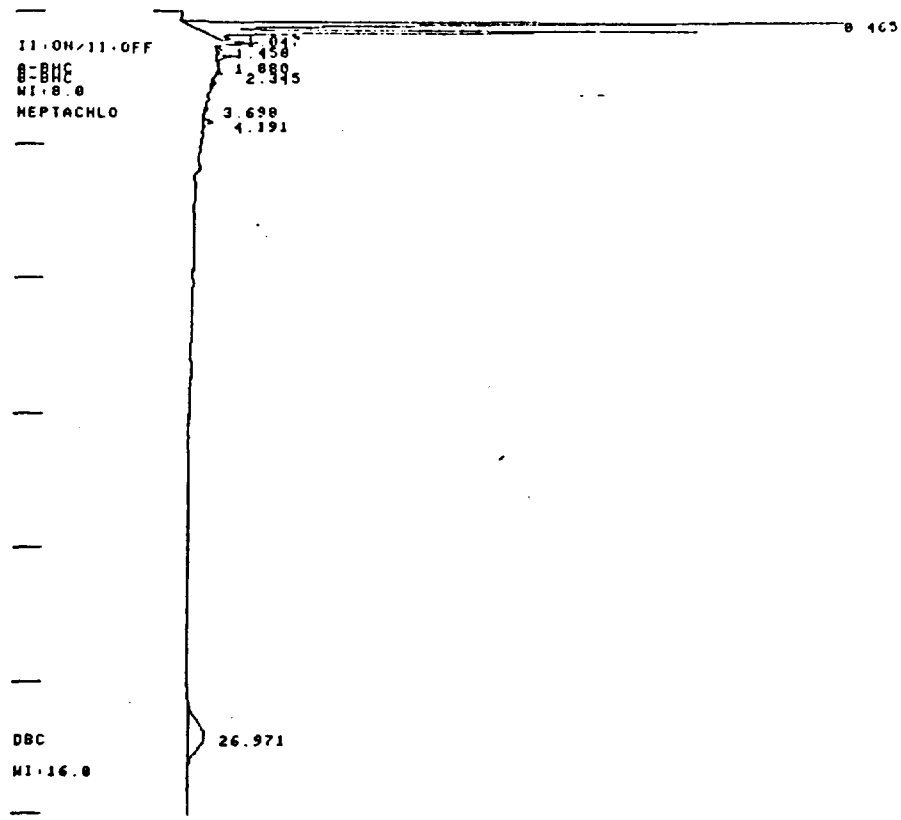
Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 14:59
Output File: ^B3064::Q2 Injected at: 861119 14:11
Data File: >B3064::D4 Dilution Factor: 2.00
Name: U-4431 9643.0331 DC-SW-3
Misc: 11/19/86MDS 200UL B/N + 200UL A/P + 4UL IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.92	221	61510	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	9.72	209	50415	53.08	UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	6.33	42	51270	72.11	UG/L	92
5)	2-FLUOROPHENOL	(SURR)	112	6.43	47	8084	11.37	UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	6.65	58	978	1.38	UG/L	94
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.04~~	~~414~~	~~[illegible]~~	~~15.40~~	~~UG/L~~ no cut	81
19)	*NAPHTHALENE-D8	(IS)	136	13.85	412	200591	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.84	313	61429	72.62	UG/L	90
34)	*ACENAPHTHENE-D10	(IS)	162	19.24	677	89276	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.41	587	134935	72.76	UG/L	95
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.24~~	~~677~~	~~26797~~	~~15.74~~	~~UG/L~~ no cut	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.72	799	38935	142.59	UG/L	97
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.24~~	~~677~~	~~[illegible]~~	~~33.15~~	~~UG/L~~ no cut	100
55)	*PHENANTHRENE-D10	(IS)	188	23.67	895	107555	40.00	UG/L	89
63)	DI-N-BUTYLPHTHALATE		149	26.25	1092	36541	24.87	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.84	1297	35400	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.87	1151	38152	107.41	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.90	1497	30017	40.00	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	34.62	1414	1281	2.19	UG/L	100

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 26 13:29 12 NOV 86

SAMPLE: 9643.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
DF = 10

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	DBC	0.7751	26.971	-0.389	110613	BB	? 42.06
TOTALS:		0.7751		-0.389	110613		

DETECTED PKS: 13 REJECTED PKS: 12

DIVISOR: 1.00000 MULTIPLIER: 100.00000

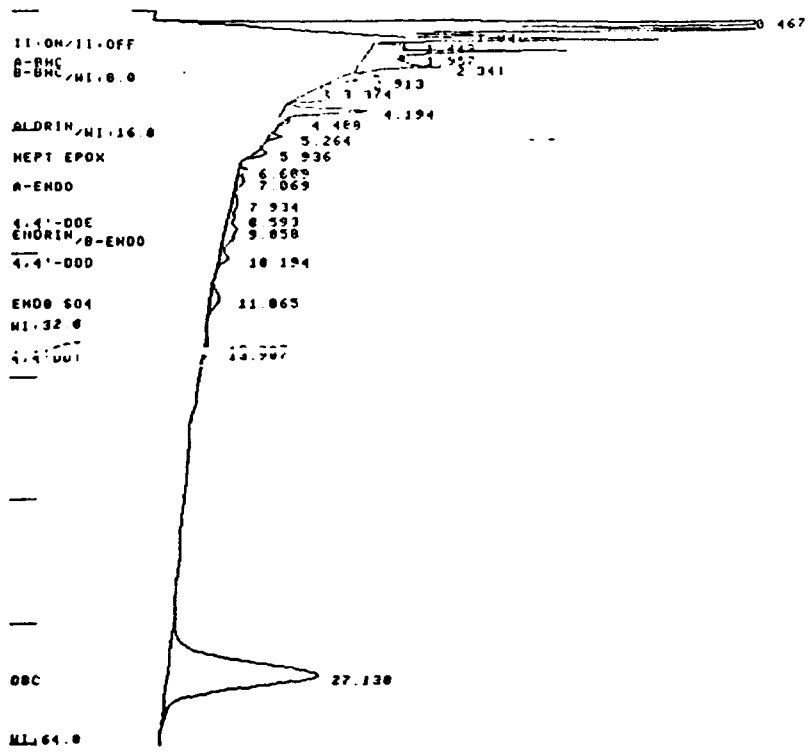
NOISE: 22.9 OFFSET: 22

RACK: 2 VIAL: 5 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY375

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



CHANNEL: 1A - 1 TITLE: RUN# 36 22:39 12 NOV 86

SAMPLE: 9643.84.16 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.449		25348	BV	? 5.25
2		0.0000	1.565		23067	VV	? 5.44
3		0.0000	1.698		186628	VV	5.69
4	~~A-BHC~~	0.0163	1.957	-0.173	37774	VV	? 11.25
5	~~B-BHC~~	0.2086	2.341	0.071	161997	VB	? 9.13
6	~~D-BHC~~	0.0171	2.727	0.177	36281	BV	8.44
7		0.0000	2.913		32811	VB	3.44
8		0.0000	3.374		21526	BV	8.00
9		0.0000	3.627		59977	VV	12.25
10	~~HEPTACHLO~~	0.0965	4.194	0.254	166140	VV	12.75
11		0.0000	5.264		20800	VB	7.94
12	HEPT EPOX 0.056	0.0155	5.936	0.056	28650	BB	11.50
13	~~A-ENDO~~	0.0163	7.069	-0.221	28403	VV	? 20.06
14	~~4,4'-DDE~~	0.0161	7.934	-0.446	28624	VV	27.81
15		0.0000	9.058		36817	VV	15.63
16	ENDRIN 0.108	0.0136	9.331	-0.119	22799	VV	? 18.00
17	~~4,4'-DDD~~	0.0201	10.194	-0.376	33016	VB	16.88
18	~~ENDO SO4~~	0.0355	11.665	-0.445	50102	BB	? 39.25
19	DBC 95%	0.9480	27.130	-0.230	1352925	BB	64.94
TOTALS:		1.4037		-1.452	2353685		

DETECTED PKS: 29 REJECTED PKS: 10

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: -32

RACK: 3 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY391

SAMPLE NUMBER DC-SW-4

481095

Sample Number
DC-SW-4

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4431
Lab Sample ID No. 9644
QC Report No:
Sample Matrix: Water
Contract No: IL 3140
Data Release Authorized By: C Bojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-10-86
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	~~5u~~ 3BJ
67-64-1	Acetone	~~10u~~ 9BJ
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.

Laboratory Name Ecology & Environment

Case No: U-4431- U-4441

Sample Number
DC-SW-4

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-18-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2 4 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline BM ~~50u~~ 9 J	
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate BMC ~~10u~~ 18 B	
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3 3 -Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2. 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-4

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

Conc/Dil Factor: 1 10

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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	3.6	

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 1,000 or W_s _____ V_t 10,000 V_i 4 µl

Laboratory Name ecology and environment, inc.

Case No U-4431

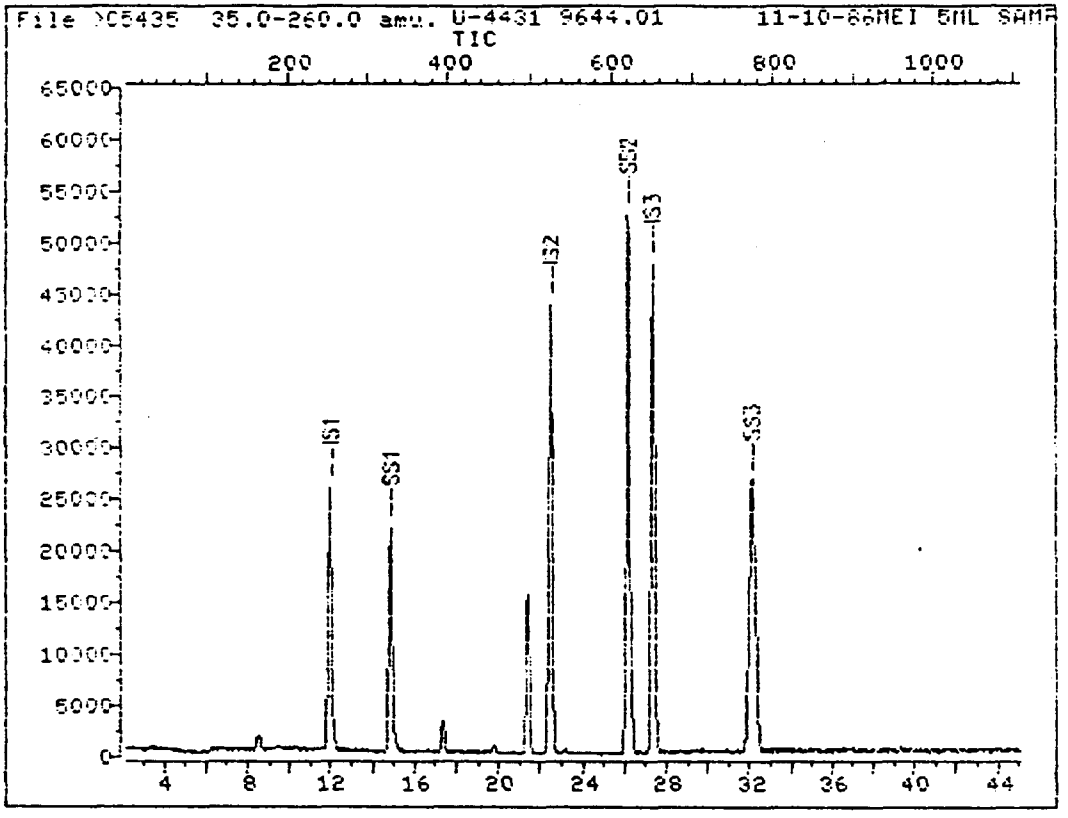
Sample Number DC-SW-4

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.	Hexene isomer	VOA	17.4 min	2.8 B
2.	Hexane isomer	VOA	21.4 min	9.8 B
3.				
4. 21964498	1,13-TETRADECADIENE	BNA	27.6	9.9 B
5. -	UNKNOWN	BNA	30.9	7.7
6. -	UNKNOWN	BNA	35.0	57 B
7. 96800	2-[BIS(1-METHYLETHYL)AMINO]ETHANOL	BNA	11.1	32
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

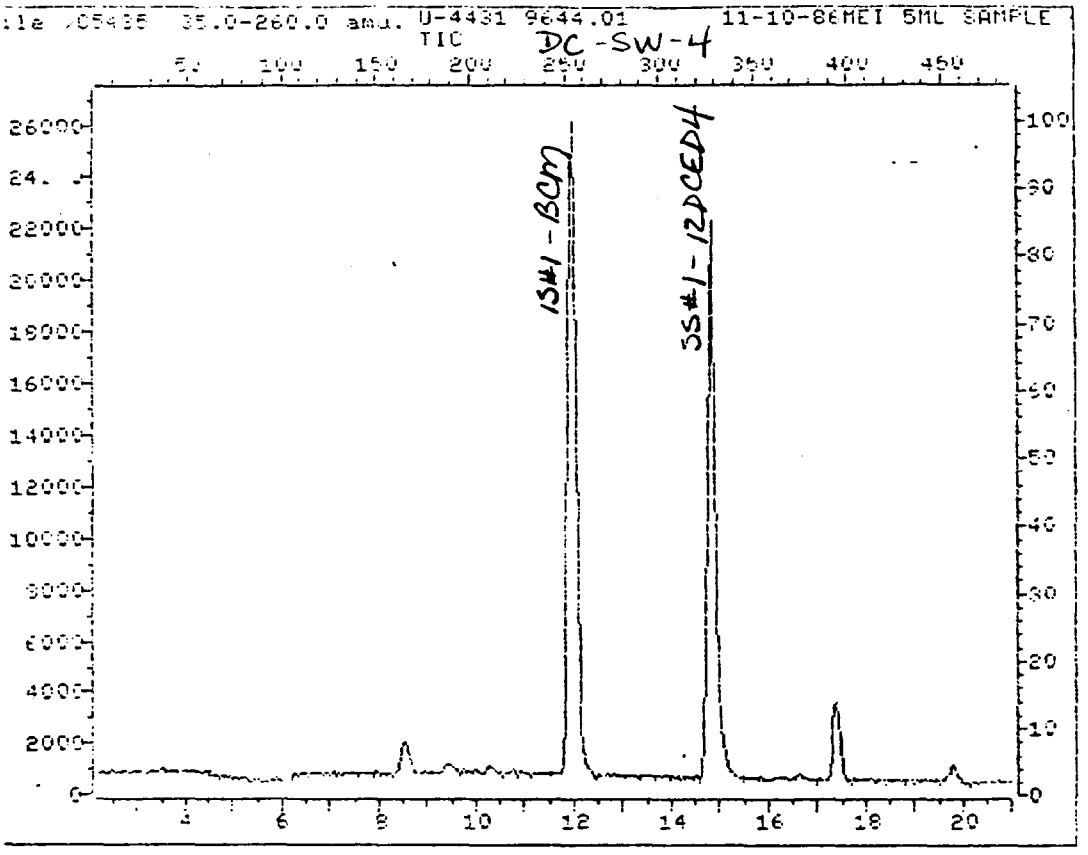
TOTAL ION CHROMATOGRAM

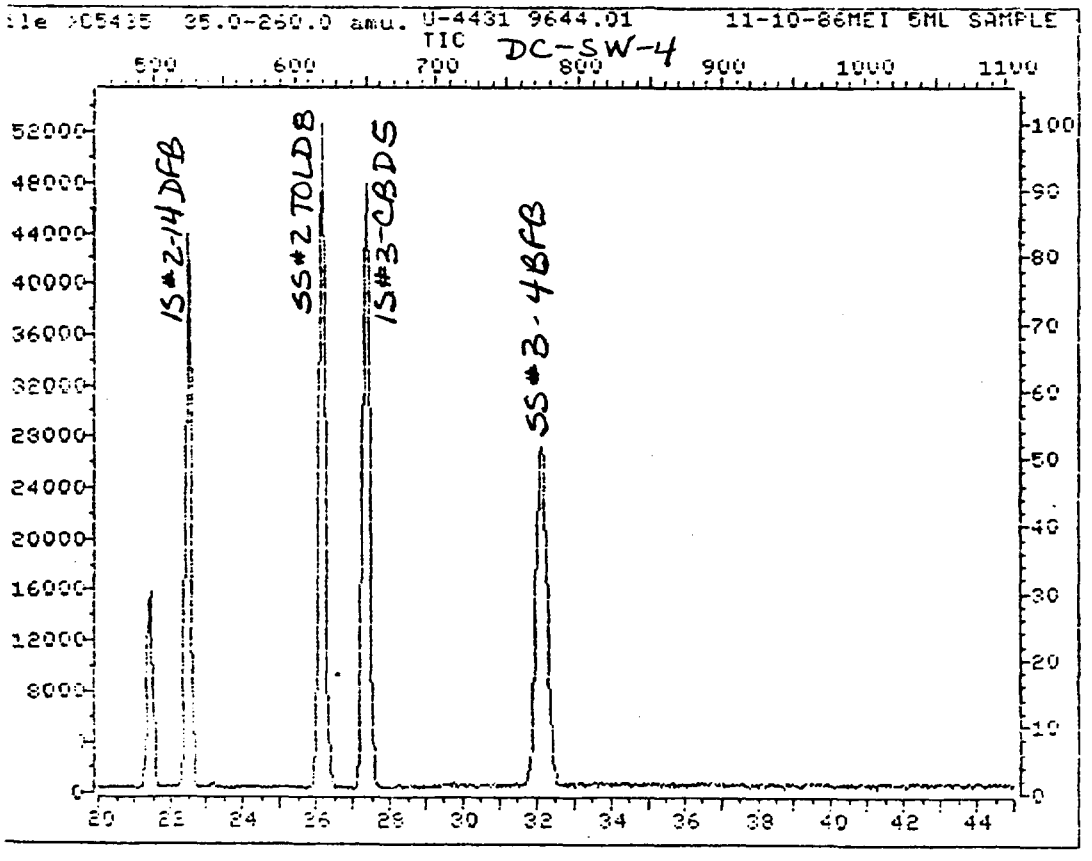


Data File: >C5435::D3
Name: U-4431 9644.01 DC-SW-4
Misc: 11-10-86MEI 5ML SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

Operator ID: USER8
Quant Time: 861110 20:51
Injected at: 861110 20:05


ile X05435 35.0-260.0 amu. U-4431 9644.01 11-10-86MEI 5ML SAMPLE
TIC
DC-SW-4
IS#1-BCM
SS#1-12DCED4


ile X05435 35.0-260.0 amu. U-4431 9644.01 11-10-86MEI 5ML SAMPLE
TIC
DC-SW-4
IS#2-14DFB
SS#2 TOLDB
IS#3-CBDS
SS#3-4BFB

QUANT REPORT --

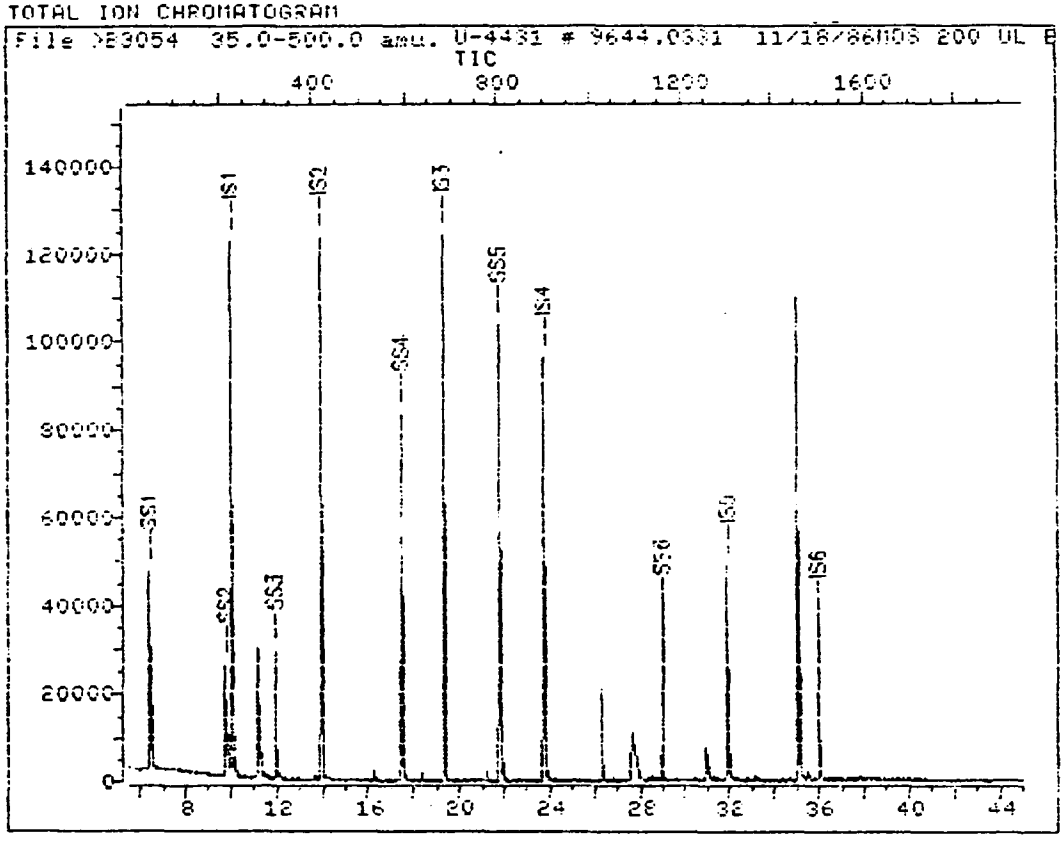
Operator ID: USER8 Quant Rev: 4 Quant Time: 861110 20:51
Output File: ^C5435::Q1 Injected at: 861110 20:05
Data File: >C5435::D3 Dilution Factor: 1.00
Name: U-4431 9644.01 DC-SW-4
Misc: 11-10-86MEI 5ML SAMPLE + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.96	254	37613	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.55	166	3783	2.83	UG/L	100
7)	ACETONE	43	9.44	189	4500	8.78	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~	~~76~~	~~10.29~~	~~211~~	~~2589~~	~~.70~~	~~UG/L~~	~~100~~
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.83	328	95002	45.00	UG/L	83
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.47	525	180881	50.00	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.32	650	150968	50.00	UG/L	100
36)	TOLUENE-D8 (SURR)	98	26.15	620	209156	47.90	UG/L	94
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.10	773	106872	45.37	UG/L	100

* Compound is ISTD

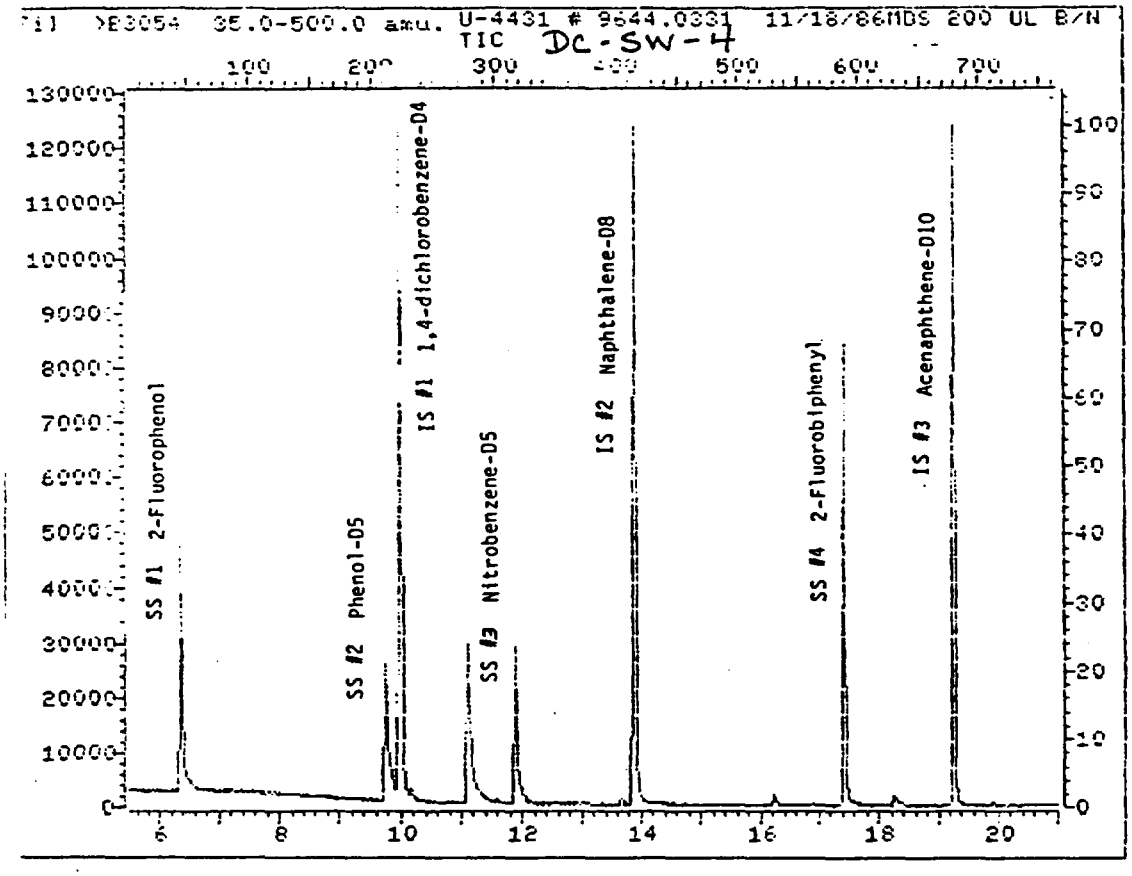
TOTAL ION CHROMATOGRAM

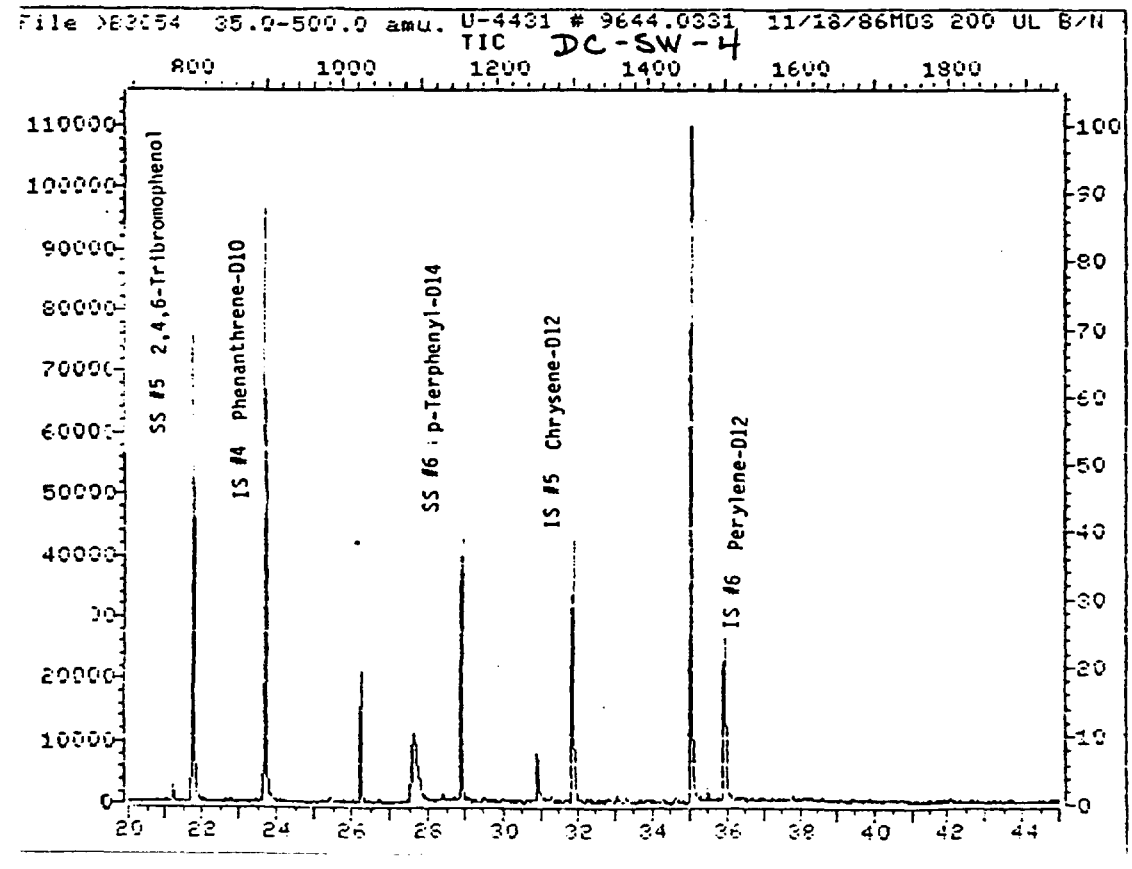


Data File: >B3054::D4
Name: U-4431 # 9644.0331 DC-SW-4
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

Operator ID: USER8
Quant Time: 861118 19:28
Injected at: 861118 18:40


File >B3054 35.0-500.0 amu. U-4431 # 9644.0331 11/18/86MDS 200 UL B/N
TIC
DC-SW-4
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B3054 35.0-500.0 amu. U-4431 # 9644.0331 11/18/86MDS 200 UL B/N
TIC
DC-SW-4
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

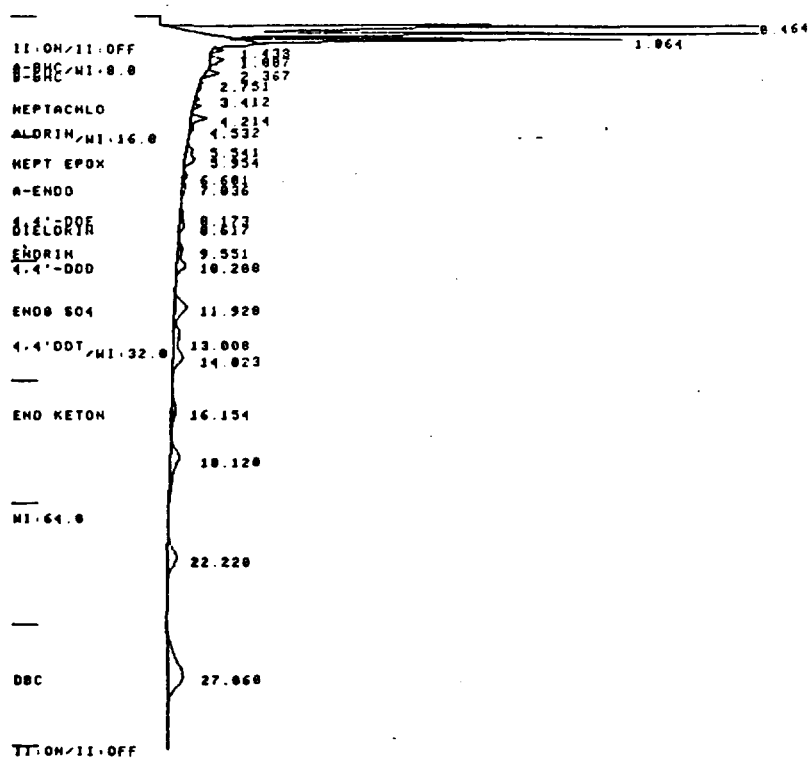
Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 19:28
Output File: ^B3054::Q2 Injected at: 861118 18:40
Data File: >B3054::D4 Dilution Factor: 2.00
Name: U-4431 # 9644.0331 DC-SW-4
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.99	223	53987	40.00	UG/L	82
2)	PHENOL-D5	(SURR)	99	9.77	212	44317	42.72	UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	6.35	44	42120	59.27	UG/L	91
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.11~~	~~278~~	~~2230~~	~~1.52~~	~~UG/L~~ no sym	100
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.88~~	~~315~~	~~9693~~	~~8.62~~	~~UG/L~~ no cwt	84
19)	*NAPHTHALENE-D8	(IS)	136	13.87	414	174671	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.88	316	34218	43.68	UG/L	96
34)	*ACENAPHTHENE-D10	(IS)	162	19.26	679	74719	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.43	589	75344	48.36	UG/L	95
40)	2-NITROANILINE		65	18.26	630	3357	9.20	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.28~~	~~684~~	~~22630~~	~~16.07~~	~~UG/L~~ no cwt	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.76	802	43713	172.25	UG/L	96
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.28~~	~~679~~	~~9843~~	~~31.81~~	~~UG/L~~ no cwt	100
55)	*PHENANTHRENE-D10	(IS)	188	23.71	898	112304	40.00	UG/L	95
~~60)~~	~~PENTACHLOROPHENOL~~		~~266~~	~~23.59~~	~~892~~	~~546~~	~~2.42~~	~~UG/L~~ no cwt	100
63)	DI-N-BUTYLPHTHALATE		149	26.27	1024	26906	17.51	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.86	1299	65321	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.90	1153	50351	68.84	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.93	1499	59816	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.85~~	~~1498~~	~~824~~	~~.63~~	~~UG/L~~ no cwt	100

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 21 14:03 12 NOV 86

SAMPLE: 9644.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
DF=10

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	HEPTACHLO	0.1478	4.214	0.274	25446	BV	11.19
2	HEPT EPOX	0.1459	5.954	0.074	26957	VV	? 20.25
3	4,4'-DDD	0.0000	10.208	-0.152	27792	VB	21.50
4	ENDO SO4	0.3759	11.928	-0.382	53105	BV	32.38
5		0.0000	13.008		24553	VV	? 87.39
6	4,4'DDT	0.5304	14.023	0.343	44571	VE	31.25
7	END KETON	0.1359	16.154	0.394	24750	BE	43.00
8		0.0000	18.120		66675	BE	50.19
9		0.0000	22.220		56687	EE	48.00
10	DBC	1.0906	27.060	-0.300	155636	EE	81.31
TOTALS:		2.4265		0.251	508172		

DETECTED PKS: 30 REJECTED PKS: 20

DIVISOR: 1.00000 MULTIPLIER: 100.00000

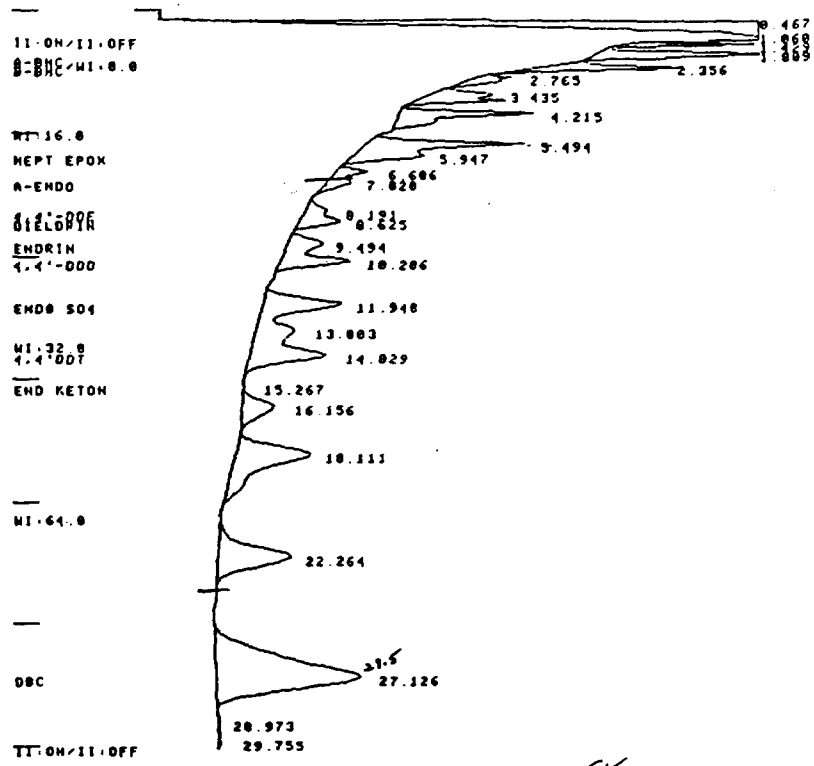
NOISE: 22.9 OFFSET: 3

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY376

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



FV
276 x 0.00131 x 10 = 3.61 ug/L PCB 1260

CHANNEL: 1A - 1 TITLE: RUN# 37 23:13 12 NOV 86

SAMPLE: 9644.04.16 METHOD: CEPA CALCULATION: ES - ANALYS

DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.429		77273	BV	4.94
2		0.0000	1.889		219574	VV	? 9.94
3	~~A-BHC~~	0.0208	1.959	-0.171	48232	VB	? 6.38
4	~~B-BHC~~	0.2309	2.356	0.086	179305	BV	7.50
5	~~D-BHC~~	0.0128	2.765	0.215	27141	VV	6.75
6		0.0000	2.905		47177	VV	? 7.19
7		0.0000	3.435		120404	VV	? 12.94
8	~~HEPTACHLO~~	0.0722	3.700	-0.240	124366	VV	? 10.19
9		0.0000	4.215		225070	VV	12.19
10	~~ALDRIN~~	0.0485	4.523	-0.327	96139	VB	? 24.88
11		0.0000	5.494		376681	BV	16.38
12	~~HEPT EPOX~~	0.0860	5.947	0.067	159003	VV	? 21.56
13		0.0000	6.606		60316	VV	13.50
14	~~A-ENDO~~	0.0422	7.020	-0.270	78537	VB	12.06
15	~~4,4'-DDE~~	0.0311	8.191	-0.189	56285	BV	? 25.19
16	~~DIELDRIN~~	0.0629	8.625	0.145	118501	VV	18.38
17	~~ENDRIN~~	0.0731	9.494	0.044	122813	VV	28.56
18	~~4,4'-DDD~~	0.1363	10.206	-0.364	223742	VB	21.00
19	~~ENDO SO4~~	0.2565	11.948	-0.362	362404	BV	34.13
20		0.0000	13.003		208952	VV	? 32.25
21	~~4,4'DDT~~	0.4243	14.029	0.349	356553	VV	31.31
22	~~END KETON~~	0.0947	16.156	0.396	172458	VB	44.13
23		0.0000	18.111		572360	BB	48.06
24		0.0000	22.264		495617	BB	50.19
25	DBC 87%	~~1.0258~~	27.126	-0.234	~~1251013~~	BV	79.50

TOTALS: 2.6163 -0.855 5983943

DETECTED PKS: 33 REJECTED PKS: 8

DIVISOR: 1.00000 MULTIPLIER: 10.00000

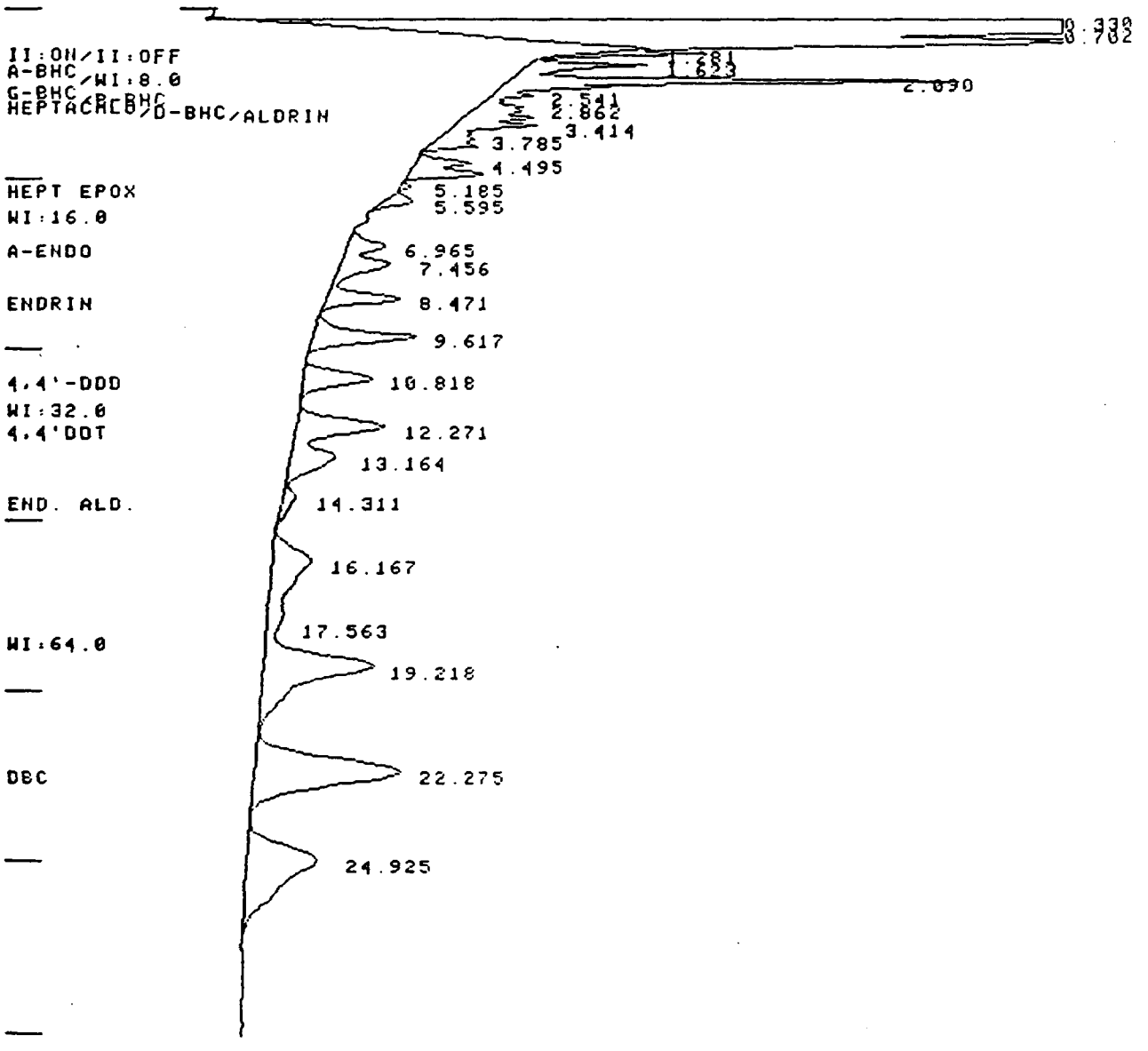
NOISE: 22.9 OFFSET: -10

RACK: 3 VIAL: 7 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
INST:VARIAN 6000#2 A ECD 12X1
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

POST RUN:

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



394/100 10 = 3.9 ug/L PCB 1260

RECALCULATE ON FILE: CYB649

CHANNEL: 1B - 1 TITLE: RUN# 5 0:52 14 NOV 85

DF=10

SAMPLE: 9644.04.16 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/L~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)

RECALCULATE ON FILE: 016849

CHANNEL: 1B - 1 TITLE: RUN# 5 0:52 14 NOV 86

DF=10

SAMPLE: 9644.04.16 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/L~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.281		24302	BV	?	2.94
2		0.0000	1.332		99114	VB		3.19
3		0.0000	1.623		124798	BV		6.44
4	~~A-BHC~~	0.0023	1.712	0.042	65972	VV	?	6.19
5		0.0000	1.797		24972	VV	?	6.38
6		0.0000	1.961		72846	VV	?	5.44
7		0.0000	2.090		635015	VV		6.31
8	~~G-BHC~~	0.0154	2.307	-0.093	146938	VV	?	6.88
9	~~B-BHC~~	0.0056	2.541	0.141	53511	VV		4.19
10	~~HEPTACHLO~~	0.0015	2.716	-0.084	22977	VV	?	3.75
11	~~D-BHC~~	0.0036	2.862	0.062	56832	VV	?	5.63
12		0.0000	2.974		69811	VV	?	8.44
13	~~ALDRIN~~	0.0055	3.199	0.059	141010	VV		9.06
14		0.0000	3.414		123814	VV		5.56
15		0.0000	3.638		37550	VV		4.06
16		0.0000	3.785		56768	VV		4.50
17		0.0000	4.001		104174	VB		6.38
18		0.0000	4.495		121736	BV		11.63
19	~~HEPT EPOX~~	0.0000	4.792	-0.308	177891	VV		12.81
20		0.0000	5.595		73298	BB	?	14.31
21	~~4,4' DDE~~	0.0066	6.965	0.155	143659	BV		19.31
22	~~DIELDRIN~~	0.0000	7.456	-0.424	247980	VV		19.06
23	~~ENDRIN~~	0.0133	8.471	-0.339	267579	VV		18.63
24	PCB	0.0000	9.617		444754	VB		21.19
25	~~4,4' DDD~~	0.0208	10.818	0.388	304415	BB		24.25
26	~~4,4' DDT~~ 1260	0.0093	12.271	-0.309	461321	BV		27.75
27		0.0000	13.164		326533	VV		33.38
28	~~END. ALD.~~	0.0000	14.311	-0.519	88324	VV		22.75
29		0.0000	16.167		495959	VV		65.50
30	~~ENDO SO4~~	0.0107	17.563	0.513	105097	VV	?	68.25
31		0.0000	19.218		1113629	VV		41.44
32	~~DDD~~	0.0726	22.275	-0.025	1365946	VV		49.81
33		0.0000	24.925		979976	VB		69.50
TOTALS:		0.1670		-0.741	8584501			

94

DETECTED PKS: 43 REJECTED PKS: 10

DIVISOR: 1.00000 MULTIPLIER: 1.00000

10X

NOISE: 137.1 OFFSET: 15

RACK: 1 VIAL: 8 INJ: 1

NOTES:
NOTEBOOK:259-36 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB # U-4431;U-4441
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
PESTICIDE/PCB CONFIRMATIONS

SAMPLE NUMBER DC-SW-5

481095

Sample Number
DC-SW-5

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No. 9645

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: C Stoytowicz

Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	~~5u~~ 3BJ
67-64-1	Acetone	~~10u~~ 12B
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.

111

Laboratory Name Ecology & Environment

Case No. U-4431- U-4441

Sample Number
DC-SW-5

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-18-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10u~~ 15 B
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2. 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-5

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-10-86

Date Analyzed 11-12-86

Conc/Dil Factor 10

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	0.50	U
319-85-7	Beta-BHC	0.50	U
319-86-8	Delta-BHC	0.50	U
58-89-9	Gamma-BHC (Lindane)	0.50	U
76-44-8	Heptachlor	0.50	U
309-00-2	Aldrin	0.50	U
1024-57-3	Heptachlor Epoxide	0.50	U
959-98-8	Endosulfan I	0.50	U
60-57-1	Dieldrin	1.0	U
72-55-9	4,4'-DDE	1.0	U
72-20-8	Endrin	1.0	U
33213-65-9	Endosulfan II	1.0	U
72-54-8	4,4'-DDD	1.0	U
1031-07-8	Endosulfan Sulfate	1.0	U
50-29-3	4,4'-DDT	1.0	U
72-43-5	Methoxychlor	5.0	U
53494-70-5	Endrin Ketone	1.0	U
57-74-9	Chlordane	5.0	U
8001-35-2	Toxaphene	10	U
12674-11-2	Aroclor-1016	5.0	U
11104-28-2	Aroclor-1221	5.0	U
11141-16-5	Aroclor-1232	5.0	U
53469-21-9	Aroclor-1242	5.0	U
12672-29-6	Aroclor-1248	5.0	U
11097-69-1	Aroclor-1254	34	
11096-82-5	Aroclor-1260	10	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 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name ecology and environment, inc.

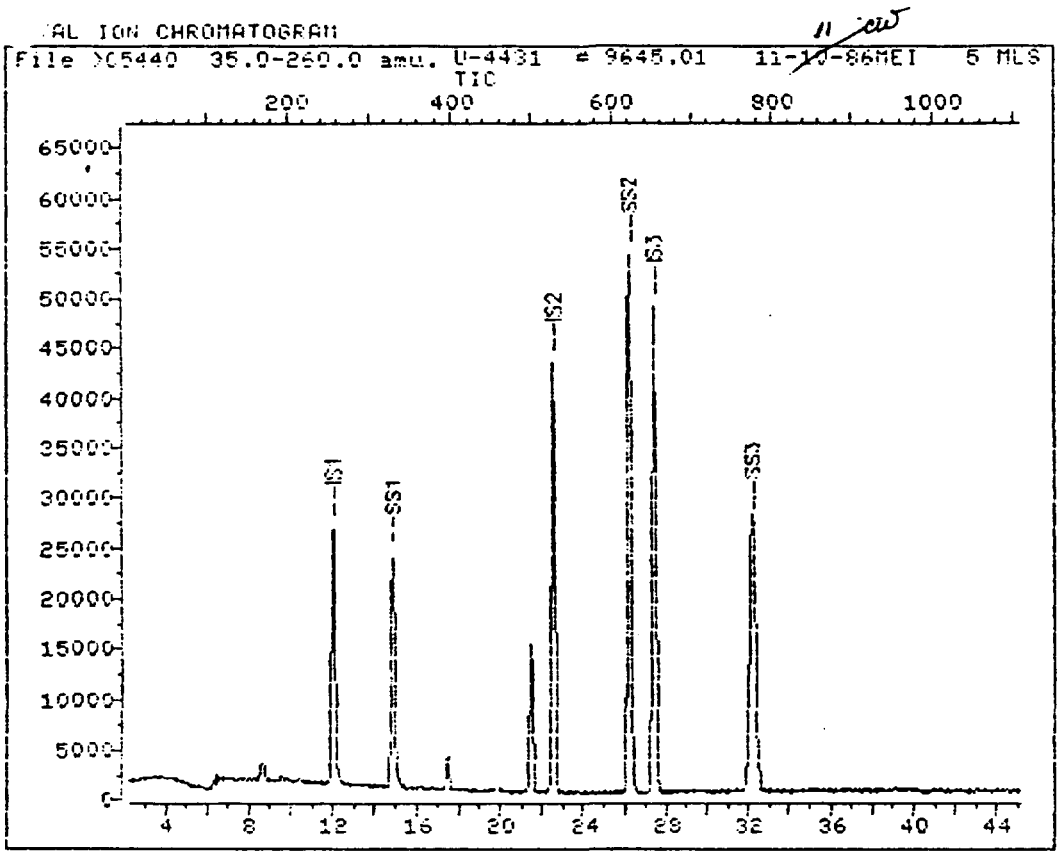
Case No U-4431

Sample Number DC-SW-5

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

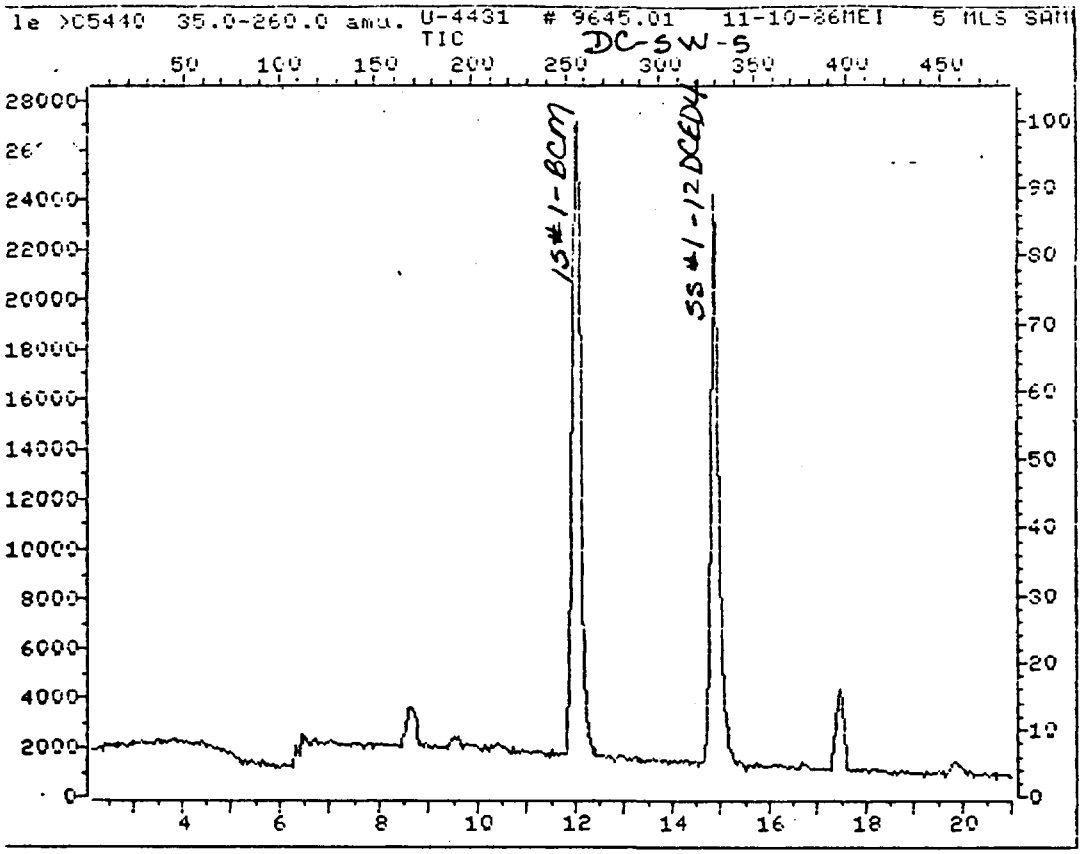
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.5 min	2.9 B
2.	Hexane isomer	VOA	21.5 min	9.7 B
3.				
4. 21964498	1,13-TETRADECADIENE	BNA	27.6	4.3 B
5. -	UNKNOWN	BNA	35.0	48 B
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				



Data File: >C5440::D3
Name: U-4431 # 9645.01 DC-SW-5
Misc: 11-10-86MEI 5 MLS SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

Operator ID: USER2
Quant Time: 861111 09:07
Injected at: 861111 00:32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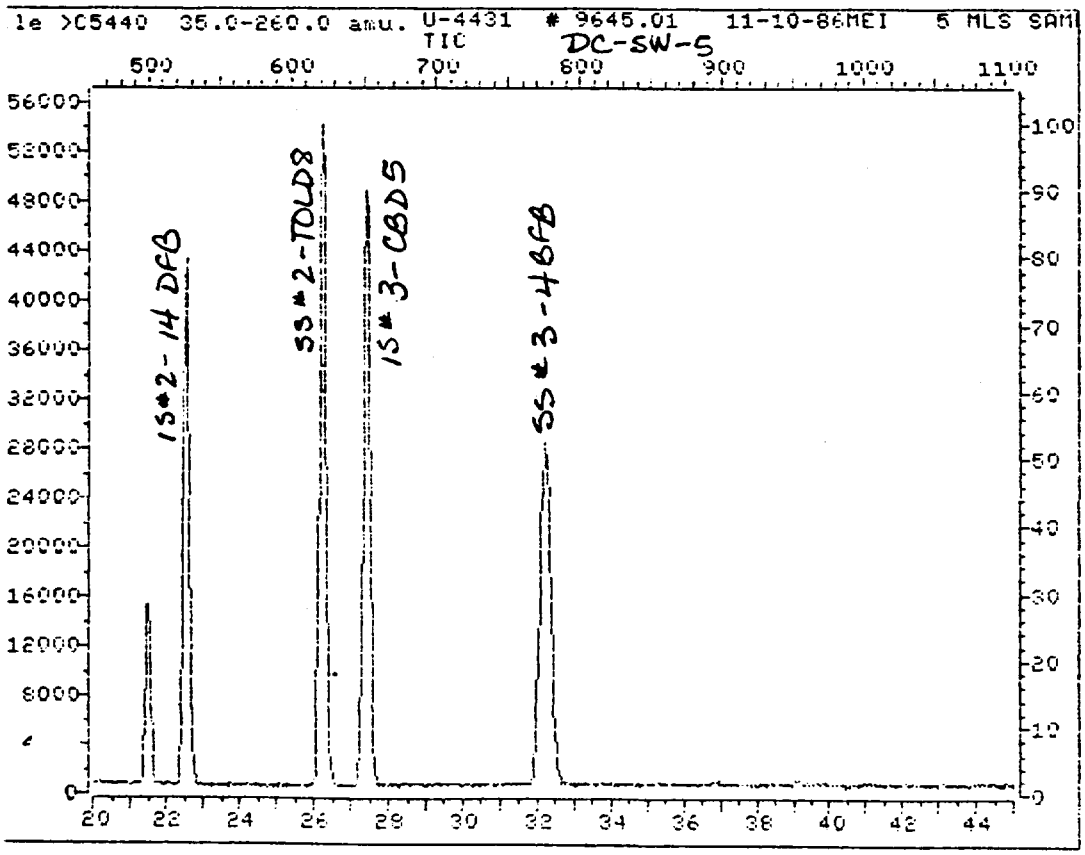
TIC
DC-SW-5
IS#1-BCM
SS#1-12DCEDA


le >C5440 35.0-260.0 amu. U-4431 # 9645.01 11-10-86MEI 5 MLS SAM
TIC
DC-SW-5
IS#2-14DFB
SS#2-TOLD8
IS#3-CBD5
SS#3-4BFB

QUANT REPORT

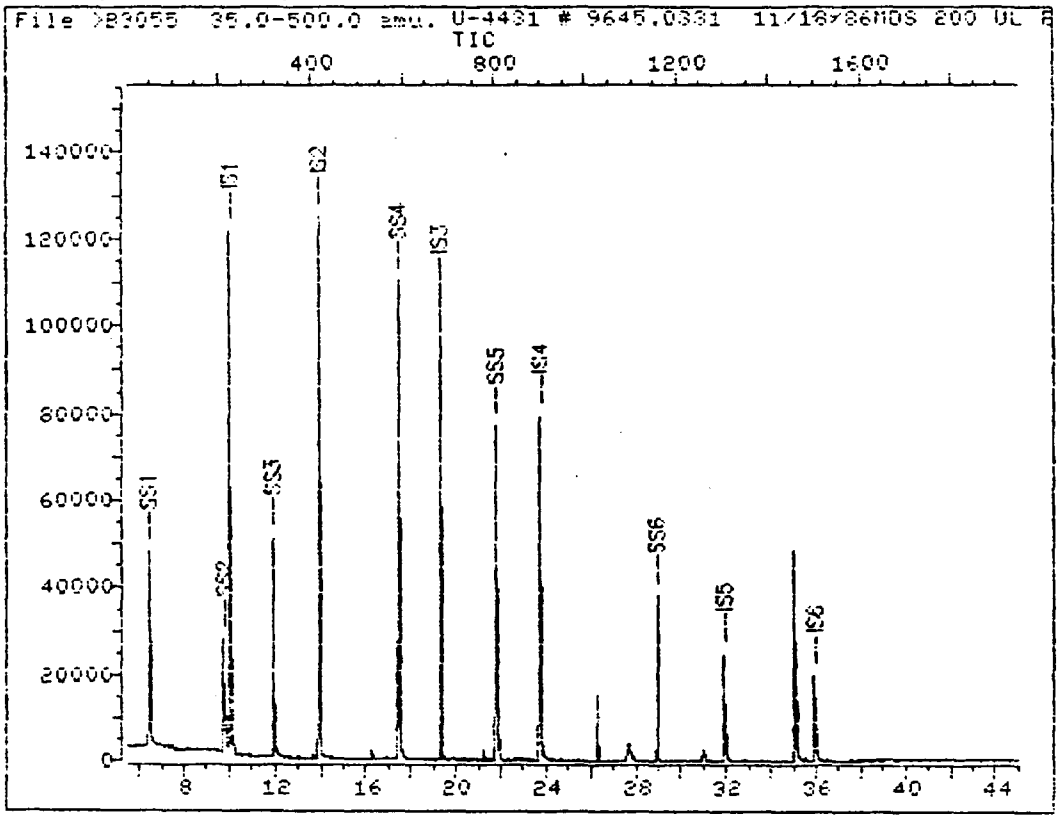
Operator ID: USER8 Quant Rev: 4 Quant Time: 861111 09:07
Output File: ^C5440::Q1 Injected at: 861111 00:32
Data File: >C5440::D3 Dilution Factor: 1.00
Name: U-4431 # 9645.01 DC-SW-S
Misc: 11-~~10~~-86MEI 5 MLS SAMPLE + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.04	256	38744	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.62	168	5168	3.32	UG/L	100
7)	ACETONE		43	9.55	192	3725	11.70	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.41~~	~~214~~	~~3395~~	~~.90~~	~~UG/L~~ no cal	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.87	329	100615	50.88	UG/L 102	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.55	527	183175	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.40	652	149701	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.23	622	213870	50.56	UG/L 102	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.17	775	111299	49.68	UG/L 100	100

* Compound is ISTD

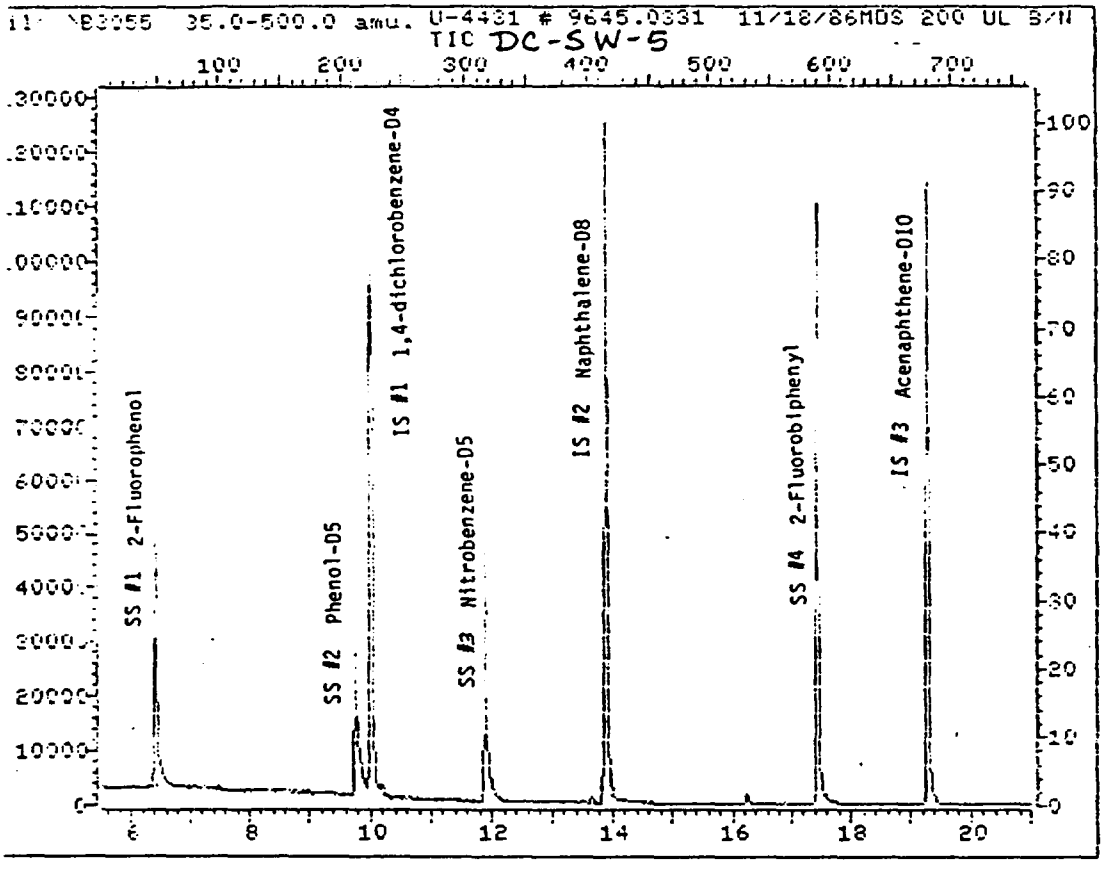
TOTAL ION CHROMATOGRAM

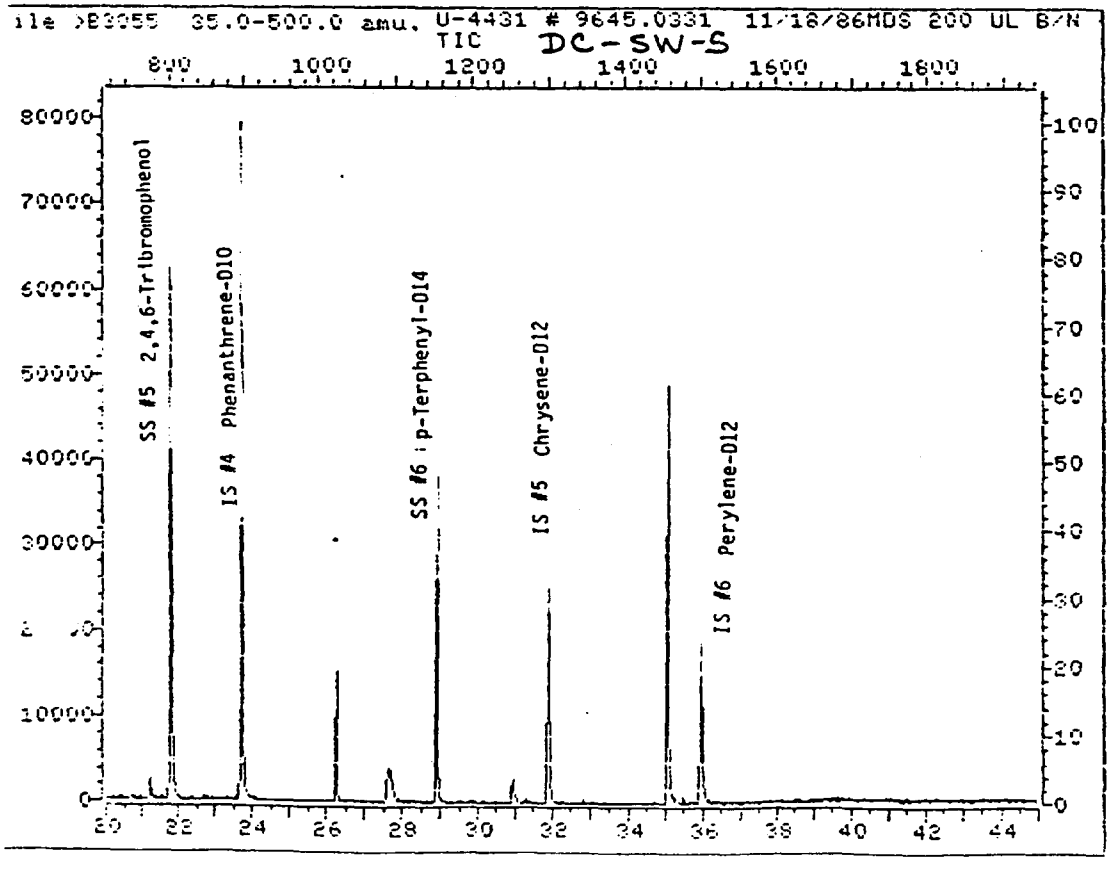


Data File: >B3055::D4
Name: U-4431 # 9645.0331 DC. SW-5
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

Id File: BNABP::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

Operator ID: USER8
Quant Time: 861118 20:30
Injected at: 861118 19:43


TIC DC-SW-5
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


TIC DC-SW-5
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

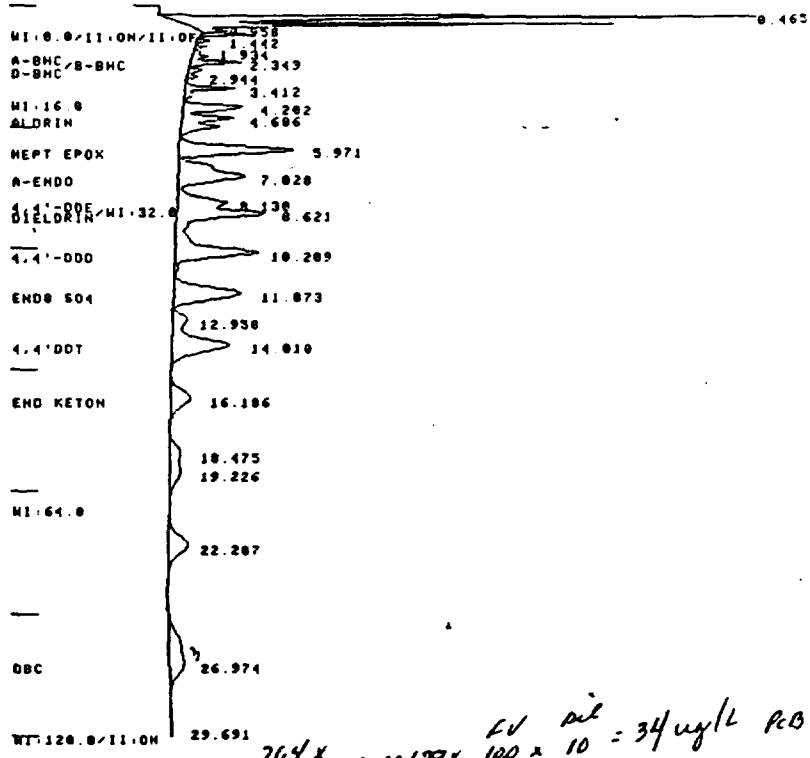
Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 20:30
Output File: ^B3055::Q2 Injected at: 861118 19:43
Data File: >B3055::D4 Dilution Factor: 2.00
Name: U-4431 # 9649.0331 DC-SW-5
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	10.01	224	54569	40.00	UG/L	85
2)	PHENOL-D5	(SURR)	99	9.77	212	45885	43.76	UG/L 22 ✓	96
5)	2-FLUOROPHENOL	(SURR)	112	6.40	46	52012	72.41	UG/L 36 ✓	95
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.38~~	~~316~~	~~7290~~	~~10.93~~	~~UG/L~~ no cur	86
19)	*NAPHTHALENE-D8	(IS)	136	13.90	415	178948	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.88	316	49979	62.27	UG/L 42 ✓	95
34)	*ACENAPHTHENE-D10	(IS)	162	19.26	679	77024	40.00	UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	17.43	589	107952	67.22	UG/L 67 ✓	93
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.28~~	~~680~~	~~22478~~	~~14.68~~	~~UG/L~~ no cur	100
43)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.76	802	36482	139.45	UG/L 70 ✓	96
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.26~~	~~579~~	~~9773~~	~~29.87~~	~~UG/L~~ no cur	100
55)	*PHENANTHRENE-D10	(IS)	188	23.71	898	101927	40.00	UG/L	94
63)	DI-N-BUTYLPHTHALATE		149	26.27	1024	21398	15.35	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.88	1300	39742	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.91	1154	43444	97.63	UG/L 98 ✓	100
74)	*PERYLENE-D12	(IS)	264	35.95	1500	33991	40.00	UG/L	100

* Compound is ISTD

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



264 × 0.00127 × 100 × 10 = 34 ug/L PCB 1254

CHANNEL: 1A - 1 TITLE: RUN# 22 14:36 12 NOV 86

SAMPLE: 9645.04.16 METHOD: CEPA CALCULATION: ES - ANALYS

DF=10

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1	B-BHC	0.6597	2.349	0.079	51221	VV	6.25
2		0.0000	3.412		56995	BV	8.50
3	HEPTACHLO	0.7190	4.202	0.262	123787	BV	16.69
4		0.0000	4.686		80959	VV	12.25
5	ALDRIN	0.3508	5.002	0.152	69472	VV	11.56
6	HEPT EPOX	1.6017	5.971	0.091	296985	VV	19.81
7	A-ENDO	1.6979	7.028	-0.262	296673	VV	33.00
8	4,4'-DDE	0.0000	8.130	-0.140	172075	VV	? 30.38
9	DIELDRIN	1.4882	8.621	0.141	290267	VV	23.56
10	4,4'-DDD	0.0000	10.209	-0.151	320478	VV	23.88
11	ENDO SO4	2.0565	11.873	-0.437	290540	VV	33.38
12		0.0000	12.958		59561	VV	? 27.38
13	4,4'DDT	3.3381	14.010	0.330	280511	VB	34.13
14	END KETON	0.6138	16.186	0.426 264	111770	BB	43.25
15		0.0000	~~18.475~~		~~50562~~	BV	? 47.00
16	METHOXYCH	1.2623	19.226	-0.854	69655	VB	? 67.25
17		0.0000	22.207		130653	BV	48.88
18	DBC 88%	~~1.3026~~	26.974	-0.386	~~110322~~	VV	?111.13
TOTALS:		15.0906		-0.749	2929129		

DETECTED PKS: 32 REJECTED PKS: 14

DIVISOR: 1.00000 MULTIPLIER: 100.00000

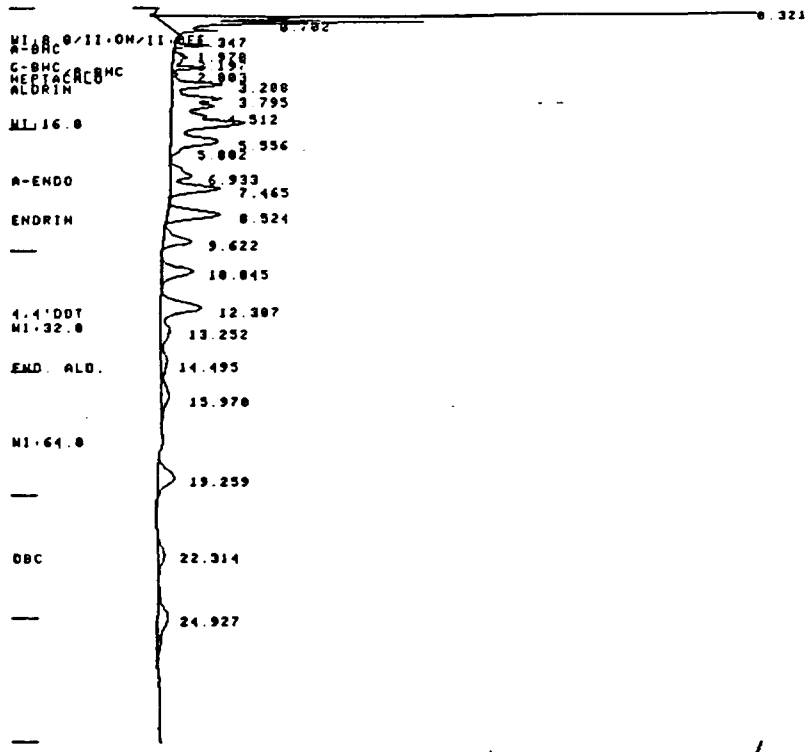
NOISE: 22.9 OFFSET: -3

RACK: 2 VIAL: 7 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY377

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



$32 \times 0.0010\% \times 100 = 33$ ug/L PCB 1254

RECALCULATE ON FILE: CYB650

CHANNEL: 1B - 1 TITLE: RUN# 9 1:26 14 NOV 86

SAMPLE: 9645.04.16 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/L~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1	~~A-BHC~~	0.0017	1.633	-0.037	47822	VV	4.81
2		0.0000	2.105		26613	VV	7.56
3	~~G-BHC~~	0.0026	2.197	-0.203	24570	VV	? 19.50
4	~~B-BHC~~	0.0061	2.554	0.154	57999	VV	5.94
5	~~ALDRIN~~	0.0068	3.209	0.068	1[illegible]711	VV	11.06
6		0.0000	3.795		165953	VV	? 10.75
7		0.0000	4.057		160576	VV	? 16.94
8		0.0000	4.512		125768	VV	? 17.56
9	~~HEPT. EPOX~~	0.0000	4.801	-0.299	354862	VV	19.81
10		0.0000	5.556		255703	VV	21.38
11		0.0000	5.882		24843	VV	? 17.63
12	~~4,4'-DDE~~ PCB 1254	0.0063	6.933	0.123	137803	VV	26.25
13	~~DIELDRIN~~	0.0000	7.465	-0.415	230066	VB	16.81
14	~~ENDRIN~~	0.0147	8.524	-0.286	295610	BV	20.88
15		0.0000	9.622	331	180834	VB	21.00
16	~~4,4'-DDD~~	0.0154	10.845	0.415	224973	BV	25.31
17	~~4,4'-DDT~~	0.0063	12.307	-0.273	314999	VV	29.50
18		0.0000	13.252		106914	VV	? 45.44
19	~~END. ALD.~~	0.0000	14.495	-0.335	75068	VV	? 31.19
20		0.0000	15.970		11[illegible]644	VB	49.63
21		0.0000	19.259		201542	BB	40.81
22	DBC	0.0049	22.314	0.014	91449	BV	48.94
23		0.0000	24.927		200276	VB	57.38
TOTALS:		0.0647		-1.074	3675516		

DETECTED PKS: 34 REJECTED PKS: 11

DIVISOR: 1.00000 MULTIPLIER: ~~1.00000~~ 100x

NOISE: 137.1 OFFSET: 25

RACK: 1 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:259-36 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB # U-4431;U-4441
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
PESTICIDE/PCB CONFIRMATIONS

SAMPLE NUMBER DC-SW-6

481C95

Sample Number
DC-SW-6

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4431
Lab Sample ID No. 9646
QC Report No:
Sample Matrix: Water
Contract No: IL-3140
Data Release Authorized By: C Stojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	5u 3BJ
67-64-1	Acetone	10u 11B
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

Laboratory Name Ecology & Environment

Case No: U-4431- U-4441

Sample Number
DC-SW-6

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-18-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2 4-Dichlorophenol	10u
120-82-1	1 2 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2 4 6-Trichlorophenol	10u
95-95-4	2 4 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10u~~ 16B
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3 3 -Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4431

Sample Number DC-SW-6

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

Conc/Dil Factor: 10

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	0.50	U
319-85-7	Beta-BHC	0.50	U
319-86-8	Delta-BHC	0.50	U
58-89-9	Gamma-BHC (Lindane)	0.50	U
76-44-8	Heptachlor	0.50	U
309-00-2	Aldrin	0.50	U
1024-57-3	Heptachlor Epoxide	0.50	U
959-98-8	Endosulfan I	0.50	U
60-57-1	Dieldrin	1.0	U
72-55-9	4,4'-DDE	1.0	U
72-20-8	Endrin	1.0	U
33213-65-9	Endosulfan II	1.0	U
72-54-8	4,4'-DDD	1.0	U
1031-07-8	Endosulfan Sulfate	1.0	U
50-29-3	4,4'-DDT	1.0	U
72-43-5	Methoxychlor	5.0	U
53494-70-5	Endrin Ketone	1.0	U
57-74-9	Chlordane	5.0	U
8001-35-2	Toxaphene	10	U
12674-11-2	Aroclor-1016	5.0	U
11104-28-2	Aroclor-1221	5.0	U
11141-16-5	Aroclor-1232	5.0	U
53469-21-9	Aroclor-1242	5.0	U
12672-29-6	Aroclor-1248	5.0	U
11097-69-1	Aroclor-1254	44	
11096-82-5	Aroclor-1260	10	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 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-6

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.	Hexene isomer	VOA	17.4 min	2.9 B
2.	Hexane isomer	VOA	21.5 min	9.9 B
3.				
4. 2196449B	1,13-TETRADECADIENE	BNA	27.6	9.8 B
5. -	UNKNOWN	BNA	30.9	6.5
6. -	UNKNOWN	BNA	35.0	50 B
7.				
8.				
9.				
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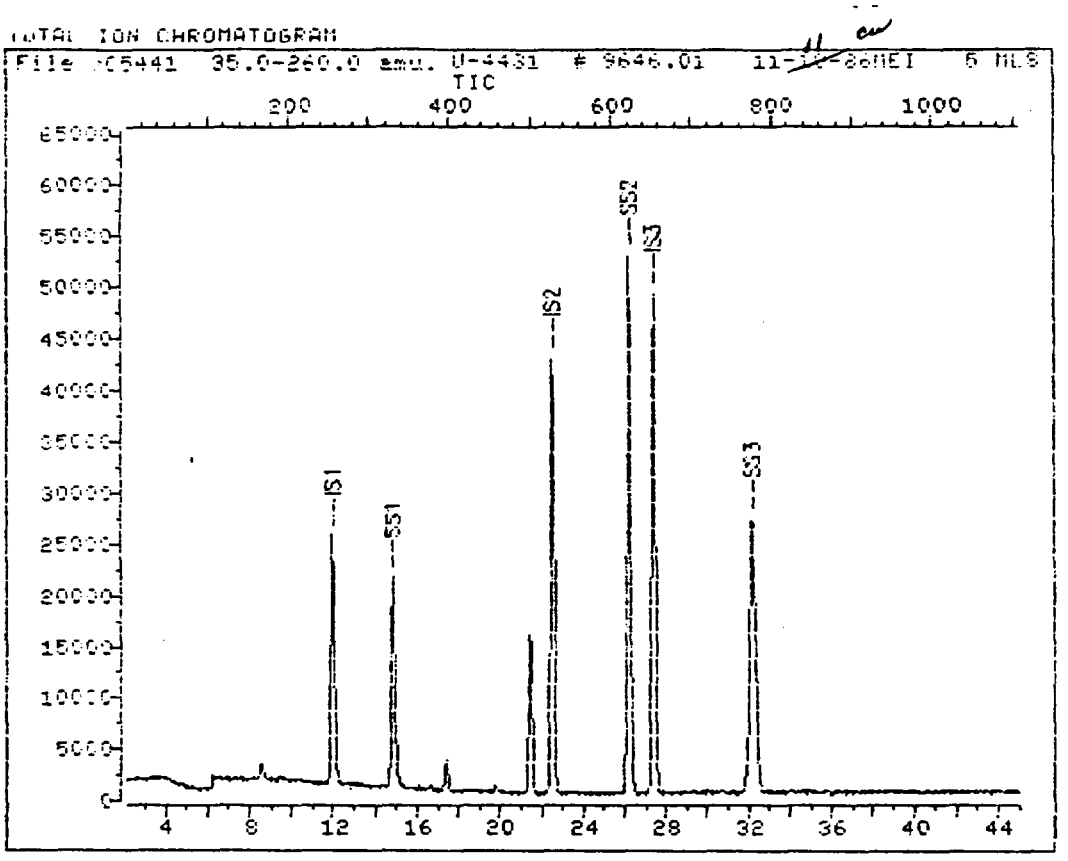
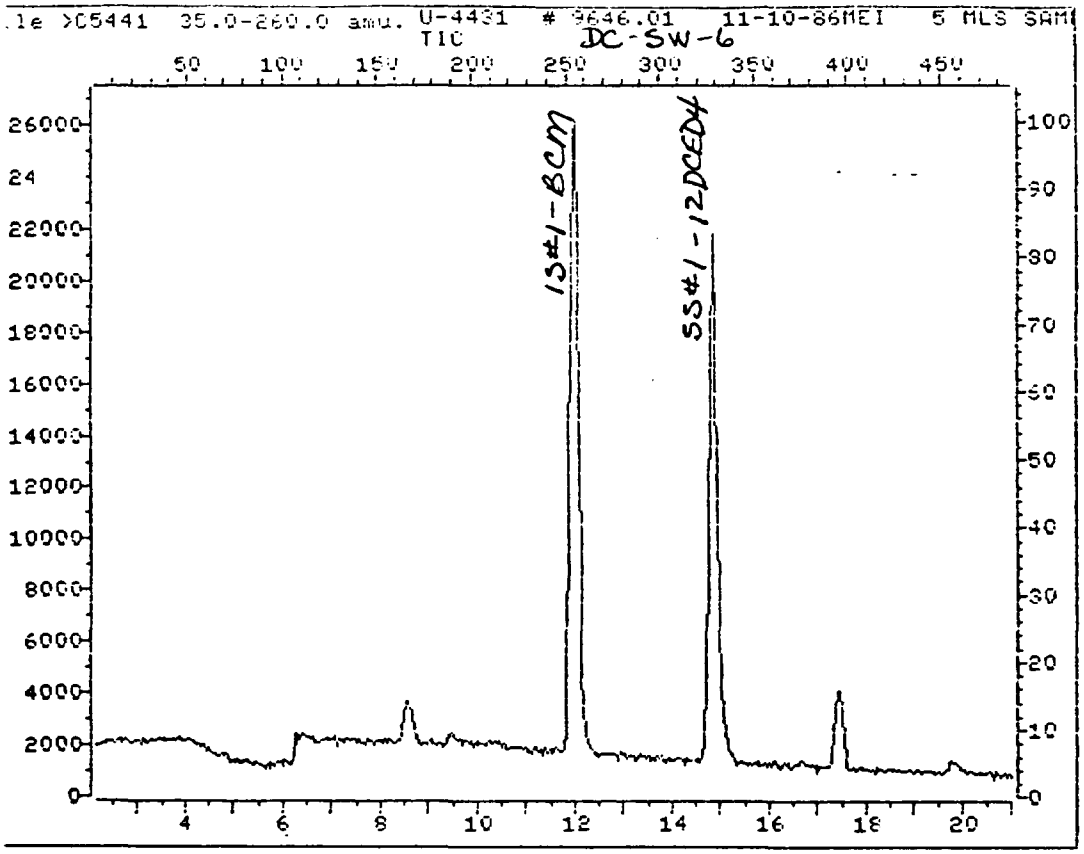
29.				
30				

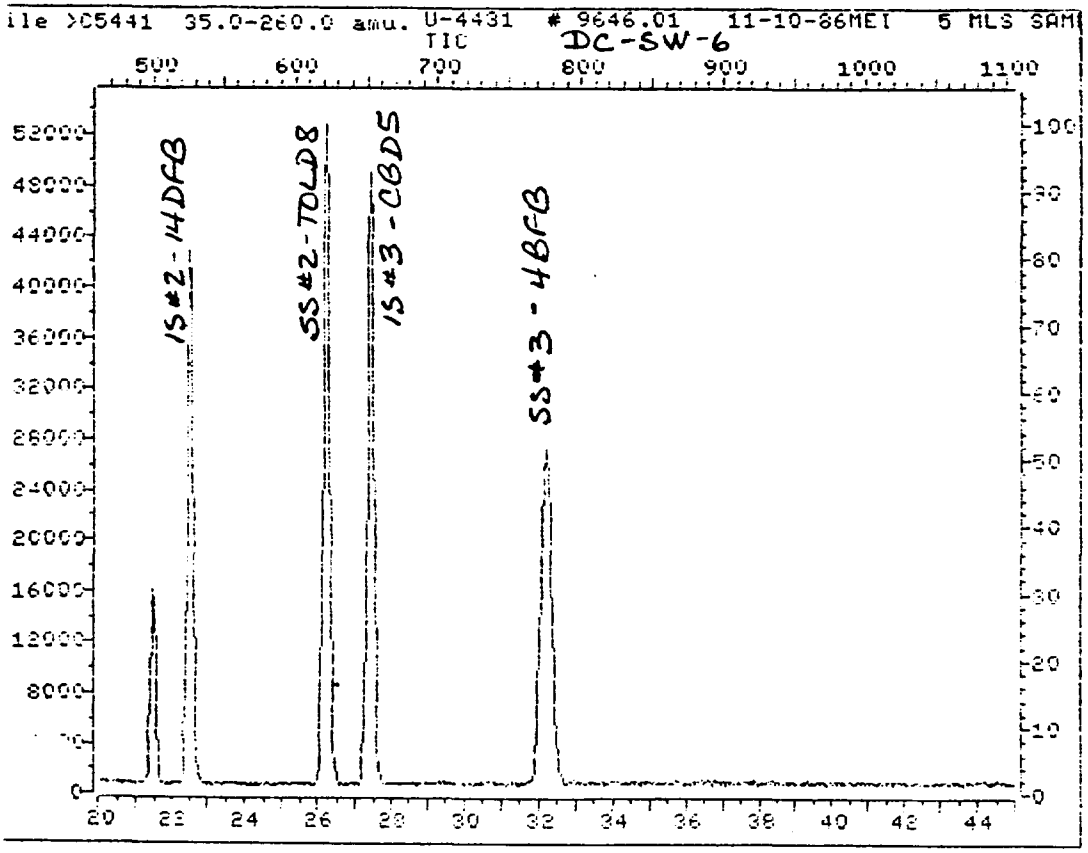


Data File: >C5441::D3
Name: U-4431 # 9646.01 DC-SW-6
Misc: 11-10-86MEI 5 MLS SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

Operator ID: USER8
Quant Time: 861111 09:09
Injected at: 861111 01:29


le >C5441 35.0-260.0 amu. U-4431 # 9646.01 11-10-86MEI 5 MLS SAM
TIC
DC-SW-6
IS#1-BCM
SS#1-12DCEDA


ile >C5441 35.0-260.0 amu. U-4431 # 9646.01 11-10-86MEI 5 MLS SAM
TIC
DC-SW-6
IS#2-14DFB
SS#2-TOLD8
IS#3-CBDS
SS#3-4BFB

QUANT REPORT

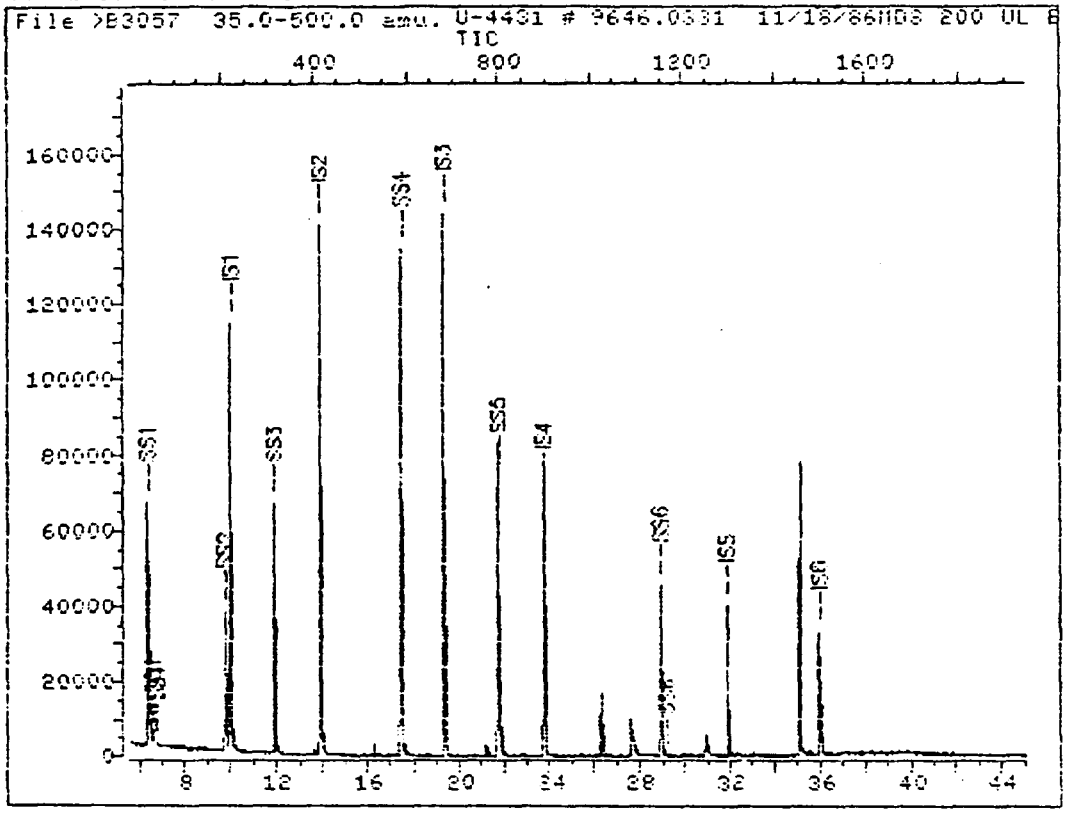
Operator ID: USER8 Quant Rev: 4 Quant Time: 861111 09:09
Output File: ^C5441::Q1 Injected at: 861111 01:29
Data File: >C5441::D3 Dilution Factor: 1.00
Name: U-4431 # 9646.01 DC-SW-6
Misc: 11-~~10~~-86MEI 5 MLS SAMPLE + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.96	254	37249	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.59	167	5010	3.34	UG/L	100
7)	ACETONE		43	9.52	191	3474	11.35	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.33~~	~~212~~	~~2698~~	~~.66~~	~~UG/L~~	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.83	328	93728	49.30	UG/L 98	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.51	526	177870	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.40	652	150601	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.23	622	204856	48.14	UG/L 96	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.17	765	107032	47.49	UG/L 96	100

* Compound is ISTD

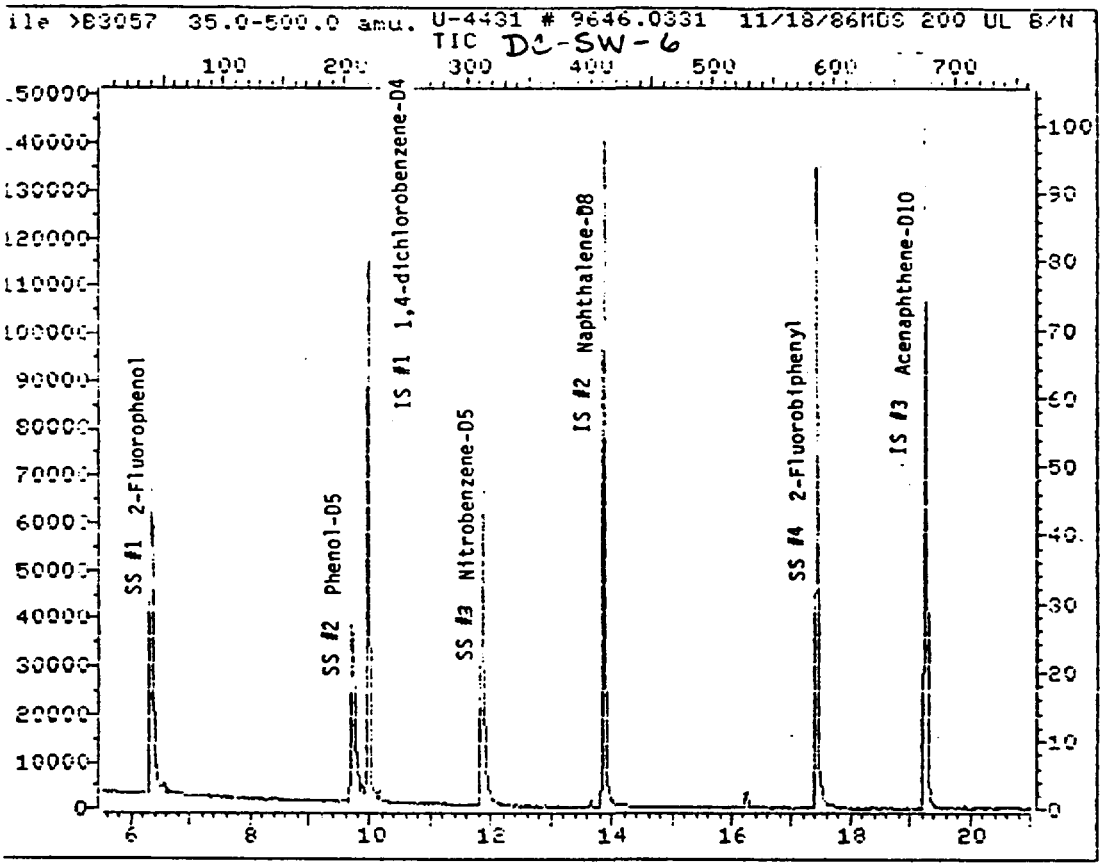
TOTAL ION CHROMATOGRAM

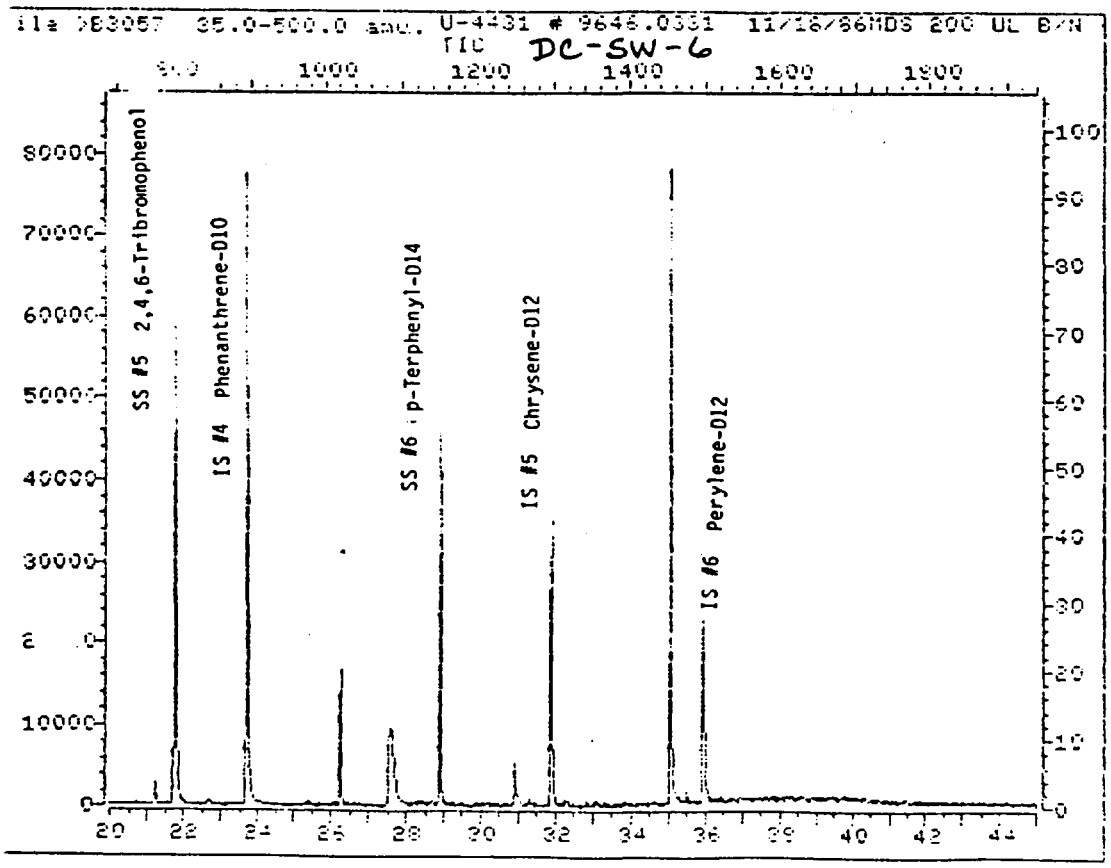


Data File: >B3057::04
Name: U-4431 # 9646.0331 DC-SW-6
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

Id File: BNA-BP::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

Operator ID: USER8
Quant Time: 861118 22:15
Injected at: 861118 21:28


ile >B3057 35.0-500.0 amu. U-4431 # 9646.0331 11/18/86MDS 200 UL B/N
TIC DC-SW-6
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


ile >B3057 35.0-500.0 amu. U-4431 # 9646.0331 11/18/86MDS 200 UL B/N
TIC DC-SW-6
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 22:15
Output File: ^B3057::Q2 Injected at: 861118 21:28
Data File: >B3057::D4 Dilution Factor: 2.00
Name: U-4431 # 9646.0331 DC-SW-6
Misc: 11/18/86MOS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

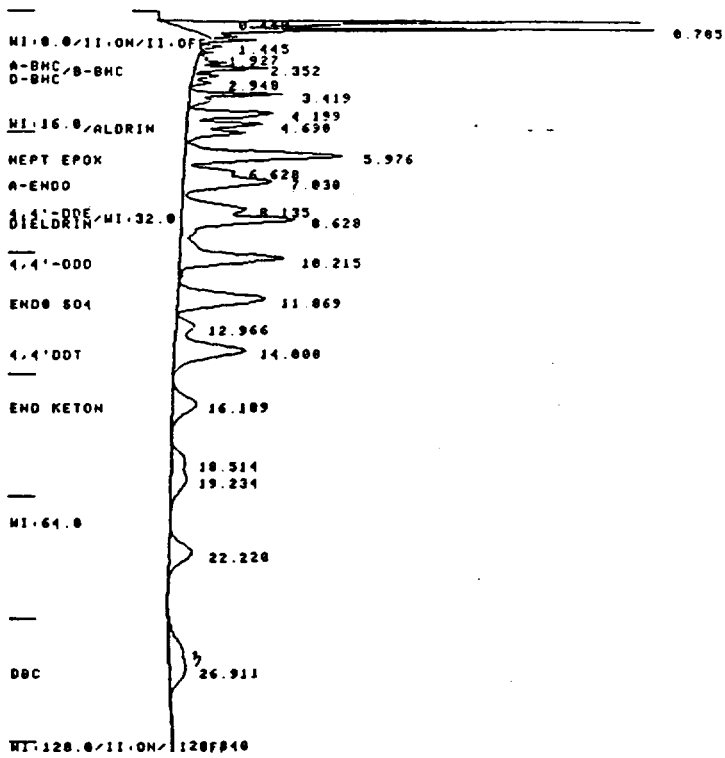
ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.97	219	52991	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	9.71	206	60825	59.73	UG/L 30 ✓	88
5)	2-FLUOROPHENOL	(SURR)	112	6.33	40	67319	96.51	UG/L	90
5)	2-FLUOROPHENOL	(SURR)	112	6.56	51	1068	1.53	UG/L 51 ✓	71
5)	2-FLUOROPHENOL	(SURR)	112	6.62	54	731	1.05	UG/L	98
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.69~~	~~57~~	~~636~~	~~.98~~	~~UG/L~~	~~72~~
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.74~~	~~60~~	~~519~~	~~.74~~	~~UG/L~~	~~1~~
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~12.06~~	~~312~~	~~10977~~	~~16.74~~	~~UG/L~~	~~86~~
19)	*NAPHTHALENE-D8	(IS)	136	13.88	411	176665	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.86	312	70407	88.85	UG/L 89 ✓	96
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.92~~	~~413~~	~~338~~	~~.16~~	~~UG/L~~	~~100~~
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.42~~	~~536~~	~~264~~	~~.22~~	~~UG/L~~	~~97~~
34)	*ACENAPHTHENE-D10	(IS)	162	19.26	676	79078	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.43	586	126095	76.48	UG/L 76 ✓	92
~~40)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.26~~	~~676~~	~~23847~~	~~14.56~~	~~UG/L~~	~~100~~
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.48~~	~~683~~	~~126~~	~~.83~~	~~UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.74	798	42112	156.77	UG/L 79 ✓	99
~~51)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.23~~	~~606~~	~~18239~~	~~38.48~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.69	894	114287	40.00	UG/L	89
63)	DI-N-BUTYLPHTHALATE		149	26.27	1021	24519	15.68	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.86	1296	58125	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.90	1150	52988	81.41	UG/L 81 ✓	100
~~69)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~29.34~~	~~1169~~	~~124~~	~~.19~~	~~UG/L~~	~~100~~
74)	*PERYLENE-D12	(IS)	264	35.93	1496	51305	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.68~~	~~1433~~	~~326~~	~~.29~~	~~UG/L~~	~~100~~
~~76)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.96~~	~~1453~~	~~161~~	~~.27~~	~~UG/L~~	~~100~~

* Compound is ISTD

No Cal
No Cal
No Cal
No Cal
No Cal
No Cal

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



339 x 0.00139 x FV/10 x ml/10 = 44 ug/L 1254

CHANNEL: 1A - 1 TITLE: RUN# 23 15:10 12 NOV 86

SAMPLE: 9646.04.16 METHOD: CEPA CALCULATION: ES - ANALYS

DF = 10

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	A-BHC	0.1134	2.122	-0.008	26279	VV	5.69
2	B-BHC	0.8983	2.352	0.082	89742	VV	6.25
3	D-BHC	0.1315	2.682	0.132	27840	VV	6.75
4		0.0000	2.948		21217	VV	6.06
5		0.0000	3.419		110106	VV	8.69
6		0.0000	~~3.649~~		~~46419~~	VV	? 15.56
7	HEPTACHLO	1.0636	4.199	0.259	183122	VV	17.13
8		0.0000	4.690		120538	VV	12.38
9	ALDRIN	0.4942	5.009	0.159	97872	VV	11.75
10	HEPT EPOX	2.3346	5.976	0.096	431418	VV	20.44
11		0.0000	~~6.628~~		~~94727~~	VV	? 18.00
12	A-ENDO	1.7801	7.030	-0.260	309997	VV	? 32.69
13	4,4'-DDE	0.0000	8.135	-0.135	210834	VV	? 30.00
14	DIELDRIN	1.8705	8.628	0.148	352275	VV	23.44
15	4,4'-DDD	0.0000	~~10.215~~	-0.145	367074	VV	23.81
16	ENDO SO4	2.6581	11.869	-0.441	376527	VV	33.56
17		0.0000	12.966		71562	VV	? 27.81
18	4,4'DDT	4.1136	14.008	0.328 339	345683	VB	34.44
19	END KETON	0.7569	16.189	0.429	137825	BB	43.06
20		0.0000	~~16.614~~		~~62659~~	BV	? 50.69
21	METHOXYCH	1.8255	19.234	-0.846	100731	VB	? 70.19
22		0.0000	22.220		142353	BV	47.31
23	DBC 88%	~~1.4279~~	26.911	-0.449	~~223700~~	VV	?114.69
TOTALS:		19.4683		-0.651	3941580		

DETECTED PKS: 34 REJECTED PKS: 11

DIVISOR: 1.00000 MULTIPLIER: 100.00000

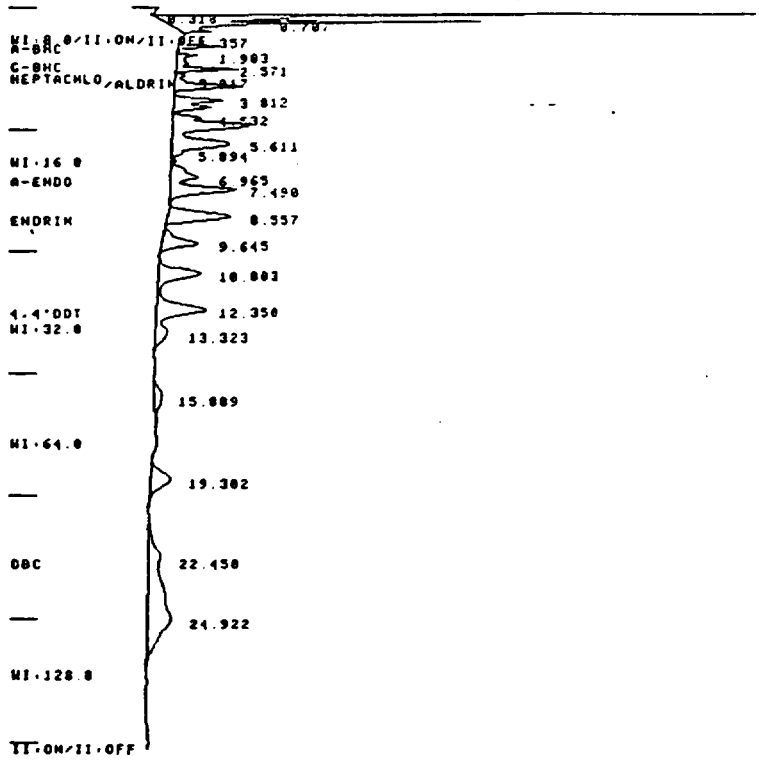
NOISE: 22.9 OFFSET: 9

RACK: 2 VIAL: 8 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY378

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



343x0.00104x100 = 36 ug/L PCB 1254

RECALCULATE ON FILE: CYB651

CHANNEL: 1B - 1 TITLE: RUN# 16 1:59 14 NOV 86

SAMPLE: 9646.04.16 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/L~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1	~~A-BHC~~	0.0023	1.648	-0.022	65949	VB	5.19
2		0.0000	1.983		25703	BV	4.75
3	~~G-BHC~~	0.0033	2.302	-0.098	31318	VV	? 10.13
4	~~G-BHC~~	0.0113	2.571	0.171	108139	VV	5.94
5	~~G-BHC~~	0.0013	2.818	0.016	20511	VV	6.25
6	~~ALDRIN~~	0.0073	3.225	0.085	18[illegible]618	VB	10.44
7		0.0000	3.812		129761	BV	9.81
8		0.0000	4.078		97519	VV	10.56
9		0.0000	4.532		69086	VV	? 10.44
10	~~HEPT EPOX~~	0.0000	4.824	-0.276	370438	VV	18.19
11		0.0000	5.611		329185	VV	? 22.44
12	PCB	0.0000	5.894		23652	VV	? 18.25
13	~~4,4'-DDE~~ 1254	0.0083	6.965	0.155	181000	VV	27.44
14	~~DIELDRIN~~	0.0000	7.490	-0.390	294233	VB	16.38
15	~~ENDRIN~~	0.0171	8.557	-0.253	344153	BV	20.75
16		0.0000	9.645	343	228767	VB	21.13
17	~~4,4'-DDD~~	0.0203	10.883	0.453	296818	BV	25.00
18	~~4,4'DDT~~	0.0079	12.350	-0.230	394183	VV	27.56
19		0.0000	13.323		139083	VB	34.38
20		0.0000	15.889		113867	BB	53.81
21		0.0000	19.302		224256	BB	40.00
22	~~DBC~~	0.0092	22.450	0.150	172609	BV	? 52.50
23		0.0000	24.922		741869	VB	?134.06
TOTALS:		0.0882		-0.237	4596917		

DETECTED PKS: 35 REJECTED PKS: 12

DIVISOR: 1.00000 MULTIPLIER: ~~1.00000~~ 100x RL

NOISE: 137.1 OFFSET: -15

RACK: 1 VIAL: 10 INJ: 1

NOTES:
NOTEBOOK:259-36 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB # U-4431;U-4441
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
PESTICIDE/PCB CONFIRMATIONS

SAMPLE NUMBER DC-SW-7

481095

Sample Number
DC-SW-7

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No. 9647

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	~~5u~~ 3BJ
67-64-1	Acetone	~~10u~~ 13B
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

Laboratory Name Ecology & Environment

Case No: U-4431- U-4441

Sample Number
DC-SW-7

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-18-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	~~10u~~ 1 J
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10u~~ 19 B
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3 -Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-7

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86 11-13-86

Conc/Dil Factor: 10 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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	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 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-7

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.	Hexene isomer	VOA	17.5 min	2.7 B
2.	Hexane isomer	VOA	21.5 min	9.4 B
3.				
4. 2PA64498	1,13-TETRADECADIENE	BNA	27.7	17 B
5. –	UNKNOWN	BNA	35.0	62 B
6.				
7.				
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9.				
10.				
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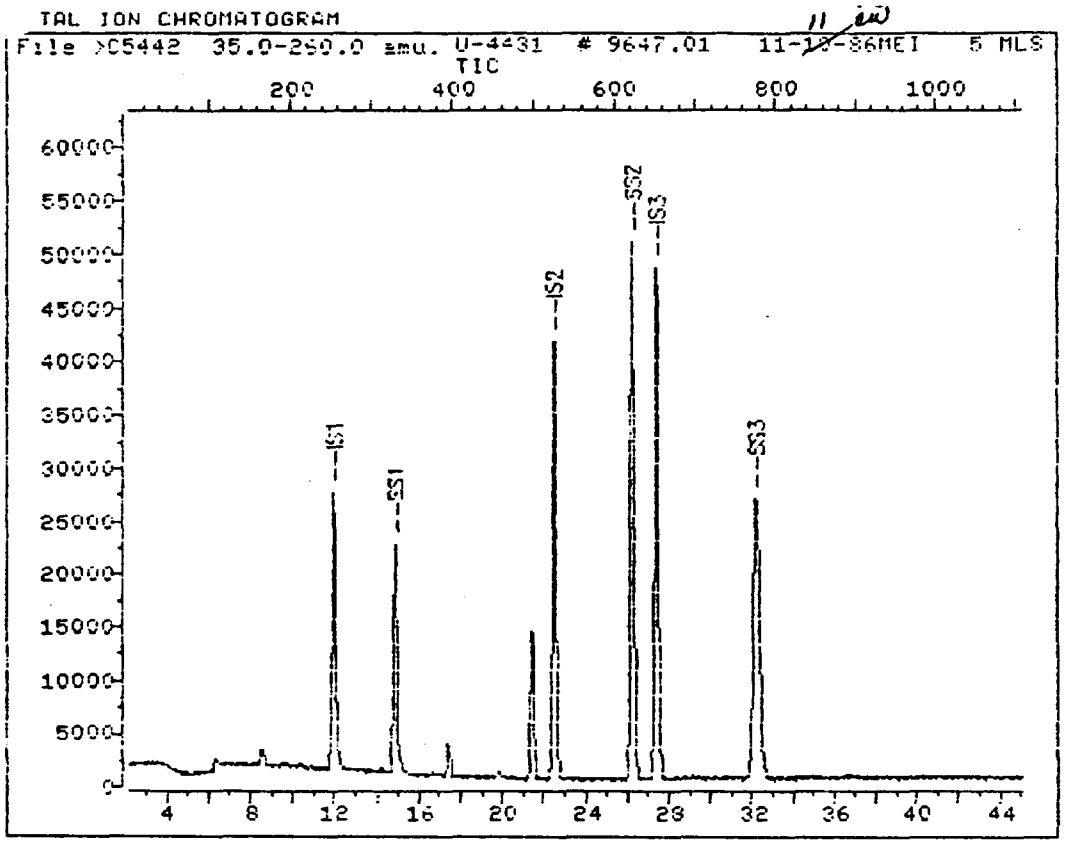
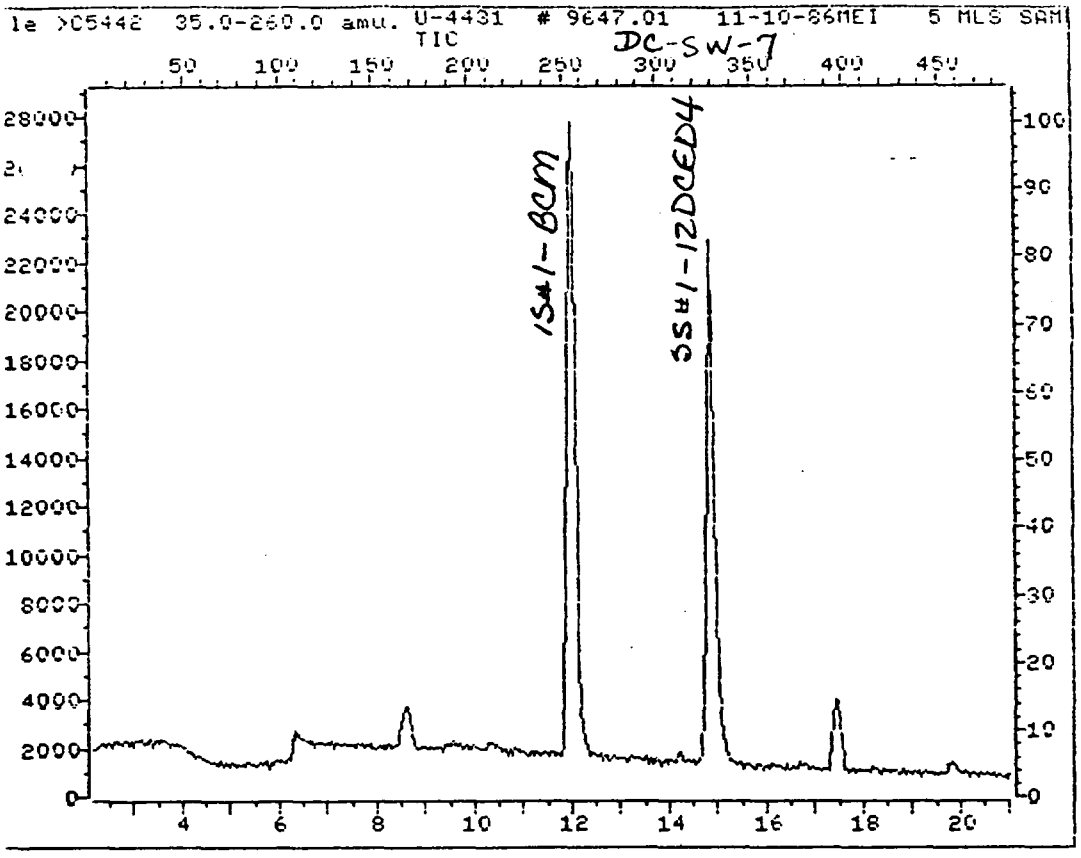
27.				
28.				
29.				
30				

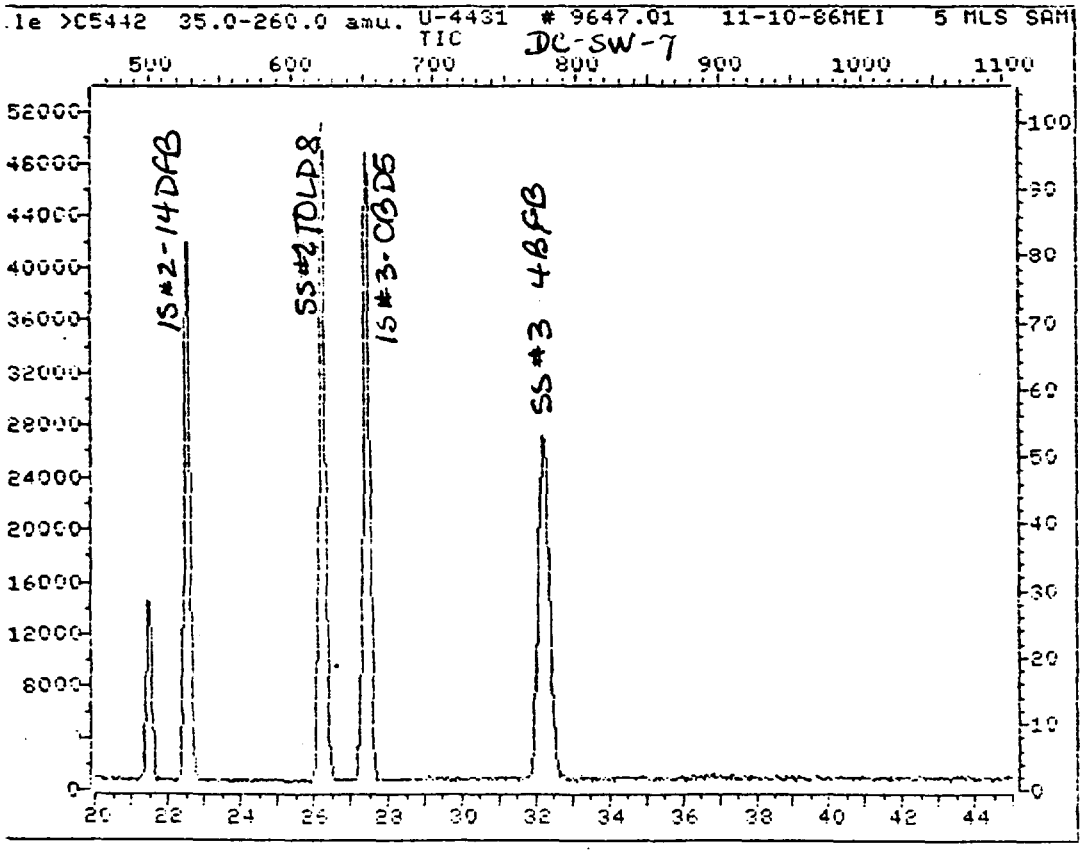


Data File: >C5442::D3
Name: U-4431 # 9647.01 DC-SW-7
Misc: 11-11-86MEI 5 MLS SAMPLE + 10UL IS/SS

Id File: VOACR::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

Operator ID: USER8
Quant Time: 861111 09:11
Injected at: 861111 02:26


le >C5442 35.0-260.0 amu. U-4431 # 9647.01 11-10-86MEI 5 MLS SAM
TIC
DC-SW-7
IS#1-BCM
SS#1-12DCEB4


le >C5442 35.0-260.0 amu. U-4431 # 9647.01 11-10-86MEI 5 MLS SAM
TIC
DC-SW-7
IS#2-14DFB
SS#2 TOLD8
IS#3-CBD6
SS#3 4BFB

QUANT REPORT

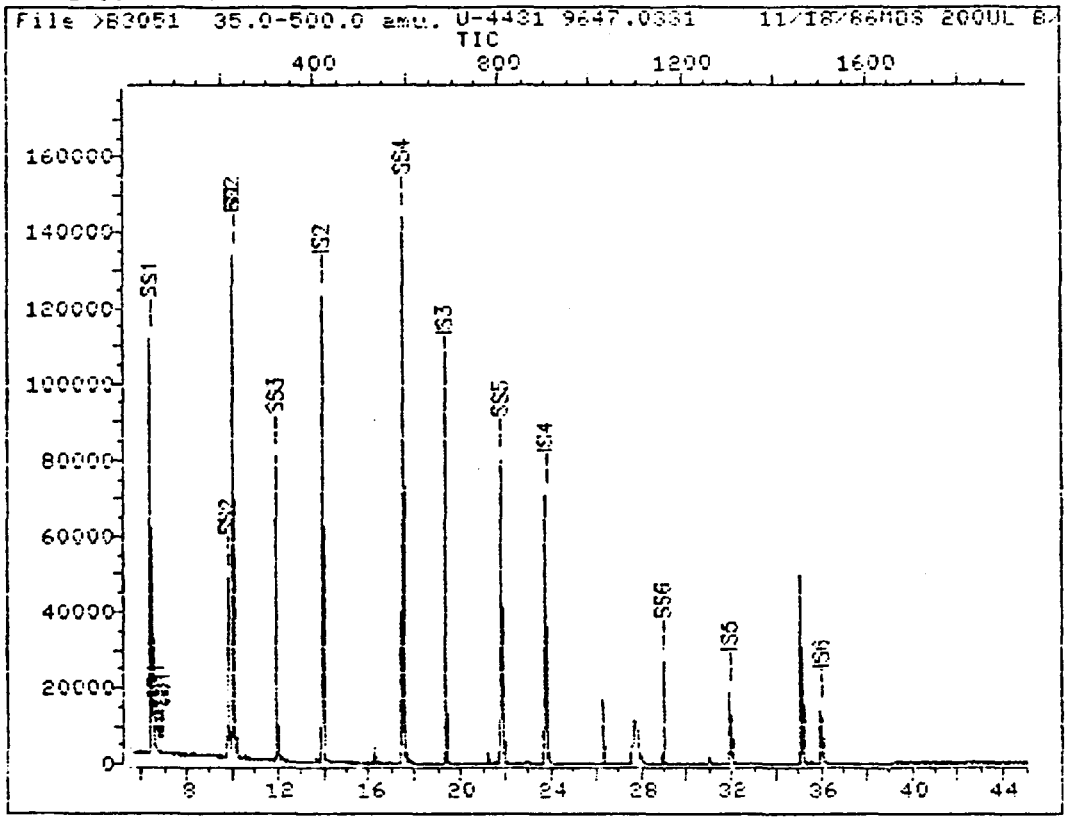
Operator ID: USER8 Quant Rev: 4 Quant Time: 861111 09:11
Output File: ^C5442::01 Injected at: 861111 02:26
Data File: >C5442::D3 Dilution Factor: 1.00
Name: U-4431 # 9647.01 DC-SW-7
Misc: 11-~~10~~-86MEI 5 MLS SAMPLE + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.00	255	38302	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.58	167	4965	3.22	UG/L	100
7)	ACETONE		43	9.52	191	3974	12.63	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.35~~	~~212~~	~~7253~~	~~.78~~	~~UG/L~~	~~100~~
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.87	329	96311	49.27	UG/L 98	82
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.51	526	176084	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.40	652	149823	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.23	622	203217	48.00	UG/L 96	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.21	776	106226	47.38	UG/L 94	100

* Compound is ISTD

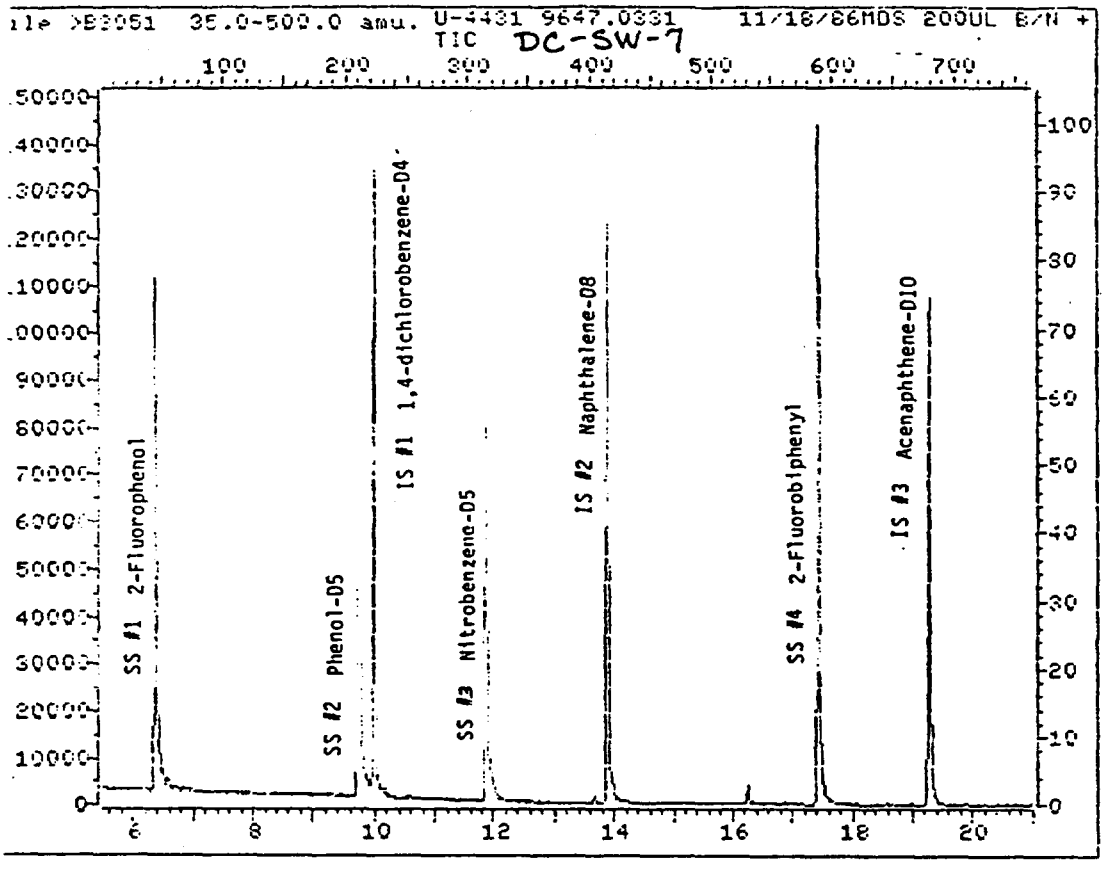
TOTAL ION CHROMATOGRAM

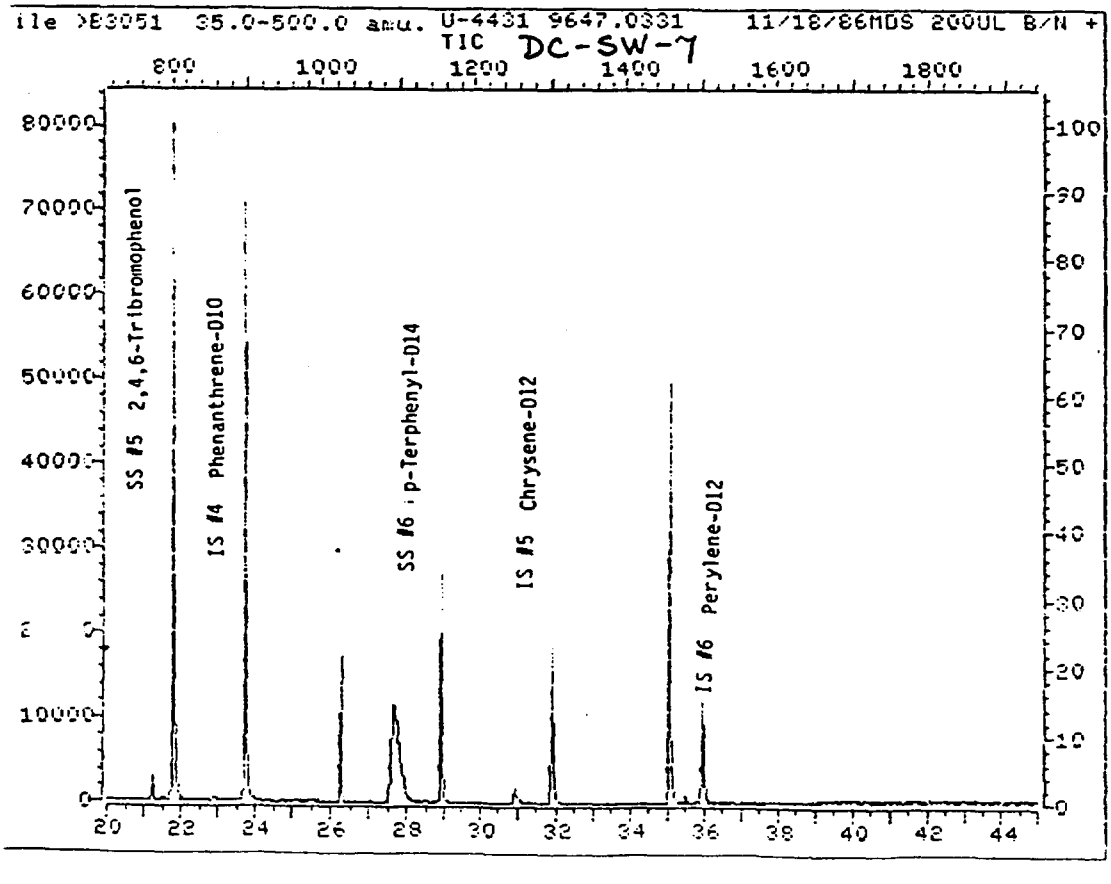


Data File: >B3051::D4
Name: U-4431 9647.0331 DC-SW-7
Misc: 11/18/86MDS 200UL B/N + 200UL A/P + 4UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

Operator ID: USER8
Quant Time: 861118 16:48
Injected at: 861118 16:00


ile >B3051 35.0-500.0 amu. U-4431 9647.0331 11/18/86MDS 200UL B/N +
TIC DC-SW-7
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


ile >B3051 35.0-500.0 amu. U-4431 9647.0331 11/18/86MDS 200UL B/N +
TIC DC-SW-7
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

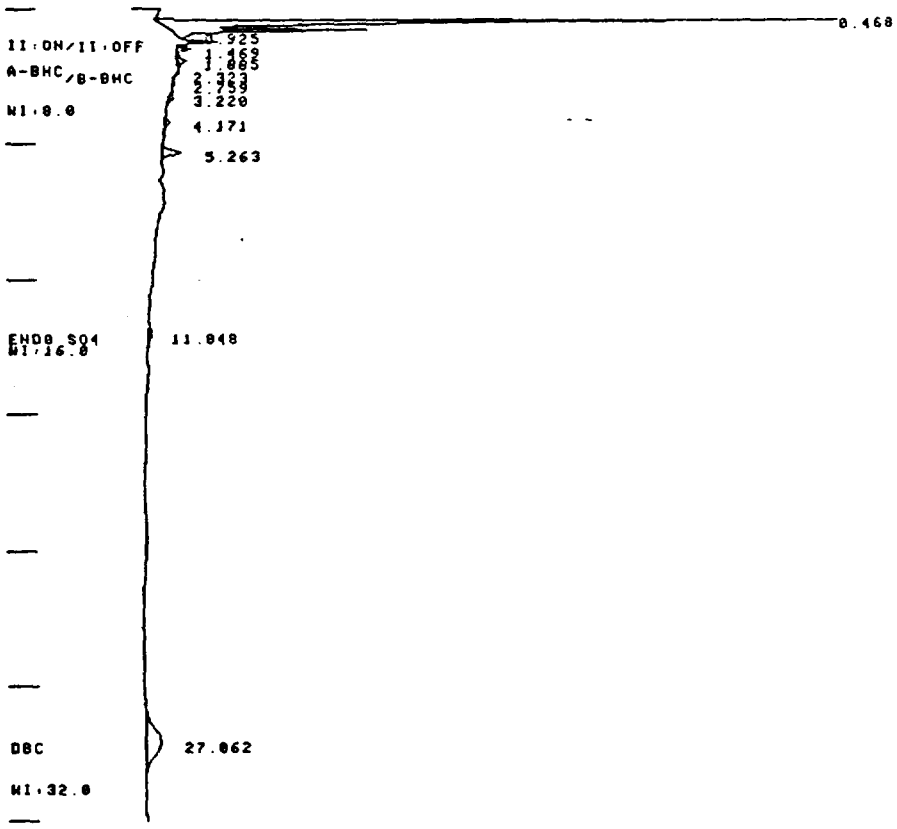
Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 16:48
Output File: ^B3051::D2 Injected at: 861118 16:00
Data File: >B3051::D4 Dilution Factor: 2.00
Name: U-4431 9647.0331 DC-SW-7
Misc: 11/18/86MDS 200UL B/N + 200UL A/P + 4UL IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	10.00	223	53509	40.00	UG/L	85
2)	PHENOL-D5	(SURR)	99	9.73	210	62603	60.88	UG/L	91
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~10.00~~	~~225~~	~~796~~	~~.77~~	~~UG/L~~ No BPK	53
5)	2-FLUOROPHENOL	(SURR)	112	6.36	44	79059	112.25	UG/L	94
5)	2-FLUOROPHENOL	(SURR)	112	6.56	54	3289	4.67	UG/L	87
5)	2-FLUOROPHENOL	(SURR)	112	6.70	61	2251	3.20	UG/L	61
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.90~~	~~61~~	~~552~~	~~.78~~	~~UG/L~~ No BPK	1
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.94~~	~~62~~	~~511~~	~~.73~~	~~UG/L~~	49
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.88~~	~~315~~	~~11349~~	~~17.35~~	~~UG/L~~ no cut	77
19)	*NAPHTHALENE-D8	(IS)	136	13.88	414	166641	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.86	315	76662	102.57	UG/L	90
34)	*ACENAPHTHENE-D10	(IS)	162	19.26	679	72492	40.00	UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	17.43	589	134803	89.19	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.29~~	~~690~~	~~21827~~	~~15.05~~	~~UG/L~~ no cut	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.76	802	37687	153.06	UG/L	97
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.28~~	~~679~~	~~9411~~	~~30.56~~	~~UG/L~~ no cut	100
53)	DIETHYLPHTHALATE		149	21.21	775	1872	1.47	UG/L	95
55)	*PHENANTHRENE-D10	(IS)	188	23.71	848	94944	40.00	UG/L	95
63)	DI-N-BUTYLPHTHALATE		149	26.28	1024	24993	19.24	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.89	1300	32696	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.92	1154	34002	92.87	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.95	1500	26153	40.00	UG/L	100

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 24 15:44 12 NOV 86

SAMPLE: 9647.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
DF=10

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	5.263		24795	BB	11.00
2	DBC	0.8717	27.062	-0.298	124400	BB	? 67.88
TOTALS:		0.8717		-0.298	149195		

DETECTED PKS: 17 REJECTED PKS: 15

DIVISOR: 1.00000 MULTIPLIER: 100.00000

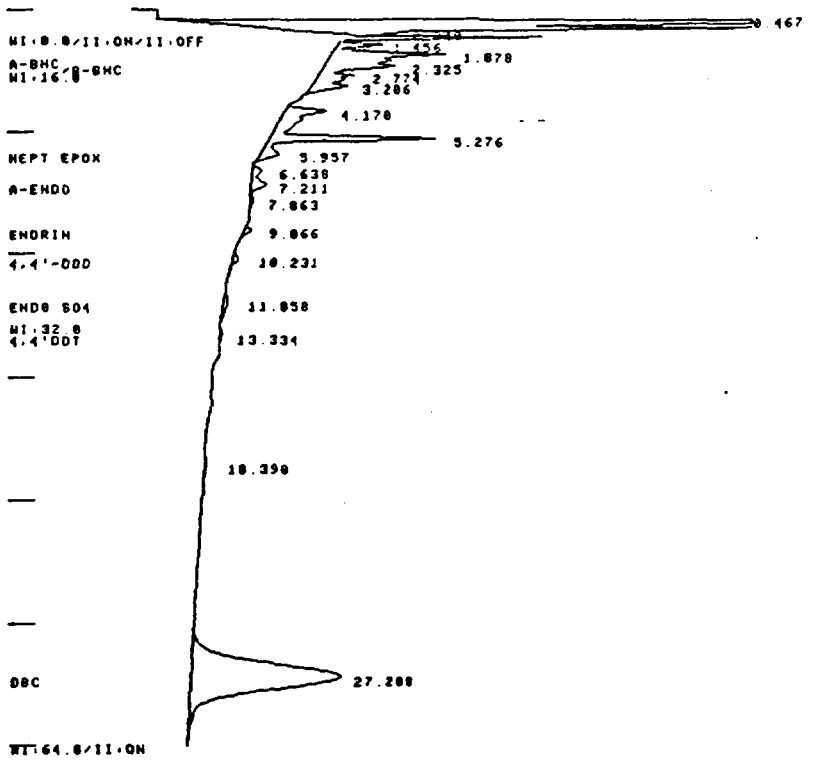
NOISE: 22.9 OFFSET: -119

RACK: 2 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY379

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



CHANNEL: 1A - 1 TITLE: RUN# 40 1:17 13 NOV 86

SAMPLE: 9647.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
Df=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.456		41367	BV	6.06
2		0.0000	1.709		24689	VV	? 5.13
3		0.0000	1.878		154635	VV	10.63
4	A-BHC 0.05u	0.0341	2.115	-0.015	79103	VV	? 13.88
5	~~B-BHC~~	0.1557	2.325	0.055	120923	VV	? 12.38
6	~~D-BHC~~	0.0181	2.774	0.224	38288	VV	6.19
7		0.0000	2.942		43436	VV	? 8.00
8		0.0000	3.206		62940	VB	6.88
9	~~HEPTACHLO~~	0.0423	4.170	0.230	72899	BV	13.00
10		0.0000	4.501		79608	VV	? 25.88
11		0.0000	5.276		277352	VV	10.88
12	HEPT EPOX 0.05u	0.0293	5.957	0.077	54189	VV	13.06
13	A-ENDO 0.05u	0.0239	7.211	-0.079	40973	VV	19.25
14	~~ENDO SO4~~	0.0146	11.858	-0.452	20590	BB	26.31
15	DBC 95%	0.9519	27.208	-0.152	1358457	BB	66.88

TOTALS: 1.2696 -0.112 2469449

DETECTED PKS: 27 REJECTED PKS: 12

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: 10

RACK: 3 VIAL: 10 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY395

SAMPLE NUMBER DC-SW-8

481095

Sample Number
DC-SW-8

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No. 9648

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: C Stojowicz

Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	~~5u~~ 6B
67-64-1	Acetone	~~10u~~ 13B
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

Laboratory Name Ecology & Environment

Case No: U-4431- U-4441

Sample Number
DC-SW-8

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-18-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10u~~ 19 B
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2. 3-cd)Pyrene	10u
53-70-3	Dibenzo(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-8

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86 11-13-86

Conc/Dil Factor: 10 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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	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 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name ecology and environment, inc.

Case No 4-4431

Sample Number DC-SW-8

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.	Hexene isomer	VOA	17.5 min	2.7 B
2.	Hexane isomer	VOA	21.5 min	9.6 B
3.				
4. 21964498	1,13-TETRADECADIENE	BNA	27.5	28 B
5. -	UNKNOWN	BNA	30.9	32
6. -	UNKNOWN	BNA	35.1	76 B
7.				
8.				
9.				
10.				
11.				
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13.				
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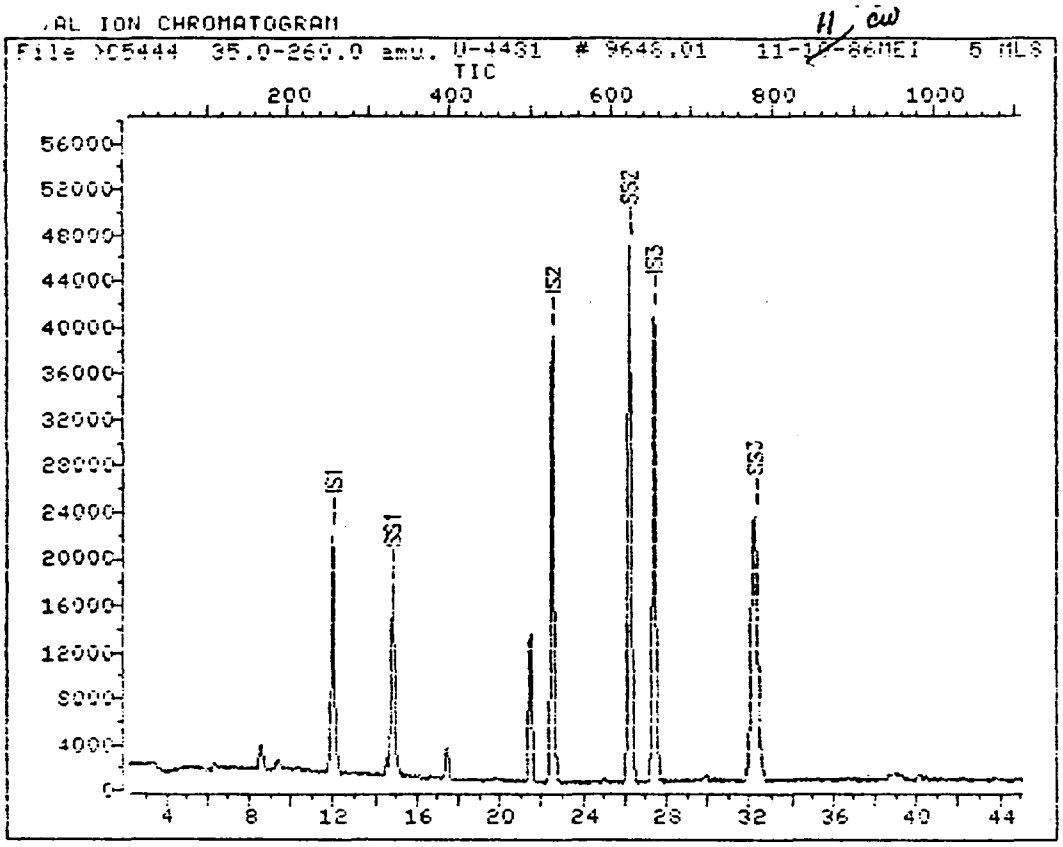
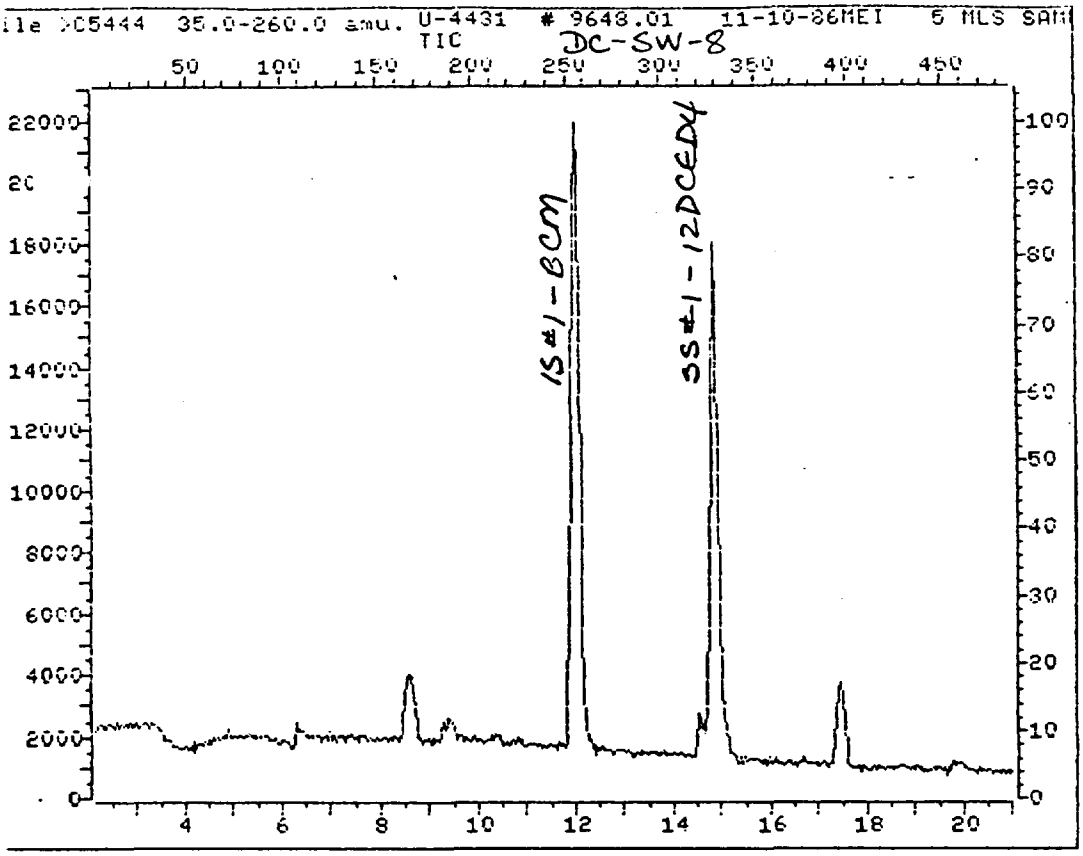
27.				
28.				
29.				
30				



Data File: >C5444::D3
Name: U-4431 # 9648.01 DC-SW-8
Misc: 11-11-86MEI 5 MLS SAMPLE - 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

Operator ID: USER8
Quant Time: 861111 09:17
Injected at: 861111 04:19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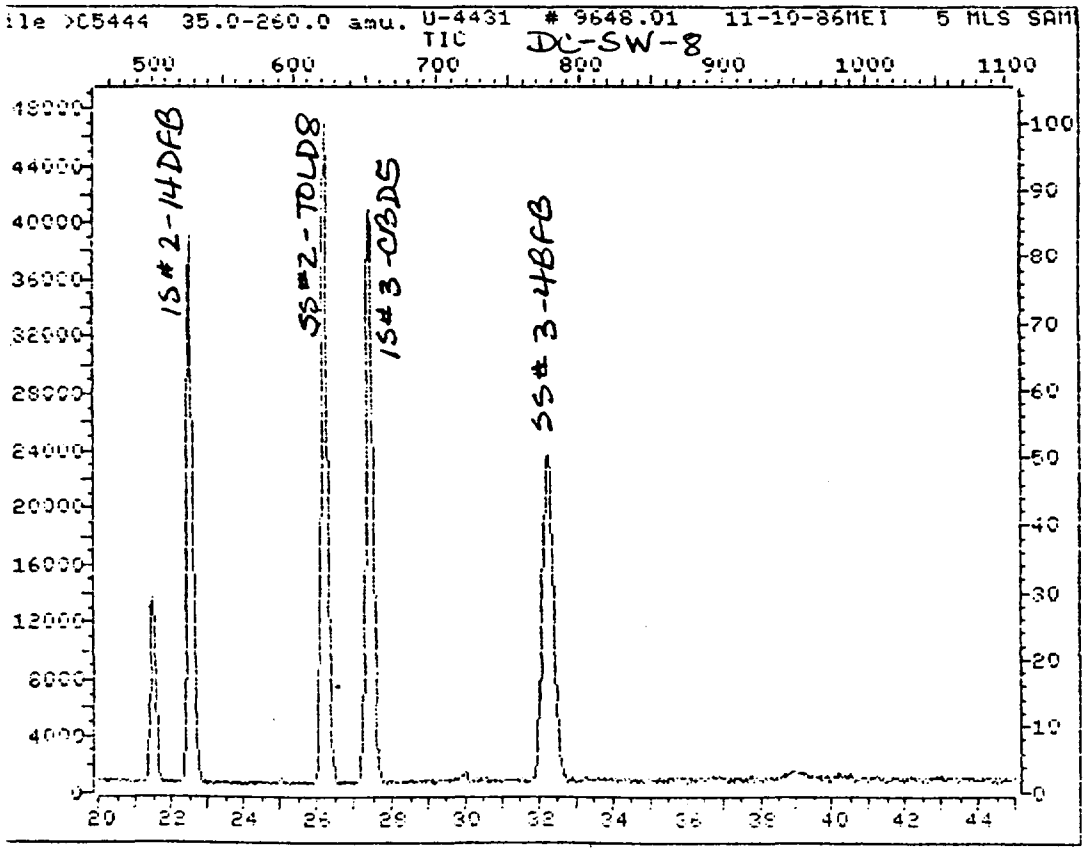
TIC
DC-SW-8
IS#1-BCM
SS#1-12DCEDA


ile >C5444 35.0-260.0 amu. U-4431 # 9648.01 11-10-86MEI 5 MLS SAM
TIC
DC-SW-8
IS#2-14DFB
SS#2-TOLD8
IS#3-CBDS
SS#3-4BFB

QUANT REPORT

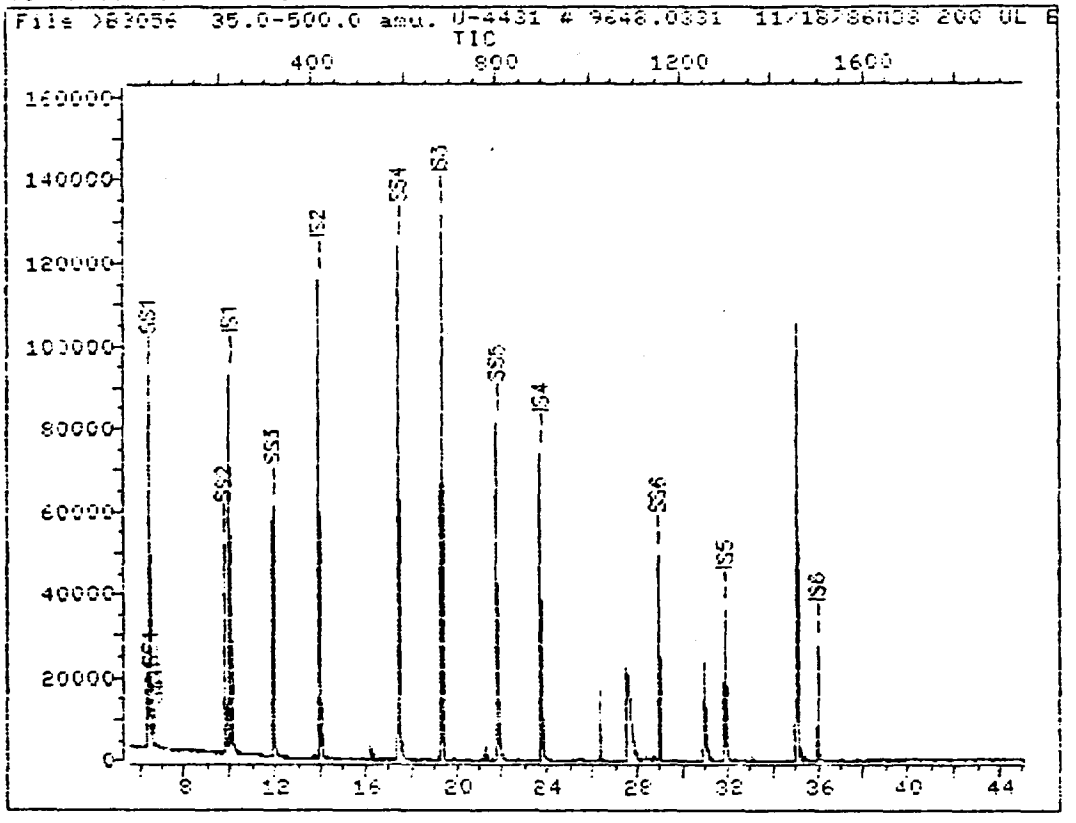
Operator ID: USER8 Quant Rev: 4 Quant Time: 861111 09:17
Output File: ^C5444::Q1 Injected at: 861111 04:19
Data File: >C5444::D3 Dilution Factor: 1.00
Name: U-4431 # 9648.01 DC-SW-8
Misc: 11-~~10~~-86MEI 5 MLS SAMPLE + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.00	255	29824	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.58	167	6908	5.76	UG/L	100
7)	ACETONE		43	9.44	189	3127	12.76	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.37~~	~~213~~	~~2599~~	~~.80~~	~~UG/L~~	~~100~~
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.83	328	77347	50.82	UG/L 102	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.55	527	156724	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.40	652	127783	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.23	622	183557	50.84	UG/L 102	93
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.25	777	92485	48.37	UG/L 96	100

* Compound is ISTD

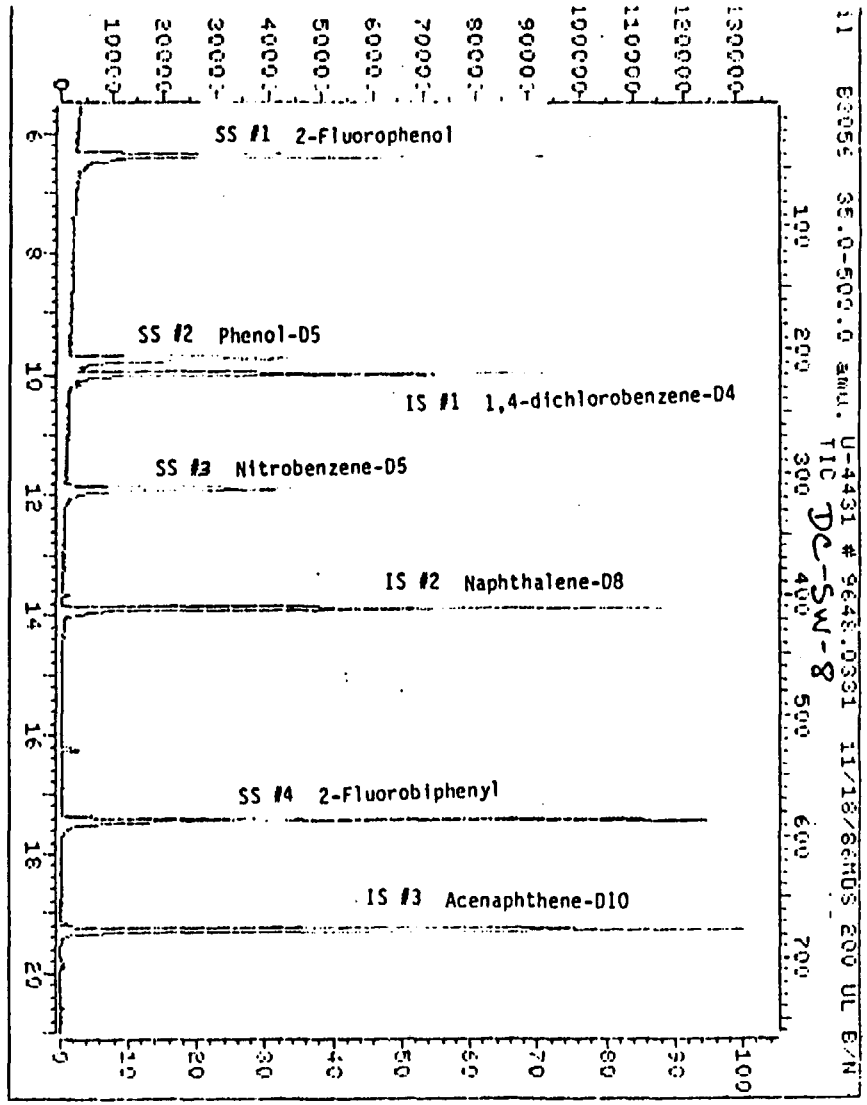
TOTAL ION CHROMATOGRAM

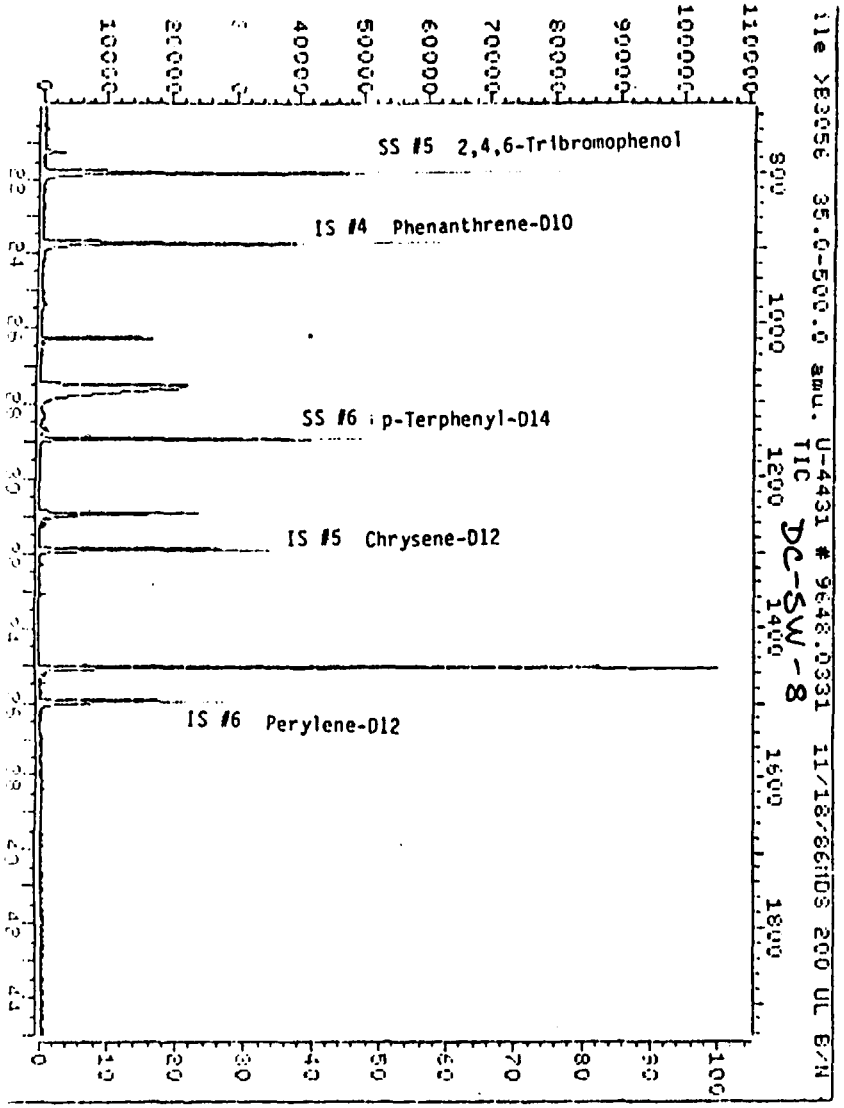


Data File: >B3056::D4
Name: U-4431 # 9648.0331 DC-SW-8
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

Operator ID: USER8
Quant Time: 861118 21:24
Injected at: 861118 20:37


SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10
DC-SW-8


SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12
DC-SW-8

QUANT REPORT

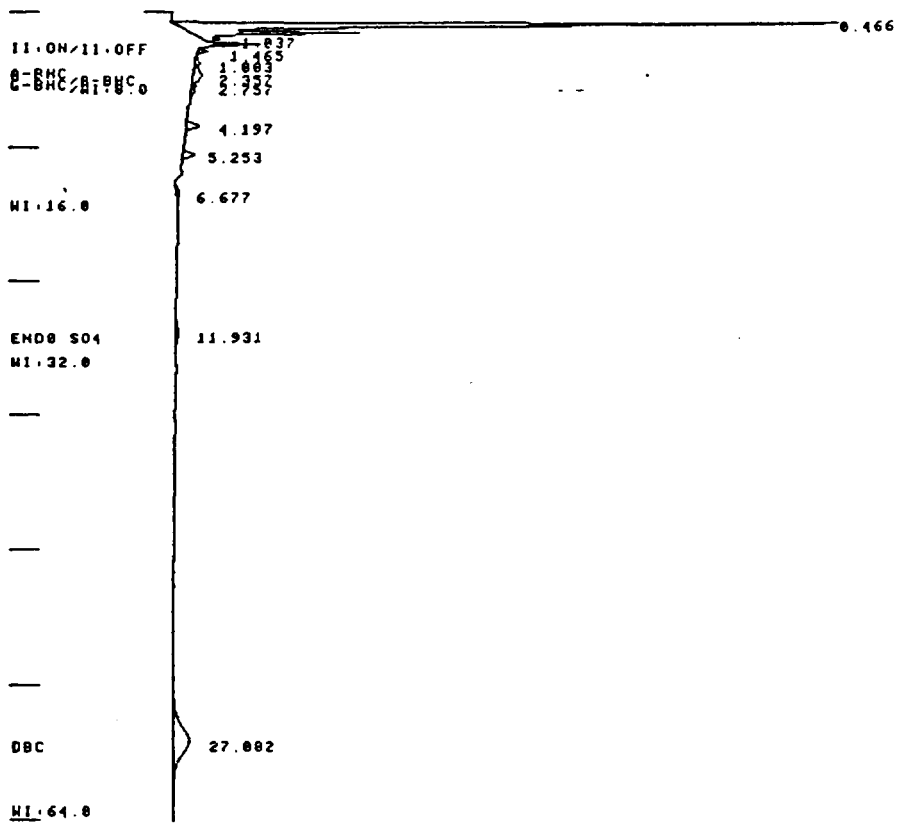
Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 21:24
Output File: ^B3056::Q2 Injected at: 861118 20:37
Data File: >B3056::D4 Dilution Factor: 2.00
Name: U-4431 # 9648.0331 DC-SW-8
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.99	220	49467	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.72	207	59833	62.94	UG/L 31 ✓	88
5)	2-FLUOROPHENOL	(SURR)	112	6.37	42	64090	98.43	UG/L	62
5)	2-FLUOROPHENOL	(SURR)	112	6.45	46	7025	10.79	UG/L	66
5)	2-FLUOROPHENOL	(SURR)	112	6.55	51	1232	1.89	UG/L 57 ✓	89
5)	2-FLUOROPHENOL	(SURR)	112	6.59	53	1545	2.37	UG/L	58
5)	2-FLUOROPHENOL	(SURR)	112	6.67	57	1094	1.68	UG/L	57
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.58~~	~~315~~	~~10475~~	~~17.55~~	~~UG/L~~ NO CW	84
19)	*NAPHTHALENE-D8	(IS)	136	13.89	412	161062	40.00	UG/L ✓	100
20)	NITROBENZENE-D5	(SURR)	82	11.88	313	68357	94.62	UG/L 95 ✓	96
34)	*ACENAPHTHENE-D10	(IS)	162	19.28	677	71805	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.45	587	125749	83.99	UG/L 84 ✓	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.28~~	~~677~~	~~21632~~	~~15.35~~	~~UG/L~~ NO CW	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.76	799	40833	167.43	UG/L 83 ✓	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.28~~	~~677~~	~~10164~~	~~37.32~~	~~UG/L~~ NO CW	100
55)	*PHENANTHRENE-D10	(IS)	188	23.71	895	103517	40.00	UG/L	90
63)	DI-N-BUTYLPHTHALATE		149	26.29	1022	27079	19.12	UG/L	98
65)	*CHRYSENE-D12	(IS)	240	31.88	1297	51752	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.91	1151	54720	94.43	UG/L 94 ✓	100
74)	*PERYLENE-D12	(IS)	264	35.94	1497	45290	40.00	UG/L	100
~~76)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.97~~	~~1464~~	~~290~~	~~.55~~	~~UG/L~~ No RPK	[illegible]

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 27 17:24 12 NOV 86

SAMPLE: 9648.04.16 METHOD: CEPA CALCULATION: ES - ANALYS

DF = 10

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1	DBC	0.8755	27.082	-0.278	124947	BB	67.19
TOTALS:		0.8755		-0.278	124947		

DETECTED PKS: 17 REJECTED PKS: 16

DIVISOR: 1.00000 MULTIPLIER: 100.00000

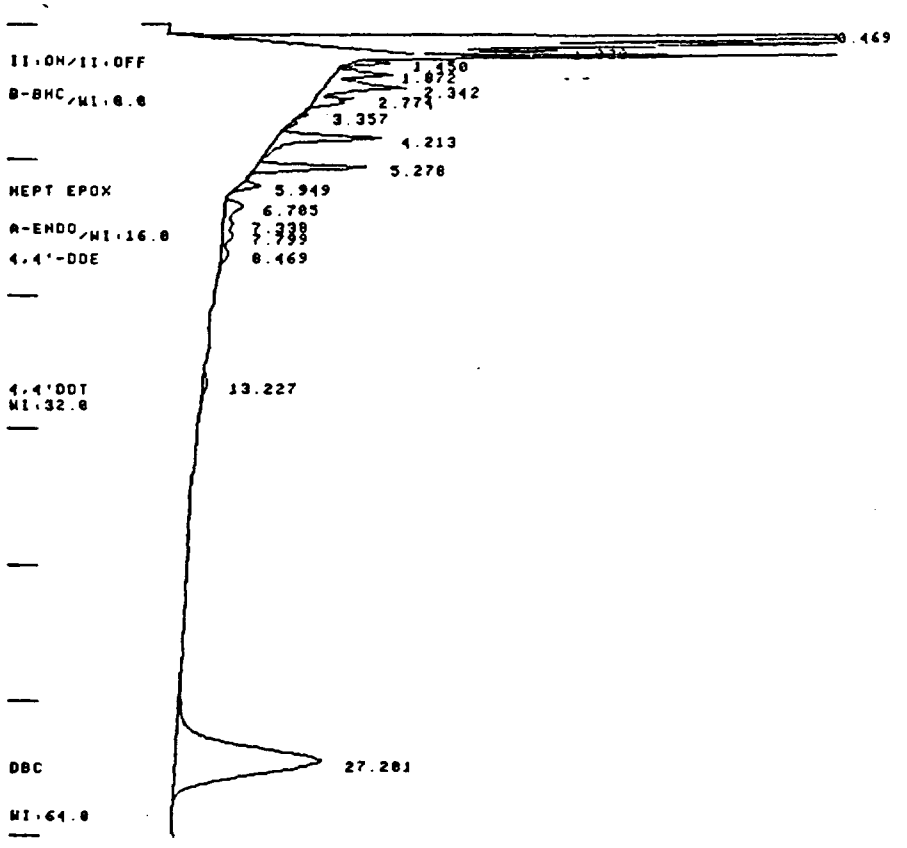
NOISE: 22.9 OFFSET: -29

RACK: 2 VIAL: 12 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY382

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



CHANNEL: 1A - 1 TITLE: RUN# 41 1:51 13 NOV 86

SAMPLE: 9648.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.450		24284	BV	4.75
2		0.0000	1.872		63256	VV	7.81
3	~~B-BHC~~	0.1931	2.342	0.072	149935	VV	? 11.31
4	~~D-BHC~~	0.0168	2.774	0.224	35608	VV	7.50
5		0.0000	2.923		42420	VB	? 10.00
6	~~HEPTACHLO~~	0.1028	4.213	0.273	177016	VV	12.31
7		0.0000	5.278		152980	VB	10.88
8	HEPT EPOX 0.05u	0.0180	5.949	0.069	33305	BB	10.19
9		0.0000	6.705		51796	BV	? 21.88
10	A-ENDO 0.05u	0.0137	7.338	0.048	23866	VV	? 20.56
11		0.0000	7.799		25382	VV	20.06
12	DIELDRIN 0.10u	0.0126	8.469	-0.011	23744	VB	18.75
13	DBC 81%	0.8073	27.201	-0.159	1152035	BB	64.44
TOTALS:		1.1643		0.516	1955627		

DETECTED PKS: 22 REJECTED PKS: 9

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: -20

RACK: 3 VIAL: 11 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:

SAMPLE NUMBER DC-SW-9

481095

Sample Number
DC-SW-9

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No. 9649

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: A Slojtowicz

Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	~~5u~~ 5B
67-64-1	Acetone	~~10u~~ 11B
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

Laboratory Name Ecology & Environment

Case No. U-4431- U-4441

Sample Number
DC-SW-9

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-18-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10u~~ 19 B
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1. 2. 3-cd)Pyrene	10u
53-70-3	Dibenzo(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-9

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86 11-13-86

Conc/Dil Factor: 10 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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	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 1000 or W_s _____ V_t 10,000 V_i 4

✓

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-9

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.	Hexene isomer	VOA	17.5 min	2.7 B
2.	Hexane isomer	VOA	21.5 min	9.2 B
3.				
4. 21964498	1,13-TETRADECADIENE	BNA	27.6	15 B
5. -	UNKNOWN	BNA	35.1	64 B
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
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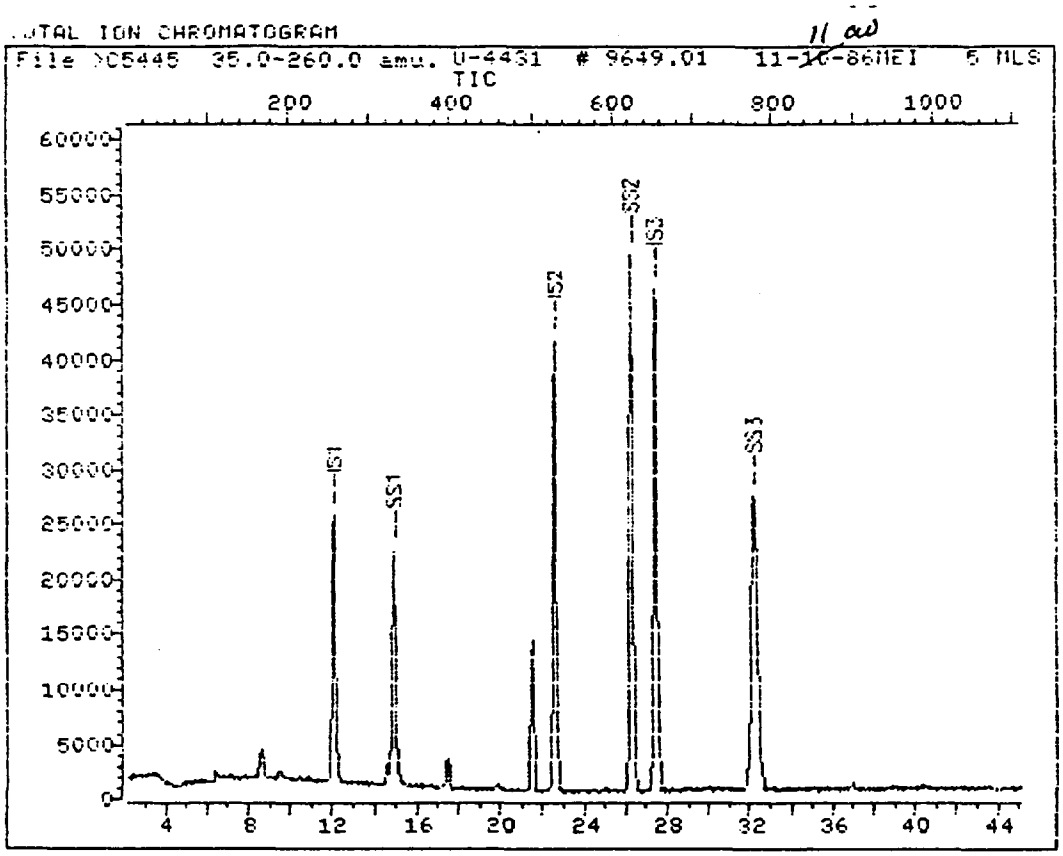
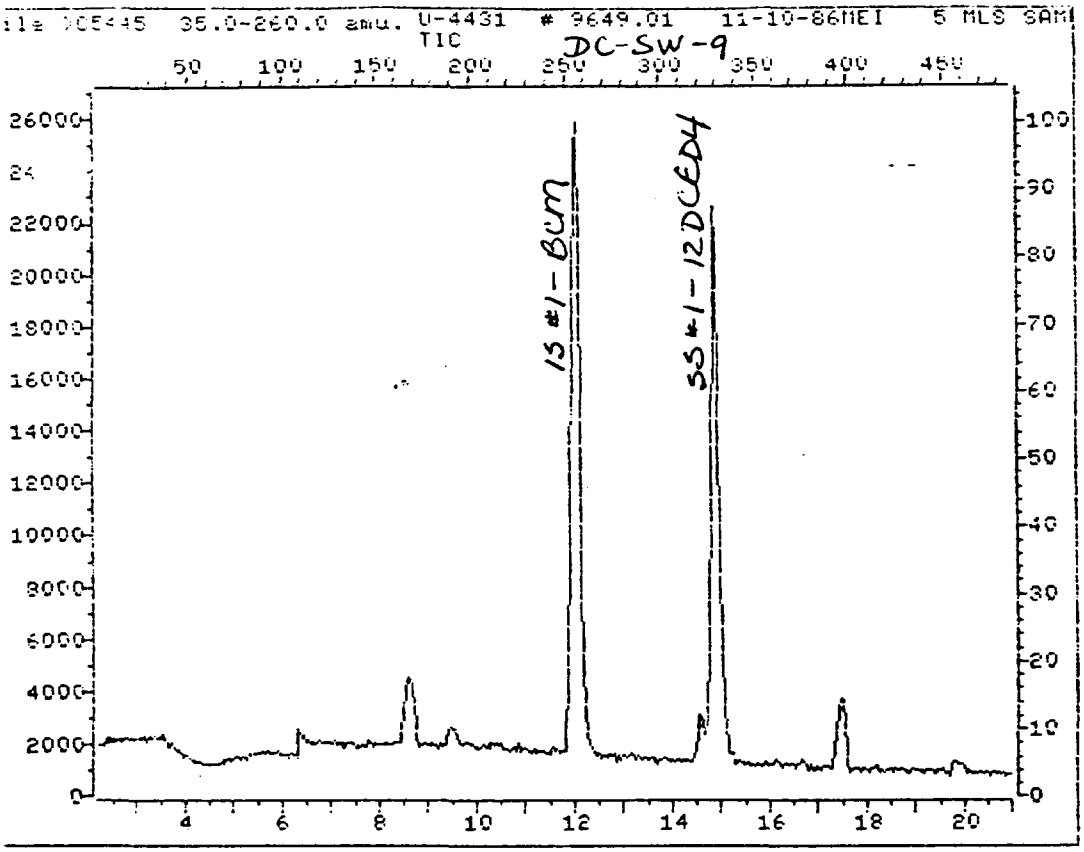
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				



Data File: >C5445::D3
Name: U-4431 # 9649.01 DC-SW-9
Misc: 11-10-86MEI 5 MLS SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

Operator ID: USER8
Quant Time: 861111 09:20
Injected at: 861111 05:16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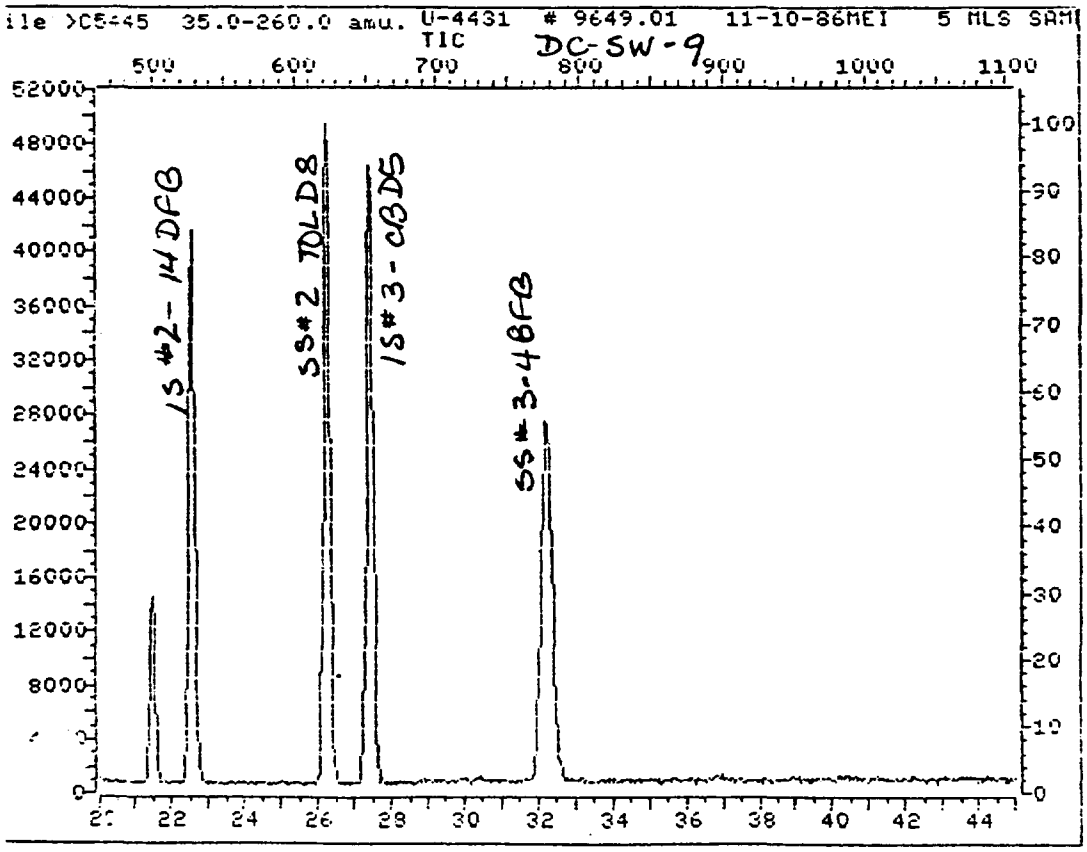
TIC
DC-SW-9
IS #1-BCM
SS #1-12DCEDA


ile >C5445 35.0-260.0 amu. U-4431 # 9649.01 11-10-86MEI 5 MLS SAM
TIC
DC-SW-9
IS #2-14DFB
SS #2 TOLD8
IS #3-CBD5
SS #3-4BFB

QUANT REPORT

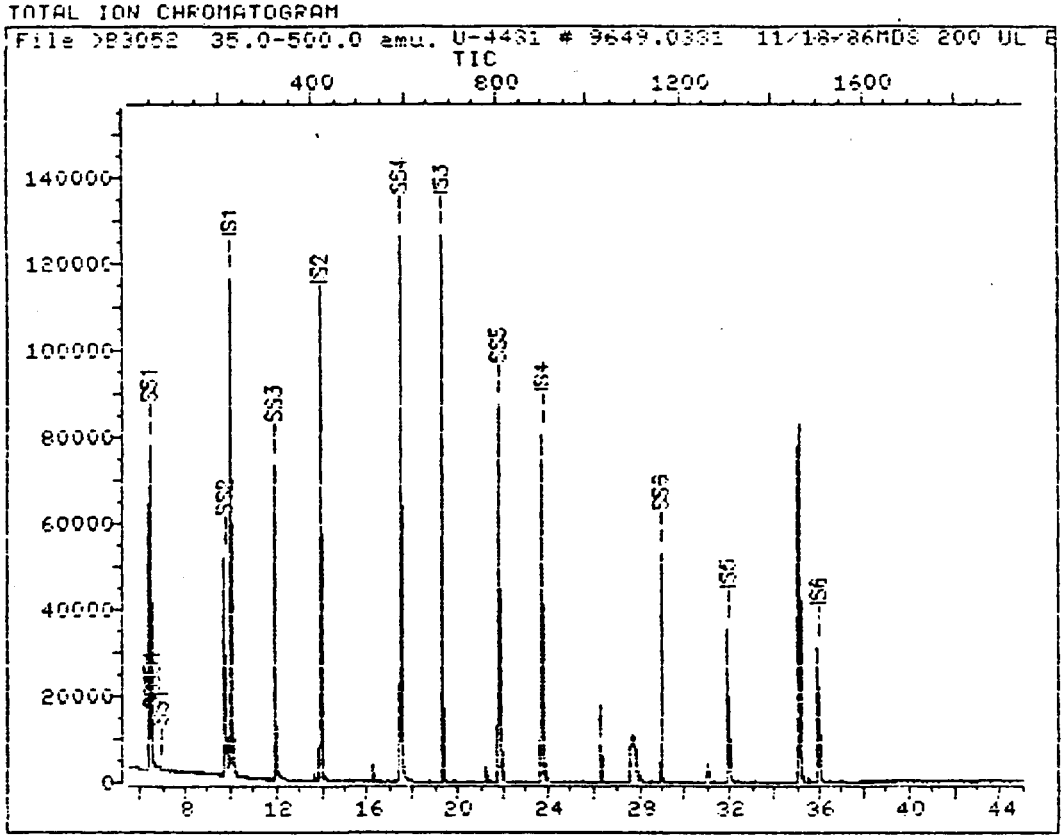
Operator ID: USER8 Quant Rev: 4 Quant Time: 861111 09:20
Output File: ^C5445::Q1 Injected at: 861111 05:16
Data File: >C5445::D3 Dilution Factor: 1.00
Name: U-4431 # 9649.01 DC-SW-9
Misc: 11-~~10~~-86MEI 5 MLS SAMPLE + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	12.04	256	35789	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.58	167	7655	5.32	UG/L	100
7)	ACETONE	43	9.55	192	3253	11.06	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~	~~76~~	~~10.41~~	~~214~~	~~2820~~	~~.72~~	~~UG/L~~ 100	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.87	329	96231	52.68	UG/L 106	83
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.55	527	168051	50.00	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.40	652	144482	50.00	UG/L	100
36)	TOLUENE-D8 (SURR)	98	26.23	622	197400	48.35	UG/L 96	99
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.21	776	106427	49.22	UG/L 98	100

* Compound is ISTD

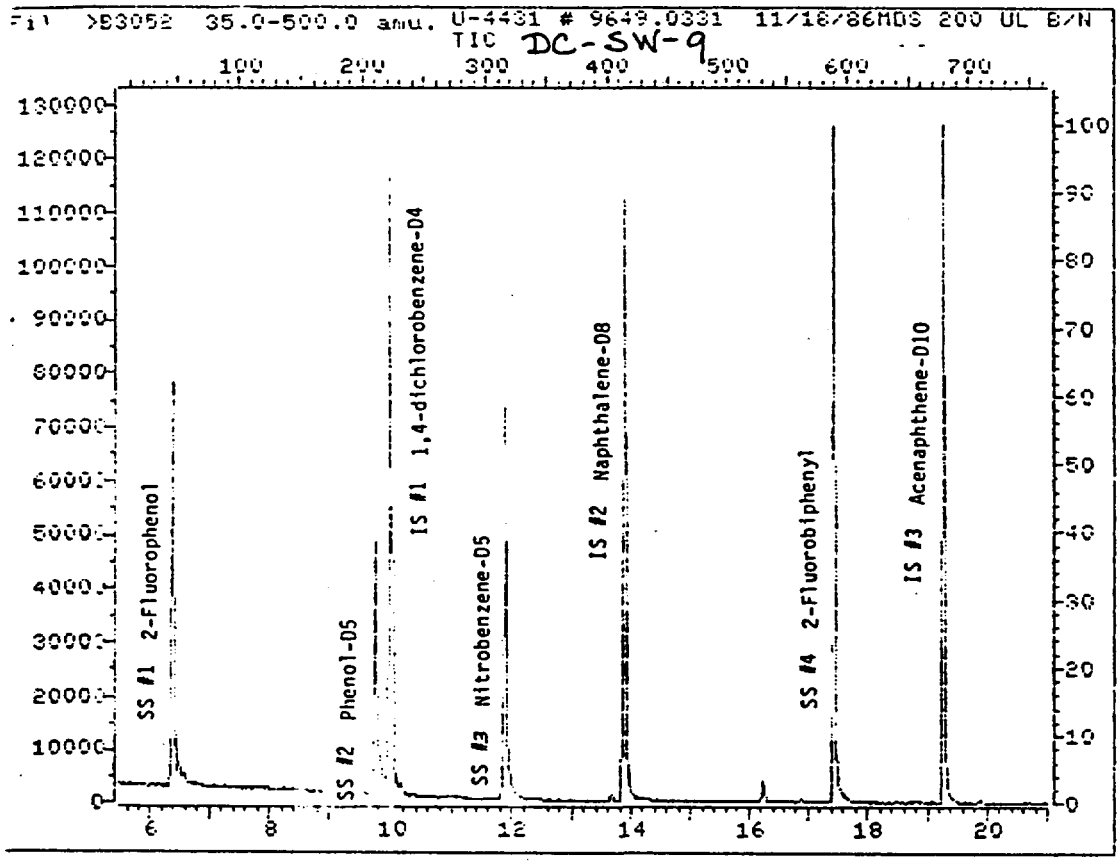
TOTAL ION CHROMATOGRAM

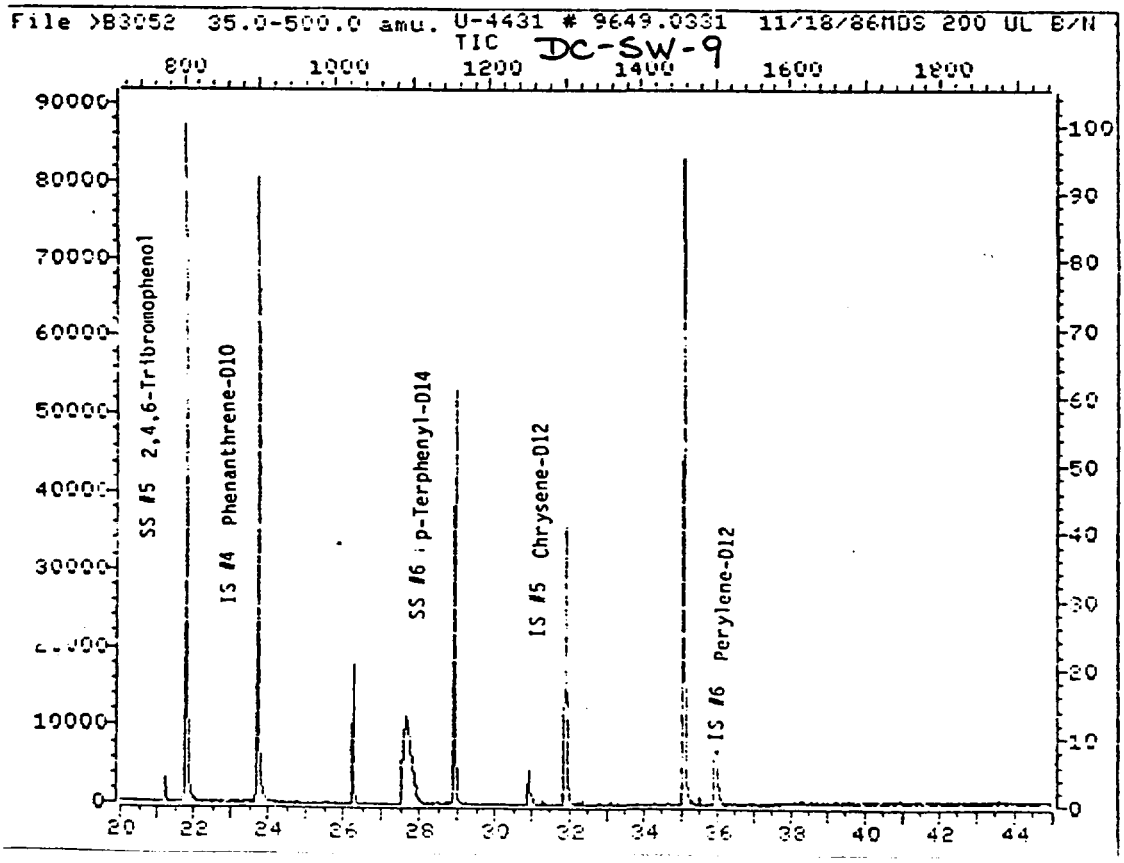


Data File: >B3052::D4
Name: U-4431 # 9649.0331 DC-SW-9
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

Operator ID: USER8
Quant Time: 861118 17:45
Injected at: 861118 16:58


File >B3052 35.0-500.0 amu. U-4431 # 9649.0331 11/18/86MDS 200 UL B/N
TIC
DC-SW-9
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B3052 35.0-500.0 amu. U-4431 # 9649.0331 11/18/86MDS 200 UL B/N
TIC
DC-SW-9
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

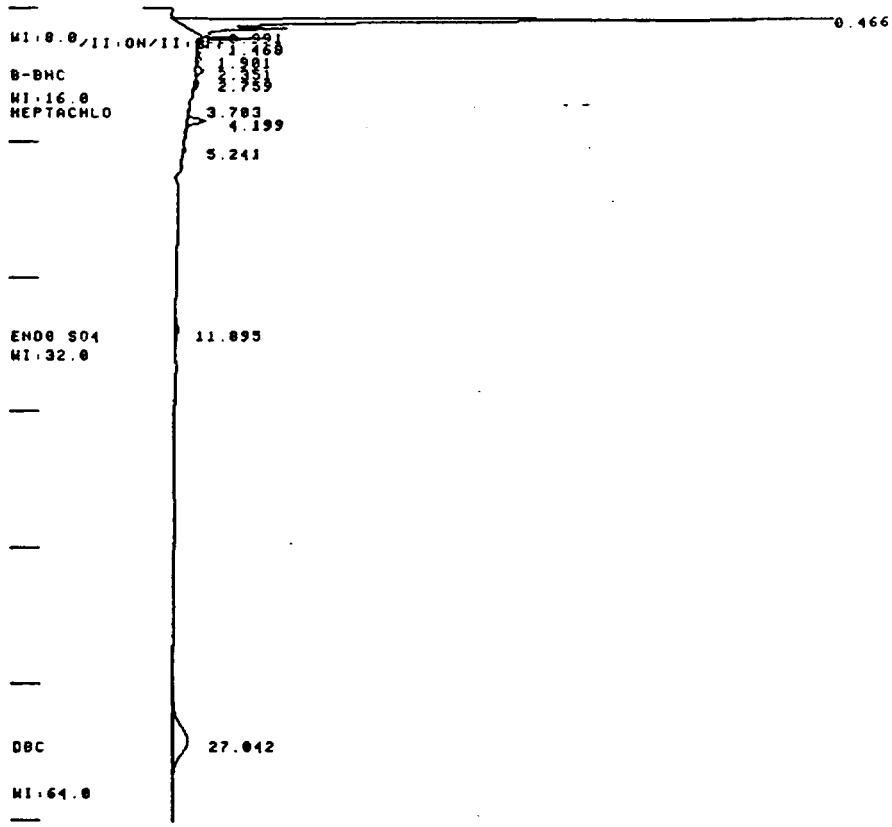
Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 17:45
Output File: ^B3052::Q2 Injected at: 861118 16:58
Data File: >B3052::D4 Dilution Factor: 2.00
Name: U-4431 # 9649.0331 DC-SW-9
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.99	223	53712	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	9.73	210	66944	64.86	UG/L	89
5)	2-FLUOROPHENOL	(SURR)	112	6.37	45	70500	99.72	UG/L	92
5)	2-FLUOROPHENOL	(SURR)	112	6.45	49	3121	4.41	UG/L	84
5)	2-FLUOROPHENOL	(SURR)	112	6.49	51	2349	3.32	UG/L	91
5)	2-FLUOROPHENOL	(SURR)	112	6.84	68	905	1.28	UG/L	93
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.88~~	~~316~~	~~11627~~	~~17.70~~	~~UG/L~~ NO CW	82
19)	*NAPHTHALENE-D8	(IS)	136	13.87	414	171331	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.88	316	74726	97.24	UG/L	97
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.15~~	~~524~~	~~215~~	~~.18~~	~~UG/L~~ No Eff	76
34)	*ACENAPHTHENE-D10	(IS)	162	19.28	680	74285	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.43	589	133492	86.19	UG/L	94
~~41)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~19.28~~	~~680~~	~~22189~~	~~14.87~~	~~UG/L~~ NO CW	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.76	802	41439	164.24	UG/L	97
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.28~~	~~680~~	~~9853~~	~~31.22~~	~~UG/L~~ NO CW	100
55)	*PHENANTHRENE-D10	(IS)	188	23.71	898	108125	40.00	UG/L	93
63)	DI-N-BUTYLPHTHALATE		149	26.27	1024	27888	18.85	UG/L	98
65)	*CHRYSENE-D12	(IS)	240	31.88	1300	55053	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.91	1154	61381	99.57	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.94	1500	47407	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.66~~	~~1437~~	~~614~~	~~.52~~	~~UG/L~~	~~100~~
~~85)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.05~~	~~1454~~	~~.05~~	~~.29~~	~~UG/L~~ No Eff	~~100~~

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 28 17:57 12 NOV 86

SAMPLE: 9649.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
DF=10

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~HEPTACHLO~~	0.1510	4.199	0.259	25994	VB	11.06
2	DBC	0.8577	27.042	-0.318	122400	BB	66.13
TOTALS:		1.0087		-0.059	148394		

DETECTED PKS: 16 REJECTED PKS: 14

DIVISOR: 1.00000 MULTIPLIER: 100.00000

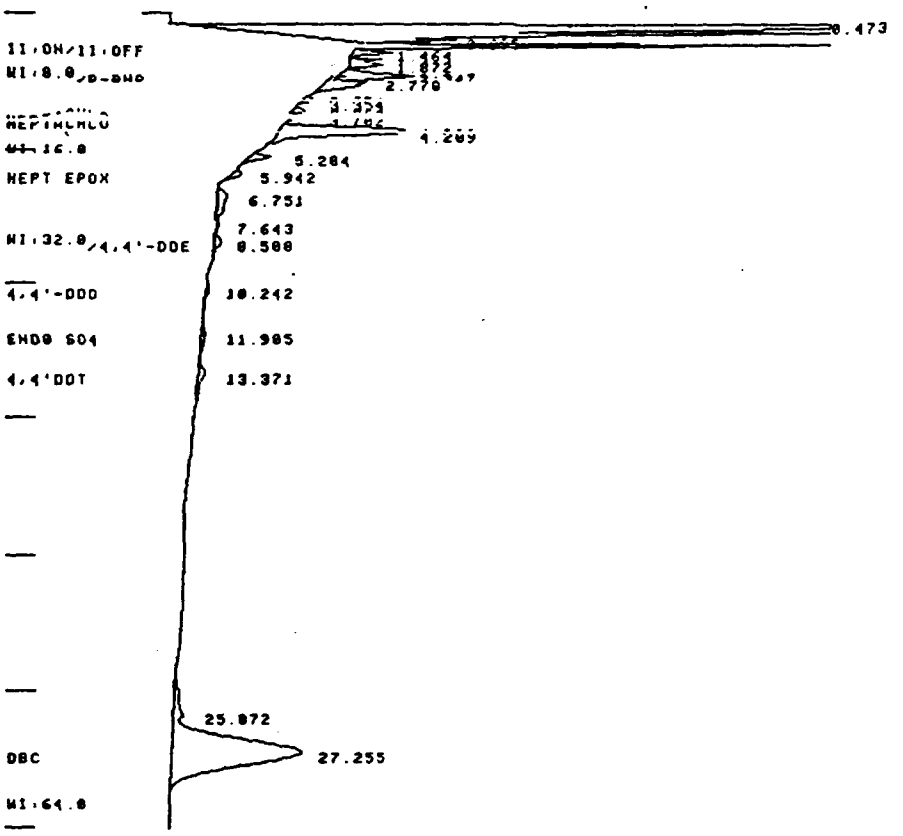
NOISE: 22.9 OFFSET: -11

RACK: 2 VIAL: 13 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431, U4441
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

POST RUN:
SAVE FILE: RAW SLY383

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



CHANNEL: 1A - 1 TITLE: RUN# 42 2:24 13 NOV 86

SAMPLE: 9649.04.16 METHOD: CEPA CALCULATION: ES - ANALYS

DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.464		26398	BV	5.19
2		0.0000	1.872		34192	VB	8.75
3	~~B-BHC~~	0.1433	2.347	0.077	111293	BV	10.44
4		0.0000	2.778		37507	VV	? 6.63
5		0.0000	2.927		54343	VB	? 11.13
6	~~HEPTACHLO~~	0.1158	4.209	0.269	199409	VB	12.69
7		0.0000	5.284		28780	BB	9.38
8		0.0000	6.751		53888	BV	50.00
9	DIELDRIN 0.10u	0.0115	8.508	0.028	21649	VB	20.81
10	~~4,4'DDT~~	0.0455	13.371	-0.309	38251	VB	27.25
11		0.0000	25.872		51625	BV	36.50
12	DBC 47%	0.6657	27.255	-0.105	950029	VB	62.06
TOTALS:		0.9819		-0.040	1607364		

DETECTED PKS: 24 REJECTED PKS: 12

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: 2

RACK: 3 VIAL: 12 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

SAMPLE NUMBER DC-SW-10

481095

Sample Number
DC-SW-10

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4431
Lab Sample ID No. 9650
QC Report No:
Sample Matrix: Water
Contract No: IL-3140
Data Release Authorized By: [illegible]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	~~5u~~ 7B
67-64-1	Acetone	~~10u~~ 11B
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 Ecology & Environment

Case No U-4431- U-4441

Sample Number
DC-SW-10

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-18-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2 4 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10u~~ 20B
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	~~10u~~ 1J
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2. 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86 11-13-86

Conc/Dil Factor: 10 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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	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 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name ecology and environment, inc.

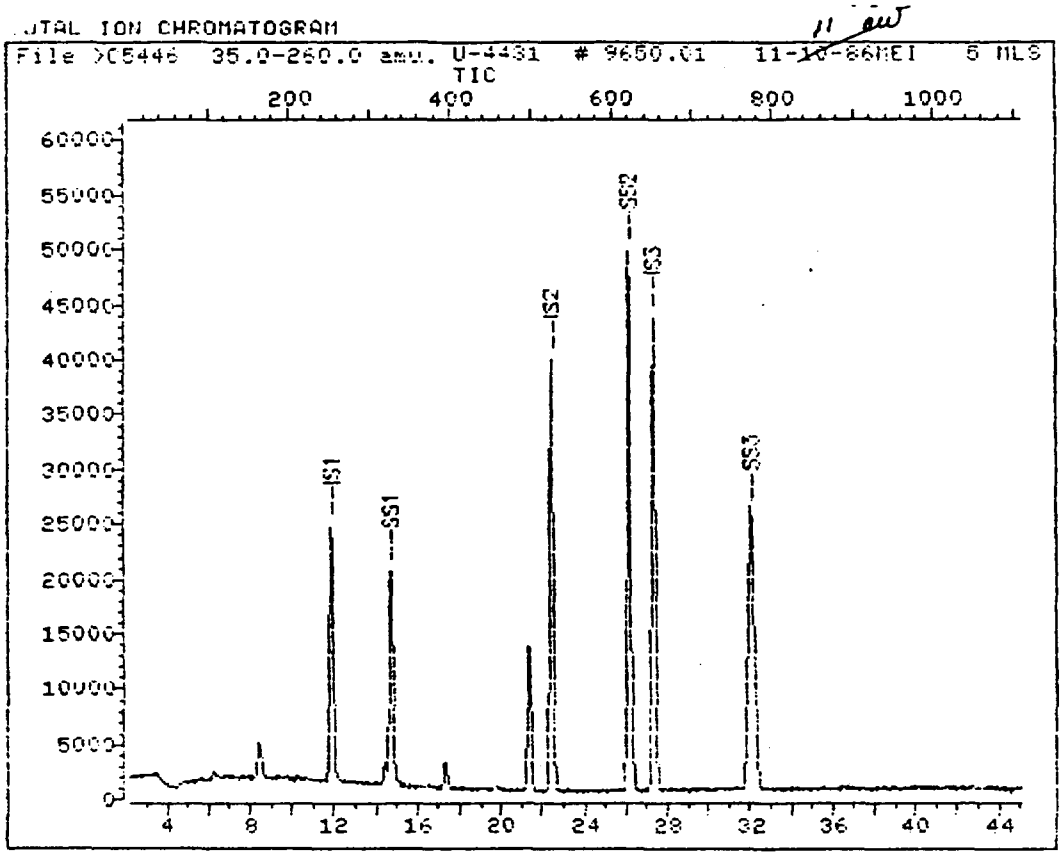
Case No U-4431

Sample Number DC-SW-10

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

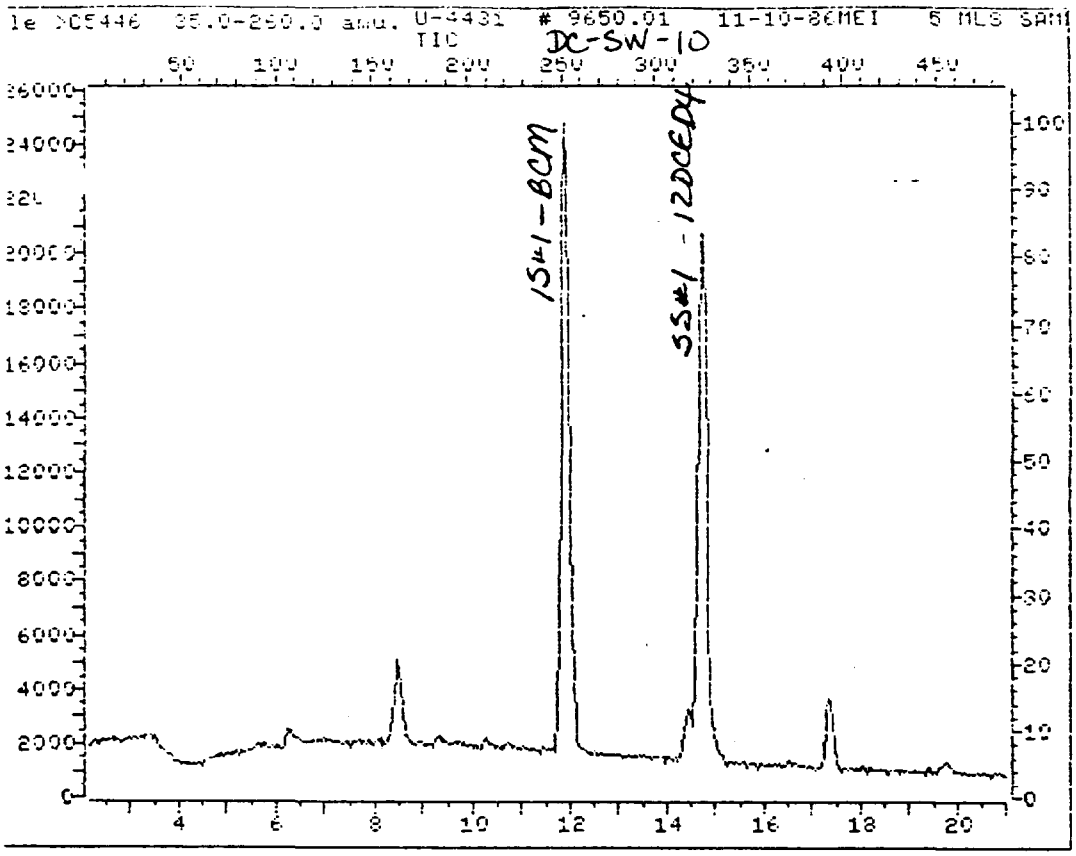
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	2.7 B
2.	Hexane isomer	VOA	21.4 min	9.3 B
3.				
4. 21964498	1,13-TETRADECADIENE	BNA	27.7	7.3 B
5. -	UNKNOWN	BNA	30.9	7.8
6. -	UNKNOWN	BNA	35.0	70 B
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

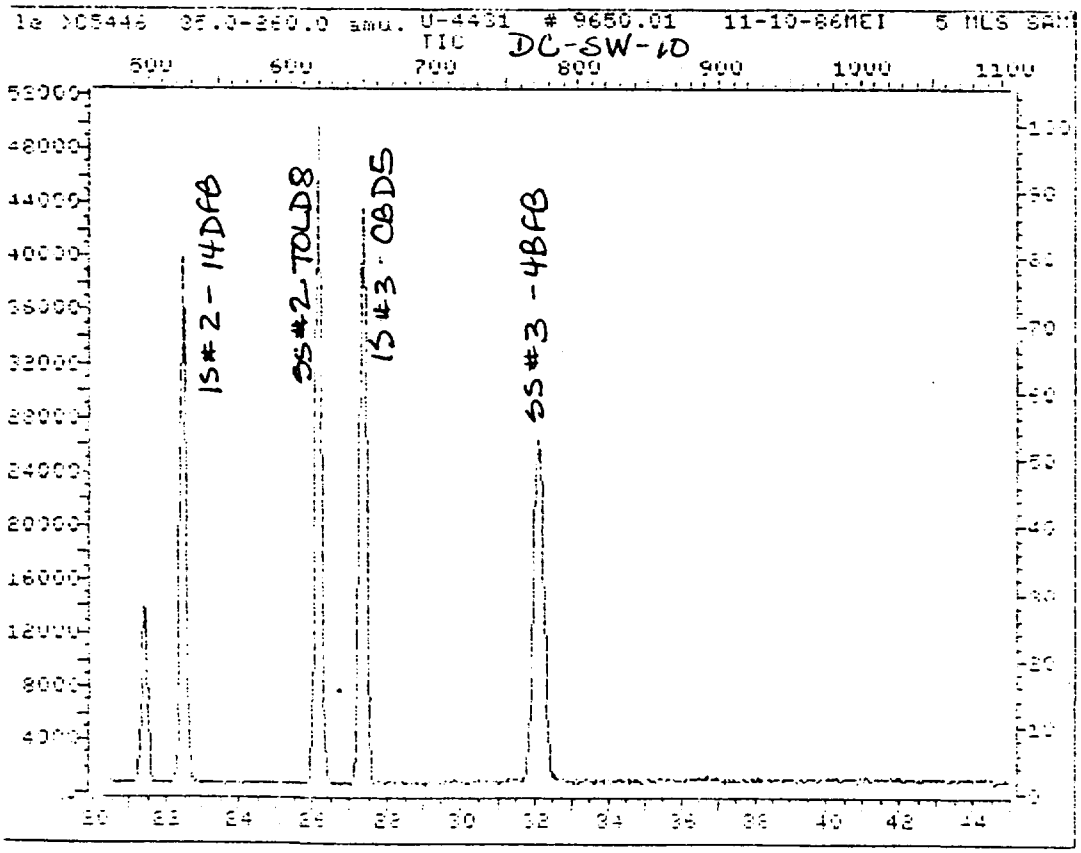


Data File: >C5446::D3
Name: U-4431 # 9650.01 DC-SW-10
Misc: 11-~~10~~-86MEI 5 MLS SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

Operator ID: USER8
Quant Time: 861111 09:24
Injected at: 861111 06:12


DC-SW-10
IS#1-BCM
SS#1-12DCEDY


DC-SW-10
IS#2-14DFB
SS#2-TOLD8
IS#3-CBD5
SS#3-4BFB

QUANT REPORT

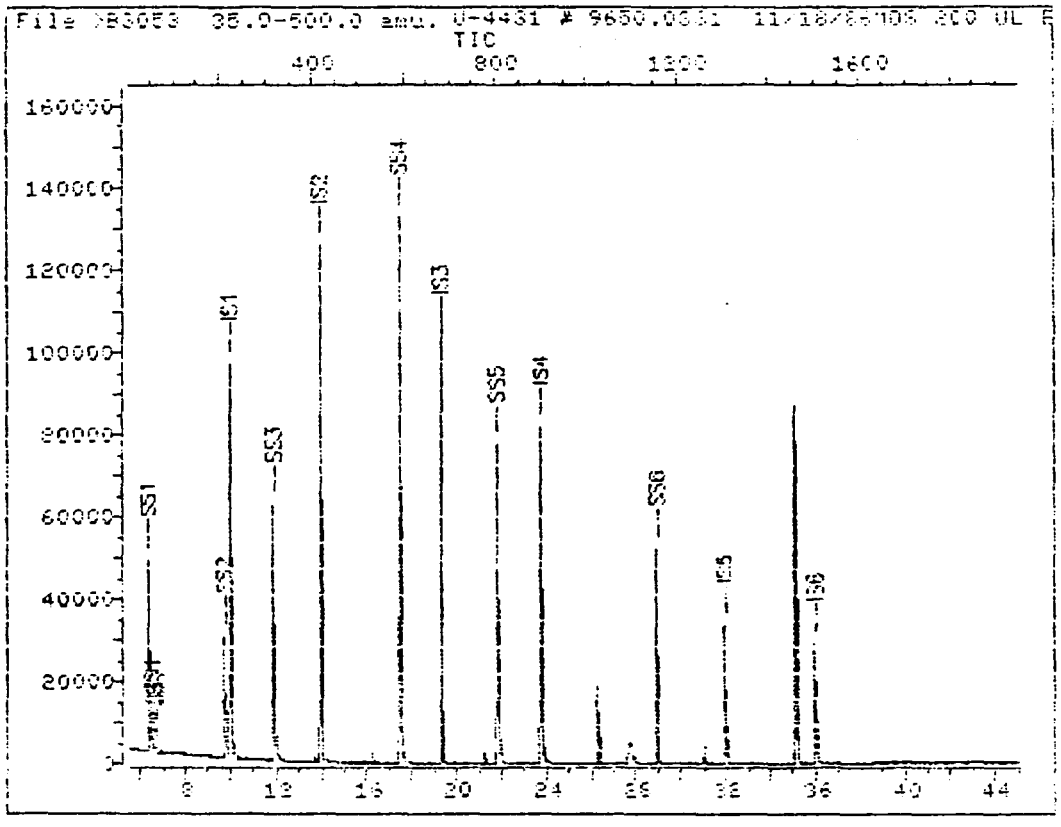
Operator ID: USER8 Quant Rev: 4 Quant Time: 861111 09:24
Output File: ^C5446::Q1 Injected at: 861111 06:12
Data File: >C5446::D3 Dilution Factor: 1.00
Name: U-4431, # 9650.01 DC-SW-10
Misc: 11-~~10~~-86MEI 5 MLS SAMPLE + 10UL IS/SS
11

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.88	252	33982	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.47	164	8882	6.50	UG/L	100
7)	ACETONE		43	9.36	187	3006	10.77	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.71	325	89313	51.50	UG/L 104	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.47	525	166558	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.33	650	136230	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.15	620	195996	50.92	UG/L 102	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.06	772	101343	49.71	UG/L 100	100

* Compound is ISTD

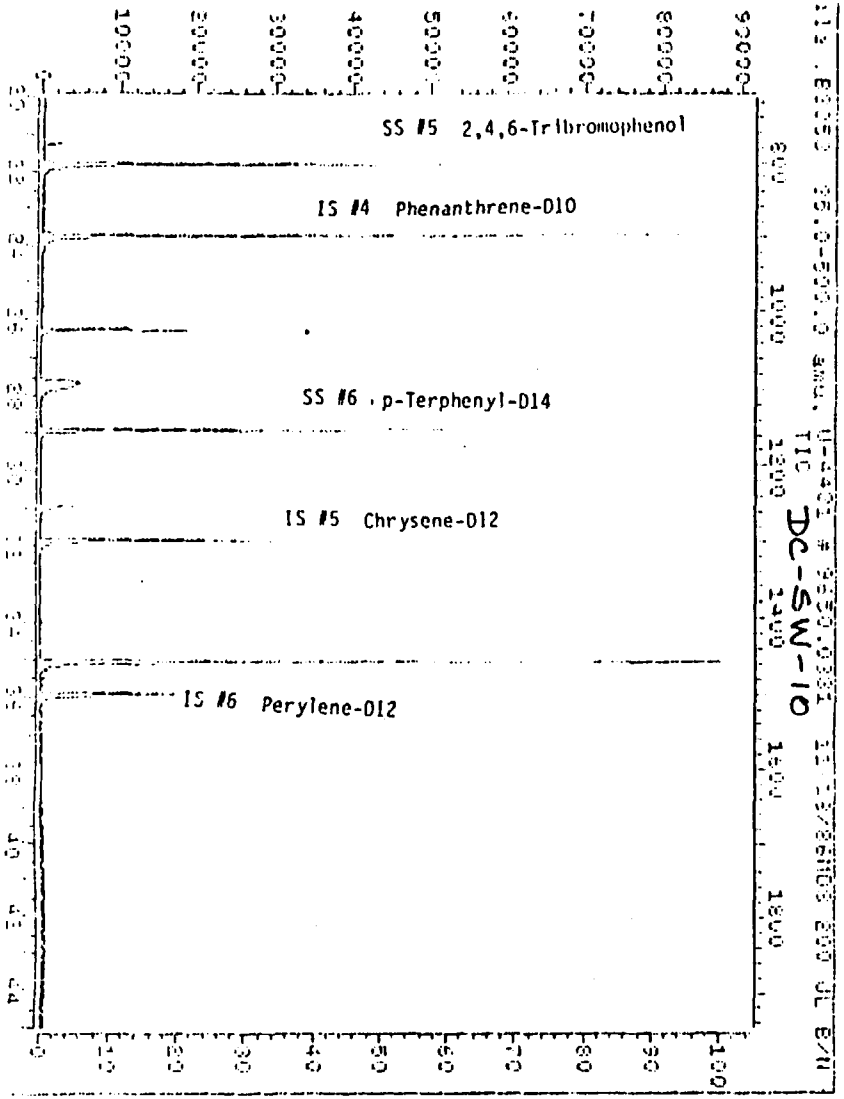
TOTAL ION CHROMATOGRAM

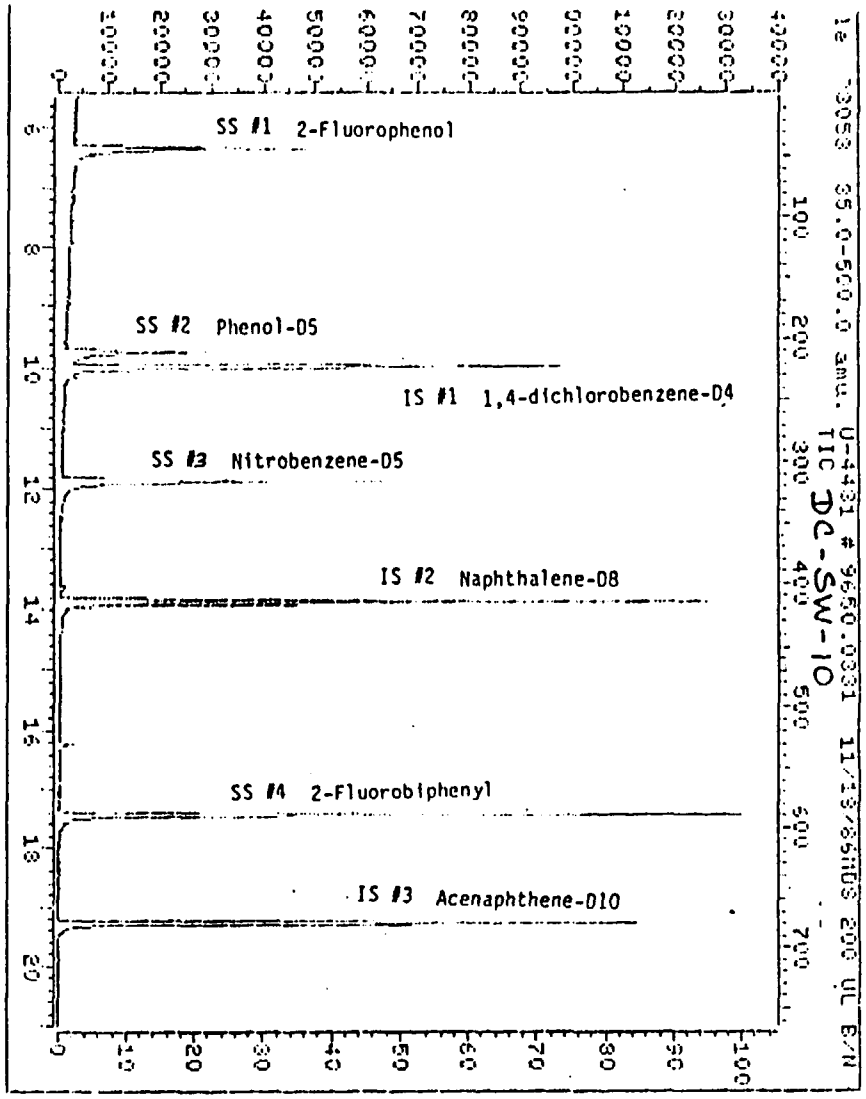


Data File: >B3053::D4
Name: U-4431 # 9650.0331 DC-SW-10
Misc: 11/18/86MOS 200 UL B/N + 20 UL A/P - 4 UL IS (2X)

Is File: BNABR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

Operator ID: USER8
Quant Time: 861118 18:36
Injected at: 861118 17:49


SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12
DC-SW-10


SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10
DC-SW-10

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 18:36
Output File: >B3053::Q2 Injected at: 861118 17:49
Data File: >B3053::D4 Dilution Factor: 2.00
Name: U-4431 # 9650.0331 DC-SW-10
Misc: 11/18/86MDS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.97	222	49917	40.00	UG/L	90
2)	PHENOL-D5	(SURR)	99	9.73	210	41434	43.19	UG/L	94
5)	2-FLUOROPHENOL	(SURR)	112	6.33	43	39369	59.92	UG/L	92
5)	2-FLUOROPHENOL	(SURR)	112	6.45	49	3021	4.60	UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	6.58	55	802	1.22	UG/L	73
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.64~~	~~56~~	~~630~~	~~.97~~	~~UG/L~~	98
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.70~~	~~61~~	~~534~~	~~.81~~	~~UG/L~~	91
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.86~~	~~315~~	~~9272~~	~~15.19~~	~~UG/L~~	76
19)	*NAPHTHALENE-D8	(IS)	136	13.87	414	167306	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.86	315	60265	80.27	UG/L	93
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.87~~	~~417~~	~~222~~	~~.11~~	~~UG/L~~	100
34)	*ACENAPHTHENE-D10	(IS)	162	19.26	679	74665	40.00	UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	17.43	589	123905	79.99	UG/L	94
~~41)~~	~~2-METHYL NAPHTHALENE~~		~~142~~	~~17.26~~	~~666~~	~~22124~~	~~14.81~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.76	802	38550	152.01	UG/L	98
~~53)~~	~~2,4-DIMETHYLPHENOL~~		~~122~~	~~19.36~~	~~670~~	~~9846~~	~~20.58~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.71	893	107664	40.00	UG/L	94
61)	DI-N-BUTYLPHTHALATE		149	26.27	1024	29346	19.96	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.68	1300	91925	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.91	1154	58966	101.42	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.94	1500	45450	40.00	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	34.66	1437	1167	1.18	UG/L	100

* Compound is ISTD

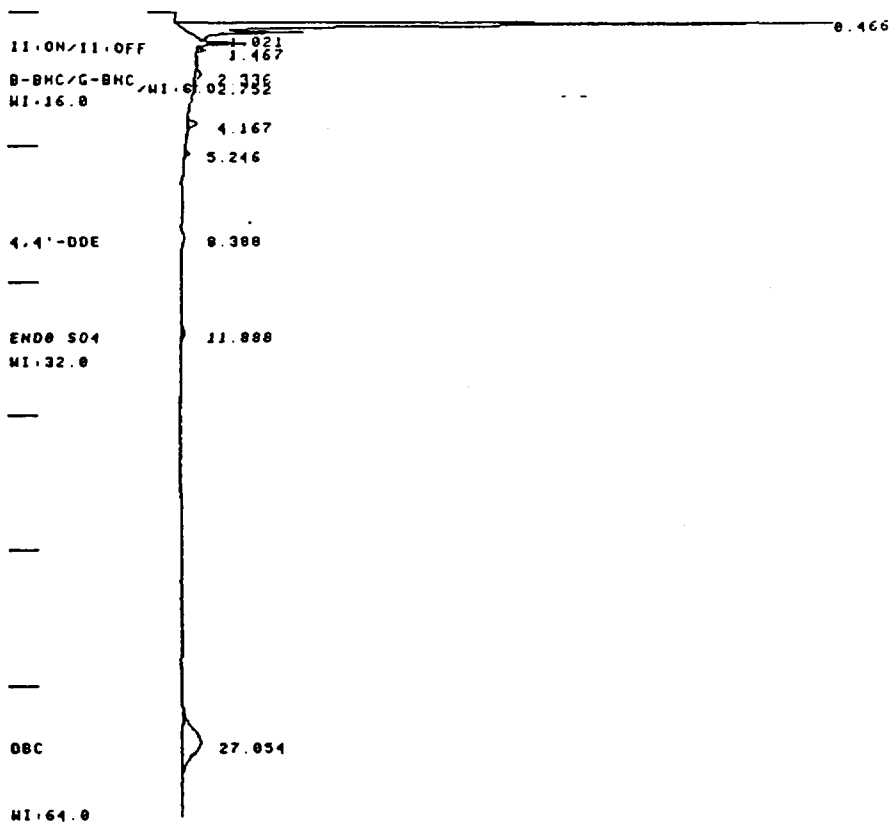
N.B.P. no cut

N. effic

no cut

no cut

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



CHANNEL: 1A - 1 TITLE: RUN# 29 18:39 12 NOV 86

SAMPLE: 9650.04.16 METHOD: CEPA CALCULATION: ES - ANALYS

DF=10

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	DBC	0.8828	27.009	-0.351	125983	BB	7 44.25
TOTALS:		0.8828		-0.351	125983		

DETECTED PKS: 15 REJECTED PKS: 14

DIVISOR: 1.00000 MULTIPLIER: 100.00000

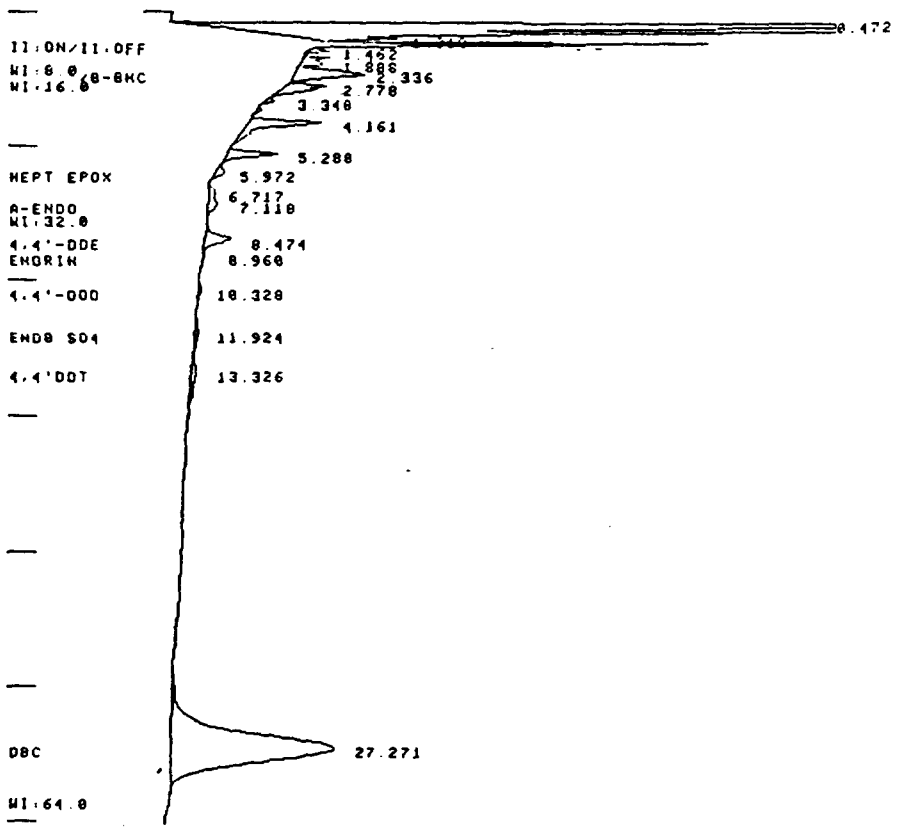
NOISE: 34.3 OFFSET: 19

RACK: 2 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY384

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



CHANNEL: 1A - 1 TITLE: RUN# 43 2:58 13 NOV 86

SAMPLE: 9650.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1	~~6-BHC~~	0.1641	2.336	0.066	127400	VB	14.94
2		0.0000	2.778		32658	BV	7.81
3		0.0000	2.939		46718	VV	? 10.06
4	~~HEPTACHLOR~~	0.0737	4.161	0.221	126972	BV	11.63
5		0.0000	5.288		75424	VV	10.75
6	~~A-ENDO~~	0.0153	7.118	-0.172	26575	VB	? 24.94
7	DIELDRIN 0.10u	0.0341	8.474	-0.006	64177	BV	19.69
8	~~4,4'DDT~~	0.0397	13.326	-0.354	33353	VB	29.50
9	DBC 91%	0.9072	27.271	-0.089	1294619	BB	65.19
TOTALS:		1.2340		-0.334	1827896		

DETECTED PKS: 25 REJECTED PKS: 16

DIVISOR: 1.00000 MULTIPLIER: 10.00003

NOISE: 22.9 OFFSET: -14

RACK: 3 VIAL: 13 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY398

SAMPLE NUMBER DC-SW-11

481095

Sample Number
DC-SW-11

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431 / U4441

Lab Sample ID No. 9680

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: C Stojtowicz

Date Sample Received: 11-7-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	~~5u~~ 6B
67-64-1	Acetone	~~10u~~ 17B
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~~ 25
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.

289

Laboratory Name ecology and environment, inc.

Case No U-4441

Sample Number DC-SW-11

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4, 4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4, 4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4 4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	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 1,000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name ecology and environment, inc.

Case No U-4431 / U-4441

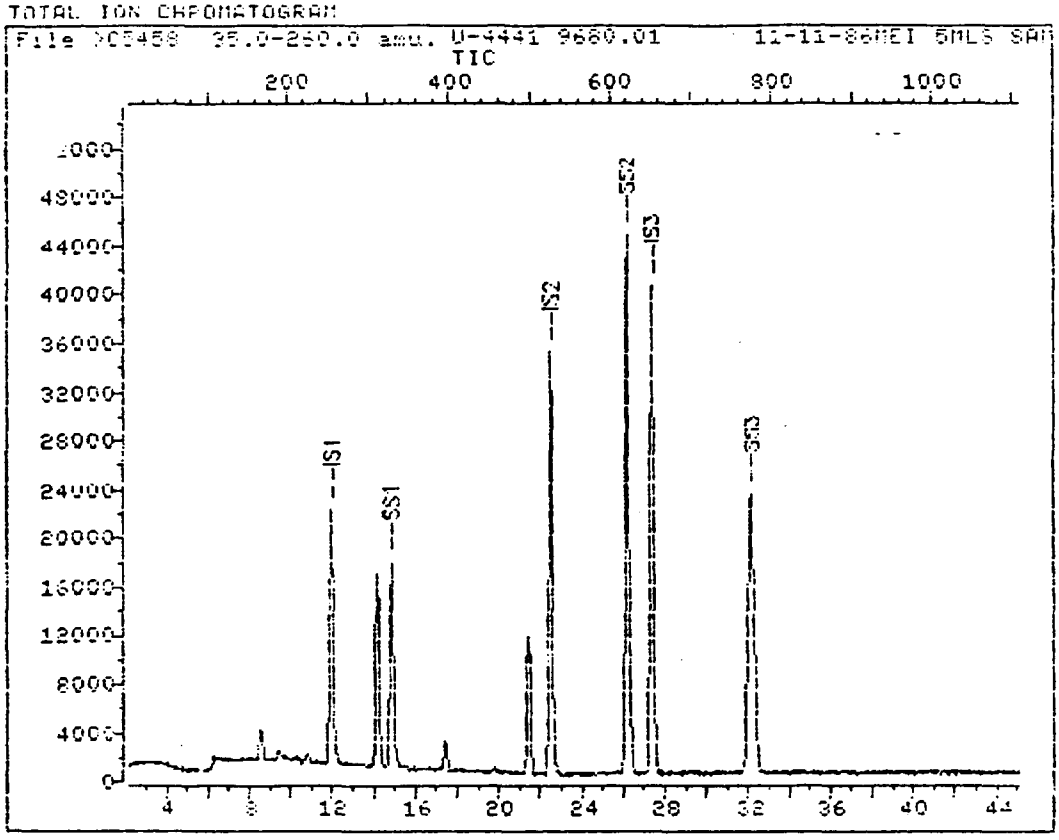
Sample Number DC-SW-11

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.	Hexene isomer	VOA	17.4 min	2.7 B
2.	Hexane isomer	VOA	21.4 min	9.1 B
3.				
4. 21964498	1,13-TETRADECADIENE	BNA	27.6	8.2 B
5. –	UNKNOWN	BNA	30.9	4.7
6. –	UNKNOWN	BNA	35.0	49 B
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

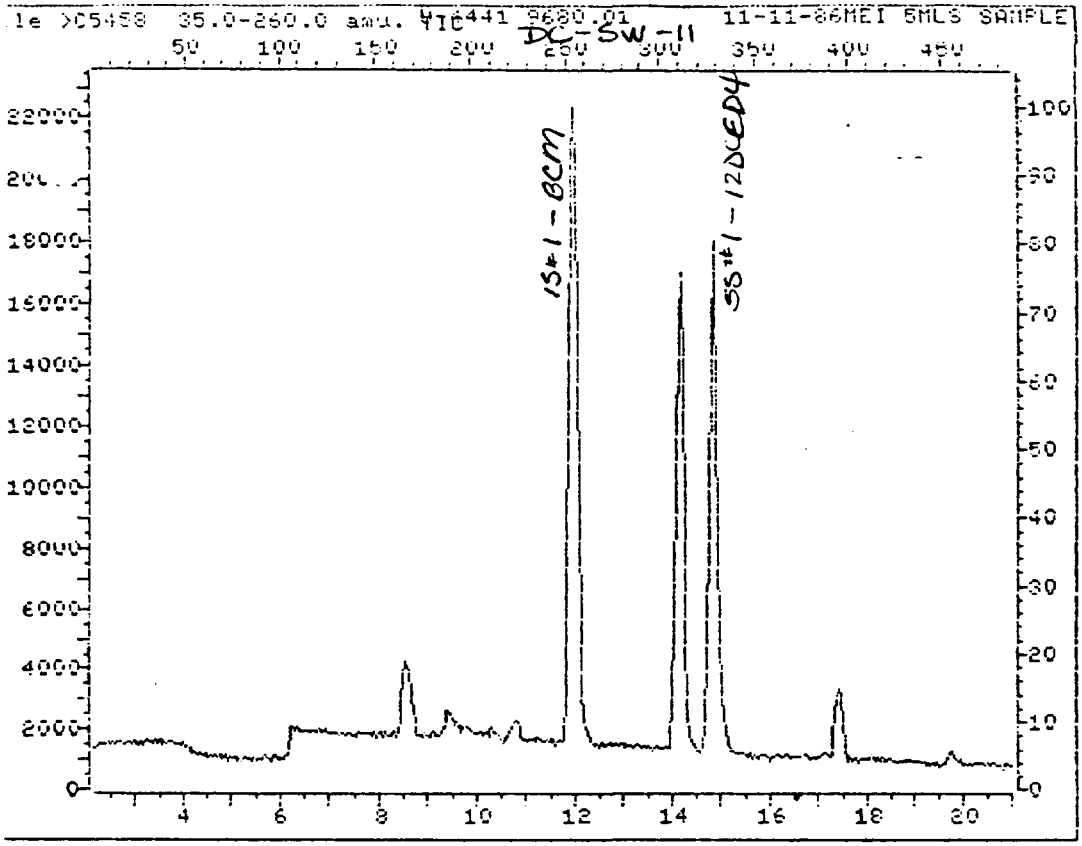
TOTAL ION CHROMATOGRAM

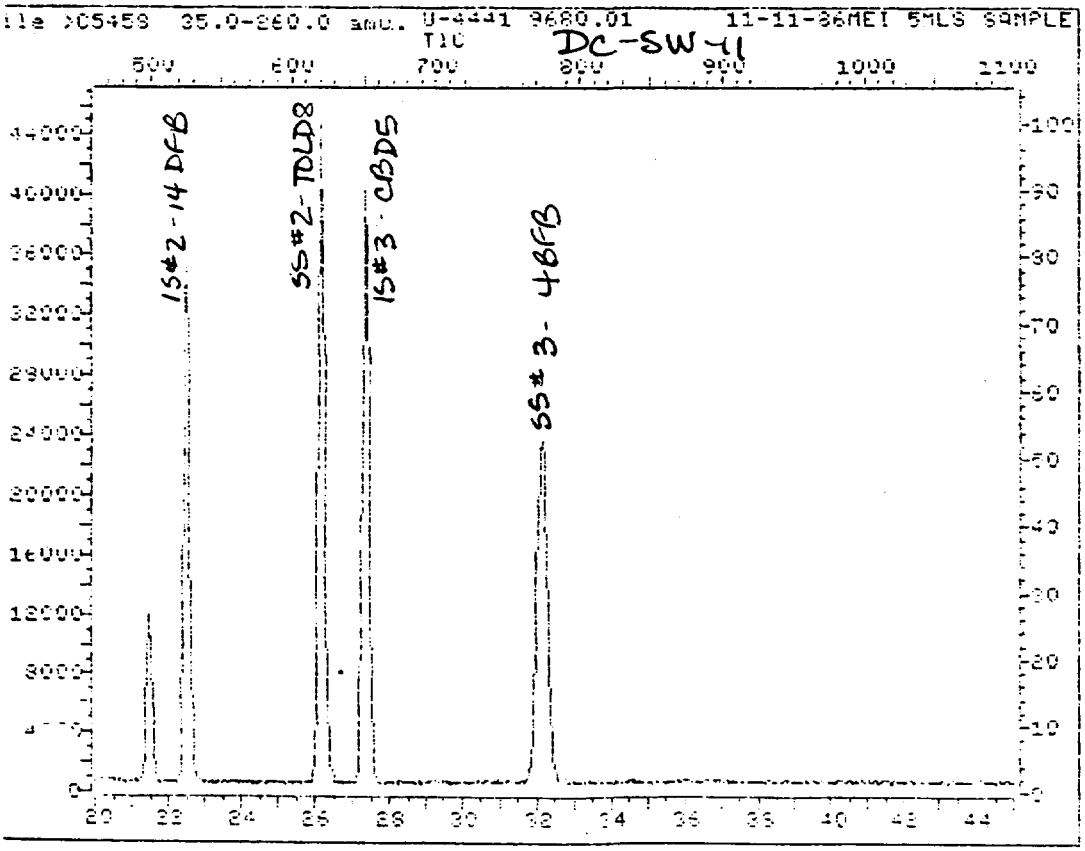


Data File: >C5458::D3
Name: U-4441 9680.01 DC-SW-11
Misc: 11-11-86MEI 5MLS SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.
Last Calibration: 861111 17:22

Operator ID: USERB
Quant Time: 861111 18:02
Injected at: 861111 17:16


DC-SW-11
IS#1-BCM
SS#1-12DCEDA


DC-SW-11
IS#2-14DFB
SS#2-TDLD8
IS#3-CBDS
SS#3-4BFB

QUANT REPORT

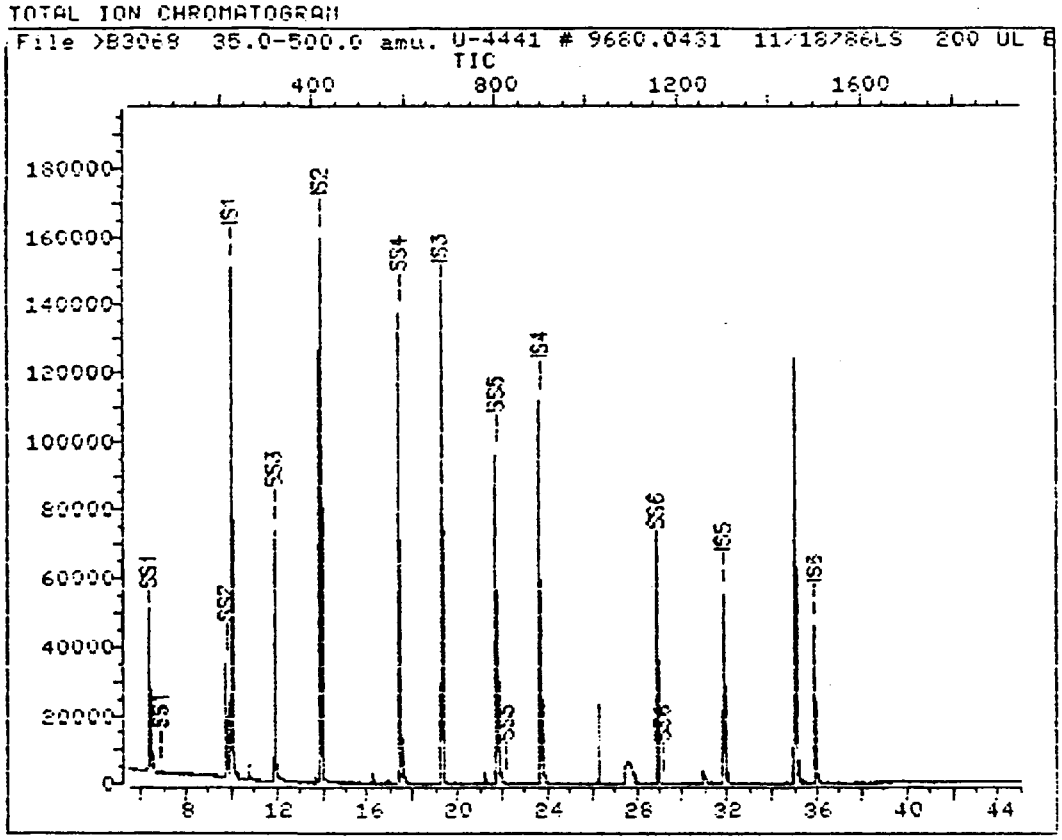
perator ID: USER8 Quant Rev: 4 Quant Time: 861111 18:02
utput File: ^C5458::D2 Injected at: 861111 17:16
at File: >C5458::D3 Dilution Factor: 1.00
ame. U-4441 9680.01 DC-SW-11
isc: 11-11-86MEI 5MLS SAMPLE + 10UL IS/SS

D File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861111 13:22

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.96	254	33114	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.58	167	7516	5.55	UG/L	100
7)	ACETONE		43	9.44	189	8312	17.41	UG/L	100
8)	TRICHLOROFLUOROMETHANE		101	10.79	224	3555	1.49	UG/L	99
13)	CHLOROFORM		83	14.17	311	64278	24.92	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.83	328	72655	46.33	UG/L	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.51	526	150527	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.36	651	127152	50.00	UG/L	100
76)	TOLUENE-D8	(SURR)	98	26.19	621	178198	50.43	UG/L	92
0)	4-BROMOFLUOROBENZENE	(SURR)	95	32.13	774	91938	50.98	UG/L	100

* Compound is ISTD

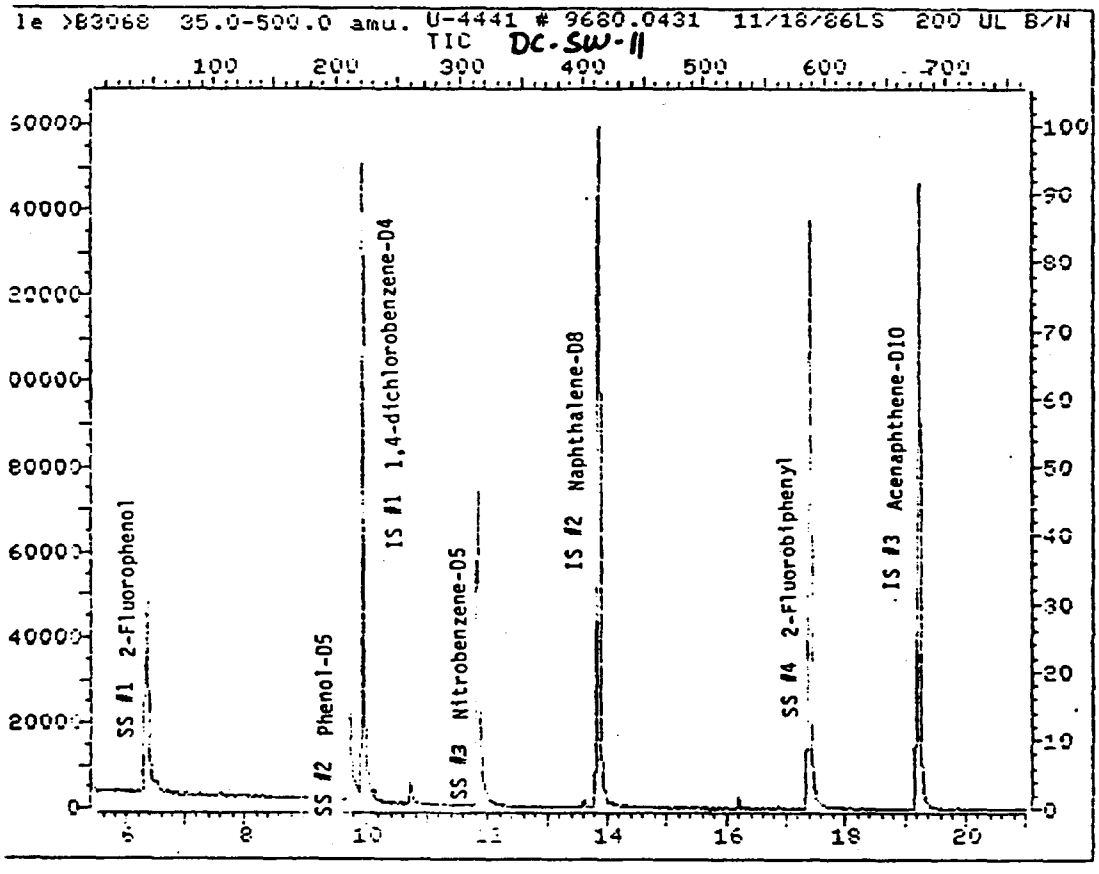
TOTAL ION CHROMATOGRAM

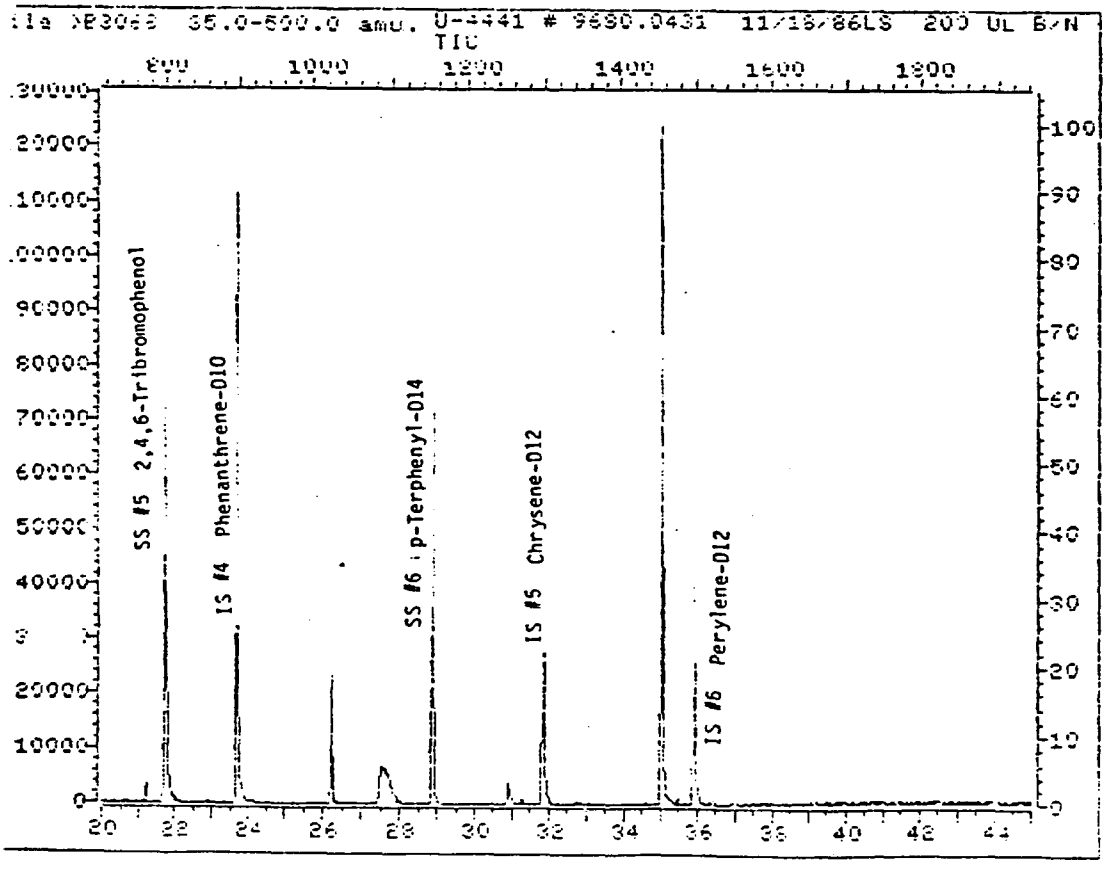


Data File: >B3068::D4
Name: U-4441 # 9680.0431 DC-SW-11
Misc: 11/18/86LS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

Operator ID: USER8
Quant Time: 861119 19:03
Injected at: 861119 18:16


le >B3068 35.0-500.0 amu. U-4441 # 9680.0431 11/18/86LS 200 UL B/N
TIC
DC-SW-11
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

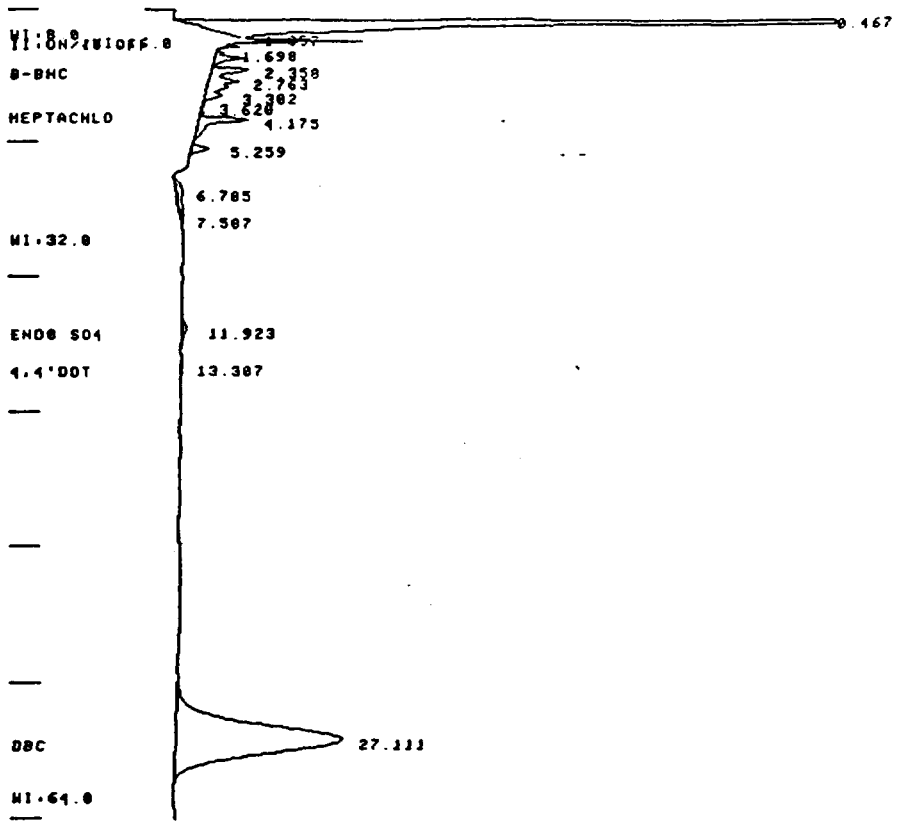
Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 19:03
Output File: ^B3068::Q2 Injected at: 861119 19:16
Data File: >B3068::D4 Dilution Factor: 2.00
Name: U-4441 # 9680.0431
Misc: 11/~~18~~ 19 86LS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.95	221	68738	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	9.71	209	46971	44.26	UG/L	90
5)	2-FLUOROPHENOL	(SURR)	112	6.31	42	46130	58.06	UG/L	79
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.76~~	~~64~~	~~675~~	~~.85~~	~~UG/L~~	90
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.94~~	~~49~~	~~463~~	~~.58~~	~~UG/L~~	79
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.34~~	~~314~~	~~11090~~	~~13.92~~	~~UG/L~~	83
19)	*NAPHTHALENE-D8	(IS)	136	13.85	413	234888	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.84	314	73695	74.40	UG/L	95
34)	*ACENAPHTHENE-D10	(IS)	162	19.22	677	102316	40.00	UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	17.39	587	144714	68.09	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.24~~	~~678~~	~~28714~~	~~15.23~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.72	800	49082	156.84	UG/L	99
~~48)~~	~~2,4,6-TRIBROMOPHENOL~~	~~(SURR)~~	~~330~~	~~22.15~~	~~821~~	~~126~~	~~.40~~	~~UG/L~~	82
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.02~~	~~677~~	~~13135~~	~~39.93~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.67	896	158031	40.00	UG/L	95
63)	DI-N-BUTYLPHTHALATE		149	26.23	1022	36162	16.72	UG/L	98
65)	*CHRYSENE-D12	(IS)	240	31.82	1297	85279	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.85	1151	94101	104.85	UG/L	100
~~68)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.12~~	~~1160~~	~~571~~	~~.64~~	~~UG/L~~	100
~~72)~~	~~BIS-2-ETHYLHEXYLPHTHALATE~~		~~149~~	~~32.38~~	~~1345~~	~~562~~	~~.22~~	~~UG/L~~	98
74)	*PERYLENE-D12	(IS)	264	35.89	1497	71825	40.00	UG/L	100
~~76)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.62~~	~~1435~~	~~1836~~	~~.78~~	~~UG/L~~	100
~~76)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.01~~	~~1454~~	~~376~~	~~.26~~	~~UG/L~~	100

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 30 19:12 12 NOV 86

SAMPLE: 9680.04.16 METHOD: CEPA CALCULATION: ES - ANALYS

DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.884		34217	VV	7.13
2	~~B-BHC~~	0.0687	2.358	0.088	53309	VV	11.06
3	~~B-BHC~~	0.0191	2.763	0.213	40482	VV	8.25
4		0.0000	2.959		29646	VV	? 11.75
5		0.0000	3.302		24607	VV	8.44
6	~~HEPTACHLO~~	0.0533	4.175	0.235	91768	VV	11.94
7		0.0000	5.259		24140	VB	10.38
8		0.0000	6.785		27778	BV	? 31.75
9	DBC 95%	0.9533	27.111	-0.249	1360430	BB	67.31
TOTALS:		1.0944		0.287	1686377		

DETECTED PKS: 23 REJECTED PKS: 14

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 34.3 OFFSET: -9

RACK: 2 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY385

SAMPLE NUMBER DC-SW-12

481095

Sample Number
DC-SW-12

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431/U-4441

Lab Sample ID No: 9681

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: C Stojtowicz

Date Sample Received: 11-7-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	~~5u~~ 4BJ
67-64-1	Acetone	~~10u~~ 20B
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~~ 8
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	~~5u~~ 33
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~~ 6
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	~~5u~~ 1J
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~~ 6J
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~~ 2J
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	~~5u~~ 2J

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

aboratory Name

ase No: U-4431 / U-4441

Sample Number
DC-SW-12

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: Low Medium (Circle One)

ate Extracted/Prepared: 11-10-86

ate Analyzed: 11-19-86

onc/Dil Factor: 5 10

ercent 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	100	U
111-44-4	bis(2-Chloroethyl)Ether	50	U
95-57-8	2-Chlorophenol	100	U
541-73-1	1 3-Dichlorobenzene	50	U
06-46-7	1. 4-Dichlorobenzene	50	U
00-51-6	Benzyl Alcohol	50	U
95-50-1	1. 2-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	100	U
39638-32-9	bis(2-chloroisopropyl)Ether	50	U
106-44-5	4-Methylphenol	100	U
621-64-7	N-Nitroso-Di-n-Propylamine	50	U
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
78-59-1	Isophorone	50	U
88-75-5	2-Nitrophenol	100	U
105-67-9	2. 4-Dimethylphenol	100	U
65-85-0	Benzoic Acid	500	U
111-91-1	bis(2-Chloroethoxy)Methane	50	U
120-83-2	2. 4-Dichlorophenol	100	U
120-82-1	1. 2. 4-Trichlorobenzene	50	U
91-20-3	Naphthalene	50	U
106-47-8	4-Chloroaniline	50	U
87-68-3	Hexachlorobutadiene	50	U
59-50-7	4-Chloro-3-Methylphenol	100	U
91-57-6	2-Methylnaphthalene	3	J
77-47-4	Hexachlorocyclopentadiene	50	U
88-06-2	2 4 6-Trichlorophenol	100	U
95-95-4	2. 4. 5-Trichlorophenol	500	U
91-58-7	2-Chloronaphthalene	50	U
88-74-4	2-Nitroaniline	250	U
13[illegible]-11-3	Dimethyl Phthalate	50	U
20[illegible]-6-8	Acenaphthylene	50	U
99-09-2	3-Nitroaniline	250	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	50	U
51-28-5	2. 4-Dinitrophenol	500	U
100-02-7	4-Nitrophenol	500	U
132-64-9	Dibenzofuran	50	U
121-14-2	2 4-Dinitrotoluene	50	U
606-20-2	2. 6-Dinitrotoluene	50	U
84-66-2	Diethylphthalate	50	U
7005-72-3	4-Chlorophenyl-phenylether	50	U
86-73-7	Fluorene	50	U
100-01-6	4-Nitroaniline	500	U
534-52-1	4. 6-Dinitro-2-Methylphenol	500	U
86-30-6	N-Nitrosodiphenylamine (1)	50	U
101-55-3	4-Bromophenyl-phenylether	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	500	U
85-01-8	Phenanthrene	4	J
120-12-7	Anthracene	50	U
84-74-2	Di-n-Butylphthalate	5	BJ
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
85-68-7	Butylbenzylphthalate	12	J
91-94-1	3. 3'-Dichlorobenzidine	100	U
56-55-3	Benzo(a)Anthracene	50	U
117-81-7	bis(2-Ethylhexyl)Phthalate	7	J
218-01-9	Chrysene	50	U
117-84-0	Di-n-Octyl Phthalate	36	J
205-99-2	Benzo(b)Fluoranthene	50	U
207-08-9	Benzo(k)Fluoranthene	50	U
50-32-8	Benzo(a)Pyrene	50	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	50	U
53-70-3	Dibenzo(a h)Anthracene	50	U
191-24-2	Benzo(g h i)Perylene	50	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4441

Sample Number DC-SW-12

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

Conc/Dil Factor: 150

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	7.5	u
319-85-7	Beta-BHC	7.5	u
319-86-8	Delta-BHC	7.5	u
58-89-9	Gamma-BHC (Lindane)	7.5	u
76-44-8	Heptachlor	7.5	u
309-00-2	Aldrin	7.5	u
1024-57-3	Heptachlor Epoxide	7.5	u
959-98-8	Endosulfan I	7.5	u
60-57-1	Dieldrin	15	u
72-55-9	4,4'-DDE	15	u
72-20-8	Endrin	15	u
33213-65-9	Endosulfan II	15	u
72-54-8	4,4'-DDD	15	u
1031-07-8	Endosulfan Sulfate	15	u
50-29-3	4,4'-DDT	15	u
72-43-5	Methoxychlor	75	u
53494-70-5	Endrin Ketone	15	u
57-74-9	Chlordane	75	u
8001-35-2	Toxaphene	150	u
12674-11-2	Aroclor-1016	75	u
11104-28-2	Aroclor-1221	75	u
11141-16-5	Aroclor-1232	75	u
53469-21-9	Aroclor-1242	75	u
12672-29-6	Aroclor-1248	75	u
11097-69-1	Aroclor-1254	150	u
11096-82-5	Aroclor-1260	150	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 1000 or W_s _____ V_t 15,000 V_i 4

Laboratory Name ecology and environment, inc.

Case No U-4431 / U-4441

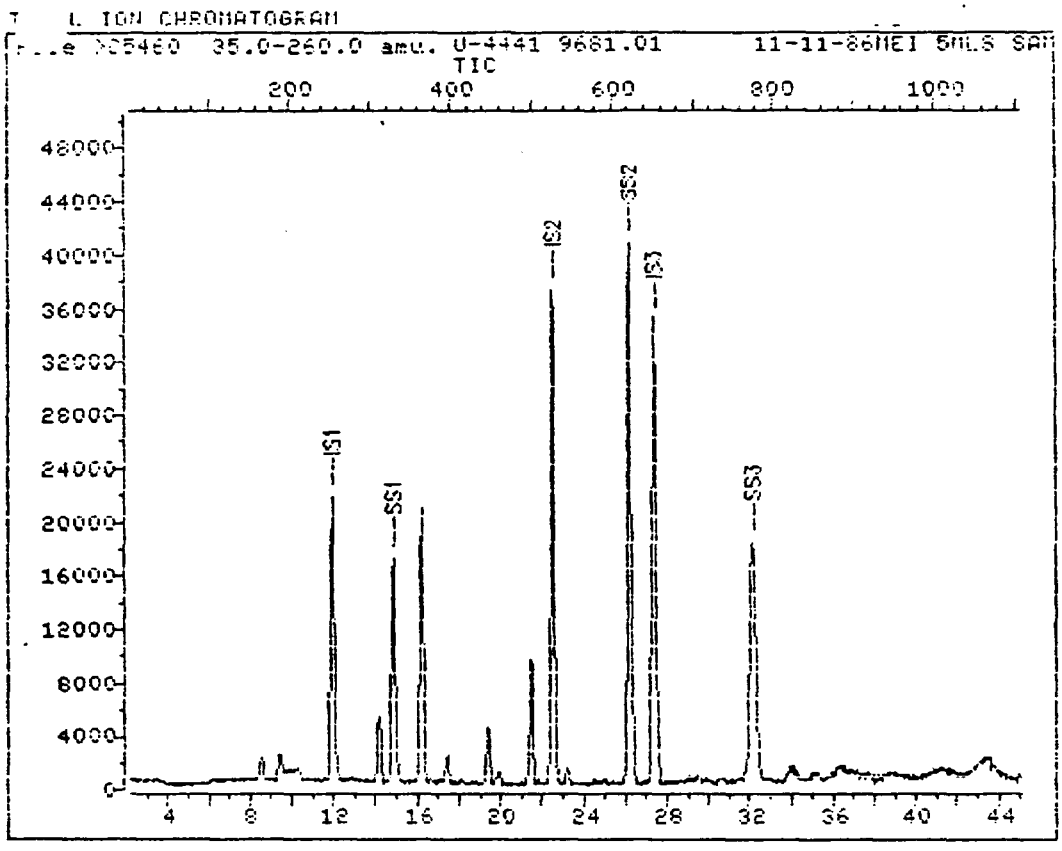
Sample Number DC-SW-12

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.	Hexene isomer	VOA	17.4 min	2.2 B
2.	Hexane isomer	VOA	21.5 min	7.1 B
3.				
4.	UNKNOWN HYDROCARBON	BNA	16.3	64
5.	UNKNOWN HYDROCARBON		18.1	2200
6.	UNKNOWN HYDROCARBON		19.7	4100
7. 118467	8-AMINO-2-NAPHTHALENOL		20.1	240
8.	UNKNOWN HYDROCARBON		21.2	1500
9.	UNKNOWN HYDROCARBON		22.7	360
10.	UNKNOWN HYDROCARBON		24.1	100
11.	UNKNOWN HYDROCARBON		25.4	150
12. 140034	12-(ACETYLOXY)-9-OCTADECENOIC ACID, METHYL ESTER		25.8	250
13.	UNKNOWN HYDROCARBON		26.3	64
14.	UNKNOWN HYDROCARBON		26.7	240
15. 21964498	1,13-TETRADECADIENE		27.8	74 B
16. 56554495	OCTADECENOIC ACID, METHYL ESTER		28.0	180
17. 5129613	16-METHYL HEPTADECANOIC ACID, METHYL ESTER		28.3	670
18.	UNKNOWN HYDROCARBON		28.4	110
19.	UNKNOWN HYDROCARBON		28.8	170
20.	UNKNOWN HYDROCARBON		29.5	620
21.	UNKNOWN HYDROCARBON		30.4	200
22.	UNKNOWN HYDROCARBON		30.6	720
23.	UNKNOWN HYDROCARBON		31.7	330
24.				
25.				
26.				
27.				
28.				
29.				
30				

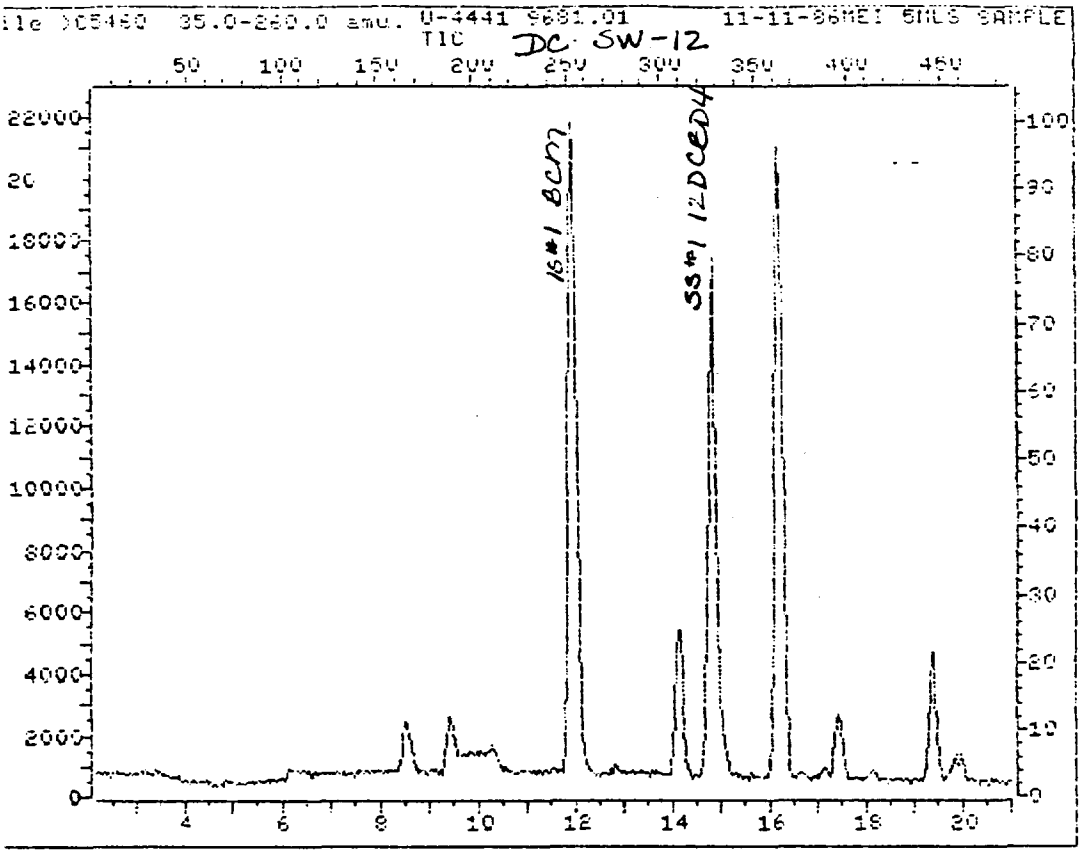
204

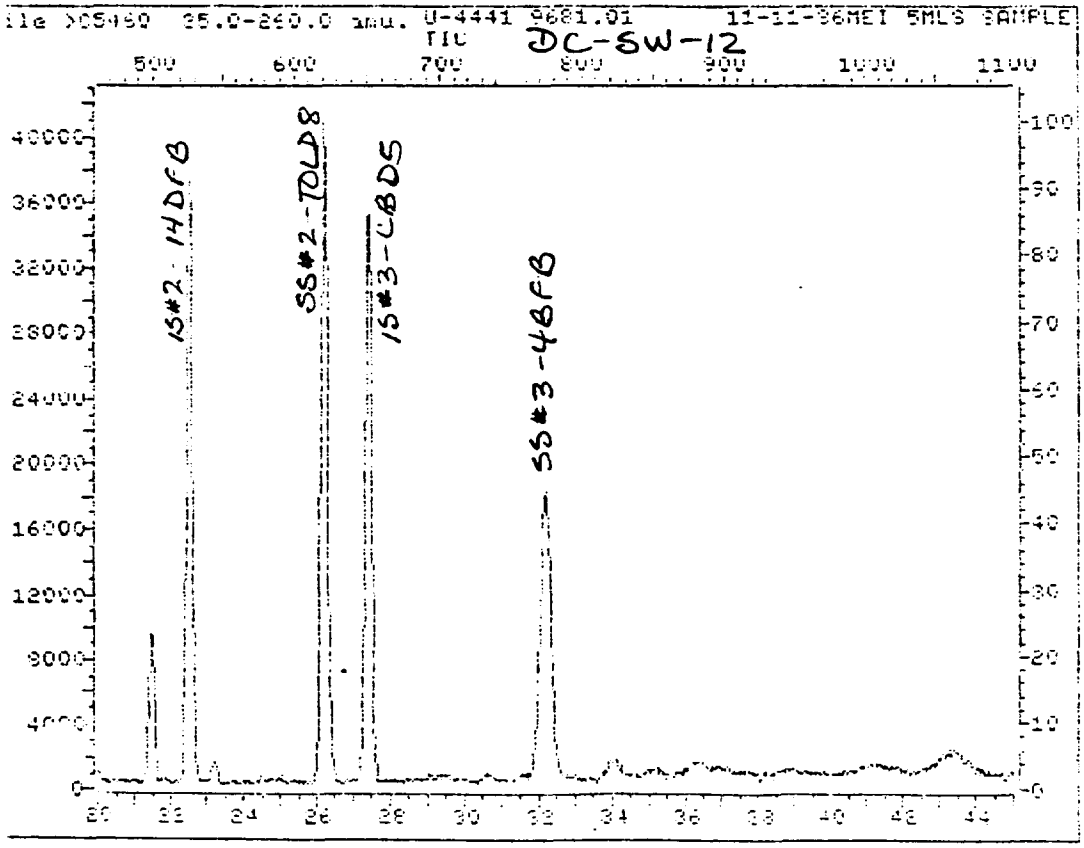


Data File: >C5460::D3
Name: U-4441 9681.01 DC-SW-12
Misc: 11-11-86MEI 5MLS SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 13:22

Operator ID: USER8
Quant Time: 861111 19:59
Injected at: 861111 19:13


35.0-260.0 amu. U-4441 9681.01 11-11-86MEI 5MLS SAMPLE
TIC
DC SW-12
IS#1 BCM
SS#1 12DCEDA
50 100 150 200 250 300 350 400 450
22000
20
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
4 6 8 10 12 14 16 18 20
100 90 80 70 60 50 40 30 20 10 0


35.0-260.0 amu. U-4441 9681.01 11-11-86MEI 5MLS SAMPLE
TIC
DC-SW-12
500 600 700 800 900 1000 1100
IS#2 14DFB
SS#2 TOLD8
IS#3 CBDS
SS#3 4BFB
40000
36000
32000
28000
24000
20000
16000
12000
8000
4000
0
20 22 24 26 28 30 32 34 36 38 40 42 44
100 90 80 70 60 50 40 30 20 10 0

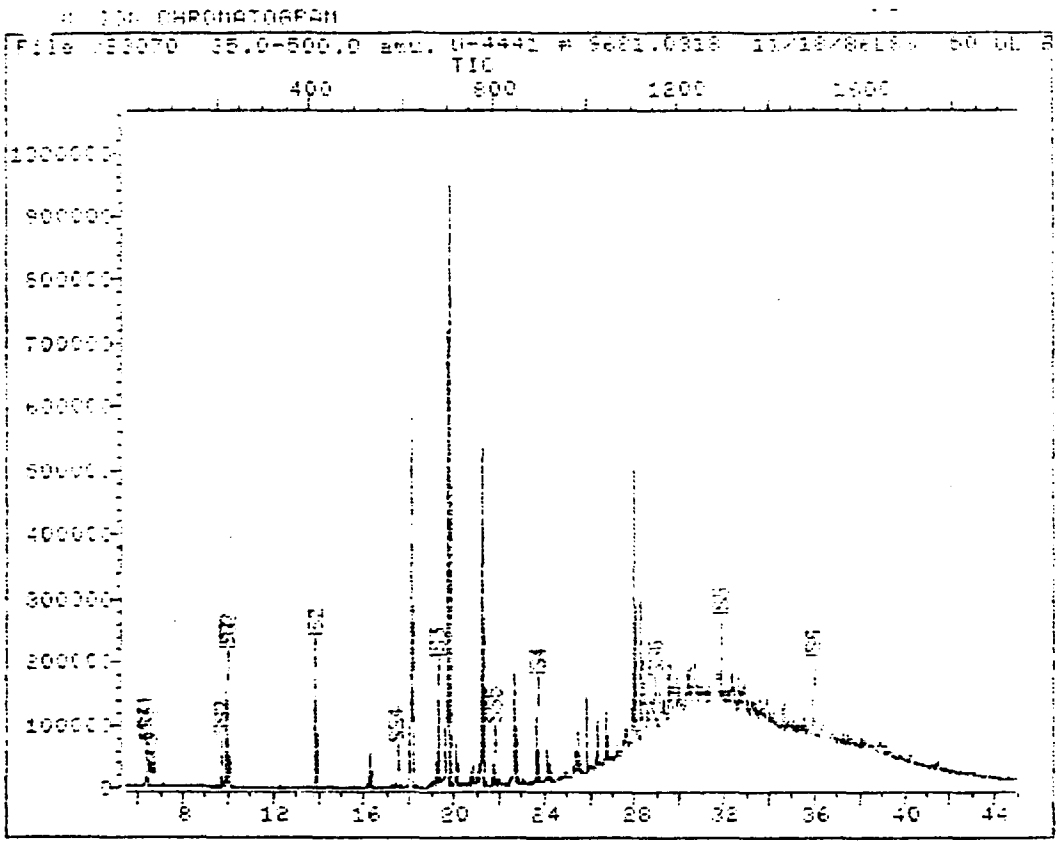
QUANT REPORT

pe tor ID: USER8 Quant Rev: 4 Quant Time: 861111 19:59
utput File: ^C5460::D2 Injected at: 861111 19:13
ata File: >C5460::D3 Dilution Factor: 1.00
ame: U-4441 9681.01 DC-SW-12
isc: 11-11-86MEI 5MLS SAMPLE + 10UL IS/SS

D File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861111 13:22

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.93	253	33626	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.52	165	4861	3.54	UG/L	100
7)	ACETONE	43	9.41	188	9933	20.49	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~	~~76~~	~~10.26~~	~~210~~	~~2329~~	~~.73~~	~~UG/L~~	~~100~~
13)	CHLOROFORM	83	14.14	310	21829	8.33	UG/L	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.84	328	72176	45.32	UG/L	87
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.52	526	160299	50.00	UG/L	100
8)	1,1,1-TRICHLOROETHANE	97	16.20	363	70086	33.09	UG/L	95
~~9)~~	~~CARBON TETRACHLORIDE~~	~~117~~	~~16.20~~	~~363~~	~~9196~~	~~4.25~~	~~UG/L~~	~~97~~
4)	TRICHLOROETHENE	130	19.38	445	8142	5.72	UG/L	90
7)	BENZENE	78	19.96	460	2573	.61	UG/L	100
1)	*CHLOROBENZENE-D5 (IS)	117	27.37	650	117969	50.00	UG/L	100
2)	4-METHYL-2-PENTANONE	43	23.22	544	6192	5.91	UG/L	94
6)	TOLUENE-D8 (SURR)	98	26.20	621	167747	51.17	UG/L	99
8)	CHLOROBENZENE	112	27.49	653	5433	1.77	UG/L	98
0)	4-BROMOFLUOROBENZENE(SURR)	95	32.18	774	72035	43.05	UG/L	100
2)	TOTAL XYLENES	91	34.16	825	2936	.72	UG/L	100
2)	TOTAL XYLENES	91	35.17	851	4302	1.05	UG/L	100

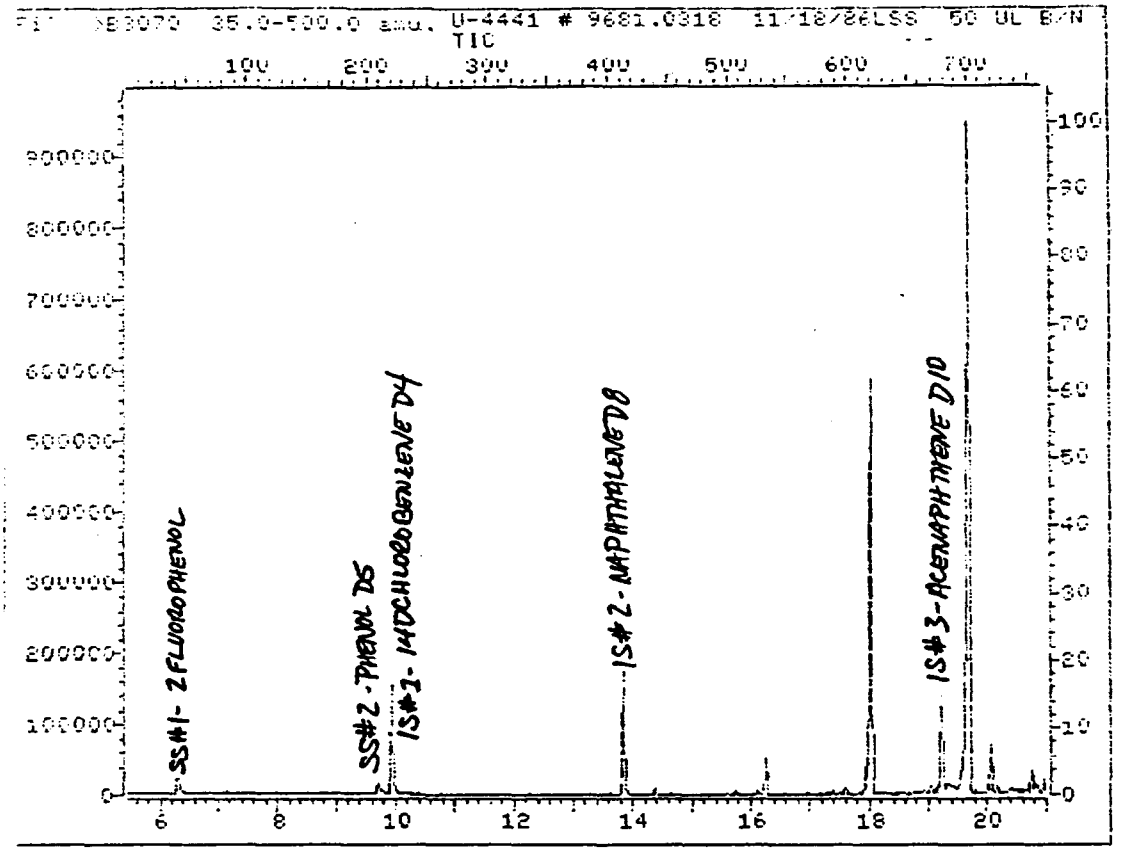
* Compound is ISTD

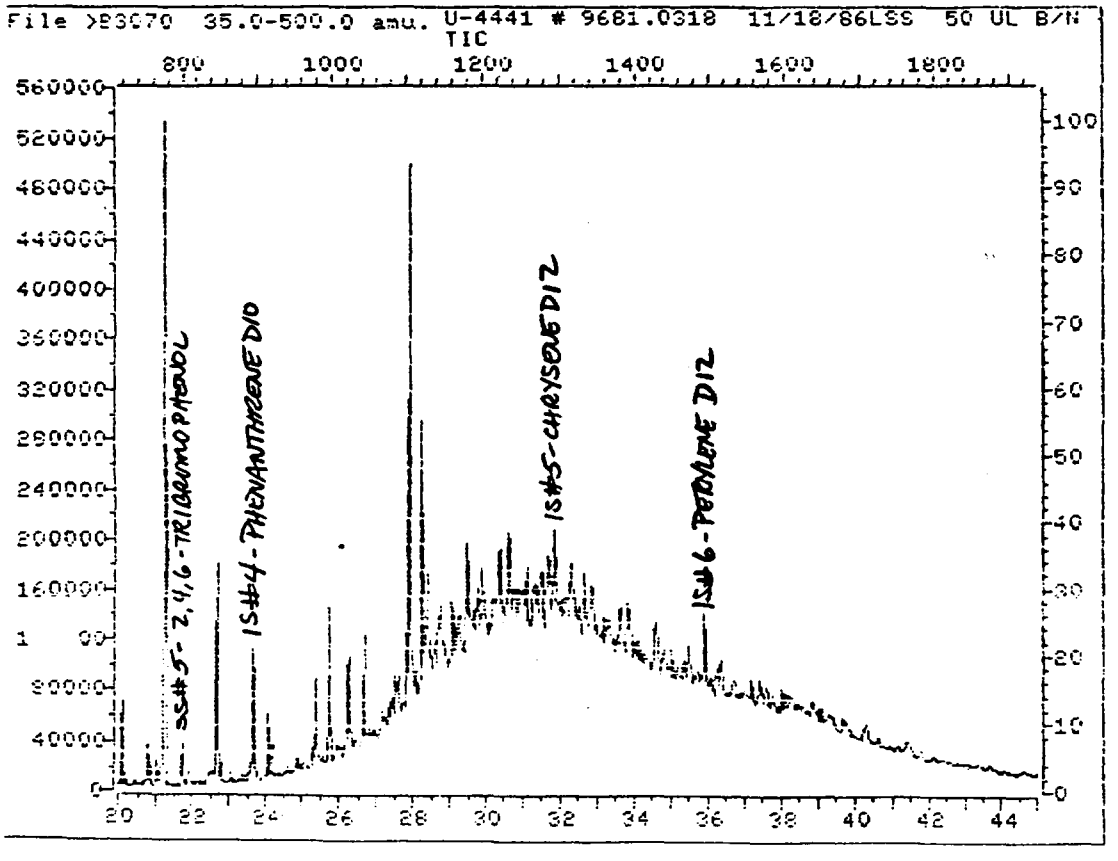


Data File: >B3070::D4
Name: U-4441 # 9681.0318
Misc: 11/18/86LSS 50 UL B/N + 450UL MECL2 + 5 UL IS (10X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

Operator ID: USER8
Quant Time: 861119 20:49
Injected at: 861119 20:01


File >B3070 35.0-500.0 amu. U-4441 # 9681.0318 11/18/86LSS 50 UL B/N
TIC
SS#1- 2 FLUORO PHENOL
SS#2 - PHENOL D5
IS#1- 1,4DICHLOROBENZENE D4
IS#2 - NAPHTHALENE D8
IS#3 - ACENAPHTHENE D10

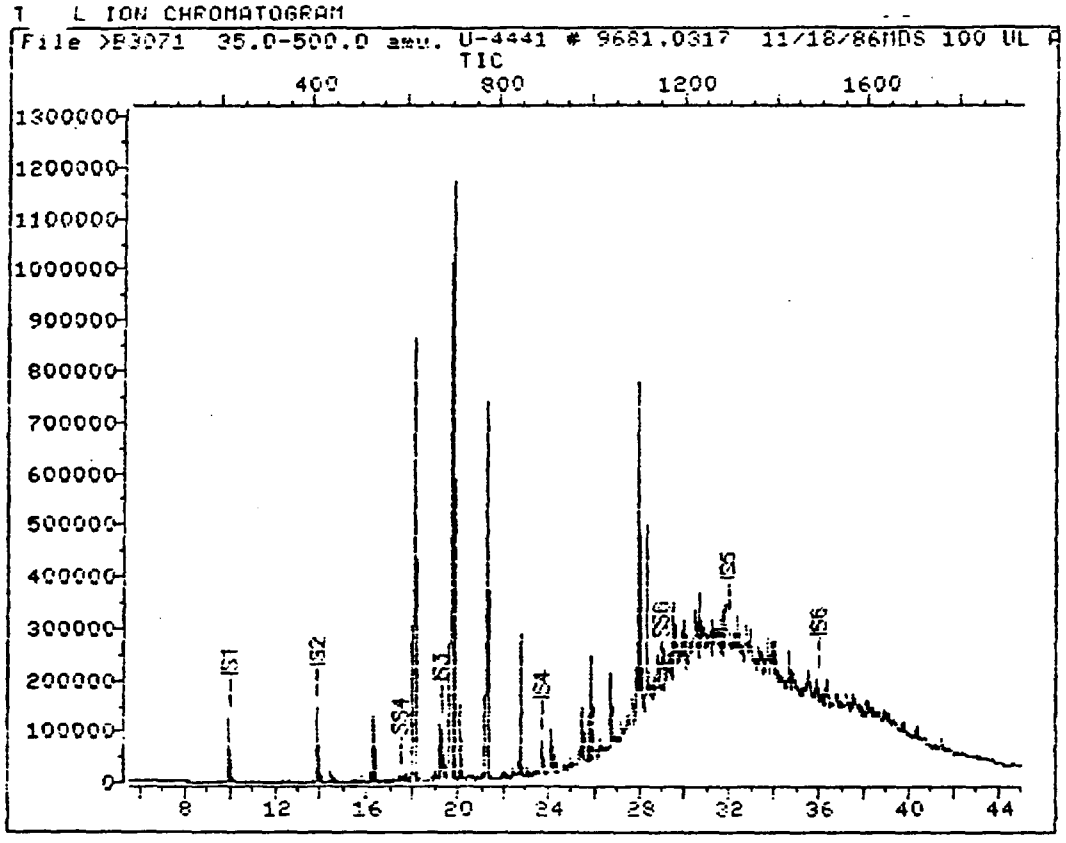

File >B3070 35.0-500.0 amu. U-4441 # 9681.0318 11/18/86LSS 50 UL B/N
TIC
SS#5- 2,4,6-TRIBROMO PHENOL
IS#4 - PHENANTHRENE D10
IS#5-CHRYSENE D12
IS#6-PERYLENE D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 20:49
Output File: ^B3070::Q2 Injected at: 861119 20:01
Data File: >B3070::D4 Dilution Factor: 10.00
Name: U-4441 # 9681.0318 A/P
Misc: 11/~~18~~ 19/86LSS 50 UL ~~B/N~~ + 450UL MECL2 + 5 UL IS (10X)
ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.93	220	63167	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.70	209	21468	110.06	UG/L	95
2)	PHENOL-D5	(SURR)	99	9.93	220	1451	7.44	UG/L	97
5)	2-FLUOROPHENOL	(SURR)	112	6.29	41	22990	157.43	UG/L	83
5)	2-FLUOROPHENOL	(SURR)	112	6.39	46	2919	19.99	UG/L	24
5)	2-FLUOROPHENOL	(SURR)	112	6.51	52	1054	7.22	UG/L	82
5)	2-FLUOROPHENOL	(SURR)	112	6.57	55	413	2.83	UG/L	57
5)	2-FLUOROPHENOL	(SURR)	112	6.63	58	439	3.01	UG/L	97
9)	*NAPHTHALENE-D8	(IS)	136	13.83	412	222115	40.00	UG/L	100
3)	2-METHYLNAPHTHALENE		142	16.07	522	636	2.01	UG/L	96
3)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.35~~	~~536~~	~~486~~	~~1.53~~	~~UG/L~~ No B/N	99
4)	*ACENAPHTHENE-D10	(IS)	162	19.22	677	86288	40.00	UG/L	96
8)	2-FLUOROBIPHENYL	(SURR)	172	17.39	587	1500	4.18	UG/L	86
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.24~~	~~670~~	~~28700~~	~~87.37~~	~~UG/L~~ No B/N	100
3)	~~DIBENZOFURAN~~		~~168~~	~~10.39~~	~~685~~	~~334~~	~~.92~~	~~UG/L~~	100
3)	~~DIBENZOFURAN~~		~~168~~	~~10.71~~	~~701~~	~~2668~~	~~7.35~~	~~UG/L~~	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.72	800	14652	277.59	UG/L	97
0)	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.46~~	~~577~~	~~11240~~	~~156.72~~	~~UG/L~~ No B/N	100
5)	*PHENANTHRENE-D10	(IS)	188	23.66	895	109886	40.00	UG/L	91
5)	DI-N-BUTYLPHTHALATE		149	26.23	1021	4769	15.85	UG/L	87
5)	*CHRYSENE-D12	(IS)	240	31.83	1295	75679	40.00	UG/L	100
8)	TERPHENYL-D14	(SURR)	244	28.88	1151	709	4.45	UG/L	100
9)	BUTYLBENZYLPHTHALATE		149	30.75	1242	571	4.87	UG/L	77
0)	~~BUTYLBENZYLPHTHALATE~~		~~149~~	~~31.02~~	~~1250~~	~~172~~	~~1.45~~	~~UG/L~~	14
0)	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.49~~	~~1288~~	~~318~~	~~2.93~~	~~UG/L~~	100
0)	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.74~~	~~1340~~	~~346~~	~~2.76~~	~~UG/L~~	100
0)	~~BIS-2-ETHYLHEXYL PHTHALATE~~		~~149~~	~~32.47~~	~~1329~~	~~440~~	~~2.80~~	~~UG/L~~	1
0)	~~BIS-2-ETHYLHEXYL PHTHALATE~~		~~149~~	~~32.65~~	~~1335~~	~~414~~	~~2.60~~	~~UG/L~~ No B/N	1
0)	~~BIS-2-ETHYLHEXYL PHTHALATE~~		~~149~~	~~32.71~~	~~1339~~	~~705~~	~~4.03~~	~~UG/L~~	83
0)	~~BIS-2-ETHYLHEXYL PHTHALATE~~		~~149~~	~~32.92~~	~~1347~~	~~1022~~	~~6.33~~	~~UG/L~~	80
0)	~~BIS-2-ETHYLHEXYL PHTHALATE~~		~~149~~	~~33.01~~	~~1350~~	~~1303~~	~~9.26~~	~~UG/L~~	40
4)	*PERYLENE-D12	(IS)	264	35.91	1494	72810	40.00	UG/L	100
0)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.37~~	~~1407~~	~~694~~	~~2.00~~	~~UG/L~~	100
0)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.90~~	~~1428~~	~~376~~	~~1.27~~	~~UG/L~~	100
0)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.97~~	~~1430~~	~~487~~	~~1.39~~	~~UG/L~~ No B/N	0
5)	DI-N-OCTYL PHTHALATE		149	34.62	1431	1418	4.78	UG/L	100
0)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.97~~	~~1443~~	~~327~~	~~2.00~~	~~UG/L~~	100
0)	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~37.[illegible]~~	~~1523~~	~~423~~	~~1.00~~	~~UG/L~~	100
0)	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~37.82~~	~~1523~~	~~323~~	~~1.11~~	~~UG/L~~	100

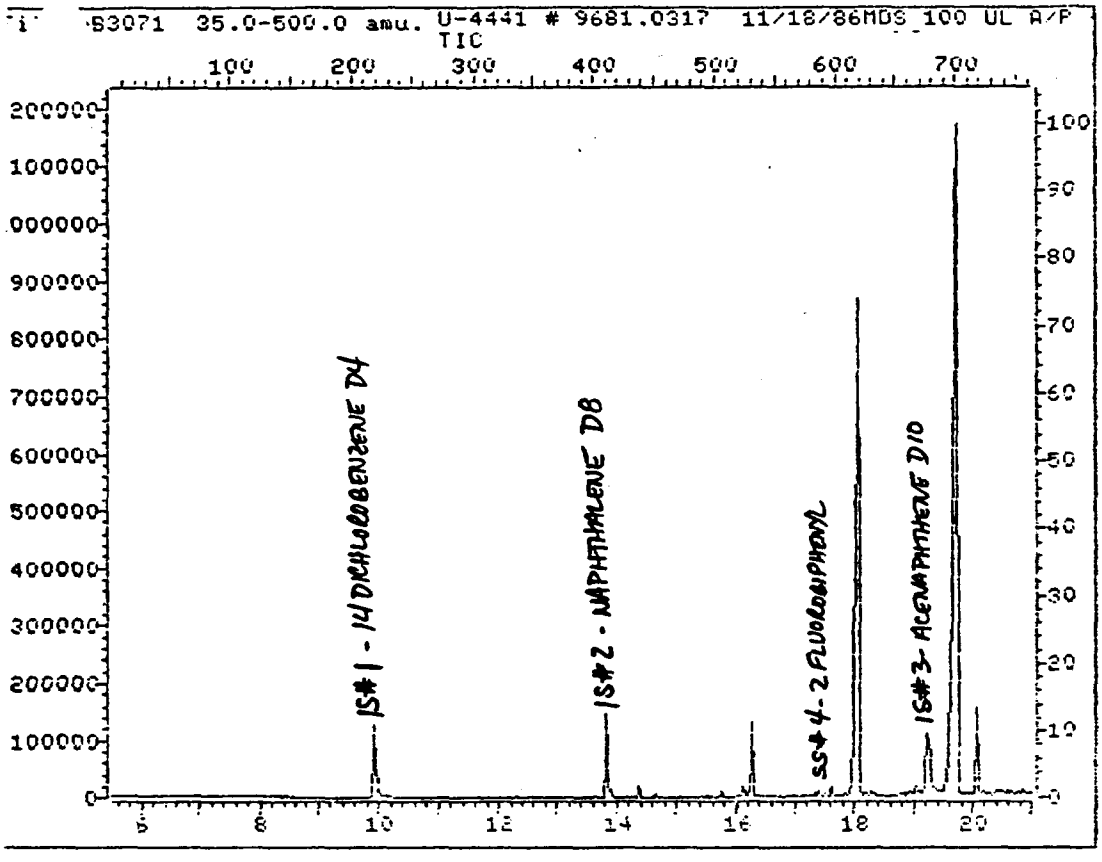
* Compound is ISTD

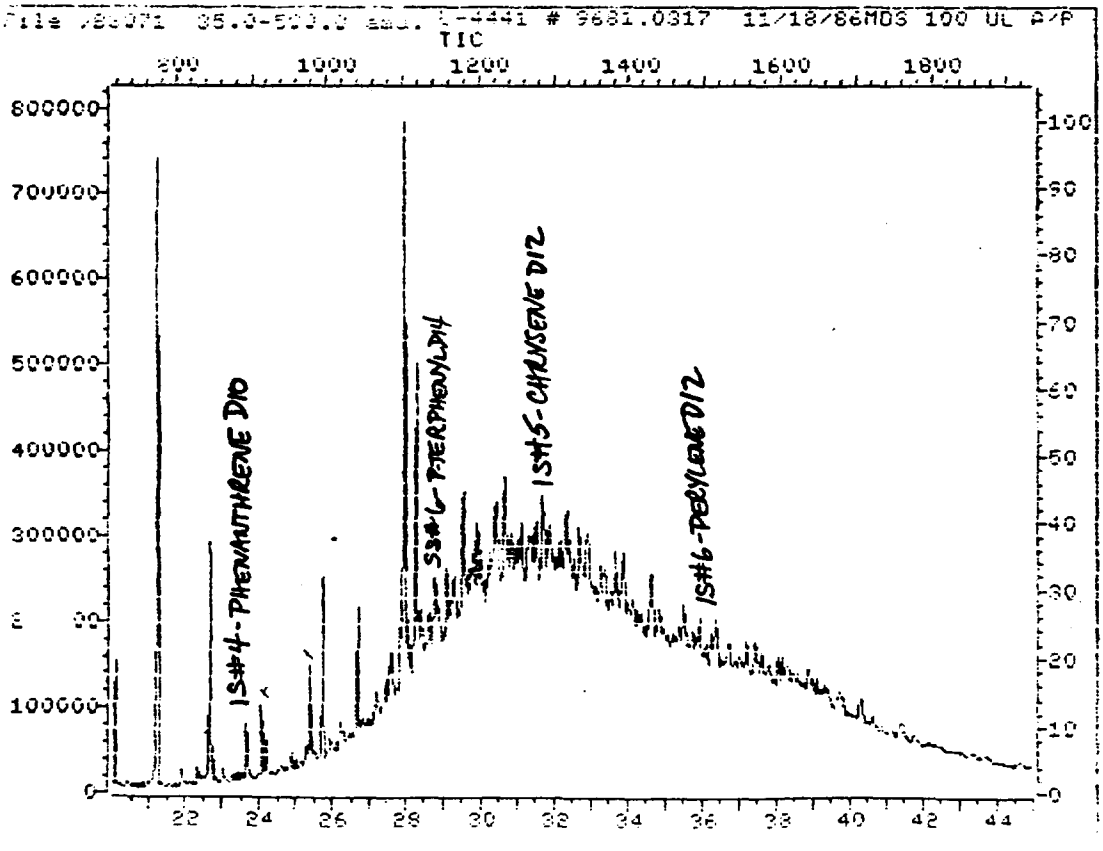


Data File: >B3071::D4
Name: U-4441 # 9681.0317
Misc: 11/18/86MDS 100 UL A/P + 400UL MECL2 + 5 UL IS (5X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

Operator ID: USER8
Quant Time: 861119 21:40
Injected at: 861119 20:52


83071 35.0-500.0 amu. U-4441 # 9681.0317 11/18/86MDS 100 UL A/P
TIC
IS#1 - 1/4 DICHLOROBENZENE D4
IS#2 - NAPHTHALENE D8
SS#4 - 2 FLUOROBIPHENYL
IS#3 - ACENAPHTHENE D10


File 83071 35.0-500.0 amu. U-4441 # 9681.0317 11/18/86MDS 100 UL A/P
TIC
IS#4 - PHENANTHRENE D10
SS#6 - P-TERPHENYL D14
IS#5 - CHRYSENE D12
IS#6 - PERYLENE D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 21:40
Output File: ^B3071::Q2 Injected at: 861119 20:52
Data File: >B3071::D4 Dilution Factor: 5.00
Name: U-4441 # 9681.0317 B/N
Misc: 11/~~18~~ 19/86MDS 100 UL ~~A/P~~ CS + 400UL MECL2 + 5 UL IS (5X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

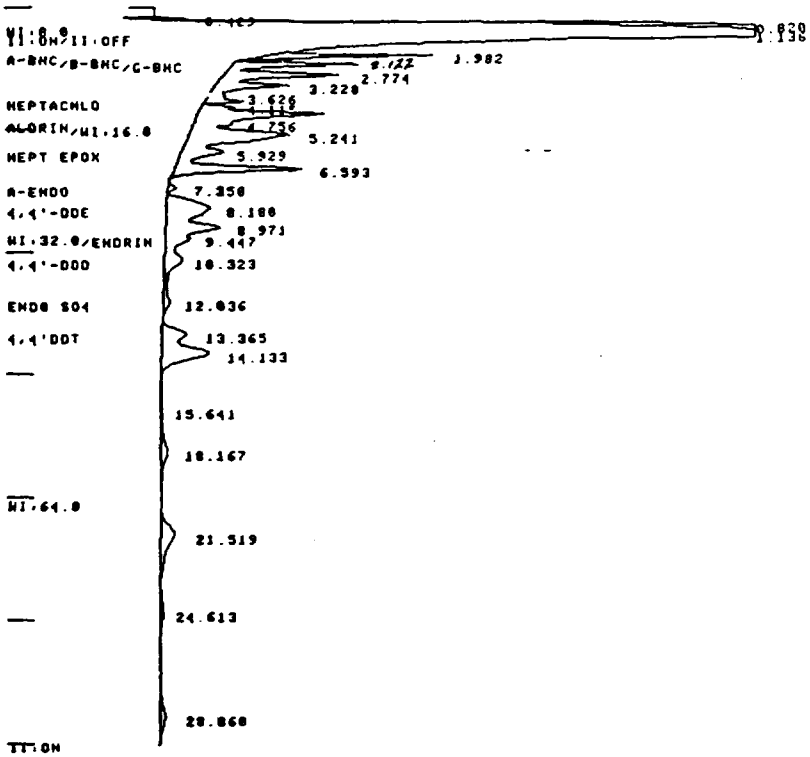
	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	9.93	219	63742	40.00	UG/L	87
19)	*NAPHTHALENE-D8 (IS)	136	13.84	411	194781	40.00	UG/L	100
~~29)~~	~~NAPHTHALENE~~	~~128~~	~~13.88~~	~~413~~	~~411~~	~~.48~~	~~UG/L~~	100
33)	2-METHYLNAPHTHALENE	142	16.07	521	1574	2.84	UG/L	94
~~33)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~16.36~~	~~535~~	~~1480~~	~~2.67~~	~~UG/L~~	99
34)	*ACENAPHTHENE-D10 (IS)	162	19.23	676	64900	40.00	UG/L	98
38)	2-FLUOROBIPHENYL (SURR)	172	17.40	586	3322	6.16	UG/L	95
~~41)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~19.13~~	~~671~~	~~757~~	~~1.53~~	~~UG/L~~	100
~~41)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~19.25~~	~~677~~	~~19595~~	~~34.58~~	~~UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~	~~168~~	~~19.39~~	~~684~~	~~729~~	~~1.34~~	~~UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~	~~168~~	~~19.53~~	~~691~~	~~364~~	~~.67~~	~~UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~	~~168~~	~~19.74~~	~~701~~	~~4830~~	~~8.87~~	~~UG/L~~	100
~~49)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~20.06~~	~~717~~	~~532~~	~~10.11~~	~~UG/L~~	100
~~49)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~21.24~~	~~776~~	~~324~~	~~6.16~~	~~UG/L~~	100
~~52)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~19.23~~	~~676~~	~~8670~~	~~80.54~~	~~UG/L~~	100
~~52)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~19.39~~	~~684~~	~~293~~	~~2.72~~	~~UG/L~~	100
~~52)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~19.53~~	~~691~~	~~130~~	~~1.21~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10 (IS)	188	23.67	894	71995	40.00	UG/L	91
61)	PHENANTHRENE	178	23.73	897	1512	4.36	UG/L	78
~~62)~~	~~ANTHRACENE~~	~~178~~	~~23.73~~	~~897~~	~~1512~~	~~4.27~~	~~UG/L~~	78
~~63)~~	~~DI-N-BUTYLPHTHALATE~~	~~149~~	~~25.77~~	~~992~~	~~277~~	~~.70~~	~~UG/L~~	1
63)	DI-N-BUTYLPHTHALATE	149	26.24	1020	2023	5.13	UG/L	42
~~63)~~	~~DI-N-BUTYLPHTHALATE~~	~~149~~	~~26.32~~	~~1024~~	~~355~~	~~.90~~	~~UG/L~~	1
~~63)~~	~~DI-N-BUTYLPHTHALATE~~	~~149~~	~~26.53~~	~~1034~~	~~346~~	~~.88~~	~~UG/L~~	33
65)	*CHRYSENE-D12 (IS)	240	31.86	1294	49670	40.00	UG/L	100
~~66)~~	~~BENZIDINE~~	~~184~~	~~27.96~~	~~1104~~	~~560~~	~~560.00~~	~~NO CAL~~	B100
~~66)~~	~~BENZIDINE~~	~~184~~	~~28.31~~	~~1121~~	~~492~~	~~492.00~~	~~NO CAL~~	B100
~~66)~~	~~BENZIDINE~~	~~184~~	~~28.37~~	~~1124~~	~~142~~	~~132.00~~	~~NO CAL~~	B100
~~66)~~	~~BENZIDINE~~	~~184~~	~~28.66~~	~~1149~~	~~340~~	~~340.00~~	~~NO CAL~~	B100
68)	TERPHENYL-D14 (SURR)	244	28.90	1150	1013	4.84	UG/L	100
69)	BUTYLBENZYLPHTHALATE	149	30.77	1241	1834	11.92	UG/L	71
~~69)~~	~~BUTYLBENZYLPHTHALATE~~	~~149~~	~~31.04~~	~~1254~~	~~160~~	~~1.04~~	~~UG/L~~	40
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~31.70~~	~~1294~~	~~1569~~	~~23.42~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~31.80~~	~~1295~~	~~540~~	~~8.10~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~31.94~~	~~1299~~	~~419~~	~~6.25~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~32.31~~	~~1316~~	~~692~~	~~10.33~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~32.50~~	~~1326~~	~~379~~	~~5.64~~	~~UG/L~~	100
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~32.35~~	~~1318~~	~~473~~	~~2.25~~	~~UG/L~~	54
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~32.60~~	~~1328~~	~~323~~	~~1.54~~	~~UG/L~~	73
72)	BIS(2-ETHYLHEXYL)PHTHALATE	149	32.83	1341	1414	6.73	UG/L	84
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~33.16~~	~~1357~~	~~401~~	~~1.91~~	~~UG/L~~	1
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~33.[illegible]~~	~~1367~~	~~971~~	~~4.62~~	~~UG/L~~	81
74)	*PERYLENE-D12 (IS)	264	35.93	1492	49613	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~34.1[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~3.07~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~34.67~~	~~[illegible]~~	~~[illegible]~~	~~3.21~~	~~UG/L~~	100
75)	DI-N-OCTYL PHTHALATE	149	34.63	1429	14414	35.68	UG/L	100

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
5)	DI-N-OCTYL PHTHALATE	149	34.98	1446	1819	4.59	UG/L	100
5)	DI-N-OCTYL PHTHALATE	149	35.09	1451	1161	2.37	UG/L	100
6)	BENZO(B)FLUORANTHENE	252	34.59	1427	1121	4.08	UG/L	100
6)	BENZO(B)FLUORANTHENE	252	34.78	1436	286	.74	UG/L	100
6)	BENZO(B)FLUORANTHENE	252	34.96	1440	620	2.21	UG/L	100
6)	BENZO(B)FLUORANTHENE	252	35.19	1456	230	.82	UG/L	100
7)	BENZO(K)FLUORANTHENE	252	34.59	1427	1121	4.08	UG/L	100
7)	BENZO(K)FLUORANTHENE	252	34.78	1436	286	.75	UG/L	100
7)	BENZO(K)FLUORANTHENE	252	34.96	1440	620	2.26	UG/L	100
7)	BENZO(K)FLUORANTHENE	252	35.19	1456	230	.84	UG/L	100
73)	BENZO(A)PYRENE	252	35.50	1471	488	1.94	UG/L	100
73)	BENZO(A)PYRENE	252	35.56	1474	301	1.20	UG/L	100
73)	BENZO(A)PYRENE	252	35.79	1481	332	1.32	UG/L	100
73)	BENZO(A)PYRENE	252	35.93	1492	256	1.02	UG/L	100
73)	BENZO(A)PYRENE	252	36.25	1508	237	.94	UG/L	100

No

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 31 19:45 12 NOV 86

SAMPLE: 9681.04.16 METHOD: CEPA CALCULATION: ES - ANALYS
DF=150

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.982		112897	BV	5.06
2	A-BHC <7.6u	1.3991	2.122	-0.008	21621	VV	2.63
3	~~B-BHC~~	20.4879	2.355	0.085	147457	VV	6.75
4	~~B-BHC~~	12.6896	2.774	0.224	179132	VV	10.81
5		0.0000	3.228		144124	VV	8.44
6	~~HEPTACHLO~~	3.8948	3.840	-0.100	44706	VV	6.13
7		0.0000	4.115		33284	VV	? 8.69
8		0.0000	4.379		260249	VV	14.63
9	~~ALORIN~~	4.1215	4.756	-0.094	54413	VV	? 23.13
10		0.0000	5.241		330455	VV	24.69
11	HEPT EPOX <7.5u	~~0.0137~~	5.929	0.049	~~[illegible]~~	VV	14.19
12		0.0000	6.593		269722	VB	14.75
13	~~4,4'-DDE~~	19.0678	8.180	-0.200	226190	VV	? 49.69
14		0.0000	8.971		162798	VV	24.81
15	ENDRIN <15u	~~0.0243~~	9.447	-0.003	~~[illegible]~~	VV	? 35.50
16	4,4'-DDD <15u	~~0.3208~~	10.323	~~-0.247~~	~~[illegible]~~	VV	35.50
17	~~ENDO SO4~~	3.0438	12.036	-0.274	28668	VV	22.81
18	~~4,4'DDT~~	16.3098	13.365	-0.315	91372	VV	? 30.81
19		0.0000	14.133		216174	VB	35.44
20		0.0000	18.167		55145	VB	50.50
21		0.0000	21.519		113058	BB	58.06
22		0.0000	28.860		42685	BB	61.00
TOTALS:		114.5685		-0.883	2629032		

DETECTED PKS: 33 REJECTED PKS: 11

DIVISOR: 1.00000 MULTIPLIER: 1500.00000

NOISE: 34.3 OFFSET: 2

RACK: 3 VIAL: 1 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY386

SAMPLE NUMBER DC-SW-L3

Sample Number
DC-SW-13

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431 / U-4441

Lab Sample ID No: 9682

QC Report No:

Sample Matrix: Water

Contract No: U-3140

Data Release Authorized By: C Slotowicz

Date Sample Received: 11-7-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	~~5u~~ 4BJ
67-64-1	Acetone	~~10u~~ 6BJ
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	~~5u~~ 3J
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	~~5u~~ 7
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	~~5u~~ 41
56-23-5	Carbon Tetrachloride	~~5u~~ 31
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	[illegible]
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 [illegible] been confirmed by GC/MS. Single component [illegible] ng/ul in the final extract should be confirmed [illegible] MS

B This flag is used when the analyte is found [illegible] sample. It indicates possible/probable blank [illegible] warns the data user to take appropriate action

Other Other specific flags and footnotes may be required [illegible] the results. If used, they must be fully described [illegible] attached to the data summary report

Laboratory Name Ecology & Environment

Case No: U-4431- U-4441

Sample Number: DC-SW-13

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-19-86

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	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/L or ug/Kg) (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	~~10u~~ 27B
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~10u~~ 5J
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	~~10u~~ 1J
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1. 2. 3-cd)Pyrene	10u
53-70-3	Dibenzo(a. h)Anthracene	10u
191-24-2	Benzo(g. h. i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4441

Sample Number DC-SW-13

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-16-86

Date Analyzed: 11-12-86

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Ex[illegible]

CAS Number		(ug/L or ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	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 1,000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name ecology and environment, inc.

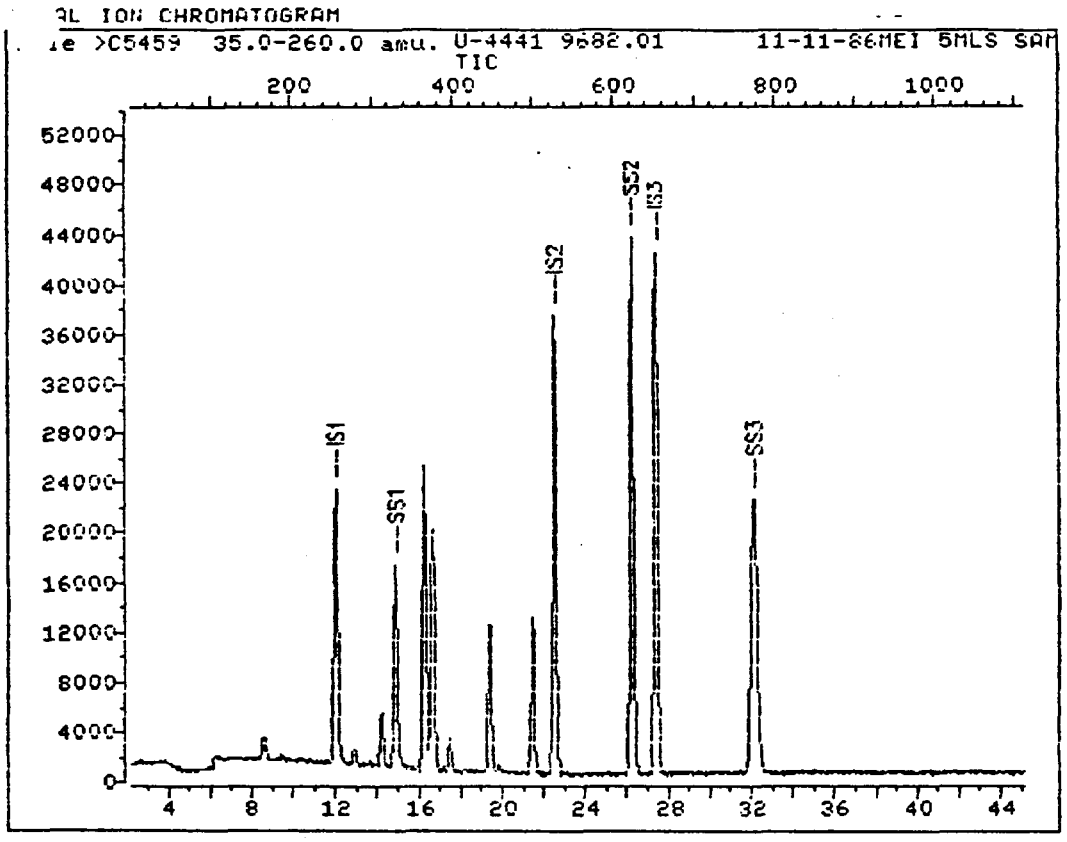
Case No U-4441 / U-4431

Sample Number DC-SW-13

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

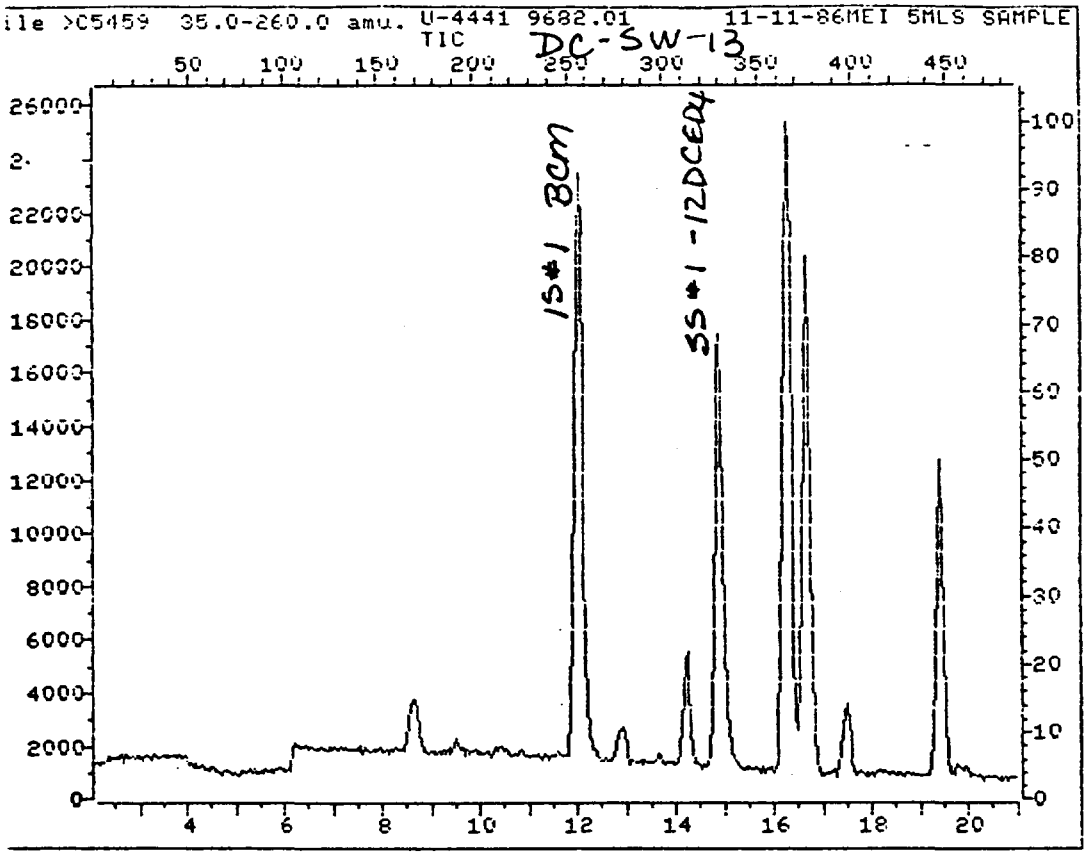
	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		Hexene isomer	VOA	17.5 min	2.7 B
2.		Hexane isomer	VOA	21.5 min	2.3 B
3.					
4.		UNKNOWN HYDROCARBON	BNA	18.0	26
5.		UNKNOWN HYDROCARBON		19.6	81
6.		UNKNOWN HYDROCARBON		21.2	37
7.		UNKNOWN HYDROCARBON		22.7	7.9
8.		UNKNOWN HYDROCARBON		25.4	3.3
9.		UNKNOWN		26.7	4.2
10.	2196449B	1,13-TETRADECADIENE		27.6	6.6 B
11.		UNKNOWN HYDROCARBON		27.9	8.4
12.		UNKNOWN HYDROCARBON		29.5	14
13.		UNKNOWN		30.9	10
14.	78513	2-BUTOXYETHANOL PHOSPHATE		31.5	48
15.		UNKNOWN		35.0	83 B
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

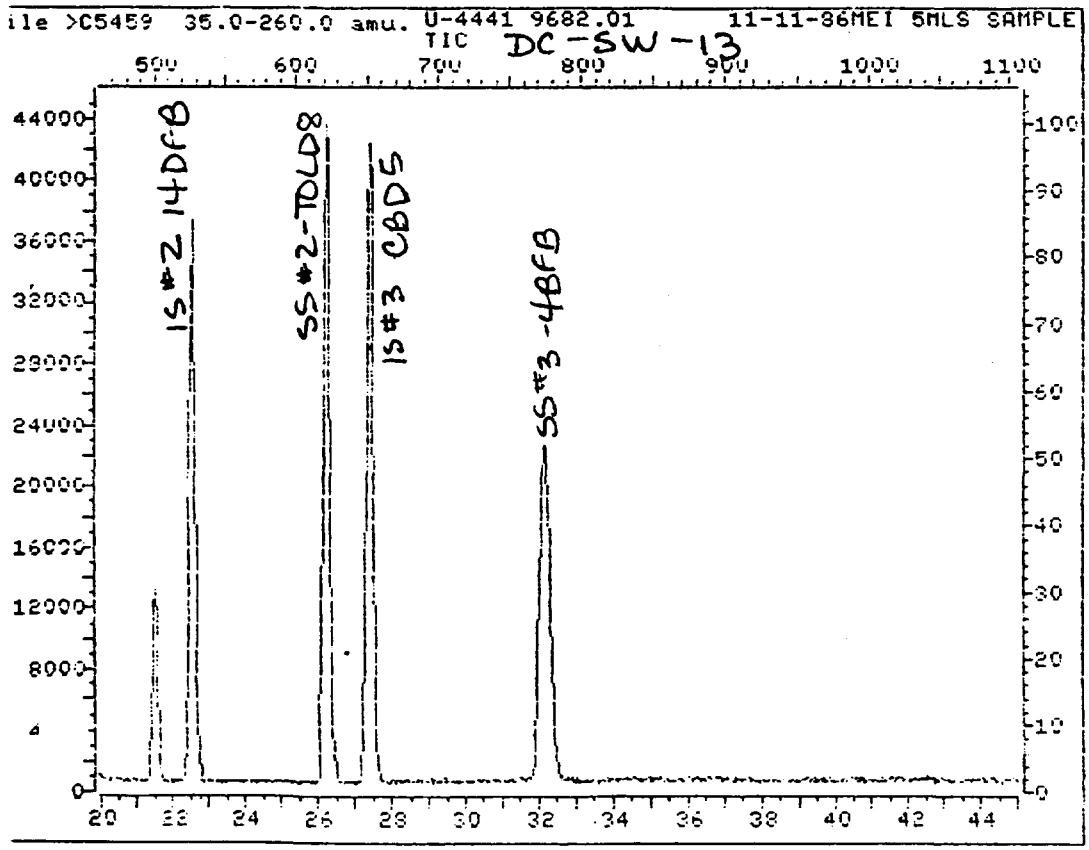


Data File: >C5459::D3
Name: U-4441 9682.01 DC-SW-13
Misc: 11-11-86MEI 5MLS SAMPLE + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 13:22

Operator ID: USER8
Quant Time: 861111 18:58
Injected at: 861111 18:12


ile >C5459 35.0-260.0 amu. U-4441 9682.01 11-11-86MEI 5MLS SAMPLE
TIC
DC-SW-13
IS#1 BCM
SS#1 -12DCEB4


ile >C5459 35.0-260.0 amu. U-4441 9682.01 11-11-86MEI 5MLS SAMPLE
TIC
DC-SW-13
IS#2 14DFB
SS#2-TOLD8
IS#3 CBD5
SS#3 -4BFB

QUANT REPORT

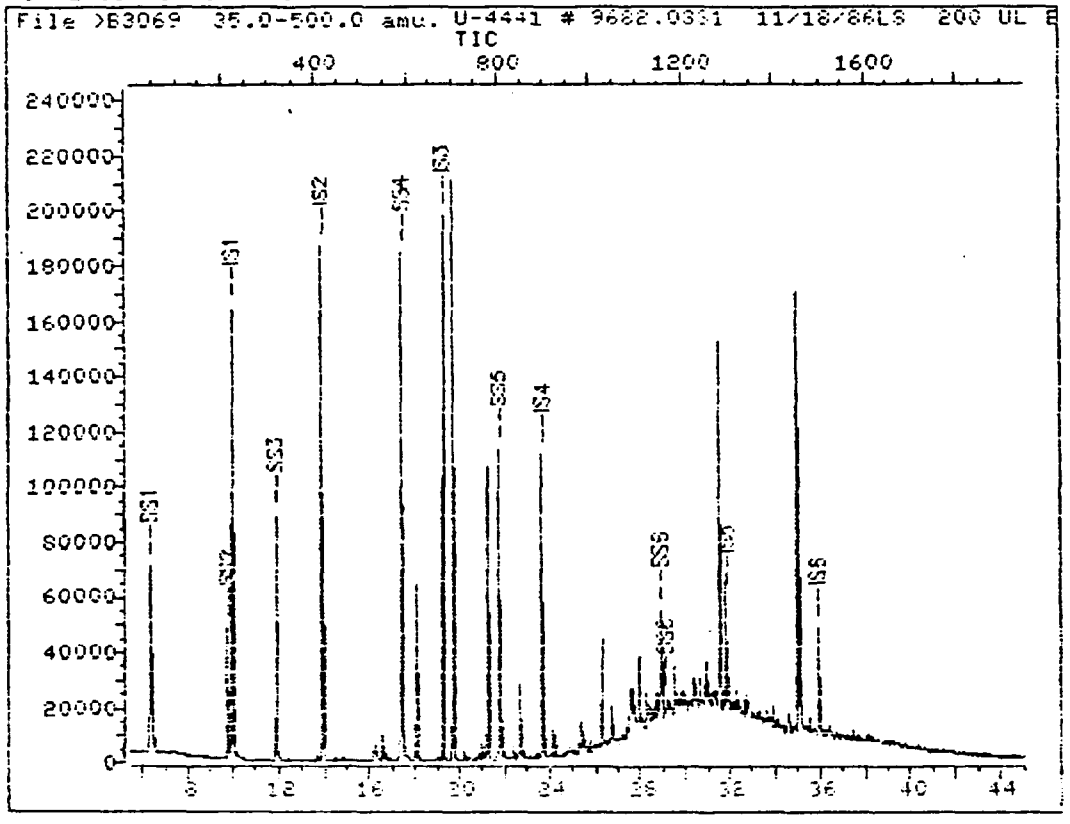
perator ID: USER8 Quant Rev: 4 Quant Time: 861111 18:58
utput File: ^C5459::D2 Injected at: 861111 18:12
ata File: >C5459::D3 Dilution Factor: 1.00
ame: U-4441 9682.01 DC-SW-13
isc: 11-11-86MEI 5MLS SAMPLE + 10UL IS/SS

D File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861111 13:22

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	12.03	256	34678	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.62	168	6206	4.38	UG/L	100
7)	ACETONE	43	9.55	192	3034	6.07	UG/L	100
11)	1,1-DICHLOROETHANE	63	12.92	279	8412	3.32	UG/L	98
3)	CHLOROFORM	83	14.24	313	17857	6.61	UG/L	100
5)	1,2-DICHLOROETHANE-D4(SURR)	65	14.90	330	70984	43.22	UG/L	89
6)	*1,4-DIFLUOROBENZENE (IS)	114	22.54	527	157934	50.00	UG/L	100
8)	1,1,1-TRICHLOROETHANE	97	16.26	365	84530	40.50	UG/L	97
9)	~~CARBON TETRACHLORIDE~~	~~117~~	~~16.26~~	~~365~~	~~11219~~	~~5.26~~	~~UG/L~~	~~98~~
9)	CARBON TETRACHLORIDE	117	16.65	375	66612	31.23	UG/L	94
4)	TRICHLOROETHENE	130	19.40	446	22396	15.96	UG/L	85
1)	*CHLOROBENZENE-D5 (IS)	117	27.40	652	134150	50.00	UG/L	100
6)	TOLUENE-D8 (SURR)	98	26.23	622	173518	46.54	UG/L	95
8)	4-BROMOFLUOROBENZENE(SURR)	95	32.17	775	88334	46.43	UG/L	100

* Compound is ISTD

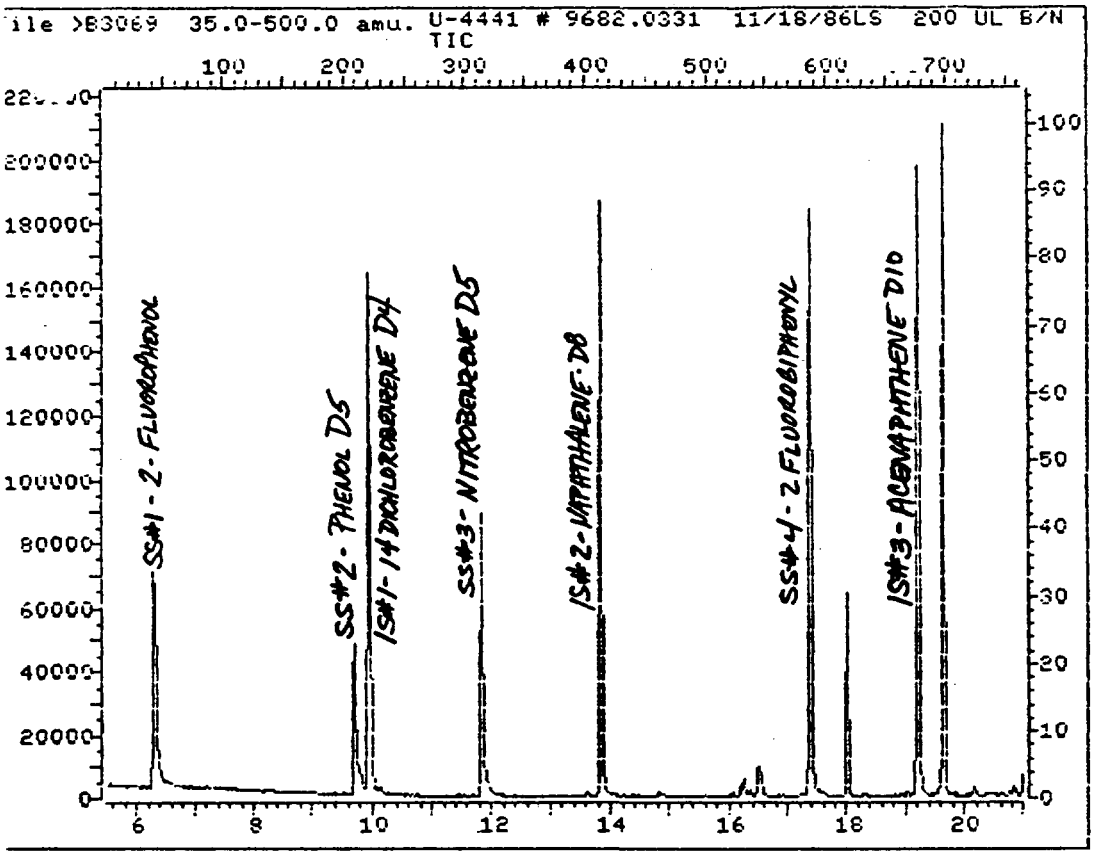
TOTAL ION CHROMATOGRAM

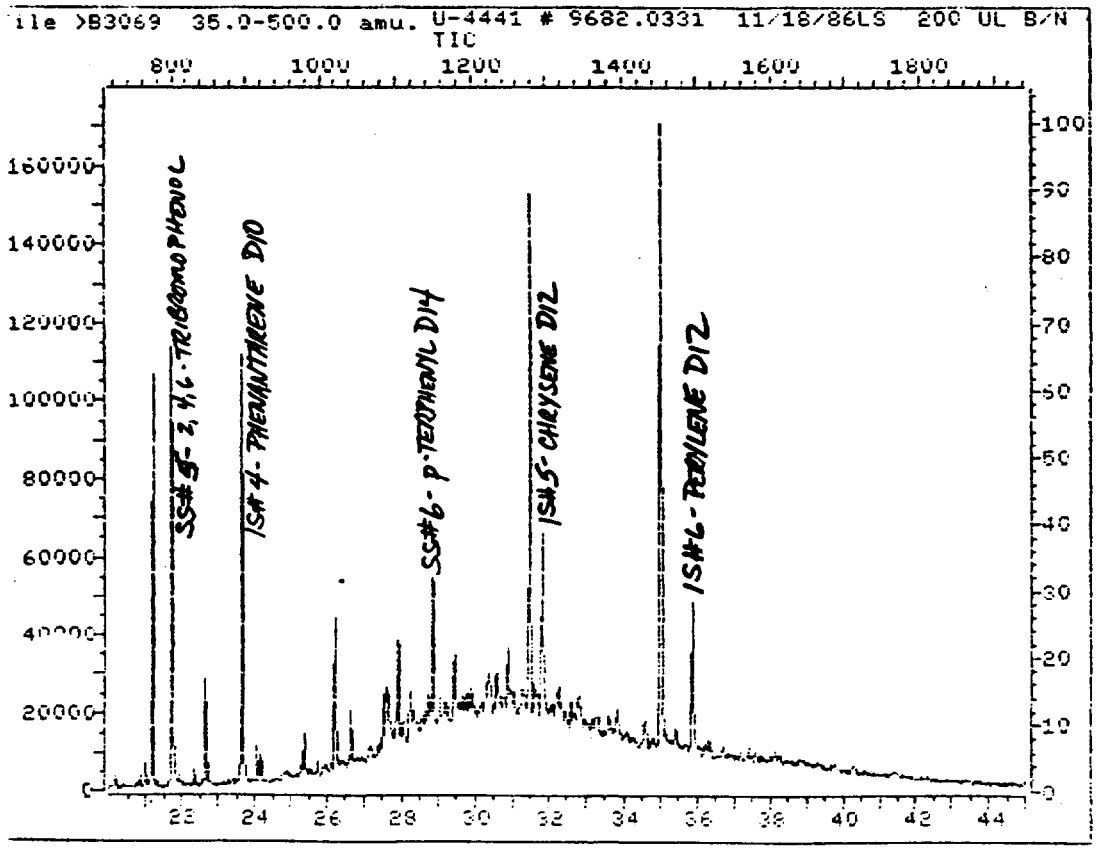


Data File: >B3069::D4
Name: U-4441 # 9682.0331
Misc: 11/18/86LS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

Is File: BNA8P::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

Operator ID: USER8
Quant Time: 861119 19:55
Injected at: 861119 19:07


ile >B3069 35.0-500.0 amu. U-4441 # 9682.0331 11/18/86LS 200 UL B/N
TIC
SS#1 - 2-FLUOROPHENOL
SS#2 - PHENOL D5
IS#1 - 1,4 DICHLOROBENZENE D4
SS#3 - NITROBENZENE D5
IS#2 - NAPHTHALENE D8
SS#4 - 2 FLUOROBIPHENYL
IS#3 - ACENAPHTHENE D10


ile >B3069 35.0-500.0 amu. U-4441 # 9682.0331 11/18/86LS 200 UL B/N
TIC
SS#5 - 2,4,6-TRIBROMOPHENOL
IS#4 - PHENANTHRENE D10
SS#6 - p-TERPHENYL D14
IS#5 - CHRYSENE D12
IS#6 - PERYLENE D12

QUANT REPORT

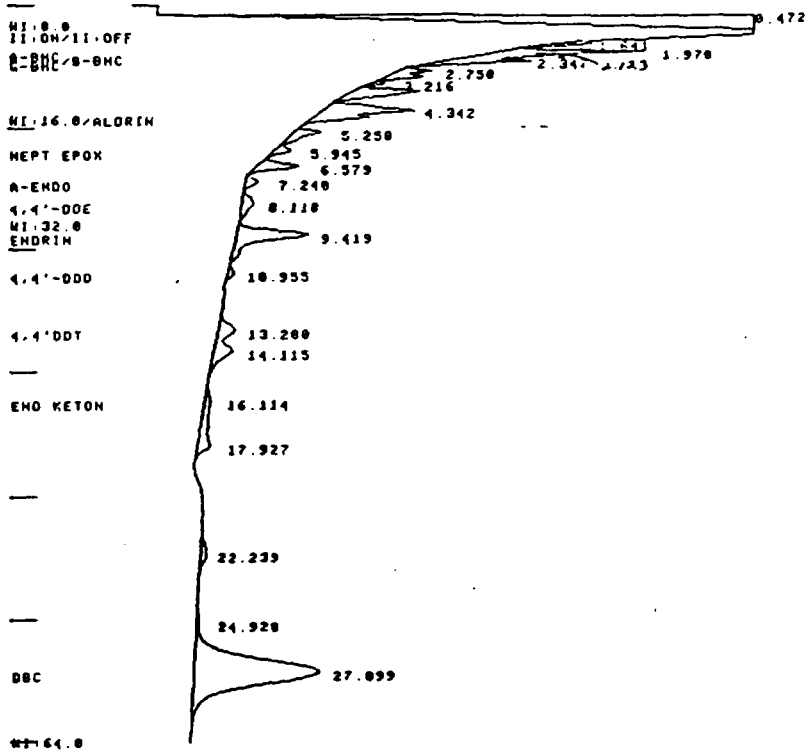
Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 19:59
Output File: ^B3069::Q2 Injected at: 861119 19:07
Data File: >B3069::D4 Dilution Factor: 2.00
Name: U-4441 # 9682.0331
Misc: 11/19/86LS 200 UL B/N + 200UL A/P + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.96	221	70634	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.71	209	64401	59.05	UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	6.30	41	71346	87.38	UG/L	93
~~6)~~	~~PHENOL~~		~~94~~	~~9.73~~	~~210~~	~~452~~	~~.40~~	~~UG/L~~	46
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.83~~	~~313~~	~~12643~~	~~15.45~~	~~UG/L~~	78
19)	*NAPHTHALENE-D8	(IS)	136	13.84	412	229676	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.83	313	81986	84.65	UG/L	90
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.90~~	~~415~~	~~669~~	~~.26~~	~~UG/L~~	100
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.08~~	~~522~~	~~929~~	~~.57~~	~~UG/L~~	80
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.76~~	~~536~~	~~1052~~	~~.64~~	~~UG/L~~	92
34)	*ACENAPHTHENE-D10	(IS)	162	19.23	677	102044	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.40	587	159102	75.06	UG/L	95
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.23~~	~~677~~	~~30281~~	~~15.56~~	~~UG/L~~	100
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.39~~	~~680~~	~~217~~	~~.11~~	~~UG/L~~	100
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.76~~	~~683~~	~~219~~	~~.11~~	~~UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~19.45~~	~~498~~	~~341~~	~~.16~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.71	799	48831	156.46	UG/L	96
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.93~~	~~677~~	~~13715~~	~~32.39~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.66	895	126620	40.00	UG/L	94
63)	DI-N-BUTYLPHTHALATE		149	26.22	1021	47091	27.17	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.81	1295	64890	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.85	1150	43892	64.27	UG/L	100
~~68)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~29.86~~	~~1168~~	~~161~~	~~.24~~	~~UG/L~~	100
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.32~~	~~1322~~	~~245~~	~~.33~~	~~UG/L~~	41
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.79	1343	3132	4.56	UG/L	95
74)	*PERYLENE-D12	(IS)	264	35.88	1495	57960	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.99~~	~~1487~~	~~431~~	~~.37~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.76~~	~~1424~~	~~95~~	~~.41~~	~~UG/L~~	100
75)	DI-N-OCTYL PHTHALATE		149	34.62	1433	1349	1.14	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.04~~	~~1444~~	~~387~~	~~.33~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.01~~	~~1492~~	~~1734~~	~~1.47~~	~~UG/L~~	100

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 34 21:32 12 NOV 86

DF=1

SAMPLE: 9682.04.16 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.641		20467	BV	3.56
2		0.0000	1.978		125025	VV	5.25
3	A-BHC 0.05u	0.0322	2.123	-0.007	74635	VV	4.06
4	~~B-BHC~~	0.1494	2.347	0.077	115990	VV	5.31
5	~~B-BHC~~	0.0151	2.750	0.200	31946	VV	6.31
6		0.0000	2.967		47517	VV	7.63
7		0.0000	3.555		136480	VV	14.19
8		0.0000	4.342		194909	VV	? 15.00
9	~~ALDRIN~~	0.0429	4.604	-0.246	84955	VV	? 12.19
10		0.0000	5.250		63622	VV	11.06
11	HEPT EPOX 0.05u	0.0207	5.945	0.065	38259	VV	11.19
12		0.0000	6.579		79388	VV	13.56
13	A-ENDO 0.05u	0.0138	7.240	-0.050	24117	VV	18.75
14	~~4,4'-DDE~~	0.0289	8.118	-0.262	51452	VB	? 37.94
Negative 15	ENDRIN Carrier	0.1473	9.419	-0.031	247393	BV	23.19
16	~~4,4'-DDT~~	0.0813	13.280	-0.400	68297	BV	30.63
17		0.0000	14.115		93260	VB	25.38
18	~~END KETON~~	0.0445	16.114	0.354	80954	BV	47.50
19		0.0000	17.927		60043	VB	16.25
20		0.0000	22.239		37970	BB	42.50
21	DBC 8/%	0.8079	27.099	-0.261	1152952	VB	65.94
TOTALS:		1.3841		-0.561	2829741		

DETECTED PKS: 27 REJECTED PKS: 6

DIVISOR: 1.00000 MULTIPLIER: 10.00000

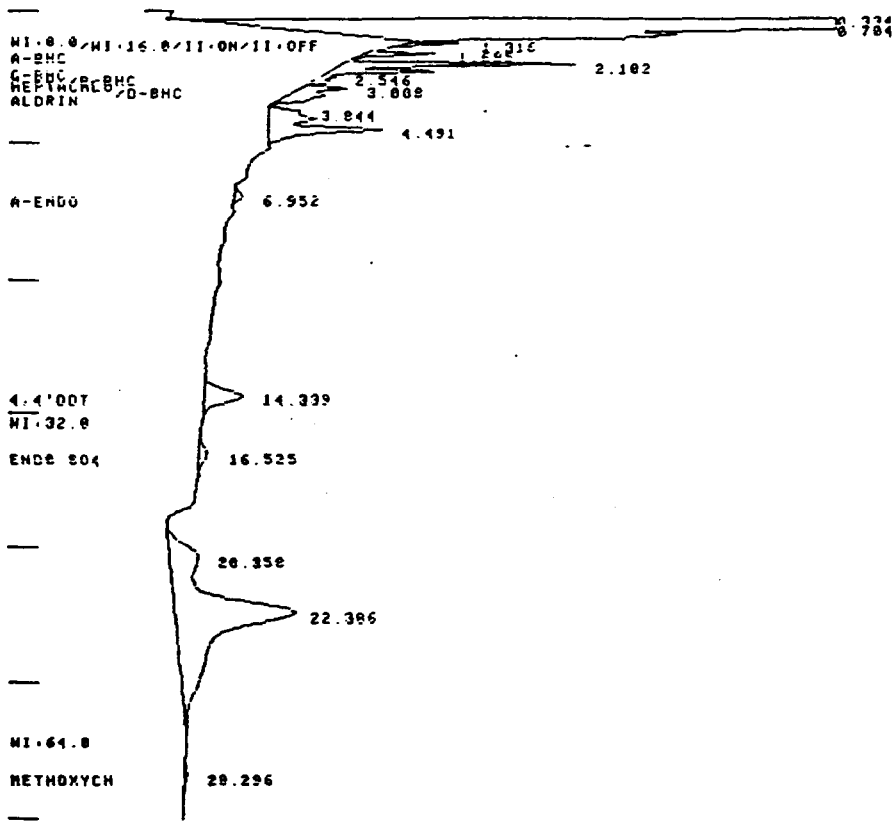
NOISE: 22.9 OFFSET: 21

RACK: 3 VIAL: 4 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY399

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 16 - 1 TITLE: RUN# // 2:33 14 NOV 86

SAMPLE: 9682.04.16 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/L~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.316		66240	BB	4.94
2	~~A-BHC~~	0.0303	1.665	0.015	69026	BV	4.06
3		0.0000	2.102		353116	VV	6.00
4	~~G-BHC~~	0.2064	2.344	-0.056	196568	VV	5.13
5	~~HEPTACHLOR~~	0.0175	2.719	-0.081	26832	VV	4.00
6		0.0000	3.008		104472	VV	7.31
7	~~B-BHC~~	0.0609	3.251	0.111	155703	VV	? 6.00
8		0.0000	3.644		72362	VV	? 14.75
9		0.0000	4.126		181302	VV	? 23.86
10		0.0000	4.491		406452	VB	12.25
11	~~A-ENDO~~	0.0148	6.952	0.142	32311	BB	15.31
12	~~4,4'DDT~~	1.8779	14.339	0.389	296777	BB	31.13
13	~~ENDO SO4~~	0.0891	16.525	-0.525	87655	BB	33.63
14		0.0000	20.358		431368	BV	? 62.31
15		0.0000	22.366 ✓		2536017	VB	67.19
16	~~METHOXYCH~~	0.0000	28.296	0.766	22617	BB	? 35.25
TOTALS:		2.2939		0.761	5108838		

DETECTED PKS: 26 REJECTED PKS: 10

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 137.1 OFFSET: -8

RACK: 1 VIAL: 11 INJ: 1

NOTES:
NOTEBOOK:259-36 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB # U-4431;U-4441
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
PESTICIDE/PCB CONFIRMATIONS

POST RUN:

[illegible] SPIKE DATA

[illegible] OF HOLESPEED [illegible] POUNDS

[illegible] WEA[illegible] [illegible] PRESSURES

[illegible] AND HOLE REPORT [illegible]

[illegible] AND [illegible]

Sample Number
DC-SW-3-MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No. 9643-MS

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-10-86

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	~~5u~~ 10 B
67-64-1	Acetone	~~10u~~ 10 B
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	~~5u~~ 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	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~~ SPIKE
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	~~5u~~ 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	~~5u~~ SPIKE
108-90-7	Chlorobenzene	~~5u~~ 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

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 and environment, inc.

Case No: V-4431 / V-4441

Sample Number
DC SW-11 MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-19-86

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	SPIKE	
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	SPIKE	
541-73-1	1 3-Dichlorobenzene	10	U
106-46-7	1. 4-Dichlorobenzene	SPIKE	
100-51-6	Benzyl Alcohol	10	U
95-50-1	1. 2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2. 4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2. 4-Dichlorophenol	10	U
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	SPIKE	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2. 4. 6-Trichlorophenol	10	U
95-95-4	2. 4. 5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
[illegible]-2	3-Nitroaniline	50	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	SPIKE	
51-28-5	2. 4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	SPIKE	
132-64-9	Dibenzofuran	10	U
121-14-2	2 4-Dinitrotoluene	SPIKE	
606-20-2	2. 6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4. 6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	SPIKE	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	18	B
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	SPIKE	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3. 3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	4	J
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	10	U
53-70-3	Dibenzo(a h)Anthracene	10	U
191-24-2	Benzo(g h i)Perylene	10	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4431

Sample Number DC-SW-1 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.23	S
76-44-8	Heptachlor	0.18	S
309-00-2	Aldrin	0.17	S
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.48	S
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.48	S
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.58	S
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

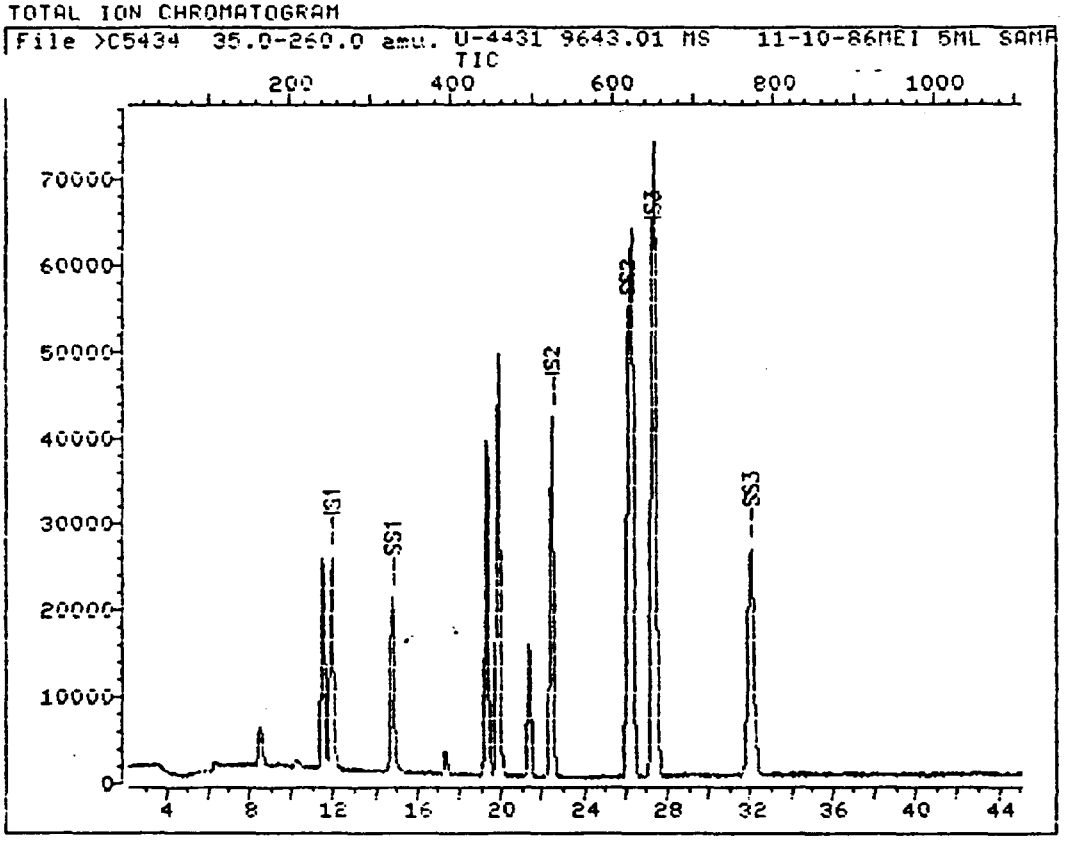
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

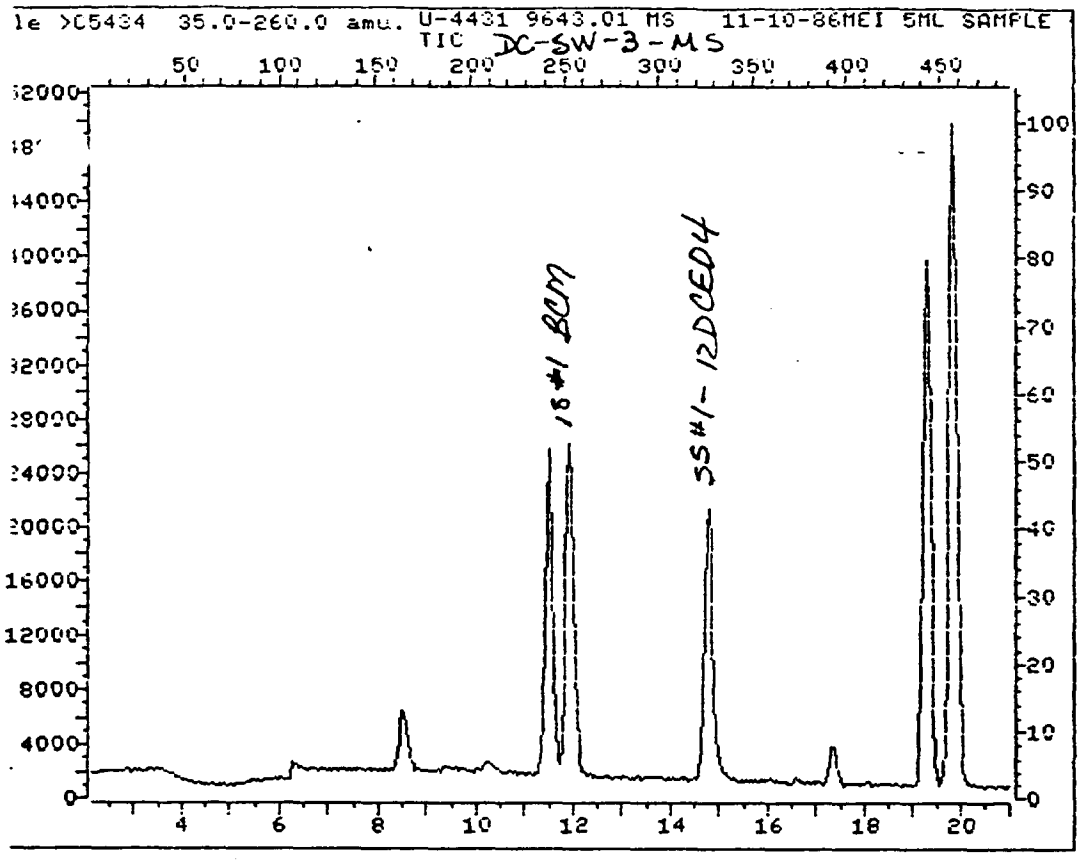
TOTAL ION CHROMATOGRAM

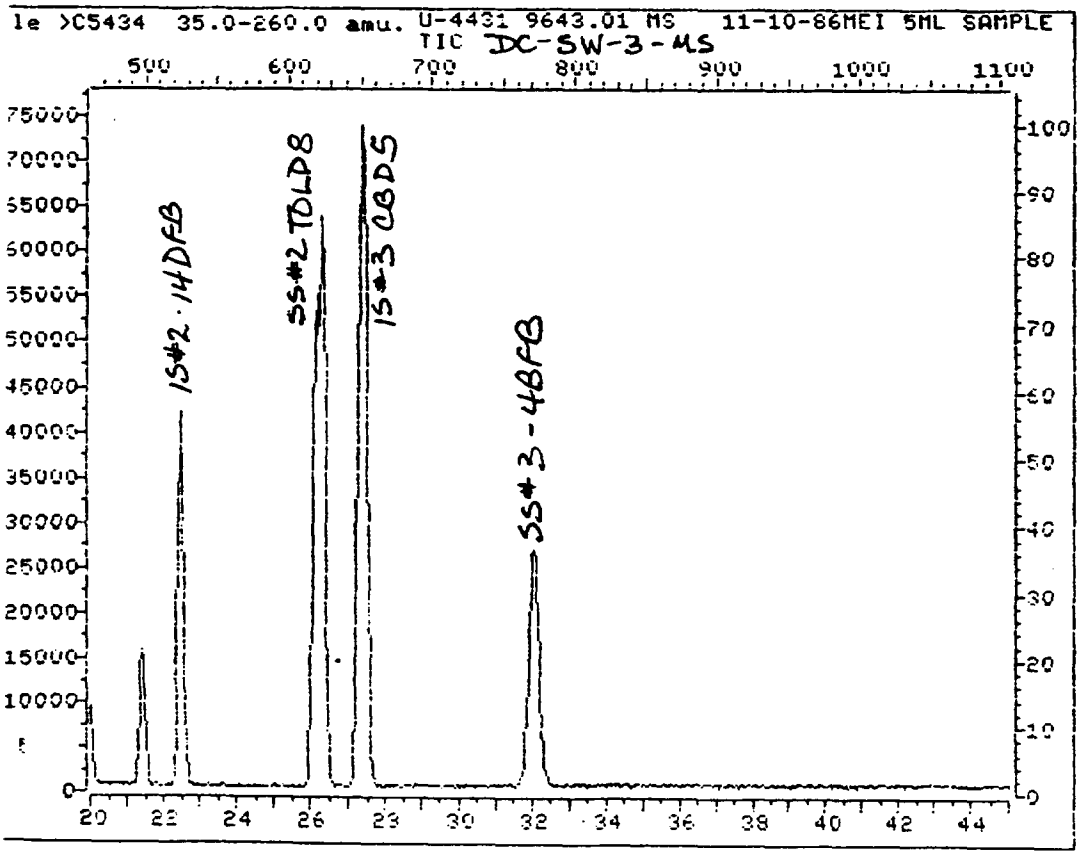


Data File: >C5434::D3
Name: U-4431 9643.01 MS DC-SW-3-MS
Misc: 11-10-86MEI 5ML SAMPLE + 10UL IS/SS/MS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

Operator ID: USER8
Quant Time: 861110 19:43
Injected at: 861110 18:57


le >C5434 35.0-260.0 amu. U-4431 9643.01 MS 11-10-86MEI 5ML SAMPLE
TIC DC-SW-3-MS
IS#1 BCM
SS#1- 12DCEDA


le >C5434 35.0-260.0 amu. U-4431 9643.01 MS 11-10-86MEI 5ML SAMPLE
TIC DC-SW-3-MS
IS#2 14DFB
SS#2 TOLD8
IS#3 OBDS
SS#3 - 4BFB

QUANT REPORT

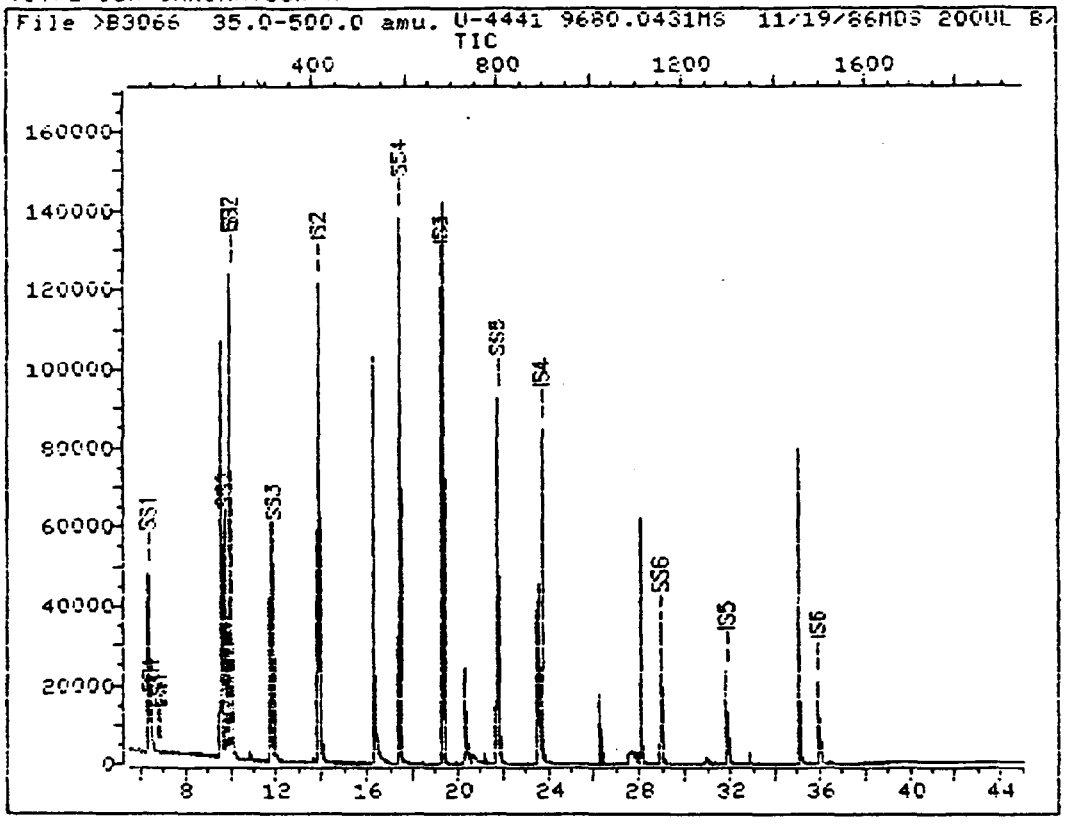
Operator ID: USER8 Quant Rev: 4 Quant Time: 861110 19:43
Output File: ^C5434::Q1 Injected at: 861110 18:57
Data File: >C5434::D3 Dilution Factor: 1.00
Name: U-4431 9643.01 MS DC-SW-3-MS
Misc: 11-10-86MEI 5ML SAMPLE + 10UL IS/SS/MS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.92	253	35420	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.51	165	12663	10.07	UG/L	100
7)	ACETONE		43	9.40	188	4819	9.98	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.25~~	~~210~~	~~8981~~	~~2.59~~	~~UG/L~~	~~100~~ no CW
10)	1,1-DICHLOROETHENE		61	11.49	242	98958	48.11	UG/L	97
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.79	327	89537	45.04	UG/L	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.47	525	174277	50.00	UG/L	105
~~17)~~	~~2-BUTANONE~~		~~72~~	~~14.91~~	~~330~~	~~2411~~	~~15.92~~	~~UG/L~~	no CW 100
24)	TRICHLOROETHENE		130	19.29	443	67029	53.02	UG/L	82
~~26)~~	~~1,1,2-TRICHLOROETHANE~~		~~97~~	~~19.29~~	~~443~~	~~48161~~	~~51.97~~	~~UG/L~~	no CW
27)	BENZENE		78	19.83	457	213961	53.76	UG/L	100
~~28)~~	~~CIS-1,3-DICHLOROPROPENE~~		~~75~~	~~19.83~~	~~457~~	~~4032~~	~~2.51~~	~~UG/L~~	~~100~~ no CW
31)	*CHLOROBENZENE-D5	(IS)	117	27.29	649	142897	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.12	619	197507	47.79	UG/L	96
37)	TOLUENE		92	26.31	624	146623	55.75	UG/L	95
38)	CHLOROBENZENE		112	27.40	652	165473	51.84	UG/L	99
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.02	771	101261	45.42	UG/L	100

* Compound is ISTD

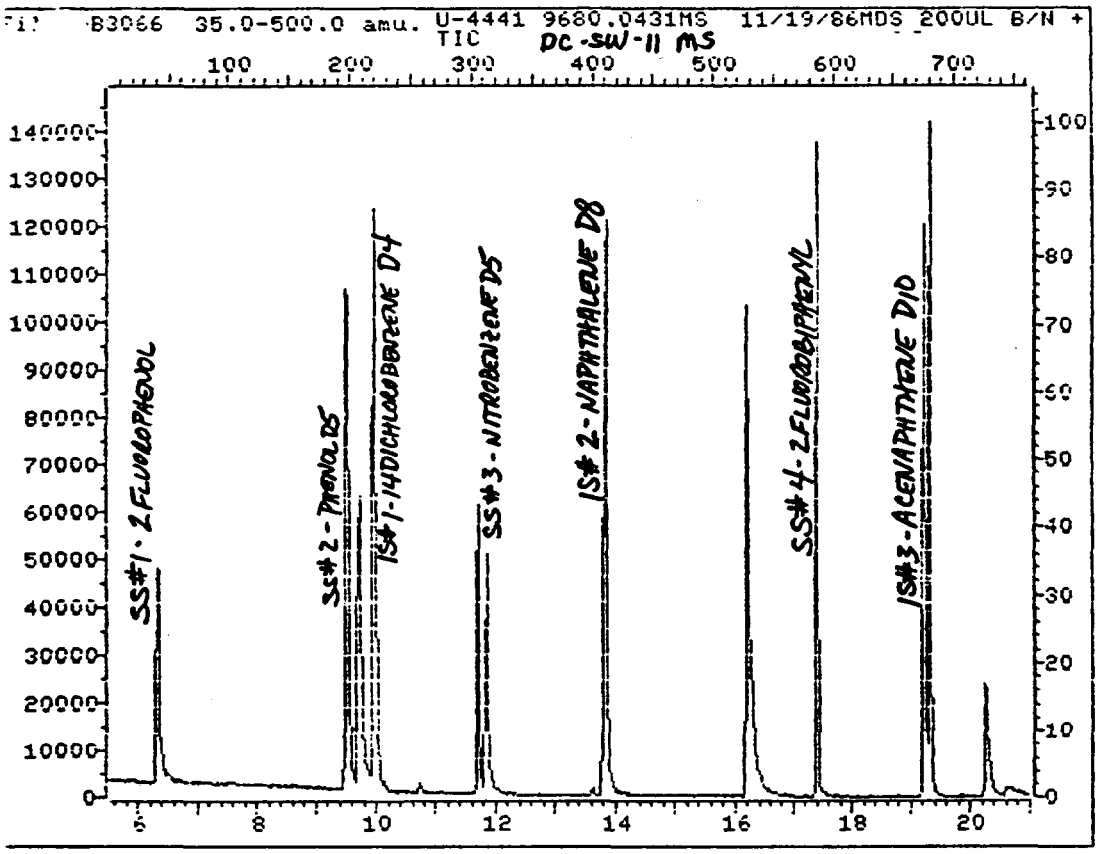
TOTAL ION CHROMATOGRAM

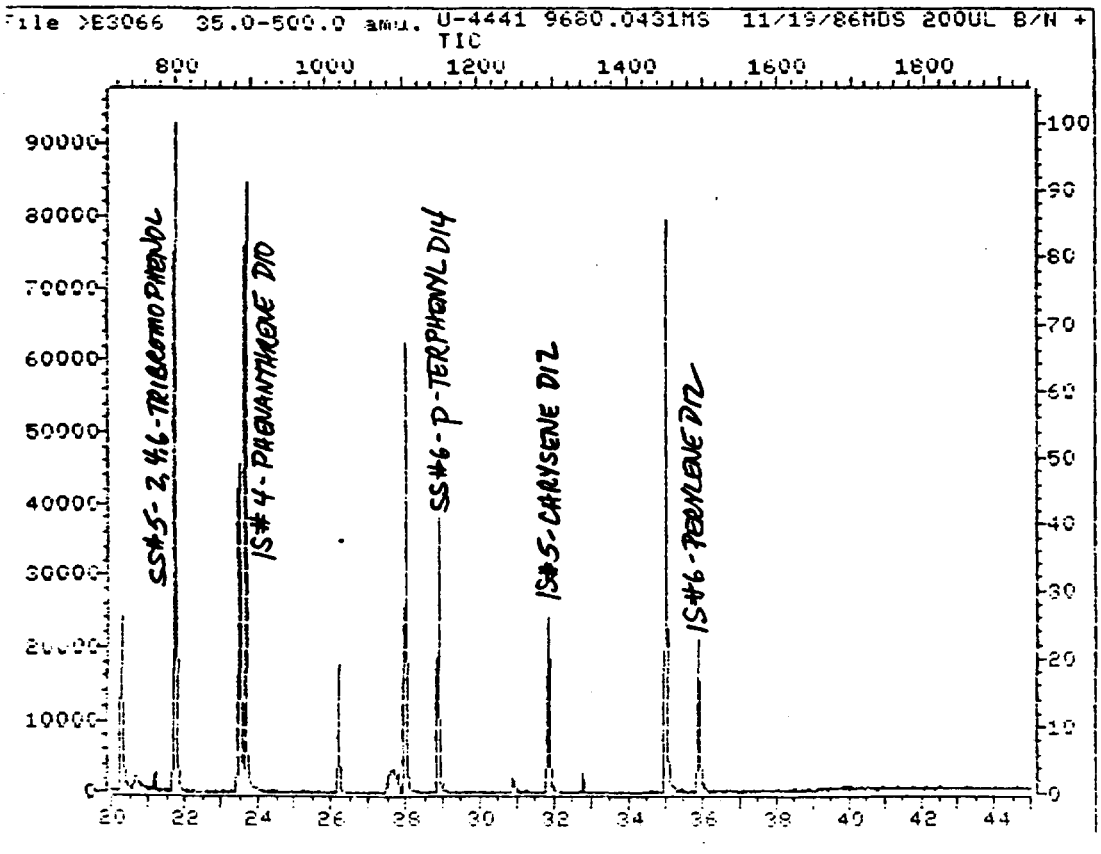


Data File: >B3066::D4
Name: U-4441 9680.0431MS DC-SW-11 MS
Misc: 11/19/86MDS 200UL B/N + 200UL A/P + 4UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

Operator ID: USER8
Quant Time: 861119 17:05
Injected at: 861119 16:17


File B3066 35.0-500.0 amu. U-4441 9680.0431MS 11/19/86MDS 200UL B/N +
TIC
DC-SW-11 MS
SS#1 - 2 FLUOROPHENOL
SS#2 - PHENOL D5
IS#1 - 1,4 DICHLOROBENZENE D4
SS#3 - NITROBENZENE D5
IS#2 - NAPHTHALENE D8
SS#4 - 2 FLUOROBIPHENYL
IS#3 - ACENAPHTHENE D10


File >B3066 35.0-500.0 amu. U-4441 9680.0431MS 11/19/86MDS 200UL B/N +
TIC
SS#5 - 2,4,6 - TRIBROMOPHENOL
IS#4 - PHENANTHRENE D10
SS#6 - P-TERPHENYL D14
IS#5 - CHRYSENE D12
IS#6 - PERYLENE D12

QUANT REPORT

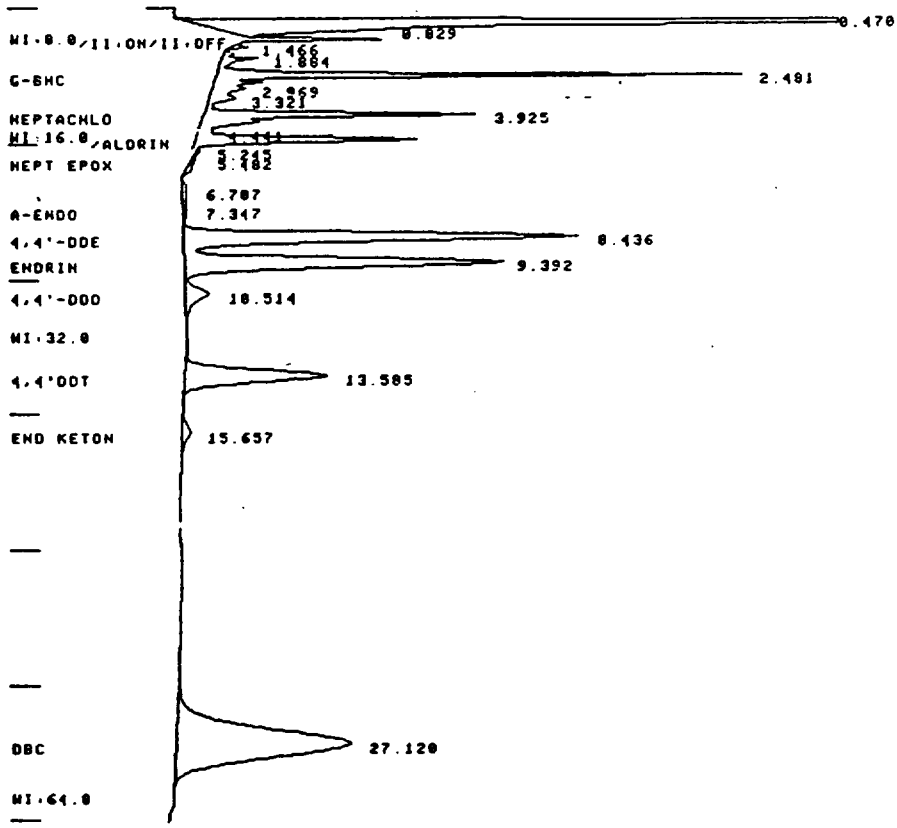
Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 17:05
Output File: ^B3066::Q2 Injected at: 861119 16:17
Data File: >B3066::D4 Dilution Factor: 2.00
Name: U-4441 9680.0431MS
Misc: 11/19/86MDS 200UL B/N + 200UL A/P + 4UL IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q	
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	9.95	219	50956	40.00	UG/L	90	
2)	PHENOL-D5 (SURR)	99	9.71	207	45639	58.01	UG/L	93	
2)	PHENOL-D5 (SURR)	99	9.95	219	797	1.01	UG/L	93	
5)	2-FLUOROPHENOL (SURR)	112	6.31	40	44188	75.02	UG/L	98	
5)	2-FLUOROPHENOL (SURR)	112	6.43	46	1930	3.28	UG/L	73	
~~5)~~	~~2-FLUOROPHENOL (SURR)~~	~~112~~	~~6.60~~	~~50~~	~~341~~	~~.58~~	~~UG/L~~	96	No BH
~~5)~~	~~2-FLUOROPHENOL (SURR)~~	~~112~~	~~6.72~~	~~60~~	~~350~~	~~.61~~	~~UG/L~~	[illegible]7	
~~5)~~	~~2-FLUOROPHENOL (SURR)~~	~~112~~	~~6.82~~	~~65~~	~~227~~	~~.38~~	~~UG/L~~	88	
6)	PHENOL	94	9.73	208	48902	59.79	UG/L	56	
~~7)~~	~~ANILINE~~	~~93~~	~~9.50~~	~~197~~	~~1734~~	~~2.16~~	~~UG/L~~	[illegible]2	No BH
~~9)~~	~~1,3-DICHLOROBENZENE~~	~~146~~	~~9.99~~	~~221~~	~~35454~~	~~47.02~~	~~UG/L~~	96	
10)	1,4-DICHLOROBENZENE	146	9.99	221	35454	44.56	UG/L	93	
15)	2-CHLOROPHENOL	128	9.50	197	95868	121.93	UG/L	97	
17)	N-NITROSO-DI-N-PROPYLAMINE	70	11.70	305	33169	56.18	UG/L	96	
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~11.64~~	~~312~~	~~8109~~	~~13.73~~	~~UG/L~~	84	No BH
19)	*NAPHTHALENE-D8 (IS)	136	13.86	411	162603	40.00	UG/L	100	
20)	NITROBENZENE-D5 (SURR)	82	11.84	312	45076	65.74	UG/L	96	
28)	1,2,4-TRICHLOROBENZENE	180	13.79	408	38035	52.41	UG/L	100	
~~29)~~	~~1,2,4-TRICHLOROBENZENE~~	~~180~~	~~14.12~~	~~424~~	~~574~~	~~.77~~	~~UG/L~~	100	No BH
32)	4-CHLORO-3-METHYLPHENOL	107	16.21	527	96437	163.37	UG/L	94	
~~33)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~16.21~~	~~527~~	~~70759~~	~~60.06~~	~~UG/L~~	18	No BH
34)	*ACENAPHTHENE-D10 (IS)	162	19.22	675	70367	40.00	UG/L	95	
38)	2-FLUOROBIPHENYL (SURR)	172	17.39	585	100823	68.98	UG/L	94	
~~41)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~19.24~~	~~[illegible]~~	~~21751~~	~~16.21~~	~~UG/L~~	100	No BH
47)	ACENAPHTHENE	153	19.32	680	89341	78.86	UG/L	94	
48)	2,4,6-TRIBROMOPHENOL(SURR)	330	21.72	798	44417	206.38	UG/L	97	
50)	4-NITROPHENOL	139	20.62	744	~~1334~~	~~13.14~~	~~UG/L~~	100	No BH
51)	2,4-DINITROTOLUENE	165	20.26	726	27503	105.68	UG/L	100	
~~51)~~	~~2,4-DINITROTOLUENE~~	~~165~~	~~20.62~~	~~744~~	~~391~~	~~1.50~~	~~UG/L~~	100	No BH
~~52)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~19.22~~	~~675~~	~~9368~~	~~32.85~~	~~UG/L~~	100	
55)	*PHENANTHRENE-D10 (IS)	188	23.67	894	99608	40.00	UG/L	98	
60)	PENTACHLOROPHENOL	266	23.47	884	31979	168.13	UG/L	100	
63)	DI-N-BUTYLPHTHALATE	149	26.23	1020	25312	18.56	UG/L	98	
65)	*CHRYSENE-D12 (IS)	240	31.83	1295	47998	40.00	UG/L	100	
67)	PYRENE	202	28.00	1107	84217	102.46	UG/L	97	
68)	TERPHENYL-D14 (SURR)	244	28.86	1149	53220	105.36	UG/L	100	
72)	BIS(2-ETHYLHEXYL)PHTHALATE	149	32.80	1343	1945	3.83	UG/L	90	
)	*PERYLENE-D12 (IS)	264	35.89	1495	41263	40.00	UG/L	100	
~~[illegible])~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~34.61~~	~~1472~~	~~744~~	~~.59~~	~~UG/L~~	100	No BH
50)	4-NITROPHENOL	139	20.62	744	7338	36.12	ug/L		

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 16 11:15 12 NOV 86

SAMPLE: 9641.04.16MS METHOD: CEPA CALCULATION: ES - ANALYS

DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.884		44916	VV	7.44
2	G-BHC	0.2302	2.481	-0.009	449613	VV	6.50
3	~~D-BHC~~	0.0251	2.765	0.215	53080	VV	8.81
4		0.0000	2.969		51467	VV	? 13.13
5		0.0000	3.321		42365	VV	9.50
6	HEPTACHLO	0.1764	3.925	-0.015	303746	VV	9.13
7		0.0000	4.163		93413	VV	? 13.38
8	ALDRIN	0.1654	4.836	-0.014	327635	VV	10.94
9	DIELDRIN	0.4774	8.436	-0.044	899075	VV	19.50
10	ENDRIN	0.4813	9.392	-0.058	808172	VV	21.69
11	~~END.ALD~~.	0.0516	10.514	0.014	82825	VB	32.25
12	4,4'DDT	0.5825	13.585	-0.095	489502	BB	29.63
13	~~END KETON~~	0.0221	15.657	-0.103	40267	BB	36.25
14	DBC 98%	0.9846	27.120	-0.240	1405085	BB	67.63
TOTALS:		3.1966		-0.349	5091161		

DETECTED PKS: 28 REJECTED PKS: 14

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: 23

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

MATRIX SPIKE DUPLICATE DATA

1. FORM I OF NON-SPIKED COMPOUNDS

2. RAW DATA (GC, GC/MS, PESTICIDES)

(a) RUN AND QUANT REPORTS (GC/MS)

(b) CHROMATOGRAMS AND [illegible] (GC)

Sample Number
DC-SW-3-MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4431
Lab Sample ID No. 9643-MSD
QC Report No:
Sample Matrix: Water
Contract No: T13140
Data Release Authorized By: C Stoytowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-10-86

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	~~5u~~ 5B
67-64-1	Acetone	~~10u~~ 9BJ
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	~~5u~~ 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	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~~ SPIKE
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	~~5u~~ 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	~~5u~~ SPIKE
108-90-7	Chlorobenzene	~~5u~~ 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

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 and environment, inc.

Case No: U-4431 / U-4441

Sample Number
DC-SW-11 MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-19-86

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	SPIKE	
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	SPIKE	
541-73-1	1 3-Dichlorobenzene	10	U
106-46-7	1. 4-Dichlorobenzene	SPIKE	
100-51-6	Benzyl Alcohol	10	U
95-50-1	1. 2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2. 4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2. 4-Dichlorophenol	10	U
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	SPIKE	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2. 4. 6-Trichlorophenol	10	U
95-95-4	2. 4. 5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
1[illegible]-11-3	Dimethyl Phthalate	10	U
[illegible]96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	50	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	SPIKE	
51-28-5	2. 4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	SPIKE	
132-64-9	Dibenzofuran	10	U
121-14-2	2 4-Dinitrotoluene	SPIKE	
606-20-2	2. 6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4. 6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	SPIKE	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	19	B
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	SPIKE	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3. 3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	J
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	10	U
53-70-3	Dibenz(a h)Anthracene	10	U
191-24-2	Benzo(g h. i)Perylene	10	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number DC-SW-1 MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.24	S
76-44-8	Heptachlor	0.19	S
309-00-2	Aldrin	0.15	S
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.50	S
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.51	S
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.64	S
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

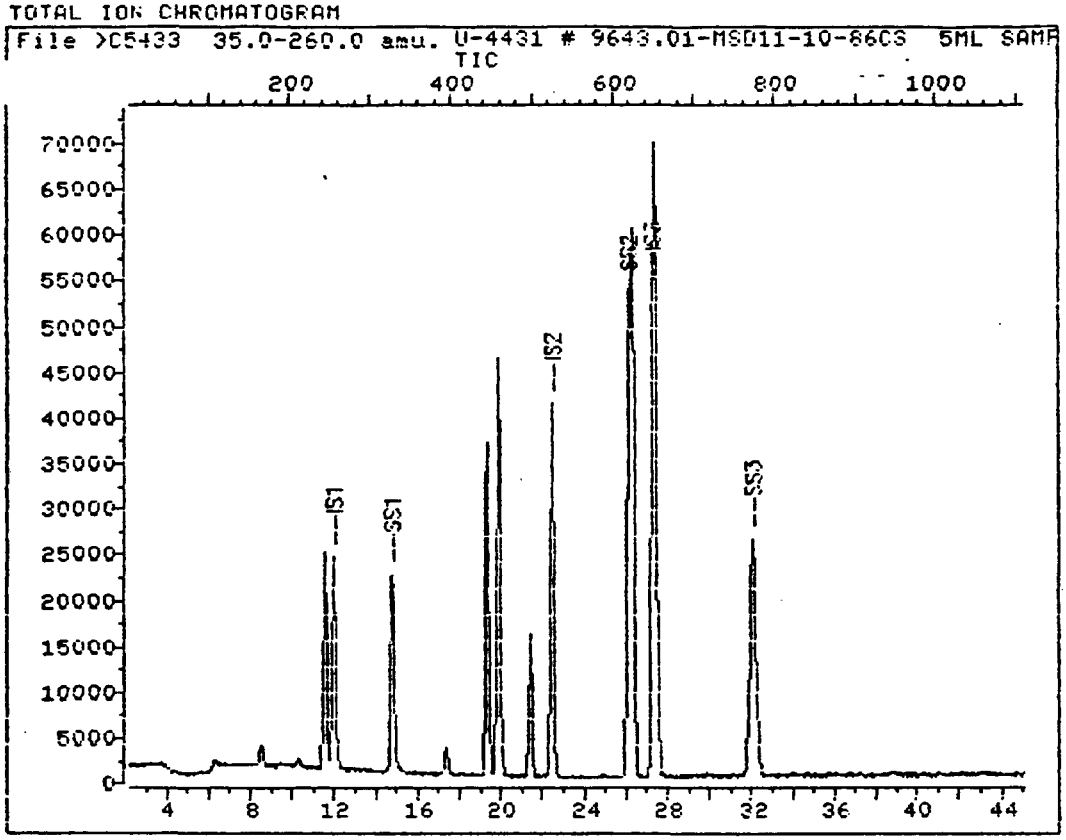
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

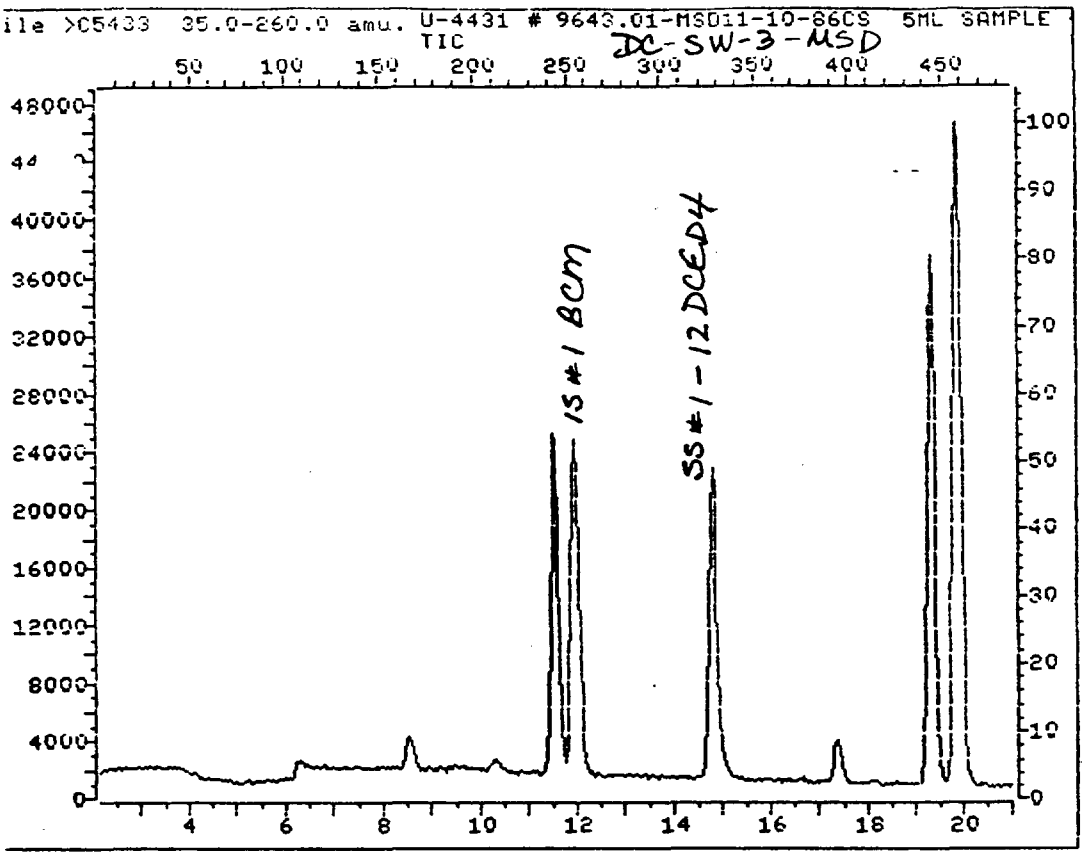
TOTAL ION CHROMATOGRAM



Data File: >C5433::D3
Name: U-4431 # 9643.01-MSD DC-SW-3-MSD
Misc: 11-10-86CS 5ML SAMPLE + 10UL IS/SS/MS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

Operator ID: USER8
Quant Time: 861110 18:46
Injected at: 861110 18:00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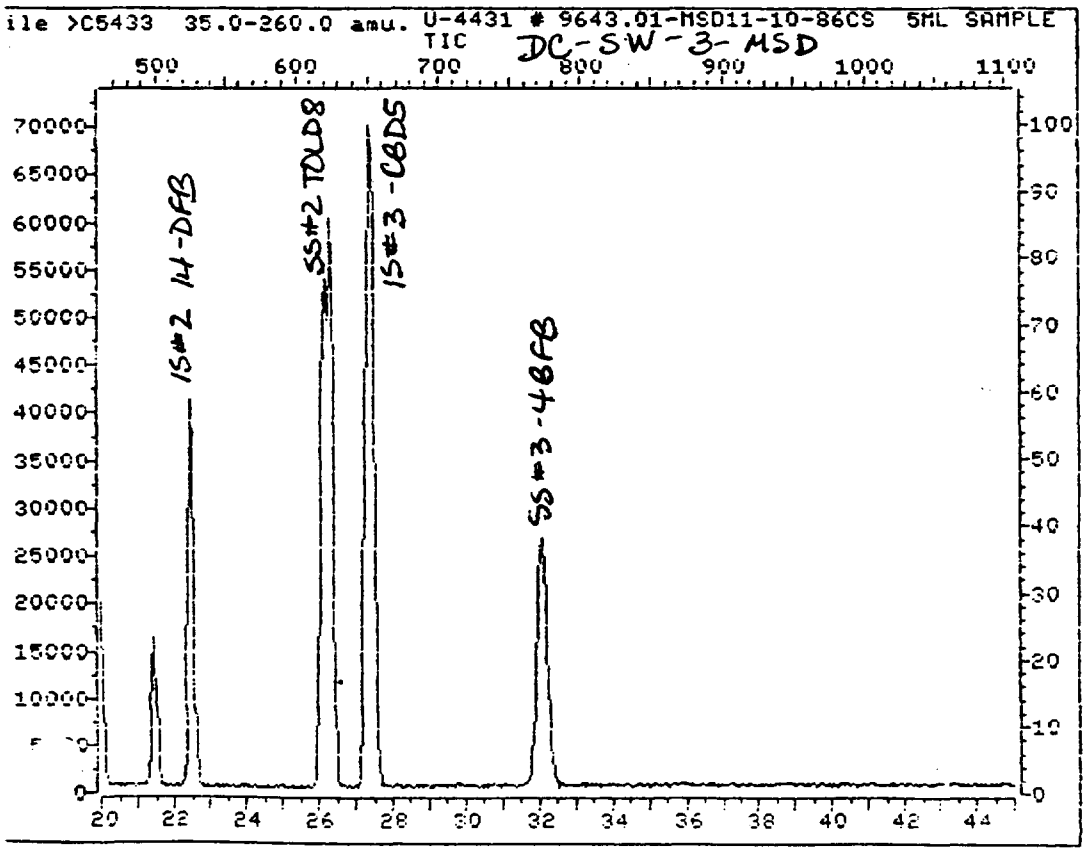
TIC
DC-SW-3-MSD
IS #1 BCM
SS #1 - 12 DCEDH


ile >C5433 35.0-260.0 amu. U-4431 # 9643.01-MSD11-10-86CS 5ML SAMPLE
TIC
DC-SW-3-MSD
IS #2 14-DFB
SS #2 TOLD8
IS #3 -CBDS
SS #3 -4BFB

QUANT REPORT

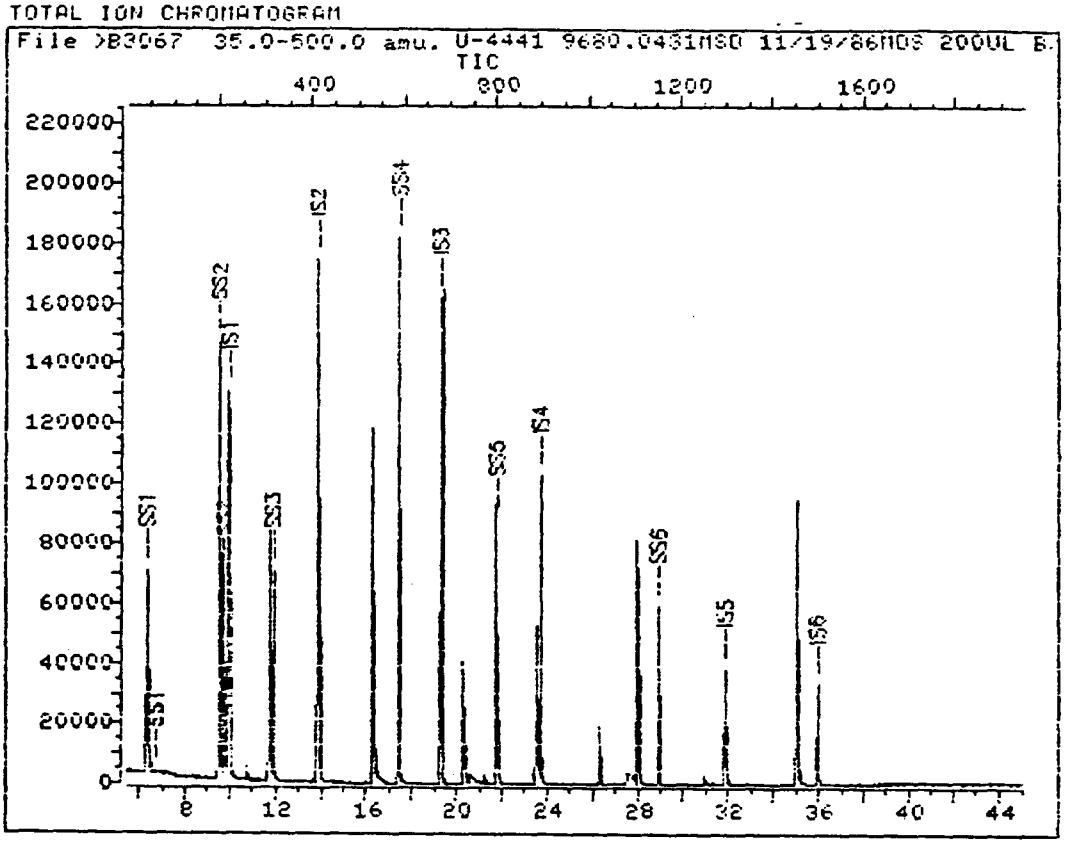
Operator ID: USER8 Quant Rev: 4 Quant Time: 861110 18:46
Output File: ^C5433::Q1 Injected at: 861110 18:00
Data File: >C5433::D3 Dilution Factor: 1.00
Name: U-4431 # 9643.01-MSD DC-SW-3-MSD
Misc: 11-10-86CS 5ML SAMPLE + 10UL IS/SS/MS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.96	254	33998	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.55	166	6352	5.26	UG/L	100
7)	ACETONE		43	9.48	190	4388	9.47	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~13.29~~	~~211~~	~~8165~~	~~2.45~~	~~UG/L~~	~~100~~ no cw
10)	1,1-DICHLOROETHENE		61	11.53	243	97172	49.22	UG/L	97
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.79	327	94949	49.76	UG/L	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.47	525	166913	50.00	UG/L	100
24)	TRICHLOROETHENE		130	19.33	444	63938	52.80	UG/L	83
27)	BENZENE		78	19.87	458	205699	53.96	UG/L	100
~~28)~~	~~CIS-1,3-DICHLOROPROPENE~~		~~75~~	~~19.87~~	~~458~~	~~4257~~	~~2.76~~	~~UG/L~~	~~100~~ no cw
31)	*CHLOROBENZENE-D5	(IS)	117	27.29	649	134966	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.12	619	195491	50.08	UG/L	95
37)	TOLUENE		92	26.31	624	140895	56.73	UG/L	99
38)	CHLOROBENZENE		112	27.44	653	159708	52.97	UG/L	97
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.06	772	104338	49.55	UG/L	100

* Compound is ISTD

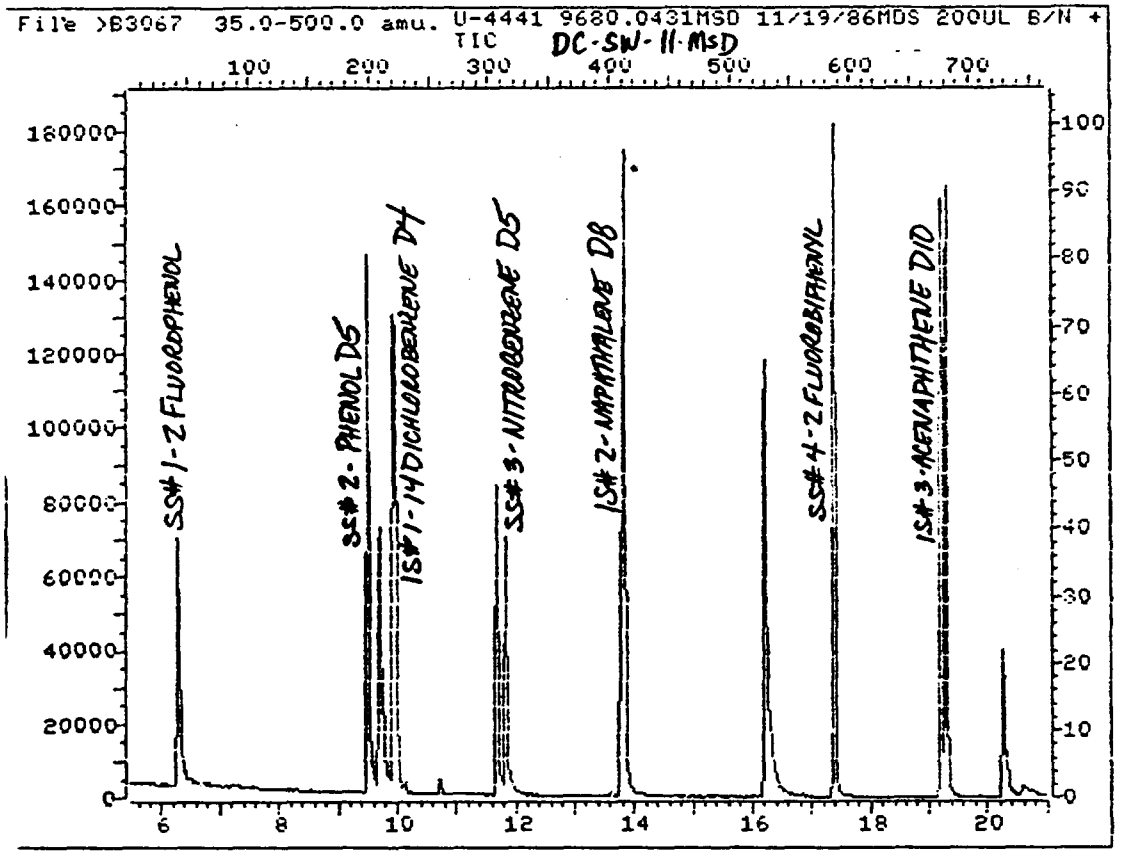
TOTAL ION CHROMATOGRAM



Data File: >B3067::D4
Name: U-4441 9680.0431MSD DC-SW-11 MSD
Misc: 11/19/86MDS 200UL B/N + 200UL A/P + 4UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

Operator ID: USER8
Quant Time: 861119 17:56
Injected at: 861119 17:08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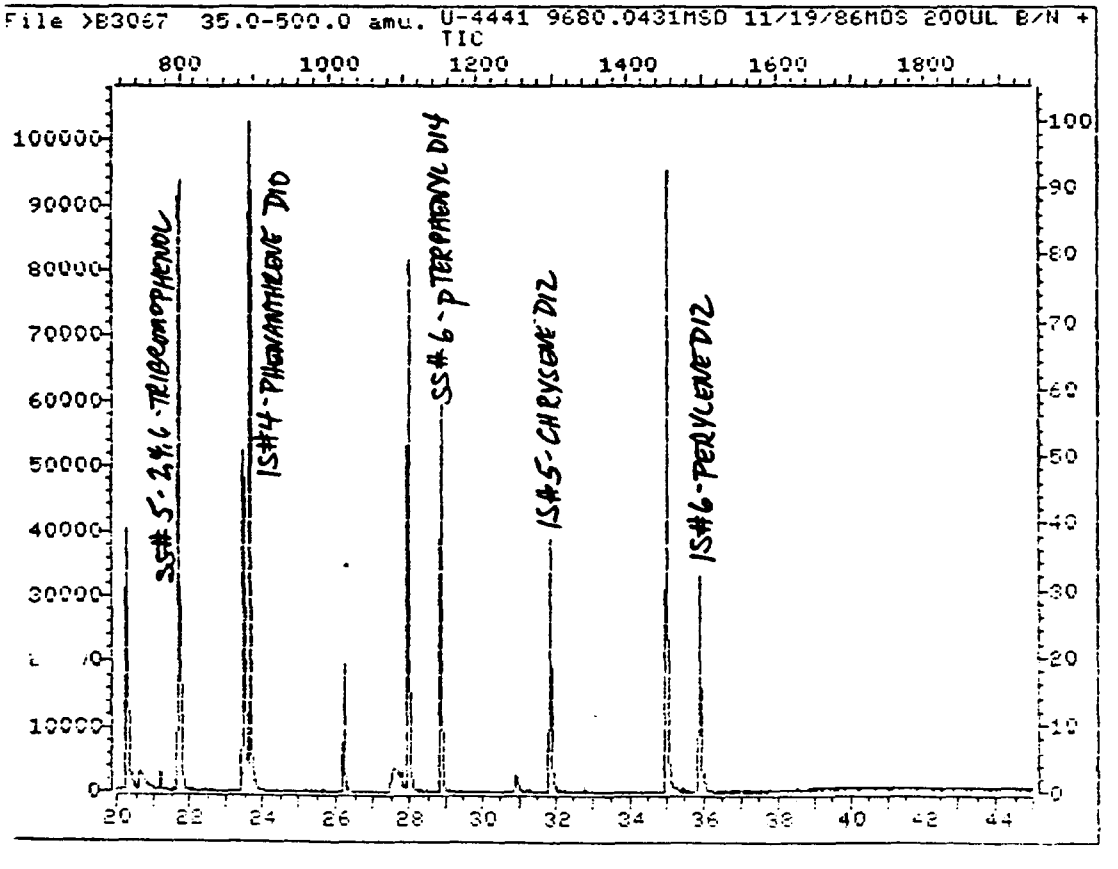
TIC
DC-SW-11-MSD
SS#1-2 FLUOROPHENOL
SS#2-PHENOL D5
IS#1-1,4 DICHLOROBENZENE D4
SS#3-NITROBENZENE D5
IS#2-NAPHTHALENE D8
SS#4-2 FLUOROBIPHENYL
IS#3-ACENAPHTHENE D10


File >B3067 35.0-500.0 amu. U-4441 9680.0431MSD 11/19/86MDS 200UL B/N +
TIC
SS#5-2,4,6-TRIBROMOPHENOL
IS#4-PHENANTHRENE D10
SS#6-p TERPHENYL D14
IS#5-CHRYSENE D12
IS#6-PERYLENE D12

QUANT REPORT

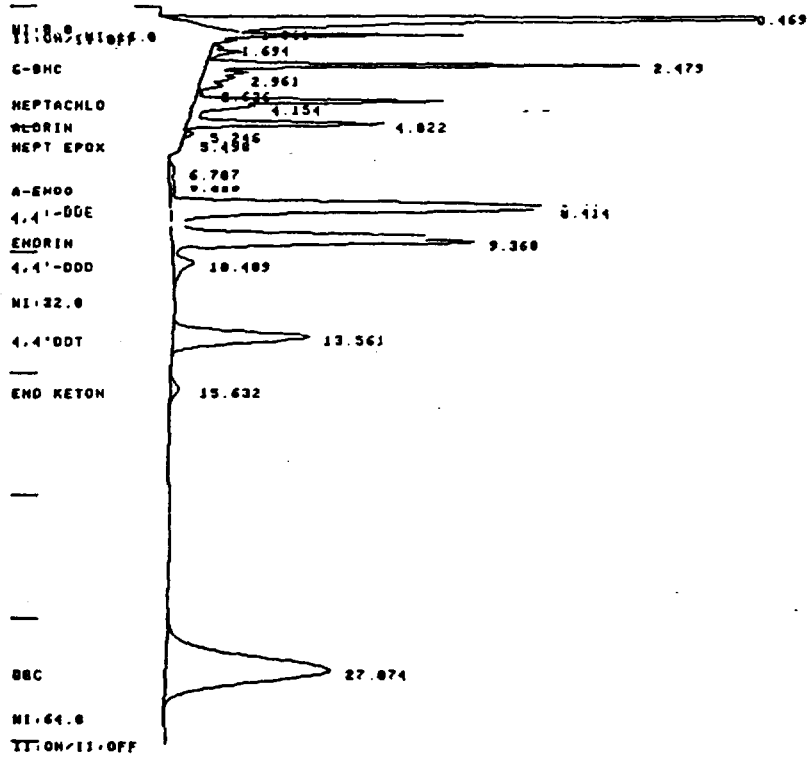
Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 17:56
Output File: ^B3067::Q2 Injected at: 861119 17:08
Data File: >B3067::D4 Dilution Factor: 2.00
Name: U-4441 9680.0431MSD
Misc: 11/19/86MDS 200UL B/N + 200UL A/P + 4UL IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861119 13:41

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.93	220	60059	40.00	UG/L	89
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.60~~	~~199~~	~~5375~~	~~5.80~~	~~UG/L~~ No BNA	~~39~~
2)	PHENOL-D5	(SURR)	99	9.69	208	51158	55.17	UG/L	94
5)	2-FLUOROPHENOL	(SURR)	112	6.29	41	47906	69.01	UG/L	82
5)	2-FLUOROPHENOL	(SURR)	112	6.64	58	802	1.16	UG/L	69
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.78~~	~~61~~	~~267~~	~~.38~~	~~UG/L~~ No BNA	1
6)	PHENOL		94	9.71	209	56207	58.31	UG/L	56
~~7)~~	~~ANILINE~~		~~93~~	~~9.60~~	~~199~~	~~2128~~	~~2.25~~	~~UG/L~~ No BNA	22
~~8)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.99~~	~~223~~	~~51595~~	~~55.58~~	~~UG/L~~	99
10)	1,4-DICHLOROBENZENE		146	9.99	223	51595	55.02	UG/L	98
15)	2-CHLOROPHENOL		128	9.50	199	114502	123.56	UG/L	95
17)	N-NITROSO-DI-N-PROPYLAMINE		70	11.68	306	50078	71.96	UG/L	89
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.82~~	~~313~~	~~13053~~	~~18.76~~	~~UG/L~~ No BNA	79
19)	*NAPHTHALENE-D8	(IS)	136	13.83	412	188354	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.82	313	66682	83.95	UG/L	90
28)	1,2,4-TRICHLOROBENZENE		180	13.79	410	55557	66.09	UG/L	100
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.90~~	~~415~~	~~283~~	~~.14~~	~~UG/L~~ No BNA	100
32)	4-CHLORO-3-METHYLPHENOL		107	16.21	529	114071	166.82	UG/L	98
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.19~~	~~528~~	~~22452~~	~~30.97~~	~~UG/L~~ No BNA	18
34)	*ACENAPHTHENE-D10	(IS)	162	19.22	677	85678	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.39	587	132773	74.60	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.22~~	~~677~~	~~26341~~	~~15.39~~	~~UG/L~~ No BNA	100
47)	ACENAPHTHENE		153	19.32	682	114288	82.85	UG/L	96
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.70	799	47428	180.99	UG/L	95
50)	4-NITROPHENOL		139	20.60	745	~~3075~~	~~24.87~~	~~UG/L~~ No BNA	100
51)	2,4-DINITROTOLUENE		165	20.26	728	38151	120.39	UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.22~~	~~677~~	~~11739~~	~~32.37~~	~~UG/L~~ No BNA	100
55)	*PHENANTHRENE-D10	(IS)	188	23.65	895	119097	40.00	UG/L	91
60)	PENTACHLOROPHENOL		266	23.47	886	35191	154.74	UG/L	100
63)	DI-N-BUTYLPHTHALATE		149	26.24	1022	30591	18.76	UG/L	98
65)	*CHRYSENE-D12	(IS)	240	31.82	1297	60568	40.00	UG/L	100
67)	PYRENE		202	27.98	1108	121913	110.96	UG/L	95
68)	TERPHENYL-D14	(SURR)	244	28.86	1151	72918	114.39	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.80	1345	904	1.41	UG/L	83
74)	*PERYLENE-D12	(IS)	264	35.89	1497	54133	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.41~~	~~1434~~	~~324~~	~~.29~~	~~UG/L~~ No BNA	100
~~76)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.02~~	~~1464~~	~~283~~	~~.24~~	~~UG/L~~ No BNA	100
)	4 NITROPHENOL		139	20.60	745	9323	38	ug/L	BNA

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 11-85-17 11:49 12 NOV 86

SAMPLE: 9641.04 MSD METHOD: CEPA CALCULATION: ES - ANALYS
DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.084		39615	VV	7.00
2	G-BHC	0.2407	2.479	-0.011	470054	VV	6.56
3	~~D-BHC~~	0.0257	2.762	0.212	54522	VV	9.19
4		0.0000	2.961		49243	VV	? 13.75
5		0.0000	3.308		38994	VV	10.81
6	HEPTACHLO	0.1875	3.919	-0.021	322751	VV	9.25
7		0.0000	4.154		96401	VV	? 12.63
8	ALDRIN	0.1530	4.822	-0.028	303027	VV	10.88
9		0.0000	6.707		22719	BV	? 30.44
10	~~A-ENDO~~	0.0141	7.346	0.056	24535	VV	? 19.13
11	DIELDRIN	0.5030	8.414	-0.066	947390	VV	19.56
12	ENDRIN	0.5137	9.368	-0.082	862516	VV	21.75
13	~~END.ALD.~~	0.0553	10.489	-0.011	88770	VB	37.06
14	4,4'DDT	0.6364	13.561	-0.119	534825	BB	29.88
15	~~END KETON~~	0.0212	15.632	-0.128	38667	BB	35.31
16	DBC 101%	1.0089	27.074	-0.206	1439798	BB	65.25
TOTALS:		3.3595		-0.484	5333827		

DETECTED PKS: 26 REJECTED PKS: 10

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: 8

RACK: 2 VIAL: 2 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY372

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)

481095

Sample Number
BLANK 1

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No. VOA Blank 1

QC Report No:

Sample Matrix: Water

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: 11-10-86

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	~~5u~~ 3J
67-64-1	Acetone	~~10u~~ 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	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.

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number BLANK 1

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.	Hexene isomer	VOA	17.4min	2.9
2.	Hexane isomer	VOA	21.4min	10
3.				
4.				
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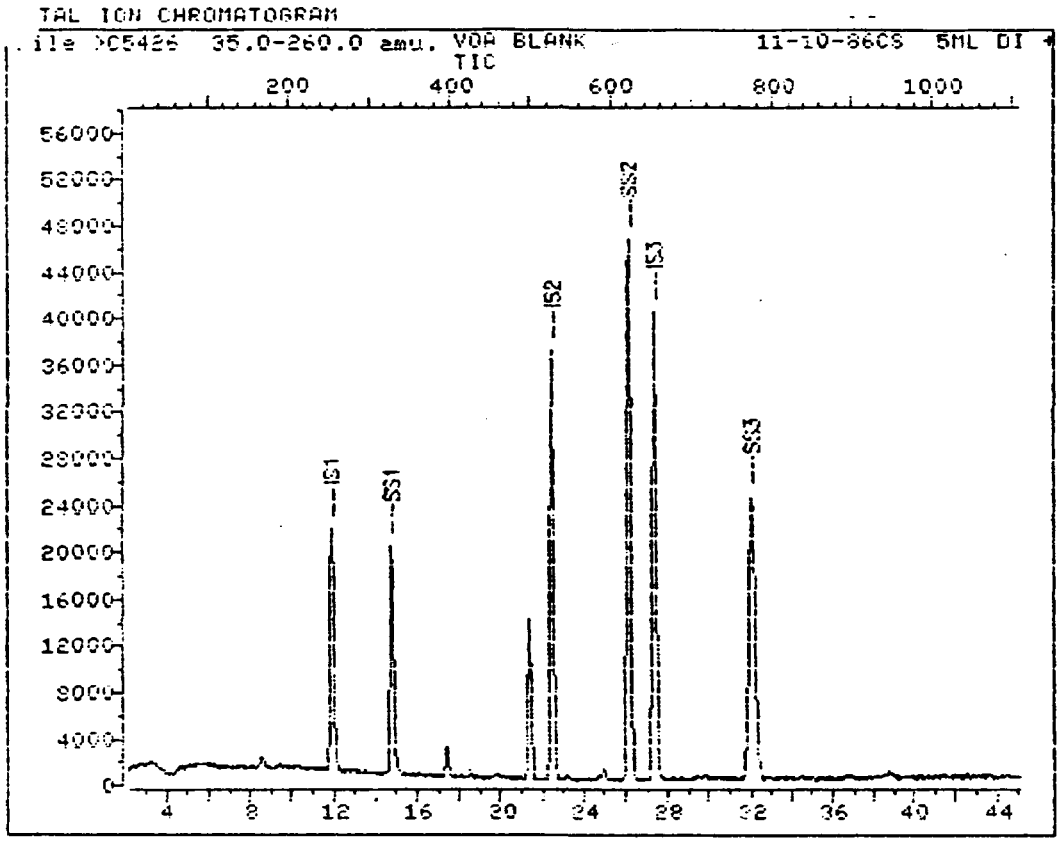
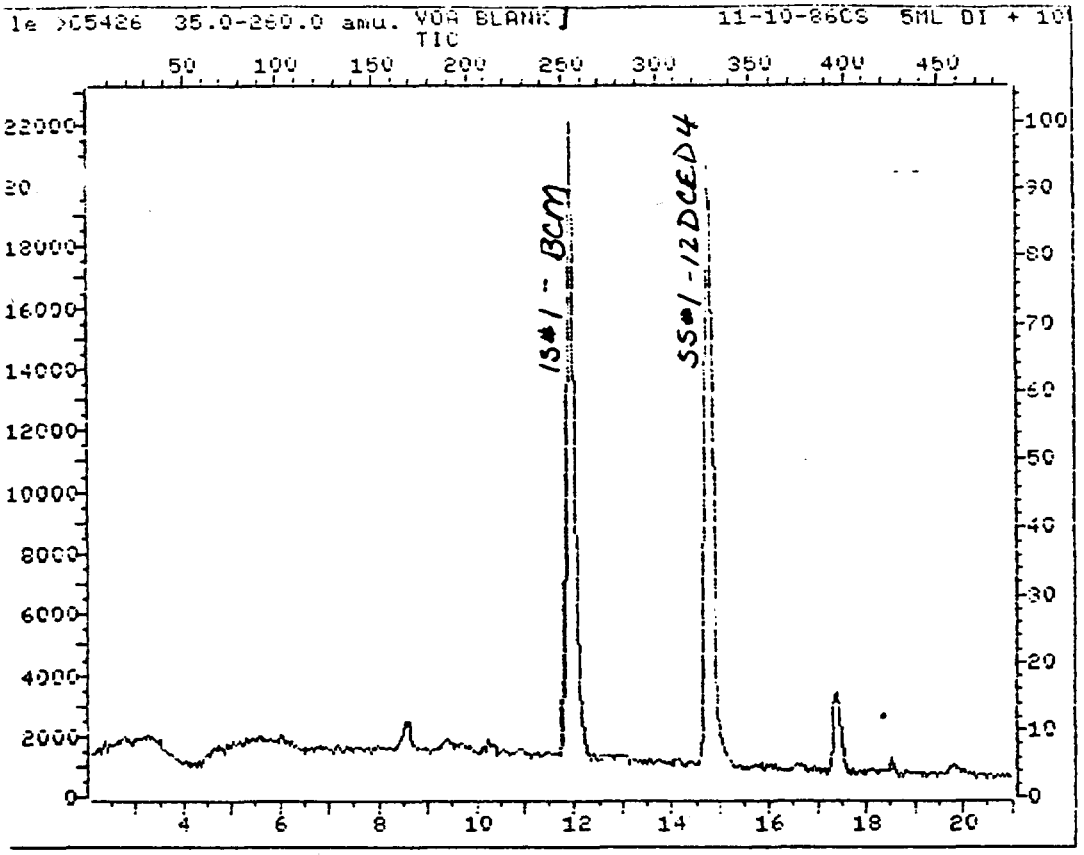
30				

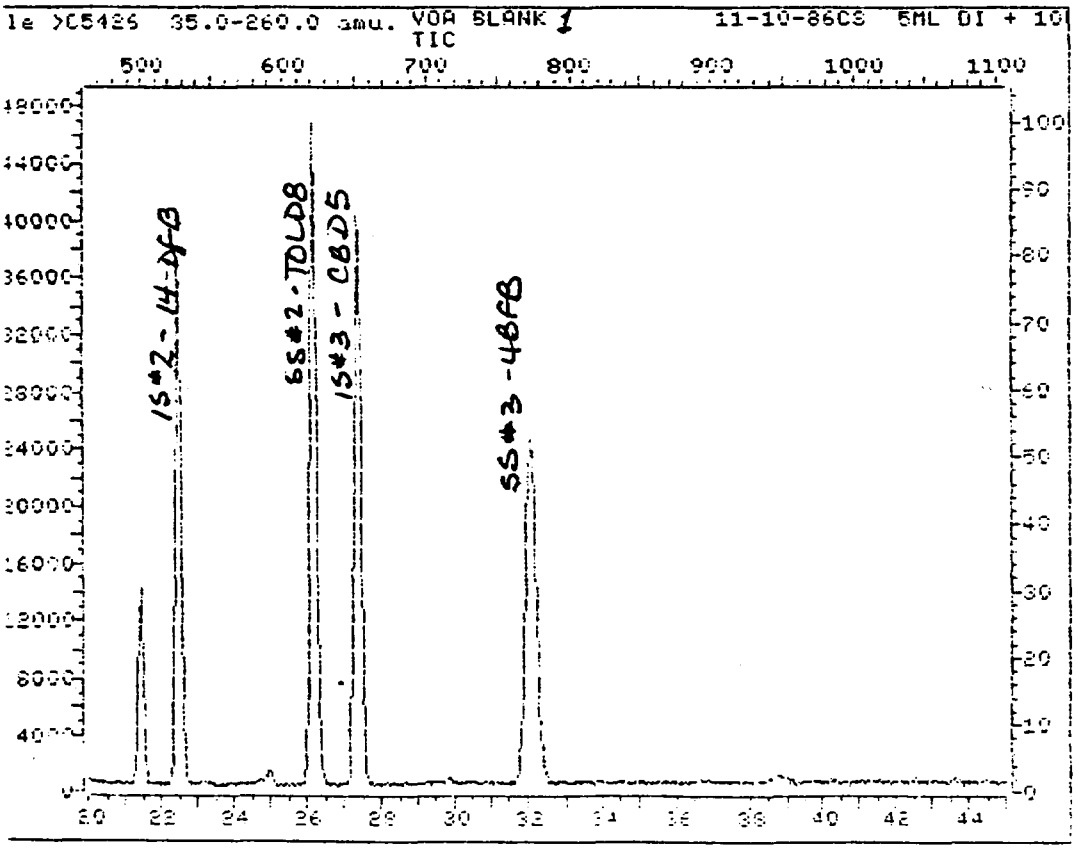


Data File: >C5426::D3
Name: VOA BLANK 1
Misc: 11-10-86CS 5ML DI + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

Operator ID: USER3
Quant Time: 861110 12:11
Injected at: 861110 11:25


1e >C5426 35.0-260.0 amu. VOA BLANK
TIC
11-10-86CS 5ML DI + 10
IS#1 - BCM
SS#1 - 12DCED4


1e >C5426 35.0-260.0 amu. VOA BLANK
TIC
11-10-86CS 5ML DI + 10
IS#2 - 14-DFB
SS#2 - TOLD8
IS#3 - CBD5
SS#3 - 4BFB

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861110 12:11
Output File: ^C5426::Q1 Injected at: 861110 11:25
Data File: >C5426::D3 Dilution Factor: 1.00
Name: VOA BLANK 1
Misc: 11-10-86CS 5ML DI + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861110 11:20

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128 11.92	254	31114	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84 8.54	167	3018	2.73	UG/L	100
7)	ACETONE		43 9.40	189	4395	10.36	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76 10.99~~	~~212~~	~~2431~~	~~.74~~	~~UG/L~~ NDCS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.79	328	88234	50.53	UG/L	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114 22.47	526	147765	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117 27.36	652	121740	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98 26.19	622	185262	52.62	UG/L	93
40)	4-BROMOFLUOROBENZENE	(SURR)	95 32.09	774	96912	51.02	UG/L	100

* Compound is ISTD

Sample Number
Blank 2

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431

Lab Sample ID No.

QC Report No:

Sample Matrix: Water

Contract No: IL-3140

Data Release Authorized By: C Slogtowicz

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-10-86

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	~~5u~~ 3J
67-64-1	Acetone	~~10u~~ 12
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

Laboratory Name ecology and environment, inc.

Case No U-4431

Sample Number BLANK 2

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.	Hexene isomer	VOA	17.4 min	2.8
2.	Hexane isomer	VOA	21.5 min	9.9
3.				
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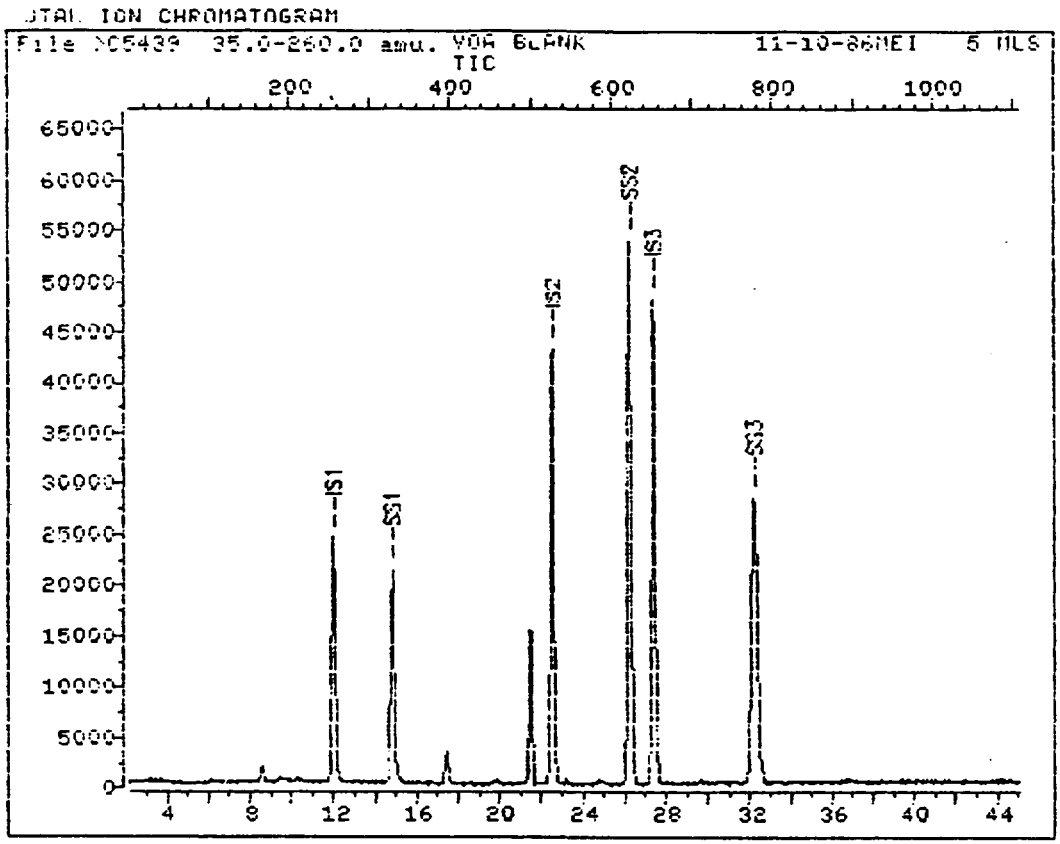
30				



Data File: >C5439::D3
Name: VOA BLANK 2
Misc: 11-10-86MEI 5 MLS DI + 10UL IS/SS

Id File: VOACR::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

Operator ID: USER8
Quant Time: 861111 09:03
Injected at: 861110 23:35

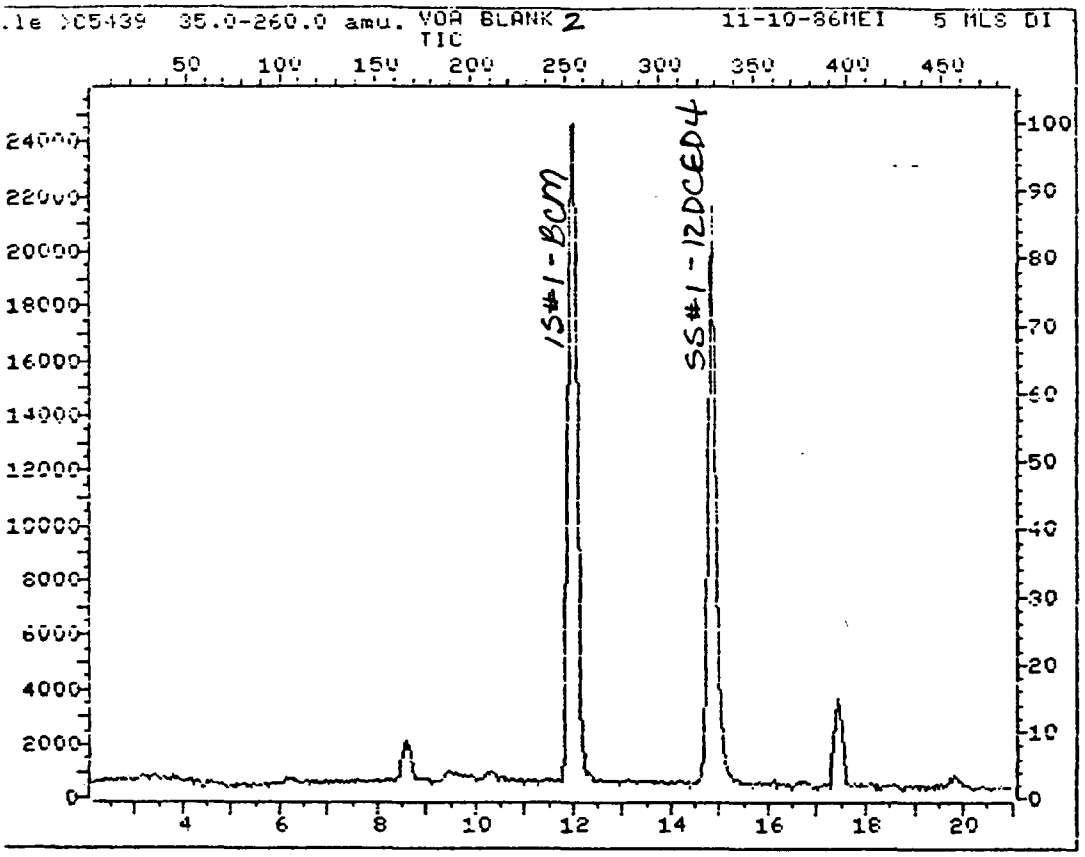
QUANT REPORT

Operator ID: USERS Quant Rev: 4 Quant Time: 861111 09:03
Output File: ^C5439::Q1 Injected at: 861110 23:35
Data File: >C5439::D3 Dilution Factor: 1.00
Name: VOA BLANK 2
Misc: 11-10-86MEI 5 MLS DI + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 09:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.96	254	37398	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.58	167	4237	2.82	UG/L	100
7)	ACETONE		43	9.47	190	3532	11.50	UG/L	100
~~7)~~	~~ACETONE~~		~~43~~	~~9.71~~	~~196~~	~~2398~~	~~7.78~~	~~UG/L~~ no cal	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.33~~	~~212~~	~~3699~~	~~.91~~	~~UG/L~~ no cal	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.83	328	94540	49.53	UG/L 99	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.54	527	184117	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.40	652	151092	50.00	UG/L	100
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.79~~	~~585~~	~~2459~~	~~3.28~~	~~UG/L~~ no cal	100
36)	TOLUENE-D8	(SURR)	98	26.23	622	215196	50.40	UG/L 100	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.21	776	110586	48.91	UG/L 98	100

* Compound is ISTD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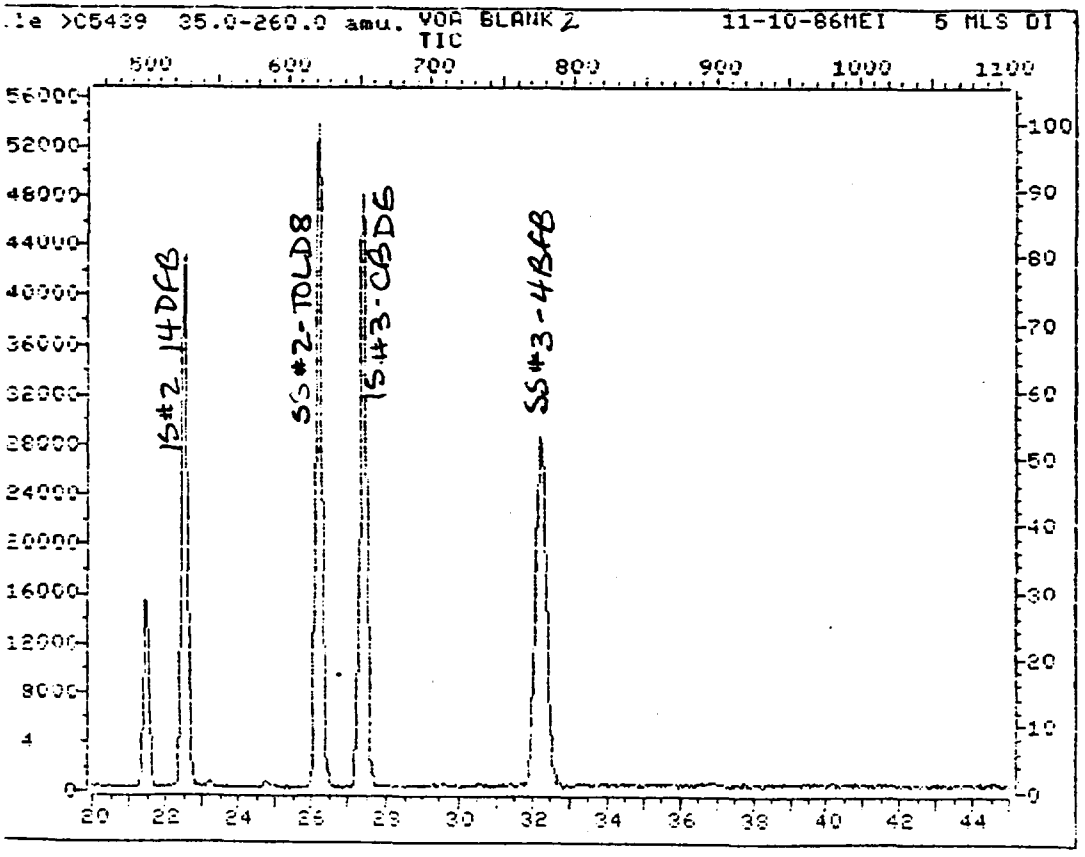
TIC
IS#1-BCM
SS#1-12DCED4


.le >C5439 35.0-260.0 amu. VOA BLANK 2 11-10-86MEI 5 MLS DI
TIC
IS#2-14DFB
SS#2-TOLD8
IS#3-CBDB
SS#3-4BFB

Sample Number
BLANK 3

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4431 / U-4441

Lab Sample ID No. Blank

QC Report No:

Sample Matrix: Water

Contract No: U-3140

Data Release Authorized By: D Skoytowicz

Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-11-86

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	5u cw 3J
67-64-1	Acetone	10u 6J
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

Laboratory Name ecology and environment, inc.

Case No U-2431 / U-4441

Sample Number Blank 3

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.	Hexene isomer	VOA	17.4 min	2.9
2.	Hexane isomer	VOA	21.5 min	9.8
3.				
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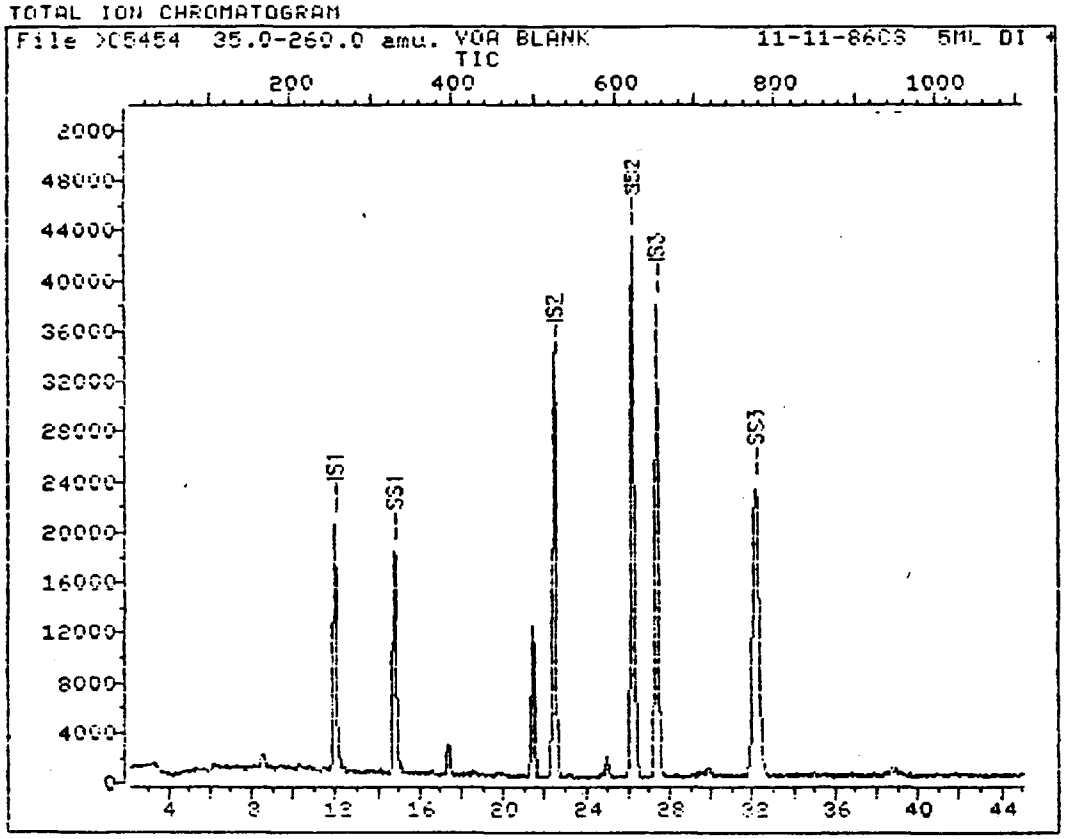
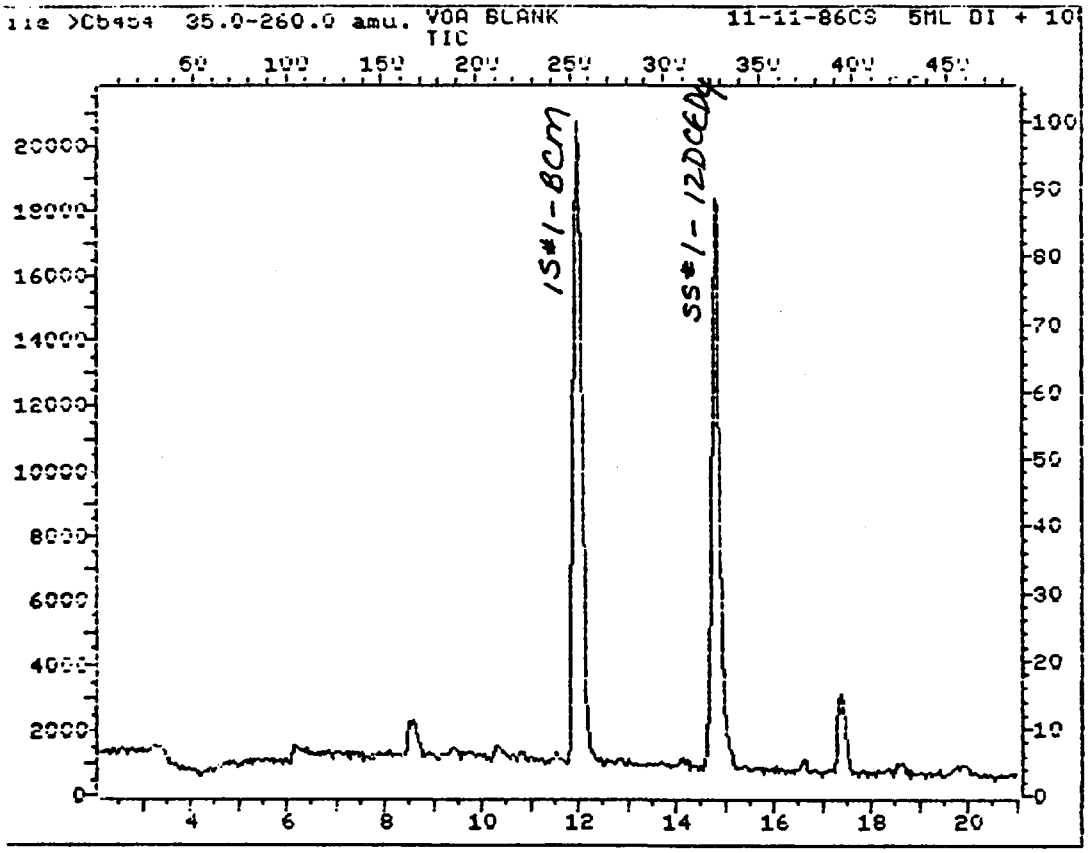
TOTAL ION CHROMATOGRAM

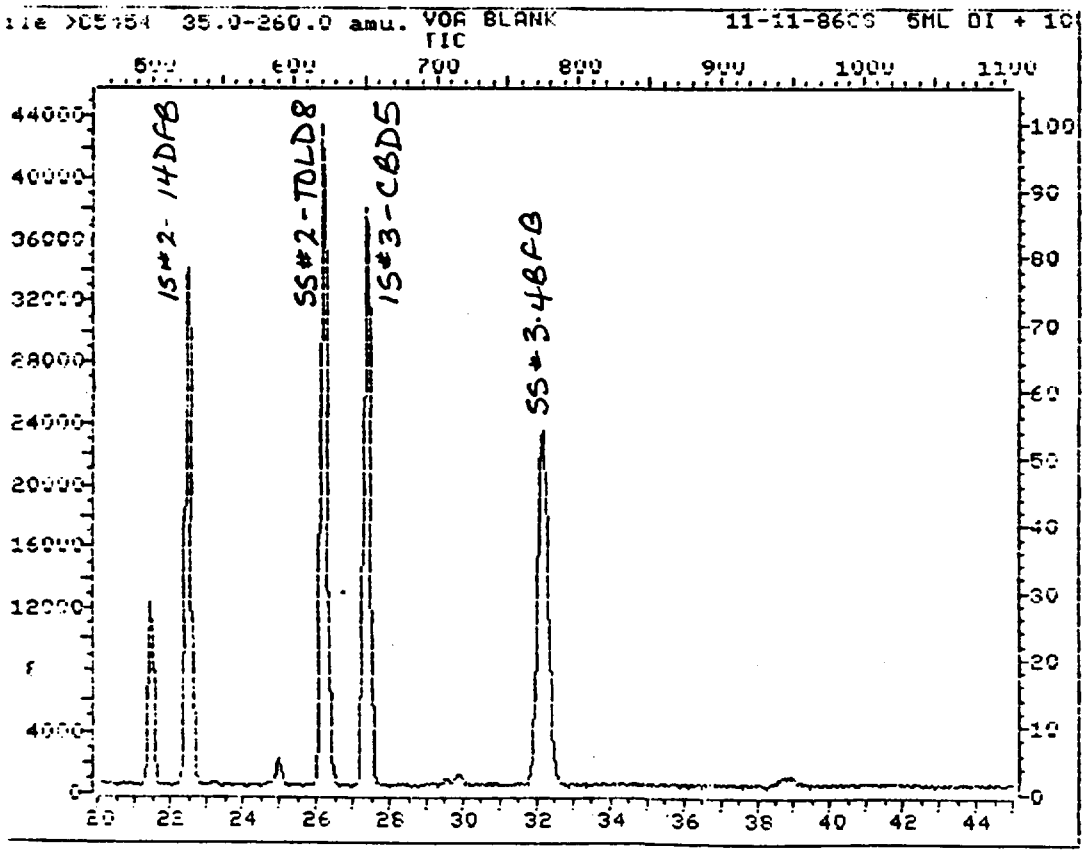


Data File: >C5454::D3
Name: VOA BLANK
Misc: 11-11-86CS 5ML DI + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861111 13:22

Operator ID: USER8
Quant Time: 861111 14:31
Injected at: 861111 13:33


ile >C6454 35.0-260.0 amu. VOA BLANK
TIC
11-11-86CS 5ML DI + 10
IS#1-BCM
SS#1-12DCEDX


ile >C6454 35.0-260.0 amu. VOA BLANK
TIC
11-11-86CS 5ML DI + 10
IS#2-14DFB
SS#2-TOLD8
IS#3-CBD5
SS#3-4BFB

QUANT REPORT

p tor ID: USER8 Quant Rev: 4 Quant Time: 861111 14:31
utput File: ^C5454::D2 Injected at: 861111 13:33
ata File: >C5454::D3 Dilution Factor: 1.00
lame: VOA BLANK
isc: 11-11-86CS 5ML DI + 10UL IS/SS

D File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861111 13:22

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.96	254	30939	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.54	166	3767	2.98	UG/L	100
7)	ACETONE		43	9.43	189	2634	5.91	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.33~~	~~212~~	~~3779~~	~~1.86~~	~~UG/L~~ no cal	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.79	327	75911	51.81	UG/L	88
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.47	525	149817	50.00	UG/L	100
~~18)~~	~~BROMOFORM~~		~~173~~	~~22.62~~	~~529~~	~~252~~	~~.17~~	~~UG/L~~ no cal	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.36	651	122381	50.00	UG/L	100
6)	TOLUENE-D8	(SURR)	98	26.19	621	177180	52.10	UG/L	96
~~8)~~	~~ETHYLBENZENE~~		~~91~~	~~29.54~~	~~706~~	~~3108~~	~~.60~~	~~UG/L~~ no cal	95
8)	4-BROMOFLUOROBENZENE	(SURR)	95	32.17	775	90843	52.34	UG/L	100

* Compound is ISTD

atory Name ecology and environment, inc.

se No: U-4431 / U-4441

Sample Number
BLANK (11/10)

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

ncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 11-10-86

ate Analyzed: 11-18-86

nc/Dil Factor: 2

ercent 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	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1 3-Dichlorobenzene	10	U
106-46-7	1. 4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1. 2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2. 4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2. 4-Dichlorophenol	10	U
120-82-1	1. 2. 4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2. 4 6-Trichlorophenol	10	U
95-95-4	2. 4. 5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
3[illegible]-3	Dimethyl Phthalate	10	U
20[illegible]-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	50	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	10	U
51-28-5	2. 4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2 4-Dinitrotoluene	10	U
606-20-2	2. 6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4. 6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	18	
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3. 3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	10	U
53-70-3	Dibenzo(a h)Anthracene	10	U
191-24-2	Benzo(g h i)Perylene	10	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4431 / U-4441

Sample Number BLANK (11/10)

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. 2964498	1,13-TETRADECADIENE	BNA	27.7	6.1
2.	UNKNOWN	BNA	35.0	40
3.				
4.				
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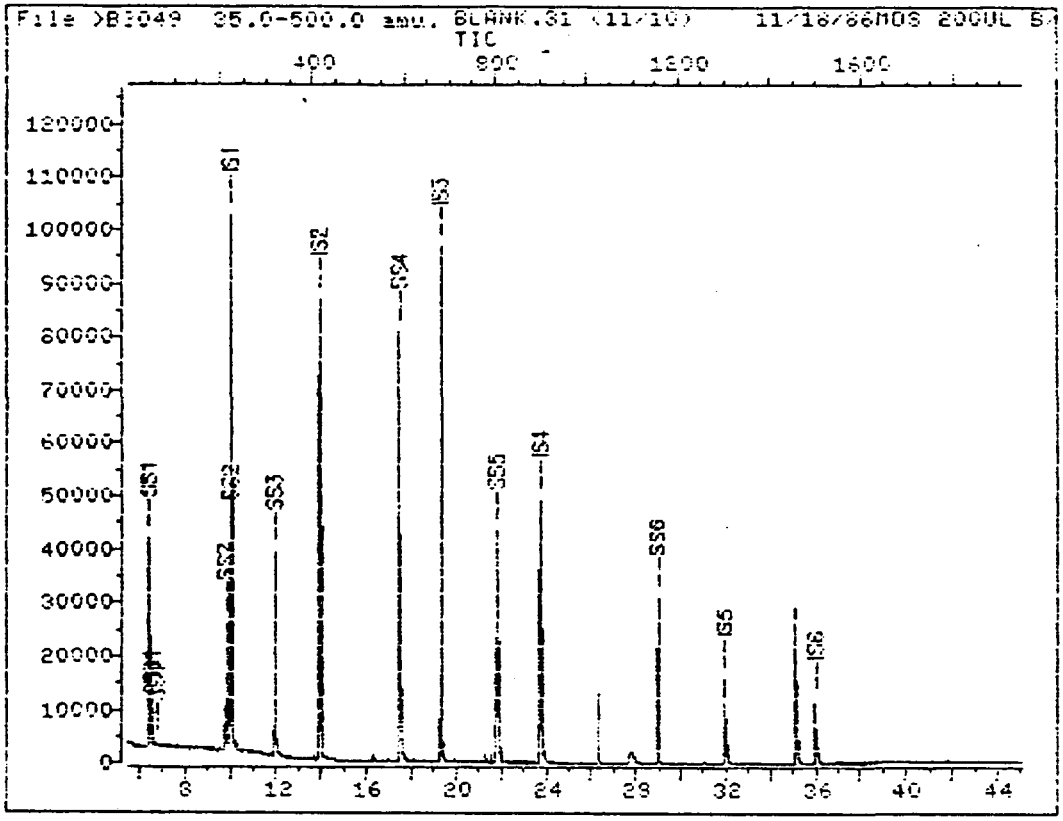
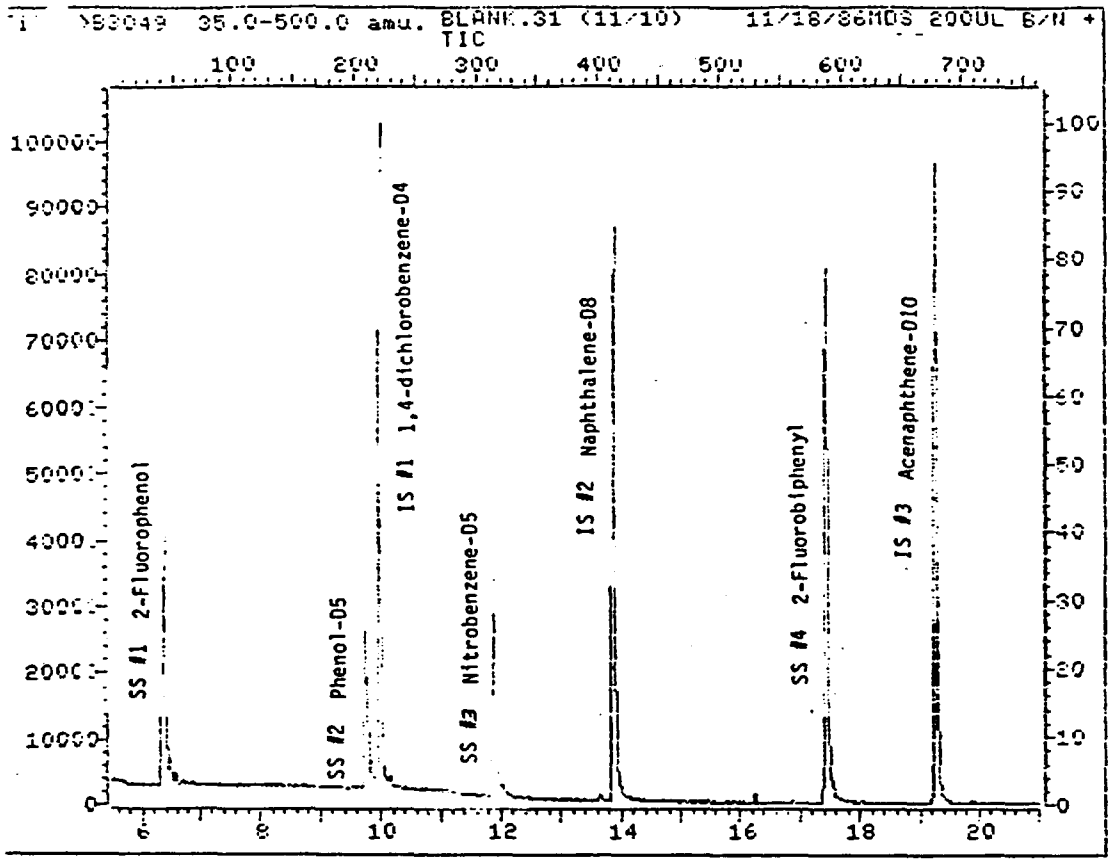
TOTAL ION CHROMATOGRAM

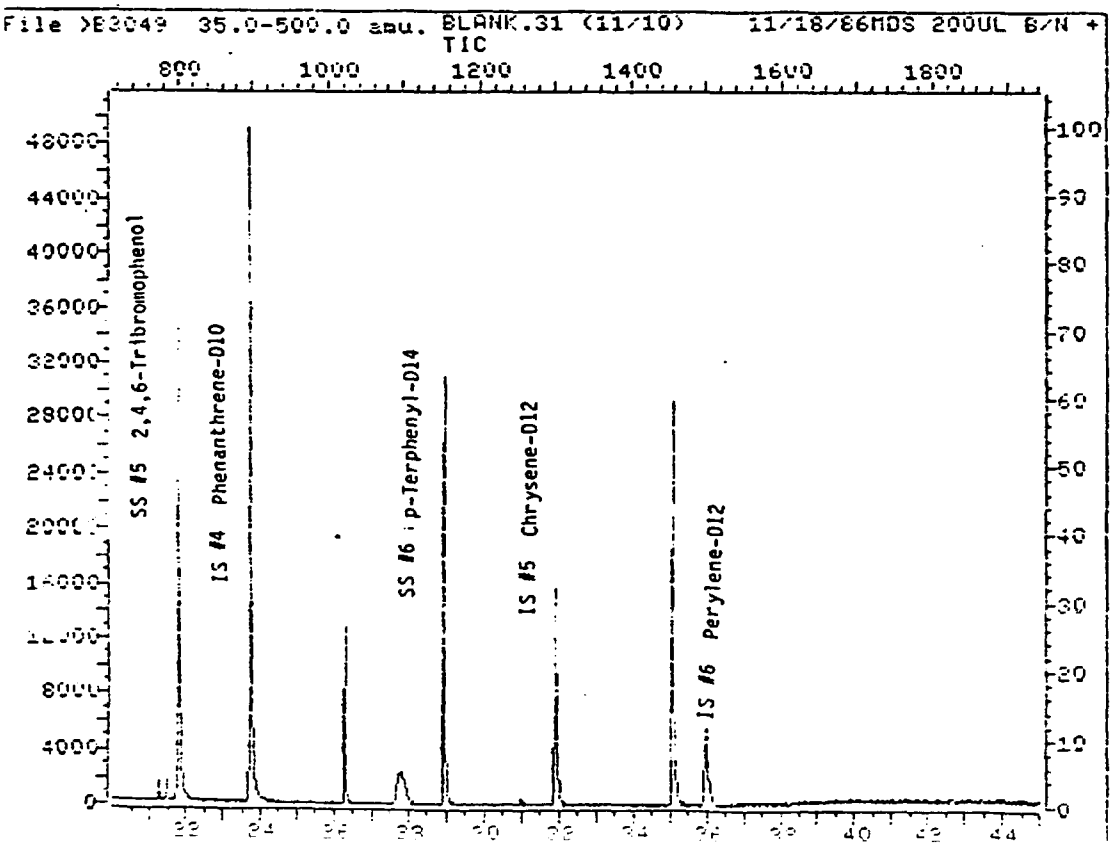


Data File: >B3049::D4
Name: BLANK.31 (11/10)
Misc: 11/18/86MDS 200UL B/N + 200UL A/P + 4UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

Operator ID: USER8
Quant Time: 861118 14:55
Injected at: 861118 14:07


File >B3049 35.0-500.0 amu. BLANK.31 (11/10) 11/18/86MDS 200UL S/N +
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B3049 35.0-500.0 amu. BLANK.31 (11/10) 11/18/86MDS 200UL S/N +
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

u-4431
u-4441

QUANT REPORT

Operator ID: USEPB Quant Rev: 4 Quant Time: 861118 14:55
Output File: :B3049::D2 Injected at: 861118 14:07
Data File: :B3049::D4 Dilution Factor: 2.00
Name: BLANK.31 (11/10)
Misc: 11/18/86MDS 200UL B/N + 200UL A/P + 4UL IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861118 14:40

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.98	221	43194	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	9.74	209	20825	25.09	UG/L	92
2)	PHENOL-D5	(SURR)	99	9.96	220	1465	1.76	UG/L	76
5)	2-FLUOROPHENOL	(SURR)	112	6.37	43	30202	53.12	UG/L	48
5)	2-FLUOROPHENOL	(SURR)	112	6.49	49	2006	3.53	UG/L	90
5)	2-FLUOROPHENOL	(SURR)	112	6.55	52	1420	2.50	UG/L	97
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.69~~	~~59~~	~~506~~	~~.89~~	~~UG/L~~	18
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.87~~	~~314~~	~~6994~~	~~13.24~~	~~UG/L~~	78
19)	*NAPHTHALENE-D8	(IS)	136	13.89	413	132602	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.87	314	47161	79.29	UG/L	96
34)	*ACENAPHTHENE-D10	(IS)	162	19.27	678	57284	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.44	588	91141	76.31	UG/L	95
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.27~~	~~678~~	~~16979~~	~~14.01~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.77	801	24546	126.16	UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.27~~	~~678~~	~~7298~~	~~27.99~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.72	897	79036	40.00	UG/L	97
63)	DI-N-BUTYLPHTHALATE		149	26.29	1023	19645	18.17	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.89	1299	31272	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.93	1153	41964	119.84	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.96	1499	24658	40.00	UG/L	100

* Compound is ISTD

no cw

no cw

Laboratory Name ecology and environment, inc.

Case No

Sample Number
BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-10-86

Date Analyzed: 11-12-86

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	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

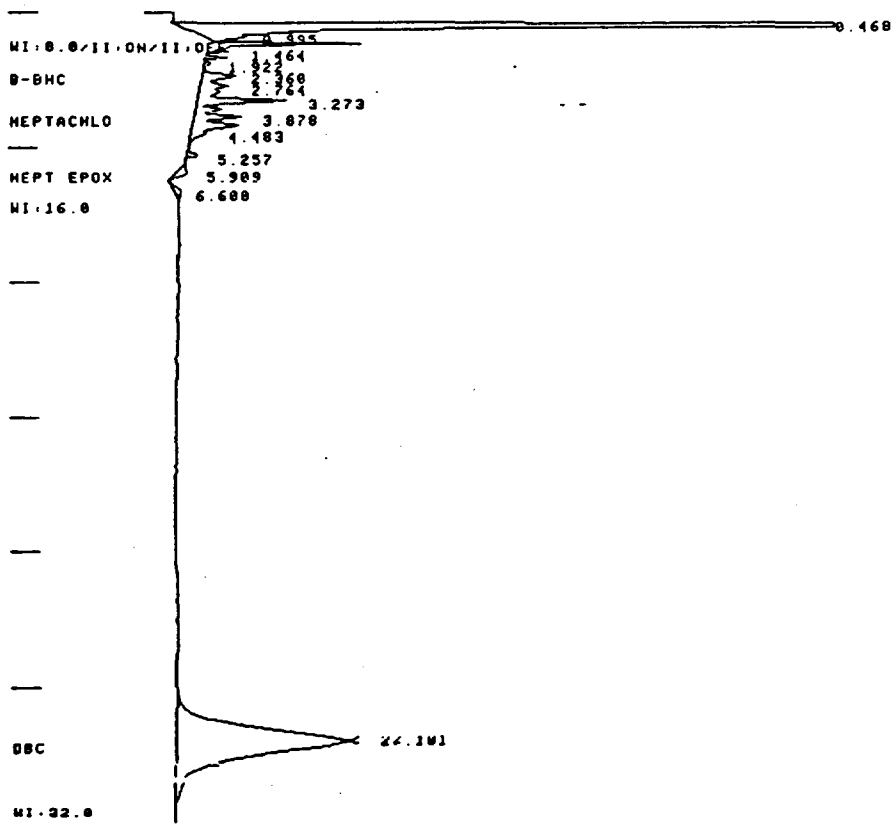
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1,000 or W_s _____ V_t 10,000 V_i 4 µl

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



CHANNEL: 1A - 1 TITLE: RUN# 14 10:08 12 NOV 86

SAMPLE: BLANK.16 METHOD: CEPA CALCULATION: ES - ANALYS

DF=1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~B-BHC~~	0.0647	2.360	0.090	50270	VV	11.13
2	~~D-BHC~~	0.0164	2.764	0.214	34832	VV	8.94
3		0.0000	2.965		28832	VV	? 12.75
4		0.0000	3.273		97523	VV	8.25
5		0.0000	3.620		27534	VV	7.44
6	~~HEPTACHLO~~	0.0306	3.878	-0.062	52690	VV	8.00
7		0.0000	4.169		67623	VV	10.56
8		0.0000	4.483		21431	VB	5.88
9	DBC 104%	1.0389	27.101	-0.259	1482620	BB	? 67.25
TOTALS:		1.1507		-0.017	1863355		

DETECTED PKS: 20 REJECTED PKS: 11

DIVISOR: 1.00000 MULTIPLIER: 10.00000

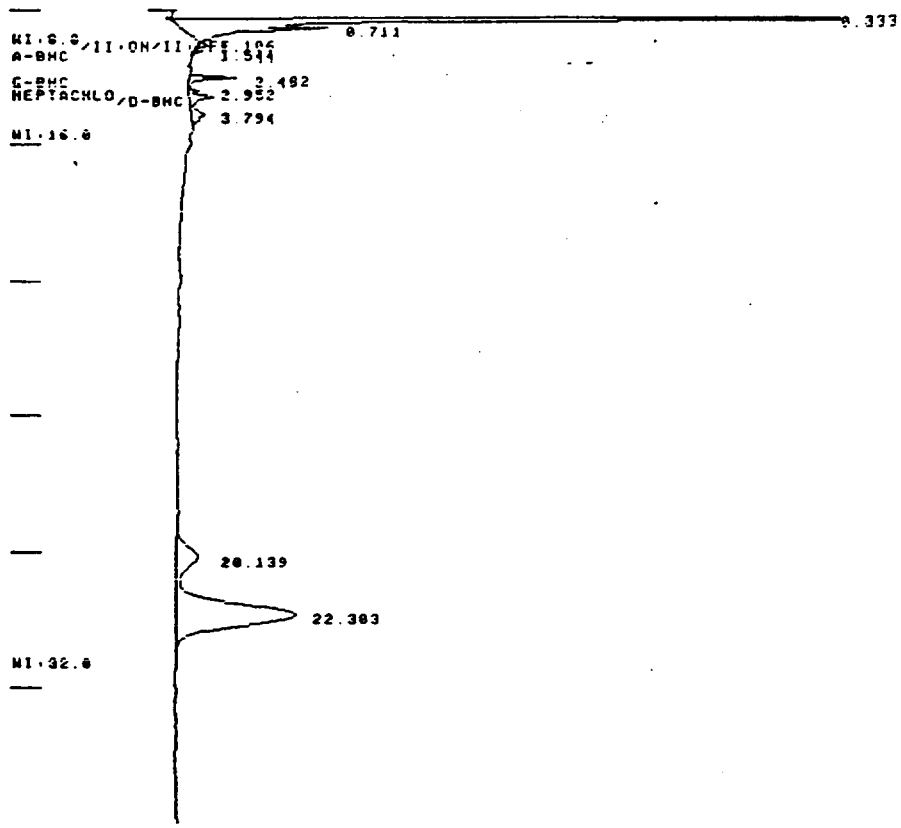
NOISE: 22.9 OFFSET: -4

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK:259-34 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB# U-4431; U4441
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

POST RUN:
SAVE FILE: RAW SLY369

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 16 - 1 TITLE: RUN# 7 8:16 14 NOV 86

SAMPLE: BLANK METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/L~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~G-BHC~~	0.0740	2.462	0.062	70660	BV	5.75
2	~~D-BHC~~	0.0214	3.195	0.055	54730	VV	6.94
3		0.0000	3.794		36961	VV	? 16.86
4		0.0000	20.139		246420	BV	? 50.06
5	DBC	0.0000	22.303		1440539	VB	? 50.69

TOTALS: 0.0954 0.137 1651330

DETECTED PKS: 19 REJECTED PKS: 14

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 137.1 OFFSET: 2

RACK: 1 VIAL: 7 INJ: 1

NOTES:
NOTEBOOK:259-36 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB # U-4431;U-4441
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
PESTICIDE/PCB CONFIRMATIONS

POST RUN:
SAVE FILE: RAW CY6647